GRE AUG 2013

PROJECT ID: 1133-11-74
WITH: N/A

COUNTY: BROWN

13

ORDER OF SHEETS

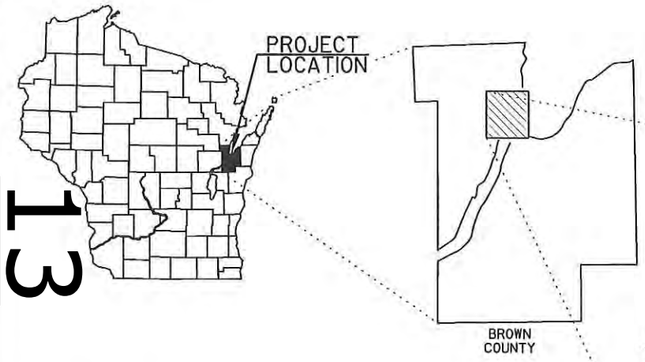
Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 1504

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
DE PERE - SUAMICO
(MEMORIAL DRIVE - CTH M)
USH 41
BROWN COUNTY
(IH 43 EARLY STRUCTURES/EARLY FILL)

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1133-11-74	WISC 2013382	1

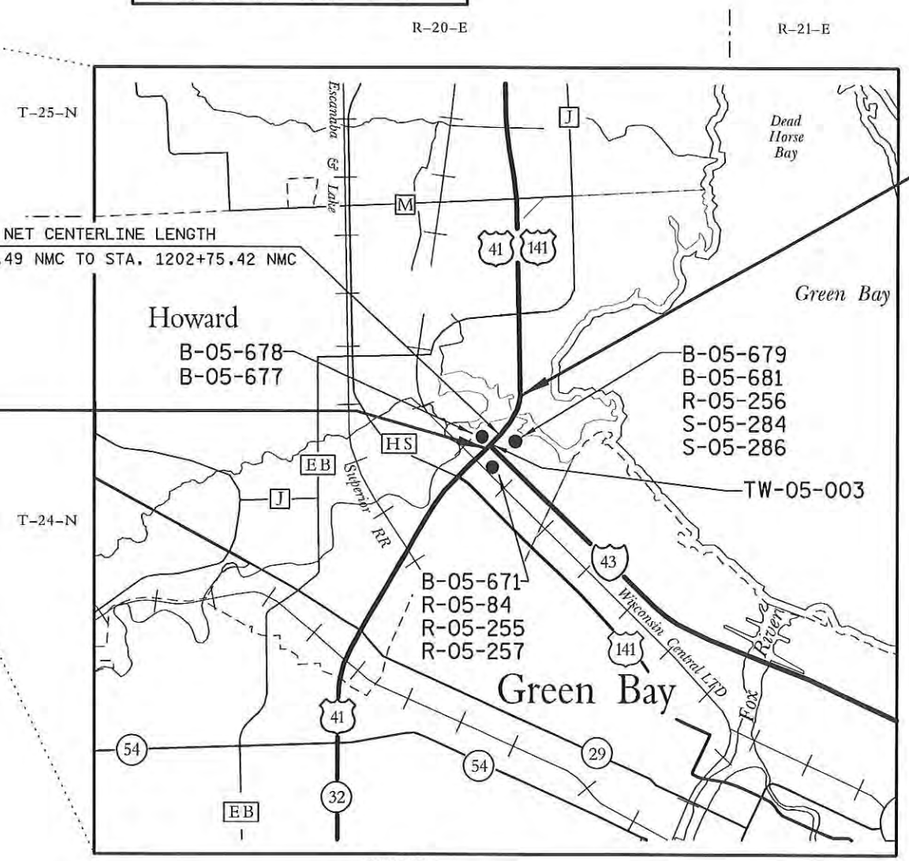
STATE PROJECT NUMBER
1133-11-74



DESIGN DESIGNATION

A.A.D.T. (2015)	=	73,400
A.A.D.T. (2035)	=	97,700
D.H.V.	=	8,720
D.D.	=	50/50
T.	=	9.9%
DESIGN SPEED	=	70 MPH
ESALS	=	15,293,500

BEGIN PROJECT 1133-11-74
STA. 1192+83.65 NMC
Y= 583913.592
X= 89539.999



EXCEPTION TO NET CENTERLINE LENGTH
STA. 1195+55.49 NMC TO STA. 1202+75.42 NMC

END PROJECT 1133-11-74
STA. 1220+41.23 NMC
Y= 586090.476
X= 91076.263

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE =0.386 MI.

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
MARSH AREA		STORM SEWER	SS
WOODED OR SHRUB AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

CONNECTING WISCONSIN

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

WISCONSIN
WILLIAM C. ROTH
E-20138
BLACK EARTH
WI
PROFESSIONAL ENGINEER

4/23/13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	WISDOT
Designer	AYRES ASSOCIATES
Project Manager	PAUL VRANEY
District Examiner	
District Supervisor	CHAD DEGRAVE
C.O. Examiner	

APPROVED FOR REGIONAL OFFICE
DATE: 04/30/13 Paul Vraney (Signature)

E

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), NAD 83 (1991) BROWN COUNTY.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTCAL DATUM OF 1988, NAVD88 (1991).

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_010101_ti.dgn PLOT BY : dm253 PLOT DATE : 4/23/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 10

2

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

FILL, AS SHOWN ON THE PLAN SHEETS, PERTAINS TO EMBANKMENT CONSTRUCTED FROM EXCAVATION COMMON. THE FACTOR USED FOR EXPANDING THE FILLS TO COMPUTE THE VOLUME OF MATERIAL REQUIRED IS 1.25.

A SAW JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

THE EXACT LOCATIONS OF PRIVATE ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS. BASE AGGREGATE DENSE 3/4-INCH WILL BE USED UNDER ALL DRIVEWAYS.

SAW CUT ASPHALTIC AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WETLANDS, WITH THE EXCEPTION OF EXCAVATION FOR BRIDGE PIER FOOTINGS. THIS EXCAVATED MATERIAL IS TO BE RETURNED TO ITS ORIGINAL LOCATION AFTER CONSTRUCTION.

PLACE EROSION CONTROL DEVICES IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER. EROSION CONTROL FEATURES ARE SHOWN AT APPROXIMATE LOCATIONS, WITH EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER. REMOVAL OF ITEMS ARE INCIDENTAL TO THE RESPECTIVE EROSION CONTROL BID ITEM COSTS.

PLACE SALVAGED TOPSOIL OR TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE ALL AREAS 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL OR TOPSOIL.

CLEAR AND GRUB TO THE RIGHT-OF-WAY, UNLESS OTHERWISE NOTED.

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL BY THE ENGINEER. FINAL LIMITS OF FENCE REMOVAL TO BE DETERMINED BY THE ENGINEER.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS AND TRAFFIC CONTROL DEVICES SHOWN IN THE PLANS ARE APPROXIMATE. EXACT LOCATIONS ARE DETERMINED BY THE ENGINEER.

RESHAPE AND SEEDING OF ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS OUTSIDE OF THE ENGINEER DETERMINED CONSTRUCTION LIMITS ARE INCIDENTAL TO THE CONTRACT.

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
ET AL	AND OTHERS
°	ANGLE
BK	BACK
BLDG	BUILDING
BLK	BLOCK
BR	BRIDGE
CB	CATCH BASIN
CL OR C/L	CENTER LINE
°	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CPCA	CULVERT PIPE CORRUGATED ALUMINUM
CPCS	CULVERT PIPE CORRUGATED STEEL
CTH	COUNTY TRUNK HIGHWAY
CR	CREEK
CP	CULVERT PIPE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EL OR ELEV	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXIST	EXISTING
FF	FACE TO FACE
FE	FIELD ENTRANCE
FG	FINISHED GRADE
FT	FOOT
INL	INLET
INV	INVERT
IP	IRON PIPE OR PIN
LT	LEFT
L	LENGTH OF CURVE
LIN FT OR LF	LINEAR FOOT
MH	MANHOLE
NC	NORMAL CROWN
NW OR N/W	NORMAL WATER
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
PT	POINT
PCC	POINT OF COMPOUND CURVE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
POC	POINT ON CURVE
POT	POINT ON TANGENT
RR	RAILROAD
RL OR R/L	REFERENCE LINE
REBAR	REINFORCEMENT BAR
REQD	REQUIRED
R/W	RIGHT-OF-WAY
R	RADIUS
S	SOUTH
SB	SOUTHBOUND
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
SE	SUPERELEVATION
SURF	SURFACE
SL OR S/L	SURVEY LINE
T	TANGENT
TYP	TYPICAL
WB	WESTBOUND

PROJECT AND UTILITY CONTACTS

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION HEADQUARTERS
ATTN: JIM DOPERALSKI JR.
2984 SHAWANO AVENUE
P.O. BOX 10488
GREEN BAY, WI 54307-0448
PHONE: 920-662-5119
EMAIL: james.doperalski@wisconsin.gov

WIS. DEPT OF TRANSPORTATION
NORTHEAST REGION - PRIMARY CONTACT
ATTN: PAUL VRANEY, P.E.
PROJECT MANAGER - US 41 BROWN COUNTY
US 41 BROWN COUNTY PROJECT OFFICE
1940 WEST MASON STREET
GREEN BAY, WI 54303
PHONE: 920-492-2232
EMAIL: paul.vraney@dot.wi.gov

AYRES ASSOCIATES
ATTN: WILLIAM ROTH
1802 PANKRATZ STREET
MADISON, WI 53704
PHONE: 608-443-1200
FAX: 608-443-1250
EMAIL: rothb@ayresassociates.com

AMERICAN TRANSMISSION COMPANY, LLC
MIKE OLSEN
801 O'KEEFE ROAD
PO BOX 6113
DE PERE, WI 54115-6113
PHONE: 920-338-6582
MOBILE: 920-660-2390
EMAIL: molsen@atcllc.com

AT&T WISCONSIN
KAREN WELLS
205 S JEFFERSON STREET
GREEN BAY, WI 54301
PHONE: 920-433-4226
EMAIL: kw9272@att.com

BROWN COUNTY SURVEYOR
PAT FORD
PO BOX 23600
GREEN BAY, WI 54305-3600
920-448-4493
ford_pj@co.brown.wi.us

CENTURYLINK - COMMUNICATION
KEVIN HUFF
13057 S. MONITOR AVENUE
PALOS HEIGHTS, IL 60463
PHONE: 708-837-7927
EMAIL: Kevin.huff@CenturyLink.com

CITY OF GREEN BAY - SANITARY
KRISTIN ROMANOWICZ, P.E.
100 N. JEFFERSON ST, ROOM 300
GREEN BAY, WI 54301
PHONE: 920-448-3100
EMAIL: kristinro@greenbaywi.gov

CITY OF GREEN BAY - WATER
BRIAN POWELL
631 S. ADAMS STREET
GREEN BAY, WI 54305
PHONE: 920-448-3480
MOBILE: 920-621-0468
EMAIL: brianpo@ci.green-bay.wi.us

GREEN BAY METROPOLITAN SEWERAGE DISTRICT
C/O ROBERT E. LEE & ASSOCIATES, INC.
ATTN: PAUL WELTER
4664 GOLDEN POND PARK COURT
HOBART, WI 54155
PHONE: 920-662-9641
EMAIL: pwelter@releeinc.com

TIME WARNER CABLE
VINCE ALBIN
3520 DESTINATION DR
APPLETON, WI 54915
PHONE: 920-831-9249
MOBILE: 920-378-0444
EMAIL: vince.albin@twcable.com

VILLAGE OF HOWARD - WATER & SANITARY
MIKE KASTER
1336 CORNELL RD
GREEN BAY, WI 54313
PHONE: 920-434-4060
EMAIL: mkaster@villageofhoward.com

WINDSTREAM KDL, INC. - COMMUNICATION
JIM KOSTUCH
13935 BISHOPS DRIVE
BROOKFIELD, WI 53005
PHONE: 262-792-7938
EMAIL: james.kostuch@windstream.com

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC
RANDY STEIER
2850 SOUTH ASHLAND AVENUE
PO BOX 19001
GREEN BAY, WI 54307
PHONE: 920-617-5167
MOBILE: 920-655-1596
EMAIL: rdsteier@wisconsinpublicservice.com

WISCONSIN PUBLIC SERVICE CORPORATION - GAS
TERRY LUTTENEGGER
2850 SOUTH ASHLAND AVENUE
PO BOX 19001
GREEN BAY, WI 54307
PHONE: 920-617-5129
MOBILE: 920-639-3964
EMAIL:tbluttenegger@wisconsinpublicservice.com

DIGGERS HOTLINE
Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

RAILROAD CONTACT

CANADIAN NATIONAL RAILROAD
JACKIE MACEWICZ
MANAGER PUBLIC WORKS
1625 DEPOT STREET
STEVENS POINT, WI 54481
MOBILE: 715-572-7803
OFFICE: 715-345-2503
FAX: 715-345-2507
jackie.macewicz@cn.ca

CALL BEFORE YOU DIG!

CANADIAN NATIONAL RAILWAY IS NOT PART OF DIGGERS HOTLINE
CALL CHRISTINE GRZESIAK, 715-345-2506,
WHEN DIGGING ON RAILROAD R/W

ORDER OF SECTION 2 SHEETS

GENERAL NOTES & CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PAVING DETAILS
SOIL MITIGATION DETAILS
WETLAND IMPACTS
EROSION CONTROL
STORM SEWER
SIGNING AND MARKING
SIGNALS PLAN
TRAFFIC CONTROL
STAGE CONSTRUCTION
TRAFFIC CONTROL
FENCING
ALIGNMENT DIAGRAMS

BEGIN PROJECT 1133-11-74
STA. 1192+83.65 NMC

END PROJECT 1133-11-74
STA. 1220+41.23 NMC

USH 41/IH 43
SYSTEM INTERCHANGE

R-05-84

CONSTRUCTION OF ROSEWOOD STREET CUL-DE-SAC IS PERMANENT

RAZE & REMOVE BUILDING (FORMER McCOY'S HARLEY DAVIDSON)
PARCEL 16 OF TRANSPORTATION PROJECT PLAT 1133-10-21
SHEET 4.03 AMENDMENT 1

R-05-257

TW-5-002

MR-3

TW-5-003

SB USH 41

NB USH 41

MR-4

MR-2

B-5-671 ON IHA
(NB USH 41 - SB IH 43)

MR-5

B-05-681 ON NMC
(NB USH 41)

S-05-286

B-05-679 ON NIH
(NB IH 43 - NB USH 41)

SB USH 41 - SB IH 43

TW-5-001

S-05-284

B-05-678 ON IHB
(NB IH 43 - SB USH 41)

MR-5

R-05-255

R-05-256

MR-1

NB IH 43

SB IH 43

EAST DEERFIELD AVE. (EDR) CUL-DE-SAC
HMA PAVEMENT AND TOP 6" OF BASE
AGGREGATE DENSE 1 1/4-INCH
BY OTHERS UNDER PROJECT 1133-11-72

GRADING FOR SHARED USE PATH

HURLBUT ST. (HB) CUL-DE-SAC
HMA PAVEMENT AND TOP 6" OF BASE
AGGREGATE DENSE 1 1/4-INCH
BY OTHERS UNDER PROJECT 1133-11-73

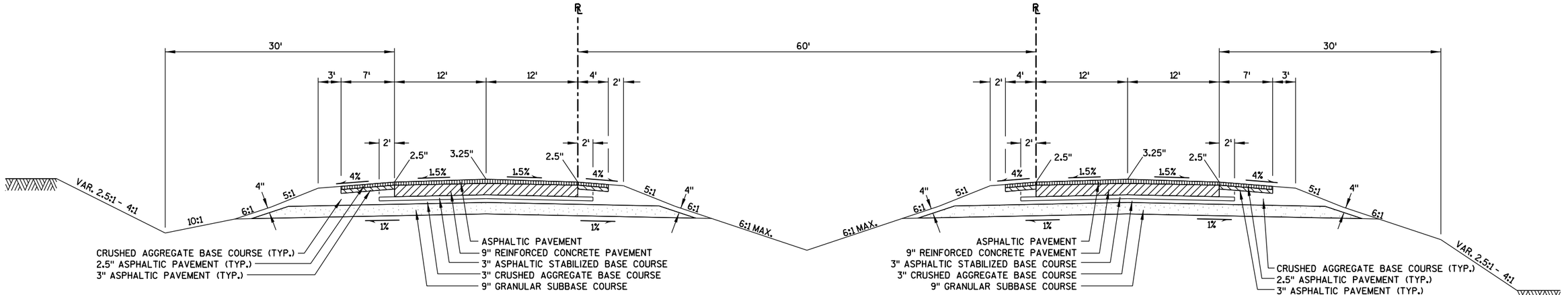
DUCK CREEK
BEAVER DAM CREEK
ST ARD CT
HELP AVE
ROSEWOOD ST
GLENVIEW AVE
MEMORIAL DR
WISCONSIN CENTRAL LTD RR
WIETOR DRIVE
W. DEERFIELD AVE.
E. DEERFIELD AVE.
COUNTY HS

LEGEND

- PROPOSED STRUCTURE
- PERMANENT EARLY FILL INCLUDING GRADING FOR SHARED USE PATH
- LONG-TERM TEMPORARY ROADWAY
- PERMANENT WORK BY OTHERS
- 18' PERMANENT MAINTENANCE ROAD (MR-X)

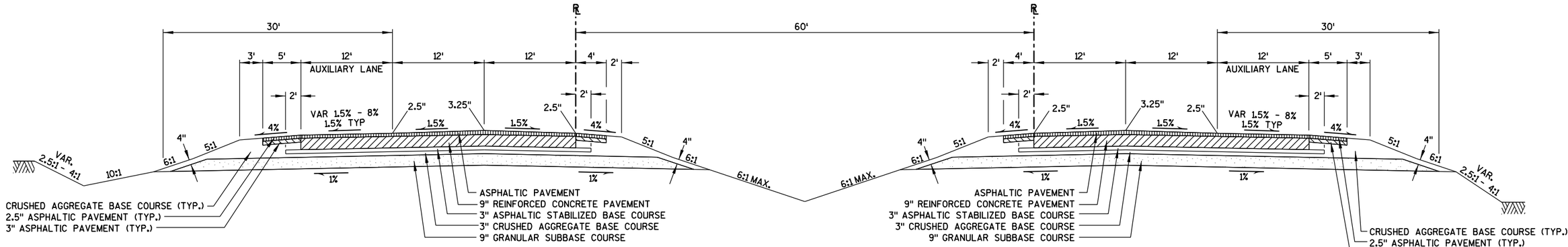
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PROJECT OVERVIEW	SCALE, FEET 0 250 500	SHEET 3	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_020201_po.dgn | PLOT DATE : 5/16/2013 | PLOT BY : dm253 | PLOT NAME : | PLOT SCALE : 1:500



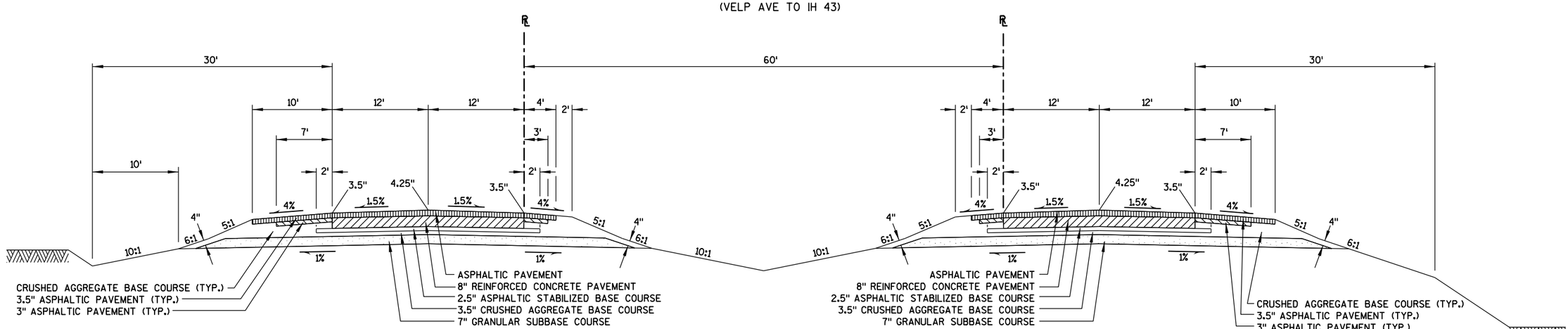
TYPICAL EXISTING SECTION - USH 41

(MEMORIAL DRIVE TO VELP AVE)
(IH 43 TO DUCK CREEK)



TYPICAL EXISTING SECTION - USH 41

(VELP AVE TO IH 43)



TYPICAL EXISTING SECTION - USH 41

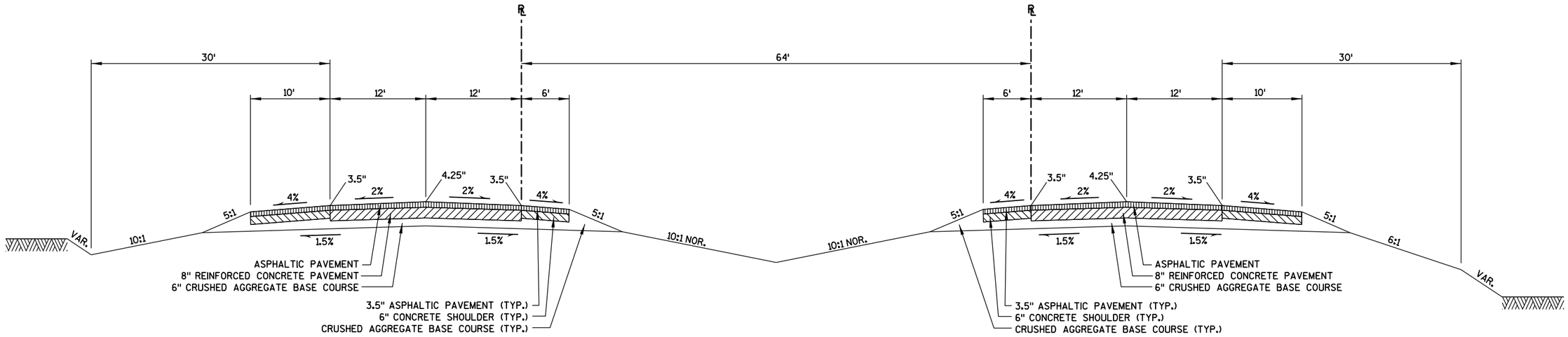
(NORTH OF DUCK CREEK)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 4	E

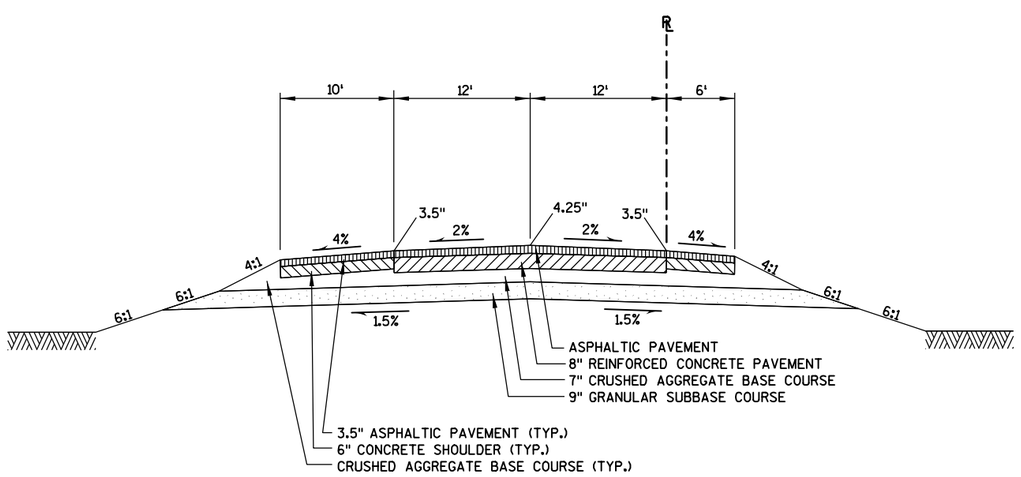
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_020301_ts.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

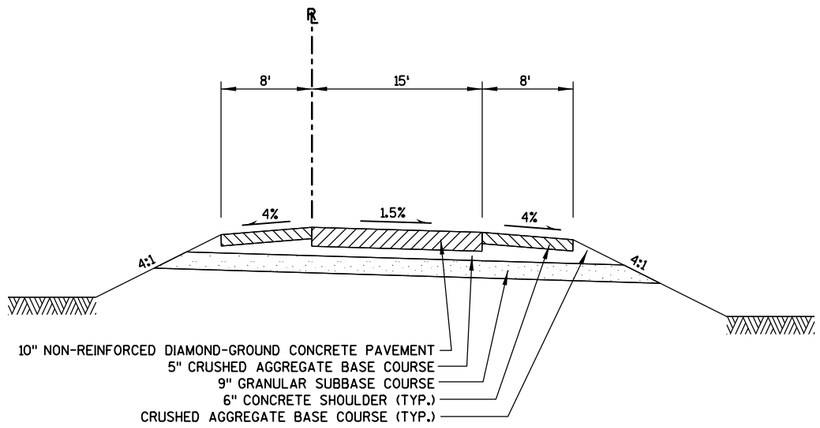


TYPICAL EXISTING SECTION - IH 43



TYPICAL EXISTING SECTION - USH 41 SB OFF-RAMP TO IH 43

(SOUTH OF USH 41)

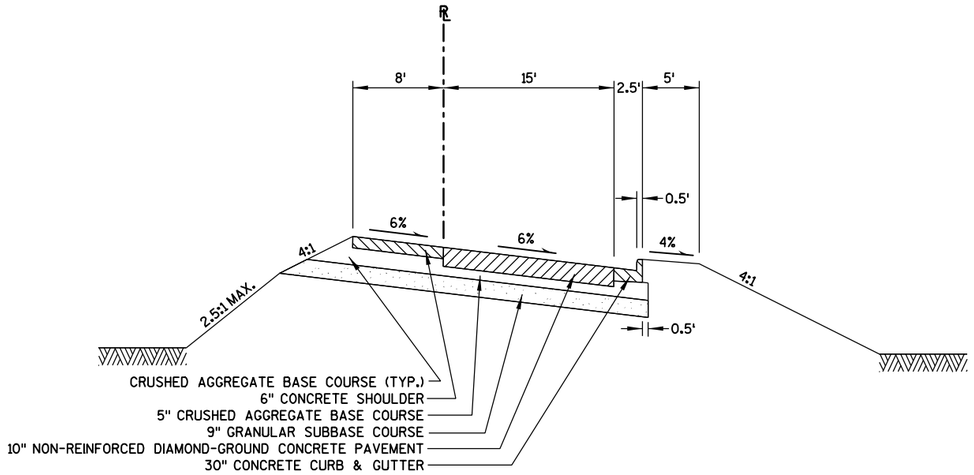


TYPICAL EXISTING SECTION - USH 41 RAMPS AT IH 43

USH 41 SB OFF-RAMP TO IH 43
USH 41 NB OFF-RAMP TO IH 43
IH 43 NB RAMP TO NB USH 41
IH 43 NB RAMP TO SB USH 41

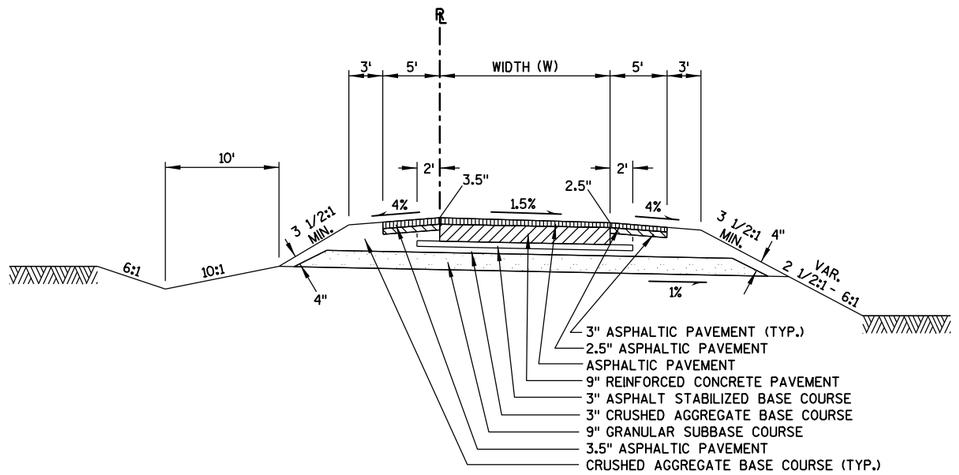
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_020302_ts.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200



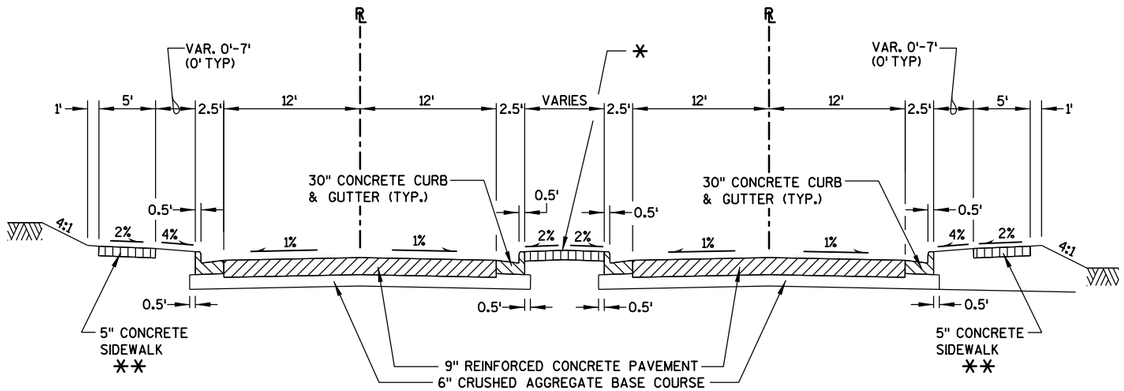
TYPICAL EXISTING SECTION - USH 41 RAMPS AT IH 43 (CURB & GUTTER ON INSIDE OF SHARP CURVES)

USH 41 SB OFF-RAMP TO IH 43
USH 41 NB OFF-RAMP TO IH 43
IH 43 NB RAMP TO SB USH 41



TYPICAL EXISTING SECTION - USH 41 RAMPS AT VELP AVE

RAMP	WIDTH (W)
NB OFF	VAR. 15' - 27'
NB ON	15'
SB OFF	VAR. 15' - 24'

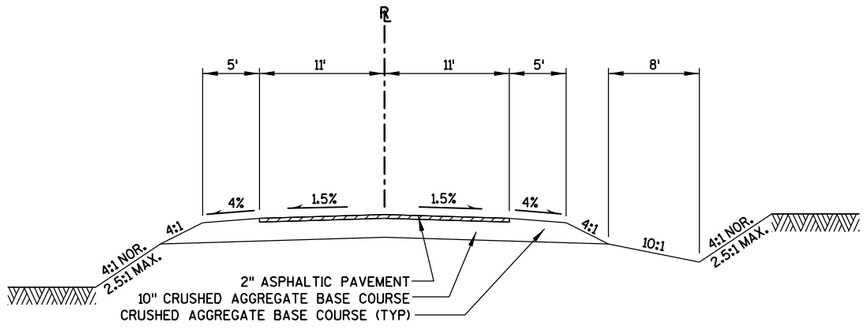


TYPICAL EXISTING SECTION - USH 141 (VELP AVE)

(MELODY DR TO BEAVER DAM CREEK)

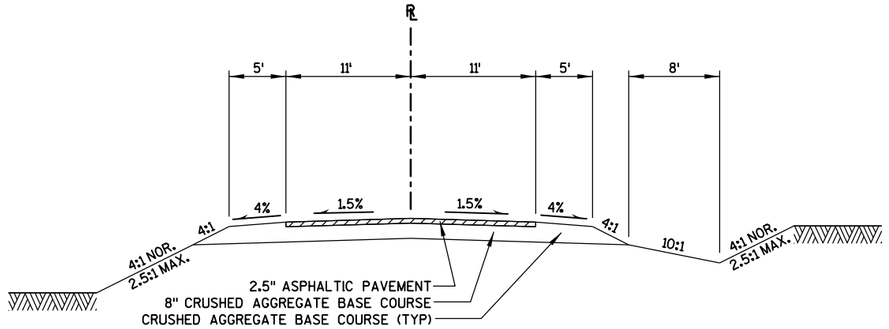
* 5" CONCRETE SIDEWALK MEDIAN BETWEEN USH 41 RAMP TERMINI (SHOWN)
GRASS MEDIAN OUTSIDE OF USH 41 RAMP TERMINI

** 5" CONCRETE SIDEWALK EXISTS BETWEEN MEMORIAL DR AND BEAVER DAM CREEK



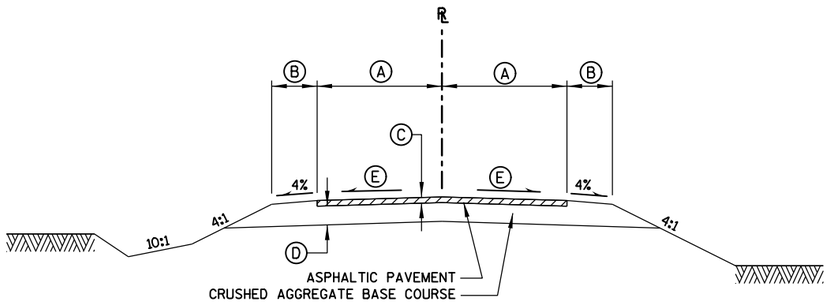
TYPICAL EXISTING SECTION - USH 41 FRONTAGE ROADS

EAST DEERFIELD AVE
WEST DEERFIELD AVE



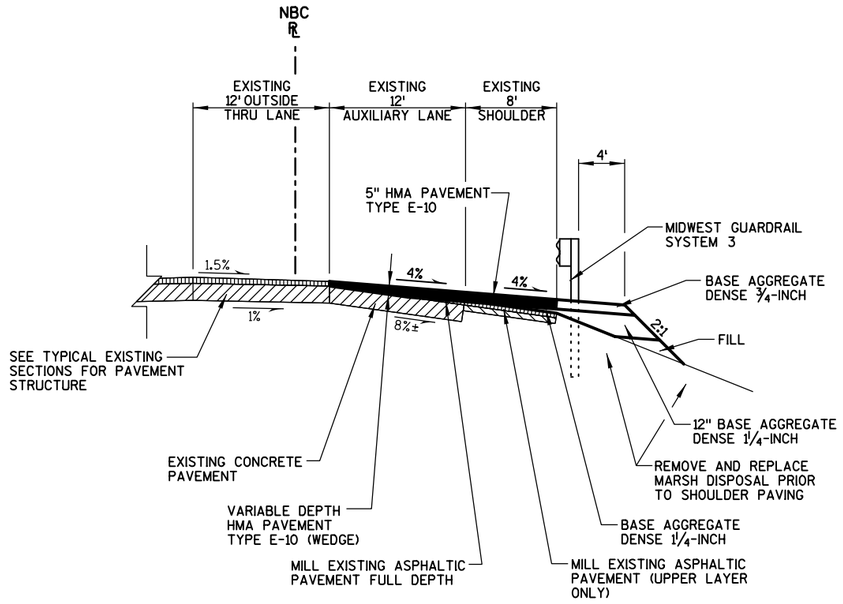
TYPICAL EXISTING SECTION - IH 43 FRONTAGE ROADS

HURLBUT ST (NORTH OF MILITARY AVE)
WIETOR DR



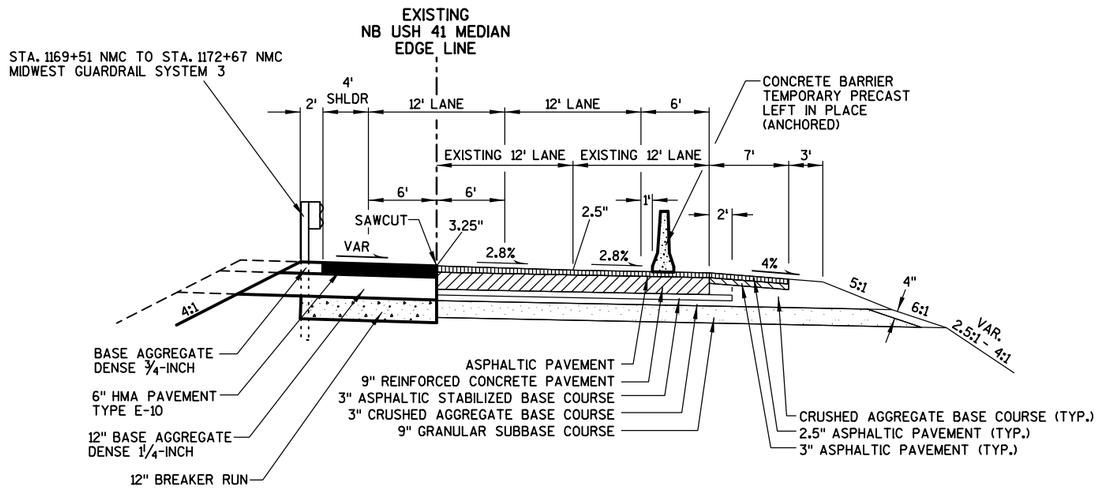
TYPICAL EXISTING SECTION - VARIOUS LOCAL STREETS

STREET	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
MEMORIAL DR (NORTH OF USH 141/VELP AVE)	12'	2'	3"	10"	1.5%
ROSEWOOD ST	10'	2'	3.5"	18"	2.5%



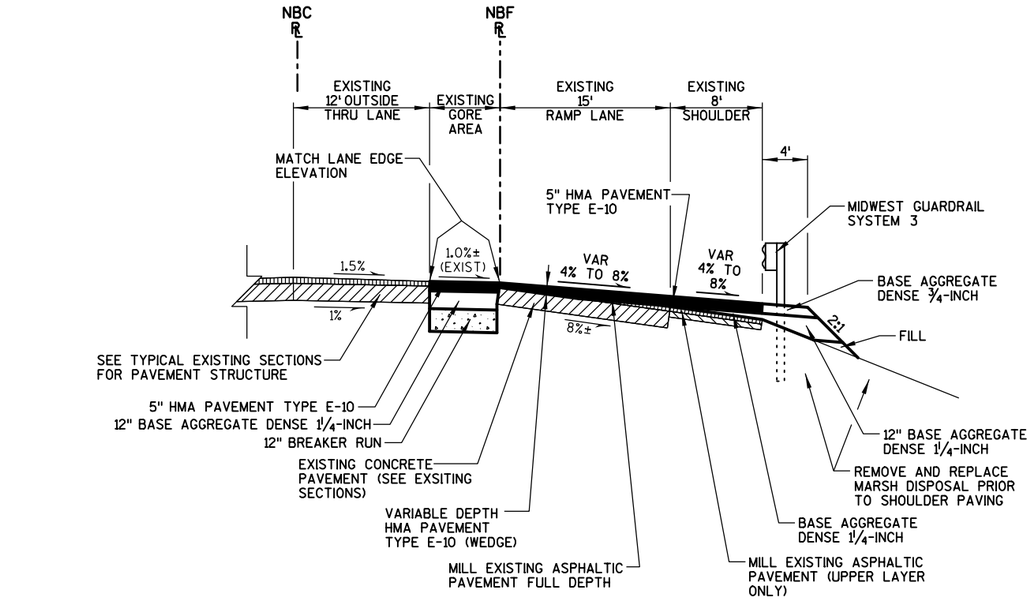
TYPICAL FINISHED SECTION - NB USH 41 TO SB IH 43 RAMP GORE AREA

STA 96+80 NBF TO STA 97+75 NBF



TYPICAL FINISHED SECTION - NB USH 41

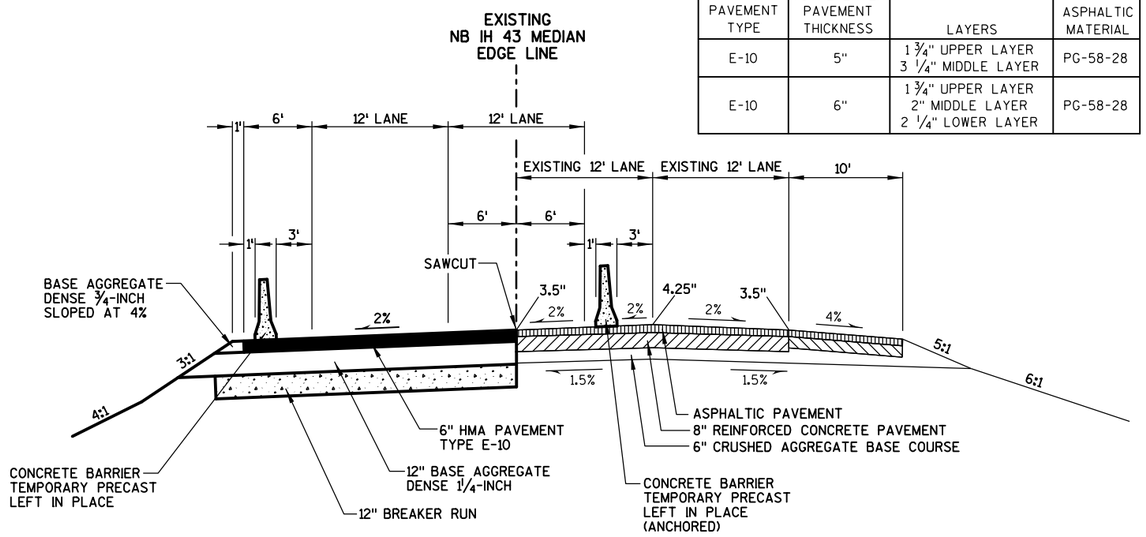
STA 1168+50 NMC TO STA 1172+58 NMC



TYPICAL FINISHED SECTION - NB USH 41 TO SB IH 43 RAMP GORE AREA

STA 97+75 NBF TO STA 99+82 NBF

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-10	5"	1 ¾" UPPER LAYER 3 ¼" MIDDLE LAYER	PG-58-28
E-10	6"	1 ¾" UPPER LAYER 2" MIDDLE LAYER 2 ¼" LOWER LAYER	PG-58-28

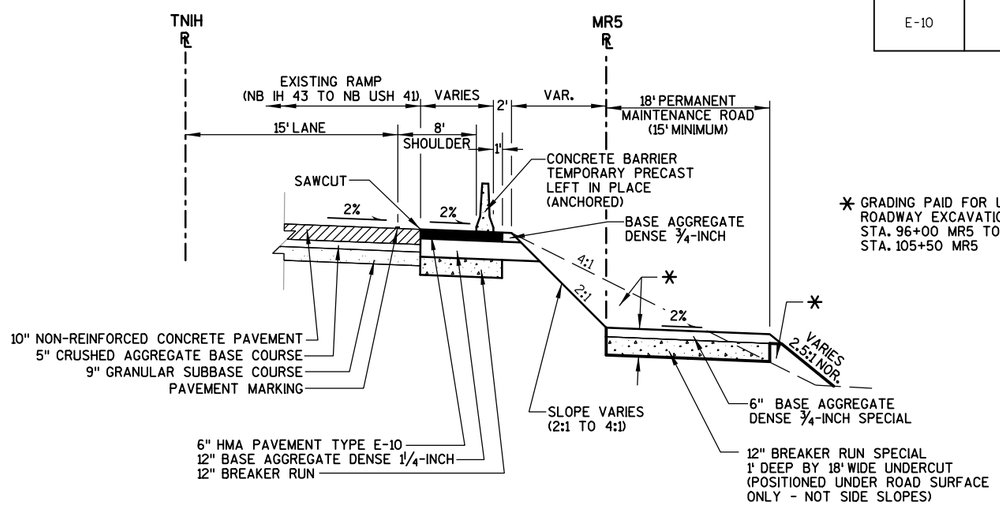


TYPICAL FINISHED SECTION - NB IH 43

STA 178+02 TIHB TO STA 183+26 TIHB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 8	E

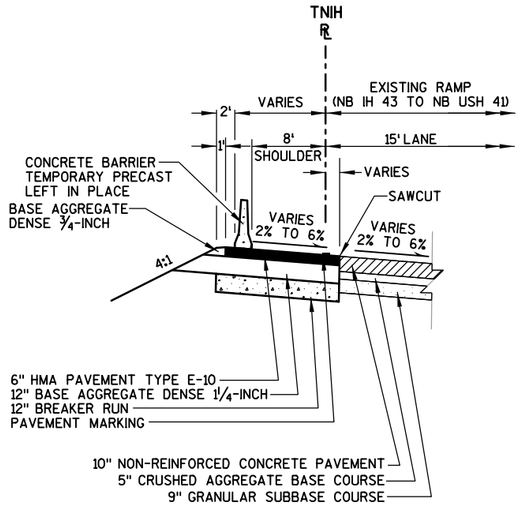
PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-10	6"	1 ¾" UPPER LAYER 2" MIDDLE LAYER 2 ¼" LOWER LAYER	PG-58-28



* GRADING PAID FOR UNDER ROADWAY EXCAVATION ITEMS, STA. 96+00 MR5 TO STA. 105+50 MR5

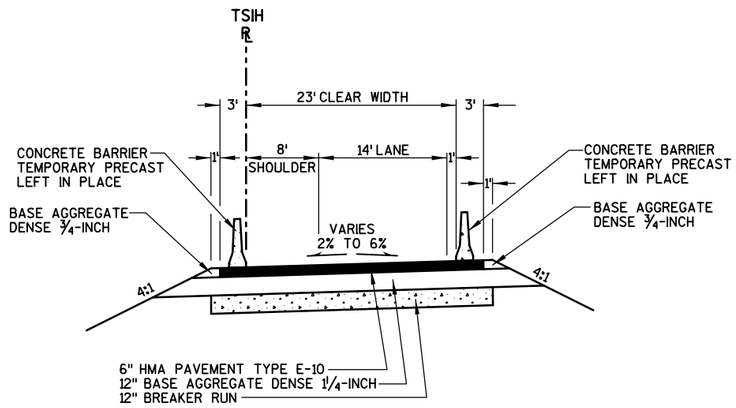
TYPICAL FINISHED SECTION - TNIH RT ALONG MR5

STA. 107+00 TNIH RT TO STA. 110+75 TNIH RT



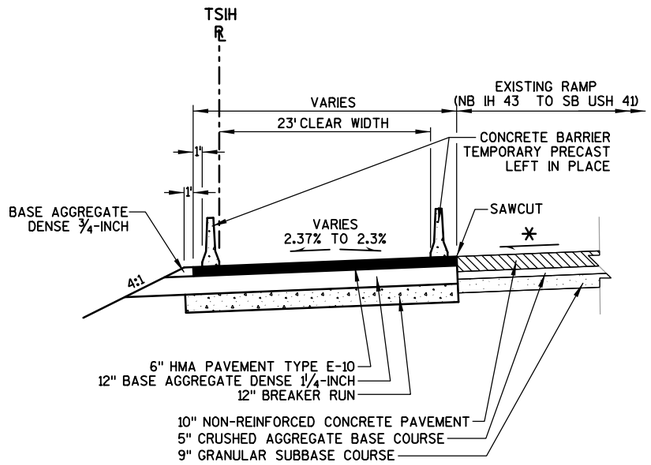
TYPICAL FINISHED SECTION - TNIH LT

STA. 106+20 TNIH LT TO STA. 107+76 TNIH LT
STA. 109+64 TNIH LT TO STA. 121+04 TNIH LT



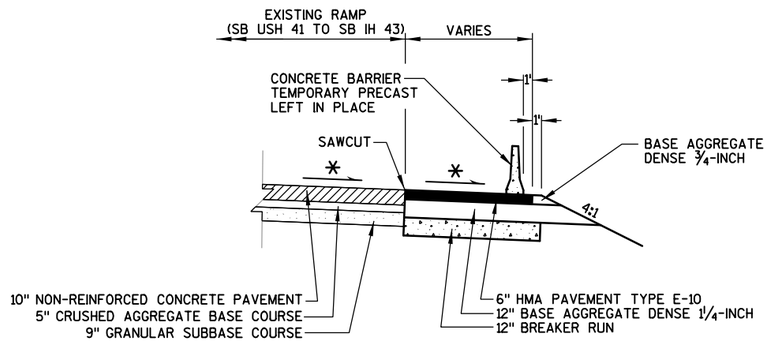
TYPICAL FINISHED SECTION - TSIH AT CROSSOVERS

STA. 101+17 TSIH TO STA. 102+03 TSIH
STA. 108+05 TSIH TO STA. 108+98 TSIH



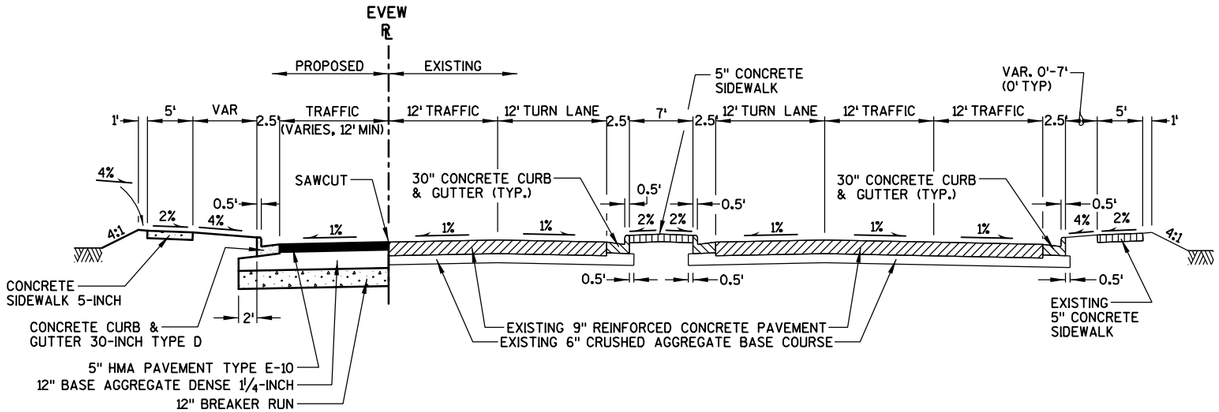
TYPICAL FINISHED SECTION - TSIH ABUTTING EXISTING PAVEMENT

STA. 102+03 TSIH TO STA. 108+05 TSIH (✳ 2% - 6%±)



TYPICAL FINISHED SECTION - TSIH ABUTTING EXISTING PAVEMENT

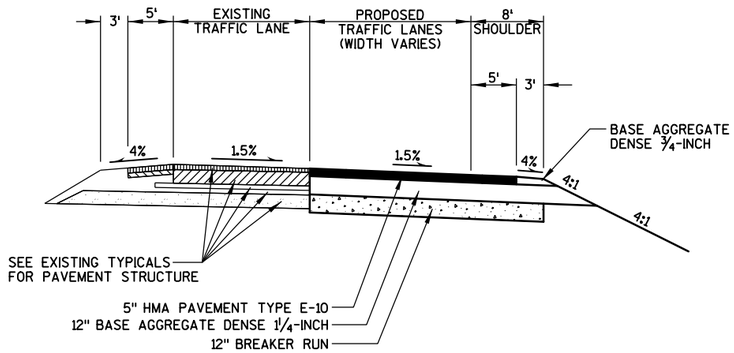
STA. 98+60 TSIH TO STA. 101+17 TSIH (✳2.0%±)
STA. 108+98 TSIH TO STA. 111+26 TSIH (✳2% - 6%±)



PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-10	5"	1 ¾" UPPER LAYER 3 ¼" MIDDLE LAYER	PG-58-28

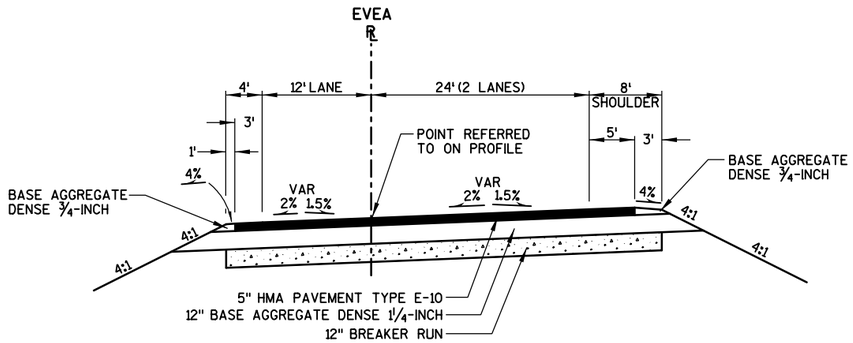
TYPICAL FINISHED SECTION - WB USH 141 (VELP AVE)

STA. 201+50 EVEW TO STA. 203+93 EVEW



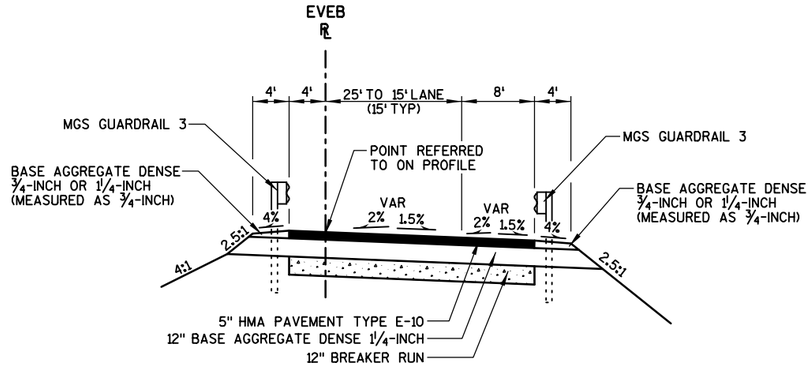
TYPICAL FINISHED SECTION - EVEA ABUTTING EXISTING RAMP PAVEMENT

STA. 1166+07 EVEA TO STA. 1168+35 EVEA



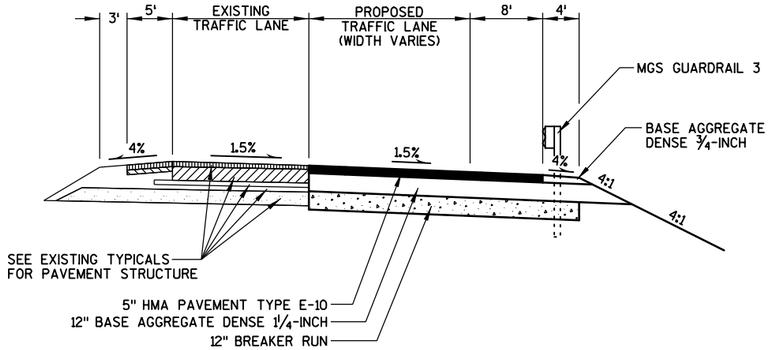
TYPICAL FINISHED SECTION - EVEA

STA. 1168+35 EVEA TO STA. 1172+84 EVEA



TYPICAL FINISHED SECTION - EVEB

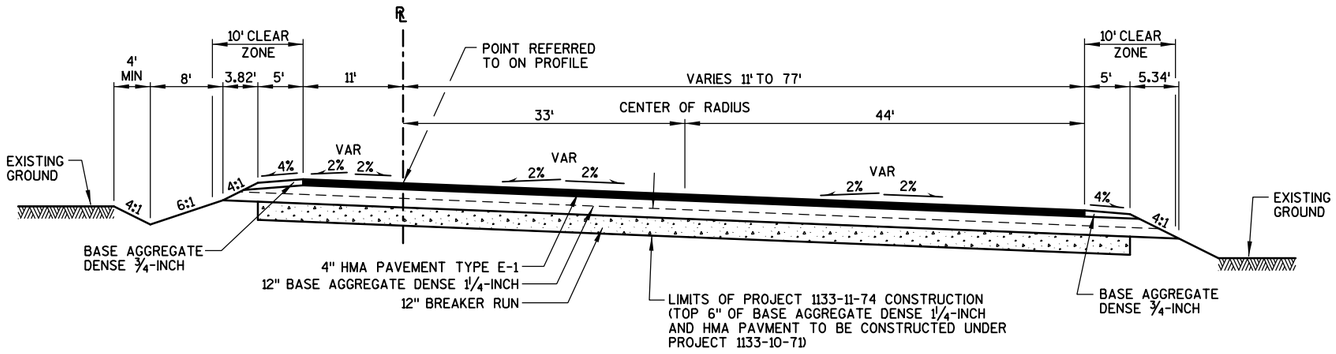
STA. 1175+61 EVEB TO STA. 1180+55 EVEB



TYPICAL FINISHED SECTION - EVEB ABUTTING EXISTING RAMP PAVEMENT

STA. 1180+55 EVEB TO STA. 1182+65 EVEB

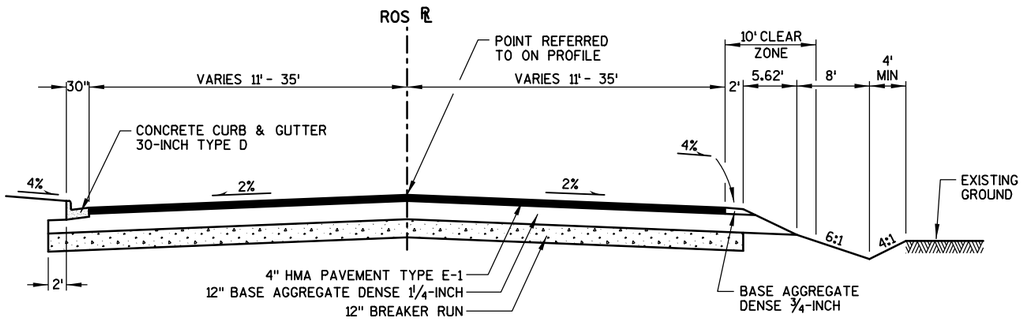
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 10	E



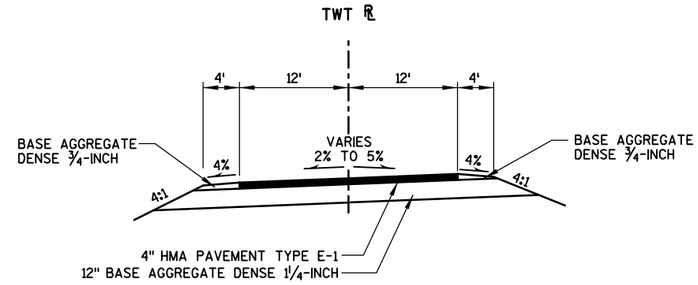
TYPICAL FINISHED SECTION - CUL DE SACS ON FRONTAGE ROADS

EAST DEERFIELD AVENUE (EDR)
HURLBUT (HB)

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-1	4"	1 ¾" UPPER LAYER 2 ¼" LOWER LAYER	PG-58-28

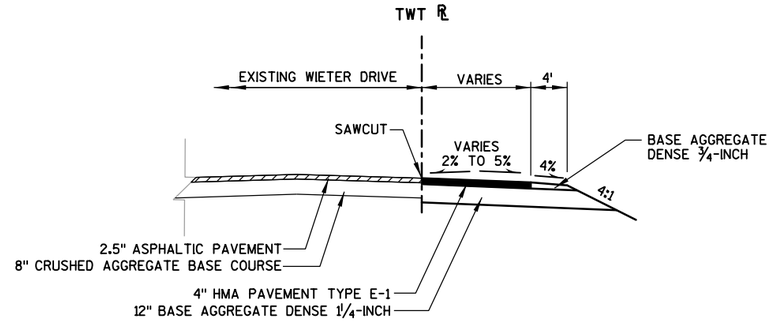


TYPICAL FINISHED SECTION - ROSEWOOD STREET (ROS) CUL-DE-SAC



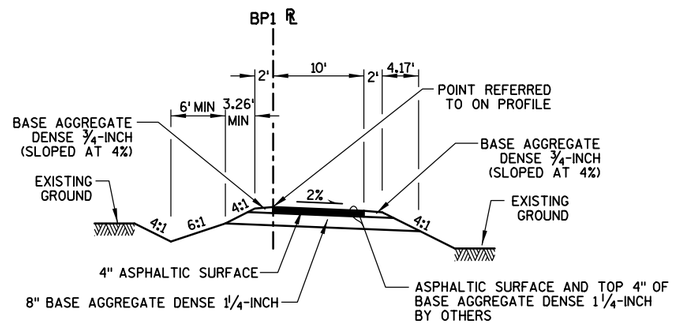
TYPICAL FINISHED SECTION - TEMPORARY WIETOR DRIVE

STA. 101+49 TWT TO STA. 101+95 TWT
STA. 107+00 TWT TO STA. 110+13 TWT



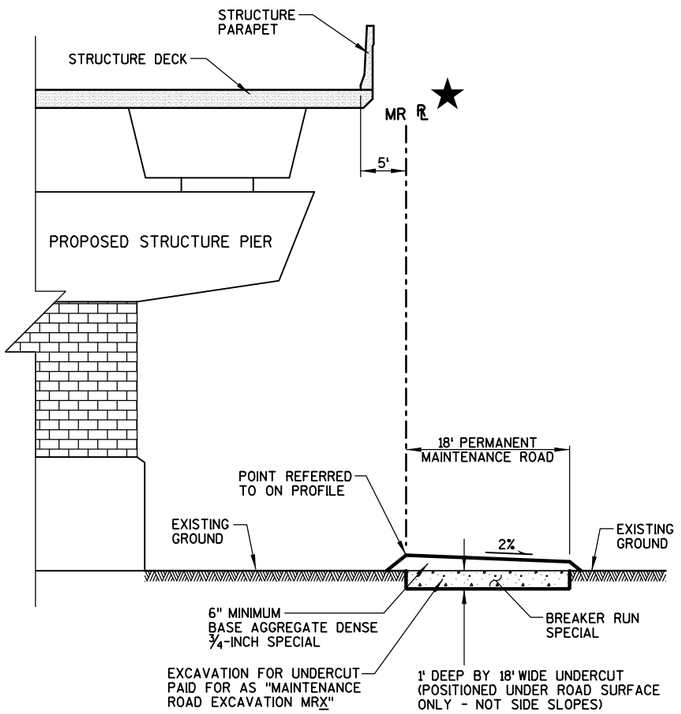
TYPICAL FINISHED SECTION - TWT ABUTTING EXISTING PAVEMENT

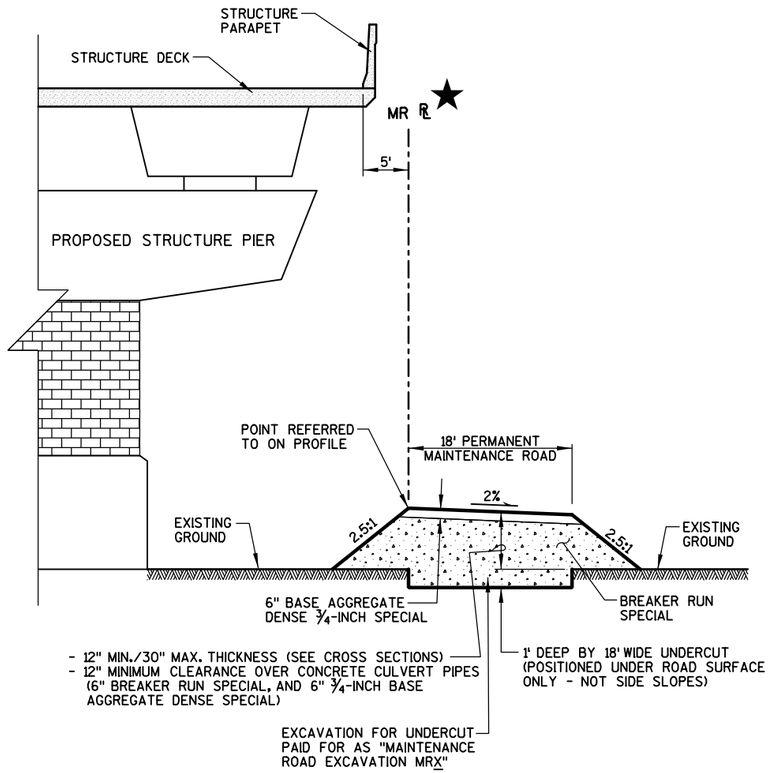
STA. 100+08 TWT TO STA. 101+49 TWT (⁎2.0%±)
STA. 110+13 TWT TO STA. 111+80 TWT (⁎5.0%)

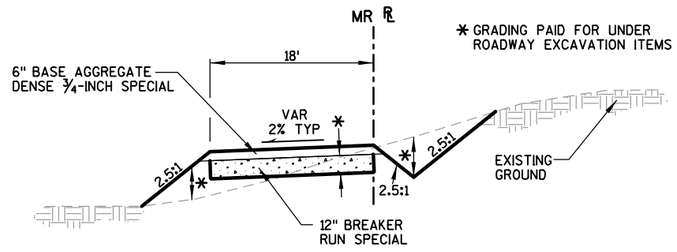


TYPICAL FINISHED SECTION - SHARED USE PATH

STA. 14+45 BP1 TO STA. 28+00 BP1

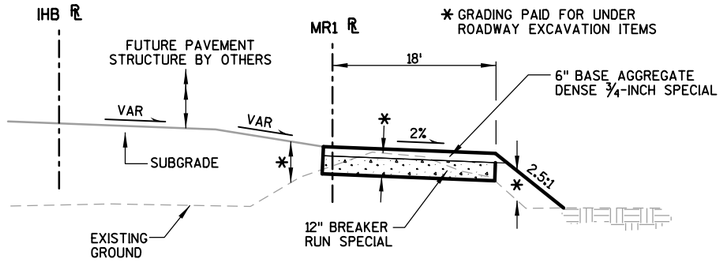






MATCH INTO EXISTING WIETOR DRIVE

STA. 103+50 MR2 TO STA. 104+00 MR2
STA. 30+39 MR3 TO STA. 31+50 MR3
STA. 94+50 MR4 TO STA. 95+28 MR4



MR1 - TOE OF EMBANKMENT, IHB LINE RT

STA. 69+50 MR1 TO STA. 76+50 MR1

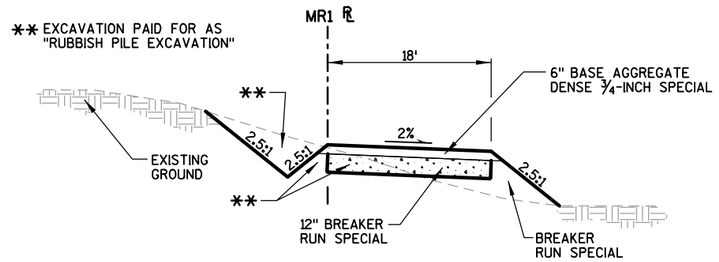
6" MINIMUM HEIGHT ABOVE EXISTING GROUND

STA. 83+50.00 MR1 TO STA. 86+10.50 MR1
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1
STA. 101+11.50 MR2 TO STA. 102+83.50 MR2
STA. 31+61.50 MR3 TO STA. 31+88.00 MR3
STA. 33+12.00 MR3 TO STA. 38+10.00 MR3
STA. 86+00.00 MR4 TO STA. 87+88.50 MR4
STA. 89+11.50 MR4 TO STA. 92+55.50 MR4
STA. 93+78.50 MR4 TO STA. 94+50.00 MR4
STA. 87+00.00 MR5 TO STA. 94+50.00 MR5
STA. 107+62.00 MR5 TO STA. 113+50.00 MR5 ***

FULL DEPTH BREAKER RUN SPECIAL AT CULVERT CROSSINGS

STA. 76+50.00 MR1 TO STA. 80+00.00 MR1
STA. 86+10.50 MR1 TO STA. 87+33.50 MR1
STA. 92+38.50 MR1 TO STA. 93+61.50 MR1
STA. 94+20.47 MR1 TO STA. 96+08.44 MR1
STA. 100+00.00 MR2 TO STA. 101+11.50 MR2
STA. 102+83.50 MR2 TO STA. 103+50.00 MR2
STA. 31+50.00 MR3 TO STA. 31+61.50 MR3
STA. 31+88.00 MR3 TO STA. 33+12.00 MR3
STA. 87+88.50 MR4 TO STA. 89+11.50 MR4
STA. 92+55.50 MR4 TO STA. 93+78.50 MR4
STA. 94+50.00 MR5 TO STA. 96+00.00 MR5
STA. 105+50.00 MR5 TO STA. 107+62.00 MR5 ***

*** FROM STA. 105+50 MR5 TO STA. 113+50 MR5, PLACE 18' WIDE GEOGRID REINFORCEMENT UNDER BREAKER RUN SPECIAL.



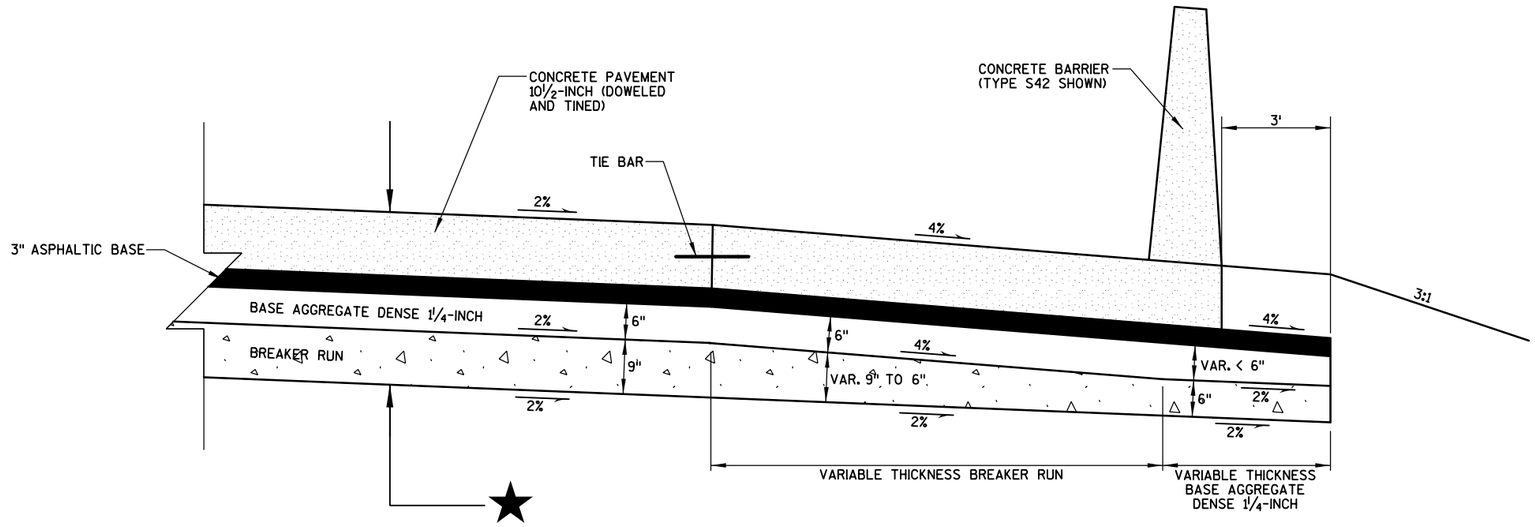
MR1 AT RUBBISH PILE

STA. 80+00 MR1 TO STA. 83+50 MR1

TYPICAL FINISHED SECTION - 18' PERMANENT MAINTENANCE ROADS

★
- ON RIGHT OF STRUCTURE (SHOWN)
  - MR1 - STA. 78+55 MR1 TO STA. 84+64 MR1
  - MR3 - ALL
  - MR5 - STA. 87+75 MR5 TO STA. 94+06 MR5 & STA. 107+52 MR5 TO STA. 113+45 MR5
- ON LEFT OF STRUCTURE (MIRROR OF TYPICAL SECTION SHOWN)
  - MR1 - STA. 86+25 MR1 TO STA. 94+60 MR1
  - MR2 - ALL
  - MR4 - ALL
  - MR5 - STA. 95+79 MR5 TO STA. 105+35 MR5

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 12	E

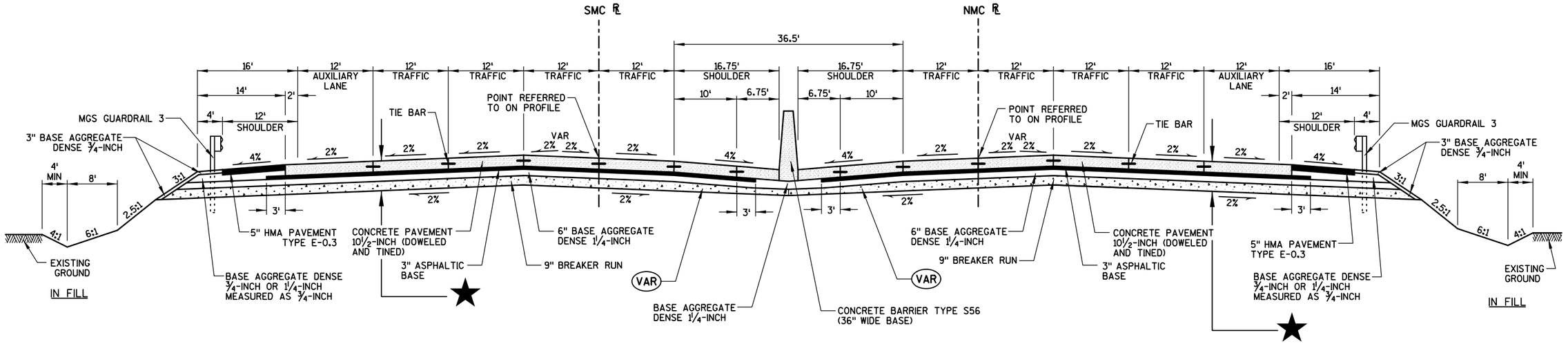


TYPICAL FINISHED SECTIONS - VARIABLE THICKNESS SUBGRADE DETAIL

(VAR) WILL DENOTE THE APPLICATION OF THIS DETAIL TO THE TYPICAL SECTIONS TO FOLLOW

★ = PAVING, BASE, BREAKER RUN, AND BARRIER BY OTHERS UNDER A DIFFERENT PROJECT. THESE FEATURES ARE PROVIDED TO FACILITATE GRADING UNDER THIS PROJECT (1133-11-74). SEE SEPARATE DETAILS SHOWING BASE AND BREAKER RUN TO BE PLACED IN AREAS OF FULL HEIGHT GRADING AT ENDS OF STRUCTURES.

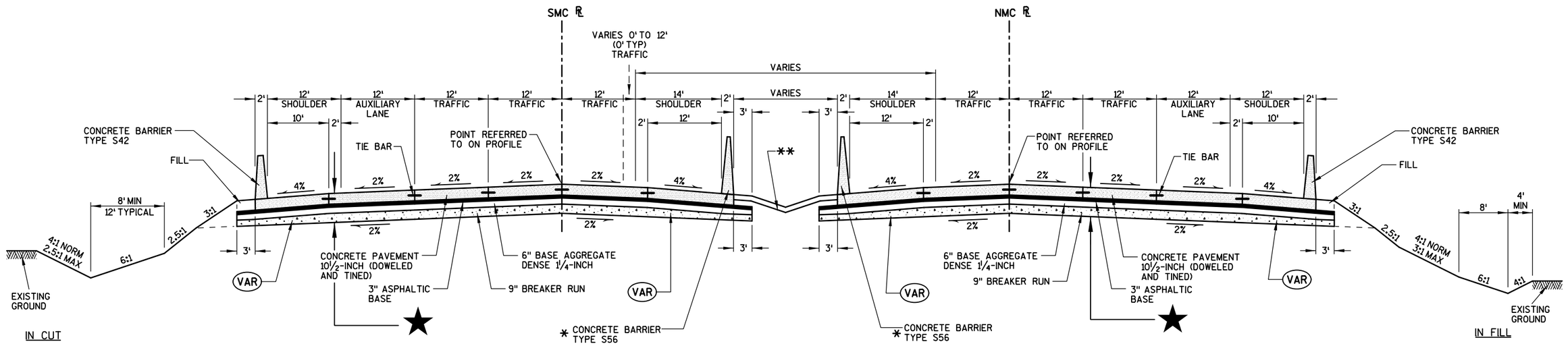
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 13	E



TYPICAL FINISHED SECTION - USH 41 (NMC & SMC)

STA. 1138+00 NMC TO STA. 1158+00 NMC

(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL



TYPICAL FINISHED SECTION - USH 41 (NMC & SMC)

STA. 1158+00 NMC TO STA. 1220+85 NMC

* CONCRETE BARRIER TYPE S56 - 36" WIDE BASE (STA. 1158+00 NMC TO STA. 1169+50 NMC LT)

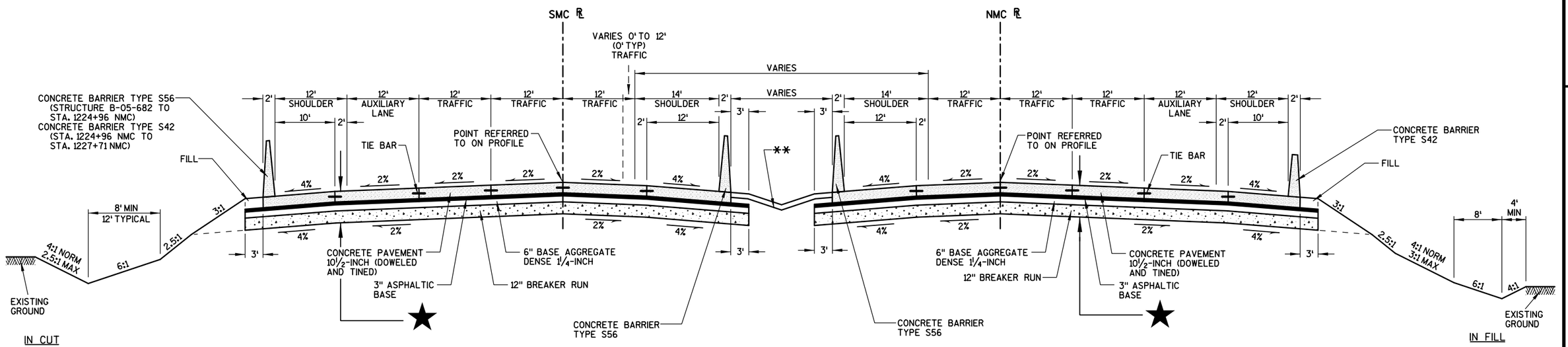
** 0'-12' - 4" CONCRETE BASE OVER BASE AGGREGATE DENSE 1¼-INCH (SHOWN)
> 12' - 2" ASPHALTIC SURFACE OVER BASE AGGREGATE DENSE 1¼-INCH

(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL

★ = PAVING, BASE, BREAKER RUN, AND BARRIER BY OTHERS UNDER A DIFFERENT PROJECT. THESE FEATURES ARE PROVIDED TO FACILITATE GRADING UNDER THIS PROJECT (1133-11-74). SEE SEPARATE DETAILS SHOWING BASE AND BREAKER RUN TO BE PLACED IN AREAS OF FULL HEIGHT GRADING AT ENDS OF STRUCTURES.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 14	E

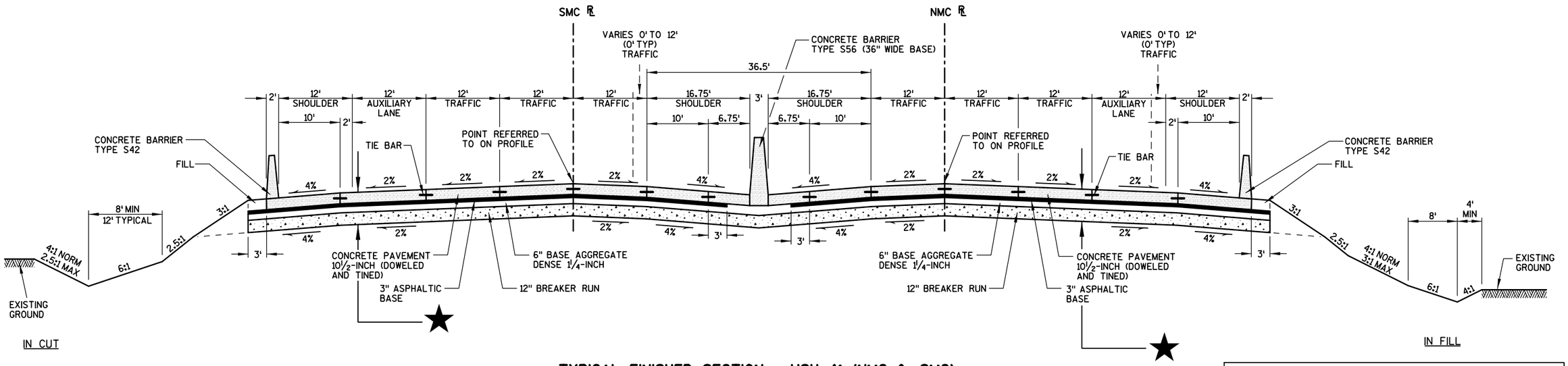
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_020311_ts (NMC and SMC).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200



TYPICAL FINISHED SECTION - USH 41 (NMC & SMC)

STA. 1220+85 NMC TO STA. 1227+71 NMC

** 0'-12' - 4" CONCRETE BASE OVER BASE AGGREGATE DENSE 1¼-INCH (SHOWN)
> 12' - 2" ASPHALTIC SURFACE OVER BASE AGGREGATE DENSE 1¼-INCH



TYPICAL FINISHED SECTION - USH 41 (NMC & SMC)

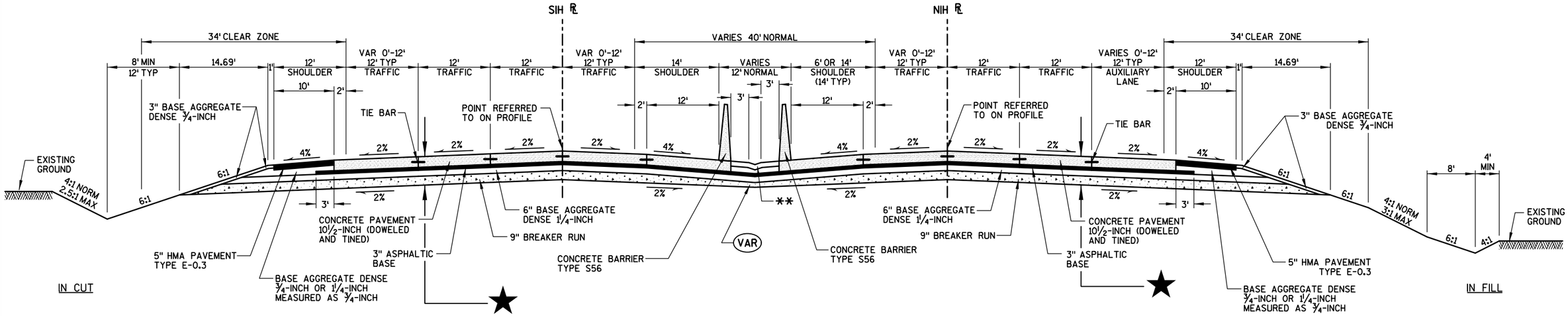
STA. 1227+71 NMC TO STA. 1249+00 NMC

★ = PAVING, BASE, BREAKER RUN, AND BARRIER BY OTHERS UNDER A DIFFERENT PROJECT. THESE FEATURES ARE PROVIDED TO FACILITATE GRADING UNDER THIS PROJECT (1133-11-74). SEE SEPARATE DETAILS SHOWING BASE AND BREAKER RUN TO BE PLACED IN AREAS OF FULL HEIGHT GRADING AT ENDS OF STRUCTURES.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 15	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_020312_ts (NMC and SMC).dgn
PLOT BY : kk226
PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

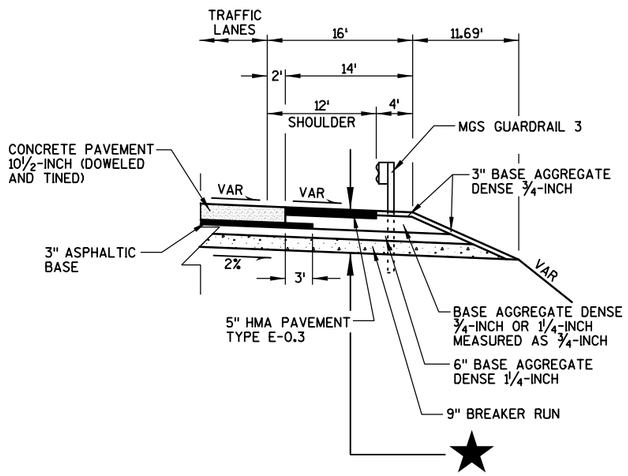


TYPICAL FINISHED SECTION - IH 43 (NIH & SIH)

STA. 1148+80 NIH TO STA. 1179+00 NIH

(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL

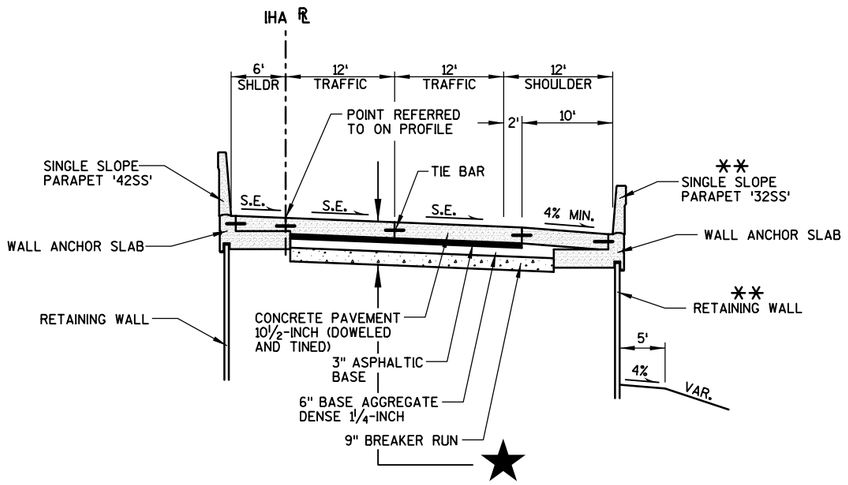
** 0'-12' - 4" CONCRETE BASE OVER BASE AGGREGATE DENSE 1¼-INCH (SHOWN)
> 12' - 2" ASPHALTIC SURFACE OVER BASE AGGREGATE DENSE 1¼-INCH



SHOULDER WITH GUARDRAIL

★ = PAVING, BASE, BREAKER RUN, AND BARRIER BY OTHERS UNDER A DIFFERENT PROJECT. THESE FEATURES ARE PROVIDED TO FACILITATE GRADING UNDER THIS PROJECT (1133-11-74). SEE SEPARATE DETAILS SHOWING BASE AND BREAKER RUN TO BE PLACED IN AREAS OF FULL HEIGHT GRADING AT ENDS OF STRUCTURES.

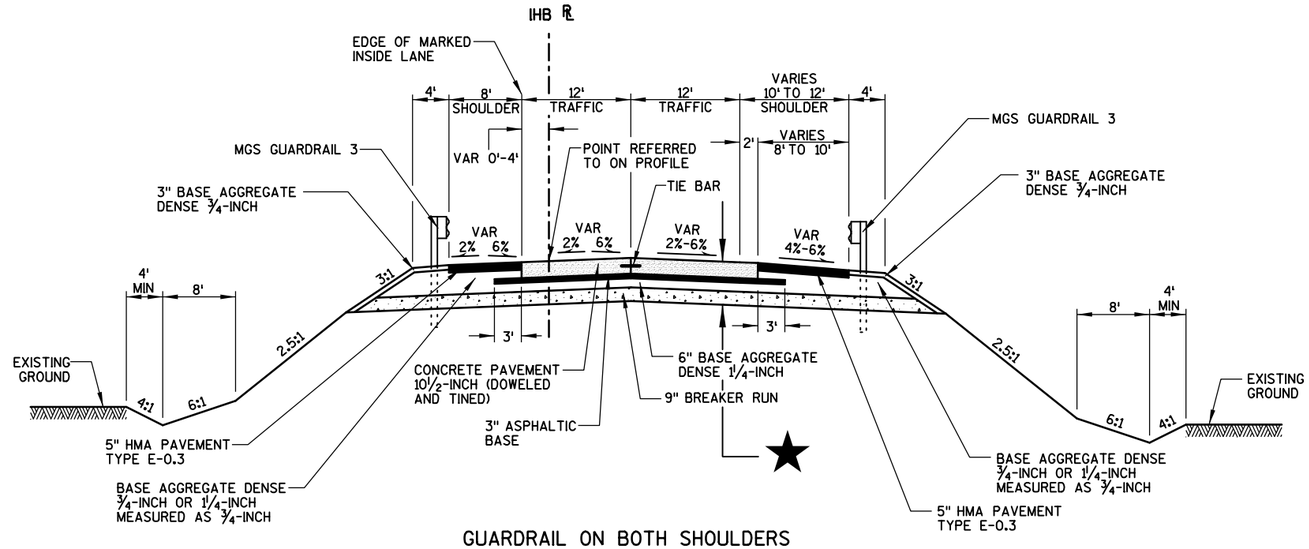
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 16	E



CONCRETE BARRIER OVER RETAINING WALL AT BOTH SHOULDERS

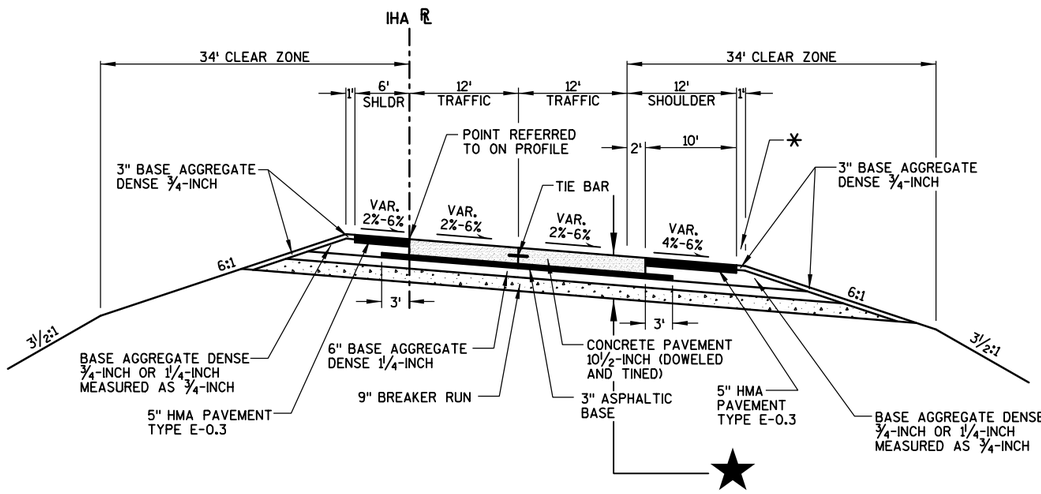
STA. 1164+00 IHA TO STA. 1173+00 IHA

** CONCRETE BARRIER TYPE S42 WITHOUT RETAINING WALL (STA. 1164+00 IHA TO STA. 1171+92 IHA RT)



GUARDRAIL ON BOTH SHOULDERS

STA. 1171+50 IHB TO STA. 1176+85 IHB



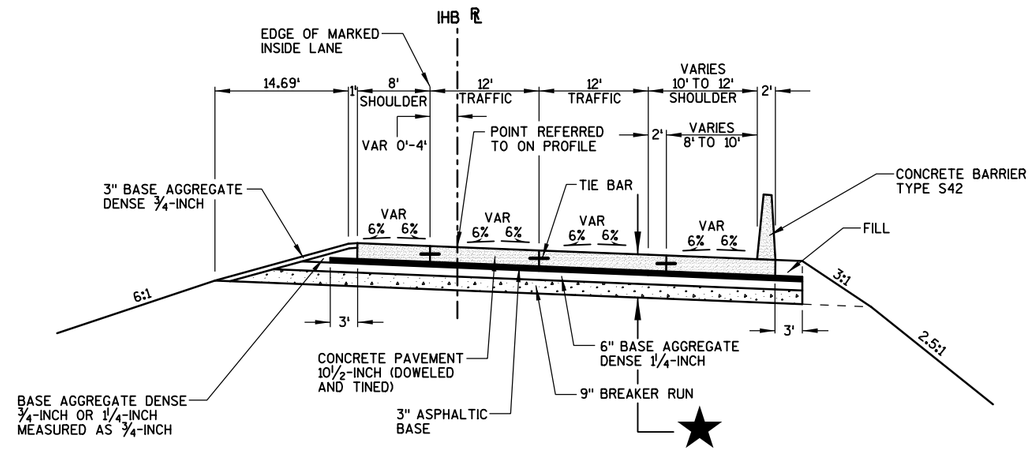
NO BARRIER SYSTEM

STA. 1197+38 IHA TO STA. 1206+50 IHA

* BEAM GUARD FROM 1197+38 IHA TO 1198+02 IHA RT

TYPICAL FINISHED SECTIONS - NB USH 41 TO SB IH 43 (IHA)

★ = PAVING, BASE, BREAKER RUN, AND BARRIER BY OTHERS UNDER A DIFFERENT PROJECT. THESE FEATURES ARE PROVIDED TO FACILITATE GRADING UNDER THIS PROJECT (1133-11-74). SEE SEPARATE DETAILS SHOWING BASE AND BREAKER RUN TO BE PLACED IN AREAS OF FULL HEIGHT GRADING AT ENDS OF STRUCTURES.

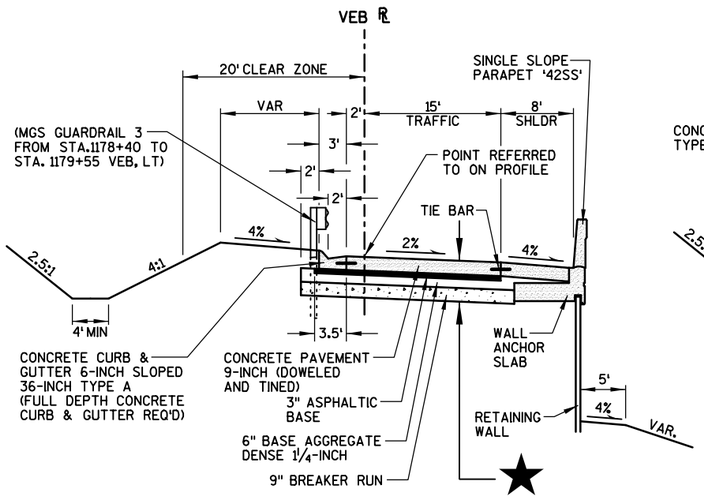


CONCRETE BARRIER ON OUTSIDE SHOULDER

STA. 1216+75 IHB TO STA. 1221+20 IHB

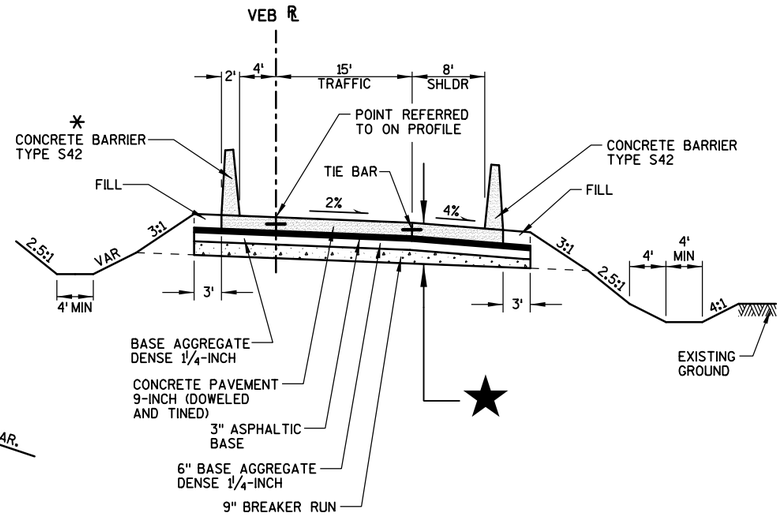
TYPICAL FINISHED SECTION - NB IH 43 TO SB USH 41 (IHB)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 17	E



TYPICAL FINISHED SECTION - VEB

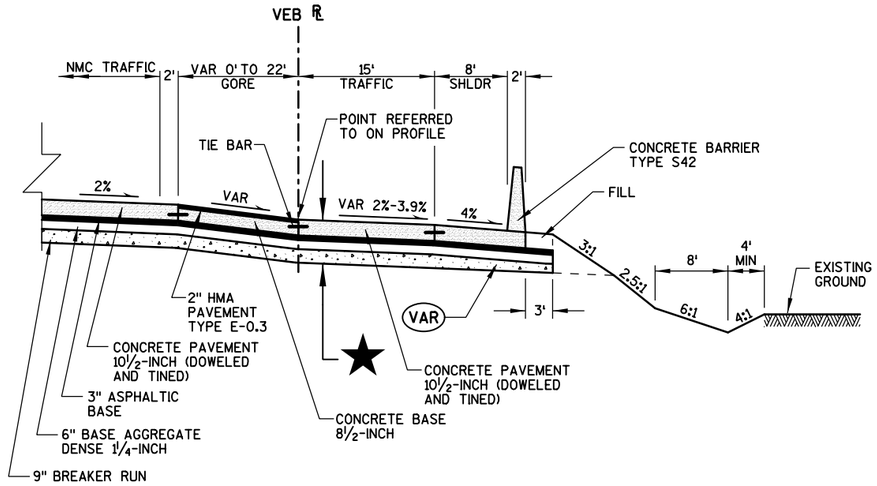
STA. 1177+00 VEB TO STA. 1179+10 VEB



TYPICAL FINISHED SECTION - VEB

STA. 1179+10 VEB TO STA. 1184+21 VEB

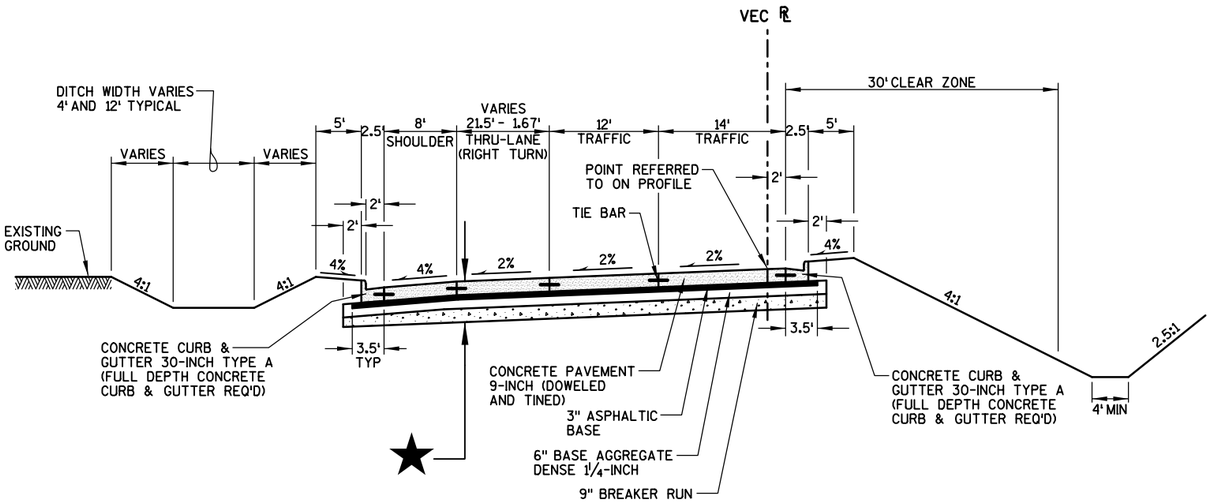
✳ - MGS GUARDRAIL 3 FROM 1178+40 TO 1179+55 VEB, LT (MGS GUARDRAIL OVER CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A)



TYPICAL FINISHED SECTION - VEB

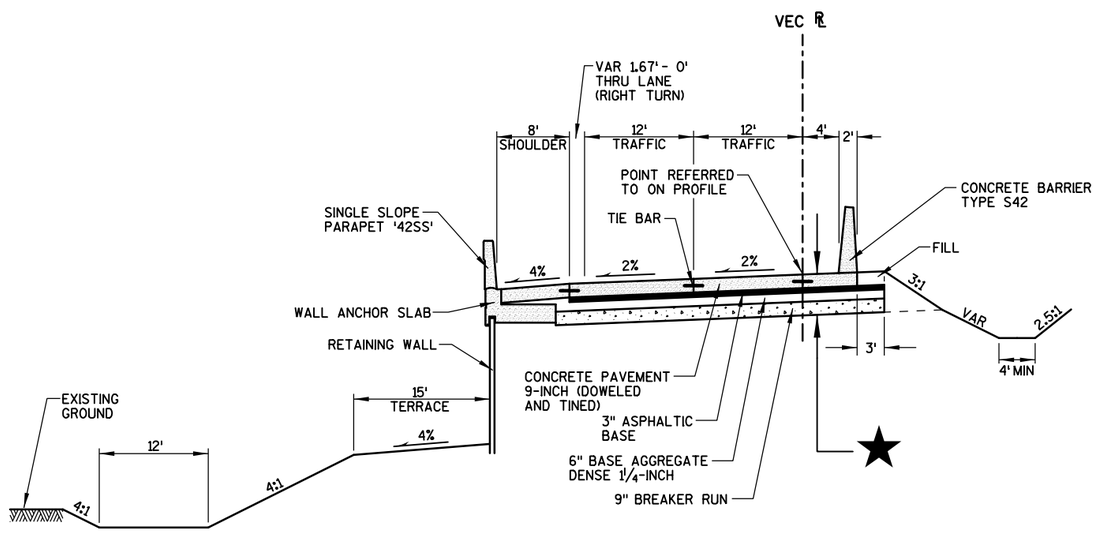
STA. 1186+08 VEB TO STA. 1192+65 VEB

(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL



TYPICAL FINISHED SECTION - VEC

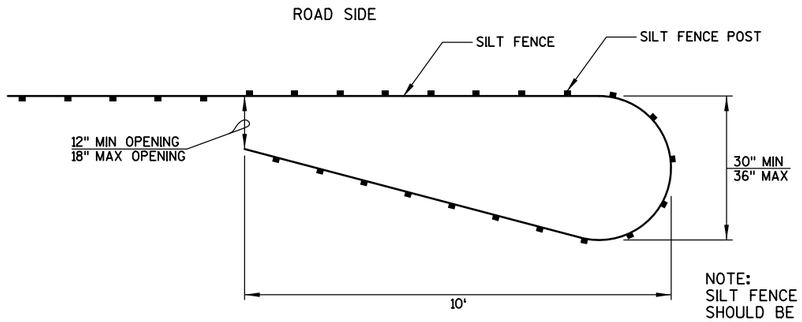
STA. 1176+50 VEC TO STA. 1179+30 VEC



TYPICAL FINISHED SECTION - VEC

STA. 1179+30 VEC TO STA. 1184+29 VEC

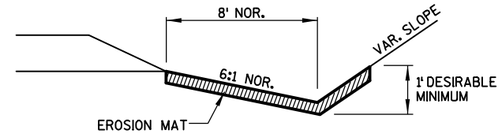
★ = PAVING, BASE, BREAKER RUN, AND BARRIER BY OTHERS UNDER A DIFFERENT PROJECT. THESE FEATURES ARE PROVIDED TO FACILITATE GRADING UNDER THIS PROJECT (1133-11-74).



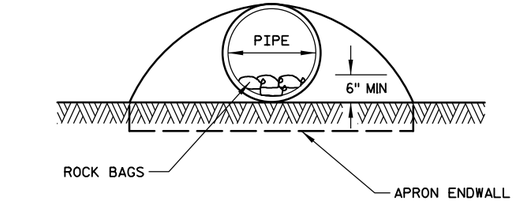
NOTE:
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE PLACED ON THE OUTSIDE OF THE TURN-AROUND

SILT FENCE TURN-AROUND DETAIL

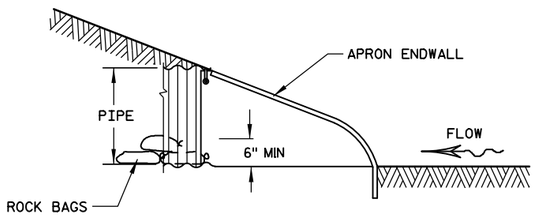
TO BE PLACED AT ALL ENDS OF SILT FENCE



EROSION MAT DETAIL FOR DITCHES



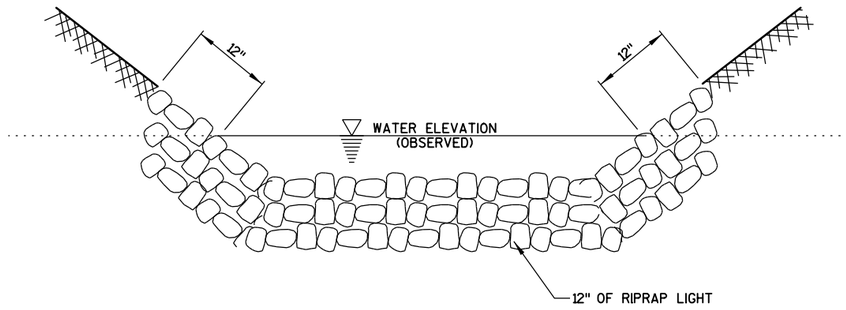
END VIEW



SIDE VIEW

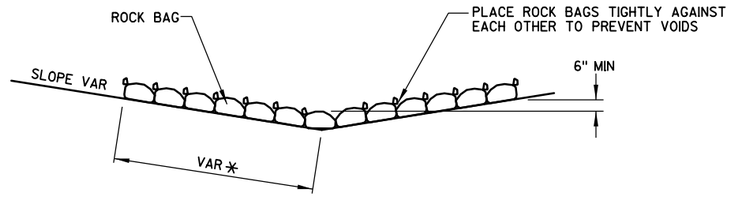
CULVERT PIPE DITCH CHECK

PLACE AT INLET END ONLY

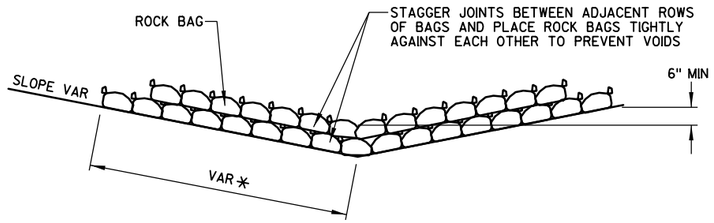


DETAIL FOR WET DITCH

STA. 1229+50 NMC TO STA. 1235+00 NMC



SIDE VIEW (SINGLE LAYER)

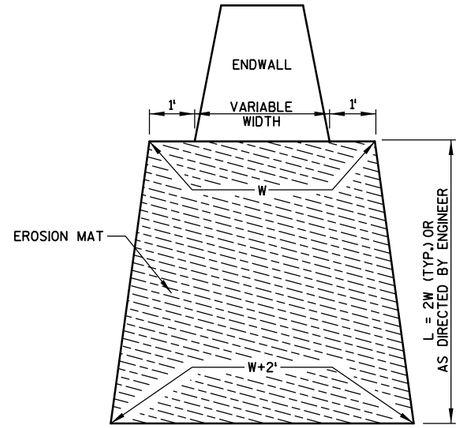


*LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL

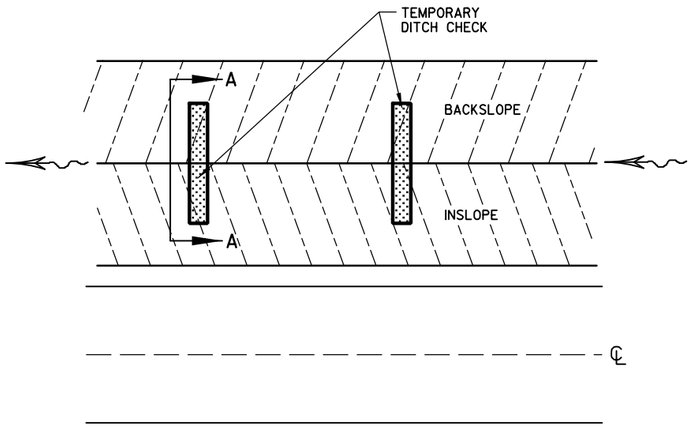
SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS DITCH CHECK

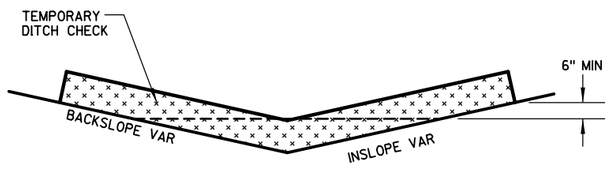
PAID AS ROCK BAGS



EROSION MAT TREATMENT AT CULVERTS



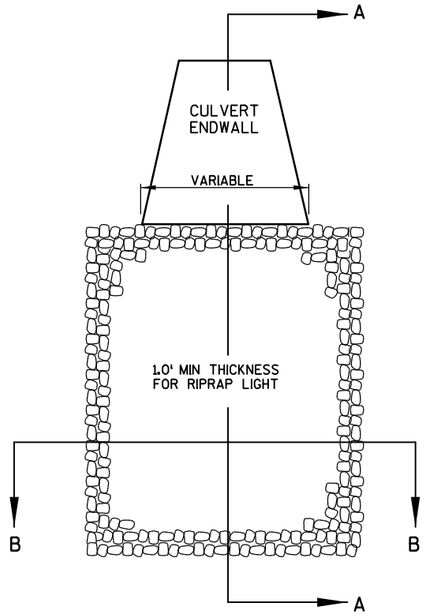
PLAN VIEW



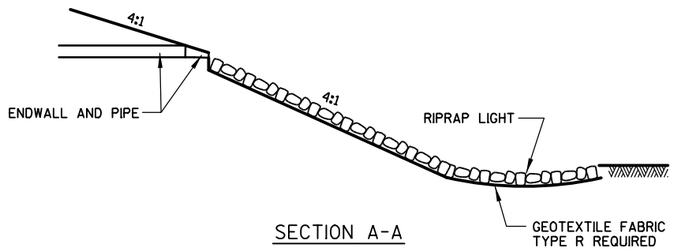
SECTION A-A

DETAIL FOR TEMPORARY DITCH CHECKS

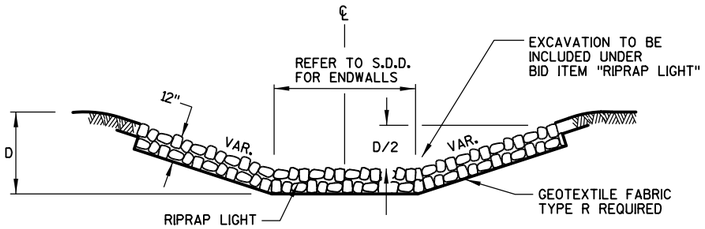
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 20	E



PLAN VIEW

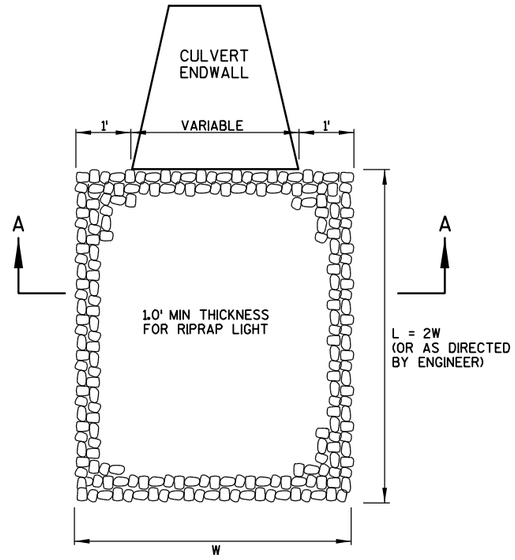


SECTION A-A

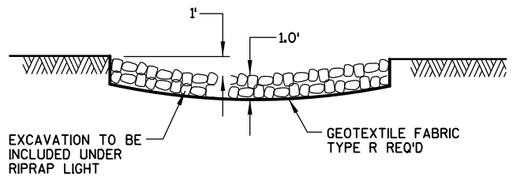


SECTION B-B

EROSION CONTROL DETAIL FOR DRAIN OUT ON HIGH FILL SECTION

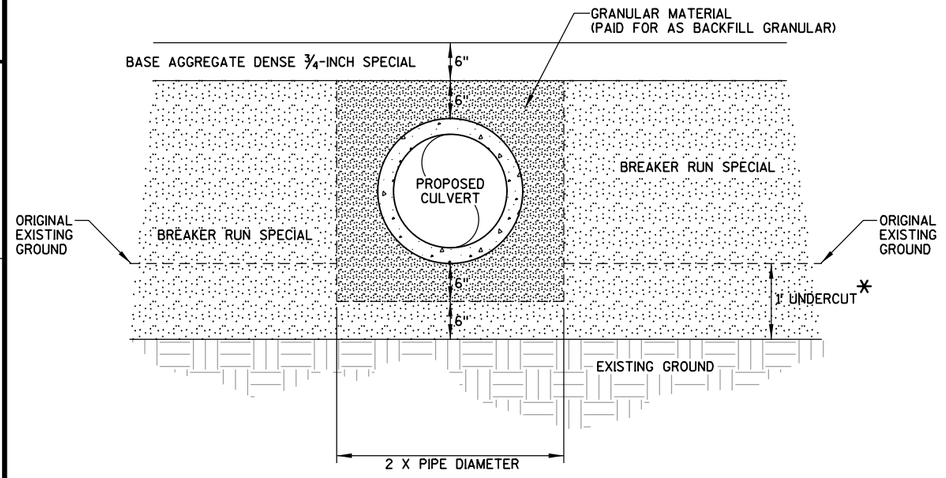


PLAN VIEW

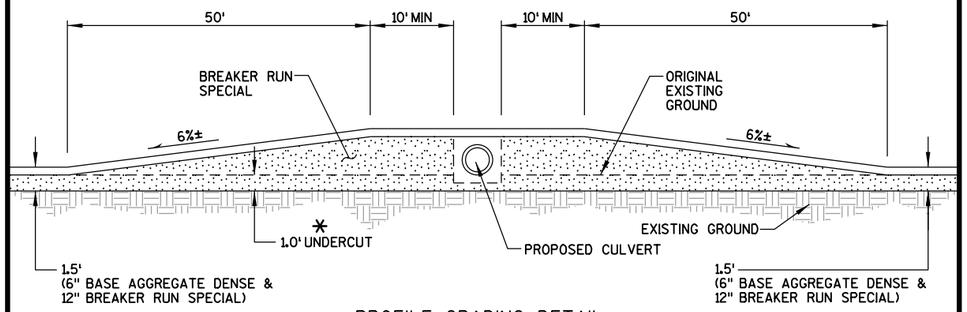


SECTION A-A

RIPRAP TREATMENT (LIGHT) AT CULVERTS



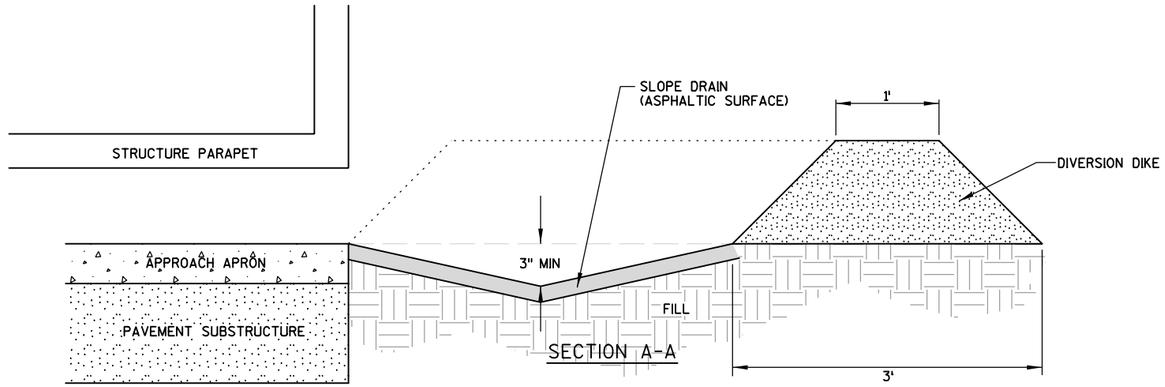
DETAIL AT CULVERT

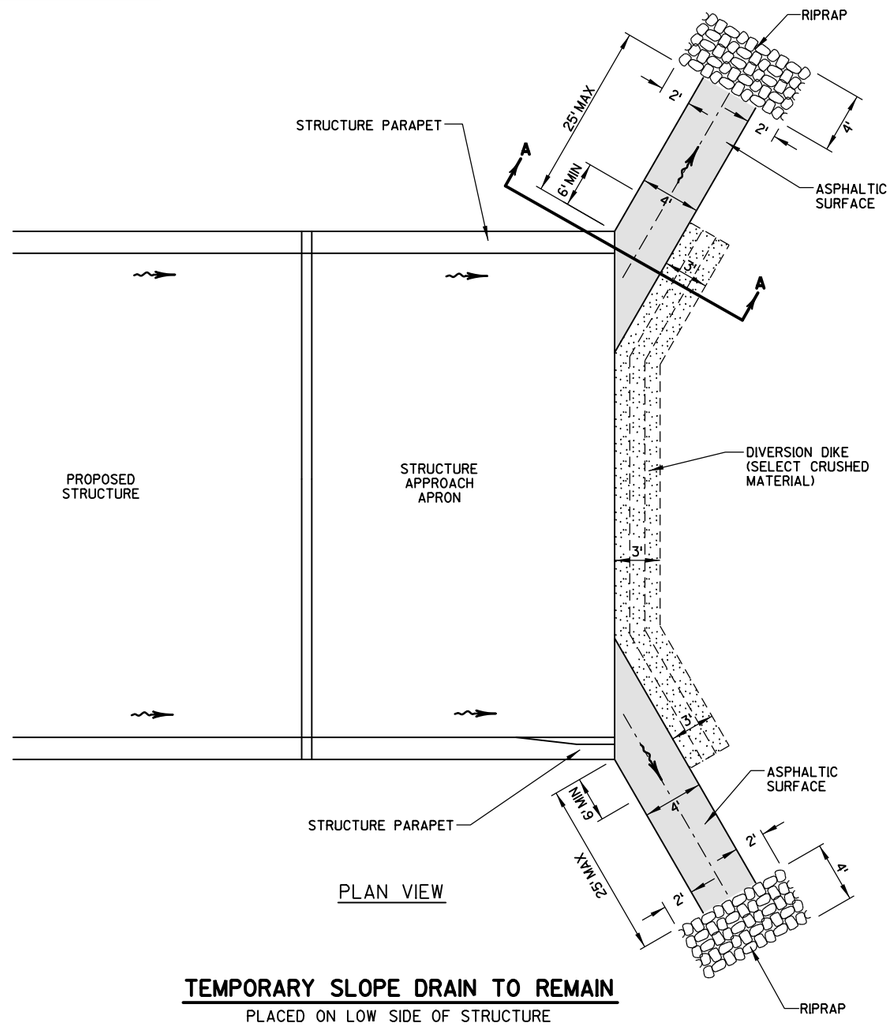


PROFILE GRADING DETAIL

MAINTENANCE ROAD CROSS-CULVERT DETAIL

* EXCAVATION FOR UNDERCUT PAID FOR AS
"MAINTENANCE ROAD EXCAVATION MRX"

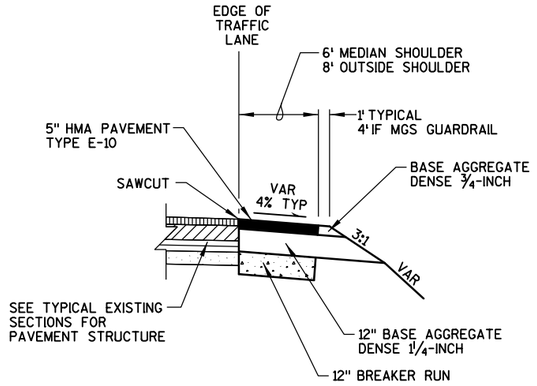




PLAN VIEW

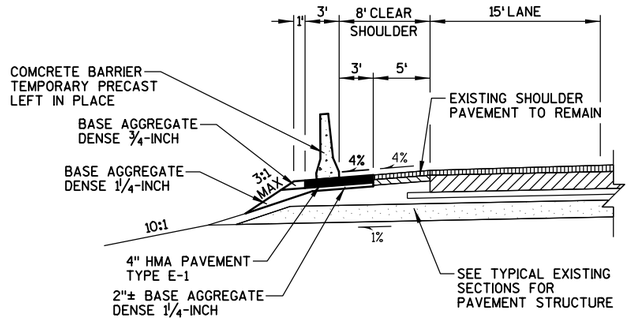
TEMPORARY SLOPE DRAIN TO REMAIN

PLACED ON LOW SIDE OF STRUCTURE



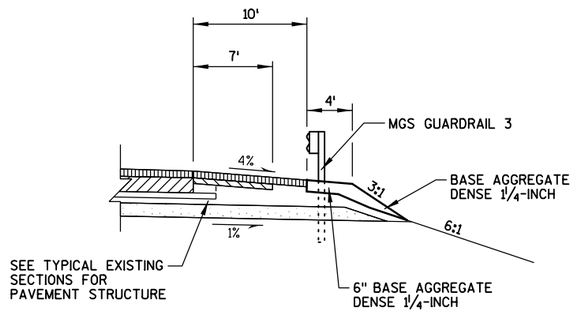
REPLACE SHOULDER PAVEMENT

NB USH 41
SB USH 41



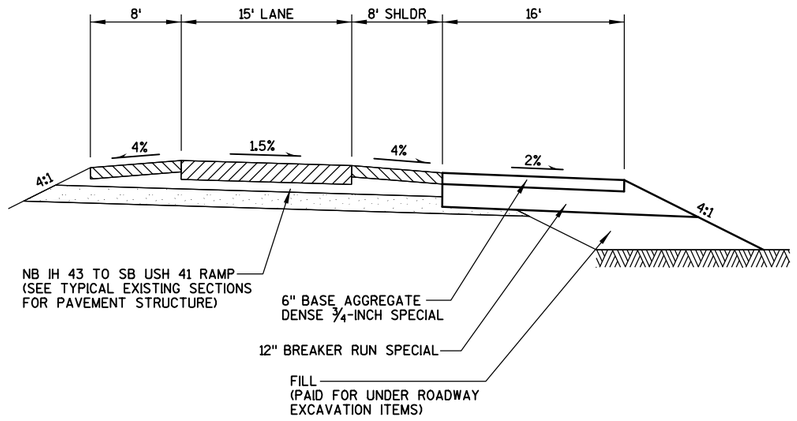
WIDEN FOR CONCRETE BARRIER TEMPORARY PRECAST

(STA 1177+98 VEC TO 1184+51 VEC)



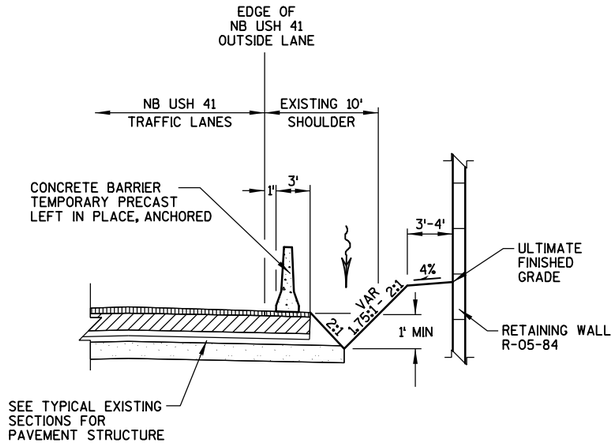
ADD GUARDRAIL

(STA 1215+75 NMC TO 1222+18 NMC)

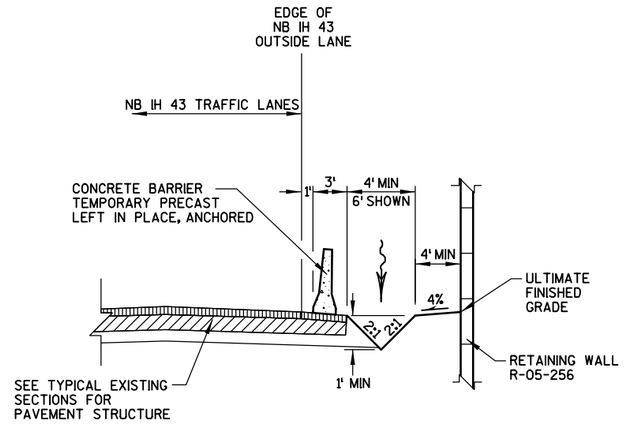


DECELERATION LANE FOR PERMANENT MAINTENANCE ROAD MR2

(STA. 98+00 TSIH TO STA. 102+00 TSIH RT)

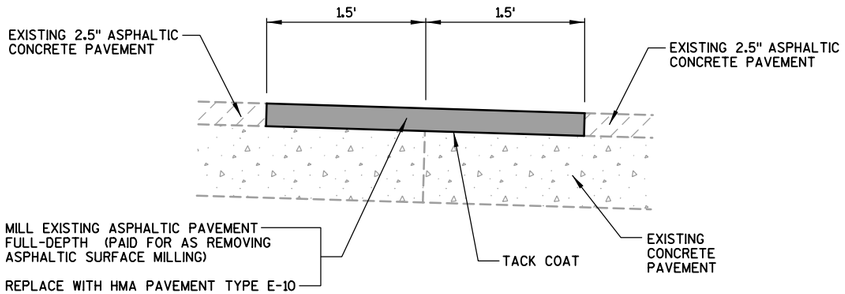


TYPICAL TEMPORARY DITCHING AT RETAINING WALL R-05-84

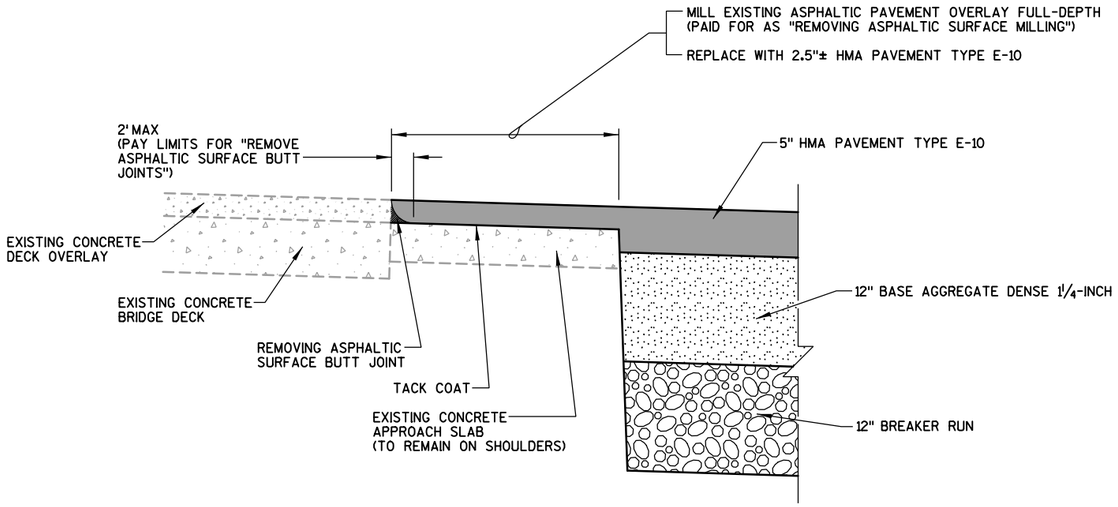


TYPICAL TEMPORARY DITCHING AT RETAINING WALL R-05-256

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 23	E

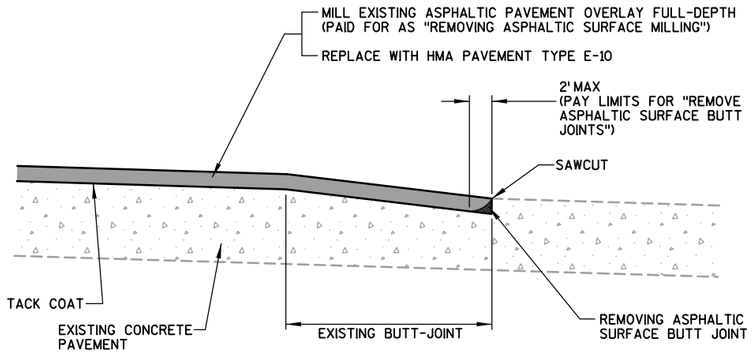


DETAIL FOR MILL & OVERLAY - 3' EXISTING JOINT



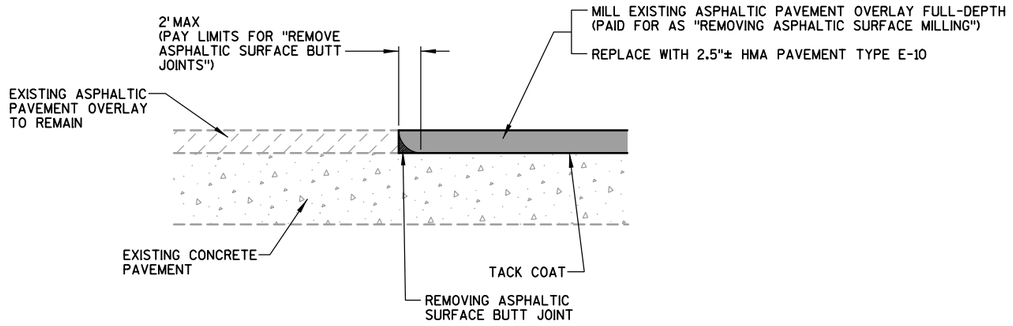
DETAIL FOR OVERLAYING CONCRETE APPROACH SLABS ON NB USH 41 SHOULDERS

- ALL FOUR CORNERS, NB USH 41 BRIDGE OVER RAILROAD
- ALL FOUR CORNERS, NB USH 41 BRIDGE OVER IH 43/WIETOR DRIVE



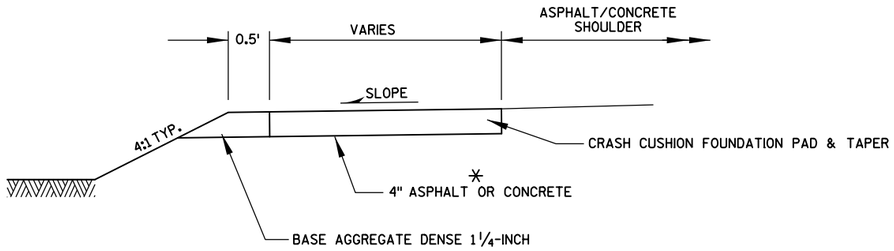
DETAIL FOR BUTT JOINT - HMA OVERLAY TO EXISTING CONCRETE PAVEMENT

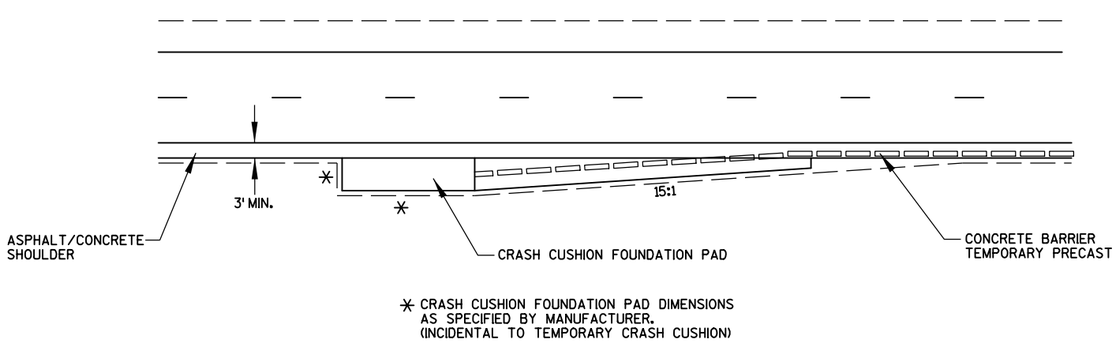
STA 99+82 NBF



DETAIL FOR BUTT JOINTS FOR MILLING ASPHALTIC PAVEMENT AND HMA OVERLAY

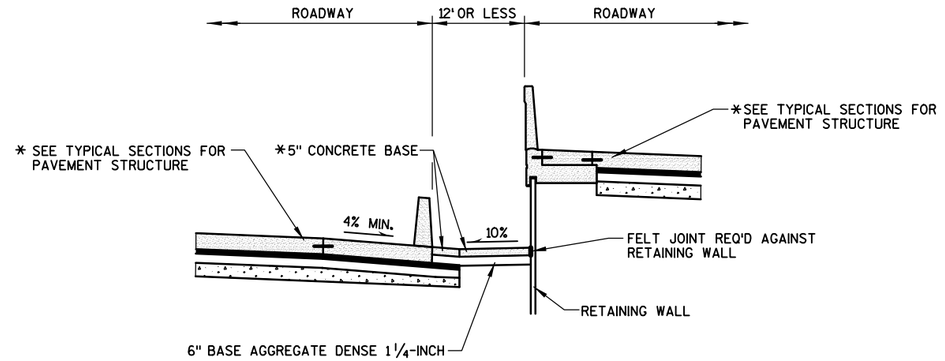
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 24	E





* CRASH CUSHION FOUNDATION PAD DIMENSIONS AS SPECIFIED BY MANUFACTURER. (INCIDENTAL TO TEMPORARY CRASH CUSHION)

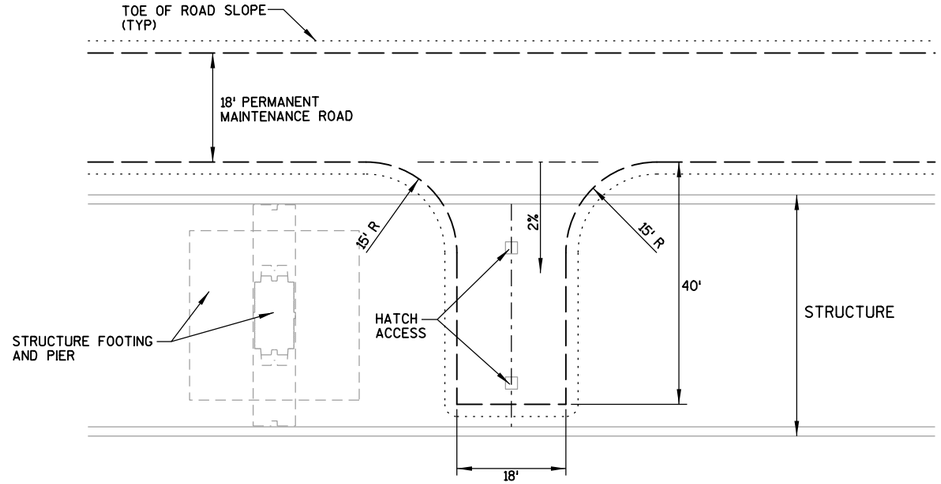
DETAIL FOR CRASH CUSHION TEMPORARY



DETAIL FOR CONCRETE SIDEWALK BETWEEN CONCRETE BARRIER & RETAINING WALL

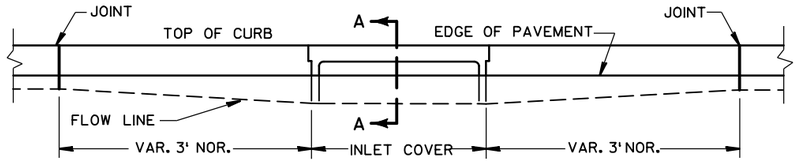
WHEN ROADWAYS ARE SEPARATED BY 12' OR LESS
(RETAINING WALL R-05-0084 & R-05-0256)

* FUTURE - BY OTHERS

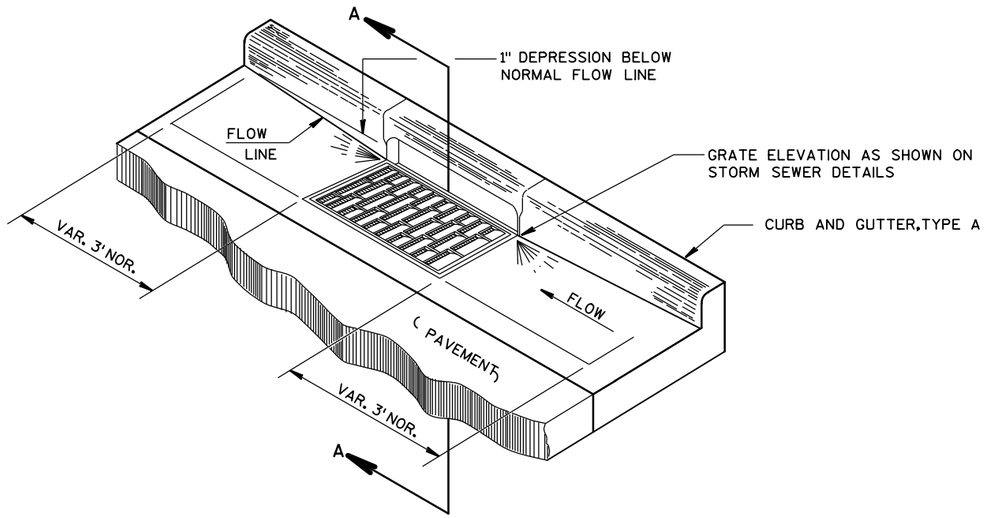


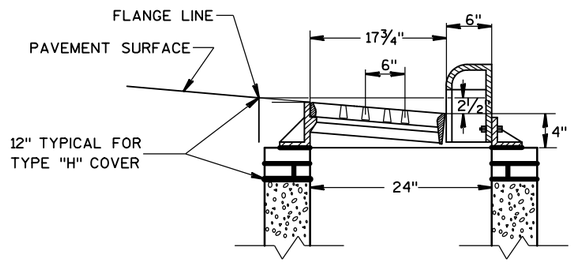
DETAIL FOR TURNAROUNDS AND HATCH ACCESS TO STRUCTURES

CENTERED AT STA 94+35 MR1 RT
CENTERED AT STA 101+10 MR2 RT
CENTERED AT STA 37+30 MR3 LT
CENTERED AT STA 87+35 MR4 RT
CENTERED AT STA 88+35 MR5 LT
CENTERED AT STA 108+60 MR5 LT
CENTERED AT STA 112+55 MR5 LT



ELEVATION

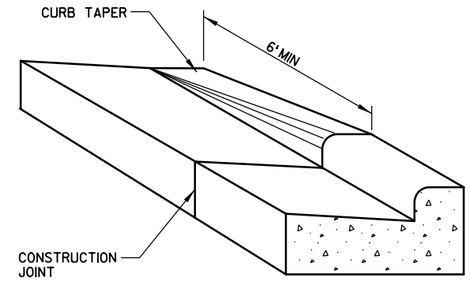




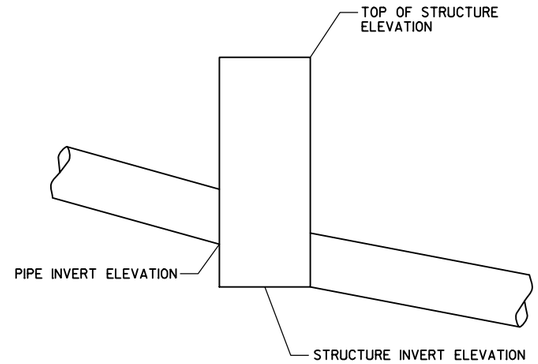
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 2 X 3-H INLET SHOWN)



DETAIL OF CURB & GUTTER TERMINI



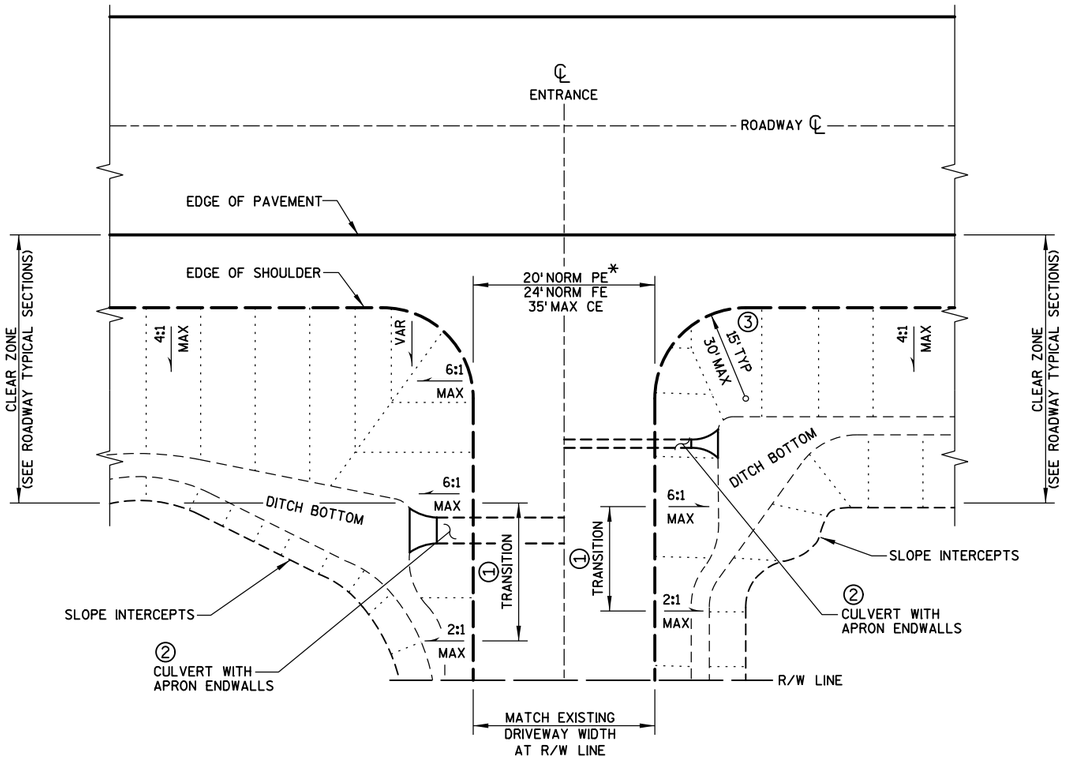
STORM SEWER STRUCTURE NOTATION

NOTES:

TO OBTAIN RIM ELEVATION ON MANHOLE COVER, OR FLAG LINE ELEVATION AT INLET, USE TOP OF STRUCTURE ELEVATION AND ADD HEIGHT OF ADJUSTING RINGS AND CASTING HEIGHT.

SEE SPECIAL PROVISION FOR ADJUSTING RING REQUIREMENTS.

*CE = COMMERCIAL ENTRANCE
FE = FIELD ENTRANCE
PE = PRIVATE ENTRANCE



FOR CULVERTS OVER 24" DIAMETER

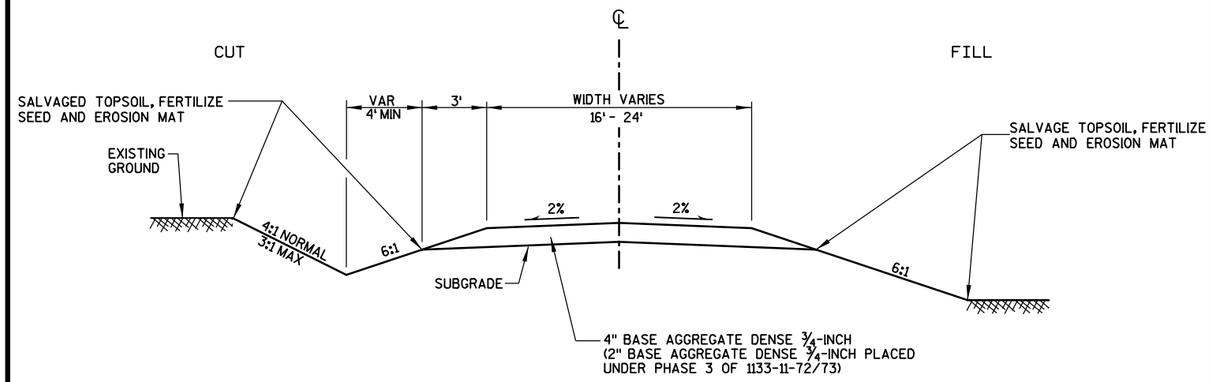
FOR CULVERTS 24" DIAMETER & LESS

RURAL ENTRANCE GRADING AND/OR PAVING DETAIL

① TRANSITION TO BE ACCOMPLISHED WITHIN THE RIGHT OF WAY.

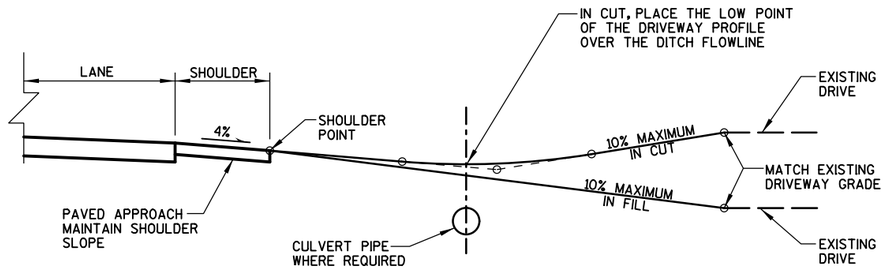
② BLEND 6 : 1 SLOPES TO MATCH APRON ENDWALLS.

③ USE LARGER PAVING RADIUS FOR PAVING IN HIGHER SPEED ZONES (> 40 MPH).

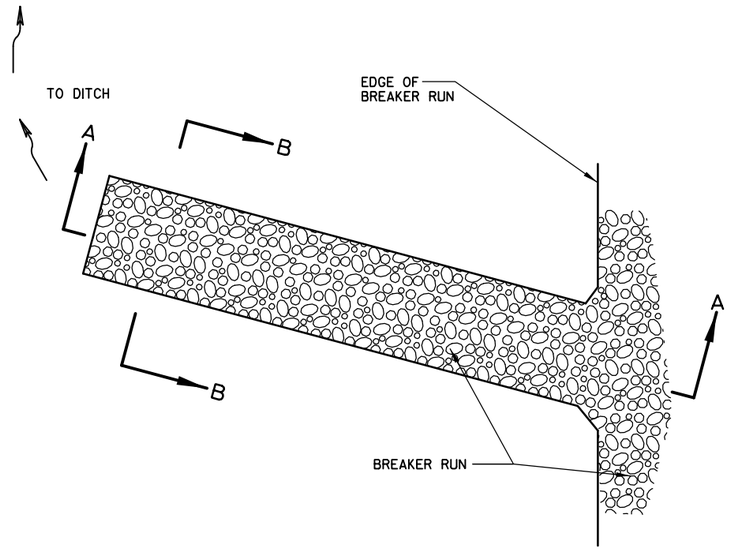


TYPICAL CROSS SECTION FOR FIELD ENTRANCE

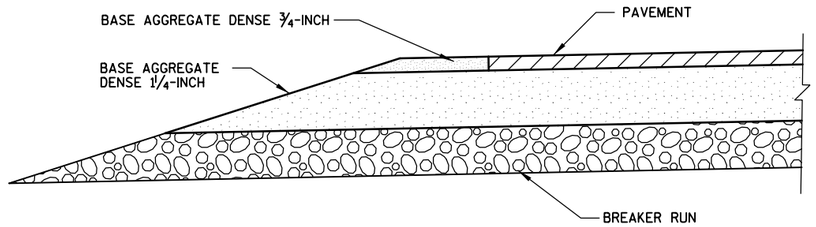
EAST DEERFIELD ROAD CUL-DE-SAC
HURLBUT CUL-DE-SAC



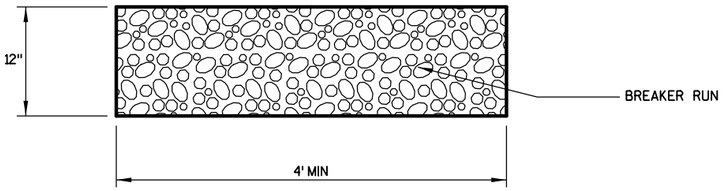
TYPICAL DRIVEWAY PROFILES



PLAN VIEW



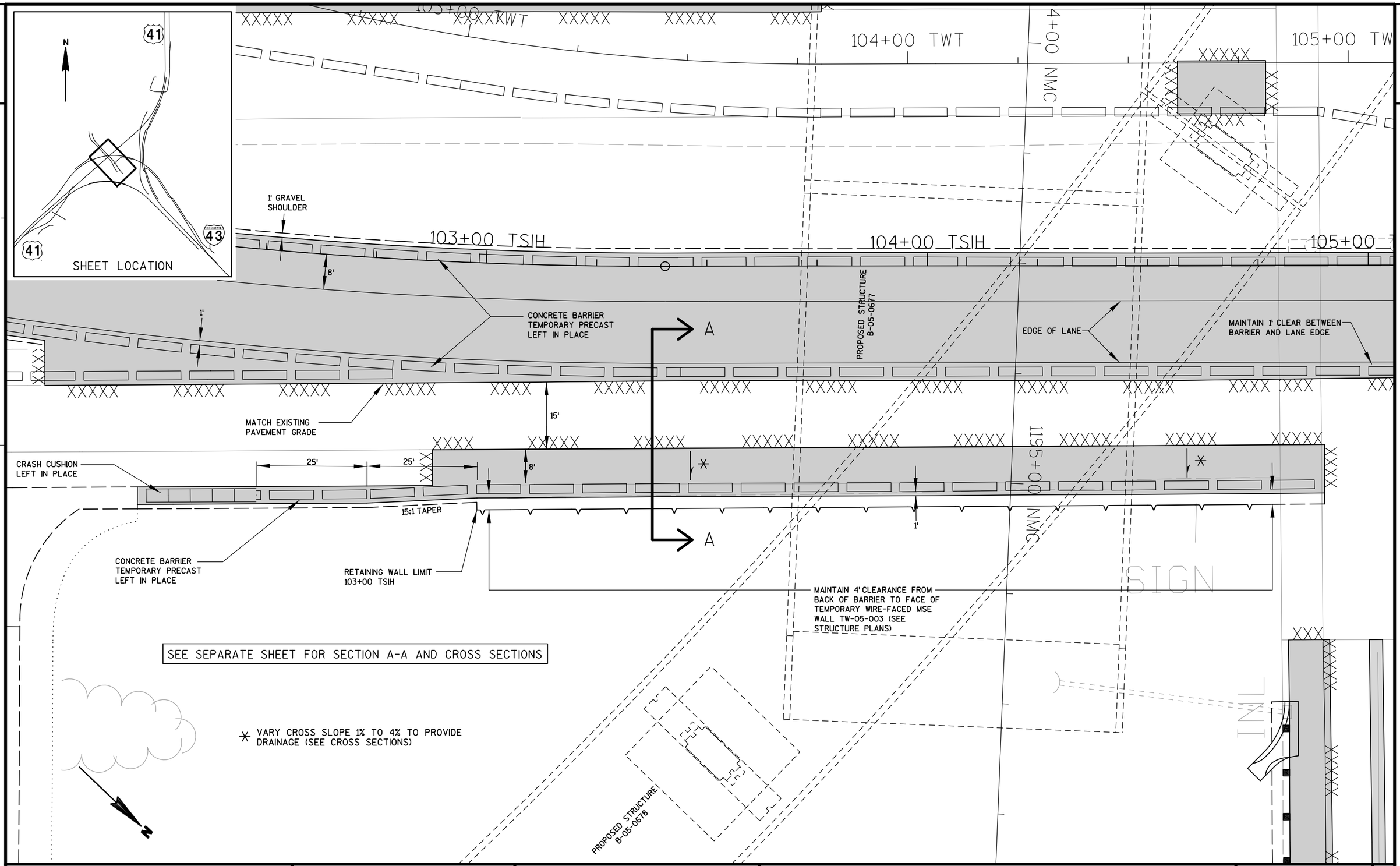
SECTION A - A



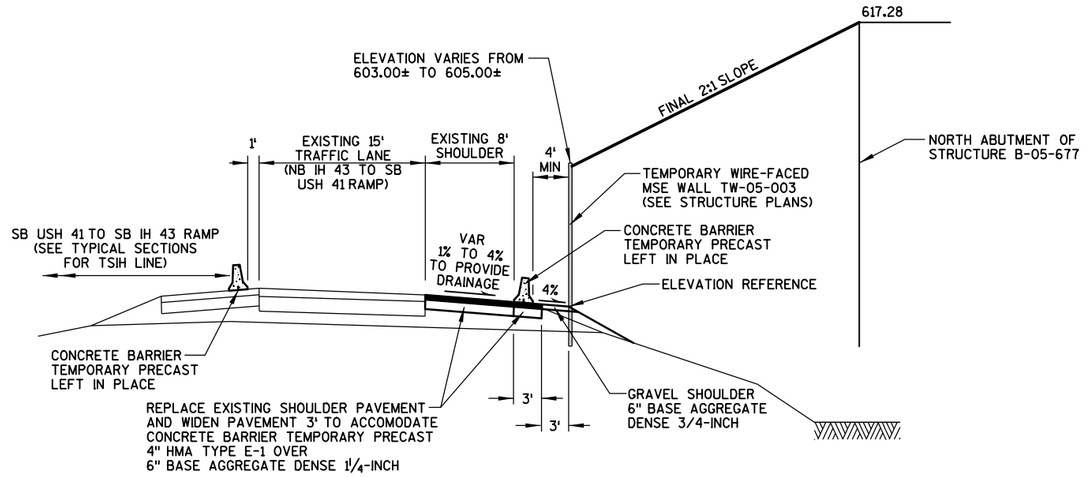
SECTION B - B

DETAIL FOR FRENCH DRAINS

EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM BREAKER RUN



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SCALE, FEET 0 10 20	SHEET 29	E

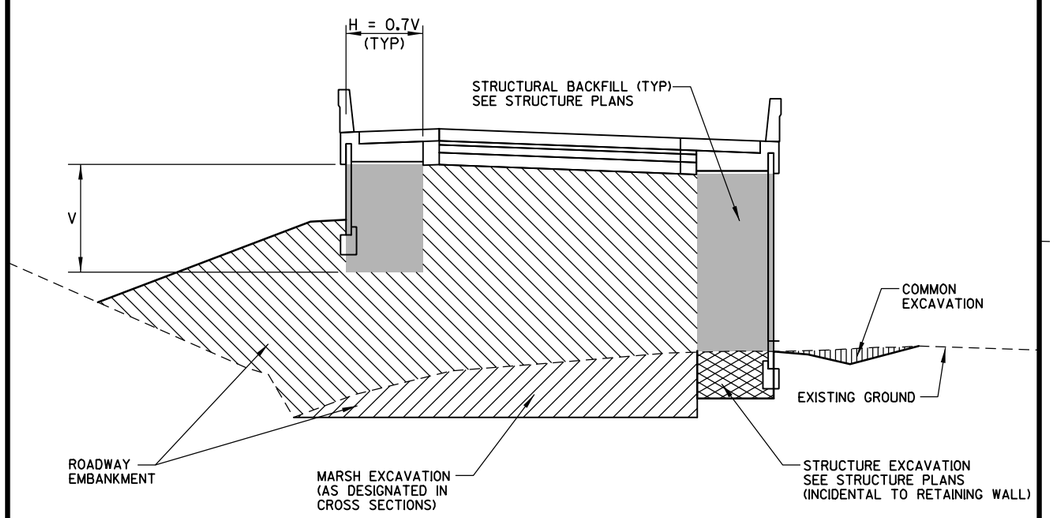


EXISTING
NB IH 43

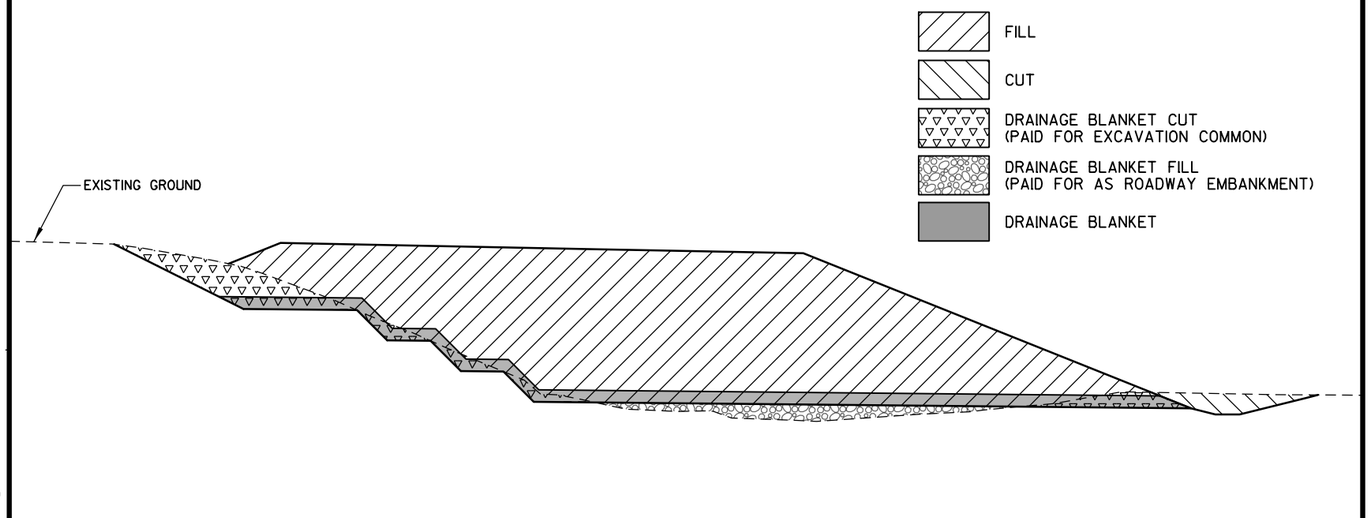
SECTION A-A - DETAIL OF TEMPORARY CONSTRUCTION SLOPES FOR STRUCTURE B-05-677

STA. 103+00 TO STA. 104+80 TSIH
(LOOKING WEST)

* EXISTING EDGE OF ASPHALT SHOULDER NOT SURVEYED. INFORMATION BASED ON DTM DATA.

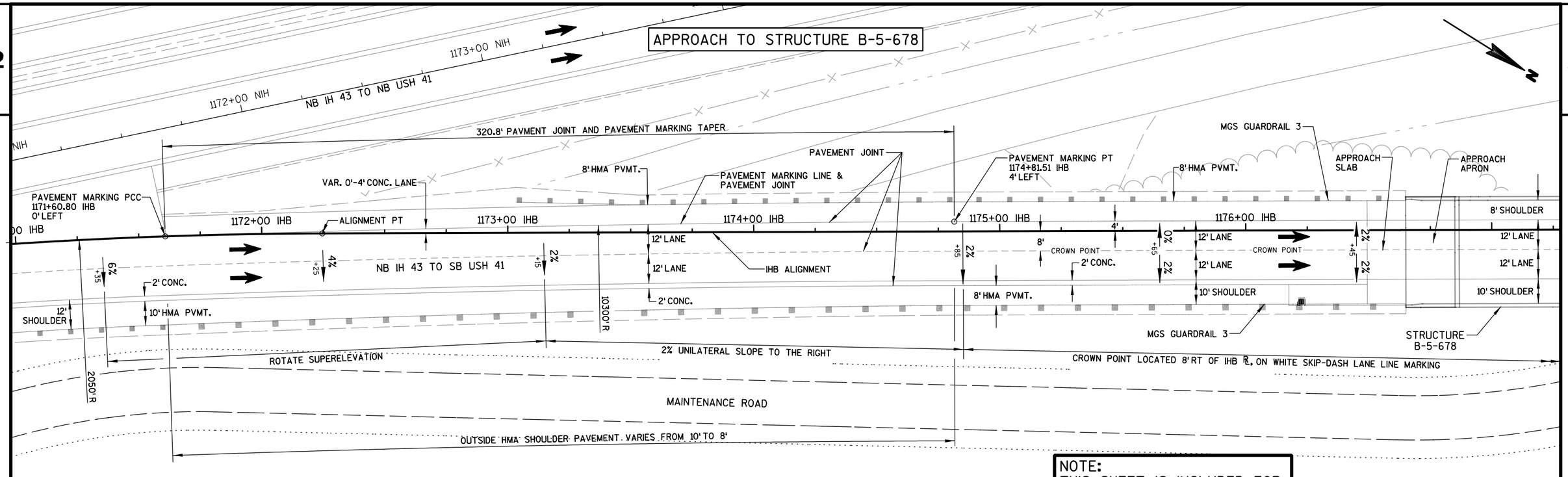


DETAIL FOR EARTHWORK MEASUREMENT AT FILL AREAS WITH RETAINING WALLS



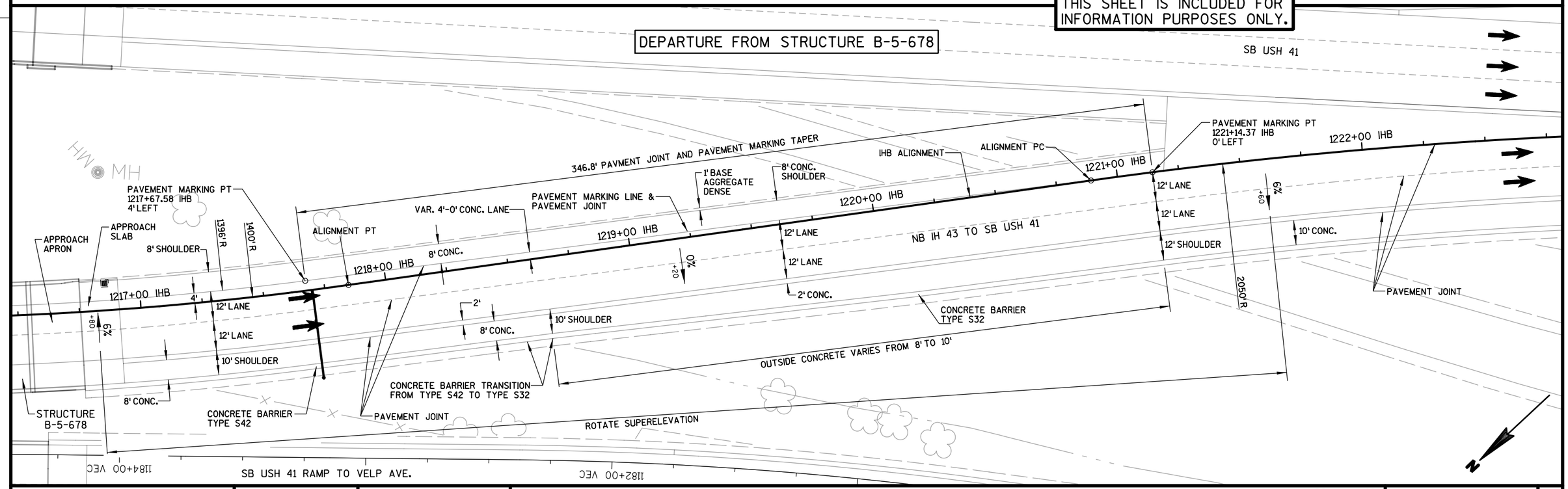
DETAIL FOR EARTHWORK MEASUREMENT AT FILL AREAS WITH STEPPED STRIP DRAINS

APPROACH TO STRUCTURE B-5-678



NOTE:
THIS SHEET IS INCLUDED FOR INFORMATION PURPOSES ONLY.

DEPARTURE FROM STRUCTURE B-5-678



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL - LANE MARKING OFFSET FOR STRUCTURE B-5-678	SCALE, FEET 0 20 40	SHEET 31	E

2

LEGEND

	REMOVING TREE BY INCH DIA.		REMOVING CURB & GUTTER
	CLEARING AND GRUBBING (ACRE)		REMOVING SIDEWALK
—×—	REMOVING FENCE		REMOVING INLETS
	REMOVING CONCRETE PAVEMENT		REMOVING MANHOLES
	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
××××××	REMOVING CULVERT PIPE	– – – – –	SLOPE INTERCEPTS
—RM—	REMOVING STORM SEWER		PHRAGMITES SOIL

BEGIN REMOVING FENCE
STA. 1172+85 NMC
386' RT.

CLEARING AND GRUBBING (0.33 AC.)

REMOVE EXISTING 24" RCCP

℄ SB USH 41 EXIT RAMP (VEC)

REMOVE SIDEWALK TO PROJECT
1133-11-75/86/ 10-80 REMOVAL

VELP AVE (CTH HS)

REMOVE SHOULDER

ABANDON EXISTING INLET

℄ NB USH 41 (NMC)

SALVAGE GUARDRAIL

CLEARING AND GRUBBING (0.23 AC.)

USH 41

℄ TEMPORARY RAMP (EVEA)

ABANDON INLETS
AND STORM SEWER / CULVERTS

℄ NB USH 41 - SB IH 43 (IHA)

BEGIN REMOVING FENCE
STA. 1167+93 EVEA
32' RT.

REMOVE FIELD
ENTRANCE

ROSEWOOD ST

BASKETBALL COURT

SALVAGE
CASTING

℄ TEMPORARY RAMP (EVEB)

SEE RAZE AND
REMOVAL PLAN

CLEARING AND GRUBBING (0.19 AC.)

END REMOVING FENCE
STA. 1173+64 EVEA
22' RT.

CAUTION

REMOVE EXISTING
SURFACE DRAIN

BEGIN REMOVING FENCE
STA. 1175+65 EVEB
240' RT.

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021101_rm.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

LEGEND

	REMOVING TREE BY INCH DIA.		REMOVING CURB & GUTTER
	CLEARING AND GRUBBING (ACRE)		REMOVING SIDEWALK
—×—	REMOVING FENCE		REMOVING INLETS
	REMOVING CONCRETE PAVEMENT		REMOVING MANHOLES
	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
	REMOVING CULVERT PIPE		SLOPE INTERCEPTS
RM	REMOVING STORM SEWER		PHRAGMITES SOIL

℄ SB USH 41 EXIT RAMP (VEC)

CLEARING AND GRUBBING (0.69 AC.)

CLEARING AND GRUBBING (0.03 AC.)

CLEARING AND GRUBBING (0.04 AC.)

℄ NB IH 43 - SB USH 41 (IHB)

MH TO BE ABANDONED BY OTHERS

CLEARING AND GRUBBING (0.33 AC.)

END REMOVING FENCE STA. 1192+59 NMC 202' LT.

END REMOVING FENCE STA. 1192+64 NMC 50' LT.

SALVAGE GUARDRAIL

BEGIN REMOVING FENCE STA. 1185+84 NMC 170' LT.

℄ NB USH 41 (NMC)

MH TO BE ABANDONED BY OTHERS

END REMOVING FENCE STA. 1184+56 NMC 163' LT.

ABANDON INLET, INSTALL COVER PLATE

SALVAGE GUARDRAIL

CLEARING AND GRUBBING (0.01 AC.)

END REMOVING FENCE STA. 1184+62 NMC 12' LT.

SALVAGE GUARDRAIL

CLEARING AND GRUBBING (1.22 AC.)

℄ TEMPORARY RAMP (EVEB)

USH 41

BEGIN REMOVING FENCE STA. 1185+91 NMC 18' LT.

MH'S TO BE ABANDONED BY OTHERS

CLEARING AND GRUBBING (0.06 AC.)

CLEARING ONLY (1.56 AC.)

SEE RAZE AND REMOVAL PLAN

MEMORIAL DR

REMOVE INLET AND ABANDON EXISTING STORM SEWER PIPE

WISCONSIN CENTRAL LTD. RAILROAD

℄ NB USH 41 - SB IH 43 (IHB)

CLEARING AND GRUBBING (0.06 AC.)

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021102_rm.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

IH 43

℄ NB IH 43 - SB USH 41 (IHB)

1168+00 IHB

1170+00 IHB

1172+00 IHB

1174+00 IHB

1176+00 IHB

1178+00 IHB

1180+00 IHB

174+00 TIHB

176+00 TIHB

178+00 TIHB

180+00 TIHB

ABANDON CULVERT PIPE

IH 43

BEGIN REMOVING FENCE
STA. 1166+73 IHB
74' RT.

68+00 HB

70+00 HB

℄ HURLBUT ST. (HB)

REMOVE RUBBISH PILE

CLEARING AND GRUBBING (0.14 AC.)

CLEARING AND GRUBBING (0.50 AC.)

CLEARING AND GRUBBING (1.50 AC.)

SIGN

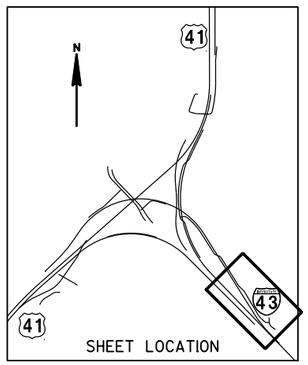
INL

HO

C

LEGEND

	REMOVING TREE BY INCH DIA.		REMOVING CURB & GUTTER
	CLEARING AND GRUBBING (ACRE)		REMOVING SIDEWALK
	REMOVING FENCE		REMOVING INLETS
	REMOVING CONCRETE PAVEMENT		REMOVING MANHOLES
	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
	REMOVING CULVERT PIPE		SLOPE INTERCEPTS
RM	REMOVING STORM SEWER		PHRAGMITES SOIL

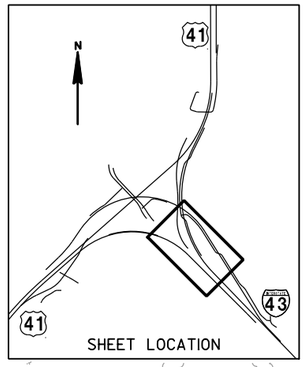


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET 34	E

2

LEGEND

REMOVING TREE BY INCH DIA.	REMOVING CURB & GUTTER
CLEARING AND GRUBBING (ACRE)	REMOVING SIDEWALK
REMOVING FENCE	REMOVING INLETS
REMOVING CONCRETE PAVEMENT	REMOVING MANHOLES
REMOVING ASPHALT PAVEMENT	SAWCUT
REMOVING CULVERT PIPE	SLOPE INTERCEPTS
RM REMOVING STORM SEWER	PHRAGMITES SOIL



WIETOR DRIVE

CLEARING ONLY (1.56 AC.)

BEGIN REMOVING FENCE
STA. 1197+20 IHA
103' RT.

SALVAGE GUARDRAIL
1197+15 TO 1197+75 IHA RT

CLEARING AND GRUBBING (0.10 AC.)

℄ NB USH 41 - SB IH 43 (IHA)

IH 43

REMOVE BARREL ARRAY AND
ASSOCIATED CONCRETE PAD

℄ TEMPORARY NB IH 43 - NB USH 41 (TNIH)

CLEARING AND GRUBBING (0.04 AC.)

RUBBISH PILE TO REMAIN. REMOVE
AS NECESSARY FOR CONSTRUCTION

℄ NB IH 43 - NB USH 41 (NIH)

CLEARING AND GRUBBING (1.50 AC.)

℄ NB IH 43 - SB USH 41 (IHB)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021104_rm.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

℄ NB USH 41 - SB IH 43 (IHA)

CLEARING ONLY (1.56 AC.)

REMOVE FIELD ENTRANCE

CLEARING AND GRUBBING (1.22 AC.)

℄ TEMPORARY WEITER DR. (TWT)

CLEARING AND GRUBBING (0.69 AC.)

CLEARING AND GRUBBING (0.04 AC.)

CLEARING AND GRUBBING (0.03 AC.)

END REMOVING FENCE
STA. 112+01 TWT
49' RT.

℄ TEMPORARY SB USH 41 - SB IH 43 (TSIH)

ABANDON INLET, INSTALL
COVER PLATE

CLEARING AND GRUBBING (0.22 AC.)

CLEARING ONLY
(0.14 AC.)

REMOVE GUARDRAIL

℄ NB IH 43 - SB USH 41 (IHB)

℄ TEMPORARY NB IH 43 - NB USH 41 (TNIH)

CLEARING AND GRUBBING (0.63 AC.)

SHEET LOCATION

LEGEND

X	REMOVING TREE BY INCH DIA.	▪▪▪▪▪▪▪▪▪▪▪▪	REMOVING CURB & GUTTER
▨	CLEARING AND GRUBBING (ACRE)	▒▒▒▒▒▒▒▒▒▒▒▒	REMOVING SIDEWALK
—×—	REMOVING FENCE	⋇	REMOVING INLETS
▨	REMOVING CONCRETE PAVEMENT	⋇	REMOVING MANHOLES
▨	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
×-×-×-×-×-×-×	REMOVING CULVERT PIPE	- - - - - - -	SLOPE INTERCEPTS
—RM—	REMOVING STORM SEWER	▨	PHRAGMITES SOIL

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021105_rm.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

2

USH 41

DUCK CREEK

USH 41

℄ TEMPORARY NB IH 43 - NB USH 41 (TNIH)

CLEARING AND GRUBBING (0.08 AC.)

END REMOVING FENCE
STA. 1213+01 NMC
116' LT.

℄ NB USH 41 (NMC)

1200+00 NMC
1202+00 NMC
1204+00 NMC
1206+00 NMC
1208+00 NMC
1210+00 NMC
1212+00 NMC
1214+00 NMC

116+00 TNIH
118+00 TNIH
120+00 TNIH
122+00 TNIH

1204+00 NIH
1206+00 NIH
1208+00 NIH
1210+00 NIH
1212+00 NIH
1214+00 NIH

114+00 TNIH
112+00 TNIH
110+00 TNIH

CLEARING AND GRUBBING (0.60 AC.)

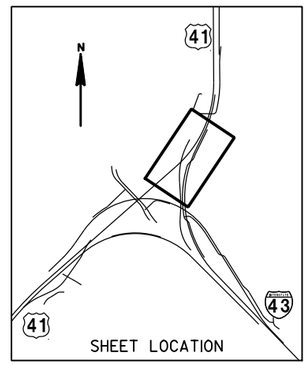
CLEARING AND GRUBBING (0.12 AC.)

℄ NB IH 43 - NB USH 41 (NIH)

CLEARING AND GRUBBING (0.81 AC.)

LEGEND

X	REMOVING TREE BY INCH DIA.		REMOVING CURB & GUTTER
	CLEARING AND GRUBBING (ACRE)		REMOVING SIDEWALK
—X—	REMOVING FENCE		REMOVING INLETS
	REMOVING CONCRETE PAVEMENT		REMOVING MANHOLES
	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
	REMOVING CULVERT PIPE		SLOPE INTERCEPTS
—RM—	REMOVING STORM SEWER		PHRAGMITES SOIL



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021106_rm.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

2

DUCK CREEK

USH 41

SIGN

OH

INL

BEGIN REMOVING FENCE
STA. 1215+62 NMC
102'LT.

END REMOVING FENCE
STA. 1219+45 NMC
6'LT.

BEGIN REMOVING FENCE
STA. 1220+00 NMC
20'LT.

℄ NB USH 41 (NMC)

℄ SHARED USE PATH (BP1)

CLEARING AND GRUBBING (0.71 AC.)

10+00 BP1

12+00 BP1

8+00 BP1

14+00 BP1

16+00 BP1

18+00 BP1

20+00 BP1

22+00 BP1

24+00 BP1

26+00 BP1

28+00 BP1

1214+00 NMC

1216+00 NMC

1218+00 NMC

1220+00 NMC

1222+00 NMC

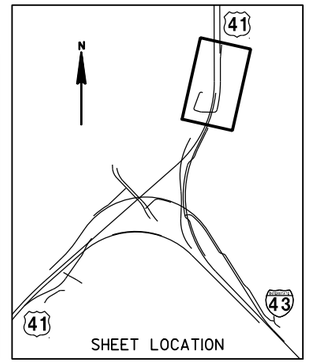
1224+00 NMC

1226+00 NMC

1228+00 NMC

LEGEND

X	REMOVING TREE BY INCH DIA.	▪▪▪▪▪▪▪▪▪▪▪▪	REMOVING CURB & GUTTER
▨	CLEARING AND GRUBBING (ACRE)	▩▩▩▩▩▩▩▩▩▩	REMOVING SIDEWALK
—x—	REMOVING FENCE	⊠	REMOVING INLETS
▭	REMOVING CONCRETE PAVEMENT	⊗	REMOVING MANHOLES
▨	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
×-×-×-×-×	REMOVING CULVERT PIPE	- - - - - -	SLOPE INTERCEPTS
—RM—	REMOVING STORM SEWER	▨	PHRAGMITES SOIL



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET 38	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021107_rm.dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

WEST DEERFIELD AVE.

USH 41

1228+00 NMC
1230+00 NMC
1232+00 NMC
1234+00 NMC
1236+00 NMC
1238+00 NMC
1240+00 NMC
1242+00 NMC

℄ NB USH 41 (NMC)

END REMOVING FENCE
STA. 1235+01 NMC
49' RT.

28+00 EDR
30+00 EDR
32+00 EDR
34+00 EDR
36+00 EDR

28+00 BP1

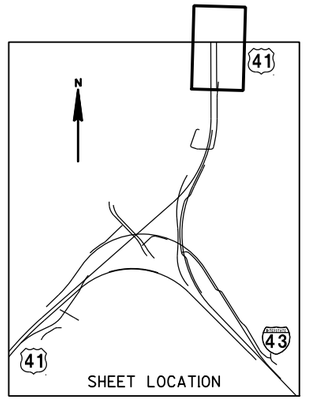
℄ SHARED USE PATH (BP1)

℄ EAST DEERFIELD AVE. (EDR)

SIGN
OH
INL

LEGEND

X	REMOVING TREE BY INCH DIA.		REMOVING CURB & GUTTER
	CLEARING AND GRUBBING (ACRE)		REMOVING SIDEWALK
—×—	REMOVING FENCE		REMOVING INLETS
	REMOVING CONCRETE PAVEMENT		REMOVING MANHOLES
	REMOVING ASPHALT PAVEMENT	XXXXX	SAWCUT
	REMOVING CULVERT PIPE	– – – – – –	SLOPE INTERCEPTS
—RM—	REMOVING STORM SEWER		PHRAGMITES SOIL



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET 39	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021108_rm.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

TEMPORARY LONG-TERM USH 41 ON-RAMP

1178+00 EVEB

1179+00 EVEB

1180+00 EVEB

1180+00 IHA

1181+00 EVEB

1182+00 EVEB

NB USH 41

1178+00 VEB

1179+00 VEB

1180+00 VEB

1181+00 IHA

1181+00 VEB

PROPOSED STRUCTURE B-05-671

1182+00 VEB

1182+00 IHA

1183+00 VEB

1183+00 IHA

1184+00 IHA

SIGN-TO BE REMOVED BY OTHERS

REMOVE BUILDING

DITCH TO DRAIN

EXISTING PAVEMENT TO REMAIN

MEMORIAL DR

LIGHT POLES-TO BE REMOVED BY OTHERS

NOTE:

TOPSOIL, FERTILIZE, SEED AND MULCH AFTER SITE IS CLEARED.

SEE EROSION CONTROL AND DRAINAGE PLAN FOR LOCATION OF EROSION CONTROL DEVICES.

LEGEND

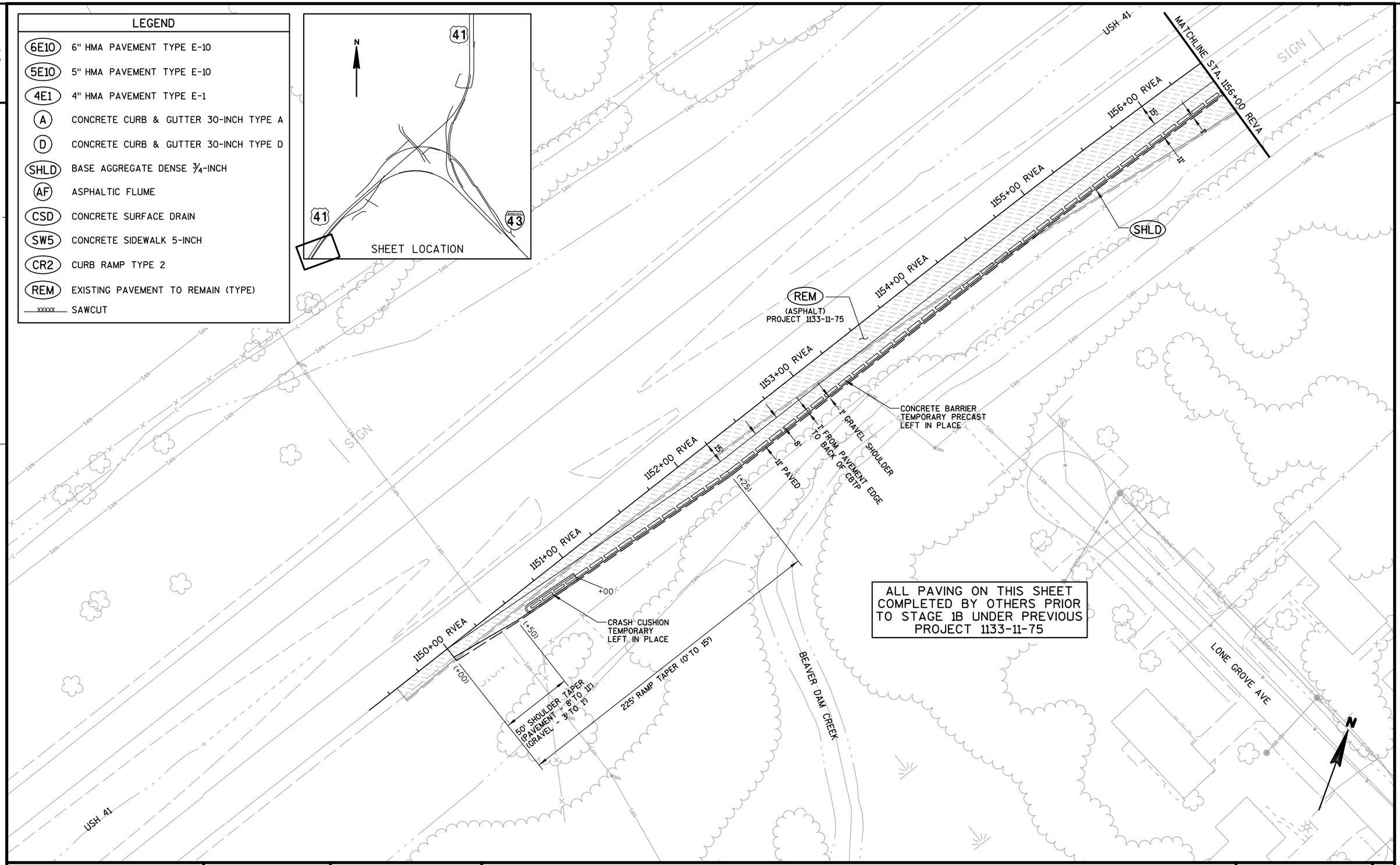
- SITE CLEARANCE AREA
- XXXXX SAWCUT
- ROADWAY SLOPE INTERCEPTS

41 43

SHEET LOCATION

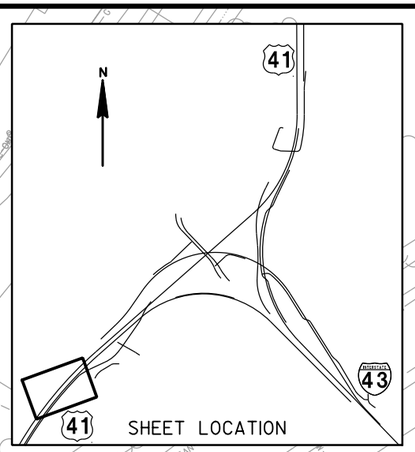
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	RAZE AND REMOVAL PLAN	SHEET 40	E

LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41 OFF-RAMP (RVEA)	SCALE, FEET 0 30 60	SHEET 41	E

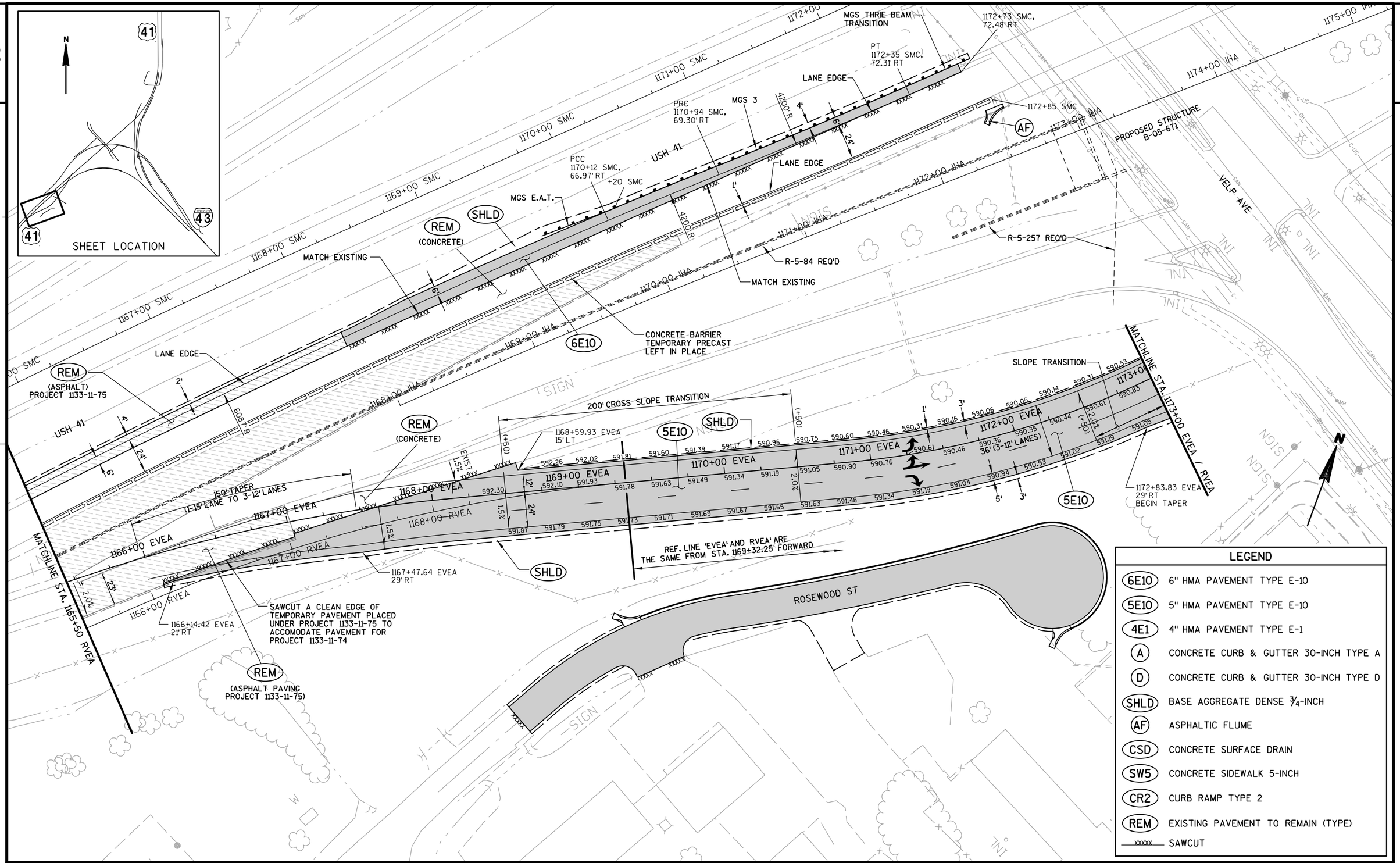
LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



1164+00 SMC
1163+00 SMC
1162+00 SMC
1161+00 SMC
1160+00 SMC
1159+00 SMC
1158+00 SMC
1157+00 SMC
REM (ASPHALT) PROJECT 1133-11-75
USH 41
R-05-84
6087' RT
4'
2'
24'
6'
MATCHLINE STA. 1165+50 RVEA
1' 1.5%
15'
2.8%
24' CLEAR
8'
11' PAVED
1' FROM PAVEMENT EDGE TO BACK OF CBTP
50' CROSS SLOPE TRANSITION
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
1165+00 RVEA
1164+00 RVEA
5E10
1163+00 RVEA
2.8%
2%
1162+00 RVEA
PCC 1162+43 SMC, 73.05' RT
1162+25 RVEA 99.08' RT
LANE EDGE
52'
PC 1160+15 SMC, 79.68' RT
3000' R
15:1 TAPER
15:1 TAPER
SHLD
SAWCUT A CLEAN EDGE OF TEMPORARY PAVEMENT PLACED UNDER PROJECT 1133-11-75 TO ACCOMODATE PAVEMENT FOR PROJECT 1133-11-74
± 1161+05.63 RVEA 26.0' RT
1161+61 RVEA 1.00' LT
1160+60 RVEA 7.5' LT
1160+35 RVEA 6.0' LT
BEGIN TANGENT 1158+29 SMC, 85.70' RT
1159+00 RVEA
1158+00 RVEA
1157+00 RVEA
EXTRA WIDE TEMPORARY CRASH CUSHION LEFT IN PLACE
REM (ASPHALT) PROJECT 1133-11-75
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
MATCHLINE STA. 1156+00 RVEA
BEAVER DAM CREEK
BASKETBALL COURT
PLAYGROUND
ROSEWOOD ST
N

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41 OFF-RAMP (RVEA - CONSTRUCTED STAGE 1B)	SCALE, FEET 0 30 60	SHEET 42	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021202_pd (RVEA).dgn
PLOT BY : kk226
PLOT DATE : 5/31/2013
PLOT SCALE : 1:60
WISDOT/CADDS SHEET 42



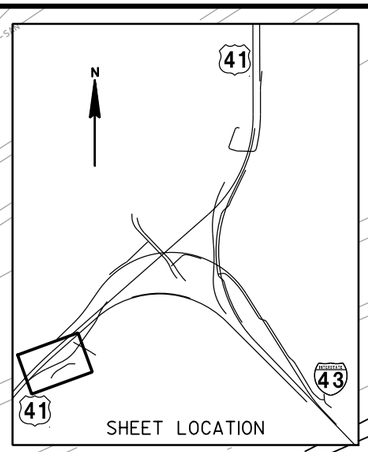
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41 OFF-RAMP (EVEA - CONSTRUCTED STAGE 1A)	SCALE, FEET 0 30 60	SHEET 43	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021203_pd (EVEA-RVEA).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



SEE PREVIOUS SHEET FOR NOTES DEFINING THIS AREA

USH 41

PROPOSED STRUCTURE B-05-671

VELP AVE

ROSEWOOD ST

R-5-84 REQ'D

R-5-257 REQ'D

1174+00 IHA

1173+00 IHA

1172+00 IHA

1171+00 IHA

1170+00 IHA

1169+00 IHA

1168+00 IHA

200+00 EVEN

AF

REM
5" HMA PAVEMENT
TYPE E-10

SHLD

SLOPE TRANSITION

MATCHLINE STA. 1173+00 EVEA / RVEA

1172+00 RVEA

1171+00 RVEA

1170+00 RVEA

1169+00 RVEA

1168+00 RVEA

1167+00 RVEA

1166+00 RVEA

± 1168+43 RVEA
15' LT

150' TAPER
(1-15' LANE TO 3-12' LANES

1168+00 EVEA

1167+00 EVEA

1166+00 EVEA

36' (3-12' LANES)

1' 3' 5' 3'

2.0%

(+50)

592.26 592.08 591.92 591.73 591.72 591.72

1169+32 RVEA
29' RT

PAVEMENT DOES NOT CHANGE FROM 'EVEA' ALIGNMENT (STAGE 1)

REF. LINE 'EVEA' AND 'RVEA' ARE THE SAME FROM STA. 1169+32.25 FORWARD

1167+50 RVEA
35' RT

1166+00 RVEA
26' RT

MATCHLINE STA. 1165+50 RVEA

15' 24' 15'

1.5%

11' PAVED

1'

5E10

REM
(ASPHALT PAVING
PROJECT 1133-11-75)

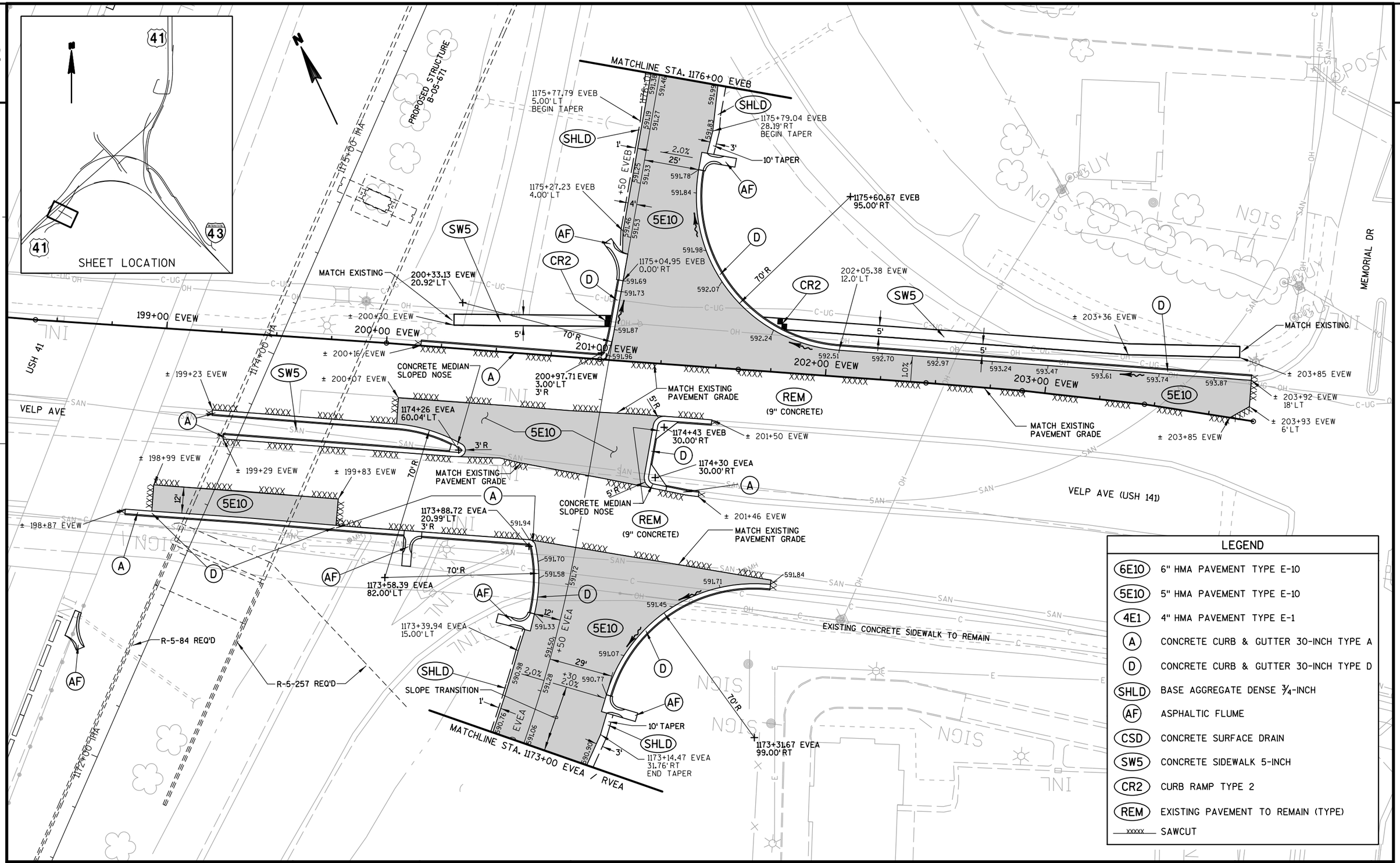
SIGN

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41 OFF-RAMP (RVEA - CONSTRUCTED STAGE 1B)	SCALE, FEET 0 30 60	SHEET 44	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021204_pd (RVEA - EVEA).dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42



LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - VELP AVE AND NB USH 41 RAMP TERM	SCALE, FEET 0 20 40	SHEET 45	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021205_pd (EVEW).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

2

N

5E10
REMOVE AND REPLACE PAVEMENT 10' ON EACH SIDE OF NEW 18" CULVERT PIPE

5E10
MATCH EXISTING
CLASS A E.A.T.
CLASS A BEAM GUARD
SHLD
1175+00 SMC
1176+00 SMC
1177+00 SMC
1178+00 SMC
1179+00 SMC
1180+00 SMC
1181+00 SMC
1182+00
+51 SMC
+66 SMC
1'
6'

USH 41 / USH 141
1180+41 SMC
1179+66 SMC
1'
7'
3'
6'
5E10
MGS 3
SHLD
MGS E.A.T.
MATCH EXISTING
1183+00 EVEB
1182+00 EVEB
1181+00 EVEB
MATCHLINE STA. 1183+50 EVEB
5E10
REM
(CONCRETE)
4.0%
MATCH EXISTING
1.5%
1.5%
1183+00 IHA
1182+00 IHA
1181+00 IHA
± 1180+25 EVEB
1179+81.27 EVEB
5.00' LT
1179+36 EVEB
1180+00 EVEB
5E10
(+64)
BRIDGE PIER (TYP)
MGS ANCHORAGE TYPE 2
1179+00 IHA
20'± MIN. VERTICAL CLEARANCE TO BRIDGE PIER CAP
2.0%
MGS GUARDRAIL 3
1178+00 IHA
1178+00 EVEB
(+80)
MGS 3
84' CROSS SLOPE TRANSITION (50 MPH)
1177+00 IHA
1176+00 IHA
1175+00 IHA
199+00 EVEW
200+00 EVEW
PROPOSED STRUCTURE B-05-671
1177+33 EVEB
SHLD
MGS E.A.T.
1177+00 EVEB
1175+83.03 EVEB
12.00' LT
2.0%
1177+11 EVEB
SHLD
CLASS A BEAM GUARD
4'
15'
8'
4'
MATCHLINE STA. 1176+00 EVEB
EVEB
5E10
MGS E.A.T.
1176+61.15 EVEB
31.00' RT
1176+60.92 EVEB
23.00' RT
END TAPER
100' LANE TAPER (25' TO 15')
VELP AVE (USH 141)
MEMORIAL DR

SHEET LOCATION
41
43
N

LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41 & NB USH 41 ON-RAMP (EVEB)	SCALE, FEET 0 30 60	SHEET 46	E

2

2

SB USH 41

NB USH 41

MATCHLINE STA. 1183+50 EVEB

MATCHLINE STA. 88+75 NBC

MATCHLINE

MGS 3

5E10

SHLD

MGS THRIE BEAM TRANSITION

MILL AND OVERLAY AND BUTT JOINT FOR CONCRETE APPROACH SLABS ON USH 41 SHOULDERS (SEE DETAIL)

AF

4.0%

MATCH EXISTING

84+00 NBC

85+00 NBC

86+00 NBC

87+00 NBC

88+00 NBC

1184+00 EVEB

1185+00 EVEB

SEE BUTT JOINT DETAIL

REM

ASPHALT OVERLAY

6'

4'

3'

3' MILL AND OVERLAY JOINT (SEE DETAIL)

1.5'

8'

MILL JOINT 18" BEYOND SHOULDER. OVERLAY WITH SURFACE LAYER OF SHOULDER REPLACEMENT.

REM (CONCRETE)

WISCONSIN CENTRAL LTD RR

1183+00 IHA

1184+00 IHA

1185+00

PROPOSED STRUCTURE B-05-671

SIGN

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

N

41

43

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41	SCALE, FEET 0 20 40	SHEET 47	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021207_pd (NB USH 41).dgn

PLOT BY : kk226

PLOT DATE : 5/31/2013

PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

SB USH 41

STRUCTURE B-05-678

107+00

106+00 TWT

105+00 TWT

104+00 TWT

STRUCTURE B-05-677

WIETOR DR

MATCHLINE STA. 94+25 NBC

MATCHLINE STA. 88+75 NBC

NB USH 41

89+00 NBC

90+00 NBC

91+00 NBC

92+00 NBC

93+00 NBC

94+00 NBC

EXISTING SIGN STRUCTURE

MGS 3 QS

91+27 NBC

91+82 NBC

25'

25'

SHLD

5E10

MGS 3

MGS THRIE BEAM TRANSITION

MILL AND OVERLAY AND BUTT JOINT FOR CONCRETE APPROACH SLABS ON USH 41 SHOULDERS (SEE DETAIL)

6'

4'

REM

ASPHALT OVERLAY

MATCH EXISTING

MILL AND OVERLAY JOINT (SEE DETAIL)

3'

1.5'

8'

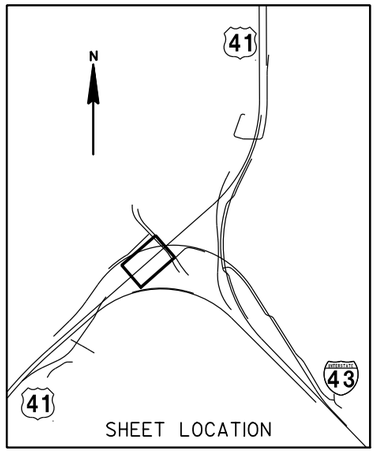
4'

SEE BUTT JOINT DETAIL

MILL JOINT 18" BEYOND SHOULDER. OVERLAY WITH SURFACE LAYER OF SHOULDER REPLACEMENT.

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41	SCALE, FEET 0 20 40	SHEET 48	E

2

WIETOR DR

107+00 HSL

106+00 HSL

105+00 HSL

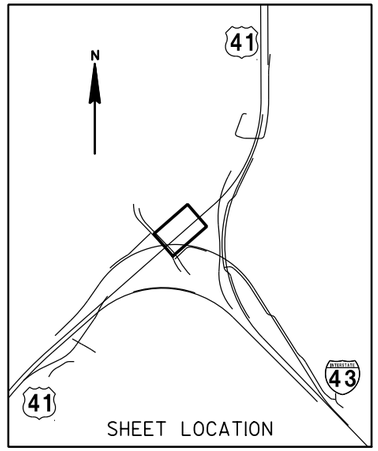
104+00 HSL

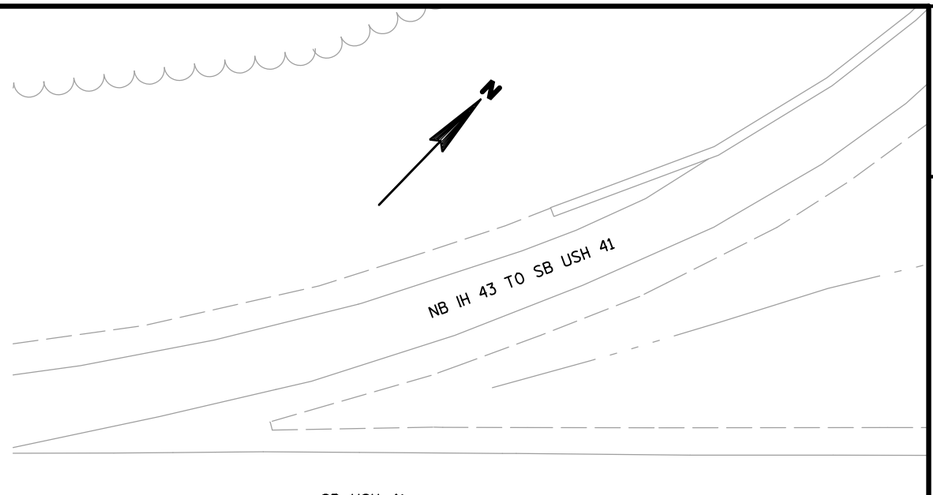
SB USH 41 TO SB IH 43

NB IH 43 TO SB USH 41

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT





MILL AND OVERLAY AND BUTT JOINT FOR CONCRETE APPROACH SLABS ON USH 41 SHOULDERS (SEE DETAIL)

AF

5E10

SHLD

1'

6'

MATCHLINE STA. 100+00 NBC

NB USH 41

REM ASPHALT OVERLAY

96+00 NBC 3'

MILL AND OVERLAY JOINT (SEE DETAIL)

MATCH EXISTING

97+00 NBC

97+00 NBF

98+00 NBC

99+00 NBC

+76 NBC

95+00 NBC

SEE BUTT JOINT DETAIL

1.5'

4%

8'

4'

605.09 604.83 604.50 604.11 603.85 603.67 603.39 603.03 602.82 602.49 602.19 601.59 601.06 601.34

605.03 604.77 604.59 604.36 604.00 603.64 603.30 603.03 602.66

98+00 NBF

99+00 NBF

100+00 NBF

15'

10'

5'

MGS E.A.T.

+82 NBF

MATCH EXISTING

TYPE A E.A.T.

MATCHLINE STA. 94+25 NBC

MILL AND OVERLAY AND BUTT JOINT FOR CONCRETE APPROACH SLABS ON USH 41 SHOULDERS (SEE DETAIL)

MGS THRIE BEAM TRANSITION

MUDJACKING FOR VOIDS - BRIDGE SHOULDER CONCRETE APPROACH SLAB

BUTT JOINT SEE DETAIL

MILL JOINT 18" BEYOND SHOULDER. OVERLAY WITH SURFACE LAYER OF SHOULDER REPLACEMENT.

+80 NBF

MGS 3

FLATTEN CROSS SLOPE ON RAMP TO 4%

+50 NBF

8%

MGS TYPE 2 ANCHORAGE

100' CROSS SLOPE TRANSITION FROM 4% TO 8%

REPLACE EXISTING ASPHALT OVERLAY

EXISTING CURB & GUTTER TO REMAIN

BUTT JOINT SEE DETAIL

NB USH 41 TO SB IH 43

STRUCTURE B-05-677

STRUCTURE B-05-678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41	SCALE, FEET 0 20 40	SHEET 49	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021209_pd (NB USH 41).dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

NB IH 43 TO SB USH 41

SB USH 41 TO SB IH 43

N

SIGN

1200+00 SMC | 1201+00 SMC | 1202+00 SMC | 1203+00 SMC | 1204+00 SMC | 1205+00 SMC | 1206+00 SMC

SB USH 41

+52 SMC — MATCH EXISTING — +55 SMC — MATCH EXISTING

6"

1"

5E10

SHLD

INL

106+00 | 105+00 NBC | 104+00 NBC | 103+00 NBC | 102+00 NBC | 101+00 NBC | 0 NBC

MATCHLINE STA. 100+00 NBC

NB USH 41

5E10

MATCH EXISTING

+52 NBC

MATCH EXISTING

+30.6 NBC

10' CLEAR

1203+53 NMC

4'

2.5'

MGS 3

+55.8 NBC

MGS K

SHLD

MGS K

MGS TYPE 2 ANCHORAGE

25'

25' SHOULDER TAPER (4' TO 2.5')

MGS E.A.T.

TYPE A E.A.T.

NB USH 41 TO SB IH 43

1200+00 NMC | 1201+00 NMC | 1202+00 NMC | 1203+00 NMC

STRUCTURE B-05-681

N

41

43

SHEET LOCATION

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - USH 41	SCALE, FEET 0 20 40	SHEET 50	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021210_pd (USH 41).dgn | PLOT BY : kk226 | PLOT DATE : 5/31/2013 | PLOT SCALE : 1:40

2

WEST DEERFIELD AVE

SB USH 41

NB USH 41

SHARED USE PATH

EAST DEERFIELD AVE

MGS THRIE BEAM TRANSITION

MGS 3

MGS TYPE 2 ANCHORAGE

1220+88 SMC
88.44' RT

PROPOSED STRUCTURE
B-05-681

SHLD

REM

EQNBK BP23+50.92
EQNHD BP23+50.00

10+00 BP1

12+00 BP1

8+00 BP1

16+00 BP1

18+00 BP1

20+00 BP1

22+00 BP1

24+00 BP1

26+00 BP1

28+00 BP1

1216+00 SMC

1218+00 SMC

1220+00 SMC

1222+00 SMC

1224+00 SMC

a1228+00 SMC

a1230+00 SMC

1216+00 NMC

1218+00 NMC

1220+00 NMC

1222+00 NMC

1224+00 NMC

1226+00 NMC

1228+00 NMC

1230+00 NMC

GRADING AND PLACEMENT OF 4" BASE AGGREGATE DENSE 1¼-INCH COMPLETED UNDER THIS PROJECT. PAVING OF SHARED USE PATH COMPLETED BY OTHERS UNDER A FUTURE PROJECT

GRADING AND PLACEMENT OF 6" BASE AGGREGATE DENSE 1¼-INCH COMPLETED UNDER THIS PROJECT. PAVING OF EAST DEERFIELD AVE CUL-DE-SAC COMPLETED UNDER A FUTURE PROJECT.

29+50.21 EDR
55.00' RT

28+65.00 EDR
33.00' RT

49' R

39' R

2%

2%

1.5%

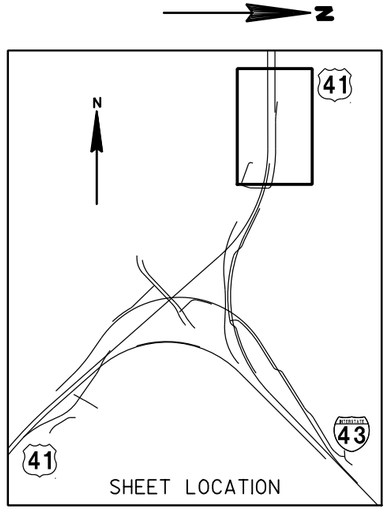
+65

+75

✳ - MEASUREMENT TO EDGE OF GRADING FOR SHOULDER

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

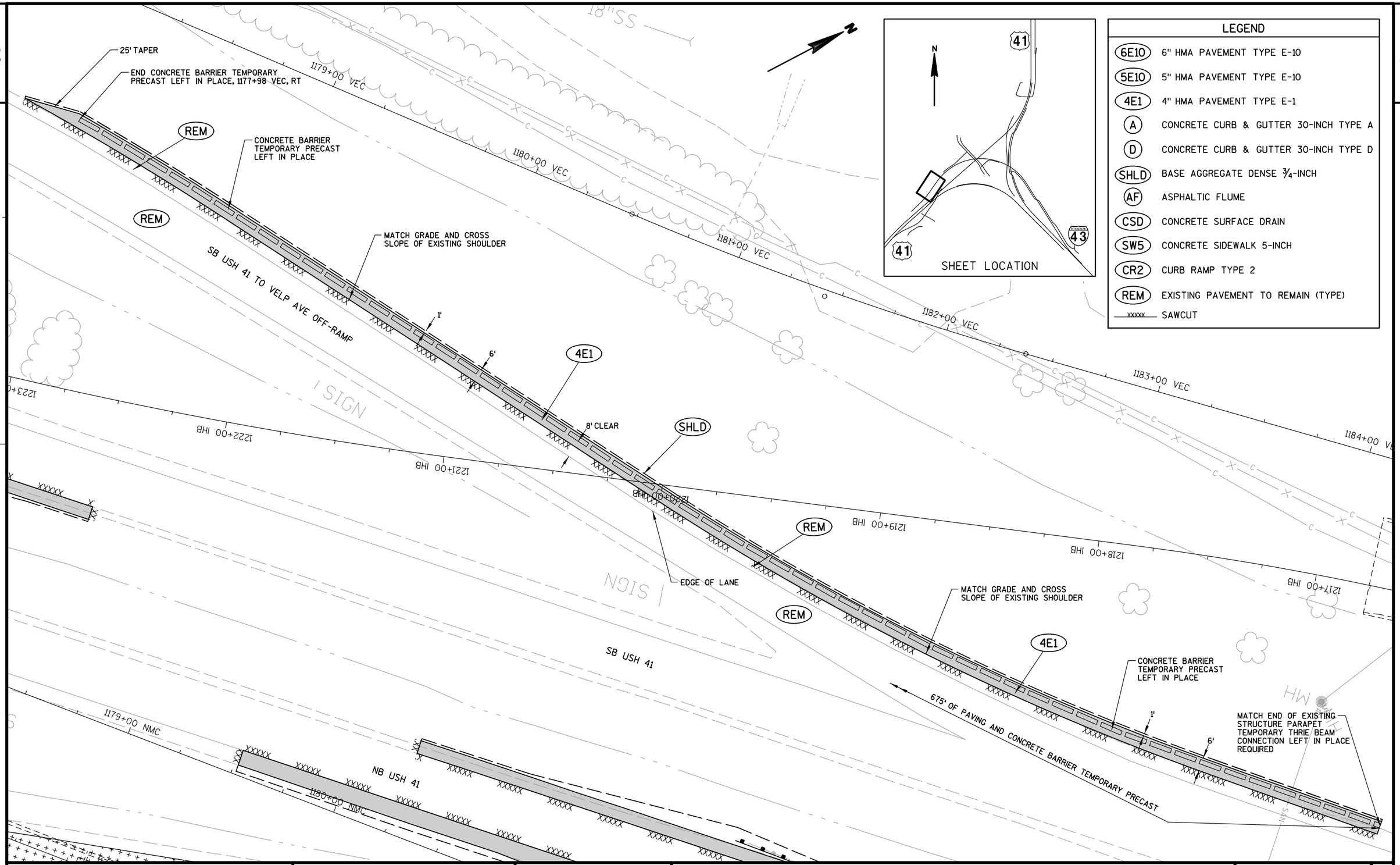


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS- NB USH 41 & EAST DEERFIELD AVE (EDR)	SCALE, FEET 0 50 100	SHEET 51	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021211_pd (EDR).dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

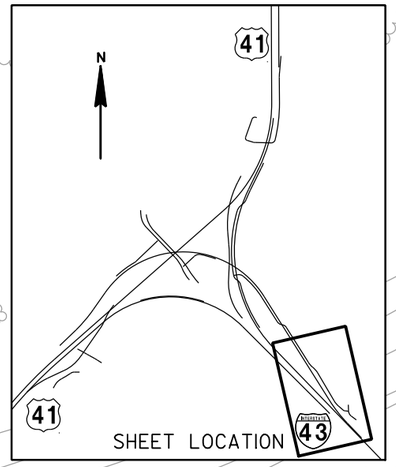
2



LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - SB USH 41 & OFF RAMP (VEC) SCALE, FEET 0 20 40	SHEET 52	E

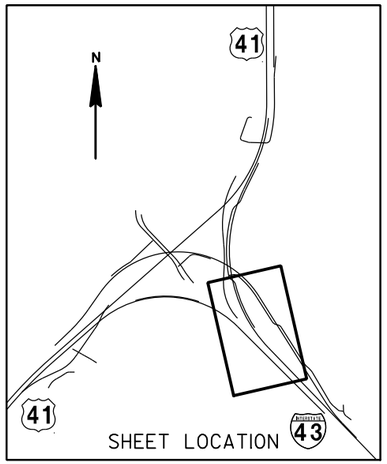
LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



WIETOR DR
SB IH 43
NB IH 43
HURLBUT ST
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
6E10
SHLD
MATCHLINE STA 180+00 TIHB
180+0
178+00 TIHB
178+00 NIH
R-05-256
MATCH EXISTING PAVEMENT EDGE
+50 TIHB
176+00 TIHB
15:1 TAPER (11' TO 1')
CRASH CUSHION TEMPORARY LEFT IN PLACE
174+00 TIHB
174+00 NIH
MATCH EXISTING
1176+00 IHB
1174+00 IHB
1172+00 NIH
1172+00 IHB
1170+00 NIH
1170+00 IHB
1168+00 NIH
1168+00 IHB
1166+00 NIH
1166+00 IHB
PROPOSED STRUCTURE B-05-678
1182+00 NIH
1182+00 IHB
1180+00 IHB
1178+00 IHB
82+00
80+00 MR1
78+00 MR1
76+00 MR1
74+00 MR1
72+00 MR1
70+00 MR1
69+17.16 HB
0.00' RT
49' R
70+00 HB
68+00 HB
68+21.42 HB
55.00' RT
39' R
REM
GRADING AND PLACEMENT OF 6" OF BASE AGGREGATE DENSE 1¼-INCH COMPLETED UNDER THIS PROJECT. PAVING OF HURLBUT ST CUL-DE-SAC COMPLETED BY OTHERS UNDER A FUTURE PROJECT.
✳ - MEASUREMENT TO EDGE OF GRADING FOR SHOULDER

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB IH 43 (TIHB) & HURLBUT ST. (HB) SCALE, FEET 0 50 100	SHEET 53	E

LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



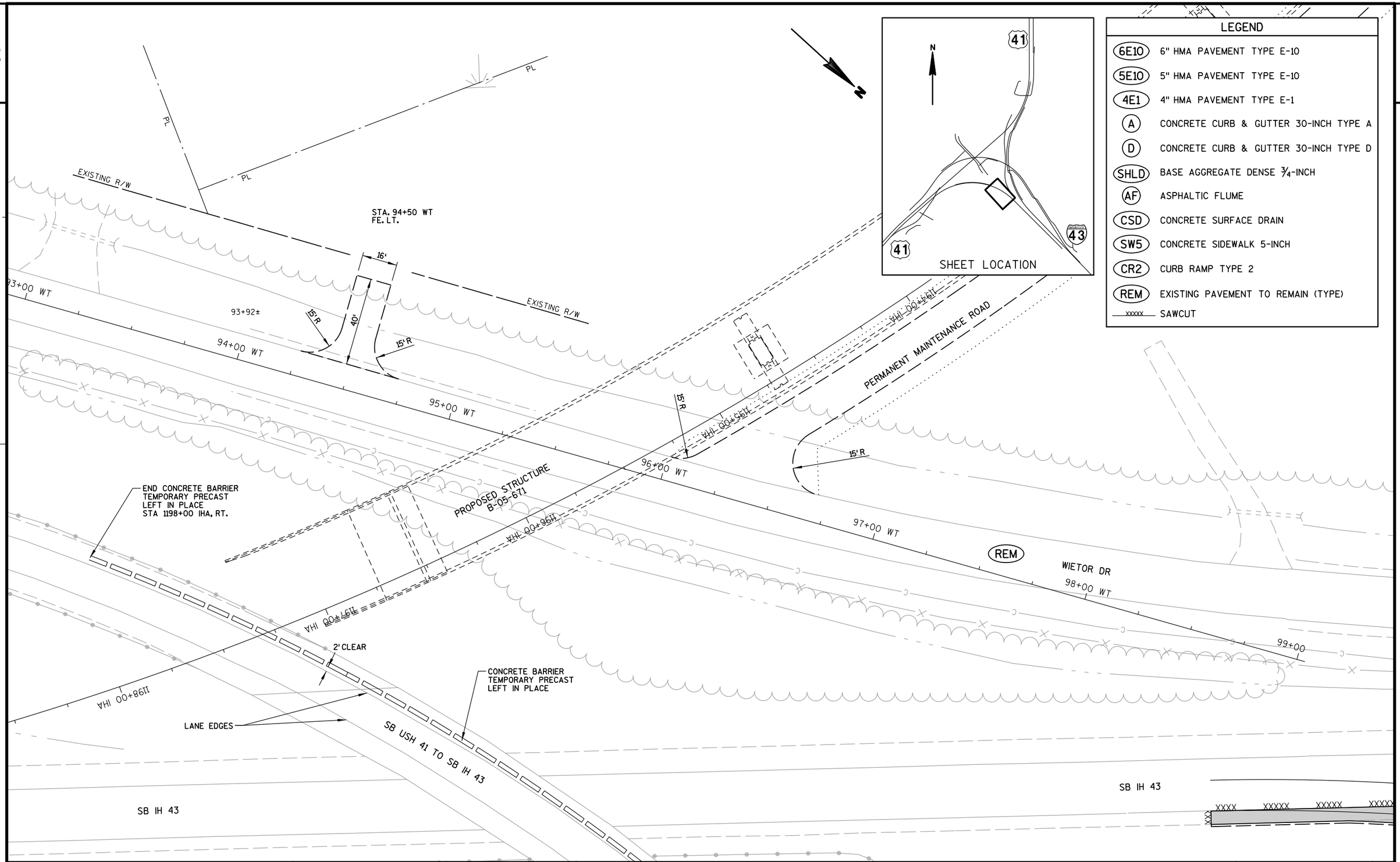
NB USH 41 TO SB IH 43
WIETOR DR
HURLBUT ST
NB IH 43
SB IH 43
CRASH CUSHION TEMPORARY LEFT IN PLACE
EXSITING SIGN STRUCTURE
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
MATCH EXISTING
MATCH EXISTING
MATCHLINE STA 180+00 TIHB
R-05-256
PROPOSED STRUCTURE B-05-679
PROPOSED STRUCTURE B-05-678
6E10
SHLD
102+00 TNIH
104+00 TNIH
1188+00 NIH
1190+00 NIH
1192+00 NIH
1194+00 NIH
188+00 TIHB
186+00 TIHB
184+00 TIHB
182+00 TIHB
180+00 TIHB
1186+00 NIH
1184+00 NIH
1182+00 NIH
1180+00 NIH
1186+00 NIB
1184+00 NIB
1182+00 NIB
1180+00 NIB
+00
+57
+38
3'
12'
1'
18'
6'
SIGN
HO
N

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB IH 43 (TIHB) SCALE, FEET 0 50 100	SHEET 54	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021214_pd (TIHB).dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

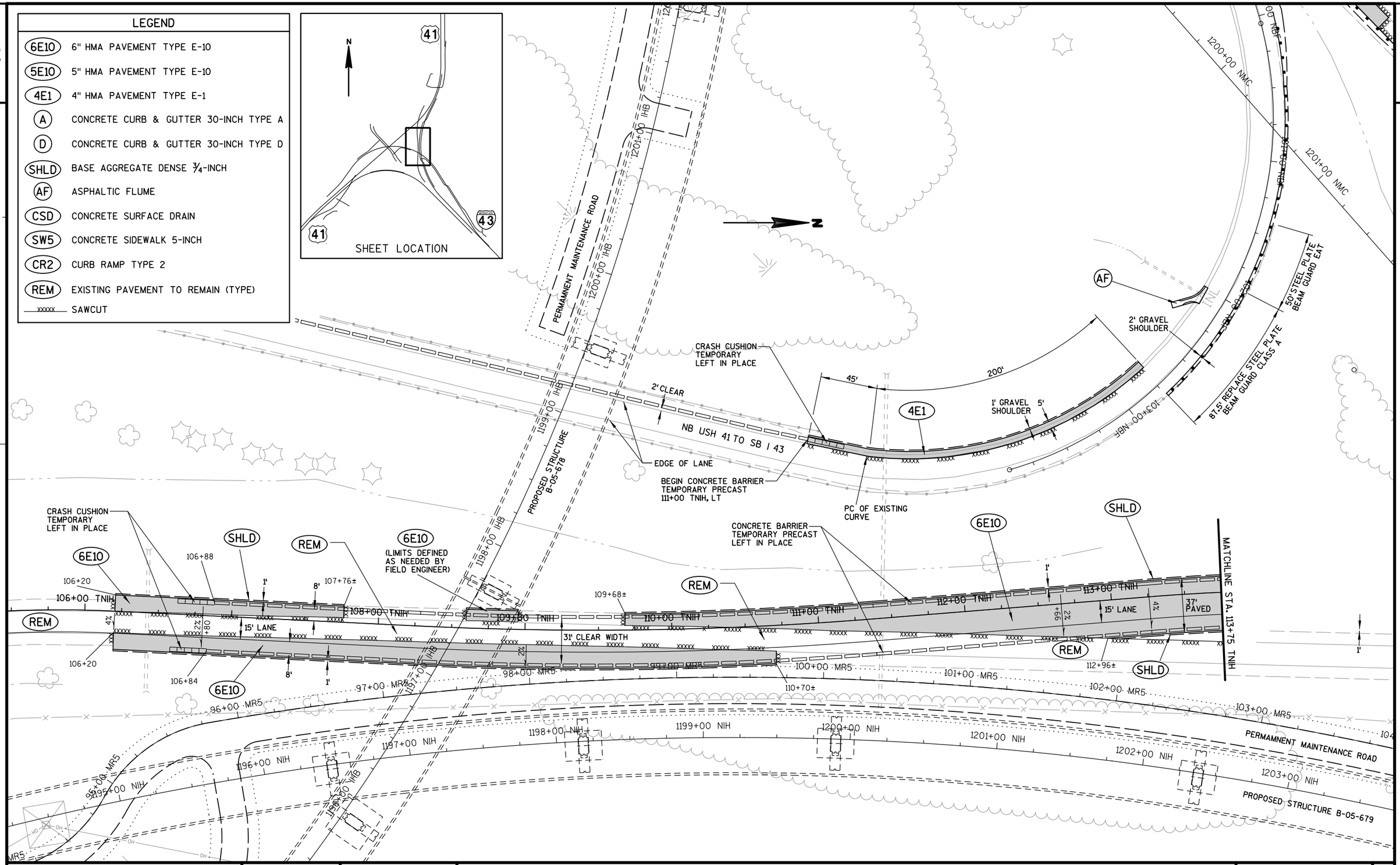
2



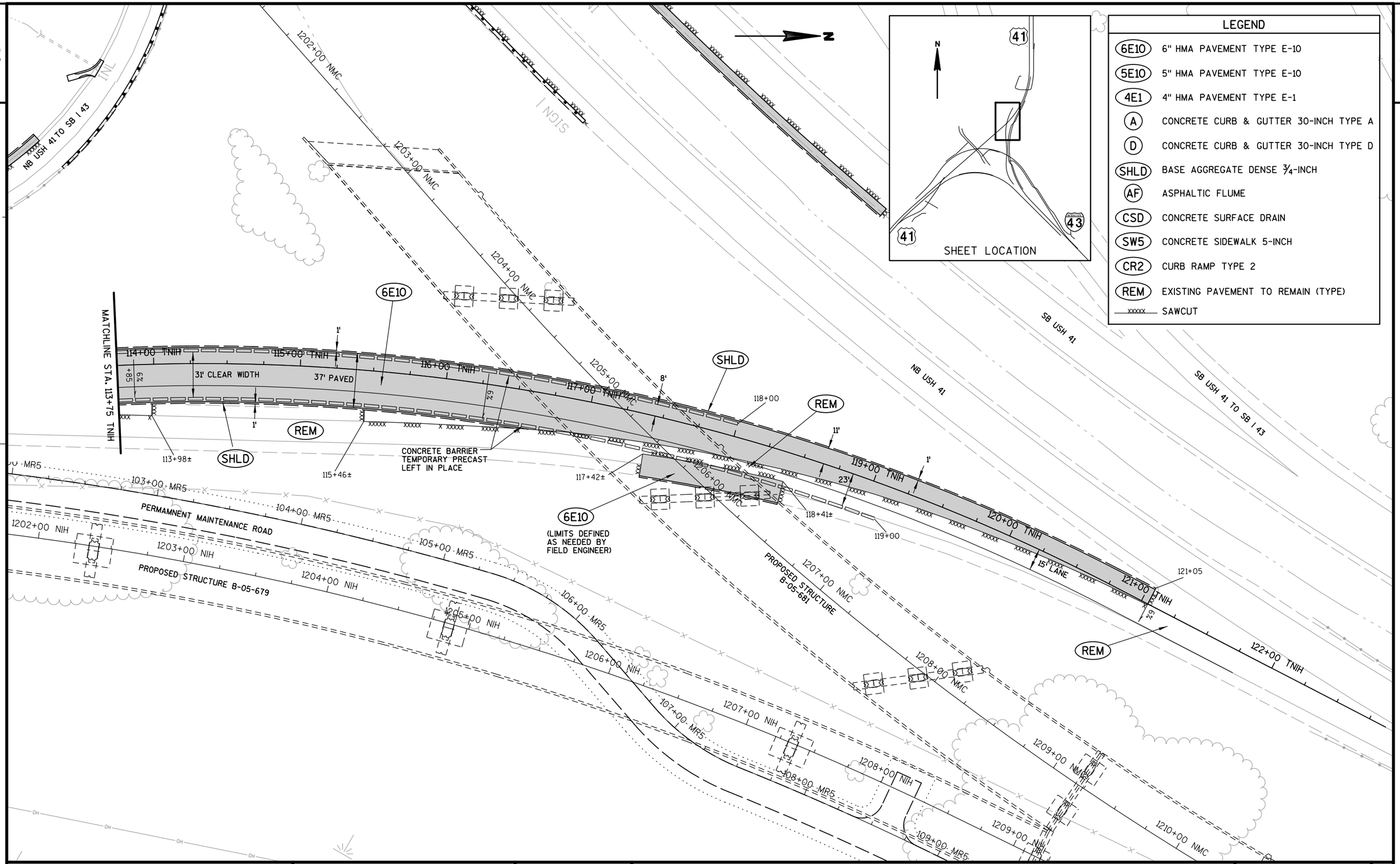
LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB USH 41 TO SB IH 43 & WIETOR DR (WT) SCALE, FEET 0 20 40	SHEET 55	E

LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB IH 43 TO NB USH 41 (TNIH) & NB USH 41 TO SB IH 43	SCALE, FEET 0 30 60	SHEET 56	E



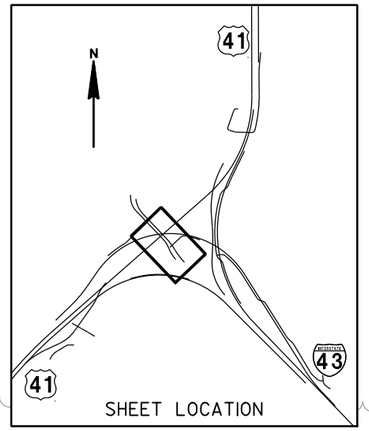
LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - NB IH 43 TO NB USH 41 (TNIH)	SCALE, FEET 0 30 60	SHEET 57	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021217_pd (TNIH).dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



2

2

100+00 TWT
101+00 TWT
102+00 TWT
103+00 TWT
104+00 TWT
105+00 TWT
WIETOR DR
PROPOSED STRUCTURE B-05-0677
119+00 NMC
119+50 NMC
119+00 NMC
119+50 NMC
120+00 NMC
120+00 IHB
120+50 IHB
120+50 IHB
120+50 IHB
120+50 IHB
120+50 IHB
NB USH 41
SIGN
INL
REM
MATCH EXISTING PAVEMENT EDGE AND GRADE
99+00 TSIH
+12
100+00 TSIH
6E10
MAINTAIN 1' CLEAR BETWEEN BARRIER AND LANE EDGE
101+00 TSIH
98+60
REM
102+00 TSIH
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
104+00 TSIH
105+00 TSIH
SHLD
MATCHLINE STA. 105+50 TSIH
I 43
REM
CRASH CUSHION TEMPORARY LEFT IN PLACE
1' GRAVEL SHOULDER
SHLD
101+06±
23' CLEAR WIDTH
14' LANE
EDGE OF LANE
6E10
100' TAPER, 25:1 (5' CLEAR TO 1' CLEAR)
102+27
102+90±
+93
CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
CRASH CUSHION LEFT IN PLACE
PAVED SHOULDER HMA, TYPE E-1
4E1
MATCH EXISTING PAVEMENT GRADE
6" BASE AGGREGATE DENSE ¾-INCH SPECIAL OVER 12" BREAKER RUN SPECIAL
PERMAMNENT MAINTENANCE ROAD
TEMPORARY WIRE-FACED MSE WALL TW-05-003 REQ'D (SEE STRUCTURE PLANS)
SEE SEPARATE DETAIL FOR MORE INFORMATION
PROPOSED STRUCTURE B-05-0678
SB USH 41
16'
50'
305'
15'R
15'R

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - SB USH 41 TO SB IH 43 (TSIH)	SCALE, FEET 0 30 60	SHEET 58	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021218_pd (TSIH).dgn
PLOT BY : kk226
PLOT DATE : 5/31/2013
PLOT SCALE : 1:60

2

NB USH 41

PROPOSED STRUCTURE B-05-0678

1209+00 TWT

1208+00 IHB

PERMAMNENT MAINTENANCE ROAD

WIETOR DR

SHEET LOCATION

N

41

43

LEGEND

6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

106+00 TWT

107+00 TWT

108+00 TWT

109+00 TWT

110+00 TWT

111+00 TWT

112+00 TWT

105+50 TSIH

MATCHLINE STA. 105+50

106+00 TSIH

107+00 TSIH

108+00 TSIH

109+00 TSIH

111+00 TSIH

6E10

SHLD

± 108+98

REM

1'

8'

3'

± 2%

+68

+50

+31

+13

6%

14' LANE

15' LANE

23' CLEAR WIDTH

107+38±

± 108+03

109+07±

111+00

111+26

CONCRETE BARRIER TEMPOARY PRECAST LEFT IN PLACE

CRASH CUSHION TEMPORARY LEFT IN PLACE

CONSTRUCT 15:1 TAPER AND FOUNDATION PAD. SEE DETAIL

NB I 43 TO SB USH 41

SB USH 41 TO SB I 43

SB USH 41

SIGN

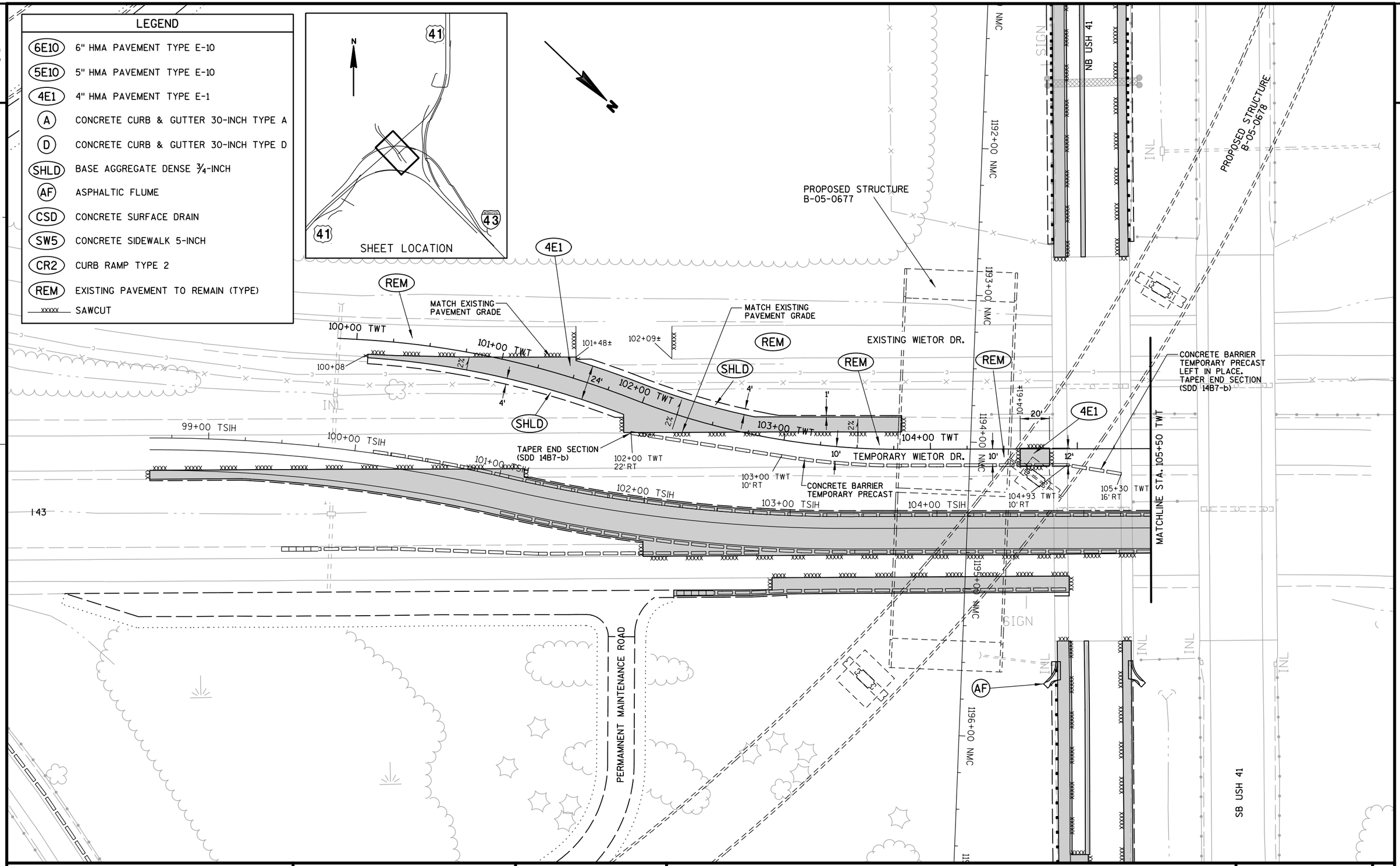
INL

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - SB USH 41 TO SB IH 43 (TSIH) SCALE, FEET 0 30 60	SHEET 59	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021219_pd (TSIH).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

LEGEND

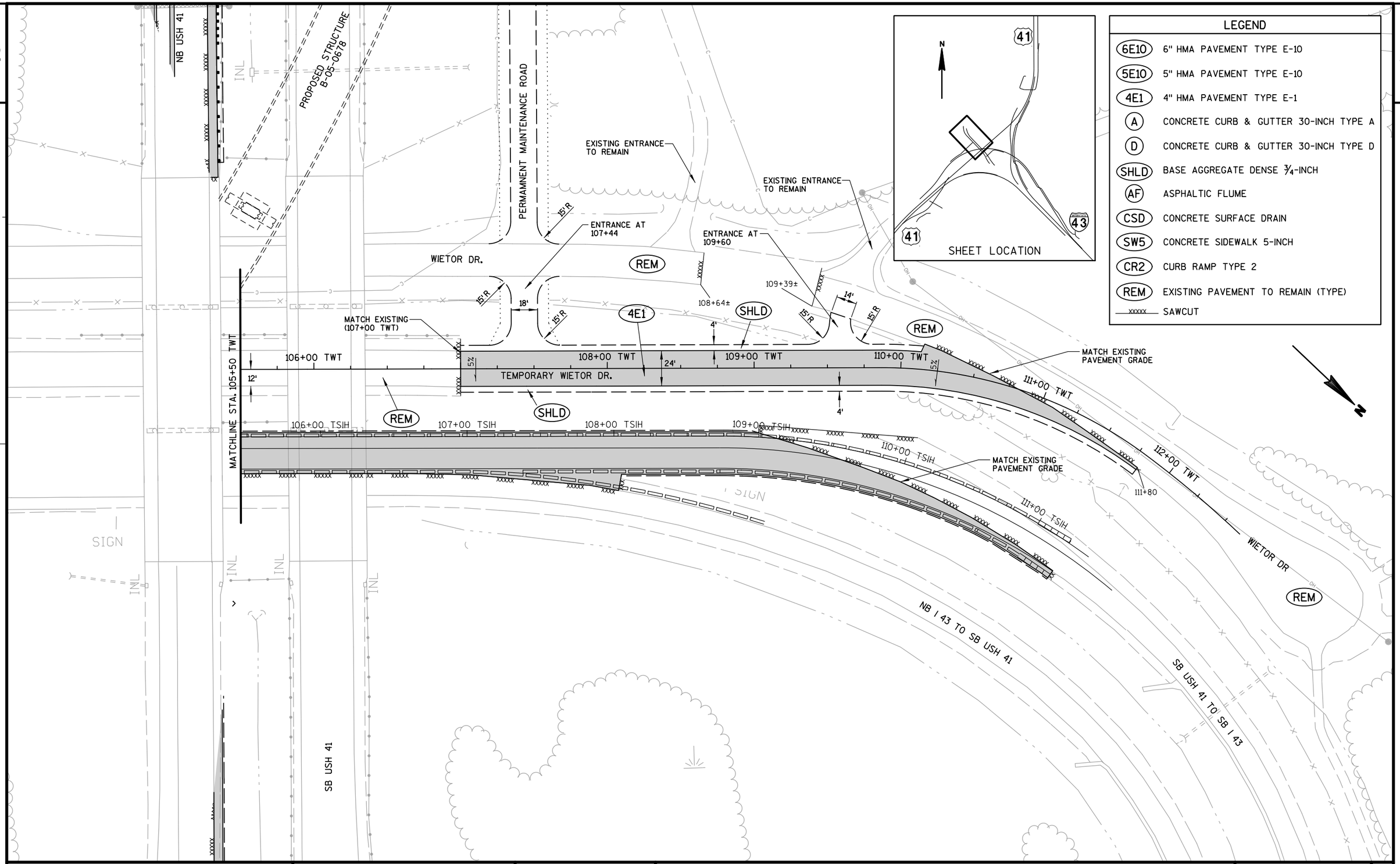
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - WIETOR DR (TWT)	SCALE, FEET 0 30 60	SHEET 60 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021220_pd (TWT).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42



LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - WIETOR DR (TWT)	SCALE, FEET 0 30 60	SHEET 61	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021221_pd (TWT).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

USH 41

1168+00 IHA

1168+00 RVEA

1169+00 RVEA

1170+00 RVEA

1171+00 RVEA

1173+00 RVEA

SIGN

D

589.07 (INLET)

590.40

590.64

590.21

589.91

589.48

590.88

14+00 ROS

14+07.61 ROS
0.00' RT

35' R

4E1

HIGH PT
591.10

590.83

CSD

SHLD

15' R

38'

24'

BASE AGGREGATE
DENSE ¾-INCH

587.73

588.05

588.38

588.70

13+00 ROS

ROSEWOOD ST

11'

11'

587.40

12+00 ROS

587.17
(INLET)

2.0%

+70

2'

586.99

CSD

SHLD

2'

11+00 ROS

4E1

10' R

2.0%
+67.3

2.5%
+20

10' R

MATCH EXISTING

MATCH EXISTING PAVEMENT
(STA. 10+20 ROS)

2.5%

REM

REM

SIGN

N

41

43

41

SHEET LOCATION

LEGEND

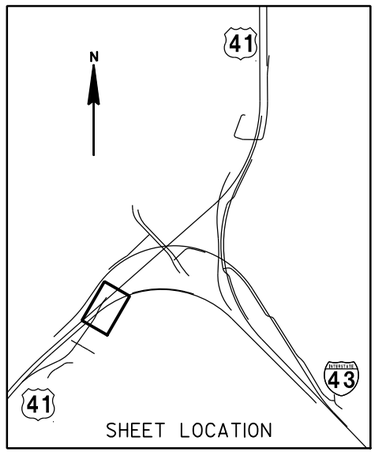
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE ¾-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - ROSEWOOD ST (ROS)	SCALE, FEET 0 20 40	SHEET 62	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021222_pd (ROS).dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

2

LEGEND	
6E10	6" HMA PAVEMENT TYPE E-10
5E10	5" HMA PAVEMENT TYPE E-10
4E1	4" HMA PAVEMENT TYPE E-1
A	CONCRETE CURB & GUTTER 30-INCH TYPE A
D	CONCRETE CURB & GUTTER 30-INCH TYPE D
SHLD	BASE AGGREGATE DENSE 3/4-INCH
AF	ASPHALTIC FLUME
CSD	CONCRETE SURFACE DRAIN
SW5	CONCRETE SIDEWALK 5-INCH
CR2	CURB RAMP TYPE 2
REM	EXISTING PAVEMENT TO REMAIN (TYPE)
xxxxx	SAWCUT



USH 41

1182+00 EVEB

1183+00 EVEB

1184+00 EVEB

1185+00 EVEB

1182+00 THA

1183+00 THA

1184+00 THA

1185+00 THA

PROPOSED STRUCTURE B-05-671

WISCONSIN CENTRAL LTD RR

PARKING LOT PAVEMENT LEFT IN PLACE

BILDING REMOVAL BY OTHERS

X=88,843.15
Y=582,980.26

X=88,877.50
Y=583,052.51

80'

30'

X=88,838.73
Y=582,928.34

X=88,870.17
Y=582,967.22
ELEV: 587.33'

X=88,904.60
Y=583039.63
ELEV: 586.62'

50'R

4E1

40'

PAVE BETWEEN EXISTING MEMORIAL DR AND EXISTING PAVED PARKING LOT

X=88,888.93
Y=582,917.19
ELV: 587.79'

REM

MEMORIAL DR

MATCH EXISTING PAVEMENT EDGE AND GRADE

X=88,940.72
Y=583,022.45
ELEV: 587.84'

REM

SEE REMOVAL PLAN

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PAVING DETAILS - MEMORIAL DR	SCALE, FEET 0 20 40	SHEET 63	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021223_pd (MEMORIAL).dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

USH 41

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

1168+00 RVEA

1169+00 RVEA

1170+00 RVEA

1171+00 RVEA

1172+00 RVEA

1173+00 RVEA

TRENCH CONSTRUCTED BY OTHERS UNDER PROJECT 1133-11-75

TRENCH CONSTRUCTED UNDER PROJECT 1133-11-74

FUTURE USH 41 OFF-RAMP TO VELP AVE BY OTHERS (DASHED)

FUTURE USH 41 OFF-RAMP TO VELP AVE BY OTHERS (DASHED)

1168+37.52 RVEA
52.02' RT

P.C.
1168+65.65 RVEA
54.74' RT

RETAINING WALL R-5-81
(CONSTRUCTED LATER
UNDER PROJECT 1133-10-77
BY OTHERS)

R. 1492.45'

5" (TYP)

20"

11+00 ROS

12+00 ROS

13+00 ROS

14+00 ROS

ROSEWOOD ST

1172+73.44 RVEA
43.57' RT

P.T.
1172+01.09 RVEA
39.39' RT

50' BEYOND END OF
RETAINING WALL R-5-81

N

NOTE:
SEE SEPARATE DETAIL SHEET FOR SECTION VIEW AND CROSS SECTIONS FOR LOCATION AND DEPTH OF TRENCH.

LEGEND

TOE TRENCH FILLED WITH BREAKER RUN

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRENCH DETAILS - SHEET 1 OF 3	SCALE, FEET 0 20 40	SHEET 64	E

2

2

PROPOSED B-05-678

EXISTING SB USH 41

EXISTING NB USH 41

PROPOSED B-05-677

PROPOSED TEMP SB USH 41 TO SB IH 43 RAMP

NB IH 43 TO SB USH 41

PROPOSED TEMP WIETOR DR

EXISTING WIETOR DR ℄

104+65.01 TWT
67.64' LT

103+45.50 TWT
66.48' LT

12' MIN

6' MIN

6' MIN

105+00 TWT

105+00 TSH

104+00 TSH

103+00 TSH

102+00 TSH

104+00 TWT

103+00 TWT

102+00 TWT

1196+00

1195+00 NMC

1194+00 NMC

1193+00 NMC

1192+00 NMC

1191+00 NMC

1209+00 IHB

1208+00 IHB

1207+00 IHB

1206+00 IHB

1205+00 IHB

1204+00 IHB

N

LEGEND

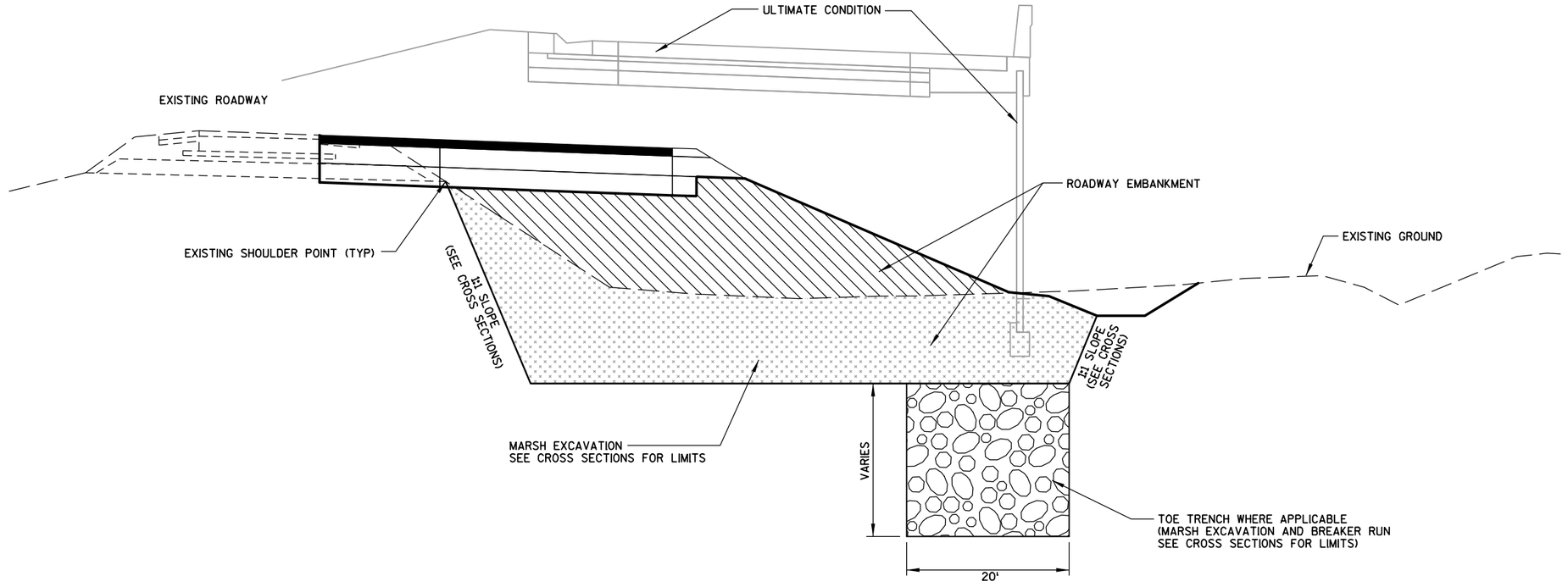
TOE TRENCH FILLED WITH BREAKER RUN

NOTE:
SEE SEPARATE DETAIL SHEET FOR SECTION VIEW AND CROSS SECTIONS FOR LOCATION AND DEPTH OF TRENCH.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRENCH DETAILS - SHEET 2 OF 3	SCALE, FEET 0 20 40	SHEET 65	E

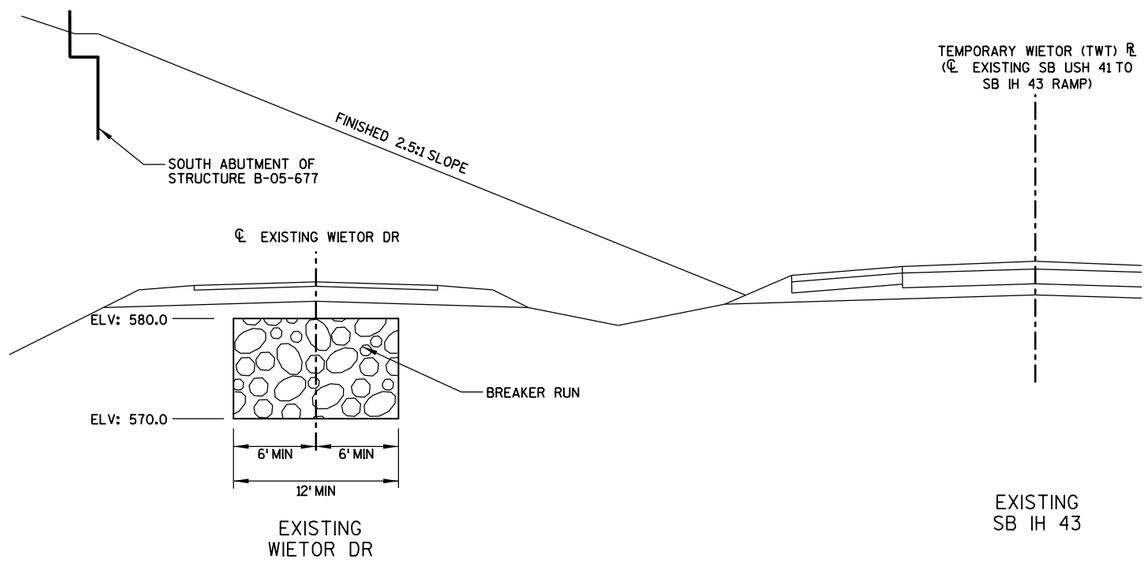
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021232_tr.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42



SECTION VIEW DETAIL FOR MARSH EXCAVATION AND TRENCH

NOTE:
SEE SEPARATE DETAIL SHEET FOR PLAN VIEW AND CROSS SECTIONS FOR LOCATION AND DEPTH OF TRENCH.

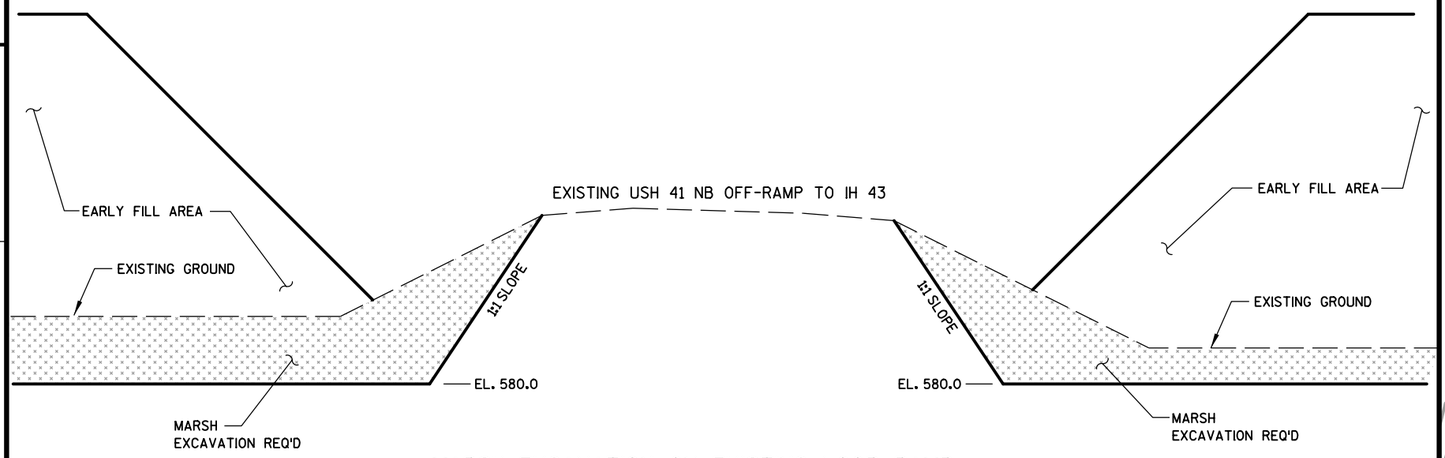


SECTION VIEW DETAIL FOR MARSH EXCAVATION AND TRENCH ALONG WIETOR DRIVE

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRENCH DETAILS - SHEET 3 OF 3	SHEET	E

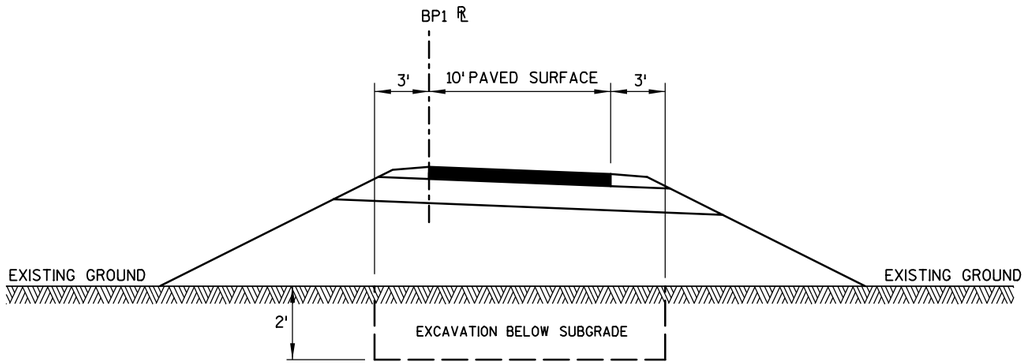
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021233_tr.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42



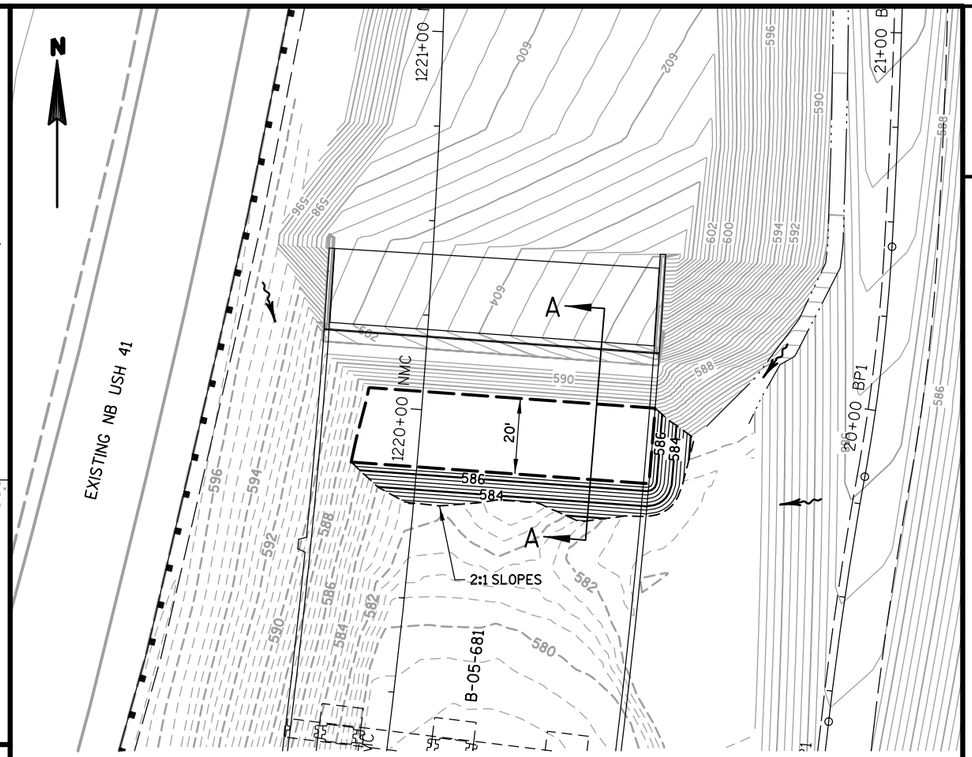
MARSH EXCAVATION ON EXISTING LOOP RAMP

EXISTING USH 41 NB OFF-RAMP TO IH 43

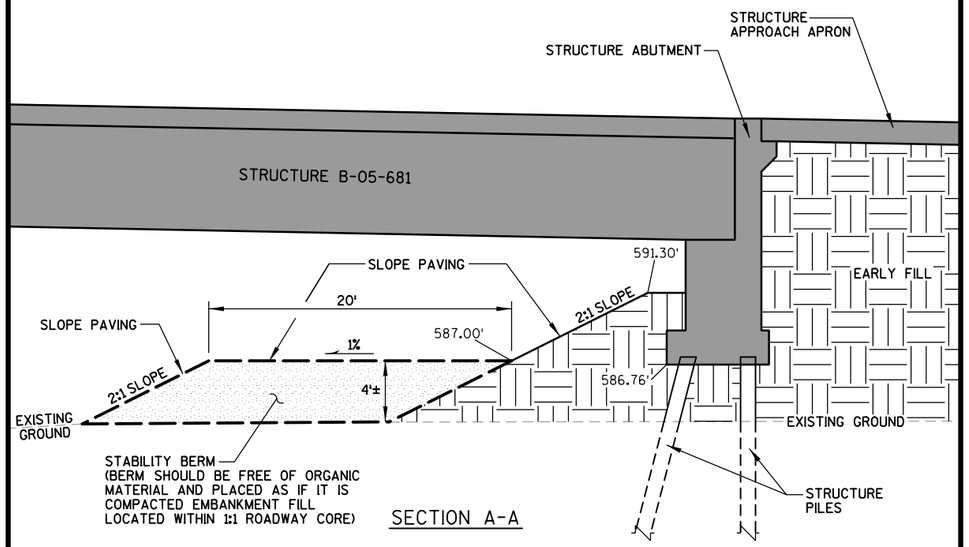


EXCAVATION BELOW SUBGRADE ON SHARED USE PATH

STA. 15+00 BP1 TO STA. 19+00 BP1



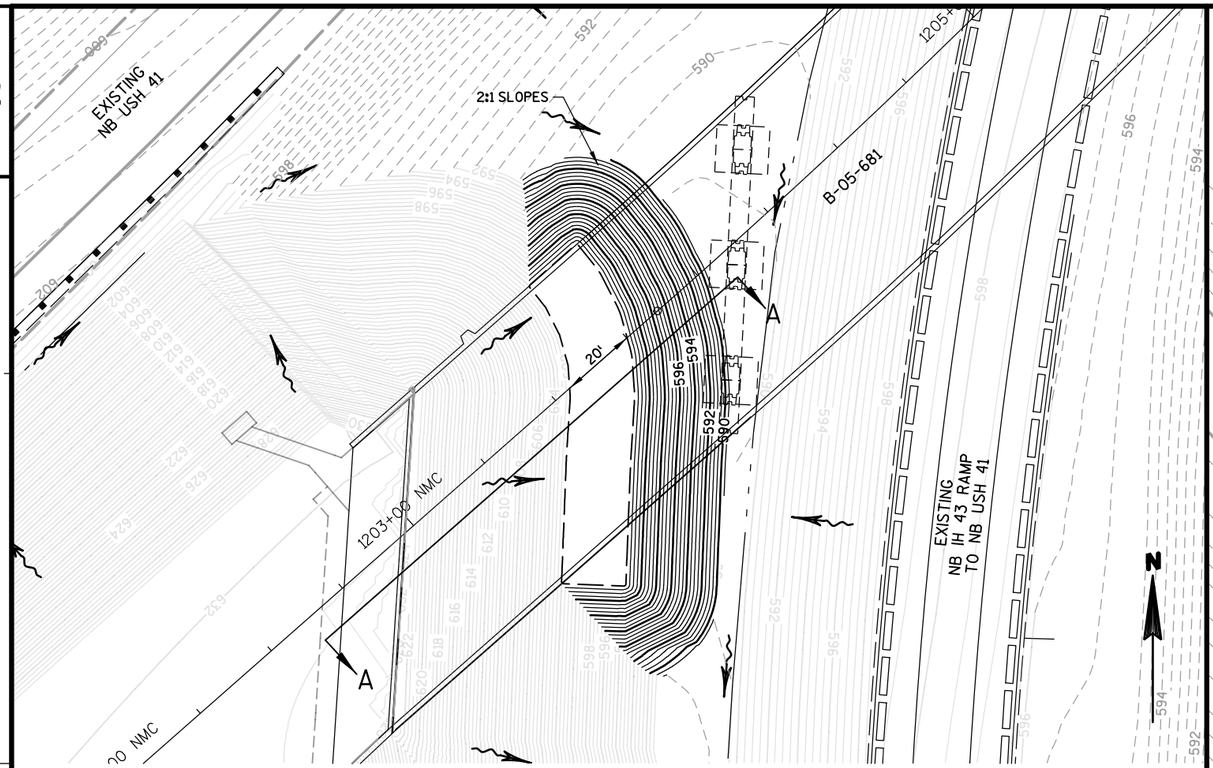
PLAN VIEW



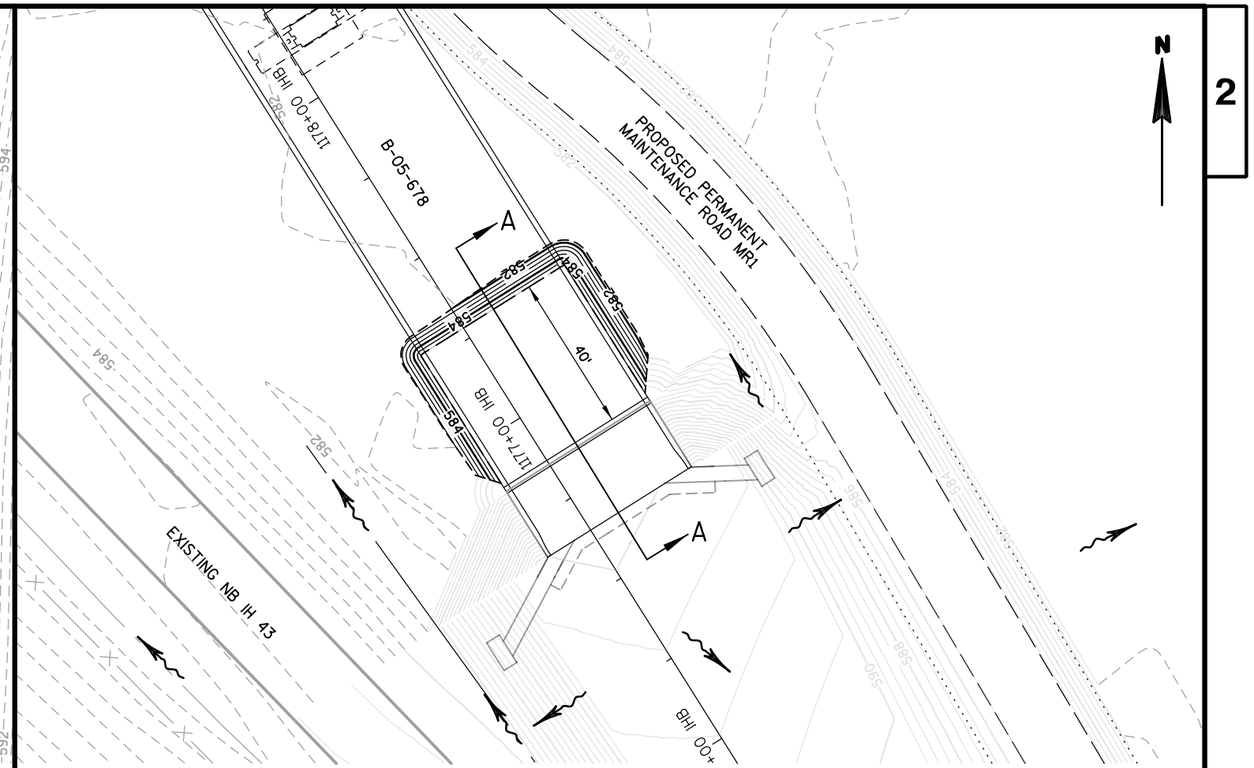
SECTION A-A

STABILITY BERM DETAIL (NORTH END OF B-05-681)

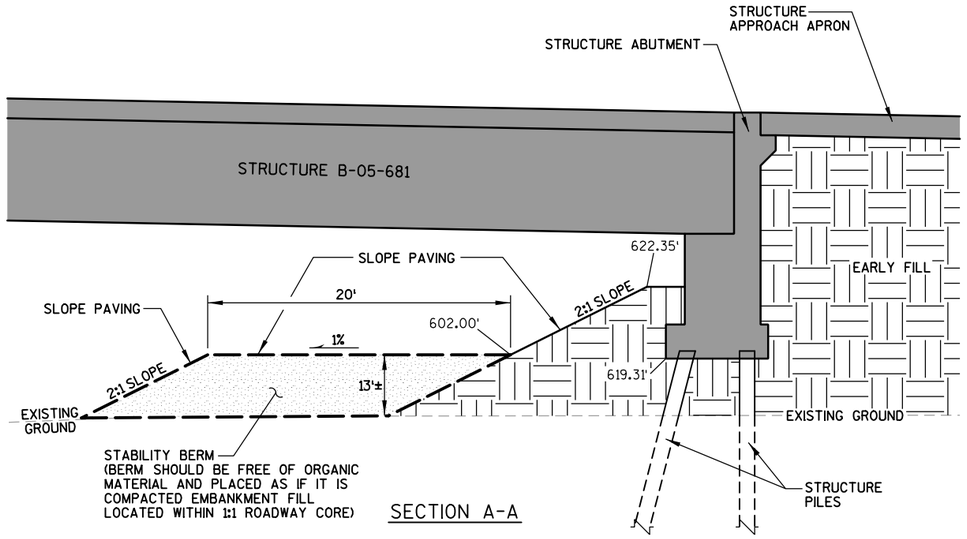
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	MARSH EXCAVATION AND STABILITY BERM DETAILS	SHEET 67	E



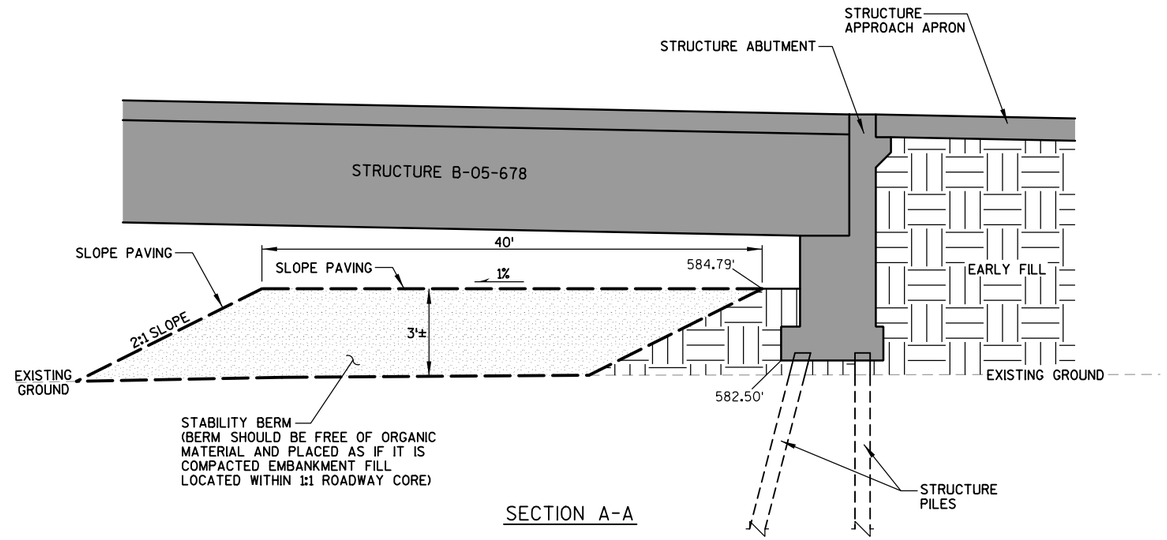
PLAN VIEW



PLAN VIEW



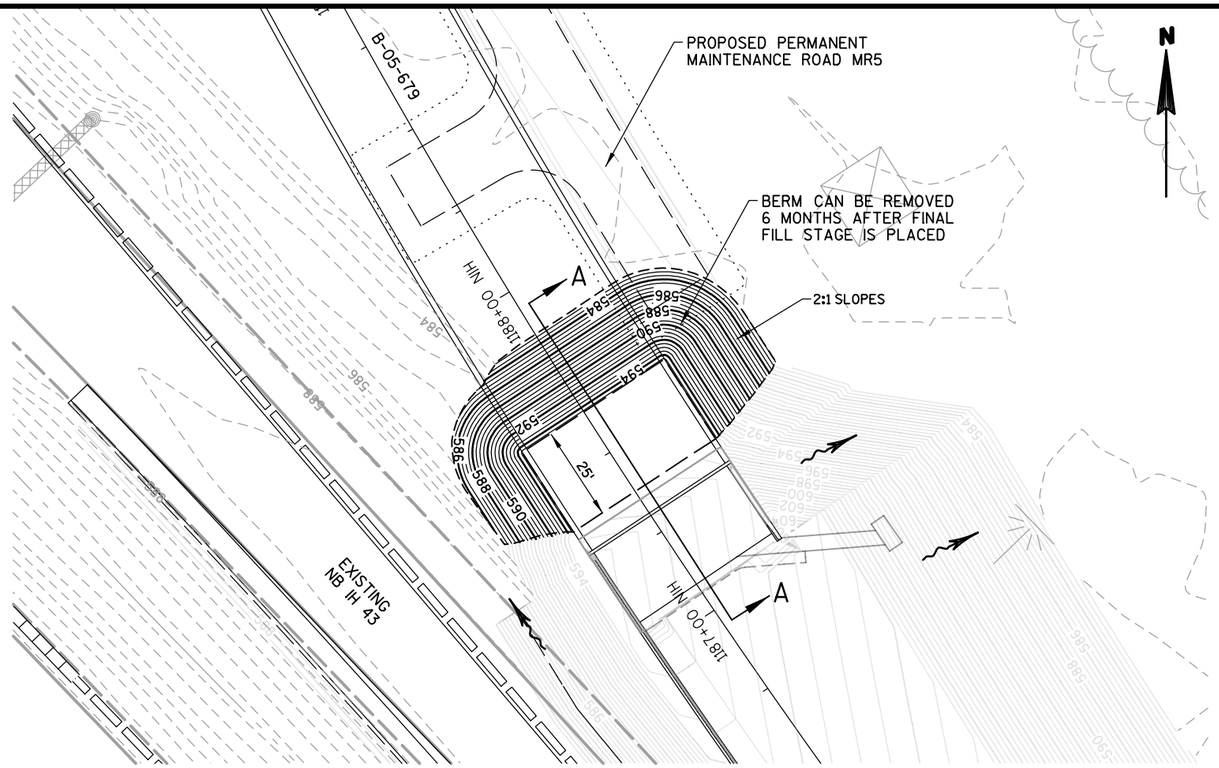
STABILITY BERM DETAIL (SOUTH END OF B-05-681)



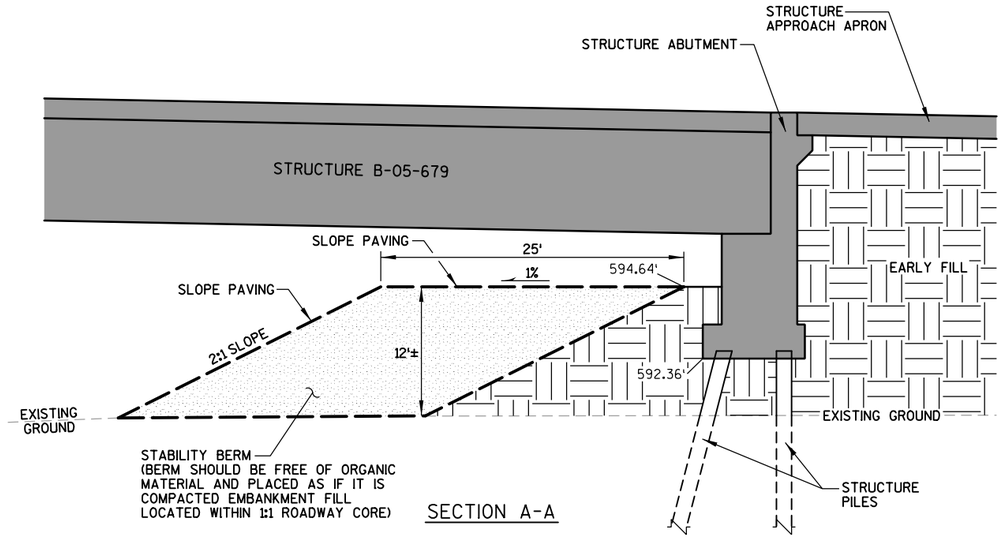
STABILITY BERM DETAIL (SOUTH END OF B-05-678)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	MARSH EXCAVATION AND STABILITY BERM DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021235_tr.dgn PLOT BY : dm253 PLOT DATE : 6/5/2013 PLOT SCALE : 1:40



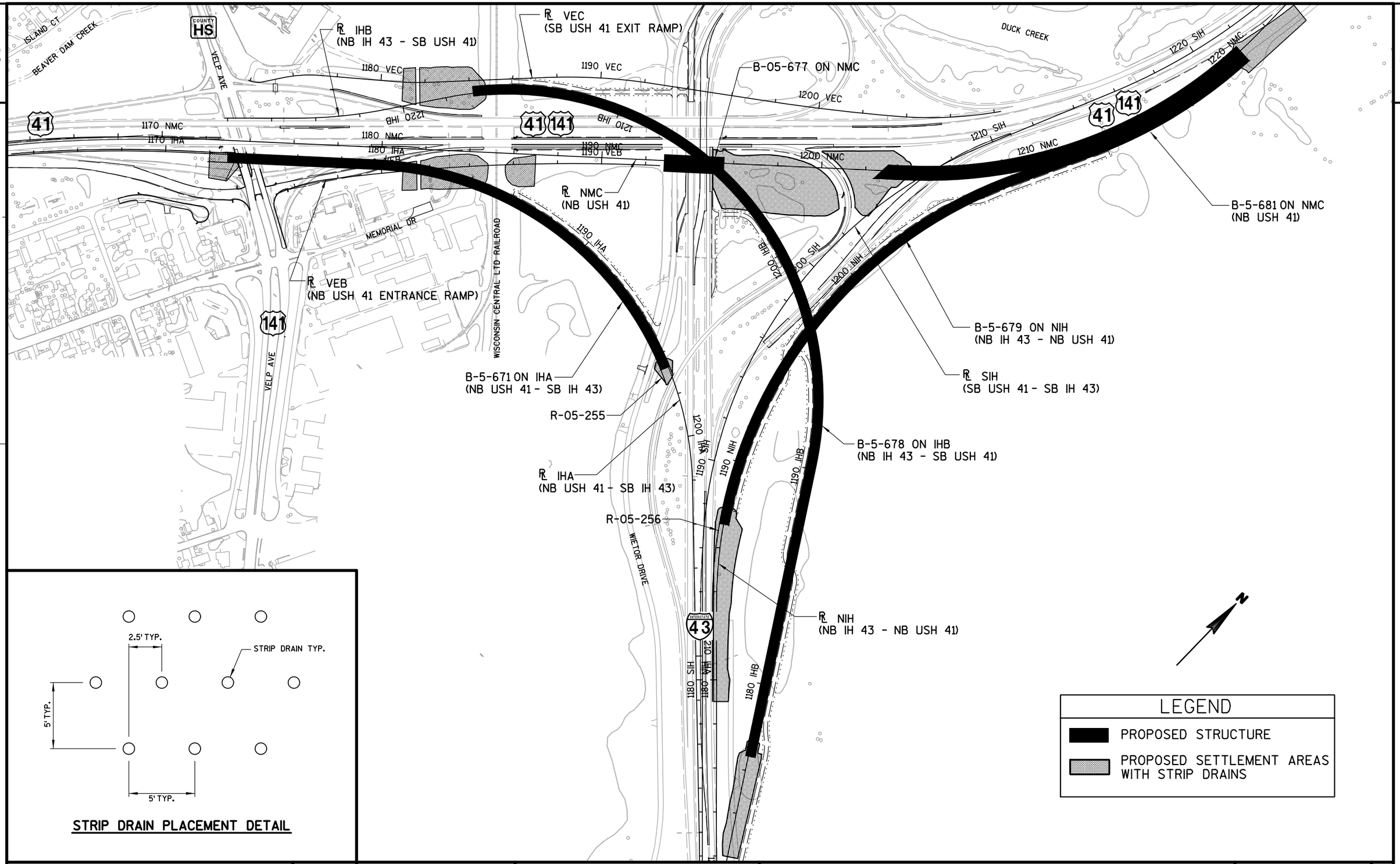
PLAN VIEW



SECTION A-A

STABILITY BERM DETAIL (SOUTH END OF B-05-679)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	MARSH EXCAVATION AND STABILITY BERM DETAILS	SHEET 69	E

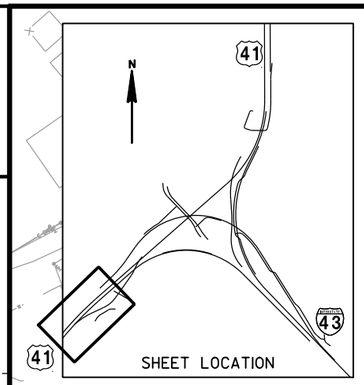


STRIP DRAIN PLACEMENT DETAIL

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: PROJECT OVERVIEW - SETTLEMENT/STRIP DRAINS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021240_st (Settlement OV).dgn
PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:400

WISDOT/CADDS SHEET 42



N

41

1160+00 NMC
1162+00 NMC
1164+00 NMC
1166+00 NMC
1168+00 NMC
1170+00 NMC
1172+00 NMC
1174+00 NMC

1160+00 IHA
1162+00 IHA
1164+00 IHA
1166+00 IHA
1168+00 IHA
1170+00 IHA
1172+00 IHA
1174+00 IHA

℄ NMC
(NB USH 41)

B-5-671

℄ IHA
(NB USH 41 - SB IH 43)

VELP AVE

ROSEWOOD STREET

GLENVIEW AVENUE

141

STA. 1162+50 IHA TO STA. 1172+00 IHA
-ESTIMATED SETTLEMENT = 6 TO 12 INCHES
-2 SOIL LIFT REQ'D (2 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1172+00 IHA TO 1173+30 IHA
-ESTIMATED SETTLEMENT = 6 TO 12 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 553.00'
-APPROX. 19,278 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (2 MONTHS SETTLEMENT TIME PER LIFT)

LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021241_st.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:100

STA. 1174+00 VEC TO 1181+00 VEC
-ESTIMATED SETTLEMENT = 4 TO 6 INCHES
-1 SOIL LIFT REQ'D (12 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1181+00 VEC TO 1182+00 VEC
-ESTIMATED SETTLEMENT = 12 INCHES
-3 STRIP DRAIN STAGES REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 21,535 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1182+00 VEC TO 1185+00 VEC
-ESTIMATED SETTLEMENT = 7 INCHES
-3 STRIP DRAIN STAGES REQ'D (SOME PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 75,345 LF OF STRIP DRAINS REQ'D
-3 SOIL LIFTS REQ'D (1.5 TO 2 MONTHS SETTLEMENT TIME PER LIFT)

℄ VEC
(SB USH 41 EXIT RAMP)

℄ IHB
(NB IH 43 - SB USH 41)

WISCONSIN CENTRAL LTD. RAILROAD

VELP AVE

SHEET LOCATION

B-05-678

B-5-671

℄ NMC
(NB USH 41)

℄ VEB
(NB USH 41 ENTRANCE RAMP)

LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

STA. 1175+00 NMC TO 1181+00 VEB
-ESTIMATED SETTLEMENT = 5 TO 9 INCHES
-1 SOIL LIFT REQ'D (6 TO 12 MONTHS SETTLEMENT TIME PER LIFT)

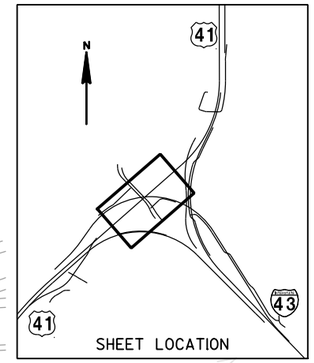
STA. 1181+00 VEB TO 1182+25 VEB
-ESTIMATED SETTLEMENT = 12 INCHES
-3 TO 4 STRIP DRAIN STAGES REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 23,103 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1182+25 VEB TO 1184+90 VEB
-ESTIMATED SETTLEMENT= 9 INCHES
-4 STRIP DRAIN STAGES REQ'D (SOME PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 61,133 LF OF STRIP DRAINS REQ'D
-3 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1185+60 NMC TO 1187+00 NMC
-ESTIMATED SETTLEMENT = 6 TO 16 INCHES
-4 STRIP DRAIN STAGES REQ'D (SOME PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 25,682 LF OF STRIP DRAINS REQ'D
-3 SOIL LIFTS REQ'D (2 TO 4 MONTHS SETTLEMENT TIME PER LIFT)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 72	E

2



41 141

℄ VEB
(NB USH 41 ENTRANCE RAMP)

℄ NMC
(NB USH 41)

B-05-678

WIETOR DRIVE

B-05-677

℄ NMC
(NB USH 41)

41 141

1188+00 NMC
1190+00 NMC
1192+00 NMC
1194+00 NMC
1196+00 NMC
1198+00 NMC
1200+00 NMC
1202+00

1188+00 VEB
1190+00 VEB
1192+00 VEB

STA. 1187+00 NMC TO 1193+50 NMC
-ESTIMATED SETTLEMENT = 6 TO 16 INCHES
-1 SOIL LIFT REQ'D (8 TO 14 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1194+90 NMC TO 1200+75 NMC
-ESTIMATED SETTLEMENT = 20 TO 26 INCHES
-1 STRIP DRAIN STAGE REQ'D
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 190,275 LF OF STRIP DRAINS REQ'D
-4 SOIL LIFTS REQ'D (2 MONTHS SETTLEMENT TIME PER LIFT)

B-05-671

INTERSTATE 43

INL

LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

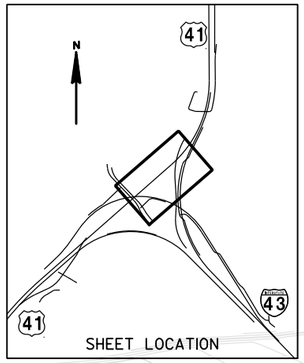
NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 73	E

2



WIETOR DRIVE

41 141

℄ NMC
(NB USH 41)

B-05-677

1194+00 NMC

1196+00 NMC

1198+00 NMC

1200+00 NMC

1202+00 NMC

1204+00 NMC

1206+00 NMC

1208+00 NMC

℄ NMC
(NB USH 41)

STA. 1200+00 NMC TO 1204+05 NMC
-ESTIMATED SETTLEMENT = 15 TO 20 INCHES
-1 STRIP DRAIN STAGE REQ'D
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 99,360 LF OF STRIP DRAINS REQ'D
-4 SOIL LIFTS REQ'D (2 MONTHS SETTLEMENT TIME PER LIFT)

41 141

STA. 1194+90 NMC TO 1200+75 NMC
-ESTIMATED SETTLEMENT = 20 TO 26 INCHES
-1 STRIP DRAIN STAGE REQ'D
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 190,275 LF OF STRIP DRAINS REQ'D
-4 SOIL LIFTS REQ'D (2 MONTHS SETTLEMENT TIME PER LIFT)

B-05-678

B-05-679

INTERSTATE 43

LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 74	E

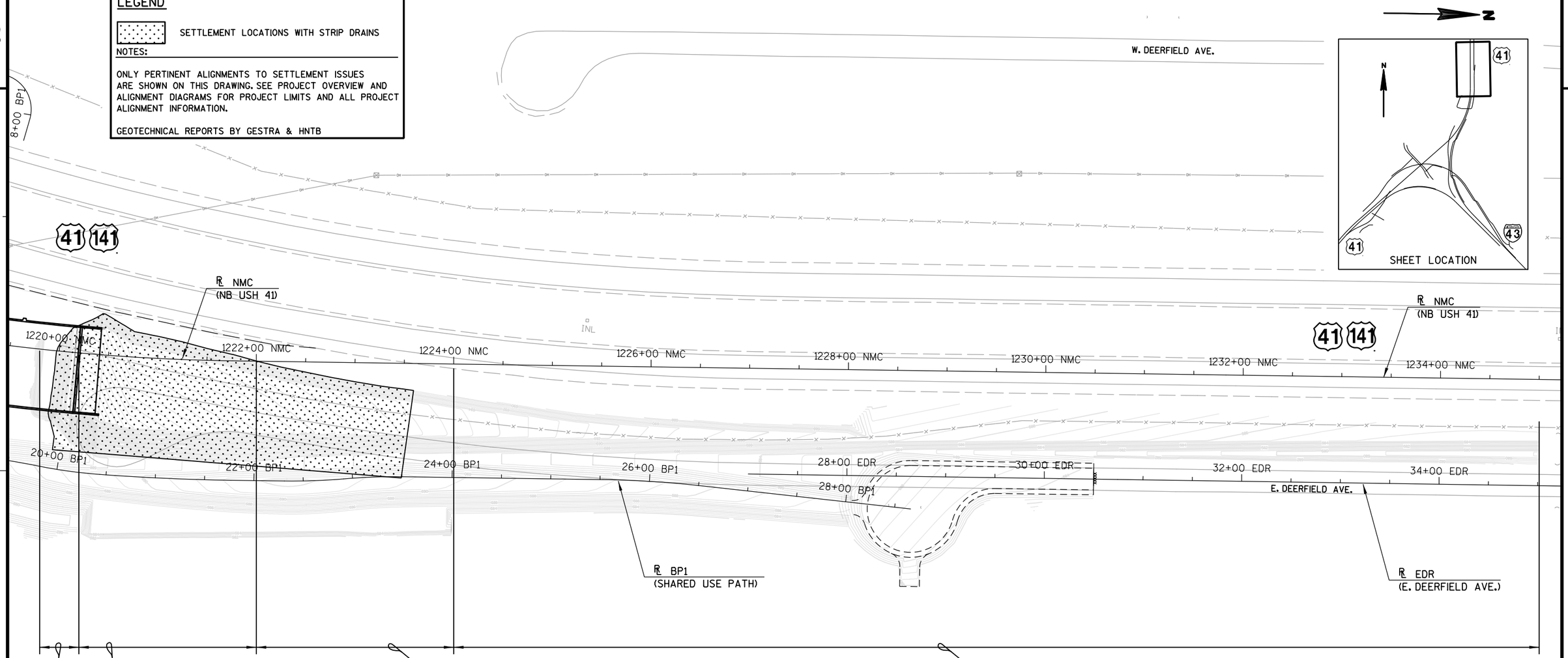
LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB



STA. 1220+20 NMC TO 1222+00 NMC
-ESTIMATED SETTLEMENT = 6 TO 8 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 546.00'
-APPROX. 31,856 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

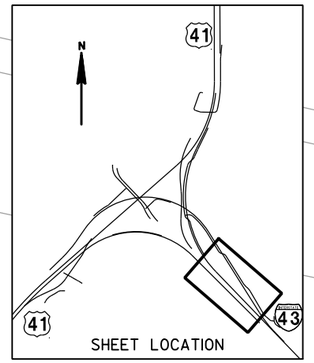
STA. 1222+00 NMC TO 1224+00 NMC
-ESTIMATED SETTLEMENT = 4 TO 6 INCHES
-2 STRIP DRAIN STAGES REQ'D (SOME PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 546.00'
-APPROX. 24,168 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1224+00 NMC TO 1235+00 NMC
-ESTIMATED SETTLEMENT = 2 TO 5 INCHES
-1 SOIL LIFT REQ'D (6 TO 9 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1219+80 NMC TO 1220+20 NMC
-ESTIMATED SETTLEMENT = 2 TO 6 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 545.00'
-APPROX. 3,822 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 75	E

2



LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

WIETOR DR

℄ NIH
(NB IH 43 - NB USH 41)

R-5-256

INL

43

1168+00 NIH
1168+00 IHB
1170+00 NIH
1170+00 IHB
1172+00 NIH
1172+00 IHB
1174+00 NIH
1174+00 IHB
1176+00 NIH
1176+00 IHB
1178+00 NIH
1178+00 IHB
1180+00 NIH
1180+00 IHB
1182+00

HURLBUT ST

HURLBUT ST

B-5-678

℄ IHB
(NB IH 43 - SB USH 41)

STA. 1172+00 IHB TO 1177+35 IHB
-ESTIMATED SETTLEMENT = 6 TO 12 INCHES
-1 STRIP DRAIN STAGE REQ'D
-STRIP DRAIN TIP ELEVATION = 556.00'
-APPROX. 48,459 LF OF STRIP DRAINS REQ'D
-1 SOIL LIFT REQ'D (2 TO 3 MONTHS SETTLEMENT TIME PER LIFT)

STA. 1179+00 NIH TO 1187+90 NIH
-ESTIMATED SETTLEMENT = 12 TO 18 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 97,703 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

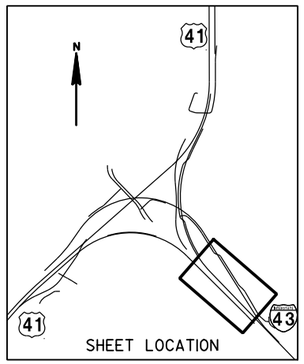
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 76	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021246_st.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

WIETOR DRIVE

℄ IHA
(NB USH 41 - SB IH 43)

R-5-256

1216+00 IHA
1214+00 IHA
1212+00 IHA
1210+00 IHA
1208+00 IHA
1206+00 IHA
1204+00 IHA
1202+00 IHA

INTERSTATE 43

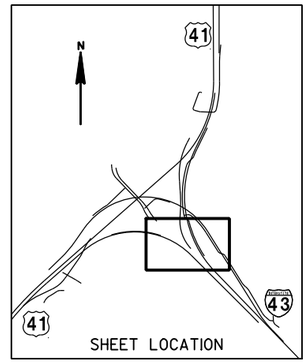
1176+00 NIH
1178+00 NIH
1180+00 NIH
1182+00 NIH
1184+00 NIH
1186+00 NIH
1188+00 NIH
1190+0

℄ NIH
(NB IH 43 - NB USH 41)

B-5-678

STA. 1179+00 NIH TO 1187+90 NIH
-ESTIMATED SETTLEMENT = 12 TO 18 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 97,703 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 77	E



N

STA. 1196+30 IHA TO 1197+45 IHA
-ESTIMATED SETTLEMENT = 7 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 9,073 LF OF STRIP DRAINS REQ'D
-3 SOIL LIFTS REQ'D (2.5 MONTHS OF SETTLEMENT TIME PER LIFT)

1194+00 IHA
1196+00 IHA
1198+00 IHA
1200+00 IHA
1202+00 IHA
1204+00 IHA
1206+00 IHA

R-5-255
R-5-255
B-5-671
℄ IHA
(NB USH 41 - SB IH 43)

INTERSTATE 43

WIETOR DRIVE

HIN 00+00
HIN 00+26T
HIN 00+06T
HIN 00+18T
HIN 00+38T

℄ NIH
(NB IH 43 - NB USH 41)

B-5-678

STA. 1179+00 NIH TO 1187+90 NIH
-ESTIMATED SETTLEMENT = 12 TO 18 INCHES
-1 STRIP DRAIN STAGE REQ'D (PRE-BORED)
-STRIP DRAIN TIP ELEVATION = 550.00'
-APPROX. 97,703 LF OF STRIP DRAINS REQ'D
-2 SOIL LIFTS REQ'D (3 MONTHS SETTLEMENT TIME PER LIFT)

R-5-256

LEGEND

SETTLEMENT LOCATIONS WITH STRIP DRAINS

NOTES:

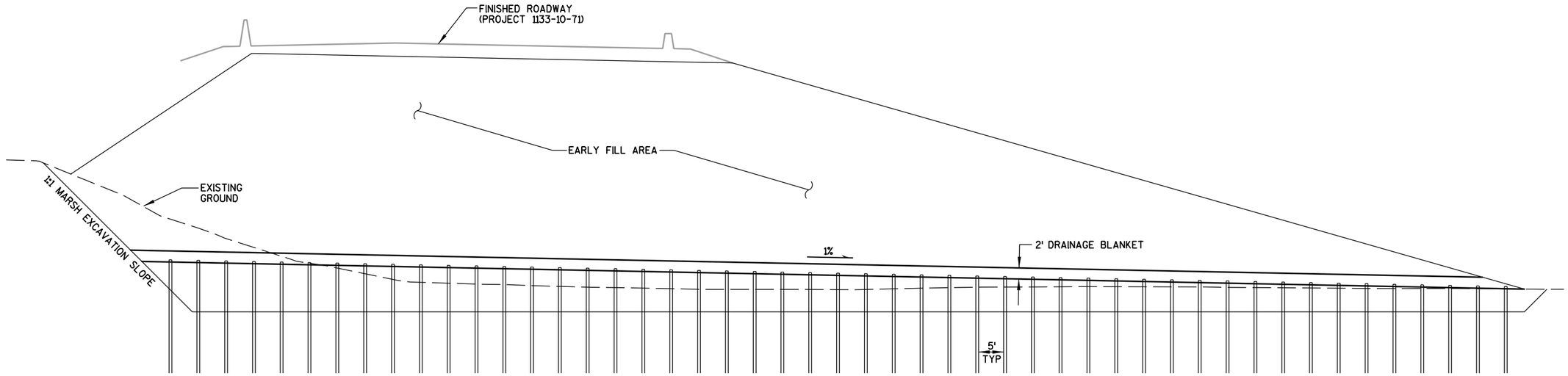
ONLY PERTINENT ALIGNMENTS TO SETTLEMENT ISSUES ARE SHOWN ON THIS DRAWING. SEE PROJECT OVERVIEW AND ALIGNMENT DIAGRAMS FOR PROJECT LIMITS AND ALL PROJECT ALIGNMENT INFORMATION.

GEOTECHNICAL REPORTS BY GESTRA & HNTB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: STRIP DRAIN/SETTLEMENT MAP	SHEET 78	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021248_st.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:100

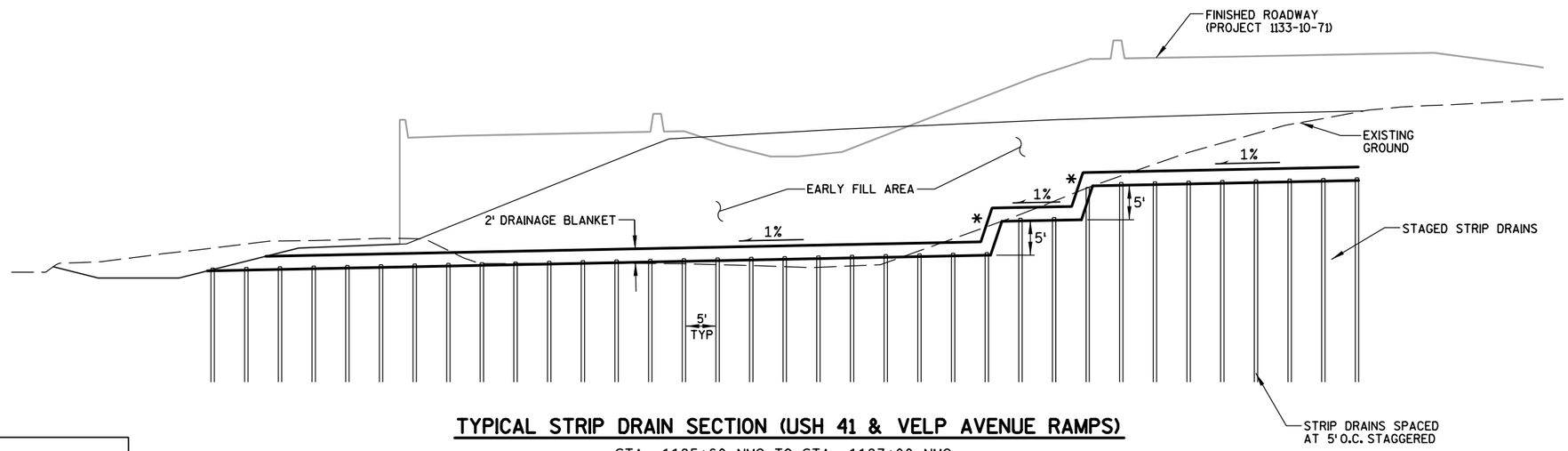
2



TYPICAL STRIP DRAIN SECTION (USH 41 & I-43)

STA. 1172+00 IHA TO STA. 1173+30 IHA
STA. 1196+30 IHA TO STA. 1197+45 IHA
STA. 1172+00 IHB TO STA. 1177+35 IHB
STA. 1179+00 NIH TO STA. 1187+90 NIH
STA. 1194+90 NMC TO STA. 1200+75 NMC
STA. 1200+00 NMC TO STA. 1204+05 NMC
STA. 1219+80 NMC TO STA. 1222+00 NMC

NOTE:
SEE PLAN DETAILS FOR STRIP DRAIN TIP ELEVATIONS



TYPICAL STRIP DRAIN SECTION (USH 41 & VELP AVENUE RAMPS)

STA. 1185+60 NMC TO STA. 1187+00 NMC
STA. 1222+00 NMC TO STA. 1224+00 NMC
STA. 1181+00 VEB TO STA. 1184+90 VEB
STA. 1181+00 VEC TO STA. 1185+00 VEC

NOTE:
SEE PLAN DETAILS FOR STRIP DRAIN TIP ELEVATIONS

* - CONSTRUCT SLOPE AS STEEP AS PRACTICAL

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 79	E

2

41

℄ NMC
(NB USH 41)

1165+00 NMC
1166+00 NMC
1167+00 NMC
1168+00 NMC
1169+00 NMC
1170+00 NMC

RETAINING WALL
R-05-84

INC
1165+00 IHA
1166+00 IHA
1167+00 IHA
1168+00 IHA
1169+00 IHA
1170+00 IHA

SG
PM (1)

℄ IHA
(NB USH 41 - SB IH 43)

1165+00 RVEA
1166+00 RVEA
1167+00 RVEA
1168+00 RVEA
1170+00 RVEA

NB USH 41 TO VELP

℄ RVEA
(TEMPORARY NB USH 41
EXIT RAMP)

INC

MATCHLINE STA 170+50 IHA

INC

℄ ROS
(ROSEWOOD)

11+00 ROS
12+00 ROS

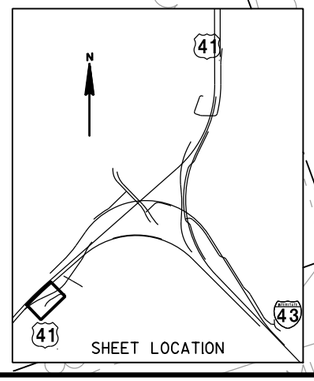
ROSEWOOD ST

SIGN

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.



SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAINS DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021261_sd.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

2

℄ NMC
(NB USH 41)

1171+00 NMC
1172+00 NMC
1173+00 NMC
1174+00 NMC
1175+00 NMC
1176+00 NMC

RETAINING WALL
R-05-84

1171+00 IHA
1172+00 IHA
1174+00 IHA
1175+00 IHA

STA 1172+75 IHA
10' LT

STA 1173+12 IHA
10' LT

B-5-671 ON IHA
(NB USH 41 - SB IH 43)

STA 1172+00 IHA
4' LT

INC
SG
PM (1)

℄ IHA
(NB USH 41 - SB IH 43)

RETAINING WALL
R-05-257

STA 1173+34 IHA
54' RT

℄ VEB
(NB USH 41 ENTRANCE RAMP)

STA 1172+00 IHA
110' RT

STA 1172+82 IHA
120' RT

℄ VEA
(NB USH 41 EXIT RAMP)

1171+00 VEA
1172+00 VEA
1173+00 VEA
1176+00 VEB

MATCHLINE STA 1170+50 IHA

13+00 ROS

VELP AVENUE

36"SS

INL

HW

SIGN

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

N

41

43

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 81	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021262_sd.dgn

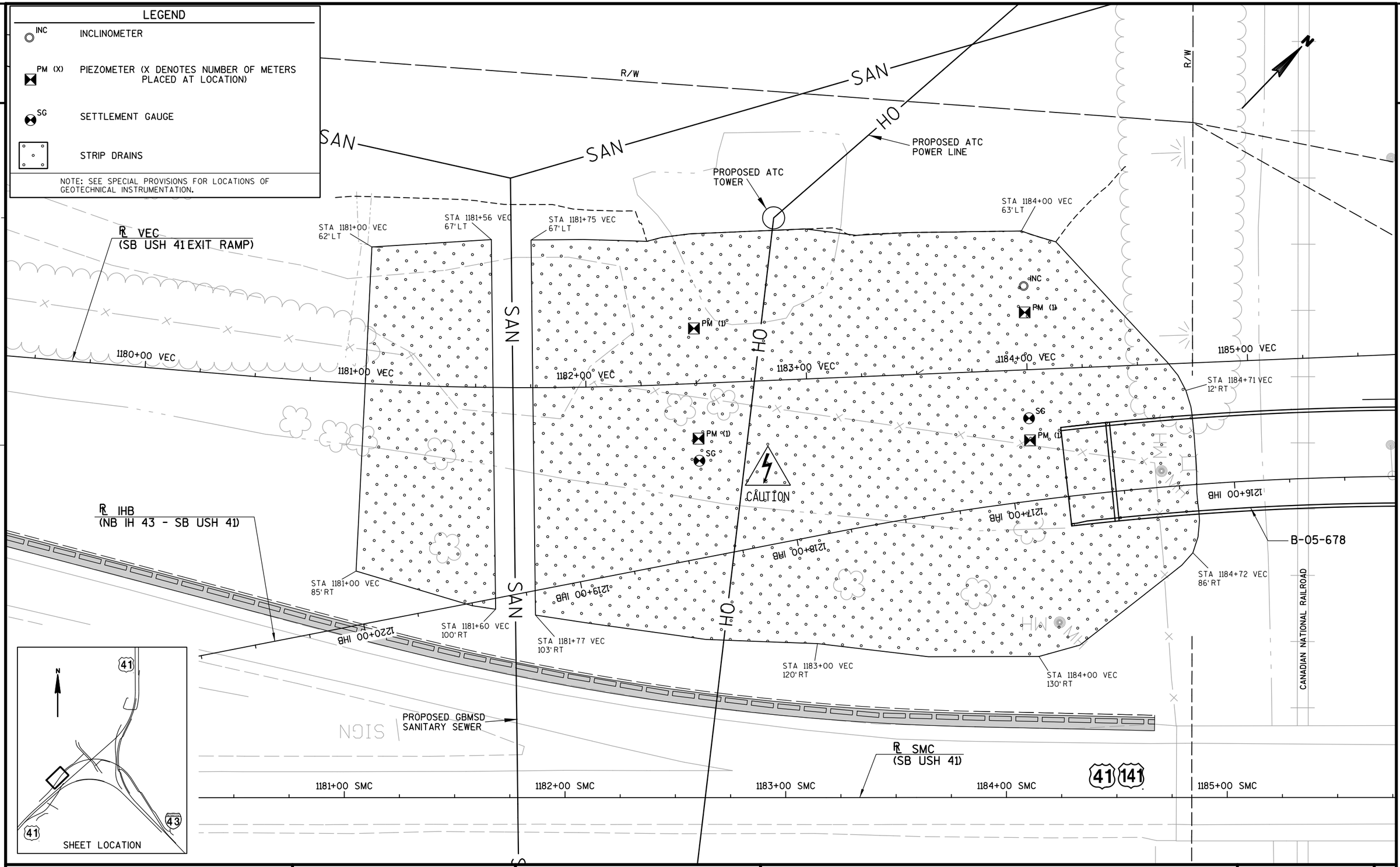
PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- INC — INCLINOMETER
- PM (X) — PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
- SG — SETTLEMENT GAUGE
- STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 82 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021263_sd.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

LEGEND

- INC — INCLINOMETER
- PM (X) — PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
- SG — SETTLEMENT GAUGE
- STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

SHEET LOCATION

℄ NMC (NB USH 41)

℄ VEB (NB USH 41 ENTRANCE RAMP)

℄ IHA (NB USH 41 - SB IH 43)

1182+00 NMC
1183+00 NMC
1184+00 NMC
1185+00 NMC
1186+00 NMC
1187+00 NMC

STA 1184+00 VEB 56'LT
STA 1184+39 VEB 47'LT
STA 1187+02 VEB 41'LT
STA 1182+50 VEB 53'LT
STA 1186+02 VEB 29'LT
STA 1181+62 VEB 40'LT
STA 1181+81 VEB 41'LT
STA 1181+01 VEB 36'LT
STA 1184+84 VEB 8'LT
STA 1185+63 VEB 3'RT
1181+00 IHA
1182+00 IHA
1183+00 IHA
1184+00 IHA
1185+00 IHA
1186+00 IHA
87+00 MR4
1187+00 IHA
1181+00 VEB
1182+00 VEB
1183+00 VEB
1184+00 VEB
1185+00 VEB
1186+00 VEB
1187+00 VE
CAUTION
INC
PM (1)
PM (2)
SG
STA 1184+76 VEB 62'RT
STA 1185+66 VEB 59'RT
STA 1185+92 VEB 92'RT
B-05-671
STA 1186+22 VEB 102'RT
STA 1186+93 VEB 101'RT
STA 1184+41 VEB 94'RT
STA 1184+00 VEB 100'RT
STA 1182+01 VEB 87'RT
STA 1182+50 VEB 95'RT
STA 1180+85 VEB 86'RT
STA 1181+53 VEB 90'RT
STA 1181+72 VEB 89'RT
PROPOSED ATC POWER LINE
PROPOSED ATC TOWER
PROPOSED GBMSD SANITARY SEWER
MEMORIAL DR
R/W
WISCONSIN CENTRAL LTD RAILROAD
MATCHLINE STA 1187+10 VEB
OH
SAN
MH
GUY

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 83	E

2

41 141

41 141

MATCHLINE STA 1187+10 VEB

MC

1188+00 NMC

1189+00 NMC

1190+00 NMC

1191+00 NMC

℄ NMC
(NB USH 41)

1192+00 NMC

B

1188+00 VEB

1189+00 VEB

1190+00 VEB

1191+00 VEB

1192+00 VEB

℄ VEB
(NB USH 41 ENTRANCE RAMP)

SG

PM (1)

SG

PM (1)

MATCHLINE 1192+50 VEB

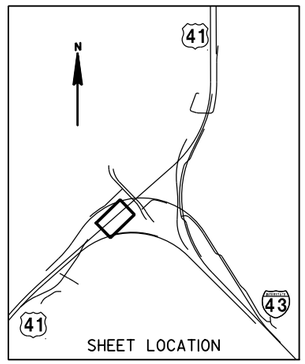
2

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

N



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021265_sd.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

2

2

℄ NMC
(NB USH 41)

B-5-678 ON IHB
(NB IH 43 - SB USH 41)

B-05-677 ON NMC

MATCHLINE 1192+50 VEB

MATCHLINE 1198+50 NMC

WIETOR DRIVE

1207+00 IHB
1206+00 IHB
1205+00 IHB
1204+00 IHB
1203+00 IHB
1202+00 IHB

1193+00 NMC
1194+00 NMC
1195+00 NMC
1196+00 NMC
1197+00 NMC
1198+00 NMC

STA 1195+02 NMC
60'LT

STA 1195+36 NMC
54'LT

STA 1195+55 NMC
61'LT

STA 1196+00 NMC
40'LT

STA 1196+28 NMC
39'LT

STA 1197+38 NMC
47'LT

STA 1197+69 NMC
48'LT

STA 1195+10 NMC
110'RT

STA 1195+55 NMC
205'RT

STA 1195+88 NMC
204'RT

℄ IHB
(NB IH 43 - SB USH 41)

INC
SG
PM (1)

41 141

INTERSTATE 43

LEGEND

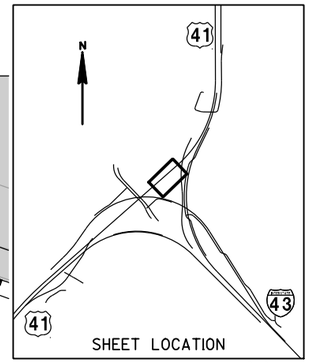
INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021266_sd.dgn
PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42



41 141

STA 1199+97 NMC
73'LT

STA 1200+00 NMC
77'LT

STA 1203+23 NMC
92'LT

INC

SIGN

INC

STA 1203+72 NMC
63'LT

STA 1203+82 NMC
49'LT

STA 1204+05 NMC
35'LT

MATCHLINE 1198+50 NMC

STA 1199+52 NMC
13'LT

1199+00 NMC

1200+00 NMC

1201+00 NMC

1202+00 NMC

1203+00 NMC

1204+00 NMC

SG

PM (1)

STA 1200+53 NMC
39'LT

℄ NMC
(NB USH 41)

B-5-681 0N NMC
(NB USH 41)

STA 1200+36 NMC
46'RT

STA 1201+11 NMC
23'RT

INC

INC

STA 1203+93 NMC
19'RT

INC

STA 1203+43 NMC
71'RT

STA 1203+21 NMC
73'RT

STA 1200+75 NMC
110'RT

STA 1201+49 NMC
104'RT

STA 1200+87 NMC
182'RT

STA 1201+60 NMC
175'RT

INC

STA 1201+97 NMC
207'RT

STA 1202+22 NMC
208'RT

STA 1198+58 NMC
221'RT

STA 1198+98 NMC
220'RT

STA 1199+74 NMC
220'RT

INC

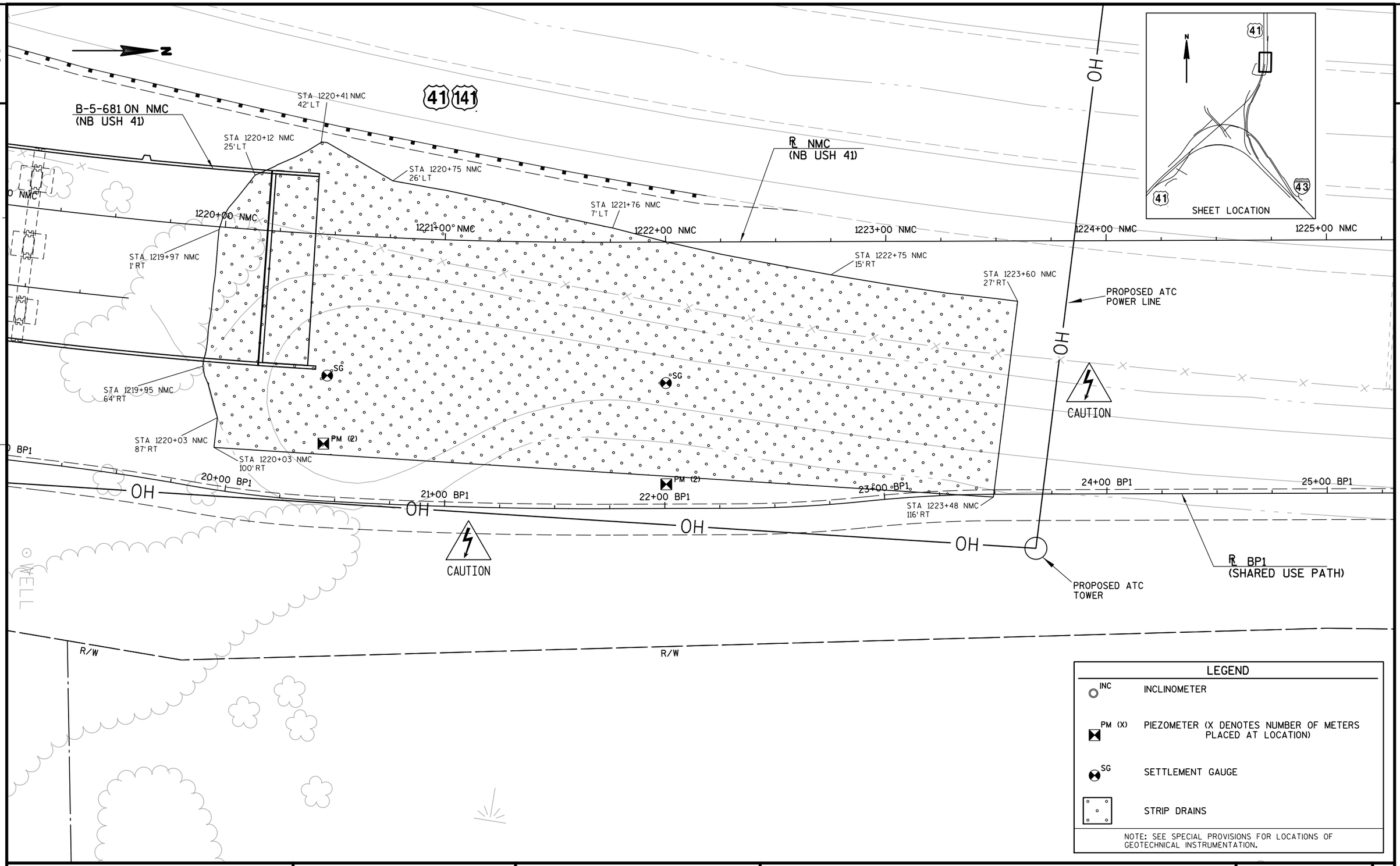
STA 1200+32 NMC
216'RT

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 86	E



LEGEND	
INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021268_sd.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

2

INL

INTERSTATE 43

WIETOR DR

℄ IHB
(NB IH 43 - SB USH 41)

STA 1172+00 IHB
22'LT

STA 1173+00 IHB
40'LT

STA 1173+50 IHB
36'LT

STA 1175+00 IHB
38'LT

STA 1176+50 IHB
46'LT

STA 1176+72 IHB
42'LT

STA 1176+90 IHB
18'LT

STA 1177+31 IHB
17'LT

B-05-678

1172+00 IHB

1173+00 IHB

1174+00 IHB

1175+00 IHB

1176+00 IHB

1177+00 IHB

INC

PM (2)

SG

STA 1172+00 IHB
47'RT

PERMANENT MAINTENANCE RD

STA 1176+67 IHB
60'RT

STA 1177+33 IHB
36'RT

STA 1176+87 IHB
56'RT

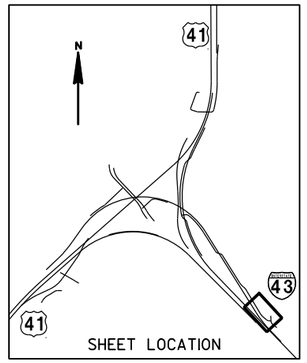
STA 1176+87 IHB
39'RT

R/W

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 88	E

2

2

INTERSTATE 43

STA 1179+02 NIH
13' LT

R-5-256

INC

STA 1184+30 NIH
16' LT

1179+00 NIH

1180+00 NIH

1181+00 NIH

1182+00 NIH

1183+00 NIH

1184+00 NIH

PM (2)

SG

STA 1179+02 NIH
53' RT

℄ NIH
(NB IH 43 - NB USH 41)

INC

STA 1180+50 NIH
49' RT

STA 1180+00 NIH
61' RT

STA 1183+00 NIH
58' RT

STA 1183+50 NIH
66' RT

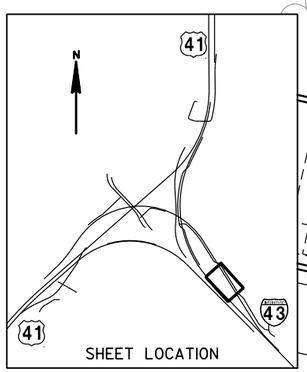
MATCHLINE STA 1184+50 NIH

B-5-678 ON IHB
(NB IH 43 - SB USH 41)

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021270_sd.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

2

MATCHLINE STA 1184+50 NIH

INTERSTATE 43

STA 1186+50 NIH
32' LT

STA 1187+13 NIH
38' LT

STA 1187+68 NIH
37' LT

R-5-256

INC

1185+00 NIH

1186+00 NIH

1187+00 NIH

PM (2)

SG

STA 1187+86 NIH
13' LT

℄ NIH
(NB IH 43 - NB USH 41)

1188+00 NIH

INC

1189+00 NIH

STA 1187+87 NIH
31' RT

1190+00 NIH

STA 1185+00 NIH
73' RT

INC

STA 1187+70 NIH
48' RT

B-5-679 ON NIH
(NB IH 43 - NB USH 41)

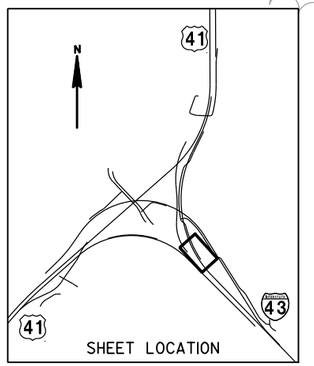
STA 1187+46 NIH
50' RT

STA 1187+00 NIH
88' RT

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.



SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET 90	E

2

N

LEGEND

INC	INCLINOMETER
PM (X)	PIEZOMETER (X DENOTES NUMBER OF METERS PLACED AT LOCATION)
SG	SETTLEMENT GAUGE
	STRIP DRAINS

NOTE: SEE SPECIAL PROVISIONS FOR LOCATIONS OF GEOTECHNICAL INSTRUMENTATION.

1194+00 IHA

1195+00 IHA

1196+00 IHA

1197+00 IHA

1198+00 IHA

1199+00 IHA

1200+00 IHA

B-5-671 ON IHA
(NB USH 41 - SB IH 43)

R/W

STA 1196+36 IHA
14' LT

STA 1196+53 IHA
29' LT

R-5-255

STA 1196+29 IHA
37' RT

STA 1197+03 IHA
7' LT

STA 1197+10 IHA
8' LT

PM 12

SG

STA 1196+31 IHA
OFF 44' RT

STA 1196+55 IHA
61' RT

R-5-255

STA 1197+46 IHA
OFF 31' RT

STA 1197+35 IHA
OFF 37' RT

STA 1197+46 IHA
OFF 38' RT

℄ IHA
(NB USH 41 - SB IH 43)

WIETOR DRIVE

R/W

EXISTING NB USH 41 EXIT RAMP TO SB USH 43

INTERSTATE 43

SIGN

N

41

43

41

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STRIP DRAIN DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021272_sd.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

COUNTY HS

DUCK CREEK

ISLAND CT

BEAVER DAM CREEK

VELP AVE

WIETOR DR

TEMP HAUL ROAD TO BE REMOVED FOLLOWING CONSTRUCTION OF B-05-678.

1170 VEC

1180 VEC

1185 VEC

1190 VEC

1195 VEC

1215 IHB

1210 IHB

1220 IHB

1225 IHB

FOOT

41

141

1165 NMC

1170 NMC

1175 NMC

1180 NMC

1185 NMC

1190 NMC

1195 NMC

1165 IHA

1170 IHA

1175 IHA

1180 IHA

1185 IHA

1165 RVEA

1170 RVEA

1180 VEB

1185 VEB

1190 VEB

8HI SIGN

10 ROS

ROSEWOOD ST

MEMORIAL DR

WISCONSIN CENTRAL LTD. RR

TEMP HAUL ROAD TO BE REMOVED FOLLOWING CONSTRUCTION OF B-05-671.

1195 IHA

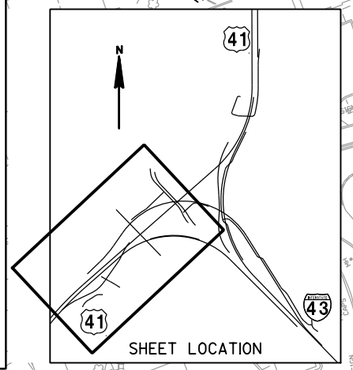
INTERSTATE 43

LEGEND:

- ALIGNMENT
- SLOPE INTERCEPTS
- WETLAND BOUNDRY
- WOODED SWAMP WETLAND
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- FOOT — SEE BRIDGE FOOTING DETAIL - TYPICAL PIER EXCAVATION AND CONSTRUCTION ACCESS.

NOTES:
THE TEMPORARY PERMITTED IMPACTS TO WETLANDS AND DUCK CREEK SHOWN IN THIS DISPLAY ARE BASED ON POSSIBLE TEMPORARY HAUL ROADS AND TEMPORARY CAUSEWAYS.

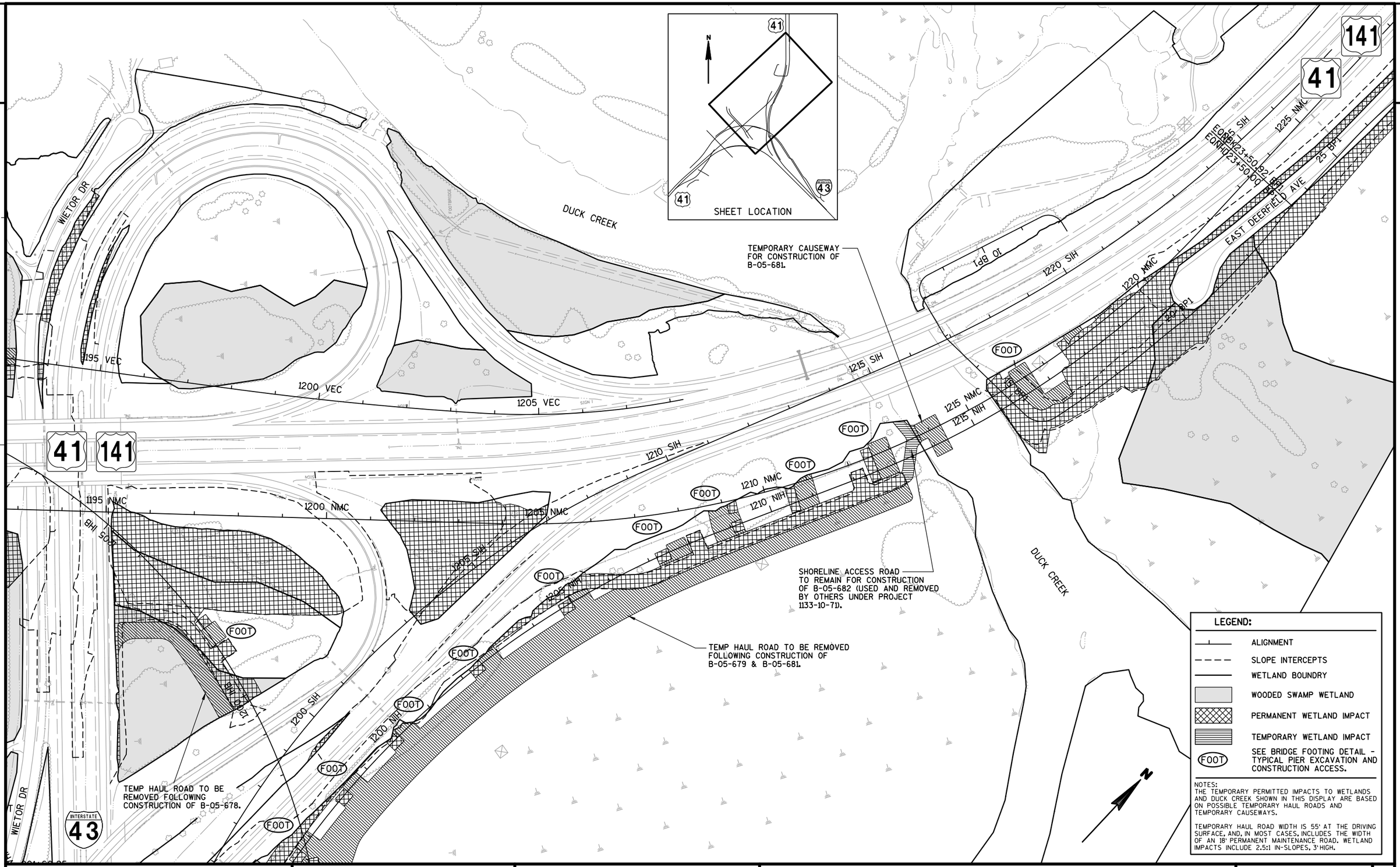
TEMPORARY HAUL ROAD WIDTH IS 55' AT THE DRIVING SURFACE, AND, IN MOST CASES, INCLUDES THE WIDTH OF AN 18' PERMANENT MAINTENANCE ROAD. WETLAND IMPACTS INCLUDE 2.5:1 IN-SLOPES, 3' HIGH.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: WETLAND IMPACTS SCALE, FEET 0 100 200	SHEET 92 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021280_wi.dgn

PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: WETLAND IMPACTS SCALE, FEET 0 100 200	SHEET 93	E

2

2

WEST DEERFIELD AVE

1240 NMC

1235 NMC

1230 NMC

1225 NMC

1220 NMC

1215 NMC

1215 NIH

141

41

EQNBK23+50.92
EQNFD23+50.00

30' RDW

25' BPL

10' BPL

25' BPL

EAST DEERFIELD AVE

DUCK CREEK

FOOT

SIGN

INL

N

41

43

SHEET LOCATION

LEGEND:

- ALIGNMENT
- SLOPE INTERCEPTS
- WETLAND BOUNDRY
- WOODED SWAMP WETLAND
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- FOOT — SEE BRIDGE FOOTING DETAIL - TYPICAL PIER EXCAVATION AND CONSTRUCTION ACCESS.

NOTES:
THE TEMPORARY PERMITTED IMPACTS TO WETLANDS AND DUCK CREEK SHOWN IN THIS DISPLAY ARE BASED ON POSSIBLE TEMPORARY HAUL ROADS AND TEMPORARY CAUSEWAYS.

TEMPORARY HAUL ROAD WIDTH IS 55' AT THE DRIVING SURFACE, AND, IN MOST CASES, INCLUDES THE WIDTH OF AN 18' PERMANENT MAINTENANCE ROAD. WETLAND IMPACTS INCLUDE 2.5:1 IN-SLOPES, 3' HIGH.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: WETLAND IMPACTS	SCALE, FEET 0 100 200	SHEET 94	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021282_wi.dgn

PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

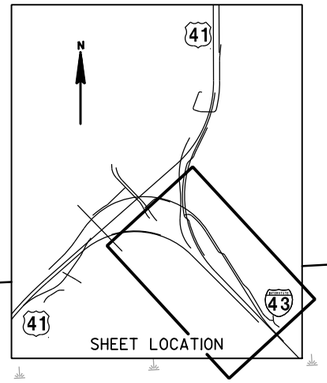
2

LEGEND:

- ALIGNMENT
- SLOPE INTERCEPTS
- WETLAND BOUNDRY
- WOODED SWAMP WETLAND
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- (FOOT) SEE BRIDGE FOOTING DETAIL - TYPICAL PIER EXCAVATION AND CONSTRUCTION ACCESS.

NOTES:
THE TEMPORARY PERMITTED IMPACTS TO WETLANDS AND DUCK CREEK SHOWN IN THIS DISPLAY ARE BASED ON POSSIBLE TEMPORARY HAUL ROADS AND TEMPORARY CAUSEWAYS.

TEMPORARY HAUL ROAD WIDTH IS 55' AT THE DRIVING SURFACE, AND, IN MOST CASES, INCLUDES THE WIDTH OF AN 18' PERMANENT MAINTENANCE ROAD. WETLAND IMPACTS INCLUDE 2.5:1 IN-SLOPES, 3' HIGH.



WIETOR DR

INTERSTATE 43

1170 NIH
1170 IHB
1175 NIH
1175 IHB
1180 NIH
1180 IHB
1185 NIH
1185 IHB
1190 NIH
1190 IHB
1195 NIH
1195 IHB
1200 NIH
1200 IHA
1205 IHA
1210 IHA
1215 IHA
1220 IHA

HURLBUT ST

FOOT

TEMP HAUL ROAD TO BE REMOVED FOLLOWING CONSTRUCTION OF B-05-671.

TEMP HAUL ROAD TO BE REMOVED FOLLOWING CONSTRUCTION OF B-05-678.

TEMP HAUL ROAD TO BE REMOVED FOLLOWING CONSTRUCTION OF B-05-679.

RUBBISH PILE NOT CLASSIFIED AS WETLANDS.

TEMP HAUL ROAD TO BE REMOVED FOLLOWING CONSTRUCTION OF BRIDGE B-05-679.

2

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: WETLAND IMPACTS SCALE, FEET 0 100 200	SHEET 95	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021283_wi.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

LEGEND:

- ALIGNMENT
- WOODED SWAMP WETLAND
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT

NOTES:
AT THE TIME OF WETLAND IMPACT AREA DEFINITION, THE FOLLOWING ASSUMPTIONS WERE MADE:

-TEMPORARY HAUL ROAD WIDTH IS 55' AT THE DRIVING SURFACE.

-IN MOST CASES, TEMPORARY HAUL ROADS INCLUDE THE WIDTH OF AN 18' PERMANENT MAINTENANCE ROAD.

-WETLAND IMPACTS INCLUDE 2.5:1 IN-SLOPES.

NOTE:
BOUNDARIES OF PERMITTED TEMPORARY WETLAND IMPACTS WILL BE AVAILABLE WITH SUBMITTED METADATA.

X=89300.25
Y=584188.92

X=89324.10
Y=584160.52

32+00 MR3

34+00 MR3

36+00 MR3

38+00 MR3

X=88758.41
Y=583731.27

X=88776.05
Y=583697.27

62.5'

25.5'

PROPOSED EASEMENT

PROPOSED R/W

R/W

102+00 MR2

100+00 MR2

104+00 MR2

X=90208.38
Y=583890.95

X=90221.07
Y=583925.72

X=89898.22
Y=583897.45

X=89918.30
Y=583865.53

88+00 MR4

90+00 MR4

92+00 MR4

94+00 MR4

X=89202.38
Y=583403.79

X=89171.84
Y=583357.08

X=90003.86
Y=583400.71

X=90025.99
Y=583356.12

P.I.

WISCONSIN CENTRAL LTD. RR

WIETOR DR

141

41

43

INTERSTATE

N

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: DEFINITION OF TEMPORARY WETLAND IMPACTS TO WOODED SWAMP WETLAND	SCALE, FEET 0 50 100	SHEET 96	E

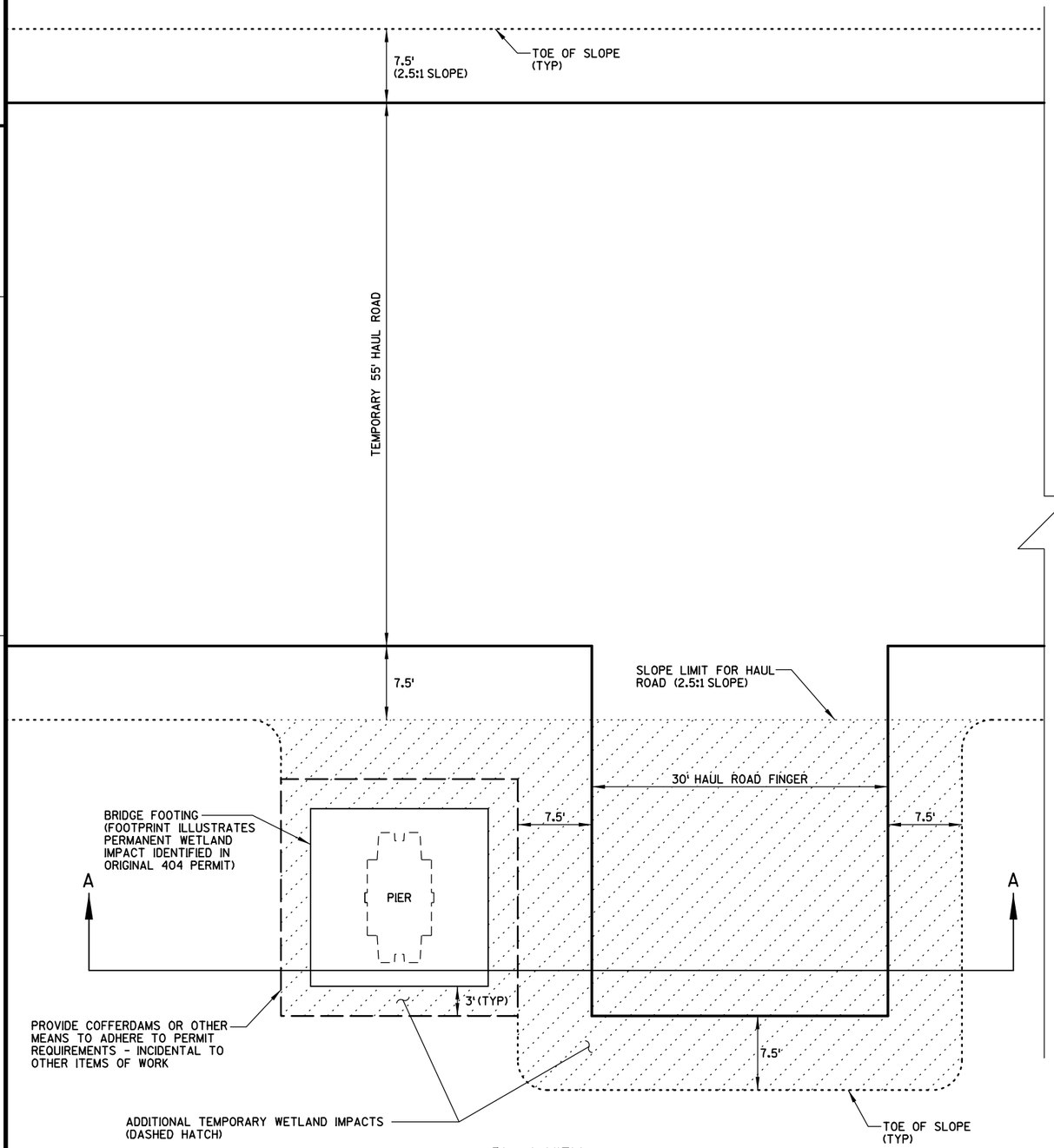
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_021284_wi.dgn

PLOT BY : dm253

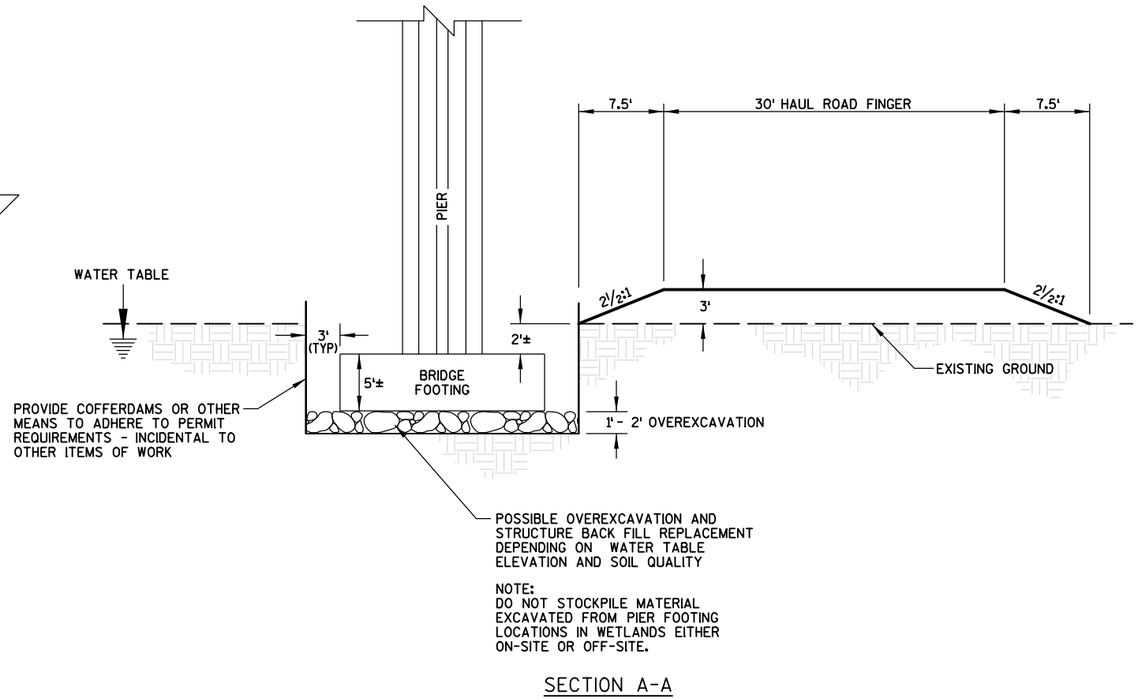
PLOT DATE : 5/31/2013

PLOT SCALE : 1:100

2



PLAN VIEW



SECTION A-A

BRIDGE FOOTING DETAIL - TYPICAL PIER EXCAVATION AND CONSTRUCTION ACCESS

DENOTED BY (FOOT) ON WETLAND IMPACT PLAN DETAIL SHEETS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN DETAILS: WETLAND IMPACTS	SHEET 97	E

2

2

MEMORIAL DR

USH 41

RELOCATED GBMSD SANITARY LINE BY OTHERS

RELOCATED ATC OVERHEAD TRANSMISSION LINE BY OTHERS

SLOPE INTERCEPTS

DECK DRAIN (SEE STRUCTURE PLANS)

DECK DRAIN DOWNSPOUT WITH RIPRAP (SEE STRUCTURE PLANS)

EXISTING TRACK

WISCONSIN CENTRAL LTD RAILROAD

12+00 RR

14+00 RR

16+00 RR

18+00 RR

20+00 RR

22+00 RR

R/W

1182+00 IHA

1182+00 NMC

1184+00 IHA

1186+00 IHA

1186+00 NMC

1188+00 IHA

1188+00 NMC

1190+00 IHA

1190+00 NMC

1212+00 IHB

1214+00 IHB

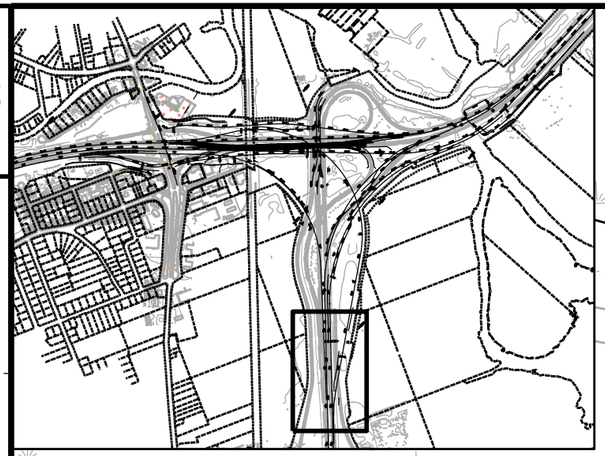
1218+00 IHB

B-05-671

B-05-678

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	RAILROAD SITE DEVELOPMENT PLAN SCALE, FEET 0 50 100	SHEET 98	E



EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

SIGN

I-43 SB

1170 SIH

1220 IHA

1175 SIH

1215 IHA

1180 SIH

1210 IHA

1175 NIH

ROCK BAG DITCH CHECK (TYP.)

1180 NIH

SLOPE INTERCEPT (TYP.)

1170 NIH

1170 IHB

I-43 NB

I-43 NB

HURLBUT ST.

1175 IHB

HURLBUT ST.

1180 IHB

R/W

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 99	E

EROSION CONTROL LEGEND

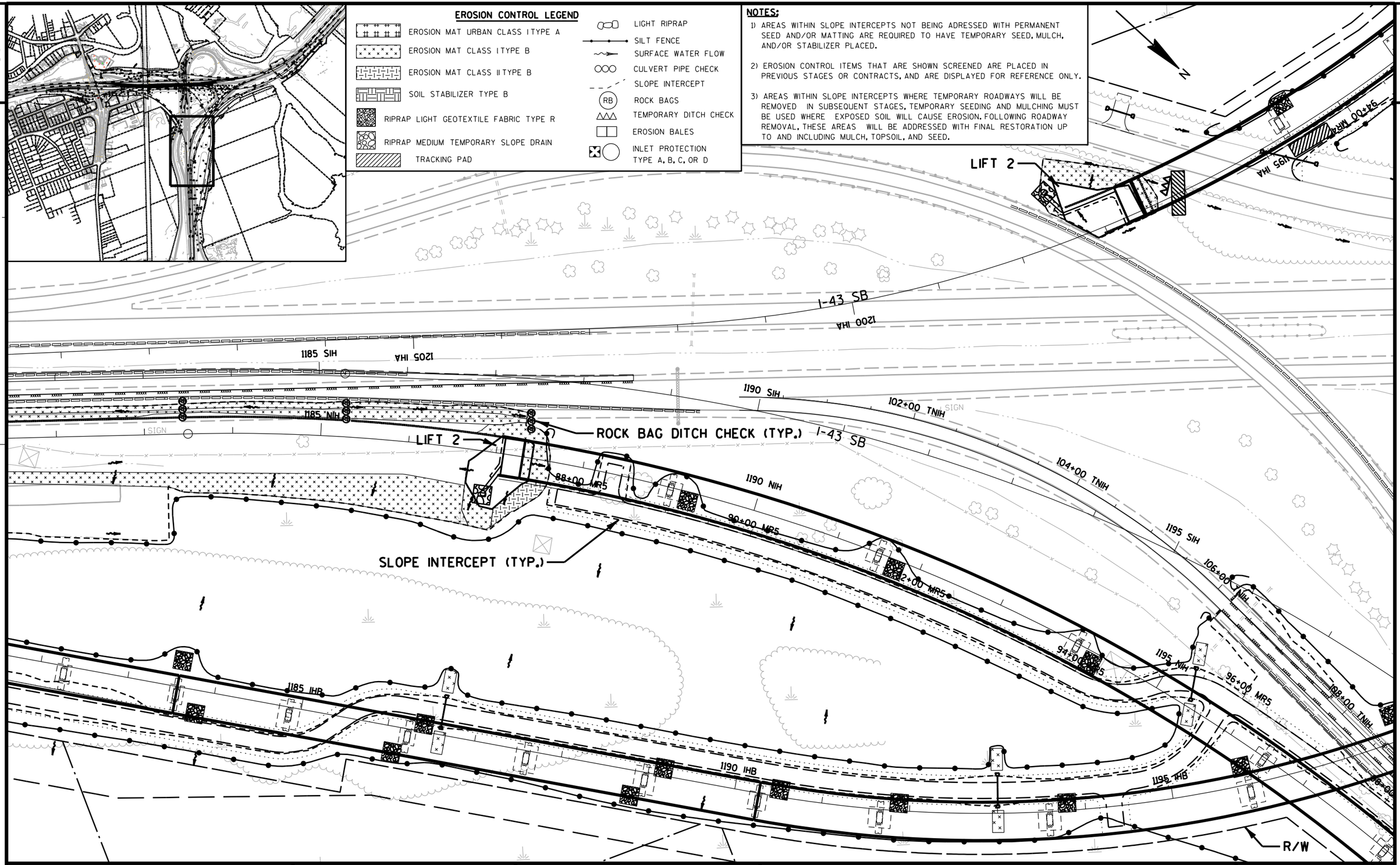
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

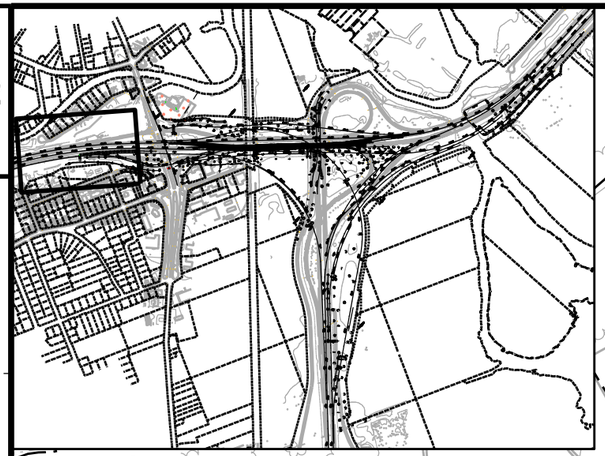


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 100	E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 1\1133-11-74_026002_s1.dgn PLOT DATE : 5/15/2013 PLOT BY : Harlan PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

ISLAND CT.

REALIGNED BEAVER DAM CREEK

575

580

585

590

590

USH 41 SB

1156+00 SMC

1158+00 SMC

1160+00 SMC

1162+00 SMC

1164+00 SMC

1166+00 SMC

1168+00 SMC

1170+00 SMC

ROCK BAG DITCH CHECK (TYP.)

USH 41 NB

1156+00 NMC

1158+00 NMC

1160+00 NMC

1162+00 NMC

1164+00 NMC

1166+00 NMC

1168+00 NMC

1170+00 NMC

1160 IHA

1155 IHA

SLOPE INTERCEPT (TYP.)

1166+00 EVEA

1168+00 EVEA

1170+00 EVEA

R/W

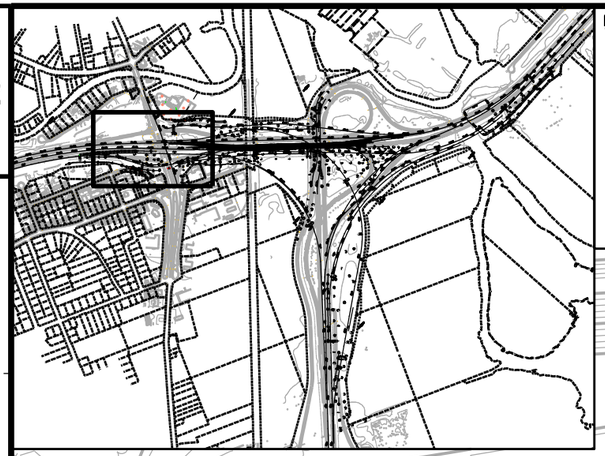
PLAYGROUND

BASKETBALL COURT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 101	E



NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

2

R/W
USH 41 SB
USH 41 NB
SLOPE INTERCEPT (TYP.)
ROCK BAG DITCH CHECK (TYP.)
VELP AVE.
1166+00 SMC
1168+00 SMC
1170+00 SMC
1172+00 SMC
1174+00 SMC
1176+00 SMC
1178+00 SMC
1180+00 SMC
1166+00 NMC
1168+00 NMC
1170+00 NMC
1172+00 NMC
1174+00 NMC
1176+00 NMC
1178+00 NMC
1166+00 EVEA
1168+00 EVEA
1170+00 EVEA
1172+00 EVEA
1174+00 EVEA
1176+00 EVEA
1178+00 EVEB
1180+00 EVEB
1174+00 VEC
1176+00 VEC
1178+00 VEC
1180+00 VEC
1176+00 VEB
1178+00 VEB
1225 IHB
1175 IHA
14+00 ROS
196+00 EVEN
198+00 EVEN
200+00 EVEN
202+00 EVEN
580
585
590

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 102	E

NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

N

R/W

LIFT 2

USH 41 SB

USH 41 NB

1180+00 SMC

1182+00 SMC

1184+00 SMC

1186+00 SMC

1188+00 SMC

1190+00 SMC

1192+00 SMC

1180+00 NMC

1182+00 NMC

1184+00 NMC

1186+00 NMC

1188+00 NMC

1190+00 NMC

1192+00 NMC

1180+00 VEB

1182+00 VEB

1184+00 VEB

1186+00 VEB

1188+00 VEB

1190+00 VEB

1192+00 VEB

1184+00 VEC

1186+00 VEC

1188+00 VEC

1190+00 VEC

1192+00 VEC

1180 IHA

1185 IHA

1220 IHB

1210

38+00 MR3

36+00 MR3

34+00 MR3

32+00 MR3

88+00 MR4

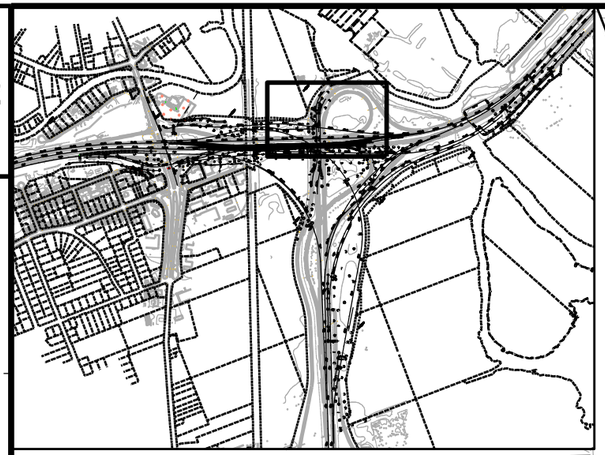
ROCK BAG DITCH CHECK (TYP.)

SLOPE INTERCEPT (TYP.)

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- ROCK BAGS (RB)
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 103	E



NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

R/W

SLOPE INTERCEPT (TYP.)

WIETOR DR

FOOTBRIDGE

NOISE WALL

USH 41 SB

USH 41 NB

LIFT 2

ROCK BAG DITCH CHECK (TYP.)

1188+00 VEC
1190+00 VEC
1192+00 VEC
1194+00 VEC
1196+00 VEC
1198+00 VEC
1200+00 VEC
1202+00 VEC

1188+00 SMC
1190+00 SMC
1192+00 SMC
1194+00 SMC
1196+00 SMC
1198+00 SMC
1200+00 SMC
1202+00 SMC

1188+00 NMC
1190+00 NMC
1192+00 NMC
1194+00 NMC
1196+00 NMC
1198+00 NMC
1200+00 NMC
1202+00 NMC

1188+00 VEB
1190+00 VEB
1192+00 VEB

1210
24+00 MR3
32+00 MR3
36+00 MR3
104+00 TWT
106+00 TWT
108+00 TWT
110+00 TWT
104+00 TSH
106+00 TSH
108+00 TSH
110+00 TSH

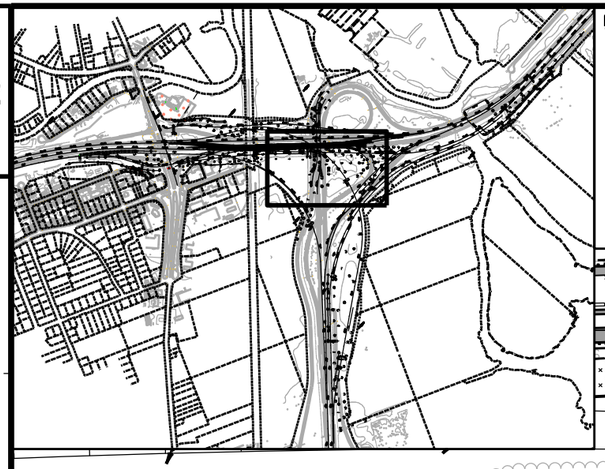
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 104	E

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.



LIFT 2

LIFT 2

LIFT 2

1192+00 NMC

1192+00 VEB

ROCK BAG DITCH CHECK (TYP.)

1194+00 NMC

1196+00 NMC

1198+00 NMC

1200+00 NMC

1202+00 NMC

1196+00 SMC

1198+00 SMC

USH 41 SB

1200+00 SMC

1202+00 SMC

1202+00 VEC

USH 41 NB

"E" DR.

104+00 TWT

104+00 TSH

102+00 TWT

102+00 TSH

100+00 TWT

100+00 TSH

1200 NIH

1200 SIH

88+00 MR4

90+00 MR4

92+00 MR4

94+00 MR4

R/W

114+00 TNIH

112+00 TNIH

110+00 TNIH

108+00 TNIH

106+00 MR5

104+00 MR5

102+00 MR5

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

N

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 105	E

2

1200+00 VEC
1202+00 VEC
1204+00 VEC
1206+00 VEC
1208+00 VEC
1210+00 SMC
1212+00 SMC
1214+00 SMC
1215 SIH
12+00 BP1
41 SB
1200+00 SMC
1202+00 SMC
1204+00 SMC
1206+00 SMC
1208+00 SMC
USH 41 SB
LIFT 2
ROCK BAG DITCH CHECK (TYP.)
SLOPE INTERCEPT (TYP.)
122+00 TNIH
1210 SIH
120+00 TNIH
1200+00 NMC
1202+00 NMC
1204+00 NMC
118+00 TNIH
1206+00 NMC
1208+00 NMC
1210+00 NMC
1212+00 NMC
1214+00 NMC
1215
USH 41 NB
1205 SIH
116+00 TNIH
1210 NIH
112+00 MR5
110+00 MR5
108+00 MR5
106+00 MR5
1205 NIH
USH 41 NB
104+00 MR5
114+00 TNIH
TURBIDITY BARRIER
102+00 MR5
R/W
112+00 TNIH
100+00 MR5
1200 NIH
110+00 TNIH

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 106	E

2

N

W. DEERFIELD AVE.

SIGN

SIGN

SIGN

USH 41 SB

USH 41 NB

1214+00 SMC

1216+00 SMC

1218+00 SMC

1220 SIH

1220+00 SMC

1222+00 SMC

1225 SIH

1224+00 SMC

1228+00 SMC

1230+00 SMC

RIPRAP LIGHT LINED DITCH

1230+00 NMC

1228+00 NMC

1226+00 NMC

1224+00 NMC

1222+00 NMC

1220+00 NMC

1218+00 NMC

1216+00 NMC

LIFT 2

INL

INL

RB

R/W

10+00 BP1

12+00 BP1

8+00 BP1

14+00 BP1

16+00 BP1

18+00 BP1

20+00 BP1

22+00 BP1

24+00 BP1

26+00 BP1

28+00 BP1

SLOPE INTERCEPT (TYP.)

NOTES:

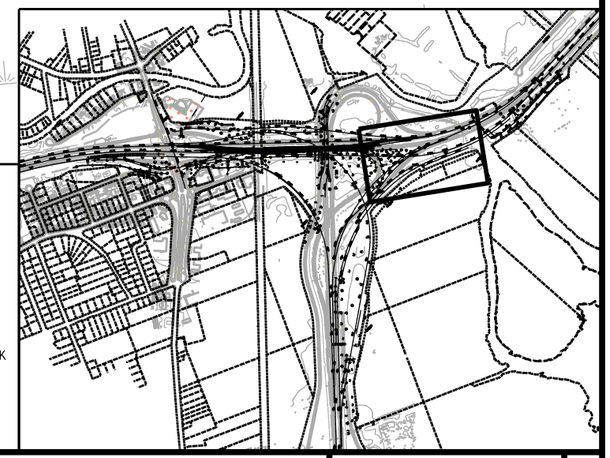
1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

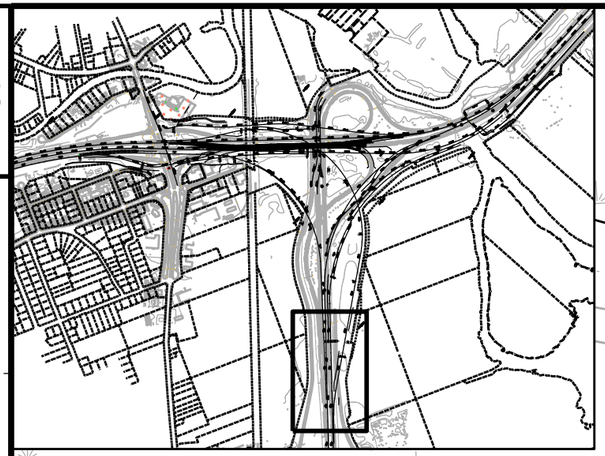
3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- ROCK BAGS (RB)
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 1	SHEET 107	E



EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

I-43 SB
1170 SIH
1220 IHA
1170 NIH
1170 IHB
I-43 NB
HURLBUT ST.
SLOPE INTERCEPT (TYP.)
R/W
1175 SIH
1215 IHA
1175 NIH
ROCK BAG DITCH CHECK (TYP.)
1175 IHB
1180 SIH
1210 IHA
1180 NIH
1180 IHB
SIGN

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 108 E

EROSION CONTROL LEGEND

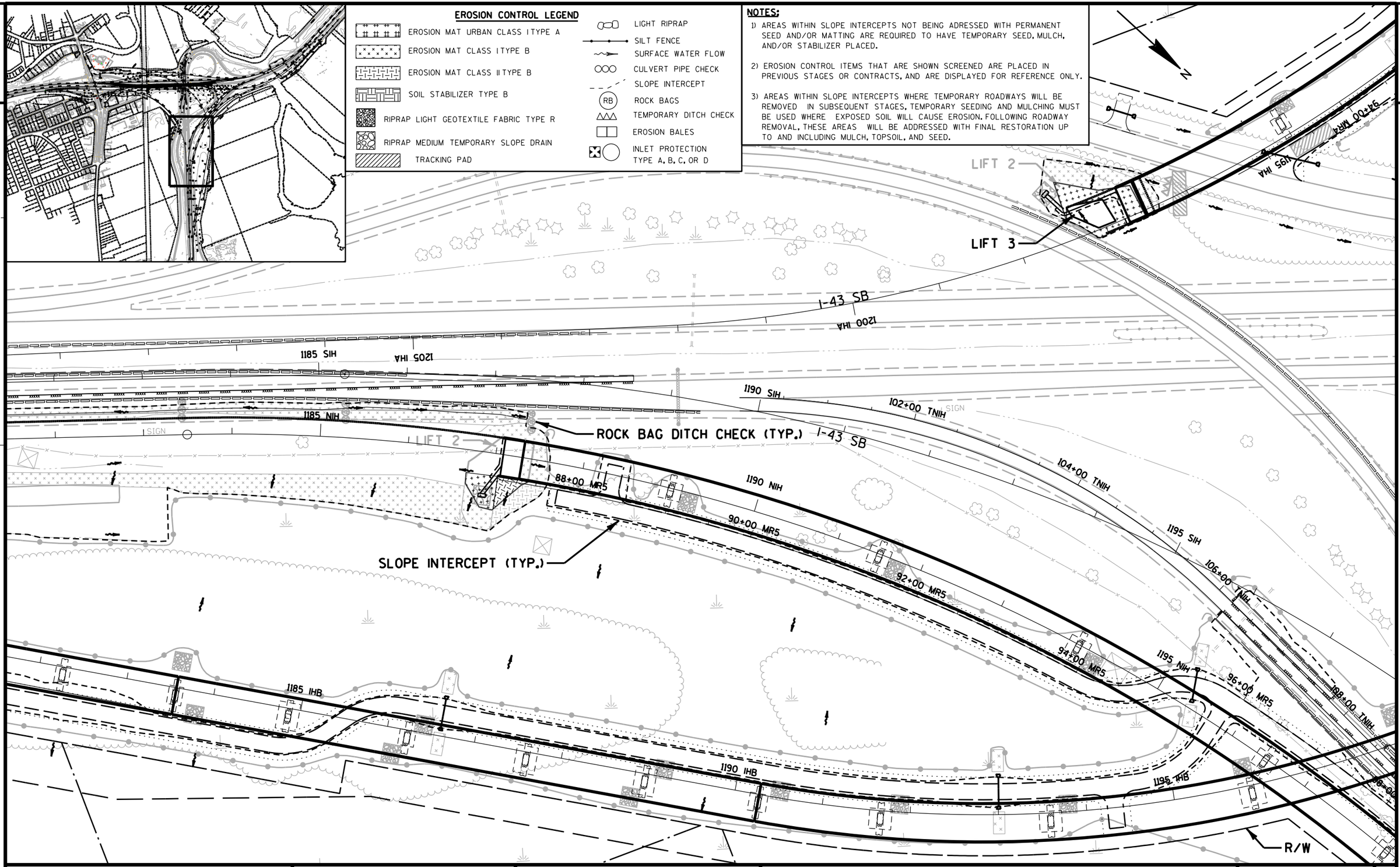
- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

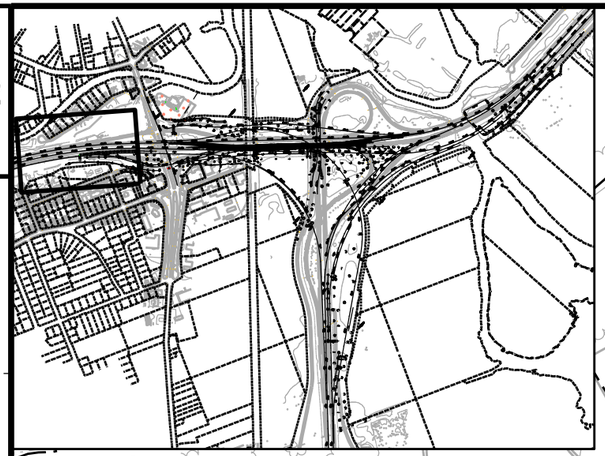
3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 109	E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 2\1133-11-74_026002_s2.dgn | PLOT DATE : 5/15/2013 | PLOT BY : Harlan | PLOT NAME : | PLOT SCALE : 1:100

2



NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

ISLAND CT.

REALIGNED BEAVER DAM CREEK

575

580

585

590

590

USH 41 SB

1156+00 SMC

1158+00 SMC

1160+00 SMC

1162+00 SMC

1164+00 SMC

1166+00 SMC

1168+00 SMC

1170+00 SMC

ROCK BAG DITCH CHECK (TYP.)

USH 41 NB

1156+00 NMC

1158+00 NMC

1160+00 NMC

1162+00 NMC

1164+00 NMC

1166+00 NMC

1168+00 NMC

1170+00 NMC

1160 IHA

1165 IHA

1170 IHA

SLOPE INTERCEPT (TYP.)

1155 IHA

1166+00 EVEA

1168+00 EVEA

1170+00 EVEA

1170+00 ROS

R/W

PLAYGROUND

BASKETBALL COURT

MH

SIGN

INL

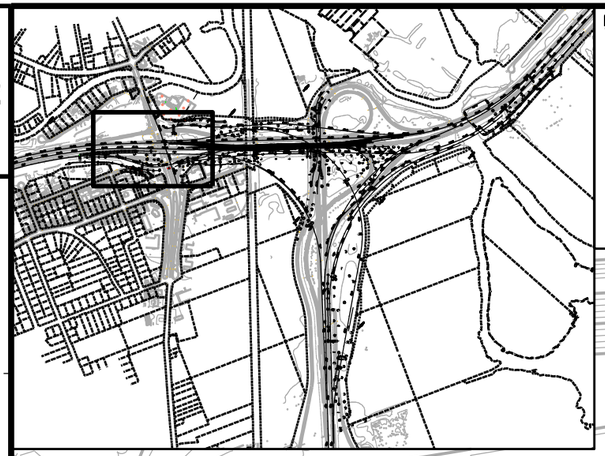
W

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 110	E

2



NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

2

R/W

SLOPE INTERCEPT (TYP.)

ROCK BAG DITCH CHECK (TYP.)

USH 41 SB

USH 41 NB

VELP AVE.

1166+00 SMC
1168+00 SMC
1170+00 SMC
1172+00 SMC
1174+00 SMC
1176+00 SMC
1178+00 SMC
1180+00 SMC

1166+00 NMC
1168+00 NMC
1170+00 NMC
1172+00 NMC
1174+00 NMC
1176+00 NMC
1178+00 NMC

1166+00 EVEA
1168+00 EVEA
1170+00 EVEA
1172+00 EVEA
1174+00 EVEA

1174+00 VEC
1176+00 VEC
1178+00 VEC
1180+00 VEC

1176+00 EVEB
1176+00 VEB
1178+00 EVEB
1178+00 VEB

1174+00 EVEN
1196+00 EVEN
1198+00 EVEN
200+00 EVEN
202+00 EVEN

1225 IHB
1140 IHA
1175 IHA

12+00 ROS
14+00 ROS

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 111	E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 2\1133-11-74_026004_s2.dgn PLOT DATE : 5/15/2013 PLOT BY : Harlan PLOT NAME : PLOT SCALE : 1:100

NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

N

R/W

LIFT 3

LIFT 2

USH 41 SB

USH 41 NB

1180+00 SMC

1182+00 SMC

1184+00 SMC

1186+00 SMC

1188+00 SMC

1190+00 SMC

1192+00 SMC

1180+00 NMC

1182+00 NMC

1184+00 NMC

1186+00 NMC

1188+00 NMC

1190+00 NMC

1192+00 NMC

1180+00 VEB

1182+00 VEB

1184+00 VEB

1186+00 VEB

1188+00 VEB

1190+00 VEB

1192+00 VEB

1180+00 EVEB

1180+00 VEC

1184+00 VEC

1186+00 VEC

1188+00 VEC

1190+00 VEC

1192+00 VEC

1180 IHA

1185 IHA

1210 IHB

1215 IHB

1220 IHB

32+00 MR3

34+00 MR3

36+00 MR3

38+00 MR3

88+00 MR4

ROCK BAG DITCH CHECK (TYP.)

SLOPE INTERCEPT (TYP.)

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 112 E

NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

R/W

SLOPE INTERCEPT (TYP.)

ROCK BAG DITCH CHECK (TYP.)

USH 41 NB

USH 41 SB

LIFT 2

LIFT 3

LIFT 4

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 113 E

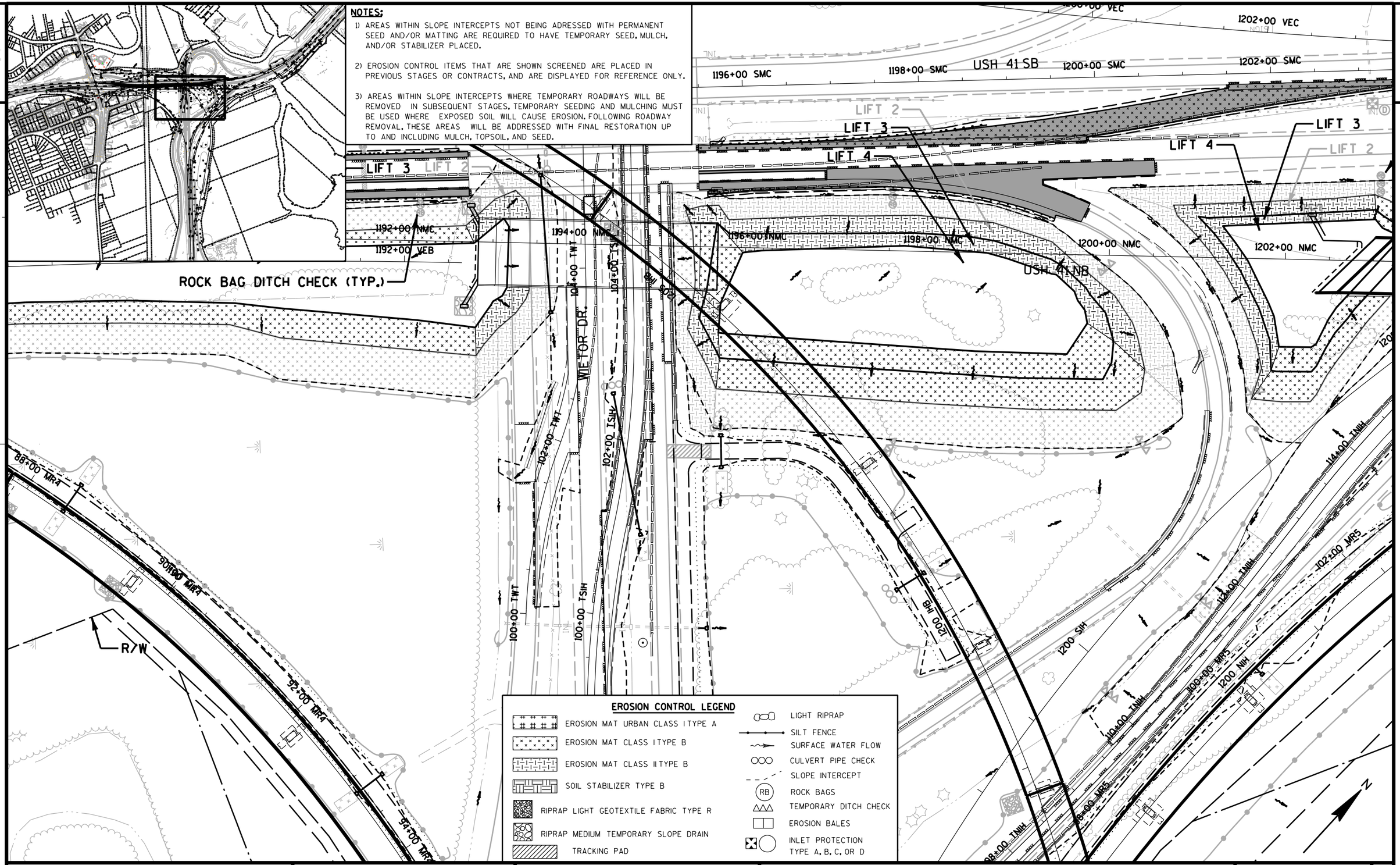
FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 2\1133-11-74_026006_s2.dgn PLOT DATE : 5/15/2013 PLOT BY : Harlan PLOT NAME : PLOT SCALE : 1:100

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.



EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 114	E

2

1200+00 VEC
1202+00 VEC
1204+00 VEC
1206+00 VEC
1208+00 VEC
41 SB
1200+00 SMC
1202+00 SMC
1204+00 SMC
1206+00 SMC
1208+00 SMC
USH 41 SB
1210+00 SMC
1212+00 SMC
1214+00 SMC
12+00 BL1
1215 SIH
LIFT 4
LIFT 3
LIFT 2
ROCK BAG DITCH CHECK (TYP.)
SLOPE INTERCEPT (TYP.)
1210 SIH
120+00 TNIH
122+00 TNIH
1200+00 NMC
1202+00 NMC
1204+00 NMC
1206+00 NMC
1208+00 NMC
1210+00 NMC
1212+00 NMC
1214+00 NMC
1215
USH 41 NB
1210 NIH
112+00 MR5
110+00 MR5
108+00 MR5
106+00 MR5
104+00 MR5
102+00 MR5
100+00 MR5
1205 SIH
116+00 TNIH
114+00 TNIH
112+00 TNIH
110+00 TNIH
1205 NIH
1200 NIH
R/W
TURBIDITY BARRIER
N

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 115	E

2

N

W. DEERFIELD AVE.

SIGN

SIGN

SIGN

USH 41 SB

USH 41 NB

LIFT 2

INL

INL

RB

RIPRAP LIGHT LINED DITCH

R/W

SLOPE INTERCEPT (TYP.)

10+00 BP1

12+00 BP1

8+00 BP1

14+00 BP1

16+00 BP1

18+00 BP1

20+00 BP1

22+00 BP1

24+00 BP1

26+00 BP1

28+00 BP1

1214+00 SMC

1216+00 SMC

1218+00 SMC

1220 SIH

1220+00 SMC

1222+00 SMC

1225 SIH

1224+00 SMC

1228+00 SMC

1230+00 SMC

1216+00 NMC

1218+00 NMC

1220+00 NMC

1222+00 NMC

1224+00 NMC

1226+00 NMC

1228+00 NMC

1230+00 NMC

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

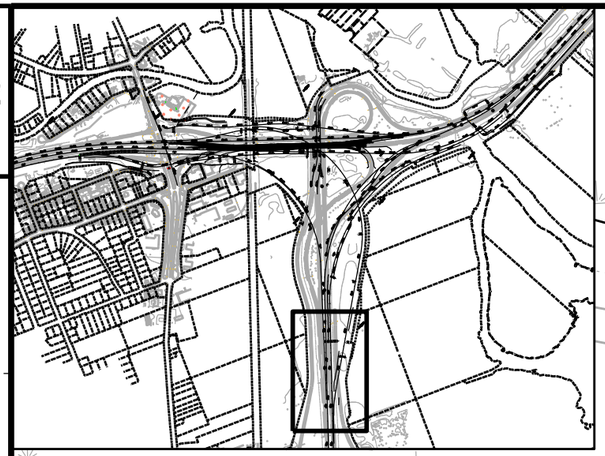
2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- ROCK BAGS (RB)
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 2	SHEET 116	E



EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

I-43 SB
1170 SIH
1220 IHA
1170 NIH
1170 IHB
I-43 NB
HURLBUT ST.
SLOPE INTERCEPT (TYP.)
R/W
1175 SIH
1215 IHA
1175 NIH
ROCK BAG DITCH CHECK (TYP.)
1175 IHB
1180 SIH
1210 IHA
1180 NIH
1180 IHB
SIGN

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 117	E

EROSION CONTROL LEGEND

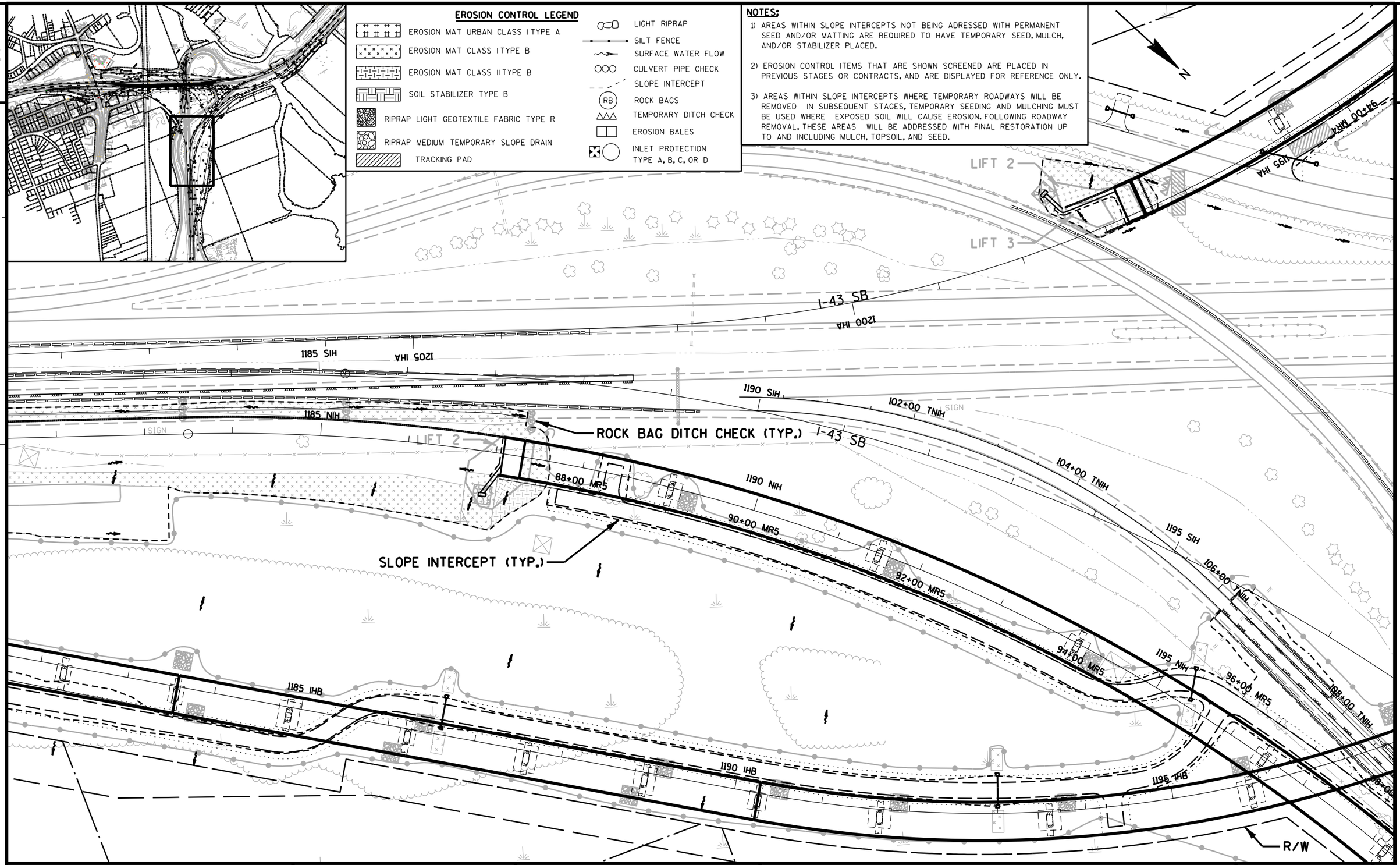
- EROSION MAT URBAN CLASS ITYPE A
- EROSION MAT CLASS ITYPE B
- EROSION MAT CLASS IITYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

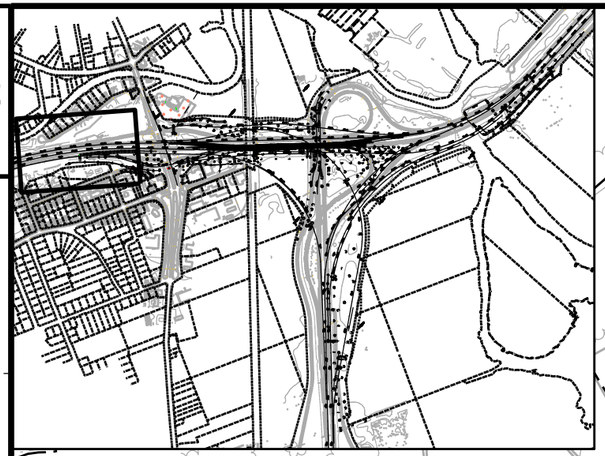
3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 118	E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 3\1133-11-74_026002_s3.dgn | PLOT DATE : 5/15/2013 | PLOT BY : Harlan | PLOT NAME : | PLOT SCALE : 1:100

2



NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

ISLAND CT.

REALIGNED BEAVER DAM CREEK

575

580

585

590

590

USH 41 SB

1156+00 SMC

1158+00 SMC

1160+00 SMC

1162+00 SMC

1164+00 SMC

1166+00 SMC

1168+00 SMC

1170+00 SMC

ROCK BAG DITCH CHECK (TYP.)

USH 41 NB

1156+00 NMC

1158+00 NMC

1160+00 NMC

1162+00 NMC

1164+00 NMC

1166+00 NMC

1168+00 NMC

1170+00 NMC

1160 IHA

1165 IHA

1170 IHA

SLOPE INTERCEPT (TYP.)

1155 IHA

1166+00 EVEA

1168+00 EVEA

1170+00 EVEA

1170+00 ROS

R/W

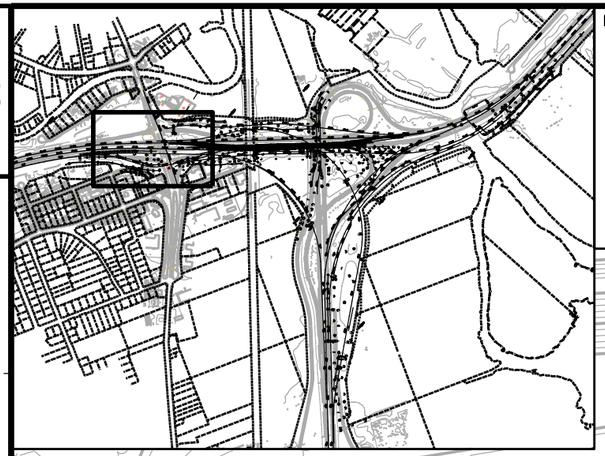
PLAYGROUND

BASKETBALL COURT

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 119	E



NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 120 E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 3\1133-11-74_026004_s3.dgn | PLOT DATE : 5/15/2013 | PLOT BY : Harlan | PLOT NAME : | PLOT SCALE : 1:100

NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

N

R/W

LIFT 3
LIFT 2

USH 41 SB

USH 41 NB

1180+00 SMC
1182+00 SMC
1184+00 SMC
1186+00 SMC
1188+00 SMC
1190+00 SMC
1192+00 SMC

1180+00 NMC
1182+00 NMC
1184+00 NMC
1186+00 NMC
1188+00 NMC
1190+00 NMC
1192+00 NMC

1180+00 VEB
1182+00 VEB
1184+00 VEB
1186+00 VEB
1188+00 VEB
1190+00 VEB
1192+00 VEB

1180+00 EVEB

1184+00 VEC
1186+00 VEC
1188+00 VEC
1190+00 VEC
1192+00 VEC

1220 IHB
1215 IHB
1210 IHB
1180 IHA
1185 IHA

38+00 MR3
36+00 MR3
34+00 MR3
32+00 MR3
88+00 MR4

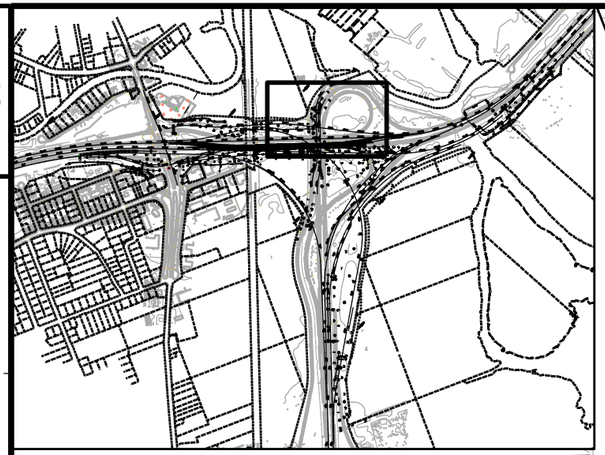
SLOPE INTERCEPT (TYP.)

ROCK BAG DITCH CHECK (TYP.)

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 121 E



NOTES;

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

R/W

SLOPE INTERCEPT (TYP.)

WIETOR DR

ROCK BAG DITCH CHECK (TYP.)

USH 41 NB

USH 41 SB

LIFT 2

LIFT 3

LIFT 4

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 122 E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 3\1133-11-74_026006_s3.dgn PLOT DATE : 5/15/2013 PLOT BY : Harlan PLOT NAME : PLOT SCALE : 1:100

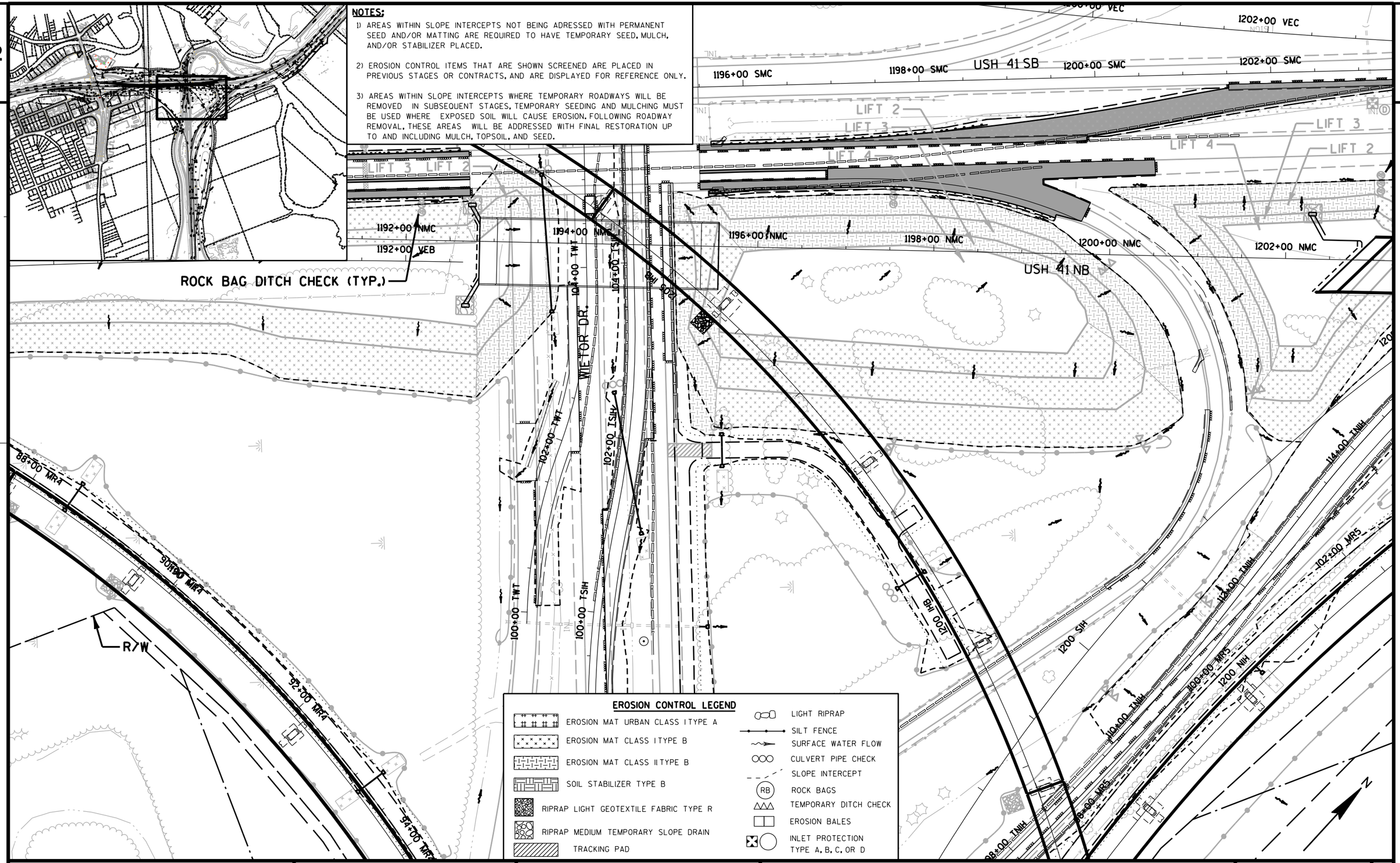
WISDOT/CADDS SHEET 42

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.



EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- (RB) ROCK BAGS
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 123	E

2

2

1200+00 VEC
1202+00 VEC
1204+00 VEC
1206+00 VEC
1208+00 VEC
12+00 BL
41 SB
1200+00 SMC
1202+00 SMC
1204+00 SMC
1206+00 SMC
1208+00 SMC
USH 41 SB
1210+00 SMC
1212+00 SMC
1214+00 SMC
1215 SIH
LIFT 4
LIFT 3
LIFT 2
ROCK BAG DITCH CHECK (TYP.)
SLOPE INTERCEPT (TYP.)
122+00 TNIH
1210 SIH
120+00 TNIH
1200+00 NMC
1202+00 NMC
1204+00 NMC
118+00 TNIH
1206+00 NMC
1208+00 NMC
1210+00 NMC
1212+00 NMC
1214+00 NMC
1215
USH 41 NB
1210 NIH
112+00 MR5
110+00 MR5
108+00 MR5
106+00 MR5
1205 SIH
116+00 TNIH
1205 NIH
USH 41 NB
104+00 MR5
114+00 TNIH
102+00 MR5
112+00 TNIH
100+00 MR5
1200 NIH
110+00 TNIH
TURBIDITY BARRIER
R/W

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- ROCK BAGS (RB)
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 124	E

FILE NAME : S:\2011\WisDOT\US-41\1174-ESEF\CADD files\CDS\STAGE 3\1133-11-74_026008_s3.dgn | PLOT DATE : 5/15/2013 | PLOT BY : Harlan | PLOT NAME : | PLOT SCALE : 1:100

2

N

W. DEERFIELD AVE.

SIGN

SIGN

SIGN

USH 41 SB

USH 41 NB

RIPRAP LIGHT LINED DITCH

R/W

LIFT 2

INL

INL

RB

1214+00 SMC

1216+00 SMC

1218+00 SMC

1220 SIH

1220+00 SMC

1222+00 SMC

1225 SIH

1224+00 SMC

1228+00 SMC

1230+00 SMC

1216+00 NMC

1218+00 NMC

1220+00 NMC

1222+00 NMC

1224+00 NMC

1226+00 NMC

1228+00 NMC

1230+00 NMC

12+00 BPI

10+00 BPI

8+00 BPI

14+00 BPI

16+00 BPI

18+00 BPI

20+00 BPI

22+00 BPI

24+00 BPI

26+00 BPI

28+00 BPI

SLOPE INTERCEPT (TYP.)

NOTES:

1) AREAS WITHIN SLOPE INTERCEPTS NOT BEING ADRESSED WITH PERMANENT SEED AND/OR MATTING ARE REQUIRED TO HAVE TEMPORARY SEED, MULCH, AND/OR STABILIZER PLACED.

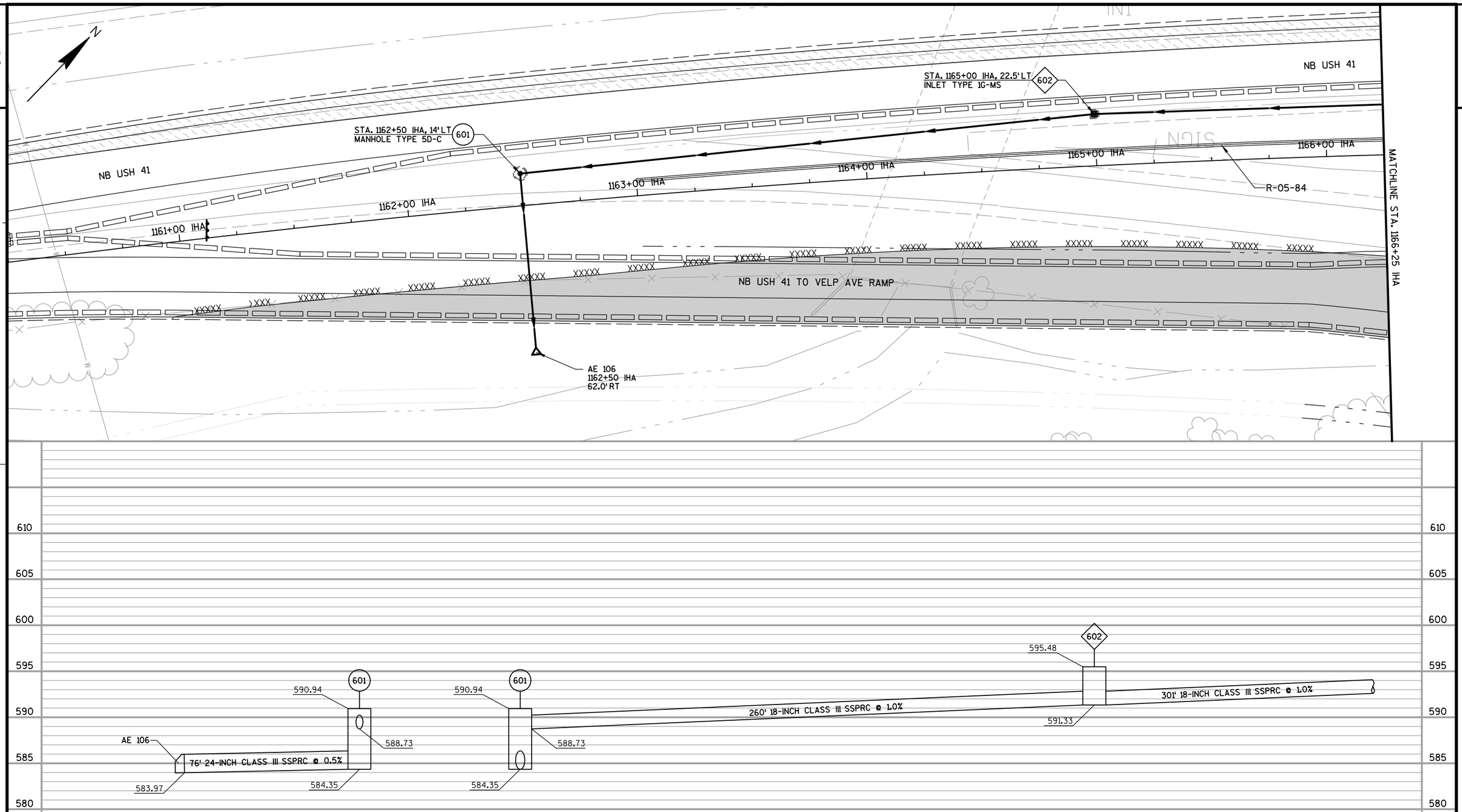
2) EROSION CONTROL ITEMS THAT ARE SHOWN SCREENED ARE PLACED IN PREVIOUS STAGES OR CONTRACTS, AND ARE DISPLAYED FOR REFERENCE ONLY.

3) AREAS WITHIN SLOPE INTERCEPTS WHERE TEMPORARY ROADWAYS WILL BE REMOVED IN SUBSEQUENT STAGES, TEMPORARY SEEDING AND MULCHING MUST BE USED WHERE EXPOSED SOIL WILL CAUSE EROSION. FOLLOWING ROADWAY REMOVAL, THESE AREAS WILL BE ADDRESSED WITH FINAL RESTORATION UP TO AND INCLUDING MULCH, TOPSOIL, AND SEED.

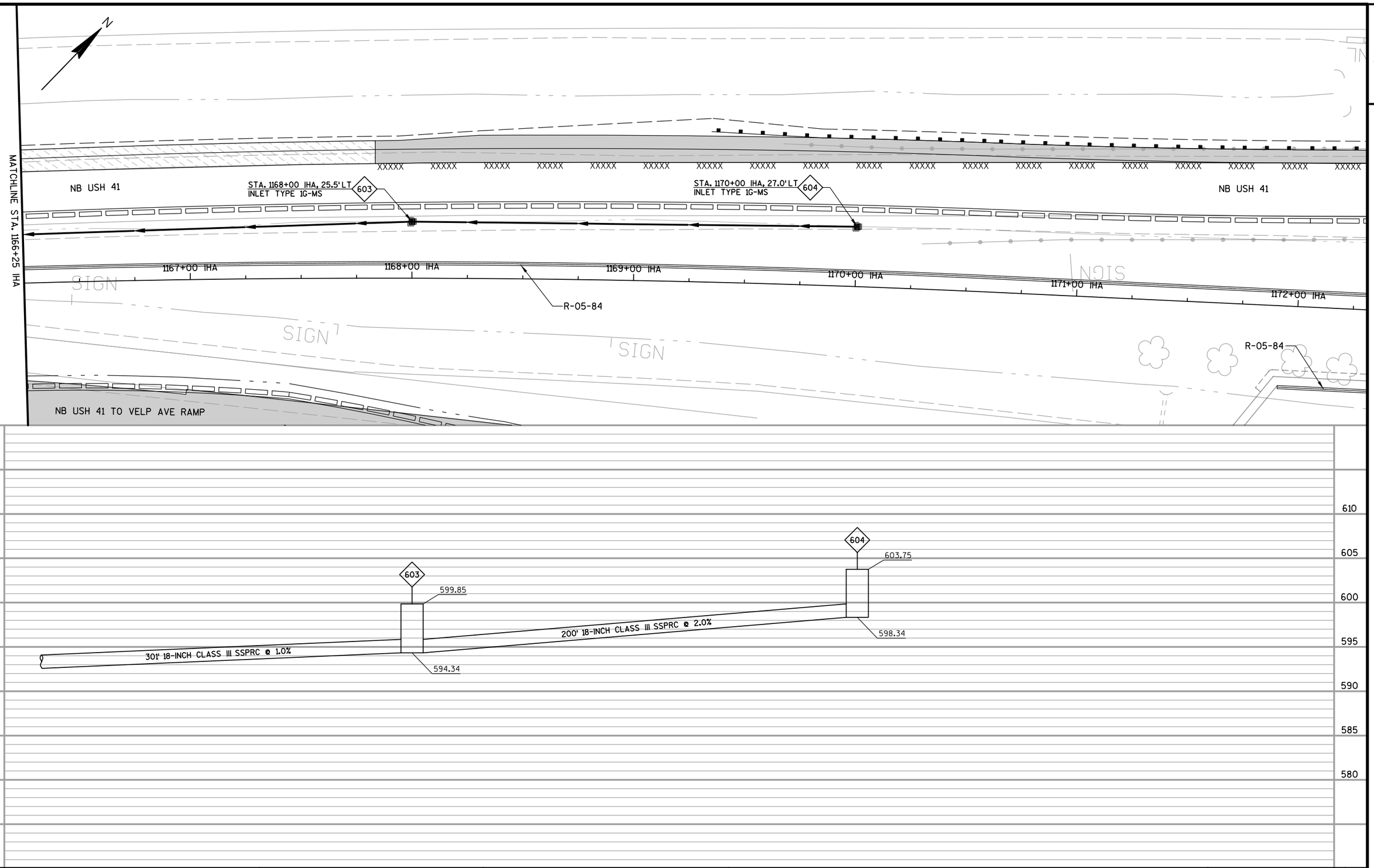
EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE B
- SOIL STABILIZER TYPE B
- RIPRAP LIGHT GEOTEXTILE FABRIC TYPE R
- RIPRAP MEDIUM TEMPORARY SLOPE DRAIN
- TRACKING PAD
- LIGHT RIPRAP
- SILT FENCE
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- SLOPE INTERCEPT
- ROCK BAGS (RB)
- TEMPORARY DITCH CHECK
- EROSION BALES
- INLET PROTECTION TYPE A, B, C, OR D

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - STAGE 3	SHEET 125	E

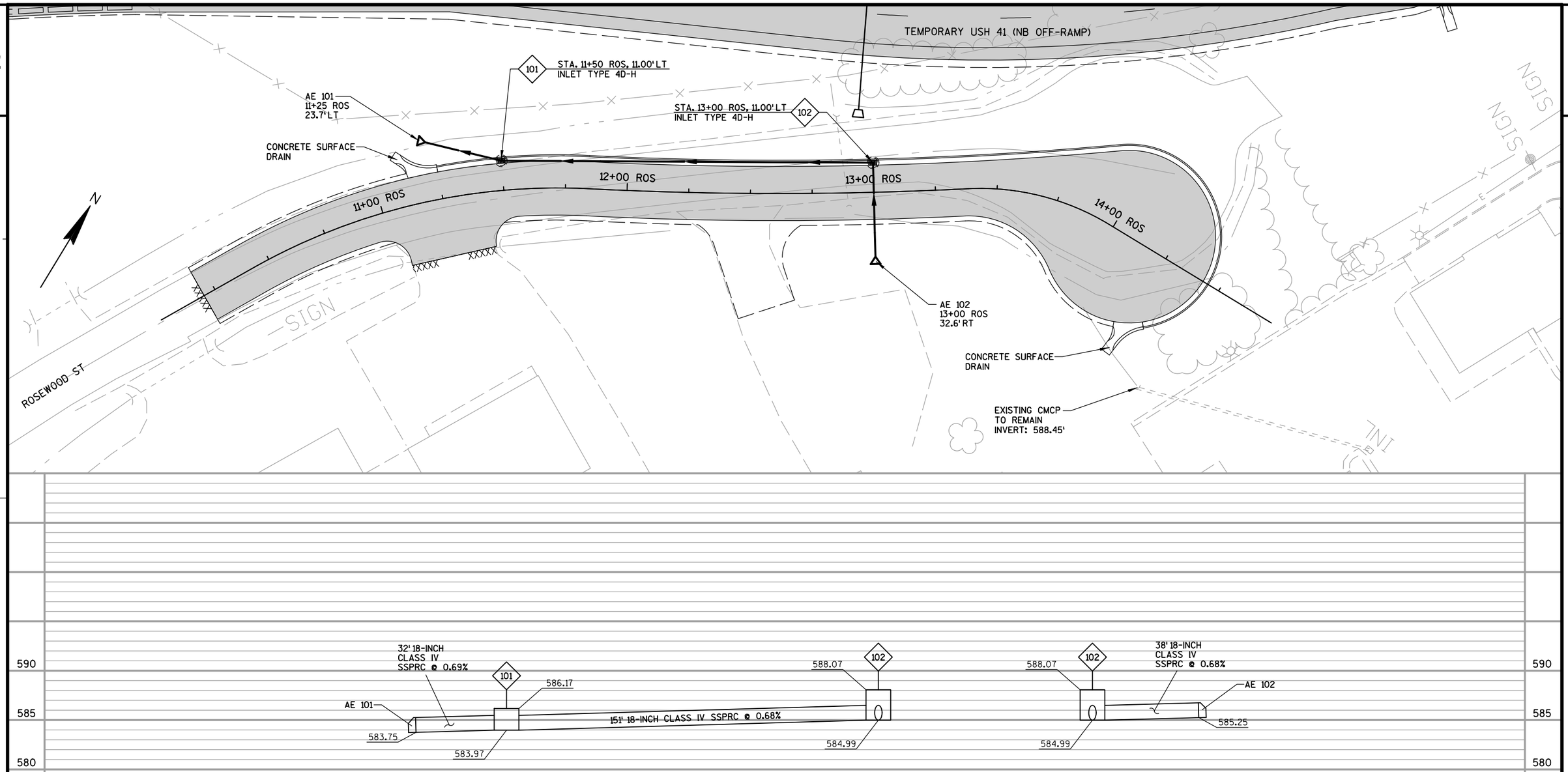


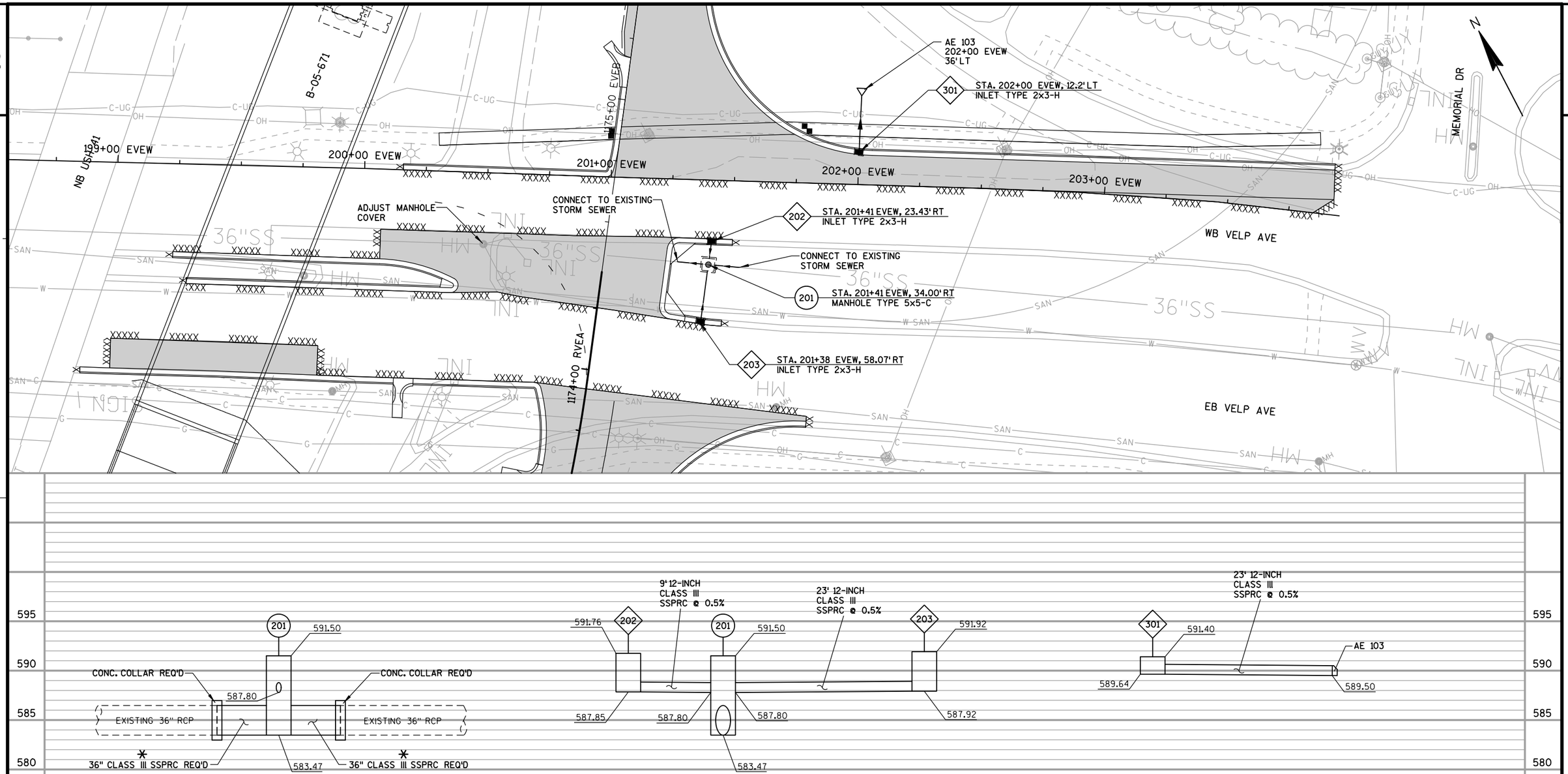
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STORM SEWER - NB USH 41 SCALE, FEET 0 20 40	SHEET 126	E



2

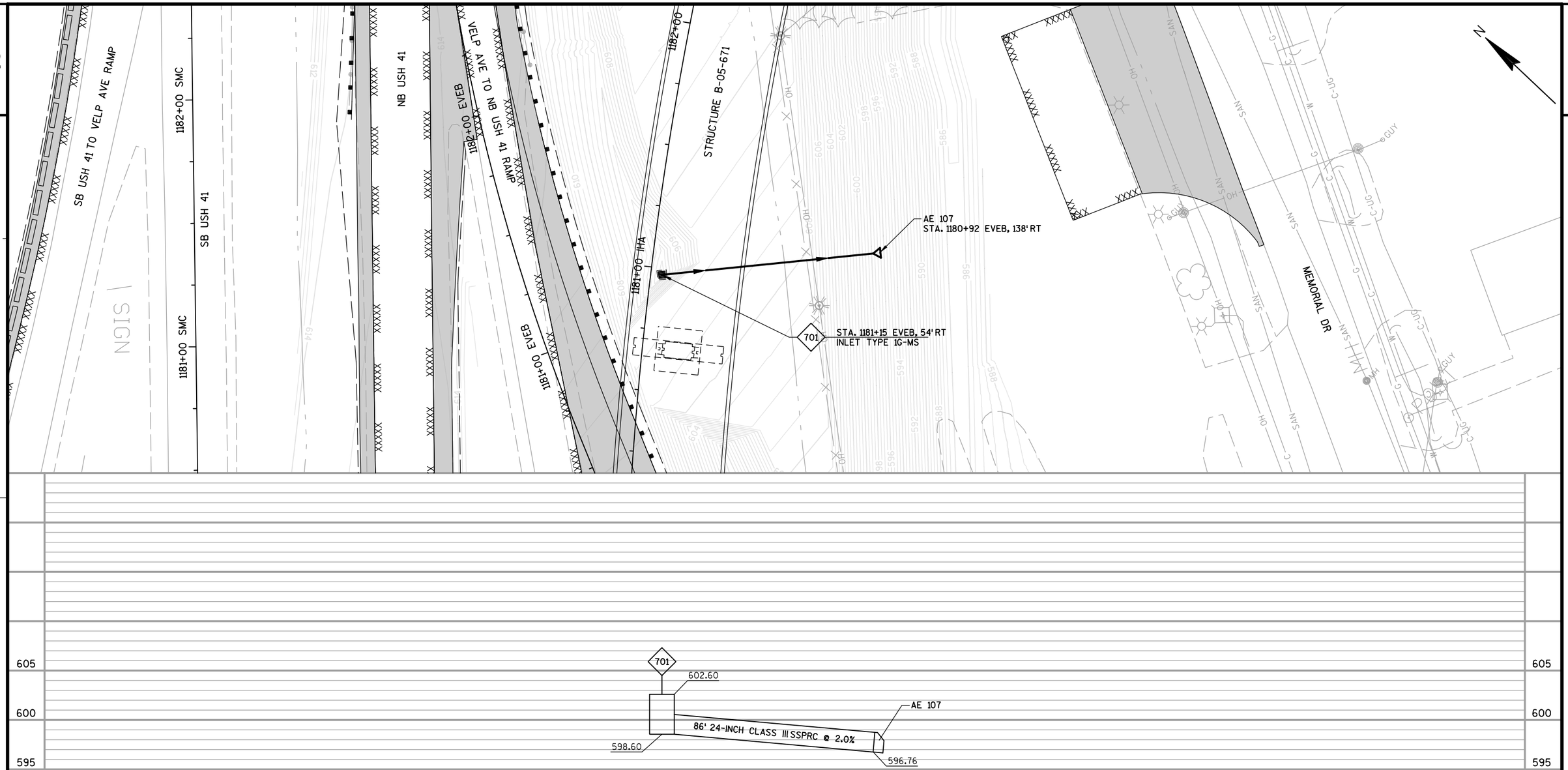
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STORM SEWER - NB USH 41 SCALE, FEET 0 20 40	SHEET 127	E


TEMPORARY USH 41 (NB OFF-RAMP)
101
STA. 11+50 ROS, 11.00' LT
INLET TYPE 4D-H
AE 101
11+25 ROS
23.7' LT
CONCRETE SURFACE
DRAIN
STA. 13+00 ROS, 11.00' LT
INLET TYPE 4D-H
102
11+00 ROS
12+00 ROS
13+00 ROS
14+00 ROS
N
SIGN
SIGN
SIGN
ROSEWOOD ST
AE 102
13+00 ROS
32.6' RT
CONCRETE SURFACE
DRAIN
EXISTING CMCP
TO REMAIN
INVERT: 588.45'
32' 18-INCH
CLASS IV
SSPRC @ 0.69%
101
586.17
AE 101
583.75
583.97
151' 18-INCH CLASS IV SSPRC @ 0.68%
588.07
102
584.99
588.07
102
38' 18-INCH
CLASS IV
SSPRC @ 0.68%
AE 102
585.25
584.99
590
585
580
575



* TWO (2) 8'X 36" CLASS III SSPRC ASSUMED FOR CONNECTING TO EXISTING STORM SEWER. VERIFY LENGTH, ELEVATION, AND SLOPE IN FIELD.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STORM SEWER - VELP AVE	SCALE, FEET 0 20 40	SHEET 129	E



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STORM SEWER - EVEB	SCALE, FEET 0 20 40	SHEET 130	E

STA. 1176+08 VEC, 66.90'LT
INLET TYPE 4D-J
502

STA. 1175+25 VEC, 86.50'LT
INLET TYPE 4D-B
501

STA. 1176+75 VEC, 67.00'LT
INLET TYPE 4D-B
503

AE 105
1177+75 VEC
91.2'LT

15"SS
18"SS
R/W
INL
SIGN
OHU
CUG

1174+00 VEC
1175+00 VEC
1176+00 VEC
1177+00 VEC
1178+00 VEC
1179+00 VEC

PROPOSED OFF-RAMP ALIGNMENT

EXISTING SB USH 41 TO VELP AVE OFF-RAMP

76' 18-INCH
CLASS III
SSPRC @ 0.49%

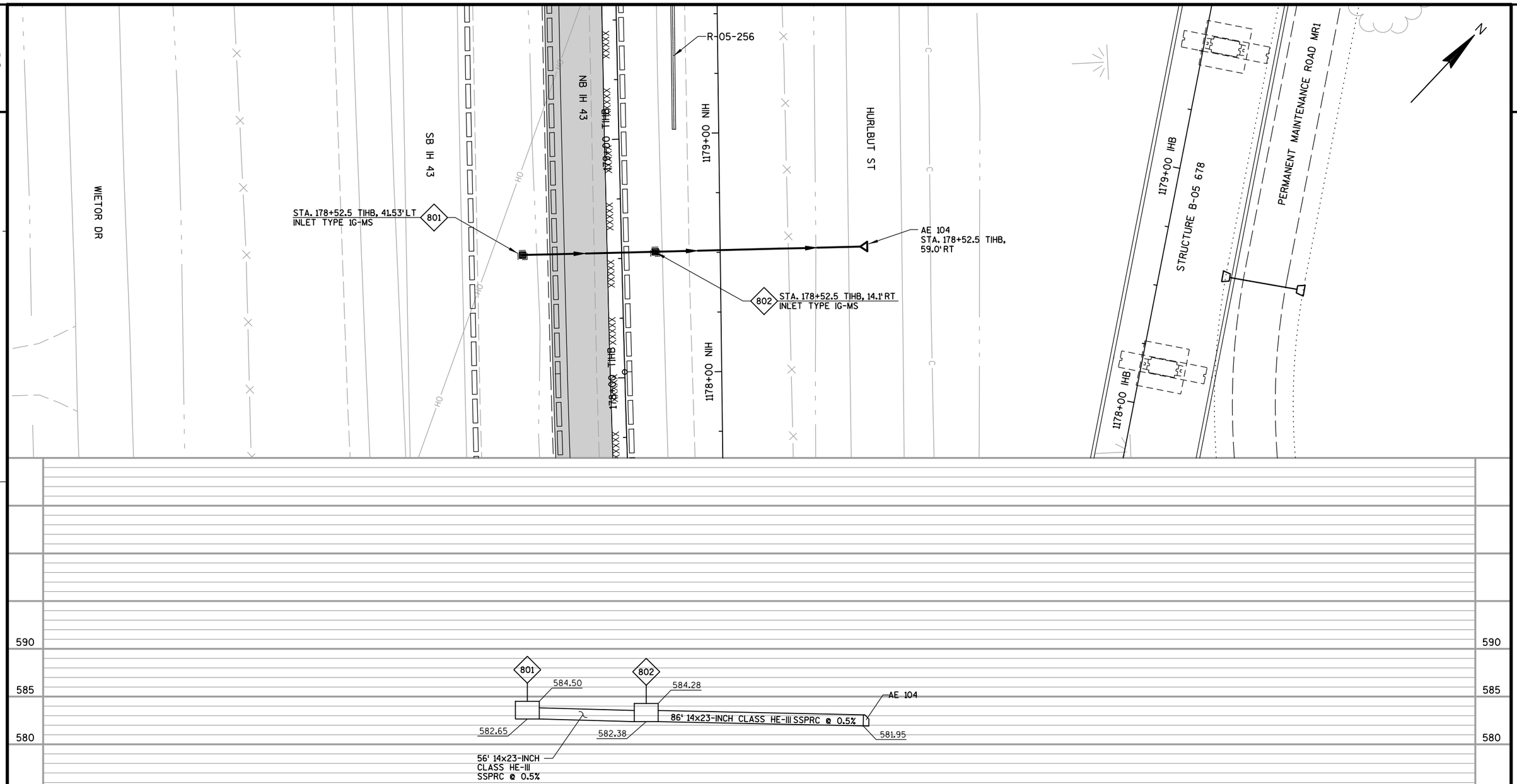
CONNECT TO EXISTING
STORM SEWER SYSTEM
(VERIFY INVERT)

589.17
589.67
589.25
587.01
586.57
586.21
585.80

92' 18-INCH CLASS III SSPRC @ 0.49%
110' 18-INCH CLASS III SSPRC @ 0.49%

590
585
580

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STORM SEWER - VEC	SCALE, FEET 0 20 40	SHEET 131	E



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STORM SEWER - TIHB	SCALE, FEET 0 20 40	SHEET 132	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022507_ss_TIHB.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

2

2

USH 41

USH 41

EXISTING USH 41 OFF-RAMP

1159+00 RVEA

1159+00 IHA

1160+00 RVEA

1160+00 IHA

1161+00 IHA

1161+00 RVEA

1162+00 IHA

1162+00 RVEA

1163+00 IHA

1163+00 RVEA

1164+00 IHA

1164+00 RVEA

1165+00 IHA

1165+00 RVEA

1166+00 RVEA

1167+00 IHA

1167+00 RVEA

SLOPE INTERCEPTS

DITCH CONSTRUCTED
UNDER PROJECT 1133-11-75

SAN

MH

INL

SIGN

PLAYGROUND

BASKETBALL
COURT

ROSEWOOD ST

W

SHEET LOCATION

41

43

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 133	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022509_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2

2

USH 41

RETAINING WALL R-05-84
(SEE STRUCTURE PLANS)

SHAPE TO DRAIN

ASPHALTIC
FLUME REQ'D

1167+00 IHA
1168+00 IHA
1169+00 IHA
1170+00 IHA
1171+00 IHA
1172+00 IHA
1173+00 IHA
1174+00 IHA

1166+00 RVEA
1167+00 RVEA
1168+00 RVEA
1169+00 RVEA
1170+00 RVEA
1171+00 RVEA
1172+00 RVEA
1173+00 RVEA
1174+00 RVEA

EXISTING USH 41 OFF-RAMP

RETAINING WALL R-05-257
(SEE STRUCTURE PLANS)

AE 04, 1171+00 RVEA
587.00, 51.0' RT

TO BEAVER DAM CREEK

STA. 1171+00 RVEA
1-66' X 19" X 30" HE C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 03, 1171+00 RVEA
586.50, 51.0' RT

CONCRETE SURFACE
DRAIN (FLUME) REQ'D

11+00 ROS
12+00 ROS
13+00 ROS
14+00 ROS

ROSEWOOD ST

EXISTING CP TO REMAIN

SLOPE INTERCEPTS

CONCRETE SURFACE
DRAIN (FLUME) REQ'D

198+00 EVEN

199+00 EVEN

200+00 EVEN

201+00 EVEN

B-5-671

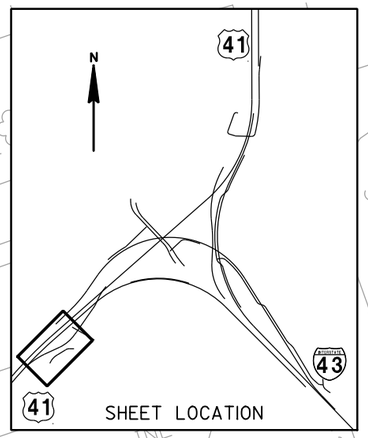
36"SSVELP AVE

SAN

C-UG OH

INL

SIGN



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 134	E

2

USH 41

SLOPE INTERCEPTS

VELP AVE

199+00 EVEW

200+00 EVEW

201+00 EVEW

202+00 EVEW

203+00 EVEW

SLOPE INTERCEPTS

1174+00 IHA

1175+00 IHA

1176+00 IHA

1177+00 IHA

1178+00 IHA

1179+00 IHA

1180+00 IHA

1181+00 IHA

1182+00 IHA

1183+00 EVEB

1182+00 EVEB

1181+00 EVEB

1180+00 EVEB

1179+00 EVEB

1178+00 EVEB

1177+00 EVEB

1176+00 EVEB

1175+00 EVEB

1174+00 BVEA

1183+00

1182+00 VEB

1181+00 VEB

1180+00 VEB

1179+00 VEB

1178+00 VEB

1177+00 VEB

1176+00 VEB

B-05-671

B-05-671

EXISTING USH 41 ON-RAMP

ADJUST MANHOLE COVER

AE 06, 1176+75 EVEB
589.01, 21.5' LT

ASPHALTIC FLUME REQ'D

ASPHALTIC FLUME REQ'D

STA. 1176+75 EVEB
1-70' X 19"X30" H.E.C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 05, 1176+75 EVEB
588.62, 48.3' RT

INLET

INLET

INLET

MANHOLE

EXISTING 36" STORM SEWER TO REMAIN

SLOPE INTERCEPTS

MEMORIAL DR

36"SS

VELP AVE

SAN

OH

C-UG

SIGN

GUY

MH

N

41

43

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 135	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022511_dr.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

2

USH 41

EXISTING 18" STORM SEWER TO REMAIN

SLOPE INTERCEPTS

ASPHALTIC FLUME & TEMP. COVER PLATE TO REMAIN REQ'D

EXISTING USH 41 ON-RAMP

CONNECT TO EXISTING STORM SEWER

AE 42, 1183+07 EVEB
585.50, 192.2' RT

STA. 1183+07 VEB
1-66' X 18" C.P.R.C. EXTENSION
1-APRON ENDWALL REQ'D
1-CONC. COLLAR REQ'D

MEMORIAL DR

WISCONSIN CENTRAL LTD RR

B-05-671

PERMANENT MAINTENANCE ROAD

SLOPE INTERCEPTS

AE 29, 88+50 MR4
584.01, 24.5' LT

STA. 88+50 MR4
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 28, 88+50 MR4
584.07, 7.5' RT

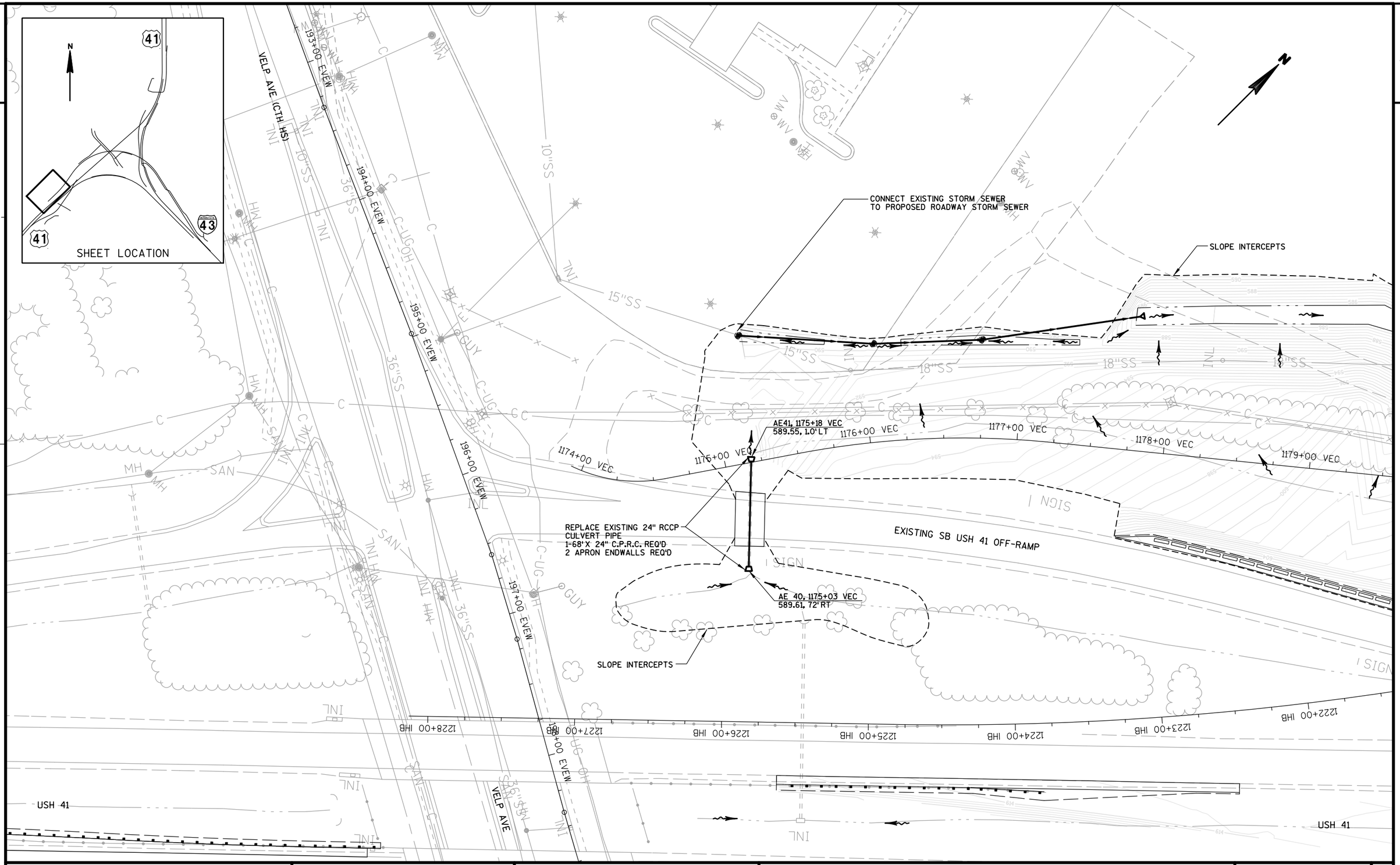
SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 136	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022512_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 137	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022513_dr.dgn PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2

2

SLOPE INTERCEPTS

TEMPORARY SLOPE DRAIN TO REMAIN

EXISTING SB USH 41 OFF-RAMP

PERMANENT MAINTENANCE ROAD

B-05-678

WISCONSIN CENTRAL LTD. RR

USH 41

SLOPE INTERCEPTS

USH 41

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022514_dr.dgn
PLOT BY : dm253
PLOT DATE : 6/3/2013
PLOT SCALE : 1:60
WISDOT/CADDS SHEET 42

2

2

B-05-678

B-05-677

USH 41

AE 46, 1193+60 NMC
584.95, 75.9' LT
(SHAPE TO DRAIN)

SLOPE INTERCEPTS

ASPHALTIC FLUME & TEMP COVER
PLATE TO REMAIN REQUIRED

MAINTAIN 30' CLEAR
ZONE OFF EXISTING RAMP

EXISTING USH 41 OFF-RAMP

INSTALL LONG-TERM TEMPORARY
SLOPE DRAIN

STA. 1193+60 NMC
1-154' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 45, 1193+60 NMC
584.37, 76.4' RT
(SHAPE TO DRAIN)

AE 02, 102+50 TSIH
584.50, 13.0' LT

SLOPE INTERCEPTS

PROVIDE DRAINAGE CHANNEL
FROM TEMP WALL TW-05-003
UNDERDRAIN TO CULVERT PIPE
AT 103+45 MR2

AE 20, 103+45 MR2
583.30, 8.0' RT

STA. 103+45 MR2
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 21, 103+45 MR2
583.15, 26.0' LT

STA. 101+75 TSIH
1-148' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
SKEW 73? LHF

AE 01, 101+00 TSIH
584.10, 39.0' RT

MAINTENANCE ROAD
SLOPE INTERCEPTS

PERMANENT
MAINTENANCE ROAD

SLOPE INTERCEPTS

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 139	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022515_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

2

USH 41

N

TEMPORARY SLOPE DRAIN TO REMAIN

SLOPE INTERCEPTS

STABILITY BERM REQ'D SEE DETAIL

1200+00 NMC

1201+00 NMC

1202+00 NMC

1203+00 NMC

1204+00 NMC

1205+00 NMC

1206+00 NMC

1207+00 NMC

1208+00 NMC

1209+00

B-05-681

EXISTING USH 41 OFF-RAMP

ASPHALTIC FLUME REQ'D

TEMPORARY NB 143 TO NB USH 41 RAMP

118+00 TNIH

119+00 TNIH

120+00 TNIH

121+00 TNIH

AE 38, 107+00 MR5
581.78, 7.0' LT

1207+00 NIH

108+00 MR5

109+00 MR5

B-05-679

PERMANENT MAINTENANCE ROAD

106+00 MR5

107+00 MR5

1206+00 NIH

105+00 MR5

1205+00 NIH

AE 37, 107+00 MR5
581.28, 25.0 'RT

STA. 107+00 MR5
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

104+00 MR5

1204+00 NIH

103+00 MR5

1203+00 NIH

102+00 MR5

1202+00 NIH

SHEET LOCATION

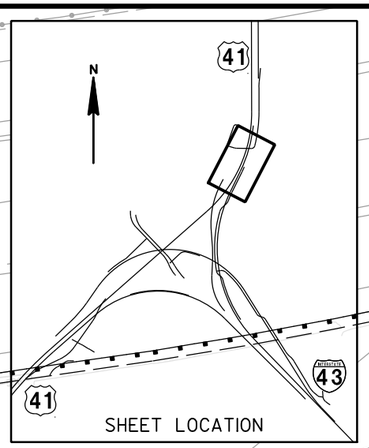
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 140	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022516_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2



USH 41

INL

121+00 TNIH

122+00 TNIH

EXISTING VELP AVE TO NB USH 41 RAMP

BP1

13+00 BP1

14+00 BP1

FUTURE CONSTRUCTION
OF SHARED USE PATH
BY OTHERS

1209+00 NMC

1210+00 NMC

1211+00 NMC

1212+00 NMC

1213+00 NMC

1214+00 NMC

1215+00 NMC

1216+00 NMC

1217+00 NMC

1218+00 NMC

B-05-681

1209+00 NIH

1210+00 NIH

1211+00 NIH

1212+00 NIH

1213+00 NIH

1214+00 NIH

1215+00 NIH

1216+00 NIH

1217+00 NIH

15+00 BP1

SLOPE INTERCEPTS

AE 07, 17+10 BP1
578.58, 20.0' LT

17+00 BP1

16+00 BP1

SHARED USE PATH

B-05-679

B-05-681

110+00 MR5

111+00 MR5

112+00 MR5

113+00 MR5

PERMANENT
MAINTENANCE ROAD

OH

STA. 17+10 BP1
1-38' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 08, 17+10 BP1
578.58, 30.0' RT

SLOPE INTERCEPTS

DUCK CREEK

C

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 141	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022517_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

2

2

USH 41

SIGN

OH

N

USH 41

INL

TEMPORARY SLOPE DRAIN TO REMAIN

SLOPE INTERCEPTS

1217+00 NMC

1218+00 NMC

1219+00 NMC

1220+00 NMC

1221+00 NMC

1222+00 NMC

1223+00 NMC

1224+00 NMC

1225+00 NMC

1226+00 NMC

B-05-681

EAST DEERFIELD AVE

EQUATION

EQNBK23+50.92 BP1

EQNHD23+50.00 BP1

CONNECT TO EXISTING STORM SEWER

26+00 BP1

25+00 BP1

24+00 BP1

23+00 BP1

22+00 BP1

21+00 BP1

20+00 BP1

19+00 BP1

18+00 BP1

17+00 BP1

SHARED USE PATH

AE 07, 17+10 BP1
578.58, 20.0' LT

STABILITY BERM REQ'D
SEE DETAIL

AE 08, 17+10 BP1
578.58, 30.0' RT

STA. 17+10 BP1
1-38' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 09, 25+22 BP1
581.19, 37.0' RT

STA. 25+22 BP1
1- 80' x 18" C.P.R.C. EXTENSION REQ'D.
1-APRON ENDWALL REQ'D
1-CONC. COLLAR REQ'D

SLOPE INTERCEPTS

N

41

43

41

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 142	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022518_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2

SIGN

SIGN

N

USH 41

USH 41

INL

1224+00 NMC | 1225+00 NMC | 1226+00 NMC | 1227+00 NMC | 1228+00 NMC | 1229+00 NMC | 1230+00 NMC | 1231+00 NMC | 1232+00 NMC | 1233+00 NMC

SLOPE INTERCEPTS

CONNECT TO EXSTING
STORM SEWER

AE 10, 27+97 BP1
582.96, 16.0' LT

24+00 BP1 | 25+00 BP1 | 26+00 BP1 | 27+00 BP1 | 28+00 BP1

28+00 EDR | 29+00 EDR | 30+00 EDR | 31+00 EDR | 32+00 EDR | 33+00 EDR

EAST DEERFIELD AVE

SHARED USE PATH

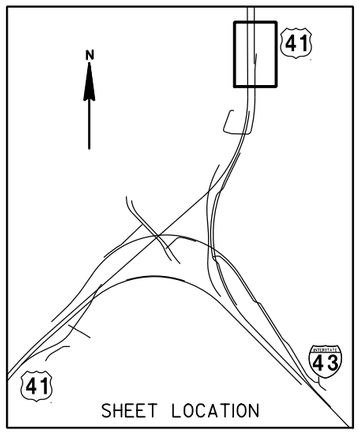
AE 09, 25+22 BP1
581.19, 37.0' RT

SLOPE INTERCEPTS

STA. 25+22 BP1
1-80' X 18" C.P.R.C. EXTENSION REQ'D.
1-APRON ENDWALL REQ'D
1-CONC. COLLAR REQ'D

STA. 27+97 BP1
1-36' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 11, 27+97 BP1
581.85, 30.0' RT



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 143	E

2

2

143

143

1168+00 NIH

1168+00 IHB

1169+00 NIH

1169+00 IHB

1170+00 NIH

1170+00 IHB

1171+00 NIH

1171+00 IHB

1172+00 NIH

1172+00 IHB

1173+00 NIH

1173+00 IHB

1174+00 NIH

1174+00 IHB

1175+00 NIH

1175+00 IHB

1176+00 NIH

1176+00 IHB

SLOPE INTERCEPTS

HURLBUT ST

68+00 HB

69+00 MR1

69+00 IHB

70+00 MR1

70+00 HB

71+00 MR1

72+00 MR1

73+00 MR1

74+00 MR1

75+00 MR1

76+00 MR1

HURLBUT ST

PERMANENT MAINTENANCE ROAD

SLOPE INTERCEPTS

N

41

43

41

SHEET LOCATION

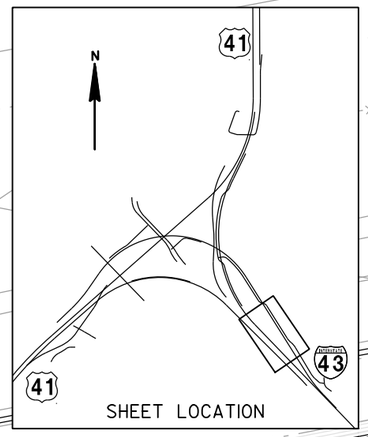
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 144	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022520_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2



143

1176+00 NIH
1177+00 NIH
1178+00 NIH
1179+00 NIH
1180+00 NIH
1181+00 NIH
1182+00 NIH
1183+00 NIH
1184+00 NIH
1185+00 NIH

CONSTRUCT RETAINING WALL R-05-256
(SEE STRUCTURE PLANS)

HURLBUT ST

SLOPE INTERCEPTS

INSTALL LONG TERM TEMPORARY SLOPE DRAIN

STABILITY BERM REQ'D
SEE DETAIL

1176+00 IHB
1177+00 IHB
1178+00 IHB
1179+00 IHB
1180+00 IHB
1181+00 IHB
1182+00 IHB
1183+00 IHB
1184+00 IHB
1185+00

B-05-678

76+00 MR1
77+00 MR1
78+00 MR1
79+00 MR1
80+00 MR1
81+00 MR1
82+00 MR1
83+00 MR1
84+00 MR1
85+00

AE 13, 78+50 MR1
581.82, 3.2' LT

AE 12, 78+50 MR1
581.69, 20.6' RT

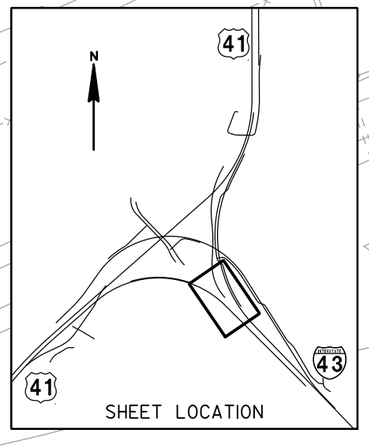
INSTALL LONG TERM TEMPORARY SLOPE DRAIN

STA. 78+50 MR1
1- 24' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

SLOPE INTERCEPTS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 145	E

2



EXISTING SB USH 41 TO SB I43 RAMP

I43

1197+00 NIH

1198+00 NIH

1199+00 NIH

1200+00 NIH

1201+00 NIH

1202+00 NIH

1203+00 NIH

1204+00 NIH

1205+00 NIH

I SIGN

101+00 TNIH

102+00 TNIH

103+00 TNIH

104+00 TNIH

EXSITING NB I43 TO NB USH 41 RAMP

CONSTRUCT RETAINING WALL R-05-256
(SEE STRUCTURE PLANS)

STABILITY BERM REQ'D
SEE DETAIL

1186+00 NIH

1187+00 NIH

1188+00 NIH

1189+00 NIH

1190+00 NIH

1191+00 NIH

1192+00 NIH

1193+00 NIH

1194+00 NIH

88+00 MR5

89+00 MR5

90+00 MR5

91+00 MR5

92+00 MR5

93+00 MR5

94+00 MR5

B-05-679

PERMANENT MAINTENANCE ROAD

SLOPE INTERCEPTS

TEMPORARY SLOPE DRAINS TO REMAIN

HO

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 146	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022522_dr.dgn

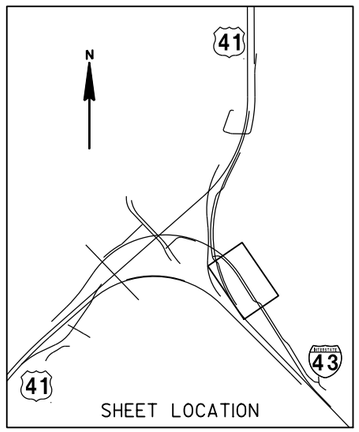
PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2

2

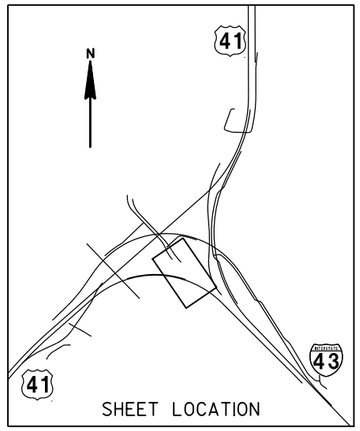
1191+00 NIH
1192+00 NIH
B-05-679
1193+00 NIH
1194+00 NIH
HO
SLOPE INTERCEPTS
AE 15, 86+72 MR1
581.68, 7.0' LT
STA. 86+72 MR1
1-22' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
SLOPE INTERCEPTS
STA. 93+00 MR1
1- 22' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
AE 17, 93+00 MR1
581.77, 7.0' LT
85+00 MR1
86+00 MR1
87+00 MR1
88+00 MR1
89+00 MR1
90+00 MR1
91+00 MR1
92+00 MR1
93+00 MR1
94+00 MR1
1185+00 IHB
1186+00 IHB
1187+00 IHB
1188+00 IHB
1189+00 IHB
1190+00 IHB
1191+00 IHB
1192+00 IHB
1193+00 IHB
1194+00 IHB
AE 14, 86+72 MR1
581.59, 26.5' RT
B-05-678
AE 16, 93+00 MR1
581.68, 26.5' RT



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 147	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022523_dr.dgn
PLOT BY : dm253
PLOT DATE : 6/3/2013
PLOT SCALE : 1:60

2



AE 30, 93+17 MR4
583.18, 8.3' RT

STA. 93+17 MR4
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 31, 93+17 MR4
583.36, 25.0' LT

SLOPE INTERCEPTS

AE 32, 95+08 MR4
582.69, 7.5' RT

AE 43, 96+16 MR4
582.70, 113.3' RT

AE 44, 96+35 MR4
582.75, 130.6' RT

STA. 95+00 MR4
1-48' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
SKEWED 44? RHF

AE 33, 94+65 MR4
583.36, 25.0' RT

STA. 94+37 WT
1-27' X 18" C.M.C.P. REQ'D.
2-APRON ENDWALLS REQ'D

B-05-671

R-05-255

INSTALL LONG TERM TEMPORARY
SLOPE DRAIN

SHAPE DITCH TO DRAIN TO INLET
AT APPROX STATION 100+00 TWT

SLOPE INTERCEPTS

AE 39, 99+97 TSIH
580.70, 128.8' RT

STA. 99+97 TSIH
1-8' X 24" C.P.R.C. EXTENSION REQ'D.
1-APRON ENDWALL REQ'D
1-CONC. COLLAR REQ'D

INV. 584.10

CONNECT TO EXSITNG STORM SEWER

SLOPE INTERCEPTS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 148	E

AE 18, 100+50 MR2
583.14, 8.0' RT

AE 19, 100+50 MR2
583.14, 25' LT

STA. 100+50 MR2
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

CONNECT TO EXISTING CULVERT

AE 36, 100+40 MR5
579.50, 31.0' RT

STA. 100+40 MR5
1-8' X 24" C.P.R.C. EXTENSION REQ'D.
1-APRON ENDWALL REQ'D
1-CONC. COLLAR REQ'D

SLOPE INTERCEPTS

AE 35, 95+40 MR5
583.15, 9.0' LT

STA. 95+40 MR5
1-20' X 24" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 34, 95+40 MR5
583.15, 25.5' RT

SLOPE INTERCEPTS

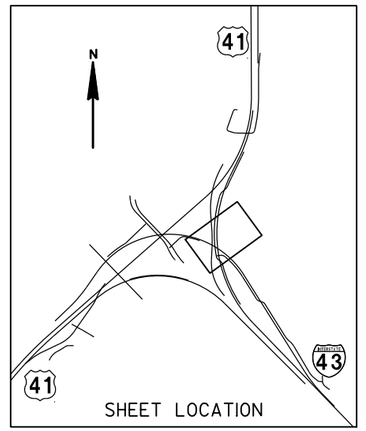
EXISTING USH 41 OFF-RAMP

EXSITING NB 143 TO NB USH 41 RAMP

PERMANENT MAINTENANCE ROAD

B-05-678

B-05-679



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 149	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022525_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

2

STA. 32+50 MR3
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 26, 32+50 MR3
583.95, 24.0' RT

AE 27, 32+50 MR3
583.95, 8.0' RT

SHAPE TO DRAIN FROM
32+50 MR3 TO 31+00 MR3

STA. 31+00 MR3
1-20' X 18" TEMPORARY C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 25, 31+00 MR3
584.06, 7.3' LT

AE 24, 30+39 MR3
584.62, 28.0' RT

STA. 30+33 MR3
1-20' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

AE 23, 30+39 MR3
585.10, 9.0' RT

AE 22, 30+39 MR3
584.62, 28.0' RT

SLOPE INTERCEPTS

NB I 43 TO NB USH 41

SB USH 41 TO SB I 43

WIETOR DR

USH 41

PERMANENT MAINTENANCE ROAD

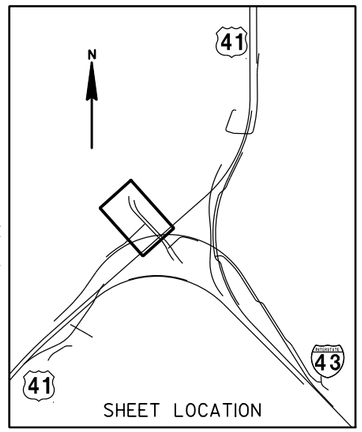
B-05-678

1191+00 NMC
1192+00 NMC
1193+00 NMC
1194+00 NMC
1195+00 NMC
1196+00 NMC

1207+00 IHB
1208+00 IHB
1209+00 IHB

105+00 TWT
106+00 TWT
107+00 TWT
108+00 TWT
109+00 TWT
110+00 TWT
111+00 TWT
112+00 TWT

105+00 TSIH
106+00 TSIH
107+00 TSIH
108+00 TSIH
109+00 TSIH
110+00 TSIH
111+00 TSIH



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DRAINAGE	SCALE, FEET 0 30 60	SHEET 150	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_022526_dr.dgn

PLOT BY : dm253 PLOT DATE : 6/3/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

SIGNING LEGEND

EXISTING SIGNS

	TYPE II SIGN ON ONE/TWO WOOD OR STEEL POST(S)
	TYPE I SIGN ON LARGE STEEL POSTS
	TYPE I SIGN(S) ON FULL SPAN OVERHEAD STRUCTURE
	TYPE I SIGN ON CANTILEVER OVERHEAD STRUCTURE
	TYPE ISIGN ON SINGLE POLE SIGN SUPPORT
NORTH INTERSTATE 43	EXISTING SIGN
(R)	REMOVE SIGN
(M)	MOVE SIGN
(RT)	REMOVE SIGN TEMPORARILY WHILE MARSH DISPOSAL TAKES PLACE. RETURN SIGN TO ORIGINAL LOCATION FOLLOWING CONSTRUCTION. THESE SIGNS WILL BE PAID FOR AS MOVED SIGNS.

PROPOSED SIGNS

	TYPE II SIGN ON ONE/TWO WOOD POST(S)
	TYPE I SIGN ON LARGE STEEL POSTS
	TYPE I SIGN(S) ON FULL SPAN OVERHEAD STRUCTURE
	TYPE II SIGN(S) ON CANTILEVER OVERHEAD STRUCTURE
	TYPE III PERMANENT BARRICADES MOUNTING ASSEMBLY
NORTH INTERSTATE 43	NEW SIGN
B-88	NEW SIGN NUMBER (CORRESPONDS TO MISCELLANEOUS QUANTITY TABLE)

DELINEATOR LEGEND

T /Ŧ	ONE/TWO DELINEATORS ON GROUND-MOUNTED STEEL POST (WHITE UNLESS NOTED OTHERWISE, AND 400'SPACING UNLESS NOTED OTHERWISE)
⊞	ONE BRACKET MOUNTED DELINEATOR ON BARRIER WALL OR PARAPET (INCIDENTAL TO TEMPORARY CONCRETE BARRIER ITEM)

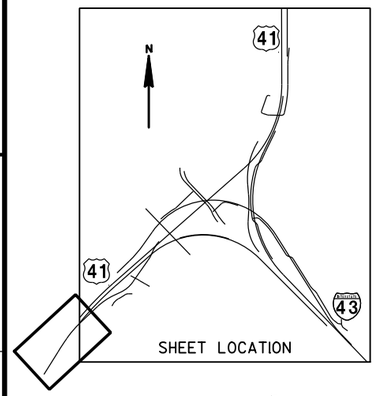
NOTE:
SEE SDD 15A6 - "DELINEATOR LAYOUT" FOR MORE DETAILS.

PAVEMENT MARKING LEGEND

ARW2	PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
ARW3	PAVEMENT MARKING ARROWS EPOXY TYPE 3 (WHITE)
CBY	PAVEMENT MARKING CURB EPOXY (YELLOW)
CWW6	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
DLW24	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
INY	PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)
MWE4	PAVEMENT MARKING EPOXY 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING EPOXY 4-INCH (YELLOW EDGE LINE)
MDY4	PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
MW8	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
SL24	PAVEMENT MARKING STOP LINE EPOXY 24-INCH (WHITE)
WDW	PAVEMENT MARKING WORDS EPOXY (WHITE) ("ONLY")
WS4-12.5	PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP) (12.5' SEG., 37.5' GAP)
WS4-3	PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
WS8-2	PAVEMENT MARKING EPOXY 8-INCH (WHITE SKIP) (2' SEG, 6' GAP)
WS8-3	PAVEMENT MARKING EPOXY 8-INCH (WHITE SKIP) (3' SEG., 9' GAP)

NOTES:
- PROPOSED PAVEMENT MARKING ARROWS AND WORDS LOCATED ON THE NB USH 41 TO VELP AVE RAMP, ARE TO BE PLACED IN ACCORDANCE WITH SDD 15C8-e.

- RETRACE MAINLINE SKIPS BEFORE SUSPENSION OF WORK FOR THE WINTER OF 2013, AND THE WINTER OF 2014. RETRACE WITH EPOXY PAVEMENT MARKING. LIMITS INCLUDE THE WORK ZONE AFFECTED BY CONSTRUCTION AND SHOULD OCCUR IN STAGES 1B & 2B FOR NB & SB USH 41, AND NB & SB IH 43.



N

ISLAND COURT

MH

USH 41

1162+00 NMC

1164+00

MOVED FROM 1165+25 IHA

MATCHLINE 1164+00 NMC

MY4

MWE4

WS4-12.5

1162+00 RVEA

1164+00

MW8

1160+00 NMC

1158+00 NMC

1156+00 NMC

1154+00 NMC

1152+00 NMC

1150+00 NMC

1158+00 RVEA

1156+00 RVEA

1154+00 RVEA

1152+00 RVEA

WS4-3

+44

+66

DLW24

SIGN

1-5

W1-4R
48" X 48"

40
M.P.H.

1-6

W13-1
24" X 24"

EXIT
170

E5-1A

(MOUNT POSTS IN EXISTING ASPHALT PAVEMENT. INCIDENTAL TO OTHER ITEMS OF WORK)

PLAYGROUND

1-7

1-8

W1-4L
48" X 48"

BEAVER DAM CREEK

MAX.
12'
WIDTH

W12-52
48" X 48"

1-1

1-2

1/2 MILE
AHEAD

W57-52
36" X 24"

1-3

1-4

(LOCATE AT STA.
1139+00 NMC)

BLUE
SIS
SIGN

LONE GROVE AVE.

EXIT 170

E1-5

E4-1A

141
SOUTH
Velp Ave

(SIGN MOVED PREVIOUSLY BY OTHERS)

INL

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 152	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023202_ps.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

EXIT 171
INTERSTATE 43 SOUTH
Milwaukee
1/2 MILE

EXIT 170
E5-1A

BEAVER DAM CREEK

SIGNS TO BE REMOVED OR REPLACED BY "DERSE"

BLUE SIS FOOD / GAS
BLUE SIS FOOD / GAS
BLUE SIS FOOD / GAS

VELP AVENUE
NORTH SOUTH
GREEN BAY

ONLY ONLY

WRONG WAY
R5-1A
TO REMAIN

WRONG WAY

ROAD CLOSED
R11-2
48" X 30"
2-2

2' OFF BACK OF BARRIER
5' FROM EDGE OF LANE LINE

MOVE TO 1161+25 RVEA

MATCHLINE 1164+00 NMC

1166+00 NMC
1168+00 NMC
1170+00 NMC
1172+00 NMC
1174+00 NMC
1176+00 NMC
1178+00 NMC

MY4
MWE4
WS4-12.5

1166+00 IHA
1168+00 IHA
1170+00 IHA
1174+00 IHA
1176+00 IHA
1178+00 IHA

1166+00 RVEA
1168+00 RVEA
1174+00 RVEA

PAVEMENT MARKING AND DELINEATORS COMPLETED WITH RVEA
PAVEMENT MARKING AND DELINEATORS COMPLETED STAGE 1 WITH EVEA

2-1
R3-8P
54" X 30"

WDW (ONLY) (TYP)
ARW2 (TYP)
ARW3 (TYP)

WRONG WAY
R5-1A
36" X 24"
2-5

DO NOT ENTER
R5-1

100' WHITE (TYP)

+50
+20

MWL8

12+00 ROS
14+00 ROS

ROSEWOOD ST

TO REMAIN
W1-7

W1-4R
48" X 48"
2-15
2-16

DEAD END
W14-1
TO REMAIN

2-6
R3-8P
54" X 30"

2-7
STOP
R1-1F
30" X 30"
(MOUNTED ON SIGNALS)

2-8
2-9
2-10
W5-56
18" X 18"
(SEE SDD 15C26)

SIDEWALK CLOSED
2-11
R9-9
24" X 12"
60" MOUNTING HEIGHT

TO REMAIN
R4-7

+/- 350'
+/- 350'

VELP AVE (CTH HS)

TO REMAIN
NORTH COUNTY HS
M3-1
M1-5A
M1-5R

CWW6
SL24
MWE4
MY4

WS8-2
(RETRACE EXISTING)
WS4-12.5

M3-3
SOUTH 141
TO REMAIN
M1-4
M1-5L

198+00 EVEN
200+00 EVEN
202+00 EVEN

STOP
2-3
2-4
R1-1F
30" X 30"
(MOUNTED ON SIGNALS)

USH 41

MW8

DO NOT ENTER
R5-1
(MOUNTED ON SIGNALS)

1178+00 EVEB
1176+00 EVEB

CWW6

STOP
2-12
R1-1F
30" X 30"
(MOUNTED ON SIGNALS)

TO REMAIN
APPLETON
IRON MOUNTAIN
MARINETTE

TO REMAIN
SOUTH 41
NORTH 141
NORTH 41

M5-1R
21" X 21"
2-13

M5-1R
21" X 21"
2-14

VELP AVE (USH 141)

GLENVIEW AVE

MEMORIAL DR

BASKETBALL COURT
PLAYGROUND

SHEET LOCATION
41
43

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS (RVEA)	SHEET 153 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023203_ps.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

2

2

1164+00 NMC
1166+00 NMC
1168+00 NMC
1170+00 NMC
1172+00 NMC
1174+00 NMC
1176+00 NMC
1178+00 NMC
1164+00 IHA
1166+00 IHA
1168+00 IHA
1170+00 IHA
1174+00 IHA
1176+00 IHA
1178+00 IHA
1166+00 EVEA
1168+00 EVEA
1170+00 EVEA
1176+00 EVEB
1178+00 EVEB
196+00 EVEN
198+00 EVEN
200+00 EVEN
202+00 EVEN
MY4
MWE4
WS4-12.5
PAVEMENT MARKING / PAVEMENT MARKING AND DELINEATORS / AND DELINEATORS TO MODIFIED WITH RVEA / REMAIN ONCE COMPLETED CONSTRUCTION / IN STAGE 1 WITH EVEA
100' WHITE (TYP)
MWL8
WDW (ONLY) (TYP)
ARW2 (TYP)
ARW3 (TYP)
+20
SL24
CWW6
12+00 ROS
14+00 ROS
ROSEWOOD ST
VELP AVE (USH 141)
GLENVIEW AVE
MEMORIAL DR
BASKETBALL COURT
PLAYGROUND
SIGN
GUY
MH
INL
SS
WV
POST

N
41
43
SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS (EVEA CONSTRUCTION - STAGE 1)	SHEET 154	E

2

SIDEWALK CLOSED
USE OTHER SIDE
4-1
R9-10
24" X 12"
60" MOUNTING HEIGHT

SIDEWALK
CLOSED
4-2
R9-9
24" X 12"
60" MOUNTING HEIGHT

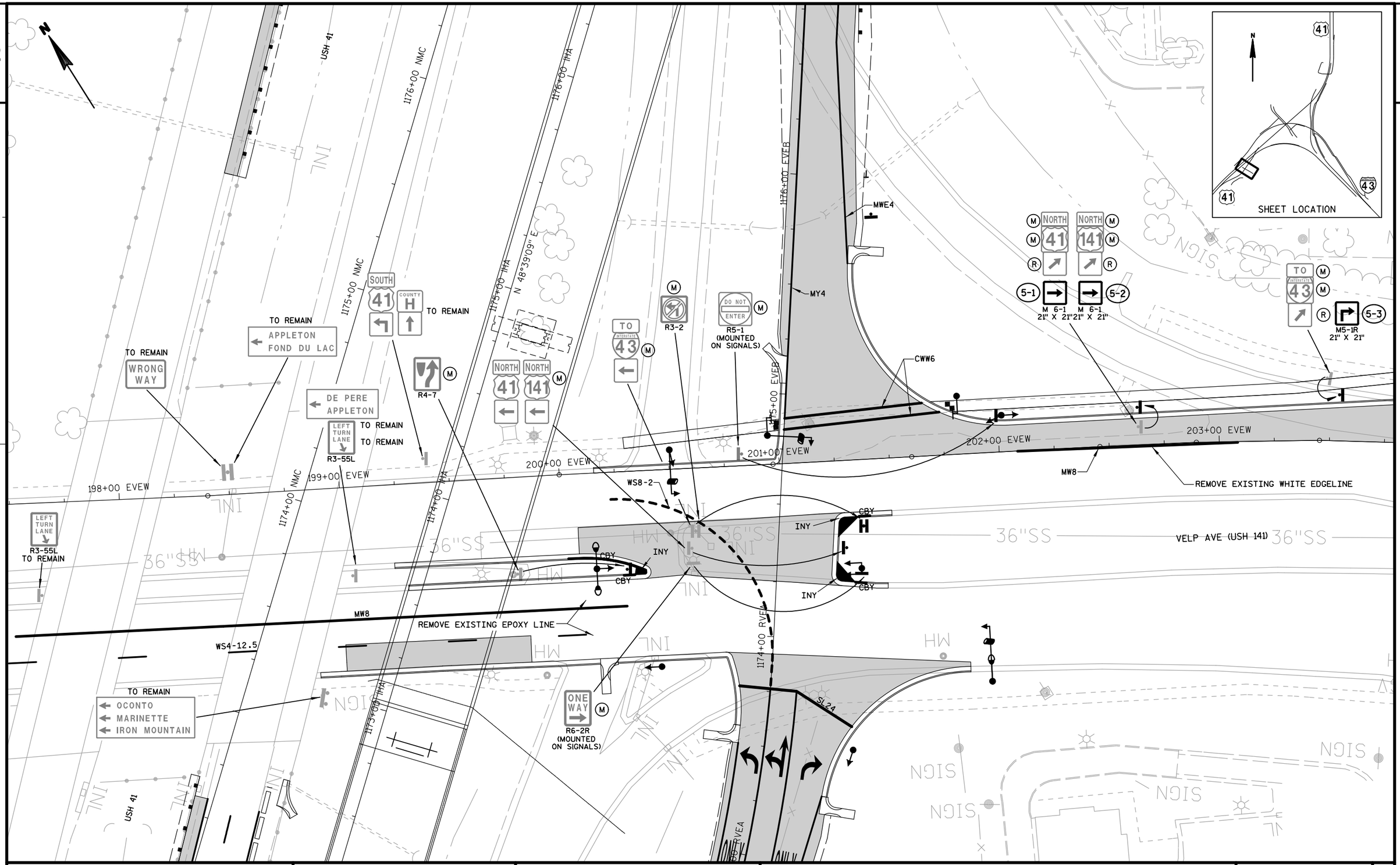
VELP AVE
CTH "H"
RIVERVIEW DR
DUCK CREEK
ISLAND CT
PROPOSED BEAVER DAM CREEK REALIGNMENT (1133-11-75)
PROPOSED STORMWATER POND (1133-11-75)
SB USH 41
NB USH 41
N

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 155	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023205_ps.dgn | PLOT DATE : 5/31/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:100

2



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 156	E

2

** RETRACE EXISTING NB & SB PAVEMENT MARKINGS ON NB & SB USH 41BETWEEN LIMITS OF NBC & SBC TEMPORARY MEDIAN CROSSOVERS. MARKINGS SHALL BE RETRACED FOLLOWING PAVING OF CROSSOVERS ON NB 41 (STAGE 1B) AND AGAIN THE FOLLOWING YEAR ONCE TEMPORARY CROSSOVERS ARE REMOVED (STAGE 2A). MARKINGS INCLUDE MY4, MWE4, WS4-12.5, MW8, WS8-3, DLW24

WISCONSIN CENTRAL LTD RAILROAD

SHEET LOCATION

TO REMAIN
NORTH M3-1
COUNTY HS M1-5A
M1-5R

TO REMAIN
EXIT 170
E5-1A

ROAD CLOSED 6-1
R11-2
48" X 30"

W3-3 (M)

SOUTH M3-3
141 (M) M1-4
M1-5L

ONLY ONLY ONLY

WRONG WAY
R5-1A
TO REMAIN

TO REMAIN
GREEN BAY
Velp Ave
EAST WEST

TO REMAIN
FOOD
LODGING

MWE4

MY4

TO REMAIN
BLUE SIS
FOOD / GAS

WRONG WAY
R5-1A
TO REMAIN

TO REMAIN
BLUE SIS
FOOD / GAS

TO REMAIN

Sturgeon Bay
Algoma
Exit 171

REMOVE EXISTING EPOXY LINES

USH 41

MW8

MWE4

MY4

100' WHITE (TYP)

PEDESTRIANS BICYCLES (ON MOTORIZED TRAFFIC) MOTOR BICYCLES PROHIBITED
R5-57 (M)

W1-4R
30" X 30"
6-2

40 M.P.H.
W13-1
18" X 18"
6-3

VELP AVE (USH 141)

MEMORIAL DR

NO PARKING BETWEEN SIGNS
R7-52R (M)

NO PARKING BETWEEN SIGNS
R7-52D (M)

NO PARKING BETWEEN SIGNS
R7-52L (M)

W5-56 (M)

RAMP
30 MPH
W13-2A
TO REMAIN

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 157 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023207_ps.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

DUCK CREEK

INL

USH 41 / 141

DUCK CREEK TO REMAIN

12+00 BP1

10+00 BP1

TO REMAIN

RAMP 30 M.P.H.

8+00 BP1

SIGN

TO REMAIN

Downtown Green Bay

Exit Mason St.

SIGN

W. DEERFIELD AVE.

SIGN

DUCK CREEK TO REMAIN

SPONSOR (RT)

I55-56

400' WHITE TYP.

4+00 BP1

1214+00 NMC

1216+00 NMC

1218+00 NMC

1220+00 NMC

1222+00 NMC

7-1 ROAD CLOSED R11-2 48" X 30"

EMERGENCY STOPPING ONLY (RT) R8-7

1224+00 NMC

1226+00 NMC

USH 41 / 141

INL

EQNBK BP123+50.92 EQNHD BP123+50.00

MATCHLINE 1227+00 NMC

16+00 BP1

18+00 BP1

20+00 BP1

22+00 BP1

24+00 BP1

26+00 BP1

SHARED USE PATH

(R) W5-56

N

41

43

41

SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 158	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023208_ps.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

TO REMAIN

Port of Green Bay
EXIT 171

W. DEERFIELD AVE.

LAKE MICHIGAN CIRCLE TOUR

TO REMAIN

NORTH 41 NORTH 141

TO REMAIN

SLOWER TRAFFIC KEEP RIGHT

R4-3

TO REMAIN

SIGN

SIGN

USH 41 / 141

1228+00 NMC

1230+00 NMC

1232+00 NMC

1234+00 NMC

1236+00 NMC

1238+00 NMC

1240+00 NMC

1242+00 NMC

INL

USH 41 / 141

MATCHLINE 1227+00 NMC

200'

28+00 P1

SIGN

E. DEERFIELD AVE.

ROAD CLOSED

R11-2
48" X 30"

8-1

8-3

8-4

8-5

W5-56
18" X 18"
(3 EACH)

8-2

PAVEMENT ENDS

W8-3
36" X 36"

R

W11-3

NEXT XX MILES

W57-51

N

41

41

43

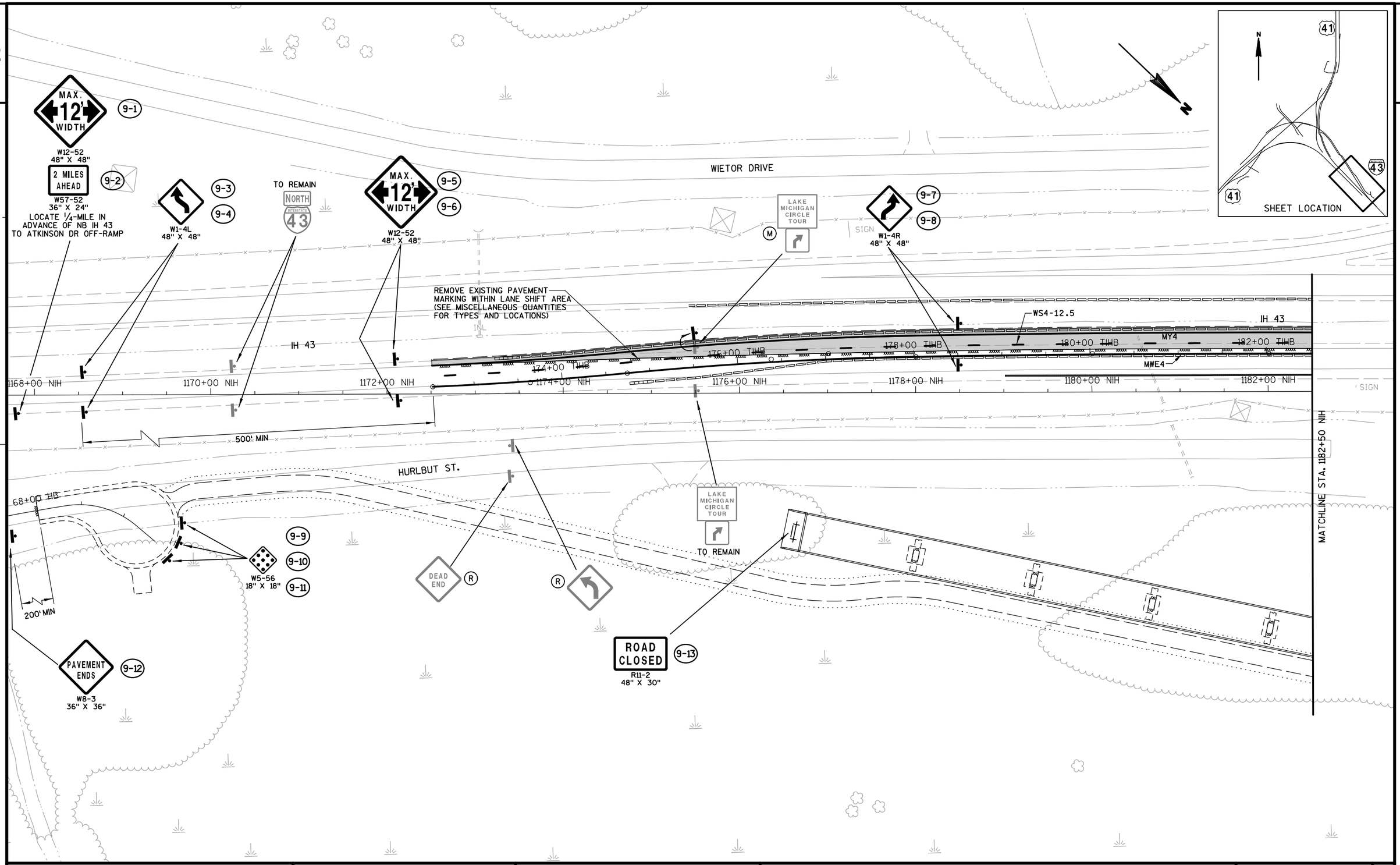
SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 159	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023209_ps.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 160 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023210_ps.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

2

TO REMAIN EXIT 192A
41 141 NORTH
Marinette
Iron Mountain
EXIT ONLY

TO REMAIN EXIT 192B
41 SOUTH
Appleton
EXIT ONLY

10-2 ROAD CLOSED
R11-2
48" X 30"

EXIT 192A RT

REMOVE EXISTING PAVEMENT MARKING WITHIN LANE SHIFT AREA (SEE MISCELLANEOUS QUANTITIES FOR TYPES AND LOCATIONS)

MATCHLINE STA. 1182+50 NIH

IH 43

WIETOR DRIVE

1208+00 IHA
1206+00 IHA
1204+00 IHA
1202+00 IHA
1200+00 IHA
1198+00 IHA
1196+00 IHA

184+00 TIHB
186+00 TIHB
188+00 TIHB
MY4
MWE4
WS4-12.5

1184+00 NIH
1186+00 NIH
1188+00 NIH
1190+00 NIH
1192+00 NIH
1194+00 NIH
1196+00 NIH
1198+00 NIH

102+00 TNIH
104+00 TNIH
106+00 TNIH
108+00 TNIH

EXIT 50 M.P.H. (M)
W13-2

10-1 ROAD CLOSED
R11-2
48" X 30"

R
W5-56

LAKE MICHIGAN CIRCLE TOUR
TO REMAIN

SIGN STRUCTURE
S-05-0284
STA 1193+98 NIH

W4-3L
48" X 48"
(BAND TO LEFT SUPPORT)
FUTURE - BY OTHERS

FUTURE REPLACEMENT OF SIGN BLANK BY OTHERS

10-5
SIGN BLANK LEFT IN PLACE
72" X 90"
(MOUNTED OVER RIGHT LANE)

10-3
W1-4R
48" X 48"

10-4
50 M.P.H.
W13-1
24" X 24"

25' TYP.

XXXXX

REMOVE EXISTING EPOXY

MATCHLINE STA. 109+50 TNIH

1186+00 INB
1188+00 INB
1190+00 INB
1192+00 INB
1194+00 INB
1196+00 INB
1198+00 INB

N
41
43
SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 161 E

** RETRACE EXISTING NB & SB PAVEMENT MARKINGS ON NB & SB USH 41 BETWEEN LIMITS OF NBC & SBC TEMPORARY CROSSOVERS. MARKINGS SHALL BE RETRACED FOLLOWING PAVING OF CROSSOVERS ON NB 41 (STAGE 1B) AND AGAIN THE FOLLOWING YEAR ONCE TEMPORARY CROSSOVERS ARE REMOVED (STAGE 2A). MARKINGS INLCUDE MY4, MWE4, WS4-12.5, MW8, WS8-3, DLW24

EXIT 171
INTERSTATE 43 SOUTH
Milwaukee
TO REMAIN

41 141 SOUTH
Appleton
TO REMAIN

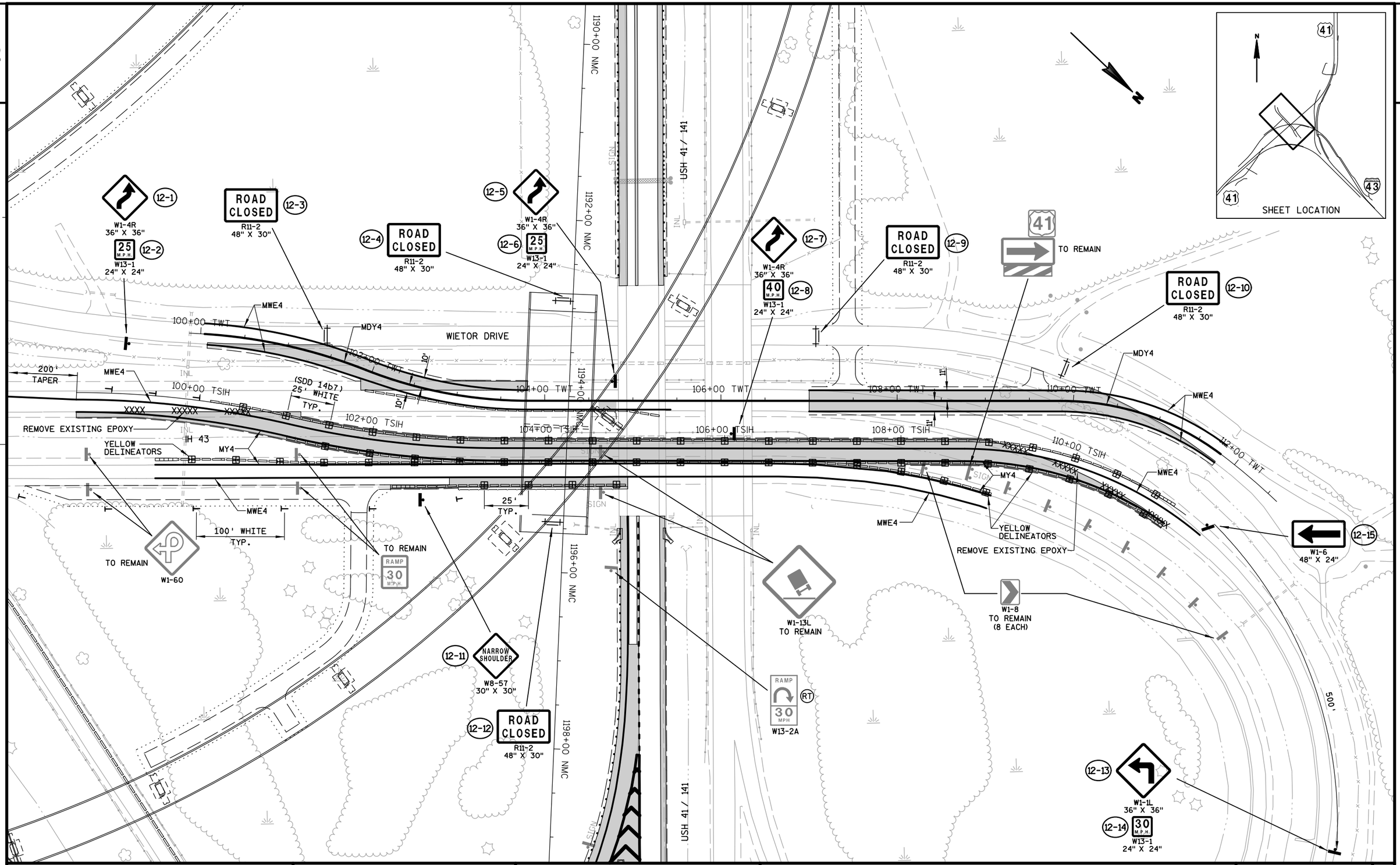
USH 41 / 141
WS8-3
MWE4
DLW24
MW8
MY4
25'
50'
REMOVE TUBULAR MARKERS
400' WHITE TYP.
1198+00 NMC
1200+00 NMC
1202+00 NMC
1204+00 NMC
1206+00 NMC
1208+00 NMC
1210+00 NMC
1212+00 NMC
1208+00 NIH
1206+00 NIH
1204+00 NIH
1202+00 NIH
1200+00 NIH
W1-13L (RT)
EXIT 171 E5-1A (RT)
PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED R5-57 (RT)
ROAD CLOSED R11-2 48" X 30" 11-1
W4-1 (RT)
W1-6 (M)
EXIT 171 E5-1A (RT)
PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED R5-57 (RT)
RAMP 30 M.P.H.
DUCK CREEK
REMOVE EXISTING EPOXY
MY4
MY8
120+00 TNIH
122+00 TNIH
118+00 TNIH
116+00 TNIH
114+00 TNIH
112+00 TNIH
110+00 TNIH
XXXXX
XXXX
XX
100' WHITE TYP.
MWE4
W1-8 (11 EACH) (RT)
40' WHITE TYP.
25' WHITE TYP. (SDD 14b7)
MATCHLINE STA. 109+50 TNIH
SIGN STRUCTURE S-05-0286 STA 1207+34 NIH
11-2
FUTURE REPLACEMENT OF SIGN BLANK BY OTHERS
SIGN BLANK LEFT IN PLACE 72" X 90" (MOUNTED OVER RIGHT LANE)
TO REMAIN DUCK CREEK

N
41
43
SHEET LOCATION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_023212_ps.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING & DELINEATORS	SHEET 163 E

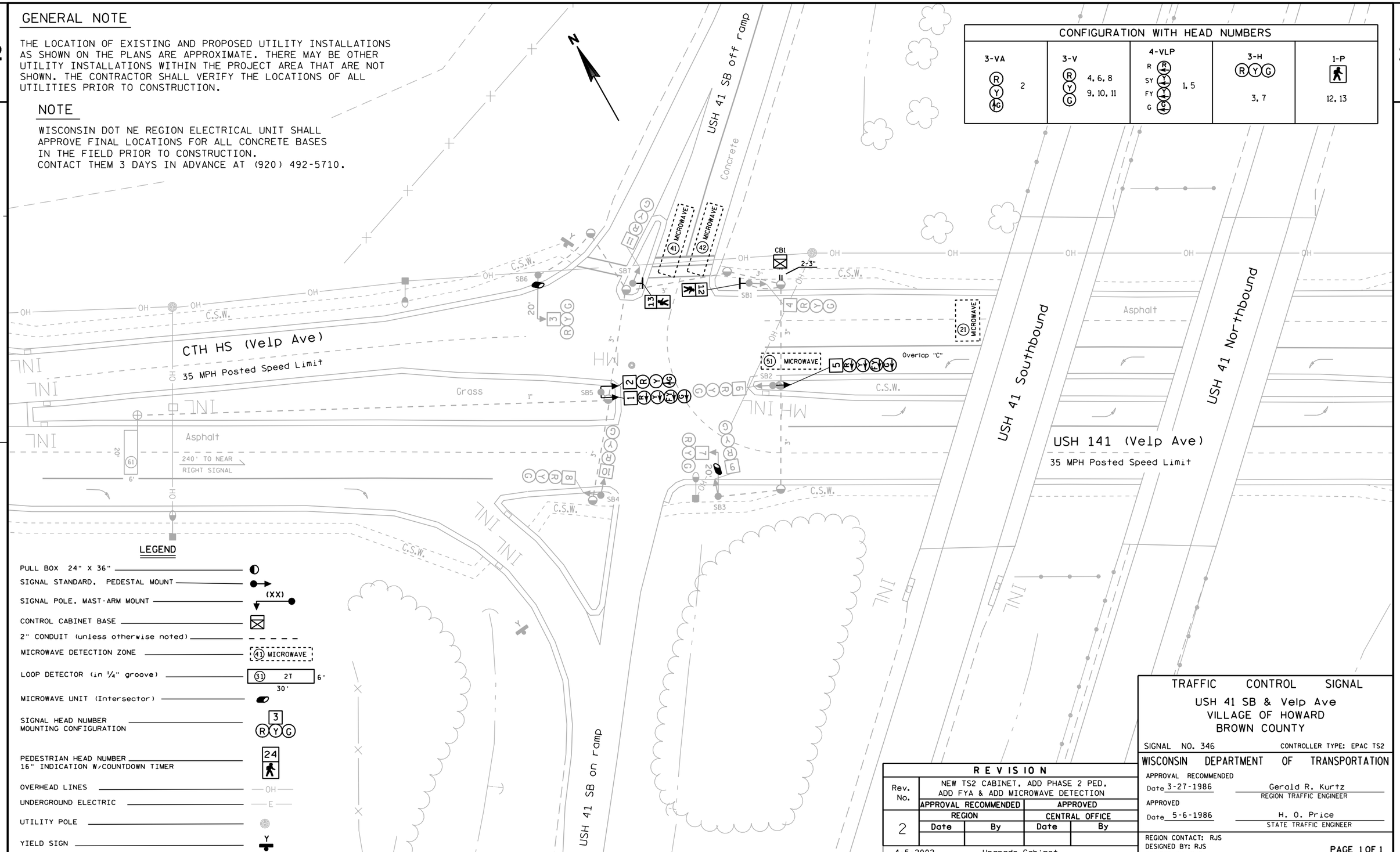
GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.
CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

CONFIGURATION WITH HEAD NUMBERS				
3-VA (R, Y, Ac)	2	3-V (R, Y, G)	4, 6, 8 9, 10, 11	4-VLP (R, SY, FY, G)	1, 5	3-H (R Y G)	3, 7	1-P	12, 13



LEGEND

- PULL BOX 24" X 36"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MAST-ARM MOUNT (XX)
- CONTROL CABINET BASE
- 2" CONDUIT (unless otherwise noted)
- MICROWAVE DETECTION ZONE — (41) MICROWAVE
- LOOP DETECTOR (in 1/4" groove) — (31) 2T, 6' x 30'
- MICROWAVE UNIT (Intersector)
- SIGNAL HEAD NUMBER / MOUNTING CONFIGURATION — 3 (R Y G)
- PEDESTRIAN HEAD NUMBER / 16" INDICATION W/COUNTDOWN TIMER — 24
- OVERHEAD LINES — OH
- UNDERGROUND ELECTRIC — E
- UTILITY POLE
- YIELD SIGN — Y

REVISION				
Rev. No.	NEW TS2 CABINET, ADD PHASE 2 PED, ADD FYA & ADD MICROWAVE DETECTION			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
2	Date	By	Date	By
4-5-2002	Upgrade Cabinet			

TRAFFIC CONTROL SIGNAL

USH 41 SB & Velp Ave
VILLAGE OF HOWARD
BROWN COUNTY

SIGNAL NO. 346 — CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 3-27-1986 — Gerald R. Kurtz, REGION TRAFFIC ENGINEER

APPROVED
Date 5-6-1986 — H. O. Price, STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

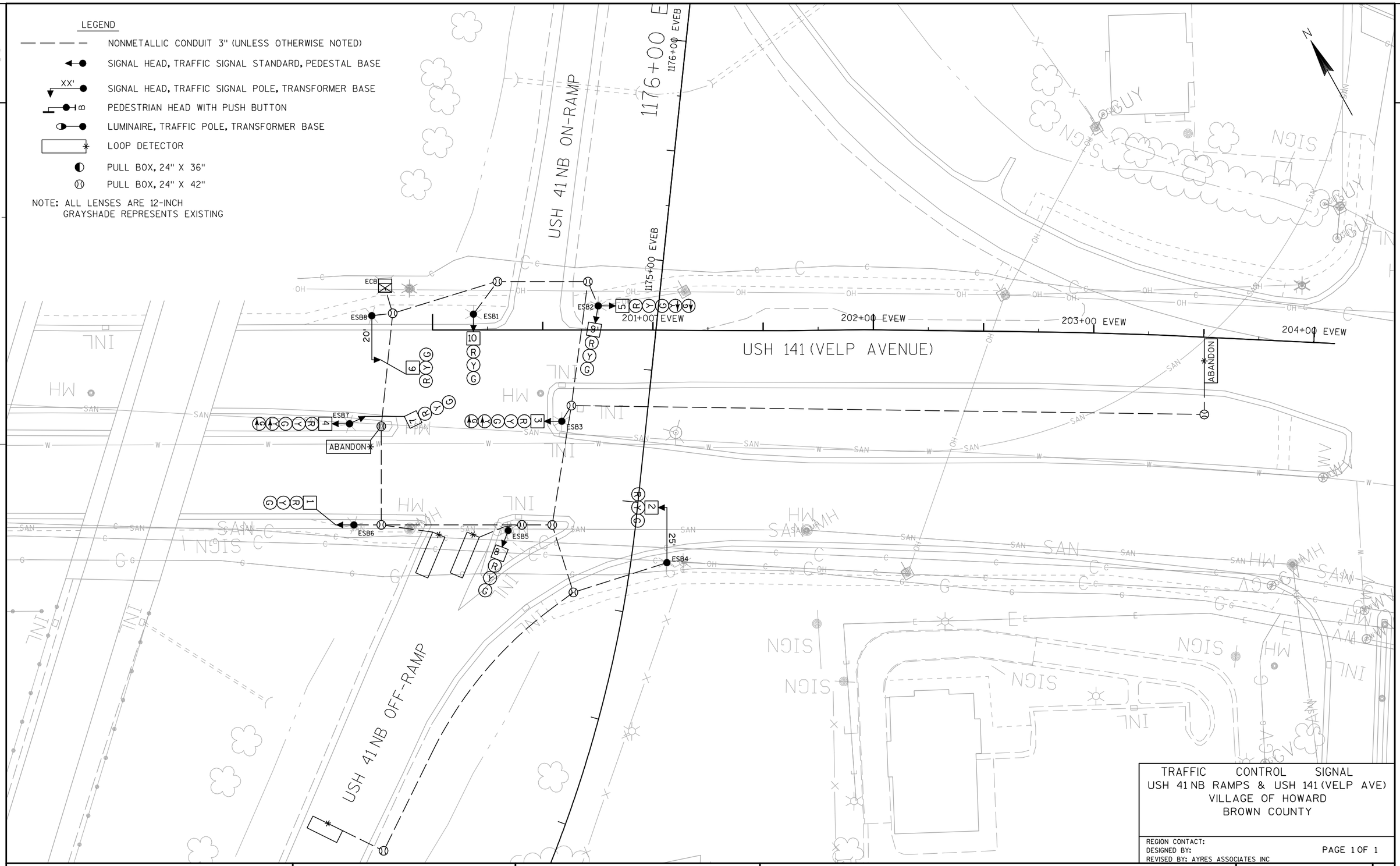
PAGE 1 OF 1

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 164	E

LEGEND

- NONMETALLIC CONDUIT 3" (UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
USH 41 NB RAMPS & USH 141 (VELP AVE)
VILLAGE OF HOWARD
BROWN COUNTY

REGION CONTACT:
DESIGNED BY:
REVISED BY: AYRES ASSOCIATES INC

PAGE 1 OF 1

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 165	E

FILE NAME : K:\41065100\dgn\024001_sp.dgn PLOT DATE : 4/9/2013 PLOT BY : Tristan PLOT NAME : PLOT SCALE : 1:40

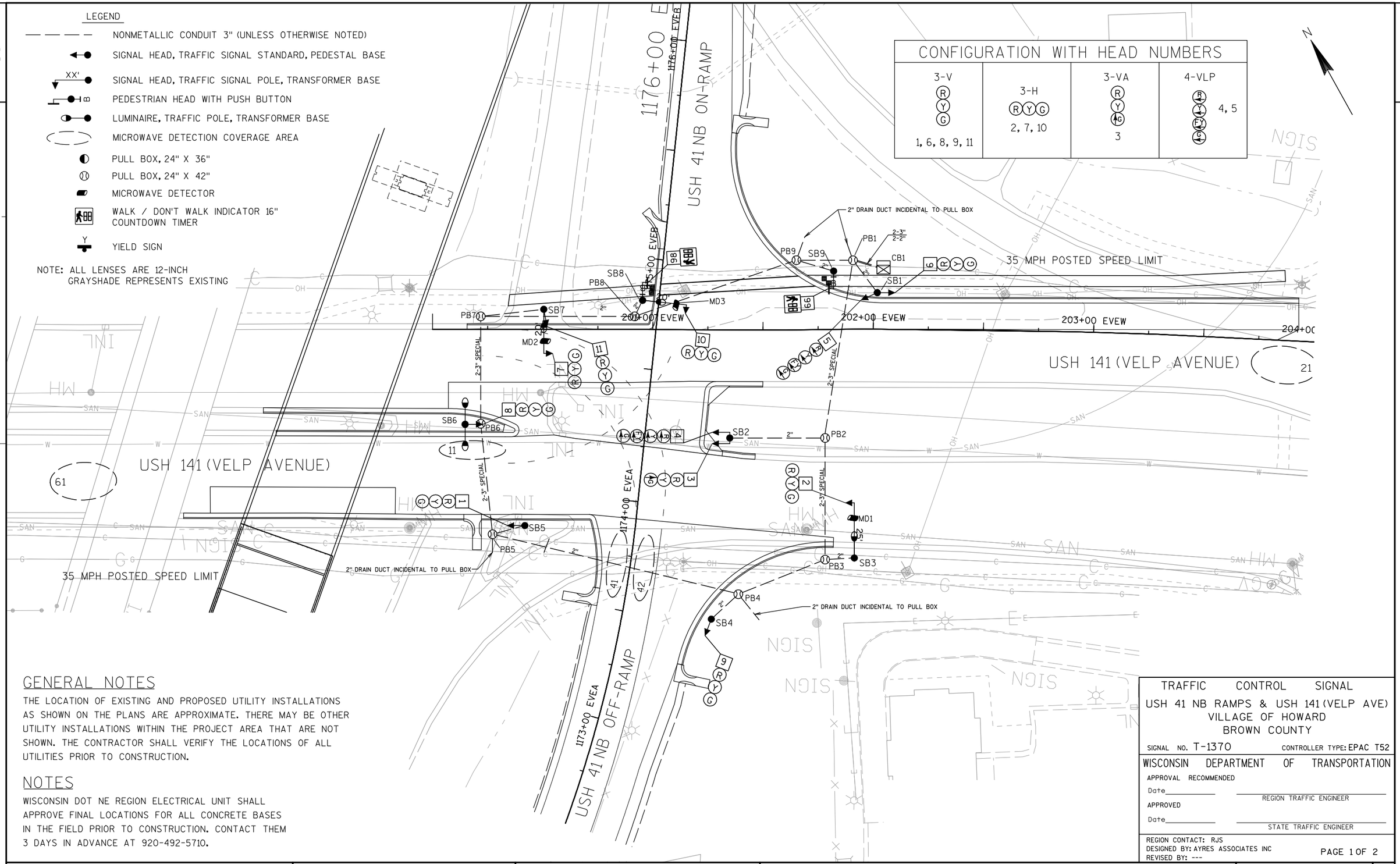
WISDOT/CADDS SHEET 42

LEGEND

- NONMETALLIC CONDUIT 3" (UNLESS OTHERWISE NOTED)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- B PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION COVERAGE AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- MICROWAVE DETECTOR
- WALK / DON'T WALK INDICATOR 16" COUNTDOWN TIMER
- Y YIELD SIGN

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONFIGURATION WITH HEAD NUMBERS			
3-V	3-H	3-VA	4-VLP
R Y G	R Y G	R Y A G	R Y A G
1, 6, 8, 9, 11	2, 7, 10	3	4, 5



GENERAL NOTES

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

NOTES

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT THEM 3 DAYS IN ADVANCE AT 920-492-5710.

TRAFFIC CONTROL SIGNAL

USH 41 NB RAMPS & USH 141 (VELP AVE)
VILLAGE OF HOWARD
BROWN COUNTY

SIGNAL NO. T-1370 CONTROLLER TYPE: EPAC T52

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date_____ REGION TRAFFIC ENGINEER

APPROVED
Date_____ STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY: ---

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC SIGNAL PLAN	SHEET 166	E

FILE NAME : K:\41065100\dgn\024001_sp.dgn PLOT DATE : 4/9/2013 PLOT BY : Tristan PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

		Ø1							Ø2						
			CLEAR TO							CLEAR TO					
	HEAD NUMBERS	R/W	**						R/W	**					
Ø1	4, 5	G	-	-					-	-	-				
Ø2	6, 7, 8	R	R	R					G	Y	R				
Ø3															
Ø4	9, 10, 11	R	R	R					R	R	R				
RING 1 Ø5															
Ø6	1, 2, 3	R	R	R					R	R	R				
Ø7															
Ø8															
Ø2P	98, 99	D	D	D					*	D	D				
OL "A"	4, 5	-	Y	R					FY	Y	R				

	Ø3							Ø4							FLASH
		CLEAR TO							CLEAR TO						
	R/W	**						R/W	**						
Ø1								-	-	-					-
Ø2								R	R	R					R
Ø3															
Ø4								G	Y	R					R
RING 1 Ø5															
Ø6								R	R	R					R
Ø7															
Ø8															
Ø2P								D	D	D					
OL "A"								R	R	R					R

NOT USED

NOT USED

NOT USED

NOT USED

		Ø5							Ø6						
			CLEAR TO							CLEAR TO					
	HEAD NUMBERS	R/W	**						R/W	**					
Ø1	4, 5								-	-	-				
Ø2	6, 7, 8								R	R	R				
Ø3															
RING 2 Ø4	9, 10, 11								R	R	R				
Ø5															
Ø6	1, 2, 3								G	Y	R				
Ø7															
Ø8															
Ø2P	98, 99								D	D	D				
OL "A"	4, 5								R	R	R				

	Ø7							Ø8						
		CLEAR TO							CLEAR TO					
	R/W	**						R/W	**					
Ø1														
Ø2														
Ø3														
RING 2 Ø4														
Ø5														
Ø6														
Ø7														
Ø8														
Ø2P														
OL "A"														

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK

D = DON'T WALK

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2, 4
2	6	1, 4
3		
4		1, 2, 6
5		
6	1 OR 2	4
7		
8		

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR RACK CHANNEL	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE
11	3	X			1	1				MICRO
21	1	X			2	2				MICRO
41	5	X			4	4				MICRO
42	6	X			4	4				MICRO
61	7	X			6	6				MICRO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				X
2			MIN.	X
3				
4				X
5				
6			MIN.	X
7				
8				

OVERLAP SPECIAL

O.L. "A" = PRO (1) / PERM (2)
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	

GENERAL NOTES:

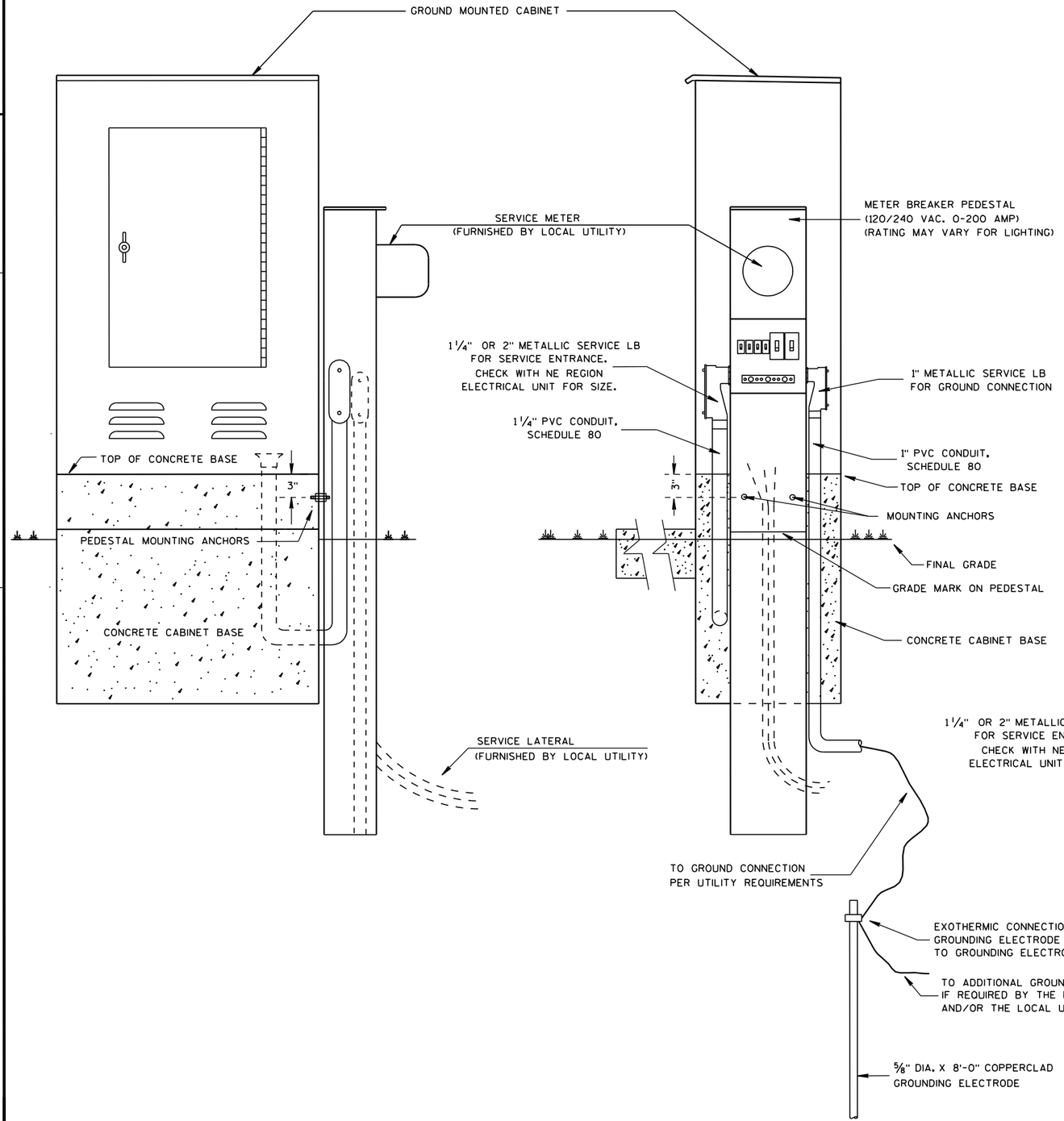
1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)
3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT-TURN CONFLICT.
4. PROVIDE FOR HAND CONTROL.

USH 41 NB & VELP AVENUE
VILLAGE OF HOWARD
BROWN COUNTY

SIGNAL NO. T-1370

REGION CONTACT: RJS
DESIGNED BY: AYRES ASSOCIATES INC
REVISED BY:

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	SEQUENCE OF OPERATIONS	SCALE, FEET 0 N/A N/A	SHEET 167	E



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

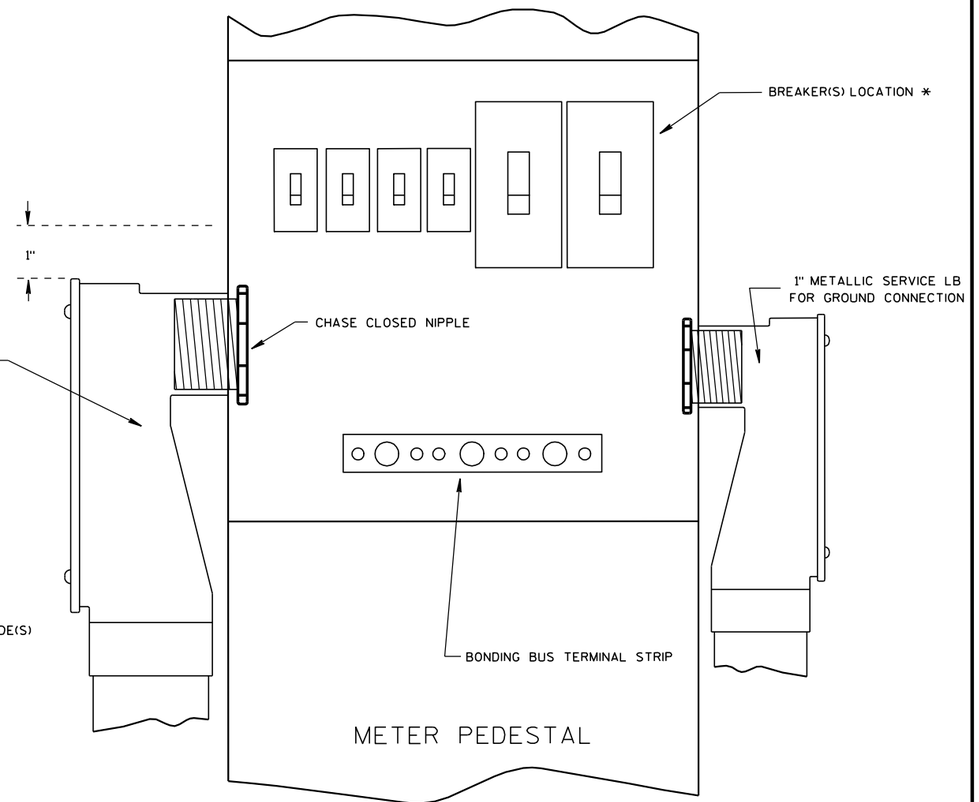
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



2

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL- NER METER PEDESTAL INSTALLATION	SHEET 168	E

2

GENERAL NOTES

ALL SIGNS ARE 48" x 48", UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W", EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD LOCATIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

INDEX OF TRAFFIC CONTROL SHEETS

TRAFFIC CONTROL SEQUENCE AND NOTES
TRAFFIC CONTROL DETAILS
- MISCELLANEOUS DETAILS
- TEMPORARY WALL AND SHORING DETAILS
- TEMPORARY USH 41 CROSSOVER DETAILS
- TUB GIRDER ERECTION DETAILS
- DETOURS

LEGEND FOR TRAFFIC CONTROL OVERVIEW
STAGE 1 TRAFFIC CONTROL PLANS
STAGE 2 TRAFFIC CONTROL PLANS
STAGE 3 TRAFFIC CONTROL PLANS

TRAFFIC CONTROL SEQUENCE - STAGE 1

STAGE 1

CONSTRUCT LONG-TERM TEMPORARY ADJUSTMENTS TO EXISTING ROADWAYS TO ACCOMMODATE PROPOSED STRUCTURES; CONSTRUCT USH 41 TEMPORARY CROSSOVERS FOR ERECTION OF STRUCTURAL STEEL OVER USH 41 IN SUBSTAGE 2A; BEGIN CONSTRUCTION OF STRUCTURES, FILLS, SHARED USE PATH, CUL-DE-SACS AT HURLBUT STREET & EAST DEERFIELD AVENUE, THE TEMPORARY HAUL ROADS & PERMANENT MAINTENANCE ROADS; CONSTRUCT CAUSEWAY AND SHORELINE ACCESS ROAD TO INSTALL PIER 7 OF STRUCTURE B-05-681 IN DUCK CREEK; FOR PARCEL 16, REMOVE PARKING LOT AND RAZE BUILDING

SUBSTAGE 1A

TRAFFIC:

NB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

SB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

NB IH 43: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

NB USH 41 RAMP TO SB IH 43: INTERMITTENT OVERNIGHT FULL CLOSURES

NB IH 43 RAMP TO NB USH 41: INTERMITTENT OVERNIGHT FULL CLOSURES; REDUCE MARKED LANE WIDTH FROM 15' TO 11'; AT END OF SUBSTAGE, SHIFT TRAFFIC TO WIDENING ON WEST SIDE OF RAMP

NB IH 43 RAMP TO SB USH 41: INTERMITTENT OVERNIGHT FULL CLOSURES; REDUCE MARKED LANE WIDTH FROM 15' TO 11'

SB USH 41 RAMP TO SB IH 43: INTERMITTENT OVERNIGHT FULL CLOSURES; MOVE START OF SECOND LANE DOWNSTREAM, TO THE EAST OF USH 41

EB VELP AVENUE: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES; MAINTAIN TRAFFIC SIGNALS IN OPERATION

WB VELP AVENUE: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES; MAINTAIN TRAFFIC SIGNALS IN OPERATION

NB USH 41 OFF-RAMP TO VELP AVENUE: INTERMITTENT OVERNIGHT FULL CLOSURES; AT END OF SUBSTAGE, SWITCH TRAFFIC TO LONG-TERM TEMPORARY RAMP; CLOSE ONE OF TWO LEFT TURN LANES WHEN A LANE IS CLOSED ON EB VELP AVENUE

NB USH 41 ON-RAMP FROM VELP AVENUE: INTERMITTENT OVERNIGHT FULL CLOSURES; AT END OF SUBSTAGE, SWITCH TRAFFIC TO LONG-TERM TEMPORARY RAMP; FULL CLOSURE FOR ONE WEEKEND FOR TRAFFIC SWITCH

SB USH 41 OFF-RAMP TO VELP AVENUE: FULL CLOSURE OVERNIGHT; CLOSE ONE OF TWO LEFT TURN LANES WHEN A LANE IS CLOSED ON EB VELP AVENUE

ROSEWOOD STREET: CLOSE TO NON-LOCAL TRAFFIC

MEMORIAL DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED)

WIETOR DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED)

HURLBUT STREET & EAST DEERFIELD AVENUE: CLOSE CUL-DE-SAC

TRAFFIC CONTROL SEQUENCE - STAGE 1 (cont.)

EB VELP AVENUE SIDEWALK: CLOSE TO PUBLIC USE - TO REMAIN CLOSED AFTER CONSTRUCTION

WB VELP AVENUE SIDEWALK: CLOSE TO PUBLIC USE - CONTINUOUS THROUGH SUBSTAGE 2B

CONSTRUCTION:

NB USH 41: SOUTH OF VELP AVENUE,CONSTRUCT LONG-TERM TEMPORARY WIDENING IN MEDIAN; BETWEEN VELP AVENUE AND DUCK CREEK, PLACE CBTP ALONG OUTSIDE SHOULDER AND REMOVE MARSH DISPOSAL ON FILL SLOPE NORTH OF IH 43; NORTH OF DUCK CREEK, PLACE CBTP ALONG OUTSIDE SHOULDER

NB IH 43: CONSTRUCT LONG-TERM TEMPORARY WIDENING IN MEDIAN AND INSTALL SOUTH SECTION OF NEW STORM SEWER UNDER NB IH 43

NB USH 41 RAMP TO SB IH 43: PLACE CBTP LEFT IN PLACE, AND WORK ALONG OUTSIDE SHOULDER

NB IH 43 RAMP TO NB USH 41: CONSTRUCT LONG-TERM TEMPORARY WIDENING ALONG WEST SIDE OF ROADWAY

NB IH 43 RAMP TO SB USH 41: ALONG OUTSIDE SHOULDER, REPLACE SHOULDER PAVEMENT AND INSTALL CBTP LEFT IN PLACE ; AFTERWARD, INSTALL CBTP ON INSIDE EDGE OF LANE, REMOVE LEFT SHOULDER PAVEMENT AND PLACE LONG-TERM TEMPORARY PAVEMENT FOR SB USH 41 RAMP TO SB IH 43

SB USH 41 RAMP TO SB IH 43: CONSTRUCT LONG-TERM TEMPORARY CROSSOVERS TO THE EXISTING NB IH 43 RAMP TO SB USH 41; INSTALL CBTP ALONG MEDIAN SHOULDER EAST OF USH 41

EB VELP AVENUE: MODIFY PAVEMENT TO MOVE NB USH 41 RAMP TERMINAL TO EAST

WB VELP AVENUE: MODIFY PAVEMENT TO MOVE NB USH 41 RAMP TERMINAL TO EAST

NB USH 41 OFF-RAMP TO VELP AVENUE: NORTH (DOWNSTREAM) OF USH 41 GORE AREA, CONSTRUCT LONG-TERM TEMPORARY RAMP OFF-ALIGNMENT

NB USH 41 ON-RAMP FROM VELP AVENUE: CONSTRUCT LONG-TERM TEMPORARY RAMP OFF-ALIGNMENT

SB USH 41 OFF-RAMP TO VELP AVENUE: PLACE CBTP LEFT IN PLACE ALONG OUTSIDE SHOULDER, AND INSTALL SHALLOW CULVERT UNDER PAVEMENT

ROSEWOOD STREET: CONSTRUCT CUL-DE-SAC

MEMORIAL DRIVE: CONSTRUCT LONG-TERM TEMPORARY CUL-DE-SAC; FOR PARCEL 16, REMOVE PARKING LOT AND RAZE BUILDING

WIETOR DRIVE: BEGIN CONSTRUCTING TEMPORARY LONG-TERM TEMPORARY CROSSOVERS TO THE EXISTING SB USH 41 RAMP TO SB IH 43

BEGIN CONSTRUCTION OF STRUCTURES, FILLS, SHARED USE PATH, CUL-DE-SACS AT HURLBUT STREET & EAST DEERFIELD AVENUE, THE TEMPORARY HAUL ROADS & PERMANENT MAINTENANCE ROADS

SEE NEXT SHEET FOR CONTINUATION OF TRAFFIC CONTROL SEQUENCE

NOTE: CBTP = CONCRETE BARRIER TEMPORARY PRECAST

TRAFFIC CONTROL SEQUENCE - STAGE 1 (cont.)

SUBSTAGE 1B

TRAFFIC:

NB USH 41: SOUTH OF VELP AVENUE TO DUCK CREEK, OUTSIDE SHOULDER NARROWED TO 1' WITH INTERMITTENT OVERNIGHT SINGLE LANE CLOSURES; SOUTH OF VELP AVENUE, SHIFT TRAFFIC ONTO WIDENING IN MEDIAN

SB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

NB IH 43: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES; SHIFT TRAFFIC ONTO WIDENING IN MEDIAN

NB USH 41 RAMP TO SB IH 43: INTERMITTENT OVERNIGHT FULL CLOSURES

NB IH 43 RAMP TO NB USH 41: INTERMITTENT OVERNIGHT FULL CLOSURES; AT END OF SUBSTAGE, EXPAND LANE WIDTH FROM 11' TO 15', AND SHIFT TRAFFIC TO WIDENING ON EAST SIDE OF RAMP

NB IH 43 RAMP TO SB USH 41: INTERMITTENT OVERNIGHT FULL CLOSURES

SB USH 41 RAMP TO SB IH 43: INTERMITTENT OVERNIGHT FULL CLOSURES; SHIFT TRAFFIC ONTO CROSSOVERS TO NB IH 43 TO SB USH 41 RAMP

EB VELP AVENUE: INTERMITTENT SINGLE-LANE CLOSURES; MAINTAIN TRAFFIC SIGNALS IN OPERATION

WB VELP AVENUE: INTERMITTENT SINGLE-LANE CLOSURES; ELIMINATE EXISTING FREE-FLOW TURNING ROADWAY FOR THE MOVEMENT TO NB USH 41; MAINTAIN TRAFFIC SIGNALS IN OPERATION

NB USH 41 OFF-RAMP TO VELP AVENUE: INTERMITTENT OVERNIGHT FULL CLOSURES; AT END OF SUBSTAGE, SWITCH TRAFFIC AT USH 41 GORE AREA TO LONG-TERM TEMPORARY PAVEMENT; CLOSE ONE OF TWO LEFT TURN LANES WHEN A LANE IS CLOSED ON WB VELP AVENUE

NB USH 41 ON-RAMP FROM VELP AVENUE: INTERMITTENT OVERNIGHT FULL CLOSURES

SB USH 41 OFF-RAMP TO VELP AVENUE: CLOSE ONE OF TWO LEFT TURN LANES WHEN A LANE IS CLOSED ON EB VELP AVENUE

MEMORIAL DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED)

WIETOR DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED); AT END OF SUBSTAGE, SWITCH TRAFFIC TO LONG TERM TEMPORARY CROSSOVERS TO EXISTING SB USH 41 RAMP TO SB IH 43

HURLBUT STREET & EAST DEERFIELD AVENUE: CLOSE CUL-DE-SAC

CONSTRUCTION:

NB USH 41: SOUTH OF VELP AVENUE, SHIFT TRAFFIC TO LONG-TERM TEMPORARY WIDENING IN MEDIAN, AND INSTALL CBTP LEFT IN PLACE; BETWEEN VELP AVENUE AND DUCK CREEK, PLACE LONG-TERM TEMPORARY PAVEMENT ON SHOULDERS, CONSTRUCT TEMPORARY MEDIAN CROSSOVERS, AND INSTALL GUARDRAIL

NB IH 43: SHIFT TRAFFIC TO LONG-TERM TEMPORARY WIDENING IN MEDIAN; INSTALL REMAINING NORTH SECTION OF NEW STORM SEWER UNDER NB IH 43 DURING OVERNIGHT LANE CLOSURE; INSTALL CBTP LEFT IN PLACE ON OUTSIDE SHOULDER

NB USH 41 RAMP TO SB IH 43: FLATTEN PAVEMENT CROSS SLOPE IN GORE AREA FROM 8% TO 4%, AND INSTALL GUARDRAIL

NB IH 43 RAMP TO NB USH 41: CONSTRUCT LONG-TERM TEMPORARY WIDENING ALONG EAST SIDE OF ROADWAY. AT END OF SUBSTAGE, MOVE CBTP TO ITS LEFT IN PLACE LOCATION, EXCEPT FOR CONSTRUCTION AT PIER 14 OF STRUCTURE B-05-678, AND AT PIER 2 OF STRUCTURE B-05-681, AND AT GAP FOR CONSTRUCTION ACCESS ALONG WEST SIDE OF RAMP

NB IH 43 RAMP TO SB USH 41: AT BEGINNING OF SUBSTAGE, MOVE INSIDE SHOULDER CBTP TO ITS LEFT IN PLACE LOCATION TO ACCOMMODATE TRAFFIC SWITCH FOR SB USH 41 RAMP TO SB IH 43

SB USH 41 RAMP TO SB IH 43: AT BEGINNING OF SUBSTAGE, PLACE CBTP IN ITS LEFT IN PLACE LOCATION, AND SWITCH TRAFFIC TO THE LONG-TERM TEMPORARY CROSSOVERS AND SOUTH SIDE OF EXISTING NB IH 43 RAMP TO SB USH 41

EB VELP AVENUE: COMPLETE RELOCATION OF NB USH 41 RAMP TERMINAL TO EAST

WB VELP AVENUE: COMPLETE RELOCATION OF NB USH 41 RAMP TERMINAL TO EAST

NB USH 41 OFF-RAMP TO VELP AVENUE: CONSTRUCT PORTION OF LONG-TERM TEMPORARY RAMP AT USH 41 GORE AREA, AND INSTALL NEW STORM SEWER UNDER PAVEMENT

NB USH 41 ON-RAMP FROM VELP AVENUE: PLACE CBTP ALONG BOTH SHOULDERS FOR CONSTRUCTION OF EMBANKMENT AND PIERS FOR STRUCTURE B-05-671

WIETOR DRIVE: AT END OF SUBSTAGE, FINISH CONSTRUCTING LONG-TERM TEMPORARY CROSSOVERS TO THE EXISTING SB USH 41 RAMP TO SB IH 43

CONTINUE CONSTRUCTION OF STRUCTURES, FILLS, SHARED USE PATH, CUL-DE-SACS AT HURLBUT STREET & EAST DEERFIELD AVENUE, THE TEMPORARY HAUL ROADS & PERMANENT MAINTENANCE ROADS

INSTALL CAUSWAYS IN DUCK CREEK TO CONSTRUCT PIER 7 0F STRUCTURE B-05-671; REMOVE CAUSEWAYS FROM CREEK WITHIN TEN CALENDAR WEEKS (70 DAYS)

2

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL STAGING SEQUENCE AND NOTES	SHEET 169	E

2

TRAFFIC CONTROL SEQUENCE - STAGE 2

STAGE 2

CONTINUE CONSTRUCTION OF STRUCTURES, FILLS, SHARED USE PATH, CUL-DE-SACS AT HURLBUT STREET & EAST DEERFIELD AVENUE, TEMPORARY HAUL ROADS & PERMANENT MAINTENANCE ROADS; CONTINUE TO CONSTRUCT CAUSEWAY AND SHORELINE ACCESS ROAD TO INSTALL PIERS FOR STRUCTURE B-05-681 IN DUCK CREEK; ERECT STRUCTURAL STEEL; REMOVE USH 41 TEMPORARY CROSSOVERS AFTER STRUCTURAL STEEL IS ERECTED OVER USH 41

SUBSTAGE 2A

TRAFFIC:

NB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

SB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

NB IH 43: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

FOR STRUCTURAL STEEL ERECTION OVER USH 41, MOVE SB USH 41 TRAFFIC TO THE NB USH 41 SIDE OF THE MEDIAN USING TEMPORARY MEDIAN CROSSOVERS, AND CLOSE THE FOLLOWING RAMPS WHILE THE CROSSOVERS ARE IN USE: NB USH 41 TO SB IH 43; NB IH 43 TO SB USH 41; NB USH 41 ON-RAMP FROM VELP AVENUE; SB USH 41 OFF-RAMP TO VELP AVENUE. INTERMITTENTLY CLOSE NB USH 41 AND SB USH 41 OVERNIGHT, AS REQUIRED FOR STRUCTURAL STEEL ERECTION OVER THE EXISTING NB USH 41 ROADWAY

EB VELP AVENUE: CONTINUOUSLY CLOSE OUTSIDE THRU LANE FOR UP TO THREE CALENDAR WEEKS (21 DAYS)

INTERMITTENTLY CLOSE MISCELLANEOUS RAMPS AND LOCAL ROADS OVERNIGHT AS REQUIRED FOR STRUCTURAL STEEL ERECTION

HURLBUT STREET & EAST DEERFIELD AVENUE: OPEN CUL-DE-SAC FOR SNOWPLOWING

WB VELP AVENUE APPROACH TO ATKINSON DRIVE: CLOSE LANE TO COVER OVERHEAD SIGN REQUIRED FOR CLOSURE OF NB USH 41 ON-RAMP FROM VELP AVENUE DUE TO STRUCTURAL STEEL ERECTION OVER USH 41

CONSTRUCTION:

EB VELP AVENUE: CONSTRUCT SOUTH ABUTMENT AND RETAINING WALLS AT THE SOUTH END OF STRUCTURE B-05-671, AND PATCH EB VELP OUTSIDE LANE PAVEMENT AND CURB & GUTTER AFTERWARDS

STRUCTURAL STEEL ERECTION OVER USH 41

AFTER COMPLETING STRUCTURAL STEEL ERECTION OVER USH 41, REMOVE CBTP, INSTALL GUARDRAIL, AND SHIFT NB AND SB USH 41 TRAFFIC BACK TO EXISTING LANES

BEGIN STRUCTURAL STEEL ERECTION OVER RAMPS AND LOCAL ROADS

CONTINUE CONSTRUCTION OF STRUCTURES, FILLS, SHARED USE PATH, CUL-DE-SACS AT HURLBUT STREET & EAST DEERFIELD AVENUE, THE TEMPORARY HAUL ROADS & PERMANENT MAINTENANCE ROADS

CONTINUE TO INSTALL CAUSEWAYS IN DUCK CREEK TO CONSTRUCT PIER 7 OF STRUCTURE B-05-681 - REMOVE CAUSEWAYS FROM CREEK WITHIN TEN CALENDAR WEEKS (70 DAYS)

TRAFFIC CONTROL SEQUENCE - STAGE 2 (cont.)

SUBSTAGE 2B

TRAFFIC:

NB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

SB USH 41: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

NB IH 43: INTERMITTENT OVERNIGHT SINGLE-LANE CLOSURES

INTERMITTENTLY CLOSE MISCELLANEOUS RAMPS AND LOCAL ROADS OVERNIGHT AS REQUIRED FOR STRUCTURAL STEEL ERECTION

NB IH 43 RAMP TO NB USH 41: INTERMITTENT OVERNIGHT FULL CLOSURES; ROLLING CLOSURES FOR I-BEAM GIRDER ERECTION FOR STRUCTURE B-05-681

NB IH 43 RAMP TO SB USH 41 & SB USH 41 RAMP TO SB IH 43: ROLLING CLOSURES FOR I-BEAM GIRDER ERECTION FOR STRUCTURE B-05-677

NB USH 41 ON-RAMP FROM VELP AVENUE: INTERMITTENT FULL CLOSURES OVERNIGHT

MEMORIAL DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED)

WIETOR DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED)

HURLBUT STREET & EAST DEERFIELD AVENUE: CLOSE CUL-DE-SAC

CONSTRUCTION:

NB USH 41: REMOVE TEMPORARY MEDIAN CROSSOVERS AND INSTALL RUMBLE STRIPS; NORTH OF DUCK CREEK, REPLACE CBTP WITH PERMANENT GUARDRAIL

SB USH 41: REMOVE TEMPORARY MEDIAN CROSSOVERS AND INSTALL RUMBLE STRIPS

NB IH 43 RAMP TO NB USH 41: AT END OF SUBSTAGE, ADD AND MOVE CBTP TO LEFT IN PLACE LOCATION, TO PROVIDE 8' CLEAR WIDTH SHOULDERS, WHEN 1' SHOULDERS NO LONGER NEEDED AT PIER 14 OF STRUCTURE B-05-678, AND AT PIER 2 OF STRUCTURE B-05-681, AND CONSTRUCTION ACCESS NO LONGER NEEDED OFF WEST SIDE OF RAMP

NB USH 41 ON-RAMP FROM VELP AVENUE: REPLACE CBTP WITH PERMANNENT GUARDRAIL TO PROVIDE FULL SHOULDER WIDTHS, WHEN CBTP NO LONGER NEEDED FOR CONSTRUCTION OF EMBANKMENT AND PIER FOOTINGS FOR STRUCTURE B-05-671

I-BEAM GIRDER ERECTION FOR STRUCTURE B-05-681 OVER NB IH 43 RAMP TO NB USH 41

I-BEAM GIRDER ERECTION FOR STRUCTURE B-05-677 OVER NB IH 43 RAMP TO SB USH 41, SB USH 41 RAMP TO SB IH 43, AND WIETOR DRIVE

CONTINUE STRUCTURAL STEEL ERECTION OVER RAMPS AND LOCAL ROADS

COMPLETE CONSTRUCTION OF FILLS, SHARED USE PATH, CUL-DE-SACS AT HURLBUT STREET & EAST DEERFIELD AVENUE

CONTINUE CONSTRUCTION OF STRUCTURES AND PERMANENT MAINTENANCE ROADS

TRAFFIC CONTROL SEQUENCE - STAGE 3

STAGE 3

FINISH CONSTRUCTION

TRAFFIC:

WIETOR DRIVE: OPEN TO TRAFFIC (WITH FLAGGING WHEN NEEDED)

HURLBUT STREET & EAST DEERFIELD AVENUE: CLOSE CUL-DE-SAC

WB VELP AVENUE SIDEWALK: RE-OPEN TO PUBLIC USE

CONSTRUCTION:

COMPLETE CONSTRUCTION OF STRUCTURES

REMOVE TEMPORARY HAUL ROADS

COMPLETE PERMANENT MAINTENANCE ROADS

CLEAN UP SITE

2

NOTE: CBTP = CONCRETE BARRIER TEMPORARY PRECAST

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL STAGING SEQUENCE AND NOTES	SHEET 170	E

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

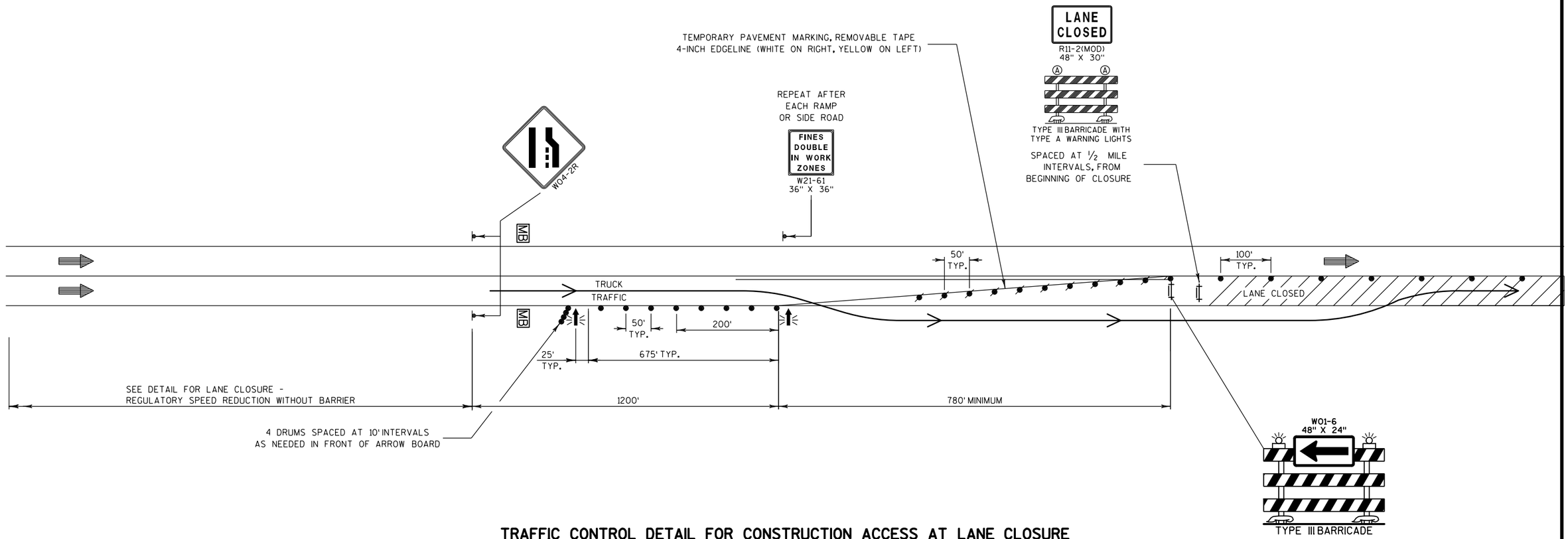
NOTES:

SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS.

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

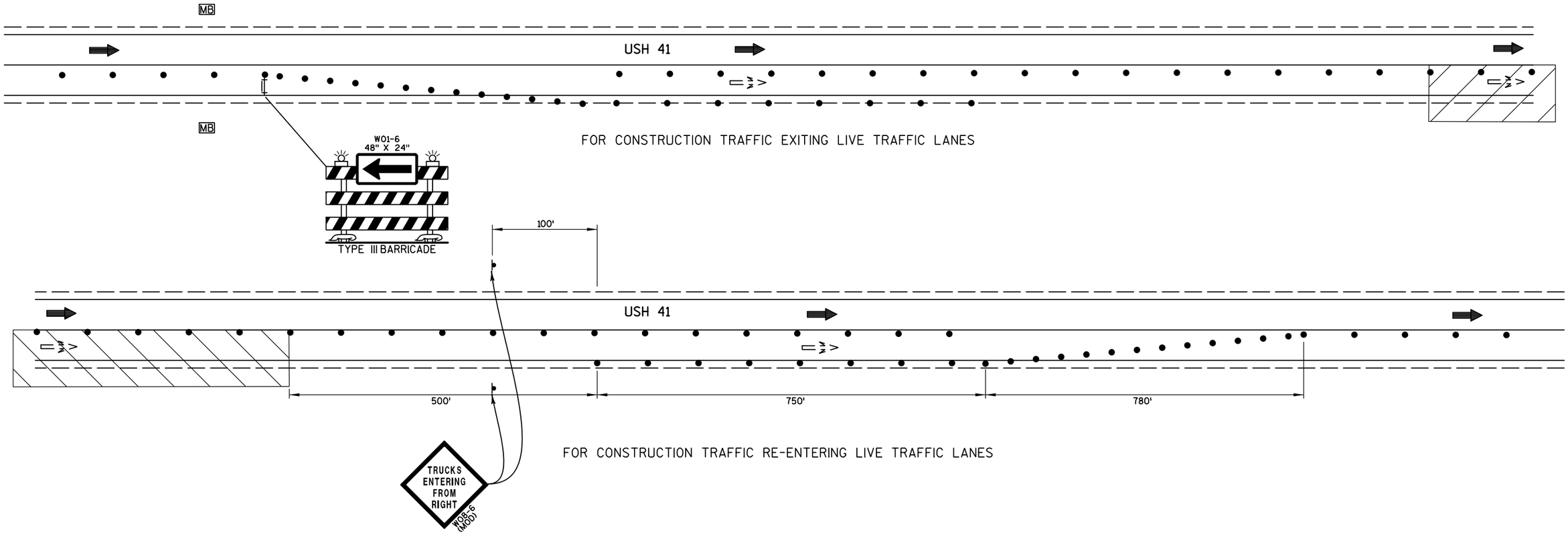
FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT



TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 171	E

2



FOR CONSTRUCTION TRAFFIC EXITING LIVE TRAFFIC LANES

FOR CONSTRUCTION TRAFFIC RE-ENTERING LIVE TRAFFIC LANES

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD
SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD
DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- USH 41 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REDUCED SPEED AHEAD AND SPEED LIMIT 55 SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF LANE CLOSURE TAPER. THE 55 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE LANE CLOSURE START LOCATION TO CHANGE.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

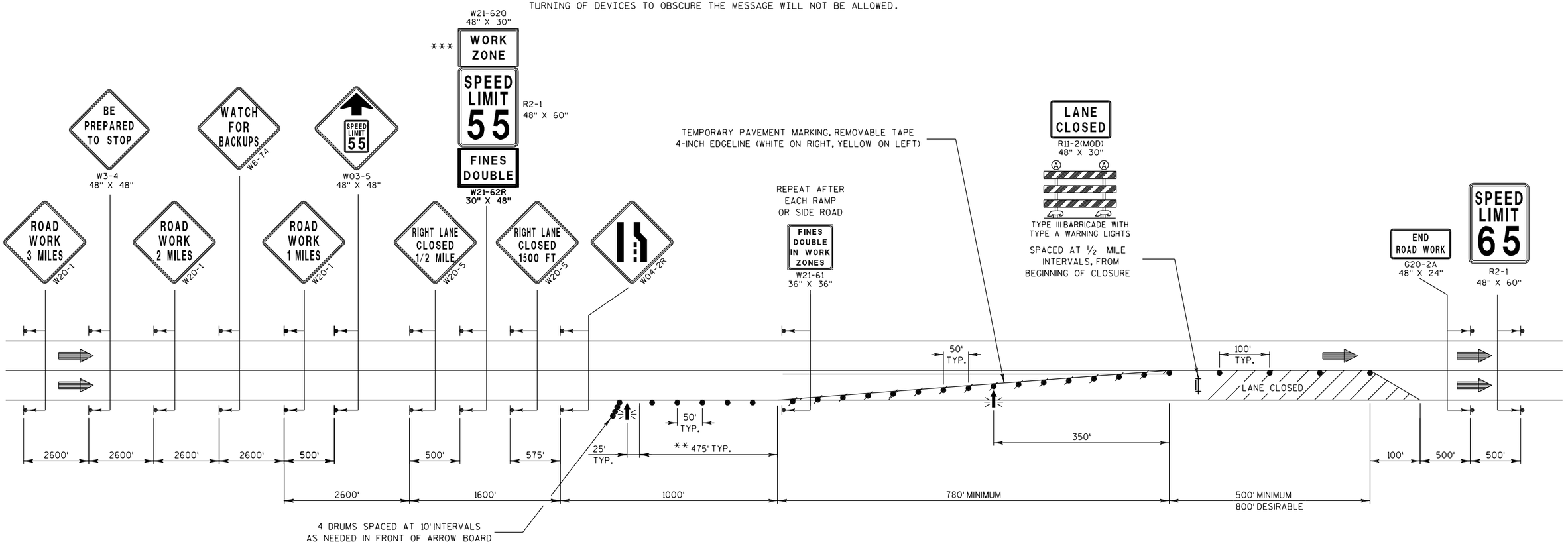
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ½ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

** CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

*** SEE REQUIREMENT FOR TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC LANE CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.



LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER

LC WOB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 173	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025005_tc_cd.dgn PLOT DATE : 5/31/2013 PLOT BY : dm253 PLOT NAME : LN CLOS NO BAR PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

LEGEND

- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS SHOULDER CLOSURE IS TYPICAL FOR CLOSING RIGHT SHOULDER - REVERSE FOR CLOSING LEFT SHOULDER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

FOR A SHOULDER CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE CRASHWORTHY SUPPORTS.

REDUCED SPEED AHEAD AND SPEED LIMIT 55 SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF SHOULDER CLOSURE TAPER. THE 55 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE SHOULDER CLOSURE START LOCATION TO CHANGE.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE SHOULDER CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE SHOULDER CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

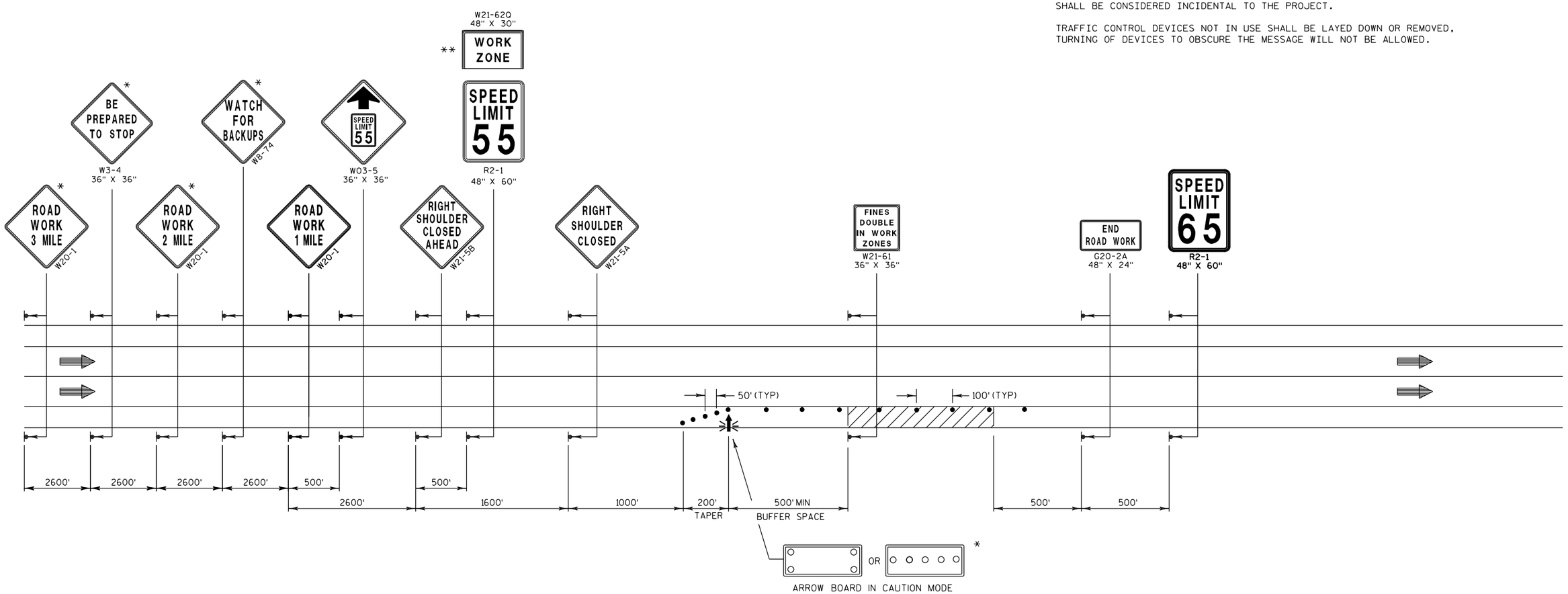
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND SHOULDER CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

* PROVIDE ITEM WHEN SPECIFIED IN MISCELLANEOUS QUANTITIES OR SPECIAL PROVISIONS.

** SEE REQUIREMENT FOR TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC SHOULDER CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.



SHOULDER CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER

SC WOB

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 174	E

2

LEGEND

- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- TEMPORARY PRECAST CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

THIS SHOULDER CLOSURE IS TYPICAL FOR CLOSING RIGHT SHOULDER - REVERSE FOR CLOSING LEFT SHOULDER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

FOR A SHOULDER CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE CRASHWORTHY SUPPORTS.

REDUCED SPEED AHEAD, SPEED LIMIT 55 AND SPEED LIMIT 65 SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF SHOULDER CLOSURE TAPER. THE 55 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE SHOULDER CLOSURE START LOCATION TO CHANGE.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE SHOULDER CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE SHOULDER CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ½ THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND SHOULDER CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

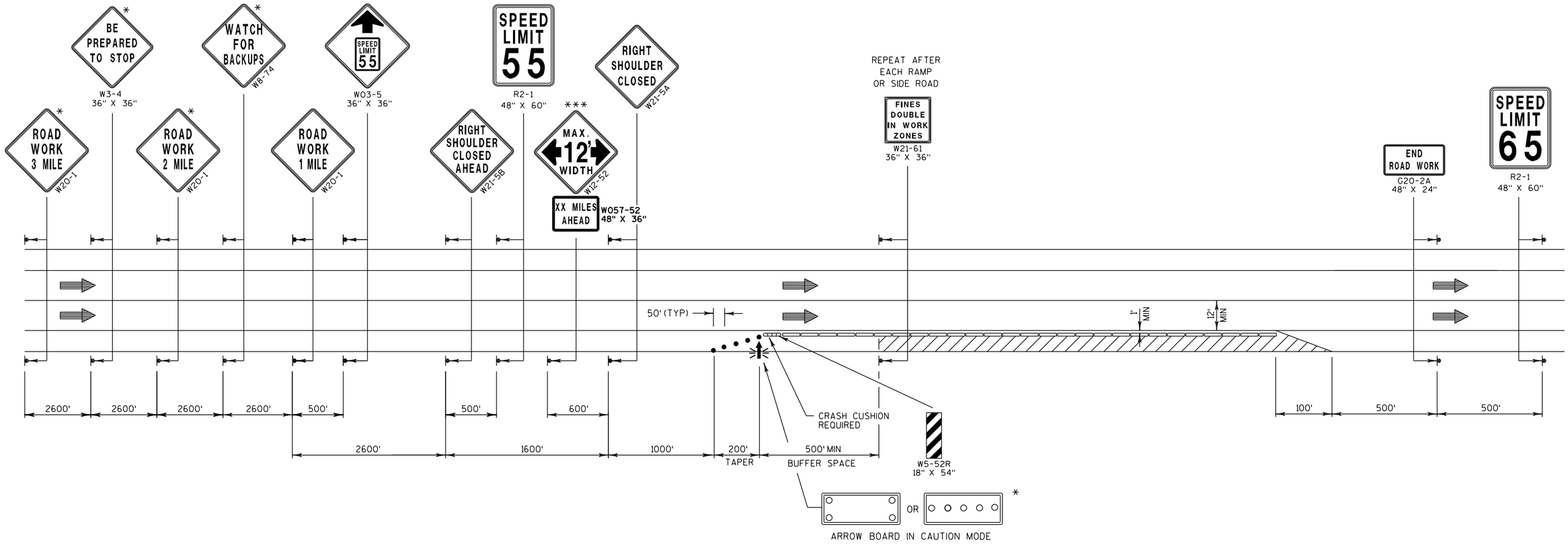
* PROVIDE ITEM WHEN SPECIFIED IN MISCELLANEOUS QUANTITIES OR SPECIAL PROVISIONS.

** SEE REQUIREMENT FOR TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

*** SEE ELSEWHERE IN PLANS FOR LOCATIONS THAT THIS SIGN PAIR IS REQUIRED

COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC SHOULDER CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

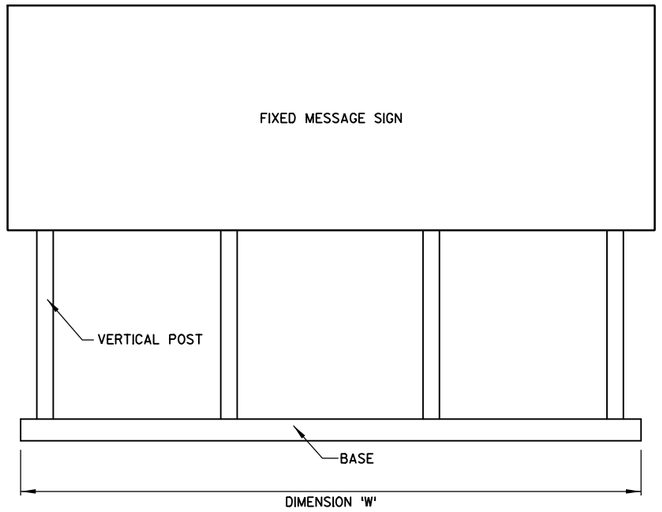
TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.



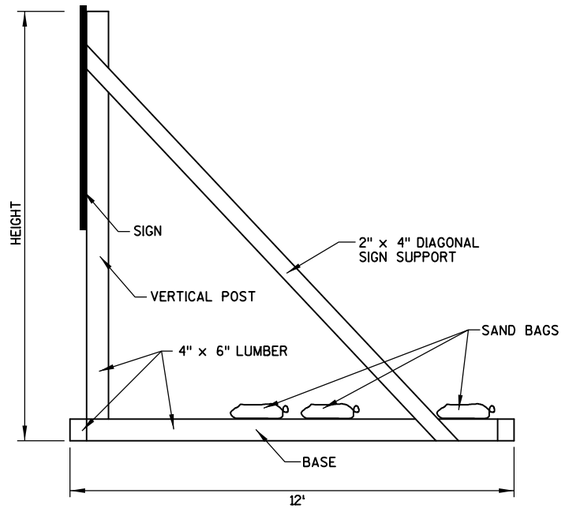
SHOULDER CLOSURE - REGULATORY SPEED REDUCTION WITH BARRIER

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET	E

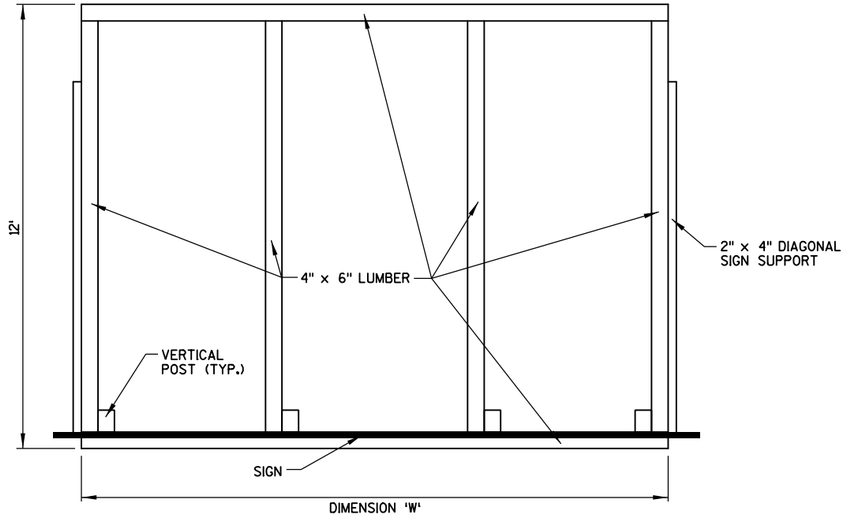
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025007_tc_cd.dgn PLOT DATE : 5/31/2013 PLOT BY : dm253 PLOT NAME : SH CLOS WITH BAR PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42



FRONT VIEW



SIDE VIEW



BASE PLAN VIEW

ANTICIPATED DIMENSIONS & POSTS REQUIRED
(FOR INFORMATION ONLY, CONTRACTOR IS TO VERIFY)

'W' (FT)	NO. OF VERTICAL POSTS
4'	2
5'	2
6'	2
7'	2
8'	2
9'	3
10'	3
11'	3
12'	3
13'	3
14'+	4 (FIELD VERIFY)

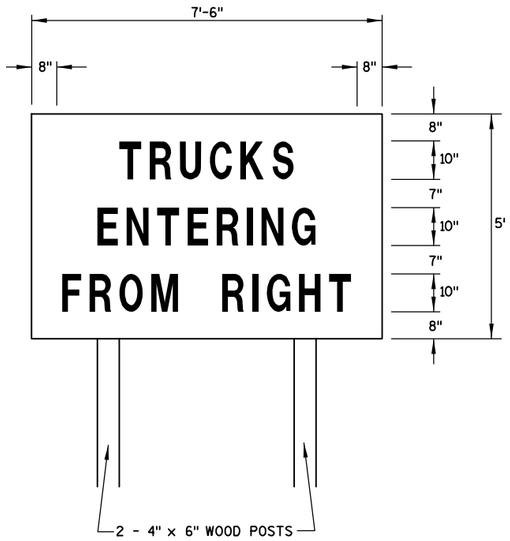
NOTES:
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.

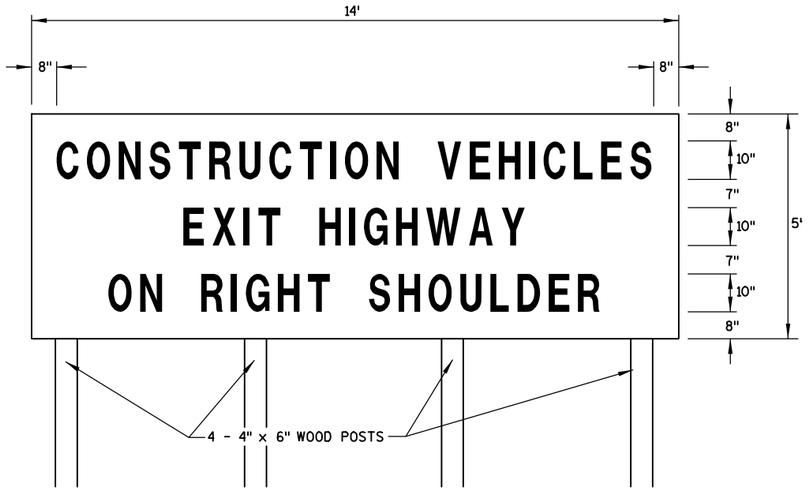
2. TWO DIAGONAL SUPPORTS SHALL BE INCLUDED AND AFFIXED TO THE OUTSIDE SUPPORTS.

3. DIAGONAL SUPPORTS, VERTICAL POSTS, AND BASE LUMBER ARE ALL INCLUDED IN THE "TRAFFIC CONTROL SIGNS FIXED MESSAGE" ITEM.

4. PROVIDE AN ADEQUATE NUMBER OF SAND BAGS TO HOLD THE SIGN IN PLACE. SAND BAGS ARE INCLUDED IN THE "TRAFFIC CONTROL SIGNS FIXED MESSAGE" ITEM

FIXED MESSAGE SIGN PORTABLE SUPPORT





FIXED MESSAGE SIGNS

NOTES:
1. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MAEKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.

2. ALL SIGNS TO BE MOUNTED ON WOODEN POSTS. SUPPORTS (4" x 6") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS. FOR SIGNS MOUNTED ON POSTS, USE POSTS FROM FHWA LIST OF ACCEPTED BREAKAWAY SUPPORTS.

3. POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTION 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.

4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".

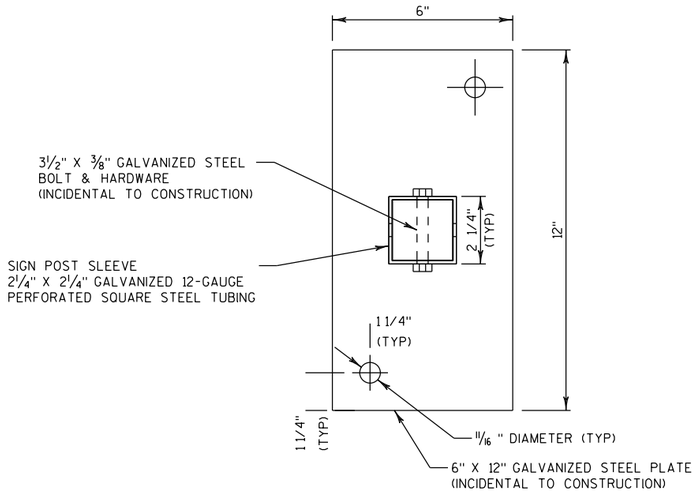
5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE RFLECTIVE BACKGROUND PER STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS UNLESS OTHERWISE NOTED.

6. ALL SIGNS WILL HAVE CAPITAL LETTERS AND NUMERALS. 10" CAPS SHALL BE SERIES "D". 6" CAPS WILL BE SERIES "C".

7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.

8. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2 AND 643.2.9.3 OF THE STANDARD SPECIFICATIONS

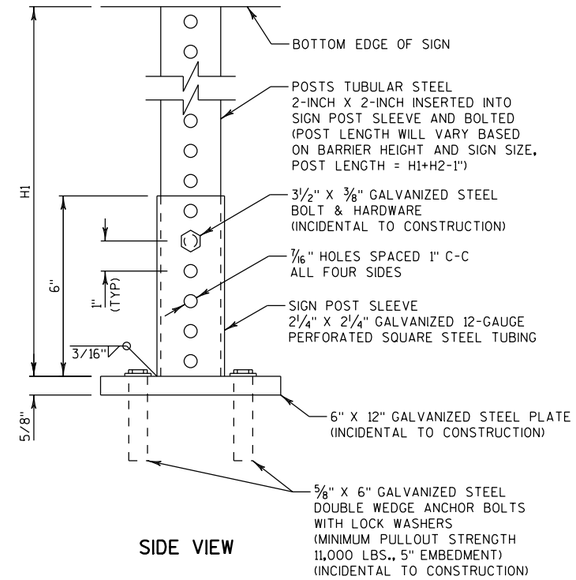
9. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



PLAN VIEW

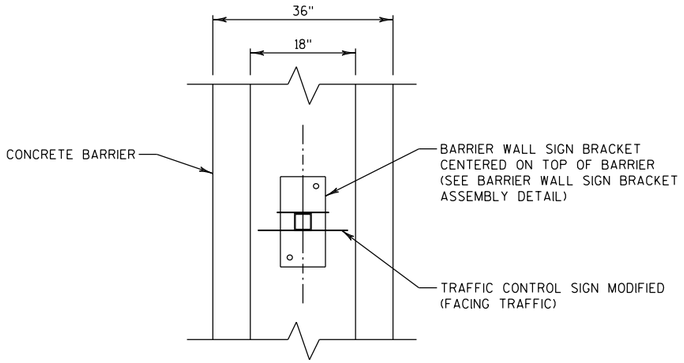
NOTES:

1. BARRIER WALL SIGN BRACKETS ARE TEMPORARY.
2. UPON REMOVAL OF THE BRACKETS AND ANCHOR BOLTS, COMPLETELY FILL REMAINING HOLES WITH A NON-SHRINK COMMERCIAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST. (INCIDENTAL TO CONSTRUCTION)
3. FABRICATING, FURNISHING, INSTALLATION AND REMOVAL OF THE BARRIER WALL SIGN BRACKETS ARE INCIDENTAL TO "TRAFFIC CONTROL SIGNS" OR "TRAFFIC CONTROL SIGNS MODIFIED."

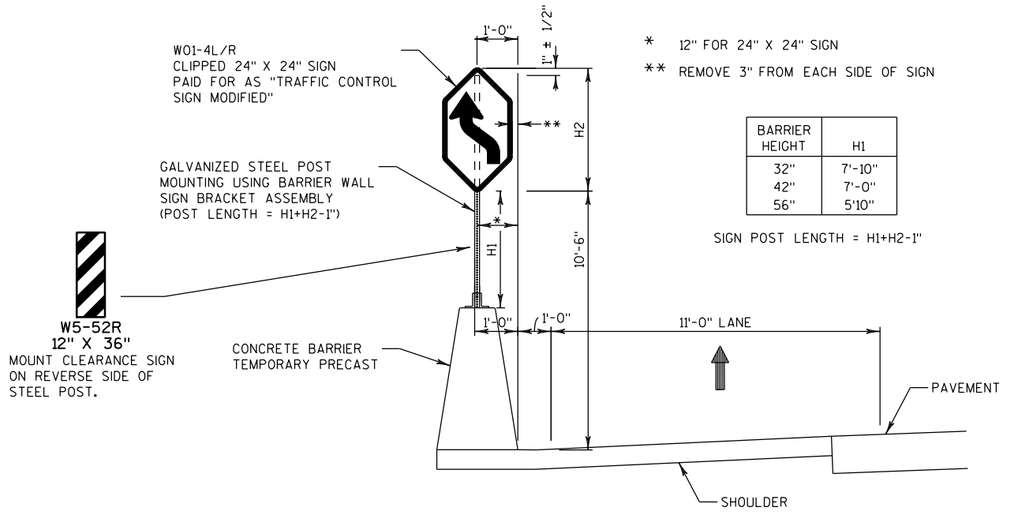


SIDE VIEW

BARRIER WALL SIGN BRACKET ASSEMBLY DETAIL



PLAN VIEW



* 12" FOR 24" X 24" SIGN

** REMOVE 3" FROM EACH SIDE OF SIGN

BARRIER HEIGHT	H1
32"	7'-10"
42"	7'-0"
56"	5'10"

SIGN POST LENGTH = H1+H2-1"

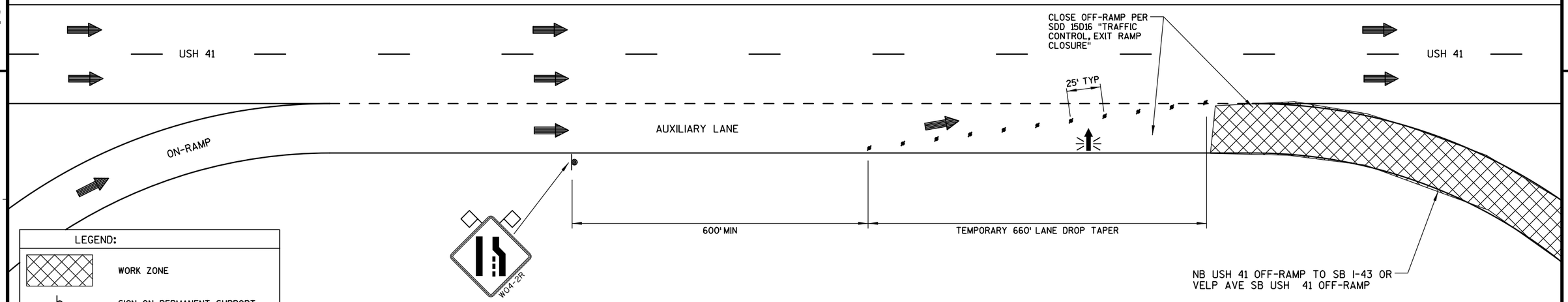
SIDE VIEW

MEDIAN BARRIER MOUNTING DETAIL

MOUNTING TRAFFIC CONTROL SIGNS TO MEDIAN BARRIER

N.T.S.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 177	E

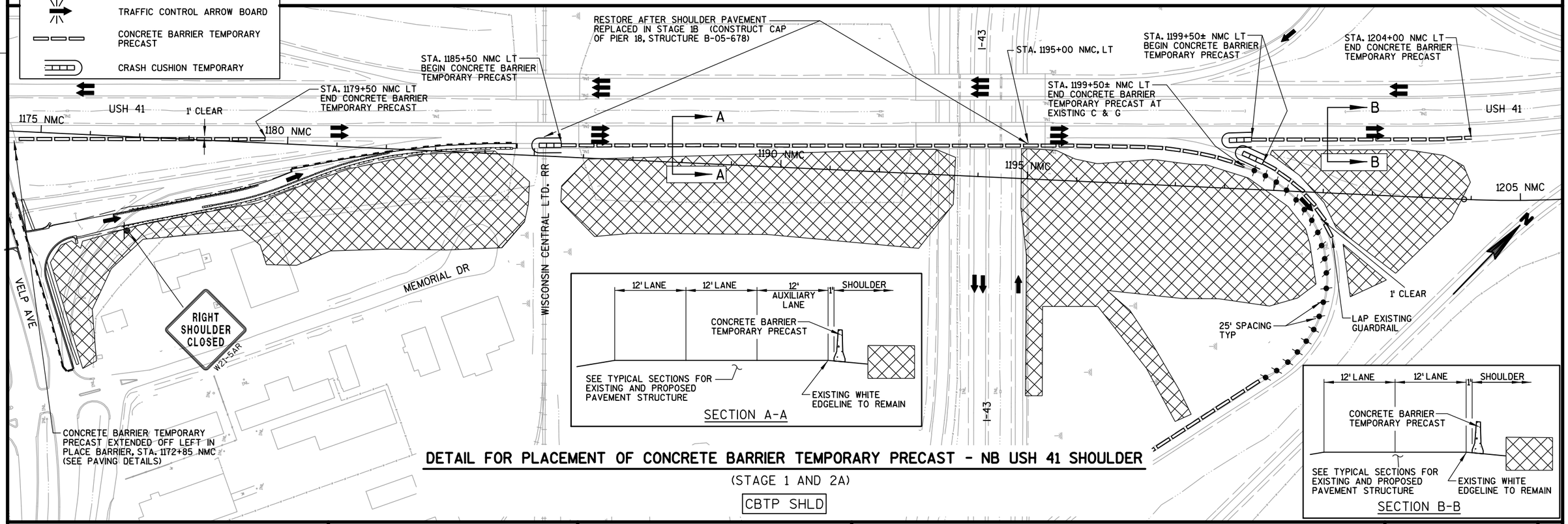


LEGEND:

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- 16" x 16" ORANGE WARNING FLAGS
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DRUMS WITH TYPE C STEADY BURN LIGHTS
- TRAFFIC CONTROL ARROW BOARD
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY

DETAIL FOR CLOSURE OF OFF-RAMP AT END OF AUXILIARY LANE

RAMP AUX



DETAIL FOR PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - NB USH 41 SHOULDER

(STAGE 1 AND 2A)

CBTP SHLD

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025010_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2

I-43 RAMPS

FOOTBRIDGE

WEST DEERFIELD AVE.

USH 41

NB USH 41-
CLOSE OUTSIDE LANE

STA. 1215+00 NMC, LT
BEGIN CONCRETE BARRIER
TEMPORARY PRECAST

1200' MIN - 2 LANES
(ONE LANE FOR NB USH 41 & ONE PARALLEL RAMP LANE)

BEGIN TAPER FOR DROP OF PARALLEL
RAMP LANE. PROVIDE CONSTRUCTION
ACCESS PER "TRAFFIC CONTROL DETAIL
FOR CONSTRUCTION ACCESS AT LANE
CLOSURE."

NB USH 41-
CLOSE OUTSIDE LANE

1235 NMC

USH 41

1230 NMC

EAST DEERFIELD AVE.

1225 NMC

REMOVE MARSH DISPOSAL AND
CONSTRUCT EMBANKMENT IN
STAGED PLACEMENT

1205 NMC

I-43 RAMP

1210 NMC

CRASH CUSHION
TEMPORARY

1' CLEAR

1220 NMC

1215 NMC

RIGHT
SHOULDER
CLOSED
W21-5AR

STA 1224+50 NMC LT
END CONCRETE BARRIER TEMPORARY
PRECAST INSTALLED 1' OUTSIDE OF
EXISTING WHITE EDGE LINE

WORK ZONE

APPLY SDD 15D15 FOR TRAFFIC
CONTROL, ENTRANCE RAMP WITHIN
LANE CLOSURE, EXCEPT OMIT "YIELD"
SIGNING

STA 1215+00 NMC LT
BEGIN CONCRETE BARRIER TEMPORARY
PRECAST INSTALLED 1' OUTSIDE OF
EXISTING WHITE EDGE LINE

DUCK CREEK

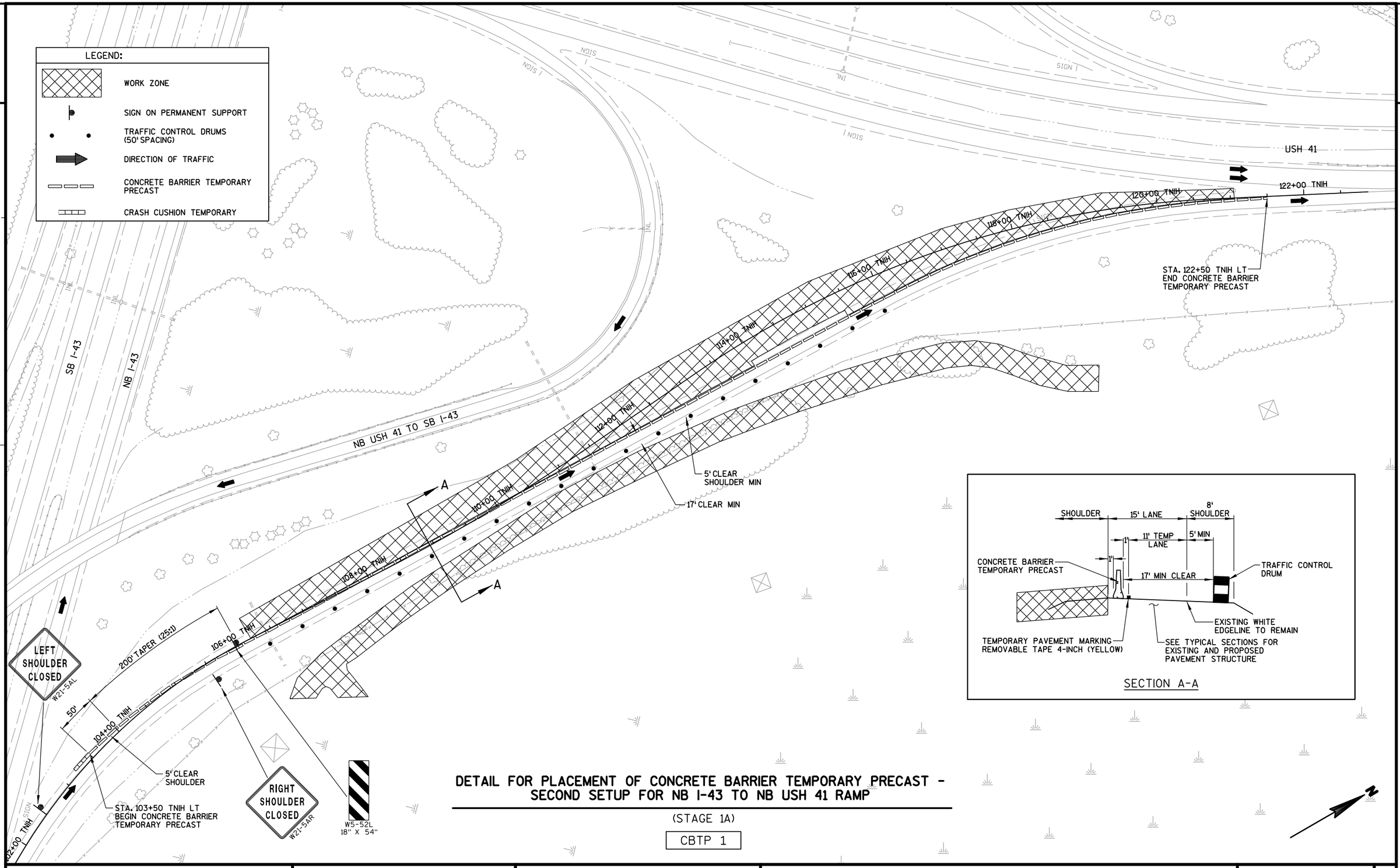
NB USH 41 NORTH OF DUCK CREEK - OVERNIGHT CONSTRUCTION ACCESS AND TEMPORARY BARRIER TO SHIELD GRADING

N DUCK

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 100 200	SHEET 179	E

LEGEND:

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUMS (50' SPACING)
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY



SECTION A-A

DETAIL FOR PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - SECOND SETUP FOR NB I-43 TO NB USH 41 RAMP

(STAGE 1A)

CBTP 1

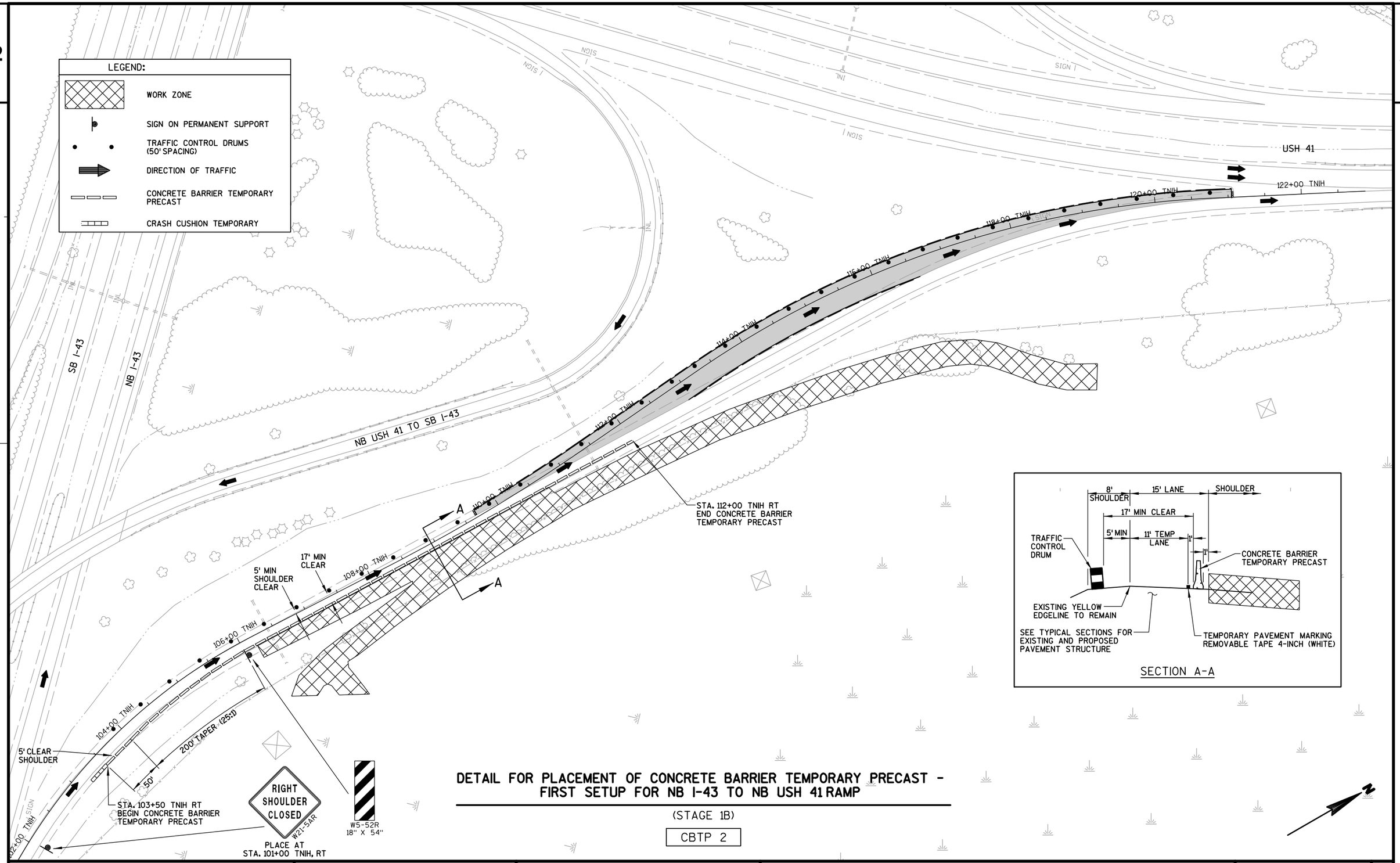
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 180	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025012_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:120

2

LEGEND:

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUMS (50' SPACING)
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY



SECTION A-A

DETAIL FOR PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - FIRST SETUP FOR NB I-43 TO NB USH 41 RAMP

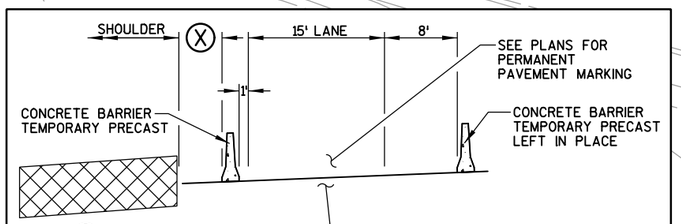
(STAGE 1B)

CBTP 2

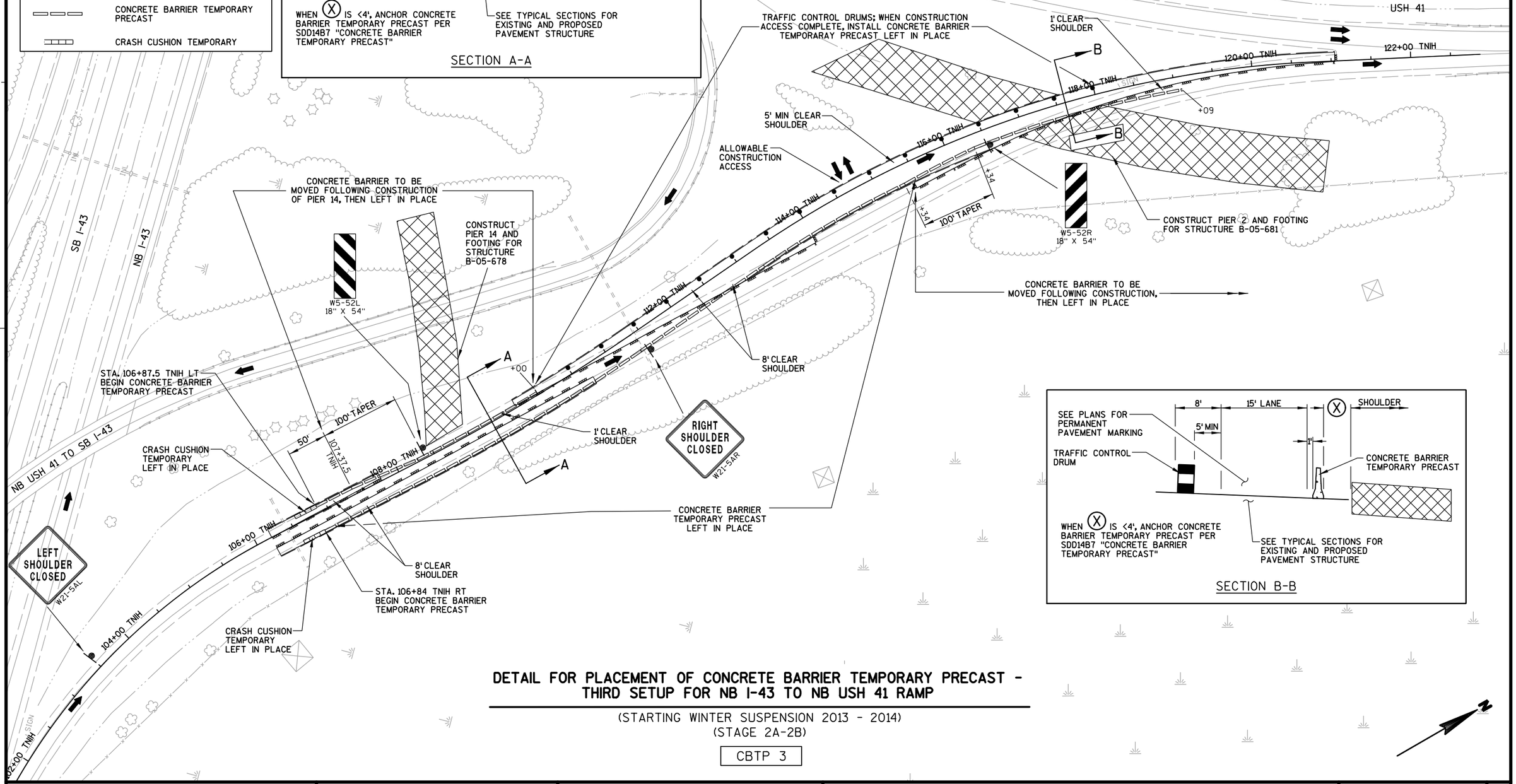
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 181	E

LEGEND:

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUMS (50' SPACING)
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY



SECTION A-A



SECTION B-B

DETAIL FOR PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - THIRD SETUP FOR NB I-43 TO NB USH 41 RAMP

(STARTING WINTER SUSPENSION 2013 - 2014)
(STAGE 2A-2B)

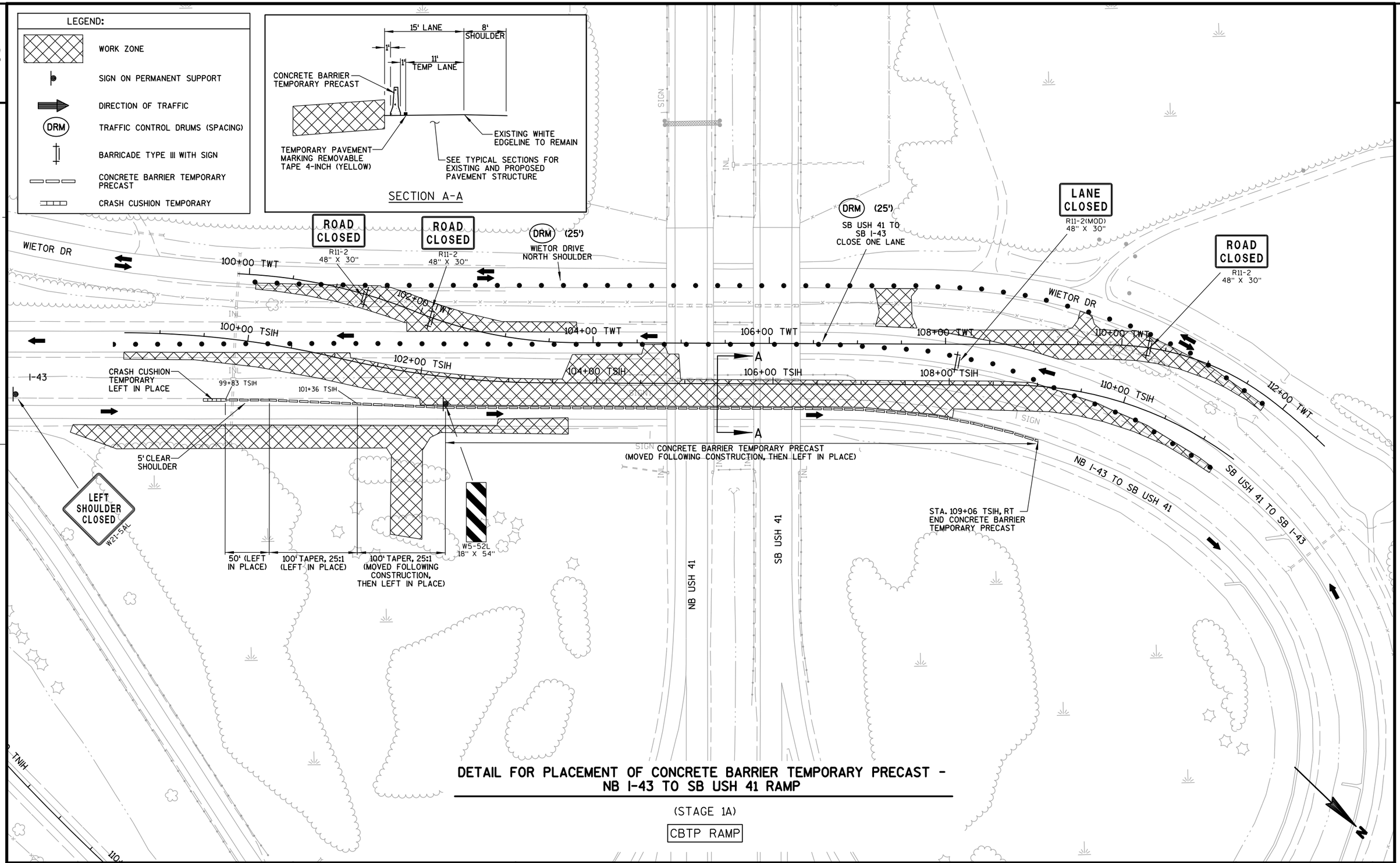
CBTP 3

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 182	E

LEGEND:

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- DRM — TRAFFIC CONTROL DRUMS (SPACING)
- BARRICADE TYPE III WITH SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY

SECTION A-A



DETAIL FOR PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - NB I-43 TO SB USH 41 RAMP

(STAGE 1A)

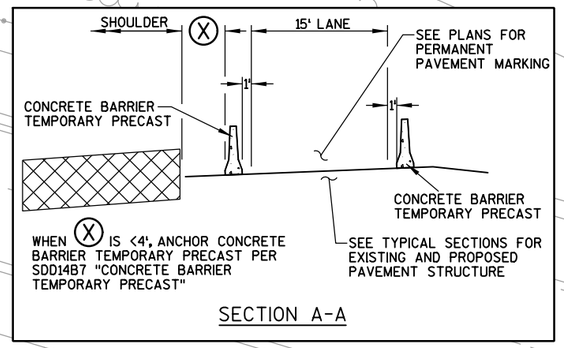
CBTP RAMP

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 50 100	SHEET 183	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025015_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

LEGEND:

- WORK ZONE
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHION TEMPORARY



SECTION A-A

VELP AVE
INL
SS
MH
SIGN
USH 41
CRASH CUSHION TEMPORARY
STA. 1179+50 EVEB, LT END CONCRETE BARRIER TEMPORARY PRECAST
1175+00 EVEB
1176+00 EVEB
1177+00 EVEB
1178+00 EVEB
1179+00 EVEB
1180+00 EVEB
1181+00 EVEB
1182+00 EVEB
1183+00 EVEB
A
STA. 1176+50 EVEB, LT BEGIN CONCRETE BARRIER TEMPORARY PRECAST
CRASH CUSHION TEMPORARY
15' LANE
1' CLEAR
STA. 1182+25 EVEB, RT END CONCRETE BARRIER TEMPORARY PRECAST
STA. 1178+00 EVEB, RT BEGIN CONCRETE BARRIER TEMPORARY PRECAST
GUY
W
WV
N

DETAIL FOR PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - VELP AVE TO NB USH 41 ON-RAMP

(STAGE 1B & 2A)

CBTB VELP

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 30 60	SHEET 184	E

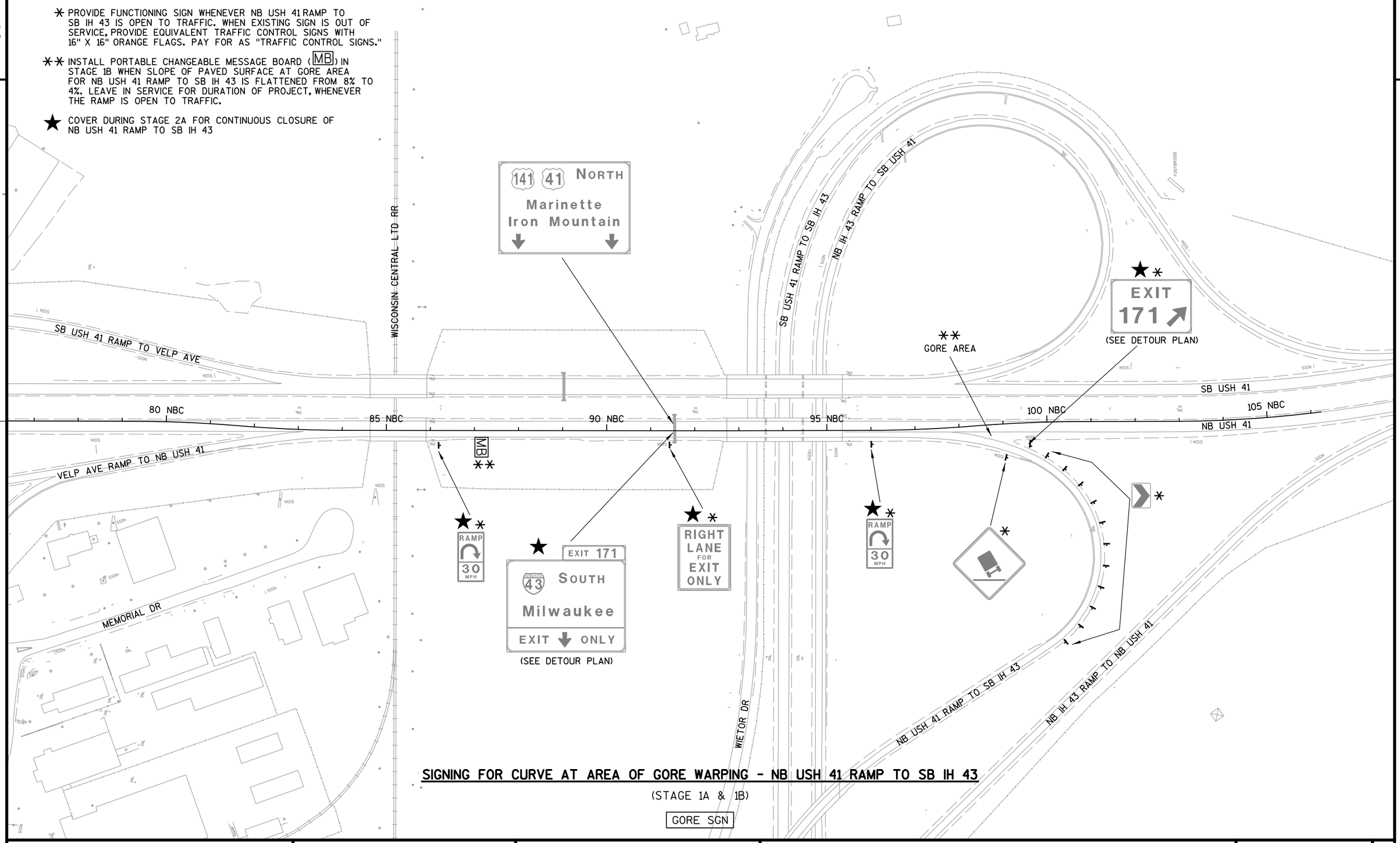
2

2

* PROVIDE FUNCTIONING SIGN WHENEVER NB USH 41 RAMP TO SB IH 43 IS OPEN TO TRAFFIC. WHEN EXISTING SIGN IS OUT OF SERVICE, PROVIDE EQUIVALENT TRAFFIC CONTROL SIGNS WITH 16" X 16" ORANGE FLAGS. PAY FOR AS "TRAFFIC CONTROL SIGNS."

** INSTALL PORTABLE CHANGEABLE MESSAGE BOARD (MB) IN STAGE 1B WHEN SLOPE OF PAVED SURFACE AT GORE AREA FOR NB USH 41 RAMP TO SB IH 43 IS FLATTENED FROM 8% TO 4%. LEAVE IN SERVICE FOR DURATION OF PROJECT, WHENEVER THE RAMP IS OPEN TO TRAFFIC.

★ COVER DURING STAGE 2A FOR CONTINUOUS CLOSURE OF NB USH 41 RAMP TO SB IH 43



SIGNING FOR CURVE AT AREA OF GORE WARPING - NB USH 41 RAMP TO SB IH 43

(STAGE 1A & 1B)

GORE SGN

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 100 200	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025017_tc_cd.dgn
PLOT BY : dm253
PLOT DATE : 5/31/2013
PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42

2

RAMP CLOSED AHEAD
W20-3AM
NORTH 41
M3-1 24" X 12"
M1-4 24" X 24"

COUNTY HS

VELP AVE

TO NORTH
INTERSTATE 43 41
COVER WITH
TO
M06-1 21" X 21"

RAMP CLOSED
R11-2(MOD) 48" X 30"

ISLAND CT

OCONTO
MARINETTE
IRON MOUNTAIN

CLOSE NB USH 41 ON-RAMP FROM VELP AVENUE

WISCONSIN CENTRAL LTD RR

141 41 NORTH
Marinette
Iron Mountain

EXIT 171
INTERSTATE 43 SOUTH
Milwaukee
EXIT ONLY

WIETOR DRIVE

EXIT 171
INTERSTATE 43 SOUTH
Milwaukee
1/2 MILE

41

ROSEWOOD ST

DRM (50')
CLOSE LEFT TURN LANE

MEMORIAL DR

RAMP
30 MPH

RIGHT LANE FOR EXIT ONLY

EXIT 171

41 141

15D16

CLOSE
NB USH 41 TO SB I-43 RAMP

TO
INTERSTATE 43

DRM (50')
CLOSE RIGHT TURN LANE

TO NORTH NORTH
INTERSTATE 43 41 141
TO
COVER WITH
M06-1 21" X 21"

NORTH NORTH
41 141

APPLETON
IRON MOUNTAIN
MARINETTE

SOUTH NORTH NORTH
41 41 141

DRM (50') (BOTH RAMPS CLOSED)
RAMP AUX (VELP NB ON-RAMP OPEN TO TRAFFIC)

VELP AVE

RAMP CLOSED AHEAD
W20-3AM
NORTH 41
M3-1 24" X 12"
M1-4 24" X 24"

MELODY DR

141

WIETOR DRIVE

INTERSTATE 43

LEGEND

- EXISTING GROUND-MOUNT TYPE 1 SIGN
- EXISTING OVERHEAD SIGN STRUCTURE
- EXISTING TYPE 2 SIGN
- 41 — EXISTING SIGN
- COVER EXISTING SIGN
- NEW TYPE 2 SIGN
- TYPE III BARRICADE WITH ATTACHED SIGN
- 41 — NEW SIGN
- 15D16 — STANDARD DETAIL DRAWING "TRAFFIC CONTROL, EXIT RAMP CLOSURE"
- RAMP AUX — SEE SEPARATE DETAIL FOR CLOSURE OF OFF-RAMP AT END OF AUXILIARY LANE
- DRM — TRAFFIC CONTROL DRUMS (SPACING)
- TO — COVER "TO I-43" SIGNS WHENEVER NB USH 41 TO SB I-43 RAMP IS CLOSED OVERNIGHT WHILE THE NB USH 41 ON-RAMP FROM VELP AVE IS OPEN TO TRAFFIC

NOTE:
SEE SEPARATE DETAILS FOR DETOUR SIGNING FOR RAMP CLOSURES.

CLOSURE OF RAMPS TEMPORARILY ELIMINATING NB USH 41 ACCESS FROM VELP AVE TO SB I-43

- NB USH 41 TO SB I-43 RAMP
- NB USH 41 ON-RAMP FROM VELP AVE

VELP I-43

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 200 400	SHEET 186	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025018_tc_cd.dgn
PLOT DATE : 5/31/2013
PLOT BY : dm253
PLOT NAME :
PLOT SCALE : 1:400
WISDOT/CADDS SHEET 42

LEGEND:

- WORK ZONE
- TRAFFIC CONTROL DRUMS (SPACING)
- FTM — FLEXIBLE TUBULAR MARKERS (COLOR) (SPACING)
- 16" X 16" ORANGE FLAGS
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH TRAFFIC CONTROL SIGN
- DIRECTION OF TRAFFIC
- RT-4W — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- RT-4Y — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- ** RT 4WLL — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE) (LANE LINE)
- RT-8W — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- RT ARROWS — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE ARROWS (TYPES)
- RT WORDS — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE WORDS (WORDS)

** 12.5' DASH/37.5' SKIP PER SDD FOR "PAVEMENT MARKING (MAINLINE)", DETAIL FOR "PERMANENT PAVEMENT MARKING"

NOTE:
SEE SEPARATE DETAILS FOR TRAFFIC SIGNALS AND FINAL PAVEMENT MARKING AND SIGNING.

SB USH 41
NB USH 41
TEMPORARY NB USH 41 ON-RAMP
VELP AVE (CTH HS)
VELP AVE (USH 141)
ROSEWOOD ST
TEMPORARY NB USH 41 OFF-RAMP

250' TAPER
REMOVE EXISTING WHITE SKIP DASH LANE LINE
FTM (YELLOW) (25') ALONG MEDIAN LANE LINE
FTM (WHITE) (25') ALONG OUTSIDE LANE LINE
EXISTING CHANNELIZING PAVEMENT MARKING LINE TO REMAIN

LANE CLOSED
R11-2(MOD)
48" X 30"

LEFT TURN LANE COVER

RT ARROWS (TYPE 1)
RT ARROWS (TYPE 3)
RT ARROWS (TYPE 1)
RT 4WLL
RT-4Y
RT-4W
RT-8W
RT WORDS (ONLY)
50'
12'
(10')

W01-6
48" X 24"

R3-8H
36" X 30"

W01-3L
30 M.P.H.
W013-1
24" X 24"

W01-3R
25 M.P.H.
W013-1
24" X 24"

REMOVE EXISTING WHITE SKIP-DASH LANE LINE

CLOSE OUTSIDE LANE

CONSTRUCT ABUTMENT AND HANG RETAINING WALL PANELS

EXISTING PAVEMENT MARKINGS TO REMAIN

PERMANENT STOP LINE SEE OTHER DETAILS

CONTINUOUS CLOSURE OF OUTSIDE LANE - EB VELP AVE

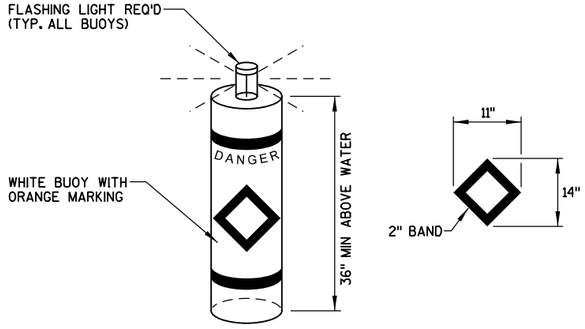
(STAGE 2A)

CONT CLOS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 30 60	SHEET 187	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025019_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42



TYPICAL HAZARD WARNING BUOY DETAIL

ALL BUOYS SHALL BE 7" DIAMETER WITH
RED FLASHING LIGHTS AT 30 FLASHES/MIN

NOTE:
FOR SNOWMOBILES, SECURELY-PLACED CHEVRON SIGNING (W1-8R AND W1-8L) MAY BE SUBSTITUTED FOR WARNING BUOYS, IN THE SAME LOCATIONS AS BUOYS, ON EITHER SIDE OF THE CREEK.

W1-8R
18" X 24"

W1-8L
18" X 24"

BRIDGE WORK AHEAD W20-1(MOD)

PLACE BUOY ALONG BANK

FUTURE CAUSEWAY BY OTHERS FOR REMOVAL OF EXISTING STRUCTURE

NB USH 41

INL

PROPOSED STRUCTURE B-05-681

EXISTING BRIDGE PIER (TYPICAL)

PROPOSED FUTURE BRIDGE PIER FOR STRUCTURE B-05-682 (BY OTHERS)

CAUSEWAYS WILL BE EXPANDED AND BUOY LOCATIONS WILL HAVE TO BE ADJUSTED FROM THIS AREA TO ACCOMODATE CONSTRUCTION OF STRUCTURE B-05-682 (UNDER A FUTURE PROJECT BY OTHERS)

PLACE BUOYS TO ENCOURAGE RECREATIONAL VEHICLE TRAFFIC TO TRAVEL IN THE MAIN PART OF THE CHANNEL

PROPOSED BRIDGE PIER

DUCK CREEK

SB USH 41

EXISTING BRIDGE PIER (TYPICAL)

FUTURE CAUSEWAY BY OTHERS FOR REMOVAL OF EXISTING STRUCTURE

CAUSEWAY FOR CONSTRUCTION OF STRUCTURE B-05-681

N

LEGEND

WORK ZONE

POST WITH ATTACHED SIGN

"DANGER" HAZARD WARNING BUOY WITH FLASHING LIGHTS

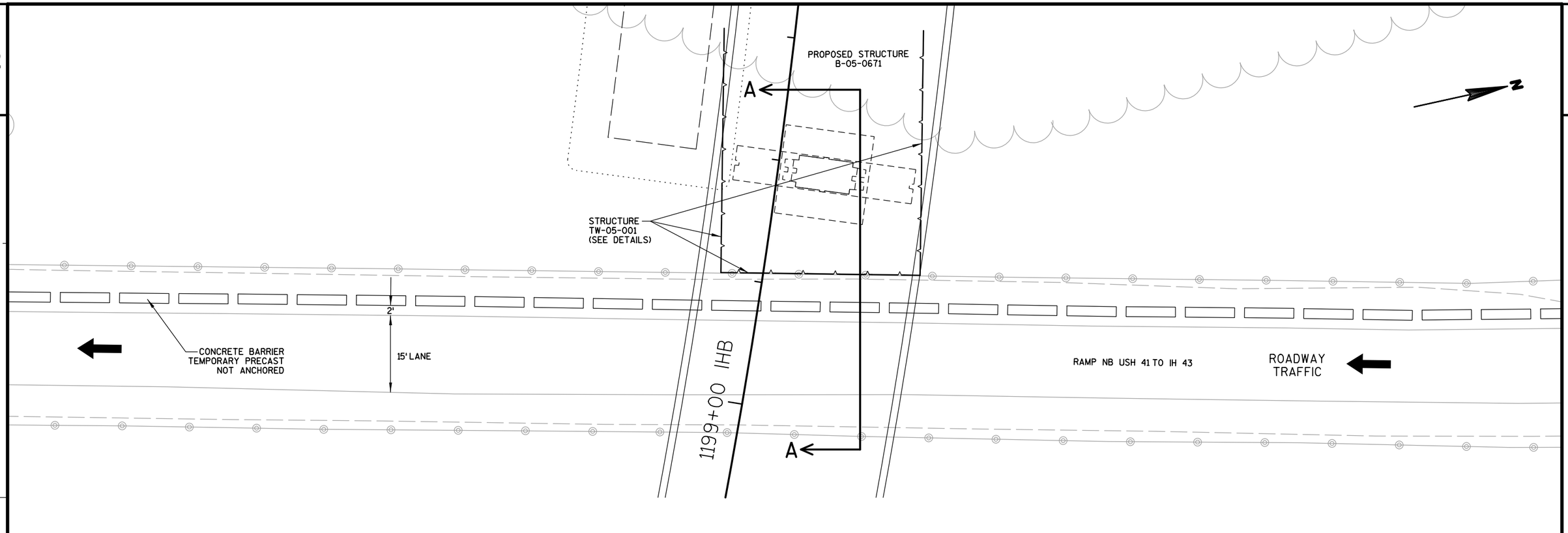
TRAFFIC CONTROL FOR RECREATIONAL VEHICLES ON DUCK CREEK

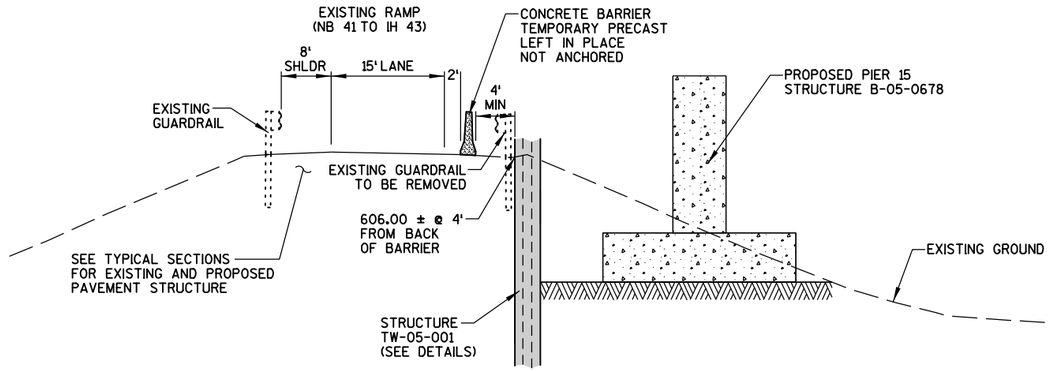
(STAGE 2A)

RECR

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 30 60	SHEET 188	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025020_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60



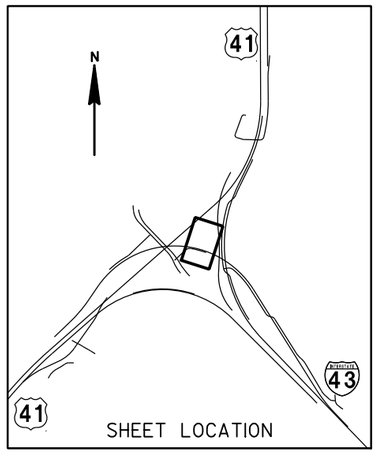


SECTION A-A
ANCHORING NOT REQUIRED FOR
CONCRETE BARRIER TEMPORARY PRECAST
AT STRUCTURE TW-05-001

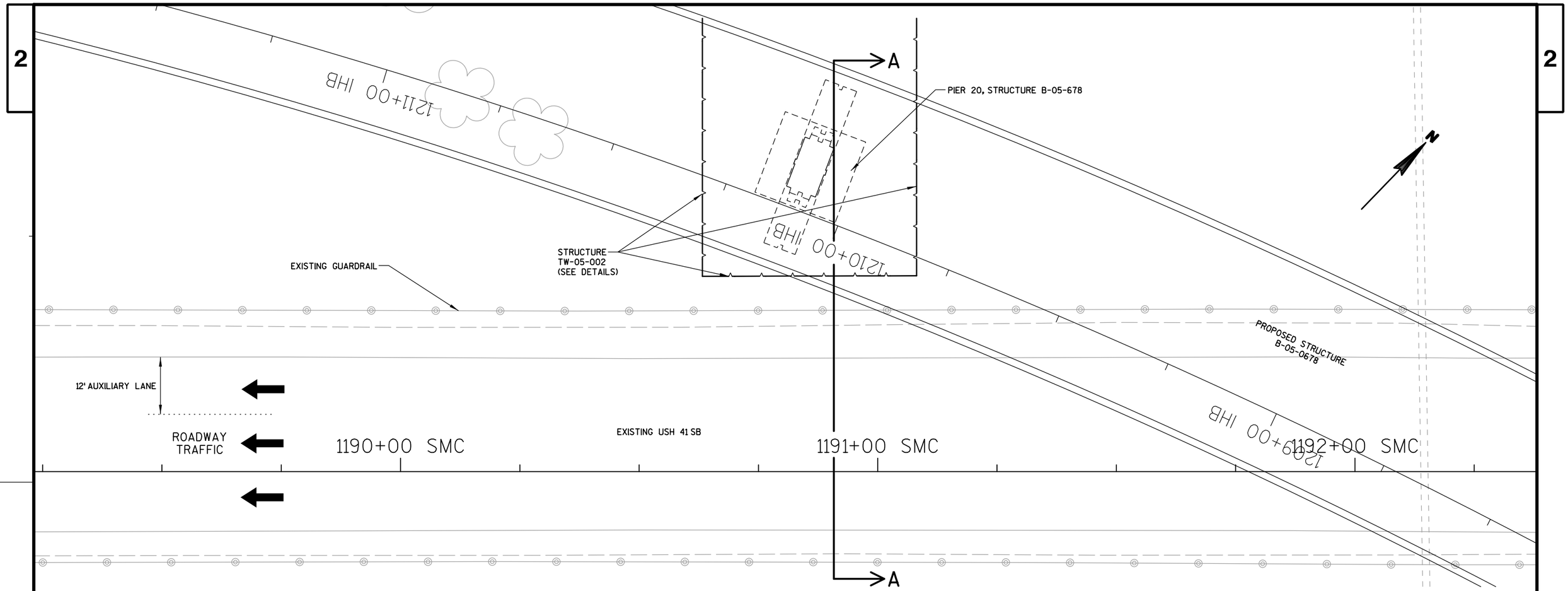
NOT TO SCALE

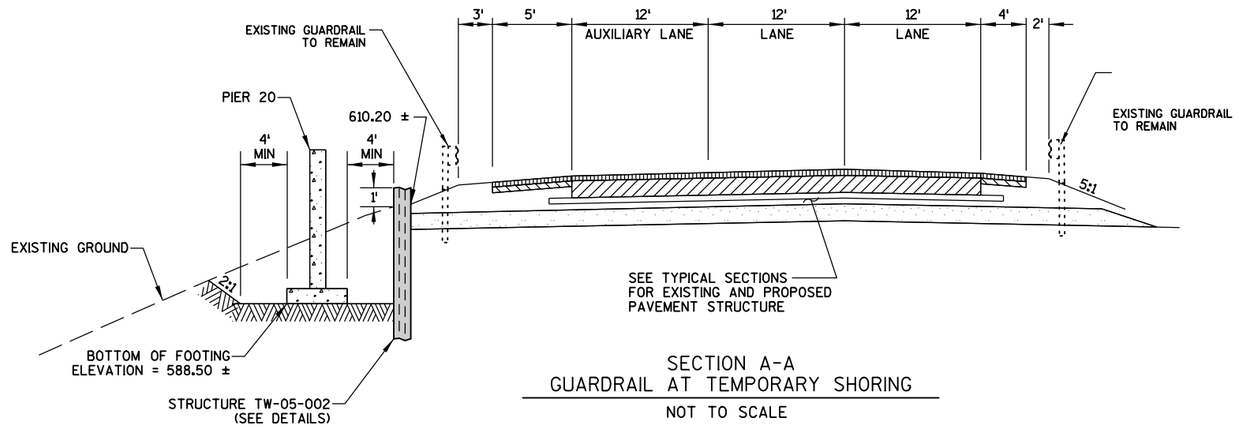
TEMPORARY WALL STRUCTURE - STA 1199+30 IHB

TEMP WALL

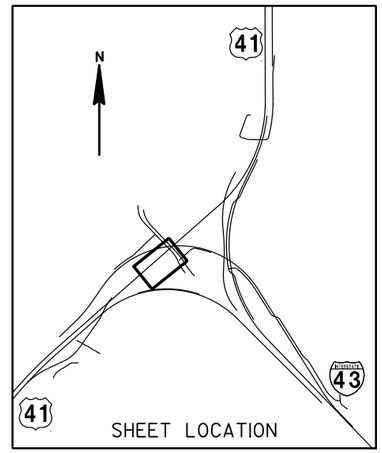


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 189	E





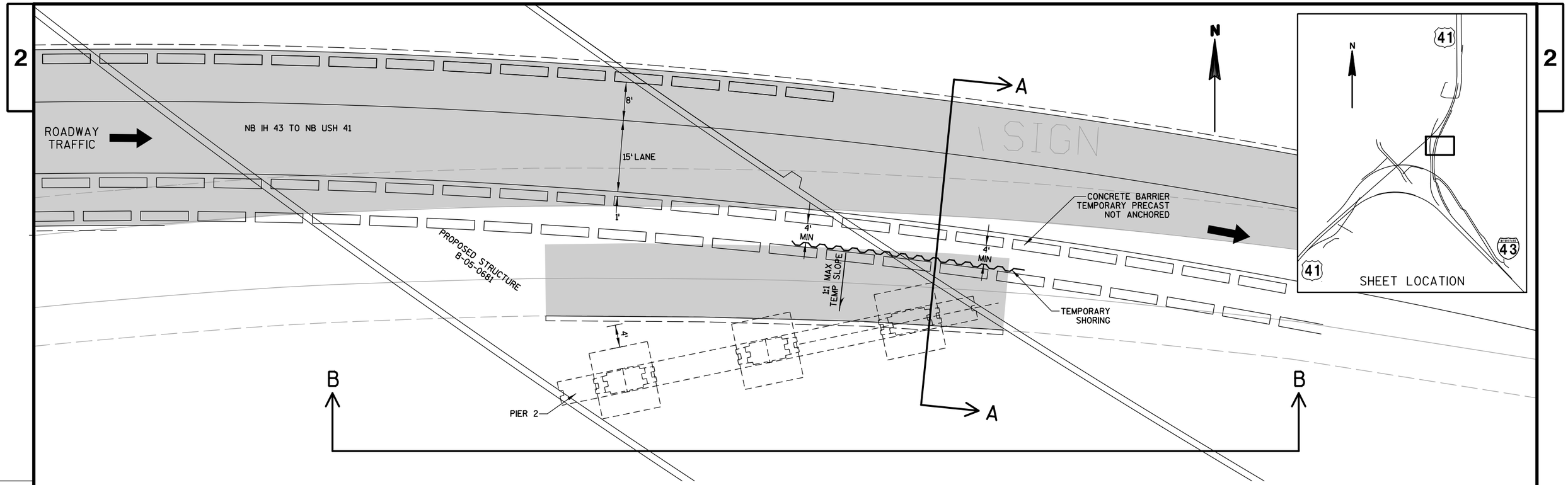
SECTION A-A
GUARDRAIL AT TEMPORARY SHORING
NOT TO SCALE

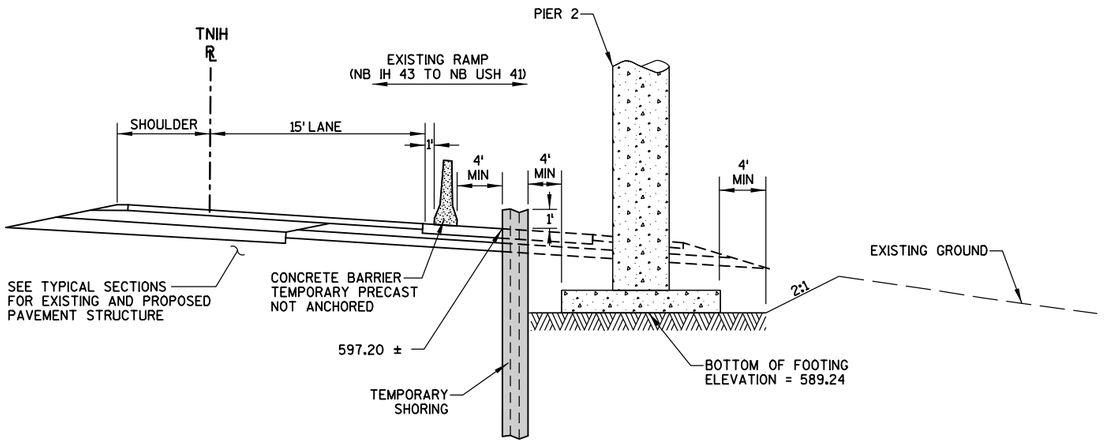


TEMPORARY WALL STRUCTURE - STA 1199+90 SMC

TEMP WALL

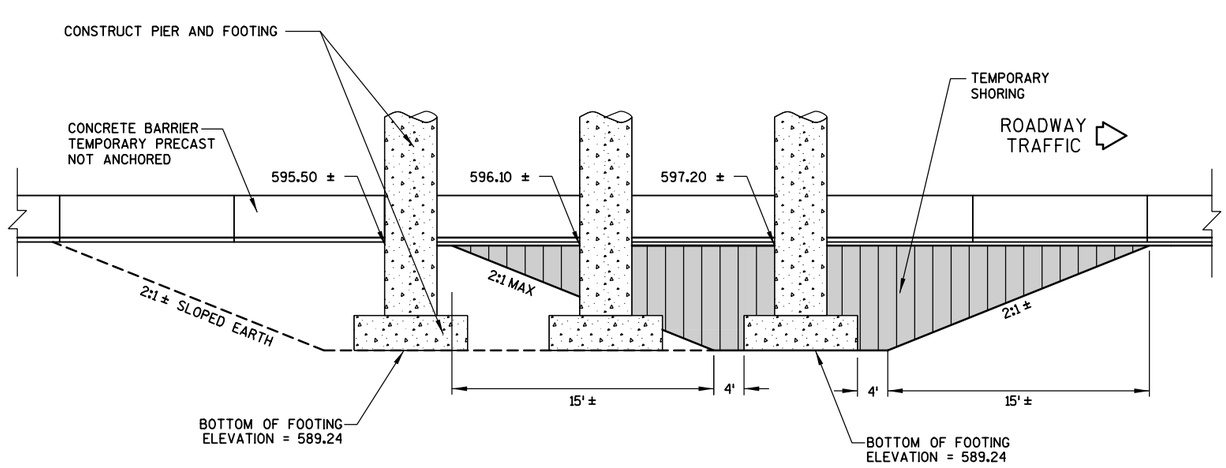
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SCALE, FEET 0 10 20	SHEET 190	E





SECTION A-A
ANCHORING NOT REQUIRED FOR
CONCRETE BARRIER TEMPORARY PRECAST
AT TEMPORARY SHORING

NOT TO SCALE



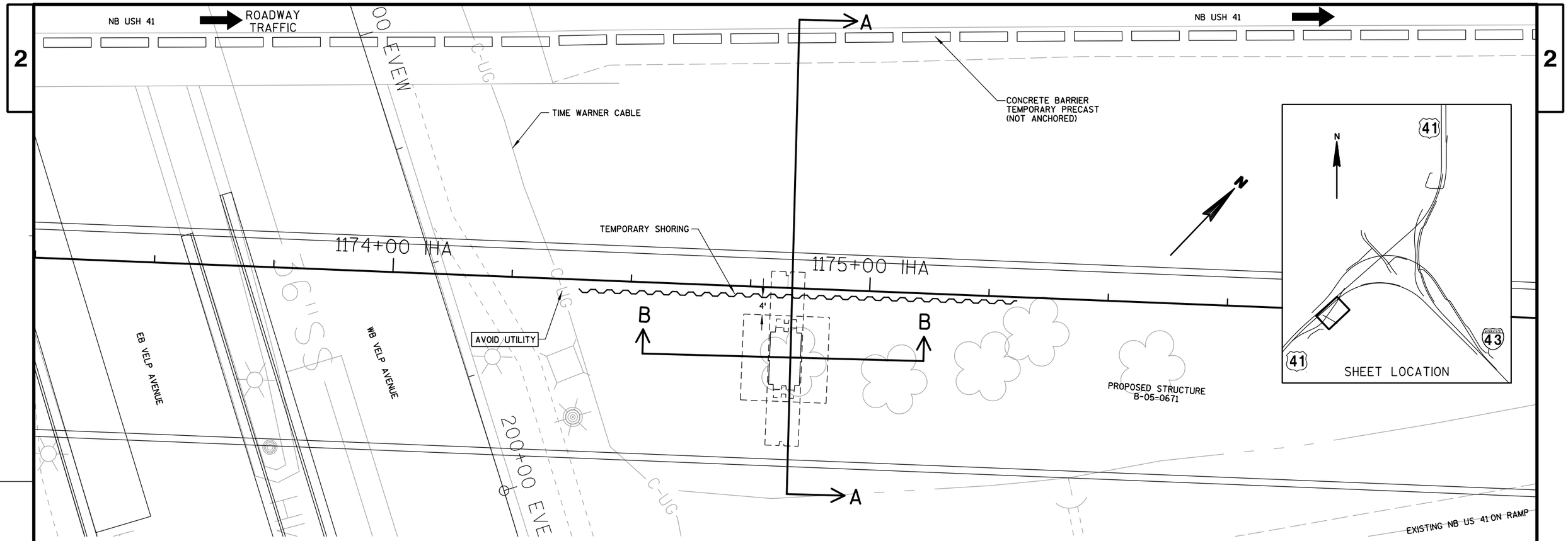
SECTION B-B
PIER 2 FOOTINGS AT TEMPORARY SHORING

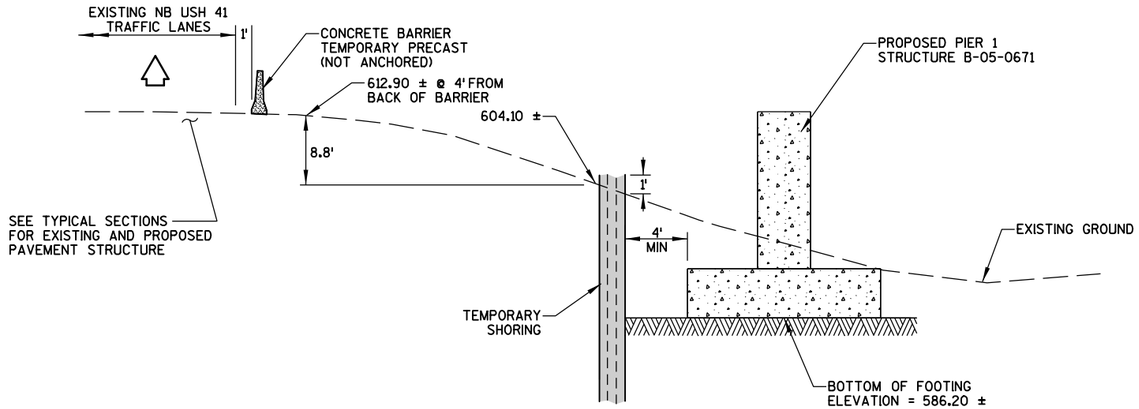
NOT TO SCALE

TEMPORARY SHORING - STA 118+25 TNIH

SHOR BRDG

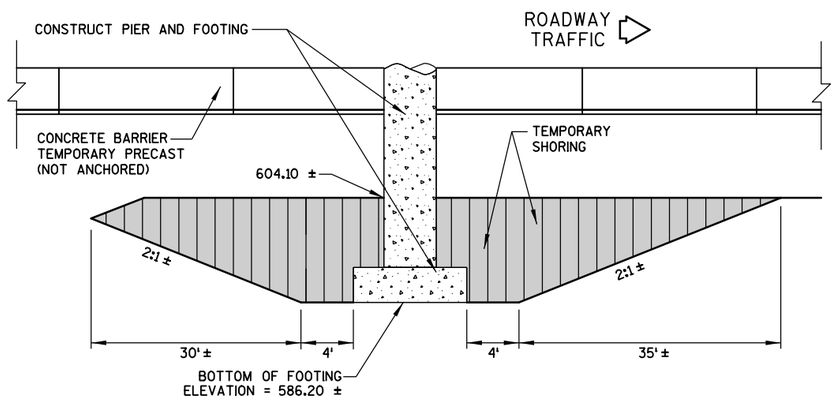
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SHEET 191	E





SECTION A-A
ANCHORING NOT REQUIRED FOR
CONCRETE BARRIER TEMPORARY PRECAST
AT TEMPORARY SHORING

NOT TO SCALE



SECTION B-B
PIER 15 FOOTING AT TEMPORARY SHORING

NOT TO SCALE

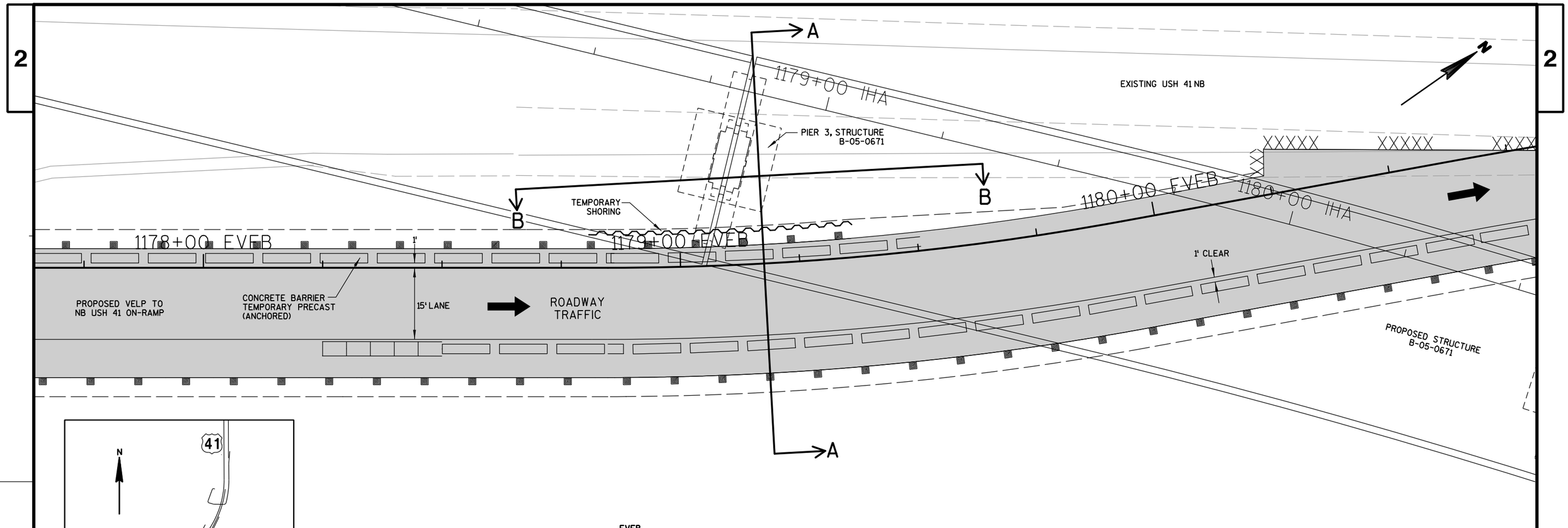
TEMPORARY SHORING - STA 1174+83 IHA

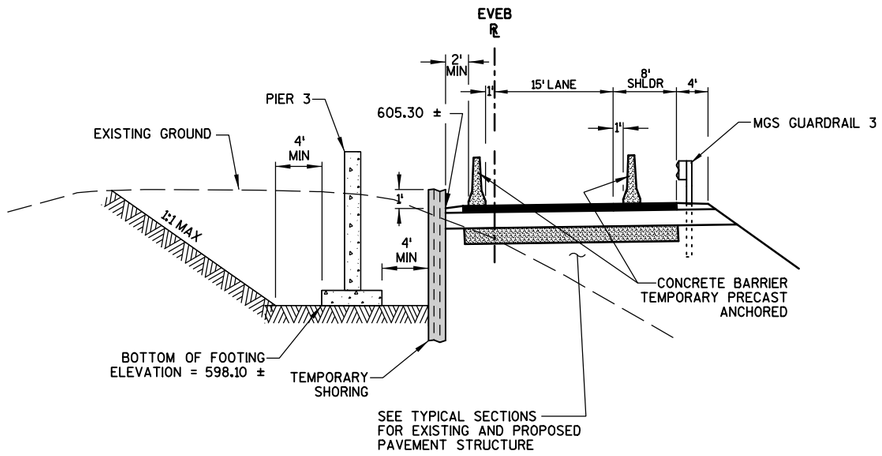
SHOR BRDG

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 10 20	SHEET 192	E

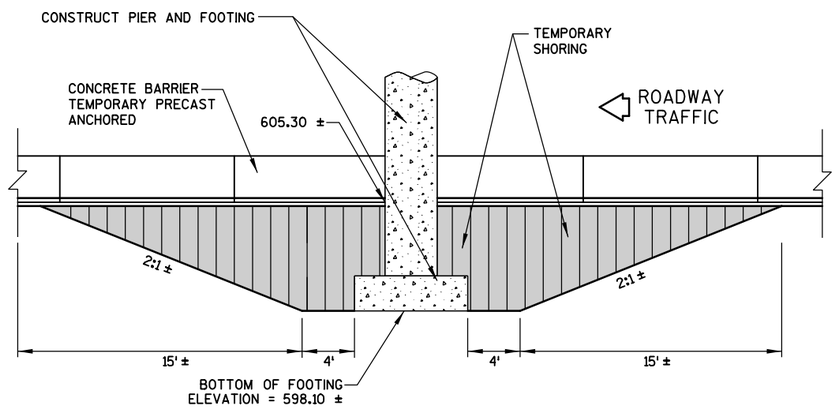
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025024_tc_cd_IHA.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 42





SECTION A-A
GUARDRAIL AT TEMPORARY SHORING
NOT TO SCALE

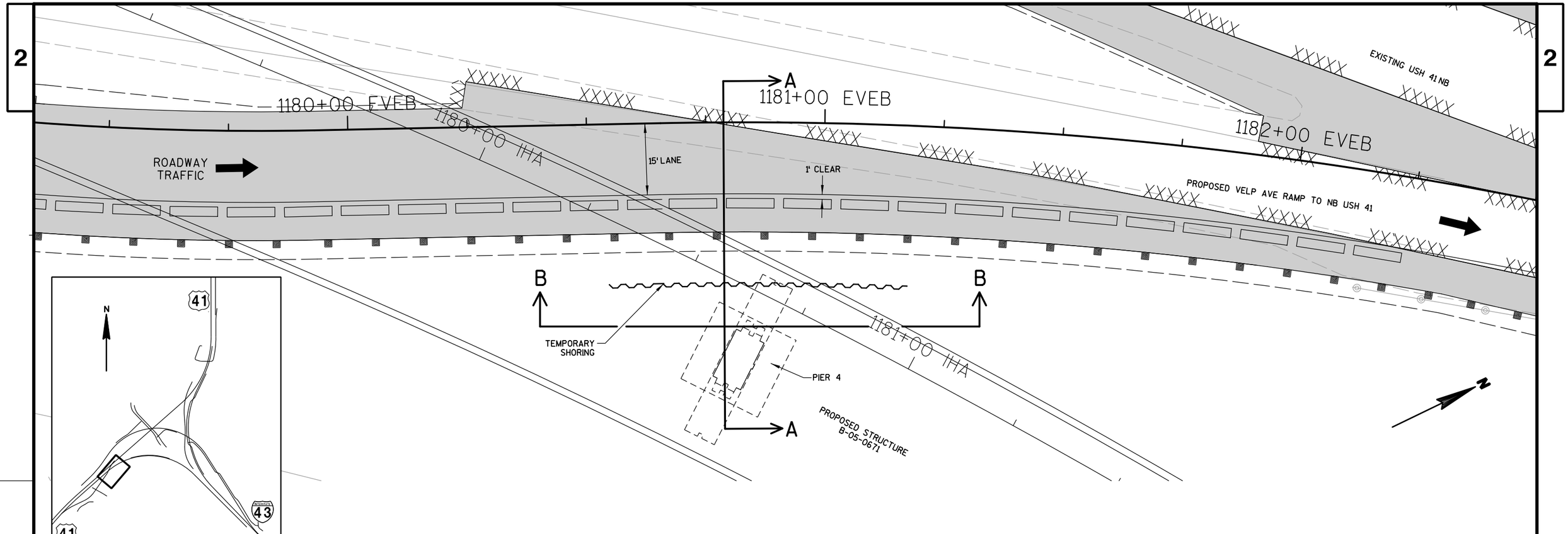


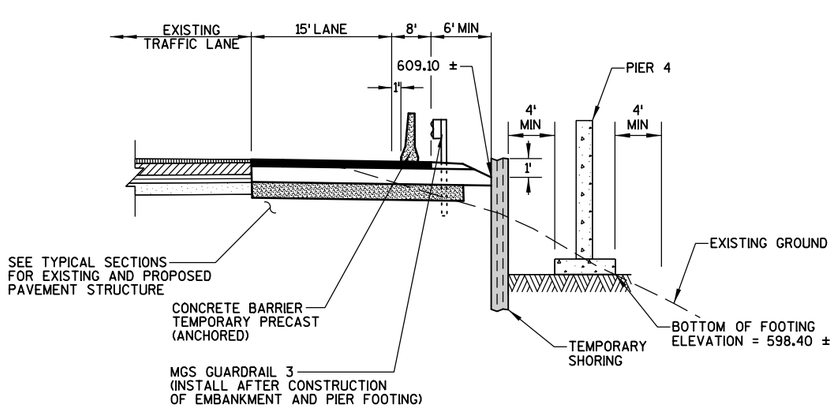
SECTION B-B
PIER 3 FOOTING AT TEMPORARY SHORING
NOT TO SCALE

TEMPORARY SHORING - STA 1179+15 EVEB

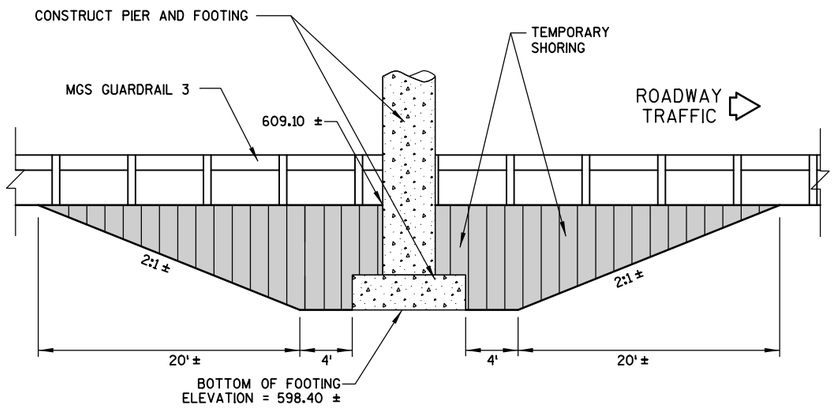
SHOR BRDG

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 10 20	SHEET 193	E





SECTION A-A
GUARDRAIL AT TEMPORARY SHORING
NOT TO SCALE

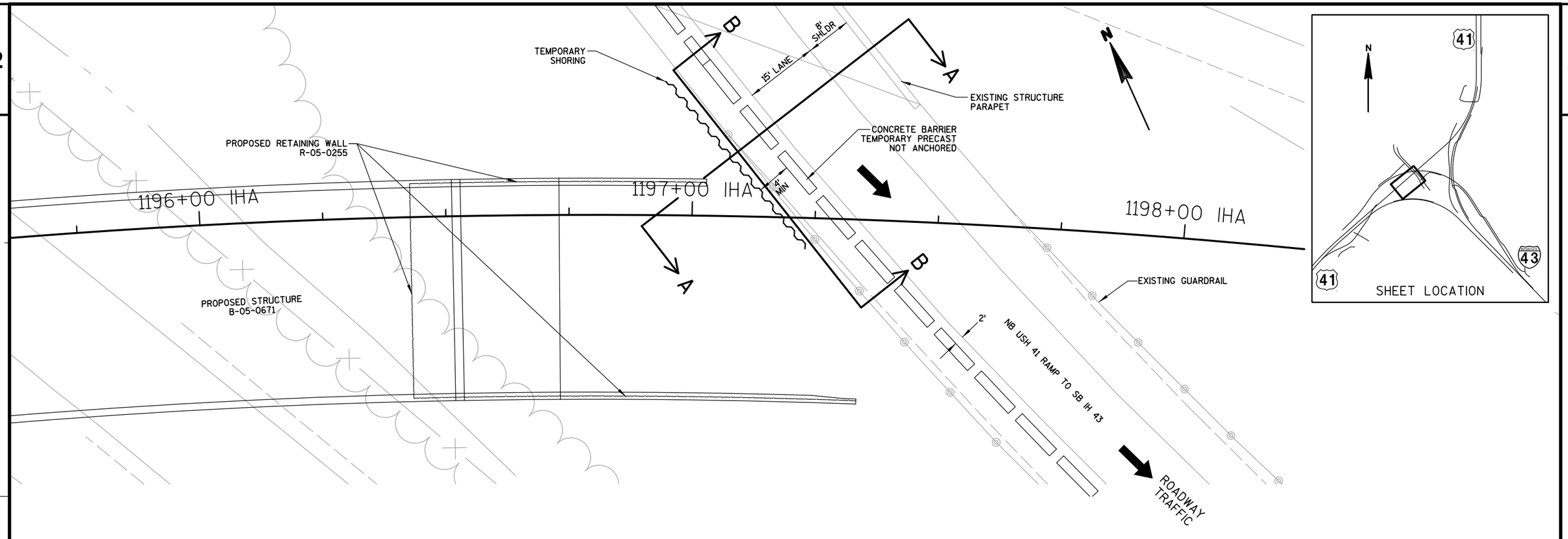


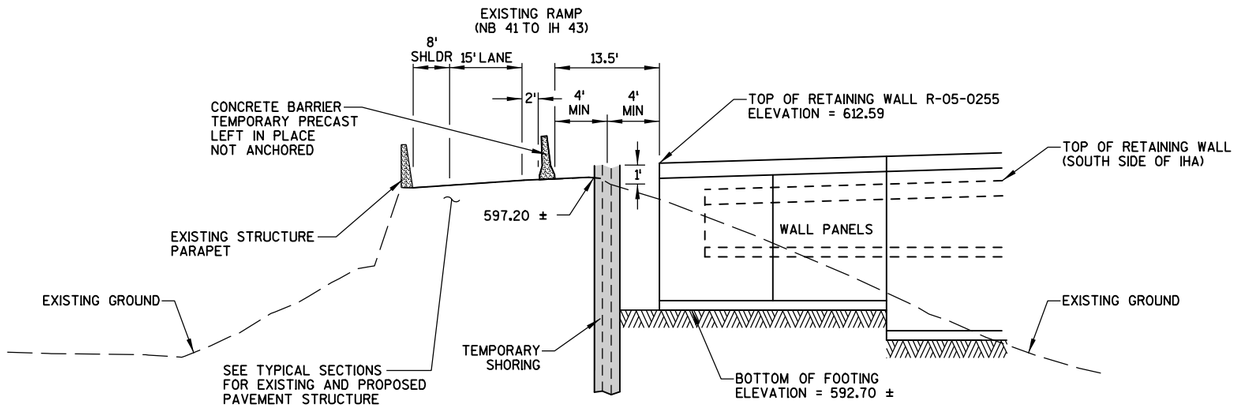
SECTION B-B
PIER 4 FOOTING AT TEMPORARY SHORING
NOT TO SCALE

TEMPORARY SHORING - STA 1180+50 EVEB

SHOR BRDG

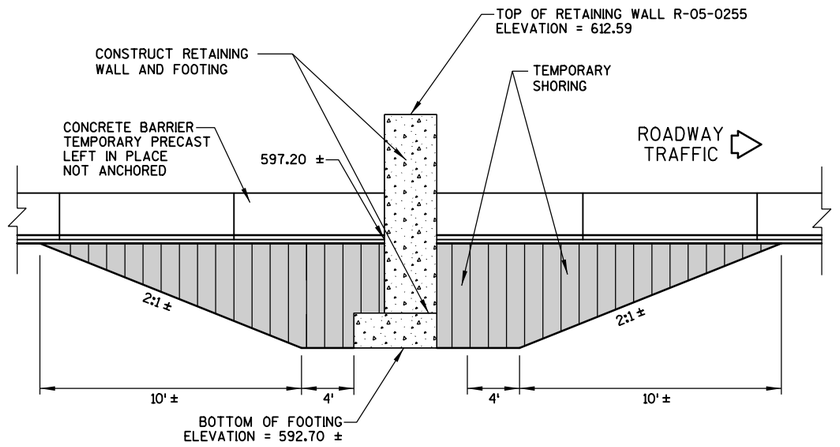
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 10 20	SHEET 194	E





SECTION A-A
ANCHORING NOT REQUIRED FOR
CONCRETE BARRIER TEMPORARY PRECAST
AT TEMPORARY SHORING

NOT TO SCALE



SECTION B-B
RETAINING WALL & FOOTING AT TEMPORARY SHORING

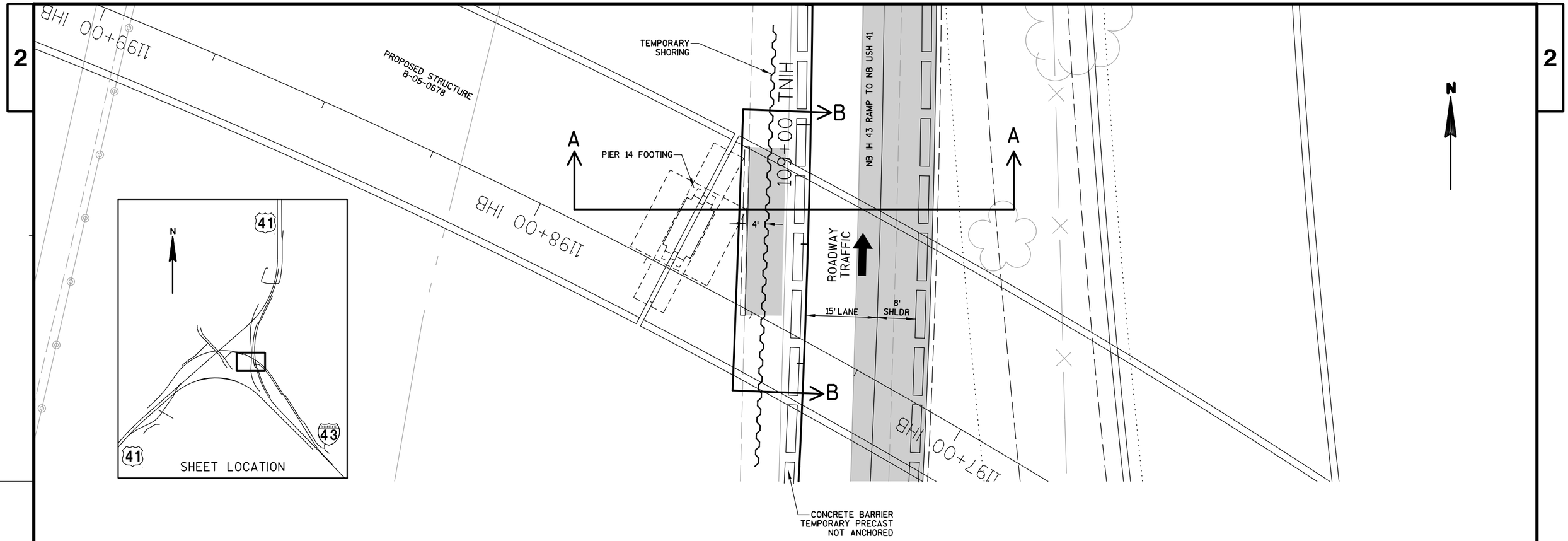
NOT TO SCALE

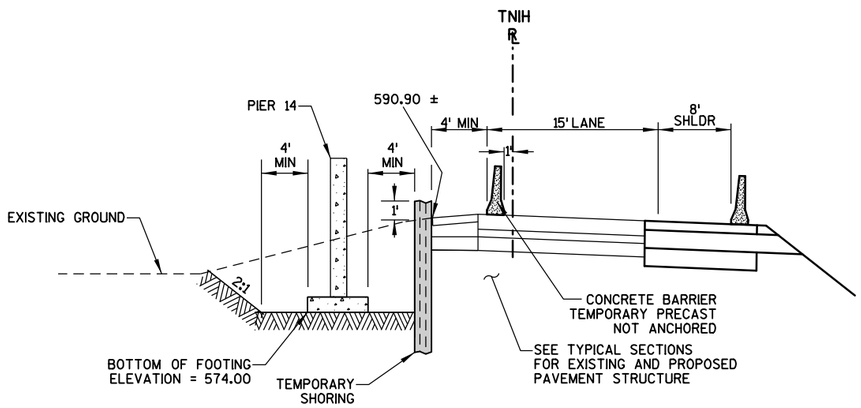
TEMPORARY SHORING - STA 1197+25 IHA

SHOR BRDG

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 10 20	SHEET 195	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025027_tc_cd_IHA.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:20



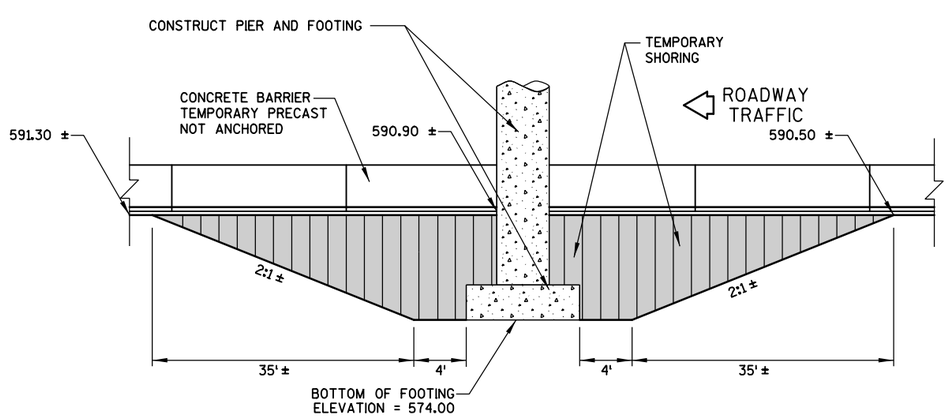


SECTION A-A
ANCHORING NOT REQUIRED FOR
CONCRETE BARRIER TEMPORARY PRECAST
AT TEMPORARY SHORING

STA. 108+80 TNIH, LT
NOT TO SCALE

TEMPORARY SHORING - STA 108+80 TNIH

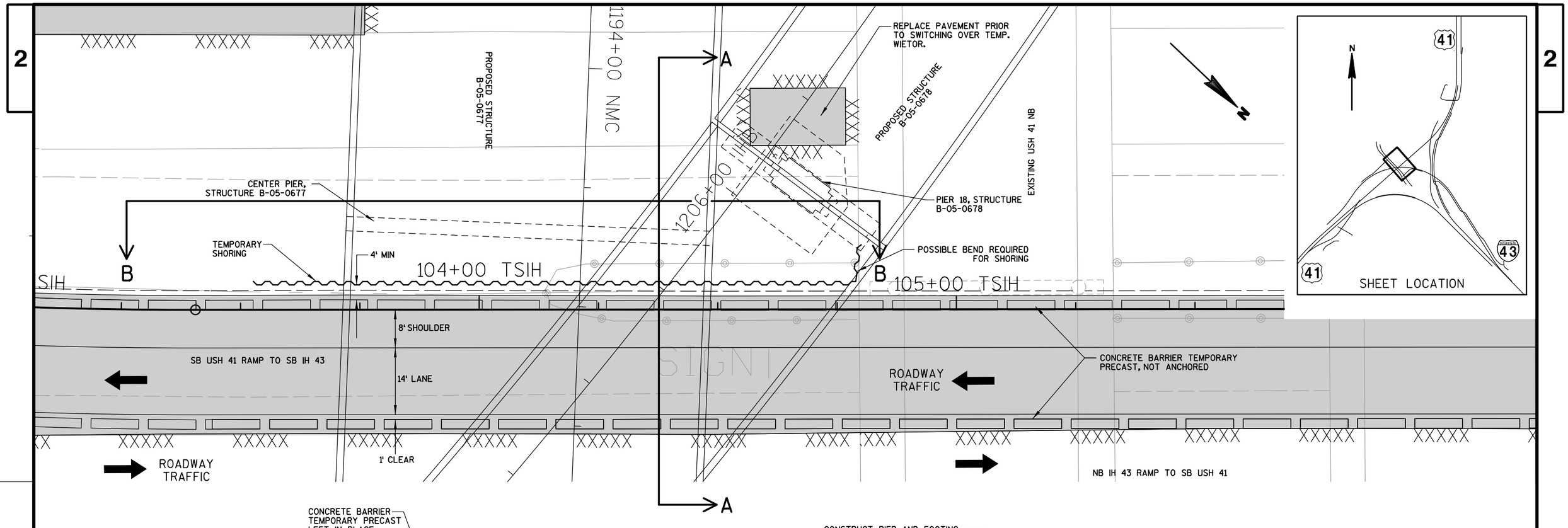
SHOR BRDG



SECTION B-B
PIER 14 FOOTING AT TEMPORARY SHORING

STA. 108+80 TNIH, LT
NOT TO SCALE

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 10 20	SHEET 196	E



SECTION A-A
ANCHORING NOT REQUIRED FOR
CONCRETE BARRIER TEMPORARY PRECAST
AT TEMPORARY SHORING

NOT TO SCALE

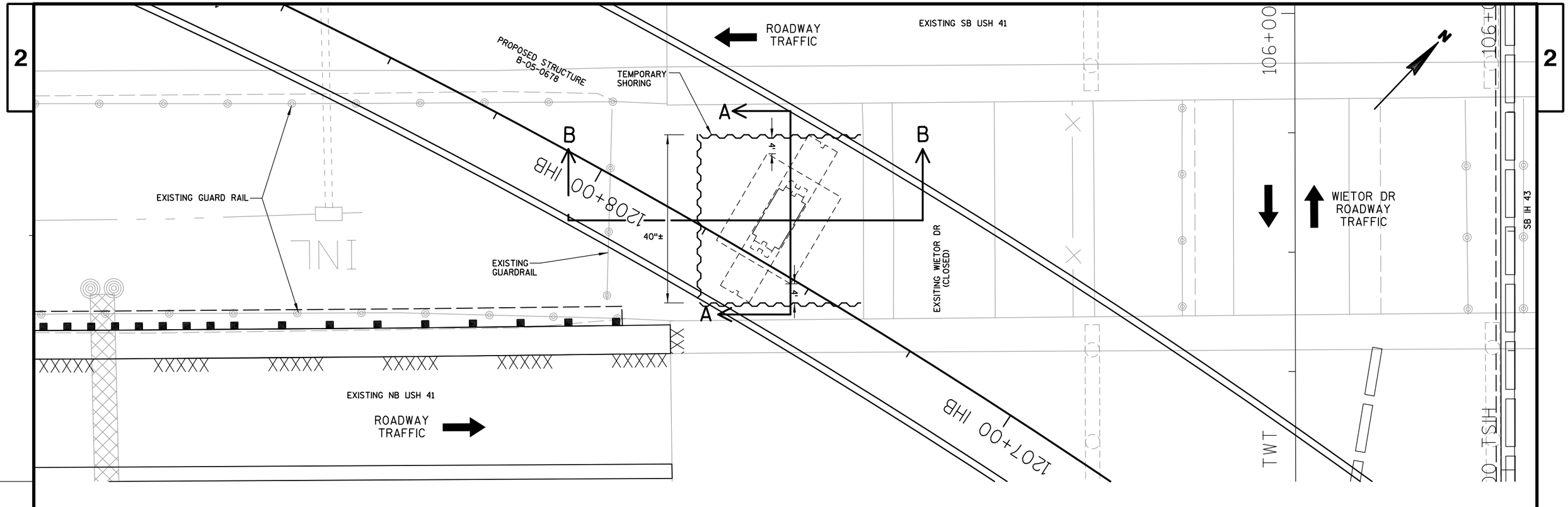
SECTION B-B
PIER FOOTINGS AT TEMPORARY SHORING

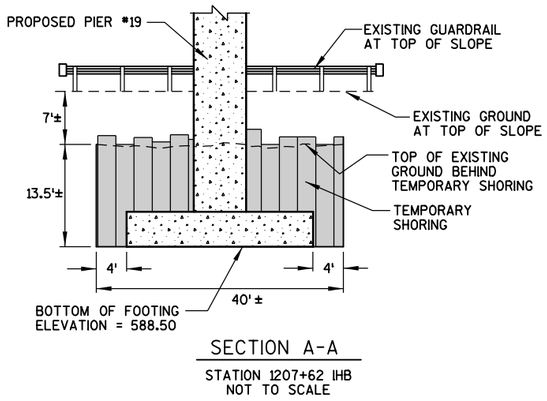
NOT TO SCALE

TEMPORARY SHORING - STA 104+00 TSIH

SHOR BRDG

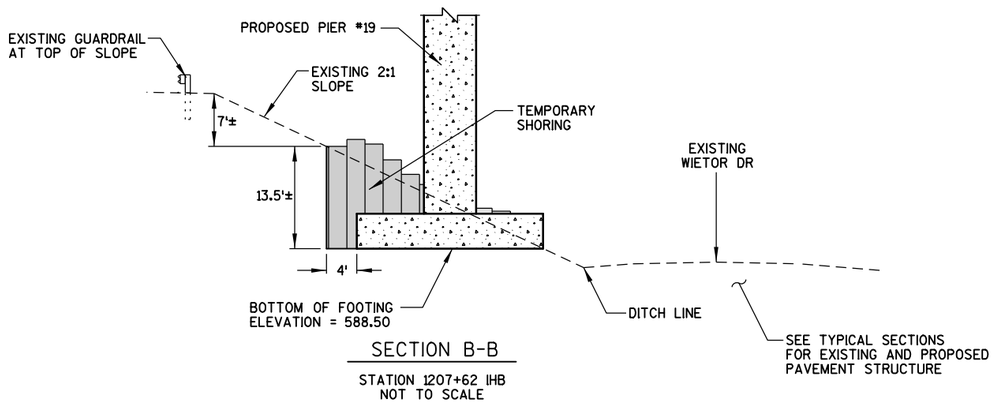
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 20 40	SHEET 197	E





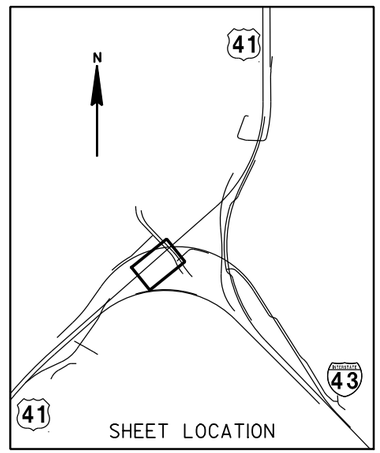
SECTION A-A

STATION 1207+62 IHB
NOT TO SCALE



SECTION B-B

STATION 1207+62 IHB
NOT TO SCALE



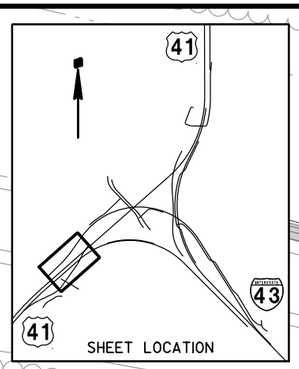
TEMPORARY SHORING - STA. 1207+62 IHB

SHOR BRDG

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SHORING DETAILS	SCALE, FEET 0 10 20	SHEET 198	E

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- GS — GLARE SCREEN TEMPORARY
- POST MOUNTED SIGN
- S-CBTP — TRAFFIC CONTROL SIGN MODIFIED AND MOUNTED ON CONCRETE BARRIER TEMPORARY PRECAST (SEE DETAIL)
- BARRICADE TYPE III WITH ATTACHED SIGN
- 16" x 16" ORANGE FLAGS
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHT TYPE C, 50' SPACING
- TEMPORARY RAISED PAVEMENT MARKERS, 25' SPACING (ONE-WAY, MATCH COLOR OF PAVEMENT MARKING)
- W — TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE)
- Y — TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW)
- 8 — TEMPORARY PAVEMENT MARKING, 8-INCH (WHITE, CHANNELIZING)
- RV-PM — REMOVE EXISTING PAVEMENT MARKING (DESCRIPTION)
- ★ — REMOVE TEMPORARY PAVEMENT MARKING BEFORE SHIFTING TRAFFIC BACK ONTO EXISTING ROADWAY
- AB-FL — ABANDON EXISTING INLET, PLACE COVER PLATE OVER INLET, REMOVE EXISTING PIPE, AND PROVIDE ASPHALTIC FLUME (SEE DRAINAGE PLAN)



VELP AVE

BEGIN CBTP STA. 75+25 SBC

RV-PM (EXISTING WHITE LANE LINE)

RV-PM (EXISTING YELLOW EDGE LINE)

ROAD CLOSED
R11-2
48" X 30"

RAMP CLOSED

EXISTING OFF-RAMP

SB USH 41

75+00 SBC
76+00 SBC
77+00 SBC
78+00 SBC
79+00 SBC
80+00 SBC
81+00 SBC
82+00 SBC

CBTP OVERLAPS EXISTING GUARDRAIL PER SDD 14B8

1' CLEAR

500'

200' MIN

BEGIN CBTP STA. 77+00 NBC

1' CLEAR

76+00 NBC
77+00 NBC
78+00 NBC
79+00 NBC
80+00 NBC
81+00 NBC
82+00 NBC

NB USH 41

1' CLEAR

CRASH CUSHION TEMPORARY

GS (CONTINUE ON CBTP ALONG MEDIAN SIDE OF NB USH 41 TO STA. 84+50 NBC)

W1-4BR

50 M.P.H.
W013-1
36" X 36"

LEFT SHOULDER CLOSED
W21-5AL

W01-6
48" X 24"

END CBTP STA. 79+50 NBC

RV-PM (EXISTING WHITE LANE LINE)

RV-PM (EXISTING YELLOW EDGE LINE)

RV-PM (EXISTING WHITE EDGE LINE)

MATCHLINE STA 82+00 SBC

LONG-TERM TEMPORARY ON-RAMP

RAMP CLOSED

VELP AVE

TEMPORARY USH 41 CROSSOVERS - OVERVIEW

(STAGE 2A)

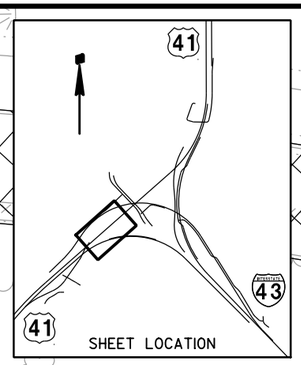
TX-OV

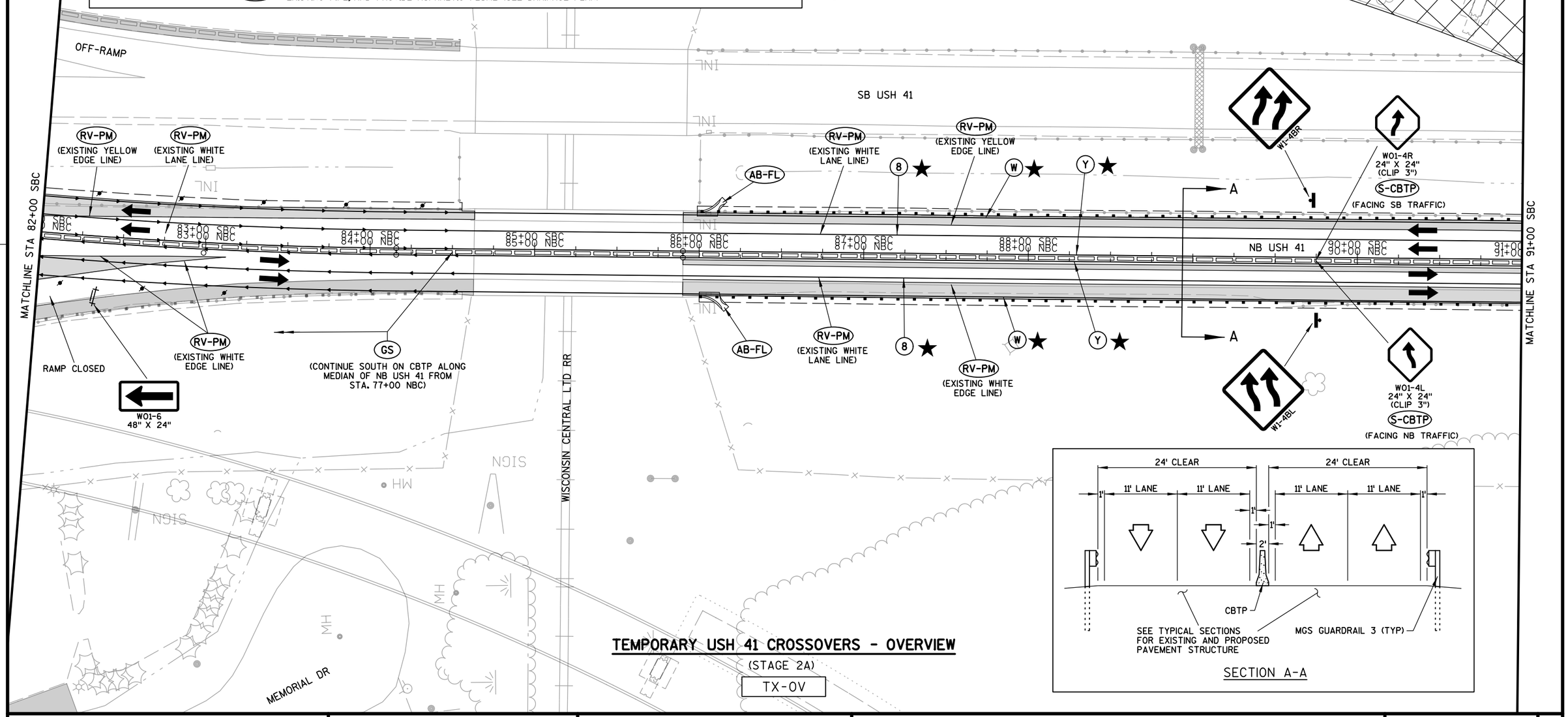
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 199 E

2

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- GS — GLARE SCREEN TEMPORARY
- POST MOUNTED SIGN
- S-CBTP — TRAFFIC CONTROL SIGN MODIFIED AND MOUNTED ON CONCRETE BARRIER TEMPORARY PRECAST (SEE DETAIL)
- BARRICADE TYPE III WITH ATTACHED SIGN
- 16" x 16" ORANGE FLAGS
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHT TYPE C, 50' SPACING
- TEMPORARY RAISED PAVEMENT MARKERS, 25' SPACING (ONE-WAY, MATCH COLOR OF PAVEMENT MARKING)
- W — TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE)
- Y — TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW)
- 8 — TEMPORARY PAVEMENT MARKING, 8-INCH (WHITE, CHANNELIZING)
- RV-PM — REMOVE EXISTING PAVEMENT MARKING (DESCRIPTION)
- ★ — REMOVE TEMPORARY PAVEMENT MARKING BEFORE SHIFTING TRAFFIC BACK ONTO EXISTING ROADWAY
- AB-FL — ABANDON EXISTING INLET, PLACE COVER PLATE OVER INLET, REMOVE EXISTING PIPE, AND PROVIDE ASPHALTIC FLUME (SEE DRAINAGE PLAN)





TEMPORARY USH 41 CROSSOVERS - OVERVIEW

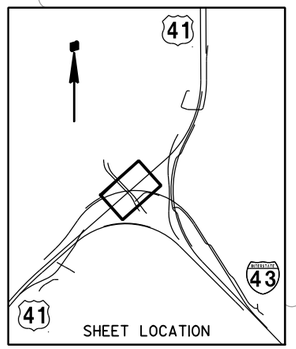
(STAGE 2A)

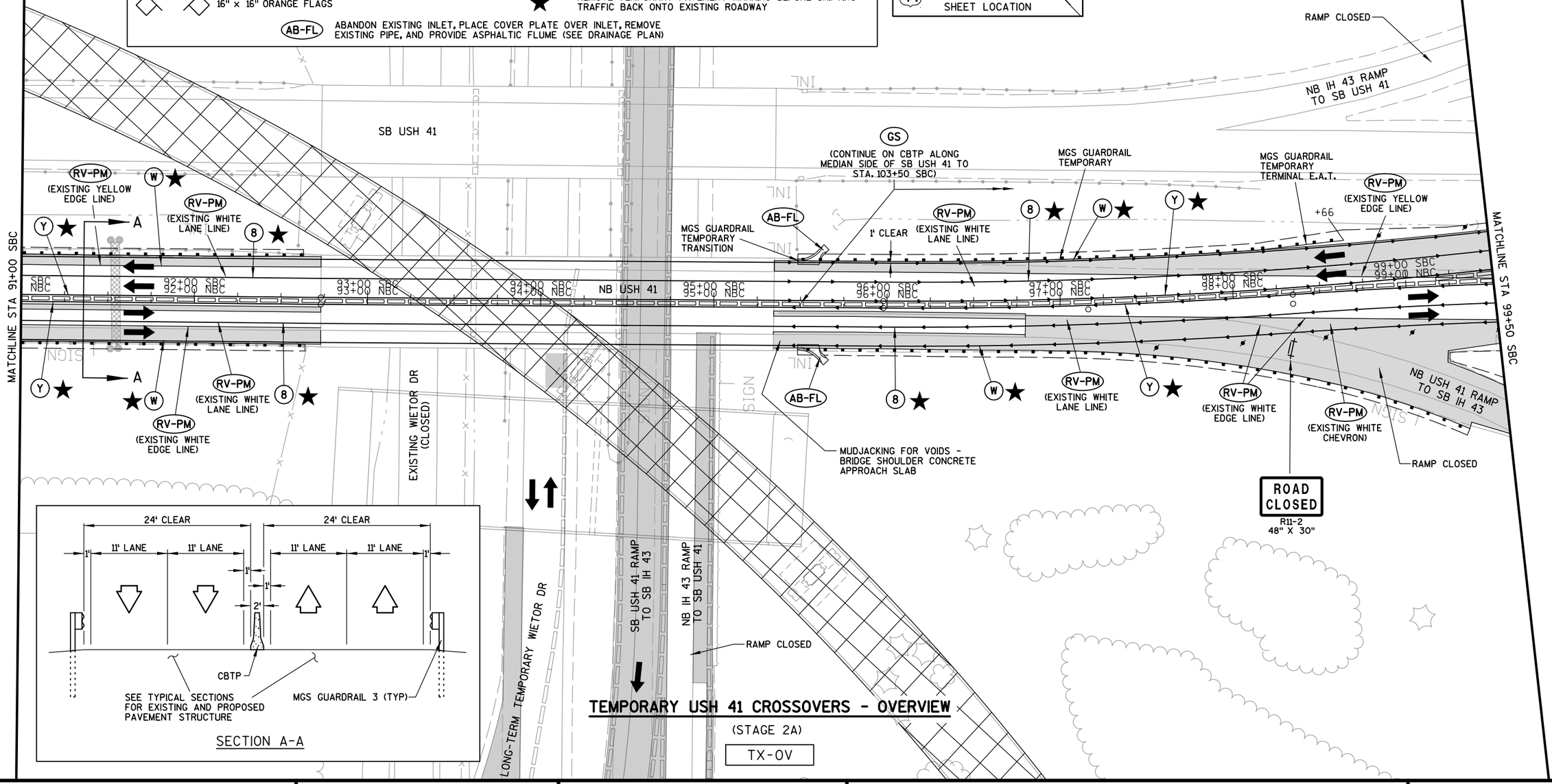
TX-OV

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 200	E

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- GS — GLARE SCREEN TEMPORARY
- POST MOUNTED SIGN
- S-CBTP — TRAFFIC CONTROL SIGN MODIFIED AND MOUNTED ON CONCRETE BARRIER TEMPORARY PRECAST (SEE DETAIL)
- BARRICADE TYPE III WITH ATTACHED SIGN
- 16" x 16" ORANGE FLAGS
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHT TYPE C, 50' SPACING
- TEMPORARY RAISED PAVEMENT MARKERS, 25' SPACING (ONE-WAY, MATCH COLOR OF PAVEMENT MARKING)
- W — TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE)
- Y — TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW)
- 8 — TEMPORARY PAVEMENT MARKING, 8-INCH (WHITE, CHANNELIZING)
- RV-PM — REMOVE EXISTING PAVEMENT MARKING (DESCRIPTION)
- ★ — REMOVE TEMPORARY PAVEMENT MARKING BEFORE SHIFTING TRAFFIC BACK ONTO EXISTING ROADWAY
- AB-FL — ABANDON EXISTING INLET, PLACE COVER PLATE OVER INLET, REMOVE EXISTING PIPE, AND PROVIDE ASPHALTIC FLUME (SEE DRAINAGE PLAN)





SECTION A-A

TEMPORARY USH 41 CROSSOVERS - OVERVIEW

(STAGE 2A)

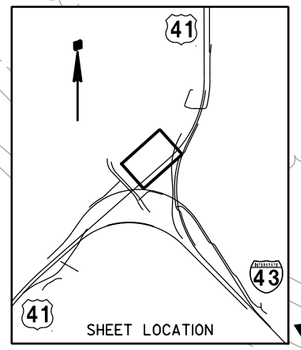
TX-OV

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 201	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025033_tc_cd.dgn | PLOT BY : dm253 | PLOT DATE : 5/31/2013 | PLOT SCALE : 1:60

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- GS — GLARE SCREEN TEMPORARY
- POST MOUNTED SIGN
- S-CBTP — TRAFFIC CONTROL SIGN MODIFIED AND MOUNTED ON CONCRETE BARRIER TEMPORARY PRECAST (SEE DETAIL)
- BARRICADE TYPE III WITH ATTACHED SIGN
- 16" x 16" ORANGE FLAGS
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHT TYPE C, 50' SPACING
- TEMPORARY RAISED PAVEMENT MARKERS, 25' SPACING (ONE-WAY, MATCH COLOR OF PAVEMENT MARKING)
- W — TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE)
- Y — TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW)
- 8 — TEMPORARY PAVEMENT MARKING, 8-INCH (WHITE, CHANNELIZING)
- RV-PM — REMOVE EXISTING PAVEMENT MARKING (DESCRIPTION)
- ★ — REMOVE TEMPORARY PAVEMENT MARKING BEFORE SHIFTING TRAFFIC BACK ONTO EXISTING ROADWAY
- AB-FL — ABANDON EXISTING INLET, PLACE COVER PLATE OVER INLET, REMOVE EXISTING PIPE, AND PROVIDE ASPHALTIC FLUME (SEE DRAINAGE PLAN)



SB USH 41 RAMP TO SB IH 43

NB IH 43 RAMP TO SB USH 41

RAMP CLOSED

GS (CONTINUE ON CBTP ALONG MEDIAN SIDE OF SB USH 41 FROM STA. 95+50 SBC)

W01-6 48" X 24"

W01-6 48" X 24"

ROAD CLOSED R11-2 48" X 30"

RV-PM (EXISTING YELLOW EDGE LINE)

RV-PM (EXISTING WHITE LANE LINE)

RIGHT SHOULDER CLOSED W21-5AR

W1-4BL 50 M.P.H. W013-1 36" X 36"

MAX. 11' WIDTH W012-52

1/2 MILE AHEAD W057-52 36" X 24"

MATCHLINE STA 99+50 SBC

100+00 SBC 101+00 SBC 102+00 SBC 103+00 SBC 105+00 SBC 106+00 SBC 107+00 SBC

100+00 NBC 101+00 NBC 102+00 NBC 103+00 NBC 104+00 NBC 105+00 NBC 106+00 NBC

END CBTP STA. 103+50 SBC

CRASH CUSHION TEMPORARY

200' MIN

2000'

END CBTP STA 101+50 NBC

RV-PM (EXISTING WHITE EDGE LINE)

RV-PM (EXISTING WHITE LANE LINE)

LEFT SHOULDER CLOSED W21-5AL

NB USH 41 RAMP TO SB IH 43

RAMP CLOSED

NB IH 43 RAMP TO NB USH 41

TEMPORARY USH 41 CROSSOVERS - OVERVIEW

(STAGE 2A)

TX-0V

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 202	E

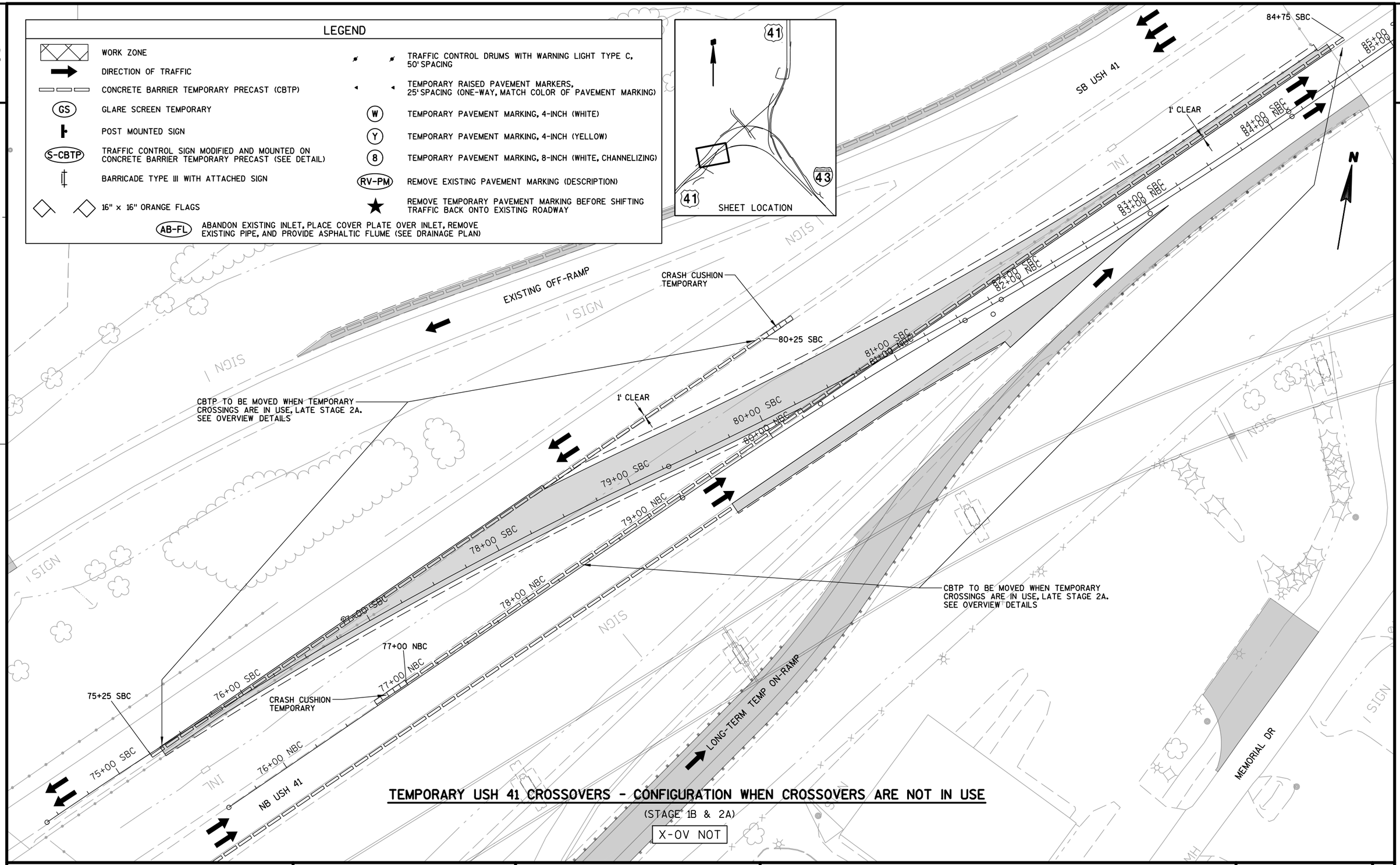
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025034_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

2

LEGEND

WORK ZONE	TRAFFIC CONTROL DRUMS WITH WARNING LIGHT TYPE C, 50' SPACING
DIRECTION OF TRAFFIC	
CONCRETE BARRIER TEMPORARY PRECAST (CBTP)	TEMPORARY RAISED PAVEMENT MARKERS, 25' SPACING (ONE-WAY, MATCH COLOR OF PAVEMENT MARKING)
GS — GLARE SCREEN TEMPORARY	W — TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE)
POST MOUNTED SIGN	Y — TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW)
S-CBTP — TRAFFIC CONTROL SIGN MODIFIED AND MOUNTED ON CONCRETE BARRIER TEMPORARY PRECAST (SEE DETAIL)	8 — TEMPORARY PAVEMENT MARKING, 8-INCH (WHITE, CHANNELIZING)
BARRICADE TYPE III WITH ATTACHED SIGN	RV-PM — REMOVE EXISTING PAVEMENT MARKING (DESCRIPTION)
16" x 16" ORANGE FLAGS	REMOVE TEMPORARY PAVEMENT MARKING BEFORE SHIFTING TRAFFIC BACK ONTO EXISTING ROADWAY

AB-FL — ABANDON EXISTING INLET, PLACE COVER PLATE OVER INLET, REMOVE EXISTING PIPE, AND PROVIDE ASPHALTIC FLUME (SEE DRAINAGE PLAN)



TEMPORARY USH 41 CROSSOVERS - CONFIGURATION WHEN CROSSOVERS ARE NOT IN USE

(STAGE 1B & 2A)

X-OV NOT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 203	E

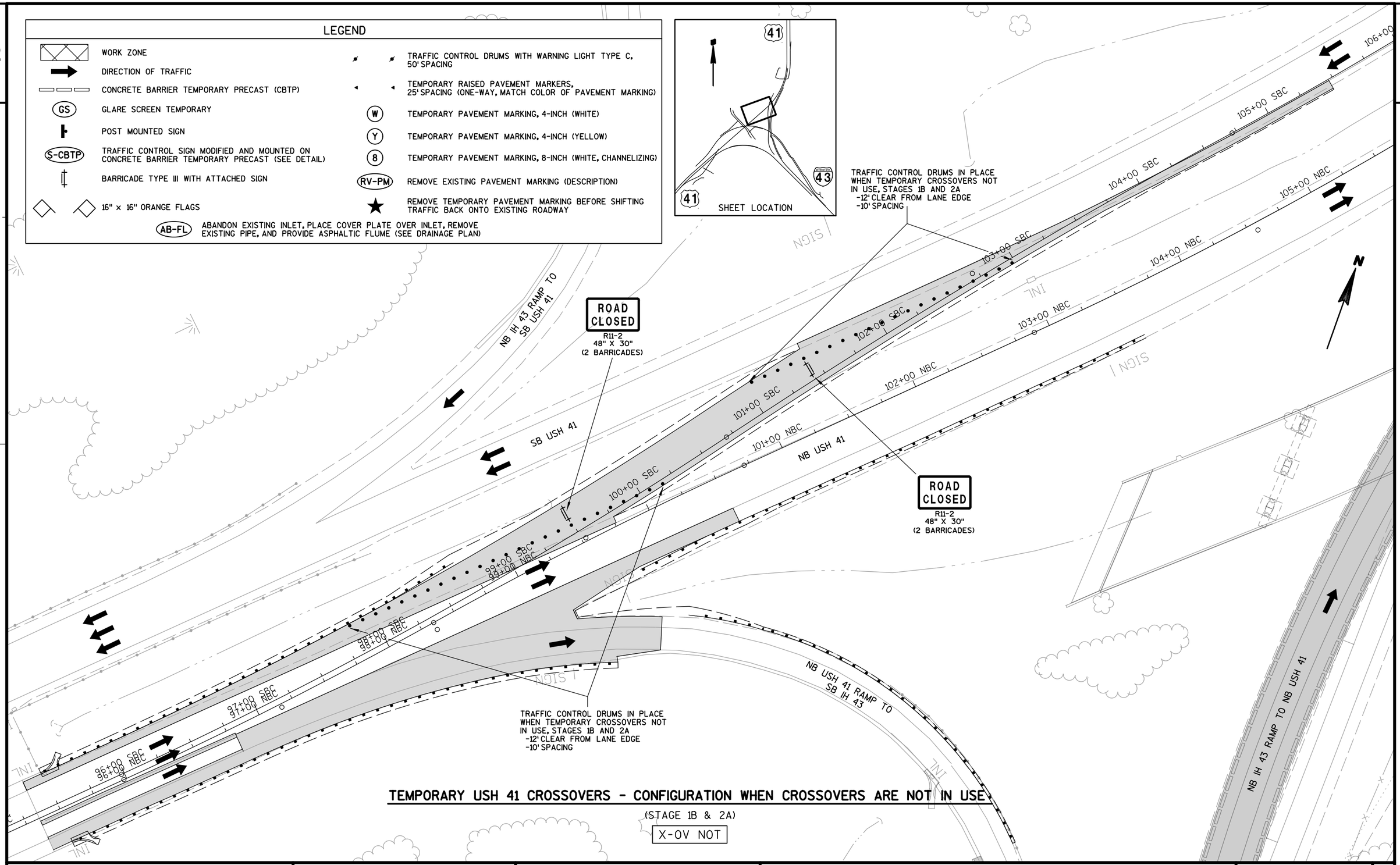
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025035_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42

LEGEND

	WORK ZONE		TRAFFIC CONTROL DRUMS WITH WARNING LIGHT TYPE C, 50' SPACING
	DIRECTION OF TRAFFIC		TEMPORARY RAISED PAVEMENT MARKERS, 25' SPACING (ONE-WAY, MATCH COLOR OF PAVEMENT MARKING)
	CONCRETE BARRIER TEMPORARY PRECAST (CBTP)	(W)	TEMPORARY PAVEMENT MARKING, 4-INCH (WHITE)
(GS)	GLARE SCREEN TEMPORARY	(Y)	TEMPORARY PAVEMENT MARKING, 4-INCH (YELLOW)
	POST MOUNTED SIGN	(8)	TEMPORARY PAVEMENT MARKING, 8-INCH (WHITE, CHANNELIZING)
(S-CBTP)	TRAFFIC CONTROL SIGN MODIFIED AND MOUNTED ON CONCRETE BARRIER TEMPORARY PRECAST (SEE DETAIL)	(RV-PM)	REMOVE EXISTING PAVEMENT MARKING (DESCRIPTION)
	BARRICADE TYPE III WITH ATTACHED SIGN	★	REMOVE TEMPORARY PAVEMENT MARKING BEFORE SHIFTING TRAFFIC BACK ONTO EXISTING ROADWAY
	16" x 16" ORANGE FLAGS		

(AB-FL) ABANDON EXISTING INLET, PLACE COVER PLATE OVER INLET, REMOVE EXISTING PIPE, AND PROVIDE ASPHALTIC FLUME (SEE DRAINAGE PLAN)



TEMPORARY USH 41 CROSSOVERS - CONFIGURATION WHEN CROSSOVERS ARE NOT IN USE

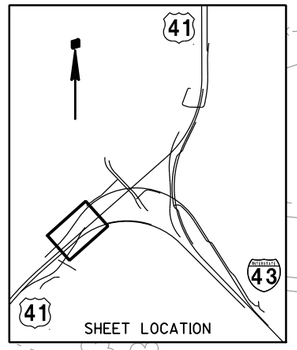
(STAGE 1B & 2A)

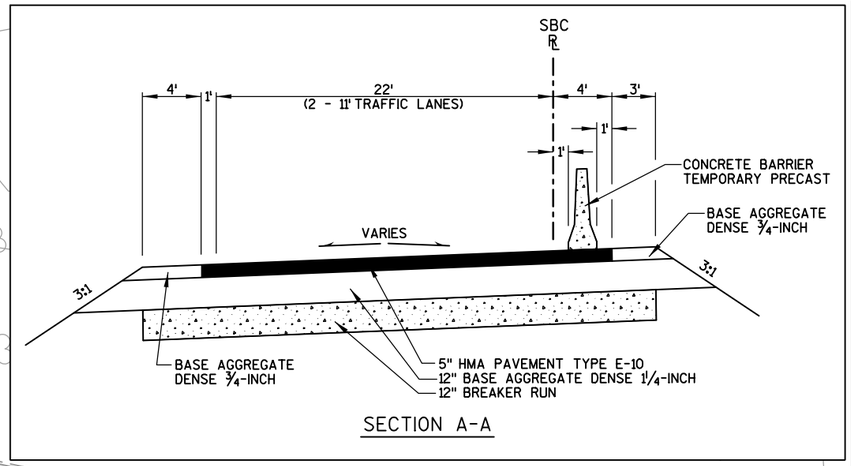
X-OV NOT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 204	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025036_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42





SECTION A-A

SB USH 41 RAMP TO VELP AVE

SB USH 41

NB USH 41

180' SURFACE DRAIN PIPE CORRUGATED
METAL SLOTTED 18-INCH
(6" SPECIAL GRATE DEPTH; SEE NOTE (2), SDD 8D13)

114' CULVERT PIPE CORRUGATED
STEEL 18-INCH

MATCH EXISTING
PAVEMENT EDGE

22' (2 - 11' LANES)

SHLD

5E10

76+00 SBC
77+00 SBC
78+00 SBC
79+00 SBC
80+00 SBC
81+00 SBC
82+00 SBC
83+00 SBC
84+00 SBC

STA 81+39 SBC, 35' LT
END OF PIPE
1 - APRON ENDWALL FOR CULVERT PIPE
SLOPED SIDE DRAIN STEEL 18-INCH 10:1 REQ'D
INV = 611.90

EXISTING INLET
TO REMAIN

PAVEMENT GRADE
(TYP)

EXISTING INLET
TO REMAIN

SHLD

STA 78+46 SBC, 4' RT
CAP SURFACE DRAIN PIPE

STA 80+25 SBC, 23' LT
CONNECT SURFACE DRAIN
PIPE TO CORRUGATED STEEL
CULVERT PIPE

MATCH EXISTING
PAVEMENT EDGE

LONG-TERM TEMPORARY ON-RAMP

A

A

SIGN

HW

LEGEND	
5E10	5" HMA PAVEMENT TYPE E-10
SHLD	BASE AGGREGATE DENSE ¾-INCH
xxxxx	SAWCUT
	CONCRETE BARRIER TEMPORARY PRECAST
	DRAINAGE FLOW DIRECTION

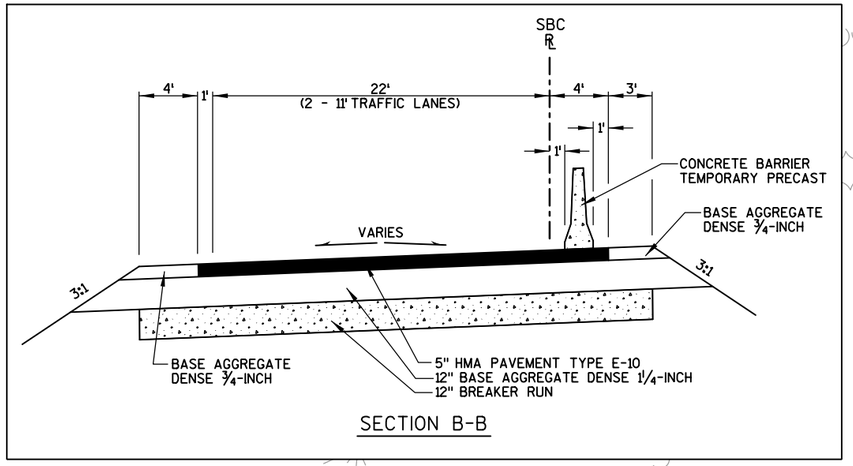
TEMPORARY USH 41 CROSSOVERS - PAVING AND DRAINAGE DETAILS

TX-PV&DR

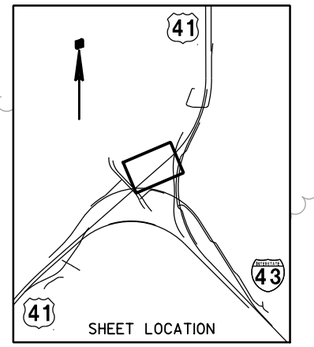
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 205	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025037_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:60

WISDOT/CADDS SHEET 42



SECTION B-B



SHEET LOCATION

NB IH 43 RAMP TO SB USH 41

126' CULVERT PIPE CORRUGATED
STEEL 18-INCH

180' SURFACE DRAIN PIPE CORRUGATED
METAL SLOTTED 18-INCH
(6" SPECIAL GRATE DEPTH; SEE NOTE ②, SDD 8D13)

134' CULVERT PIPE CORRUGATED
STEEL 18-INCH

5E10

SHLD

STA 99+69 SBC, 23' LT
CONNECT SURFACE DRAIN
PIPE TO CORRUGATED
STEEL CULVERT PIPE

22' (2 - 11' LANES)

STA 98+43 SBC, 37' LT
END OF PIPE
1- APRON ENDWALL FOR CULVERT PIPE
SLOPED SIDE DRAIN STEEL 18-INCH 10:1 REQ'D
INV = 600.70

SB USH 41

MATCH EXISTING
PAVEMENT EDGE

PAVING GRADE
(TYP)

96+00 SBC
97+00 SBC
98+00 SBC
99+00 SBC
100+00 SBC
101+00 SBC
102+00 SBC
103+00 SBC
104+00 SBC
105+00 SBC

MATCH EXISTING
PAVEMENT EDGE

STA 101+48 SBC, 3.5' RT
CONNECT SURFACE DRAIN
PIPE TO CORRUGATED
STEEL CULVERT PIPE

STA 102+81 SBC, 19' RT
END OF PIPE
1- APRON ENDWALL FOR CULVERT PIPE
SLOPED SIDE DRAIN STEEL 18-INCH 10:1 REQ'D
INV = 597.60

EXISTING INLET
TO REMAIN

PAVING GRADE
(TYP)

NB USH 41

NB USH 41 RAMP TO SB IH 43

NB IH 43 RAMP TO NB USH 41

LEGEND	
5E10	5" HMA PAVEMENT TYPE E-10
SHLD	BASE AGGREGATE DENSE ¾-INCH
xxxxx	SAWCUT
	CONCRETE BARRIER TEMPORARY PRECAST
	DRAINAGE FLOW DIRECTION

TEMPORARY USH 41 CROSSOVERS - PAVING AND DRAINAGE DETAILS

TX-PV&DR

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 206	E

2

2

LEGEND:

ROADWAYS OPEN TO TRAFFIC DURING STRUCTURAL STEEL TUB GIRDER ERECTION OVER USH 41

STRUCTURAL STEEL TUB GIRDER ERECTION

TRAFFIC FLOW DIRECTION

COUNTY HS

41

141

43

SB USH 41 TO VELP AVE RAMP CLOSED

PORTION OF SB USH 41 CLOSED

NB I-43 TO SB USH 41 RAMP CLOSED

VELP AVE TO NB USH 41 RAMP CLOSED

NB USH 41 TO SB I-43 RAMP CLOSED

B-05-678

B-05-671

B-05-679

- PERTAINS TO ERECTING STRUCTURAL STEEL TUB GIRDERS OVER USH 41, STAGE 2A

- CLOSED TO TRAFFIC OVERNIGHT TO ERECT STRUCTURAL STEEL TUB GIRDERS ABOVE ROADWAY.

N

TUB GIRDER ERECTION - OVERVIEW

TGE-OV

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025039_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:300

WISDOT/CADDS SHEET 42

2

2

DUCK CREEK

WIETOR DR

SB IH 43

NB IH 43

SB USH 41

NB USH 41

UNIT 5

1210 IHB

1215 IHB

1205 IHB

SB USH 41

NB USH 41

1220 IHB

1225 IHB

SB USH 41

NB USH 41

WISCONSIN CENTRAL LTD RR

MEMORIAL DR

VELP AVE

WIETOR DR

SB IH 43

NB IH 43

B-05-678

UNIT 4

1200 IHB

1195 IHB

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

(ERECTION OF UNIT 5 - STAGE 2A)

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 208	E

2

NB I43 TO NB USH 41

NB I43

SB I43

WIETOR DR

TEMP HAUL ROAD

B-05 671

3.8% EXISTING SUPERELEVATION
(FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)

RAMPS & AUXILIARY LANES OPEN

NB USH 41

SB USH 41

EXISTING WIETOR DR (VACATED)

STRUCTURE B-05-678

B-05 677

1200 IHB

TEMP HAUL ROAD

1205 IHB

1210 IHB

1215 IHB

PIER 18

PIER 21

L-16

L-17

FS20

SHIELD NB USH 41 AND SB I-43 TRAFFIC FROM PIER COLUMN 18 WITH CONCRETE BARRIER TEMPORARY PRECAST

UNIT 4

UNIT 5

FLATTEN EXISTING 8% SUPERELEVATION TO 4%

BI-DIRECTIONAL TRAFFIC

TEMP SB USH 41 TO SB I-43

TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

TEMP HAUL ROAD

WISCONSIN CENTRAL LTD RR

TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

LEGEND:

- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

N

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #1 - ERECT FIELD SECTION 20 - LT & RT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 209	E

2

NB I43 TO NB USH 41

NB I43

SB I43

WIETOR DR

TEMP HAUL ROAD

B-05 671

3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)

RAMPS & AUXILIARY LANES OPEN

NB USH 41

SB USH 41

EXISTING WIETOR DR (VACATED)

STRUCTURE B-05-678

1200 IHB

TEMP HAUL ROAD

1205 IHB

B-05 677

1210 IHB

1215 IHB

PIER 21

FS19

L-17

L-18

PIER 20

WISCONSIN CENTRAL LTD RR

TEMP HAUL ROAD

UNIT 4

UNIT 5

FLATTEN EXISTING 8% SUPERELEVATION TO 4%

BI-DIRECTIONAL TRAFFIC

TEMP SB USH 41 TO SB I43

TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

LEGEND:

- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

N

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #2 - ERECT FIELD SECTION 19 - LT & RT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 210	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025042_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:120

NB I43 TO NB USH 41
NB I43
SB I43
WIETOR DR
TEMP HAUL ROAD
B-05 671
3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)
RAMPS & AUXILIARY LANES OPEN
NB USH 41
SB USH 41
1200 IHB
TEMP HAUL ROAD
EXISTING WIETOR DR (VACATED)
STRUCTURE B-05-678
1215 IHB
PIER 21
PIER 20
B-05 677
1205 IHB
TEMP HAUL ROAD
WISCONSIN CENTRAL LTD RR
FS18 RT
L-19
L-18
UNIT 4
UNIT 5
FLATTEN EXISTING 8% SUPERELEVATION TO 4%
BI-DIRECTIONAL TRAFFIC
TEMP SB USH 41 TO SB I43
TEMP WIETOR DR
EXISTING WIETOR DR (VACATED)
TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY
N

LEGEND:
- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #3A - ERECT FIELD SECTION 18 - RT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 211	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025043_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:120

WISDOT/CADDS SHEET 42

2

NB I43 TO NB USH 41

NB I43

SB I43

WIETOR DR

TEMP HAUL ROAD

B-05 671

3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)

RAMP CLOSED

RAMP CLOSED

RAMP CLOSED

BI-DIRECTIONAL TRAFFIC ON NB USH 41

NB USH 41

SB USH 41

SB USH 41 CLOSED FOR GIRDER ERECTION

1215 IHB

1200 IHB

TEMP HAUL ROAD

EXISTING WIETOR DR (VACATED)

B-05 677

1205 IHB

PIER 21

L-26

FS18 LT

L-25

TEMP HAUL ROAD

PIER 20

WISCONSIN CENTRAL LTD RR

UNIT 4

UNIT 5

STRUCTURE B-05-678

FLATTEN EXISTING 8% SUPERELEVATION TO 4%

RAMP CLOSED

BI-DIRECTIONAL TRAFFIC

TEMP USH 41 TO SB I43

TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

RAMP CLOSED

RAMP CLOSED

LEGEND:

- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #3B - ERECT FIELD SECTION 18 - LT

TGE-B678

N

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 212	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025044_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:120

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #4 - ERECT FIELD SECTION 17 - LT & RT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 213	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025045_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:120

WISDOT/CADDS SHEET 42

2

NB I43 TO NB USH 41

NB I43

SB I43

WIETOR DR

TEMP HAUL ROAD

B-05 671

3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)

RAMP CLOSED

RAMP CLOSED

RAMP CLOSED

OVERNIGHT CLOSURE OF SB USH 41 (SIGNED DETOUR PROVIDED)

SWITCH SB USH 41 TRAFFIC BACK TO THE EXISTING ROADWAY. REMOVE THE SHORING TOWER LOCATED ON THE PAVEMENT BY THE END OF THE OVERNIGHT CLOSURE.

NB USH 41

SB USH 41

1200 IHB

TEMP HAUL ROAD

1205 IHB

1215 IHB

B-05 677

PIER 19

TEMPORARY SHORING TOWER ON SB USH 41 PAVEMENT (REMOVE BY END OF OVERNIGHT CLOSURE

TEMP HAUL ROAD

WISCONSIN CENTRAL LTD RR

L-22

L-20

FS16 RT

PIER 20

UNIT 4

UNIT 5

STRUCTURE B-05-678

FLATTEN EXISTING 8% SUPERELEVATION TO 4%

RAMP CLOSED

BI-DIRECTIONAL TRAFFIC

TEMP SB USH 41 TO SB I43

TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

RAMP CLOSED

RAMP CLOSED

LEGEND:

- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

N

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #5A - ERECT FIELD SECTION 16 - RT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 214	E

2

2

NB I43 TO NB USH 41

NB I43

SB I43

WIETOR DR

TEMP HAUL ROAD

B-05 671

3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)

RAMP CLOSED

RAMP CLOSED

CLOSE TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

OVERNIGHT CLOSURE OF NB USH 41 (SIGNED DETOUR PROVIDED)

NB USH 41

SB USH 41

SB USH 41 TRAFFIC ON EXISTING ROADWAY

1215 IHB

1200 IHB

TEMP HAUL ROAD

1205 IHB

B-05 677

PIER 19

L-27

L-22

FS15 RT

TEMPORARY SHORING TOWER

PIER 20

TEMP HAUL ROAD

WISCONSIN CENTRAL LTD RR

UNIT 4

UNIT 5

STRUCTURE B-05-678

FLATTEN EXISTING 8% SUPERELEVATION TO 4%

RAMP CLOSED

BI-DIRECTIONAL TRAFFIC

TEMP SB USH 41 TO SB I43

TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

CLOSE TEMP WIETOR DR

TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

N

LEGEND:

- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #5B - ERECT FIELD SECTION 15 - RT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 215	E

2

NB I43 TO NB USH 41

NB I43

SB I43

WIETOR DR

TEMP HAUL ROAD

B-05 671

RAMP CLOSED

3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)

OVERNIGHT CLOSURE OF NB USH 41 (SIGNED DETOUR PROVIDED)

NB USH 41

SB USH 41

SB USH 41 TRAFFIC ON EXISTING ROADWAY

1215 IHB

1200 IHB

TEMP HAUL ROAD

EXISTING WIETOR DR (VACATED)

CLOSE LEFT SB USH 41 LANE

B-05 677

1205 IHB

PIER 18

FS16 LT

L-28

L-21

PIER 19

PIER 20

TEMPORARY SHORING TOWER

TEMP HAUL ROAD

WISCONSIN CENTRAL LTD RR

UNIT 4

UNIT 5

STRUCTURE B-05-678

FLATTEN EXISTING 8% SUPERELEVATION TO 4%

RAMP CLOSED

BI-DIRECTIONAL TRAFFIC

TEMP SB USH 41 TO SB I43

TEMP WIETOR DR

EXISTING WIETOR DR (VACATED)

TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

CLOSE LEFT SB USH 41 LANE

N

LEGEND:

- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #6A - ERECT FIELD SECTION 16 - LT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 216	E

NB I43 TO NB USH 41
NB I43
SB I43
WIETOR DR
TEMP HAUL ROAD
B-05 671
3.8% EXISTING SUPERELEVATION (FLATTENING OF RAMP AND AUXILIARY LANE NOT REQUIRED)
RAMP CLOSED
CLOSE TEMP WIETOR DR
STRUCTURE B-05-677
EXISTING WIETOR DR (VACATED)
NOTE:
STRUCTURE B-05-677 SUPERSTRUCTURE ERECTED AFTER B-05-678 IN ORDER TO USE CRANE POSITIONS L-23 AND L-24
OVERNIGHT CLOSURE OF NB USH 41 (SIGNED DETOUR PROVIDED)
NB USH 41
SB USH 41
SB USH 41 TRAFFIC ON EXISTING ROADWAY
1200 IHB
1205 IHB
1215 IHB
FS15 LT
L-23
L-24
PIER 18
PIER 19
PIER 20
UNIT 4
UNIT 5
STRUCTURE B-05-678
WISCONSIN CENTRAL LTD RR
FLATTEN EXISTING 8% SUPERELEVATION TO 4%
RAMP CLOSED
BI-DIRECTIONAL TRAFFIC
TEMP SB USH 41 TO SB I43
TEMP WIETOR DR
EXISTING WIETOR DR (VACATED)
CLOSE TEMP WIETOR DR
TEMPORARY PAVEMENT CONSTRUCTED PREVIOUSLY

LEGEND:
- GIRDERS IN PLACE
- FSXX — FIELD SECTION NUMBER
- GIRDER ERECTION CONSTRUCTION
- L-XX — CRANE LOCATION DURING GIRDER ERECTION
- TEMPORARY PAVEMENT
- TRAFFIC FLOW ARROW

N

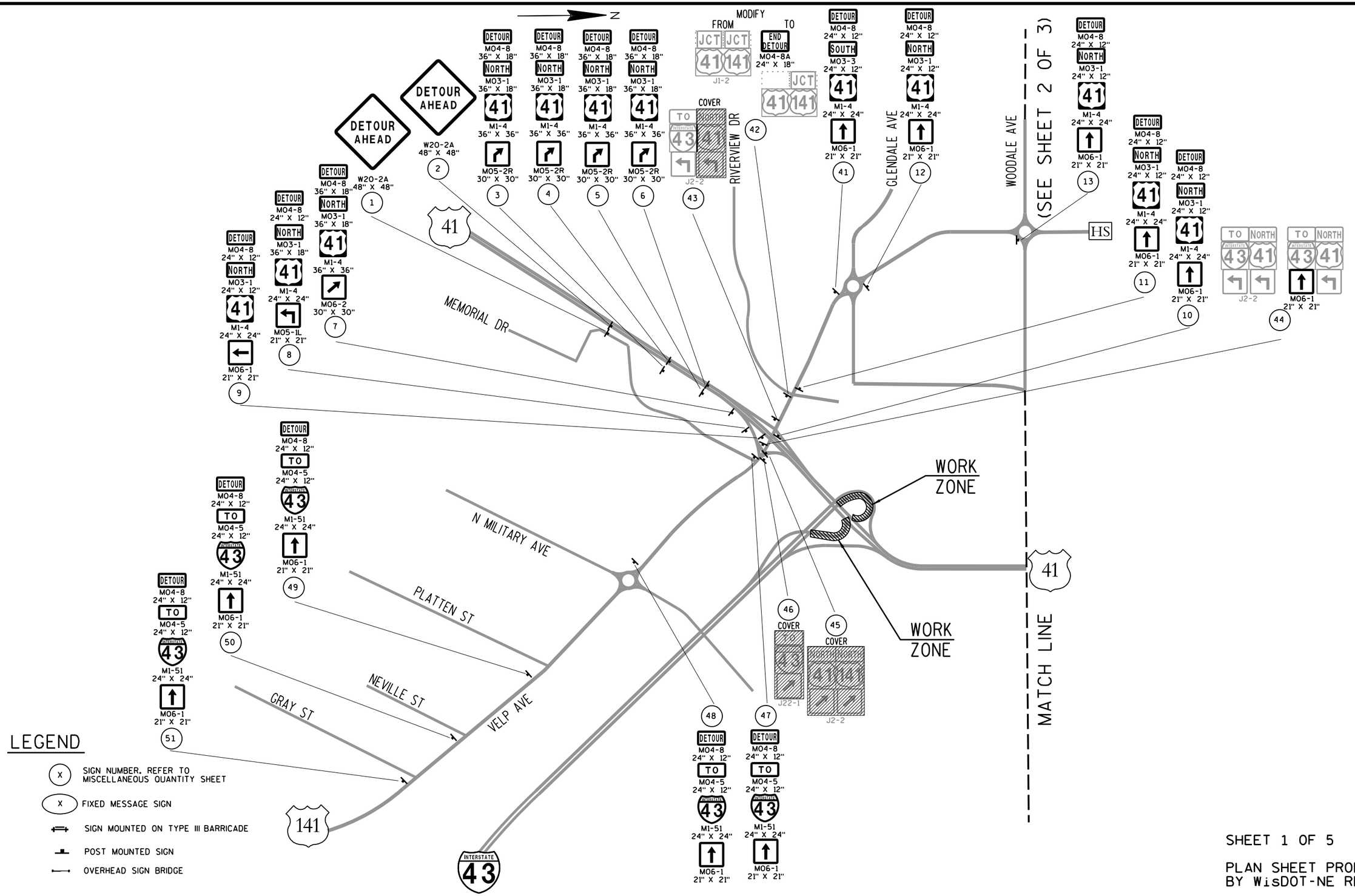
TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

STEP #6B - ERECT FIELD SECTION 15 - LT

TGE-B678

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_025049_tc_cd.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:120



LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN
- OVERHEAD SIGN BRIDGE

SHEET 1 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET 218	E

(SEE SHEET 1 OF 3)

2

N

WOODALE AVE

VELP AVE

HS

EB

PAMPERIN RD

LINEVILLE RD

M

SUNNY LN

WHITE PINE RD

WOOD LN

WESTON WAY

HARBOR LIGHTS RD

RIVERSIDE DR

SCHOOL LN

B

J

SUNSET BEACH RD

41

141

MATCH LINE

DETOUR AHEAD

DETOUR AHEAD

M04-8 24" X 12"

M04-8 36" X 18"

M03-1 24" X 12" NORTH

M03-3 24" X 12" SOUTH

M03-3 36" X 18" SOUTH

M1-4 24" X 24"

M1-4 36" X 36"

M06-1 21" X 21"

M06-2 21" X 21"

M05-1R 21" X 21"

M05-1L 21" X 21"

M5-2R 30" X 30"

W20-2A 48" X 48"

M4-8A 24" X 18" END DETOUR

J1-2

J2-2

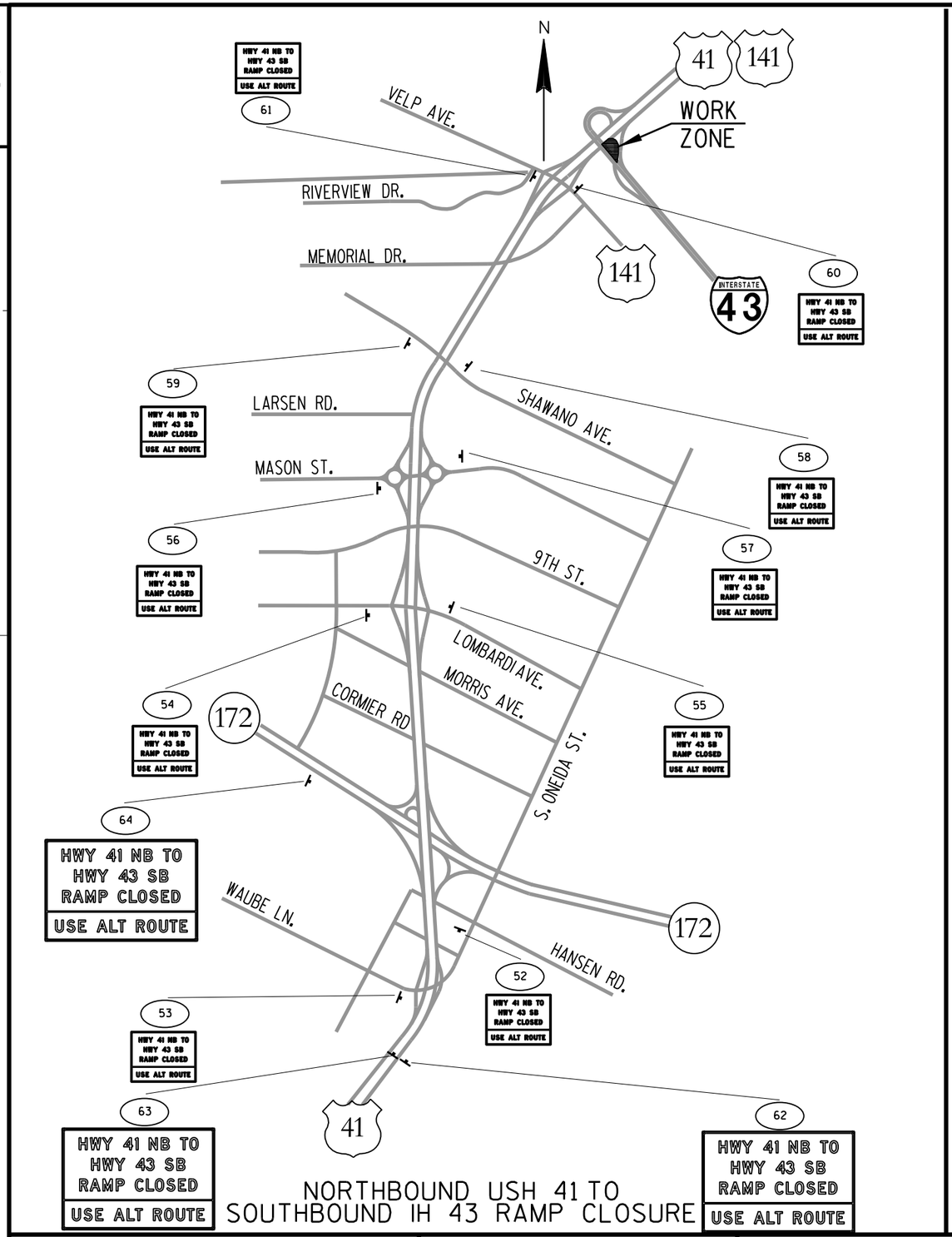
LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN
- OVERHEAD SIGN BRIDGE

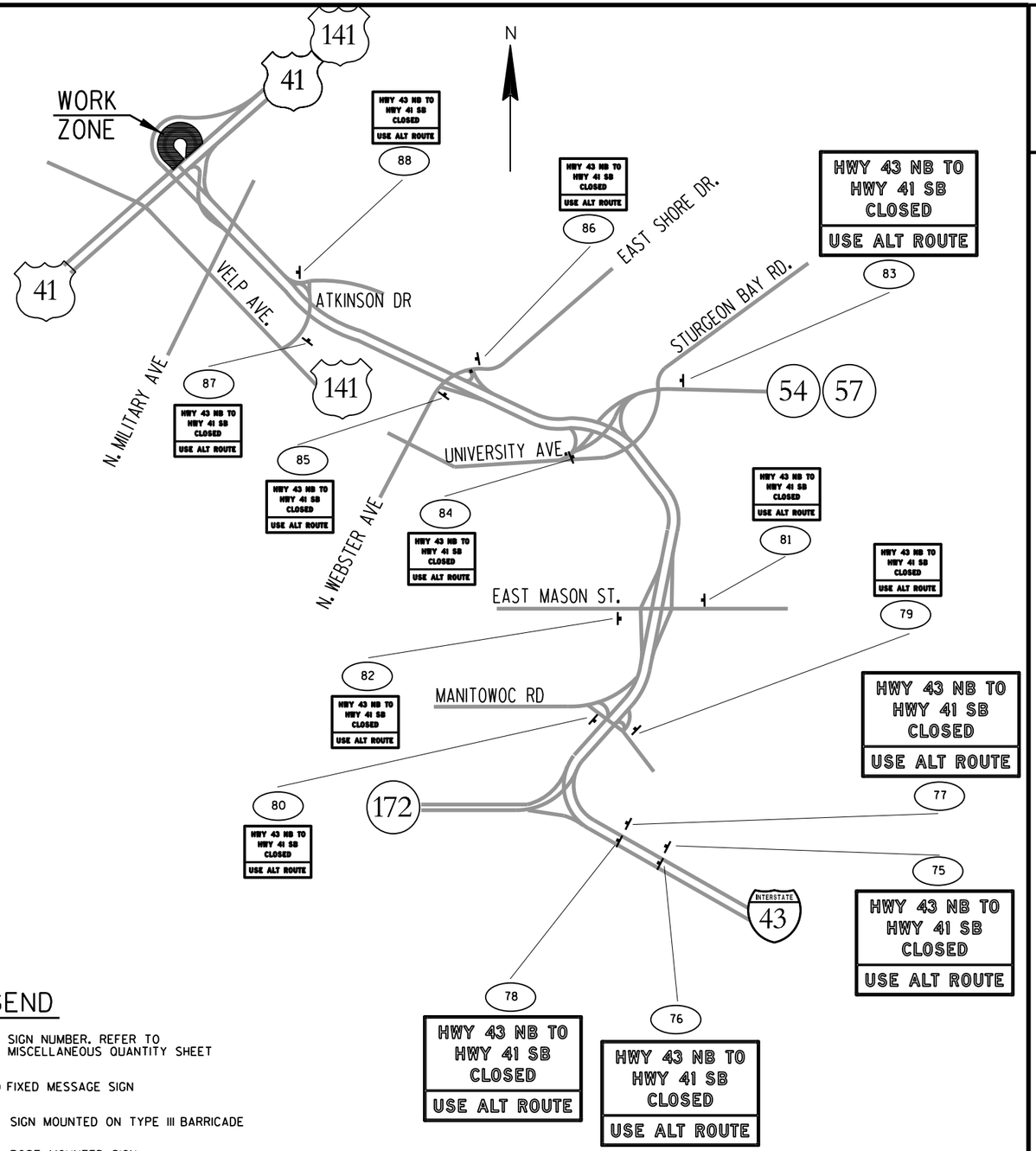
SHEET 2 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DETOUR SIGNING DETAIL	SHEET 219	E



NORTHBOUND USH 41 TO SOUTHBOUND IH 43 RAMP CLOSURE



LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN
- OVERHEAD SIGN BRIDGE

NORTHBOUND IH 43 TO SOUTHBOUND USH 41 RAMP CLOSURE

SHEET 3 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DETOUR SIGNING DETAIL-FIXED MESSAGE SIGN LOCATIONS	SHEET 220	E

2

N

DETAIL 1
SEE SHEET 5 OF 5

WORK ZONE

WORK ZONE

HS VELP AVE

RIVERVIEW DR

MEMORIAL DR

VINCENT RD

DOUSMAN AVE

SHAWANO AVE

S FRONTAGE RD

MILITARY AVE

ATKINSON DR

VELP AVE

GRAY ST

41

141

29

EXIT 192 B
41 SOUTH
Appleton
CLOSED
R55-58A
108" X 18"
148

EXIT 192 B
41 SOUTH
Appleton
CLOSED
R55-58A
108" X 18"
147

EXIT 192 A-B
41 141
Marinette
Appleton
1 MILE
COVER
146

100 SOUTH M03-3 36" X 18" / 141 M1-4 36" X 36" / DETOUR AHEAD W20-2A 48" X 48"

101 SOUTH M03-3 36" X 18" / 141 M1-4 36" X 36" / DETOUR AHEAD W20-2A 48" X 48"

COVER 141 ONLY
140

COVER 141
J3-1
141

DETOUR M04-8 36" X 18" / 141 M1-4 36" X 36" / M05-2R 30" X 30"
111

DETOUR M04-8 36" X 18" / 141 M1-4 36" X 36" / M05-2R 30" X 30"
110

DETOUR M04-8 36" X 18" / 141 M1-4 36" X 36" / M06-2 30" X 30"
112

DETOUR M04-8 24" X 12" / 141 M1-4 24" X 24" / M05-1L 21" X 21"
115

DETOUR M04-8 24" X 12" / 141 M1-4 24" X 24" / M06-1 21" X 21"
114

DETOUR M04-8 24" X 12" / 141 M1-4 24" X 24" / M05-1L 21" X 21"
113

END DETOUR M04-8A 36" X 18" / 141 M1-4 36" X 36"
118

DETOUR M04-8 36" X 18" / 141 M1-4 36" X 36"
119

DETOUR M04-8 24" X 12" / 141 M1-4 24" X 24" / M06-1 21" X 21"
117

DETOUR M04-8 24" X 12" / 141 M1-4 24" X 24" / M06-1 21" X 21"
116

ALT M04-1A 24" X 12" / NORTH M03-1 24" X 12" / 141 M1-4 24" X 24" / M06-1 21" X 21"
145

ALT M04-1A 24" X 12" / NORTH M03-1 24" X 12" / 141 M1-4 24" X 24" / M05-1L 21" X 21"
144

ALT M04-1A 24" X 12" / NORTH M03-1 24" X 12" / 141 M1-4 24" X 24" / M06-1 21" X 21"
143

ALT M04-1A 24" X 12" / NORTH M03-1 24" X 12" / 141 M1-4 24" X 24" / M06-1 21" X 21"
142

MODIFY
FROM NORTH ALTERNATE INTERSTATE 141 43 J2-2
TO ALT M04-1A 24" X 12" / NORTH ALTERNATE INTERSTATE 141 43 M05-1R 21" X 21"
139

ALT M04-1A 24" X 12" / NORTH M03-1 24" X 12" / 141 M1-4 24" X 24" / M05-1R 21" X 21"
138

DETOUR AHEAD W20-2A 48" X 48"
137

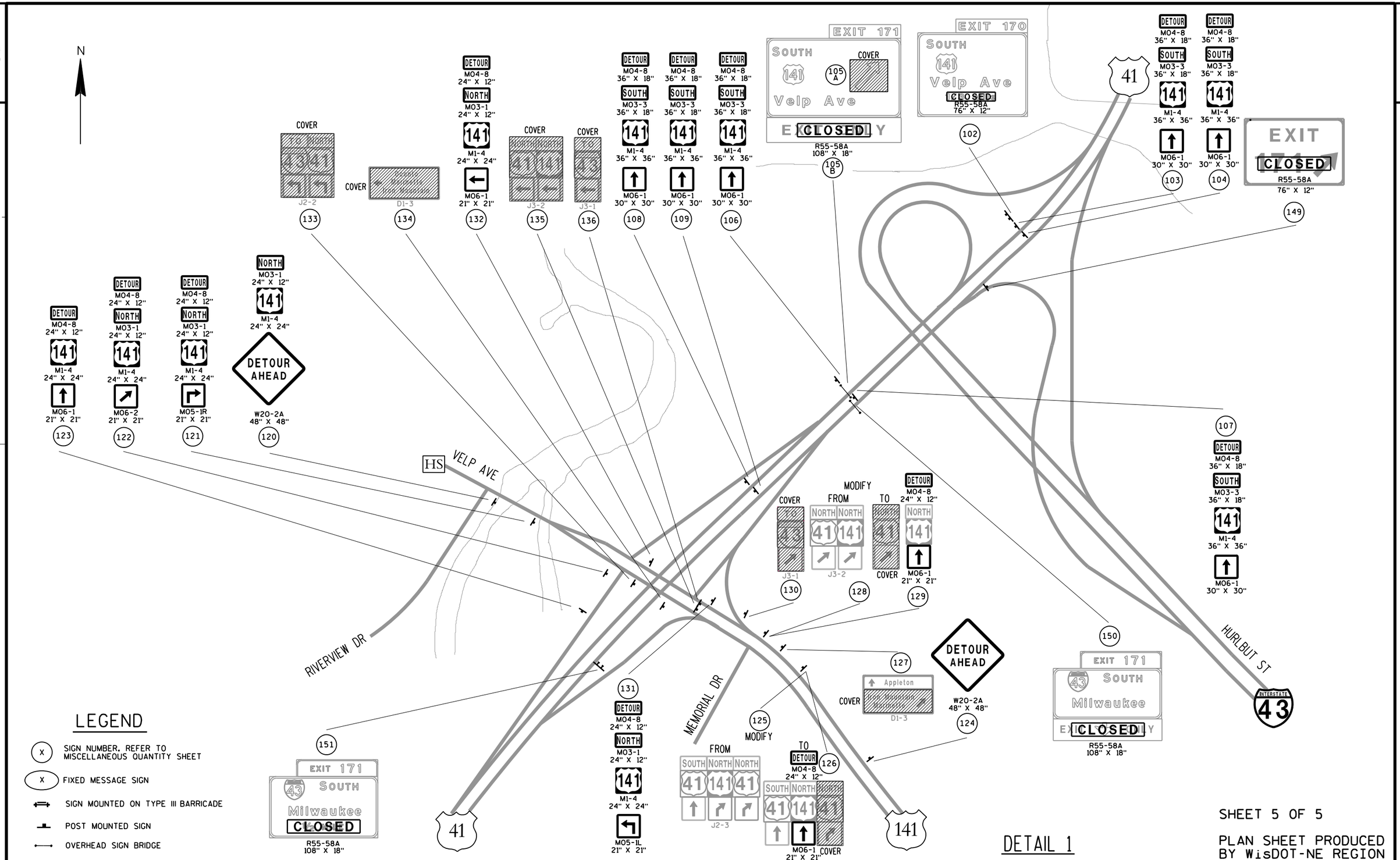
LEGEND

- (X) SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN
- OVERHEAD SIGN BRIDGE

SHEET 4 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DETOUR SIGNING DETAIL-RAMP CLOSURES	SHEET 221	E



LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- (X) FIXED MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN
- OVERHEAD SIGN BRIDGE

DETAIL 1

SHEET 5 OF 5

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	DETOUR SIGNING DETAIL-RAMP CLOSURES	SHEET 222	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

REFERENCED STANDARD DETAIL DRAWINGS

15C2-a (C)	BARRICADES AND SIGNS FOR MAINLINE CLOSURES (DETAIL C)
15C2-b (D)	BARRICADES AND SIGNS FOR MAINLINE CLOSURES (DETAIL D)
15C2-b (E)	BARRICADES AND SIGNS FOR MAINLINE CLOSURES (DETAIL E)
15C5	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C12	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D12	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.
15D28	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30	TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL DEVICES

GENERAL WORK AREA

BRIDGE UNDER CONSTRUCTION

COMPLETED ROAD WORK

COMPLETED EARLY FILL

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUMS (SPACING)

SIGN ON PERMANENT SUPPORT

EXISTING SIGN

REFERENCED SPECIAL TRAFFIC CONTROL DETAIL DRAWINGS

LC WOB	LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER
SC WOB	SHOULDER CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER
N DUCK	NB USH 41 NORTH OF DUCK CREEK - OVERNIGHT CONSTRUCTION ACCESS & TEMPORARY BARRIER TO SHIELD GRADING
RAMP AUX	CLOSURE OF OFF-RAMP AT END OF AUXILIARY LANE
CBTP SHLD	PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - NB USH 41 SHOULDER
CBTP RAMP	PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - NB I-43 TO SB USH 41 RAMP
CBTP 1	PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - INITIAL SETUP AT NB I-43 TO NB USH 41 RAMP
CBTP 2	PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - SECOND SETUP AT NB I-43 TO NB USH 41 RAMP
CBTP 3	PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - THIRD SETUP AT NB I-43 TO NB USH 41 RAMP
CBTP VELP	PLACEMENT OF CONCRETE BARRIER TEMPORARY PRECAST - VELP AVE TO NB USH 41 ON-RAMP
GORE SIGN	SIGNING FOR CURVE AT AREA OF GORE WARPING - NB USH 41 RAMP TO SB IH 43
SHOR BRDG	TEMPORARY SHORING TO CONSTRUCT STRUCTURE CLOSE TO ROADWAY (SEE INDIVIDUAL DETAIL SHEET FOR APPROPRIATE LOCATION)
TEMP WALL	TEMPORARY WALL STRUCTURE (SEE INDIVIDUAL DETAIL SHEET FOR APPROPRIATE LOCATION)
TX-OV	TEMPORARY USH 41 CROSSOVERS - OVERVIEW
X-OV NOT	TEMPORARY USH 41 CROSSOVERS - CONFIGURATION WHEN CROSSOVERS ARE NOT IN USE
TX-PV&DR	TEMPORARY USH 41 CROSSOVERS - PAVING AND DRAINAGE DETAILS
CONT CLOS	CONTINUOUS CLOSURE OF OUTSIDE LANE - EB VELP AVE
RECR	TRAFFIC CONTROL FOR RECREATIONAL VEHICLES ON DUCK CREEK
VELP I-43	TEMPORARILY CLOSE NB USH 41 ACCESS FROM VELP AVE TO SB I-43
TGE-OV	STRUCTURAL STEEL TUB GIRDER ERECTION - OVERVIEW
TGE-B678	TUB GIRDER ERECTION FOR STRUCTURE B-05-678 OVER USH 41

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_026000_STG_LEGEND.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

ROAD WORK AHEAD
W20-1

VELP AVE (CTH HS)

DUCK CREEK

WISCONSIN CENTRAL LTD RR

CLOSE ONE OF TWO OFF-RAMP LEFT TURN LANES USING:
DRM (25')
&
WITH LANE CLOSED
R11-2(MOD)
48" X 30"

PORTION OF EXISTING GBMSD ACCESS ROAD TO REMAIN AFTER CONSTRUCTION

SPEED LIMIT 65
OBSTRUCT WITH
SPEED LIMIT 55
R2-1
48" X 60"

LC WOB
SC WOB
DRM 50'

TX-OV
TX-PV&DR
X-OV NOT

15D30
15D20
15D21
15C5
15C12
15D28
15D29
15D15
15D16
15D27

LC WOB
SC WOB
SHOR BRDG
CBTP VELP
TEMP WALL
SC WOB
RAMP AUX
B-05-678
B-05-677
USH 41
USH 41/141
I 43

NB USH 41:
PROVIDE ADVANCE WIDTH RESTRICTION SIGNING (SEE PERMANENT SIGNING PLAN)

GORE SIGN

ROSEWOOD ST

END OF SUBSTAGE 1A:
MATCH INTO EXISTING RAMP PAVEMENT. USE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE FOR SOLID WHITE AND YELLOW EDGE LINES SOUTH OF WHERE RVEA R ABUTS EVEA R (SEE PERMANENT PAVEMENT MARKING PLAN)

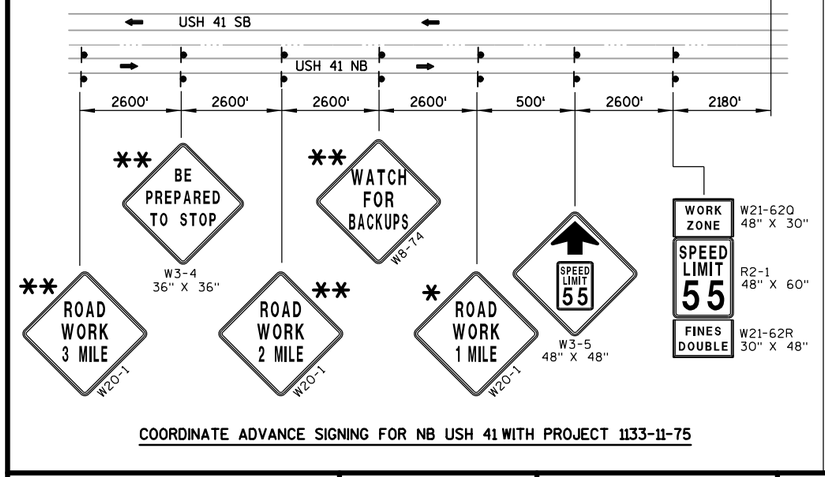
MEMORIAL DR

VELP I-43

B-05-671

"ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT



COORDINATE ADVANCE SIGNING FOR NB USH 41 WITH PROJECT 1133-11-75

ROAD WORK AHEAD
W20-1

VELP AVE (USH 141)

WIETOR DR

B-05-679

SHOR BRDG

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 1 TRAFFIC CONTROL OVERVIEW - SHEET 1	SCALE, FEET 0 150 300	SHEET 224	E

CLOSE INSIDE LANE SB
USH 41 TO SB IH 43 USING:
DRM (25')
&
WITH LANE CLOSED
R11-2(MOD)
48" X 30"

SPEED LIMIT 65
OBSTRUCT WITH
SPEED LIMIT 55
R2-1
48" X 60"

SPEED LIMIT 65
OBSTRUCT WITH
SPEED LIMIT 55
R2-1
48" X 60"

WEST DEERFIELD AVE
USH 41/141
EAST DEERFIELD AVE
15C2-a (C)
15C2-b (D)

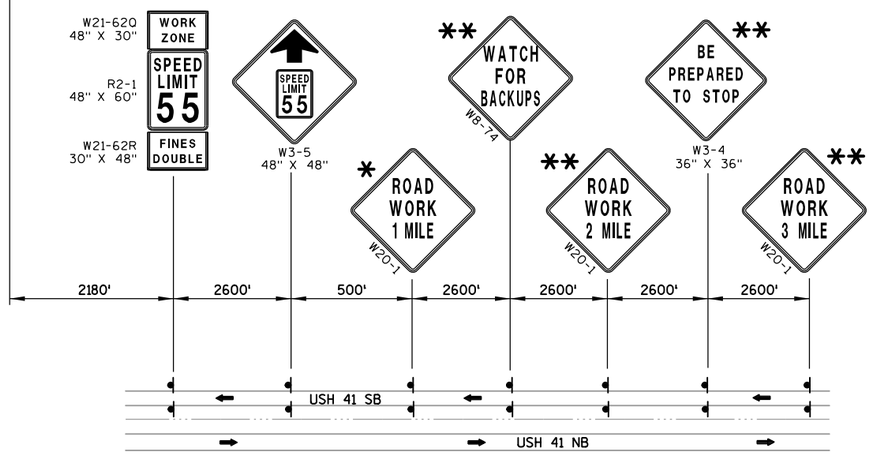
15D27
I 43
DRM 50'
CBTP RAMP
DUCK CREEK
N DUCK
SC WOB
GORE SIGN
SC WOB
LC WOB
TX-0V
TX-PV&DR
X-0V NOT
15D15
15D16
CBTP 1
CBTP 2
B-05-677
USH 41/141
SC WOB
LC WOB
B-05-681
RECR
WIETOR DR
15D27
SHOR RDWY
SHOR BRDG
TEMP WALL
CBTP RAMP
15D27
CBTP 1
CBTP 2
15D27
I-43
B-05-679
B-05-678

CLOSE INSIDE LANE SB
USH 41 TO SB IH 43 USING:
DRM (25')
&
WITH LANE CLOSED
R11-2(MOD)
48" X 30"

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

"ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT



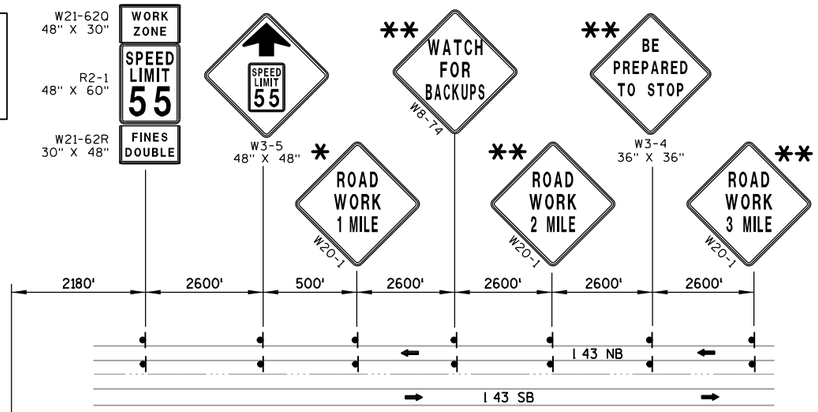
COORDINATE ADVANCE SIGNING FOR SB USH 41 WITH PROJECT 1133-10-81

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 1 TRAFFIC CONTROL OVERVIEW - SHEET 2	SCALE, FEET 0 150 300	SHEET 225	E

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

* "ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT



USH 41/141

B-05-681

CBTP SHLD

DRM (50') TO INSTALL CBTP

B-05-679

B-05-678

B-05-677

I 43

HURLBUT ST

WIETOR DR

B-05-671

CBTP SHLD

DRM (50') TO INSTALL CBTP

15D16
("SPLIT POINT")

SC WOB

DRM (50')

SC WOB

LC WOB
(CLOSE LEFT OR RIGHT LANE, CORRESPONDING TO WHICH RAMP IS CLOSED DOWNSTREAM OF "SPLIT POINT", OR TO WORK UPSTREAM OF "SPLIT POINT")

15C2-b (D)

15C2-a (C)

SC WOB

MILITARY AVE

I 43

NB IH 43:
PROVIDE ADVANCE WIDTH RESTRICTION SIGNING (SEE PERMANENT SIGNING PLAN)

WISCONSIN CENTRAL LTD RR

USH 41/141

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 1 TRAFFIC CONTROL OVERVIEW - SHEET 3	SCALE, FEET 0 150 300	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_026103_s1.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:300

WISDOT/CADDS SHEET 42

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

SSE - CALLED OUT TRAFFIC CONTROL DETAILS ARE TO BE APPLIED TO STRUCTURAL STEEL TUB GIRDER ERECTION

CLOSE EB & WB VELP AVE OVERNIGHT - CLOSE BOTH OFF-RAMP LEFT TURN LANES USING:
DRM (25')
&
WITH LANE CLOSED
R11-2(MOD) 48" X 30"

ROAD WORK AHEAD W20-1

VELP AVE (CTH HS)

SSE
EB VELP AVE CLOSED OVERNIGHT
15D20
(CLOSE INSIDE LANE)

DUCK CREEK

WISCONSIN CENTRAL LTD RR

15D30

PORTION OF EXISTING GBMSD ACCESS ROAD TO REMAIN AFTER CONSTRUCTION

TX-OV
TX-PV&DR
X-OV NOT

CROSSOVER TO BE REMOVED PRIOR TO END OF STAGE 2

15C5
15C12
15D28
15D29

I-43

SPEED LIMIT 65
OBSTRUCT WITH
SPEED LIMIT 55
R2-1
48" X 60"

SSE
NB USH 41 CLOSED OVERNIGHT
15C2-b (D)
LC WOB
(CLOSE LEFT/MEDIAN LANE)

15C2-b (D)

SC WOB
CONT CLOS
TGE-OV
15D27
SHOR BRDG
CBTP VELP
SHOR BRDG
SC WOB
TEMP WALL
SHOR BRDG
TGE-B678
B-05-678
B-05-677
SHOR BRDG
RAMP AUX
USH 41/141

USH 41

LC WOB
15D15

NB USH 41:
PROVIDE ADVANCE WIDTH RESTRICTION SIGNING (SEE PERMANENT SIGNING PLAN)

ROSEWOOD ST

TGE-OV
MEMORIAL DR
LC WOB
SC WOB
GORE SIGN
TGE-OV
WIETOR DR & I-43 RAMPS UNDER B-05-678

15D30
15C2-a (C)
15C2-b (D)
VELP I-43
B-05-671

TGE-OV

TGE-OV

15C2-a (C)
WIETOR DR
SHOR BRDG
B-05-679
I-43

15C5
15C12
15D28
15D29

"ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

USH 41 SB
USH 41 NB

2600' 2600' 2600' 2600' 500' 2600' 2180'

** BE PREPARED TO STOP W3-4 36" X 36"
** WATCH FOR BACKUPS W8-74
** ROAD WORK 3 MILE W20-1
ROAD WORK 2 MILE W20-1 **
* ROAD WORK 1 MILE W20-1
SPEED LIMIT 55 W3-5 48" X 48"

WORK ZONE W21-62O 48" X 30"
SPEED LIMIT 55 R2-1 48" X 60"
FINES DOUBLE W21-62R 30" X 48"

COORDINATE ADVANCE SIGNING FOR NB USH 41 WITH PROJECT 1133-03-71

CLOSE EB & WB VELP AVE OVERNIGHT - CLOSE BOTH OFF-RAMP LEFT TURN LANES USING:
DRM (25')
&
WITH LANE CLOSED
R11-2(MOD) 48" X 30"

SSE
WB VELP AVE CLOSED OVERNIGHT
15D20
(CLOSE OUTSIDE LANE)

VELP AVE (USH 141)

ROAD WORK AHEAD W20-1

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 2 TRAFFIC CONTROL OVERVIEW - SHEET 1	SCALE, FEET 0 150 300	SHEET 227	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_026201_s2.dgn
PLOT BY : dm253
PLOT DATE : 5/31/2013
PLOT SCALE : 1:300
WISDOT/CADDS SHEET 42

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

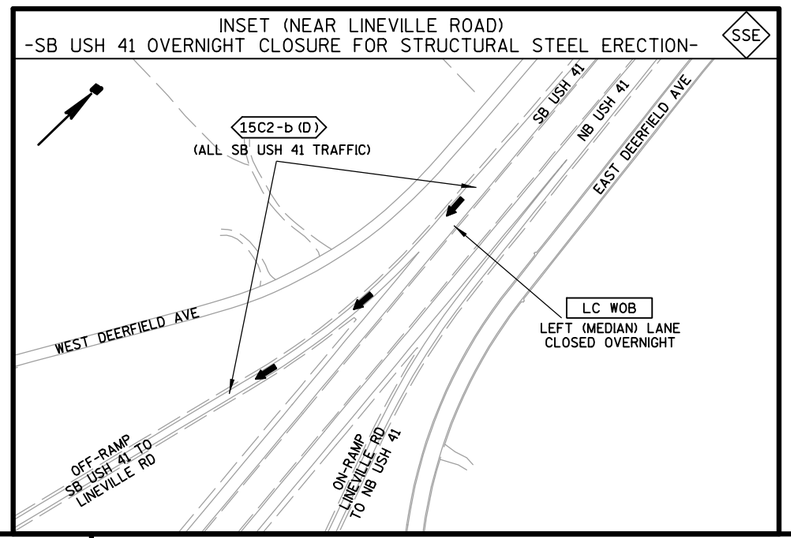
SPEED LIMIT 65 OBSTRUCT WITH SPEED LIMIT 55
R2-1
48" X 60"

SPEED LIMIT 65 OBSTRUCT WITH SPEED LIMIT 55
R2-1
48" X 60"

WEST DEERFIELD AVE
USH 41/141
EAST DEERFIELD AVE
15C2-a (C)
15C2-b (E)

I 43
DUCK CREEK
CROSSOVER TO BE REMOVED PRIOR TO END OF STAGE 2
N DUCK
SC WOB
TGE-B678
TGE-OV
SC WOB
GORE SIGN
LC WOB
TX-OV
TX-PV&DR
X-OV NOT
15D15
15D16
SHOR RDWY
15D27
USH 41/141
LC WOB
SC WOB
B-05-681
RECR
B-05-677
SHOR BRDG
CBTP 3
TEMP WALL
WIETOR DR
15D27
I 43
B-05-679
B-05-678

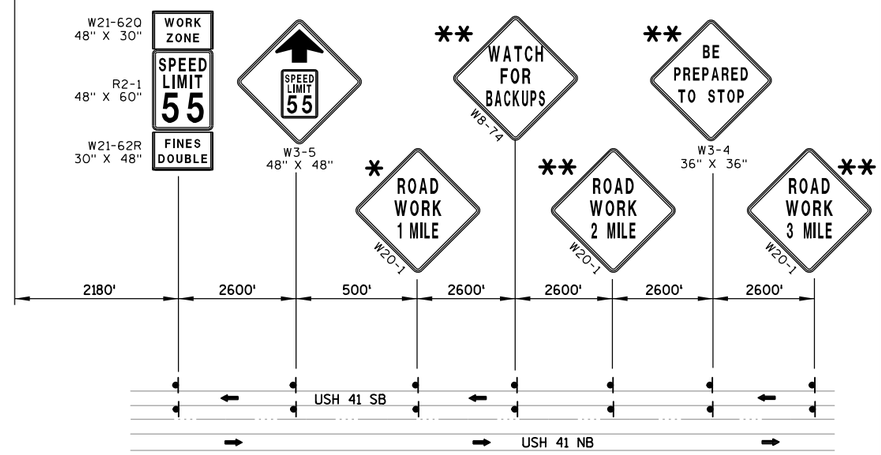
INSET (NEAR LINEVILLE ROAD)
-SB USH 41 OVERNIGHT CLOSURE FOR STRUCTURAL STEEL ERECTION-
SSE



SSE - CALLED OUT TRAFFIC CONTROL DETAILS ARE TO BE APPLIED TO STRUCTURAL STEEL TUB GIRDER ERECTION

* "ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT



COORDINATE ADVANCE SIGNING FOR SB USH 41 WITH PROJECT 1133-10-81

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 2 TRAFFIC CONTROL OVERVIEW - SHEET 2	SCALE, FEET 0 150 300	SHEET 228	E

2

* "ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

W21-62Q 48" X 30" WORK ZONE
R2-1 48" X 60" SPEED LIMIT 55
W21-62R 30" X 48" FINES DOUBLE

W3-5 48" X 48" SPEED LIMIT 55

W8-74 WATCH FOR BACKUPS **

W3-4 36" X 36" BE PREPARED TO STOP **

W20-1 ROAD WORK 1 MILE *

W20-1 ROAD WORK 2 MILE **

W20-1 ROAD WORK 3 MILE **

2180' 2600' 500' 2600' 2600' 2600' 2600'

I 43 NB

I 43 SB

USH 41/141

B-05-681

CBTP SHLD

DRM (50') TO REMOVE CBTP

B-05-679

B-05-678

TGE-OV

B-05-677

I 43

TGE-OV

WIETOR DR & I-43 RAMPS UNDER B-05-678

CBTP SHLD

DRM (50') TO REMOVE CBTP

TGE-B678

B-05-671

TGE-OV

15D16 ("SPLIT POINT")

WIETOR DR

SC WOB

LC WOB

(CLOSE LEFT OR RIGHT LANE, CORRESPONDING TO WHICH RAMP IS CLOSED DOWNSTREAM OF "SPLIT POINT", OR TO WORK UPSTREAM OF "SPLIT POINT")

15C2-b (E)

HURLBUT ST

15C2-a (C)

MILITARY AVE

I 43

SC WOB

NB IH 43: PROVIDE ADVANCE WIDTH RESTRICTION SIGNING (SEE PERMANENT SIGNING PLAN)

WISCONSIN CENTRAL LTD RR

USH 41/141

NOTE: SEE SEPARATE SHEET FOR LEGEND.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 2 TRAFFIC CONTROL OVERVIEW - SHEET 3	SCALE, FEET 0 150 300	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_026203_s2.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:300

WISDOT/CADDS SHEET 42

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

ROAD WORK AHEAD
W20-1

VELP AVE (CTH HS)

DUCK CREEK

WISCONSIN CENTRAL LTD RR

SPEED LIMIT 65

OBSTRUCT WITH

SPEED LIMIT 55
R2-1
48" X 60"

PORTION OF EXISTING GBMSD ACCESS ROAD TO REMAIN AFTER CONSTRUCTION

15C5
15C12
15D28
15D29

I 43

USH 41

B-05-678

USH 41/141

NB USH 41:
PROVIDE ADVANCE WIDTH RESTRICTION SIGNING (SEE PERMANENT SIGNING PLAN)

ROSEWOOD ST

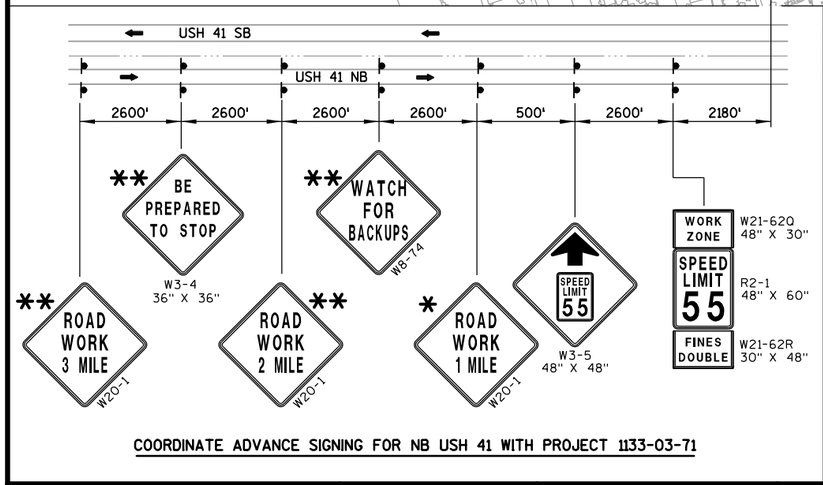
MEMORIAL DR

B-05-671

15D27

* "ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT



COORDINATE ADVANCE SIGNING FOR NB USH 41 WITH PROJECT 1133-03-71

VELP AVE (USH 141)

ROAD WORK AHEAD
W20-1

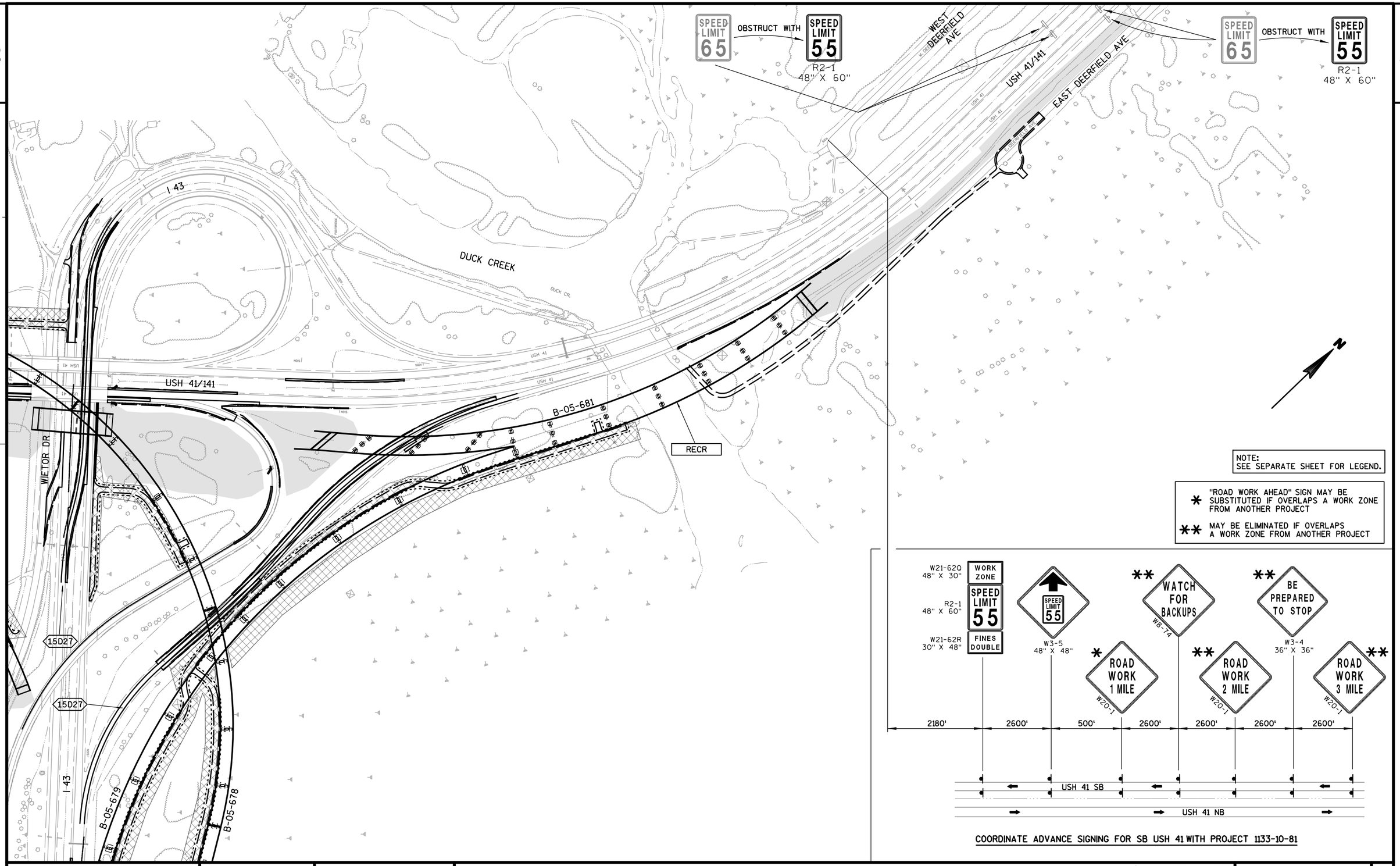
15C5
15C12
15D28
15D29

WIETOR DR

I 43

B-05-679

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 3 TRAFFIC CONTROL OVERVIEW - SHEET 1	SCALE, FEET 0 150 300	SHEET 230	E



NOTE:
SEE SEPARATE SHEET FOR LEGEND.

* "ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

COORDINATE ADVANCE SIGNING FOR SB USH 41 WITH PROJECT 1133-10-81

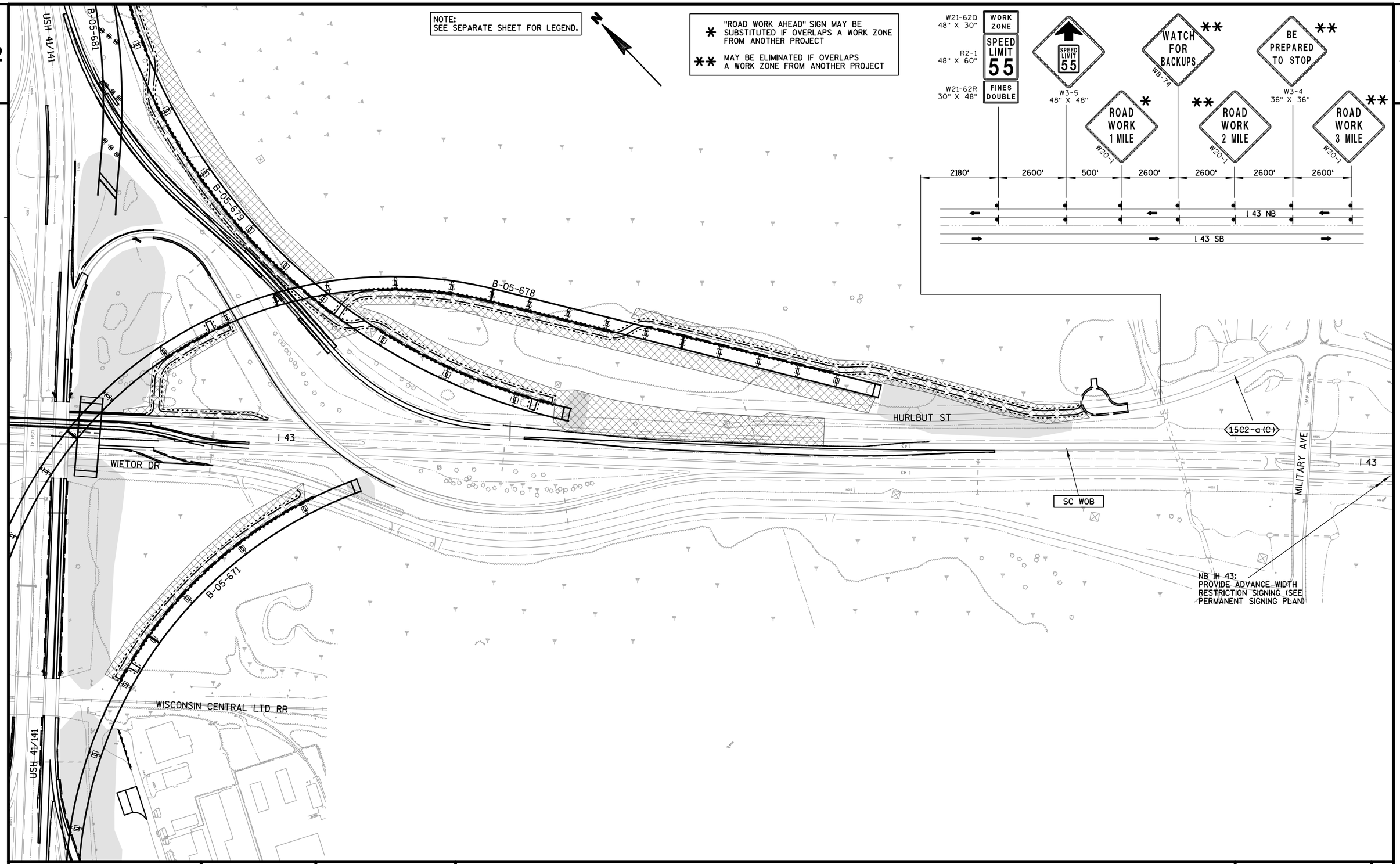
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 3 TRAFFIC CONTROL OVERVIEW - SHEET 2	SCALE, FEET 0 150 300	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_026302_s3.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:300

NOTE:
SEE SEPARATE SHEET FOR LEGEND.

* "ROAD WORK AHEAD" SIGN MAY BE SUBSTITUTED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT

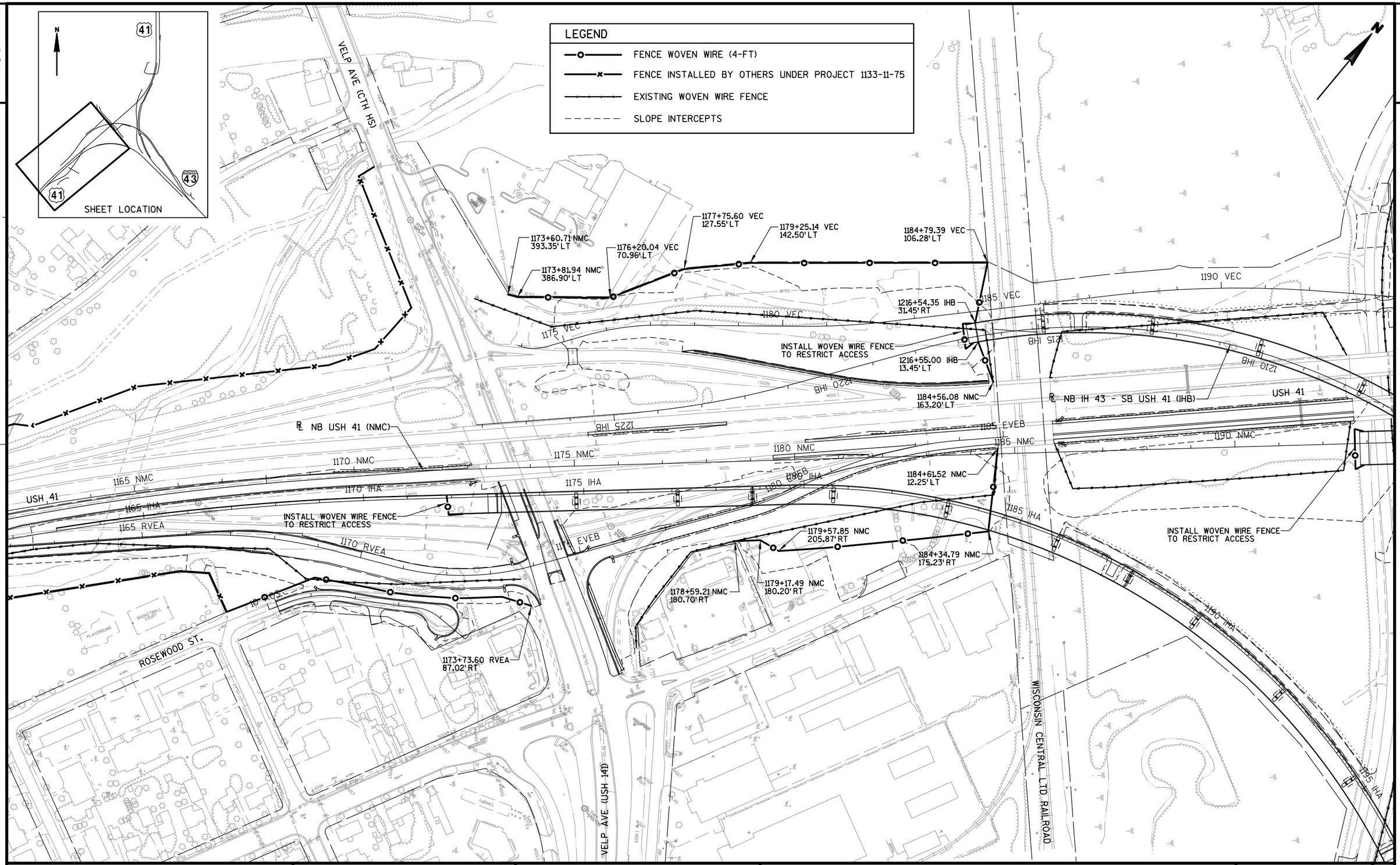
** MAY BE ELIMINATED IF OVERLAPS A WORK ZONE FROM ANOTHER PROJECT



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	STAGE 3 TRAFFIC CONTROL OVERVIEW - SHEET 3	SCALE, FEET 0 150 300	SHEET 232	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_026303_s3.dgn PLOT BY : dm253 PLOT DATE : 5/31/2013 PLOT SCALE : 1:300

WISDOT/CADDS SHEET 42



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	FENCING	SHEET 233 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027101_fn.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2

WIETOR DRIVE

DUCK CREEK

USH 41

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS

℄ NB USH 41 (NMC)

1210 IHB

1190 NMC

1195 NMC

1200 NMC

1205 NMC

1210 NMC

1215 NMC

1220 NMC

USH 41

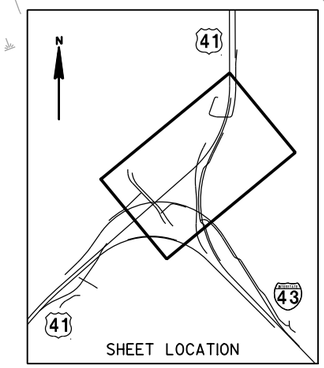
IH 43

WIETOR DRIVE

1205 IHB

1195 IHB

℄ NB IH 43 - SB USH 41 (IHB)



LEGEND

- FENCE WOVEN WIRE (4-FT)
- ACCESS GATE
- FENCE INSTALLED BY OTHERS UNDER PROJECT 1133-11-75
- EXISTING WOVEN WIRE FENCE
- SLOPE INTERCEPTS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	FENCING	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027102_fn.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

2

2

N

W. DEERFIELD AVE.

USH 41

℄ NB USH 41 (NMC)

1220 NMC

1225 NMC

1230 NMC

1235 NMC

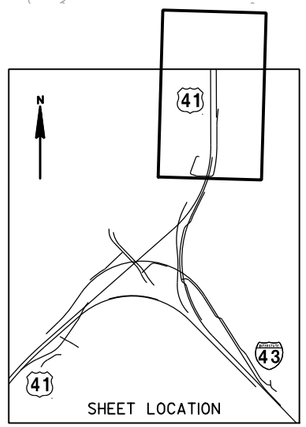
1240 NMC

1245 NMC

USH 41

E. DEERFIELD AVE.

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS



LEGEND

- FENCE WOVEN WIRE (4-FT)
- ACCESS GATE
- FENCE INSTALLED BY OTHERS UNDER PROJECT 1133-11-75
- EXISTING WOVEN WIRE FENCE
- SLOPE INTERCEPTS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	FENCING	SHEET 235	E

2

2

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS

WIETOR DRIVE

℄ NB IH 43 - NB USH 41 (NIH)

IH 43

1165 NIH

1170 NIH

1170I IHB

1175 NIH

1175 IHB

1180 NIH

1185 NIH

1190 NIH

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS

℄ NB IH 43 - SB USH 41 (IHB)

1180 IHB

1185 IHB

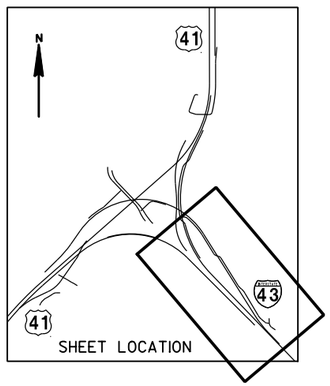
1190 IHB

1195 NIH

1195 IHB

HURLBUT ST.

INSTALL WOVEN WIRE FENCE
TO RESTRICT ACCESS



LEGEND

- FENCE WOVEN WIRE (4-FT)
- ACCESS GATE
- FENCE INSTALLED BY OTHERS UNDER PROJECT 1133-11-75
- EXISTING WOVEN WIRE FENCE
- SLOPE INTERCEPTS

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	FENCING	SHEET 236	E

IHA LINE

CURVE IHA1
PC = 1143+00.00 IHA
X = 86264.820
Y = 580222.240
PI = 1143+39.72 IHA
X = 86285.335
Y = 580256.250
PRC = 1143+79.44 IHA
X = 86305.659
Y = 580290.375
R = 14124.00'
Delta = 0°19'20" LT
D = 0°24'20"
L = 79.44'
T = 39.72'
BK = N 31°05'56" E
AH = N 30°46'36" E

CURVE IHA2
PRC = 1143+79.44 IHA
X = 86305.659
Y = 580290.375
PI = 1146+52.53 IHA
X = 86445.400
Y = 580525.010
PRC = 1149+25.53 IHA
X = 86595.671
Y = 580753.046
R = 12000.00'
Delta = 2°36'27" RT
D = 0°28'39"
L = 546.10'
T = 273.10'
BK = N 30°46'36" E
AH = N 33°23'03" E

CURVE IHA3
PRC = 1149+25.53 IHA
X = 86595.671
Y = 580753.046
PI = 1150+98.19 IHA
X = 86690.675
Y = 580897.215
PT = 1152+70.84 IHA
X = 86782.732
Y = 581043.284
R = 17000.00'
Delta = 1°09'50" LT
D = 0°20'13"
L = 345.30'
T = 172.66'
BK = N 33°23'03" E
AH = N 32°13'13" E

CURVE IHA4
PC = 1153+65.65 IHA
X = 86833.284
Y = 581123.496
PI = 1162+22.75 IHA
X = 87290.269
Y = 581848.607
PT = 1170+68.09 IHA
X = 87933.711
Y = 582414.828
R = 5936.00'
Delta = 16°25'56" RT
D = 0°57'55"
L = 1702.44'
T = 857.10'
BK = N 32°13'13" E
AH = N 48°39'09" E

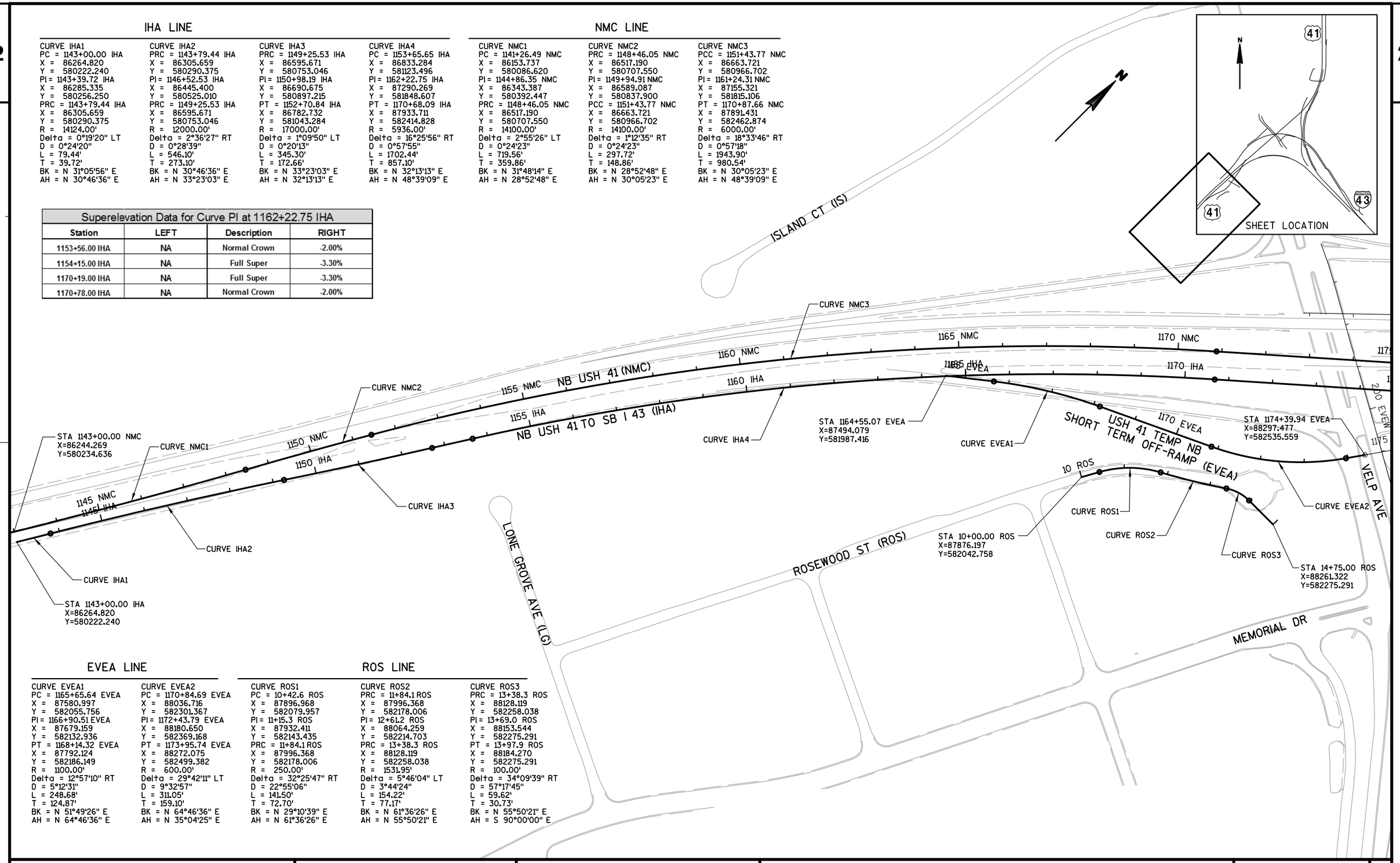
NMC LINE

CURVE NMC1
PC = 1141+26.49 NMC
X = 86153.737
Y = 580086.620
PI = 1144+86.35 NMC
X = 86343.387
Y = 580392.447
PRC = 1148+46.05 NMC
X = 86517.190
Y = 580707.550
R = 14100.00'
Delta = 2°55'26" LT
D = 0°24'23"
L = 719.56'
T = 359.86'
BK = N 31°48'14" E
AH = N 28°52'48" E

CURVE NMC2
PRC = 1148+46.05 NMC
X = 86517.190
Y = 580707.550
PI = 1149+94.91 NMC
X = 86589.087
Y = 580837.900
PCC = 1151+43.77 NMC
X = 86663.721
Y = 580966.702
R = 14100.00'
Delta = 1°12'35" RT
D = 0°24'23"
L = 297.72'
T = 148.86'
BK = N 28°52'48" E
AH = N 30°05'23" E

CURVE NMC3
PCC = 1151+43.77 NMC
X = 86663.721
Y = 580966.702
PI = 1161+24.31 NMC
X = 87155.321
Y = 581815.106
PT = 1170+87.66 NMC
X = 87891.431
Y = 582462.874
R = 6000.00'
Delta = 18°33'46" RT
D = 0°57'18"
L = 1943.90'
T = 980.54'
BK = N 30°05'23" E
AH = N 48°39'09" E

Superelevation Data for Curve PI at 1162+22.75 IHA			
Station	**LEFT**	**Description**	**RIGHT**
1153+56.00 IHA	NA	Normal Crown	-2.00%
1154+15.00 IHA	NA	Full Super	-3.30%
1170+19.00 IHA	NA	Full Super	-3.30%
1170+78.00 IHA	NA	Normal Crown	-2.00%



EVEA LINE

CURVE EVEA1
PC = 1165+65.64 EVEA
X = 87580.997
Y = 582055.756
PI = 1166+90.51 EVEA
X = 87679.159
Y = 582132.936
PT = 1168+14.32 EVEA
X = 87792.124
Y = 582186.149
R = 1100.00'
Delta = 12°57'10" RT
D = 5°12'31"
L = 248.68'
T = 124.87'
BK = N 51°49'26" E
AH = N 64°46'36" E

CURVE EVEA2
PC = 1170+84.69 EVEA
X = 88036.716
Y = 582301.367
PI = 1172+43.79 EVEA
X = 88180.650
Y = 582369.168
PT = 1173+95.74 EVEA
X = 88272.075
Y = 582499.382
R = 600.00'
Delta = 29°42'11" LT
D = 9°32'57"
L = 311.05'
T = 159.10'
BK = N 64°46'36" E
AH = N 35°04'25" E

ROS LINE

CURVE ROS1
PC = 10+42.6 ROS
X = 87896.968
Y = 582079.957
PI = 11+15.3 ROS
X = 87932.411
Y = 582143.435
PRC = 11+84.1 ROS
X = 87996.368
Y = 582178.006
R = 250.00'
Delta = 32°25'47" RT
D = 22°55'06"
L = 141.50'
T = 72.70'
BK = N 29°10'39" E
AH = N 61°36'26" E

CURVE ROS2
PRC = 11+84.1 ROS
X = 87996.368
Y = 582178.006
PI = 12+61.2 ROS
X = 88064.259
Y = 582214.703
PRC = 13+38.3 ROS
X = 88128.119
Y = 582258.038
R = 1531.95'
Delta = 5°46'04" LT
D = 3°44'24"
L = 154.22'
T = 77.17'
BK = N 61°36'26" E
AH = N 55°50'21" E

CURVE ROS3
PRC = 13+38.3 ROS
X = 88128.119
Y = 582258.038
PI = 13+69.0 ROS
X = 88153.544
Y = 582275.291
PT = 13+97.9 ROS
X = 88184.270
Y = 582275.291
R = 100.00'
Delta = 34°09'39" RT
D = 57°17'45"
L = 59.62'
T = 30.73'
BK = N 55°50'21" E
AH = S 90°00'00" E

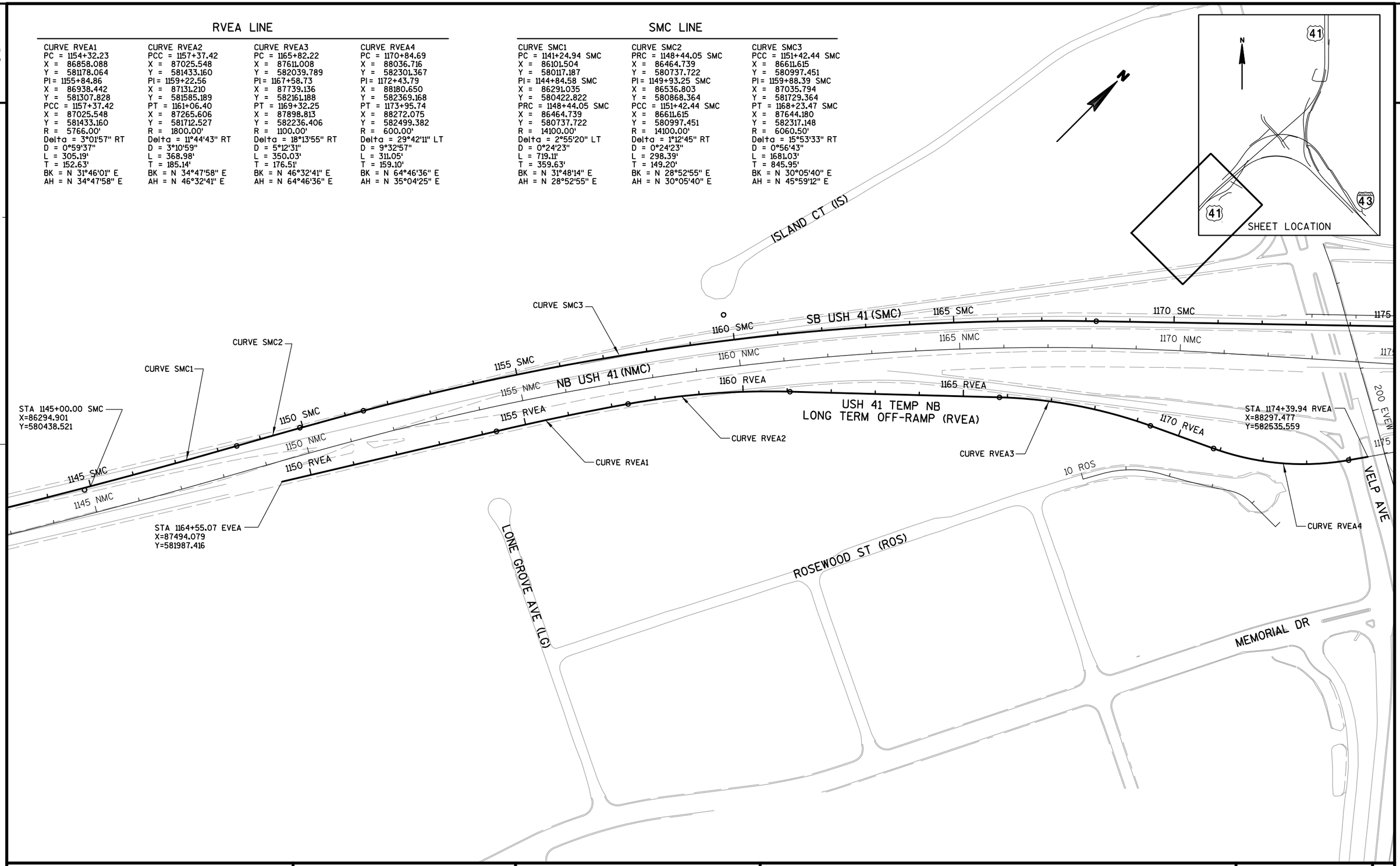
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 237	E

RVEA LINE

CURVE RVEA1	CURVE RVEA2	CURVE RVEA3	CURVE RVEA4
PC = 1154+32.23	PCC = 1157+37.42	PC = 1165+82.22	PC = 1170+84.69
X = 86858.088	X = 87025.548	X = 87611.008	X = 88036.716
Y = 581178.064	Y = 581433.160	Y = 582039.789	Y = 582301.367
PI = 1155+84.86	PI = 1159+22.56	PI = 1167+58.73	PI = 1172+43.79
X = 86938.442	X = 87131.210	X = 87739.136	X = 88180.650
Y = 581307.828	Y = 581585.189	Y = 582161.188	Y = 582369.168
PCC = 1157+37.42	PT = 1161+06.40	PT = 1169+32.25	PT = 1173+95.74
X = 87025.548	X = 87265.606	X = 87898.813	X = 88272.075
Y = 581433.160	Y = 581712.527	Y = 582236.406	Y = 582499.382
R = 5766.00'	R = 1800.00'	R = 1100.00'	R = 600.00'
Delta = 3°01'57" RT	Delta = 11°44'43" RT	Delta = 18°13'55" RT	Delta = 29°42'11" LT
D = 0°59'37"	D = 3°10'59"	D = 5°12'31"	D = 9°32'57"
L = 305.19'	L = 368.98'	L = 350.03'	L = 311.05'
T = 152.63'	T = 185.14'	T = 176.51'	T = 159.10'
BK = N 31°46'01" E	BK = N 34°47'58" E	BK = N 46°32'41" E	BK = N 64°46'36" E
AH = N 34°47'58" E	AH = N 46°32'41" E	AH = N 64°46'36" E	AH = N 35°04'25" E

SMC LINE

CURVE SMC1	CURVE SMC2	CURVE SMC3
PC = 1141+24.94 SMC	PRC = 1148+44.05 SMC	PCC = 1151+42.44 SMC
X = 86101.504	X = 86464.739	X = 86611.615
Y = 580117.187	Y = 580737.722	Y = 580997.451
PI = 1144+84.58 SMC	PI = 1149+93.25 SMC	PI = 1159+88.39 SMC
X = 86291.035	X = 86536.803	X = 87035.794
Y = 580422.822	Y = 580868.364	Y = 581729.364
PRC = 1148+44.05 SMC	PCC = 1151+42.44 SMC	PT = 1168+23.47 SMC
X = 86464.739	X = 86611.615	X = 87644.180
Y = 580737.722	Y = 580997.451	Y = 582317.148
R = 14100.00'	R = 14100.00'	R = 6060.50'
Delta = 2°55'20" LT	Delta = 1°12'45" RT	Delta = 15°53'33" RT
D = 0°24'23"	D = 0°24'23"	D = 0°56'43"
L = 719.11'	L = 298.39'	L = 1681.03'
T = 359.63'	T = 149.20'	T = 845.95'
BK = N 31°48'14" E	BK = N 28°52'55" E	BK = N 30°05'40" E
AH = N 28°52'55" E	AH = N 30°05'40" E	AH = N 45°59'12" E



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 238	E

STA 190+52.30 EVEW
X=87386.628
Y=583045.105

PI EVEW1
PI EVEW2
PI EVEW3
PI EVEW4
PI EVEW5
PI EVEW6
PI EVEW7
PI EVEW8
PI EVEW9
PI EVEW10
PI EVEW11
PI EVEW12
PI EVEW13

TEMPORARY VELP AVE. (EVEW)
195 EVEW
200 EVEW

STA 1228+12.88 IHB
X=87970.212
Y=582665.511

CURVE IHB3
NB I 43 TO SB USH 41 (IHB)
1225 IHB
1220 IHB
1215 IHB
55 MR3
1210 IHB
1175 SMC
1180 SMC
1185 SMC
SB USH 41 (SMC)
1190 SMC
1195 SMC
1200 SMC

1175 NMC
1180 NMC
1185 NMC
NB USH 41 (NMC)
1190 NMC
1195 NMC
1200 NMC

CURVE EVEB3
STA 1185+10.04 EVEB
X=88915.473
Y=583414.956
1185 EVEB

1175 IHA
1180 EVEB
CURVE EVEB2
1185 IHA
NB USH 41 TO SB I 43 (IHA)
1190 MR4A
1195 MR4A

1175 EVEB
USH 41 TEMP NB
ON-RAMP (EVEB)
CURVE EVEB1

STA 1174+29.63 EVEB
X=88297.477
Y=582535.559

MEMORIAL DR

STA 203+95.57
X=88573.252
Y=582418.312

VELP AVE

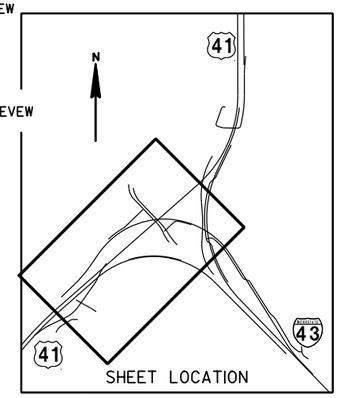
105 TWT
105 TSIH
105 MR2
1205 IHB
CURVE IHB2
STA 1194+69.67 NMC =
STA 1205+45.34 IHB

100 TWT
100 TSIH
100 MR2
1200 IHB
WIETOR DR
CURVE IHA5

110 TNIH
100 MR5
1200 NIH
CURVE NIH2
STA 1196+33.76 IHB=
STA 1196+79.48 NIH
NB I 43 TO
NB USH 41 (NIH)

105 TNIH
1195 NIH
95 MR1
1195 IHB

N



IHB LINE

CURVE IHB2
PC = 1190+27.78 IHB
X = 90969.238
Y = 583386.029
PI= 1211+36.20 IHB
X = 89846.307
Y = 585170.533
PT = 1217+84.77 IHB
X = 88637.335
Y = 583443.160
R = 1400.00'
Delta = 112°49'53" LT
D = 4°05'33"
L = 2756.99'
T = 2108.42'
BK = N 32°10'51" W
AH = S 34°59'16" W

CURVE IHB3
PC = 1220+89.18 IHB
X = 88462.785
Y = 583193.765
PI= 1222+86.55 IHB
X = 88349.611
Y = 583032.062
PT = 1224+82.71 IHB
X = 88207.664
Y = 582894.922
R = 2050.00'
Delta = 10°59'56" RT
D = 2°47'42"
L = 393.53'
T = 197.37'
BK = S 34°59'16" W
AH = S 45°59'12" W

EVEB LINE

CURVE EVEB1
PC = 1178+84.78 EVEB
X = 88559.017
Y = 582908.057
PI= 1179+39.05 EVEB
X = 88590.202
Y = 582952.473
PT = 1179+93.02 EVEB
X = 88612.912
Y = 583001.765
R = 600.00'
Delta = 10°20'13" LT
D = 9°32'57"
L = 108.25'
T = 54.27'
BK = N 35°04'25" E
AH = N 24°44'12" E

CURVE EVEB2
PC = 1180+65.54 EVEB
X = 88643.256
Y = 583067.627
PI= 1181+62.85 EVEB
X = 88683.975
Y = 583156.005
PT = 1182+59.31 EVEB
X = 88743.613
Y = 583232.895
R = 850.00'
Delta = 13°03'41" RT
D = 6°44'26"
L = 193.77'
T = 97.31'
BK = N 24°44'12" E
AH = N 37°47'54" E

CURVE EVEB3
PC = 1182+82.93 EVEB
X = 88758.086
Y = 583251.555
PI= 1183+40.18 EVEB
X = 88793.178
Y = 583296.798
PT = 1183+97.25 EVEB
X = 88834.355
Y = 583336.583
R = 800.00'
Delta = 8°11'15" RT
D = 7°09'43"
L = 114.32'
T = 57.26'
BK = N 37°47'54" E
AH = N 45°59'09" E

NIH LINE

CURVE NIH2
PC = 1183+49.38 NIH
X = 91107.135
Y = 582633.416
PI= 1197+84.44 NIH
X = 90111.037
Y = 583666.472
PT = 1208+53.44 NIH
X = 90740.804
Y = 584955.972
R = 2050.00'
Delta = 69°59'11" RT
D = 2°47'42"
L = 2504.07'
T = 1435.07'
BK = N 43°57'24" W
AH = N 26°01'48" E

EVEW LINE

PIEVEW1 = 191+63.75 EVEW
X = 87484.421
Y = 582991.637
Delta = 01°40'40" LT
BK = S61°19'57"E
AH = S63°00'37"E

PIEVEW2 = 192+43.81 EVEW
X = 87555.758
Y = 582955.305
Delta = 01°57'46" LT
BK = S63°00'37"E
AH = S64°58'23"E

PIEVEW3= 193+32.55 EVEW
X = 87636.164
Y = 582917.765
Delta = 01°08'45" LT
BK = S64°58'23"E
AH = S66°07'08"E

PIEVEW4 = 194+97.76 EVEW
X = 87787.229
Y = 582850.882
Delta = 01°10'46" RT
BK = S66°07'08"E
AH = S64°56'22"E

PIEVEW5 = 196+57.90 EVEW
X = 87932.297
Y = 582783.049
Delta = 03°09'33" RT
BK = S64°56'22"E
AH = S61°46'49"E

PIEVEW6 = 197+17.94 EVEW
X = 87985.204
Y = 582754.657
Delta = 01°32'43" RT
BK = S61°46'49"E
AH = S60°14'06"E

PIEVEW7 = 200+97.19 EVEW
X = 88316.068
Y = 582569.323
Delta = 00°12'54" LT
BK = AH = S60°37'24"E
AH = S60°50'18"E

PIEVEW8 = 202+89.61 EVEW
X = 88483.954
Y = 582475.301
Delta = 01°40'40" RT
BK = S60°20'29"E
AH = S58°39'50"E

PIEVEW9 = 198+40.20 EVEW
X = 88091.330
Y = 582693.964
Delta = 00°58'24" LT
BK = S60°14'06"E
AH = S61°12'30"E

PIEVEW10 = 201+60.25 EVEW
X = 88371.139
Y = 582538.593
Delta = 00°03'18" LT
BK = S60°50'18"E
AH = S60°53'36"E

PIEVEW11 = 203+45.51 EVEW
X = 88531.699
Y = 582446.230
Delta = 02°33'34" RT
BK = S58°39'50"E
AH = S56°06'15"E

PIEVEW12 = 200+00.00 EVEW
X = 88231.377
Y = 582616.999
Delta = 00°35'06" RT
BK = S61°12'30"E
AH = S60°37'24"E

PIEVEW13 = 202+45.78 EVEW
Y = 582496.990
X = 88445.864
Delta = 00°33'07" RT
BK = S60°53'36"E
AH = S60°20'29"E

IHA LINE

CURVE IHA5
PC = 1179+64.06 IHA
X = 88606.332
Y = 583006.725
PI= 1193+68.84 IHA
X = 89660.927
Y = 583934.756
PT = 1202+21.95 IHA
X = 90656.030
Y = 582943.201
R = 1500.00'
Delta = 86°14'42" RT
D = 3°49'11"
L = 2257.89'
T = 1404.78'
BK = N 48°39'09" E
AH = S 45°06'08" E

Superelevation Data for Curve PI at 1193+68.84 IHA

Station	LEFT	Description	RIGHT
1178+84.00 IHA	NA	Normal Crown	-2.00%
1180+43.00 IHA	NA	Full Super	-6.00%
1201+42.00 IHA	NA	Full Super	-6.00%
1203+02.00 IHA	NA	Normal Crown	-2.00%

Superelevation Data for Curve PI at 1211+36.20 IHB*

Station	LEFT	Description*	RIGHT
1187+88.00 IHB	-2.00%	Normal Crown	-2.00%
1188+68.00 IHB	-2.00%	Remove Crown	FLAT
1189+48.00 IHB	-2.00%	Reverse Crown	2.00%
1191+08.00 IHB	-6.00%	Full Super	6.00%
1216+80.00 IHB	-6.00%	Full Super	6.00%
1218+40.00 IHB	-2.00%	Reverse Crown	2.00%
1219+20.00 IHB	-2.00%	Remove Crown	FLAT

* Centerline is right of the reference line. Description refers to slopes from centerline.

Superelevation Data for Curve PI at 1222+86.55 IHB*

Station	LEFT	Description*	RIGHT
1219+20.00 IHB	-2.00%	Remove Crown	FLAT
1220+00.00 IHB	2.00%	Normal Crown	-2.00%
1221+60.00 IHB	6.00%	Full Super	-6.00%
1223+93.00 IHB	6.00%	Full Super	-6.00%
1225+73.00 IHB	2.00%	Reverse Crown	-2.00%

* Centerline is right of the reference line. Description refers to slopes from centerline.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 239	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027203_ad.dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42

VEC LINE

CURVE VEC1
PC = 1173+92.51 VEC
X = 87928.027
Y = 582864.151
PI = 1174+26.39 VEC
X = 87960.076
Y = 582875.148
PT = 1174+57.93 VEC
X = 87979.174
Y = 582903.136
R = 102.00'
Delta = 36°45'05" LT
D = 56°10'20"
L = 65.43'
T = 33.88'
BK = N 71°03'39" E
AH = N 34°18'35" E

CURVE VEC2
PC = 1175+51.37 VEC
X = 88031.842
Y = 582980.315
PI = 1176+38.06 VEC
X = 88080.705
Y = 583051.920
PT = 1177+23.56 VEC
X = 88147.839
Y = 583106.767
R = 600.00'
Delta = 16°26'34" RT
D = 9°32'57"
L = 172.19'
T = 86.69'
BK = N 34°18'35" E
AH = N 50°45'08" E

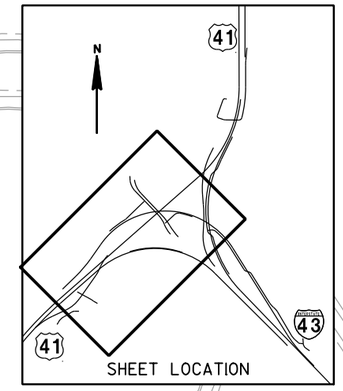
CURVE VEC3
PC = 1180+47.47 VEC
X = 88398.680
Y = 583311.696
PI = 1181+42.57 VEC
X = 88472.332
Y = 583371.867
PT = 1182+37.43 VEC
X = 88537.942
Y = 583440.717
R = 1526.00'
Delta = 7°07'57" LT
D = 3°45'17"
L = 189.97'
T = 95.11'
BK = N 50°45'08" E
AH = N 43°37'11" E

CURVE VEC4
PC = 1187+48.03 VEC
X = 88890.188
Y = 583810.356
PI = 1189+90.09 VEC
X = 89057.177
Y = 583985.592
PT = 1192+30.64 VEC
X = 89254.684
Y = 584125.535
R = 2500.00'
Delta = 11°03'39" RT
D = 2°17'31"
L = 482.62'
T = 242.06'
BK = N 43°37'11" E
AH = N 54°40'50" E

VEB LINE

CURVE VEB1
PC = 1175+64.8 VEB
X = 88401.095
Y = 582630.716
PI = 1176+53.47 VEB
X = 88437.706
Y = 582711.381
PCC = 1177+41.16 VEB
X = 88492.850
Y = 582780.709
R = 717.00'
Delta = 14°05'11" RT
D = 7°59'28"
L = 176.28'
T = 88.58'
BK = N 24°24'44" E
AH = N 38°29'54" E

CURVE VEB2
PCC = 1177+41.16 VEB
X = 88492.850
Y = 582780.709
PI = 1185+05.23 VEB
X = 88968.478
Y = 583378.691
PT = 1192+65.30 VEB
X = 89542.080
Y = 583883.454
R = 8600.00'
Delta = 10°09'15" RT
D = 0°39'58"
L = 1524.14'
T = 764.07'
BK = N 38°29'54" E
AH = N 48°39'09" E



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 240	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027204_ad.dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42

IHB LINE

CURVE IHB1
PC = 1168+03.31 IHB
X = 92188.916
Y = 581528.787
PI = 1170+14.72 IHB
X = 92042.176
Y = 581680.971
PT = 1172+24.64 IHB
X = 91929.581
Y = 581859.900
R = 2050.00'
Delta = 11°46'32" RT
D = 2°47'42"
L = 421.32'
T = 211.41'
BK = N 43°57'24" W
AH = N 32°10'51" W

CURVE IHB2
PC = 1190+27.78 IHB
X = 90969.238
Y = 583386.029
PI = 1211+36.20 IHB
X = 89846.307
Y = 585170.533
PT = 1217+84.77 IHB
X = 88637.335
Y = 583443.160
R = 1400.00'
Delta = 112°49'53" LT
D = 4°05'33"
L = 2756.99'
T = 2108.42'
BK = N 32°10'51" W
AH = S 34°59'16" W

HB LINE

CURVE HB1
PC = 67+40.95 HB
X = 92322.513
Y = 581576.817
PI = 67+86.40 HB
X = 92285.212
Y = 581602.784
PCC = 68+31.84 HB
X = 92248.961
Y = 581630.197
R = 2310.00'
Delta = 2°15'15" RT
D = 2°28'49"
L = 90.89'
T = 45.45'
BK = N 55°09'25" W
AH = N 52°54'09" W

CURVE HB2
PCC = 68+31.84 HB
X = 92248.961
Y = 581630.197
PI = 68+77.89 HB
X = 92212.234
Y = 581657.971
PT = 69+18.14 HB
X = 92209.460
Y = 581703.935
R = 100.00'
Delta = 49°26'57" RT
D = 57°17'45"
L = 86.30'
T = 46.05'
BK = N 52°54'09" W
AH = N 3°27'12" W

IHA LINE

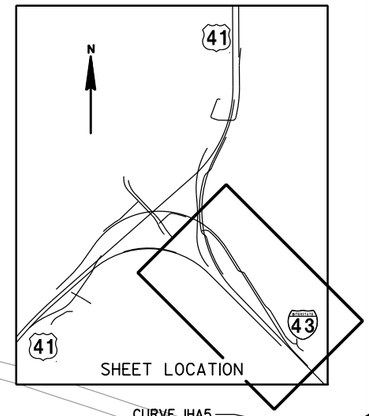
CURVE IHA5
PC = 1179+64.06 IHA
X = 88606.332
Y = 583006.725
PI = 1193+68.84 IHA
X = 89660.927
Y = 583934.756
PT = 1202+21.95 IHA
X = 90656.030
Y = 582943.201
R = 1500.00'
Delta = 86°14'42" RT
D = 3°49'11"
L = 2257.89'
T = 1404.78'
BK = N 48°39'09" E
AH = S 45°06'08" E

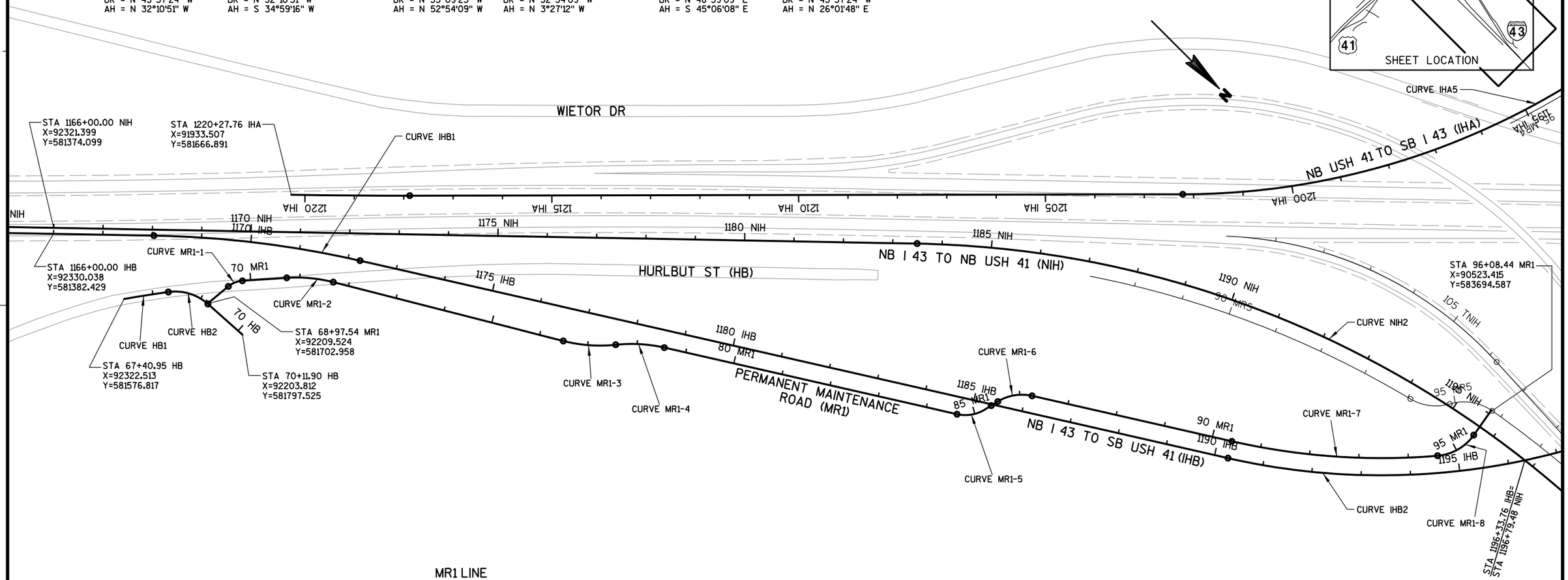
NIH LINE

CURVE NIH2
PC = 1183+49.38 NIH
X = 91107.135
Y = 582633.416
PI = 1197+84.44 NIH
X = 90111.037
Y = 583666.472
PT = 1208+53.44 NIH
X = 90740.804
Y = 584955.972
R = 2050.00'
Delta = 69°59'11" RT
D = 2°47'42"
L = 2504.07'
T = 1435.07'
BK = N 43°57'24" W
AH = N 26°01'48" E

Superelevation Data for Curve PI at 1197+84.44 NIH

Station	LEFT	Description	RIGHT
1180+79.00 NIH	-2.00%	Normal Crown	-2.00%
1181+69.00 NIH	FLAT	Remove Crown	-2.00%
1182+59.00 NIH	2.00%	Reverse Crown	-2.00%
1184+39.00 NIH	6.00%	Full Super	-6.00%
1207+63.00 NIH	6.00%	Full Super	-6.00%
1209+43.00 NIH	2.00%	Reverse Crown	-2.00%
1210+33.00 NIH	FLAT	Remove Crown	FLAT





MR1 LINE

CURVE MR1-1
PC = 69+52.23 MR1
X = 92155.076
Y = 581708.121
PI = 69+68.35 MR1
X = 92139.022
Y = 581709.643
PT = 69+83.43 MR1
X = 92126.883
Y = 581720.258
R = 50.00'
Delta = 35°45'02" RT
D = 114°35'30"
L = 31.20'
T = 16.13'
BK = N 84°34'59" W
AH = N 48°49'58" W

CURVE MR1-2
PC = 70+73.33 MR1
X = 92059.204
Y = 581779.438
PI = 71+21.35 MR1
X = 92023.058
Y = 581811.045
PT = 71+68.55 MR1
X = 91998.583
Y = 581852.354
R = 300.00'
Delta = 18°11'11" RT
D = 19°05'55"
L = 95.22'
BK = N 48°49'58" W
AH = N 30°38'47" W

CURVE MR1-3
PC = 76+49.42 MR1
X = 91753.469
Y = 582266.056
PI = 77+03.51 MR1
X = 91725.899
Y = 582312.588
PRC = 77+56.44 MR1
X = 91683.814
Y = 582346.563
R = 300.00'
Delta = 20°26'24" LT
D = 19°05'55"
L = 107.02'
T = 54.09'
BK = N 30°38'47" W
AH = N 51°05'11" W

CURVE MR1-4
PRC = 77+56.44 MR1
X = 91683.814
Y = 582346.563
PI = 78+06.39 MR1
X = 91644.950
Y = 582377.938
PT = 78+55.43 MR1
X = 91618.348
Y = 582420.213
R = 300.00'
Delta = 18°54'20" RT
D = 19°05'55"
L = 98.99'
T = 49.95'
BK = N 51°05'11" W
AH = N 32°10'51" W

CURVE MR1-5
PC = 84+63.54 MR1
X = 91294.472
Y = 582934.899
PI = 84+94.16 MR1
X = 91278.166
Y = 582960.813
PT = 85+21.68 MR1
X = 91248.383
Y = 582967.911
R = 75.00'
Delta = 44°24'49" LT
D = 76°23'40"
L = 58.14'
T = 30.62'
BK = N 32°10'51" W
AH = N 76°35'40" W

CURVE MR1-6
PC = 85+53.12 MR1
X = 91217.798
Y = 582975.200
PI = 85+91.08 MR1
X = 91180.867
Y = 582984.002
PT = 86+25.21 MR1
X = 91160.647
Y = 583016.135
R = 93.00'
Delta = 44°24'49" RT
D = 61°36'30"
L = 72.09'
T = 37.97'
BK = N 76°35'40" W
AH = N 32°10'51" W

CURVE MR1-7
PC = 90+40.22 MR1
X = 90939.615
Y = 583367.388
PI = 92+51.61 MR1
X = 90827.028
Y = 583546.305
PCC = 94+59.68 MR1
X = 90665.596
Y = 583682.787
R = 1365.00'
Delta = 17°36'24" LT
D = 4°11'51"
L = 419.46'
T = 211.39'
BK = N 32°10'51" W
AH = N 49°47'15" W

CURVE MR1-8
PCC = 94+59.68 MR1
X = 90665.596
Y = 583682.787
PI = 95+06.23 MR1
X = 90630.045
Y = 583712.843
PT = 95+46.82 MR1
X = 90584.158
Y = 583704.987
R = 100.00'
Delta = 49°55'40" LT
D = 57°17'45"
L = 87.14'
T = 46.55'
BK = N 49°47'15" W
AH = S 80°17'05" W

Superelevation Data for Curve PI at 1170+14.72 IHB*

Station	LEFT	Description*	RIGHT
1167+13.00 IHB	2.00%	Reverse Crown	-2.00%
1168+93.00 IHB	6.00%	Full Super	-6.00%
1171+35.00 IHB	6.00%	Full Super	-6.00%
1173+15.00 IHB	2.00%	Reverse Crown	-2.00%
1174+85.00 IHB	2.00%	Reverse Crown	-2.00%
1175+65.00 IHB	FLAT	Remove Crown	-2.00%
1176+45.00 IHB	-2.00%	Normal Crown	-2.00%

* Centerline is right of the reference line. Description refers to slopes from centerline.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 241	E

NMC LINE

CURVE NMC4
PC = 1203+85.88 NMC
X = 90367.461
Y = 584641.748
PI = 1213+39.35 NMC
X = 91083.251
Y = 585271.634
PT = 1221+75.94 NMC
X = 91080.143
Y = 586225.103
R = 2100.00'
Delta = 48°50'22" LT
D = 2°43'42"
L = 1790.06'
T = 953.47'
BK = N 48°39'09" E
AH = N 0°11'12" W

NIH LINE

CURVE NIH2
PC = 1183+49.38 NIH
X = 91107.135
Y = 582633.416
PI = 1197+84.44 NIH
X = 90111.037
Y = 583666.472
PT = 1208+53.44 NIH
X = 90740.804
Y = 584955.972
R = 2050.00'
Delta = 69°59'11" RT
D = 2°47'42"
L = 2504.07'
T = 1435.07'
BK = N 43°57'24" W
AH = N 26°01'48" E

CURVE NIH3
PC = 1212+15.04 NIH
X = 90899.488
Y = 585280.892
PI = 1215+97.60 NIH
X = 91067.370
Y = 585624.644
PT = 1219+72.13 NIH
X = 91105.511
Y = 586005.294
R = 2136.00'
Delta = 20°18'29" LT
D = 2°40'57"
L = 757.09'
T = 382.56'
BK = N 26°01'48" E
AH = N 5°43'19" E

SMC LINE

CURVE SMC4
PC = 1203+52.34 SMC
X = 90182.071
Y = 584769.096
PI = 1215+03.25 SMC
X = 91009.782
Y = 585568.777
PT = 1225+28.22 SMC BK.
a1226+70.75 SMC AH.
X = 91006.030
Y = 586719.682
R = 2700.00'
Delta = 46°10'25" LT
D = 2°07'19"
L = 2175.88'
T = 1150.91'
BK = N 45°59'12" E
AH = N 0°11'12" W

BP1 LINE

CURVE BP1-4
PC = 15+52.77 BP1
X = 91074.164
Y = 585640.494
PI = 15+97.34 BP1
X = 91118.725
Y = 585639.704
PCC = 16+28.06 BP1
X = 91129.496
Y = 585682.951
R = 56.00'
Delta = 77°01'49" LT
D = 102°18'50"
L = 75.29'
T = 44.57'
BK = S 88°59'04" E
AH = N 13°59'07" E

CURVE BP1-5
PCC = 16+28.06 BP1
X = 91129.496
Y = 585682.951
PI = 17+72.68 BP1
X = 91164.446
Y = 585823.279
PRC = 19+16.88 BP1
X = 91180.853
Y = 585966.960
R = 2215.00'
Delta = 7°28'15" LT
D = 2°35'12"
L = 288.82'
T = 144.61'
BK = N 13°59'07" E
AH = N 6°30'52" E

CURVE BP1-6
PRC = 19+16.88 BP1
X = 91180.853
Y = 585966.960
PI = 19+49.59 BP1
X = 91184.564
Y = 585999.458
PRC = 19+82.28 BP1
X = 91190.390
Y = 586031.644
R = 1000.00'
Delta = 3°44'49" RT
D = 5°43'46"
L = 65.39'
T = 32.71'
BK = N 6°30'52" E
AH = N 10°15'40" E

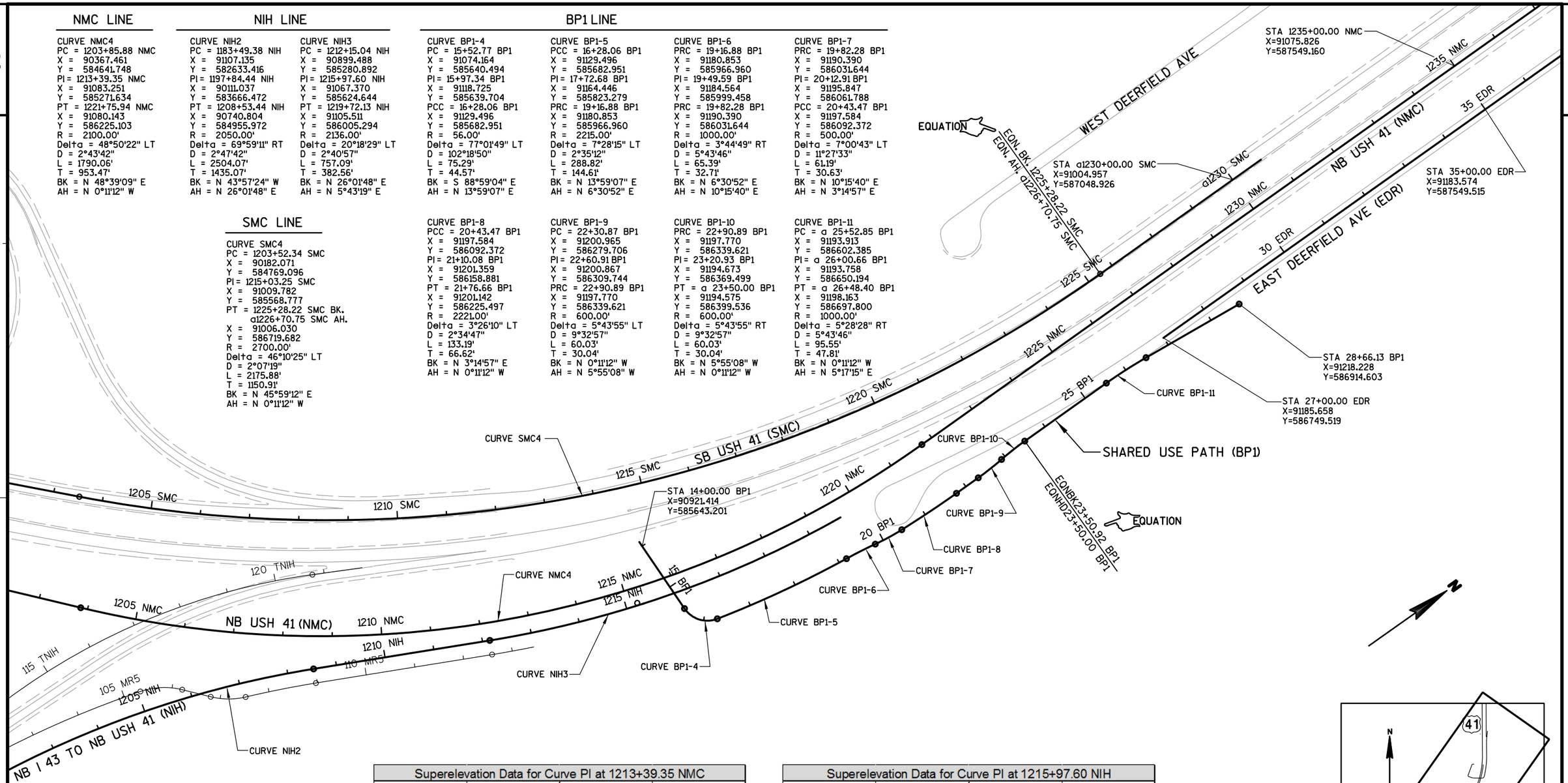
CURVE BP1-7
PRC = 19+82.28 BP1
X = 91190.390
Y = 586031.644
PI = 20+12.91 BP1
X = 91195.847
Y = 586061.788
PCC = 20+43.47 BP1
X = 91197.584
Y = 586092.372
R = 500.00'
Delta = 7°00'43" LT
D = 11°27'33"
L = 61.19'
T = 30.63'
BK = N 10°15'40" E
AH = N 3°14'57" E

CURVE BP1-8
PCC = 20+43.47 BP1
X = 91197.584
Y = 586092.372
PI = 21+10.08 BP1
X = 91201.359
Y = 586158.881
PT = 21+76.66 BP1
X = 91201.142
Y = 586225.497
R = 2221.00'
Delta = 3°26'10" LT
D = 2°34'47"
L = 133.19'
T = 66.62'
BK = N 3°14'57" E
AH = N 0°11'12" W

CURVE BP1-9
PC = 22+30.87 BP1
X = 91200.965
Y = 586279.706
PI = 22+60.91 BP1
X = 91200.867
Y = 586309.744
PRC = 22+90.89 BP1
X = 91197.770
Y = 586339.621
R = 600.00'
Delta = 5°43'55" LT
D = 9°32'57"
L = 60.03'
T = 30.04'
BK = N 0°11'12" W
AH = N 5°55'08" W

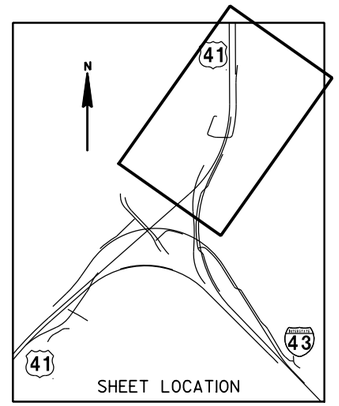
CURVE BP1-10
PRC = 22+90.89 BP1
X = 91197.770
Y = 586339.621
PI = 23+20.93 BP1
X = 91194.673
Y = 586369.499
PT = a 23+50.00 BP1
X = 91194.575
Y = 586399.536
R = 600.00'
Delta = 5°43'55" RT
D = 9°32'57"
L = 60.03'
T = 30.04'
BK = N 5°55'08" W
AH = N 0°11'12" W

CURVE BP1-11
PC = a 25+52.85 BP1
X = 91193.913
Y = 586602.385
PI = a 26+00.66 BP1
X = 91193.758
Y = 586650.194
PT = a 26+48.40 BP1
X = 91198.163
Y = 586697.800
R = 1000.00'
Delta = 5°28'28" RT
D = 5°43'46"
L = 95.55'
T = 47.81'
BK = N 0°11'12" W
AH = N 5°17'15" E



Superelevation Data for Curve PI at 1213+39.35 NMC			
Station	LEFT	Description	RIGHT
1201+16.00 NMC	-2.00%	Normal Crown	-2.00%
1202+06.00 NMC	-2.00%	Remove Crown	FLAT
1202+96.00 NMC	-2.00%	Reverse Crown	2.00%
1204+76.00 NMC	-6.00%	Full Super	6.00%
1220+26.00 NMC	-6.00%	Full Super	6.00%
1223+26.00 NMC	-2.00%	Reverse Crown	2.00%
1224+76.00 NMC	-2.00%	Remove Crown	FLAT
1226+26.00 NMC	-2.00%	Normal Crown	-2.00%

Superelevation Data for Curve PI at 1215+97.60 NIH			
Station	LEFT	Description	RIGHT
1210+33.00 NIH	FLAT	Remove Crown	FLAT
1211+23.00 NIH	-2.00%	Normal Crown	2.00%
1213+03.00 NIH	-6.00%	Full Super	6.00%
1220+26.00 NIH	-6.00%	Full Super	6.00%



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 242	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027206_ad.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

MR4 LINE

CURVE MR4-1
PC = 86+00.00 MR4
X = 89154.077
Y = 583325.191
PI = 90+89.51 MR4
X = 89622.055
Y = 583468.768
PT = 95+46.77 MR4
X = 90085.323
Y = 583310.655
R = 1511.00'
Delta = 35°54'03" RT
D = 3°47'31"
L = 946.77'
T = 489.51'
BK = N 72°56'38" E
AH = S 71°09'19" E

MR2 LINE

CURVE MR2-1
PC = 99+50.00 MR2
X = 90259.074
Y = 583939.357
PI = 100+68.90 MR2
X = 90147.401
Y = 583980.172
PCC = 101+87.21 MR2
X = 90030.401
Y = 584001.328
R = 1383.00'
Delta = 9°49'38" LT
D = 4°08'34"
L = 237.21'
T = 118.90'
BK = N 69°55'24" W
AH = N 79°45'02" W

CURVE MR2-2
PCC = 101+87.21 MR2
X = 90030.401
Y = 584001.328
PI = 102+37.70 MR2
X = 89980.723
Y = 584010.311
PT = 102+80.71 MR2
X = 89943.996
Y = 583975.673
R = 100.00'
Delta = 53°34'23" LT
D = 57°17'45"
L = 93.50'
T = 50.48'
BK = N 79°45'02" W
AH = S 46°40'35" W

MR3 LINE

CURVE MR3-1
PC = 34+43.87 MR3
X = 89090.530
Y = 583900.214
PI = 34+56.24 MR3
X = 89081.618
Y = 583891.632
PRC = 34+68.48 MR3
X = 89070.884
Y = 583885.482
R = 100.00'
Delta = 14°06'18" RT
D = 57°17'45"
L = 24.62'
T = 12.37'
BK = S 46°04'56" W
AH = S 60°11'14" W

CURVE MR3-2
PRC = 34+68.48 MR3
X = 89070.884
Y = 583885.482
PI = 36+60.37 MR3
X = 88904.390
Y = 583790.080
PT = 38+50.00 MR3
X = 88768.811
Y = 583654.285
R = 1435.00'
Delta = 15°13'59" LT
D = 3°59'34"
L = 381.52'
T = 191.89'
BK = S 60°11'14" W
AH = S 44°57'15" W

TWT LINE

CURVE TWT1
PC = 100+04.29 TWT
X = 89862.178
Y = 583642.888
PI = 100+99.21 TWT
X = 89800.879
Y = 583715.365
PRC = 101+92.57 TWT
X = 89764.946
Y = 583803.224
R = 600.00'
Delta = 17°58'48" RT
D = 9°32'57"
L = 188.29'
T = 94.92'
BK = N 40°13'25" W
AH = N 22°14'37" W

CURVE TWT2
PRC = 101+92.57 TWT
X = 89764.946
Y = 583803.224
PI = 102+87.60 TWT
X = 89728.976
Y = 583891.177
PT = 103+80.38 TWT
X = 89663.248
Y = 583959.802
R = 500.00'
Delta = 21°31'16" LT
D = 11°27'33"
L = 187.81'
T = 95.02'
BK = N 22°14'37" W
AH = N 43°45'53" W

CURVE TWT3
PC = 109+86.90 TWT
X = 89243.721
Y = 584397.820
PI = 110+87.12 TWT
X = 89174.394
Y = 584470.203
PCC = 111+80.36 TWT
X = 89162.498
Y = 584569.723
R = 300.00'
Delta = 36°56'53" RT
D = 19°05'55"
L = 193.46'
T = 100.23'
BK = N 43°45'53" W
AH = N 6°48'59" W

CURVE TWT4
PCC = 111+80.36 TWT
X = 89162.498
Y = 584569.723
PI = 112+21.99 TWT
X = 89157.557
Y = 584611.061
PT = 112+63.53 TWT
X = 89157.446
Y = 584652.693
R = 715.00'
Delta = 6°39'53" RT
D = 8°00'48"
L = 83.17'
T = 41.63'
BK = N 6°48'59" W
AH = N 0°09'06" W

TSIH LINE

CURVE TSIH1
PC = 98+59.88 TSIH
X = 90010.862
Y = 583583.788
PI = 99+83.57 TSIH
X = 89925.231
Y = 583673.046
PRC = 101+06.18 TSIH
X = 89862.177
Y = 583779.460
R = 1072.00'
Delta = 13°09'50" RT
D = 5°20'41"
L = 246.29'
T = 123.69'
BK = N 43°48'42" W
AH = N 30°38'52" W

CURVE TSIH2
PRC = 101+06.18 TSIH
X = 89862.177
Y = 583779.460
PI = 102+23.86 TSIH
X = 89802.186
Y = 583880.707
PT = 103+40.53 TSIH
X = 89720.866
Y = 583965.776
R = 1028.00'
Delta = 13°03'41" LT
D = 5°34'25"
L = 234.35'
T = 117.68'
BK = N 30°38'52" W
AH = N 43°42'34" W

CURVE TSIH3
PC = 108+72.25 TSIH
X = 89353.441
Y = 584350.137
PI = 110+11.43 TSIH
X = 89257.270
Y = 584450.741
PT = 111+41.13 TSIH
X = 89239.817
Y = 584588.819
R = 422.00'
Delta = 36°30'19" RT
D = 13°34'38"
L = 268.87'
T = 139.18'
BK = N 43°42'34" W
AH = N 7°12'15" W

STA 86+00.00 MR4
X=89154.077
Y=583325.191

STA 95+46.77 MR4
X=90085.323
Y=583310.655

STA 92+20.88 WT
X=90254.037
Y=582974.243

STA 99+86.99 TWT
X=89873.349
Y=583629.679

STA 105+04.04 MR2
X=89781.530
Y=583822.446

STA 99+00.00 WT
X=89949.593
Y=583581.300

STA 98+59.88 TSIH
X=90010.862
Y=583583.788

STA 99+50.00 MR2
X=90259.074
Y=583939.357

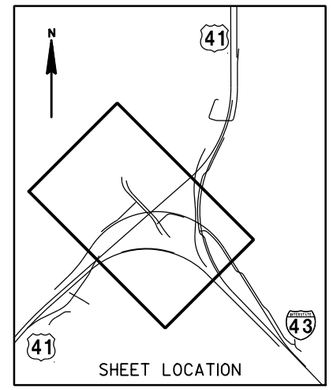
STA 38+07.73 MR3
X=88768.811
Y=583654.285

STA 30+00.00 MR3
X=89410.262
Y=584208.090

STA 111+41.13 TSIH
X=89239.817
Y=584588.819

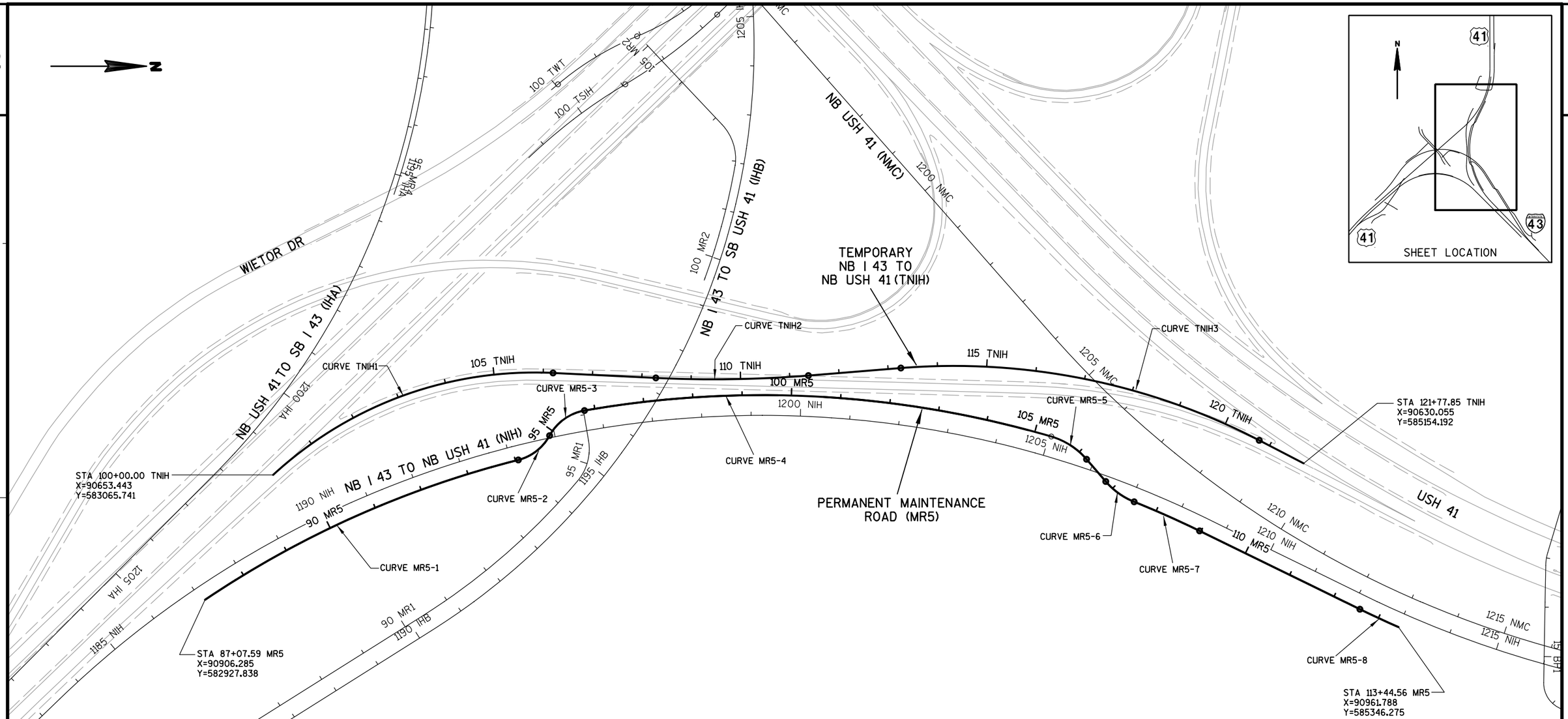
STA 112+63.53 TWT
X=89157.446
Y=584652.693

WIETOR DR (WT)
NB USH 41 TO SB I 43 (IHA)
NB I 43 TO NB USH 41 (NIH)
NB I 43 TO SB USH 41 (IHB)
NB USH 41 (NMC)
USH 41
PERMANENT MAINTENANCE ROAD (MR4)
PERMANENT MAINTENANCE ROAD (MR3)
PERMANENT MAINTENANCE ROAD (MR2)
TEMPORARY WIETOR DR (TWT)
TEMPORARY SB I 43 TO SB USH 41 (TSIH)
CURVE MR4-1
CURVE MR3-2
CURVE MR3-1
CURVE MR2-1
CURVE MR2-2
CURVE TWT1
CURVE TWT2
CURVE TWT3
CURVE TWT4
CURVE TSIH1
CURVE TSIH2
CURVE TSIH3
1185 EVEB
1185 NMC
1190 NMC
1195 NMC
1200 NMC
1205 IHB
1210 IHB
1215 IHB
1185 IHA
1190 IHA
1195 IHA
1200 IHA
1190 NIH
1195 IHB
90 MR4
95 MR4
95 WT
100 TWT
105 MR2
105 TWT
105 TSIH
110 TWT
110 TSIH
90 MR5
95 MR5
100 MR5
105 TNIH
110 TNIH
1200 NIH
90 MR1
95 MR1
35 MR3



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 243	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027207_ad.dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42



TNIH LINE

CURVE TNIH1	CURVE TNIH2	CURVE TNIH3
PC = 100+00.00 TNIH	PC = 108+28.41 TNIH	PC = 113+25.70 TNIH
X = 90653.443	X = 90457.000	X = 90437.061
Y = 583065.741	Y = 583841.265	Y = 584337.704
PI = 103+27.37 TNIH	PI = 109+83.37 TNIH	PI = 117+11.05 TNIH
X = 90431.103	X = 90464.543	X = 90406.164
Y = 583306.025	Y = 583996.047	Y = 584721.813
PT = 106+19.91 TNIH	PT = 111+37.91 TNIH	PT = 120+76.29 TNIH
X = 90446.852	X = 90452.118	X = 90583.356
Y = 583633.016	Y = 584150.514	Y = 585064.007
R = 780.00'	R = 2400.00'	R = 1345.00'
Delta = 45°32'10" RT	Delta = 7°23'20" LT	Delta = 31°58'28" RT
D = 7°20'44"	D = 2°23'14"	D = 4°15'36"
L = 619.91'	L = 309.50'	L = 750.59'
T = 327.37'	T = 154.97'	T = 385.35'
BK = N 42°46'44" W	BK = N 2°47'24" E	BK = N 4°35'56" W
AH = N 2°45'26" E	AH = N 4°35'56" W	AH = N 27°22'33" E

MR5 LINE

CURVE MR5-1	CURVE MR5-2	CURVE MR5-3	CURVE MR5-4	CURVE MR5-5	CURVE MR5-6	CURVE MR5-7	CURVE MR5-8
PC = 87+07.59 MR5	PRC = 94+06.09 MR5	PRC = 94+88.77 MR5	PCC = 95+78.85 MR5	PCC = 105+34.57 MR5	PC = 106+80.21 MR5	PRC = 107+51.64 MR5	PC = 112+58.45 MR5
X = 90906.285	X = 90623.112	X = 90573.836	X = 90523.020	X = 90575.748	X = 90666.734	X = 90707.878	X = 90925.546
Y = 582927.838	Y = 583562.560	Y = 583626.021	Y = 583696.716	Y = 584642.674	Y = 584753.024	Y = 584810.588	Y = 585268.165
PI = 90+60.36 MR5	PI = 94+49.95 MR5	PI = 95+37.12 MR5	PI = 100+65.20 MR5	PI = 105+78.88 MR5	PI = 107+16.62 MR5	PI = 108+24.28 MR5	PI = 113+01.51 MR5
X = 90709.303	X = 90612.394	X = 90531.336	X = 90439.371	X = 90588.172	X = 90694.291	X = 90734.986	X = 90944.444
Y = 583220.485	Y = 583605.099	Y = 583649.083	Y = 584175.827	Y = 584685.204	Y = 584776.813	Y = 584877.977	Y = 585306.860
PRC = 94+06.09 MR5	PRC = 94+88.77 MR5	PCC = 95+78.85 MR5	PCC = 105+34.57 MR5	PT = 106+20.73 MR5	PRC = 107+51.64 MR5	PT = 108+96.85 MR5	PT = 113+44.56 MR5
X = 90623.112	X = 90573.836	X = 90523.020	X = 90575.748	X = 90621.711	X = 90707.878	X = 90766.862	X = 90961.788
Y = 583562.560	Y = 583626.021	Y = 583696.716	Y = 584642.674	Y = 584714.157	Y = 584810.588	Y = 584943.245	Y = 585346.275
R = 2021.00'	R = 100.00'	R = 100.00'	R = 2091.00'	R = 150.00'	R = 150.00'	R = 2021.00'	R = 2165.00'
Delta = 19°48'09" RT	Delta = 47°22'21" LT	Delta = 51°36'40" RT	Delta = 26°11'16" RT	Delta = 32°54'45" RT	Delta = 27°17'02" LT	Delta = 4°07'00" RT	Delta = 2°16'44" LT
D = 2°50'06"	D = 57°17'45"	D = 57°17'45"	D = 2°44'24"	D = 38°11'50"	D = 38°11'50"	D = 2°50'06"	D = 2°38'47"
L = 698.50'	L = 82.68'	L = 90.08'	L = 955.72'	L = 86.17'	L = 71.43'	L = 145.21'	L = 86.11'
T = 352.77'	T = 43.87'	T = 48.35'	T = 486.36'	T = 44.31'	T = 36.40'	T = 72.64'	T = 43.06'
BK = N 33°56'41" W	BK = N 14°08'32" W	BK = N 61°30'53" W	BK = N 9°54'13" W	BK = N 16°17'04" E	BK = N 49°11'49" E	BK = N 21°54'48" E	BK = N 26°01'48" E
AH = N 14°08'32" W	AH = N 61°30'53" W	AH = N 9°54'13" W	AH = N 16°17'04" E	AH = N 49°11'49" E	AH = N 21°54'48" E	AH = N 26°01'48" E	AH = N 23°45'04" E

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 244	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_027208_ad.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

NBC LINE

CURVE NBC1
PC = 79+26.27 NBC
X = 88498.523
Y = 583040.514
PI = 80+39.91 NBC
X = 88580.423
Y = 583119.295
PT = 81+53.45 NBC
X = 88668.049
Y = 583191.655
R = 3000.00'
Delta = 4°20'19" RT
D = 1°54'35"
L = 227.17'
T = 113.64'
BK = N 46°06'43" E
AH = N 50°27'03" E

CURVE NBC2
PC = 81+81.90 NBC
X = 88689.986
Y = 583209.770
PI = 82+98.96 NBC
X = 88780.254
Y = 583284.312
PT = 84+15.91 NBC
X = 88864.445
Y = 583365.654
R = 3003.00'
Delta = 4°27'54" LT
D = 1°54'29"
L = 234.02'
T = 117.07'
BK = N 50°27'03" E
AH = N 45°59'09" E

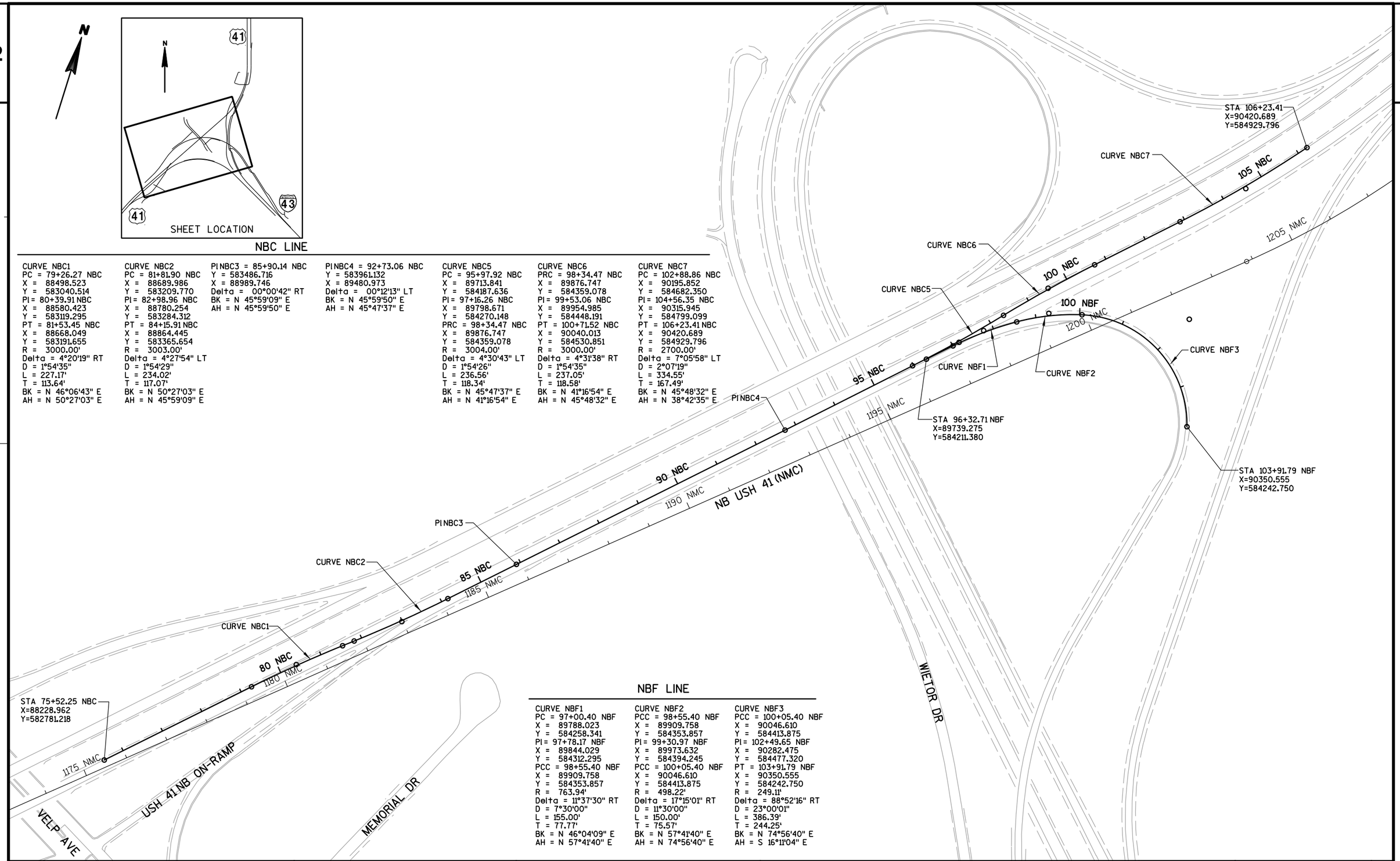
PI NBC3 = 85+90.14 NBC
Y = 583486.716
X = 88989.746
Delta = 00°00'42" RT
BK = N 45°59'09" E
AH = N 45°59'50" E

PI NBC4 = 92+73.06 NBC
Y = 583961.132
X = 89480.973
Delta = 00°12'13" LT
BK = N 45°59'50" E
AH = N 45°47'37" E

CURVE NBC5
PC = 95+97.92 NBC
X = 89713.841
Y = 584187.636
PI = 97+16.26 NBC
X = 89798.671
Y = 584270.148
PRC = 98+34.47 NBC
X = 89876.747
Y = 584359.078
R = 3004.00'
Delta = 4°30'43" LT
D = 1°54'26"
L = 236.56'
T = 118.34'
BK = N 45°47'37" E
AH = N 41°16'54" E

CURVE NBC6
PRC = 98+34.47 NBC
X = 89876.747
Y = 584359.078
PI = 99+53.06 NBC
X = 89954.985
Y = 584448.191
PT = 100+71.52 NBC
X = 90040.013
Y = 584530.851
R = 3000.00'
Delta = 4°31'38" RT
D = 1°54'35"
L = 237.05'
T = 118.58'
BK = N 41°16'54" E
AH = N 45°48'32" E

CURVE NBC7
PC = 102+88.86 NBC
X = 90195.852
Y = 584682.350
PI = 104+56.35 NBC
X = 90315.945
Y = 584799.099
PT = 106+23.41 NBC
X = 90420.689
Y = 584929.796
R = 2700.00'
Delta = 7°05'58" LT
D = 2°07'19"
L = 334.55'
T = 167.49'
BK = N 45°48'32" E
AH = N 38°42'35" E



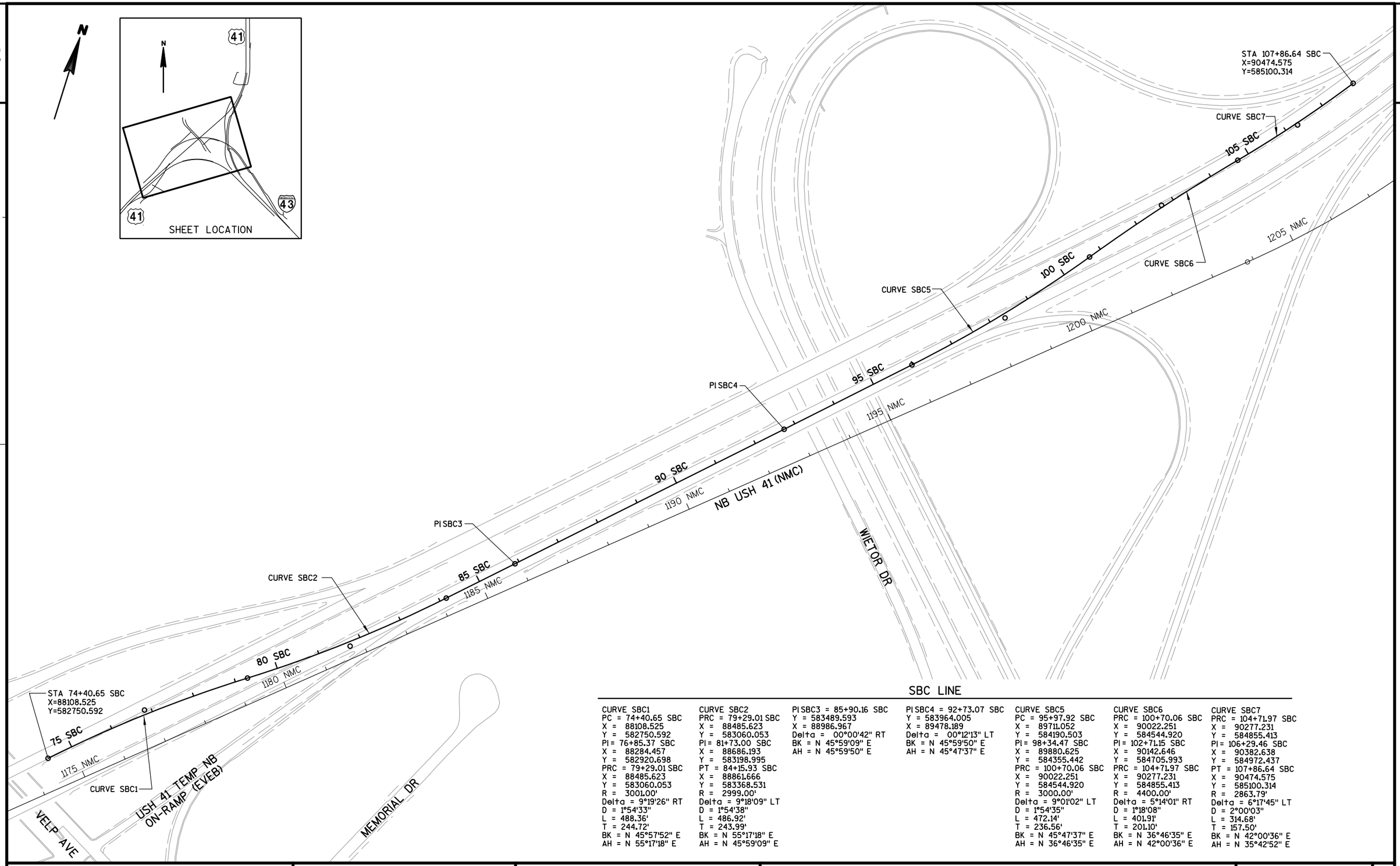
NBF LINE

CURVE NBF1
PC = 97+00.40 NBF
X = 89788.023
Y = 584258.341
PI = 97+78.17 NBF
X = 89844.029
Y = 584312.295
PCC = 98+55.40 NBF
X = 89909.758
Y = 584353.857
R = 763.94'
Delta = 11°37'30" RT
D = 7°30'00"
L = 155.00'
T = 77.77'
BK = N 46°04'09" E
AH = N 57°41'40" E

CURVE NBF2
PCC = 98+55.40 NBF
X = 89909.758
Y = 584353.857
PI = 99+30.97 NBF
X = 89973.632
Y = 584394.245
PCC = 100+05.40 NBF
X = 90046.610
Y = 584413.875
R = 498.22'
Delta = 17°15'01" RT
D = 11°30'00"
L = 150.00'
T = 75.57'
BK = N 57°41'40" E
AH = N 74°56'40" E

CURVE NBF3
PCC = 100+05.40 NBF
X = 90046.610
Y = 584413.875
PI = 102+49.65 NBF
X = 90282.475
Y = 584477.320
PT = 103+91.79 NBF
X = 90350.555
Y = 584242.750
R = 249.11'
Delta = 88°52'16" RT
D = 23°00'01"
L = 386.39'
T = 244.25'
BK = N 74°56'40" E
AH = S 16°11'04" E

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - NORTHBOUND CROSSOVER AND EXISTING RAMP	SHEET 245	E



SBC LINE

CURVE SBC1
PC = 74+40.65 SBC
X = 88108.525
Y = 582750.592
PI = 76+85.37 SBC
X = 88284.457
Y = 582920.698
PRC = 79+29.01 SBC
X = 88485.623
Y = 583060.053
R = 3001.00'
Delta = 9°19'26" RT
D = 1°54'33"
L = 488.36'
T = 244.72'
BK = N 45°57'52" E
AH = N 55°17'18" E

CURVE SBC2
PRC = 79+29.01 SBC
X = 88485.623
Y = 583060.053
PI = 81+73.00 SBC
X = 88686.193
Y = 583198.995
PT = 84+15.93 SBC
X = 88861.666
Y = 583368.531
R = 2999.00'
Delta = 9°18'09" LT
D = 1°54'38"
L = 486.92'
T = 243.99'
BK = N 55°17'18" E
AH = N 45°59'09" E

PI SBC3 = 85+90.16 SBC
Y = 583489.593
X = 88986.967
Delta = 00°00'42" RT
BK = N 45°59'09" E
AH = N 45°59'50" E

PI SBC4 = 92+73.07 SBC
Y = 583964.005
X = 89478.189
Delta = 00°12'13" LT
BK = N 45°59'50" E
AH = N 45°47'37" E

CURVE SBC5
PC = 95+97.92 SBC
X = 89711.052
Y = 584190.503
PI = 98+34.47 SBC
X = 89880.625
Y = 584355.442
PRC = 100+70.06 SBC
X = 90022.251
Y = 584544.920
R = 3000.00'
Delta = 9°01'02" LT
D = 1°54'35"
L = 472.14'
T = 236.56'
BK = N 45°47'37" E
AH = N 36°46'35" E

CURVE SBC6
PRC = 100+70.06 SBC
X = 90022.251
Y = 584544.920
PI = 102+71.15 SBC
X = 90142.646
Y = 584705.993
PRC = 104+71.97 SBC
X = 90277.231
Y = 584855.413
R = 4400.00'
Delta = 5°14'01" RT
D = 1°18'08"
L = 401.91'
T = 201.10'
BK = N 36°46'35" E
AH = N 42°00'36" E

CURVE SBC7
PRC = 104+71.97 SBC
X = 90277.231
Y = 584855.413
PI = 106+29.46 SBC
X = 90382.638
Y = 584972.437
PT = 107+86.64 SBC
X = 90474.575
Y = 585100.314
R = 2863.79'
Delta = 6°17'45" LT
D = 2°00'03"
L = 314.68'
T = 157.50'
BK = N 42°00'36" E
AH = N 35°42'52" E

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - SOUTHBOUND CROSSOVER	SHEET 246	E

2

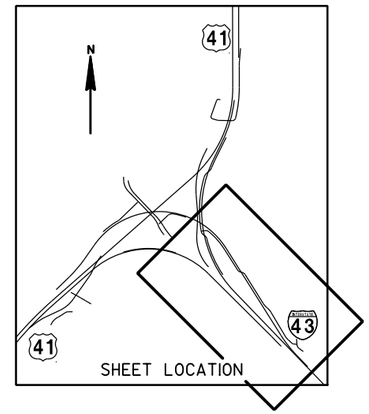
TIHB LINE

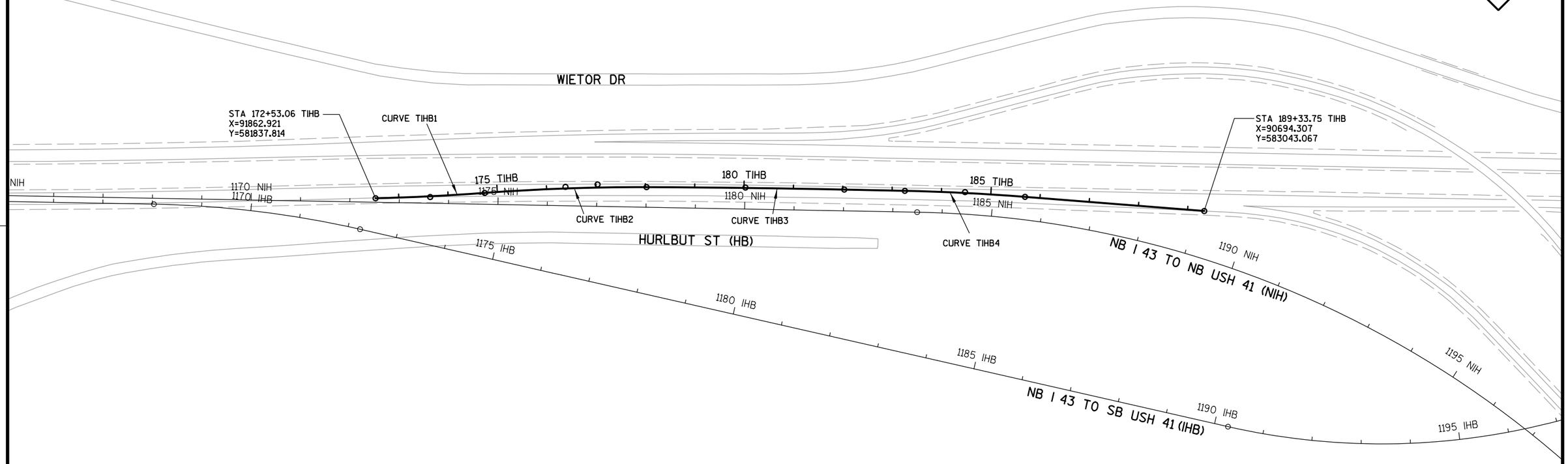
CURVE TIHB1
PC = 172+53.06 TIHB
X = 91862.921
Y = 581837.814
PI = 173+63.71 TIHB
X = 91782.935
Y = 581914.273
PRC = 174+74.31 TIHB
X = 91699.056
Y = 581986.439
R = 4224.00'
Delta = 3°00'04" LT
D = 1°21'23"
L = 221.25'
T = 110.65'
BK = N 46°17'29" W
AH = N 49°17'33" W

CURVE TIHB2
PRC = 174+74.31 TIHB
X = 91699.056
Y = 581986.439
PI = 176+38.46 TIHB
X = 91574.623
Y = 582093.498
PCC = 178+02.44 TIHB
X = 91458.977
Y = 582209.993
R = 4176.00'
Delta = 4°30'07" RT
D = 1°22'19"
L = 328.13'
T = 164.15'
BK = N 49°17'33" W
AH = N 44°47'26" W

CURVE TIHB3
PCC = 178+02.44 TIHB
X = 91458.977
Y = 582209.993
PI = 180+02.75 TIHB
X = 91317.857
Y = 582352.149
PT = 182+03.05 TIHB
X = 91179.186
Y = 582496.697
R = 23442.86'
Delta = 0°58'45" RT
D = 0°14'40"
L = 400.61'
T = 200.31'
BK = N 44°47'26" W
AH = N 43°48'41" W

CURVE TIHB4
PC = 183+25.87 TIHB
X = 91094.156
Y = 582585.330
PI = 184+47.73 TIHB
X = 91009.797
Y = 582673.264
PT = 185+69.51 TIHB
X = 90930.709
Y = 582765.967
R = 4176.00'
Delta = 3°20'34" RT
D = 1°22'19"
L = 243.64'
T = 121.86'
BK = N 43°48'41" W
AH = N 40°28'07" W





PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 247	E

DATE 05JUN13 E S T I M A T E O F Q U A N T I T I E S

LINE 1133-11-74

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	QUANTITY
0010	201.0115	CLEARING	ACRE	10.000	10.000
0020	201.0120	CLEARING	ID	1,250.000	1,250.000
0030	201.0215	GRUBBING	ACRE	8.300	8.300
0040	201.0220	GRUBBING	ID	1,250.000	1,250.000
0050	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	8.000	8.000
0060	204.0100	REMOVING PAVEMENT **P**	SY	11,550.000	11,550.000
0070	204.0110	REMOVING ASPHALTIC SURFACE **P**	SY	200.000	200.000
0080	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS **P**	SY	25.000	25.000
0090	204.0120	REMOVING ASPHALTIC SURFACE MILLING **P**	SY	1,350.000	1,350.000
0100	204.0150	REMOVING CURB & GUTTER **P**	LF	1,300.000	1,300.000
0110	204.0155	REMOVING CONCRETE SIDEWALK **P**	SY	650.000	650.000
0120	204.0170	REMOVING FENCE **P**	LF	13,115.000	13,115.000
0130	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	70.000	70.000
0140	204.0190	REMOVING SURFACE DRAINS	EACH	1.000	1.000
0150	204.0195	REMOVING CONCRETE BASES	EACH	9.000	9.000
0160	204.0215	REMOVING CATCH BASINS	EACH	1.000	1.000
0170	204.0220	REMOVING INLETS	EACH	4.000	4.000
0180	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH **P**	LF	455.000	455.000
0190	204.0245	REMOVING STORM SEWER (SIZE) 02. 18-INCH **P**	LF	720.000	720.000
0200	204.0260	ABANDONING INLETS **P**	EACH	7.000	7.000
0210	204.0270	ABANDONING CULVERT PIPES	EACH	3.000	3.000
0220	205.0100	EXCAVATION COMMON	CY	57,135.000	57,135.000
0230	205.0400	EXCAVATION MARSH	CY	103,203.000	103,203.000
0240	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-5-671	LS	1.000	1.000
0250	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-5-677	LS	1.000	1.000
0260	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 03. B-5-678	LS	1.000	1.000
0270	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 04. B-5-679	LS	1.000	1.000
0280	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 05. B-5-681	LS	1.000	1.000
0290	206.5000	COFFERDAMS (STRUCTURE) 01. B-05-681	LS	1.000	1.000
0300	206.6000.S	TEMPORARY SHORING	SF	12,480.000	12,480.000
0310	209.0100	BACKFILL GRANULAR	CY	93.000	93.000
0320	210.0100	BACKFILL STRUCTURE **P**	CY	11,872.000	11,872.000
0330	213.0100	FINISHING ROADWAY (PROJECT) 01. 1133-11-74	EACH	1.000	1.000
0340	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,760.000	1,760.000
0350	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	24,140.000	24,140.000
0360	311.0110	BREAKER RUN	TON	34,810.000	34,810.000
0370	312.0110	SELECT CRUSHED MATERIAL	TON	115.000	115.000
0380	416.0610	DRILLED TIE BARS	EACH	146.000	146.000
0390	416.1010	CONCRETE SURFACE DRAINS **P**	CY	3.000	3.000
0400	455.0105	ASPHALTIC MATERIAL PG58-28	TON	429.000	429.000
0410	455.0605	TACK COAT	GAL	290.000	290.000
0420	460.1101	HMA PAVEMENT TYPE E-1	TON	780.000	780.000
0430	460.1110	HMA PAVEMENT TYPE E-10	TON	6,790.000	6,790.000
0440	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	4,420.000	4,420.000
0450	465.0315	ASPHALTIC FLUMES **P**	SY	151.000	151.000
0460	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP **P**	LF	7,540.000	7,540.000

3

DATE 05JUN13 E S T I M A T E O F Q U A N T I T I E S

LINE 1133-11-74

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0470	502.3100	EXPANSION DEVICE (STRUCTURE) 01.B-5-678 **P**	LS	1.000	1.000
0480	502.3100	EXPANSION DEVICE (STRUCTURE) 02.B-5-681 **P**	LS	1.000	1.000
0490	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 09. B-5-671	LS	1.000	1.000
0500	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 10. B-5-678	LS	1.000	1.000
0510	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 11. B-5-679	LS	1.000	1.000
0520	502.3110.S	EXPANSION DEVICE MODULAR (STRUCTURE) 12. B-5-681	LS	1.000	1.000
0530	502.3200	PROTECTIVE SURFACE TREATMENT **P**	SY	65,808.000	65,808.000
0540	503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH **P**	LF	8,531.000	8,531.000
0550	504.0500	CONCRETE MASONRY RETAINING WALLS **P**	CY	1,059.000	1,059.000
0560	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	538,141.000	538,141.000
0570	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	7,304,577.000	7,304,577.000
0580	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	117,820.000	117,820.000
0590	506.0105	STRUCTURAL STEEL CARBON	LB	363.000	363.000
0600	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED **P**	EACH	52.000	52.000
0610	506.3025	WELDED STUD SHEAR CONNECTORS 7/8X8-INCH **P**	EACH	154,398.000	154,398.000
0620	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-5-678 **P**	EACH	20.000	20.000
0630	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 02. B-5-677 **P**	EACH	28.000	28.000
0640	506.6000	BEARING ASSEMBLIES EXPANSION (STRUCTURE) 01. B-5-678 **P**	EACH	80.000	80.000
0650	514.0445	FLOOR DRAINS TYPE GC	EACH	38.000	38.000
0660	514.0460	FLOOR DRAINS TYPE H	EACH	12.000	12.000
0670	516.0500	RUBBERIZED MEMBRANE WATERPROOFING **P**	SY	275.000	275.000
0680	520.7000	CLEANING CULVERT PIPES	EACH	4.000	4.000
0690	520.8000	CONCRETE COLLARS FOR PIPE	EACH	6.000	6.000
0700	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	27.000	27.000
0710	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	2.000	2.000
0720	521.1618	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 10 TO 1	EACH	3.000	3.000
0730	521.2005.S	SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED (INCH) 001. 18-INCH	LF	720.000	720.000
0740	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	798.000	798.000
0750	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	104.000	104.000
0760	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	1.000	1.000
0770	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	36.000	36.000
0780	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	10.000	10.000
0790	523.0419	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	136.000	136.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1133-11-74 QUANTITY
0800	523.0514	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH	EACH	1.000	1.000
0810	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	4.000	4.000
0820	532.0700.S	WALL WIRE FACED MECHANICALLY STABILIZED EARTH	SF	20,098.000	20,098.000
0830	550.0500	PILE POINTS	EACH	77.000	77.000
0840	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	9,775.000	9,775.000
0850	550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	113,292.000	113,292.000
0860	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A **P**	LF	438.000	438.000
0870	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D **P**	LF	1,050.000	1,050.000
0880	602.0410	CONCRETE SIDEWALK 5-INCH **P**	SF	1,405.000	1,405.000
0890	602.0515	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA	SF	16.000	16.000
0900	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	25,188.000	25,188.000
0910	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	28,950.000	28,950.000
0920	604.0400	SLOPE PAVING CONCRETE **P**	SY	34.000	34.000
0930	604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL **P**	SY	2,868.000	2,868.000
0940	606.0100	RIPRAP LIGHT	CY	590.000	590.000
0950	606.0200	RIPRAP MEDIUM	CY	15.000	15.000
0960	606.0300	RIPRAP HEAVY	CY	459.000	459.000
0970	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	56.000	56.000
0980	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	1,038.000	1,038.000
0990	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	162.000	162.000
1000	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	16.000	16.000
1010	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	221.000	221.000
1020	610.0114	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 14X23-INCH	LF	142.000	142.000
1030	611.0530	MANHOLE COVERS TYPE J	EACH	1.000	1.000
1040	611.0606	INLET COVERS TYPE B	EACH	2.000	2.000
1050	611.0612	INLET COVERS TYPE C	EACH	2.000	2.000
1060	611.0624	INLET COVERS TYPE H	EACH	5.000	5.000
1070	611.0642	INLET COVERS TYPE MS	EACH	4.000	4.000
1080	611.2005	MANHOLES 5-FT DIAMETER	EACH	1.000	1.000
1090	611.2055	MANHOLES 5X5-FT	EACH	1.000	1.000
1100	611.3004	INLETS 4-FT DIAMETER	EACH	5.000	5.000
1110	611.3230	INLETS 2X3-FT	EACH	3.000	3.000
1120	611.3901	INLETS MEDIAN 1 GRATE	EACH	4.000	4.000
1130	611.8110	ADJUSTING MANHOLE COVERS	EACH	1.000	1.000
1140	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	259.000	259.000
1150	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	4,962.000	4,962.000
1160	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1133-11-74 QUANTITY
1170	614.0305	STEEL PLATE BEAM GUARD CLASS A **P**	LF	318.500	318.500
1180	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	2.000	2.000
1190	614.0905	CRASH CUSHIONS TEMPORARY	EACH	11.000	11.000
1200	614.0920	SALVAGED RAIL	LF	3,257.000	3,257.000
1210	614.0925	SALVAGED GUARDRAIL END TREATMENTS	EACH	7.000	7.000
1220	614.1000	MGS GUARDRAIL TEMPORARY	LF	225.000	225.000
1230	614.1100	MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION	LF	39.500	39.500
1240	614.1200	MGS GUARDRAIL TEMPORARY TRANSITION EAT	EACH	1.000	1.000
1250	614.2300	MGS GUARDRAIL 3	LF	3,390.000	3,390.000
1260	614.2320	MGS GUARDRAIL 3 QS	LF	110.000	110.000
1270	614.2330	MGS GUARDRAIL 3 K	LF	312.500	312.500
1280	614.2500	MGS THRIE BEAM TRANSITION	LF	395.000	395.000
1290	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	5.000	5.000
1300	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	4.000	4.000
1310	616.0100	FENCE WOVEN WIRE (HEIGHT) 01. 4-FT	LF	3,665.000	3,665.000
1320	616.0700.S	FENCE SAFETY	LF	1,000.000	1,000.000
1330	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1133-11-74	EACH	1.000	1.000
1340	619.1000	MOBILIZATION	EACH	1.000	1.000
1350	620.0300	CONCRETE MEDIAN SLOPED NOSE **P**	SF	210.000	210.000
1360	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	19.000	19.000
1370	623.0200	DUST CONTROL SURFACE TREATMENT	SY	5,000.000	5,000.000
1380	624.0100	WATER	MGAL	1,080.000	1,080.000
1390	625.0500	SALVAGED TOPSOIL	SY	110,000.000	110,000.000
1400	627.0200	MULCHING	SY	103,000.000	103,000.000
1410	628.1104	EROSION BALES	EACH	290.000	290.000
1420	628.1504	SILT FENCE	LF	28,500.000	28,500.000
1430	628.1520	SILT FENCE MAINTENANCE	LF	28,500.000	28,500.000
1440	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	20.000	20.000
1450	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	20.000	20.000
1460	628.2004	EROSION MAT CLASS I TYPE B	SY	66,800.000	66,800.000
1470	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	8,650.000	8,650.000
1480	628.2023	EROSION MAT CLASS II TYPE B	SY	17,100.000	17,100.000
1490	628.6005	TURBIDITY BARRIERS	SY	690.000	690.000
1500	628.6510	SOIL STABILIZER TYPE B	ACRE	15.700	15.700
1510	628.7005	INLET PROTECTION TYPE A	EACH	17.000	17.000
1520	628.7010	INLET PROTECTION TYPE B	EACH	9.000	9.000
1530	628.7015	INLET PROTECTION TYPE C	EACH	14.000	14.000
1540	628.7020	INLET PROTECTION TYPE D	EACH	6.000	6.000
1550	628.7504	TEMPORARY DITCH CHECKS	LF	690.000	690.000
1560	628.7555	CULVERT PIPE CHECKS	EACH	45.000	45.000
1570	628.7560	TRACKING PADS	EACH	13.000	13.000
1580	628.7570	ROCK BAGS	EACH	530.000	530.000
1590	629.0210	FERTILIZER TYPE B	CWT	85.000	85.000
1600	630.0120	SEEDING MIXTURE NO. 20	LB	3,600.000	3,600.000
1610	630.0140	SEEDING MIXTURE NO. 40	LB	100.000	100.000
1620	630.0160	SEEDING MIXTURE NO. 60	LB	650.000	650.000
1630	630.0200	SEEDING TEMPORARY	LB	1,850.000	1,850.000
1640	633.0100	DELINEATOR POSTS STEEL	EACH	90.000	90.000
1650	633.0500	DELINEATOR REFLECTORS	EACH	100.000	100.000
1660	633.5200	MARKERS CULVERT END	EACH	60.000	60.000
1670	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	4.000	4.000

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1680	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	14.000	14.000
1690	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	14.000	14.000
1700	634.0810	POSTS TUBULAR STEEL 2X2-INCH X 10-FT	EACH	9.000	9.000
1710	635.9010.S	SIGN SUPPORTS SHORTEN STRUCTURAL STEEL	EACH	2.000	2.000
1720	636.0100	SIGN SUPPORTS CONCRETE MASONRY **P**	CY	2.000	2.000
1730	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	124.000	124.000
1740	637.0202	SIGNS REFLECTIVE TYPE II	SF	437.560	437.560
1750	637.0402	SIGNS REFLECTIVE FOLDING TYPE II	SF	25.000	25.000
1760	638.2101	MOVING SIGNS TYPE I	EACH	1.000	1.000
1770	638.2102	MOVING SIGNS TYPE II	EACH	47.000	47.000
1780	638.2602	REMOVING SIGNS TYPE II	EACH	14.000	14.000
1790	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	15.000	15.000
1800	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	41.000	41.000
1810	638.4100	MOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	2.000	2.000
1820	641.8100	OVERHEAD SIGN SUPPORT (STRUCTURE) 01. S-5-284	LS	1.000	1.000
1830	641.8100	OVERHEAD SIGN SUPPORT (STRUCTURE) 02. S-5-286	LS	1.000	1.000
1840	642.5401	FIELD OFFICE TYPE D 01. OFFICE 1	EACH	1.000	1.000
1850	642.5401	FIELD OFFICE TYPE D 02. OFFICE 2	EACH	1.000	1.000
1860	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1133-11-74	DAY	606.000	606.000
1870	643.0300	TRAFFIC CONTROL DRUMS	DAY	265,000.000	265,000.000
1880	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	3,500.000	3,500.000
1890	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	30,000.000	30,000.000
1900	643.0453	TRAFFIC CONTROL BARRICADES PERMANENT TYPE III	EACH	13.000	13.000
1910	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	40.000	40.000
1920	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	30.000	30.000
1930	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	50,000.000	50,000.000
1940	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	15,000.000	15,000.000
1950	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	1,000.000	1,000.000
1960	643.0900	TRAFFIC CONTROL SIGNS	DAY	60,000.000	60,000.000
1970	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	8.000	8.000
1980	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	35.000	35.000
1990	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	1,799.000	1,799.000
2000	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	1,000.000	1,000.000
2010	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 1133-11-74	EACH	1.000	1.000
2020	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	7,590.000	7,590.000
2030	645.0115	GEOTEXTILE FABRIC TYPE ES	SY	23,878.000	23,878.000
2040	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	6,040.000	6,040.000
2050	645.0130	GEOTEXTILE FABRIC TYPE R	SY	2,150.000	2,150.000
2060	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	83,040.000	83,040.000
2070	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	640.000	640.000
2080	646.0600	REMOVING PAVEMENT MARKINGS	LF	13,875.000	13,875.000
2090	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	2.000	2.000
2100	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3	EACH	1.000	1.000
2110	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	2.000	2.000
2120	647.0456	PAVEMENT MARKING CURB EPOXY	LF	65.000	65.000
2130	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24-INCH	LF	131.000	131.000
2140	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	2.000	2.000
2150	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	LF	300.000	300.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1133-11-74 QUANTITY
2160	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	140.000	140.000
2170	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	10,900.000	10,900.000
2180	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	6,500.000	6,500.000
2190	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	5,450.000	5,450.000
2200	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	55.000	55.000
2210	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	EACH	5.000	5.000
2220	649.2000	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE	EACH	1.000	1.000
2230	649.2100	TEMPORARY RAISED PAVEMENT MARKERS	EACH	385.000	385.000
2240	652.0125	CONDUIT RIGID METALLIC 2-INCH **P**	LF	518.000	518.000
2250	652.0135	CONDUIT RIGID METALLIC 3-INCH **P**	LF	28,632.000	28,632.000
2260	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH **P**	LF	11,916.000	11,916.000
2270	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH **P**	LF	388.000	388.000
2280	652.0240	CONDUIT RIGID NONMETALLIC SCHEDULE 40 4-INCH **P**	LF	260.000	260.000
2290	652.0615	CONDUIT SPECIAL 3-INCH **P**	LF	290.000	290.000
2300	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	8.000	8.000
2310	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	69.000	69.000
2320	653.0905	REMOVING PULL BOXES	EACH	11.000	11.000
2330	654.0101	CONCRETE BASES TYPE 1	EACH	4.000	4.000
2340	654.0102	CONCRETE BASES TYPE 2	EACH	5.000	5.000
2350	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	2.000	2.000
2360	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	1,110.000	1,110.000
2370	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	235.000	235.000
2380	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	520.000	520.000
2390	655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	LF	541.000	541.000
2400	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	2,515.000	2,515.000
2410	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	585.000	585.000
2420	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG **P**	LF	166,278.000	166,278.000
2430	655.0635	ELECTRICAL WIRE LIGHTING 2 AWG **P**	LF	52,160.000	52,160.000
2440	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. USH 41 NB & USH 141	LS	1.000	1.000
2450	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 02. USH 41 SB & USH 141	LS	1.000	1.000
2460	657.0100	PEDESTAL BASES	EACH	5.000	5.000
2470	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	4.000	4.000
2480	657.0310	POLES TYPE 3	EACH	3.000	3.000
2490	657.0315	POLES TYPE 4	EACH	1.000	1.000
2500	657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	EACH	2.000	2.000
2510	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	2.000	2.000
2520	657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	EACH	1.000	1.000
2530	657.0590	TROMBONE ARMS 20-FT	EACH	2.000	2.000
2540	657.0595	TROMBONE ARMS 25-FT	EACH	1.000	1.000
2550	657.0709	LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 12-FT	EACH	5.000	5.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1133-11-74 QUANTITY
2560	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	59.000	59.000
2570	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	6.000	6.000
2580	658.0115	TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	EACH	2.000	2.000
2590	658.0155	TRAFFIC SIGNAL FACE 3-12 INCH HORIZONTAL	EACH	3.000	3.000
2600	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	9.000	9.000
2610	658.0220	BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	EACH	2.000	2.000
2620	658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	EACH	2.000	2.000
2630	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	2.000	2.000
2640	658.0600	LED MODULES 12-INCH RED BALL	EACH	9.000	9.000
2650	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	9.000	9.000
2660	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	8.000	8.000
2670	658.0615	LED MODULES 12-INCH RED ARROW	EACH	2.000	2.000
2680	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	4.000	4.000
2690	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	3.000	3.000
2700	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	2.000	2.000
2710	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 01. USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)	LS	1.000	1.000
2720	659.0125	LUMINAIRES UTILITY HPS 250 WATTS	EACH	5.000	5.000
2730	674.0200	CABLE MICROWAVE DETECTOR	LF	631.000	631.000
2740	690.0150	SAWING ASPHALT	LF	9,553.000	9,553.000
2750	690.0250	SAWING CONCRETE	LF	7,620.000	7,620.000
2760	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	6,855.000	6,855.000
2770	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	2,100.000	2,100.000
2780	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	5,760.000	5,760.000
2790	SPV.0035	SPECIAL 002. RUBBISH PILE EXCAVATION	CY	7,500.000	7,500.000
2800	SPV.0035	SPECIAL 003. ROADWAY EMBANKMENT	CY	526,682.000	526,682.000
2810	SPV.0035	SPECIAL 004. DRAINAGE BLANKET	CY	41,912.000	41,912.000
2820	SPV.0035	SPECIAL 005. MUDJACKING	CY	5.000	5.000
2830	SPV.0035	SPECIAL 700. HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES **P**	CY	38,846.000	38,846.000
2840	SPV.0060	SPECIAL 001. CPM BASELINE SCHEDULE	EACH	1.000	1.000
2850	SPV.0060	SPECIAL 002. CPM SCHEDULE MONTHLY UPDATES	EACH	20.000	20.000
2860	SPV.0060	SPECIAL 003. REMOVING FIELD ENTRANCE	EACH	2.000	2.000
2870	SPV.0060	SPECIAL 004. REMOVING BUILDING PARCEL 16	EACH	1.000	1.000
2880	SPV.0060	SPECIAL 005. VIBRATING WIRE PIEZOMETER INSTRUMENTATION SYSTEM, DELIVERED	EACH	32.000	32.000
2890	SPV.0060	SPECIAL 006. SETTLEMENT GAUGES	EACH	21.000	21.000
2900	SPV.0060	SPECIAL 008. SECTION SURVEY MONUMENTS, RECONSTRUCT PROJECT	EACH	1.000	1.000
2910	SPV.0060	SPECIAL 009. COVER PLATES TEMPORARY SPECIAL	EACH	4.000	4.000
2920	SPV.0060	SPECIAL 150. SEDIMENTATION BASIN	EACH	15.000	15.000
2930	SPV.0060	SPECIAL 200. CRASH CUSHION TEMPORARY LEFT IN PLACE	EACH	11.000	11.000
2940	SPV.0060	SPECIAL 201. TEMPORARY THRIE BEAM CONNECTION LEFT IN PLACE	EACH	1.000	1.000
2950	SPV.0060	SPECIAL 203. CRASH CUSHIONS EXTRA WIDE TEMPORARY LEFT IN PLACE	EACH	1.000	1.000
2960	SPV.0060	SPECIAL 204. TRAFFIC CONTROL SIGNS MODIFIED	EACH	2.000	2.000

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DATE 05JUN13 E S T I M A T E O F Q U A N T I T I E S

LINE 1133-11-74

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
2970	SPV.0060	SPECIAL 350. GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES	EACH	160.000	160.000
2980	SPV.0060	SPECIAL 351. VAPOR PROOF L.E.D. LIGHT FIXTURE	EACH	382.000	382.000
2990	SPV.0060	SPECIAL 352. JUNCTION BOXES STAINLESS STEEL 27X18X8-INCH	EACH	388.000	388.000
3000	SPV.0060	SPECIAL 353. JUNCTION BOXES STAINLESS STEEL 27X24X12-INCH	EACH	24.000	24.000
3010	SPV.0060	SPECIAL 450. FURNISH AND INSTALL MICROWAVE BASED TRAFFIC SENSOR	EACH	3.000	3.000
3020	SPV.0060	SPECIAL 700. STANDPIPE SYSTEM	EACH	1.000	1.000
3030	SPV.0060	SPECIAL 701. PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	229.000	229.000
3040	SPV.0060	SPECIAL 702. PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	229.000	229.000
3050	SPV.0060	SPECIAL 703. ANCHOR BOLT ASSEMBLY OVERHEAD SIGN SUPPORTS	EACH	4.000	4.000
3060	SPV.0060	SPECIAL 850. HELICAL TIEBACK ANCHORS	EACH	78.000	78.000
3070	SPV.0075	SPECIAL 150. STREET SWEEPING	HRS	500.000	500.000
3080	SPV.0075	SPECIAL 200. TRUCK MOUNTED ATTENUATOR WITH OPERATOR	HRS	100.000	100.000
3090	SPV.0075	SPECIAL 201. TRUCK MOUNTED ATTENUATOR WITHOUT OPERATOR	HRS	100.000	100.000
3100	SPV.0085	SPECIAL 700. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	9,072.000	9,072.000
3110	SPV.0090	SPECIAL 001. STRIP DRAINS	LF	471,950.000	471,950.000
3120	SPV.0090	SPECIAL 002. PRE-BORED STRIP DRAINS	LF	259,650.000	259,650.000
3130	SPV.0090	SPECIAL 004. CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING, PLASTIC 1 LAYER	LF	1,630.000	1,630.000
3140	SPV.0090	SPECIAL 005. CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING, PLASTIC 2 LAYERS	LF	186.000	186.000
3150	SPV.0090	SPECIAL 200. CONCRETE BARRIER TEMPORARY PRECAST ANCHORING	LF	4,050.000	4,050.000
3160	SPV.0090	SPECIAL 201. CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE	LF	13,500.000	13,500.000
3170	SPV.0090	SPECIAL 202. GLARE SCREENS TEMPORARY	LF	1,550.000	1,550.000
3180	SPV.0090	SPECIAL 350. CONDUIT RIGID METALLIC PVC COATED 4-INCH **P**	LF	150.000	150.000
3190	SPV.0090	SPECIAL 700. DRIVING PILING STEEL STATE FURNISHED HP 14-INCH X 89 LB	LF	3,650.000	3,650.000
3200	SPV.0090	SPECIAL 702. DOWNSPOUT RTRP 6-INCH **P**	LF	2,595.000	2,595.000
3210	SPV.0090	SPECIAL 850. FENCE DECORATIVE WALL	LF	93.000	93.000
3220	SPV.0105	SPECIAL 001. SITE CLEARANCE PARCEL NO. 16	LS	1.000	1.000
3230	SPV.0105	SPECIAL 002. GRADING, SHAPING, AND FINISHING PARCEL NO. 16	LS	1.000	1.000
3240	SPV.0105	SPECIAL 003. REMOVING SAND BARREL ARRAY AND CONCRETE PAD: STA 1188+90 NIH LT	LS	1.000	1.000
3250	SPV.0105	SPECIAL 004. GEOTECHNICAL INSTRUMENTATION	LS	1.000	1.000
3260	SPV.0105	SPECIAL 005. TEMPORARY HAUL ROAD ACCESS FOR STRUCTURE CONSTRUCTION	LS	1.000	1.000
3270	SPV.0105	SPECIAL 006. TEMPORARY CREEK ACCESS FOR STRUCTURE B-05-681	LS	1.000	1.000
3280	SPV.0105	SPECIAL 007. SURVEY PROJECT 1133-11-74	LS	1.000	1.000

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DATE 05JUN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1133-11-74 QUANTITY
3290	SPV.0105	SPECIAL 008. MAINTENANCE ROAD EXCAVATION MR1	LS	1.000	1.000
3300	SPV.0105	SPECIAL 009. MAINTENANCE ROAD EXCAVATION MR2	LS	1.000	1.000
3310	SPV.0105	SPECIAL 010. MAINTENANCE ROAD EXCAVATION MR3	LS	1.000	1.000
3320	SPV.0105	SPECIAL 011. MAINTENANCE ROAD EXCAVATION MR4	LS	1.000	1.000
3330	SPV.0105	SPECIAL 012. MAINTENANCE ROAD EXCAVATION MR5	LS	1.000	1.000
3340	SPV.0105	SPECIAL 200. TRAFFIC CONTROL FOR DUCK CREEK RECREATIONAL VEHICLES	LS	1.000	1.000
3350	SPV.0105	SPECIAL 350. ELECTRICAL SERVICE INSTALLATION B-5-671	LS	1.000	1.000
3360	SPV.0105	SPECIAL 351. ELECTRICAL SERVICE INSTALLATION B-5-678	LS	1.000	1.000
3370	SPV.0105	SPECIAL 352. ELECTRICAL SERVICE INSTALLATION B-5-679	LS	1.000	1.000
3380	SPV.0105	SPECIAL 450. REMOVING TRAFFIC SIGNALS (USH 41 NB & USH 141)	LS	1.000	1.000
3390	SPV.0105	SPECIAL 700. ERECTING STRUCTURAL STEEL B-5-671	LS	1.000	1.000
3400	SPV.0105	SPECIAL 701. ERECTING STRUCTURAL STEEL B-5-678	LS	1.000	1.000
3410	SPV.0105	SPECIAL 702. ERECTING STRUCTURAL STEEL B-5-679	LS	1.000	1.000
3420	SPV.0105	SPECIAL 703. ERECTING STRUCTURAL STEEL B-5-681	LS	1.000	1.000
3430	SPV.0105	SPECIAL 704. FIELD PAINTING STRUCTURAL STEEL B-5-671	LS	1.000	1.000
3440	SPV.0105	SPECIAL 705. FIELD PAINTING STRUCTURAL STEEL B-5-678	LS	1.000	1.000
3450	SPV.0105	SPECIAL 706. FIELD PAINTING STRUCTURAL STEEL B-5-679	LS	1.000	1.000
3460	SPV.0105	SPECIAL 707. FIELD PAINTING STRUCTURAL STEEL B-5-681	LS	1.000	1.000
3470	SPV.0120	SPECIAL 001. WATER FOR SEEDED AREAS	MGAL	50.000	50.000
3480	SPV.0165	SPECIAL 700. ARCHITECTURAL SURFACE TREATMENT	SF	51,409.000	51,409.000
3490	SPV.0165	SPECIAL 701. STAINING CONCRETE	SF	294,344.000	294,344.000
3500	SPV.0165	SPECIAL 702. STAINING CONCRETE BRICK	SF	43,964.000	43,964.000
3510	SPV.0165	SPECIAL 703. LONGITUDINAL GROOVING BRIDGE DECK **P**	SF	154,776.000	154,776.000
3520	SPV.0165	SPECIAL 850. PRESTRESSED PRECAST CONCRETE WALL PANEL **P**	SF	20,098.000	20,098.000
3530	SPV.0165	SPECIAL 851. TEMPORARY SHORING LEFT IN PLACE	SF	1,890.000	1,890.000
3540	SPV.0165	SPECIAL 852. TEMPORARY WALL WIRE FACED MECHANICALLY STABILIZED EARTH	SF	2,770.000	2,770.000
3550	SPV.0165	SPECIAL 855. PILING STEEL SHEET TEMPORARY	SF	12,815.000	12,815.000
3560	SPV.0165	SPECIAL 950. SIGN BLANKS LEFT IN PLACE	SF	90.000	90.000
3570	SPV.0180	SPECIAL 001. GEOGRID REINFORCEMENT	SY	1,600.000	1,600.000
3580	SPV.0180	SPECIAL 150. TEMPORARY SLOPE DRAIN TO REMAIN	SY	230.000	230.000
3590	SPV.0180	SPECIAL 700. POLYMER OVERLAY	SY	40,248.000	40,248.000
3600	SPV.0195	SPECIAL 001. BASE AGGREGATE DENSE 3/4-INCH SPECIAL	TON	7,040.000	7,040.000

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DATE 05JUN13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1133-11-74 QUANTITY
3610	SPV.0195	SPECIAL 002. BREAKER RUN SPECIAL	TON	14,250.000	14,250.000

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CLEARING AND GRUBBING

STATION	-	STATION	OFFSET	LOCATION	201.0115 CLEARING ACRE	201.0120 CLEARING ID	201.0215 GRUBBING ACRE	202.0220 GRUBBING ID
STAGE 1								
68+50 HB	-	69+95 HB	RT & LT	HURLBURT STREET	0.14	-	0.14	-
100+30 TWT			RT	TEMP. WIETOR DRIVE	-	24	-	24
109+22 TWT			LT	TEMP. WIETOR DRIVE	-	3	-	3
109+83 TWT	-	110+64 TWT	RT	TEMP. WIETOR DRIVE	0.03	-	0.03	-
111+00 TWT	-	112+00 TWT	RT	TEMP. WIETOR DRIVE	-	3	-	3
107+00 TNIH	-	109+00 TNIH	RT	TEMP. IH 43 NB - US 41 NB	-	72	-	72
112+20 TNIH			LT	TEMP. IH 43 NB - US 41 NB	-	36	-	36
119+17 TNIH			RT	TEMP. IH 43 NB - US 41 NB	-	12	-	12
1170+85 EVEA	-	1173+00 EVEA	RT & LT	US 41 NB, OFF-RAMP	0.19	36	0.19	36
1171+25 IHA	-	1172+50 IHA	RT	US 41 NB - IH 43 SB	-	48	-	48
1174+75 IHA	-	1175+75 IHA	RT	US 41 NB - IH 43 SB	-	60	-	60
1182+00 IHA	-	1183+30 IHA	RT	US 41 NB - IH 43 SB	0.06	-	0.06	-
1184+55 IHA	-	1185+20 IHA	RT & LT	US 41 NB - IH 43 SB	0.06	-	0.06	-
1186+15 IHA	-	1195+30 IHA	RT & LT	US 41 NB - IH 43 SB	1.56	-	-	-
1195+77 IHA	-	1197+25 IHA	RT & LT	US 41 NB - IH 43 SB	0.10	-	0.10	-
1174+00 VEC	-	1176+00 VEC	RT	US 41 SB, EXIT RAMP	-	100	-	100
1174+75 VEC	-	1176+75 VEC	LT	US 41 SB, EXIT RAMP	-	30	-	30
1176+00 VEC	-	1178+45 VEC	RT	US 41 SB, EXIT RAMP	0.23	-	0.23	-
1177+00 VEC	-	1181+05 VEC	LT	US 41 SB, EXIT RAMP	0.33	-	0.33	-
1180+62 VEC	-	1181+07 VEC	RT	US 41 SB, EXIT RAMP	0.01	-	0.01	-
1181+75 VEC	-	1184+10 VEC	RT	US 41 SB, EXIT RAMP	-	140	-	140
1184+40 VEC	-	1184+80 VEC	LT & RT	US 41 SB, EXIT RAMP	0.03	-	0.03	-
1186+25 VEC	-	1191+20 VEC	RT	US 41 SB, EXIT RAMP	0.69	36	0.69	36
1191+85 VEC	-	1192+91 VEC	RT	US 41 SB, EXIT RAMP	0.04	-	0.04	-
SUBTOTALS STAGE 1					3.5	600	1.9	600

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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CLEARING AND GRUBBING (CONTINUED)

STATION	-	STATION	OFFSET	LOCATION	201.0115 CLEARING ACRE	201.0120 CLEARING ID	201.0215 GRUBBING ACRE	202.0220 GRUBBING ID
STAGE 1								
1174+70 IHB	-	1177+12 IHB	RT & LT	IH 43 NB - US 41 SB	0.50	-	0.50	-
1179+69 IHB	-	1189+00 IHB	RT & LT	IH 43 NB - US 41 SB	1.50	-	1.50	-
1199+55 IHB	-	1203+75 IHB	RT & LT	IH 43 NB - US 41 SB	0.36	60	0.22	60
1186+63 NMC	-	1192+90 NMC	RT	US 41 NB	1.22	24	1.22	24
1196+55 NMC	-	1199+35 NMC	RT	US 41 NB	0.63	12	0.63	12
1202+00 NMC	-	1203+10 NMC	RT	US 41 NB	0.08	36	0.08	36
1207+17 NMC			LT	US 41 NB	-	6	-	6
1208+35 NMC	-	1213+55 NMC	RT & LT	US 41 NB	0.60	-	0.60	-
1213+10 NMC	-	1213+25 NMC	LT	US 41 NB	-	36	-	36
1215+45 NMC	-	1220+70 NMC	RT & LT	US 41 NB	0.71	216	0.71	216
1128+50 NMC			RT	US 41 NB	-	12	-	12
1188+20 NIH	-	1188+80 NIH	RT & LT	IH 43 NB - US 41 NB	0.04	-	0.04	-
1190+50 NIH	-	1191+75 NIH	RT & LT	IH 43 NB - US 41 NB	-	48	-	48
1197+90 NIH	-	1203+10 NIH	RT & LT	IH 43 NB - US 41 NB	0.81	-	0.81	
1204+40 NIH	-	1205+58 NIH	LT	IH 43 NB - US 41 NB	0.12	-	0.12	-
1206+00 NIH	-	1208+00 NIH	RT & LT	IH 43 NB - US 41 NB	-	96	-	96
UNDISTRIBUTED					-	104	-	104
SUBTOTALS STAGE 1					6.6	650	6.4	650
PROJECT 1133-11-74 TOTALS					**10.0**	**1,250**	**8.3**	**1,250**

REMOVING SMALL PIPE CULVERTS

STATION	-	STATION	OFFSET	LOCATION	203.0100 EACH	NOTES
STAGE 1						
9+50		9+75	LT	ROSEWOOD	1	CMCP, APPROX 25 LF
12+85	-	12+90	LT-RT	ROSEWOOD	1	CMCP, APPROX 40 LF
1171+35	-	1171+42	RT	IHA	1	18" RCCP, APPROX 75 LF
1175+75	-	1175+75	LT	EVEB	1	24" RCCP, APPROX 60 LF
1175+82	-	1176+34	RT	EVEB	1	24" RCCP, APPROX 80 LF
1175+00	-	1175+20	RT	VEC	1	24" RCCP, APPROX 80 LF
1180+75		1181+05	LT	IHB	1	24" CMCP, APPROX 70 LF
98+52		98+84	LT	WT	1	CMCP, APPROX 40 LF
SUBTOTAL STAGE 1					8	
PROJECT TOTAL					**8**	

REMOVING FENCE

STATION	-	STATION	OFFSET	LOCATION	204.0170 LF
STAGE 1					
1166+73 IHB	-	1213+01 NMC	RT & LT	IH 43 WB TO US 41 NB	4,790
1167+93 EVEA	-	1173+64 EVEA	RT	US 41 NB, VELP OFF-RAMP	595
1175+65 EVEB	-	1184+62 NMC	RT	US 41 NB, ON-RAMP	1,065
1172+85 NMC	-	1184+56 NMC	LT	US 41 NB	1,295
1185+84 NMC	-	1192+59 NMC	LT	US 41 NB	810
1185+91 NMC	-	1192+64 NMC	RT & LT	US 41 NB	835
1215+62 NMC	-	1219+45 NMC	LT	US 41 NB	410
1220+00 NMC	-	1235+01 NMC	LT	US 41 NB	1,510
1197+20 IHA	-	112+01 TWT	RT & LT	IH 43 EB & WIETOR DRIVE	1,805
SUBTOTAL STAGE 1					13,115
PROJECT 1133-11-74 TOTAL					**13,115**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

PAVEMENT REMOVALS

STATION	-	STATION	OFFSET	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC PAVEMENT BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB AND GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	REMARKS
STAGE 1											
84+56 NBC	-	84+63 NBC	RT & LT	US 41 NB CROSSOVER	-	-	3	25	-	-	CONC. APPROACH SLABS
85+90 NBC	-	92+73 NBC	RT & LT	US 41 NB CROSSOVER	-	-	8	510	-	-	APPROACH SLABS & JOINT MILLING
95+35 NBC	-	96+80 NBC	RT & LT	US 41 NB CROSSOVER	-	-	3	45	-	-	APPROACH SLABS & JOINT MILLING
96+80 NBF	-	99+82 NBF	RT & LT	US 41 NB - IH 43 SB RAMP	-	-	5	740	-	-	RAMP LANE
98+60 TSIH	-	101+17 TSIH	RT & LT	IH 43 SB	170	-	-	-	-	-	SHOULDER
101+92 TWT	-	103+80 TWT	RT & LT	IH 43 SB	220	-	-	-	-	-	SHOULDER
102+03 TSIH	-	108+05 TSIH	RT	IH 43 NB	745	-	-	-	-	-	RT & LT SHOULDER
104+61 TWT	-	104+81 TWT	RT	TEMP. WIETOR DRIVE	40	-	-	-	-	-	
106+20 TNIH	-	110+70 TNIH	RT	TEMP. IH 43 NB - US 41 NB	430	-	-	-	-	-	RT SHOULDER
1168+01 IHB	-	1182+55 IHB	RT & LT	HURLBUT STREET	-	-	-	-	-	-	
1174+97 VEC	-	1175+23 VEC	RT	US 41 SB, OFF-RAMP	80	-	-	-	-	-	
1183+00 NMC	-	1184+33 NMC	RT	MEMORIAL CUL-DE-SAC	-	-	-	-	-	-	
1200+02 NMC	-	1201+17 NMC	RT	EXISTING US 41 NB - IH 43 SB	15	-	-	-	210	-	
106+96 TSIH	-	111+25 TSIH	LT	IH 43 SB	1,300	-	-	-	-	-	MAINLINE & SHOULDER
106+20 TNIH	-	107+76 TNIH	LT	TEMP. IH 43 NB - US 41 NB	140	-	-	-	-	-	LT SHOULDER
108+60 TNIH	-	108+95 TNIH	LT	TEMP. IH 43 NB - US 41 NB	30	-	-	-	-	-	LT SHOULDER
109+68 TNIH	-	113+98 TNIH	RT & LT	TEMP. IH 43 NB - US 41 NB	380	-	-	-	-	-	LT SHOULDER
115+45 TNIH	-	121+05 TNIH	RT & LT	TEMP. IH 43 NB - US 41 NB	500	-	-	-	-	-	LT SHOULDER
192+30 EVEW	-	201+60 EVEW	RT	VELP AVENUE	-	-	-	-	-	450	SOUTH SIDEWALK
1173+46 EVEA	-	1173+93 EVEA	RT & LT	US 41 NB, OFF-RAMP	1,950	-	-	-	110	-	ISLAND
1173+65 EVEA	-	1174+50 EVEB	RT & LT	US 41 NB RAMPS & VELP INT.	280	-	-	-	330	-	
1174+60 EVEB	-	1180+26 EVEB	RT & LT	US 41 NB, ON-RAMP	2,100	-	-	-	520	190	
176+21 TIHB		188+41 TIHB	RT	NB IH 43 WIDENING	2,900	-	-	-	-	-	
SUBTOTALS STAGE 1					11,280	0	19	1,320	1,170	640	
STAGE 2											
117+43 TNIH	-	118+41 TNIH	RT	TEMP. IH 43 NB - US 41 NB	150	-	-	-	-	-	RT SHOULDER
SUBTOTALS STAGE 2					150	0	0	0	0	0	
UNDISTRIBUTED					120	200	6	30	130	10	
PROJECT 1133-11-74 TOTALS					**11,550**	**200**	**25**	**1,350**	**1,300**	**650**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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REMOVING DELINEATORS AND MARKERS

STATION	-	STATION	OFFSET	LOCATION	204.0180 EACH
STAGE 1					
98+58 TSIH	-	103+00 TSIH	RT	IH 43 NB	5
98+58 TSIH	-	104+00 TSIH	LT	IH 43 SB	1
107+00 TSIH	-	111+00 TSIH	LT	IH 43 SB	5
106+00 TNIH	-	121+00 TNIH	RT	TEMP. IH 43 NB - US 41 NB	15
1166+00 EVEA	-	1173+00 EVEA	RT	US 41 NB, OFF-RAMP	8
1176+00 EVEB	-	1184+00 NMC	RT	US 41 NB, ON-RAMP	9
1195+50 NMC	-	1210+15 NMC	RT & LT	EXISTING US 41 NB - IH 43 SB	3
1216+00 IHB	-	1223+00 IHB	RT & LT	US 41 SB, OFF-RAMP	8
176+00 TIHB	-	189+00 TIHB	RT	IH 43 NB	8
UNDISTRIBUTED					8
SUBTOTAL STAGE 1					70
PROJECT TOTAL					**70**

REMOVING FIELD ENTRANCE

STATION	OFFSET	LOCATION	SPV.0060.003 EACH	NOTES
STAGE 1				
9+61	LT	ROS	1	APPROXIMATELY 25 CY
98+80	LT	TWT	1	APPROXIMATELY 40 CY
SUBTOTAL STAGE 1			2	
PROJECT TOTAL			**2**	

REMOVING SURFACE DRAINS

STATION	OFFSET	LOCATION	204.0190 EACH	NOTES
STAGE 1				
202+55	LT	EVEW	1	CONCRETE, APPROX DIMENSION 12' X 20'
SUBTOTAL STAGE 1			1	
PROJECT TOTAL			**1**	

REMOVING RUBBISH PILE

STATION	-	STATION	OFFSET	LOCATION	SPV.0035.002 CY
STAGE 1					
1179+65	-	1184+10	RT	IHB	7,500
SUBTOTAL STAGE 1					7,500
PROJECT TOTAL					**7,500**

REMOVING SAND BARREL ARRAY AND CONCRETE PAD
STATION 1188+90 NIH LT

SPV.0105.003

STAGE	LOCATION	LS	BARRELS * EACH	CONCRETE PAD * SF
STAGE 1				
	NB IH 43	1	10	200
STAGE 1 SUBTOTAL		1		
PROJECT TOTAL		**1**		

* INFORMATION FOR BIDDING PURPOSES ONLY, QUANTITIES ARE APPROXIMATE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

REMOVING AND ABANDONING STORM SEWER

STATION	- STATION	OFFSET	LOCATION	204.0215 REMOVING CATCH BASIN EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 12-INCH LF	204.0245.02 REMOVING STORM SEWER 18-INCH LF	204.0260 ABANDONING INLETS EACH	204.0270 ABANDONING CULVERT PIPES EACH	NOTES
STAGE 1										
1173+29	- 1173+40	LT	EVEA	--	--	20	--	--	--	
	1173+40	LT	EVEA	--	1	--	--	--	--	
1173+40	- 1173+50	LT	EVEA	--	--	20	--	--	--	
	1173+50	LT	EVEA	--	1	--	--	--	--	
1173+50	- 1173+88	LT	EVEA	--	--	30	--	--	--	
	1173+88	LT	EVEA	--	--	--	--	1	--	
	1172+55	LT	IHA	--	--	--	--	1	--	
1172+40	- 1172+55	LT	IHA	--	--	70	--	--	--	
	200+58	RT	EVEW	--	1	--	--	--	--	
	200+59	RT	EVEW	--	1	--	--	--	--	
	200+67	RT	EVEW	1	--	--	--	--	--	
200+49	- 200+59	RT	EVEW	--	--	--	--	--	1	12" RCCP
200+49	- 200+58	RT	EVEW	--	--	--	--	--	1	12" RCCP
200+59	- 200+67	RT	EVEW	--	--	15	--	--	--	
	1186+05	LT	NMC	--	--	--	--	2	--	
1186+05	- 1186+33	RT	NMC	--	--	85	--	--	--	
1185+95	- 1186+05	LT	NMC	--	--	30	--	--	--	
1195+44	- 1195+50	LT	NMC	--	--	55	--	--	--	
	1195+47	LT	NMC	--	--	--	--	2	--	
1195+47	- 1195+60	LT	NMC	--	--	30	--	--	--	
1195+43	1195+47	LT	NMC	--	--	55	--	--	--	
1200+63	- 1201+06	RT	NMC	--	--	45	--	--	--	
	1201+06	RT	NMC	--	--	--	--	1	--	
180+50	180+93	LT & RT	TIHB	--	--	--	--	--	1	18" RCCP
				--	--	--	--	--	--	
SUBTOTAL STAGE 1				1	4	455	0	7	3	
STAGE 2										
78+60	81+50	LT	SBC	--	--	--	280	--	--	SLOTTED DRAIN INSTALLED IN USH 41 SB CROSSOVERS
98+40	102+80	LT & RT	SBC	--	--	--	440	--	--	SLOTTED DRAIN INSTALLED IN USH 41 SB CROSSOVERS
SUBTOTALS STAGE 2				0	0	0	720	0	0	
PROJECT 1133-11-74 TOTALS				**1**	**4**	**455**	**720**	**7**	**3**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

Earthwork Summary Table

Category	From/To Station	Location	Excavation Common (CY) (1) 205.0100			Structural Backfill (CY) (5)	Excavation Marsh (CY) (6) 205.0400		Fill (CY) (7)	Drainage Blanket Fill (CY) (8)	Drainage Blanket (CY) (9) SPV.0035.004	Roadway Embankment (CY) (10) SPV.0035.003	Mass Ordinate +/- (11)	Comment:
			Cut (CY) (2)	EBS (CY) (3)	Drainage Blanket Cut (CY) (4)		General Marsh Excavation (CY)	Toe Trench Marsh Excavation (CY)						
1000	14+50 - a28+21 BP1	Shared Use Path - North of Duck Creek	1,366	695	0	0	0	0	9,612	0	0	10,307	-8,940	
	28+18 - 30+50 EDR	East Deerfield Ave	417	0	0	0	0	0	136	0	0	136	280	
	1166+00 - 1173+92 EVEA	Short-Term NB 41 Off-Ramp to Velp Ave	3,031	0	0	0	12,392	8,431	5,099	0	0	17,491	-14,460	
	1175+00 - 1184+86 EVEB	Temporary NB 41 On-Ramp from Velp Ave	7,944	0	4,321	0	0	0	39,320	575	4,041	40,175	-27,910	
	200+15 - 203+92 EVEW	WB Velp Ave	3,200	0	0	0	0	0	374	0	0	374	2,826	
	68+00 - 69+80 HB	Hurlbut St	372	0	0	0	0	0	346	0	0	346	27	
	1162+45 - 1197+50 IHA	NB 41 - SB 43 flyover ramp	356	0	3,522	7,689	1,985	0	49,714	0	1,194	46,337	-42,459	
	1158+25 - 1172+00 IHA (median widen)	NB 41 - SB 43 flyover ramp (widening)	516	0	0	0	0	0	17	0	0	17	498	
	1169+50 - 1177+33 IHB	NB 43 - SB 41 flyover ramp	74	0	0	0	7,465	0	10,911	0	5,463	12,914	-12,840	
	75+50 - 100+00 NBC	NB 41 Crossover	1,789	0	0	0	0	0	75	0	0	75	1,713	
	1178+40 - 1187+88 NIH	NB 43 - NB 41 ramp	2,017	0	0	3,120	11,473	0	27,127	0	5,361	30,119	-28,102	
	1185+65 - 1235+00 NMC	NB USH 41	519	0	2,859	0	60,402	0	261,545	244	21,050	304,000	-300,622	
	63+00 - 80+00 MR3	Maintenance Road 3	0	150	0	0	0	0	0	0	0	0	0	
	47+00 - 113+50 MR5	Maintenance Road 5	0	1,100	0	0	0	0	0	0	0	0	0	
	10+20 - 14+45 ROS	Rosewood Street	1,238	0	0	0	0	0	191	0	0	191	1,047	
	1161+25 - 1169+10 RVEA	Long-Term NB Off-Ramp to Velp Ave	435	0	0	0	0	0	2,356	0	0	2,356	-1,921	
	75+50 - 105+47 SBC	SB 41 Crossover	3,647	0	0	0	0	0	123	0	0	123	3,524	
	172+54 - 188+58 TIHB	Temporary NB 43 Widening	1,987	0	0	0	0	0	325	0	0	325	1,663	
	106+20 - 121+50 TNIH	Temporary NB 43 - NB 41 ramp	1,962	0	0	0	0	0	4,850	0	0	4,850	-2,888	
	98+60 - 111+27 TSIH	Temporary SB 41 - SB 43 ramp	2,392	0	0	3,735	0	0	681	0	0	681	1,710	
	100+10 - 111+75 TWT	Temporary Wietor Dr	3,451	0	0	0	0	1,055	103	0	0	103	3,348	
	1175+30 - 1184+75 VEC	SB 41 off-ramp to Velp Ave	2,092	0	5,683	0	0	0	54,528	352	4,802	55,761	-47,985	
Project Sub-Total			38,805	1,945	16,386	14,544	93,717	9,486	467,435	1,170	41,912	526,682	-471,491	
Project 1133-11-74 Total			**57,135**				**103,203**				**41,912**	**526,682**		

1) Excavation Common = Cut + EBS Excavation + Drainage Blanket Cut. Item number 205.0100.
2) Cut volume includes concrete and asphaltic surface material.
3) EBS Excavation to be backfilled with roadway embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
4) Additional excavation necessary to install drainage blanket. Measured from bottom of drainage blanket to existing ground.
5) For information purposes only - see structure plans for details. Structural backfill quantities have been removed from Roadway Embankment quantities.
6) Excavation Marsh limits as identified in the cross sections. The material designated as Excavation Marsh is planned to be wasted offsite. Any areas designated as Excavation Marsh in the plans will be paid for as Excavation Marsh, regardless of the type of material encountered. Additionally, if the contractor's operations allow for the marsh excavation to be used as fill onsite, then its excavation will be paid as Excavation Marsh. Unless otherwise specified in plans, all marsh excavation is assumed to be backfilled with Roadway Embankment. Toe trench is to be backfilled with Breaker Run.
7) Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
8) Fills necessary below drainage blanket. Measured from bottom of drainage blanket to existing ground.
9) Volume occupied by drainage blanket has been removed from Roadway Embankment quantity.
10) Roadway Embankment = [(EBS Excavation + Drainage Blanket Cut + General Marsh Excavation + Fill + Drainage Blanket Fill) - Drainage Blanket - Structural Backfill]
11) The Mass Ordinate: A positive quantity indicates an excess of material within the project and a negative quantity indicates a shortage of material within the project. Structure Excavation is not included in this calculation.
Mass Ordinate = (Cut + Drainage Blanket Cut) - Roadway Embankment. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite.

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REMOVING BUILDING PARCEL 16

	STATION	OFFSET	LOCATION	SPV.0060.004 EACH
STAGE 1				
	1180+00	RT	NMC	1
SUBTOTAL STAGE 1				1
PROJECT TOTAL				**1**

SITE CLEARANCE PARCEL NO. 16

SPV.0105.001

STAGE	STATION	TO	STATION	OFFSET	LOCATION	EACH	CLEARING * ID	GRUBBING * ID	REMOVING * ASPHALTIC SURFACE SY	REMOVING * SIDEWALK SY
STAGE 1A										
	1178+80 NMC	-	1182+80	RT	NMC	1	36	36	2,580	75
SUBTOTAL STAGE 1A						1	36	36	2,580	75
PROJECT TOTALS						1				

* ITEMS & QUANTITIES LISTED FOR BID INFORMATION ONLY.

GRADING, SHAPING, AND FINISHING PARCEL NO. 16

SPV.0105.002

STAGE	STATION	TO	STATION	OFFSET	LOCATION	EACH	EXCAVATION * COMMON CY	EXCAVATION * BORROW CY	TOPSOIL * SY	FERTILIZER * TYPE B CWT	SEEDING * MIXTURE NO. 40 LBS	SEEDING * TEMPORARY LBS	MULCHING * SY
STAGE 1A													
	1178+80 NMC	-	1182+80	RT	NMC	1	100	5,000	4,300	2.7	80	80	4,300
SUBTOTAL STAGE 1A						1	100	5,000	4,300	2.7	80	80	4,300
PROJECT TOTALS						1							

* ITEMS & QUANTITIES LISTED FOR BID INFORMATION ONLY.

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TEMPORARY SHORING

STAGE	STATION	OFFSET	LOCATION	ROADWAY	206.6000.S SF
STAGE 1A - 2A					
	1197+25		IHA: B-05-671, E. ABUT. & R-05-255	NB USH 41 TO SB I-43	1400
	1174+83		IHA: B-05-0671, PIER 1	NB USH 41	1000
SUBTOTAL STAGE 1A-2A					2400
STAGE 1B-2A					
	104+00	LT	TSIH: B-05-677, CENTRAL PIER, & B-05-678, PIER 18	SB USH 41 TO SB I-43	1200
	1179+15	LT	EVEB: B-05-671, PIER 3	VELP AVE. NB ON-RAMP	250
	1180+50	RT	EVEB: B-05-671, PIER 4	VELP AVE. NB ON-RAMP	600
	108+80	LT	TNIH: B-05-678, PIER 14	NB I-43 TO NB USH 41	900
	118+25	RT	TNIH: B-05-681, PIER 2	NB I-43 TO NB USH 41	900
SUBTOTAL STAGE 1B-2A					3850
STAGE 2A					
	1207+62	LT	IHB: B-05-678, PIER 19	WIETOR DRIVE	900
SUBTOTAL STAGE 2A					900
PROJECT TOTAL					**7,150**

SPECIAL AGGREGATE ITEMS

STATION -	STATION	OFFSET	LOCATION	SPV.0195.001 BASE AGGREGATE DENSE 3/4-INCH SPECIAL TON	SPV.0195.002 BREAKER RUN SPECIAL TON	645.0120 *GEOTEXTILE FABRIC TYPE HR SY	NOTE
STAGE 1							
69+50	95+75	RT & LT	MR1	2,320	3,850	--	
100+00	103+75	RT & LT	MR2	680	1,200	--	
30+00	38+07	RT & LT	MR3	810	1,550	--	
86+00	95+22	RT & LT	MR4	920	1,350	--	
87+50	113+45	RT & LT	MR5	2,310	3,800	--	
UNDISTRIBUTED				--	2,500	5,000	
SUBTOTALS STAGE 1				7,040	14,250	5,000	
PROJECT TOTALS				**7,040**	**14,250**	**5,000**	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

AGGREGATE ITEMS

STATION	-	STATION	OFFSET	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4 -INCH TON	311.0110 BREAKER RUN TON	NOTE
STAGE 1								
10+20	-	14+43	RT & LT	ROS	27	1270	960	
	-	12+50	RT	ROS	24	0	0	PRIVATE ENTRANCE
1161+00	-	1173+80	RT & LT	EVEA	148	3560	3355	
1168+00	-	1172+58	RT & LT	NMC	87	335	425	NB WIDENING
198+99	-	203+93	RT & LT	EVEW	0	830	730	
1175+51	-	1178+66	RT	SMC	51	150	220	
1175+18	-	1184+86	RT & LT	EVEB	106	1955	1410	
1179+52	-	1182+76	LT	NMC	20	230	235	
1180+26	-	1184+61	LT	NMC	63	200	290	CROSSOVER WIDENING
1177+76	-	1184+67	LT	SMC	36	310	0	
1185+88	-	1192+70	LT	NMC	94	305	435	CROSSOVER WIDENING
1185+89	-	1192+72	LT	NMC	94	410	525	CROSSOVER WIDENING
1195+31	-	1199+71	LT	NMC	27	200	210	SHOULDER WIDENING
1195+33	-	1200+49	LT	NMC	15	300	0	SHOULDER WIDENING
1201+51	-	1205+55	RT	SMC	25	190	200	CROSSOVER WIDENING
100+08	-	111+75	RT & LT	TWT	137	1780	0	
98+60	-	111+25	RT & LT	TSIH	106	2755	2055	
102+38	-	104+90	RT	TSIH	32	190	0	WIDENING BY TEMP. WALL
1200+66	-	1202+91	LT	SIH	18	0	0	SHOULDER WIDENING
172+00	-	188+60	LT	TIHB	122	2225	2050	NB IH 43
1175+04	-	1175+23	RT	VEC	3	55	50	CULVERT REPLACEMENT
14+50	-	28+23	RT & LT	BP1	0	745	0	SHARED USE PATH
		180+35	RT & LT	TIHB	3	55	50	CULVERT REPLACEMENT
75+30	-	84+75	LT	SBC	140	640	805	SOUTH SB 41 CROSSOVER
95+30	-	105+48	RT & LT	SBC	152	630	805	NORTH SB 41 CROSSOVER
	MEMORIAL DR.		LT	MEM	0	260	0	PROPOSED FILL FOR TURN
	HURLBUT		RT & LT	HB	0	440	665	PROPOSED CUL-DE-SAC
	E. DEERFIELD DR.		RT & LT	EDR	0	550	0	PROPOSED CUL-DE-SAC
1168+50	-	1172+50	RT	EVEA	0	0	14800	TOE TRENCH
103+50	-	104+50	LT	TWT	0	0	1900	TOE TRENCH
SUBTOTAL STAGE 1					1,530	20,570	32,180	
STAGE 2								
106+21	-	121+05	RT & LT	TNIH	110	3490	2560	
198+88	-	199+83	RT	EVEW	0	80	70	
1175+17	-	1180+50	LT	EVEB	75	0	0	
1203+04	-	1203+66	LT	SIH	40	0	0	
SUBTOTAL STAGE 2					230	3570	2630	
PROJECT TOTALS					**1,760**	**24,140**	**34,810**	

BACKFILL GRANULAR FOR MAINTENANCE ROAD CULVERTS

STATION	-	OFFSET	LOCATION	209.0100 BACKFILL GRANULAR CY
STAGE 1				
17+10		LT & RT	BP1	4
25+22		RT	BP1	4
27+97		LT & RT	BP1	4
78+50		LT & RT	MR1	6
86+72		LT & RT	MR1	6
93+00		LT & RT	MR1	6
100+50		LT & RT	MR2	6
103+45		LT & RT	MR2	6
30+39		LT & RT	MR3	6
31+00		LT & RT	MR3	6
32+50		LT & RT	MR3	6
88+50		LT & RT	MR4	6
93+17		LT & RT	MR4	6
95+00		LT & RT	MR4	9
95+40		LT & RT	MR5	6
107+00		LT & RT	MR5	6
PROJECT TOTAL				**93**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TEMPORARY ACCESS ROADS

STAGE	LOCATION	SPV.0105.005 TEMPORARY HAUL ROAD ACCESS FOR STRUCTURE CONSTRUCTION LS	SPV.0105.006 TEMPORARY CREEK ACCESS FOR STRUCTURE B-05-0681 LS
STAGE 1			
	VARIOUS HAUL ROADS	1	--
	DUCK CREEK CAUSWAY AND ACCESS ROAD	--	1
STAGE 1 SUBTOTALS		1	1
PROJECT TOTALS		**1**	**1**

ASPHALTIC RUMBLE STRIPS

STAGE	STATION	-	STATION	OFFSET	LOCATION	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP LF
STAGE 1						
	106+00		121+00	RT	TNIH	1500
	1158+24		1172+58	RT	NMC	1440
	172+53		188+57	LT	TIHB	1610
	UNDISTRIBUTED					--
STAGE 1 SUBTOTALS						4550
STAGE 2						
	1175+51		1178+66	RT	SMC	320
	1180+26		1184+61	LT	NMC	440
	1185+88		1192+69	LT	NMC	690
	1185+88		1192+71	LT	NMC	690
	1195+32		1199+72	LT	NMC	440
	1201+52		1205+55	RT	SMC	410
STAGE 2 SUBTOTALS						2990
PROJECT TOTALS						**7,540**

SURFACE DRAINS & FLUMES

STAGE	STATION	LOCATION	OFFSET	312.0110 SELECT CRUSHED MATERIAL TON	416.1010 CONCRETE SURFACE DRAIN CY	465.0315 ASPHALTIC FLUME SY	SPV.0180.150 TEMPORARY SLOPE DRAIN TO REMAIN SY
STAGE 1							
	11+18	ROS	LT	--	1.5	--	--
	14+25	ROS	RT	--	1.5	--	--
	1173+28	EVEA	RT	--	--	12	--
	1173+50	EVEA	LT	--	--	10	--
	1172+68	NMC	RT	--	--	7	--
	1186+00	NMC	LT	--	--	10	--
	1186+05	NMC	LT	--	--	10	--
	1195+52	NMC	LT	--	--	10	--
	1195+55	NMC	LT	--	--	10	--
	200+19	EVEW	RT	--	--	6	--
	1175+14	EVEB	LT	--	--	7	--
	1175+65	EVEB	RT	--	--	10	--
	1186+05	NMC	LT	--	--	12	--
	1190+30	NMC	LT	--	--	9	--
	1190+30	NMC	RT	--	--	22	--
	1201+07	NMC	RT	--	--	16	--
STAGE 1 SUBTOTAL				0	3	151	0
STAGE 2							
	1172+00	IHA	RT	15	--	--	60
	1216+76	IHB	LT	10	--	--	15
	1192+75	NMC	LT	20	--	--	10
	1192+75	NMC	RT	--	--	--	15
	1202+90	NMC	RT & LT	15	--	--	25
	1220+50	NMC	RT & LT	15	--	--	15
	1197+00	IHA	RT	20	--	--	45
	1187+00	NIH	RT & LT	10	--	--	20
	1176+60	IHB	RT	10	--	--	10
	1176+60	IHB	LT	--	--	--	15
STAGE 2 SUBTOTAL				115	0	0	230
PROJECT TOTALS				**115**	**3**	**151**	**230**

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ASPHALT PAVEMENT ITEMS

	STATION	-	STATION	OFFSET	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 5.5% TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	NOTES
STAGE 1										
	1168+00	-	1172+58	RT & LT	NMC	10	5	0	165	
	1161+06	-	1173+92	RT & LT	RVEA RAMP	81	40	0	1470	
	200+07	-	201+29	RT	EVEW	5	5	0	90	
	198+99	-	199+33	RT	EVEW	2	5	0	35	
	1175+04	-	1175+23	RT	VEC	2	5	0	25	CULVERT INSTALLATION
	1174+70	-	1184+36	RT	EVEB RAMP	44	20	0	790	INCLUDES VELP TURN LANE
	1175+51	-	1178+66	RT	SMC	4	5	0	70	
	1177+70	-	1184+67	LT	SMC	7	5	0	130	VELP EXIT WIDENING
	1179+52	-	1182+76	LT	NMC	7	5	0	115	SHOULDER TRANSITION
	1180+26	-	1184+61	LT	NMC	6	5	0	100	
	1185+88	-	1192+70	LT	NMC	9	5	0	155	SHOULDER WIDENING
	1185+89	-	1192+71	LT	NMC	3	5	0	40	JOINT LINE MILL AREA
	1185+90	-	1192+72	LT	NMC	12	10	0	205	SHOULDER WIDENING
	1195+47	-	1199+37	LT	NMC	5	5	0	85	SHOULDER WIDENING
	1195+47		1200+49	LT	NMC	25	15	0	440	GORE TRANSITION REPLACEMENT
	1201+52		1205+80	RT	SMC	5	5	0	90	SHOULDER WIDENING
	1200+66	-	1202+88	LT	SIH	3	5	0	40	SHOULDER WIDENING
	98+60	-	111+25	RT & LT	TSIH	62	30	0	1115	
	102+31	-	104+93	RT	TSIH	6	5	0	110	WIDENING IN FRONT OF TEMP. WALL
	106+20	-	110+71	RT	TNIH	13	10	0	230	
	106+20	-	107+76	LT	TNIH	4	5	0	55	
	108+59	-	108+95	LT	TNIH	1	5	0	10	
	109+68	-	121+05	RT & LT	TNIH	60	30	0	1090	
	117+42	-	118+39	RT	TNIH	3	5	0	50	
			178+55	RT & LT	TIHB	2	5	0	25	STORM SEWER INSTALLATION
	75+30	-	84+75	LT	SBC	2	5	0	30	SOUTH SB USH 41 CROSSOVER
	95+30	-	105+48	RT & LT	SBC	2	5	0	30	NORTH SB USH 41 CROSSOVER
					MEMORIAL CDS	5	5	95	0	
SUBTOTALS STAGE 1						390	260	95	6790	
STAGE 2										
	10+20	-	14+43		ROSEWOOD	17	10	305	0	
	100+08	-	103+80	RT & LT	TWT	8	5	135	0	
	104+61	-	106+81	RT	TWT	1	5	10	0	
	107+00	-	111+79	RT & LT	TWT	13	10	235	0	
SUBTOTALS STAGE 2						39	30	685	0	
PROJECT TOTALS						**429**	**290**	**780**	**6,790**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

APRON ENDWALLS

STRUCTURE	-	STRUCTURE	STATION	- OFFSET	LOCATION	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.1618 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 10 TO 1 EACH	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	523.0514 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HE 14X23-INCH EACH	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HE 19X30-INCH EACH	JOINT TIES *	NOTES
STAGE 1														
AE 03	-	AE 04	1171+00	LT & RT	EVEA	--	--	--	--	2	--	2	12	
601		AE 106	1162+50	RT	IHA	--	--	--	--	1	--	--	12	
AE 101	-	101	--	LT	ROS	--	--	--	1	--	--	--	2	
102	-	AE 102	13+00	LT & RT	ROS	--	--	--	1	--	--	--	2	
301	-	AE 103	202+00	LT	EVEW	--	--	1	--	--	--	--	2	
AE 05	-	AE 06	1177+00	LT & RT	EVEB	--	--	--	--	--	--	2	12	
701		AE 107	1180+92	RT	EVEB	--	--	--	--	1	--	--	12	
EXIST.	-	AE 42	1183+07	RT	VEB	--	--	--	1	--	--	--	12	
AE 40	-	AE 41	1175+30	RT	VEC	--	--	--	--	2	--	--	12	
503		AE 105	1177+75	LT	VEC	--	--	--	1	--	--	--	6	
AE 45	-	AE 46	1193+60	LT & RT	NMC	--	--	--	1	--	--	--	12	
AE 07	-	AE 08	17+10	LT & RT	BP1	--	--	--	2	--	--	--	6	
EXIST.	-	AE 09	25+22	LT & RT	BP1	--	--	--	1	--	--	--	12	CONNECT TO EXISTING
AE 10	-	AE 11	27+97	LT & RT	BP1	--	--	--	2	--	--	--	6	
802		AE 104	178+53	RT	TIHB						1		6	
AE 12	-	AE 13	79+53	LT & RT	MR1	--	--	--	2	--	--	--	12	
AE 14	-	AE 15	86+72	LT & RT	MR1	--	--	--	2	--	--	--	10	
AE 16	-	AE 17	93+00	LT & RT	MR1	--	--	--	2	--	--	--	10	
AE 43	-	AE 44	96+20	LT	MR4	2	--	--	--	--	--	--	--	
EXIST.	-	AE 39	99+97	RT	TSIH	--	--	--	--	1	--	--	4	CONNECT TO EXISTING
AE 01	-	AE 02	101+75	LT & RT	TSIH	--	--	--	2	--	--	--	12	
AE 18	-	AE 19	100+50	LT & RT	MR2	--	--	--	2	--	--	--	10	
AE 20	-	AE 21	103+45	LT & RT	MR2	--	--	--	2	--	--	--	10	
AE 22	-	AE 23	30+33	LT & RT	MR3	--	--	--	2	--	--	--	10	
AE 24	-	AE 25	31+00	LT & RT	MR3	--	--	--	2	--	--	--	10	
AE 26	-	AE 27	32+50	LT & RT	MR3	--	--	--	2	--	--	--	10	
AE 28	-	AE 29	88+50	LT & RT	MR4	--	--	--	2	--	--	--	10	
AE 30	-	AE 31	93+17	LT & RT	MR4	--	--	--	2	--	--	--	10	
AE 32	-	AE 33	95+00	LT & RT	MR4	--	--	--	2	--	--	--	12	
AE 34	-	AE 35	95+40	LT & RT	MR5	--	--	--	--	2	--	--	10	
EXIST.	-	AE 36	100+40	RT	MR5	--	--	--	--	1	--	--	4	CONNECT TO EXISTING
AE 37	-	AE 38	107+00	LT & RT	MR5	--	--	--	2	--	--	--	10	
CAP		AE 47	80+00	LT	SBC	--	1	--	--	--	--	--	--	
AE 48		AE 49	100+00	LT & RT	SBC	--	2	--	--	--	--	--	--	
SUBTOTAL STAGE 1						2	3	1	36	10	1	4		
PROJECT TOTALS						**2**	**3**	**1**	**36**	**10**	**1**	**4**		

* FOR INFORMATION ONLY: JOINT TIES ARE REQUIRED FOR ALL ENDWALL LOCATIONS SEE SDD.

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

3

CULVERT PIPES

STRUCTURE	-	STRUCTURE	STATION	- OFFSET	LOCATION	520.8000 * CONCRETE COLLARS FOR PIPE EACH	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.2005.S SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 18-INCH LF	522.0118 CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	523.0419 CULVERT PIPE REINFORCED CONCRETE CLASS IV HE 19X30-INCH LF	NOTES
STAGE 1												
AE 03	-	AE 04	1171+00	LT & RT	EVEA	--	--	--	--	--	66	
AE 05	-	AE 06	1176+75	LT & RT	EVEB	--	--	--	--	--	70	
EXIST.	-	AE 42	1183+07	RT	VEB	1	--	--	66	--	--	
AE 40	-	AE 41	1175+30	RT	VEC	--	--	--	--	68	--	
AE 07	-	AE 08	17+10	LT & RT	BP1	--	--	--	38	--	--	
EXIST.	-	AE 09	25+22	LT & RT	BP1	1	--	--	80	--	--	CONNECT TO EXISTING
AE 10	-	AE 11	27+97	LT & RT	BP1	--	--	--	36	--	--	
AE 12	-	AE 13	78+50	LT & RT	MR1	--	--	--	24	--	--	
AE 14	-	AE 15	86+72	LT & RT	MR1	--	--	--	22	--	--	
AE 16	-	AE 17	93+00	LT & RT	MR1	--	--	--	22	--	--	
AE 43	-	AE 44	95+00	LT	MR4	--	27	--	--	--	--	
EXIST.	-	AE 39	99+97	RT	TSIH	1	--	--	--	8	--	CONNECT TO EXISTING
AE 01	-	AE 02	101+75	LT & RT	TSIH	--	--	--	148	--	--	
AE 18	-	AE 19	100+50	LT & RT	MR2	--	--	--	20	--	--	
AE 20	-	AE 21	103+45	LT & RT	MR2	--	--	--	20	--	--	
AE 22	-	AE 23	30+33	LT & RT	MR3	--	--	--	20	--	--	
AE 24	-	AE 25	31+00	LT & RT	MR3	--	--	--	20	--	--	
AE 26	-	AE 27	32+50	LT & RT	MR3	--	--	--	20	--	--	
AE 28	-	AE 29	88+50	LT & RT	MR4	--	--	--	20	--	--	
AE 30	-	AE 31	93+17	LT & RT	MR4	--	--	--	20	--	--	
AE 32	-	AE 33	95+00	LT & RT	MR4	--	--	--	48	--	--	
AE 34	-	AE 35	95+40	LT & RT	MR5	--	--	--	--	20	--	
EXIST.	-	AE 36	100+40	RT	MR5	1	--	--	--	8	--	CONNECT TO EXISTING
AE 37	-	AE 38	107+00	LT & RT	MR5	--	--	--	20	--	--	
AE 45		AE 46	1193+60	LT & RT	NMC	--	--	--	154	--	--	
CAP		AE 47	80+00	LT	SBC	--	--	280	--	--	--	SLOTTED DRAIN FOR CROSSOVER
AE 48		AE 49	100+00	LT & RT	SBC	--	--	440	--	--	--	SLOTTED DRAIN FOR CROSSOVER
SUBTOTAL STAGE 1						4	27	720	798	104	136	
PROJECT TOTALS						**4**	**27**	**720**	**798**	**104**	**136**	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

STORM SEWER

STRUCTURE	-	STRUCTURE	STATION	OFFSET	LOCATION	520.8000 * CONCRETE COLLARS FOR PIPE EACH	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	610.0114 STORM SEWER PIPE PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS III 14X23 LF	NOTES
STAGE 1													
AE 101	-	101	--	LT	ROS	--	--	--	--	--	32	--	PIPE IN PAVEMENT STRUCTURE
101	-	102	--	LT	ROS	--	--	--	--	--	151	--	PIPE IN PAVEMENT STRUCTURE
102	-	AE 102	13+00	LT & RT	ROS	--	--	--	--	--	38	--	PIPE IN PAVEMENT STRUCTURE
203	-	201	--	RT	EVEW	--	23	--	--	--	--	--	
201	-	EXIST.	201+41	RT	EVEW	1	--	--	--	8	--	--	CONNECT TO EXISTING STORM SEWER
201	-	EXIST.	201+41	RT	EVEW	1	--	--	--	8	--	--	CONNECT TO EXISTING STORM SEWER
201	-	202	--	RT	EVEW	--	9	--	--	--	--	--	
301	-	AE 103	202+00	LT	EVEW	--	24	--	--	--	--	--	
701	-	AE 107	1180+75	RT	IHA	--	--	--	86	--	--	--	
501	-	502	1175+75	LT	VEC	--	--	92	--	--	--	--	
502	-	503	1176+40	LT	VEC	--	--	76	--	--	--	--	
503	-	AE 105	1177+25	LT	VEC	--	--	110	--	--	--	--	
AE 106	-	601	1162+50	LT & RT	IHA	--	--	--	76	--	--	--	
601	-	602	1164+00	LT	IHA	--	--	260	--	--	--	--	
602	-	603	1166+00	LT	IHA	--	--	300	--	--	--	--	
603	-	604	1168+50	LT	IHA	--	--	200	--	--	--	--	
801		802	178+50	LT & RT	TIHB	--	--	--	--	--	--	56	
802		AE 104	178+50	RT	TIHB	--	--	--	--	--	--	86	
SUBTOTAL STAGE 1						2	56	1038	162	16	221	142	
PROJECT TOTALS						**2**	**56**	**1,038**	**162**	**16**	**221**	**142**	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.0606 INLET COVER TYPE B EACH	611.0612 INLET COVER TYPE C EACH	611.0624 INLET COVER TYPE H EACH	611.0642 INLET COVER TYPE MS EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2055 MANHOLES 5X5-FT EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3 -FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	INVERT ELEVATION	TOP OF* STRUCTURE	STRUCTURE HEIGHT (FT)	NOTES
STAGE 1																		
101	11+50	11' LT	ROS	--	--	--	1	--	--	--	1	--		--	583.97	586.17	2.20	
102	13+00	11' LT	ROS	--	--	--	1	--	--	--	1	--	--	--	584.99	588.07	3.08	
MH	200+49	29' RT	EVEW	--	--	--	--	--	--	--	--	--	--	1	--	--	--	
201	201+41	34' RT	EVEW	--	--	1	--	--	--	1	--	--	--	--	583.47	591.50	8.03	VERIFY INV.
202	201+41	23.4' RT	EVEW	--	--	--	1	--	--	--	--	1	--	--	587.85	591.76	3.91	
203	201+38	58.1' RT	EVEW	--	--	--	1	--	--	--	--	1	--	--	587.92	591.92	4.00	
301	202+00	12.1' LT	EVEW	--	--	--	1	--	--	--	--	1	--	--	589.64	591.40	1.76	
501	1175+25	86.5' LT	VEC	--	1	--	--	--	--	--	1	--	--	--	587.01	589.17	2.16	
502	1176+08	66.9' LT	VEC	1	--	--	--	--	--	--	1	--	--	--	586.57	589.67	3.10	
503	1176+75	67.0' LT	VEC	--	1	--	--	--	--	--	1	--	--	--	586.21	589.25	3.04	
601	1162+50	14' LT	IHA	--	--	1	--	--	1	--	--	--	--	--	584.35	590.94	6.59	
602	1165+00	22.5' LT	IHA	--	--	--	--	1	--	--	--	--	1	--	591.33	595.48	4.15	
603	1168+00	25.5' LT	IHA	--	--	--	--	1	--	--	--	--	1	--	594.34	599.85	5.51	
604	1170+00	27.0 LT	IHA	--	--	--	--	1	--	--	--	--	1	--	598.34	603.75	5.41	
701	1181+15	54' RT	EVEB	--	--	--	--	1	--	--	--	--	1	--	598.60	602.60	4.00	
801	178+53	41.5' LT	TIHB	--	--	--	--	1	--	--	--	--	1	--	--	--	--	
802	178+53	14.1' RT	TIHB	--	--	--	--	1	--	--	--	--	1	--	--	--	--	
SUBTOTALS STAGE 1				1	2	2	5	4	1	1	5	3	4	1				
PROJECT TOTALS				**1**	**2**	**2**	**5**	**4**	**1**	**1**	**5**	**3**	**4**	**1**				

* TOP OF STRUCTURE NOTES THE ACTUAL STRUCTURE ELEVATION, NOT CASTING FLAG ELEVATION.

CLEANING CULVERT PIPES

STATION	- STATION	OFFSET	LOCATION	520.7000 EACH	NOTES
STAGE 1					
	1183+05	LT-RT	NMC	1	18-INCH CMCP
	99+90	RT	TSIH	1	24-INCH RCP
	111+45	RT	TNIH	1	24-INCH RCP
	1225+40	LT-RT	NMC	1	18-INCH RCP
STAGE 1 SUBTOTAL				4	
PROJECT TOTAL				**4**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

RIPRAP & GEOTEXTILE FABRIC

STAGE	LOCATION	STATION	TO	STATION	OFFSET	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	645.0120 * GEOTEXTILE FABRIC TYPE HR SY	645.0130* GEOTEXTILE FABRIC TYPE R SY
1	EVEA	1169+25		--	--	6	--	--	20
1	EVEA	1171+00		--	RT	6	--	--	20
1	EVEB	1177+00		--	RT	6	--	--	20
1	EVEW	202+00		--	LT	4	--	--	15
1	MR1	76+50		--	LT	--	2	14	--
1	MR1	78+00		--	LT	2	--	--	10
1	MR1	81+00		--	LT	2	--	--	10
1	MR1	83+50		--	LT	2	--	--	10
1	MR1	86+00		--	RT	2	--	--	10
1	MR1	89+00		--	RT	2	--	--	10
1	MR1	90+50		--	RT	1	--	--	5
1	MR1	92+00		--	RT	1	--	--	5
1	MR1	93+75		--	RT	1	--	--	5
1	MR1	95+50		--	RT	1	--	--	5
1	MR4	86+00		--	RT	1	--	--	5
1	MR4	88+00		--	RT	1	--	--	5
1	MR4	89+50		--	RT	1	--	--	5
1	MR4	94+50		--	RT	1	--	--	5
1	MR5	87+00		--	RT	--	1	7	--
1	MR5	89+25		--	LT	1	--	--	5
1	MR5	91+60		--	LT	1	--	--	5
1	MR5	94+00		--	LT	1	--	--	5
1	MR5	108+00		--	LT	1	--	--	5
1	TNIH	108+50		--	LT	1	--	--	5
1	TNIH	118+50		--	RT	1	--	--	5
1	NMC	1192+75		--	LT	--	1	7	--
1	NMC	1192+75		--	RT	--	1	7	--
1	NMC	1194+25		--	LT	1	--	--	5
1	NMC	1202+25		--	LT	--	1	7	--
1	NMC	1206+50		--	LT	1	--	--	5
1	NMC	1209+25		--	LT	1	--	--	5
1	NMC	1212+50		--	LT	1	--	--	5
1	NMC	1216+25		--	LT	1	--	--	5
1	NMC	1217+75		--	LT	1	--	--	5
1	NMC	1219+25		--	LT	1	--	--	5

RIPRAP & GEOTEXTILE FABRIC (CONTINUED)

STAGE	LOCATION	STATION	TO	STATION	OFFSET	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	645.0120* GEOTEXTILE FABRIC TYPE HR SY	645.0130* GEOTEXTILE FABRIC TYPE R SY
1	NMC	1221+00		--	LT	--	1	7	--
1	NMC	1225+25		--	RT	6	--	--	20
1	NMC	1229+50		1235+00	RT	400	--	--	1,200
1	SMC	1175+25		--	200' LT	6	--	--	20
1	IHA	1175+00		--	RT	1	--	--	5
1	IHA	1177+00		--	RT	1	--	--	5
1	IHA	1178+50		--	RT	1	--	--	5
1	IHA	1183+25		--	RT	1	--	--	5
1	IHA	1197+50		--	RT	--	1	7	--
1	IHB	1217+00		--	LT	--	1	7	--
1	IHB	1215+00		--	LT	1	--	--	5
1	IHB	1213+50		--	LT	1	--	--	5
1	IHB	1210+00		--	LT	1	--	--	5
1	IHB	1206+00		--	LT	1	--	--	5
1		UNDISTRIBUTED			--	121	4	17	374
	STAGE 1 SUBTOTAL					588	15	80	1,874
3	IHB	1204+50			LT	1	--	--	5
3		UNDISTRIBUTED			--	1	--	--	1
	STAGE 3 SUBTOTAL					2	0	0	6
	TOTALS (I.D. 1133-11-74)					590	15	80	1,880

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

EROSION CONTROL ITEMS

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I, TYPE B SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	628.2023 EROSION MAT CLASS II, TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	NOTES
1	EVEA	1166+00		1169+00	RT	--	484	484	--	--	--	--	--	--	--	
1	EVEA	1166+00		1174+00	RT	--	--	--	--	4,103	--	--	--	--	--	
1	EVEA	1168+25		1173+50	LT	--	--	--	--	917	--	--	--	--	--	
1	EVEA	1168+50		1172+00	LT	--	--	--	286	--	--	--	--	--	--	
1	EVEA	1166+00		1173+00	RT	--	--	--	489	--	--	--	--	--	--	
1	EVEA	1171+00		--	37' LT	--	--	--	--	--	--	--	--	3	--	
1	EVEA	1169+75		--	110' RT	--	--	--	--	--	--	--	--	--	3	
1	EVEA	1171+00		--	110' RT	--	--	--	--	--	--	--	--	--	3	
1	EVEA	1169+00		--	80' RT	--	--	--	--	--	--	--	15	--	--	
1	EVEA	1169+25		--	25' LT	--	--	--	--	--	--	--	15	--	--	
1	EVEA	1172+00		--	50' RT	--	--	--	--	--	--	--	15	--	--	
1	EVEB	1175+00		1180+50	LT	--	--	--	354	--	--	--	--	--	--	
1	EVEB	1177+00		--	28' LT	--	--	--	--	--	--	--	--	3	--	
1	EVEB	1177+25		--	RT	--	--	--	--	--	--	--	15	--	--	
1	EVEB	1178+50		--	RT	--	--	--	--	--	--	--	15	--	--	
1	EVEW	200+25		201+00	LT	--	--	--	--	86	--	--	--	--	--	
1	EVEW	201+75		204+00	LT	--	--	--	--	121	--	--	--	--	--	
1	EVEW	203+10		--	75' LT	--	--	--	--	--	--	--	15	--	--	
1	MR1	68+00		96+00	RT	--	2,900	2,900	--	--	--	--	--	--	--	
1	MR1	76+50		95+75	LT	--	2,025	2,025	--	--	--	--	--	--	--	
1	MR1	69+91		--	18' LT	--	--	--	--	--	--	--	15	--	--	
1	MR1	74+18		--	9' LT	--	--	--	--	--	--	--	15	--	--	
1	MR1	76+28		--	11' LT	--	--	--	--	--	--	--	15	--	--	
1	MR1	78+50		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR1	78+50		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR1	86+75		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR1	86+75		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR1	93+00		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR1	93+00		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR1	70+00		76+50	LT	--	--	--	992	--	--	--	--	--	--	
1	MR2	100+00		102+00	RT	--	380	380	--	--	--	--	--	--	--	
1	MR2	100+00		104+00	LT	--	260	260	--	--	--	--	--	--	--	
1	MR2	103+50		--	20' RT	--	--	--	--	--	--	--	--	3	--	
1	MR2	103+50		--	30' LT	--	--	--	40	--	--	--	--	--	--	
1	MR2	102+00		--	50' RT	--	--	--	--	--	--	--	15	--	--	
1	MR2	100+50		--	35' LT	--	--	--	--	--	--	--	--	3	--	
1	MR2	100+50		--	20' RT	--	--	--	40	--	--	--	--	--	--	
1	MR3	33+50		38+00	RT	--	751	751	--	--	--	--	--	--	--	
1	MR3	31+00		38+00	LT	--	784	784	--	--	--	--	--	--	--	
1	MR3	30+35		--	LT	--	--	--	--	--	--	--	--	3	--	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

EROSION CONTROL ITEMS (CONTINUED)

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I, TYPE B SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	628.2023 EROSION MAT CLASS II, TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	NOTES
1	MR3	31+00		--	LT	--	--	--	--	--	--	--	--	3	--	
1	MR3	32+50		--	LT	--	--	--	--	--	--	--	--	3	--	
1	MR3	30+35		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR3	31+00		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR3	32+50		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR4	86+00		95+50	RT	--	992	992	--	--	--	--	--	--	--	
1	MR4	86+00		94+50	LT	--	850	850	--	--	--	--	--	--	--	
1	MR4	88+50		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR4	88+50		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR4	93+00		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR4	93+00		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR5	86+00		113+50	RT	--	2,841	2,841	--	--	--	--	--	--	--	
1	MR5	86+00		113+50	LT	--	3,111	3,111	--	--	--	--	--	--	--	
1	MR5	100+25		101+50	LT	--	--	--	262	--	--	--	--	--	--	
1	MR5	95+50		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR5	95+50		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR5	100+50		--	40' RT	--	--	--	40	--	--	--	--	--	--	
1	MR5	107+00		--	LT	--	--	--	40	--	--	--	--	--	--	
1	MR5	107+00		--	RT	--	--	--	40	--	--	--	--	--	--	
1	MR5	87+50		--	LT	--	--	--	--	--	--	--	15	--	--	
1	TWT	103+25		--	40' LT	--	--	--	40	--	--	--	--	--	--	
1	TWT	105+00		--	50' LT	--	--	--	--	--	--	--	--	3	--	
1	TWT	108+50		110+00	LT	--	153	153	--	--	--	--	--	--	--	
1	TWT	99+50		102+75	LT	--	377	377	--	--	--	--	--	--	--	
1	NIH	1179+00		1182+00	RT	--	415	415	--	--	--	--	--	--	--	
1	NIH	1182+00		1185+00	RT	--	350	350	--	--	--	--	--	--	--	
1	NIH	1186+70		1187+40	--	--	--	--	--	--	--	0.10	--	--	--	SEE NOTE 1
1	NIH	1178+50		1181+00	20' LT	--	--	--	445	--	--	--	--	--	--	
1	NIH	1180+50		1181+00	40' RT	--	--	--	133	--	--	--	--	--	--	
1	NIH	1181+00		1187+25	20' LT	--	--	--	1,111	--	--	--	--	--	--	
1	NIH	1186+00		1187+50	30' LT	--	--	--	433	--	--	--	--	--	--	
1	NIH	1181+00		1186+75	40' RT	--	--	--	2,069	--	--	--	--	--	--	
1	NIH	1186+75		1187+75	20' LT	--	--	--	118	--	--	--	--	--	--	
1	NIH	1186+75		1187+10	40' RT	--	--	--	111	--	--	--	--	--	--	
1	NIH	1187+10		1187+60	25' RT	--	--	--	--	--	124	--	--	--	--	
1	NIH	1178+30		--	LT	--	--	--	--	--	--	--	--	--	16	
1	NIH	1180+60		--	LT	--	--	--	--	--	--	--	--	--	16	
1	NIH	1183+50		--	LT	--	--	--	--	--	--	--	--	--	16	
1	NIH	1185+00		--	LT	--	--	--	--	--	--	--	--	--	16	
1	NIH	1187+40		--	LT	--	--	--	--	--	--	--	--	--	16	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

EROSION CONTROL ITEMS (CONTINUED)

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I, TYPE B SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	628.2023 EROSION MAT CLASS II, TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	NOTES
1	NIH	1178+50		--	LT	--	--	--	--	--	--	--	--	3	--	
1	TNIH	106+00		113+50	LT	--	853	853	--	--	--	--	--	--	--	
1	TNIH	117+00		119+00	RT	--	194	194	--	--	--	--	--	--	--	
1	TNIH	110+07		--	43' LT	--	--	--	--	--	--	--	15	--	--	
1	TNIH	111+59		--	28' LT	--	--	--	--	--	--	--	15	--	--	
1	TSIH	102+50		--	LT	--	--	--	--	--	--	--	--	3	--	
1	TSIH	101+00		--	40' RT	--	--	--	40	--	--	--	--	--	--	
1	TSIH	99+00		101+50	RT	--	310	310	--	--	--	--	--	--	--	
1	TSIH	109+09		--	20' LT	--	--	--	--	--	--	--	--	--	16	
1	TSIH	110+44		--	43' RT	--	--	--	--	--	--	--	--	--	16	
1	TSIH	111+37		--	49' LT	--	--	--	--	--	--	--	--	--	16	
1	VEB	1182+00		1185+00	LT	--	264	264	--	--	--	--	--	--	--	
1	VEB	1184+00		1185+00	RT	--	160	160	--	--	--	--	--	--	--	
1	VEB	1185+50		1186+50	LT	--	110	110	--	--	--	--	--	--	--	
1	VEB	1185+50		1186+25	RT	--	125	125	--	--	--	--	--	--	--	
1	VEB	1186+00		1193+00	RT	--	690	690	--	--	--	--	--	--	--	
1	VEB	1184+00		1185+00	--	80	--	--	--	--	--	--	--	--	--	
1	VEB	1185+50		1186+00	--	75	--	--	--	--	--	--	--	--	--	
1	VEB	1174+50		1175+50	--	--	--	--	61	--	--	--	--	--	--	
1	VEB	1177+00		1185+00	--	--	--	--	4,978	--	--	--	--	--	--	
1	VEB	1185+50		1192+50	LT	--	--	--	1,703	--	--	--	--	--	--	
1	VEB	1186+00		1192+75	RT	--	--	--	2,816	--	--	--	--	--	--	
1	VEB	1185+50		1186+25	RT	--	--	--	--	--	288	--	--	--	--	
1	VEB	1192+75		1193+75	RT	--	--	--	--	--	463	--	--	--	--	
1	VEB	1192+75		1193+75	LT	--	--	--	--	--	428	--	--	--	--	
1	VEB	1179+30		1184+50	--	--	--	--	--	--	--	0.95	--	--	--	SEE NOTE 1
1	VEB	1186+00		1193+50	--	--	--	--	--	--	--	1.88	--	--	--	SEE NOTE 1
1	VEC	1177+00		1185+00	LT	--	823	823	--	--	--	--	--	--	--	
1	VEC	1185+00		--	RT	--	65	65	--	--	--	--	--	--	--	
1	VEC	1184+50		1185+00	--	80	--	--	--	--	--	--	--	--	--	
1	VEC	1175+00		1175+75	LT	--	--	--	35	--	--	--	--	--	--	
1	VEC	1176+00		1177+50	LT	--	--	--	69	--	--	--	--	--	--	
1	VEC	1177+75		1184+00	LT	--	--	--	2,780	--	--	--	--	--	--	
1	VEC	1184+00		1185+00	--	--	--	--	--	--	207	--	--	--	--	
1	VEC	1180+00		1184+75	--	--	--	--	--	--	--	0.99	--	--	--	SEE NOTE 1
1	NMC	1197+00		1200+50	RT	--	458	458	--	--	--	--	--	--	--	
1	NMC	1195+00		1195+25	--	--	--	--	191	--	--	--	--	--	--	
1	NMC	1195+00		1200+75	--	--	--	--	--	--	1,647	--	--	--	--	
1	NMC	1195+00		1195+50	RT	--	--	--	--	--	426	--	--	--	--	
1	NMC	1195+50		1200+75	RT	--	--	--	2,633	--	--	--	--	--	--	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

EROSION CONTROL ITEMS (CONTINUED)

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I, TYPE B SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	628.2023 EROSION MAT CLASS II, TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	NOTES
1	NMC	1200+00		1203+00	--	--	--	--	--	--	1,204	--	--	--	--	
1	NMC	1203+00		1204+00	LT	--	--	--	253	--	--	--	--	--	--	
1	NMC	1201+50		1203+50	RT	--	--	--	706	--	--	--	--	--	--	
1	NMC	1221+00		1228+25	LT	--	--	--	847	--	--	--	--	--	--	
1	NMC	1221+00		1235+00	LT	--	--	--	3,413	--	--	--	--	--	--	
1	NMC	1228+00		1235+00	RT	--	--	--	--	1,186	--	--	--	--	--	
1	NMC	1195+00		1200+50	--	--	--	--	--	--	--	2.23	--	--	--	SEE NOTE 1
1	NMC	1200+75		1203+75	--	--	--	--	--	--	--	0.88	--	--	--	SEE NOTE 1
1	NMC	1220+25		1222+75	--	--	--	--	--	--	--	0.30	--	--	--	SEE NOTE 1
1	NMC	1186+50		--	10' RT	--	--	--	--	--	--	--	--	--	16	
1	NMC	1189+25		--	15' LT	--	--	--	--	--	--	--	--	--	16	
1	NMC	1192+20		--	40' LT	--	--	--	--	--	--	--	--	--	16	
1	NMC	1197+59		--	43' LT	--	--	--	--	--	--	--	--	--	16	
1	NMC	1199+91		--	14' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1200+44		--	214' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1228+00		--	160' RT	--	--	--	40	--	--	--	--	--	--	
1	NMC	1201+67		--	152' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1203+05		--	85' LT	--	--	--	--	--	--	--	--	--	16	
1	NMC	1203+48		--	51' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1218+20		--	150' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1221+30		--	160' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1223+60		--	30' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1223+70		--	160' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1224+00		--	100' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1226+70		--	60' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1227+30		--	160' RT	--	--	--	--	--	--	--	15	--	--	
1	NMC	1228+00		--	125' RT	--	--	--	--	--	--	--	--	3	--	
1	NMC	1225+25		--	50' RT	--	--	--	--	--	--	--	--	--	3	
1	SMC	1175+50		1180+25	RT	--	--	--	340	--	--	--	--	--	--	
1	SMC	1178+75		1184+70	RT	--	--	--	620	--	--	--	--	--	--	
1	SMC	1195+60		1201+40	RT	--	--	--	450	--	--	--	--	--	--	
1	SMC	1200+00		1205+50	RT	--	--	--	340	--	--	--	--	--	--	
1	SMC	1175+25		--	120' LT	--	--	--	--	--	--	--	--	3	--	
1	BP1	17+00		--	LT	--	--	--	40	--	--	--	--	--	--	
1	BP1	17+00		--	RT	--	--	--	40	--	--	--	--	--	--	
1	BP1	15+00		28+00	LT	--	1,687	1,687	--	--	--	--	--	--	--	
1	BP1	18+00		20+50	RT	--	--	--	380	--	--	--	--	--	--	
1	BP1	20+00		20+75	LT	--	--	--	--	--	400	--	--	--	--	
1	ROS	11+25		12+50	RT	--	--	--	--	111	--	--	--	--	--	
1	ROS	12+50		14+50	RT	--	--	--	--	413	--	--	--	--	--	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

EROSION CONTROL ITEMS (CONTINUED)

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I, TYPE B SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	628.2023 EROSION MAT CLASS II, TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	NOTES
1	ROS	11+50		12+30	RT	--	--	--	58	--	--	--	--	--	--	
1	ROS	12+50		14+50	RT	--	--	--	102	--	--	--	--	--	--	
1	IHA	1196+50		1197+50	--	--	--	--	--	--	--	0.09	--	--	--	SEE NOTE 1
1	IHA	1161+00		1168+00	100' RT	--	--	--	--	--	1,305	--	--	--	--	
1	IHA	1162+50		1168+50	30' RT	--	--	--	1,885	--	--	--	--	--	--	
1	IHA	1162+50		1173+25	10' LT	--	--	--	2,360	--	--	--	--	--	--	
1	IHA	1168+50		1170+50	40' RT	--	--	--	1,350	--	--	--	--	--	--	
1	IHA	1170+50		1173+25	35' RT	--	--	--	2,370	--	--	--	--	--	--	
1	IHA	1161+00		1166+00	100' RT	--	425	425	--	--	--	--	--	--	--	
1	IHA	1165+00		--	10' LT	--	--	--	--	--	--	--	--	--	16	
1	IHA	1165+00		--	35' RT	--	--	--	--	--	--	--	15	--	--	
1	IHA	1167+20		--	20' LT	--	--	--	--	--	--	--	--	--	16	
1	IHA	1167+50		--	50' RT	--	--	--	--	--	--	--	15	--	--	
1	IHA	1169+75		--	90' RT	--	--	--	--	--	--	--	15	--	--	
1	IHA	1169+60		--	25' LT	--	--	--	--	--	--	--	--	--	16	
1	IHA	1181+50		--	120' RT	--	--	--	--	--	--	--	15	--	--	
1	IHA	1184+00		--	40' RT	--	--	--	--	--	--	--	15	--	--	
1	IHA	1196+20		--	LT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1172+00		1177+00	LT	--	--	--	792	--	--	--	--	--	--	
1	IHB	1216+75		1221+00	--	--	--	--	976	--	--	--	--	--	--	
1	IHB	1216+00		1217+00	LT	--	--	--	--	--	151	--	--	--	--	
1	IHB	1174+25		--	LT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1176+25		--	LT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1218+50		--	150' RT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1220+50		--	210' RT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1222+25		--	260' RT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1217+50		--	70' LT	--	--	--	--	--	--	--	15	--	--	
1	IHB	1219+50		--	10' LT	--	--	--	--	--	--	--	15	--	--	
1	UNDISTRIBUTED				--	55	5,663	5,663	10,189	1,713	1,657	1.80	135	9	265	
STAGE 1 SUBTOTALS						290	28,500	28,500	50,500	8,650	8,300	9	690	45	530	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

EROSION CONTROL ITEMS (CONTINUED)

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I, TYPE B SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	628.2023 EROSION MAT CLASS II, TYPE B SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	NOTES
2	IHA	1197+00		1197+50	--	--	--	--	--	--	--	0.02	--	--	--	SEE NOTE 1
2	IHA	1196+50		1197+50	--	--	--	--	336	--	--	--	--	--	--	
2	VEC	1181+50		1184+50	--	--	--	--	--	--	--	0.41	--	--	--	SEE NOTE 1
2	VEB	1179+30		1184+50	--	--	--	--	--	--	2,805	--	--	--	--	
2	VEB	1186+00		1192+50	--	--	--	--	3,277	--	--	--	--	--	--	
2	VEB	1186+00		1186+25	--	--	--	--	--	--	57	--	--	--	--	
2	VEB	1192+50		1193+50	--	--	--	--	--	--	410	--	--	--	--	
2	VEB	1181+00		1184+00	--	--	--	--	--	--	--	0.37	--	--	--	SEE NOTE 1
2	VEB	1186+00		1193+00	--	--	--	--	--	--	--	1.06	--	--	--	SEE NOTE 1
2	VEC	1180+00		1184+00	--	--	--	--	2,534	--	--	--	--	--	--	
2	VEC	1184+00		1184+50	--	--	--	--	--	--	167	--	--	--	--	
2	NMC	1195+25		1196+00	--	--	--	--	390	--	--	--	--	--	--	
2	NMC	1195+50		1200+50	--	--	--	--	3,479	--	--	--	--	--	--	
2	NMC	1195+00		1200+50	--	--	--	--	--	--	2,052	--	--	--	--	
2	NMC	1195+00		1195+50	--	--	--	--	--	--	279	--	--	--	--	
2	NMC	1200+75		1203+00	--	--	--	--	--	--	1,206	--	--	--	--	
2	NMC	1203+00		1203+75	--	--	--	--	127	--	--	--	--	--	--	
2	NMC	1201+50		1203+25	--	--	--	--	767	--	--	--	--	--	--	
2	NMC	1195+50		1200+00	--	--	--	--	--	--	--	1.50	--	--	--	SEE NOTE 1
2	NMC	1195+50		1199+50	--	--	--	--	--	--	--	0.95	--	--	--	SEE NOTE 1
2	NMC	1201+00		1203+50	--	--	--	--	--	--	--	0.56	--	--	--	SEE NOTE 1
2	NMC	1201+25		1203+25	--	--	--	--	--	--	--	0.37	--	--	--	SEE NOTE 1
2	SMC	1175+50		1184+75	--	--	--	--	1,007	--	--	--	--	--	--	
2	SMC	1195+50		1205+50	--	--	--	--	1,029	--	--	--	--	--	--	
2	EVEA	1173+40		--	88' LT	--	--	--	--	--	--	--	--	--	--	
2	MR5	86+50		87+50	--	--	--	--	120	--	--	--	--	--	--	
2	MR5	86+50		87+50	--	--	--	--	--	--	68	--	--	--	--	
2		UNDISTRIBUTED			--	--	--	--	3,234	--	1,756	1.26	--	--	--	
	STAGE 2 SUBTOTALS					0	0	0	16,300	0	8,800	6.48	0	0	0	
	TOTALS (I.D. 1133-11-74)					290	28,500	28,500	66,800	8,650	17,100	15.7	690	45	530	

NOTES

1) SOIL STABILIZER, IN COMBINATION WITH TEMPORARY SEED AND MULCH, TO BE PLACED FOLLOWING COMPLETION OF LIFTS AS SHOWN IN PLANS.

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

TURBIDITY BARRIER

STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.6005 TURBIDITY BARRIERS SY
1	NMC	1213+50		1215+75	--	550
1				UNDISTRIBUTED		140
STAGE 1 SUBTOTAL						690
TOTALS (I.D. 1133-11-74)						690

TRACKING PADS

STAGE	LOCATION	STRUCTURE	STATION	TO	STATION	OFFSET	628.7560 TRACKING PADS EACH
1	EVEA	--	1173+52		RT	RT	1
1	EVEB	--	1175+00		RT	RT	1
1	EVEB	--	1179+85		--	200' RT	1
1	MR2	--	104+00		--	--	1
1	MR3	--	30+00		--	--	1
1	MR4	--	94+50		--	LT	1
1	VEC	--	1175+00		--	--	1
1	NMC	--	1230+00		--	110' RT	1
1	IHA	--	1196+09		--	0' LT	1
1	IHB	--	1168+00		RT	RT	1
1			UNDISTRIBUTED				2
STAGE 1 SUBTOTAL							12
2	EVEA	--	1173+40		--	88' LT	1
2			UNDISTRIBUTED				--
STAGE 2 SUBTOTAL							1
TOTALS (I.D. 1133-11-74)							13

INLET PROTECTION

STAGE	LOCATION	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
1	EVEW	200+40	85' RT	--	--	1	--
1	EVEW	200+60	50' RT	--	--	1	--
1	EVEW	200+60	25' RT	--	--	1	--
1	EVEW	201+40	65' RT	--	--	1	--
1	EVEW	201+45	15' RT	--	--	1	--
1	EVEW	202+00	LT	1	--	1	--
1	EVEW	1198+50	--	--	--	--	1
1	NIH	1178+50	LT	1	1	--	--
1	VEB	1181+00	LT	1	1	--	--
1	VEC	1175+25	LT	1	1	--	--
1	VEC	1176+80	LT	1	1	--	--
1	NMC	1165+15	RT	1	1	--	--
1	NMC	1168+10	RT	1	1	--	--
1	NMC	1170+15	RT	1	1	--	--
1	SMC	1172+00	200' LT	--	--	1	--
1	SMC	1172+20	205' LT	--	--	1	--
1	SMC	1172+50	160' LT	--	--	1	--
1	SMC	1172+70	125' LT	--	--	--	1
1	SMC	1173+10	110' LT	--	--	--	1
1	SMC	1173+20	115' LT	--	--	--	1
1	SMC	1175+65	40' RT	1	--	--	--
1	SMC	1183+20	40' RT	1	--	--	--
1	SMC	1192+10	RT	1	--	--	--
1	SMC	1203+15	40' RT	--	--	--	1
1	ROS	11+50	LT	1	--	1	--
1	ROS	13+00	LT	1	--	1	--
1		UNDISTRIBUT	--	4	2	3	1
STAGE 1 SUBTOTAL				17	9	14	6
TOTALS (I.D. 1133-11-74)				17	9	14	6

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE STATED

3

CONCRETE ANCILLARY ITEMS

STATION - STATION	OFFSET	LOCATION	416.0610 DRILLED TIE BARS EACH	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0090.004 CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING PLASTIC 1 LAYER LF	SPV.0090.005 CONCRETE CURB & GUTTER & BARRIER, COLD WEATHER COVERING PLASTIC 2 LAYER LF
STAGE 1										
11+26 - 14+30	LT & RT	ROS	--	--	395	--	--	--	395	--
1174+08 - 1174+40	LT	EVEA	--	--	32	--	--	--	32	--
1173+34 - 1174+05	RT	EVEA	--	--	95	--	--	--	95	--
199+24 - 200+40	RT	EVEW	67	200	--	--	--	50	200	--
201+24 - 201+29	RT	EVEW	--	--	35	--	--	160	35	--
201+29 - 201+50	RT	EVEW	17	50	--	--	--	--	50	--
200+22 - 200+76	RT	EVEW - EVEA	--	--	85	--	--	--	85	--
200+16 - 201+00	LT	EVEW - EVEB	28	85	--	335	8	--	85	--
1173+30 - 1174+05	LT	EVEB	--	--	25	--	--	--	25	--
201+35 - 204+92	LT & RT	EVEW - EVEB	--	--	300	1070	8	--	300	--
UNDISTRIBUTED			--	--	--	--	--	--	328	--
SUBTOTALS STAGE 1			112	335	967	1405	16	210	1630	0
STAGE 2										
198+88 - 199+00	RT	EVEW	4	12	--	--	--	--	--	12
199+00 - 199+84	RT	EVEW	--	--	83	--	--	--	--	83
199+84 - 200+75	RT	EVEW	30	91	--	--	--	--	--	91
UNDISTRIBUTED										
SUBTOTALS STAGE 2			34	103	83	0	0	0	0	186
PROJECT TOTAL			**146**	**438**	**1,050**	**1,405**	**16**	**210**	**1,630**	**186**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

CONCRETE BARRIER TEMPORARY PRECAST AND ANCILLARY ITEMS

STATION	STATION	OFFSET	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0060.200 CRASH CUSHION TEMPORARY LEFT IN PLACE EACH	SPV.0060.203 CRASH CUSHION TEMPORARY EXTRA WIDE LEFT IN PLACE EACH	SPV.0060.201 TEMPORARY THRIE BEAM CONNECTION LEFT IN PLACE EACH	SPV.0090.200 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING LF	SPV.0090.201 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE LF	REMARKS
STAGE 1A												
1185+50	1199+50	LT	NMC	1400	1400	1	--	--	--	--	--	
1199+50	1204+00	LT	NMC	450	450	1	--	--	--	--	--	
1215+00	1224+50	LT	NMC	950	950	1	--	--	--	--	--	
1177+98	1184+73	RT	VEC	675	675	--	--	--	1	--	--	
173+50	186+00	LT	TIHB	1250	1250	--	1	--	--	--	1250	
175+50	188+00	LT	TIHB	1250	1250	--	1	--	--	--	1250	
171+00	1198+00	LT -RT	TNIH/IHA	1000	1000	--	1	--	--	--	1000	
103+50	122+50	LT	TNIH	1900	1900	1	--	--	--	--	--	
99+83	100+34	RT	TSIH	50	50	--	1	--	--	--	50	
100+34	109+06	RT	TSIH	875	875	--	--	--	--	--	--	
142+55	104+93	RT	TSIH	240	240	--	1	--	--	--	240	
STAGE 1A SUBTOTALS				10050	10050	4	5	0	1	0	3800	
STAGE 1B												
1151+00	1168+00	RT	RVEA	1700	1700	--	1	--	--	--	1700	
1160+35	172+85	LT	RVEA / IHA	1250	1250	--	--	1	--	--	1250	
1172+85	179+50	LT	IHA / SMC	665	665	--	--	--	--	--	--	
1162+25	1172+85	LT	IHA	--	--	--	--	--	--	1060	--	
1185+50	1195+00	LT	NMC	950	950	1	--	--	--	--	--	
1160+35	1169+98	LT	RVEA	970	970	--	--	--	--	--	970	
1162+50	1169+00	LT	RVEA	--	--	--	--	--	--	650	--	
75+25	80+25	RT-LT	SBC	500	500	1	--	--	--	--	--	
77+00	84+75	LT	NBC	775	775	1	--	--	--	--	--	
1175+00	1189+38	RT	TIHB	1440	1440	--	1	--	--	--	1440	
1178+00	1189+38	RT	TIHB	--	--	--	--	--	--	1140	--	
103+50	112+00	RT	TNIH	0 *	850	1	--	--	--	--	--	
100+34	109+07	RT	TSIH	0 **	875	--	--	--	--	--	--	
101+06	102+90	RT	TSIH	190	190	--	--	--	--	--	190	
107+38	111+00	RT	TSIH	365	365	--	1	--	--	--	365	
100+12	111+00	LT	TSIH	1090	1090	--	1	--	--	--	1090	
1176+50	1179+50	LT	EVEB	300	300	1	--	--	--	300	--	
1178+00	1182+25	RT	EVEB	425	425	1	--	--	--	425	--	
STAGE 1B SUBTOTALS				10625	12350	6	4	1	0	3575	7012.5	

* BARRIER USED IN STAGE 1A, MOVED FROM OPPOSITE SHOULDER ON NB IH 43 TO NB USH 41 RAMP.

** BARRIER USED IN STAGE 1A, MOVED FROM MEDIAN EGE OF ADJACENT LANE ON NB IH 43 TO SB USH 41 RAMP.

CONTINUED ON NEXT PAGE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

CONCRETE BARRIER TEMPORARY PRECAST AND ANCILLARY ITEMS (CONTINUED)

STATION	STATION	OFFSET	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0060.200 CRASH CUSHION TEMPORARY LEFT IN PLACE EACH	SPV.0060.203 CRASH CUSHION TEMPORARY EXTRA WIDE LEFT IN PLACE EACH	SPV.0060.201 TEMPORARY THRIE BEAM CONNECTION LEFT IN PLACE EACH	SPV.0090.200 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING LF	SPV.0090.201 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE LF	REMARKS
STAGE 2A												
75+25	103+50	RT	SBC	2450 ***	2825	1	--	--	--	--	--	
79+25	81+00	LT	NBC	0 ***	175	--	--	--	--	--	--	
99+25	101+50	LT	NBC	225	225	--	--	--	--	--	--	
106+84	111+46	RT	TNIH	0 ****	465	--	1	--	--	465	465	
111+46	115+34	RT	TNIH	0 ****	390	--	--	--	--	--	390	
115+34	119+09	RT	TNIH	375	375	--	--	--	--	--	--	
106+88	107+38	LT	TNIH	50	50	--	1	--	--	--	50	
107+38	110+00	LT	TNIH	265	262	--	--	--	--	--	--	
102+00	105+35	RT	TWT	340	340	--	--	--	--	--	340	
STAGE 2A SUBTOTALS				3712.5	5112.5	1	2	0	0	475	1250	
STAGE 2B												
107+38	110+00	LT	TNIH	0 *****	262	--	--	--	--	--	262	
110+00	118+00	LT	TNIH	800	800	--	--	--	--	--	800	
115+34	119+09	RT	TNIH	0 ******	375	--	--	--	--	--	375	
				800	1437.5	0	0	0	0	0	1437.5	
PROJECT TOTALS				**25,188**	**28,950**	**11**	**11**	**1**	**1**	**4,050**	**13,500**	

* BARRIER USED IN STAGE 1A, MOVED FROM OPPOSITE SHOULDER ON NB IH 43 TO NB USH 41 RAMP.
** BARRIER USED IN STAGE 1A, MOVED FROM MEDIAN EGE OF ADJACENT LANE ON NB IH 43 TO SB USH 41 RAMP.
*** 550 LF OF NARROER ISED OM STAGE 1B MOVED FROM NB USH 41 MEDIAN SHOULDER STATION 79+25 TO STATION 84+75 NBC LT.
**** BARRIER USED IN STAGE 1B MOVED FROM OUTSIDE SHOULDER OF NB IH 43 TO NB USH 41 RAMP.
***** BARRIER USED IS STAGE 2A MOVED FROM INSIDE SHOULDER OF NB IH 43 TO NB USH 41 RAMP.
****** BARRIER USED IN STAGE 2A MOVED FROM OUTSIDE SHOULDER OF NB IH 43 TO NB USH 41 RAMP.

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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GUARDRAIL ITEMS

FROM STATION	OFFSET	TO STATION	OFFSET	LOCATION	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.1000 MGS GUARDRAIL TEMPORARY LF	614.1100 MGS GUARDRAIL TEMPORARY TRANSITION LF	614.1200 MGS GUARDRAIL TEMPORARY TERMINAL EAT EACH	614.2300 MGS GUARDRAIL 3 LF	613.2320 MGS GUARDRAIL 3 QS LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
STAGE 1															
85+98.5 SBC	23.3' LT	92+62.9 SBC	23.6' LT	US 41 SB CROSSOVER	-	-	-	-	-	532.5	55	-	79	-	-
86+00.3 NBC	22.8' RT	92+64.1 NBC	23.0' RT	US 41 NB CROSSOVER	-	-	-	-	-	532.5	55	-	79	-	-
95+48.3 SBC	23.0 ' LT	98+15.6 SBC	23.0 ' LT	US 41 SB CROSSOVER	-	-	225	39.5	-	-	-	-	-	-	-
98+15.6 SBC	23.0 ' LT	99+66.0 SBC	23.0 ' LT	US 41 SB CROSSOVER	-	-	-	-	1	-	-	-	-	-	-
95+48.4 NBC	23.4' RT	99+51.7 NBF	23.0' RT	EXISTING US 41 NB - IH 43 SB	-	-	-	-	-	362.5	-	-	39.5	-	1
99+76.9 NBC	33.7' RT	100+27.5 NBC	33.0' RT	US 41 NB CROSSOVER	-	-	-	-	-	-	-	-	-	1	-
100+27.5 NBC	33.0' RT	101+55.6 NBC	33.4' RT	US 41 NB CROSSOVER	-	-	-	-	-	25	-	312.5	-	-	1
100+00.0 NBF	10.0' LT	100+50.0 NBF	8.0' LT	EXISTING US 41 NB - IH 43 SB	-	1	-	-	-	-	-	-	-	-	-
100+50.0 NBF	8.0' LT	102+74.0 NBF	8.0' LT	EXISTING US 41 NB - IH 43 SB	231	-	-	-	-	-	-	-	-	-	-
1169+33.7 IHA	67.9' LT	1169+83.1 IHA	66.6' LT	US 41 NB	-	-	-	-	-	-	-	-	-	1	-
1169+83.1 IHA	66.6' LT	1172+47.6 IHA	72.8' LT	US 41 NB	-	-	-	-	-	225	-	-	39.5	-	-
1176+61.0 EVEB	25.0' RT	1177+10.9 EVEB	23.0' RT	US 41 NB, ON-RAMP	-	-	-	-	-	-	-	-	-	1	-
1177+10.9 EVEB	23.0' RT	1184+79.4 EVEB	22.4' RT	US 41 NB, ON-RAMP	-	-	-	-	-	725	-	-	39.5	-	-
SUBTOTALS STAGE 1					231	1	225	39.5	1	2402.5	110	312.5	276.5	3	2
STAGE 2															
1175+51.0 SMC	18.1' RT	1176+83.4 SMC	18.1' RT	US 41 SB	87.5	-	-	-	-	-	-	-	39.5	-	-
1176+83.4 SMC	18.1' RT	1177+33.4 SMC	20.1' RT	US 41 SB	-	1	-	-	-	-	-	-	-	-	-
1176+82.8 EVEB	6.0' LT	1177+32.8 EVEB	4.0' LT	US 41 NB, ON-RAMP	-	-	-	-	-	-	-	-	-	1	-
1177+32.8 EVEB	4.0' LT	1179+36.1 EVEB	4.00' LT	US 41 NB, ON-RAMP	-	-	-	-	-	200	-	-	-	-	1
1182+09.5 EVEB	50.7' LT	1182+55.9 EVEB	39.9' LT	US 41 NB	-	-	-	-	-	-	-	-	-	1	-
1182+55.9 EVEB	39.9' LT	1184+78.8 EVEB	28.1' LT	US 41 NB	-	-	-	-	-	187.5	-	-	39.5	-	-
1214+74.9 SMC	97.9' RT	1220+88.4 SMC	88.4' RT	US 41 NB	-	-	-	-	-	600	-	-	39.5	-	1
SUBTOTALS STAGE 2					87.5	1	0	0	0	987.5	0	0	118.5	2	2
PROJECT 1133-11-74 TOTALS					**318.5**	**2**	**225**	**39.5**	**1**	**3,390**	**110**	**312.5**	**395**	**5**	**4**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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SALVAGED GUARDRAIL

STATION	-	STATION	OFFSET	LOCATION	614.0920 SALVAGED RAIL LF	614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH
STAGE 1A						
1170+29 IHA	-	1172+50 IHA	LT	US 41 NB	180	1
SUBTOTALS 1A					180	1
STAGE 1B						
104+14 TSIH	-	106+94 TSIH	RT & LT	IH 43 MEDIAN	560	-
104+40 TWT	-	107+32 TWT	LT	TEMP. WIETOR DRIVE	240	1
1182+14 EVEB	-	1184+80 EVEB	RT	US 41 NB, ON-RAMP	210	1
74+20 SBC	-	77+17 SBC	RT-LT	SB USH 41, SB X-OVER	250	1
81+80 SBC	-	84+06 SBC	LT	SB USH 41, SB X-OVER	225	1
86+00 SBC	-	92+13 SBC	LT	SB USH 41, SB X-OVER	665	-
89+55 NBC	-	92+73 NBC	RT	NB USH 41	260	1
1197+15 IHA	-	1197+75	RT	NB USH 41 TO SB IH 43		
1195+60 NMC	-	1200+00 NMC	RT	RAMP NB 41 TO SB 43	530	1
101+41 NBF	-	102+74 NBF	LT	US 41 NB - IH 43 SB	137	-
SUBTOTALS 1B					3077	6
PROJECT TOTALS					**3,257**	**7**

FENCE WOVEN WIRE

STATION	-	STATION	OFFSET	LOCATION	616.0100 LF	
STAGE 1						
1173+75	-	1184+50	LT	VEC	1240	
1167+00	-	1172+75	RT	EVEA	715	
1178+00	-	1184+75	RT	EVEB-NMC	780	
STAGE 1 SUBTOTAL					2735.0	
STAGE 2						
1171+90	-	1172+10	RT	IHA	80.0	END OF STRUCTURE B-05-0671
1216+65	-	1216+80	LT & RT	IHB	85.0	END OF STRUCTURE B-05-0678
1192+75	-	1192+85	LT & RT	NMC	120.0	END OF STRUCTURE B-05-0677
1195+50	-	1195+60	LT & RT	NMC	100.0	END OF STRUCTURE B-05-0677
1202+25	-	1203+00	LT & RT	NMC	160.0	END OF STRUCTURE B-05-0681
1220+25	-	1220+50	LT & RT	NMC	130.0	END OF STRUCTURE B-05-0681
1197+00	-	1197+40	LT & RT	IHA	100.0	END OF STRUCTURE B-05-0671
1187+00	-	1187+15	LT & RT	NIH	70.0	END OF STRUCTURE B-05-0679
1176+50	-	1176+70	LT & RT	IHB	85.0	END OF STRUCTURE B-05-0678
STAGE 2 SUBTOTAL					930.0	
PROJECT TOTAL					**3,665**	

MAINTENANCE AND REPAIR OF HAUL ROADS, PROJECT 1133-11-74

STAGE	LOCATION	618.0100 EACH
STAGES 1-3	UNDISTRIBUTED	1
PROJECT TOTAL		**1**

FENCE SAFETY

LOCATION	616.0700.S LF
STAGE 1	
MEMORIAL DRIVE, PARCEL 16	300
SUBTOTAL STAGE 1	300
STAGE 1 & 2	
EB VELP AVE SIDEWALK	350
WB VELP AVE SIDEWALK	350
STAGE 1 SUBTOTAL	700.0
PROJECT TOTAL	**1,000**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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SEDIMENTATION BASIN

LOCATION	SPV.0060.150 EA
STAGES 1-3	
UNDISTRIBUTED	15
PROJECT TOTAL	**15**

MONUMENTS

STATION	OFFSET	DISTANCE	LOCATION	NAME	621.0100 LANDMARK REFERENCE MONUMENT EACH	SPV.0060.008 SECTION SURVEY MONUMENTS, RECONSTRUCT PROJECT EACH
1166+47	RT	93'	EVEA	FHMR 144	4	--
1180+64	RT	3'	EVEB	FHMR 140	3	1
1189+85	RT	13'	IHA	FHMR 133	4	--
108+92	LT	90'	TWT	FHMR 136	4	--
106+55	LT	20'	TNIH	FHMR 107	4	--
PROJECT TOTALS					**19**	**1**

SURVEY PROJECT 1133-11-74

PROJECT	SPV.0105.007 LS
1133-11-74	1
PROJECT TOTALS	**1**

RESTORATION ITEMS

STATION	-	STATION	OFFSET	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB
STAGE 1											
10+00	-	14+25	RT & LT	ROS	1,430	745	0.9	--	30	--	20
75+83	-	84+55	RT & LT	SBC	--	--	0.2	10	--	--	5
95+35	-	105+47	RT & LT	SBC	--	--	0.2	10	--	--	5
98+50	-	111+26	RT & LT	TSIH	1,770	1,770	0.7	15	--	20	10
100+00	-	112+00	LT	TWT	370	3,210	2.0	90	--	--	40
106+00	-	121+00	RT & LT	TNIH	3,360	3,370	0.9	45	--	25	20
199+00	-	201+50	RT	EVEW MEDIANS	200	200	0.1	--	5	--	5
1161+25	-	1169+10	RT	RVEA	--	1,190	0.7	35	--	--	15
1166+07	-	1173+75	RT & LT	EVEA	1,870	1,445	4.1	180	--	--	90
				MEMORIAL DRIVE	--	--	--	10	--	--	5
UNDISTRIBUTED					2,200	2,980	2.0	100	9	20	50
STAGE 1 SUBTOTALS					11,200	14,910	11.8	495	44	65	265

CONTINUED ON NEXT PAGE

DUST CONTROL SURFACE TREATMENT

LOCATION	623.0200 SY
UNDISTRIBUTED	5,000
	5,000

NOTE:

-SALVAGED TOPSOIL TO BE PLACED IN CONJUNCTION WITH EACH STAGED EMBANKMENT LIFT ON SLOPES MATCHING THE FINAL USH 41 CONDITION.

-TEMPORARY & PERMANENT SEEDING, FERTILIZER, AND MULCH TO BE PLACE ON SLOPES WHERE NO EROSION MAT OR SALVAGED TOPSOIL IS PLACED

-TEMPORARY SEEDING TO BE PLACED AT A RATE OF 1.5 LBS PER 1000 SF WHEN PLACED IN CONJUNCTION WITH PERMANENT SEEDING.

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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RESTORATION ITEMS (CONTINUED)

STATION	-	STATION	OFFSET	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB
STAGE 2											
14+50	-	28+00	RT & LT	BP1	8,420	7,570	--	--	--	115	--
30+00	-	38+20	RT & LT	MR3	390	270	--	--	--	10	--
68+00	-	69+50	RT & LT	HB	480	480	--	--	--	10	--
68+00	-	96+00	RT & LT	MR1	3,000	1,770	--	--	--	45	--
75+83	-	84+55	RT & LT	SBC	1,110	--	0.7	30	--	--	15
85+75	-	95+40	RT & LT	MR4	490	410	--	--	--	10	--
87+60	-	113+75	RT & LT	MR5	3,400	2,750	--	--	--	50	--
95+35	-	105+47	RT & LT	SBC	1,140	--	0.7	35	--	--	15
99+50	-	103+75	RT & LT	MR2	230	150	--	--	--	5	--
200+10	-	204+00	LT	EVEW	2,240	2,030	1.4	--	45	--	30
1162+50	-	1172+75	RT & LT	IHA	1,810	3,870	7.5	325	--	--	165
1169+50	-	1176+50	RT & LT	IHB	3,980	7,150	--	--	--	115	--
1175+00	-	1184+80	RT & LT	EVEB	14,780	460	8.9	385	--	35	195
1175+30	-	1185+00	RT & LT	VEC	10,180	13,480	10.4	450	--	20	225
1178+40	-	1187+25	RT & LT	NIH	3,210	7,085	4.8	205	--	45	105
1185+60	-	1193+50	RT & LT	NMC	6,520	13,090	6.9	300	--	15	150
1195+00	-	1201+00	RT & LT	NMC	9,230	2,100	7.7	330	--	10	165
1196+60	-	1197+50	RT	IHA	440	790	0.4	20	--	--	10
1201+50		1203+00	RT & LT	NMC	2,860	1,085	2.6	115	--	5	60
1220+50	-	1235+00	RT	NMC	5,190	6,035	6.5	285	--	--	145
UNDISTRIBUTED					19,700	17,515	14.7	625	11	95	305
STAGE 2 SUBTOTALS					98,800	88,090	73.2	3,105	56	585	1,585
PROJECT TOTALS					**110,000**	**103,000**	**85**	**3,600**	**100**	**650**	**1,850**

NOTE:

-SALVAGED TOPSOIL TO BE PLACED IN CONJUNCTION WITH EACH STAGED EMBANKMENT LIFT ON SLOPES MATCHING THE FINAL USH 41 CONDITION.

-TEMPORARY & PERMANENT SEEDING, FERTILIZER, AND MULCH TO BE PLACE ON SLOPES WHERE NO EROSION MAT OR SALVAGED TOPSOIL IS PLACED

-TEMPORARY SEEDING TO BE PLACED AT A RATE OF 1.5 LBS PER 1000 SF WHEN PLACED IN CONJUNCTION WITH PERMANENT SEEDING.

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

WATER

STAGE	STATION	-	STATION	OFFSET	LOCATION	624.0100 WATER MGAL	SPV.0120.001 WATER FOR SEEDED AREAS MGAL
STAGE 1							
	10+20	-	14+25	RT & LT	ROS	25	--
	14+50	-	28+23	RT & LT	BP1	10	--
	1166+00	-	1174+00	RT	EVEA	75	--
	1174+50	-	1183+00	RT	EVEB	40	--
	1158+24	-	1172+58	RT & LT	NMC	25	--
	1175+04	-	1175+23	RT	VEC	1	--
	1179+52	-	1182+76	LT	NMC	5	--
	1177+76	-	1184+67	LT	SMC	5	--
	1185+88	-	1192+70	LT	NMC	10	--
	1185+89	-	1192+72	LT	NMC	10	--
	1195+33	-	1200+49	LT	NMC	5	--
	1230+00	-	1235+00	RT	NMC	--	50
	172+00	-	188+60	LT	TIHB	45	--
	99+70	-	111+25	RT	TSIH	55	--
	100+00	-	112+00	RT & LT	TWT	20	--
	106+00	-	121+00	RT & LT	TNIH	65	--
	68+00	-	96+00	RT & LT	MR1	65	--
	99+50	-	103+75	RT & LT	MR2	20	--
	30+00	-	38+20	RT & LT	MR3	25	--
	85+75	-	95+40	RT & LT	MR4	25	--
	87+60	-	113+75	RT & LT	MR5	65	--
	180+35			RT & LT	TIHB	1	--
	199+00	-	204+25	RT & LT	EVEW	10	--
	75+30	-	84+75	LT	SBC	15	--
	95+30	-	105+48	RT & LT	SBC	15	--
	MEMORIAL DR.			LT	MEM	5	--
	HURLBUT			RT & LT	HB	15	--
	E. DEERFIELD DR.			RT & LT	EDR	10	--
	UNDISTRIBUTED				DUST CONTROL	215	--

WATER

STAGE	STATION	-	STATION	OFFSET	LOCATION	624.0100 WATER MGAL	SPV.0120.001 WATER FOR SEEDED AREAS MGAL
STAGE 2							
	106+21	-	121+05	RT & LT	TNIH	65	--
	198+88	-	199+83	RT	EVEW	1	--
	1175+17	-	1180+50	LT	EVEB	1	--
	1203+04	-	1203+66	LT	SIH	1	--
	UNDISTRIBUTED				DUST CONTROL	80	--
STAGE 2 SUBTOTAL						148	0
STAGE 3							
	UNDISTRIBUTED				DUST CONTROL	50	--
STAGE 3 SUBTOTAL						50	0
PROJECT TOTAL						**1,080**	**50**

3

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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VIBRATING WIRE PIEZOMETER
INSTRUMENTATION SYSTEM DELIVERED

FEATURE	STATION	OS	SPV.0060.005 EACH
STAGE 1			
TOE OF R-05-0084	1167+00 IHA	10' LT	1
TOP OF R-05-0084	1170+00 IHA	10' RT	1
EMBANKMENT	1172+75 IHA	25' RT	1
B-05-0671 ABUTMENT, R-05-0255	1196+60 IHA	28' RT	2
EMBANKMENT	1176+50 IHB	10' RT	2
TOP OF WALL R-05-0256	1184+00 NIH	10' RT	2
TOP OF WALL R-05-0256, BEHIND ABUTMENT	1186+90 NIH	5' RT	2
B-05-0675 N. ABUTMENT	1185+88 NMC	10' RT	1
EMBANKMENT	1186+50 NMC	90' RT	1
EMBANKMENT	1189+00 NMC	72' RT	1
EMBANKMENT	1192+00 NMC	65' RT	1
B-05-0677 S. ABUTMENT	1192+80 NMC	10' RT	1
EMBANKMENT	1195+60 NMC	10' LT	1
TOE OF TEMPORARY SLOPE	1198+00 NMC	10' RT	1
EMBANKMENT	1202+00 NMC	20' LT	1
EMBANKMENT	1220+50 NMC	95' RT	2
EMBANKMENT	1222+00 NMC	110' RT	2
EMBANKMENT	1181+85 VEB	40' RT	1
EMBANKMENT	1183+00 VEB	50' RT	2
EMBANKMENT	1184+00 VEB	40' RT	1
B-05-0675 S. ABUTMENT	1184+65 VEB	10' RT	1
EMBANKMENT	1182+50 VEC	25' RT	1
FURTURE R-05-0086	1182+50 VEC	25' LT	1
FURTURE R-05-0086	1184+00 VEC	26' LT	1
EMBANKMENT	1184+00 VEC	32' RT	1
PROJECT TOTAL			**32**

SETTLEMENT GAUGE

FEATURE	STATION	OS	SPV.0060.006 EACH
STAGE 1			
B-05-0671 ABUTMENT, R-05-0255	1196+60 IHA	42' RT	1
TOP OF R-05-0084	1167+00 IHA	10' RT	1
TOP OF R-05-0084	1170+00 IHA	10' RT	1
EMBANKMENT	1172+75 IHA	25' RT	1
TOE AND TOP OF R-05-0257	1173+00 IHA	50' RT	1
EMBANKMENT	1176+50 IHB	10' RT	1
TOP OF WALL R-05-0256	1184+00 NIH	10' RT	1
TOP OF WALL R-05-0256	1186+90 NIH	5' RT	1
B-05-0675 NORTH ABUTMENT	1186+50 NMC	78' RT	1
EMBANKMENT	1189+00 NMC	64' RT	1
EMBANKMENT	1192+00 NMC	57' RT	1
EMBANKMENT	1195+60 NMC	10' LT	1
TOE OF TEMPORARY SLOPE	1198+00 NMC	10' RT	1
EMBANKMENT	1202+00 NMC	20' LT	1
EMBANKMENT	1220+50 NMC	64' RT	1
EMBANKMENT	1222+00 NMC	64' RT	1
EMBANKMENT	1182+00 VEB	30' RT	1
EMBANKMENT	1183+00 VEB	30' RT	1
EMBANKMENT	1184+00 VEB	30' RT	1
EMBANKMENT	1182+50 VEC	35' RT	1
EMBANKMENT	1184+00 VEC	22' RT	1
PROJECT TOTAL			**21**

GEOTECHNICAL INSTRUMENTATION

LOCATION	SPV.0105.004 LS
STAGE 1	
	1
PROJECT TOTAL	**1**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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DELINEATORS AND MARKERS

STATION TO STATION		OFFSET	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	633.5200 MARKERS CULVERT END EACH
STAGE 1						
1166+00 -	1174+00	RT	EVEA	8	8	--
	1171+00	LT & RT	EVEA	--	--	2
	116250	RT	IHA	--	--	1
	11+20	LT	ROS	--	--	1
	13+00	LT & RT	ROS	--	--	2
	202+00	LT	EVEW	--	--	1
1176+00 -	1184+00	RT	EVEB	8	11	--
	1177+00	LT & RT	EVEB	--	--	2
	1180+92	RT	EVEB			1
	1183+07	RT	VEB	--	--	1
	1175+18	RT	VEC	--	--	1
	1177+75	LT	VEC			1
1158+25	1172+60	LT	NMC	15	15	--
1175+50	1178+75	RT	SMC	4	4	--
1180+25	1184+50	LT	NMC	5	5	--
1185+75	1192+75	LT	NMC	14	14	--
	1193+60	LT & RT	NMC	--	--	2
1195+25	111+00	RT	NMC-TNIH	15	15	--
1201+50	1205+50	RT	SMC	4	4	--
	17+10	LT & RT	BP1	--	--	2
	25+22	LT & RT	BP1	--	--	2
	27+97	LT & RT	BP1	--	--	2
	178+53	RT	TIHB			1
	79+53	LT & RT	MR1	--	--	2
	86+72	LT & RT	MR1	--	--	2
	93+00	LT & RT	MR1	--	--	2
119+00 -	122+00	RT	TNIH	4	4	--
	99+97	RT	TSIH	--	--	1
	101+75	LT & RT	TSIH	--	--	2
	100+50	LT & RT	MR2	--	--	2
SUBTOTALS STAGE 1				77	80	33

DELINEATORS AND MARKERS (CONTINUED)

STATION TO STATION		OFFSET	LOCATION	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	633.5200 MARKERS CULVERT END EACH
	103+45	LT & RT	MR2	--	--	2
	30+33	LT & RT	MR3	--	--	2
	31+00	LT & RT	MR3	--	--	2
	32+50	LT & RT	MR3	--	--	2
	88+50	LT & RT	MR4	--	--	2
	93+17	LT & RT	MR4	--	--	2
	95+00	LT & RT	MR4	--	--	2
	96+20	LT	MR4			1
	95+36	LT & RT	MR5	--	--	2
	100+40	RT	MR5	--	--	1
	107+00	LT & RT	MR5	--	--	2
	78+60	LT	SBC	--	--	1
	98+40	LT	SBC	--	--	2
UNDISTRIBUTED				13	20	4
SUBTOTAL STAGE 1				13	20	27
PROJECT TOTALS				**90**	**100**	**60**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TYPE I SIGNS

STATION	- STATION	OFFSET	LOCATION		635.9010.S SIGN SUPPORTS SHORTEN STRUCTURAL STEEL EACH	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	638.2101 MOVING SIGNS TYPE I EACH	638.4100 MOVING STRUCTURAL STEEL SIGN SUPPORTS EACH
STAGE 1									
	1171+00	LT	IHA	IH 43 SOUTH / MILWAUKEE	2	2	124	1	2
STAGE 1 SUBTOTALS					2	2	124	1	2
PROJECT TOTALS					**2**	**2**	**124**	**1**	**2**

SIGNING AND POSTS

SIGN NO.	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0810 POSTS TUBULAR STEEL 2X2-INCH X 10-FT EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EACH	SPV.0165.950 SIGN BLANKS LEFT IN PLACE SF	
STAGE 1											
1-1	W12-52	48 X 48	--	--	1	--	--	--	--	--	
1-2	W12-52	48 X 48	--	--	1	--	--	--	--	--	
1-3	W57-52	36 X 24	--	--	--	--	--	--	--	--	
1-4	W57-52	36 X 24	--	--	--	--	--	--	--	--	
1-5	W1-4R	30 X 30	--	--	1	--	6.25	--	--	--	
1-6	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
1-7	W1-4L	48 X 48	--	--	1	--	16.00	--	--	--	
1-8	W1-4L	48 X 48	--	--	1	--	16.00	--	--	--	
2-1	R3-8P	54 X 30	--	2	--	--	11.25	--	--	--	
2-2	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
2-3	R1-1F	30 X 30	--	--	--	--	--	6.25	--	--	MOUNTED ON SIGNAL POLE
2-4	R1-1F	30 X 30	--	--	--	--	--	6.25	--	--	MOUNTED ON SIGNAL POLE
2-5	R5-1A	36 X 24	--	1	--	--	6.00	--	--	--	
2-6	R3-8P	54 X 30	--	2	--	--	11.25	--	--	--	
2-7	R1-1F	30 X 30	--	--	--	--	--	6.25	--	--	MOUNTED ON SIGNAL POLE
2-8	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
2-9	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
2-10	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
2-11	R9-9	24 X 12	1	--	--	--	2.00	--	--	--	60-INCH MOUNTING HEIGHT
2-12	R1-1F	30 X 30	--	--	--	--	--	6.25	--	--	MOUNTED ON SIGNAL POLE
SUBTOTAL STAGE 1			**1**	**5**	**5**	**3**	**87.75**	**25**	**1**	**0**	

CONTINUED ON NEXT PAGE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

SIGNING AND POSTS (CONTINUED)

SIGN NO.	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6-INCH X 12-FT	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0810 POSTS TUBULAR STEEL 2X2-INCH X 10-FT EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EACH	SPV.0165.950 SIGN BLANKS LEFT IN PLACE SF	
2-13	M5-1R	21 X 21	--	--	--	--	3.06	--	--	--	MOUNTED ON EXISTING POST
2-14	M5-1R	21 X 21	--	--	--	--	3.06	--	--	--	MOUNTED ON EXISTING POST
2-15	W1-4R	48 X 48	--	--	1	--	16.00	--	--	--	
2-16	W1-4R	48 X 48	--	--	1	--	16.00	--	--	--	
4-1	R9-10	24 X 12	1	--	--	--	2.00	--	--	--	60-INCH MOUNTING HEIGHT
4-2	R9-9	24 X 12	1	--	--	--	2.00	--	--	--	60-INCH MOUNTING HEIGHT
5-1	M6-1	21 X 21	--	--	--	--	3.06	--	--	--	MOUNT ON EXISTING POST
5-2	M6-1	21 X 21	--	--	--	--	3.06	--	--	--	MOUNT ON EXISTING POST
5-3	M5-1R	21 X 21	--	--	--	--	3.06	--	--	--	MOUNT ON EXISTING POST
6-1	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
6-2	W1-4R	30 X 30	--	--	1	--	6.25	--	--	--	
6-3	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
7-1	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
8-1	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
8-2	W8-3	36 X 36	--	1	--	--	9.00	--	--	--	
8-3	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
8-4	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
8-5	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
9-1	W12-52	48 X 48	--	--	1	--	16.00	--	--	--	
9-2	W57-52	36 X 24	--	--	--	--	6.00	--	--	--	
9-3	W1-4L	30 X 30	--	1	--	--	6.25	--	--	--	
9-4	W1-4L	30 X 30	--	1	--	--	6.25	--	--	--	
9-5	W12-52	48 X 48	--	1	--	--	16.00	--	--	--	
9-6	W12-52	48 X 48	--	1	--	--	16.00	--	--	--	
9-7	W1-4R	30 X 30	--	1	--	--	6.25	--	--	--	
9-8	W1-4R	30 X 30	--	1	--	--	6.25	--	--	--	
9-9	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
9-10	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
9-11	W5-56	18 X 18	--	--	--	1	2.25	--	--	--	
9-12	W8-3	36 X 36	--	1	--	--	9.00	--	--	--	
SUBTOTAL STAGE 1			**2**	**8**	**4**	**6**	**200.31**	**0**	**3**	**0**	

CONTINUED ON NEXT PAGE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

SIGNING AND POSTS (CONTINUED)

SIGN NO.	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6-INCH X 12-FT	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0810 POSTS TUBULAR STEEL 2X2-INCH X 10-FT EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	637.0402 SIGNS REFLECTIVE FOLDING TYPE II SF	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EACH	SPV.0165.950 SIGN BLANKS LEFT IN PLACE SF	
9-13	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
10-1	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
10-2	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
10-3	W1-4R	30 X 30	--	--	1	--	6.25	--	--	--	
10-4	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
10-5	--	72 X 90	--	--	--	--	--	--	--	45	MOUNTED ON S-05-0284
11-1	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
11-2	--	72 X 90	--	--	--	--	--	--	--	45	MOUNTED ON S-05-0286
12-1	W1-4R	30 X 30	--	--	1	--	6.25	--	--	--	
12-2	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
12-3	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
12-4	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
12-5	W1-4R	30 X 30	--	--	1	--	6.25	--	--	--	
12-6	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
12-7	W1-4R	30 X 30	--	--	1	--	6.25	--	--	--	
12-8	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
12-9	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
12-10	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
12-11	W8-57	30 X 30	--	1	--	--	6.25	--	--	--	
12-12	R11-2	48 X 30	--	--	--	--	10.00	--	1	--	MOUNTED ON BARRICADE
12-13	W1-1L	36 X 36	--	--	1	--	9.00	--	--	--	
12-14	W13-1	18 X 18	--	--	--	--	2.25	--	--	--	
12-15	W1-6	48 X 24	1	--	--	--	8.00	--	--	--	
STAGE 1 SUBTOTAL			1	1	5	0	149.5	0	9	90	
PROJECT TOTALS			**4**	**14**	**14**	**9**	**437.56**	**25**	**13**	**90**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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MOVING AND REMOVING SIGNS

STATION	SIGN DESCR.	OS	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	
STAGE 1								
1165+25	EXIT 170	RL	IHA	1	--	--	1	
1171+40	VELP AVE NORTH/SOUTH	LT	EVEA	--	1	1	--	
1171+40	LEFT, LEFT THRU	LT	EVEA	--	1	1	--	
1171+40	WRONG WAY	LT	EVEA	--	2	2	--	
1173+40	DO NOT ENTER	LT	EVEA	--	1	1	--	
1178+60	PED/BICYCLES PROHIB.	LT	EVEB	1	--	--	1	
199+75	DO NOT ENTER	RT	EVEW	1	--	--	1	
199+80	KEEP RIGHT	RT	EVEW	1	--	--	1	
200+40	DO NOT ENTER	RT	EVEW	1	--	--	1	
200+55	N. 41/141 LEFT	RT	EVEW	2	--	--	1	
200+55	ONE WAY RIGHT	RT	EVEW	1	--	1	--	MOUNT ON SIGNAL POLE
200+60	TO IH 43 LT / NO LEFT TURN	RT	EVEW	2	--	--	1	
200+80	DO NOT ENTER	RT	EVEW	1	--	--	1	
202+65	N. 41/141 RIGHT	LT	EVEW	2	2	2	2	
203+55	TO IH 43 RT	LT	EVEW	1	1	1	1	
VELP AVE -E. OF MEMORIAL	RIGHT ARROWS	RL	EVEW	--	2	2	--	
1221+50	SOUTH 141 LT	LT	IHB	1	--	--	1	
1218+40	STOPLIGHT AHEAD	LT	IHB	1	--	--	1	
1216+80	ADOPT A HIGHWAY	LT	NMC	1	--	--	1	REMOVED TEMPORARY
1221+55	EMERGENCY STOPPING ONLY	LT	NMC	1	--	--	1	REMOVED TEMPORARY
1232+85	ADVANCE WARNING - DEER	RT	NMC	--	1	1	--	
1183+25	NO PARKING BTW SIGNS	RT	IHA	1	--	--	1	MEMORIAL CUL DE SAC
1184+15	NO PARKING BTW SIGNS	RT	IHA	1	--	--	1	MEMORIAL CUL DE SAC
1184+50	NO PARKING / END MARKER	RT	IHA	2	--	--	1	MEMORIAL CUL DE SAC
1196+00	RAMP 30 MPH	LT	NMC	1	--	--	1	
STAGE 1 SUBTOTALS				**23**	**11**	**12**	**19**	

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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MOVING AND REMOVING SIGNS (CONTINUED)

STATION	SIGN DESCR.	OS	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	
STAGE 1								
118+30	DIRECTIONAL ARROW	RT	TNIH	1	--	--	1	
1220+25	END OF ROADWAY MARKER	RT	NMC	1	--	--	1	
1173+40	DEAD END	RT	NIH	--	1	1	--	OLD HURLBUT
1173+45	LEFT ARROW	RT	NIH	--	1	1	--	OLD HURLBUT
1175+50	LAKE MICHIGAN CIRCLE TOUR	LT	NIH	2	--	--	1	
1182+85	END OF ROADWAY MARKER	RT	NIH	--	1	1	--	
1183+00	EXIT 50 MPH	RT	NIH	1	--	--	1	
102+00	EXIT 192A	LT	TNIH	1	--	--	1	
1199+05	OVERTURN TRUCK	LT	NMC	1	--	--	1	
1200+00 - 1201+00	RIGHT CHEVRON	LT & RT	NMC	11	--	--	11	NB USH 41 TO SB IH 43
1200+90	PED. BICYCLES PROHIBITED	RT	NMC	1	--	--	1	
1200+00	NO U TURNS	LT	NMC	2	--	--	1	
1203+35	RIGHT MERGER AHEAD	LT	NMC	1	--	--	1	
1206+25	EXIT 171	LT	SMC	1	--	--	1	
1208+20	PED. BICYCLES PROHIBITED	LT	SMC	1	--	--	1	
STAGE 1 SUBTOTALS				24	3	3	22	
PROJECT TOTALS				**47**	**14**	**15**	**41**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL

STAGE	LOCATION	DURATION DAYS	643.0200 SURVEILLANCE & MAINTENANCE 1133-11-74 DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO.	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS
STAGE 1A																	
	ENTIRE STAGE	35	35	500	17,500	8	280	50	1,750	100	3,500	20	700	--	--	100	3,500
	LANE CLOSURES - USH 41 & I-43	15	--	50	750	--	--	5	75	10	150	15	225	2	30	10	150
	LANE CLOSURES - VELP AVENUE	5	--	50	250	--	--	10	50	20	100	10	50	1	5	20	100
	RAMP CLOSURES	50	--	50	2,500	--	--	3	150	6	300	--	--	--	--	10	500
	SHOULDER CLOSURES	100	--	20	2,000	--	--	--	--	--	--	--	--	1	100	2	200
SUBTOTALS STAGE 1A			35		23,000		280		2,025		4,050		975		135		4,450
STAGE 1B																	
	ENTIRE STAGE	30	30	500	15,000	8	240	50	1,500	100	3,000	20	600	--	--	100	3,000
	LANE CLOSURES - USH 41 & I-43	15	--	50	750	--	--	5	75	10	150	15	225	2	30	10	150
	LANE CLOSURES - VELP AVENUE	5	--	50	250	--	--	10	50	20	100	10	50	1	5	20	100
	RAMP CLOSURES	50	--	50	2,500	--	--	3	150	6	300	--	--	--	--	10	500
	SHOULDER CLOSURES	100	--	20	2,000	--	--	--	--	--	--	--	--	1	100	2	200
SUBTOTAL STAGE 1B			30		20,500		240		1,775		3,550		875		135		3,950
STAGE 2A																	
	ENTIRE STAGE	154	154	500	77,000	8	1,232	50	7,700	100	15,400	20	3,080	--	--	100	15,400
	LANE CLOSURES USH 41 & IH 43	10	--	50	500	--	--	5	50	10	100	15	150	2	20	10	100
	USH 41 TEMPORARY CROSSOVERS	30	--	100	3,000	--	--	20	600	40	1,200	100	3,000	--	--	30	900
	LANE CLOSURES - VELP AVENUE	5	--	50	250	--	--	10	50	20	100	10	50	1	5	20	100
	RAMP CLOSURES	5	--	50	250	--	--	3	15	6	30	--	--	--	--	10	50
	SHOULDER CLOSURES	150	--	20	3,000	--	--	--	--	--	--	--	--	1	150	2	300
SUBTOTALS STAGE 2A			154		84,000		1,232		8,415		16,830		6,280		175		16,850
STAGE 2B																	
	ENTIRE STAGE	210	210	500	105,000	8	1,680	50	10,500	100	21,000	20	4,200	--	--	100	21,000
	LANE CLOSURES - USH 41 & I-43	15	--	50	750	--	--	5	75	10	150	15	225	2	30	10	150
	RAMP CLOSURES	10	--	50	500	--	--	3	30	6	60	--	--	--	--	10	100
	SHOULDER CLOSURES	300	--	20	6,000	--	--	--	--	--	--	--	--	1	300	2	600
SUBTOTALS STAGE 2B			210		112,250		1,680		10,605		21,210		4,425		330		21,850

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL (CONTINUED)

STAGE	LOCATION	DURATION DAYS	643.0200 SURVEILLANCE & MAINTENANCE 1133-11-74 DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO.	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS
STAGE 3																	
	ENTIRE STAGE	177	177	100	17,700	--	--	10	1,770	20	3,540	--	--	--	--	50	8,850
	SHOULDER CLOSURES	50	--	20	1,000	--	--	--	--	--	--	--	--	1	50	2	100
SUBTOTALS STAGE 3			177		18,700		0		1,770		3,540		0		50		8,950
UNDISTRIBUTED			0		6,550		68		5,410		820		2,445		175		3,950
PROJECT TOTALS			**606**		**265,000**		**3,500**		**30,000**		**50,000**		**15,000**		**1,000**		**60,000**

3

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER

STAGE	STATION	STATION	OFFSET	LOCATION	643.0500 POSTS EACH	643.0600 BASES EACH
STAGE 2						
	SB VELP RAMPS	- NB VELP RAMPS	RT	EVEW	20	20
	UNDISTRIBUTED				20	10
STAGE 2 SUBTOTALS					40	30
PROJECT TOTALS					**40**	**30**

COVER PLATES

STAGE	STATION	OFFSET	LOCATION	SPV.0060.009 EACH
STAGE 1B				
	86+05	RT	NBC OUTSIDE SHOULDER	1
	86+05	LT	SBC MEDIAN SHOULDER	1
	95+50	RT	NBC OUTSIDE SHOULDER	1
	95+50	LT	SBC MEDIAN SHOULDER	1
PROJECT TOTAL				**4**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL COVERING SIGNS TYPE II

643.0920 *

STAGE	LOCATION	DESCRIPTION	EACH
STAGE 1			
	WB VELP TO NB USH 41 ON-RAMP	"TO, I-43, ARROW"	3
	NB USH 41, STATION 86+50 NBC, RT	"RAMP-U TURN ARROW - 30 MPH"	1
	NB USH 41, STATION 91+40 NBC, RT	"RIGHT LANE FOR EXIT ONLY"	1
	NB USH 41, STATION 96+00 NBC, RT	"RAMP-U TURN ARROW - 30 MPH"	1
STAGE 1 SUBTOTALS			6
STAGE 2			
	WB VELP TO NB USH 41 ON-RAMP	"TO, I-43, ARROW"	3
	NB USH 41, STATION 86+50 NBC, RT	"RAMP-U TURN ARROW - 30 MPH"	1
	NB USH 41, STATION 91+40 NBC, RT	"RIGHT LANE FOR EXIT ONLY"	1
	NB USH 41, STATION 96+00 NBC, RT	"RAMP-U TURN ARROW - 30 MPH"	1
	EB VELP AVE - MEDIAN UNDER USH 41	"LEFT TURN LANE" WITH ARROW	1
STAGE 2 SUBTOTALS			7
STAGE 1- 3	UNDISTRIBUTED	--	8
PROJECT TOTALS			**21**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

GLARE SCREENS TEMPORARY

SPV.0090.202

STAGE	STATION	OFFSET	LOCATION	EACH
STAGE 2A				
	77+00 - 84+50	LT	NBC TEMP MEDIAN BARRIER	750
	95+50 - 103+50	RT	SBC TEMP MEDIAN BARRIER	800
PROJECT TOTAL				**1,550**

3

TRAFFIC CONTROL SIGNS MODIFIED

SPV.0060.204

STAGE	STATION	OFFSET	LOCATION	DESCRIPTION	EACH
STAGE 2A					
	89+75	LT	NBC TEMP MEDIAN BARRIER	W01-4L, 24" X 24" (CLIPPED)	1
	89+75	RT	SBC TEMP MEDIAN BARRIER	W01-4R, 24" X 24" (CLIPPED)	1
PROJECT TOTAL					**2**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL SIGNS FIXED MESSAGE *

STAGE	ROADWAY	MESSAGE	LOCATION	643.1000 SF
STAGE 1A	USH 41, I-43, AND RAMPS	DO NOT FOLLOW TRUCKS INTO WORK ZONE (10.5'X5') & TRUCKS ENTERING FROM LEFT (7.5'X5')	UNDISTRIBUTED	360
SUBTOTAL 1A				360
STAGE 1B				
	USH 41, I-43, AND RAMPS	DO NOT FOLLOW TRUCKS INTO WORK ZONE (10.5'X5') & TRUCKS ENTERING FROM LEFT (7.5'X5')	UNDISTRIBUTED	180
SUBTOTAL STAGE 1B				180
STAGE 2A				
	USH 41, I-43, AND RAMPS	DO NOT FOLLOW TRUCKS INTO WORK ZONE (10.5'X5') & TRUCKS ENTERING FROM LEFT (7.5'X5')	UNDISTRIBUTED	180
SUBTOTAL STAGE 2A				180
STAGE 2B				
	USH 41, I-43, AND RAMPS	DO NOT FOLLOW TRUCKS INTO WORK ZONE (10.5'X5') & TRUCKS ENTERING FROM LEFT (7.5'X5')	UNDISTRIBUTED	270
SUBTOTAL STAGE 2B				270
STAGE 3				
	USH 41, I-43, AND RAMPS	DO NOT FOLLOW TRUCKS INTO WORK ZONE (10.5'X5') & TRUCKS ENTERING FROM LEFT (7.5'X5')	UNDISTRIBUTED	90
SUBTOTAL 3				90
PROJECT TOTAL				**1,080**

* ADDITIONAL QUANTITY LISTED ELSEWHERE.

TRAFFIC CONTROL DETOUR, PROJECT 1133-11-74

STAGE	ROADWAY	LOCATION	643.2000 EACH
STAGE 2A			
	NB & SB USH 41 & ASSOCIATED RAMPS	STRUCTURAL STEEL ERECTION, BRIDGE B-05-0678	1
PROJECT TOTAL			1

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
1	3600' S OF TYPE 1 (141-SOUTH, VELP AVE, TILT RT)	WO 20-2-A	48"x48"	1	30	30				
2	ACROSS FROM # 1 (MEDIAN SIDE)	WO 20-2-A	48"x48"	1	30	30				
3	1200' N OF SIGN # 1 (FIELD DETERMINED)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-1	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
4	ACROSS FROM # 3 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-1	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
5	1200' N OF SIGN # 3 (FIELD DETERMINED)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-1	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
6	ACROSS FROM # 5 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-1	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
7	LT OF TYPE 1 (141-SOUTH, VELP AVE, TILT RT)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-1	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 6-2	30"x30"	1	30	30				RIGHT
8	150' N OF W 3-3 (SIGNAL AHEAD) SIGN	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 5-1-L	21"x21"	1	30	30				
9	SW QUAD OF CTY HS SE OFF-RAMP	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				LEFT
10	LT OF J 3-2 (S-41-LT; HS-AH)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
11	150' W OF RIVERVIEW RD INTERSECTION ON CTH HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
12	150' N OF GLENDALE AVE INTERSECTION ON CTH HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
13	LT OF J 2-2 (EB-LT&RT; HS-AH)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
14	LT OF J 2-2 (HS-AH; M-LT & RT)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
15	250' N OF PINE RD INTERSECTION ON CTH HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
16	250' N OF WESTON WAY INTERSECTION ON CTH HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
17	LT OF J 1-2 (JCT B, END HS)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 5-1-R	21"x21"	1	30	30				
18	LT OF J13-1 (B-LT & RT)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-1	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				RIGHT
19	MODIFY J 1-2 (JCT 41, JCT 141)	MO 4-8-A	24"x18"	1	30	30				
	" "	M 1-4	EXISTING							41
20	J 2-2 (S-41-RT, S-141-RT)								1	S-41-RT, S-14-RT
	GAP IN SIGN NUMBERING (21-24)									

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
25	1200' S OF TYPE 1 (CTH B-SUNSET BAECH RD, EXIT 1 MILE)	WO 20-2-A	48"x48"	1	30	30				
26	ACROSS FROM # 25 (MEDIAN SIDE)	WO 20-2-A	48"x48"	1	30	30				
27	1200' S OF SIGN # 25	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-3	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
28	ACROSS FROM # 27 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-3	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
29	1200' N OF SIGN # 27	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-3	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
30	ACROSS FROM # 29 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-3	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 5-2-R	30"x30"	1	30	30				
31	LT OF TYPE 1 (B-SUAMICO, SUNSET BEACH RD, TILT RT)	MO 4-8	36"x18"	1	30	30				
	" "	MO 3-3	36"x18"	1	30	30				
	" "	M 1-4	36"x36"	1	30	30				41
	" "	MO 6-2	30"x30"	1	30	30				RIGHT
32	150' N OF W 3-1 (STOP AHEAD) SIGN	MO 4-8	24"x12"	1	30	30				
	" "	MO3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 5-1-R	21"x21"	1	30	30				
33	RT OF J 13-1 (B-LT & RT)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				RIGHT
34	LT OF J 1-1 (JCT HS)	MO 4-8	24"x12"	1	30	30				
	" "	MO3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 5-1-L	21"x21"	1	30	30				

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
35	RT OF R 1-1 (STOP SIGN)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				LEFT
36	200' S OF CTY B INTERSECTION ON CTY HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
37	200' S OF WOOD LANE INTERSECTION ON CTY HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
38	200' S OF PINE RD INTERSECTION ON CTY HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
39	LT OF J 13-2 (M-LT & RT, HS-AH)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
40	LT OF J 13-2 (EB LT & RT, HS-AH)	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
41	100' S OF GLENDALE AVE INTERSECTION ON CTY HS	MO 4-8	24"x12"	1	30	30				
	" "	MO 3-3	24"x12"	1	30	30				
	" "	M 1-4	24"x24"	1	30	30				41
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
42	MODIFY J 1-2 (JCT 41, JCT 141)	MO 4-8-A	24"x18"	1	30	30				
	" "	M 1-4	EXISTING							41
43	J 2-2 (TO-43-AH LT, N-41-AH LT)								1	N-41-AH RT
44	MODIFY J 2-2 (TO-43-AH LT, N-41-AH LT)	MB 4-5	EXISTING							TO
	" "	M 1-51	EXISTING							43
	" "	MO 6-1	21"x21"	1	30	30				AHEAD

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
45	J 2-2 (N-41-RT; N-141-RT)								1	N-41-RT; N-141-RT
46	J 2-2 (TO-43-RT)								1	TO-43-RT
47	LT OF J 4-1 (SOUTH 141)	MO 4-8	24"x12"	1	30	30				
	" "	MO 4-5	24"x12"	1	30	30				
	" "	M 1-51	24"x24"	1	30	30				43
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
48	LT OF W 2-6 (RAB AHEAD) SIGN @ MILITARY AVE	MO 4-8	24"x12"	1	30	30				
	" "	MO 4-5	24"x12"	1	30	30				
	" "	M 1-51	24"x24"	1	30	30				43
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
49	ABOVE J 4-1 (S-141) @ PLATTEN ST	MO 4-8	24"x12"	1	30	30				
	" "	MO 4-5	24"x12"	1	30	30				
	" "	M 1-51	24"x24"	1	30	30				43
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
50	ABOVE J 4-1 (S-141) @ NEVILLE ST	MO 4-8	24"x12"	1	30	30				
	" "	MO 4-5	24"x12"	1	30	30				
	" "	M 1-51	24"x24"	1	30	30				43
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
51	ABOVE J 4-1 (S-141) @ GRAY ST	MO 4-8	24"x12"	1	30	30				
	" "	MO 4-5	24"x12"	1	30	30				
	" "	M 1-51	24"x24"	1	30	30				43
	" "	MO 6-1	21"x21"	1	30	30				AHEAD
	USE FMS's WHEN NB HWY 41 TO SB I43 IS CLOSED									
52	200' N OF RAMADA WAY ON SB ONEIDA ST	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
53	200' S OF 41 SB OVERPASS ON NB WAUBE LN (MEDIAN SIDE)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
54	150' E OF SHADY LANE ON EB HAZLEWOOD LANE	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
55	250' E OF D1-1 (SOUTH-41-NORTH, KEEP LEFT, KEEP RIGHT) ON LOMBARDI AVE	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
56	100' E OF ADVANCE RAB SIGN ON EB MASON ST	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
57	50' W OF TAYLOR ST RAB (N LEG) - BEHIND SIDEWALK - ON WB MASON ST	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
58	275' E OF J 2-4 (S-41-AH, W-29-AH, N-32-AH, N-41-AH RT) ON WB SHAWANO AVE	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
59	FIELD LOCATE WEST OF DUCK CREEK STRUCTURE	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
60	100' W OF J 2-3 (S-41-AH, N-HS-AH, N-41-AH RT) ON WB VELP AVE	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
61	75' W OF KEEP RT SIGN - IN MEDIAN ISLAND - ON SB VELP AVE	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
62	FIELD LOCATED - ON HWY 41 (NB) - 1000' (MIN) SOUTH OF ONEIDA ST OFF RAMP	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL
63	ACROSS FROM SIGN # 62 (MEDIAN SIDE)	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL
	USE FMS's WHEN NB I 43 TO SB HWY 41 IS CLOSED									
	GAP IN SIGN NUMBERING (64-74)									
75	1000' S OF TYPE 1 (W-172/ TO-32, A STRAUBEL AIRPORT, 1 MILE)	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL
76	ACROSS FROM SIGN # 75 (MEDIAN SIDE)	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL
77	2500' N OF SIGN # 75	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL
78	ACROSS FROM SIGN # 77 (MEDIAN SIDE)	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL
79	150' E OF J 2-2 (S-43-AH; N-43-AH RT) ON MANITOWOC RD (WB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
80	200' W OF WEST ABUTTMENT OF I 43 STRUCTURE ON MANITOWOC RD (EB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
81	300' E OF J 1-1 (JCT 43) ON MASON ST (WB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
82	300' W OF SOUTH RAMPS @ I 43 SB ON MASON ST (EB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
83	300' E OF CTH A STRUCTURE ON STH 54/57 (WB)	FMS	10'-6"x 7'-0"				73.50			SEE SIGN DETAIL

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
84	200' E OF TYPE 1 (43, MILWAUKEE/TO HWY 41-141, EXIT 1/4 MILE) ON UNIVERSITY AVE (EB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
85	50' S OF I 43 - SB OVERPASS ON WEBSTER AVE (NB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
86	200' E OF D 1-1 (LT-TO HWY 41/141) ON WEBSTER AVE (SB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
87	200' S OF J 1-1 (JCT 43) ON ATKINSON DR (NB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
88	100' N OF D 1-3 (AH-MANITOWOC; APPLETON/MARINETTE-RT) ON ATKINSON DR (SB)	FMS	4'-6"x 3'-6"				15.75			SEE SIGN DETAIL
	NW & NE RAMP CLOSED @ VELP Ave									
	GAP IN SIGN NUMBERING (89-99)									
100	500' N OF TYPE 1 (43-SOUTH; MILWAUKEE; 1 MILE)	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	W 20-2-A	48"x48"	1	30	30				
101	ACROSS FROM SIGN # 100 (MEDIAN SIDE)	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	W 20-2-A	48"x48"	1	30	30				
102	TYPE 1 (SOUTH 141; VELP AVE; 1/3 MILE)	R-55-58-A	76"x12"	1	30	30		1		PLACE OVER "1/3 MILE"
103	LEFT OF SIGN # 102	MO 4-8	36"x18"	1	30	30				
	"	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-1	30"x30"	1	30	30				AHEAD
104	ACROSS FROM SIGN # 103 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	"	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-1	30"x30"	1	30	30				AHEAD
105A	TYPE 1 (43-SOUTH; MILWAUKEE; TILT RIGHT)							1		TILT RT ARROW
105B	TYPE 1 (43-SOUTH; MILWAUKEE; TILT RIGHT)	R-55-58-A	108"x18"	1	30	30				PLACE OVER EXIT ONLY
106	RT LEG OF SIGN BRIDGE FOR TYPE 1 FOR SIGN # 105	MO 4-8	36"x18"	1	30	30				
	"	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-1	30"x30"	1	30	30				AHEAD

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
107	LT LEG OF SIGN BRIDGE FOR TYPE 1 FOR SIGN # 105	MO 4-8	36"x18"	1	30	30				
	"	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-1	30"x30"	1	30	30				AHEAD
108	LEFT OF SIGN E 5-1 (EXIT 170)	MO 4-8	36"x18"	1	30	30				
	"	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-1	30"x30"	1	30	30				AHEAD
109	ACROSS FROM SIGN # 108 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	"	MO 3-3	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-1	30"x30"	1	30	30				AHEAD
110	200' S OF MEMORIAL BRIDGE (SOUTH ABUTTMENT)	MO 4-8	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 5-2-R	30"x30"	1	30	30				
111	ACROSS FROM SIGN # 110 (MEDIAN SIDE)	MO 4-8	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 5-2-R	30"x30"	1	30	30				
112	RT OF TEMP CONSTRUCTION HWY 29/32 ASSEMBLY	MO 4-8	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
	"	MO 6-2	30"x30"	1	30	30				RIGHT
113	500' N OF J3-3 (E-29-LT; W-29-RT; N-32-RT)	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 5-1-L	21"x21"	1	30	30				
114	LT OF J3-3 (E-29-LT; W-29-RT; N-32-RT)	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				LEFT
115	LT OF J2-2 (N-41-AH LT; E-29-AH)	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 5-1-L	21"x21"	1	30	30				

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
116	LT OF J3-1 (N-41-LT)	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				LEFT
117	RT OF J3-1 (N-41-AH)	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				AHEAD
118	200' S OF MEMORIAL DR BRIDGE (SOUTH ABUTTMENT)	MO 4-8-A	36"x18"	1	30	30				
	"	M 1-4	36"x36"	1	30	30				141
119	ACROSS FROM SIGN # 118 (MEDIAN SIDE)	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
120	200' W OF J1-2 (JCT 41; JCT 141)	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	W 20-2-A	48"x48"	1	30	30				
121	ACROSS FROM SIGN # 120 (MEDIAN SIDE)	MO 4-8	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 5-1-R	21"x21"	1	30	30				
122	RT OF J3-2 (TO-43-AH; S-41-TILT RT)	MO 4-8	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-2	21"x21"	1	30	30				RIGHT
123	500' S OF SIGN # 122	MO 4-8	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				AHEAD
124	200' E OF J1-2 (JCT 41; JCT HS)	W 20-2-A	48"x48"	1	30	30				
125	MODIFY J2-3 (S-41-AH; N-141-AH RT; N-41-AH RT)	MO 4-8	24"x12"	1	30	30				
	"	M 3-1	EXISTING							
	"	M 1-4	EXISTING							141
	"	MO 6-1	21"x21"	1	30	30				AHEAD
126	J2-3 (S-41-AH; N-141-AH RT; N-41-AH RT)								1	NORTH 41 AHEAD RIGHT
127	D1-3 (AH-APPLETON; IRON MOUNTIAN/MARINETTE-RIGHT)								1	IRON MOUNTIAN/MARINETTE-LT
128	J3-2 (N-41-TILT RT; N-141-TILT RT)								1	NORTH 41 TILT RIGHT

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
129	MODIFY J3-2 (N-41-TILT RT; N-141-TILT RT)	MO 4-8	24"x12"	1	30	30				
	"	M 3-1	EXISTING							
	"	M 1-4	EXISTING							141
	"	MO 6-1	21"x21"	1	30	30				AHEAD
130	J3-1 (TO-43-TILT RT)								1	TO-43-TILT RT
131	RT OF J2-2 (S-41-AH-LT; N-HS-AH)	MO 4-8	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 5-1-L	21"x21"	1	30	30				
132	RT OF J3-1 (S-41-LT)	MO 4-8	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				LEFT
133	J2-2 (TO-43-AH LT; N-41-AH LT)								1	TO-43-AH LT; N-41-AH LT
134	D1-3 (LT-OCONTO/MARINETTE/IRON MOUNTIAN)								1	LT-OCONTO/MARINETTE/IRON MOUNTIAN
135	J3-2 (N-41-LT; N-141-LT)								1	N-41-LT; N-141-LT
136	J3-1 (TO-43-LT)								1	TO-43-LT
137	250' W OF J1-2 (ALT-43; N-141)	W 20-2-A	48"x48"	1	30	30				
138	600' W OF J1-2 (ALT-43; N-141)	MO 4-1-A	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 5-1-R	21"x21"	1	30	30				
139	MODIFY J2-2 (N-141-AH; ALT-43-AH RT)	MO 4-1-A	24"x12"	1	30	30				
	"	MO 3-1	EXISTING							
	"	M 1-4	EXISTING							141
	"	MO 5-1-R	21"x21"	1	30	30				
140	TYPE 1 (141- AH ONLY)							1		141 AHEAD ONLY
141	J3-1 (N-141-AH) (LEFT SIDE)								1	NORTH 141 AHEAD
142	RT LEG OF SIGN BRIDGE	MO 4-1-A	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				AHEAD

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ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL DETOUR SIGN SUMMARY (STAGE 2A, CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 30 DAYS	643.3000 DETOUR SIGNS DAYS	643.1000 SIGNS FIXED MESSAGE * S.F.	643.0910 COVERING SIGNS TYPE I EACH	643.0920 COVERING SIGNS TYPE II * EACH	REMARKS
143	RT OF J2-2 (N-43-AH; S-43-AH RT)	MO 4-1-A	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				AHEAD
144	RT OF J2-1 (N-43-AH LT)	MO 4-1-A	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 5-1-L	21"x21"	1	30	30				
145	ABOVE J3-1 (N-43-LT)	MO 4-1-A	24"x12"	1	30	30				
	"	MO 3-1	24"x12"	1	30	30				
	"	M 1-4	24"x24"	1	30	30				141
	"	MO 6-1	21"x21"	1	30	30				LEFT
146	TYPE 1 (41/141; MARINETTE/APPLETON; 1 MILE)							1		APPLETON
147	TYPE 1 (41-SOUTH; APPLETON; EXIT ONLY) @ MILITARY OVERPASS	R-55-58-A	108"x18"	1	30	30		1		PLACE OVER - EXIT ONLY
148	TYPE 1 (41-SOUTH; APPLETON; EXIT ONLY) @ NB RAMP SPLIT	R-55-58-A	108"x18"	1	30	30		1		PLACE OVER - EXIT ONLY
149	E5-1-A (EXIT-171-TILT RT)	R-55-58-A	76"x12"	1	30	30			1	PLACE OVER - 171 & ARROW
150	TYPE 1 (43-SOUTH; MILWAUKEE; EXIT ONLY)	R-55-58-A	108"x18"	1	30	30		1		PLACE OVER - EXIT ONLY
151	TYPE 1 (43-SOUTH; MILWAUKEE; 1/2 MILE)	R-55-58-A	108"x18"	1	30	30		1		PLACE OVER - 1/2 MILE
	PROJECT TOTALS					***7,590***	***719***	***8***	***14***	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

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TRAFFIC CONTROL SIGNS PCMS

STAGE	LOCATION	APPLICATION	# OF CLOSURES	# OF DAYS PER CLOSURE	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
STAGE 1A					
	NB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	NB IH 43	OVERNIGHT SINGLE LANE CLOSURE	4	7	28
	NB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	SB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	NB IH 43 TO NB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB IH 43 TO SB USH 41 RA,[	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	VELP NB USH 41 OFF-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	VELP NB USH 41 ON-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	VELP SB USH 41 OFF-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	UNDISTRIBUTED	AS REQUIRED	--	--	30
STAGE 1A SUBTOTALS					99
STAGE 1B					
	NB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	SB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	NB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	SB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB IH 43 TO NB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB IH 43 TO SB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	VELP NB USH 41 OFF-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	VELP NB USH 41 ON-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	NB USH 41 TO SB IH 43 RAMP	FLATTEN S.E. FROM 8% TO 4% AT GORE	--	--	10
	UNDISTRIBUTED	AS REQUIRED	--	--	30
STAGE 1B SUBTOTALS					92

CONTINUED ON NEXT PAGE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

3

TRAFFIC CONTROL SIGNS PCMS

STAGE	LOCATION	APPLICATION	# OF CLOSURES	# OF DAYS PER CLOSURE	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS
STAGE 2A					
	NB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	SB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	NB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	SB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB IH 43 TO NB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	NB IH 43 TO SB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	VELP NB USH 41 ON-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	2	3	6
	NB USH 41 TO SB IH 43 RAMP	FLATTEN S.E. FROM 8% TO 4% AT GORE	--	--	124
	UNDISTRIBUTED	AS REQUIRED	--	--	30
STAGE 2A SUBTOTALS					209
STAGE 2B					
	NB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	SB USH 41	OVERNIGHT SINGLE LANE CLOSURE	2	7	14
	NB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	SB USH 41 TO SB IH 43 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB IH 43 TO NB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB IH 43 TO SB USH 41 RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	VELP NB USH 41 ON-RAMP RAMP	OVERNIGHT FULL ROADWAY CLOSURE	1	3	3
	NB USH 41 TO SB IH 43 RAMP	FLATTEN S.E. FROM 8% TO 4% AT GORE	--	--	210
	EB VELP AVENUE	OVERNIGHT FULL ROADWAY CLOSURE	2	7	14
	WB VELP AVENUE	OVERNIGHT FULL ROADWAY CLOSURE	2	7	14
	UNDISTRIBUTED	AS REQUIRED	--	--	30
STAGE 2B SUBTOTALS					311
STAGE 3					
	NB USH 41 TO SB IH 43 RAMP	FLATTEN S.E. FROM 8% TO 4% AT GORE			177
	UNDISTRIBUTED	AS REQUIRED			112
STAGE 3 SUBTOTALS					289
PROJECT TOTALS					**1,000**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

TRAFFIC CONTROL FOR DUCK CREEK RECREATIONAL VEHICLES

SPV.0105.200

STAGE	LOCATION	EACH	BOUYS * EACH	W20-1 (MOD) * SIGNS EACH
1A-2A OR 2C				
	UNDISTRIBUTED	1	16	4
PROJECT TOTAL		**1**		

* INFORMATION FOR BIDDING PURPOSES ONLY

TRUCK MOUNTED ATTENUATOR

STAGE	LOCATION	SPV.0075.200 SIGNS WITH OPERATOR HRS	SPV.0075.201 WITHOUT OPERATOR HRS
1			
	UNDISTRIBUTED	34	34
SUBTOTAL STAGE 3		34	34
2			
	UNDISTRIBUTED	33	33
SUBTOTAL STAGE 3		33	33
3			
	UNDISTRIBUTED	33	33
SUBTOTAL STAGE 3		33	33
PROJECT TOTALS		**100**	**100**

STREET SWEEPING

STAGE	LOCATION	SPV.0075.150 HRS
STAGE 1A	VARIOUS	100
SUBTOTAL 1A		100
STAGE 1B		
	VARIOUS	100
SUBTOTAL STAGE 1B		100
STAGE 2A		
	VARIOUS	125
SUBTOTAL STAGE 2A		125
STAGE 2B		
	VARIOUS	125
SUBTOTAL STAGE 2B		125
STAGE 3		
	VARIOUS	50
SUBTOTAL STAGE 3		50
PROJECT TOTALS		**500**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

3

PAVEMENT MARKING

STATION	- STATION	OFFSET	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0456 PAVEMENT MARKING CURB EPOXY LF	647.0576 PAVEMENT MARKING STOP LINE EPOXY 24-INCH LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH	647.0746 PAVEMENT MARKING DIAGONAL EPOXY LF	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH LF	NOTE
STAGE 1															
1166+00	1173+75	LT	EVEA	--	780	--	--	--	--	--	--	--	--	--	LEFT EDGELINE
1166+00	1173+30	RT	EVEA	730	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
1168+00	1172+40	RT	EVEA	220	--	--	--	--	--	--	--	--	--	--	LANE LINES / 12.5-FOOT SKIPS
	1171+10	RT	EVEA	--	--	--	--	--	2	--	--	--	--	--	ONLY
	1171+25	RT	EVEA	--	--	--	2	--	--	--	--	--	--	--	(1) RIGHT, (1) LEFT
	1171+25	RT	EVEA	--	--	--	--	1	--	--	--	--	--	--	AHEAD LEFT
1172+40	1173+75	RT	EVEA	--	--	280	--	--	--	--	--	--	--	--	TURNING LANE LINES
	1173+75	RT	EVEA	--	--	--	--	--	--	--	60	--	--	--	
SB USH 41 RAMP	200+25	RT	EVEW	150	--	--	--	--	--	--	--	--	--	--	LANE LINE SKIPS, EB VELP AVE
198+40	200+25	RT	EVEW	--	--	190	--	--	--	--	--	--	--	--	TURNING LANE LINE
	200+10	RT	EVEW	--	--	--	--	--	--	25	--	--	--	--	
	200+25	RT	EVEW	--	--	--	--	--	--	--	35	--	--	--	
200+25	201+10	RT	EVEW	--	--	70	--	--	--	--	--	--	--	--	3-FOOT SKIPS THROUGH INTERSECTION
201+00	201+75	LT	EVEW	--	--	--	--	--	--	--	--	--	--	140	
	201+25	RT	EVEW	--	--	--	--	--	--	--	--	2	--	--	
201+25	201+40	RT	EVEW	--	--	--	--	--	--	40	--	--	--	--	
	202+10	RT & LT	EVEW	--	--	--	--	--	--	--	36	--	--	--	
202+10	203+10	RL	EVEW	--	--	100	--	--	--	--	--	--	--	--	
1175+80	1183+00	RL	EVEB	--	720	--	--	--	--	--	--	--	--	--	LEFT EDGELINE
1175+60	1182+60	RT	EVEB	700	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
105+00	122+50	RL	TNIH	--	1750	--	--	--	--	--	--	--	--	--	LEFT EDGELINE
105+00	122+50	RT	TNIH	1750	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
96+50	111+75	RT	TSIH	1530	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
98+50	111+50	RT	TSIH	--	1300	--	--	--	--	--	--	--	--	--	LEFT EDGELINE
99+50	109+25	RT	TSIH	--	980	--	--	--	--	--	--	--	--	--	LEFT EDGELINE
STAGE 1 SUBTOTALS				5,080	5,530	640	2	1	2	65	131	2	0	140	

CONTINUED ON NEXT PAGE

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

PAVEMENT MARKING (CONTINUED)

STATION	- STATION	OFFSET	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0456 PAVEMENT MARKING CURB EPOXY LF	647.0576 PAVEMENT MARKING STOP LINE EPOXY 24-INCH LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH	647.0746 PAVEMENT MARKING DIAGONAL EPOXY LF	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH LF	NOTE
STAGE 1															
99+50	109+25	RT	TSIH	980	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
1149+00	1223+00	RT & LT	NMC	9300	7400	--	--	--	--	--	--	--	--	--	WINTER REFRESH
1174+00	1208+00	RT & LT	SMC	4300	3400	--	--	--	--	--	--	--	--	--	WINTER REFRESH
1170+00	112+00	RT & LT	NIH / TSIH	5300	4200	--	--	--	--	--	--	--	--	--	WINTER REFRESH
1174+00	112+00	RT & LT	SIH / TSIH	800	600	--	--	--	--	--	--	--	--	--	WINTER REFRESH
1158+00	1173+00	RT	NMC	1900	1500	--	--	--	--	--	--	--	--	--	NB 41 WIDENING
172+50	189+00	LT	TIHB	2100	1700	--	--	--	--	--	--	--	--	--	NB 43 WIDENING
74+40	105+50	LT	SBC	3900	3200	--	--	--	--	--	--	--	--	--	RETRACE THROUGH CROSSOVERS STAGE 1
78+40	101+00	RT	NBC	2900	2300	--	--	--	--	--	--	--	--	--	RETRACE THROUGH CROSSOVERS STAGE 1
1198+00	1200+00	LT	NMC	--	--	--	--	--	--	--	--	--	200	--	GORE MARKING
1158+66	1160+50	LT	RVEA	--	--	--	--	--	--	--	--	--	100	--	GORE MARKING
STAGE 1 SUBTOTALS				31480	24300	0	0	0	0	0	0	0	300	0	
STAGE 2															
10000	10400	RL	TWT	400	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
100+00	105+50	RT	TWT	550	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINE
100+00	112+00	RT	TWT	--	2400	--	--	--	--	--	--	--	--	--	DOUBLE YELLOW
107+00	112+00	RL	TWT	1000	--	--	--	--	--	--	--	--	--	--	RIGHT EDGELINES
74+40	105+50	LT	SBC	3900	3200	--	--	--	--	--	--	--	--	--	RETRACE THROUGH CROSSOVERS STAGE 2
78+40	101+00	RT	NBC	2900	2300	--	--	--	--	--	--	--	--	--	RETRACE THROUGH CROSSOVERS STAGE 2
STAGE 2 SUBTOTALS				8750	7900	0	0	0	0	0	0	0	0	0	
PROJECT TOTALS				**45,310**	**37,730**	**640**	**2**	**1**	**2**	**65**	**131**	**2**	**300**	**140**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

3

REMOVING PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKINGS

STAGE	STATION		STATION	OFFSET	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH WHITE LF	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH YELLOW LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW LF	649.0701 TEMPORARY PAVEMENT MARKING 8-INCH WHITE LF	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH WHITE LF	649.1800 TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE EACH	649.2000 TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE EACH
STAGE 1														
	1191+15	-	1197+75	LT	NMC	--	--	--	700	--		--	--	--
	99+50	-	109+15	RT	TSIH	300	--	--	--	1,000	--	--	--	--
	103+00	-	115+00	RT	TNIH	500	--	--	900	--	--	--	--	--
	103+00	-	122+00	RT	TNIH	500	--	--	--	1,500	--	--	--	--
	172+50		189+00	LT	TIHB	2,000	--	--	--	--	--	--	--	--
	1158+00		1173+00	RT	NMC	1,500	--	--	--	--	--	--	--	--
	1158+00		1161+00	RT	RVEA	--	--	--	500	500	--	--	--	--
	UNDISTRIBUTED					200	--	--	200	300	--	--	--	--
STAGE 1 SUBTOTALS						5,000			2,300	3,300		0	0	0
STAGE 2														
	SB RAMPS	-	NB RAMPS	RT	VELP AVE	75	--	--	300	400	--	55	5	1
	180+75		182+50	RT	EVEB	200	--	--	--	--	--	--	--	--
	74+40		105+50	LT	SBC	1,600	3,150	3,150	--	--	3,150	--	--	--
	78+40		101+00	RT	NBC	6,900	2,300	2,300	--	--	2,300	--	--	--
	UNDISTRIBUTED					100	--	--	100	100	--	--	--	--
STAGE 2 SUBTOTALS						8,875	5,450	5,450	400	500	5,450	55	5	1
PROJECT TOTALS						**13,875**	**5,450**	**5,450**	**2,700**	**3,800**	**5,450**	**55**	**5**	**1**

RAISED PAVEMENT MARKERS

STAGE	STATION	STATION	OFFSET	LOCATION	649.2100 * TEMPORARY RAISED PAVEMENT MARKERS WHITE EACH	649.2100 * TEMPORARY RAISED PAVEMENT MARKERS YELLOW EACH
STAGE 2						
	74+40	84+50	LT	SBC	81	40
	78+25	84+50	RT	NBC	50	25
	95+25	105+50	LT	SBC	82	41
	95+25	100+75	RT	NBC	44	22
	UNDISTRIBUTED				--	--
STAGE 2 SUBTOTALS					257	128
PROJECT TOTALS					**257**	**128**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

SAWING ASPHALT

STATION	- STATION	OFFSET	LOCATION	690.0150 LF	NOTES
STAGE 1					
10+20			ROS	22	
11+25		RT	ROS	35	PE
68+00		RT & LT	HB	22	HURLBUT
1168+00	- 1172+58	RT & LT	NMC	475	US 41 NB, MEDIAN SHOULDER
1161+06	- 1169+32	RT & LT	RVEA	827	US 41 NB, OFF-RAMP TO VELP AVE
1162+50		RT	IHA	54	PIPE UNDER US 41 NB - VELP OFF-RAI
1166+07	- 1168+60	RT & LT	EVEA	268	US 41 NB, OFF-RAMP TO VELP AVE
1177+73	- 1184+51	RT	VEC	702	US 41 SB - VELP AVE OFF-RAMP
1179+52	- 1182+76	LT	NMC	449	US 41 NB, GORE AREA
1180+25	- 1184+86	RT	EVEB	472	VELP - NB USH 41 ON-RAMP
75+33	- 78+47	RT & LT	SBC	323	US 41 SB, MEDIAN SHOULDER
80+26	- 84+63	RT & LT	SBC	444	US 41 NB, MEDIAN SHOULDER
85+90	- 92+73	RT	NBC	699	US 41 NB, RT SHOULDER
85+90	- 92+73	LT	NBC	699	US 41 NB, MEDIAN SHOULDER
95+35	- 100+52	RT	NBC	571	US 41 NB, RT SHOULDER
95+35	- 99+76	LT	NBC	458	US 41 NB, MEDIAN SHOULDER
101+44	- 105+47	RT & LT	SBC	408	US 41 SB, MEDIAN SHOULDER
100+05	- 102+10	RT & LT	TWT	190	WIETOR DRIVE
108+50	- 111+80	RT & LT	TWT	220	WIETOR DRIVE
1230+50		RT	NMC	23	E. DEERFIELD AVE
			MEMORIAL DRIVE CUL-DE-SAC	145	
			MEMORIAL DRIVE - PARKING LOT	140	
STAGE 1 SUBTOTAL				7,646	
STAGE 2					
75+33	- 78+47	RT & LT	SBC	315	US 41 SB, CROSSOVER REMOVAL
80+26	- 84+63	RT & LT	SBC	435	US 41 NB, CROSSOVER REMOVAL
95+35	- 99+76	RT & LT	SBC	450	US 41 NB, CROSSOVER REMOVAL
101+44	- 105+47	RT & LT	SBC	400	US 41 SB, CROSSOVER REMOVAL
1200+50	- 1203+53	LT	NMC	307	US 41 NB, RT SHOULDER
STAGE 2 SUBTOTAL				1,907	
PROJECT TOTAL				**9,553**	

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

SAWING CONCRETE

STATION - STATION	OFFSET	LOCATION	690.0250 LF	NOTES
STAGE 1				
98+50 - 101+25	RT & LT	TSIH	267	SB IH 43, MEDIAN SHLD
102+00 - 108+03	RT	TSIH	620	NB IH 43, MEDIAN SHLD
102+90 - 104+90	RT	TSIH	221	NB IH 43,
109+00 - 111+26	RT & LT	TSIH	337	SB USH 41 - SB I 43
101+85 - 103+80	RT & LT	TWT	209	
104+60 - 104+80	RT	TWT	57	
107+00	RT & LT	TWT	39	
106+20 - 110+70	RT	TNIH	470	
106+20 - 121+06	RT & LT	TNIH	1,241	LT SHOULDER
117+40 - 118+40	RT	TNIH	134	
172+50 - 188+57	LT	TIHB	1,606	NB IH 43, LT SHOULDER
176+22 - 187+71	RT	TIHB	1,113	NB IH 43, RT LANE & SHLD
178+52	RT	TIHB	20	SS PIPE UNDER IH 43 NB
198+87 - 201+82	RT	EVEW	554	EB VELP AVE
199+23 - 203+96	RT	EVEW	640	WB VELP AVE
1168+35	LT	EVEA	21	NB USH 41 - VELP OFF-RAMP
1180+26	LT	EVEB	20	VELP - NB USH 41 ON-RAMP
1174+96 - 1175+23	RT	VEC	51	SB USH 41 - VELP OFF-RAMP
STAGE 1 SUBTOTAL			7,620	
PROJECT TOTAL			**7,620**	

MUDJACKING

STAGE	STATION	OFFSET	LOCATION	DESCRIPTION	SPV.0035.005 CY
STAGE 1B					
	95+40	RT	NBC	FILL VOIDS, BRIDGE CONCRETE SHOULDER APPRAOCH SLAB	5
PROJECT TOTAL					**5**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

3

STRIP DRAINS

STATION	-	STATION	LOCATION	SPV.0090.001 STRIP DRAINS LF	SPV.0090.002 STRIP DRAINS PRE-BORED LF
STAGE 1					
1181+00	-	1182+00	VEC	--	21,535
1182+00	-	1185+00	VEC	56,688	18,657
1181+00	-	1182+25	VEB	--	23,901
1182+25	-	1184+90	VEB	41,030	20,103
1185+60	-	1187+00	NMC	17,463	8,219
1194+90	-	1200+75	NMC	190,275	--
1200+00	-	1204+05	NMC	99,360	--
1219+80	-	1220+20	NMC	--	3,822
1220+20	-	1222+00	NMC	--	31,856
1222+00	-	1224+00	NMC	18,675	5,493
1172+00	-	1173+30	IHA	--	19,278
1196+30	-	1197+45	IHA	--	9,073
1172+00	-	1177+35	IHB	48,459	--
1179+00	-	1187+90	NIH	--	97,703
PROJECT TOTALS				**471,950**	**259,650**

GEOTEXTILE FABRIC

STATION	-	STATION	LOCATION	645.0115 GEOTEXTILE FABRIC TYPE ES SY
STAGE 1				
10+00	-	10+40	R-05-257	222
10+40	-	11+33	R-05-257	775
1194+90	-	1200+75	NMC	14,889
1200+00	-	1203+90	NMC	6,726
1185+00	-	1187+28	NIH	1,267
PROJECT 1133-11-74 TOTAL				**23,878**

GEOGRID REINFORCEMENT

STATION	-	STATION	LOCATION	SPV.0180.001 SY
STAGE 1				
105+50	-	113+50	MR5	1600
PROJECT TOTAL				**1600**

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED

REMOVING CONCRETE BASES

LOCATION	204.0195 REMOVING CONCRETE BASES EACH
STAGE 1B	
ECB	1
ESB1	1
ESB2	1
ESB3	1
ESB4	1
ESB5	1
ESB6	1
ESB7	1
ESB8	1
TOTAL	**9**

PULL BOXES

PB NO.	STATION	OFFSET	653.0140 PULL BOXES STEEL 24x42-INCH EACH
STAGE 1A			
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)			
PB1	201+90 EVEW	31' LT	1
PB2	1174+38 EVEA	81' RT	1
PB3	1173+83 EVEA	87' RT	1
PB4	1173+40 EVEA	50' RT	1
PB5	200+28 EVEW	93' RT	1
PB6	1174+28 EVEA	77' LT	1
PB7	200+22 EVEW	6' LT	1
PB8	200+92 EVEW	6' LT	1
	TOTAL		**8**

CONDUIT RIGID NONMETALLIC SCHEDULE 40

FROM	-	TO	652.0225 2-INCH LF	652.0235 3-INCH LF	652.0615 SPECIAL 3-INCH LF	NOTES
STAGE 1A						
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)						
CB1	-	PB1	32	32	---	2 RUNS EACH
PB1	-	PB2	---	---	83	--
PB2	-	PB3	---	---	56	---
PB3	-	PB4	---	44	---	---
PB4	-	PB5	---	116	---	---
PB5	-	PB6	---	---	51	---
PB6	-	PB7	---	---	50	---
PB7	-	PB8	---	71	---	---
PB8	-	PB9	---	79	---	---
PB9		PB1	---	26	---	---
PB1	-	SB1	20	---	---	---
PB2	-	SB2	44	---	---	---
PB3	-	SB3	14	---	---	---
PB4	-	SB4	18	---	---	---
PB5	-	SB5	16	---	---	---
PB6	-	SB6	8	---	---	---
PB8	-	SB7	30	---	---	---
PB8	-	SB8	9	---	---	---
PB9	-	SB9	19	---	---	---
SUBTOTAL			210	368	240	
STAGE 1A						
USH 41 SB RAMPS & USH 141 (VELP AVENUE) (S-346)						
CB1	-	PB	---	20	---	2 RUNS
CONDUIT FOR UTILITY USE			---	---	50	--
SUBTOTAL			0	20	50	
TOTAL			**210**	**388**	**290**	

ALL ITEMS CATEGORY 1300 UNLESS OTHERWISE NOTED

CONCRETE BASES

SB NO.	STATION	OFFSET	654.0101 TYPE 1 EACH	654.0102 TYPE 2 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
STAGE 1A					
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)					
CB1	199+82 EVEW	19' LT	---	---	1
SB1	202+02 EVEW	17' LT	1	---	---
SB2	201+36 EVEW	49' RT	---	1	---
SB3	1173+85 EVEA	100' RT	---	1	---
SB4	1173+50 EVEA	40' RT	1	---	---
SB5	1173+84 EVEA	50' LT	1	---	---
SB6	1174+27 EVEA	82' LT	---	1	---
SB7	200+50 EVEW	10' LT	---	1	---
SB8	1174+81 EVEA	7' LT	---	1	---
SB9	201+82 EVEA	27' LT	1	---	---
SUBTOTAL			4	5	1
USH 41 SB RAMPS & USH 141 (VELP AVENUE) (S-346)					
CB1		---	---	---	1
SUBTOTAL		0	0	1	
TOTAL		**4**	**5**	**2**	

REMOVING PULL BOXES

LOCATION	653.0905 REMOVING PULL BOXES EACH
STAGE 1B	
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)	11
TOTAL	**11**

ALL ITEMS CATEGORY 1300 UNLESS OTHERWISE NOTED

3

CABLE TRAFFIC SIGNAL

LOCATION	FROM	TO	655.0230 5-14 AWG LF	655.0240 7-14 AWG LF	655.0260 12-14 AWG LF	HEAD NO.	655.0230 (Base to Head) 5-14 AWG LF	655.0240 (Base to Head) 7-14 AWG LF
USH 141	CB1	SB9	70	---	---	99	10	---
(pedestrian)	SB9	SB8	115	---	---	98	10	---
USH 41 NB RAMP (T-1370)	CB1	SB8	190	---	---	10	15	---
	SB8	SB7	45	---	---	11	40	---
	CB1	SB4	235	---	---	9	15	---
USH 141 (VELP AVE.)	CB1	SB1	---	40	---	5	---	20
(east side)	SB1	SB2	---	155	---	4	---	20
	CB1	SB1	---	---	40	6	15	---
	SB1	SB2	---	---	155	3	20	---
	SB2	SB3	125	---	---	2	45	---
USH 141 (VELP AVE.)	CB1	SB7	---	---	240	7	45	---
(west side)	SB7	SB6	---	---	85	8	15	---
	SB6	SB5	85	---	---	1	15	---
		SUBTOTAL	865	195	520		245	40
		TOTAL	**1,110**	**235**	**520**			

EB

Red	=	Red
Yellow	=	Orange
Green	=	Green
Left Red	=	Red
Left Yellow	=	Black
Left Flashing Yellow	=	White
Left Green	=	Blue

WB

Red	=	Red w/Black
Yellow	=	Orange w/Black
Green	=	Green w/Black
Left Red	=	Red w/Black
Left Yellow	=	Black w/White
Left Flashing Yellow	=	White w/Black
Left Green	=	Blue w/Black

RAMP

Red	=	Red
Yellow	=	Orange
Green	=	Green

PEDS

Walk LED	=	Green
Don't Walk LED	=	Red
Push Button	=	Black w/ White

ALL ITEMS CATEGORY 1300 UNLESS OTHERWISE NOTED

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	-	TO	655.0515 10 AWG GROUNDING CONDUCTOR (GREEN) LF	655.0515 10 AWG GROUNDED CONDUCTOR (WHITE) LF	655.0515 10 AWG PULL BOX BONDING JUMPER (GREEN) LF
STAGE 1A					
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)					
CB1	-	SB1	40	40	---
SB1	-	SB2	155	155	---
SB2	-	SB3	125	125	---
SB3	-	SB4	85	85	---
SB4	-	SB5	160	160	---
SB5	-	SB6	170	170	---
SB6	-	SB7	100	100	---
SB7	-	SB8	115	115	---
SB8	-	SB9	115	115	---
SB9	-	CB1	70	70	---
PB1	-	SB1	---	---	25
PB2	-	SB2	---	---	50
PB3	-	SB3	---	---	20
PB4	-	SB4	---	---	25
PB5	-	SB5	---	---	25
PB6	-	SB6	---	---	15
PB7	-	SB7	---	---	45
PB8	-	SB8	---	---	15
PB9	-	SB9	---	---	25
SUBTOTAL			1135	1135	245
TOTAL				**2515**	

MICROWAVE VEHICLE DETECTION SYSTEM

DETECTOR NUMBER	SPV.0060.450 FURNISH AND INSTALL MICROWAVE BASED TRAFFIC SENSOR EACH	674.0200 CABLE MICROWAVE DETECTOR LF	ROUTE	REMARKS
STAGE 1A				
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)				
MD1	1	205	CB1 - SB3	MOUNTED ON SB3
MD2	1	260	SB1 - SB7	MOUNTD ON SB7
MD3	1	166	SB1 - SB8	MOUNTED ON SB8
TOTAL	**3**	**631**		

LIGHTING UNITS

LOCATION	657.0709 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 12-FOOT EACH	659.0125 LIGHTING UTILITY HPS 250 WATTS EACH
STAGE 1A		
USH 41 NB RAMPS & USH 141 (VELP AVENUE)		
SB3	1	1
SB6	2	2
SB7	1	1
SB8	1	1
TOTAL	**5**	**5**

LIGHTING CABLE AND WIRE

FROM	TO	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
STAGE 1A			
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)			
CB1	SB3	182	---
SB3	LUM.	---	117
CB1	SB8	143	--
SB8	LUM.	---	117
SB8	SB7	119	---
SB7	LUM.	---	117
SB7	SB6	97	---
SB6	LUM.	---	234
TOTAL		**541**	**585**

ALL ITEMS CATEGORY 1300 UNLESS OTHERWISE NOTED

TRAFFIC POLES AND ARMS

SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES STANDARD 11 1/2-INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0315 POLES TYPE 4 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0590 TROMBONE ARMS 20-FT EACH	657.0595 TROMBONE ARMS 25-FT EACH
STAGE 1A									
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T1370)									
SB1	1	---	---	---	---	1	---	---	---
SB2	1	---	---	---	---	1	---	---	---
SB3	---	1	1	---	---	---	---	---	1
SB4	1	---	---	---	1	---	---	---	---
SB5	1	---	---	---	1	---	---	---	---
SB6	---	1	---	1	---	---	---	---	---
SB7	---	1	1	---	---	---	---	1	---
SB8	---	1	1	---	---	---	---	1	---
SB9	1	---	---	---	---	---	1	---	---
TOTAL	**5**	**4**	**3**	**1**	**2**	**2**	**1**	**2**	**1**

LED MODULES

SB NO.	HEAD NO.	FACE TYPE	658.0600 12-INCH RED BALL EACH	658.0605 12-INCH YELLOW BALL EACH	658.0610 12-INCH GREEN BALL EACH	658.0615 12-INCH RED ARROW EACH	658.0620 12-INCH YELLOW ARROW EACH	658.0625 12-INCH GREEN ARROW EACH	658.0635 PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STAGE 1A									
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)									
SB1	5	4 SEC	---	---	---	1	2	1	---
	6	3 SEC	1	1	1	---	---	---	---
SB2	3	3 SEC	1	1	---	---	---	1	---
	4	4 SEC	---	---	---	1	2	1	---
SB3	2	3 SEC	1	1	1	---	---	---	---
SB4	9	3 SEC	1	1	1	---	---	---	---
SB5	1	3 SEC	1	1	1	---	---	---	---
SB6	8	3 SEC	1	1	1	---	---	---	---
SB7	7	3 SEC	1	1	1	---	---	---	---
	11	3 SEC	1	1	1	---	---	---	---
SB8	10	3 SEC	1	1	1	---	---	---	---
	98	PED	---	---	---	---	---	---	1
SB9	99	PED	---	---	---	---	---	---	1
TOTAL			**9**	**9**	**8**	**2**	**4**	**3**	**2**

ALL ITEMS CATEGORY 1300 UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL AND PEDESTRIAN FACES

			658.0110	658.0155	658.0115	658.0215	658.0220	658.0416	658.0500
			TRAFFIC SIGNAL FACE			BACKPLATES SIGNAL FACE			
SB NO.	HEAD NO.	TYPE OF MOUNT	3-12 INCH VERTICAL EACH	3-12 INCH HORIZONTAL EACH	4-12 INCH VERTICAL EACH	3 SECTION 12-INCH EACH	4 SECTION 12-INCH EACH	PEDESTRIAN SIGNAL FACE 16-INCH EACH	PEDESTRIAN PUSH BUTTONS EACH
STAGE 1A									
USH 41 NB RAMPS & USH 141 (VELP AVENUE) (T-1370)									
SB1	5	POST	---	---	1	---	1	---	---
	6	POST	1	---	---	1	---	---	---
SB2	3	POST	1	---	---	1	---	---	---
	4	POST	---	---	1	---	1	---	---
SB3	2	MAST ARM	---	1	---	1	---	---	---
SB4	9	POST	1	---	---	1	---	---	---
SB5	1	POST	1	---	---	1	---	---	---
SB6	8	POST	1	---	---	1	---	---	---
SB7	7	MAST ARM	---	1	---	1	---	---	---
	11	POST	1	---	---	1	---	---	---
SB8	10	MAST ARM	---	1	---	1	---	---	---
	98	PED	---	---	---	---	---	1	1
SB9	99	PED	---	---	---	---	---	1	1
TOTAL			**6**	**3**	**2**	**9**	**2**	**2**	**2**

REMOVE TRAFFIC SIGNALS

	SPV.0105.450 (USH 41 NB & USH 141) LS
T-1370	1
TOTAL	1

SIGNAL MOUNTING HARDWARE

	658.5069.001 (USH 41 NB & USH 141) LS
T-1370	1
TOTAL	1

ELECTRICAL SERVICE METER BREAKER PEDESTAL

	656.0200.001 (USH 41 NB & USH 141) LS	656.0200.002 (USH 41 SB & USH 141) LS
	T-1370	S-346
	1	1
TOTAL	1	1

ALL ITEMS CATEGORY 1300 UNLESS OTHERWISE NOTED

2545460
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
11/02/2011 4:15 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

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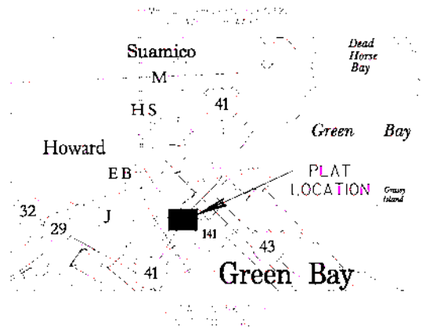
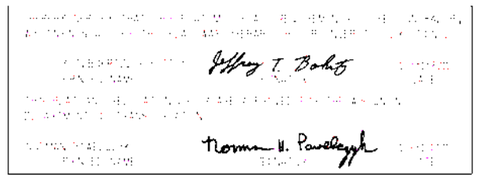
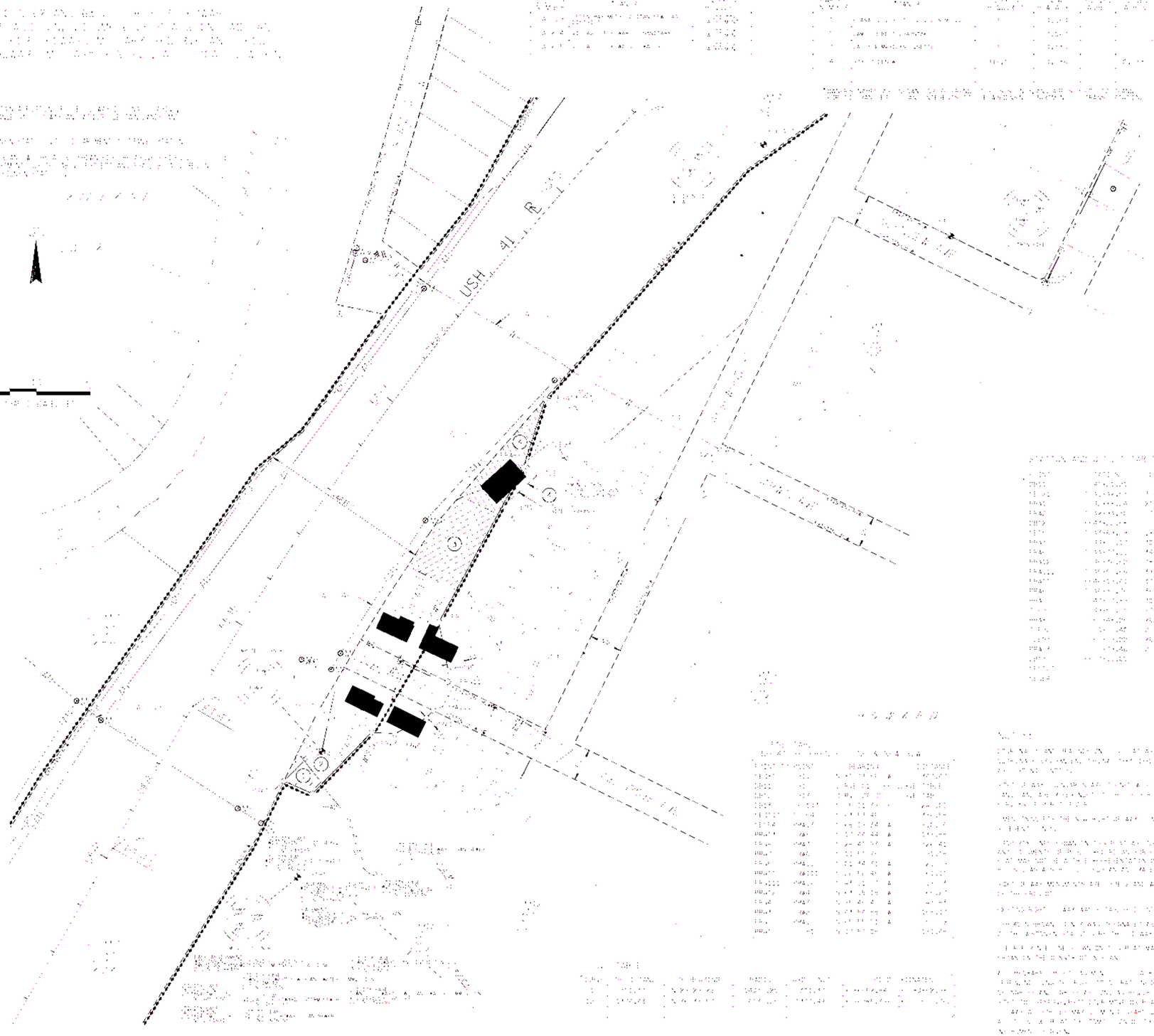
A recorded copy of this plat can be obtained from the Register of Deeds Office.







TRANSPORTATION PROJECT PLAT NO: 1133-10-21-4.02

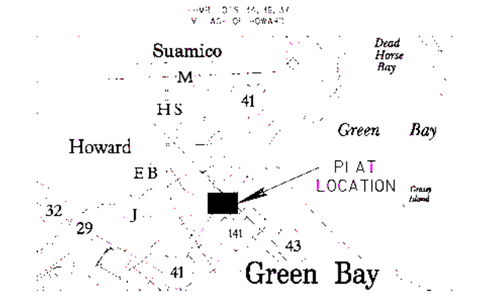
BEING PART OF LOT 1 OF CSM NO. 5989, PART OF PARCEL B OF CSM NO. 94, PART OF LOT 1 OF CSM NO. 5232 AND PART OF LOT 1, BLOCK 2, OF MICHAELS ADDITION, VOLUME 6 OF PLATS ON PAGE 41, AS DOCUMENT NO. 380449, LOCATED WITHIN LOT 37 OF THE FORT HOWARD MILITARY RESERVE, ALSO PART OF PARCEL A OF CSM NO. 580, LOCATED WITHIN LOT 36 OF THE FORT HOWARD MILITARY RESERVE AND ALSO PART OF LOT 1 OF CSM NO. 6869, PART OF LOT 1 OF CSM NO. 2289 AND UNPLATTED LANDS OF LOT 34 OF THE FORT HOWARD MILITARY RESERVE, ALL LOCATED WITHIN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER USH 41 BROWN COUNTY

THE PROPERTY ESTABLISHED, LAY OUT, WIDEN, ALTER AND/OR CONSTRUCT ACCESS ROAD, HIGHWAY OR HIGHWAY APPURTENANCE, CONSISTING OF A PART OF THE STATE OF WISCONSIN'S PLAN FOR TRANSPORTATION PURPOSES AS DESCRIBED IN THE ACCESS AND USE OF LANDS AND RIGHTS IN LANDS HEREIN ACQUIRED.

THE DEPARTMENT IS AUTHORIZED TO ACQUIRE PROPERTY UNDER SECTION 84.09, WISCONSIN STATUTES, AND THE PROPERTY IS NECESSARY FOR TRANSPORTATION PURPOSES.

THE RIGHT OF WAY AS SHOWN ON THIS PLAT IS ADDITIONAL STATE RIGHT OF WAY AND WILL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09, WISCONSIN STATUTES.



CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS RESTRICTED	AR	MONUMENT FOUND	
ACRES	AC	MONUMENT TO BE SET	
ANGLE POINT	AP	NORTH	N
BASIS OF BEARINGS	BOB	NORTHEAST	NE
BEARING	BRG	NORTHWEST	NW
BENCH MARK	BM	NOT TO SCALE	NTS
CENTERLINE		PARCEL NUMBER	
CHORD BEARING	CH BRG	POINT OF BEGINNING	POB
CHORD LENGTH	CH	POINT OF COMMENCEMENT	POC
CONCRETE	CONC	PROPERTY LINE	
CORNER	COR	RADIUS	R
COUNTY	CO	RECORDED AS	
DEGREE		RIGHT OF WAY	ROW
EAST	E	SECTION	SEC
EASEMENT	ESMT	SOUTH	S
EXISTING	EX	SOUTHEAST	SE
FOUND	FD	SOUTHWEST	SW
INCH		STATE HIGHWAY	STH
IRON	IRON	TANGENT	TAN
LENGTH	L	TEMPORARY LIMITED EASEMENT	TLE
MEASURED	M	WEST	W
MINUTE			

ACCESS RESTRICTED	
BOUNDARY LINE	
CENTERLINE	
EXISTING RIGHT OF WAY LINE	
PROPERTY LINE	
RIGHT OF WAY LINE	
TEMPORARY LIMITED EASEMENT	
WATER LINE	

NOTES:

BEARINGS ARE REFERENCED TO THE WISCONSIN COORDINATE REFERENCE SYSTEM, WISCONSIN STATE PLANE COORDINATE SYSTEM, EASTERN ZONE (1983/2011). ALL DISTANCES ARE GROUND NUMBERS.

RIGHT OF WAY BOUNDARIES ARE DRAWN FROM COURSES OF THE EXISTING RIGHT OF WAY AS SHOWN ON HIGHWAY PLANS AND ARE REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

BY VIRTUE OF THE NEW RIGHT OF WAY BEING ESTABLISHED AND EXISTING RIGHT OF WAY BEING VACATED, ALL PRIOR EASEMENTS WITHIN THE NEW RIGHT OF WAY ARE TERMINATED.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM RECORDED PLATS AND CERTIFIED SURVEY MAPS. THESE PROPERTY LINES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND DO NOT REPRESENT A SURVEY OF THE PROPERTY.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS ESTABLISHED UNDER PROJECT ID 1133-10-21.

USH 41 SHOWN ON THIS PLAT MAY BE DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON JUNE 6, 1972.

ALL REFERENCES SHOWN ON THIS PLAT MAY NOT BE USED AS REFERENCES SHOWN ON THE CONSTRUCTION PLANS.

ANY HIGHWAY WORK ABBREVIATIONS USED ARE FOR CONSTRUCTION PURPOSES ONLY AND INCLUDE PERMANENT RIGHT OF WAY, INCLUDING THE RIGHT TO OBTAIN NECESSARY EQUIPMENT AND MATERIAL AND THE RIGHT OF INGRESS AND EGRESS OVER ADJACENT LANDS FOR SUCH PURPOSES, INCLUDING THE RIGHT TO TEMPORARILY PROTECT, REMOVE OR TRIM ANY VEGETATION THAT THE HIGHWAY AUTHORITY DEEMS NECESSARY FOR THE PURPOSE OF PROVIDING CLEAR VISION AT INTERSECTIONS AND ACCESS DRIVES.

THE RIGHT OF WAY SHALL REMAIN IN EFFECT UNTIL THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS RIGHT OF WAY IS GIVEN.

0 100 200
GRAPHIC SCALE

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

Jeffrey T. Bohts — 5/9/2013
PRINTED NAME — SIGNATURE — DATE

THE PLAT AND RIGHT OF WAY DEDICATION ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

NORMAN H. POWELEYCHUK — Norman H. Poweleychuk — 5/9/2013
PRINTED NAME — SIGNATURE — DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED

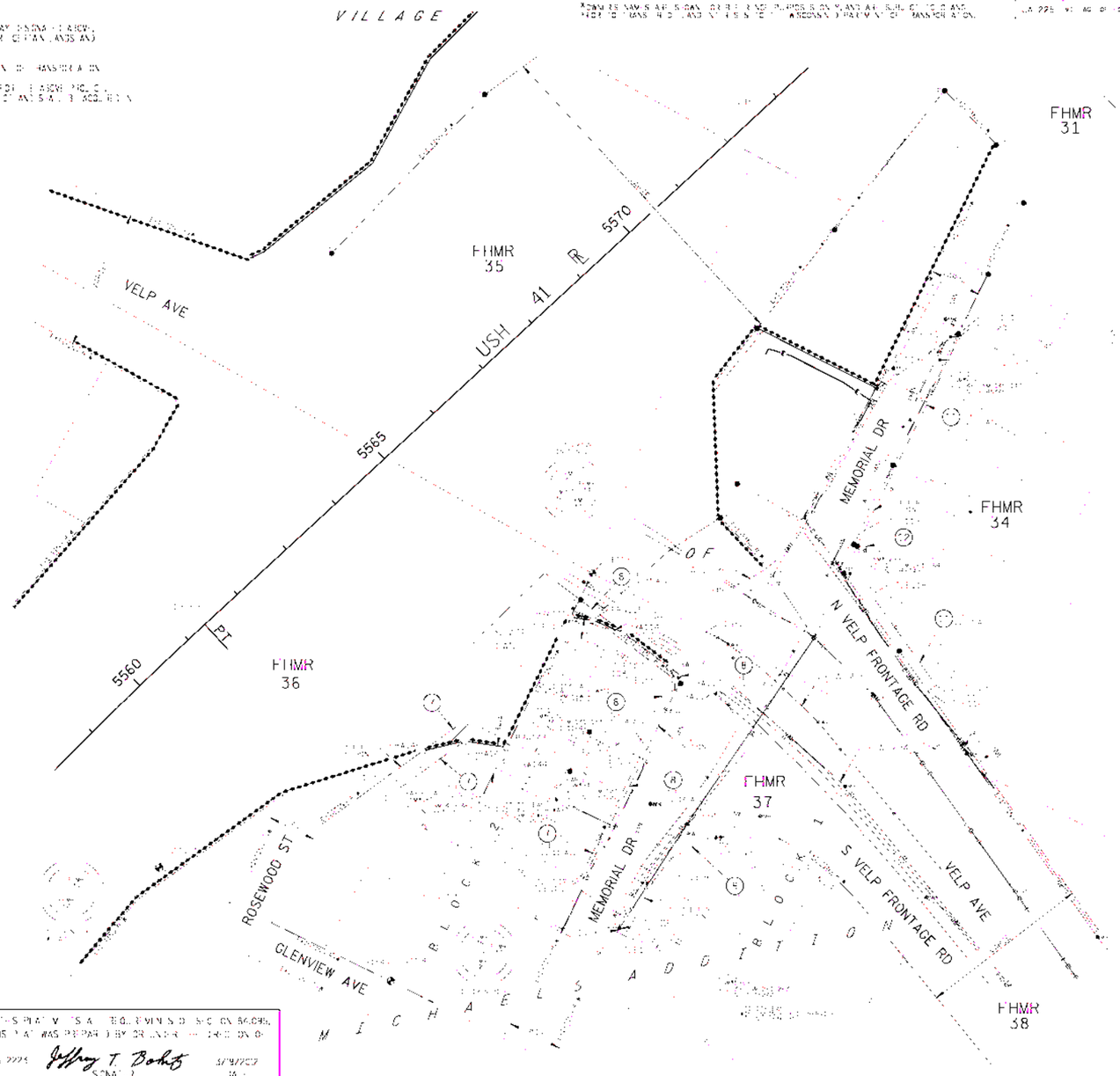
PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW RIGHT OF WAY ACRES	ACCESS RESTRICTED ACRES	TEMPORARY LIMITED EASEMENT ACRES
1	OWNER A	FEE	0.042		0.061
5	NO OWNER	FEE	0.078		0.058
9	OWNER B	FEE			0.102
11	OWNER C	FEE			0.092
12	NO OWNER	FEE			0.096

SCHEDULE OF UTILITIES & OTHER INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED
UA 100	WISCONSIN BELL INC D/B/A AT&T WISCONSIN	RELEASE OF EASEMENT
UA 101	AT&T WISCONSIN	RELEASE OF EASEMENT
UA 108	NEW WAVE COMM	RELEASE OF EASEMENT
UA 116	WISCONSIN ELECTRIC POWER CO	RELEASE OF EASEMENT
UA 203	CHARTER COMMUNICATIONS	ADJUST
UA 222	VILLAGE OF HOWARD SANITARY	ADJUST
UA 225	VILLAGE OF HOWARD WATER	ADJUST

2564856
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
03/20/2012 1:59 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RETURN TO:
PROJECT ID: 1133-10-21-4.02
AMENDMENT NO:



COORDINATE LINE & CURVE TABLE

CURVE NUMBER	CHORD BEARING	CHORD LENGTH	LINE NUMBER	BEARING	LENGTH
C1	N 75°20'37" E	889.04	L1	N 75°20'37" E	889.04
C2	N 57°59'23" E	181.15	L2	N 57°59'23" E	181.15
C3	N 27°04'57" W	104.02	L3	N 27°04'57" W	104.02
PARCEL 1	N 27°04'57" W	93.26	L4	N 62°55'03" W	93.26
PARCEL 2	N 27°04'57" W	19.94	L5	N 27°04'57" W	19.94
PARCEL 3	N 62°55'03" W	85.68	L6	N 62°55'03" W	85.68
PARCEL 4	N 68°09'11" W	40.67	L7	N 68°09'11" W	40.67
PARCEL 5	N 84°20'39" W	54.80	L8	N 84°20'39" W	54.80
PARCEL 6	N 75°20'37" W	224.58	L9	N 75°20'37" W	224.58
PARCEL 7	N 75°20'37" W	10.00	L10	N 75°20'37" W	10.00
PARCEL 8	N 45°39'26" W	54.79	L11	N 45°39'26" W	54.79
PARCEL 9	N 27°04'57" W	448.49	L12	N 27°04'57" W	448.49
C4	N 33°54'16" W	495.58	L13	N 33°54'16" W	495.58
C5	N 12°45'25" E	177.74	L14	N 12°45'25" E	177.74
C6	N 44°18'16" E	1155.58	L15	N 44°18'16" E	1155.58
C7	N 21°06'47" W	765.88	L16	N 21°06'47" W	765.88

STATION AND OFFSETS

POINT NUMBER	STATION	OFFSET	X	Y
SCHEDULE			886938.547	582226.497
SCHEDULE			886466.388	581866.345
1129	556+35.69	.00 Rt	887268.449	582437.294
1124	556+64.44	149.07 Rt	887267.303	582417.570
1131	556+81.66	164.01 Rt	887248.854	582415.940
PARCEL 5	556+45.57	160.95 Rt	887231.628	582431.545
1	556+75.28	247.45 Rt	887184.422	582440.624
PARCEL 6	556+82.70	241.43 Rt	887197.380	582429.915
1132	556+97.28	660.09 Rt	886911.944	582414.229
PARCEL 7	556+94.57	664.69 Rt	886885.704	582411.784
PARCEL 8	556+01.49	197.74 Rt	887216.422	582416.374
PARCEL 9	556+01.45	197.74 Rt	887216.422	582416.374
PARCEL 10	555+47.28	442.24 Rt	887178.946	582406.912
PARCEL 11	556+50.54	438.67 Rt	887224.582	582416.964
96	555+55.30	439.14 Rt	887248.440	582406.152
1135	556+00.47	432.16 Rt	887285.512	582403.154
1136	556+14.64	418.54 Rt	887293.268	582394.758
1138	556+18.42	408.32 Rt	887298.060	582392.564
97	556+15.71	410.32 Rt	887298.388	582394.388
1139	556+36.57	388.24 Rt	887311.424	582387.947
PARCEL 12	556+44.44	384.35 Rt	887316.765	582387.912
1140	556+45.87	371.76 Rt	887328.372	582389.422
1141	556+57.10	382.32 Rt	887348.392	582382.774
PARCEL 13	556+61.98	389.61 Rt	887328.276	582398.587
1142	556+74.01	410.54 Rt	887316.209	582387.492
PARCEL 14	556+61.74	553.73 Rt	887471.304	582396.124
PARCEL 15	556+51.12	445.26 Rt	887381.914	582415.779
1143	556+94.67	537.54 Rt	887425.568	582419.367
PARCEL 16	556+98.22	549.08 Rt	887471.449	582387.982
PARCEL 17	556+97.61	570.55 Rt	887484.413	582376.584
SCHEDULE	556+12.81	448.14 Rt	887468.245	582451.583
1144	556+16.88	517.83 Rt	887518.534	582360.751
1145	556+52.88	808.90 Rt	887811.925	582397.109
1147	556+11.74	810.77 Rt	887851.423	582398.951
1148	556+38.66	644.97 Rt	887765.560	582435.684
1149	556+55.58	567.36 Rt	887705.284	582431.502
1150	557+35.47	446.10 Rt	887836.775	582826.663
1152	557+51.71	450.78 Rt	887821.744	582824.458
1153	557+51.00	.00 Rt	887874.114	582182.284

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TRANSPORTATION PROJECT PLAT NO: 1133-10-21-4.03
AMENDMENT NO. 1

AMENDS PARCELS 14, 15, 16, 18, AND 19, REMOVES PARCEL 17 OF TRANSPORTATION PROJECT PLAT 1133-10-21-4.03, RECORDED AS DOCUMENT NO. 2545461.

BEING PART OF LOT 1, ALL OF LOT 2 AND ALL OF LOT 3 OF CSM NO. 1422, PART OF UNIT 1, UNIT 2 AND UNIT 3 OF RUSTIC RAIL CONDOMINIUM AND PART OF LOTS 5, 6, 7, 26, 27, 28, 30, 31, AND 32 OF THE FORT HOWARD MILITARY RESERVE, VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER USH 41 BROWN COUNTY

2564857
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
03/20/2012 2:14 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RETURN FOR RECORDING TO:
VILLAGE OF HOWARD
2456 GLENDALE AVENUE
GREEN BAY, WI 54313

4

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SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W ACRES	ACRES	ACRES
14	VK REAL ESTATE HOLDING CO., LLC	TLE		0.033	
15	GREEN BAY [illegible] CO., [illegible]	FEE	0.295	0.045	
16	KENNETH MCCOY MARTY SANTORSO & GREEN BAY, INC		0.470		
18	AND [illegible] INC	FEE	2.342		
19	WISCONSIN GENERAL [illegible]			0.049	0.482
20	VILLAGE OF HOWARD	FEE	0.742	0.439	
22	DUCK CREEK ENTERPRISES, INC	FEE	9.085	0.784	
23	WISCONSIN GAS & ELECTRIC	FEE	0.047	0.042	
24	STATE OF WISCONSIN DNR	FEE	9.995	0.544	

BEARINGS ARE GRID AND ARE REFERENCED TO THE WISCONSIN COORDINATE REFERENCE SYSTEM (WCRS), BROWN COUNTY ZONE (1402), NORTH AMERICAN DATUM OF 1983 (2011). ALL OTHER DISTANCES ARE GROUND DISTANCES UNLESS OTHERWISE NOTED. THE GROUND TO GRID COMBINED ADJUSTMENT FACTOR IS 0.99991.

THIS DESCRIPTION IS BASED ON THE RIGHT-OF-WAY PLAT FOR USH 41 FROM CTH EB TO CTH GV, DATED 8/22/2011, AND LAST REVISED 12/19/2011, PREPARED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

THE RIGHT-OF-WAY LINES OF USH 41 ARE DETERMINED FROM MONUMENTS FOUND AT THE TIME OF SURVEY AND THE RIGHT-OF-WAY PLAT REFERENCED ABOVE.

CURVE DATA

CURVE	DELTA ANGLE	CHORD BEARING	RADIUS	ARC LENGTH	CHORD DISTANCE
C1	359°29'28"	N 40°41'20" E	7400.00'	660.69'	N 89°44'39" E 660.51'
C2	89°41'30"	N 44°11'18" E	11466.44'	17.94'	N 89°41'33" E 17.94'

LINE DATA

LINE	BEARING	DISTANCE
L1	S 00°18'30" E	1.00'
L2	S 00°18'30" E	1.00'
L3	S 00°18'30" E	1.00'
L4	S 00°18'30" E	1.00'
L5	S 00°18'30" E	1.00'
L6	S 00°18'30" E	1.00'
L7	S 00°18'30" E	1.00'
L8	S 00°18'30" E	1.00'
L9	S 00°18'30" E	1.00'
L10	S 00°18'30" E	1.00'
L11	S 00°18'30" E	1.00'
L12	S 00°18'30" E	1.00'
L13	S 00°18'30" E	1.00'
L14	S 00°18'30" E	1.00'
L15	S 00°18'30" E	1.00'
L16	S 00°18'30" E	1.00'
L17	S 00°18'30" E	1.00'
L18	S 00°18'30" E	1.00'
L19	S 00°18'30" E	1.00'
L20	S 00°18'30" E	1.00'
L21	S 00°18'30" E	1.00'
L22	S 00°18'30" E	1.00'
L23	S 00°18'30" E	1.00'
L24	S 00°18'30" E	1.00'
L25	S 00°18'30" E	1.00'
L26	S 00°18'30" E	1.00'
L27	S 00°18'30" E	1.00'
L28	S 00°18'30" E	1.00'
L29	S 00°18'30" E	1.00'
L30	S 00°18'30" E	1.00'
L31	S 00°18'30" E	1.00'
L32	S 00°18'30" E	1.00'
L33	S 00°18'30" E	1.00'
L34	S 00°18'30" E	1.00'
L35	S 00°18'30" E	1.00'
L36	S 00°18'30" E	1.00'
L37	S 00°18'30" E	1.00'
L38	S 00°18'30" E	1.00'
L39	S 00°18'30" E	1.00'
L40	S 00°18'30" E	1.00'
L41	S 00°18'30" E	1.00'
L42	S 00°18'30" E	1.00'
L43	S 00°18'30" E	1.00'
L44	S 00°18'30" E	1.00'
L45	S 00°18'30" E	1.00'
L46	S 00°18'30" E	1.00'
L47	S 00°18'30" E	1.00'
L48	S 00°18'30" E	1.00'
L49	S 00°18'30" E	1.00'
L50	S 00°18'30" E	1.00'
L51	S 00°18'30" E	1.00'
L52	S 00°18'30" E	1.00'
L53	S 00°18'30" E	1.00'
L54	S 00°18'30" E	1.00'
L55	S 00°18'30" E	1.00'
L56	S 00°18'30" E	1.00'
L57	S 00°18'30" E	1.00'
L58	S 00°18'30" E	1.00'
L59	S 00°18'30" E	1.00'
L60	S 00°18'30" E	1.00'
L61	S 00°18'30" E	1.00'
L62	S 00°18'30" E	1.00'
L63	S 00°18'30" E	1.00'
L64	S 00°18'30" E	1.00'
L65	S 00°18'30" E	1.00'
L66	S 00°18'30" E	1.00'
L67	S 00°18'30" E	1.00'
L68	S 00°18'30" E	1.00'
L69	S 00°18'30" E	1.00'
L70	S 00°18'30" E	1.00'
L71	S 00°18'30" E	1.00'
L72	S 00°18'30" E	1.00'
L73	S 00°18'30" E	1.00'
L74	S 00°18'30" E	1.00'
L75	S 00°18'30" E	1.00'
L76	S 00°18'30" E	1.00'
L77	S 00°18'30" E	1.00'
L78	S 00°18'30" E	1.00'
L79	S 00°18'30" E	1.00'
L80	S 00°18'30" E	1.00'
L81	S 00°18'30" E	1.00'
L82	S 00°18'30" E	1.00'
L83	S 00°18'30" E	1.00'
L84	S 00°18'30" E	1.00'
L85	S 00°18'30" E	1.00'
L86	S 00°18'30" E	1.00'
L87	S 00°18'30" E	1.00'
L88	S 00°18'30" E	1.00'
L89	S 00°18'30" E	1.00'
L90	S 00°18'30" E	1.00'
L91	S 00°18'30" E	1.00'
L92	S 00°18'30" E	1.00'
L93	S 00°18'30" E	1.00'
L94	S 00°18'30" E	1.00'
L95	S 00°18'30" E	1.00'
L96	S 00°18'30" E	1.00'
L97	S 00°18'30" E	1.00'
L98	S 00°18'30" E	1.00'
L99	S 00°18'30" E	1.00'
L100	S 00°18'30" E	1.00'

COURSE DATA
NEW RIGHT-OF-WAY EASEMENT PARCEL
POINT TO POINT | BEARING | DISTANCE

POINT TO POINT	BEARING	DISTANCE
SE/CE7 PRM56	N 44°11'18" W	60.00'
PRM56 PRM57	N 45°34'30" W	21.61'
PRM57 PRM58	N 50°15'08" W	210.04'
PRM58 PRM59	N 29°33'06" W	179.66'
PRM59 PRM60	N 45°02'30" W	150.75'
PRM60 PRM61	N 50°14'21" W	238.65'
PRM61 PRM62	N 45°22'50" W	104.58'
PRM26 PRM25	N 45°15'08" W	170.93'
PRM29 PRM30	N 45°14'54" W	144.83'
PRM30 PRM31	N 44°22'30" W	43.64'
PRM31 PRM32	N 49°56'31" W	167.00'
PRM32 SE/CE5	N 53°16'21" W	208.16'
SE/CE6 SE/CE7	N 53°12'15" W	1,676.75'
SE/CE5 PRM24	N 52°46'45" W	962.61'
PRM24 PRM23	N 75°52'27" W	180.83'
PRM23 PRM22	N 82°56'11" W	179.09'
PRM22 PRM21	N 89°01'49" W	177.49'
PRM21 PRM20	S 79°54'31" W	346.31'
PRM20 PRM19	S 70°57'38" W	100.00'
PRM19 PRM55	S 61°41'10" W	96.79'
PRM55 PRM54	S 63°09'56" W	198.69'
PRM54 SE/CE7	S 64°39'08" W	57.55'
SE/CE7 SE/CE6	S 70°28'07" W	439.96'

COURSE DATA
NEW RIGHT-OF-WAY EASEMENT PARCEL
POINT TO POINT | BEARING | DISTANCE

POINT TO POINT	BEARING	DISTANCE
SE/CE7 PRM56	N 44°11'18" W	1,326.15'
SE/CE5 PRM56	N 59°56'15" E	2026.50'
PRM56 PRM58	S 29°56'28" E	422.52'
PRM58 PRM60	S 29°29'00" E	219.09'
PRM60 PRM61	N 45°02'30" W	31.82'
PRM61 PRM62	S 16°51'29" W	166.14'
PRM62 PRM63	S 05°01'29" W	612.14'
PRM63 PRM64	S 04°46'55" E	63.19'
PRM64 PRM65	CURVE DATA	CURVE DATA
PRM65 PRM66	S 39°55'51" E	46.59'
PRM66 PRM67	S 67°46'07" E	36.00'
PRM67 PRM68	S 39°55'51" E	699.91'
PRM68 PRM69	S 67°46'07" E	36.00'
PRM69 PRM70	S 39°58'47" E	496.03'
PRM70 PRM71	S 49°03'49" E	470.62'
PRM71 PRM72	S 06°41'39" E	61.16'
PRM72 PRM73	N 75°15'16" E	1,547.27'
SE/CE5 SE/CE6	N 63°12'45" E	1,326.15'

SURVEY CONTROL AND MONUMENTATION

POINT NO	STATION	OFFSET	X	Y
PRM38	1+57.50	1965.13 R	31289.116	561235.329
PRM39	2+57.53	1860.17 R	31268.536	561255.135
PRM40	3+57.53	1760.17 R	31269.169	561355.135
PRM41	4+57.53	660.17 R	31284.412	561454.416
PRM42	5+57.53	1565.17 R	31308.592	561601.167
PRM43	6+57.53	1465.17 R	31337.360	561697.895
PRM44	7+57.53	1365.17 R	31374.175	561791.058
PRM45	8+57.53	1265.17 R	31418.645	561877.922
PRM46	9+57.53	1165.17 R	31470.584	561955.338
PRM47	10+57.53	1065.17 R	31529.788	562023.197
PRM48	11+57.53	965.17 R	31595.998	562080.446
PRM49	12+57.53	865.17 R	31668.941	562126.241
PRM50	13+57.53	765.17 R	31748.306	562159.911
PRM51	14+57.53	665.17 R	31833.760	562180.960
PRM52	15+57.53	565.17 R	31924.941	562188.960
PRM53	16+57.53	465.17 R	32016.122	562180.960
PRM54	17+57.53	365.17 R	32102.576	562159.911
PRM55	18+57.53	265.17 R	32179.941	562126.241
PRM19	19+57.53	165.17 R	32243.150	562080.446
PRM20	20+57.53	65.17 R	32292.093	562023.197
PRM21	21+57.53	34.83 L	32326.913	561955.338
PRM22	22+57.53	134.83 L	32378.852	561877.922
PRM23	23+57.53	234.83 L	32423.322	561791.058
PRM24	24+57.53	334.83 L	32460.137	561697.895
PRM25	25+57.53	434.83 L	32489.341	561601.167
PRM26	26+57.53	534.83 L	32509.520	561454.416
PRM27	27+57.53	634.83 L	32524.763	561355.135
PRM28	28+57.53	734.83 L	32525.396	561255.135
PRM29	29+57.53	834.83 L	32504.816	561235.329
PRM30	30+57.53	934.83 L	32463.867	561196.236
PRM31	31+57.53	1034.83 L	32403.663	561139.057
PRM32	32+57.53	1134.83 L	32325.298	561064.911
PRM33	33+57.53	1234.83 L	32230.000	561015.911
PRM34	34+57.53	1334.83 L	32119.000	560992.911
PRM35	35+57.53	1434.83 L	32003.000	560992.911
PRM36	36+57.53	1534.83 L	31887.000	560992.911
PRM37	37+57.53	1634.83 L	31771.000	560992.911
PRM38	38+57.53	1734.83 L	31655.000	560992.911
PRM39	39+57.53	1834.83 L	31539.000	560992.911
PRM40	40+57.53	1934.83 L	31423.000	560992.911
PRM41	41+57.53	2034.83 L	31307.000	560992.911
PRM42	42+57.53	2134.83 L	31191.000	560992.911
PRM43	43+57.53	2234.83 L	31075.000	560992.911
PRM44	44+57.53	2334.83 L	30959.000	560992.911
PRM45	45+57.53	2434.83 L	30843.000	560992.911
PRM46	46+57.53	2534.83 L	30727.000	560992.911
PRM47	47+57.53	2634.83 L	30611.000	560992.911
PRM48	48+57.53	2734.83 L	30495.000	560992.911
PRM49	49+57.53	2834.83 L	30379.000	560992.911
PRM50	50+57.53	2934.83 L	30263.000	560992.911
PRM51	51+57.53	3034.83 L	30147.000	560992.911
PRM52	52+57.53	3134.83 L	30031.000	560992.911
PRM53	53+57.53	3234.83 L	29915.000	560992.911
PRM54	54+57.53	3334.83 L	29799.000	560992.911
PRM55	55+57.53	3434.83 L	29683.000	560992.911
PRM56	56+57.53	3534.83 L	29567.000	560992.911
PRM57	57+57.53	3634.83 L	29451.000	560992.911
PRM58	58+57.53	3734.83 L	29335.000	560992.911
PRM59	59+57.53	3834.83 L	29219.000	560992.911
PRM60	60+57.53	3934.83 L	29103.000	560992.911
PRM61	61+57.53	4034.83 L	28987.000	560992.911
PRM62	62+57.53	4134.83 L	28871.000	560992.911
PRM63	63+57.53	4234.83 L	28755.000	560992.911
PRM64	64+57.53	4334.83 L	28639.000	560992.911
PRM65	65+57.53	4434.83 L	28523.000	560992.911
PRM66	66+57.53	4534.83 L	28407.000	560992.911
PRM67	67+57.53	4634.83 L	28291.000	560992.911
PRM68	68+57.53	4734.83 L	28175.000	560992.911
PRM69	69+57.53	4834.83 L	28059.000	560992.911
PRM70	70+57.53	4934.83 L	27943.000	560992.911
PRM71	71+57.53	5034.83 L	27827.000	560992.911
PRM72	72+57.53	5134.83 L	27711.000	560992.911
PRM73	73+57.53	5234.83 L	27595.000	560992.911

SURVEY CONTROL AND MONUMENTATION (CONT'D)

POINT NO	STATION	OFFSET	X	Y
PRM74	74+57.53	5334.83 L	27479.000	560992.911
PRM75	75+57.53	5434.83 L	27363.000	560992.911
PRM76	76+57.53	5534.83 L	27247.000	560992.911

TRANSPORTATION PROJECT PLAT NO: 1333-10-21/403

LOCATION ORDERED BY BROWN COUNTY

2545461
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
11/02/2011 4:18 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

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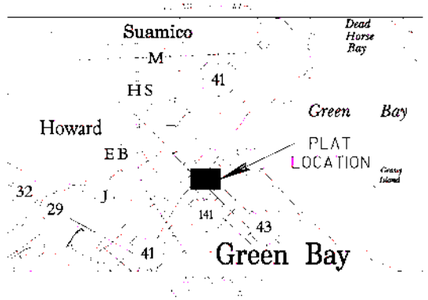
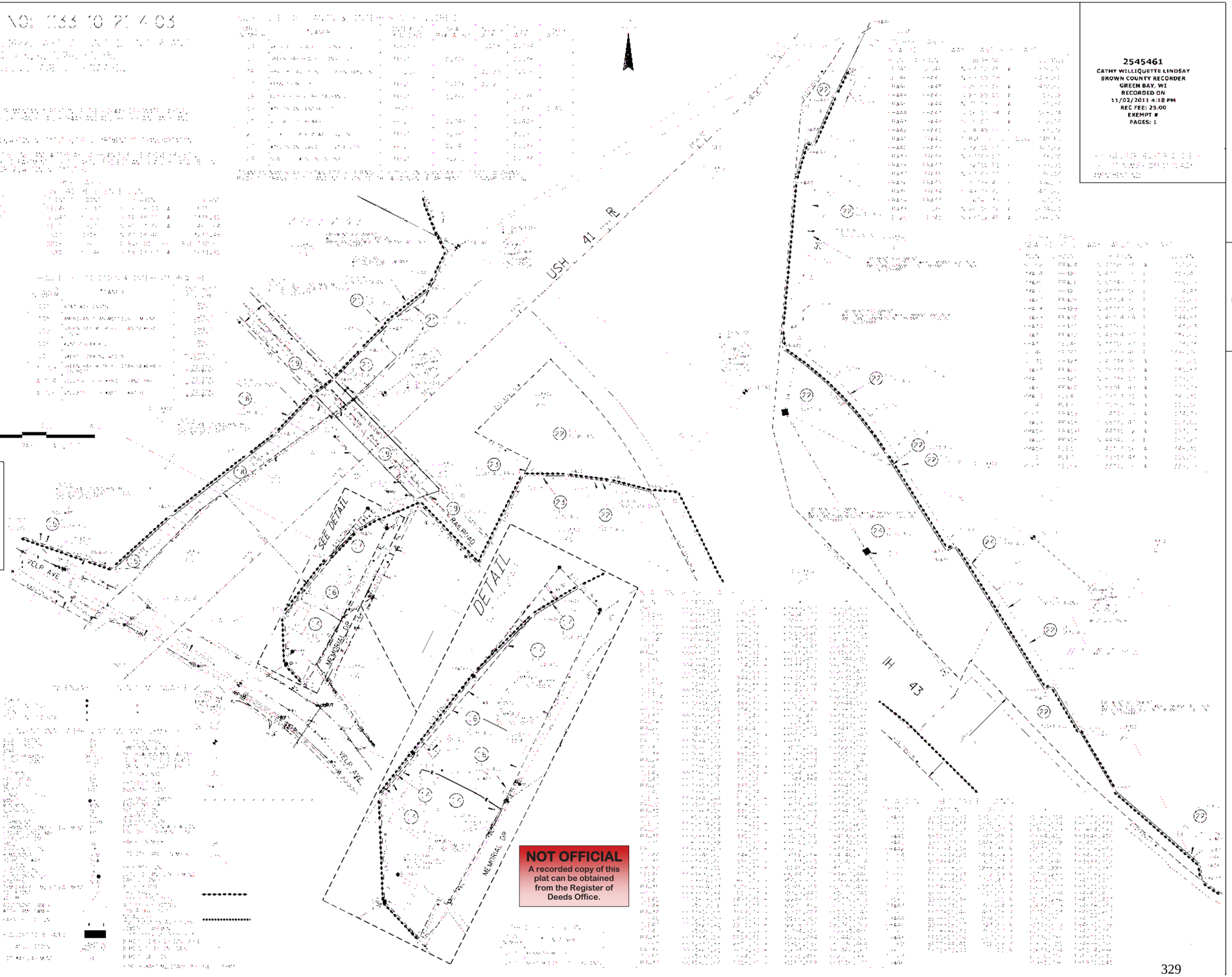


Jeffrey T. Bohtz

Norman K. Pawlowski



NOT OFFICIAL
A recorded copy of this plat can be obtained from the Register of Deeds Office.

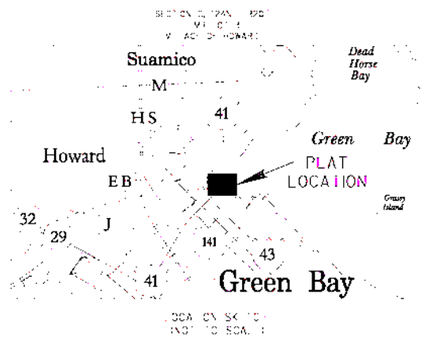
TRANSPORTATION PROJECT PLAT NO: 1133-10-21-4.04

BEING PART OF LOT 3 OF THE FORT HOWARD MILITARY RESERVE, AND ALSO PART OF GOVERNMENT LOT 3 OF SECTION 11, T24N R20E, VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER USH 41 BROWN COUNTY

[illegible]

[illegible]



LOCATION SKETCH
NOT TO SCALE

VILLAGE

GOV'T LOT 1

GOV'T LOT 3

0 100 200
GRAPHIC SCALE: 1"

[illegible]

SURVEYOR'S CERTIFICATE

I, JEFFREY T. BOHATY, S-2225, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY OR UNDER MY DIRECTION.

JEFFREY T. BOHATY, PLS 2225 — SIGNATURE — 5/19/2009 DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

NORMAN W. PAVELEYGH — SIGNATURE — 5/19/2009 DATE

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

[illegible]

SCHEDULE B EXCEPTIONS (REQUIRED)

[illegible]

SCHEDULE B EXCEPTIONS (REQUIRED)

[illegible]

STATION OF SIGHTLINES

POINT	STATION	OFFSET	X	Y
[illegible]			824781.696	563569.495
[illegible]	5565+33.48	.00 R	823710.286	564160.457
[illegible]	5622+27.26	264.00 R	823796.785	564687.178
[illegible]	5623+44.41	312.52 R	823858.021	564668.725
[illegible]	5624+66.19	278.47 R	823916.706	564773.645
[illegible]	5626+88.80	295.64 R	823981.496	564915.241
[illegible]	5628+62.59	276.00 R	824069.785	565037.733
[illegible]	5629+85.29	240.66 R	824141.986	565134.382
[illegible]	5631+05.76	272.15 R	824201.814	565254.766
[illegible]	5632+87.26	279.11 R	824160.068	565404.281
[illegible]	5634+27.67	264.21 R	824172.384	565546.731
[illegible]	5635+28.84	265.35 R	824141.939	565655.731
[illegible]	5637+27.44	262.56 R	824069.843	565828.343
[illegible]	5639+00.00	.00 R	824021.622	565944.253
[illegible]			824194.020	565967.878
[illegible]			824315.834	567281.358

SCHEDULE B EXCEPTIONS (REQUIRED)

INSTRUMENT NUMBER	OWNER	EXCEPTION REQUIRED	RAW ACRES	ACRES
[illegible]	[illegible]	[illegible]	0.672	0.546
[illegible]	[illegible]	[illegible]	0.519	

OWNERSHIPS ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE. NOTE TO BASIS OF BEARINGS: BEARINGS ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM.

SCHEDULE B EXCEPTIONS (REQUIRED)

INSTRUMENT NUMBER	OWNER	EXCEPTION REQUIRED
[illegible]	WISCONSIN ELECTRIC POWER COMPANY	[illegible]

COURSE TABLE
USH 41 RIGHT OF WAY CENTER & NEW R/W

POINT TO POINT		BEARING	DISTANCE
[illegible]	[illegible]	S 22°11'40.05" W	745.84
[illegible]	[illegible]	S 44°15'59.59" E	888.86
[illegible]	[illegible]	S 08°35'49.42" W	137.41
[illegible]	[illegible]	S 14°58'48.40" W	472.86
[illegible]	[illegible]	S 14°58'48.40" W	91.00
[illegible]	[illegible]	S 57°53'44.45" W	726.59
[illegible]	[illegible]	S 57°53'44.45" W	171.89
[illegible]	[illegible]	S 75°58'48.00" W	472.87
[illegible]	[illegible]	S 75°58'48.00" W	1775.85
[illegible]	[illegible]	N 28°44'48.00" W	1041.01
[illegible]	[illegible]	CURVE TO [illegible] CURVE TABLE	

CURVE TABLE

CURVE	DELTA	CHORD DISTANCE	CHORD BEARING	RADIUS	ARC LENGTH	POINT OF CURVATURE
[illegible]	1°24'.60	[illegible]	N 27°29'.41" E	2400.00	1660.62	N 82926.03N E 566986.80N

FHMR 3

FHMR 5

FHMR 6

USH 41 R OF

5610

5605

5600

5595

DUCK CREEK

HOWARD

NOT OFFICIAL
A recorded copy of this plat can be obtained from the Register of Deeds Office.

NOTES:

[illegible]

[illegible]

[illegible]

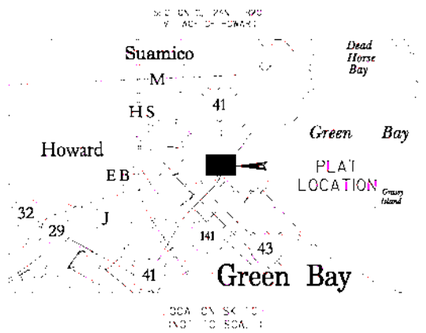
TRANSPORTATION PROJECT PLAT NO: 1133-10-21-4.05

BEING PART OF GOVERNMENT LOT 3, SECTION 11, T24N-R20E, VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER USH 41 BROWN COUNTY

THE [illegible] HEREBY [illegible] AND [illegible] CONSTRUCT, CONSTRUCT, MAINTAIN AND [illegible] THE [illegible] WAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION HAS NECESSARILY FOUND IT NECESSARY TO LOCATE AND ESTABLISH CERTAIN LANDS AND RIGHTS IN LANDS FOR SAID HIGHWAY AS SHOWN ON THIS PLAT.

DUE NOTICE OF THE CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.09 OF THE LAWS, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY DECLARES THAT THE RIGHT-OF-WAY AS SHOWN ON THIS PLAT IS NECESSARY AND ESSENTIAL TO THE LAYING OUT, CONSTRUCTION AND MAINTENANCE OF THE ABOVE PROJECT AND THAT THE LANDS OR INTERESTS IN LANDS AS SHOWN ON THIS PLAT ARE NECESSARILY REQUIRED FOR SAID PURPOSES AND THAT THE RIGHT-OF-WAY OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 OF THE WISCONSIN STATUTES.



SCALE ON SHEET NOT TO SCALE

VILLAGE

THE [illegible] HEREBY [illegible] AND [illegible] CONSTRUCT, CONSTRUCT, MAINTAIN AND [illegible] THE [illegible] WAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION HAS NECESSARILY FOUND IT NECESSARY TO LOCATE AND ESTABLISH CERTAIN LANDS AND RIGHTS IN LANDS FOR SAID HIGHWAY AS SHOWN ON THIS PLAT.

DUE NOTICE OF THE CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.09 OF THE LAWS, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY DECLARES THAT THE RIGHT-OF-WAY AS SHOWN ON THIS PLAT IS NECESSARY AND ESSENTIAL TO THE LAYING OUT, CONSTRUCTION AND MAINTENANCE OF THE ABOVE PROJECT AND THAT THE LANDS OR INTERESTS IN LANDS AS SHOWN ON THIS PLAT ARE NECESSARILY REQUIRED FOR SAID PURPOSES AND THAT THE RIGHT-OF-WAY OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 OF THE WISCONSIN STATUTES.

THIS PLAT WAS PREPARED BY [illegible] AS REQUIRED BY SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

[illegible], R.L.S. 2225 — Jeffrey T. Bahr — 3/9/2009
PRINTED NAME — SIGNATURE — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

NORMAN W. PAVLEGH — Norman W. Pavlegh — 3/9/2009
PRINTED NAME — SIGNATURE — DATE

GOVERNMENTAL	NON GOVERNMENTAL
POINT OF BEGINNING	
POINT OF COMMENCEMENT	
POINT OF BEARING	

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER	
ACCESS RIGHTS	AR	SURVEY MONUMENT (FOUND)	
ACRES	AC	SURVEY MONUMENT (SET)	
BEARING	BRG	CENTER LINE (SURVEY)	
CENTER LINE	CL	BOUNDARY LINE	
CHORD BEARING	CH BRG	PROPERTY LINE	
CHORD DISTANCE	CH DIS	RIGHT OF WAY LINE	
DEGREE	°	EASEMENT LINE	
DISTANCE	DIS	ACCESS RIGHTS LINE	
EASEMENT	ESMT	PROPERTY CORNER	
LAND LOCKED	LL	PROPERTY MONUMENT	
MEASURED	M	SECTION LINE	
MINUTE	'	EASEMENT LINES	
NOT TO SCALE	NTS	PROPERTY LINES	
PLAT	P	RIGHT OF WAY LINE	
RADIUS	R	WATER LINE	
RIGHT OF WAY	RW	UTILITY EASEMENT	
SECOND	"	ADJOINING LANDS	
SECTION	SEC	ACCESS RESTRICTED	
TEMPORARY	TEMP	ACCESS RESTRICTED (TEMP)	
WATER MAIN	WM	NO ACCESS	
		UTILITY POLE	
		MONUMENT	
		PROPERTY CORNER	
		ADDRESS	
		DRIVE (COMMERCIAL)	
		ACCESS RESTRICTED	
		NO ACCESS	
		STATE OF WISCONSIN	
		DEPARTMENT OF TRANSPORTATION	
		STATE OFFICES SALE	
		STATE OFFICE	
		STATE OFFICE SALE	

SE NE

GOV'T LOT 2

GOV'T LOT 1

GOV'T LOT 3

W DEERFIELD AVE

E DEERFIELD AVE

USH 41

R 5620

PT 5615

OT 5610

DUCK CREEK

HOWARD

SCHEDULE OF ANGLES & CURVES RECORD

PARCEL NUMBER	OWNER	INTEREST ACQUIRED	FEE ACRES	RW ACRES	PERM ACRES	TEMP ACRES
24	STATE OF WISCONSIN	FEE	1.553		0.014	

*OWNERS AS OF MAY 5, 2008 (DATE OF LAST TITLE REVIEW) AND ARE SUBJECT TO CHANGE UNTIL DATE OF RECORDING OF THIS PLAT WITH THE REGISTER OF DEEDS OF BROWN COUNTY, WISCONSIN.

STATION TABLE

POINT	STATION	OFFSET	X	Y
POBC	5608+00.00	.00 R	90935.874	586454.061
PRABC	5610+08.61	755.37 R	91241.535	585899.741
PRABT	5611+27.24	757.56 R	91269.862	586029.363
POEC	5615+29.14	.00 R	91345.285	586472.391
POBT	5615+85.93	755.87 R	91134.020	586531.679
PRABF	5616+01.19	757.59 R	91255.410	586549.455
PRABS	5618+05.80	755.79 R	91254.826	586748.779
PRABA	5619+45.60	755.75 R	91261.577	586889.852
POEB	5619+55.80	755.75 R	91261.844	586899.852
POEB	5619+55.80	755.30 R	91305.552	586899.917
POBB	5619+85.80	755.75 R	91261.867	586929.852
PRABT	5619+85.80	755.30 R	91305.552	586929.917
PRABE	5620+80.80	754.81 R	91221.735	587024.648
POEA	5621+00.00	.00	91040.573	587043.277
POBA			90954.846	587081.919

COURSE TABLE

POINT TO POINT	BEARING	DISTANCE
POBB	POBE	S 01°17'25" W	199.87
POBE	POEB	S 19°05'55" E	189.85
POEB	POEC	CURVE TO THE CURVE DATA	
POEC	POBT	N 89°11'19" W	770.86
POBT	POBA	N 80°27'30" W	229.92
POBA	POBB	S 80°27'30" E	229.92
POBB	PRABE	S 40°10'05" E	286.07
PRABE	PRABA	S 66°22'15" E	105.47
PRABA	PRABS	S 89°11'19" E	90.00
PRABS	PRABT	S 17°06'51" W	143.79
PRABT	PRABF	S 89°42'39" W	200.03
PRABF	PRABT	S 01°35'11" E	578.59
PRABT	PRABC	S 09°35'49" W	151.51
PRABC	POEC	S 64°59'16" W	444.73

CURVE DATA

CURVE	CENTRAL ANGLE	DELTA ANGLE	RADIUS	ARC LENGTH	NE COORDINATES
C1	16°36'34"	N 89°31'00" E	2400.00	729.14	X 91044.284 Y 586104.992

2564862
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
03/20/2012 2:26 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

RE-RECORDED TO CORRECT
TITLE OF PLAT TO 2.4.05
AMENDMENT NO:

NOTES:

COORDINATES AND BEARINGS ON THIS PLAT ARE BASED ON BROWN COUNTY COORDINATE SYSTEM, WHICH WAS ESTABLISHED USING GPS. ALL DISTANCES ARE GROUND LENGTHS.

RIGHT OF WAY MONUMENTS ARE DESCRIBED AS COURSES OF THE HIGHWAY AND AS RADIAL TO THE HIGHWAY AND ARE SHOWN AS SUCH ON THE SURVEY PLAT.

DIMENSIONS FOR NEW RIGHT OF WAY ASSUMED AND EXISTING ARE GIVEN AS REFERENCE LINES.

HIGHWAY RIGHTS SHOWN ON THIS PLAT ARE DRAWN FROM DEEDS AND MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL RIGHTS. THE HIGHWAY RIGHTS ACQUIRED BY THIS PROJECT REPRESENT ONLY THOSE RIGHTS AS SHOWN ON THE PLAT AND DO NOT NECESSARILY REPRESENT ALL RIGHTS OF WAY.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND ARE TO BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS ESTABLISHED AND PROCURED PRIOR TO 1960 (SEC 84.09).

BROWN COUNTY WAS RESPONSIBLE AS A HIGHWAY AUTHORITY UNDER SECTION 84.09 OF WISCONSIN STATUTES TO THE HIGHWAY COMMISSION ON JUNE 6, 1972.

ACCESS RIGHTS ARE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE ACCESS RIGHTS SHOWN ON THE CONSTRUCTION PLANS.

ALL HIGHWAY RIGHTS AS MAY BE ESTABLISHED ON THE CONSTRUCTION PLANS SHALL BE THE CONTROLLING RIGHTS. THE LOCATION OF RIGHTS SHOWN ON THE CONSTRUCTION PLANS ARE BASED ON FIELD SURVEYS AND ESTABLISHED BY THE DESIGN ENGINEER. ANY MODIFICATION THAT THE HIGHWAY AUTHORITY MAY NECESSARILY OR DESIRABLY PROVIDE DURING CONSTRUCTION SHALL BE NOTED ON THE CONSTRUCTION PLANS.

NOT OFFICIAL
A recorded copy of this plat can be obtained from the Register of Deeds Office.

TRANSPORTATION PROJECT PLAT NO: 1133-10-21-4.06

THAT PART OF LOT 1 OF CSM NO. 5142 IN THE NW 1/4 OF THE NW 1/4, THAT PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 2, AND ALSO THAT PART OF LOT 1 OF CSM NO. 7078 IN THE NW 1/4 OF THE NE 1/4, THAT PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 3, VILLAGE OF HOWARD, T24N-R20E, ALSO, THAT PART OF THE SW 1/4 OF THE SE 1/4 AND THE SE 1/4 OF THE SE 1/4 OF SECTION 34, ALSO, THAT PART OF LOT 1 OF CSM NO. 5061, LOT 1 OF CSM NO. 7490 AND UNPLATTED LANDS OF THE SW 1/4 OF THE SW 1/4, THAT PART OF LOT 1 OF CSM NO. 7210 AND UNPLATTED LANDS OF THE SE 1/4 OF THE SW 1/4 OF SECTION 35, VILLAGE OF SUAMICO, T25N-R20E, ALL LOCATED WITHIN BROWN COUNTY, WISCONSIN.

NOT OFFICIAL
A recorded copy of this plat can be obtained from the Register of Deeds Office.

2564863
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
03/20/2012 2:59 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

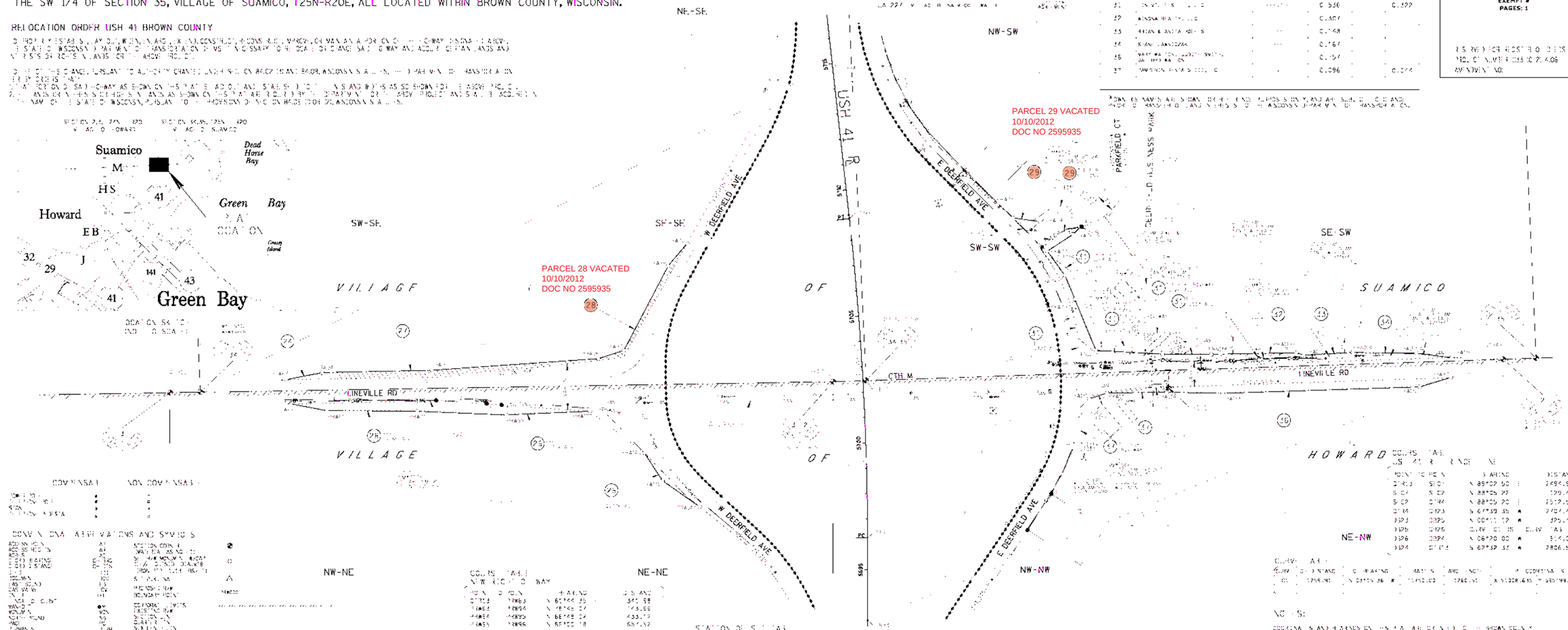
RELOCATION ORDER USH 41 BROWN COUNTY

SCHEDULE OF OWNERS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW RW ACRES	ACRES	ACRES
28	FARRELL FAMILY, LLC	FEE	0.299		
29	KENT DAVIS	FEE,TLE	0.060		0.070

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW RW ACRES	ACRES	ACRES
27	[illegible]		0.078		
30	[illegible]		0.368		
31	[illegible]		0.768		
32	[illegible]		0.556		0.422
33	[illegible]		0.107		
34	[illegible]		0.768		
35	[illegible]		0.167		
36	[illegible]		0.197		
37	[illegible]		0.096		0.074



CONVENTIONAL ABBREVIATIONS AND SYMBOLS

SURVEY CONTROL
MONUMENTATION
RIGHT-OF-WAY
PROPERTY LINES
EASEMENTS
ACCESS RESTRICTIONS
MISCELLANEOUS

0 200 400
GRAPHIC SCALE, FEET

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR UNDER MY DIRECTION TO MEET THE REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY ON [illegible] DIRECTION OF

JEFFREY T. BOHITS, P.L.S. 2225 — PRINT NAME — SIGNATURE — 1/29/2012 DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

NORMAN W. PAULEZYK — PRINT NAME — SIGNATURE — 3/19/2012 DATE

COORDINATE TABLE
NEW RIGHT-OF-WAY

POINT	STATION	OFFSET	BEARING	DISTANCE
[illegible]	5+00.00	100.00 RT	N 61°46'45" E	341.58
[illegible]	8+86.25	100.00 RT	N 48°46'24" E	745.88
[illegible]	8+86.25	66.00 RT	N 66°48'24" E	433.02
[illegible]	12+96.25	66.00 RT	N 85°00'18" E	694.32
[illegible]	19+90.57	66.00 RT	N 71°24'48" E	706.54
[illegible]	27+72.00	66.00 RT	N 47°05'24" E	776.54
[illegible]	34+98.55	66.00 RT	N 25°45'55" E	1267.87
[illegible]	47+65.55	66.00 RT	N 61°55'39" E	113.09
[illegible]	48+78.64	66.00 RT	S 82°44'28" E	196.28
[illegible]	50+74.92	66.00 RT	N 66°46'25" E	67.39
[illegible]	51+42.31	66.00 RT	S 56°40'24" E	1299.78
[illegible]	64+42.09	66.00 RT	N 36°17'45" E	1777.87
[illegible]	82+19.96	66.00 RT	S 27°55'40" E	101.55
[illegible]	83+21.51	66.00 RT	S 27°22'55" E	214.87
[illegible]	85+36.39	66.00 RT	S 86°46'01" E	283.72
[illegible]	88+19.98	66.00 RT	S 90°00'00" E	192.15
[illegible]	90+11.49	66.00 RT	S 85°27'48" E	334.58
[illegible]	93+45.90	66.00 RT	S 82°40'33" E	30.04
[illegible]	93+75.74	66.00 RT	S 86°16'20" E	193.45
[illegible]	95+69.36	66.00 RT	S 87°41'55" E	292.28
[illegible]	98+61.64	66.00 RT	S 87°28'49" E	159.36
[illegible]	100+21.00	66.00 RT	S 86°26'43" E	259.28
[illegible]	102+80.28	66.00 RT	S 87°28'58" E	276.87
[illegible]	105+57.15	66.00 RT	S 43°43'16" E	124.56
[illegible]	106+55.55	66.00 RT	S 86°26'29" E	444.08
[illegible]	110+99.63	66.00 RT	S 66°54'27" E	220.68
[illegible]	113+20.31	66.00 RT	S 87°55'32" E	1593.68
[illegible]	128+13.99	66.00 RT	S 87°55'32" E	774.87
[illegible]	135+88.86	66.00 RT	S 87°55'32" E	150.64
[illegible]	137+39.50	66.00 RT	S 87°55'32" E	269.50
[illegible]	140+09.00	66.00 RT	S 87°55'32" E	329.76
[illegible]	143+38.76	66.00 RT	S 61°55'26" E	301.28
[illegible]	146+40.04	66.00 RT	S 87°55'45" E	454.54
[illegible]	151+94.58	66.00 RT	S 82°44'13" E	462.87

COORDINATE TABLE
NEW RIGHT-OF-WAY

POINT	STATION	OFFSET	X	Y
[illegible]	5+00.00	100.00 RT	870775.454	514274.178
[illegible]	8+86.25	100.00 RT	870813.552	514668.826
[illegible]	8+86.25	66.00 RT	870767.566	514687.858
[illegible]	12+96.25	66.00 RT	870727.435	514703.557
[illegible]	19+90.57	66.00 RT	870642.168	514939.434
[illegible]	27+72.00	66.00 RT	870577.847	515464.459
[illegible]	34+98.55	66.00 RT	870513.388	515982.968
[illegible]	47+65.55	66.00 RT	870502.478	517059.937
[illegible]	48+78.64	66.00 RT	870542.454	517072.584
[illegible]	50+74.92	66.00 RT	870587.160	517253.448
[illegible]	51+42.31	66.00 RT	870626.492	517316.781
[illegible]	64+42.09	66.00 RT	870884.778	518539.581
[illegible]	82+19.96	66.00 RT	871042.454	519972.584
[illegible]	83+21.51	66.00 RT	871042.454	519972.584
[illegible]	85+36.39	66.00 RT	871042.454	519972.584
[illegible]	88+19.98	66.00 RT	871042.454	519972.584
[illegible]	90+11.49	66.00 RT	871042.454	519972.584
[illegible]	93+45.90	66.00 RT	871042.454	519972.584
[illegible]	93+75.74	66.00 RT	871042.454	519972.584
[illegible]	95+69.36	66.00 RT	871042.454	519972.584
[illegible]	98+61.64	66.00 RT	871042.454	519972.584
[illegible]	100+21.00	66.00 RT	871042.454	519972.584
[illegible]	102+80.28	66.00 RT	871042.454	519972.584
[illegible]	105+57.15	66.00 RT	871042.454	519972.584
[illegible]	106+55.55	66.00 RT	871042.454	519972.584
[illegible]	110+99.63	66.00 RT	871042.454	519972.584
[illegible]	113+20.31	66.00 RT	871042.454	519972.584
[illegible]	128+13.99	66.00 RT	871042.454	519972.584
[illegible]	135+88.86	66.00 RT	871042.454	519972.584
[illegible]	137+39.50	66.00 RT	871042.454	519972.584
[illegible]	140+09.00	66.00 RT	871042.454	519972.584
[illegible]	143+38.76	66.00 RT	871042.454	519972.584
[illegible]	146+40.04	66.00 RT	871042.454	519972.584
[illegible]	151+94.58	66.00 RT	871042.454	519972.584

HOWARD COUNTY LINE

POINT TO POINT	BEARING	DISTANCE
STR 3 — SEC 1	N 89°09'50" E	2694.92
S 1/4 — S 02	N 88°05'22" E	729.46
S 02 — STR 2	N 88°09'20" E	2537.55
STR 2 — STR 3	S 67°39'35" E	2707.47
STR 3 — STR 2	N 00°11'12" E	375.44
STR 3 — STR 2	CURV CC 35 — CURV TAN 0	
STR 2 — STR 1	S 67°39'35" E	2856.54

NE-NW

CURVE TABLE

CURVE	RADIUS	BEARING	CHORD	DELTA	TANGENT	LENGTH
[illegible]	1298.00	N 04°50'38" W	1298.00	0°00'00"	0.00	0.00

NOTES:

COORDINATES AND BEARINGS ON THIS PLAT ARE BASED ON THE BROWN COUNTY COORDINATE SYSTEM, NAD 1983 (1991) WISCONSIN COUNTY PLANE ZONE AND ARE GROUND VALUES.

RIGHT-OF-WAY BOUNDARIES ARE BASED ON BROWN COUNTY RIGHT-OF-WAY MAPS AND ARE IN AGREEMENT TO THE AS PLATTED AND SURVEYED OTHER SURVEYS OF RECORD.

ENTIRE RIGHT-OF-WAY WIDTH IS NOT DEDICATED AS PUBLIC AND SURVEYED AS SHOWN.

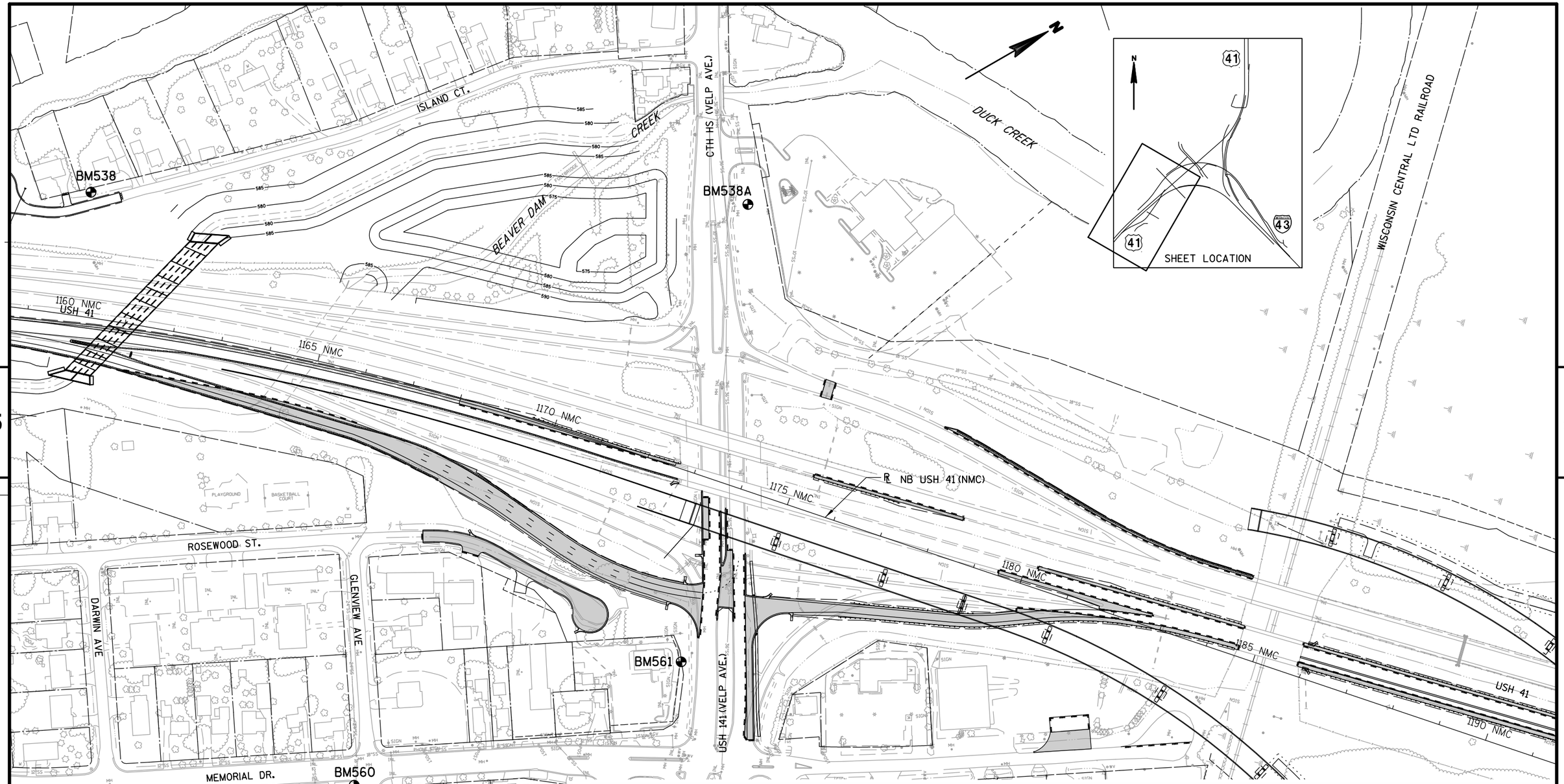
THERE MAY BE OTHER EASEMENTS OR INTERESTS OF RECORD NOT SHOWN ON THIS PLAT WHICH AFFECT THE PROPERTY. THIS PLAT IS NOT INTENDED TO BE AN ABSTRACT OF TITLE SURVEY.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE ADJUSTED TO THE COMPLETION OF THE PROJECT.

THIS NOTICE OF RIGHT-OF-WAY AND INTEREST IS FILED PURSUANT TO SECTION 84.095 OF THE WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON JUNE 18, 1992.

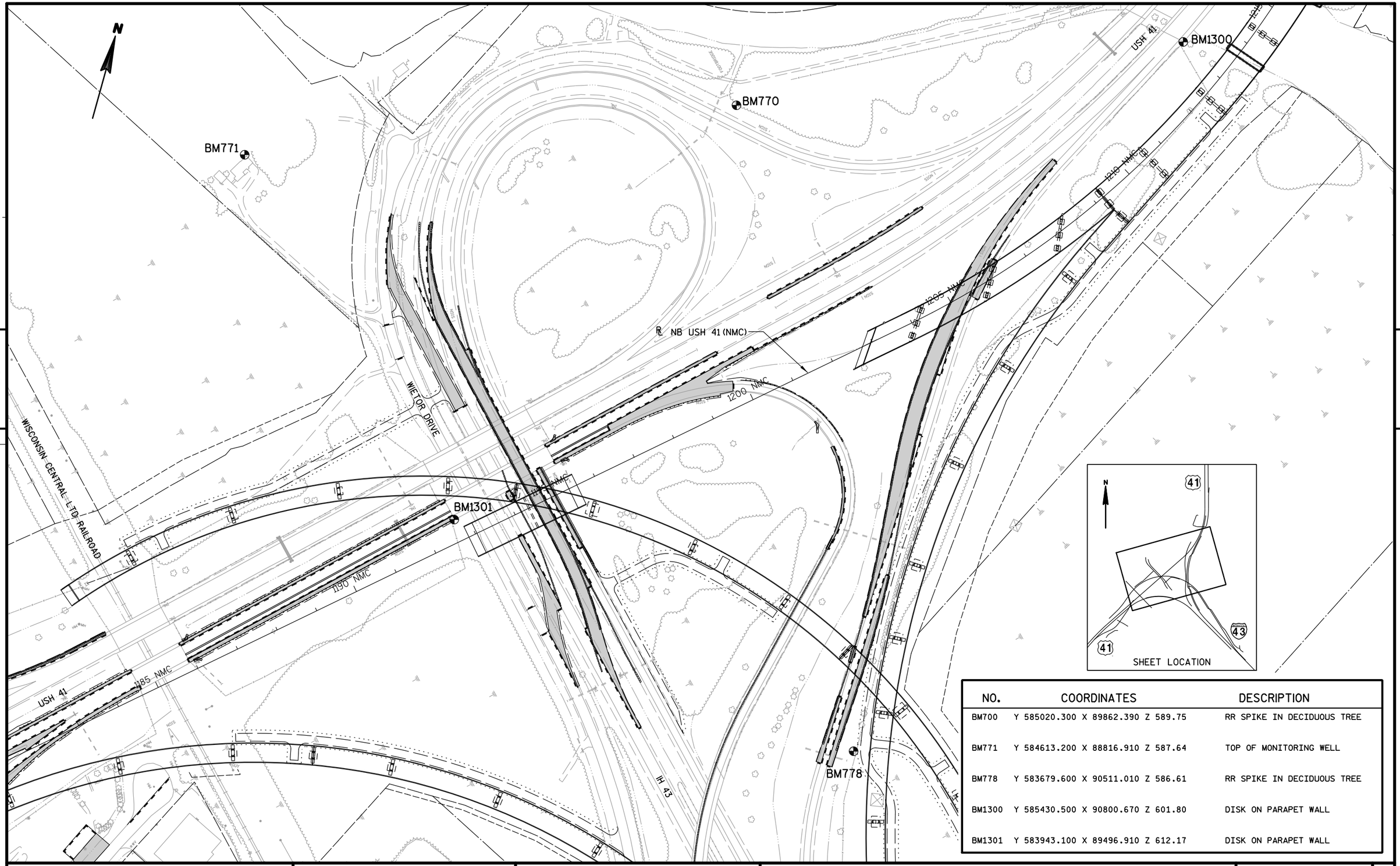
THE REFERENCE POINT SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE POINT SHOWN ON THE CONSTRUCTION PLAN.

A TEMPORARY WORK EASEMENT EXISTS ADJACENT FOR CONSTRUCTION PURPOSES AS DEFINED IN THE CONSTRUCTION PLANS. THIS EASEMENT INCLUDES THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PLAN PURPOSES, INCLUDING THE RIGHT TO PREVENT, REMOVE OR TRIM ANY OBSTRUCTION OR VEGETATION WHICH THE HIGHWAY AUTHORITY MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF SOIL, AND TO ASSIST IN THE CONSTRUCTION OF THE CONSTRUCTION PROJECT DESCRIBED IN THIS INSTRUMENT. SAID



NO.	COORDINATES	DESCRIPTION
BM538	Y 581826.020 X 86940.599 Z 592.76	CHISELED "X" ON A FIRE HYDRANT BURY BOLT AT THE END OF ISLAND CT. 85' SOUTH OF THE CENTERLINE OF PRIVATE ENTRANCE 1822 & 50' NORTH OF THE CENTERLINE OF PRIVATE ENTRANCE #1828.
BM538A	Y 582971.250 X 87631.538 Z 591.64	CHISELED "X" ON A FIRE HYDRANT BURY BOLT IN THE NORTHWEST QUADRANT OF USH 41 AND VELP AVE. 75' NORTH OF THE CENTERLINE OF VELP AVE AND 110' EAST OF THE CENTERLINE OF PRIVATE ENTRANCE TO VENDERVEST HARLEY DEALERSHIP.
BM560	Y 581685.633 X 88254.831 Z 595.06	CHISELED "X" ON A FIRE HYDRANT BOLT. LOCATED IN THE SOUTHEAST QUADRANT OF MEMORIAL DR. & GLENVIEW AVE. 35' EAST OF MEMORIAL DR. & 35' SOUTH OF GLENVIEW AVE.
BM561	Y 582387.974 X 88370.064 Z 595.33	CHISELED SQUARE ON A LIGHT POLE BASE AT TACO BELL IN THE SOUTHWEST QUADRANT OF VELP AVE. & MEMORIAL DR. NEXT TO TACO BELLS DRIVE THRU. 35' SOUTH OF THE EAST BOUND VELP AVE. CURB & 200'WEST OF MEMORIAL DR. CENTERLINE

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	BENCH MARKS	SCALE, FEET 0 100 200	SHEET 333	E



NO.	COORDINATES	DESCRIPTION
BM700	Y 585020.300 X 89862.390 Z 589.75	RR SPIKE IN DECIDUOUS TREE
BM771	Y 584613.200 X 88816.910 Z 587.64	TOP OF MONITORING WELL
BM778	Y 583679.600 X 90511.010 Z 586.61	RR SPIKE IN DECIDUOUS TREE
BM1300	Y 585430.500 X 90800.670 Z 601.80	DISK ON PARAPET WALL
BM1301	Y 583943.100 X 89496.910 Z 612.17	DISK ON PARAPET WALL

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	BENCH MARKS	SCALE, FEET 0 100 200	SHEET 334	E

DUCK CREEK

USH 41

W. DEERFIELD AVE.

BM1300

1215 NMC

1220 NMC

1225 NMC

1230 NMC

1235 NMC

1240 NMC

℄ NB USH 41 (NMC)

USH 41

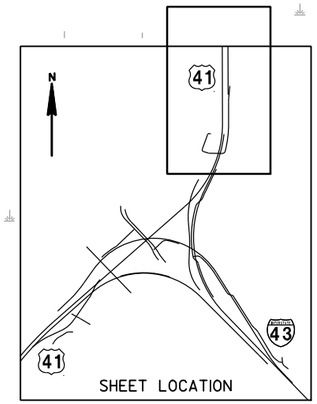
BM41036

E. DEERFIELD AVE.

5

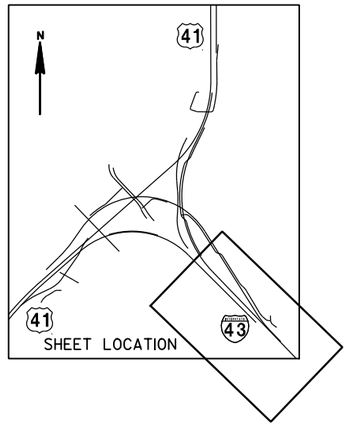
5

NO.	COORDINATES	DESCRIPTION
BM1300	Y 585430.500 X 90800.670 Z 601.80	DISK ON PARAPET WALL
BM41036	Y 588143.496 X 91115.941 Z 584.79	NW BOLT OF SIGN BASE "CTH M LINEVILLE RD 1 MILE AHEAD EXIT 173"



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	BENCH MARKS	SCALE, FEET 0 100 200	SHEET 335	E

NO.	COORDINATES	DESCRIPTION
BM772	Y 582467.500 X 90717.080 Z 583.76	RR SPIKE IN DECIDUOUS TREE
BM774	Y 581046.200 X 92118.050 Z 582.07	CHISELED "X" ON REINFORCED CONCRETE CULVERT PIPE
BM775	Y 581011.500 X 92479.140 Z 611.49	DISK ON PARAPET WALL
BM776	Y 581371.200 X 92843.580 Z 600.48	CHISELED "X" ON HYDRANT
BM777	Y 582514.700 X 91261.320 Z 585.11	EASTERLY MOST CORNER OF TOWER?



CANADIAN NATIONAL RAILROAD

WISCONSIN CENTRAL LTD.

MILITARY AVE.

BM774

BM772

WIETOR DRIVE

BM775

IH 43

1160 NIH

1165 NIH

1170 NIH

1175 NIH

1180 NIH

1185 NIH

℄ NB IH 43 - NB USH 41 (NIH)

IH 43

BM777

HURLBUT STREET

BM776

MILITARY AVE.

5

5

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	BENCH MARKS	SCALE, FEET 0 100 200	SHEET 336	E

TEMPORARY EASEMENT
R/W
POTENTIAL RELOCATED CENTURYTEL FACILITY
EXCEPTION TO NET CENTERLINE LENGTH
STA. 1195+55.49 NMC TO STA. 1202+75.42 NMC
TEMPORARY SHORING REQ'D TO CONSTRUCT PIER
SLOPE INTERCEPTS
POTENTIAL RELOCATED GBMSD FACILITY
POTENTIAL RELOCATED ATC FACILITY
USH 41
MATCHLINE STA. 1205+00 NMC
1180 NMC
1185 NMC
1190 NMC
1195 NMC
1200 NMC
1205
1180 IHA
1185 IHA
1190 IHA
1200 IHB
1210 IHB
1215 IHB
1220 IHB
B-05-678
B-05-671
SLOPE INTERCEPTS
STA. 1190+60 NMC TO STA. 1193+04 NMC
ROADWAY SIDE SLOPE TO TRANS. TO 3.3:1
WIETOR DR
IH 43
100 TWT
100 TSIH
115 TNIH
MEMORIAL DR
WISCONSIN CENTRAL LTD. RR
5

BEGIN PROJECT 1133-11-74
STA. 1192+83.65 NMC
Y= 583913.592
X= 89539.999

STA. 1193+39.80 NMC - 1195+22.30 NMC
STR B-05-677 REQ'D
2 SPAN - PRESTRESSED CONCRETE GIRDER
ROADWAY CLEAR WIDTH 74.00'
SEE STRUCTURAL DRAWINGS

PVI 1204+20.00
Elev 650.33

PROPOSED PROFILE AT ℄
PAVEMENT SURFACE AT ℄ (BY OTHERS)
GRADING LIMITS
EXISTING PROFILE AT ℄

K = 184
L = 640.00'
PVT 1182+15.00
Elev 618.70
G = -1.04%
PVC 1185+30.00
Elev 615.41
LO 1187+22.02
Elev 614.41
PVI 1188+50.00
Elev 612.07
PVT 1191+70.00
Elev 619.87
G = 2.44%
PVC 1192+60.00
Elev 622.06
HI 1203+04.26
Elev 634.79
K = 403
L = 1150.00'
K = 428
L = 2320.00'

STA. 1193+60 NMC
1- 154' X 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
SKEW 5° RHF

PROPOSED PROFILE ELEVATIONS
EXISTING PROFILE ELEVATIONS

650 640 630 620 610 600 590 580

1178+00	1179+00	1180+00	1181+00	1182+00	1183+00	1184+00	1185+00	1186+00	1187+00	1188+00	1189+00	1190+00	1191+00	1192+00	1193+00	1194+00	1195+00	1196+00	1197+00	1198+00	1199+00	1200+00	1201+00	1202+00	1203+00	1204+00	1205+00	1206+00	1207+00	1208+00
614.68	614.50	614.06	612.42	613.26	613.08	611.29	588.21	607.81	606.49	604.21	602.55	600.25	597.39	594.54	585.16	587.21	587.17	587.71	589.45	589.20	591.86	598.16	596.09	590.39	589.40	589.17	593.63	595.66	589.27	587.10
620.90	620.76	620.38	619.74	618.86	617.82	616.77	615.73	614.81	614.42	614.58	615.27	616.51	618.30	620.60	623.02	625.25	627.24	629.00	630.53	631.82	632.88	633.71	634.30	634.66	634.79	634.68	634.34	633.77	632.96	631.92

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: NMC - B-05-677 SCALE, FEET 0 100 200	SHEET 337	E

USH 41

DUCK CREEK

N

AT&T (DISCONTINUED)

ATC

GRADE DITCH TO CULVERT AT STA. 1235+00 NMC

1230 NMC

1225 NMC

SLOPE INTERCEPTS

TEMPORARY SHORING REQ'D TO CONSTRUCT PIER

10 BP1

REMAINDER OF SHARED USE PATH TO BE COMPLETED BY OTHERS.

MATCHLINE STA. 1205+00 NMC

B-05-679

1210 NMC

1210 NIH

1205 NIH

1215 NMC

1215 NIH

1220 NMC

25 BP1

20 BP1

E. DEERFIELD AVE.

R/W

CUL-DE-SAC BY OTHERS UNDER PROJECT 1133-11-72

SLOPE INTERCEPTS

END CONSTRUCTION
STA. 1235+00 NMC

IH 43

TEMPORARY EASEMENT

OH

18' PERMANENT MAINTENANCE ROAD

POTENTIAL RELOCATED ATC FACILITY

END PROJECT 1133-11-74
STA. 1220+41.23 NMC
Y= 586090.476
X= 91076.263

5

5

STA. 1202+99.31 NMC - 1220+17.73 NMC
STR B-05-681 REQ'D
11 SPAN - CONTINUOUS STEEL PLATE GIRDER
ROADWAY CLEAR WIDTH 62.00'
SKEW 34.27° RHF
SEE STRUCTURAL DRAWINGS

PAVEMENT SURFACE AT ℄ (BY OTHERS)

HI 1203+04.26 Elev 634.79

PVI 1204+20.00 Elev 650.33

PROPOSED PROFILE AT ℄

PVT 1215+80.00 Elev 615.80

PVC 1208+50.00 Elev 607.76

K = 279
L = 600.00'

G = -2.98%

PVI 1221+50.00 Elev 598.82

PVT 1224+50.00 Elev 596.35

PAVEMENT SURFACE AT ℄ (BY OTHERS)

G = -0.83%

GRADING LIMITS

K = 428
L = 2320.00'

OBSERVED WATER EL. 577.8

HIGH WATER 100 EL. 584.3

DUCK CREEK CHANNEL BOTTOM EL. 571.0±

EXISTING PROFILE AT ℄

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

650 640 630 620 610 600 590 580

598.16 633.71	596.09 634.30	590.39 634.66	589.40 634.79	589.17 634.68	593.63 634.34	595.66 633.77	589.27 632.96	587.10 631.92	585.58 630.65	584.88 629.14	584.72 627.40	584.51 625.42	583.29 623.22	576.27 620.78	572.73 618.10	582.52 615.20	581.04 612.22	580.02 609.25	578.92 606.31	583.49 603.69	585.65 601.43	591.88 599.53	594.99 597.99	595.16 596.80	594.11 595.93	593.07 595.11	592.28 594.28	591.46 593.46	590.83 592.63	590.40 591.80

1200+00 1201+00 1202+00 1203+00 1204+00 1205+00 1206+00 1207+00 1208+00 1209+00 1210+00 1211+00 1212+00 1213+00 1214+00 1215+00 1216+00 1217+00 1218+00 1219+00 1220+00 1221+00 1222+00 1223+00 1224+00 1225+00 1226+00 1227+00 1228+00 1229+00 1230+00

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: NMC - B-05-681 SCALE, FEET 0 100 200	SHEET 338	E

WIETOR DR
QWEST
IH 43
R-5-256 REQ'D
1185 NIH
1180 NIH
1175 NIH
1190 NIH
105 TNIH
1195
1170 NIH
1170 IHB
1175 IHB
1180 IHB
1185 IHB
1190 IHB
ATC
SLOPE INTERCEPTS
18' PERMANENT MAINTENANCE ROAD
B-05-678
MATCHLINE STA. 1195+00 NIH
R/W
TEMPORARY EASEMENT
POTENTIAL RELOCATED ATC FACILITY
BEGIN FULL HEIGHT FILL
STA. 1178+50 NIH
OH
HO
N

STA. 1187+29.50 NIH - 1209+18.75 NIH
STR B-05-679 REQ'D
10 SPAN - STEEL PLATE BOX GIRDER
ROADWAY CLEAR WIDTH 42.00'
SEE STRUCTURAL DRAWINGS

PROPOSED PROFILE AT ℄
PVC 1189+50.00 Elev 614.22
PVT 1184+75.00 Elev 601.30
K = 311
L = 1000.00'
G = 2.12%
K = 531
L = 1800.00'
PAVEMENT SURFACE AT ℄ (BY OTHERS)
GRADING LIMITS
PVI 1170+15.00 Elev 592.48
PVT 1173+15.00 Elev 590.99
PVC 1174+75.00 Elev 590.19
LO 1176+29.73 Elev 589.80
G = -0.50%
HI 1170+20.24 Elev 591.72
K = 592
L = 600.00'
EXISTING PROFILE AT ℄
PVI 1179+75.00 Elev 587.70
PROPOSED PROFILE ELEVATIONS
EXISTING PROFILE ELEVATIONS

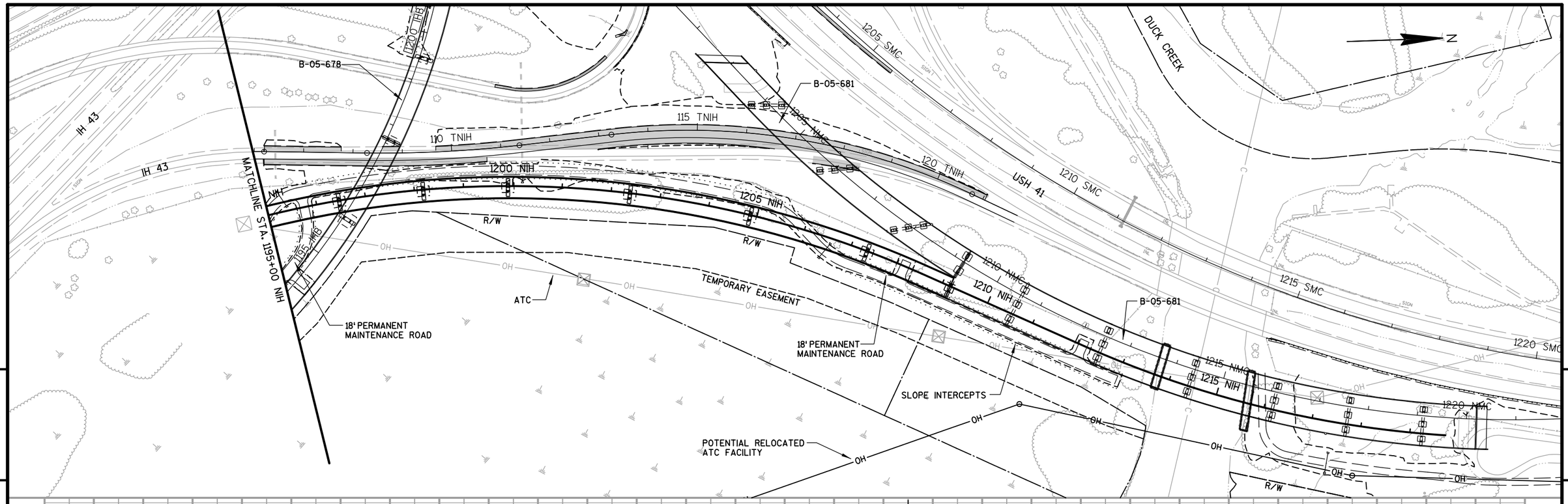
640 630 620 610 600 590 580 570

588.90	588.84	588.58	588.61	588.64	588.53	588.26	587.69	587.52	587.39	586.97	587.02	586.84	586.17	586.06	586.20	586.22	585.40	585.26	583.63	582.66	582.50	582.45	582.21	582.32	582.40	582.48	583.02	582.83	582.54	582.67			
591.31	591.60	591.72	591.67	591.45	591.06	590.56	590.08	589.82	589.88	590.27	590.98	592.01	593.36	595.04	597.03	599.35	601.98	604.70	607.42	610.14	612.86	615.56	618.09	620.43	622.59	624.55	626.33	627.92	629.32	630.54			
1168+00	1169+00	1170+00	1171+00	1172+00	1173+00	1174+00	1175+00	1176+00	1177+00	1178+00	1179+00	1180+00	1181+00	1182+00	1183+00	1184+00	1185+00	1186+00	1187+00	1188+00	1189+00	1190+00	1191+00	1192+00	1193+00	1194+00	1195+00	1196+00	1197+00	1198+00			

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: NIH - B-05-679 SCALE, FEET 0 100 200	SHEET 339	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050102_pp_NIH.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: NIH - B-05-679 SCALE, FEET 0 100 200	SHEET 340	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050103_pp_NIH.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 40

N

IH43

SLOPE INTERCEPT

B-05-678

B-05-679

104+00 TNIH

106+00 TNIH

102+00 TNIH

108+00 TNIH

110+00 TNIH

1198+00 NIB

MATCHLINE STA. 111+00 TNIH

1194+00 NIH

1196+00 NIH

1198+00 NIH

1192+00 NIH

1190+00 NIH

1188+00 NIH

1196+50 NIB

18' PERMANANT
MAINTENANCE ROAD

R/W

TEMPORARY EASEMENT

ATC

5

5

MATCH EXISTING ROADWAY

PVI 110+34.00 Elev 592.15

PVI 110+50.00 Elev 592.25

PVI 110+75.00 Elev 592.49

PVI 111+00.00 Elev 592.70

PVI 111+25.00 Elev 592.95

PVI 111+50.00 Elev 593.21

PVI 111+75.00 Elev 593.50

PVI 112+00.00 Elev 593.78

PVC 112+35.00 Elev 593.99

PVI 112+85.00 Elev 594.30

K = 43
L = 100.00'

PVRC 113+35.00 Elev 595.77

PVI 113+90.00 Elev 597.39

K = 45
L = 110.00'

G = 0.61%
G = 0.96%
G = 0.84%
G = 1.00%
G = 1.04%
G = 1.16%
G = 1.12%
G = 0.61%

EXISTING PROFILE AT ℄

PROPOSED PROFILE AT ℄

EXISTING PROFILE ELEVATIONS

PROPOSED PROFILE ELEVATIONS

620 610 600 590 580 570 560 550

588.41 588.42 588.43 588.36 588.14 588.10 588.02 588.24 588.30 588.31 588.73 588.96 589.27 589.46 589.74 590.06 590.38 590.72 591.10 591.50 591.89 592.23 592.25 592.39 592.70 592.69 593.21 591.82 593.78 590.49 594.11 590.18 594.88 590.30 596.19 590.83 597.22

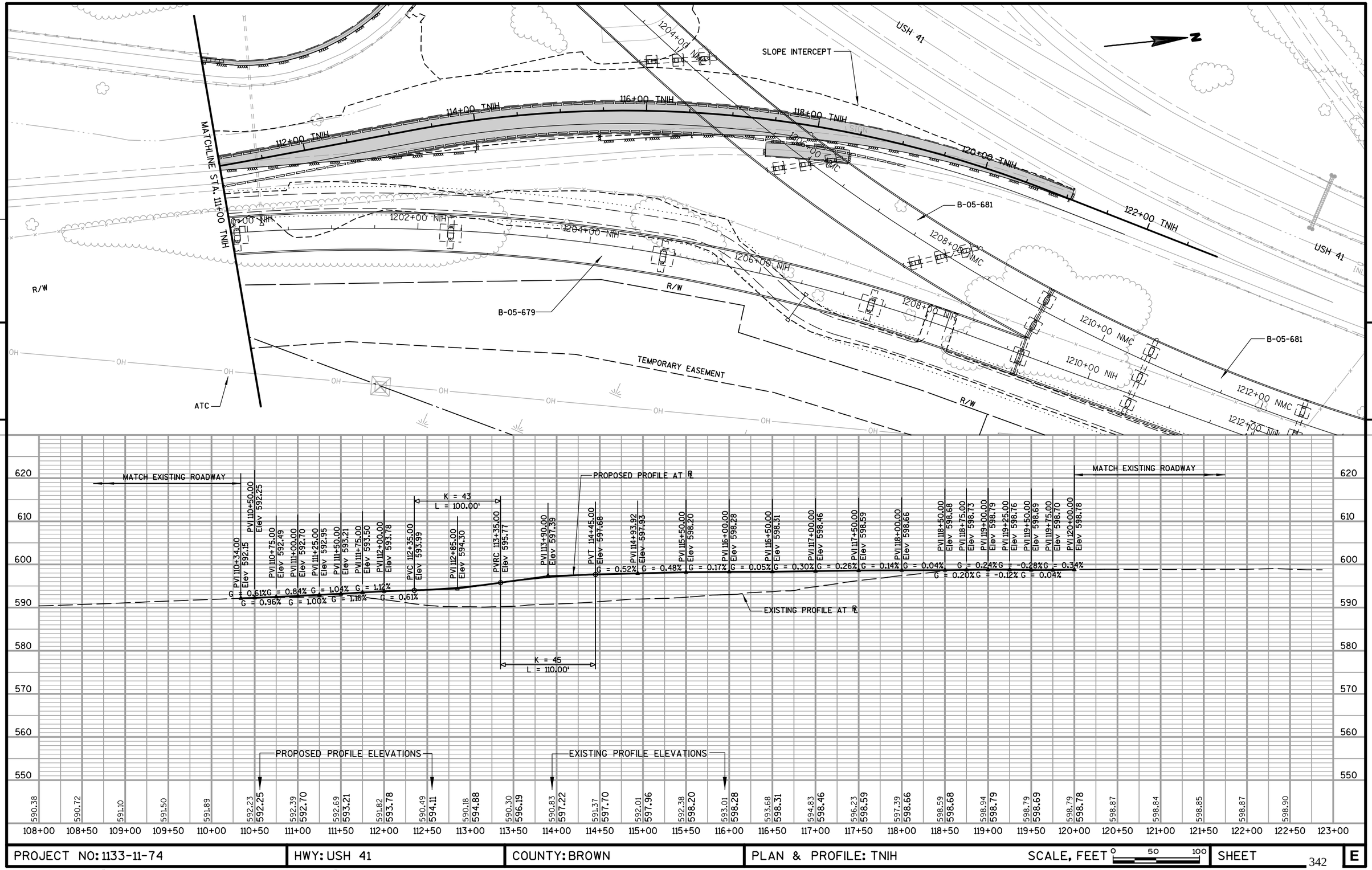
99+00 99+50 100+00 100+50 101+00 101+50 102+00 102+50 103+00 103+50 104+00 104+50 105+00 105+50 106+00 106+50 107+00 107+50 108+00 108+50 109+00 109+50 110+00 110+50 111+00 111+50 112+00 112+50 113+00 113+50 114+00

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: TNIH	SCALE, FEET 0 50 100	SHEET 341	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050104_pp_TNIH.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

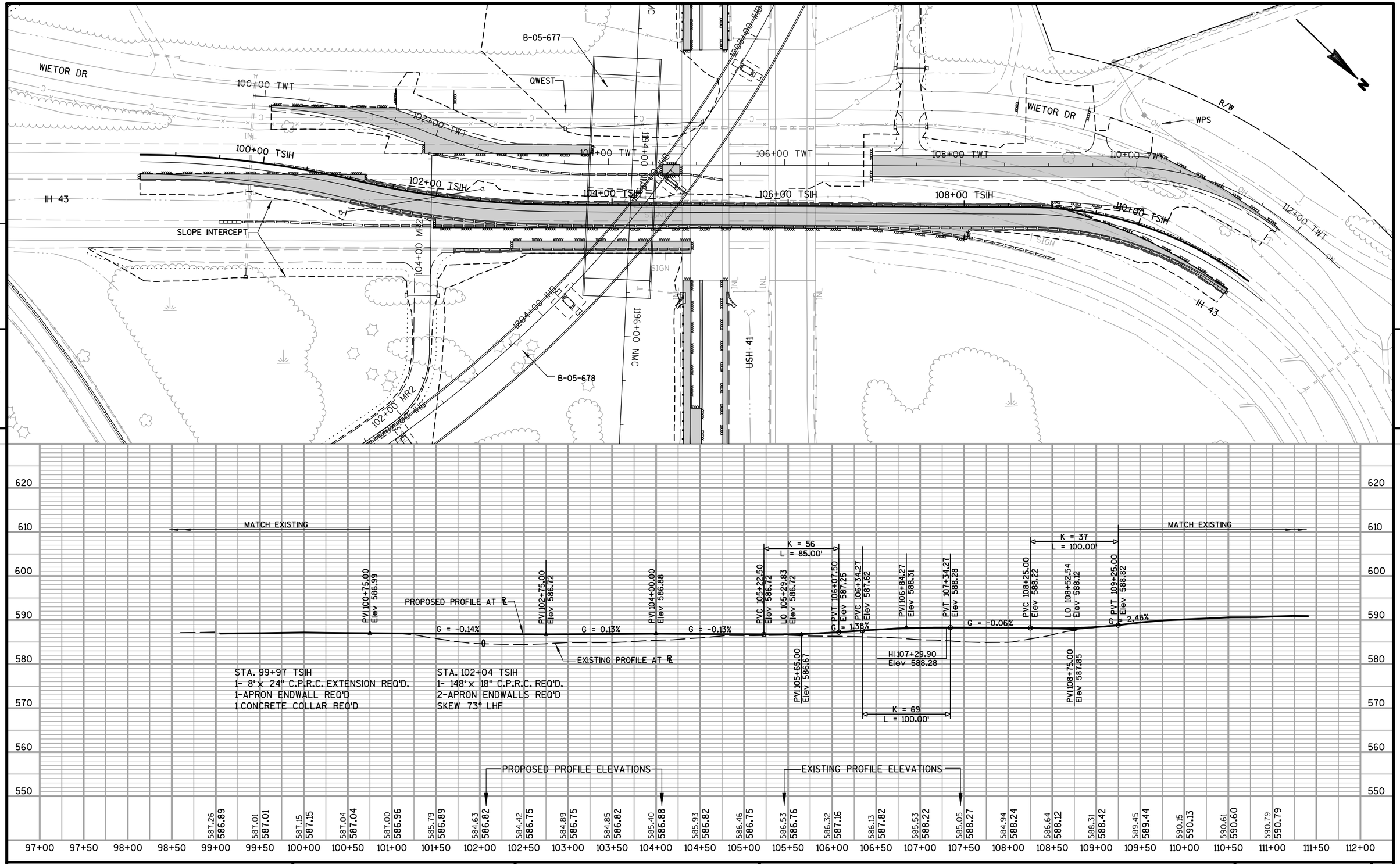
WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: TNIH	SCALE, FEET 0 50 100	SHEET 342	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050105_pp_TNIH.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: TSIH	SCALE, FEET 0 50 100	SHEET 343	E

BEGIN CONSTRUCTION
STA. 1158+24 NMC

BEGIN FULL HEIGHT FILL
STA. 1163+00 IHA

POTENTIAL RELOCATED CENTURYTEL FACILITY

STRUCTURE R-5-84 REQ'D

STRUCTURE R-5-257 REQ'D

SLOPE INTERCEPTS

TEMPORARY EASEMENT

TEMPORARY SHORING REQ'D TO CONSTRUCT PIER

MATCHLINE STA. 1180+00 IHA

POTENTIAL RELOCATED GBMSD FACILITY

STA. 1172+66.67 IHA - 1196+51.83 IHA
STR B-05-671 REQ'D
11 SPAN - STEEL BOX GIRDER
ROADWAY CLEAR WIDTH 42.00'
SEE STRUCTURAL DRAWINGS

PROPOSED PROFILE AT ℄

PAVEMENT SURFACE AT ℄ (BY OTHERS)

GRADING LIMITS

EXISTING PROFILE AT ℄

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

PVC 1157+70.00 Elev 596.13

LO 1158+70.80 Elev 595.86

PVI 1160+95.00 Elev 594.35

PVT 1164+20.00 Elev 604.07

PVC 1174+00.00 Elev 633.38

PVI 1182+00.00 Elev 637.30

HI 1181+98.91 Elev 645.32

K = 184
L = 650.00'

K = 267
L = 1600.00'

G = -0.55%

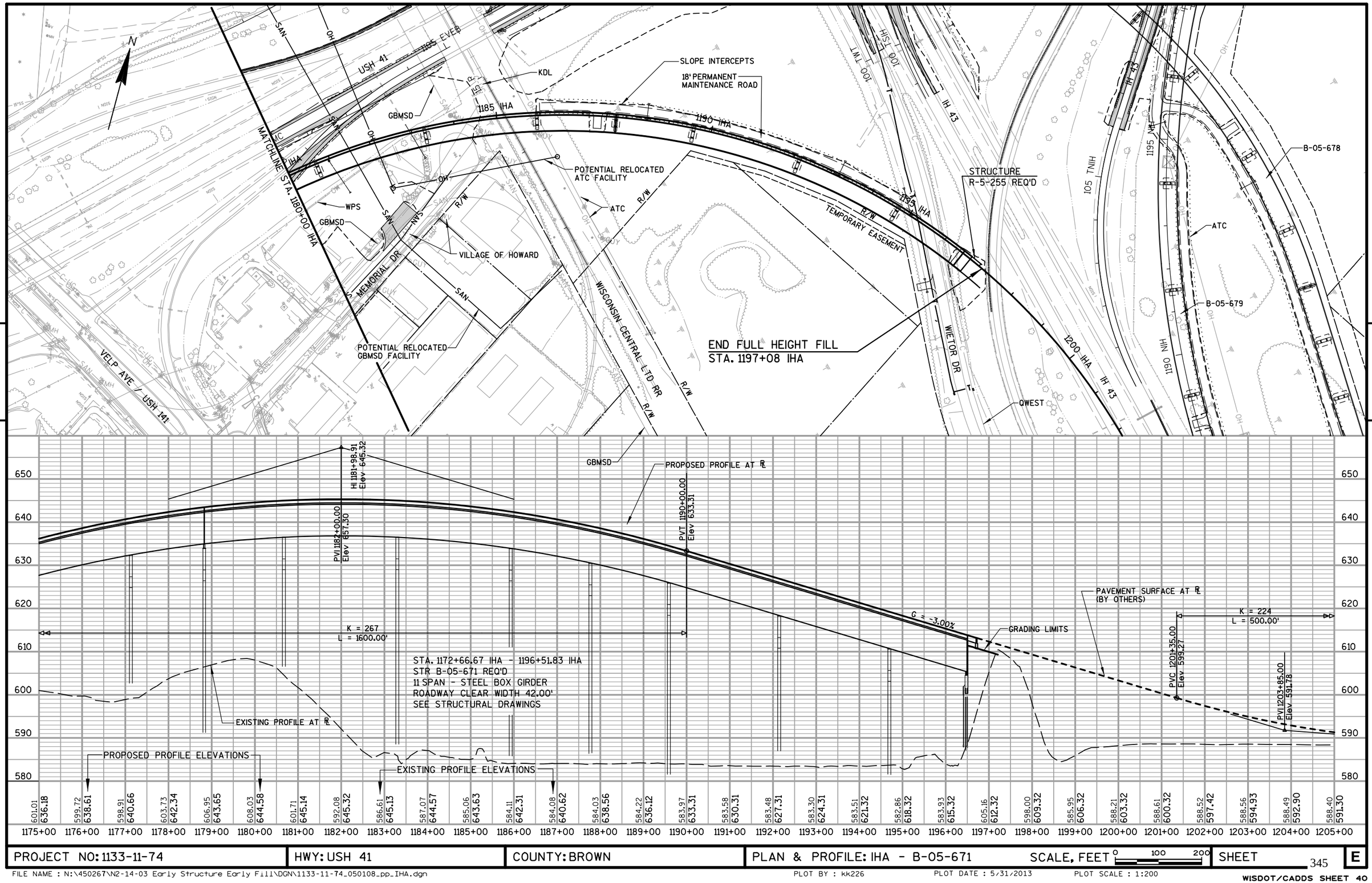
G = 2.99%

650	640	630	620	610	600	590	580

1155+00	1156+00	1157+00	1158+00	1159+00	1160+00	1161+00	1162+00	1163+00	1164+00	1165+00	1166+00	1167+00	1168+00	1169+00	1170+00	1171+00	1172+00	1173+00	1174+00	1175+00	1176+00	1177+00	1178+00	1179+00	1180+00	1181+00	1182+00	1183+00	1184+00	1185+00
592.22	591.29	590.87	590.80	590.97	591.31	591.56	592.08	593.22	594.20	595.16	594.23	595.21	595.92	597.56	597.95	597.67	598.60	593.51	591.55	601.01	599.72	598.91	603.73	606.95	608.03	601.71	592.08	586.61	587.07	585.06
597.61	597.07	596.52	595.99	595.88	596.31	597.29	598.81	600.87	603.48	606.46	609.45	612.44	615.43	618.42	621.41	624.40	627.39	630.39	633.38	636.18	638.61	640.66	642.34	643.65	644.58	645.14	645.32	645.13	644.57	643.63

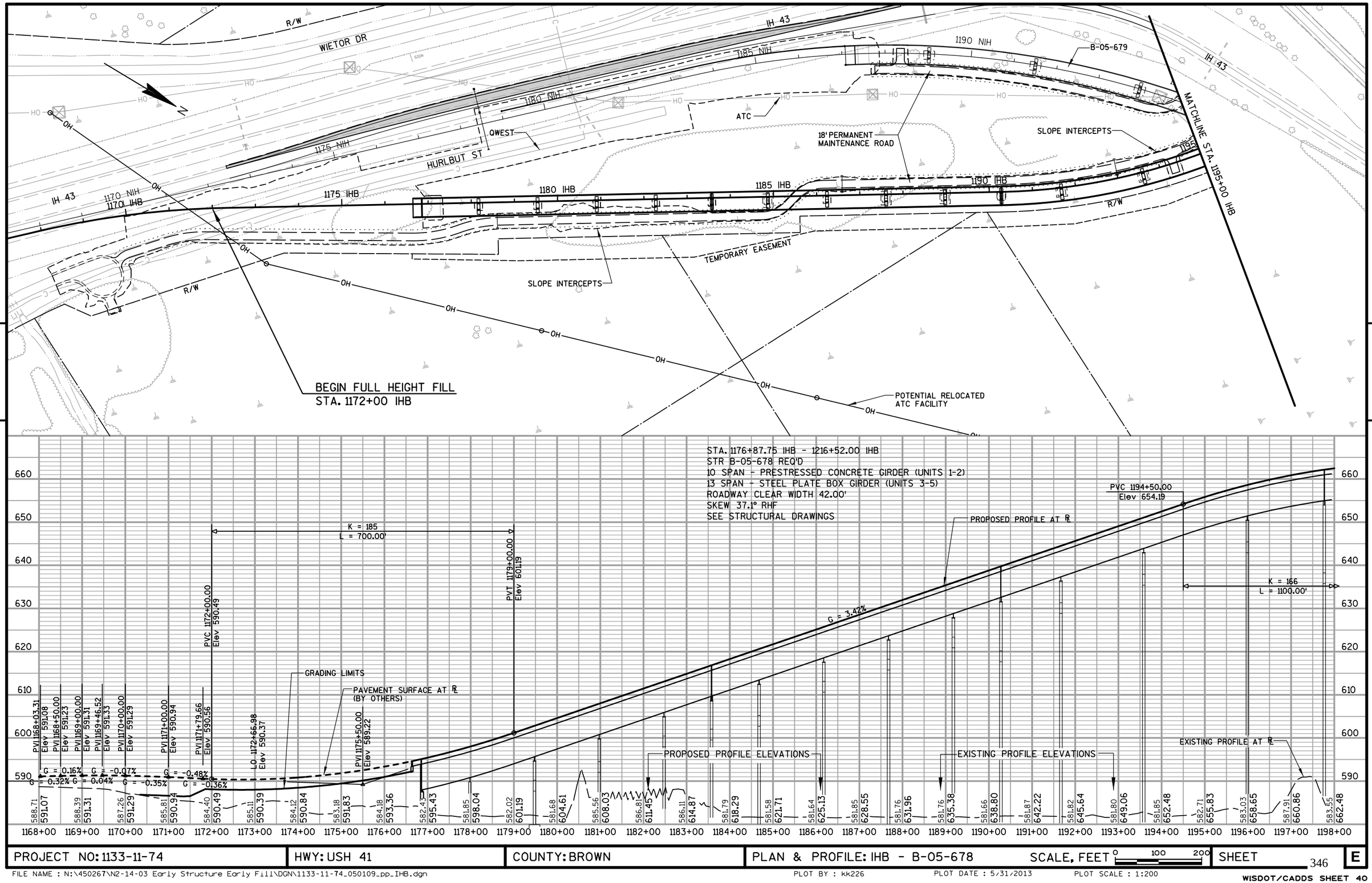
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: IHA - B-05-671	SCALE, FEET 0 100 200	SHEET 344	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050107_pp_IHA.dgn
PLOT BY : kk226
PLOT DATE : 5/31/2013
PLOT SCALE : 1:200
WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: IHA - B-05-671 SCALE, FEET 0 100 200	SHEET 345	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050108_pp_IHA.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200



5

5

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: IHB - B-05-678 SCALE, FEET 0 100 200	SHEET 346	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050109_pp_IHB.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200

MATCHLINE STA. 1195+00 IHB

B-05-679

ATC

TEMPORARY EASEMENT

R/W

IH 43

105 TNIH

110 TNIH

120 NIH

TEMPORARY SHORING REQ'D TO CONSTRUCT PIER

18' PERMANENT MAINTENANCE ROAD

1200 IHB

1200 NIH

SLOPE INTERCEPTS

USH 41

100 TWT

100 TSH

QWEST

B-05-671

SLOPE INTERCEPTS

B-05-677

1190 IHA

1185 IHA

1205 IHB

1210 IHB

1215 IHB

1220 IHB

1190 NMC

1185 NMC

E/EB

POTENTIAL RELOCATED CENTURYLINK FACILITY

18' PERMANENT MAINTENANCE ROAD

TEMPORARY EASEMENT

ATT

R/W

ATC

QWEST

ATT

SAN

NWS

HO

R/W

POTENTIAL RELOCATED GBMSD FACILITY

END FULL HEIGHT FILL
STA. 1219+00 IHB

POTENTIAL RELOCATED ATC FACILITY

KDL

GBMSD

WISCONSIN CENTRAL LTD RAILROAD

DUCK CREEK

N

STA. 1176+87.75 IHB - 1216+52.00 IHB
STR B-05-678 REQ'D
10 SPAN - PRESTRESSED CONCRETE GIRDER (UNITS 1-2)
13 SPAN - STEEL PLATE BOX GIRDER (UNITS 3-5)
ROADWAY CLEAR WIDTH 42.00'
SKEW 37.1° RHF
SEE STRUCTURAL DRAWINGS

PVI 1200+00.00
Elev 673.00

HI 1200+19.23
Elev 663.92

PVT 1205+50.00
Elev 655.46

K = 166
L = 1100.00'

G = -3.19%

PROPOSED PROFILE AT ℄

K = 184
L = 300.00'

PVC 1214+15.00
Elev 627.88

PVI 1215+65.00
Elev 623.10

PAVEMENT SURFACE AT ℄
(BY OTHERS)

K = 225
L = 205.00'

K = 148
L = 230.00'

PVCC 1217+15.00
Elev 620.76

PVI 1218+17.50
Elev 619.16

PVCC 1219+20.00
Elev 618.49

LO 1220+16.05
Elev 618.18

PVRC 1221+50.00
Elev 618.79

PVI 1222+55.00
Elev 619.74

GRADING LIMITS

PVI 1220+35.00
Elev 617.75

K = 249
L = 210.00'

PVT 1223+60.00
Elev 619.81

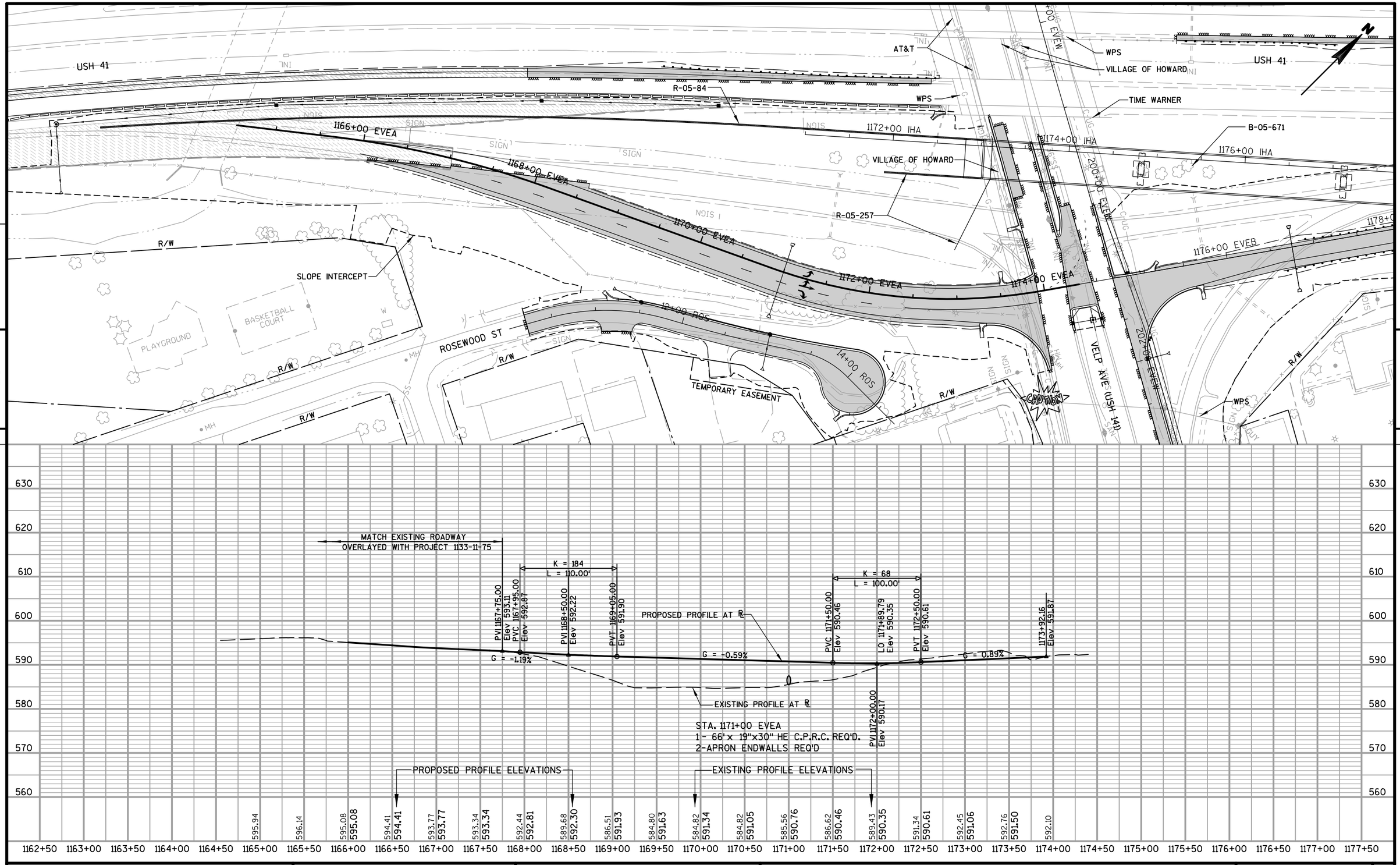
EXISTING PROFILE AT ℄

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

660 650 640 630 620 610 600 590

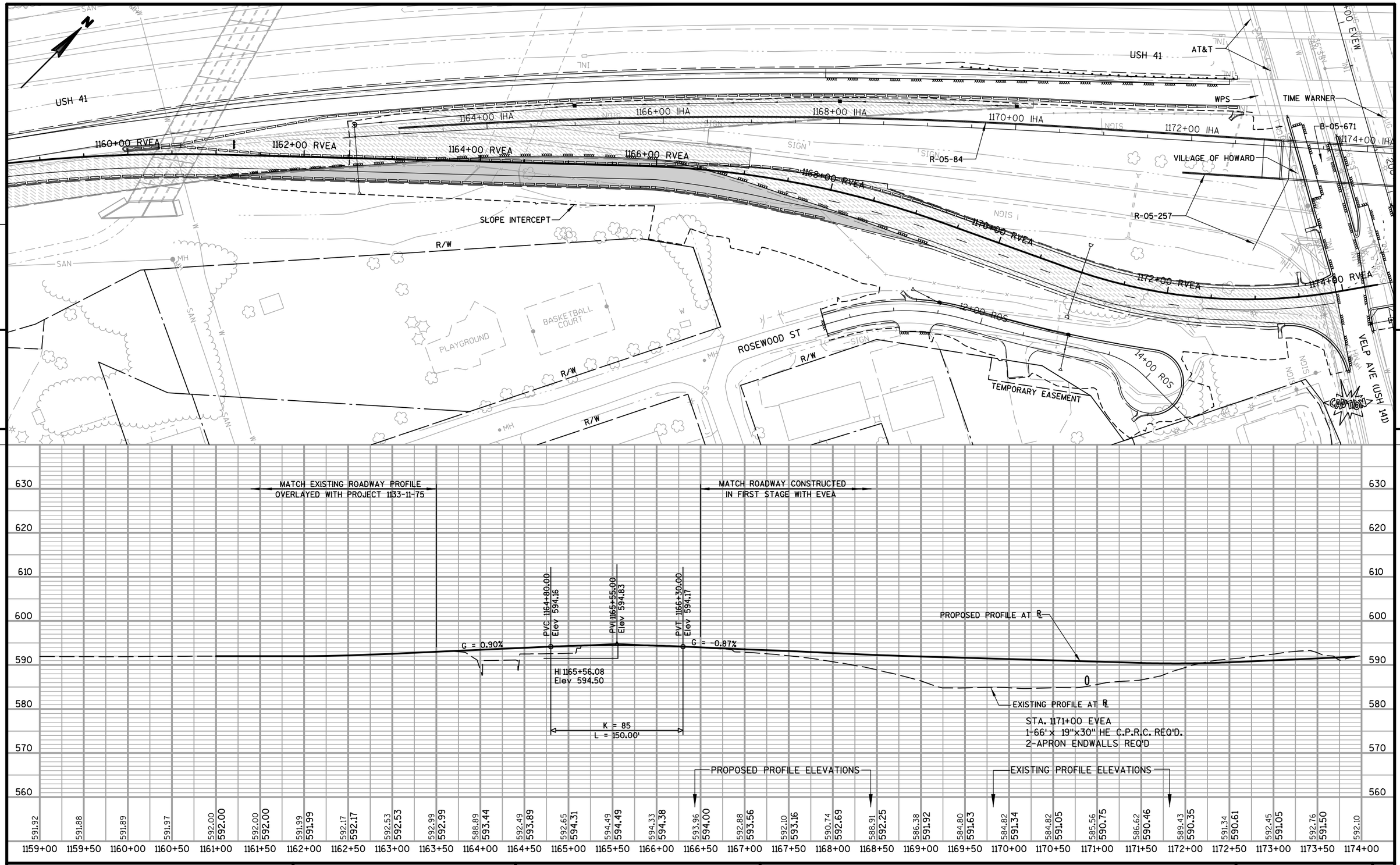
| | | |



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: EVEA (STAGE 1A) SCALE, FEET 0 50 100	SHEET 348	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050111_pp_EVEA.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: RVEA (STAGE 1B) SCALE, FEET 0 50 100	SHEET 349	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050112_pp_RVEA.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

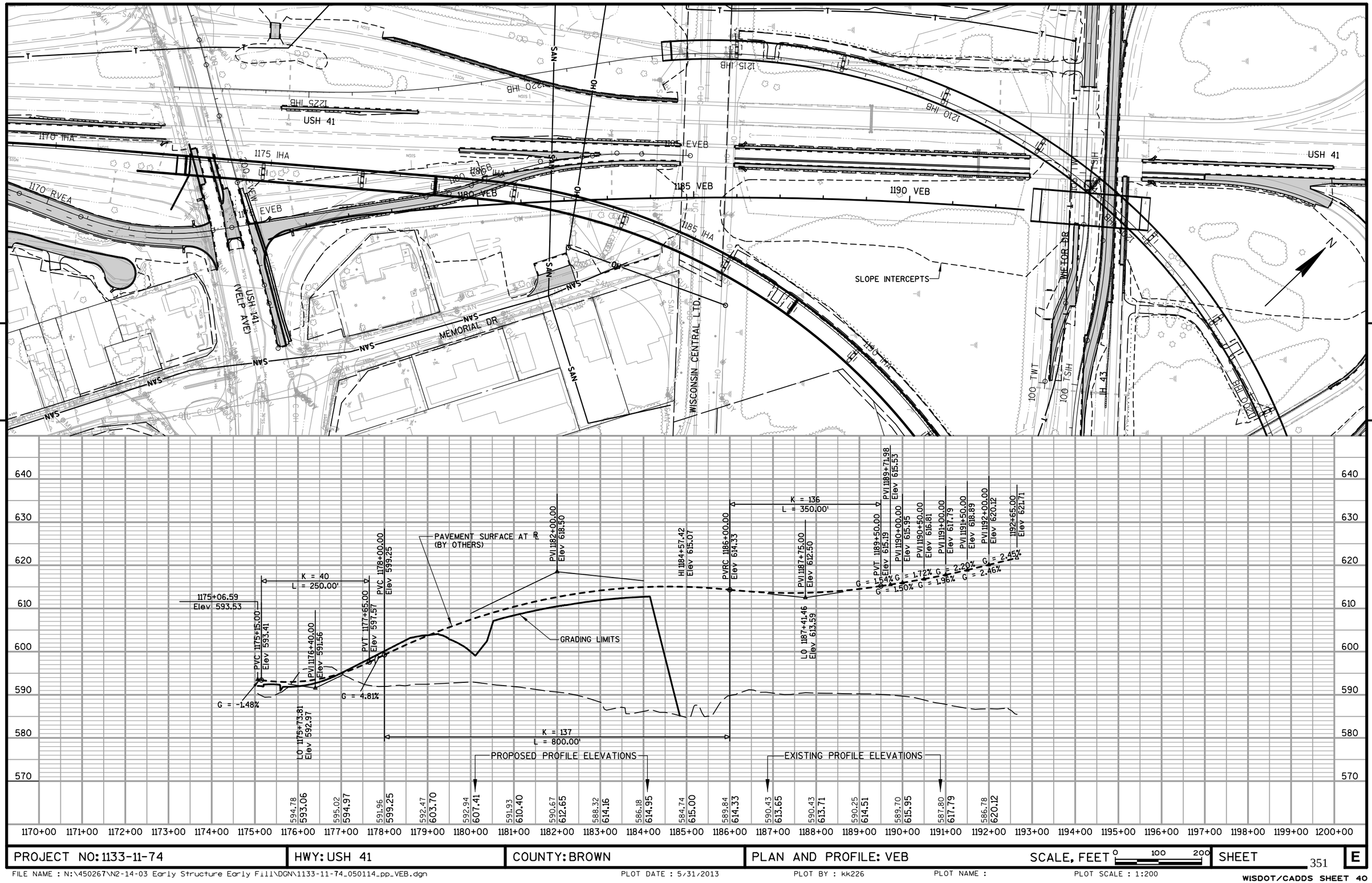
USH 41
AT&T
WPS
VILLAGE OF HOWARD
TIME WARNER
R-05-84
B-05-671
SLOPE INTERCEPTS
1172+00 IHA
1174+00 IHA
1176+00 IHA
1178+00 IHA
1180+00 IHA
1182+00 IHA
1184+00 IHA
1184+00 EVEB
1182+00 EVEB
1180+00 EVEB
1178+00 EVEB
1176+00 EVEB
200+00 EVEW
202+98 EVEW
R-05-257
VILLAGE OF HOWARD
1170+00 RVEA
1172+00 RVEA
1174+00 RVEA
14+00 ROS
ROSEWOOD ST
TEMPORARY EASEMENT
R/W
VELP AVE (USH 141)
POTENTIAL RELOCATED ATC FACILITY
POTENTIAL RELOCATED GBMSD FACILITY
GBMSD
VILLAGE OF HOWARD
KDL
NYS MEMORIAL DR
TIME WARNER
WISCONSIN CENTRAL LTD. RR
5
640
630
620
610
600
590
580
570

MATCH EXISTING ROADWAY

1174+65.00
Elev 592.04
PVI 1174+82.40
Elev 591.87
G = -0.96%
G = -0.80%
PVC 1175+48.00
Elev 591.35
LO 1175+68.68
Elev 591.27
PVI 1176+23.00
Elev 590.75
K = 26
L = 150.00'
PVT 1176+98.00
Elev 594.50
PROPOSED PROFILE
G = 5.00%
PVC 1178+65.00
Elev 602.85
PVI 1179+65.00
Elev 607.85
K = 87
L = 200.00'
PVT 1180+65.00
Elev 610.56
G = 2.71%
EXISTING PROFILE AT ℄
PROPOSED PROFILE AT ℄
STA. 1176+75 EVEB
1-70' x 19"x 30" H.E.C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
STA. 1183+07 EVEB
1-66' x 18" C.P.R.C. EXTENSION REQ'D.
1-APRON ENDWALL REQ'D

PROPOSED PROFILE ELEVATIONS

| | | |



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN AND PROFILE: VEB	SCALE, FEET 0 100 200	SHEET 351	E

END FULL HEIGHT FILL
STA. 1219+00 IHB

ISLAND CT
BEAVER DAM CREEK
CTTH HS (VELP AVE)
195 EVEW
200 EVEW
WISCONSIN CENTRAL LTD RR
20 RR
15 RR
PORTION OF EXISTING GBMSD ACCESS ROAD TO REMAIN AFTER CONSTRUCTION
POTENTIAL RELOCATED CENTURYLINK FACILITY
POTENTIAL RELOCATED GBMSD FACILITY
POTENTIAL RELOCATED ATC FACILITY
18' PERMANENT MAINTENANCE ROAD
TEMPORARY EASEMENT
SLOPE INTERCEPTS
USH 41
R/W
ATT
QWEST
1175 VEC
1180 VEC
1185 VEC
1190 VEC
1165 SMC
1170 SMC
1175 SMC
1180 SMC
1185 SMC
1190 SMC
1165 NMC
1170 NMC
1175 NMC
1180 NMC
1185 NMC
1190 NMC
1165 IHA
1170 IHA
1175 IHA
1180 IHA
1185 IHA
1165 RVEA
1170 RVEA
1225 IHB
1220 IHB
1215 IHB
1210 IHB
R-05-84
R-05-257
B-05-671
B-05-678
5

STRUCTURE B-5-672 (BY OTHERS)
PAVEMENT SURFACE AT ℄ (BY OTHERS)
GRADING LIMITS
EXISTING GROUND
PVC 1173+92.51 Elev 592.11
PVC 1174+60.00 Elev 591.51
PVI 1175+50.00 Elev 590.71
PVT 1176+40.00 Elev 593.30
PVC 1182+80.00 Elev 611.75
PVI 1186+55.00 Elev 622.56
HI 1187+20.91 Elev 618.11
PVC 1190+65.00 Elev 614.27
PVI 1191+70.00 Elev 612.15
PVT 1190+30.00 Elev 614.98
K = 48
L = 180.00'
K = 153
L = 750.00'
K = 138
L = 210.00'
G = 2.88%
G = -0.89%
G = -2.02%
STA 1175+10 VEC
1- 68'x 24" C.P.R.C. REQ'D.
2 APRON ENDWALL REQ'D

PROPOSED PROFILE ELEVATIONS
591.44 592.04
590.39 591.32
588.60 592.32
588.32 595.03
587.64 597.92
588.60 600.80
587.50 603.68
587.15 606.56
587.04 609.45
585.92 612.32
585.60 614.74

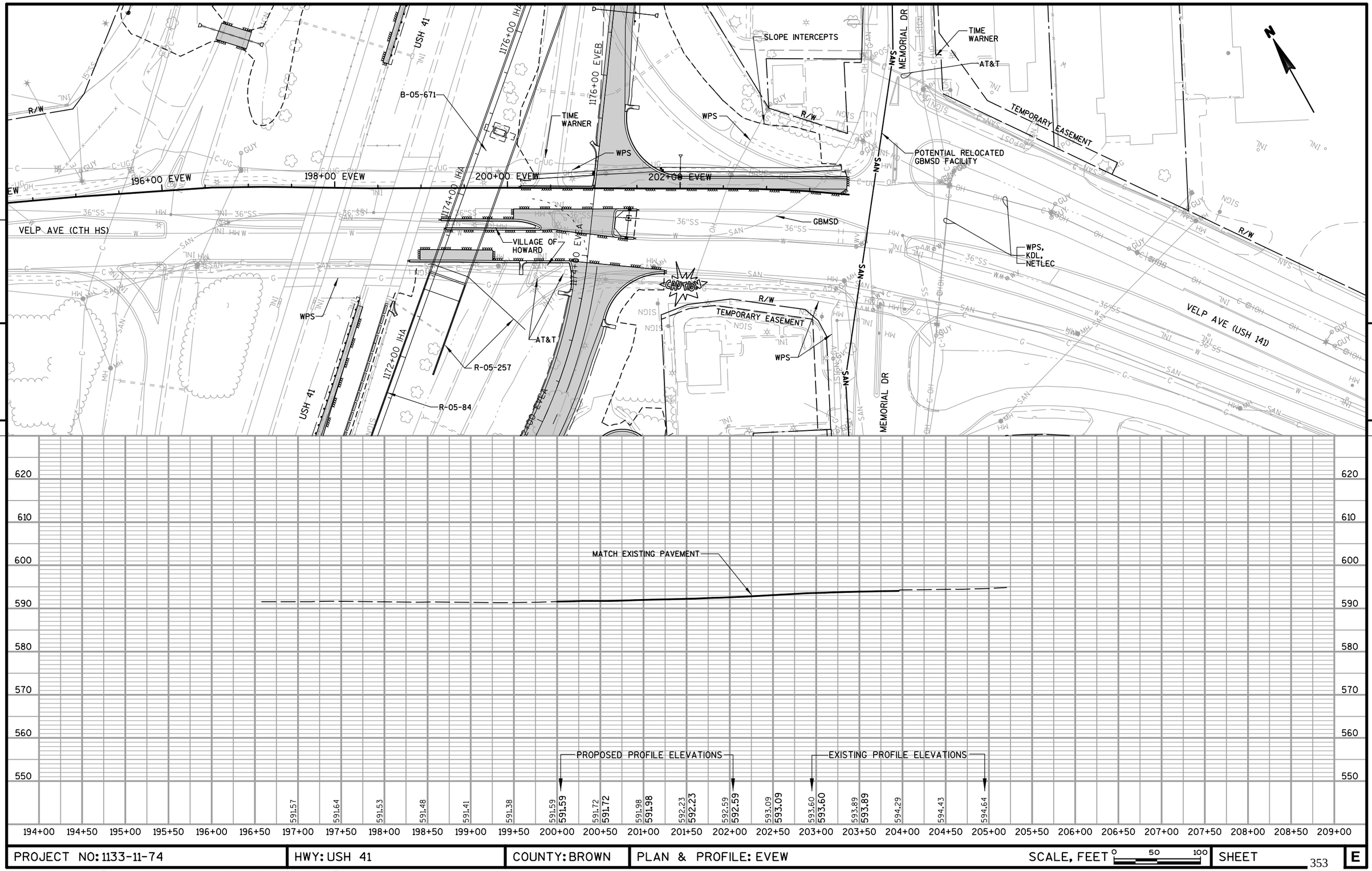
EXISTING PROFILE ELEVATIONS
584.68 616.51
585.82 617.63
584.89 618.09
584.81 617.90
584.10 617.06
583.57 615.56
584.07 613.61
584.95 612.20

640 630 620 610 600 590 580 570

1162+00 1163+00 1164+00 1165+00 1166+00 1167+00 1168+00 1169+00 1170+00 1171+00 1172+00 1173+00 1174+00 1175+00 1176+00 1177+00 1178+00 1179+00 1180+00 1181+00 1182+00 1183+00 1184+00 1185+00 1186+00 1187+00 1188+00 1189+00 1190+00 1191+00 1192+00

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: VEC SCALE, FEET 0 100 200	SHEET 352	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050115_pp_VEC.dgn
PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:200
WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: EVEW	SCALE, FEET 0 50 100	SHEET 353	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050116_pp_EVEW.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

TEMPORARY USH 41 (NB OFF-RAMP)

N

REMOVE FIELD ENTRANCE

11+00 ROS

12+00 ROS

13+00 ROS

14+00 ROS

SLOPE INTERCEPTS

R/W

WPS

SIGN

ROSEWOOD STREET

COMMERCIAL ENTRANCE REQ'D

R/W

SLOPE INTERCEPTS

TEMPORARY EASEMENT

COMMERCIAL ENTRANCE REQ'D

BEGIN CONSTRUCTION
STA. 10+20 ROS

END CONSTRUCTION
STA. 14+64 ROS

5

5

K = 149
L = 100.00'

K = 143
L = 100.00'

10+15.00
Elev 586.21

PVC 10+65.00
Elev 586.53

PVI 11+15.00
Elev 586.84

PVT 11+65.00
Elev 587.49

PROPOSED PROFILE AT ℄

PVC 12+65.00
Elev 588.79

PVI 13+15.00
Elev 589.44

PVT 13+65.00
Elev 590.44

PVI 14+08.00
Elev 591.30

14+44.00
Elev 591.10

G = 0.63%

G = 1.30%

G = 2.00%

G = -0.56%

EXISTING PROFILE AT ℄

	PROPOSED PROFILE ELEVATIONS												EXISTING PROFILE ELEVATIONS											
	586.08	586.28	586.46	586.59	586.65	586.69	586.83	587.00	587.22	587.42	587.64	587.88	588.16	588.70	589.44	590.09	590.58	590.93	591.21					
	9+25	9+50	9+75	10+00	10+25	10+50	10+75	11+00	11+25	11+50	11+75	12+00	12+25	12+50	12+75	13+00	13+25	13+50	13+75	14+00	14+25	14+50	14+75	15+00	15+25
		586.27	586.43	586.59	586.79	587.02	587.30	587.62	587.95	588.27	588.60	588.92	589.29	589.70	590.15	590.64	591.14	591.21						

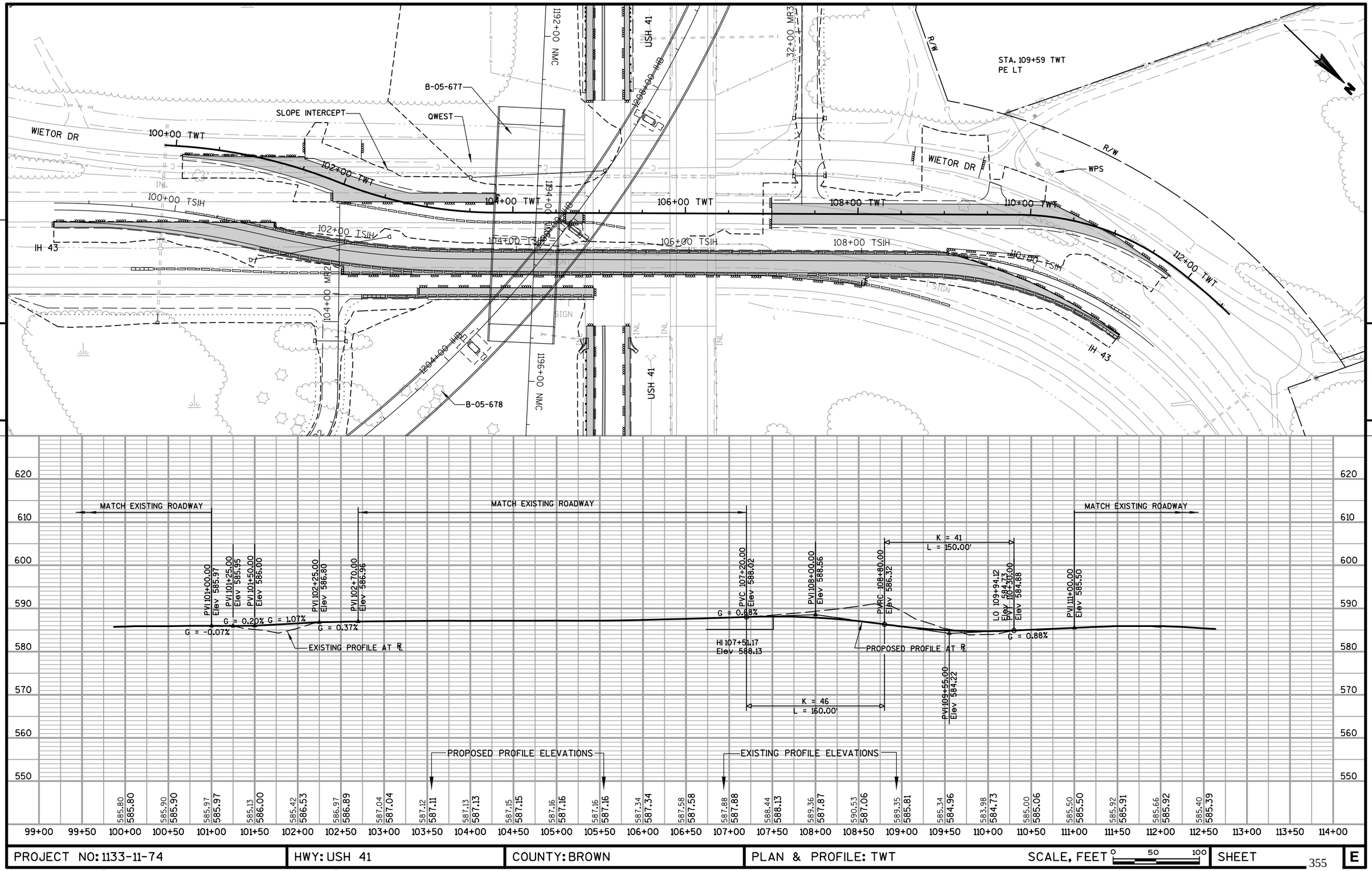
605 600 595 590 585 580 575 570

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: ROS	SCALE, FEET 0 20 40	SHEET 354	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050117_pp_ROS.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: TWT	SCALE, FEET 0 50 100	SHEET 355	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050118_pp_TWT.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

N

SLOPE INTERCEPTS

68+00 HB

69+00 HB

69+00 MR1

70+00 MR1

71+00 MR1

72+00 MR1

PERMANENT MAINTENANCE ROAD

HURLBUT ST

QWEST

SLOPE INTERCEPTS

FRENCH DRAIN REQ'D.

FRENCH DRAIN REQ'D.

70+00 HB

R/W

R/W

BEGIN CONSTRUCTION
STA. 68+00 HB

STA. 69+10 HB
FE RT

TEMPORARY EASEMENT

END CONSTRUCTION
STA. 69+80 HB

ASPHALTIC SURFACE AND TOP 6" OF BASE AGGREGATE DENSE 1¼-INCH BY OTHERS

PAVEMENT SURFACE AT ℄ (BY OTHERS)

PVI 69+61.16
Elev 585.30

68+00.00
Elev 586.82

PVI 69+66.16
Elev 585.10

69+79.58
Elev 581.74

G = -0.94%

G = -4.00%

G = -25.00%

EXISTING PROFILE AT ℄

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

587.29		587.05		586.82	586.82	586.62	586.58	586.40	586.35	586.11	586.11	584.30	585.87	581.61	585.64	581.90	585.40	581.67	582.89	582.16						
66+00	66+25	66+50	66+75	67+00	67+25	67+50	67+75	68+00	68+25	68+50	68+75	69+00	69+25	69+50	69+75	70+00	70+25	70+50	70+75	71+00	71+25	71+50	71+75	72+00		

600 595 590 585 580 575 570 565

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: HB	SCALE, FEET 0 20 40	SHEET 356 E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050119_pp_HB.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 40

FRENCH DRAIN REQ'D.

N

28+00 EDR | 29+00 EDR | 30+00 EDR | 31+00 EDR | EAST DEERFIELD AVE | 32+00

SHARED USE PATH

R/W

SLOPE INTERCEPTS

R/W

FRENCH DRAIN REQ'D.

END CONSTRUCTION
STA. 28+20 EDR

END CONSTRUCTION
STA. 30+50 EDR

TEMPORARY EASEMENT

STA. 28+65 (EDR)
FE RT

5

5

ASPHALTIC SURFACE AND TOP 6" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS

PAVEMENT SURFACE AT ℄ (BY OTHERS)

PI STA 28+16.62
PI EL 584.24

PI STA 28+29.20
PI EL 586.47

PI STA 28+35.90
PI EL 586.66

PC STA 28+90.00
PC EL 585.43

PI STA 29+25.00
PI EL 584.63

PT STA 29+60.00
PT EL 584.39

PI STA 30+50.00
PI EL 583.77

G = -2.28%

G = 2.93%

G = 17.70%

G = -0.69%

PROPOSED PROFILE AT ℄

EXISTING PROFILE AT ℄

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

| | | |

N

AT&T (DISCONTINUED)

DUCK CREEK

USH 41

8+00 BP1

10+00 BP1

12+00 BP1

14+00 BP1

16+00 BP1

18+00 BP1

20+00 BP1

12+00 NMC

12+00 NIH

16+00 NMC

16+00 NIH

ATC

B-05-681

POTENTIAL RELOCATED ATC FACILITY

SLOPE INTERCEPTS

R/W

ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1¼-INCH BY OTHERS

BEGIN CONSTRUCTION
STA. 14+50 BP1

PVC 7+90.00
Elev 596.06

PVT 8+30.00
Elev 594.74

7+73.05
Elev 596.40

PVI 8+10.00
Elev 595.66

K = 15
L = 40.00'

G = -2.00%

G = -4.60%

PVC 10+35.00
Elev 585.30

PVI 10+85.00
Elev 583.00

PVT 11+35.00
Elev 583.00

L0 11+35.00
Elev 583.00

K = 22
L = 100.00'

EXISTING PROFILE AT ℄

G = 0.00%

PAVEMENT SURFACE AT ℄
(BY OTHERS)

PVC 16+50.00
Elev 583.00

L0 16+50.00
Elev 583.00

PVI 17+00.00
Elev 583.00

PVT 17+50.00
Elev 583.91

K = 55
L = 100.00'

G = 1.81%

STA. 17+10 BP1
1-32' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

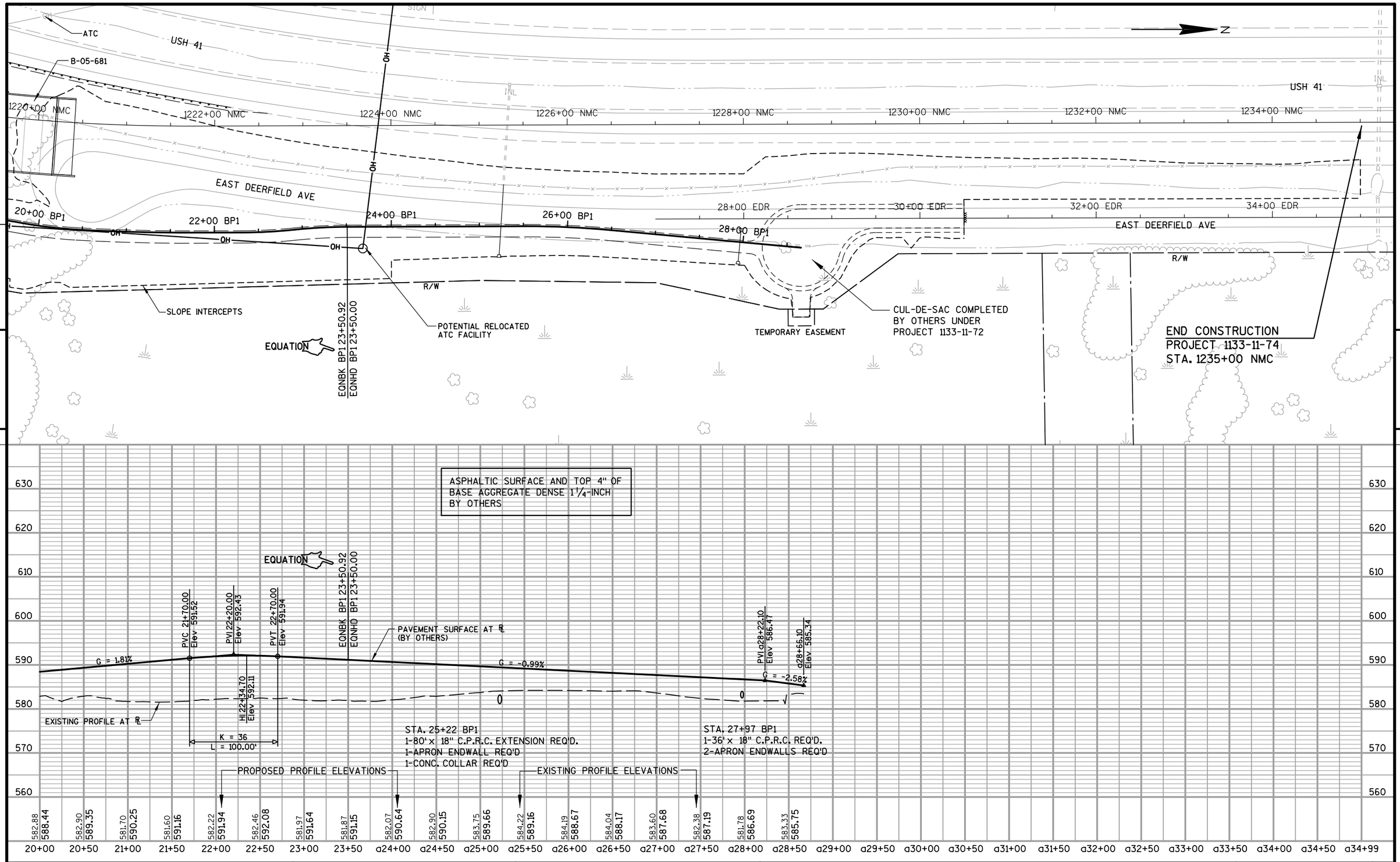
5+00	5+50	6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00	11+50	12+00	12+50	13+00	13+50	14+00	14+50	15+00	15+50	16+00	16+50	17+00	17+50	18+00	18+50	19+00	19+50	20+00
						587.04	595.82	586.38	593.82	586.20	591.51	585.88	589.21	585.20	586.91	584.53	584.66	583.92	583.28	583.27	583.00	585.86	583.00	593.82	583.00	585.91	583.00	593.36	583.00	593.52	583.00	583.87	583.00	582.52	583.00	582.70	583.00	582.64	583.00	579.58	583.00	578.74	583.23	578.74	583.91	578.79	584.81	582.24	585.72	582.41	586.63	582.35	587.53	582.88	588.44

PROJECT NO: 1133-11-74 | HWY: USH 41 | COUNTY: BROWN | PLAN & PROFILE: BP1 | SCALE, FEET 0 50 100 | SHEET 358 | E

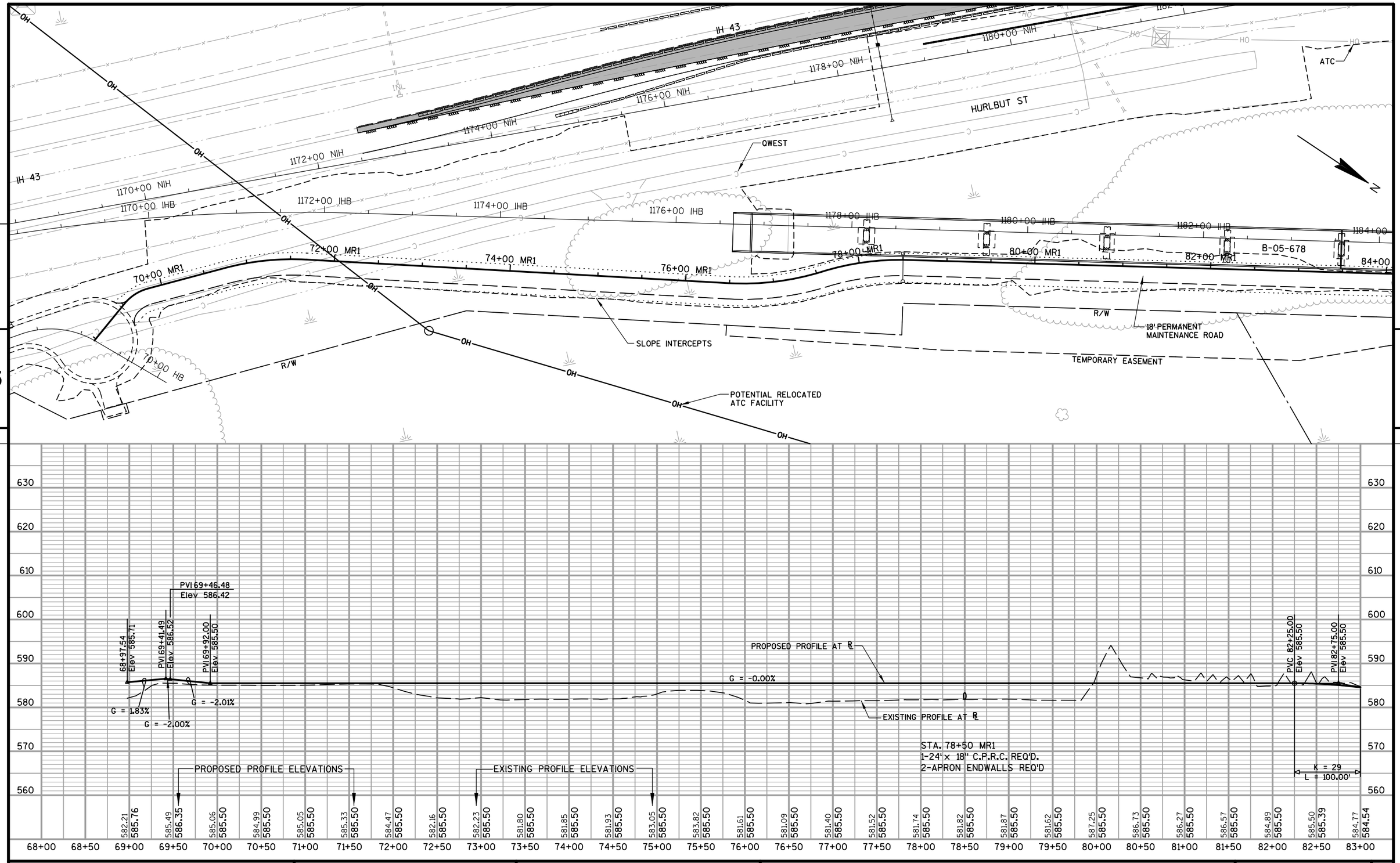
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050121_pp_BP1.dgn

PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: BP1 SCALE, FEET 0 50 100	SHEET 359	E



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: MR1 SCALE, FEET 0 50 100	SHEET 360	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050123_pp_MR1.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

IH 43

HO

ATC

90+00 MR5

1192+00 NIH

92+00 MR5

B-05-679

1194+00 NIH

94+00 MR5

96+00 MR

96+00 MR5

1196+06 NIH

USH 41

1198+00 INIH

1198+00 IHB

1198+00 NIH

1200+00 INIH

1200+00 IHB

SLOPE INTERCEPTS

18' PERMANENT
MAINTENANCE ROAD

94+00 MR1

86+00 MR1

88+00 MR1

90+00 MR1

92+00 MR1

1184+00 IHB

1186+00 IHB

1188+00 IHB

1190+00 IHB

1192+00 IHB

1194+00 IHB

84+00 MR1

B-05-678

R/W

TEMPORARY EASEMENT

18' PERMANENT
MAINTENANCE ROAD

PROVIDE VEHICLE
TURN AROUND AREA

OH

ATC

5

5

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

630 620 610 600 590 580 570 560

K = 29
L = 100.00'

PVRC 83+25.00
Elev 583.79

PVI 83+75.00
Elev 582.09

PVT 84+25.00
Elev 582.12

G = 0.07%

PVI 86+10.50
Elev 582.25

G = 5.00%

PVI 86+60.50
Elev 584.75

G = -4.83%

PVI 86+83.50
Elev 584.75

G = 0.00%

PVI 87+33.50
Elev 582.34

STA. 86+72 MR1
1-22' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

PROPOSED PROFILE AT ℄

EXISTING PROFILE AT ℄

G = 0.07%

PVI 92+38.50
Elev 582.69

G = 4.33%

PVI 92+88.50
Elev 584.85

PVI 93+11.50
Elev 584.85

G = -4.16%

PVI 93+61.50
Elev 582.77

G = 0.07%

PVI 94+20.47
Elev 582.81

G = 2.00%

96+08.44
Elev 586.57

G = 0.00%

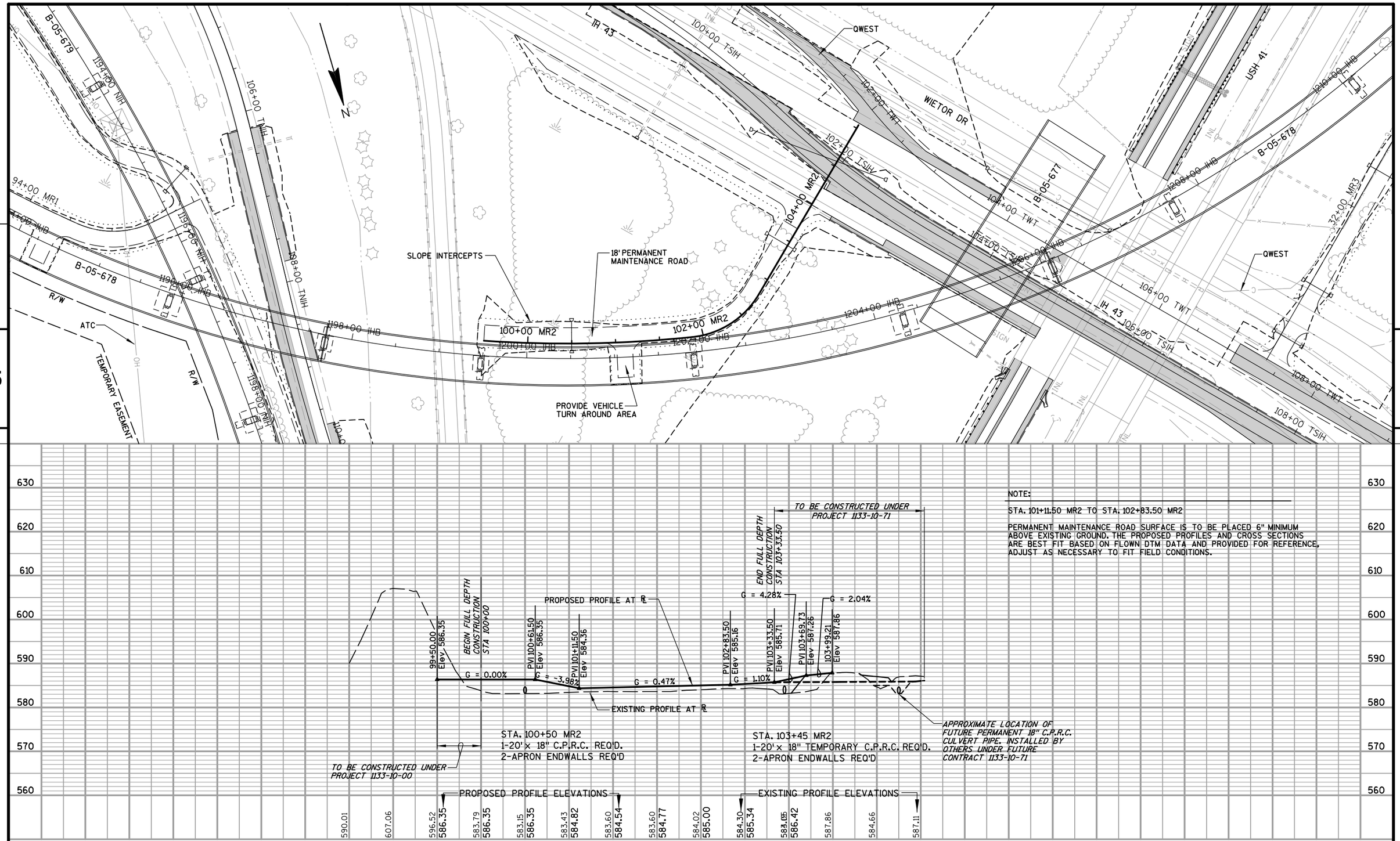
STA. 93+00 MR1
1-22' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

K = 29
L = 100.00'

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

| | | |



NOTE:

STA. 101+11.50 MR2 TO STA. 102+83.50 MR2

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: MR2	SCALE, FEET 0 50 100	SHEET 362	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050125_pp_MR2.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

USH 41

106+00 TSH

106+00 TWT

1206+00 IHB

B-05-678

1210+00 IHB

1212+00 IHB

1214+00 IHB

1216+00 IHB

1218+00 IHB

1188+00 NMC

1186+00 NMC

1184+00 NMC

1184+00 EVEB

QWEST

32+00 MR3

34+00 MR3

36+00 MR3

38+00 MR3

108+00 TSH

108+00 TWT

IH 43 RAMPS

WIETOR DR

18' PERMANENT MAINTENANCE ROAD

PROVIDE TEMPORARY CONNECTION TO EXISTING SB IH 43 & WIETER DR.

PROVIDE VEHICLE TURN AROUND AREA

SLOPE INTERCEPTS

R/W

R/W

TEMPORARY EASEMENT

ATT

ATC

KDL

SLOPE INTERCEPTS

POTENTIAL RELOCATED ATC FACILITY

LTD RAILROAD

WISCONSIN CENTRAL

GBMSD

POTENTIAL RELOCATED GBMSD FACILITY

H.E.

OH

SAN

C-UG

N

5

5

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

CONNECT TO TWT

30+05.04 Elev 588.89

PVI 30+40.00 Elev 588.72

G = -0.50%

G = -2.91%

STA. 30+39 MR3
1-20' x 18" TEMPORARY C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

APPROXIMATE LOCATION OF FUTURE PERMANENT 18" C.P.R.C. CULVERT PIPE. INSTALLED BY OTHERS UNDER FUTURE CONTRACT 1133-10-71

TO BE CONSTRUCTED UNDER PROJECT 1133-10-71

TEMPORARILY CONNECT TO EXISTING WIETOR DRIVE

PVI 31+61.50 Elev 585.19

PVI 31+88.00 Elev 585.13

G = -0.21%

G = 4.00%

PVI 32+38.50 Elev 587.15

PVI 32+61.50 Elev 587.15

G = 0.00%

G = -4.49%

PVI 33+12.00 Elev 584.88

STA. 31+00 MR3
1-20' x 18" TEMPORARY C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

PROPOSED PROFILE AT ℄

G = 0.17%

PVI 35+95.00 Elev 586.35

G = 0.32%

EXISTING PROFILE AT ℄

PVI 37+62.00 Elev 585.88

G = 1.39%

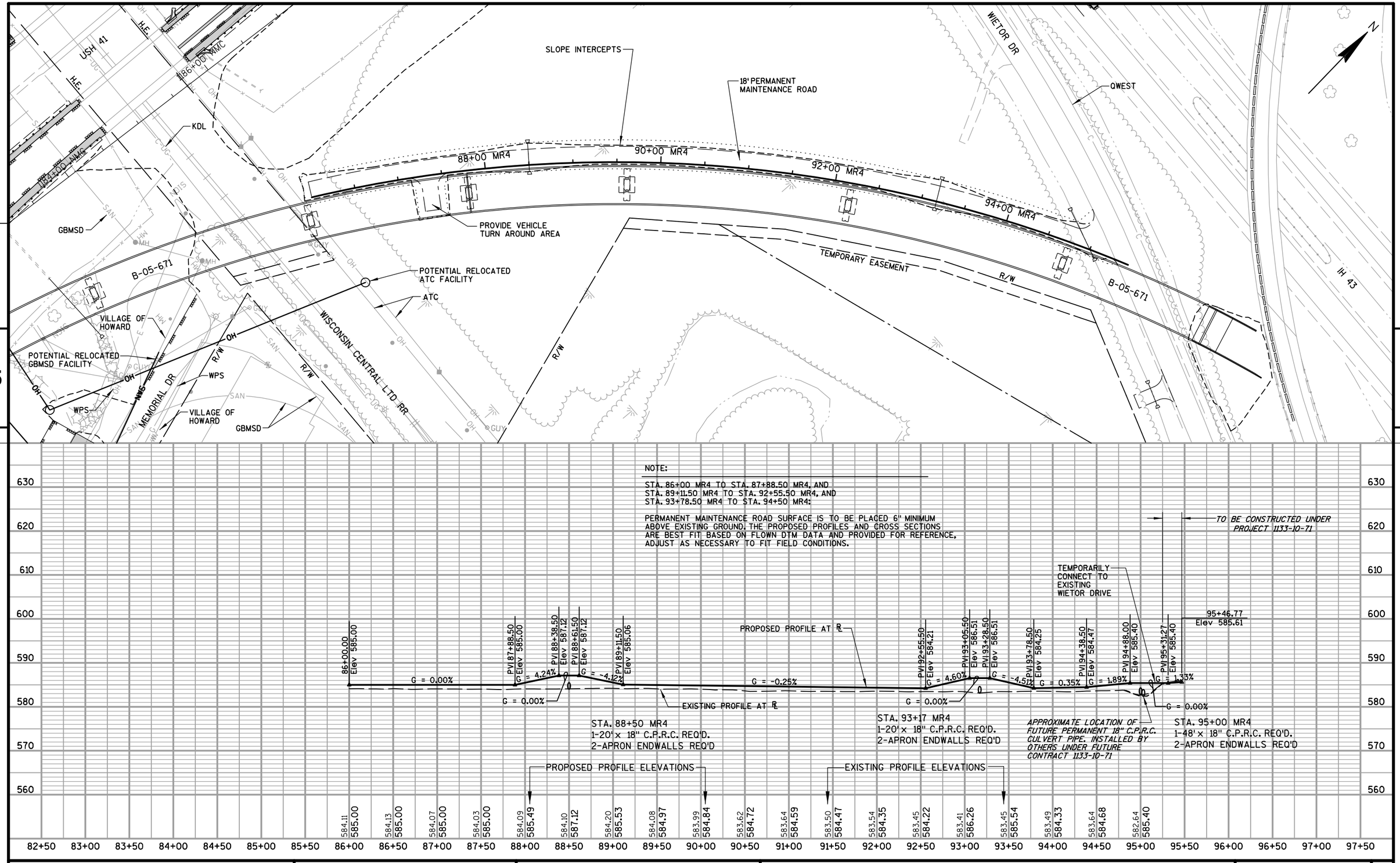
38+10.00 Elev 586.55

STA. 32+50 MR3
1-20' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

PROPOSED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

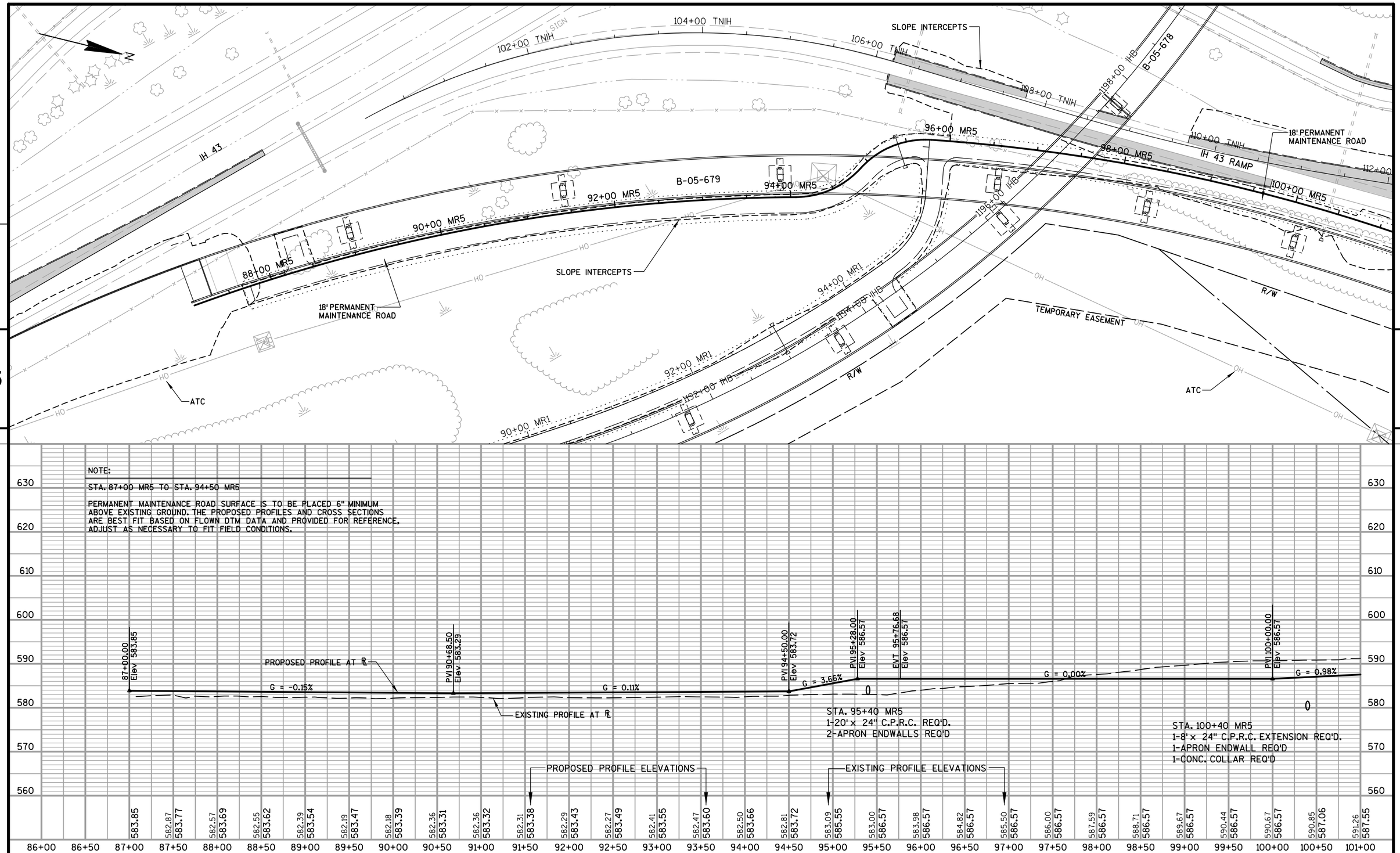
| | | |



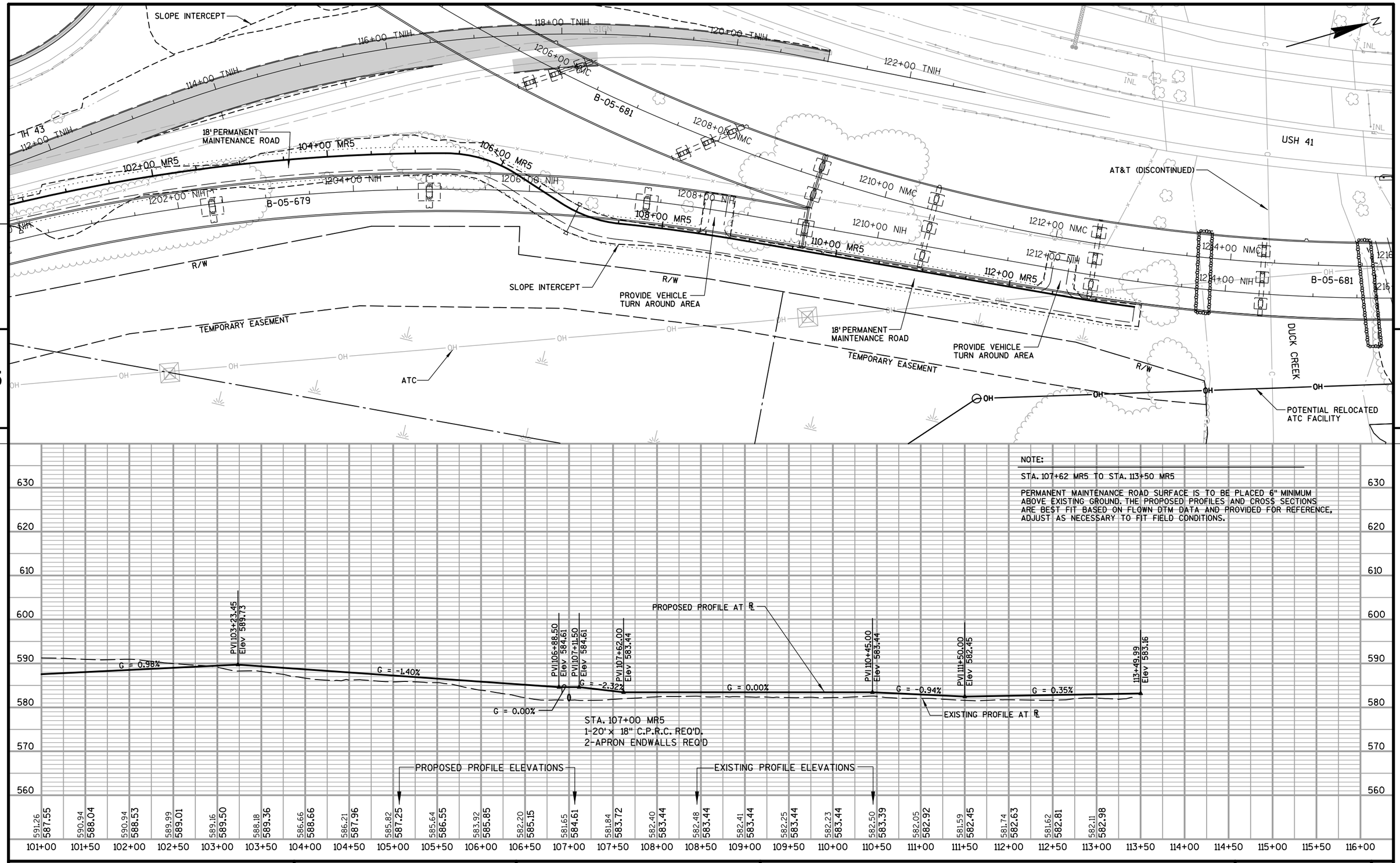
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: MR4	SCALE, FEET 0 50 100	SHEET 364	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050127_pp_MR4.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: MR5	SCALE, FEET 0 50 100	SHEET 365	E



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE: MR5 SCALE, FEET 0 50 100	SHEET 366	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_050129_pp_MR5.dgn PLOT BY : kk226 PLOT DATE : 5/31/2013 PLOT SCALE : 1:100

Standard Detail Drawing List

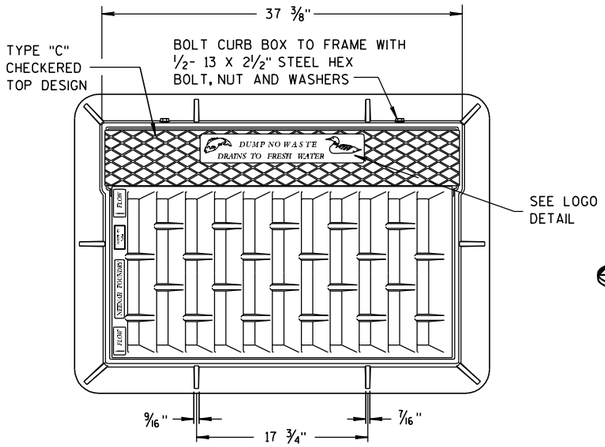
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D13-01	SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-12B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-12C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E05-05	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E06-04	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
10A18-04A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
10A18-04B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

6

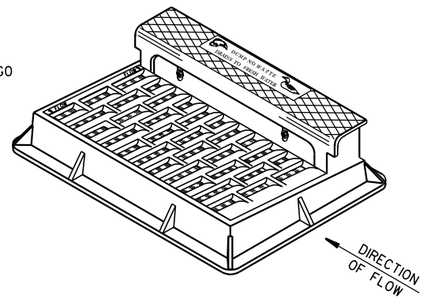
Standard Detail Drawing List

14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C26-02	END-OF-ROADWAY SIGNING
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15D05-02	TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER
15D12-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-01	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-01	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-02	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

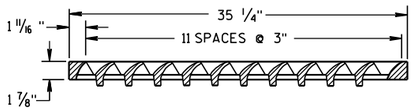
6

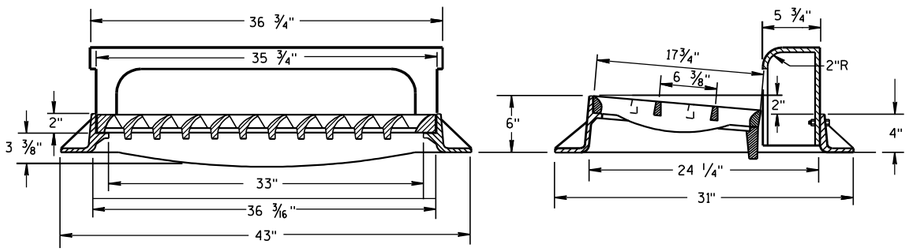


NOTE:
GRATE IS REVERSIBLE.



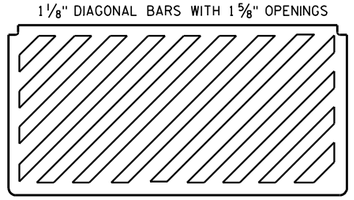
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

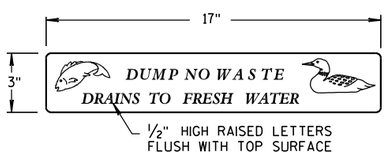
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



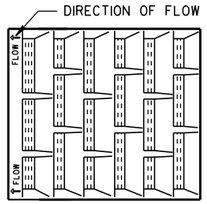
SPECIAL GRATE FOR TYPE "H" COVER

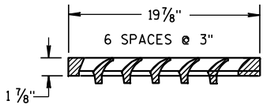
(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

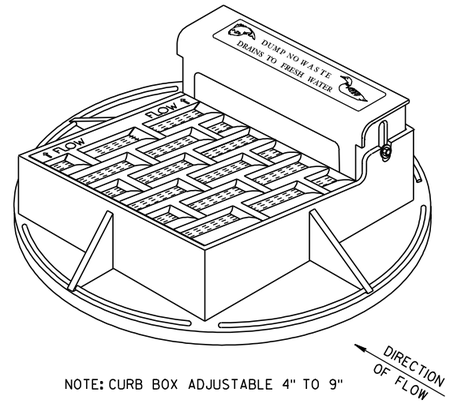
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



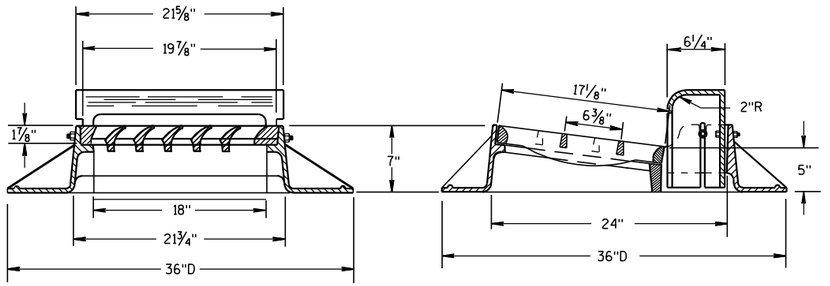
LOGO DETAIL







NOTE: CURB BOX ADJUSTABLE 4" TO 9"



TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.

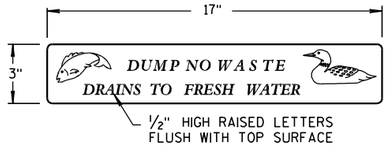
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

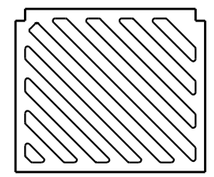
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.

1" DIAGONAL BARS WITH 1 1/2" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

INLET COVERS TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

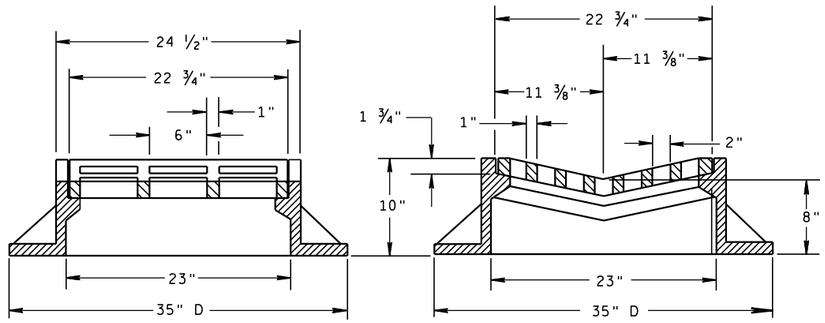
APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
369
FHWA

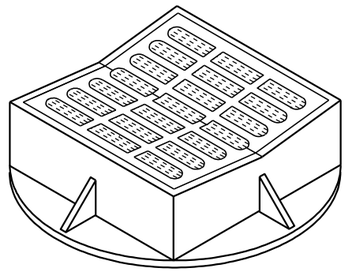
6

S.D.D. 8 A 5-18a

6

S.D.D. 8 A 5-18a

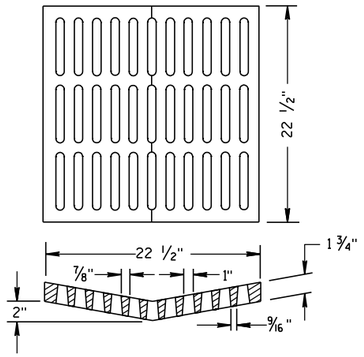




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

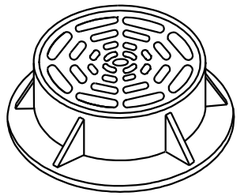


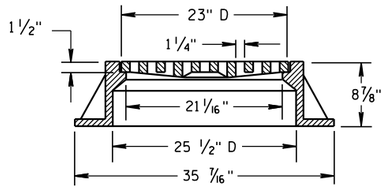
ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE





TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

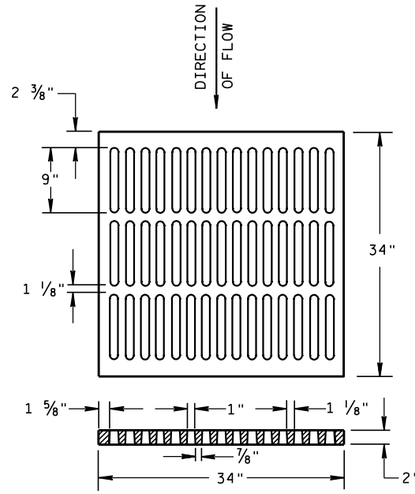
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

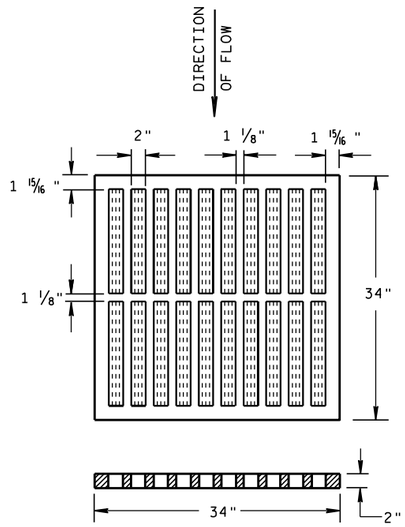


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

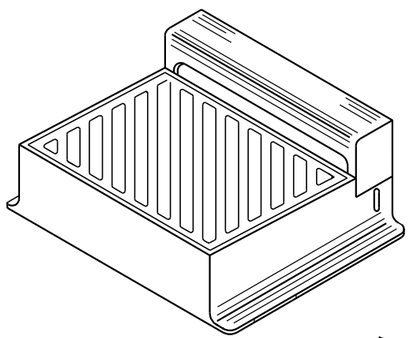


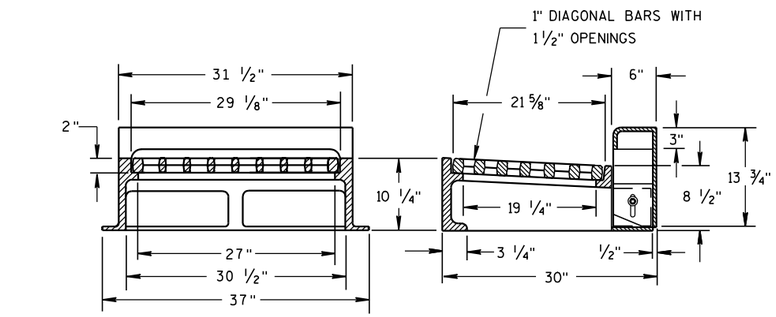
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

370

ENT

FHWA

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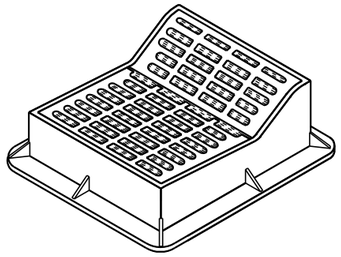
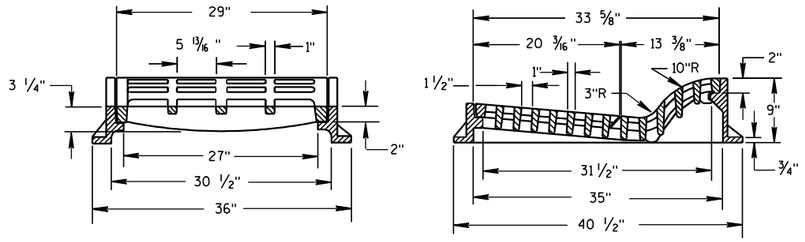
S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



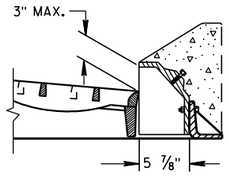


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

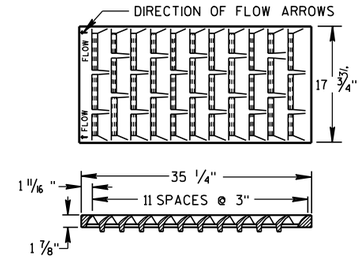
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

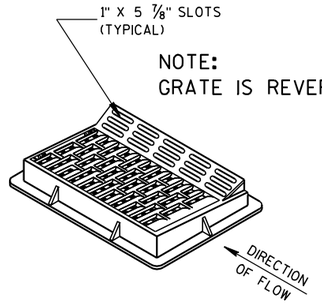
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

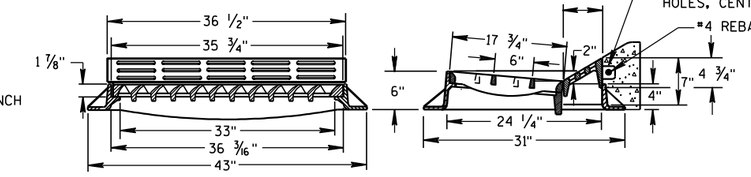
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

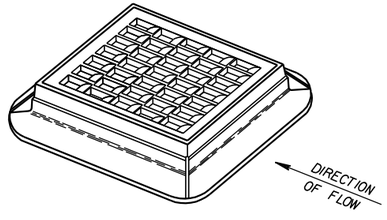


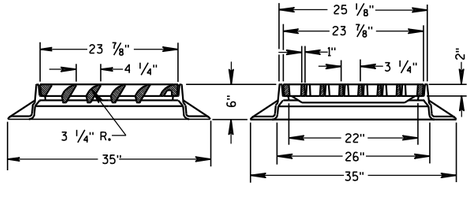
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

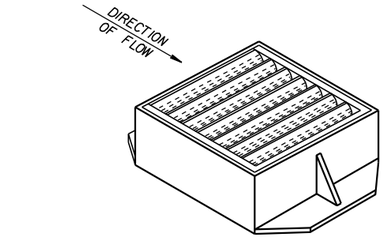


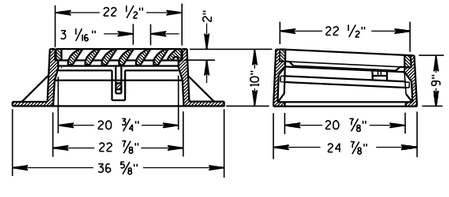


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

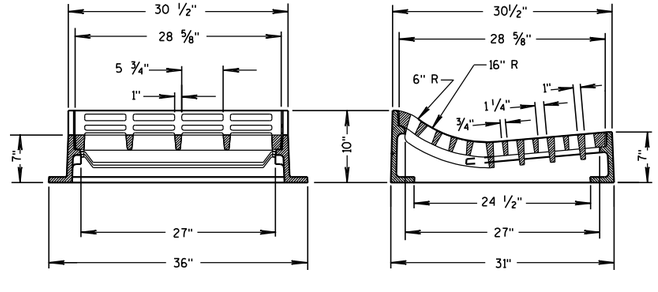




TYPE "V"

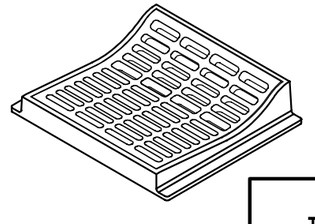
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 A 5-18c

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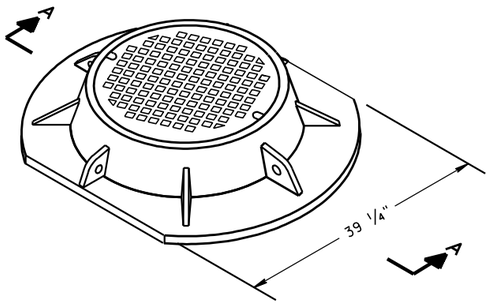
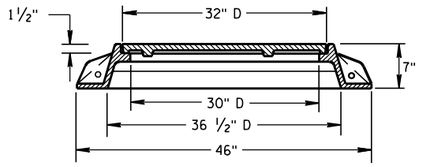
S.D.D. 8 A 5-18c



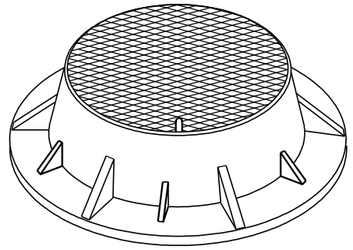


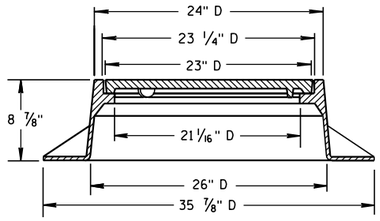
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

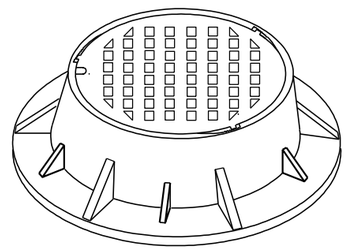


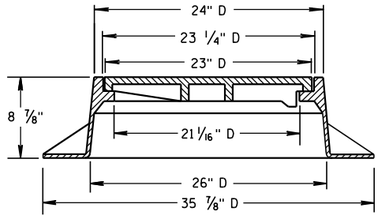


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

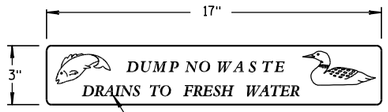
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

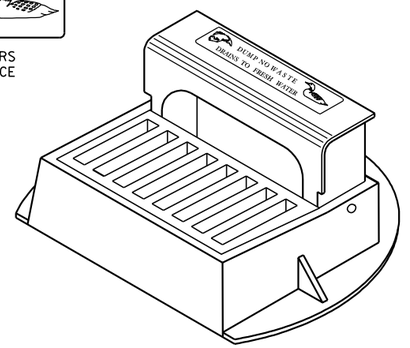
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

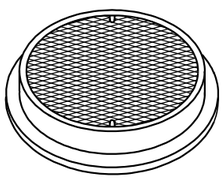
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

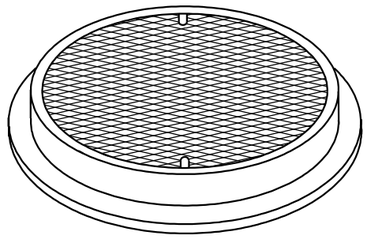
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

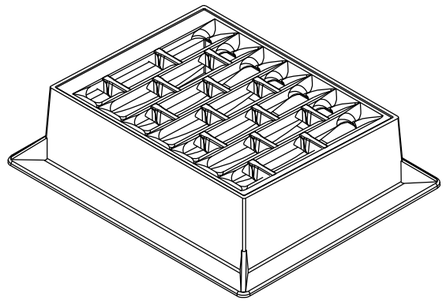


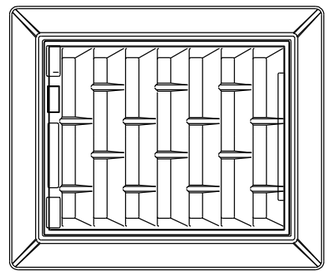
LOGO DETAIL

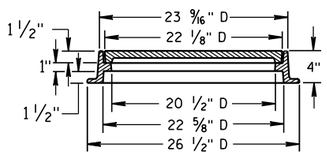








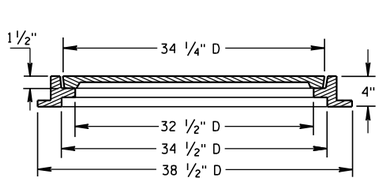




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

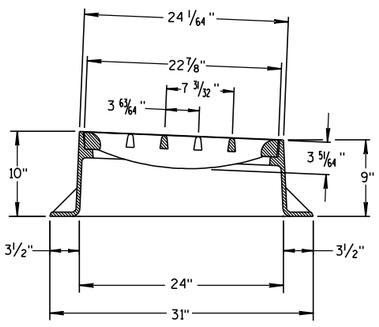
FRAME.....81 LBS.
LID.....77 LBS.

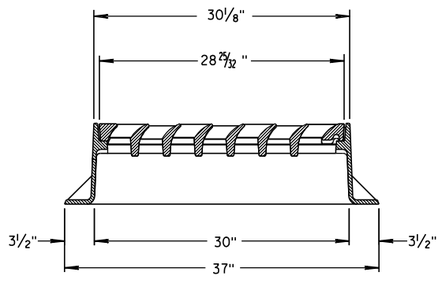


TYPE "M"

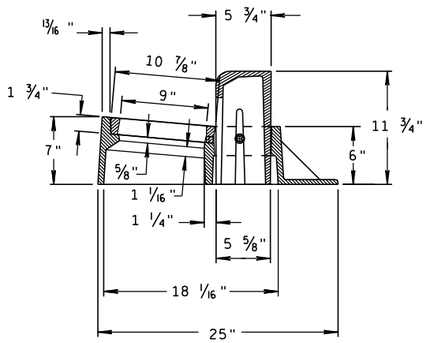
(APPROXIMATE WEIGHT 377 LBS.)

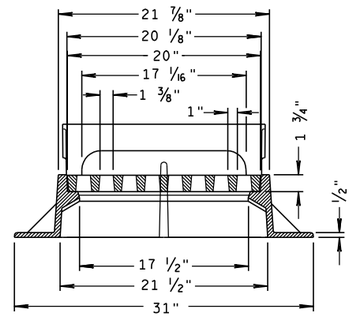
FRAME..... 125 LBS.
LID..... 252 LBS.





INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 8 A 5-18d

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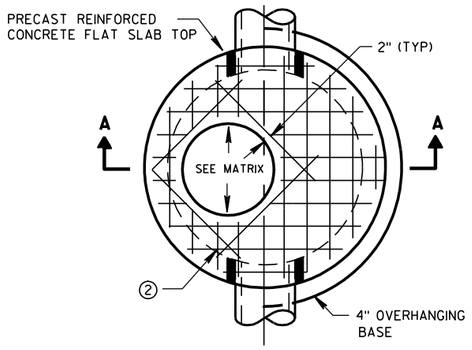
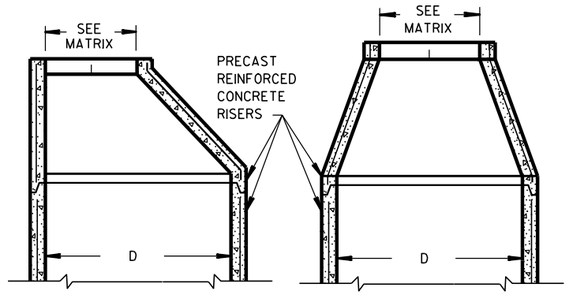
S.D.D. 8 A 5-18d

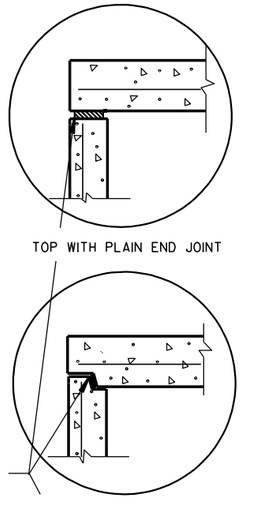


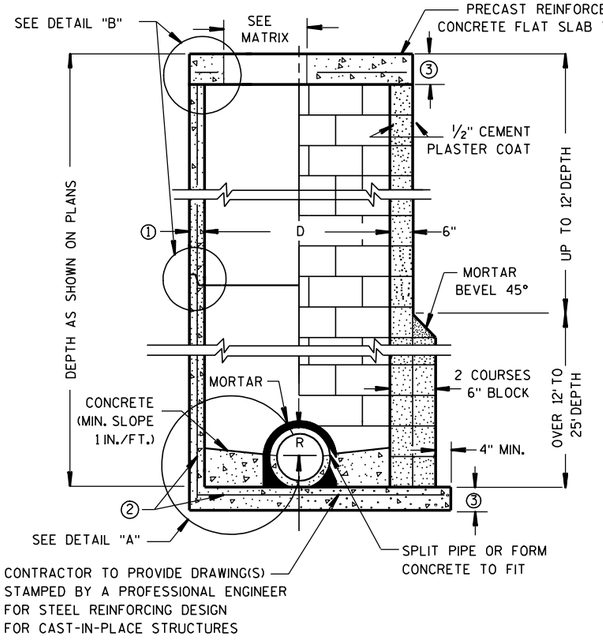
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

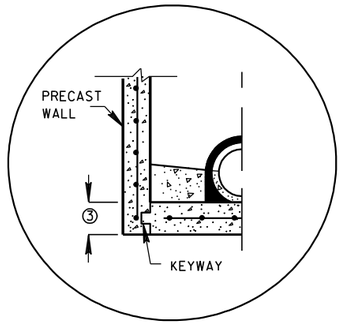
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



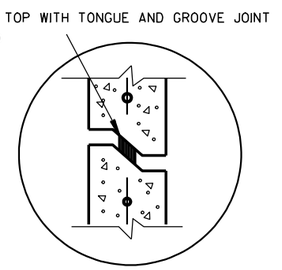


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

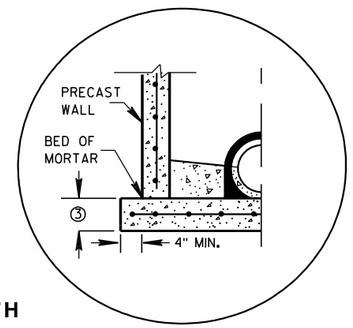
CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION

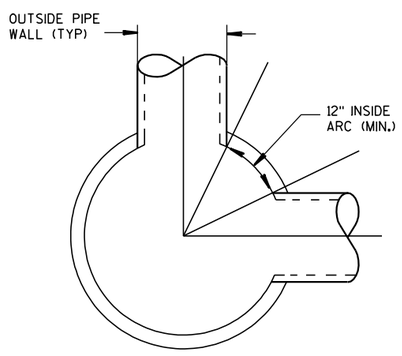


DETAIL "B"



SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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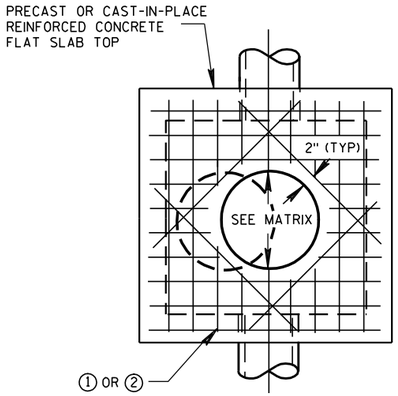
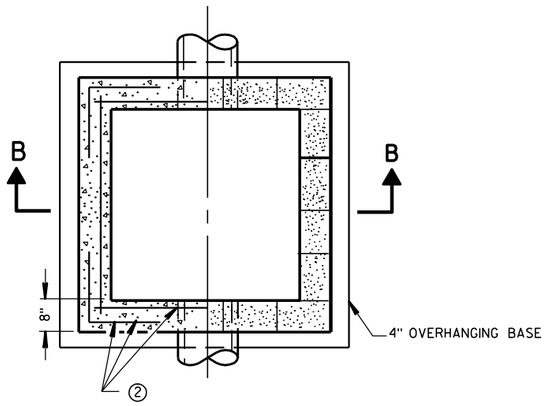
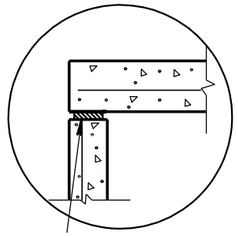


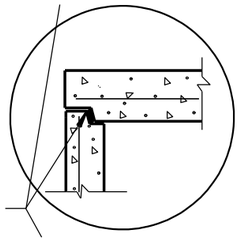
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

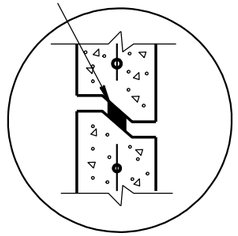


TOP WITH PLAIN END JOINT



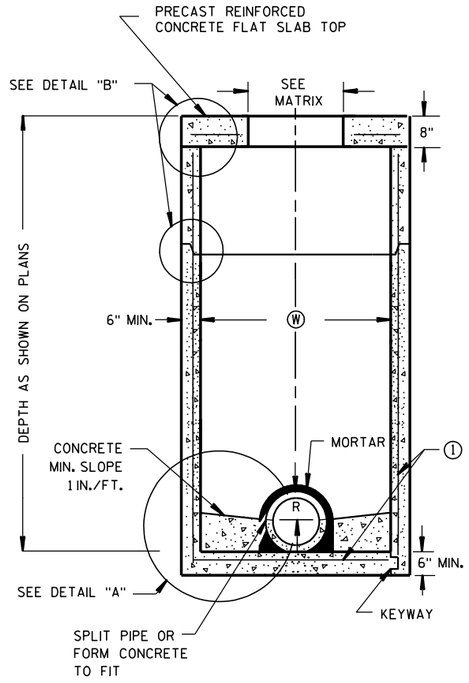
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT

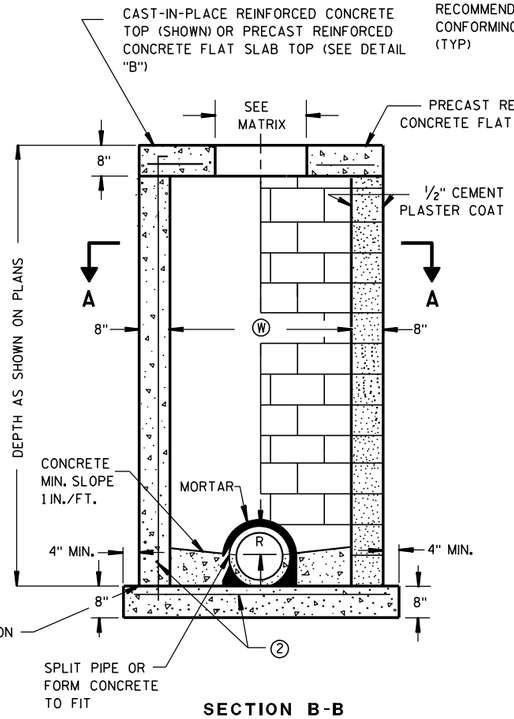


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

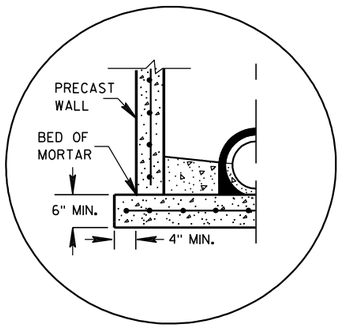


SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "C". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

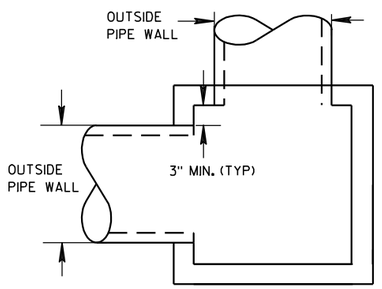
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH Ⓦ (IN)	LENGTH Ⓛ (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER
374
FHWA

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S.D.D. 8 B 10-1

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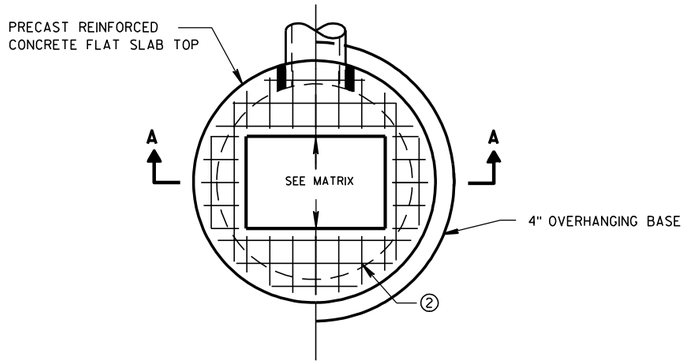
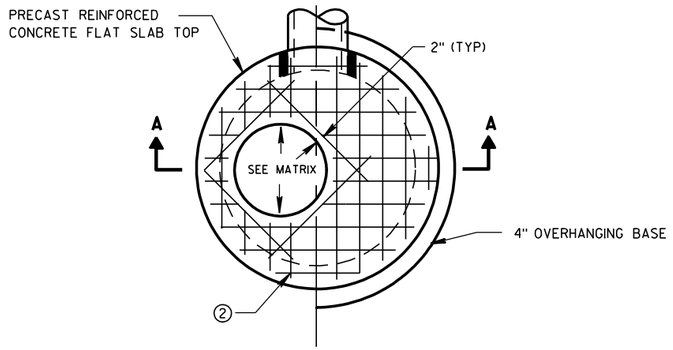
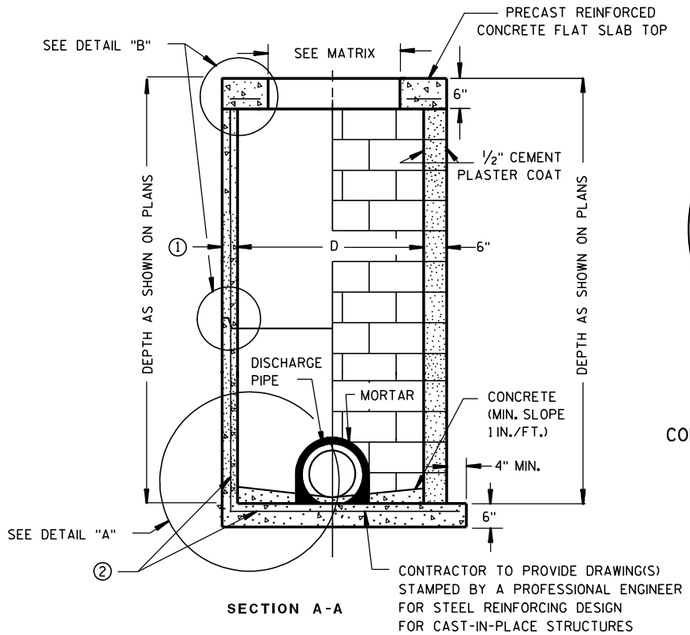
S.D.D. 8 B 10-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

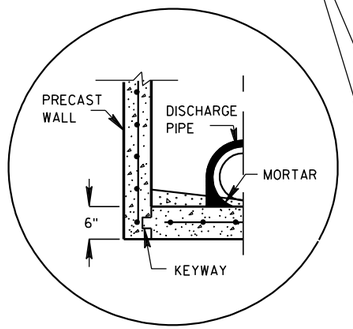


SECTION A-A

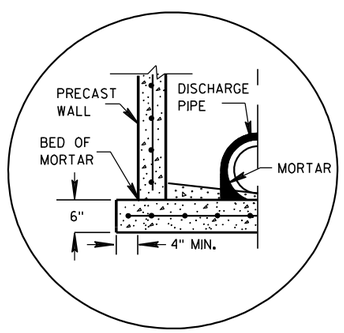
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

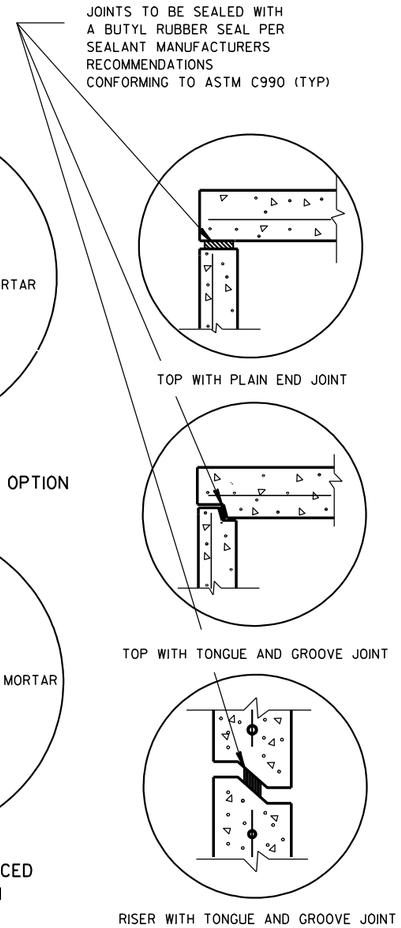


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

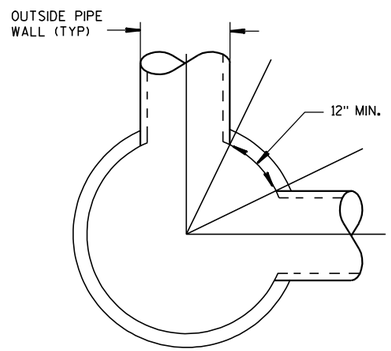
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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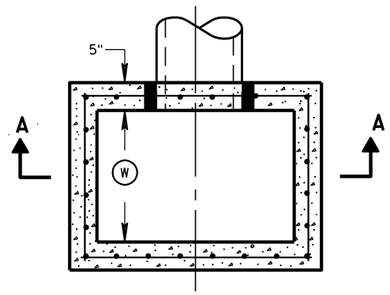
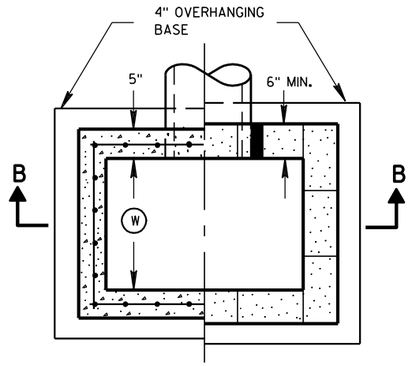
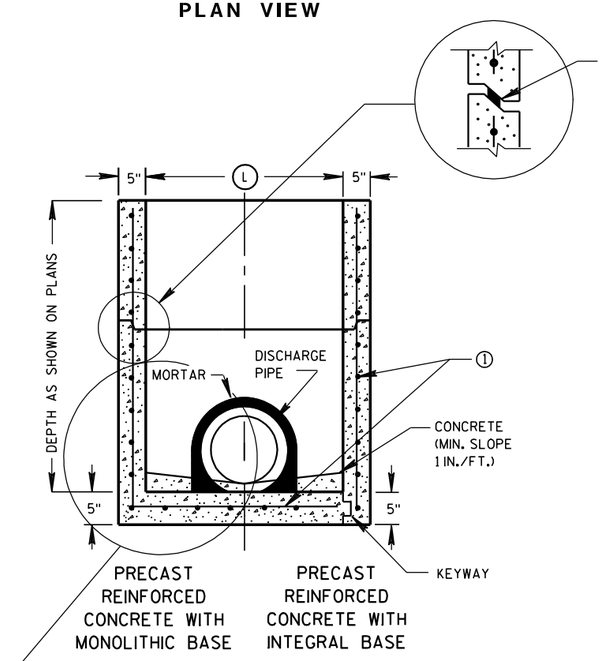


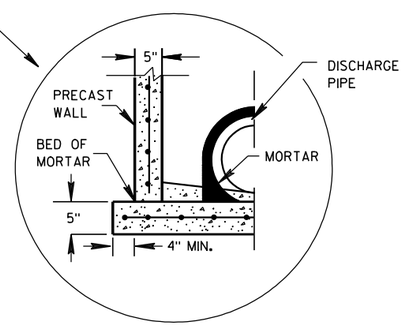
PLAN VIEW



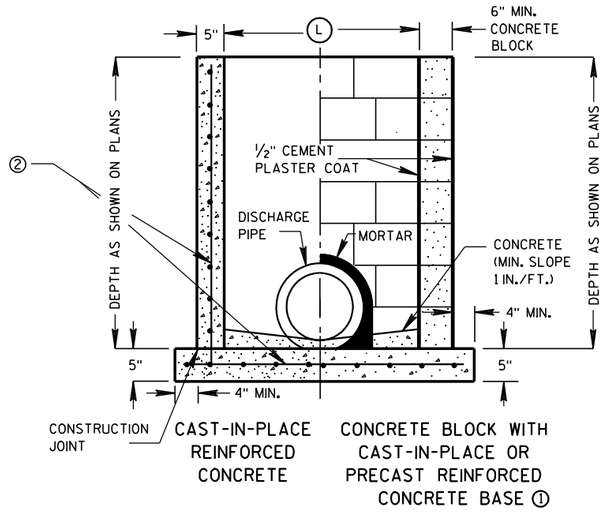
PLAN VIEW



SECTION A-A



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

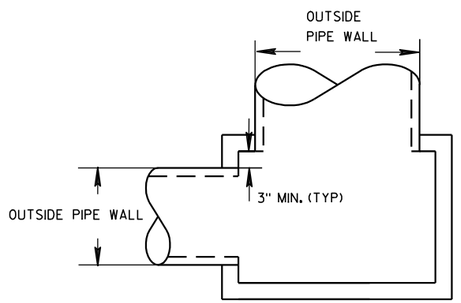
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

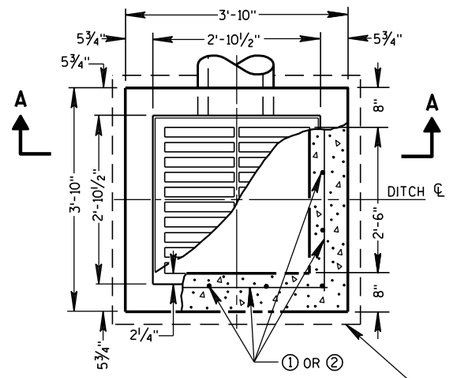
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

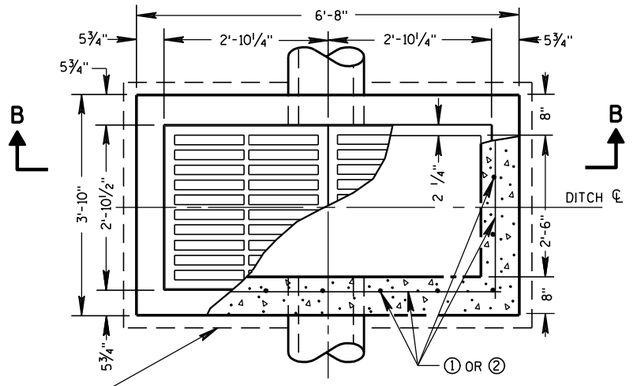
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D ENGINEER
FHWA

6

S.D.D. 8 C 7-1

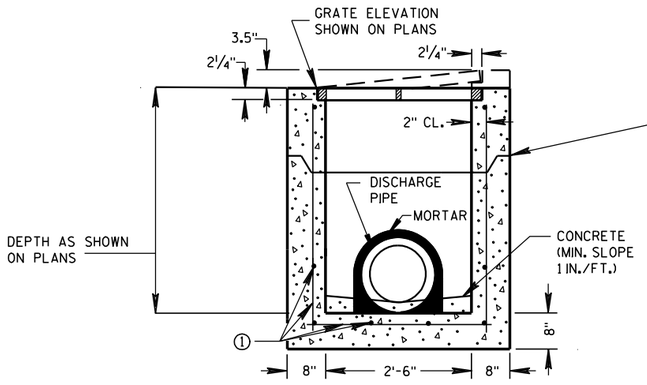


PLAN VIEW

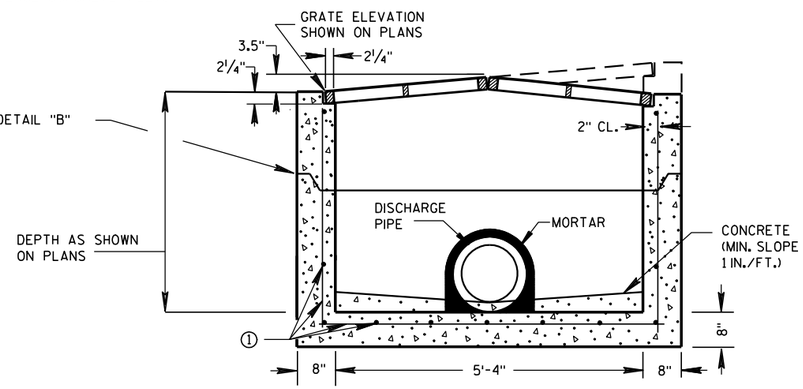


PLAN VIEW

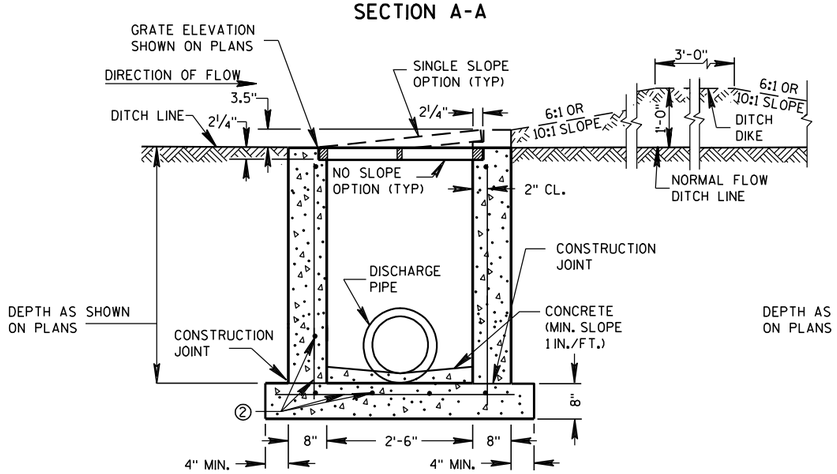
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



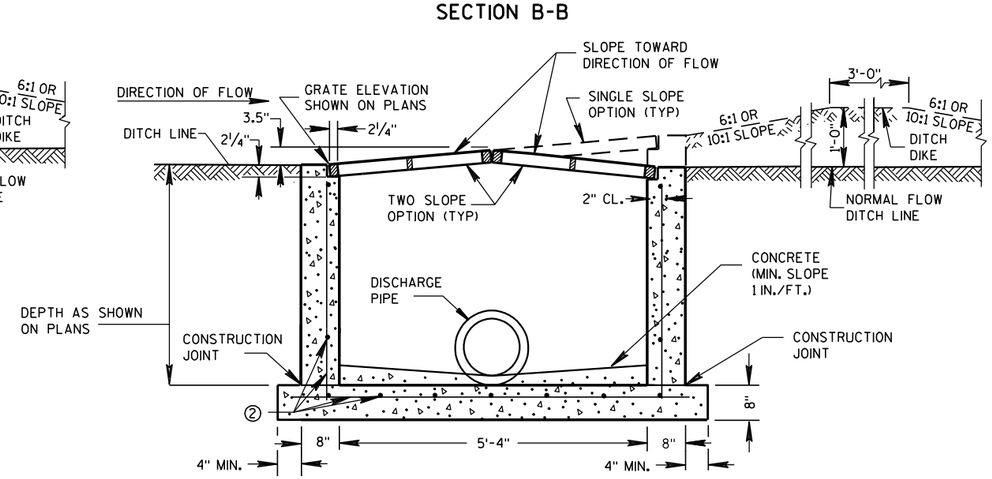
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

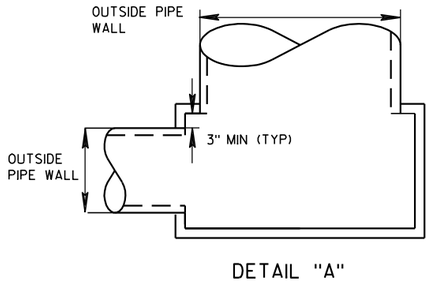
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

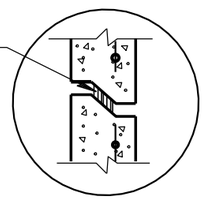
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 GRATE

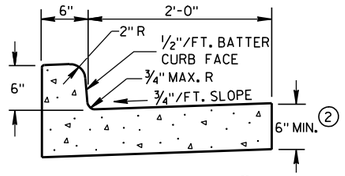
INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

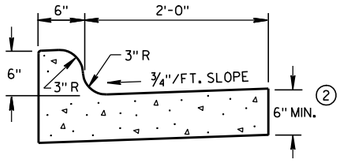
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

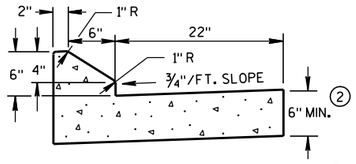
6
S.D.D. 8 C 8-1



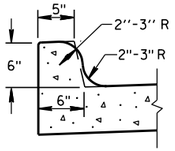
TYPES A & D (1)



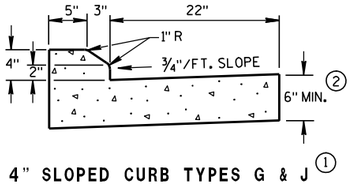
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

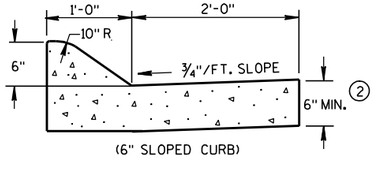


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

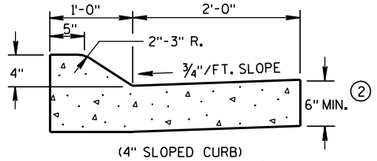


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

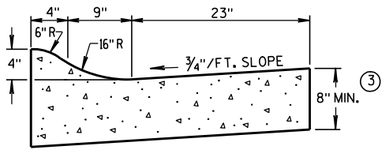


(6" SLOPED CURB)



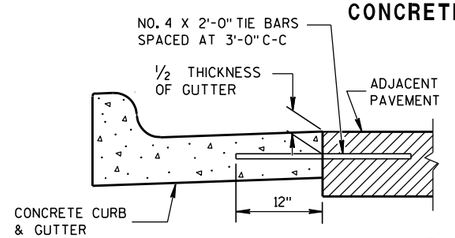
(4" SLOPED CURB)

TYPES A & D (1)



4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)

REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

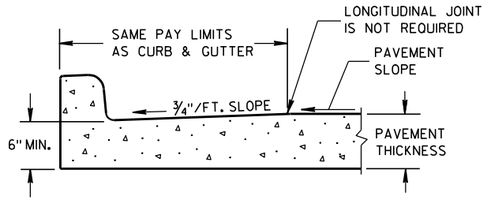
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

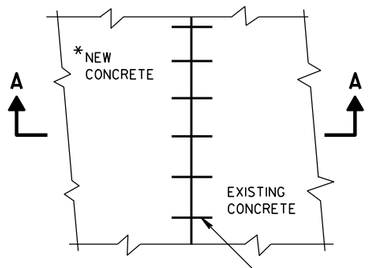
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

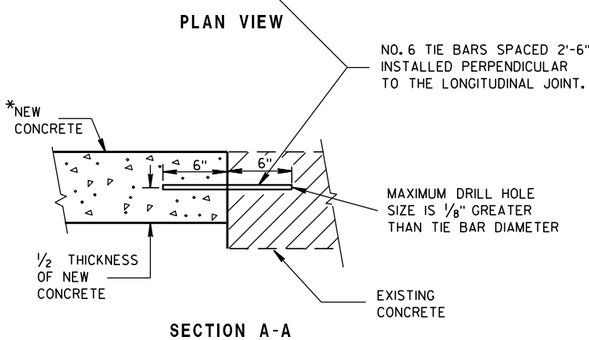


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



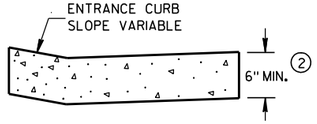
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

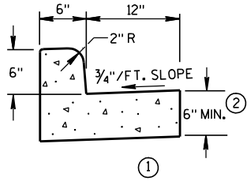


SECTION A-A

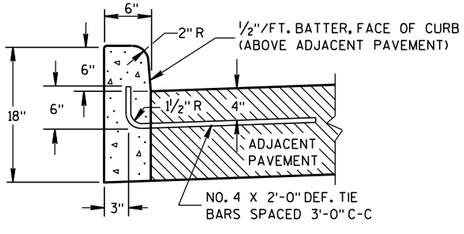
TIE BARS DRILLED INTO EXISTING PAVEMENT



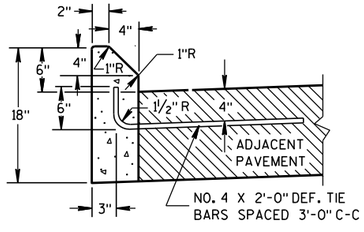
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



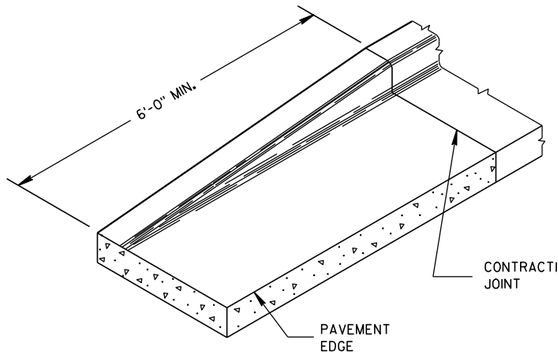
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

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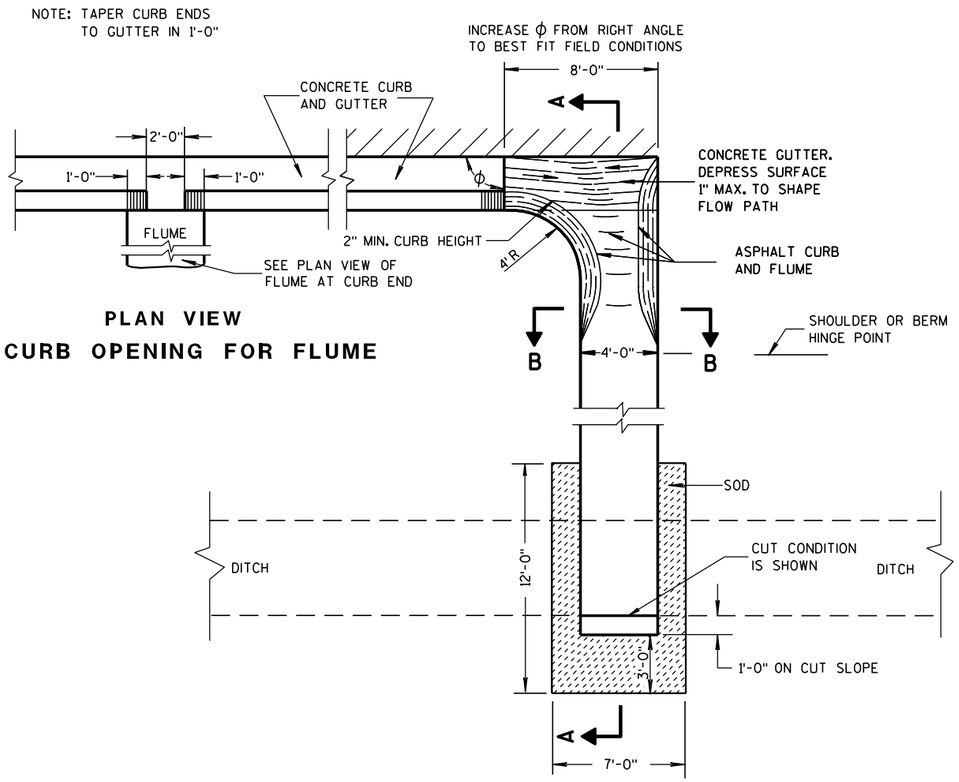
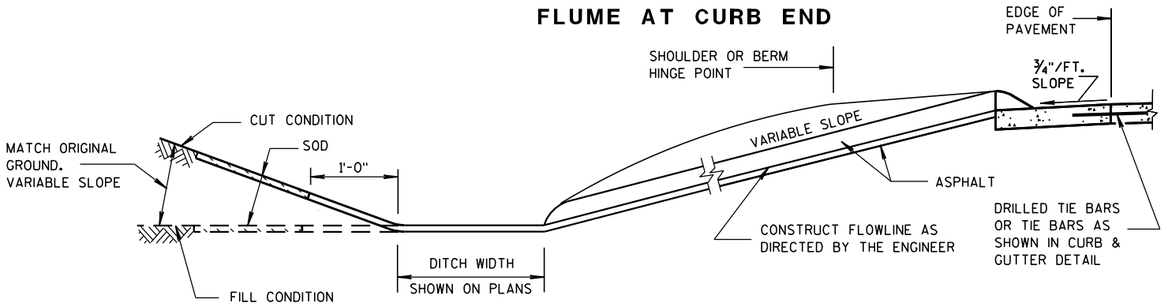
S.D.D. 8 D 1-17

ASPHALTIC FLUME

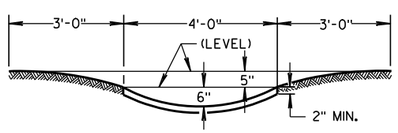


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

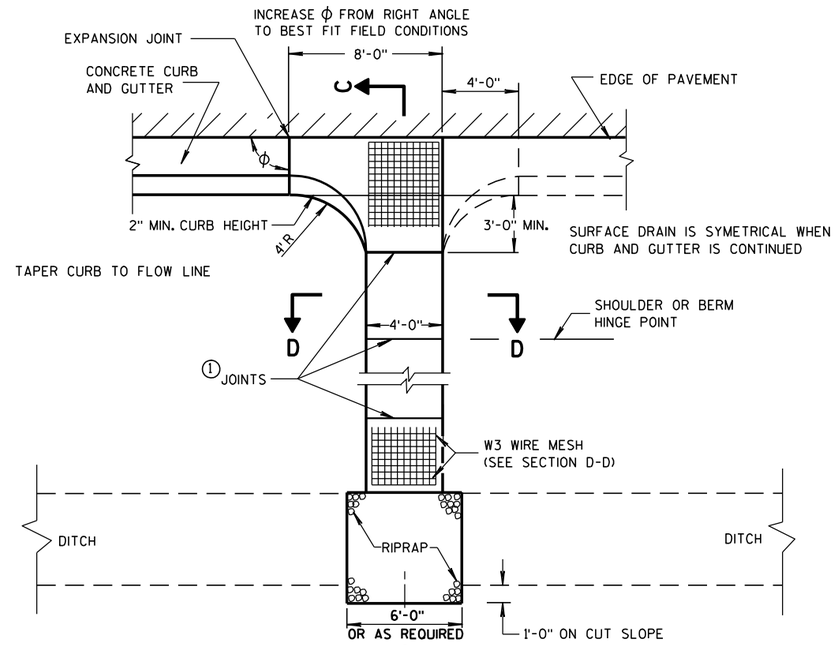
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

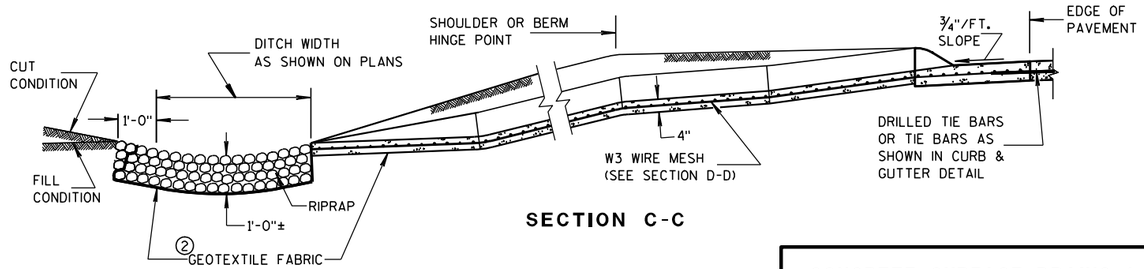
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

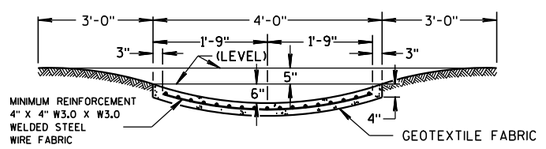
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
379
MENT
FHWA

6

S.D.D. 8 D 4-5

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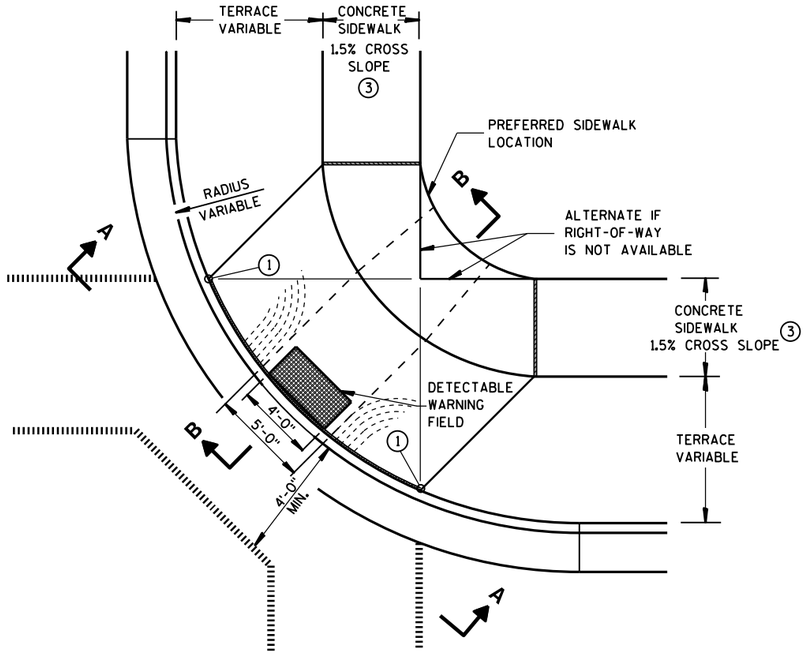
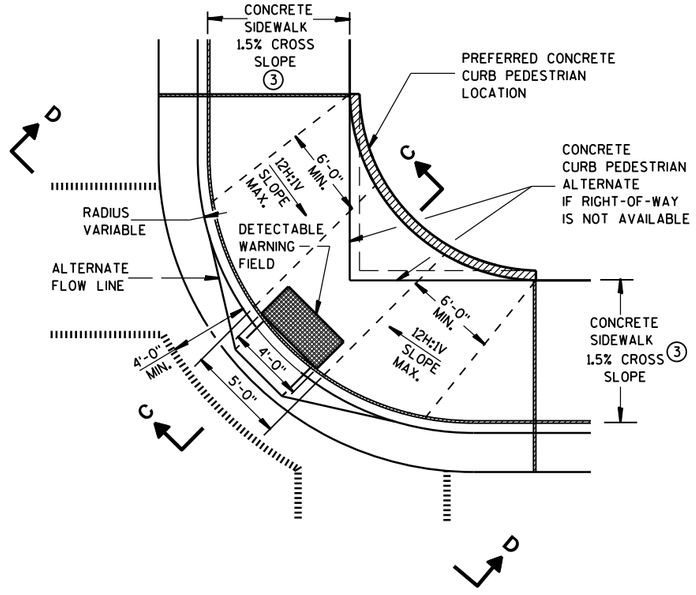
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

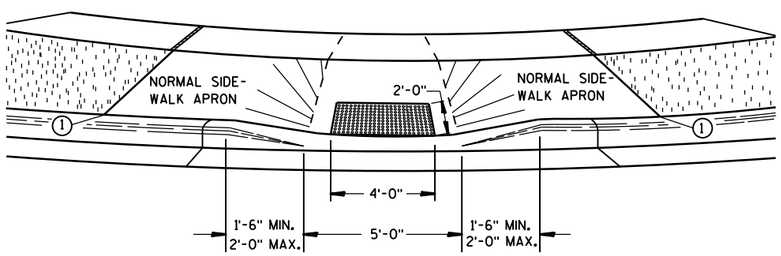
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

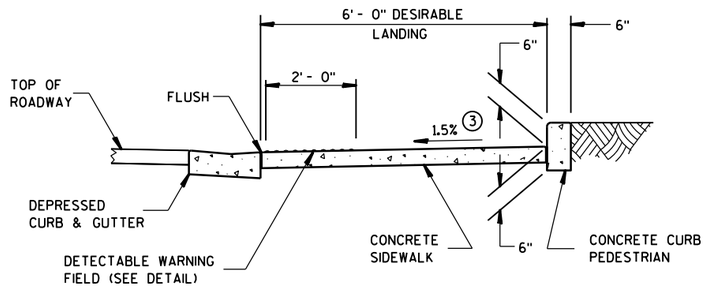
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

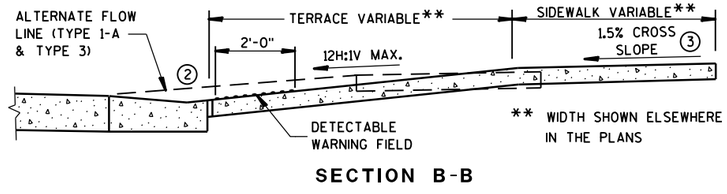
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



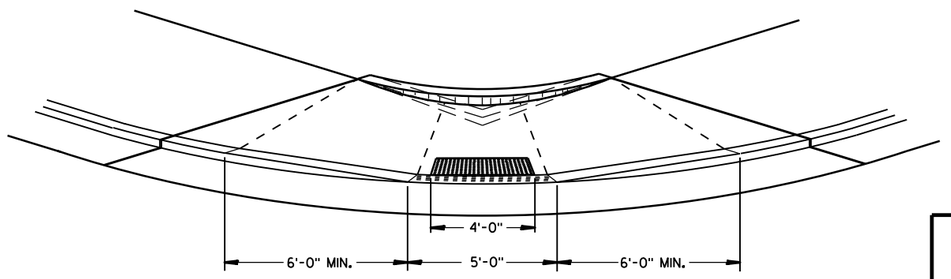
VIEW A-A



SECTION C-C



SECTION B-B



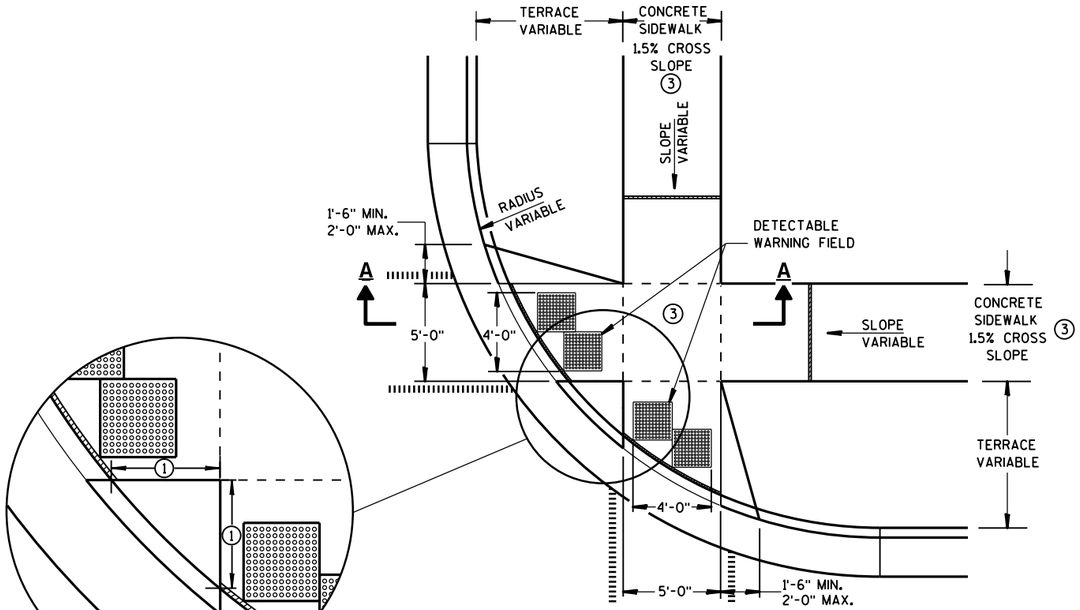
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

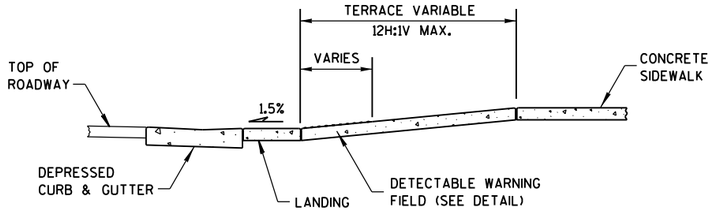
S.D.D. 8 D 5-15a



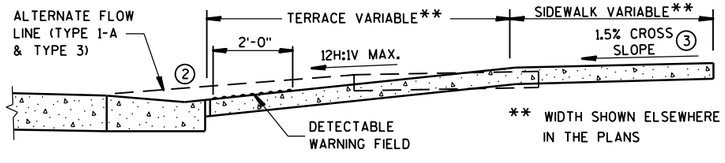
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

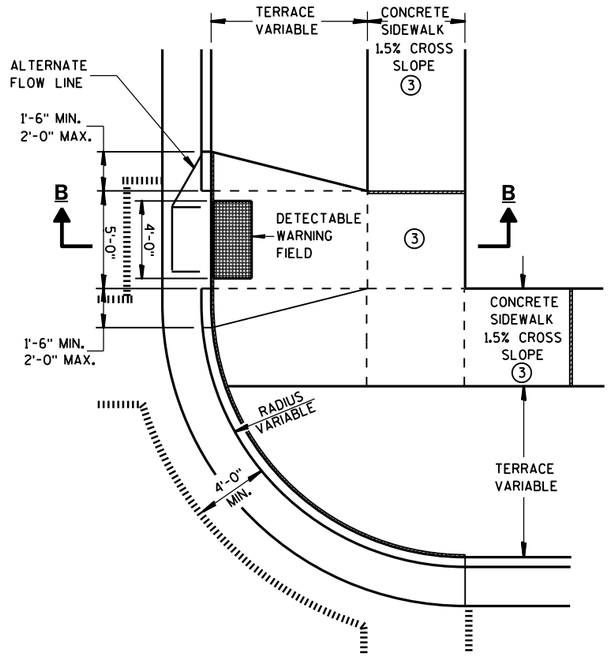
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

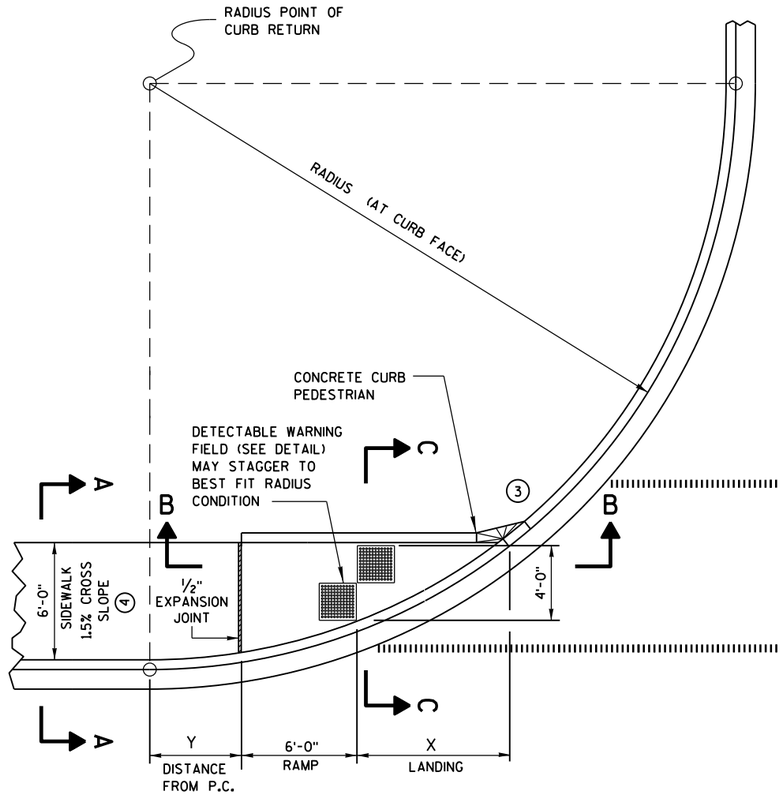
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

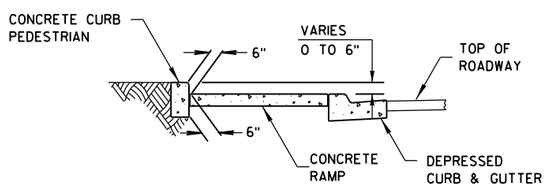
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

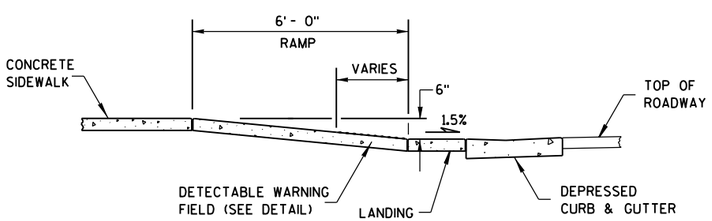
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



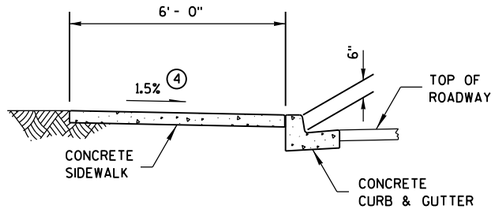
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

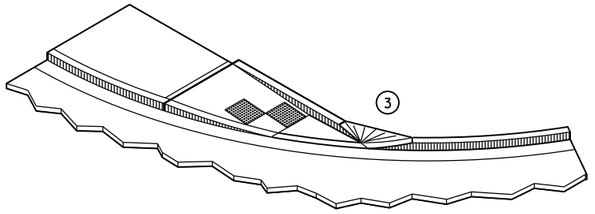
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

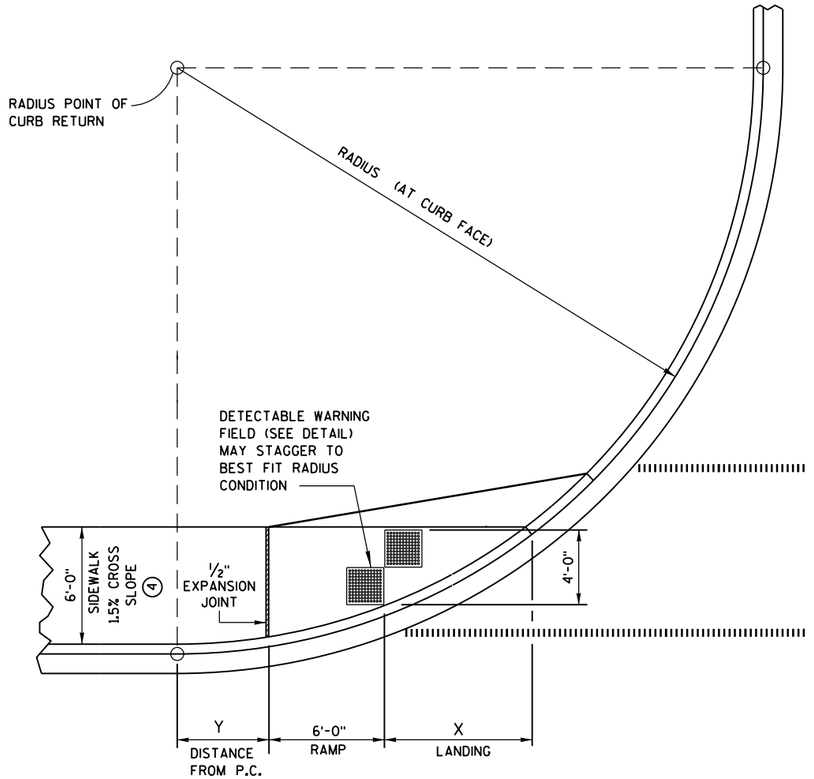
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

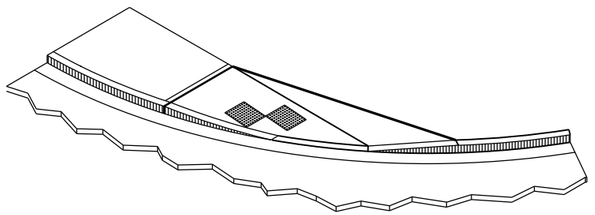
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

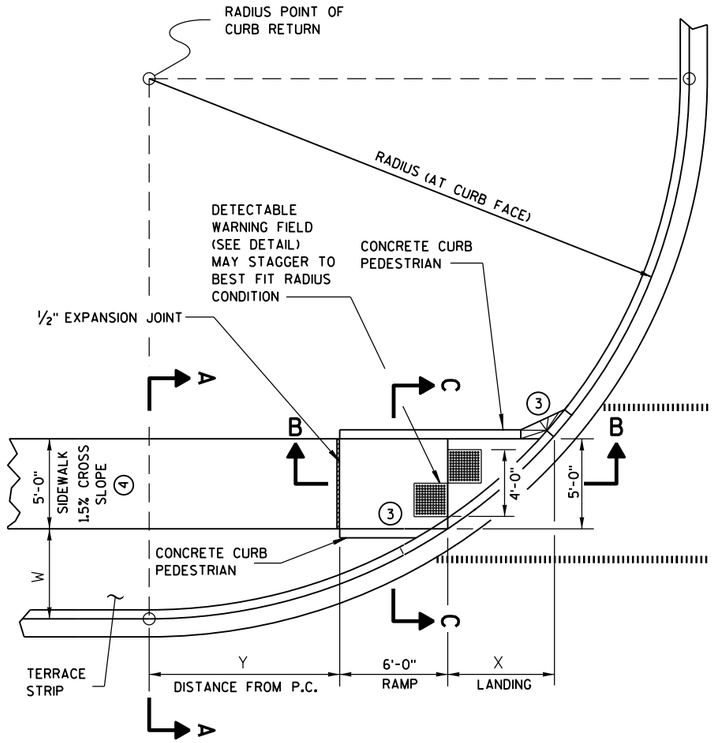
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

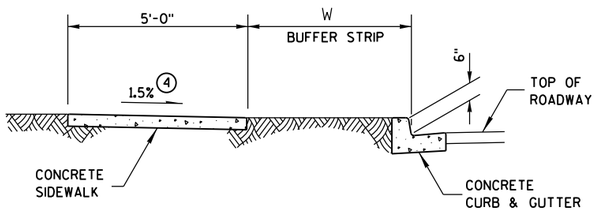
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

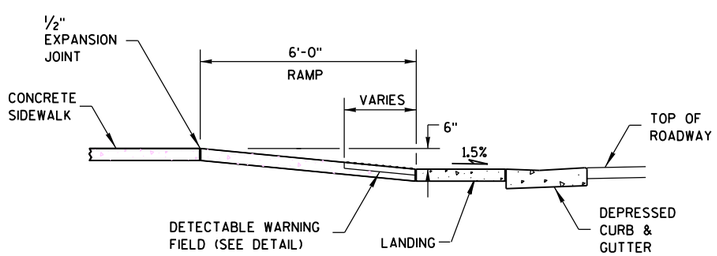
S.D.D. 8 D 5-15c



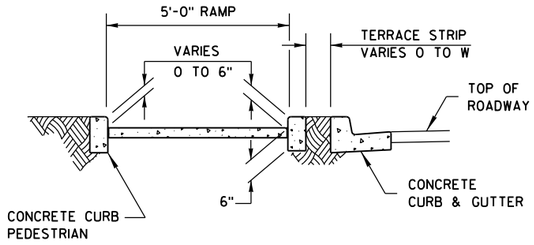
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



SECTION C-C FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

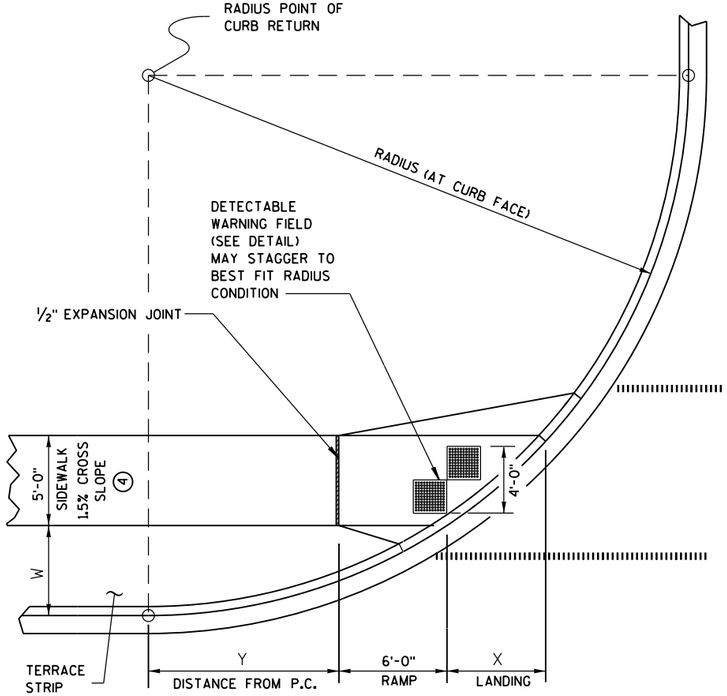
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

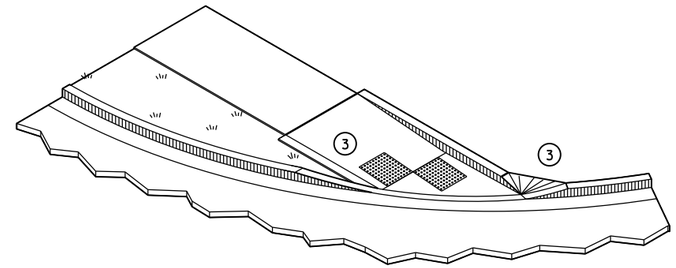
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

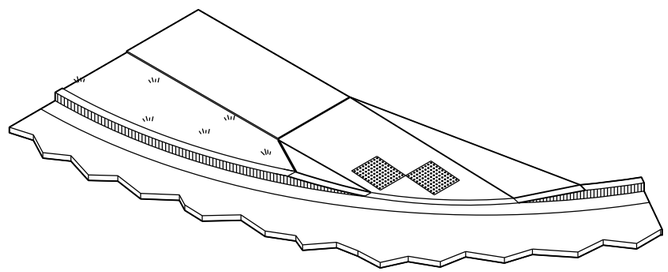
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



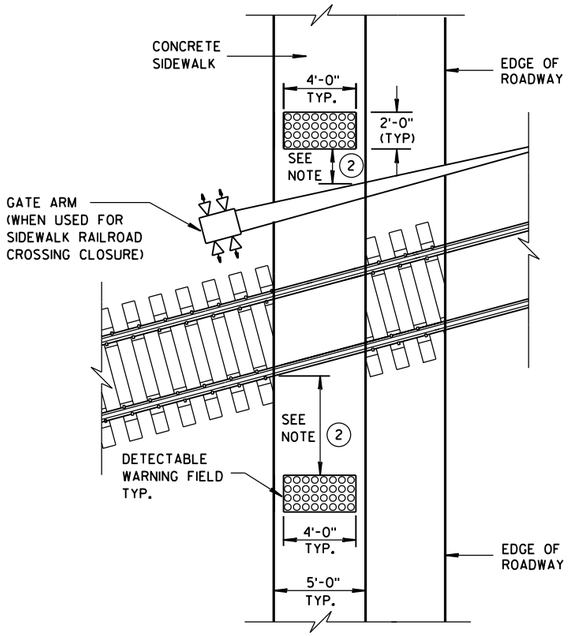
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

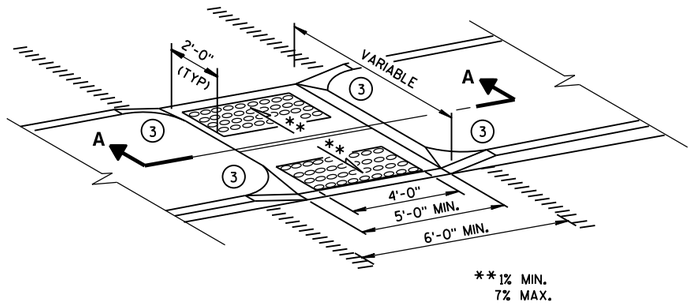
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

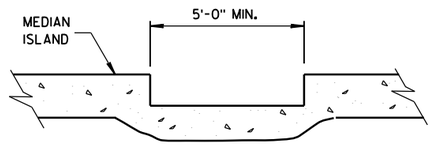
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

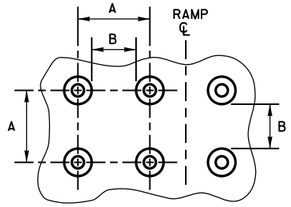
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



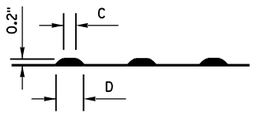
SECTION A-A



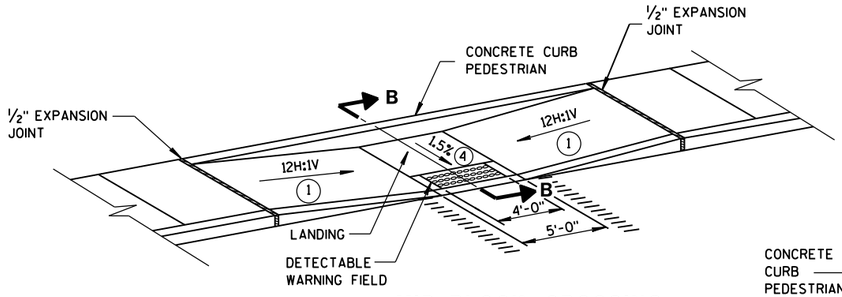
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

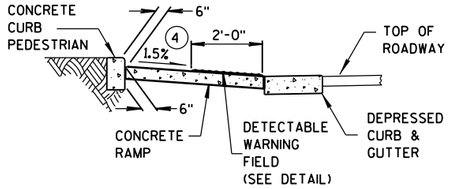
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

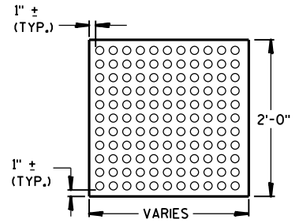


MID-BLOCK CROSSING
TYPE 7A



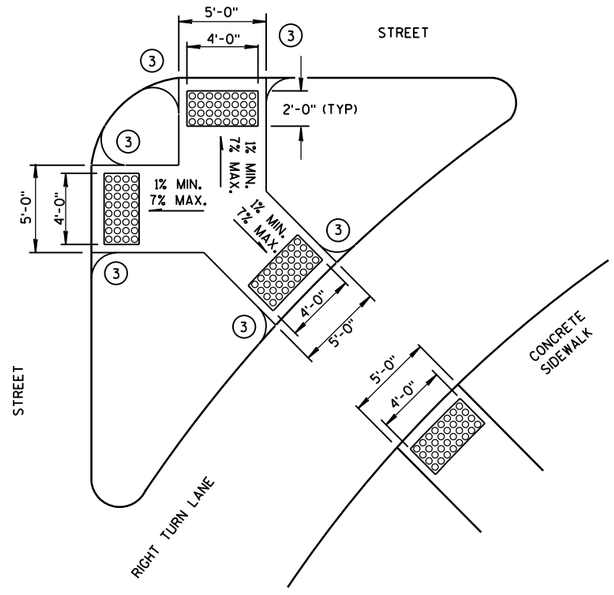
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

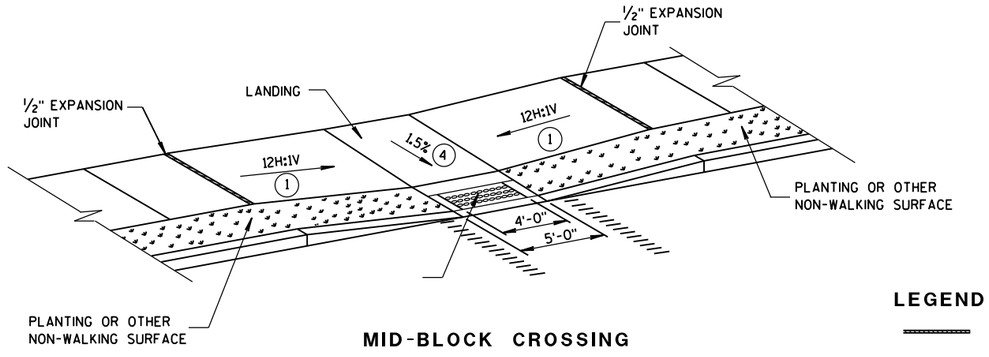


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

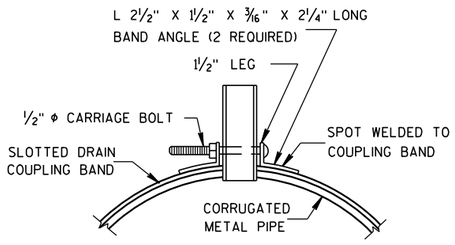
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

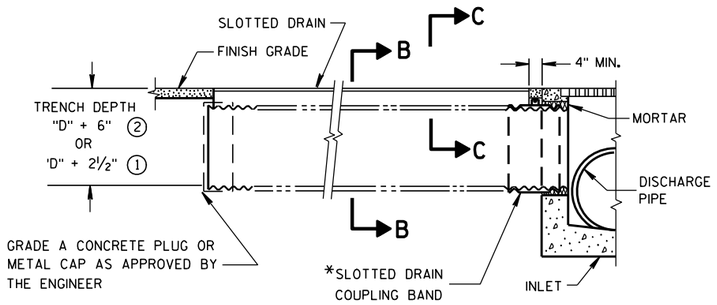
S.D.D. 8 D 5-15e

6

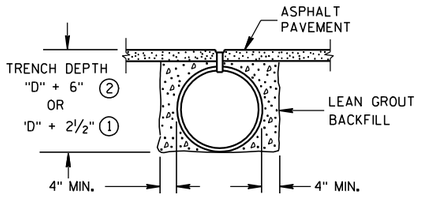
S.D.D. 8 D 5-15e



SECTION A-A



SLOTTED DRAIN INSTALLATION TYPE "A"



SECTION B-B

GENERAL NOTES

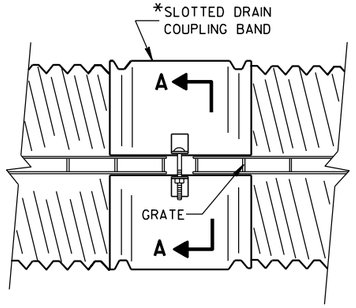
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BACKFILL MATERIAL

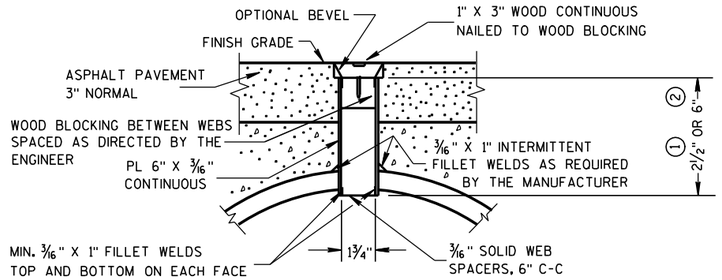
THE LEAN GROUT BACKFILL MATERIAL SHALL BE A FINE AGGREGATE, IN ACCORDANCE WITH SUBSECTION 501.3.6.3.6 OF THE STANDARD SPECIFICATIONS, MIXED WITH 150 POUNDS OF CEMENT AND APPROXIMATELY 30 GALLONS OF WATER FOR EACH 3000 POUNDS OF FINE AGGREGATE.

THE PIPE FOR THE SLOTTED DRAIN SHALL MEET AASHTO DESIGNATION M-36, AND THE GRATE ASSEMBLIES SHALL BE MADE FROM STRUCTURAL STEEL SUITABLY WELDED TO FORM THE OPEN SLOT AND HOT-DIP GALVANIZED TO MEET THE PROVISIONS OF AASHTO DESIGNATION M-111.

NORMAL PIPE SIZES ARE 12-INCH THROUGH 24-INCH DIAMETER IN 0.064 INCH THICKNESS, AND 30-INCH DIAMETER PIPE IN 0.079 INCH THICKNESS.

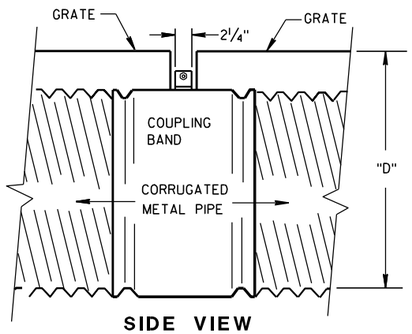


PLAN VIEW



SECTION C-C

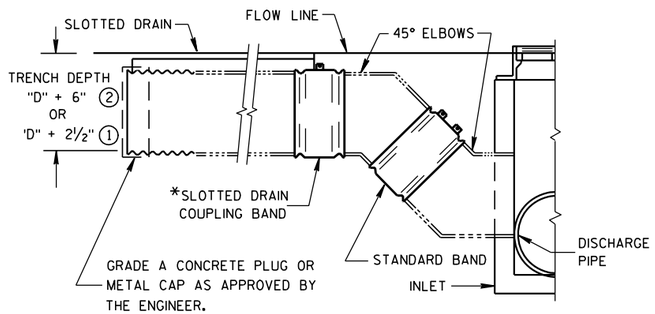
GRATE SLOT DETAIL



SIDE VIEW

*TYPICAL COUPLING BAND FOR SLOTTED DRAIN

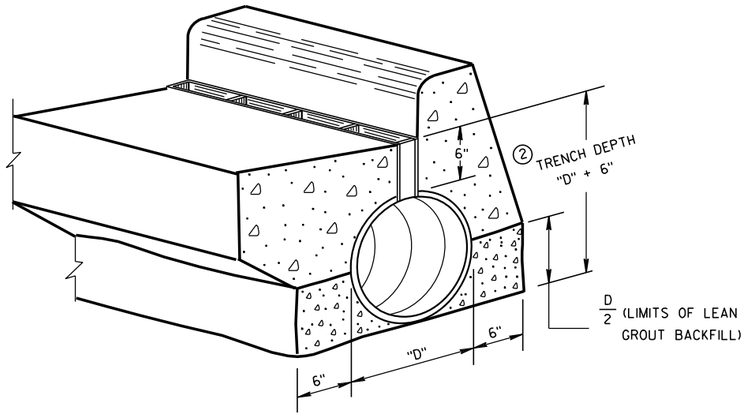
(ALTERNATES PERMITTED AS APPROVED BY THE ENGINEER)



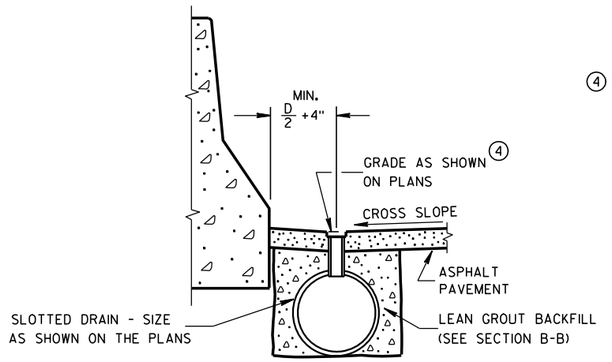
SLOTTED DRAIN INSTALLATION TYPE "B"

NOTE:

TO PREVENT "FLOATING" OF THE SLOTTED DRAIN DURING BACKFILL OPERATIONS PROVIDE ADEQUATE WEDGES, OR POUR THE LEAN GROUT ON TOP OF THE PLUGGED SLOT ALLOWING IT TO SLOUGH TO THE SIDES OF THE PIPE. THIS WILL PROVIDE ENOUGH WEIGHT ON TOP TO KEEP THE PIPE FROM FLOATING.



SLOTTED DRAIN INSTALLATION IN FLOW LINE OF CURB & GUTTER TYPE "C"



SLOTTED DRAIN INSTALLATION AT MEDIAN BARRIER TYPE "D"

① 2½" NORMAL GRATE DEPTH.

② 6" SPECIAL GRATE DEPTH, WHEN SPECIFIED ON THE PLANS.

③ FOR SCREEDING DIRECTLY OVER THE SLOTTED DRAIN WITH ASPHALT PAVER. FOR CONCRETE SURFACE USE 3" WIDE TAPE OVER THE SLOT TO KEEP MATERIAL OUT OF THE PIPE.

④ WHEN THE SURFACE IS CONCRETE PAVEMENT THE GRADE AS SHOWN ON THE PLANS WILL BE FLUSH WITH THE TOP OF THE SLOTTED DRAIN.

SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

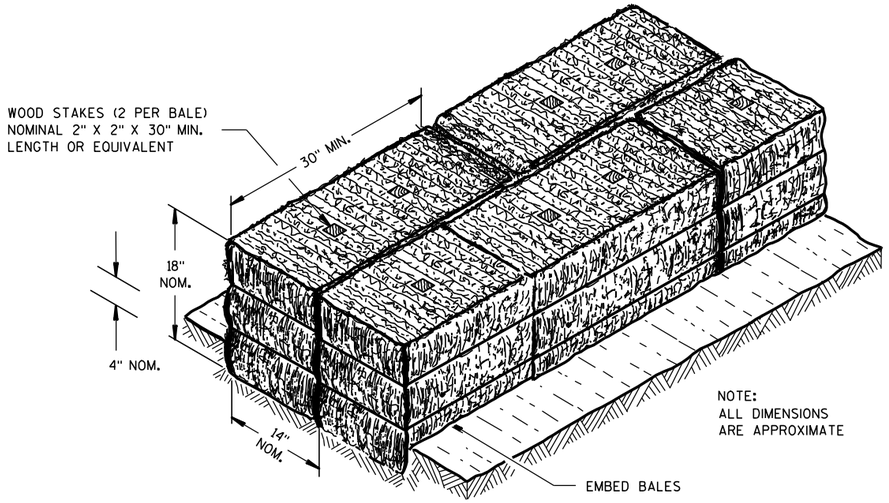
APPROVED

8/30/79 DATE

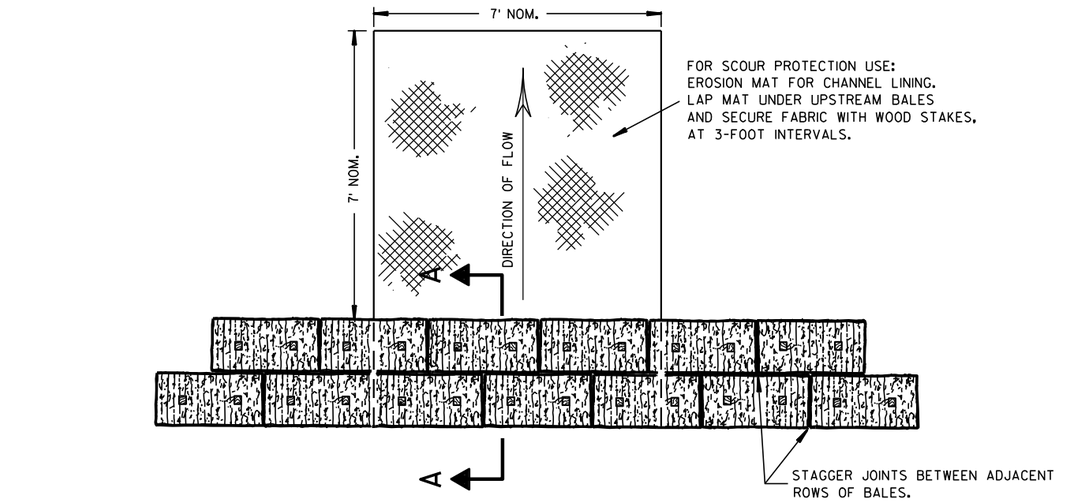
/S/ D. L. Str--- CHIEF ROADWAY DEVELOP

ENGINEER

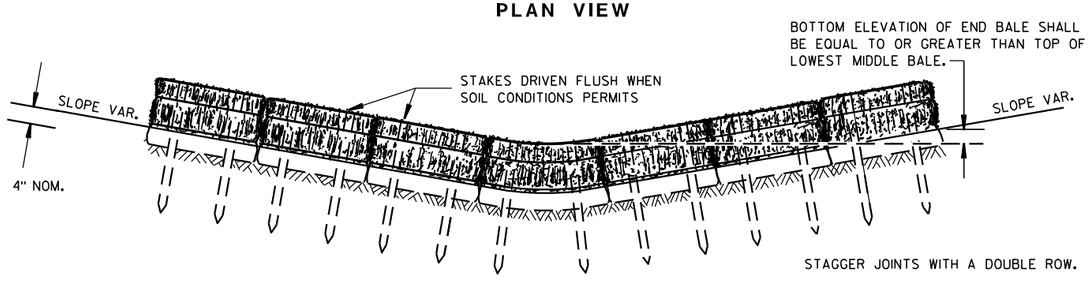
FHWA



SECTION A-A



PLAN VIEW



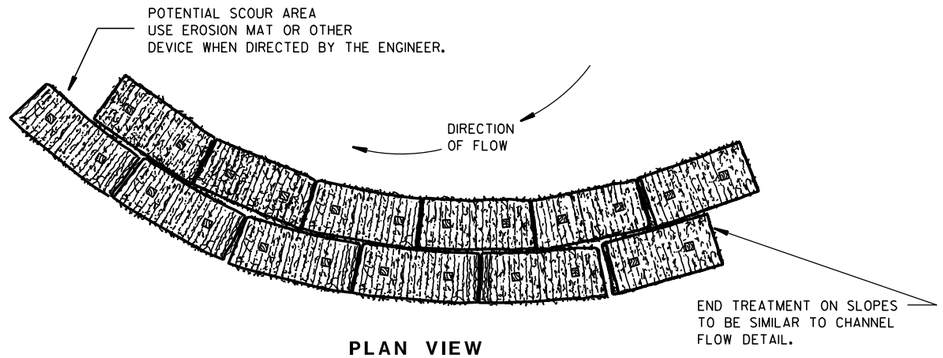
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

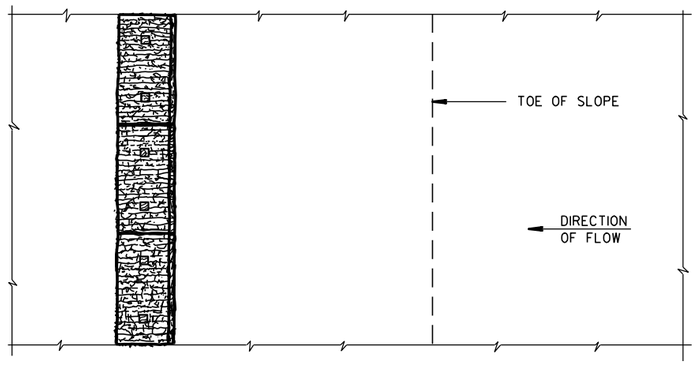
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

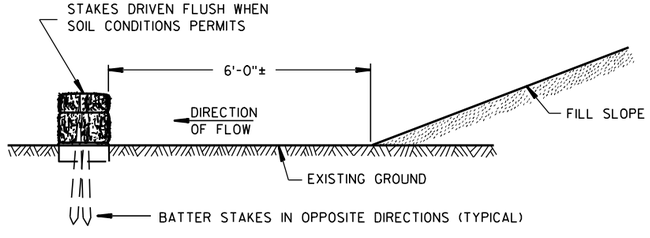


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 E 8-3

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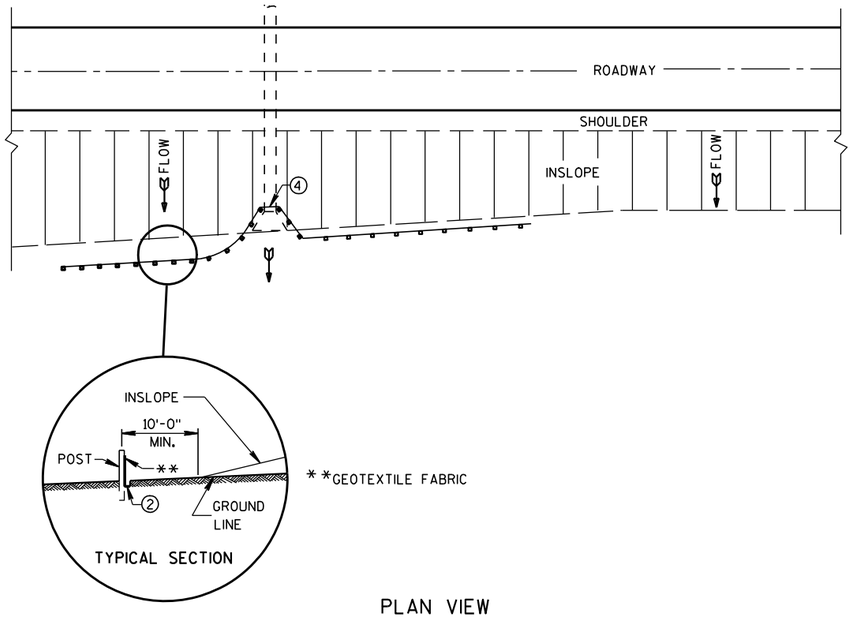
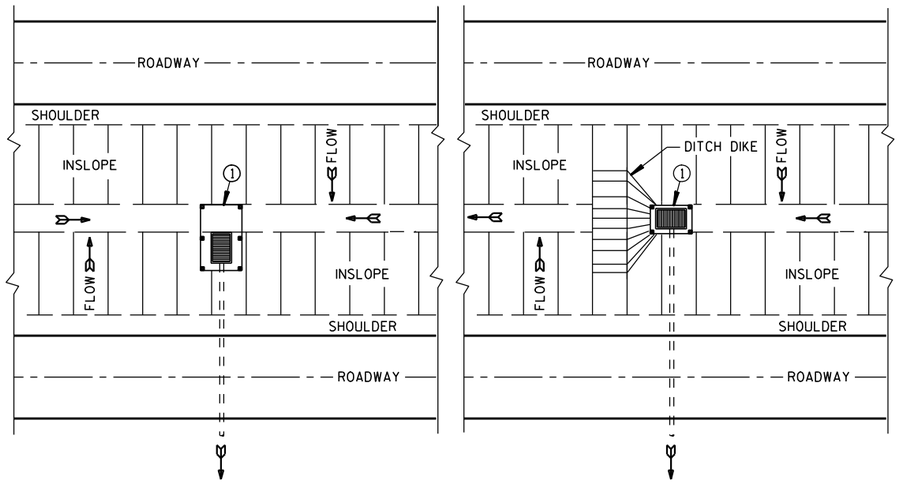
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



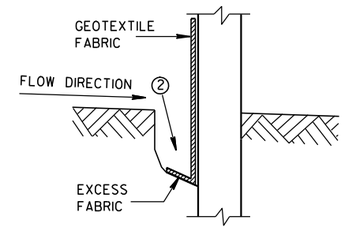
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

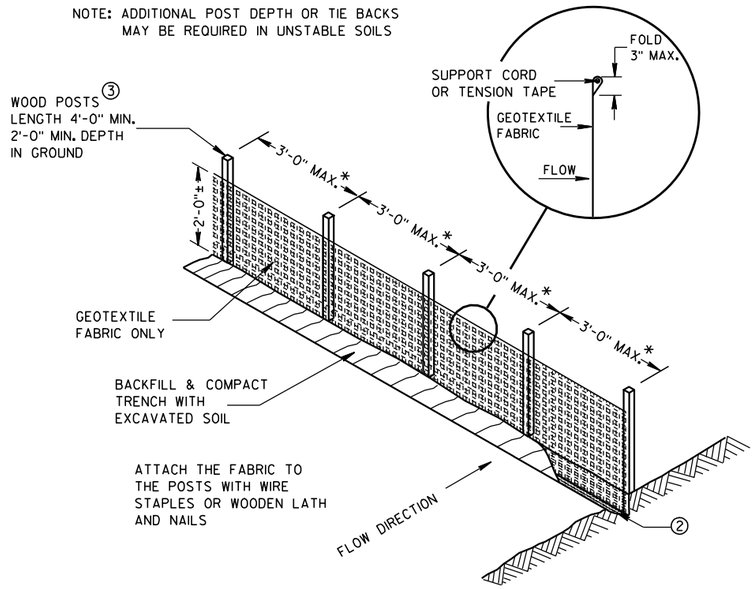
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

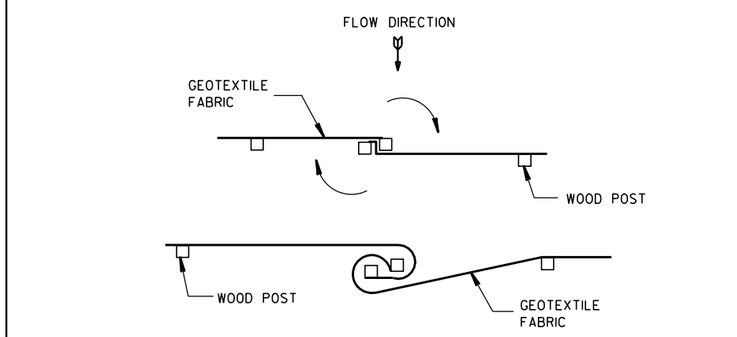
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



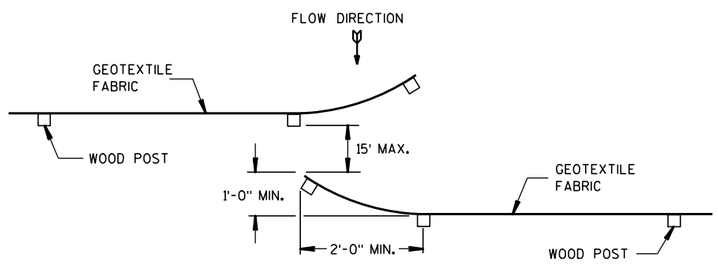
TRENCH DETAIL



SILT FENCE

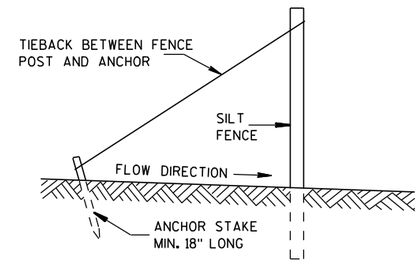


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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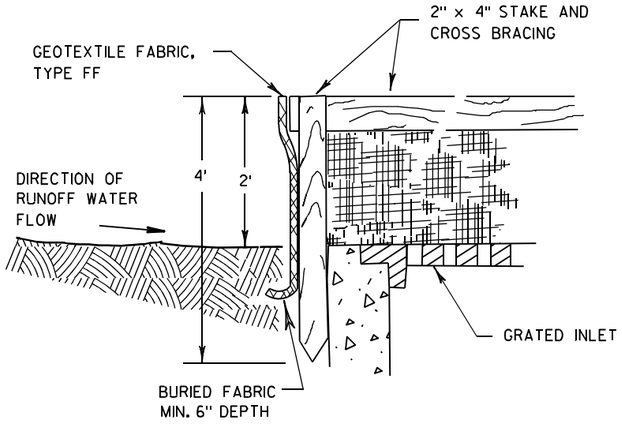
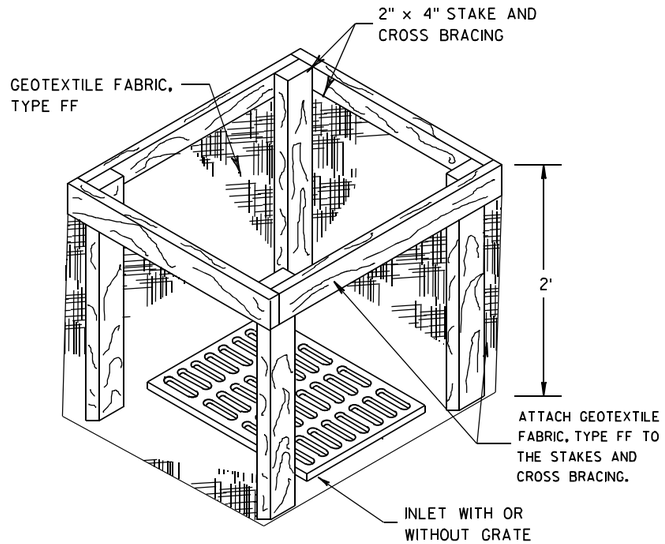
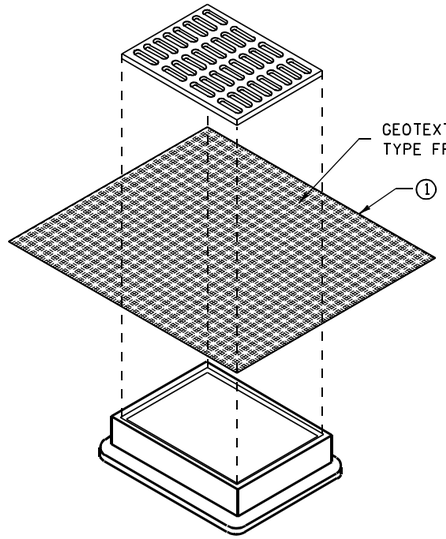
S.D.D. 8 E 9-6



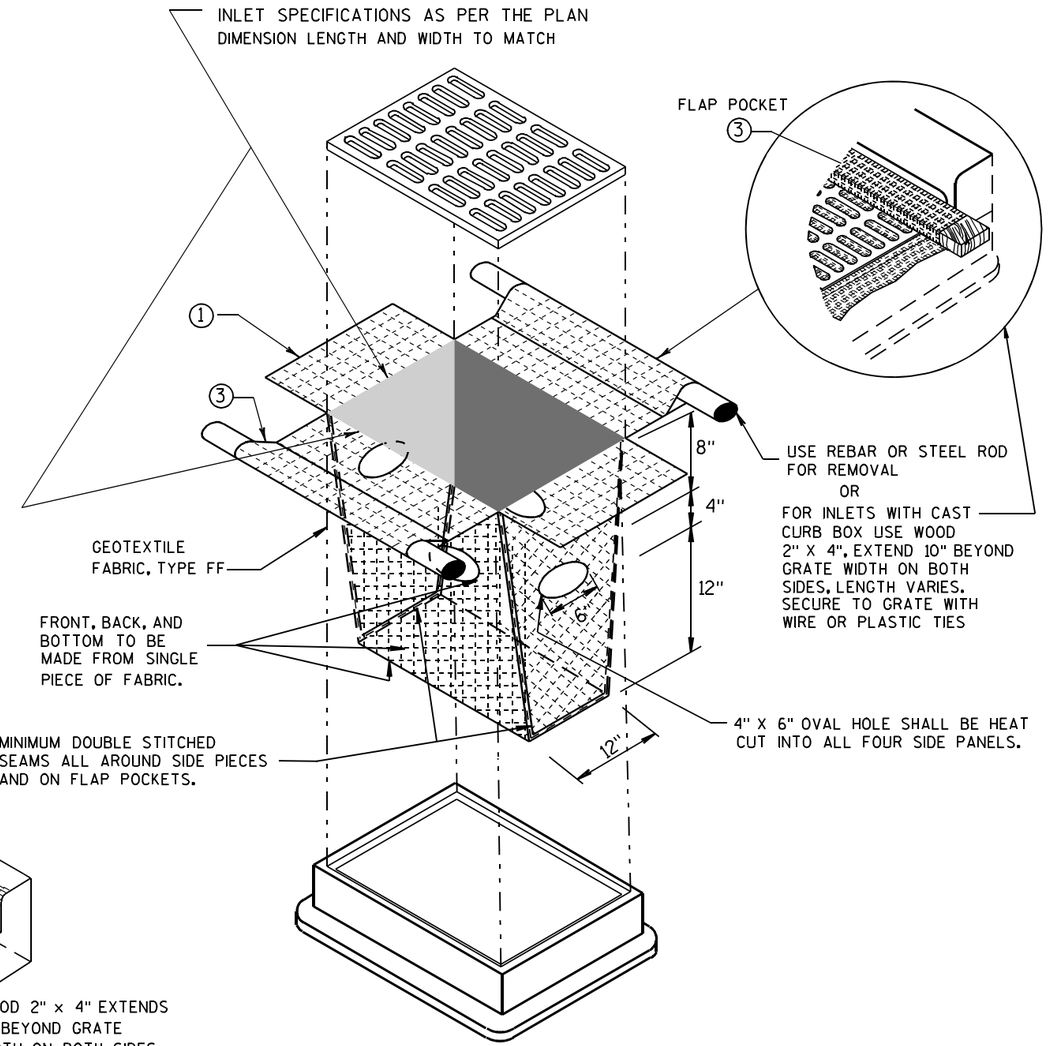


INLET PROTECTION, TYPE A



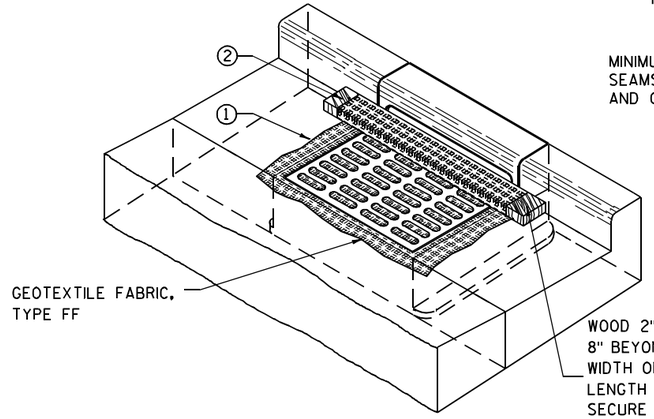
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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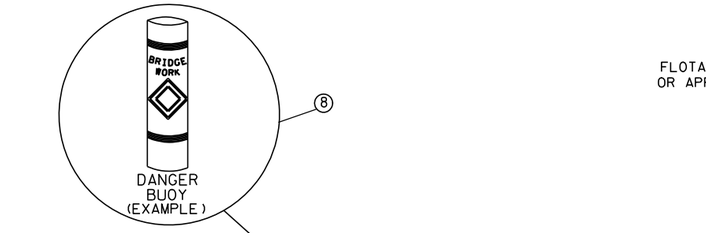
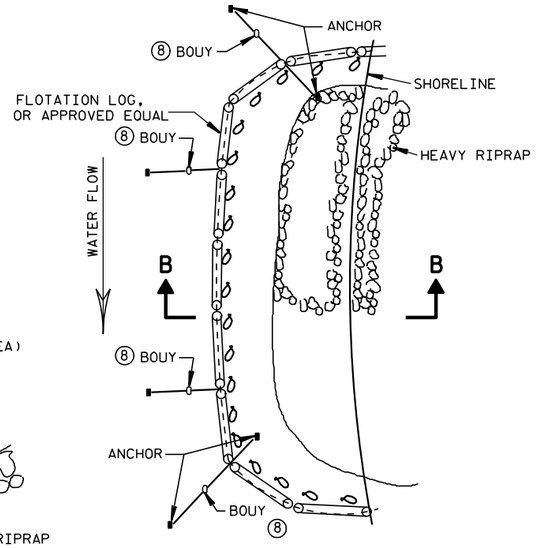
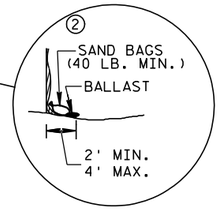
S.D.D. 8 E 10-2

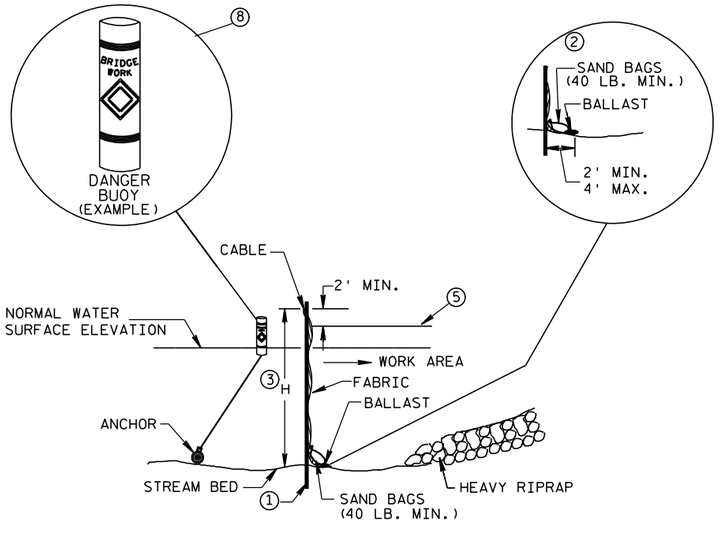


SECTION B-B

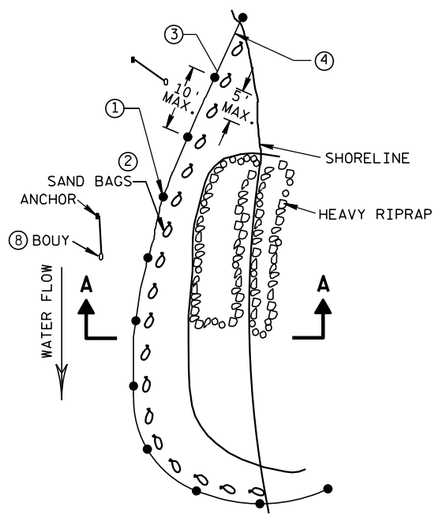




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

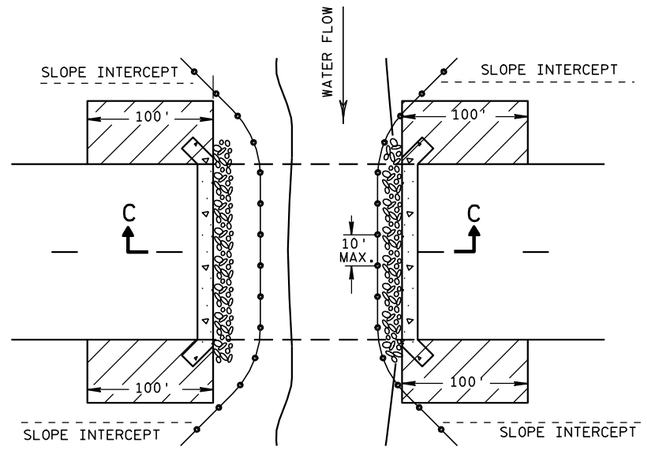
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

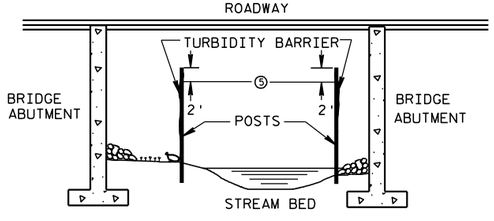
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

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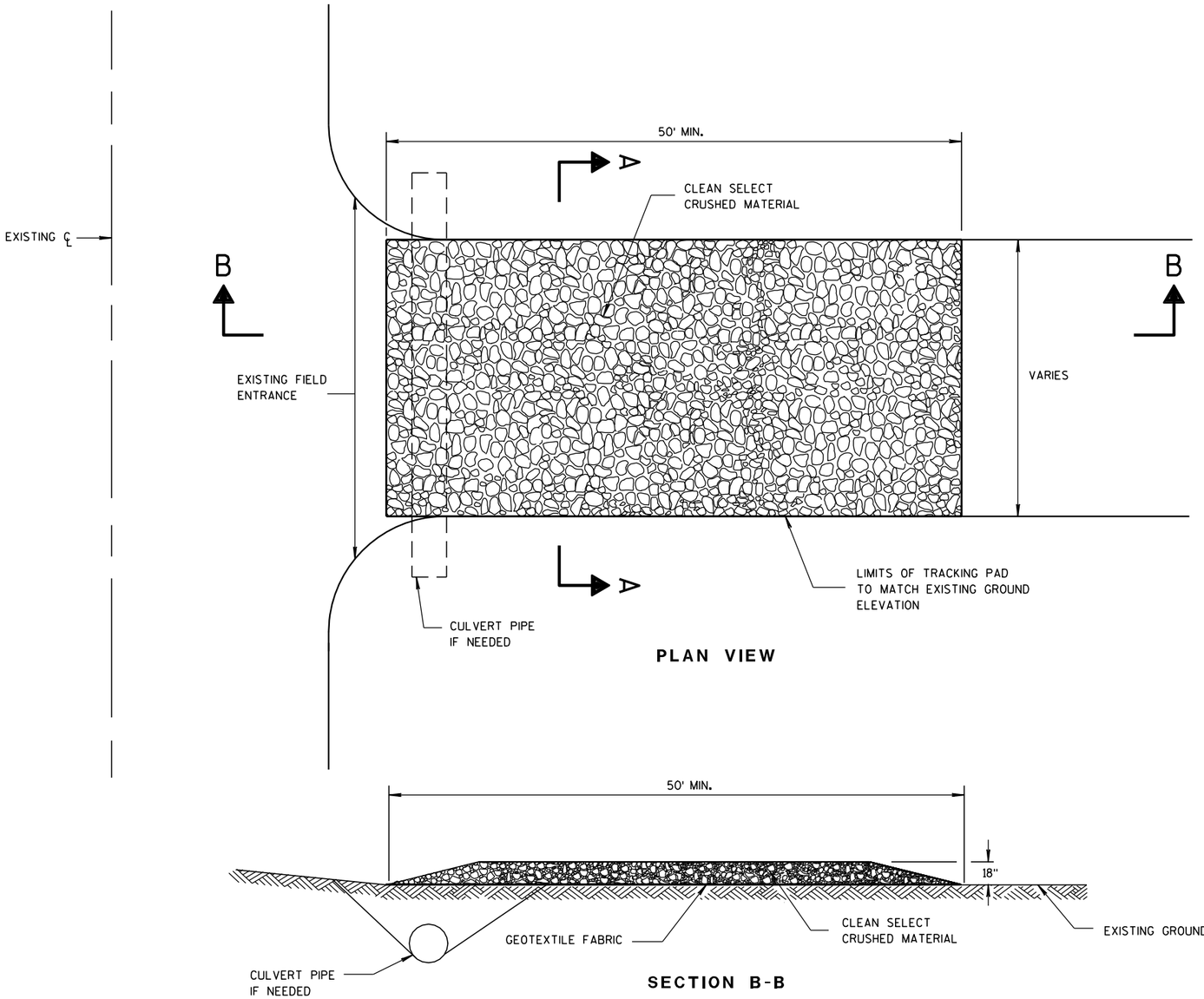
S.D.D. 8 E 11-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

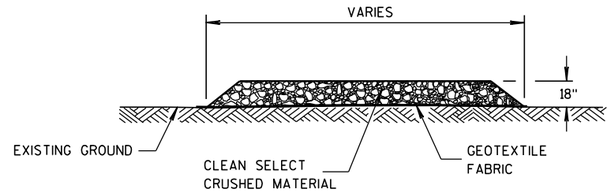
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER
390	ENT

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S.D.D. 8 E 14-1

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S.D.D. 8 E 14-1

METAL APRON ENDWALLS

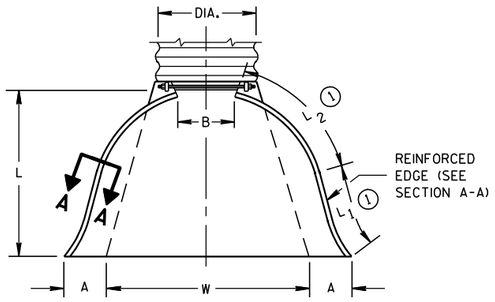
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

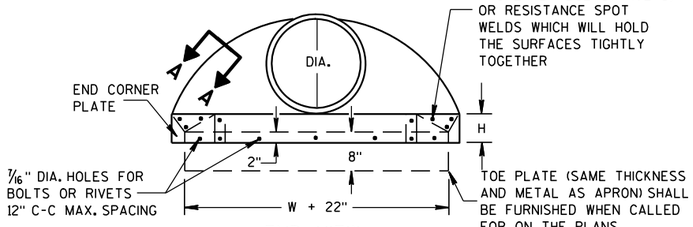
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

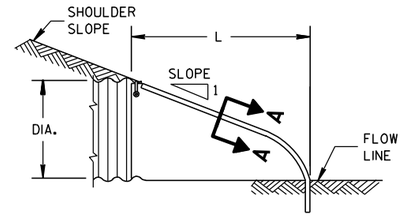
*MINIMUM
**MAXIMUM



PLAN VIEW

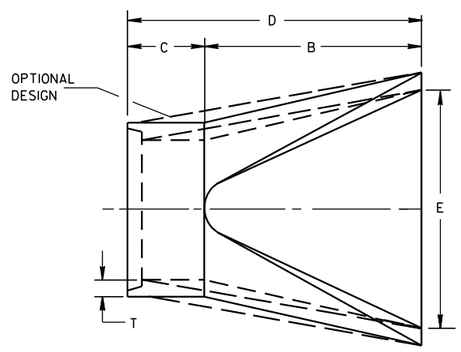


END VIEW

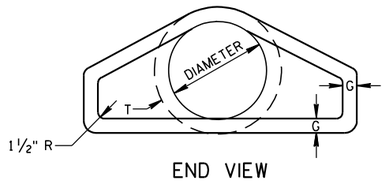


SIDE ELEVATION

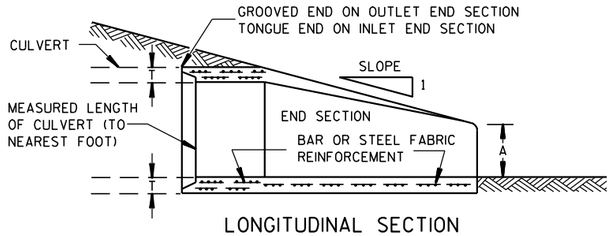
METAL ENDWALLS



PLAN

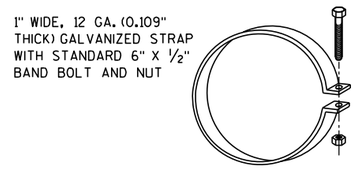


END VIEW



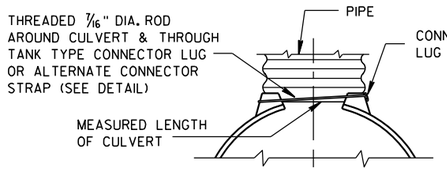
LONGITUDINAL SECTION

CONCRETE ENDWALLS

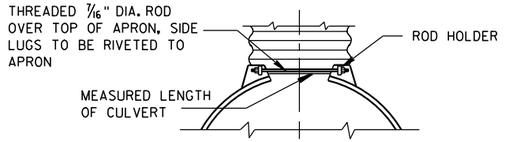


ALTERNATE FOR TYPE 1 CONNECTION

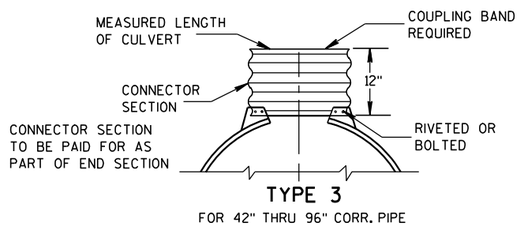
END SECTION CONNECTOR STRAP



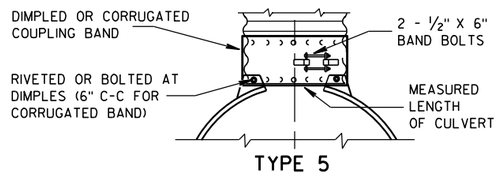
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

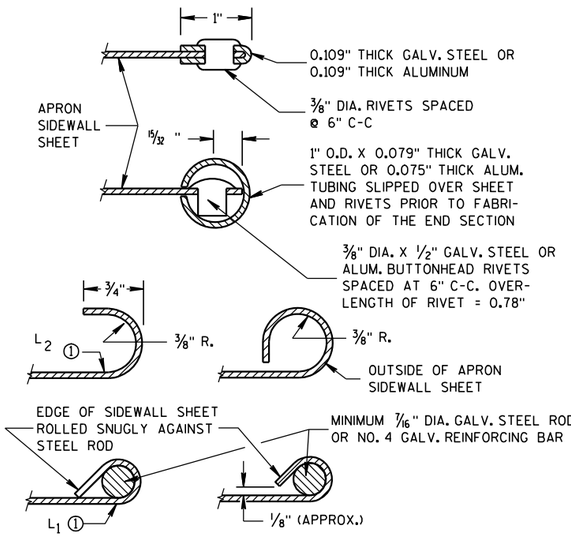
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

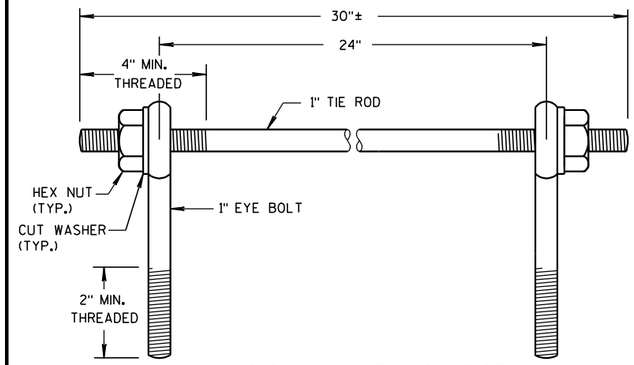
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

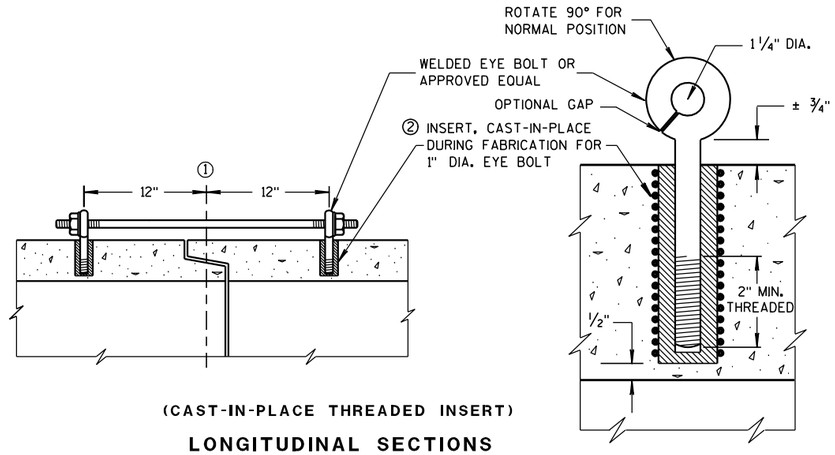
391

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

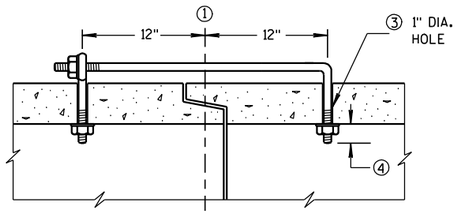
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

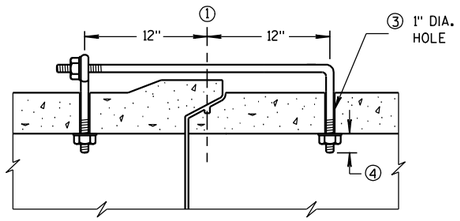
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

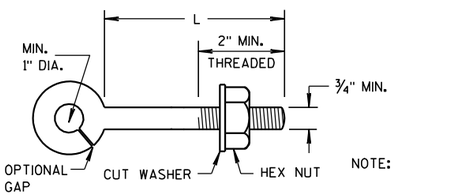


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

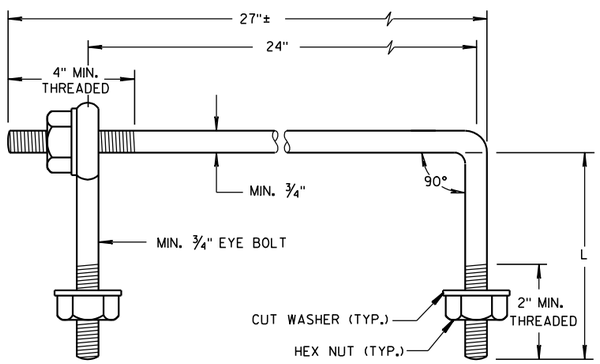
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

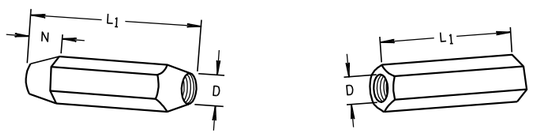
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

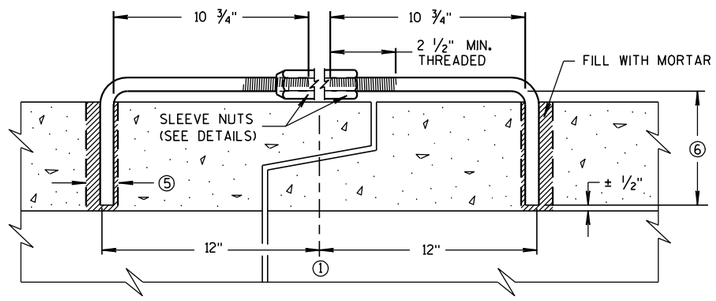
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

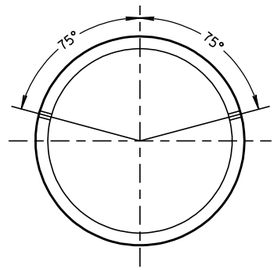
SLEEVE NUTS



LONGITUDINAL SECTION

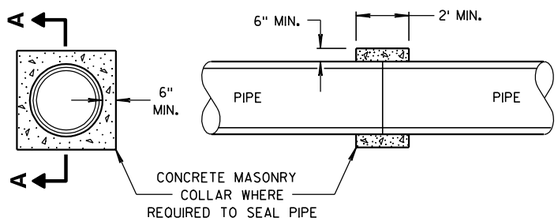
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

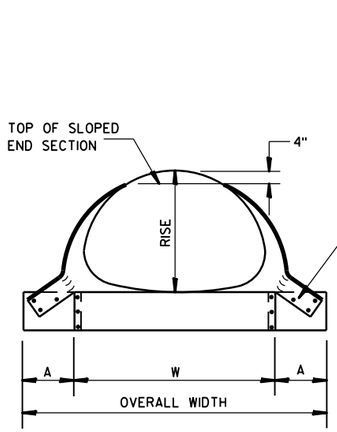
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
392
FHWA

6

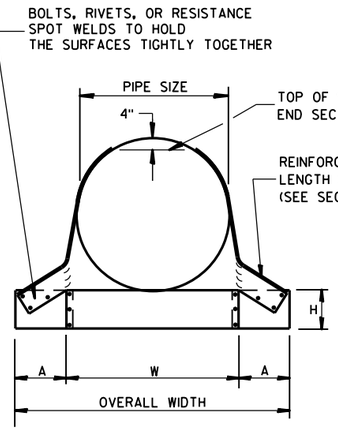
S.D.D. 8 F 4-7

6

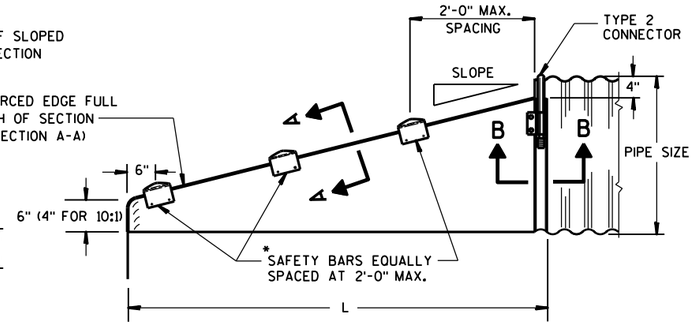
S.D.D. 8 F 4-7



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

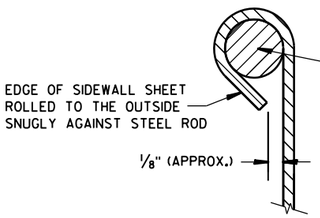
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

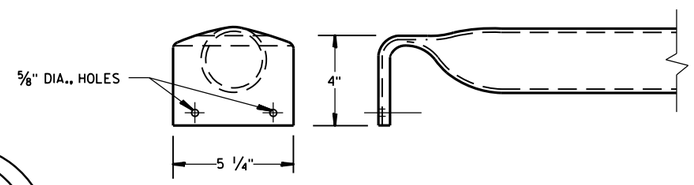
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

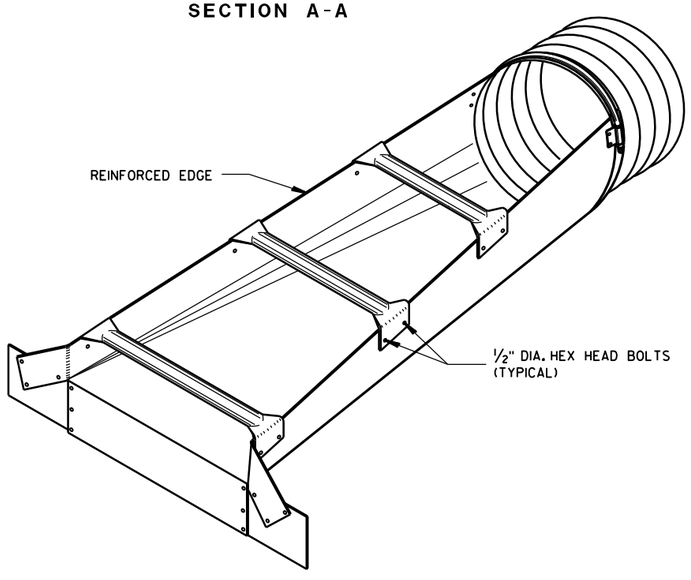


DETAIL OF SAFETY BAR

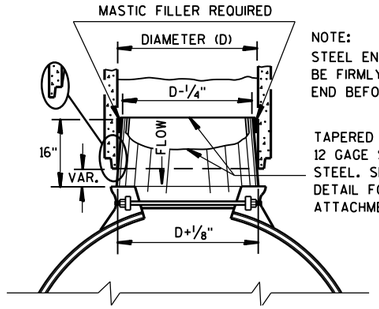
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

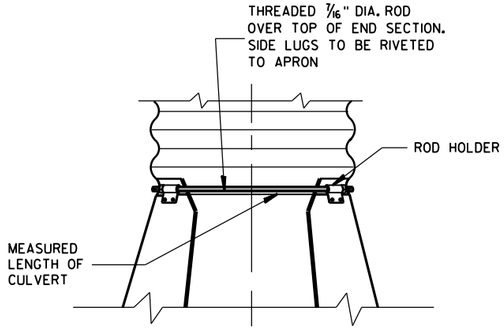
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



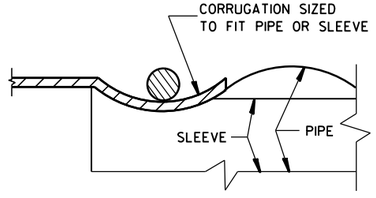
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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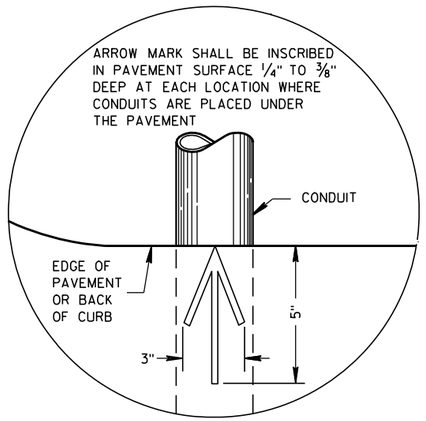
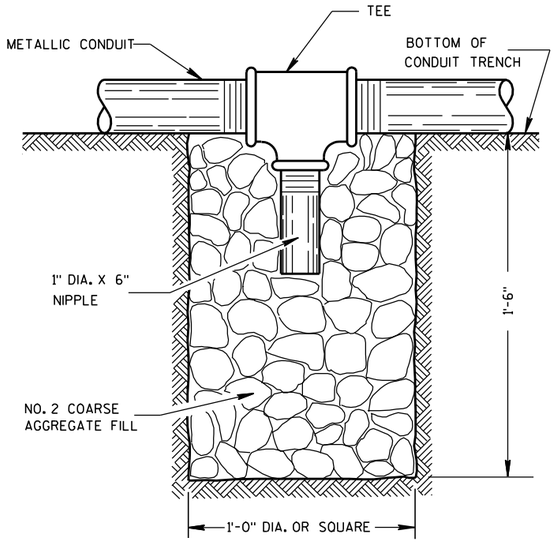
S.D.D. 8 F 7-5



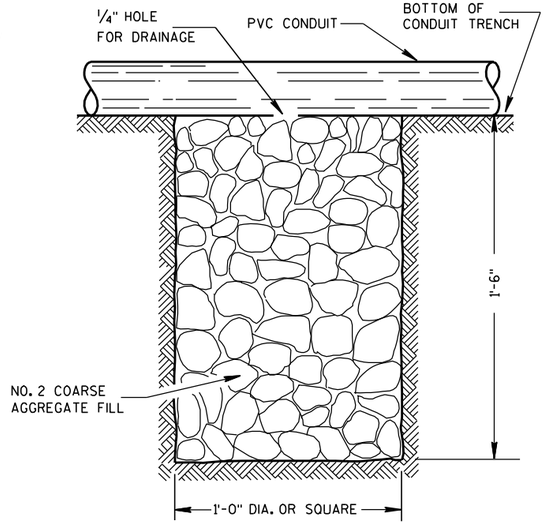
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

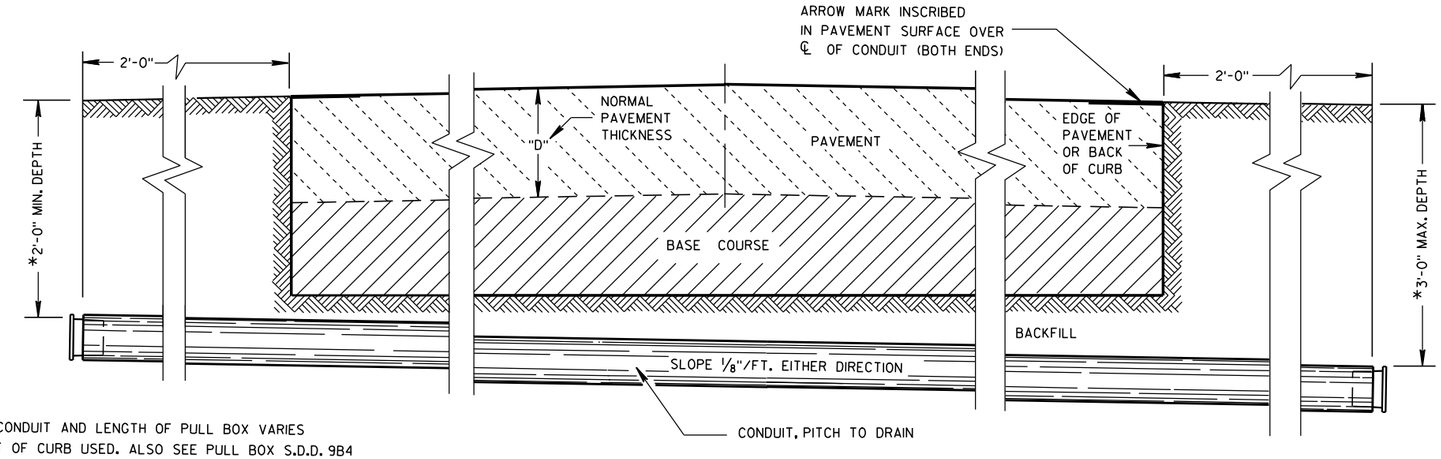
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

394

HWYS

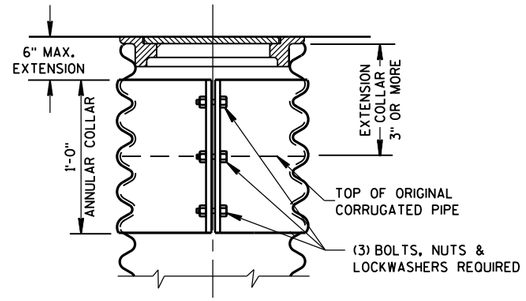
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

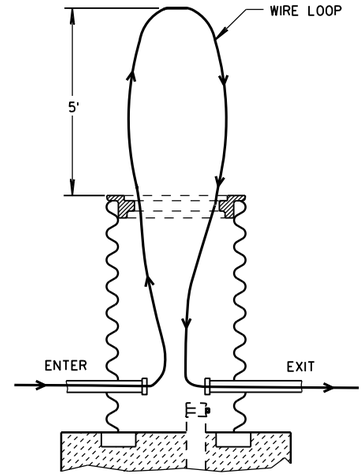
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

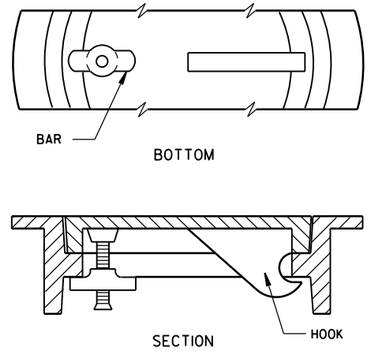
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

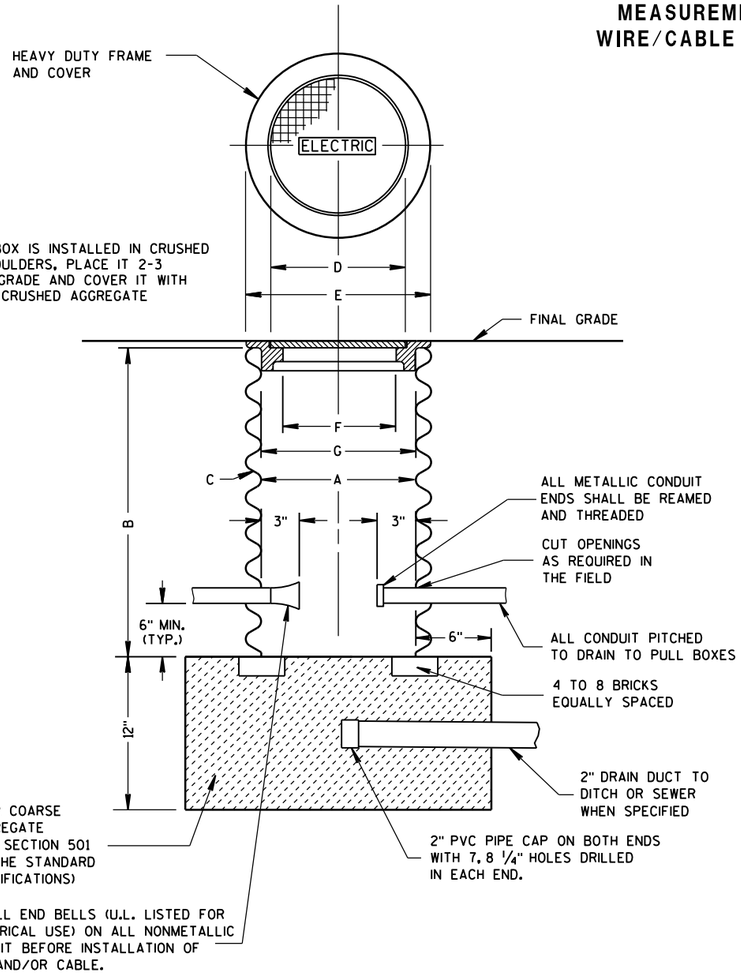


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



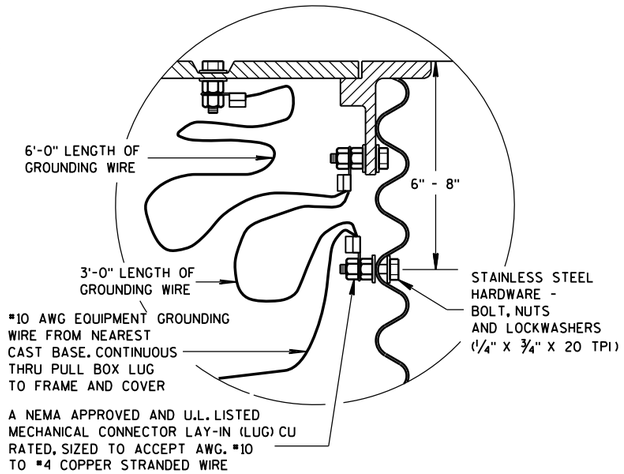
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

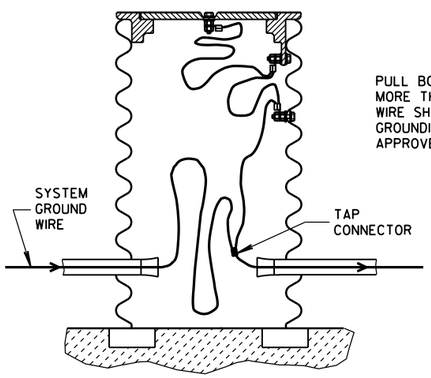


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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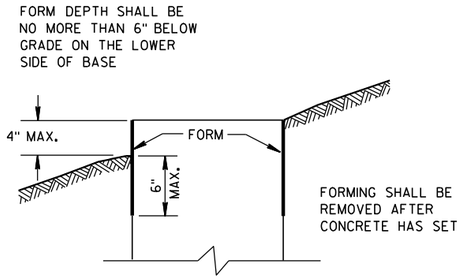


FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

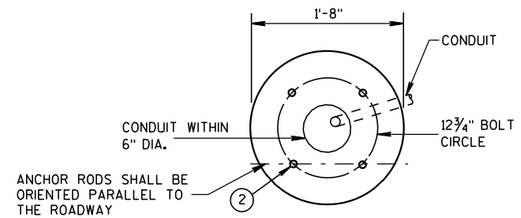
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

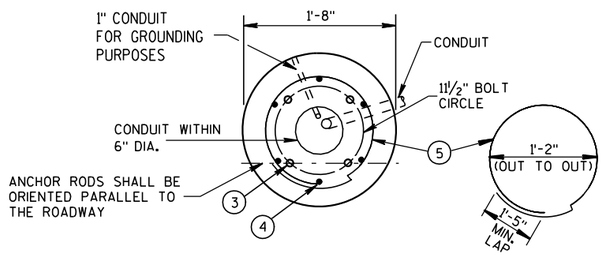
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

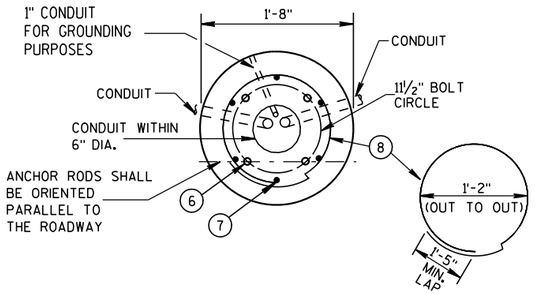
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

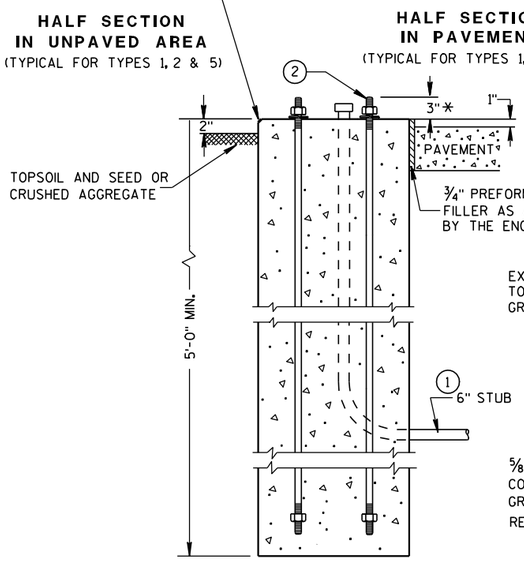






FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

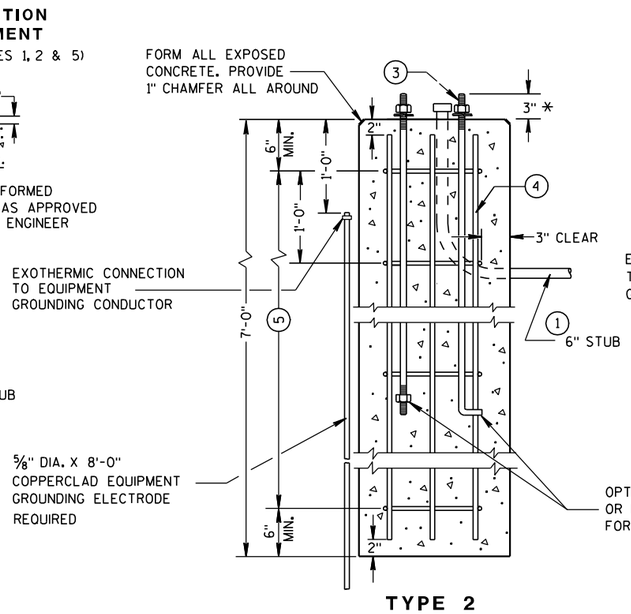
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

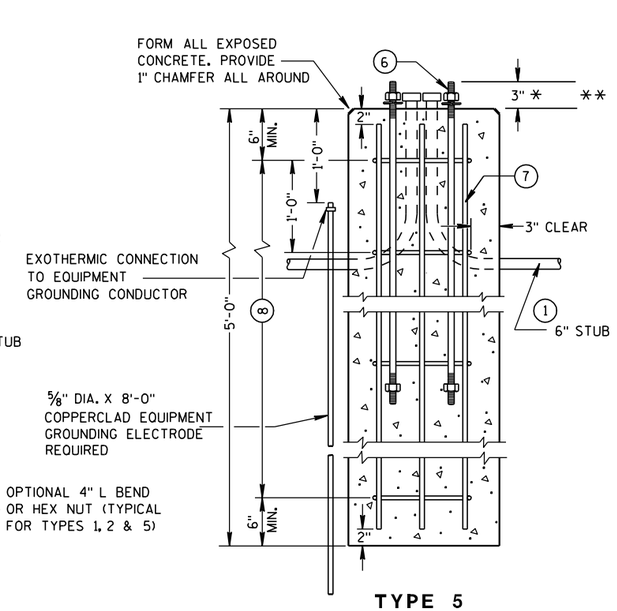
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

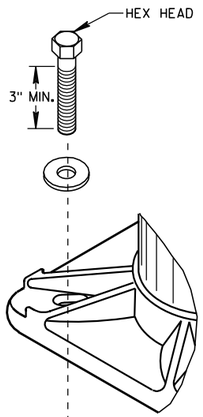
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

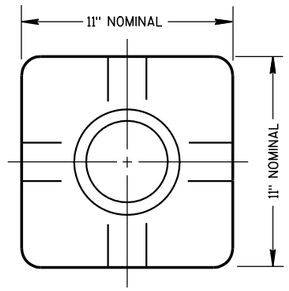
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

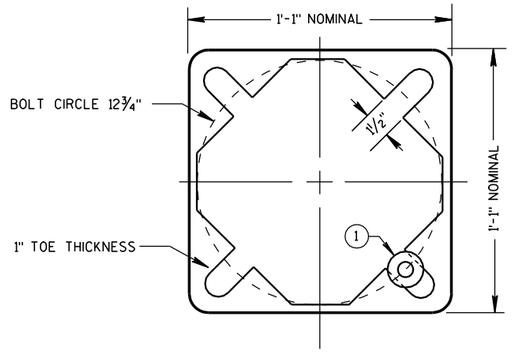
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

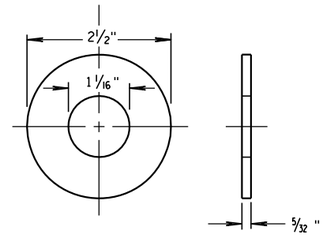




TOP VIEW
(PEDESTAL BASE)

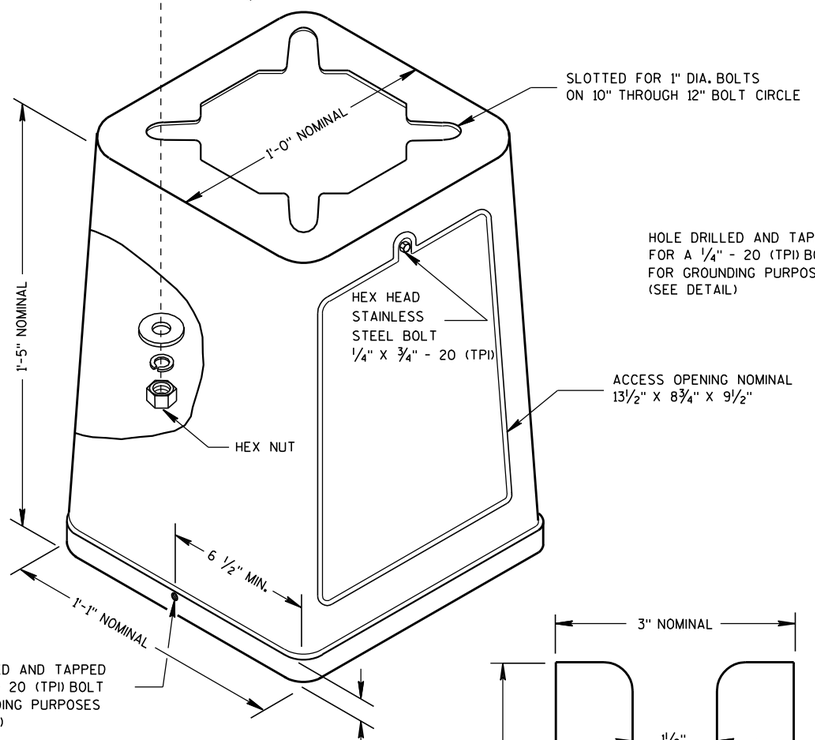


BOTTOM VIEW
(PEDESTAL BASE)

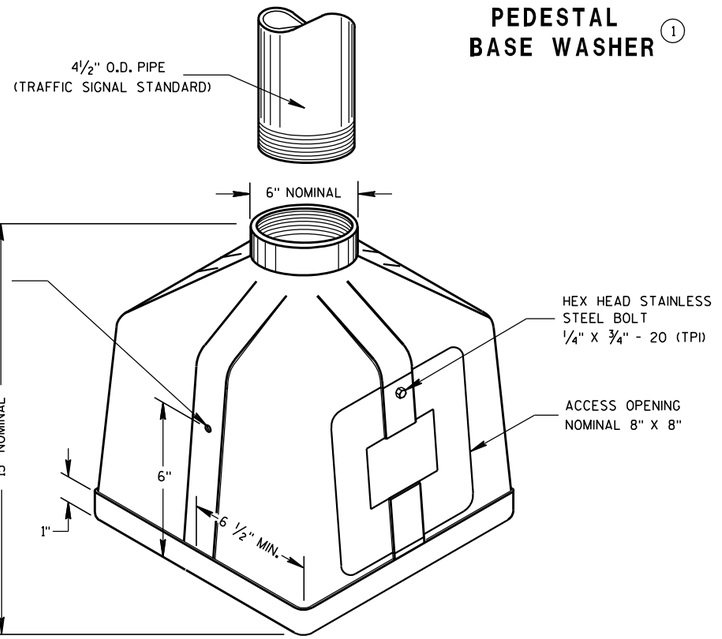


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

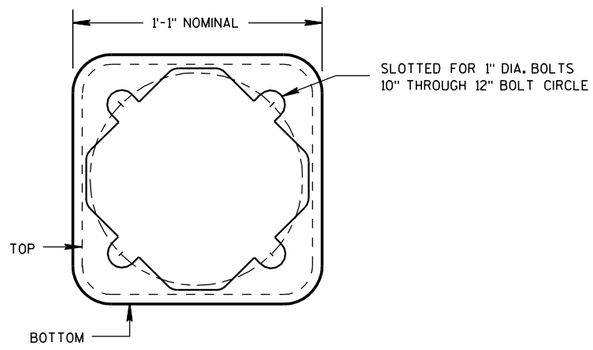
PEDESTAL BASE WASHER (1)



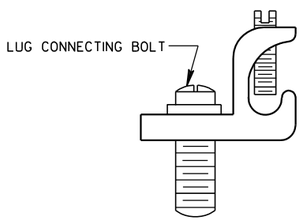
ISOMETRIC VIEW



ISOMETRIC VIEW
PEDESTAL BASE

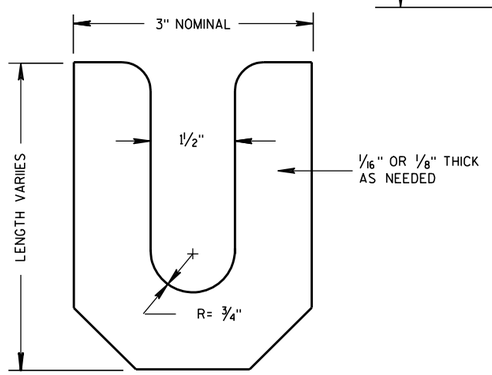


BOTTOM VIEW
(TRANSFORMER BASE)



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
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HWYS
FHWA

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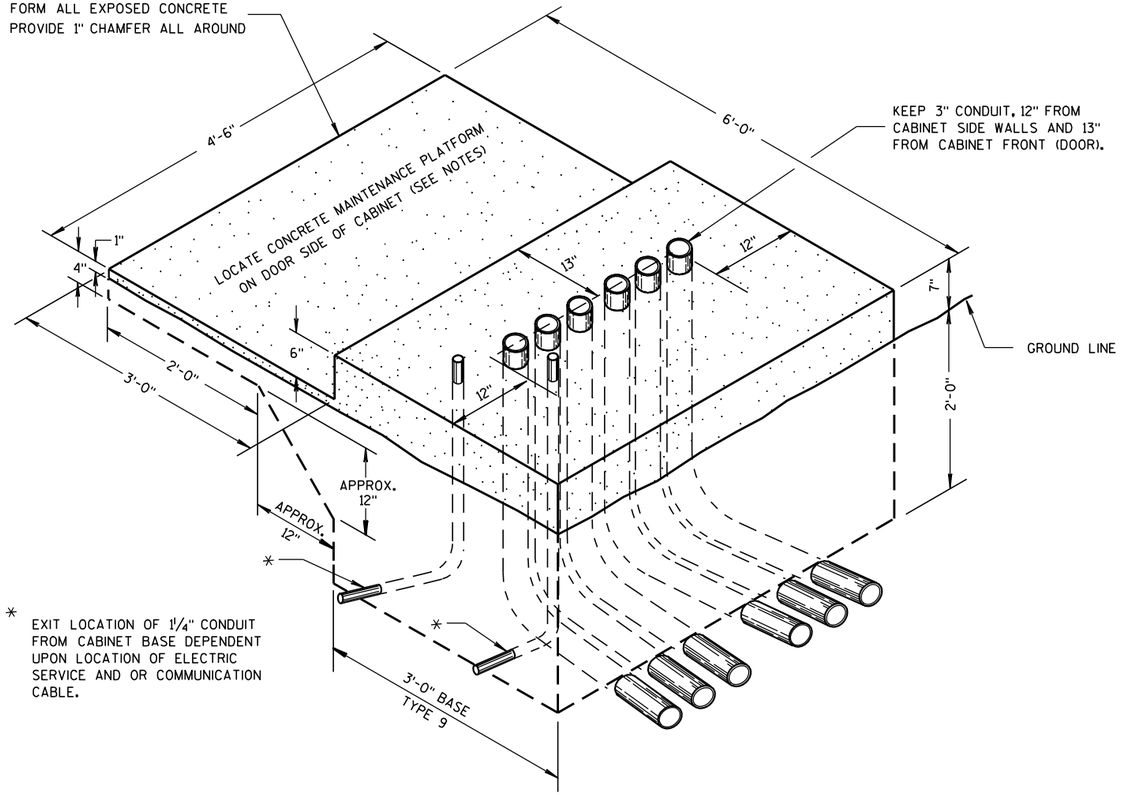


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

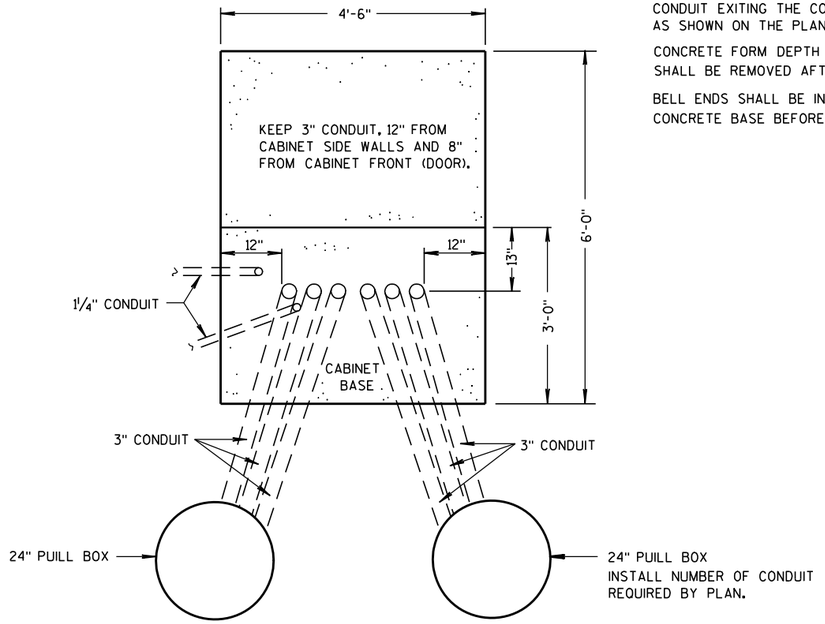
PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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2/27/07
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/S/ Balu Ananthapadmanabhan
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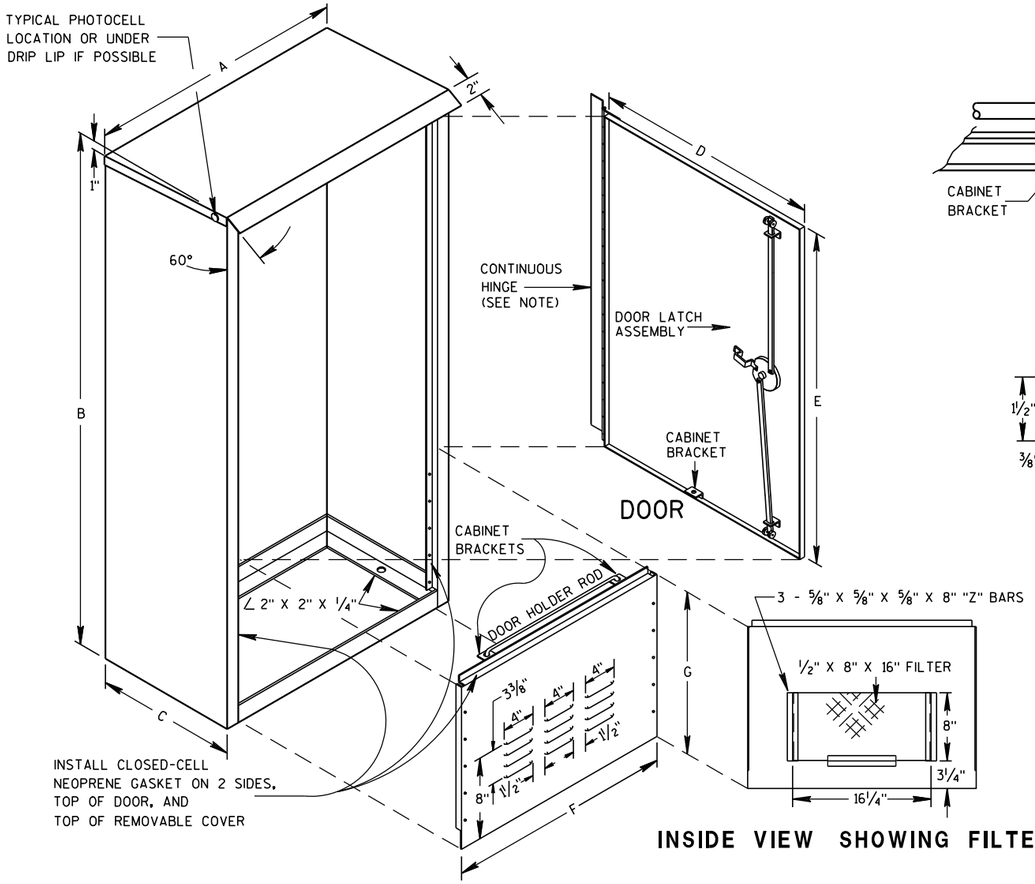
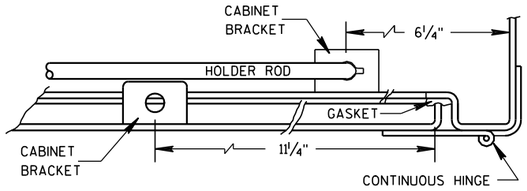


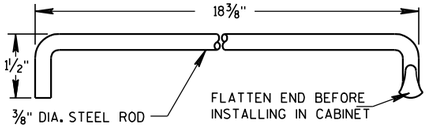
DOOR

REMOVABLE COVER

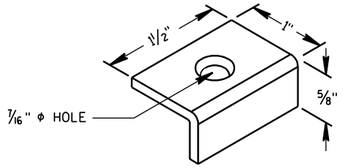
INSIDE VIEW SHOWING FILTER



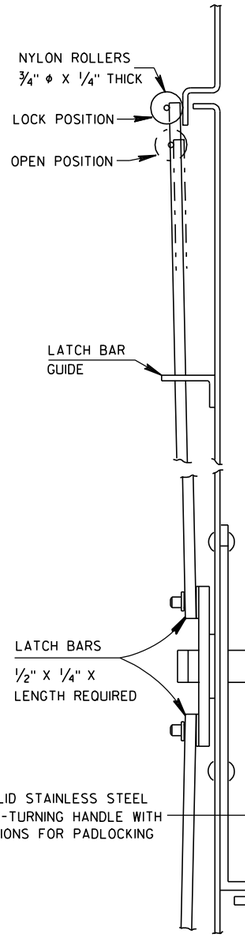
HINGE & DOOR HOLDER



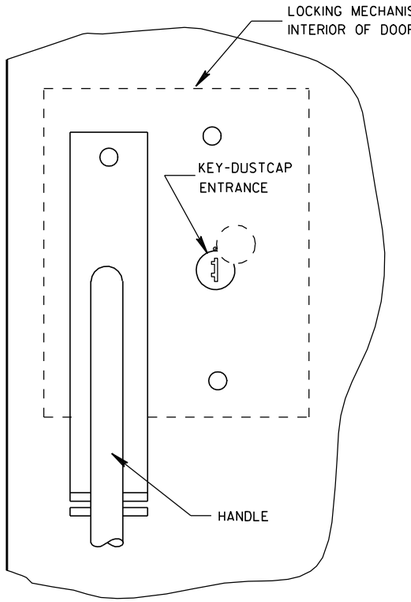
HOLDER ROD



CABINET BRACKET

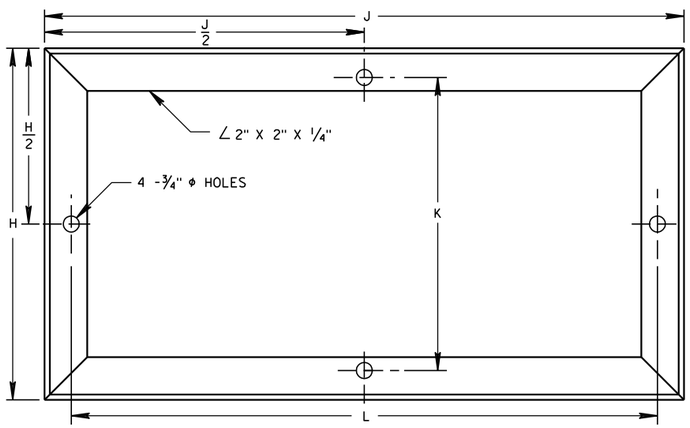


SIDE VIEW



FRONT VIEW

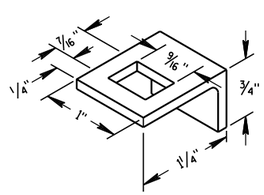
LATCH ASSEMBLY



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



LATCH BAR GUIDE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL OR LIGHTING CONTROL CABINET

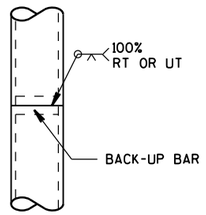
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

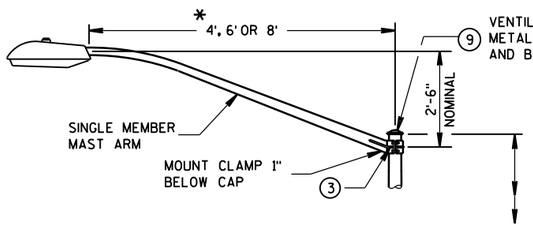
APPROVED
10/21/96 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI
399 HWYS
FHWA

FOR MANUFACTURERS USE ONLY

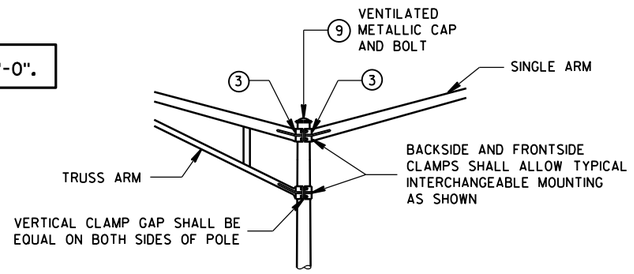
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

*RISE FOR 4' ARM SHALL BE 2'-0".





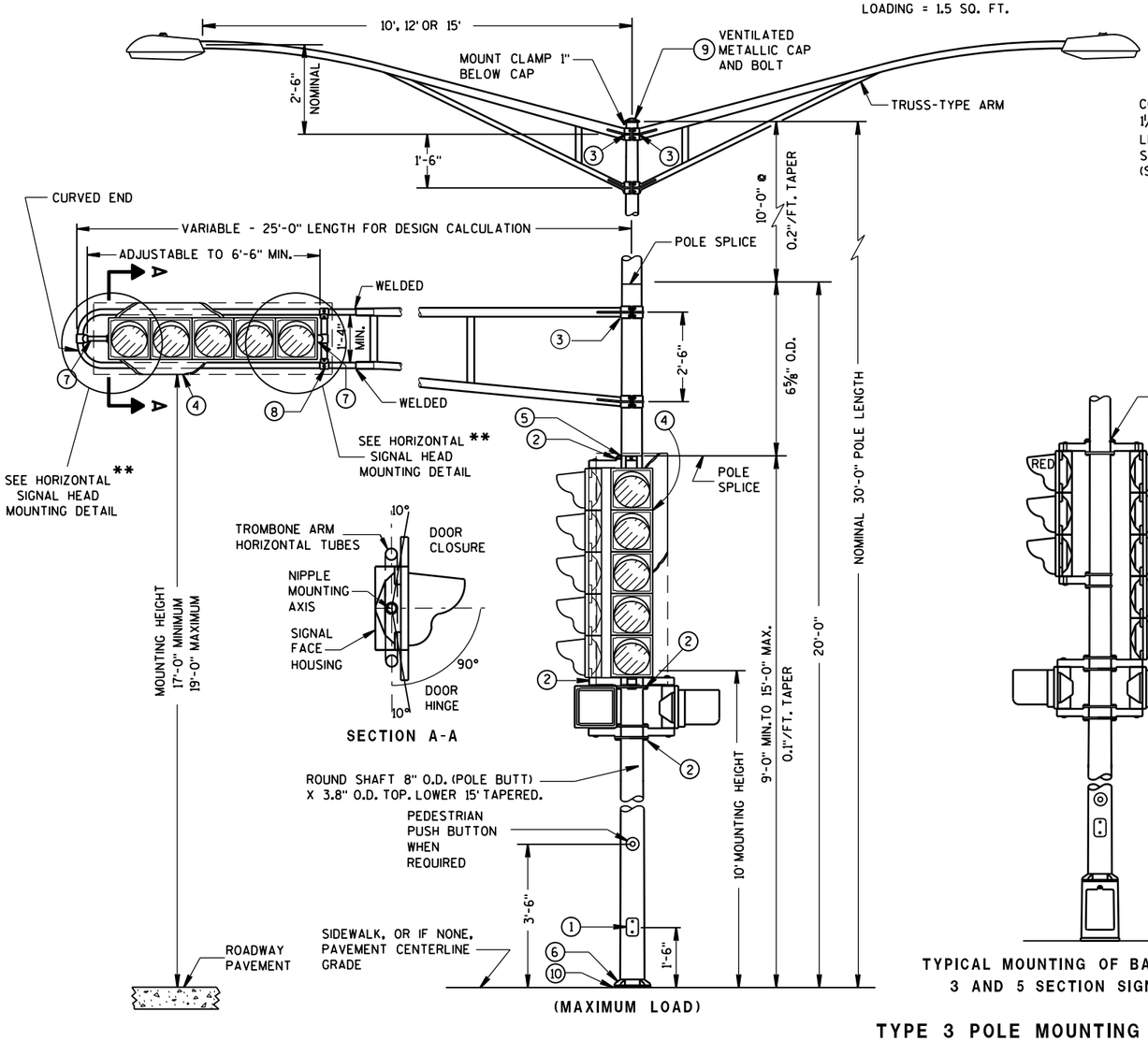
POLE SPLICE DETAIL

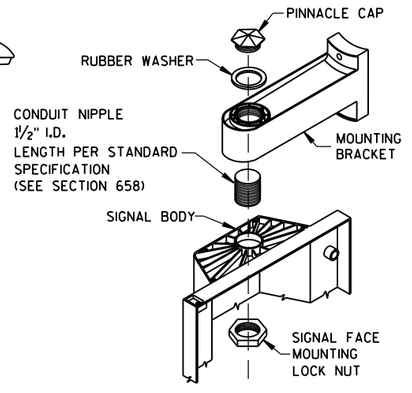


INTERCHANGEABLE MOUNTING DETAIL

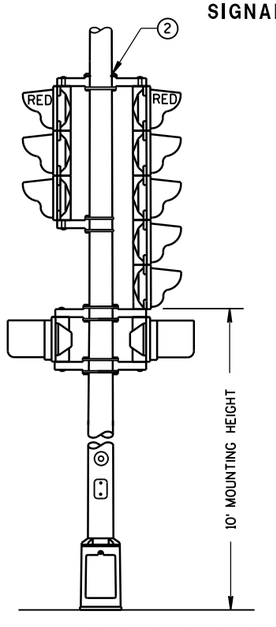
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

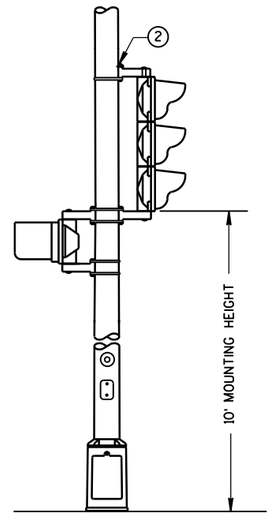




SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

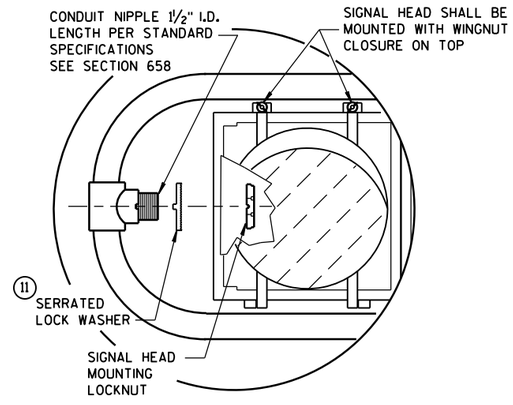
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL**

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
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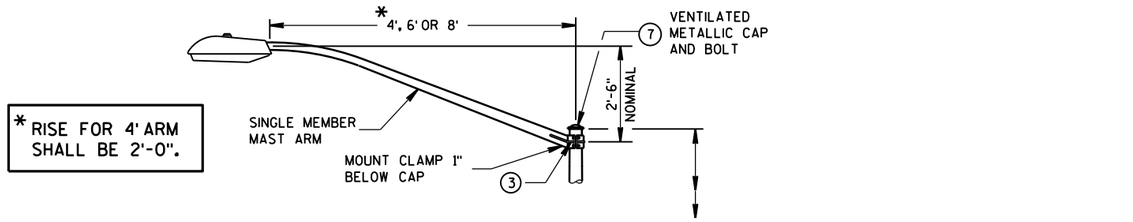
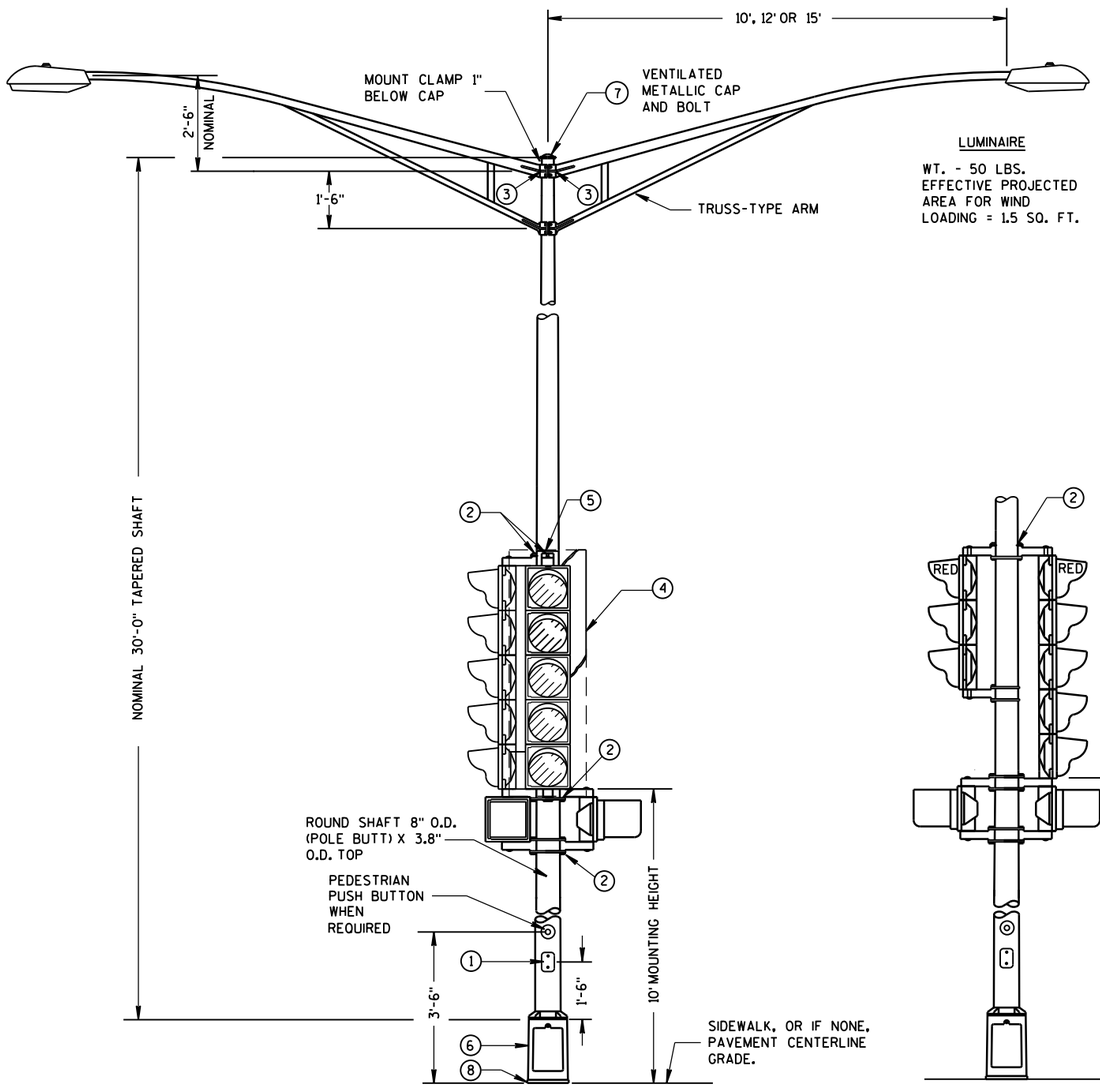
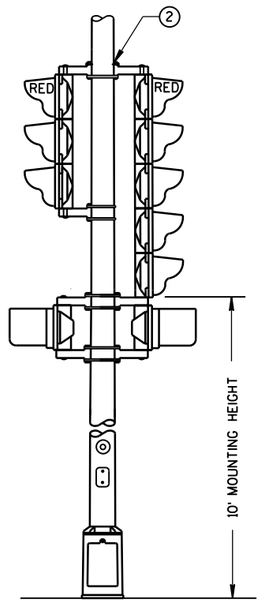




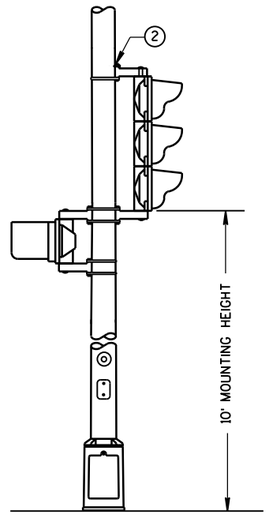
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

(MAXIMUM LOAD)

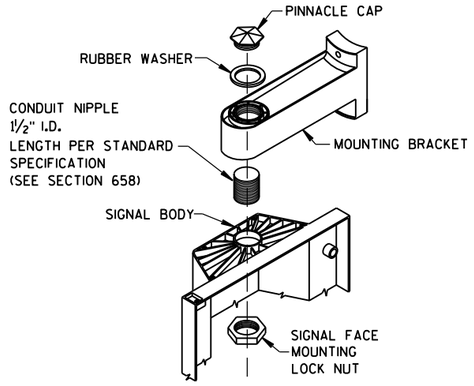


TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

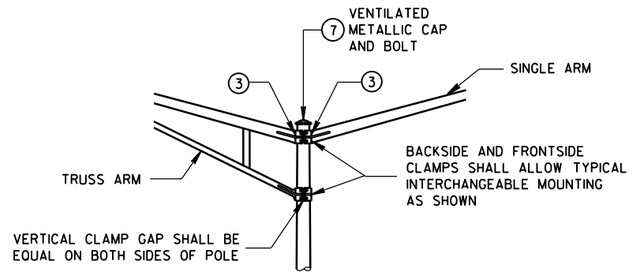
(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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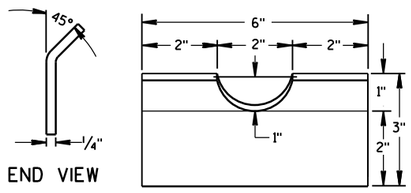
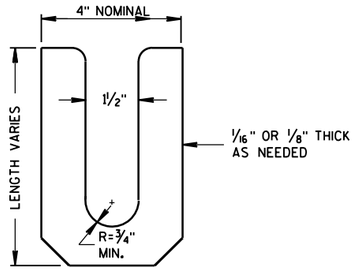
S.D.D. 9 E 1-12c
S.D.D. 9 E 1-12c



FRONT VIEW

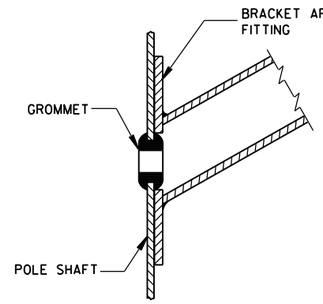
RECTANGULAR CLAMP SHIM

(4 TO A SET)

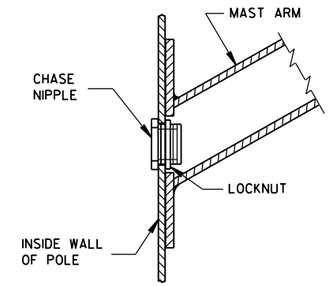


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

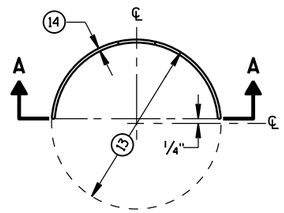
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

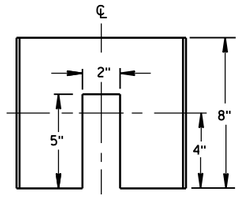
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



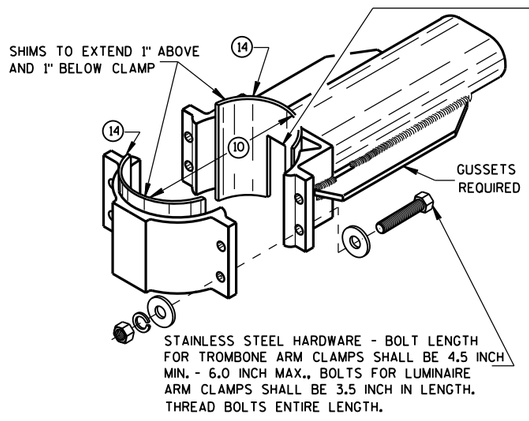
PLAN VIEW



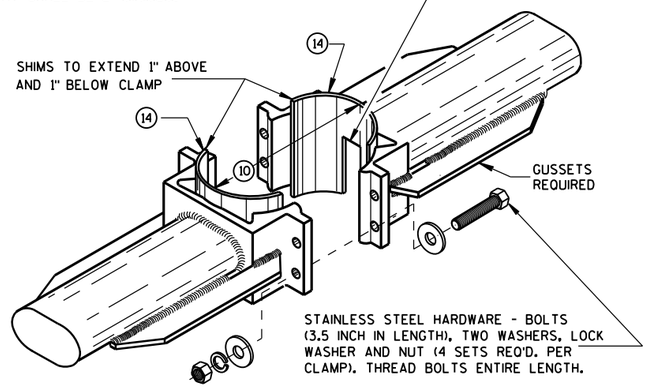
SECTION A-A

CIRCULAR CLAMP SHIM

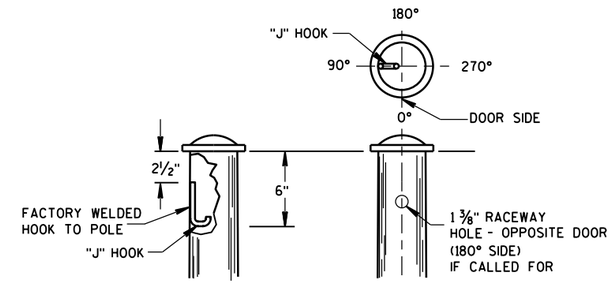
(2 TO A SET)



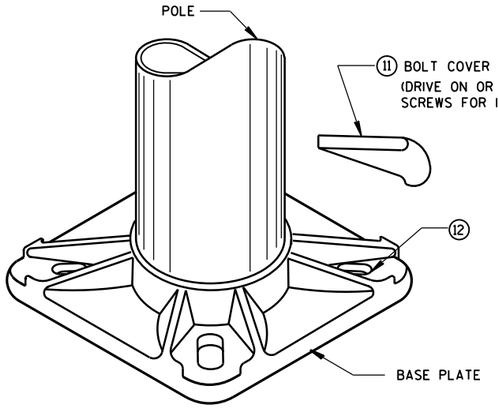
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



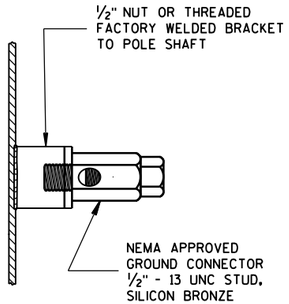
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

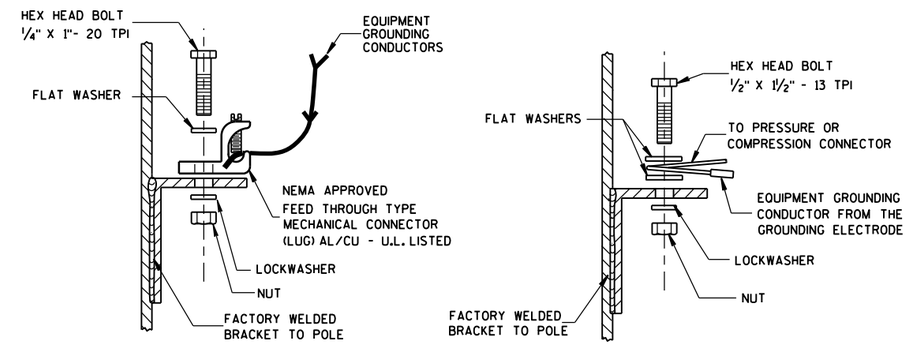


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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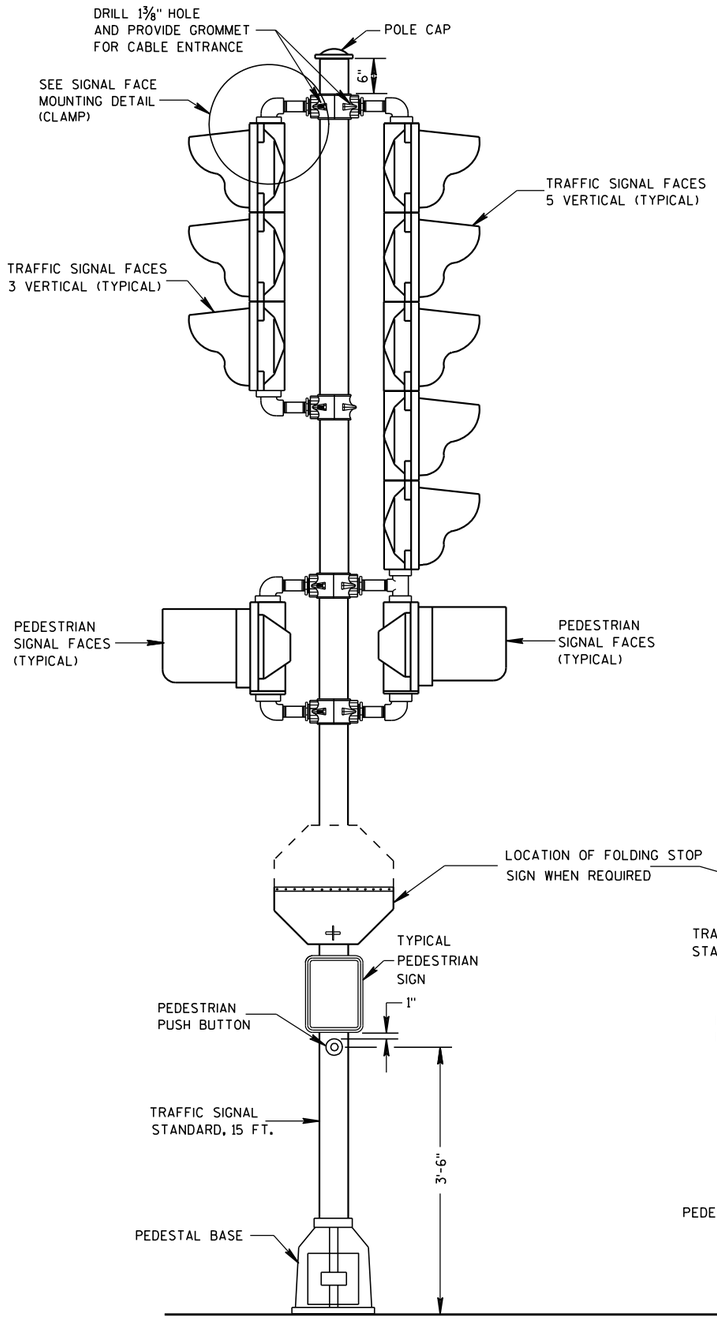
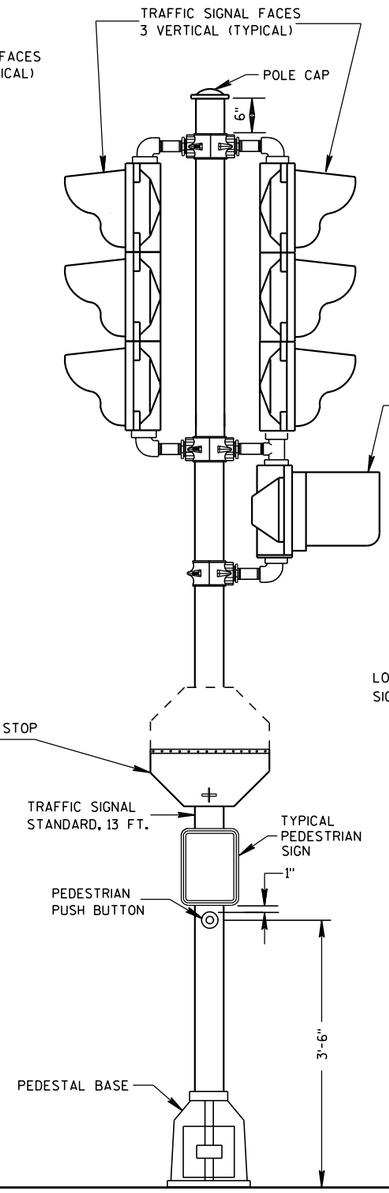
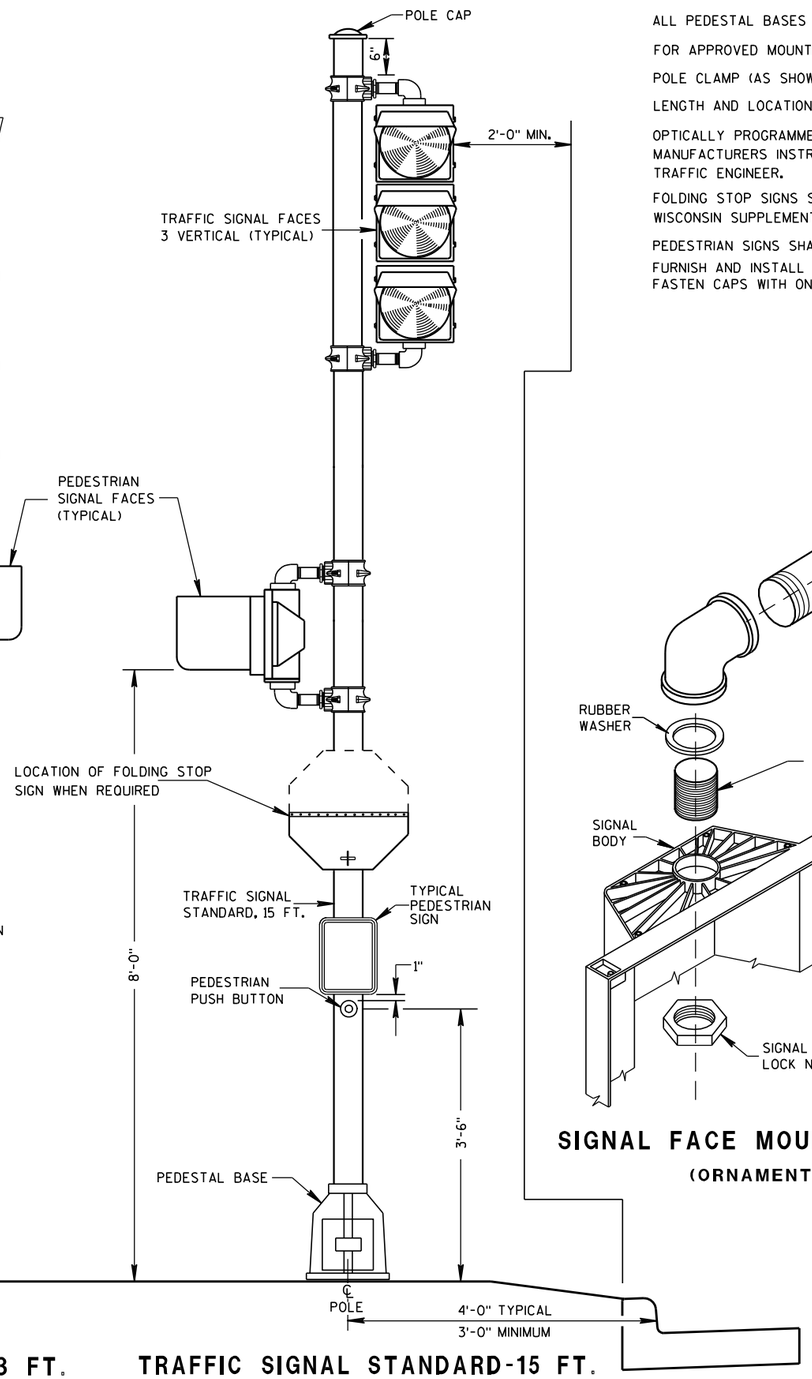
2/7/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 402
FHWA



TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

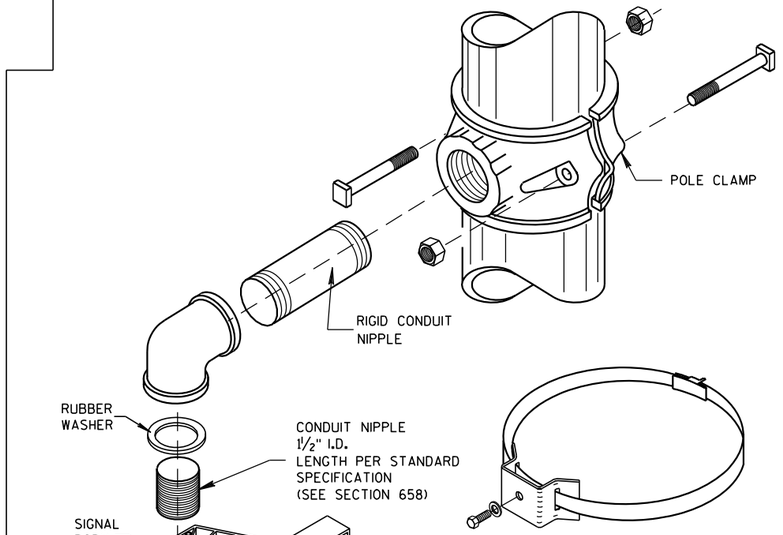
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE DISTRICT TRAFFIC ENGINEER.

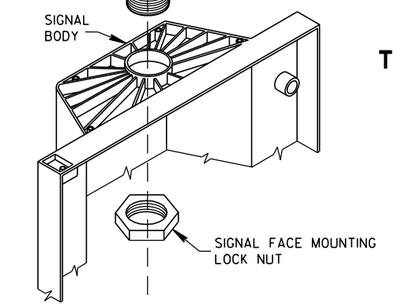
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL
(ORNAMENTAL)

TRAFFIC SIGNAL STANDARD
ORNAMENTAL BRACKET MOUNTINGS
TYPICAL FOR 13 FT. OR 15 FT.

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DEPARTMENT OF TRANSPORTATION

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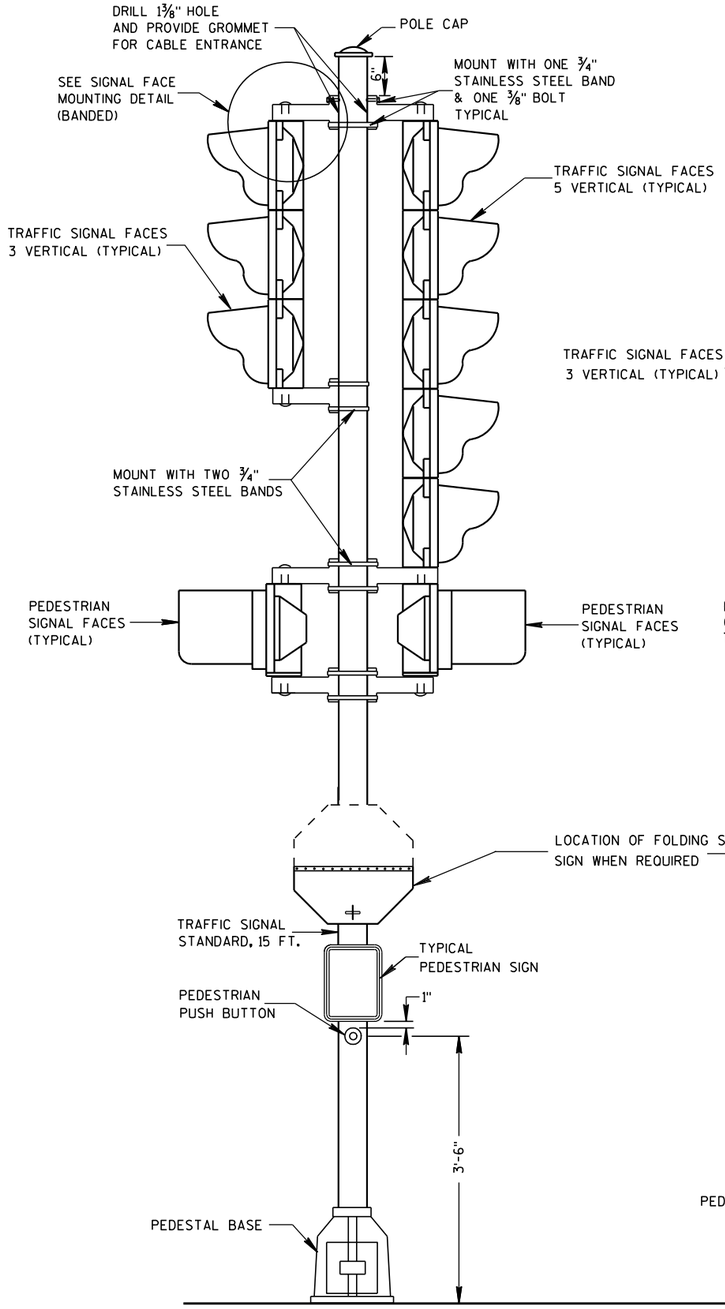
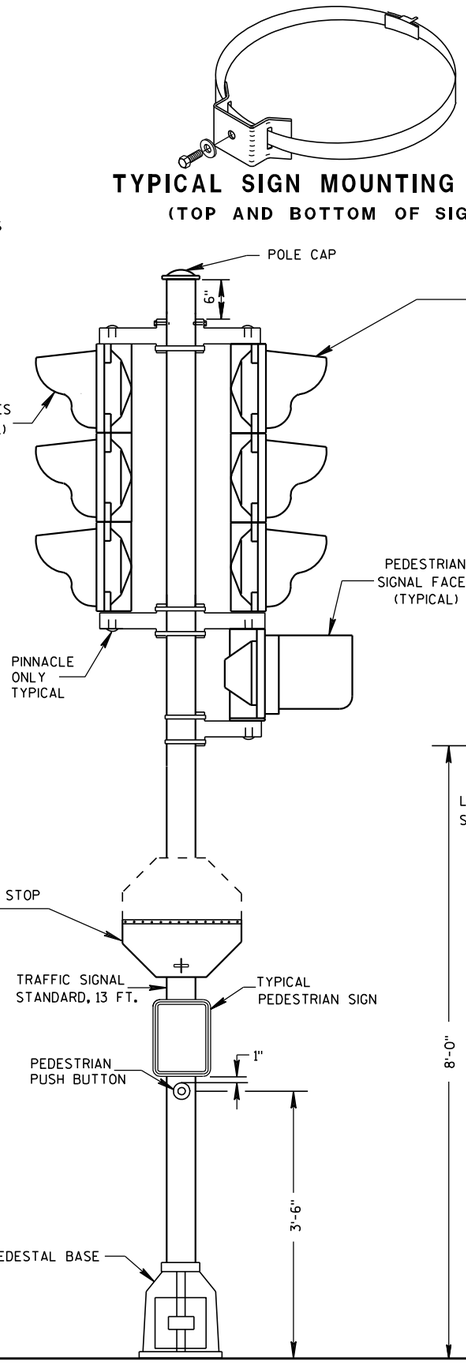
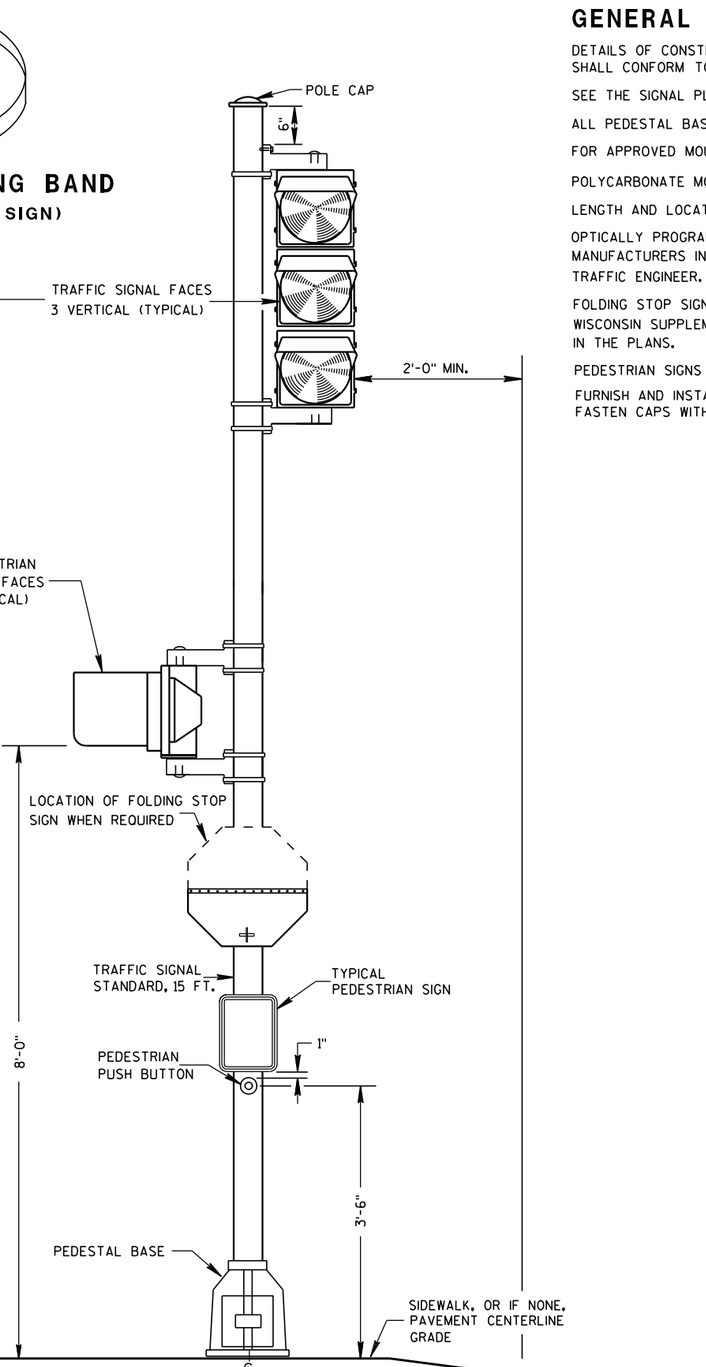


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

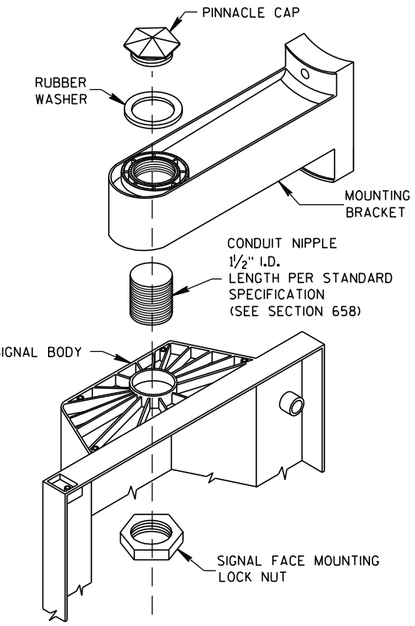
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE DISTRICT TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
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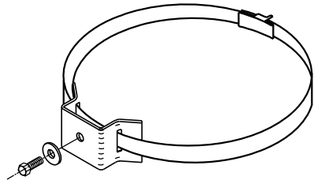
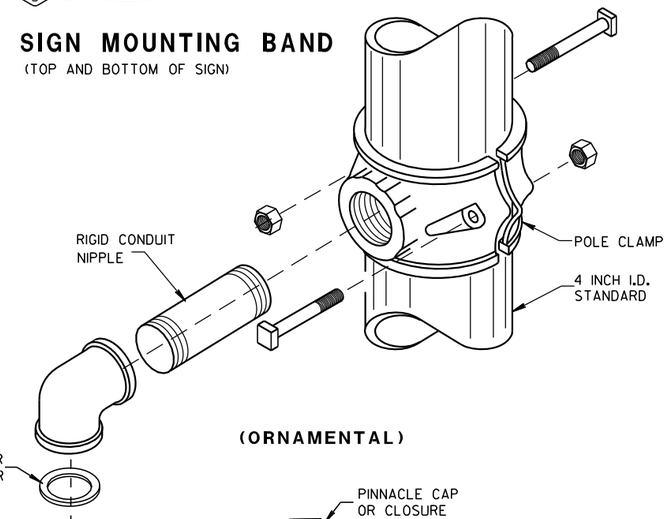
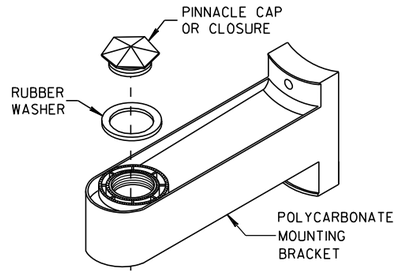


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



(ORNAMENTAL)



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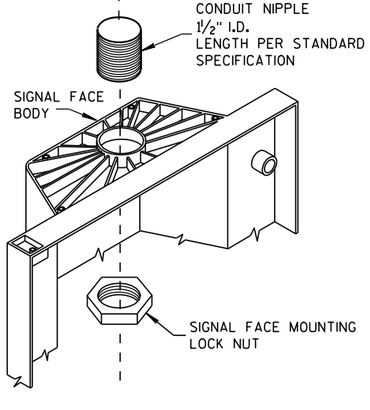
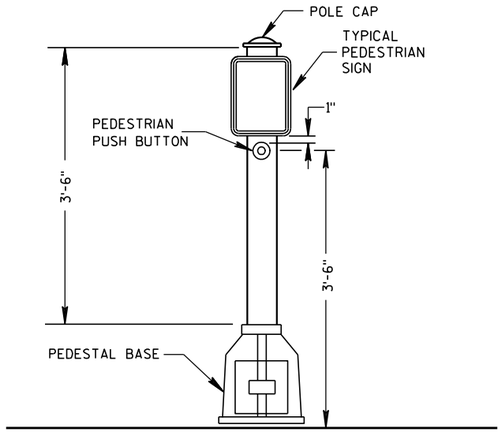


SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

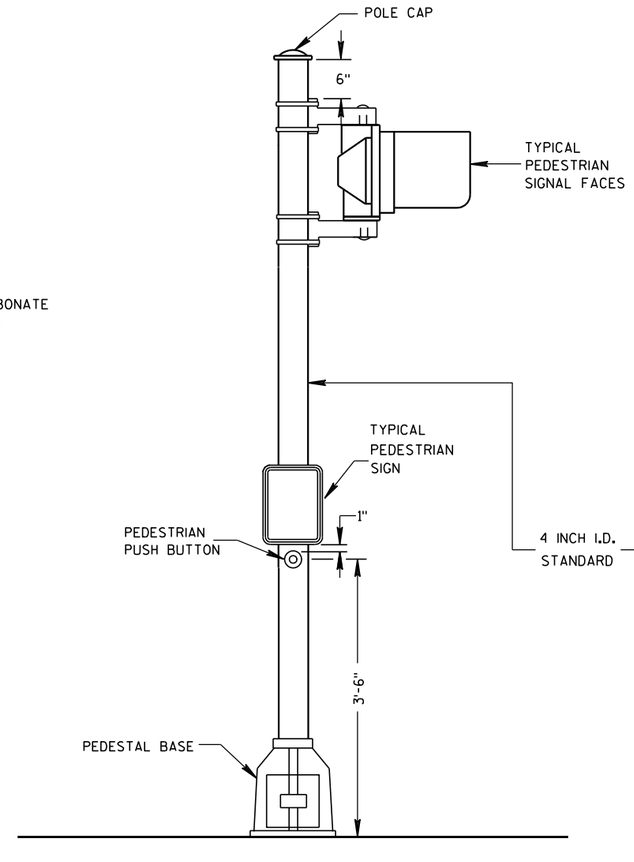
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

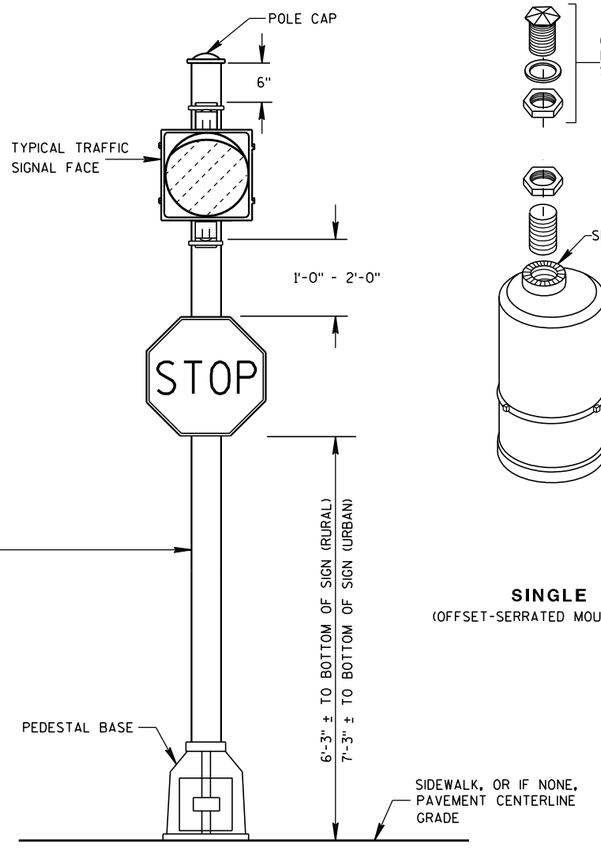
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

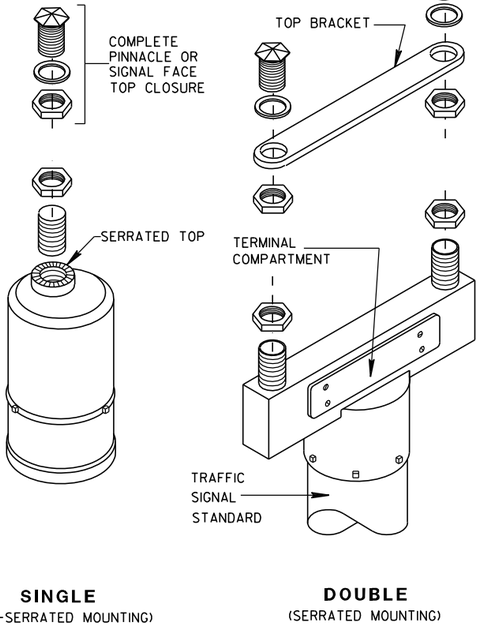
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
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APPROVED

5/11/10
DATE

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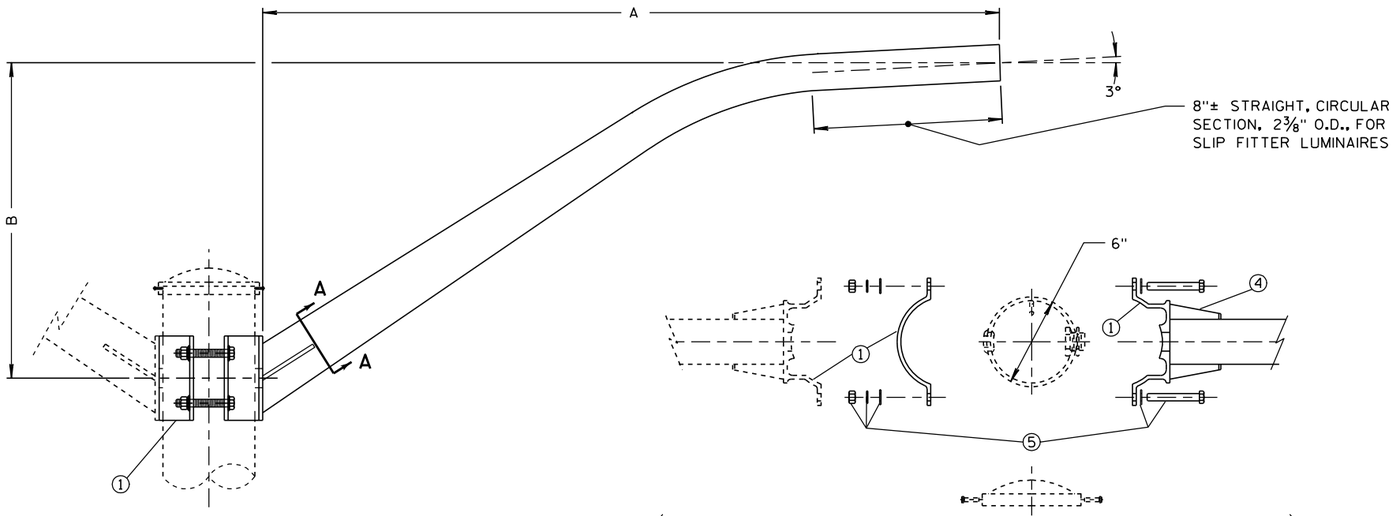
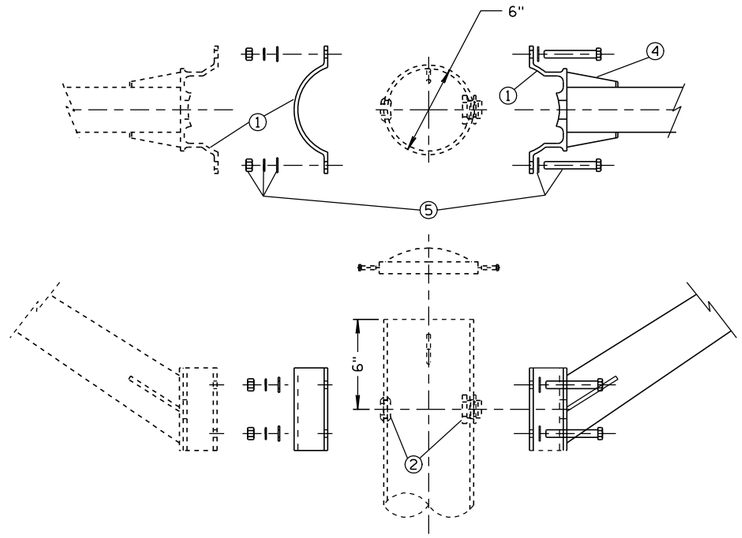


LUMINAIRE ARMS, SINGLE MEMBER, 6-INCH CLAMP - FOR POLES, TYPE 7, A OR E

VARIOUS LENGTHS (SEE TABLE)



CLAMP ASSEMBLY

SINGLE MEMBER CLAMP SHOWN

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
SINGLE MEMBER	4.0	2.0
SINGLE MEMBER	8.0	3.0
SINGLE MEMBER	10.0	3.0
SINGLE MEMBER	15.0	3.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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10/25/2010 DATE — /S/ John Corbin STATE ELECTRICAL ENGI — HWYS

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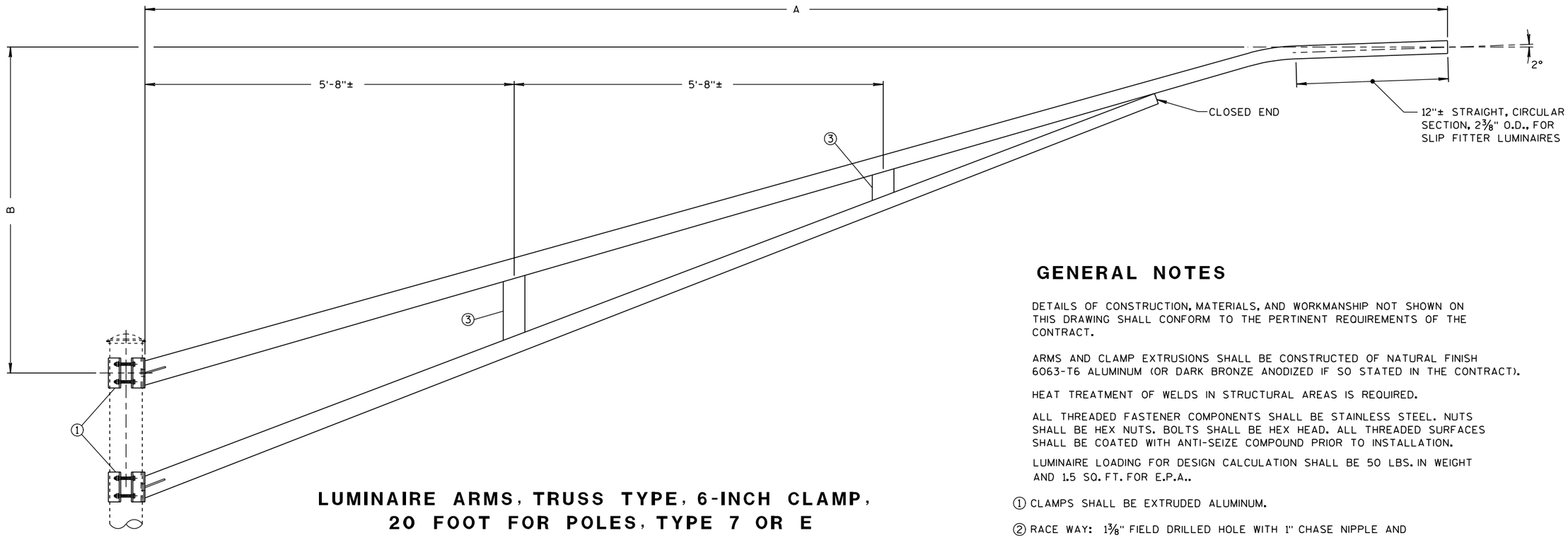

LUMINAIRE ARMS, TRUSS TYPE, 6-INCH CLAMP, 20 FOOT FOR POLES, TYPE 7 OR E

UPPER AND LOWER TRUSS CHORD CLAMPS SIMILIAR

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
TRUSS TYPE	20.0	5.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY. NOTE: NO RACEWAY ON LOWER TRUSS CORD CLAMP. FOR INFORMATION ONLY.

③ STIFFENER.

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/25/2010 DATE

/S/ John Corbin STATE ELECTRICAL ENGI

407 HWYS

FHWA

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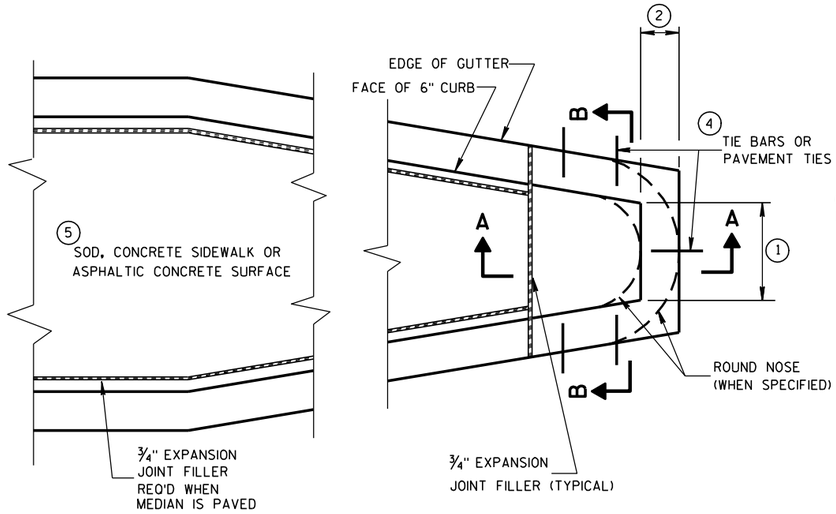
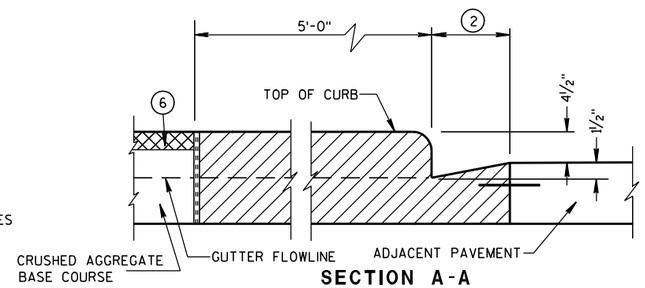
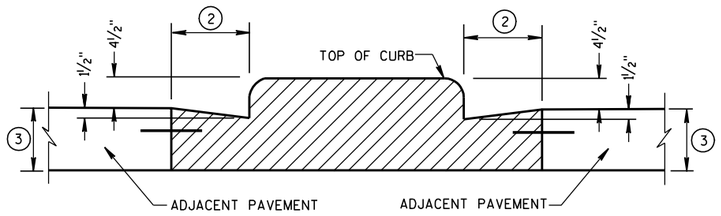
S.D.D. 10 A 18-4b





SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

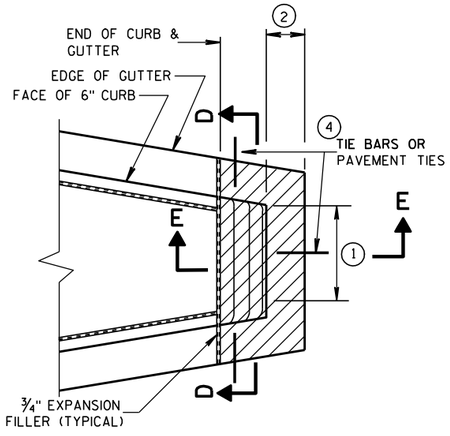
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

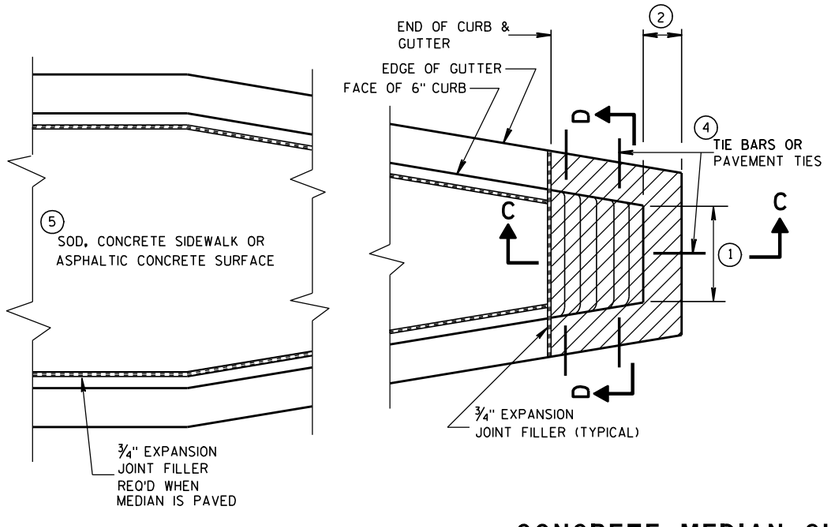
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

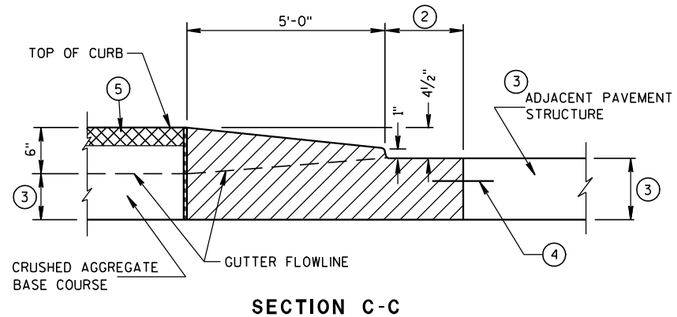
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

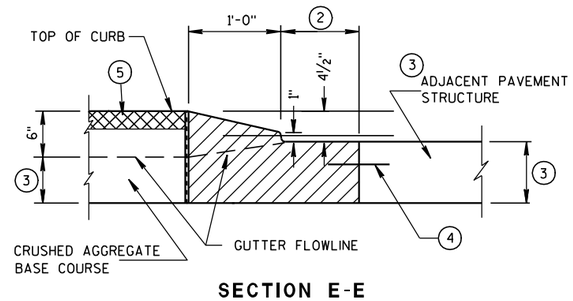
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.







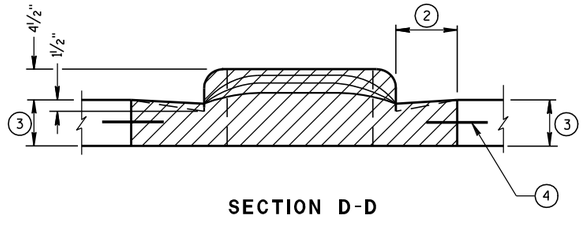
SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

1408

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FHWA

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S.D.D. 11 B 2-2

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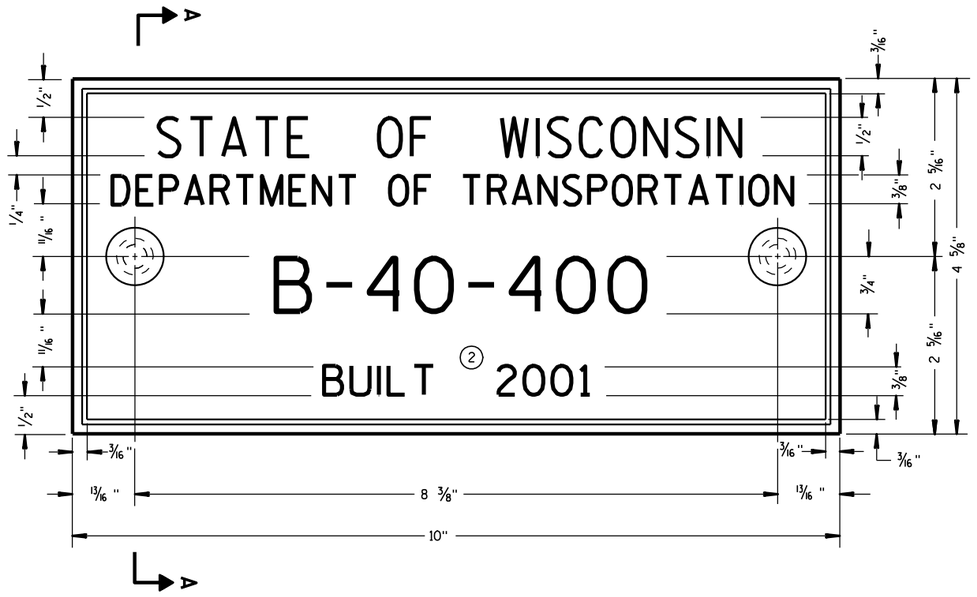
S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

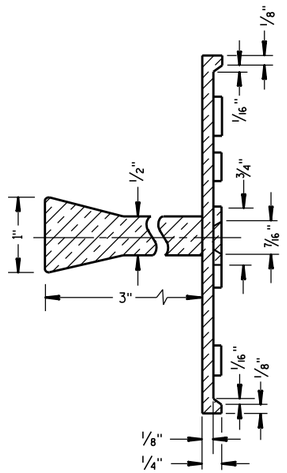
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

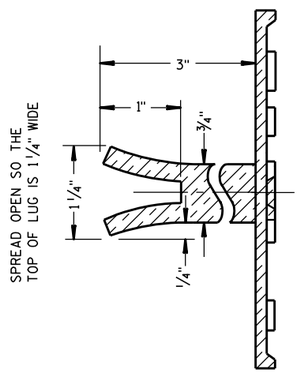
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

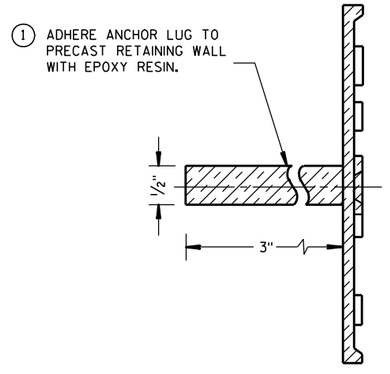
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

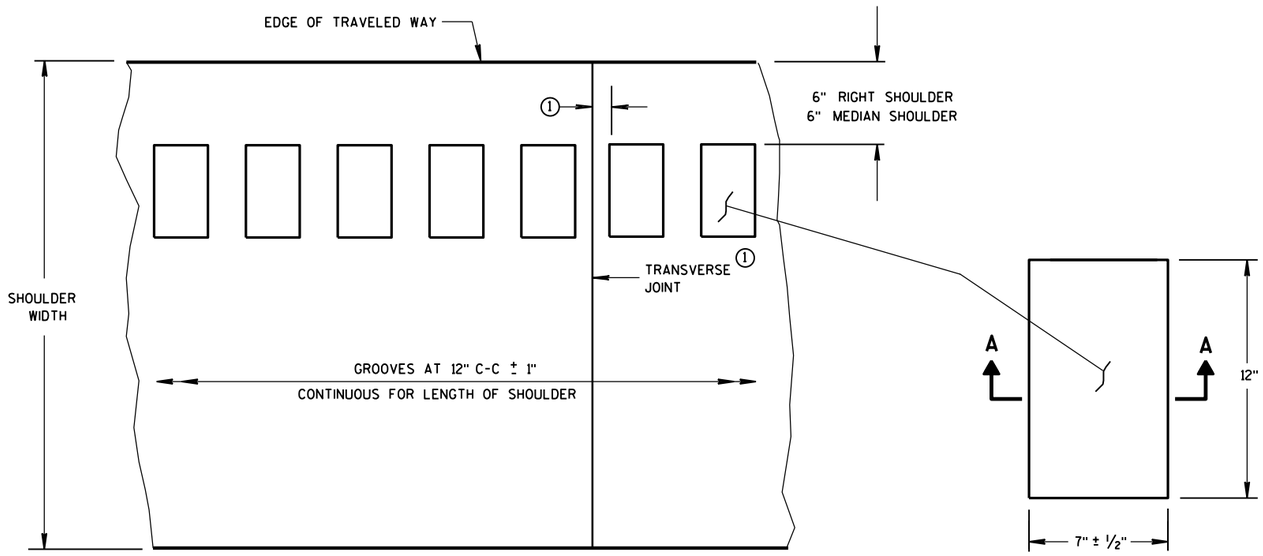
3/26/10 DATE

/S/ Scot Beck
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

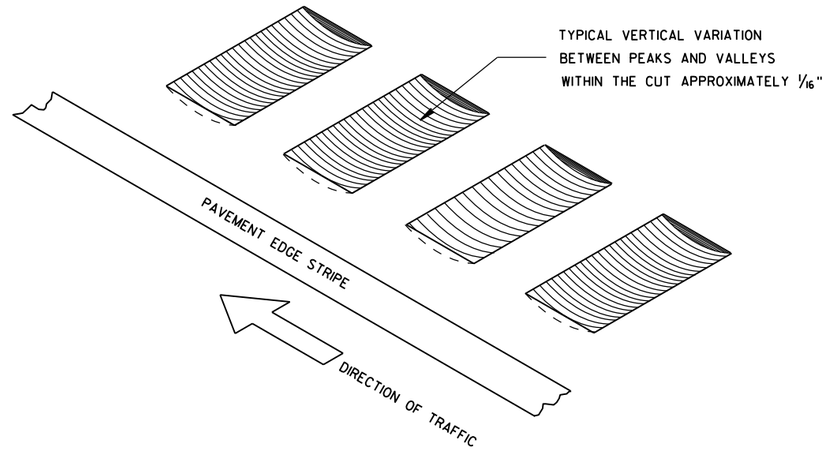
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



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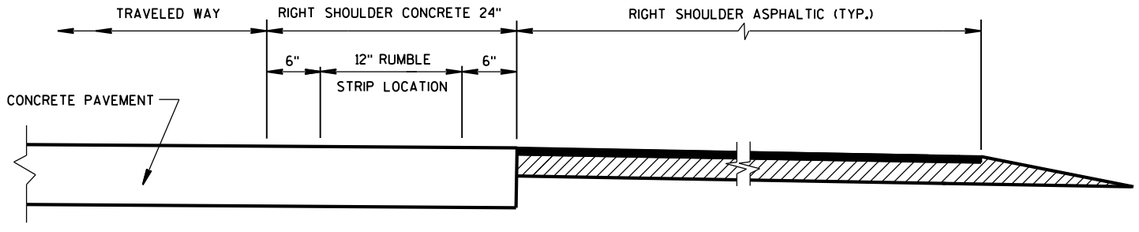
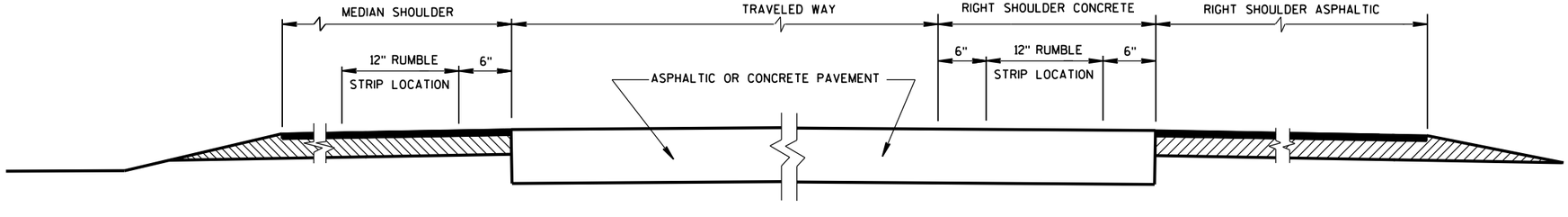


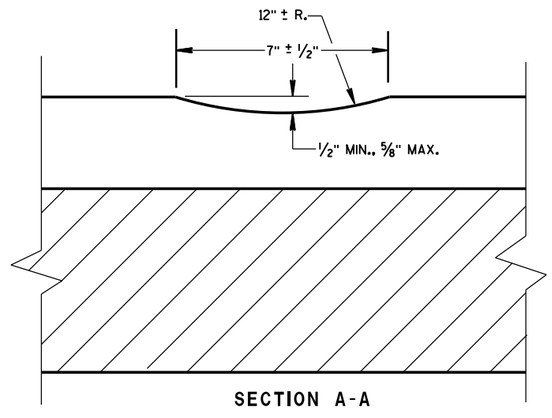
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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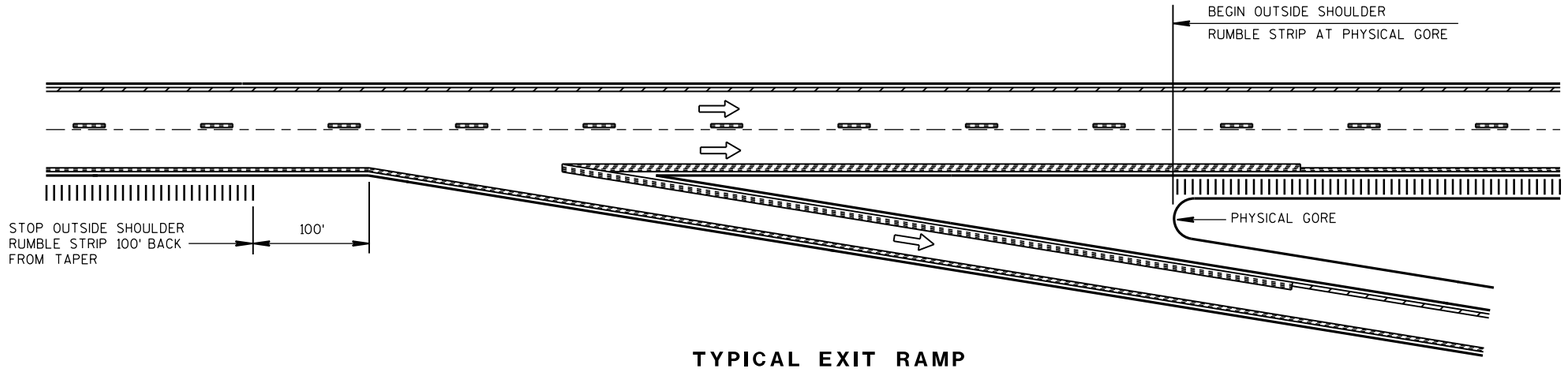
S.D.D. 13 A 5-5a



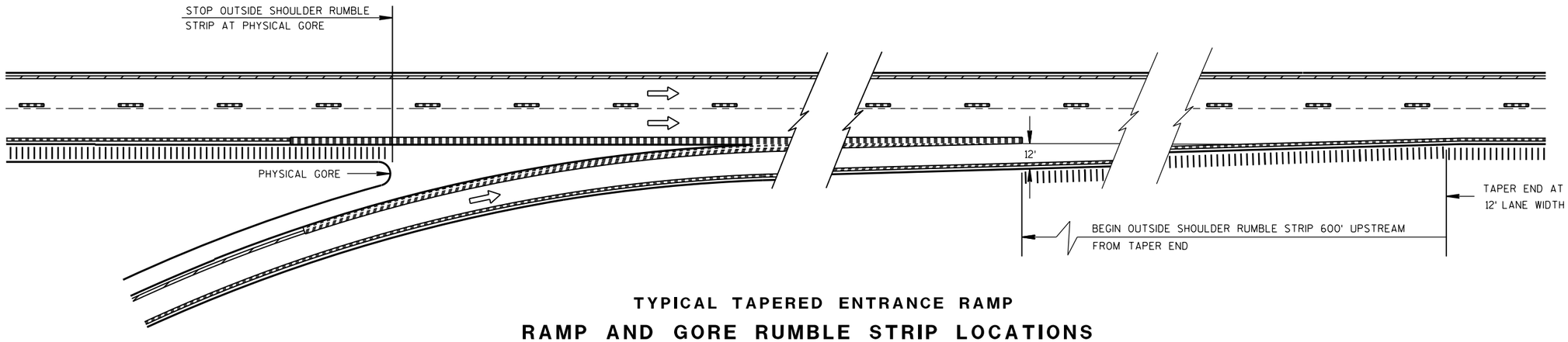
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

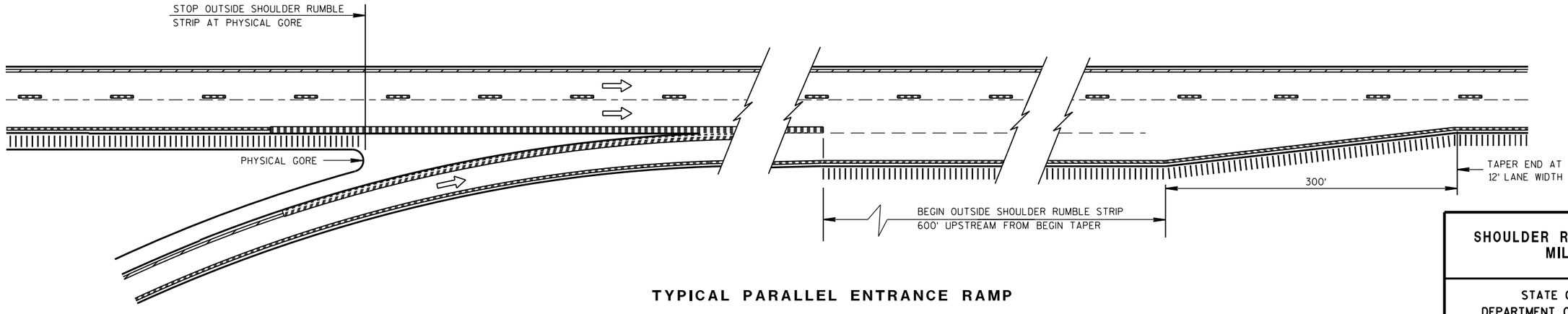
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 13 A 5-5b

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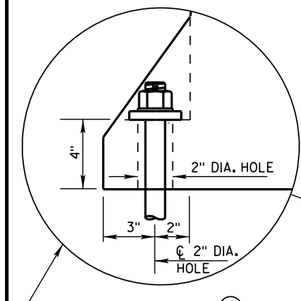
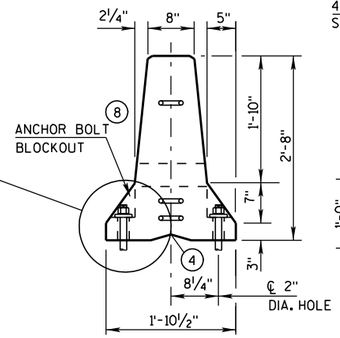
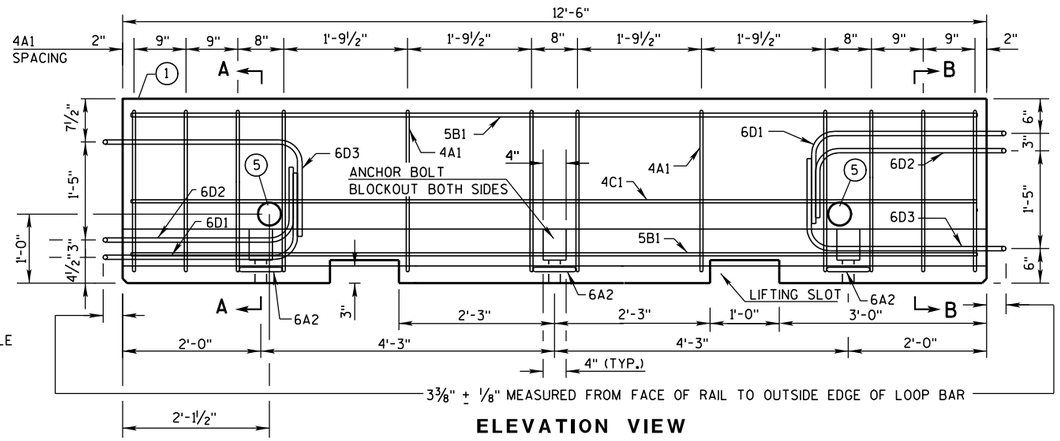
S.D.D. 13 A 5-5b

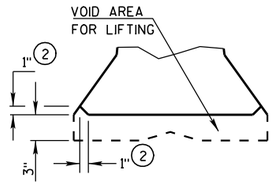




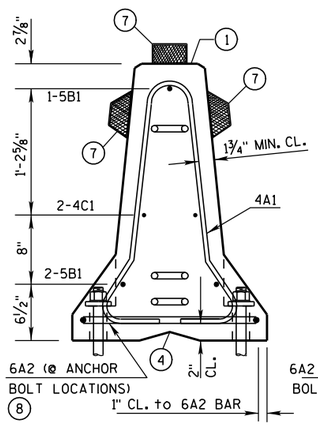
END VIEW



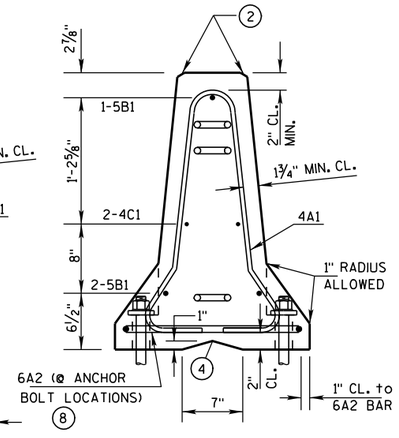
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



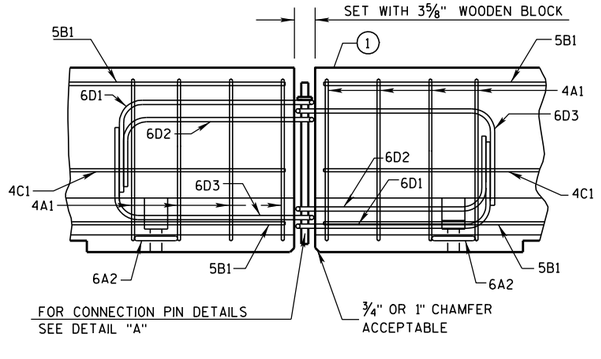
SECTION A-A
(STIRRUP PLACEMENT)



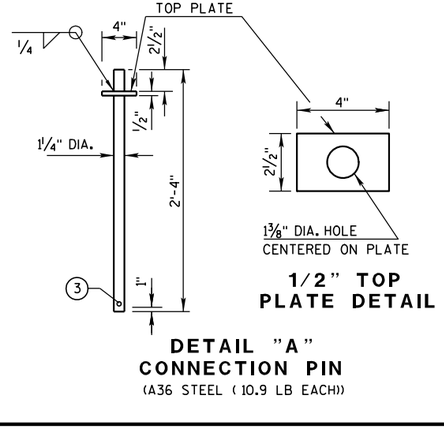
SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

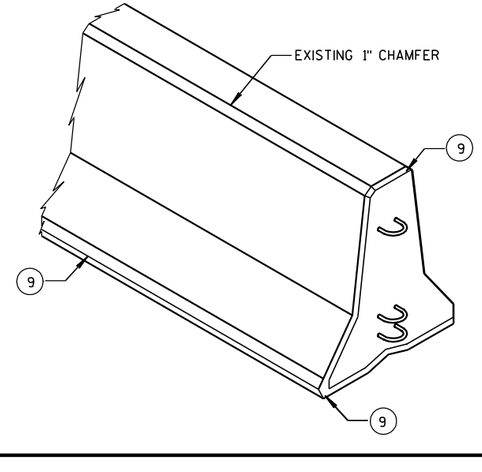


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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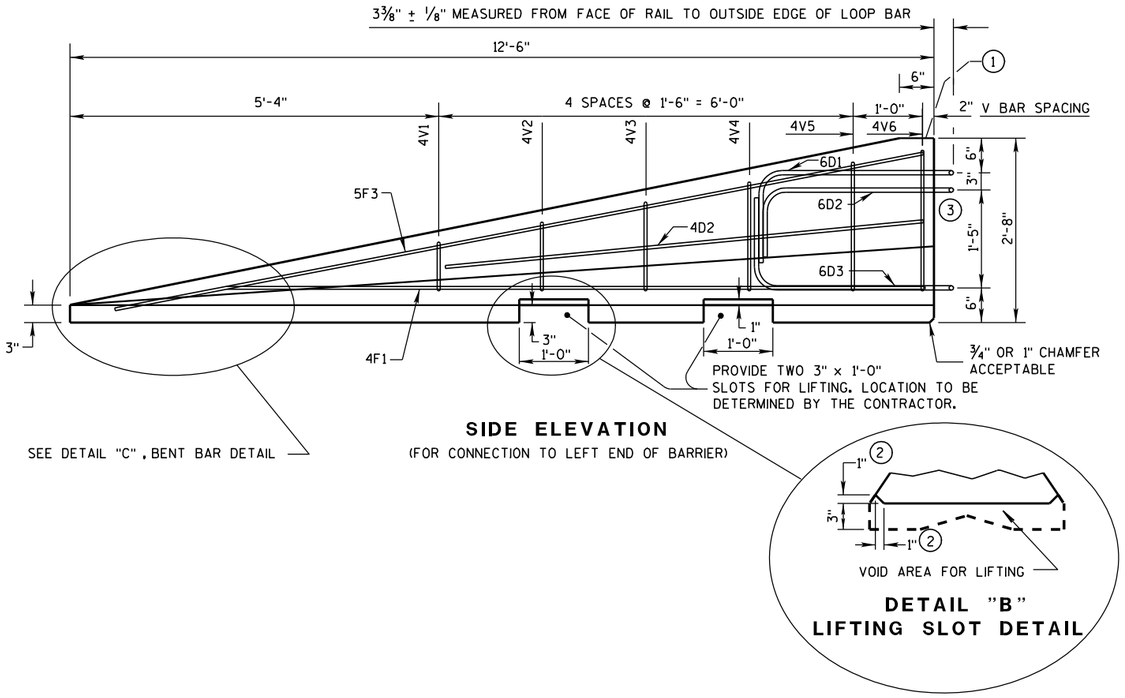
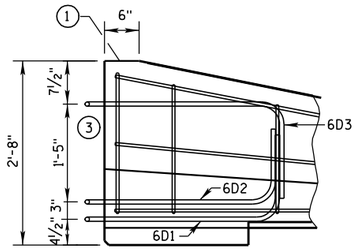
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

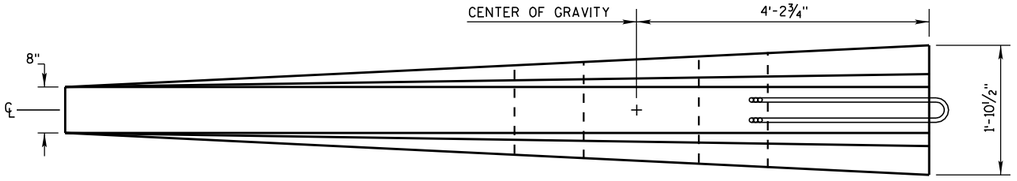


SIDE ELEVATION

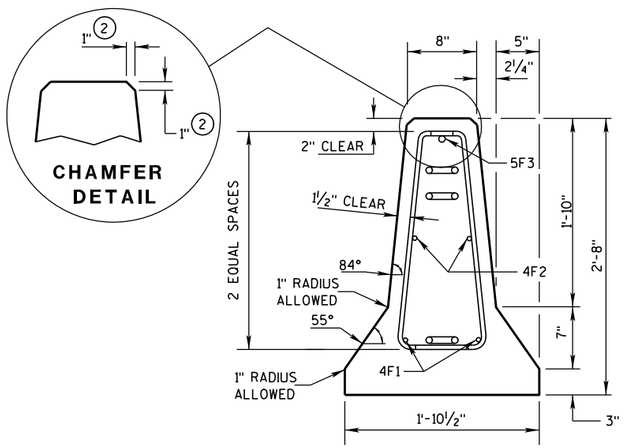
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

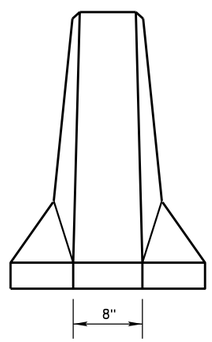
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



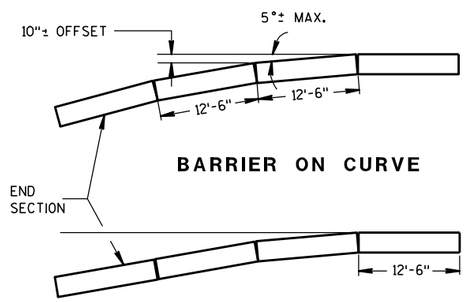
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 7-13b

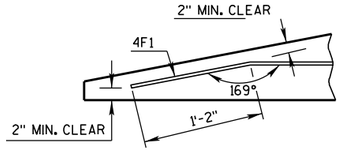
6

S.D.D. 14 B 7-13b

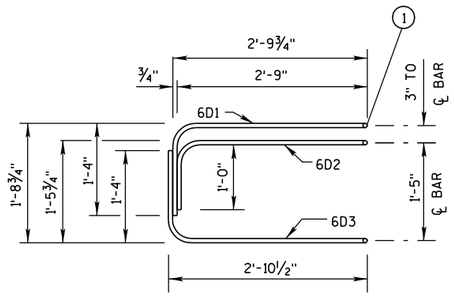
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

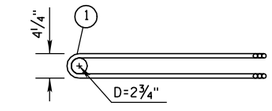
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

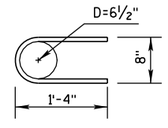
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

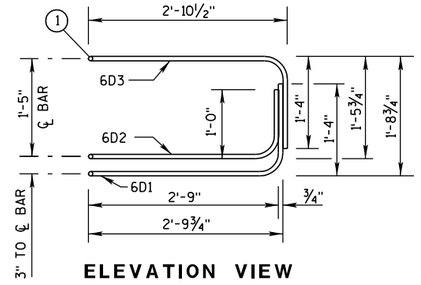
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



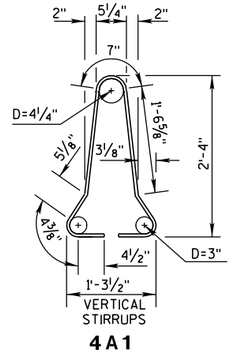
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



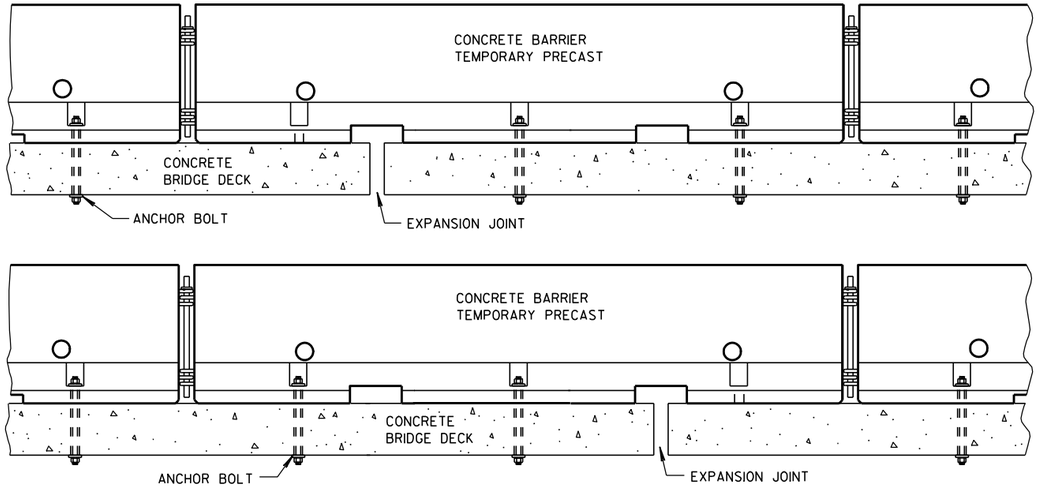
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

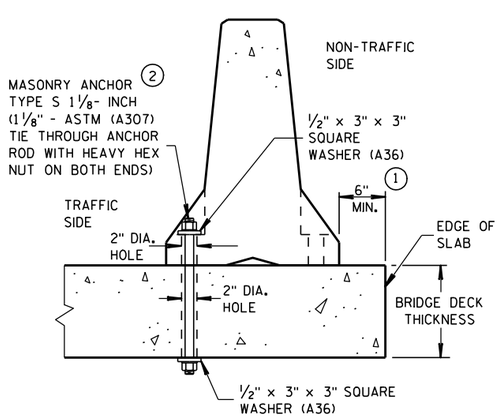
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13c



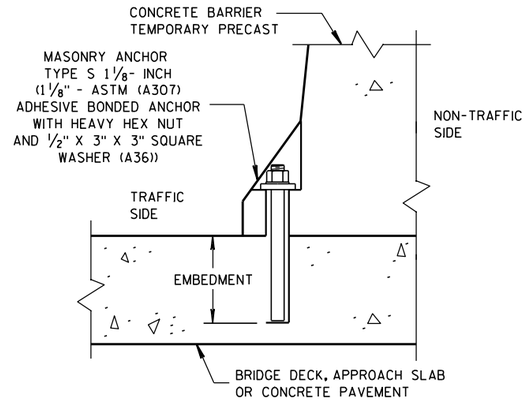
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

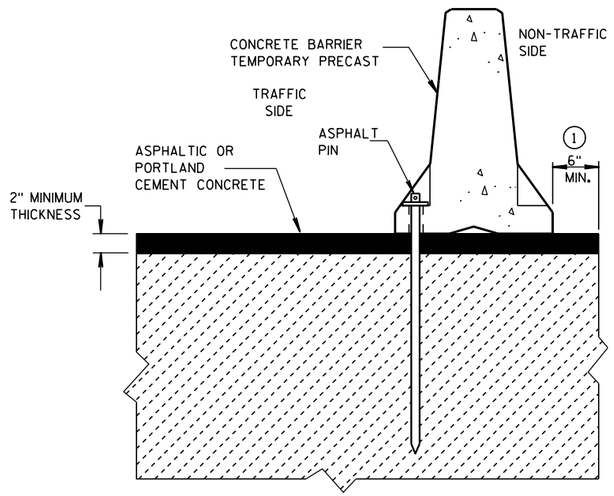
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

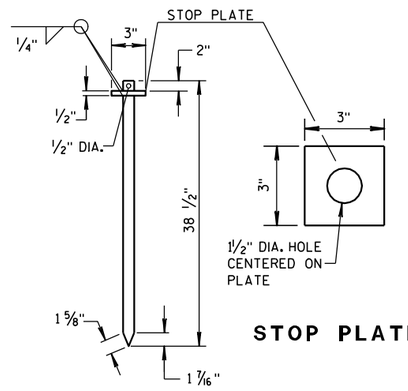
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

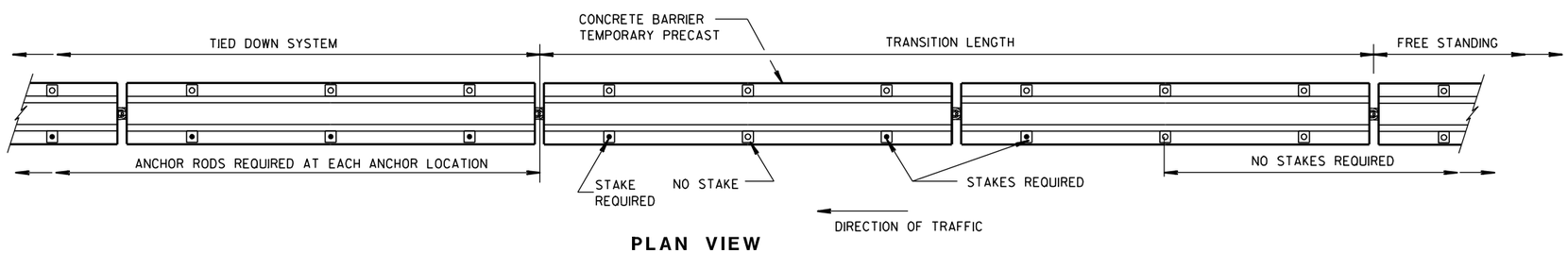
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

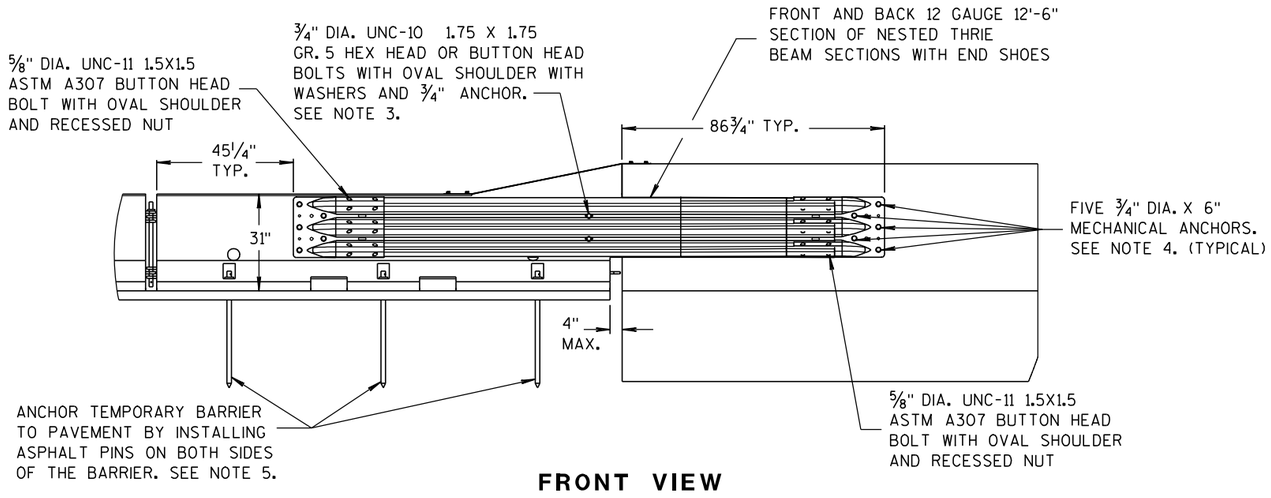
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

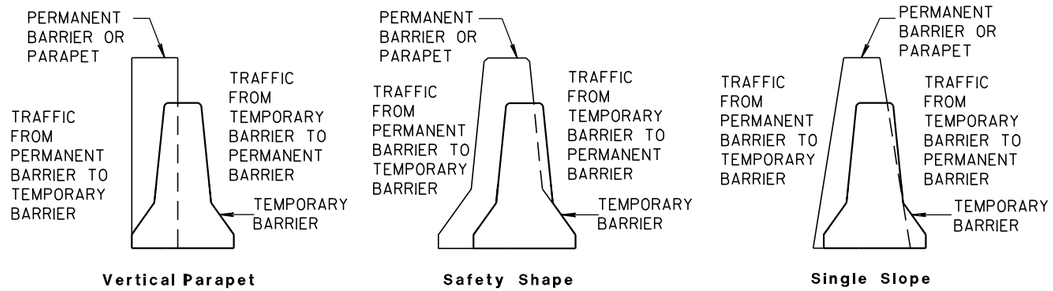
6
S.D.D. 14 B 7-13d



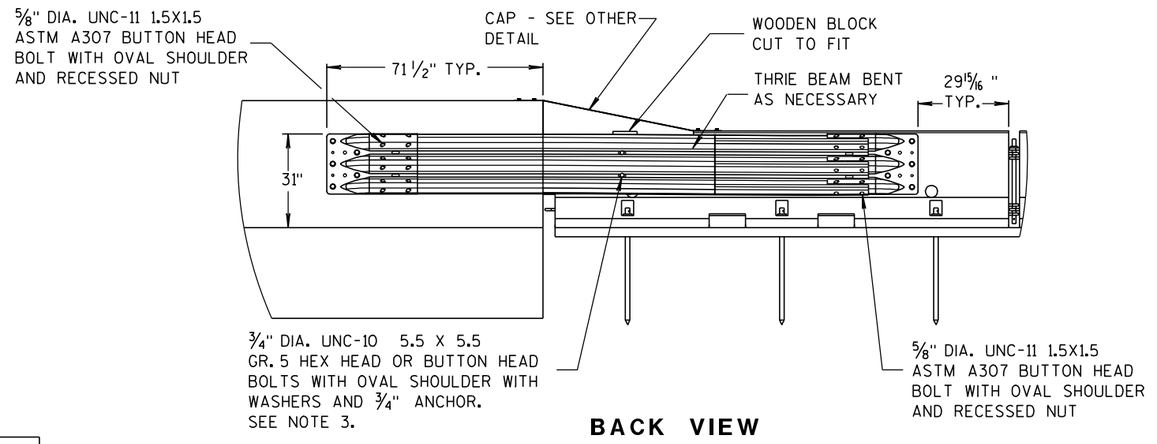
FRONT VIEW

NOTES

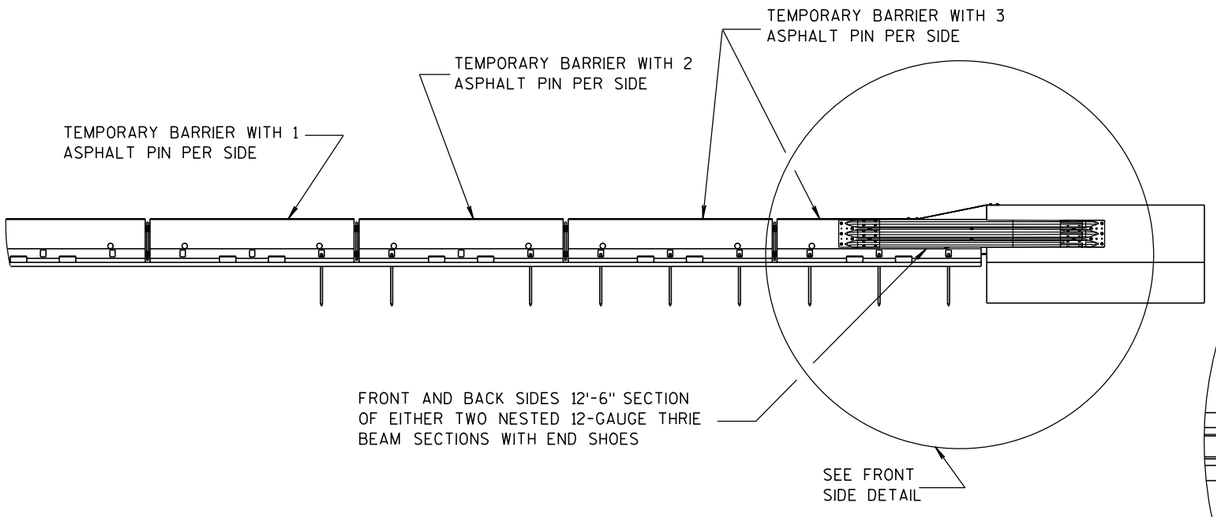
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



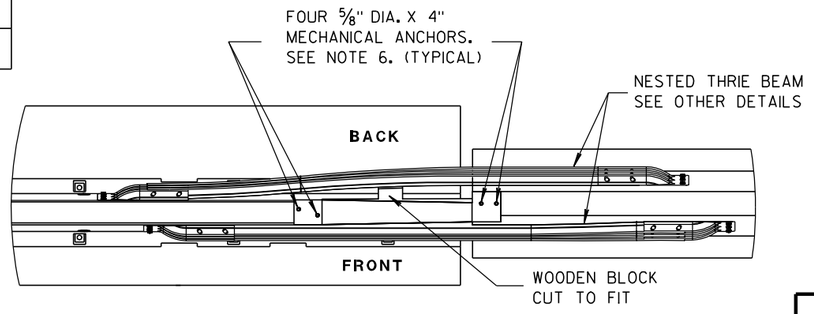
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



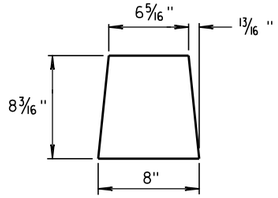
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

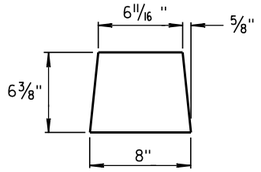
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

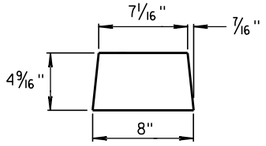
6
S.D.D. 14 B 7-13e



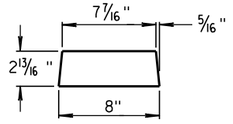
GUSSET 1



GUSSET 2

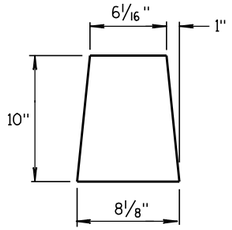


GUSSET 3

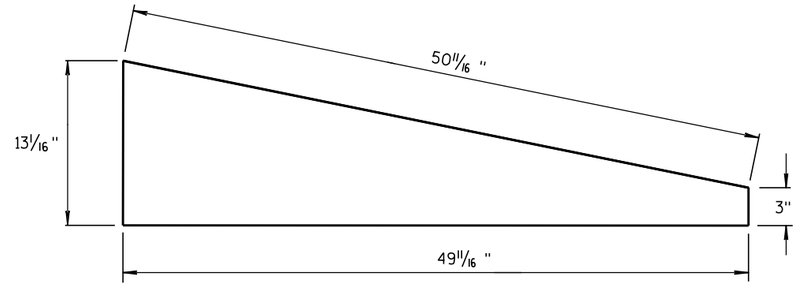


GUSSET 4

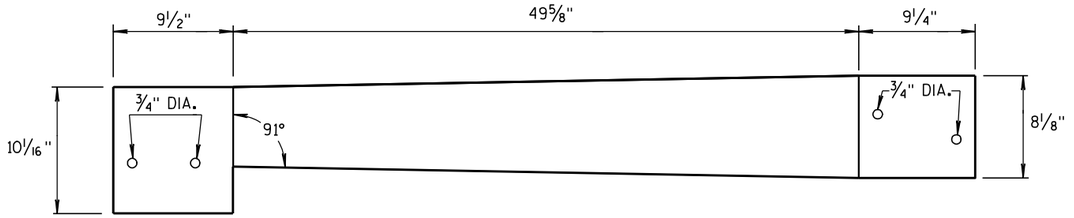
GUSSETS

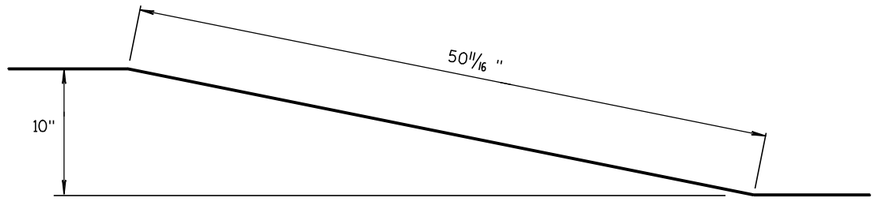


END PLATE

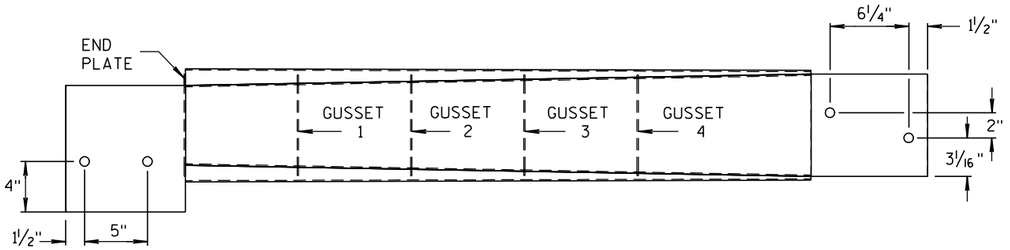


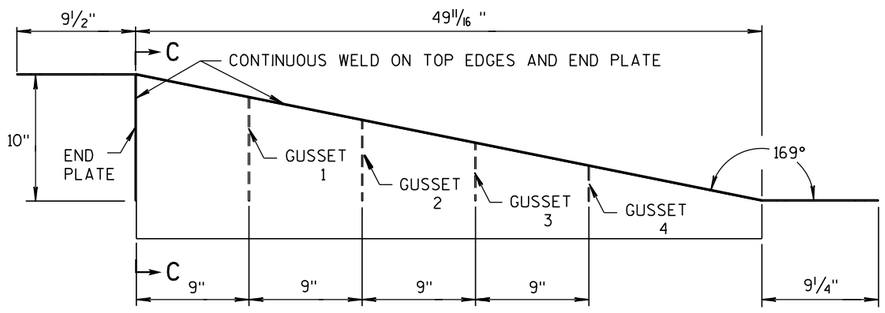
SIDE PLATE

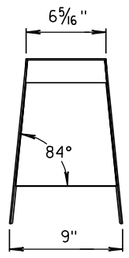




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

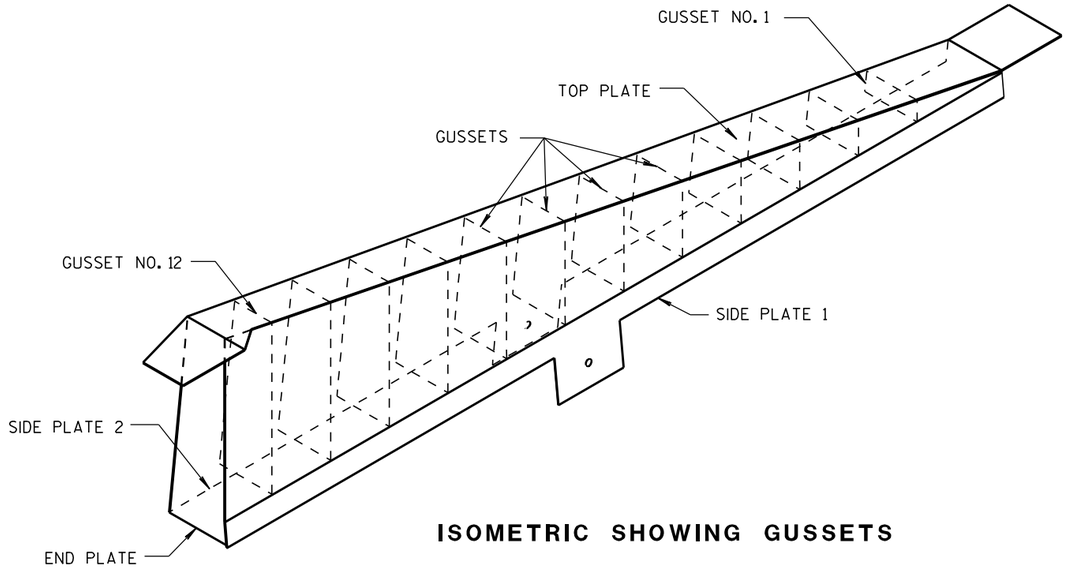
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

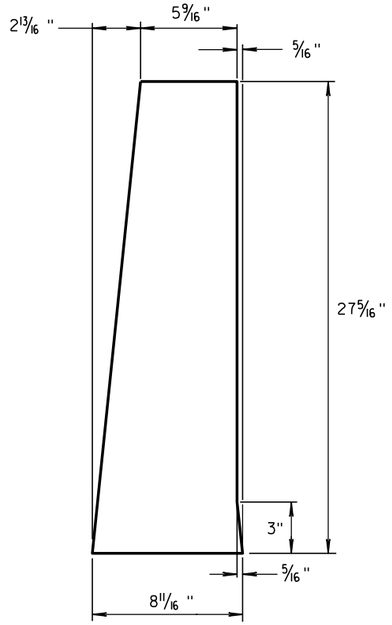
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 7-13f

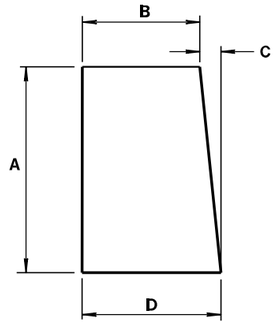


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



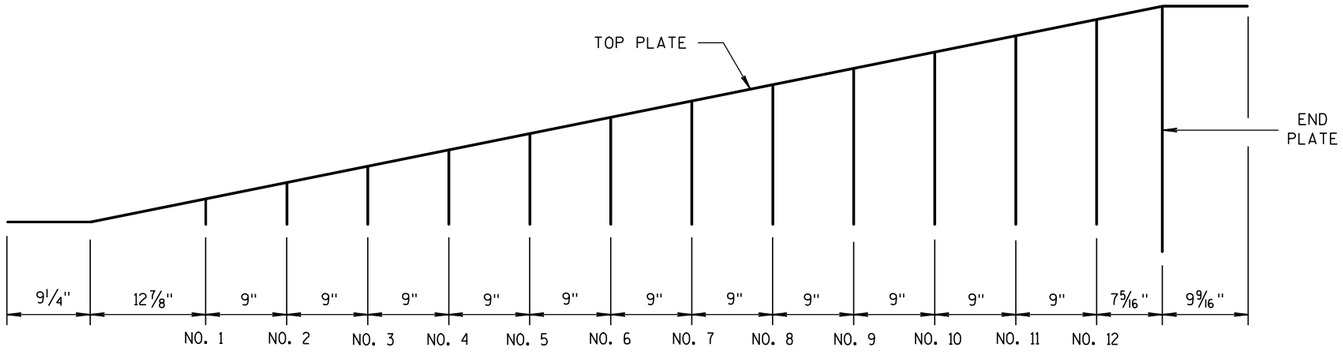
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

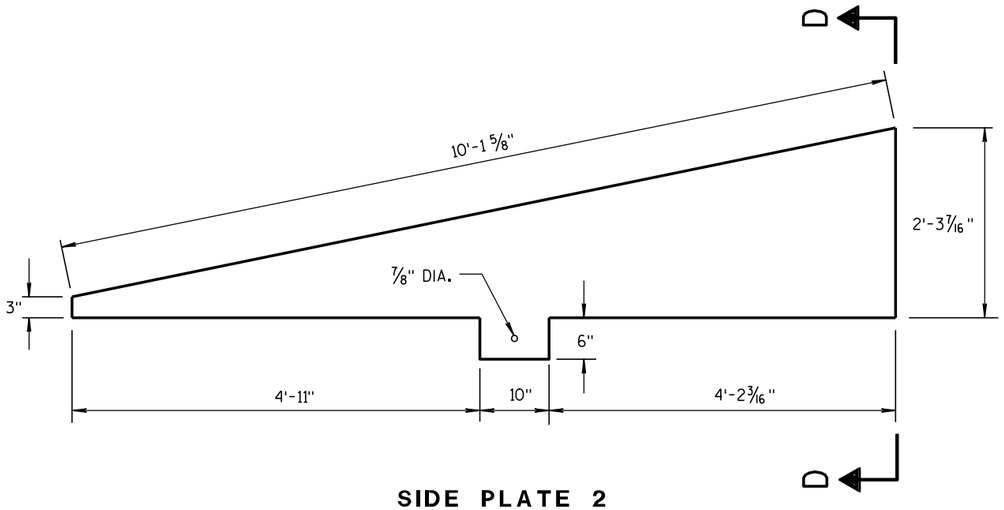
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

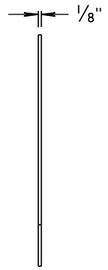
S.D.D. 14 B 7-13g

6

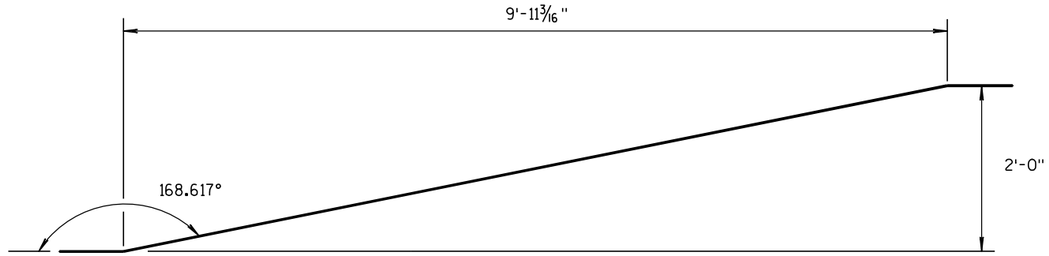
S.D.D. 14 B 7-13g



SIDE PLATE 2

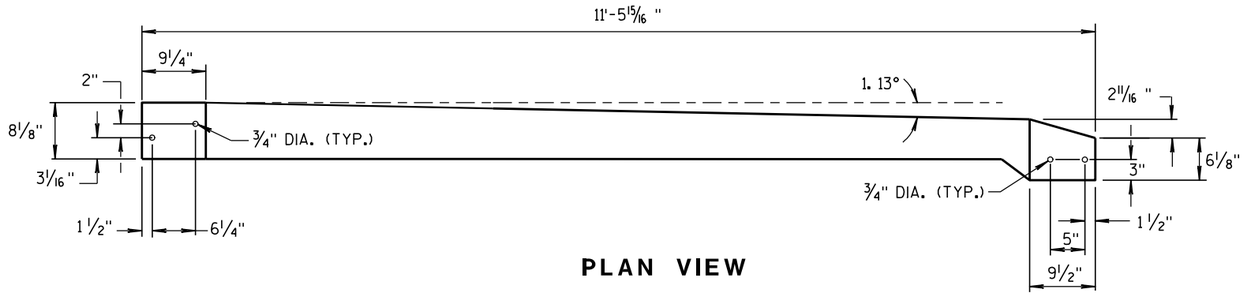


END VIEW



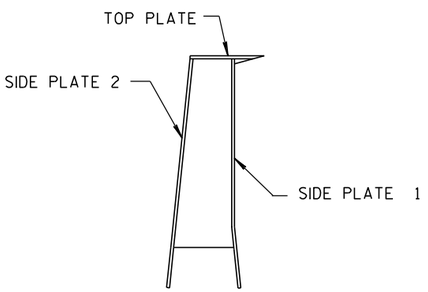
SIDE VIEW

TOP PLATE

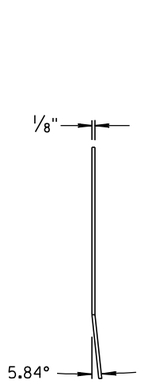


PLAN VIEW

TOP PLATE



SECTION D-D



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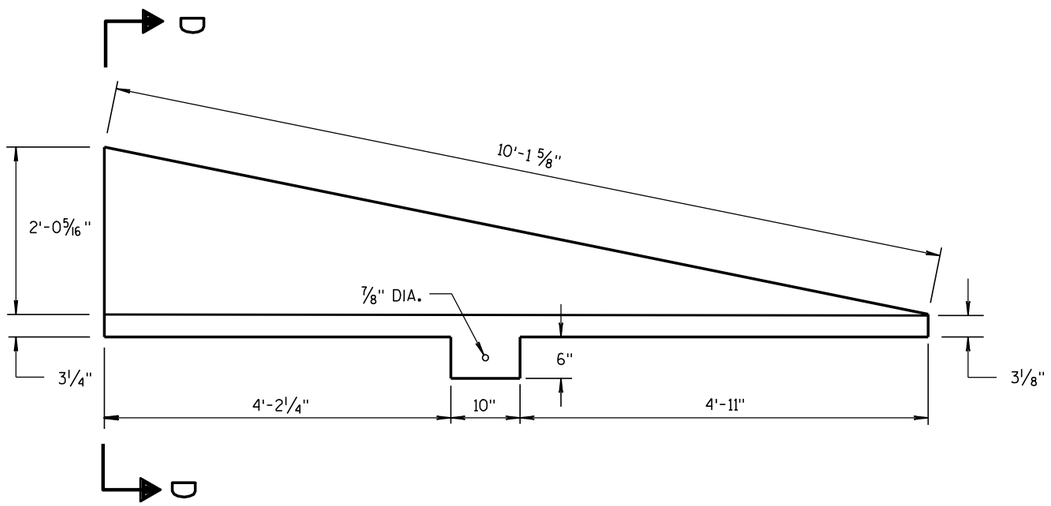


SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

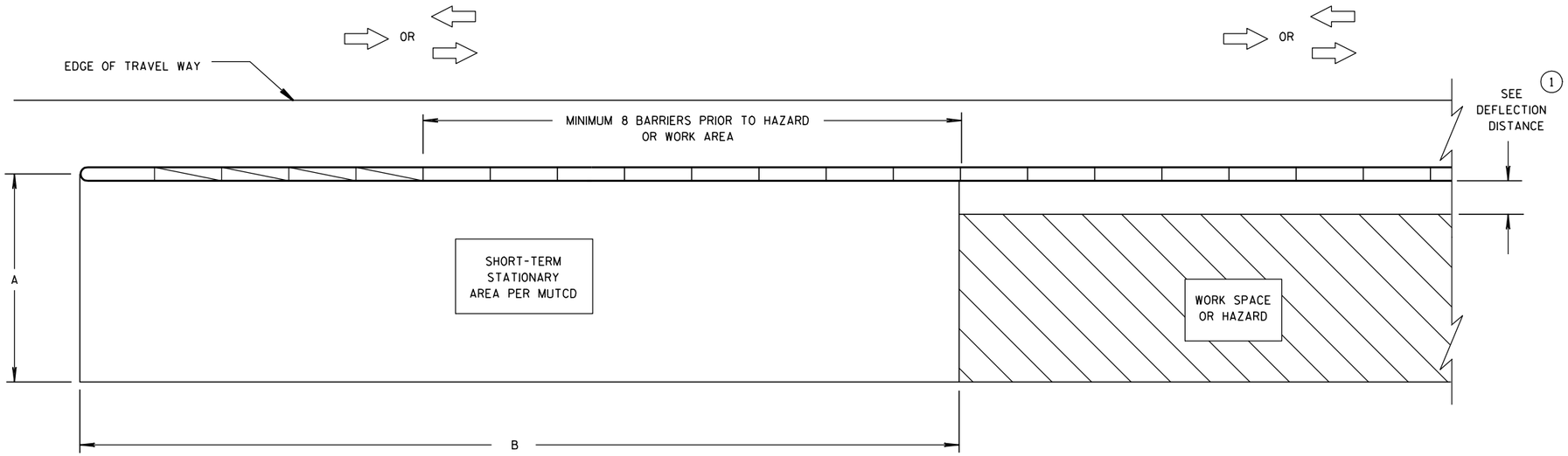
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. ROADWAY STANDARDS ENGINEER 419 ENT FHWA

6

S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



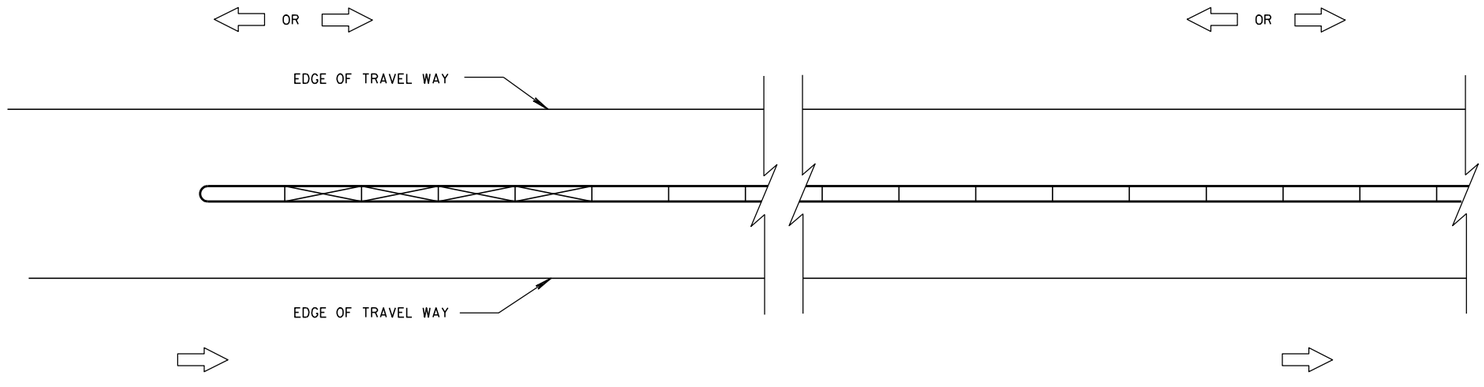
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

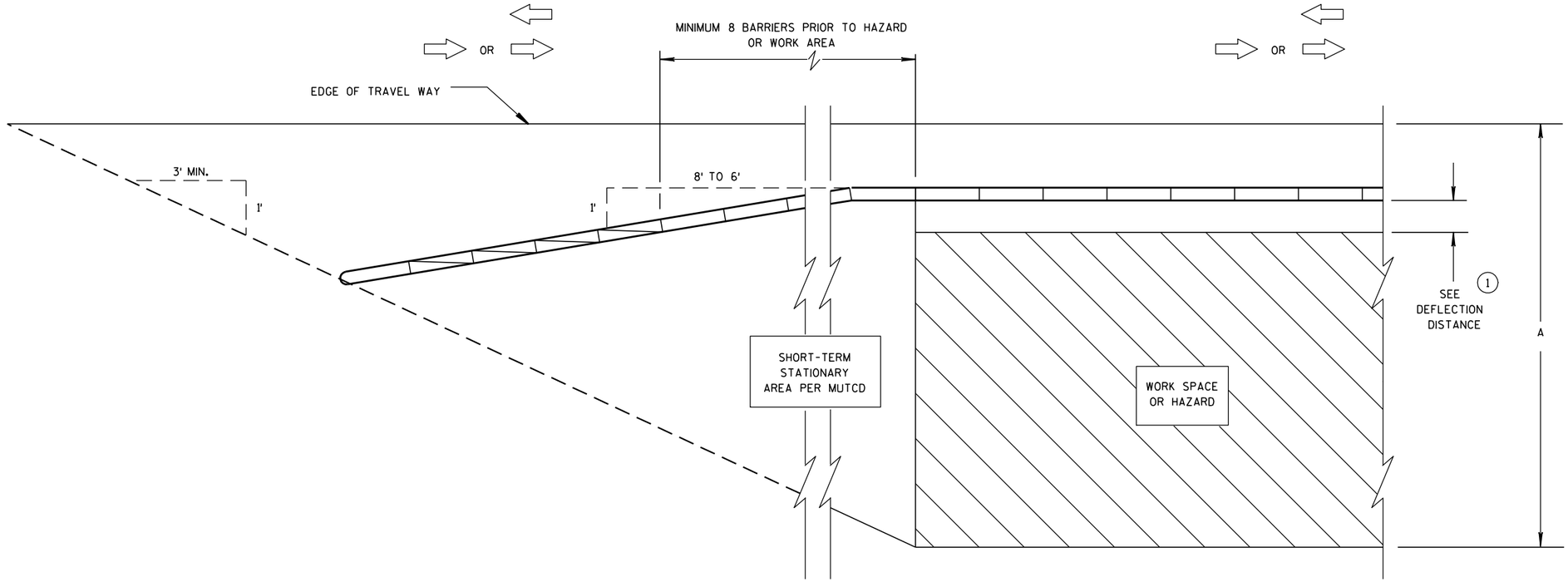
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

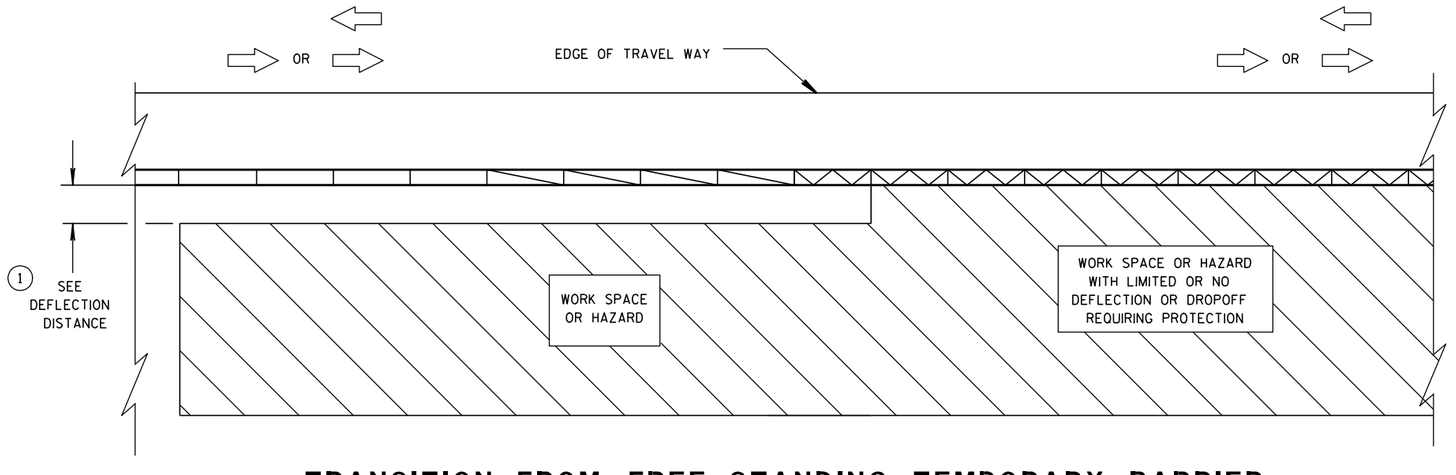
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

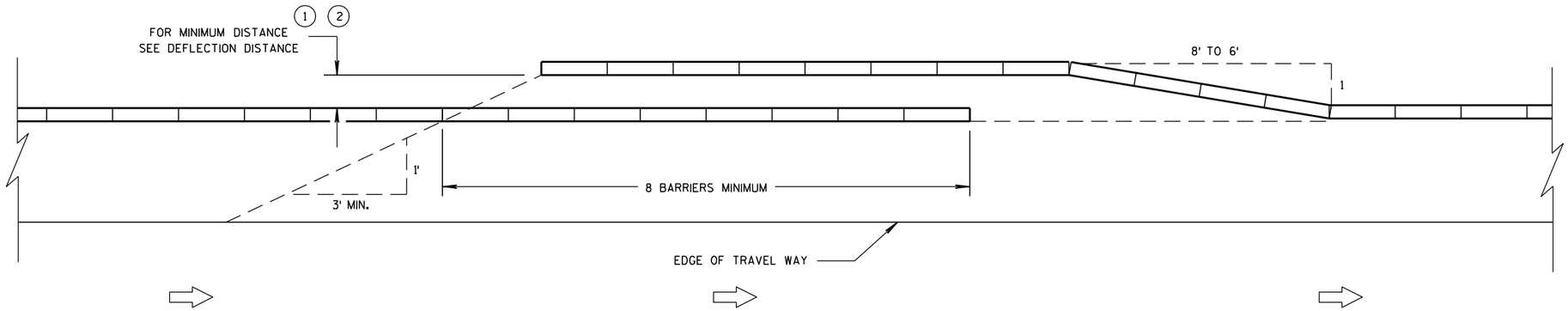
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

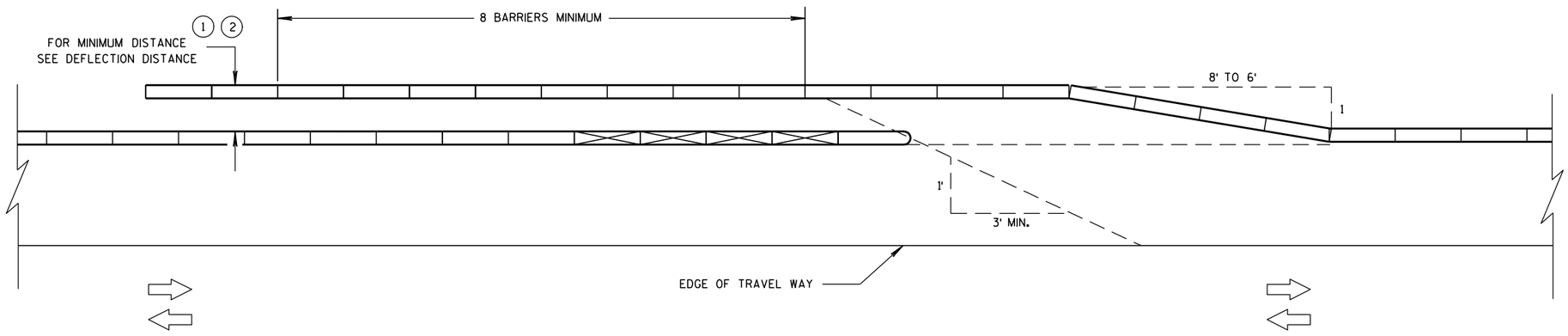
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

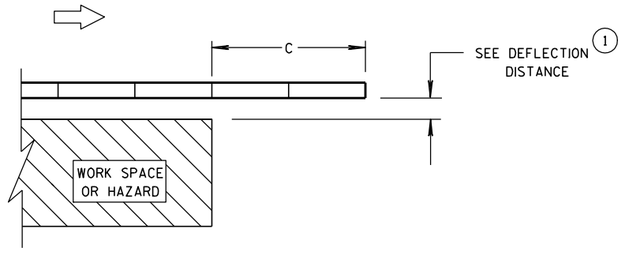
S.D.D. 14 B 8-1b



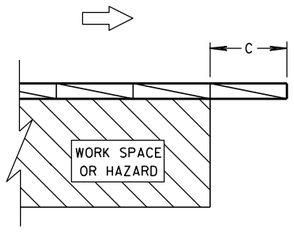
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

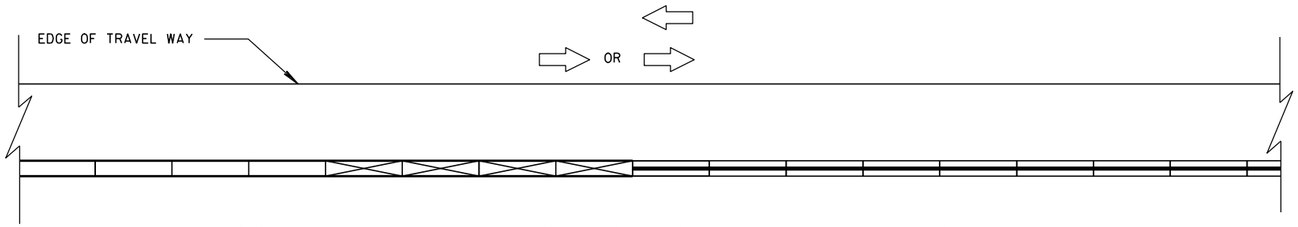
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

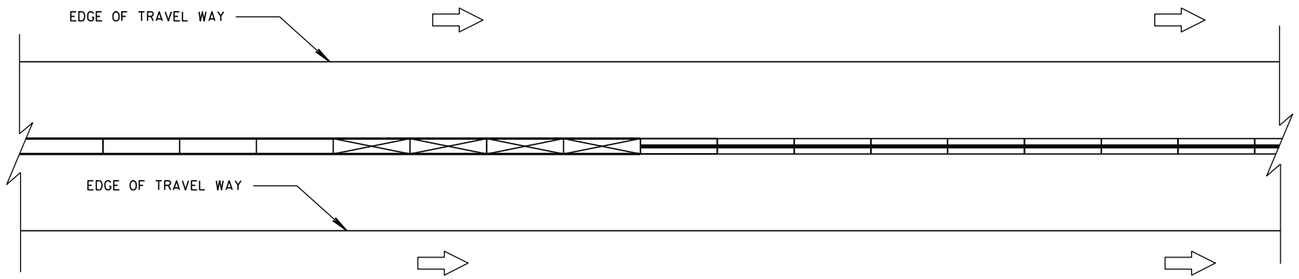
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

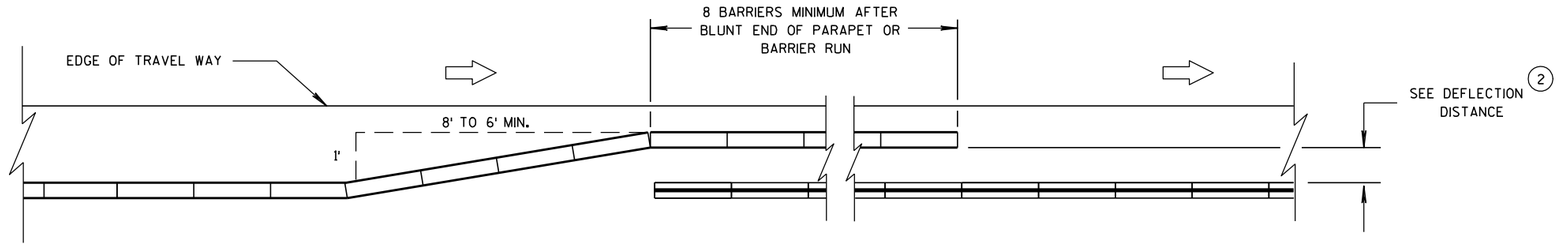
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

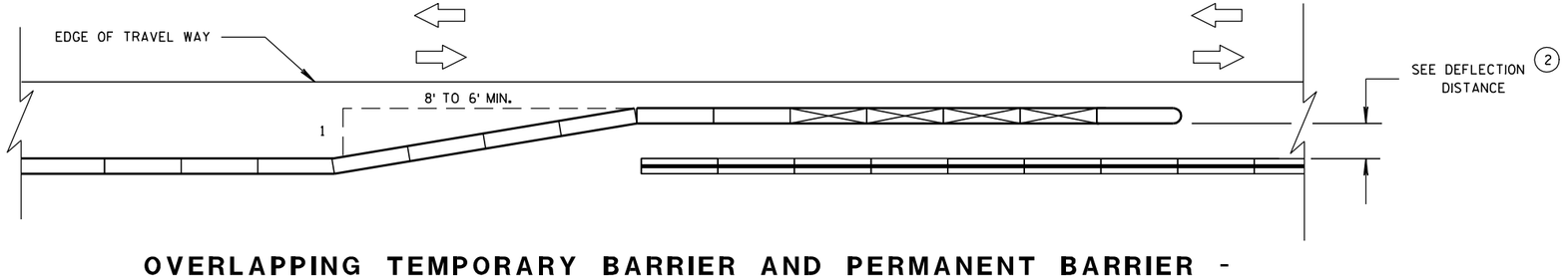
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 8-1d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

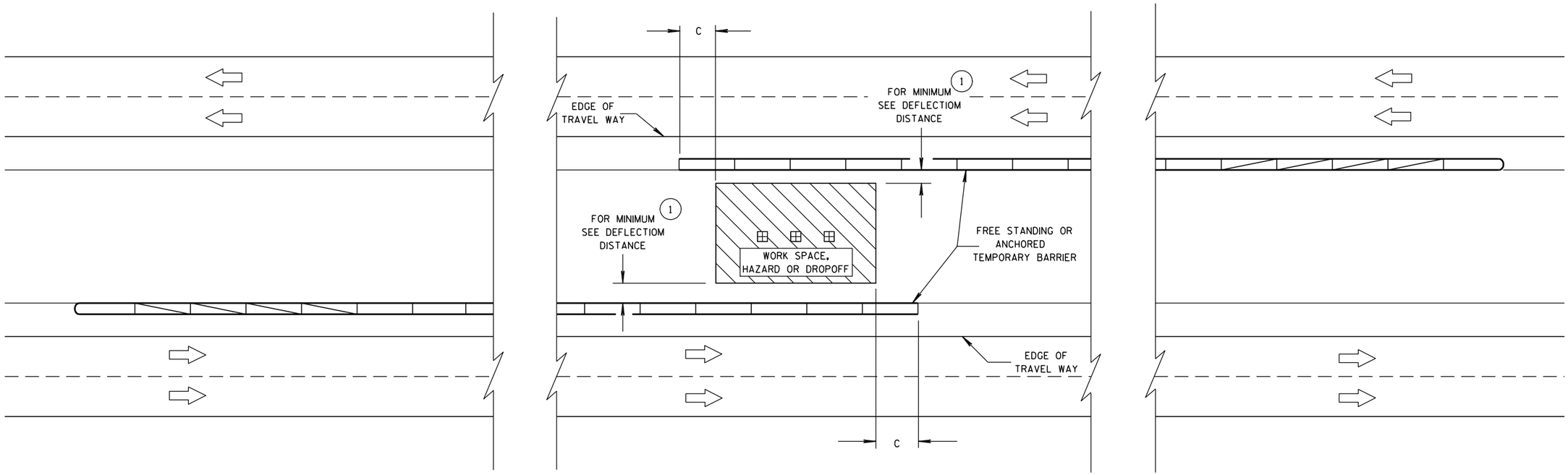
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINNER
FHWA	424

6
S.D.D. 14 B 8-1e

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

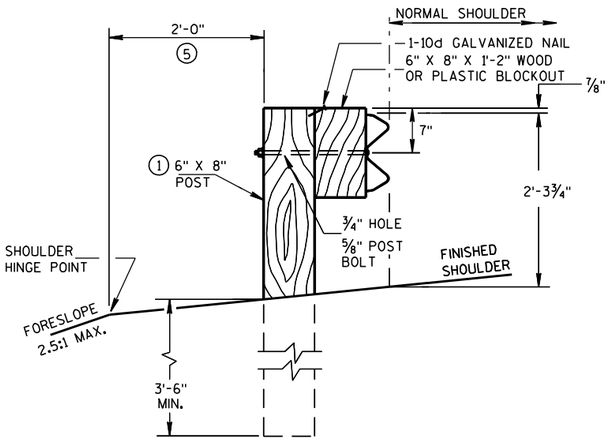
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

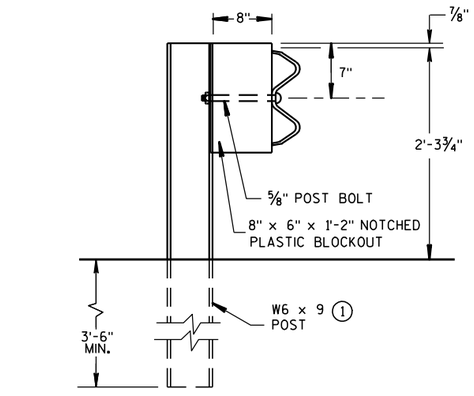
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

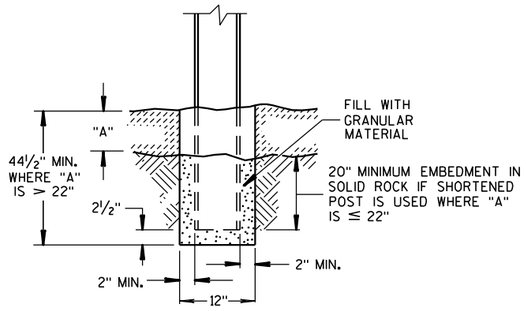
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



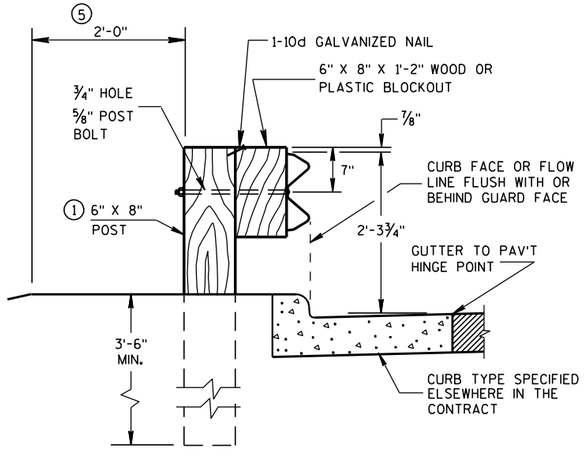
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



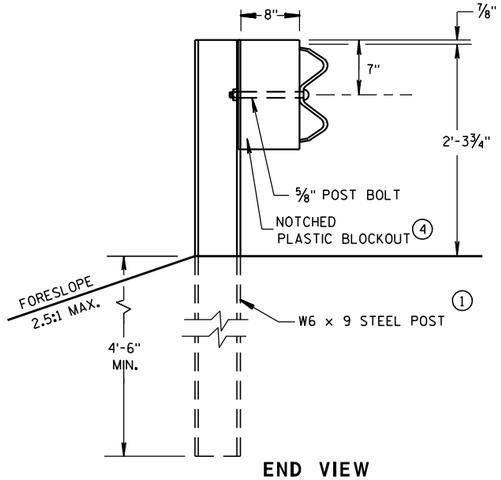
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



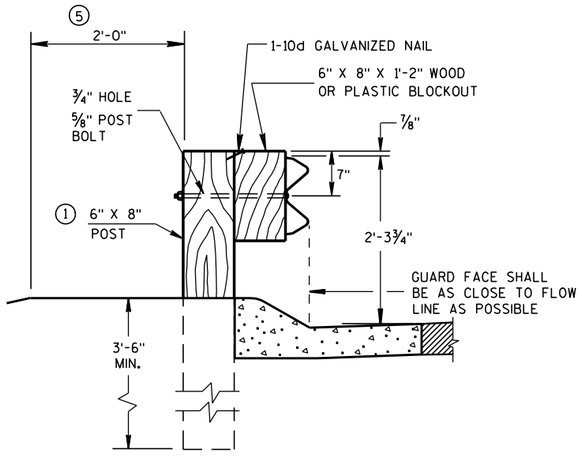
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



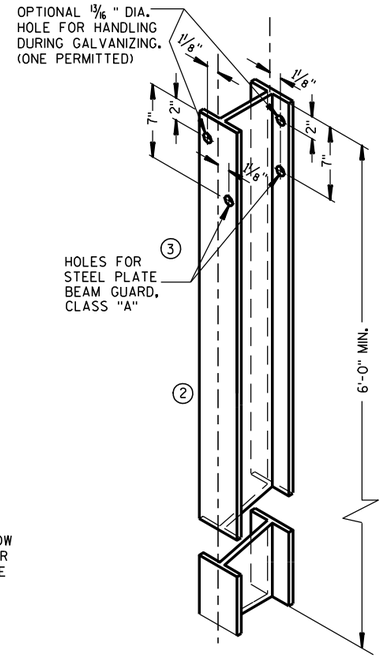
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

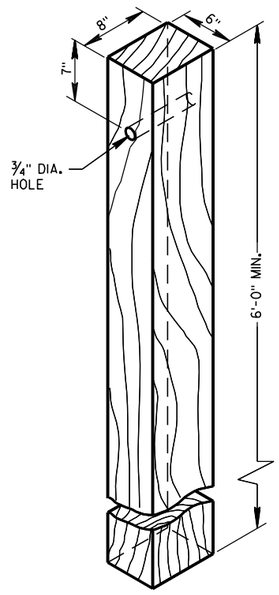


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

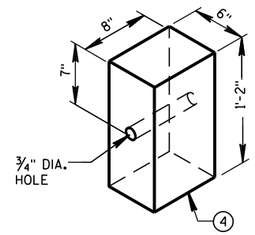


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

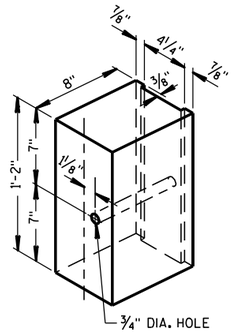
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



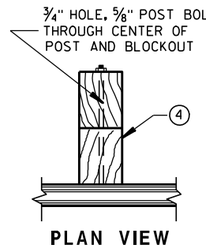
WOOD POST
(6"X8") NOMINAL



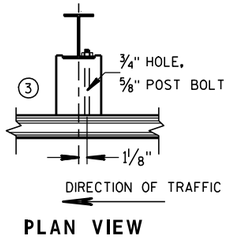
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



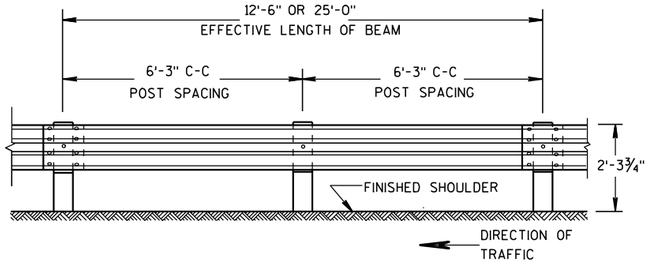
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

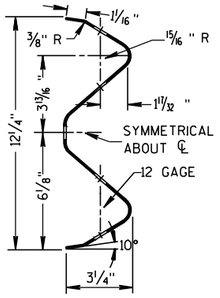
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

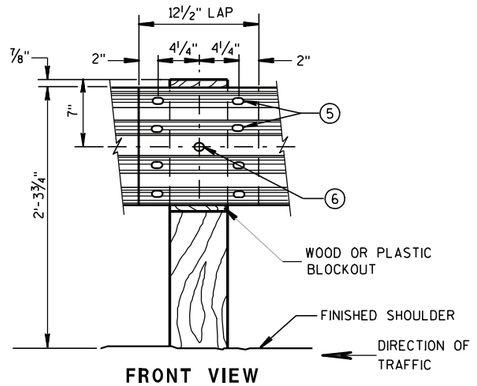


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

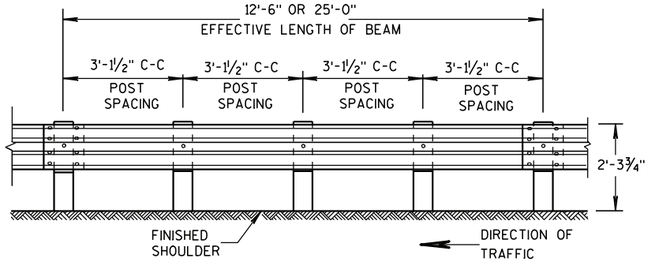


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

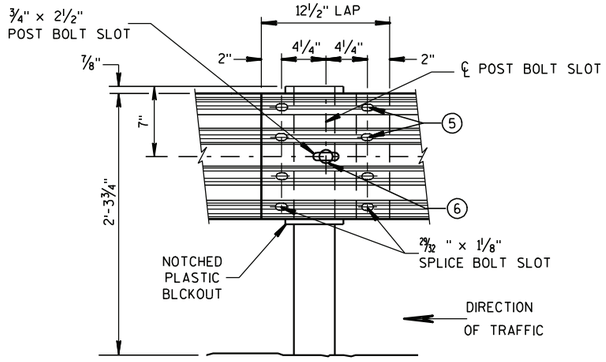
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" Φ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" Φ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

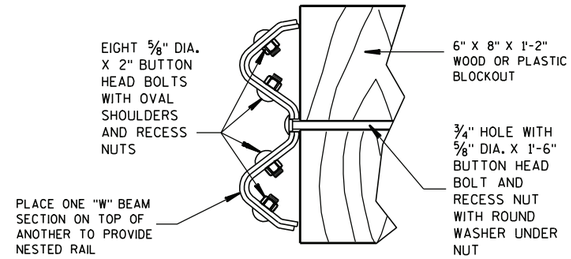
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

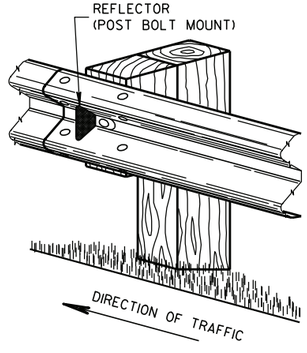


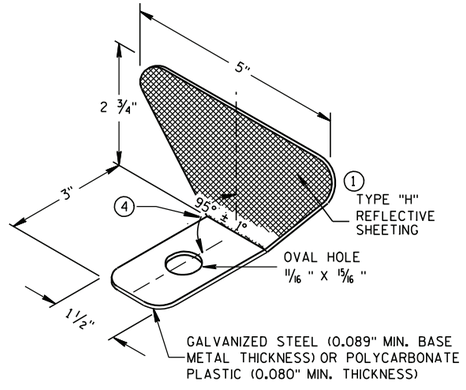
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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S.D.D. 14 B 15-7b

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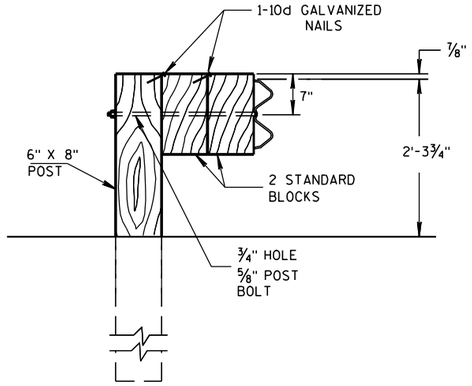
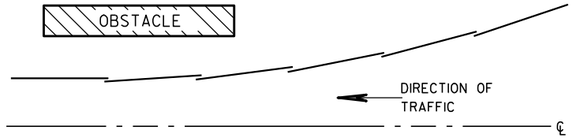
S.D.D. 14 B 15-7b

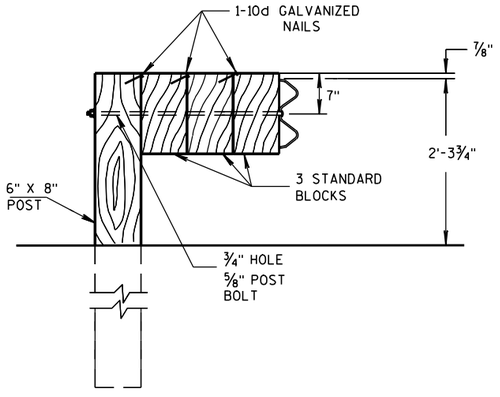


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

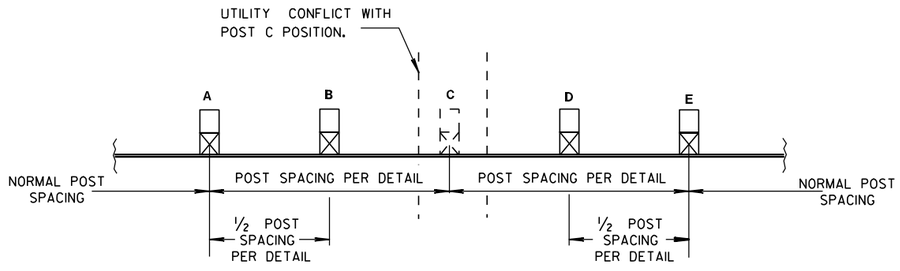


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/11
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

427

ENT

FHWA

6
S.D.D. 14 B 15-7c

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - QUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

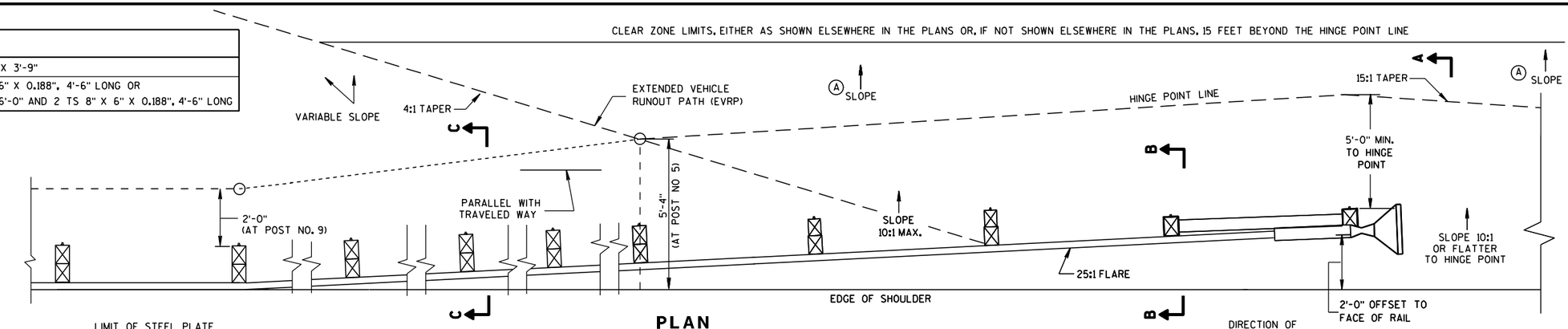
(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

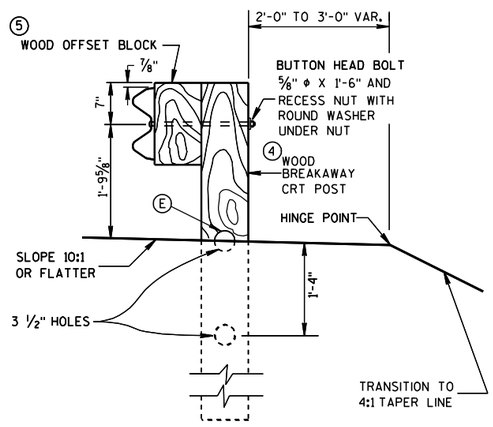
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

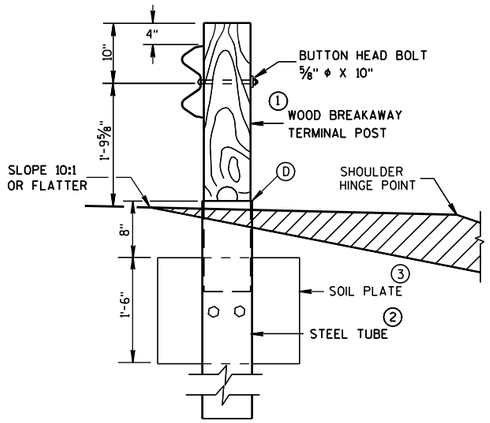
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.

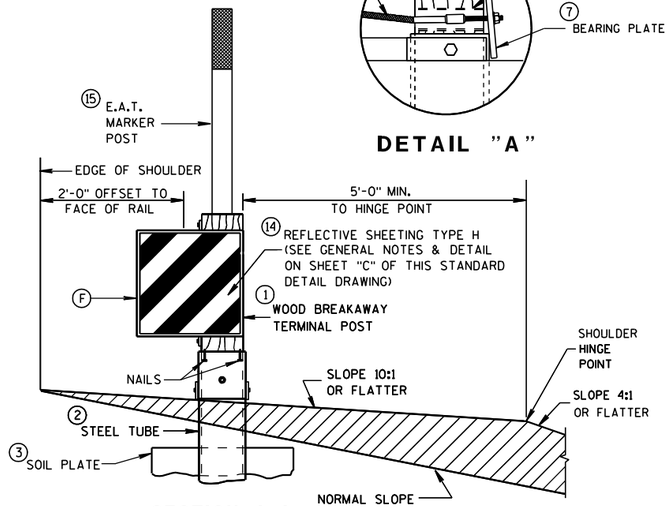




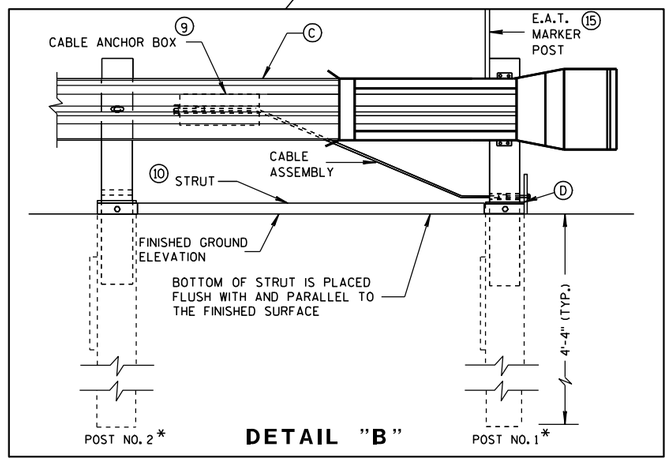
SECTION C-C
TYPICAL AT POST NOS. 6, 8



SECTION B-B
TYPICAL AT POST NO. 2*



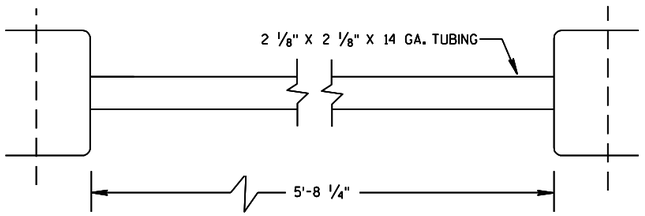
SECTION A-A
TYPICAL AT POST NO. 1*



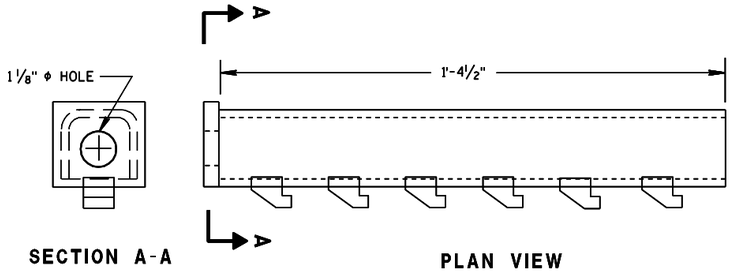
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

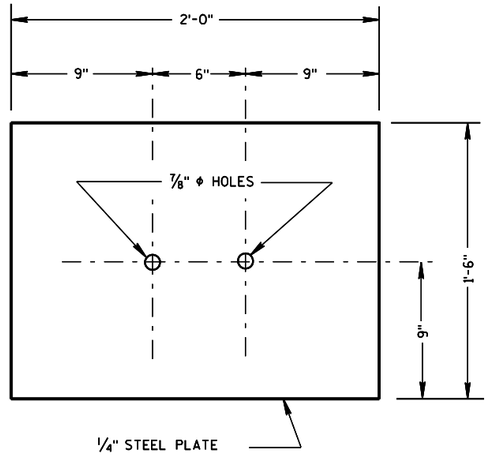
6
S.D.D. 14 B 24-7a



⑩ STRUT DETAIL (SKT-350)

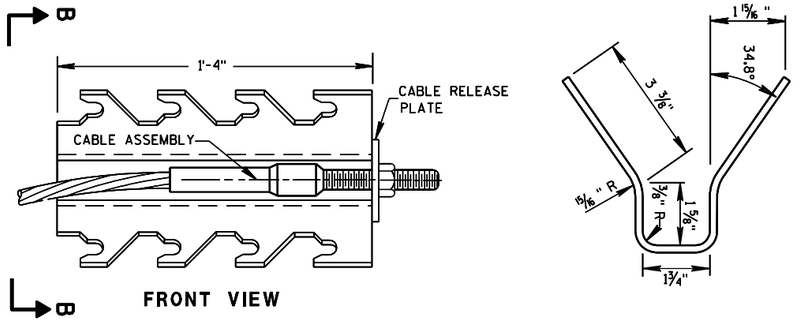


⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



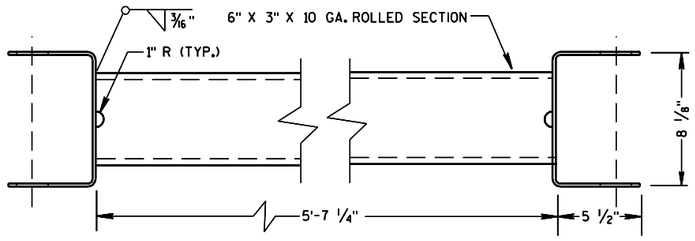
③ SOIL PLATE

(SKT-350, ET-2000/ET-2000 PLUS)



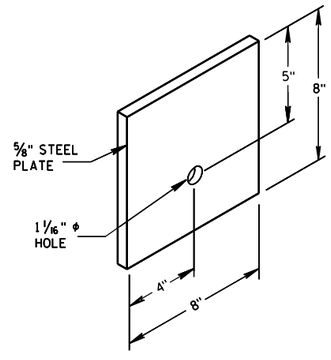
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



⑦ STEEL BEARING PLATE

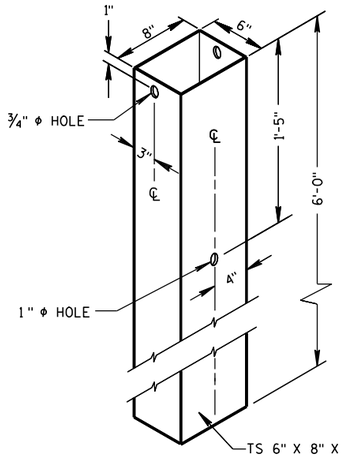
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

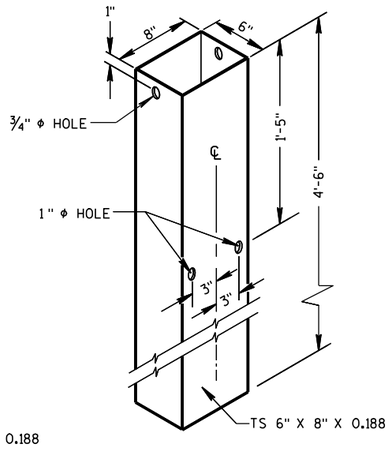
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

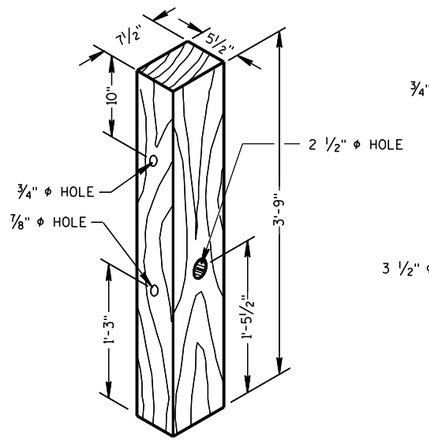
S.D.D. 14 B 24-7b



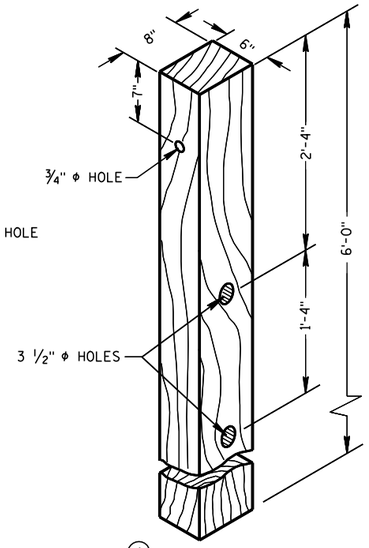
(2) 72" STEEL TUBE
(POSTS NO. 1-4



(2) 54" STEEL TUBE
(POSTS NO. 1-4



(1) TERMINAL POST
(POSTS NO. 1-4



(4) CRT POST
(POSTS NO'S 5-8

WOOD BREAKAWAY POSTS

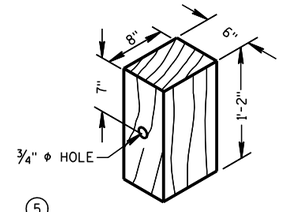
GENERAL NOTES

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

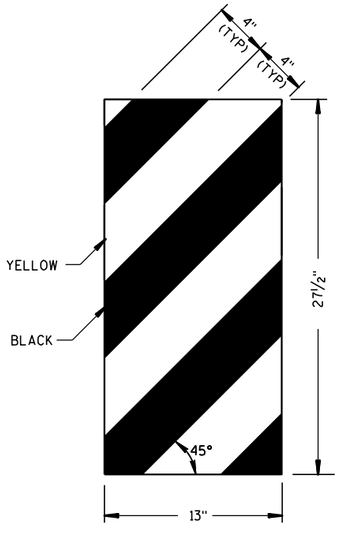
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

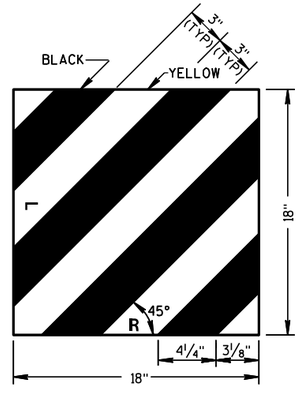
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



(5) WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

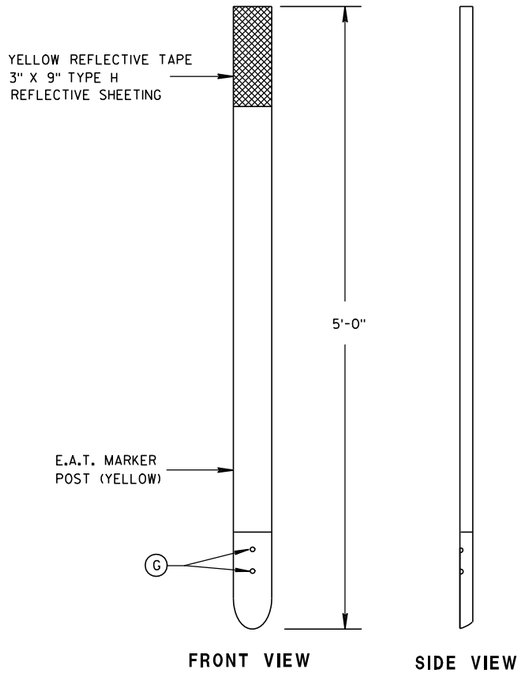


ET-2000 PLUS ONLY

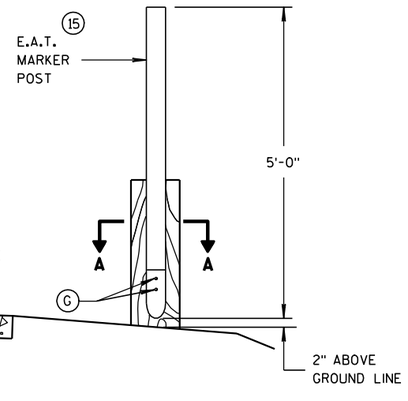


ET-2000 AND SKT-350

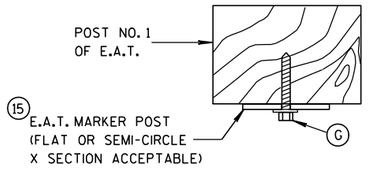
(14) REFLECTIVE SHEETING DETAILS



(15) E.A.T. MARKER POST



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-12-10
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
430
FHWA

6

S.D.D. 14 B 24-7c

6

S.D.D. 14 B 24-7c

GENERAL NOTES

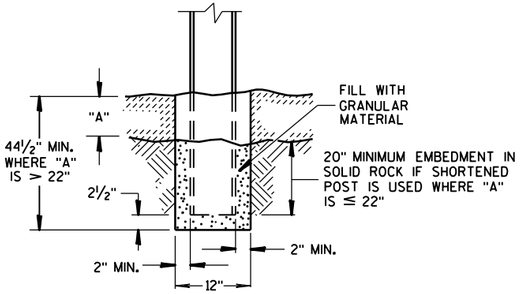
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

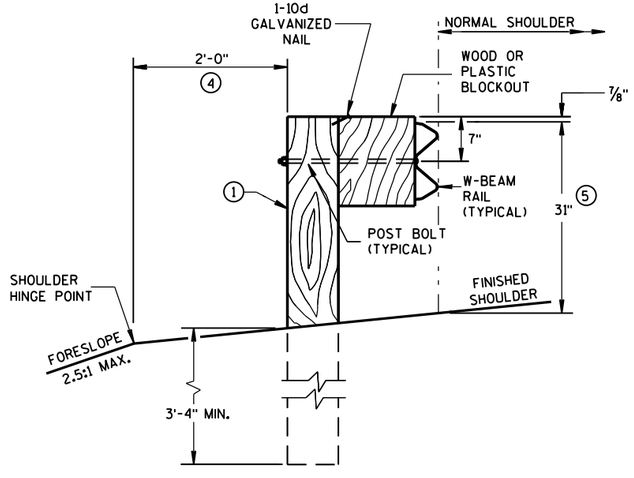
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

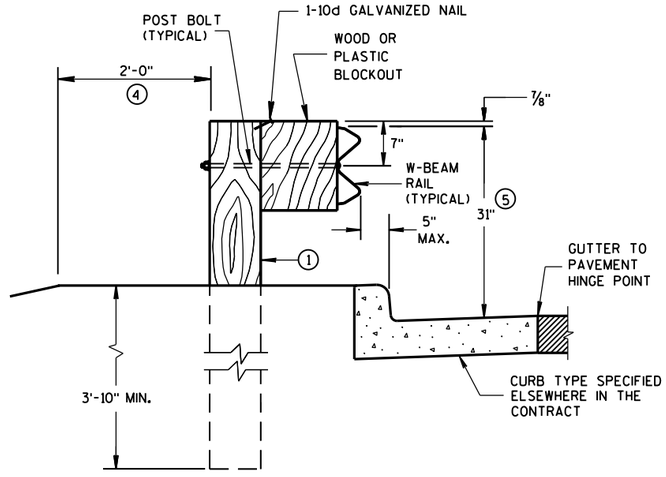


END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



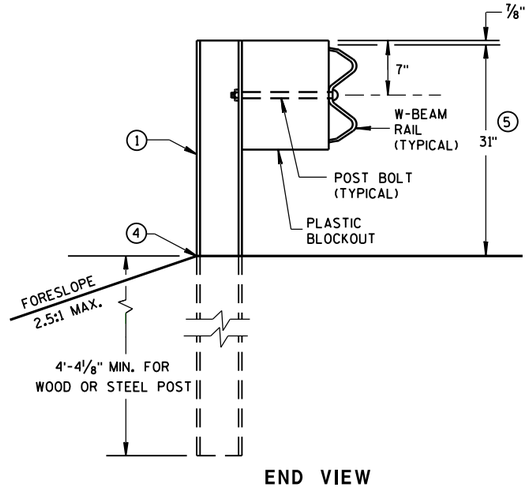
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



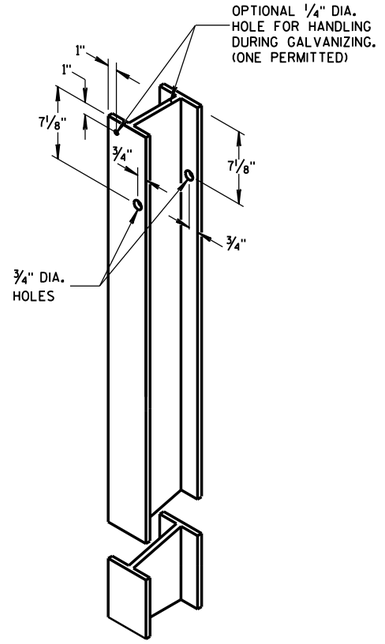
END VIEW

LOCATED ALONG A CURBED ROADWAY

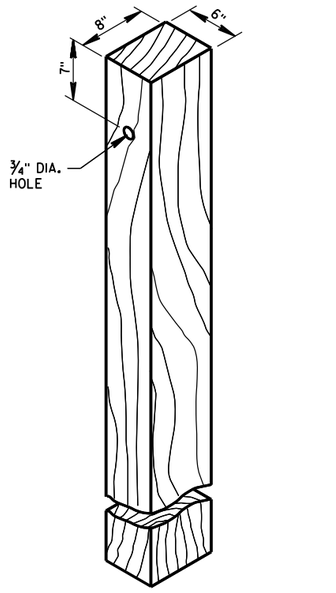


END VIEW

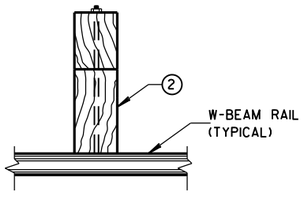
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



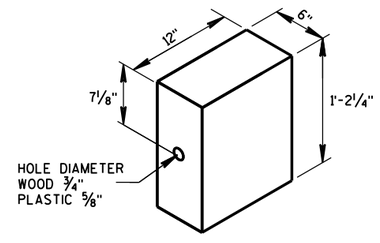
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



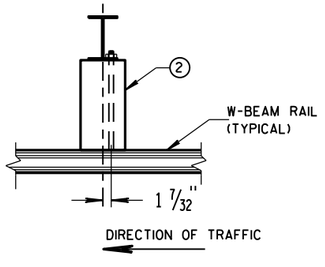
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

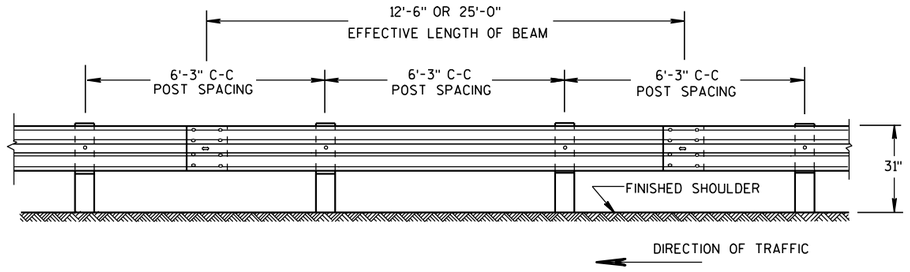


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

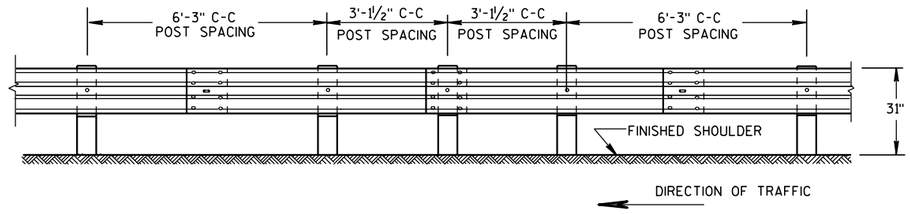
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



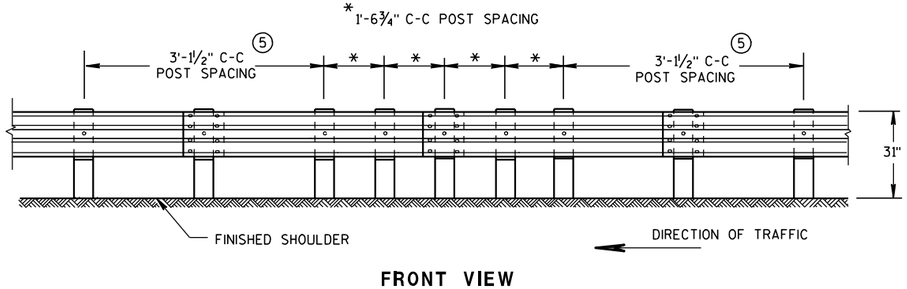
FRONT VIEW

POST SPACING STANDARD INSTALLATION



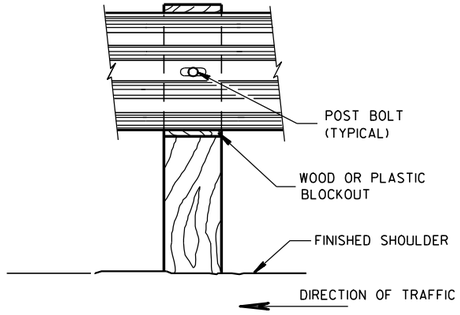
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

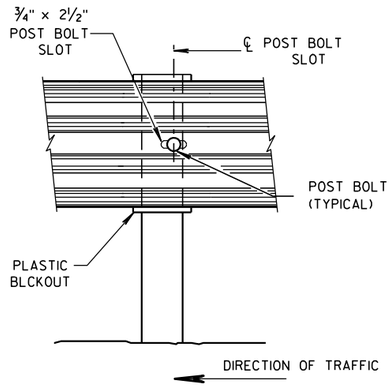


FRONT VIEW

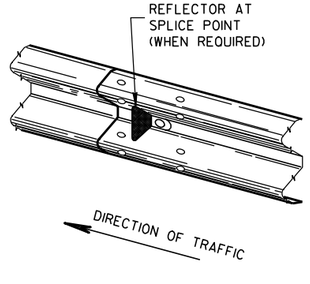
QUARTER POST SPACING (QS)

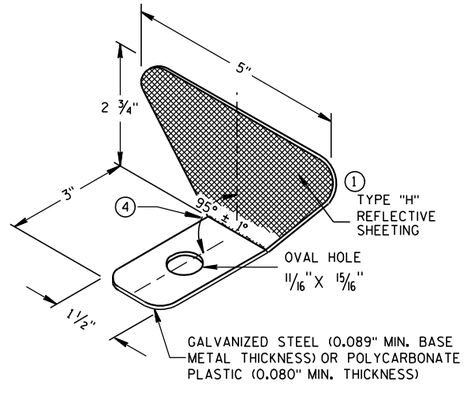


FRONT VIEW AT WOOD POST

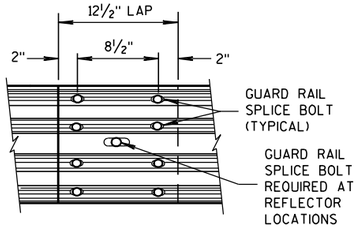


FRONT VIEW AT STEEL POST



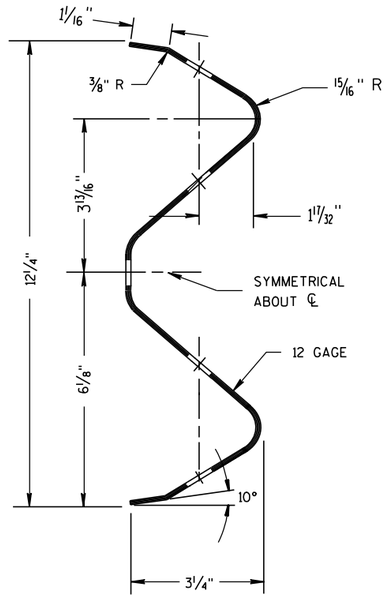


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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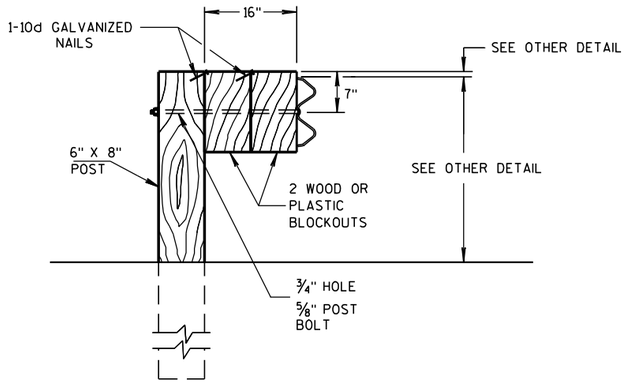
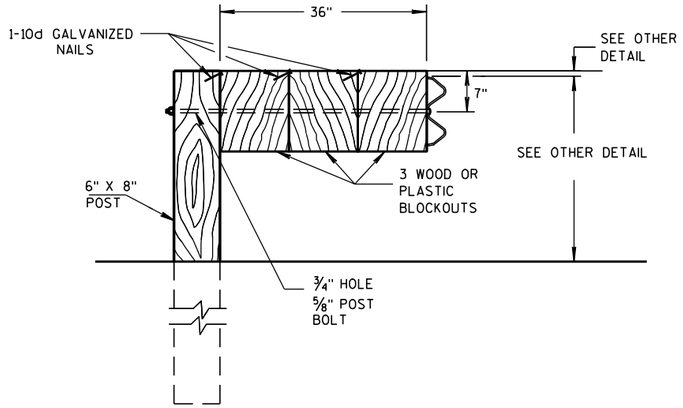


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

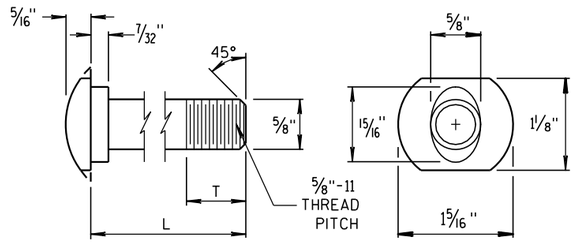


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

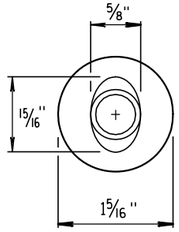
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

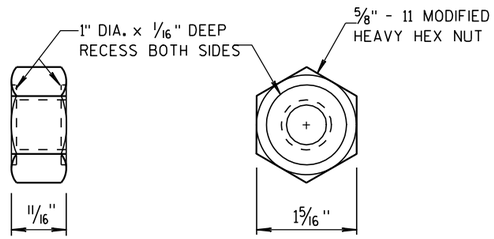


POST BOLT TABLE

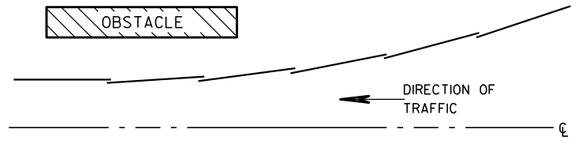
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

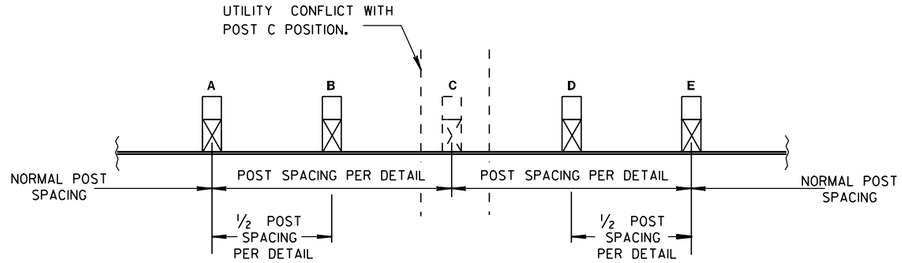


POST BOLT AND RECESS NUT

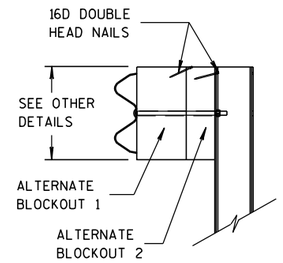


PLAN VIEW

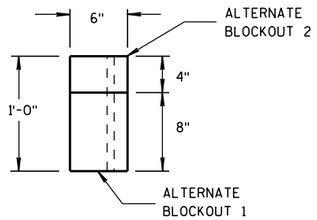
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

433

ENT

6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

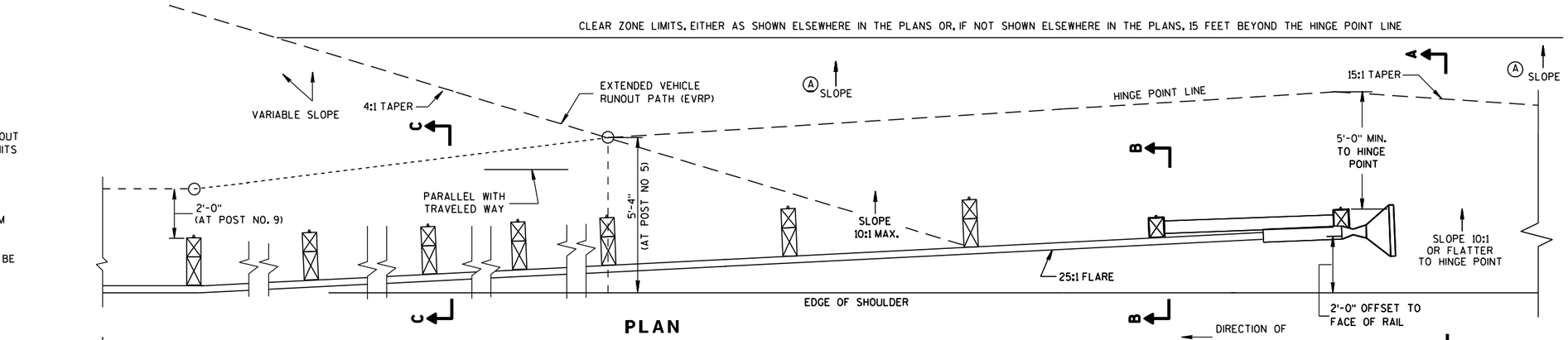
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

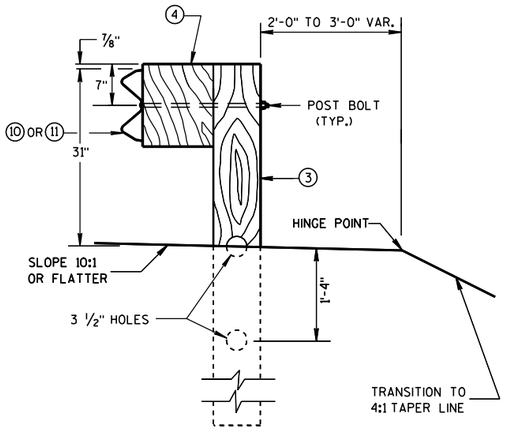
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

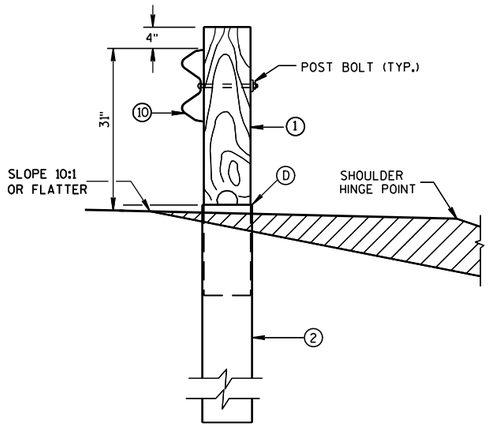
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")



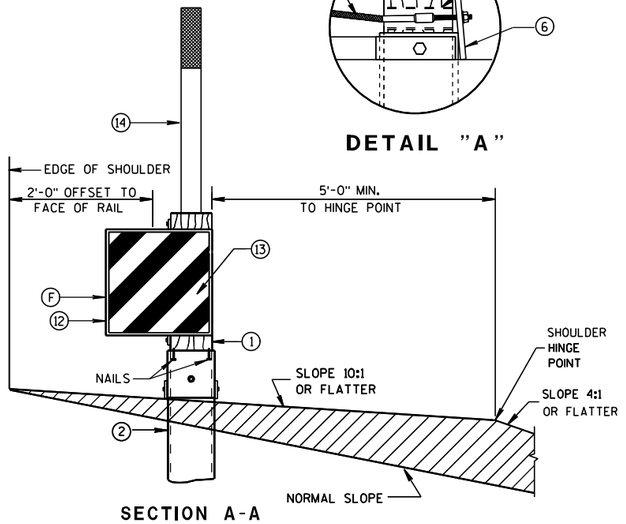
ELEVATION



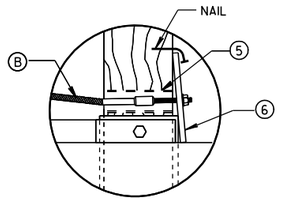
SECTION C-C
TYPICAL AT POST NOS. 3-9



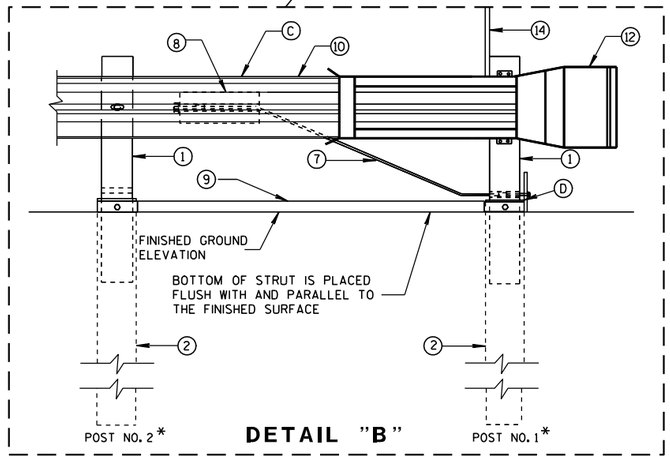
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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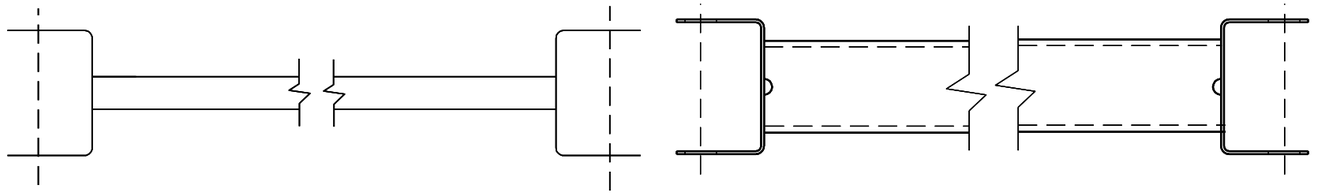
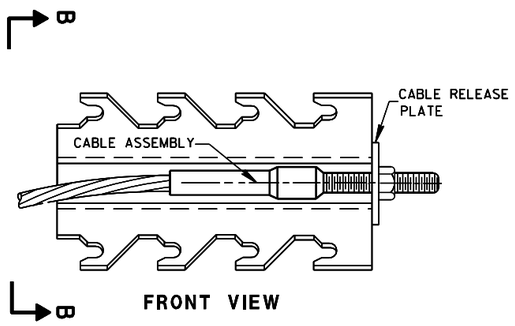
S.D.D. 14 B 44-1a



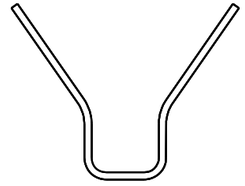
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

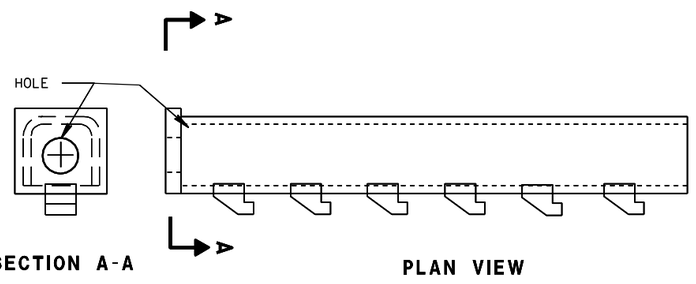
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



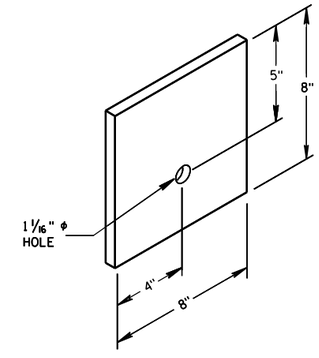
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



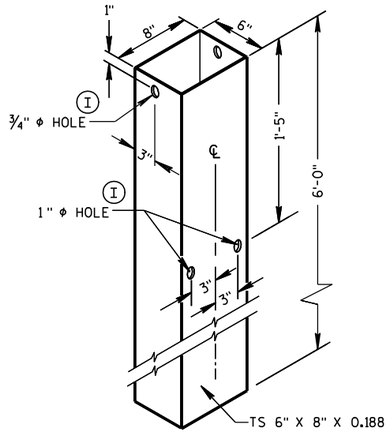
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

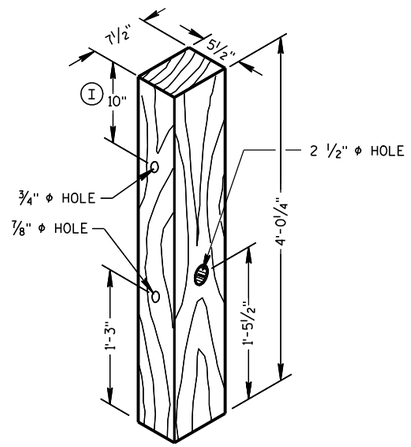
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

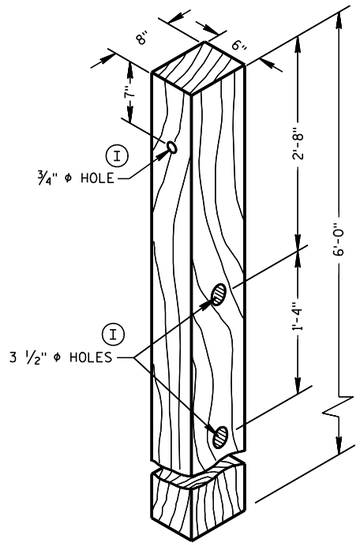


FOUNDATION TUBE (2)



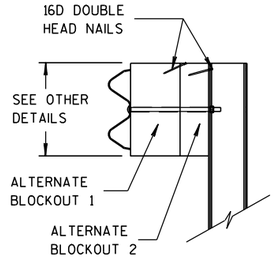
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

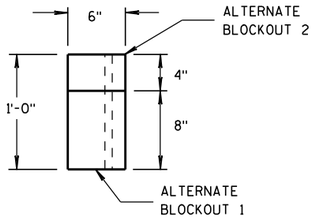


POSTS NUMBER 3-9

WOOD CRT POST (3)

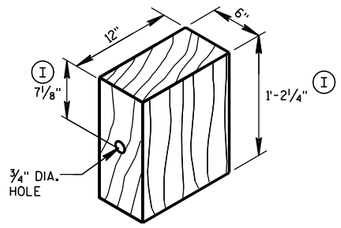


SIDE VIEW



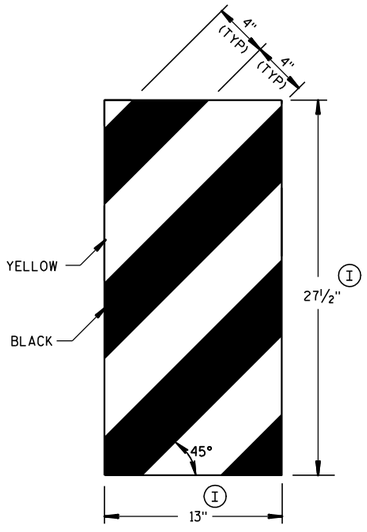
TOP VIEW

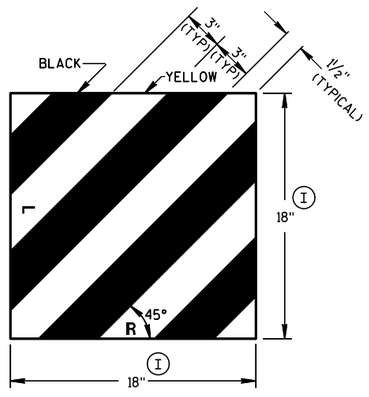
ALTERNATE WOOD BLOCKOUT DETAIL



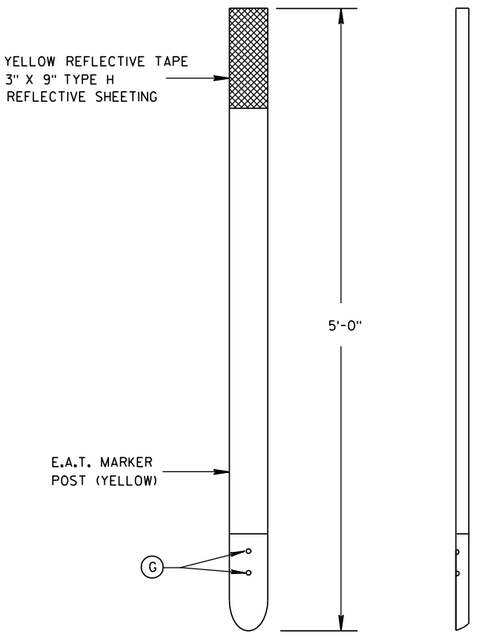
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



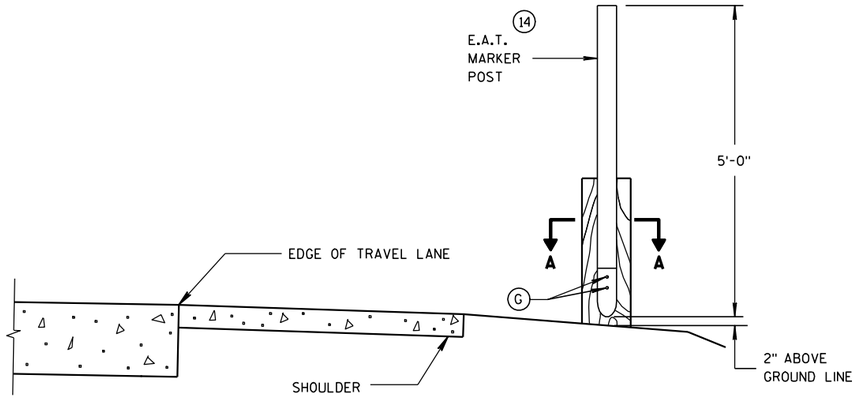


GENERIC REFLECTIVE SHEETING (13) (H)



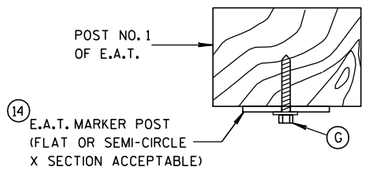
FRONT VIEW **SIDE VIEW**

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

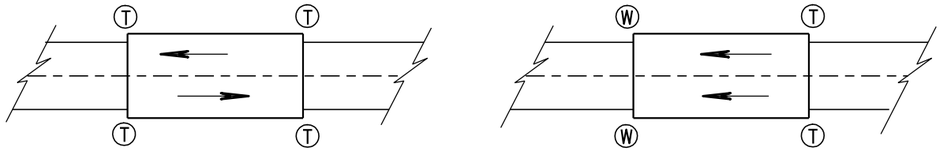
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

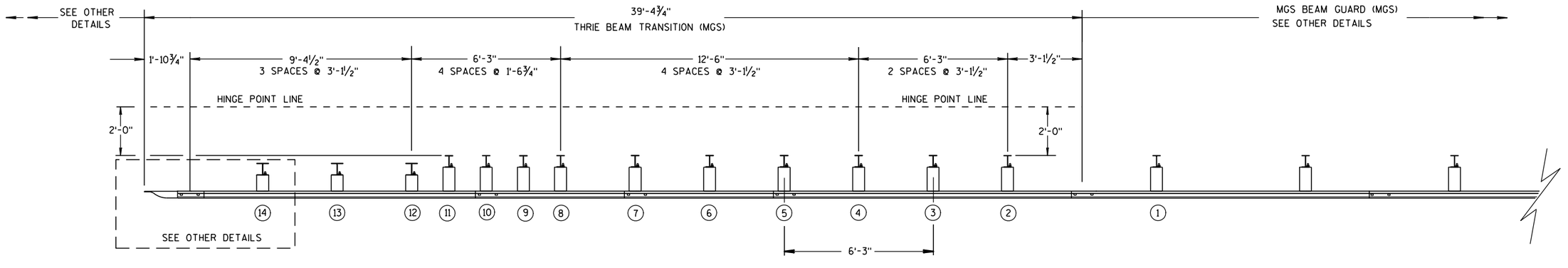
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

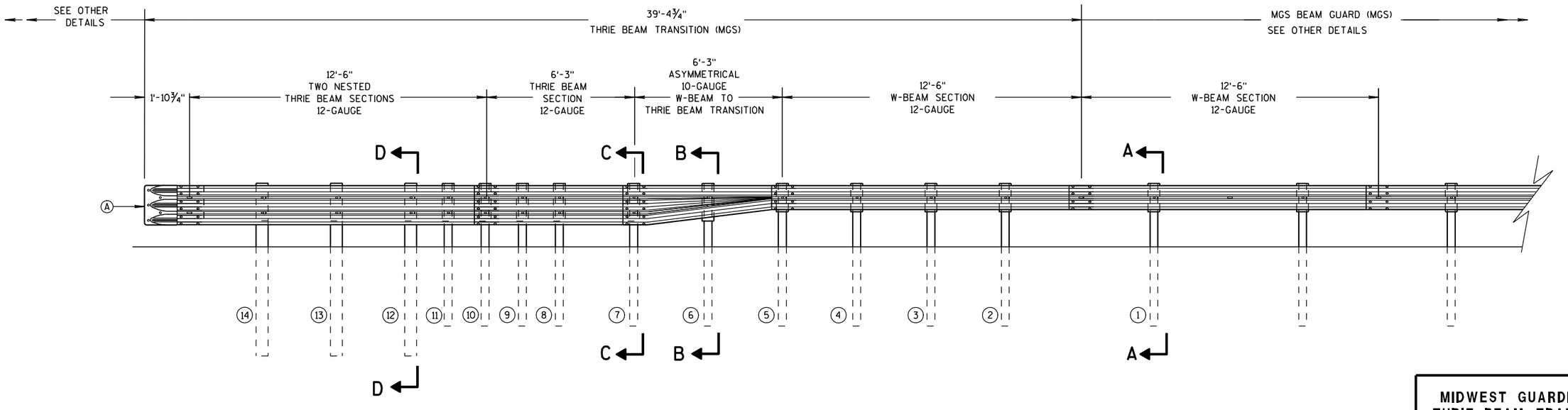
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

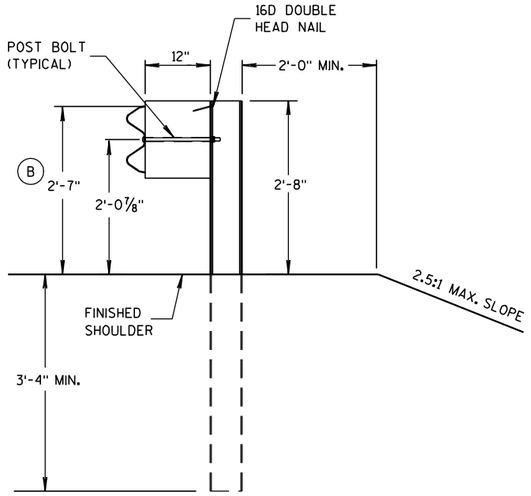
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

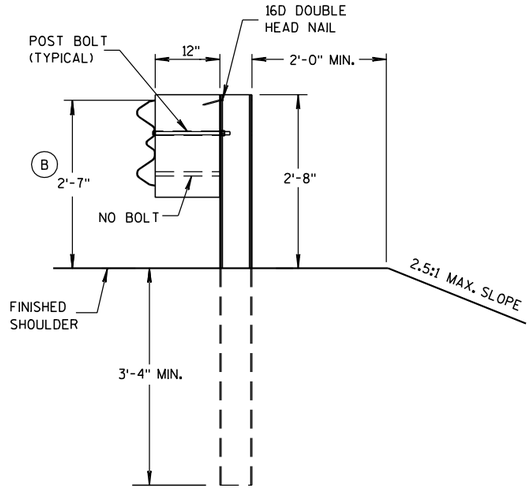
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



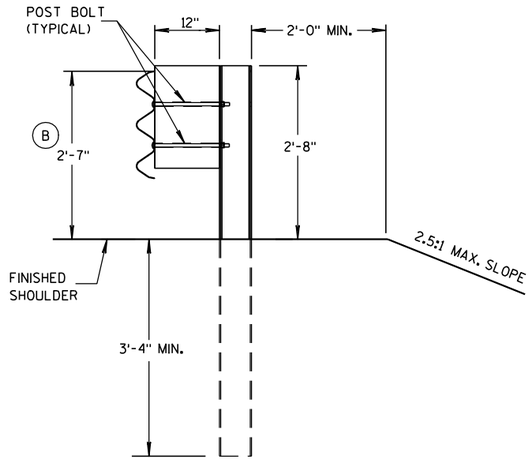
SECTION A-A

POSTS 1-5



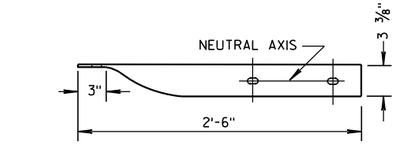
SECTION B-B

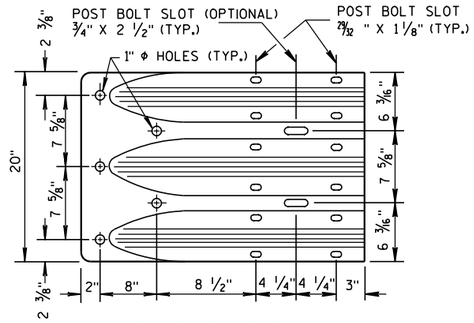
POST 6



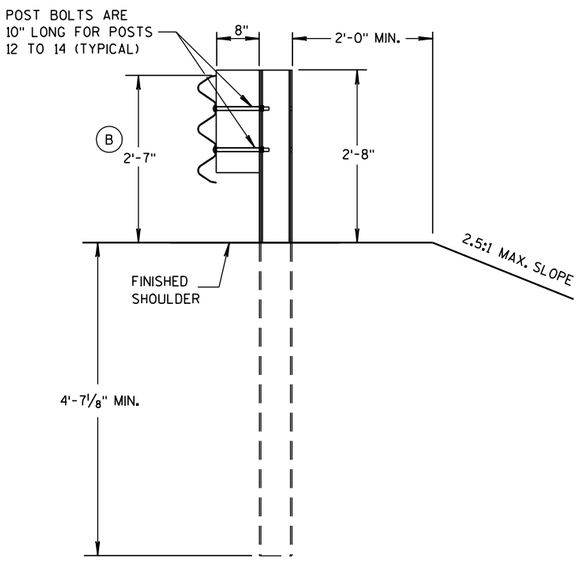
SECTION C-C

POSTS 7-11



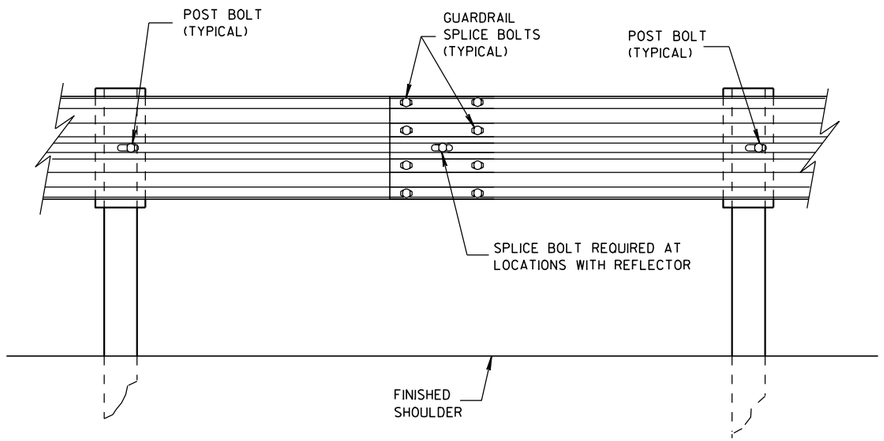


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

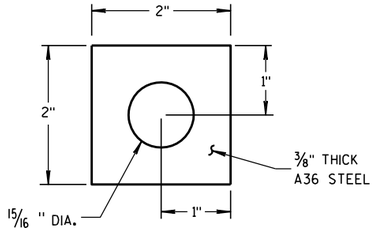
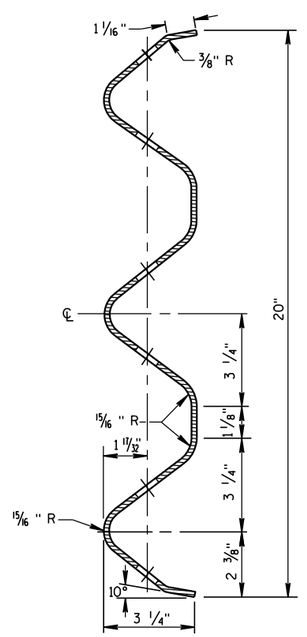


PLATE WASHER DETAIL



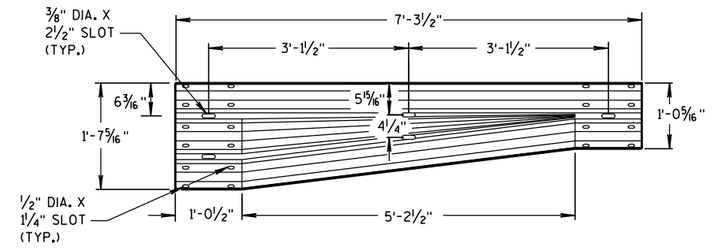
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

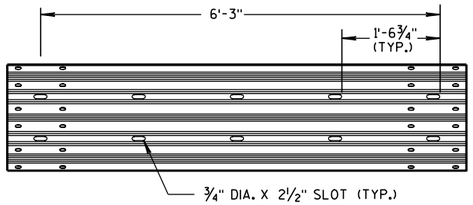
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

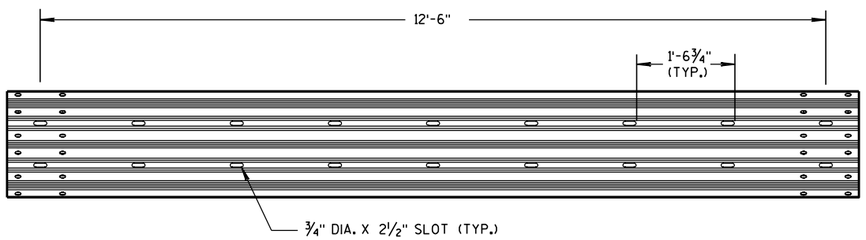
S.D.D. 14 B 45-3b



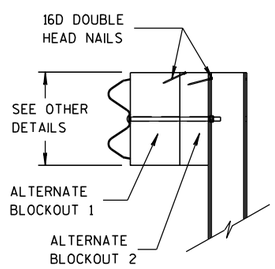
W-BEAM TO THRIE BEAM TRANSITION SECTION



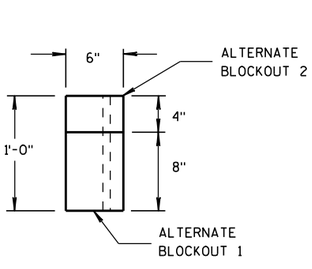
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

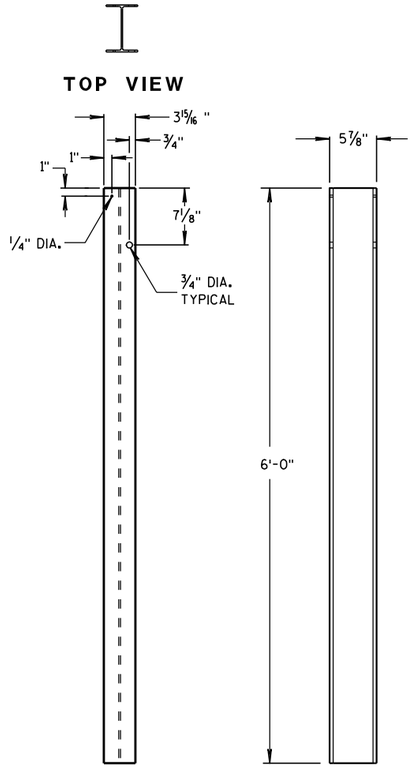


SIDE VIEW

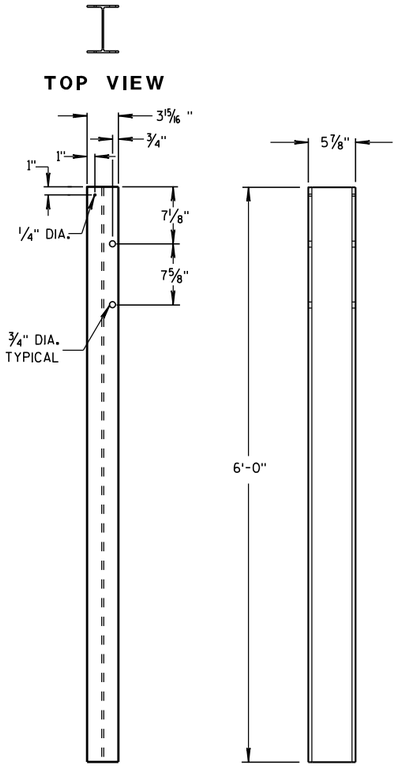


TOP VIEW

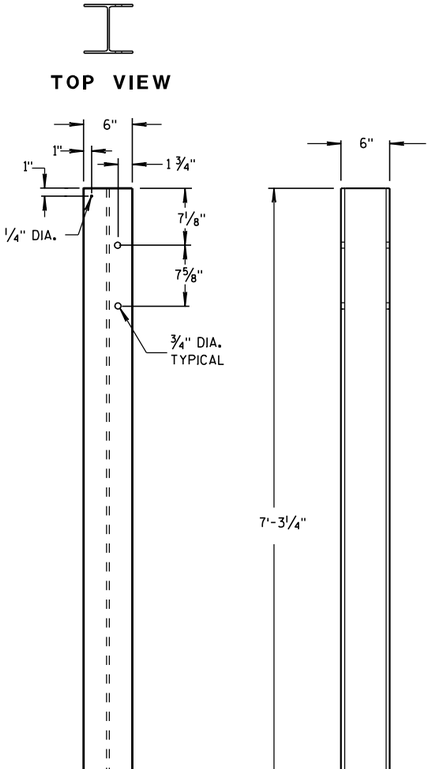
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

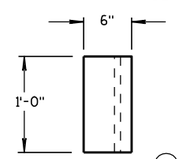


STEEL POSTS 6-11

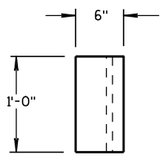


STEEL POSTS 12-14

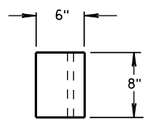
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



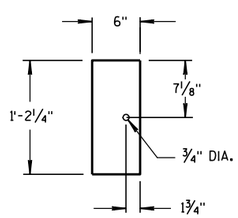
TOP VIEW (1)



TOP VIEW (1)

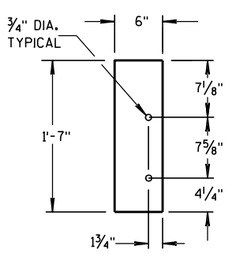


TOP VIEW



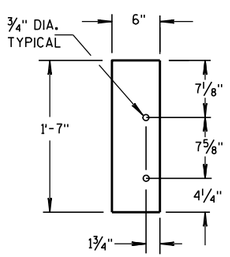
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

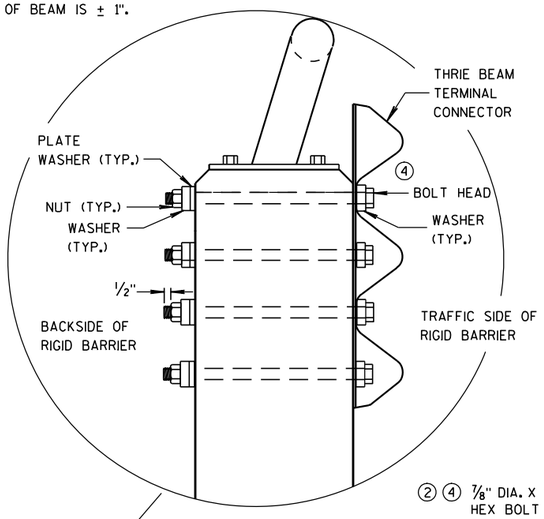
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

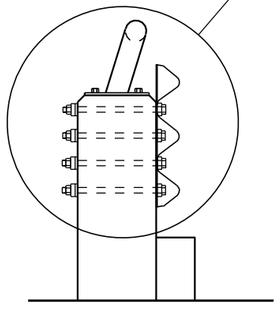
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

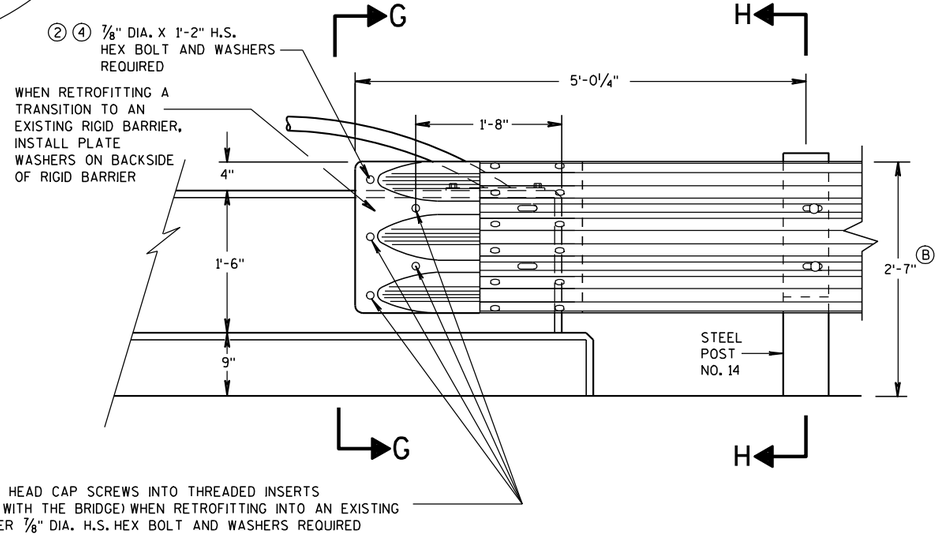
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

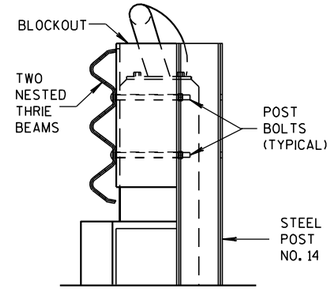




SECTION G-G

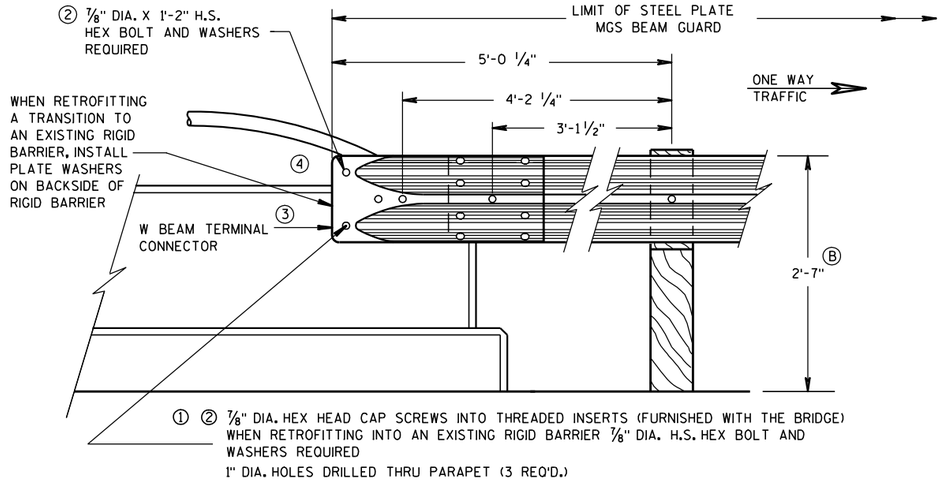


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

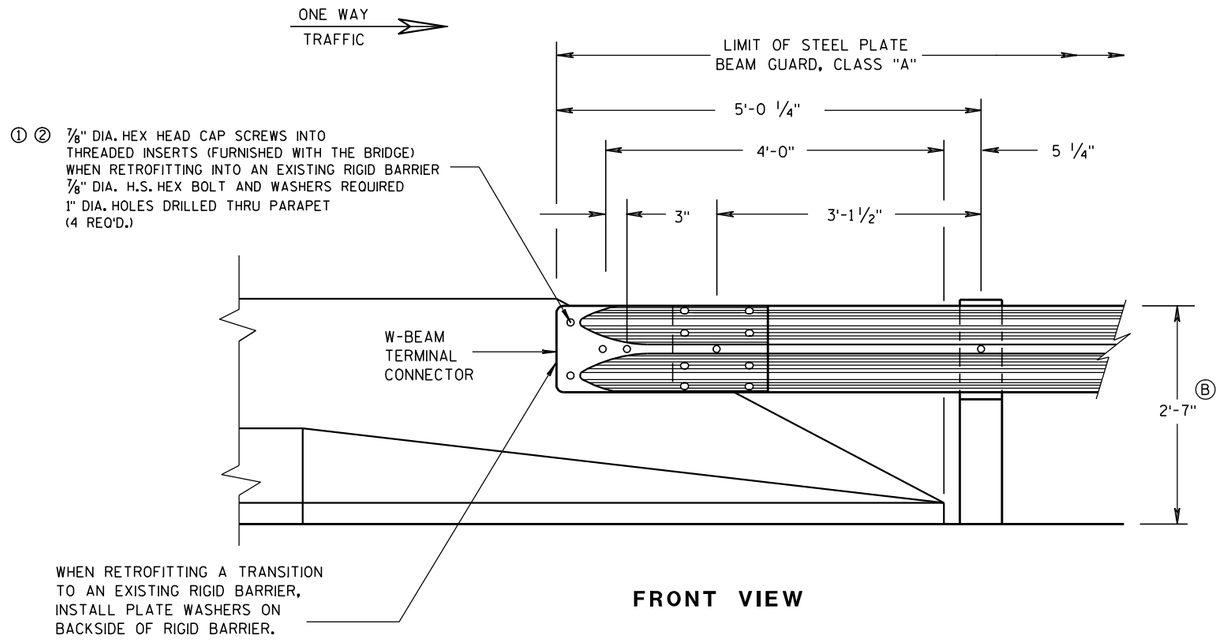


FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

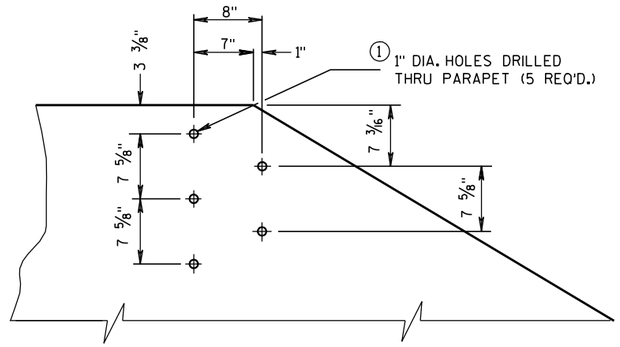
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

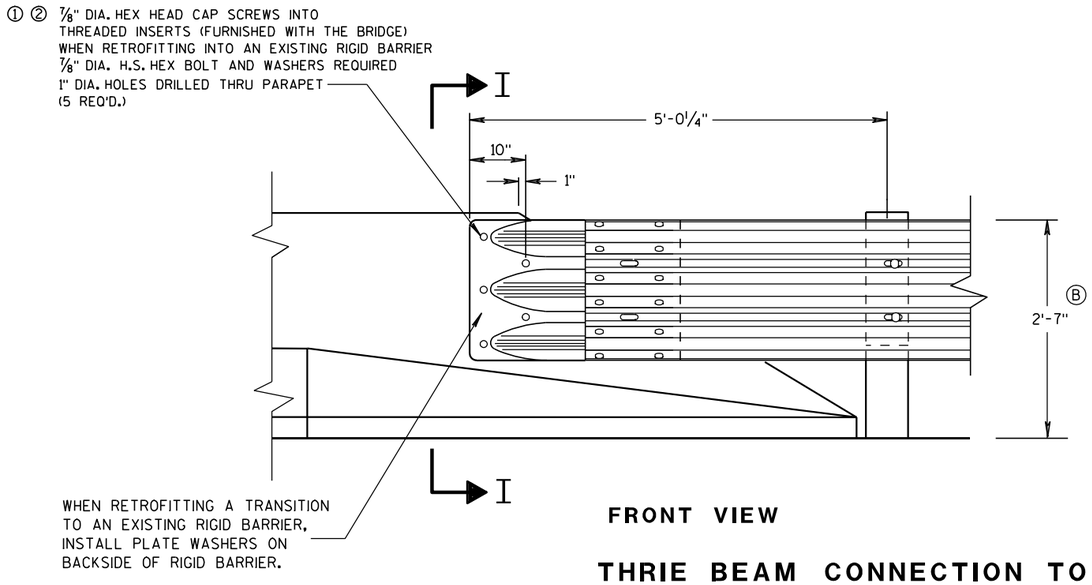
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

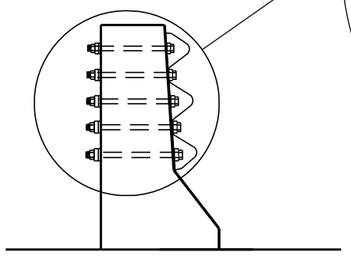
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



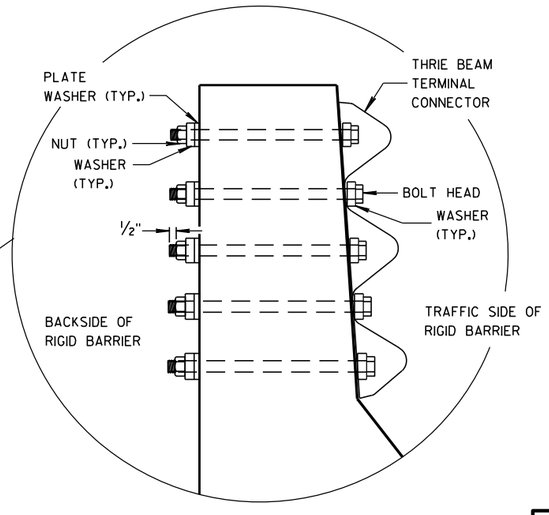
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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S.D.D. 14 B 45-3f

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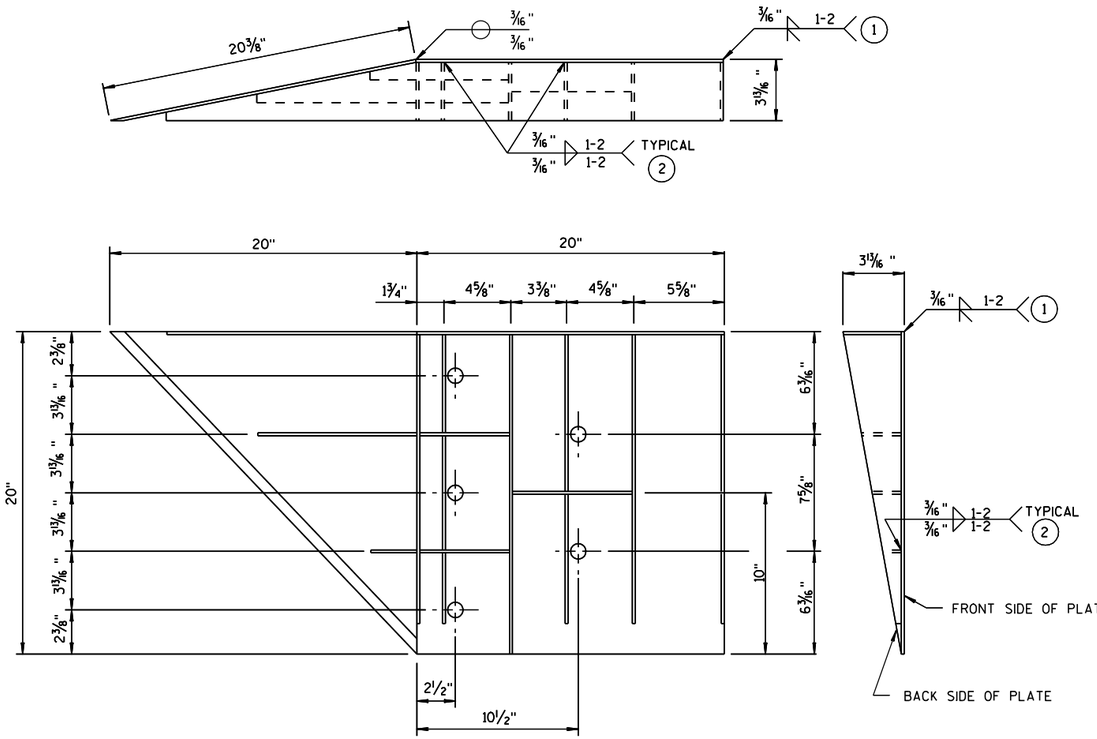
S.D.D. 14 B 45-3f



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

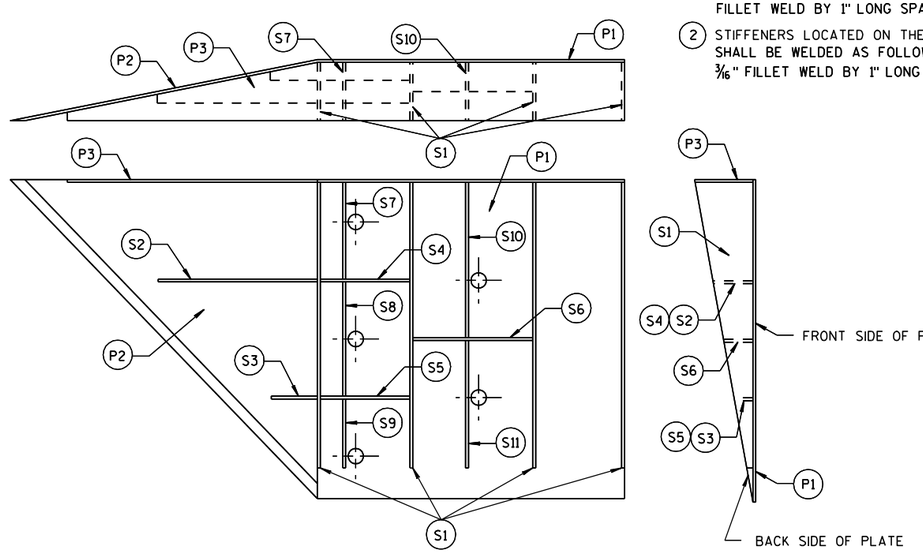


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS 442
ENGINEER
...MENT
FHWA

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S.D.D. 14 B 45-3i

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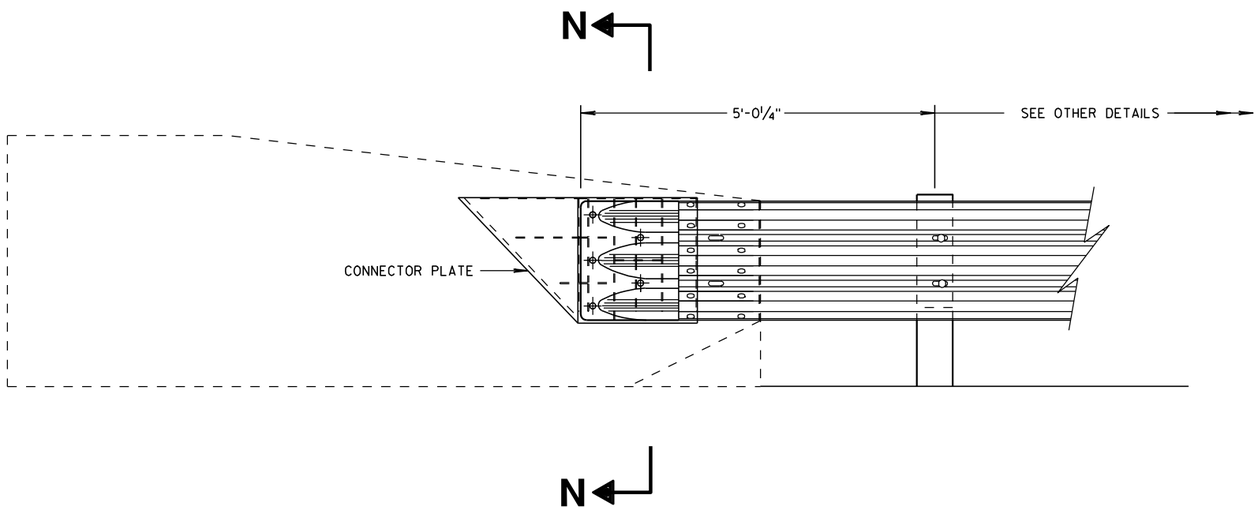
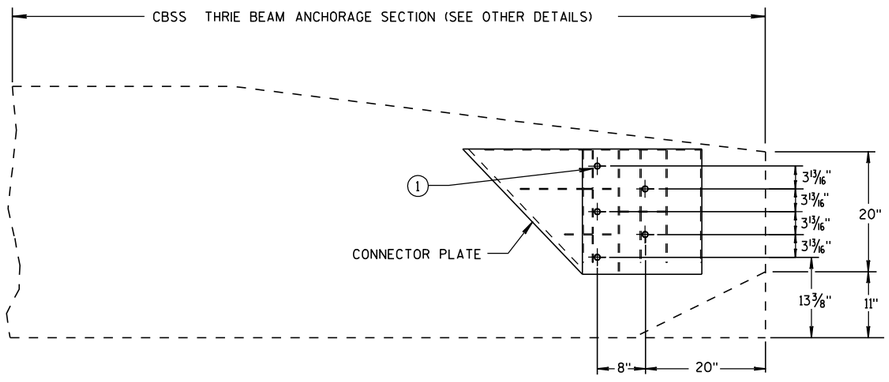
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

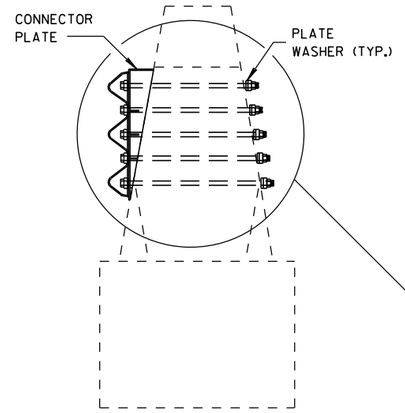


SINGLE SLOPE CONNECTION PLATE PLACEMENT

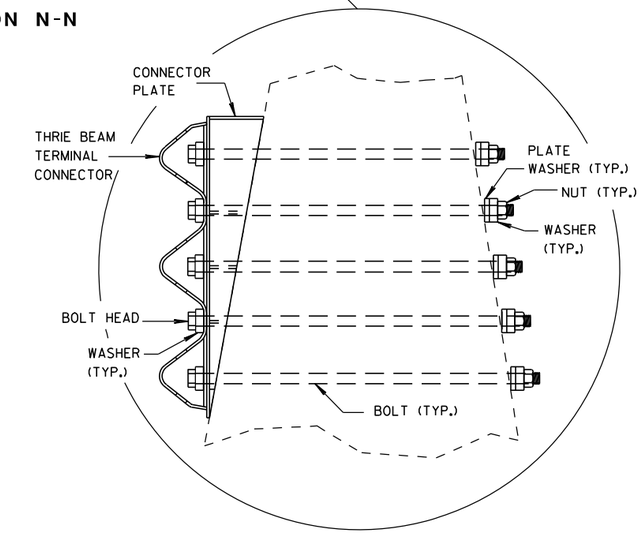
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 45-3j

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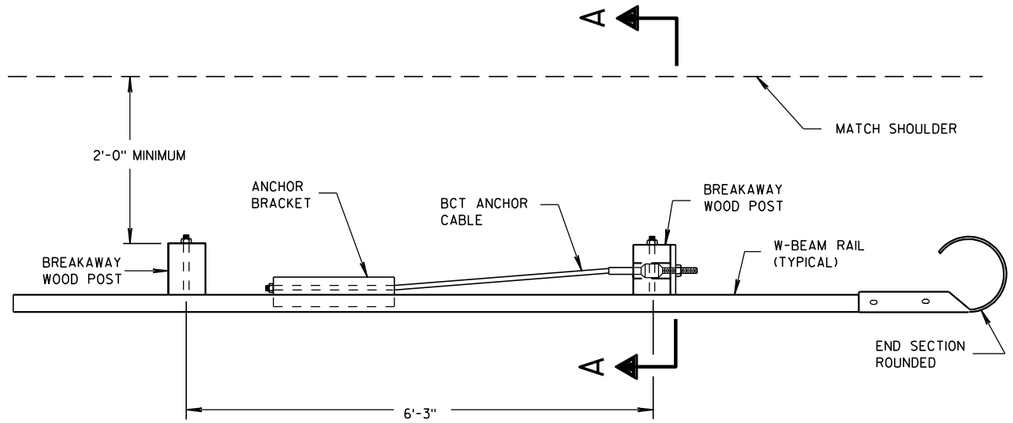
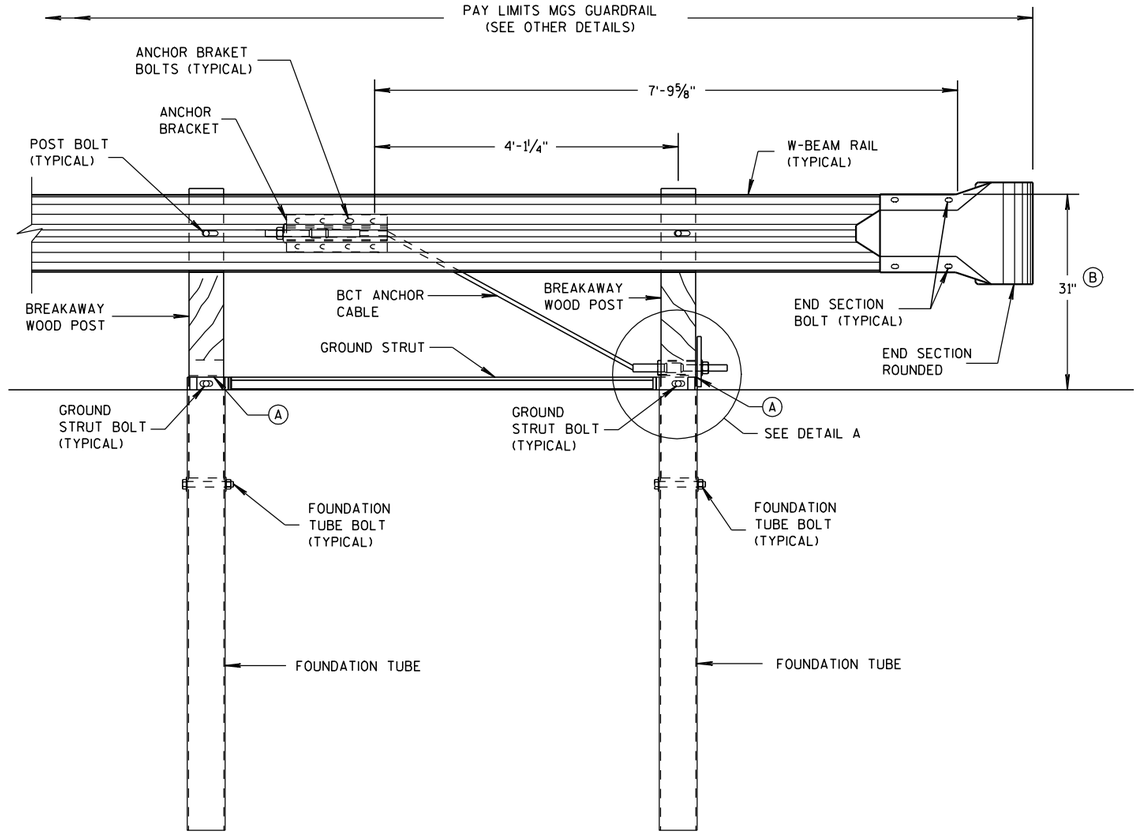
S.D.D. 14 B 45-3j

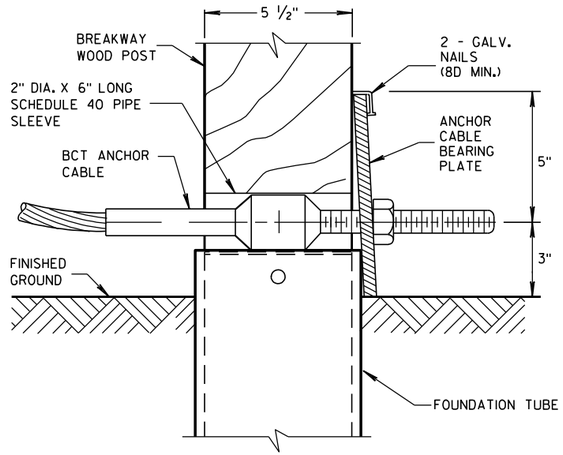


PLAN VIEW



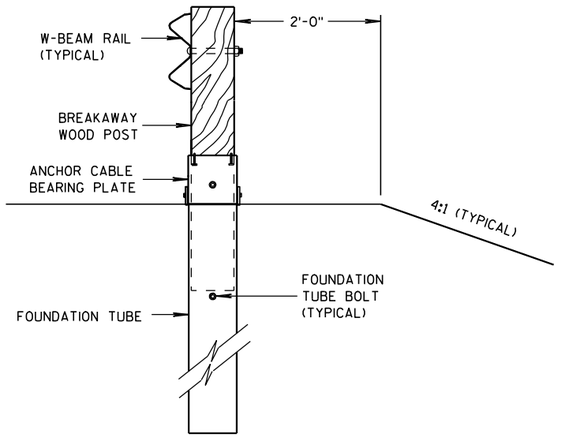
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

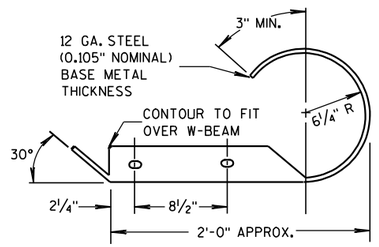
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

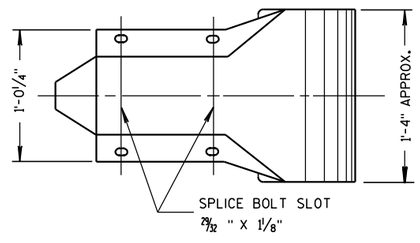
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



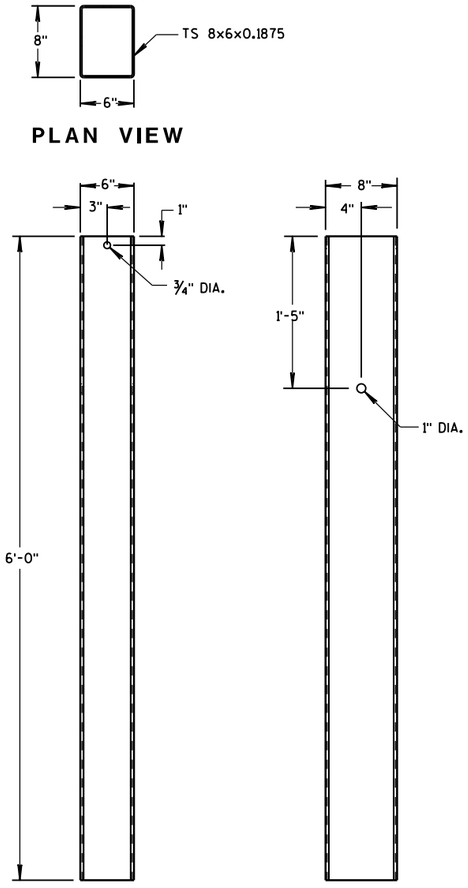
FRONT VIEW

W BEAM END SECTION ROUNDED

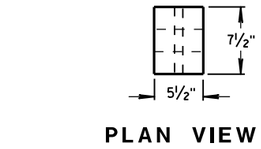
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

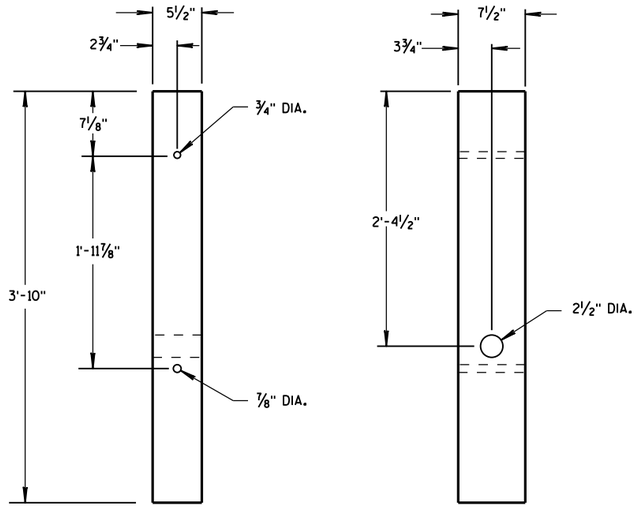
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 47-1a



FOUNDATION TUBE



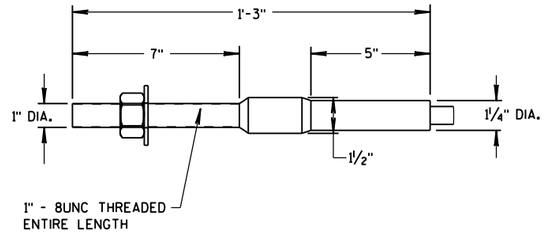


BREAKAWAY WOOD POST

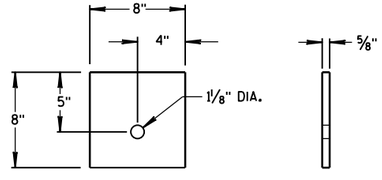
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 47-1b

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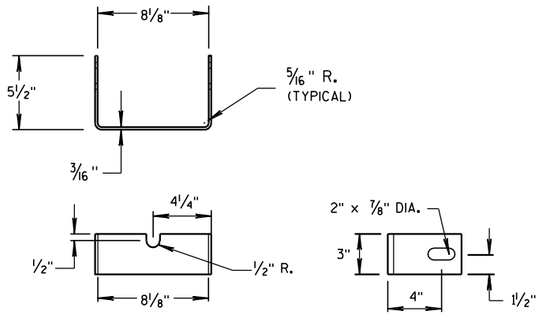
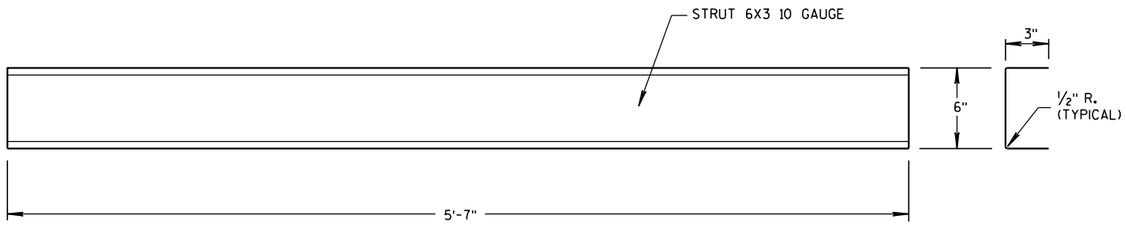
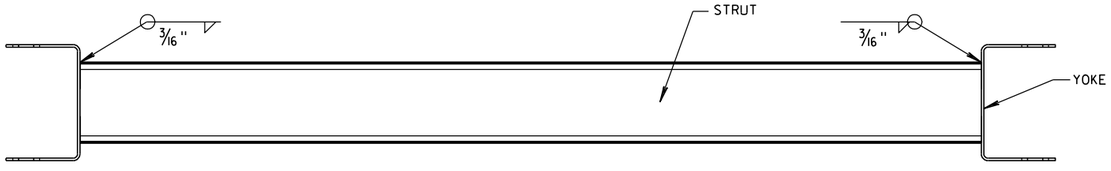
S.D.D. 14 B 47-1b



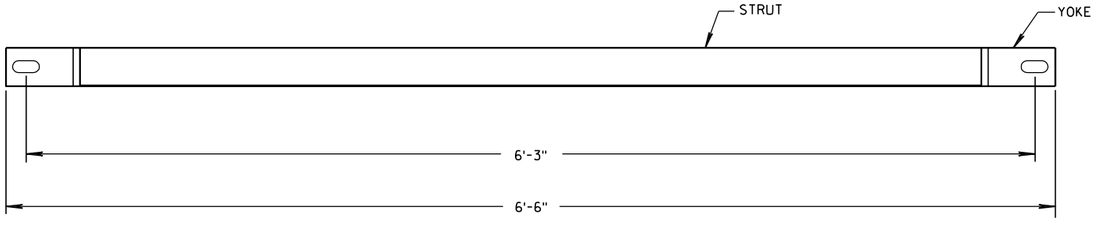
YOKE DETAIL



STRUT DETAIL

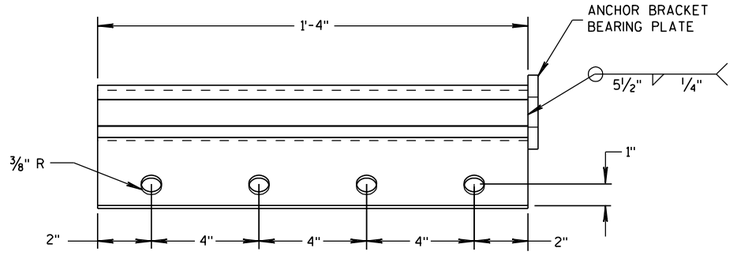


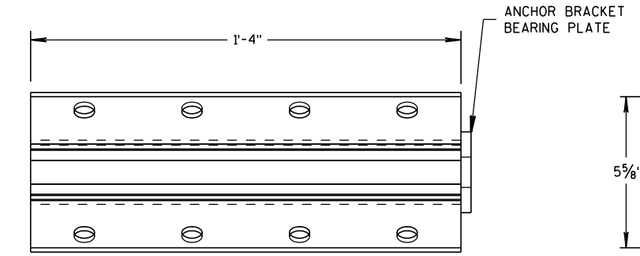
PLAN VIEW

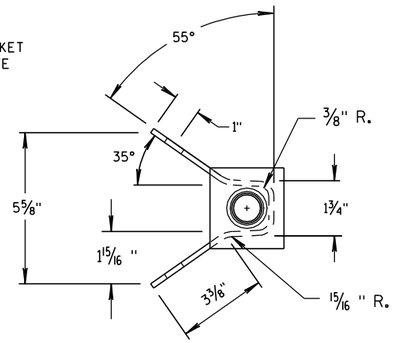


FRONT VIEW

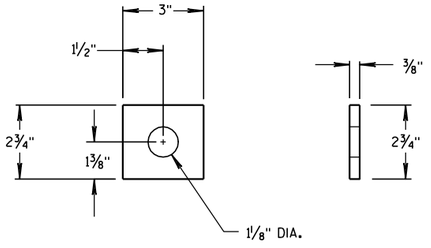
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

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S.D.D. 14 B 47-1c

S.D.D. 14 B 47-1c

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

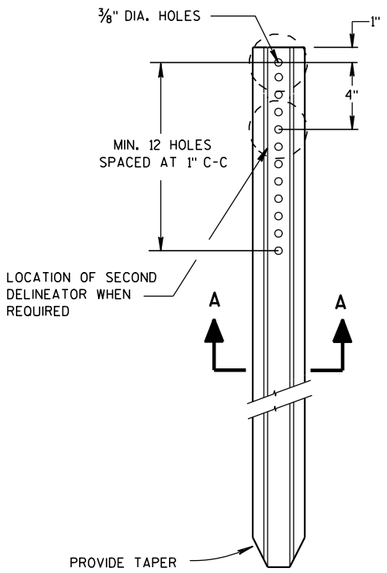
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

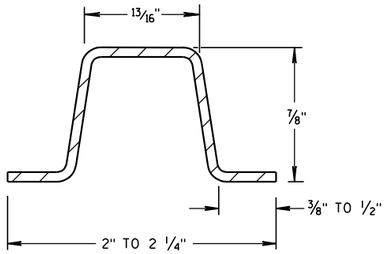
5/23/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

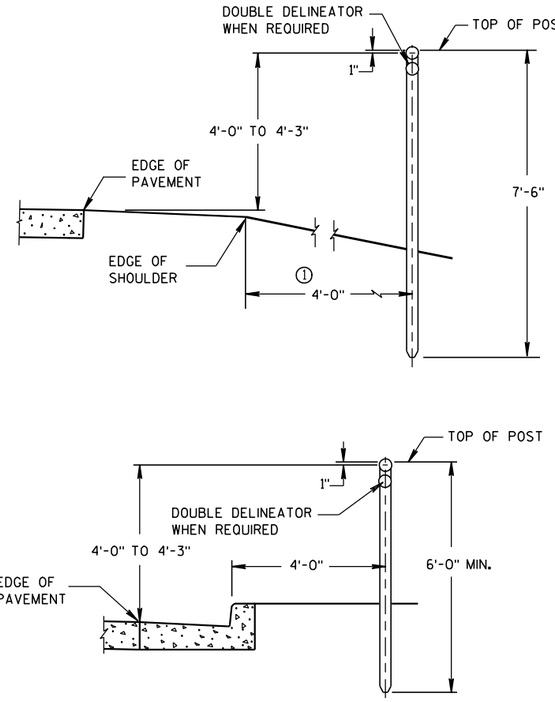


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

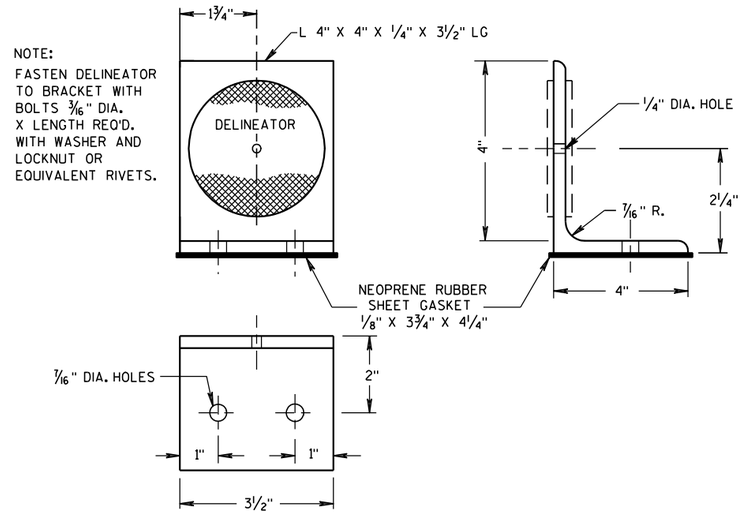


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

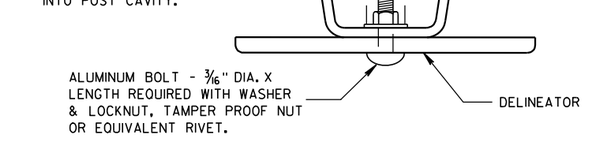
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

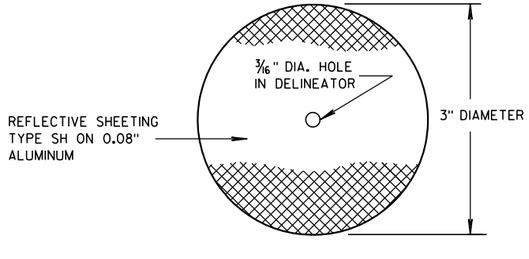
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



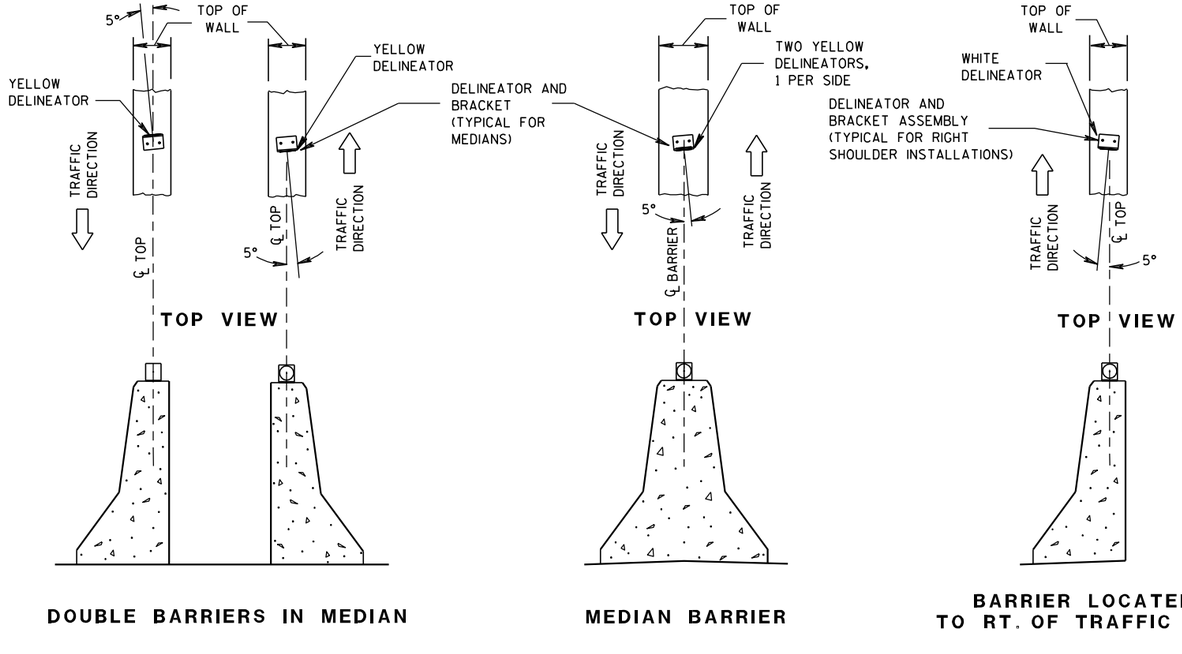
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

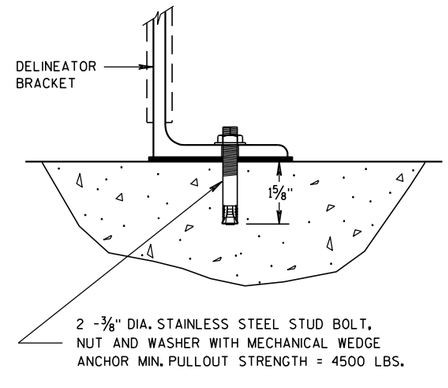


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/25/2011
DATE

/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 A 2-7

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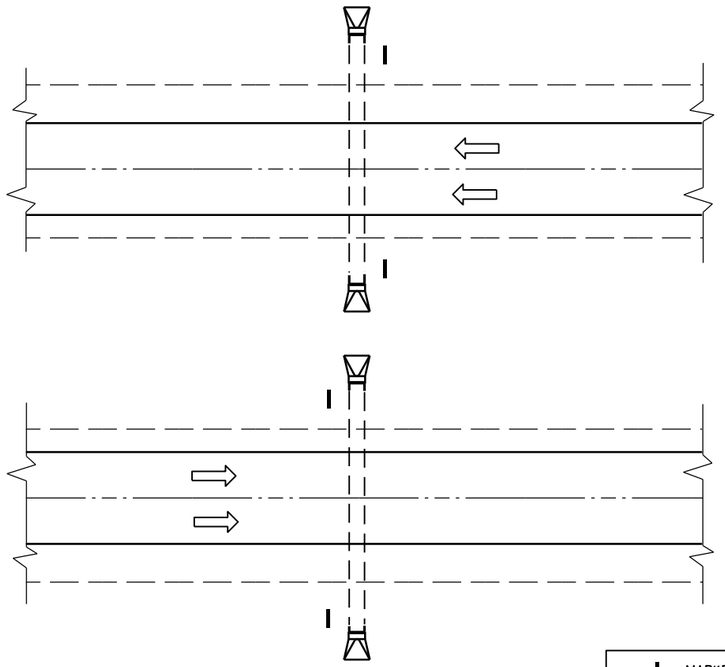
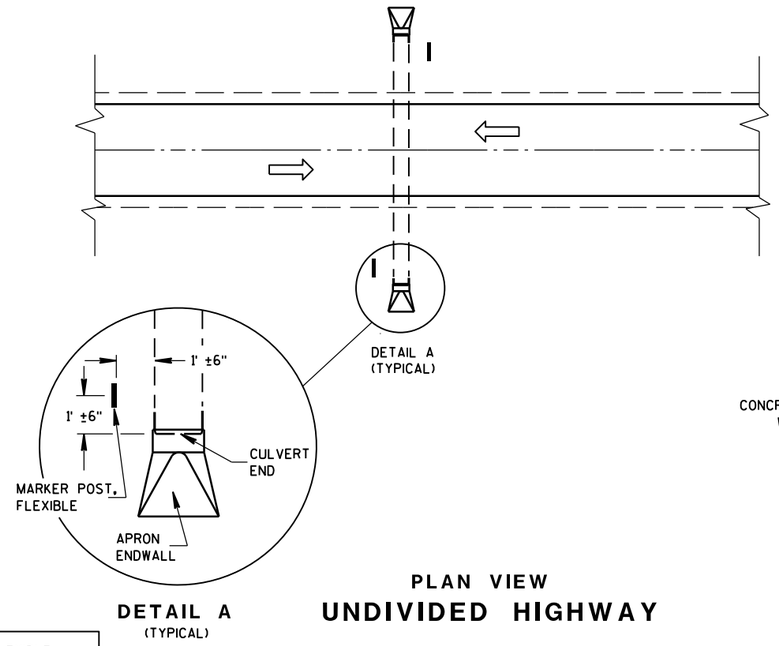
S.D.D. 15 A 2-7



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

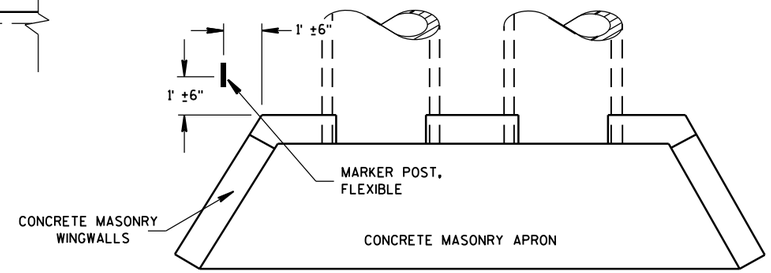
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

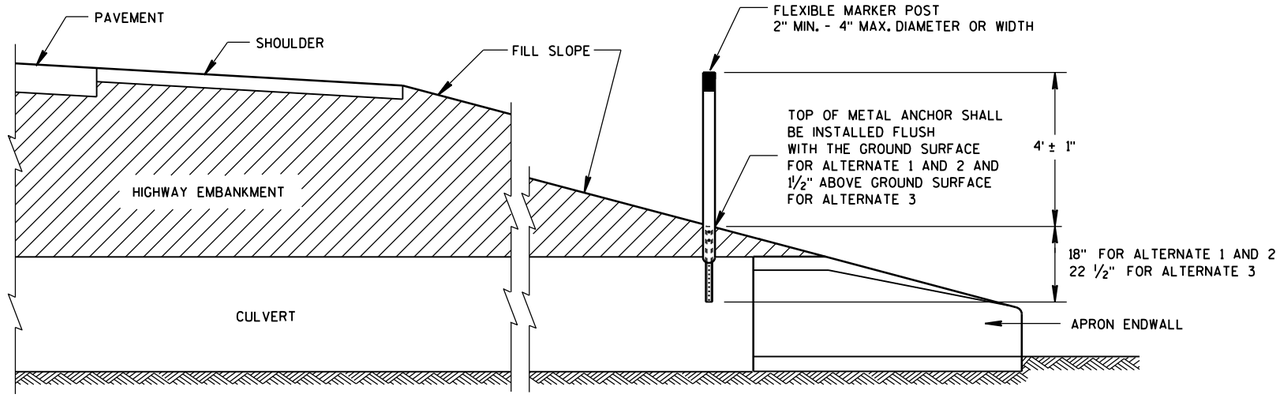
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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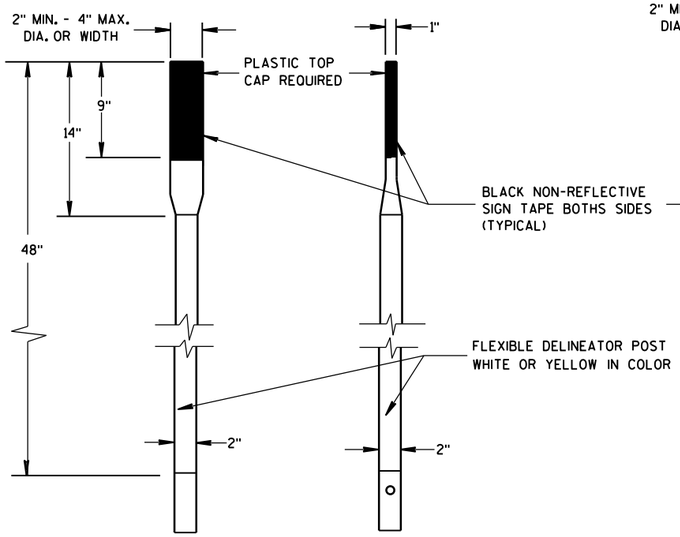
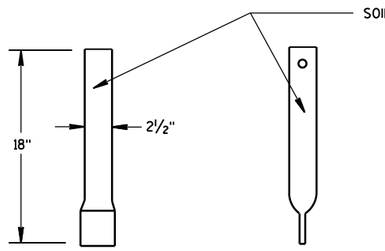
S.D.D. 15 A 3-2a

6

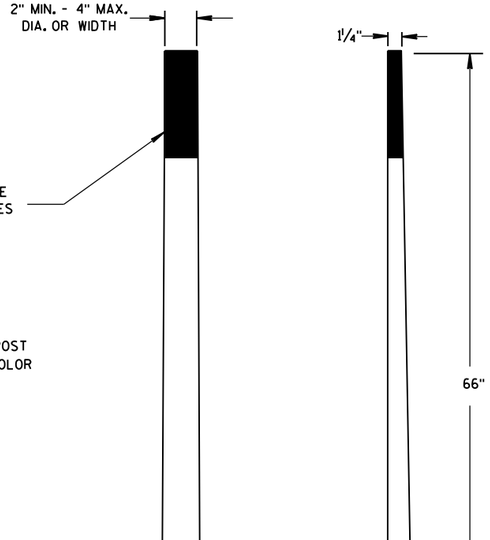
S.D.D. 15 A 3-2a





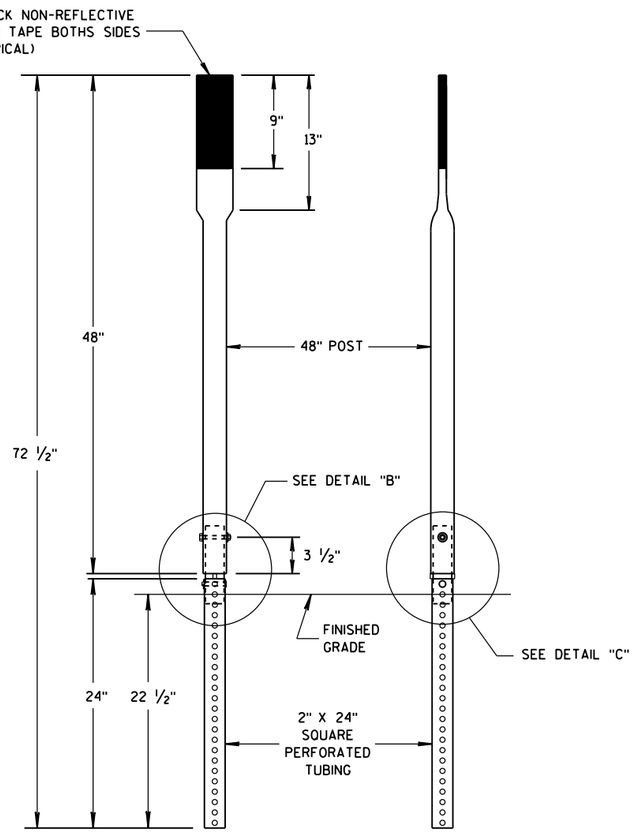
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

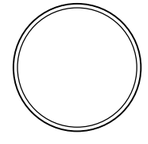
ALTERNATE 2



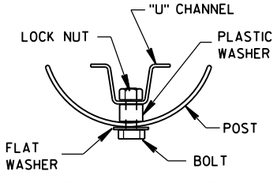
FRONT VIEW SIDE VIEW

ALTERNATE 3

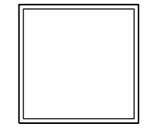
FLEXIBLE MARKER POSTS



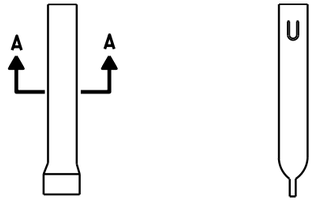
SECTION A-A



SECTION B-B

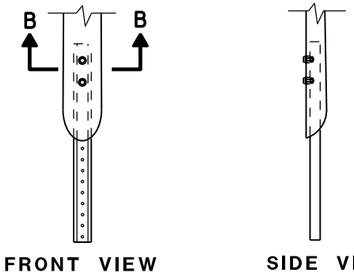


SECTION C-C



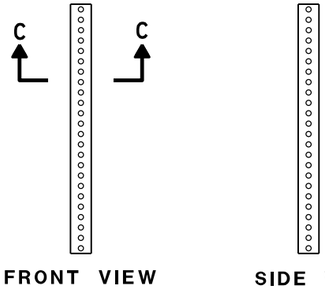
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

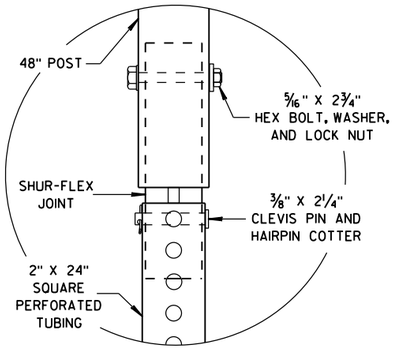
ALTERNATE 2



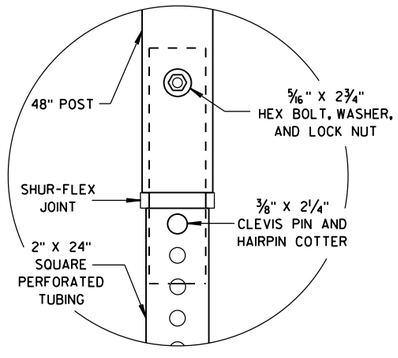
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

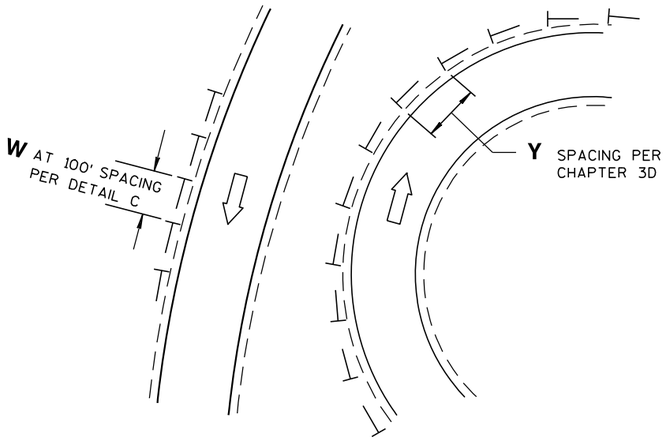
S.D.D. 15 A 3-2b

6

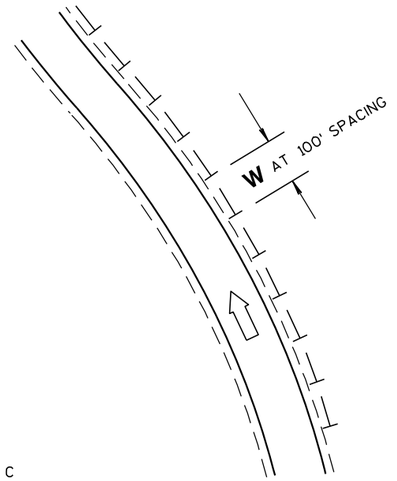
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



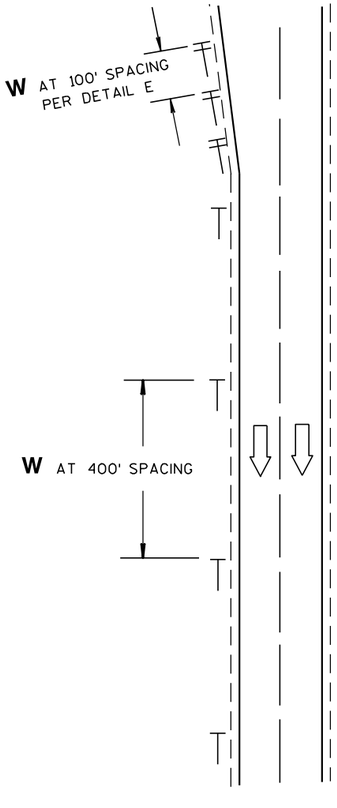
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



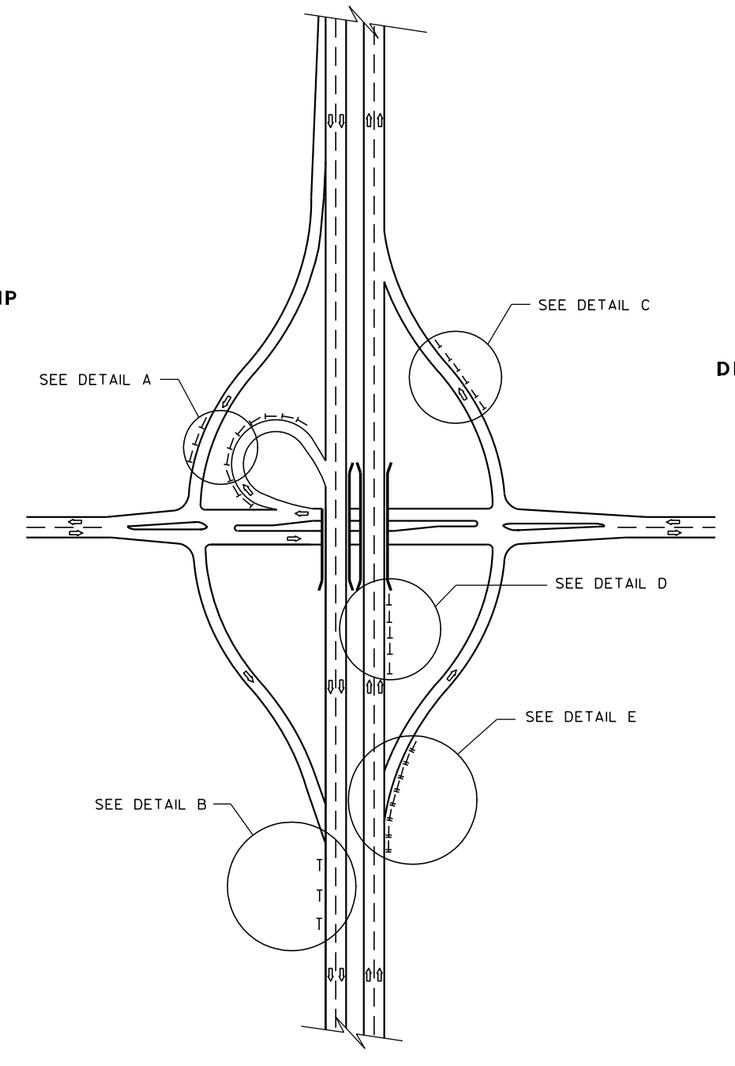
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

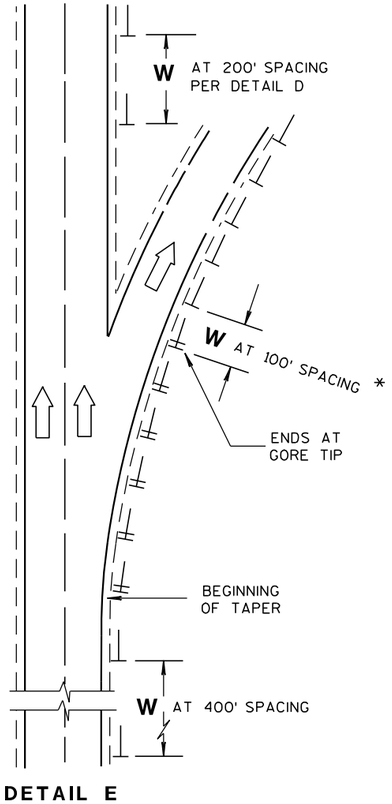
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



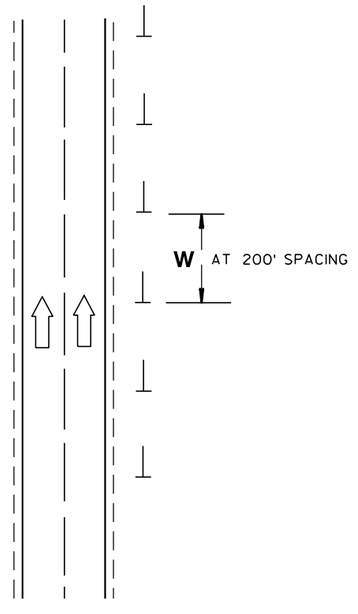
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

6

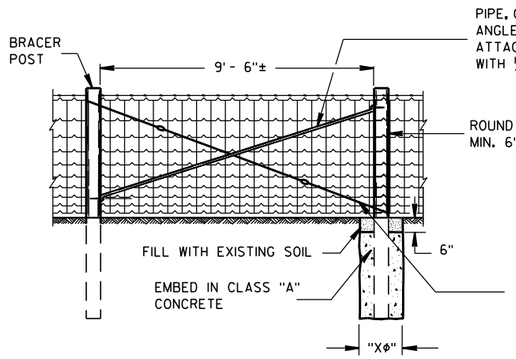
S.D.D. 15 A 6-2

6

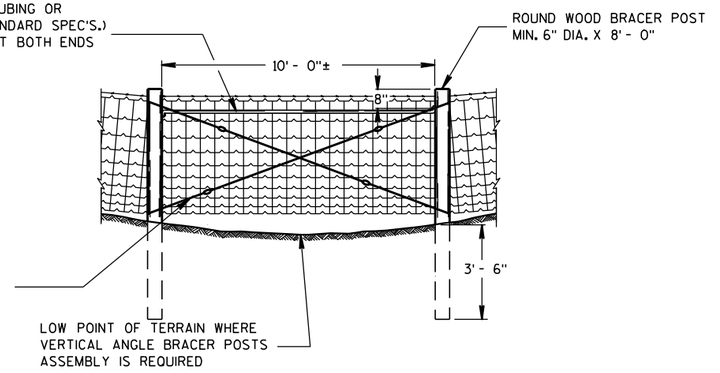
S.D.D. 15 A 6-2

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

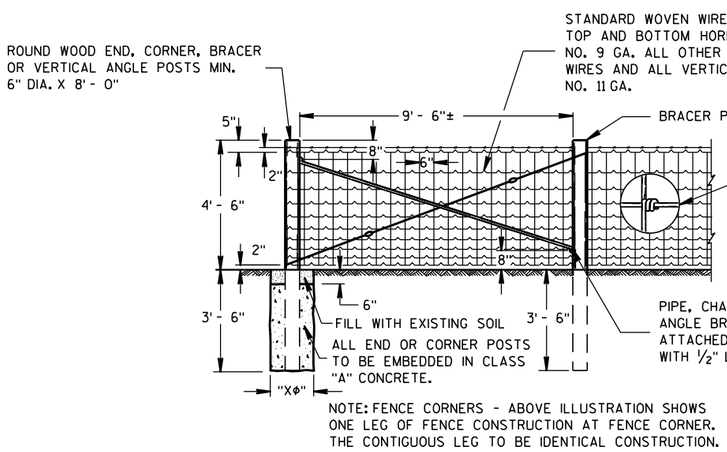
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

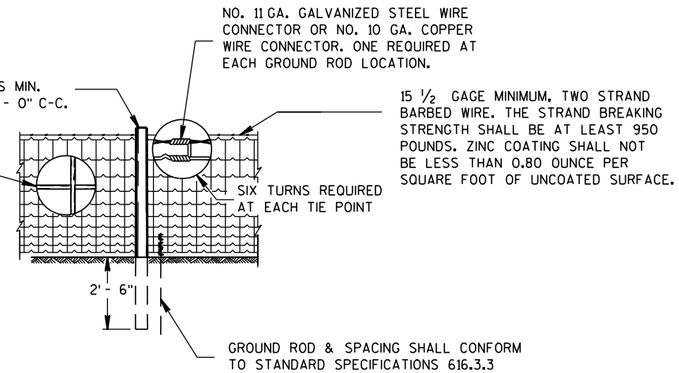
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

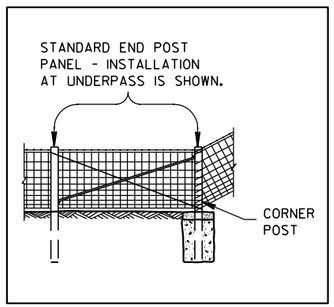
END OR CORNER POSTS ASSEMBLY



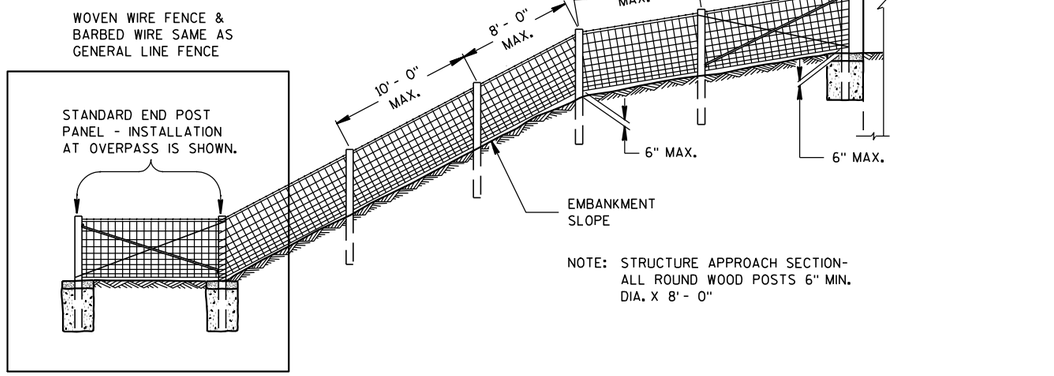
ALTERNATE METHODS OF SECURING VERTICAL STAY WIRES TO HORIZONTAL WIRES - SECURELY WELDED OR TWISTED.

LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

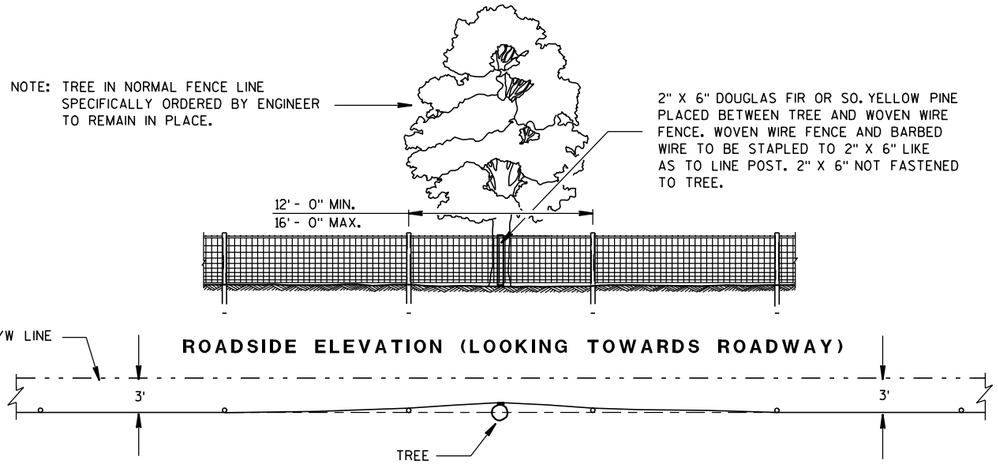
FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

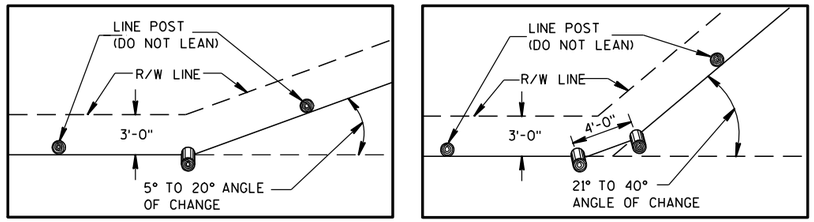
6

S.D.D. 15 B 1-8a



PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



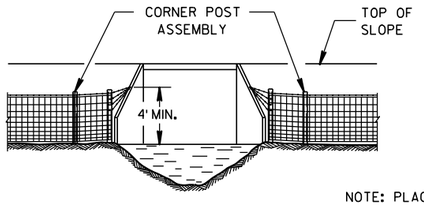
PLAN VIEW
SINGLE POST CORNER

PLAN VIEW
DOUBLE POST CORNER

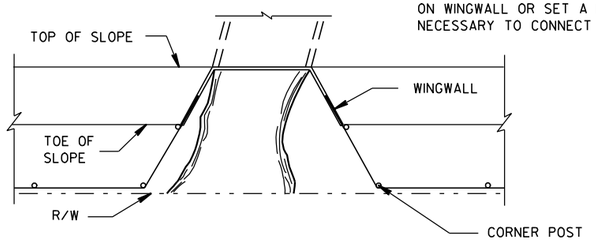
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

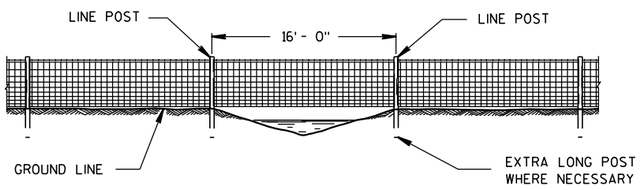
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



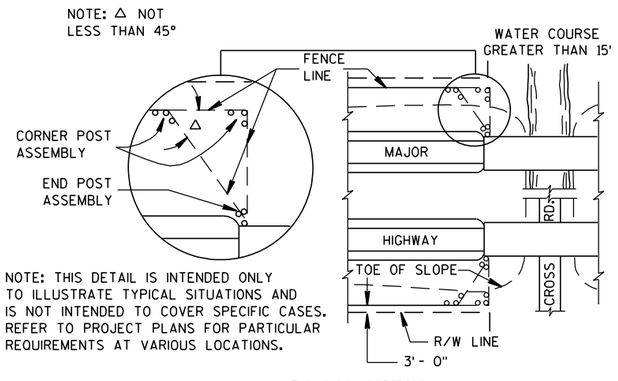
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

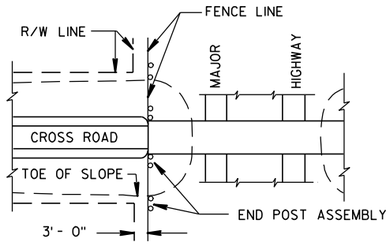


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



PLAN VIEW

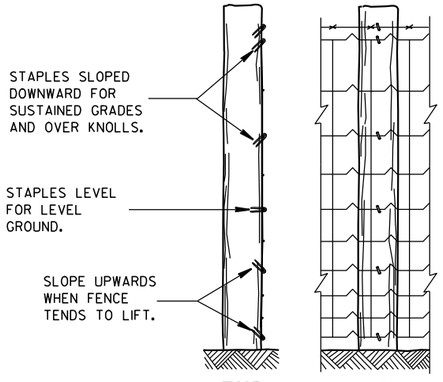
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW

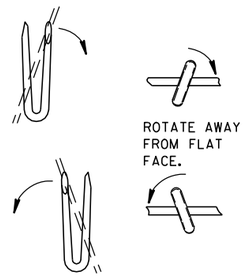
MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION **FARM SIDE ELEVATION**

FENCE MOUNTING DETAIL



LINE POST

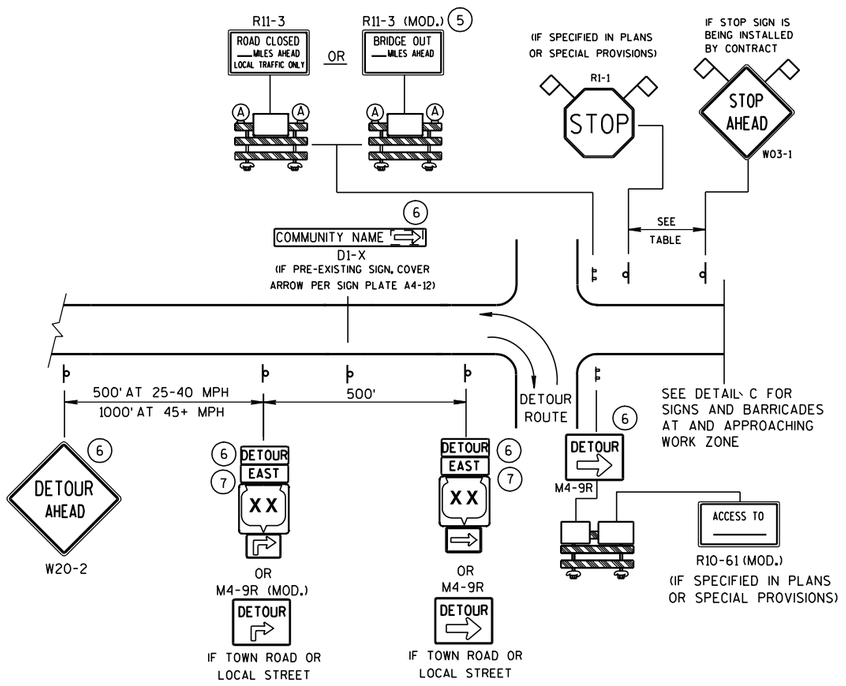
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008 — DATE
/S/ Jerry H. ---- — ROADWAY STANDARDS [452] ENGINEER
FHWA

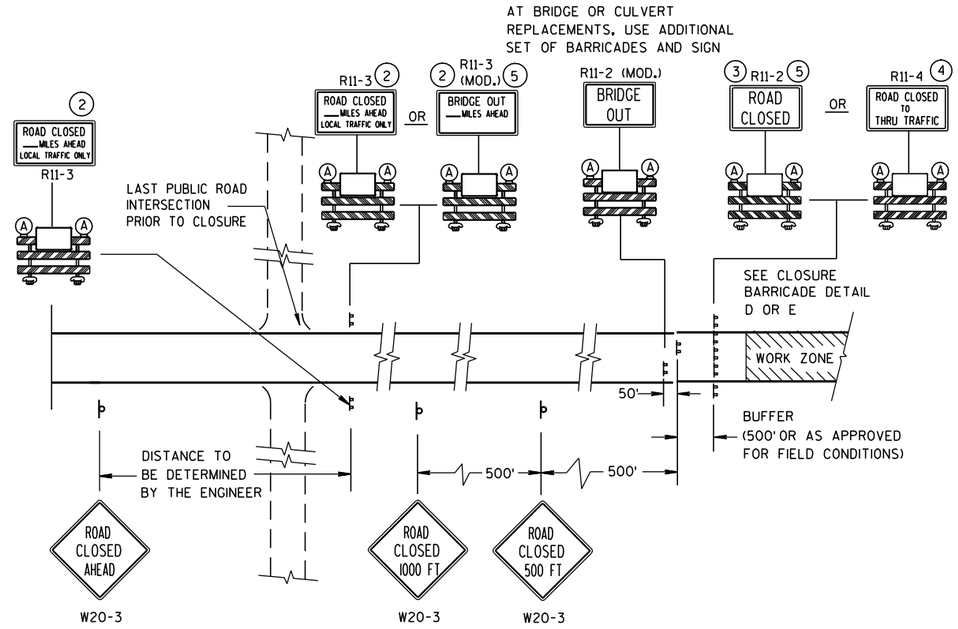
6
S.D.D. 15 B 1-8b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

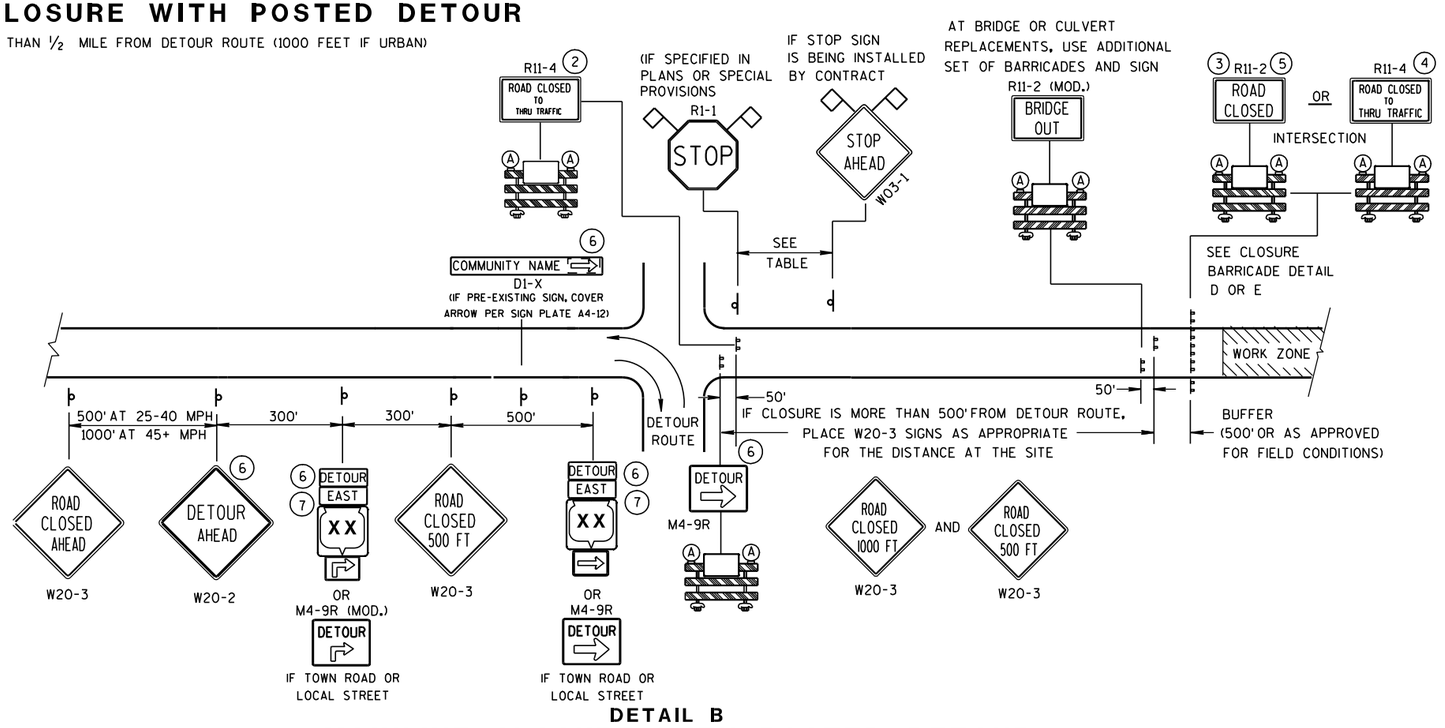


SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SEE SDD 15C2-4b FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

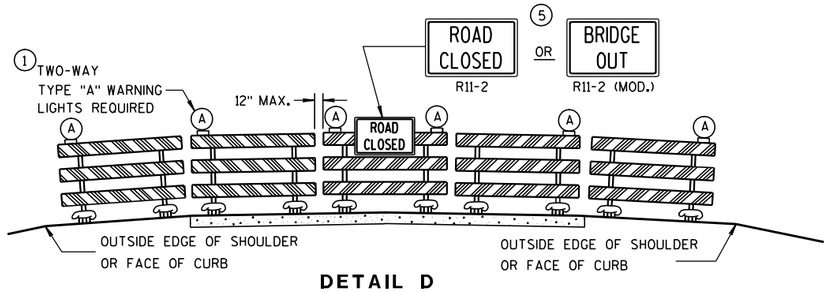
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

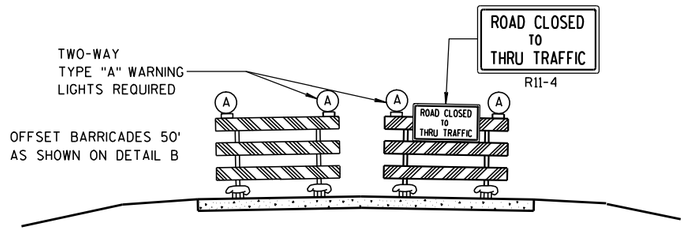
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

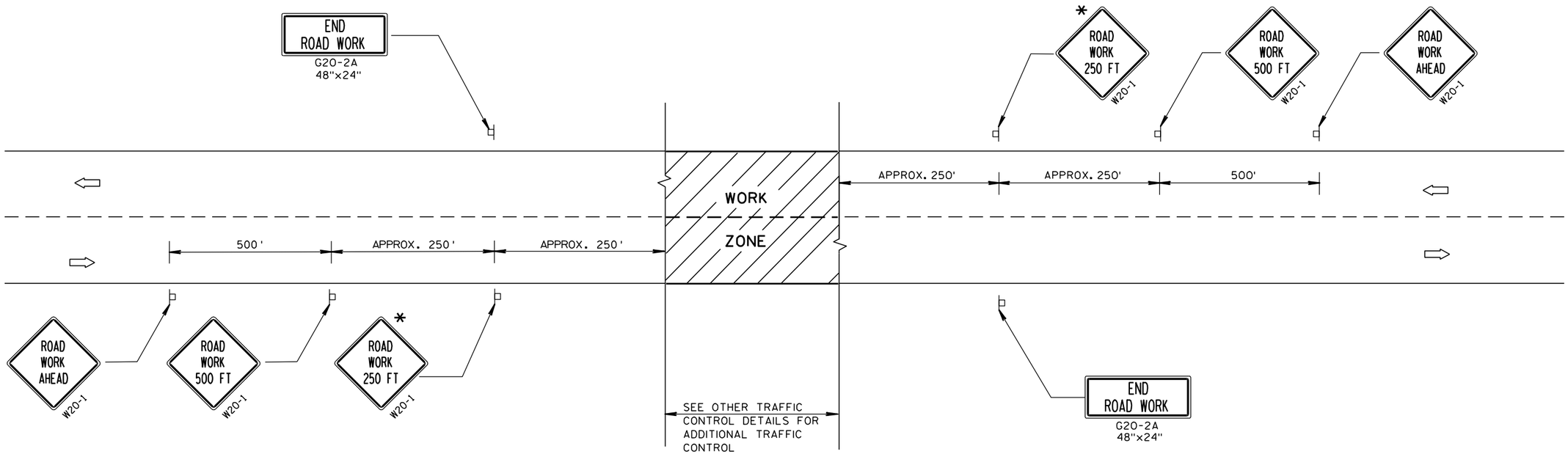
9/16/03 — DATE

/S/ Thomas N. [illegible] — CHIEF SIGNS AND MARKING ENGINEER

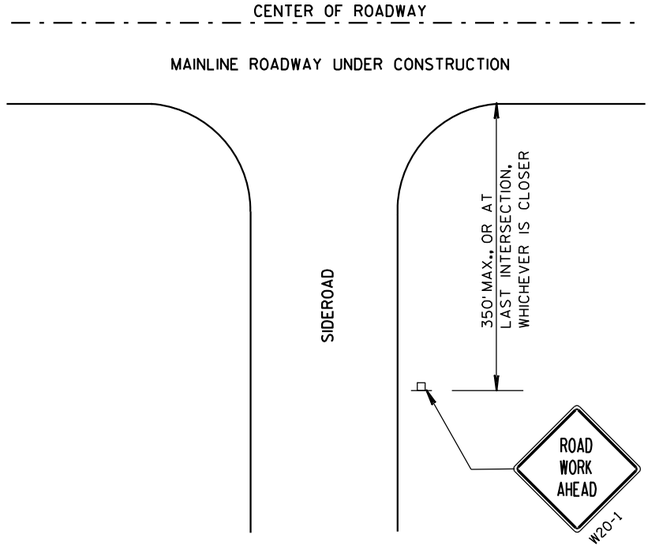
FHWA

6

S.D.D. 15 C 2-4b



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

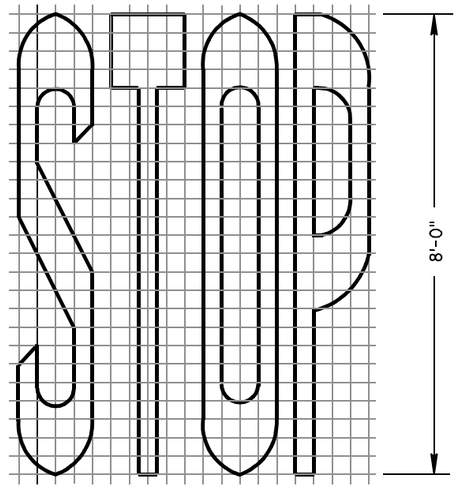
6

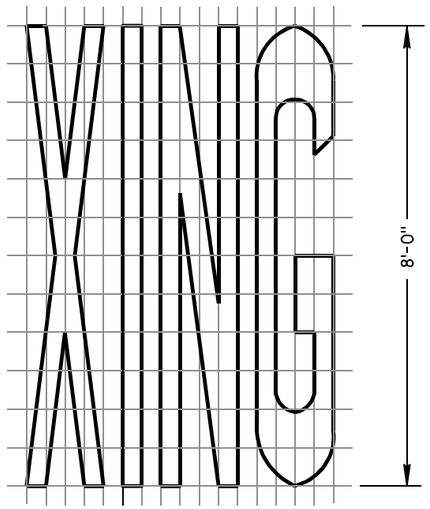
S.D.D. 15 C 5-1

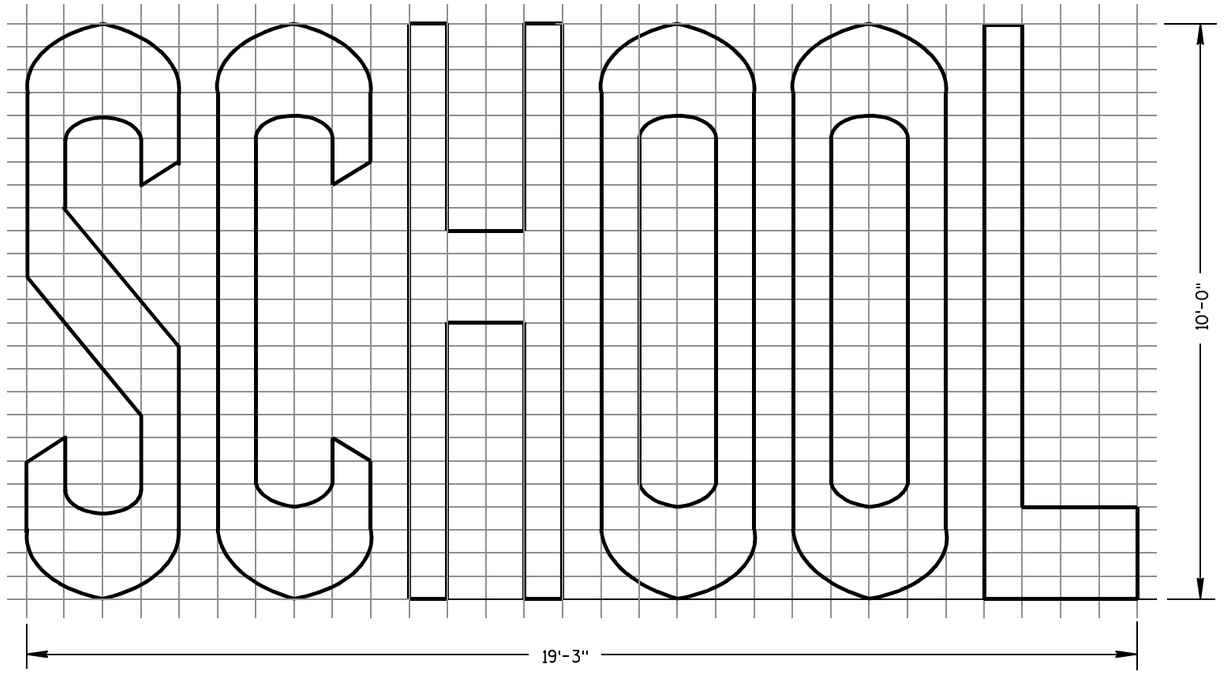
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

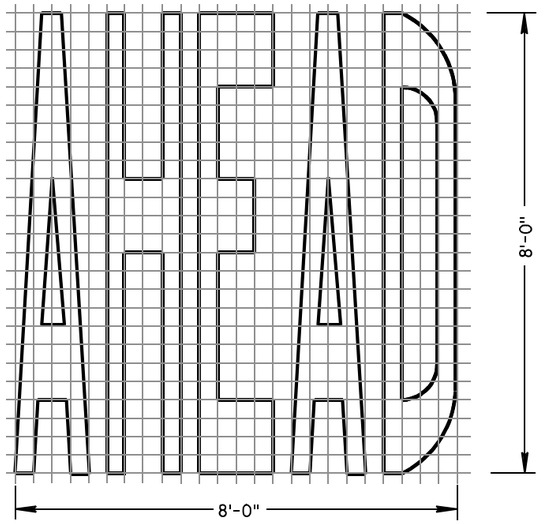
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

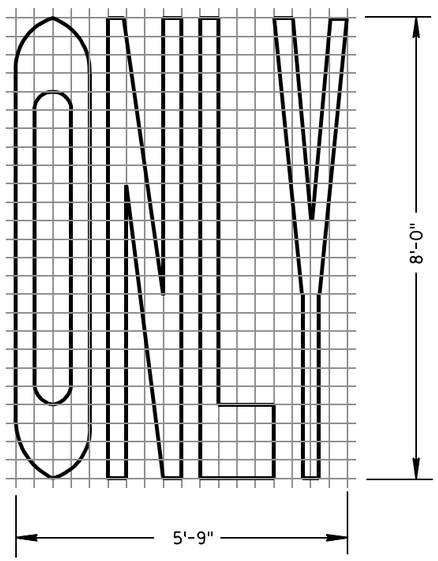


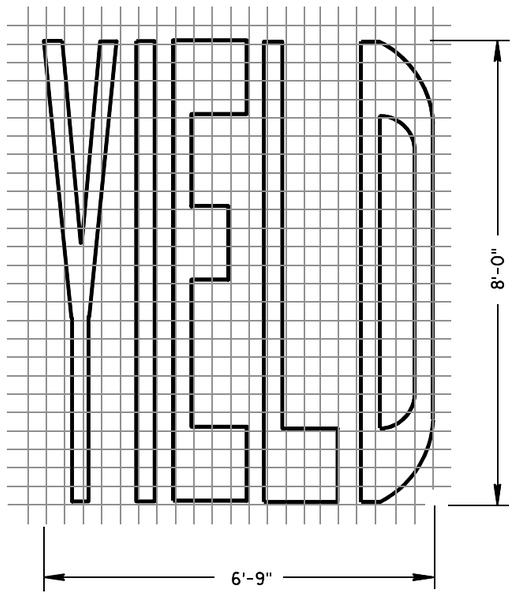


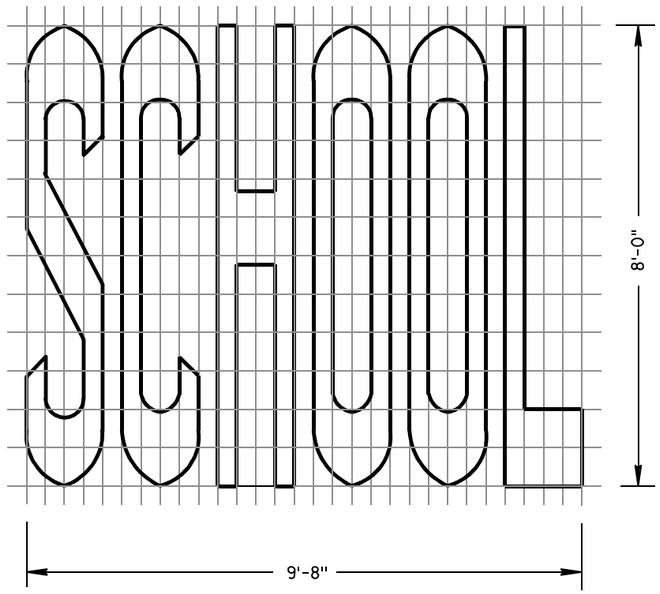


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE

/S/ Thomas N. Nottbohm
STATE TRAFFIC ENGINEER

FHWA

IGN

6

S.D.D. 15 C 7-12b

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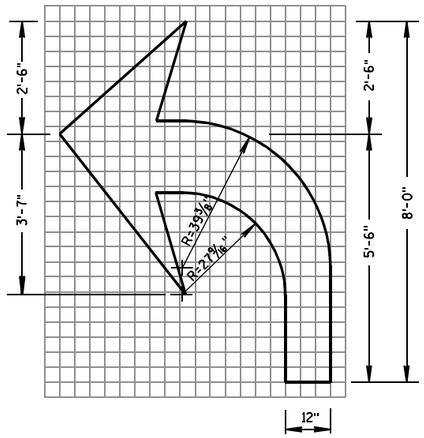
S.D.D. 15 C 7-12b



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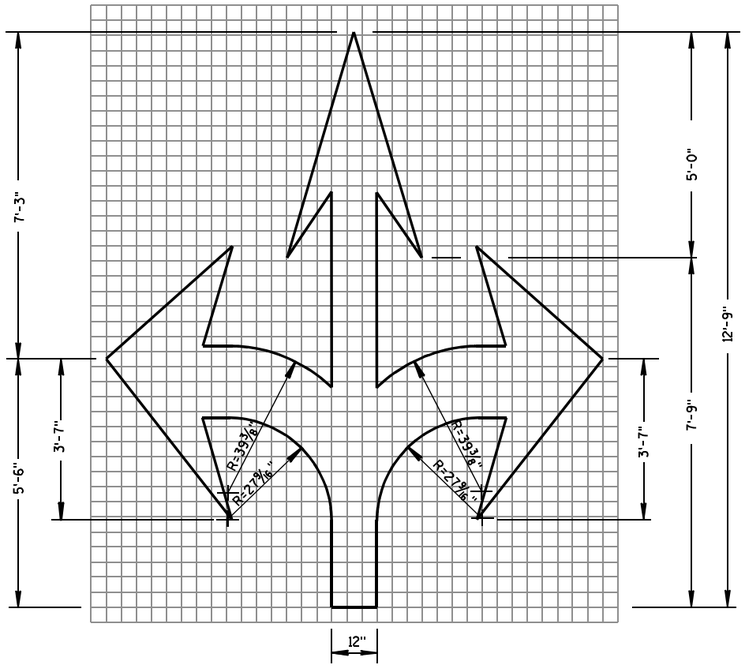
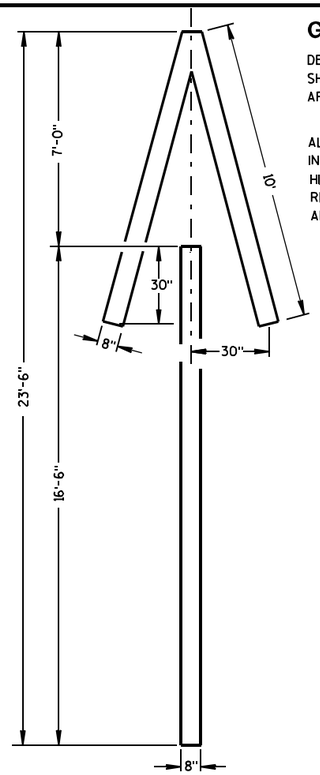


TYPE 6

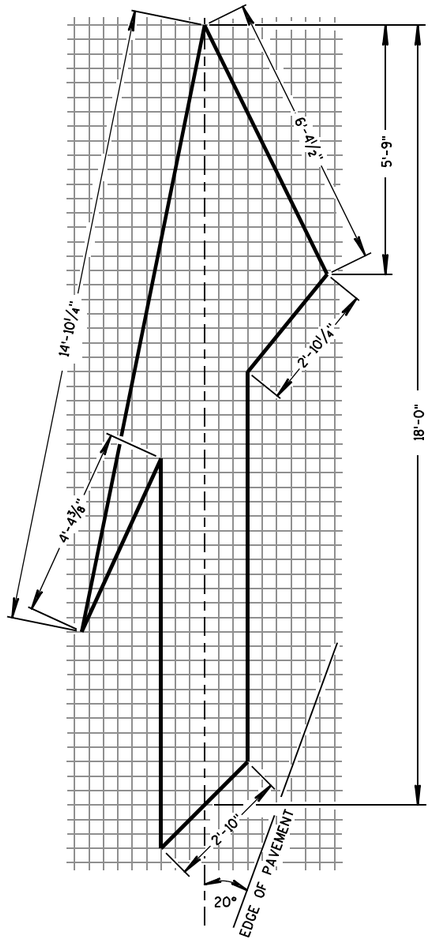


TYPE 4

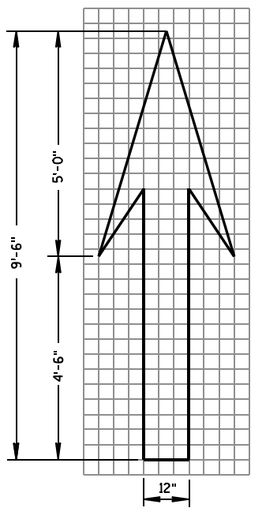
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

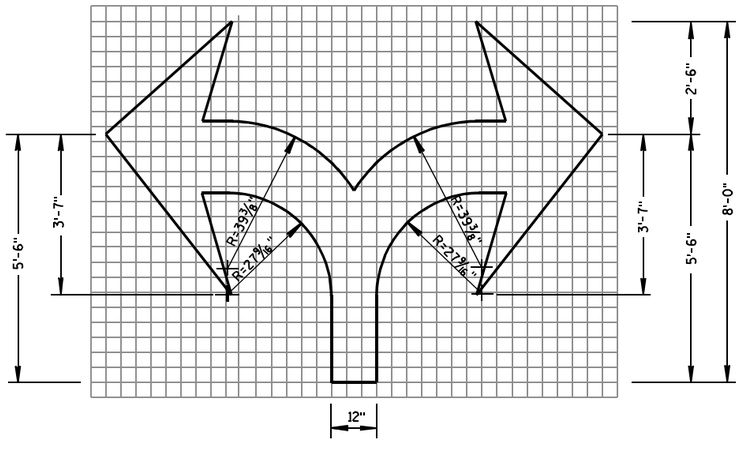
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 5 LANE DROP ARROW



TYPE 1



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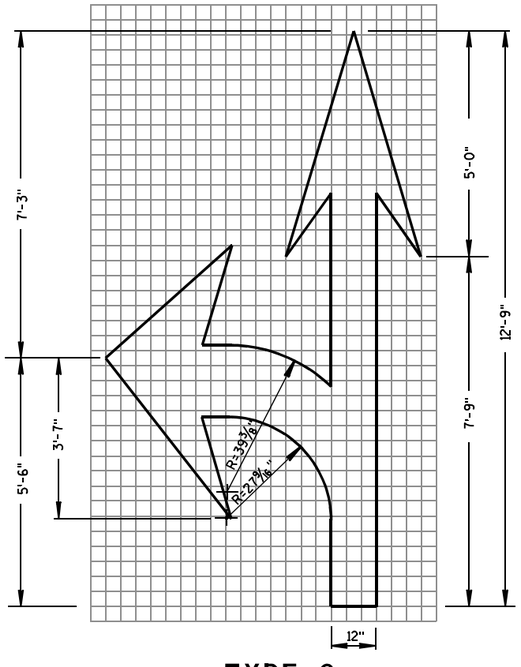

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

457

FHWA

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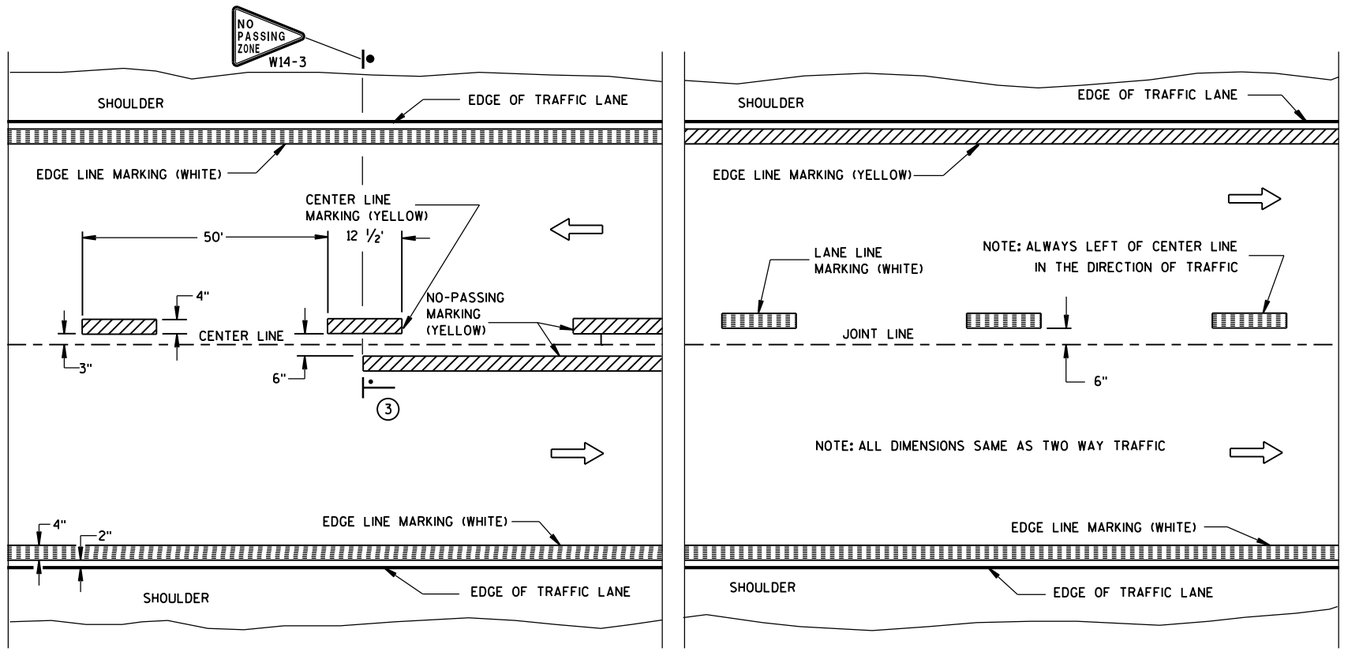
S.D.D. 15 C 7-12c

6

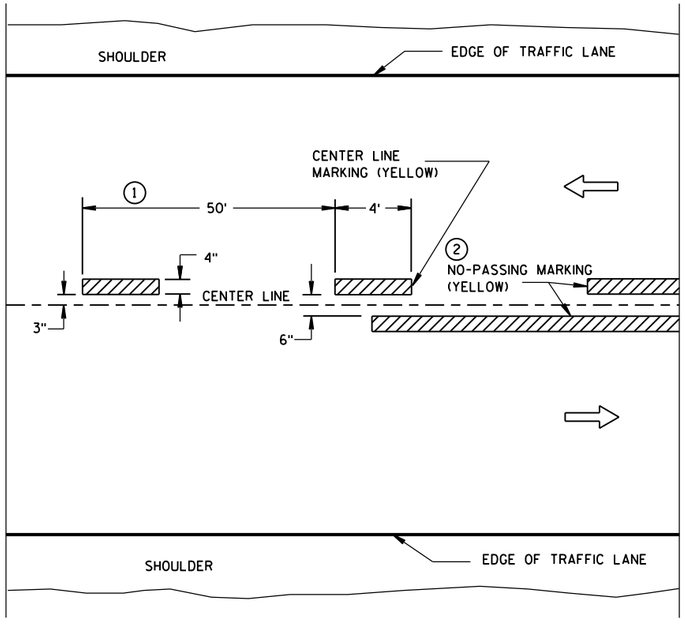
S.D.D. 15 C 7-12c



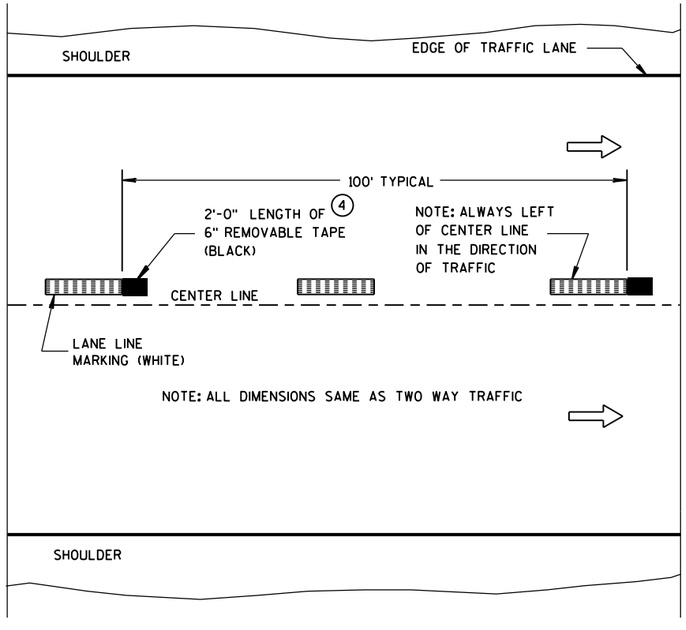
TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

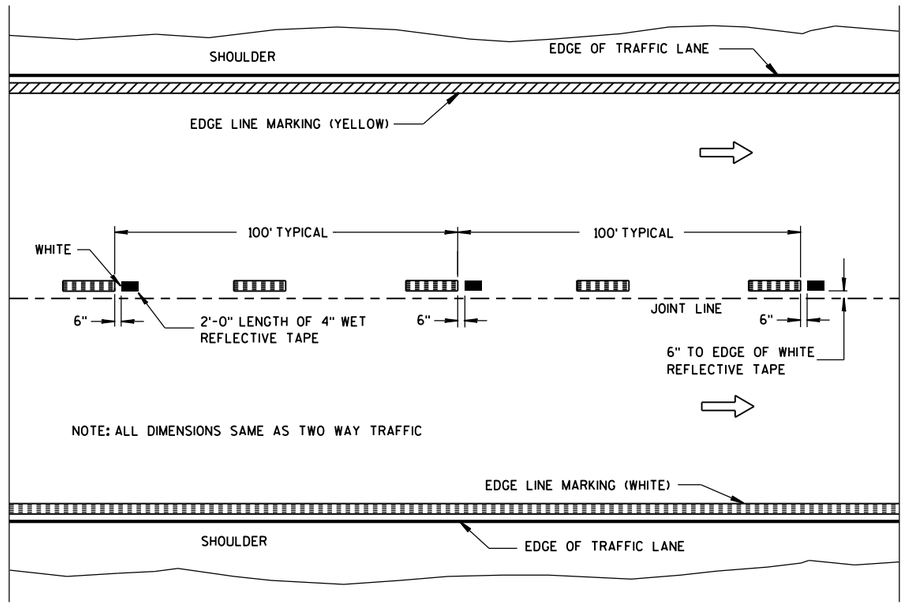
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

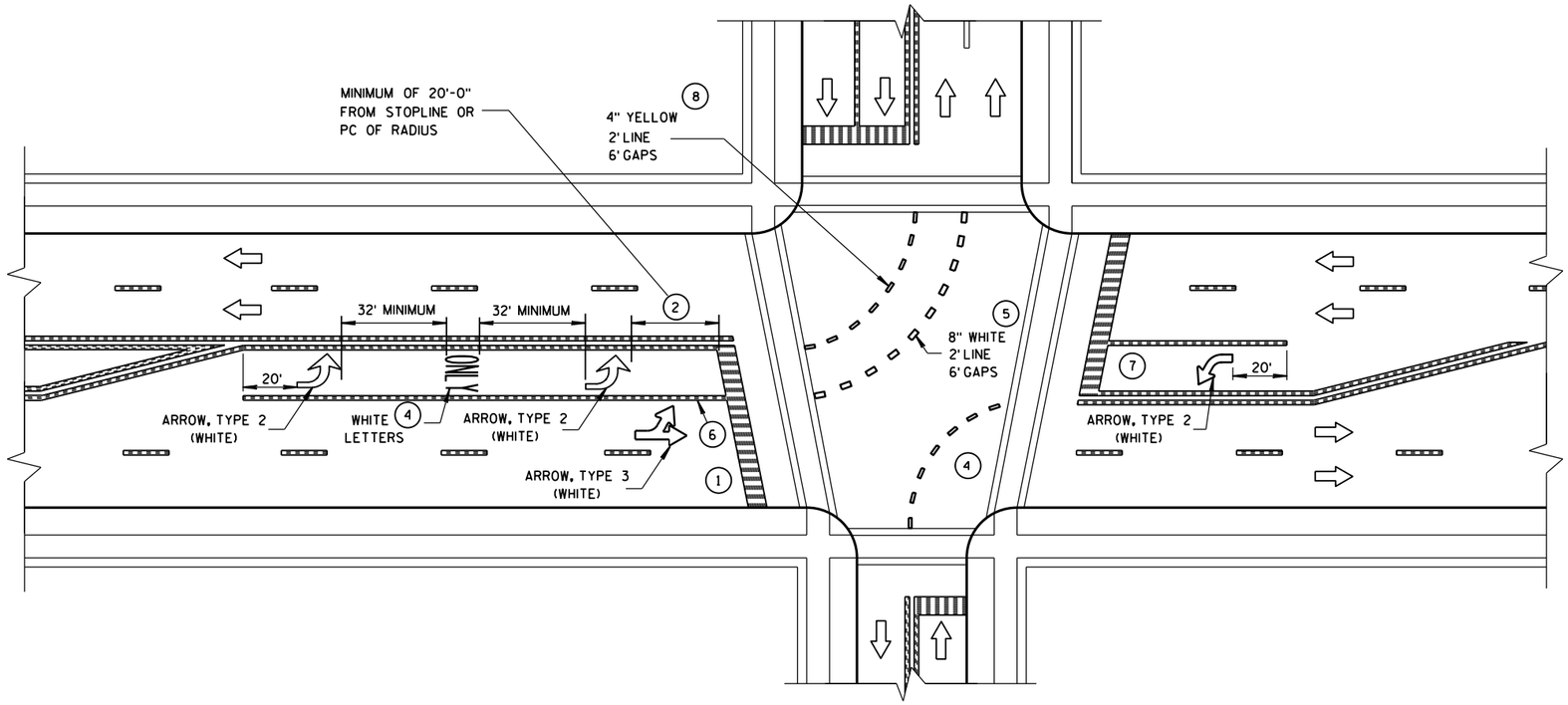
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
458 — SIGN
FHWA

6

S.D.D. 15 C 8-15a

6

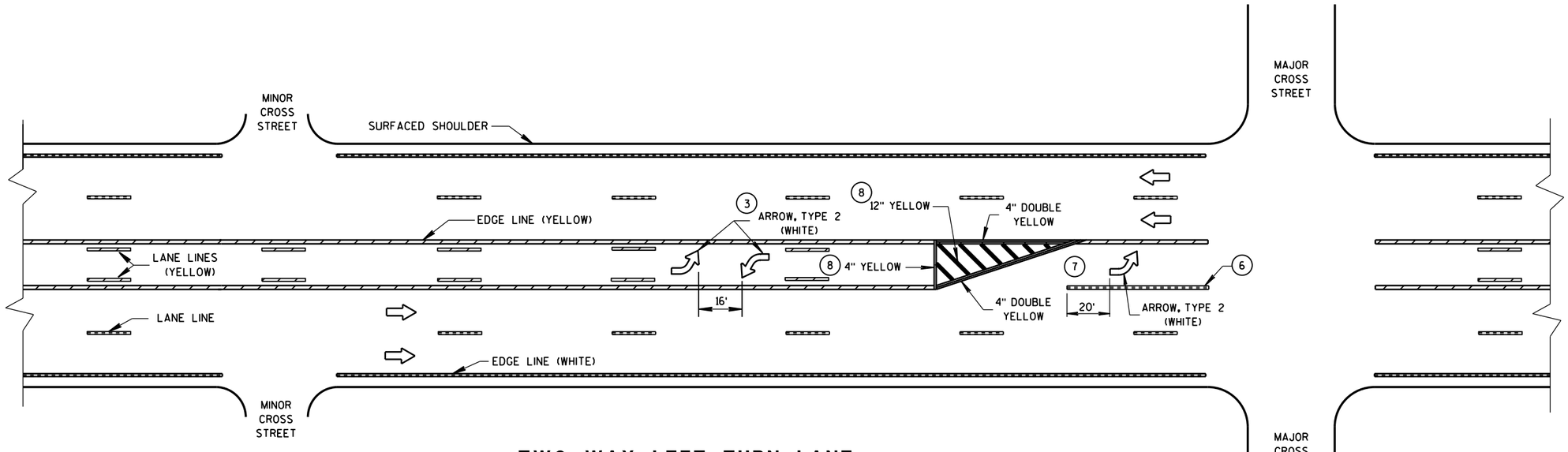
S.D.D. 15 C 8-15a



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA ARROW AND ONLY PER 160' OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108'.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



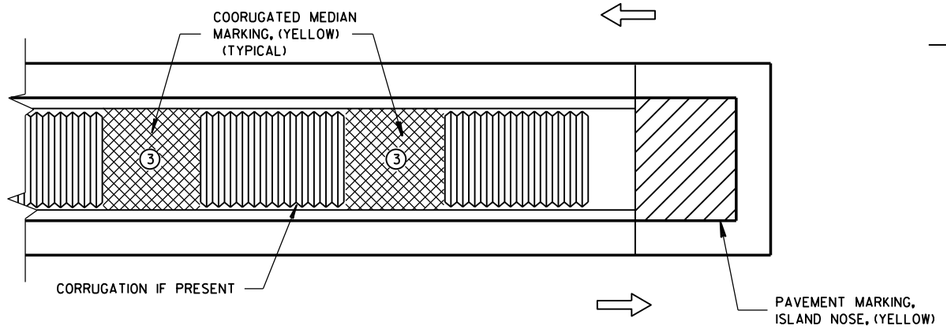
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

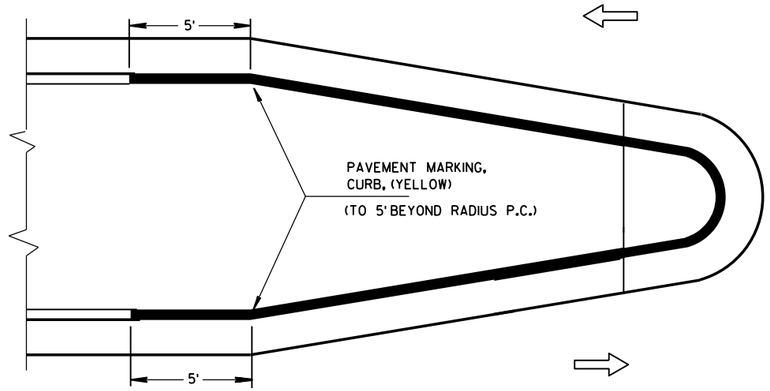
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

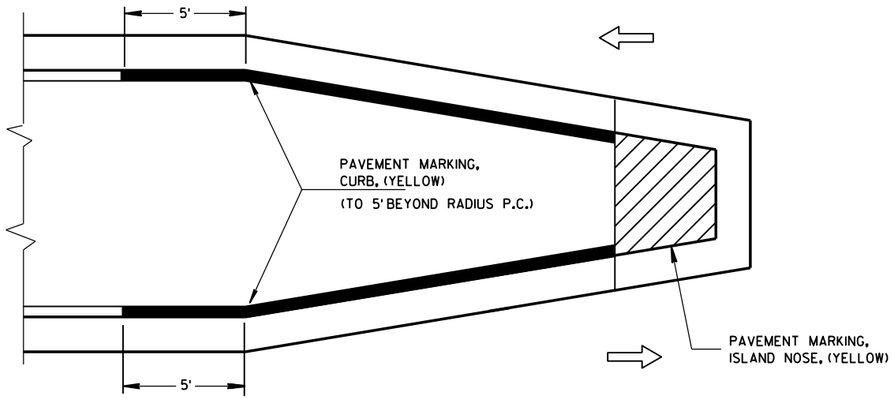
S.D.D. 15 C 8-15e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

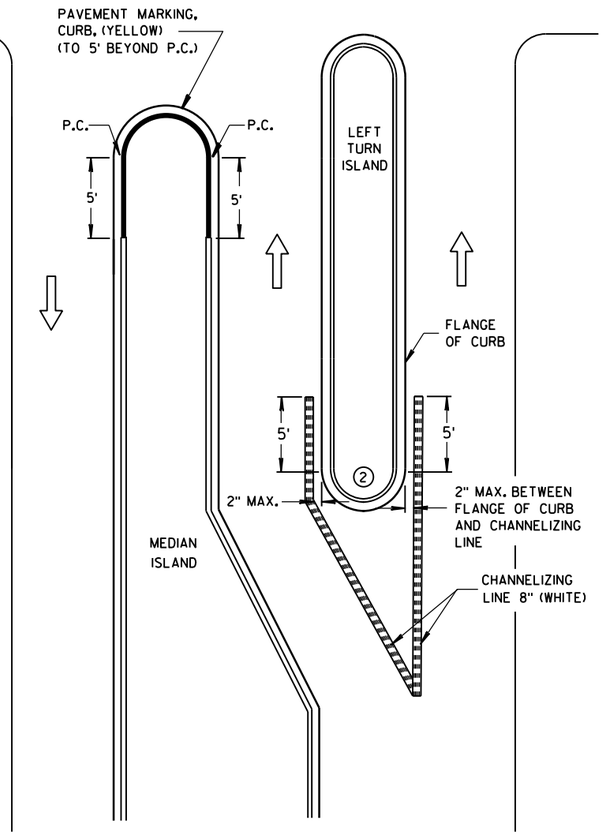


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

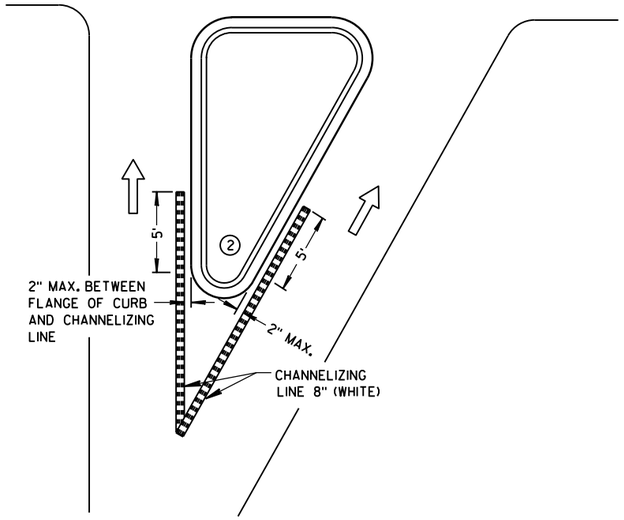
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



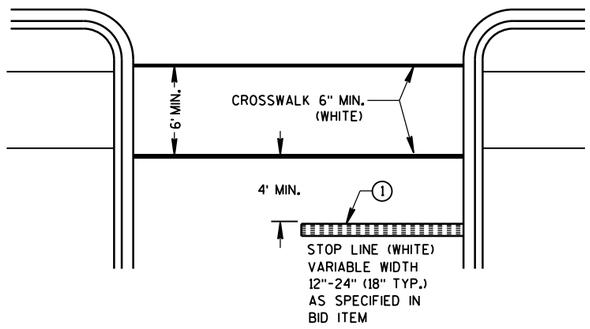
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-15f

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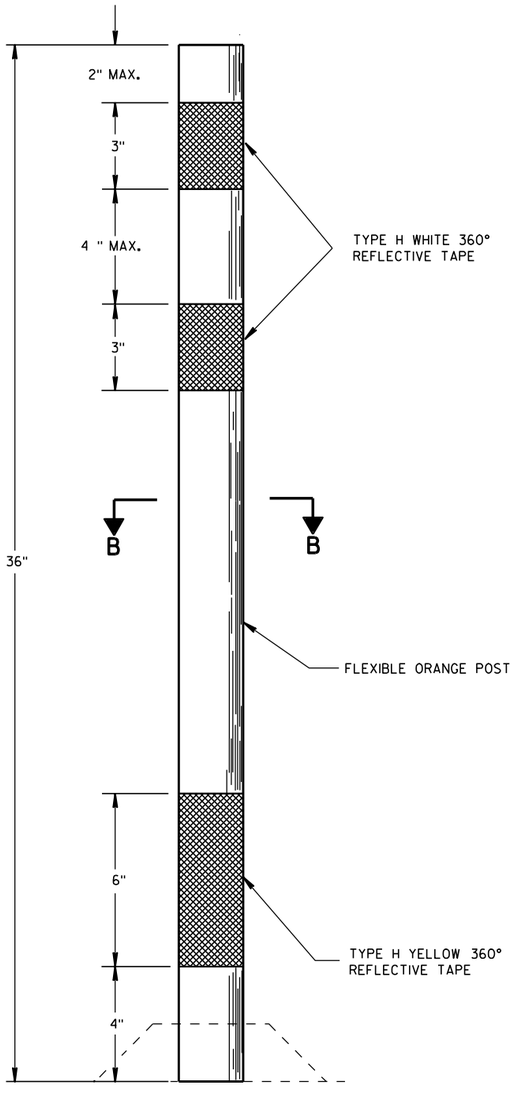
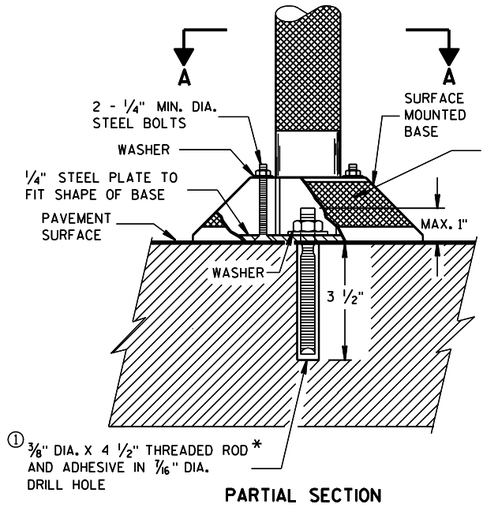
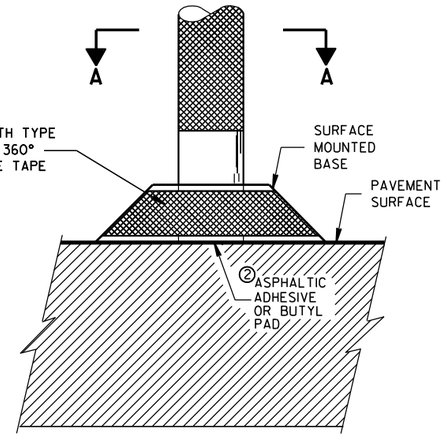
S.D.D. 15 C 8-15f



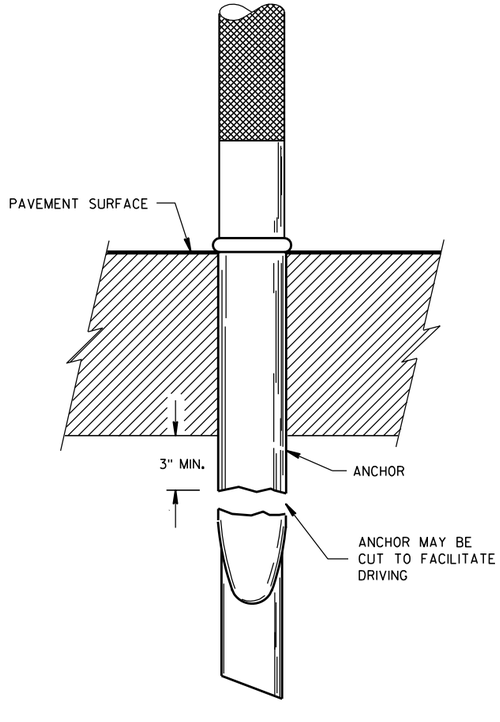
FLEXIBLE TUBULAR MARKER POST

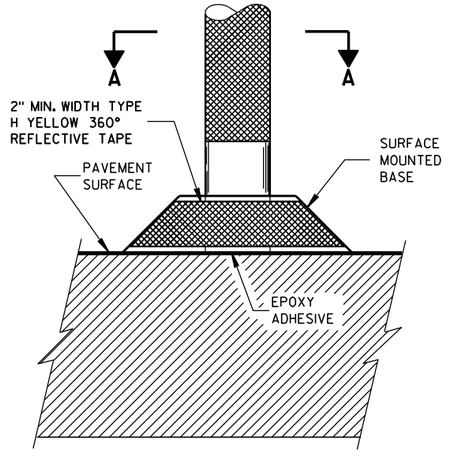


PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

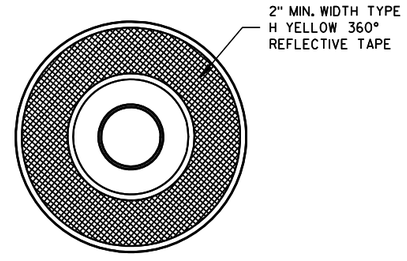
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

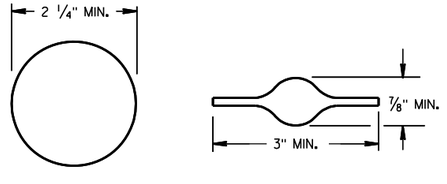
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A

SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

FHWA

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S.D.D. 15 C 11-5

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S.D.D. 15 C 11-5

TWO-LANE ROADWAY

SYMBOLS

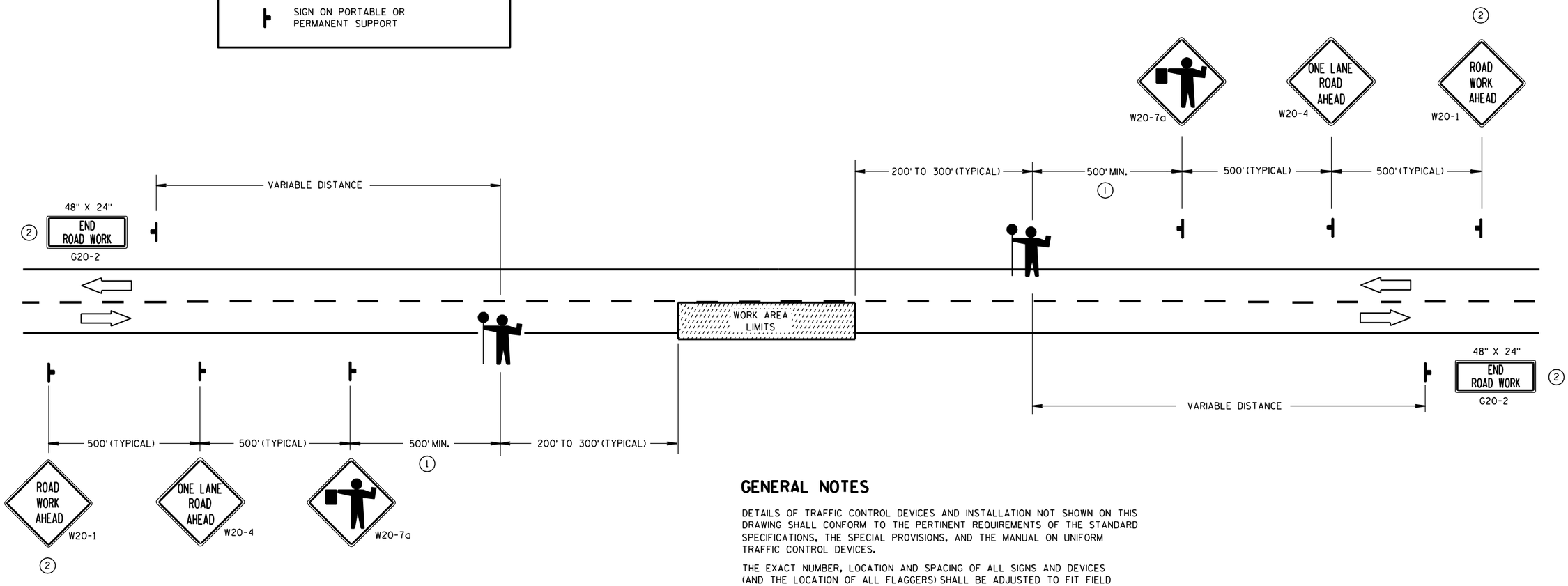
WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 12-3

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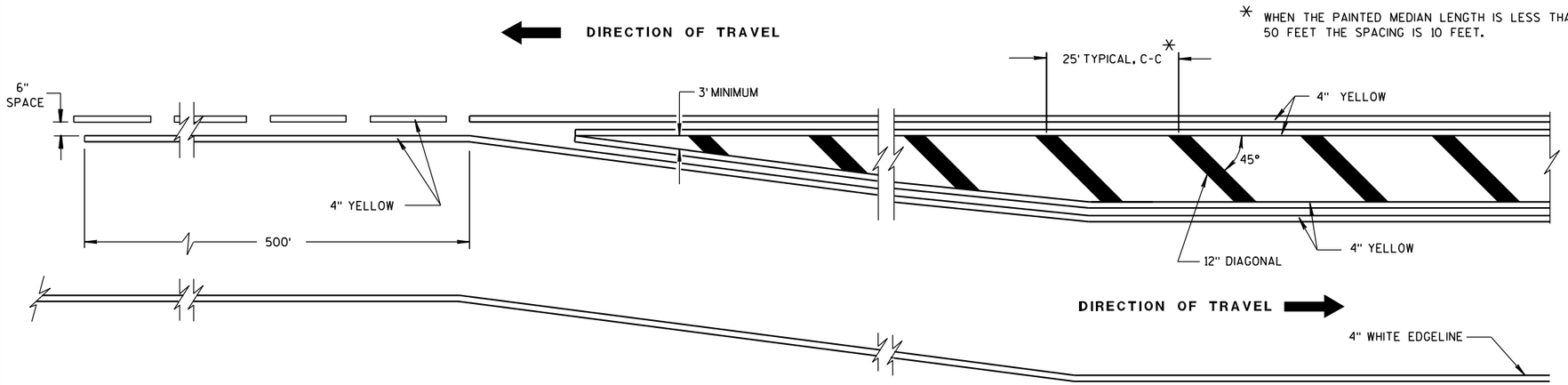
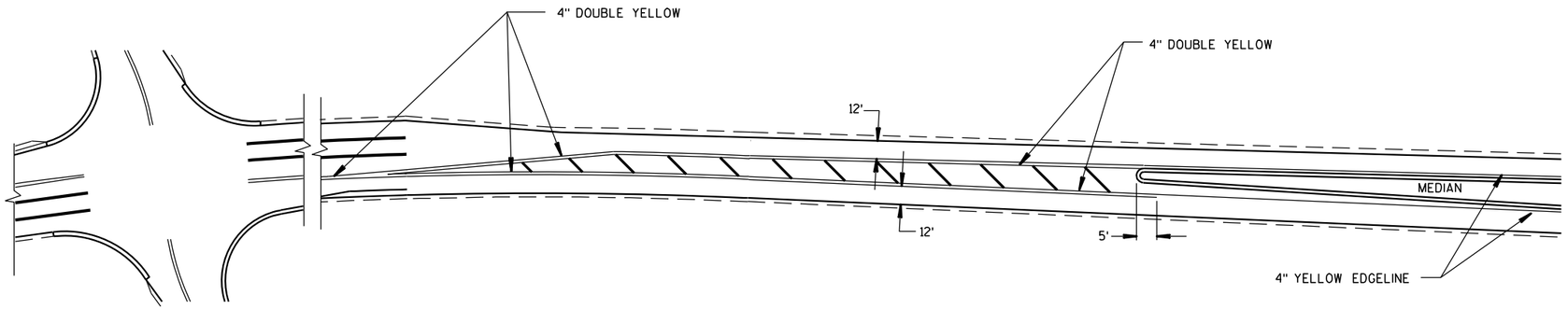
S.D.D. 15 C 12-3



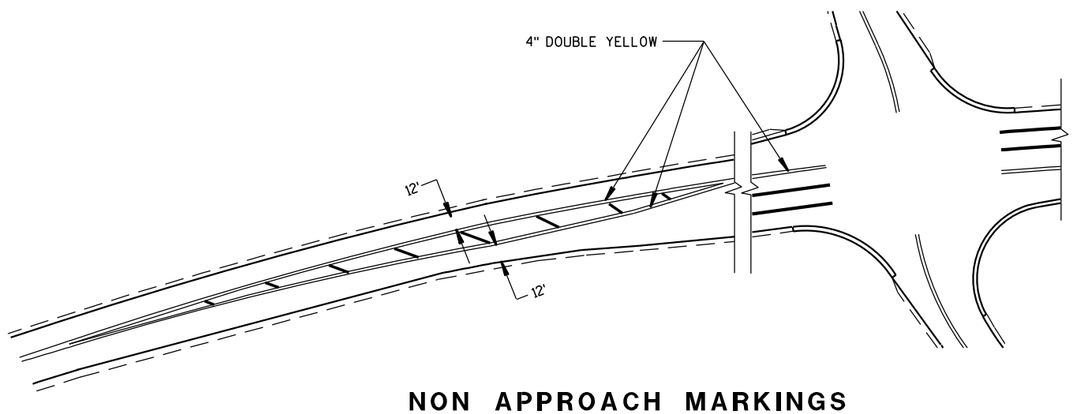
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	463 IGN

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S.D.D. 15 C 18-3

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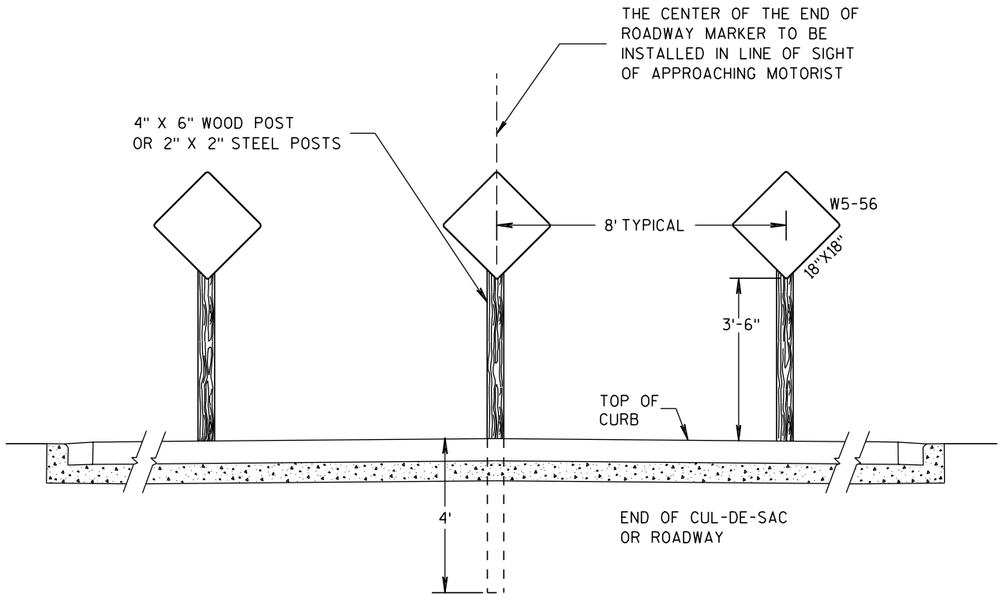
S.D.D. 15 C 18-3

GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

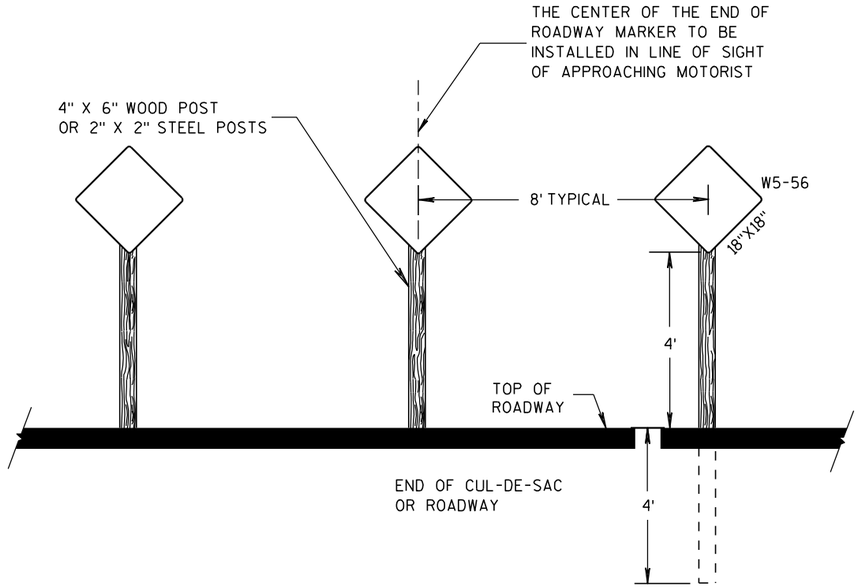
THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

WHEN BEAMGUARD IS REQUIRED, PLACE END-OF-ROADWAY SIGNING BEHIND BEAMGUARD.



TYPICAL URBAN SIGN INSTALLATION

(WITH CURB & GUTTER)



TYPICAL RURAL SIGN INSTALLATION

(WITHOUT CURB & GUTTER)

6

S.D.D. 15 C 26-2

END-OF-ROADWAY SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

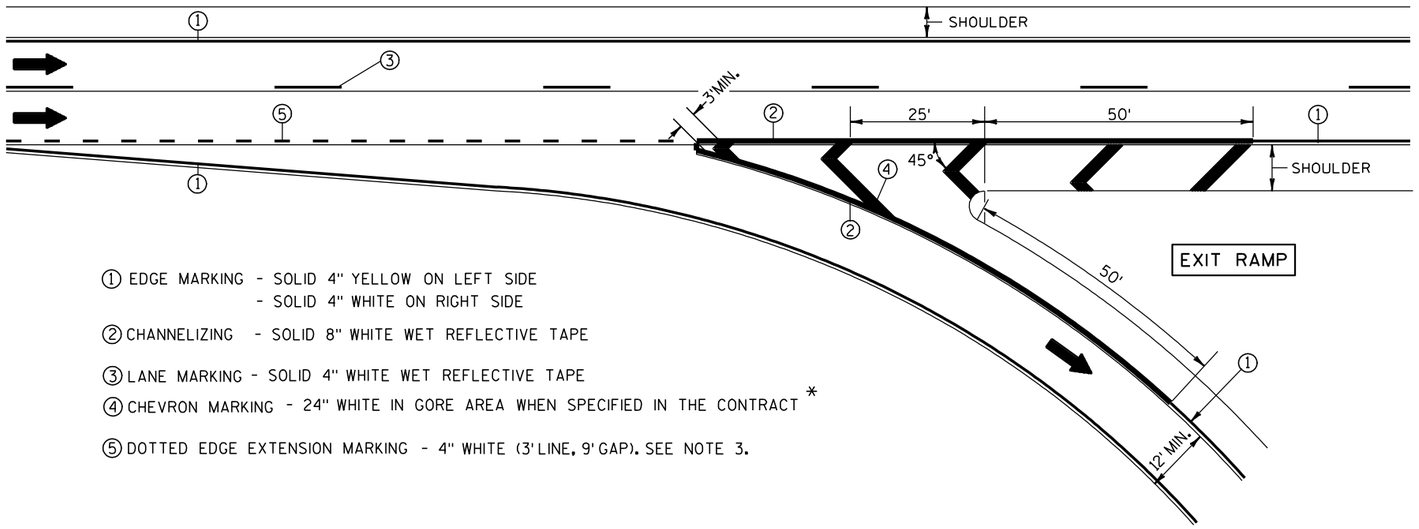
8/1/2011 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 26-2



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

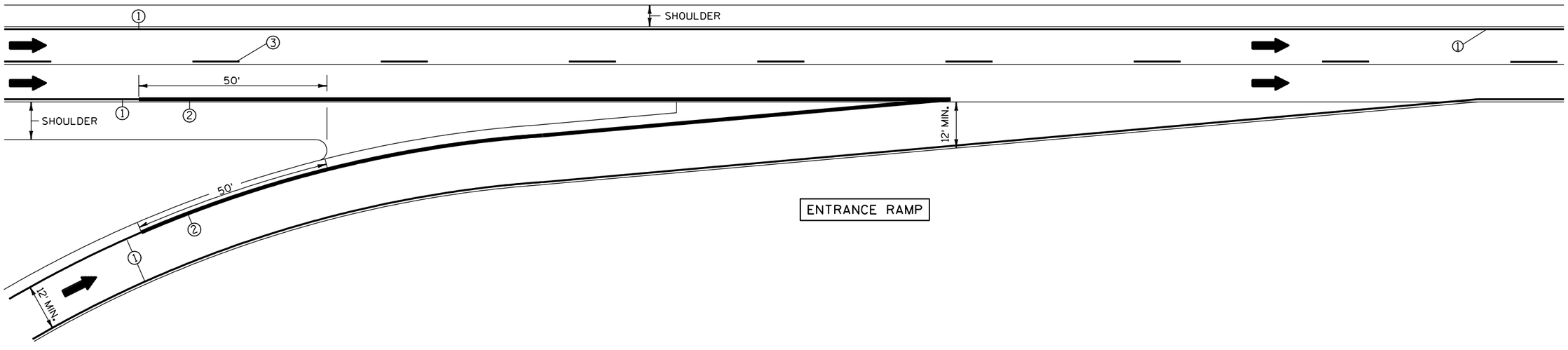
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



6

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

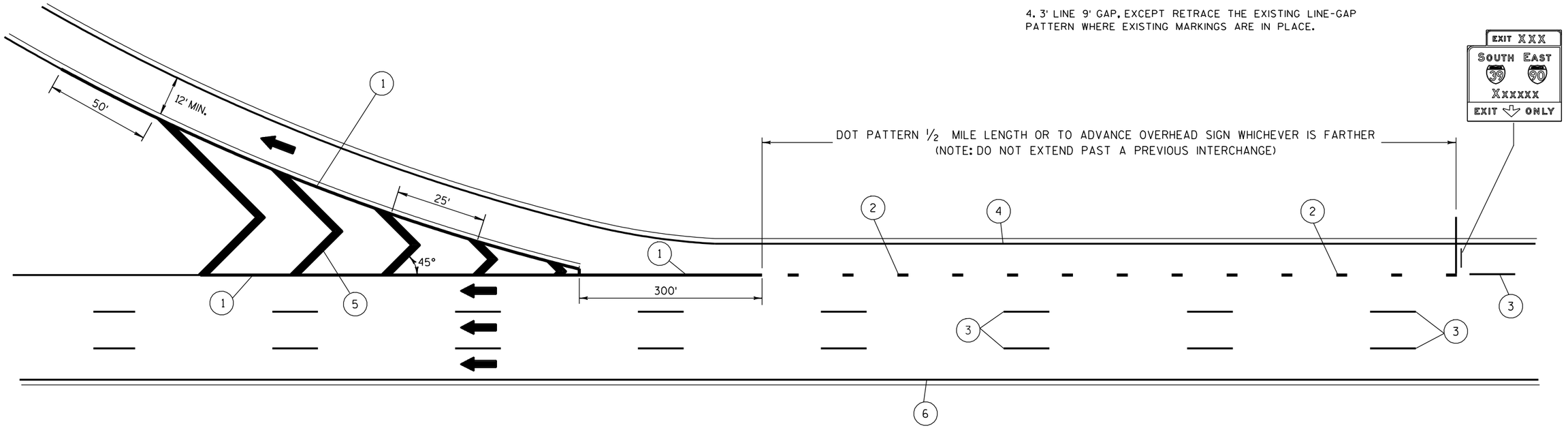
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



1. CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
2. 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
3. SOLID 4" WHITE WET REFLECTIVE TAPE
4. 4" WHITE EDGELINE
5. CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
6. 4" YELLOW EDGELINE

LANE DROP
PAVEMENT MARKING

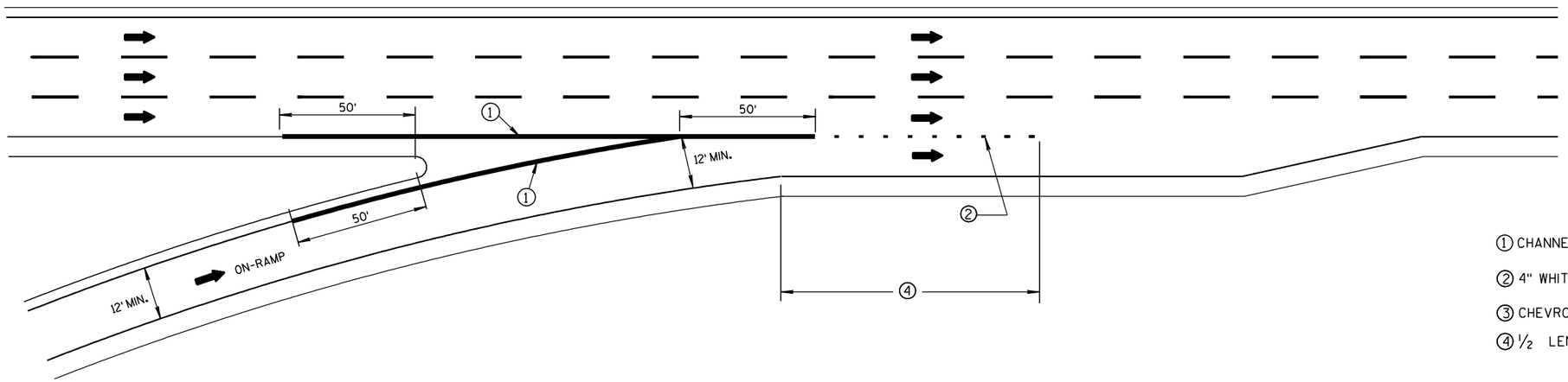
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1b
S.D.D. 15 C 31-1b

NOTES:

1. AHEAD ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
3. RETRACE EXISTING DIAGONAL MARKINGS.



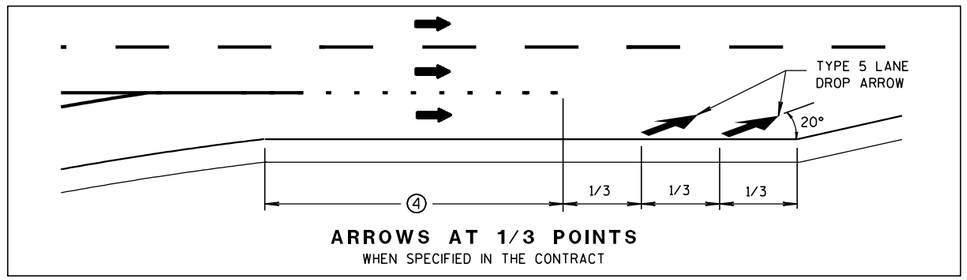
① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.

② 4" WHITE (3' LINE, 9' GAP).

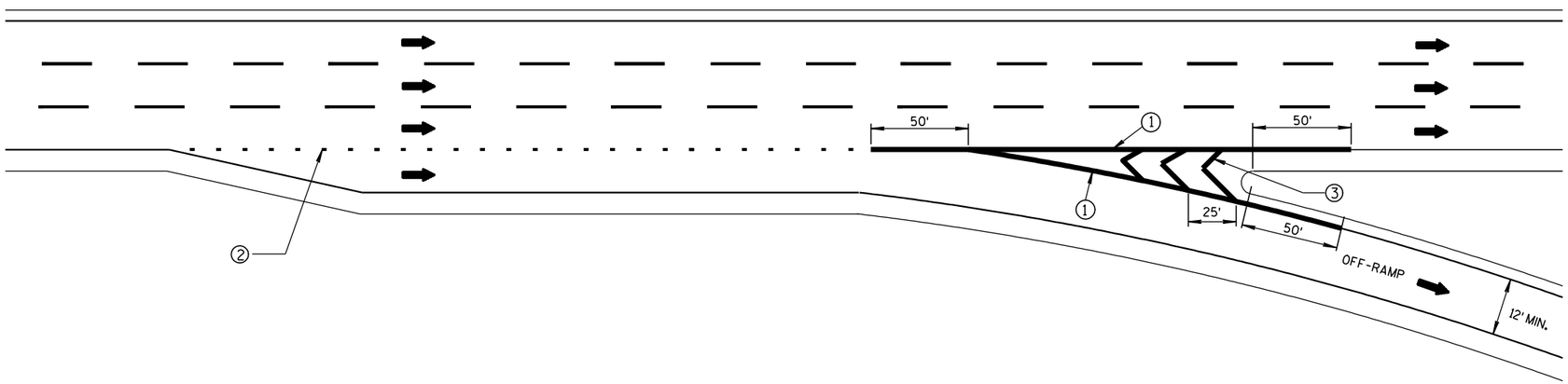
③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

④ ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP



ARROWS AT 1/3 POINTS
WHEN SPECIFIED IN THE CONTRACT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/23/2011 DATE
/S/ Thomas N. Nothem STATE TRAFFIC ENGINE 467 SIGN
FHWA

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S.D.D. 15 C 31-1d

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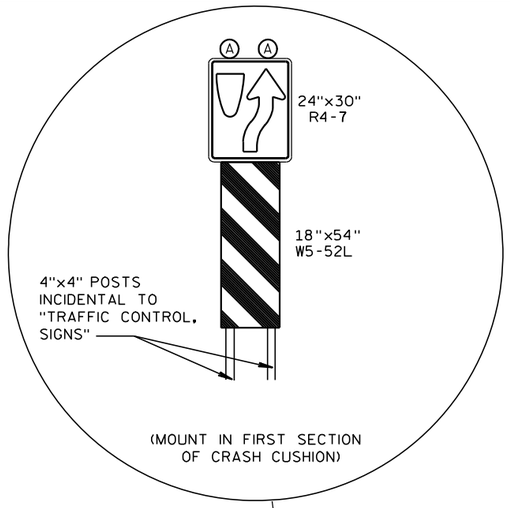
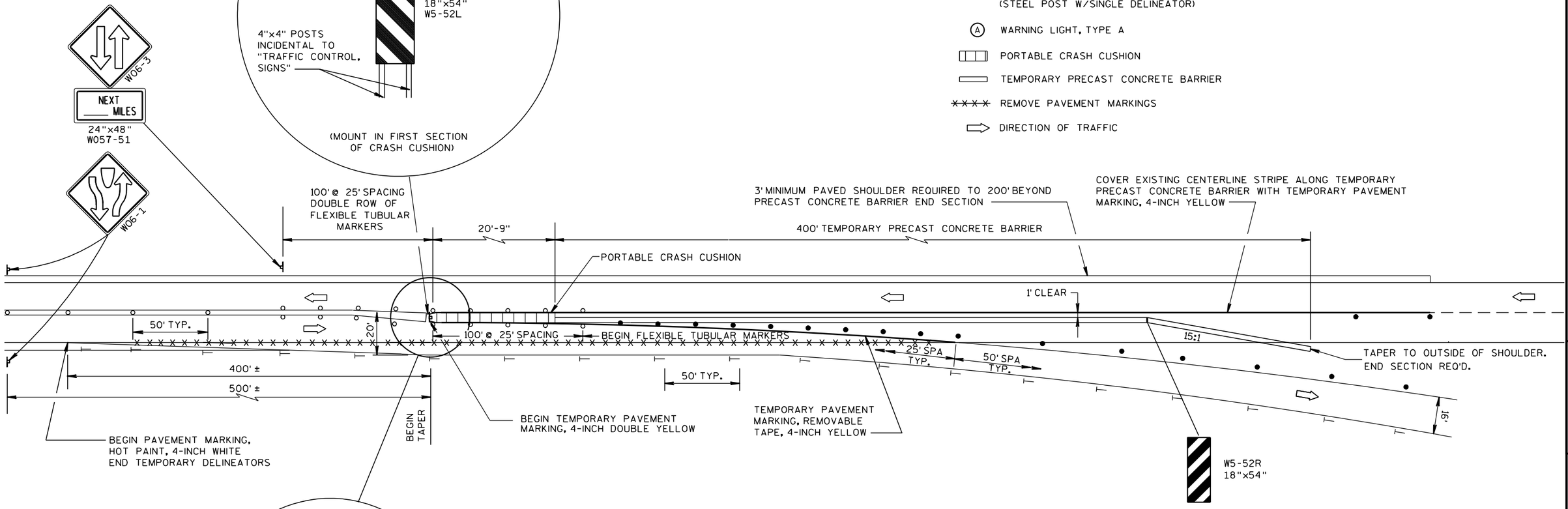
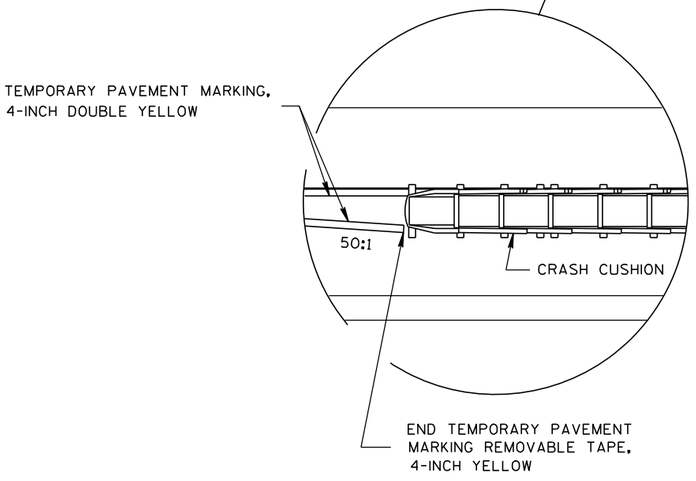
S.D.D. 15 C 31-1d



LEGEND

- POST WITH ATTACHED SIGN
- DRUM
- FLEXIBLE TUBULAR MARKER POST AND BASE
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR)
- (A) WARNING LIGHT, TYPE A
- PORTABLE CRASH CUSHION
- TEMPORARY PRECAST CONCRETE BARRIER
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC





GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-7-95
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF [illegible]

FHWA

LEGEND

- POST WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN IN DRUM
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- ARROW BOARD
- 8' TYPE III BARRICADE
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES :

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

(1) CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

GENERAL NOTES CONTINUED:

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 7 CONTINUOUS DAYS AND NIGHTS.

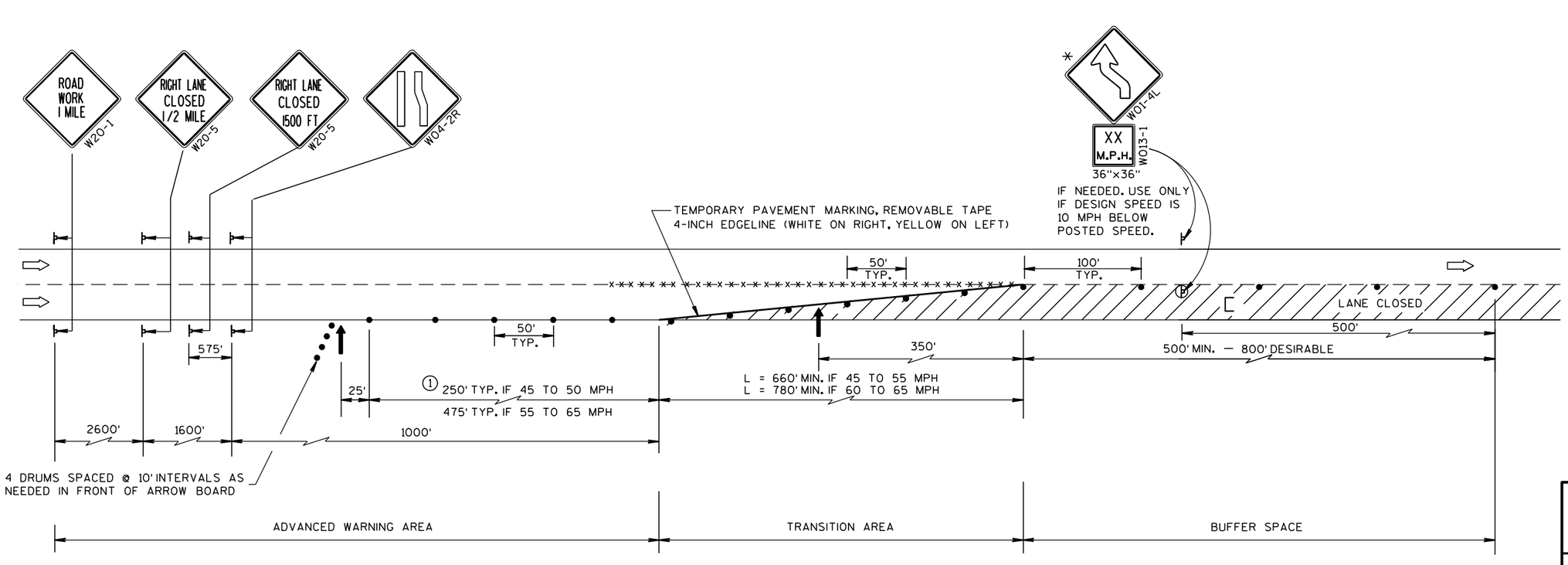
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1/4 MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-7-95 DATE
/S/ Chester J. [illegible]
DIRECTOR, OFFICE O 469 C
FHWA

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S.D.D. 15 D 12-2

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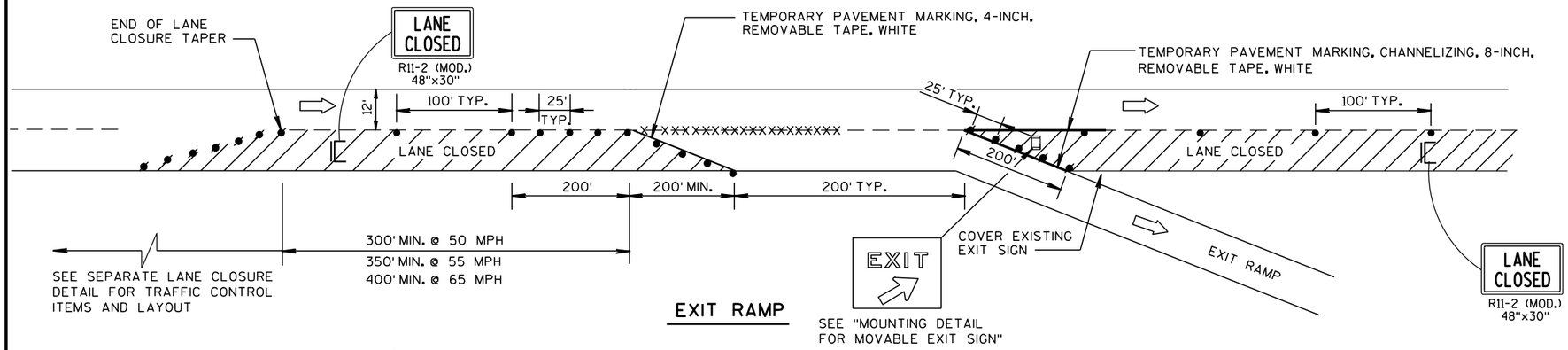
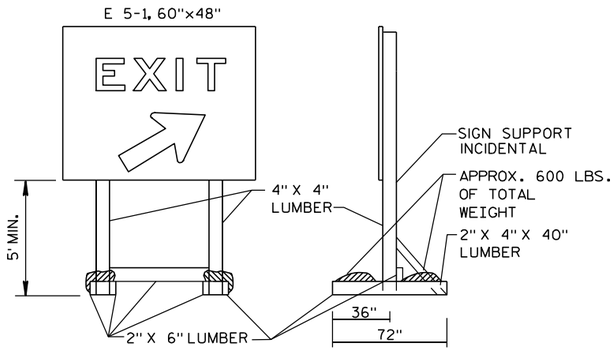
S.D.D. 15 D 12-2

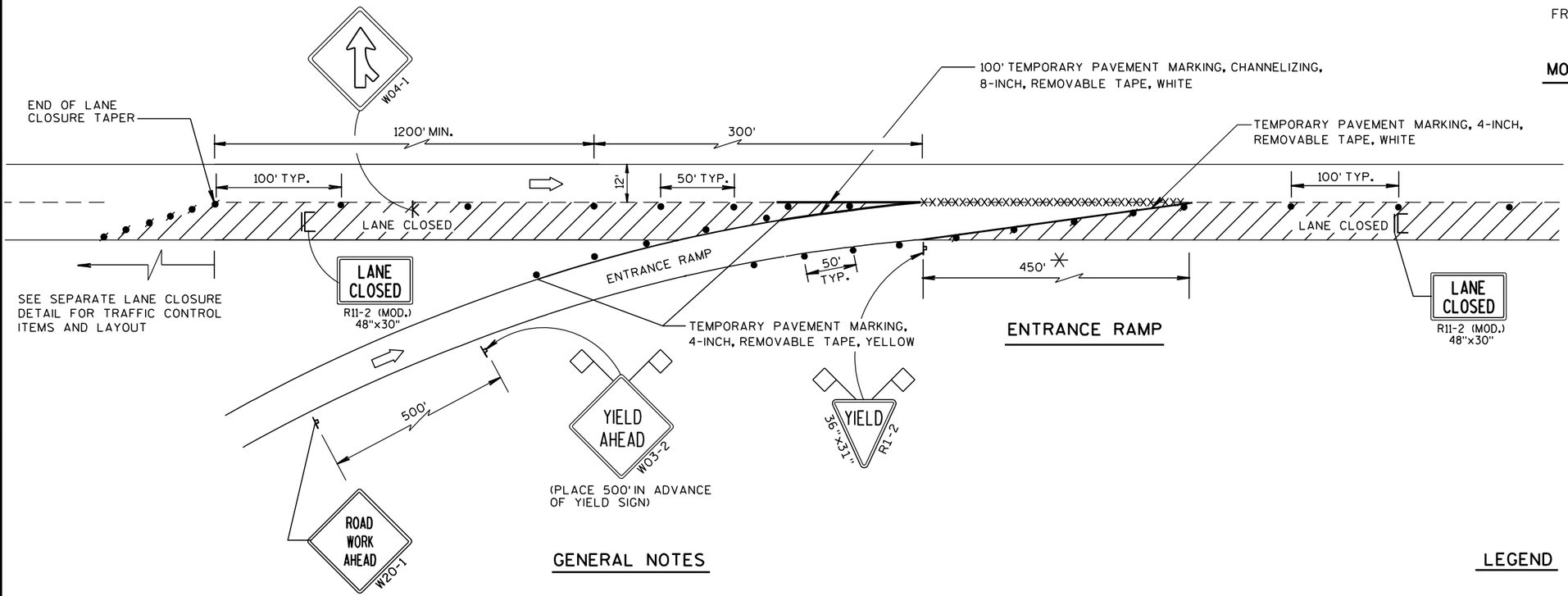


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000
DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER
FHWA

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S.D.D. 15 D 15-1

SYMBOLS

IC/C	TYPE III BARRICADE (8' EQUIVALENT) WITH/WITHOUT SIGN
•	DRUM
⊢	POST MOUNTED SIGN
(A)	WARNING LIGHT, TYPE A (FLASHING)
⇨	DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

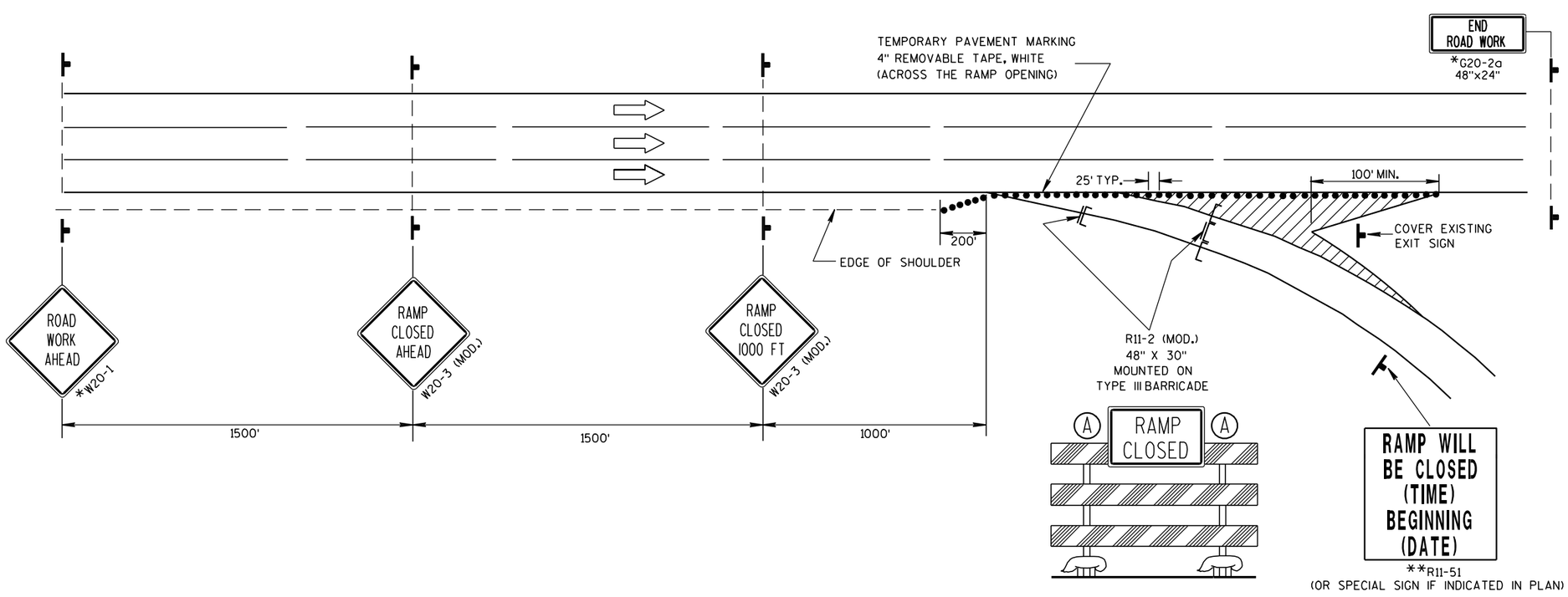
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

**USE THE "RAMP WILL BE CLOSED" SIGN IF INDICATED IN MISCELLANEOUS QUANTITIES. PLACE 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



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S.D.D. 15 D 16-1

TRAFFIC CONTROL, EXIT RAMP CLOSURE

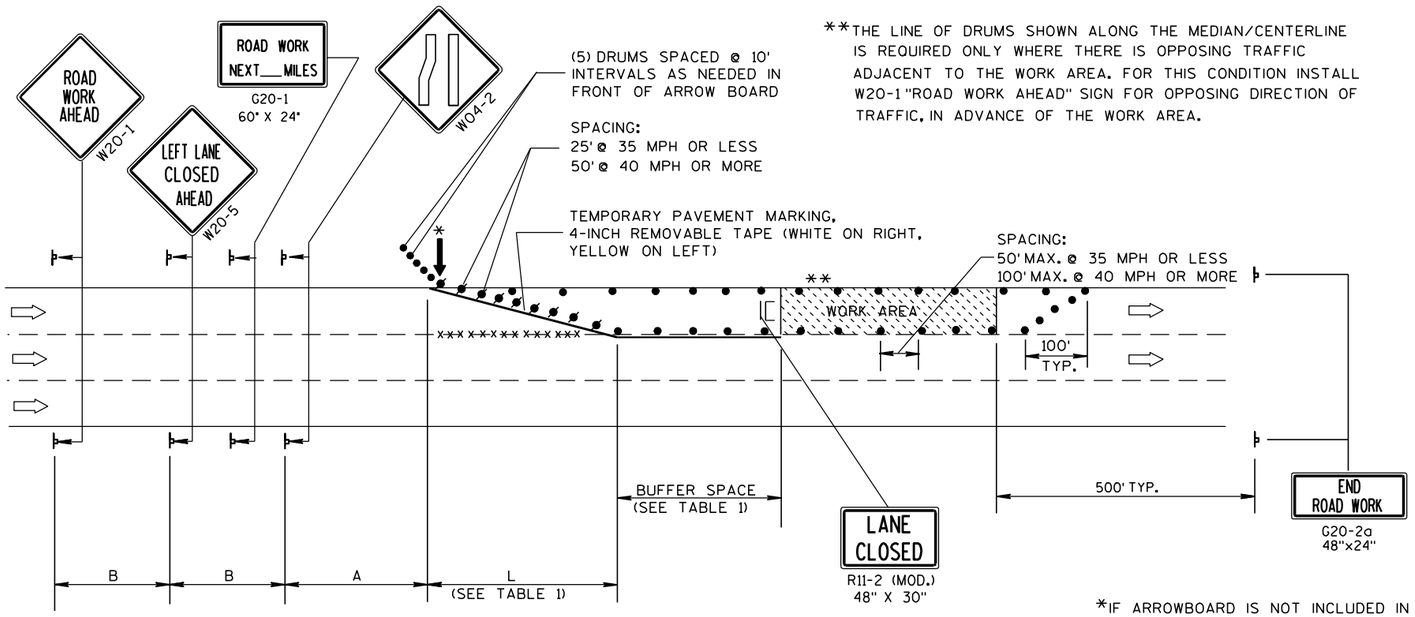
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MAR 471 INEER

FHWA



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

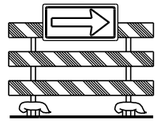


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

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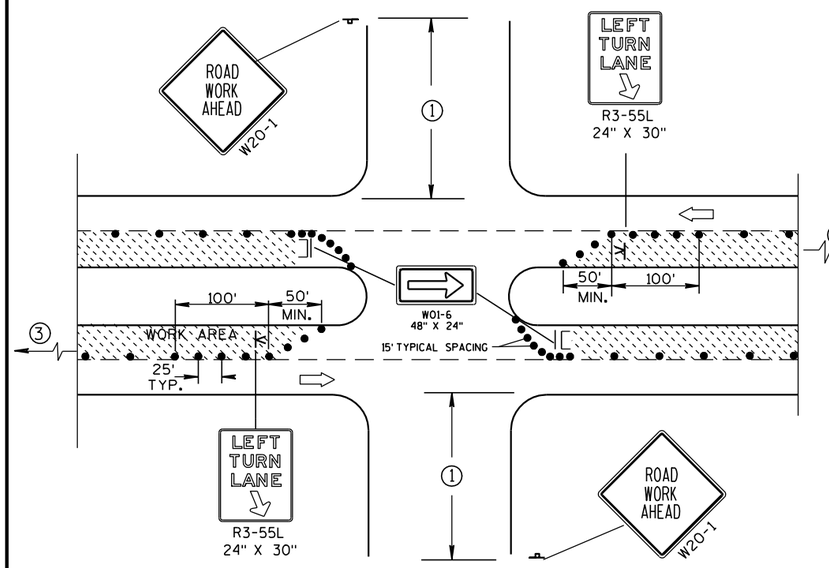
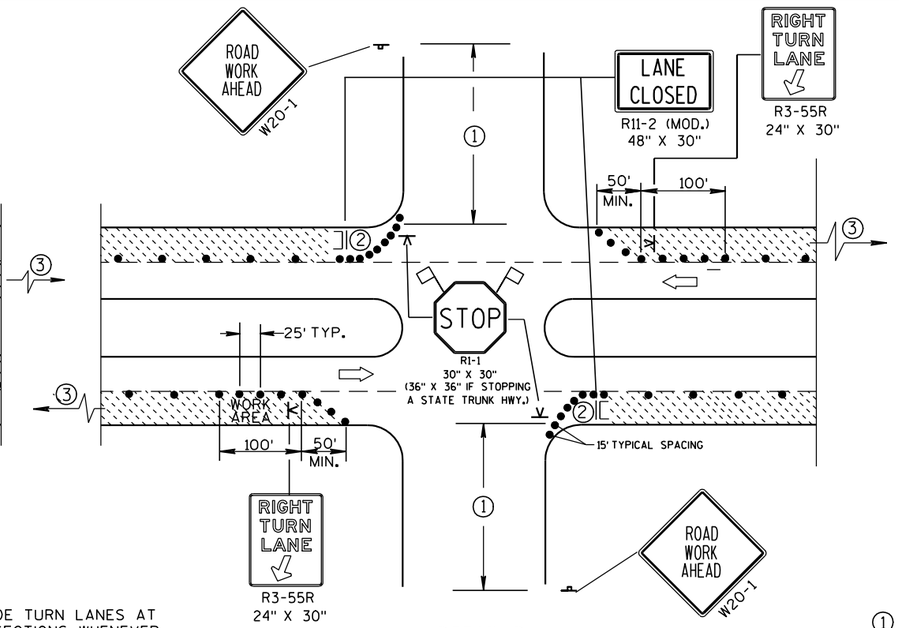
S.D.D. 15 D 20-1



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

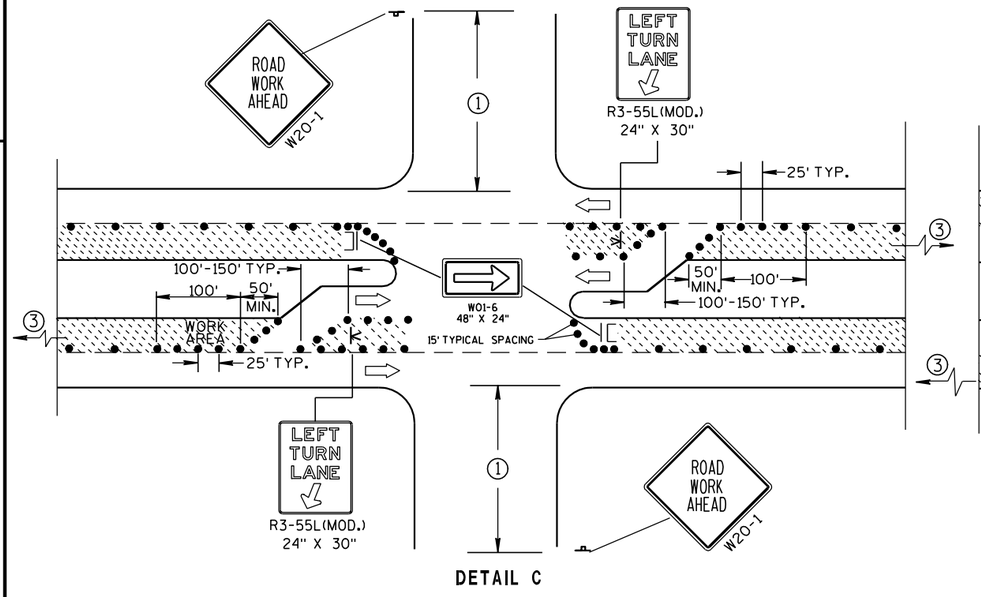
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

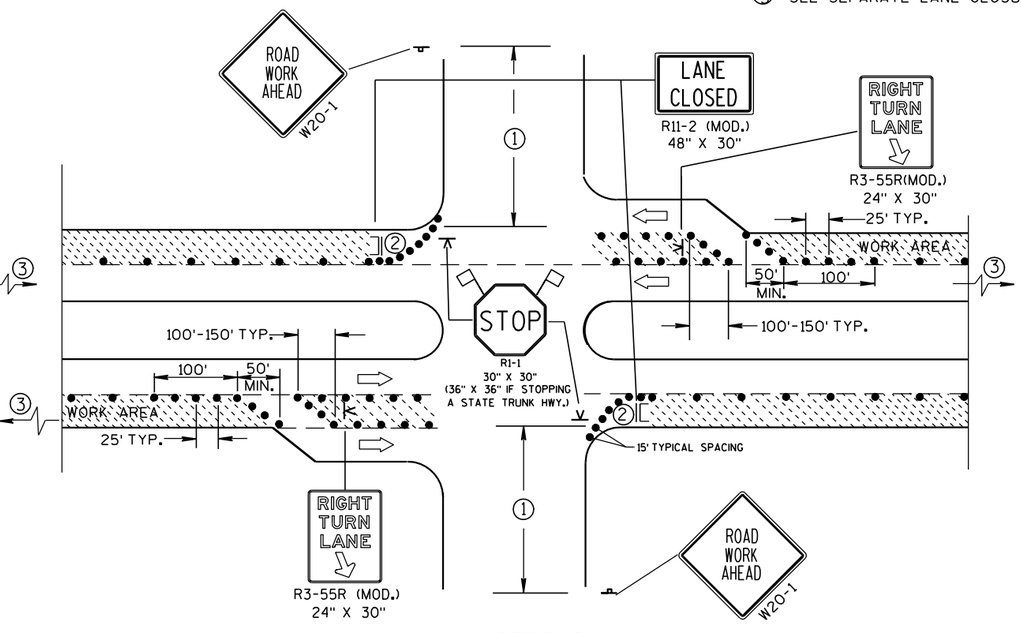
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- DRUM
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16" X 16" MIN., ORANGE

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 — DATE
/S/ Chester J. Spang — CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

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S.D.D. 15 D 21-1

SYMBOLS

- TRAFFIC CONTROL DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW
- ARROW BOARD IN CAUTION MODE

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

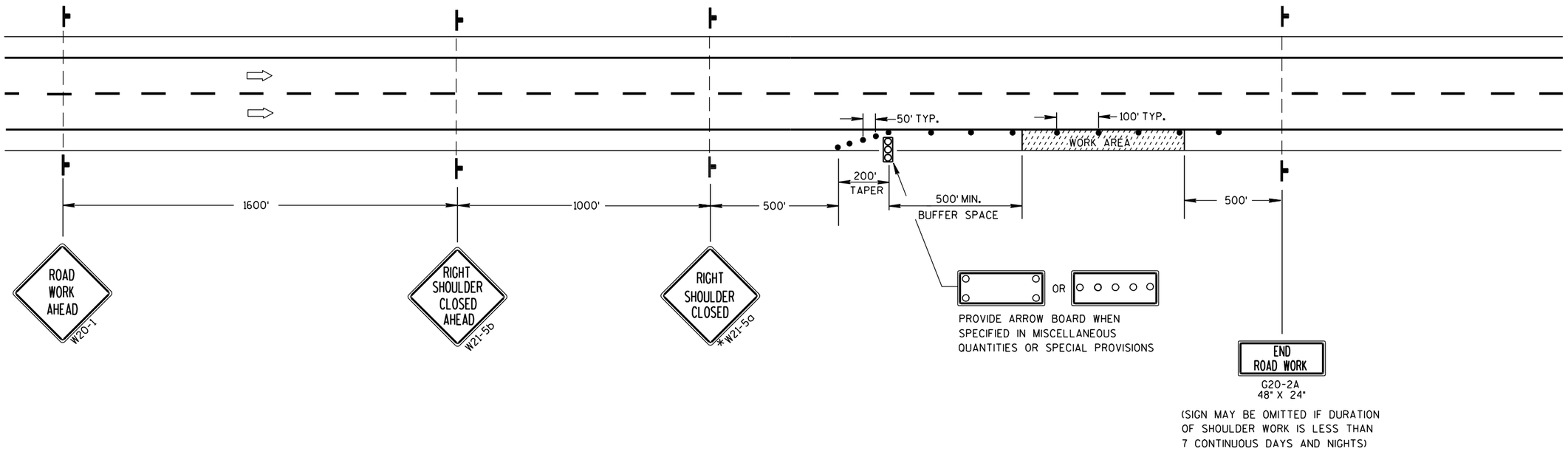
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00
DATE
/S/ Chester J Spann
CHIEF SIGNS AND MARKING ENGINEER
FHWA

474

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S.D.D. 15 D 27-1

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S.D.D. 15 D 27-1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

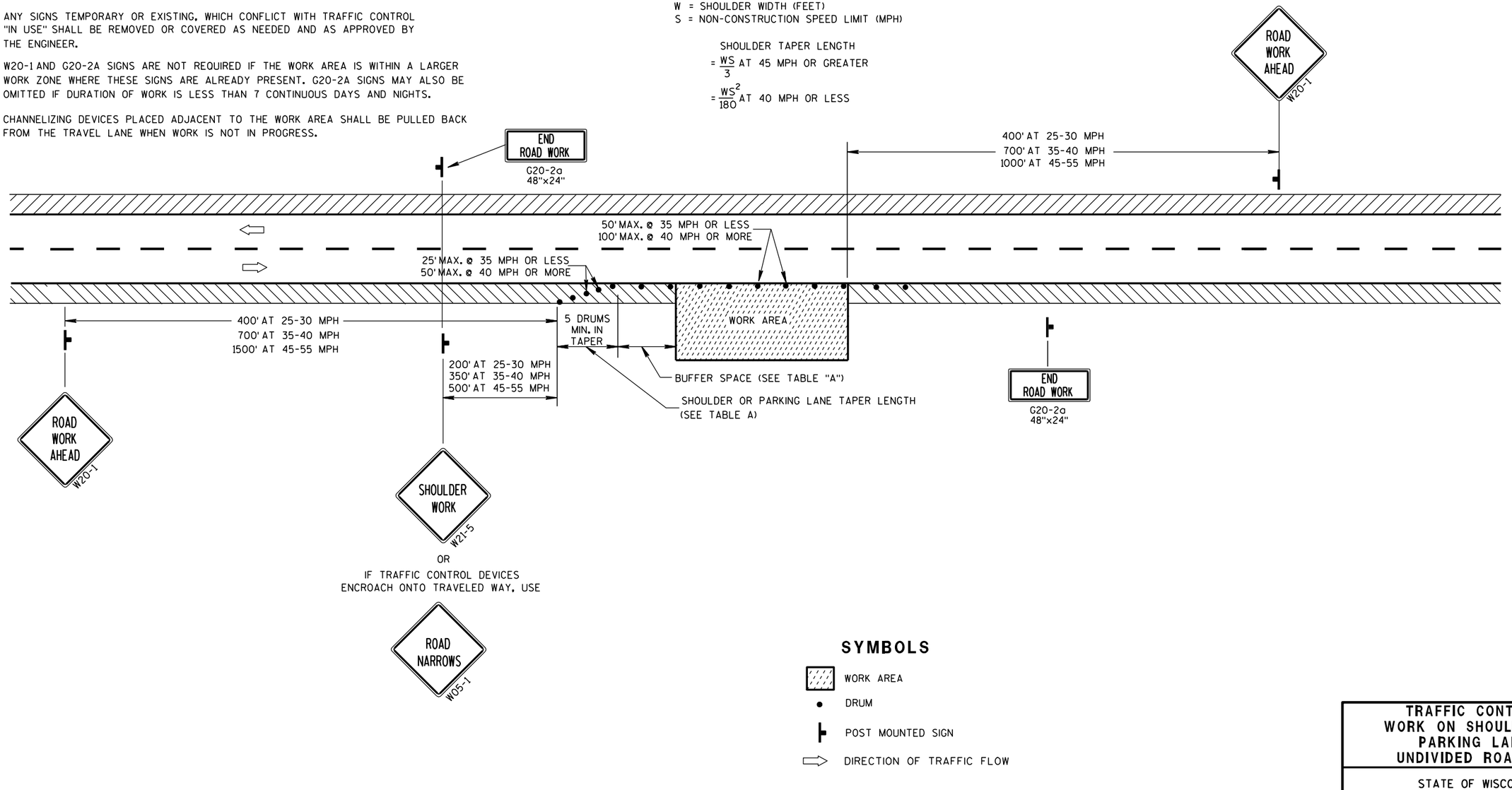
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible] 475
CHIEF SIGNS AND MARK[illegible] NEER
FHWA

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S.D.D. 15 D 28-1

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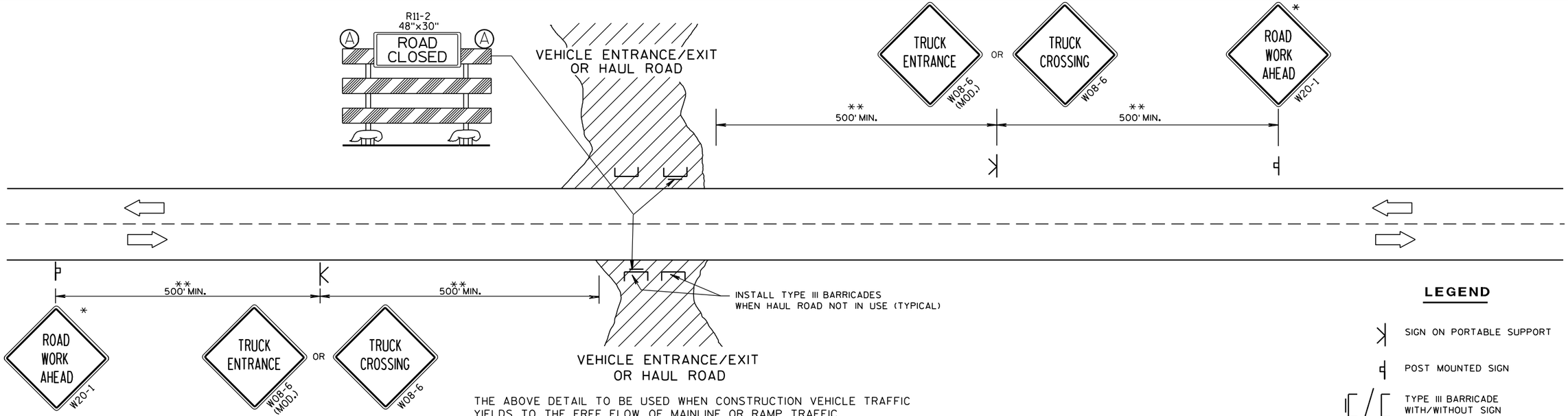
S.D.D. 15 D 28-1



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES AND FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500' SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350'. FOR 25-30 MPH, USE 200'. USE 1000'/1500' FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

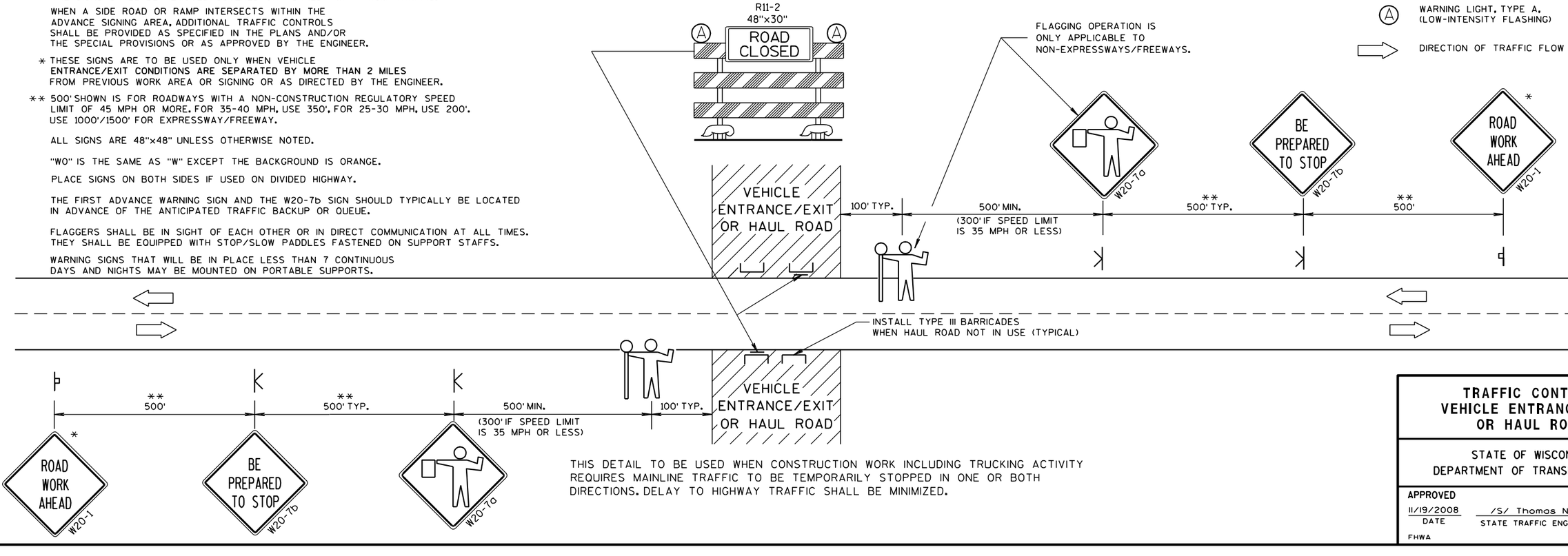
THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

LEGEND

- SIGN ON PORTABLE SUPPORT
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH/WITHOUT SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) WARNING LIGHT, TYPE A, (LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC FLOW



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/19/2008
DATE

/S/ Thomas N. N[illegible]
STATE TRAFFIC ENGINE[illegible] 476 SIGN

FHWA

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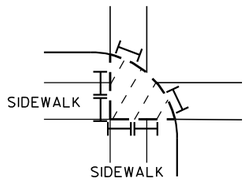
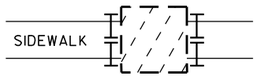
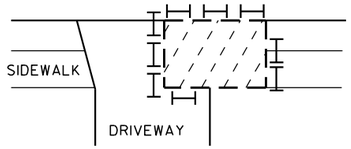
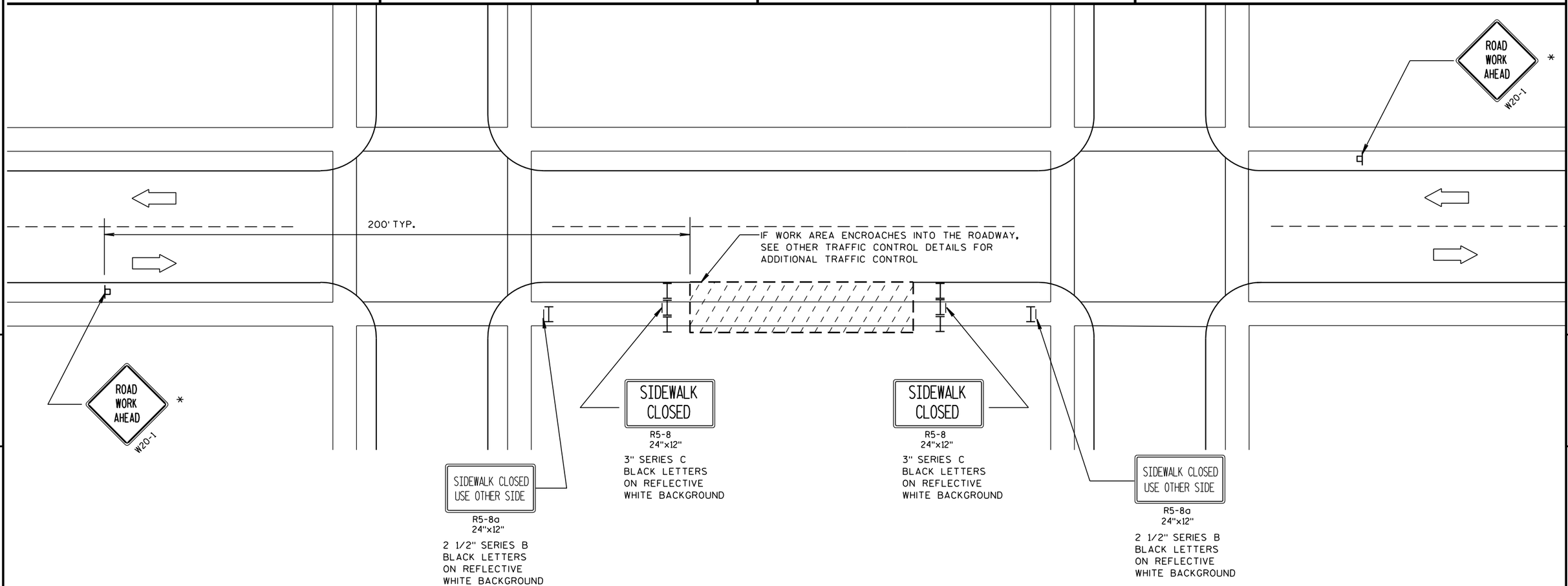
S.D.D. 15 D 29-2

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK 477 NEER
FHWA

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S.D.D. 15 D 30-1

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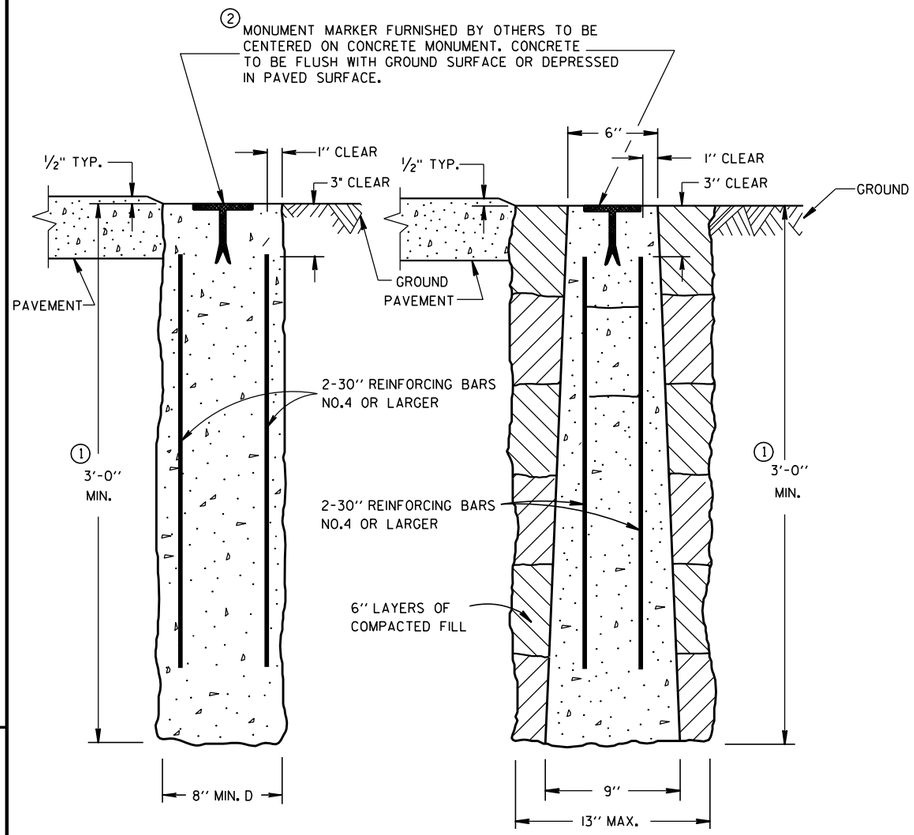
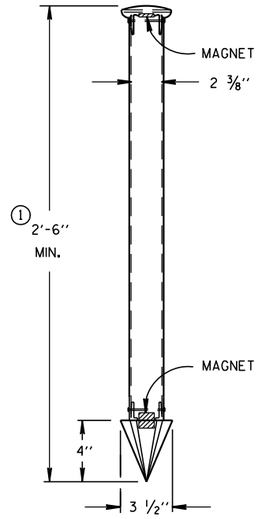
S.D.D. 15 D 30-1



CAST-IN-PLACE PRECAST

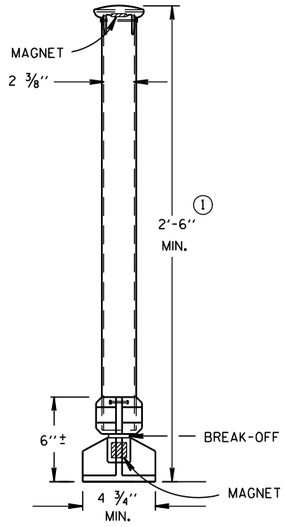
CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT



TYPE D

BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

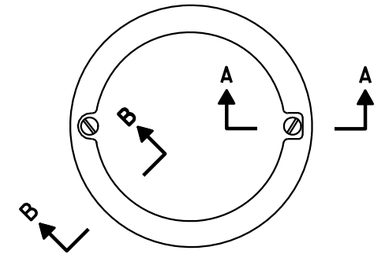
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

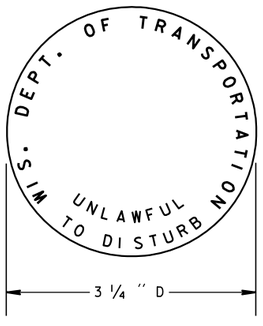
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

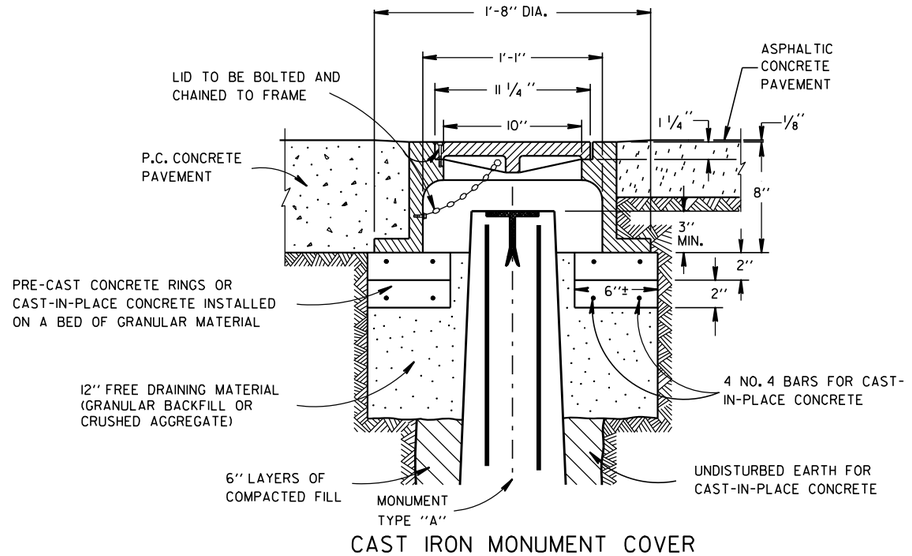


TOP VIEW



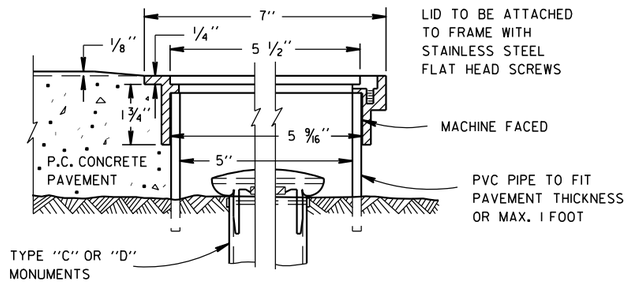
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

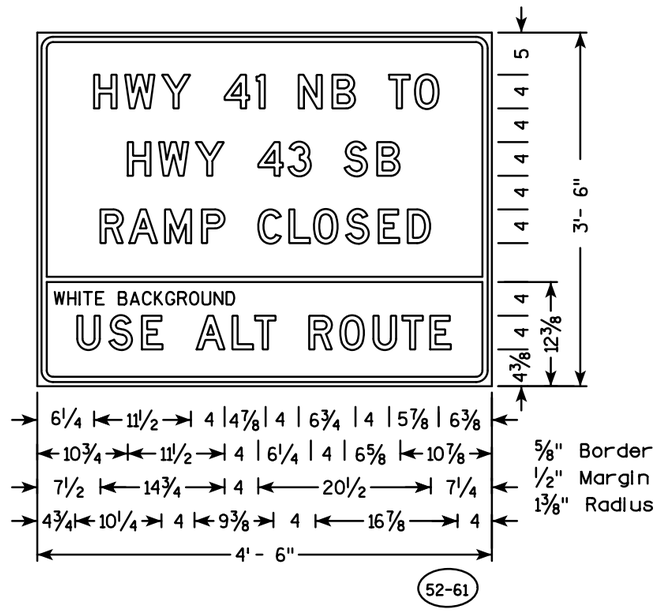
FHWA

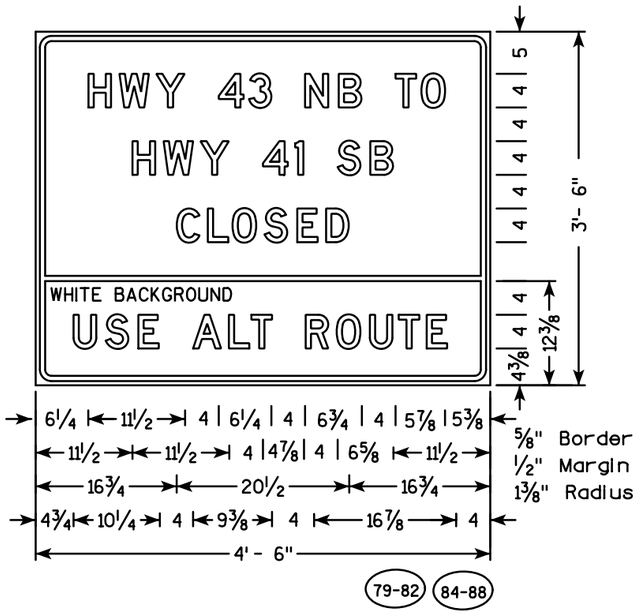
6

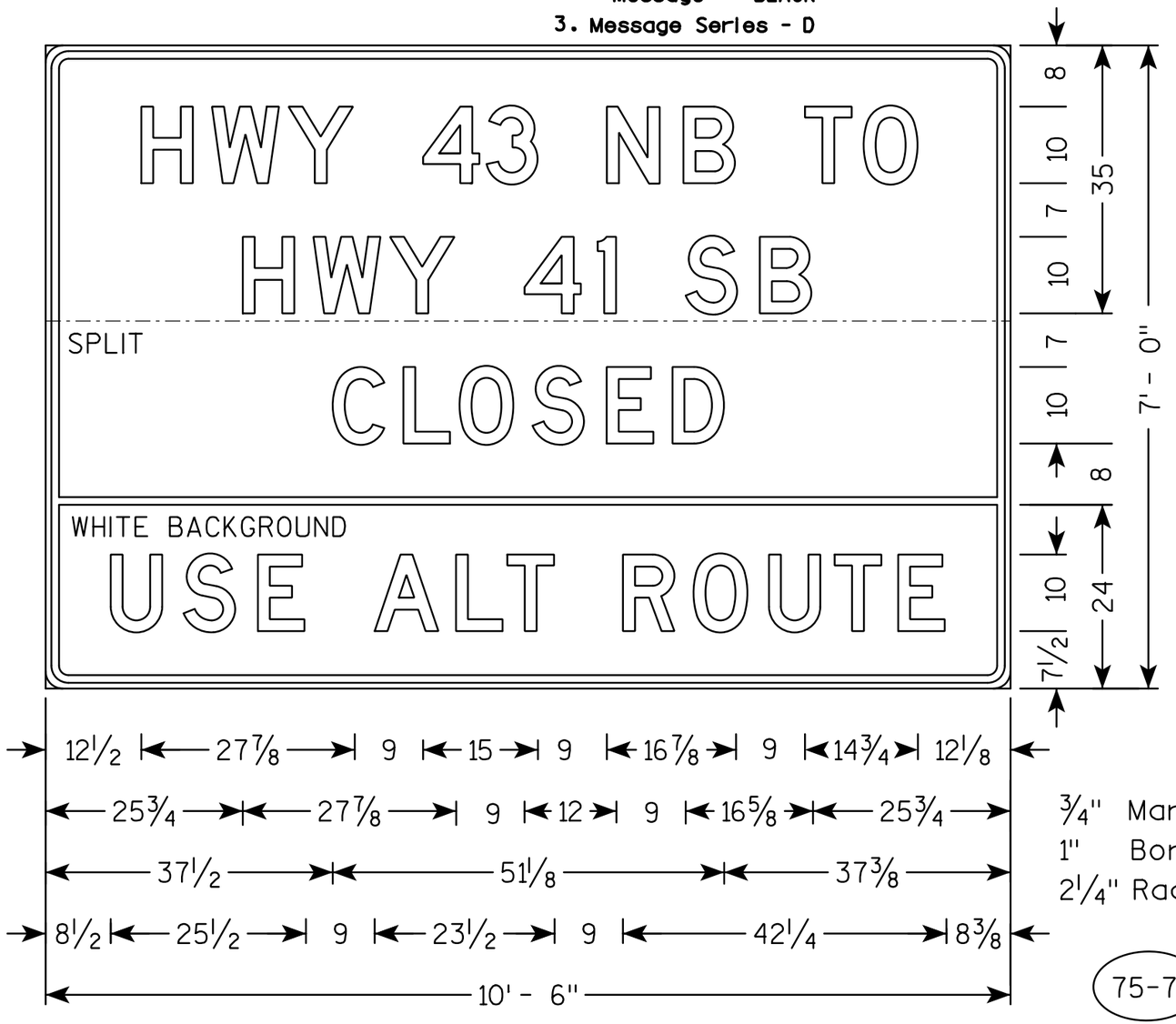
S.D.D. 16 A 1-6

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE except as Shown
   Message - BLACK
3. Message Series - D







PLAN SHEET PRODUCED BY WisDOT-NE REGION

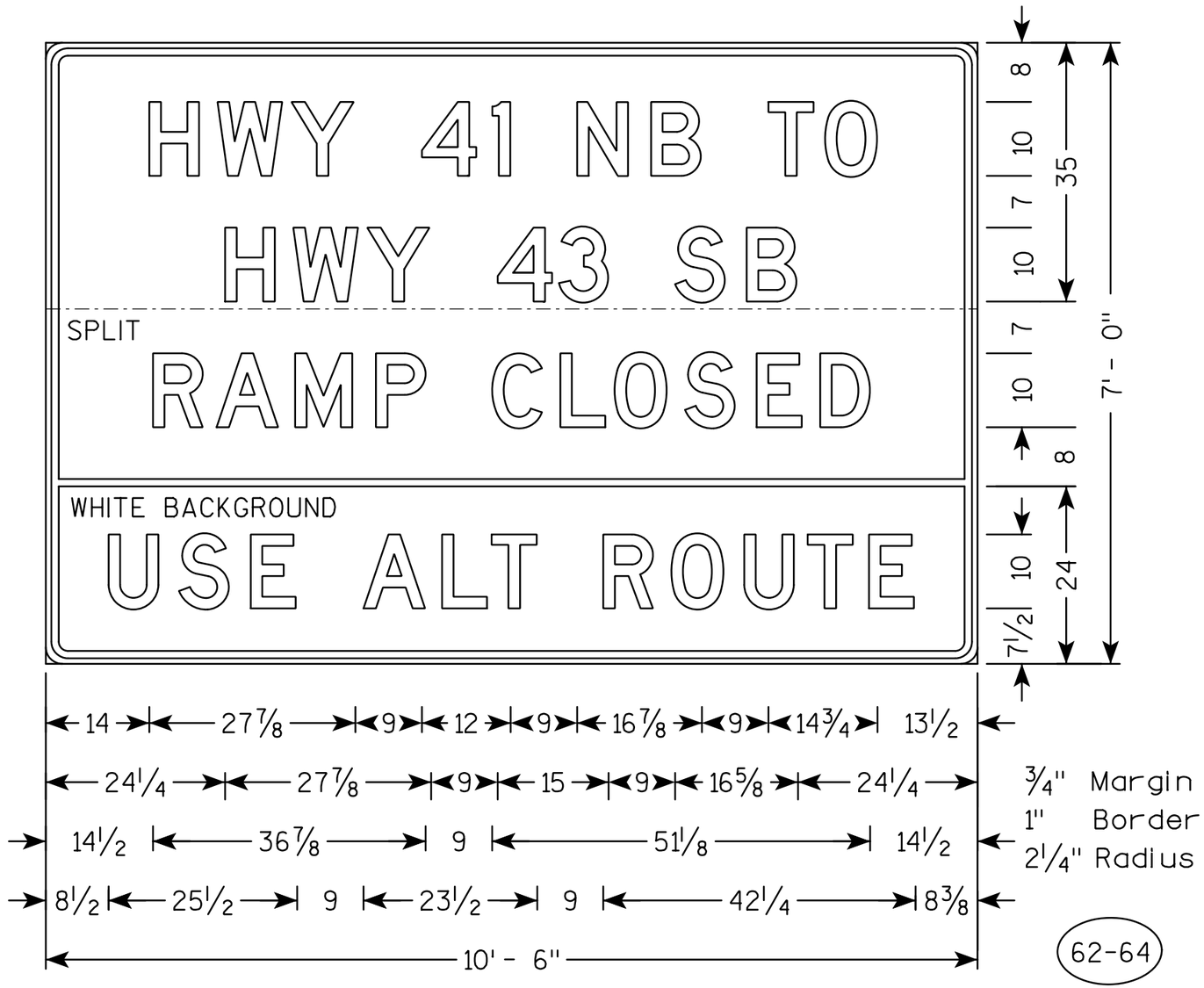
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SIGNING	SHEET NO: 479	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_070101_ssd.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:17.9891

WISDOT/CADDS SHEET 47

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE except as Shown
   Message - BLACK
3. Message Series - D



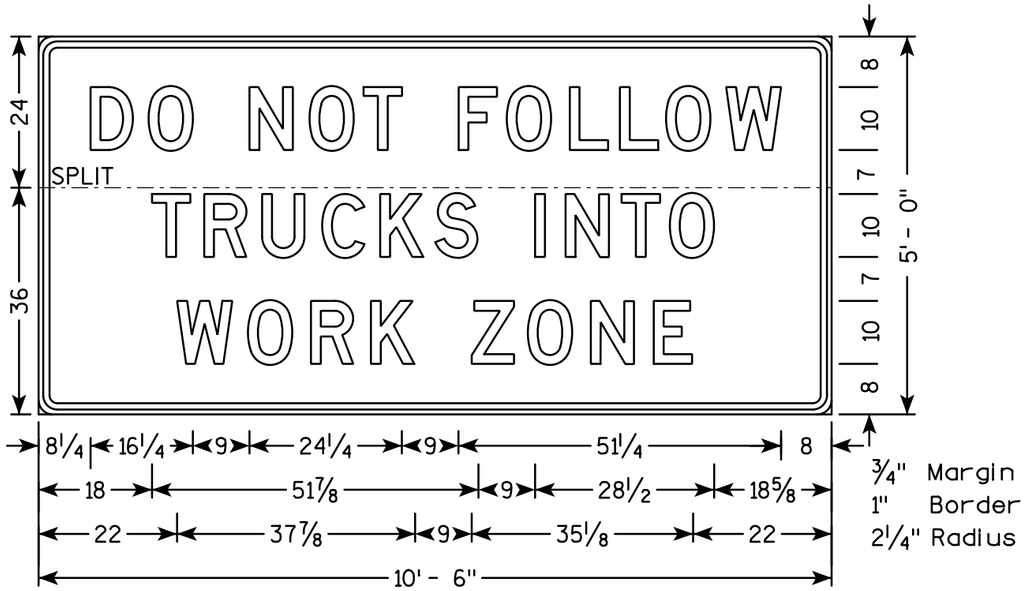
62-64

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TEMPORARY SIGNING	SHEET NO: 480	E

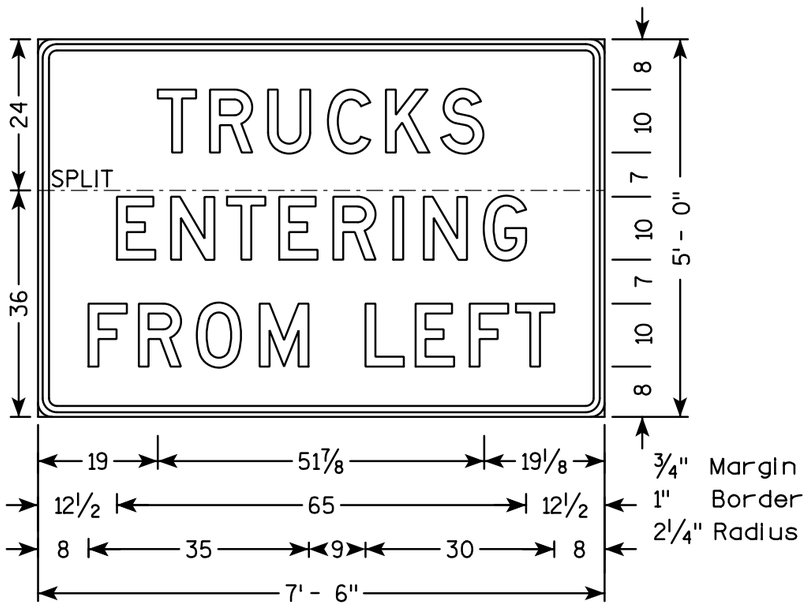
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_070102_ssd.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:17.9891

WISDOT/CADDS SHEET 47



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Message - BLACK
3. Message Series - D
4. Signs on this sheet to be paid for as "Traffic Control Signs Fixed Message".



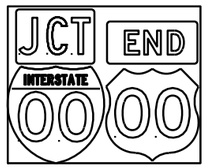
7

7

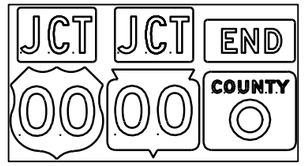
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 481	E

TYPICAL ASSEMBLIES

J1-1

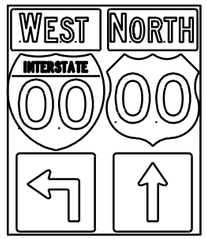


J1-2

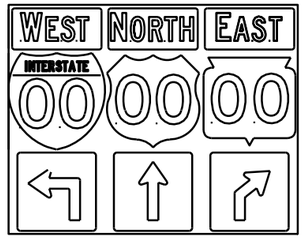


J1-3

J2-1



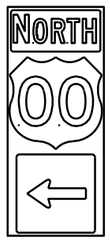
J2-2



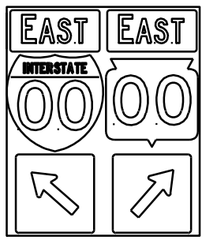
J2-3

JV

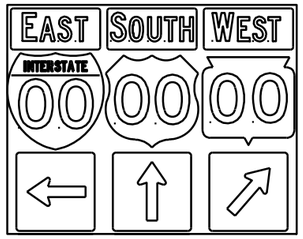
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1

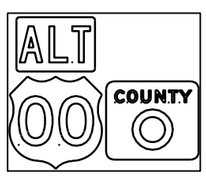


J3-2

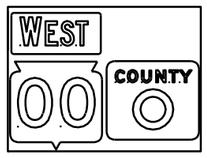


J3-3

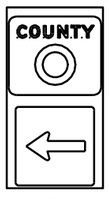
J4-1



J4-2



J4-2



J13-1

J12-1

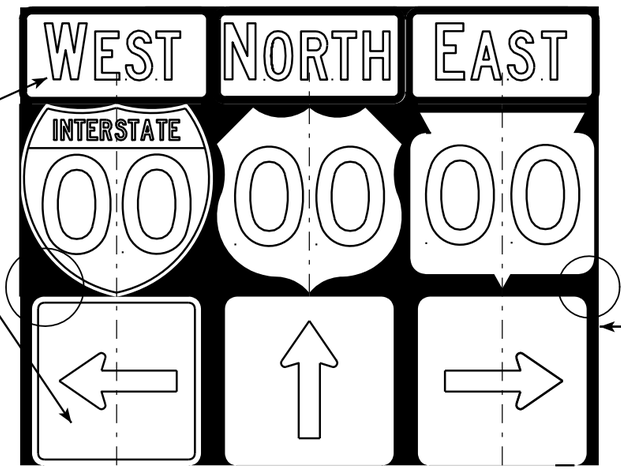
J32-1

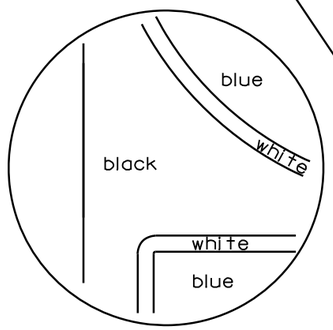
J33-1

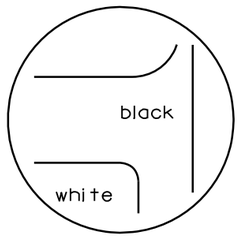
J23-1

J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

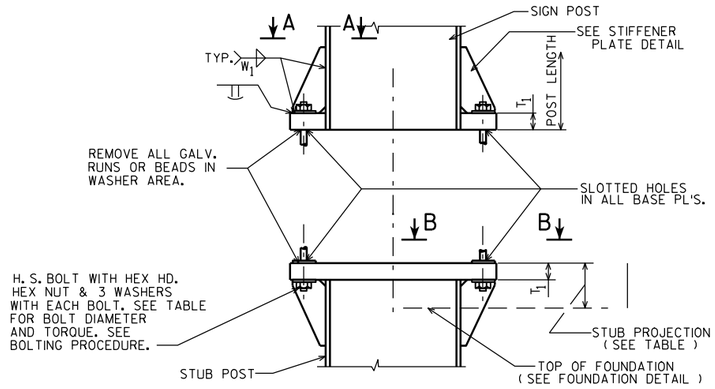
DATE 3/25/13 PLATE NO. A2-1S.7

7

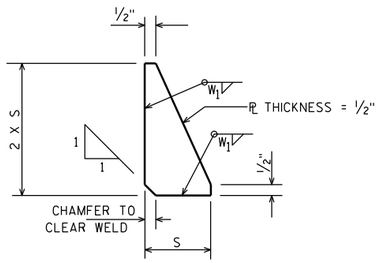
7

PROJECT NO:

SHEET NO: 482 E

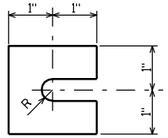


SIGN POST AND STUB POST ELEVATION



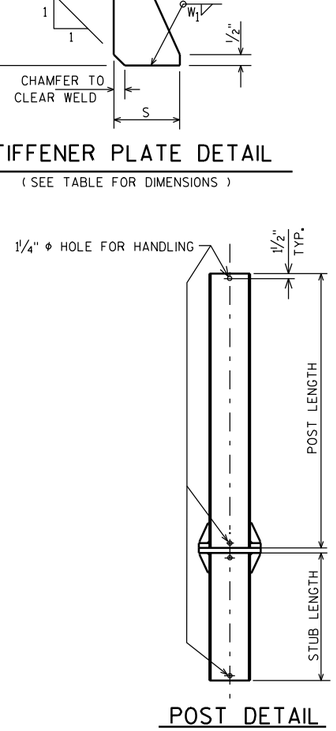
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



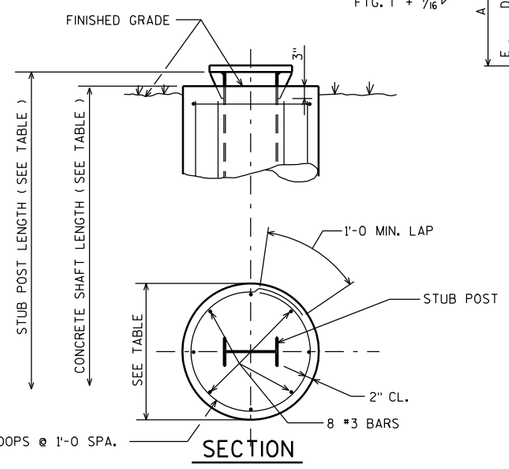
POST DETAIL

	QUANTITIES FOR 1 FOOTING	
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

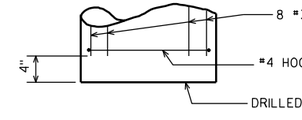
⑦

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

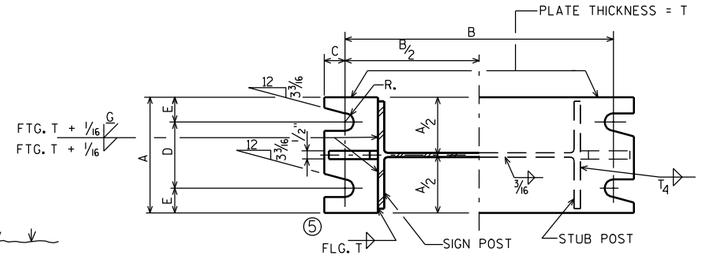
⑦



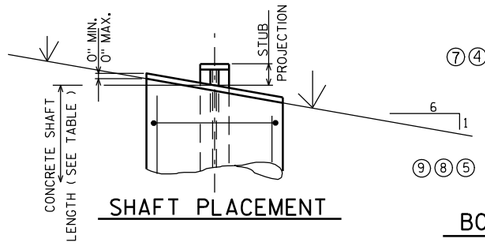
SECTION



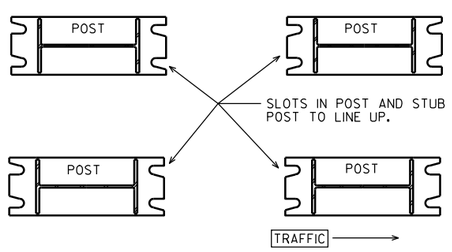
FOUNDATION DETAIL



SECTION A-A SECTION B-B



SHAFT PLACEMENT



POST SLOT ORIENTATION ⑦

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & 1/2 WIND△	140 △25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
⑨ THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
4. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

	TYPE	DIMENSION: POST SIZE	BASE CONNECTION DATA TABLE: BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	FOUNDATION DATA: STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	② K
④	A	W10"X12.0 #/FT.	3/4" ϕ @ 75#-FT.	5 1/4"	1'-0 3/8	7/8"	3 1/2"	7/8"	1"	3/16"	5/16"	13/32 "	2 1/8"	3'-6	3"	2'-0 ϕ	5'-0	76.0# ④
④	B	W12"X16.0 #/FT.	7/8" ϕ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	15/32 "	3"	5'-6	3"	2'-0 ϕ	7'-0	146.5# ④
	C	W12"X19.0 #/FT.	7/8" ϕ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	15/32 "	3"	6'-0	3"	2'-0 ϕ	7'-6	182.1#
	D	W12"X22.0 #/FT.	7/8" ϕ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	15/32 "	3"	6'-6	3"	2'-0 ϕ	8'-0	210.5#
③	E	W12"X26.0 #/FT.	1" ϕ @ 90#-FT.	7"	1'-4 1/4	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32 "	3"	7'-0	3"	2'-0 ϕ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer
DATE 4/26/11 PLATE NO. A3-1.13

NO.	DATE	REVISION
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011 | DRAWN BY JPH | PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS | SHEET

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 483 | E

VERTICAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

Type "A" (2 Posts) 1.2 CY Conc. 68 LBs Bar Steel

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
22 ft.	55 Sq. Ft	66 Sq. Ft	77 Sq. Ft	88 Sq. Ft	99 Sq. Ft	110 Sq. Ft	121 Sq. Ft	132 Sq. Ft	143 Sq. Ft	154 Sq. Ft	165 Sq. Ft	176 Sq. Ft	187 Sq. Ft	198 Sq. Ft	209 Sq. Ft	220 Sq. Ft	231 Sq. Ft	242 Sq. Ft	253 Sq. Ft	264 Sq. Ft	275 Sq. Ft	286 Sq. Ft	297 Sq. Ft	308 Sq. Ft	319 Sq. Ft	330 Sq. Ft	341 Sq. Ft	352 Sq. Ft
23 ft.	57.5 Sq. Ft	69 Sq. Ft	80.5 Sq. Ft	92 Sq. Ft	103.5 Sq. Ft	115 Sq. Ft	126.5 Sq. Ft	138 Sq. Ft	149.5 Sq. Ft	161 Sq. Ft	172.5 Sq. Ft	184 Sq. Ft	195.5 Sq. Ft	207 Sq. Ft	218.5 Sq. Ft	230 Sq. Ft	241.5 Sq. Ft	253 Sq. Ft	264.5 Sq. Ft	276 Sq. Ft	287.5 Sq. Ft	299 Sq. Ft	310.5 Sq. Ft	322 Sq. Ft	333.5 Sq. Ft	345 Sq. Ft	356.5 Sq. Ft	368 Sq. Ft
24 ft.	60 Sq. Ft	72 Sq. Ft	84 Sq. Ft	96 Sq. Ft	108 Sq. Ft	120 Sq. Ft	132 Sq. Ft	144 Sq. Ft	156 Sq. Ft	168 Sq. Ft	180 Sq. Ft	192 Sq. Ft	204 Sq. Ft	216 Sq. Ft	228 Sq. Ft	240 Sq. Ft	252 Sq. Ft	264 Sq. Ft	276 Sq. Ft	288 Sq. Ft	300 Sq. Ft	312 Sq. Ft	324 Sq. Ft	336 Sq. Ft	348 Sq. Ft	360 Sq. Ft	372 Sq. Ft	384 Sq. Ft
25 ft.	62.5 Sq. Ft	75 Sq. Ft	87.5 Sq. Ft	100 Sq. Ft	112.5 Sq. Ft	125 Sq. Ft	137.5 Sq. Ft	150 Sq. Ft	162.5 Sq. Ft	175 Sq. Ft	187.5 Sq. Ft	200 Sq. Ft	212.5 Sq. Ft	225 Sq. Ft	237.5 Sq. Ft	250 Sq. Ft	262.5 Sq. Ft	275 Sq. Ft	287.5 Sq. Ft	300 Sq. Ft	312.5 Sq. Ft	325 Sq. Ft	337.5 Sq. Ft	350 Sq. Ft	362.5 Sq. Ft	375 Sq. Ft	387.5 Sq. Ft	400 Sq. Ft
26 ft.	65 Sq. Ft	78 Sq. Ft	91 Sq. Ft	104 Sq. Ft	117 Sq. Ft	130 Sq. Ft	143 Sq. Ft	156 Sq. Ft	169 Sq. Ft	182 Sq. Ft	195 Sq. Ft	208 Sq. Ft	221 Sq. Ft	234 Sq. Ft	247 Sq. Ft	260 Sq. Ft	273 Sq. Ft	286 Sq. Ft	299 Sq. Ft	312 Sq. Ft	325 Sq. Ft	338 Sq. Ft	351 Sq. Ft	364 Sq. Ft	377 Sq. Ft	390 Sq. Ft	403 Sq. Ft	416 Sq. Ft
27 ft.	67.5 Sq. Ft	81 Sq. Ft	94.5 Sq. Ft	108 Sq. Ft	121.5 Sq. Ft	135 Sq. Ft	148.5 Sq. Ft	162 Sq. Ft	175.5 Sq. Ft	189 Sq. Ft	202.5 Sq. Ft	216 Sq. Ft	229.5 Sq. Ft	243 Sq. Ft	256.5 Sq. Ft	270 Sq. Ft	283.5 Sq. Ft	297 Sq. Ft	310.5 Sq. Ft	324 Sq. Ft	337.5 Sq. Ft	351 Sq. Ft	364.5 Sq. Ft	378 Sq. Ft	391.5 Sq. Ft	405 Sq. Ft	418.5 Sq. Ft	432 Sq. Ft
28 ft.	70 Sq. Ft	84 Sq. Ft	98 Sq. Ft	112 Sq. Ft	126 Sq. Ft	140 Sq. Ft	154 Sq. Ft	168 Sq. Ft	182 Sq. Ft	196 Sq. Ft	210 Sq. Ft	224 Sq. Ft	238 Sq. Ft	252 Sq. Ft	266 Sq. Ft	280 Sq. Ft	294 Sq. Ft	308 Sq. Ft	322 Sq. Ft	336 Sq. Ft	350 Sq. Ft	364 Sq. Ft	378 Sq. Ft	392 Sq. Ft	406 Sq. Ft	420 Sq. Ft	434 Sq. Ft	448 Sq. Ft
29 ft.	72.5 Sq. Ft	87 Sq. Ft	101.5 Sq. Ft	116 Sq. Ft	130.5 Sq. Ft	145 Sq. Ft	159.5 Sq. Ft	174 Sq. Ft	188.5 Sq. Ft	203 Sq. Ft	217.5 Sq. Ft	232 Sq. Ft	246.5 Sq. Ft	261 Sq. Ft	275.5 Sq. Ft	290 Sq. Ft	304.5 Sq. Ft	319 Sq. Ft	333.5 Sq. Ft	348 Sq. Ft	362.5 Sq. Ft	377 Sq. Ft	391.5 Sq. Ft	406 Sq. Ft	420.5 Sq. Ft	435 Sq. Ft	449.5 Sq. Ft	464 Sq. Ft
30 ft.	75 Sq. Ft	90 Sq. Ft	105 Sq. Ft	120 Sq. Ft	135 Sq. Ft	150 Sq. Ft	165 Sq. Ft	180 Sq. Ft	195 Sq. Ft	210 Sq. Ft	225 Sq. Ft	240 Sq. Ft	255 Sq. Ft	270 Sq. Ft	285 Sq. Ft	300 Sq. Ft	315 Sq. Ft	330 Sq. Ft	345 Sq. Ft	360 Sq. Ft	375 Sq. Ft	390 Sq. Ft	405 Sq. Ft	420 Sq. Ft	435 Sq. Ft	450 Sq. Ft	465 Sq. Ft	480 Sq. Ft
31 ft.	77.5 Sq. Ft	93 Sq. Ft	108.5 Sq. Ft	124 Sq. Ft	139.5 Sq. Ft	155 Sq. Ft	170.5 Sq. Ft	186 Sq. Ft	201.5 Sq. Ft	217 Sq. Ft	232.5 Sq. Ft	248 Sq. Ft	263.5 Sq. Ft	279 Sq. Ft	294.5 Sq. Ft	310 Sq. Ft	325.5 Sq. Ft	341 Sq. Ft	356.5 Sq. Ft	372 Sq. Ft	387.5 Sq. Ft	403 Sq. Ft	418.5 Sq. Ft	434 Sq. Ft	449.5 Sq. Ft	465 Sq. Ft	480.5 Sq. Ft	496 Sq. Ft
32 ft.	80 Sq. Ft	96 Sq. Ft	112 Sq. Ft	128 Sq. Ft	144 Sq. Ft	160 Sq. Ft	176 Sq. Ft	192 Sq. Ft	208 Sq. Ft	224 Sq. Ft	240 Sq. Ft	256 Sq. Ft	272 Sq. Ft	288 Sq. Ft	304 Sq. Ft	320 Sq. Ft	336 Sq. Ft	352 Sq. Ft	368 Sq. Ft	384 Sq. Ft	400 Sq. Ft	416 Sq. Ft	432 Sq. Ft	448 Sq. Ft	464 Sq. Ft	480 Sq. Ft	496 Sq. Ft	512 Sq. Ft
33 ft.	82.5 Sq. Ft	99 Sq. Ft	115.5 Sq. Ft	132 Sq. Ft	148.5 Sq. Ft	165 Sq. Ft	181.5 Sq. Ft	198 Sq. Ft	214.5 Sq. Ft	231 Sq. Ft	247.5 Sq. Ft	264 Sq. Ft	280.5 Sq. Ft	297 Sq. Ft	313.5 Sq. Ft	330 Sq. Ft	346.5 Sq. Ft	363 Sq. Ft	379.5 Sq. Ft	396 Sq. Ft	412.5 Sq. Ft	429 Sq. Ft	445.5 Sq. Ft	462 Sq. Ft	478.5 Sq. Ft	495 Sq. Ft	511.5 Sq. Ft	528 Sq. Ft
34 ft.	85 Sq. Ft	102 Sq. Ft	119 Sq. Ft	136 Sq. Ft	153 Sq. Ft	170 Sq. Ft	187 Sq. Ft	204 Sq. Ft	221 Sq. Ft	238 Sq. Ft	255 Sq. Ft	272 Sq. Ft	289 Sq. Ft	306 Sq. Ft	323 Sq. Ft	340 Sq. Ft	357 Sq. Ft	374 Sq. Ft	391 Sq. Ft	408 Sq. Ft	425 Sq. Ft	442 Sq. Ft	459 Sq. Ft	476 Sq. Ft	493 Sq. Ft	510 Sq. Ft	527 Sq. Ft	544 Sq. Ft
35 ft.	87.5 Sq. Ft	105 Sq. Ft	122.5 Sq. Ft	140 Sq. Ft	157.5 Sq. Ft	175 Sq. Ft	192.5 Sq. Ft	210 Sq. Ft	227.5 Sq. Ft	245 Sq. Ft	262.5 Sq. Ft	280 Sq. Ft	297.5 Sq. Ft	315 Sq. Ft	332.5 Sq. Ft	350 Sq. Ft	367.5 Sq. Ft	385 Sq. Ft	402.5 Sq. Ft	420 Sq. Ft	437.5 Sq. Ft	455 Sq. Ft	472.5 Sq. Ft	490 Sq. Ft	507.5 Sq. Ft	525 Sq. Ft	542.5 Sq. Ft	560 Sq. Ft
36 ft.	90 Sq. Ft	108 Sq. Ft	126 Sq. Ft	144 Sq. Ft	162 Sq. Ft	180 Sq. Ft	198 Sq. Ft	216 Sq. Ft	234 Sq. Ft	252 Sq. Ft	270 Sq. Ft	288 Sq. Ft	306 Sq. Ft	324 Sq. Ft	342 Sq. Ft	360 Sq. Ft	378 Sq. Ft	396 Sq. Ft	414 Sq. Ft	432 Sq. Ft	450 Sq. Ft	468 Sq. Ft	486 Sq. Ft	504 Sq. Ft	522 Sq. Ft	540 Sq. Ft	558 Sq. Ft	576 Sq. Ft

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

Type "D" (3 Posts)
2.7 CY Conc.
168 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

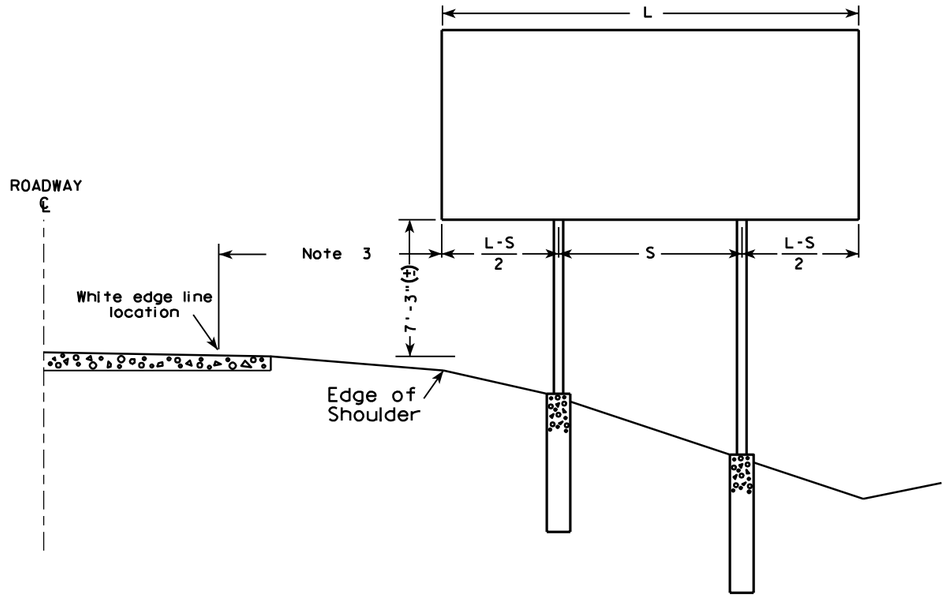
WISCONSIN DEPT OF TRANSPORTATION

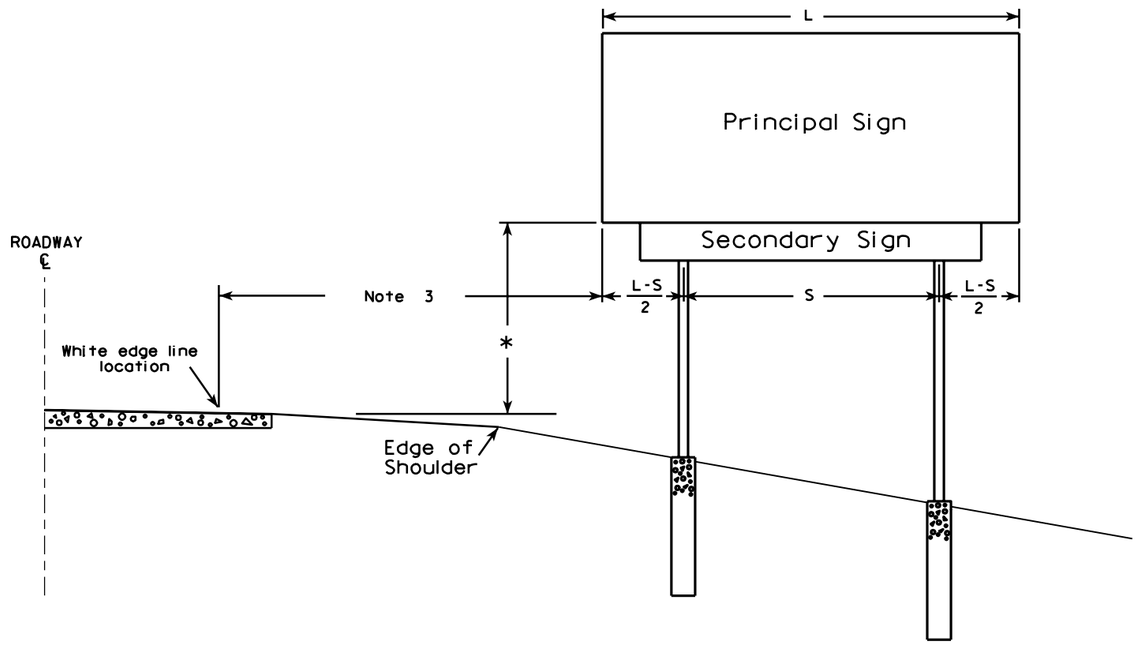
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/5/10 PLATE NO. A3-3.2

PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A33.DGN PLOT DATE : 05-MAR-2010 10:07 PLOT BY : ditjph





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

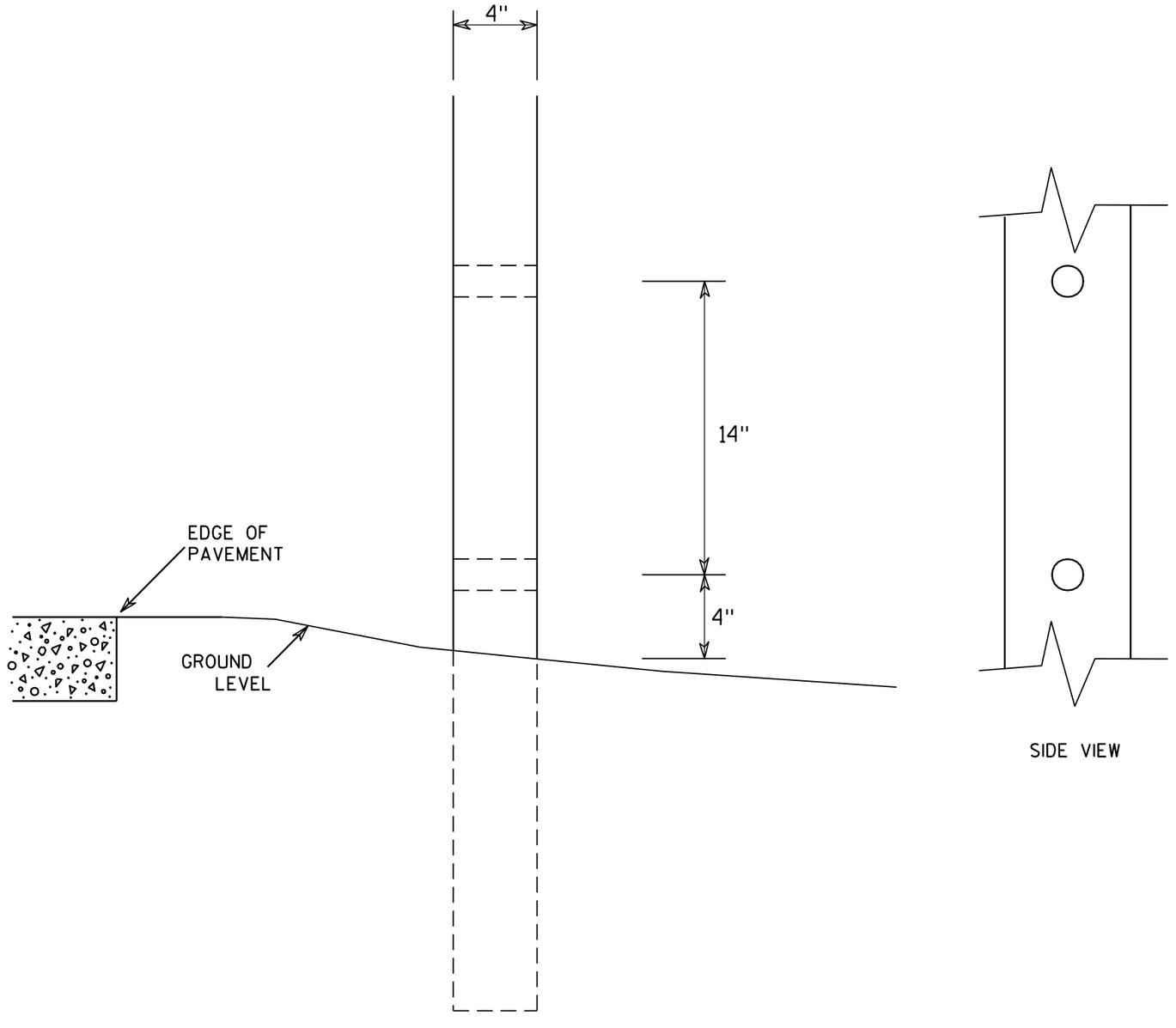
TYPICAL INSTALLATION
OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 485	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

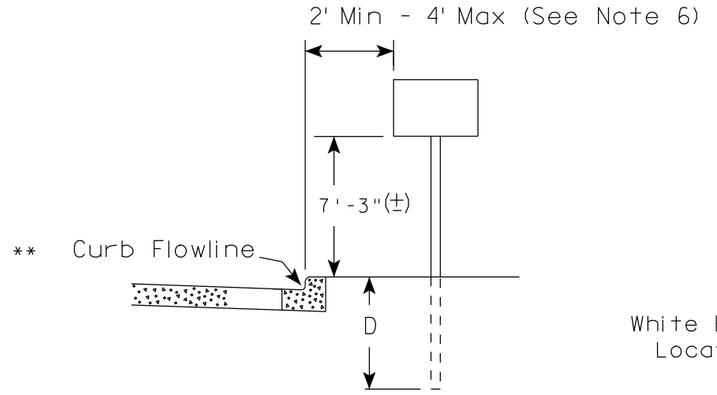
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

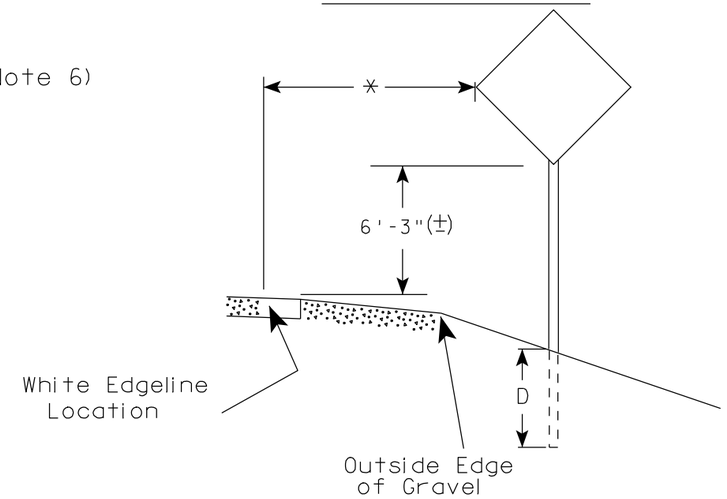
DATE 3/27/97 PLATE NO. A4-11.2

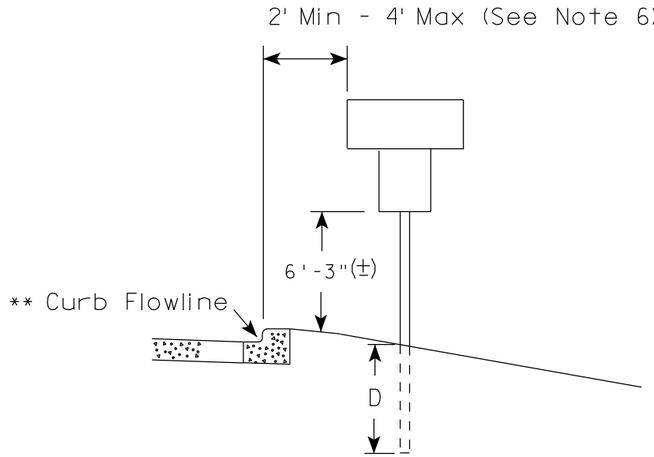
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 486	E

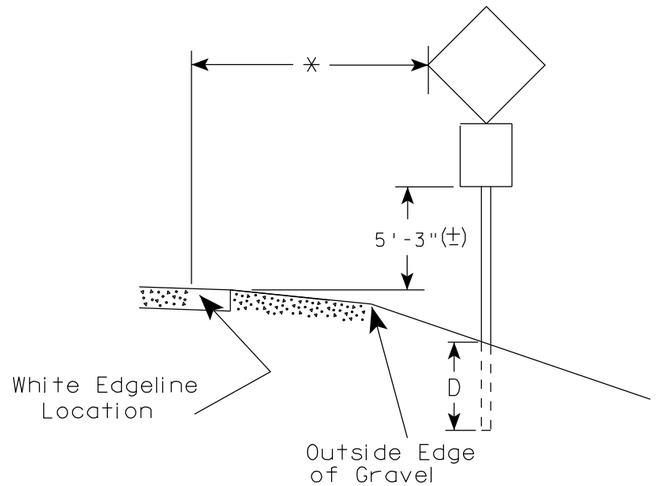
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

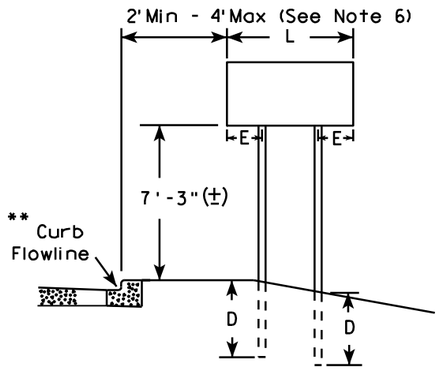
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

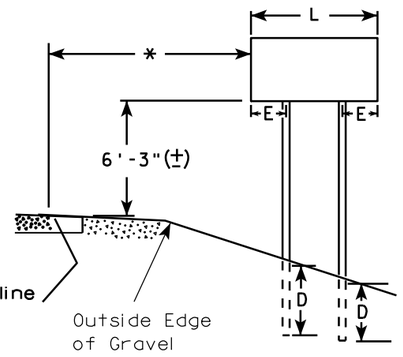
DATE 5/24/2013 PLATE NO. A4-3.17

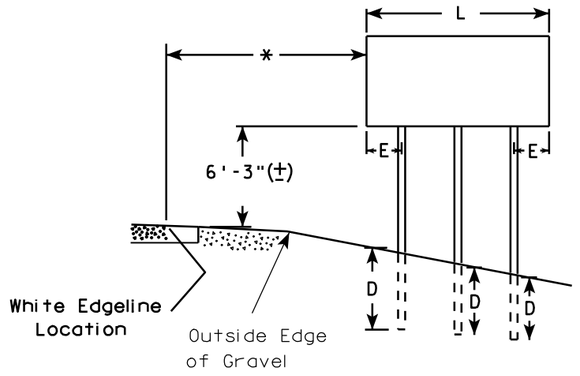
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 487	E

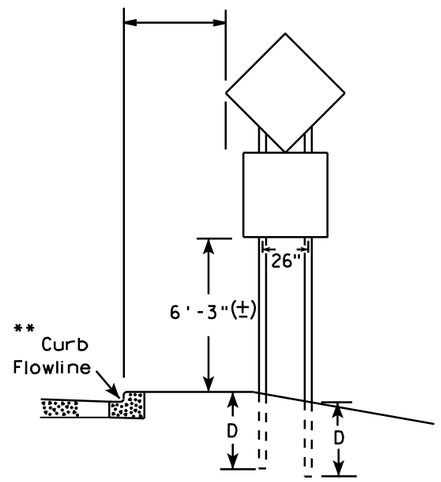
URBAN AREA



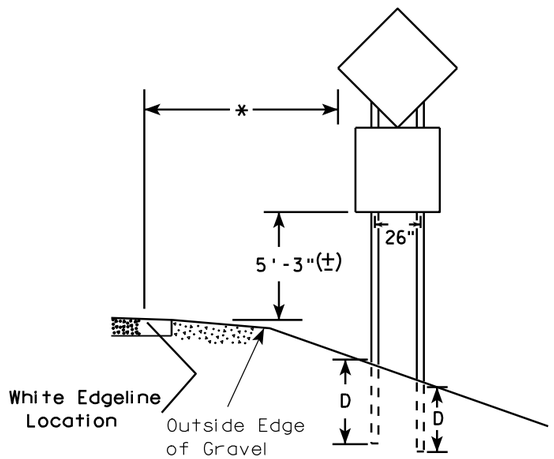
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. For multiple post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

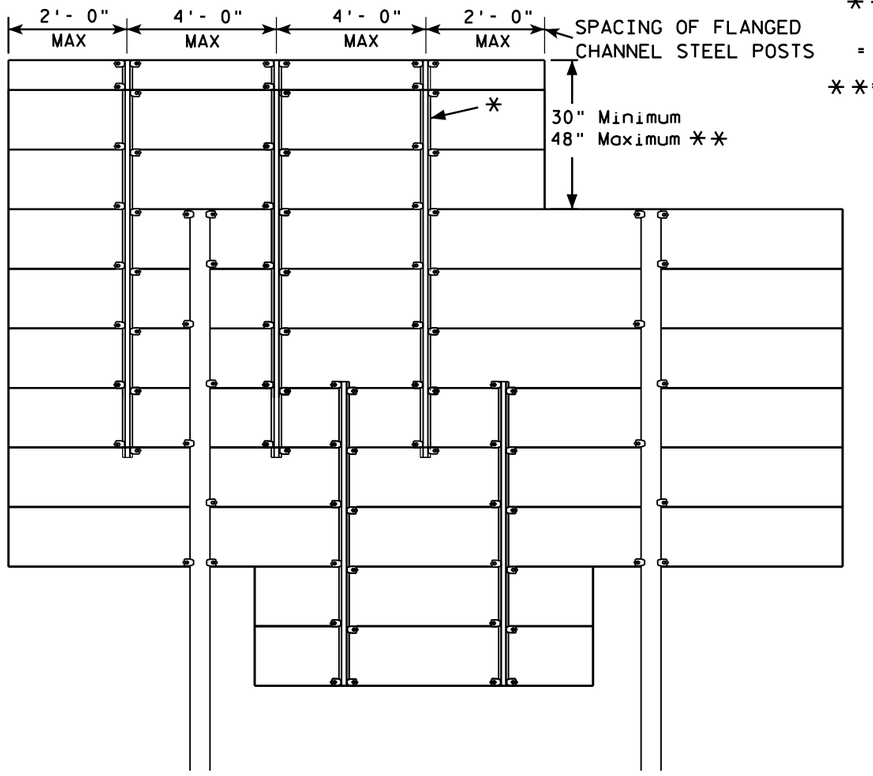
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 488	E

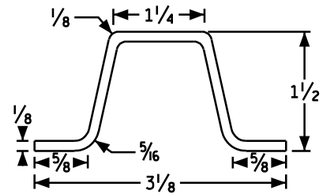
GROUND MOUNTED SIGN



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

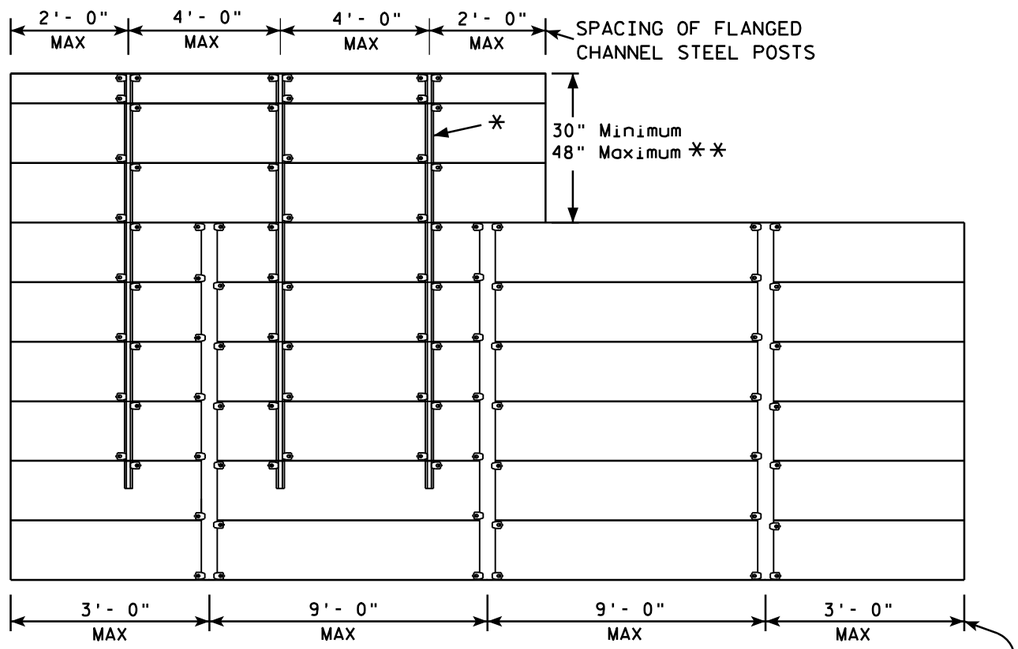
**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

7

7

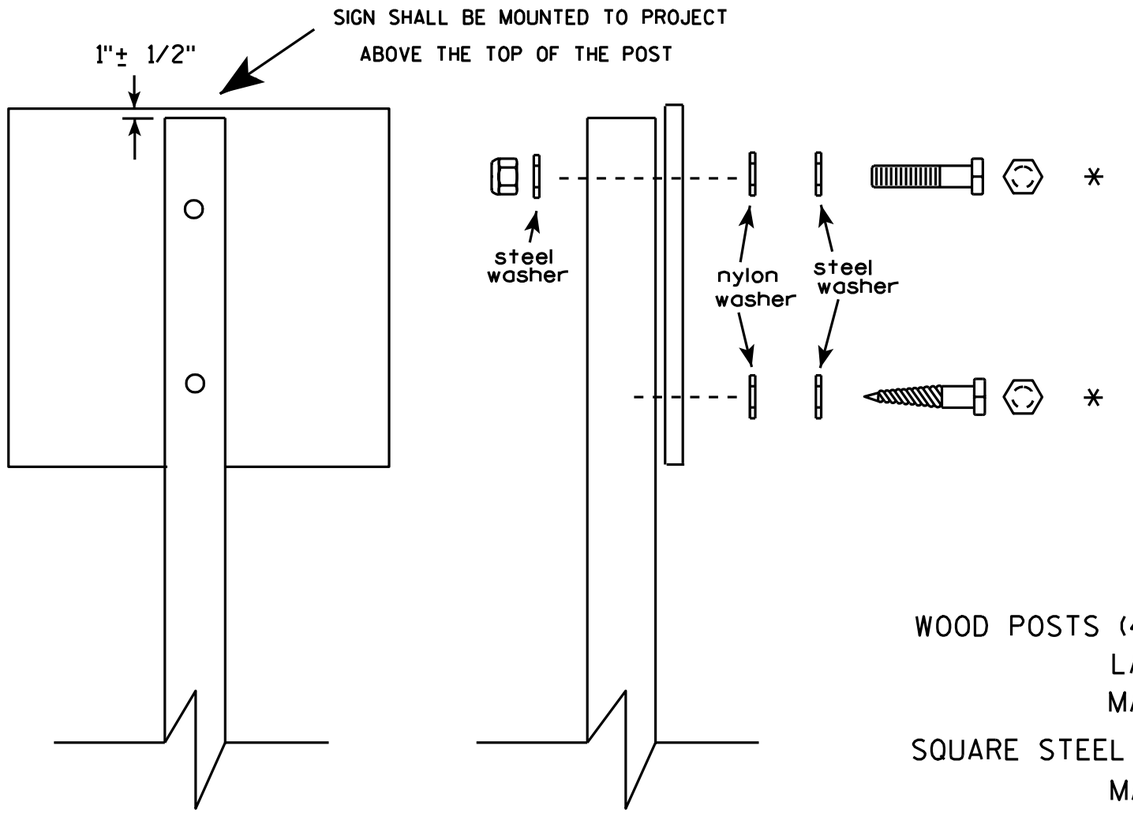
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. A4-6.11

PROJECT NO:				SHEET NO: 489	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

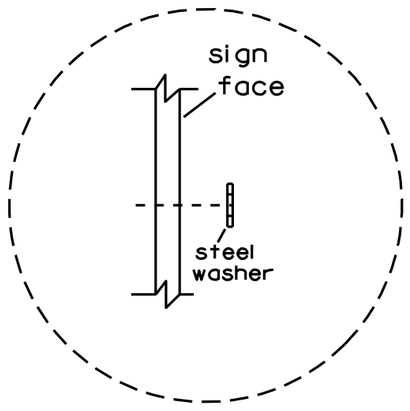
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

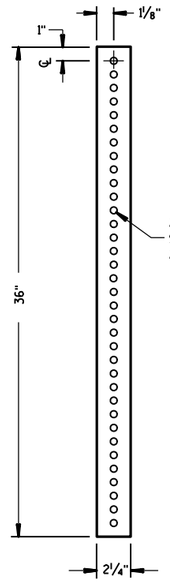
7

PROJECT NO:

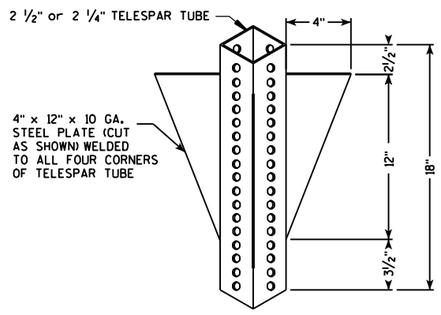
SHEET NO: 490 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

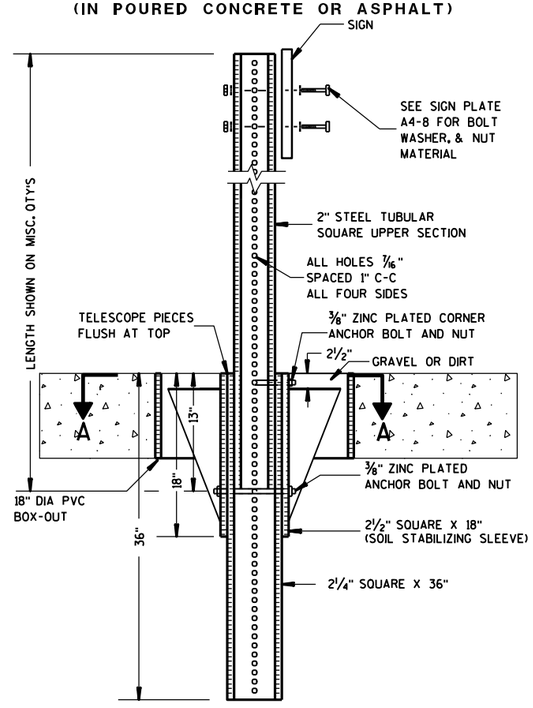
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



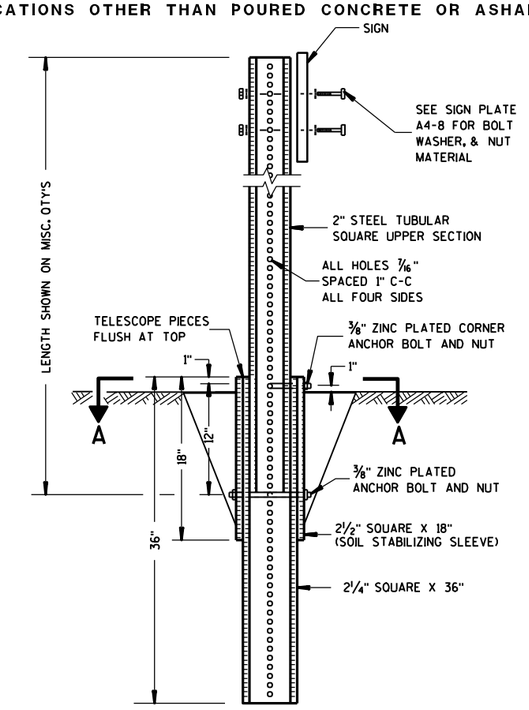
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

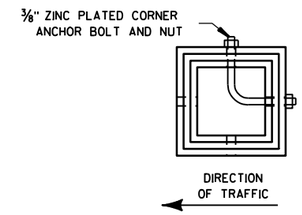


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL SIGN POST A4-9

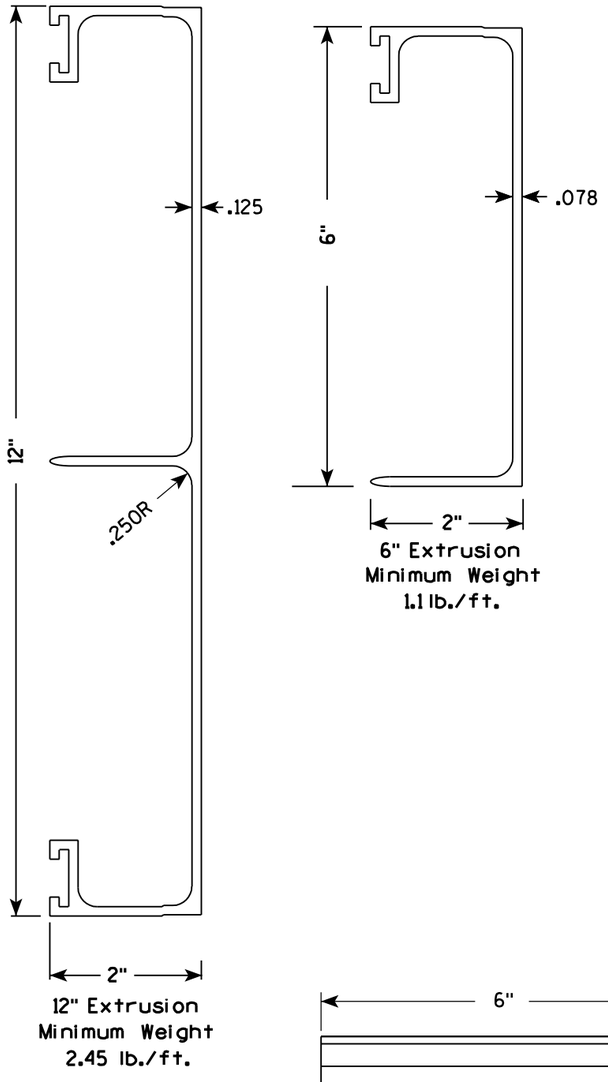
WISCONSIN DEPT OF TRANSPORTATION

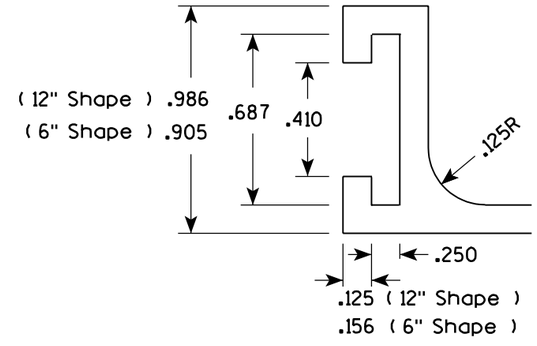
APPROVED Matthew R Rauch
for State Traffic Engineer

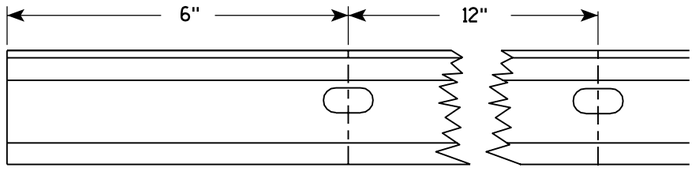
DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 491	E

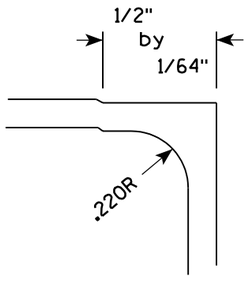
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

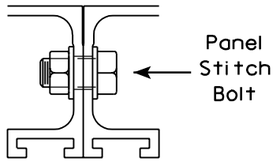


Hardware

STITCH BOLT, WASHER & NUT

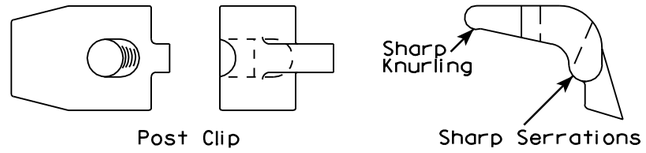
The hardware includes:

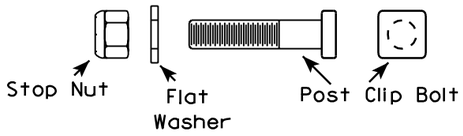
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

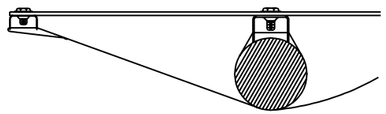
APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

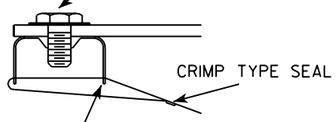
PROJECT NO:

SHEET NO: 492 E

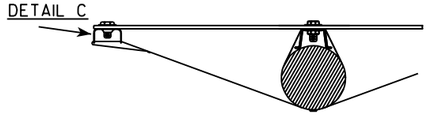
BRACE BANDING

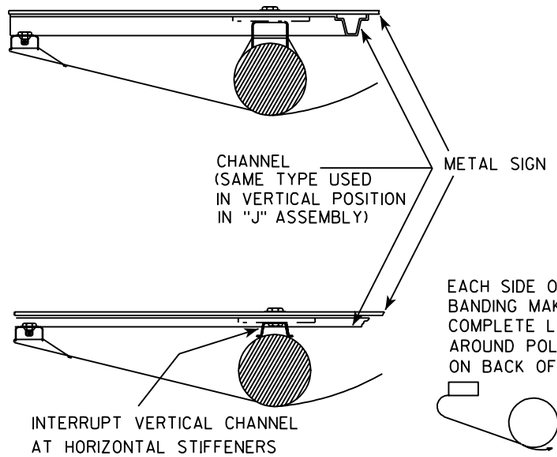


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

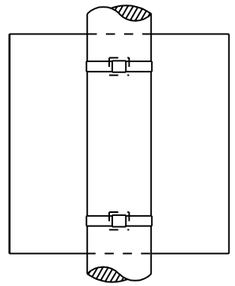


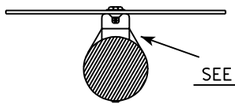


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

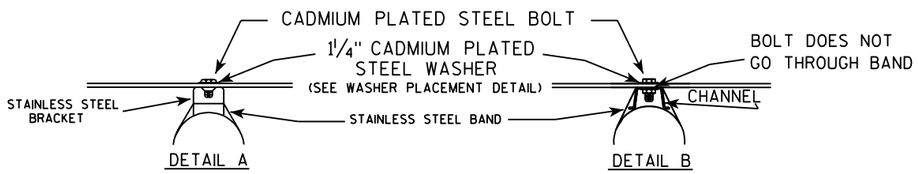
BRACKET BANDING

SINGLE SIGN

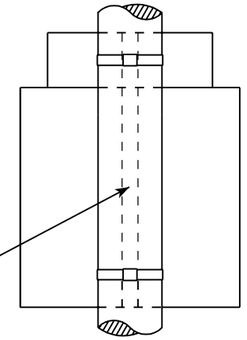




SEE DETAIL A



"J" ASSEMBLY

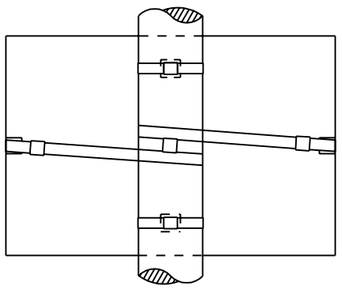


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

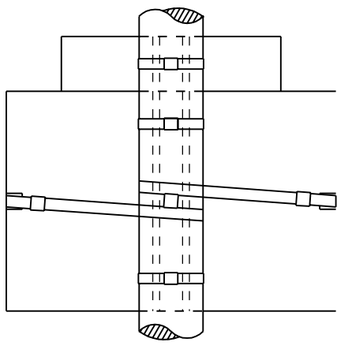
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

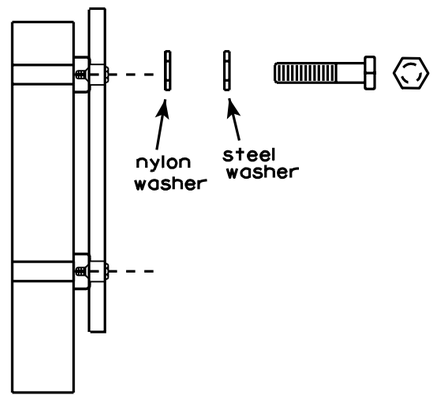


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

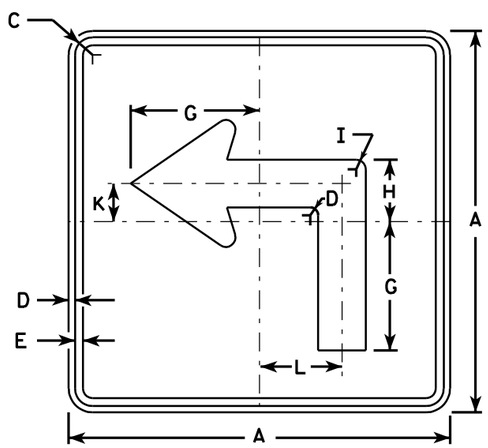
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

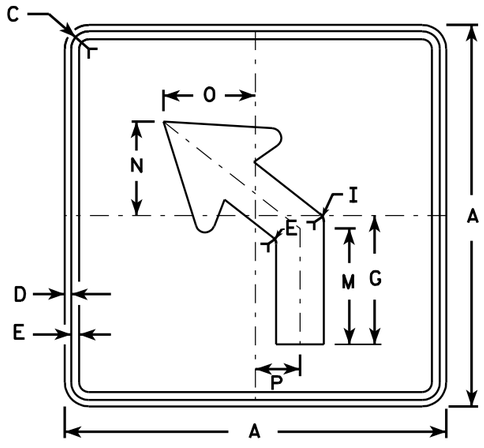
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

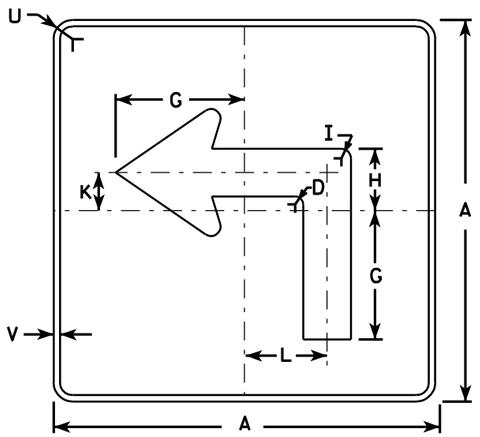
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 493	E



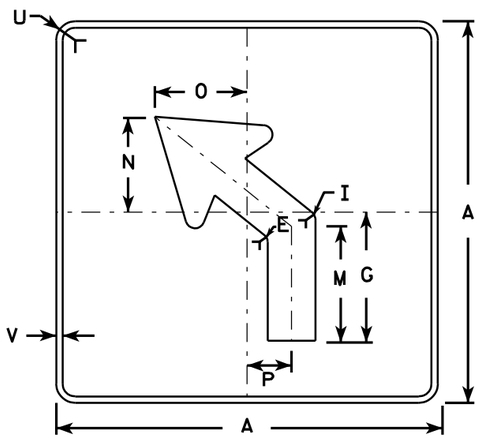
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



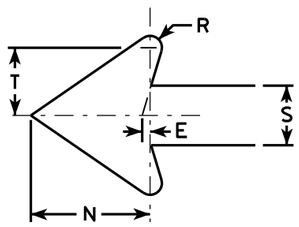
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG5-1 and MG5-2 Background - Green Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective Message - Green
   MN5-1 and MN5-2 Background - Brown Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Reflective Message - Black
   MR5-1 and MR5-2 Background - Brown Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

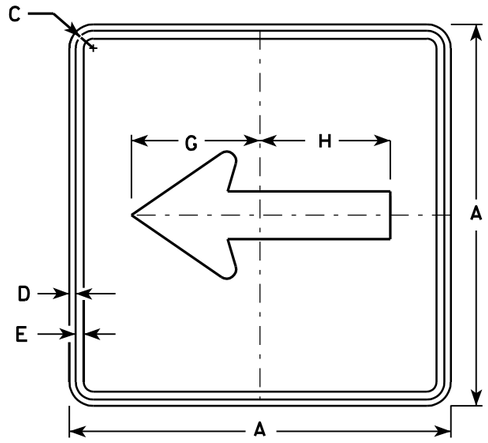
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

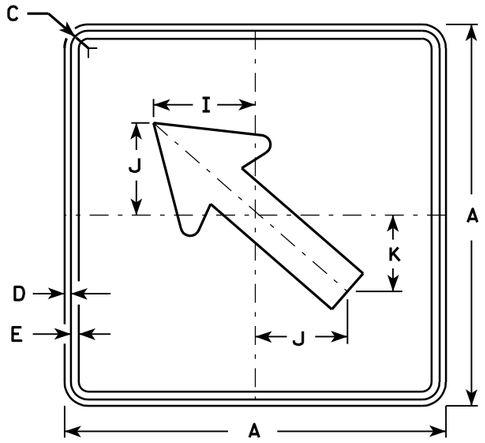
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

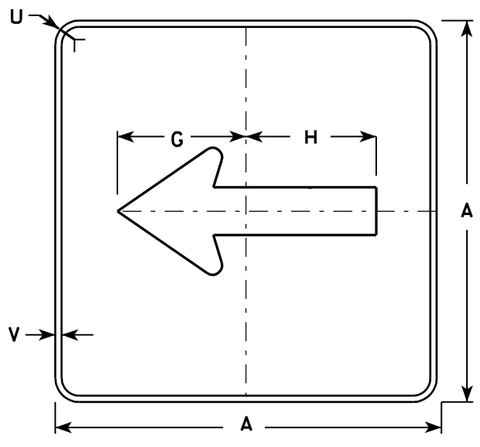
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 494	E



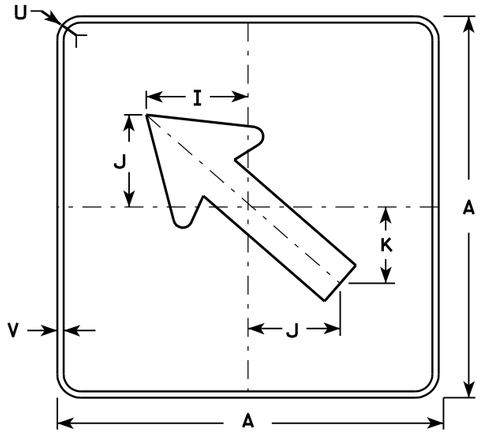
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



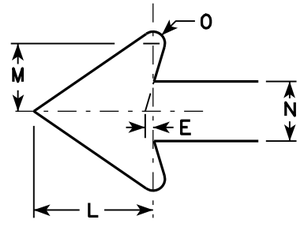
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective
   Message - Black
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

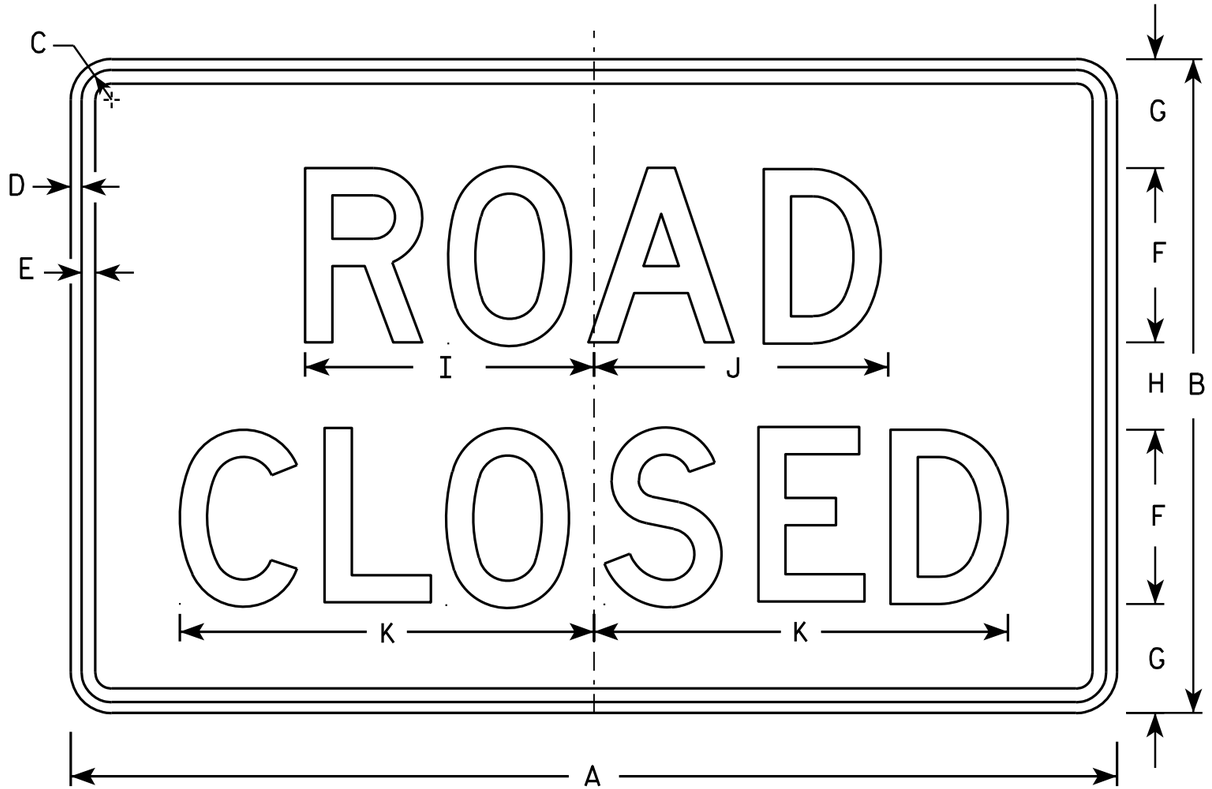
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

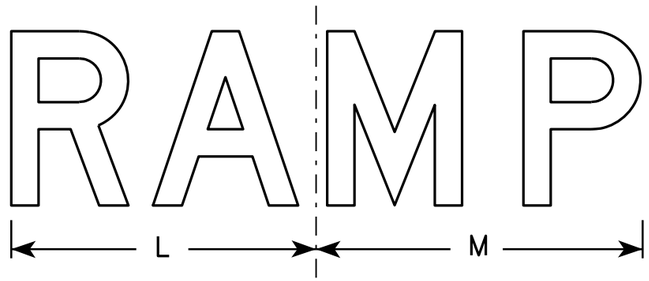
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 495	E



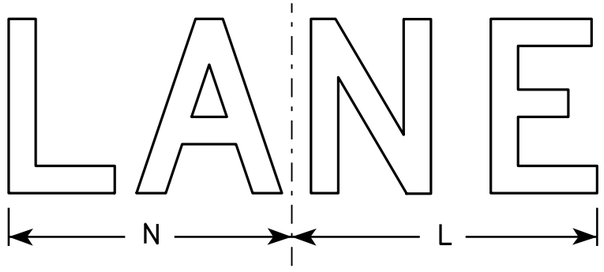
R11-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

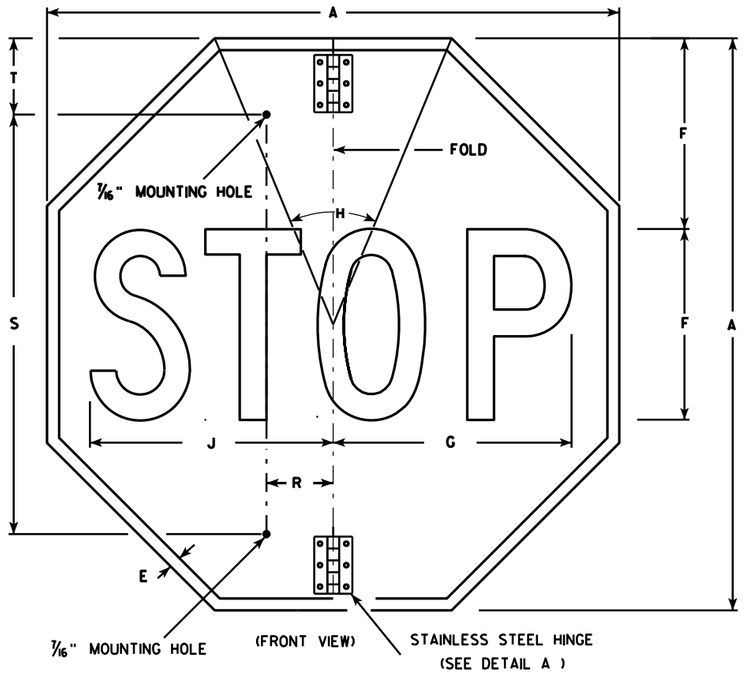
STANDARD SIGN
R11-2

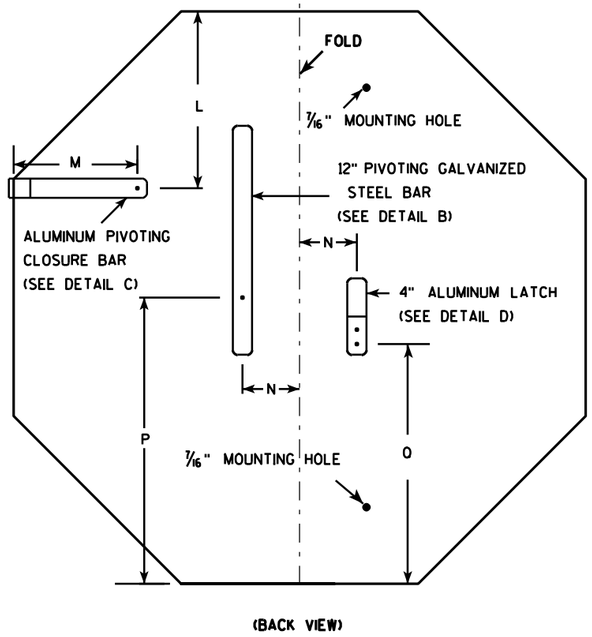
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

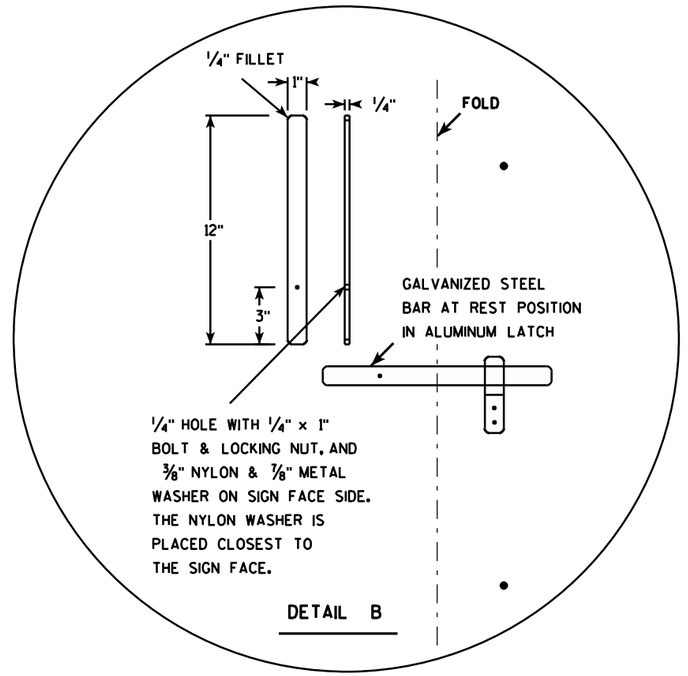
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 496	E

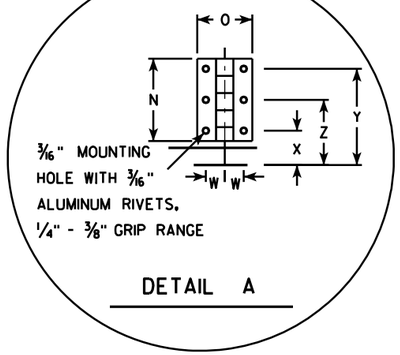


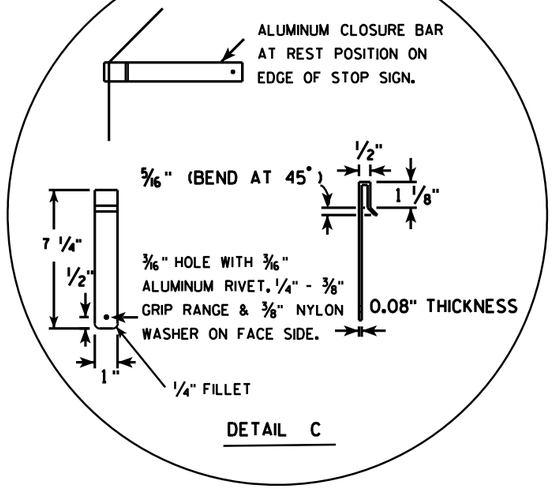


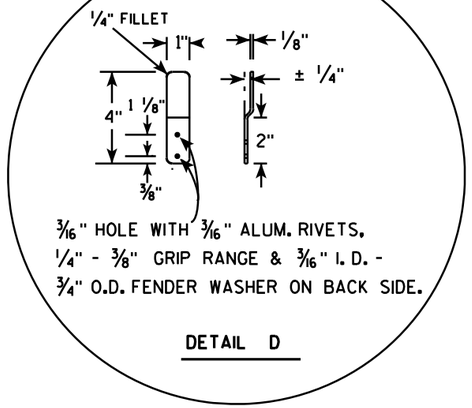
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

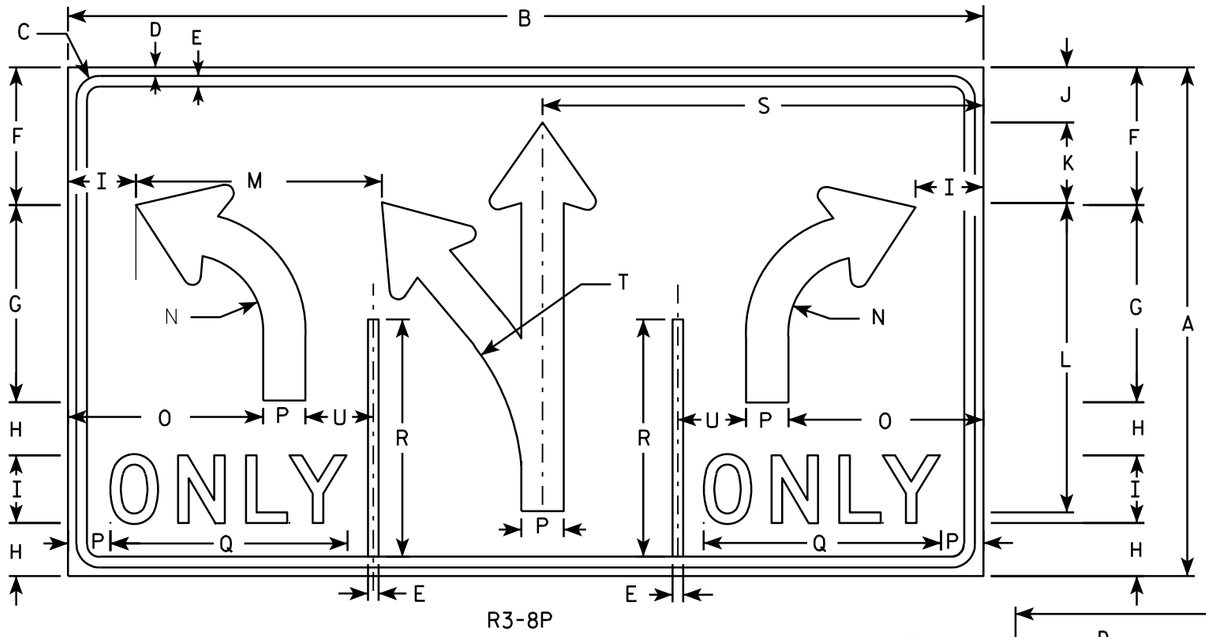
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

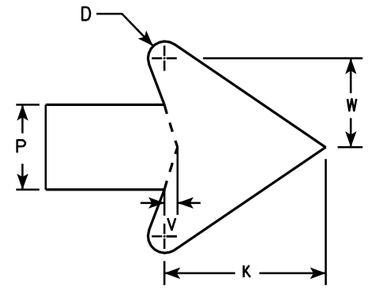
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 497	E



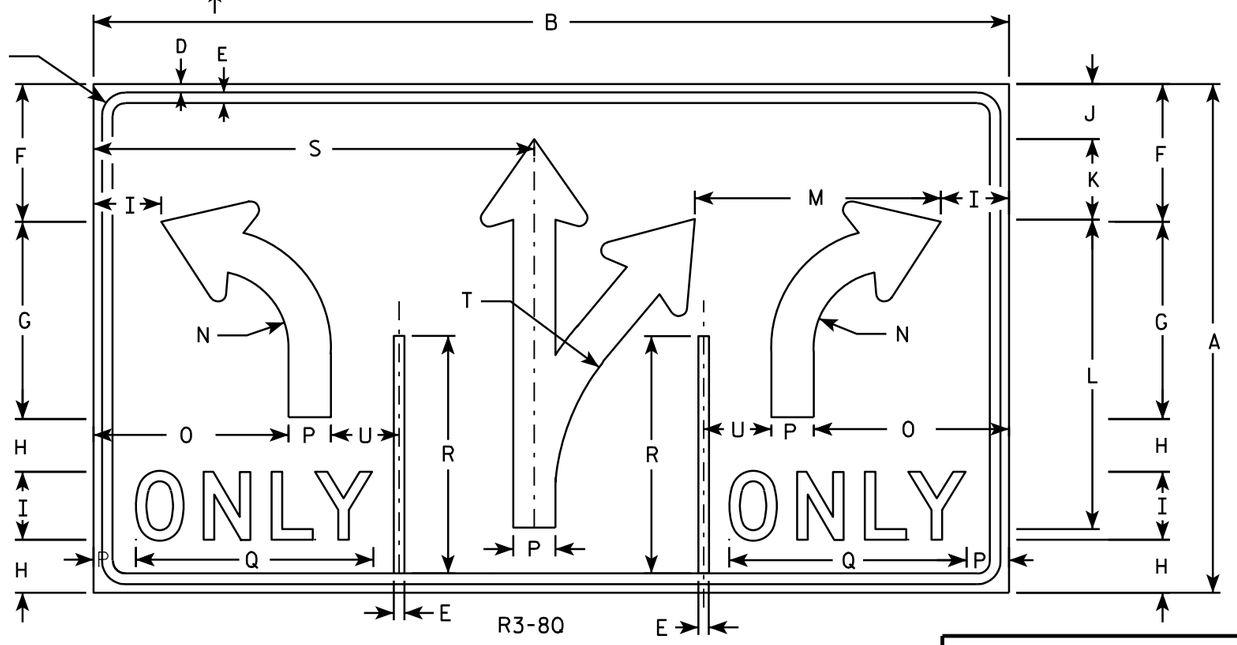
R3-8P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL



R3-8Q

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14 1/2	4 1/2	11 1/2	2 1/2	14	14	26	13 1/4	4	3/8	2 5/8				11.25
2M	30	54	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14 1/2	4 1/2	11 1/2	2 1/2	14	14	26	13 1/4	4	3/8	2 5/8				11.25
3																											
4	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	22 5/8	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	40 3/4	21 7/8	7	5/8	4				28.0
5	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	22 5/8	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	40 3/4	21 7/8	7	5/8	4				28.0

STANDARD SIGN
R3-8P & R3-8Q

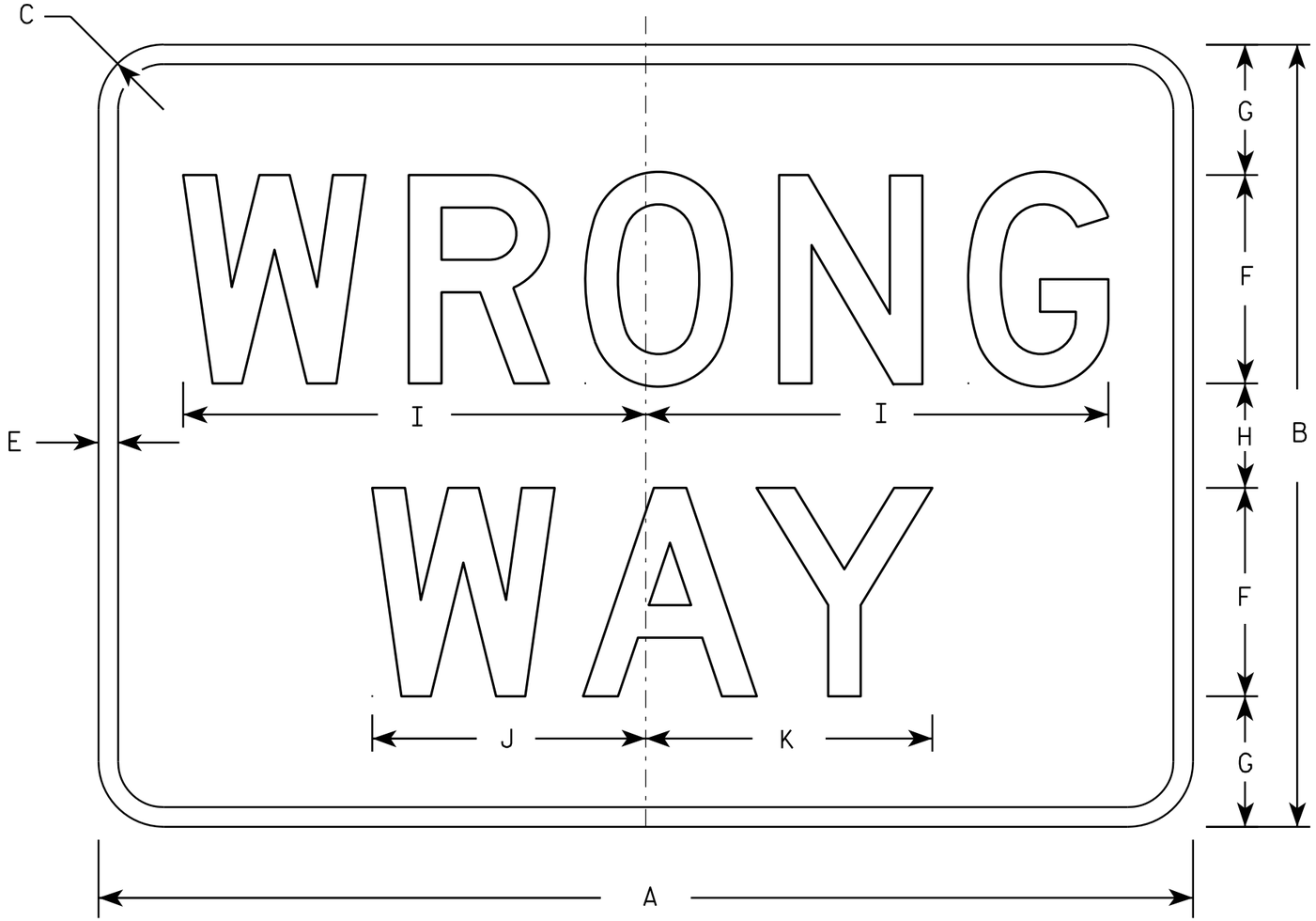
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8P.2

PROJECT NO:

SHEET NO: 498 E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

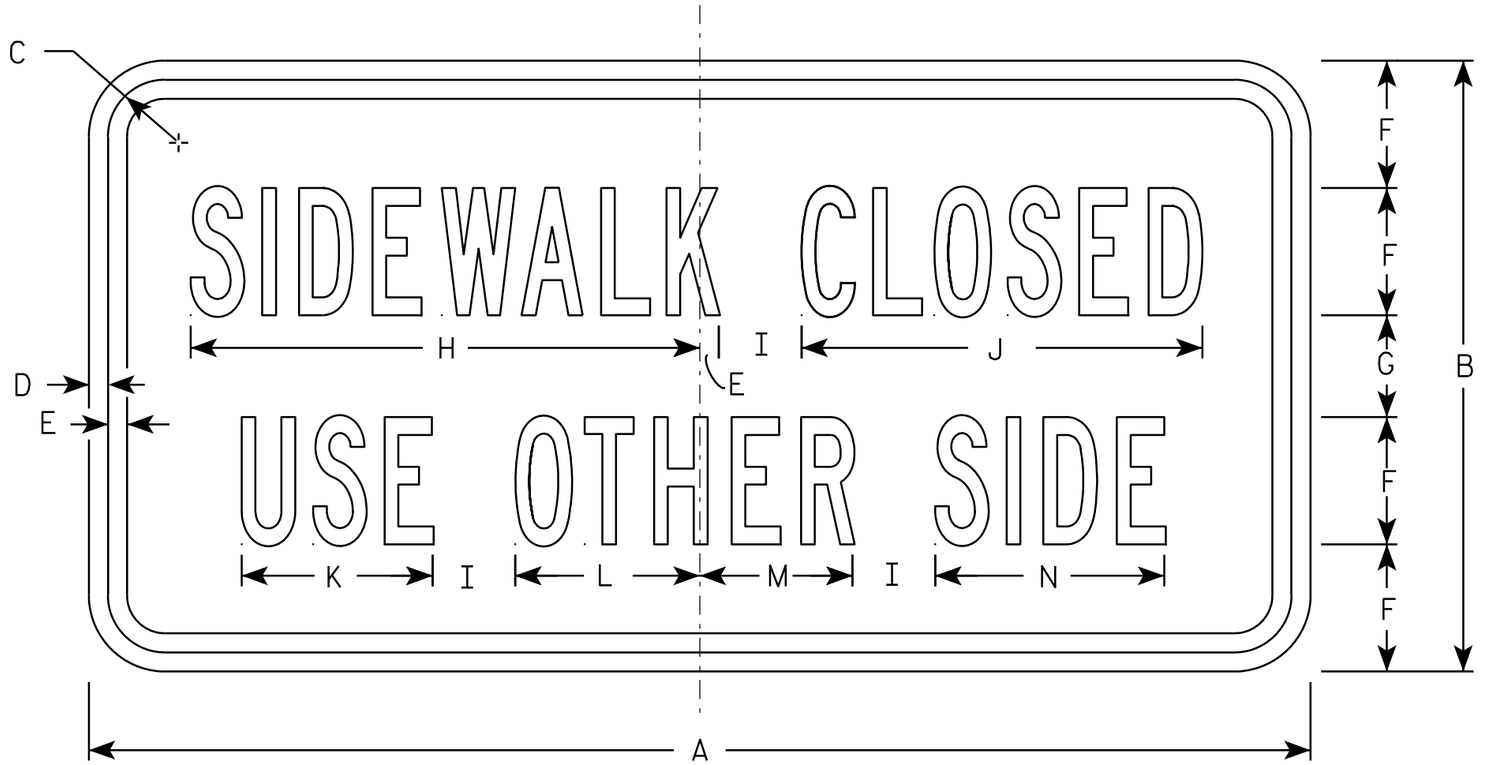
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 499	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R51A.DGN PLOT DATE : 17-DEC-2010 12:42 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.462457:1.000000

WISDOT/CADDS SHEET 42

7

7



R9-10

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
2S	48	24	2 3/4	3/4	3/4	5	4	20	3 1/4	15 3/4	7 1/2	7 1/4	6	9													8.0
2M	48	24	2 3/4	3/4	3/4	5	4	20	3 1/4	15 3/4	7 1/2	7 1/4	6	9													8.0
3																											
4																											
5																											

STANDARD SIGN
R9-10

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/2012 PLATE NO. R9-10.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 500	E

R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
2M	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
3																											
4																											
5																											

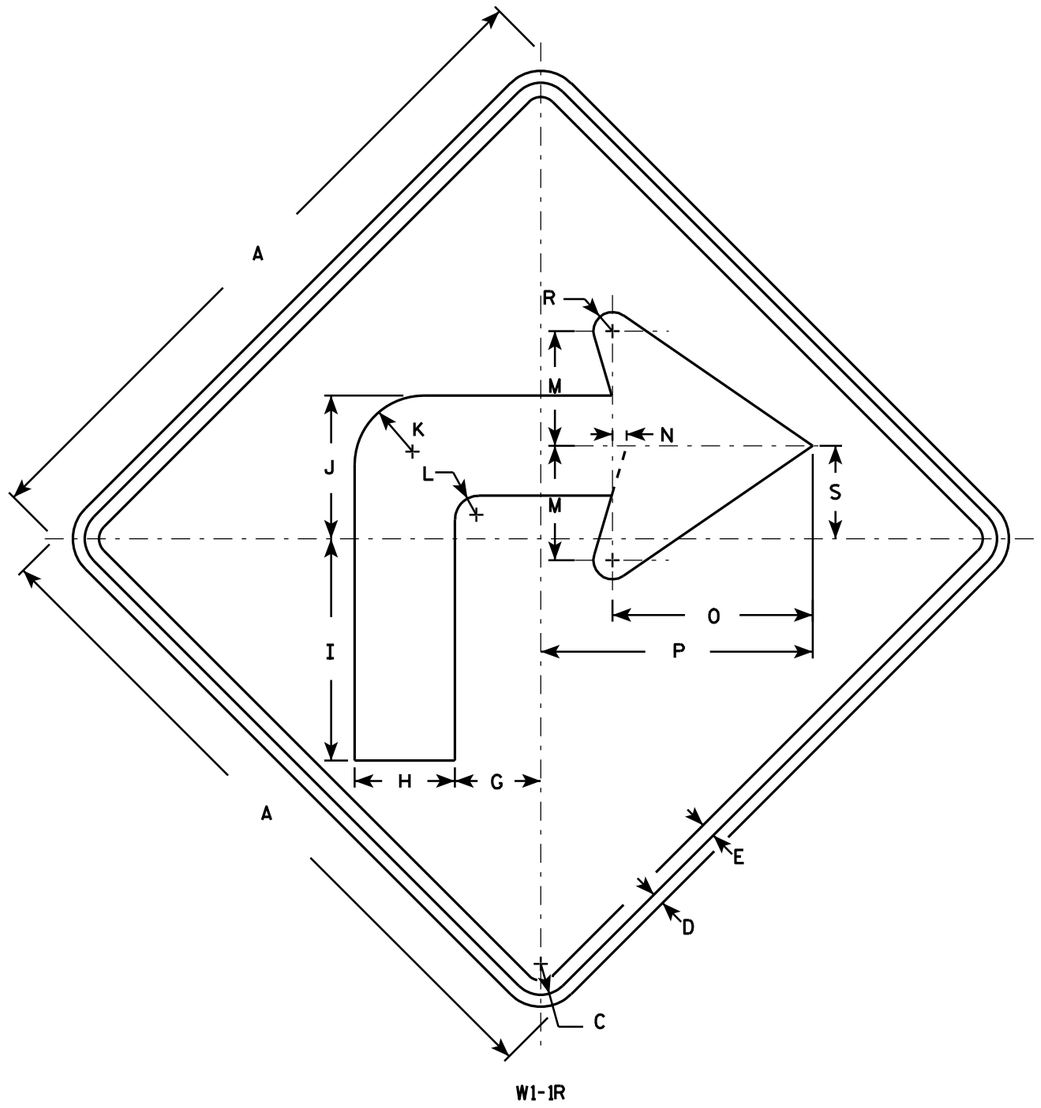
STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 501	E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

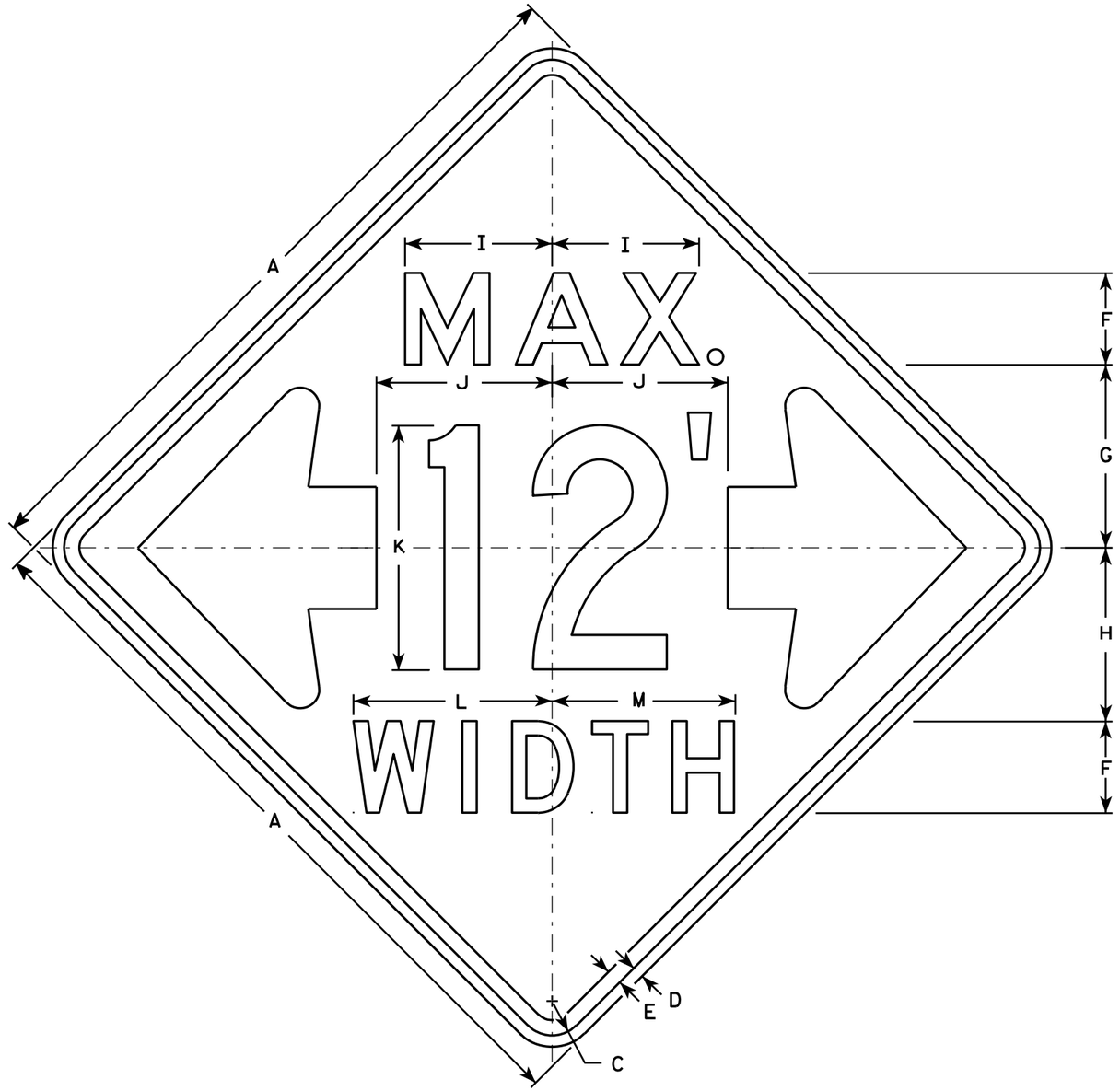
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

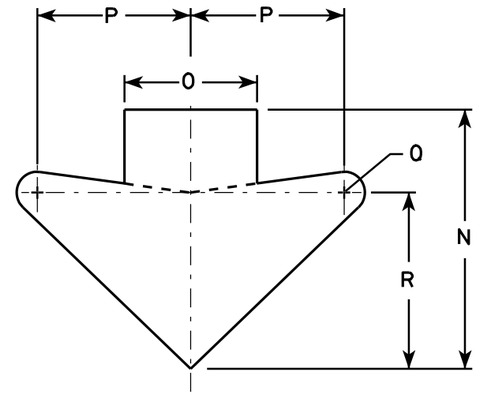
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 502 | E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

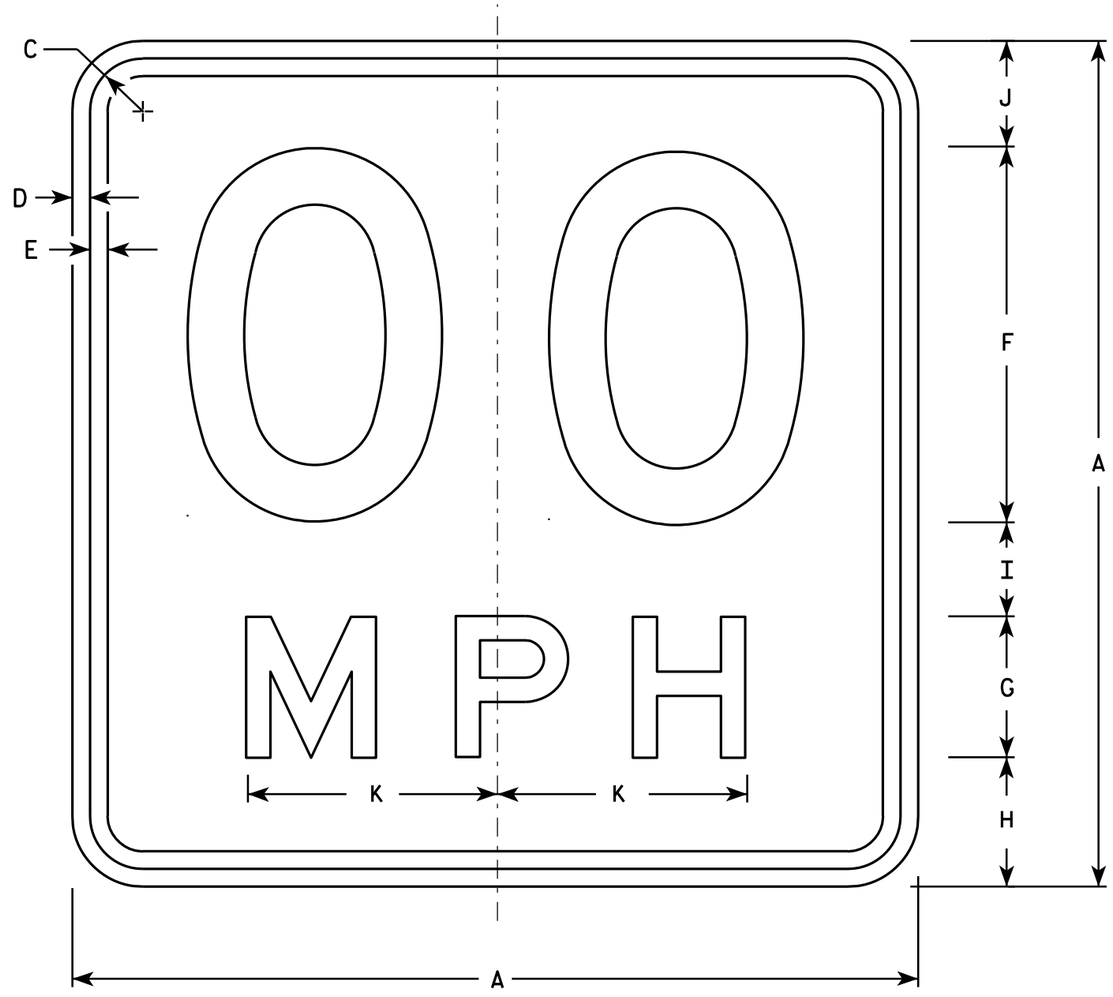
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 503	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

WISDOT/CADDS SHEET 42

7

7



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

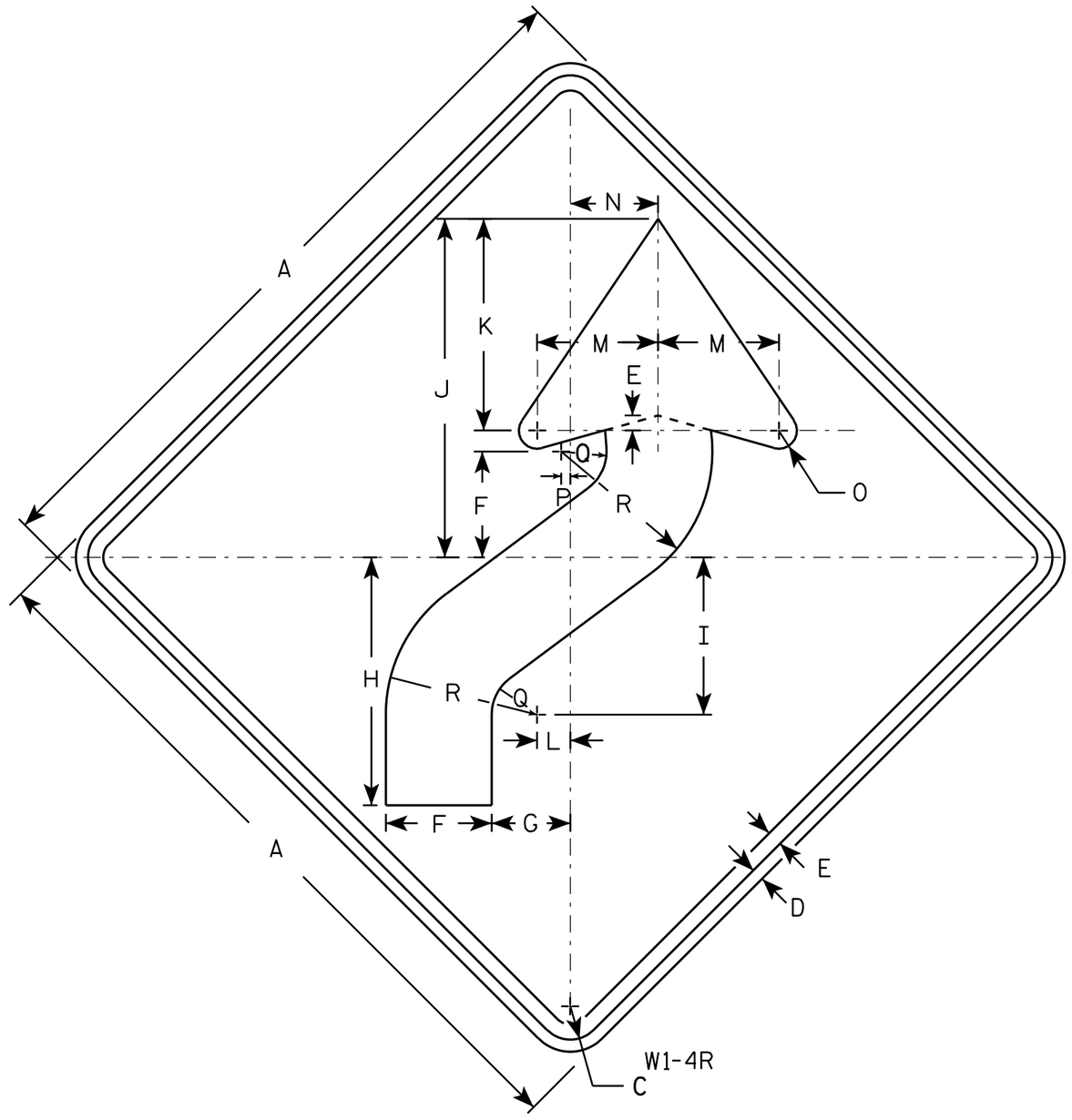
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 504 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN

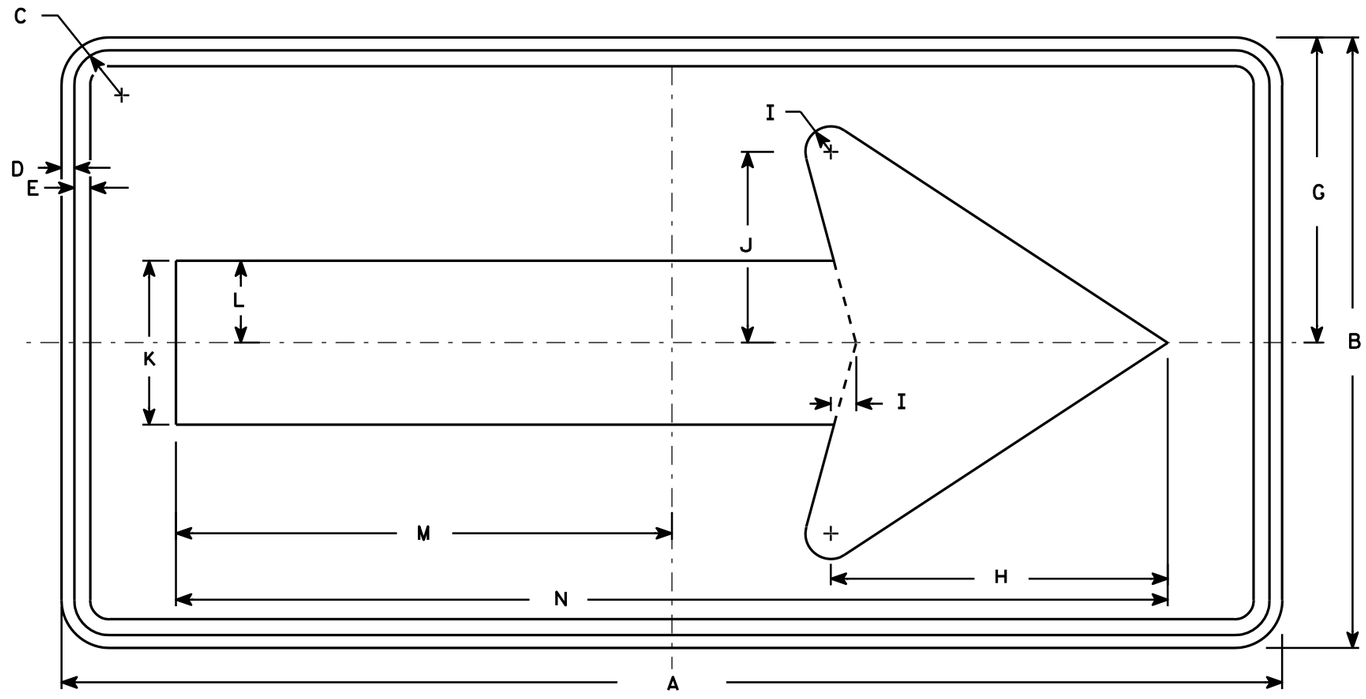
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 505 | E



W1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

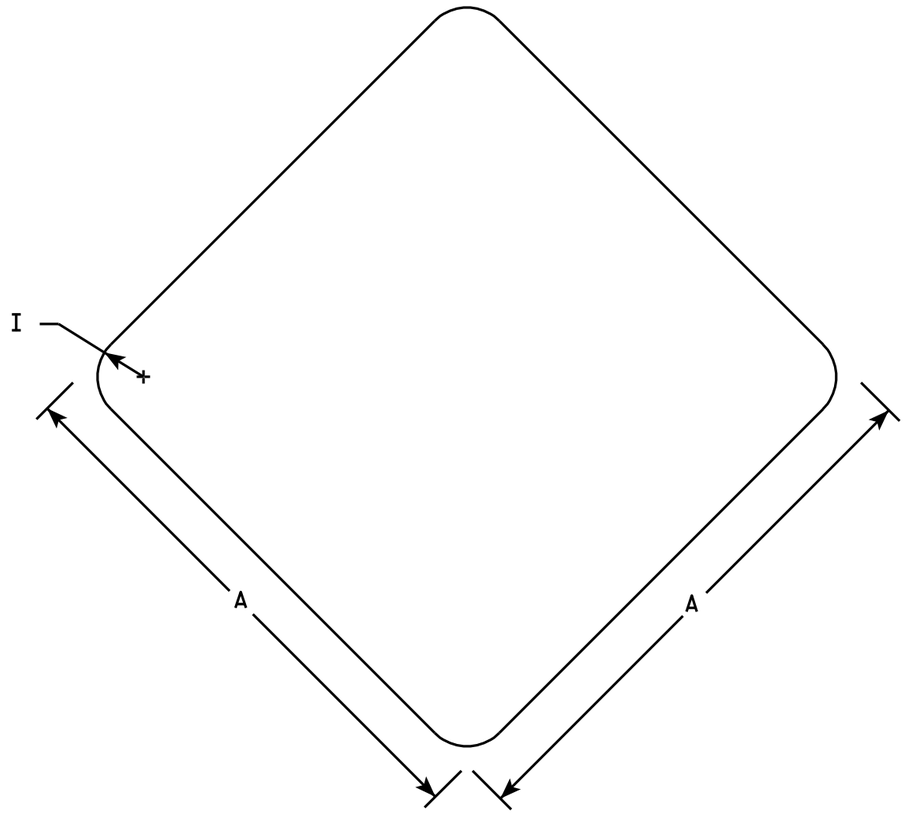
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 506



W5-56

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

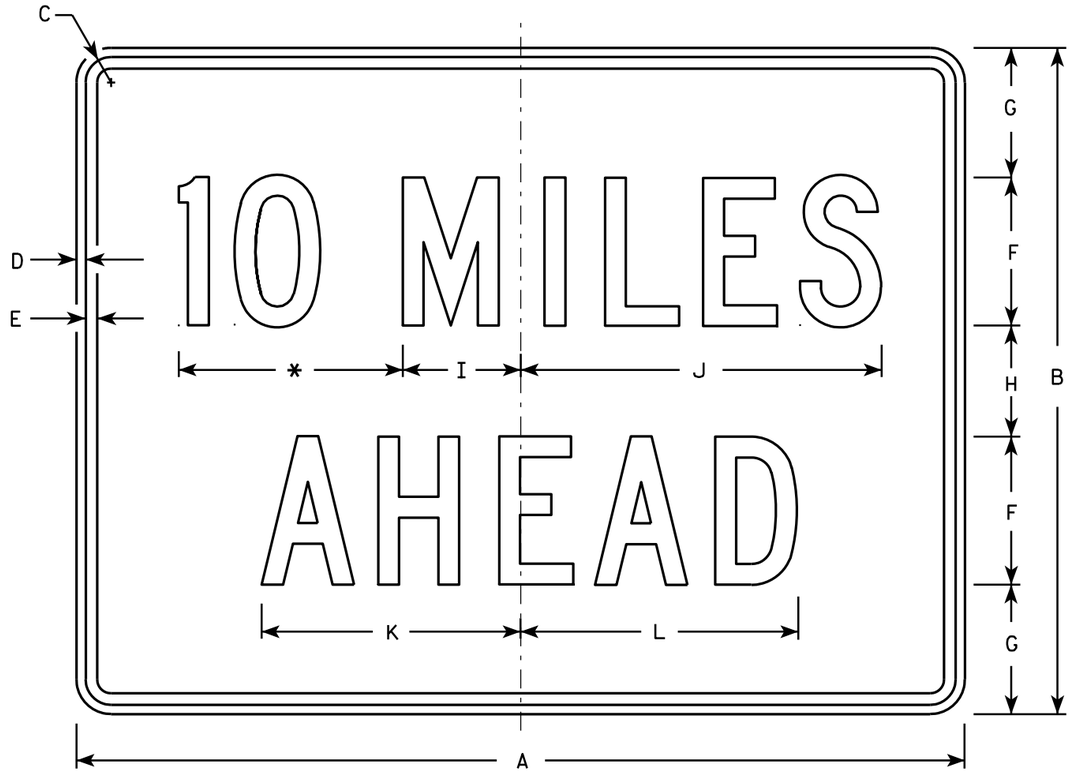
STANDARD SIGN
W5-56

WISCONSIN DEPT OF TRANSPORTATION

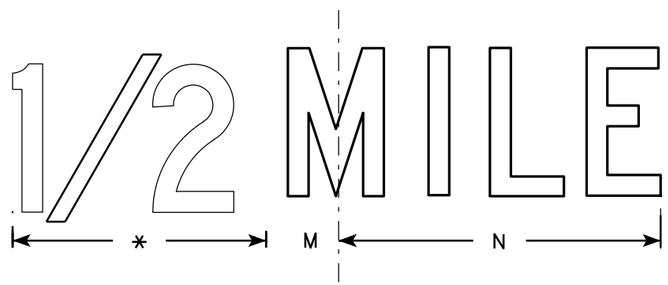
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 507	E



W57-52



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	1/2	4	3 1/2	3	3 1/8	9 3/4	7	7 1/2	1 3/8	8 3/4													3.0
2S	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2M	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
3	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

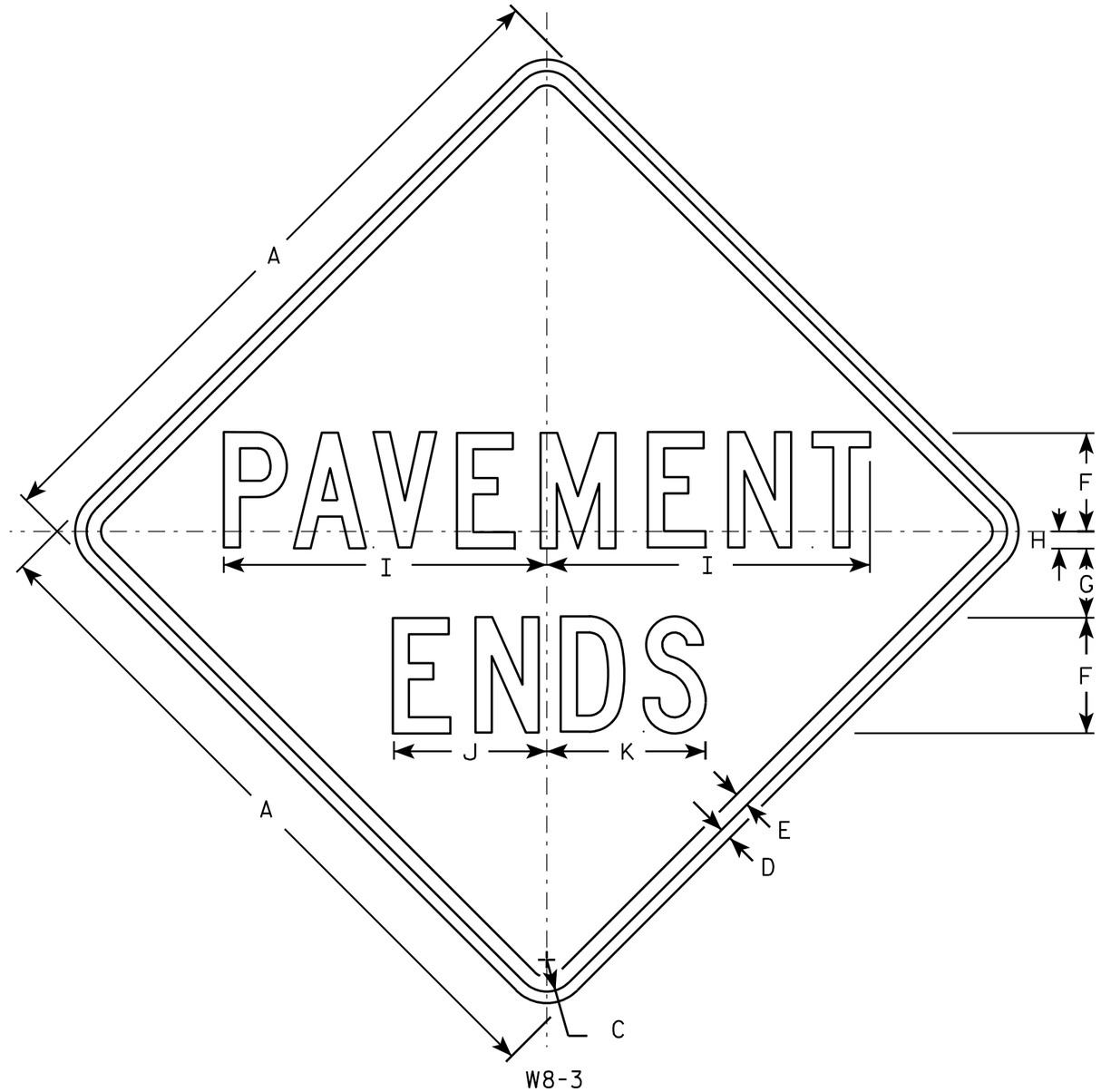
STANDARD SIGN
W57-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W57-52.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 508	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	3	3/4	14	6 5/8	6 7/8																6.25
2S	36		1 5/8	5/8	3/4	6	3 1/2	1	16 3/4	7 7/8	8 1/4																9.0
2M	36		1 5/8	5/8	3/4	6	3 1/2	1	16 3/4	7 7/8	8 1/4																9.0
3	36		1 5/8	5/8	3/4	6	3 1/2	1	16 3/4	7 7/8	8 1/4																9.0
4	36		1 5/8	5/8	3/4	6	3 1/2	1	16 3/4	7 7/8	8 1/4																9.0
5																											

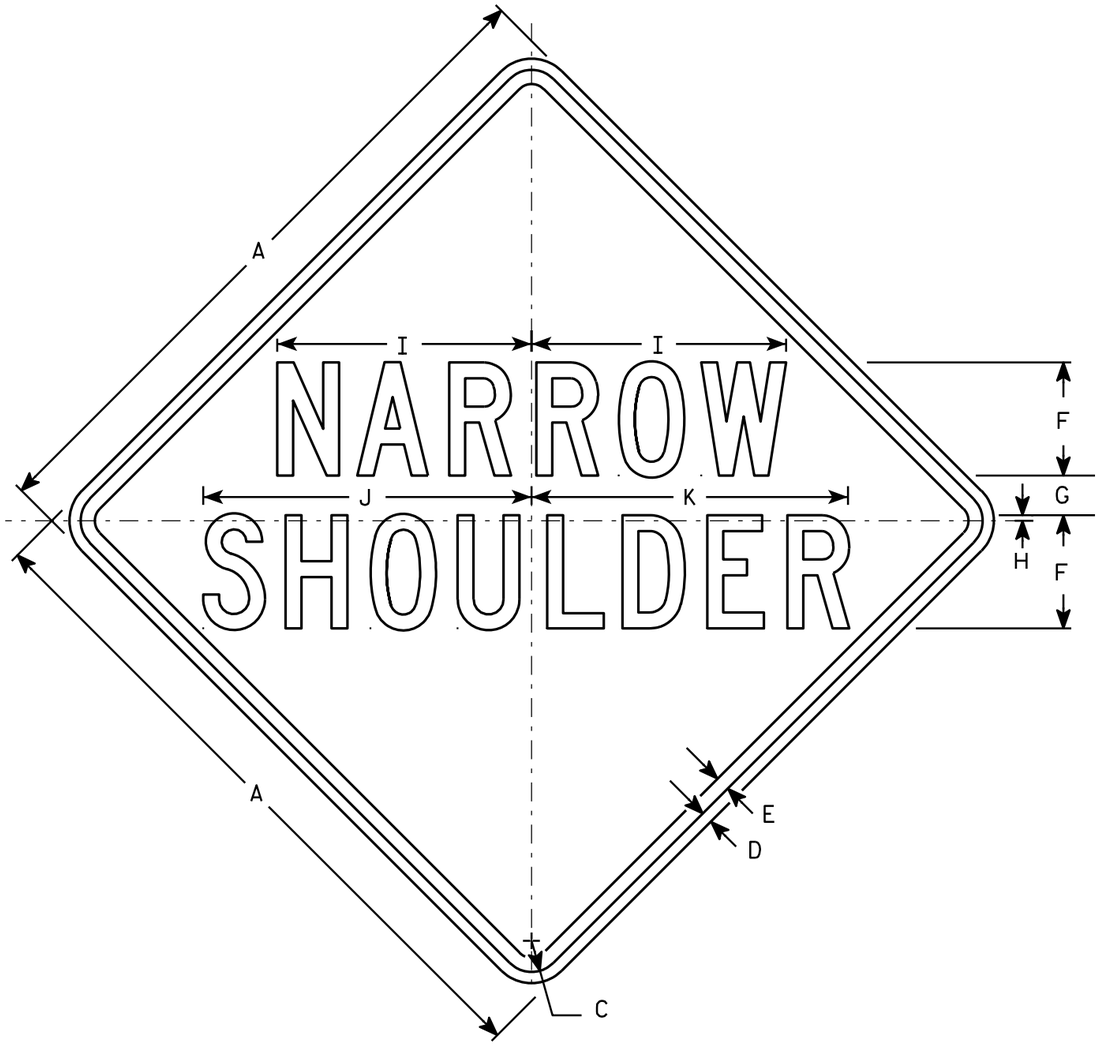
STANDARD SIGN
W8-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-3.8

PROJECT NO:	HWY:	COUNTY:			SHEET NO: 509	E



W8-57

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	3/8	4	1 3/8	1/4	9	11 5/8	11																4.0
2S	30		1 3/8	1/2	5/8	5	1 3/4	1/4	11 1/4	14 1/2	14																6.25
2M	36		1 5/8	5/8	3/4	6	2	3/8	13 1/2	17 1/2	16 3/4																9.0
3	36		1 5/8	5/8	3/4	6	2	3/8	13 1/2	17 1/2	16 3/4																9.0
4																											
5																											

STANDARD SIGN
W8-57

WISCONSIN DEPT OF TRANSPORTATION

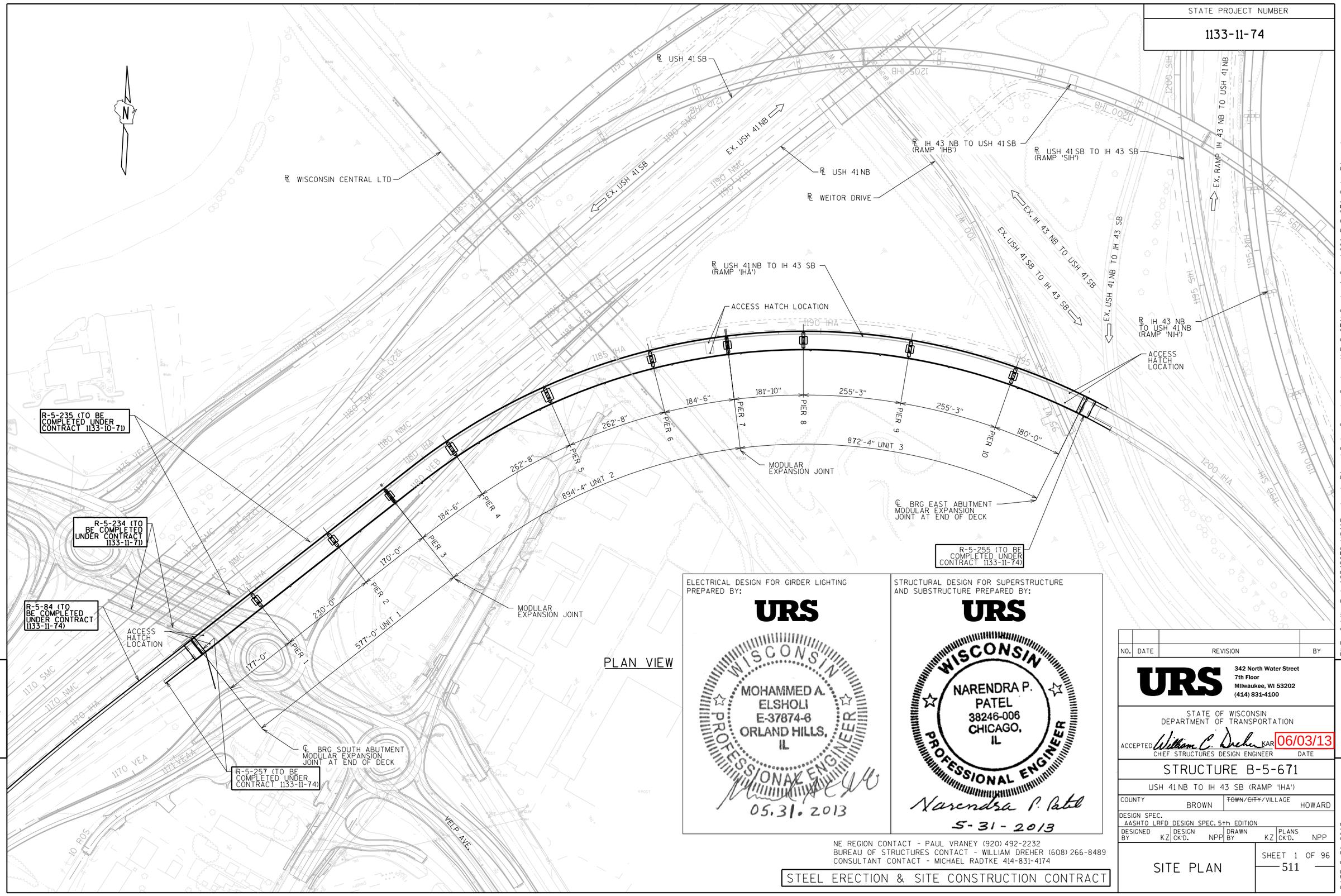
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-57.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 510	E

STATE PROJECT NUMBER

1133-11-74



PLAN VIEW

ELECTRICAL DESIGN FOR GIRDER LIGHTING PREPARED BY:

URS

WISCONSIN
MOHAMMED A. ELSHOLI
E-37874-6
ORLAND HILLS, IL
PROFESSIONAL ENGINEER

05.31.2013

STRUCTURAL DESIGN FOR SUPERSTRUCTURE AND SUBSTRUCTURE PREPARED BY:

URS

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

5-31-2013

NE REGION CONTACT - PAUL VRANEY (920) 492-2232
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL RADTKE 414-831-4174

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 06/03/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-671

USH 41 NB TO IH 43 SB (RAMP 'IHA')

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KZ	NPP	KZ	NPP

SITE PLAN

SHEET 1 OF 96
511

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\001 B-5-671 Site Plan.dgn

DATE: 5/31/2013

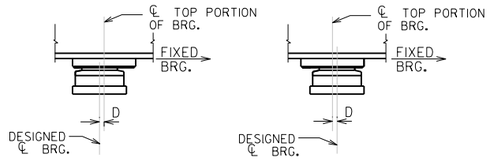
I.D.

8

8

DRAWINGS LIST

1 SITE PLAN
2 DRAWING LIST AND GENERAL NOTES
3 GENERAL PLAN AND ELEVATION - SPANS 1-3
4 GENERAL PLAN AND ELEVATION - SPANS 4-6
5 GENERAL PLAN AND ELEVATION - SPANS 7-9
6 GENERAL PLAN AND ELEVATION - SPANS 10-11
7 CROSS SECTION AT PIERS
8 QUANTITIES
9 ALIGNMENT LAYOUT & SUPERELEVATION
10 SUBSURFACE EXPLORATION-1 SPANS 1-5
11 SUBSURFACE EXPLORATION-2 SPANS 6-11
12 CONSTRUCTION STAGING NOTES
13 STAGE CONSTRUCTION SPANS 1-3
14 STAGE CONSTRUCTION SPANS 4-7
15 STAGE CONSTRUCTION SPANS 8-11
16 SOUTH ABUTMENT - PLAN AND ELEV.
17 SOUTH ABUTMENT - LAYOUT
18 SOUTH ABUTMENT - CROSS SECTION
19 SOUTH ABUTMENT BILL OF BARS AND BAR DETAILS
20 EAST ABUTMENT - PLAN AND ELEV.
21 EAST ABUTMENT - LAYOUT
22 EAST ABUTMENT - CROSS SECTION
23 EAST ABUTMENT BILL OF BARS AND BAR DETAILS
24 PIERS 1 & 2 LAYOUT DETAILS
25 PIER 3 LAYOUT DETAILS
26 PIER 4 LAYOUT DETAILS
27 PIER 5 LAYOUT DETAILS
28 PIERS 6 & 7 LAYOUT DETAILS
29 PIER 8 LAYOUT DETAILS
30 PIER 9 LAYOUT DETAILS
31 PIER 10 LAYOUT DETAILS
32 PIER CAP DETAILS - PIERS 1 & 2
33 PIER CAP SECTIONS PIERS 1 & 2
34 PIER CAP DETAILS - PIER 3
35 PIER CAP SECTIONS PIER 3
36 PIER CAP DETAILS - PIERS 4-6, 8-10
37 PIER CAP SECTIONS - PIERS 4-6, 8-10
38 PIER CAP DETAILS - PIER 7
39 PIER CAP SECTIONS- PIER 7
40 BILL OF BARS - PIER CAPS
41 SHAFT DETAILS - PIERS 1 & 2
42 SHAFT DETAILS - PIERS 3 & 4
43 SHAFT DETAILS - PIER 10
44 SHAFT DETAILS - PIERS 5 & 9
45 SHAFT DETAILS - PIERS 6 & 7
46 SHAFT DETAILS - PIER 8
47 BILL OF BARS - PIER SHAFT
48 PIER FOOTING DETAILS PIERS 1-4, 7-10
49 PIER FOOTING DETAILS PIERS 5 & 6
50 BEARING PEDESTAL DETAILS 1
51 BEARING PEDESTAL DETAILS 2
52 DECK REINFORCEMENT PLAN - UNIT 1
53 DECK REINFORCEMENT PLAN- UNIT 2
54 DECK REINFORCEMENT PLAN - UNIT 3
55 TYPICAL DECK REINFORCEMENT CROSS SECTION
56 SUPERSTRUCTURE BILL OF BARS
57 TOP OF DECK ELEVATIONS SPANS 1-3 - UNIT 1
58 TOP OF DECK ELEVATIONS SPANS 4-7- UNIT 2
59 TOP OF DECK ELEVATIONS SPANS 8-11-UNIT 3
60 SLOPED FACE PARAPET '32SS'-SOUTH ABUTMENT
61 SLOPED FACE PARAPET '32SS'-EAST ABUTMENT
62 SLOPED FACE PARAPET '42SS'-SOUTH ABUTMENT
63 SLOPED FACE PARAPET '42SS'-EAST ABUTMENT
64 APPROACH APRON DETAILS - SOUTH ABUTMENT
65 APPROACH APRON DETAILS - EAST ABUTMENT
66 MODULAR EXPANSION JOINT - SOUTH & EAST ABUTMENT
67 MODULAR EXPANSION JOINT - PIERS 3 & 7
68 EXPANSION JOINT COVER PLATES
69 EXPANSION JOINT DETAILS
70 REINFORCING AT EXPANSION JOINT
71 LIGHT STANDARD
72 PARAPET '32SS' ELECTRICAL WORK
73 ELECTRICAL SITE PLAN
74 GIRDER LIGHTING PLAN & ELEVATION UNIT 1 - SPAN 1
75 GIRDER LIGHTING PLAN & ELEVATION UNIT 1 - SPAN 2
76 GIRDER LIGHTING PLAN & ELEVATION UNIT 1 - SPAN 3
77 GIRDER LIGHTING PLAN & ELEVATION UNIT 2 - SPAN 4
78 GIRDER LIGHTING PLAN & ELEVATION UNIT 2 - SPAN 5
79 GIRDER LIGHTING PLAN & ELEVATION UNIT 2 - SPAN 6
80 GIRDER LIGHTING PLAN & ELEVATION UNIT 2 - SPAN 7
81 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 8
82 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 9
83 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 10
84 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 11
85 ELECTRICAL DETAIL 1
86 ELECTRICAL DETAIL 2
87 ELECTRICAL DETAIL 3 - CROSS-SECTION AT PIER
88 AESTHETIC DETAILS
89 FLOOR DRAIN TYPE 'GC'
90 FLOOR DRAIN DETAILS - 1
91 FLOOR DRAIN DETAILS - 2
92 STANDPIPE SYSTEM DETAILS
93 SUPERSTRUCTURE DECK FORM DETAILS
94 DECK POUR SEQUENCE UNIT 1
95 DECK POUR SEQUENCE UNIT 2
96 DECK POUR SEQUENCE UNIT 3



BELOW 60° F.
(MOVE TOP PORTION OF BRG. TOWARD FIXED BRG.)

ABOVE 60° F.
(MOVE TOP PORTION OF BRG. AWAY FROM FIXED BRG.)

SETTING EXP. BRG.

LOCATION	EXPANSION LENGTH FEET	"D" DIMENSION FOR EVERY 10° F. CHANGE FROM 60° F.
S. ABUTMENT	177.00	1/8"
PIER 1	0.00	0"
PIER 2	230.00	3/16"
PIER 3	398.17	5/16"
UNIT 1 PIER 3	445.34	3/8"
UNIT 2 PIER 4	262.67	3/16"
PIER 5	0.00	0"
PIER 6	262.67	3/16"
PIER 7	445.34	3/8"
UNIT 2 PIER 7	435.25	3/8"
UNIT 3 PIER 8	255.25	3/16"
PIER 9	0.00	0"
PIER 10	255.25	3/16"
E. ABUTMENT	435.25	3/8"

GENERAL NOTES

THIS CONTRACT INCLUDES ERECTING STRUCTURAL STEEL AND BEARINGS AND FURNISHING AND CONSTRUCTING/INSTALLING EXPANSION DEVICES, SHEAR STUD CONNECTORS, LIGHTING SYSTEMS, CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURES, INCLUDING FOUNDATIONS AND AESTHETICS, AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

"STEEL FABRICATION CONTRACT" PLANS ARE ATTACHED TO THESE "STEEL ERECTION AND SITE CONSTRUCTION CONTRACT" PLANS FOR REFERENCE. USE FOR ERECTION AND INSTALLATION OF STEEL GIRDERS AND BEARINGS UNDER THIS CONTRACT.

SHOP DRAWINGS ARE AVAILABLE UPON REQUEST FOR BIDDERS TO REVIEW.

AFTER STRUCTURE SHOP ASSEMBLY AND DISASSEMBLY, ANY ELEMENTS NOT INSTALLED BY THE CONTRACTOR OF THE FABRICATION CONTRACT ARE TO BE INSTALLED BY THE CONTRACTOR OF THIS ERECTION AND CONSTRUCTION CONTRACT.

DRAWINGS SHALL NOT BE SCALED

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (1991).

GENERAL NOTES (CONT.)

GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS "LEFT" AND "RIGHT". THESE ORIENTATIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING IN THE DIRECTION OF INCREASING STATION.

SEE SECTION 1 OF ROADWAY SPECIFICATIONS FOR FURTHER REQUIREMENTS FOR USING EXISTING STRUCTURES DURING CONSTRUCTION.

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III, OR M213.

STAY-IN-PLACE METAL DECK FORMS ARE PERMITTED INSIDE BOX GIRDERS ONLY. STAY-IN-PLACE METAL DECK FORMS ARE CONSIDERED INCIDENTAL TO THE COST OF "HPC MASONRY STRUCTURES".

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF THE DECK, INSIDE OF PARAPETS, AND TOP OF PARAPETS.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

DESIGN LIVE LOADS

DESIGN LOADING: HL-93

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

INVENTORY RATING FACTOR: RF = 1.12

OPERATING RATING FACTOR: RF = 1.45

OTHER DESIGN LOADS

PROFILE GRADE LINE AND TOP OF DECK ELEVATIONS ARE TO THE TOP OF THE 10" DECK THICKNESS. THE DECK THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE, BUT DOES NOT INCLUDE AN ADDITIONAL POLYMER OVERLAY THAT WILL BE PROVIDED AFTER POURING OF THE DECK.

THE STRUCTURE IS DESIGNED FOR THE WEIGHT OF THE DECK THICKNESS OF CONCRETE PLUS 3/8" THICKNESS OF POLYMER OVERLAY. UNIT WEIGHTS ASSUMED FOR DESIGN WERE 150 PCF FOR CONCRETE AND 3 PSF FOR 3/8" POLYMER OVERLAY.

TEMPERATURE CHANGE 90 DEGREE °F FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

DESIGN ASSUMED A WEIGHT PER GIRDER OF 10 PSF FOR STAY-IN-PLACE METAL DECK FORMS INSIDE EACH GIRDER ONLY AND 13.5 PSF FOR CONCRETE WITHIN THE RIBS OF THESE FORMS.

DESIGN ASSUMED 7.5 PSF FOR TEMPORARY FORMWORK IN ADDITION TO STAY-IN-PLACE METAL DECK FORMS.

PARAPETS WERE ASSUMED TO WEIGH 563 PLF AND 464 PLF FOR 42SS AND 32SS SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

EXCAVATION AND BACKFILL

THE FINISHED GRADE LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

FOR PIER EXCAVATIONS IN WETLAND AREAS PROVIDE COFFERDAMS OR OTHER MEANS TO ADHERE TO 404 PERMIT REQUIREMENTS. SEE SPECIFICATIONS FOR 404 PERMIT REQUIREMENTS. THE COST OF SELECTED EXCAVATION METHOD IS CONSIDERED INCLUDED IN THE PRICE OF BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-5-671"

STRUCTURAL STEEL

FABRICATED STRUCTURAL STEEL AND BEARINGS ARE FURNISHED BY OTHERS UNDER A SEPARATE CONTRACT. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE PRIOR TO WHEN THESE MATERIALS ARE REQUIRED ON SITE.

THE COST OF INSTALLING BEARINGS, ACCESS HATCHES, AND ERECTING STRUCTURAL STEEL ARE INCLUDED IN THE BID ITEM "ERECTING STRUCTURAL STEEL B-05-671."

A TECHNICAL REPRESENTATIVE FROM THE BEARING MANUFACTURER MUST BE PRESENT DURING INSTALLATION OF THE FIRST BEARING. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE OF THE SPECIFIC DAY THE BEARING MANUFACTURER REPRESENTATIVE NEEDS TO BE ON SITE. PAYMENT FOR THIS WORK IS MADE UNDER THE STEEL FABRICATION CONTRACT 1133-11-71.

THE CONTRACTOR IS RESPONSIBLE NOT TO OVER-ROTATE BEARING ASSEMBLIES. DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

THE CONTRACTOR MUST COORDINATE WITH THE BEARING MANUFACTURER REGARDING FINAL DIMENSIONS AND DETAILS OF MASONRY PLATES AND ANCHOR RODS. NO ADDITIONAL PAYMENT WILL BE MADE DUE TO ANY CHANGES IN THE SUPPLIED BEARINGS AND AS SHOWN ON CONTRACT 1133-11-71.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2" OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

TEMPORARY SUPPORTS AND FALSEWORK (INCLUDING DECK OVERHANG BRACKETS) SHALL NOT BE ATTACHED TO OR BEAR ON GIRDER WEBS EXCEPT AT WEB STIFFENER LOCATIONS.

DESIGN THE CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS (OPTIONAL FORMS) AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED.

TOP OF STAY-IN-PLACE METAL FORMS SHALL BE ALIGNED WITH THE UNDERSIDE OF THE DECK SLAB AS SHOWN ON THE SUPERSTRUCTURE DETAILS SHEET.

REINFORCING STEEL

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

REINFORCING STEEL SHALL BE HIGH STRENGTH, GRADE 60 WITH FY=60 KSI. PROVIDE STAINLESS STEEL REINFORCEMENT CONFORMING TO ASTM A955, GRADE 60 REQUIREMENTS.

REINFORCING STEEL SHALL BE UNCOATED IN FOUNDATIONS (EXCEPT PIER SHAFT DOWELS) AND EPOXY COATED IN ALL OTHER LOCATIONS (INCLUDING PIER SHAFT DOWELS).

PLACE ALL REINFORCEMENT WITH A MINIMUM CLEAR COVER OF 2" UNLESS NOTED OTHERWISE.

PLACE REINFORCEMENT IN FOOTINGS AND PILECAPS WITH A MINIMUM CLEAR COVER OF 3" BOTTOM AND 2" TOP AND SIDES UNLESS NOTED OTHERWISE.

PLACE TOP LAYER OF REINFORCING STEEL IN THE DECK SURFACE WITH 2 1/2" CLEAR COVER TO TOP OF SLAB.

PLACE BOTTOM LAYER OF REINFORCING STEEL IN THE DECK WITH 1 1/2" CLEAR COVER TO BOTTOM OF SLAB.

ONLY REINFORCEMENT REQUIRED BY DESIGN IS SHOWN EXPLICITLY ON THE DRAWINGS. ADDITIONAL REINFORCEMENT MAY BE USED TO SIMPLIFY ASSEMBLY AND ERECTION OF THE REINFORCING STEEL AND MAY BE REQUIRED TO ENSURE STABILITY AND POSITIONING OF THE COMPLETED REINFORCEMENT CAGE. REINFORCEMENT IN ADDITION TO THAT SHOWN WILL NOT BE INCLUDED FOR PAYMENT.

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

1133-11-74

CONCRETE

CONCRETE QUANTITY IN THE HAUNCHES IS CALCULATED BASED ON AN ASSUMED CONSTANT DEPTH OF 4" MEASURED FROM TOP OF WEB TO UNDERSIDE OF SLAB (EXCLUDING THE VOLUME TAKEN UP BY THE TOP FLANGE). THIS IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH PAYMENT WILL BE MADE.

CONCRETE QUANTITY IN THE STAY-IN-PLACE METAL DECK FORM RIBS IS CALCULATED BASED ON AN ASSUMED RIB HEIGHT OF 3", WIDTH OF 3" AND RIB ANGLE OF 45°. THIS IS THE MAXIMUM RIB QUANTITY FOR WHICH PAYMENT WILL BE MADE.

CHAMFER ALL EXPOSED OUTSIDE CORNERS 3/4" UNLESS NOTED OTHERWISE

ELECTRICAL DESIGN FOR GIRDER LIGHTING PREPARED BY:

URS

WISCONSIN
MOHAMMED A. ELSHOLI
E-37874-6
ORLAND HILLS, IL
PROFESSIONAL ENGINEER

05.31.2013

STRUCTURAL DESIGN FOR SUPERSTRUCTURE AND SUBSTRUCTURE PREPARED BY:

URS

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

Narendra P. Patel
5-31-2013

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

DRAWING LIST AND GENERAL NOTES

SHEET 2 OF 96
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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const.-Contract\B-5-671\Control Copy\002 B-5-671 - Drawing List and General Notes.dgn

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I.D.

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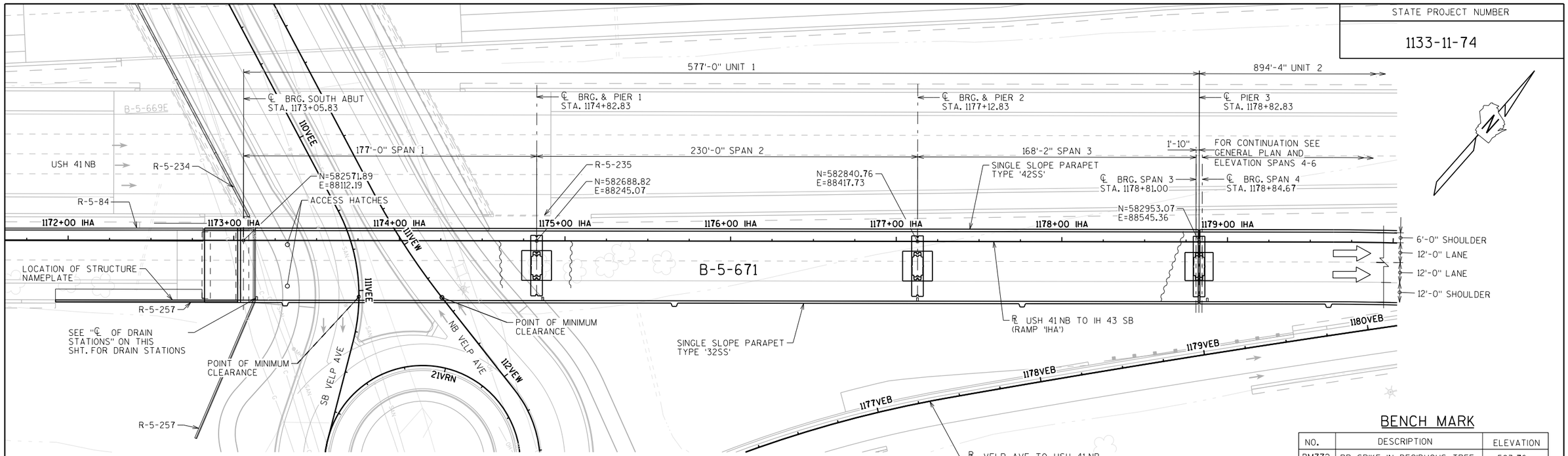
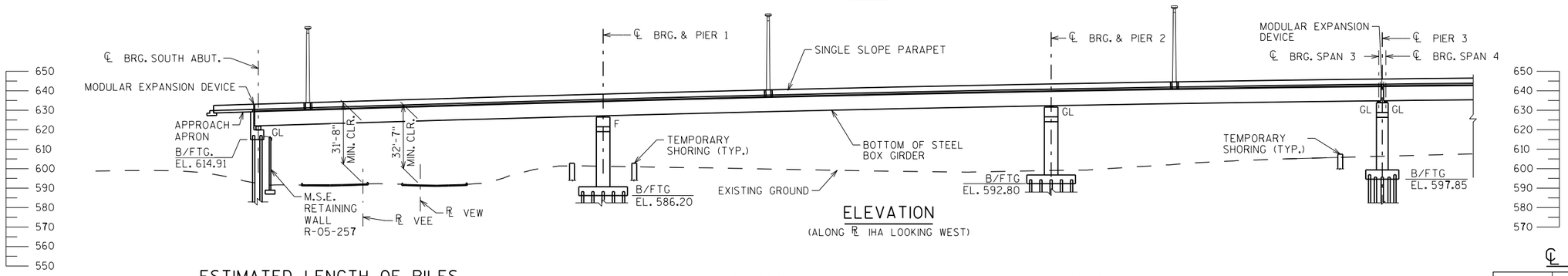
STATE PROJECT NUMBER

1133-11-74



PLAN



ELEVATION

(ALONG ℞ IHA LOOKING WEST)

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM772	RR SPIKE IN DECIDUOUS TREE	583.76

ESTIMATED LENGTH OF PILES

LOCATION	S. ABUT	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	PIER 9	PIER 10	E. ABUT.
ESTIMATED PILE LENGTH (FEET)	95	66	76	78	79	** 76	65	66	68	71	69	95
* MIN. PILE TIP EL. FOR UPLIFT	548.00	536.00	546.00	550.00	552.00	549.00	548.00	532.00	526.00	526.00	521.00	519.00

* HARD DRIVING MATERIAL SHOULD BE ANTICIPATED IN LAYERS SIGNIFICANTLY ABOVE MINIMUM TIP ELEVATION AT SOME LOCATIONS. IT IS RECOMMENDED THAT THE CONTRACTOR VERIFY THAT THE PILE DRIVING SYSTEM CAN ADVANCE PILES TO DEVELOP THE REQUIRED DRIVING RESISTANCE AND MINIMUM TIP ELEVATION WITHOUT DAMAGE TO THE PILE. DETAILED DRIVEABLITY ANALYSIS SHOULD BE PART OF CONTRACTOR VERIFICATION. IF MINIMUM TIP ELEVATION CANNOT BE ACHIEVED SEE ENGINEER.

** SEE NOTE ON SHEET PIER FOOTING DETAILS PIERS 5 & 6.

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB---------- f'c = 4,000 P.S.I.
ALL OTHER---------- f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60---------- fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL,---------- fy = 50,000 P.S.I.
(ASTM A709, GRADE 50, HPS50W)
STAINLESS STEEL REINFORCEMENT---------- fy = 60,000 P.S.I.
(ASTM A955, GRADE 60)

TRAFFIC VOLUME:

RAMP 'IHA'
ADT (2015) = 13,100
ADT (2035) = 10,000
R.D.S. = 60-70 M.P.H.

RAMP 'VEB'
ADT (2015) = 5,500
ADT (2035) = 5,600
R.D.S. = 60 M.P.H.

VELP AVE
ADT (2015 = 24,600
ADT (2035) = 35,300
R.D.S. = 40 M.P.H.

WEITOR DRIVE
ADT (2035) = 100
R.D.S. = 30 M.P.H.

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMALTO ℞ USH 41 NB.

DIMENSIONS SHOWN ARE ALONG ℞ USH 41 NB.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℞ USH 41 NB.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

GUIDED LONGITUDINAL BEARINGS ARE ORIENTED PARALLEL TO ℞ USH 41 NB.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

SEE SHEET TITLED REINFORCING AT EXPANSION JOINT FOR END OF THE DECK STATIONS.

SEE SHEET LIGHT STANDARD FOR LOCATIONS OF LIGHT POLE.

STRUCTURE TYPE

3-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 1
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 2
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 3

FOUNDATION DATA

SOUTH AND EAST ABUTMENTS TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS** PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. SEE TABLE ON THIS SHEET FOR ESTIMATED LENGTH OF PILE.

PIERS 1 THROUGH PIER 10 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS** PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. SEE TABLE ON THIS SHHET FOT ESTIMATED LENGTH OF PILE.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION IS FURTHER REDUCED BY DOWN DRAG FORCES AS FOLLOWS USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY:

FACTORED AXIAL RESISTANCE WITH DOWN DRAG

LOCATION	S. ABUT.	PIER 3	PIER 4	PIER 5 EXIST. PILES	PIER 5 NEW PILES
FACTORED AXIL RESISTANCE WITH DOWN DRAG IN KIPS	310	367	325	370	295

℄ OF DRAIN STATIONS

DRAINS	S. ABUT	PIER 1	PIER 2	PIER 3
TYPE	GC	GC	GC	GC
STATIONS	1173+13.83	1174+86.58	1177+12.83	1178+89.67

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 1-3

SHEET 3 OF 96
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DATE: 5/31/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\003 B-05-671 General Plan and Elevation - Spans 1-3.dgn

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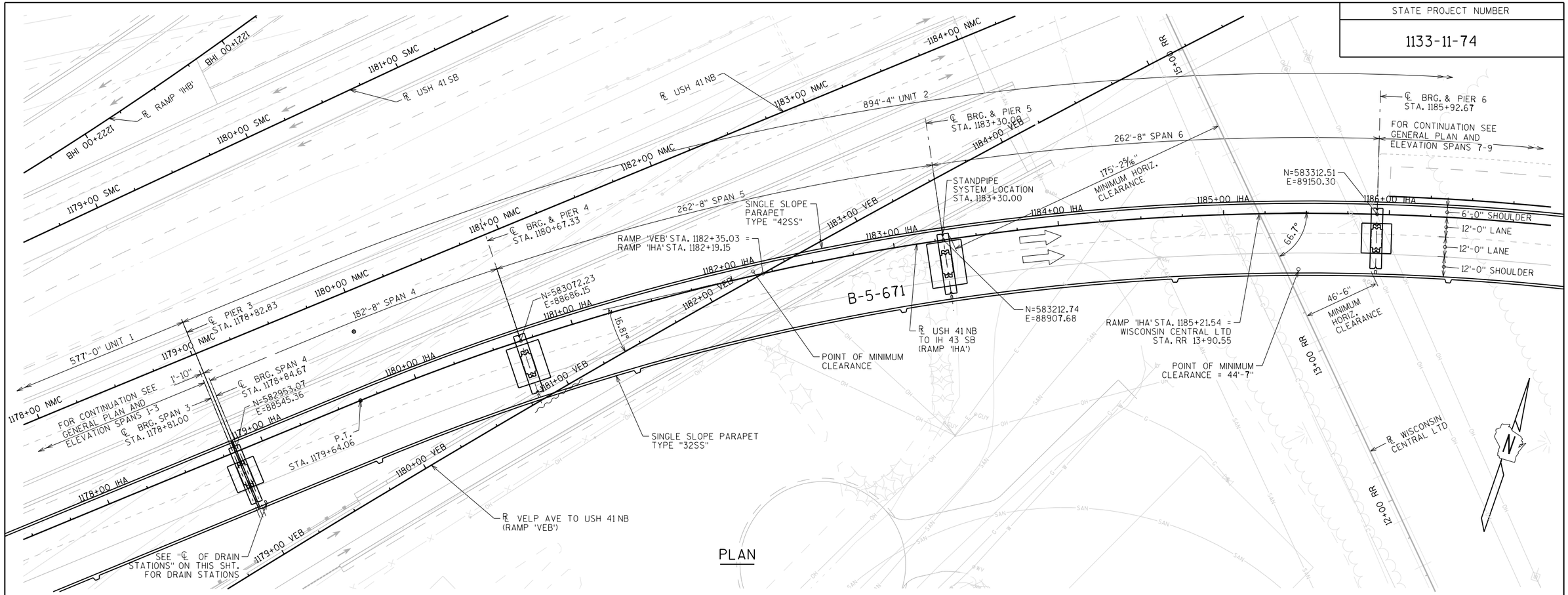
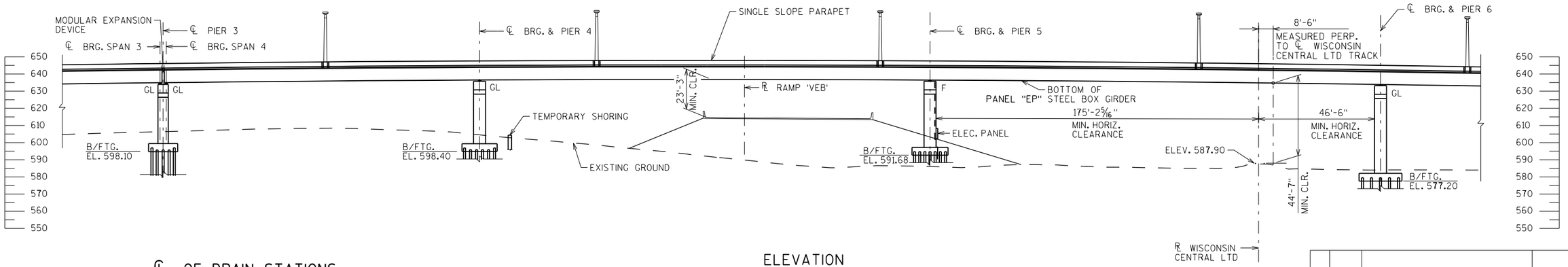
STATE PROJECT NUMBER
1133-11-74



PLAN



ELEVATION

(ALONG ℄ IHA LOOKING NORTH)

℄ OF DRAIN STATIONS

SUBSTRUCTURE	PIER 3	PIER 4	PIER 5	PIER 6
TYPE	GC	GC	GC	GC
STATIONS	1178+89.67	1180+67.33	1183+30.00	1185+92.66

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

NOTES:

FOR NOTES SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-3"

SEE SHEET TITLED STANDPIPE SYSTEM DETAILS FOR DETAILS OF STANDPIPE SYSTEM.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 4-6

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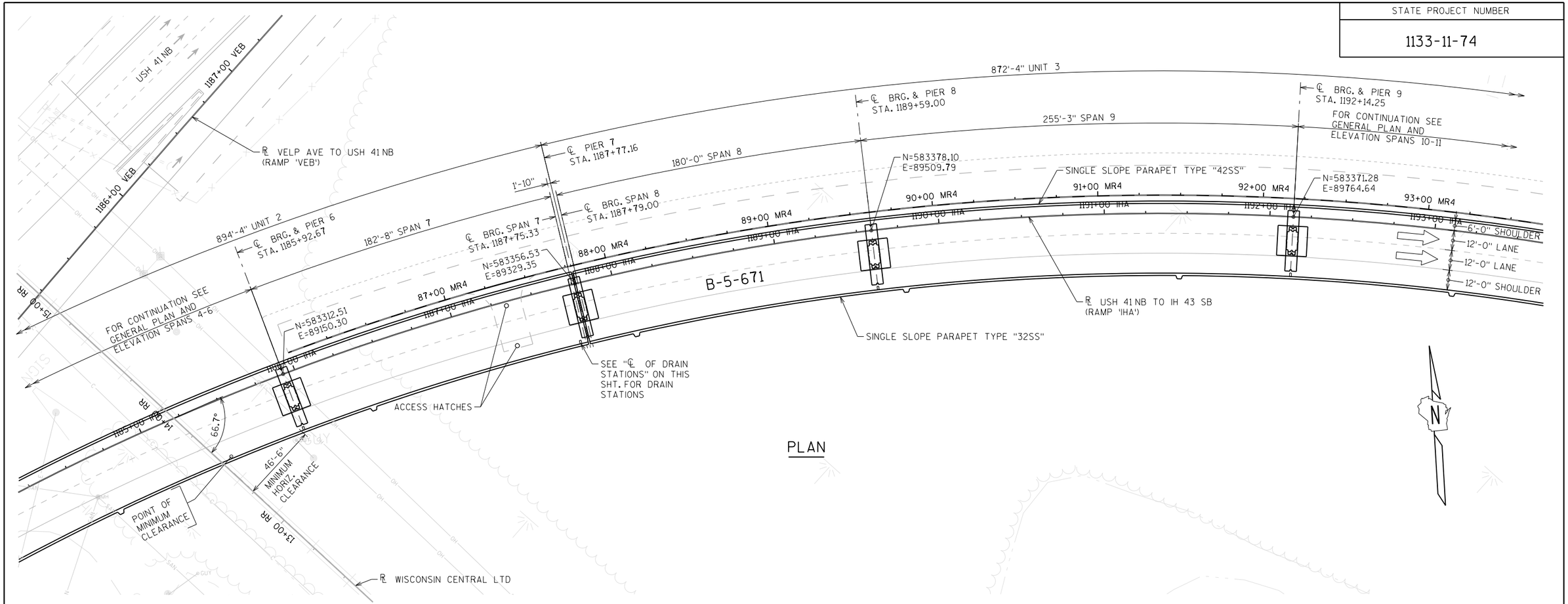
I.D.

STATE PROJECT NUMBER
1133-11-74



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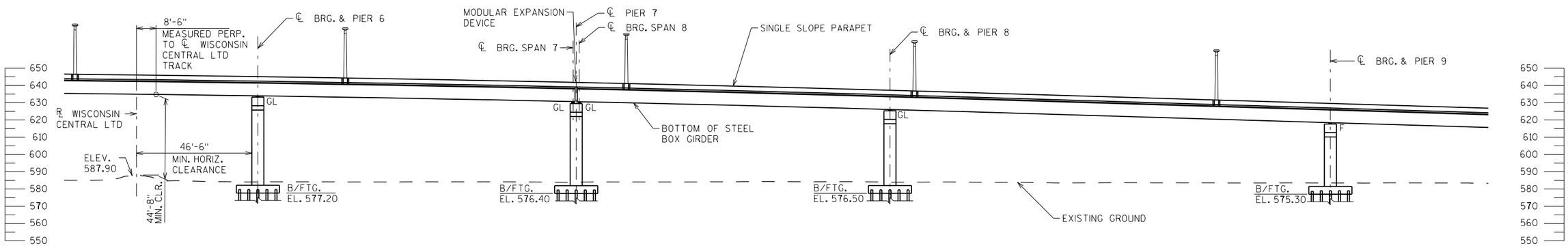

ELEVATION

(ALONG ℄ IHA LOOKING NORTH)

℄ OF DRAIN STATIONS

SUBSTRUCTURE	PIER 6	PIER 7	PIER 8	PIER 9
TYPE	GC	GC	GC	GC
STATIONS	1185+92.66	1187+70.33	1189+59.00	1192+14.25

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

NOTES:

FOR NOTES SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GENERAL PLAN AND ELEVATION SPANS 7-9

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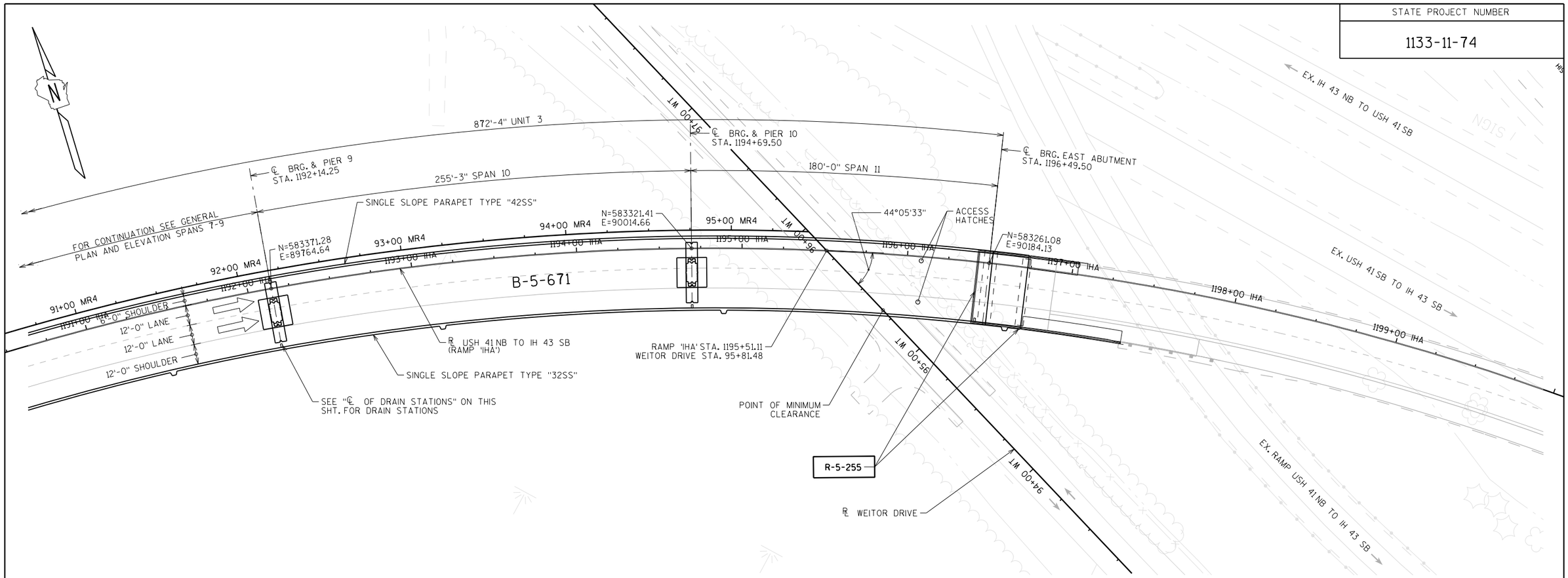
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



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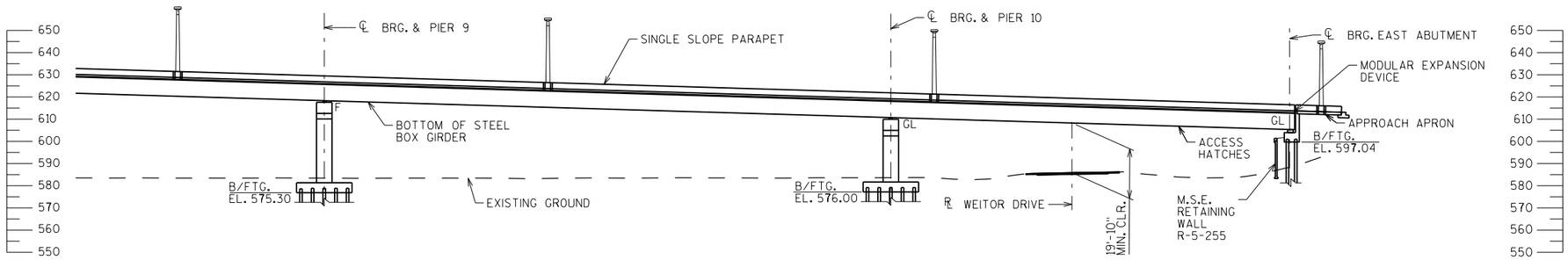

ELEVATION

(ALONG ℄ IHA LOOKING NORTH)

℄ OF DRAIN STATIONS

SUBSTRUCTURE	PIER 9	PIER 10	W. ABUT.
TYPE	GC	GC	GC
STATIONS	1192+14.25	1194+69.50	1196+44.50

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

NOTES:

FOR NOTES SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GENERAL PLAN AND ELEVATION SPANS 10-11

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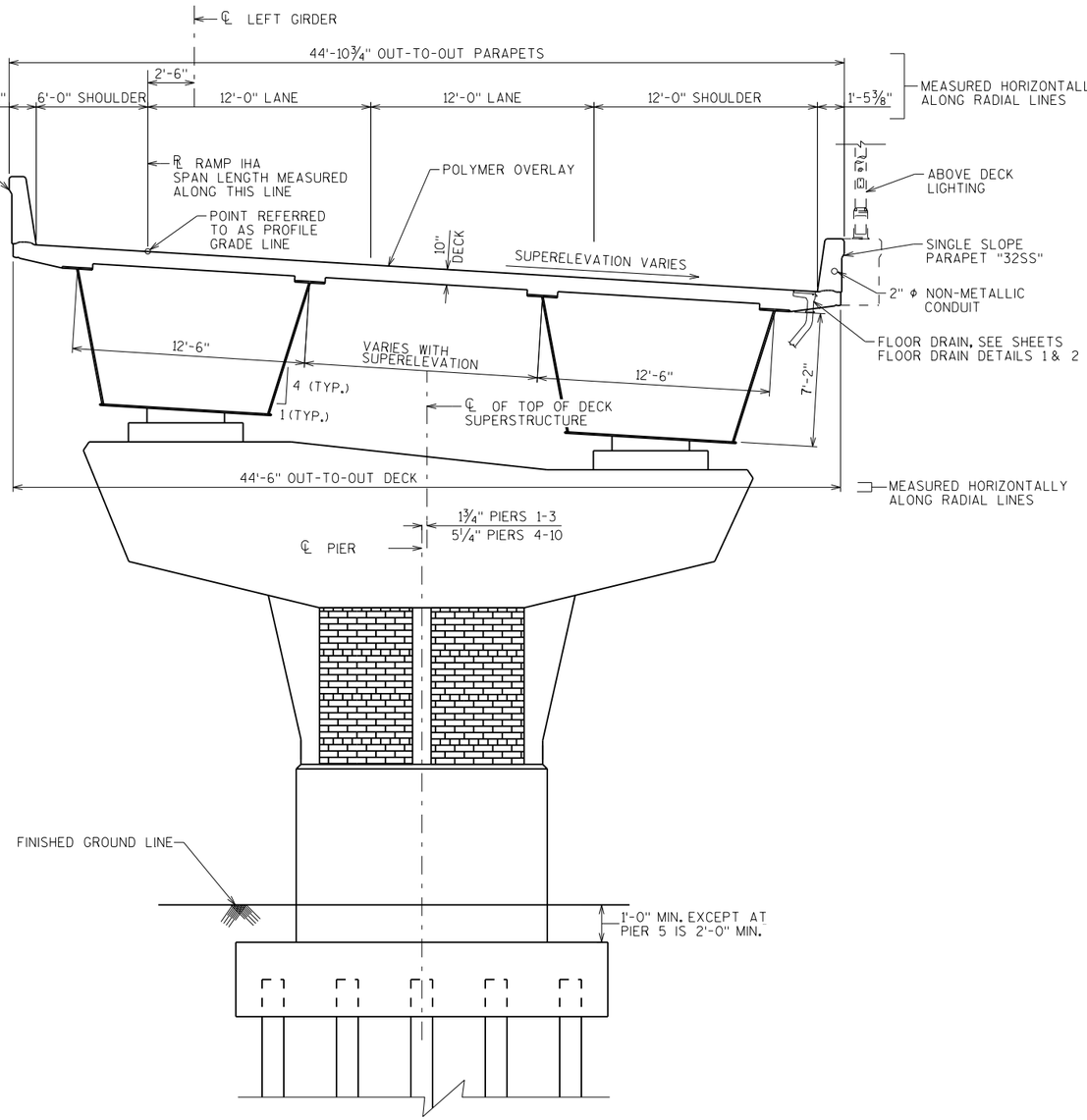
1133-11-74



TYPICAL CROSS SECTION

(LOOKING AHEAD STATION)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR STANDARDS FOR FLYOVER STRUCTURES, AND SEE SHEET TITLED "AESTHETIC DETAILS" FOR DETAILS

STEEL GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

THEORETICAL HAUNCH HEIGHT FOR STEEL TUB GIRDERS IS CONSTANT AT 4" FROM BOTTOM OF SLAB TO BOTTOM OF TOP FLANGE

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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CROSS SECTION AT PIERS

SHEET 7 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE:5/31/2013
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STATE PROJECT NUMBER
1133-11-74

TOTAL ESTIMATED QUANTITIES

						UNIT 1		UNIT 2		UNIT 3				
	BID ITEM #	BID ITEM	UNIT	S. APPR. APRON	S. ABUT.	SUPER. SPANS 1-3	PIERS 1-3	SUPER. SPANS 4-7	PIERS 4-7	SUPER. SPANS 8-11	PIERS 8-10	E. ABUT	E. APPR. APRON	TOTAL
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-5-671	LS	-	-	-	-	-	-	-	-	-	-	1
	206.6000.S	TEMPORARY SHORING	SF		-	-	771	-	360	-	-	-	-	1,131
	210.0100	BACKFILL STRUCTURE	CY	-	307	-	542	-	940	-	642	332	-	2,762
	502.3110.S	EXPANSION DEVICE MODULAR B-5-671	LS	-	-	-	-	-	-	-	-	-	-	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	114	-	3286	-	5,034		4,037	-	-	116	12,587
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	-	4,900	-	16,690	-	37,536	-	20,687	4,690	-	84,502
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	11,018	3,161	250,778	104,410	389,292	159,438	378,183	113,265	3,072	11,301	1,423,919
**	506.3025	WELDED STUD SHEAR CONNECTORS 7/8 X 8-INCH	EACH	-	-	6,441	-	10,842	-	11,472	-	-	-	28,755
	514.0445	FLOOR DRAINS TYPE GC	EACH	-	-	3	-	5	-	4	-		-	12
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	15	-	-	-	-	-	-	15	-	30
	550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	-	1,329	-	6,080	-	10,970	-	6,670	1,329	-	26,378
	604.0400	SLOPE PAVING CONCRETE	SY	-	17	-	-	-	-	-	-	17	-	34
	606.0300	RIPRAP HEAVY	CY	-	3	-	7	-	10	-	7	3	-	30
	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	46	-	-	-	-	-	-	46	-	92
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	85	43	-	-	-	-	-	-	43	85	255
	645.0130	GEOTEXTILE FABRIC TYPE R	SY	-	-	-	27	-	36	-	27	-	-	90
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	20	-	-	-	-	-	-	-	-	20	40
	652.0135	CONDUIT RIGID METALLIC 3-INCH	LF	-	-	2,308	-	3,580	-	3,492	-	-	-	9,380
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF		-	578	-	875	-	853	-	-	-	2,306
	652.0240	CONDUIT RIGID NONMETALLIC SCHEDULE 40 4-INCH	LF	-	-	-	-	-	80	-	-	-	-	80
	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	-	-	3	-	5	-	6	-	-	-	14
	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	-	-	15,630	-	23,626	-	16,172	-	-	-	55,428
	655.0635	ELECTRICAL WIRE LIGHTING 2 AWG	LF	-	-	2,000	-	17,600	-	4,160	-	-	-	23,760
	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	-	-	3	-	5	-	6	-	-	-	14
	SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	64.2	94	1048.1	718.2	1602.7	1,162.3	1566.7	769.9	96	64	7,186
	SPV.0060.350	GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES	EACH	-	-	14	-	18	-	20	-	-	-	52
	SPV.0060.351	VAPOR PROOF L.E.D. LIGHT FIXTURE	EACH	-	-	38	-	56	-	56	-	-	-	150
	SPV.0060.352	JUNCTION BOXES STAINLESS STEEL 27X18X8-INCH	EACH	-	-	38	-	60	-	58	-	-	-	156
	SPV.0060.353	JUNCTION BOXES STAINLESS STEEL 27X24X12-INCH	EACH	-	-	_	2	-	4	-	2	-	-	8
	SPV.0060.700	STANDPIPE SYSTEM	EACH	-	-	-	-	1	-	-	-	-	-	1
	SPV.0060.701	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	-	3	-	12	-	16	-	12	3	-	46
	SPV.0060.702	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	-	3	-	12	-	16	-	12	3	-	46
	SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	-	771	-	-	-	-	-	-	771	-	1,542
	SPV.0090.350	CONDUIT RIGID METALLIC PVC COATED 4-INCH	LF	-	-	-	0	-	50	-	0	-	-	50
	SPV.0090.702	DOWNSPOUT RTRP 6-INCH	LF	-	47	-	173	-	239	-	172	35	-	665
	SPV.0105.350	ELECTRICAL SERVICE INSTALLATION B-5-671	LS	-	-	-	-	-	1	-	-	-	-	1
	SPV.0105.700	ERECTING STRUCTURAL STEEL B-5-671	LS	-	-	-	-	-	-	-	-	-	-	1
	SPV.0105.704	FIELD PAINTING STRUCTURAL STEEL B-5-671	LS	-	-	-	-	-	-		-			1
	SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	-	194	-	894	-	2,008	-	1,220	194	-	4,510
	SPV.0165.701	STAINING CONCRETE	SF	221	846	8574	5538	13,143	7,154	12,835	5,596	858	218	54,984
	SPV.0165.702	STAINING CONCRETE BRICK	SF	-	194	-	894	-	2,008	-	1,220	194	-	4,510
	SPV.0180.700	POLYMER OVERLAY	SY	93	-	2697	-	4,131	-	4,075	-	-	92	11,088

NOTE

** SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2" OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

QUANTITES

SHEET 8 OF 96
518

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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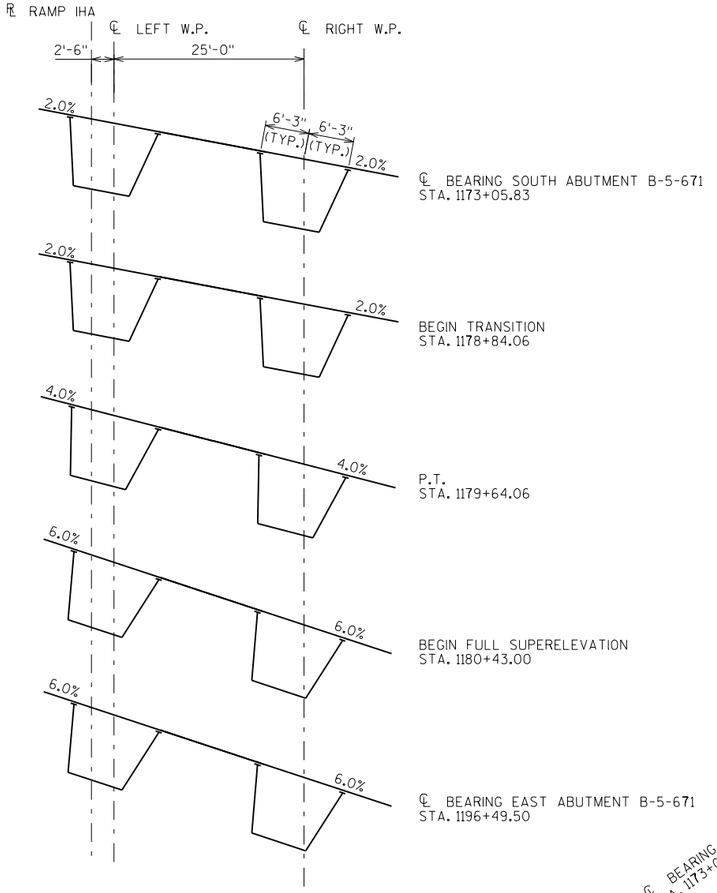
DATE: 5/31/2013
I.D.



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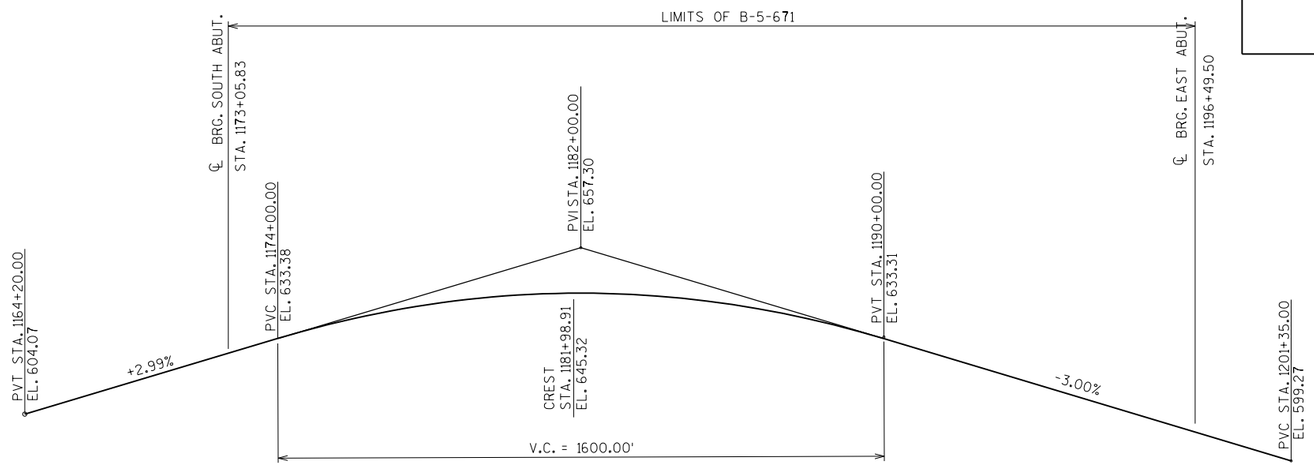
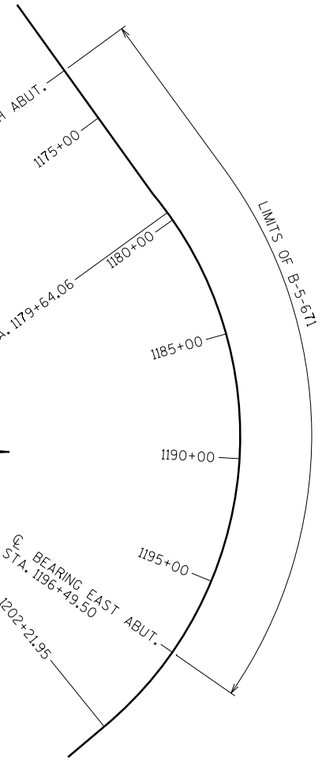


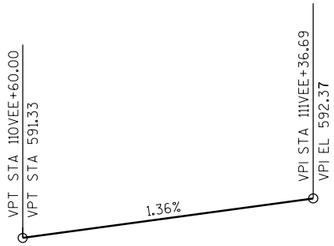
PROFILE GRADE LINE USH 41 NB TO IH 43 SB (RAMP 'IHA')



NB USH 41 TO
IH 43 SB (RAMP 'IHA')
HORIZONTAL
CURVE DATA

P.I. STA. = 1193+68.84
N= 583,934.76
E= 89,660.93
P.C. STA. = 1179+64.06
P.T. STA. = 1202+21.95
Δ= 86° 14' 42"
D= 3° 49' 11"
T= 1404.78'
L= 2257.89'
R= 1500.00'

HORIZONTAL ALIGNMENT USH 41 NB TO IH 43 SB (RAMP 'IHA')



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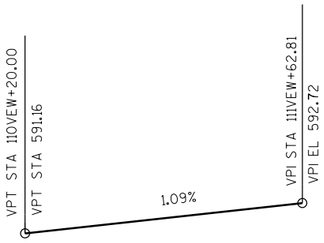

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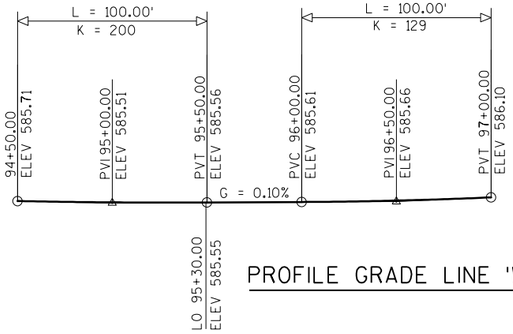

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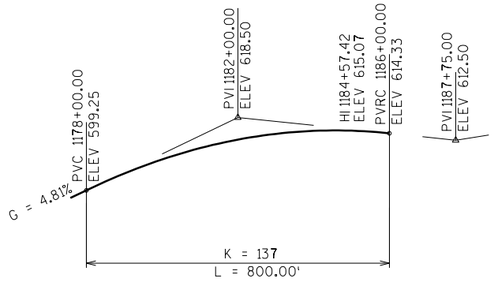
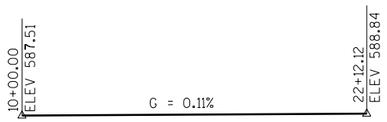


PROFILE GRADE LINE 'VEB'



PROFILE GRADE LINE 'RR'

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

ALIGNMENT LAYOUT AND SUPERELEVATION

SHEET 9 OF 96
519

STATE PROJECT NUMBER
1133-11-74

8

8

DATE: 5/31/2013
I.D.

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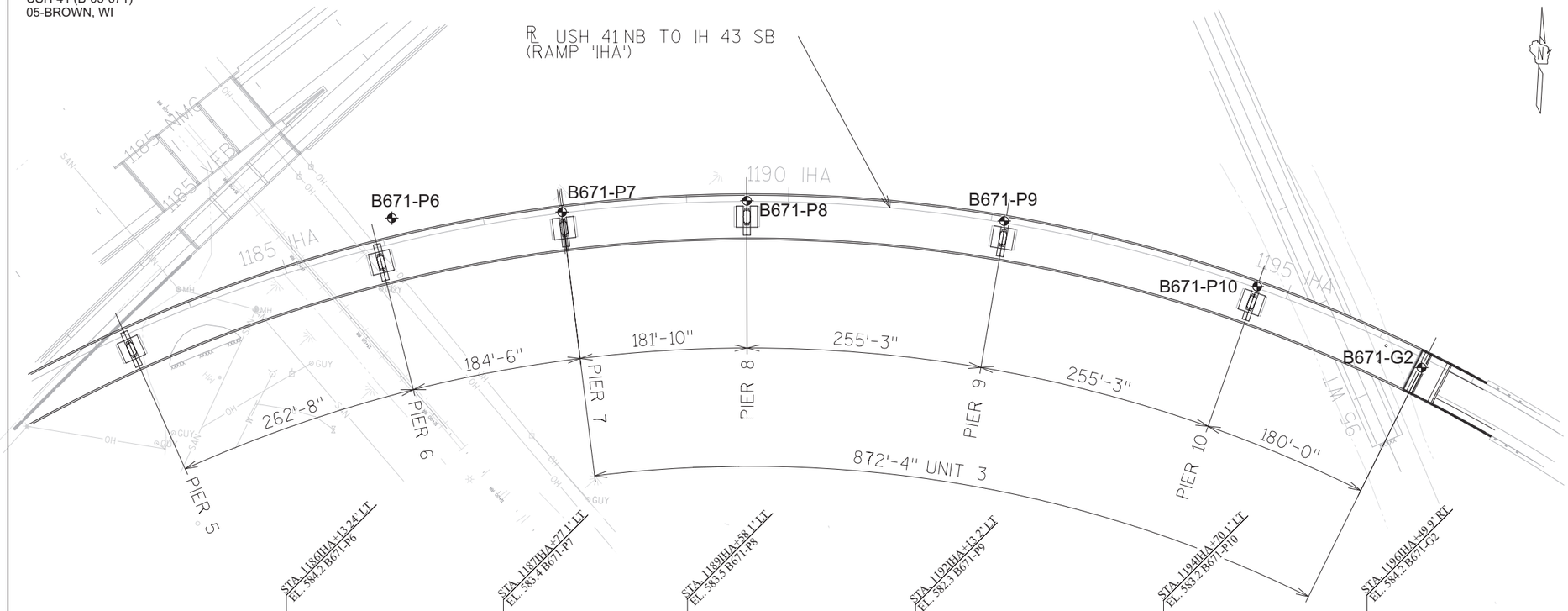
USH-41 (B-05-671)
05-BROWN, WI



NOTE: -WATER LEVEL DURING DRILLING -WATER LEVEL AT COMPLETION OF DRILLING

STATE PROJECT NUMBER

1133-11-74

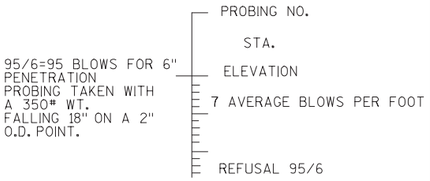
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

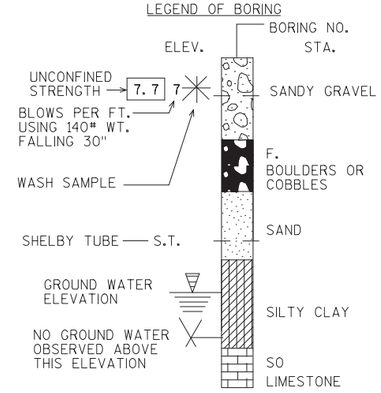
MATERIAL SYMBOLS

TOPSOIL, SILT, FAT CLAY, SAND, PEAT, DOLOMITE, GRAVEL, CLAY, FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY RE | PLANS CK'D. SHL

SUBSURFACE EXPLORATION

SHEET 10 OF 96

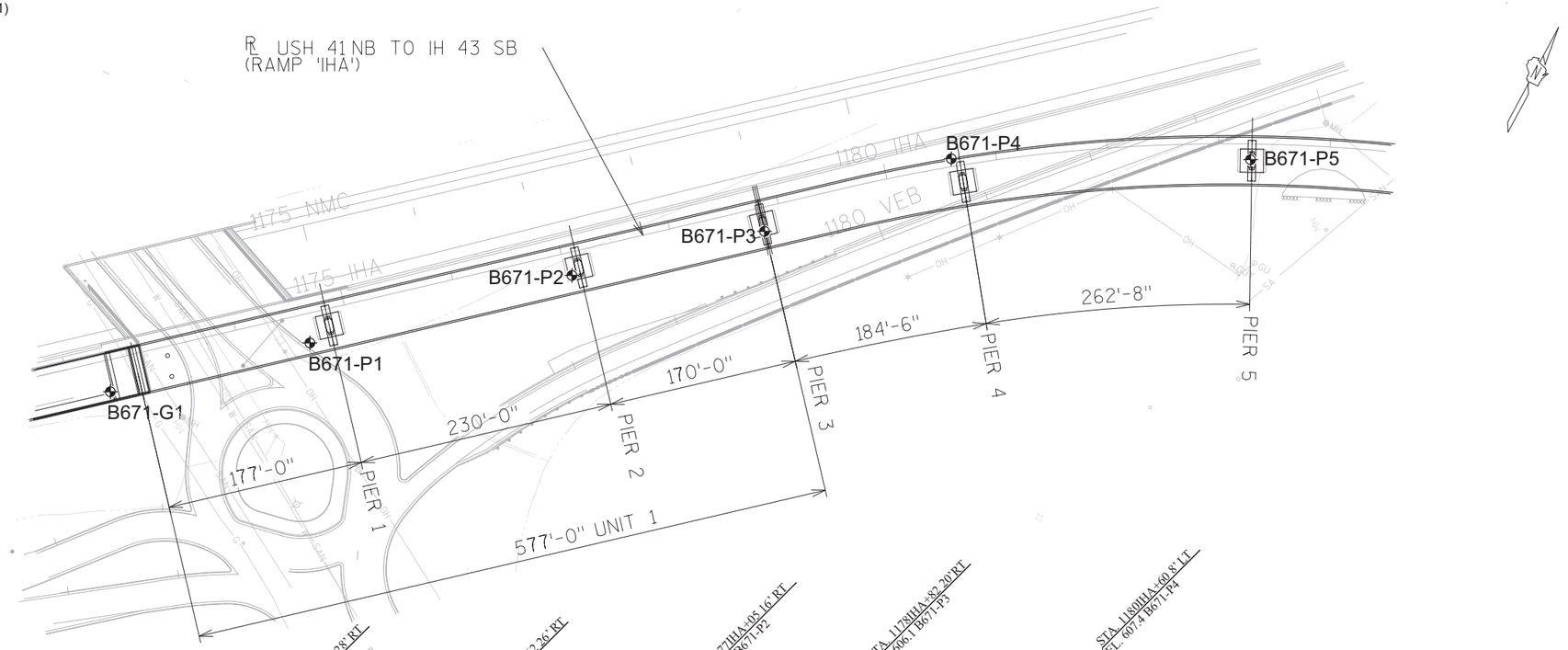
520

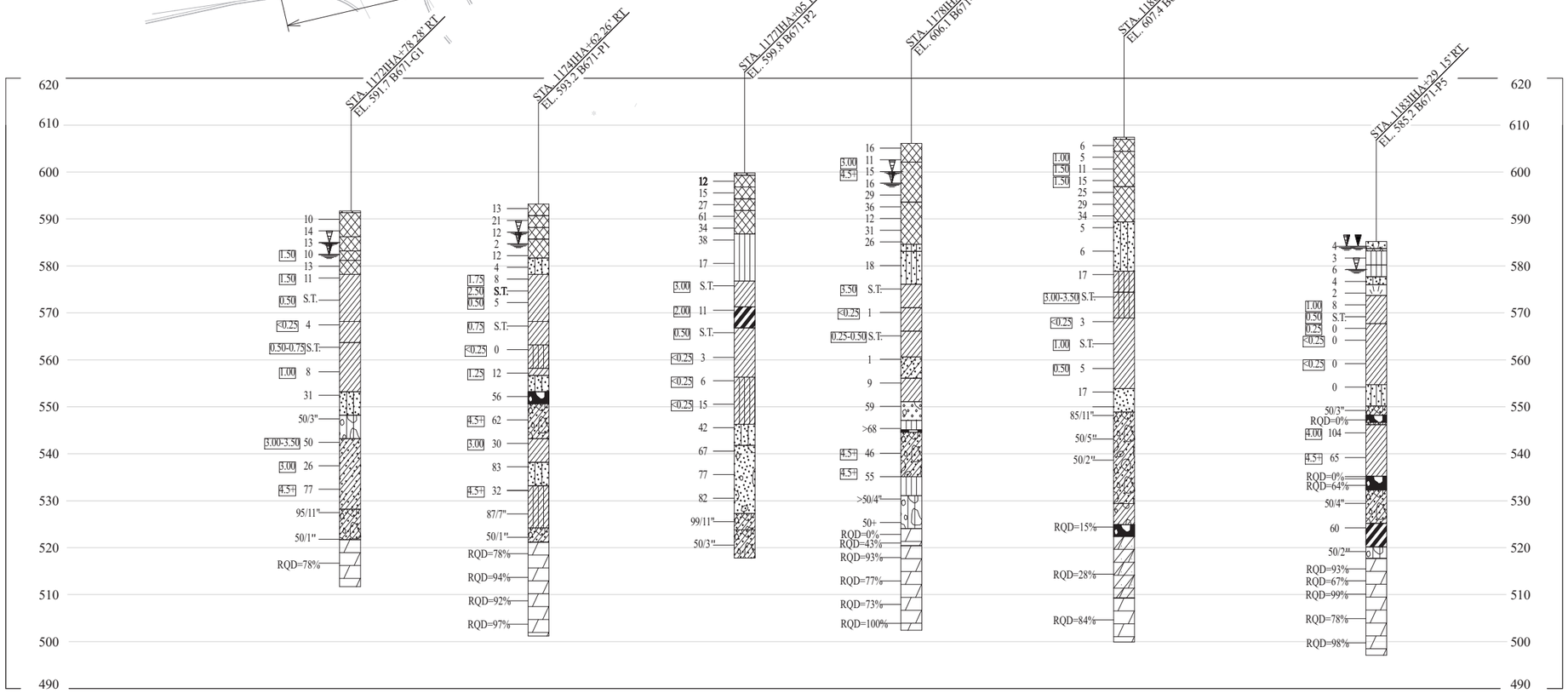
SCALE 1"=125'

8

8

USH-41 (B-05-671)
05-BROWN, WI





NOTE: -WATER LEVEL DURING DRILLING -WATER LEVEL AT COMPLETION OF DRILLING -WATER LEVEL FROM MONITORING WELL AFTER 95 DAYS OF WELL INSTALLATION

STATE PROJECT NUMBER

1133-11-74

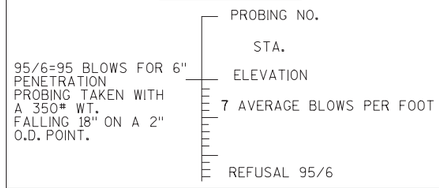
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

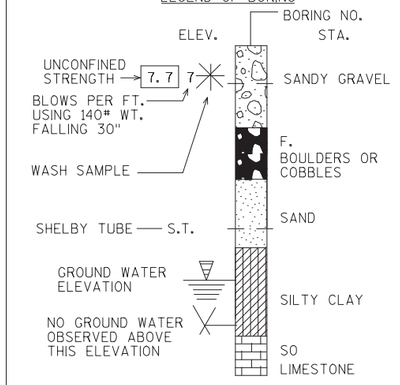
MATERIAL SYMBOLS

TOPSOIL SILT FAT CLAY
SAND PEAT DOLOMITE
GRAVEL CLAY FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY RE | PLANS CK'D. SHL

SUBSURFACE EXPLORATION

SHEET 11 OF 96

521

SCALE 1" = 125'

8

8

POTENTIAL GIRDER ERECTION SEQUENCE

UNIT 1 (SPANS 1-3)

(2 CRANES LOCATED AT L-1 AND L-2)
1. BEGIN TEMPORARY CLOSURE OF VELP AVE TO NB USH 41 RAMP
2. OFFLOAD AND GROUND SPLICE FS5-L AND FS4-L
3. LIFT GIRDER SECTIONS INTO PLACE AND STABILIZE.
4. OFFLOAD AND GROUND SPLICE FS5-R AND FS4-R
5. LIFT GIRDER SECTIONS INTO PLACE
6. INSTALL INTERMEDIATE DIAPHRAGMS AND ONES AT PIERS.

(2 CRANES LOCATED AT L-2 AND L-3)
1. OFFLOAD AND GROUND SPLICE FS3-L AND FS2-L
2. LIFT GIRDER SECTIONS INTO PLACE, AIR SPLICE TO FS4-L AND STABILIZE.
3. OFFLOAD AND GROUND SPLICE FS3-R AND FS2-R
4. LIFT GIRDER SECTIONS INTO PLACE AND AIR SPLICE TO FS4-R
5. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.

(2 CRANES LOCATED AT L-3 AND L-4)
1. BEGIN TEMPORARY CLOSURE OF VELP AVE
2. OFFLOAD FS1-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS2-L AND STABILIZE
2. OFFLOAD FS1-R, LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS2-R
4. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT ABUTMENT
5. END CLOSURES OF VELP AVE AND VELP AVE TO NB USH 41 RAMP

UNIT 2 (SPANS 4-7)

(2 CRANES LOCATED AT L-5 AND L-6)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. OFFLOAD FS12-R, LIFT SECTION INTO PLACE AND STABILIZE.
3. OFFLOAD FS12-L AND LIFT SECTION INTO PLACE
4. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.

(2 CRANES LOCATED AT L-6 AND L-7)
1. BEGIN SHORT DURATION RAILROAD OUTAGE FOR FS11-R
2. OFFLOAD FS11-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS12-R AND STABILIZE.
3. END SHORT DURATION RAILROAD OUTAGE FOR FS11-R

(2 CRANES LOCATED AT L-6 AND L-7)
1. BEGIN SHORT DURATION RAILROAD OUTAGE FOR FS12-L
2. OFFLOAD FS11-L LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS12-L.
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS
5. END SHORT DURATION RAILROAD OUTAGE FOR FS12-L.

2 CRANES LOCATED AT L-8 AND L-9)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. BEGIN SHORT DURATION RAILROAD OUTAGE FOR FS10-L
3. OFFLOAD FS10-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS11-L AND STABILIZE.
4. END SHORT DURATION RAILROAD OUTAGE FOR FS10-L

(2 CRANES LOCATED AT L-8 AND L-9)
1. BEGIN SHORT DURATION RAILROAD OUTAGE FOR FS10-R
2. OFFLOAD FS10-R, LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS11-R.
3. INSTALL INTERMEDIATE DIAPHRAGMS
3. END SHORT DURATION RAILROAD OUTAGE FOR FS10-R

(2 CRANES LOCATED AT L-9 AND L-10)
1. OFFLOAD FS9-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS10-L AND STABILIZE.
2. OFFLOAD FS9-R, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS10-R
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS

(2 CRANES LOCATED AT L-10 AND L-11)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. OFFLOAD FS8-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS9-L AND STABILIZE.
3. OFFLOAD FS8-R, LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS9-R
4. INSTALL INTERMEDIATE DIAPHRAGMS

(2 CRANES LOCATED AT L-11 AND L-12)
1. OFFLOAD FS7-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS8-L AND STABILIZE.
2. OFFLOAD FS7-R, LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS8-R
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER
4. REMOVE TEMPORARY SHORING TOWERS

(2 CRANES LOCATED AT L-12 AND L-13)
1. OFFLOAD FS6-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS7-L AND STABILIZE.
2. OFFLOAD FS6-R, LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS7-R
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER

UNIT 3 (SPANS 8-11)

(2 CRANES LOCATED AT L-14 AND L-15)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. OFFLOAD FS13-R, LIFT SECTION INTO PLACE AND STABILIZE.
3. OFFLOAD FS13-L AND LIFT SECTION INTO PLACE
4. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.

(2 CRANES LOCATED AT L-15 AND L-16)
1. OFFLOAD FS14-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS13-R AND STABILIZE.
2. OFFLOAD FS14-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS13-L
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS

(2 CRANES LOCATED AT L-16 AND L-17)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. OFFLOAD FS15-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS14-R AND STABILIZE.
2. OFFLOAD FS15-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS14-L
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.

(2 CRANES LOCATED AT L-17 AND L-18)
2. OFFLOAD FS16-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS15-R AND STABILIZE.
2. OFFLOAD FS16-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS15-L
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS

(2 CRANES LOCATED AT L-18 AND L-19)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. OFFLOAD FS17-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS16-R AND STABILIZE.
2. OFFLOAD FS17-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS16-L
3. INSTALL INTERMEDIATE DIAPHRAGMS

(2 CRANES LOCATED AT L-19 AND L-20)
1. BEGIN TEMPORARY CLOSURE OF WEITOR DRIVE
2. OFFLOAD FS18-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS17-R AND STABILIZE.
3. OFFLOAD FS18-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS17-L
4. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER
5. REMOVE SHORING TOWERS

(2 CRANES LOCATED AT L-20 AND L-21)
1. OFFLOAD FS19-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS18-R AND STABILIZE.
2. OFFLOAD FS19-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS18-L
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT ABUTMENT
4. END TEMPORARY CLOSURE OF WEITOR DRIVE

NOTES

1. SEE SHEET 13 FOR SPANS 1-3 STAGING PLANS & INFORMATION.
2. SEE SHEET 14 FOR SPANS 4-7 STAGING PLANS & INFORMATION.
3. SEE SHEET 15 FOR SPANS 8-11 STAGING PLANS & INFORMATION.
4. THE POTENTIAL CONSTRUCTION SEQUENCE PLAN GIVEN IS PRESENTED FOR CONSIDERATION ONLY.
5. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE CONSTRUCTION SEQUENCES CHOSEN.
6. PREPARE A CONSTRUCTION SEQUENCE SCHEDULE AND SUBMIT IT TO THE ENGINEER FOR REVIEW NO LATER THAN 30 DAYS PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY UTILITY LOCATIONS AND TO PROVIDE ANY NECESSARY PROTECTION MEASURES TO AVOID UTILITY DAMAGE.
8. THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS TO AVOID DAMAGE.
9. THE CONTRACTOR IS REQUIRED TO PROVIDE NECESSARY PRECAUTIONS FOR GIRDER STABILITY DURING ERECTION.
10. THE COST OF ANY TEMPORARY SHORING OF THE EXISTING BRIDGES IS INCLUDED WITH THE BID PRICE OF BID ITEM "ERECTING STRUCTURAL STEEL". DETERMINE THE NEED FOR SUCH TEMPORARY SHORING BASED ON THE CHOSEN ERECTION METHODS.
11. PRIOR TO REMOVING ANY TEMPORARY SHORING OF EXISTING BRIDGES REQUIRED FOR ERECTING STRUCTURAL STEEL, PERFORM A STRUCTURAL INSPECTION OF THE EXISTING BRIDGES IN THE PRESENCE OF THE RESIDENT ENGINEER.
12. THE ALLOWABLE ROAD CLOSURE DURATIONS OF WEITOR DRIVE, USH 41, IH 43, CONNECTING RAMPS AND OTHER PROJECT-WIDE ROAD CLOSURES ARE SPECIFIED IN THE ROADWAY SPECIAL PROVISIONS.

STATE PROJECT NUMBER
1133-11-74

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MJA | PLANS CK'D. NPP

CONSTRUCTION STAGING NOTES

SHEET 12 OF 96
522

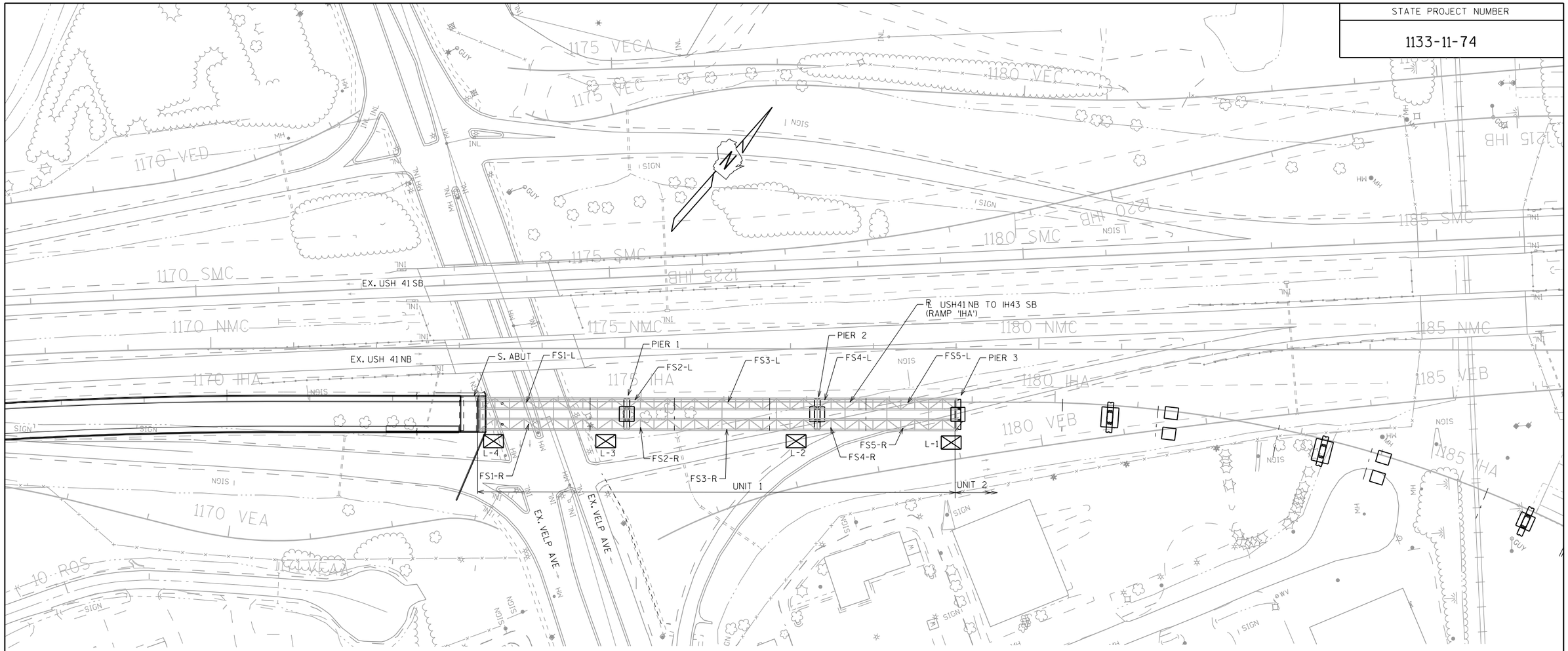
STEEL ERECTION & SITE CONSTRUCTION CONTRACT

FILE= G:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\012-B-05-671E_Stage Construction - Staging Notes (2).dgn

DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



PLAN

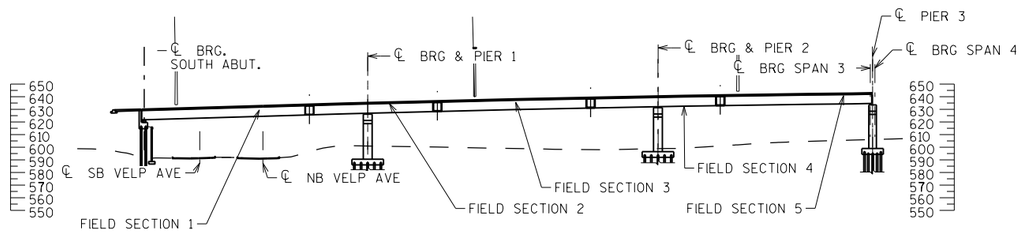
LEGEND

L-2 ⊠ - CRANE LOCATION L-2

FSX-L - FIELD SECTION X-LEFT

NOTES

1. SEE SHEET 2 FOR GENERAL NOTES.
2. SEE SHEET 12 FOR CONSTRUCTION STAGING.



ELEVATION

	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 1	148,000	148,000
FIELD SECTION 2	150,900	150,900
FIELD SECTION 3	118,700	118,700
FIELD SECTION 4	170,100	170,100
FIELD SECTION 5	124,300	124,300

*FIELD SECTION WEIGHTS ARE APPROXIMATE AND INTENDED TO GIVE CONTRACTOR INFORMATION FOR LIFTING PIECES. CONTRACTOR IS RESPONSIBLE FOR MAKING A DETERMINATION OF ACTUAL PIECE WEIGHT PRIOR TO LIFTING.

FIELD SECTION WEIGHTS DO NOT INCLUDE SPLICE PLATES, BOLTS, BEARING ASSEMBLIES OR PORTIONS OF EXTERNAL DIAPHRAGMS NOT SHOP-CONNECTED TO THE BOX GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MJA | PLANS CK'D. NPP

STAGE CONSTRUCTION SPANS 1-3

SHEET 13 OF 96

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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DATE:5/31/2013

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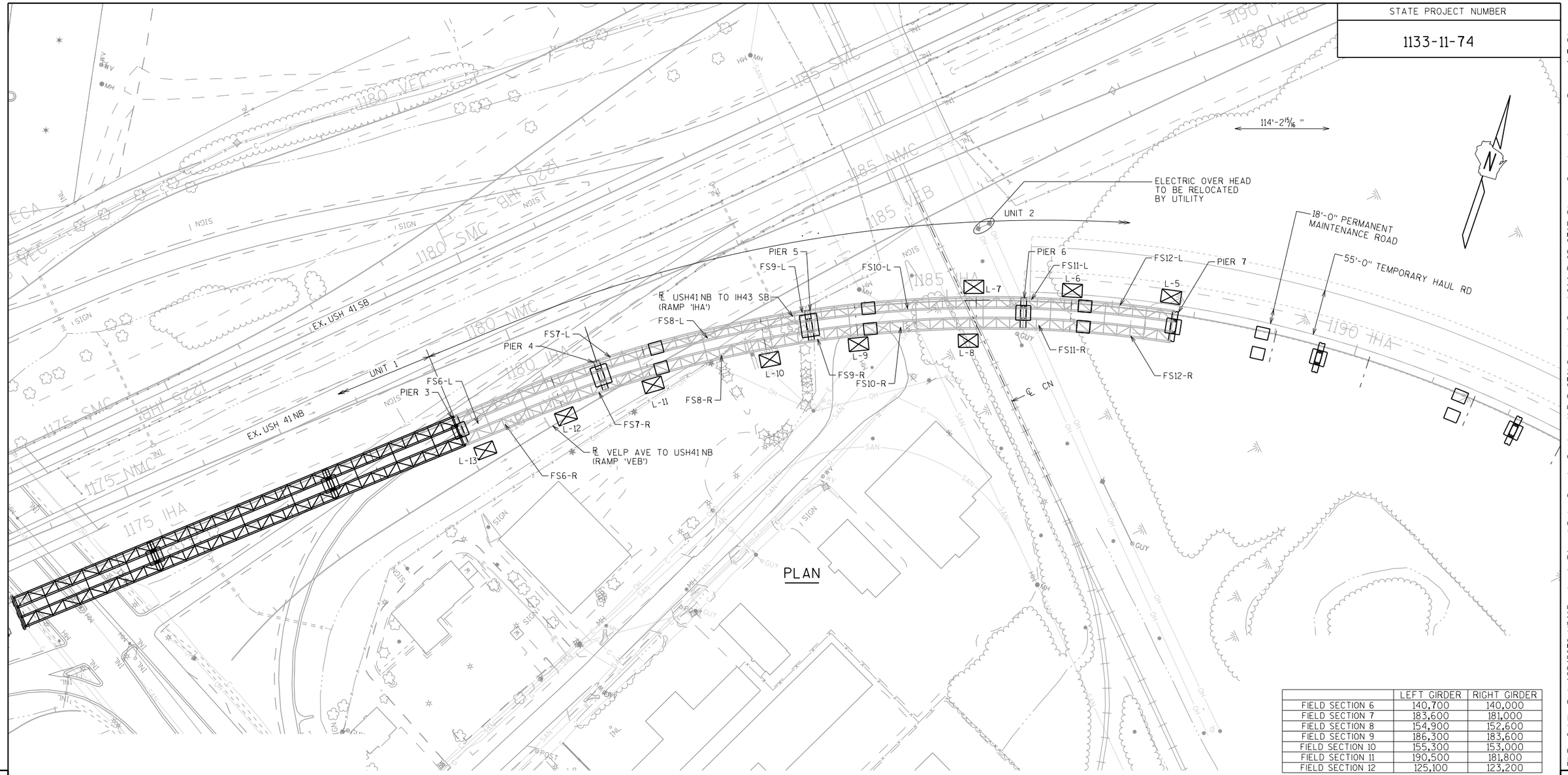
1133-11-74



PLAN

	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 6	140,700	140,000
FIELD SECTION 7	183,600	181,000
FIELD SECTION 8	154,900	152,600
FIELD SECTION 9	186,300	183,600
FIELD SECTION 10	155,300	153,000
FIELD SECTION 11	190,500	181,800
FIELD SECTION 12	125,100	123,200

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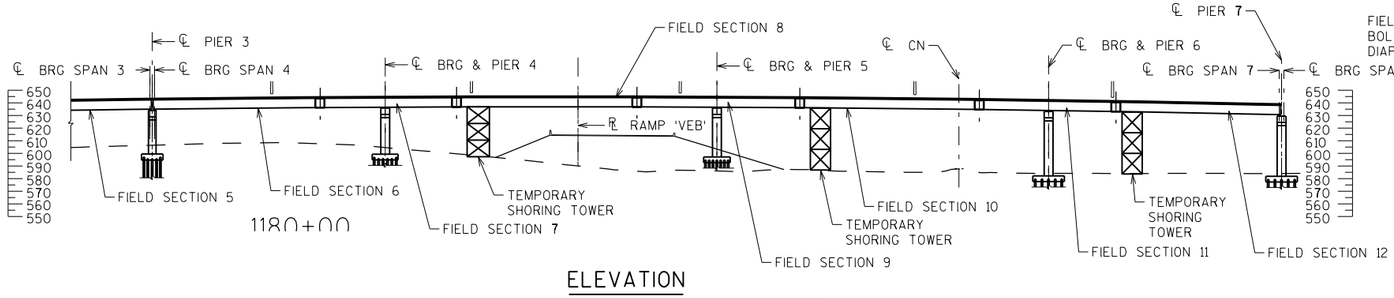
LEGEND

L-2 ☒ - CRANE LOCATION L-2

FSX-L - FIELD SECTION X-LEFT

NOTES

1. SEE SHEET 2 FOR GENERAL NOTES.
2. SEE SHEET 12 FOR CONSTRUCTION STAGING.



ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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STAGE CONSTRUCTION SPANS 4-7

SHEET 14 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE PROJECT NUMBER

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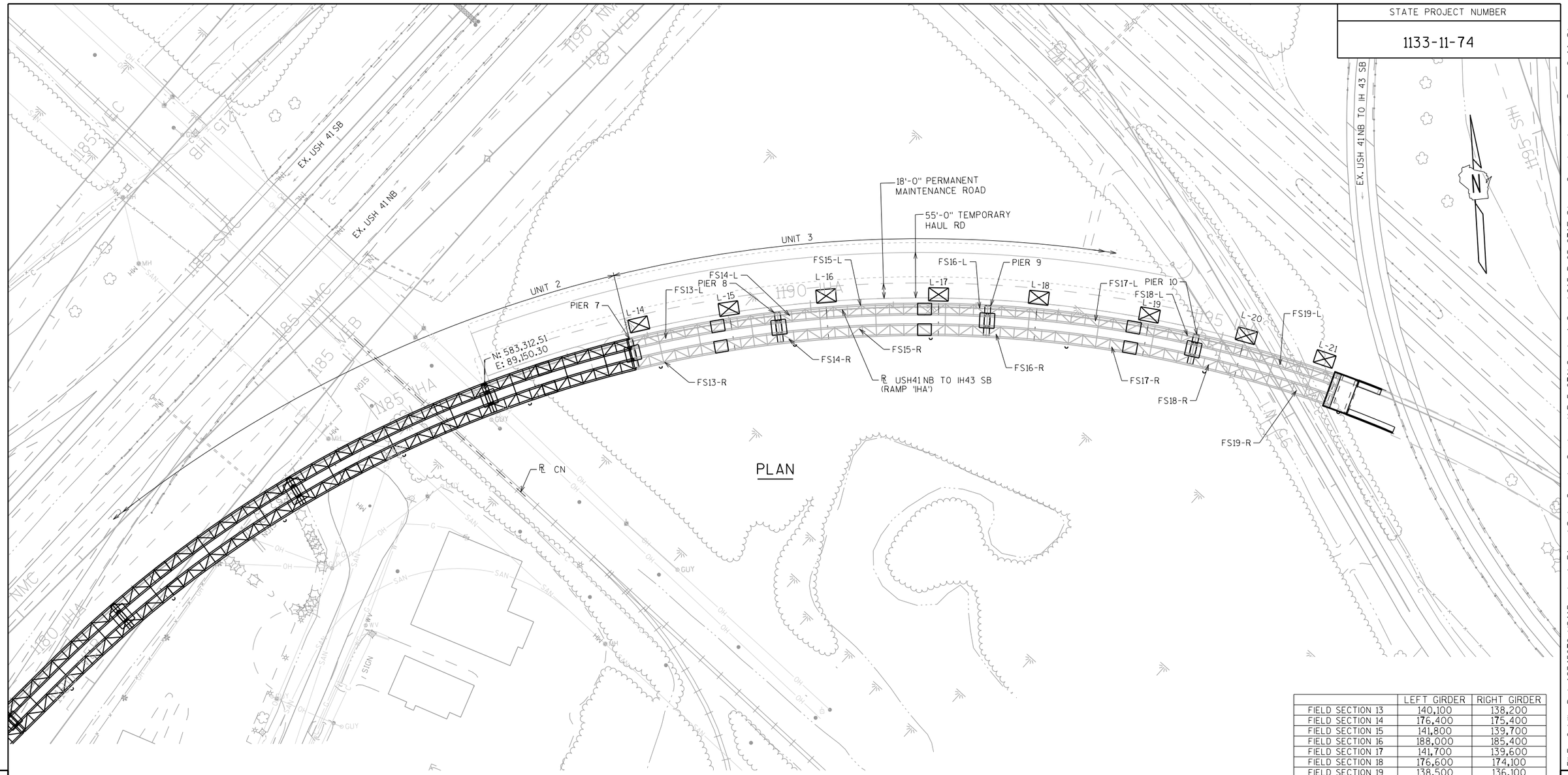


	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 13	140,100	138,200
FIELD SECTION 14	176,400	175,400
FIELD SECTION 15	141,800	139,700
FIELD SECTION 16	188,000	185,400
FIELD SECTION 17	141,700	139,600
FIELD SECTION 18	176,600	174,100
FIELD SECTION 19	138,500	136,100

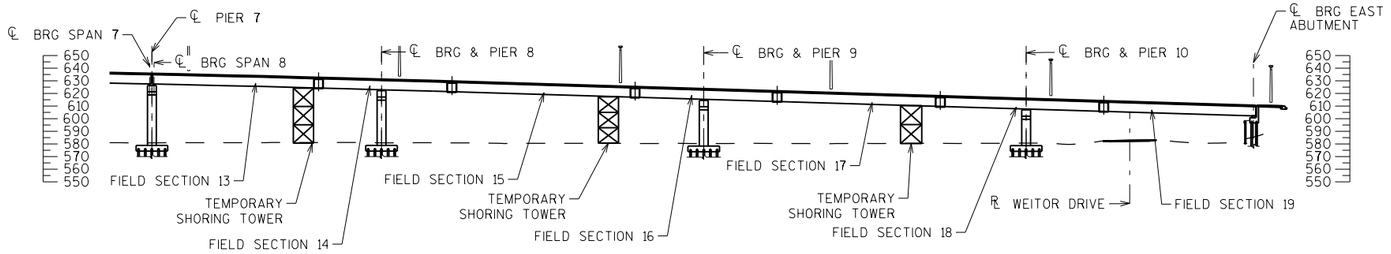
LEGEND

L-2 ⊠ - CRANE LOCATION L-2

FSX-L - FIELD SECTION X-LEFT

NOTES

1. SEE SHEET 2 FOR GENERAL NOTES.
2. SEE SHEET 12 FOR CONSTRUCTION STAGING.



ELEVATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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STAGE CONSTRUCTION SPANS 8-11

SHEET 15 OF 96

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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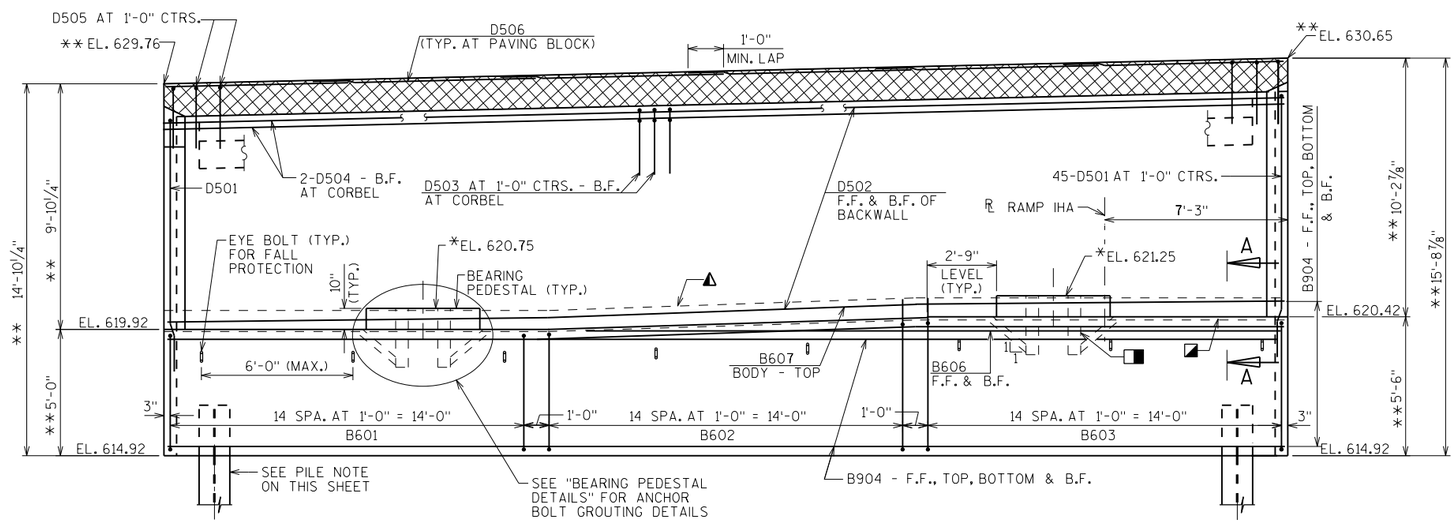
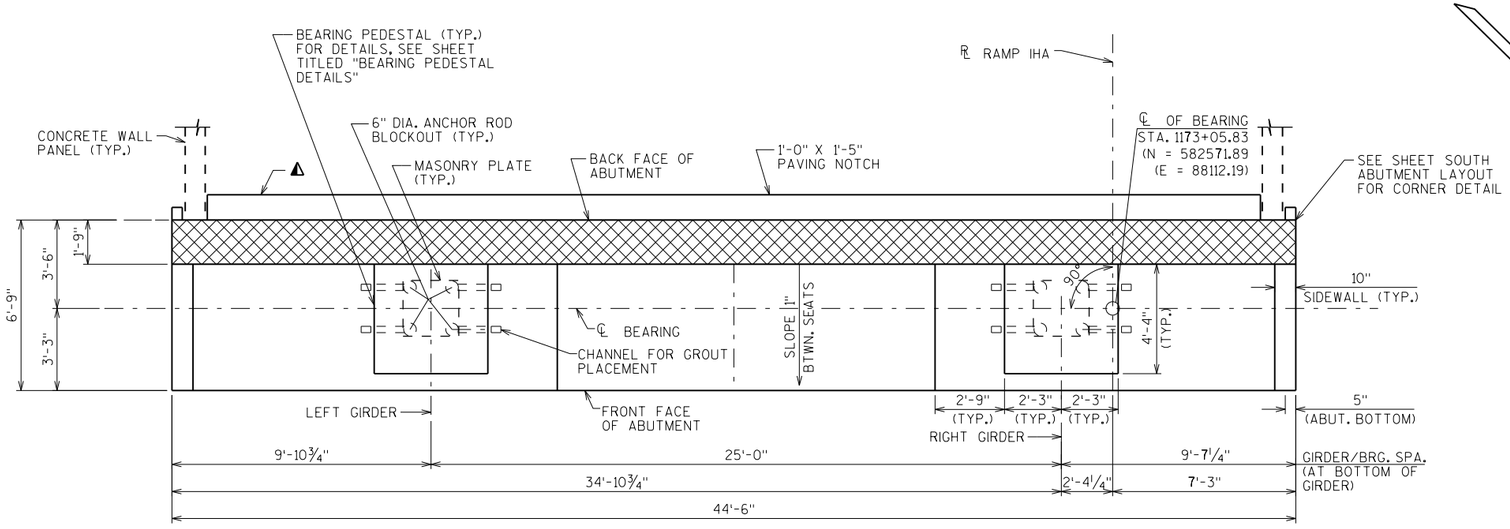


ELEVATION



PLAN

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.3.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL AT TOP OF CONCRETE.

△ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE ABOVE FOOTING.

△ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

◪ KEYED CONST. JOINT FORMED BY BEVELED 2" X 6".

▨ INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

◨ 6" DIA. ANCHOR ROD BLOCKOUT. BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN ABUTMENT BODY AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT)

PILE NOTES

SOUTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 14 X 73 WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 95' LONG. MINIMUM PILE TIP EL. FOR UPLIFT IS 548.00.

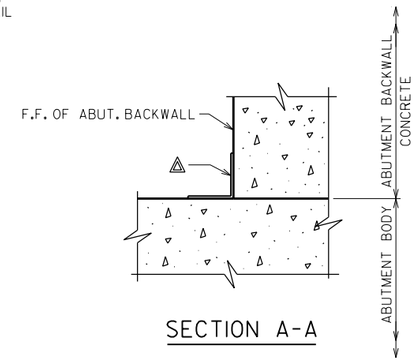
FOR PILE LAYOUT DETAILS, SEE "SOUTH ABUTMENT LAYOUT" SHEET.

FOR PILE SPLICE DETAILS, SEE "SOUTH ABUTMENT CROSS SECTION" SHEET

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 AND FURTHER REDUCED BY DOWN DRAG FORCES TO 310 KIPS USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

NOTES

1. FOR "TYPICAL SECTION THRU BODY", SEE "SOUTH ABUTMENT CROSS SECTION" SHEET
2. SPACE B601, B602 & B603 BARS TO MISS PILES.
3. SEE SHEET "SOUTH ABUTMENT CROSS SECTION" FOR EYE BOLT DETAIL AND SIDEWALL DETAILS.
4. CONTRACTOR TO COORDINATE WITH MSE WALL MANUFACTURER FOR ABUTMENT AND MSE WALL CONSTRUCTION.



SECTION A-A

STATE PROJECT NUMBER

1133-11-74

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

SOUTH ABUTMENT PLAN AND ELEVATION

SHEET 16 OF 96
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DATE: 5/31/2013
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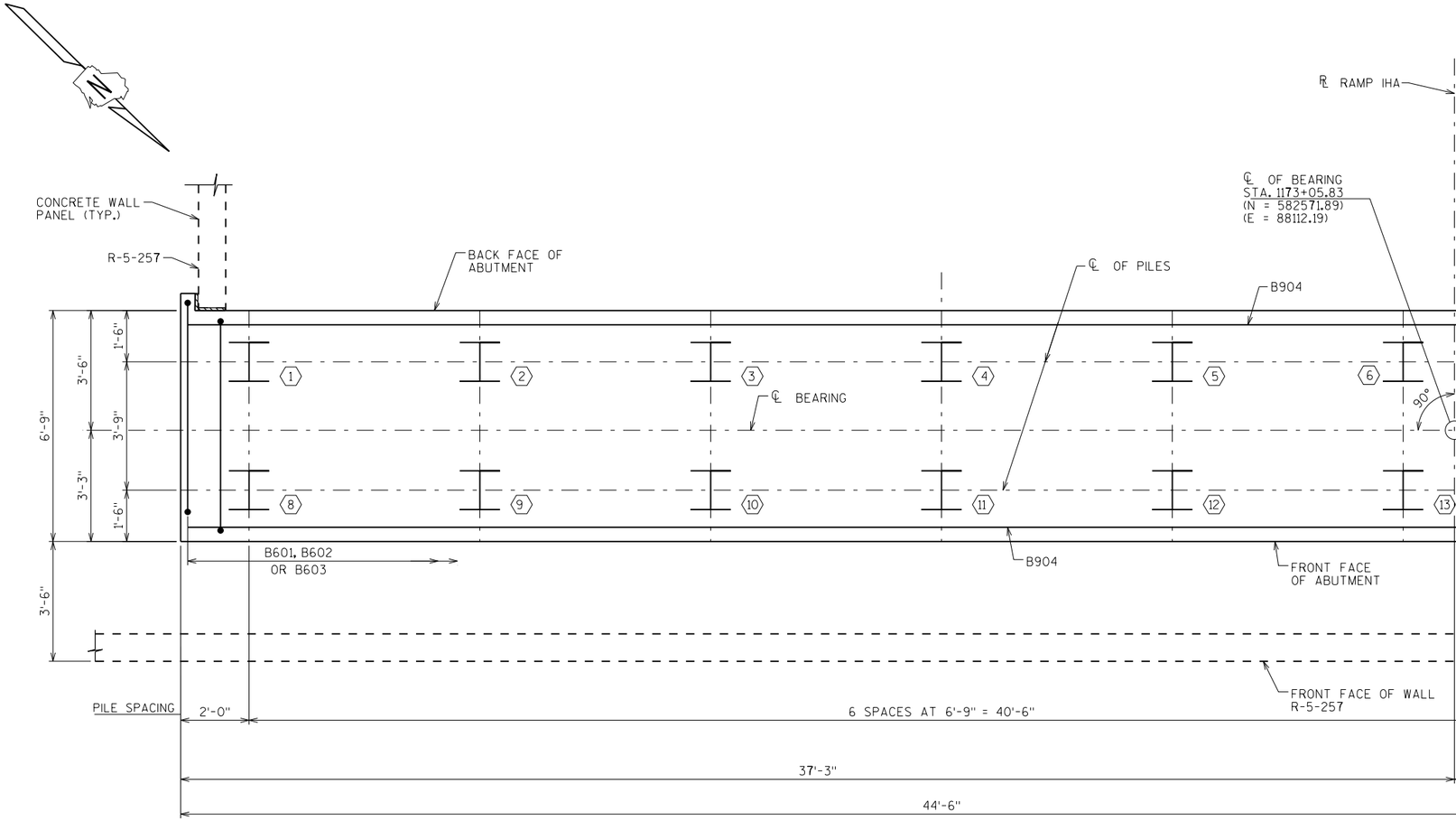
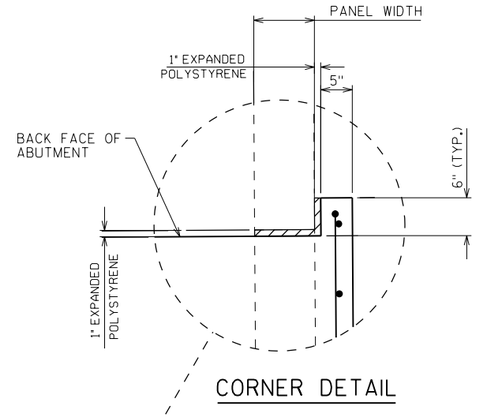
STATE PROJECT NUMBER
1133-11-74



PILE PLAN



CORNER DETAIL

LEGEND

(1) INDICATES PILES NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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SOUTH ABUTMENT LAYOUT

SHEET 17 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
I.D.

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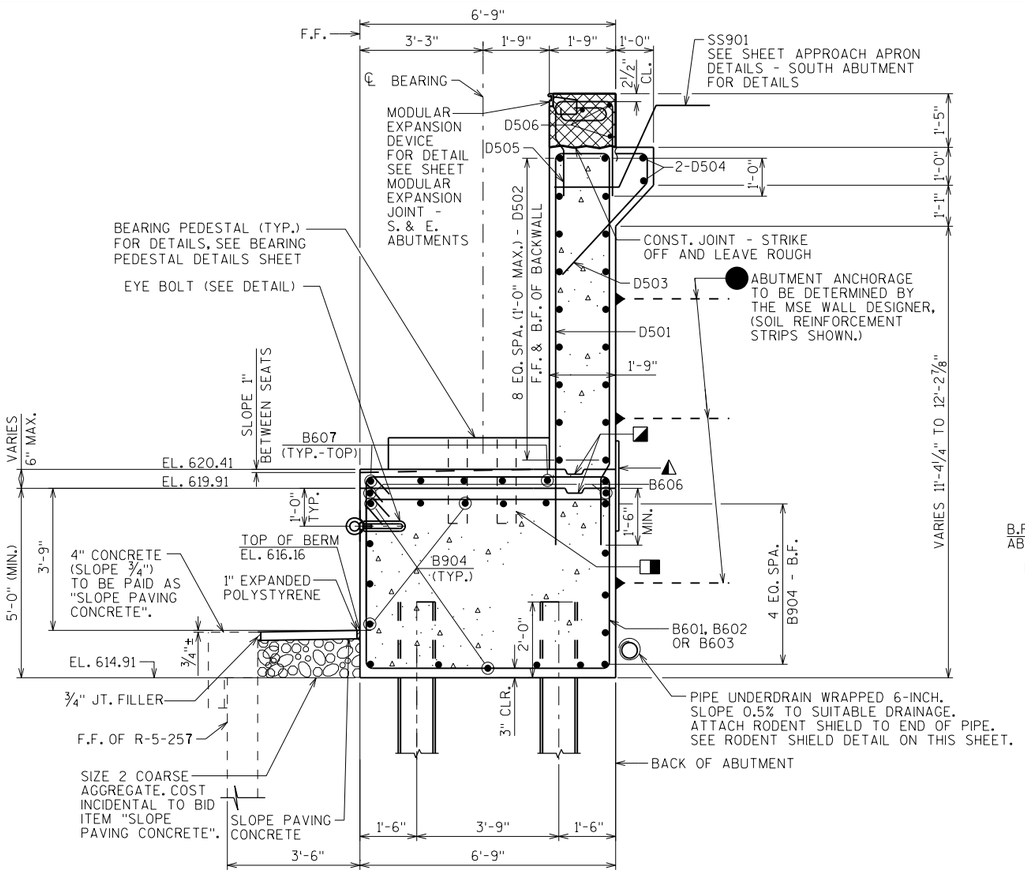
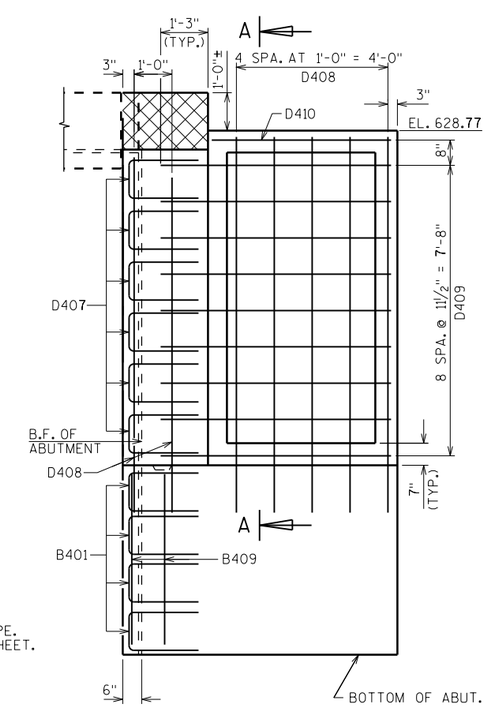
STATE PROJECT NUMBER

1133-11-74

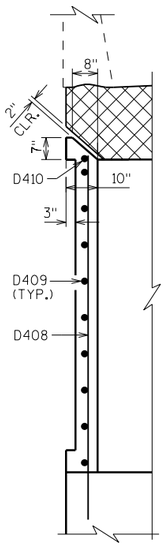


TYPICAL SECTION THRU BODY

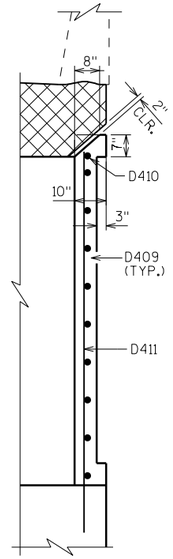


END VIEW - EAST END

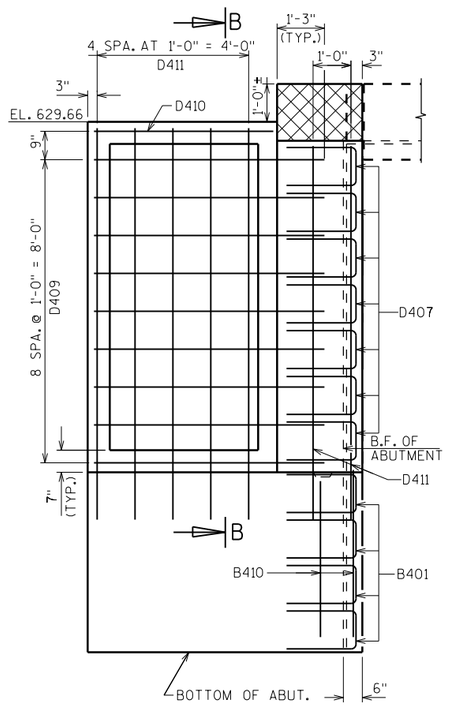
(SHOWING SIDEWALL & B.F. NOTCH REINFORCEMENT)



SECTION A-A



SECTION B-B



END VIEW - WEST END

(SHOWING SIDEWALL & B.F. NOTCH REINFORCEMENT)

LEGEND

◪ ◭ ◨ ⊠ FOR SYMBOL DESCRIPTIONS, SEE SOUTH ABUTMENT PLAN AND ELEVATION SHEET

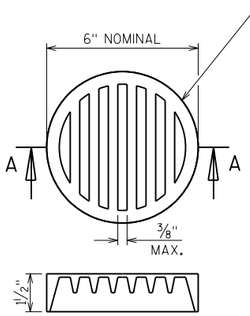
● M. S. E. WALL REINFORCEMENT STRIPS TO BE DESIGNED BY MANUFACTURER. THE REINFORCEMENT STRIPS, BACKFILL STRUCTURE AND CONNECTION TO THE ABUTMENT ARE TO BE PAID FOR UNDER STRUCTURE R-5-257.

UNFACTORED SUPERSTRUCTURE LATERAL LINE LOAD TRANSFERRED TO THE ABUTMENT IS TAKEN TO BE 3.0 K/LF OF ABUTMENT LENGTH. THIS VALUE IS TO BE USED FOR THE DESIGN OF THE ABUTMENT ANCHORAGE (MSE SYSTEM, DEAD MAN ANCHOR, OTHER). THE LINE LOAD IS SUMMATION OF AASHTO LOADS BR, WS, WL AND TU.

NOTE:

BACKWALL MAY BE PLACED AFTER THE END DIAPHRAGM IS BOLTED.

PAVING BLOCK TO RECEIVE POLYMER OVERLAY.

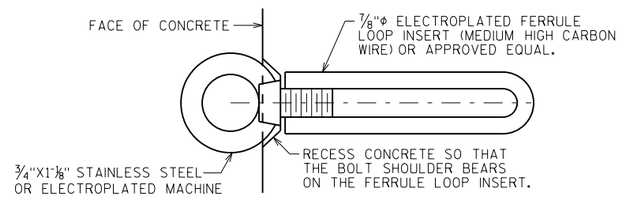


THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

SECTION A-A

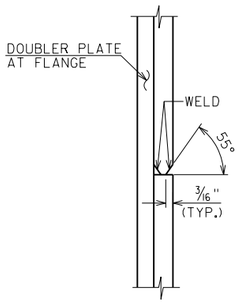
RODENT SHIELD DETAIL

ORIENT SHIELD SO SLOTS ARE VERTICAL AS SHOWN DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



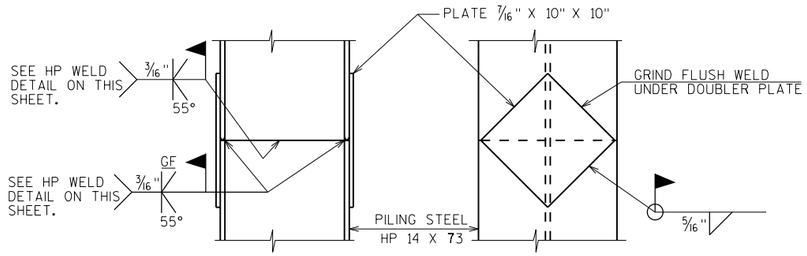
EYE BOLT DETAIL

COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES". MINIMUM STRENGTH OF 3,500 LB.



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)



PILE SPLICE DETAIL

NOTE: STEEL "HP" PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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SOUTH ABUTMENT CROSS SECTION

SHEET 18 OF 96
528

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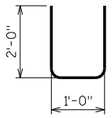

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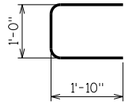

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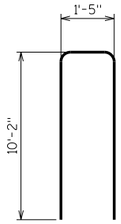

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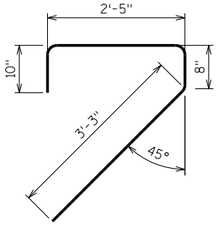

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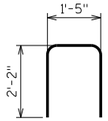

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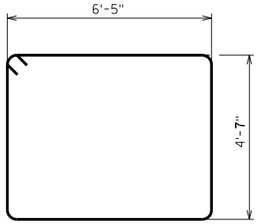

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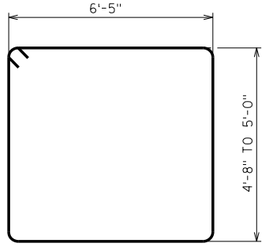

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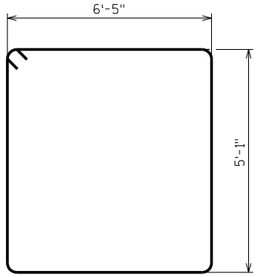

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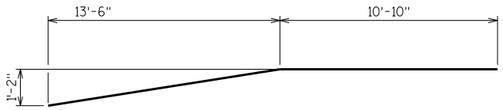

B607

BILL OF BARS

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
UNCOATED BARS					TOTAL = 4,900 LBS.
B401	8	4'-10"	X		BODY - BOTTOM - EACH END - VERT. & HORIZ.
B601	15	22'-10"	X		ABUTMENT - STIRRUPS
B602	15	23'-4"	X	X	ABUTMENT - STIRRUPS
B603	15	23'-10"	X		ABUTMENT - STIRRUPS
B904	18	44'-2"			ABUT. - FRONT FACE TOP, BOTTOM, AND BACK FACE
B606	18	11'-0"	X		BODY FRONT FACE & BACK FACE
B607	6	29'-9"	X		BODY - TOP
B409	2	4'-7"			BODY - EAST END
B410	2	6'-6"			BODY - WEST END
COATED BARS					TOTAL = 3,161 LBS.
D501	45	27'-8"	X		BACKWALL - VERTICAL
D502	18	44'-2"			BACKWALL - HORIZONTAL
D503	45	6'-10"	X		BACKWALL - VERTICAL CORBEL
D504	2	40'-2"			BACKWALL - HORIZONTAL CORBEL
D505	45	5'-6"	X		PAVING BLOCK VERTICAL
D506	18	8'-3"			PAVING BLOCK HORIZONTAL
D407	13	4'-6"	X		SIDEWALL - EACH END
D408	7	9'-11"			SIDEWALL - EAST END
D409	18	6'-3"			SIDEWALL - EACH END
D410	2	4'-9"			SIDEWALL - EACH END
D411	7	10'-4"			SIDEWALL - EAST END

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
B602	1 SERIES OF 15	23'-0" TO 23'-8"

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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SOUTH ABUTMENT
BILL OF BARS
AND BAR DETAILS

SHEET 19 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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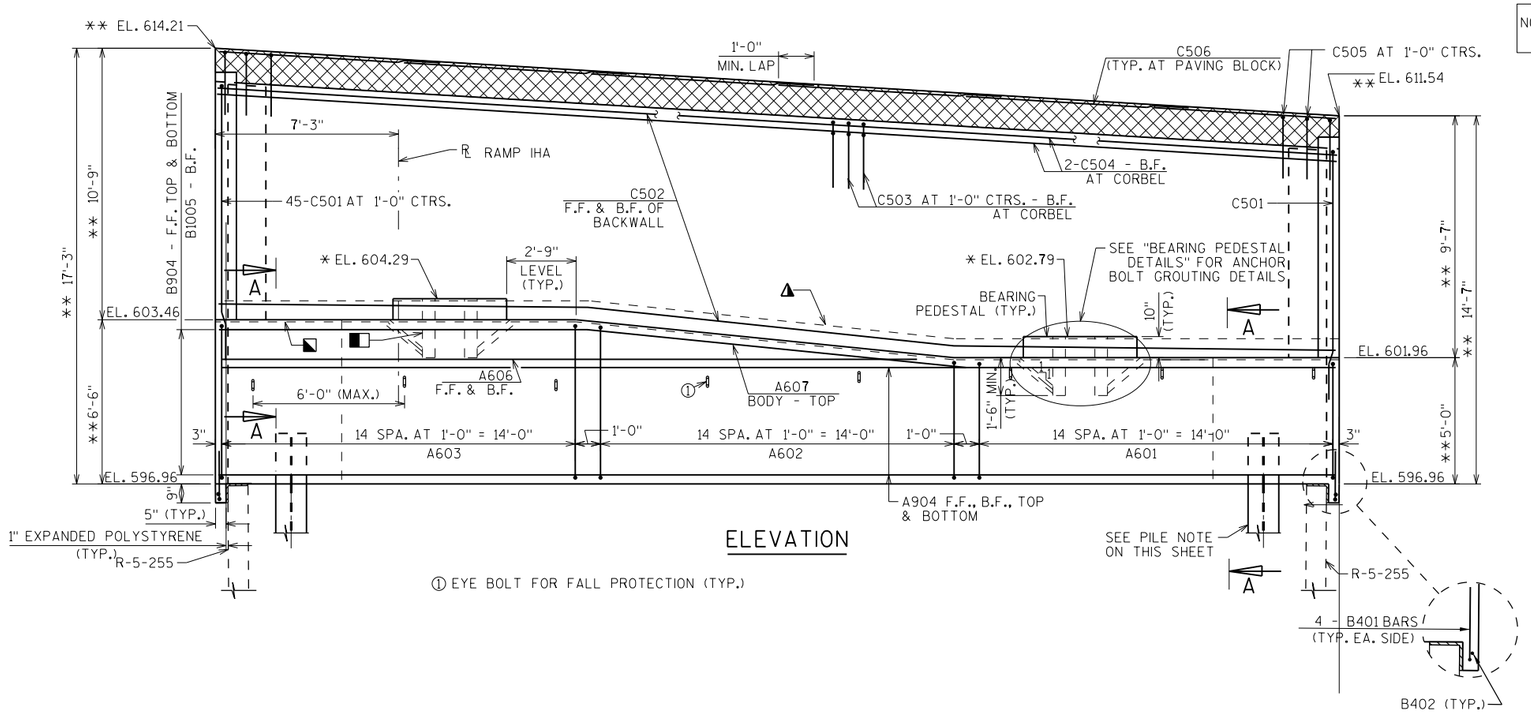


NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.3.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS)

STATE PROJECT NUMBER

1133-11-74

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL AT TOP OF CONCRETE.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE ABOVE FOOTING.

△ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

◪ KEYED CONST. JOINT FORMED BY BEVELED 2" X 6".

▨ INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

◨ 6" DIA. ANCHOR ROD BLOCKOUT. BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN ABUTMENT BODY AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT)

PILE NOTES

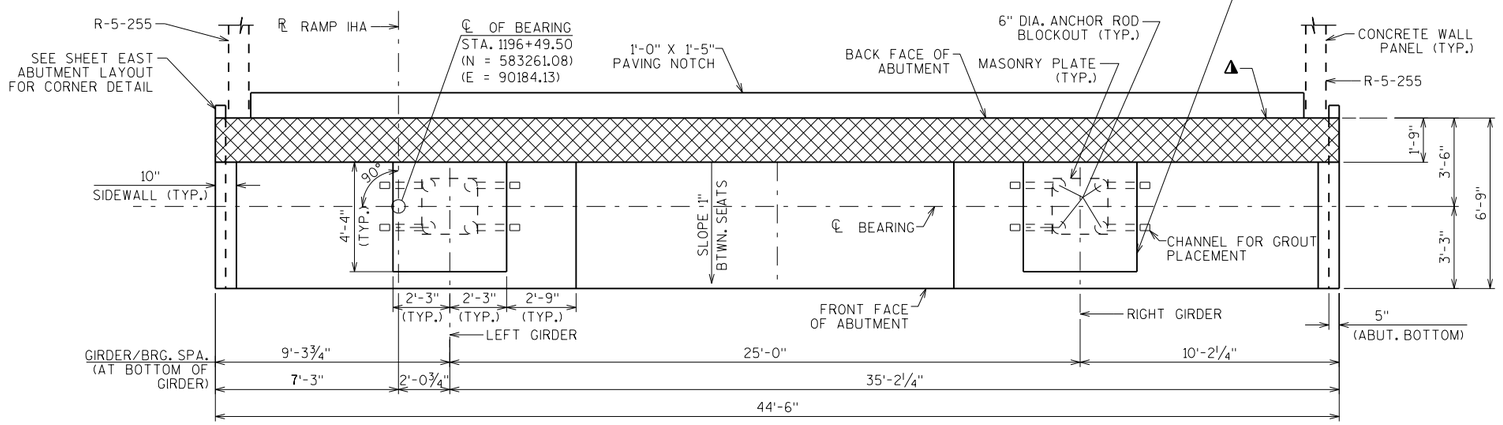
EAST ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 14 X 73 WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 95' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 519.00.

FOR PILE LAYOUT DETAILS, SEE "EAST ABUTMENT LAYOUT" SHEET.

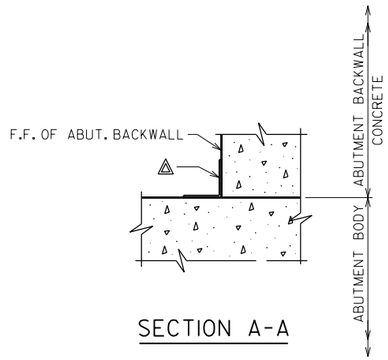
FOR PILE SPLICE DETAILS, SEE "SOUTH ABUTMENT CROSS SECTION" SHEET

NOTES

1. FOR "TYPICAL SECTION THRU BODY", SEE "EAST ABUTMENT CROSS SECTION" SHEET.
2. SPACE B601, B602 & B603 BARS TO MISS PILES.
3. SEE SHEET "SOUTH ABUTMENT CROSS SECTION" FOR EYE BOLT DETAIL.
4. SEE SHEET "EAST ABUTMENT CROSS SECTION" FOR SIDEWALL DETAILS.
5. CONTRACTOR TO COORDINATE WITH MSE WALL MANUFACTURER FOR ABUTMENT AND MSE WALL CONSTRUCTION.



PLAN



SECTION A-A

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

EAST ABUTMENT PLAN AND ELEVATION

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DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

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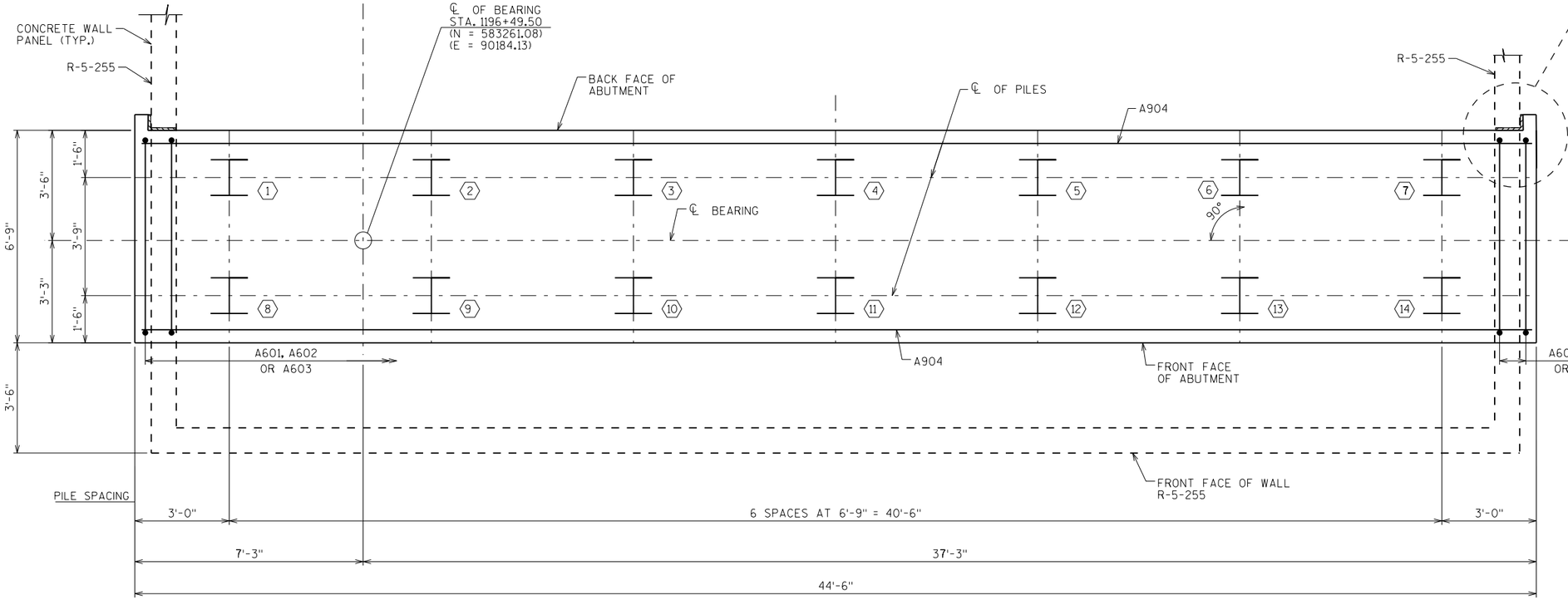
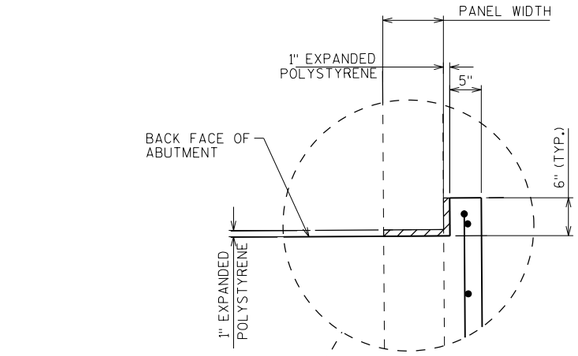


PILE PLAN



CORNER DETAIL

LEGEND

(1) INDICATES PILES NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

EAST ABUTMENT LAYOUT

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531

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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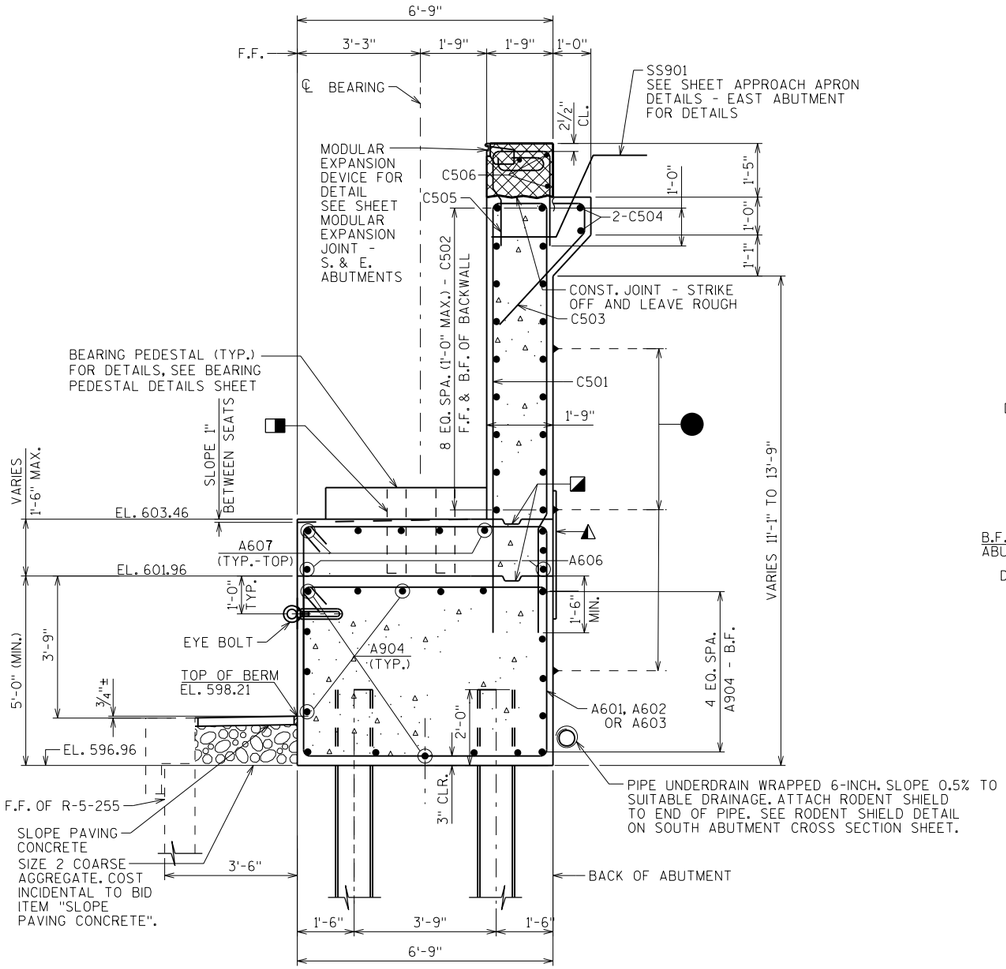
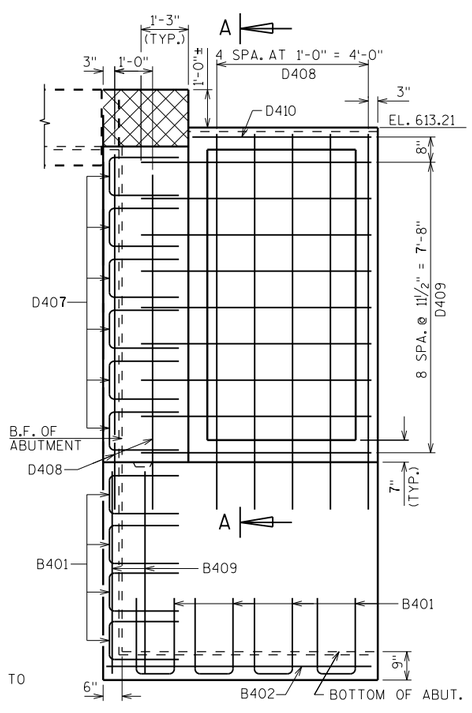
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74

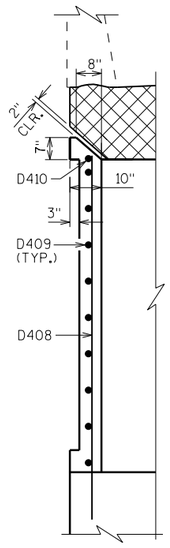


TYPICAL SECTION THRU BODY

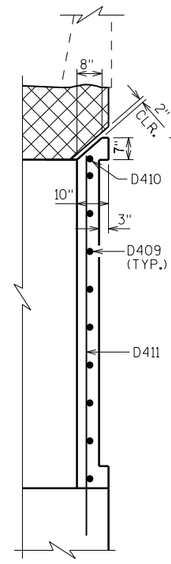


END VIEW - NORTH END

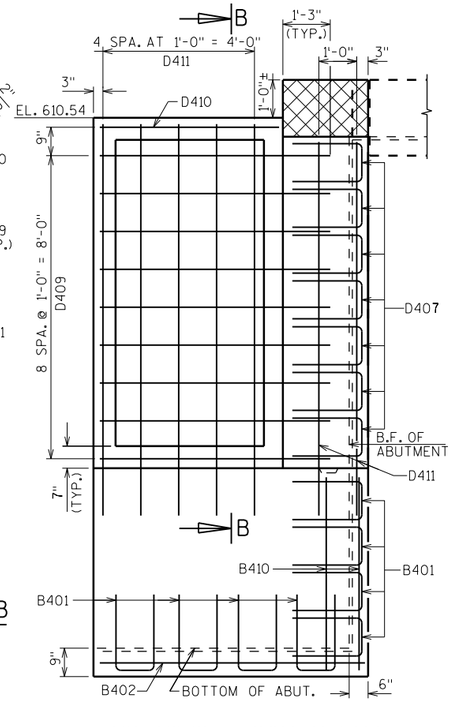
(SHOWING SIDEWALL & B.F. NOTCH REINFORCEMENT)



SECTION A-A

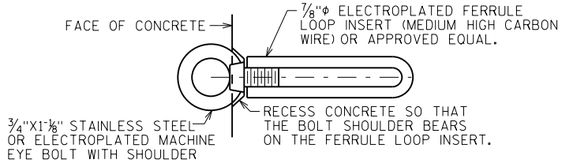


SECTION B-B



END VIEW - SOUTH END

(SHOWING SIDEWALL & B.F. NOTCH REINFORCEMENT)



EYE BOLT DETAIL

COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES". MINIMUM STRENGTH OF 3,500 LB.

LEGEND

FOR SYMBOL DESCRIPTIONS, SEE EAST ABUTMENT PLAN AND ELEVATION SHEET

M. S. E. WALL REINFORCEMENT STRIPS TO BE DESIGNED BY MANUFACTURER. THE REINFORCEMENT STRIPS, BACKFILL STRUCTURE AND CONNECTION TO THE ABUTMENT ARE TO BE PAID FOR UNDER STRUCTURE R-5-257.

UNFACTORED SUPERSTRUCTURE LATERAL LINE LOAD TRANSFERRED TO THE ABUTMENT IS TAKEN TO BE 3.0 K/LF OF ABUTMENT LENGTH. THIS VALUE IS TO BE USED FOR THE DESIGN OF THE ABUTMENT ANCHORAGE (MSE SYSTEM, DEAD MAN ANCHOR, OTHER). THE LINE LOAD IS SUMMATION OF AASHTO LOADS BR, WS, WL AND TU.

NOTE:

BACKWALL MAY BE PLACED AFTER THE END DIAPHRAGM IS BOLTED.

PAVING BLOCK TO RECEIVE POLYMER OVERLAY.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

EAST ABUTMENT CROSS SECTION

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STATE PROJECT NUMBER

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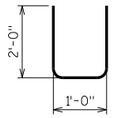

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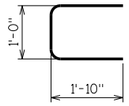

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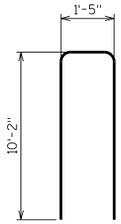

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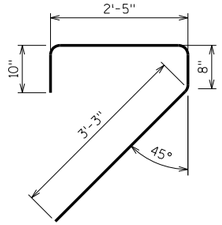

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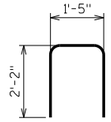

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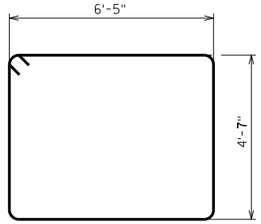

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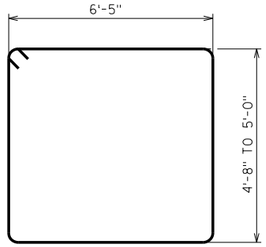

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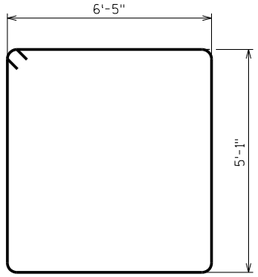

B603

B607

BILL OF BARS

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
UNCOATED BARS					TOTAL = 4,690 LBS.
A601	15	22'-10"	X		ABUTMENT - STIRRUPS
A602	15	24'-4"	X	X	ABUTMENT - STIRRUPS
A603	15	25'-10"	X		ABUTMENT - STIRRUPS
A904	18	44'-2"			ABUT. - FRONT FACE TOP, BOTTOM, AND BACK FACE
A606	2	25'-5"			BODY FRONT FACE & BACK FACE
A607	6	29'-9"	X		BODY - TOP
COATED BARS					TOTAL = 2,679 LBS.
C501	45	22'-0"	X		BACKWALL - VERTICAL
C502	18	44'-2"			BACKWALL - HORIZONTAL
C503	45	6'-10"	X		BACKWALL - VERTICAL CORBEL
C504	2	40'-2"			BACKWALL - HORIZONTAL CORBEL
C505	45	5'-6"	X		PAVING BLOCK VERTICAL
C506	18	8'-3"			PAVING BLOCK HORIZONTAL

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
B602	1 SERIES OF 15	23'-0" TO 23'-8"

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

EAST ABUTMENT
BILL OF BARS
AND BAR DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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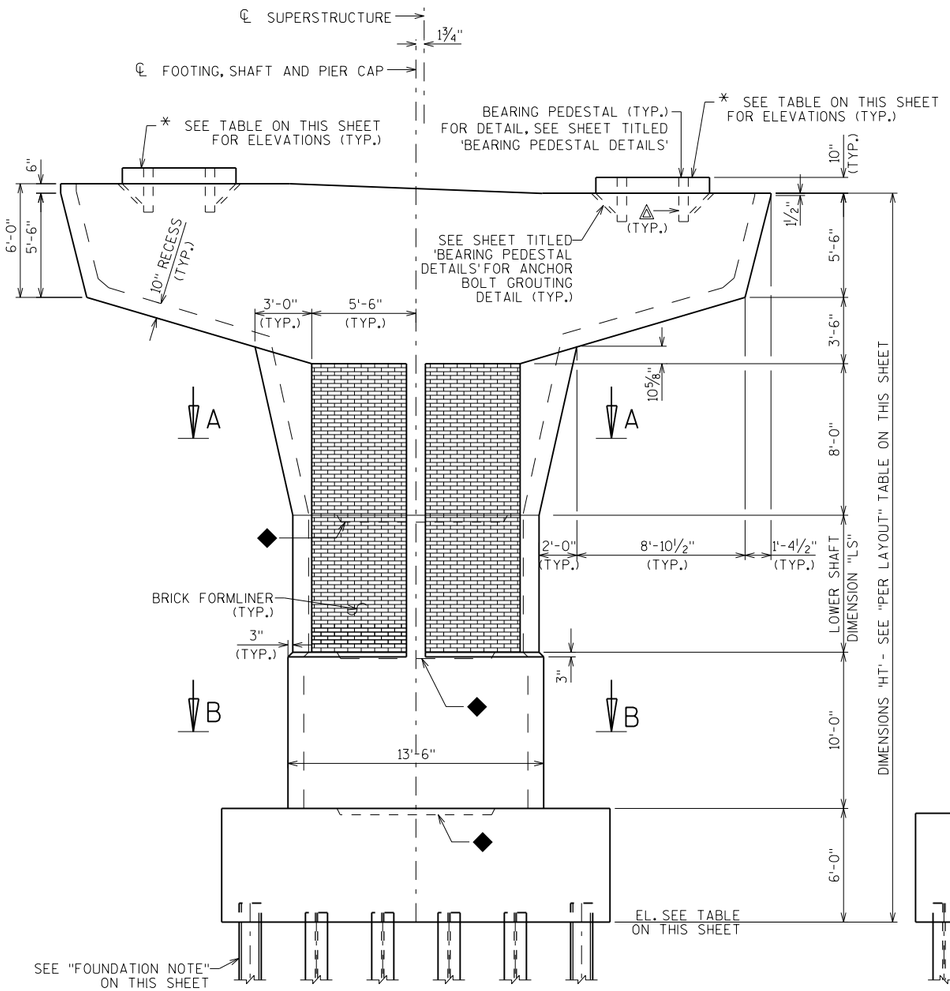
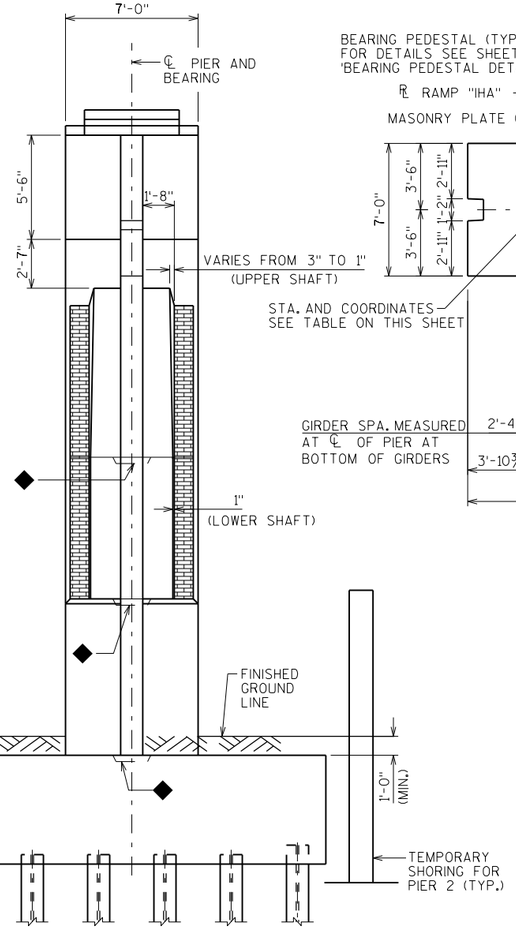


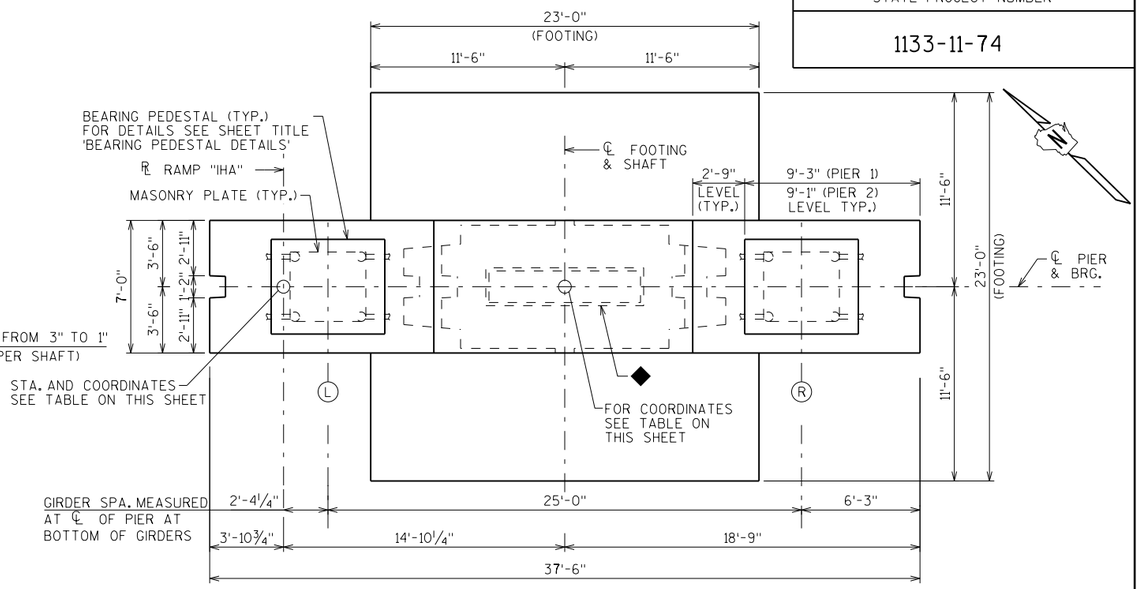
ELEVATION

(LOOKING UPSTATION)

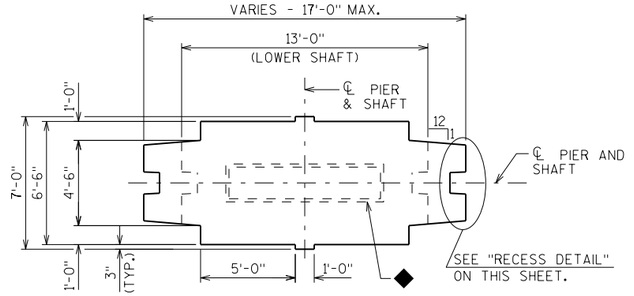


END VIEW

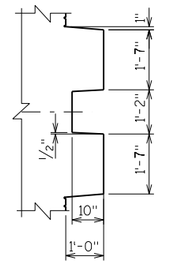
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN

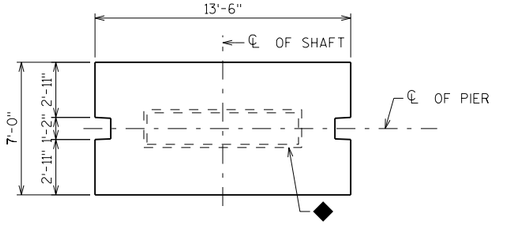


SECTION A-A



RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

FOUNDATION NOTE

PIERS 1 & 2 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED LENGTH 67' FOR PIER 1 & 76' FOR PIER 2. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 536.00 FOR PIER 1 AND 546.00 FOR PILER 2.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 1-4 & 7-10.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIERS 1&2 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS-PIER CAPS, BILL OF BARS - PIER SHAFTS & PIER FOOTING DETAILS PIERS 1-4 & 7-10.

PIER LAYOUT TABLE

	℄ PIER STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION	℞ & ℄ OF PIER COORDINATES	℄ OF PIER & ℄ OF FOOTING COORDINATES
PIER 1	1174+82.83	626.02	625.52	5'-5¾"	38'-5¾"	586.20	N = 582688.82 E = 88245.07	N = 582677.67 E = 88254.88
PIER 2	1177+12.83	631.19	630.69	4'-0¾"	37'-0¾"	592.80	N = 582840.76 E = 88417.73	N = 582829.61 E = 88427.55

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIERS 1 & 2 LAYOUT DETAILS

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STATE PROJECT NUMBER

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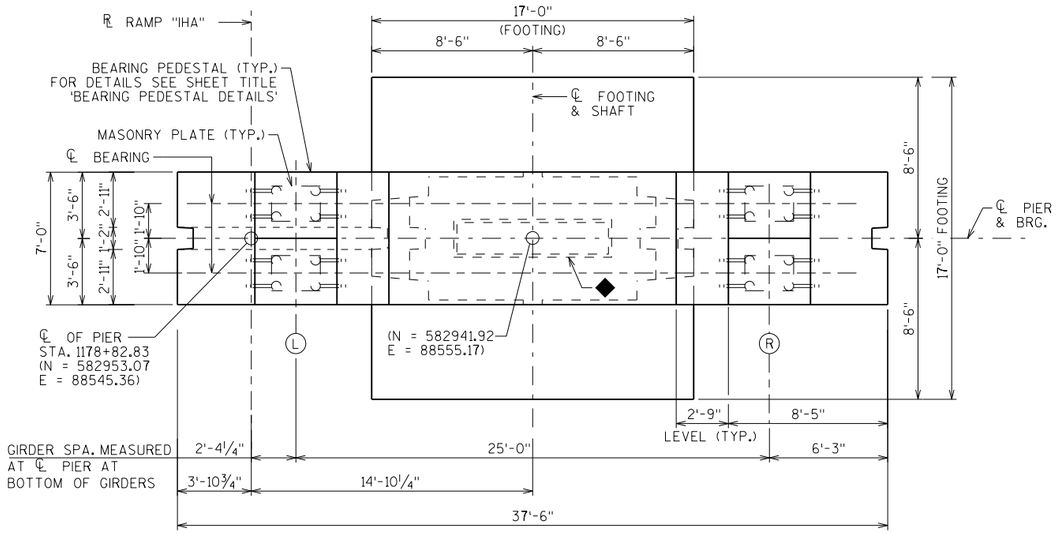
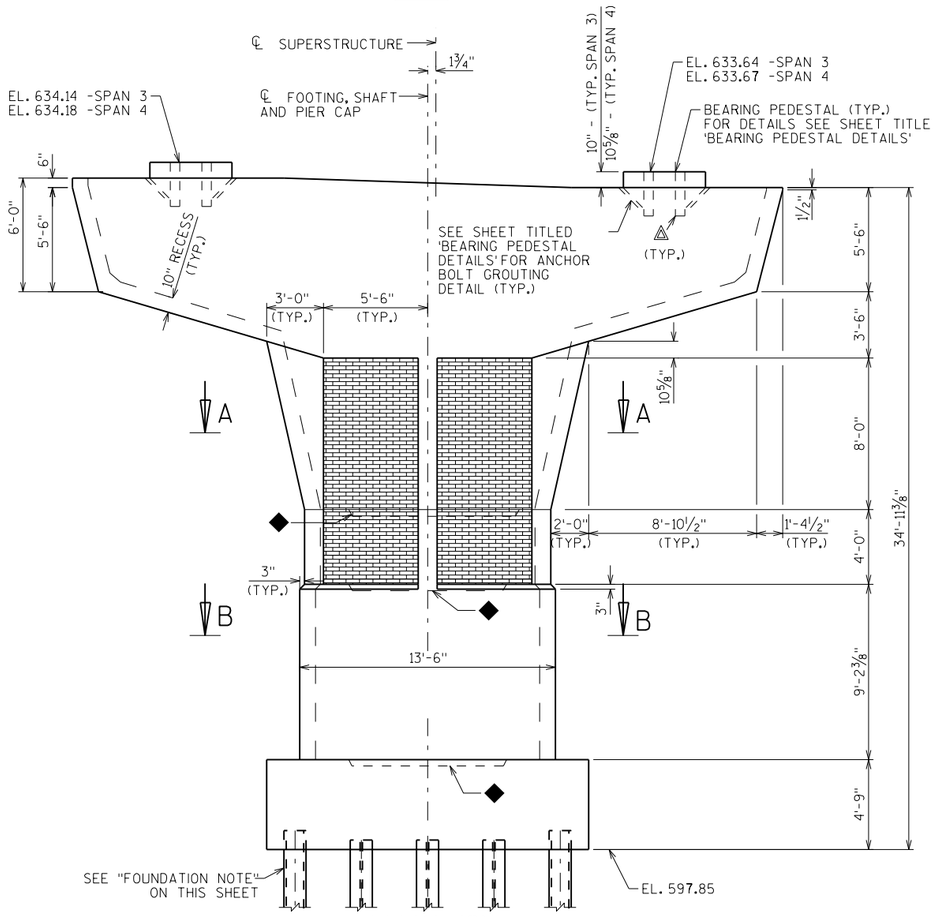
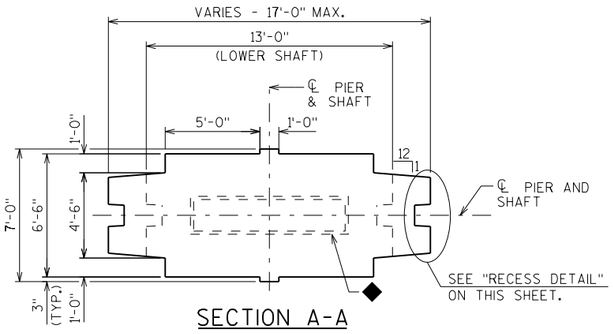


PLAN

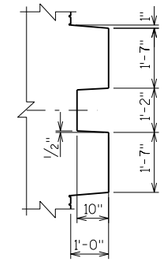


ELEVATION

(LOOKING UPSTATION)

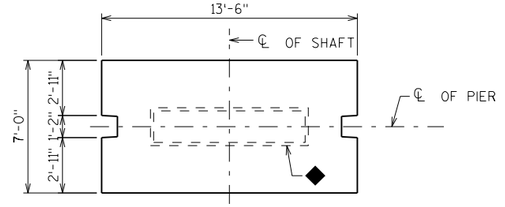


SECTION A-A



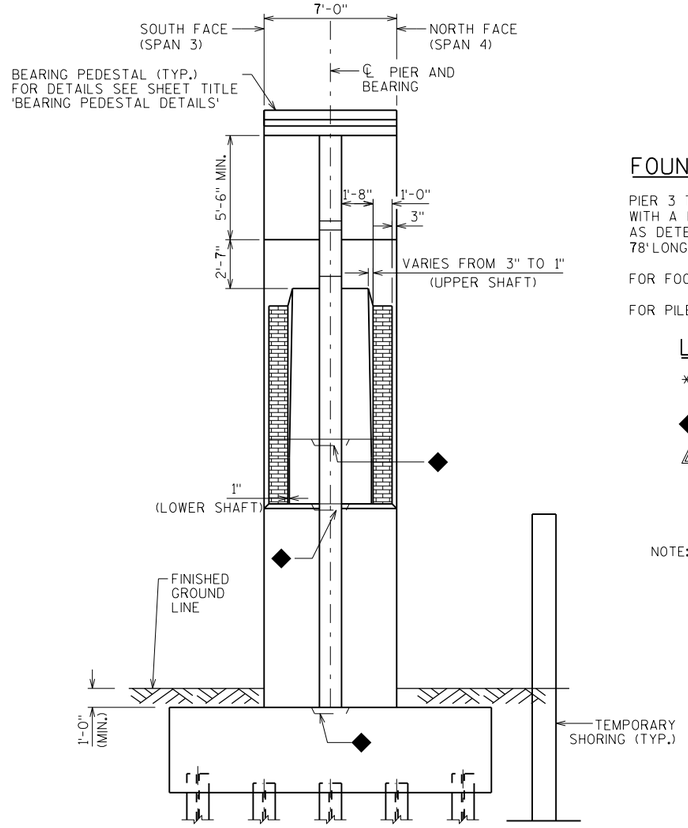
RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

FOUNDATION NOTE

PIER 3 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 78'LONG. MINIMUM PILE TIP EL. FOR UPLIFT IS 550.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 1-4 & 7-10

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 3 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFTS & PIER FOOTING DETAILS PIERS 1-4 & 7-10

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER 3
LAYOUT DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE PROJECT NUMBER

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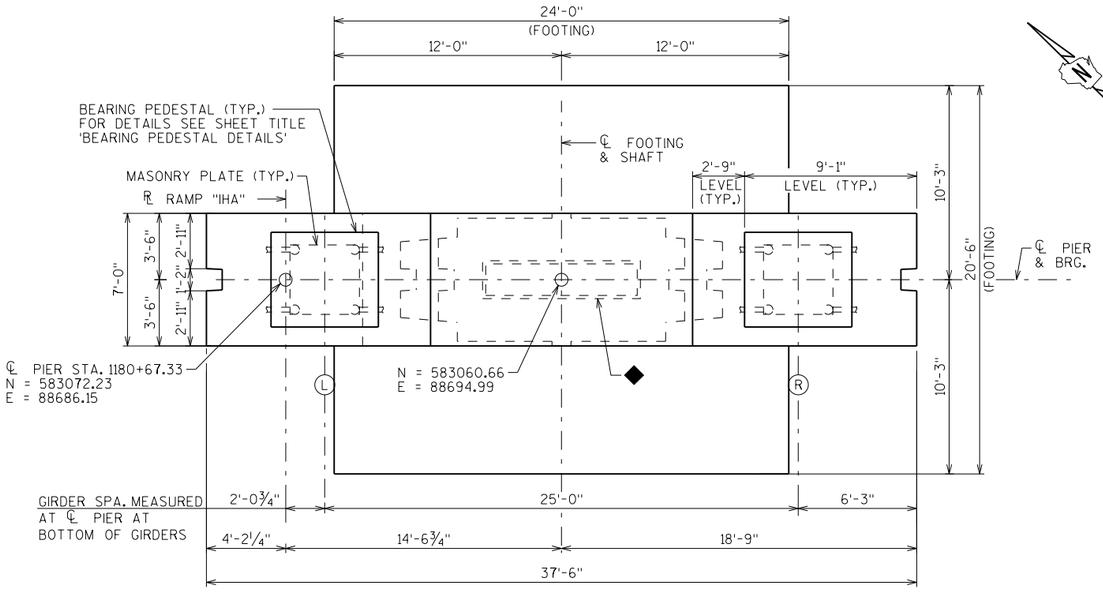
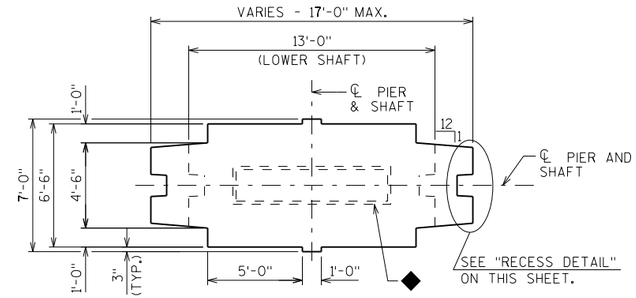
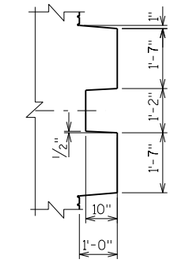


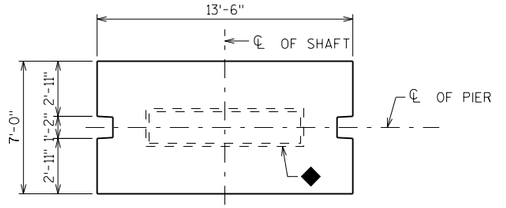
PLAN



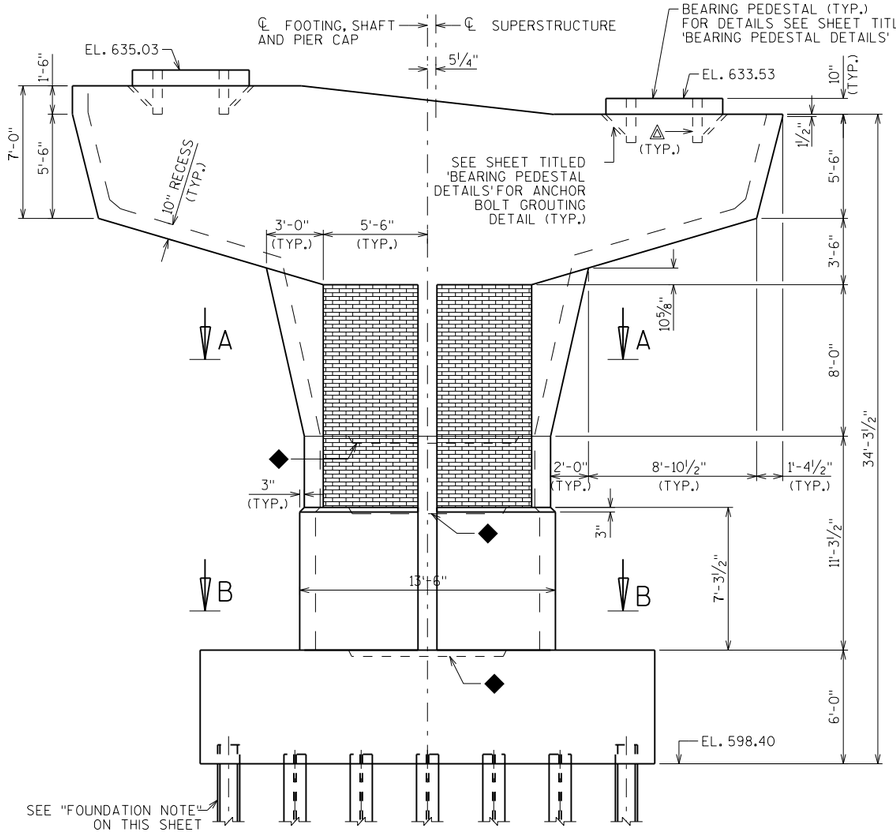
SECTION A-A



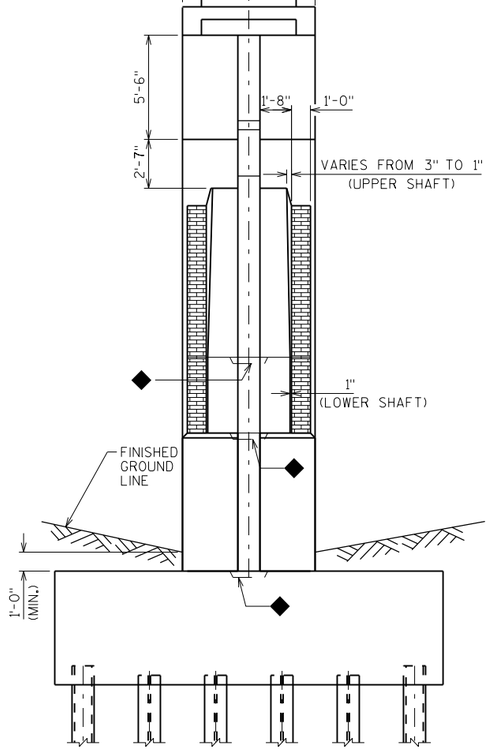
RECESS DETAIL
(LOWER SHAFT)



SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)



ELEVATION
(LOOKING UPSTATION)



END VIEW
(LOW SIDE SHOWN,
HIGH SIDE SIMILAR)

FOUNDATION NOTE

PIER 4 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 80'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 552.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 1-4 & 7-10

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 4 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFTS & PIER FOOTING DETAILS PIERS 1-4 & 7-10

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER 4
LAYOUT DETAILS

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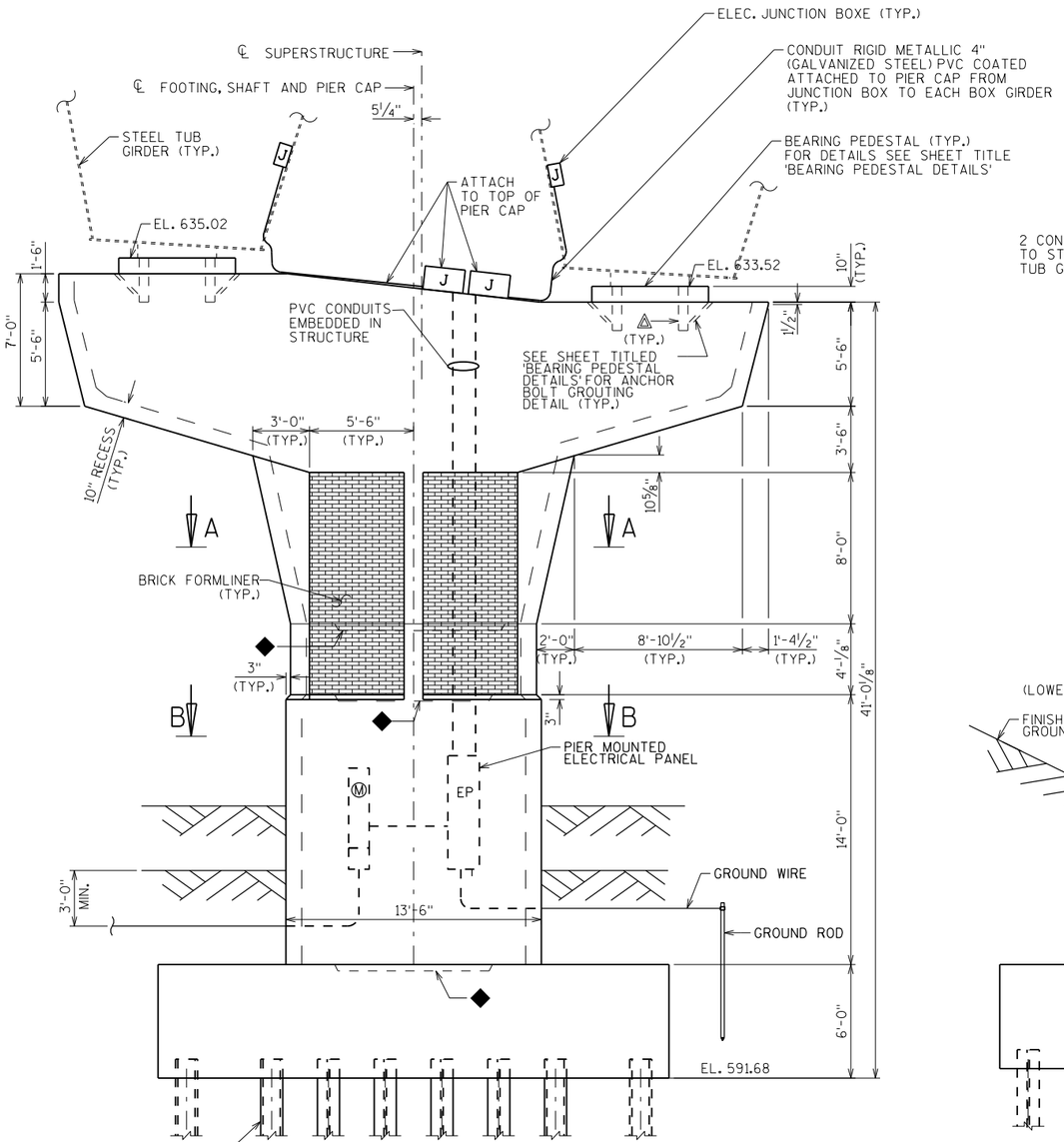
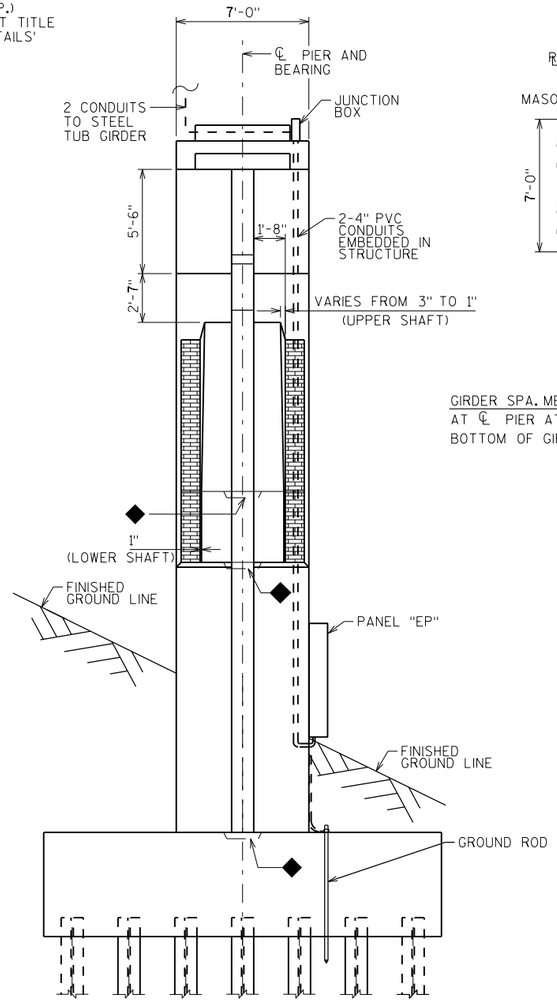


ELEVATION

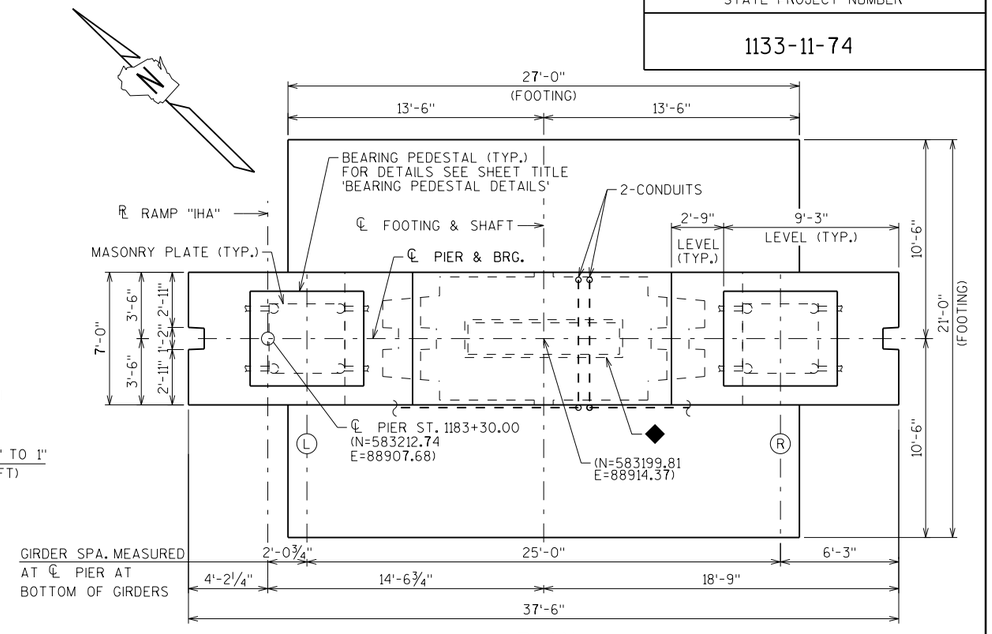
(LOOKING UPSTATION)

FOR ALL ELECTRICAL DETAILS SEE SHEET TITLED "ELECTRICAL CROSS SECTION AT PIER"

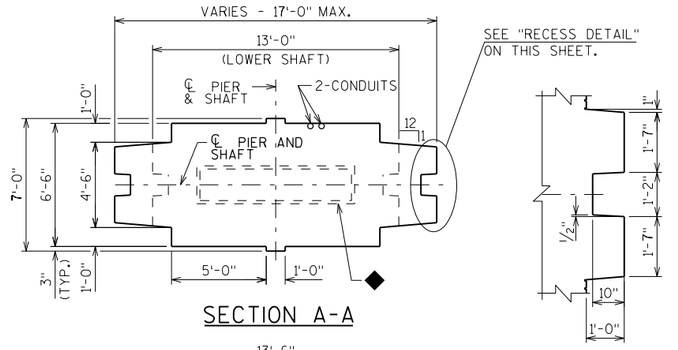


END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



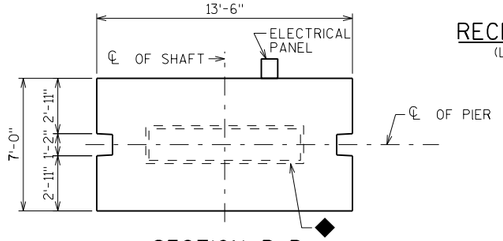
PLAN



SECTION A-A

RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

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△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 5 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAPS, BILL OF BARS - PIER SHAFTS & PIER FOOTING DETAILS PIERS 5 & 6

FOUNDATION NOTE

PIER 5 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 76' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 549.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET
PIER FOOTING DETAILS PIERS 5 & 6

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

SEE SHEET TITLED "PIER FOOTING DETAILS PIERS 5 & 6" FOR EXISTING PILES FROM STATIC PILE LOAD TEST COMPLETED NOV., 2012.

NOTES:

SEE ELECTRICAL DRAWINGS FOR ELECTRICAL DETAILS.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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PIER 5 LAYOUT DETAILS

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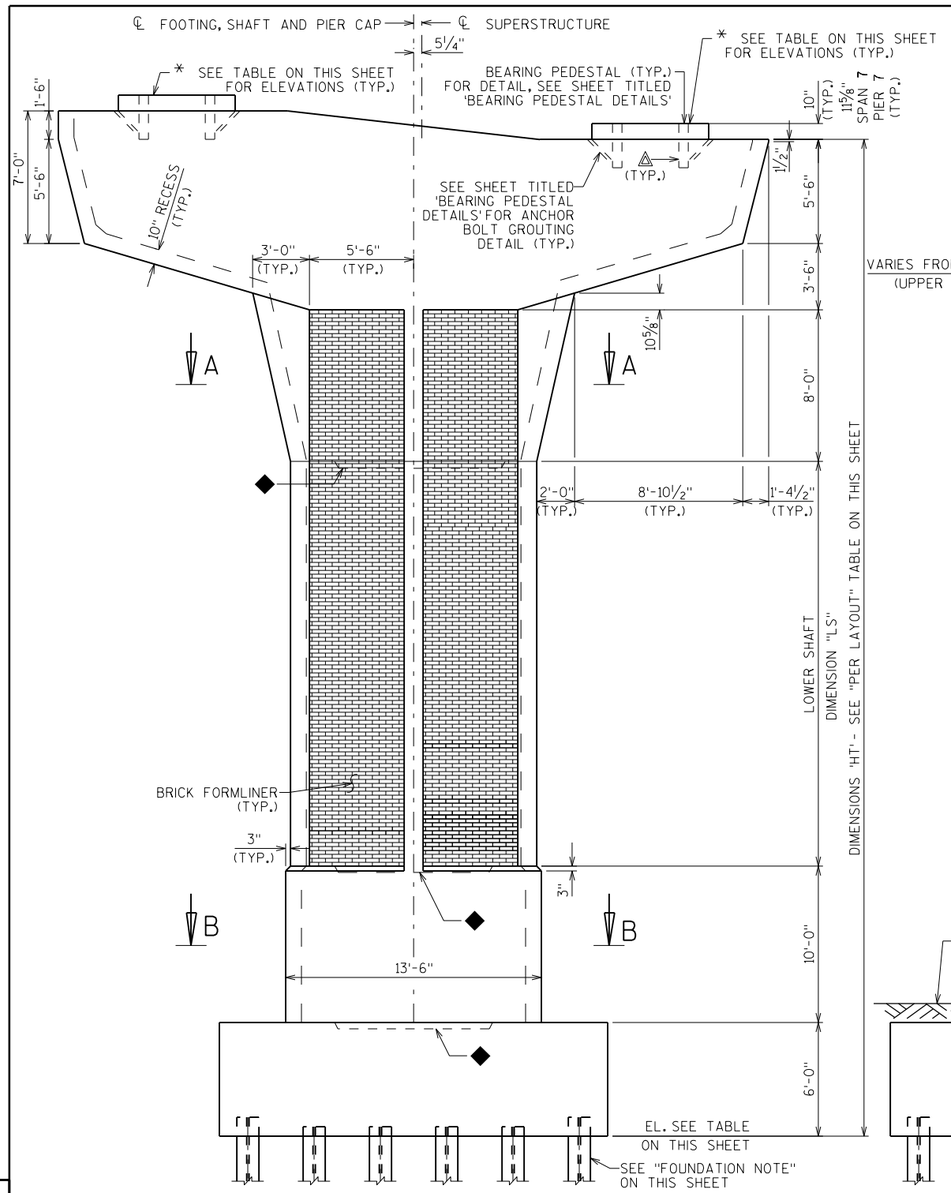
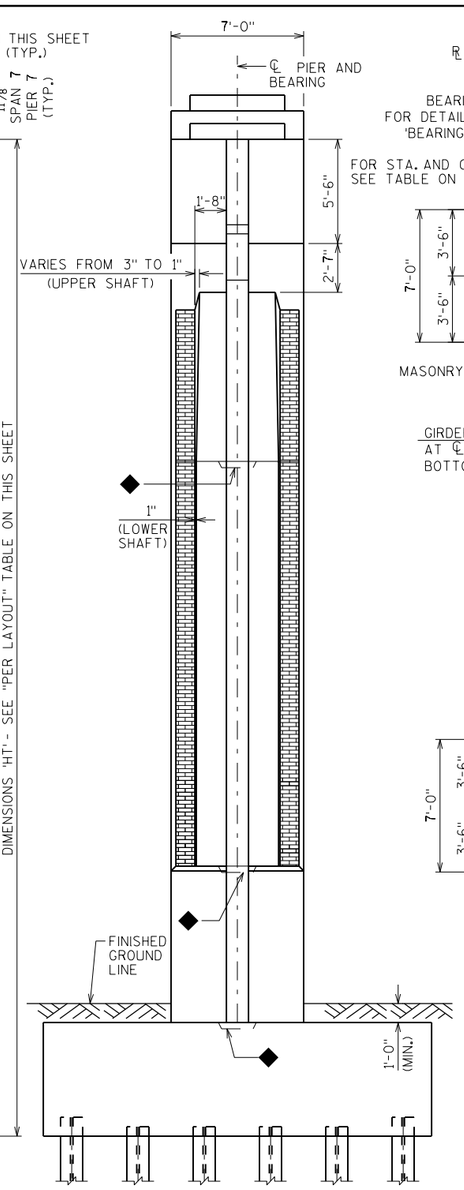


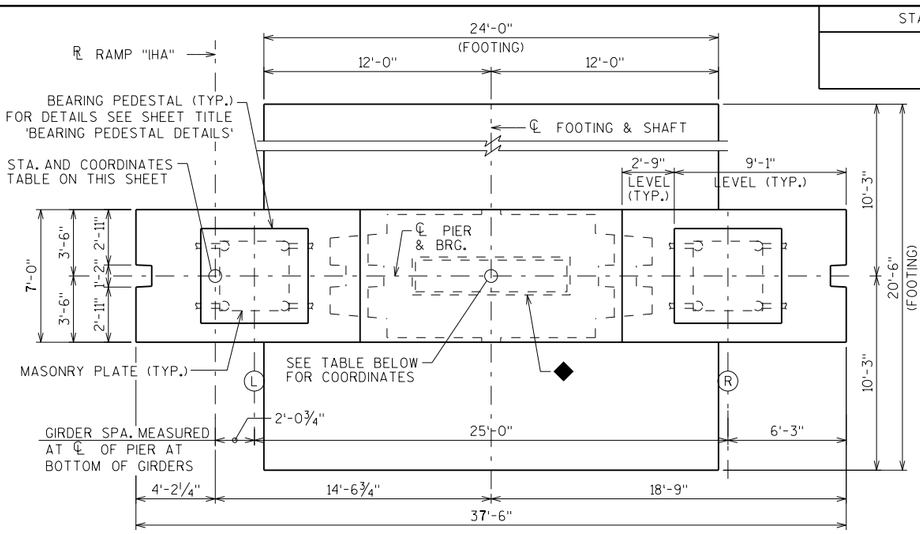
ELEVATION

(LOOKING UPSTATION)

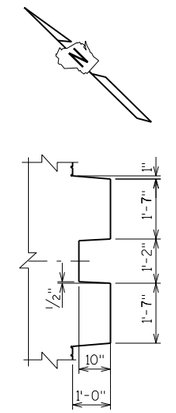


END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)
(PIER 6 SHOWN, PIER 7 SIMILAR)

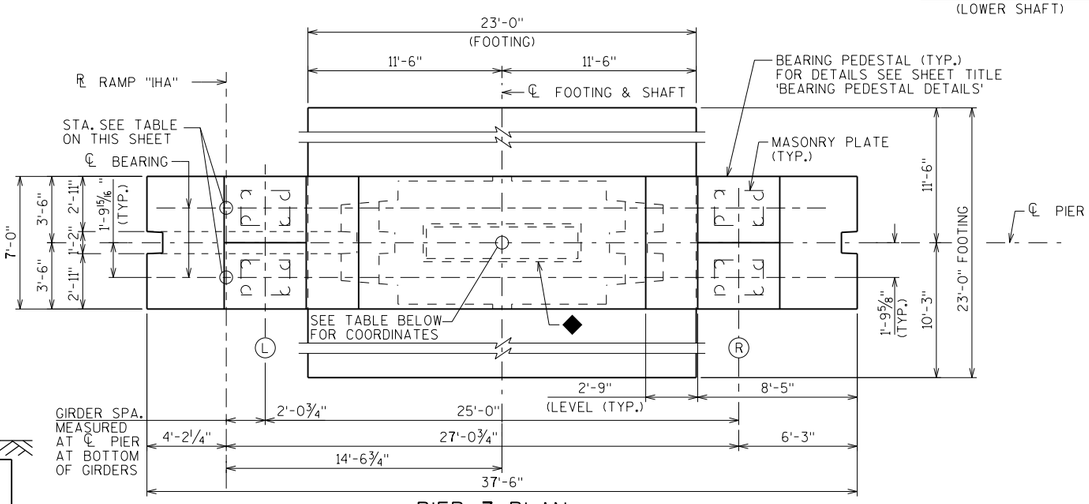


PIER 6 PLAN

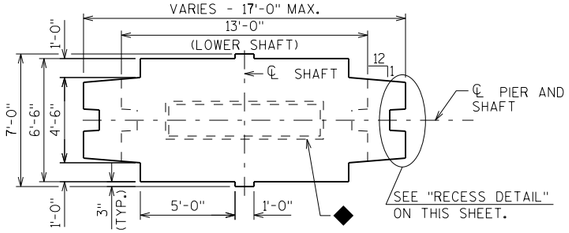


RECESS DETAIL

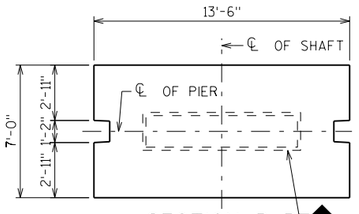
(LOWER SHAFT)



PIER 7 PLAN



SECTION A-A



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

FOUNDATION NOTE

PIERS 6 & 7 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED LENGTH 66' AT PIER 6 & 67' AT PIER 7. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 548.00 FOR PIER 6 AND 532.00 FOR PIER 7.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 1-4, 5-6 & 7-10

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION

NOTE:
FOR PIERS 6 & 7 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAPS, BILL OF BARS - PIER SHAFTS & PIER FOOTING DETAILS PIERS 1-4, 5-6 & 7-10

PIER LAYOUT TABLE

	CENTERLINE BEARING STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER & ℄ OF FOOTING COORDINATES
PIER 6	1185+92.67	632.43	630.93	19'-10¾"	52'-10¾"	577.20	N = 583312.51 E = 89150.30	N = 583298.61 E = 89154.64
PIER 7 SPAN 7	1187+77.17	629.65	628.15	17'-9⅜"	50'-9⅜"	576.40	N = 583356.53 E = 89329.35	N = 583342.20 E = 89331.95
PIER 7 SPAN 8	1187+79.00	629.51	628.01					

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PIERS 6 & 7 LAYOUT DETAILS

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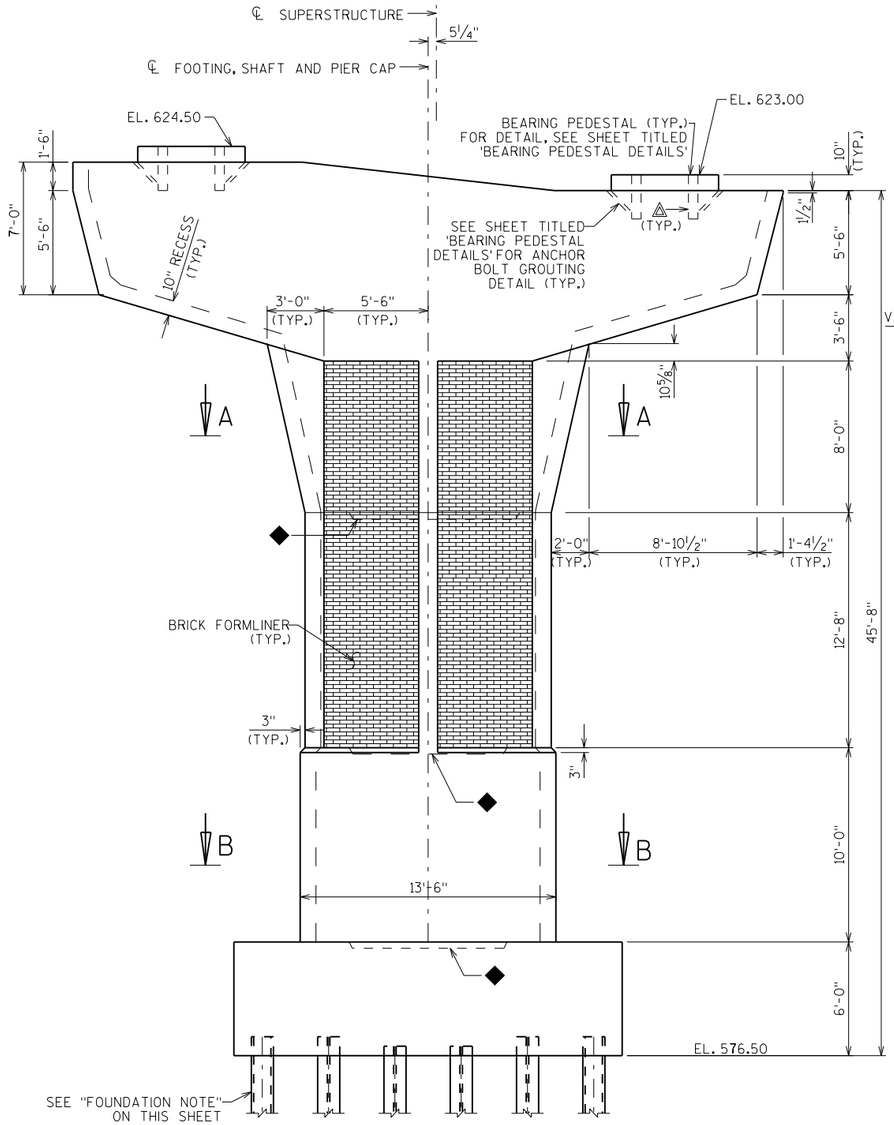
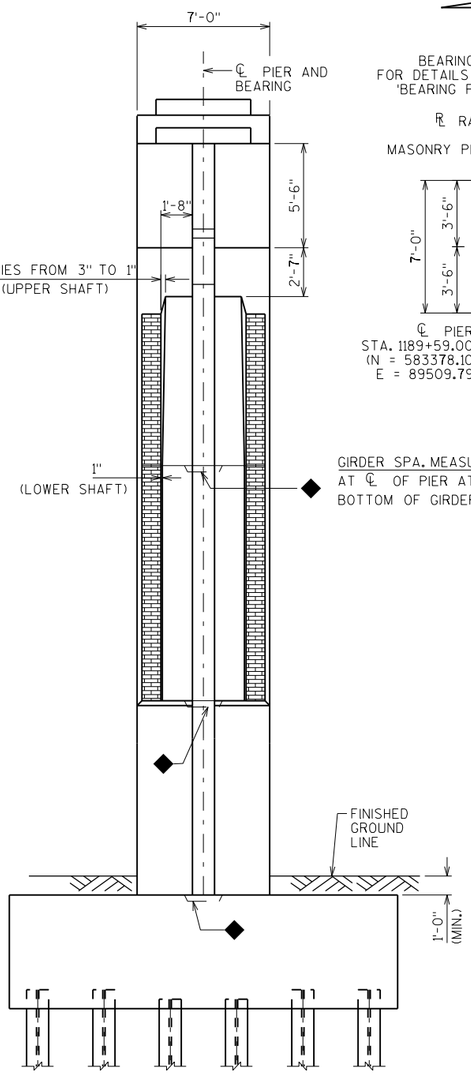
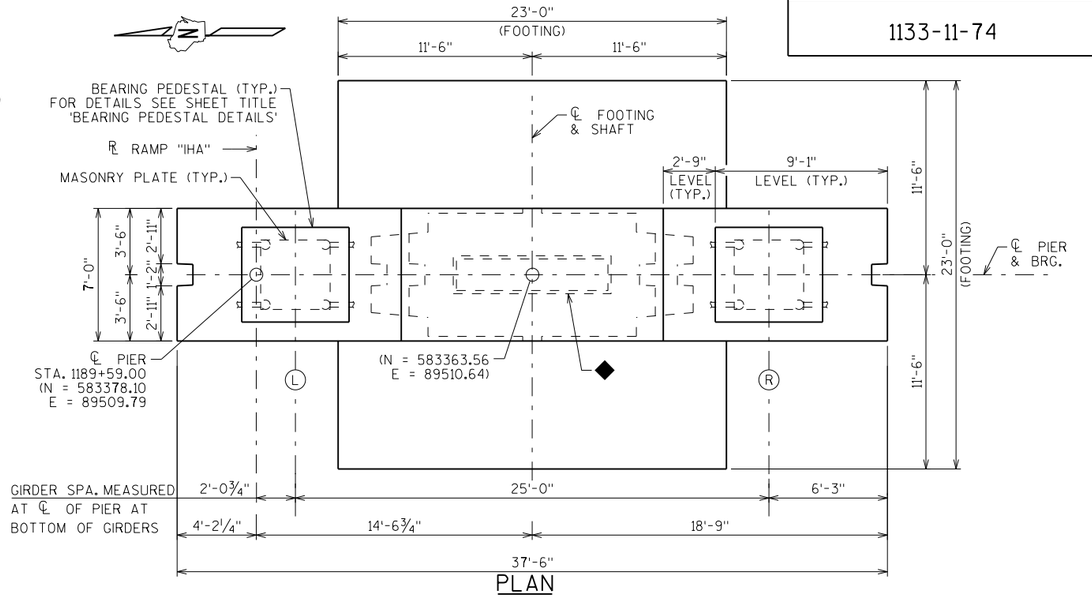


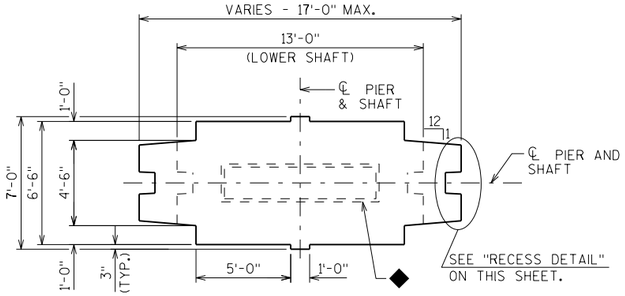
ELEVATION
(LOOKING UPSTATION)



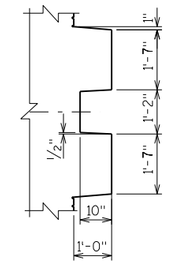
END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



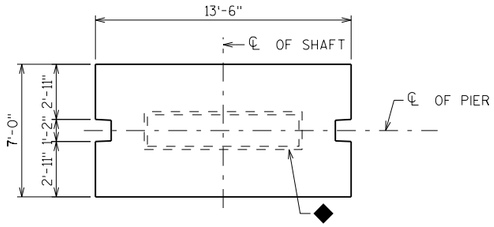
PLAN



SECTION A-A



RECESS DETAIL
(LOWER SHAFT)



SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

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⚠ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 8 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAPS, BILL OF BARS - PIER SHAFTS & PIER FOOTING DETAILS PIERS 1-4 & 7-10

FOUNDATION NOTE

PIER 8 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED LENGTH 69'. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 526.00.

FOR FOOTING LAYOUT DETAILS SEE SHEET PIER FOOTING DETAILS PIERS 1-4 & 7-10

FOR PILE SPLICE DETAILS, SEE SOUTH ABUTMENT CROSS SECTION

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PIER 8
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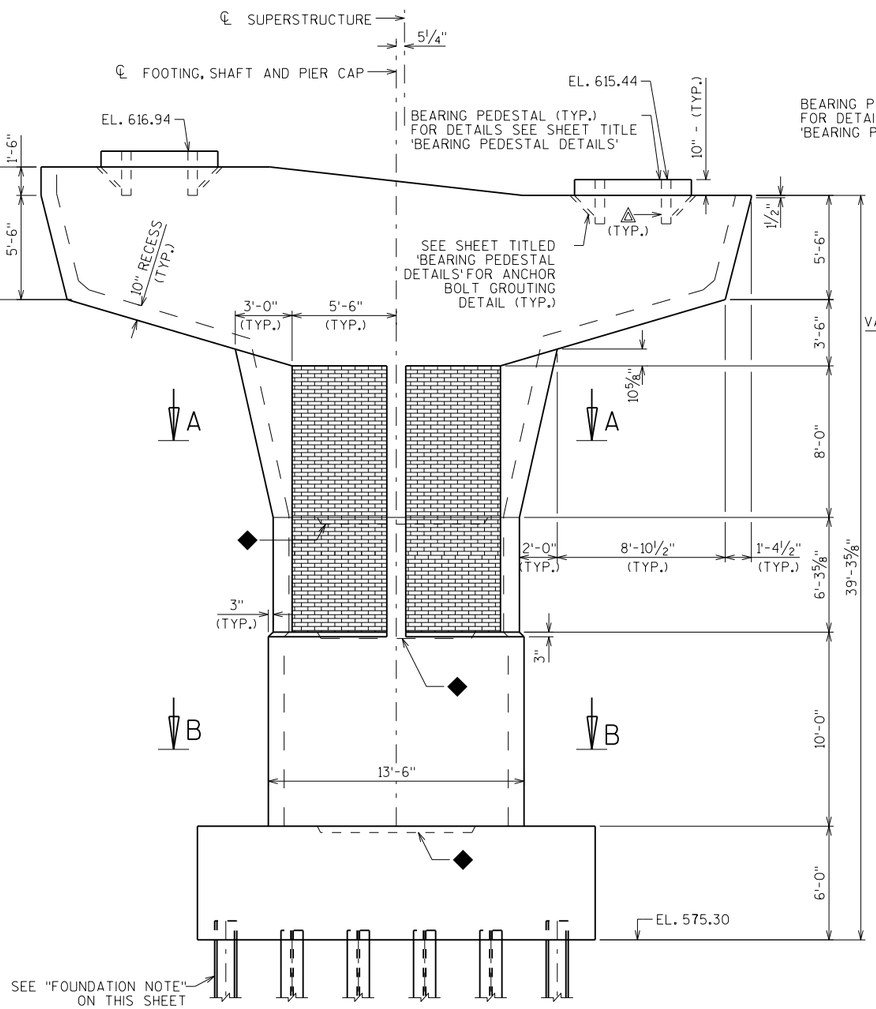

ELEVATION

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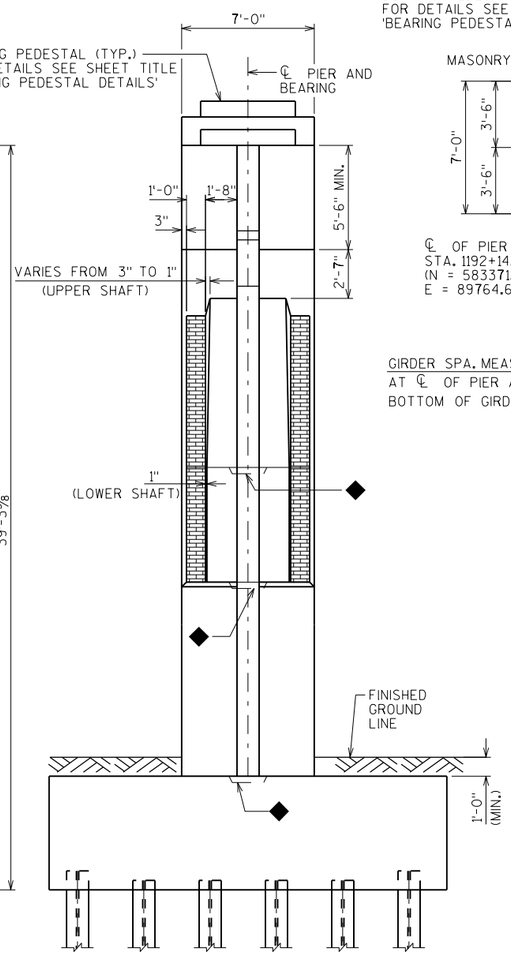
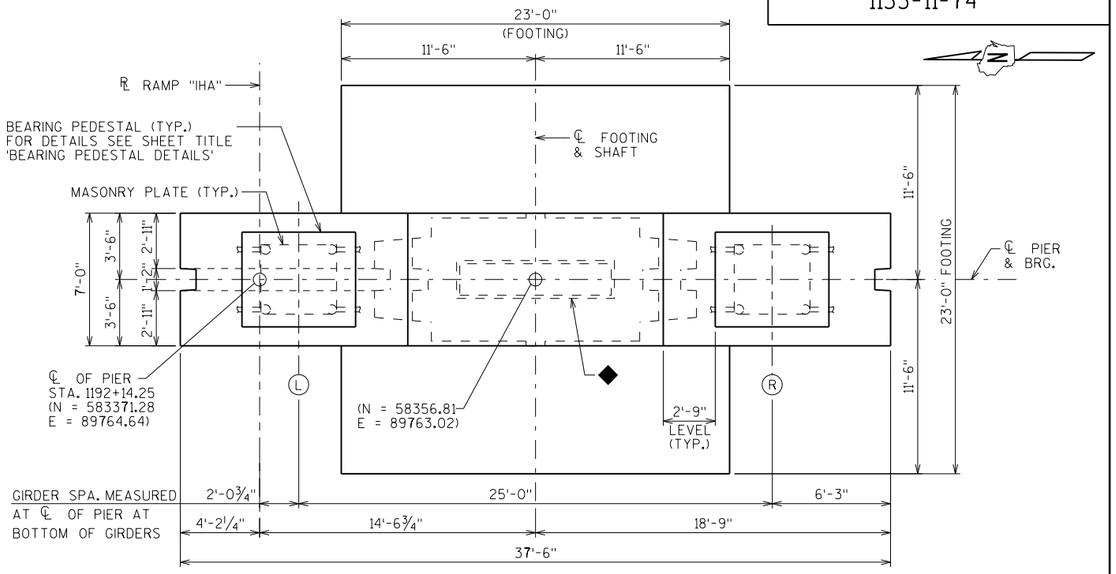
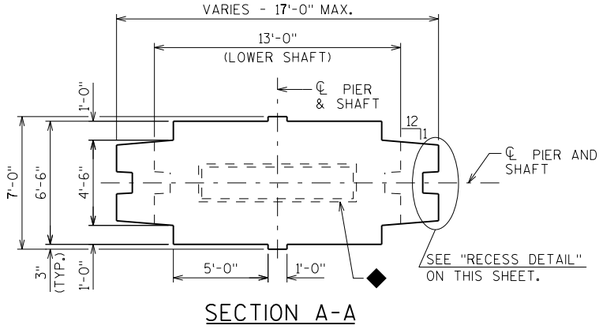


END VIEW

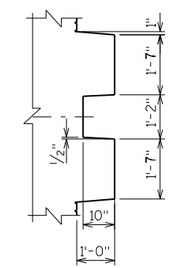
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN

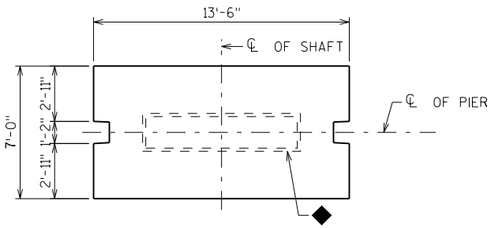


SECTION A-A



RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

⚠ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE:
FOR PIER 9 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAPS, BILL OF BARS - PIER SHAFT & PIER FOOTING DETAILS PIERS 1-4 & 7-10

PIER 9 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 72'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 526.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET
PIER FOOTING DETAILS PIERS 1-4 & 7-10.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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PIER 9
LAYOUT DETAILS

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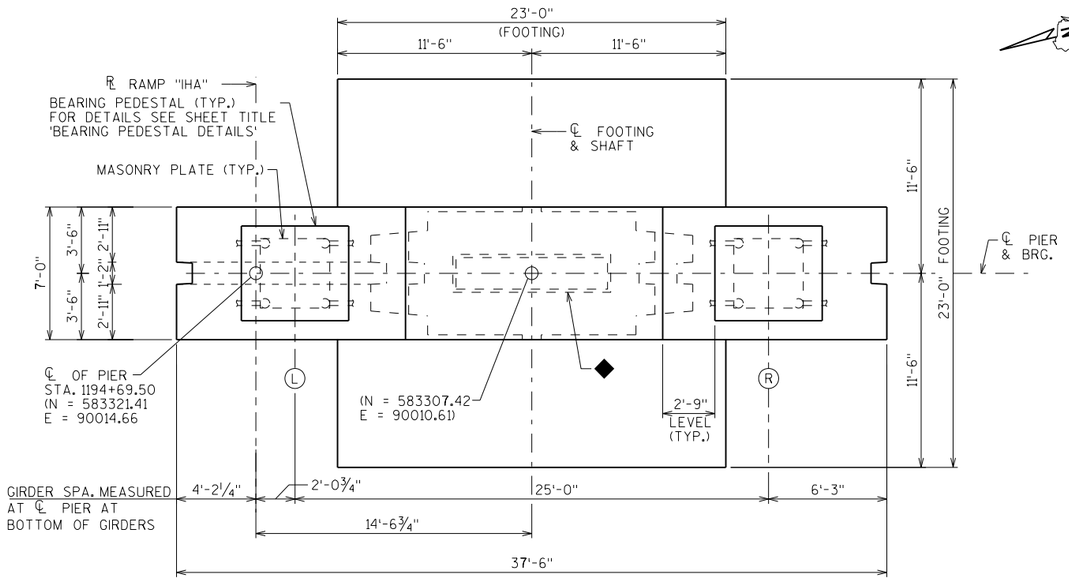
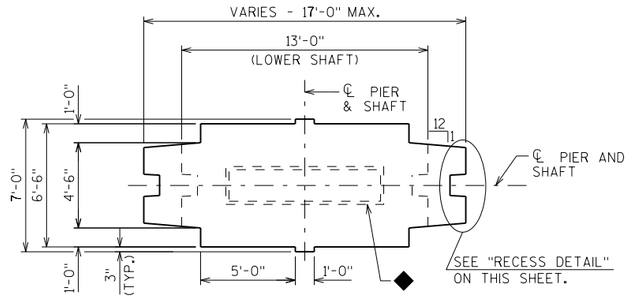
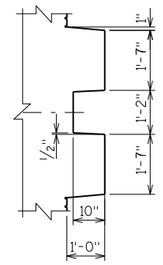


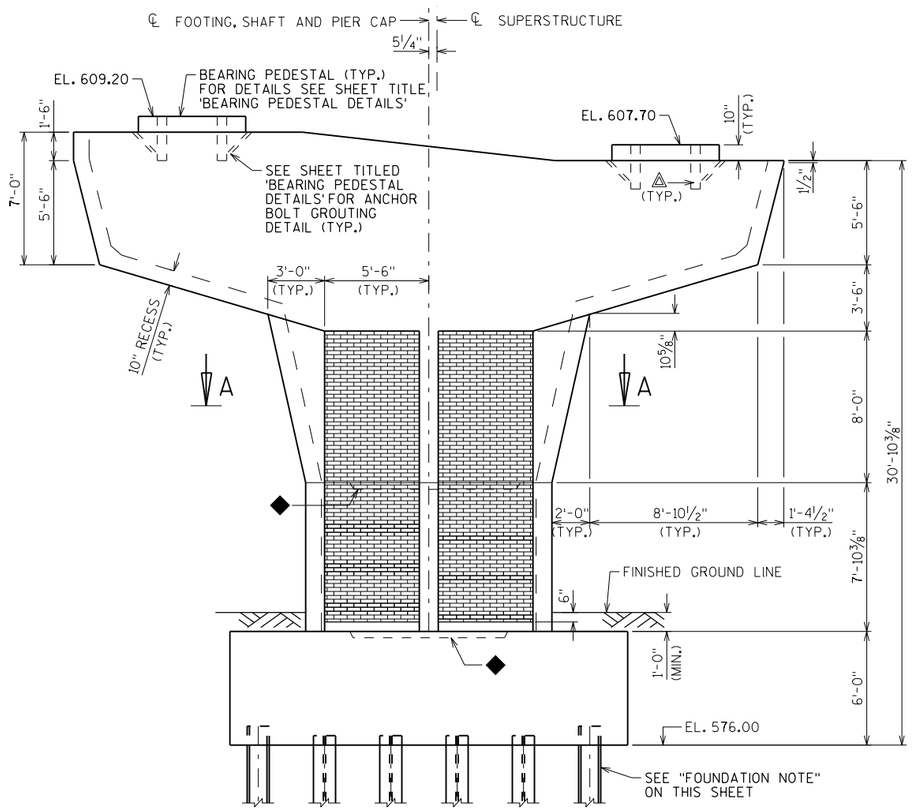
PLAN



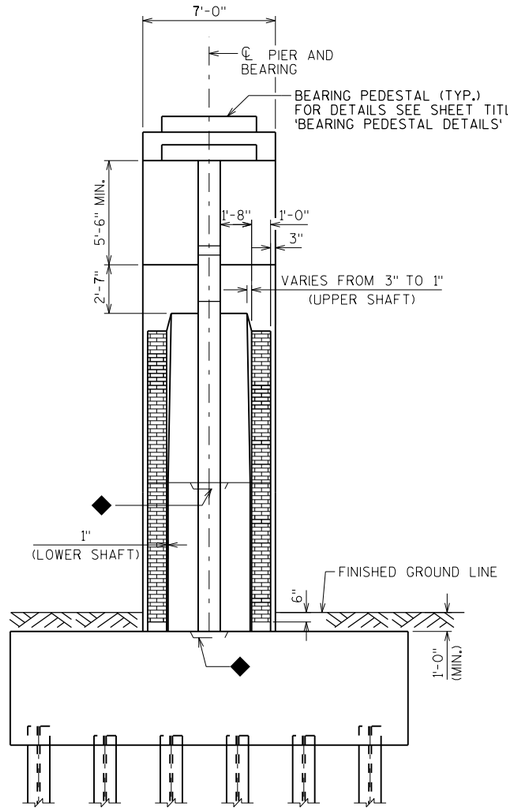
SECTION A-A



RECESS DETAIL
(LOWER SHAFT)



ELEVATION
(LOOKING UPSTATION)



END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTES: FOR PIER 10 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAPS, BILL OF BARS - PIER SHAFT & PIER FOOTING DETAILS PIERS 1-4 & 7-10.

PIER 10 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 69'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 519.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET
PIER FOOTING DETAILS PIERS 1-4 & 7-10.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

PIER 10
LAYOUT DETAILS

SHEET 31 OF 96
541

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\031 B-5-671 - Pier 10 Layout Details.dgn

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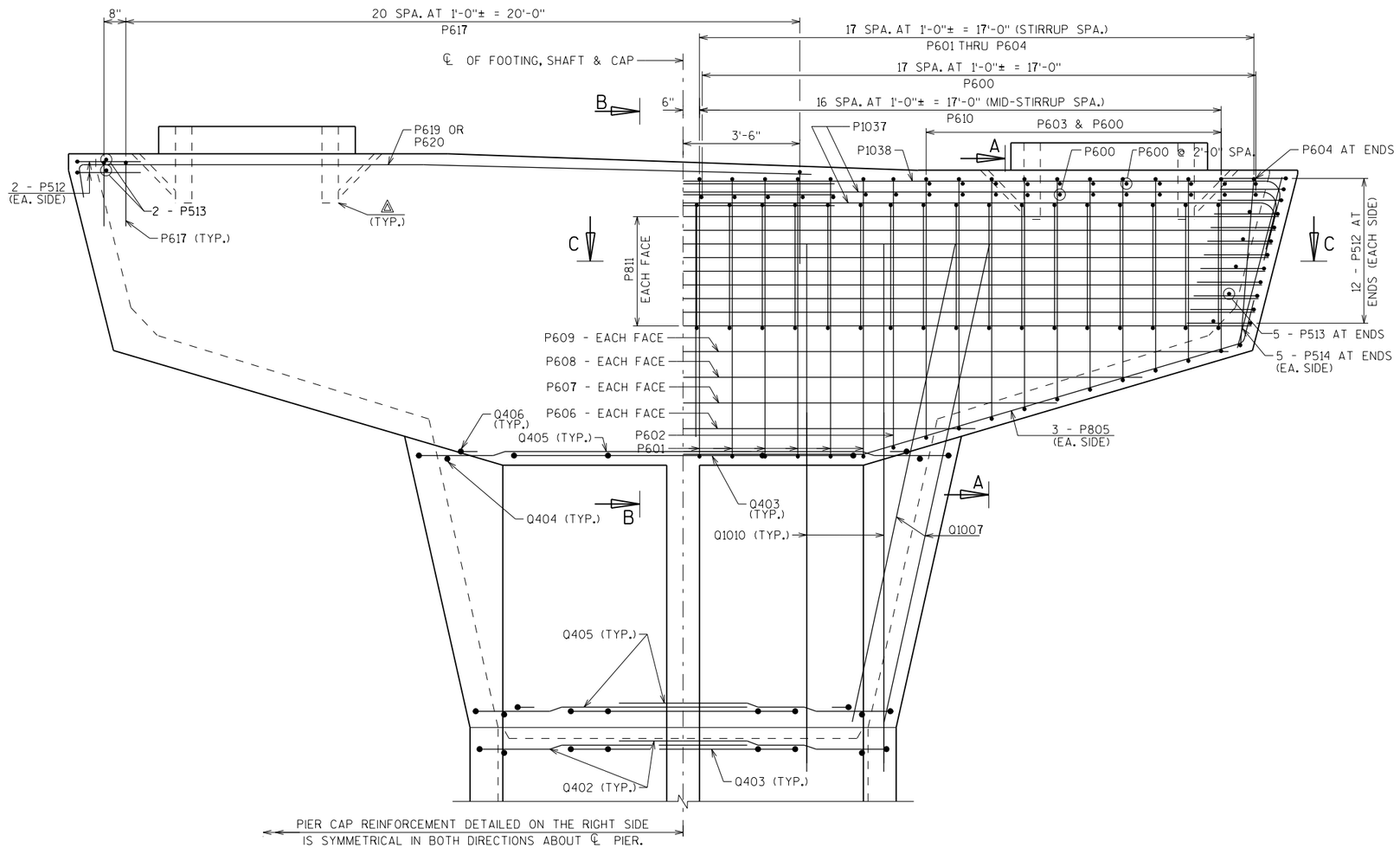
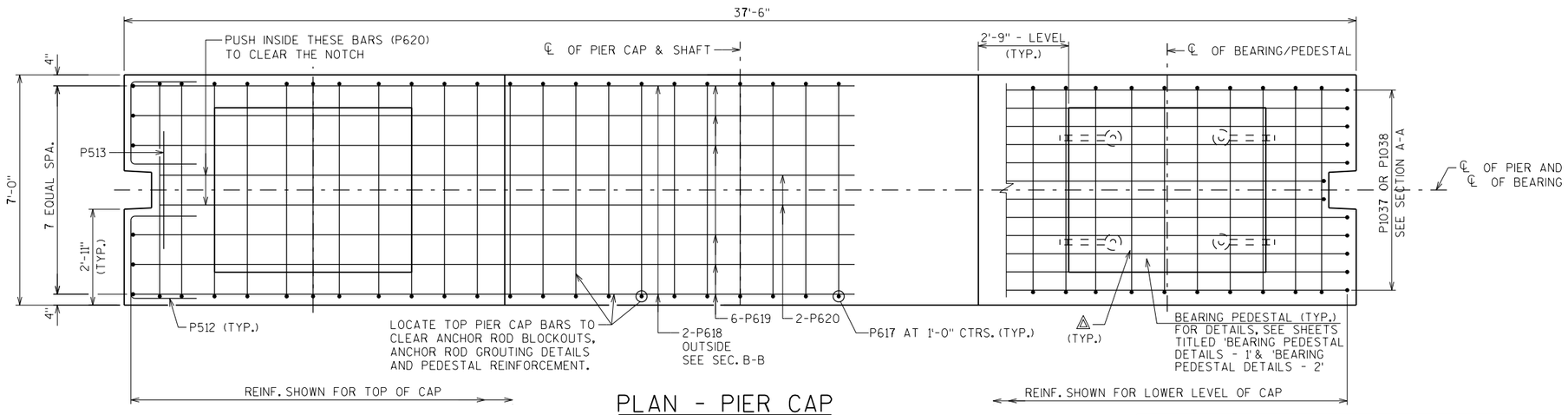


PIER CAP REINFORCEMENT DETAILED ON THE RIGHT SIDE IS SYMMETRICAL IN BOTH DIRECTIONS ABOUT ℄ PIER.

SECTION ELEVATION - PIER CAP

(SHAFT AND BEARING PEDESTAL REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET "PIER LAYOUT DETAILS".

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1037 & P1038 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 1 & 2" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEET "PIERS 1 & 2 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS SHAFT DETAILS PIER 1 & 2 AND BILL OF BARS PIER SHAFT FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS 1 AND 2 " FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP DETAILS PIERS 1 & 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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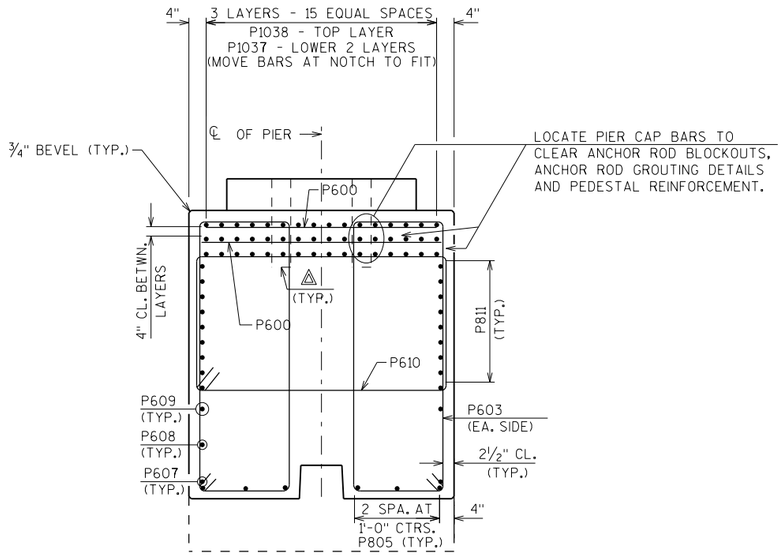
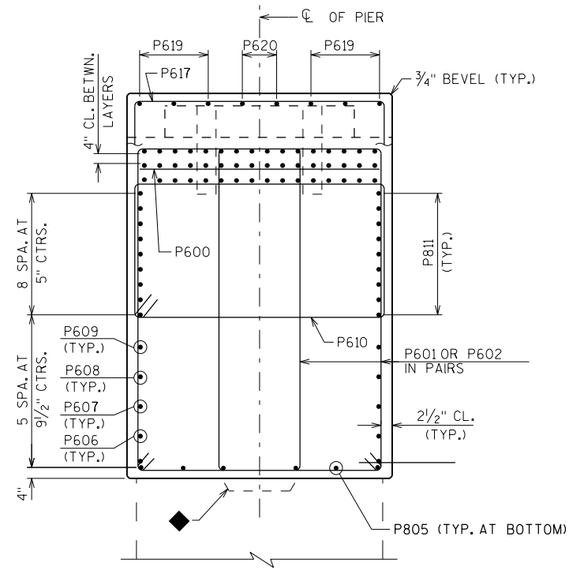
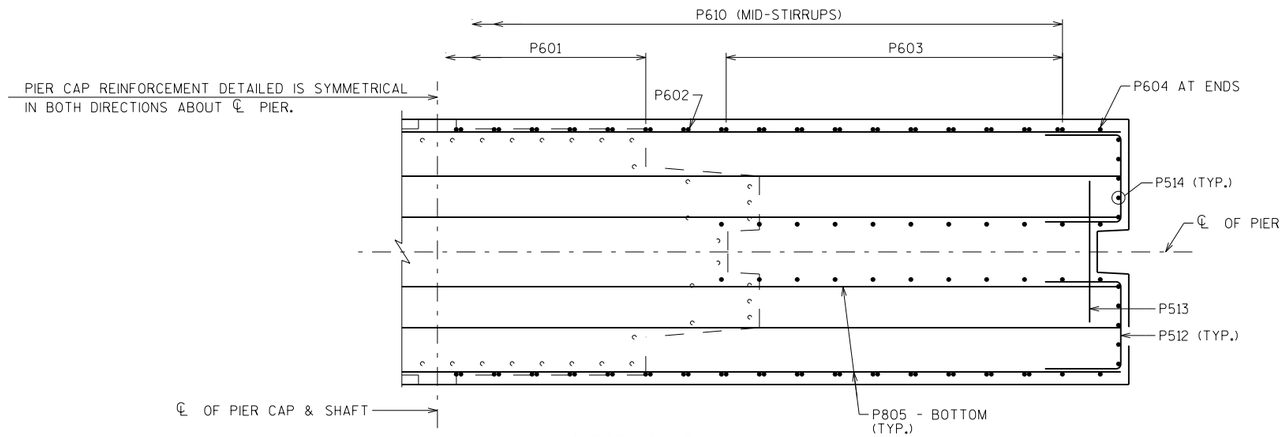


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

NOTE

SEE SHEET "PIER CAP DETAILS - PIERS 1& 2" FOR NOTES AND LOCATION OF SECTIONS A-A, B-B AND C-C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP SECTIONS PIERS 1& 2

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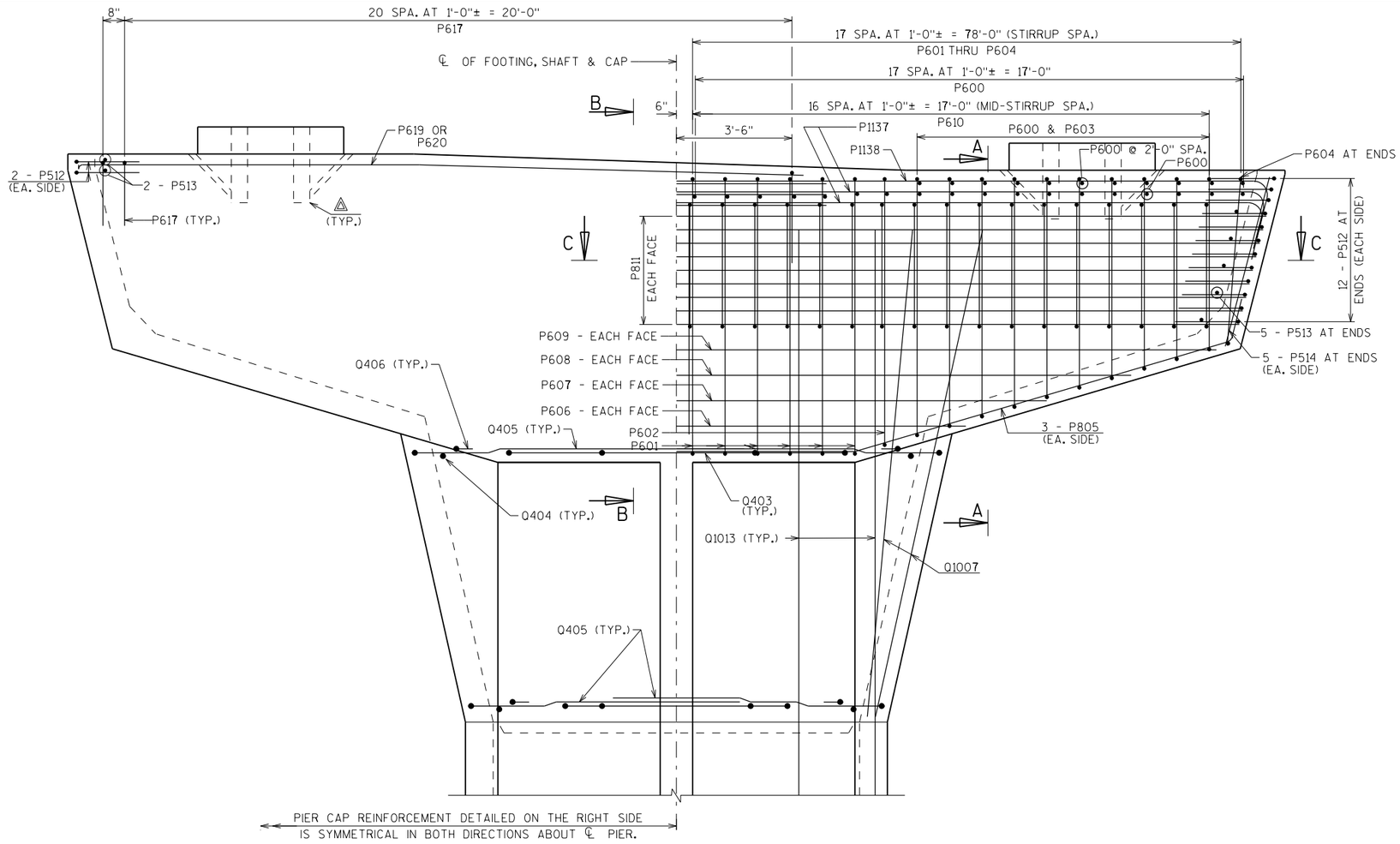
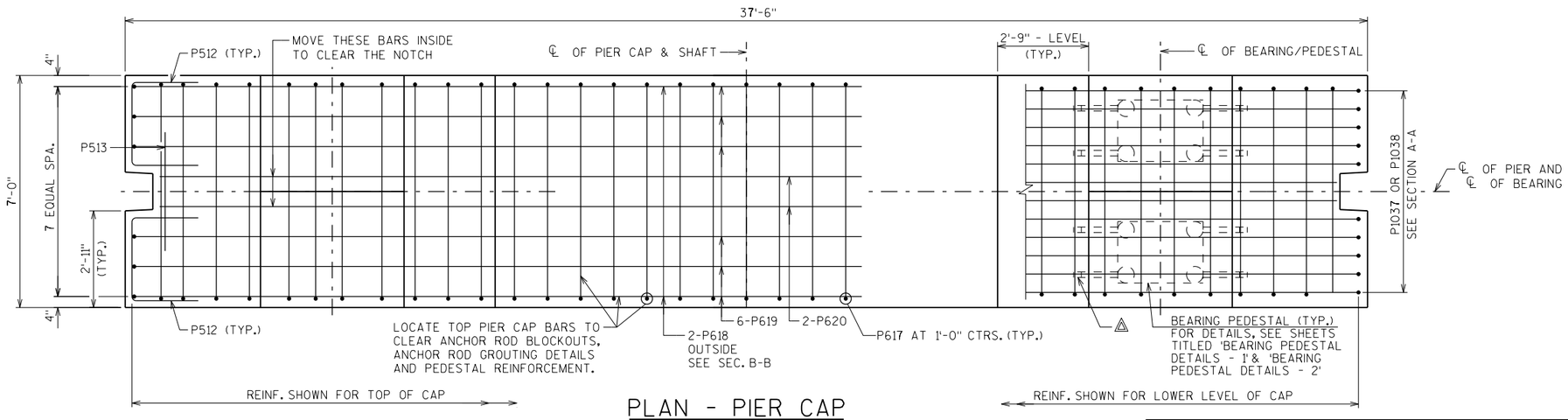


SECTION ELEVATION - PIER CAP

(SHAFT AND BEARING PEDESTAL
REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET "PIER LAYOUT DETAILS".

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1037 & P1038 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 1& 2" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIERS 1& 2 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS SHAFT DETAILS PIER 1&2 AND BILL OF BARS PIER SHAFT FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS 1 AND 2 " FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP DETAILS
PIER 3

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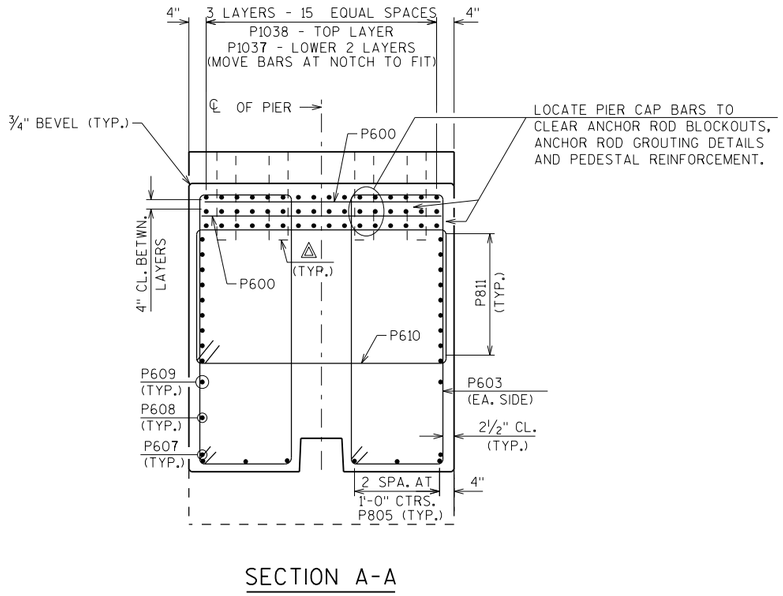
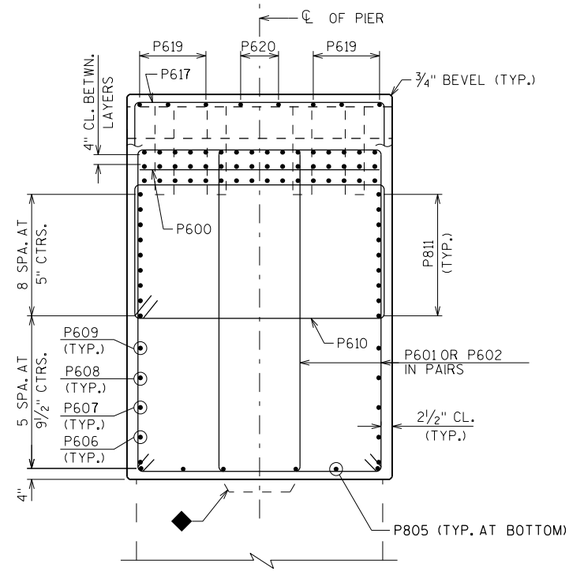
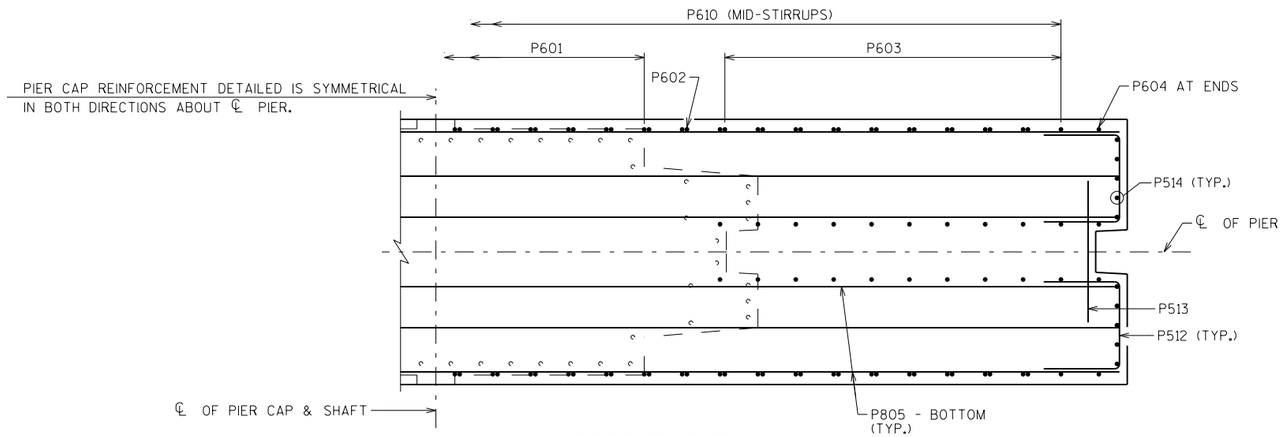


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

NOTE

SEE SHEET "PIER CAP DETAILS - PIER 3" FOR NOTES AND LOCATION OF SECTIONS A-A, B-B AND C-C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

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PIER CAP SECTIONS PIER 3

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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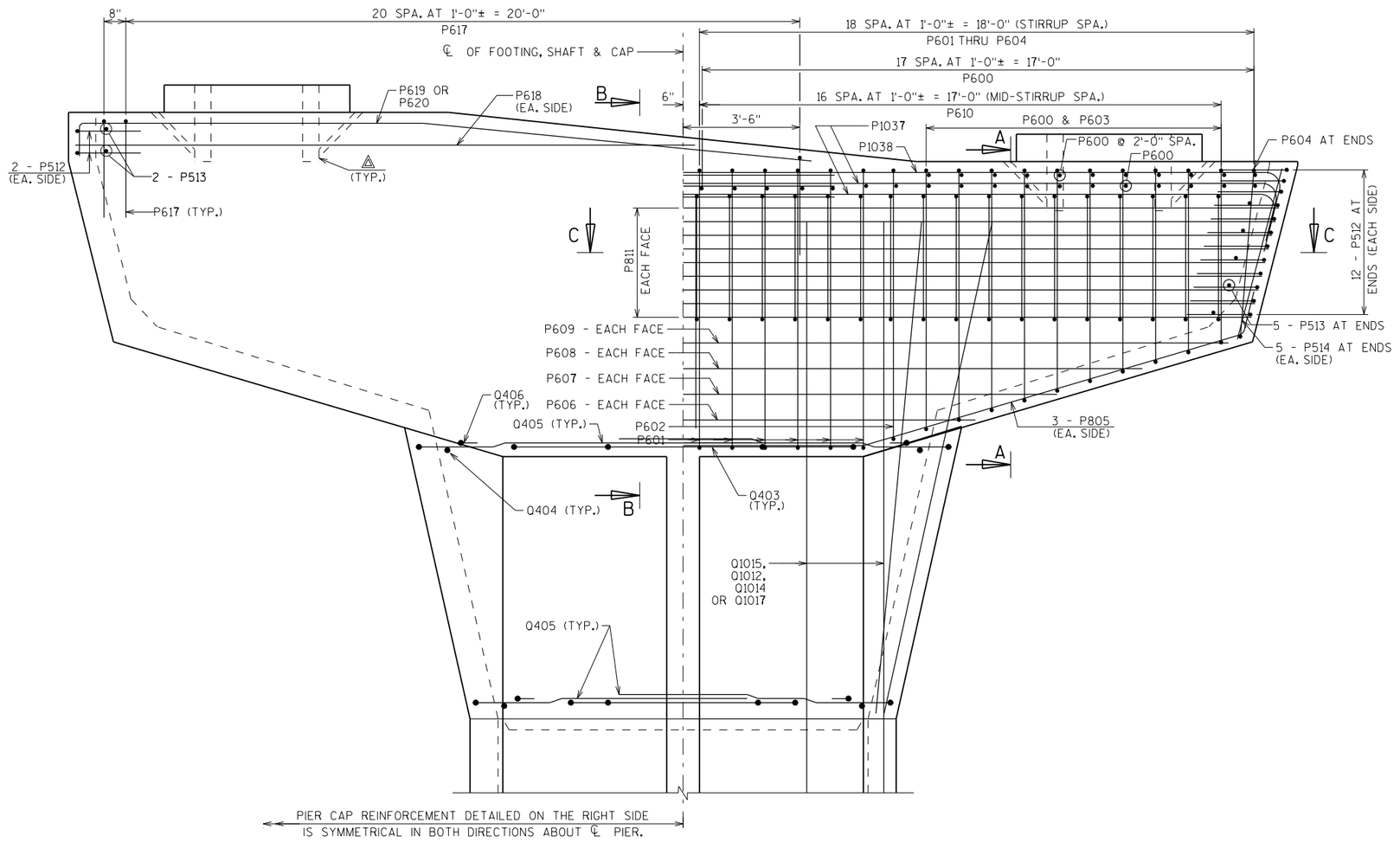
STATE PROJECT NUMBER

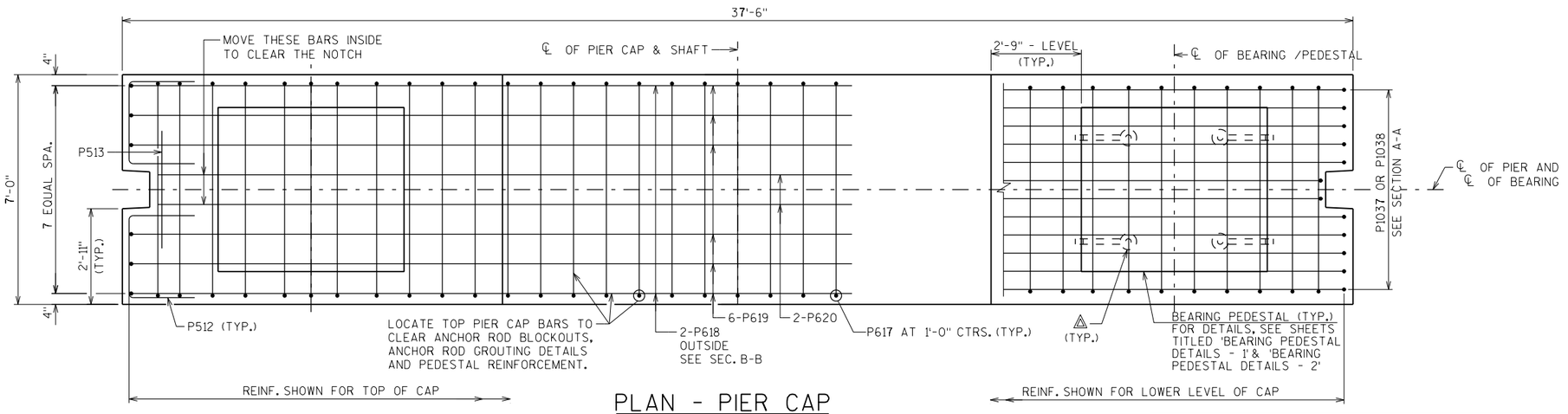
1133-11-74



PIER CAP REINFORCEMENT DETAILED ON THE RIGHT SIDE IS SYMMETRICAL IN BOTH DIRECTIONS ABOUT ℄ PIER.

SECTION ELEVATION - PIER CAP

(SHAFT AND BEARING PEDESTAL REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET "PIER LAYOUT DETAILS".

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1037 & P1038 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 4-6, 8-10" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIERS LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS SHAFT DETAILS PIER 4 & 10 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS 1 & 2" FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP DETAILS
PIERS 4-6, 8-10

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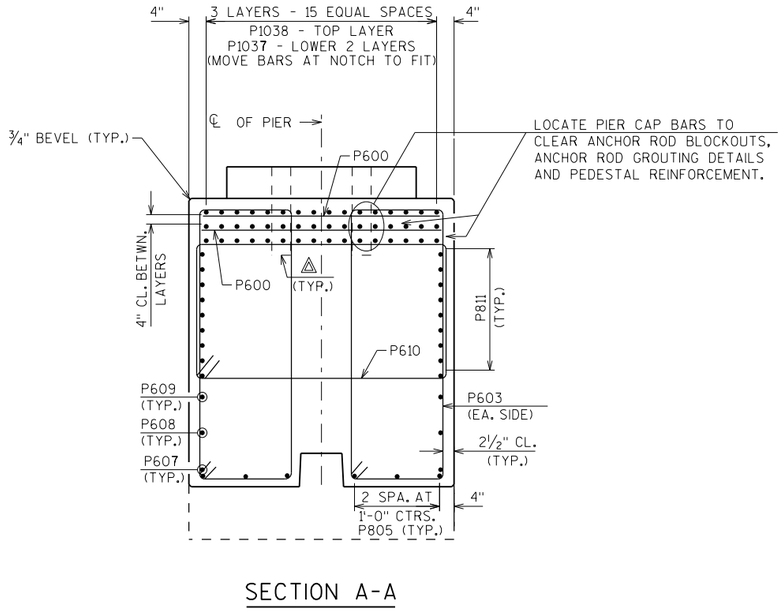
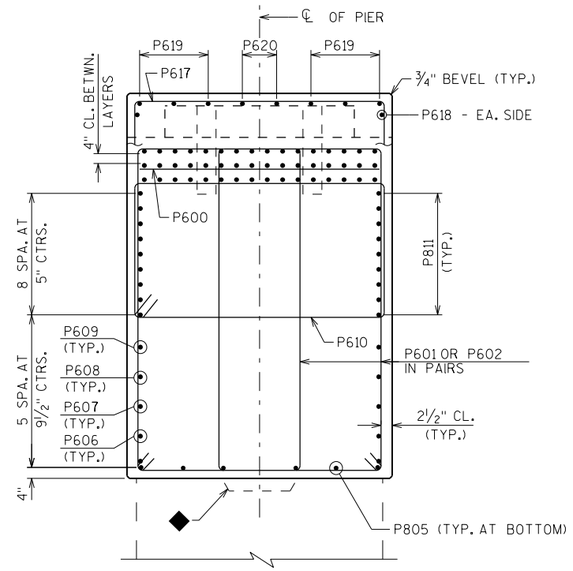
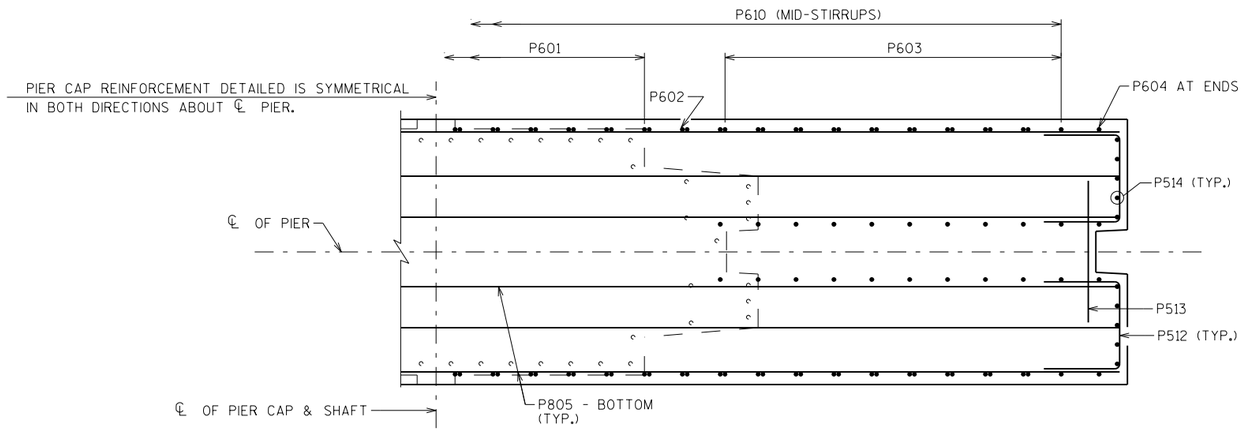


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

⚠ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

NOTE

SEE SHEET "PIER CAP DETAILS - PIERS 4-6 AND 8-10" FOR NOTES AND LOCATION OF SECTIONS A-A, B-B AND C-C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP SECTIONS PIERS 4-6, 8-10

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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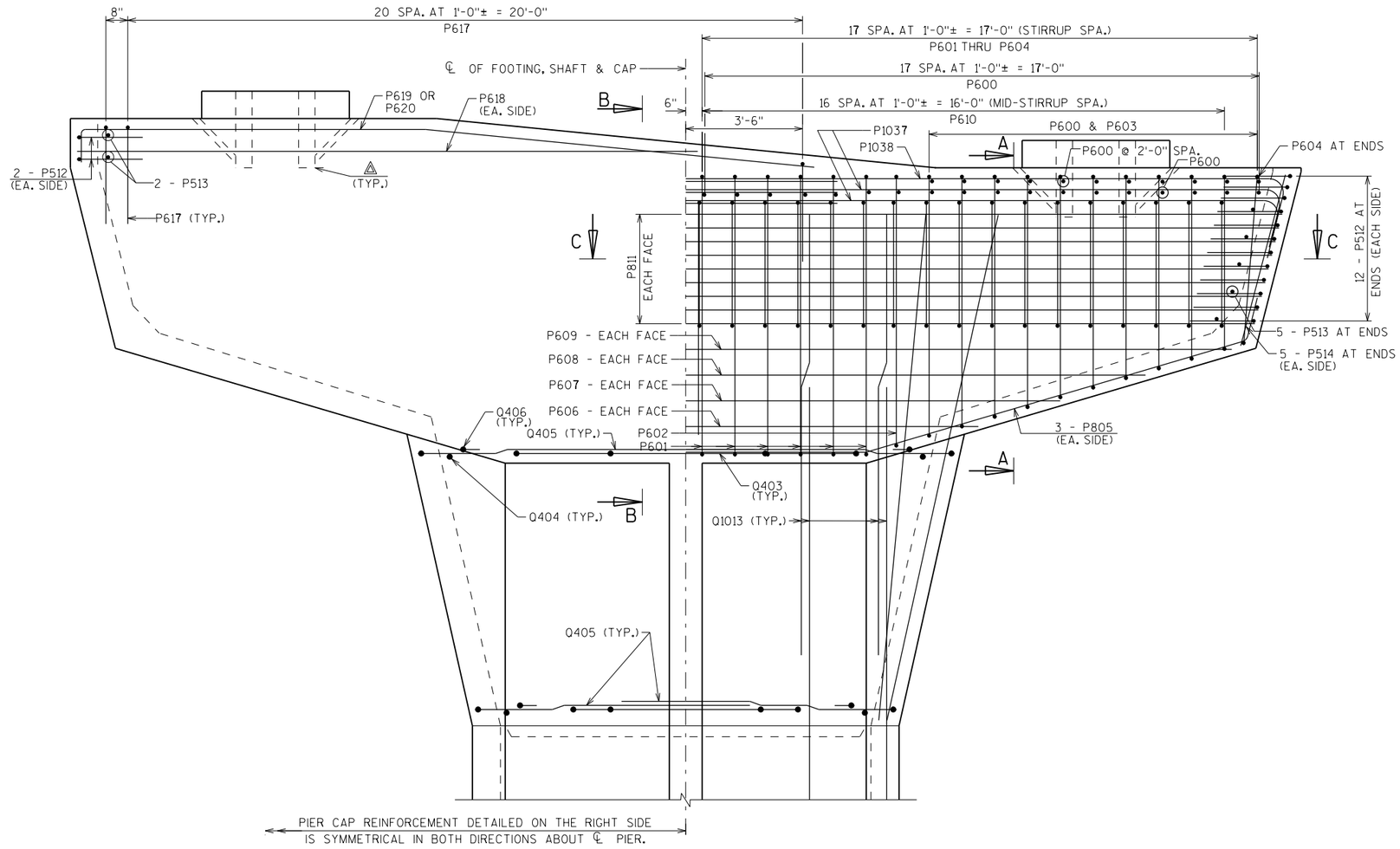
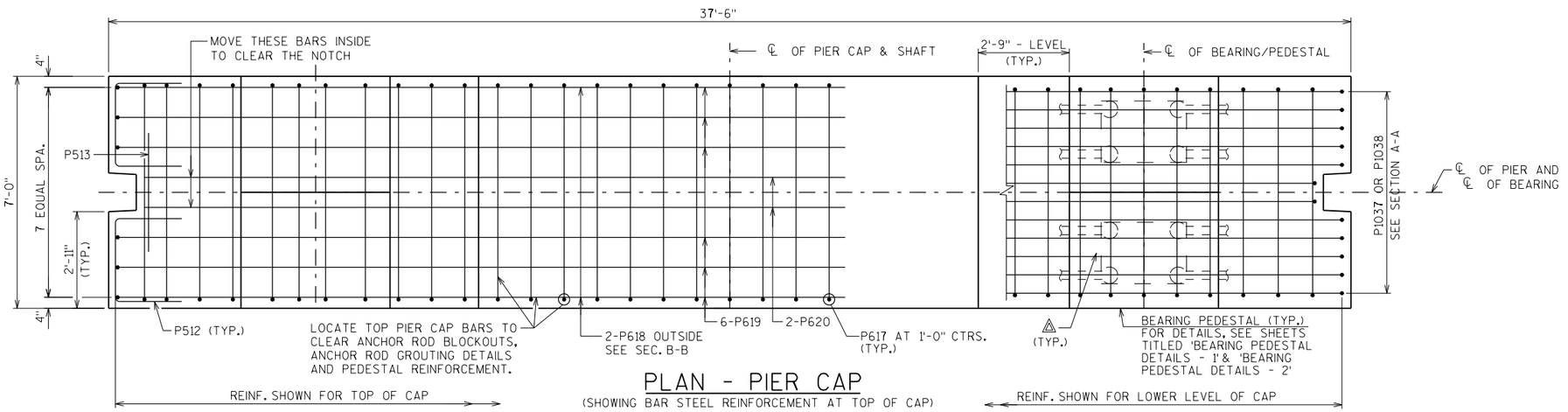


SECTION ELEVATION - PIER CAP

(SHAFT AND BEARING PEDESTAL
REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET "PIER LAYOUT DETAILS".

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1037 & P1038 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIER 7" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIER 7 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS -- AND -- FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS 1 & 2" FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP DETAILS
PIER 7

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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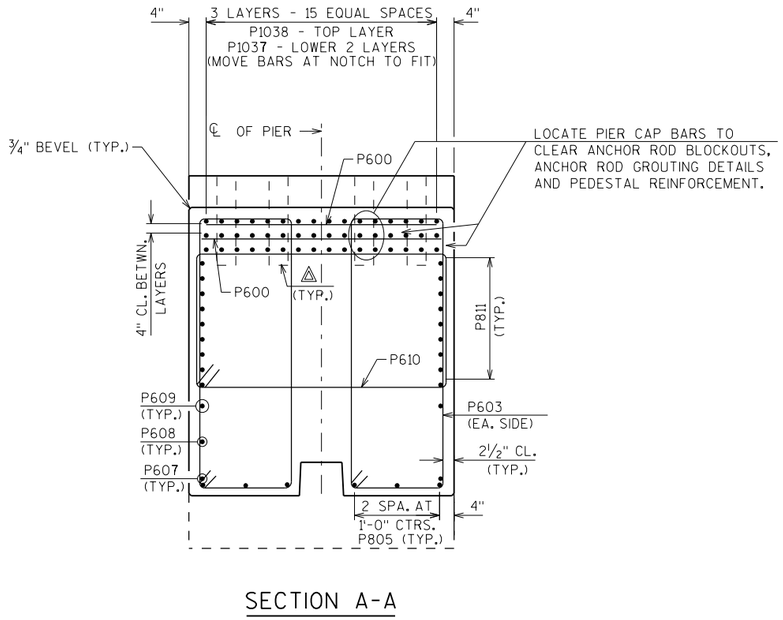
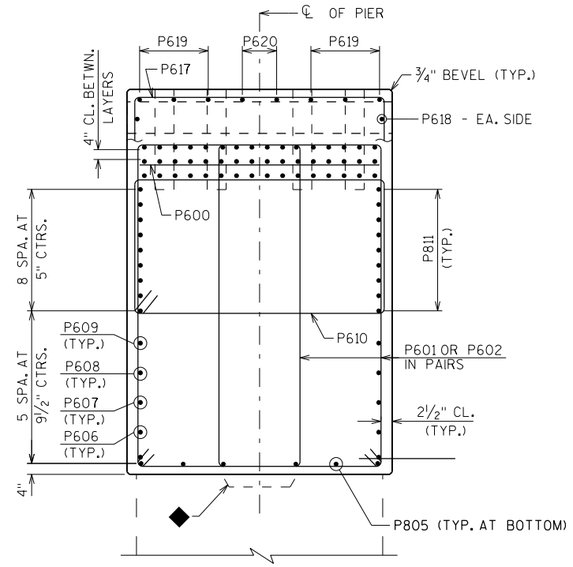
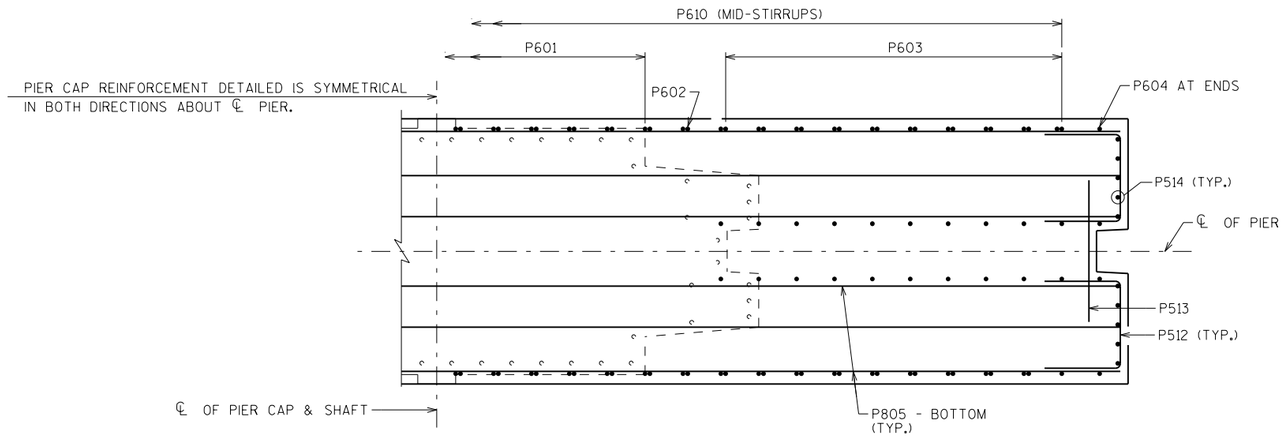


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

NOTE

SEE SHEET "PIER CAP DETAILS - PIER 7" FOR NOTES AND LOCATION OF SECTIONS A-A, B-B AND C-C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER CAP SECTIONS PIER 7

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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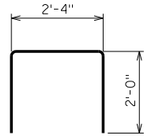
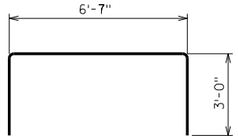
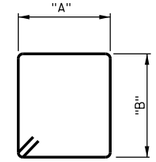
MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
COATED BARS					TOTAL = 161,994 LBS.
P600	580	6'-8"			TOP - ACROSS PIER WIDTH
P601	240	28'-8"	X		STIRRUPS - VETICAL
P602	40	28'-0"	X		STIRRUPS - VETICAL
P603	400	18'-11"	X	X	STIRRUPS - VETICAL
P604	40	16'-2"	X		STIRRUPS - VETICAL
P805	120	21'-4"	X		BOTTOM - HORIZONTAL
P606	20	17'-10"			SIDES - HORIZONTAL
P607	20	22'-8"			SIDES - HORIZONTAL
P608	20	28'-0"			SIDES - HORIZONTAL
P609	20	33'-1"			SIDES - HORIZONTAL
P610	340	21'-10"	X		MID STIRRUPS - VERTICAL
P811	180	35'-6"		X	SIDES - HORIZONTAL
P512	520	6'-1"	X		ENDS - HORIZONTAL
P513	120	4'-0"			ENDS - HORIZONTAL
P514	200	5'-0"			ENDS - VERTICAL
P617	210	12'-3"	X		TOP - HORIZONTAL
P618	16	18'-11"			TOP - SIDES - HORIZONTAL
P619	60	23'-2"	X		TOP - HORIZONTAL
P620	20	21'-4"	X		TOP - HORIZONTAL
P1037	480	26'-3"	X		TOP - HORIZONTAL
P1038	240	26'-9"	X		TOP - HORIZONTAL



P512

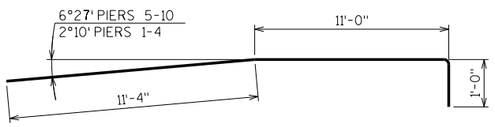


P617



P601 THRU P604, P610,
P623 THRU P626, P632
P631 THRU P634, P640

MARK	DIMENSION "A"	DIMENSION "B"
P601	5'-4"	8'-7"
P602	5'-4"	8'-3"
P603	2'-6"	5'-2" TO 7'-11"
P604	2'-6"	5'-2"
P610	6'-7"	3'-11"



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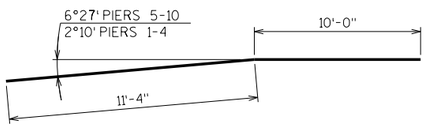

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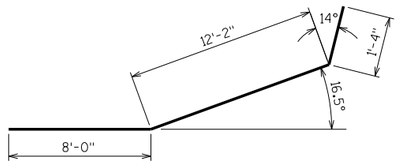

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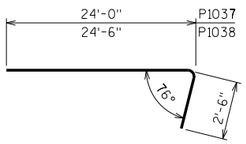

P1037 & P1038

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
P603	40 SETS OF 11	16'-2" TO 21'-8"
P811	20 SETS OF 9	34'-8" TO 36'-4"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

BILL OF BARS
PIER CAP

SHEET 40 OF 96
550

FILE= 0:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\040 B-5-671 - Bill of Bars - Pier Cap.dgn

DATE: 5/31/2013
I.D.

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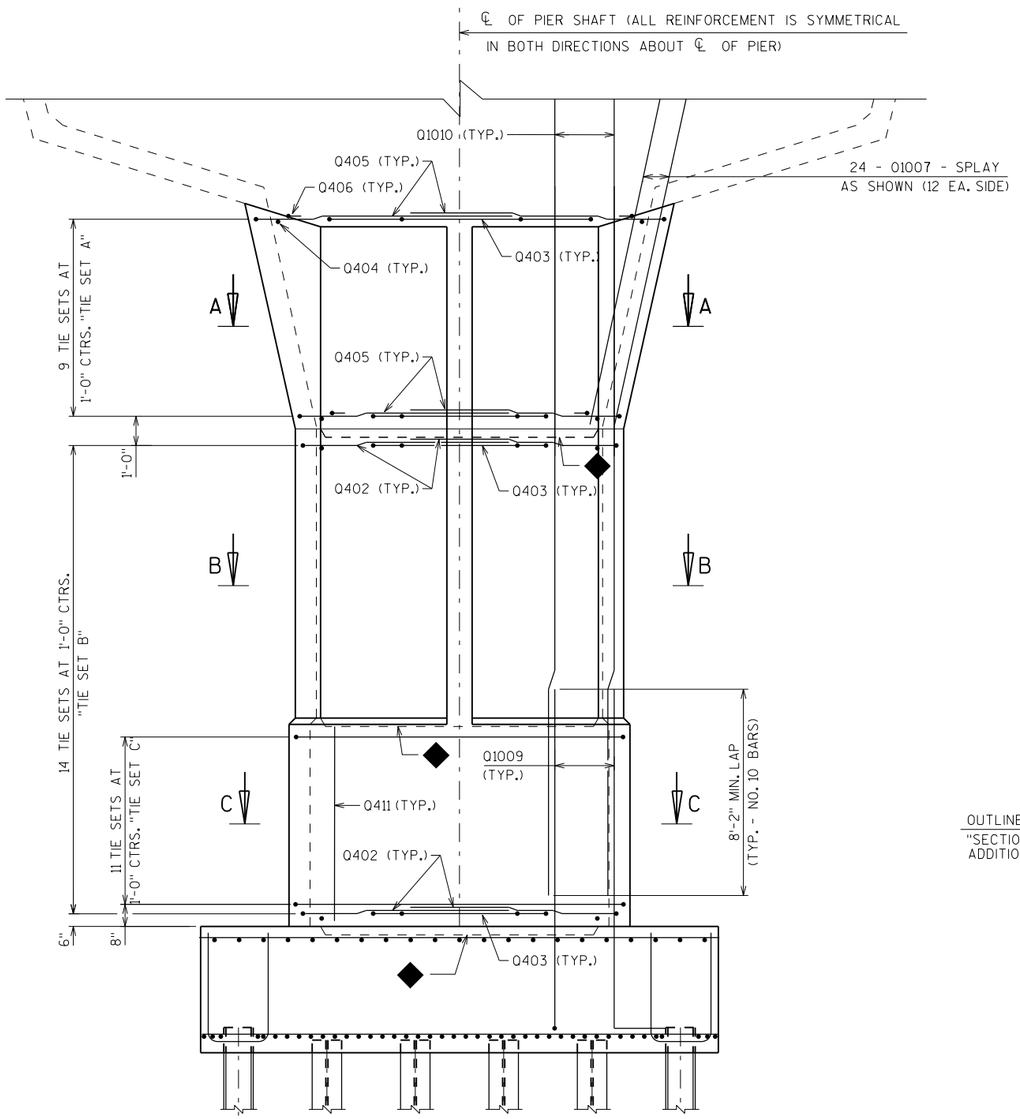
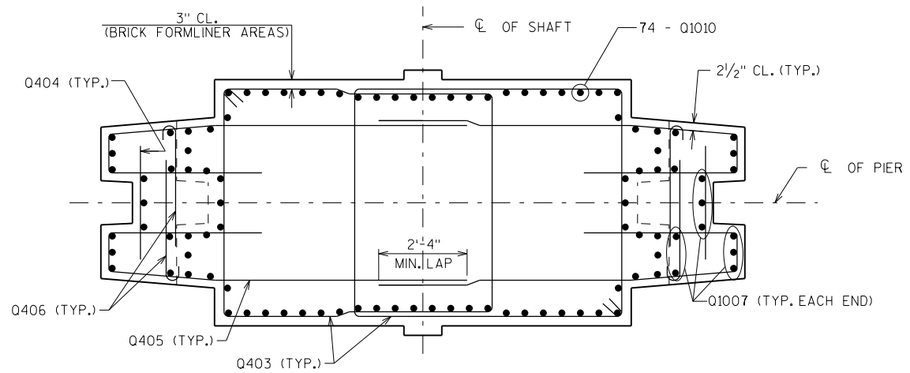
STATE PROJECT NUMBER

1133-11-74

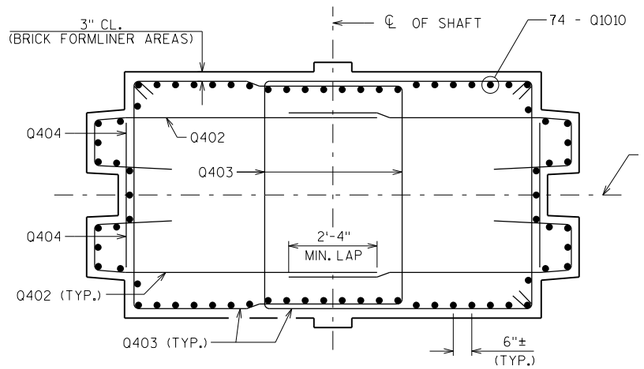


ELEVATION - PIERS 1& 2

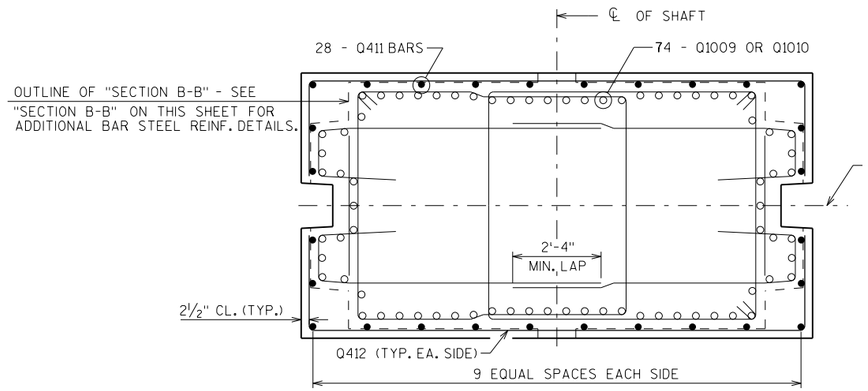
LOOKING UPSTATION



SECTION A-A



SECTION B-B



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS
SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q412 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

SHAFT DETAILS
PIERS 1& 2

SHEET 41 OF 96
551

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\041 B-5-671 - Shaft Details - Piers 1 & 2.dgn

DATE: 5/31/2013
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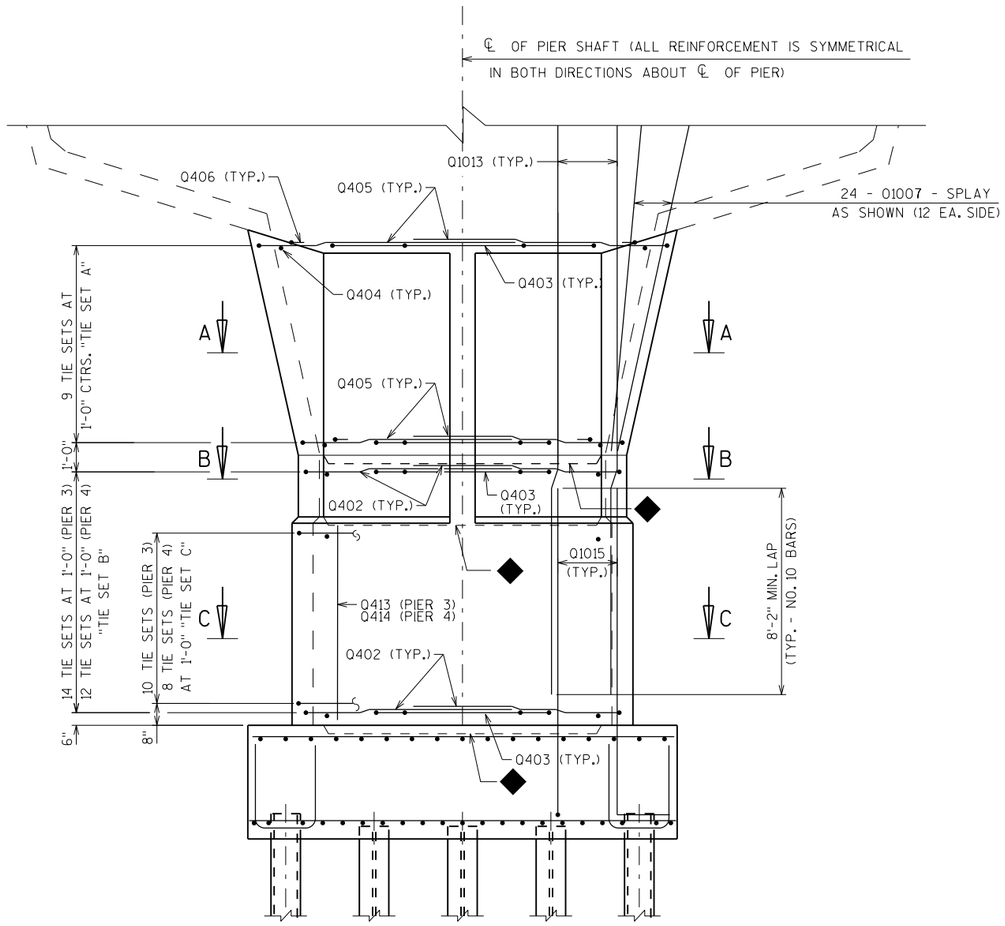
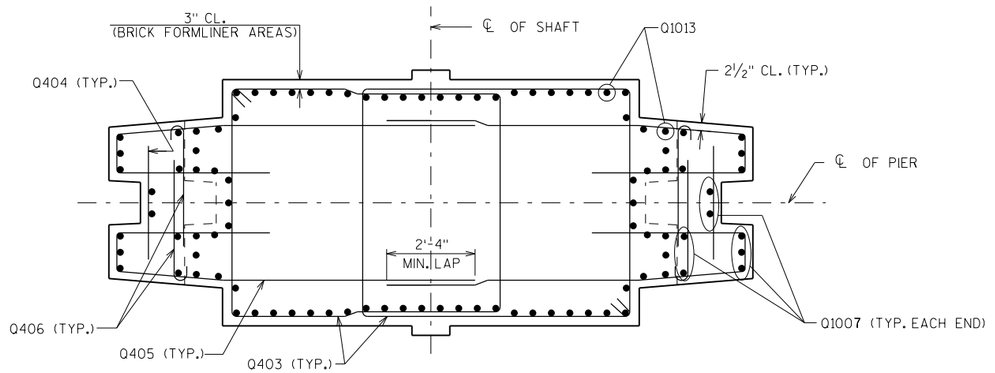
STATE PROJECT NUMBER

1133-11-74

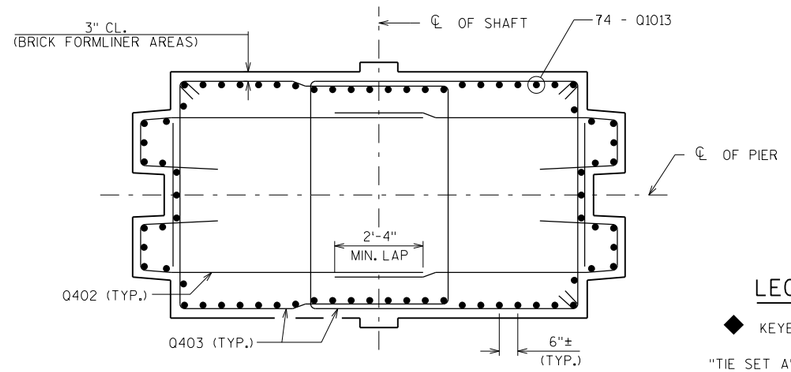


ELEVATION - PIER 3 & 4

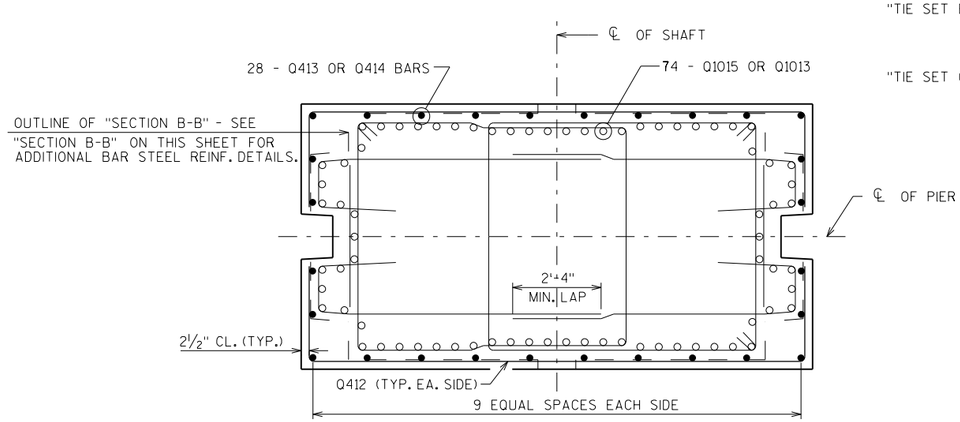
LOOKING UPSTATION



SECTION A-A



SECTION B-B



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q412 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

SHAFT DETAILS
PIERS 3 & 4

SHEET 42 OF 96
552

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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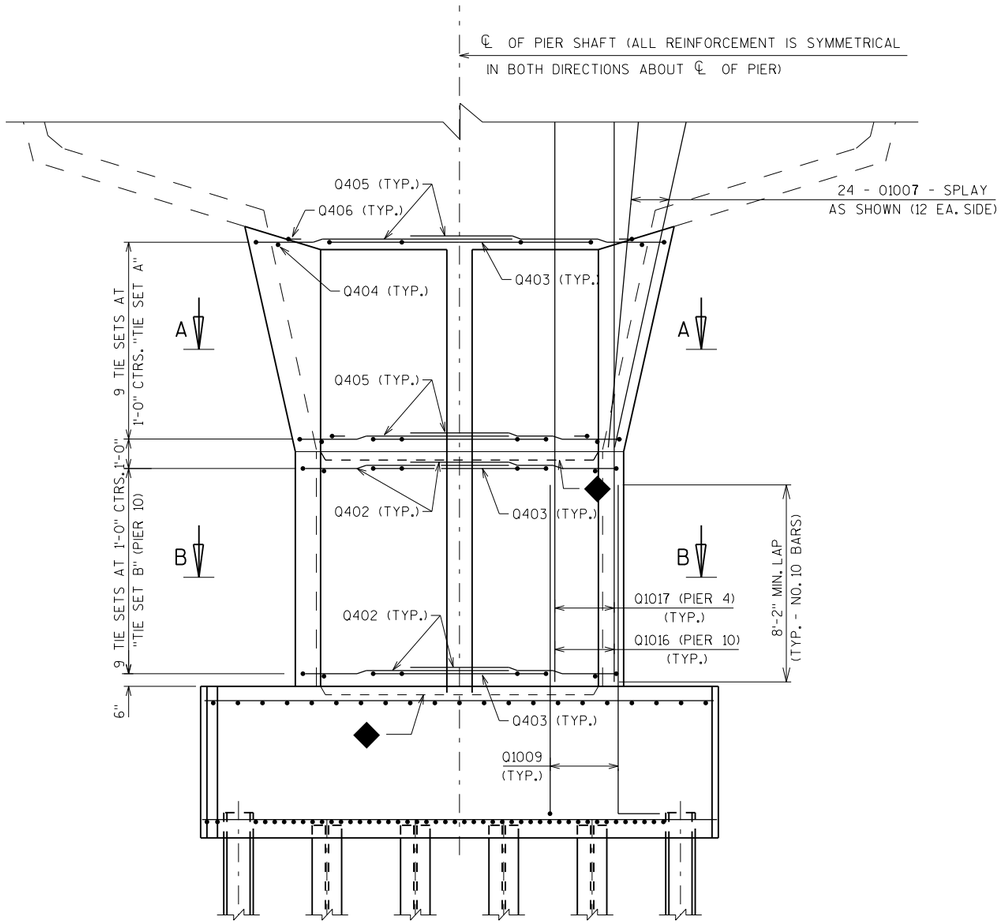
FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\042 B-5-671 - Shaft Details - Pier 3.dgn

DATE:5/31/2013
I.D.

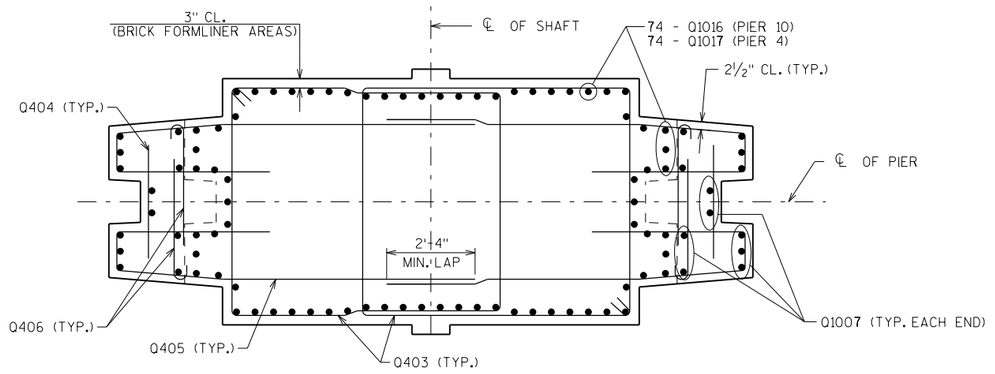
STATE PROJECT NUMBER

1133-11-74

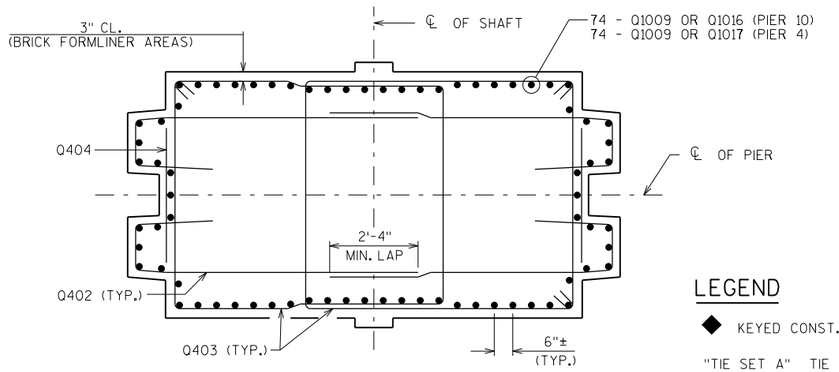


ELEVATION - PIER 10

LOOKING UPSTATION



SECTION A-A



SECTION B-B

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

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- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

SHAFT DETAILS PIER 10

SHEET 43 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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I.D.

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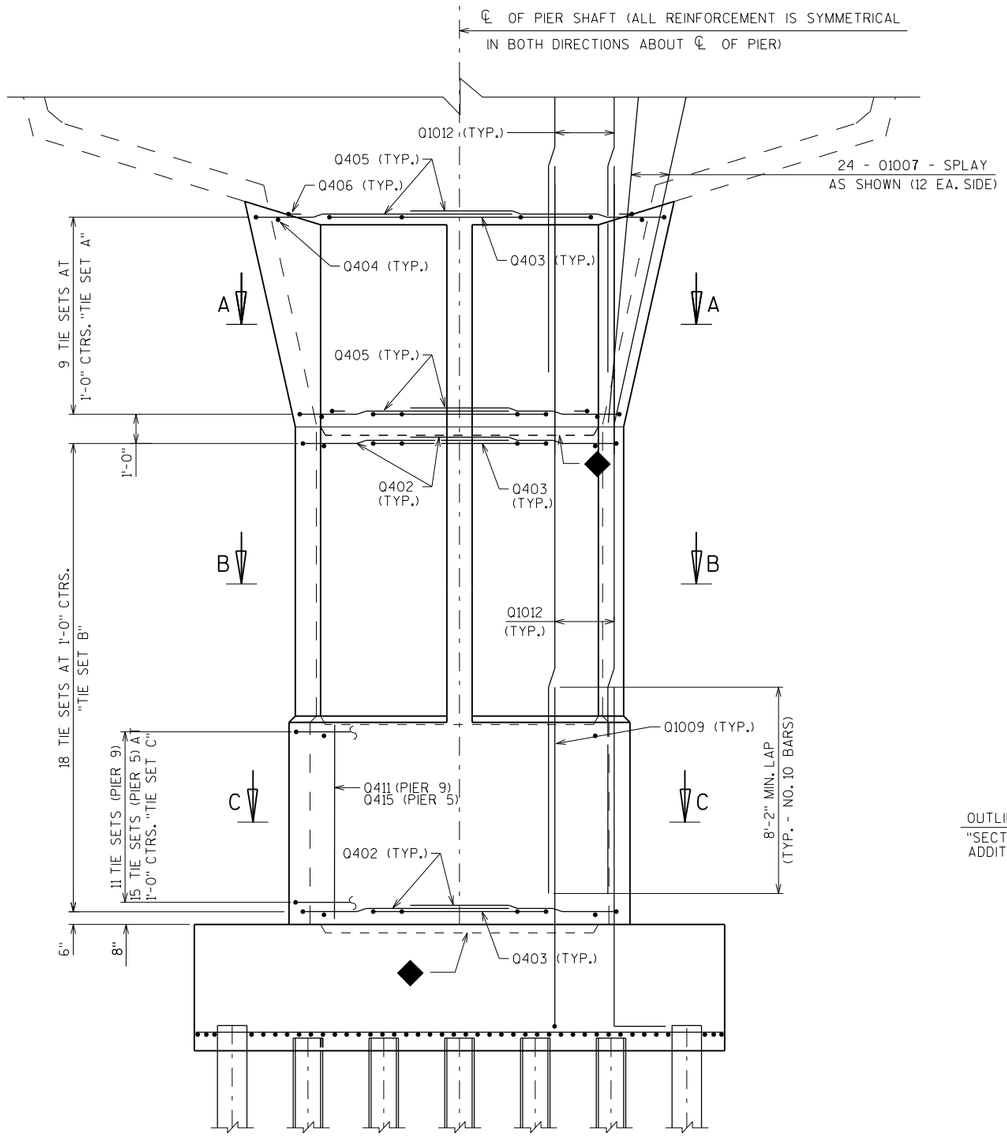
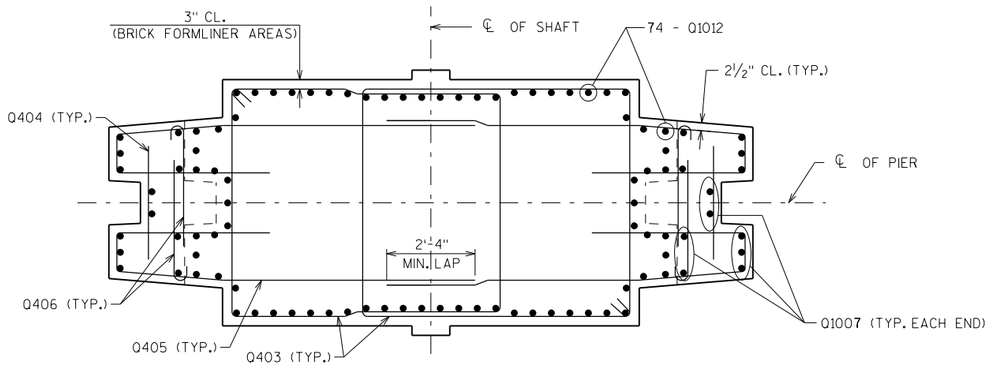
STATE PROJECT NUMBER

1133-11-74

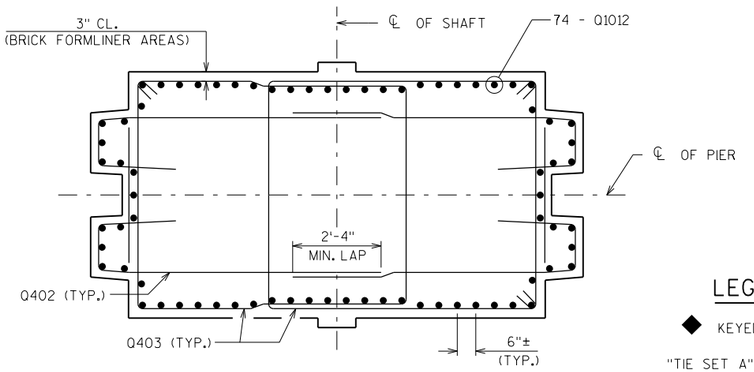


ELEVATION - PIERS 5 & 9

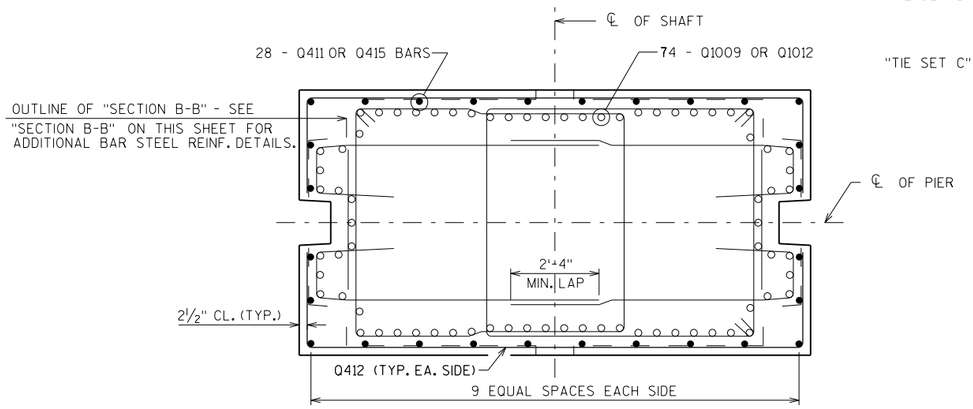
LOOKING UPSTATION



SECTION A-A



SECTION B-B



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q412 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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SHAFT DETAILS PIERS 5 & 9

SHEET 44 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

DATE: 5/31/2013
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8

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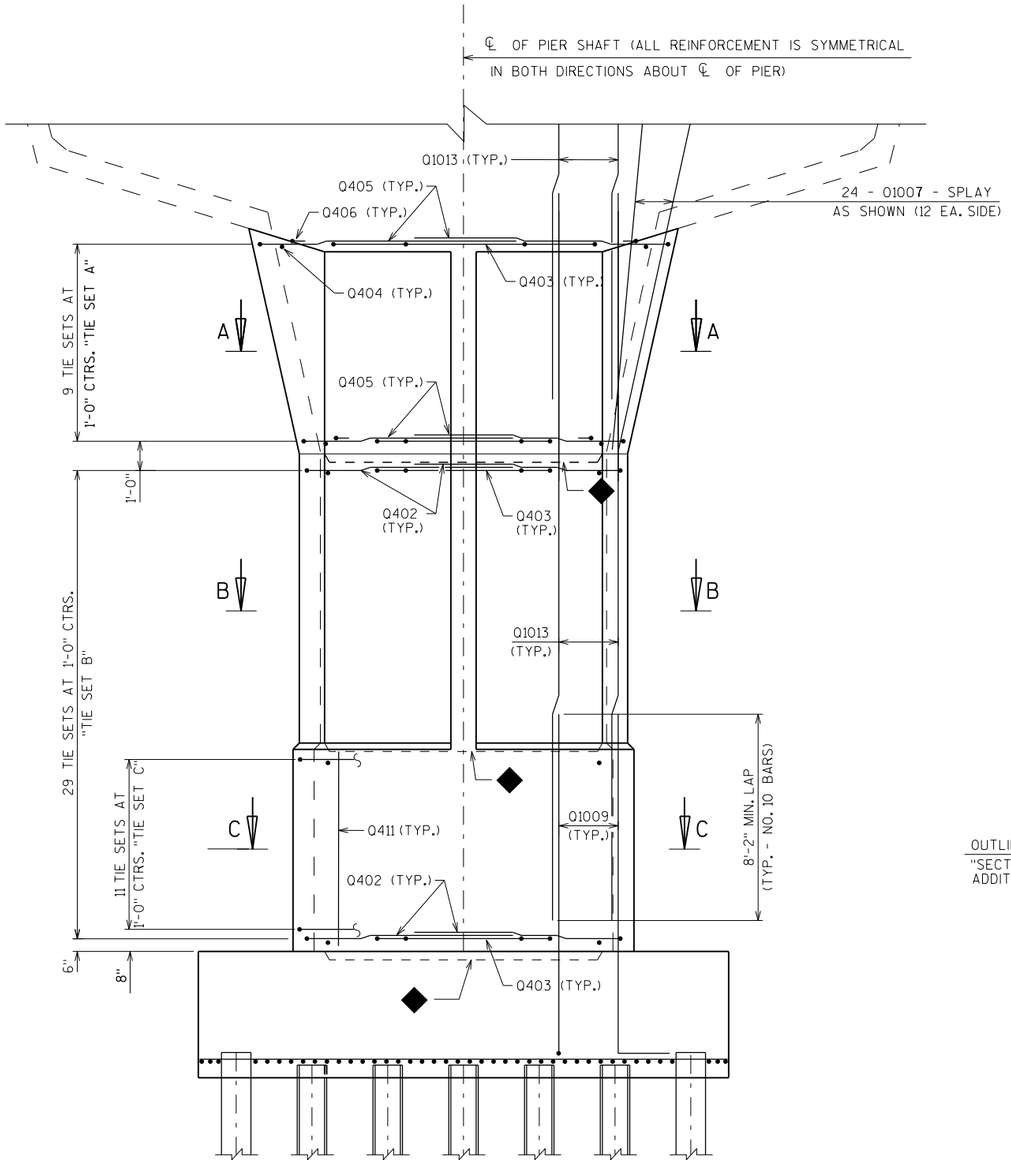
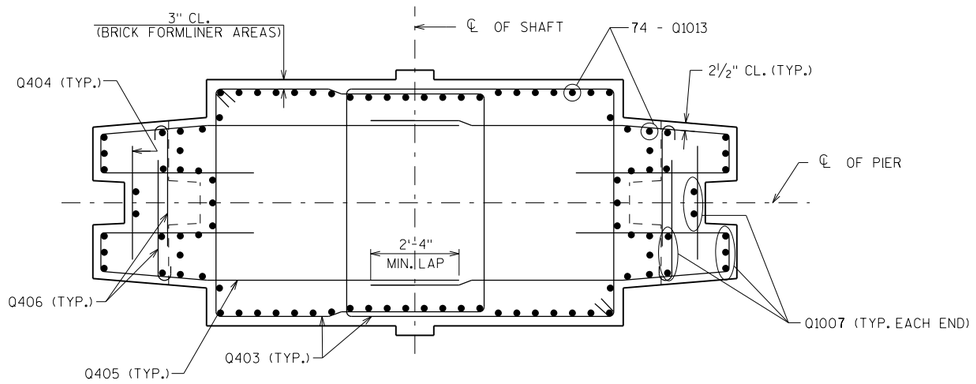
STATE PROJECT NUMBER

1133-11-74

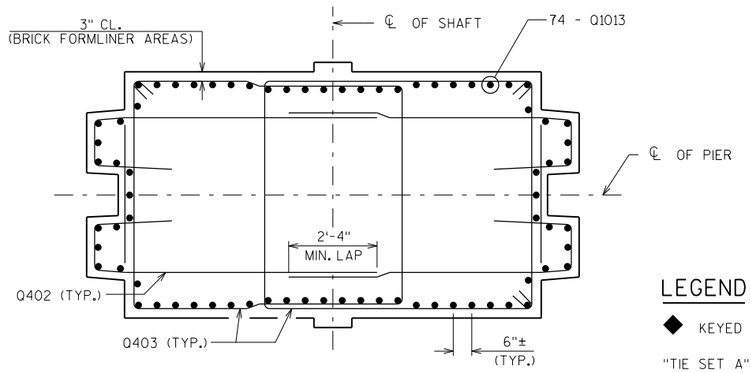


ELEVATION - PIERS 6 & 7

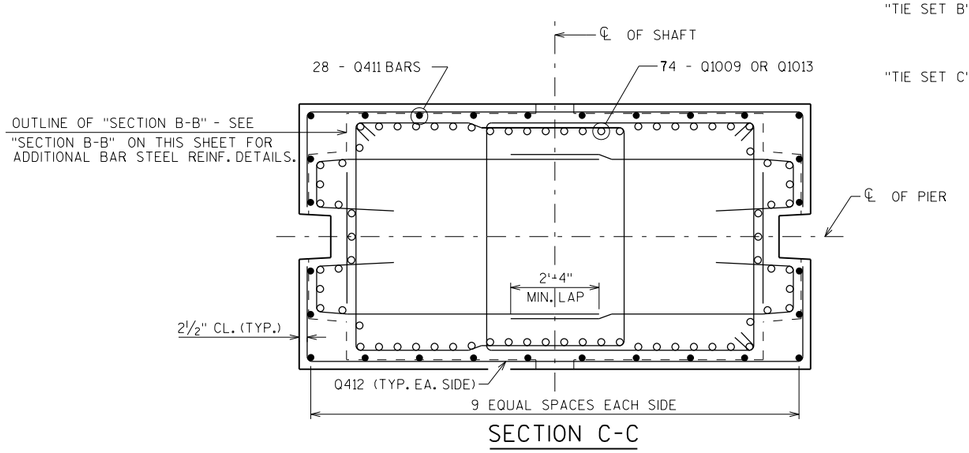
LOOKING UPSTATION



SECTION A-A



SECTION B-B



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q412 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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SHAFT DETAILS
PIERS 6 & 7

SHEET 45 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\045 B-5-671 - Shaft Details - Piers 6 & 7.dgn

DATE: 5/31/2013

I.D.

8

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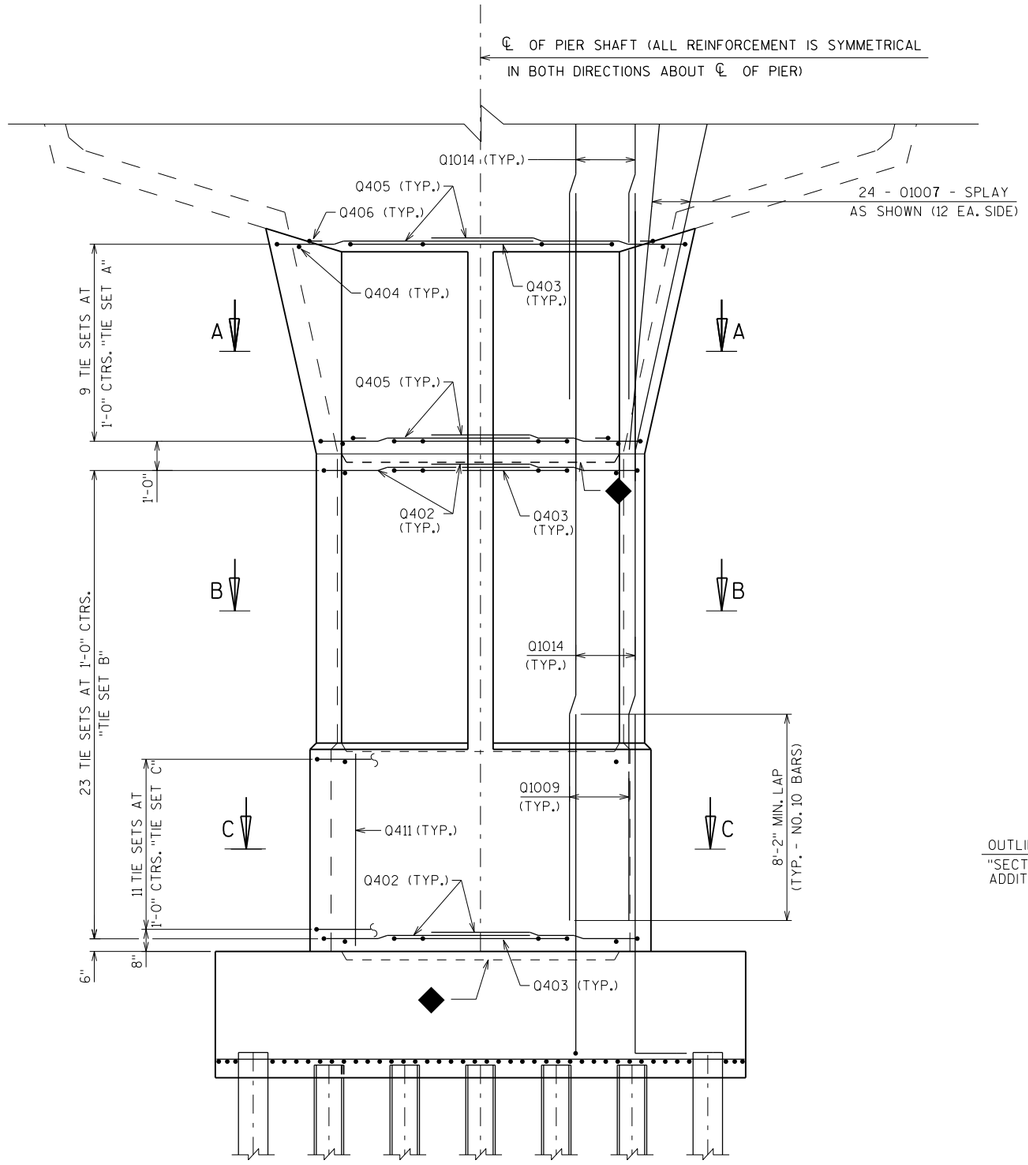
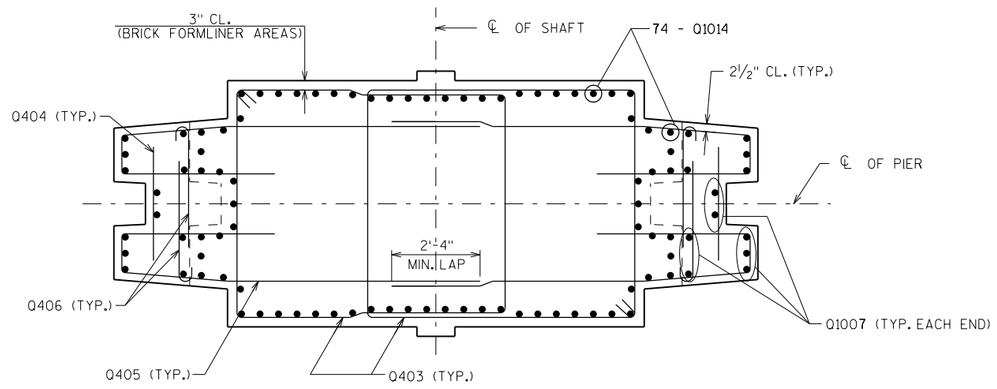
STATE PROJECT NUMBER

1133-11-74

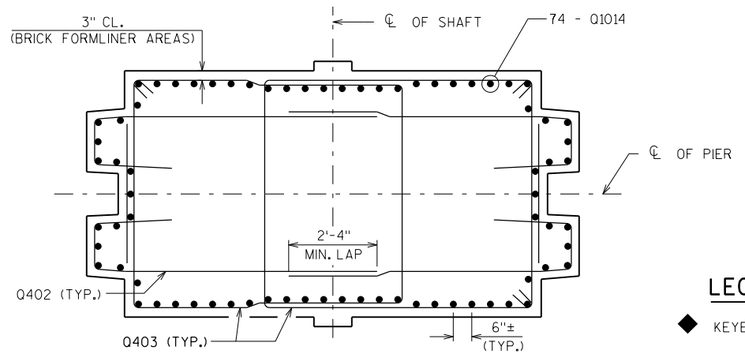


ELEVATION - PIER 8

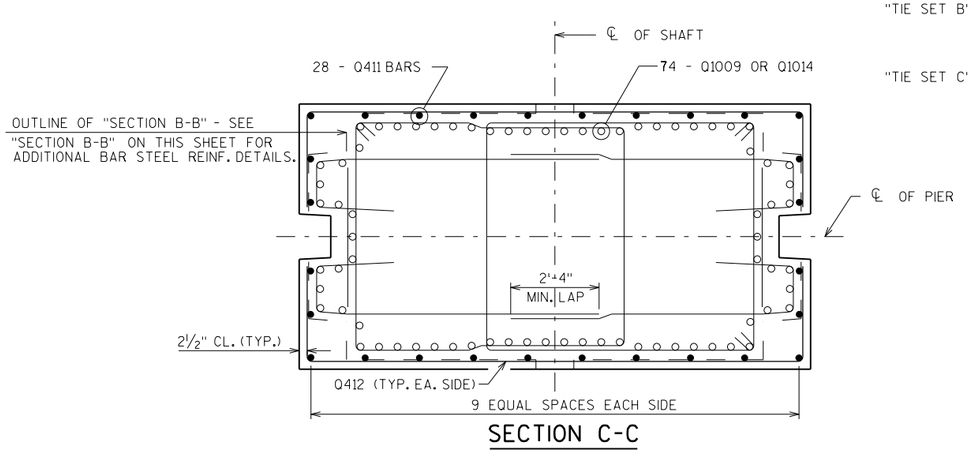
LOOKING UPSTATION



SECTION A-A



SECTION B-B



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q412 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY: PMV | PLANS CK'D.: NPP

SHAFT DETAILS
PIER 8

SHEET 46 OF 96
556

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\046 B-5-671 - Shaft Details - Pier 8.dgn

DATE: 5/31/2013
I.D.

PIER SHAFT - BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

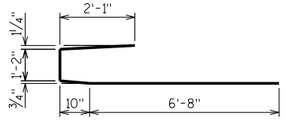
TOTAL WEIGHT = 209,629 LBS.

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
Q1007	240	16'-0"			SHAFT & CAP ENDS VERT. PIERS 1-10
Q1009	666	15'-2"	X		SHAFT & FOOTING - VERT. PIERS 4-10
Q1010	148	29'-11"			SHAFT VERT. PIERS 1-2
Q1012	296	21'-6"			SHAFT VERT. PIERS 5 & 9
Q1013	370	26'-6"			SHAFT VERT. PIERS 3, 6 & 7
Q1014	148	23'-11"			SHAFT VERT. PIER 8
Q1015	74	16'-9"	X		SHAFT & FOOTING - VERT. PIER 3
Q1016	74	24'-6"			SHAFT VERT. PIER 10
Q1017	74	26'-6"			SHAFT VERT. PIER 4
Q402	728	10'-7"	X		SHAFT TIES PIERS 1-10
Q403	544	26'-8"	X		STIRRUPS - HORIZ. PIERS 1-10
Q404	544	3'-9"			SHAFT TIES AT ENDS HORIZ. PIERS 1-10
Q405	360	12'-11"	X	X	SHAFT TIES HORIZ. PIERS 1-10
Q406	360	3'-9"	X		SHAFT ENDS HORIZ. PIERS 1-10
Q411	168	9'-8"			LOWER SHAFT VERT. PIERS 1-3, 5-9
Q412	198	17'-11"	X		LOWER SHAFT HORIZ. PIERS 1-3, 5-9
Q413	28	8'-8"			LOWER SHAFT VERT. PIER 3
Q414	28	6'-11"			LOWER SHAFT VERT. PIER 4
Q415	28	13'-8"			LOWER SHAFT VERT. PIER 5

LENGTH SHOWN FOR BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
Q405	40 SETS OF 9	11'-0" TO 14'-10"



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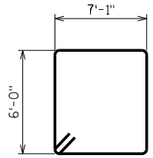

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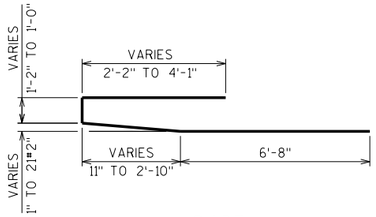
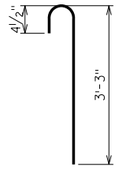


Q405



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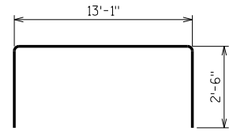

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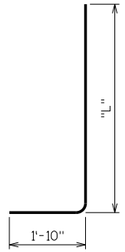

Q1009 & Q1015

MARK	DIMENSION "L"
Q1009	13'-8"
Q1015	15'-2"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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BILL OF BARS
PIER SHAFT

SHEET 47 OF 96
557

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1133-11-74

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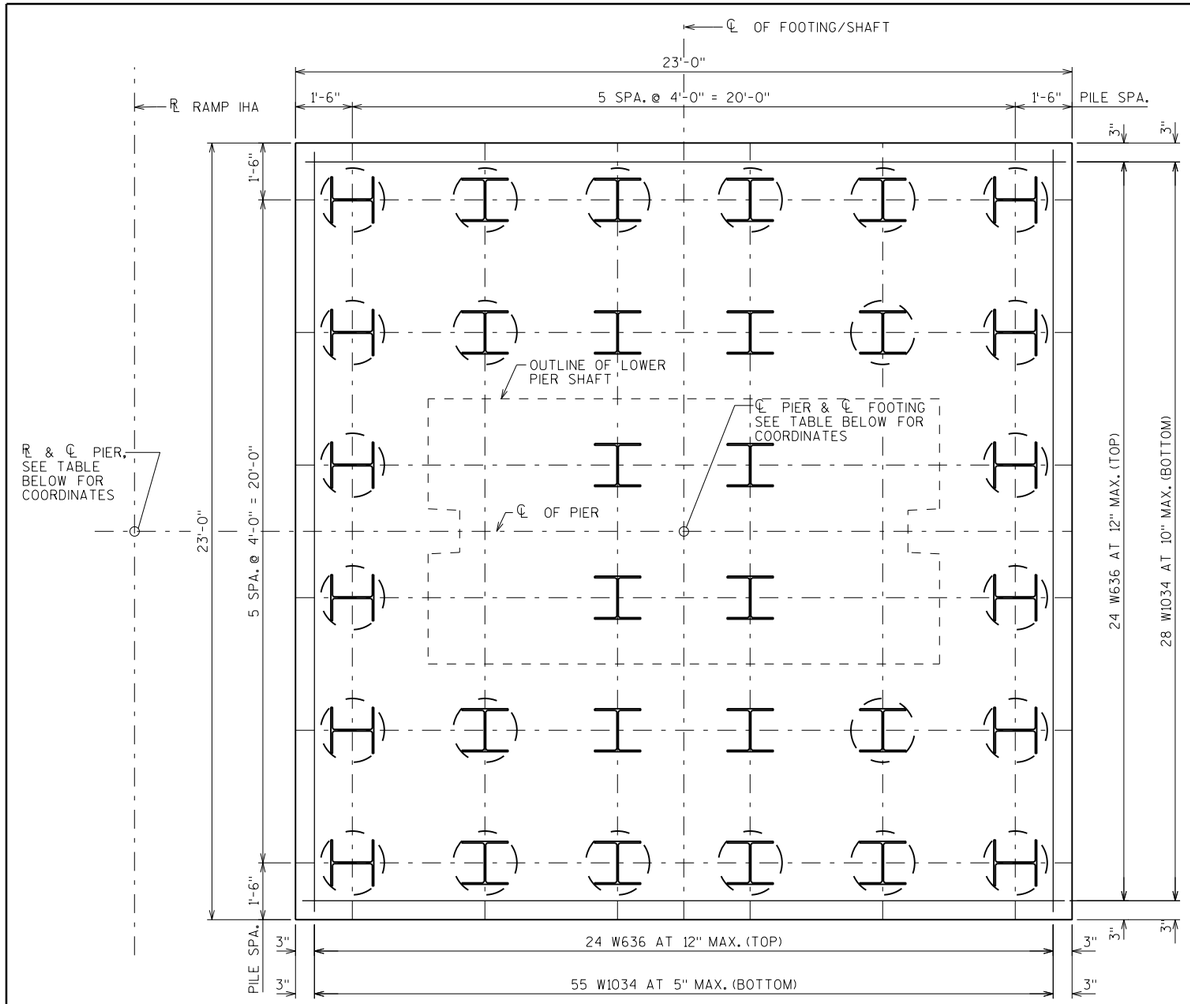


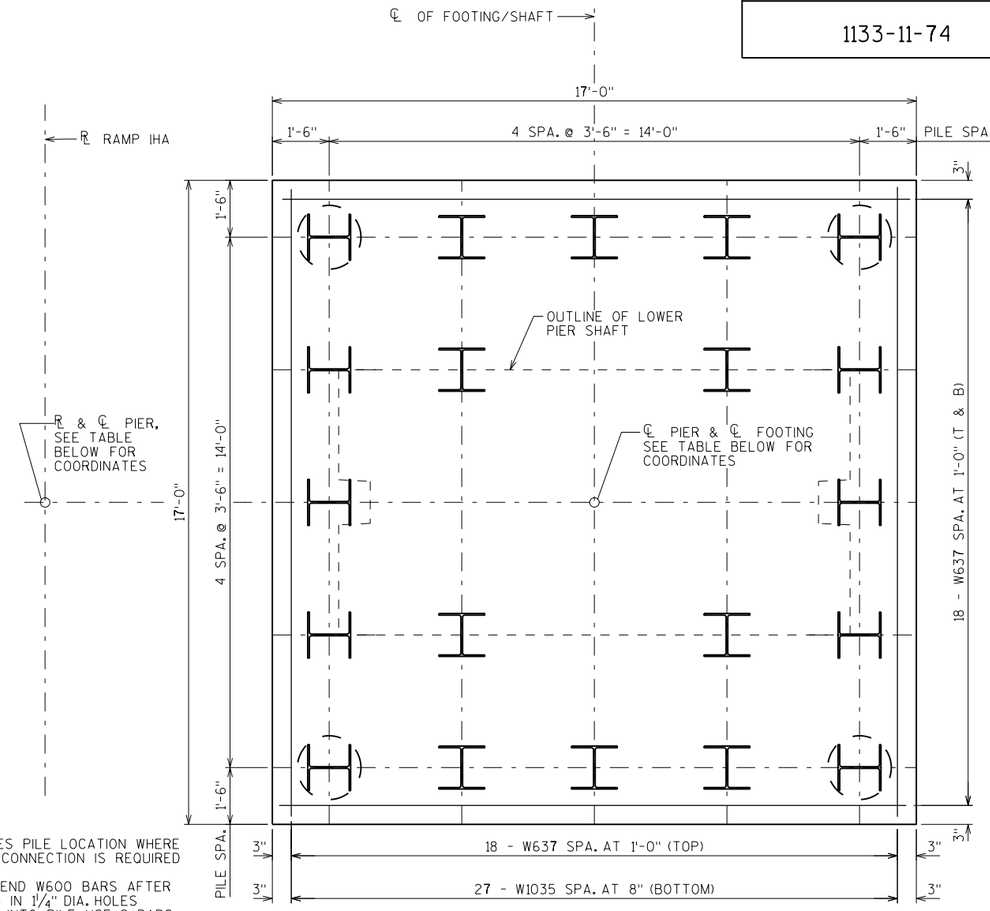
FOOTING PLAN, PIERS 1,2,7,8,9 & 10

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED

FIELD BEND W600 BARS AFTER PLACING IN 1¼" DIA. HOLES BURNED INTO PILE. USE 2 BARS AT EACH UPLIFT PILE.

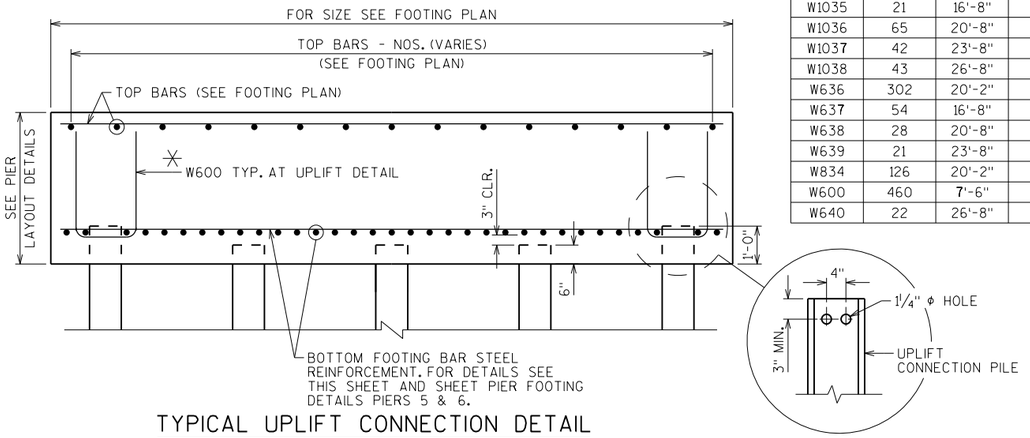
USE FOUR PILES ONE AT EACH CORNER FOR PILE DYNAMIC ANALYZER (PDA) TESTING



FOOTING PLAN, PIER 3

STATIONS & COORDINATES TABLE

LOCATION	℄ PIER STATION	℞ & ℄ OF PIER COORDINATES	℄ OF PIER & ℄ FOOTING COORDINATES
PIER 1	STA. 1174+82.83	N=582688.82 E=88245.07	N=582677.67 E=88254.88
PIER 2	STA. 1177+12.83	N=582840.76 E=88417.73	N=582829.61 E=88427.55
PIER 3	STA. 1178+82.83	N=582953.07 E=88545.36	N=582941.92 E=88555.17
PIER 4	STA. 1180+67.33	N=583072.23 E=88686.15	N=583060.66 E=88694.99
PIER 5	STA. 1183+30.00	N=583212.74 E=88907.68	N=583199.81 E=88914.37
PIER 6	STA. 1185+92.66	N=583312.51 E=89150.30	N=583298.61 E=89154.64
PIER 7	STA. 1187+77.16	N=583356.53 E=89329.35	N=583342.20 E=89331.95
PIER 8	STA. 1189+59.00	N=583378.10 E=89509.79	N=583363.56 E=89510.64
PIER 9	STA. 1192+14.25	N=583371.28 E=89764.64	N=583356.81 E=89763.02
PIER 10	STA. 1194+69.50	N=583321.41 E=90014.66	N=583307.42 E=90010.61



TYPICAL UPLIFT CONNECTION DETAIL

SEE "SHAFT DETAILS" SHEETS FOR FOOTING DOWEL REINFORCEMENT.

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
UNCOATED BARS					TOTAL WEIGHT = 77,043 LBS.
W1034	410	20'-2"			BOTTOM HORIZ. PIERS 1, 2, 4, 7-10, 6
W1035	21	16'-8"			BOTTOM HORIZ. PIER 3
W1036	65	20'-8"			BOTTOM HORIZ. PIER 5
W1037	42	23'-8"			BOTTOM HORIZ. PIERS 5, 6
W1038	43	26'-8"			BOTTOM HORIZ. PIER 5
W636	302	20'-2"			TOP HORIZ. PIERS 1, 2, 4, 7-10, 6
W637	54	16'-8"			BOTTOM HORIZ. PIER 3
W638	28	20'-8"			TOP HORIZ. PIER 5
W639	21	23'-8"			TOP HORIZ. PIER 5, 6
W834	126	20'-2"			BOTTOM HORIZ. PIERS 1, 2, 4, 7-10
W600	460	7'-6"	X		UPLIFT DETAIL PIERS 1-10
W640	22	26'-8"			TOP HORIZ. PIER 5

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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PIER FOOTING DETAILS, PIERS 1-3, 7-10

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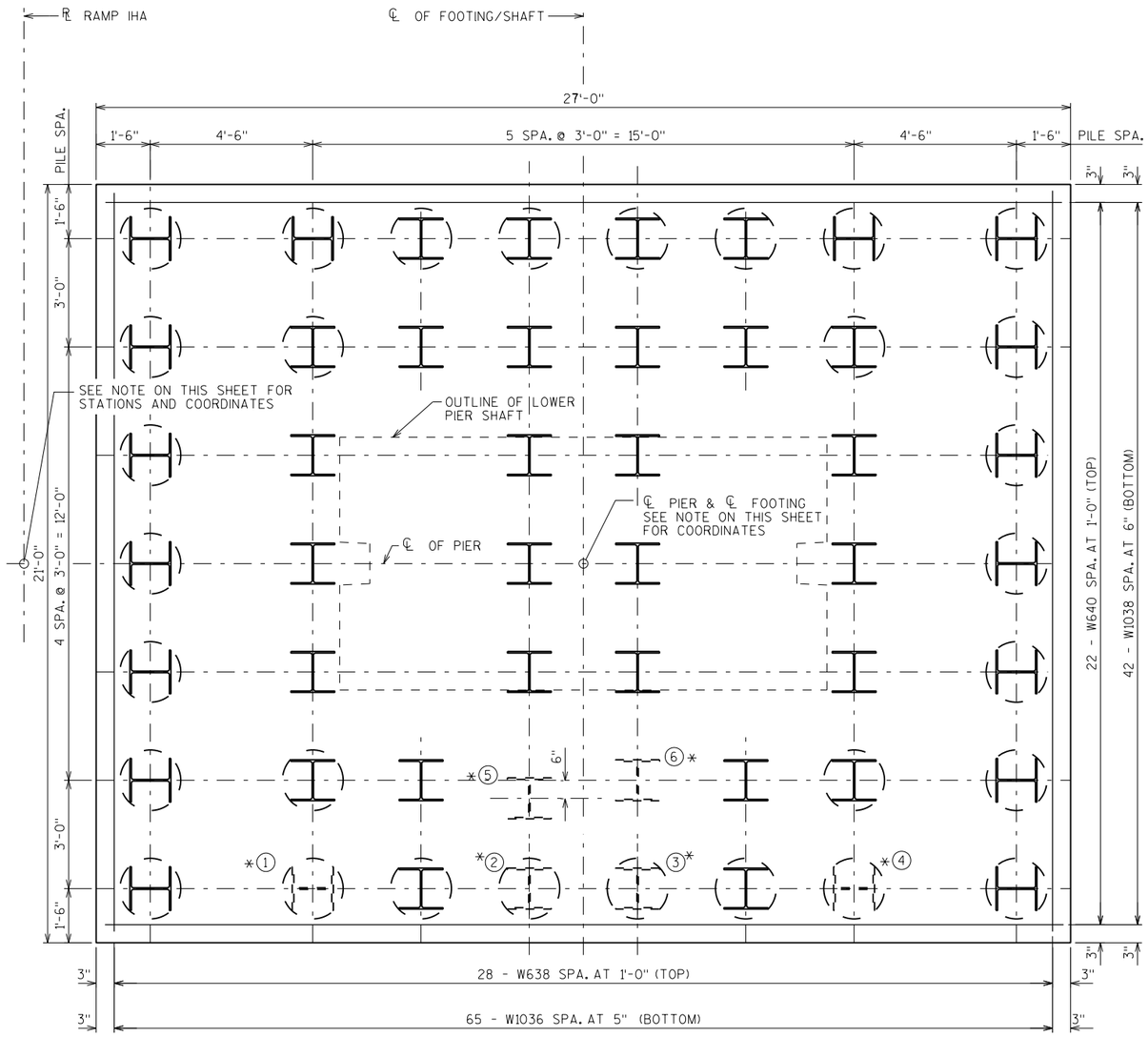
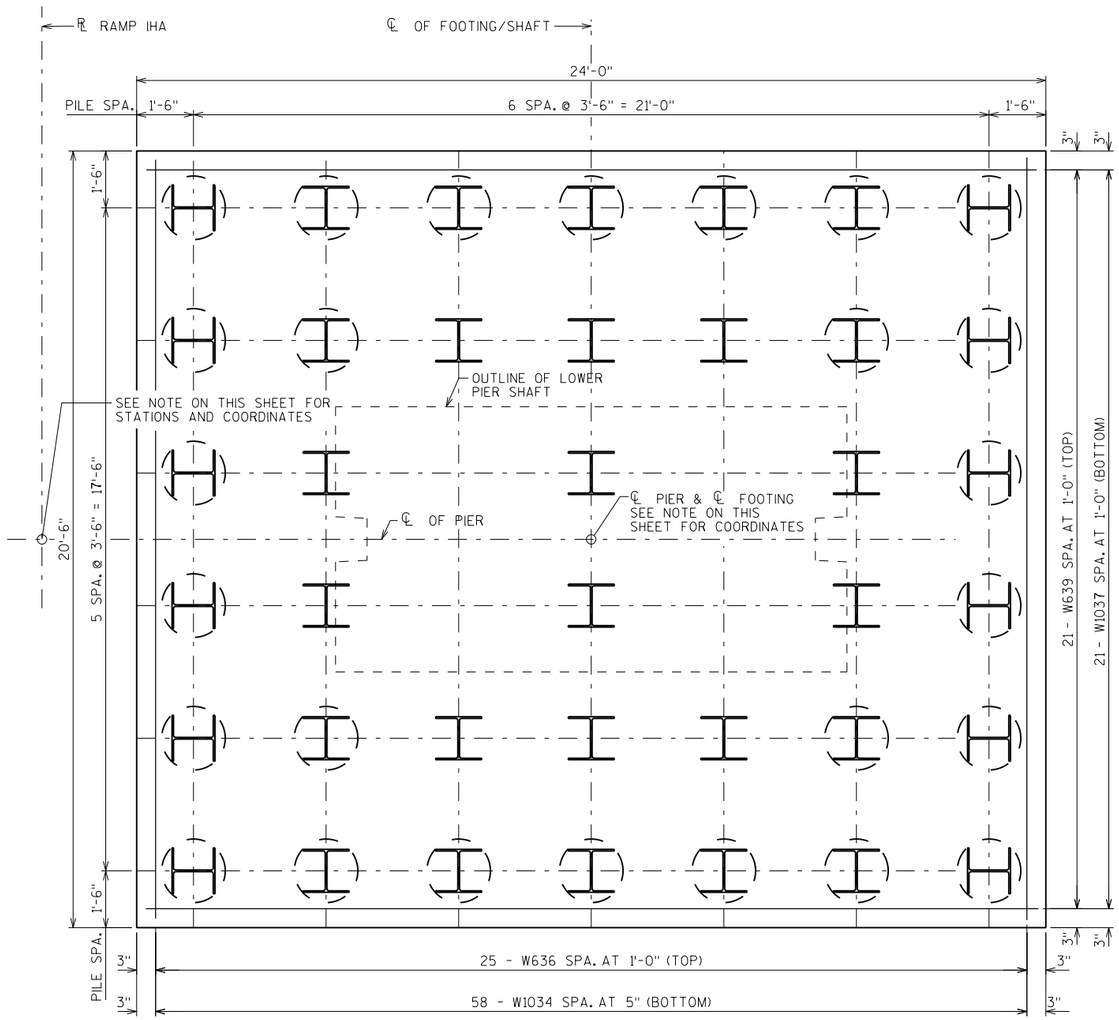




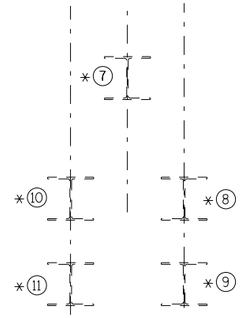
FOOTING PLAN - PIERS 4 & 6

FOOTING PILE CUTOFF EL.

PILE MARK	CUTOFF EL.
1	586.77
2	586.75
3	586.94
4	586.83
5	586.46
6	586.78

PILES OUTSIDE OF FOOTING CUTOFF EL.

PILE MARK	CUTOFF EL.
7	587.06
8	587.83
9	588.19
10	587.93
11	588.41



FOOTING PLAN - PIER 5

USE FOUR PILES ONE AT EACH CORNER FOR PILE DYNAMIC ANALYZER (PDA) TESTING

NOTES

SEE SHEET "PIER FOOTING DETAILS PIERS 1-4, 7-10" FOR STATIONS AND COORDINATES.

FOR FOOTING BAR REINFORCEMENT DETAILS SEE SHEET "PIER FOOTING DETAILS PIERS 1-4, 7-10".

DELAY DRIVING OF THE PILES AFTER PLACEMENT OF STAGE 1 FILL AROUND PIER 5 AS DIRECTED BY THE ENGINEER. MONITOR SETTLEMENT OF THE FILL BY NEARBY SETTLEMENT GAUGE.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED

* PILES ① THROUGH ⑥ OF PIER 5 ARE EXISTING PILES FROM STATIC PILE LOAD TEST COMPLETED NOV. 2012. PILES ARE CUTOFF AT ELEVATION SHOWN IN TABLE. FIVE ADDITIONAL PILES ARE LOCATED WITHIN 20' OF THE NORTH SIDE OF THE PIER 5 - CUTOFF AT ELEVATION SHOWN IN TABLE. COST OF THE ADDITIONAL PILE LENGTH REQUIRED TO THE BOTTOM OF FOOTING ELEVATION AND REQUIRED EMBEDEMENT WILL BE MADE PER UNIT PRICE OF PILING STEEL HP 14-INCHX73 LB. THE COST OF THE REQUIRED SPLICE TO THE EXISTING PILES IS INCLUDED WITH THE UNIT PRICE OF PILING STEEL HP 14-INCHX73 LB.

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PIER FOOTING DETAILS PIERS 4, 5 & 6

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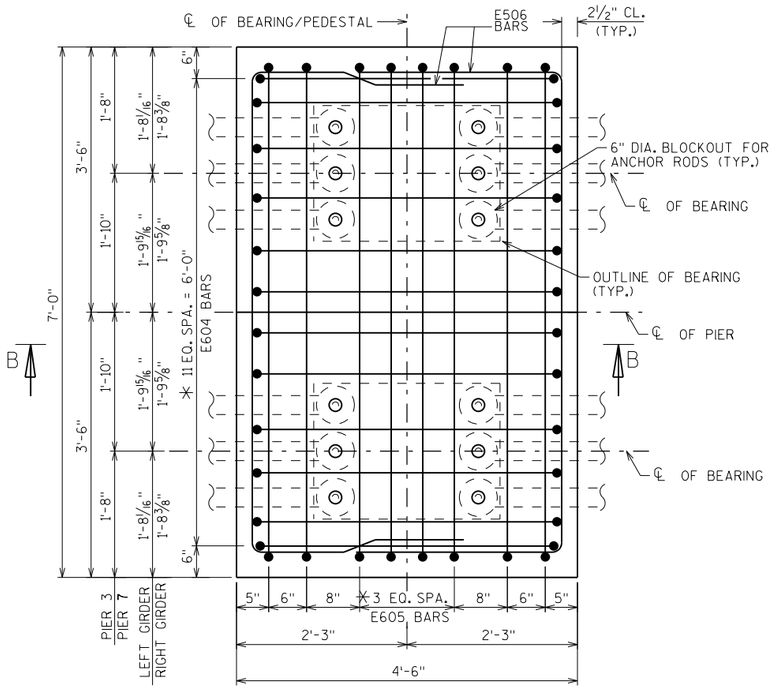
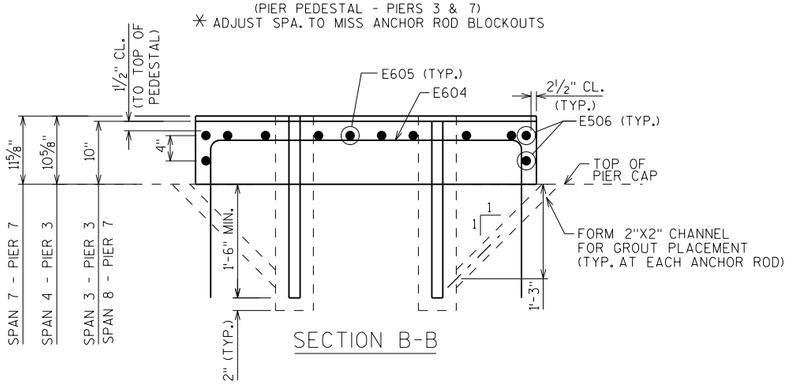


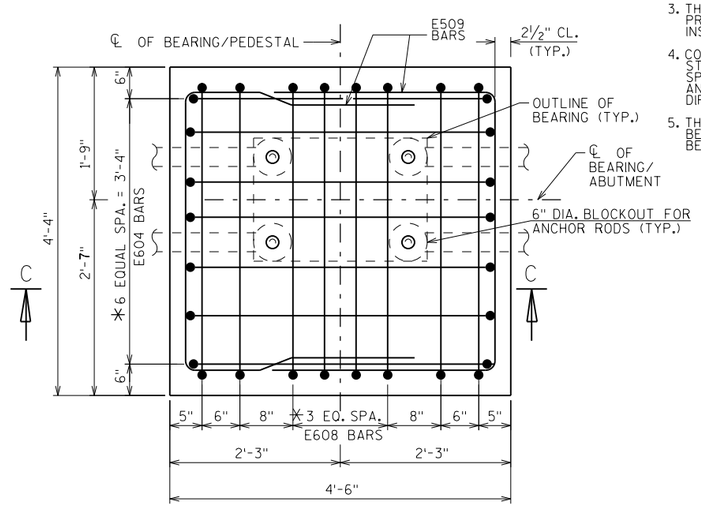
PLAN

(PIER PEDESTAL - PIERS 3 & 7)

✳ ADJUST SPA. TO MISS ANCHOR ROD BLOCKOUTS



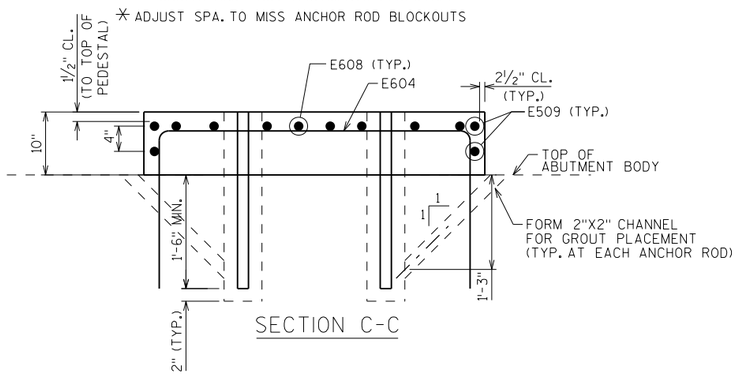
SECTION B-B



PLAN

(SOUTH AND EAST ABUTMENTS PEDESTAL)

✳ ADJUST SPA. TO MISS ANCHOR ROD BLOCKOUTS



SECTION C-C

NOTES:

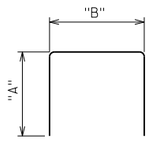
1. FOR ANCHOR GROUT SLEEVE, GROUT CHANNEL AND BASEPLATE SEATING USE HIGH MODULUS FLOWABLE EPOXY RESIN GROUT, SIKADUR 42 GROUT-PAK OR APPROVED EQUAL. GROUT SLEEVE AND GROUT WILL BE CONSIDERED INCIDENTAL TO THE COST OF "HPC MASONRY STRUCTURES".
2. ADJUST TOP OF PEDESTAL ELEVATIONS IF ACTUAL BEARING THICKNESSES ARE DIFFERENT THAN THOSE SHOWN ON SHEETS 13 - 15OF 63 OF THE STEEL FABRICATION PLANS.
3. THE BLOCKOUT HOLES AND GROUTING HOLES MUST BE PROTECTED FROM WATER ENTERING INTO THE HOLES PRIOR TO INSTALLING ANCHOR ROD AND GROUTING.
4. CONSTRUCT TOP BEARING SURFACE OF CONCRETE PEDESTALS IN STRICT ACCORDANCE WITH AASHTO CONSTRUCTION SPECIFICATIONS, SECTION 8.10.5. THE CONTRACTOR WILL CORRECT ANY VARIANCE FROM THE CONSTRUCTION SPECIFICATION AT THE DIRECTION OF THE ENGINEER.
5. THE TOP OF THE 6" DIAMETER BLOCKOUT FORMS MUST BE BELOW THE BEARING SURFACE PRIOR TO PLACEMENT OF THE BEARING.

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BARS IN THIS BILL OF BARS SHALL BE EPOXY COATED.

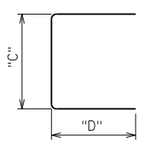
MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
E601	150	8'-7"	X		PEDESTAL - ALL PIERS EXCEPT 3 & 7
E602	80	9'-3"	X		PEDESTAL - AT PIERS 2, 4, 6, 8, & 10
E503	40	12'-9"	X		PEDESTAL - AT PIERS 2, 4, 6, 8, & 10
E604	76	8'-1"	X		PEDESTAL - AT PIERS 3 & 7
E605	32	10'-7"	X		PEDESTAL - AT PIERS 3 & 7
E506	16	13'-7"	X		PEDESTAL - AT PIERS 3 & 7
E608	32	7'-11"	X		PEDESTAL - AT ABUTMENTS
E509	16	10'-11"	X		PEDESTAL - AT ABUTMENTS
E611	48	9'-7"	X		PEDESTAL - AT PIERS 1, 5 & 9
E512	24	13'-0"	X		PEDESTAL - AT PIERS 1, 5 & 10

TOTAL WEIGHT = 5,489 LBS.



E601, E602, E604, E605, E607, E608 & E611

MARK	"A"	"B"
E601	2'-2"	4'-7"
E602	2'-2"	5'-3"
E604	2'-2"	4'-1"
E605	2'-2"	6'-7"
E608	2'-2"	3'-11"
E611	2'-2"	5'-7"



E503, E506, E509 & E512

MARK	"C"	"D"
E503	4'-6"	4'-3"
E506	6'-6"	3'-8"
E509	3'-10"	3'-8"
E512	4'-6"	4'-5"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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BEARING PEDESTAL DETAILS 1

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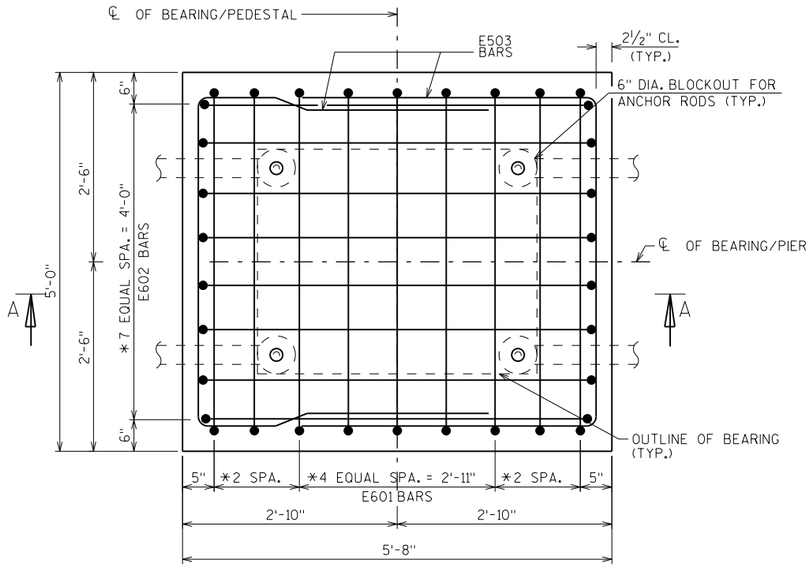
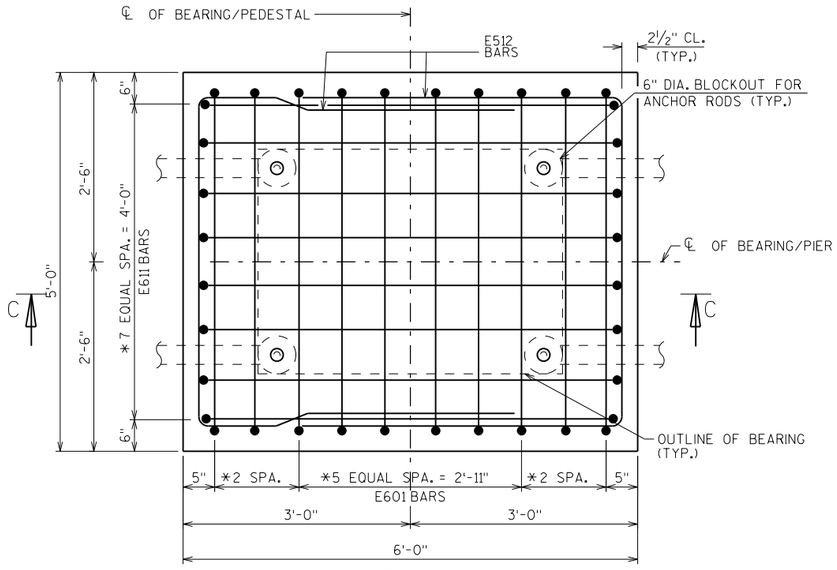


PLAN

(PIER PEDESTAL - PIERS 2, 4, 6, 8 & 10)

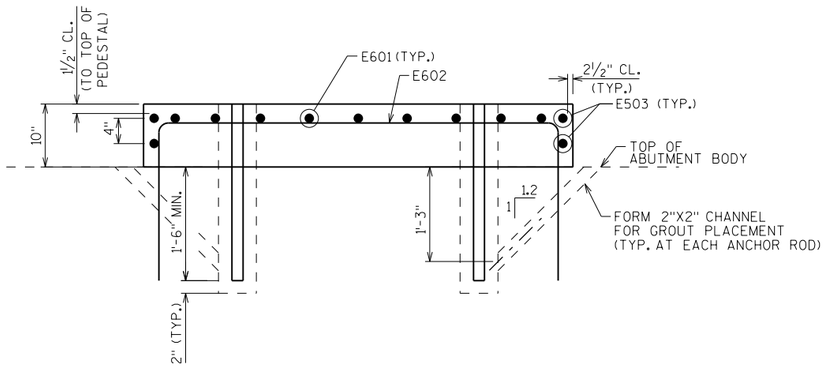
* ADJUST SPA. TO MISS ANCHOR ROD BLOCKOUTS



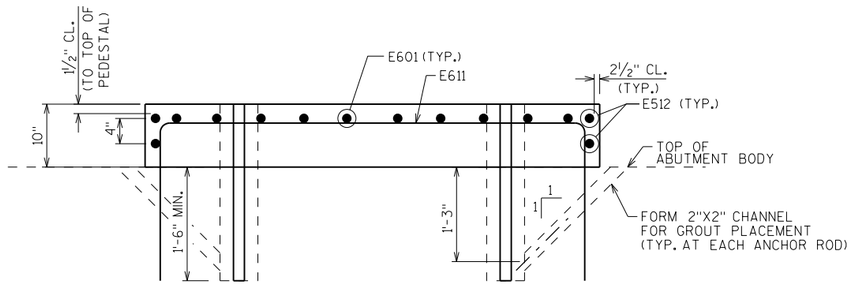
PLAN

(PIER PEDESTAL - PIERS 1, 5 & 9)

* ADJUST SPA. TO MISS ANCHOR ROD BLOCKOUTS



SECTION A-A



SECTION C-C

NOTES:

SEE SHEET BEARING PEDESTAL DETAILS 1 FOR PEDESTAL BAR REINFORCEMENT DETAILS.

SEE SHEET BEARING PEDESTAL DETAILS 1 FOR NOTES.

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BEARING PEDESTAL DETAILS 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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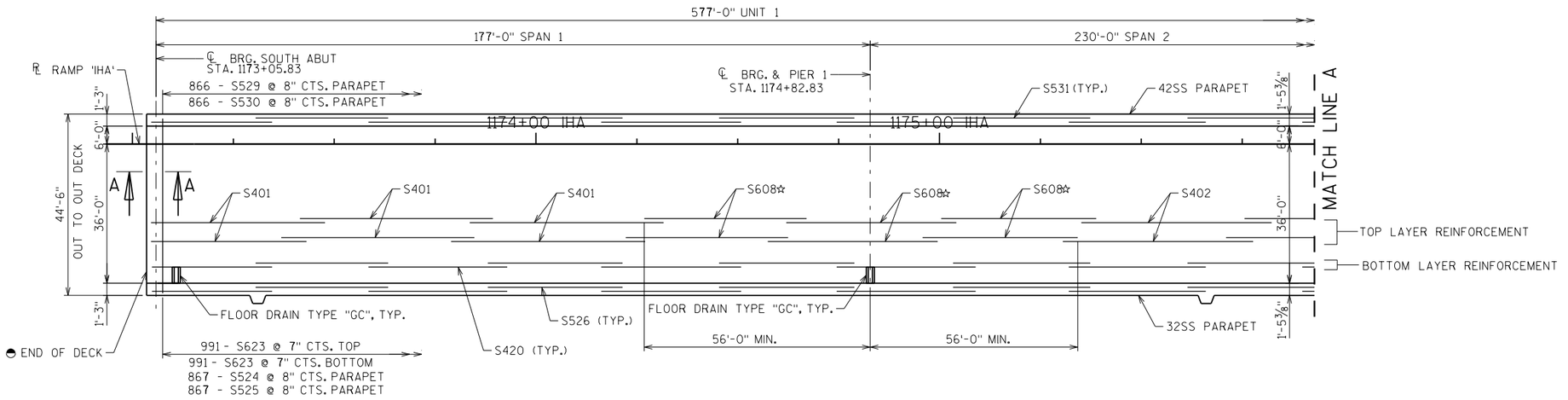
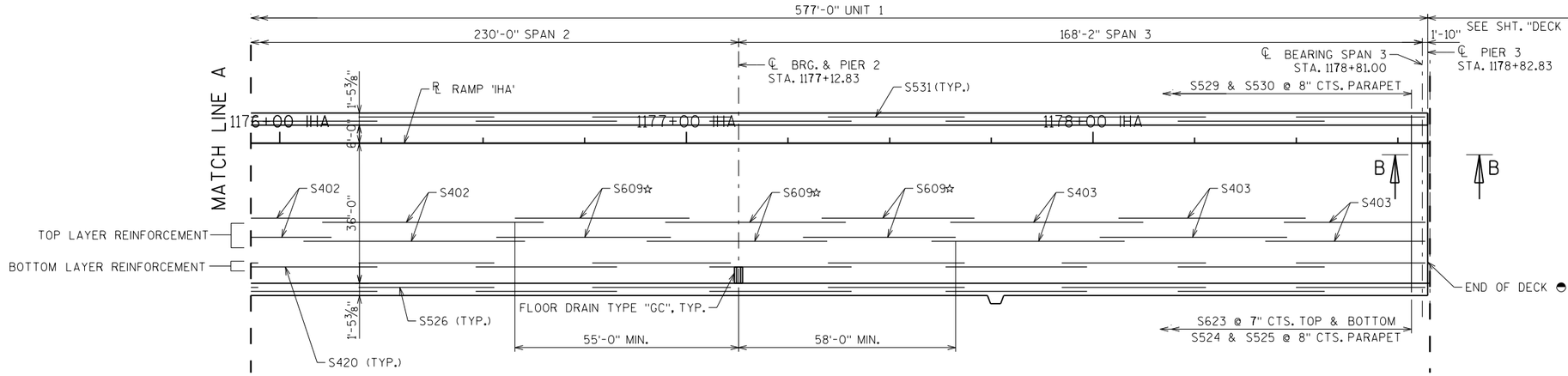
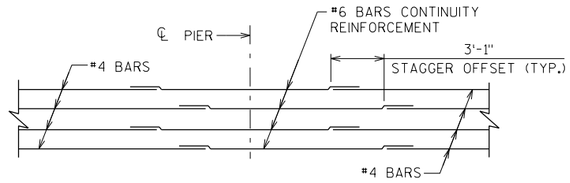




DECK REINFORCEMENT UNIT 1

NOTES:

1. SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR BAR BILL.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.
4. SEE GENERAL PLAN AND ELEVATION SHEETS FOR LOCATIONS OF FLOOR DRAINS. FOR FLOOR DRAIN DETAILS SEE SHEET TITLED "FLOOR DRAIN DETAILS".
5. SPLICE ALL DECK LONGITUDINAL NO. 6 BARS 3'-10", NO. 5 BARS 3'-3" MINIMUM AND NO. 4 BARS 2'-1" MINIMUM UNLESS NOTED OTHERWISE.
6. FOR LIGHT BLISTER REINFORCEMENT DETAILS SEE SHEET TITLED "LIGHT STANDARDS".
7. FOR SECTIONS A-A THROUGH E-E DETAILS SEE SHEET TITLED "REINFORCING AT EXPANSION JOINT".
8. ALL TRANSVERSE BAR STEEL FOR UNITS 2 AND 3 SHALL BE PLACED RADIALLY TO THE RAMP IHA REFERENCE LINE.
9. SEE "TYPICAL DECK REINFORCEMENT CROSS SECTION" SHEET FOR LONGITUDINAL BAR SPACING.
10. SEE SHEET "FLOOR DRAIN DETAILS-2" FOR LOCATIONS AND DETAILS OF CONCRETE INSERTS.



CONTINUITY REINFORCEMENT PLAN DETAIL

LEGEND

◓ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, EAST ABUTMENT, PIER 3 AND PIER 7. SEE MODULAR EXPANSION JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

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STRUCTURE B-5-671

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DECK REINFORCEMENT PLAN UNIT 1

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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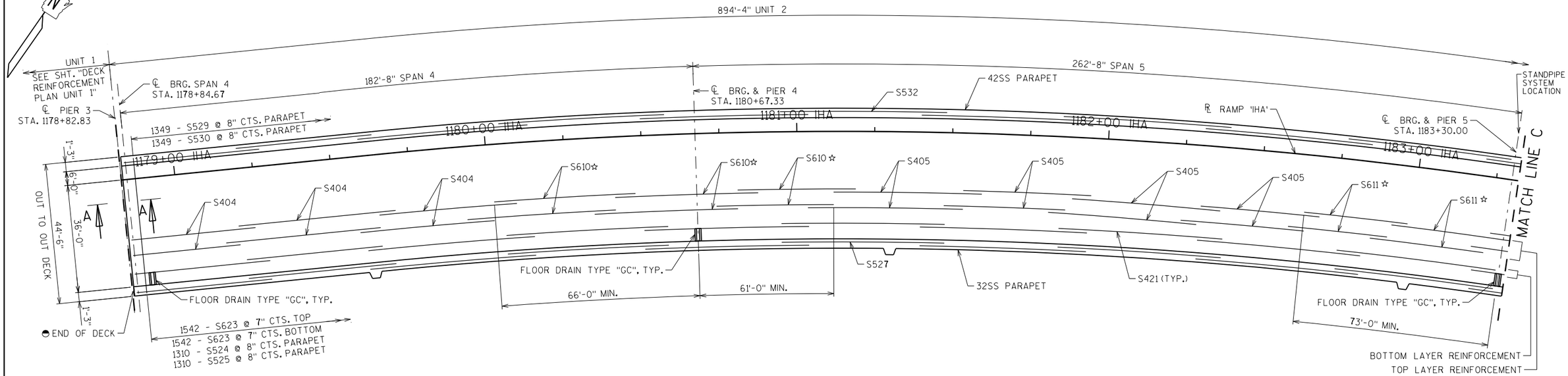
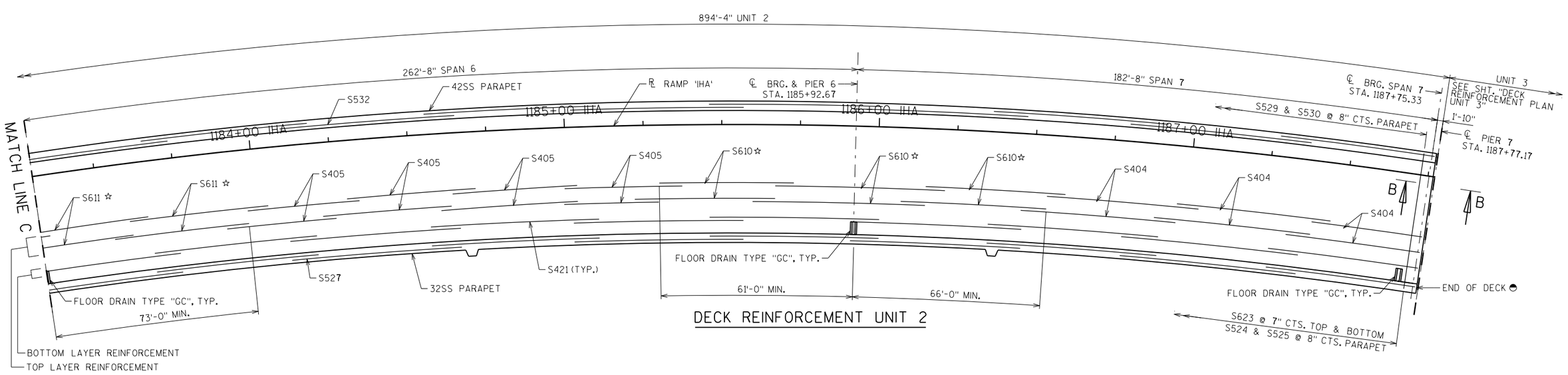




DECK REINFORCEMENT UNIT 2

8

NOTES:

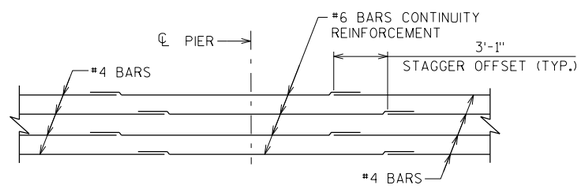
SEE SHT. "DECK REINFORCEMENT PLAN UNIT 1 FOR NOTES.

SEE SHT. "STANDPIPE SYSTEM DETAILS" FOR DETAILS OF STANDPIPE AND CONCRETE INSERT

LEGEND

◓ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, EAST ABUTMENT, PIER 3 AND PIER 7. SEE MODULAR EXPANSION JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR



CONTINUITY REINFORCEMENT PLAN DETAIL

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DECK REINFORCEMENT PLAN UNIT 2

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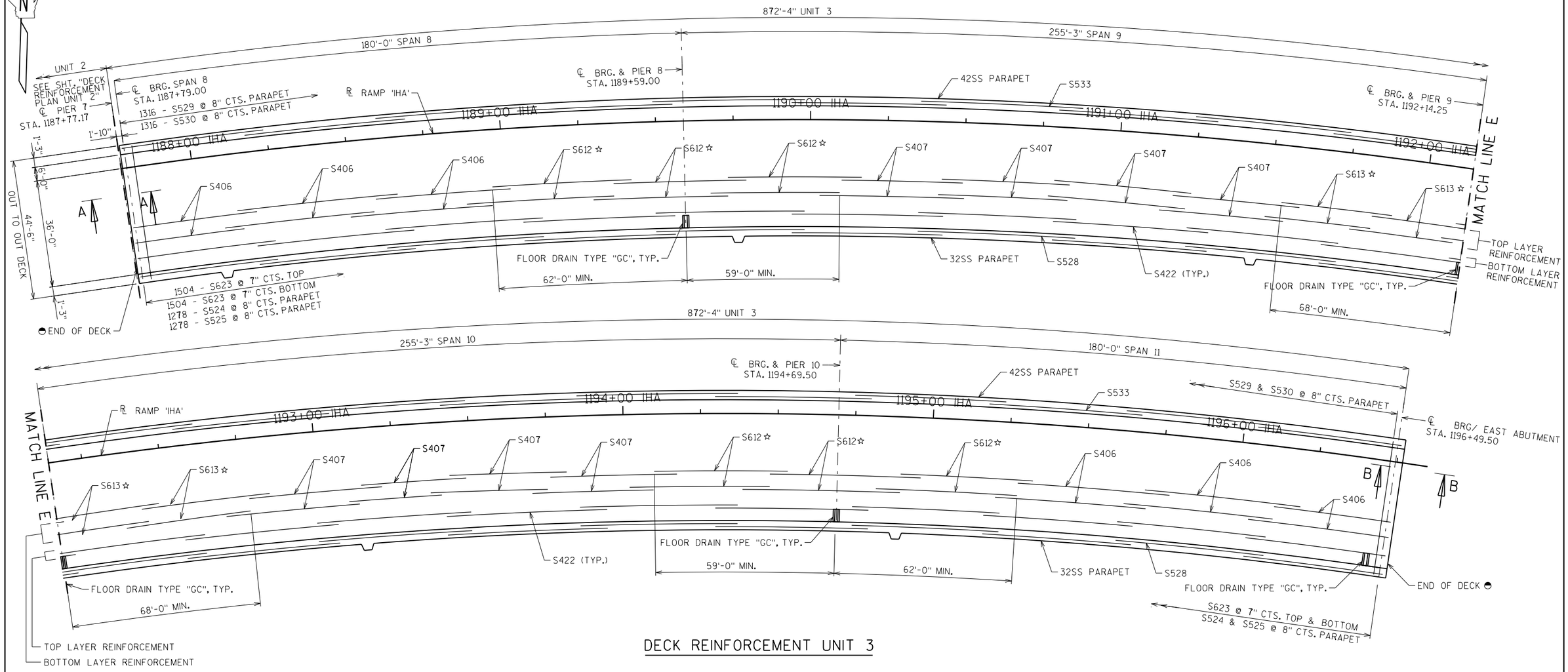
STATE PROJECT NUMBER

1133-11-74



DECK REINFORCEMENT UNIT 3

8

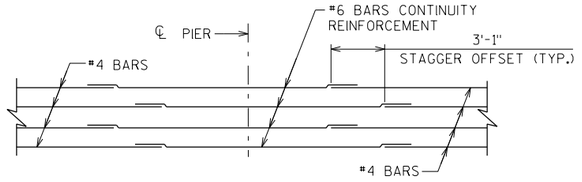
NOTE:

SEE SHT. "DECK REINFORCEMENT PLAN UNIT 1 FOR NOTES

LEGEND

◓ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, EAST ABUTMENT, PIER 3 AND PIER 7. SEE MODULAR EXPANSION JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR



CONTINUITY REINFORCEMENT PLAN DETAIL

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

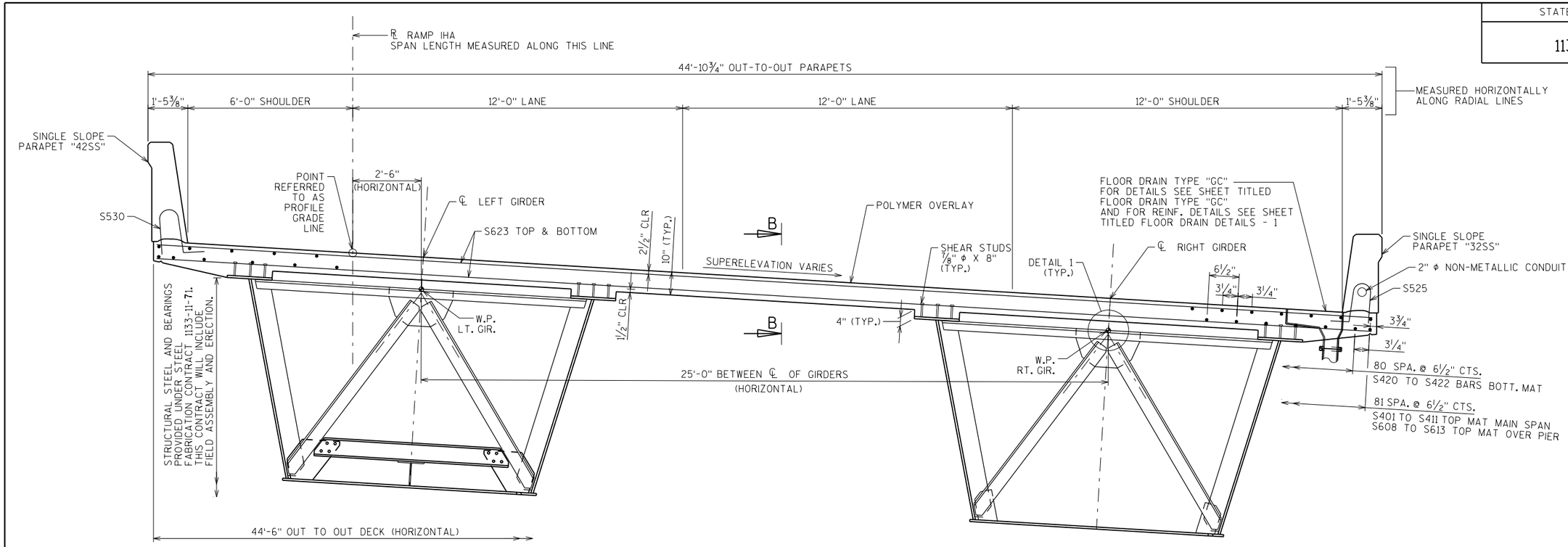
DECK REINFORCEMENT PLAN UNIT 3

SHEET 54 OF 96
564

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\054 B-05-671-Deck Reinforcement Plan - Unit 3.dgn

DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER
1133-11-74



TYPICAL CROSS SECTION

NOTES:

STAY-IN-PLACE METAL FORMS PERMITTED INSIDE BOX GIRDERS ONLY.

WP = WORK POINT TO WHICH DIMENSIONS ARE MEASURED.

SEE CONTRACT 1133-11-71 "SUPERSTRUCTURE DETAILS" SHT. FOR HAUNCH DETAILS.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2" OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

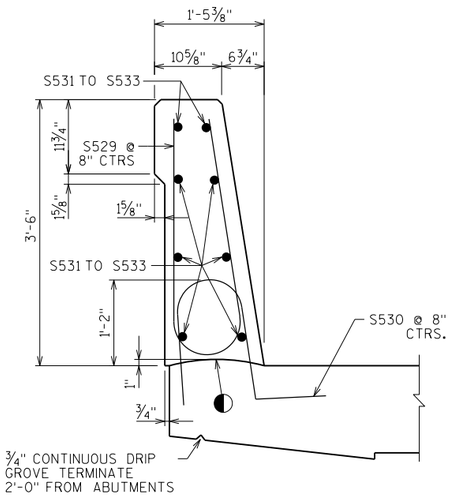
LAP S563 - S566 BARS IN PARAPET 1'-9" MIN.

LAP S873 - S876 BARS IN PARAPET 3'-5" MIN.

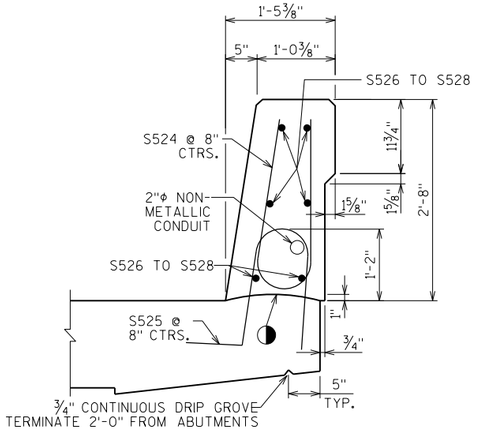
DO NOT PLACE SHEAR STUDS AT FLOOR DRAIN LOCATIONS.

◐ CONSTRUCTION JOINT-STRIKE OFF AS SHOWN.

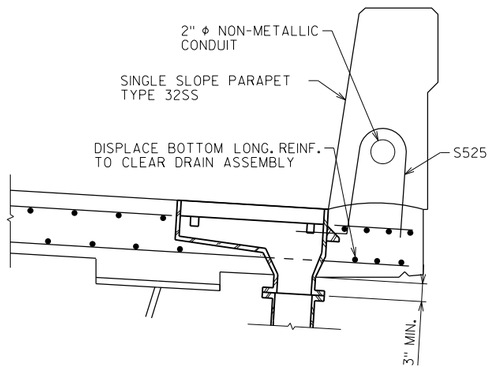
SEE SHEET ALIGNMENT AND SUPERELEVATION FOR SUPERELEVATION DETAILS.



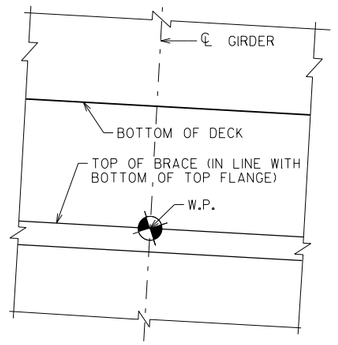
SECTION THRU PARAPET ON BRIDGE SINGLE SLOPE PARAPET 42SS



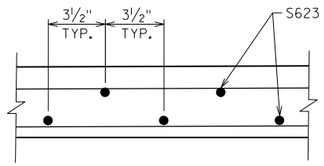
SECTION THRU PARAPET ON BRIDGE SINGLE SLOPE PARAPET 32SS



FLOOR DRAIN REINFORCEMENT DETAIL



DETAIL 1



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	KZ	PLANS CK'D.	NPP

TYPICAL DECK REINFORCEMENT CROSS SECTION

SHEET 55 OF 96
565

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\055-B-05-671 - Typical Deck Reinf. Cross-Section.dgn

DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74

BILL OF BARS - SUPERSTRUCTURE

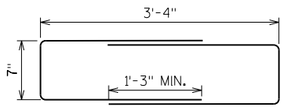
BAR MARK	COATED	NO. REQUIRED	LENGTH	WEIGHT (LB)	BENT	LOCATION
S401	X	246	42'-6"	6,984		TOP LONGITUDINAL UNIT 1
S402	X	246	41'-11"	6,884		TOP LONGITUDINAL UNIT 1
S403	X	246	38'-5"	6,309		TOP LONGITUDINAL UNIT 1
S404	X	492	42'-5"	13,940		TOP LONGITUDINAL UNIT 2
S405	X	656	35'-4"	15,458		TOP LONGITUDINAL UNIT 2
S406	X	492	42'-2"	13,858		TOP LONGITUDINAL UNIT 3
S407	X	656	35'-2"	15,408		TOP LONGITUDINAL UNIT 3
S608	X	246	41'-6"	15,312		TOP LONGITUDINAL OVER PIER UNIT 1
S609	X	246	41'-10"	15,435		TOP LONGITUDINAL OVER PIER UNIT 1
S610	X	492	46'-8"	34,485		TOP LONGITUDINAL OVER PIER UNIT 2
S611	X	328	40'-6"	19,953		TOP LONGITUDINAL OVER PIER UNIT 2
S612	X	492	43'-6"	32,146		TOP LONGITUDINAL OVER PIER UNIT 3
S613	X	328	38'-2"	18,762		TOP LONGITUDINAL OVER PIER UNIT 3
S420	X	1620	31'-0"	33,547		BOTTOM LONGITUDINAL UNIT 1
S421	X	1620	47'-0"	50,862		BOTTOM LONGITUDINAL UNIT 2
S422	X	1620	45'-9"	49,509		BOTTOM LONGITUDINAL UNIT 3
S623	X	8074	44'-2"	534,605		TOP & BOTT. TRANSVERSE
S524	X	3455	5'-0"	18,018	X	32SS PARAPET
S525	X	3455	4'-5"	15,916	X	32SS PARAPET
S526	X	120	32'-2"	4,016		32SS PARAPET UNIT 1
S527	X	120	46'-9"	5,851		32SS PARAPET UNIT 2
S528	X	120	45'-8"	5,714		32SS PARAPET UNIT 3
S529	X	3531	6'-8"	24,552	X	42SS PARAPET
S530	X	3531	4'-5"	16,266	X	42SS PARAPET
S531	X	160	32'-1"	5,354		42SS PARAPET UNIT 1
S532	X	160	48'-1"	8,024		42SS PARAPET UNIT 2
S533	X	160	47'-0"	7,843		42SS PARAPET UNIT 3
S634	X	48	7'-10"	565	X	DRAIN

TOTAL WEIGHT = 995,575

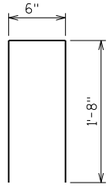
BILL OF BARS - EXPANSION JOINT

BAR MARK	COATED	NO. REQUIRED	LENGTH	WEIGHT (LB)	BENT	LOCATION
M401	X	804	5'-0"	2,685	X	LONGITUDINAL
M402	X	732	3'-8"	1,793	X	VERTICAL
M403	X	72	2'-1"	100	X	VERTICAL
M604	X	120	3'-2"	571	X	TOP & BOTTOM TRANSVERSE
M405	X	312	4'-5"	922	X	LONGITUDINAL
M406	X	36	3'-11"	94	X	LONGITUDINAL
M607	X	18	44'-0"	1,190		TOP TRANSVERSE
M408	X	36	5'-2"	124	X	TOP LONGITUDINAL
M509	X	432	8'-0"	3,605		TRANSVERSE
M610	X	60	39'-10"	3,590		TOP & BOTTOM TRANSVERSE
M411	X	366	6'-0"	1,467	X	TOP & BOTTOM TRANSVERSE
M612	X	24	13'-7"	490	X	TRANSVERSE
M613	X	48	13'-0"	937	X	TRANSVERSE

TOTAL WEIGHT = 17,568



M401
TWO BARS SHOWN



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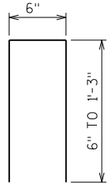
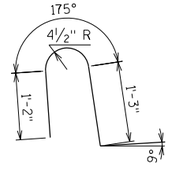
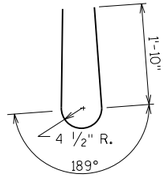


M403



S525 & S530



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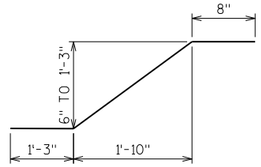

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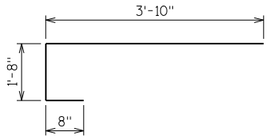

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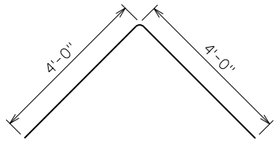
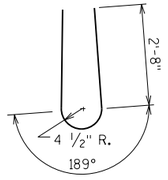


S634



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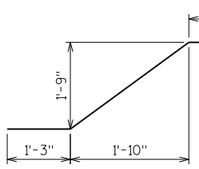

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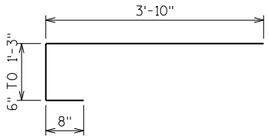

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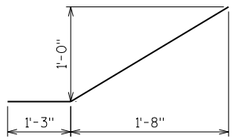

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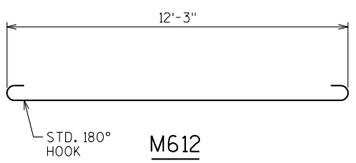

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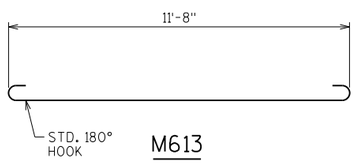


M613

BAR SERIES

BAR SERIES LENGTH IS AVERAGE AND TO BE USED FOR BAR WEIGHT CALCULATION ONLY.

MARK	NO. REQ'D.	LENGTH
M403	24 SERIES OF 3	1'-4" TO 2'-10"
M406	12 SERIES OF 3	3'-9" TO 4'-1"
M408	12 SERIES OF 3	4'-10" TO 5'-7"

NOTES:

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

SUPERSTRUCTURE BILL OF BARS

SHEET 56 OF 96
566

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\056 B-05-671 - SUPERSTRUCTURE BILL OF BARS.dgn

DATE: 5/31/2013
I.D.

8

8

STATE PROJECT NUMBER

1133-11-74

SPAN 1

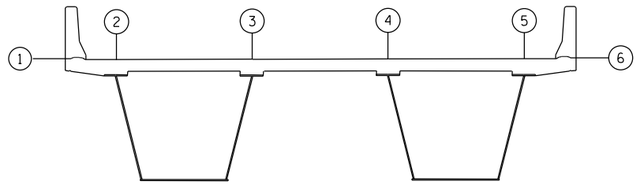
LOCATION	S. ABUT.	P1-2	P1-3	P1-4	P1-5	P1-6	P1-7	P1-8	FS #1	P2-1	P2-2	PIER 1
STATION	1173+05.83	1173+23.53	1173+41.23	1173+58.93	1173+76.63	1173+94.33	1174+12.03	1174+29.73	1174+38.58	1174+47.43	1174+65.13	1174+82.83
1 LEFT EDGE OF SLAB	630.64	631.17	631.70	632.23	632.76	633.29	633.88	634.40	634.65	634.90	635.39	635.87
2 LEFT GIRDER LT. WEB	630.57	631.10	631.63	632.16	632.69	633.22	633.81	634.33	634.58	634.83	635.32	635.80
3 LEFT GIRDER RT. WEB	630.32	630.85	631.38	631.91	632.44	632.97	633.56	634.08	634.33	634.58	635.07	635.55
4 RIGHT GIRDER LT. WEB	630.07	630.60	631.13	631.66	632.19	632.72	633.31	633.83	634.08	634.33	634.82	635.30
5 RIGHT GIRDER RT. WEB	629.82	630.35	630.88	631.41	631.94	632.47	633.06	633.58	633.83	634.08	634.57	635.05
6 RIGHT EDGE OF SLAB	629.75	630.28	630.81	631.34	631.87	632.40	632.99	633.51	633.76	634.01	634.50	634.98

SPAN 2

LOCATION	PIER 1	P2-4	P2-5	P2-6	FS #2	P3-1	P3-2	P3-3	P3-4	P3-5	P3-6	P3-7	FS #3	P4-1	P4-2	P4-3	PIER 2
STATION	1174+82.83	1174+99.26	1175+15.69	1175+32.12	1175+40.33	1175+48.54	1175+64.97	1175+81.40	1175+97.83	1176+14.26	1176+30.69	1176+47.12	1176+55.33	1176+63.54	1176+79.97	1176+96.40	1177+12.83
1 LEFT EDGE OF SLAB	635.87	636.31	636.73	637.15	637.35	637.55	637.95	638.33	638.71	639.07	639.43	639.77	639.94	640.10	640.43	640.74	641.05
2 LEFT GIRDER LT. WEB	635.80	636.24	636.66	637.08	637.28	637.48	637.88	638.26	638.64	639.00	639.36	639.70	639.87	640.03	640.36	640.67	640.98
3 LEFT GIRDER RT. WEB	635.55	635.99	636.41	636.83	637.03	637.23	637.63	638.01	638.39	638.75	639.11	639.45	639.62	639.78	640.11	640.42	640.73
4 RIGHT GIRDER LT. WEB	635.30	635.74	636.16	636.58	636.78	636.98	637.38	637.76	638.14	638.50	638.86	639.20	639.37	639.53	639.86	640.17	640.48
5 RIGHT GIRDER RT. WEB	635.05	635.49	635.91	636.33	636.53	636.73	637.13	637.51	637.89	638.25	638.61	638.95	639.12	639.28	639.61	639.92	640.23
6 RIGHT EDGE OF SLAB	634.98	635.42	635.84	636.26	636.46	636.66	637.06	637.44	637.82	638.18	638.54	638.88	639.05	639.21	639.54	639.85	640.16

SPAN 3

LOCATION	PIER 2	P4-5	P4-6	P4-7	FS #4	P5-1	P5-2	P5-3	P5-4	P5-5	P5-6	PIER 3
STATION	1177+12.83	1177+29.65	1177+46.46	1177+63.28	1177+71.69	1177+80.10	1177+96.92	1178+13.73	1178+30.55	1178+47.37	1178+64.18	1178+81.00
1 LEFT EDGE OF SLAB	641.05	641.35	641.64	641.92	642.05	642.19	642.44	642.69	642.93	643.15	643.37	643.58
2 LEFT GIRDER LT. WEB	640.98	641.28	641.57	641.85	641.98	642.12	642.37	642.62	642.86	643.08	643.30	643.51
3 LEFT GIRDER RT. WEB	640.73	641.03	641.32	641.60	641.73	641.87	642.12	642.37	642.61	642.83	643.05	643.26
4 RIGHT GIRDER LT. WEB	640.48	640.78	641.07	641.35	641.48	641.62	641.87	642.12	642.36	642.58	642.80	643.01
5 RIGHT GIRDER RT. WEB	640.23	640.53	640.82	641.10	641.23	641.37	641.62	641.87	642.11	642.33	642.55	642.76
6 RIGHT EDGE OF SLAB	640.16	640.46	640.75	641.03	641.16	641.30	641.55	641.80	642.04	642.26	642.48	642.69



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS SPANS 1-3-UNIT 1

SHEET 57 OF 96

567

DATE: 5/31/2013

I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\057 B-05-671 Top of Deck Elev spans 1-3-unit 1.dgn

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8

STATE PROJECT NUMBER

1133-11-74

SPAN 4

LOCATION	PIER 3	P6-2	P6-3	P6-4	P6-5	P6-6	P6-7	P6-8	FS #5	P7-1	P7-2	P7-3	PIER 4
STATION	1178+84.67	1179+01.28	1179+17.88	1179+34.49	1179+51.09	1179+67.70	1179+84.30	1180+00.91	1180+09.21	1180+17.51	1180+34.12	1180+50.72	1180+67.33
1 LEFT EDGE OF SLAB	643.62	643.84	644.05	644.25	644.44	644.62	644.79	644.95	645.02	645.09	645.23	645.35	645.43
2 LEFT GIRDER LT. WEB	643.55	643.76	643.95	644.14	644.31	644.47	644.63	644.77	644.84	644.91	645.03	645.14	645.22
3 LEFT GIRDER RT. WEB	643.30	643.45	643.60	643.73	643.85	643.96	644.07	644.16	644.20	644.24	644.31	644.39	644.47
4 RIGHT GIRDER LT. WEB	643.05	643.15	643.24	643.32	643.39	643.45	643.50	643.54	643.56	643.57	643.59	643.64	643.72
5 RIGHT GIRDER RT. WEB	642.79	642.84	642.88	642.91	642.93	642.94	642.94	642.92	642.91	642.90	642.86	642.89	642.97
6 RIGHT EDGE OF SLAB	642.72	642.76	642.78	642.80	642.80	642.80	642.78	642.75	642.73	642.71	642.66	642.68	642.76

SPAN 5

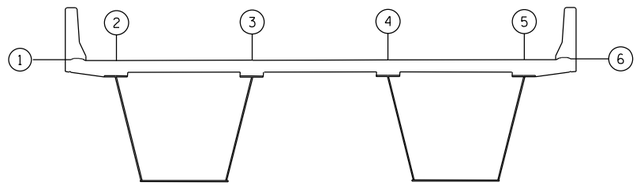
LOCATION	PIER 4	P7-5	P7-6	P7-7	FS #6	P8-1	P8-2	P8-3	P8-4	P8-5	P8-6	P8-7	P8-8	P8-9	FS #7	P9-1	P9-2	P9-3	PIER 5
STATION	1180+67.33	1180+83.75	1181+00.16	1181+16.58	1181+24.79	1181+33.00	1181+49.41	1181+65.83	1181+82.25	1181+98.67	1182+15.08	1182+31.50	1182+47.92	1182+64.33	1182+72.54	1182+80.75	1182+97.17	1183+13.58	1183+30.00
1 LEFT EDGE OF SLAB	645.43	645.51	645.57	645.63	645.65	645.67	645.71	645.73	645.75	645.76	645.75	645.73	645.71	645.67	645.65	645.63	645.57	645.51	645.43
2 LEFT GIRDER LT. WEB	645.22	645.30	645.36	645.42	645.44	645.46	645.50	645.52	645.54	645.55	645.54	645.52	645.50	645.46	645.44	645.42	645.36	645.30	645.22
3 LEFT GIRDER RT. WEB	644.47	644.55	644.61	644.67	644.69	644.71	644.75	644.77	644.79	644.80	644.79	644.77	644.75	644.71	644.69	644.67	644.61	644.55	644.47
4 RIGHT GIRDER LT. WEB	643.72	643.80	643.86	643.92	643.94	643.96	644.00	644.02	644.04	644.05	644.04	644.02	644.00	643.96	643.94	643.92	643.86	643.80	643.72
5 RIGHT GIRDER RT. WEB	642.97	643.05	643.11	643.17	643.19	643.21	643.25	643.27	643.29	643.30	643.29	643.27	643.25	643.21	643.19	643.17	643.11	643.05	642.97
6 RIGHT EDGE OF SLAB	642.76	642.84	642.90	642.96	642.98	643.00	643.04	643.06	643.08	643.09	643.08	643.06	643.04	643.00	642.98	642.96	642.90	642.84	642.76

SPAN 6

LOCATION	PIER 5	P9-5	P9-6	P9-7	FS #8	P10-1	P10-2	P10-3	P10-4	P10-5	P10-6	P10-7	P10-8	P10-9	FS#9	P11-1	P11-2	P11-3	PIER 6
STATION	1183+30.00	1183+46.42	1183+62.83	1183+79.25	1183+87.46	1183+95.67	1184+12.08	1184+28.50	1184+44.92	1184+61.34	1184+77.75	1184+94.17	1185+10.59	1185+27.00	1185+35.21	1185+43.42	1185+59.84	1185+76.25	1185+92.67
1 LEFT EDGE OF SLAB	645.43	645.35	645.25	645.14	645.09	645.03	644.90	644.77	644.62	644.46	644.30	644.12	643.93	643.74	643.63	643.53	643.31	643.09	642.85
2 LEFT GIRDER LT. WEB	645.22	645.14	645.04	644.93	644.88	644.82	644.69	644.56	644.41	644.25	644.09	643.91	643.72	643.53	643.42	643.32	643.10	642.88	642.64
3 LEFT GIRDER RT. WEB	644.47	644.39	644.29	644.18	644.13	644.07	643.94	643.81	643.66	643.50	643.34	643.16	642.97	642.78	642.67	642.57	642.35	642.13	641.89
4 RIGHT GIRDER LT. WEB	643.72	643.64	643.54	643.43	643.38	643.32	643.19	643.06	642.91	642.75	642.59	642.41	642.22	642.03	641.92	641.82	641.60	641.38	641.14
5 RIGHT GIRDER RT. WEB	642.97	642.89	642.79	642.68	642.63	642.57	642.44	642.31	642.16	642.00	641.84	641.66	641.47	641.28	641.17	641.07	640.85	640.63	640.39
6 RIGHT EDGE OF SLAB	642.76	642.68	642.58	642.47	642.42	642.36	642.23	642.10	641.95	641.79	641.63	641.45	641.26	641.07	640.96	640.86	640.64	640.42	640.18

SPAN 7

LOCATION	PIER 6	P11-5	P11-6	P11-7	FS #10	P12-1	P12-2	P12-3	P12-4	P12-5	P12-6	P12-7	PIER 7
STATION	1185+92.67	1186+03.41	1186+14.16	1186+24.90	1186+30.28	1186+35.65	1186+46.39	1186+57.14	1186+67.88	1186+78.63	1186+89.37	1187+00.12	1187+10.86
1 LEFT EDGE OF SLAB	642.85	642.69	642.52	642.35	642.27	642.18	642.00	641.82	641.63	641.44	641.25	641.05	640.84
2 LEFT GIRDER LT. WEB	642.64	642.48	642.31	642.14	642.06	641.97	641.79	641.61	641.42	641.23	641.04	640.84	640.63
3 LEFT GIRDER RT. WEB	641.89	641.73	641.56	641.39	641.31	641.22	641.04	640.86	640.67	640.48	640.29	640.09	639.88
4 RIGHT GIRDER LT. WEB	641.14	640.98	640.81	640.64	640.56	640.47	640.29	640.11	639.92	639.73	639.54	639.34	639.13
5 RIGHT GIRDER RT. WEB	640.39	640.23	640.06	639.89	639.81	639.72	639.54	639.36	639.17	638.98	638.79	638.59	638.38
6 RIGHT EDGE OF SLAB	640.18	640.02	639.85	639.68	639.60	639.51	639.33	639.15	638.96	638.77	638.58	638.38	638.17



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY K.Z | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS SPANS 4-7-UNIT 2

SHEET 58 OF 96
568

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\058 B-05-671 Top of Deck Elev spans 4-7-unit 2.dgn

DATE: 5/31/2013
I.D.

8

8

STATE PROJECT NUMBER

1133-11-74

SPAN 8

LOCATION	PIER 7	P13-2	P13-3	P13-4	P13-5	P13-6	P13-7	P13-8	FS #11	P14-1	P14-2	P14-3	PIER 8
STATION	1187+79.00	1187+95.36	1188+11.73	1188+28.09	1188+44.45	1188+60.82	1188+77.18	1188+93.55	1189+01.73	1189+09.91	1189+26.27	1189+42.64	1189+59.00
1 LEFT EDGE OF SLAB	639.45	639.09	638.72	638.34	637.95	637.55	637.14	636.72	636.50	636.29	635.85	635.39	634.93
2 LEFT GIRDER LT. WEB	639.24	638.88	638.51	638.13	637.74	637.34	636.93	636.51	636.29	636.08	635.64	635.18	634.72
3 LEFT GIRDER RT. WEB	638.49	638.13	637.76	637.38	636.99	636.59	636.18	635.76	635.54	635.33	634.89	634.43	633.97
4 RIGHT GIRDER LT. WEB	637.74	637.38	637.01	636.63	636.24	635.84	635.43	635.01	634.79	634.58	634.14	633.68	633.22
5 RIGHT GIRDER RT. WEB	636.99	636.63	636.26	635.88	635.49	635.09	634.68	634.26	634.04	633.83	633.39	632.93	632.47
6 RIGHT EDGE OF SLAB	636.78	636.42	636.05	635.67	635.28	634.88	634.47	634.05	633.83	633.62	633.18	632.72	632.26

SPAN 9

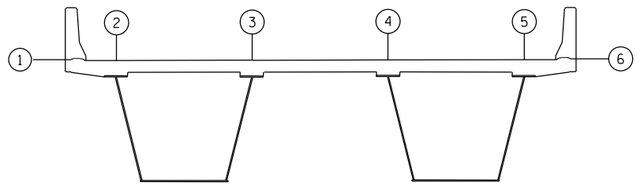
LOCATION	PIER 8	P14-5	P14-6	P14-7	FS #12	P15-1	P15-2	P15-3	P15-4	P15-5	P15-6	P15-7	P15-8	FS #13	P16-1	P16-2	P16-3	PIER 9
STATION	1189+59.00	1189+76.02	1189+93.03	1190+10.05	1190+18.56	1190+27.07	1190+44.08	1190+61.10	1190+78.12	1190+95.13	1191+12.15	1191+29.17	1191+46.18	1191+54.69	1191+63.20	1191+80.22	1191+97.23	1192+14.25
1 LEFT EDGE OF SLAB	634.93	634.44	633.94	633.44	633.19	632.93	632.42	631.91	631.40	630.89	630.38	629.87	629.36	629.10	628.85	628.34	627.83	627.32
2 LEFT GIRDER LT. WEB	634.72	634.23	633.73	633.23	632.98	632.72	632.21	631.70	631.19	630.68	630.17	629.66	629.15	628.89	628.64	628.13	627.62	627.11
3 LEFT GIRDER RT. WEB	633.97	633.48	632.98	632.48	632.23	631.97	631.46	630.95	630.44	629.93	629.42	628.91	628.40	628.14	627.89	627.38	626.87	626.36
4 RIGHT GIRDER LT. WEB	633.22	632.73	632.23	631.73	631.48	631.22	630.71	630.20	629.69	629.18	628.67	628.16	627.65	627.39	627.14	626.63	626.12	625.61
5 RIGHT GIRDER RT. WEB	632.47	631.98	631.48	630.98	630.73	630.47	629.96	629.45	628.94	628.43	627.92	627.41	626.90	626.64	626.39	625.88	625.37	624.86
6 RIGHT EDGE OF SLAB	632.26	631.77	631.27	630.77	630.52	630.26	629.75	629.24	628.73	628.22	627.71	627.20	626.69	626.43	626.18	625.67	625.16	624.65

SPAN 10

LOCATION	PIER 9	P16-5	P16-6	P16-7	FS #14	P17-1	P17-2	P17-3	P17-4	P17-5	P17-6	P17-7	P17-8	FS #15	P18-1	P18-2	P18-3	PIER 10
STATION	1192+14.25	1192+31.27	1192+48.28	1192+65.30	1192+73.81	1192+82.32	1192+99.33	1193+16.35	1193+33.37	1193+50.38	1193+67.40	1193+84.42	1194+01.43	1194+09.94	1194+18.45	1194+35.47	1194+52.48	1194+69.50
1 LEFT EDGE OF SLAB	627.32	626.81	626.30	625.79	625.53	625.28	624.77	624.25	623.74	623.23	622.72	622.21	621.70	621.45	621.19	620.68	620.17	619.66
2 LEFT GIRDER LT. WEB	627.11	626.60	626.09	625.58	625.32	625.07	624.56	624.04	623.53	623.02	622.51	622.00	621.49	621.24	620.98	620.47	619.96	619.45
3 LEFT GIRDER RT. WEB	626.36	625.85	625.34	624.83	624.57	624.32	623.81	623.29	622.78	622.27	621.76	621.25	620.74	620.49	620.23	619.72	619.21	618.70
4 RIGHT GIRDER LT. WEB	625.61	625.10	624.59	624.08	623.82	623.57	623.06	622.54	622.03	621.52	621.01	620.50	619.99	619.74	619.48	618.97	618.46	617.95
5 RIGHT GIRDER RT. WEB	624.86	624.35	623.84	623.33	623.07	622.82	622.31	621.79	621.28	620.77	620.26	619.75	619.24	618.99	618.73	618.22	617.71	617.20
6 RIGHT EDGE OF SLAB	624.65	624.14	623.63	623.12	622.86	622.61	622.10	621.58	621.07	620.56	620.05	619.54	619.03	618.78	618.52	618.01	617.50	616.99

SPAN 11

LOCATION	PIER 10	P18-5	P18-6	P18-7	FS #16	P19-1	P19-2	P19-3	P19-4	P19-5	P19-6	P19-7	E. ABUT.
STATION	1194+69.50	1194+85.86	1195+02.23	1195+18.59	1195+26.77	1195+34.95	1195+51.32	1195+67.68	1195+84.05	1196+00.41	1196+16.77	1196+33.14	1196+49.50
1 LEFT EDGE OF SLAB	619.66	619.17	618.68	618.19	617.94	617.70	617.21	616.71	616.22	615.73	615.24	614.75	614.26
2 LEFT GIRDER LT. WEB	619.45	618.96	618.47	617.98	617.73	617.49	617.00	616.50	616.01	615.52	615.03	614.54	614.05
3 LEFT GIRDER RT. WEB	618.70	618.21	617.72	617.23	616.98	616.74	616.25	615.75	615.26	614.77	614.28	613.79	613.30
4 RIGHT GIRDER LT. WEB	617.95	617.46	616.97	616.48	616.23	615.99	615.50	615.00	614.51	614.02	613.53	613.04	612.55
5 RIGHT GIRDER RT. WEB	617.20	616.71	616.22	615.73	615.48	615.24	614.75	614.25	613.76	613.27	612.78	612.29	611.80
6 RIGHT EDGE OF SLAB	616.99	616.50	616.01	615.52	615.27	615.03	614.54	614.04	613.55	613.06	612.57	612.08	611.59



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS SPANS 8-11-UNIT 3

SHEET 59 OF 96
569

DATE: 5/31/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\059 B-05-671 Top of Deck Elev spans 8-11-unit 3.dgn

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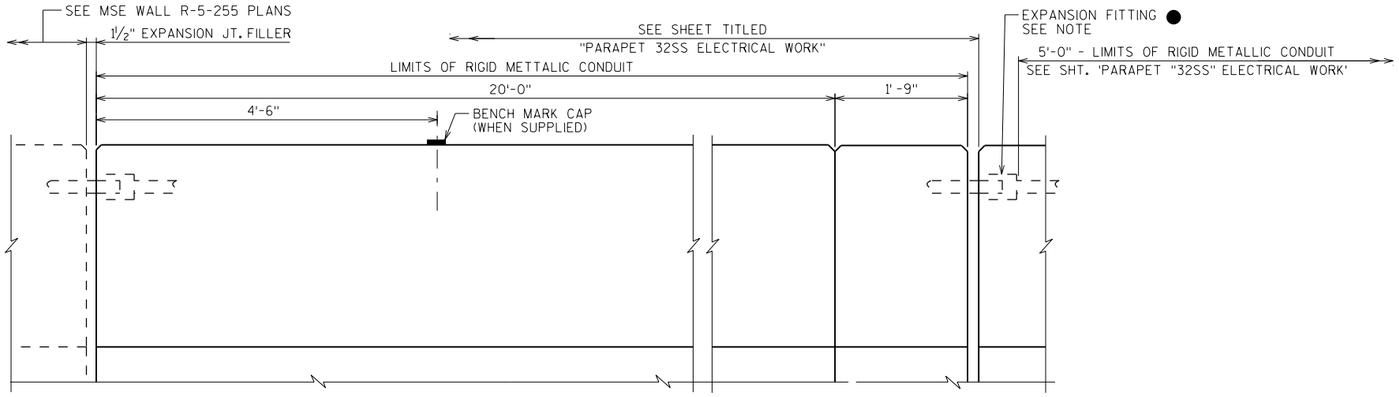
8

STATE PROJECT NUMBER

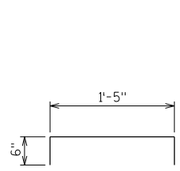
1133-11-74



INSIDE ELEVATION

BILL OF BARS

BAR MARK	NO. REQUIRED S. APPR.	NO. REQUIRED E. APPR.	LENGTH	WEIGHT (LB)	BENT	LOCATION
EPOXY COATED						TOTAL = 948 LB
R501	35	34	5'-0"	360	X	VERTICAL
R502	35	34	4'-5"	318	X	VERTICAL
R503	6	6	2'-2"	27	X	HORIZONTAL
R513	6	0	19'-8"	123		HORIZONTAL
R515	0	6	19'-2"	120		HORIZONTAL



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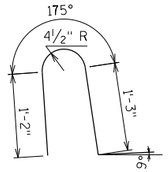
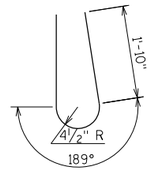


R502



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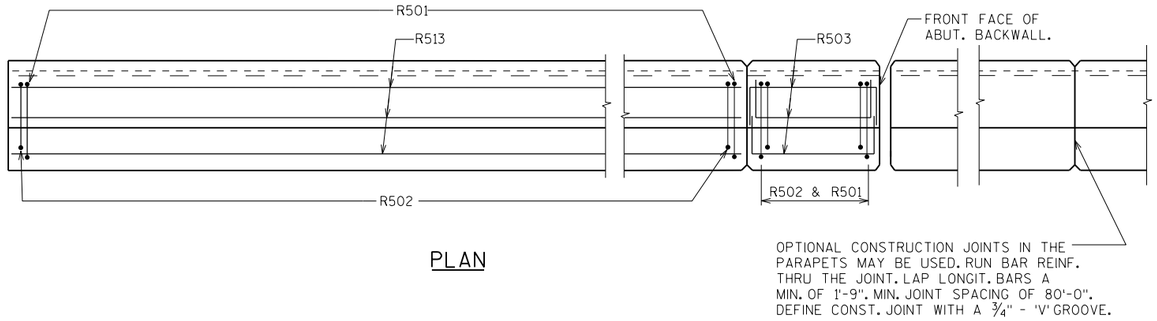
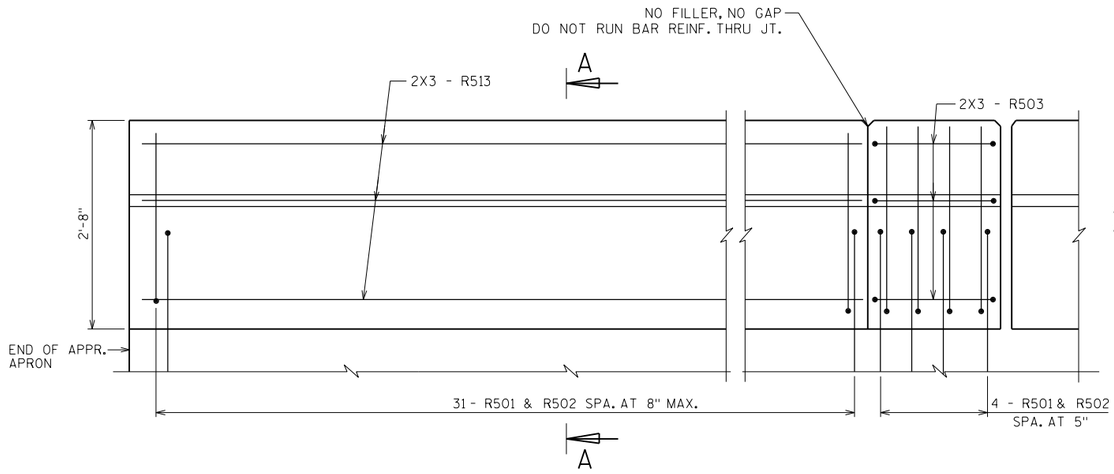
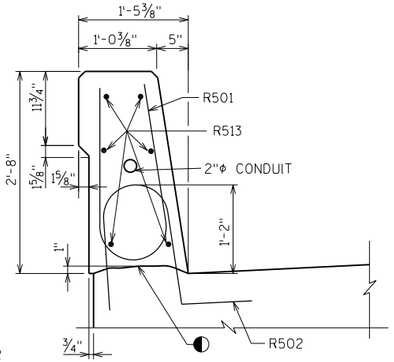


PLAN



OUTSIDE ELEVATION



SECTION A-A

LEGEND

● POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING. SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

SINGLE SLOPE PARAPET 32SS SOUTH ABUTMENT

SHEET 60 OF 96
570

DATE: 5/31/2013
I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\060 B-05-671 -Sloped Face Parapet '32SS' - South Abut.dgn

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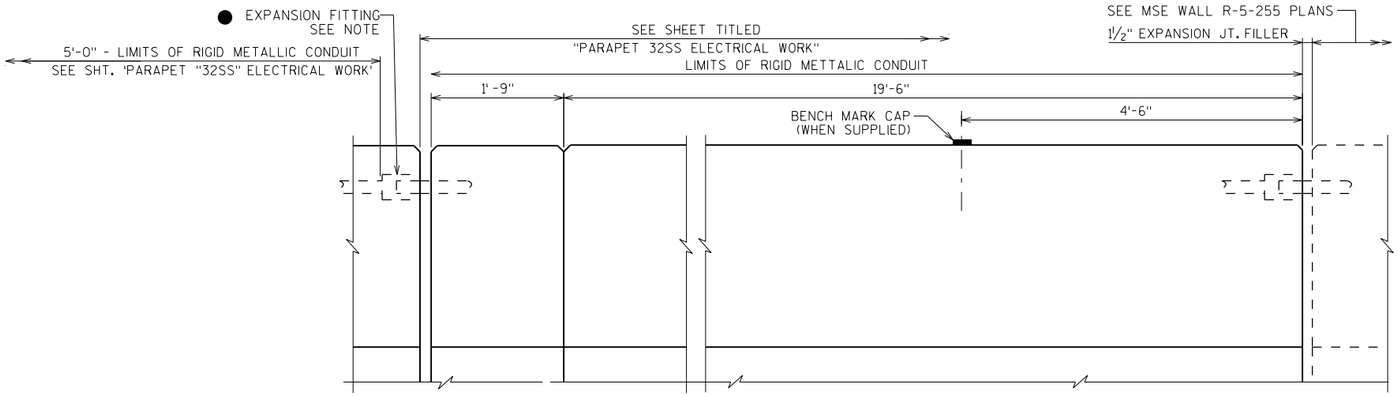
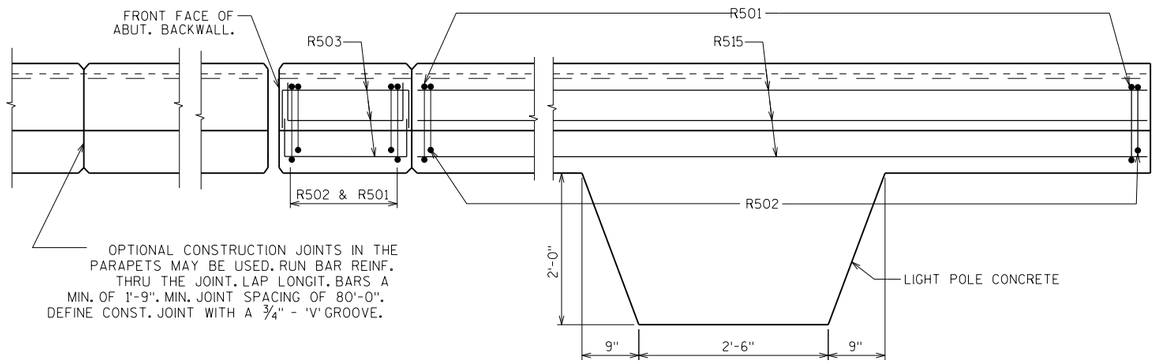
STATE PROJECT NUMBER

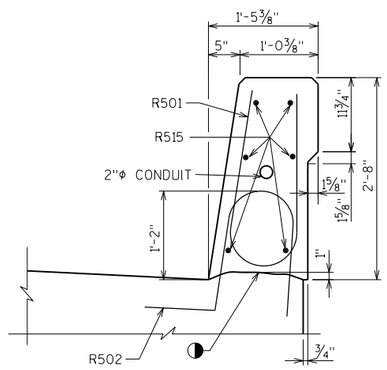
1133-11-74



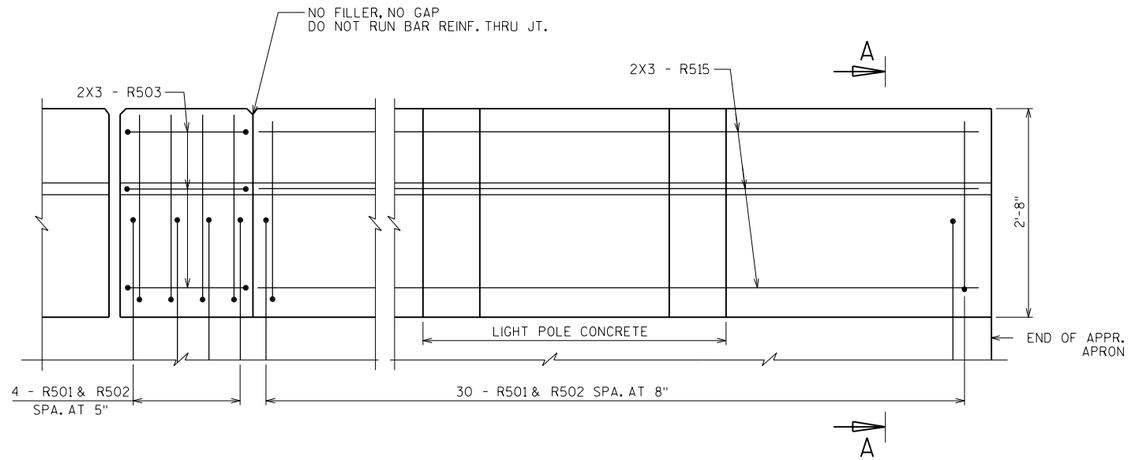
INSIDE ELEVATION



PLAN



SECTION A-A



OUTSIDE ELEVATION

NOTE

FOR BILL OF BARS AND BAR DETAILS, SEE SHEET "SINGLE SLOPE PARAPET 32SS SOUTH ABUTMENT".

SEE SHEET "LIGHT STANDARD" FOR LIGHT POLE DETAILS AND BILL OF BARS.

LEGEND

● POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING. SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

SINGLE SLOPE PARAPET 32SS EAST ABUTMENT

SHEET 61 OF 96
571

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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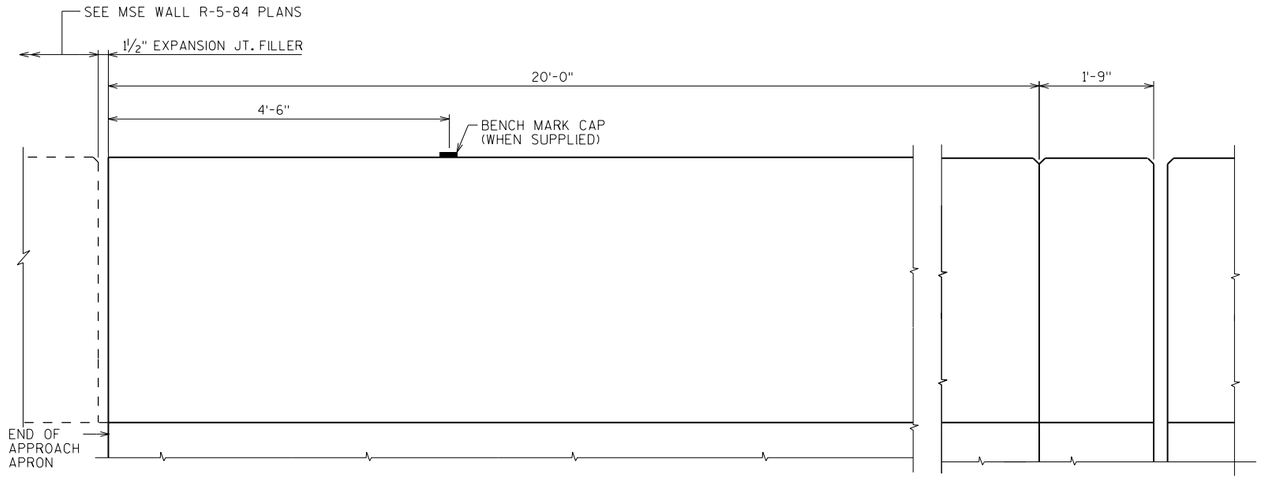
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

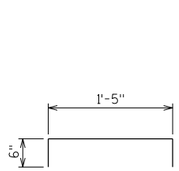
1133-11-74



INSIDE ELEVATION

BILL OF BARS

BAR MARK	NO. REQUIRED S. APPR.	NO. REQUIRED E. APPR.	LENGTH	WEIGHT (LB)	BENT	LOCATION
EPOXY COATED				TOTAL = 1152 LB		
R502	34	34	4'-5"	313	X	VERTICAL
R503	8	8	2'-2"	36	X	VERTICAL
R504	34	34	6'-8"	473	X	HORIZONTAL
R513	0	8	19'-8"	164		HORIZONTAL
R514	8	0	19'-9"	165		HORIZONTAL



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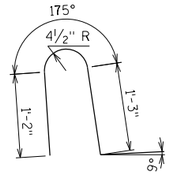

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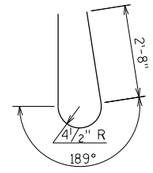

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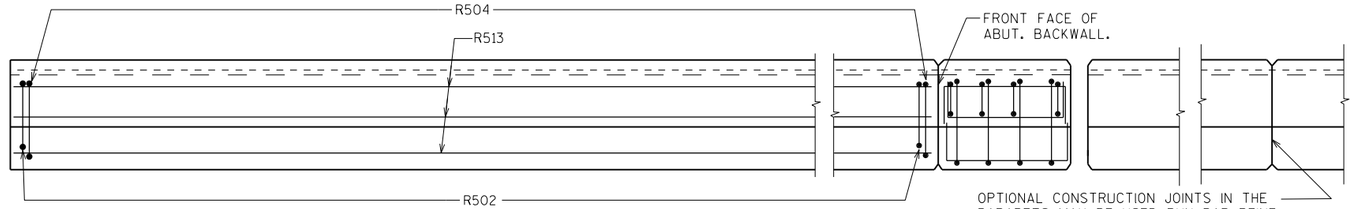
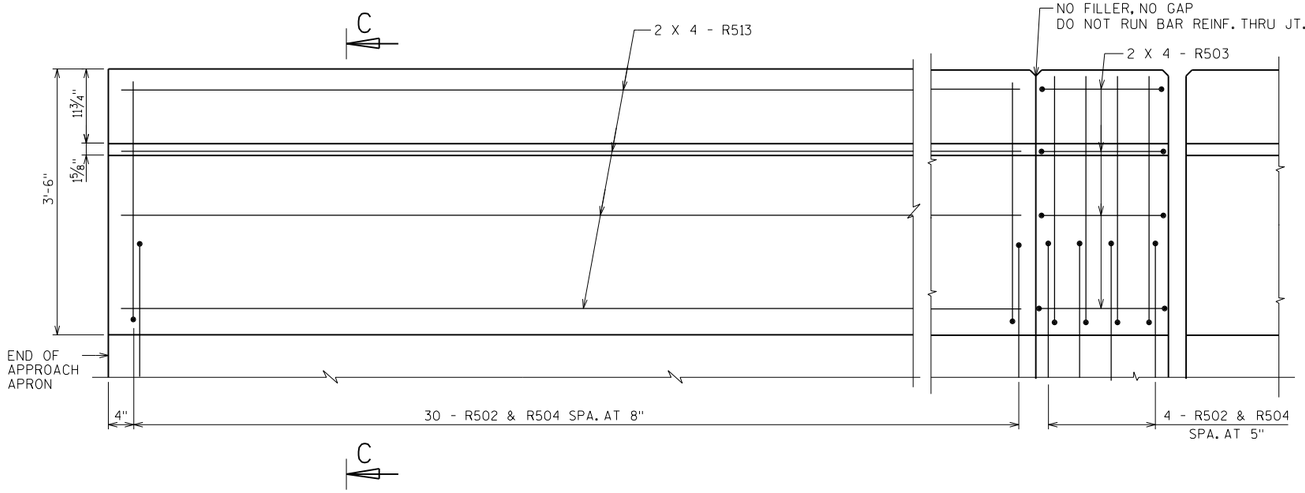
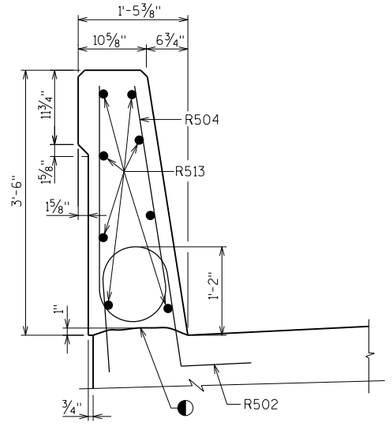


PLAN



OUTSIDE ELEVATION



SECTION C-C

LEGEND

◐ CONSTRUCTION JOINT-STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

SINGLE SLOPE PARAPET 42SS SOUTH ABUTMENT

SHEET 62 OF 96
572

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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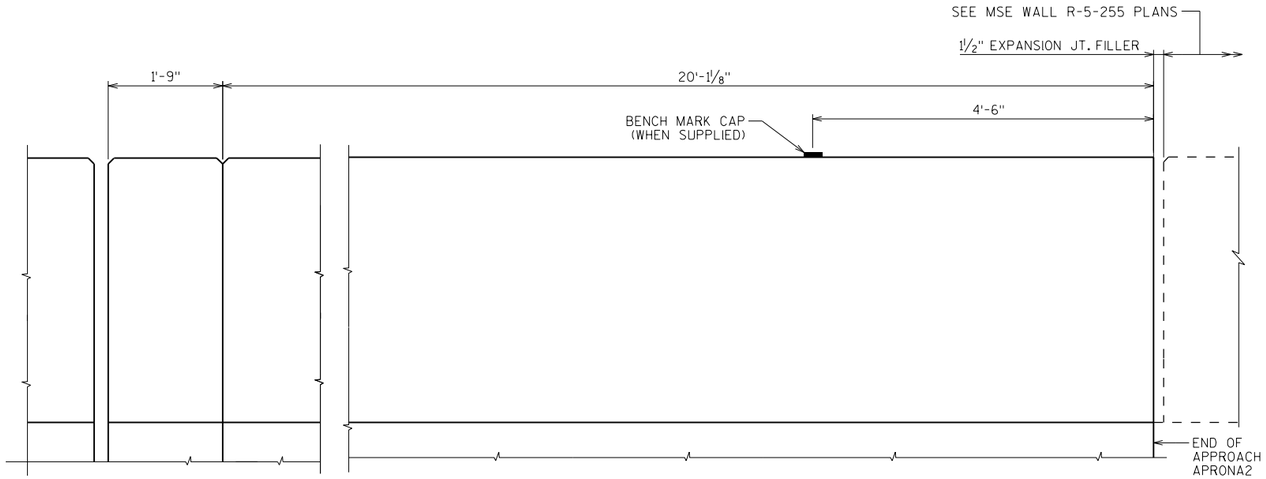
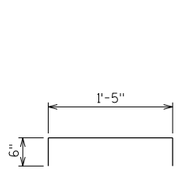
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER
1133-11-74



INSIDE ELEVATION



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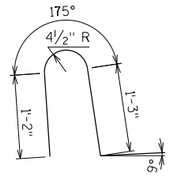

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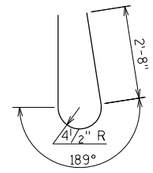

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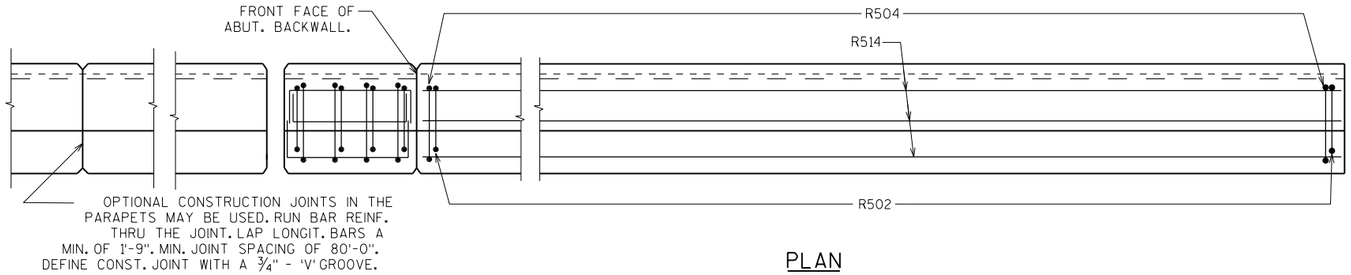
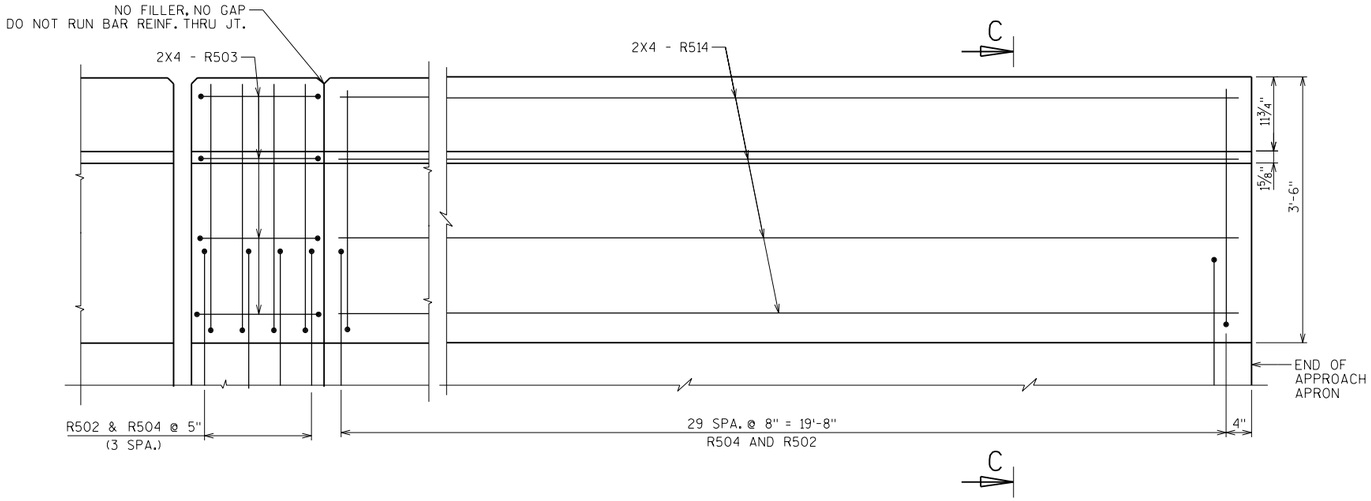
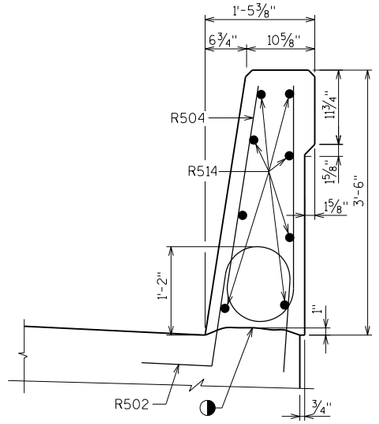


PLAN



OUTSIDE ELEVATION



SECTION C-C

NOTE

FOR BILL OF BARS AND BAR DETAILS, SEE SHEET "SINGLE SLOPE PARAPET 42SS SOUTH ABUTMENT".

LEGEND

◐ CONSTRUCTION JOINT-STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	KZ	PLANS CK'D.	NPP

SINGLE SLOPE PARAPET 42SS EAST ABUTMENT

SHEET 63 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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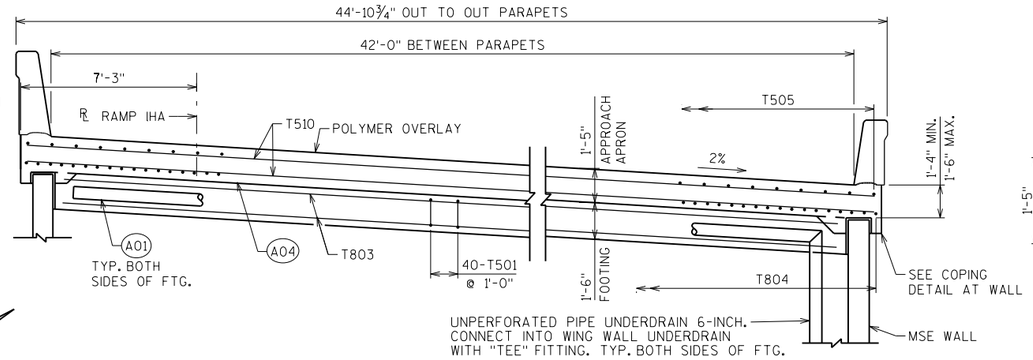
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

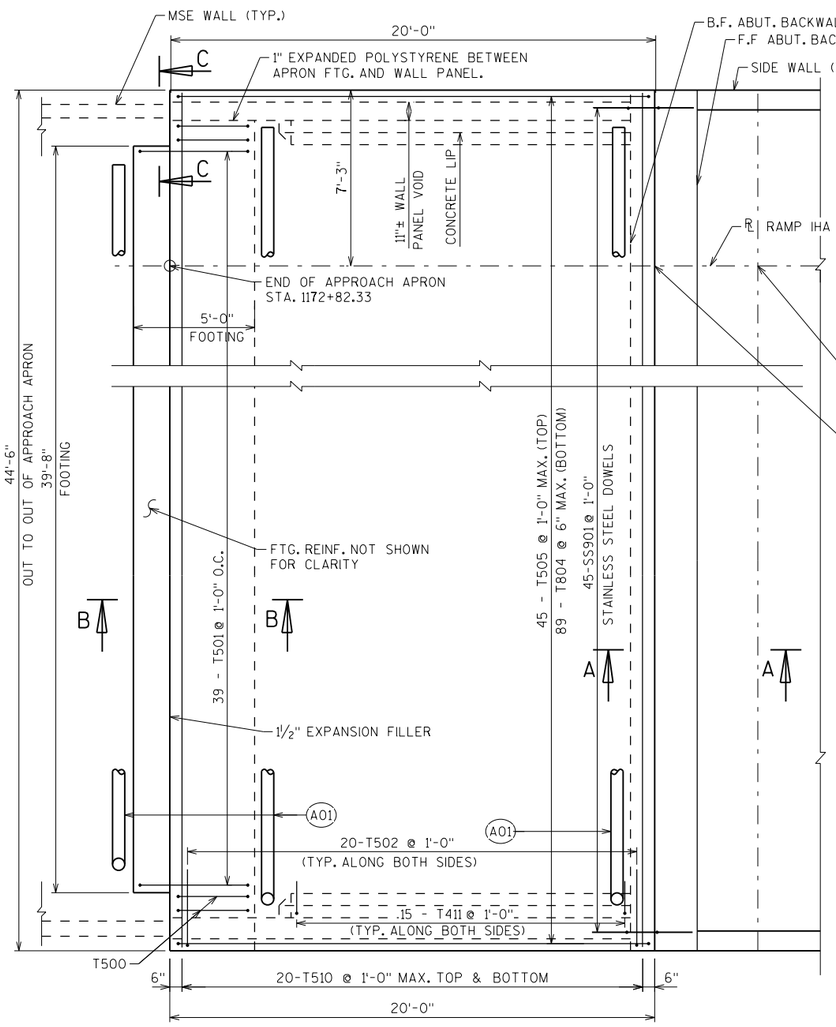
1133-11-74

NOTE: FOR SUPERELEVATION DETAILS SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET. FOR TOP OF APPR. APRON ELEVATIONS SEE TOP OF DECK ELEVATIONS SHEET.



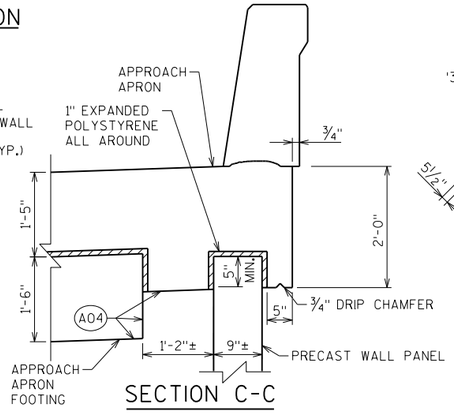
CROSS SECTION THRU APPROACH APRON

(LOOKING UPSTATION)
(LOOKING UPSTATION)
SOUTH APPROACH APRON SHOWN



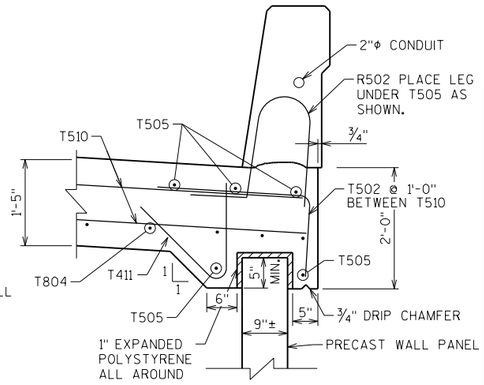
PLAN

SOUTH APRON SHOWN
℄ RAMP IHA ON TANGENT AT S. ABUT.



SECTION C-C

'32SS' PARAPET SHOWN, '42SS' PARAPET SIMILAR.
WIRE FACE MSE WALL NOT SHOWN FOR CLARITY.
REMAINING DETAILS SIMILAR TO "COPING DETAIL AT WALL"

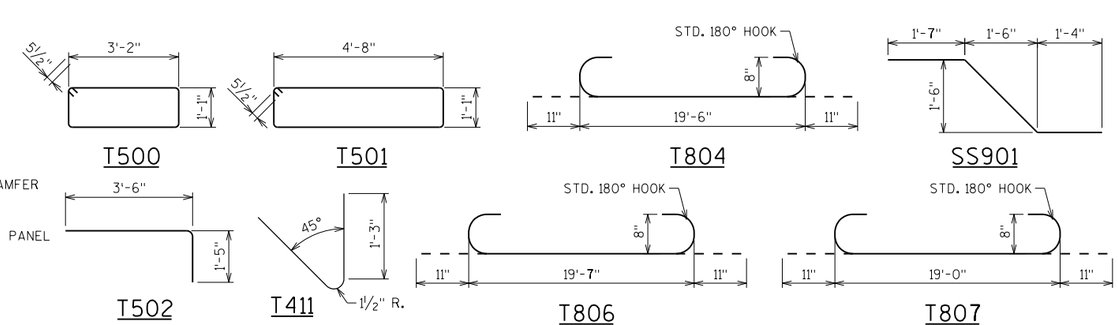


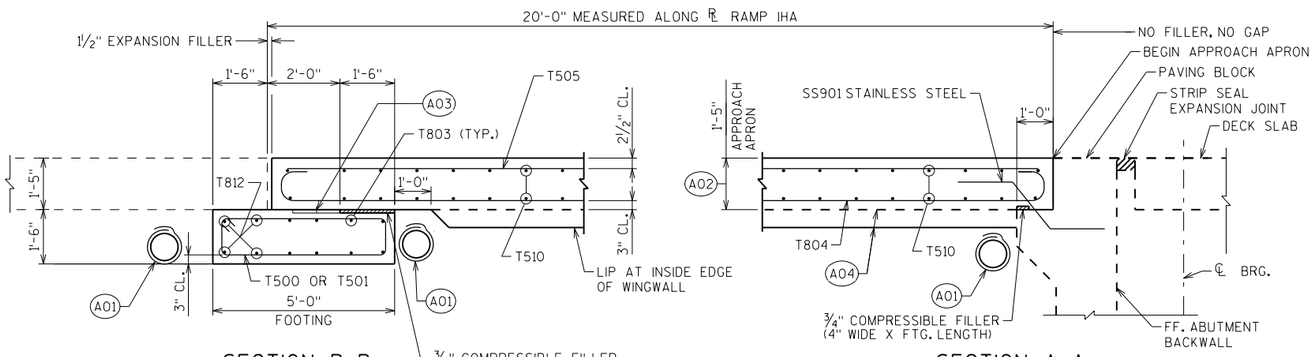
COPING DETAIL AT WALL

'32SS' PARAPET SHOWN, '42SS' PARAPET SIMILAR.

BILL OF BARS

BAR MARK	NO. REQUIRED S. APPR.	NO. REQUIRED E. APPR.	LENGTH	WEIGHT (LB)	BENT	LOCATION
EPOXY COATED						TOTAL = 19828 LB
T500	4	4	9'-1"	76	X	FOOTING - STIRRUPS
T501	39	39	12'-1"	983	X	FOOTING - STIRRUPS
T502	40	40	4'-10"	403	X	TRANS. EDGE
T803	8	8	39'-10"	1,702		FOOTING - HORIZONTAL
T804	89	0	21'-4"	5,069	X	LONG. BTM (SOUTH)
T505	49	0	19'-6"	997		LONG. TOP (SOUTH)
T806	0	44	21'-5"	2,516	X	LONG. BTM (EAST)
T807	0	44	20'-10"	2,448	X	LONG. BTM (EAST)
T508	0	25	19'-7"	511		LONG. TOP (EAST)
T509	0	25	19'-0"	495		LONG. TOP (EAST)
T510	40	40	44'-0"	3,671		TRANS T & B
T411	30	30	3'-0"	120	X	TRANS. WALL
T812	4	4	39'-2"	837		FOOTING HORIZONTAL
STAINLESS STEEL						TOTAL = 1530 LB
SS901	45	45	5'-0"	1,530	X	ABUT. BACKWALL





SECTION B-B

SECTION A-A

TRANSVERSE SECTION THRU APPROACH APRON

DESIGN DATA:

ALLOWABLE SOIL BEARING PRESSURE:	2,000 PSF
HPC MASONRY STRUCTURES, f'c:	4,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60, fy	60,000 PSI

NOTES:

THE PIPE UNDERDRAIN (A01) SHOULD BE CAPPED AT THE HIGH SIDE OF THE ROADWAY CROSS SLOPE.

AT THE LOW SIDE OF THE CROSS SLOPE, PROVIDE A VERTICAL SECTION OF UNPERFORATED PIPE UNDERDRAIN WHICH CONNECTS TO THE PIPE UNDERDRAIN AT THE WALL FOOTING WITH A "TEE" FITTING.

APPROACH APRONS ARE TO RECIEVE POLYMER OVERLAY.

SEE SHEET TITLED "AESTHETIC DETAILS" FOR APPROACH APRON PARAPET AND COPING STAIN COLOR.

(A01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO VERTICAL SECTION OF PIPE UNDERDRAIN.

(A02) APPROACH APRON AND APPROACH APRON PAPAPETS SHALL BE "HPC MASONRY STRUCTURES".

(A03) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(A04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH AND WIDTH OF THE SUBGRADE.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

APPROACH APRON DETAILS SOUTH ABUTMENT

SHEET 64 OF 96
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DATE: 5/31/2013
I.D.

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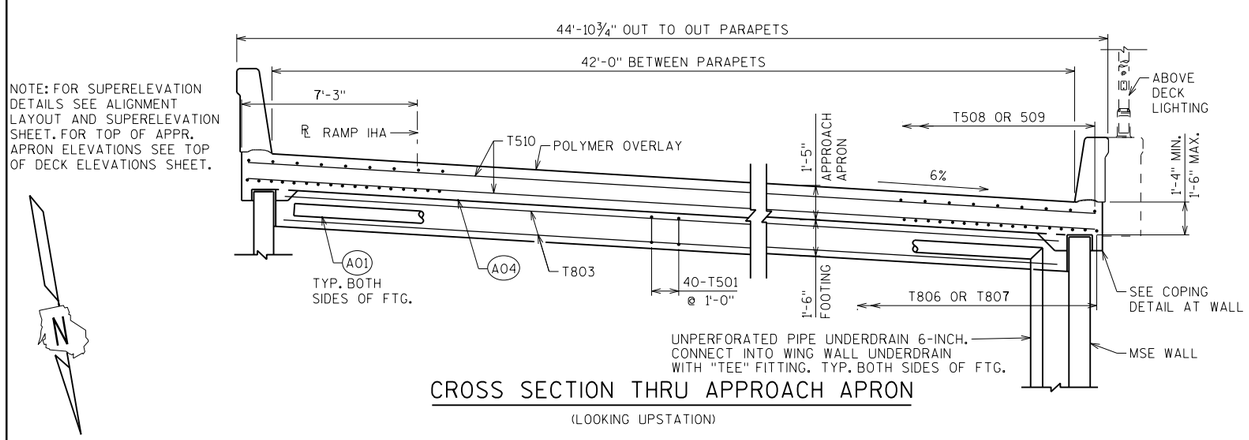
STATE PROJECT NUMBER

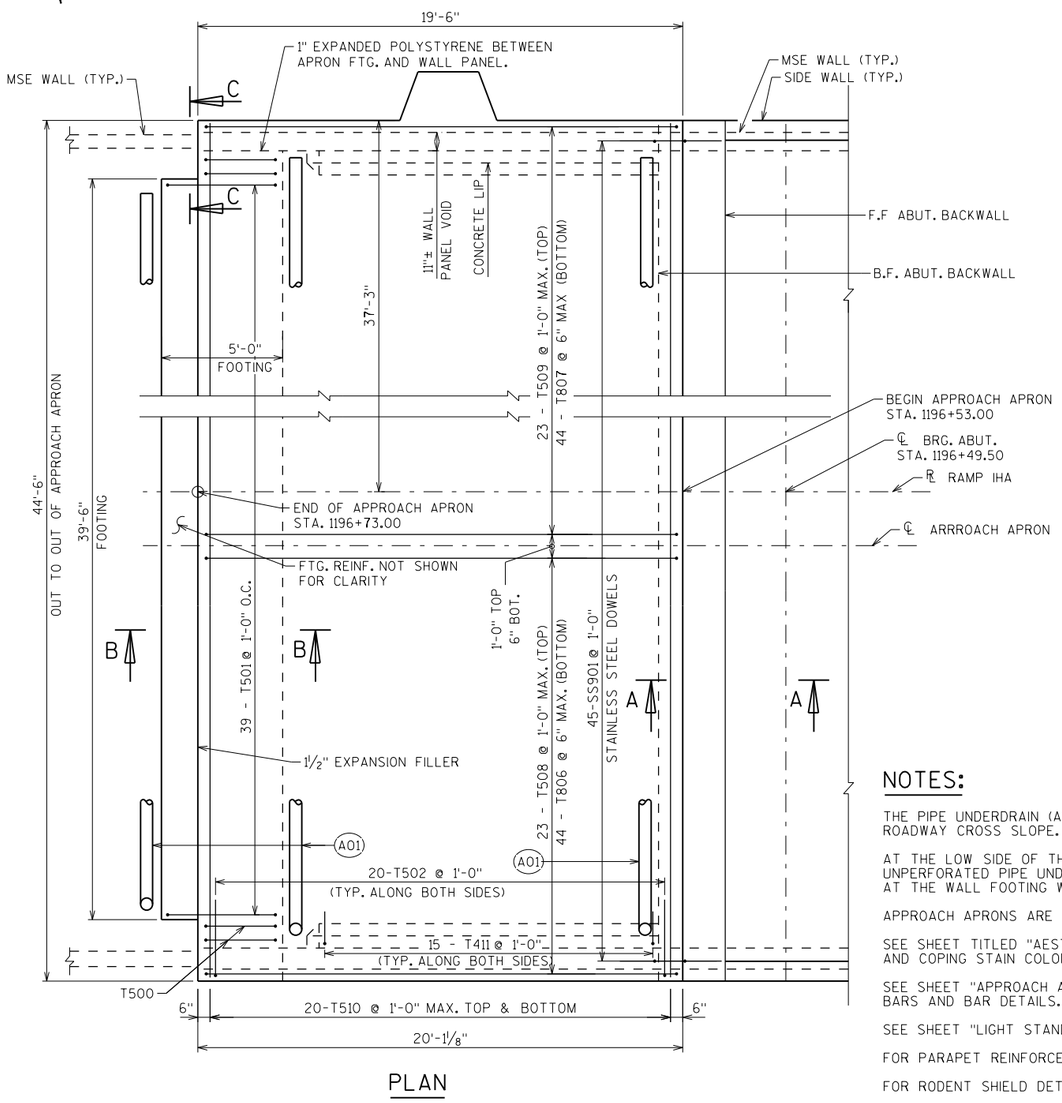
1133-11-74



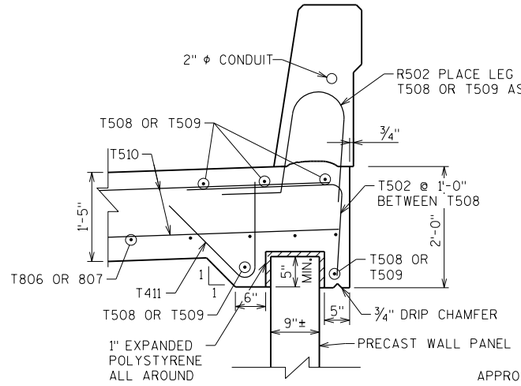
NOTE: FOR SUPERELEVATION DETAILS SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET. FOR TOP OF APPR. APRON ELEVATIONS SEE TOP OF DECK ELEVATIONS SHEET.

CROSS SECTION THRU APPROACH APRON

(LOOKING UPSTATION)



PLAN

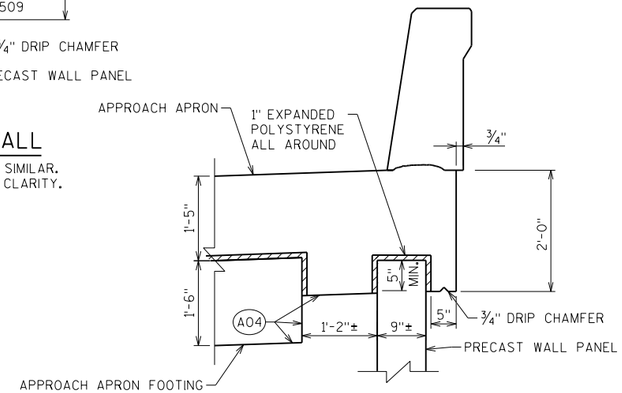


COPING DETAIL AT WALL

'32SS' PARAPET SHOWN, '42SS' PARAPET SIMILAR.
WIRE FACE MSE WALL NOT SHOWN FOR CLARITY.

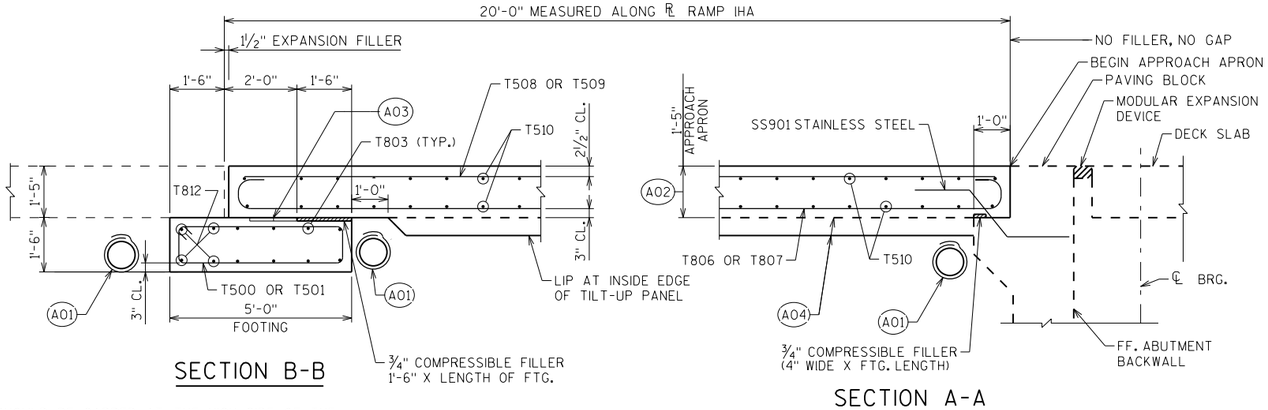
BILL OF BARS

FOR BILL OF BARS SEE SHEET TITLED "APPROACH APRON DETAILS SOUTH ABUTMENT"



SECTION C-C

'32SS' PARAPET SHOWN, '42SS' PARAPET SIMILAR.
WIRE FACE MSE WALL NOT SHOWN FOR CLARITY.
REMAINING DETAILS SIMILAR TO "COPING DETAIL AT WALL"



SECTION B-B

SECTION A-A

NOTES:

THE PIPE UNDERDRAIN (A01) SHOULD BE CAPPED AT THE HIGH SIDE OF THE ROADWAY CROSS SLOPE.

AT THE LOW SIDE OF THE CROSS SLOPE, PROVIDE A VERTICAL SECTION OF UNPERFORATED PIPE UNDERDRAIN WHICH CONNECTS TO THE PIPE UNDERDRAIN AT THE WALL FOOTING WITH A "TEE" FITTING.

APPROACH APRONS ARE TO RECEIVE POLYMER OVERLAY.

SEE SHEET TITLED "AESTHETIC DETAILS" FOR APPROACH APRON PARAPET AND COPING STAIN COLOR.

SEE SHEET "APPROACH APRON DETAILS SOUTH ABUTMENT" FOR BILL OF BARS AND BAR DETAILS.

SEE SHEET "LIGHT STANDARD" FOR LIGHT POLE DETAILS AND BILL OF BARS.

FOR PARAPET REINFORCEMENT AND BAR BILL, SEE SHEET 60 TO 64.

FOR RODENT SHIELD DETAIL, SEE SHEET "SOUTH ABUTMENT CROSS SECTION".

TRANSVERSE SECTION THRU APPROACH APRON

(A01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO VERTICAL SECTION OF PIPE UNDERDRAIN.

(A02) APPROACH APRON AND APPROACH APRON PAPAPETS SHALL BE "HPC MASONRY STRUCTURES".

(A03) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(A04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH AND WIDTH OF THE SUBGRADE.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

APPROACH APRON DETAILS EAST ABUTMENT

SHEET 65 OF 96
575

DATE: 5/31/2013
I.D.

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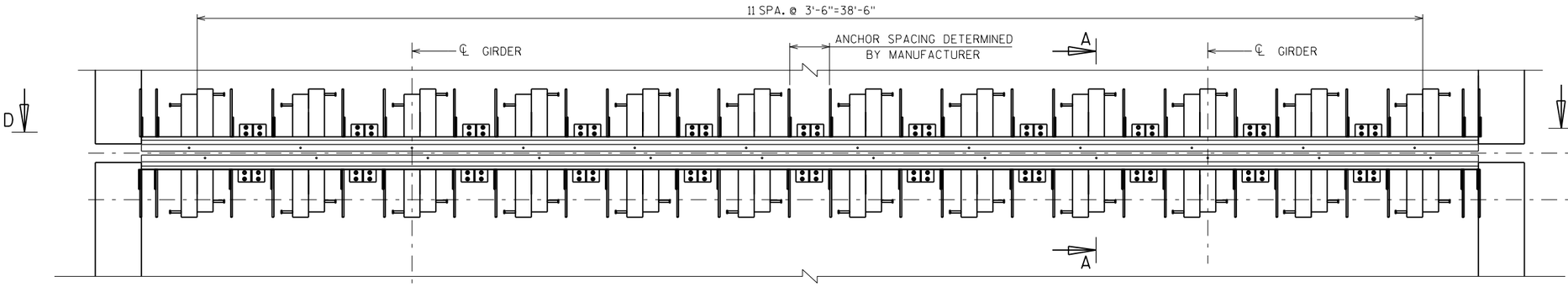
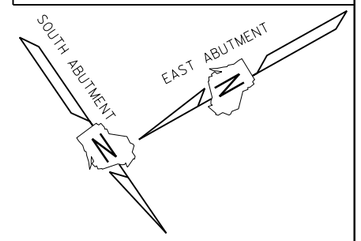
STATE PROJECT NUMBER

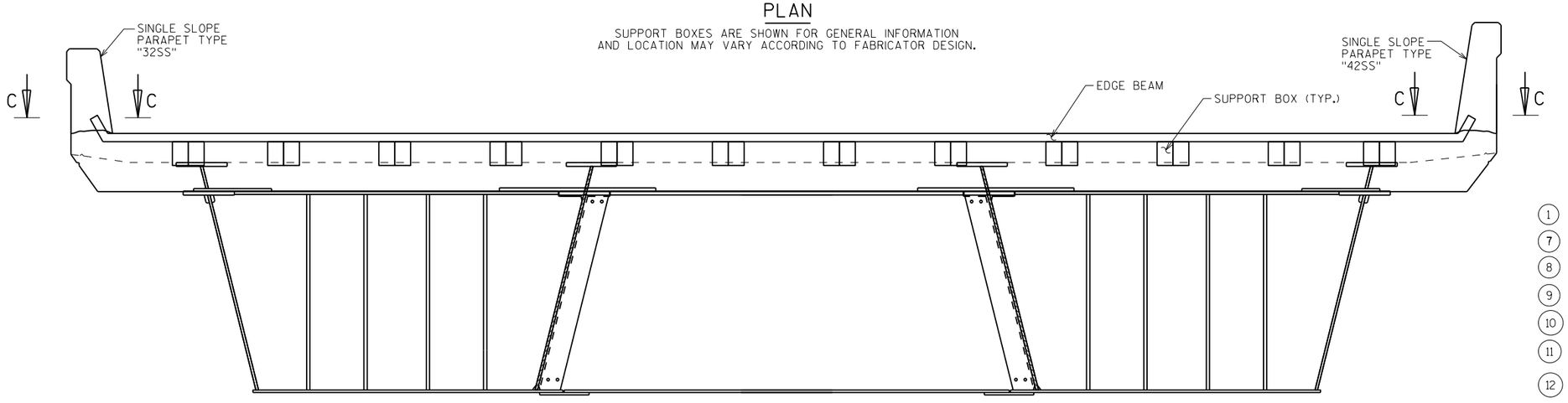
1133-11-74





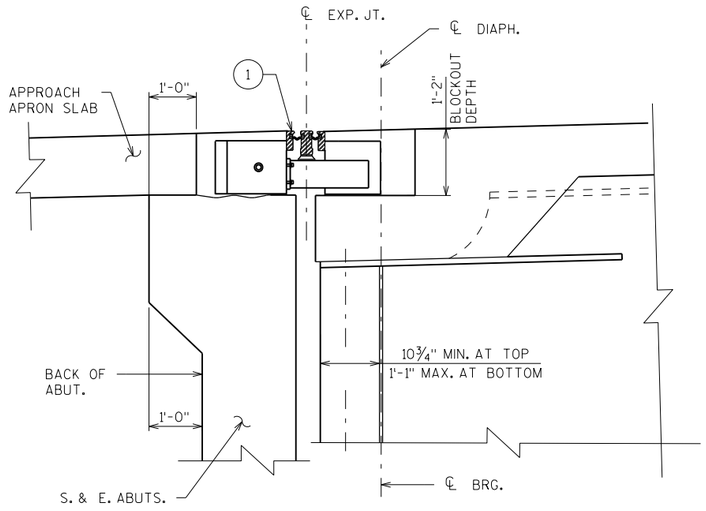
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



VIEW D-D

(NOT TO SCALE)



SECTION A-A

(SEE SECTION A-A, REINFORCING AT EXPANSION JOINT UNIT 3, 4 & 5 SHEET FOR FURTHER DETAIL)

NOTES

ALL DIMENSIONS SHOWN ARE AT MEDIAN TEMP OF 45° F.

FABRICATOR WILL DESIGN EACH JOINT DEPENDING ON THE CONDITIONS AND THE DESIGN CRITERIA USED BY THE SUPPLIER. FABRICATION DRAWINGS ARE SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE GLAND.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST, & SWEEP.

NO EXPANSION JOINT PROTRUSIONS PERMITTED ABOVE ROADWAY SURFACE OR ON PARAPET ROADWAY FACE.

THE EXPANSION JOINT SEALS SHALL BE PLACED, BONDED, & SEALED AS RECOMMENDED BY THE MANUFACTURER. FORM WORK SHALL BE PLACED BETWEEN THE SUPPORT BOXES TO PREVENT CONCRETE INTRUSION INTO THE SUPPORT BOX. A TECHNICAL REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT DURING INSTALLATION. PRIOR TO SETTING THE JOINT ASSEMBLY INTO POSITION, THE PROJECT ENGINEER SHALL DETERMINE THE PROPER JOINT OPENING.

EXPANSION JOINT EXTRUSIONS SHALL BE FABRICATED TO CONFORM TO ROADWAY CROWN & GRADE. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST BARS, PLATES, WT-SECTION, ANCHORAGE LOOP, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THIS ASSEMBLY SHALL BE HOT DIPPED GALVANIZED.

COST OF FURNISHING & PLACING OF THE EXPANSION JOINTS COMPLETE WITH PARAPET PLATES SHALL BE PAID FOR UNDER THE PRICE BID FOR "MODULAR EXPANSION DEVICE STRUCTURE B-5-671".

BAR STEEL REINF. IN DECK AND CONC. DIAPHRAGM SHALL BE RE SPACED AS NECESSARY TO ALLOW PLACEMENT OF JOINT ASSEMBLY.

SEE SHEET TITLED "MODULAR EXPANSION JOINT COVER PLATES" FOR DETAILS AT THE PARAPETS.

SEE SHEET TITLED "MODULAR EXPANSION JOINT DETAILS" FOR MODULAR JOINT DETAILS.

TEMP. TABLE

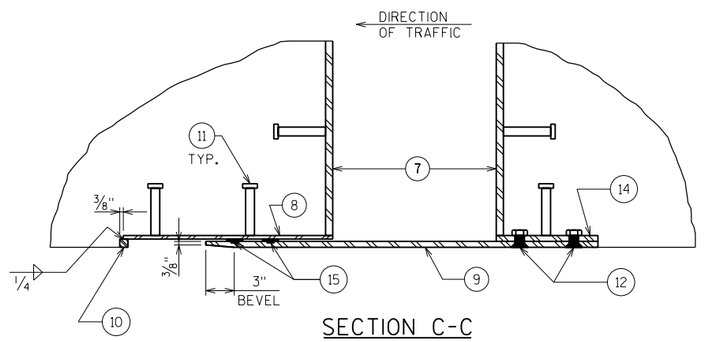
TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. MOVEMENT PER 10° F
   SOUTH ABUTMENT 1/8"
   EAST ABUTMENT 3/8"
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.
(7) ¾" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.
(8) INSIDE PLATE. FABRICATE FROM ⅜" PLATE.
(9) OUTSIDE PLATE. FABRICATE FROM ⅝" PLATE.
(10) ⅞" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
(11) ¾" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.
(12) ¾" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS. RECESS 1/16" BELOW PLATE SURFACE.
(14) INSIDE PLATE. FABRICATE FROM ⅝" PLATE.
(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.



SECTION C-C

(NOT TO SCALE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT S. & E. ABUTMENTS

SHEET 66 OF 96
576

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER

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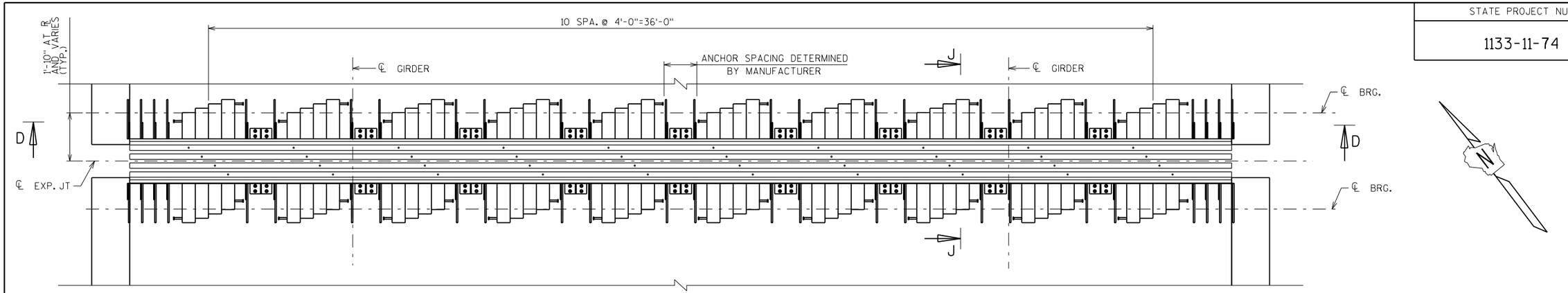
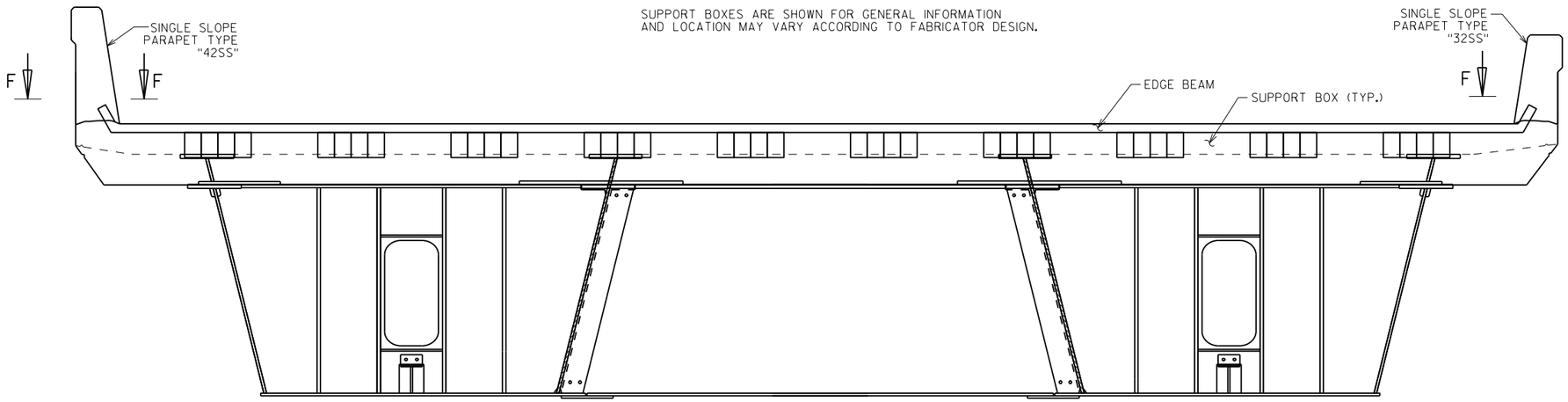


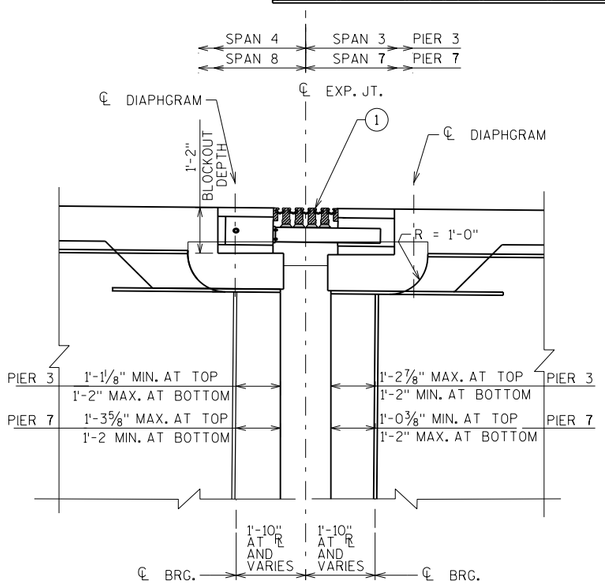
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



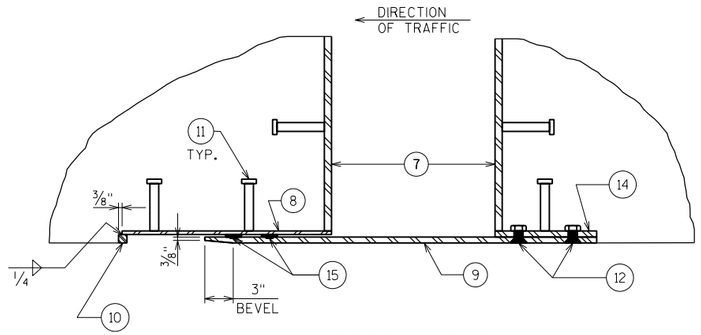
VIEW D-D

(NOT TO SCALE)



SECTION J-J

(SEE SECTION B-B SHEET 84 FOR FURTHER DETAIL)



SECTION F-F

(NOT TO SCALE)

TEMP. TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. ⅝" OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.

(7) ¾" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.

(8) INSIDE PLATE. FABRICATE FROM ⅜" PLATE.

(9) OUTSIDE PLATE. FABRICATE FROM ⅝" PLATE.

(10) ⅞" SQUARE BAR. WELD TO NO. 8 AS SHOWN.

(11) ¾" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.

(12) ¾" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS. RECESS 1/16" BELOW PLATE SURFACE.

(14) INSIDE PLATE. FABRICATE FROM ⅝" PLATE.

(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

FOR NOTES SEE SHEET TITLED "MODULAR EXPANSION JOINT S. & E. ABUTMENTS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT PIERS 3 & 7

SHEET 67 OF 96
577

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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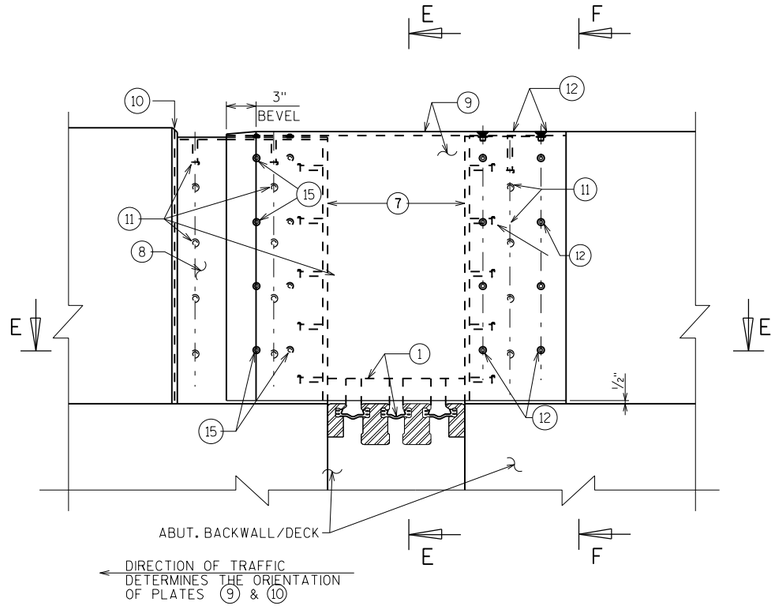
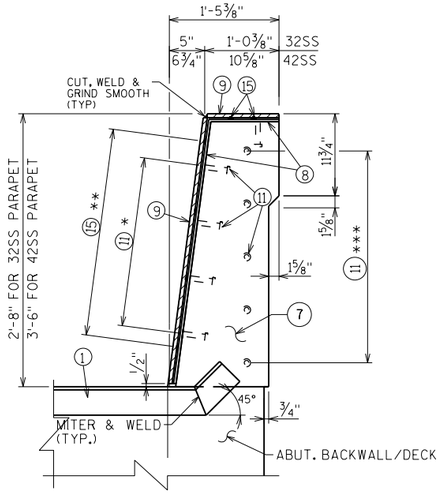
DATE:5/31/2013
I.D.

STATE PROJECT NUMBER

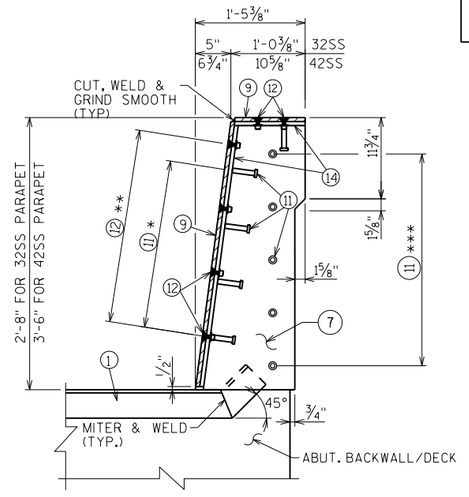
1133-11-74



PARAPET ELEVATION LF/HF



SECTION E-E

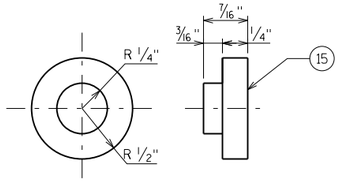


SECTION F-F

* 3 EQ. SPA. (32SS)
5 EQ. SPA. (42SS)

** 3 SPA. (32SS)
5 SPA. (42SS)

*** 4 SPA. (32SS)
6 SPA. (42SS)



ADIPRENE BUTTON DETAIL

LEGEND

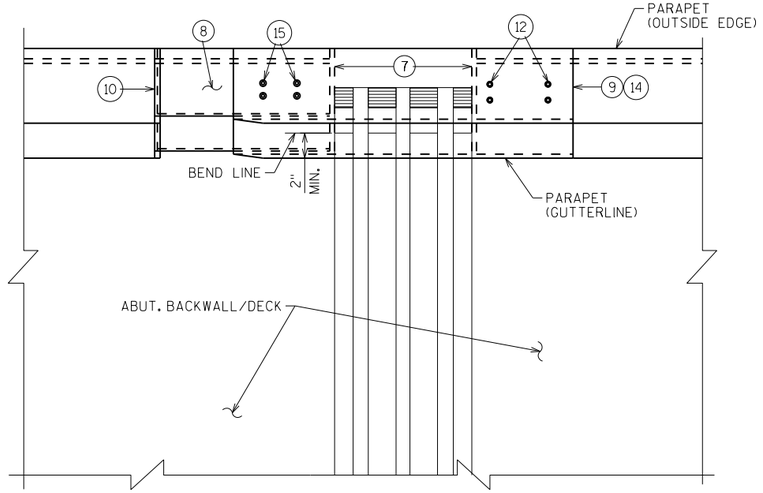
(1) MODULAR EXPANSION JOINT DEVICE.
(7) 3/4" BULKHEAD PLATE WELD TO NO. 1, NO. 8, AND NO. 14.
(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO.7, AND NO. 14.
(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS, RECESS 1/16" BELOW PLATE SURFACE.
(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

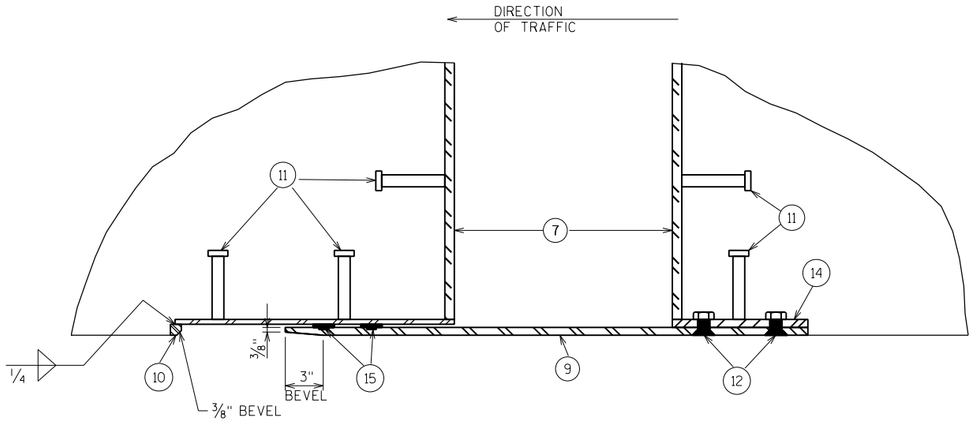
DRAWINGS ARE NOT TO SCALE.

SEE 'TYPICAL DECK SECTION' DRAWING FOR PARAPET DIMENSIONS.

COVER PLATES SHALL BE GALVINIZED.



PLAN OF SINGLE SLOPE PARAPET



SECTION H-H

(NOT TO SCALE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY PMV | PLANS CK'D. NPP

EXPANSION JOINT COVER PLATES

SHEET 68 OF 96
578

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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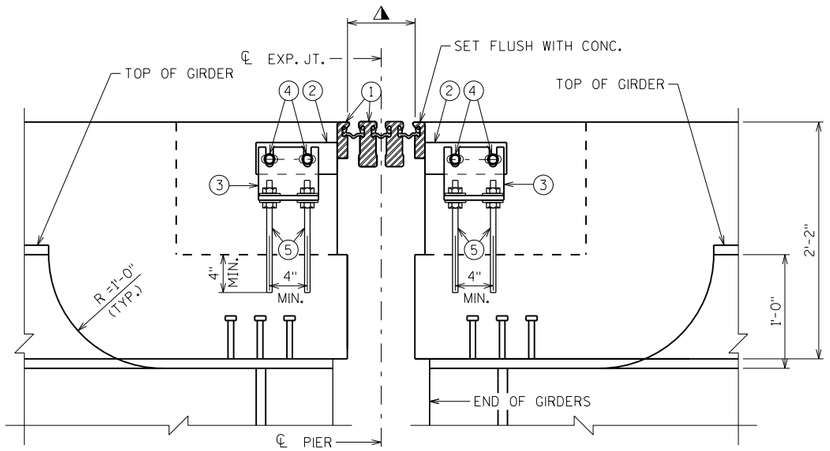
DATE: 5/31/2013
I.D.

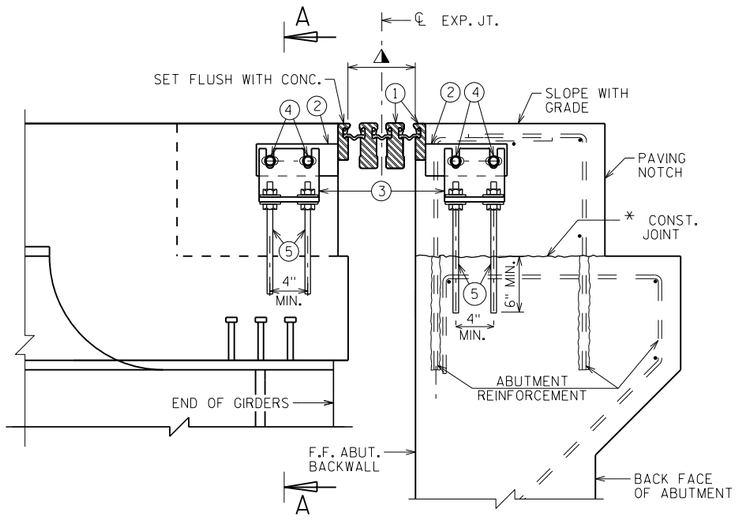
STATE PROJECT NUMBER

1133-11-74



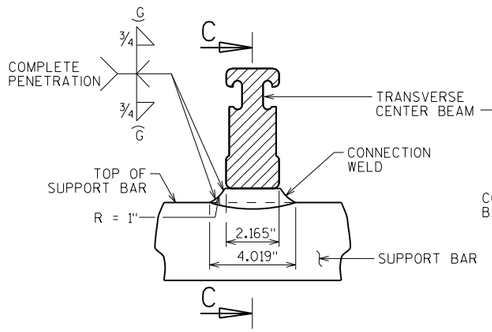
SECTION THRU JOINT @ PIERS 3 & 7

NORMAL TO ℄ SUBSTRUCTURE

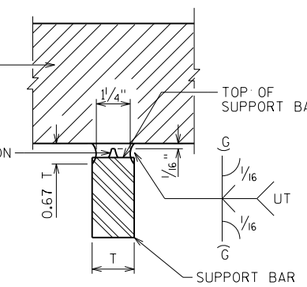


SECTION THRU JOINT @ S. & E. ABUTMENTS

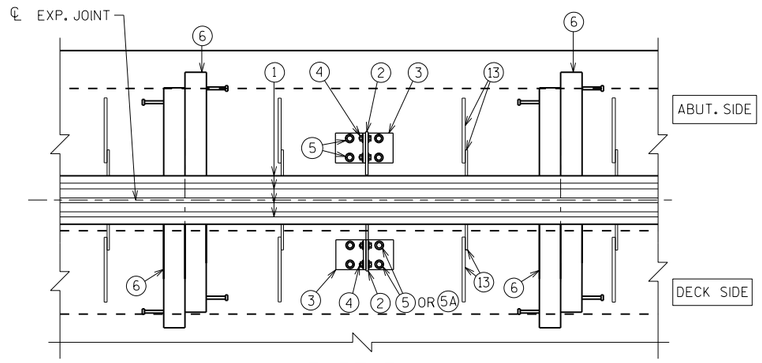
NORMAL TO ℄ SUBSTRUCTURE



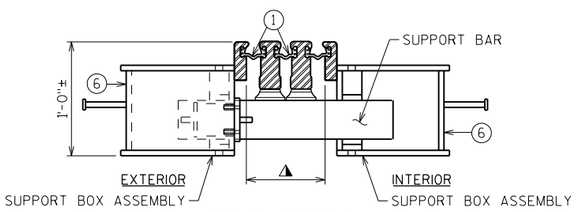
MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION



SECTION C-C

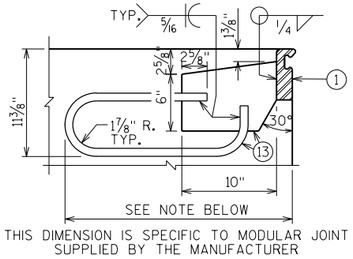


PART PLAN



JOINT DETAIL

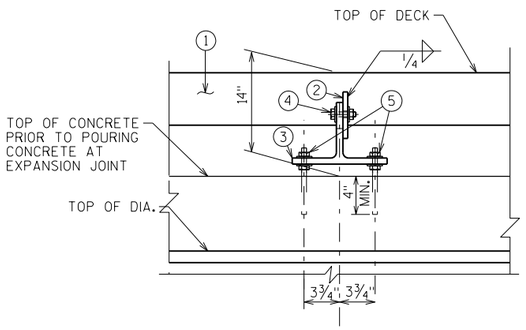
AT SUPPORT BAR & SUPPORT BOX ASSEMBLY



THIS DIMENSION IS SPECIFIC TO MODULAR JOINT SUPPLIED BY THE MANUFACTURER

ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN PAVING BLOCK @ ABUT. & IN DECK @ CONC. DIAPH.



SECTION A-A

LEGEND

(1) MODULAR EXPANSION JOINT DEVICES, CELLS.

(2) 1/2" PLATE, ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.

(3) WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.

(4) 3/4" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)

(5) 3/4" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)

(5A) 3/4" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. FIELD DRILL HOLES IN GIRDER TOP FLANGE. (A325 GALV.)

(6) SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM 1/2" PLATES.

(13) 1/2" PLATE WITH 5/8" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONC. IS IN PLACE. STRIKE OFF & LEAVE ROUGH.

▲ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN (1).

GENERAL NOTES

FOR NOTES SEE SHEET "MODULAR EXPANSION JOINT WEST ABUTMENT"

MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

EXPANSION JOINT DETAILS

SHEET 69 OF 96
579

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013

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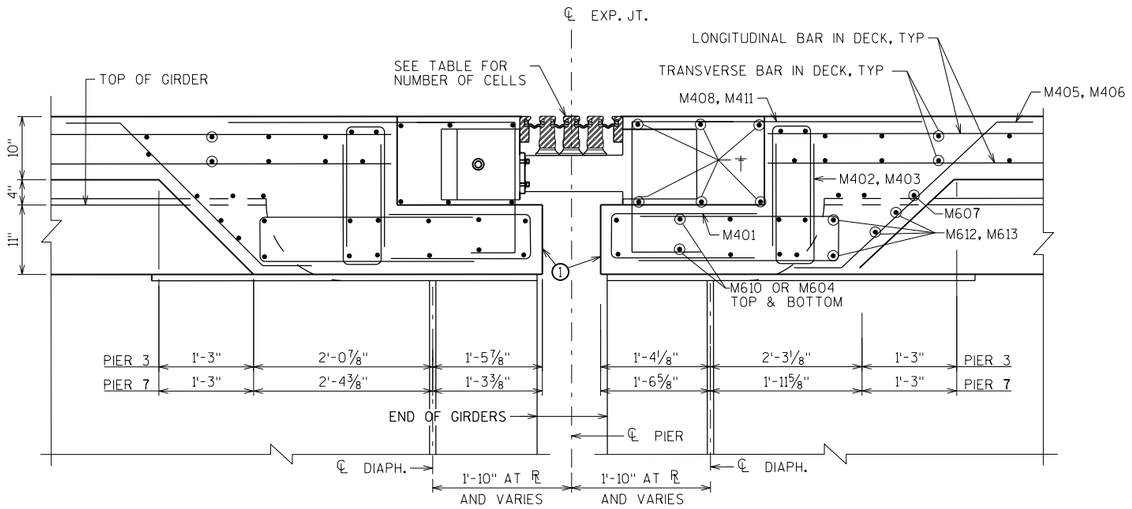
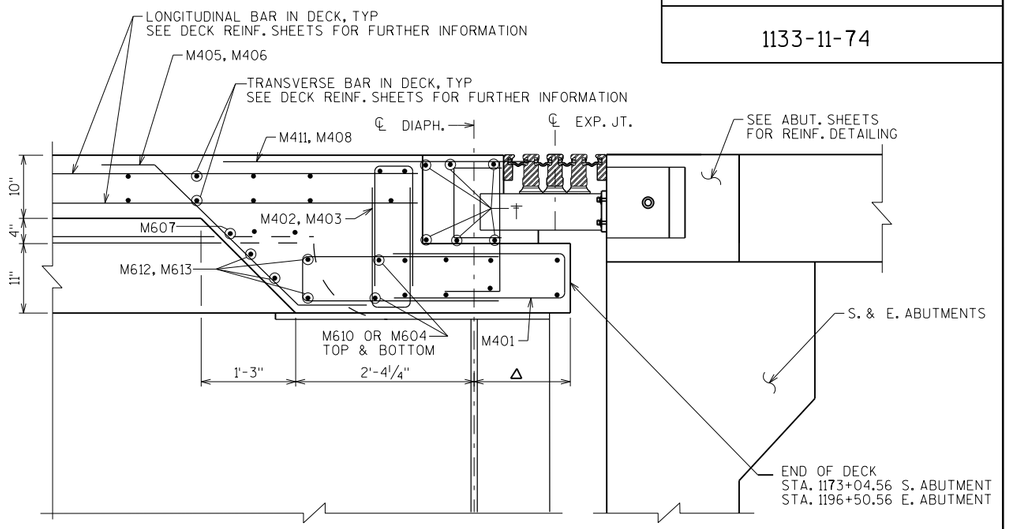


SECTION B-B

(PIER 3 SHOWN, PIER 7 SIMILAR)

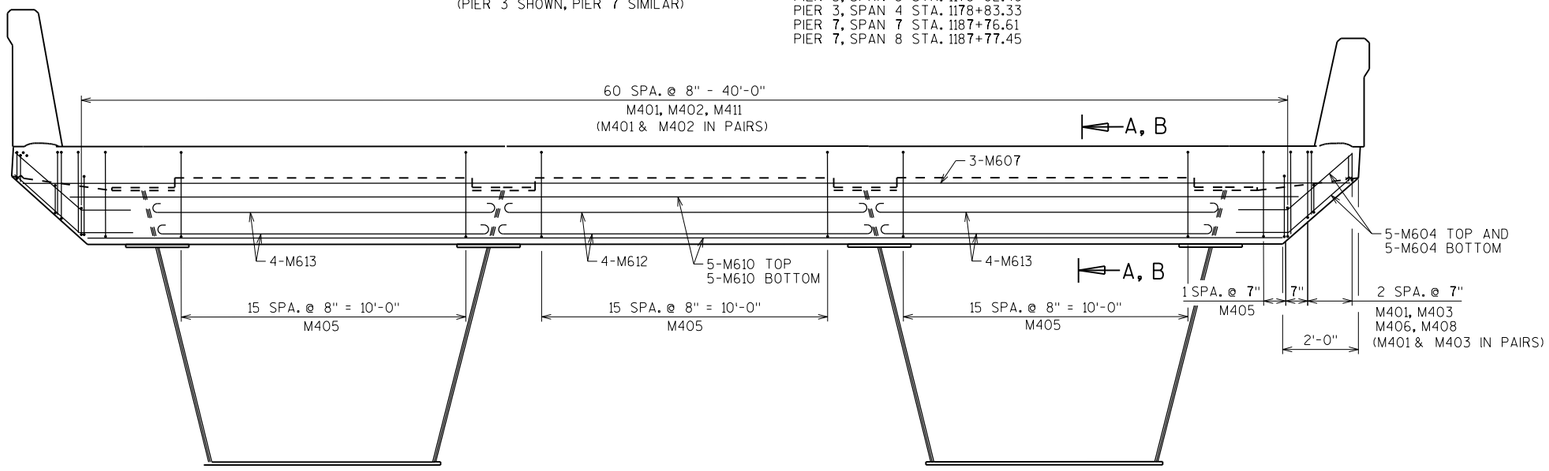
① END OF DECK STATION
PIER 3, SPAN 3 STA. 1178+82.49
PIER 3, SPAN 4 STA. 1178+83.33
PIER 7, SPAN 7 STA. 1187+76.61
PIER 7, SPAN 8 STA. 1187+77.45



SECTION A-A

(SOUTH & EAST ABUTMENT)

Δ 1'-3 1/4" S. ABUTMENT
1'-0 3/4" E. ABUTMENT

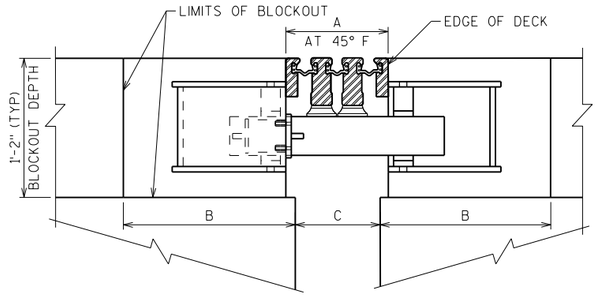


SECTION THRU DECK AT END DIAPHRAGMS

(DECK REINFORCEMENT NOT SHOWN FOR CLARITY)
LOOKING UPSTATION

EXPANSION JOINT BLOCK OUT DIMENSIONS

		S. ABUT.	PIER 3	PIER 7	E. ABUT.
NUMBER OF CELLS		2	4	4	3
DIM.	A	8 1/8"	1'-4 3/8"	1'-4 3/8"	1'-1 1/4"
	B	1'-3"	1'-10"	1'-10"	1'-6"
	C MIN	3 3/8"	6 1/2"	6 1/2"	5"
	C MAX	5 3/4"	1'-1 7/8"	1'-1 7/8"	9 5/8"



TYPICAL SECTION THRU SUPPORT BOX

NOTES:

1. SEE STEEL FABRICATION PLANS FOR END DIAPHRAGM DETAILS.
2. SEE SHEETS TITLED "MODULAR EXPANSION JOINT" FOR PLAN LAYOUT OF EXPANSION DEVICE.
3. ALL SIZE, SPACING AND DETAIL INFORMATION SHALL BE TAKEN ONLY FROM THE APPROVED EXPANSION JOINT SHOP DRAWINGS.
4. SPACE REINFORCEMENT TO MISS LOOP ANCHORS AND SUPPORT BOX ASSEMBLIES.
5. SEE DECK REINFORCEMENT SHEETS FOR SECTION A-A & B-B LOCATIONS.
6. SEE SHEET TITLE "SUPERSTRUCTURE BILL OF BARS" FOR REINFORCEMENT DETAILS.

LEGEND

† 72- M509 BARS, 8'-0" LONG WITH 1'-0" MIN. LAP. CUT IN FIELD TO CLEAR JOINT SUPPORT AS REQ'D.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

REINFORCING AT EXPANSION JOINT

SHEET 70 OF 96
580

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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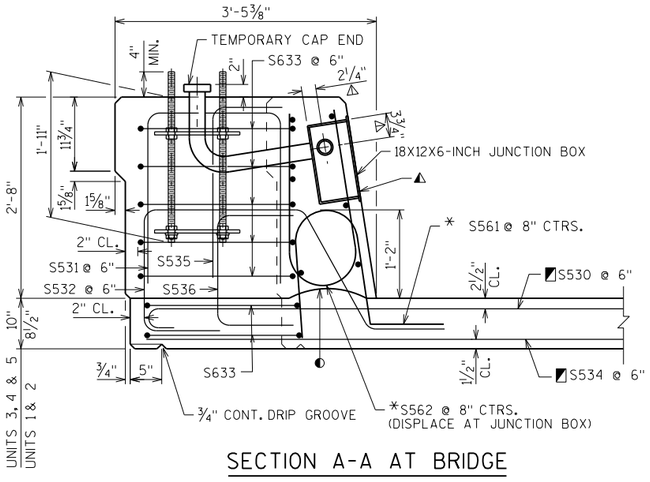
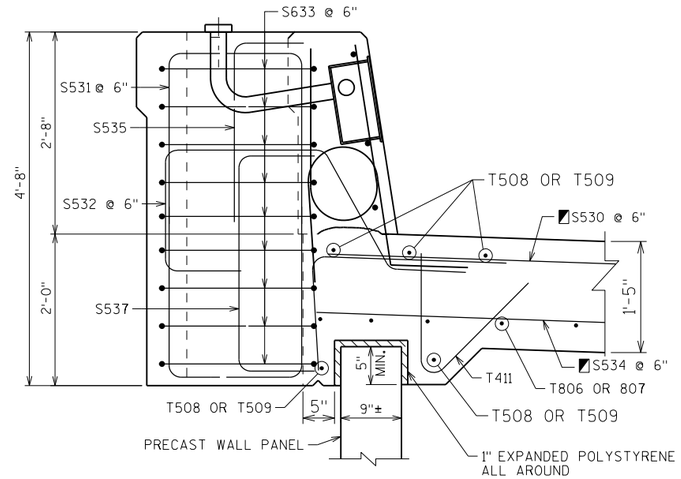
STATE PROJECT NUMBER

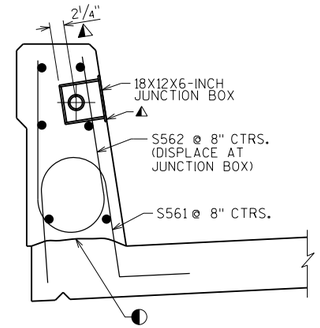
1133-11-74



SECTION A-A AT BRIDGE



SECTION A-A AT APPROACH APRON



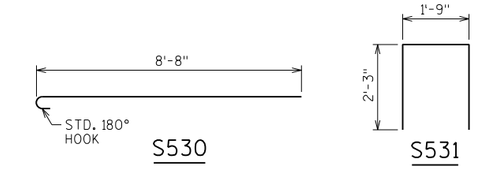
SECTION THRU PARAPET

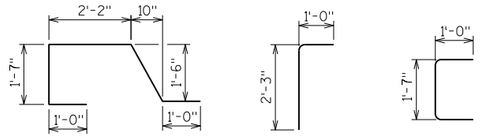
SHOWING 18X12X6-INCH JUNCTION BOX (SINGLE CONDUIT APPLICATION ONLY)

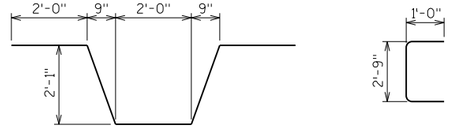
BILL OF BARS

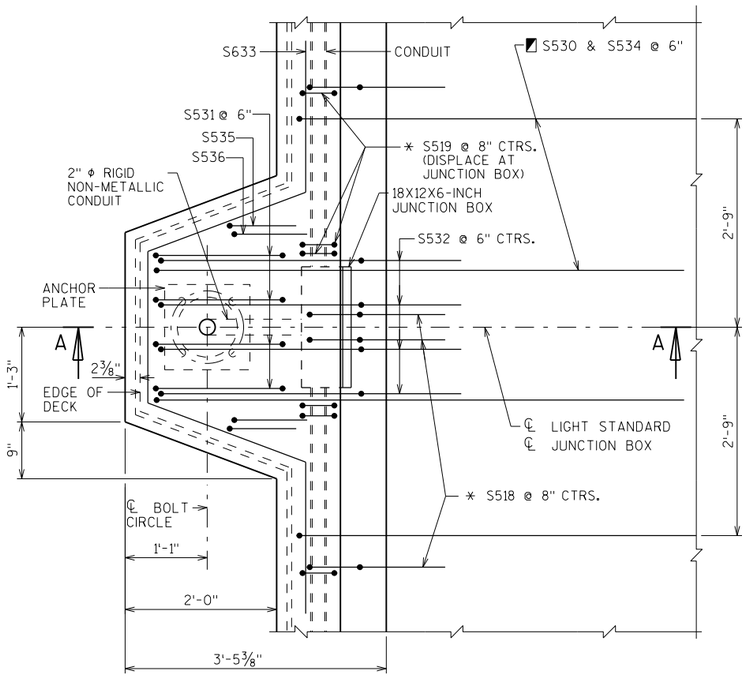
BAR MARK	NO. REQ'D	LENGTH	WEIGHT (LB)	BENT	LOCATION
S530	168	8'-11"	1,562	X	DECK TRANSVERSE AT LIGHT STD.
S531	60	6'-0"	375	X	PARAPET VERT. AT LIGHT STD.
S532	56	7'-0"	409	X	PARAPET VERT. AT LIGHT STD.
S633	100	10'-0"	1,503	X	PARAPET HORZ. AT LIGHT STD.
S534	168	8'-4"	1,460		DECK TRANSVERSE AT LIGHT STD.
S535	28	3'-2"	92	X	PARAPET VERT. AT LIGHT STD.
S536	26	3'-5"	93	X	PARAPET VERT. AT LIGHT STD.
S537	2	4'-6"	9	X	PARAPET VERT. AT APRON LIGHT STD.

ALL BARS ARE EPOXY COATED.









PLAN AT LIGHT STANDARD

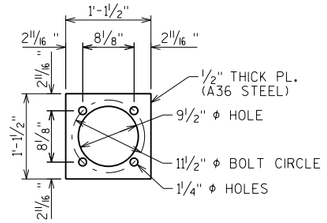


PLATE DETAIL FOR 11½" Φ BOLT CIRCLE

(11 REQ'D. FOR LIGHT STANDARDS)

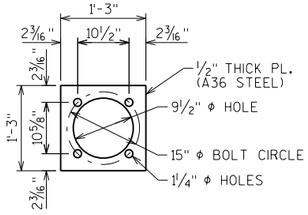
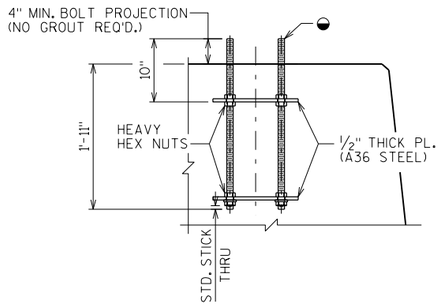


PLATE DETAIL FOR 15" Φ BOLT CIRCLE

(3 REQ'D. FOR LIGHT STANDARDS)



ANCHORAGE DETAIL

(14 REQ'D.)

LIGHT POLE TABLE

℄ LIGHT POLE STATIONS	ANCHOR BOLT CIRCLE DIA.
STA 1173+31.06	15"
STA 1175+66.06	15"
STA 1177+76.06	15"
STA 1179+61.06	11.5"
STA 1181+30.15	11.5"
STA 1182+99.37	11.5"
STA 1184+68.60	11.5"
STA 1186+37.82	11.5"
STA 1188+07.06	11.5"
STA 1189+76.25	11.5"
STA 1191+45.49	11.5"
STA 1193+14.72	11.5"
STA 1194+89.07	11.5"
STA 1196+63.42	11.5"

LEGEND

- ◐ CONSTR. JT. STRIKE OFF AS SHOWN
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN DECK OR APPROACH APRON.
- ◒ 1"Φ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, ENTIRE ANCHORAGE. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.
- ✳ SEE SHEET, TITLED "DECK REINFORCEMENT" AND "TYPICAL DECK REINFORCEMENT SECTION" FOR ADDITIONAL BAR STEEL DETAILS

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX8DX-200/AXDX-200 AND BONDING JUMPER COMBINATION EXPANSION AND DEFLECTION FITTING. SEE SHT. TITLED "SINGLE SLOPE PARAPET 32SS" FOR LOCATION OF EXPANSION FITTINGS.

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

JUNCTION BOX REQUIREMENTS
PLACE A 18"X12"X6" JUNCTION BOX AT EACH LIGHT STANDARAD (CENTERED ON LIGHT ℄)

USE A JUNCTION BOX TO KEEP A CONTINUOUS RUN OF CONDUIT (PULL LENGTH) TO A MAXIMUM OF 190 FT. CONTACT THE BUREAU OF HIGHWAY OPERATIONS, ELECTRICAL SECTION WHEN PULL LENGTH IS >190' BUT <200'.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE OF WISCONSIN
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STRUCTURE B-5-671

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LIGHT STANDARD

SHEET 71 OF 96
581

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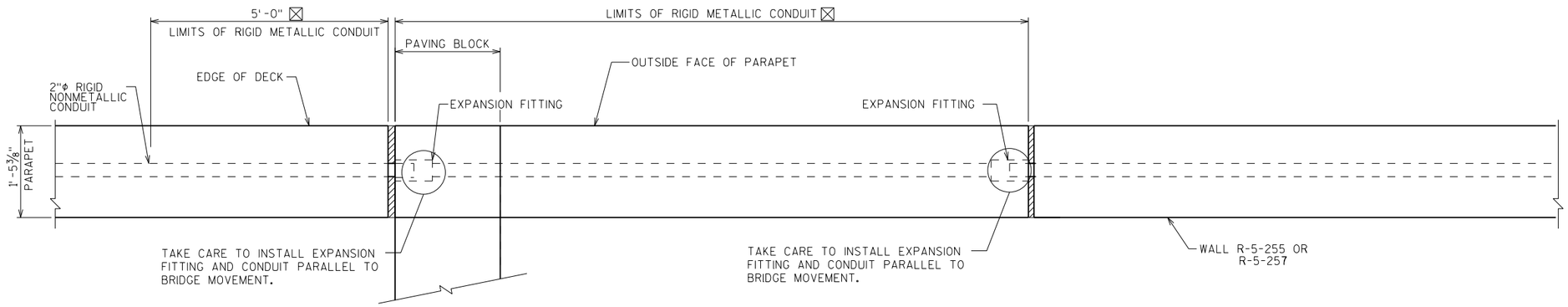
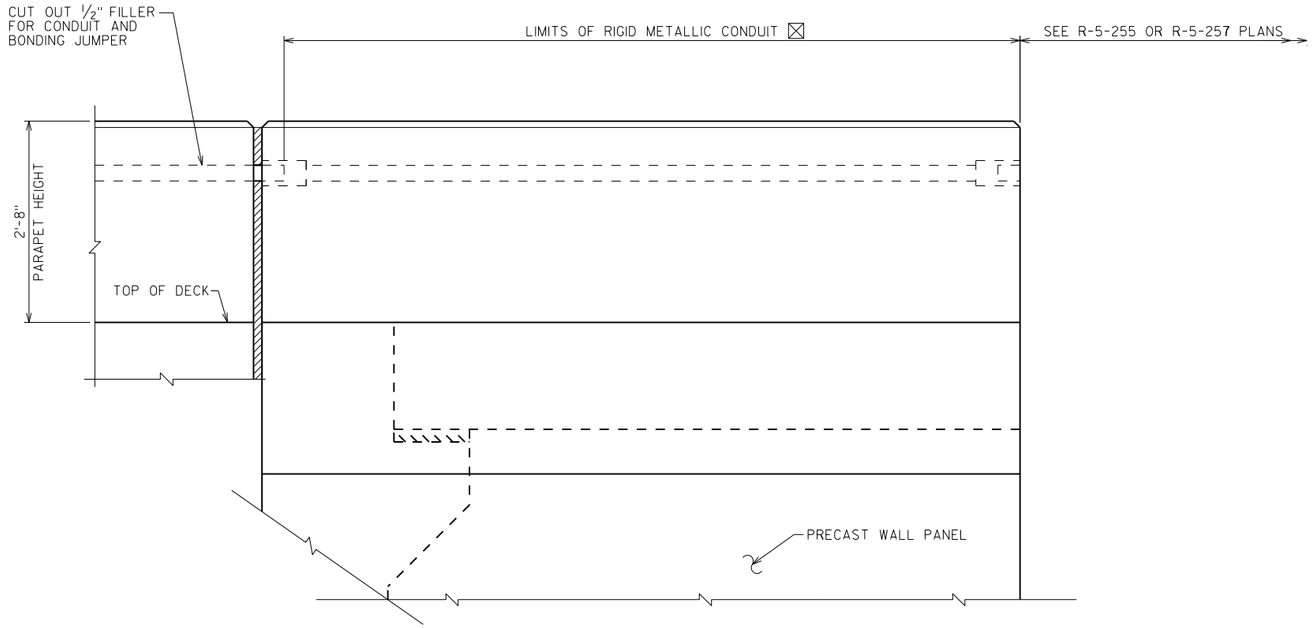
1133-11-74



PLAN OF PARAPET "32SS" AT EAST OR SOUTH ABUTMENT



OUTSIDE ELEVATION OF PARAPET "32SS" AT EAST OR SOUTH ABUTMENT

LEGEND

☒ USE 2" DIA. RIGID NON-METALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 5'-0" INTO WALL SEGMENT OR PARAPET. FOR SHORTER DISTANCES BETWEEN EXPANSION FITTINGS <20' USE METALLIC CONDUIT BETWEEN EXPANSION FITTINGS. PROVIDE #10 AWG BONDING JUMPER BETWEEN METALLIC CONDUIT AND JUNCTION BOX. BONDING JUMPERS SHALL EITHER ENTER THE JUNCTION BOX AND BE TERMINATED TO THE GROUNDING LUG USING TERMINAL BLOCKS; OR CAN BE EXOTHERMICALLY WELDED TO A FIELD INSTALLED GROUNDING LUG ON THE BACK SIDE OF THE JUNCTION BOX. BONDING JUMPERS WILL BE PAID FOR UNDER BID ITEM 652.0125 "CONDUIT RIGID METALLIC 2-INCH"

NOTE

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS ARE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING: (HORIZ. AND VERT. MOVEMENT): O-Z/GEDNEY TYPE AXDX 8DX-200 AND BONDING JUMPER (8" TOTAL CONDUIT MOVEMENT) AT PIER 3 AND PIER 8 EXPANSION JOINTS AND O-Z/GEDNEY TYPE AXDX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT) AT ABUTMENTS.

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PARAPET "32SS" ELECTRICAL WORK

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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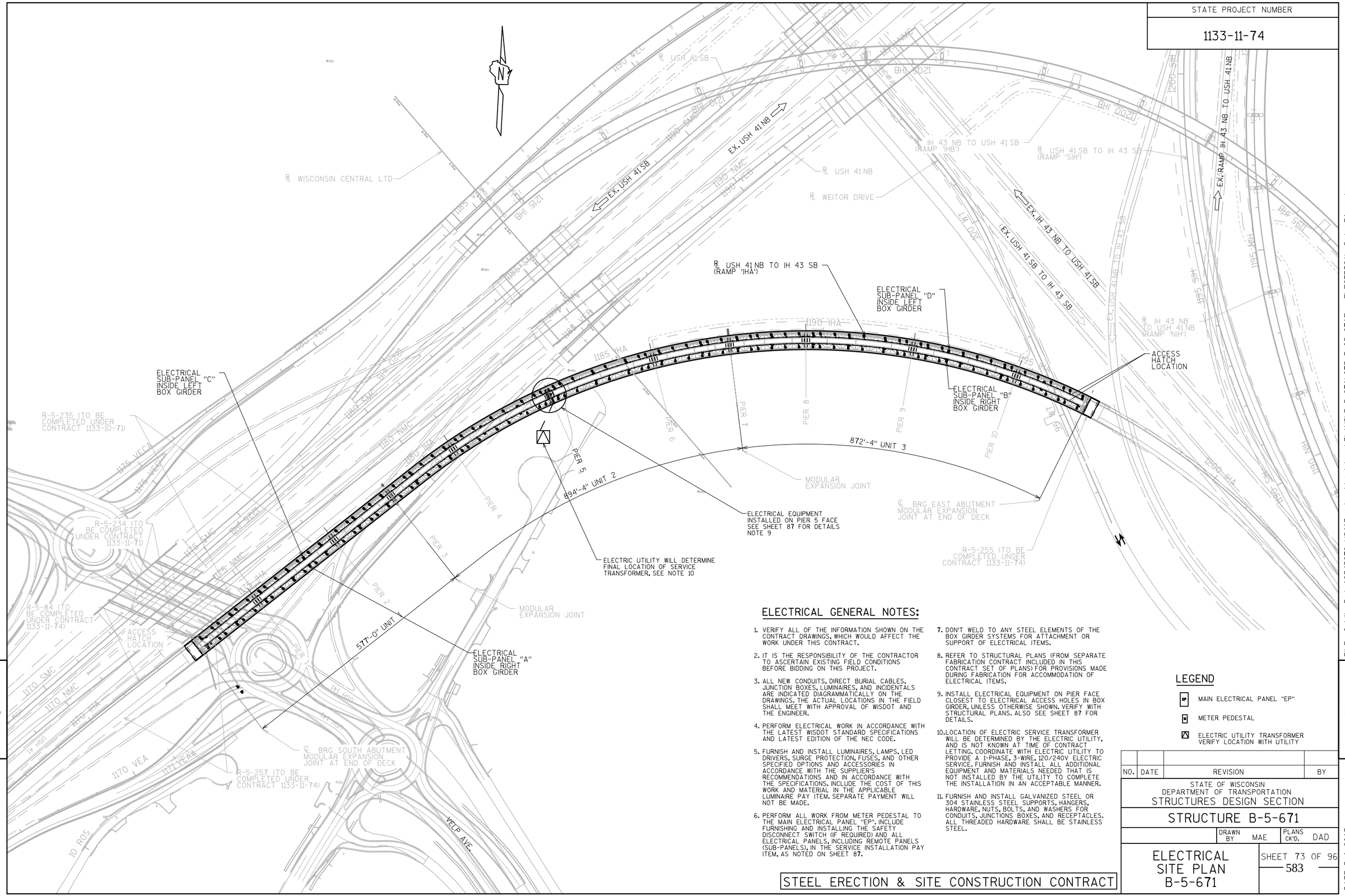
STATE PROJECT NUMBER

1133-11-74



ELECTRICAL GENERAL NOTES:

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS, WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT.
3. ALL NEW CONDUITS, DIRECT BURIAL CABLES, JUNCTION BOXES, LUMINAIRES, AND INCIDENTALS ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF WISDOT AND THE ENGINEER.
4. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE LATEST WISDOT STANDARD SPECIFICATIONS AND LATEST EDITION OF THE NEC CODE.
5. FURNISH AND INSTALL LUMINAIRES, LAMPS, LED DRIVERS, SURGE PROTECTION, FUSES, AND OTHER SPECIFIED OPTIONS AND ACCESSORIES IN ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. INCLUDE THE COST OF THIS WORK AND MATERIAL IN THE APPLICABLE LUMINAIRE PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
6. PERFORM ALL WORK FROM METER PEDESTAL TO THE MAIN ELECTRICAL PANEL "EP". INCLUDE FURNISHING AND INSTALLING THE SAFETY DISCONNECT SWITCH (IF REQUIRED) AND ALL ELECTRICAL PANELS, INCLUDING REMOTE PANELS (SUB-PANELS), IN THE SERVICE INSTALLATION PAY ITEM, AS NOTED ON SHEET 87.
7. DON'T WELD TO ANY STEEL ELEMENTS OF THE BOX GIRDER SYSTEMS FOR ATTACHMENT OR SUPPORT OF ELECTRICAL ITEMS.
8. REFER TO STRUCTURAL PLANS (FROM SEPARATE FABRICATION CONTRACT INCLUDED IN THIS CONTRACT SET OF PLANS) FOR PROVISIONS MADE DURING FABRICATION FOR ACCOMMODATION OF ELECTRICAL ITEMS.
9. INSTALL ELECTRICAL EQUIPMENT ON PIER FACE CLOSEST TO ELECTRICAL ACCESS HOLES IN BOX GIRDER, UNLESS OTHERWISE SHOWN. VERIFY WITH STRUCTURAL PLANS. ALSO SEE SHEET 87 FOR DETAILS.
10. LOCATION OF ELECTRIC SERVICE TRANSFORMER WILL BE DETERMINED BY THE ELECTRIC UTILITY, AND IS NOT KNOWN AT TIME OF CONTRACT LETTING. COORDINATE WITH ELECTRIC UTILITY TO PROVIDE A 1-PHASE, 3-WIRE, 120/240V ELECTRIC SERVICE. FURNISH AND INSTALL ALL ADDITIONAL EQUIPMENT AND MATERIALS NEEDED THAT IS NOT INSTALLED BY THE UTILITY TO COMPLETE THE INSTALLATION IN AN ACCEPTABLE MANNER.
11. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, HANGERS, HARDWARE, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.

LEGEND

- MAIN ELECTRICAL PANEL "EP"
- METER PEDESTAL
- ELECTRIC UTILITY TRANSFORMER VERIFY LOCATION WITH UTILITY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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ELECTRICAL SITE PLAN B-5-671

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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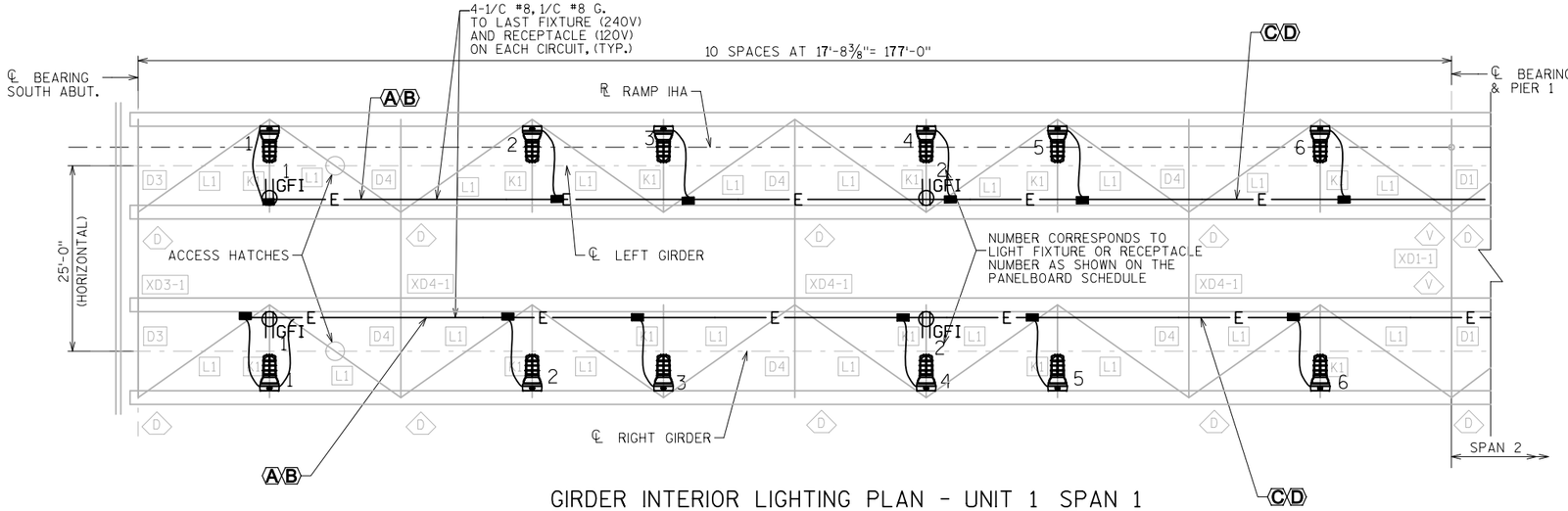
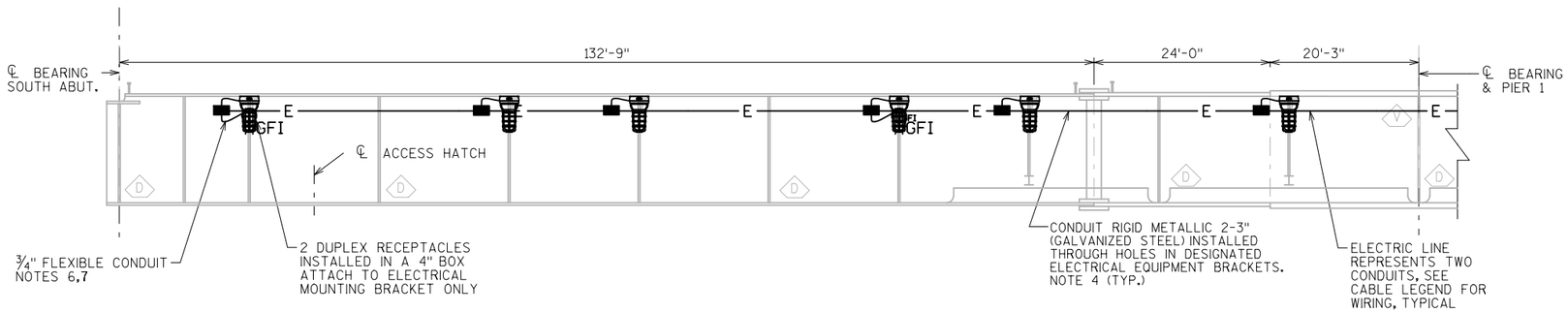
DATE: 5/1/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



GIRDER INTERIOR LIGHTING PLAN - UNIT 1 SPAN 1



LEFT & RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 1

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- Ⓐ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- Ⓑ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER LIGHTING PLAN AND ELEV. UNIT 1 SPAN 1

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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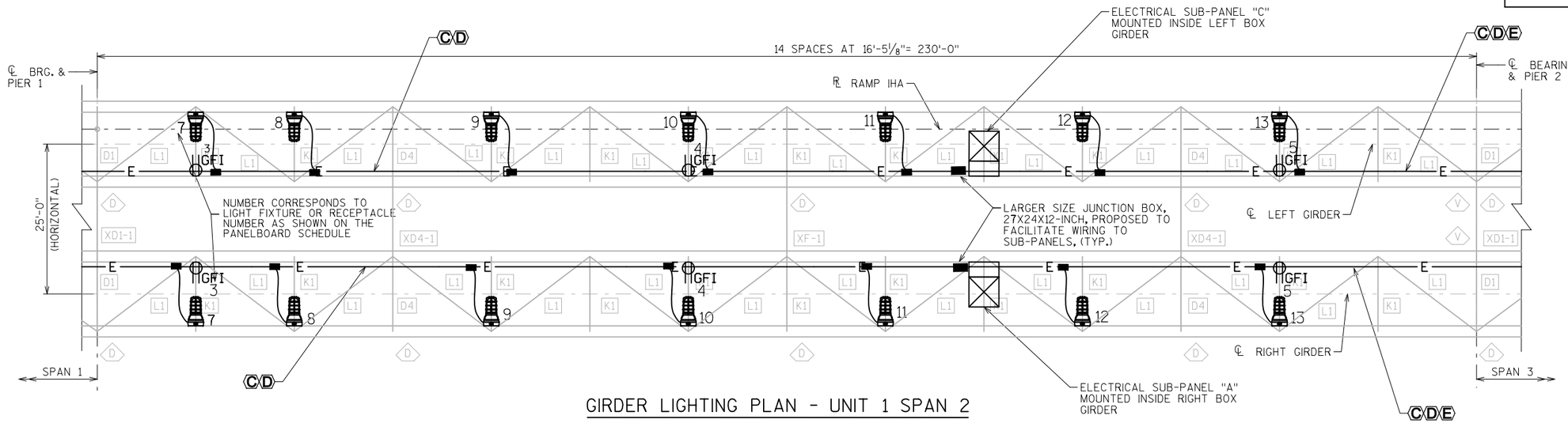
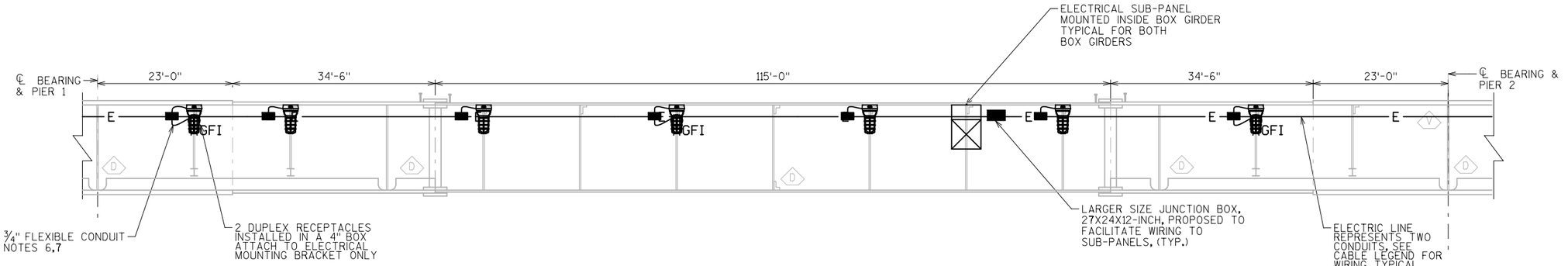
I.D.

STATE PROJECT NUMBER

1133-11-74



GIRDER LIGHTING PLAN - UNIT 1 SPAN 2



LEFT & RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 2

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)
- ELECTRICAL REMOTE PANEL (SUB-PANEL) TWO IN EACH BOX GIRDER 120/240V, 1-PHASE, 3-WIRE SEE PANELBOARD SCHEDULES

CABLE LEGEND

- ⟨A⟩ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- ⟨B⟩ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- ⟨C⟩ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- ⟨D⟩ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- ⟨E⟩ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER LIGHTING PLAN AND ELEV. UNIT 1 SPAN 2

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I.D.

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STATE PROJECT NUMBER

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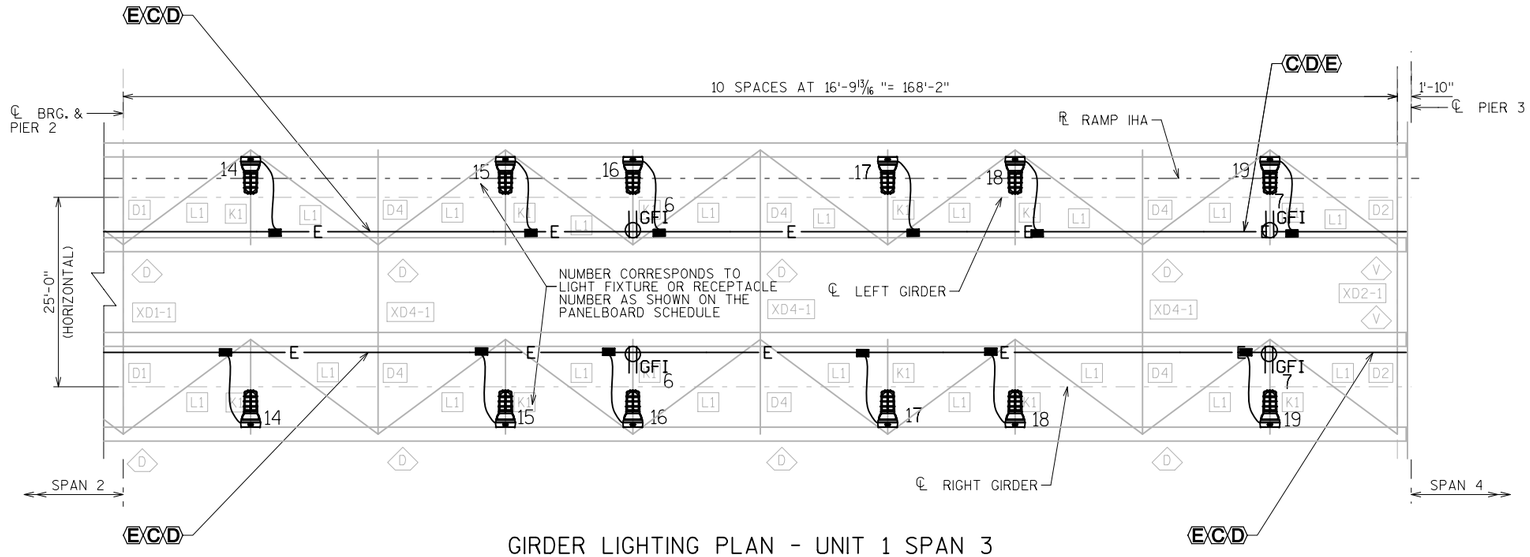
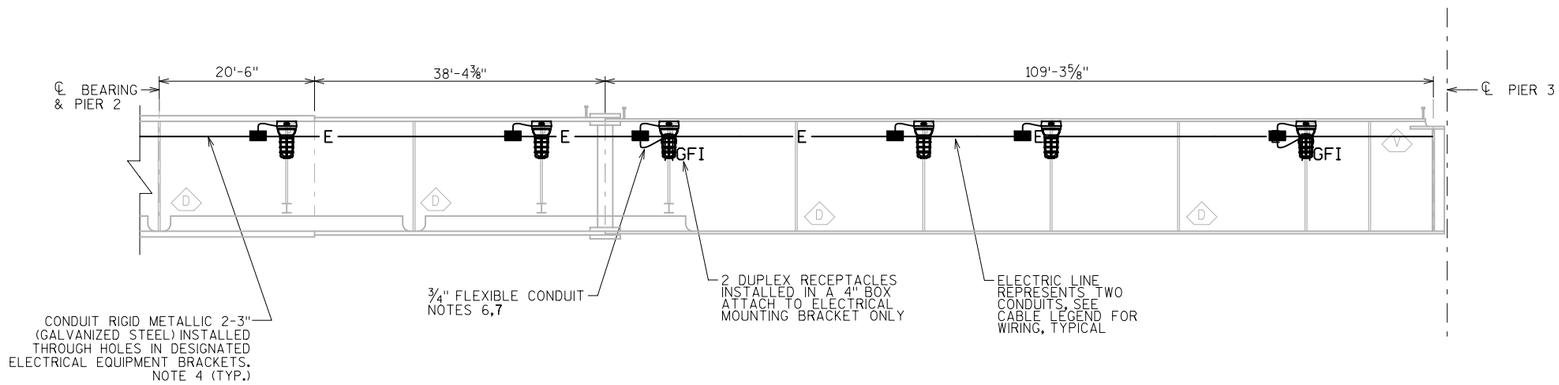


GIRDER LIGHTING PLAN - UNIT 1 SPAN 3



LEFT & RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 3

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER LIGHTING PLAN AND ELEV. UNIT 1 SPAN 3

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/1/2013
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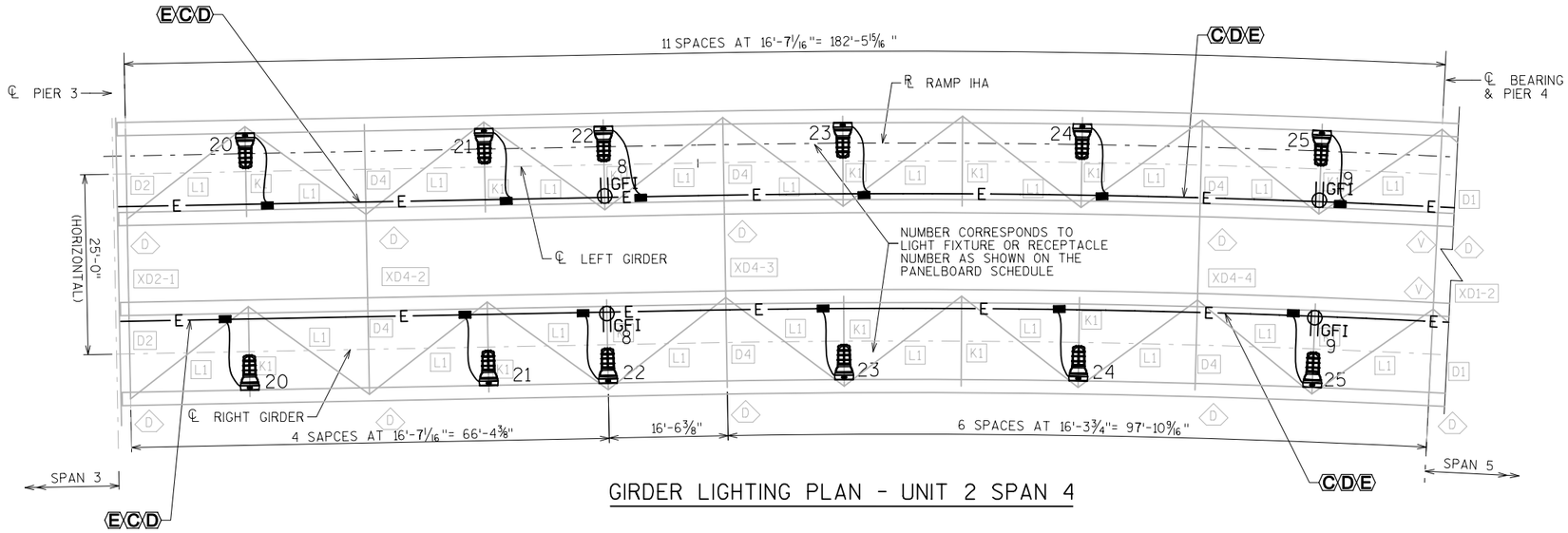
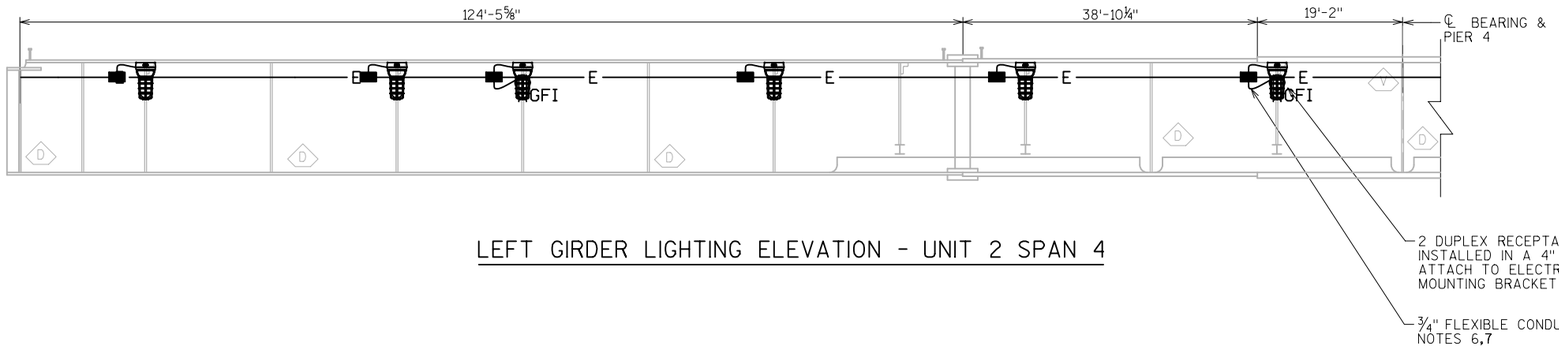
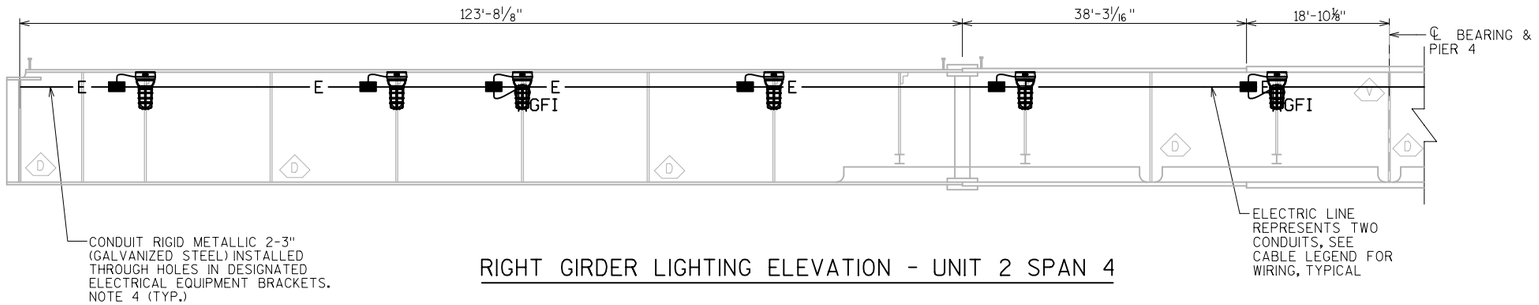


GIRDER LIGHTING PLAN - UNIT 2 SPAN 4



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 4



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 4

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- ⟨A⟩ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- ⟨B⟩ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- ⟨C⟩ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- ⟨D⟩ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- ⟨E⟩ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 2 SPAN 4

SHEET 77 OF 96
587

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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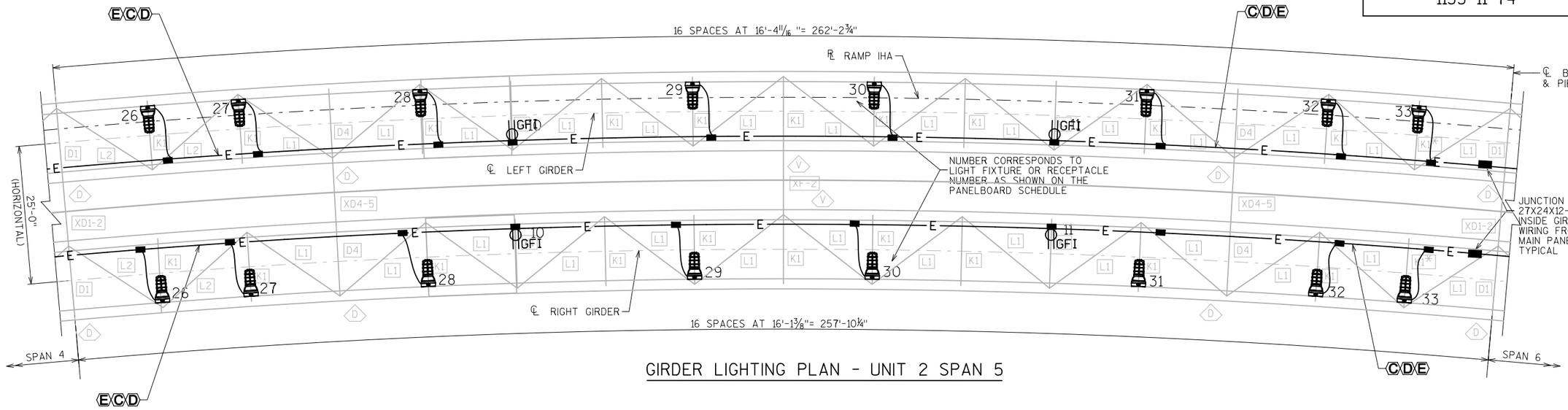
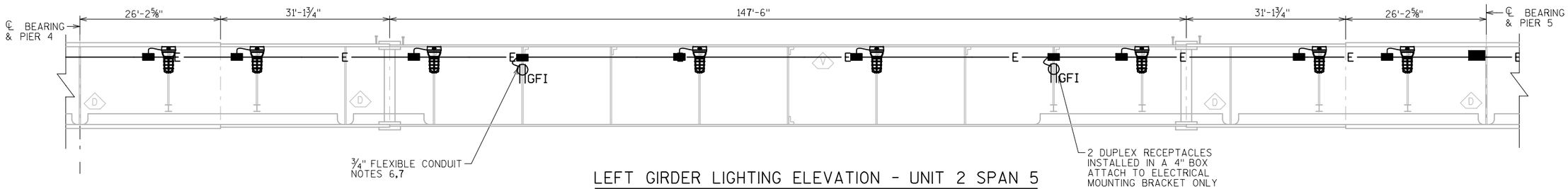
DATE: 5/1/2013
I.D.

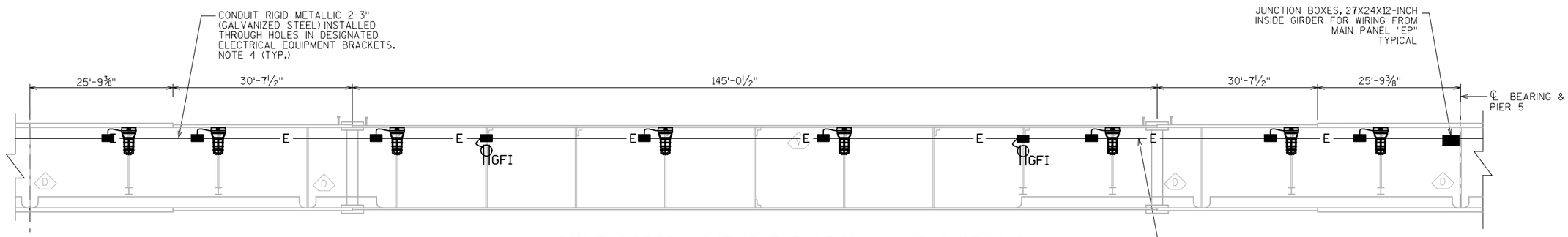
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 2 SPAN 5



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 5



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 5

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

CABLE LEGEND

- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- Ⓔ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 2 SPAN 5

SHEET 78 OF 96
588

DATE: 5/1/2013
I.D.

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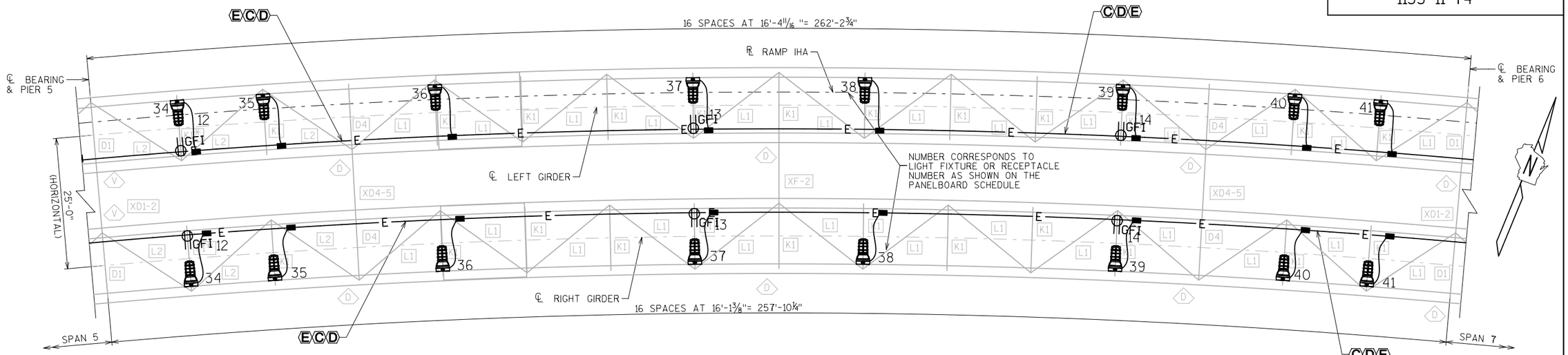
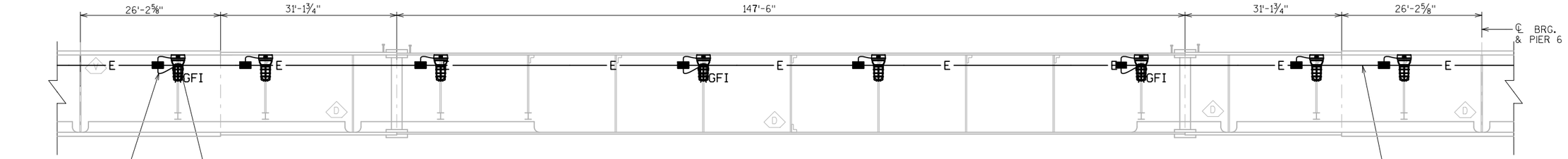
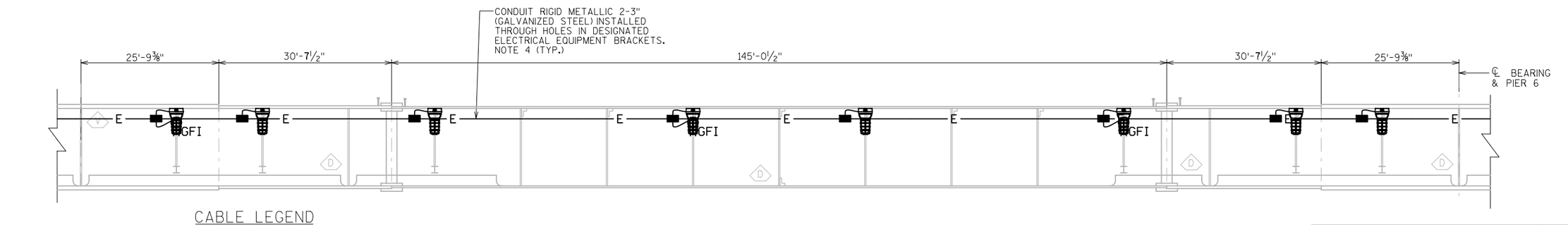
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 2 SPAN 6



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 6



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 6

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 2 SPAN 6

SHEET 79 OF 96
589

DATE: 5/1/2013
I.D.

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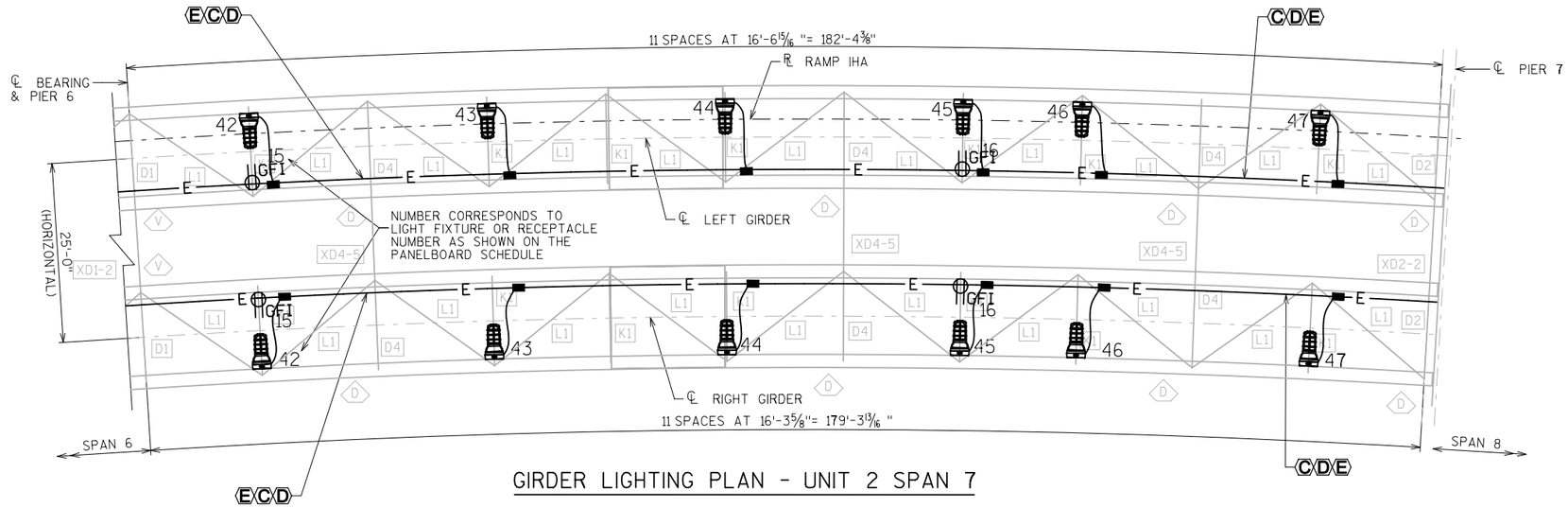
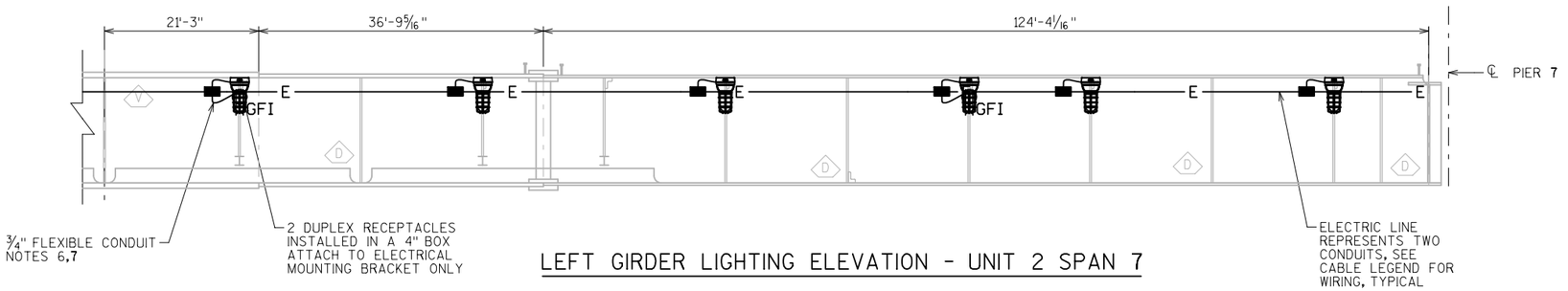
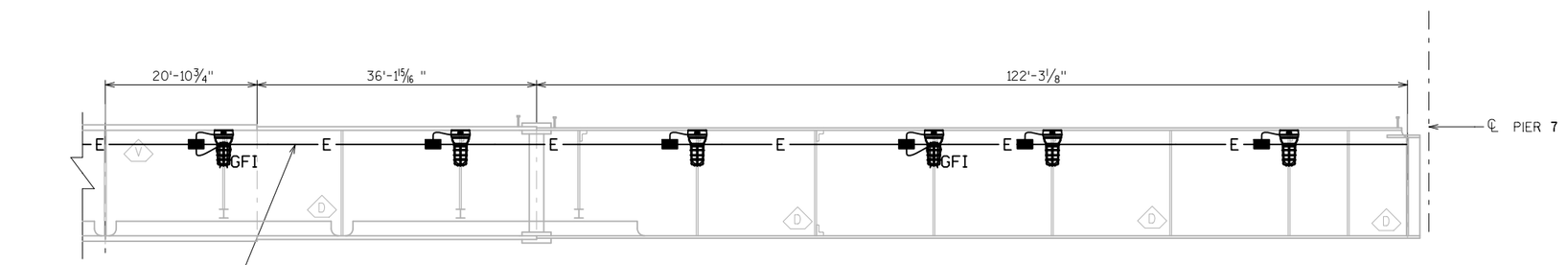


GIRDER LIGHTING PLAN - UNIT 2 SPAN 7



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 7



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 7

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 2 SPAN 7

SHEET 80 OF 96
590

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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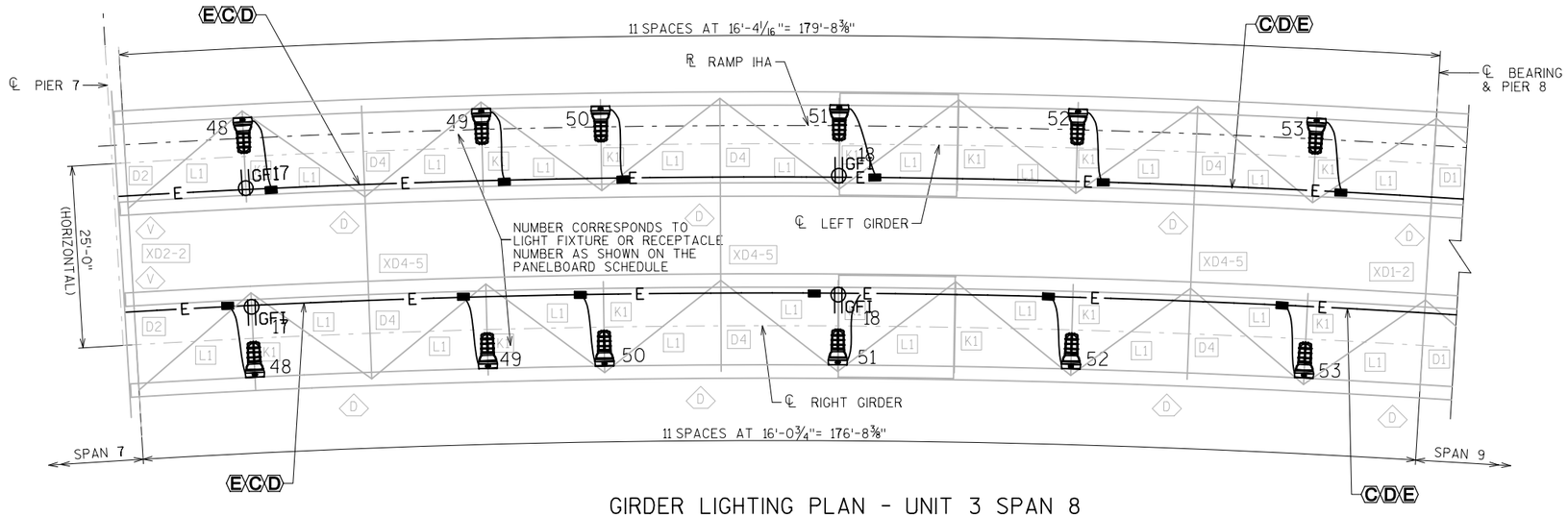
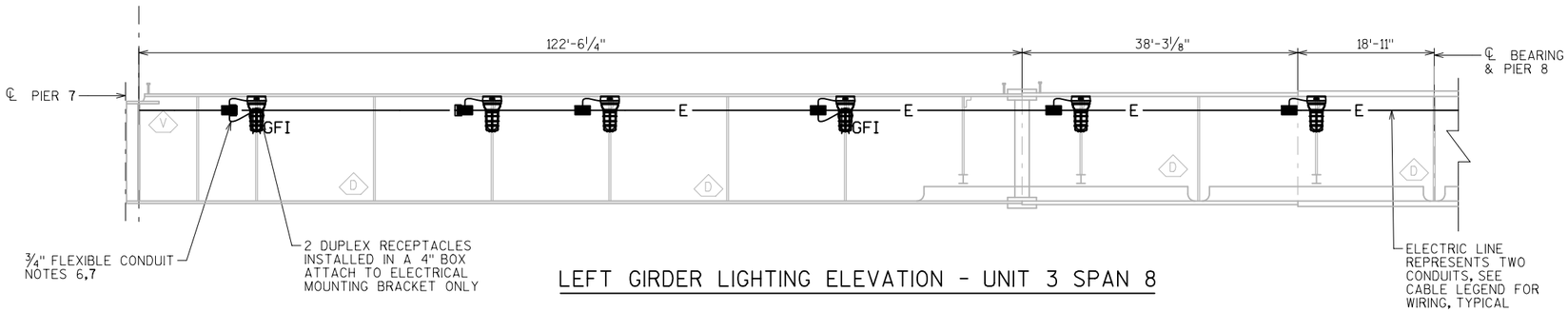
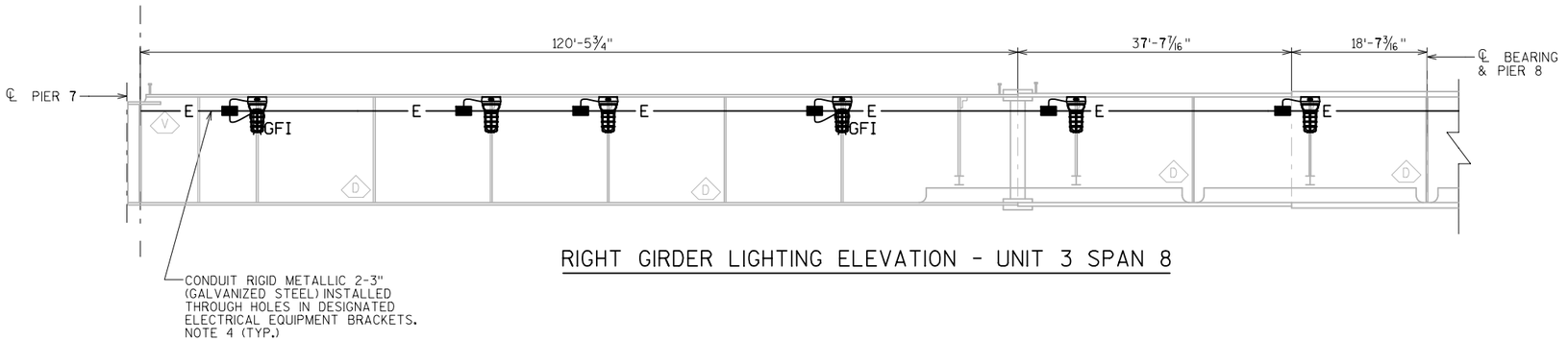
DATE: 5/1/2013
I.D.



GIRDER LIGHTING PLAN - UNIT 3 SPAN 8



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 8



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 8

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- Ⓐ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- Ⓑ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- Ⓔ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 3 SPAN 8

SHEET 81 OF 96
591

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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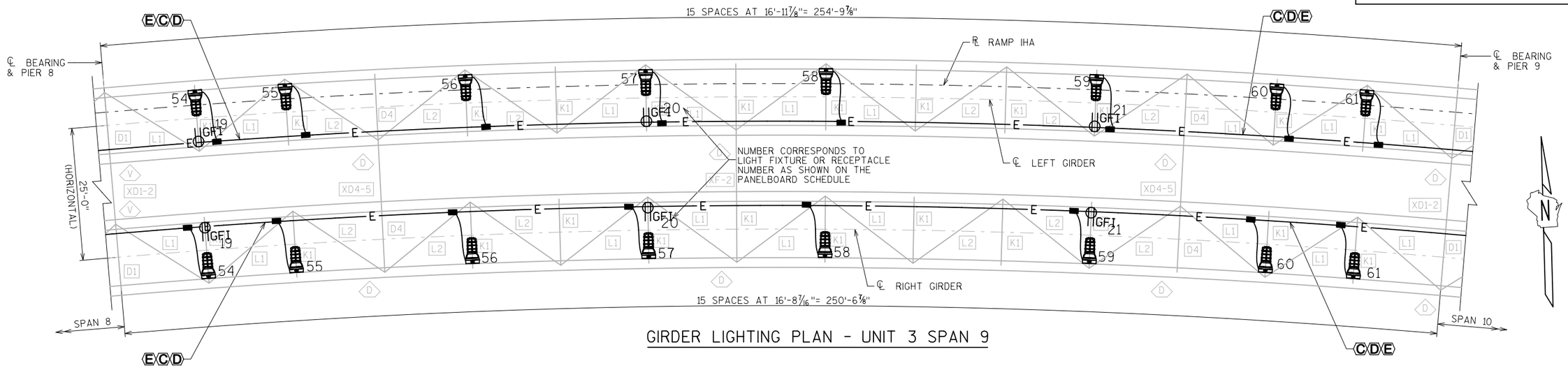
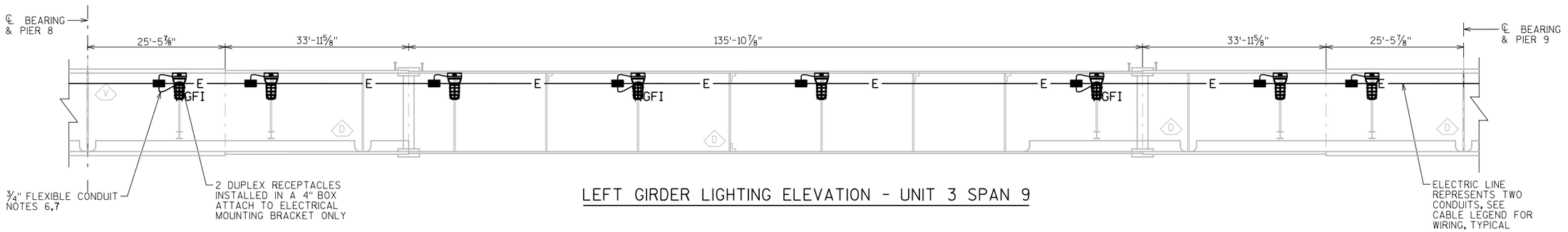
DATE: 5/1/2013
I.D.

STATE PROJECT NUMBER

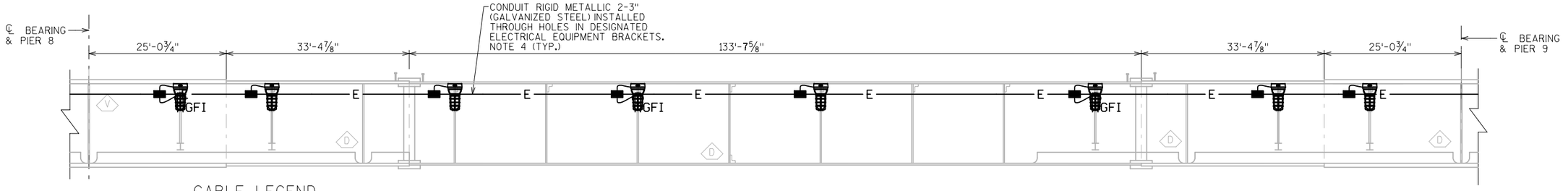
1133-11-74



GIRDER LIGHTING PLAN - UNIT 3 SPAN 9



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 9



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 9

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 3 SPAN 9

SHEET 82 OF 96
592

DATE: 5/1/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-671\082-B-05-671E - GIRDER LIGHTING PLAN AND ELEV UNIT 3 SPAN 9.dgn

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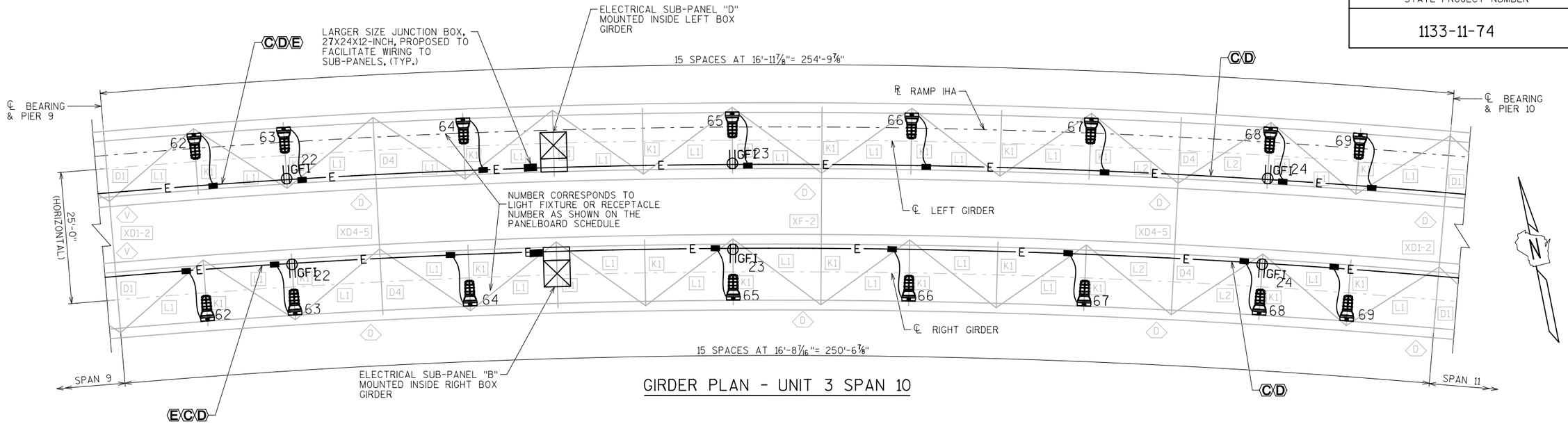
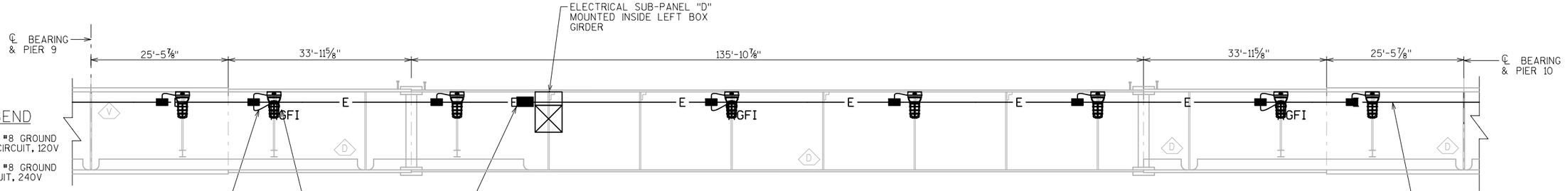
STATE PROJECT NUMBER

1133-11-74



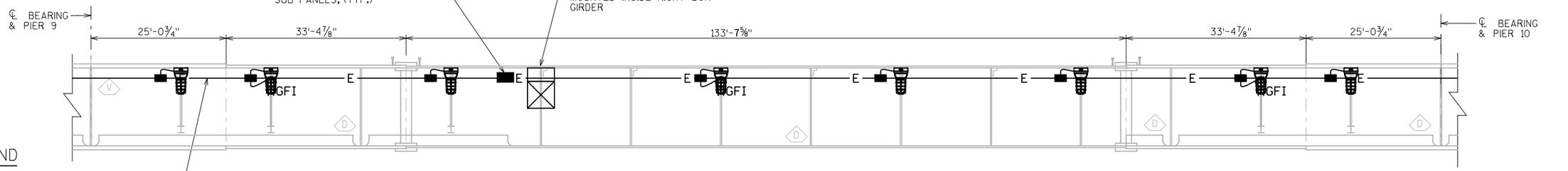
GIRDER PLAN - UNIT 3 SPAN 10



LEFT GIRDER ELEVATION - UNIT 3 SPAN 10

CABLE LEGEND

- Ⓐ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- Ⓑ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- Ⓔ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"



RIGHT GIRDER ELEVATION - UNIT 3 SPAN 10

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)
- ELECTRICAL REMOTE PANEL (SUB-PANEL) TWO IN EACH BOX GIRDER 120/240V, 1-PHASE, 3-WIRE SEE PANELBOARD SCHEDULES

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV. UNIT 3 SPAN 10

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FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-671\083-B-05-671E - GIRDER LIGHTING PLAN AND ELEV UNIT 3 SPAN 10.dgn

DATE: 5/1/2013
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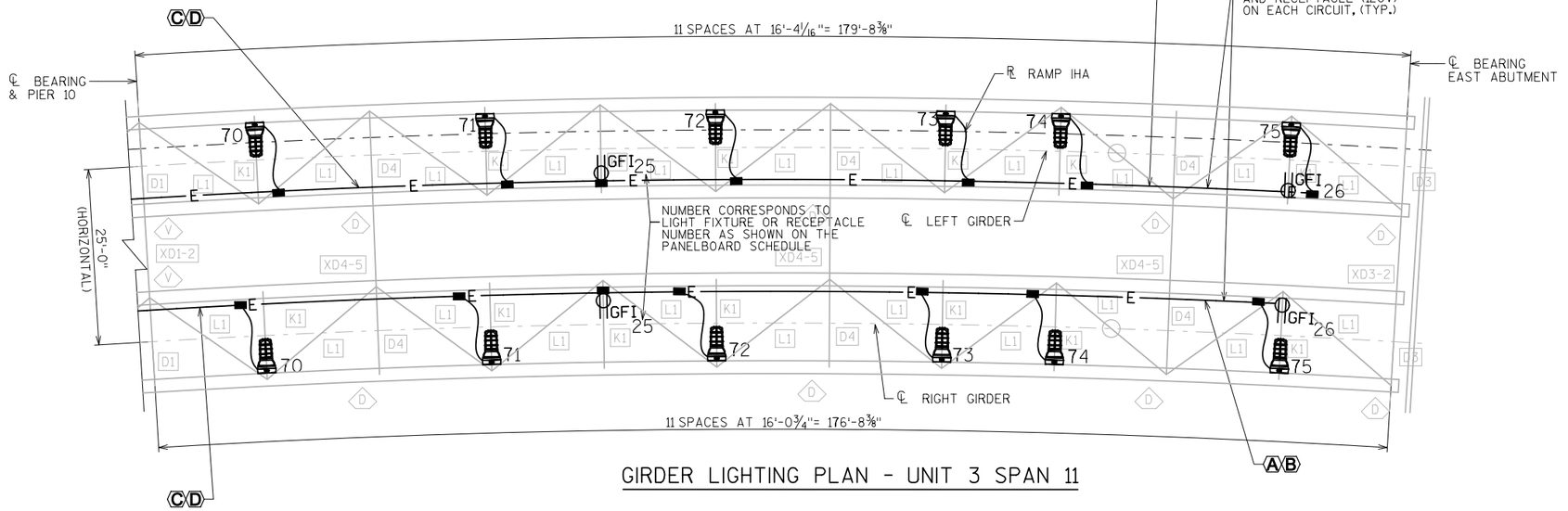
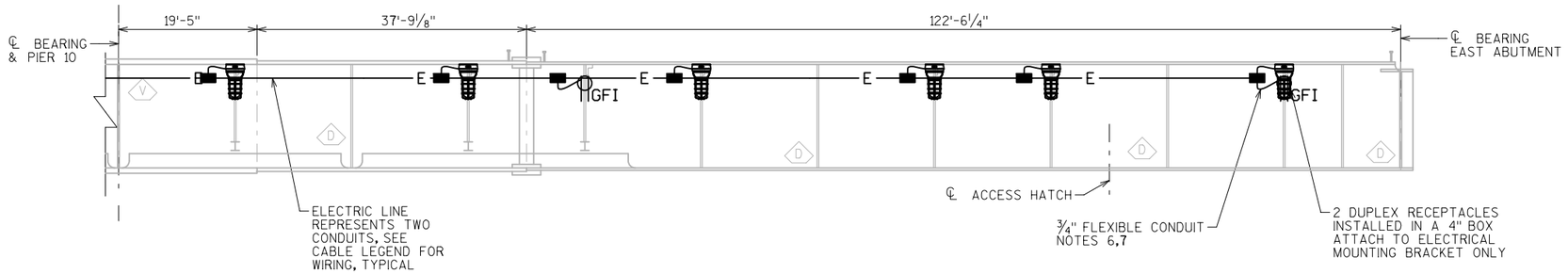
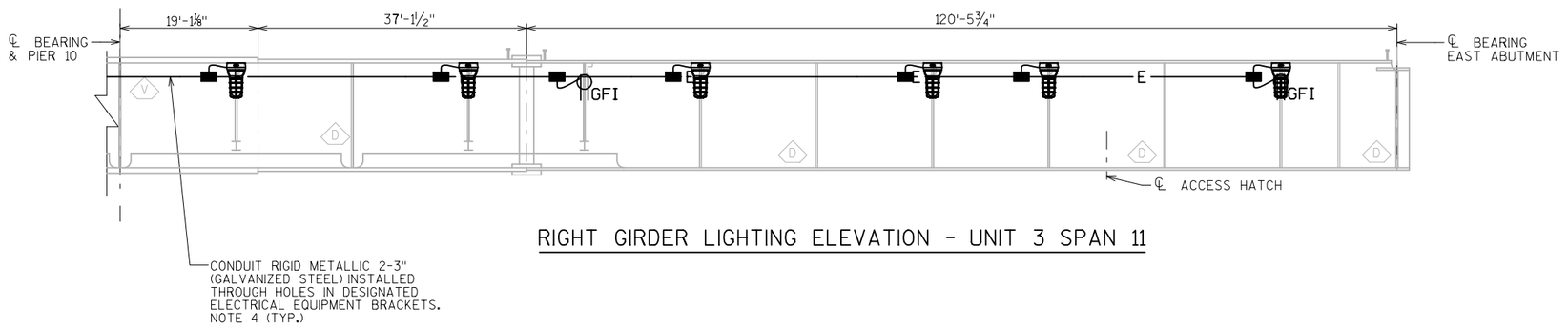


GIRDER LIGHTING PLAN - UNIT 3 SPAN 11



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 11



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 11

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- E — CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER LIGHTING PLAN AND ELEV. UNIT 3 SPAN 11

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DATE: 5/1/2013
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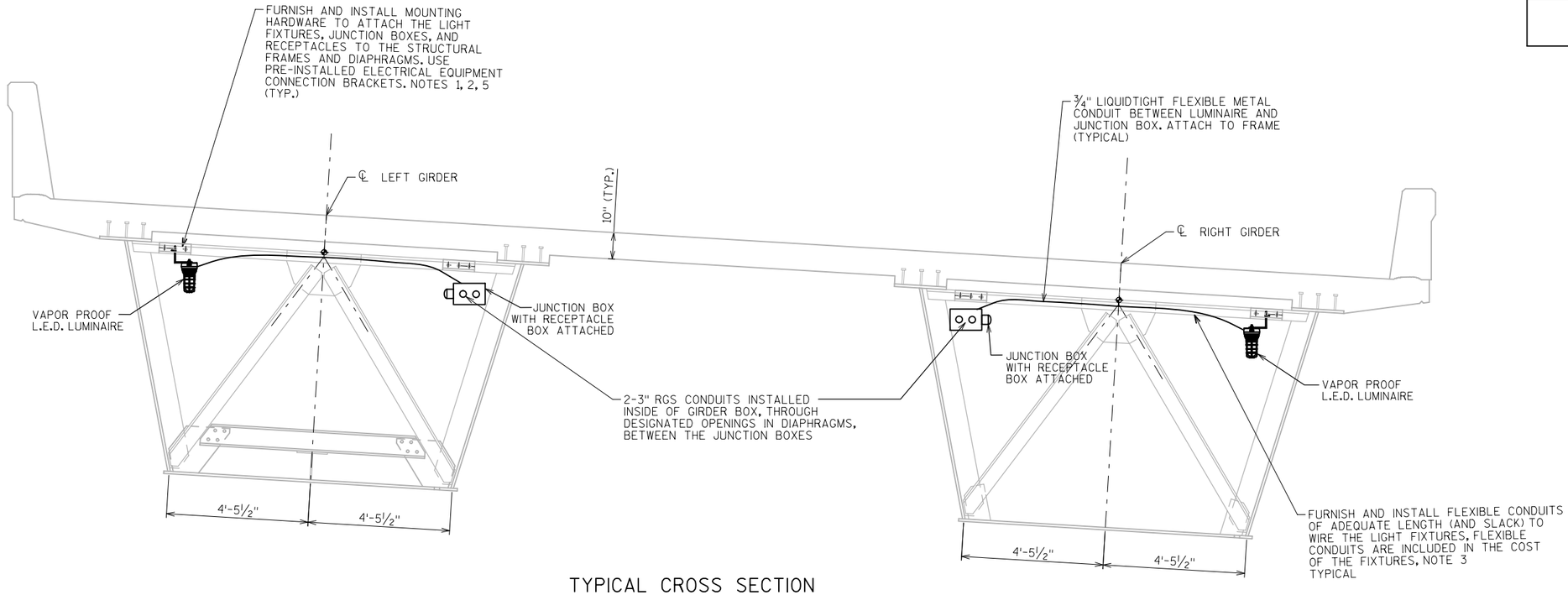
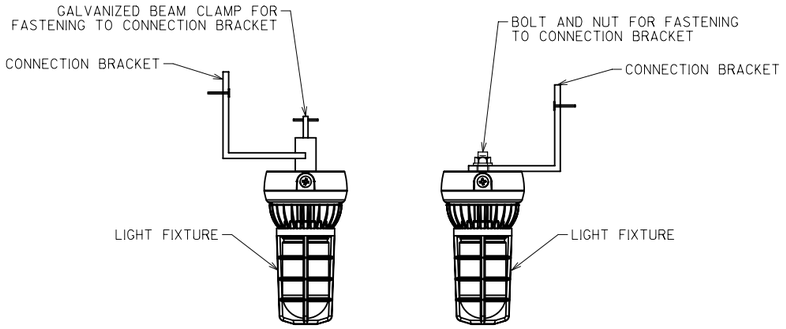
STATE PROJECT NUMBER

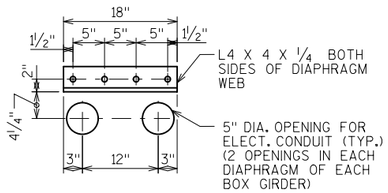
1133-11-74



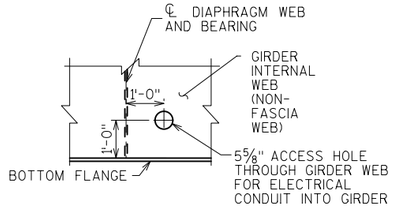
TYPICAL CROSS SECTION



VAPOR PROOF L.E.D. LIGHT FIXTURE INSTALLATION DETAILS



OPENINGS AND CONNECTION BRACKET DETAILS FOR ELECTRICAL

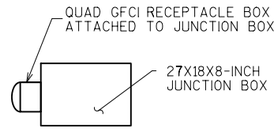


EXTERNAL ELECTRICAL ACCESS DETAIL

TWO ACCESS LOCATIONS FOR INCOMING POWER TO INTERIOR OF GIRDER (LOC. TO BE DETERMINED DURING FABRICATION) (TYP. BOTH GIRDERS)

NOTES:

1. CONNECTION BRACKETS AND ATTACHING BOLTS SHOWN ARE FURNISHED BY STEEL GIRDER FABRICATOR FOR USE BY THE ELECTRICAL CONTRACTOR TO ATTACH THE LIGHT FIXTURES, CONDUITS AND BOXES. MODIFY BRACKETS AS NECESSARY AND FURNISH AND INSTALL MOUNTING HARDWARE TO PROVIDE A PROPER INSTALLATION FOR THE ELECTRICAL AND LIGHTING EQUIPMENT.
2. DON'T SUPPORT ANY JUNCTION BOXES, LIGHT FIXTURES, RECEPTACLES, OR ELECTRICAL SUB-PANELS BY ATTACHING DIRECTLY TO CONDUITS. INSTALL AND SUPPORT ALL EQUIPMENT BY FURNISHING MOUNTING CLAMPS, BRACKETS, AND OTHER HARDWARE APPROPRIATE FOR THE MOUNTING LOCATION TO PROVIDE A FIXED AND SECURE INSTALLATION.
3. FURNISH AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS OF ADEQUATE LENGTH BETWEEN JUNCTION BOXES AND LIGHT FIXTURES/RECEPTACLES AND ELECTRICAL SUB-PANELS. PROVIDE ADDITIONAL SLACK IN ALL FLEXIBLE CONDUITS IN ORDER TO ALLOW FOR ADEQUATE MOVEMENT IN ALL DIRECTIONS. INCLUDE COST OF LIQUIDTIGHT FLEXIBLE METAL CONDUITS, ADAPTERS, FITTINGS, AND OTHER HARDWARE AND ACCESSORIES IN THE COST OF LIGHT FIXTURES AND RECEPTACLES. NO SEPARATE PAYMENT FOR THIS WORK WILL BE ALLOWED.
4. SEAL OPENINGS AROUND ALL CONDUITS ENTERING THE BOX GIRDERS TO PROVIDE A WEATHER-PROOF SEAL.
5. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, CLAMPS, BRACKETS, HANGER RODS, HARDWARE, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.
6. FURNISH AND INSTALL CONDUIT EXPANSION/DEFLECTION COUPLINGS AND FLEXIBLE BONDING JUMPERS BYPASSING THE COUPLINGS TO ENSURE GROUND CONTINUITY FOR CONDUITS CROSSING EXPANSION JOINTS. USE ONLY COMBINATION EXPANSION/DEFLECTION FITTINGS SIMILAR TO O-Z/GEDNEY MODEL NO. AX8DX. DON'T USE "EXPANSION ONLY" FITTINGS.
7. PROVIDE FLEXIBLE METALLIC CONDUITS BETWEEN RIGID CONDUITS ACROSS JOINTS WHERE THE CALCULATED CONDUIT MOVEMENT EXCEEDS THE MAXIMUM ALLOWABLE MOVEMENT OF THE COMBINATION EXPANSION/DEFLECTION FITTINGS. FLEXIBLE CONDUITS AND FITTINGS ARE INCLUDED IN THE COST OF THE CONDUITS.



JUNCTION BOX

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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ELECTRICAL BOX GIRDER DETAIL 1

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DATE: 5/1/2013
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Electrical Panel: EP

Rating: 200A
Voltage: 120/240 Volts, _1__ Phase __3___ Wire
Feeder Conductors: _4/0_ AWG
Main Brkr: __200__ A

BRIDGE **B-5-671**

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 10	360		X		75		RIGHT BOX GIRDER LIGHTS 24-32 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 9-11 ODD		720		X		75				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 12-18 EVEN	1440		X		75		RIGHT BOX GIRDER LIGHTS 25-33 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 13-17 ODD		1080		X		75				8
9	20	1	LEFT BOX GIRDER RECEPTACLES 10	360		X		150		RIGHT BOX GIRDER LIGHTS 34-52 (EVEN)	2	20	10
11	20	1	LEFT BOX GIRDER RECEPTACLES 9-11 ODD		720		X		150				12
13	20	1	LEFT BOX GIRDER RECEPTACLES 12-18 EVEN	1440		X		150		RIGHT BOX GIRDER LIGHTS 35-53 (ODD)	2	20	14
15	20	1	LEFT BOX GIRDER RECEPTACLES 13-17 ODD		1080		X		150				16
17	20	1	SPARE			X		75		LEFT BOX GIRDER LIGHTS 24-32 (EVEN)	2	20	18
19	20	1	SPARE				X		75				20
21	20	1	SPARE			X		75		LEFT BOX GIRDER LIGHTS 25-33 (ODD)	2	20	22
23	20	1	SPARE				X		75				24
25	20	2	SPARE			X		150		LEFT BOX GIRDER LIGHTS 34-52 (EVEN)	2	20	26
27							X		150				28
29	20	2	SPARE			X		150		LEFT BOX GIRDER LIGHTS 35-53 (ODD)	2	20	30
31							X		150				32
33	60	2	**ELECTRICAL SUB-PANEL"A" FEEDER (RIGHT GIRDER)**	1785		X		1770		**ELECTRICAL SUB-PANEL "B" FEEDER (RIGHT GIRDER)**	2	60	34
35					1785		X		1770				36
37	60	2	**ELECTRICAL SUB-PANEL"C" FEEDER (LEFT GIRDER)**	1785		X		1770		**ELECTRICAL SUB-PANEL "D" FEEDER (LEFT GIRDER)**	2	60	38
39					1785		X		1770				40
41	20	1	SPARE			X				SPARE	1	20	42
			TOTALS	7170	7170			4440	4440	TOTALS			

BUS A: 11610
BUS B: 11610

LOAD: 23220

23.22 KVA DEMAND
96.8 LINE AMPS
120.9 TRIP MAIN AMPS

Electrical Panel: SUB-PANEL "A"

Rating: 100A
Voltage: 120/240 Volts, _1__ Phase __3___ Wire
Feeder Conductors: ___2___ AWG
Main Brkr: __60__ A

BRIDGE **B-5-671**
RIGHT
BOX GIRDER

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 2-4 EVEN	720		X		75		RIGHT BOX GIRDER LIGHTS 2-10 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 1-3 ODD		720		X		75				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 6-8 EVEN	720		X		90		RIGHT BOX GIRDER LIGHTS 1-11 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 5-7 ODD		720		X		90				8
9	20	1	SPARE			X		90		RIGHT BOX GIRDER LIGHTS 12-22 (EVEN)	2	20	10
11	20	1	SPARE				X		90				12
13	20	1	SPARE			X		90		RIGHT BOX GIRDER LIGHTS 13-23 (ODD)	2	20	14
15	20	1	SPARE				X		90				16
17	20	1	SPARE			X				SPARE	1	20	18
			TOTALS	1440	1440			345	345	TOTALS			

BUS A: 1785
BUS B: 1785

LOAD: 3570

3.57 KVA DEMAND
14.9 LINE AMPS
18.6 TRIP MAIN AMPS

ELECTRICAL SUB-PANELS "A" & "C" IN BOTH RIGHT AND LEFT BOX GIRDERS HAVE THE SAME LOADS.

Electrical Panel: SUB-PANEL "B"

Rating: 100A
Voltage: 120/240 Volts, _1__ Phase __3___ Wire
Feeder Conductors: ___2___ AWG
Main Brkr: __60__ A

BRIDGE **B-5-671**
RIGHT
BOX GIRDER

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 24-26 EVEN	720		X		75		RIGHT BOX GIRDER LIGHTS 66-74 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 23-25 ODD		720		X		75				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 20-22 EVEN	720		X		90		RIGHT BOX GIRDER LIGHTS 65-75 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 19-21 ODD		720		X		90				8
9	20	1	SPARE			X		90		RIGHT BOX GIRDER LIGHTS 54-64 (EVEN)	2	20	10
11	20	1	SPARE				X		90				12
13	20	1	SPARE			X		75		RIGHT BOX GIRDER LIGHTS 55-63 (ODD)	2	20	14
15	20	1	SPARE				X		75				16
17	20	1	SPARE			X				SPARE	1	20	18
			TOTALS	1440	1440			330	330	TOTALS			

BUS A: 1770
BUS B: 1770

LOAD: 3540

3.54 KVA DEMAND
14.8 LINE AMPS
18.4 TRIP MAIN AMPS

ELECTRICAL SUB-PANELS "B" AND "D" IN BOTH RIGHT AND LEFT BOX GIRDERS HAVE THE SAME LOADS.

NOTES:

1. CONTROL THE OPERATION OF THE BOX GIRDER LIGHTING FROM THE MAIN ELECTRICAL PANEL "EP", OR REMOTE PANELS (SUB-PANELS) "A" AND "B". LIGHT SWITCHES INSIDE THE BOX GIRDERS WILL NOT BE INSTALLED. USE MAIN BREAKER IN PANEL "EP" TO TURN ALL LIGHTS ON OR OFF. USE INDIVIDUAL BRANCH CIRCUIT BREAKERS TO TURN ON/OFF INDIVIDUAL CIRCUITS FOR LIGHTING OR RECEPTACLES, IF NECESSARY.
2. USE MULTIPLE CIRCUIT BREAKERS TO WIRE THE LIGHTING FIXTURES AND GFCI RECEPTACLES IN EACH BOX GIRDER, AS SHOWN.
3. FURNISH AND INSTALL FOUR (4) ELECTRICAL REMOTE PANELS (SUB-PANELS) IN ADDITION TO THE MAIN ELECTRICAL PANEL "EP". INSTALL TWO (2) REMOTE PANELS (SUB-PANELS) INSIDE EACH BOX GIRDER AS SHOWN ON THESE PLANS.
4. BRANCH CIRCUIT LOAD DISTRIBUTION AND TOTAL LOAD IS THE SAME FOR REMOTE PANELS (SUB-PANELS) "A" AND "B" IN BOTH RIGHT AND LEFT BOX GIRDERS. LOCATION OF ALL ELECTRICAL AND LIGHTING EQUIPMENT IS ALSO THE SAME FOR BOTH RIGHT AND LEFT BOX GIRDERS AS SHOWN ON THE PLANS.
5. FURNISH AND INSTALL SPARE BREAKERS FOR ALL UNUSED CIRCUITS, NO EMPTY SPACES IN PANELS.
6. FURNISH COPPER FOR ALL WIRING AND BUS BARS.
7. FURNISH AND INSTALL HEAVY DUTY, COMMERCIAL QUALITY, OUTDOOR RATED EQUIPMENT, PANELS, JUNCTION BOXES, AND CABINETS. FURNISH AND INSTALL NEMA 4X RATED STAINLESS STEEL JUNCTION BOXES, RECEPTACLE BOXES AND ENCLOSURES FOR ALL OUTDOOR ELECTRICAL EQUIPMENT. SAFETY DISCONNECT SWITCH SHALL BE SERVICE ENTRANCE RATED.
8. FURNISH AND INSTALL ELECTRICAL PANELS WITH MAIN AND BRANCH CIRCUIT BREAKERS THAT WILL ACCOMMODATE THE WIRE SIZES PROPOSED ON THESE PLANS. VERIFY MANUFACTURER STANDARD WIRE TERMINAL SIZES ON MAIN AND BRANCH BREAKERS AND PROVIDE CUSTOM OR SPECIAL ORDER BREAKERS AND TERMINALS THAT ARE DESIGNED FOR THE CONDUCTORS SPECIFIED ON THESE PLANS. INCLUDE ALL MATERIALS AND LABOR NECESSARY TO DO THIS WORK IN THE COST OF THE ELECTRICAL PANELS.
9. REARRANGE BRANCH CIRCUIT DESIGNATIONS IN THE PANELBOARD SCHEDULES, AS NECESSARY, AND MAINTAIN BALANCED LOADS AND PHASES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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ELECTRICAL BOX GIRDER DETAIL 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/1/2013
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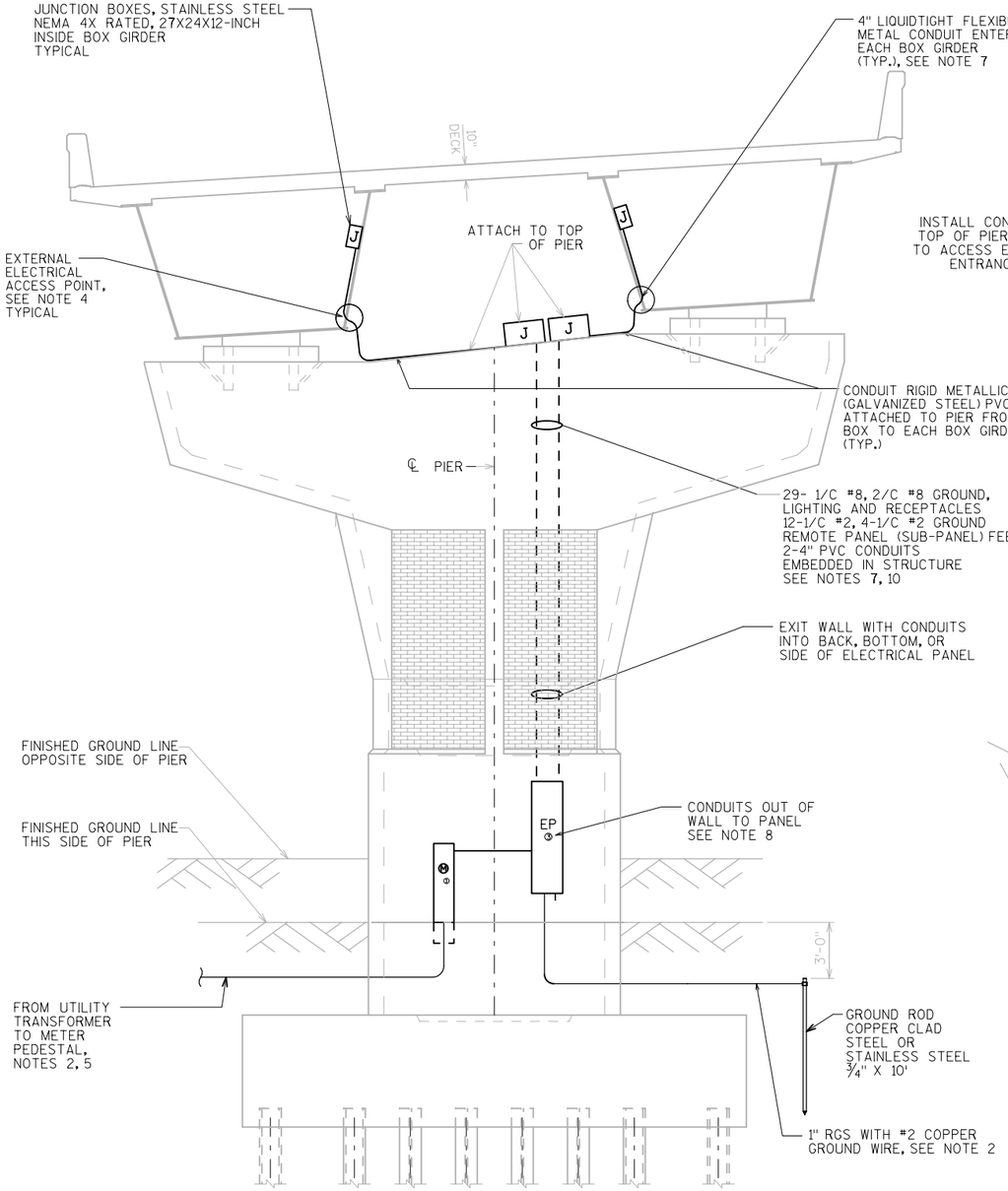
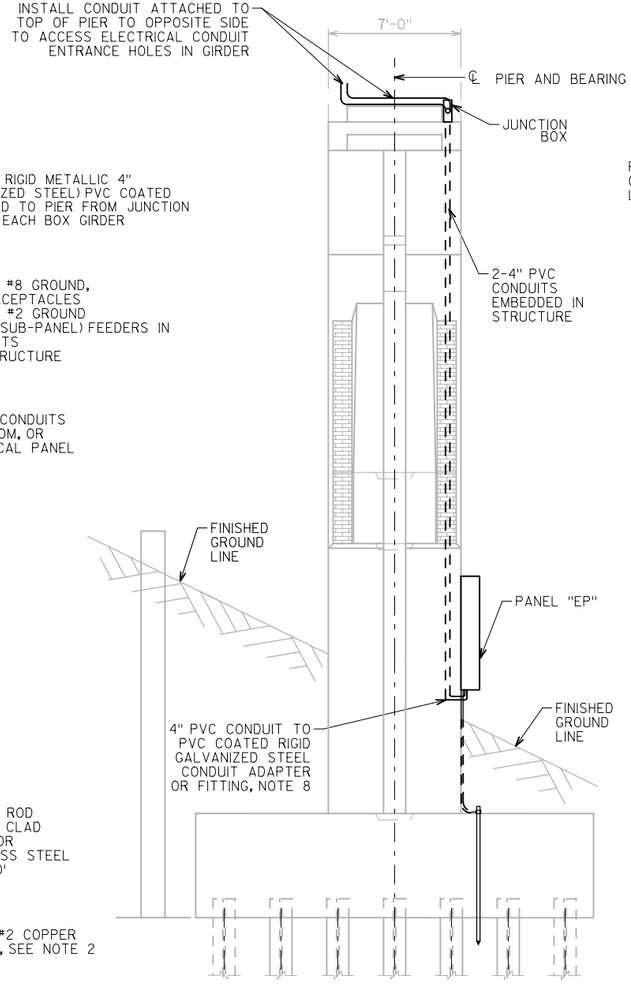


ELEVATION - PIER 5

(LOOKING DOWNSTATION)
NOT TO SCALE



END VIEW

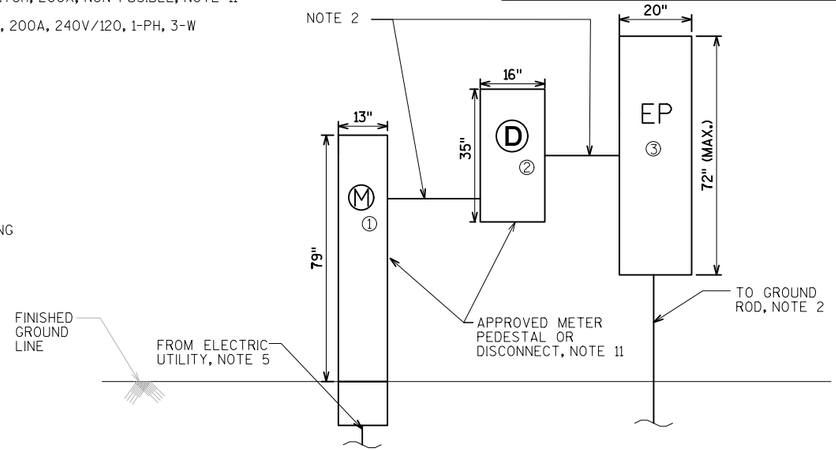
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)
NOT TO SCALE

LEGEND:

① METER PEDESTAL, 200A, NEMA 3R, WITH MAIN BREAKER, NOTE 11

② SAFETY DISCONNECT SWITCH, 200A, NON-FUSIBLE, NOTE 11

③ MAIN ELECTRICAL PANEL, 200A, 240V/120, 1-PH, 3-W



ELECTRICAL SERVICE EQUIPMENT DETAILS

* DIMENSIONS ARE APPROXIMATE AND VARY BY MANUFACTURER.
NOT TO SCALE

NOTES:

1. FURNISH AND INSTALL NEMA 4X RATED STAINLESS STEEL OUTDOOR CABINETS AND ENCLOSURES, WHEN AVAILABLE. ALL CABINETS MUST HAVE PAD-LOCKING PROVISIONS.

2. FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT, AND INCIDENTALS NEEDED TO CONNECT THE SERVICE FROM THE METER PEDESTAL TO THE MAIN ELECTRICAL PANEL "EP" AND TO REMOTE PANELS (SUB-PANEL) AS PART OF PAY ITEM FOR "ELECTRICAL SERVICE INSTALLATION B-5-671". THAT PAYMENT INCLUDES THE APPROVED METER PEDESTAL, ALL ELECTRICAL PANELS INCLUDING REMOTE PANELS (SUB-PANELS), SAFETY DISCONNECT SWITCH (WHEN REQUIRED), CABLES, CONDUITS, GROUNDING, AND TRENCHING FOR CONDUITS SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW ELECTRICAL PANELS AND METER PEDESTAL IS ALSO INCLUDED UNDER THE SAME PAY ITEM. FURNISH, INSTALL, AND PAY FOR ELECTRICAL EQUIPMENT GROUNDING MATERIALS, EQUIPMENT AND LABOR UNDER THIS PAY ITEM. CABLE AND CONDUIT FROM PANEL "EP" TO BOX GIRDERS AND JUNCTION BOXES SHOWN ARE PAID FOR SEPARATELY.

3. EXTEND THE SERVICE UP THE PIER TO THE DISTRIBUTION JUNCTION BOXES. FROM THERE, ROUTE THE BRANCH CIRCUIT WIRING AND REMOTE PANEL (SUB-PANEL) FEEDERS THROUGH ACCESS HOLES TO EACH BOX GIRDER.

4. SEE EXTERNAL ELECTRICAL ACCESS DETAIL ON SHEET 85. ALSO SEE INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1 FOR EXACT LOCATION OF ELECTRICAL ACCESS HOLES.

5. COORDINATE WITH THE UTILITY TO PROVIDE ELECTRIC SERVICE TO PIER MOUNTED EQUIPMENT.

6. FURNISH AND INSTALL 2-4" CONDUIT RIGID NONMETALLIC SCHEDULE 40 (PVC) CAST INTO THE PIER (EMBEDDED) AS SHOWN. INSTALL CONDUITS ENTERING EACH BOX GIRDER THAT WILL HAVE THE CONDUCTORS FOR THE LIGHTING CIRCUITS, GFCI RECEPTACLE CIRCUITS, AND POWER FEEDS TO EACH OF THE ELECTRICAL REMOTE PANELS (SUB-PANELS).

7. FURNISH AND INSTALL 4" LIQUIDTIGHT FLEXIBLE METAL CONDUITS (LTFMC) WHEN ENTERING THE BOX GIRDERS THROUGH THE ELECTRICAL ACCESS HOLES. INSTALL THE LTFMC BETWEEN THE RIGID GALVANIZED STEEL CONDUITS. SEAL THE AREA AROUND THE FLEXIBLE CONDUITS ENTERING THE BOX GIRDERS AT THE ACCESS HOLE TO PROVIDE A TIGHT, WEATHER-PROOF SEAL. PAYMENT FOR ALL 4" AND LARGER FLEXIBLE METAL CONDUITS, ADAPTERS AND FITTINGS ARE INCLUDED IN THE "CONDUIT RIGID METALLIC PVC COATED" PAY ITEM, SEPARATE PAYMENT WILL NOT BE MADE.

8. STUB CONDUITS EMBEDDED IN STRUCTURE OUT OF WALL UNDER (OR SIDE OF) THE ELECTRICAL PANEL "EP". FURNISH AND INSTALL CONDUIT RIGID METALLIC 4" (GALVANIZED STEEL) PVC COATED FOR ALL EXPOSED LOCATIONS AND BETWEEN THE PVC CONDUIT EMBEDDED IN THE PIER AND THE ELECTRICAL PANEL "EP". FURNISH AND INSTALL ALL NECESSARY ELBOWS, FITTINGS, AND PVC TO RGS CONDUIT ADAPTERS TO COMPLETE THE INSTALLATION. INCLUDE COST FOR THE MATERIALS AND LABOR NEEDED, AND DESCRIBED HERE, IN THE COST OF THE ELECTRICAL PANEL.

9. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, HARDWARE, CLAMPS, BRACKETS, HANGER RODS, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.

10. FURNISH AND INSTALL GROUND CONDUCTORS IN ALL CONDUITS. GROUND CONDUCTORS SHALL BE BONDED TO METAL CONDUITS, BOXES, AND OTHER PARTS TO ENSURE GROUND CONTINUITY THROUGHOUT ELECTRICAL SYSTEM. GROUNDING AND BONDING SHALL BE ACCORDING TO NEC STANDARDS.

11. FURNISH AND INSTALL A NEMA 3R RATED, 200A METER PEDESTAL WITH A MAIN CIRCUIT BREAKER IN PLACE OF A DISCONNECT SWITCH. FURNISH PEDESTAL ENCLOSURE WITH PAD-LOCKING PROVISIONS. INCLUDE METER PEDESTAL EXTENSIONS IF REQUIRED BY UTILITY AT NO ADDITIONAL COST. FURNISH A 200A, MOLDED CASE, THERMAL MAGNETIC MAIN CIRCUIT BREAKER IN THE PEDESTAL RATED AT 25K AIC MINIMUM. FURNISH AND INSTALL A HEAVY DUTY, OUTDOOR RATED, NON-FUSIBLE DISCONNECT SWITCH IN A NEMA 4X RATED ENCLOSURE THAT IS PAD-LOCKABLE ONLY IF AN APPROVED METER PEDESTAL CANNOT BE PROVIDED.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY MAE | PLANS CK'D. DAD

ELECTRICAL CROSS SECTION AT PIER

SHEET 87 OF 96
597

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1133-11-74

8

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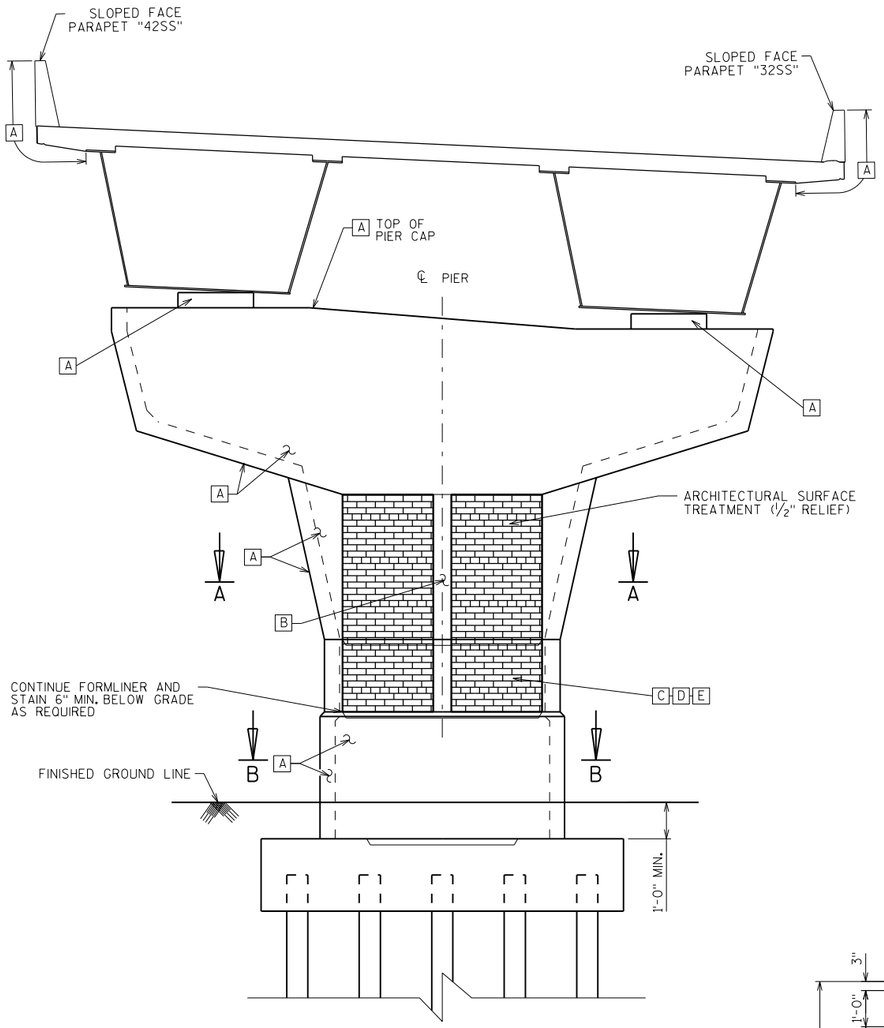
FILE= G:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-671\087 B-05-671E - Electrical Detail 3 - Cross-Section At Pier.dgn

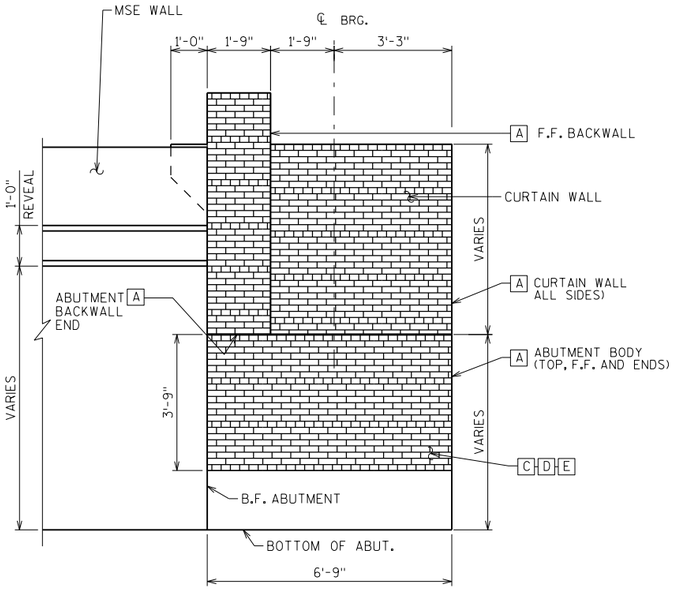
DATE: 5/1/2013
I.D.

STATE PROJECT NUMBER

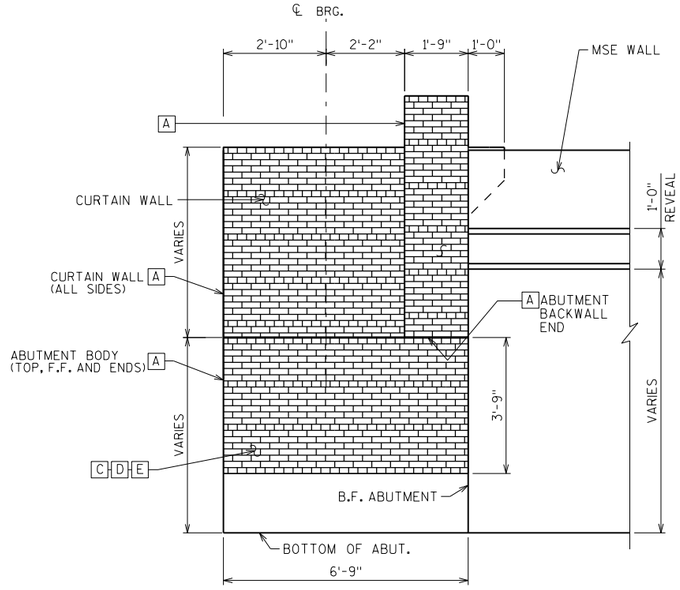
1133-11-74



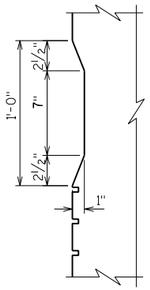
TYPICAL CROSS SECTION



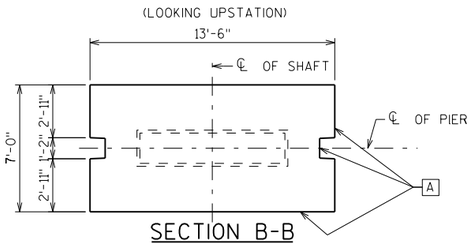
SOUTH ABUTMENT ELEVATION



EAST ABUTMENT ELEVATION

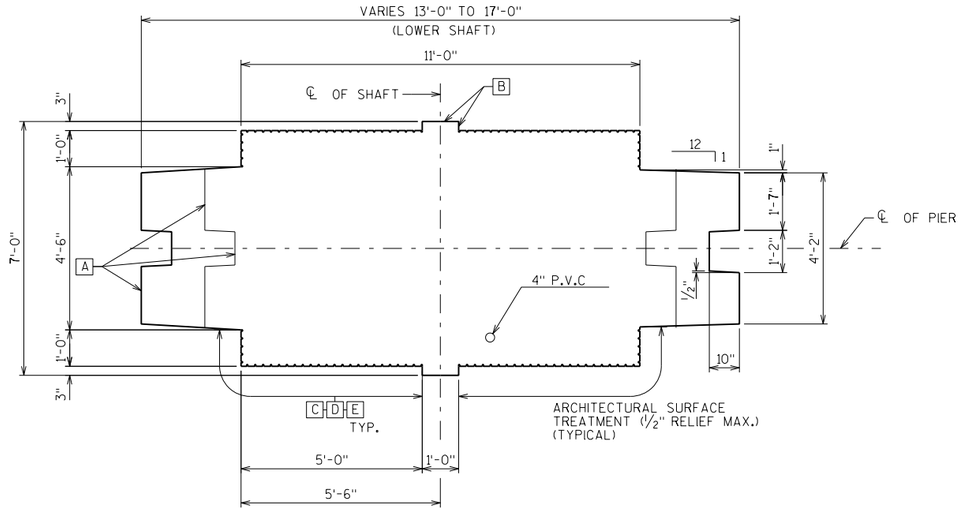


REVEAL DETAIL



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

CONCRETE STAINING SCHEDULE

MARK	COLOR	COLOR DESIGNATION	LOCATION
A	BASE COLOR	BASKET BEIGE - SW 6143	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	VIRTUAL TAUPE - SW 7039	REVEALS, OUTSIDE OF CONC.
C	ACCENT COLOR #3	ROOKWOOD TERRA COTTA - SW 2803	BRICK COLOR (70% OF BRICK)
D	ACCENT COLOR #4	CAJUN RED - SW 0008	BRICK COLOR (15% OF BRICK)
E	ACCENT COLOR #5	MEADOW LARK - SW 7522	BRICK COLOR (15% OF BRICK)

NOTE: 1. FINISH ON COLORS IS FLAT (LUSTERLESS)

PIER NOTES:

FORMLINER COURSING ON PIERS SHALL BE LEVEL.

THE FORMLINER COURSING ON ALL FACES OF EACH COLUMN SHALL BE VERTICALLY ALIGNED.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

FOR ABUT. AND PIER DETAILS SEE SHEETS TITLED "SOUTH ABUTMENT", "EAST ABUTMENT" & "PIER 1-10 LAYOUT DETAILS".

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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AESTHETIC DETAILS

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598

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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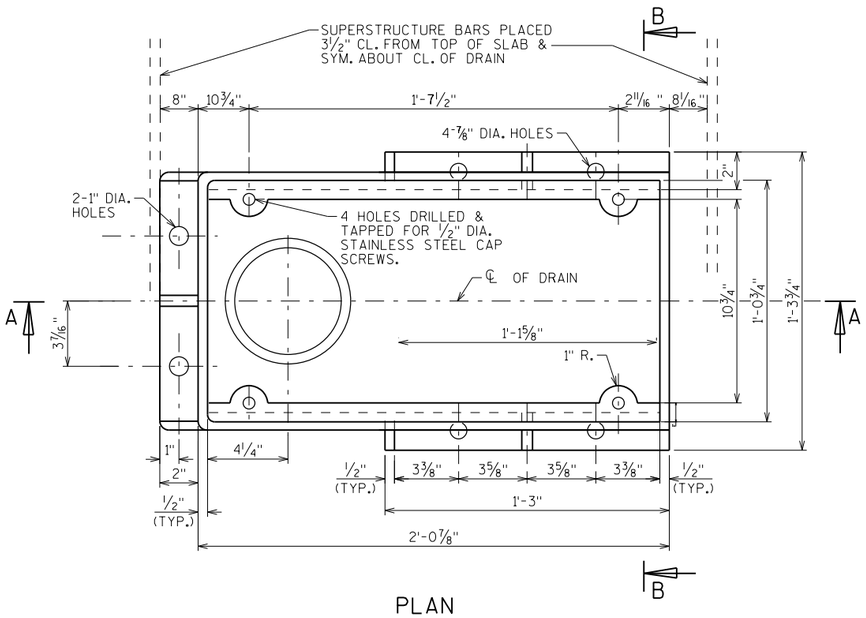
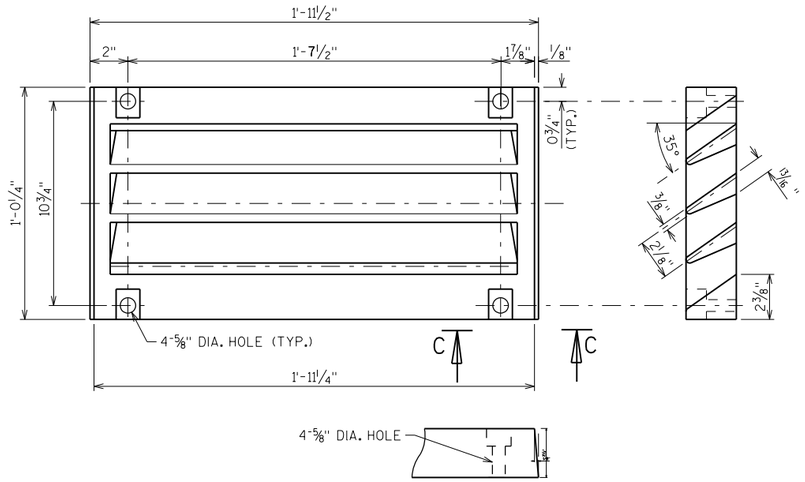


PLAN



SECTION C-C

NOTES

ALL MATERIAL FOR TYPE "GC" CASTINGS, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48, CLASS 30. (APPROX. WEIGHT= 225#)

MATERIAL FOR BRACKETS SHALL CONFORM TO A.S.T.M. A36.

PAINT THE BRACKETS WITH THE SAME PAINT SYSTEM SPECIFIED FOR THE TUB GIRDERS OR GALVANIZED THE BRACKETS AND PAINT WITH THE TOP COAT IN THE FIELD TO MATCH WITH TUB GIRDER TOP COAT.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

FLANGED 6" DIA. DOWNSPOUTS SHALL BE FIBERGLASS CONFORMING TO A.S.T.M. D2996, GRADE 1, CLASS A.

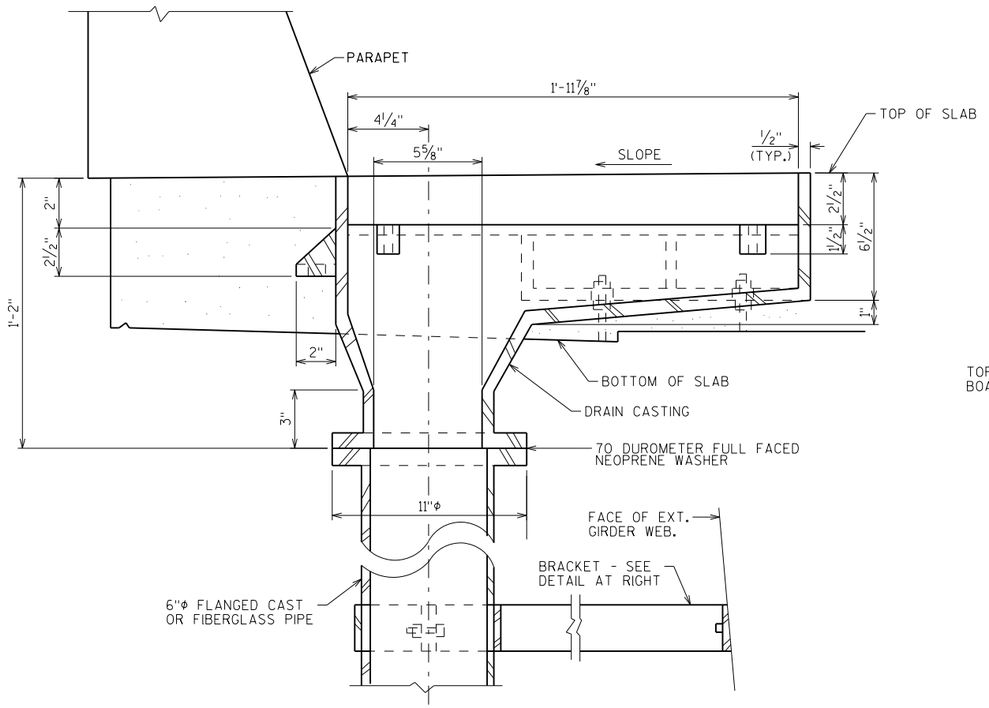
TRANSVERSE AND LONGITUDINAL SLAB BAR REINFORCEMENT TO BE CUT A MINIMUM 1" CLEAR FROM DRAIN. DISPLACE BARS WHERE POSSIBLE.

DO NOT PLACE SHEAR STUDS ON TOP FLANGE OF LEFT GIRDER WHERE THEY INTERFERE WITH THE FLOOR DRAIN.

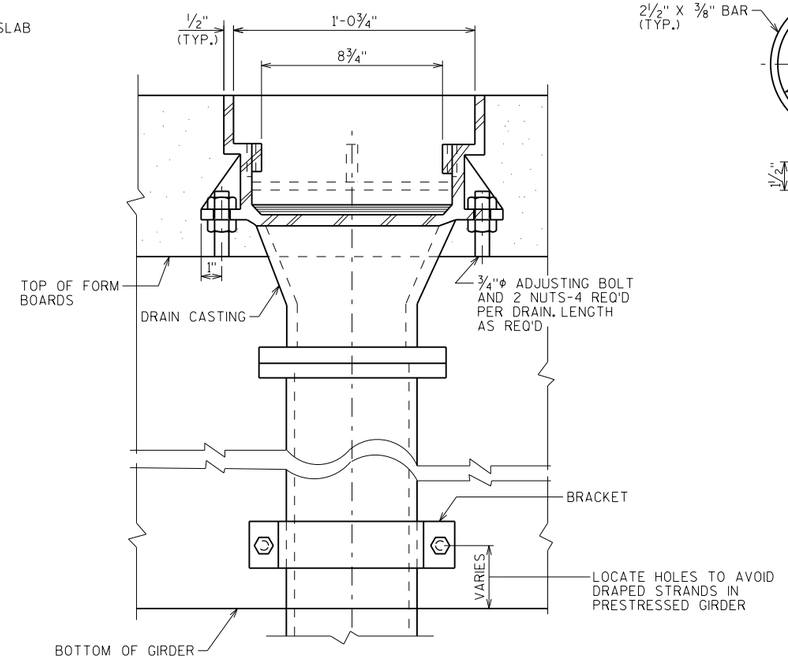
SEE SHEETS TITLED "GENERAL PLAN AND ELEVATION" FOR "SPANS 1-3, 4-6, 7-9 AND 10-11" FOR LOCATIONS OF FLOOR DRAINS.

GRATE CASTING DETAIL

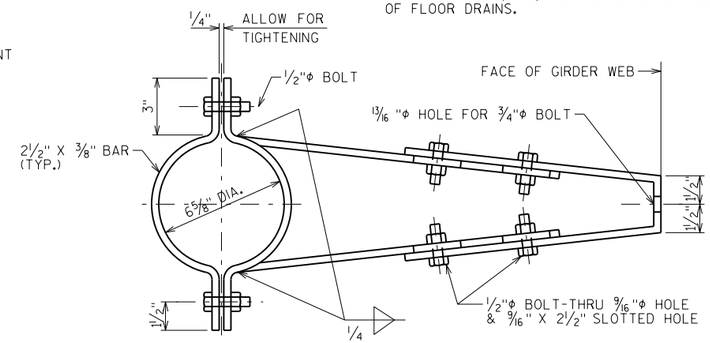
ATTACH GRATE TO FRAME FOR SHIPMENT



SECTION A-A



SECTION B-B



BRACKET DETAIL

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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FLOOR DRAIN TYPE 'GC'

SHEET 89 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE PROJECT NUMBER

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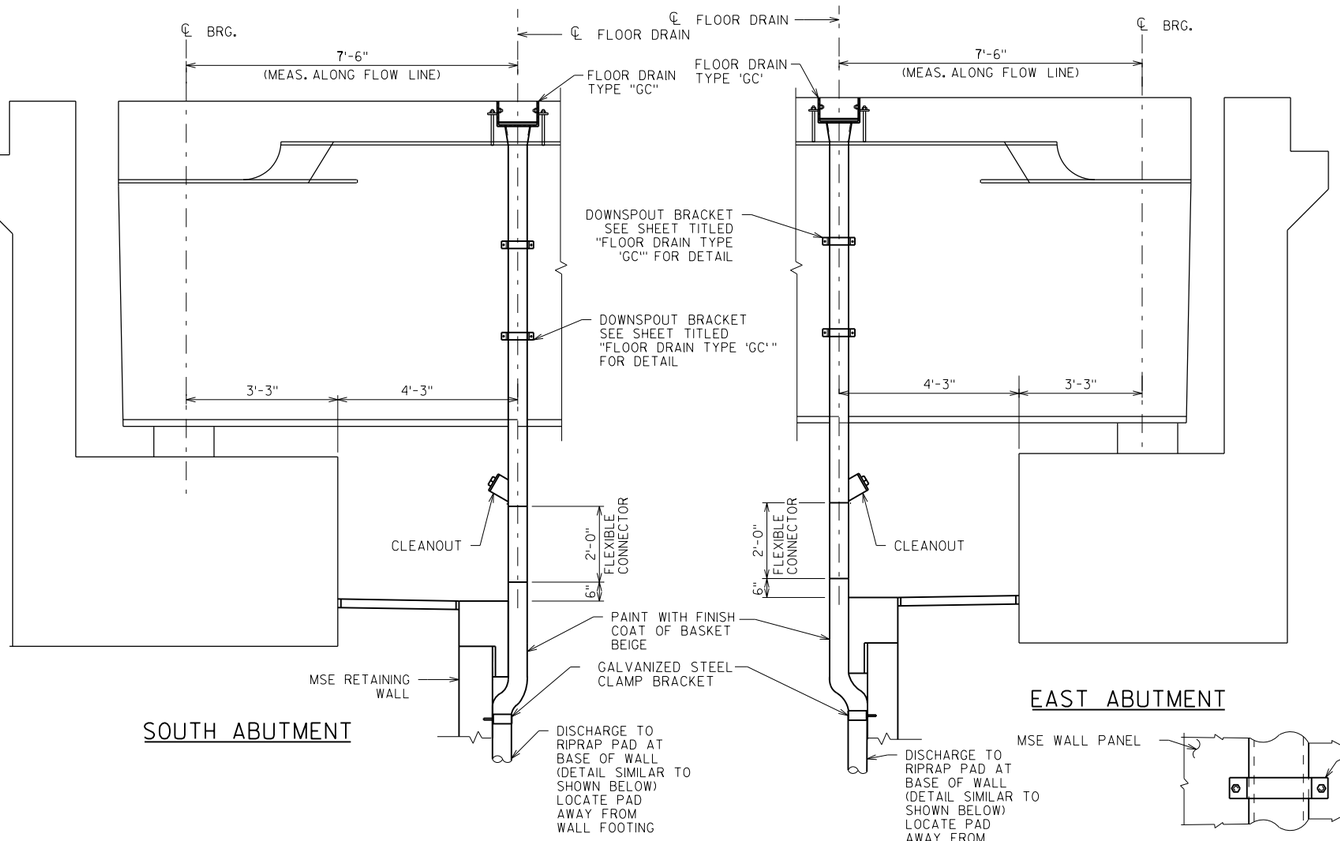
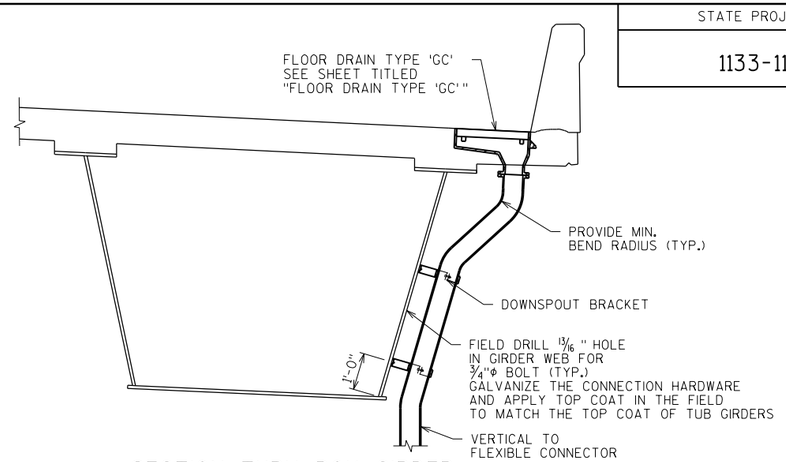
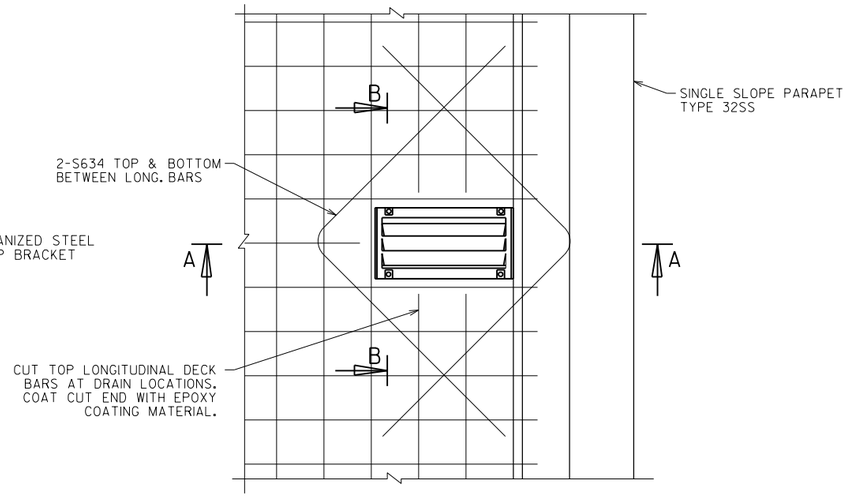
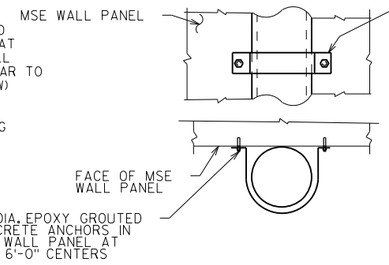




SECTION THRU BOX GIRDER

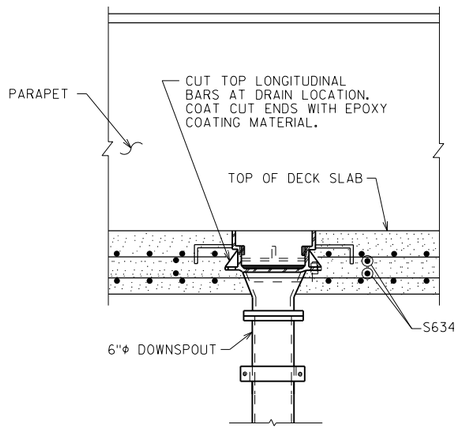


PLAN

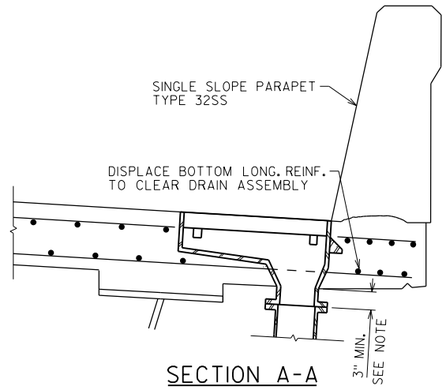


PIPE SUPPORT DETAIL AT MSE WALL

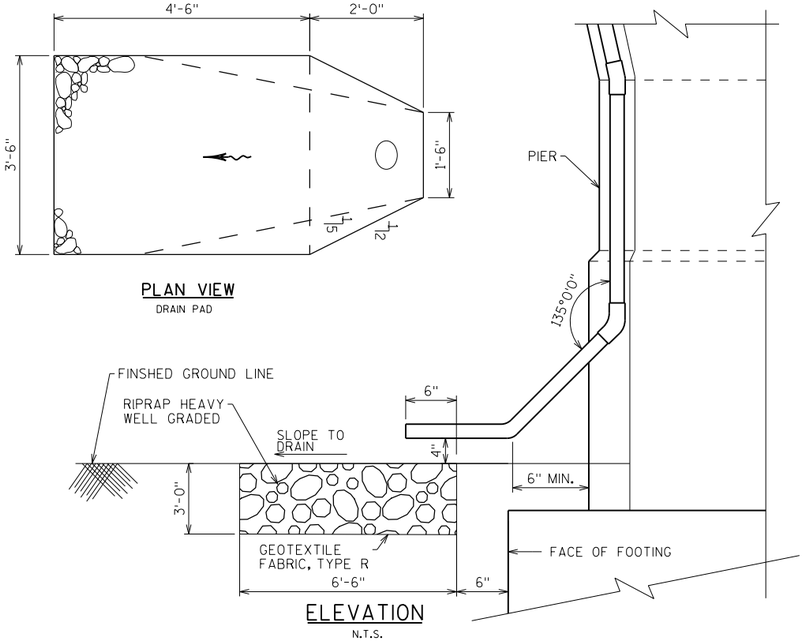
COST OF EPOXY GOUTED ANCHORS IS INCLUDED WITH BID PRICE FOR DOWNSPOUT RTRP 6-INCH.



SECTION B-B



SECTION A-A



PLAN VIEW
DRAIN PAD

ELEVATION
N.T.S.

NOTES

1. SEE SHEETS TITLED "DECK REINFROCEMENT UNITS 1, 2 AND 3" FOR TYPICAL DECK SLAB REINFORCEMENT.
2. SEE SHEET TITLED "TYPICAL DECK REINFORCEMENT SECTION" FOR PARAPET DETAILS AND REINFORCEMENT.
3. PARAPET REINFORCEMENT AND DOWELS NOT SHOWN FOR CLARITY - RESPACE LOCALLY AS REQUIRED TO CLEAR FLOOR DRAIN.
4. FORM DECK AROUND DRAIN PIPE CASTING TO ALLOW SUFFICIENT CLEARANCE TO TIGHTEN FLANGE BOLTS.
5. PAYMENT FOR 6"Φ DOWNSPOUT, FLEXIBLE CONNECTOR, DOWNSPOUT BRACKETS, AND ALL NECESSARY HARDWARE IS INCLUDED IN BID ITEM SPV.0090.705 "DOWNSPOUT 6-INCH."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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FLOOR DRAIN DETAILS - 1

SHEET 90 OF 96
600

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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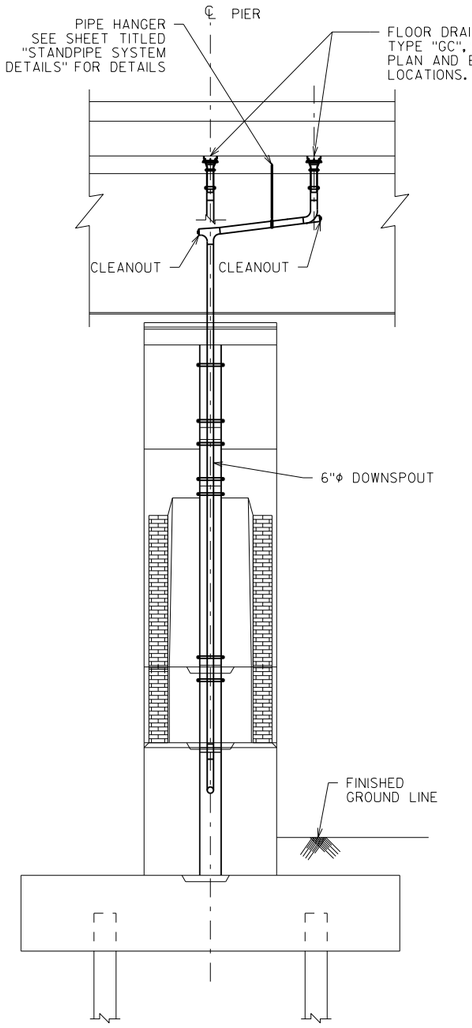
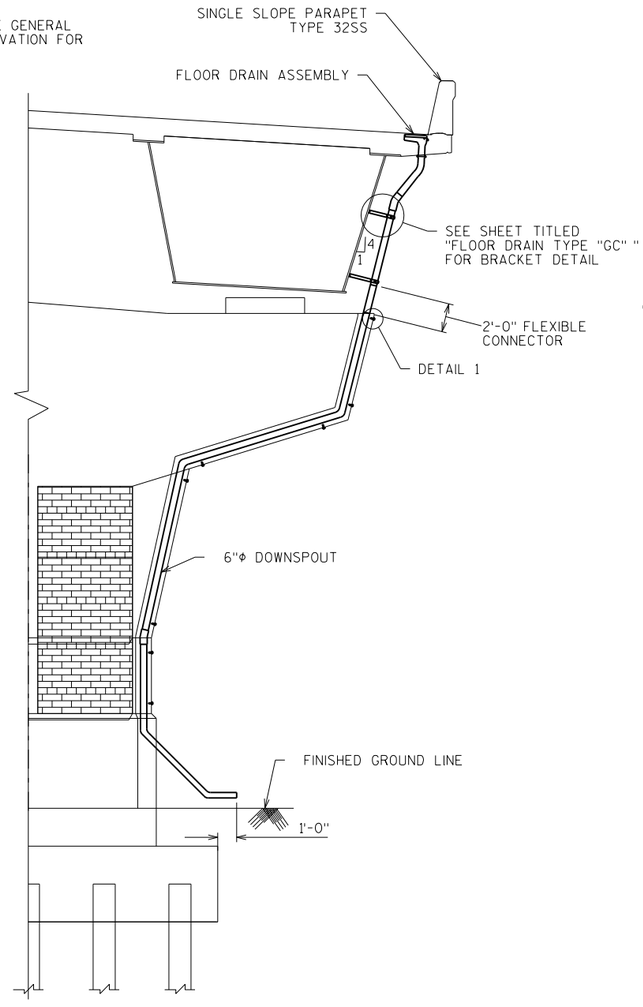
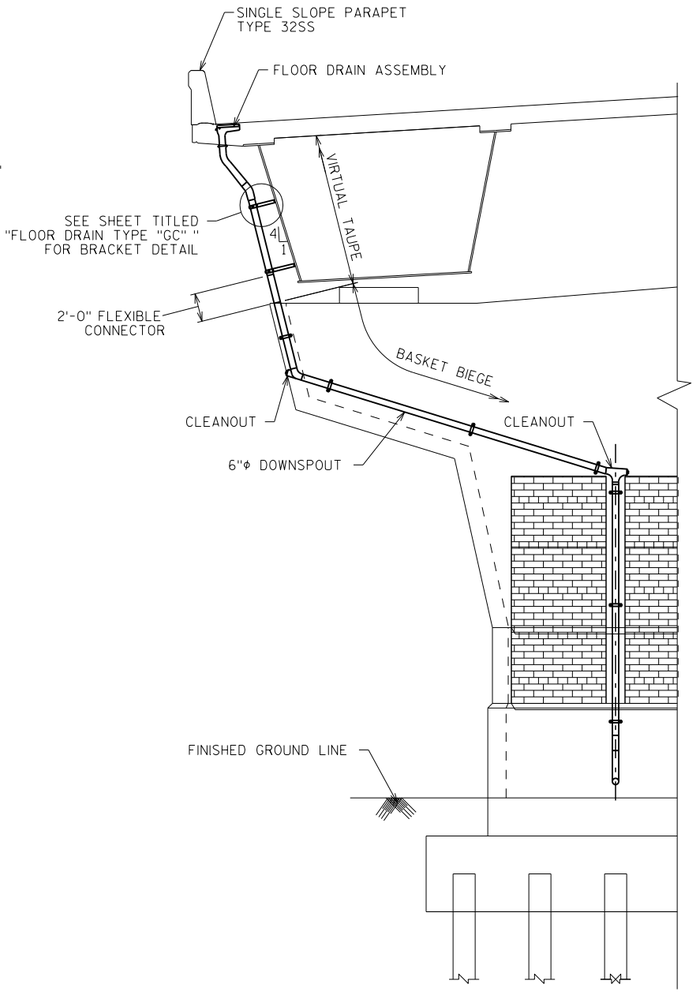


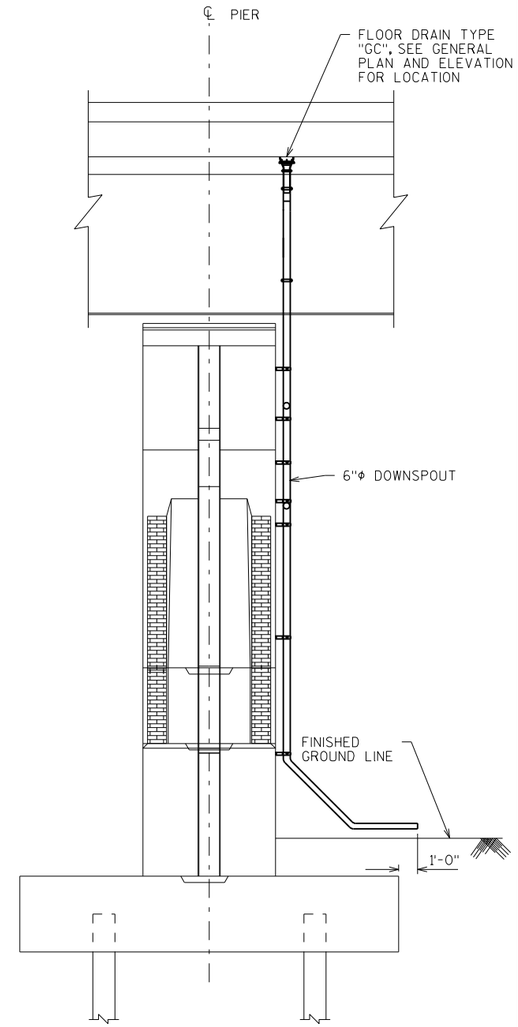
TYPICAL PIER ELEVATION



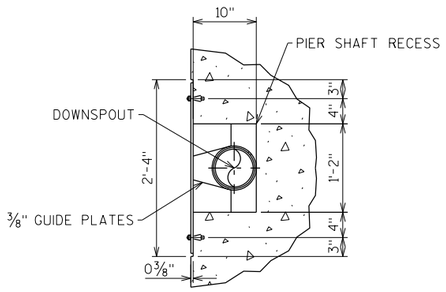
TYPICAL PIER SECTION



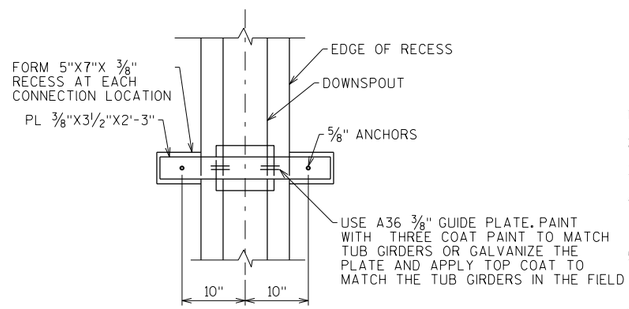
PIER 1 SECTION



PIER 1 ELEVATION



PLAN



FRONT ELEVATION

DETAIL 1

NOTES

1. SEE SHEET TITLED "FLOOR DRAIN DETAILS" FOR DRAIN PIPE SPECIFICATIONS.
2. EXCAVATION INCIDENTAL TO ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-05-671".
3. VERIFY ALL DIMENSIONS PRIOR TO FABRICATING DOWNSPOUT.
4. ALL FLEXIBLE CONNECTORS, FITTINGS, ELBOWS, CLEANOUTS, HANGERS AND ALL CONNECTION AND INSTALLATION HARDWARE ARE CONSIDERED INCIDENTAL TO ITEM "DOWNSPOUT RTRP 6-INCH".
5. THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE DOWNSPOUT MAY BE ALTERED TO AVOID INTERFERENCE WITH THE GIRDER CROSS FRAME. MAINTAIN A 2% MINIMUM SLOPE AND TRANSITION TO STEEPER SLOPE AS SOON AS POSSIBLE.
6. SEE SHEET FLOOR DRAIN DETAILS-1 FOR LIGHT RIPRAP DETAILS AT THE BASE OF DRAIN PIPE.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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FLOOR DRAIN DETAILS - 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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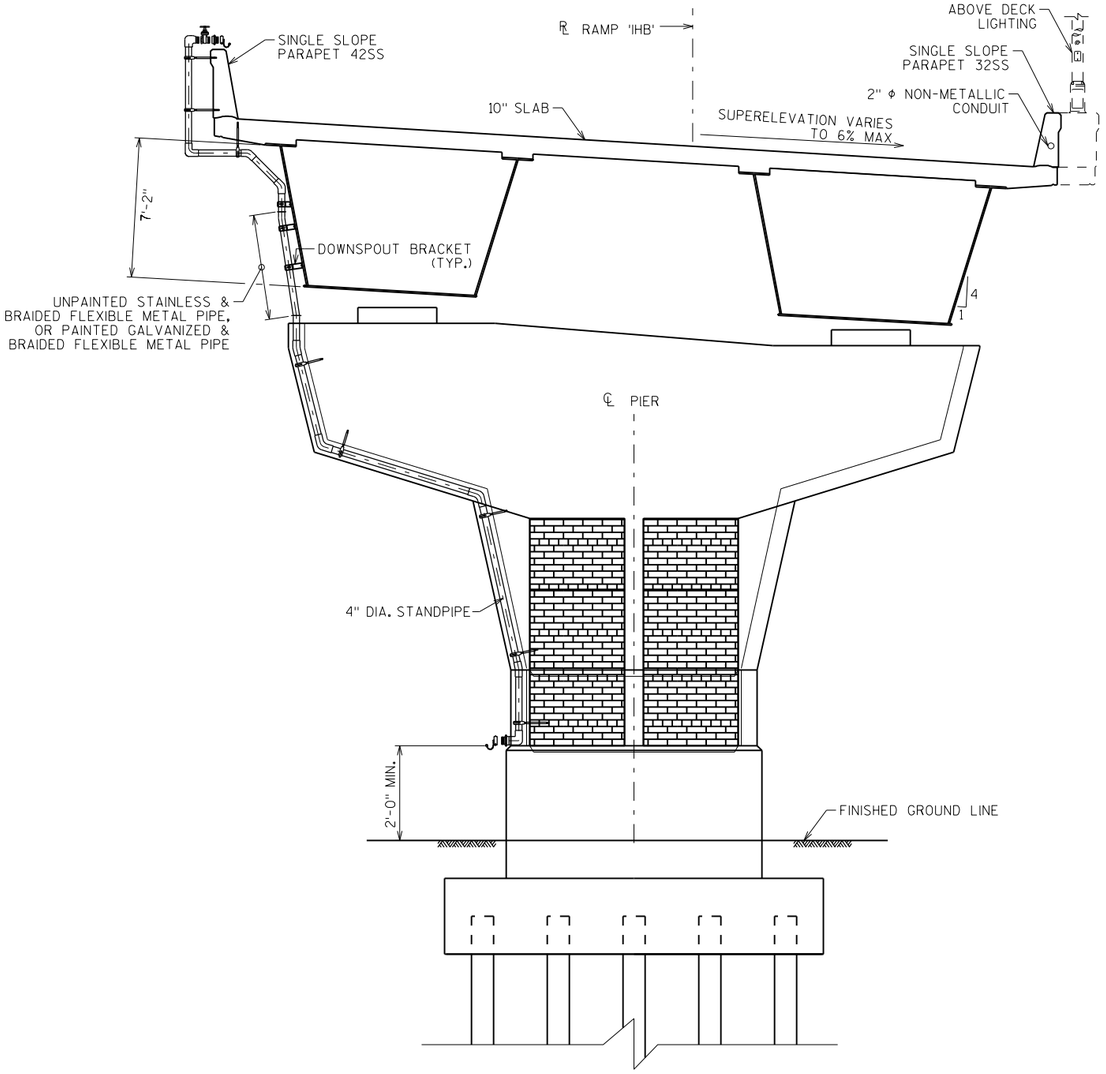
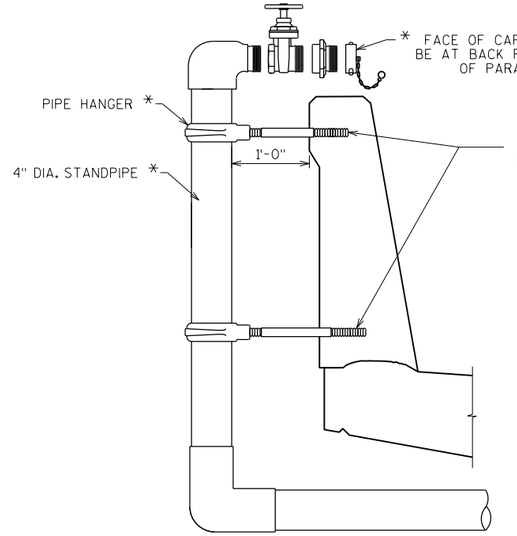
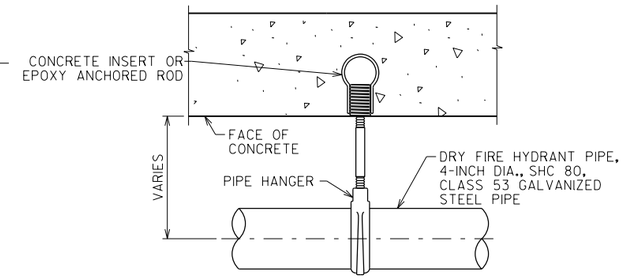


CROSS SECTION AT PIER 5

(LOOKING UPSTATION)





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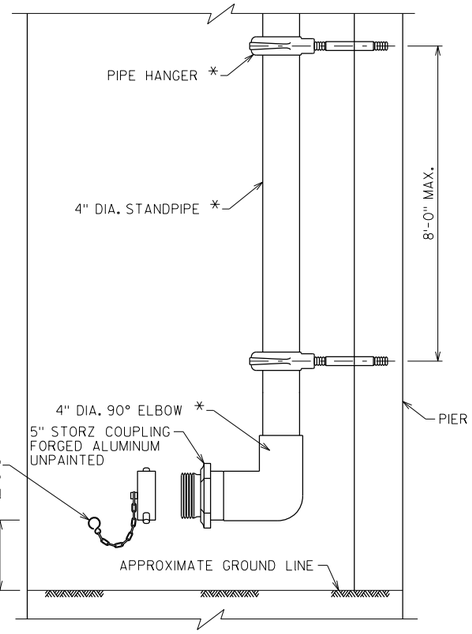
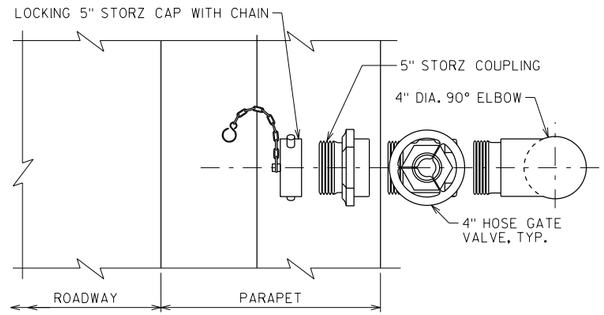


DISCHARGE CONNECTION ELEVATION



DISCHARGE CONNECTION PLAN

NOTES

PAINT 4" DIA. CLASS 53 GALVANIZED STEEL PIPE WITH URETHANE PAINT PER SPV.0060.700 "STANDPIPE SYSTEM." PAINT COLOR TO BE VIRTUAL TAUPE.

PIPE, PIPE CLAMPS, HANGERS, ADHESIVE ANCHOR RODS, STORZ COUPLINGS, FITTINGS, FLEXIBLE METAL PIPE AND MISC. ITEMS ARE INCLUDED IN BID ITEMS SPV.0060.700 "STANDPIPE SYSTEM."

PIPE TO BE SUPPORTED AT 8'-0" MAX.

PROVIDE A FLEXIBLE METAL PIPE THAT TRANSMITS WATER UP TO A PRESSURE OF 200 PSI AND CAN CONNECT TO THE RIGID STANDPIPE SYSTEM. THE FLEXIBLE METAL PIPE SHALL HAVE A DIAMETER OF 4".

SEE SHT." DECK REINFORCEMENT PLAN UNIT 2" FOR LOCATION OF STANDPIPE SYSTEM.

* DENOTES GALVANIZED & PAINTED

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DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-5-671

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STANDPIPE SYSTEM DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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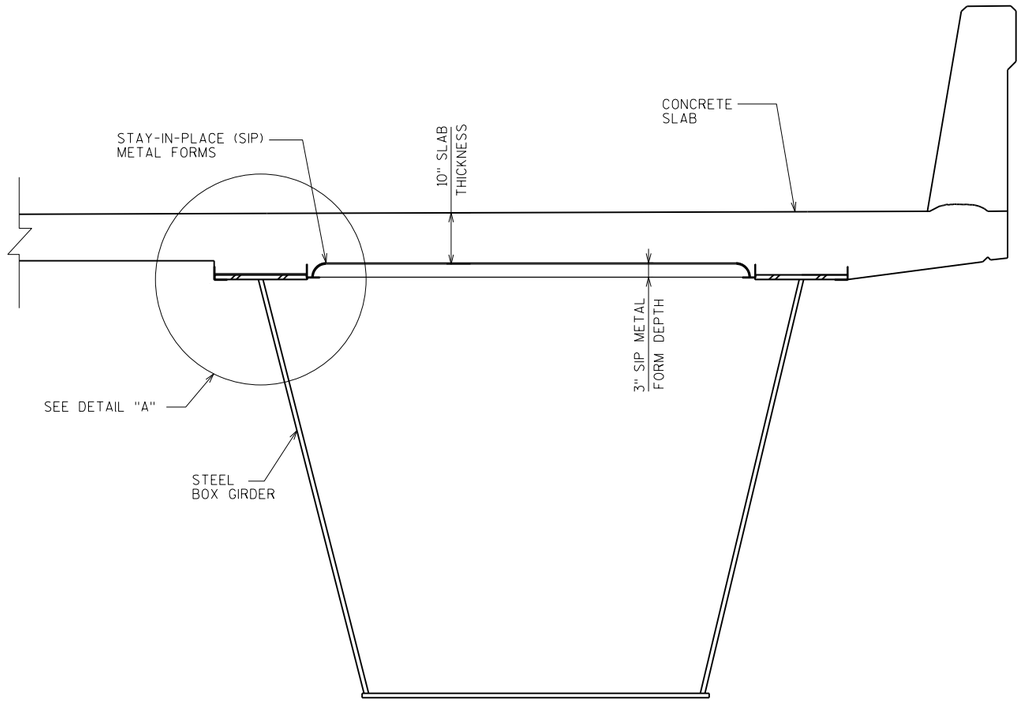
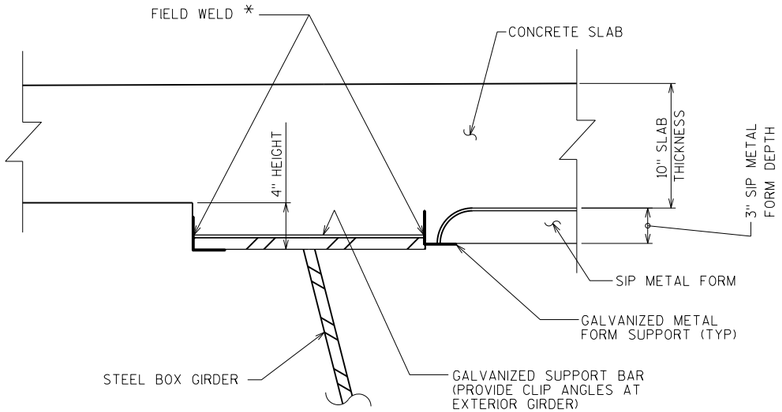


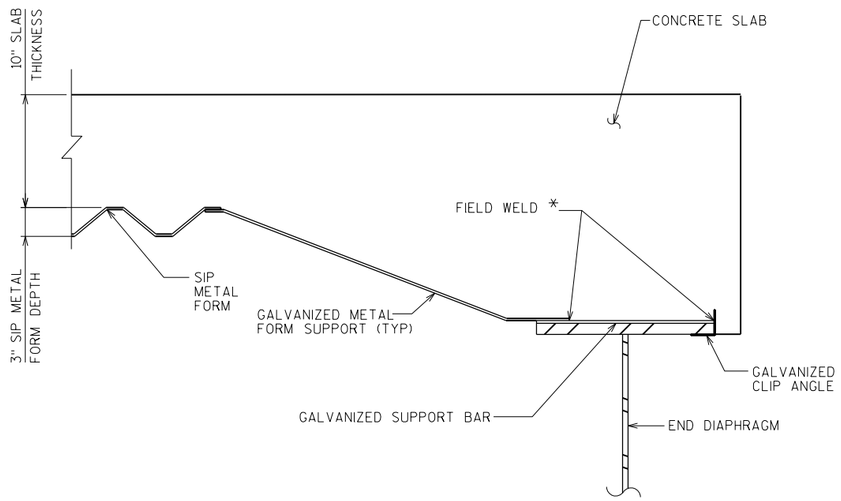
PARTIAL SECTION THROUGH SUPERSTRUCTURE

(SHOWING TYPICAL DETAILS AND NOTES FOR SIP METAL FORMS)



DETAIL "A"

* DO NOT WELD TO NOR PERMIT WELD SPATTER ON SUPPORTING STEEL GIRDER, DIAPHRAGMS, BRACING ETC. ELECTRICAL GROUNDING TO STRUCTURAL STEEL IS PROHIBITED. SEE SPECIFICATIONS FOR FIELD WELDING OF SIP FORMS IN PLACE AND PAINTING OF THE TOP FLANGE.



PARTIAL SECTION THROUGH END OF SPAN

(INTERIOR OF BOXES ONLY)

NOTES:

STAY-IN-PLACE (SIP) FORM DETAILS ARE SHOWN FOR REFERENCE ONLY. SIP FORMS ARE OPTIONAL. PAYMENT FOR SIP FORMS IS CONSIDERED INCLUDED IN THE CONTRACT UNIT BID PRICE FOR HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES.

LOCATING THE WEEP HOLES IN THE INTERIOR FLUTES OF THE STAY IN PLACE DECK FORMS IS PERMITTED.

WELDING OF THE DECK FORM SUPPORT HANGERS TO THE TUB GIRDER FLANGES WILL NOT BE PERMITTED.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

SUPERSTRUCTURE DECK FORM DETAILS

SHEET 93 OF 96

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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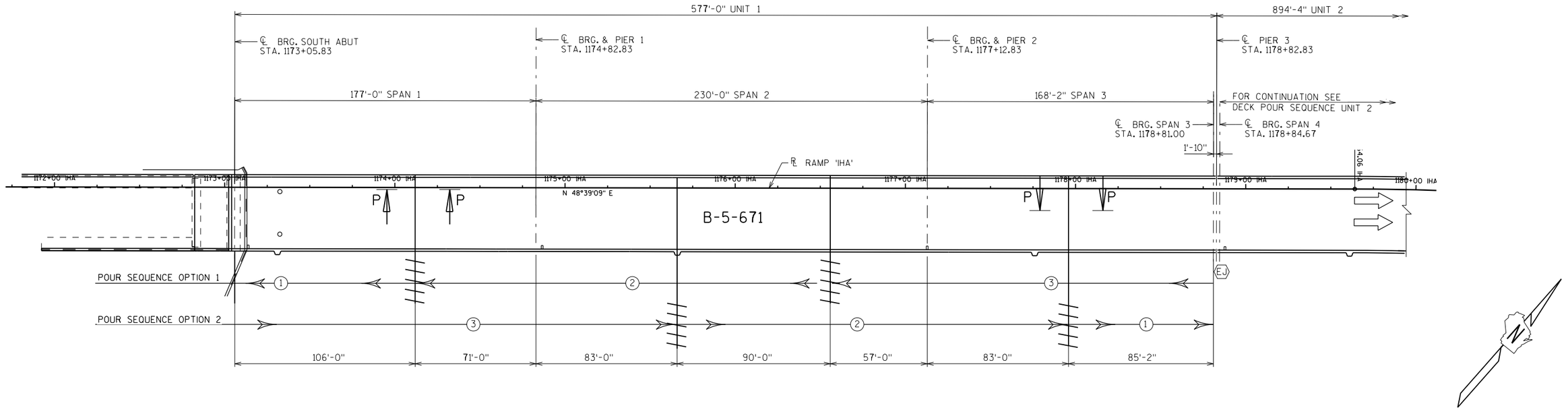
FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\093-B-05-671 DECK FORM DETAILS.dgn

DATE: 5/31/2013

I.D.

STATE PROJECT NUMBER

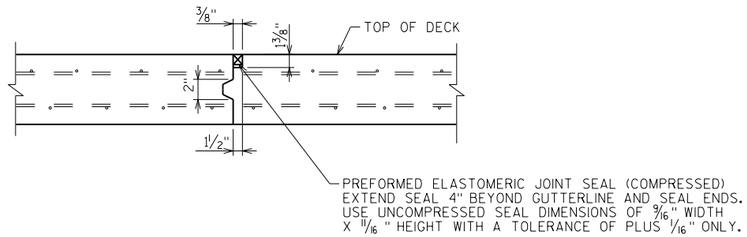
1133-11-74



DECK POUR SEQUENCE SPANS 1-3 - UNIT 1

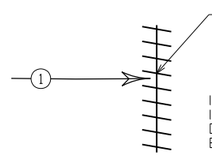
NOTES:

1. SEE SHEET DRAWING LIST AND GENERAL NOTES FOR GENERAL NOTES.
2. SEE SHEET REINFORCING AT EXPANSION JOINTS FOR BLOCKOUTS AND OTHER DETAILS REQUIRED AT EXPANSION JOINT LOCATIONS.
3. DIMENSIONS ON THIS DRAWING ARE MEASURED ALONG THE ACTUAL PROFILE OF THE FINISHED EDGE OF DECK.
4. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING DECK POURS TO BEST SUIT THE MEANS AND METHODS AVAILABLE, SUBJECT TO THE FOLLOWING RESTRICTIONS.
5. CONTRACTOR MAY PLACE THE DECK CONTINUOUSLY FROM EITHER END OF THE STRUCTURE. IF MORE THAN ONE POUR IS REQUIRED, BULKHEADS BETWEEN POURS SHALL BE POSITIONED AT THE LOCATIONS IDENTIFIED ON THIS PLAN - SEE LEGEND.
6. CONTROL POUR SEQUENCE AND PLACEMENT RATE TO ENSURE THAT BEFORE THE CONCRETE IN ANY 'PIER' AREA REACHED THE INITIAL SET CONDITION, THE CONCRETE IN BOTH ADJACENT 'SPAN' AREAS IS ALREADY IN PLACE.
7. PREVENT UPLIFT AT ALL BEARING LOCATIONS. NOTE THAT ANY POUR SEQUENCE THAT REQUIRES POURING THE FIRST INTERIOR SPAN BEFORE THE ADJACENT END SPAN (SUCH AS THE LENGTHENED SEQUENCES REFERRED TO ABOVE) WILL RESULT IN UPLIFT FORCES AT THE EXPANSION END BEARINGS. THE CONTRACTOR SHALL ACCOUNT FOR THIS CONDITION.
8. FOR LIGHT BLISTER REINFORCEMENT DETAILS SEE SHEET TITLED "LIGHT STANDARD".
9. DEPOSIT FRESH CONCRETE FIRST IN THE AREA BETWEEN THE GIRDERS FOLLOWED BY THE OVERHANG AREA TO THE INSIDE OF THE CURVE AND THEN BY THE OVERHANG AREA TO THE OUTSIDE OF THE CURVE.
10. CONTROL THE PLACEMENT TO ENSURE THAT THE FURTHEST PROGRESS OF FRESH CONCRETE VARIES BY NO MORE THAN 10 FEET ACROSS THE WIDTH OF THE DECK.
11. PREVIOUSLY PLACED DECK CONCRETE MUST HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE THE AREAS IMMEDIATELY ADJACENT MAY BE PLACED.
12. FOLLOW PROCEDURES OUTLINED IN THE SPECIAL PROVISIONS FOR PROMPTLY FOGGING, COVERING, AND CURING FRESHLY PLACED CONCRETE.
13. STAY-IN-PLACE METAL FORMS WILL ONLY BE PERMITTED INSIDE THE BOX GIRDERS - THE OVERHANGS AND THE ZONE BETWEEN THE GIRDERS SHALL USE CONVENTIONAL TEMPORARY FORMS.
14. THE USE OF STAY-IN-PLACE METAL FORMS IS OPTIONAL - CONVENTIONAL FORMWORK MAY BE USED INSIDE THE BOXES BUT MUST BE COMPLETELY REMOVED.
15. DESIGN CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED. WELDING TO THE GIRDER FLANGES WILL NOT BE ALLOWED.
16. ALL STEEL SHALL BE SECURED IN ITS PROPER PLACE & ELEVATION PRIOR TO ANY CONCRETE PLACEMENT.
17. POUR DIMENSIONS SHOWN AR MEASURED ALONG ℄ RAMP 'IHA'



SECTION P-P

LEGEND



STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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DECK POUR SEQUENCE UNIT 1

SHEET 94 OF 96
604

DATE: 5/31/2013
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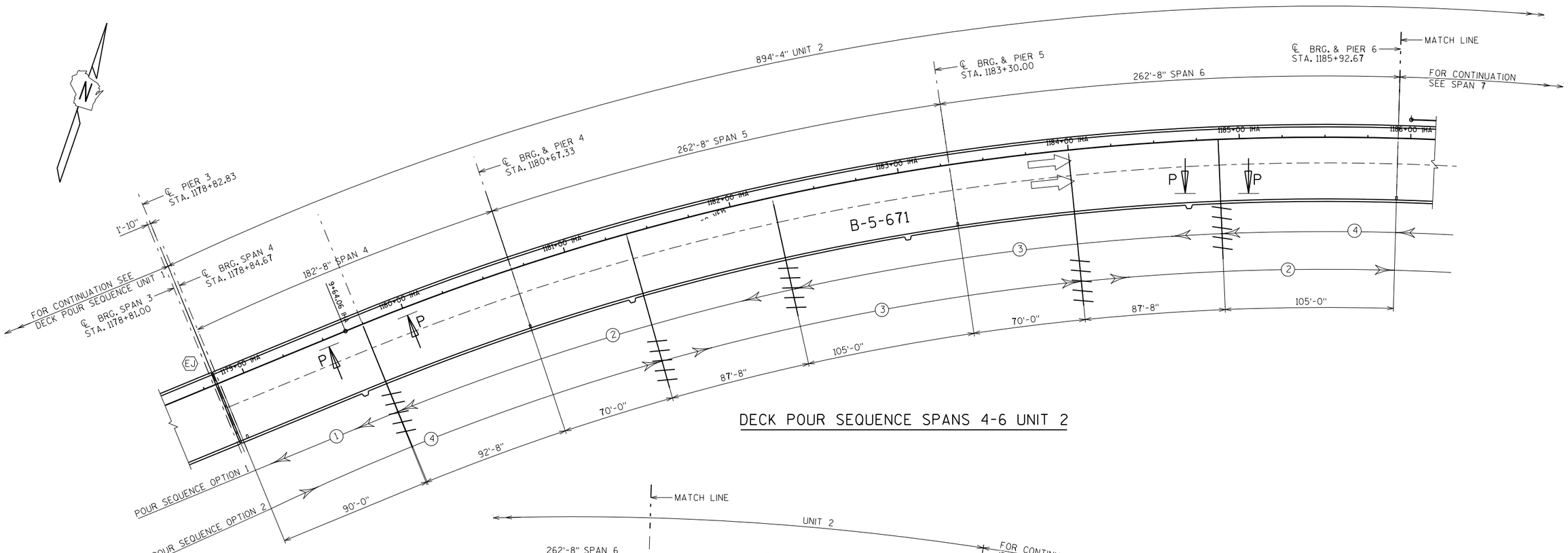
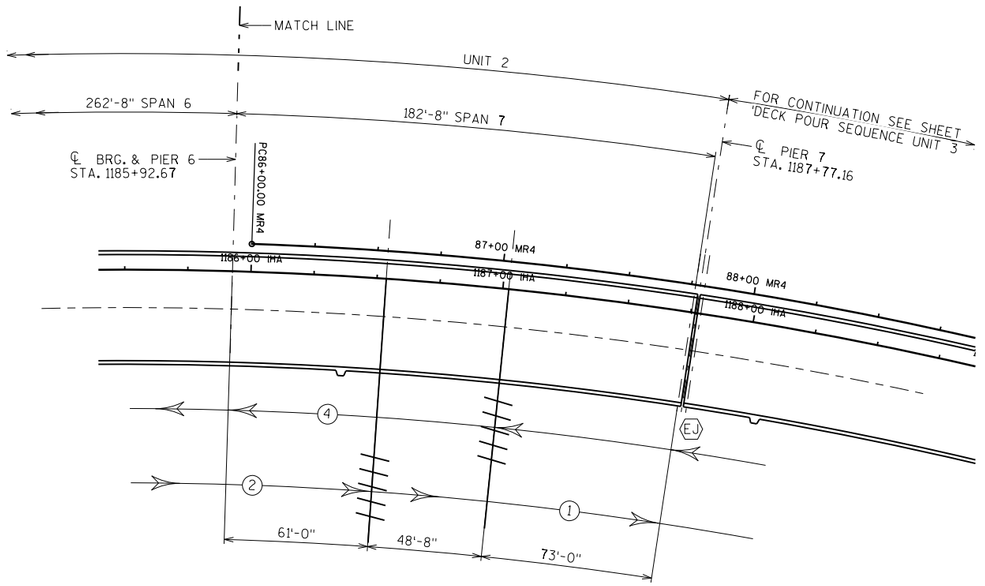
STATE PROJECT NUMBER
1133-11-74



DECK POUR SEQUENCE SPANS 4-6 UNIT 2



DECK POUR SEQUENCE SPAN 7 UNIT 2

NOTES:

FOR NOTES, LEGEND AND SECTION P-P
SEE SHEET TITLED "DECK POUR SEQUENCE UNIT 1)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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DECK POUR SEQUENCE UNIT 2

SHEET 95 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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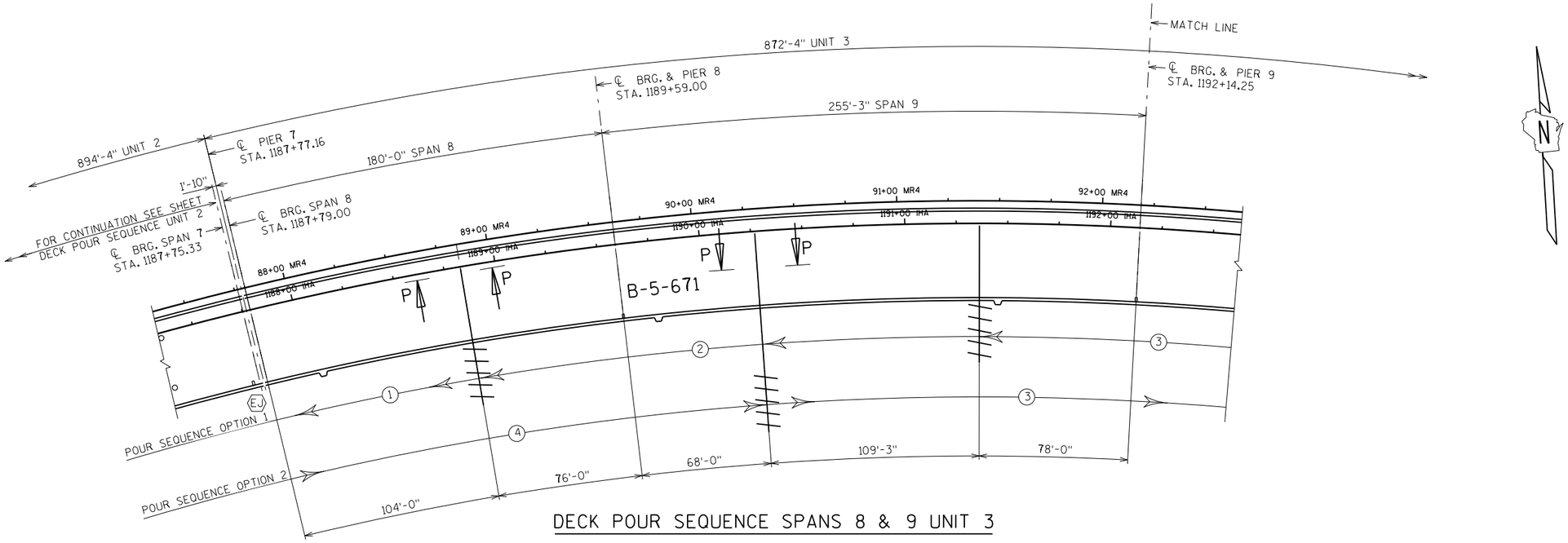
FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-671\Control Copy\095-B-05-671 Deck Pour Sequence Spans 4-7.dgn

DATE:5/31/2013
I.D.

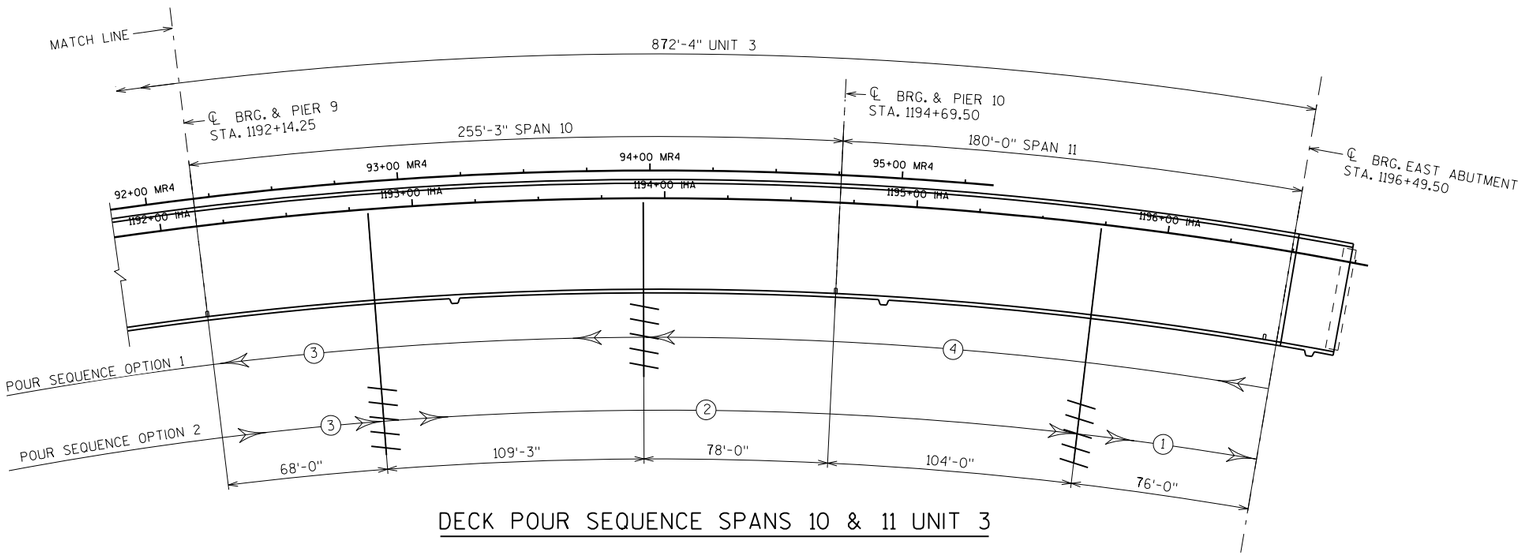
STATE PROJECT NUMBER

1133-11-74



DECK POUR SEQUENCE SPANS 8 & 9 UNIT 3

SRGFSGSGSG



DECK POUR SEQUENCE SPANS 10 & 11 UNIT 3

NOTE:

FOR NOTES AND SECTION P-P SEE SHEET TITLED "DECK POUR SEQUENCE UNIT 1)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

DECK POUR SEQUENCE UNIT 3

SHEET 96 OF 96
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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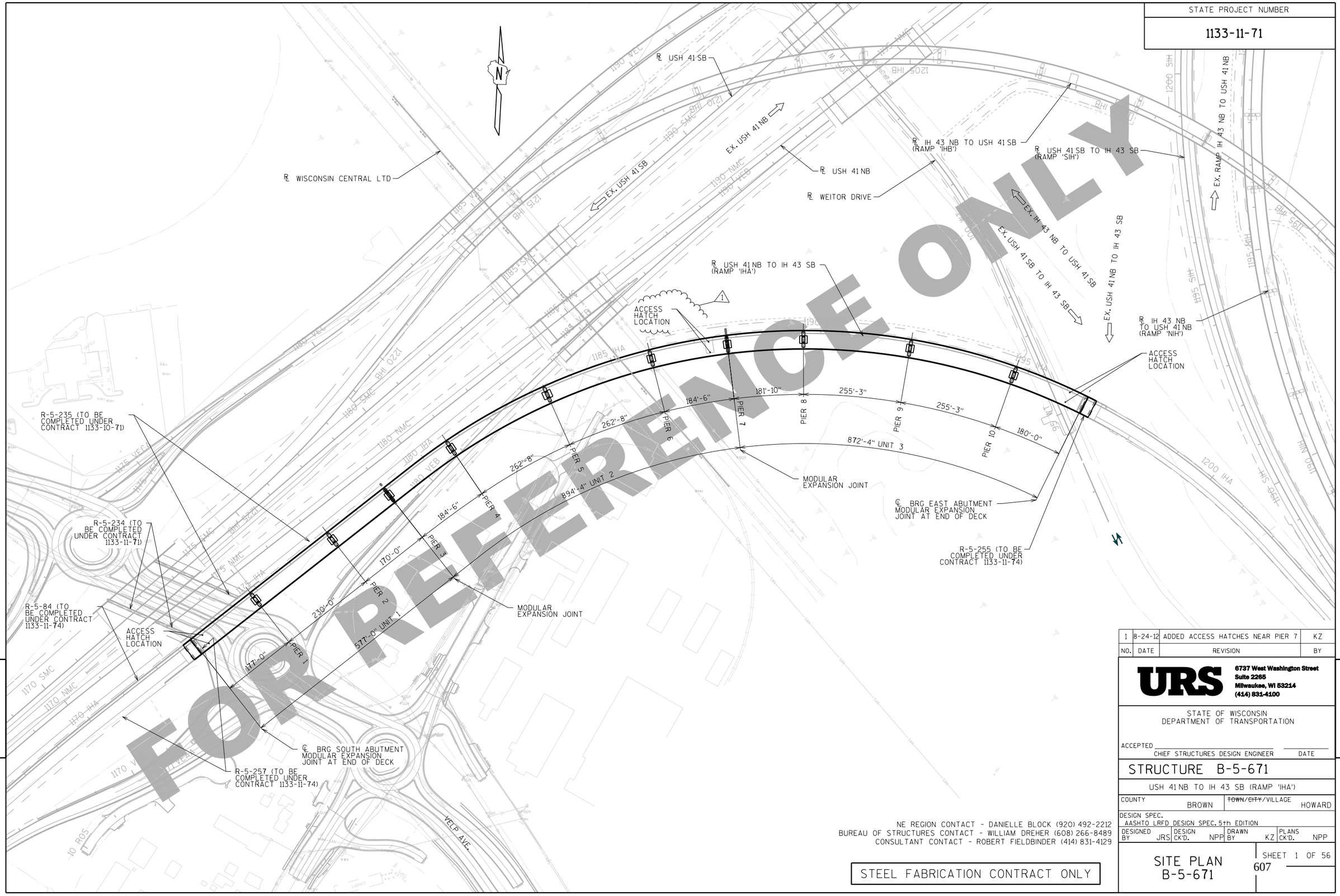
DATE: 5/31/2013

I.D.

STATE PROJECT NUMBER

1133-11-71



FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
1	8-24-12	ADDED ACCESS HATCHES NEAR PIER 7	KZ

URS
6737 West Washington Street
Suite 2265
Milwaukee, WI 53214
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-671

USH 41 NB TO IH 43 SB (RAMP 'IHA')

COUNTY	~~TOWN~~/~~CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JRS	NPP	KZ	NPP

NE REGION CONTACT - DANIELLE BLOCK (920) 492-2212
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - ROBERT FIELDBINDER (414) 831-4129

STEEL FABRICATION CONTRACT ONLY

SITE PLAN
B-5-671

SHEET 1 OF 56
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FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-671E\001-B-05-671E_Site Plan & Drawing List.dgn
DATE: 4/30/2013
I.D.

STATE PROJECT NUMBER

1133-11-71

LIST OF DRAWINGS

1. SITE PLAN B-5-671
2. DRAWING LIST, GENERAL NOTES, & QUANTITIES
3. GENERAL PLAN AND ELEVATION SPANS 1-3
4. GENERAL PLAN AND ELEVATION SPANS 4-6
5. GENERAL PLAN AND ELEVATION SPANS 7-9
6. GENERAL PLAN AND ELEVATION SPANS 10-11
7. CROSS SECTION AT PIER
8. TYPICAL BOX GIRDER CROSS SECTION
9. ALIGNMENT AND SUPERELEVATION
10. BEARING LAYOUT UNIT 1
11. BEARING LAYOUT UNIT 2
12. BEARING LAYOUT UNIT 3
13. BEARING DETAILS
14. JACKING PROVISIONS
15. FRAMING PLAN UNIT 1
16. FRAMING PLAN UNIT 2
17. FRAMING PLAN UNIT 3
18. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 1
19. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 2
20. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 3
21. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 4
22. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 5
23. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 6
24. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 7
25. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 8
26. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 9
27. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 10
28. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 11
29. INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1
30. UNIT END DIAPHRAGMS XD2, XD3, D2, AND D3
31. INTERMEDIATE DIAPHRAGMS XD4 AND D4
32. MISCELLANEOUS DIAPHRAGM DETAILS
33. EXTERIOR CROSS FRAME DETAILS
34. INTERIOR CROSS FRAME K1 DETAILS
35. FIELD SPLICE DETAILS
36. BRACING CONNECTION DETAILS SHEET 1
37. BRACING CONNECTION DETAILS SHEET 2
38. MISCELLANEOUS GIRDER DETAILS SHEET 1
39. MISCELLANEOUS GIRDER DETAILS SHEET 2
40. MISCELLANEOUS GIRDER DETAILS SHEET 3
41. ACCESS HATCH DETAILS
42. ACCESS DOOR DETAILS
43. SUPERSTRUCTURE DETAILS
44. CAMBER DIAGRAM UNIT 1
45. CAMBER DIAGRAM UNIT 2
46. CAMBER DIAGRAM UNIT 3
47. CAMBER DATA FIELD SECTIONS 1 AND 2
48. CAMBER DATA FIELD SECTIONS 3 AND 4
49. CAMBER DATA FIELD SECTIONS 5 AND 6
50. CAMBER DATA FIELD SECTIONS 7 AND 8
51. CAMBER DATA FIELD SECTIONS 9 AND 10
52. CAMBER DATA FIELD SECTIONS 11 AND 12
53. CAMBER DATA FIELD SECTIONS 13 AND 14
54. CAMBER DATA FIELD SECTIONS 15 AND 16
55. CAMBER DATA FIELD SECTIONS 17 AND 18
56. CAMBER DATA FIELD SECTIONS 19

GENERAL NOTES

DO NOT SCALE THE DRAWINGS.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (1991).

GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS 'LEFT' AND 'RIGHT'. THESE ORIENTATIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING IN THE DIRECTION OF INCREASING STATION.

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THIS CONTRACT INCLUDES FABRICATING, FURNISHING, STORING AND DELIVERING STRUCTURAL STEEL AND BEARINGS AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

STRUCTURAL STEEL

ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS, BOX GIRDER FLANGE AND WEB SPLICE PLATES, EXTERNAL AND INTERNAL DIAPHRAGMS FOR BOX GIRDERS, AND ALL OTHER STEEL PLATE COMPONENTS WELDED TO ANY OF THESE ELEMENTS SHALL BE HIGH STRENGTH ASTM A709 (AASHTO M270) GRADE HPS 50W (FY=50 KSI). 2-WAY BEVELED JACKING PADS SHALL BE A709-50W (FCM). ALL OTHER STEEL SHALL BE IN ACCORDANCE WITH ASTM A709 GRADE 50 (FY=50 KSI).

ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS IN TENSION ZONES AS SHOWN ON THE PLANS AND ALL ASSOCIATED SPLICE PLATES, ALL TRANSVERSE WEB STIFFENERS AND CONNECTION PLATES, AND ALL STEEL PLATE ELEMENTS OF EXTERNAL AND INTERNAL DIAPHRAGMS FOR BOX GIRDERS SHALL MEET THE FRACTURE CRITICAL TENSION COMPONENT IMPACT TEST REQUIREMENTS FOR HPS 50WF/HPS 345WF OF TABLE 10 OF ASTM A709/A709M-05 FOR ZONE 2.

ALL WELDING PERFORMED IN TENSION ZONES SHOWN ON THE PLANS FOR BOX GIRDER WEB AND FLANGE ELEMENTS, INCLUDING ATTACHING TRANSVERSE WEB STIFFENER AND CONNECTION PLATES, AND ALL WELDING PERFORMED FOR ALL ELEMENTS OF EXTERNAL AND INTERNAL STEEL PLATE DIAPHRAGMS FOR BOX GIRDERS SHALL BE PERFORMED, TESTED, AND INSPECTED IN ACCORDANCE WITH REQUIREMENTS FOR FABRICATION OF FRACTURE CRITICAL MEMBERS.

CHARPY V-NOTCH TOUGHNESS REQUIREMENTS FOR ALL STEEL SHALL CONFORM TO THE REQUIREMENTS FOR ZONE 2.

ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO/AWS D1.5 BRIDGE WELDING CODE.

USE WELD MATERIAL WITH A TENSILE STRENGTH AT LEAST 20 KSI GREATER THAN THE YIELD STRENGTH OF THE STEEL BEING WELDED. NON-WEATHERING CONSUMABLES MAY BE USED FOR SINGLE-PASS FILLET WELDS.

FABRICATE BEARING ASSEMBLIES FROM ASTM A709 GRADE 50W MATERIAL (FY=50 KSI).

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

ALL BOLTS SHALL BE ASTM A325 TYPE 1, BOLTS SHALL BE 7/8" DIAMETER UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE STANDARD DIAMETER. NO OVERSIZE HOLES WILL BE PERMITTED WITHOUT PRIOR APPROVAL. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS. DESIGN ASSUMED SURFACE CLASS A.

PAINT ALL STRUCTURAL STEEL, INCLUDING SURFACES AND BRACING MEMBERS ON THE INSIDE OF THE BOX GIRDERS, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE COMPRESSIVE STRENGTH OF THE BEARING PEDESTAL AND PIER CONCRETE IS 4000 PSI.

MINIMUM FILLET WELD SIZE:

THICKNESS OF THICKER PART JOINED	MINIMUM WELD SIZE
T <= 1/2"	3/16"
1/2" < T <= 3/4"	1/4"
3/4" < T <= 1 1/2"	5/16"
1 1/2" < T <= 2 1/4"	3/8"
T > 2 1/4"	1/2"

MINIMUM WELD SIZES SHOWN SHALL BE USED WHEN A SIZE IS NOT OTHERWISE SPECIFIED OR SHOWN.

WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART BEING JOINED.

FOR ALL WELDS 5/16" OR LARGER THE MINIMUM PASS SIZE SHALL BE 5/16".

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIM REVISIONS, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

DESIGN LIVE LOAD

DESIGN LOADING: HL-93

INVENTORY RATING FACTOR: RF = 1.12

OPERATING RATING FACTOR: RF = 1.45

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

OTHER DESIGN LOADS

PROFILE GRADE LINE AND TOP OF DECK ELEVATIONS ARE TO THE TOP OF THE 10" DECK THICKNESS. THE 10" DECK THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE, BUT DOES NOT INCLUDE AN ADDITIONAL EPOXY OVERLAY THAT WILL BE PROVIDED AFTER POURING OF THE DECK.
THE STRUCTURE IS DESIGNED FOR THE WEIGHT OF THE 10" THICKNESS OF CONCRETE PLUS 3/8" THICKNESS OF EPOXY OVERLAY.
UNIT WEIGHTS ASSUMED FOR DESIGN WERE 150 PCF FOR CONCRETE AND 3 PSF FOR 3/8" EPOXY OVERLAY.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 90°F.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

DESIGN ASSUMED A WEIGHT PER GIRDER OF 10 PSF FOR STAY-IN-PLACE METAL FORMS INSIDE EACH GIRDER ONLY AND 13.5 PSF FOR CONCRETE WITHIN THE RIBS OF THESE FORMS.

DESIGN ASSUMED 7.5 PSF FOR TEMPORARY FORMWORK IN addition TO STAY-IN-PLACE FORMS.

PARAPETS WERE ASSUMED TO WEIGH 563 PLF AND 464 PLF FOR "42SS" AND "32SS" SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	UNIT 1 QUANTITY	UNIT 2 QUANTITY	UNIT 3 QUANTITY	TOTAL
SPV.0060.01	BEARING HIGH-LOAD MULTI-ROTATIONAL FIXED B-5-671	EACH	2	2	2	6
SPV.0060.02	BEARING HIGH-LOAD MULTI-ROTATIONAL UNI-DIRECTIONAL B-5-671	EACH	6	8	8	22
SPV.0085.01	FABRICATED STRUCTURAL STEEL HPS 50W B-5-671	LB	1,322,800	2,236,100	2,164,600	5,723,500
SPV.0085.02	FABRICATED STRUCTURAL STEEL HS B-5-671	LB	111,900	192,900	188,400	493,200
SPV.0105.01	PAINTING POLYSILOXANE SYSTEM B-5-671	LS				1

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STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
1		REVISED STEEL QUANTITIES	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL NOTES, DRAWING LIST & QUANTITIES

SHEET 2 OF 56

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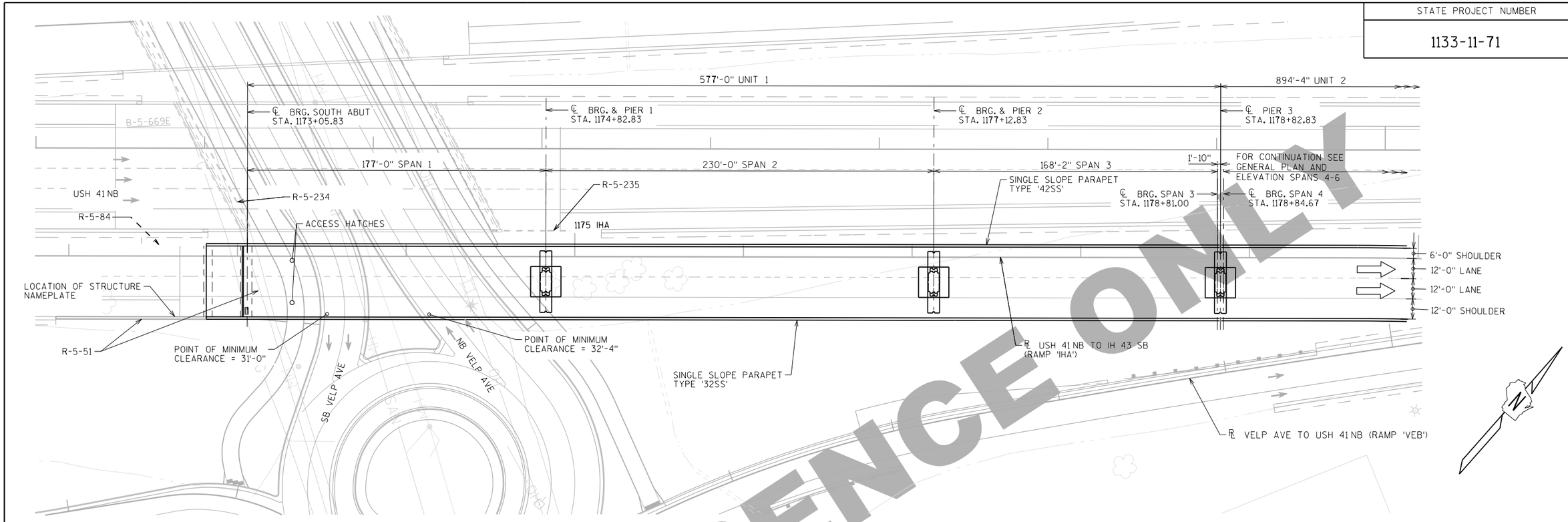
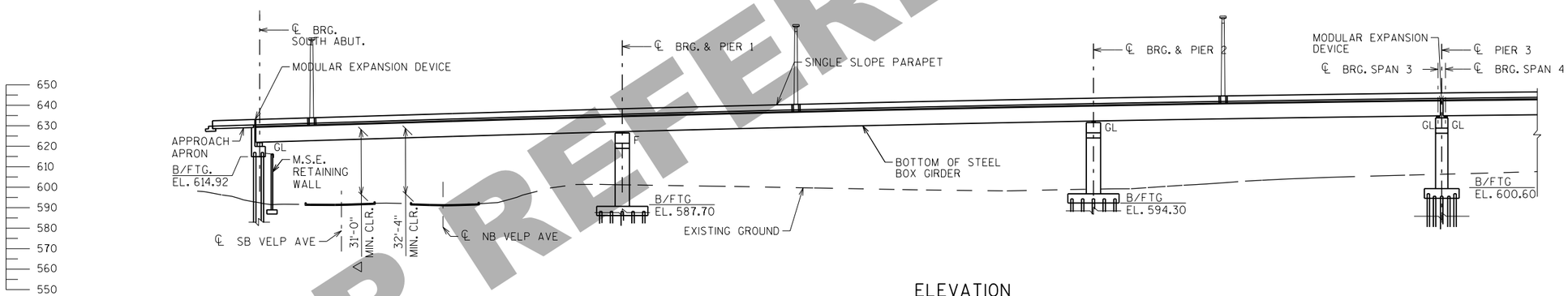
DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER
1133-11-71



PLAN



ELEVATION

(ALONG ℄ LOOKING WEST)

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄.

DIMENSIONS SHOWN ARE ALONG ℄.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

△ VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY.

FLOOR DRAIN AND LIGHT POLE LOCATIONS ARE NOT YET DETERMINED.

GUIDED LONGITUDINAL BEARINGS ARE ORIENTED PARALLEL TO ℄.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM772	RR SPIKE IN DECIDUOUS TREE	583.76

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB ---------- f'c = 4,000 P.S.I.
ALL OTHER ---------- f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL, ---------- fy = 50,000 P.S.I.
(ASTM A709, GRADE 50, HPS50W)

TRAFFIC VOLUME:

RAMP 'IHA'
ADT (2015) = 13,100
ADT (2035) = 10,000
R.D.S. = 60-70 M.P.H.

RAMP 'VEB'
ADT (2015) = 5,500
ADT (2035) = 5,600
R.D.S. = 60 M.P.H.

VELP AVE
ADT (2015 = 24,600
ADT (2035) = 35,300
R.D.S. = 40 M.P.H.

WEITOR DRIVE
ADT (2035) = 100
R.D.S. = 30 M.P.H.

STRUCTURE TYPE

3-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 1
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 2
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 3

FOUNDATION DATA

SOUTH AND EAST ABUTMENTS TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

PIERS 1 THROUGH PIER 10 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 1-3

SHEET 3 OF 56

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DATE: 4/30/2013
I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\003-B-05-671E_General Plan and Elevation - Spans 1-3.dgn

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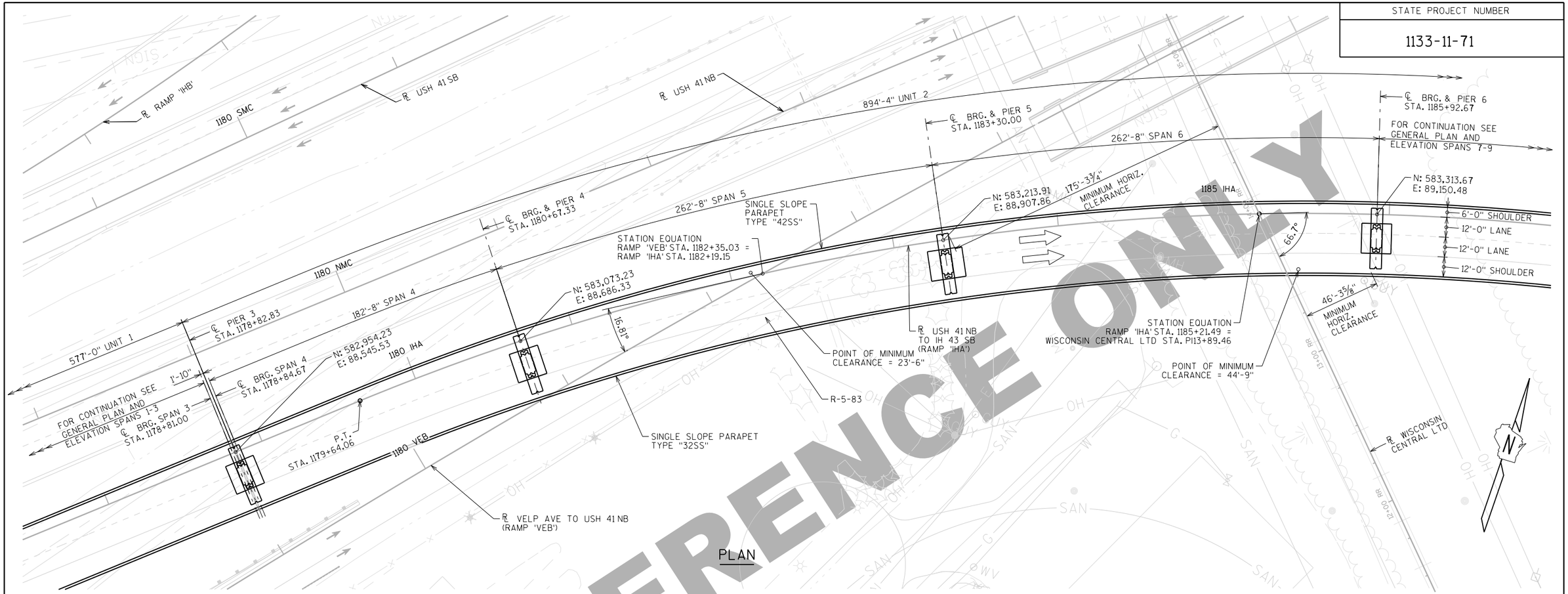
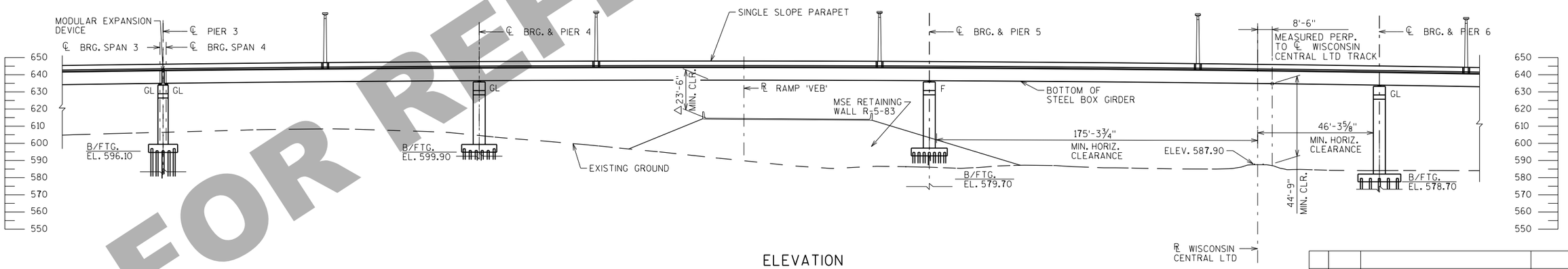
FOR REFERENCE ONLY

STATE PROJECT NUMBER
1133-11-71



PLAN



ELEVATION

(ALONG ℄ LOOKING NORTH)

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY

NOTES:

FOR NOTES SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	KZ	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION SPANS 4-6

SHEET 4 OF 56

610

8

8

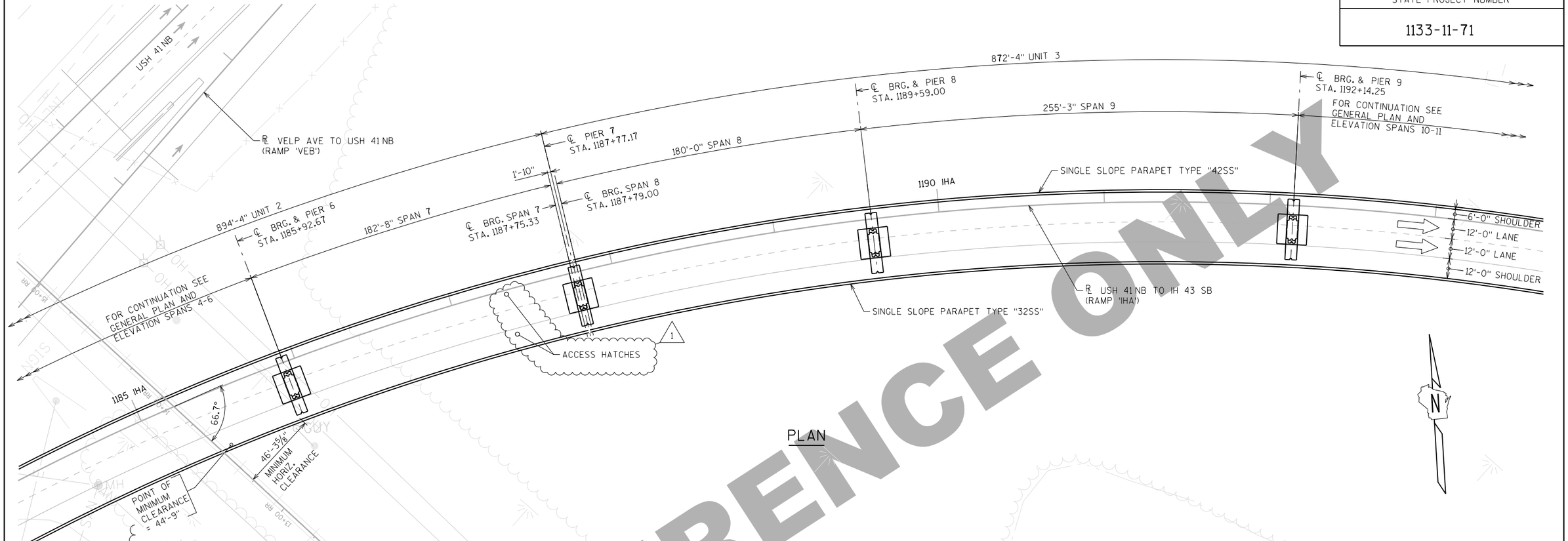
FOR REFERENCE ONLY

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-671E\004-B-05-671E_General Plan and Elevation - Spans 4-6.dgn

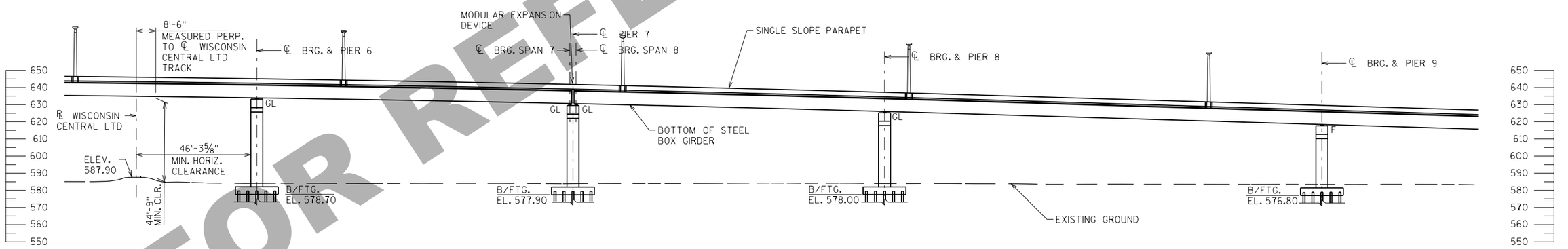
DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER
1133-11-71



PLAN



ELEVATION

(ALONG ℄ LOOKING NORTH)

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY

NOTES:

FOR NOTES SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
1	8-24-12	ADDITIONAL ACCESS HATCHES	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 7-9

SHEET 5 OF 56

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8

8

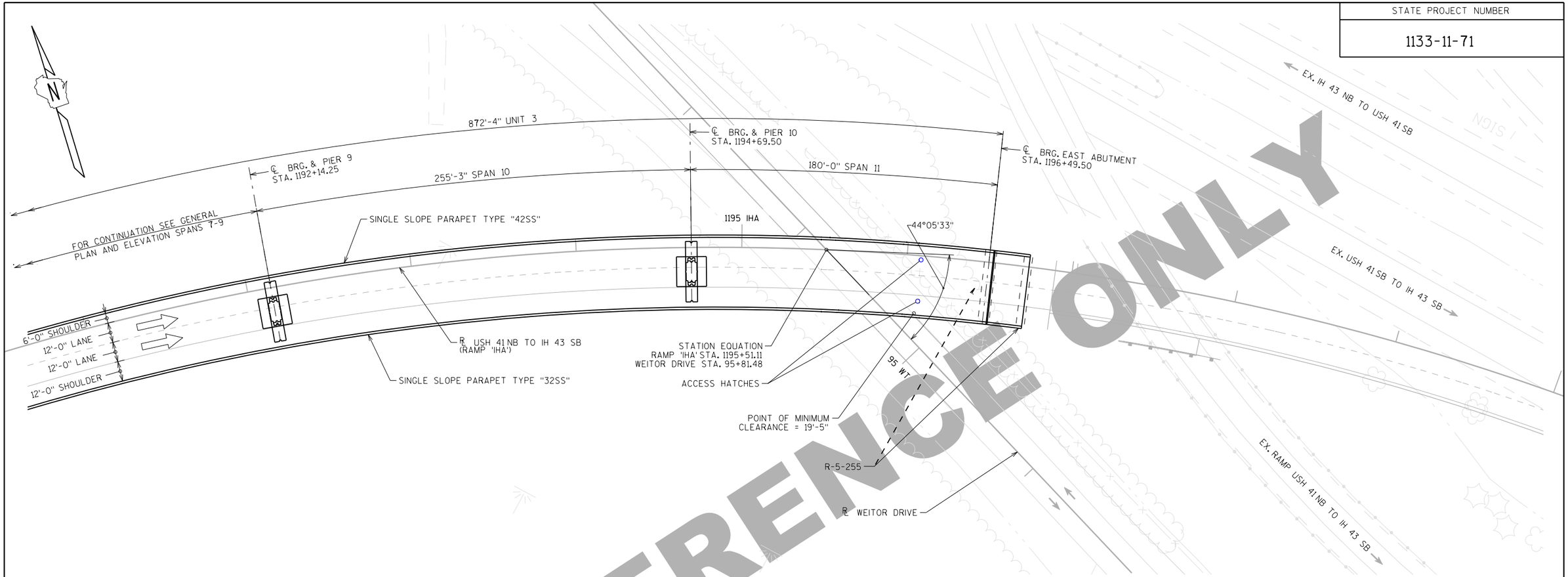
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671EV005-B-05-671E_General Plan and Elevation - Spans 7-9.dgn

DATE: 4/30/2013

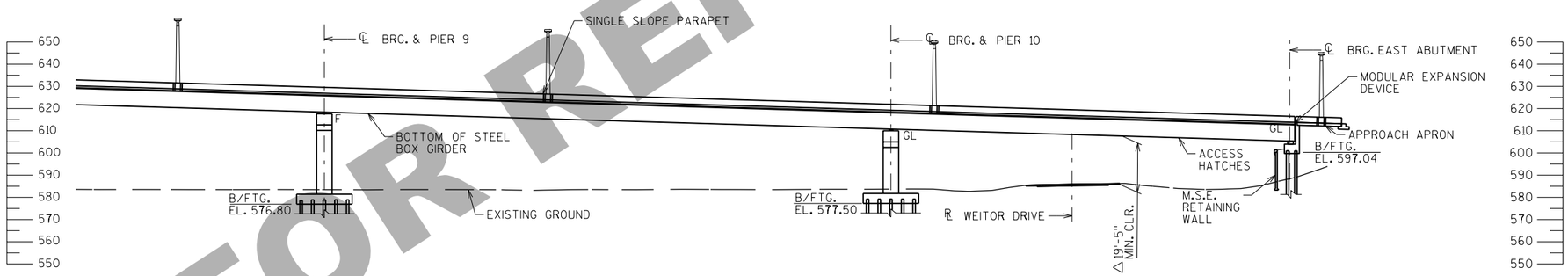
I.D.

STATE PROJECT NUMBER

1133-11-71



PLAN



ELEVATION

(ALONG ℄ LOOKING NORTH)

LEGEND

F - FIXED BEARING

GL - GUIDED LONGITUDINAL UNI-DIRECTIONAL BEARING

△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY

NOTES:

FOR NOTES SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 10-11

SHEET 6 OF 56

612

DATE: 4/30/2013

I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-671E\006-B-05-671E_General Plan and Elevation - Spans 10-11.dgn

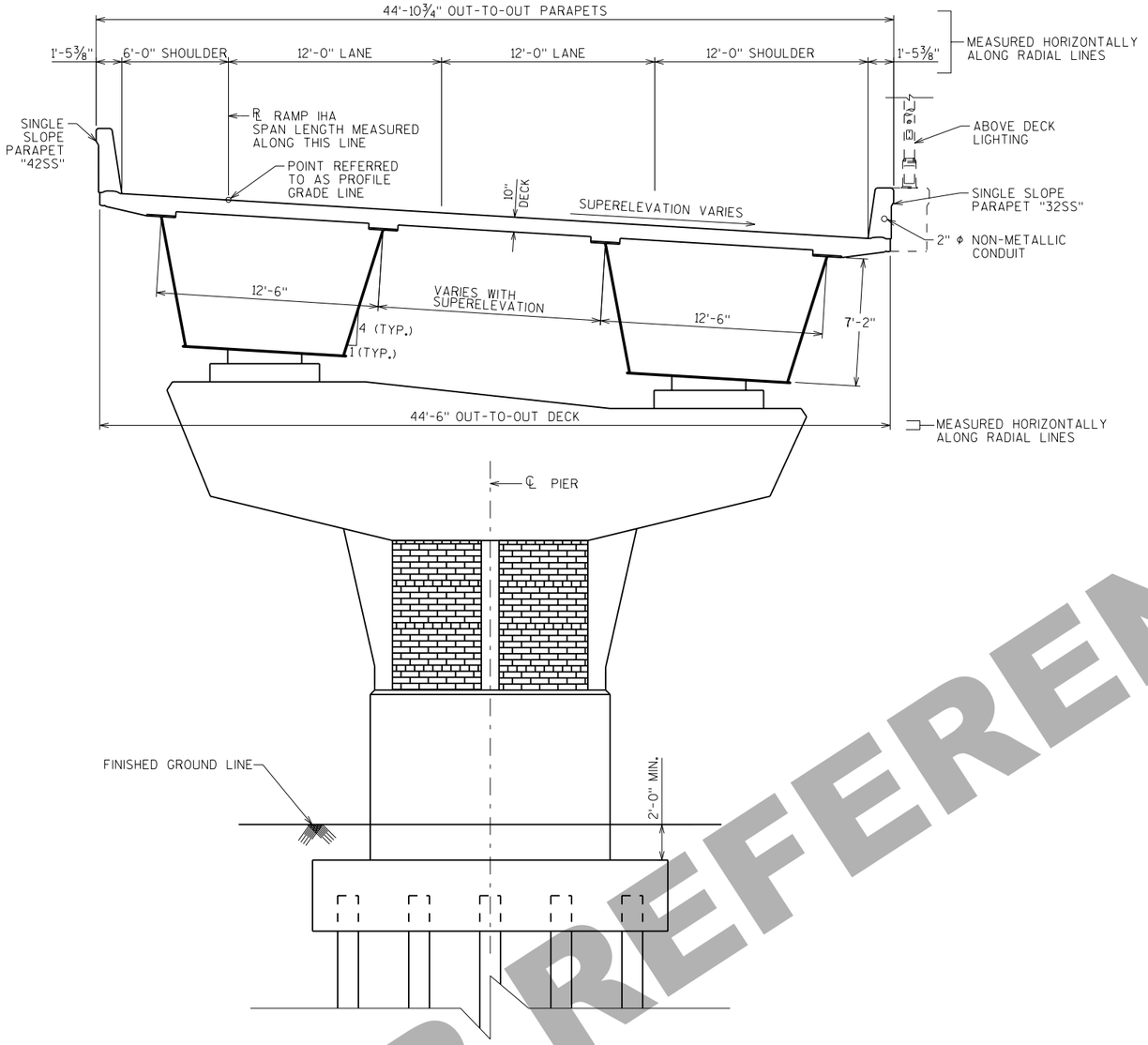
8

8

FOR REFERENCE ONLY

STATE PROJECT NUMBER

1133-11-71



TYPICAL CROSS SECTION UNITS 1, 2, & 3

(LOOKING AHEAD STATION)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR STANDARDS FOR FLYOVER STRUCTURES.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KZ | PLANS CK'D. NPP

CROSS SECTION AT PIER

SHEET 7 OF 56

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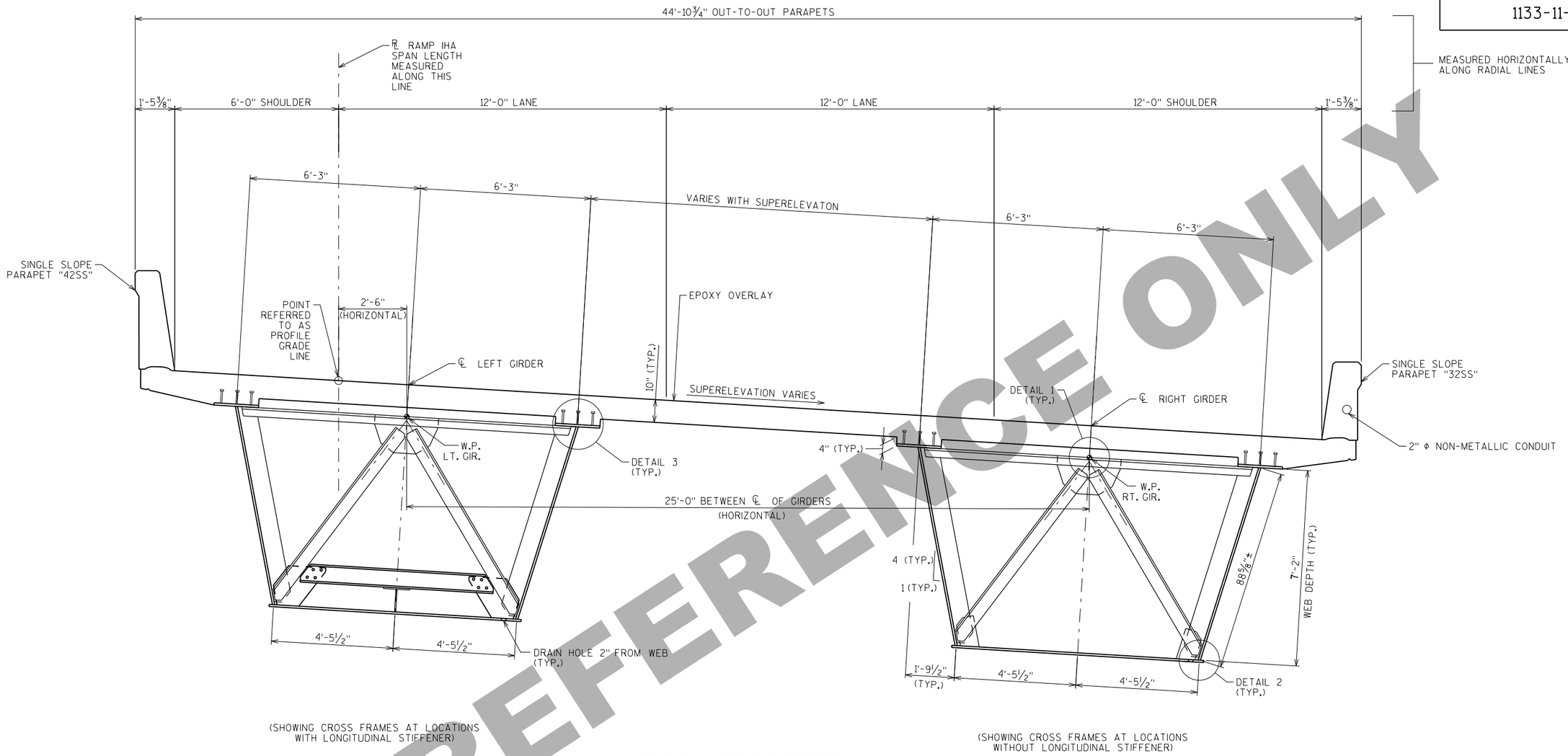
8

8

FOR REFERENCE ONLY

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\007 B-05-671E_Cross-Section At Pier.dgn
DATE: 4/30/2013
I.D.

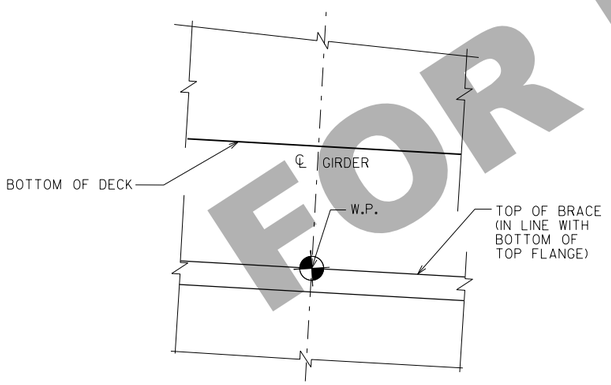
STATE PROJECT NUMBER
1133-11-71



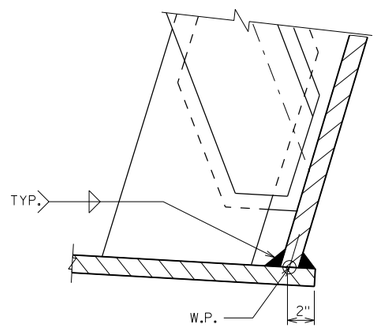
(SHOWING CROSS FRAMES AT LOCATIONS WITH LONGITUDINAL STIFFENER)

(SHOWING CROSS FRAMES AT LOCATIONS WITHOUT LONGITUDINAL STIFFENER)

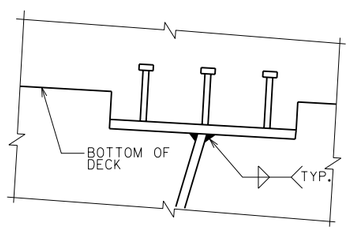
TYPICAL CROSS SECTION



DETAIL 1



DETAIL 2



DETAIL 3

(LATERAL BRACING NOT SHOWN FOR CLARITY)

NOTES:

STAY-IN-PLACE METAL FORMS PERMITTED INSIDE BOX GIRDERS ONLY.

W.P. = WORK POINT TO WHICH DIMENSIONS ARE MEASURED.

GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

THEORETICAL HAUNCH HEIGHT IS CONSTANT AT 4".

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	KZ	PLANS CK'D.	NPP

TYPICAL BOX GIRDER CROSS SECTION

SHEET 8 OF 56

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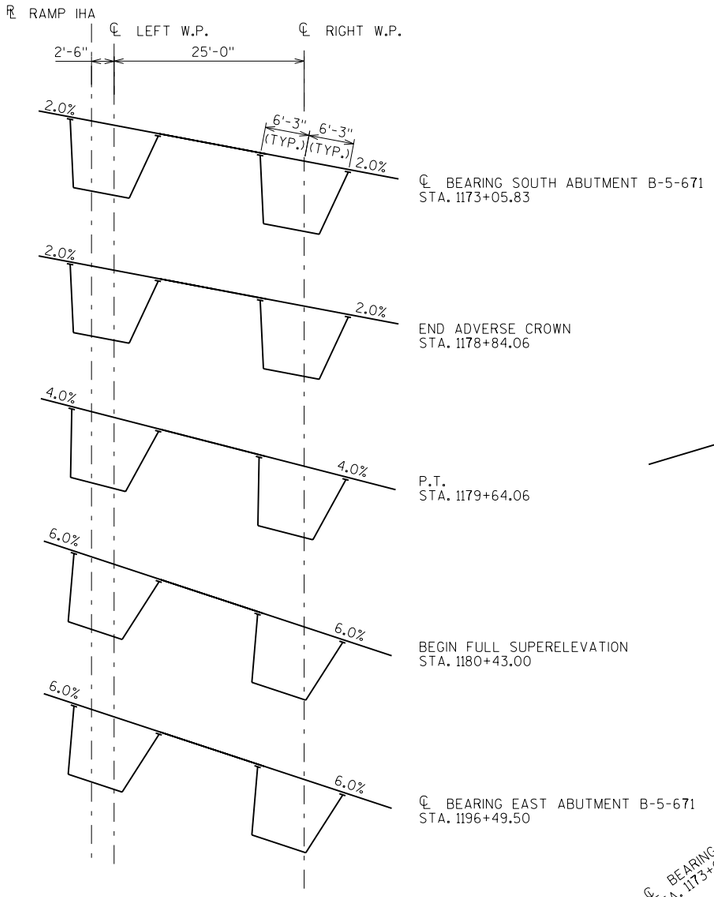
FOR REFERENCE ONLY

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-671E\008-B-05-671E_Cross-Section.dgn
DATE: 4/30/2013
I.D.

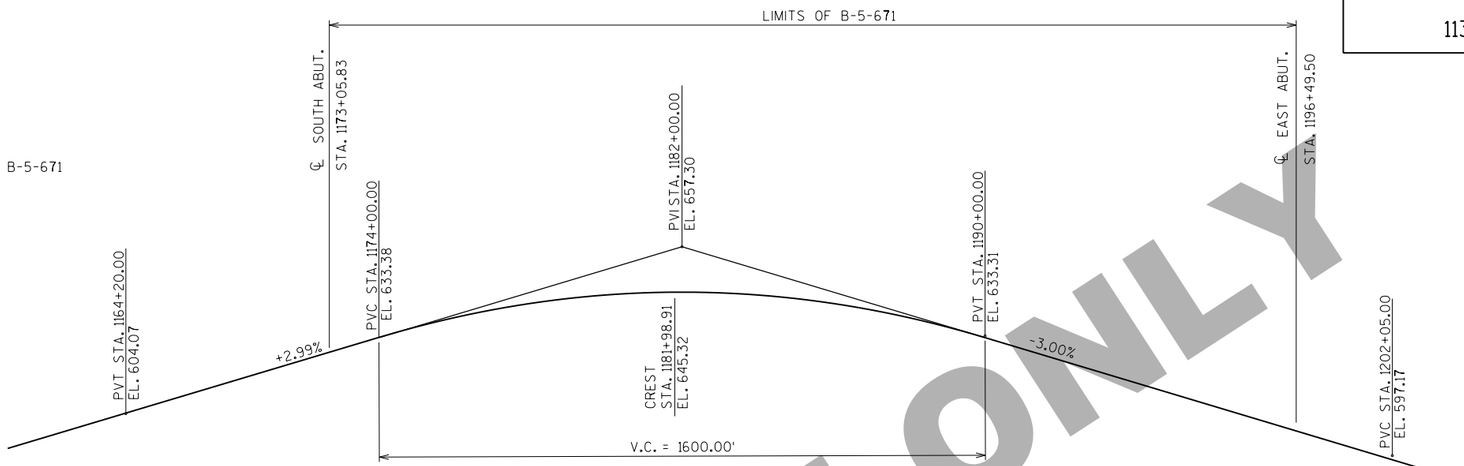
FOR REFERENCE ONLY

STATE PROJECT NUMBER

1133-11-71



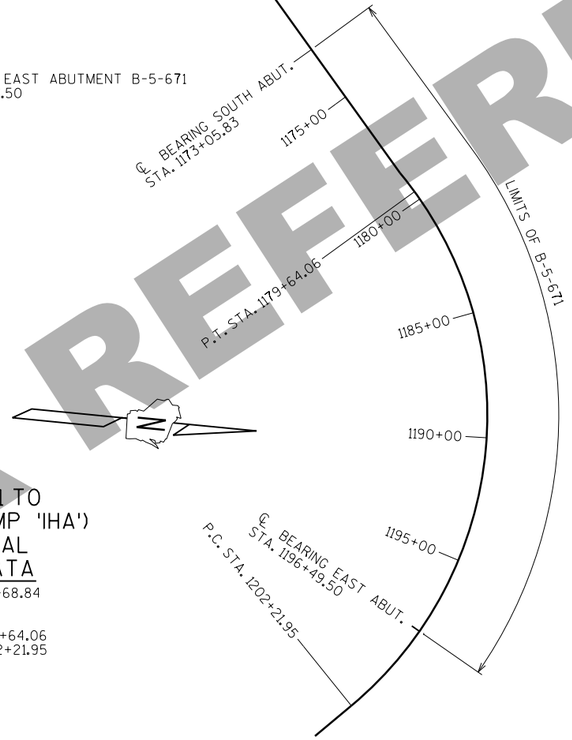
DECK SLOPE TRANSITION



PROFILE GRADE LINE USH 41 NB TO IH 43 SB (RAMP 'IHA')

PROFILE GRADE LINE RAMP VEB

PROFILE GRADE LINE WEITOR DRIVE



NB USH 41 TO
IH 43 SB (RAMP 'IHA')
HORIZONTAL
CURVE DATA

P.I. STA. = 1193+68.84
N= 583,934.76
E= 89,660.93
P.C. STA. = 1179+64.06
P.T. STA. = 1202+21.95
Δ= 86° 14' 42"
D= 3° 49' 11"
T= 1404.78'
L= 2257.89'
R= 1500.00'

HORIZONTAL ALIGNMENT USH 41 NB TO IH 43 SB (RAMP 'IHA')

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY ZMG | PLANS CK'D. NPP

ALIGNMENT AND SUPERELEVATION

SHEET 9 OF 56

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8

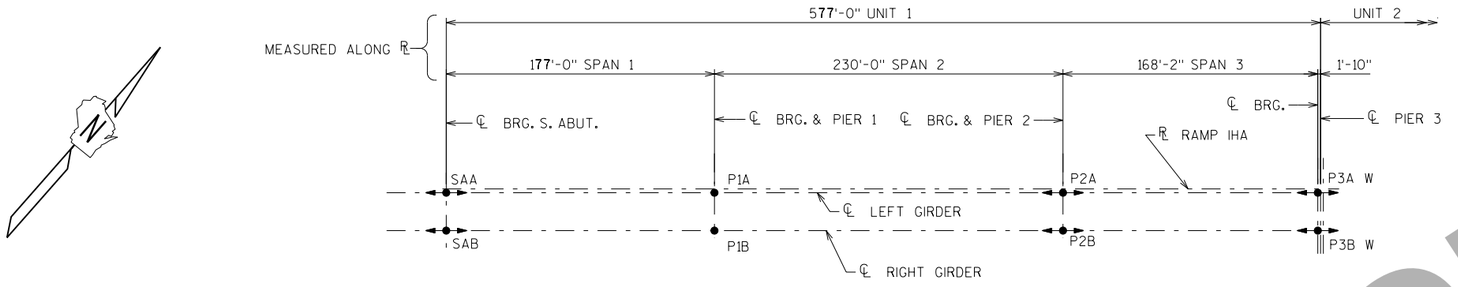
8

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\009 B-05-671E_Alignment Layout And Superelevation.dgn

DATE: 4/30/2013

I.D.

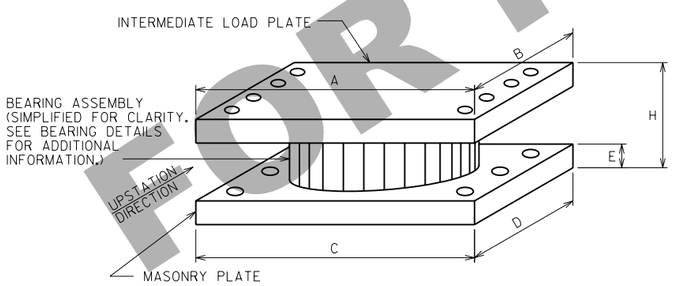
STATE PROJECT NUMBER
1133-11-71



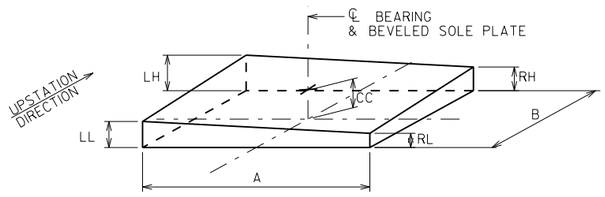
BEARING LAYOUT
LENGTH NOT TO SCALE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
SAA	GUIDED	322	253	27	5	0	0	7	2	33	30	0.0009	0.0070	2.49	1.68	1.00	2.41	1.74	1.71	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
SAB	GUIDED	322	253	27	5	0	0	7	2	33	30	0.0009	0.0070	2.49	1.68	1.00	2.41	1.74	1.71	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P1A	FIXED	1185	524	62	11	0	0	15	5	137	33	0.0007	0.0012	N/A	1.82	1.00	2.70	1.88	1.85	41	33	45	37	1.75	12.75	6-1 1/2" DIA.	10-1" DIA.
P1B	FIXED	1185	524	62	11	0	0	15	5	137	33	0.0007	0.0012	N/A	1.82	1.00	2.70	1.88	1.85	41	33	45	37	1.75	12.75	6-1 1/2" DIA.	10-1" DIA.
P2A	GUIDED	1170	522	61	10	0	0	15	4	117	33	0.0007	0.0016	3.23	1.98	1.00	2.60	1.62	1.80	49	34.25	40.125	32.125	1.75	12.75	6-1 1/2" DIA.	10-1" DIA.
P2B	GUIDED	1170	522	61	10	0	0	15	4	117	33	0.0007	0.0016	3.23	1.98	1.00	2.60	1.62	1.80	49	34.25	40.125	32.125	1.75	12.75	6-1 1/2" DIA.	10-1" DIA.
P3A W	GUIDED	296	248	26	5	0	0	7	2	30	30	0.0009	0.0052	5.59	1.68	1.00	1.94	1.26	1.47	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P3B W	GUIDED	296	248	26	5	0	0	7	2	30	30	0.0009	0.0052	5.59	1.68	1.00	1.94	1.26	1.47	33.75	22	29	17	1.75	8.5	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

BEARING LEGEND

●	MULTIROTATIONAL FIXED
◄●►	MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
DC	DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
LL+I	VEHICULAR LIVE LOAD AND IMPACT
WS	WIND ON STRUCTURE
WL	WIND ON LIVE LOAD
TU	FORCE EFFECT DUE TO UNIFORM TEMPERATURE
CE	VEHICULAR CENTRIFUGAL FORCE
BR	VEHICULAR BRAKING FORCE

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY ZMG | PLANS CK'D. NPP

BEARING LAYOUT UNIT 1

SHEET 10 OF 56

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DATE: 4/30/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671ENG\B-5-671EN010-B-05-671E - BEARING LAYOUT UNIT 1.dgn

I.D.

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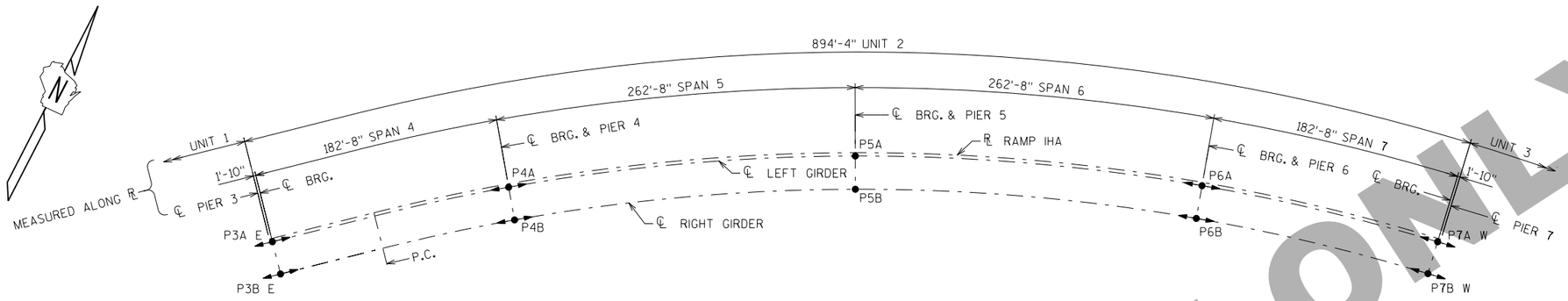
8

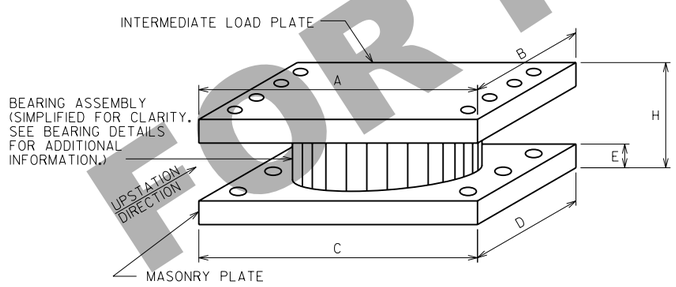
STATE PROJECT NUMBER
1133-11-71



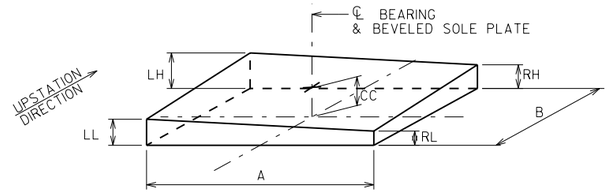
BEARING LAYOUT
LENGTH NOT TO SCALE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
P3A E	GUIDED	318	262	28	5	4	36	7	2	32	30	0.0031	0.0052	6.28	1.68	1.00	1.94	1.26	1.47	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P3B E	GUIDED	318	262	28	5	4	36	7	2	32	30	0.0031	0.0052	6.28	1.68	1.00	1.94	1.26	1.47	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P4A	GUIDED	1329	554	68	12	8	38	17	5	133	33	0.0010	0.0024	3.69	4.09	1.00	4.27	1.18	2.63	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	10-1" DIA.
P4B	GUIDED	1329	554	68	12	8	38	17	5	133	33	0.0010	0.0024	3.69	4.09	1.00	4.27	1.18	2.63	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	10-1" DIA.
P5A	FIXED	1436	583	80	14	0	38	20	6	118	33	0.0002	0.0021	N/A	3.88	1.18	3.70	1.00	2.44	45	37	49	41	1.75	13.75	6-1 1/2" DIA.	12-1" DIA.
P5B	FIXED	1436	583	80	14	0	38	20	6	118	33	0.0002	0.0021	N/A	3.88	1.18	3.70	1.00	2.44	45	37	49	41	1.75	13.75	6-1 1/2" DIA.	12-1" DIA.
P6A	GUIDED	1332	556	68	12	8	38	17	5	134	33	0.0005	0.0019	3.69	4.62	1.53	4.09	1.00	2.81	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	10-1" DIA.
P6B	GUIDED	1332	556	68	12	8	38	17	5	134	33	0.0005	0.0019	3.69	4.62	1.53	4.09	1.00	2.81	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	10-1" DIA.
P7A W	GUIDED	334	268	28	5	4	36	7	2	34	31	0.0031	0.0051	6.28	3.50	1.47	3.03	1.00	2.25	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P7B W	GUIDED	334	268	28	5	4	36	7	2	34	31	0.0031	0.0051	6.28	3.50	1.47	3.03	1.00	2.25	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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BEARING LAYOUT UNIT 2

SHEET 11 OF 56

617

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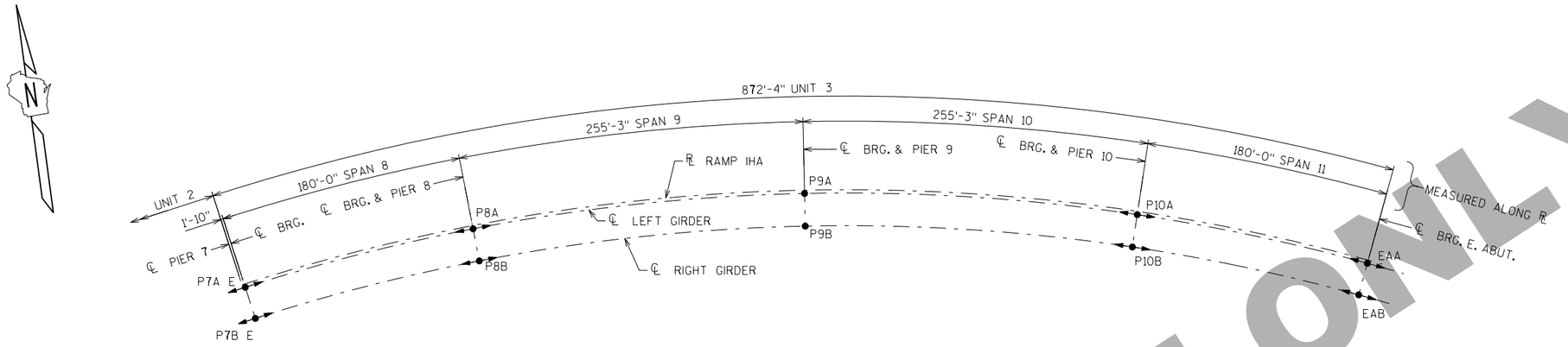
STATE PROJECT NUMBER
1133-11-71

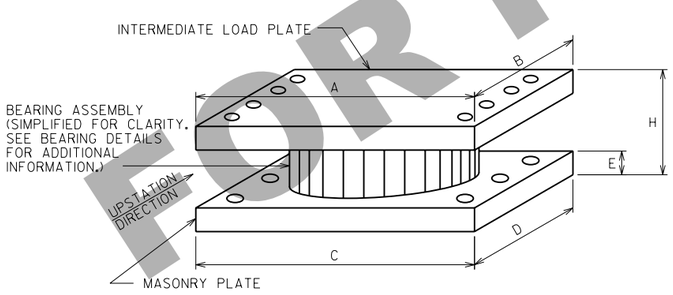


BEARING LAYOUT

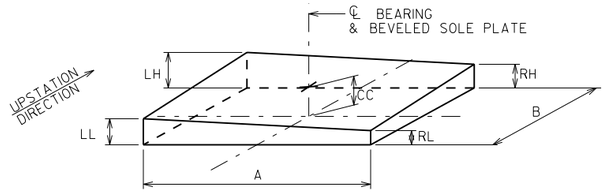
LENGTH NOT TO SCALE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
P7A E	GUIDED	341	265	28	5	4	36	7	2	35	31	0.0035	0.0052	6.11	3.57	1.49	3.09	1.00	2.29	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
P7B E	GUIDED	341	265	28	5	4	36	7	2	35	31	0.0035	0.0052	6.11	3.57	1.49	3.09	1.00	2.29	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
P8A	GUIDED	1269	547	67	11	8	38	16	5	127	33	0.0005	0.0016	3.58	5.11	2.02	4.09	1.00	3.06	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
P8B	GUIDED	1269	547	67	11	8	38	16	5	127	33	0.0005	0.0016	3.58	5.11	2.02	4.09	1.00	3.06	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
P9A	FIXED	1395	574	78	13	0	38	19	6	112	33	0.0002	0.0017	N/A	4.89	2.32	3.57	1.00	2.94	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	12-1" DIA.
P9B	FIXED	1395	574	78	13	0	38	19	6	112	33	0.0002	0.0017	N/A	4.89	2.32	3.57	1.00	2.94	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	12-1" DIA.
P10A	GUIDED	1263	549	67	11	8	38	16	5	127	33	0.0003	0.0012	3.58	5.80	2.71	4.09	1.00	3.40	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
P10B	GUIDED	1263	549	67	11	8	38	16	5	127	33	0.0003	0.0012	3.58	4.31	2.22	3.09	1.00	3.40	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
EAA	GUIDED	337	265	28	5	4	36	7	2	34	31	0.0035	0.0052	6.11	4.31	2.22	3.09	1.00	2.65	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
EAB	GUIDED	337	265	28	5	4	36	7	2	34	31	0.0035	0.0052	6.11	4.31	2.22	3.09	1.00	2.65	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

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FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KJZ | PLANS CK'D. NPP

BEARING LAYOUT UNIT 3

SHEET 12 OF 56

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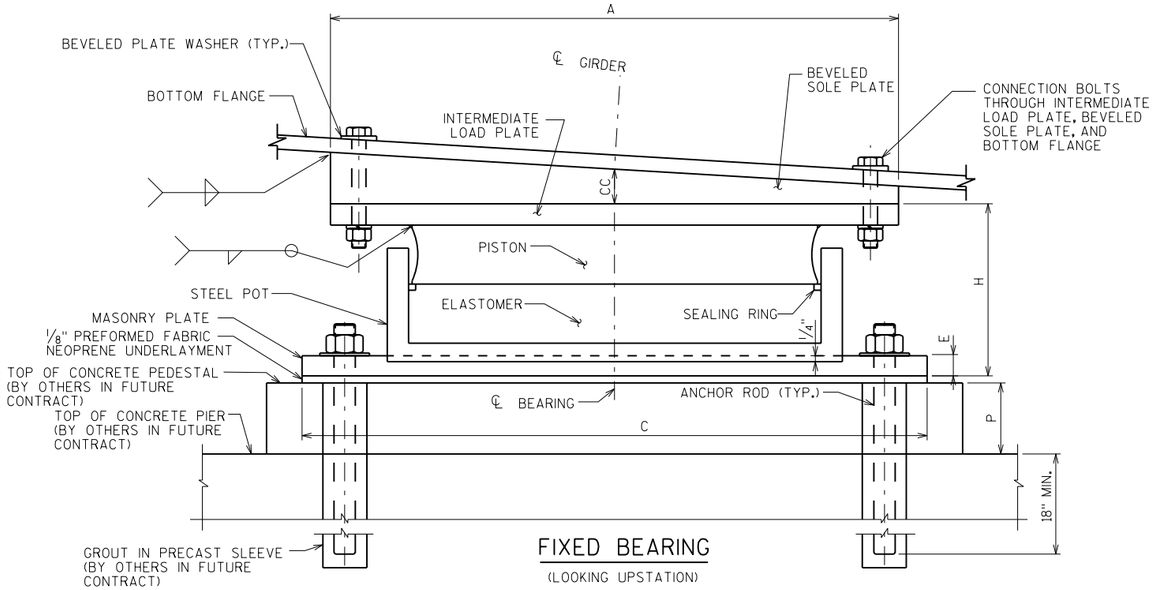
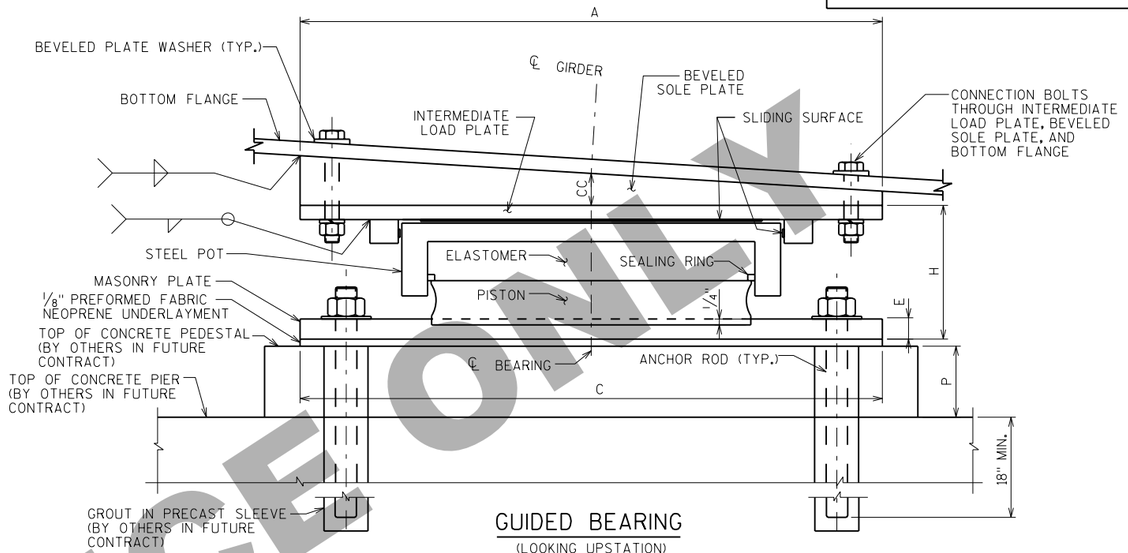


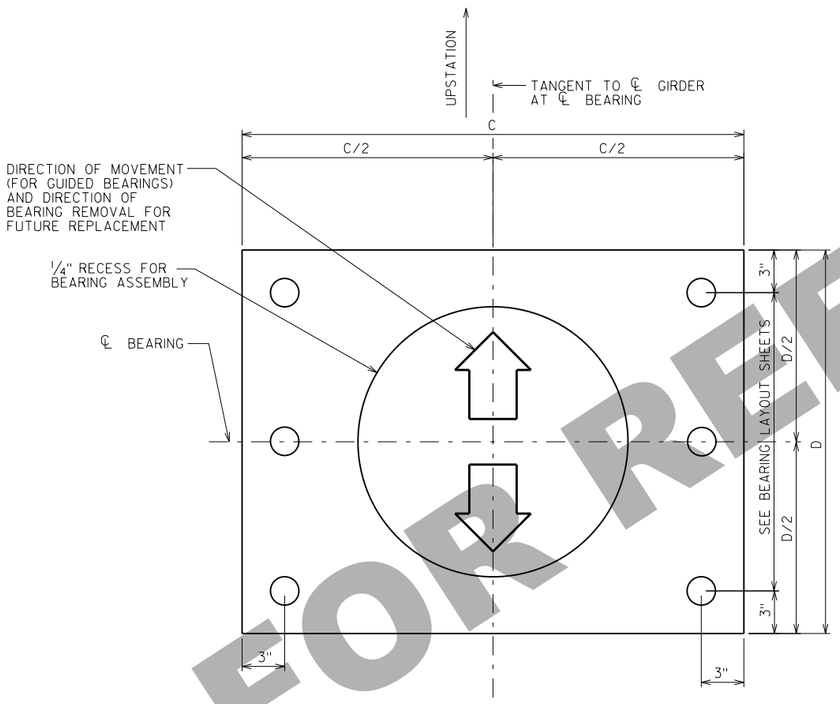
FIXED BEARING

(LOOKING UPSTATION)



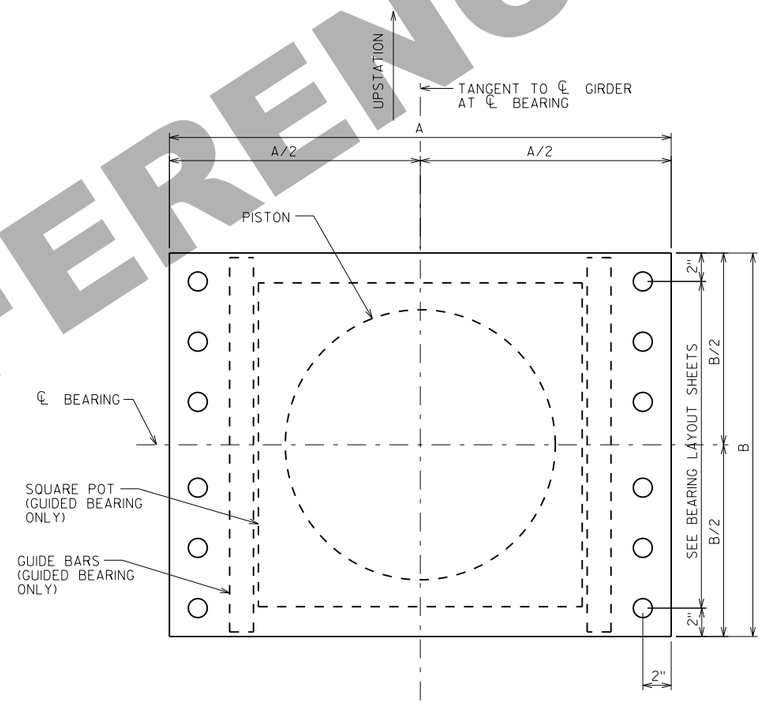
GUIDED BEARING

(LOOKING UPSTATION)



PLAN - MASONRY PLATE

SEE BEARING LAYOUT SHEETS FOR REQUIRED NUMBER OF ANCHOR RODS PER RESPECTIVE BEARING



PLAN - INTERMEDIATE LOAD PLATE

(BEVELED SOLE PLATE SIMILAR)

NOTES:

SEE BEARING LAYOUT SHEETS FOR LOCATION-SPECIFIC DIMENSIONS.

SEE JACKING PROVISIONS SHEET FOR LOCATION AND SIZE OF BEARING REPLACEMENT JACKING PADS ATTACHED TO BOTTOM OF GIRDER FLANGE.

DESIGN BOLTED CONNECTION BETWEEN BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE FOR THE COMBINED SPECIFIED HORIZONTAL LOADS SHOWN ON THE BEARING LAYOUT SHEETS PER AASHTO LRFD AND THE WISDOT BRIDGE MANUAL. FOR FUTURE BEARING REPLACEMENT, ARRANGE THE CONNECTION TO ENSURE ALL BOLTS CAN BE REMOVED WITHOUT INTERFERENCE FROM ANCHOR BOLTS OR OTHER OBSTRUCTIONS AFTER BEARING IS INSTALLED.

HOLES IN TOP PLATE MAY BE SLOTTED OR OVERSIZED AS REQUIRED TO FACILITATE STEEL ERECTION. IF OVERSIZED OR SLOTTED HOLES ARE USED, DESIGN CONNECTION AS SLIP-RESISTANT PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

HOLES IN MASONRY PLATE SHALL BE A MAXIMUM OF 1/8" LARGER THAN THE SPECIFIED ANCHOR BOLT DIAMETER.

BEVELED SOLE PLATE, INTERMEDIATE LOAD PLATE AND MASONRY PLATES ARE ALIGNED WITH THE GIRDER AND THE SUBSTRUCTURE BELOW.

BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE THICKNESSES TO BE SELECTED BY THE BEARING DESIGNER. MINIMUM 1".

MASONRY PLATE THICKNESS TO BE CONFIRMED BY THE BEARING DESIGNER AND INCREASED IF REQUIRED, BUT NOT DECREASED FROM 1.75".

PROVIDE ANCHOR BOLTS IN ACCORDANCE WITH ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.

DESIGN BEARINGS TO PERMIT REPLACEMENT BY JACKING THE BRIDGE A MAXIMUM OF 1/2".

FINAL DISTANCE BETWEEN BOTTOM OF STEEL GIRDER AND TOP OF PIER IS THE SUMMATION OF "CC", THE ACTUAL "H" OF THE BEARING, 1/8" UNDERLAYMENT AND THE ACTUAL PEDESTAL HEIGHT "P". HEIGHT "P" IS ASSUMED TO BE 10" FOR ALL LOCATIONS.

ALL ELEMENTS SHOWN ARE PROVIDED BY THE BEARING MANUFACTURER (UNLESS OTHERWISE NOTED) AND COORDINATED WITH THE STEEL FABRICATOR.

THE CONTRACTOR IS RESPONSIBLE DURING STORAGE AND FUTURE ERECTION OF THE BEARING TO PREVENT OVER-ROTATION OR SLIDING OF THE BEARING. CONSTRUCTION ROTATIONS MUST NOT EXCEED THE ALLOWABLE ROTATIONS SHOWN.

DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

INSTALL BEARINGS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AS APPROVED BY THE ENGINEER. THE MANUFACTURER SHALL HAVE ITS TECHNICAL REPRESENTATIVE PRESENT FOR THE PLACEMENT OF THE FIRST BEARING. AT THE OPTION OF THE ENGINEER, CONTRACTOR OR MANUFACTURER, THE TECHNICAL REPRESENTATIVE MAY BE REQUIRED TO BE PRESENT FOR THE PLACEMENT OF ANY NUMBER OF ADDITIONAL BEARINGS.

FOR REFERENCE ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY JRS | PLANS CK'D. NPP

SHEET 13 OF 56

BEARING DETAILS 619

STEEL FABRICATION CONTRACT ONLY

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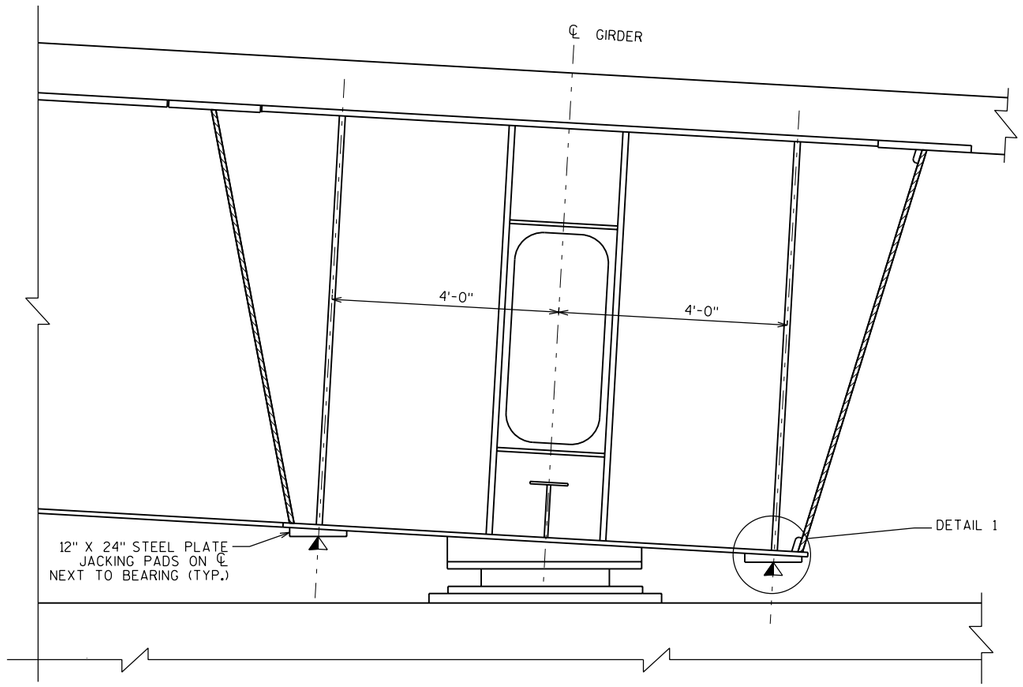
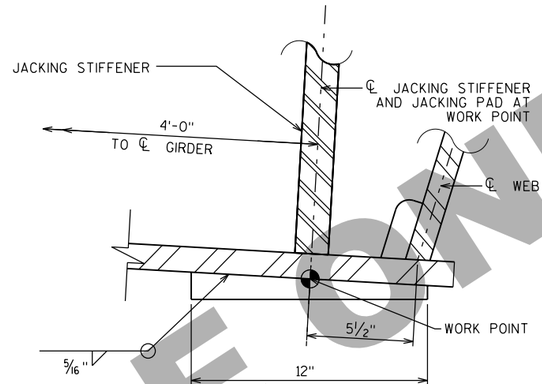


TYPICAL ELEVATION
(LOOKING UPSTATION)



DETAIL 1
NOT TO SCALE

LEGEND:

▲ SUGGESTED JACKING LOCATIONS FOR FUTURE BEARING REPLACEMENT.

NOTES:

THIS DRAWING SHOWS DETAILS AND LOCATION OF JACKING PADS AND ADDITIONAL JACKING STIFFENERS REQUIRED FOR FUTURE BEARING REPLACEMENT.

JACKING PAD DIMENSIONS AND LOCATIONS ARE BASED ON THE MINIMUM CLEARANCES SHOWN AND THE NOMINAL BEARING DIMENSIONS GIVEN ON BEARING LAYOUT SHEETS. MAKE ADJUSTMENTS AS REQUIRED TO ACCOMMODATE ACTUAL BEARINGS SUPPLIED.

JACKING PADS ARE PROVIDED TO GIVE A JACKING SURFACE THAT IS APPROXIMATELY LEVEL AND TO ENSURE THAT JACKING LOADS ARE APPLIED TO THE CORRECT LOCATION.

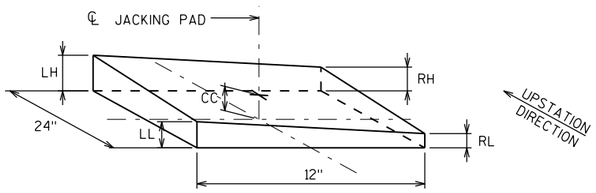
ADDITIONAL MEASURES SHALL BE TAKEN TO CORRECT FOR ANY UNINTENDED SLOPE AND TO ENSURE THAT JACKS ARE POSITIVELY HELD IN POSITION ON THE JACKING PADS.

ESTIMATED JACKING FORCES ARE GIVEN AT EACH PAD AND ARE BASED ON DEAD LOAD AND LIVE LOAD REACTIONS ONLY AND NO ADDITIONAL ALLOWANCES HAVE BEEN MADE. THESE FORCES MUST BE INCREASED TO ALLOW FOR JACK FRICTION AND OTHER FACTORS. RECOMMENDED MINIMUM JACK CAPACITY IS 2 TIMES THE TABULATED JACK FORCE.

FORCES AND RECOMMENDATIONS ARE PROVIDED FOR INFORMATION ONLY AND MUST BE VERIFIED BY THE ENGINEER RESPONSIBLE FOR JACKING OPERATIONS.

CONTROL JACKS TO ENSURE THAT FORCES APPLIED TO ALL JACKING PADS AT A SINGLE BEARING LOCATION ARE APPROXIMATELY EQUAL. IF THIS REQUIREMENT IS NOT MET, A COMPLETE ANALYSIS OF THE PIER DIAPHRAGM SYSTEM WILL BE REQUIRED IN ORDER TO ACCOUNT FOR THE REDISTRIBUTION OF FORCES WITHIN THE SYSTEM.

LOCATION	NUMBER OF PADS PER BOX	LEFT BOX JACKING PAD DIMENSIONS LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	RIGHT BOX JACKING PAD DIMENSIONS LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	MIN. JACK FORCE (KIP)
S. ABUT.	2	1.24	1.00	2.04	1.80	1.52	1.24	1.00	2.04	1.80	1.52	290
PIER 1	2	1.24	1.00	1.88	1.64	1.44	1.24	1.00	1.88	1.64	1.44	860
PIER 2	2	1.24	1.00	1.68	1.44	1.34	1.24	1.00	1.68	1.44	1.34	850
PIER 3	2	1.24	1.00	1.53	1.29	1.26	1.24	1.00	1.53	1.29	1.26	280
PIER 3	2	1.24	1.00	1.52	1.28	1.26	1.24	1.00	1.52	1.28	1.26	290
PIER 4	2	1.72	1.00	1.84	1.12	1.42	1.72	1.00	1.84	1.12	1.42	950
PIER 5	2	1.84	1.12	1.72	1.00	1.42	1.84	1.12	1.72	1.00	1.42	1010
PIER 6	2	2.07	1.35	1.72	1.00	1.54	2.07	1.35	1.72	1.00	1.54	950
PIER 7	2	2.24	1.52	1.72	1.00	1.62	2.24	1.52	1.72	1.00	1.62	310
PIER 7	2	2.24	1.52	1.72	1.00	1.62	2.24	1.52	1.72	1.00	1.62	310
PIER 8	2	2.40	1.68	1.72	1.00	1.70	2.40	1.68	1.72	1.00	1.70	910
PIER 9	2	2.63	1.91	1.72	1.00	1.82	2.63	1.91	1.72	1.00	1.82	990
PIER 10	2	2.86	2.14	1.72	1.00	1.93	2.86	2.14	1.72	1.00	1.93	910
E. ABUT.	2	3.02	2.30	1.72	1.00	2.01	3.02	2.30	1.72	1.00	2.01	310



JACKING PAD DIMENSION KEY

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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JACKING PROVISIONS

SHEET 14 OF 56

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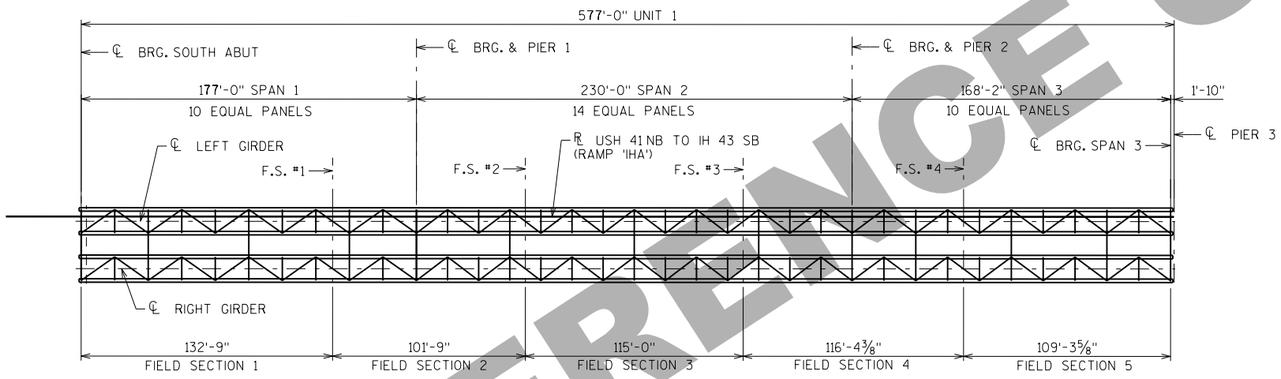

FRAMING PLAN - UNIT 1

FOR REFERENCE ONLY

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LEGEND

F.S. = BOLTED FIELD SPLICE

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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FRAMING PLAN
UNIT 1

SHEET 15 OF 56

621

STEEL FABRICATION CONTRACT ONLY

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STATE PROJECT NUMBER

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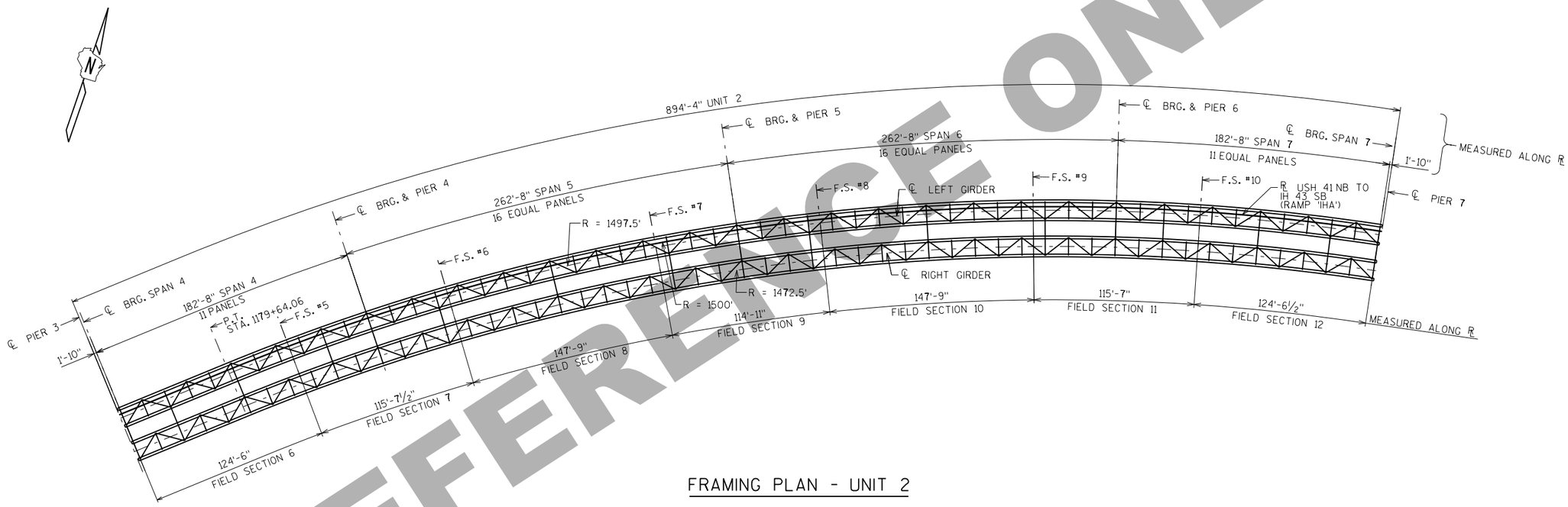

FRAMING PLAN - UNIT 2

FOR REFERENCE ONLY

LEGEND

F.S. = BOLTED FIELD SPLICE

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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FRAMING PLAN
UNIT 2

SHEET 16 OF 56

622

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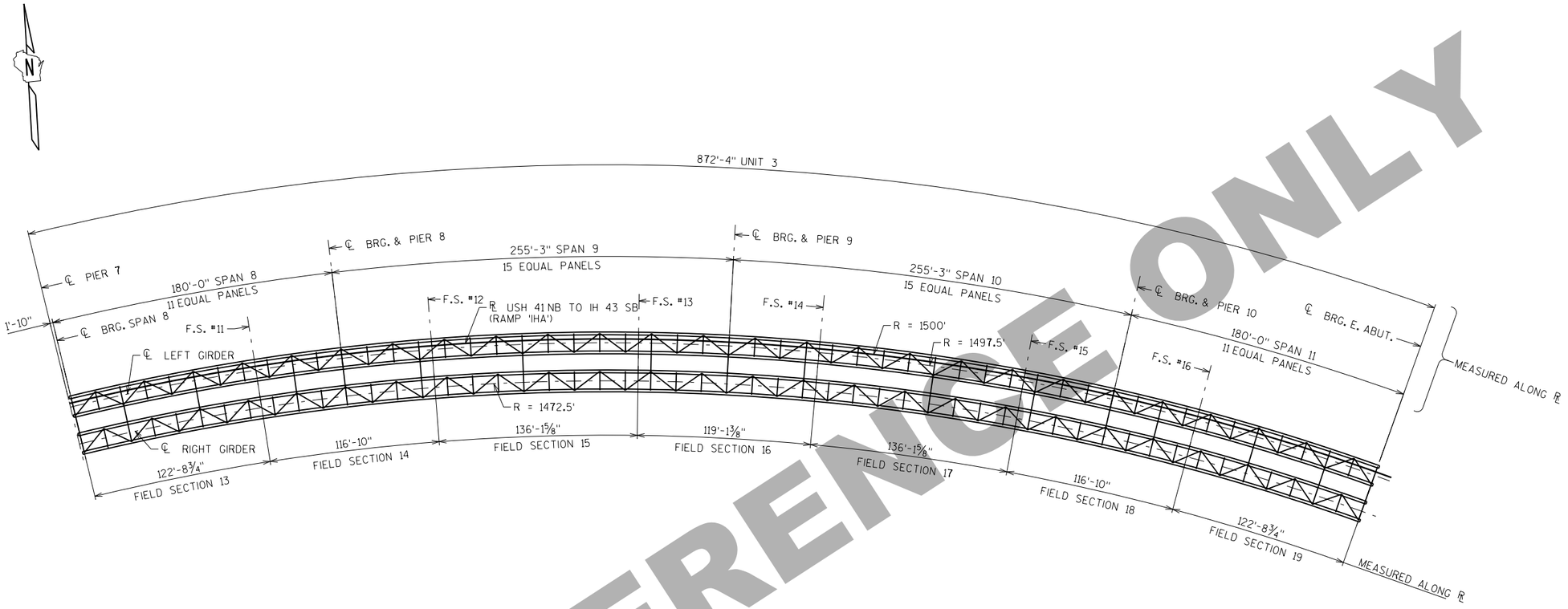

FRAMING PLAN - UNIT 3

FOR REFERENCE ONLY

LEGEND

F.S. = BOLTED FIELD SPLICE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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FRAMING PLAN
UNIT 3

SHEET 17 OF 56

623

STEEL FABRICATION CONTRACT ONLY

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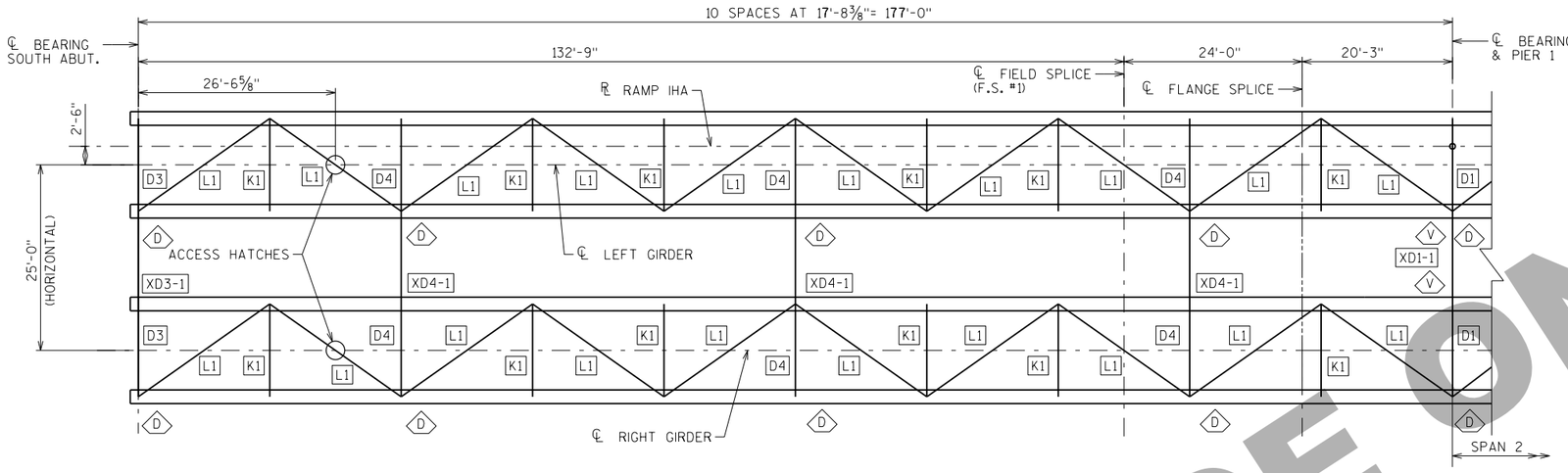
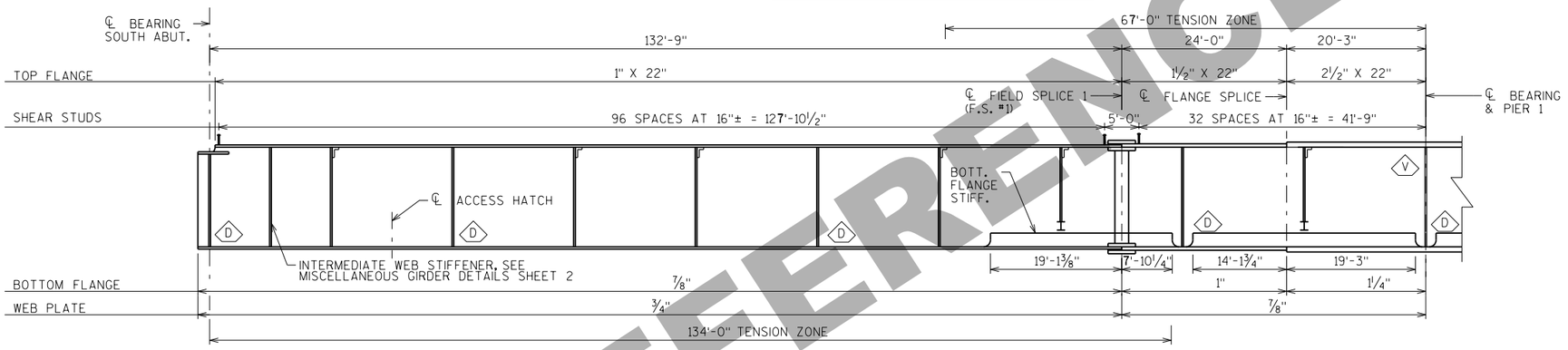


GIRDER PLAN - UNIT 1 SPAN 1



LEFT & RIGHT GIRDER ELEVATION - UNIT 1 SPAN 1

LEGEND

- D1 — INTERIOR DIAPHRAGM OVER PIER FOR CONTINUOUS SPAN
- D2 — INTERIOR DIAPHRAGM OVER PIER AT UNIT BREAK
- D3 — INTERIOR DIAPHRAGM AT ABUTMENT
- D4 — INTERIOR INTERMEDIATE DIAPHRAGM
- XDA-B — EXTERIOR DIAPHRAGM (WHERE 'A' INDICATES CORRESPONDING INTERIOR DIAPHRAGM NUMBER AND 'B' INDICATES SEQUENTIAL NUMBER WHICH VARIES DUE TO CHANGE IN CROSS SLOPE)
- K1 — INTERIOR K-FRAME
- XF-B — EXTERIOR INTERMEDIATE CROSS FRAME (WHERE 'B' INDICATES SEQUENTIAL NUMBER WHICH VARIES DUE TO CHANGE IN CROSS SLOPE)
- L1 — TOP FLANGE LATERAL BRACING MARK NUMBER
- V — VENT HOLE LOCATION
- D — DRAIN HOLE LOCATION

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING FUTURE ERECTION CONTRACT.

ALL LONGITUDINAL DIMENSIONS SHOWN ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF EACH GIRDER. CONTRACTOR SHALL MAKE ADJUSTMENTS FOR CAMBER AND GRADE.

FOR SHOP WELDED BUTT SPLICES OF FLANGES, FABRICATOR MAY CHOOSE TO ELIMINATE SPLICE AND CONTINUE THICKER PLATE TO END OF SECTION AT FIELD SPLICE AT NO ADDITIONAL COST TO THE OWNER. ADJUST CAMBER IF PLATE SIZES ARE CHANGED.

TENSION ZONES SHOWN ABOVE THE GIRDER ELEVATION INDICATE TENSION ZONES FOR TOP FLANGE AND UPPER PORTION OF WEB.

TENSION ZONES SHOWN BELOW THE GIRDER ELEVATION INDICATE TENSION ZONES FOR BOTTOM FLANGE AND LOWER PORTION OF WEB.

FOR OPTIONAL SHOP SPLICE DETAIL AS REQUIRED DUE TO MAXIMUM PLATE LENGTHS AVAILABLE FROM MILL, SEE MISCELLANEOUS GIRDER DETAILS SHEET.

FOR LONGITUDINAL STIFFENER TERMINATION DETAILS SEE SHEETS MISCELLANEOUS GIRDER DETAILS 1 AND MISCELLANEOUS GIRDER DETAILS 2.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 1

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STEEL FABRICATION CONTRACT ONLY

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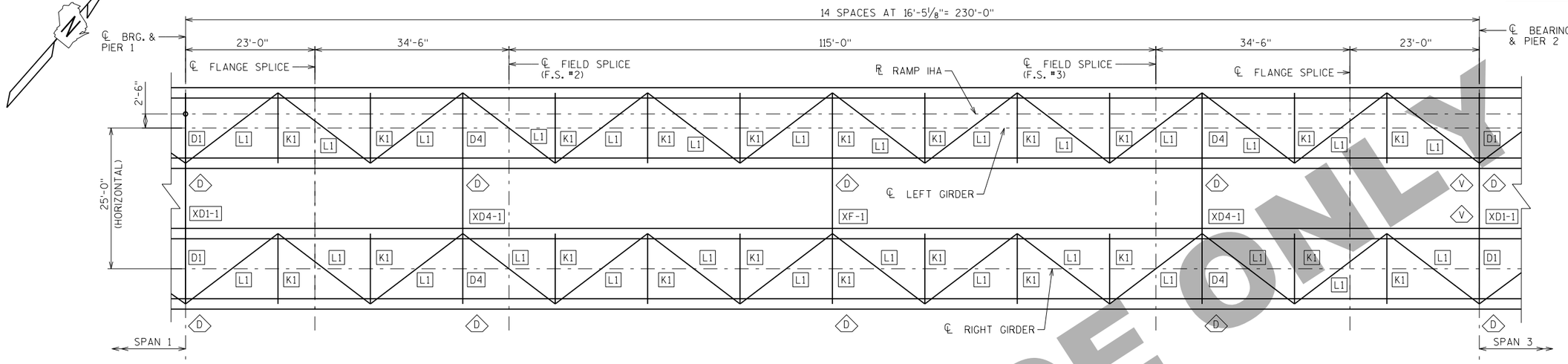
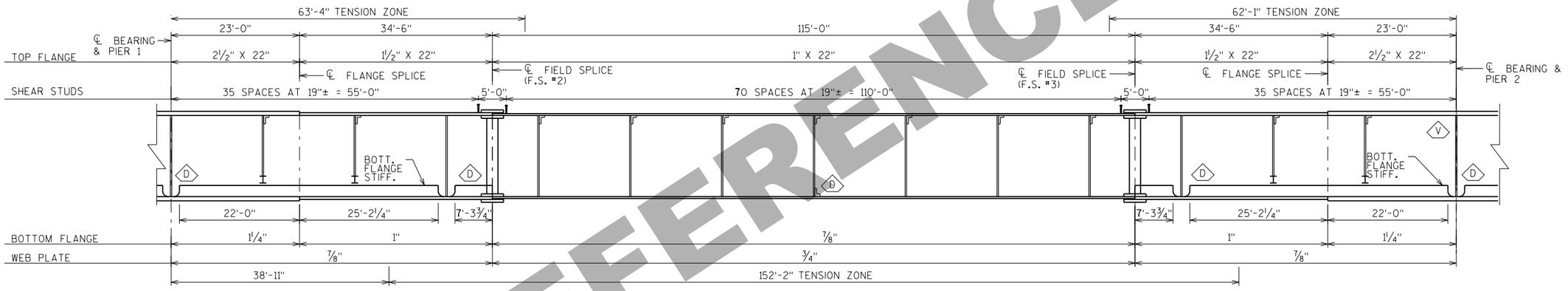


GIRDER PLAN - UNIT 1 SPAN 2



LEFT & RIGHT GIRDER ELEVATION - UNIT 1 SPAN 2

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STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 2

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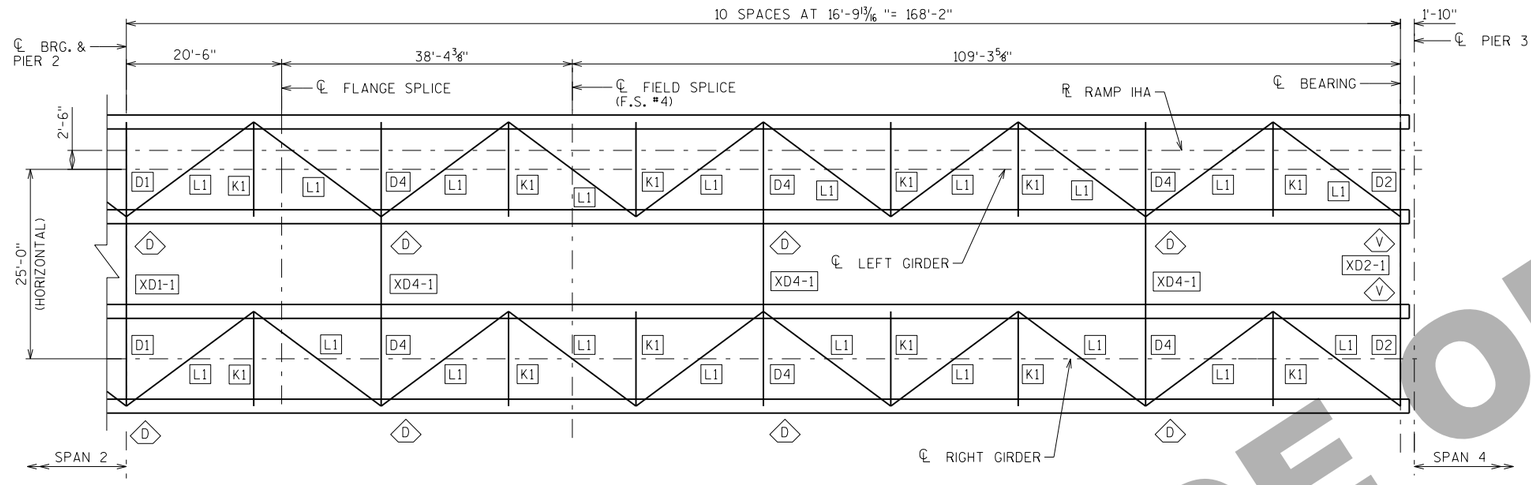
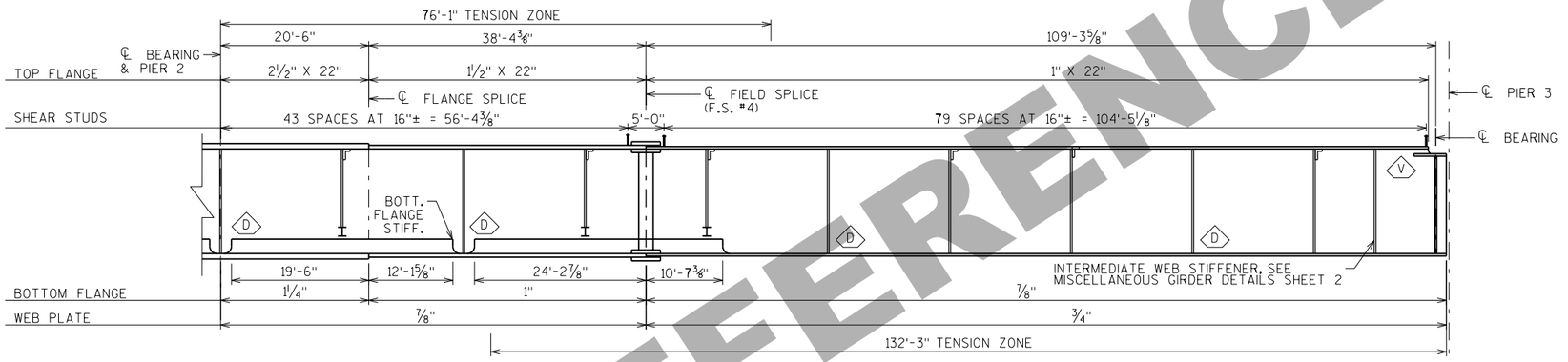


GIRDER PLAN - UNIT 1 SPAN 3



LEFT & RIGHT GIRDER ELEVATION - UNIT 1 SPAN 3

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STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 3

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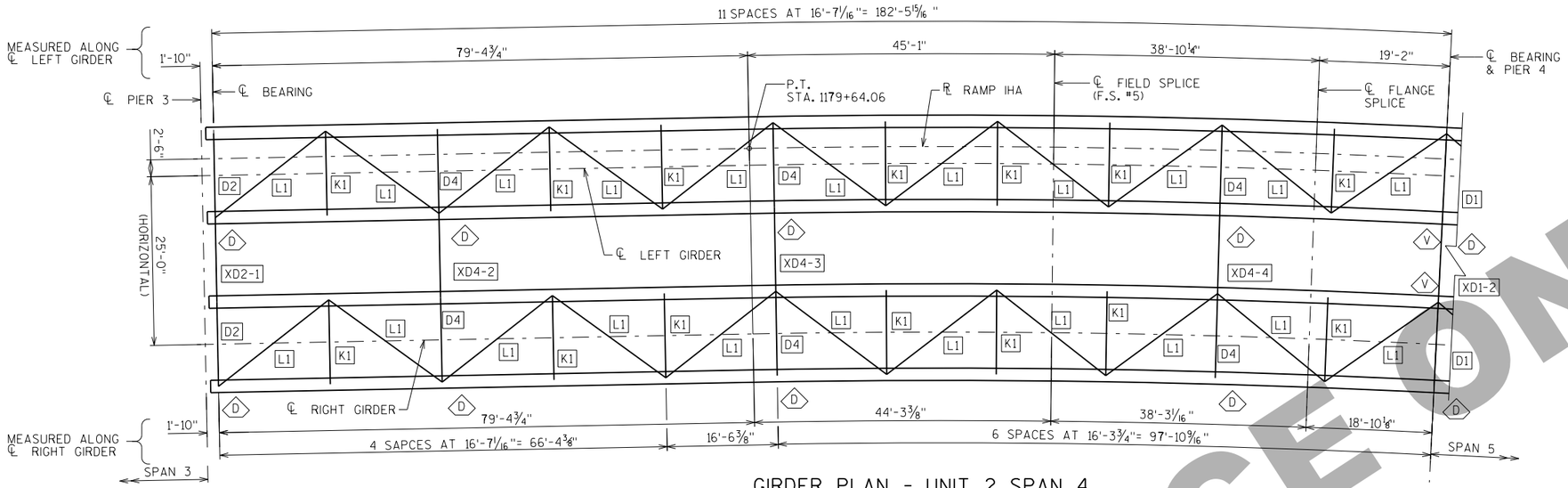
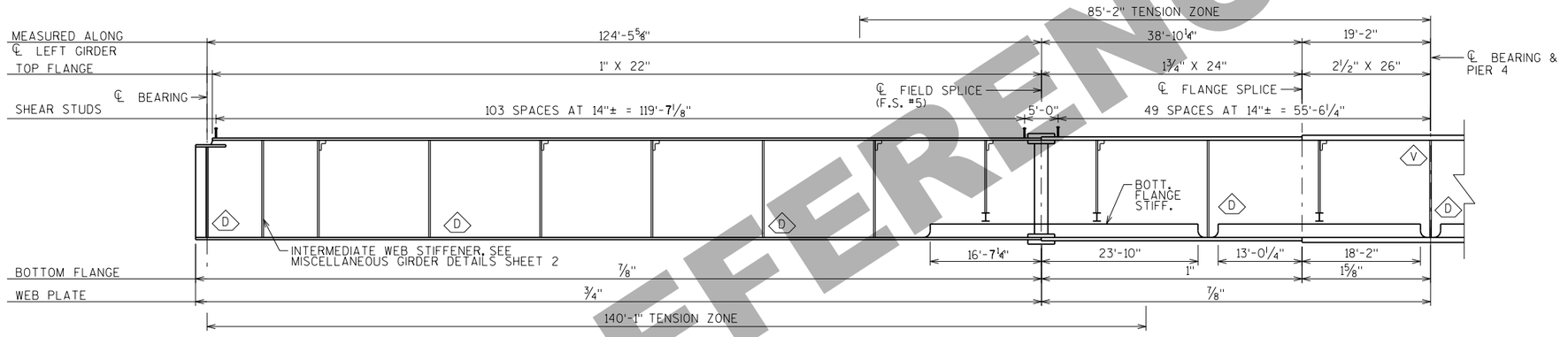
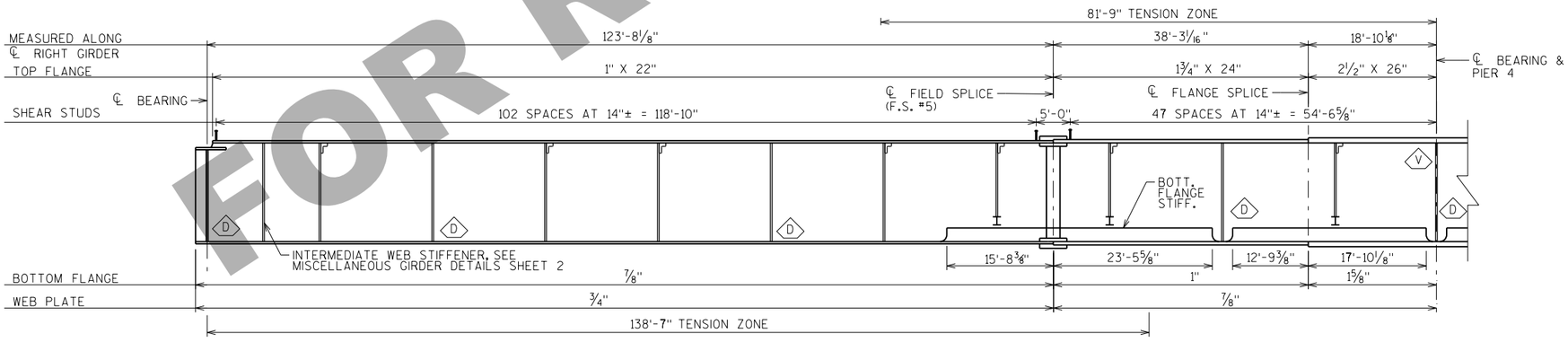


GIRDER PLAN - UNIT 2 SPAN 4



LEFT GIRDER ELEVATION - UNIT 2 SPAN 4



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 4

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 4

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STATE PROJECT NUMBER

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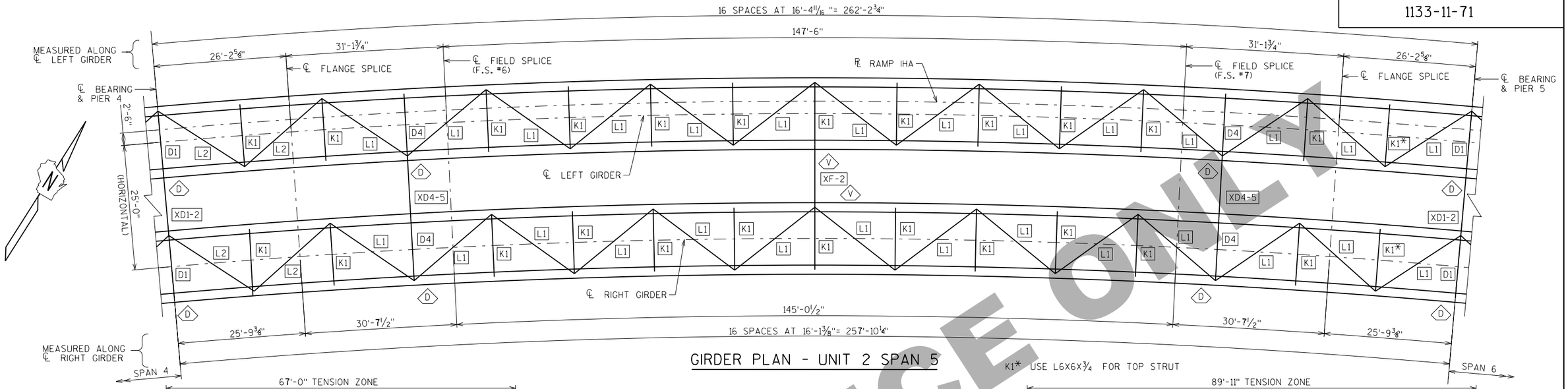
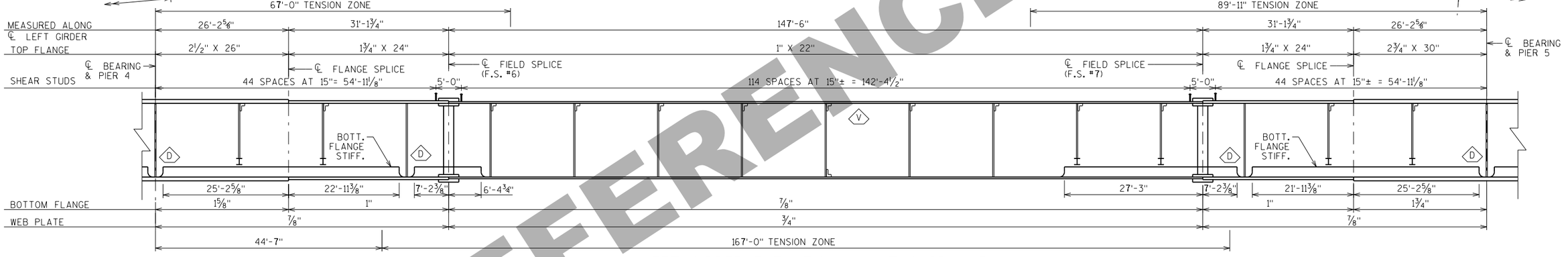
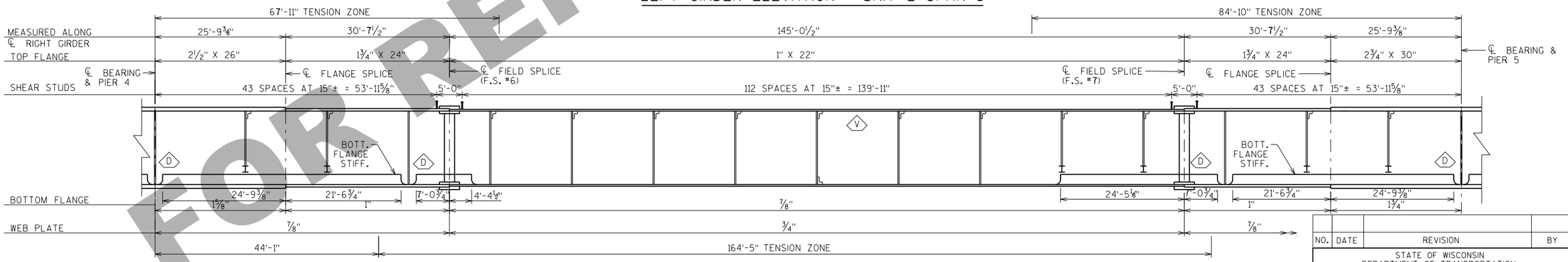


GIRDER PLAN - UNIT 2 SPAN 5

K1* USE L6X6X3/4 FOR TOP STRUT



LEFT GIRDER ELEVATION - UNIT 2 SPAN 5



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 5

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 5

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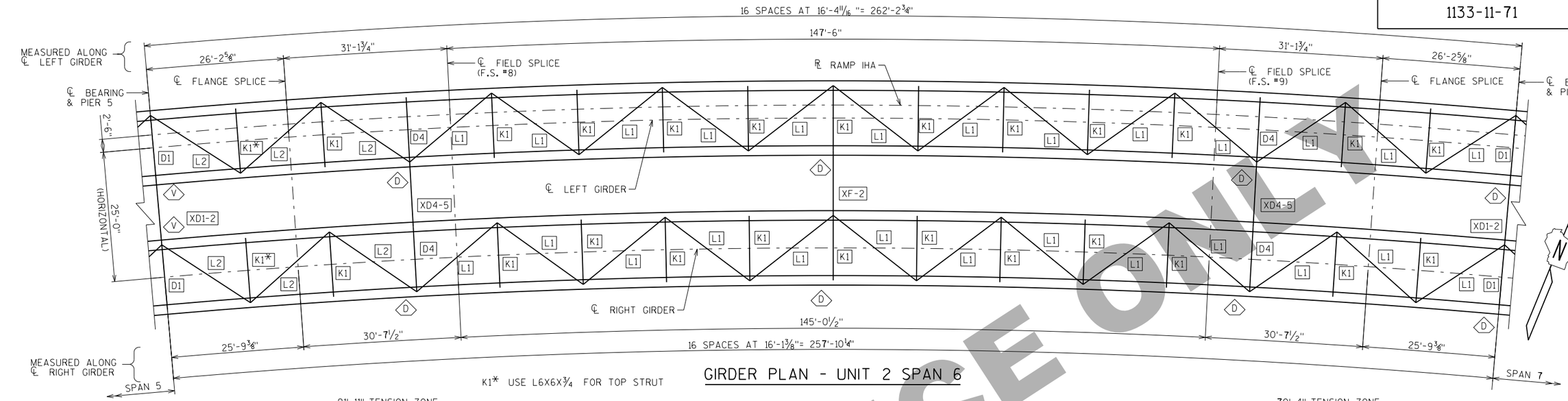
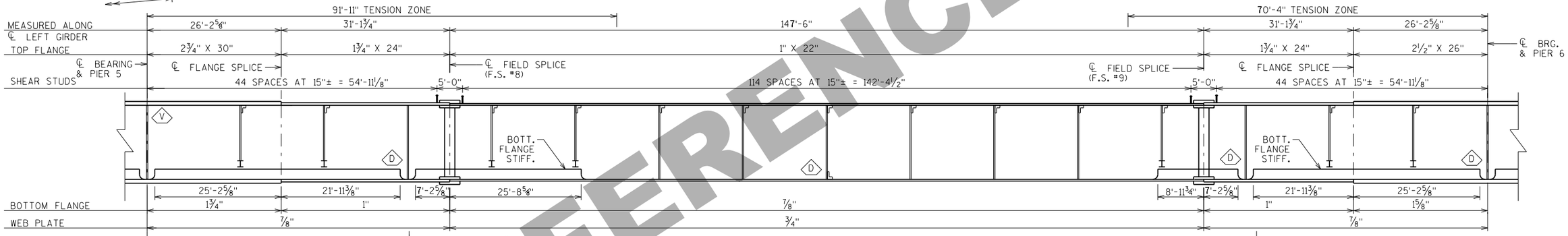
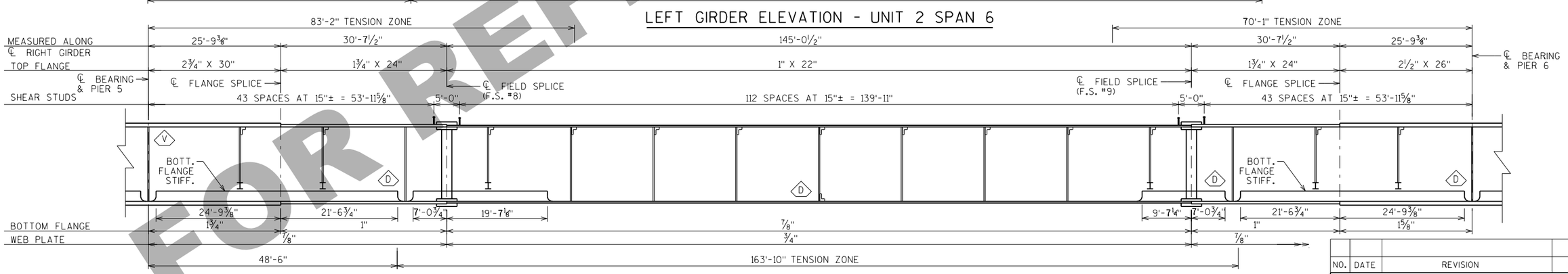


K1* USE L6X6X3/4 FOR TOP STRUT

GIRDER PLAN - UNIT 2 SPAN 6



LEFT GIRDER ELEVATION - UNIT 2 SPAN 6



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 6

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 6

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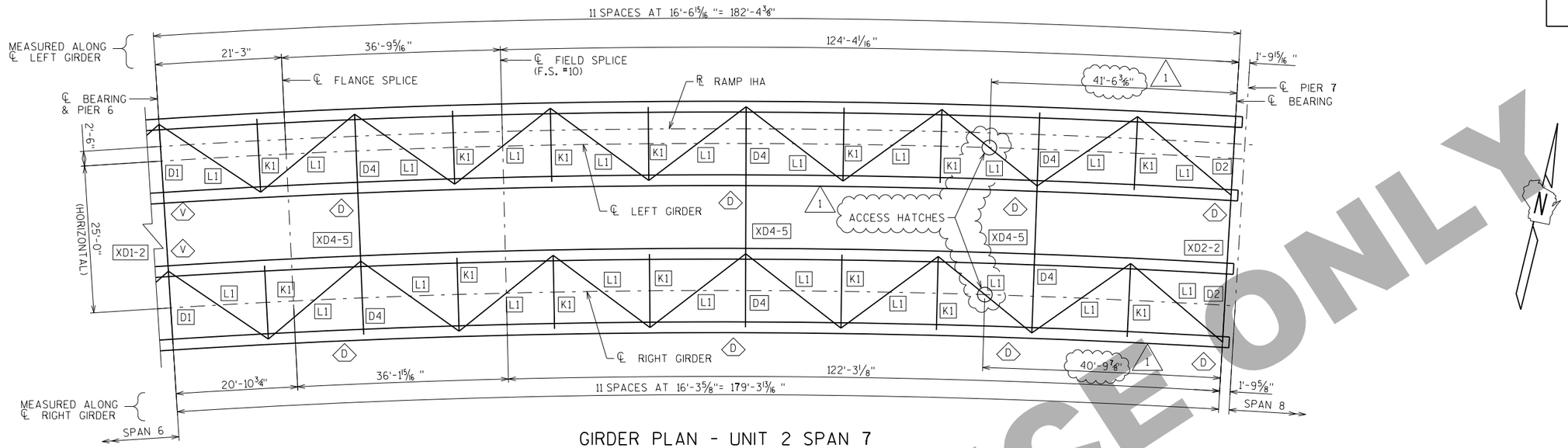
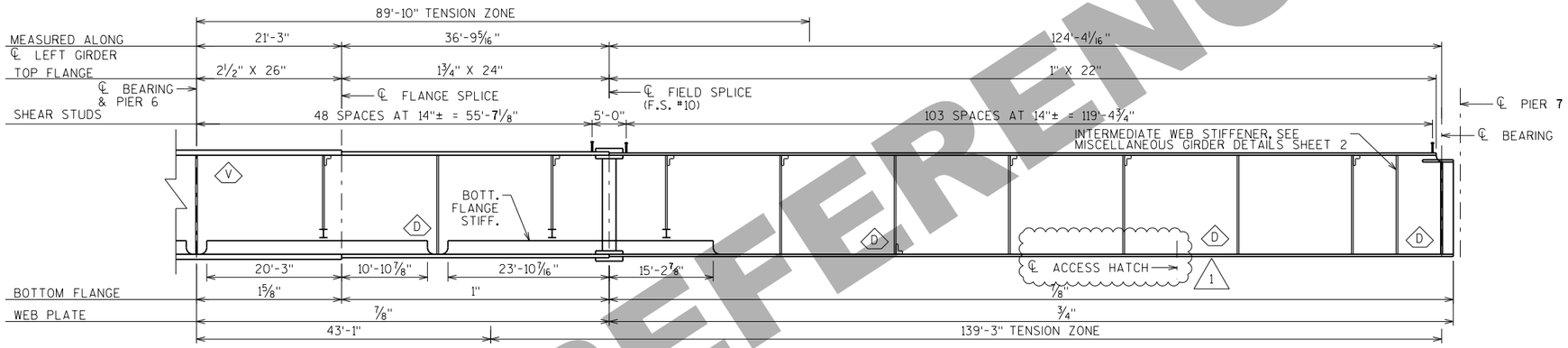
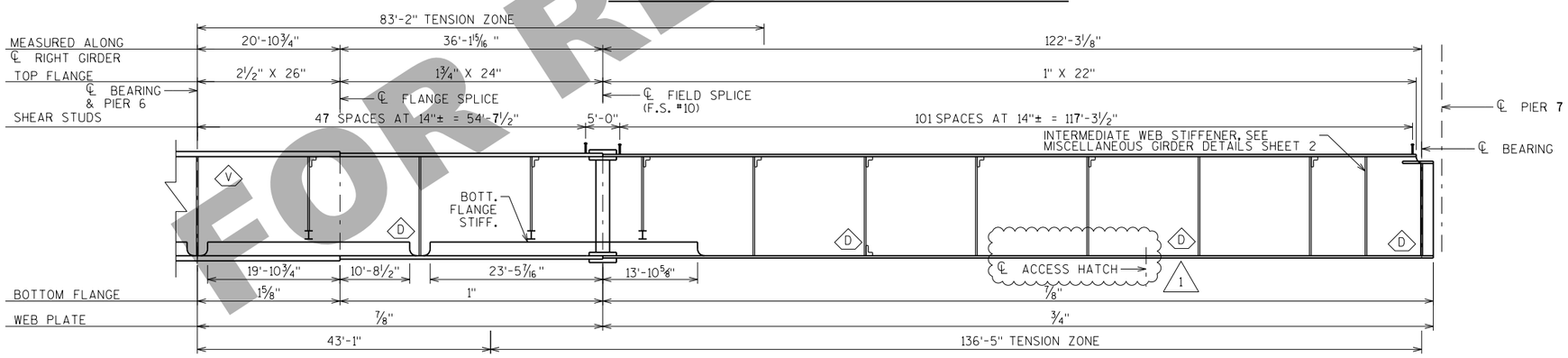


GIRDER PLAN - UNIT 2 SPAN 7



LEFT GIRDER ELEVATION - UNIT 2 SPAN 7



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 7

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NO.	DATE	REVISION	BY
1	8-24-12	ADDITIONAL ACCESS HATCHES	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 7

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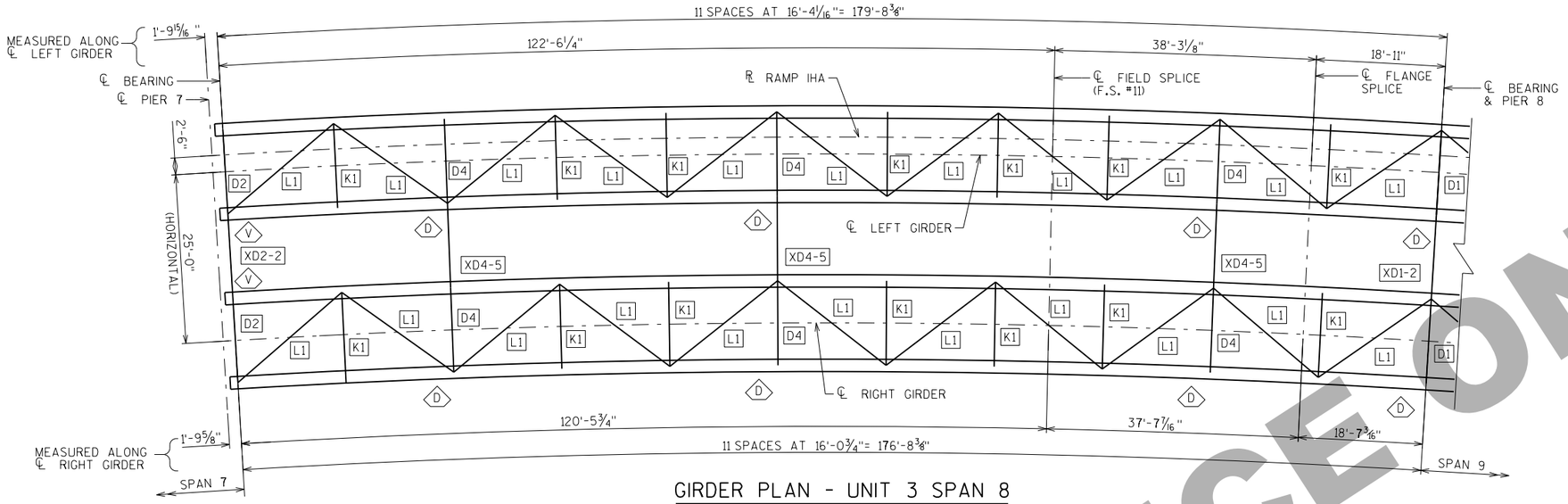
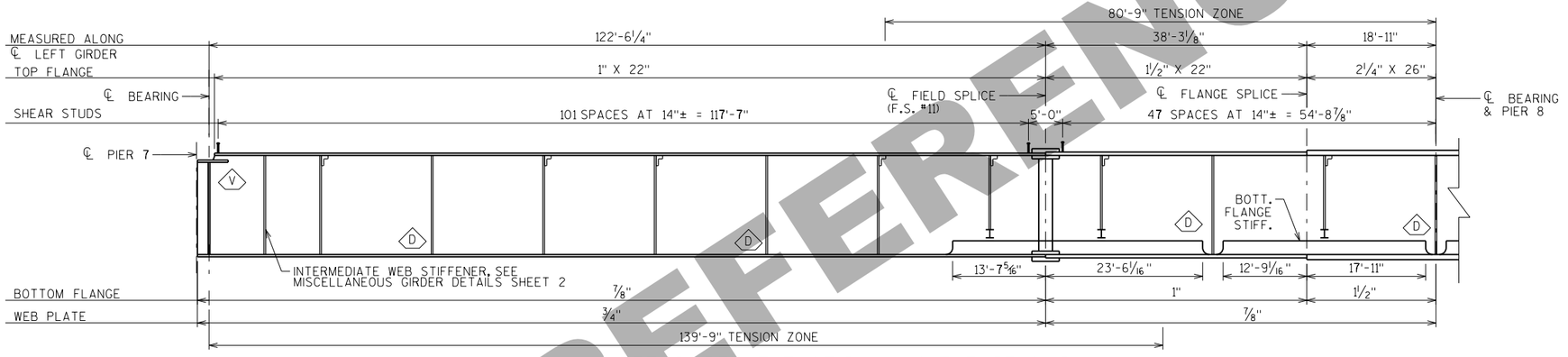
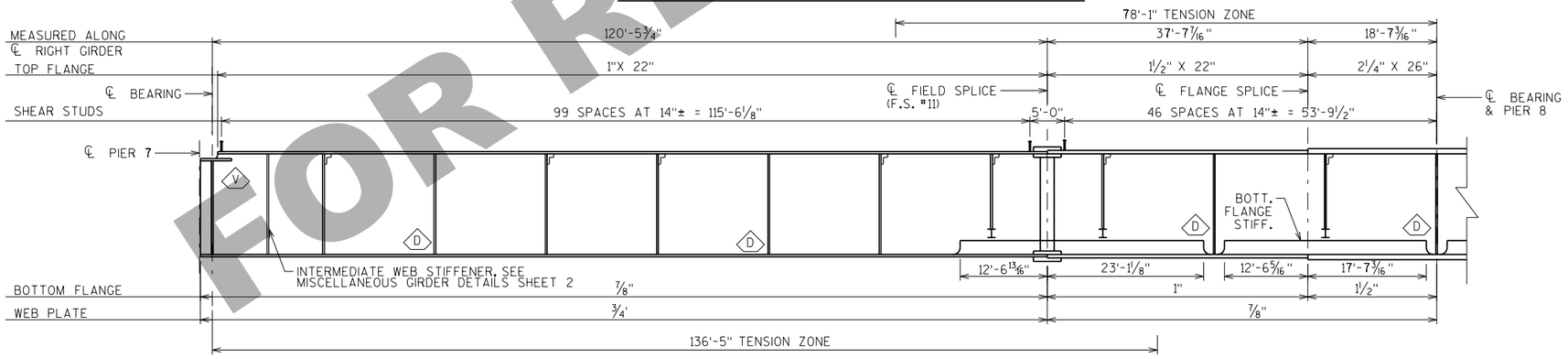


GIRDER PLAN - UNIT 3 SPAN 8



LEFT GIRDER ELEVATION - UNIT 3 SPAN 8



RIGHT GIRDER ELEVATION - UNIT 3 SPAN 8

STEEL FABRICATION CONTRACT ONLY

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 8

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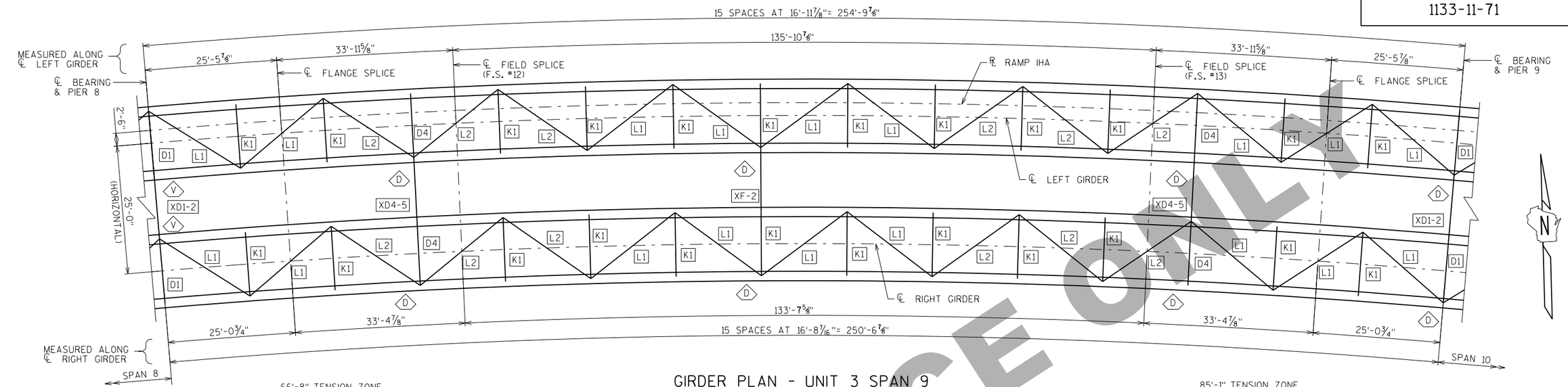
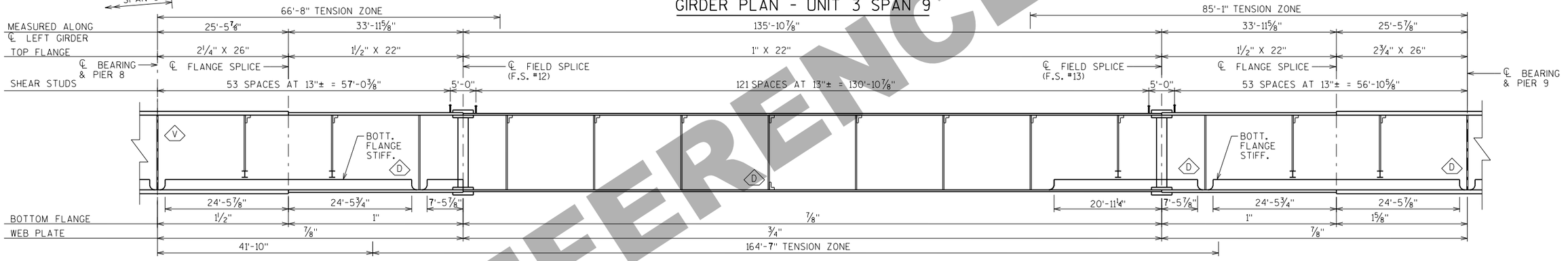
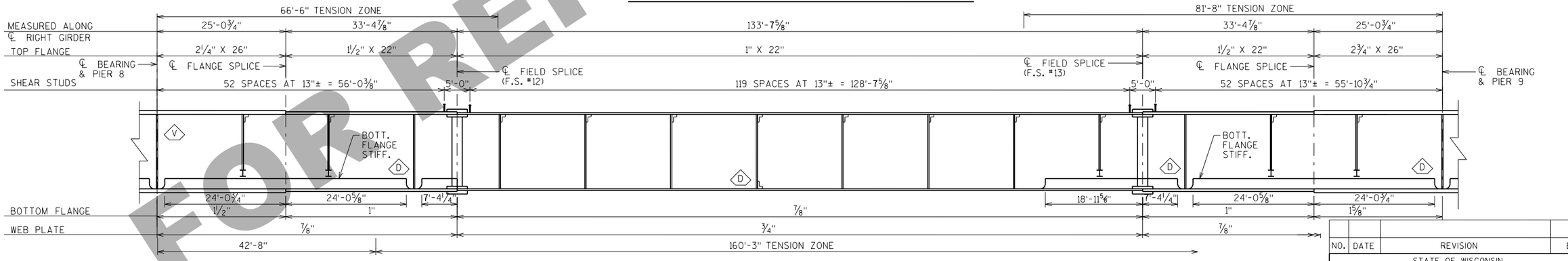


GIRDER PLAN - UNIT 3 SPAN 9



LEFT GIRDER ELEVATION - UNIT 3 SPAN 9



RIGHT GIRDER ELEVATION - UNIT 3 SPAN 9

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 9

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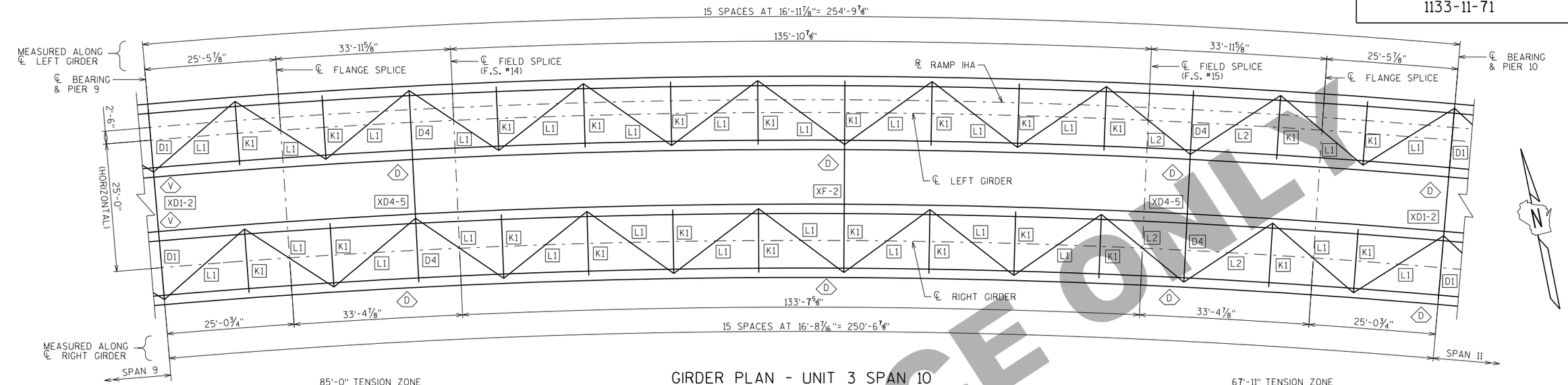

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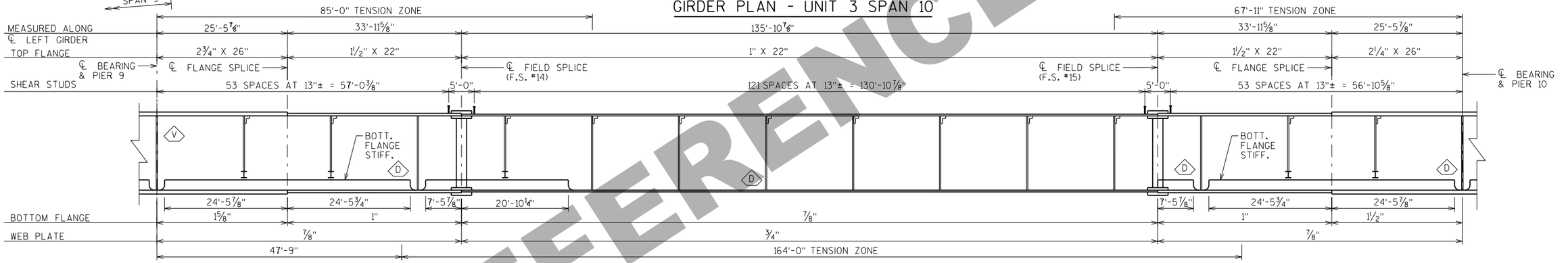

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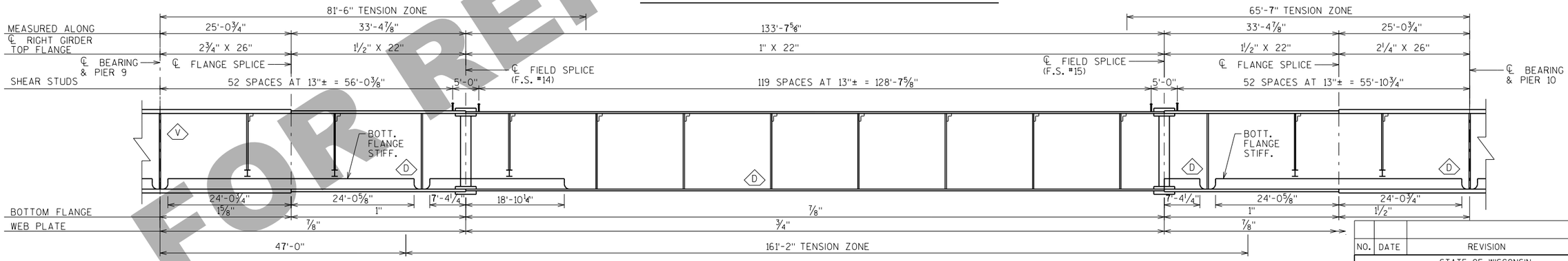

RIGHT GIRDER ELEVATION - UNIT 3 SPAN 10

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 10

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STEEL FABRICATION CONTRACT ONLY

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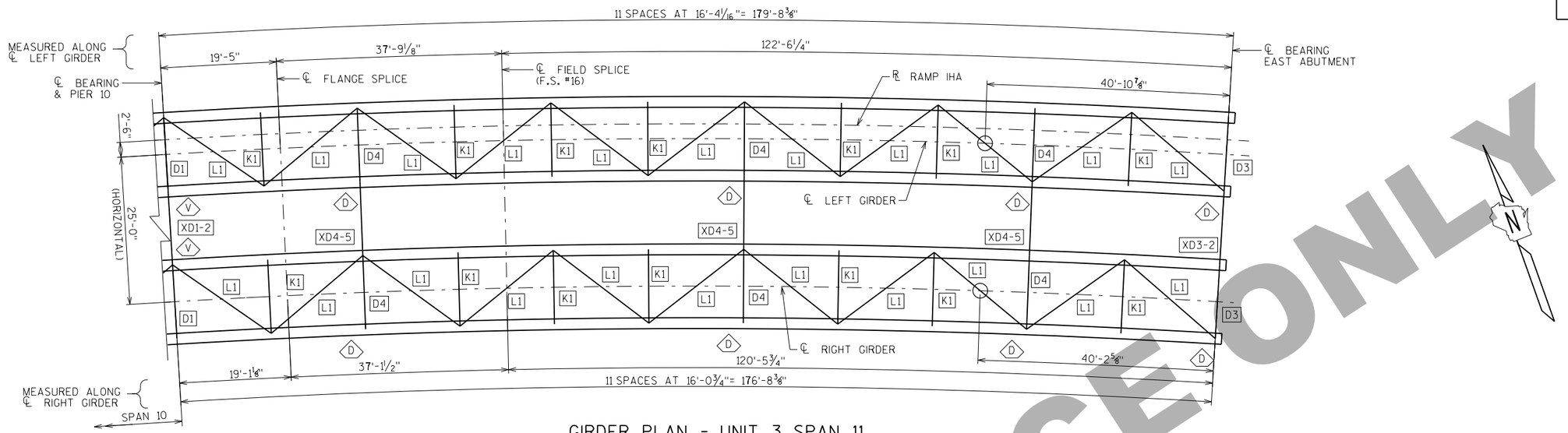
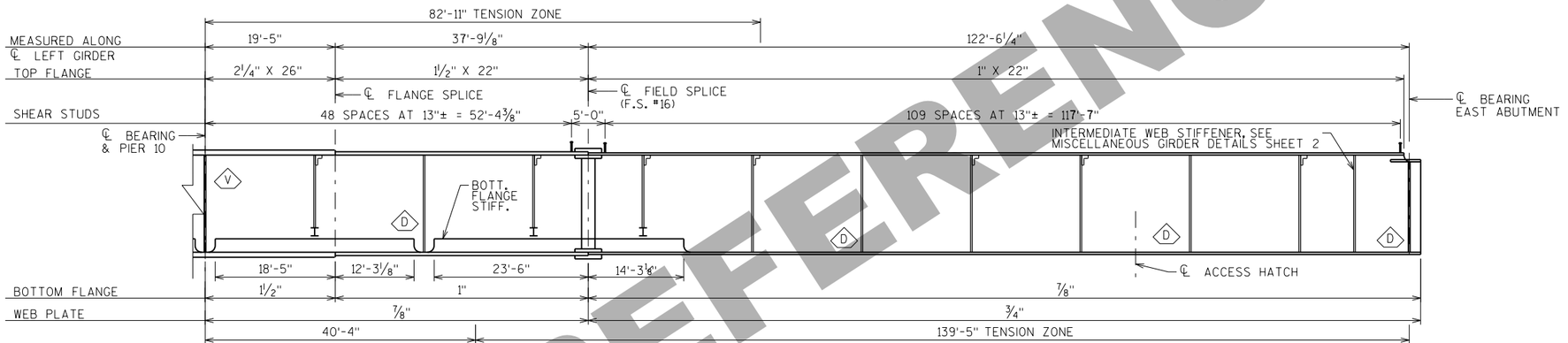
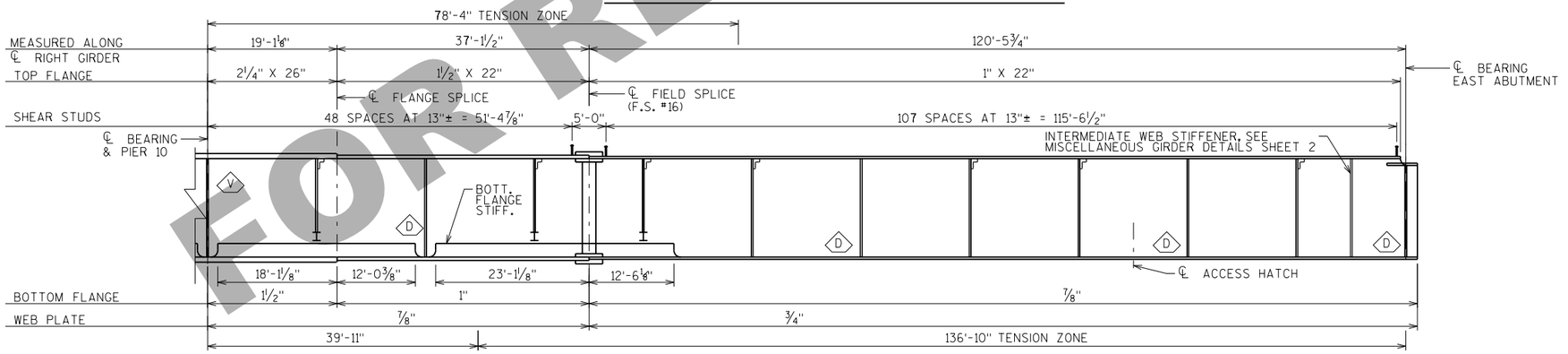


GIRDER PLAN - UNIT 3 SPAN 11



LEFT GIRDER ELEVATION - UNIT 3 SPAN 11



RIGHT GIRDER ELEVATION - UNIT 3 SPAN 11

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-5-671

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 11

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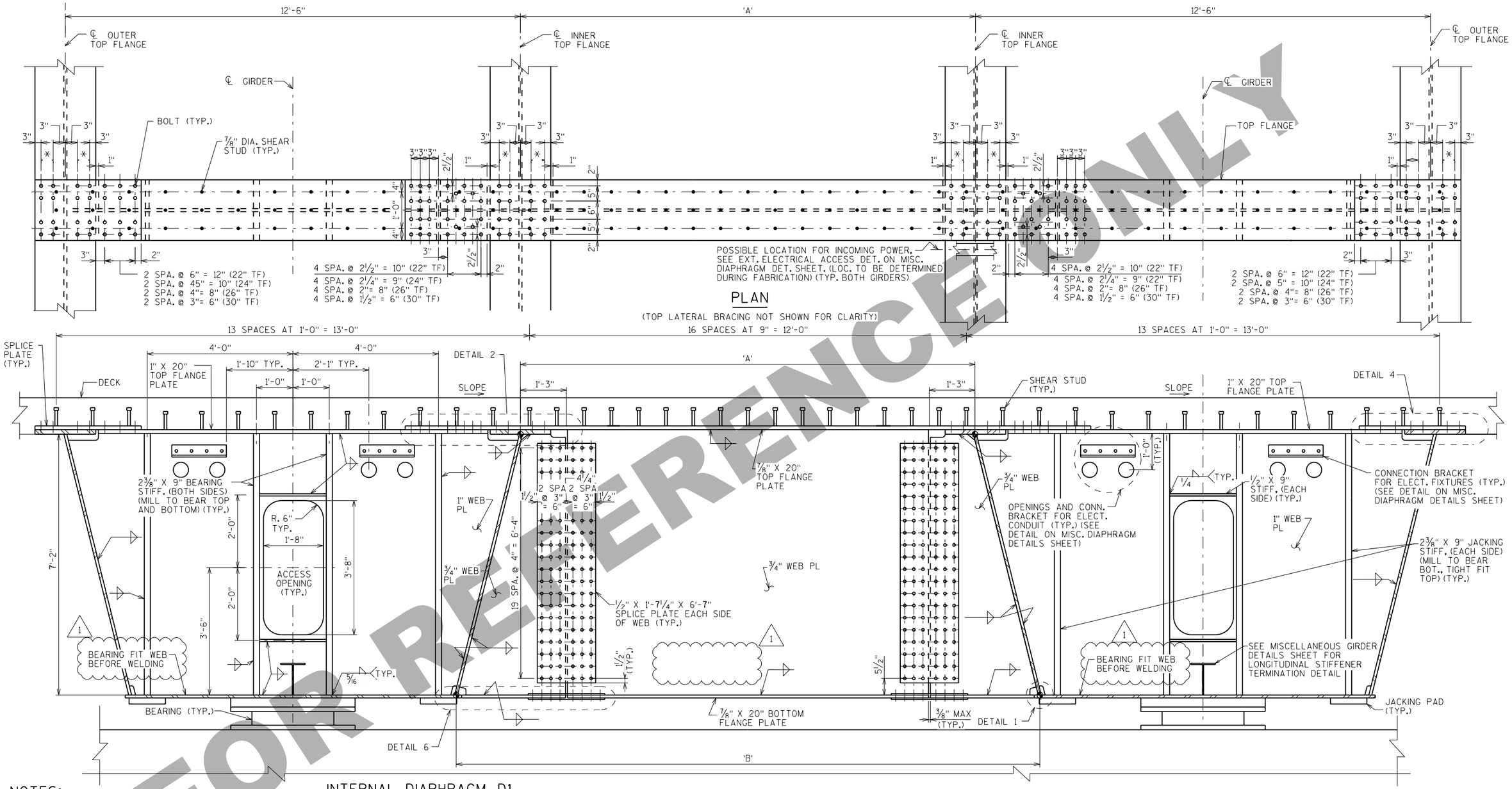
* FOR LOCATIONS WHERE TOP FLANGE WIDTH EXCEEDS 26", USE ADDITIONAL ROW OF BOLTS AND 2 EQUAL SPACINGS



INTERNAL DIAPHRAGM D1

EXTERNAL DIAPHRAGM 'XD1'

INTERNAL DIAPHRAGM D1

ELEVATION

(SUPERELEVATION NOT SHOWN)

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE 7/8" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 2, 4 AND 6 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

TABLE OF VARIABLES

	A	B	SLOPE
XD1-1	12'-6 1/16"	16'-1 1/16"	-2.00%
XD1-2	12'-6 1/2"	16'-1 9/16"	-6.00%

-SLOPE

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1

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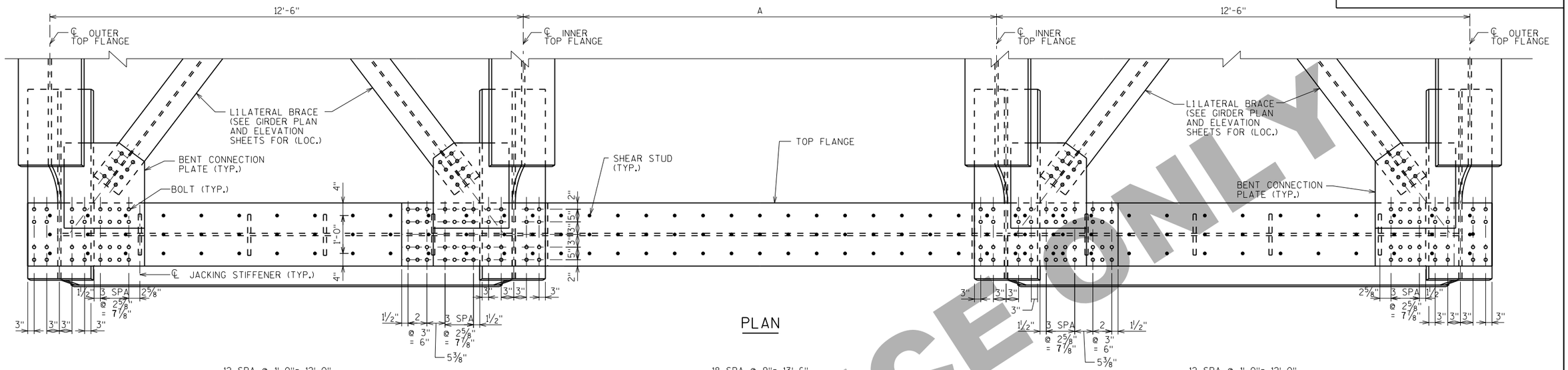
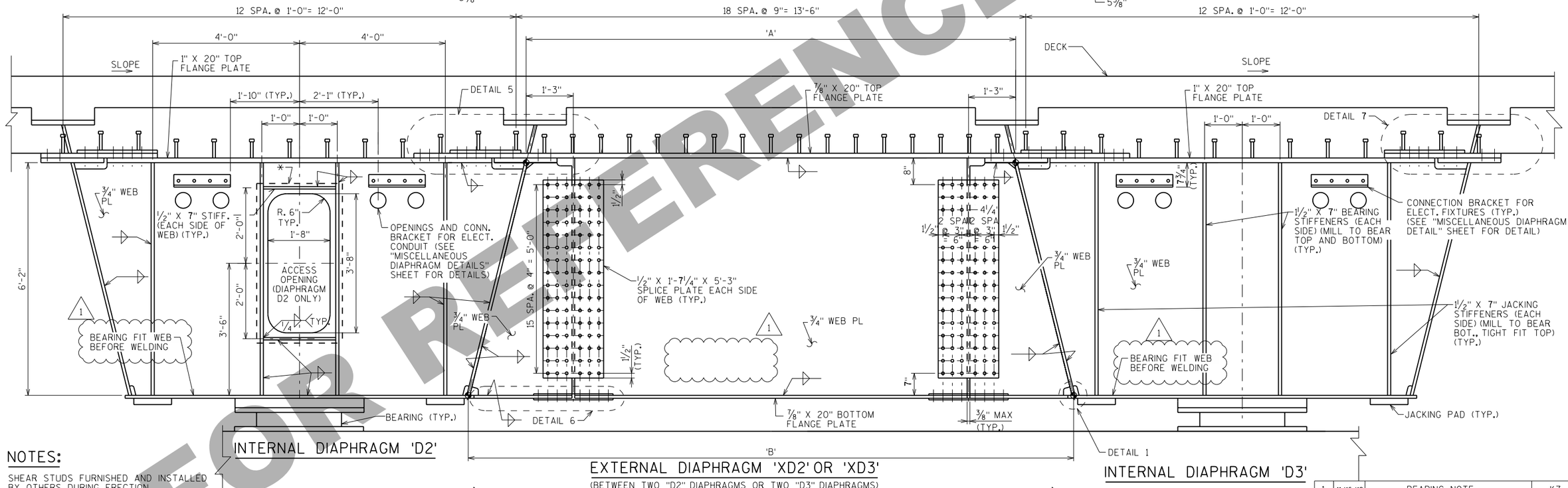


PLAN



INTERNAL DIAPHRAGM 'D2'

EXTERNAL DIAPHRAGM 'XD2' OR 'XD3'
(BETWEEN TWO "D2" DIAPHRAGMS OR TWO "D3" DIAPHRAGMS)

INTERNAL DIAPHRAGM 'D3'

ELEVATION
(SUPERELEVATION NOT SHOWN)

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE 7/8" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF AN ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 5, 6 AND 7 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

* ACCESS DOOR REQUIRED AT INTERNAL DIAPHRAGM D2, SEE ACCESS DOOR DETAILS SHEET.

TABLE OF VARIABLES

	A	B	SLOPE
XD2-1	13'-0 1/16"	16'-1 1/16"	-2.00%
XD2-2	13'-0 9/16"	16'-1 9/16"	-6.00%
XD3-1	13'-0 1/16"	16'-1 1/16"	-2.00%
XD3-2	13'-0 9/16"	16'-1 9/16"	-6.00%

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

-SLOPE

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY JRS | PLANS CK'D. NPP

UNIT END DIAPHRAGMS XD2 XD3, D2, AND D3

SHEET 30 OF 56

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DATE: 4/30/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\XD30-B-05-671E_UNIT END DIAPHRAGMS XD2 XD3 D2 D3.dgn

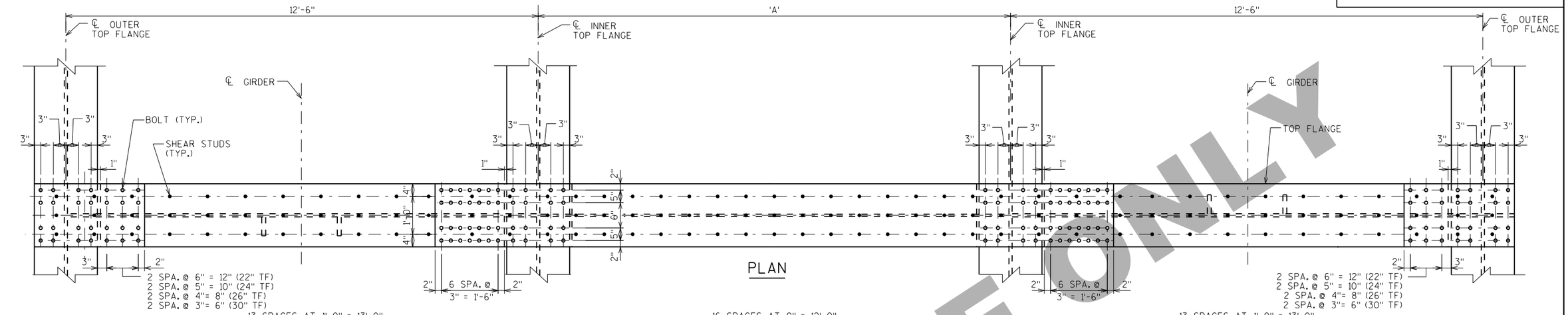
I.D.

8

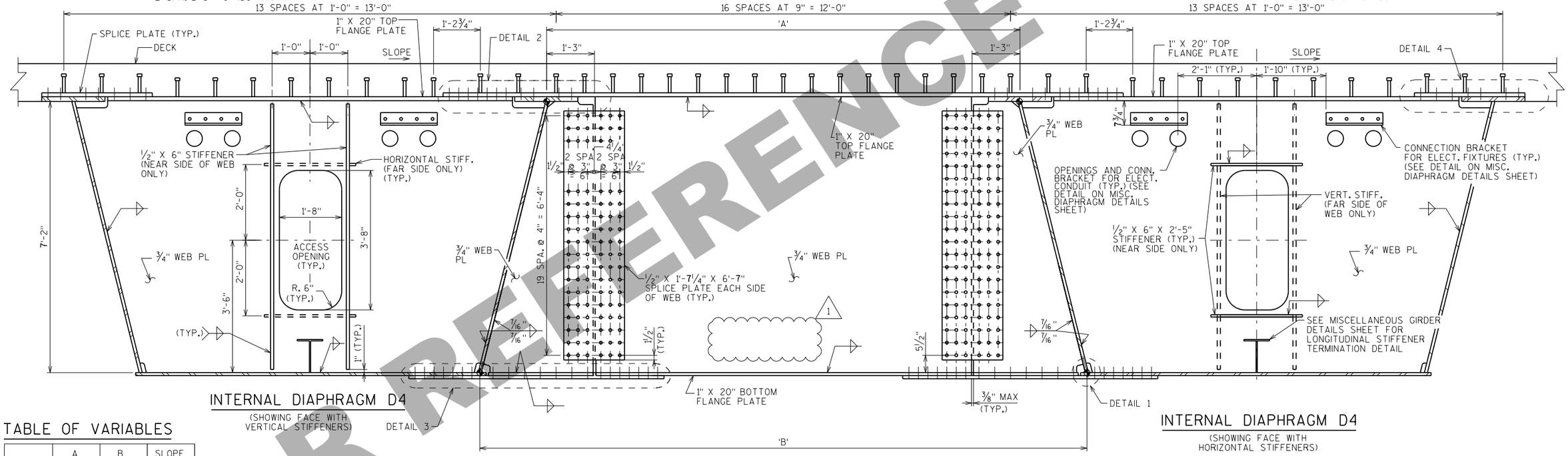
8

FOR REFERENCE ONLY

STATE PROJECT NUMBER
1133-11-71



PLAN



INTERNAL DIAPHRAGM D4
(SHOWING FACE WITH VERTICAL STIFFENERS)

INTERNAL DIAPHRAGM D4
(SHOWING FACE WITH HORIZONTAL STIFFENERS)

EXTERNAL DIAPHRAGM 'XD4'

ELEVATION
(SUPERELEVATION NOT SHOWN)

TABLE OF VARIABLES

	A	B	SLOPE
XD4-1	12'-6 1/16"	16'-1 1/16"	-2.00%
XD4-2	12'-6 1/8"	16'-1 1/8"	-2.85%
XD4-3	12'-6 1/4"	16'-1 1/4"	-4.09%
XD4-4	12'-6 1/2"	16'-1 1/2"	-5.78%
XD4-5	12'-6 1/2"	16'-1 3/16"	-6.00%

-SLOPE

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE ⅞" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 2, 3 AND 4 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE DELETED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY JRS | PLANS CK'D. NPP

INTERMEDIATE DIAPHRAGMS XD4 AND D4 637

SHEET 31 OF 56

DATE: 4/30/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\05-671EX031-B-05-671E_INTERMEDIATE DIAPHRAGMS XD4 D4.dgn

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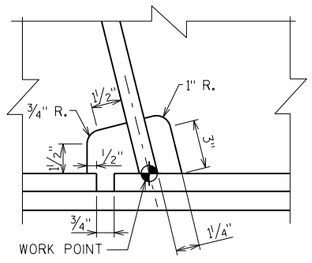
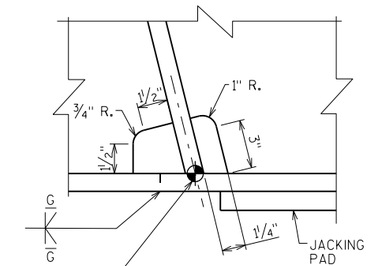
STATE PROJECT NUMBER

1133-11-71



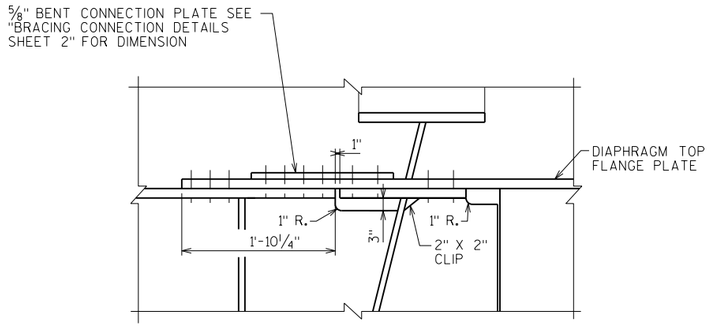
DETAIL 1

DIAPHRAGM XD4/D4



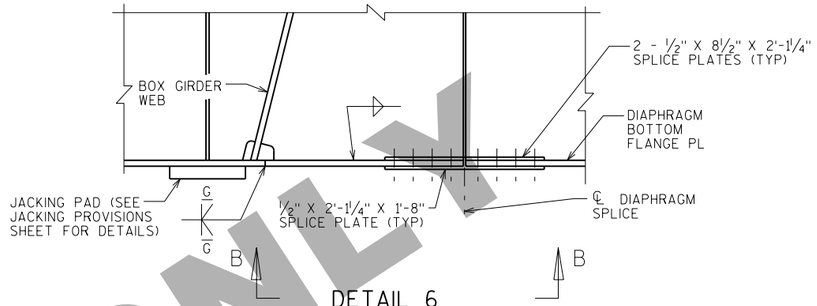
DETAIL 1

DIAPHRAGMS XD1/D1 AND XD2/D2/XD3/D3



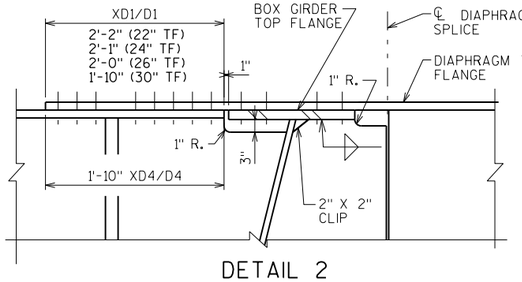
DETAIL 5

DIAPHRAGMS XD2/D2/XD3/D3



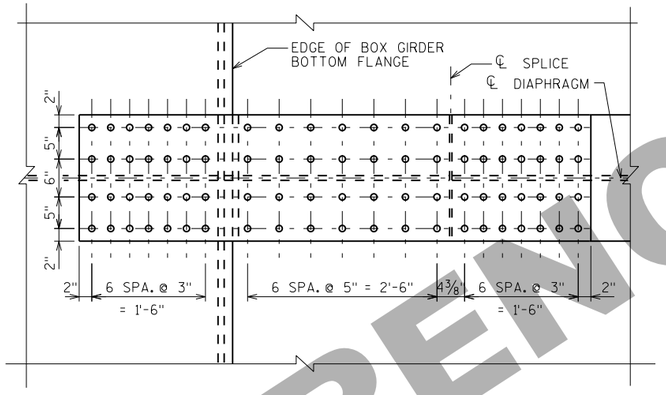
DETAIL 6

DIAPHRAGMS XD1/D1, XD2/D2 AND XD3/D3



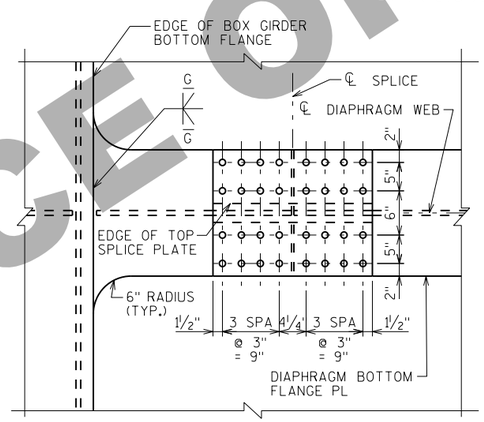
DETAIL 2

SHEET XD1/D1 AND XD4/D4



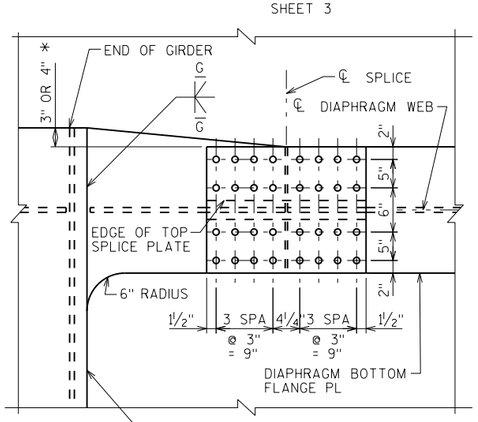
SECTION A-A

THIS SHEET



SECTION B-B

THIS SHEET
(DIAPHRAGM XD1/D1)



SECTION B-B

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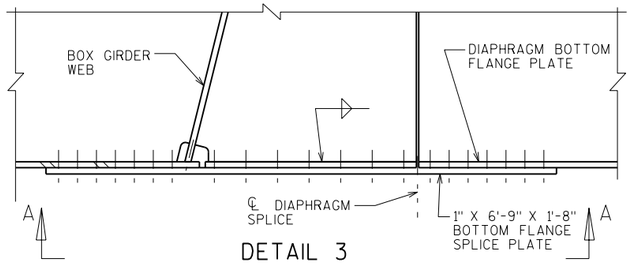
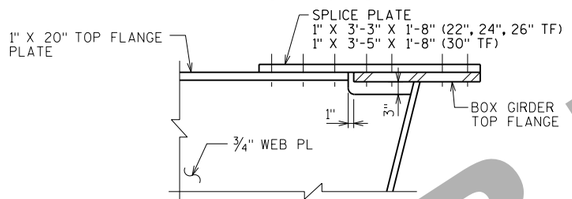
(DIAPHRAGM XD2/D2 AND XD3/D3)



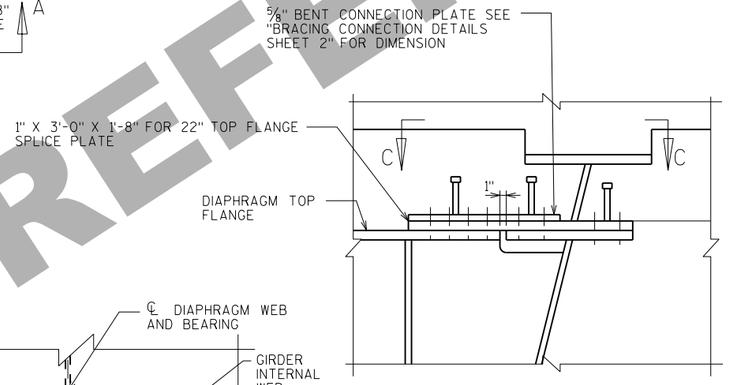
DETAIL 3

DIAPHRAGM XD4/D4



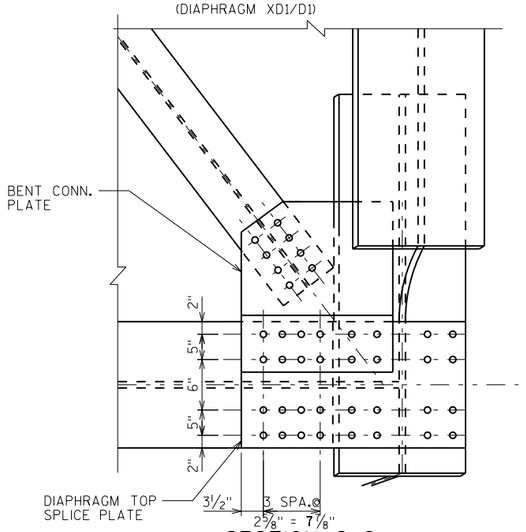
DETAIL 4

DIAPHRAGMS XD1/D1 AND XD4/D4



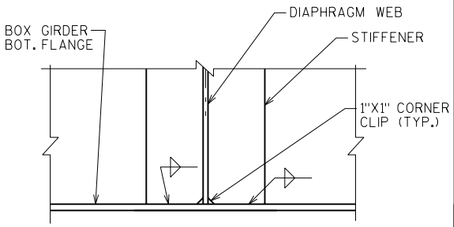
DETAIL 7

DIAPHRAGMS XD2/D2/XD3/D3



SECTION C-C

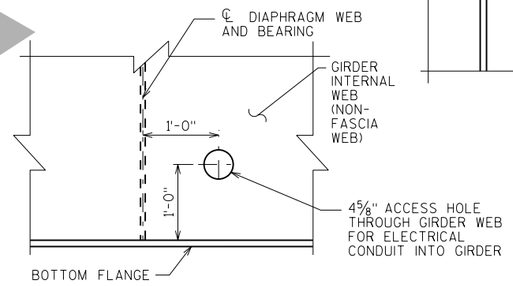
THIS SHEET
(SHEAR STUDS NOT SHOWN FOR CLARITY)



STIFFENER TO FLANGE DETAIL

ALL DIAPHRAGMS AND ALL STIFFENERS
NO WELD AT TOP OF STIFFENERS

OPENINGS AND CONNECTION BRACKET DETAILS FOR ELECTRICAL



EXTERNAL ELECTRICAL ACCESS DETAIL

TWO ACCESS LOCATIONS FOR INCOMING POWER TO INTERIOR OF GIRDER (LOC. TO BE DETERMINED DURING FABRICATION) (TYP. BOTH GIRDERS)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY JRS | PLANS CK'D. NPP

MISCELLANEOUS DIAPHRAGM DETAILS

SHEET 32 OF 56

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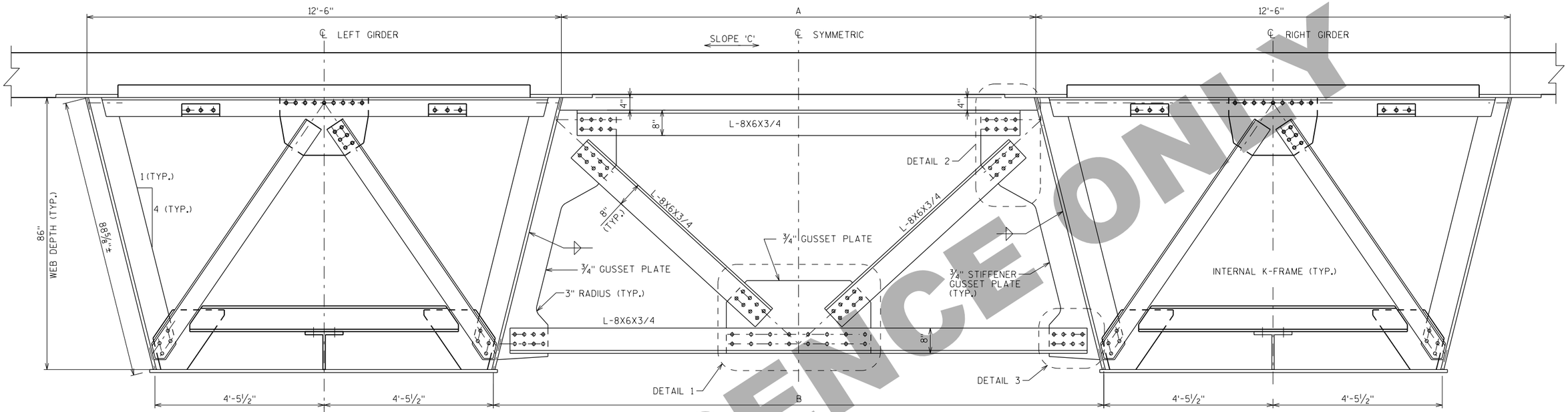
FOR REFERENCE ONLY

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-671E\DIAPHRAGM MISC DETAILS.dgn
DATE: 4/30/2013
I.D.

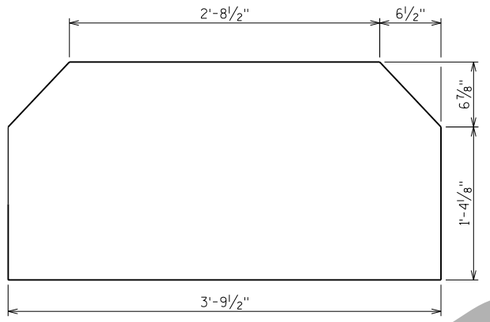
STATE PROJECT NUMBER

1133-11-71

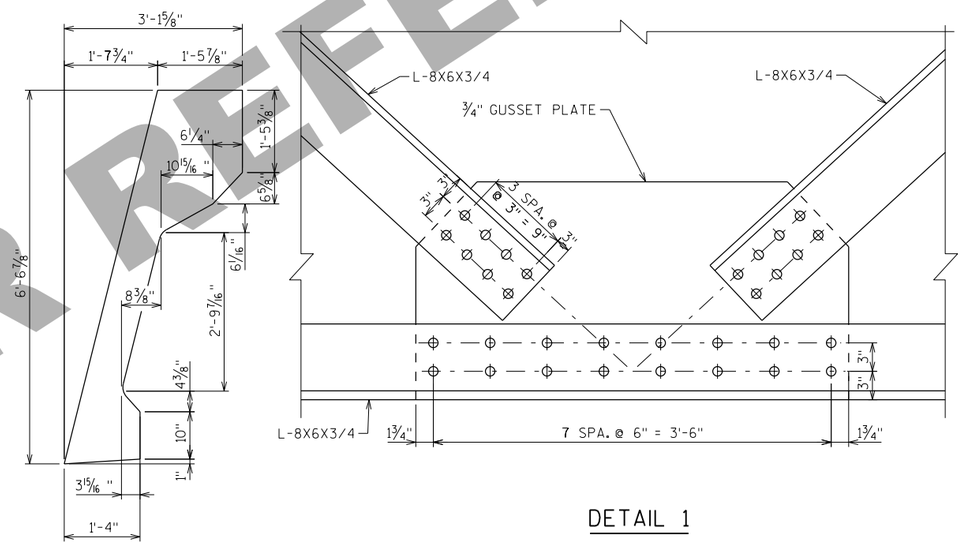


ELEVATION EXTERIOR CROSS FRAME XF

(SUPERELEVATION NOT SHOWN)
(LOOKING UPSTATION)

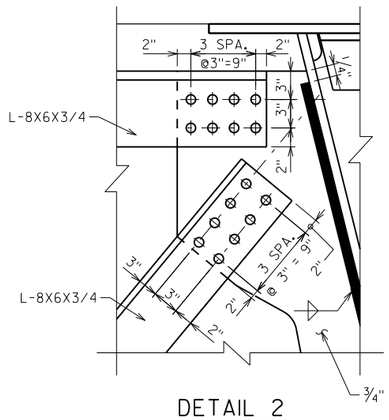


GUSSET PLATE DETAILS

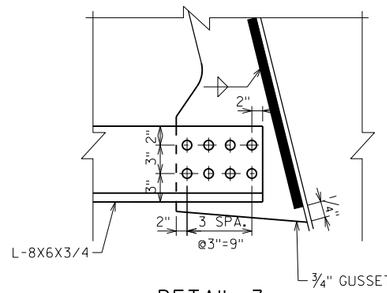


STIFFENER GUSSET PLATE DETAILS

DETAIL 1



DETAIL 2



DETAIL 3

NOTES:

1. ALL HOLES SHALL BE STANDARD DIAMETER - NO OVERSIZE HOLES.
2. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS
3. CROSS FRAMES ARE ALIGNED NORMAL TO THE GIRDERS.
4. EXTERIOR CONNECTION PLATES SHALL BE LOCATED DIRECTLY IN LINE WITH THE CORRESPONDING WEB STIFFENER LOCATED INSIDE THE BOX.
5. FOR SUPERELEVATED ROAD SECTION, THE EXTERIOR FRAMES VARY IN LENGTH

TABLE OF VARIABLES

+SLOPE 'C'

	A	B	C
XF-1	12'-6 1/16"	16'-1 1/16"	-2.00%
XF-2	12'-6 1/2"	16'-1 3/16"	-6.00%

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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EXTERIOR CROSS FRAME DETAILS

SHEET 33 OF 56

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FOR REFERENCE ONLY

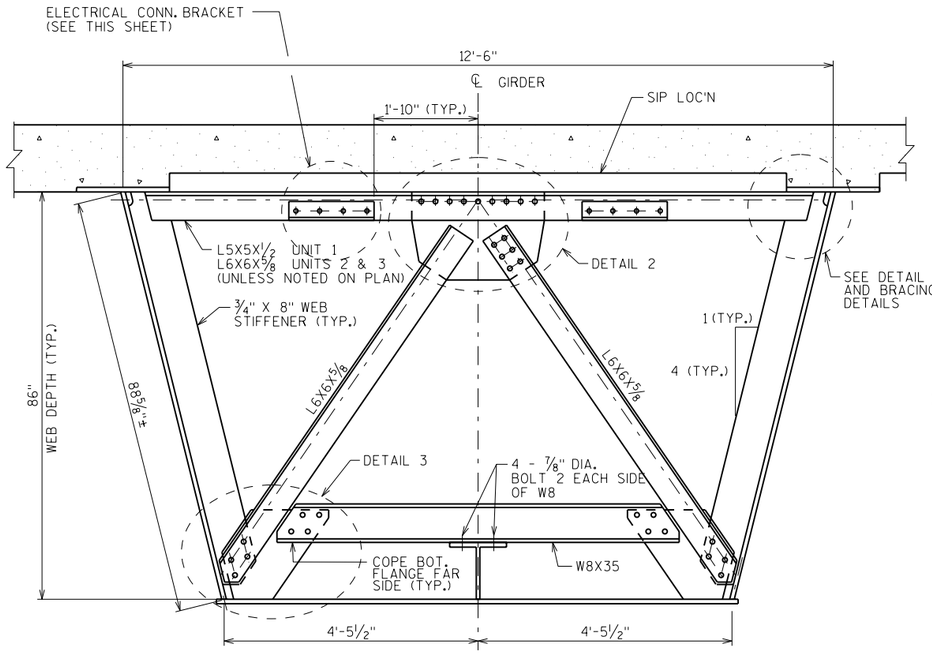
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\033-B-05-671E_CROSS FRAM EXT.dgn

DATE: 4/30/2013

I.D.

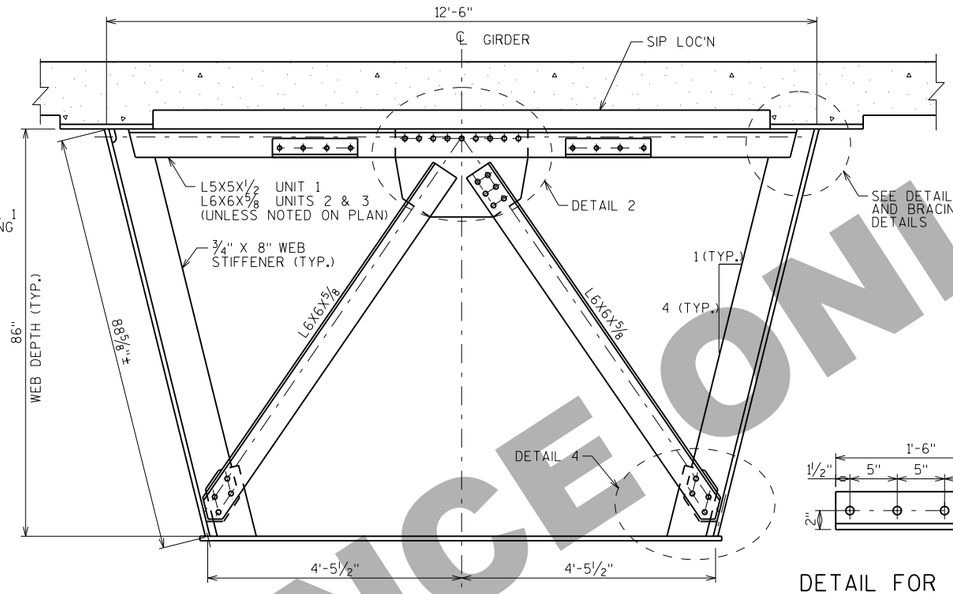
STATE PROJECT NUMBER

1133-11-71



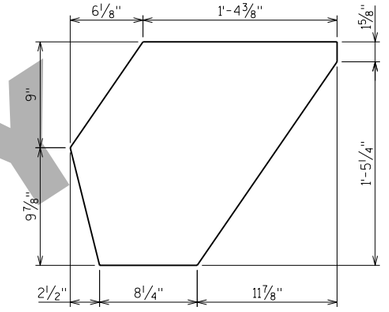
TYPICAL SECTION AT K-FRAME K1

(DETAIL WITH LONGITUDINAL STIFFENER)

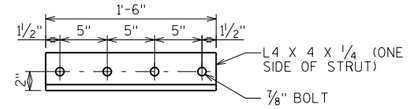


TYPICAL SECTION AT K-FRAME K1

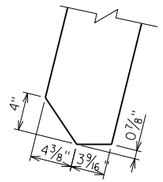
(DETAIL WITHOUT LONGITUDINAL STIFFENER)



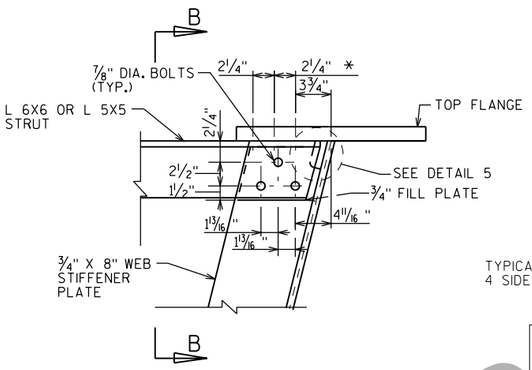
PL ¾" DETAIL



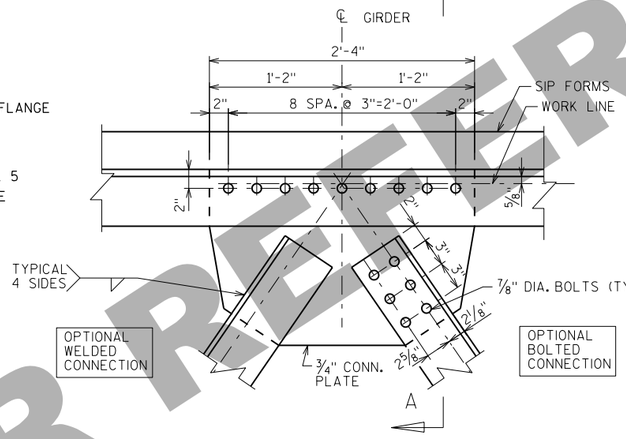
DETAIL FOR ELECTRICAL CONNECTION BRACKET



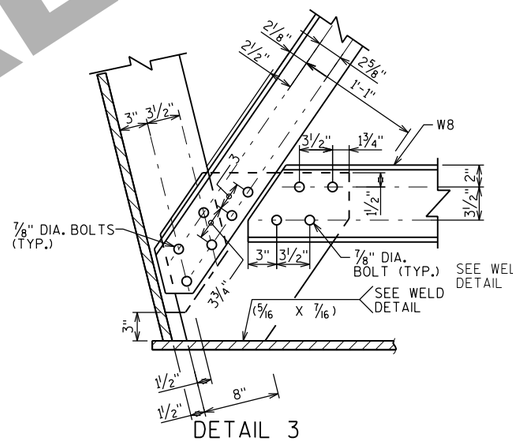
WEB STIFFENER DETAIL



DETAIL 1

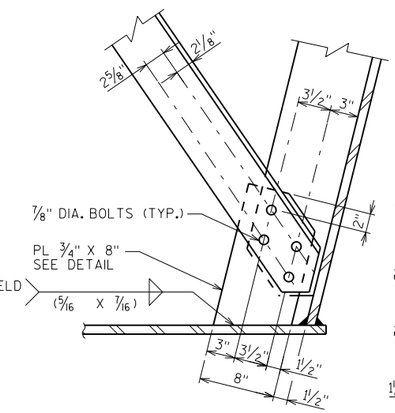


DETAIL 2



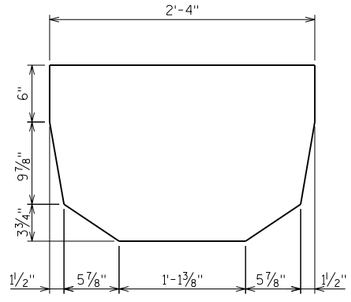
DETAIL 3

(DETAIL FOR CROSS FRAMES WITH BOTTOM CHORD)



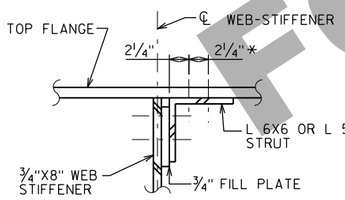
DETAIL 4

(DETAIL FOR CROSS FRAMES WITHOUT BOTTOM CHORD)

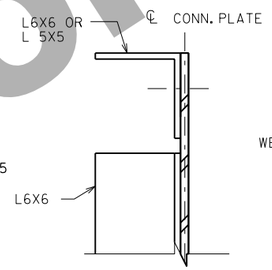


¾" CONN. PLATE DETAIL

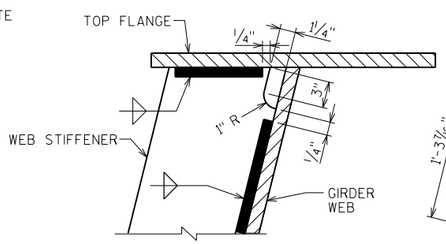
* BOLT SPACING FOR STRUT TO TOP FLANGE CONNECTION. SEE BRACING DETAILS SHEET FOR PLAN VIEW.



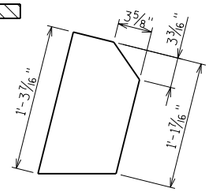
SECTION B-B



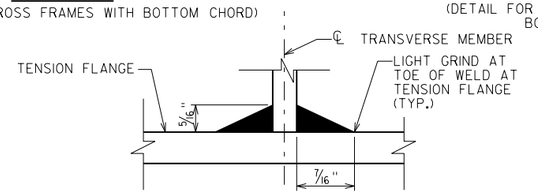
SECTION A-A



DETAIL 5



PL ¾"X8" DETAIL



TRANSVERSE WELD TO TENSION FLANGE DETAIL

TYP. FOR ANY TENSION FLANGE (BOTTOM FLANGE SHOWN)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY JRS | PLANS CK'D. NPP

INTERIOR CROSS FRAME K1 640 DETAILS

SHEET 34 OF 56

DATE: 4/30/2013
I.D.

FILE= O:\WisDot_12345678_LS41Bridges_Plans\B-05-671E\034-B-05-671E_CROSS FRAM INT K1.dgn

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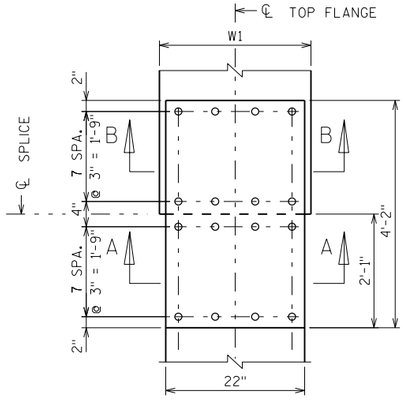
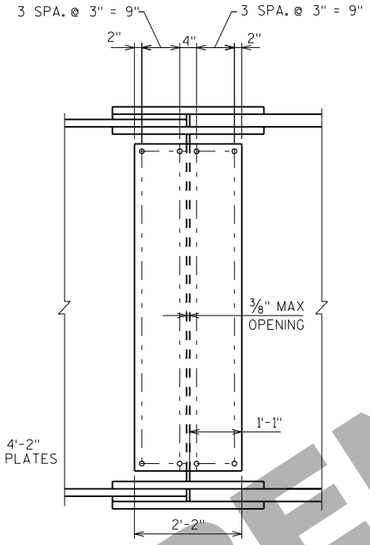
STATE PROJECT NUMBER

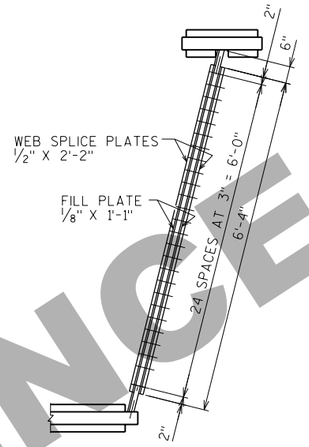
1133-11-71



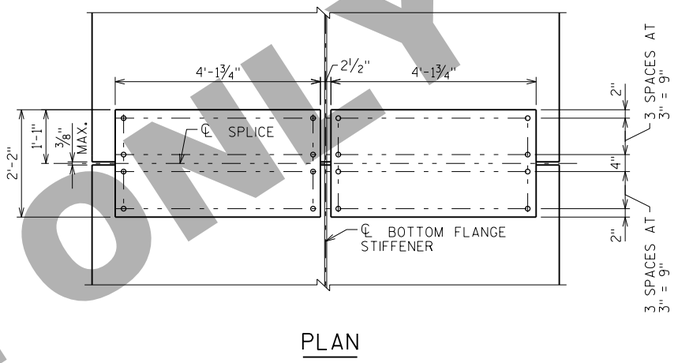
PLAN



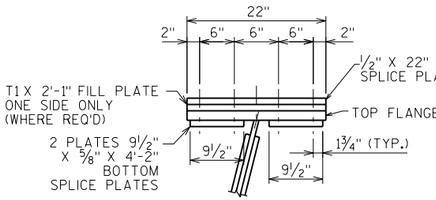
ELEVATION



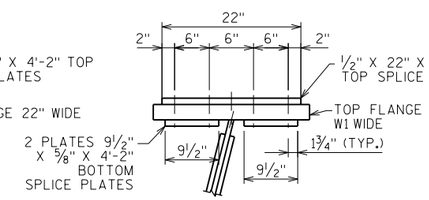
SECTION



PLAN



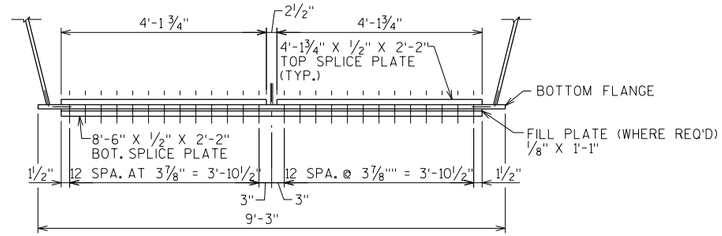
SECTION A-A



SECTION B-B

TYPICAL TOP FLANGE CONNECTION

TYPICAL WEB CONNECTION



SECTION

TYPICAL BOTTOM FLANGE CONNECTION

FIELD SPLICE NO.	VARIABLE DIMENSIONS	
	T1 (IN)	W1 (IN)
1	0.5	22
2	0.5	22
3	0.5	22
4	0.5	22
5	0.75	24
6	0.75	24
7	0.75	24
8	0.75	24
9	0.75	24
10	0.75	24
11	0.5	22
12	0.5	22
13	0.5	22
14	0.5	22
15	0.5	22
16	0.5	22

NOTES:

ALL BOLTS SHOWN ARE 7/8" DIAMETER ASTM A325 TYPE 1.

ALL HOLES SHALL BE STANDARD DIAMETER NO OVERSIZE HOLES.

ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CLASS A CONNECTIONS

ALL SPLICE PLATES SHALL BE ASTM A709 GRADE HPS 50W.

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STATE OF WISCONSIN
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STRUCTURE B-5-671

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FIELD SPLICE DETAILS

SHEET 35 OF 56

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STEEL FABRICATION CONTRACT ONLY

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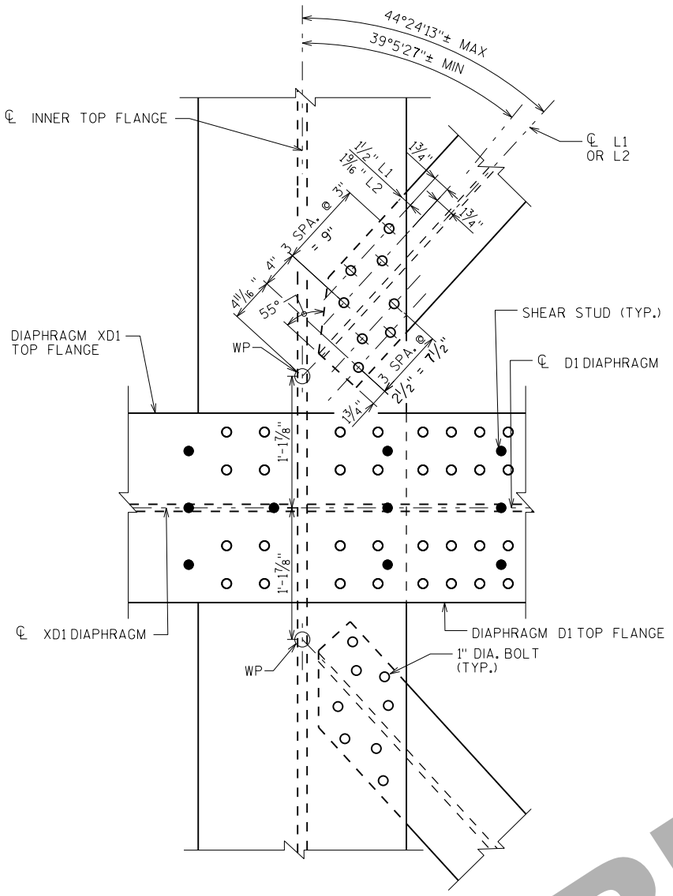
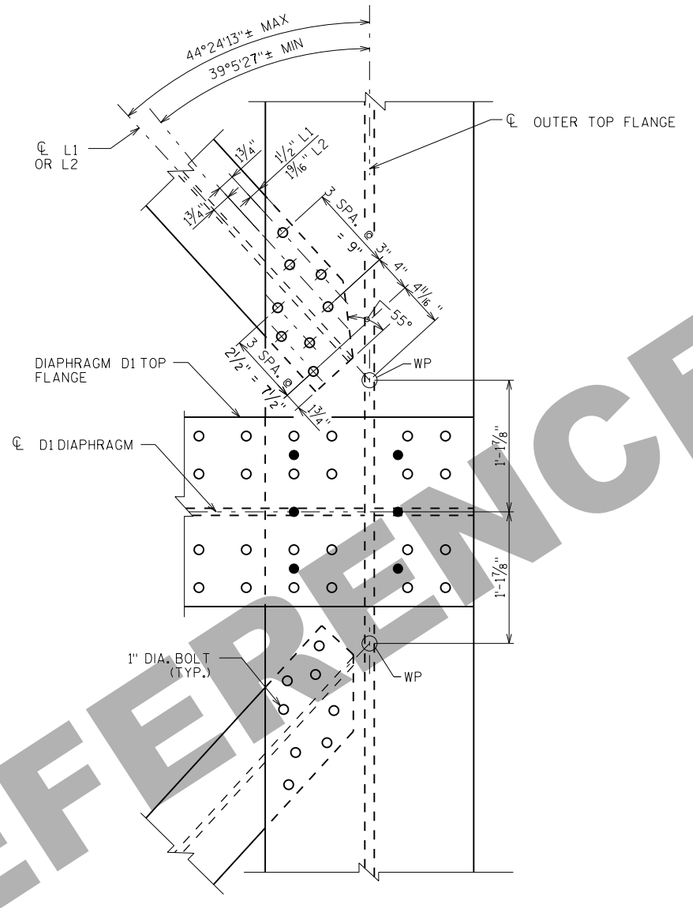


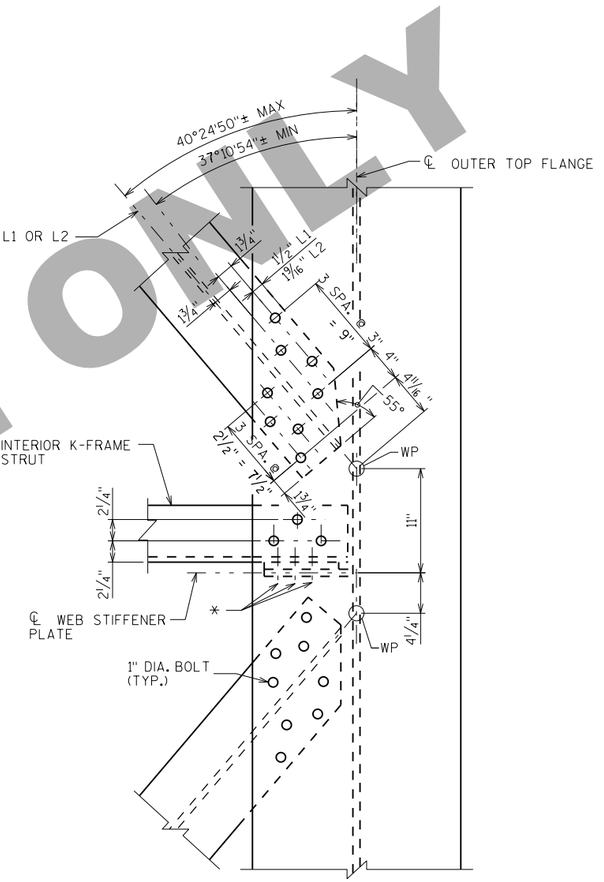
PLAN VIEW AT DIAPHRAGM XD1/D1

(SHOWING INNER TOP FLANGE)
(XD4/D4 SIMILAR)



PLAN VIEW AT DIAPHRAGM XD1/D1

(SHOWING OUTER TOP FLANGE)
(XD4/D4 SIMILAR)



PLAN VIEW AT K-FRAME

(SHOWING OUTER TOP FLANGE)
(INNER TOP FLANGE SIMILAR)

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR LOCATIONS OF DETAILS.

LATERAL BRACE MEMBERS:

L1: WT7X34
L2: WT7X37

* SEE INTERIOR CROSS FRAME K-1 DETAILS SHEET FOR ADDITIONAL DETAILS FOR BOLTED CONNECTION THROUGH STRUT ANGLE LEG TO WEB STIFFENER.

NOTES:

LATERAL BRACE L1 SHALL BE CONNECTED TO THE DIAPHRAGM TOP FLANGE AND GIRDER TOP FLANGE WITH 8-1" DIAMETER BOLTS. LATERAL BRACES L2 SHALL BE CONNECTED WITH 10-1" DIAMETER BOLTS.

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY KJZ | PLANS CK'D. NPP

BRACING CONNECTION DETAILS SHEET 1

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I.D.

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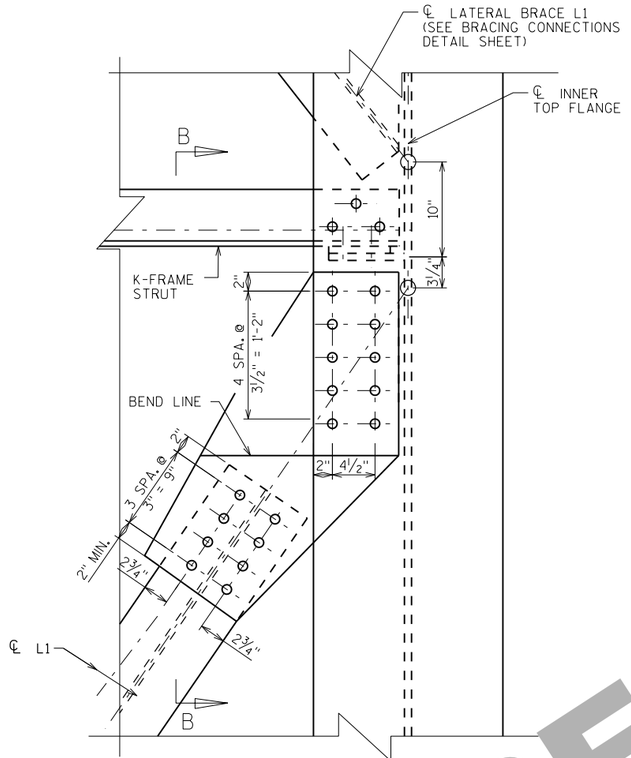
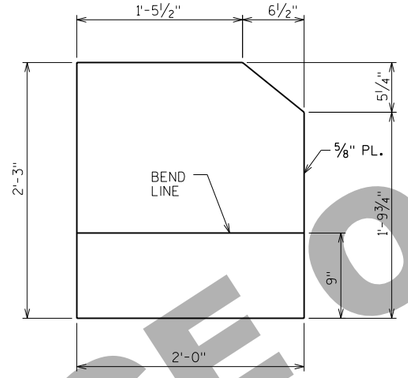
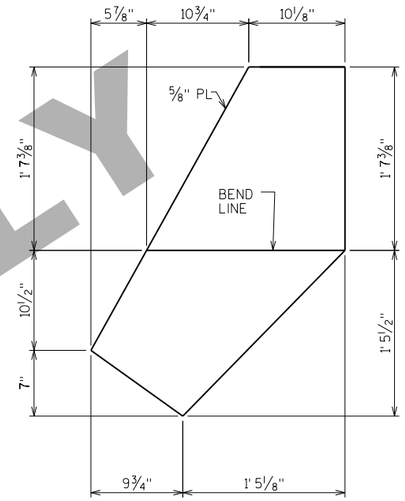


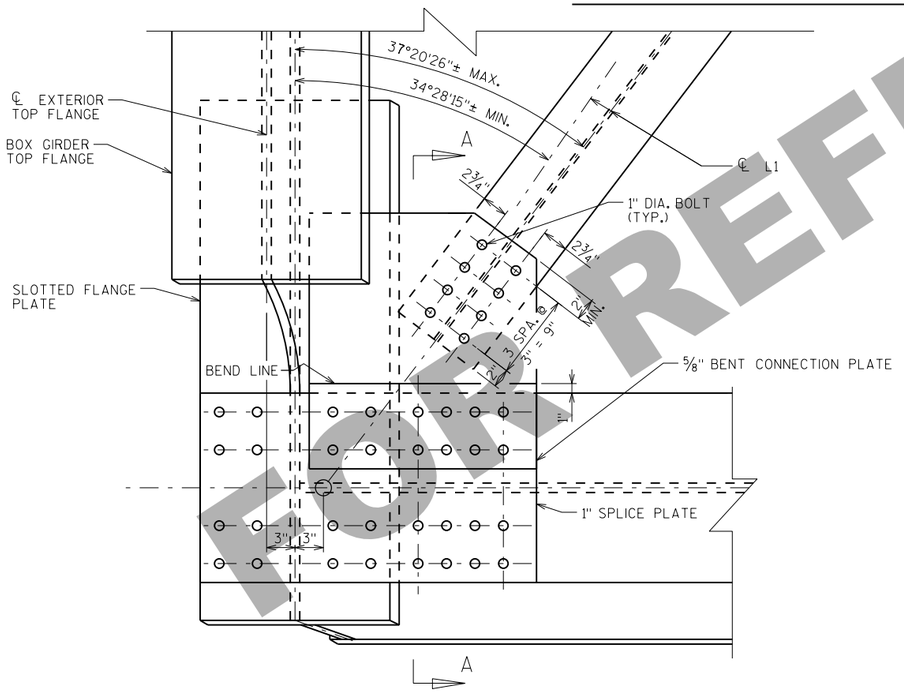
PLAN VIEW AT K-FRAME ADJACENT TO UNIT END



BENT CONNECTION PLATE DETAIL

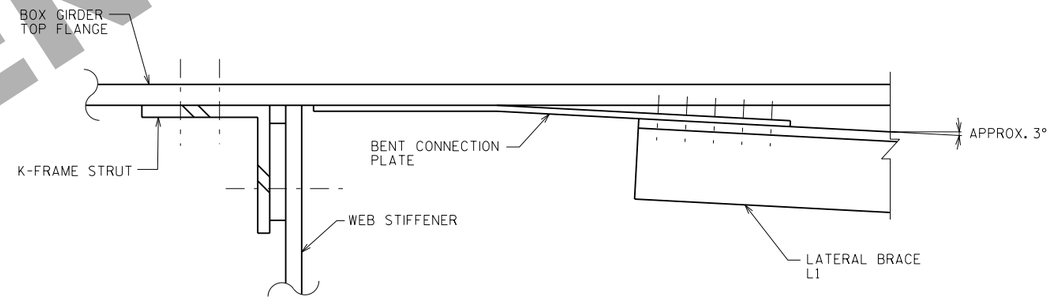


BENT CONNECTION PLATE DETAIL



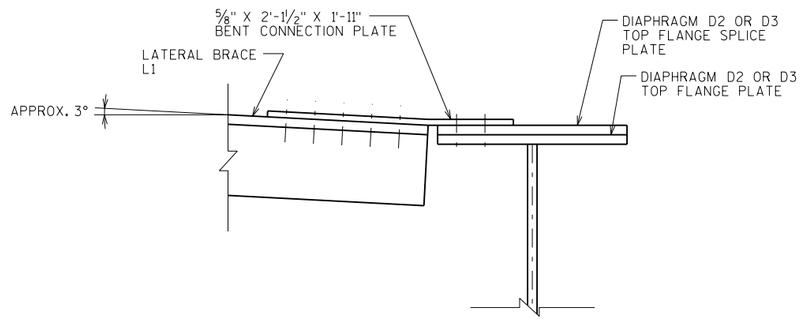
PLAN VIEW AT UNIT END DIAPHRAGM

(EXTERIOR GIRDER SHOWN, INTERIOR GIRDER SIMILAR)



SECTION B-B

THIS SHEET



SECTION A-A

THIS SHEET

STEEL FABRICATION CONTRACT ONLY

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS
FOR LOCATIONS OF DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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BRACING CONNECTION DETAILS SHEET 2

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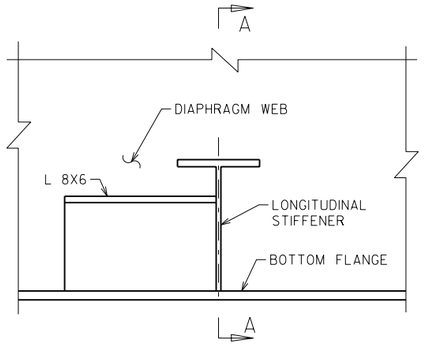
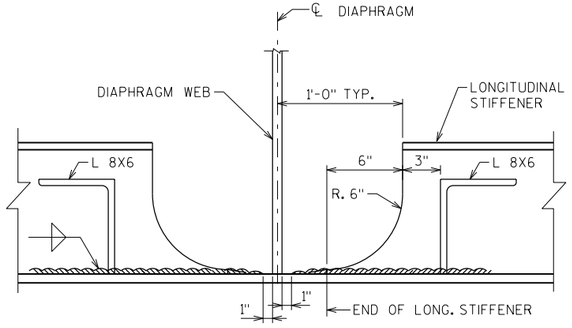
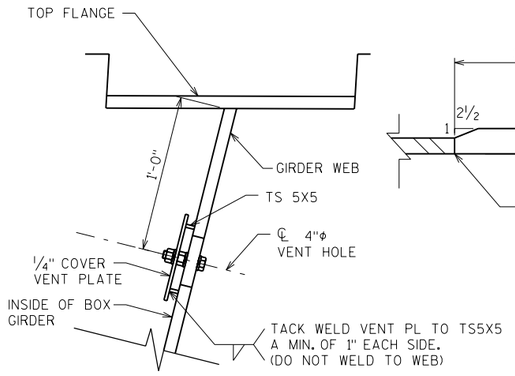


STIFFENER TERMINATION AT INTERIOR DIAPHRAGM

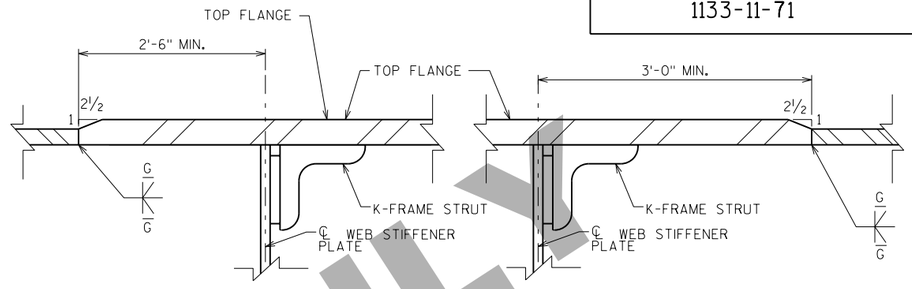


SECTION A-A

FOR MORE INFORMATION AND DETAILS SEE MISCELLANEOUS GIRDER DETAILS SHEET 2

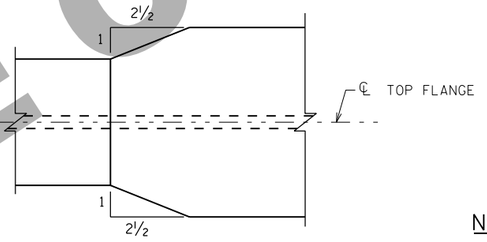


VENT HOLE LOCATION



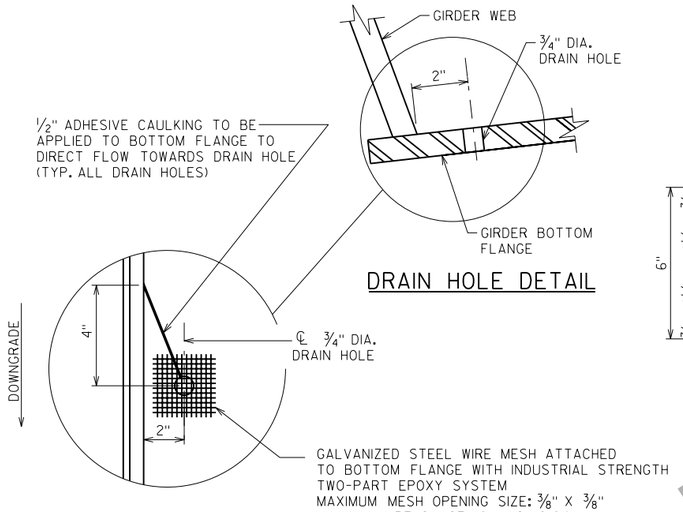
FLANGE THICKNESS TRANSITION DETAIL

NOT TO SCALE



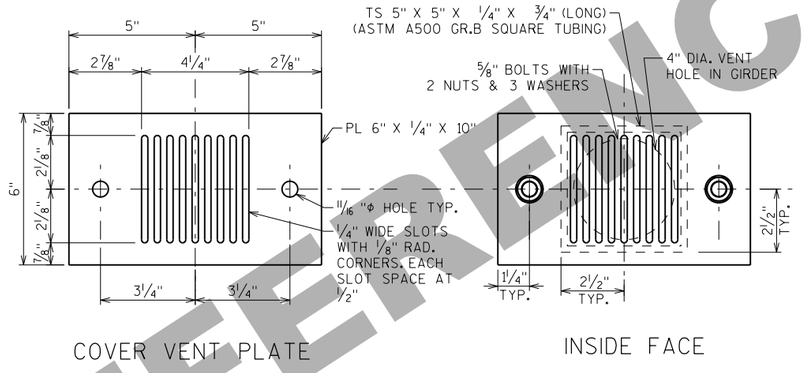
TOP FLANGE WIDTH TRANSITION DETAIL

NOT TO SCALE



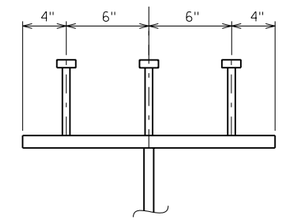
DRAIN HOLE DETAIL

PLAN OF DRAIN HOLES

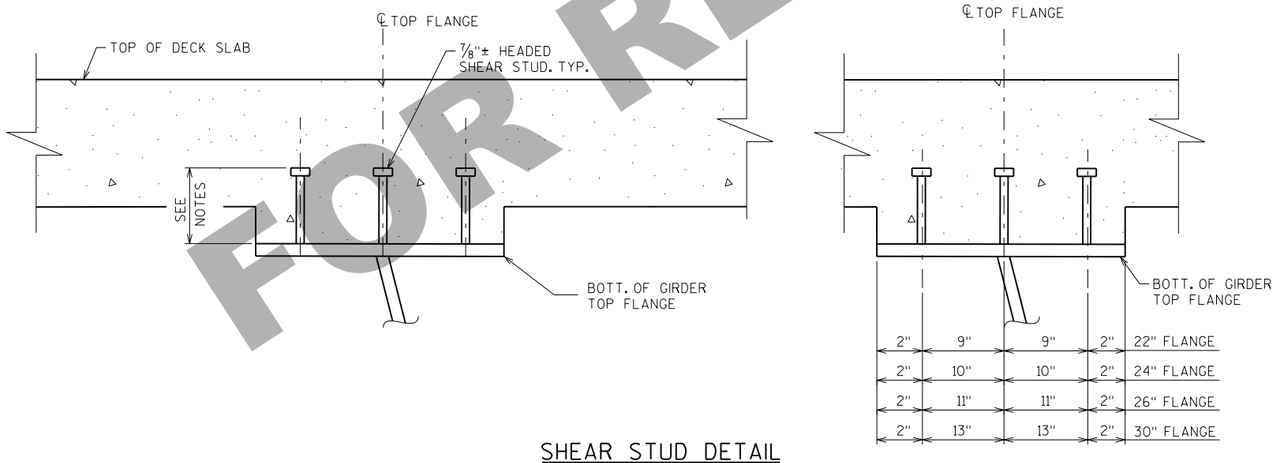


VENT HOLE COVER ASSEMBLY

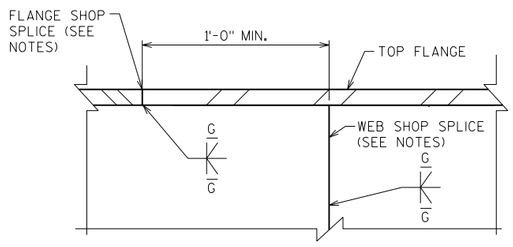
NOT TO SCALE



SHEAR STUD DETAIL AT DIAPHRAGM



SHEAR STUD DETAIL



OPTIONAL SHOP SPLICE DETAIL

NOT TO SCALE
(SEE FLANGE THICKNESS TRANSITION DETAIL FOR MINIMUM SPACING OF SHOP SPLICES TO STIFFENERS AND K-FRAMES)

STEEL FABRICATION CONTRACT ONLY

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR DRAIN AND VENT HOLE LOCATIONS.

LOCATE ALL VENT HOLES ON THE INTERIOR WEBS - I.E. THE RIGHT WEB OF THE LEFT GIRDER AND THE LEFT WEB OF THE RIGHT GIRDER.

VENT HOLE COVER ASSEMBLIES SHALL BE HOT- DIP GALVANIZED AFTER FABRICATION AND INSTALLED AFTER GIRDERS ARE PAINTED.

LOCATE ALL DRAIN HOLES ON THE LOW SIDE OF THE GIRDER AS SHOWN.

COST OF ADHESIVE CAULKING, WIRE MESH AND ATTACHMENT IS INCLUDED IN THE COST OF "FABRICATED STRUCTURAL STEEL HPS 50W B-5-671".

SHEAR STUD CONNECTORS ARE SHOWN FOR REFERENCE ONLY AND ARE NOT FURNISHED OR INSTALLED AS PART OF THIS CONTRACT.

SHEAR CONNECTORS PROVIDED IN FUTURE CONTRACT WILL PENETRATE INTO DECK 2" ABOVE BOTTOM MAT OF REINFORCING STEEL.

FOR WEB PLATES WITH LENGTHS MORE THAN 90'-0", ONE OPTIONAL WELDED SHOP SPLICE IS ALLOWED PER FIELD SECTION. FOR ALL FLANGE PLATES, A MAXIMUM OF TWO OPTIONAL WELDED SHOP SPLICES IS ALLOWED PER FIELD SECTION. NO ADDITIONAL PAYMENT WILL BE MADE FOR OPTIONAL WELDED SHOP SPLICES OR FOR SHOP SPLICES AS REQUIRED DUE TO MAXIMUM PLATE LENGTH AVAILABILITY FROM THE MILL.

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	ZMG	PLANS CK'D.	NPP

MISCELLANEOUS GIRDER DETAILS SHEET 1

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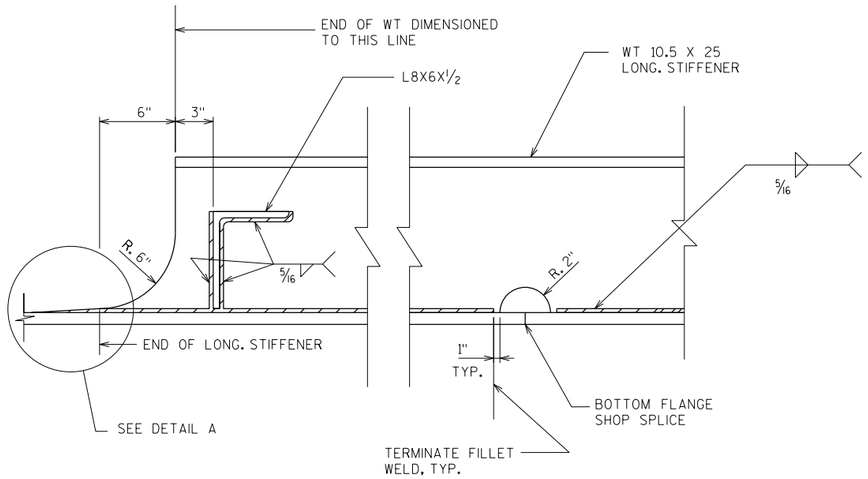
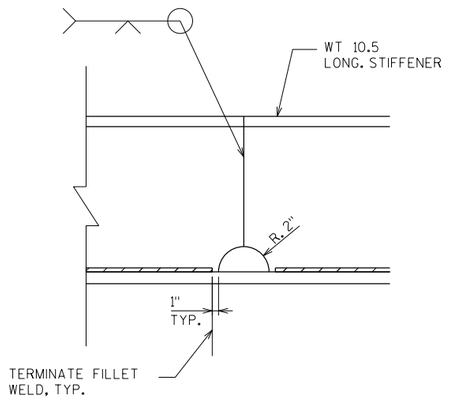
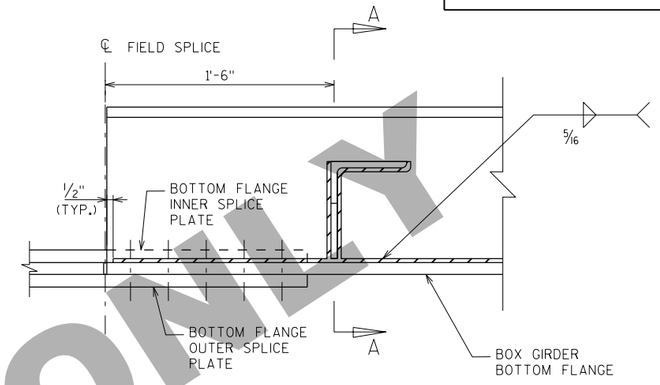


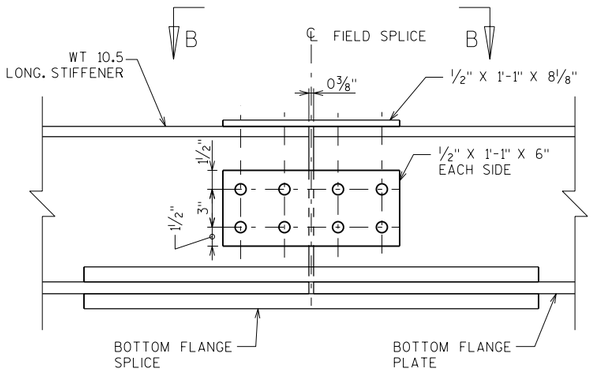
BOTTOM FLANGE LONGITUDINAL STIFFENER TYPICAL TERMINATION DETAIL



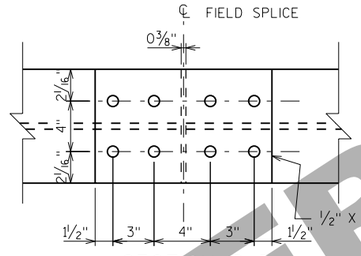
BOTTOM FLANGE LONGITUDINAL STIFFENER SPLICE



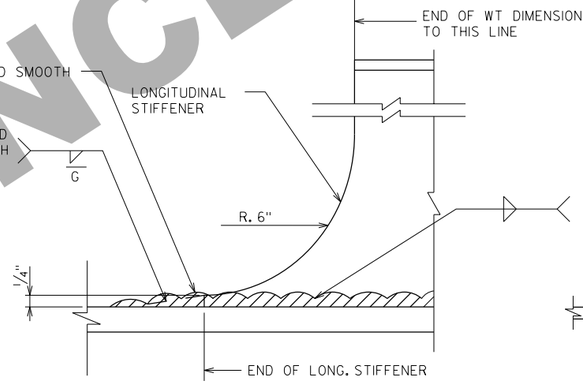
BOTTOM FLANGE LONGITUDINAL STIFFENER TERMINATION DETAIL AT GIRDER FIELD SPLICE



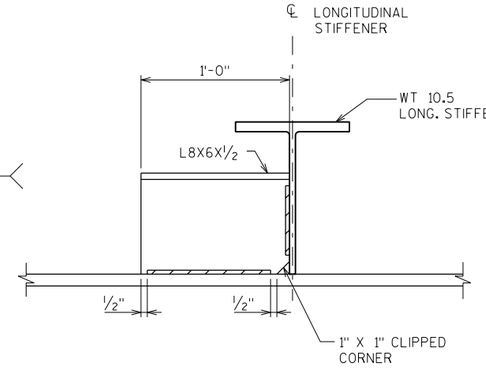
BOTTOM FLANGE LONGITUDINAL STIFFENER FIELD SPLICE DETAIL



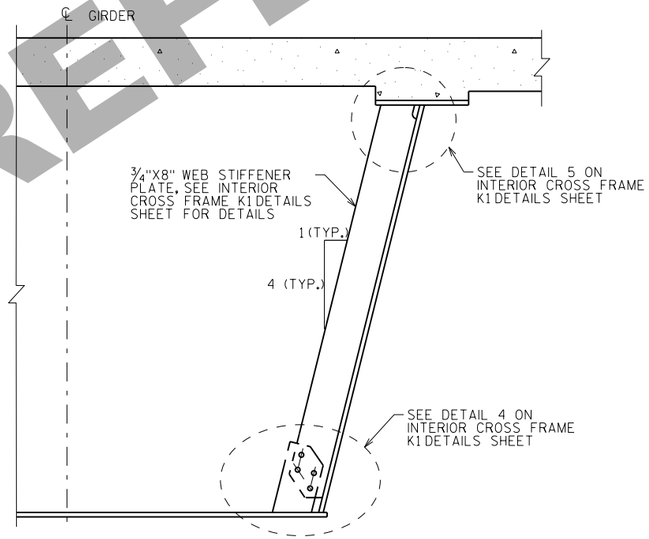
SECTION B-B



DETAIL A



SECTION A-A



TYPICAL SECTION AT INTERMEDIATE WEB STIFFENER

(HALF-SECTION SHOWN)

BOTTOM FLANGE LONGITUDINAL STIFFENER TERMINATION DETAIL

NOTES:

FOR NOTES SEE MISCELLANEOUS GIRDER DETAILS SHEET.

STEEL FABRICATION CONTRACT ONLY

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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MISCELLANEOUS GIRDER DETAILS SHEET 2 645

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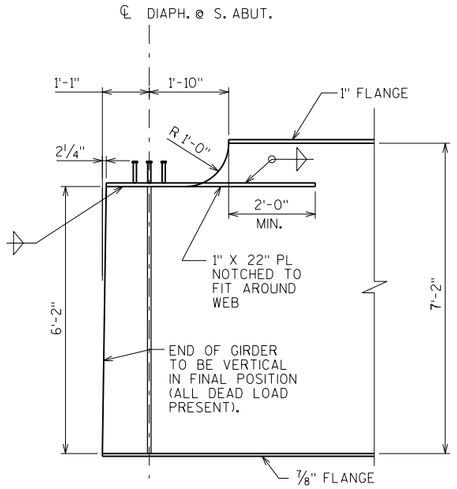
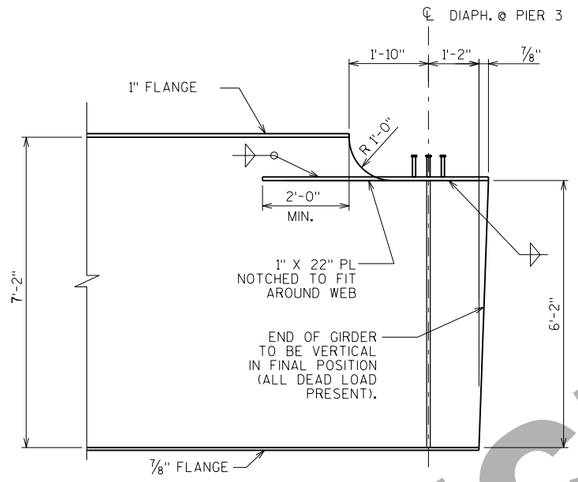
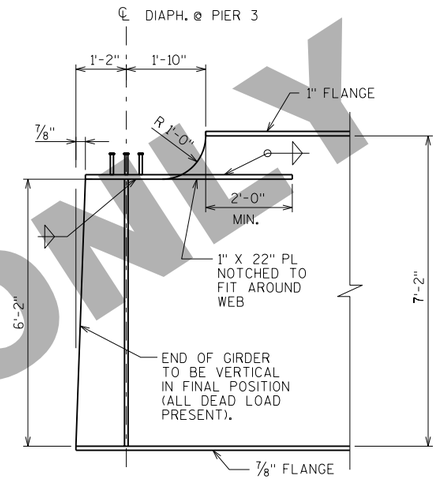


UNIT 1 SPAN 1

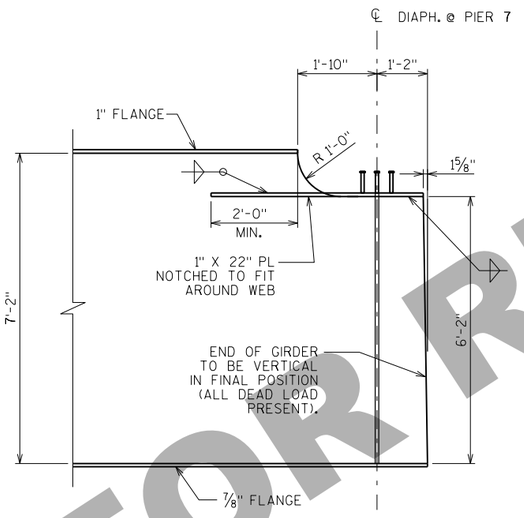
(GIRDER IS PARALLEL TO VERTICAL CURVE)



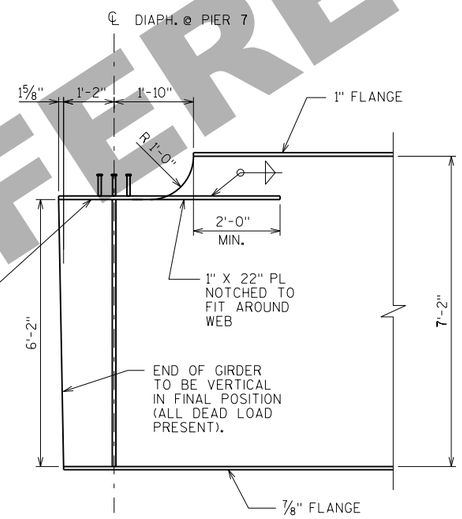
UNIT 1 SPAN 3



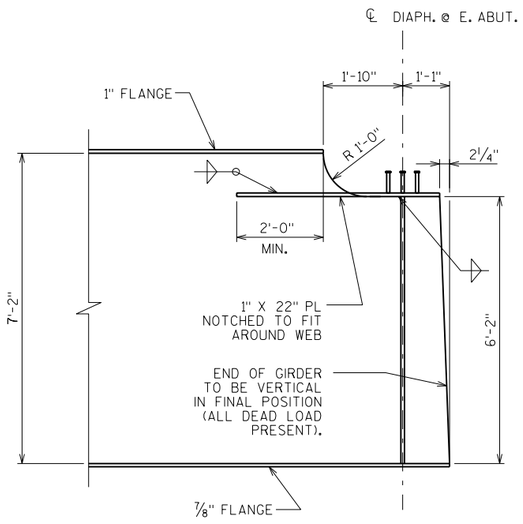
UNIT 2 SPAN 4



UNIT 2 SPAN 7



UNIT 3 SPAN 8



UNIT 3 SPAN 11

NOTE:

GIRDER FLANGES ARE NOT HORIZONTAL, BUT PARALLEL TO VERTICAL CURVE. DIAPHRAGMS ARE PERPENDICULAR TO GIRDERS FLANGES. ONLY ENDS OF GIRDER WEBS ARE VERTICAL.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

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MISCELLANEOUS GIRDER DETAILS SHEET 3

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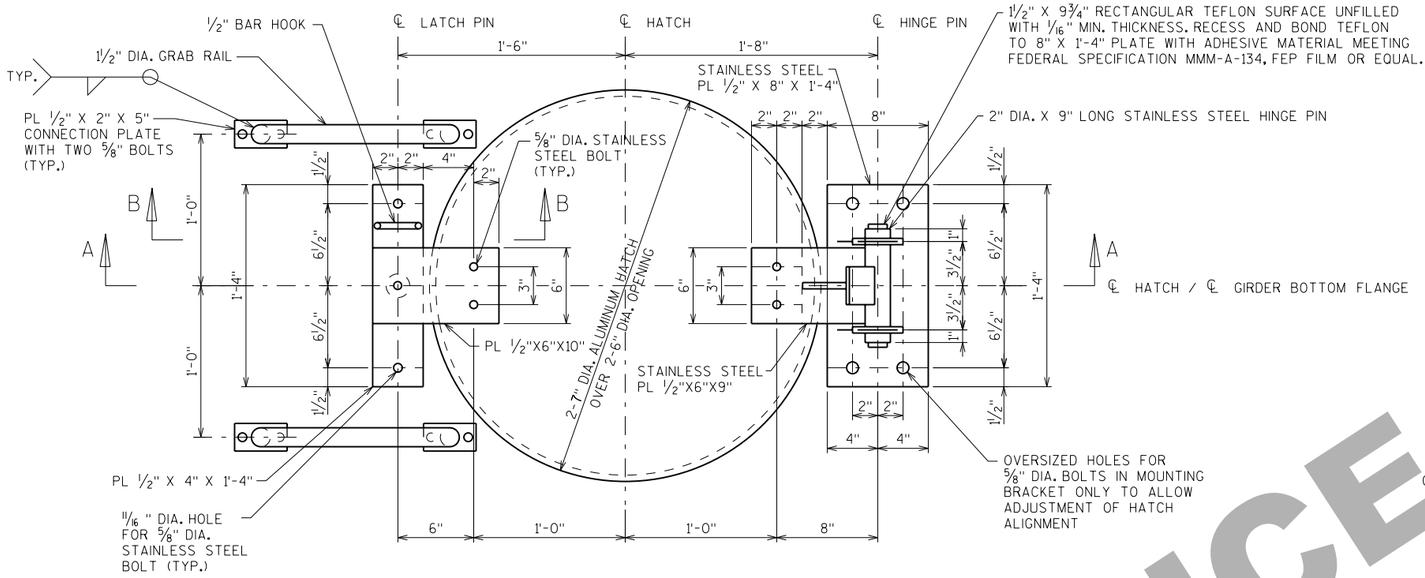
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671EN\B-05-671EX040-B-05-671E_MISC DETAILS 3.dgn

DATE: 4/30/2013

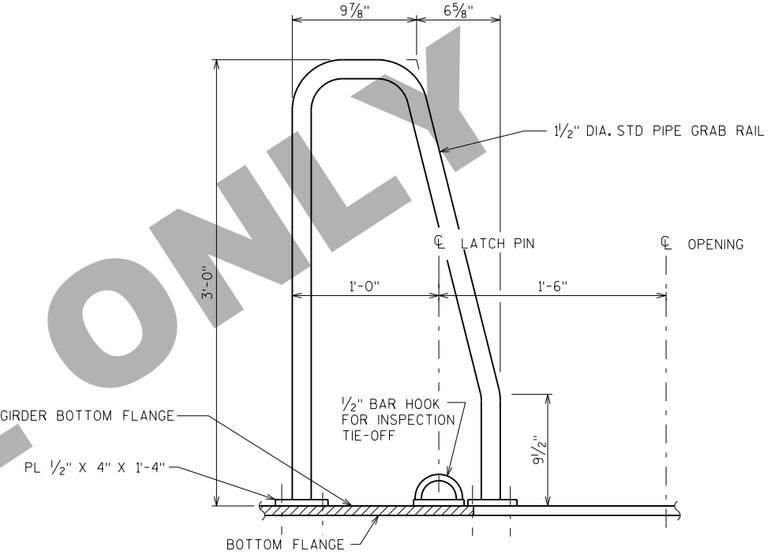
I.D.

STATE PROJECT NUMBER

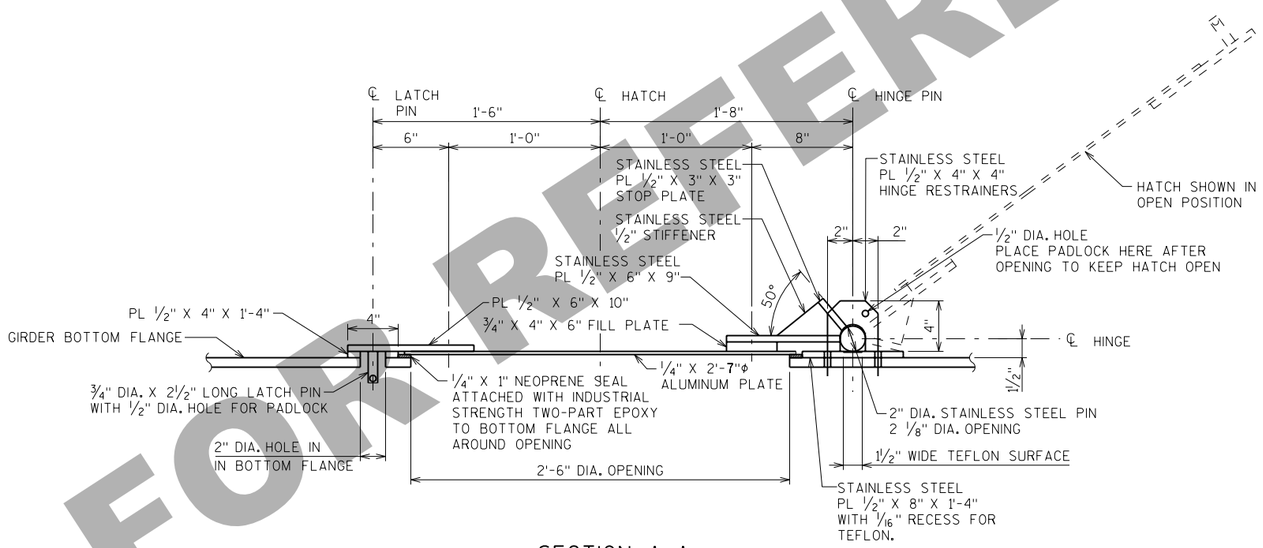
1133-11-71



PLAN



SECTION B-B



SECTION A-A

NOTES:

ALL BOLTS SHOWN ARE 5/8" DIAMETER STAINLESS STEEL.

FOUR ACCESS HATCHES REQUIRED. SEE GIRDER PLAN AND ELEVATION SHEETS FOR HATCH LOCATIONS IN SPANS 1 AND 11.

STEEL FOR HATCH IS A709 GRADE 50 UNLESS OTHERWISE NOTED.

ALL MATERIALS SHOWN WILL BE PAID FOR AT THE UNIT PRICE BID FOR "FABRICATED STRUCTURAL STEEL HS B-5-671".

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY	ZMG	PLANS CK'D.	NPP

ACCESS HATCH DETAILS

SHEET 41 OF 56
647

8

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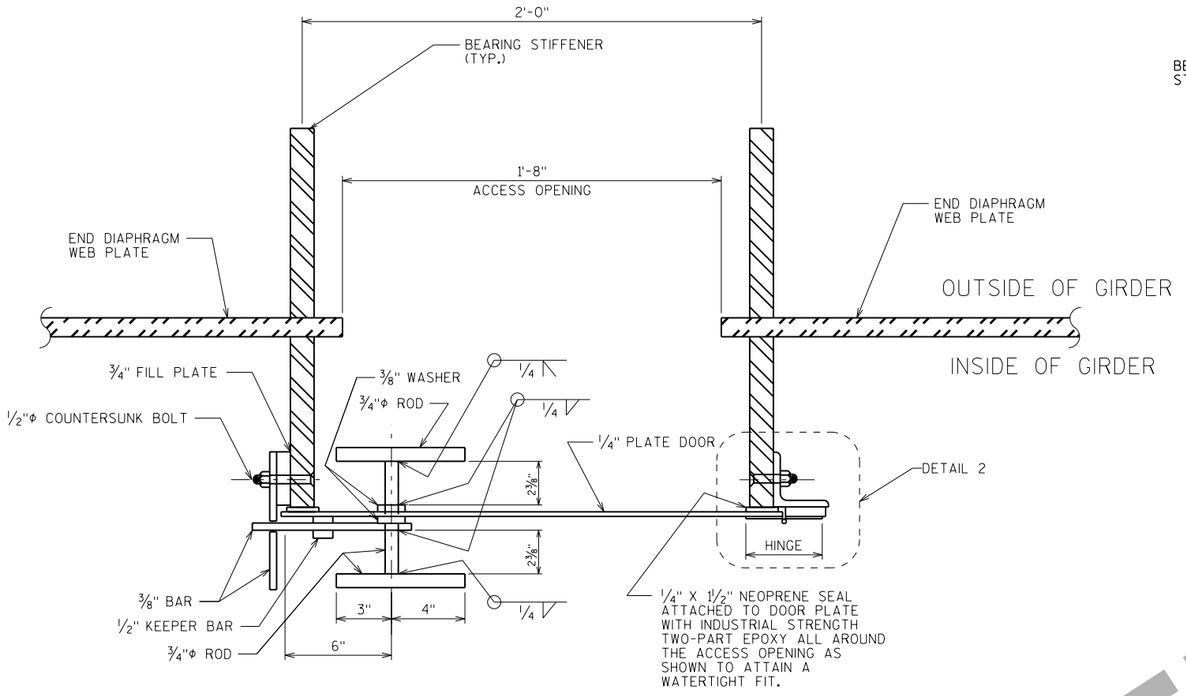
FOR REFERENCE ONLY

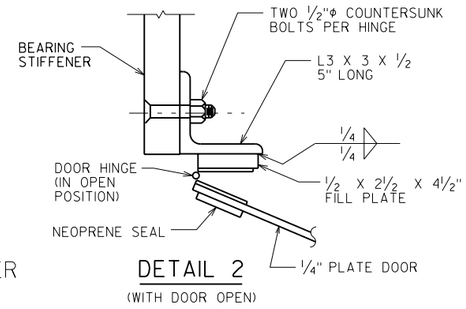
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671EN\B-05-671EX041-B-05-671E_Access Hatch Details.dgn
DATE: 4/30/2013
I.D.

STATE PROJECT NUMBER

1133-11-71

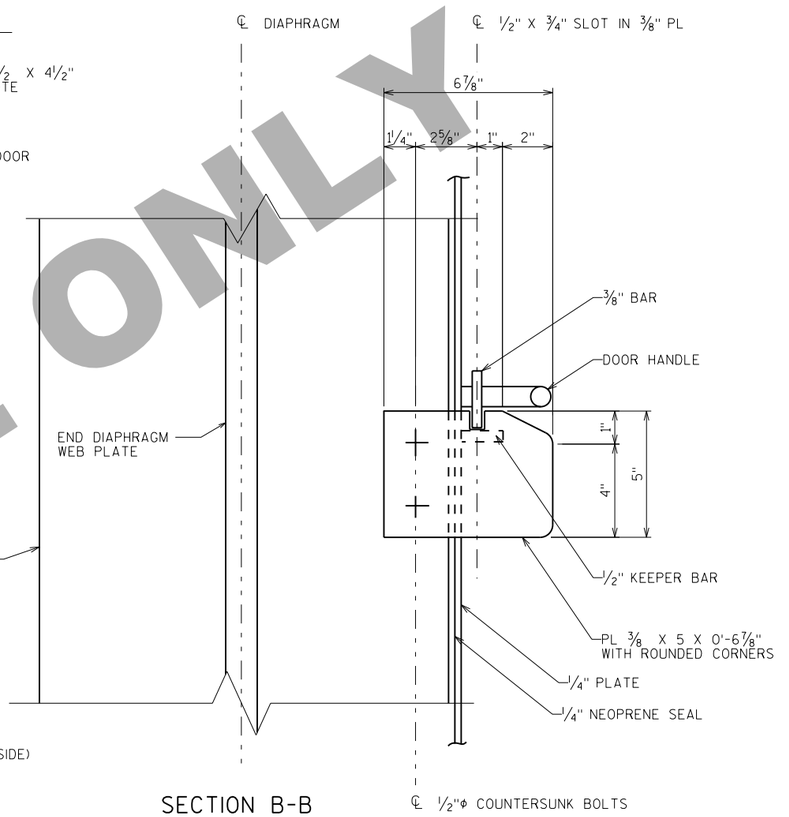


SECTION A-A

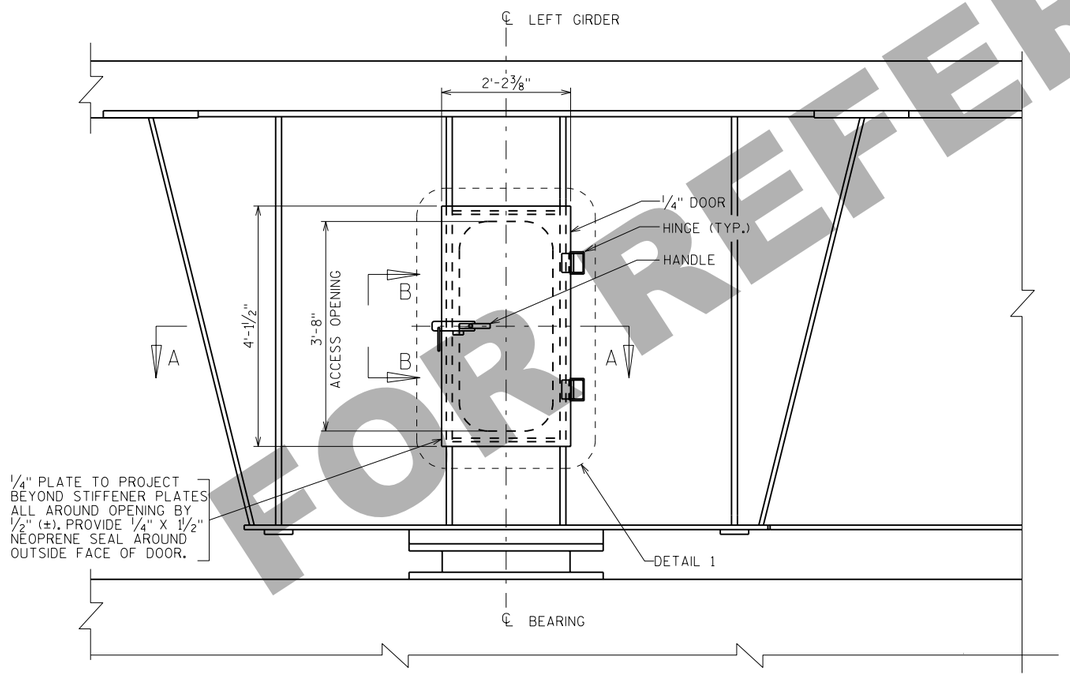


DETAIL 2

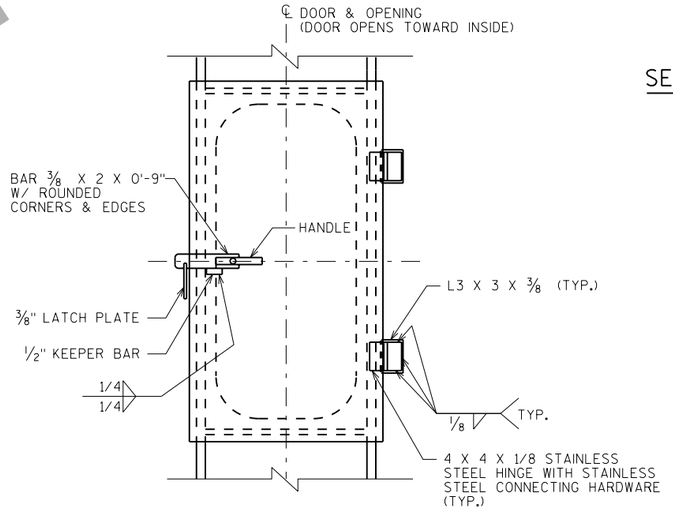
(WITH DOOR OPEN)



SECTION B-B



ELEVATION



DETAIL 1

NOTES:

8 DOORS TOTAL REQUIRED:
4 AT PIER 3
4 AT PIER 7

DOORS OPEN TOWARDS THE INSIDE OF THE BOX GIRDERS.

THE COST OF ACCESS DOOR AND ITS ATTACHMENT IS INCLUDED IN THE COST OF "FABRICATED STRUCTURAL STEEL HS B-5-671".

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY ZMG | PLANS CK'D. NPP

ACCESS DOOR DETAILS

SHEET 42 OF 56

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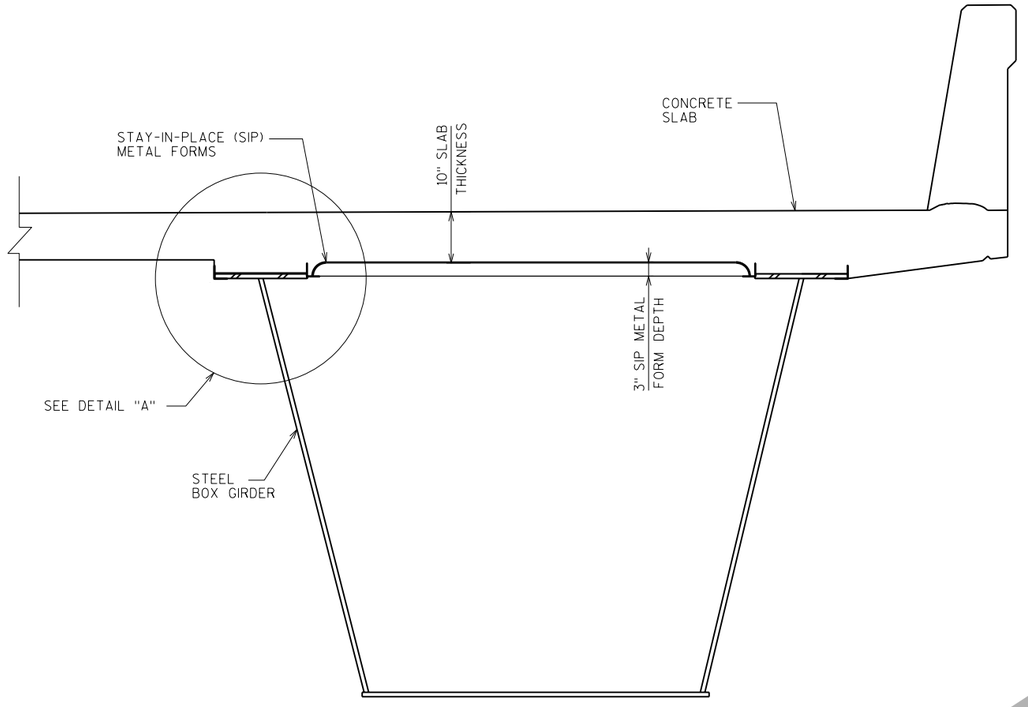
FOR REFERENCE ONLY

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\042-B-05-671E_Access Door Details.dgn
DATE: 4/30/2013
I.D.

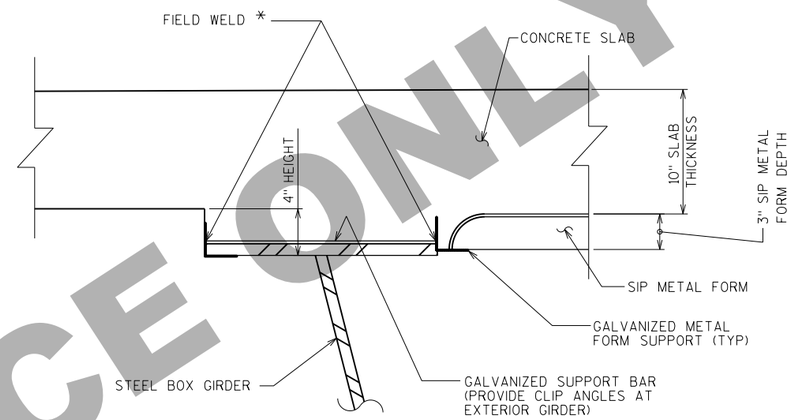
STATE PROJECT NUMBER

1133-11-71



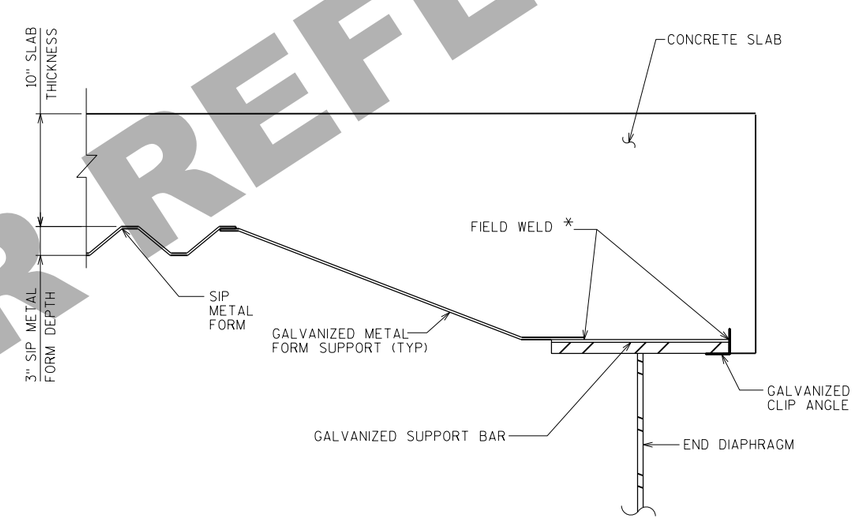
PARTIAL SECTION THROUGH SUPERSTRUCTURE

(SHOWING TYPICAL DETAILS AND NOTES FOR SIP METAL FORMS)



DETAIL "A"

* DO NOT WELD TO NOR PERMIT WELD SPATTER ON SUPPORTING STEEL GIRDER, DIAPHRAGMS, BRACING ETC. ELECTRICAL GROUNDING TO STRUCTURAL STEEL IS PROHIBITED. SEE SPECIFICATIONS FOR FIELD WELDING OF SIP FORMS IN PLACE AND PAINTING OF THE TOP FLANGE.



PARTIAL SECTION THROUGH END OF SPAN

(INTERIOR OF BOXES ONLY)

NOTES:

STAY-IN-PLACE (SIP) FORM DETAILS ARE SHOWN FOR REFERENCE ONLY. SIP FORMS, GALVANIZED SUPPORT BARS, FORM SUPPORTS, AND CLIP ANGLES ARE NOT FURNISHED AS PART OF THIS CONTRACT.

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY ZMG | PLANS CK'D. NPP

SUPERSTRUCTURE DETAILS

SHEET 43 OF 56

649

8

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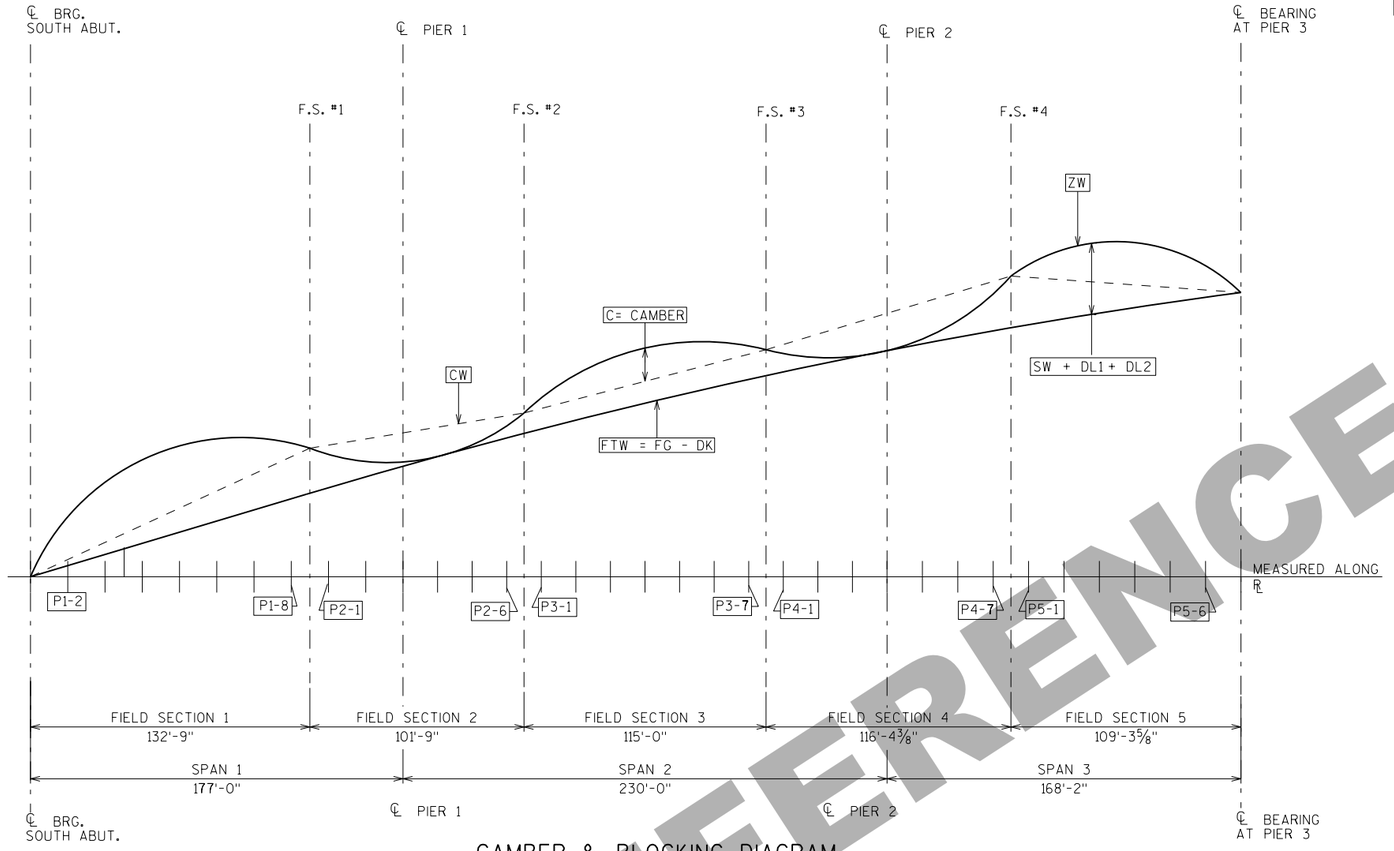
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\043-B-05-671E_SUPERSTRUCTURE DETAILS.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71



CAMBER & BLOCKING DIAGRAM

LEGEND:

P1-2 INTERMEDIATE ELEVATION POINT AT PANEL POINTS.

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '2' IS THE PANEL NUMBER WITHIN THIS FIELD SECTION.

TABULATED ELEVATIONS

FTW	FINISHED ELEVATION AT TOP OF WEB.
FG	FINISHED ELEVATION AT TOP OF DECK SLAB.
TES	TOP OF ERECTED STEEL ELEVATION. = ZW + PL - SW
ZW	TOP OF ERECTED WEB ELEVATION NEGLECTING ALL DEFLECTIONS = FG + SW + DL1 + DL2 - DK
CW	ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION 'ZW' AT FIELD SPLICES AND END SUPPORTS.
BLK	BLOCKING HEIGHT CORRESPONDING TO THE ERECTED STEEL CONDITION NEGLECTING ALL DEFLECTIONS.

TABULATED DEFLECTIONS

SW	SELF -WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS, BRACING, AND PERMANENT METAL FORMS.
DL1	CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION.
DL2	PARAPETS AND WEARING SURFACE APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL	=THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES
DK	=DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE
C	=CAMBER= ZW - CW

NOTES:

POSITIVE DEFLECTIONS ARE DOWNWARD.

POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.

TES ELEVATIONS ARE TO TOP OF STEEL (SPLICE AND COVER PLATE THICKNESS, IF APPLICABLE, ARE ACCOUNTED FOR) AND THEY ARE FOR THE MATERIAL AS ERECTED. THE ELEVATION OF THE TOP STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED, AND CORRECTED, IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY BOLTING THE DIAPHRAGMS IN PLACE.

BECAUSE VERTICAL PROFILE AND DEFLECTIONS ARE EXAGGERATED TO DIFFERENT DEGREES, THE CAMBERS SHOWN ON THIS DIAGRAM ARE SCHEMATIC ONLY.

SPECIFICALLY COMPARING RELATIVE CAMBER MAGNITUDES BETWEEN FIELD SECTIONS MAY BE MISLEADING.

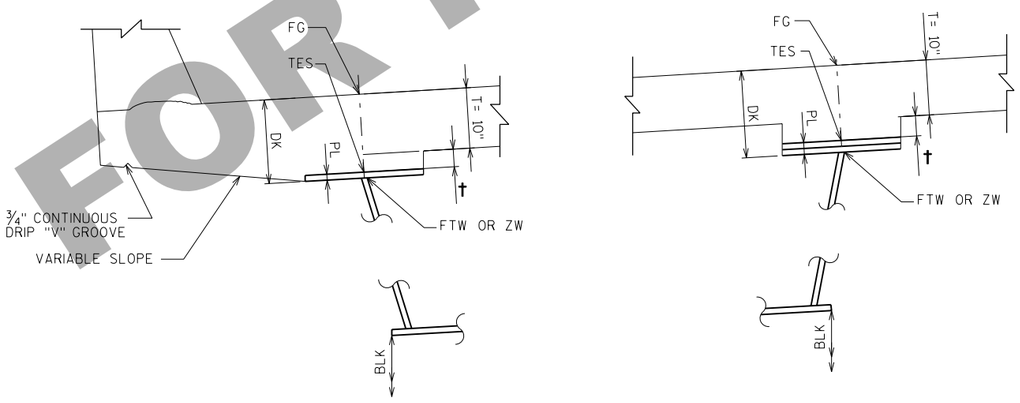
CAMBERS ACCOUNT FOR PERMANENT FORMWORK WEIGHT OF 10.0 PSF INSIDE EACH GIRDER PLUS 13.5 PSF FOR ADDITIONAL CONCRETE IN RIBS OF PERMANENT FORMWORK. THE CONTRACTOR MAY NEED TO REVISE THE CAMBERS IF THE PERMANENT FORMWORK IS USED DIFFERS FROM THAT SHOWN ON THE PLANS.

ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.

TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING A CONSTANT 4" DIMENSION, MEASURED FROM THE UNDERSIDE OF THE TOP FLANGE (TOP OF WEB) TO THE UNDERSIDE OF THE DECK (TOP OF STAY-IN-PLACE METAL FORMS).



HAUNCH NOTE:

† = HAUNCH HEIGHT AT CENTERLINE OF WEB.

TO DETERMINE "†" AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN.

	TOP OF DECK ELEV. AT FINAL GRADE
-	TOP OF STEEL ELEV. AFTER PLACEMENT
+	CONC. ONLY DEFLECTIONS (DOWNWARD DEFLECTION IS POSITIVE, UPWARD DEFLECTION IS NEGATIVE.)
-	SLAB THICKNESS (10")
=	"†" VALUE FOR SETTING HAUNCH

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY SOI | PLANS CK'D. NPP

CAMBER DIAGRAM UNIT 1

SHEET 44 OF 56

650

FOR REFERENCE ONLY

8

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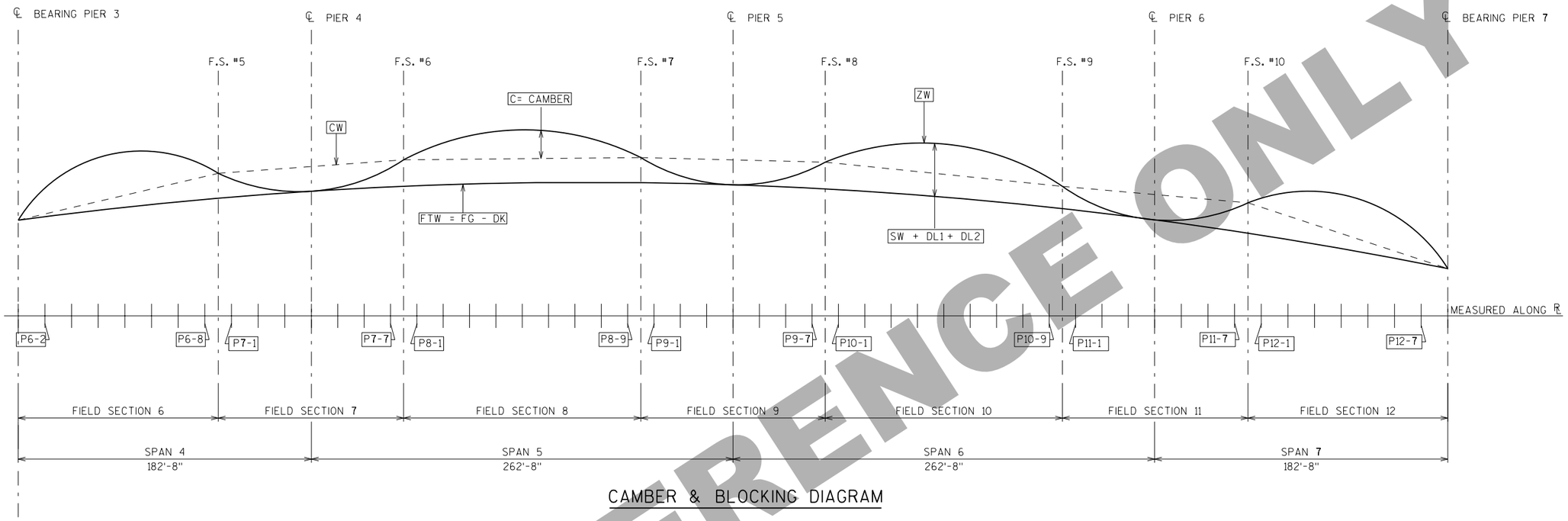
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\044-B-05-671E_CAMBER DIAGRAM UNIT 1.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71



CAMBER & BLOCKING DIAGRAM

FOR REFERENCE ONLY

8

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1 SHEET.

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET

HAUNCH NOTES:

FOR HAUNCH NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY SOI | PLANS CK'D. NPP

CAMBER DIAGRAM UNIT 2

SHEET 45 OF 56

651

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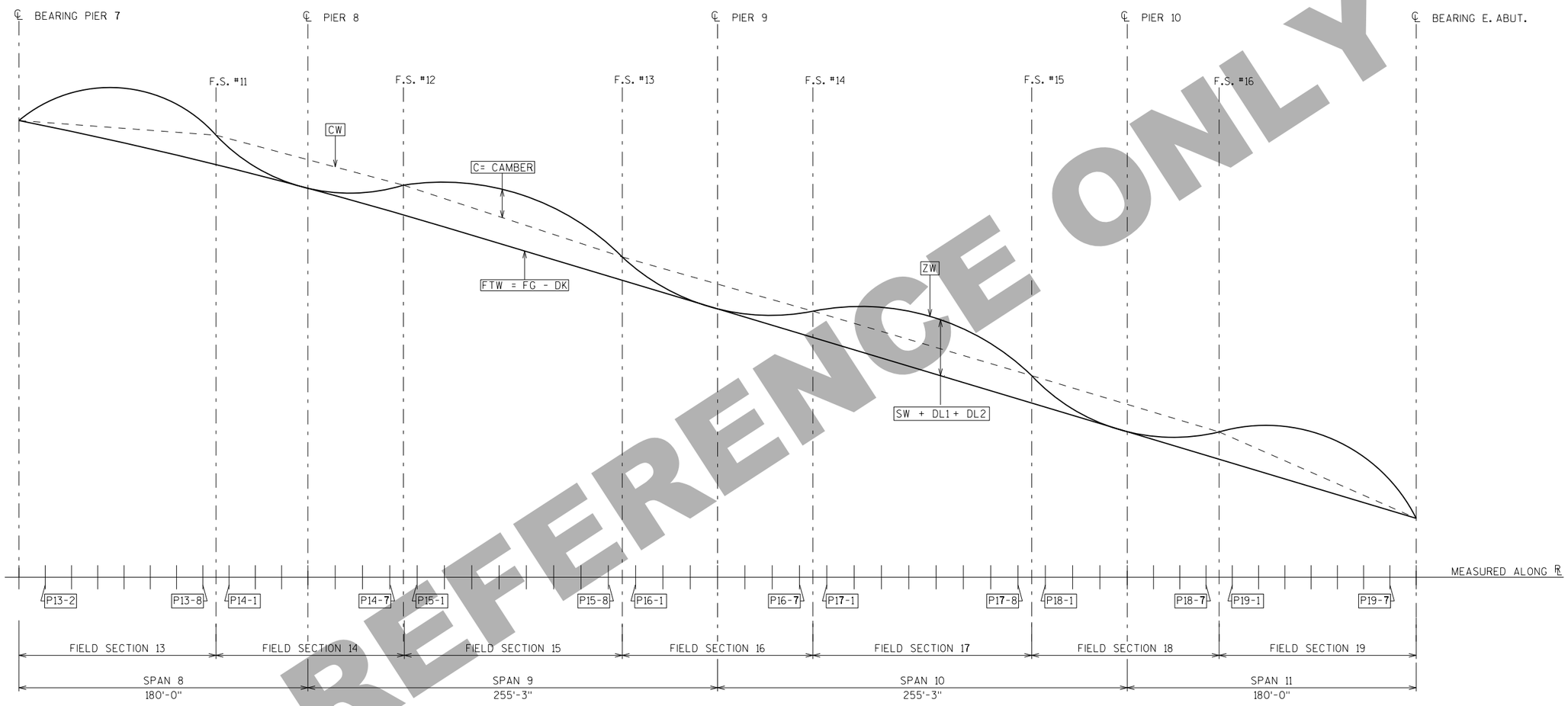
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-671E\045-B-05-671E_CAMBER DIAGRAM UNIT 2.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71



CAMBER & BLOCKING DIAGRAM

FOR REFERENCE ONLY

8

8

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1 SHEET.

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET

HAUNCH NOTES:

FOR HAUNCH NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY SOI | PLANS CK'D. NPP

CAMBER DIAGRAM UNIT 3

SHEET 46 OF 56

652

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\046-B-05-671E_CAMBER DIAGRAM UNIT 3.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71

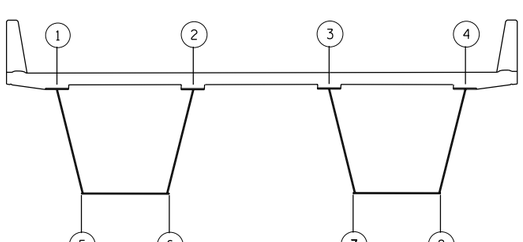
FIELD SECTION 1

HORIZ. LOC.	VALUE	POSITION AND STATION								
		S. ABUT. 1173+05.83	P1- 2 1173+23.53	P1- 3 1173+41.23	P1- 4 1173+58.93	P1- 5 1173+76.63	P1- 6 1173+94.33	P1- 7 1174+12.03	P1- 8 1174+29.73	FS #1 1174+38.58
CAMBER DATA										
1	FG	630.64	631.17	631.70	632.23	632.76	633.29	633.81	634.33	634.58
	TES	629.56	630.17	630.77	631.35	631.89	632.41	632.89	633.35	633.66
LEFT GIRDER	ZW	629.47	630.11	630.74	631.33	631.88	632.39	632.86	633.31	633.52
	CW	629.47	630.01	630.55	631.09	631.63	632.17	632.71	633.25	633.52
	SW	0.00	0.03	0.05	0.07	0.07	0.07	0.05	0.04	0.03
LEFT WEB	DL1	0.00	0.08	0.15	0.19	0.20	0.19	0.15	0.10	0.07
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.10	0.19	0.24	0.25	0.22	0.15	0.06	0.00
2	FG	630.39	630.92	631.45	631.98	632.51	633.04	633.56	634.08	634.33
	TES	629.31	629.92	630.52	631.10	631.64	632.16	632.64	633.10	633.41
LEFT GIRDER	ZW	629.22	629.86	630.49	631.08	631.63	632.14	632.61	633.06	633.27
	CW	629.22	629.76	630.30	630.84	631.38	631.92	632.46	633.00	633.27
	SW	0	0.03	0.05	0.07	0.07	0.07	0.05	0.04	0.03
RIGHT WEB	DL1	0	0.08	0.15	0.19	0.20	0.19	0.15	0.10	0.07
	DL2	0	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.10	0.19	0.24	0.25	0.22	0.15	0.06	0.00
3	FG	630.14	630.67	631.20	631.73	632.26	632.79	633.31	633.83	634.08
	TES	629.06	629.67	630.27	630.85	631.39	631.91	632.39	632.85	633.16
RIGHT GIRDER	ZW	628.97	629.61	630.24	630.83	631.38	631.89	632.36	632.81	633.02
	CW	628.97	629.51	630.05	630.59	631.13	631.67	632.21	632.75	633.02
	SW	0	0.03	0.05	0.07	0.07	0.07	0.05	0.04	0.03
LEFT WEB	DL1	0	0.08	0.15	0.19	0.20	0.19	0.15	0.10	0.07
	DL2	0	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.10	0.19	0.24	0.25	0.22	0.15	0.06	0.00
4	FG	629.89	630.42	630.95	631.48	632.01	632.54	633.06	633.58	633.83
	TES	628.81	629.42	630.02	630.60	631.14	631.66	632.14	632.60	632.91
RIGHT GIRDER	ZW	628.72	629.36	629.99	630.58	631.13	631.64	632.11	632.56	632.77
	CW	628.72	629.26	629.80	630.34	630.88	631.42	631.96	632.50	632.77
	SW	0	0.03	0.05	0.07	0.07	0.07	0.05	0.04	0.03
RIGHT WEB	DL1	0	0.08	0.15	0.19	0.20	0.19	0.15	0.10	0.07
	DL2	0	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.10	0.19	0.24	0.25	0.22	0.15	0.06	0.00
BLOCKING HEIGHTS										
5	BLK	0.68								4.73
6		0.50								4.55
7		0.18								4.23
8		0.00								4.05

FIELD SECTION 2

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS #1 1174+38.58	P2-1 1174+47.43	P2-2 1174+65.13	PIER 1 1174+82.83	P2-4 1174+99.26	P2-5 1175+15.69	P2-6 1175+32.12	FS #2 1175+40.33
CAMBER DATA									
1	FG	634.58	634.83	635.32	635.80	636.24	636.66	637.08	637.28
	TES	633.66	633.84	634.37	634.84	635.31	635.71	636.20	636.48
LEFT GIRDER	ZW	633.52	633.73	634.17	634.64	635.11	635.62	636.13	636.38
	CW	633.52	633.77	634.27	634.76	635.23	635.69	636.15	636.38
	SW	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06
LEFT WEB	DL1	0.07	0.05	0.01	0.00	0.03	0.08	0.15	0.18
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.10	-0.13	-0.11	-0.07	-0.02	0.00
2	FG	634.33	634.58	635.07	635.55	635.99	636.41	636.83	637.03
	TES	633.41	633.59	634.12	634.59	635.06	635.46	635.95	636.23
LEFT GIRDER	ZW	633.27	633.48	633.92	634.39	634.86	635.37	635.88	636.13
	CW	633.27	633.52	634.02	634.51	634.98	635.44	635.90	636.13
	SW	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06
RIGHT WEB	DL1	0.07	0.05	0.01	0.00	0.03	0.08	0.15	0.18
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.10	-0.13	-0.11	-0.07	-0.02	0.00
3	FG	634.08	634.33	634.82	635.30	635.74	636.16	636.58	636.78
	TES	633.16	633.34	633.87	634.34	634.81	635.21	635.70	635.98
RIGHT GIRDER	ZW	633.02	633.23	633.67	634.14	634.61	635.12	635.63	635.88
	CW	633.02	633.27	633.77	634.26	634.73	635.19	635.65	635.88
	SW	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06
LEFT WEB	DL1	0.07	0.05	0.01	0.00	0.03	0.08	0.15	0.18
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.10	-0.13	-0.11	-0.07	-0.02	0.00
4	FG	633.83	634.08	634.57	635.05	635.49	635.91	636.33	636.53
	TES	632.91	633.09	633.62	634.09	634.56	634.96	635.45	635.73
RIGHT GIRDER	ZW	632.77	632.98	633.42	633.89	634.36	634.87	635.38	635.63
	CW	632.77	633.02	633.52	634.01	634.48	634.94	635.40	635.63
	SW	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06
RIGHT WEB	DL1	0.07	0.05	0.01	0.00	0.03	0.08	0.15	0.18
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.10	-0.13	-0.11	-0.07	-0.02	0.00
BLOCKING HEIGHTS									
5	BLK	4.73			5.84				7.59
6		4.55			5.66				7.41
7		4.23			5.34				7.09
8		4.05			5.16				6.91

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 1 AND 2

SHEET 47 OF 56

653

STEEL FABRICATION CONTRACT ONLY

8

8

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\047 B-05-671E-CAMBER DATA FS 1 AND 2.dgn

DATE: 4/30/2013
I.D.

STATE PROJECT NUMBER

1133-11-71

FIELD SECTION 3

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #2 1175+40.33	P3-1 1175+48.54	P3-2 1175+64.97	P3-3 1175+81.40	P3-4 1175+97.83	P3-5 1176+14.26	P3-6 1176+30.69	P3-7 1176+47.12	FS #3 1176+55.33
CAMBER DATA										
1 LEFT GIRDER	FG	637.28	637.48	637.88	638.26	638.64	639.00	639.36	639.70	639.87
	TES	636.48	636.64	637.10	637.52	637.92	638.26	638.58	638.86	639.08
	ZW	636.38	636.63	637.11	637.55	637.95	638.29	638.59	638.85	638.97
	CW	636.38	636.56	636.94	637.31	637.68	638.05	638.42	638.79	638.97
LEFT WEB	SW	0.06	0.07	0.09	0.11	0.11	0.11	0.09	0.08	0.06
	DL1	0.18	0.21	0.27	0.31	0.32	0.31	0.27	0.22	0.18
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.17	0.24	0.27	0.24	0.17	0.06	0.00
2 LEFT GIRDER	FG	637.03	637.23	637.63	638.01	638.39	638.75	639.11	639.45	639.62
	TES	636.23	636.39	636.85	637.27	637.67	638.01	638.33	638.61	638.83
	ZW	636.13	636.38	636.86	637.30	637.70	638.04	638.34	638.60	638.72
	CW	636.13	636.31	636.69	637.06	637.43	637.80	638.17	638.54	638.72
RIGHT WEB	SW	0.06	0.07	0.09	0.11	0.11	0.11	0.09	0.08	0.06
	DL1	0.18	0.21	0.27	0.31	0.32	0.31	0.27	0.22	0.18
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.17	0.24	0.27	0.24	0.17	0.06	0.00
3 RIGHT GIRDER	FG	636.78	636.98	637.38	637.76	638.14	638.50	638.86	639.20	639.37
	TES	635.98	636.14	636.60	637.02	637.42	637.76	638.08	638.36	638.58
	ZW	635.88	636.13	636.61	637.05	637.45	637.79	638.09	638.35	638.47
	CW	635.88	636.06	636.44	636.81	637.18	637.55	637.92	638.29	638.47
LEFT WEB	SW	0.06	0.07	0.09	0.11	0.11	0.11	0.09	0.08	0.06
	DL1	0.18	0.21	0.27	0.31	0.32	0.31	0.27	0.22	0.18
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.17	0.24	0.27	0.24	0.17	0.06	0.00
4 RIGHT GIRDER	FG	636.53	636.73	637.13	637.51	637.89	638.25	638.61	638.95	639.12
	TES	635.73	635.89	636.35	636.77	637.17	637.51	637.83	638.11	638.33
	ZW	635.63	635.88	636.36	636.80	637.20	637.54	637.84	638.10	638.22
	CW	635.63	635.81	636.19	636.56	636.93	637.30	637.67	638.04	638.22
RIGHT WEB	SW	0.06	0.07	0.09	0.11	0.11	0.11	0.09	0.08	0.06
	DL1	0.18	0.21	0.27	0.31	0.32	0.31	0.27	0.22	0.18
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.17	0.24	0.27	0.24	0.17	0.06	0.00
BLOCKING HEIGHTS										
5	BLK	7.59								10.18
6		7.41								10.00
7		7.09								9.68
8		6.91								9.50

FIELD SECTION 4

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #3 1176+55.33	P4-1 1176+63.54	P4-2 1176+79.97	P4-3 1176+96.40	PIER 2 1177+12.83	P4-5 1177+29.65	P4-6 1177+46.46	P4-7 1177+63.28	FS #4 1177+71.69
CAMBER DATA										
1 LEFT GIRDER	FG	639.87	640.03	640.36	640.67	640.98	641.28	641.57	641.85	641.98
	TES	639.08	639.16	639.41	639.75	640.02	640.32	640.55	640.87	641.07
	ZW	638.97	639.09	639.32	639.55	639.81	640.11	640.43	640.77	640.93
	CW	638.97	639.11	639.39	639.67	639.94	640.22	640.51	640.79	640.93
LEFT WEB	SW	0.06	0.05	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.18	0.15	0.08	0.03	0.00	0.00	0.02	0.06	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.07	-0.11	-0.13	-0.11	-0.07	-0.02	0.00
2 LEFT GIRDER	FG	639.62	639.78	640.11	640.42	640.73	641.03	641.32	641.60	641.73
	TES	638.83	638.91	639.16	639.50	639.77	640.07	640.30	640.62	640.82
	ZW	638.72	638.84	639.07	639.30	639.56	639.86	640.18	640.52	640.68
	CW	638.72	638.86	639.14	639.42	639.69	639.97	640.26	640.54	640.68
RIGHT WEB	SW	0.06	0.05	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.18	0.15	0.08	0.03	0.00	0.00	0.02	0.06	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.07	-0.11	-0.13	-0.11	-0.07	-0.02	0.00
3 RIGHT GIRDER	FG	639.37	639.53	639.86	640.17	640.48	640.78	641.07	641.35	641.48
	TES	638.58	638.66	638.91	639.25	639.52	639.82	640.05	640.37	640.57
	ZW	638.47	638.59	638.82	639.05	639.31	639.61	639.93	640.27	640.43
	CW	638.47	638.61	638.89	639.17	639.44	639.72	640.01	640.29	640.43
LEFT WEB	SW	0.06	0.05	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.18	0.15	0.08	0.03	0.00	0.00	0.02	0.06	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.07	-0.11	-0.13	-0.11	-0.07	-0.02	0.00
4 RIGHT GIRDER	FG	639.12	639.28	639.61	639.92	640.23	640.53	640.82	641.10	641.23
	TES	638.33	638.41	638.66	639.00	639.27	639.57	639.80	640.12	640.32
	ZW	638.22	638.34	638.57	638.80	639.06	639.36	639.68	640.02	640.18
	CW	638.22	638.36	638.64	638.92	639.19	639.47	639.76	640.04	640.18
RIGHT WEB	SW	0.06	0.05	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.18	0.15	0.08	0.03	0.00	0.00	0.02	0.06	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.07	-0.11	-0.13	-0.11	-0.07	-0.02	0.00
BLOCKING HEIGHTS										
5	BLK	10.18				11.02				12.14
6		10.00				10.84				11.96
7		9.68				10.52				11.64
8		9.50				10.34				11.46

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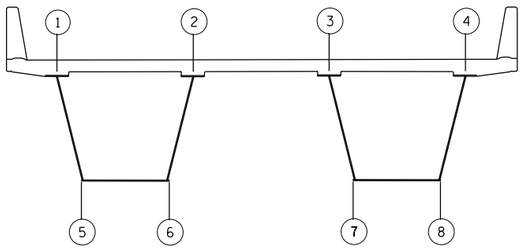

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 3 AND 4 654

SHEET 48 OF 56

DATE: 4/30/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E-CAMBER DATA FS 3 AND 4.dgn

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STATE PROJECT NUMBER

1133-11-71

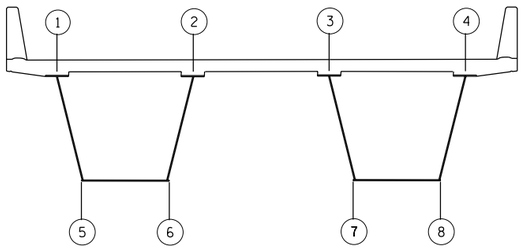
FIELD SECTION 5

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS #4	P5-1	P5-5	P5-3	P5-4	P5-5	P5-6	PIER 3
		1177+71.69	1177+80.10	1177+96.91	1178+13.73	1178+30.55	1178+47.36	1178+64.18	1178+81.00
CAMBER DATA									
1	FG	641.98	642.12	642.37	642.62	642.86	643.08	643.30	643.51
LEFT GIRDER	TES	641.07	641.14	641.43	641.69	641.92	642.12	642.28	642.42
	ZW	640.93	641.09	641.40	641.66	641.89	642.07	642.22	642.34
	CW	640.93	641.04	641.26	641.47	641.69	641.91	642.12	642.34
LEFT WEB	SW	0.03	0.04	0.05	0.05	0.05	0.04	0.02	0.00
	DL1	0.08	0.10	0.13	0.14	0.13	0.11	0.06	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.14	0.19	0.19	0.16	0.09	0.00
2	FG	641.73	641.87	642.12	642.37	642.61	642.83	643.05	643.26
LEFT GIRDER	TES	640.82	640.89	641.18	641.44	641.67	641.87	642.03	642.17
	ZW	640.68	640.84	641.15	641.41	641.64	641.82	641.97	642.09
	CW	640.68	640.79	641.01	641.22	641.44	641.66	641.87	642.09
RIGHT WEB	SW	0.03	0.04	0.05	0.05	0.05	0.04	0.02	0.00
	DL1	0.08	0.10	0.13	0.14	0.13	0.11	0.06	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.14	0.19	0.19	0.16	0.09	0.00
3	FG	641.48	641.62	641.87	642.12	642.36	642.58	642.80	643.01
RIGHT GIRDER	TES	640.57	640.64	640.93	641.19	641.42	641.62	641.78	641.92
	ZW	640.43	640.59	640.90	641.16	641.39	641.57	641.72	641.84
	CW	640.43	640.54	640.76	640.97	641.19	641.41	641.62	641.84
LEFT WEB	SW	0.03	0.04	0.05	0.05	0.05	0.04	0.02	0.00
	DL1	0.08	0.10	0.13	0.14	0.13	0.11	0.06	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.14	0.19	0.19	0.16	0.09	0.00
4	FG	641.23	641.37	641.62	641.87	642.11	642.33	642.55	642.76
RIGHT GIRDER	TES	640.32	640.39	640.68	640.94	641.17	641.37	641.53	641.67
	ZW	640.18	640.34	640.65	640.91	641.14	641.32	641.47	641.59
	CW	640.18	640.29	640.51	640.72	640.94	641.16	641.37	641.59
RIGHT WEB	SW	0.03	0.04	0.05	0.05	0.05	0.04	0.02	0.00
	DL1	0.08	0.10	0.13	0.14	0.13	0.11	0.06	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.14	0.19	0.19	0.16	0.09	0.00
BLOCKING HEIGHTS									
5	BLK	12.14							13.55
6		11.96							13.37
7		11.64							13.05
8		11.46							12.87

FIELD SECTION 6

HORIZ. LOC.	VALUE	POSITION AND STATION								
		PIER 3	P6-2	P6-3	P6-4	P6-5	P6-6	P6-7	P6-8	FS #5
		1178+84.67	1179+01.26	1179+17.85	1179+34.44	1179+51.03	1179+67.62	1179+84.24	1180+00.86	1180+09.17
CAMBER DATA										
1	FG	643.55	643.76	643.95	644.14	644.31	644.47	644.63	644.77	644.84
LEFT GIRDER	TES	642.47	642.75	643.00	643.23	643.42	643.58	643.70	643.79	643.94
	ZW	642.38	642.69	642.97	643.20	643.40	643.55	643.66	643.75	643.78
	CW	642.38	642.57	642.76	642.94	643.13	643.31	643.50	643.69	643.78
LEFT WEB	SW	0.00	0.02	0.04	0.06	0.06	0.06	0.05	0.03	0.03
	DL1	0.00	0.07	0.12	0.16	0.18	0.17	0.14	0.10	0.07
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.12	0.21	0.26	0.27	0.24	0.16	0.06	0.00
2	FG	643.30	643.45	643.59	643.73	643.85	643.96	644.06	644.16	644.20
LEFT GIRDER	TES	642.21	642.44	642.65	642.82	642.96	643.06	643.13	643.18	643.30
	ZW	642.13	642.38	642.61	642.79	642.94	643.04	643.10	643.13	643.14
	CW	642.13	642.27	642.40	642.53	642.67	642.80	642.93	643.07	643.14
RIGHT WEB	SW	0.00	0.02	0.04	0.06	0.06	0.06	0.05	0.03	0.03
	DL1	0.00	0.07	0.12	0.16	0.17	0.17	0.14	0.09	0.07
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.12	0.21	0.26	0.27	0.24	0.16	0.06	0.00
3	FG	643.05	643.15	643.24	643.32	643.39	643.45	643.50	643.54	643.56
RIGHT GIRDER	TES	641.96	642.14	642.29	642.41	642.50	642.55	642.57	642.56	642.65
	ZW	641.88	642.08	642.25	642.38	642.48	642.53	642.53	642.51	642.49
	CW	641.88	641.96	642.04	642.12	642.21	642.29	642.37	642.45	642.49
LEFT WEB	SW	0.00	0.02	0.04	0.06	0.06	0.06	0.05	0.03	0.03
	DL1	0.00	0.07	0.12	0.16	0.17	0.17	0.14	0.09	0.07
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.12	0.21	0.26	0.27	0.24	0.16	0.06	0.00
4	FG	642.79	642.84	642.88	642.91	642.93	642.94	642.94	642.92	642.91
RIGHT GIRDER	TES	641.71	641.83	641.93	642.00	642.04	642.04	642.00	641.94	642.01
	ZW	641.63	641.77	641.89	641.98	642.01	642.01	641.97	641.89	641.85
	CW	641.63	641.66	641.69	641.72	641.75	641.78	641.80	641.83	641.85
RIGHT WEB	SW	0.00	0.02	0.04	0.06	0.06	0.06	0.05	0.03	0.03
	DL1	0.00	0.07	0.12	0.16	0.17	0.16	0.13	0.09	0.07
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.12	0.21	0.26	0.27	0.24	0.16	0.06	0.00
BLOCKING HEIGHTS										
5	BLK	6.41								7.81
6		6.23								7.24
7		5.91								6.52
8		5.73								5.95

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 5 AND 6

SHEET 49 OF 56

655

STEEL FABRICATION CONTRACT ONLY

8

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\049 B-05-671E-CAMBER DATA FS 5 AND 6.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

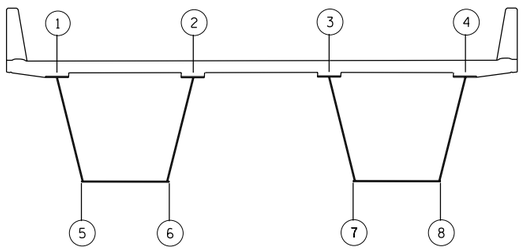
1133-11-71

FIELD SECTION 7

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #5 1180+09.17	P7-1 1180+17.48	P7-2 1180+34.10	P7-3 1180+50.72	PIER 4 1180+67.33	P7-5 1180+83.75	P7-6 1181+00.17	P7-7 1181+16.58	FS #6 1181+24.79
CAMBER DATA										
1 LEFT GIRDER	FG	644.84	644.91	645.03	645.14	645.22	645.30	645.36	645.42	645.44
	TES	643.94	643.94	644.02	644.17	644.26	644.40	644.47	644.62	644.73
	ZW	643.78	643.81	643.87	643.95	644.06	644.21	644.37	644.55	644.63
	CW	643.78	643.84	643.96	644.09	644.21	644.33	644.45	644.57	644.63
LEFT WEB	SW	0.03	0.02	0.00	0.00	0.00	0.02	0.04	0.07	0.09
	DL1	0.07	0.05	0.01	-0.01	0.00	0.05	0.12	0.20	0.24
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.03	-0.09	-0.13	-0.15	-0.12	-0.08	-0.03	0.00
2 LEFT GIRDER	FG	644.20	644.24	644.31	644.39	644.47	644.55	644.61	644.67	644.69
	TES	643.30	643.27	643.30	643.42	643.51	643.64	643.72	643.86	643.98
	ZW	643.14	643.14	643.15	643.21	643.31	643.45	643.62	643.79	643.87
	CW	643.14	643.19	643.29	643.40	643.51	643.61	643.72	643.82	643.87
RIGHT WEB	SW	0.03	0.02	0.00	0.00	0.00	0.02	0.04	0.07	0.08
	DL1	0.07	0.05	0.01	-0.01	0.00	0.05	0.11	0.19	0.23
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.05	-0.14	-0.20	-0.20	-0.16	-0.10	-0.03	0.00
3 RIGHT GIRDER	FG	643.56	643.57	643.59	643.64	643.72	643.80	643.86	643.92	643.94
	TES	642.65	642.60	642.57	642.67	642.76	642.89	642.96	643.11	643.22
	ZW	642.49	642.47	642.43	642.46	642.56	642.70	642.86	643.03	643.11
	CW	642.49	642.54	642.63	642.72	642.80	642.89	642.98	643.07	643.11
LEFT WEB	SW	0.03	0.02	0.00	0.00	0.00	0.02	0.04	0.07	0.08
	DL1	0.07	0.05	0.01	-0.01	0.00	0.05	0.11	0.19	0.23
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.06	-0.19	-0.26	-0.25	-0.19	-0.12	-0.04	0.00
4 RIGHT GIRDER	FG	642.91	642.90	642.86	642.89	642.97	643.05	643.11	643.17	643.19
	TES	642.01	641.93	641.85	641.92	642.01	642.14	642.21	642.35	642.46
	ZW	641.85	641.80	641.71	641.71	641.81	641.95	642.11	642.27	642.35
	CW	641.85	641.89	641.96	642.03	642.10	642.18	642.25	642.32	642.35
RIGHT WEB	SW	0.03	0.02	0.00	0.00	0.00	0.02	0.04	0.07	0.08
	DL1	0.07	0.05	0.01	-0.01	0.00	0.05	0.11	0.18	0.22
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.08	-0.25	-0.32	-0.30	-0.23	-0.14	-0.05	0.00
BLOCKING HEIGHTS										
5	BLK	7.81				8.09				8.66
6		7.24				7.41				7.98
7		6.52				6.59				7.14
8		5.95				5.91				6.46

FIELD SECTION 8

HORIZ. LOC.	VALUE	POSITION AND STATION										
		FS #6 1181+24.79	P8-1 1181+33.00	P8-2 1181+49.42	P8-3 1181+65.83	P8-4 1181+82.25	P8-5 1181+98.67	P8-6 1182+15.08	P8-7 1182+31.50	P8-8 1182+47.92	P8-9 1182+64.33	FS #7 1182+72.54
CAMBER DATA												
1 LEFT GIRDER	FG	645.44	645.46	645.50	645.52	645.54	645.55	645.54	645.52	645.50	645.46	645.44
	TES	644.73	644.70	644.82	644.91	644.97	644.98	644.94	644.87	644.76	644.63	644.66
	ZW	644.63	644.72	644.87	644.98	645.05	645.06	645.01	644.92	644.79	644.62	644.54
	CW	644.63	644.63	644.62	644.61	644.60	644.59	644.57	644.56	644.55	644.54	644.54
LEFT WEB	SW	0.09	0.10	0.13	0.15	0.16	0.16	0.15	0.14	0.11	0.08	0.06
	DL1	0.24	0.28	0.36	0.42	0.46	0.46	0.43	0.38	0.31	0.22	0.18
	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.02
	C	0.00	0.09	0.25	0.38	0.45	0.48	0.44	0.36	0.23	0.08	0.00
2 LEFT GIRDER	FG	644.69	644.71	644.75	644.77	644.79	644.80	644.79	644.77	644.75	644.71	644.69
	TES	643.98	643.94	644.06	644.15	644.20	644.22	644.18	644.11	644.00	643.87	643.91
	ZW	643.87	643.96	644.10	644.22	644.28	644.30	644.25	644.16	644.03	643.87	643.78
	CW	643.87	643.87	643.86	643.85	643.84	643.83	643.82	643.81	643.80	643.79	643.78
RIGHT WEB	SW	0.08	0.10	0.13	0.15	0.16	0.16	0.15	0.13	0.11	0.08	0.06
	DL1	0.23	0.28	0.35	0.41	0.45	0.45	0.42	0.37	0.30	0.22	0.17
	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.02
	C	0.00	0.09	0.25	0.37	0.44	0.47	0.43	0.35	0.23	0.08	0.00
3 RIGHT GIRDER	FG	643.94	643.96	644.00	644.02	644.04	644.05	644.04	644.02	644.00	643.96	643.94
	TES	643.22	643.18	643.30	643.39	643.44	643.45	643.42	643.35	643.25	643.12	643.16
	ZW	643.11	643.20	643.34	643.45	643.51	643.53	643.48	643.40	643.27	643.11	643.03
	CW	643.11	643.11	643.10	643.09	643.08	643.07	643.06	643.05	643.04	643.03	643.03
LEFT WEB	SW	0.08	0.10	0.12	0.14	0.15	0.16	0.15	0.13	0.10	0.08	0.06
	DL1	0.23	0.27	0.34	0.40	0.43	0.44	0.41	0.37	0.30	0.21	0.17
	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03	0.02
	C	0.00	0.09	0.24	0.36	0.43	0.46	0.42	0.34	0.22	0.08	0.00
4 RIGHT GIRDER	FG	643.19	643.21	643.25	643.27	643.29	643.30	643.29	643.27	643.25	643.21	643.19
	TES	642.46	642.42	642.54	642.63	642.68	642.69	642.66	642.59	642.49	642.37	642.40
	ZW	642.35	642.43	642.58	642.68	642.75	642.76	642.72	642.63	642.51	642.36	642.28
	CW	642.35	642.35	642.34	642.33	642.32	642.32	642.31	642.30	642.29	642.28	642.28
RIGHT WEB	SW	0.08	0.09	0.12	0.14	0.15	0.15	0.14	0.13	0.10	0.07	0.06
	DL1	0.22	0.26	0.33	0.39	0.42	0.43	0.40	0.36	0.29	0.21	0.17
	DL2	0.03	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.02	0.02
	C	0.00	0.08	0.23	0.35	0.42	0.45	0.41	0.34	0.22	0.08	0.00
BLOCKING HEIGHTS												
5	BLK	8.66										8.57
6		7.98										7.89
7		7.14										7.06
8		6.46										6.38



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 7 AND 8 | SHEET 50 OF 656

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E-CAMBER DATA FS 7 AND 8.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71

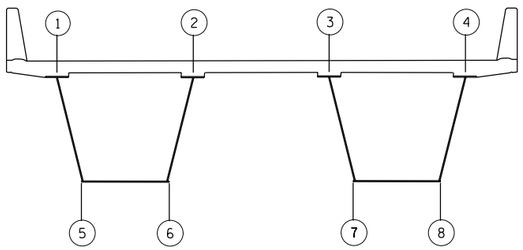
FIELD SECTION 9

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #7 1182+72.54	P9-1 1182+80.75	P9-2 1182+97.17	P9-3 1183+13.58	PIER 5 1183+30.00	P9-5 1183+46.42	P9-6 1183+62.83	P9-7 1183+79.25	FS #8 1183+87.46
CAMBER DATA										
1	FG	645.44	645.42	645.36	645.30	645.22	645.14	645.04	644.93	644.88
	TES	644.66	644.55	644.41	644.38	644.28	644.23	644.10	644.07	644.10
LEFT GIRDER	ZW	644.54	644.45	644.29	644.15	644.05	644.01	643.99	643.98	643.99
	CW	644.54	644.50	644.42	644.34	644.26	644.18	644.10	644.02	643.99
	SW	0.06	0.05	0.02	0.00	0.00	0.01	0.03	0.05	0.07
LEFT WEB	DL1	0.18	0.13	0.06	0.01	0.00	0.03	0.07	0.14	0.18
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.05	-0.13	-0.19	-0.21	-0.17	-0.12	-0.04	0.00
2	FG	644.69	644.67	644.61	644.55	644.47	644.39	644.29	644.18	644.13
	TES	643.91	643.80	643.66	643.63	643.54	643.48	643.35	643.32	643.35
LEFT GIRDER	ZW	643.78	643.70	643.54	643.40	643.31	643.26	643.24	643.23	643.23
	CW	643.78	643.74	643.66	643.59	643.51	643.43	643.35	643.27	643.23
	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.03	0.05	0.07
RIGHT WEB	DL1	0.17	0.13	0.06	0.02	0.00	0.03	0.07	0.14	0.18
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.05	-0.13	-0.18	-0.20	-0.16	-0.11	-0.04	0.00
3	FG	643.94	643.92	643.86	643.80	643.72	643.64	643.54	643.43	643.38
	TES	643.16	643.04	642.91	642.88	642.78	642.72	642.59	642.57	642.60
RIGHT GIRDER	ZW	643.03	642.95	642.79	642.66	642.56	642.50	642.47	642.47	642.47
	CW	643.03	642.99	642.91	642.83	642.75	642.67	642.59	642.51	642.47
	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.05	0.06
LEFT WEB	DL1	0.17	0.13	0.06	0.02	0.00	0.02	0.07	0.13	0.18
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.17	-0.20	-0.17	-0.12	-0.04	0.00
4	FG	643.19	643.17	643.11	643.05	642.97	642.89	642.79	642.68	642.63
	TES	642.40	642.29	642.16	642.13	642.04	641.97	641.84	641.81	641.84
RIGHT GIRDER	ZW	642.28	642.19	642.04	641.91	641.81	641.75	641.72	641.71	641.71
	CW	642.28	642.24	642.16	642.08	642.00	641.91	641.83	641.75	641.71
	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.05	0.06
RIGHT WEB	DL1	0.17	0.13	0.06	0.02	0.00	0.02	0.06	0.13	0.17
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.17	-0.19	-0.16	-0.11	-0.04	0.00
BLOCKING HEIGHTS										
5	BLK	8.57				8.09				8.02
6		7.89				7.41				7.33
7		7.06				6.59				6.50
8		6.38				5.91				5.82

FIELD SECTION 10

HORIZ. LOC.	VALUE	POSITION AND STATION										
		FS #8 1183+87.46	P10-1 1183+95.67	P10-2 1184+12.08	P10-3 1184+28.50	P10-4 1184+44.92	P10-5 1184+61.33	P10-6 1184+77.75	P10-7 1184+94.17	P10-8 1185+10.58	P10-9 1185+27.00	FS #9 1185+35.21
CAMBER DATA												
1	FG	644.88	644.82	644.69	644.56	644.41	644.25	644.09	643.91	643.72	643.53	643.42
	TES	644.10	643.99	643.95	643.89	643.80	643.68	643.50	643.28	643.03	642.74	642.70
LEFT GIRDER	ZW	643.99	643.99	643.98	643.95	643.87	643.76	643.58	643.35	643.07	642.76	642.59
	CW	643.99	643.91	643.75	643.60	643.44	643.29	643.13	642.98	642.82	642.67	642.59
	SW	0.07	0.08	0.11	0.14	0.15	0.16	0.16	0.15	0.13	0.10	0.08
LEFT WEB	DL1	0.18	0.22	0.31	0.38	0.42	0.45	0.44	0.41	0.35	0.27	0.22
	DL2	0.02	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.08	0.23	0.35	0.43	0.47	0.44	0.37	0.25	0.09	0.00
2	FG	644.13	644.07	643.94	643.81	643.66	643.50	643.34	643.16	642.97	642.78	642.67
	TES	643.35	643.23	643.19	643.13	643.04	642.91	642.74	642.52	642.27	641.99	641.94
LEFT GIRDER	ZW	643.23	643.23	643.22	643.18	643.10	642.99	642.81	642.58	642.31	642.00	641.83
	CW	643.23	643.15	643.00	642.84	642.69	642.53	642.38	642.22	642.07	641.91	641.83
	SW	0.07	0.08	0.11	0.13	0.15	0.16	0.16	0.14	0.12	0.09	0.08
RIGHT WEB	DL1	0.18	0.22	0.30	0.37	0.41	0.44	0.43	0.40	0.34	0.26	0.22
	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.08	0.22	0.34	0.42	0.46	0.43	0.36	0.24	0.09	0.00
3	FG	643.38	643.32	643.19	643.06	642.91	642.75	642.59	642.41	642.22	642.03	641.92
	TES	642.60	642.48	642.44	642.38	642.28	642.15	641.97	641.76	641.51	641.23	641.19
RIGHT GIRDER	ZW	642.47	642.47	642.46	642.43	642.35	642.22	642.04	641.82	641.54	641.24	641.08
	CW	642.47	642.39	642.24	642.08	641.93	641.77	641.62	641.46	641.31	641.15	641.08
	SW	0.06	0.08	0.11	0.13	0.15	0.16	0.15	0.14	0.12	0.09	0.08
LEFT WEB	DL1	0.18	0.22	0.30	0.36	0.41	0.43	0.42	0.39	0.33	0.25	0.21
	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.08	0.22	0.34	0.42	0.45	0.42	0.35	0.23	0.08	0.00
4	FG	642.63	642.57	642.44	642.31	642.16	642.00	641.84	641.66	641.47	641.28	641.17
	TES	641.84	641.72	641.68	641.62	641.52	641.39	641.21	641.00	640.75	640.47	640.43
RIGHT GIRDER	ZW	641.71	641.71	641.70	641.66	641.58	641.46	641.27	641.05	640.78	640.48	640.32
	CW	641.71	641.64	641.48	641.33	641.17	641.02	640.86	640.71	640.55	640.40	640.32
	SW	0.06	0.08	0.10	0.13	0.14	0.15	0.15	0.14	0.12	0.09	0.08
RIGHT WEB	DL1	0.17	0.21	0.29	0.35	0.40	0.42	0.41	0.38	0.32	0.25	0.21
	DL2	0.02	0.02	0.03	0.04	0.05	0.05	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.08	0.22	0.33	0.41	0.44	0.41	0.34	0.23	0.08	0.00
BLOCKING HEIGHTS												
5	BLK	8.02										6.62
6		7.33										5.94
7		6.50										5.11
8		5.82										4.42

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 9 AND 10

SHEET 51 OF 56

657

STEEL FABRICATION CONTRACT ONLY

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-671E\051 B-05-671E-CAMBER DATA FS 9 AND 10.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71

FIELD SECTION 11

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #9	P11-1	P11-2	P11-3	PIER 6	P11-5	P11-6	P11-7	FS #10
		1185+35.21	1185+43.42	1185+59.83	1185+76.25	1185+92.67	1186+09.27	1186+25.88	1186+42.48	1186+50.79
CAMBER DATA										
1	FG	643.42	643.32	643.10	642.88	642.64	642.39	642.13	641.86	641.72
LEFT GIRDER	TES	642.70	642.50	642.20	641.99	641.70	641.45	641.12	640.89	640.82
	ZW	642.59	642.42	642.09	641.77	641.47	641.22	640.98	640.77	640.66
	CW	642.59	642.45	642.18	641.91	641.63	641.35	641.08	640.80	640.66
LEFT WEB	SW	0.08	0.07	0.04	0.02	0.00	0.00	0.01	0.02	0.03
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.01	0.05	0.07
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.09	-0.13	-0.16	-0.14	-0.09	-0.03	0.00
2	FG	642.67	642.57	642.35	642.13	641.89	641.64	641.38	641.11	640.97
LEFT GIRDER	TES	641.94	641.75	641.45	641.24	640.95	640.70	640.37	640.14	640.07
	ZW	641.83	641.67	641.34	641.02	640.72	640.47	640.23	640.01	639.91
	CW	641.83	641.70	641.42	641.15	640.88	640.60	640.32	640.05	639.91
RIGHT WEB	SW	0.08	0.06	0.04	0.02	0.00	0.00	0.01	0.02	0.03
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.01	0.05	0.07
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.09	-0.13	-0.15	-0.13	-0.09	-0.03	0.00
3	FG	641.92	641.82	641.60	641.38	641.14	640.89	640.63	640.36	640.22
RIGHT GIRDER	TES	641.19	640.99	640.69	640.48	640.20	639.95	639.62	639.39	639.31
	ZW	641.08	640.91	640.59	640.27	639.97	639.72	639.48	639.26	639.15
	CW	641.08	640.94	640.67	640.39	640.12	639.84	639.57	639.29	639.15
LEFT WEB	SW	0.08	0.06	0.04	0.01	0.00	0.00	0.00	0.02	0.03
	DL1	0.21	0.17	0.10	0.04	0.00	0.00	0.01	0.05	0.07
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.08	-0.12	-0.15	-0.12	-0.09	-0.03	0.00
4	FG	641.17	641.07	640.85	640.63	640.39	640.14	639.88	639.61	639.47
RIGHT GIRDER	TES	640.43	640.24	639.94	639.73	639.45	639.20	638.87	638.64	638.56
	ZW	640.32	640.16	639.83	639.52	639.22	638.97	638.73	638.51	638.40
	CW	640.32	640.18	639.91	639.64	639.36	639.09	638.81	638.54	638.40
RIGHT WEB	SW	0.08	0.06	0.04	0.01	0.00	0.00	0.00	0.02	0.02
	DL1	0.21	0.17	0.10	0.04	0.00	0.00	0.01	0.05	0.07
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.08	-0.12	-0.14	-0.12	-0.08	-0.03	0.00
BLOCKING HEIGHTS										
5	BLK	6.62				5.50				4.69
6		5.94				4.83				4.01
7		5.11				4.00				3.18
8		4.42				3.33				2.50

FIELD SECTION 12

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #10	P12-1	P12-2	P12-3	P12-4	P12-5	P12-6	P12-7	PIER 7
		1186+50.79	1186+59.09	1186+75.70	1186+92.30	1187+08.91	1187+25.52	1187+42.12	1187+58.73	1187+75.33
CAMBER DATA										
1	FG	641.72	641.58	641.29	640.98	640.67	640.35	640.02	639.67	639.32
LEFT GIRDER	TES	640.82	640.60	640.35	640.08	639.78	639.44	639.07	638.66	638.24
	ZW	640.66	640.55	640.32	640.06	639.76	639.42	639.03	638.60	638.15
	CW	640.66	640.49	640.16	639.83	639.49	639.16	638.82	638.49	638.15
LEFT WEB	SW	0.03	0.04	0.05	0.06	0.06	0.06	0.04	0.02	0.00
	DL1	0.07	0.10	0.14	0.17	0.17	0.16	0.12	0.07	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.06	0.16	0.24	0.27	0.26	0.21	0.12	0.00
2	FG	640.97	640.83	640.54	640.23	639.92	639.60	639.27	638.92	638.57
LEFT GIRDER	TES	640.07	639.85	639.60	639.33	639.02	638.69	638.32	637.91	637.49
	ZW	639.91	639.80	639.56	639.30	639.00	638.66	638.27	637.85	637.40
	CW	639.91	639.74	639.41	639.07	638.74	638.40	638.07	637.74	637.40
RIGHT WEB	SW	0.03	0.03	0.05	0.06	0.06	0.06	0.04	0.02	0.00
	DL1	0.07	0.09	0.13	0.16	0.17	0.15	0.12	0.06	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.00
	C	0.00	0.06	0.16	0.23	0.26	0.25	0.20	0.11	0.00
3	FG	640.22	640.08	639.79	639.48	639.17	638.85	638.52	638.17	637.82
RIGHT GIRDER	TES	639.31	639.09	638.84	638.57	638.27	637.93	637.56	637.16	636.74
	ZW	639.15	639.04	638.81	638.55	638.24	637.90	637.52	637.10	636.65
	CW	639.15	638.98	638.65	638.32	637.99	637.65	637.32	636.99	636.65
LEFT WEB	SW	0.03	0.03	0.05	0.06	0.06	0.05	0.04	0.02	0.00
	DL1	0.07	0.09	0.13	0.16	0.16	0.15	0.12	0.06	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.00
	C	0.00	0.06	0.15	0.23	0.26	0.25	0.20	0.11	0.00
4	FG	639.47	639.33	639.04	638.73	638.42	638.10	637.77	637.42	637.07
RIGHT GIRDER	TES	638.56	638.34	638.09	637.82	637.51	637.17	636.81	636.41	635.99
	ZW	638.40	638.29	638.05	637.79	637.48	637.14	636.76	636.34	635.90
	CW	638.40	638.23	637.90	637.57	637.23	636.90	636.57	636.24	635.90
RIGHT WEB	SW	0.02	0.03	0.04	0.05	0.06	0.05	0.04	0.02	0.00
	DL1	0.07	0.09	0.12	0.15	0.16	0.14	0.11	0.06	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.05	0.15	0.22	0.25	0.24	0.20	0.11	0.00
BLOCKING HEIGHTS										
5	BLK	4.69								2.18
6		4.01								1.50
7		3.18								0.68
8		2.50								0.00

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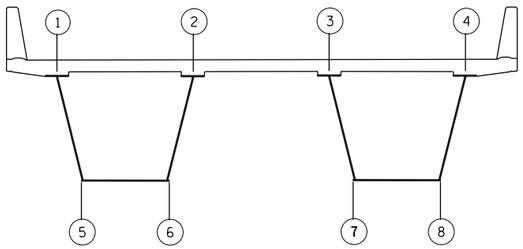

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 11 AND 12

SHEET 52 OF 56

658

STEEL FABRICATION CONTRACT ONLY

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DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-71

FIELD SECTION 13

HORIZ. LOC.	VALUE	POSITION AND STATION								
		PIER 7 1187+79.00	P13-2 1187+95.36	P13-3 1188+11.73	P13-4 1188+28.09	P13-5 1188+44.45	P13-6 1188+60.82	P13-7 1188+77.18	P13-8 1188+93.55	FS #11 1189+01.73
CAMBER DATA										
1	FG	639.24	638.88	638.51	638.13	637.74	637.34	636.93	636.51	636.29
LEFT GIRDER	TES	638.16	637.87	637.57	637.23	636.86	636.45	636.01	635.54	635.39
	ZW	638.07	637.81	637.53	637.20	636.84	636.43	635.98	635.50	635.25
	CW	638.07	637.70	637.32	636.95	636.57	636.19	635.82	635.44	635.25
LEFT WEB	SW	0.00	0.02	0.05	0.06	0.07	0.07	0.05	0.04	0.03
	DL1	0.00	0.07	0.13	0.17	0.18	0.18	0.15	0.11	0.09
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.12	0.21	0.26	0.27	0.24	0.16	0.06	0.00
2	FG	638.49	638.13	637.76	637.38	636.99	636.59	636.18	635.76	635.54
LEFT GIRDER	TES	637.41	637.12	636.81	636.47	636.10	635.69	635.25	634.79	634.63
	ZW	637.32	637.06	636.77	636.45	636.08	635.67	635.22	634.74	634.50
	CW	637.32	636.95	636.57	636.19	635.82	635.44	635.06	634.68	634.50
RIGHT WEB	SW	0.00	0.02	0.04	0.06	0.06	0.06	0.05	0.04	0.03
	DL1	0.00	0.07	0.12	0.16	0.18	0.17	0.14	0.10	0.08
	DL2	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.11	0.20	0.25	0.26	0.23	0.16	0.06	0.00
3	FG	637.74	637.38	637.01	636.63	636.24	635.84	635.43	635.01	634.79
RIGHT GIRDER	TES	636.66	636.37	636.06	635.71	635.34	634.94	634.49	634.03	633.88
	ZW	636.57	636.31	636.02	635.69	635.32	634.91	634.46	633.99	633.74
	CW	636.57	636.20	635.82	635.44	635.06	634.68	634.31	633.93	633.74
LEFT WEB	SW	0.00	0.02	0.04	0.06	0.06	0.06	0.05	0.04	0.03
	DL1	0.00	0.06	0.12	0.15	0.17	0.17	0.14	0.10	0.08
	DL2	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01
	C	0.00	0.11	0.20	0.25	0.26	0.23	0.16	0.06	0.00
4	FG	636.99	636.63	636.26	635.88	635.49	635.09	634.68	634.26	634.04
RIGHT GIRDER	TES	635.91	635.61	635.30	634.96	634.58	634.18	633.74	633.28	633.12
	ZW	635.82	635.55	635.26	634.93	634.56	634.15	633.70	633.23	632.98
	CW	635.82	635.45	635.07	634.69	634.31	633.93	633.55	633.17	632.98
RIGHT WEB	SW	0.00	0.02	0.04	0.05	0.06	0.06	0.05	0.04	0.03
	DL1	0.00	0.06	0.12	0.15	0.16	0.16	0.13	0.10	0.07
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.11	0.19	0.24	0.25	0.22	0.15	0.06	0.00
BLOCKING HEIGHTS										
5	BLK	27.24								24.41
6		26.70								23.87
7		25.74								22.90
8		25.20								22.36

FIELD SECTION 14

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #11 1189+01.73	P14-1 1189+09.91	P14-2 1189+26.27	P14-3 1189+42.64	PIER 8 1189+59.00	P14-5 1189+76.02	P14-6 1189+93.03	P14-7 1190+10.05	FS #12 1190+18.56
CAMBER DATA										
1	FG	636.29	636.08	635.64	635.18	634.72	634.23	633.73	633.22	632.97
LEFT GIRDER	TES	635.39	635.10	634.62	634.20	633.74	633.30	632.81	632.39	632.23
	ZW	635.25	635.00	634.50	634.01	633.56	633.13	632.72	632.34	632.14
	CW	635.25	635.03	634.60	634.16	633.73	633.27	632.82	632.37	632.14
LEFT WEB	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.04	0.07	0.08
	DL1	0.09	0.06	0.02	0.00	0.00	0.04	0.11	0.19	0.23
	DL2	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.03	-0.10	-0.15	-0.17	-0.15	-0.10	-0.03	0.00
2	FG	635.54	635.33	634.89	634.43	633.97	633.48	632.98	632.47	632.22
LEFT GIRDER	TES	634.63	634.35	633.86	633.45	632.99	632.55	632.06	631.64	631.47
	ZW	634.50	634.25	633.75	633.26	632.81	632.37	631.97	631.58	631.38
	CW	634.50	634.28	633.84	633.41	632.97	632.52	632.06	631.61	631.38
RIGHT WEB	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.04	0.06	0.08
	DL1	0.08	0.06	0.02	0.00	0.00	0.04	0.10	0.18	0.23
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.03	-0.10	-0.14	-0.16	-0.14	-0.09	-0.03	0.00
3	FG	634.79	634.58	634.14	633.68	633.22	632.73	632.23	631.72	631.47
RIGHT GIRDER	TES	633.88	633.59	633.11	632.70	632.24	631.80	631.31	630.88	630.71
	ZW	633.74	633.49	632.99	632.51	632.06	631.63	631.22	630.82	630.62
	CW	633.74	633.52	633.08	632.65	632.21	631.76	631.30	630.85	630.62
LEFT WEB	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.04	0.06	0.08
	DL1	0.08	0.06	0.02	0.00	0.00	0.04	0.10	0.18	0.22
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.03	-0.09	-0.14	-0.15	-0.13	-0.08	-0.03	0.00
4	FG	634.04	633.83	633.39	632.93	632.47	631.98	631.48	630.97	630.72
RIGHT GIRDER	TES	633.12	632.84	632.36	631.95	631.49	631.05	630.55	630.12	629.95
	ZW	632.98	632.74	632.24	631.76	631.31	630.88	630.46	630.06	629.86
	CW	632.98	632.76	632.33	631.89	631.45	631.00	630.54	630.09	629.86
RIGHT WEB	SW	0.03	0.02	0.01	0.00	0.00	0.01	0.03	0.06	0.07
	DL1	0.07	0.05	0.01	0.00	0.00	0.04	0.10	0.17	0.21
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.03	-0.09	-0.13	-0.15	-0.12	-0.08	-0.03	0.00
BLOCKING HEIGHTS										
5	BLK	24.41				22.72				21.30
6		23.87				22.18				20.76
7		22.90				21.22				19.78
8		22.36				20.68				19.24

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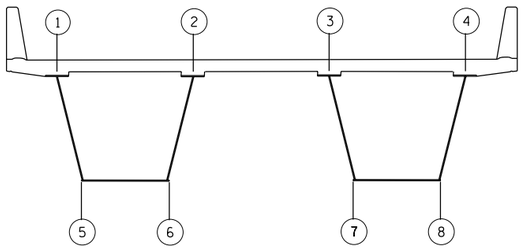

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 13 AND 14

SHEET 53 OF 56

659

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DATE: 4/30/2013

I.D.

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STATE PROJECT NUMBER

1133-11-71

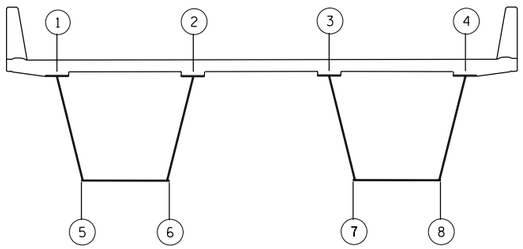
FIELD SECTION 15

HORIZ. LOC.	VALUE	POSITION AND STATION									
		FS #12 1190+18.56	P15-1 1190+27.07	P15-2 1190+44.08	P15-3 1190+61.10	P15-4 1190+78.12	P15-5 1190+95.13	P15-6 1191+12.15	P15-7 1191+29.17	P15-8 1191+46.18	FS #13 1191+54.70
CAMBER DATA											
1	FG	632.97	632.71	632.20	631.69	631.18	630.67	630.16	629.65	629.14	628.88
	TES	632.23	631.94	631.51	631.06	630.57	630.05	629.50	628.91	628.31	628.09
LEFT GIRDER	ZW	632.14	631.95	631.55	631.11	630.64	630.11	629.54	628.93	628.30	627.98
	CW	632.14	631.88	631.36	630.84	630.32	629.80	629.28	628.76	628.24	627.98
	SW	0.08	0.10	0.12	0.14	0.15	0.14	0.13	0.10	0.08	0.06
LEFT WEB	DL1	0.23	0.27	0.35	0.40	0.43	0.41	0.37	0.31	0.23	0.18
	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.27	0.32	0.31	0.26	0.17	0.06	0.00
2	FG	632.22	631.96	631.45	630.94	630.43	629.92	629.41	628.90	628.39	628.13
	TES	631.47	631.18	630.75	630.29	629.81	629.29	628.73	628.15	627.55	627.33
LEFT GIRDER	ZW	631.38	631.19	630.78	630.35	629.87	629.34	628.77	628.17	627.54	627.23
	CW	631.38	631.12	630.60	630.08	629.56	629.04	628.52	628.01	627.49	627.23
	SW	0.08	0.09	0.12	0.13	0.14	0.14	0.12	0.10	0.07	0.06
RIGHT WEB	DL1	0.23	0.27	0.34	0.39	0.41	0.40	0.36	0.30	0.22	0.18
	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.18	0.26	0.31	0.30	0.25	0.16	0.06	0.00
3	FG	631.47	631.21	630.70	630.19	629.68	629.17	628.66	628.15	627.64	627.38
	TES	630.71	630.42	629.99	629.53	629.04	628.52	627.97	627.39	626.79	626.58
RIGHT GIRDER	ZW	630.62	630.42	630.02	629.58	629.10	628.57	628.01	627.41	626.78	626.47
	CW	630.62	630.36	629.84	629.32	628.80	628.28	627.77	627.25	626.73	626.47
	SW	0.08	0.09	0.11	0.13	0.14	0.13	0.12	0.10	0.07	0.06
LEFT WEB	DL1	0.22	0.26	0.33	0.38	0.40	0.39	0.35	0.29	0.21	0.17
	DL2	0.03	0.03	0.04	0.04	0.05	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.06	0.17	0.25	0.29	0.29	0.24	0.16	0.06	0.00
4	FG	630.72	630.46	629.95	629.44	628.93	628.42	627.91	627.40	626.89	626.63
	TES	629.95	629.66	629.22	628.77	628.28	627.76	627.21	626.63	626.04	625.82
RIGHT GIRDER	ZW	629.86	629.66	629.25	628.81	628.33	627.80	627.24	626.64	626.02	625.71
	CW	629.86	629.60	629.08	628.56	628.05	627.53	627.01	626.49	625.97	625.71
	SW	0.07	0.09	0.11	0.13	0.13	0.13	0.12	0.10	0.07	0.06
RIGHT WEB	DL1	0.21	0.25	0.32	0.36	0.39	0.38	0.34	0.28	0.21	0.17
	DL2	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.06	0.17	0.24	0.29	0.28	0.23	0.15	0.05	0.00
BLOCKING HEIGHTS											
5	BLK	21.30									17.14
6		20.76									16.60
7		19.78									15.63
8		19.24									15.09

FIELD SECTION 16

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #13 1191+54.70	P16-1 1191+63.20	P16-2 1191+80.22	P16-3 1191+97.23	PIER 9 1192+14.25	P16-5 1192+31.27	P16-6 1192+48.28	P16-7 1192+65.30	FS #14 1192+73.81
CAMBER DATA										
1	FG	628.88	628.63	628.12	627.61	627.10	626.59	626.08	625.57	625.31
	TES	628.09	627.74	627.15	626.69	626.16	625.68	625.12	624.70	624.53
LEFT GIRDER	ZW	627.98	627.66	627.04	626.46	625.93	625.47	625.03	624.63	624.43
	CW	627.98	627.73	627.22	626.72	626.21	625.70	625.20	624.69	624.43
	SW	0.06	0.05	0.02	0.00	0.00	0.01	0.03	0.06	0.07
LEFT WEB	DL1	0.18	0.14	0.06	0.02	0.00	0.03	0.08	0.15	0.19
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.07	-0.18	-0.25	-0.28	-0.24	-0.16	-0.06	0.00
2	FG	628.13	627.88	627.37	626.86	626.35	625.84	625.33	624.82	624.56
	TES	627.33	626.99	626.40	625.94	625.41	624.93	624.37	623.94	623.77
LEFT GIRDER	ZW	627.23	626.91	626.29	625.71	625.18	624.72	624.28	623.87	623.68
	CW	627.23	626.97	626.47	625.96	625.45	624.95	624.44	623.93	623.68
	SW	0.06	0.05	0.02	0.00	0.00	0.01	0.03	0.06	0.07
RIGHT WEB	DL1	0.18	0.14	0.06	0.02	0.00	0.03	0.08	0.15	0.19
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.06	-0.17	-0.24	-0.27	-0.23	-0.16	-0.06	0.00
3	FG	627.38	627.13	626.62	626.11	625.60	625.09	624.58	624.07	623.81
	TES	626.58	626.23	625.65	625.19	624.66	624.18	623.62	623.19	623.02
RIGHT GIRDER	ZW	626.47	626.15	625.54	624.96	624.43	623.96	623.53	623.12	622.92
	CW	626.47	626.21	625.71	625.20	624.69	624.19	623.68	623.17	622.92
	SW	0.06	0.04	0.02	0.00	0.00	0.01	0.03	0.06	0.07
LEFT WEB	DL1	0.17	0.13	0.06	0.01	0.00	0.03	0.08	0.15	0.18
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.06	-0.17	-0.24	-0.26	-0.22	-0.16	-0.06	0.00
4	FG	626.63	626.38	625.87	625.36	624.85	624.34	623.83	623.32	623.06
	TES	625.82	625.48	624.89	624.44	623.91	623.43	622.87	622.43	622.26
RIGHT GIRDER	ZW	625.71	625.40	624.79	624.21	623.68	623.21	622.77	622.36	622.16
	CW	625.71	625.46	624.95	624.44	623.94	623.43	622.92	622.42	622.16
	SW	0.06	0.04	0.02	0.00	0.00	0.01	0.03	0.05	0.07
RIGHT WEB	DL1	0.17	0.13	0.06	0.01	0.00	0.03	0.08	0.14	0.18
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.06	-0.16	-0.23	-0.26	-0.22	-0.15	-0.06	0.00
BLOCKING HEIGHTS										
5	BLK	17.14				15.09				13.60
6		16.60				14.56				13.05
7		15.63				13.59				12.08
8		15.09				13.06				11.54

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 15 AND 16 660

SHEET 54 OF 56

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DATE: 4/30/2013

I.D.

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STATE PROJECT NUMBER

1133-11-71

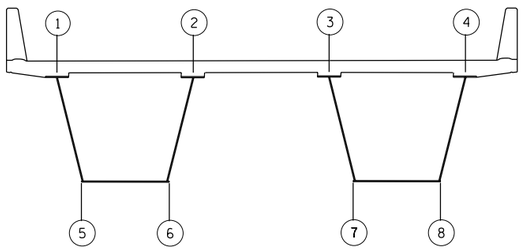
FIELD SECTION 17

HORIZ. LOC.	VALUE	POSITION AND STATION									
		FS #14	P17-1	P17-2	P17-3	P17-4	P17-5	P17-6	P17-7	P17-8	FS #15
		1192+73.81	1192+82.32	1192+99.33	1193+16.35	1193+33.37	1193+50.38	1193+67.40	1193+84.42	1194+01.43	1194+09.95
CAMBER DATA											
1	FG	625.31	625.06	624.55	624.03	623.52	623.01	622.50	621.99	621.48	621.23
LEFT GIRDER	TES	624.53	624.24	623.81	623.37	622.90	622.40	621.86	621.29	620.70	620.48
	ZW	624.43	624.24	623.85	623.43	622.97	622.47	621.92	621.34	620.71	620.39
	CW	624.43	624.18	623.68	623.17	622.67	622.16	621.66	621.15	620.65	620.39
LEFT WEB	SW	0.07	0.09	0.12	0.14	0.15	0.15	0.14	0.12	0.10	0.08
	DL1	0.19	0.24	0.32	0.38	0.42	0.42	0.40	0.34	0.27	0.22
	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.06	0.17	0.26	0.30	0.31	0.27	0.18	0.07	0.00
2	FG	624.56	624.31	623.80	623.28	622.77	622.26	621.75	621.24	620.73	620.48
LEFT GIRDER	TES	623.77	623.48	623.05	622.61	622.14	621.64	621.10	620.53	619.94	619.72
	ZW	623.68	623.48	623.08	622.66	622.20	621.71	621.16	620.57	619.95	619.63
	CW	623.68	623.43	622.92	622.41	621.91	621.40	620.90	620.39	619.89	619.63
RIGHT WEB	SW	0.07	0.09	0.11	0.13	0.15	0.15	0.14	0.12	0.09	0.08
	DL1	0.19	0.23	0.31	0.37	0.40	0.41	0.39	0.34	0.26	0.22
	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.06	0.16	0.25	0.30	0.30	0.26	0.18	0.06	0.00
3	FG	623.81	623.56	623.05	622.53	622.02	621.51	621.00	620.49	619.98	619.73
RIGHT GIRDER	TES	623.02	622.72	622.30	621.85	621.38	620.88	620.34	619.77	619.18	618.97
	ZW	622.92	622.72	622.32	621.90	621.44	620.94	620.39	619.81	619.19	618.88
	CW	622.92	622.67	622.16	621.66	621.15	620.65	620.14	619.63	619.13	618.88
LEFT WEB	SW	0.07	0.08	0.11	0.13	0.14	0.15	0.14	0.12	0.09	0.08
	DL1	0.18	0.22	0.30	0.36	0.39	0.40	0.38	0.33	0.25	0.21
	DL2	0.02	0.03	0.03	0.04	0.04	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.06	0.16	0.24	0.29	0.30	0.25	0.17	0.06	0.00
4	FG	623.06	622.81	622.30	621.78	621.27	620.76	620.25	619.74	619.23	618.98
RIGHT GIRDER	TES	622.26	621.97	621.54	621.09	620.62	620.12	619.58	619.01	618.42	618.21
	ZW	622.16	621.96	621.56	621.13	620.67	620.17	619.63	619.04	618.43	618.12
	CW	622.16	621.91	621.40	620.90	620.39	619.89	619.38	618.88	618.37	618.12
RIGHT WEB	SW	0.07	0.08	0.11	0.13	0.14	0.14	0.13	0.11	0.09	0.07
	DL1	0.18	0.22	0.29	0.35	0.38	0.39	0.37	0.32	0.25	0.21
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.05	0.16	0.23	0.28	0.29	0.25	0.17	0.06	0.00
BLOCKING HEIGHTS											
5	BLK	13.60									9.55
6		13.05									9.01
7		12.08									8.04
8		11.54									7.49

FIELD SECTION 18

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #15	P18-1	P18-2	P18-3	PIER 10	P18-5	P18-6	P18-7	FS #16
		1194+09.95	1194+18.45	1194+35.47	1194+52.48	1194+69.50	1194+85.86	1195+02.23	1195+18.59	1195+26.78
CAMBER DATA										
1	FG	621.23	620.97	620.46	619.95	619.44	618.95	618.46	617.97	617.72
LEFT GIRDER	TES	620.48	620.13	619.53	619.05	618.50	618.01	617.44	617.00	616.82
	ZW	620.39	620.07	619.44	618.84	618.27	617.78	617.33	616.90	616.68
	CW	620.39	620.12	619.58	619.04	618.50	617.98	617.46	616.94	616.68
LEFT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.03	0.07	0.09
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.05	-0.14	-0.21	-0.23	-0.20	-0.14	-0.05	0.00
2	FG	620.48	620.22	619.71	619.20	618.69	618.20	617.71	617.22	616.97
LEFT GIRDER	TES	619.72	619.38	618.78	618.30	617.75	617.26	616.69	616.25	616.07
	ZW	619.63	619.32	618.69	618.09	617.52	617.04	616.58	616.14	615.93
	CW	619.63	619.36	618.83	618.29	617.75	617.23	616.71	616.19	615.93
RIGHT WEB	SW	0.08	0.06	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.03	0.06	0.09
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.05	-0.14	-0.20	-0.22	-0.19	-0.13	-0.05	0.00
3	FG	619.73	619.47	618.96	618.45	617.94	617.45	616.96	616.47	616.22
RIGHT GIRDER	TES	618.97	618.62	618.03	617.55	617.00	616.51	615.94	615.49	615.31
	ZW	618.88	618.56	617.94	617.33	616.77	616.28	615.83	615.39	615.18
	CW	618.88	618.61	618.07	617.53	616.99	616.47	615.95	615.44	615.18
LEFT WEB	SW	0.08	0.06	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.21	0.17	0.09	0.03	0.00	0.00	0.02	0.06	0.08
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.05	-0.13	-0.19	-0.22	-0.19	-0.13	-0.05	0.00
4	FG	618.98	618.72	618.21	617.70	617.19	616.70	616.21	615.72	615.47
RIGHT GIRDER	TES	618.21	617.87	617.27	616.80	616.25	615.76	615.19	614.74	614.56
	ZW	618.12	617.80	617.18	616.58	616.02	615.54	615.08	614.64	614.42
	CW	618.12	617.85	617.31	616.77	616.23	615.72	615.20	614.68	614.42
RIGHT WEB	SW	0.07	0.06	0.03	0.01	0.00	0.00	0.01	0.02	0.03
	DL1	0.21	0.17	0.09	0.03	0.00	0.00	0.02	0.06	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.04	-0.13	-0.19	-0.21	-0.18	-0.12	-0.04	0.00
BLOCKING HEIGHTS										
5	BLK	9.55				7.43				5.85
6		9.01				6.90				5.31
7		8.04				5.93				4.34
8		7.49				5.40				3.80

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 17 AND 18 661

SHEET 55 OF 56

DATE: 4/30/2013

I.D.

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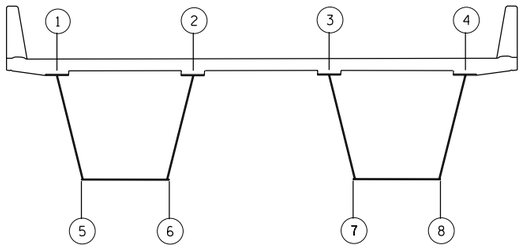
STATE PROJECT NUMBER

1133-11-71

FIELD SECTION 19

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS "16 1195+26.78	P19-1 1195+34.95	P19-2 1195+51.32	P19-3 1195+67.68	P19-4 1195+84.05	P19-5 1196+00.41	P19-6 1196+16.77	P19-7 1196+33.14	E. ABUT. 1196+49.50
CAMBER DATA										
1	FG	617.72	617.48	616.99	616.49	616.00	615.51	615.02	614.53	614.04
LEFT GIRDER	TES	616.82	616.51	616.07	615.61	615.12	614.61	614.08	613.52	612.96
	ZW	616.68	616.47	616.04	615.59	615.10	614.59	614.04	613.46	612.87
	CW	616.68	616.43	615.92	615.41	614.91	614.40	613.89	613.38	612.87
LEFT WEB	SW	0.03	0.04	0.05	0.06	0.07	0.06	0.05	0.02	0.00
	DL1	0.09	0.11	0.15	0.18	0.18	0.17	0.13	0.07	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.04	0.12	0.17	0.20	0.19	0.15	0.08	0.00
2	FG	616.97	616.73	616.24	615.74	615.25	614.76	614.27	613.78	613.29
LEFT GIRDER	TES	616.07	615.76	615.31	614.85	614.36	613.86	613.32	612.77	612.21
	ZW	615.93	615.72	615.28	614.83	614.35	613.83	613.29	612.71	612.12
	CW	615.93	615.68	615.17	614.66	614.15	613.65	613.14	612.63	612.12
RIGHT WEB	SW	0.03	0.04	0.05	0.06	0.06	0.06	0.04	0.02	0.00
	DL1	0.09	0.11	0.15	0.17	0.18	0.16	0.12	0.07	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.17	0.19	0.18	0.15	0.08	0.00
3	FG	616.22	615.98	615.49	614.99	614.50	614.01	613.52	613.03	612.54
RIGHT GIRDER	TES	615.31	615.01	614.56	614.10	613.61	613.10	612.57	612.02	611.46
	ZW	615.18	614.96	614.53	614.07	613.59	613.07	612.53	611.96	611.37
	CW	615.18	614.92	614.42	613.91	613.40	612.90	612.39	611.88	611.37
LEFT WEB	SW	0.03	0.04	0.05	0.06	0.06	0.06	0.04	0.02	0.00
	DL1	0.08	0.11	0.14	0.17	0.17	0.16	0.12	0.06	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.16	0.19	0.18	0.14	0.08	0.00
4	FG	615.47	615.23	614.74	614.24	613.75	613.26	612.77	612.28	611.79
RIGHT GIRDER	TES	614.56	614.25	613.80	613.34	612.85	612.34	611.82	611.27	610.71
	ZW	614.42	614.21	613.77	613.32	612.83	612.32	611.77	611.20	610.62
	CW	614.42	614.17	613.66	613.16	612.65	612.14	611.64	611.13	610.62
RIGHT WEB	SW	0.03	0.04	0.05	0.06	0.06	0.05	0.04	0.02	0.00
	DL1	0.08	0.10	0.14	0.16	0.17	0.15	0.12	0.06	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.16	0.18	0.17	0.14	0.08	0.00
BLOCKING HEIGHTS										
5	BLK	5.85								2.04
6		5.31								1.50
7		4.34								0.54
8		3.80								0.00

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-671

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA:
FIELD SECTION 19

SHEET 56 OF 56

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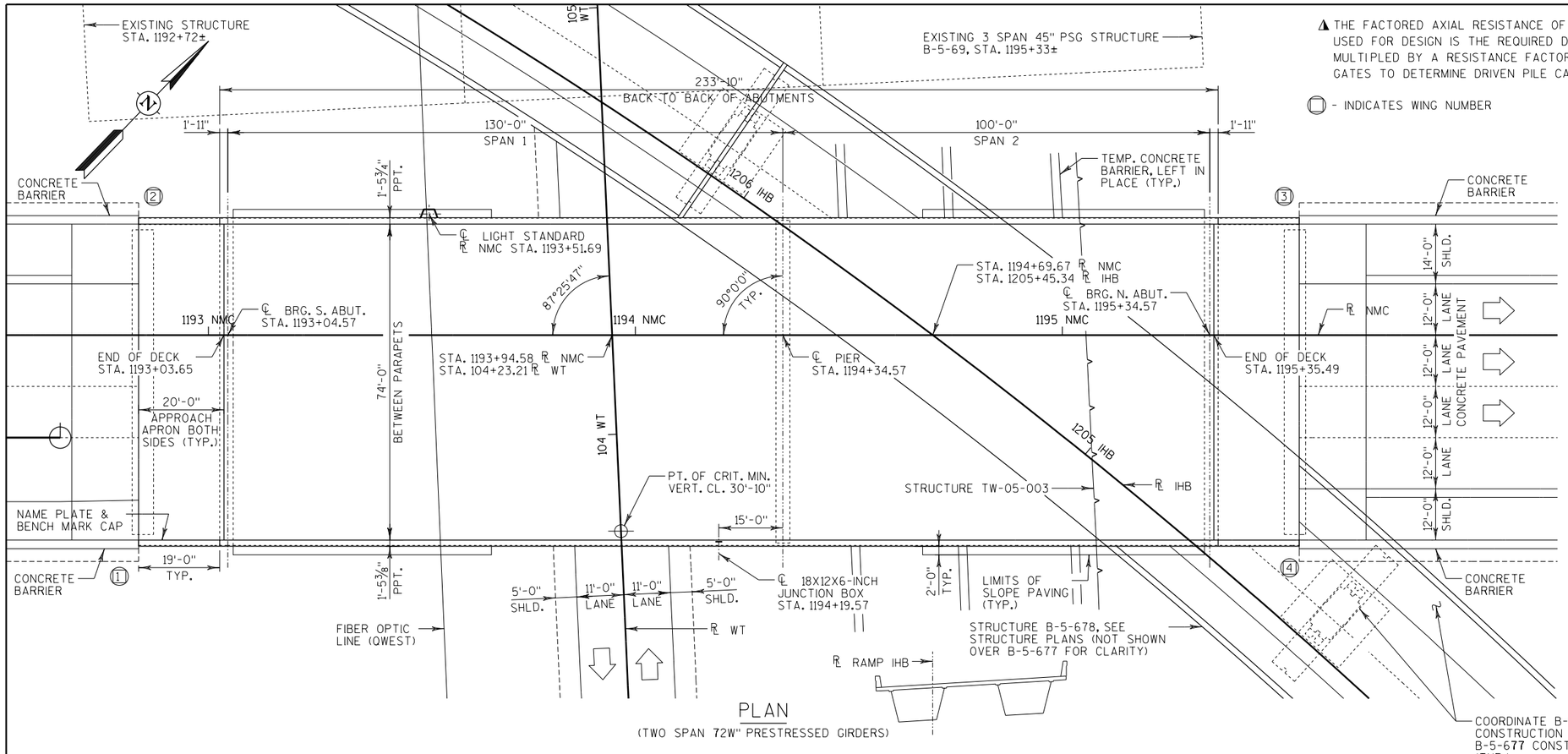
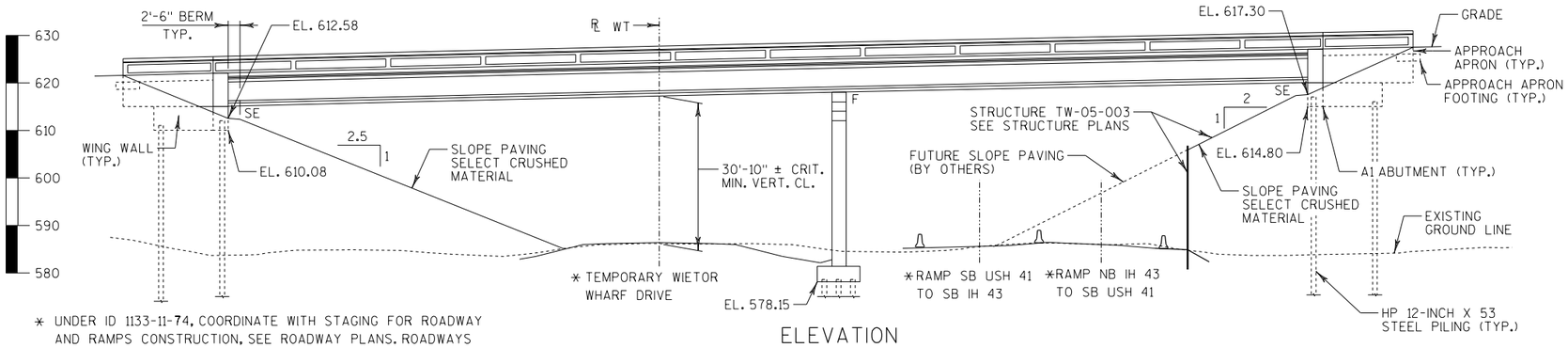
DATE: 4/30/2013

I.D.



PLAN

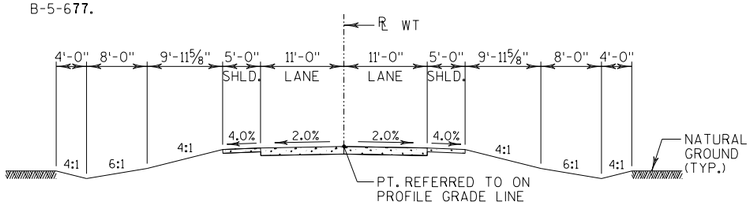
(TWO SPAN 72W" PRESTRESSED GIRDERS)



ELEVATION

(LOOKING WEST)

* UNDER ID 1133-11-74, COORDINATE WITH STAGING FOR ROADWAY AND RAMPS CONSTRUCTION, SEE ROADWAY PLANS. ROADWAYS TO BE MOVED TO FINAL LOCATIONS IN FUTURE BY OTHERS. ONLY WIETOR WHARF DRIVE WILL UNDERPASS STRUCTURE B-5-677.



TYPICAL SECTION THRU WIETOR WHARF DRIVE

(LOOKING UPSTATION, FOR REFERANCE, IN FUTURE CONTRACT)

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. PIER
7. PIER DETAILS
8. PIER DETAILS
9. NORTH ABUTMENT
10. NORTH ABUTMENT DETAILS
11. 72W" PRESTRESSED GIRDER DETAILS
12. 72W" PRESTRESSED GIRDER DETAILS
13. STEEL DIAPHRAGM
14. SUPERSTRUCTURE PLAN
15. SUPERSTRUCTURE CROSS SECTION
16. SUPERSTRUCTURE DETAILS
17. SINGLE SLOPE PARAPET 56SS
18. SINGLE SLOPE PARAPET 42SS MODIFIED
19. PARAPET ELECTRICAL WORK
20. APPROACH APRON
21. AESTHETIC DETAILS

▲ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

⬚ - INDICATES WING NUMBER

STATE PROJECT NUMBER

1133-11-74

DESIGN DATA

LIVE LOAD:

DESIGN RATING; HL-93
INVENTORY RATING; RF- 1.16
OPERATIONAL RATING; RF- 1.50
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS.
STRUCTURE IS DESIGNED FOR A 1½" SACRIFICIAL WEARING SURFACE PLACED AT INITIAL CONSTRUCTION INTEGRAL WITHTHE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY
SUPERSTRUCTURE ---------- f'c = 4,000 P.S.I
ALL OTHER ---------- f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT,
GRADE 60 ---------- fy = 60,000 P.S.I.

72W" PRESTRESSED GIRDERS,
CONCRETE MASONRY ---------- f'c = 8,000 P.S.I.
PRESTRESSING STRANDS - 0.6" Φ WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS▲PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 95'-0" LONG NORTH, 90'-0" LONG SOUTH.

PIER TO BE SUPPORTED ON PILING STEEL HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS▲PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 60'-0" LONG.

TRAFFIC VOLUME

USH 41 NB (NMC)	WIETOR WHARF DR. (WT)
A.D.T. = 15,800 (2015)	A.D.T. = <50 (2015)
A.D.T. = 31,500 (2035)	A.D.T. = <50 (2035)
R.D.S. = 70 M.P.H.	R.D.S. = 30 M.P.H.

NE REGION CONTACT:
PAUL VRANEY, P.E.
(920)-492-2232

DESIGN CONTACT:
KEN SMORYNSKI, PE, SE
(312)-616-0000

BRIDGE OFFICE CONTACT:
WILLIAM DREHER, P.E.
(608)-266-8489

NO.	DATE	REVISION	BY

exp U.S. Services Inc.
Chicago, IL
BUILDINGS·EARTH & ENVIRONMENT·ENERGY
INDUSTRIAL·INFRASTRUCTURE·SUSTAINABILITY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 05/07/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-677

USH 41 NB OVER WIETOR WHARF DRIVE

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	PK	DESIGN CK'D.	CCE	DRAWN BY	PK	PLANS CK'D.	CCE

GENERAL PLAN

SHEET 1 OF 21
663

R. SHANKAR NAIR E-26923 CHICAGO ILLINOIS
WISCONSIN PROFESSIONAL ENGINEER
5/1/13

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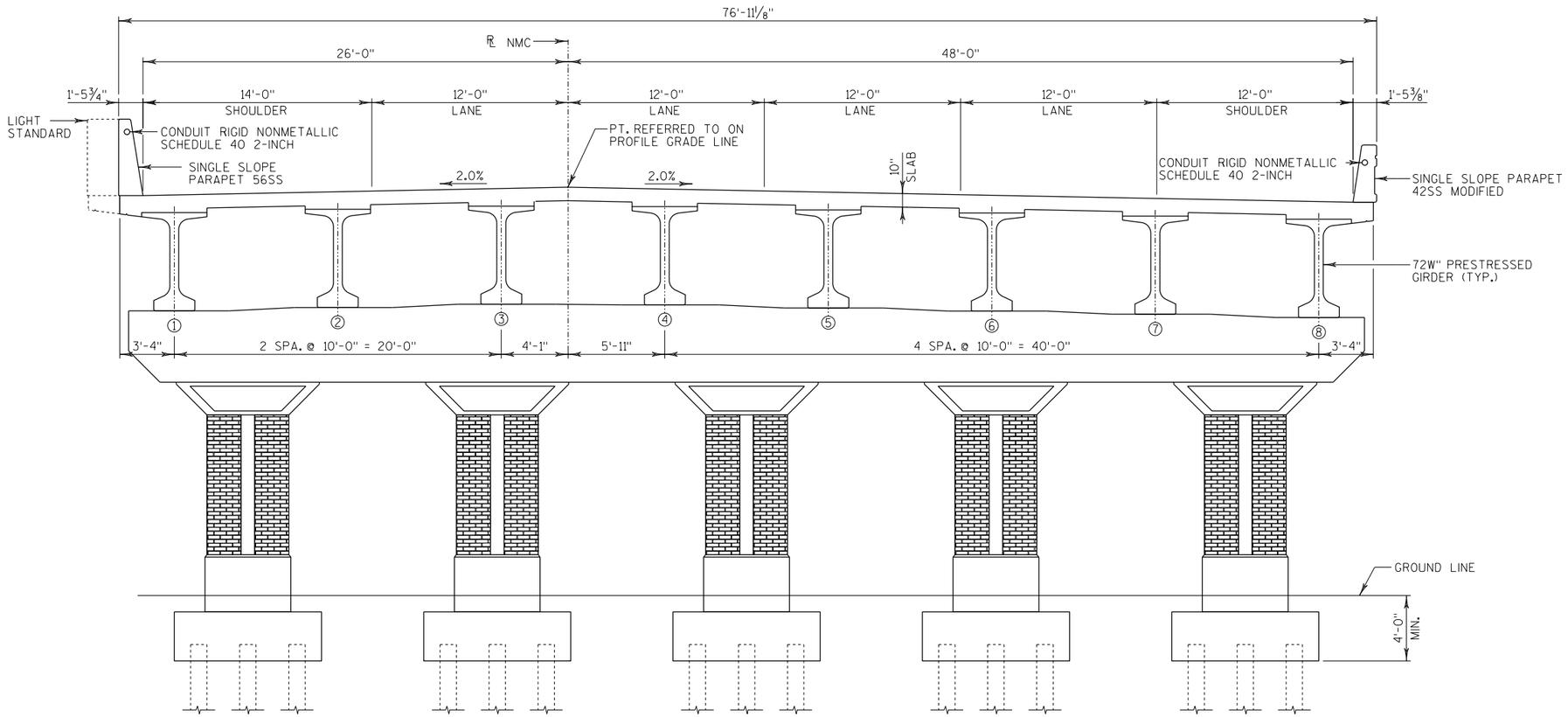
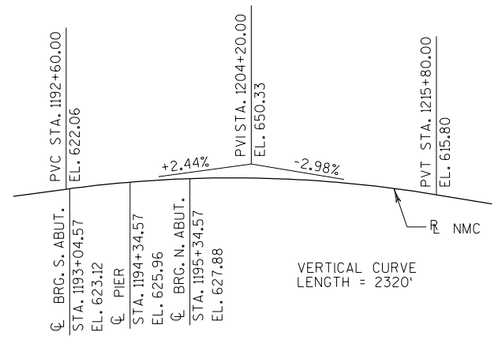
STATE PROJECT NUMBER

1133-11-74

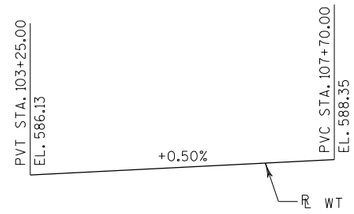


SECTION THRU USH 41 NB (NMC)

(LOOKING NORTH)



PROFILE GRADE LINE
USH 41 NB (NMC)



PROFILE GRADE LINE
WIETOR WHARF DRIVE (WT)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	PIER	NORTH ABUT.	APPROACH APRON	TOTALS
206.1000	EXCAVATION FOR BRIDGES (B-5-677)	L.S.	———	———	———	———	———	1
210.0100	BACKFILL STRUCTURE	C.Y.	———	435	———	435	———	870
502.3200	PROTECTIVE SURFACE TREATMENT	S.Y.	2,160	———	———	———	370	2,530
503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH	L.F.	1,846	———	———	———	———	1,846
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB.	———	6,760	3,840	6,720	———	17,320
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB.	155,270	3,400	46,000	3,510	29,160	237,340
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	8	16	8	———	32
506.4000	STEEL DIAPHRAGMS (B-5-677)	EACH	28	———	———	———	———	28
550.0500	PILE POINTS	EACH	———	17	45	15	———	77
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	S.Y.	———	20	———	20	———	40
550.1120	PILING STEEL HP 12-INCH X 53 LB	L.F.	———	1,530	2,700	1,425	———	5,655
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	S.Y.	———	693	———	246	———	939
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	L.F.	———	102	———	102	———	204
652.0125	CONDUIT RIGID METALLIC 2-INCH	L.F.	20	———	———	———	100	120
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	L.F.	450	———	———	———	———	450
653.0222	JUNCTION BOX 18X12X6-INCH	EACH	2	———	———	———	———	2
657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	1	———	———	———	———	1
SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	C.Y.	843	84	187	85	195	1,394
SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB.	2,550	———	———	———	———	2,550
SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	S.F.	395	85	1,780	80	———	2,340
SPV.0165.701	STAINING CONCRETE	S.F.	4250	365	1,165	370	———	6,150
SPV.0165.702	STAINING CONCRETE BRICK	S.F.	395	85	1,780	80	———	2,340
SPV.0165.703	LONGITUDINAL GROOVING BRIDGE DECK	S.F.	17,160	———	———	———	2960	20,120
	NON-BID ITEMS							
	FILLER	SIZE						½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED. THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 3½" OF CLEAR CONCRETE COVER.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE, TOP OF APPROACH APRONS AND TOP AND ROADWAY FACE OF PARAPETS INCLUDING PARAPETS ON ABUTMENTS.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

DRAWN BY PK | PLANS CK'D. CCE

CROSS SECTION & QUANTITIES

SHEET 664 2 OF 21

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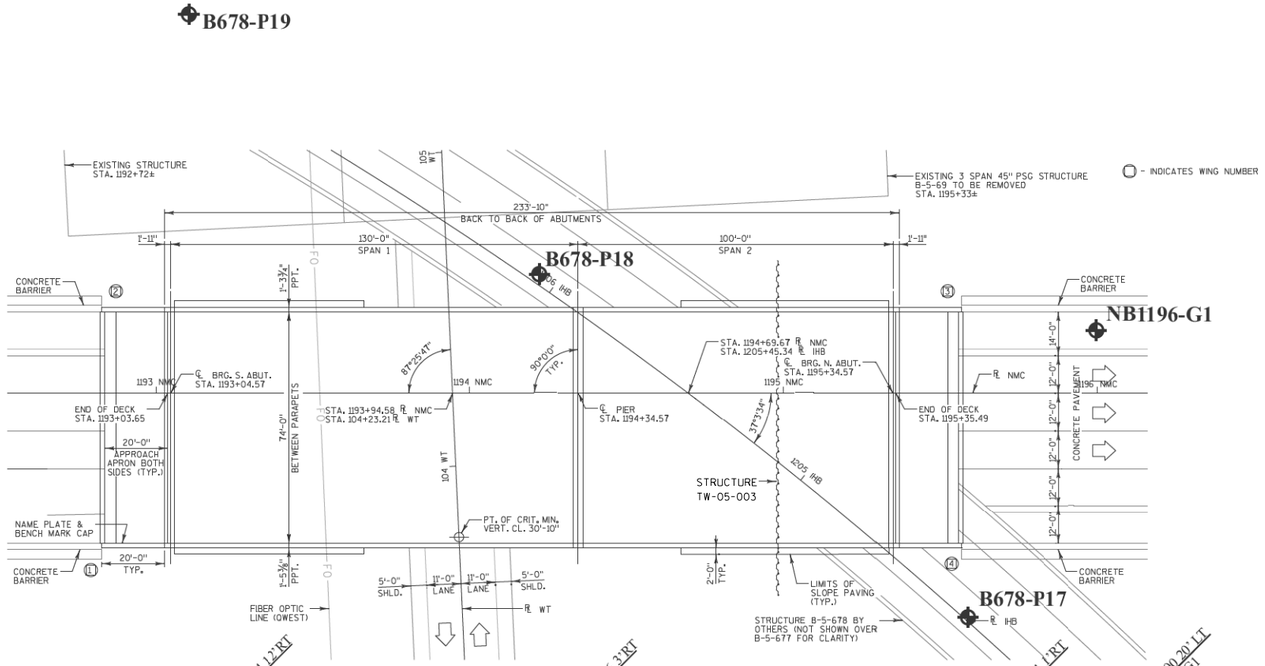
USH-41 (B-05-677)
05-BROWN, WI



NOTE: ▽ -WATER LEVEL DURING DRILLING

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL SILT SANDSTONE
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

BORING NO.
ELEV. STA.
UNCONFINED STRENGTH → 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-677

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SUBSURFACE EXPLORATION

SHEET 665 3 OF 21

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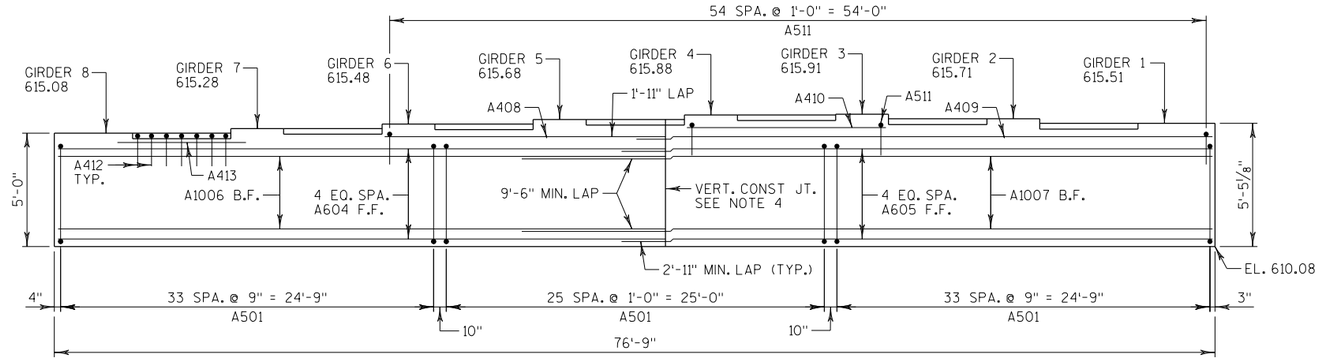
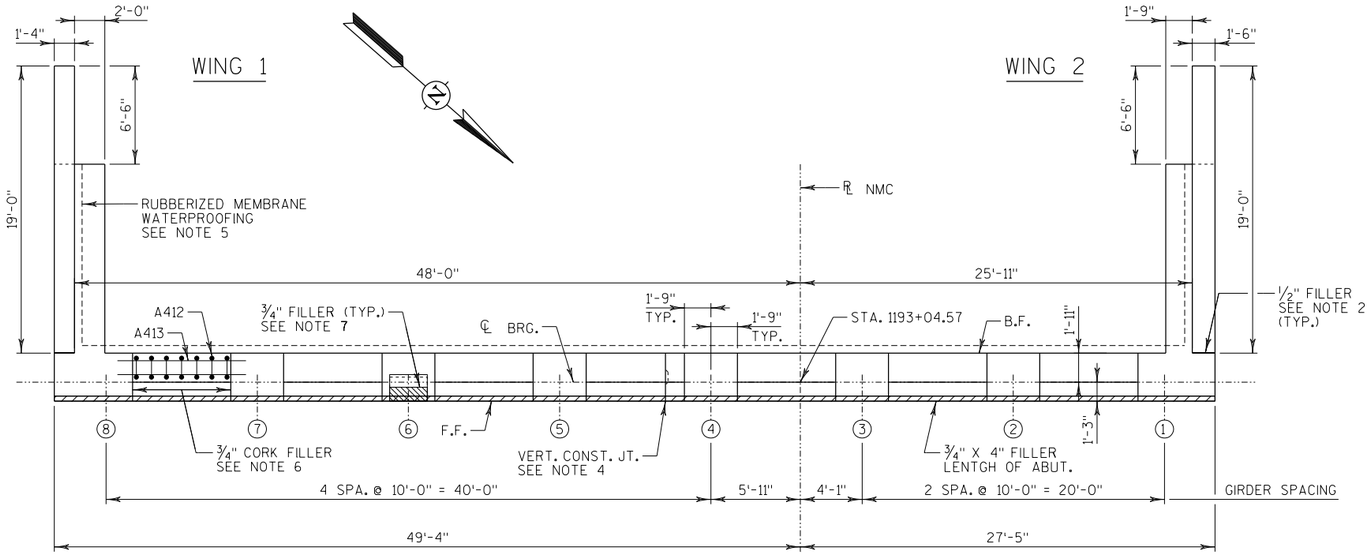
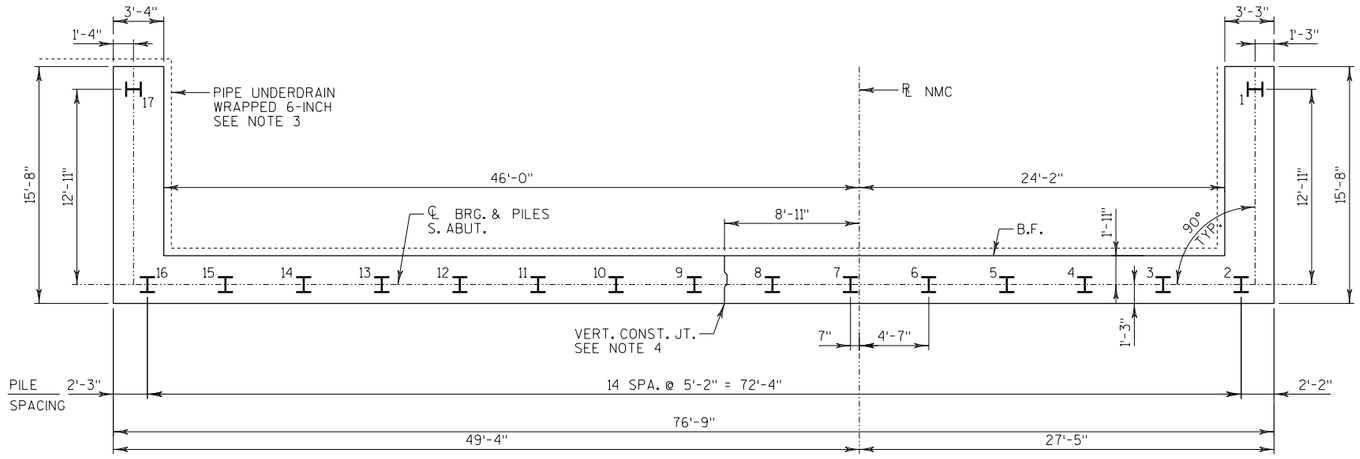


ELEVATION

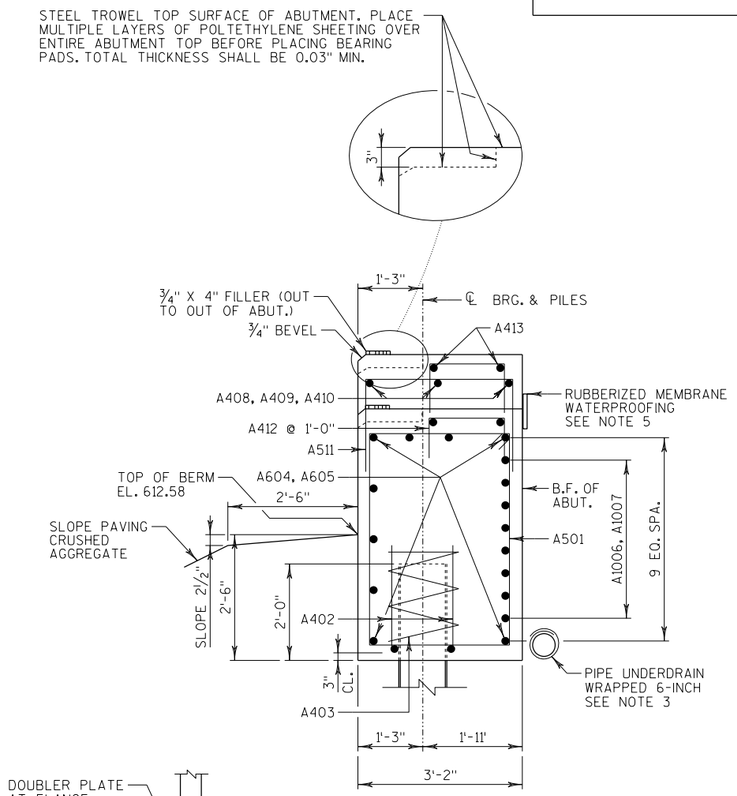
(LOOKING SOUTH)



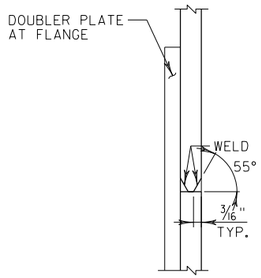
PLAN



PILE PLAN



SECTION THRU BODY

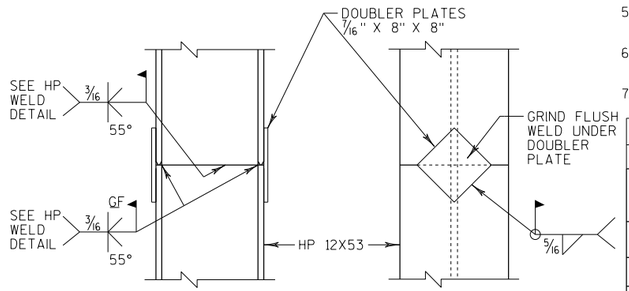


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

NOTES

1. SUPPORT ABUTMENT ON STEEL PILING HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED 90'-0" LONG.
2. ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
3. PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 9 FOR DETAILS.
4. VERTICAL CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. ¾" "V" GROOVE @ FRONT FACE AND 18" RMW @ BACKFACE.
5. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
6. ¾" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
7. SEE BEARING PAD DETAIL ON SHEET 16.



STEEL 'HP' SHAPE

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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SOUTH ABUTMENT

SHEET 666 4 OF 21

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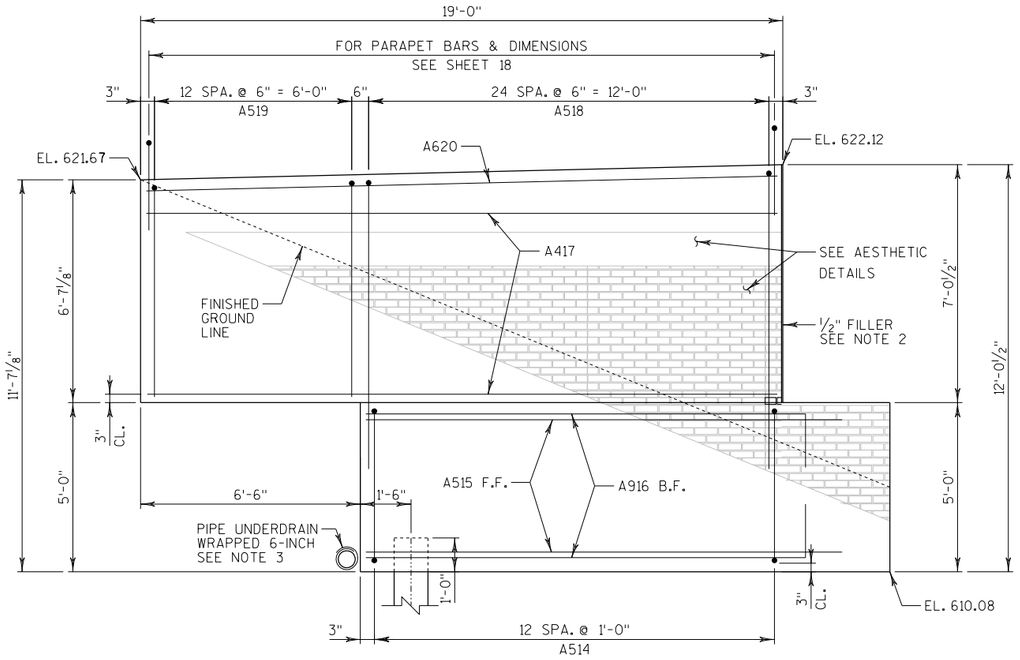
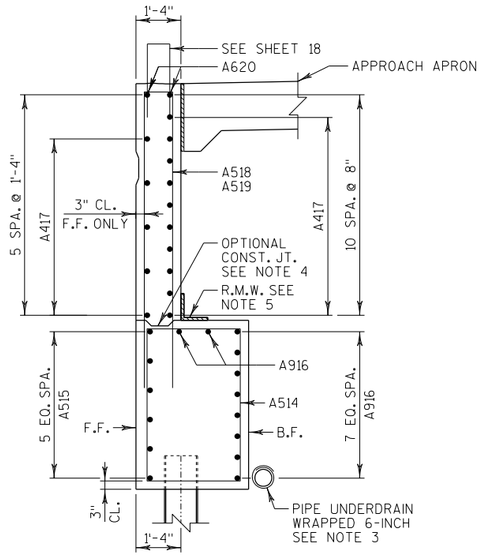


WING 1 ELEVATION
(LOOKING @ F.F.)

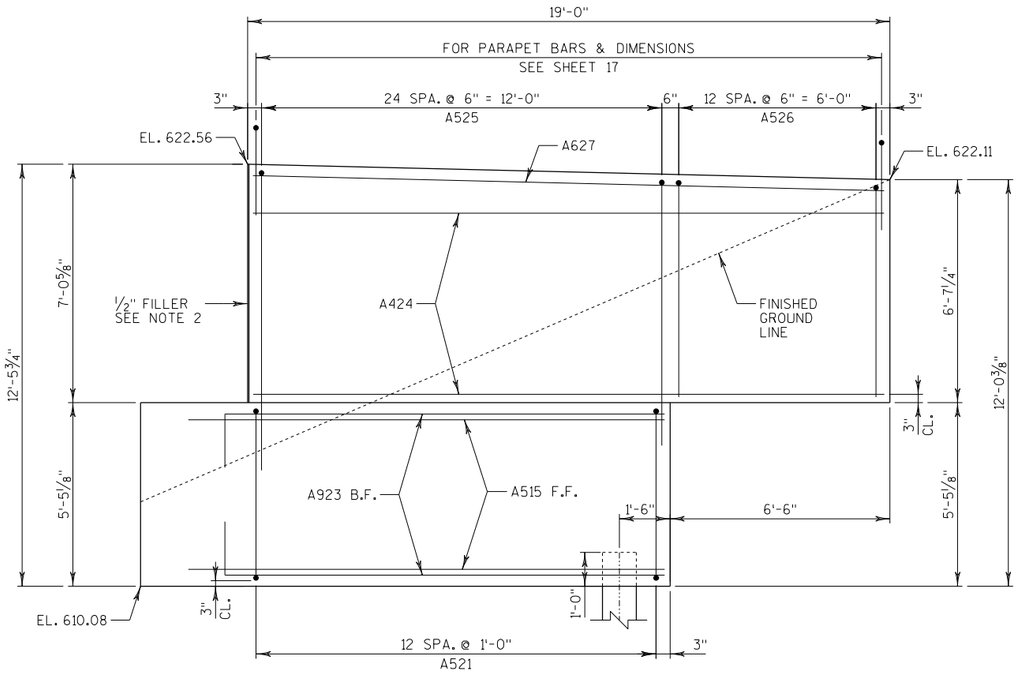


WING 1 SECTION

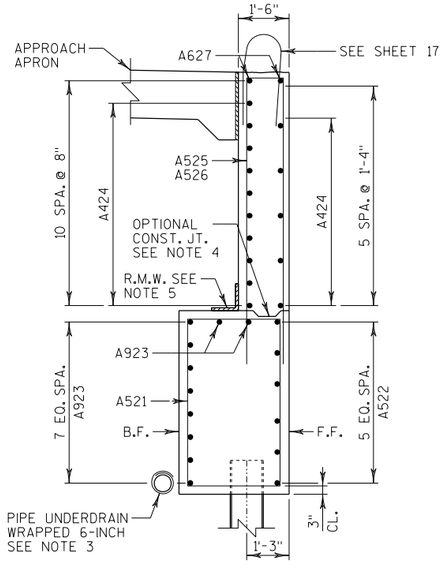
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

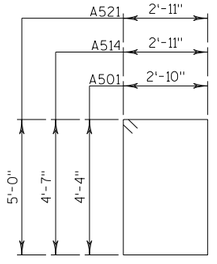
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		94	15-0	X		BODY - STIRRUPS
A402		30	2-3			PILES - 2 PER BODY PILE
A403		15	28-0	X		PILES - 1 PER BODY PILE
A604		11	40-0			BODY - HORIZONTAL, F.F - B.F
A605		11	39-3			BODY - HORIZONTAL, F.F - B.F
A1006		8	40-0			BODY - HORIZONTAL, B.F
A1007		8	45-10			BODY - HORIZONTAL, B.F
A408		3	18-7			BODY - HORIZONTAL
A409		3	38-2			BODY - HORIZONTAL
A410		3	13-2			BODY - HORIZONTAL
A511		55	6-1	X		BODY - STIRRUPS
A412		49	4-0	X		BODY - VERT. - BETWEEN BEAM SEATS
A413		14	8-6			BODY - HORIZ. - BETWEEN BEAM SEATS
A514	X	13	15-8	X		WING 1 - STIRRUPS
A515	X	6	14-1			WING 1 - HORIZONTAL, F.F.
A916	X	10	14-4	X		WING 1 - HORIZONTAL, B.F.
A417	X	15	18-8			WING 1 - HORIZONTAL, F.F., B.F.
A518	X	25	18-6	X		WING 1 - VERT.
A519	X	13	13-0	X		WING 1 - VERT.
A620	X	2	18-8			WING 1 - HORIZONTAL, F.F., B.F.
A521	X	13	16-6	X		WING 2 - STIRRUPS
A522	X	6	14-1			WING 2 - HORIZONTAL, F.F.
A923	X	10	14-4	X		WING 2 - HORIZONTAL, B.F.
A424	X	15	18-8			WING 2 - HORIZONTAL, F.F., B.F.
A525	X	25	18-9	X		WING 2 - VERT.
A526	X	13	13-3	X		WING 2 - VERT.
A627	X	2	18-8			WING 2 - HORIZONTAL, F.F., B.F.



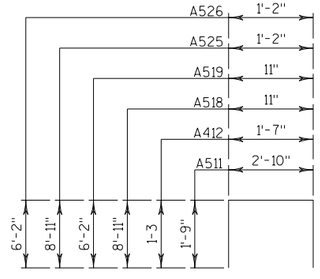
WING 2 ELEVATION
(LOOKING @ F.F.)



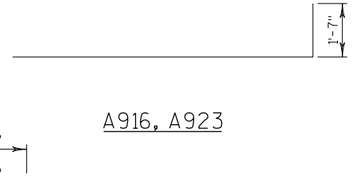
WING 2 SECTION



A501, A514, A521



A511, A412, A518, A519, A525, A526



A916, A923

A403

NOTES

1. SUPPORT ABUTMENT ON STEEL PILING HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED 90'-0" LONG.
2. 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
3. PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 9 FOR DETAILS.
4. OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. 18" RMW @ BACKFACE & 3/4" "V" GROOVE @ FRONT FACE IF JOINT IS USED.
5. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

DRAWN BY	PK	PLANS CK'D.	CCE

SOUTH ABUTMENT DETAILS

SHEET 667 5 OF 21

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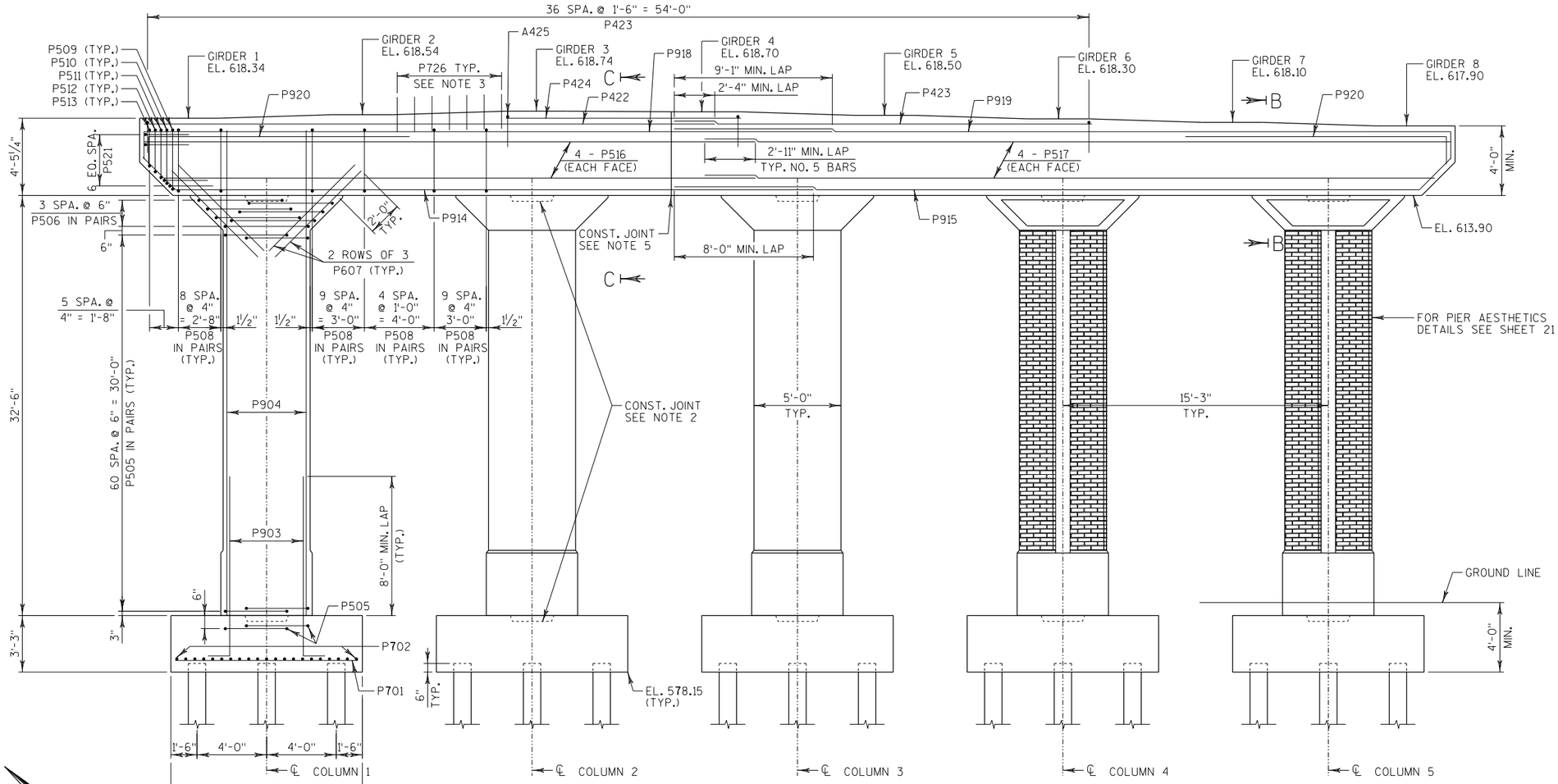
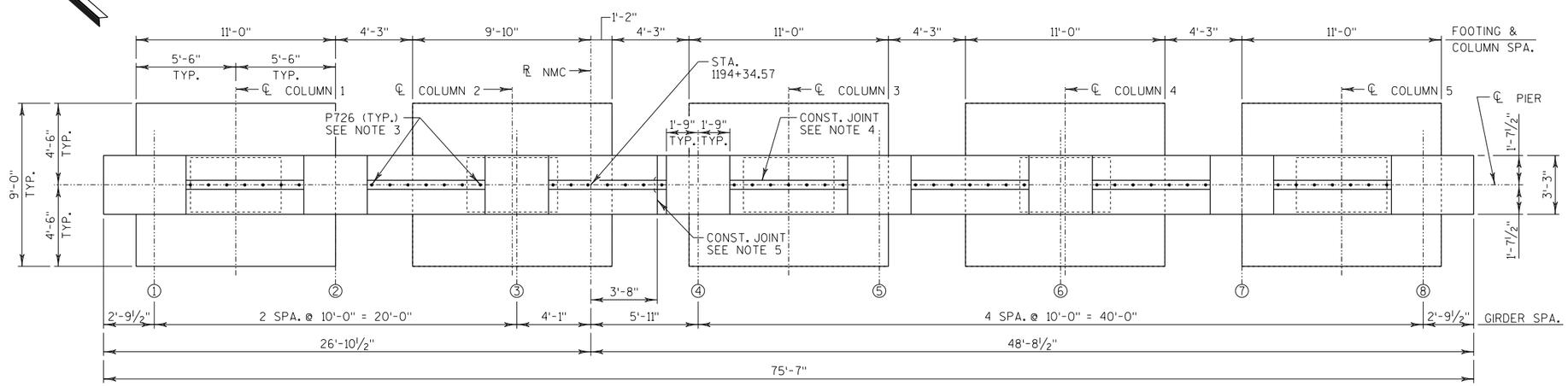
1133-11-74



ARCHITECTURAL SURFACE TREATMENT AND REVEALS NOT SHOWN FOR CLARITY AT COLUMNS 1-3. FOR COLUMN DETAILS SEE SHEET 7.

ELEVATION
(LOOKING NORTH)



PLAN

NOTES

1. PIER TO BE SUPPORTED ON STEEL PILING HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. ESTIMATED 60'-0" LONG.
2. 1'-3" X 2'-6" X 4" DEEP CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY. TYP. - TOP AND BOTTOM OF ALL COLUMNS.
3. P726 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-7" INTO CONCRETE)
4. KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2" X 6" BETWEEN BEAM SEATS.
5. KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2" X 8".
6. WORK THIS SHT. WITH SHEETS 7 AND 8.

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STRUCTURE B-5-677

DRAWN BY	PK	PLANS CK'D.	CCE

PIER

SHEET 668 6 OF 21

8

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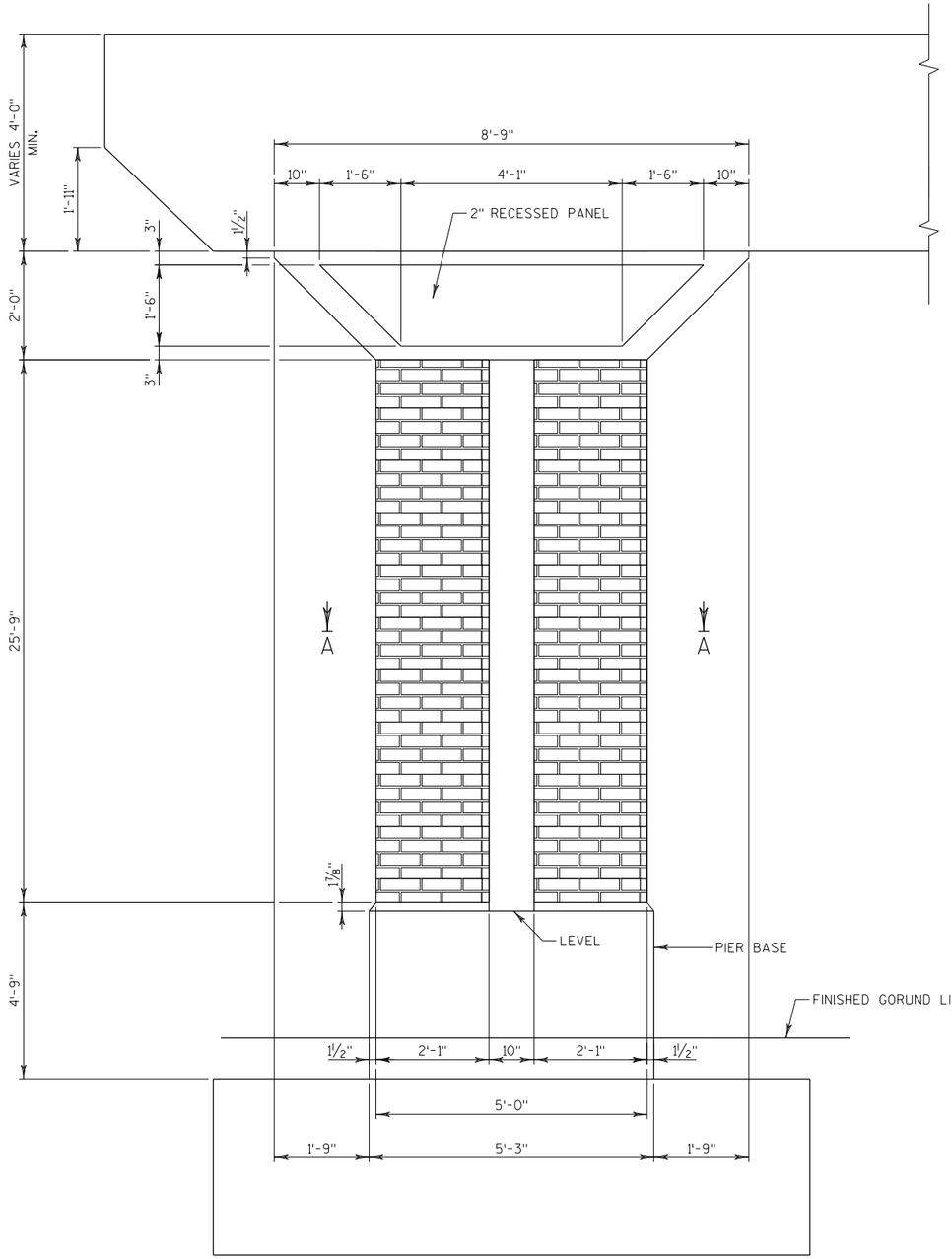
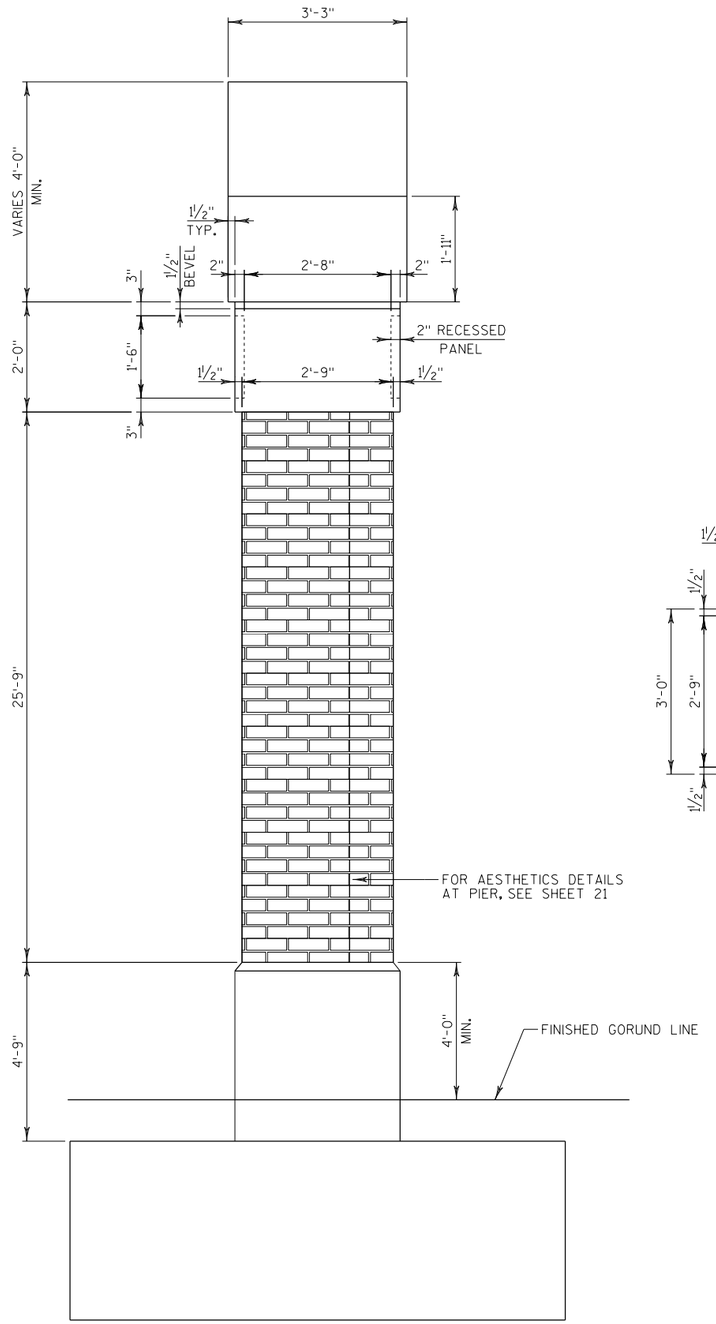
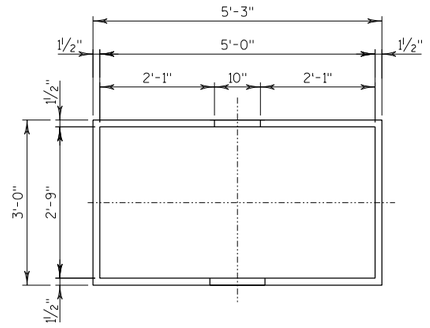


PIER ELEVATION



PIER END VIEW



SECTION A-A

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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PIER DETAILS

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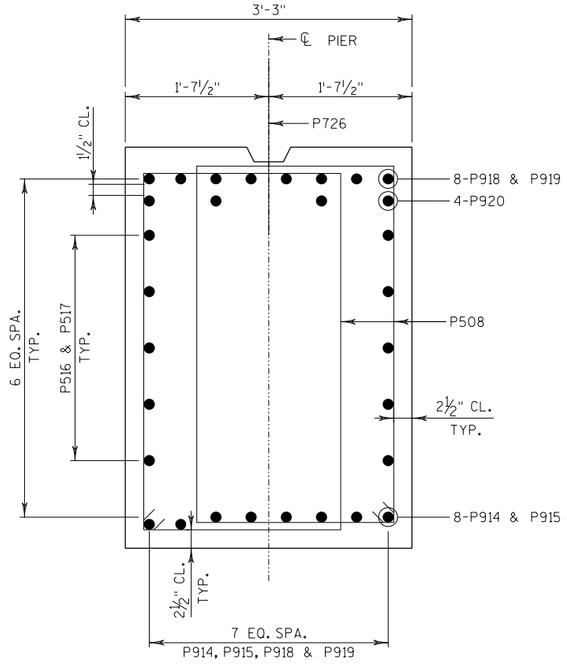
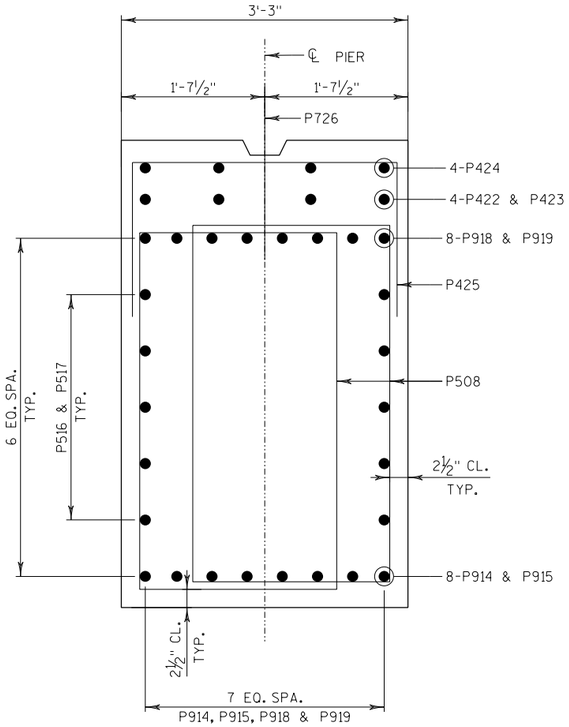


SECTION B-B

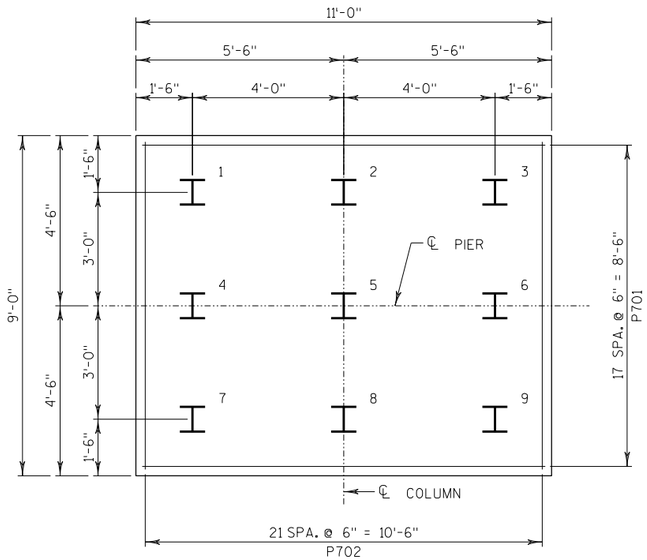


SECTION C-C

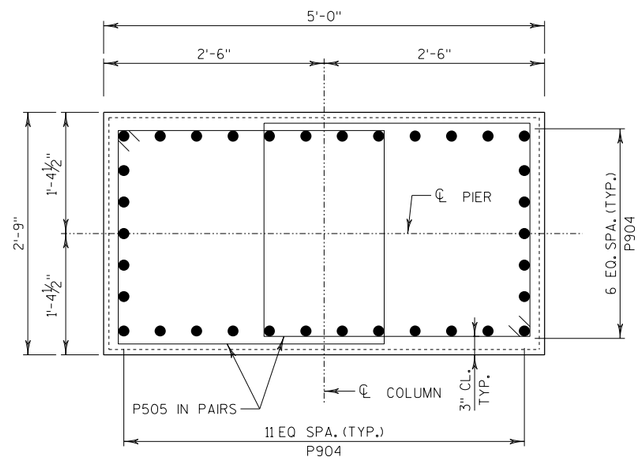
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P701		90	10-6			FOOTING - HORIZ.
P702		110	8-6			FOOTING - HORIZ.
P903	X	170	11-11	X		FOOTING/COLUMN - VERT.
P904	X	170	36-0			COLUMN - VERT.
P505	X	620	11-4	X		COLUMN - STIRRUPS
P506	X	40	14-6	X		COLUMN - STIRRUPS
P607	X	60	7-0			COLUMN - TOP
P508	X	220	12-2	X		CAP - STIRRUPS
P509	X	4	11-8	X		CAP - STIRRUPS
P510	X	4	11-0	X		CAP - STIRRUPS
P511	X	4	10-4	X		CAP - STIRRUPS
P512	X	4	9-8	X		CAP - STIRRUPS
P513	X	4	9-0	X		CAP - STIRRUPS
P914	X	8	39-6	X		CAP - HORIZ. BOTTOM
P915	X	8	45-2	X		CAP - HORIZ. BOTTOM
P516	X	10	34-7			CAP - HORIZ. SIDES
P517	X	10	43-8			CAP - HORIZ. SIDES
P918	X	8	41-7	X		CAP - HORIZ. TOP
P919	X	8	47-6	X		CAP - HORIZ. TOP
P920	X	8	16-6	X		CAP - HORIZ. TOP, ENDS
P521	X	14	6-0	X		CAP - HORIZ. ENDS
P422	X	4	32-11			CAP - HORIZ. TOP
P423	X	4	24-0			CAP - HORIZ. TOP
P424	X	4	13-6			CAP - HORIZ. TOP
P425	X	37	6-0	X		CAP - STIRRUPS
P726	X	49	3-2			DOWEL BARS

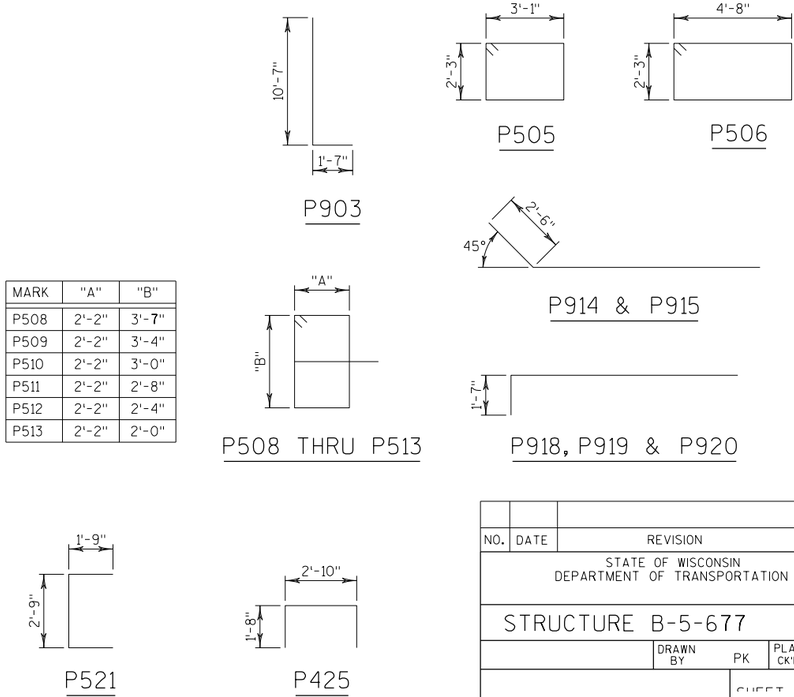


PILE/FOOTING PLAN



SECTION THRU COLUMN

MARK	"A"	"B"
P508	2'-2"	3'-7"
P509	2'-2"	3'-4"
P510	2'-2"	3'-0"
P511	2'-2"	2'-8"
P512	2'-2"	2'-4"
P513	2'-2"	2'-0"



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-5-677

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PIER DETAILS

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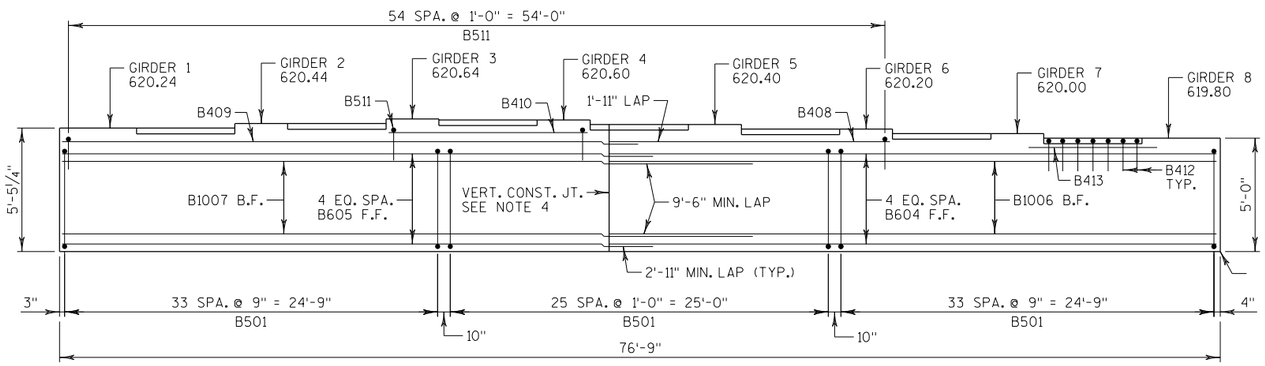
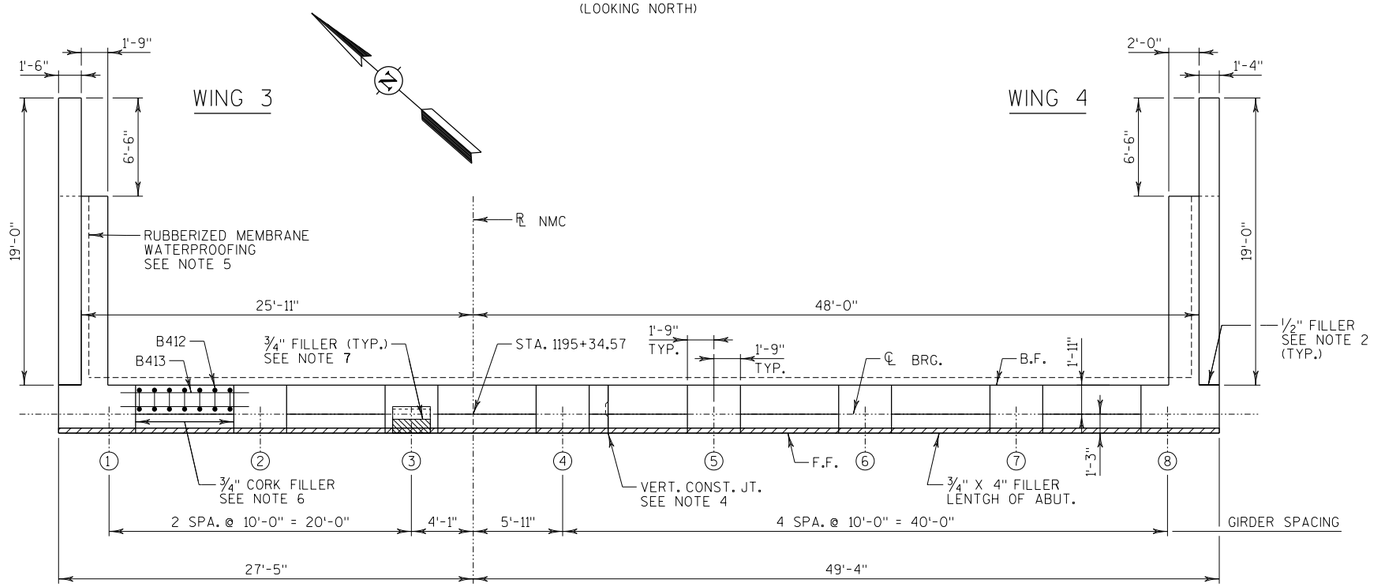


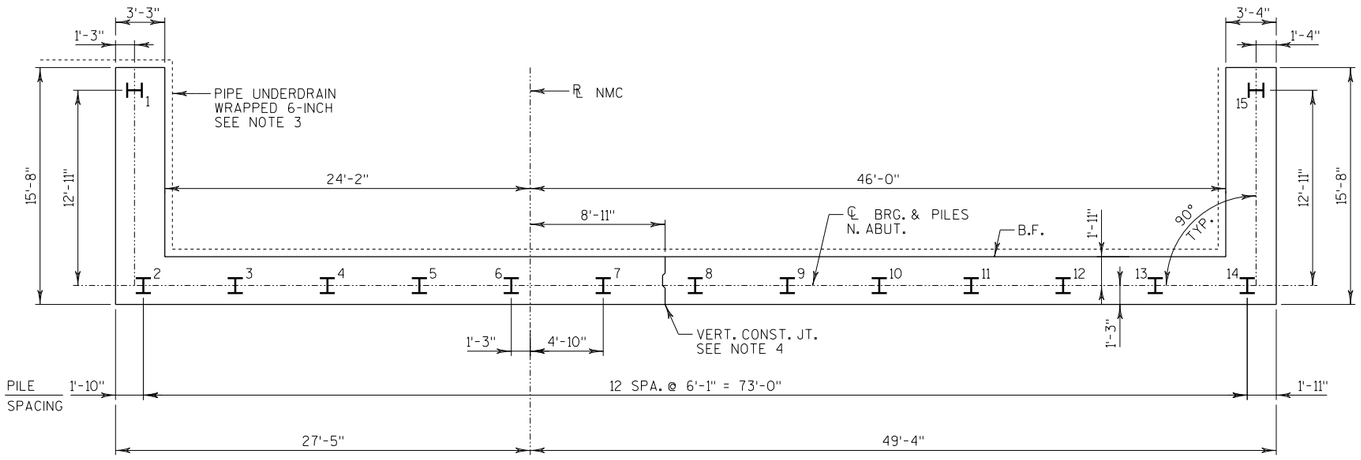
ELEVATION

(LOOKING NORTH)

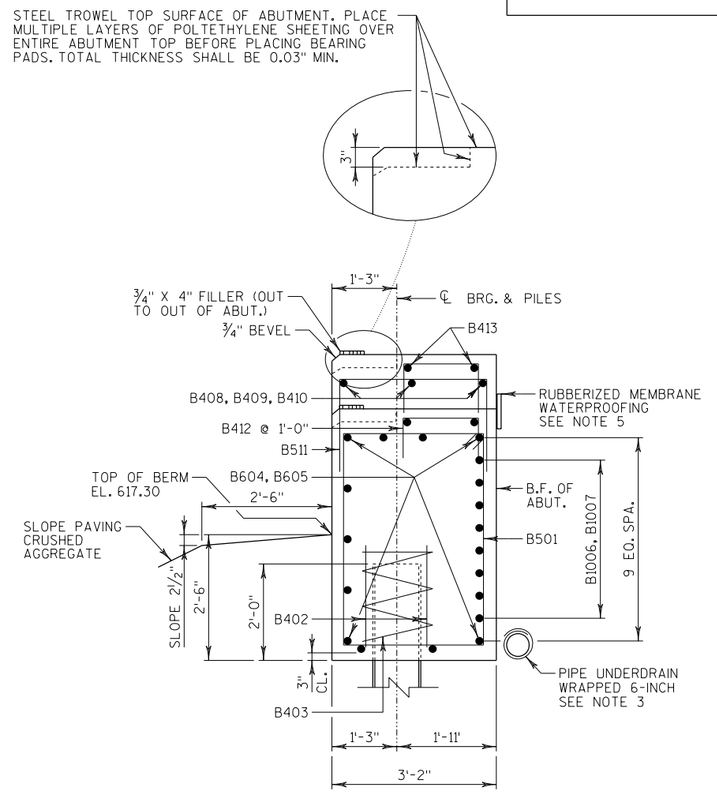
EL. 614.80



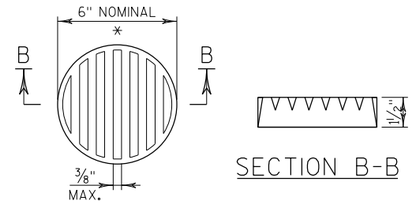
PLAN



PILE PLAN



SECTION THRU BODY



SECTION B-B

RODENT SCREEN DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.

NOTES

1. SUPPORT ABUTMENT ON STEEL PILING HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED 95'-0" LONG.
2. ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
3. PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.
4. VERTICAL CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. ¾" "V" GROOVE @ FRONT FACE AND 18" RMW @ BACKFACE.
5. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
6. ¾" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
7. SEE BEARING PAD DETAIL ON SHEET 16.
8. SEE SHEET 4 FOR PILE SPLICE DETAILS.

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NORTH ABUTMENT

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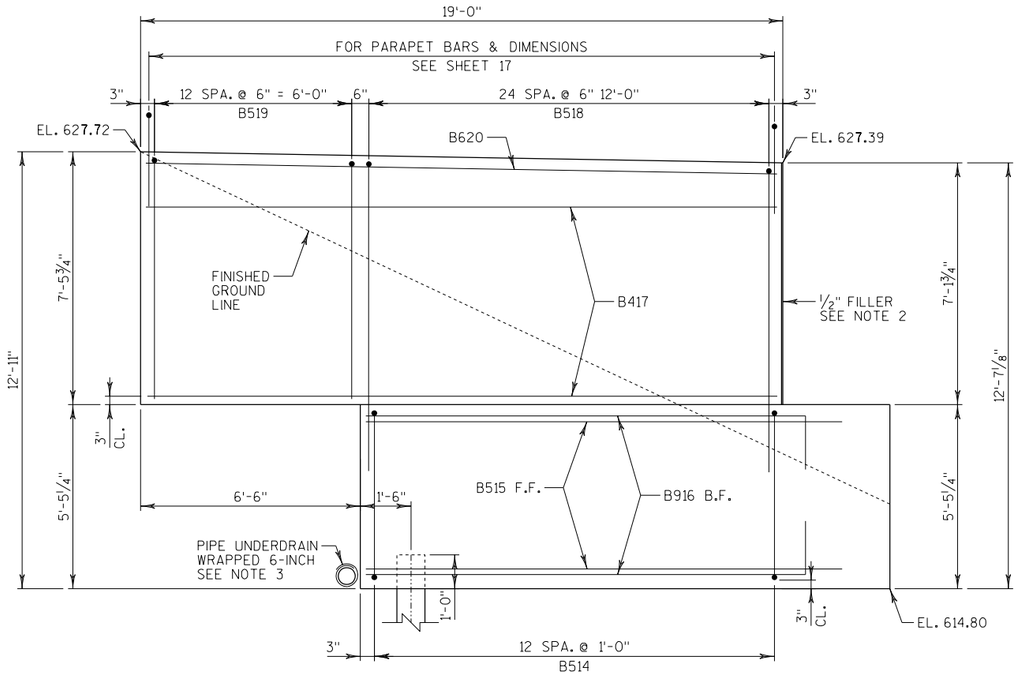

WING 3 ELEVATION
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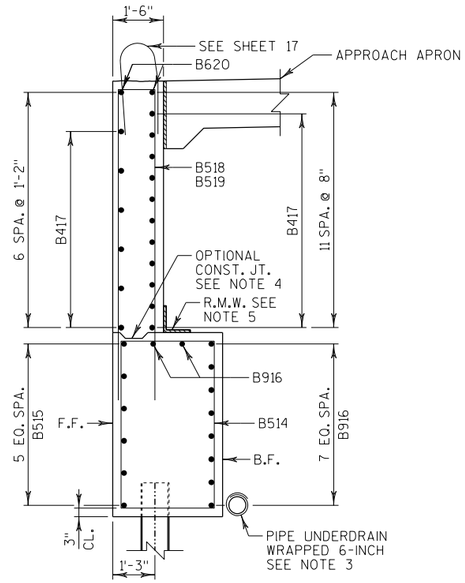
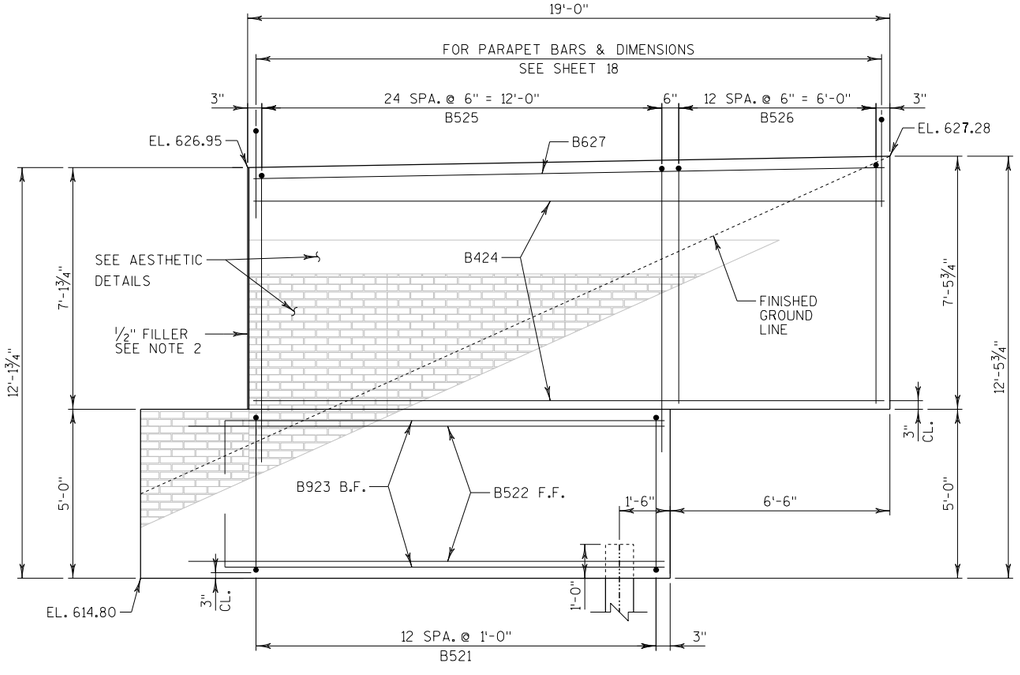


WING 3 SECTION

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		94	15-0	X		BODY - STIRRUPS
B402		26	2-3			PILES - 2 PER BODY PILE
B403		13	28-0	X		PILES - 1 PER BODY PILE
B604		11	40-0			BODY - HORIZONTAL, F.F - B.F
B605		11	39-3			BODY - HORIZONTAL, F.F - B.F
B1006		8	40-0			BODY - HORIZONTAL, B.F
B1007		8	45-10			BODY - HORIZONTAL, B.F
B408		3	18-7			BODY - HORIZONTAL
B409		3	38-2			BODY - HORIZONTAL
B410		3	13-2			BODY - HORIZONTAL
B511		55	6-1	X		BODY - STIRRUPS
B412		49	4-0	X		BODY - VERT. - BETWEEN BEAM SEATS
B413		14	8-6			BODY - HORIZ. - BETWEEN BEAM SEATS
B514	X	13	16-6	X		WING 3 - STIRRUPS
B515	X	6	14-1			WING 3 - HORIZONTAL, F.F.
B916	X	10	14-4	X		WING 3 - HORIZONTAL, B.F.
B417	X	17	18-8			WING 3 - HORIZONTAL, F.F., B.F.
B518	X	25	19-3	X		WING 3 - VERT.
B519	X	13	14-11	X		WING 3 - VERT.
B620	X	2	18-8			WING 3 - HORIZONTAL, F.F., B.F.
B521	X	13	15-8	X		WING 4 - STIRRUPS
B522	X	6	14-1			WING 4 - HORIZONTAL, F.F.
B923	X	10	14-4	X		WING 4 - HORIZONTAL, B.F.
B424	X	16	18-8			WING 4 - HORIZONTAL, F.F., B.F.
B525	X	25	19-0	X		WING 4 - VERT.
B526	X	13	14-8	X		WING 4 - VERT.
B627	X	2	18-8			WING 4 - HORIZONTAL, F.F., B.F.



WING 4 ELEVATION
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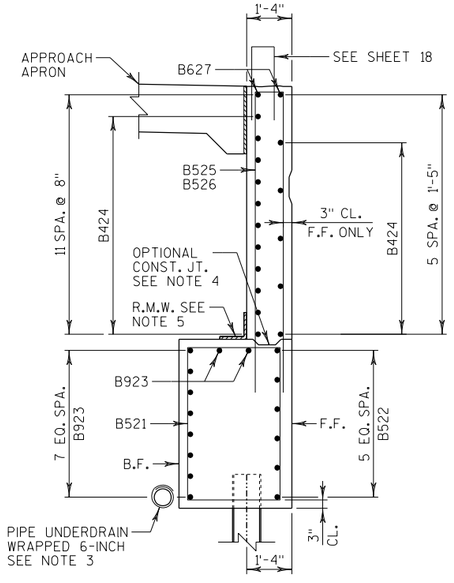
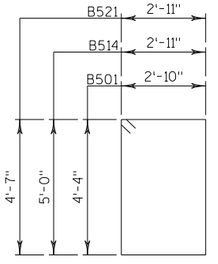
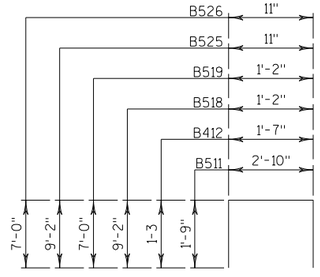


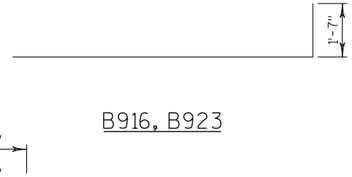
WING 4 SECTION



B501, B514, B521



B511, B412, B518, B519, B525, B526



B916, B923

B403

NOTES

1. SUPPORT ABUTMENT ON STEEL PILING HP 12 X 53 WITH PILE POINTS WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. ESTIMATED 95'-0" LONG.
2. 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
3. PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 9 FOR DETAILS.
4. OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. 18" RMW @ BACKFACE & 3/4" "V" GROOVE @ FRONT FACE IF JOINT IS USED.
5. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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STRUCTURE B-5-677

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NORTH ABUTMENT DETAILS

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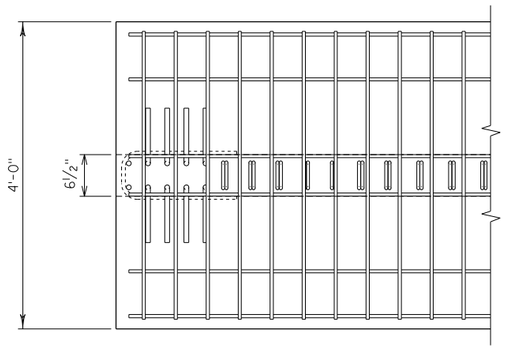
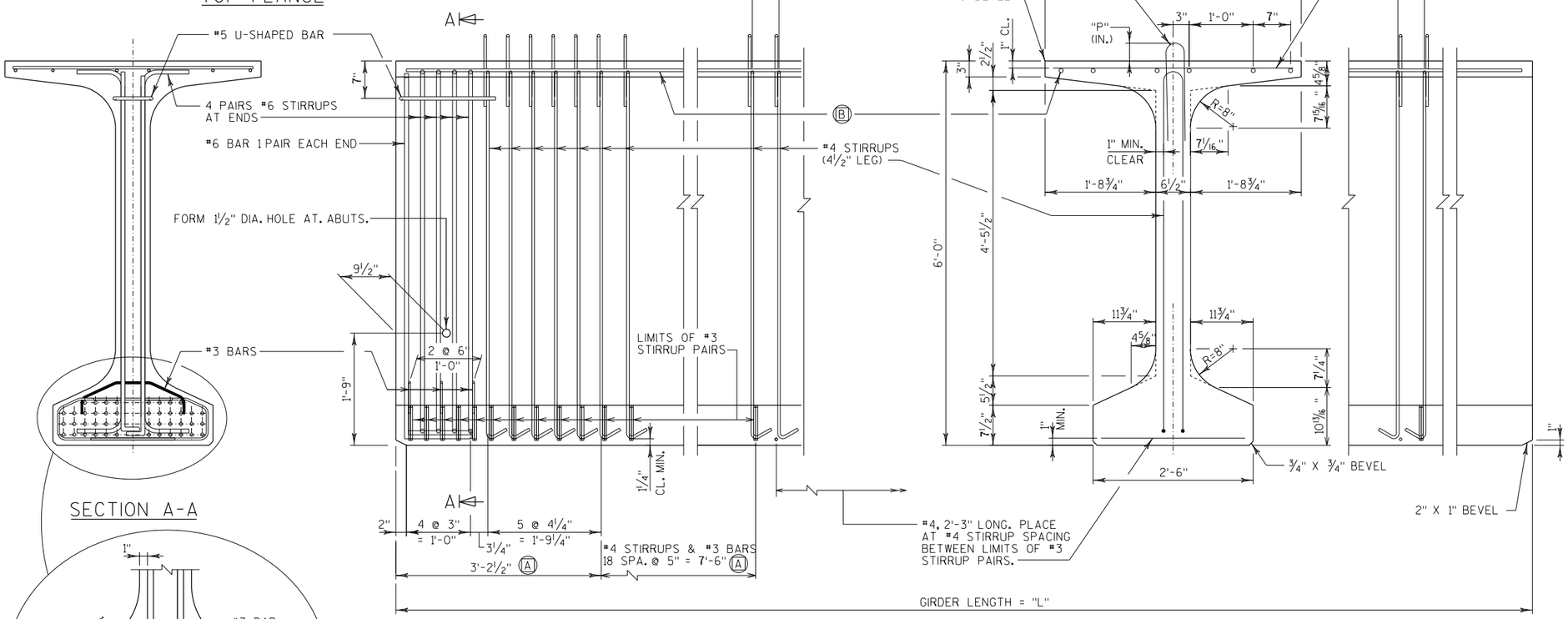
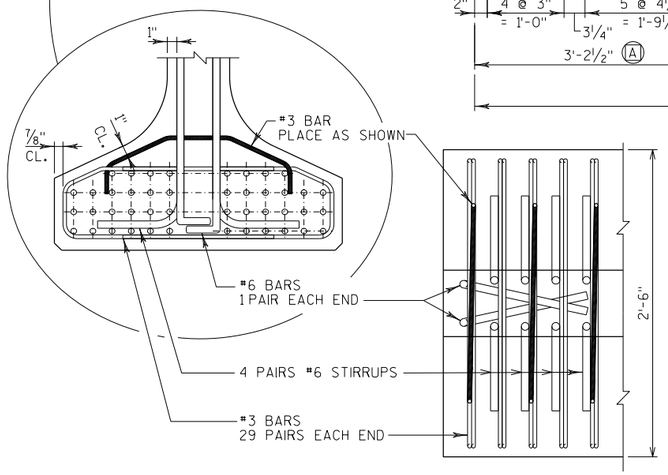


TOP FLANGE



SECTION A-A



BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

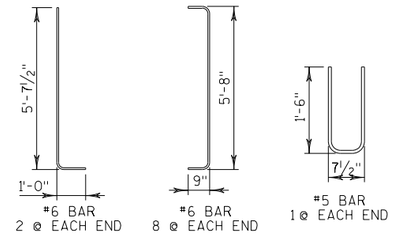
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

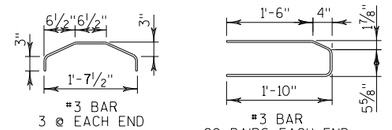
USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT CHIEF, (608)266-5161.

PRESTRESSING STRANDS SHALL BE 0.6" DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.





✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	1-8	130.375'	0.68	1.28	1.75	2.05	2.15	2.05	1.75	1.28	0.68	8000	7.00	6.25	7.00	0.6	38	6800	49	16	19	5	-	-
2	1-8	100.375'	0.23	0.44	0.60	0.70	0.74	0.70	0.60	0.44	0.23	8000	7.25	7.25	7.25	0.6	20	6800	49	15¼"	18¼"	4	-	-

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72W" PRESTRESSED GIRDER DETAILS

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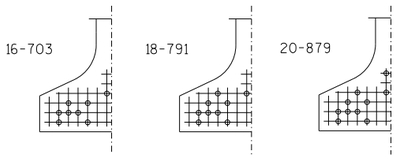
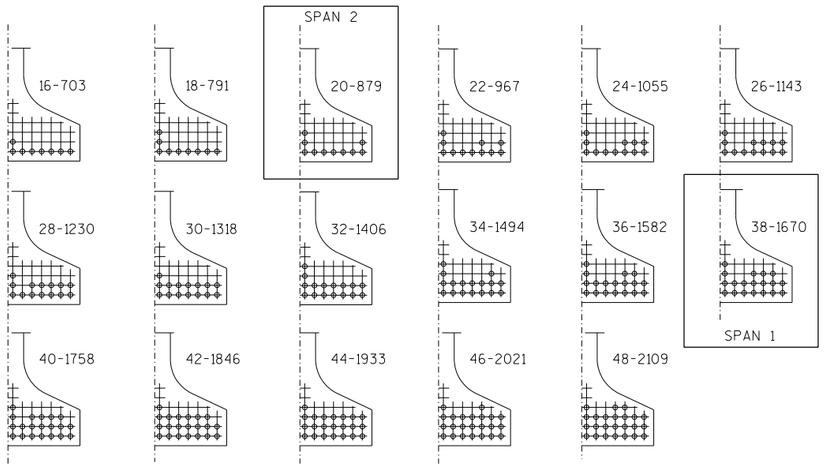


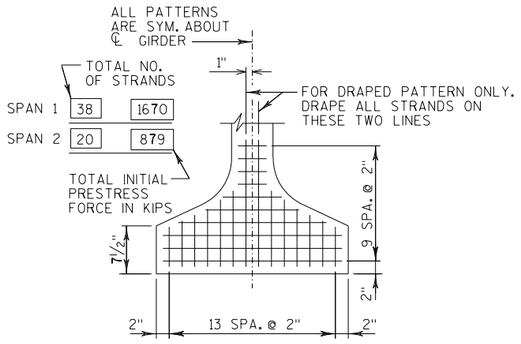
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS

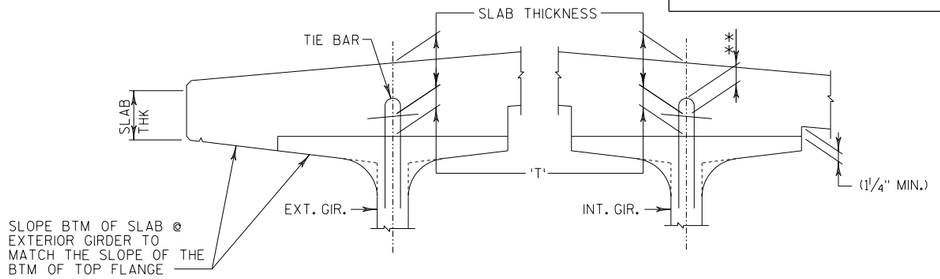


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



TYP. STRAND PATTERN



SLAB HAUNCH DETAIL

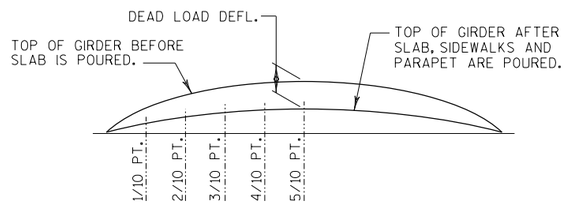
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

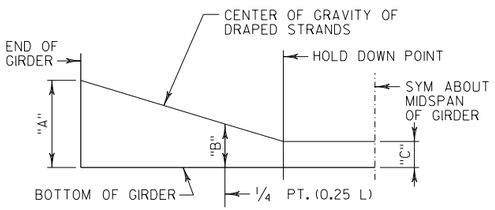
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2.95" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.27
2	1.01

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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72W" PRESTRESSED GIRDER DETAILS

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STATE PROJECT NUMBER

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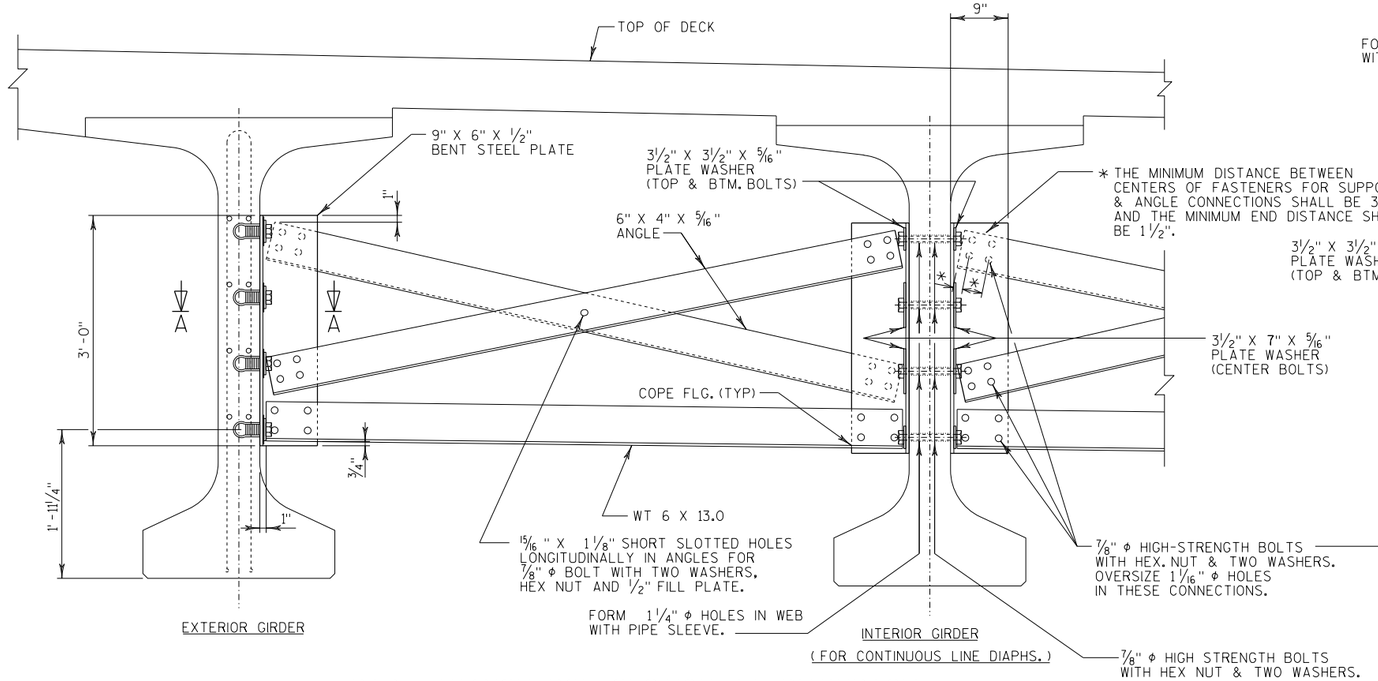
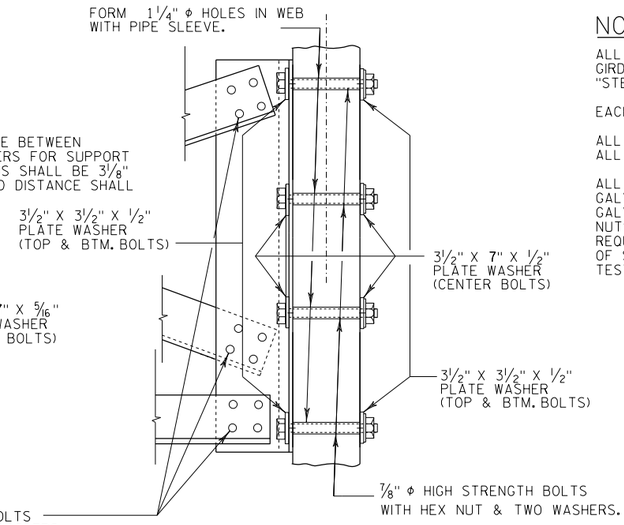


PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION AT INTERIOR GIRDERS

(FOR STAGGERED DIAPHRAGMS)

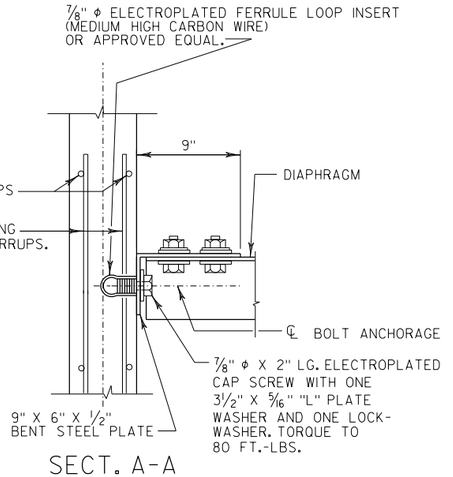
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-5-677", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

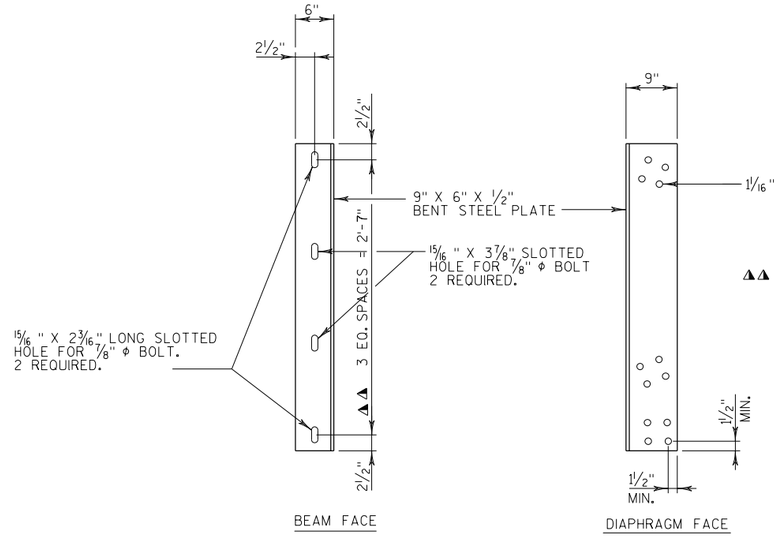
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.



SECT. A-A

(FOR EXTERIOR ATTACHMENT)

"L" = 3 1/2"; TOP AND BOTTOM BOLTS
"L" = 7"; CENTER BOLTS



▲▲ BOLT HOLES SHALL BE SPACED SO AS TO MISS PRESTRESSED STRANDS IN CONCRETE BEAMS.

DIAPHRAGM SUPPORT

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STRUCTURE B-5-677

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STEEL DIAPHRAGM

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FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$

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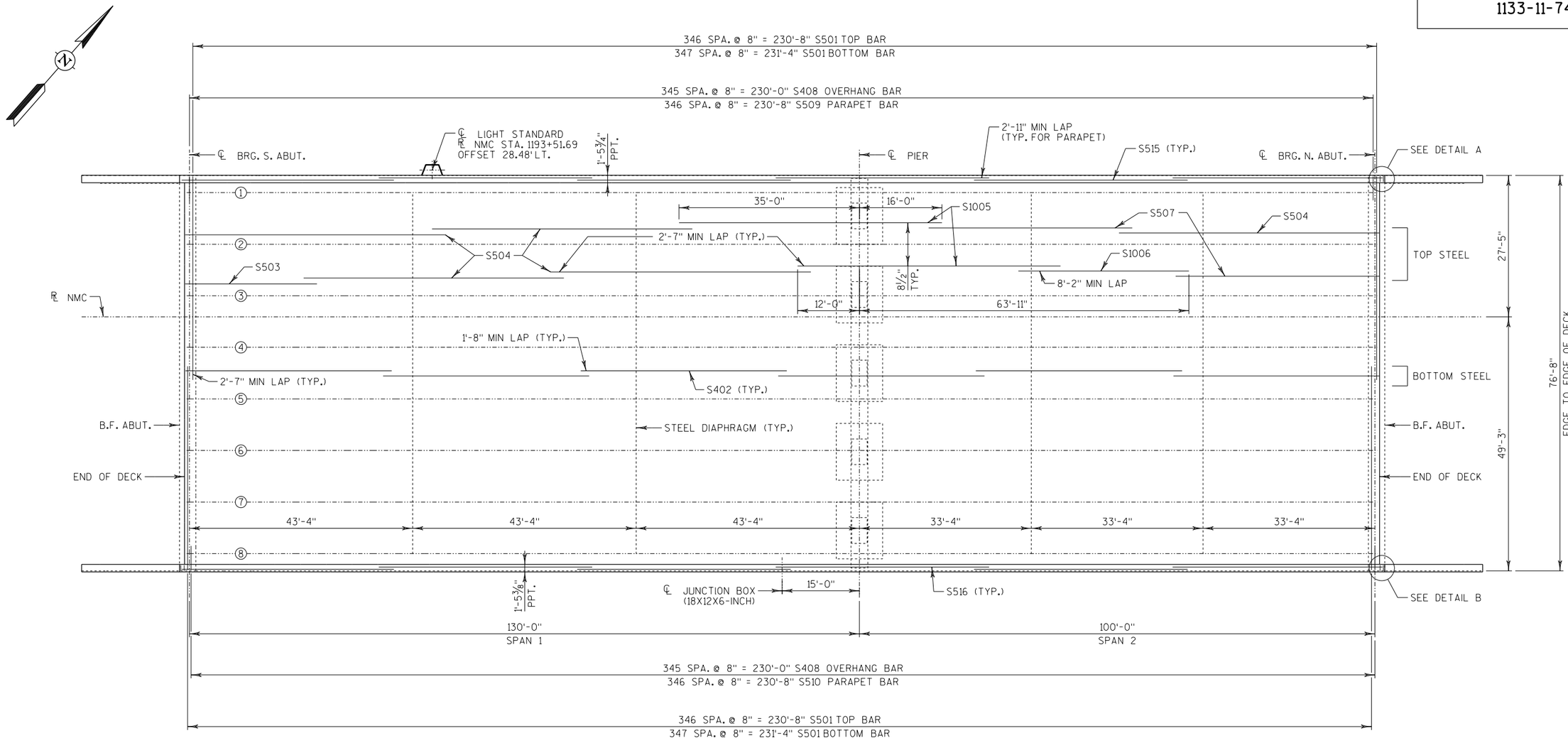
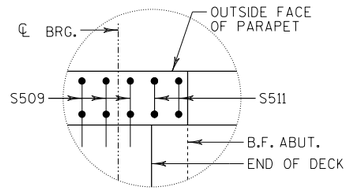
STATE PROJECT NUMBER

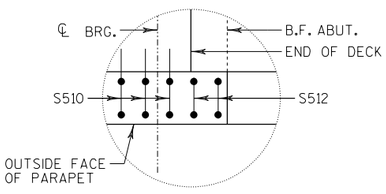
1133-11-74



PLAN



DETAIL A



DETAIL B

TOP OF DECK ELEVATION

	S. ABUT	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N. ABUT
PARAPET	622.60	622.90	623.20	623.49	623.78	624.06	624.34	624.62	624.89	625.16	625.43	625.65	625.85	626.05	626.24	626.43	626.62	626.81	626.99	627.17	627.35
GIRDER 1	622.64	622.94	623.24	623.53	623.82	624.10	624.38	624.66	624.93	625.20	625.46	625.69	625.89	626.08	626.28	626.47	626.66	626.84	627.03	627.21	627.39
GIRDER 2	622.84	623.14	623.44	623.73	624.02	624.30	624.58	624.86	625.13	625.40	625.66	625.89	626.09	626.28	626.48	626.67	626.86	627.04	627.23	627.41	627.59
GIRDER 3	623.04	623.34	623.64	623.93	624.22	624.50	624.78	625.06	625.33	625.60	625.86	626.09	626.29	626.48	626.68	626.87	627.06	627.24	627.43	627.61	627.79
℄ NMC	623.12	623.42	623.72	624.01	624.30	624.58	624.86	625.14	625.41	625.68	625.95	626.17	626.37	626.57	626.76	626.95	627.14	627.33	627.51	627.69	627.87
GIRDER 4	623.00	623.30	623.60	623.89	624.18	624.46	624.75	625.02	625.29	625.56	625.83	626.05	626.25	626.45	626.64	626.83	627.02	627.21	627.39	627.57	627.75
GIRDER 5	622.80	623.10	623.40	623.69	623.98	624.26	624.55	624.82	625.09	625.36	625.63	625.85	626.05	626.25	626.44	626.63	626.82	627.01	627.19	627.37	627.55
GIRDER 6	622.60	622.90	623.20	623.49	623.78	624.06	624.35	624.62	624.89	625.16	625.43	625.65	625.85	626.05	626.24	626.43	626.62	626.81	626.99	627.17	627.35
GIRDER 7	622.40	622.70	623.00	623.29	623.58	623.86	624.15	624.42	624.69	624.96	625.23	625.45	625.65	625.85	626.04	626.23	626.42	626.61	626.79	626.97	627.15
GIRDER 8	622.20	622.50	622.80	623.09	623.38	623.66	623.95	624.22	624.49	624.76	625.03	625.25	625.45	625.65	625.84	626.03	626.22	626.41	626.59	626.77	626.95
PARAPET	622.16	622.46	622.76	623.05	623.34	623.62	623.90	624.18	624.45	624.72	624.99	625.21	625.41	625.61	625.80	625.99	626.18	626.37	626.55	626.73	626.91

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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SUPERSTRUCTURE PLAN

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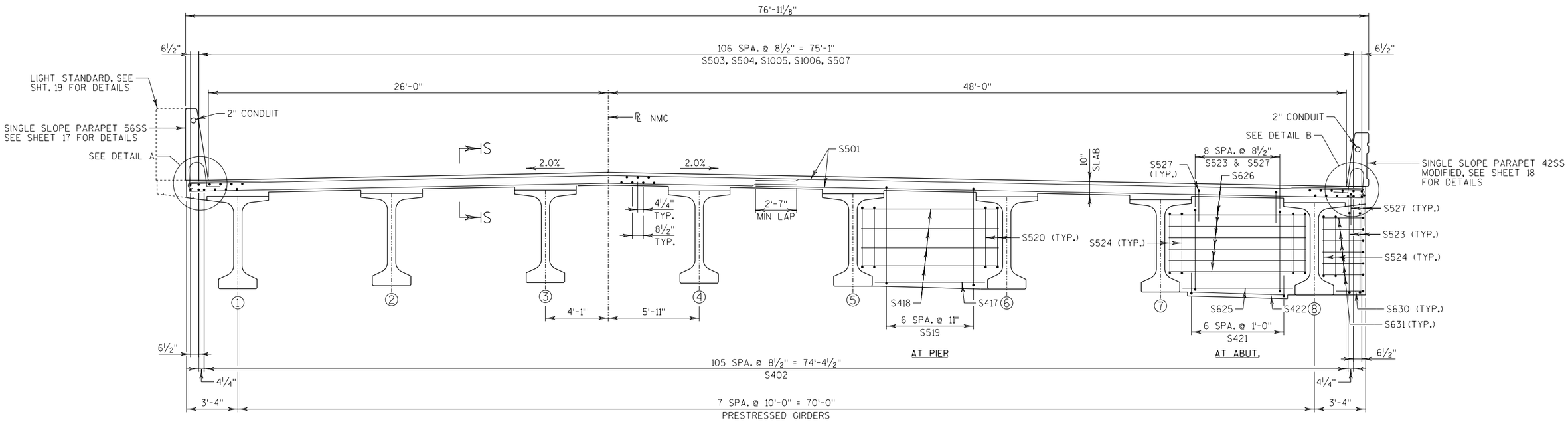
FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$

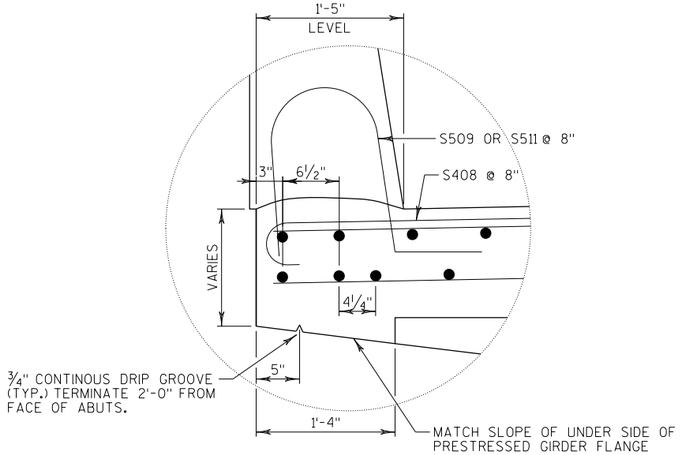
STATE PROJECT NUMBER

1133-11-74

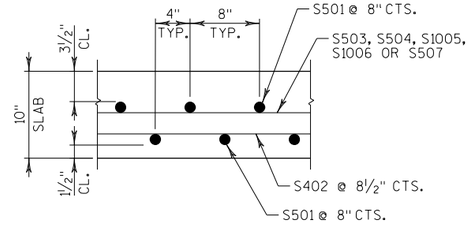


CROSS SECTION THRU ROADWAY

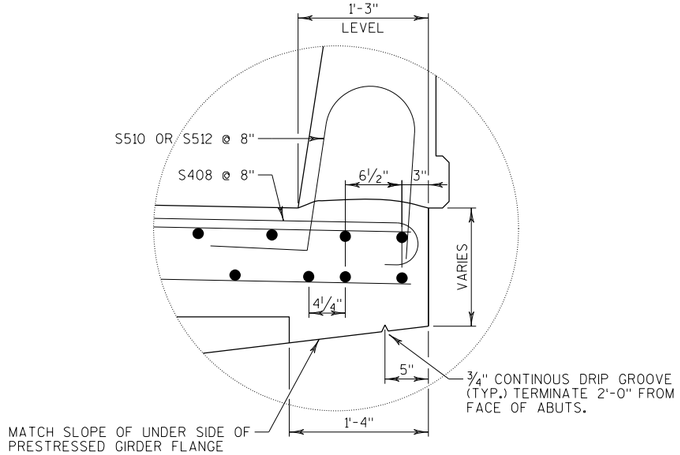
(LOOKING NORTH)



DETAIL A



SECTION S-S



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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SUPERSTRUCTURE CROSS SECTION

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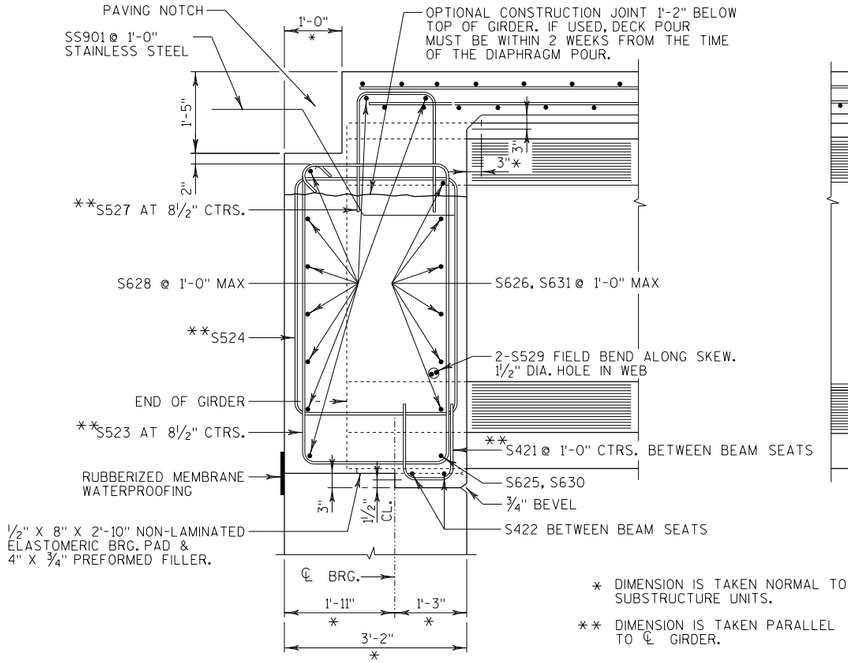
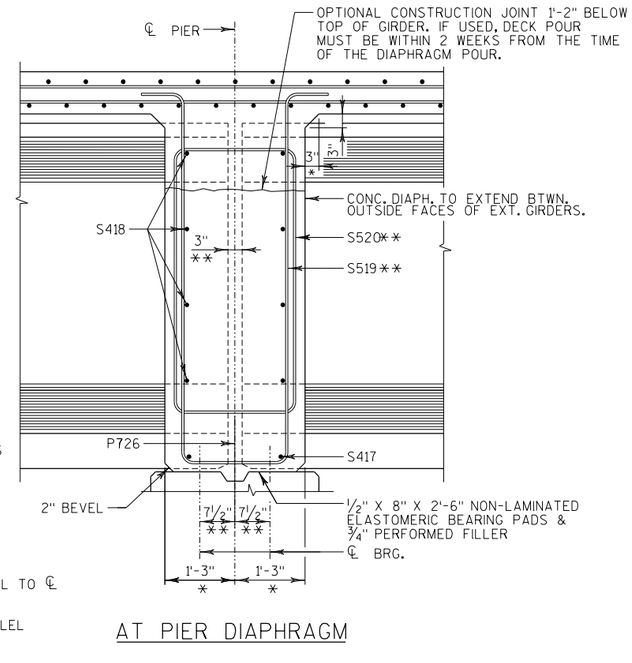


AT ABUTMENT DIAPHRAGM



AT PIER DIAPHRAGM

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER.

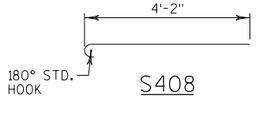
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

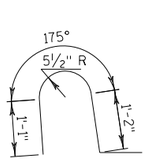
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
S501	X	1390	39-6			SLAB TOP & BOTTOM	TRANS.
S402	X	660	40-0			SLAB BOTTOM	LONG.
S503	X	54	25-7			SLAB TOP	LONG.
S504	X	273	50-6			SLAB TOP	LONG.
S1005	X	109	51-0			SLAB TOP	LONG.
S1006	X	54	31-2			SLAB TOP	LONG.
S507	X	109	39-6			SLAB TOP	LONG.
S408	X	692	4-8	X		SLAB TOP - OVERHANGS	TRANS.
S509	X	347	4-6	X		WEST PARAPET	VERT.
S510	X	347	4-5	X		EAST PARAPET	VERT.
S511	X	4	5-11	X		WEST PARAPET AT CORNERS	VERT.
S512	X	4	5-10	X		EAST PARAPET AT CORNERS	VERT.
S513	X	351	9-1	X		WEST PARAPET	VERT.
S514	X	351	6-8	X		EAST PARAPET	VERT.
S515	X	60	41-5			WEST PARAPET	LONG.
S516	X	48	41-5			EAST PARAPET	LONG.
S417	X	14	7-2			PIER DIAPHRAGM	HORIZ.
S418	X	56	9-0			PIER DIAPHRAGM	HORIZ.
S519	X	49	15-10	X		PIER DIAPHRAGM	VERT.
S520	X	28	12-8	X		PIER DIAPHRAGM	STIRRUP
S421	X	98	3-7	X		ABUT. DIAPHRAGM	VERT.
S422	X	28	6-2			ABUT. DIAPHRAGM	HORIZ.
S523	X	134	16-10	X		ABUT. DIAPHRAGM	STIRRUP
S524	X	64	14-4	X		ABUT. DIAPHRAGM	STIRRUP
S625	X	14	7-2			ABUT. DIAPHRAGM	HORIZ.
S626	X	84	9-0			ABUT. DIAPHRAGM	HORIZ.
S527	X	134	7-1	X		ABUT. DIAPHRAGM	VERT.
S628	X	36	39-11			ABUT. DIAPHRAGM - B.F.	HORIZ.
S529	X	32	6-0			ABUT. DIAPHRAGM	HORIZ.
S630	X	4	6-0	X		ABUT. DIAPHRAGM - ENDS	HORIZ.
S631	X	24	7-10	X		ABUT. DIAPHRAGM - ENDS	HORIZ.

STAINLESS STEEL BILL OF BARS

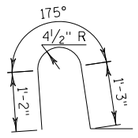
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
SS901		75	5-0	X		CONC. DIAPH. @ ABUTS. TO APPROACH APRON



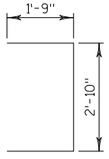
S408



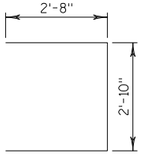
S509



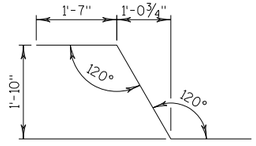
S510



S630



S631



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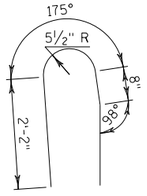

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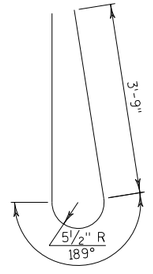
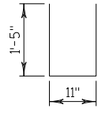
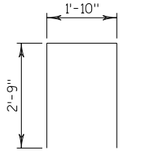


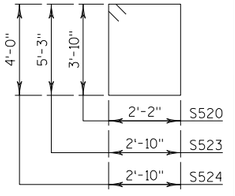
S513



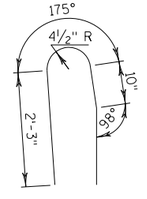
S421



S527



S520, S523, S524



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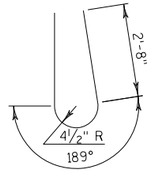
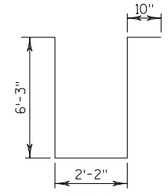
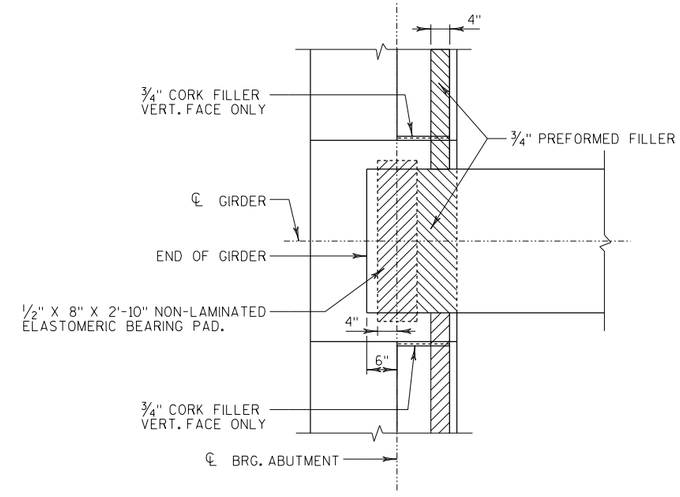


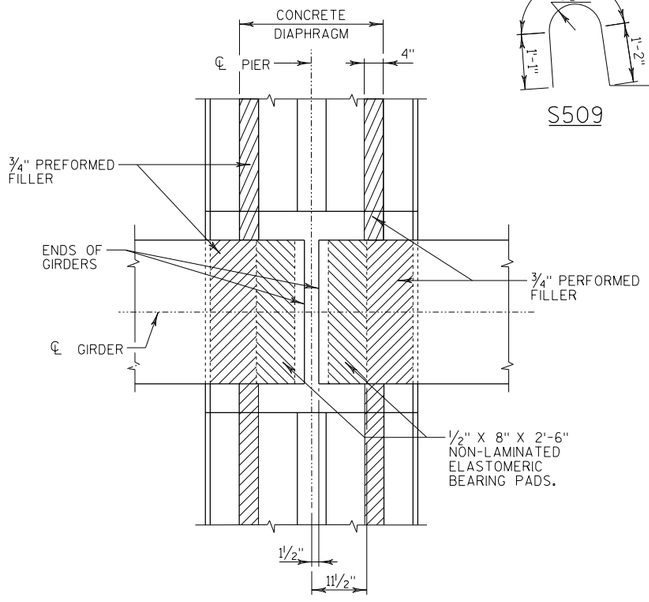
S514



S519



BEARING PAD DETAIL @ ABUTMENT



BEARING PAD DETAIL @ PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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SUPERSTRUCTURE DETAILS

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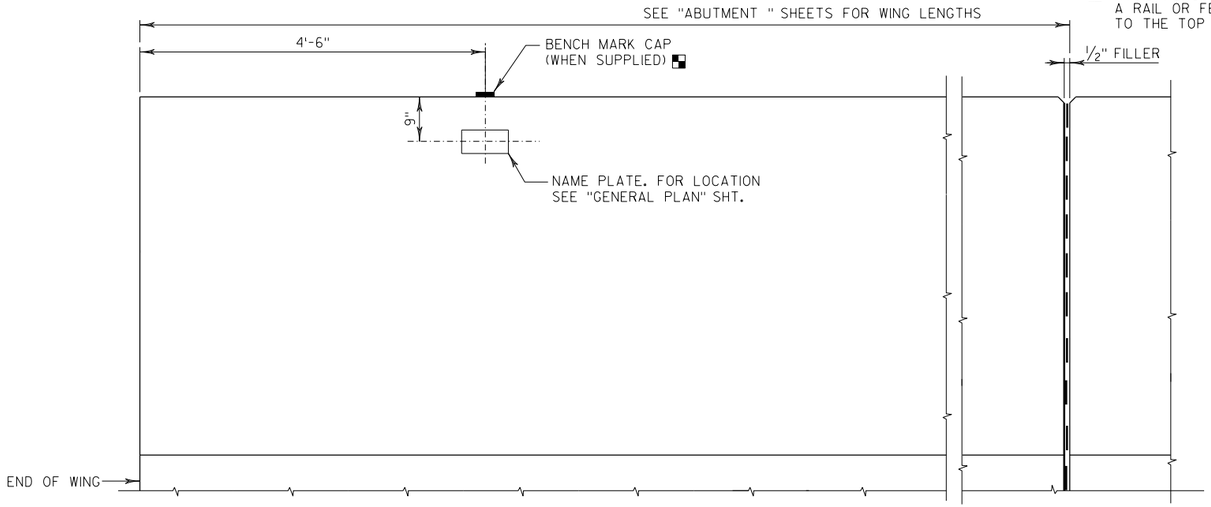
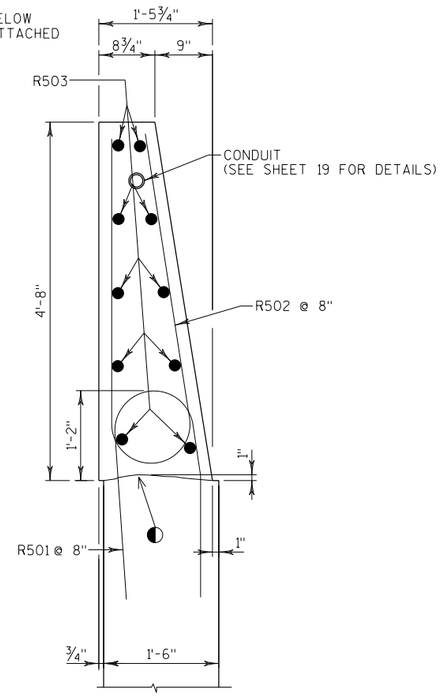
STATE PROJECT NUMBER

1133-11-74



INSIDE ELEVATION

AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

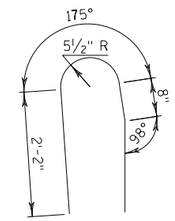


SECTION A

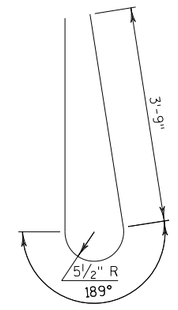
BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	29	29	5-11	X		PARAPET VERT.
R502	X	29	29	9-1	X		PARAPET VERT.
R503	X	10	10	18-8			PARAPET HORIZ.



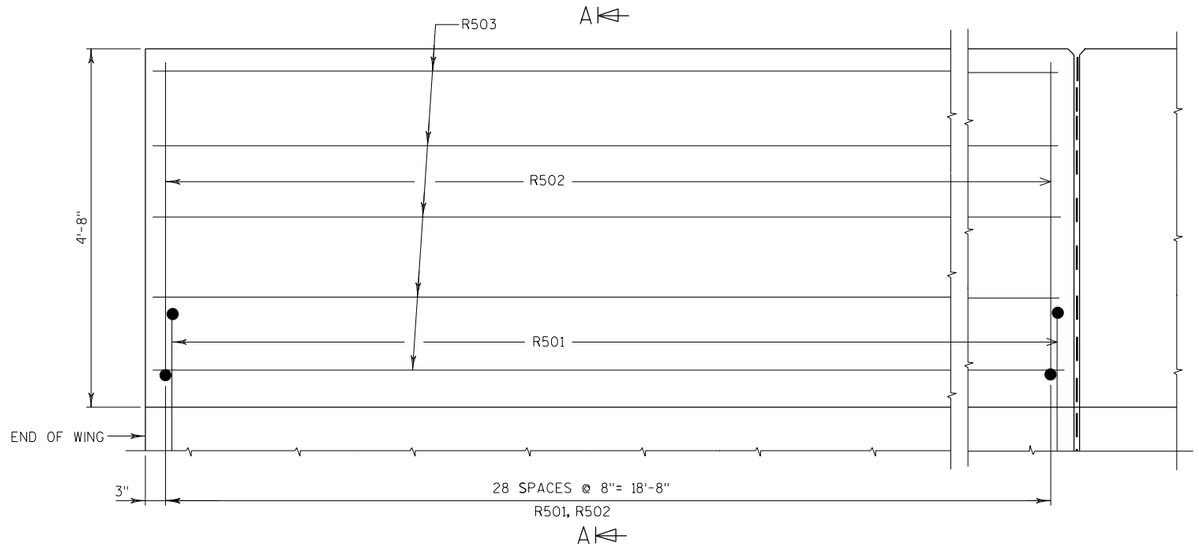
R501



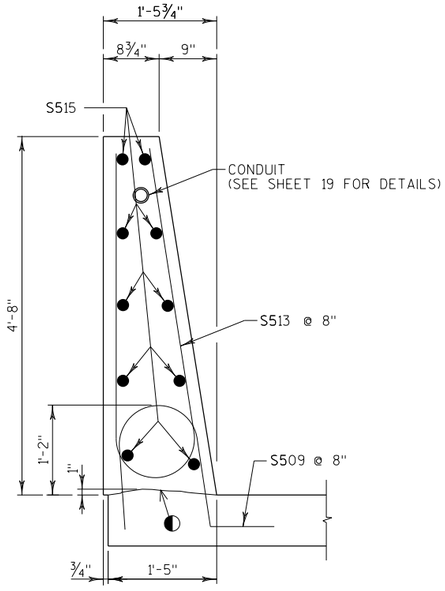
R502

PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

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STRUCTURE B-5-677

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SINGLE SLOPE PARAPET 56SS

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56SSWIN

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STATE PROJECT NUMBER

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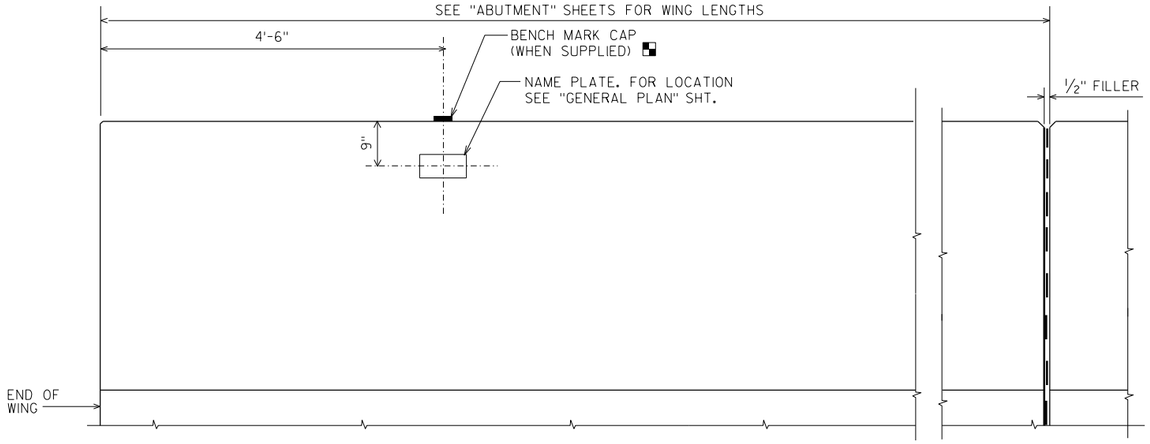
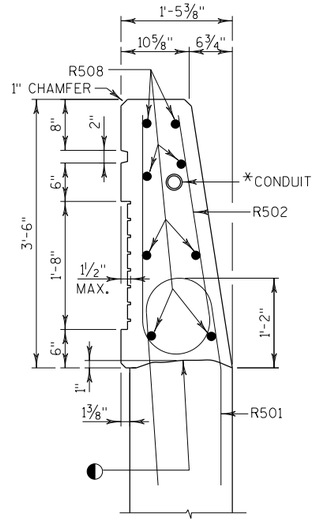


INSIDE ELEVATION

■ AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

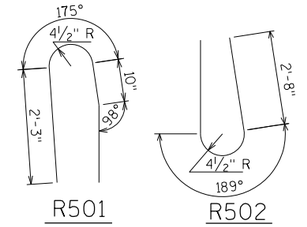


SECTION C

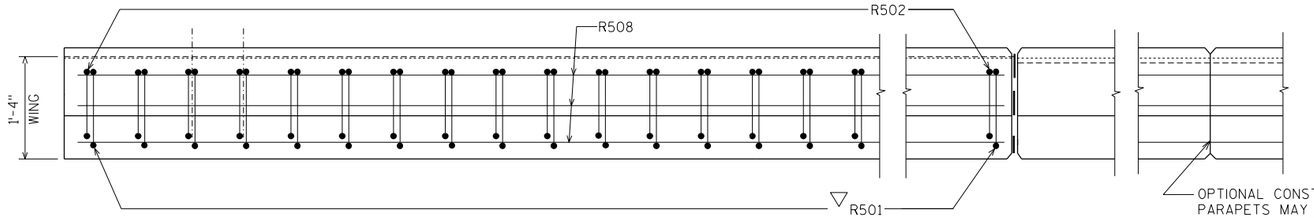
BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	29	29	5-10	X		PARAPET VERT.
R502	X	29	29	6-8	X		PARAPET VERT.
R508	X	8	8	18-8			PARAPET HORIZ.

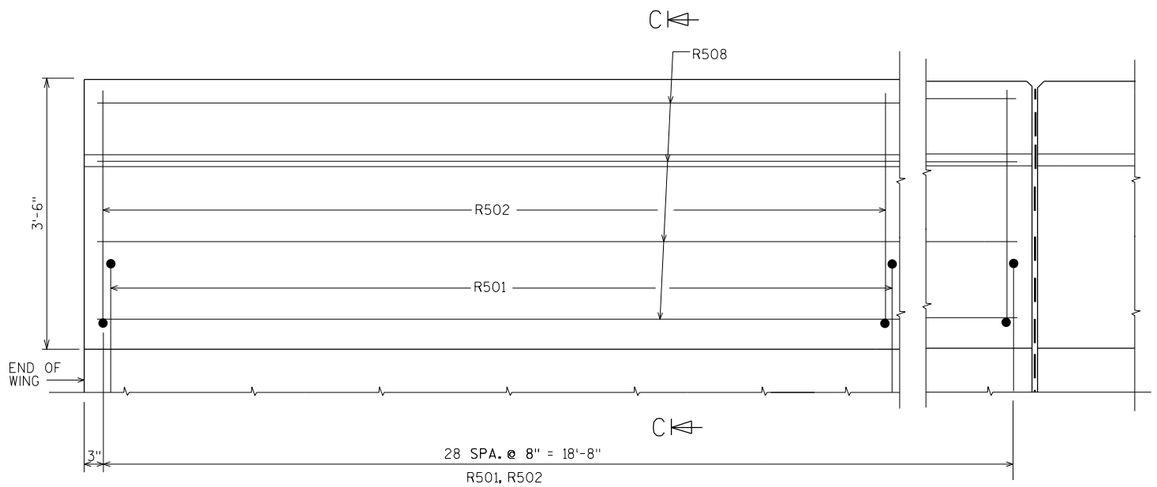


R501 R502

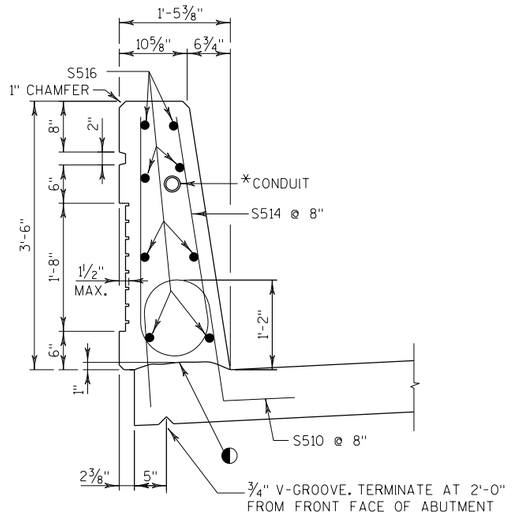


PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE

* SEE SHEET 19 FOR DETAILS

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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SINGLE SLOPE PARAPET 42SS MODIFIED

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42SSWIN

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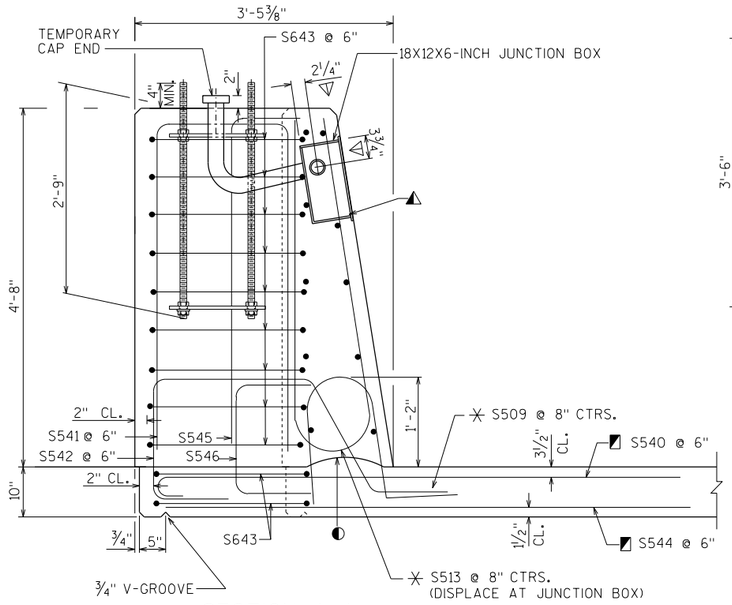
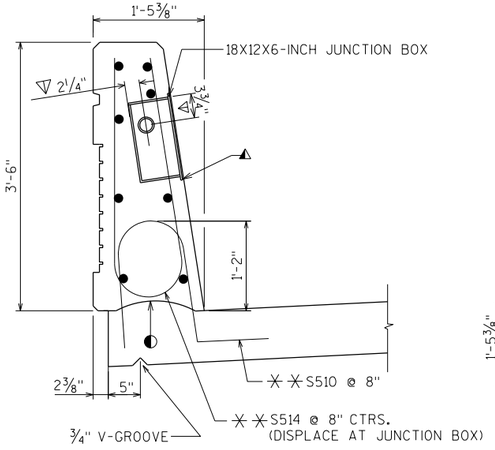
1133-11-74



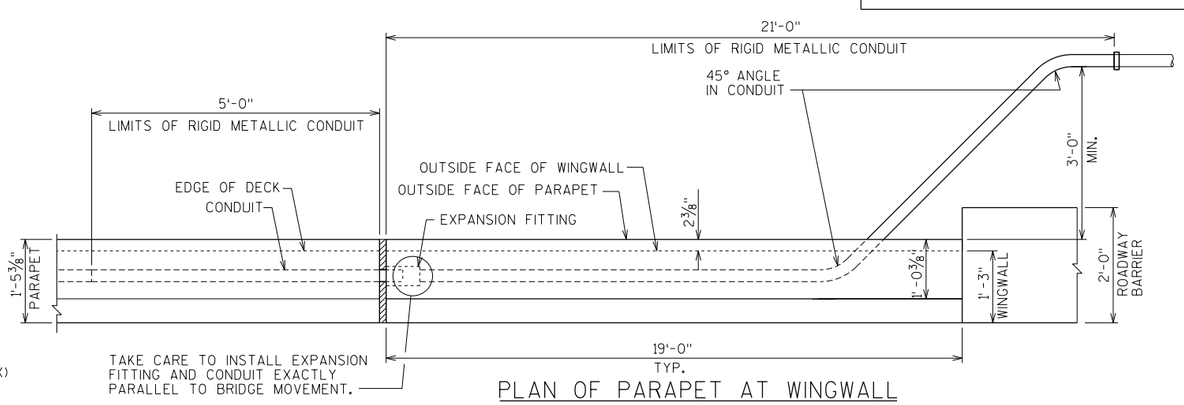
SECTION A-A



SECTION THRU PARAPET

(PARAPET 42SS MODIFIED)

(SHOWING JUNCTION BOX, STA. 1194+19.57)



PLAN OF PARAPET AT WINGWALL

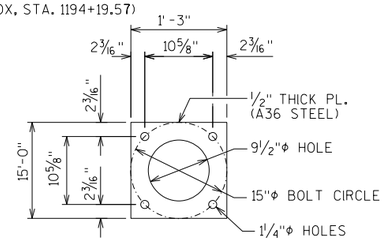
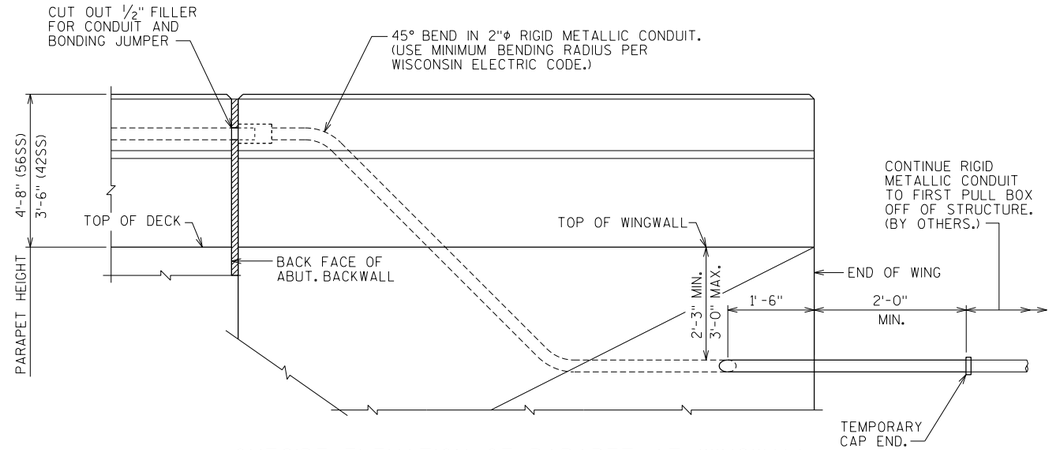
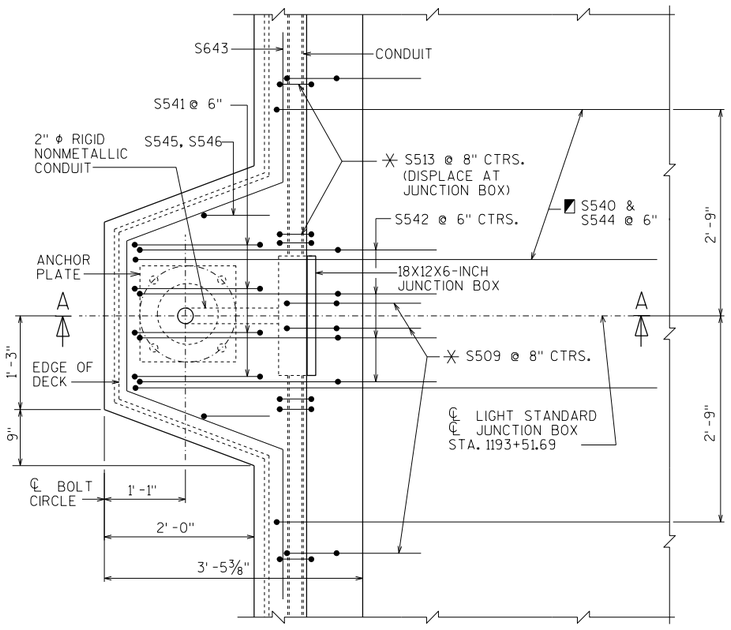


PLATE DETAIL

(1 REQ'D.)

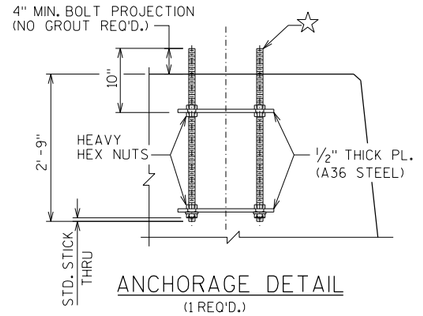


OUTSIDE ELEVATION OF PARAPET AT WINGWALL



PLAN AT LIGHT STANDARD

(PARAPET 56SS)



ANCHORAGE DETAIL

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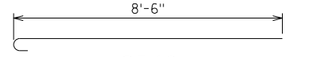
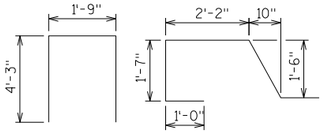
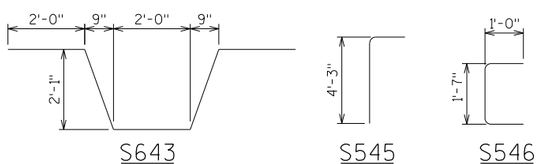


S540



S541 S542



S643 S545 S546

✳✳ SEE SINGLE SLOPE PARAPET 42SS MODIFIED SHT. 18 FOR ADDITIONAL BAR STEEL DETAILS.

◐ CONSTR. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN DECK.

✳ SEE SINGLE SLOPE PARAPET 56SS SHT. 17 FOR ADDITIONAL BAR STEEL DETAILS.

☆ 1"ϕ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURE", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S540	X	12	9-3	X		DECK TRANSV. @ LIGHT STD.
S541	X	4	10-0	X		PARAPET VERT. @ LIGHT STD.
S542	X	4	7-0	X		PARAPET VERT. @ LIGHT STD.
S643	X	11	10-0	X		PARAPET HORIZ. @ LIGHT STD.
S544	X	12	8-6			DECK TRANSV. @ LIGHT STD.
S545	X	2	5-0	X		PARAPET VERT. @ LIGHT STD.
S546	X	2	3-4	X		PARAPET VERT. @ LIGHT STD.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

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PARAPET ELECTRICAL WORK

SHEET 681 19 OF 21

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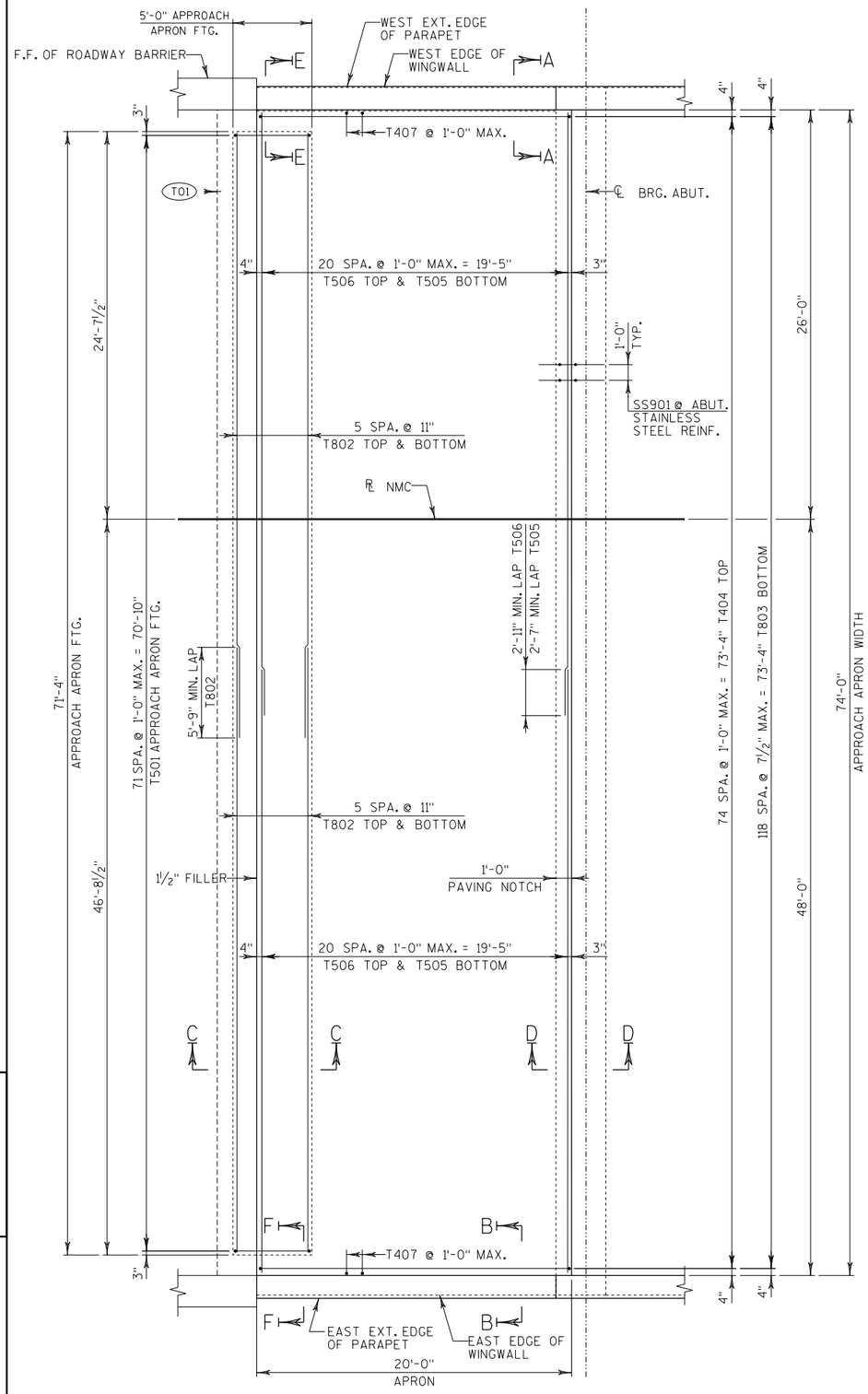
STATE PROJECT NUMBER

1133-11-74



APPROACH APRON PLAN

NOTES:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH AT APPROACH APRON. LOCATED ONLY ON UPHILL SIDE OF APRON FOOTING. SLOPE 0.5% MIN. TO USH 41 CLOSED MEDIAN DRAINAGE SYSTEM.

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

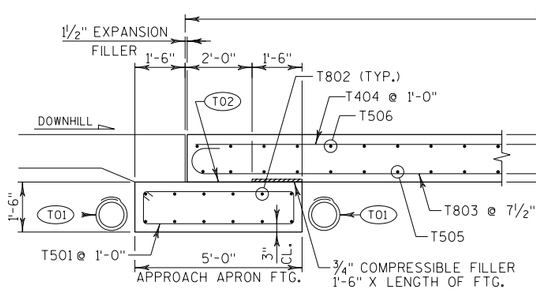
(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE SUBGRADE.

BILL OF BARS

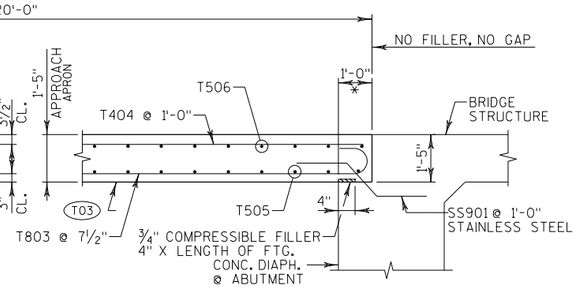
BAR MARK	COAT	NO. REQ'D. S. APRON	NO. REQ'D. N. APRON	LENGTH	BENT	BAR SERIES	LOCATION
T501	X	72	72	12-1	X		FOOTING - STIRRUPS
T802	X	24	24	38-4			FOOTING - HORIZONTAL
T803	X	119	119	21-4	X		APPROACH APRON - LONGIT. - BOT.
T404	X	75	75	19-6			APPROACH APRON - LONGIT. - TOP
T505	X	42	42	38-2			APPROACH APRON - TRANS. - BOT.
T506	X	42	42	38-4			APPROACH APRON - TRANS. - TOP
T407	X	42	42	3-0	X		APPROACH APRON - TIE
T408	X	2	2	18-5			APPROACH APRON - LONGIT. AT WINGWALL PANEL

NOTE: ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

* PAVING NOTCH MEASURED NORMAL TO ABUTMENT

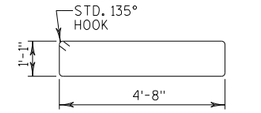


SECTION C-C

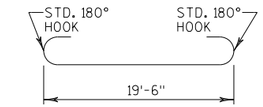


SECTION D-D

SECTION THRU APPROACH APRON



T501



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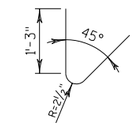
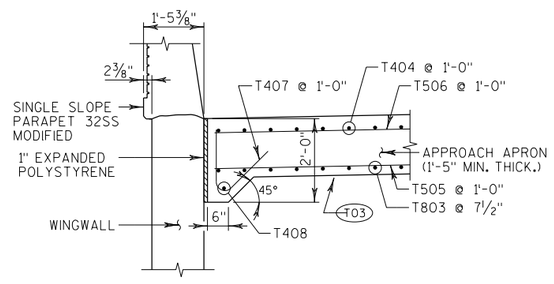
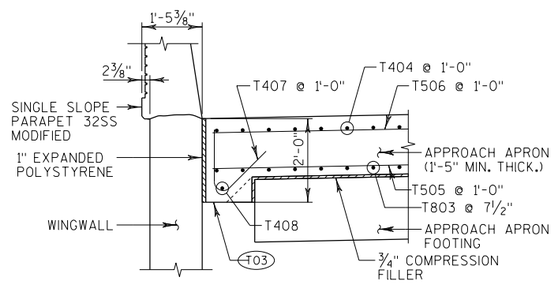


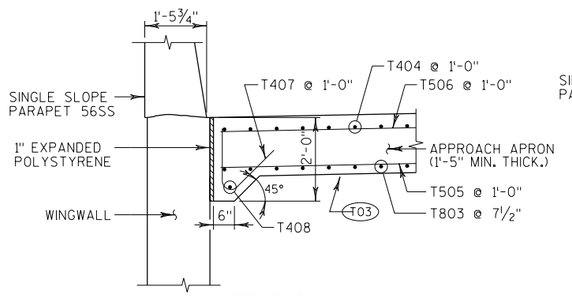
T407



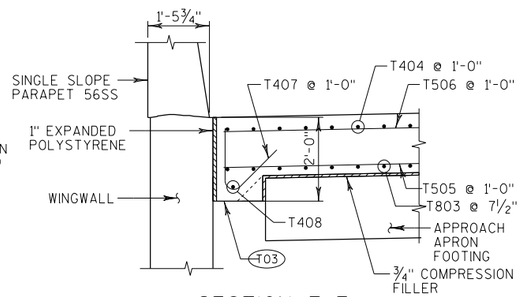
SECTION B-B



SECTION F-F



SECTION A-A



SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

DRAWN BY PK | PLANS CK'D. CCE

APPROACH APRON

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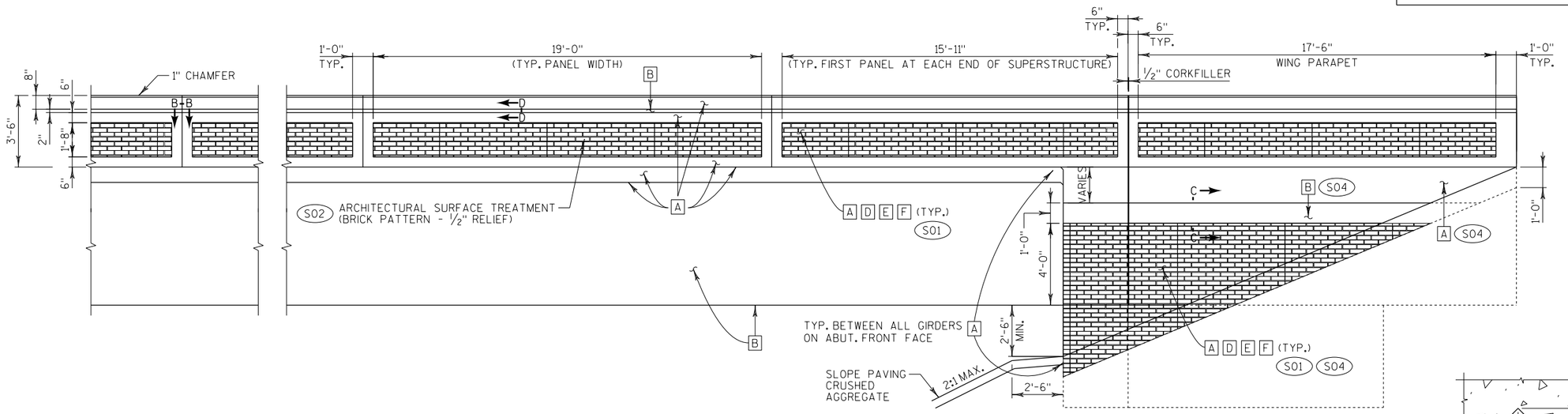
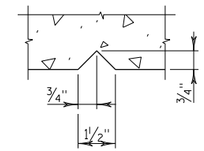
STATE PROJECT NUMBER

1133-11-74



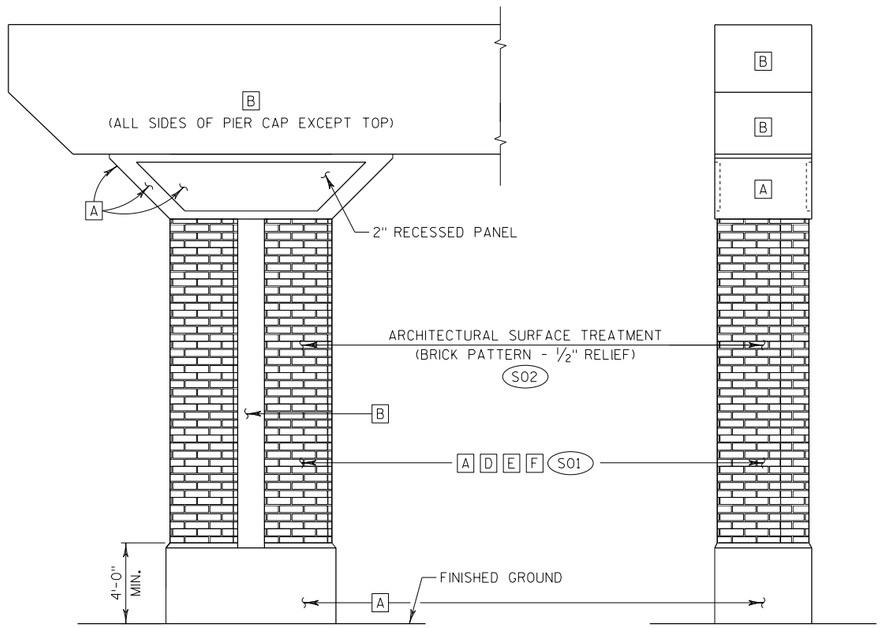
PART ELEVATION OF PARAPET

(EAST SIDE)



SECTION B-B

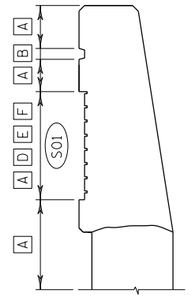
(3/4" "V" GROOVE)



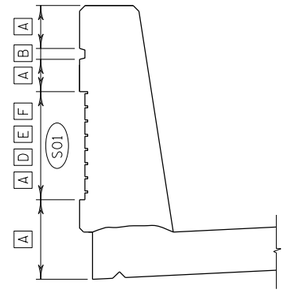
PIER ELEVATION

SEE PIER DETAIL SHEETS FOR LAYOUT DIMENSIONS

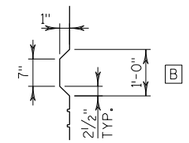
PIER END VIEW



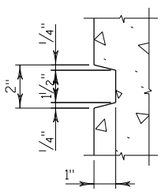
AT WINGWALL



AT BRIDGE DECK



SECTION C-C



SECTION D-D

(2" X 1" REVEAL)

SINGLE SLOPE FACE PARAPET 42SS MODIFIED

(EAST SIDE)

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, OUTSIDE CONC. GIRDER
C	ACCENT COLOR #2	VERTICAL PILASTER CENTER ELEMENT
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)
G	ACCENT COLOR #6	LETTERING AT ROADWAY NAME

SEE SPECIAL PROVISIONS FOR STAIN COLORS.

(S01) STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

(S02) THE COST OF BRICK PATTERN FORMLINER TREATMENT IS PAID FOR UNDER "ARCHITECTURAL SURFACE TREATMENT." SEE SPECIAL PROVISIONS FOR DESCRIPTION OF BRICK PATTERN FORMLINER.

(S04) STAIN TO 1'-0" BELOW FINISHED GRADE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-5-677

DRAWN BY PK | PLANS CK'D. CCE

AESTHETIC DETAILS

SHEET 683 21 OF 21

8

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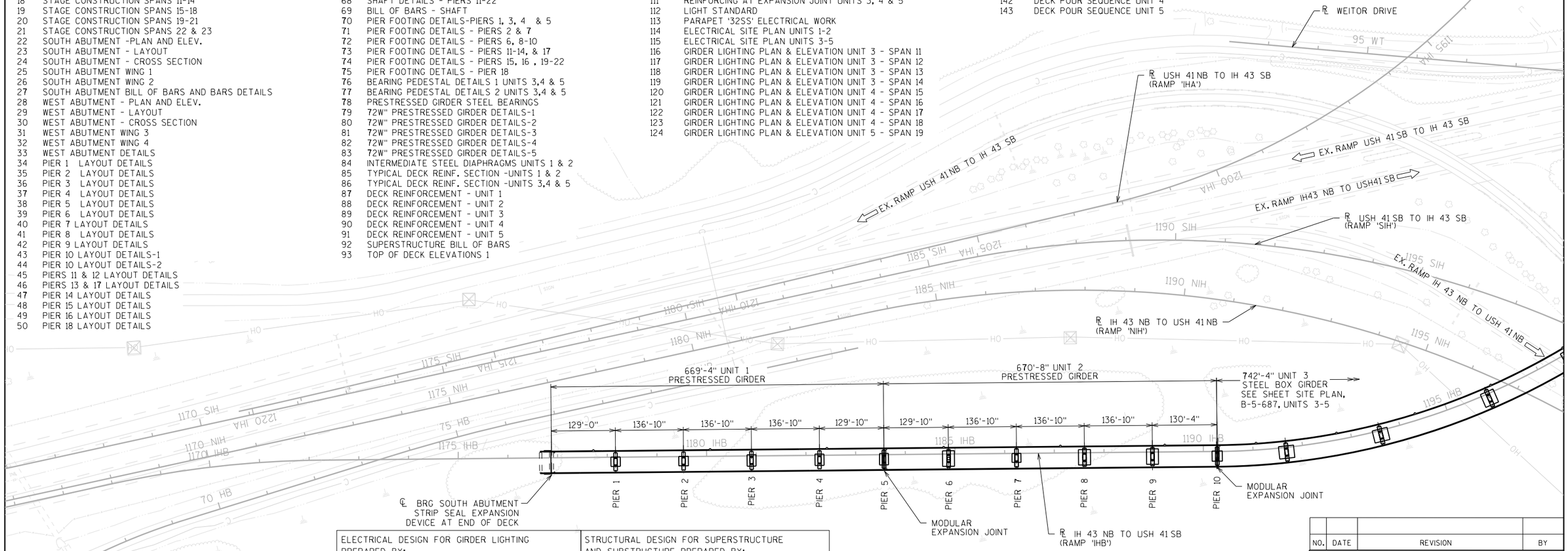
FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$

LIST OF DRAWINGS

1 SITE PLAN-UNITS 1 & 2 & LIST OF DRAWINGS
2 SITE PLAN-UNITS 3, 4 & 5
3 GENERAL NOTES
4 GENERAL PLAN AND ELEVATION - SPANS 1-6
5 GENERAL PLAN AND ELEVATION - SPANS 7-11
6 GENERAL PLAN AND ELEVATION - SPANS 12-15
7 GENERAL PLAN AND ELEVATION - SPANS 16-18
8 GENERAL PLAN AND ELEVATION - SPANS 19-21
9 GENERAL PLAN AND ELEVATION - SPANS 22-23
10 CROSS SECTIONS AT PIERS
11 QUANTITIES
12 ALIGNMENT & SUPERELEVATION
13 SUBSURFACE EXPLORATION-1 SPANS 1-6
14 SUBSURFACE EXPLORATION-2 SPANS 7-11
15 SUBSURFACE EXPLORATION-3 SPANS 12-17
16 SUBSURFACE EXPLORATION-4 SPANS 18-22
17 CONSTRUCTION STAGING NOTES
18 STAGE CONSTRUCTION SPANS 11-14
19 STAGE CONSTRUCTION SPANS 15-18
20 STAGE CONSTRUCTION SPANS 19-21
21 STAGE CONSTRUCTION SPANS 22 & 23
22 SOUTH ABUTMENT -PLAN AND ELEV.
23 SOUTH ABUTMENT - LAYOUT
24 SOUTH ABUTMENT - CROSS SECTION
25 SOUTH ABUTMENT WING 1
26 SOUTH ABUTMENT WING 2
27 SOUTH ABUTMENT BILL OF BARS AND BARS DETAILS
28 WEST ABUTMENT - PLAN AND ELEV.
29 WEST ABUTMENT - LAYOUT
30 WEST ABUTMENT - CROSS SECTION
31 WEST ABUTMENT WING 3
32 WEST ABUTMENT WING 4
33 WEST ABUTMENT DETAILS
34 PIER 1 LAYOUT DETAILS
35 PIER 2 LAYOUT DETAILS
36 PIER 3 LAYOUT DETAILS
37 PIER 4 LAYOUT DETAILS
38 PIER 5 LAYOUT DETAILS
39 PIER 6 LAYOUT DETAILS
40 PIER 7 LAYOUT DETAILS
41 PIER 8 LAYOUT DETAILS
42 PIER 9 LAYOUT DETAILS
43 PIER 10 LAYOUT DETAILS-1
44 PIER 10 LAYOUT DETAILS-2
45 PIERS 11 & 12 LAYOUT DETAILS
46 PIERS 13 & 17 LAYOUT DETAILS
47 PIER 14 LAYOUT DETAILS
48 PIER 15 LAYOUT DETAILS
49 PIER 16 LAYOUT DETAILS
50 PIER 18 LAYOUT DETAILS
51 PIERS 19, 21 AND 22 LAYOUT DETAILS
52 PIER 20 LAYOUT DETAILS
53 PIER CAP DETAILS - PIERS 1, 3-6 & 8
54 PIER CAP SECTIONS - PIERS 1, 3-6, 8, & 9
55 PIER CAP DETAILS - PIERS 2 & 7
56 PIER CAP SECTIONS - PIERS 2 & 7
57 PIER CAP DETAILS - PIER 10
58 PIER CAP SECTIONS - PIER 10
59 PIER CAP DETAILS - PIERS 11-13, 15-17, & 19-22
60 PIER CAP SECTIONS - PIERS 11-13, 15-17, & 19-22
61 PIER CAP DETAILS - PIERS 14 & 18
62 PIER CAP SECTIONS - PIERS 14 & 18
63 BILL OF BARS - PIER CAP
64 SHAFT DETAILS - PIERS 1-4
65 SHAFT DETAILS - PIERS 5-7
66 SHAFT DETAILS - PIERS 8-9
67 SHAFT DETAILS - PIER 10
68 SHAFT DETAILS - PIERS 11-22
69 BILL OF BARS - SHAFT
70 PIER FOOTING DETAILS-PIERS 1, 3, 4 & 5
71 PIER FOOTING DETAILS - PIERS 2 & 7
72 PIER FOOTING DETAILS - PIERS 6, 8-10
73 PIER FOOTING DETAILS - PIERS 11-14, & 17
74 PIER FOOTING DETAILS - PIERS 15, 16 , 19-22
75 PIER FOOTING DETAILS - PIER 18
76 BEARING PEDESTAL DETAILS 1 UNITS 3,4 & 5
77 BEARING PEDESTAL DETAILS 2 UNITS 3,4 & 5
78 PRESTRESSED GIRDER STEEL BEARINGS
79 72W" PRESTRESSED GIRDER DETAILS-1
80 72W" PRESTRESSED GIRDER DETAILS-2
81 72W" PRESTRESSED GIRDER DETAILS-3
82 72W" PRESTRESSED GIRDER DETAILS-4
83 72W" PRESTRESSED GIRDER DETAILS-5
84 INTERMEDIATE STEEL DIAPHRAGMS UNITS 1 & 2
85 TYPICAL DECK REINF. SECTION -UNITS 1 & 2
86 TYPICAL DECK REINF. SECTION -UNITS 3,4 & 5
87 DECK REINFORCEMENT - UNIT 1
88 DECK REINFORCEMENT - UNIT 2
89 DECK REINFORCEMENT - UNIT 3
90 DECK REINFORCEMENT - UNIT 4
91 DECK REINFORCEMENT - UNIT 5
92 SUPERSTRUCTURE BILL OF BARS
93 TOP OF DECK ELEVATIONS 1
94 TOP OF DECK ELEVATIONS 2
95 TOP OF DECK ELEVATIONS 3
96 TOP OF DECK ELEVATIONS 4
97 TOP OF DECK ELEVATIONS 5
98 SLOPED FACE PARAPET '32SS'
99 SLOPED FACE PARAPET '42SS' - 1
100 SLOPED FACE PARAPET '42SS' - 2
101 STRUCTURAL APPROACH SLAB DETAILS - S. ABUT.
102 STRUCTURAL APPROACH SLAB DETAILS - W. ABUT.
103 STRIP SEAL EXPANSION JOINT - SOUTH ABUTMENT
104 MODULAR EXPANSION JOINT - PIER 5 & 10
105 MODULAR EXPANSION JOINT - PIER 14
106 MODULAR EXPANSION JOINT - PIER 18
107 MODULAR EXPANSION JOINT -WEST ABUTMENT
108 EXPANSION JOINT COVER PLATES
109 MODULAR EXPANSION JOINT DETAILS-1
110 MODULAR EXPANSION JOINT DETAILS-2
111 REINFORCING AT EXPANSION JOINT UNITS 3, 4 & 5
112 LIGHT STANDARD
113 PARAPET '32SS' ELECTRICAL WORK
114 ELECTRICAL SITE PLAN UNITS 1-2
115 ELECTRICAL SITE PLAN UNITS 3-5
116 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 11
117 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 12
118 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 13
119 GIRDER LIGHTING PLAN & ELEVATION UNIT 3 - SPAN 14
120 GIRDER LIGHTING PLAN & ELEVATION UNIT 4 - SPAN 15
121 GIRDER LIGHTING PLAN & ELEVATION UNIT 4 - SPAN 16
122 GIRDER LIGHTING PLAN & ELEVATION UNIT 4 - SPAN 17
123 GIRDER LIGHTING PLAN & ELEVATION UNIT 4 - SPAN 18
124 GIRDER LIGHTING PLAN & ELEVATION UNIT 5 - SPAN 19
125 GIRDER LIGHTING PLAN & ELEVATION UNIT 5 - SPAN 20
126 GIRDER LIGHTING PLAN & ELEVATION UNIT 5 - SPAN 21
127 GIRDER LIGHTING PLAN & ELEVATION UNIT 5 - SPAN 22
128 GIRDER LIGHTING PLAN & ELEVATION UNIT 5 - SPAN 23
129 ELECTRICAL BOX GIRDER DETAIL 1
130 ELECTRICAL BOX GIRDER DETAIL 2
131 CROSS SECTION AT PIER 16
132 FLOOR DRAIN TYPE 'GC'
133 FLOOR DRAIN TYPE 'H'
134 FLOOR DRAIN DETAILS-1
135 FLOOR DRAIN DETAILS -2
136 AESTHETIC DETAILS
137 DECK FORM DETAILS
138 SLOPE PAVING (SELECT CRUSHED MATERIAL)
139 DECK POUR SEQUENCE UNIT 1
140 DECK POUR SEQUENCE UNIT 2
141 DECK POUR SEQUENCE UNIT 3
142 DECK POUR SEQUENCE UNIT 4
143 DECK POUR SEQUENCE UNIT 5

STATE PROJECT NUMBER
1133-11-74



ELECTRICAL DESIGN FOR GIRDER LIGHTING PREPARED BY:

URS

WISCONSIN
MOHAMMED A. ELSHOLI
E-37874-6
ORLAND HILLS, IL
PROFESSIONAL ENGINEER

05.31.2013

STRUCTURAL DESIGN FOR SUPERSTRUCTURE AND SUBSTRUCTURE PREPARED BY:

URS

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

5-31-2013

NE REGION CONTACT - PAUL VRANEY (920) 492-2232
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL RADTKE 414-831-4174

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 06/03/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-678

IH 43 NB TO USH 41 SB (RAMP IHB)

COUNTY BROWN
~~TOWN/CITY~~/VILLAGE HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KZ	NPP	KZ	NPP

SITE PLAN B-5-678
UNITS 1-2 &
LIST OF DRAWINGS

SHEET 1 OF 143
684

DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER

1133-11-74

℄ WEITOR DRIVE

℄ USH 41 NB TO IH 43 SB (RAMP 'IHA')

EX. RAMP USH 41 NB TO IH 43 SB

EX. RAMP IH 43 NB TO USH 41 SB

EX. RAMP USH 41 SB TO IH 43 SB

670'-8" UNIT 2 PRESTRESSED GIRDER SEE SHEET 'SITE PLAN, B-5-678, UNITS 1-2'

139'-0"

PIER 10

MODULAR EXPANSION JOINT

PIER 11

192'-0"

742'-4" UNIT 3 STEEL BOX GIRDER

℄ IH 43 NB TO USH 41 SB (RAMP 'IHB')

PIER 12

229'-3"

ACCESS HATCH LOCATION

MODULAR EXPANSION JOINT

PIER 13

182'-1"

839'-8" UNIT 4 STEEL BOX GIRDER

178'-3"

PIER 14

241'-7"

℄ IH 43 NB TO USH 41 NB (RAMP 'NIH')

PIER 15

241'-7"

ACCESS HATCH LOCATION

PIER 16

178'-3"

PIER 17

MODULAR EXPANSION JOINT

PIER 18

153'-0"

1042'-3" UNIT 5 STEEL BOX GIRDER

247'-0"

PIER 19

247'-0"

PIER 20

247'-0"

PIER 21

148'-3"

PIER 22

ACCESS HATCH LOCATION

℄ BRG WEST ABUTMENT MODULAR EXPANSION JOINT AT END OF DECK

℄ WISCONSIN CENTRAL LTD RAILROAD

℄ USH 41 SB TO IH 43 SB (RAMP 'SIH')

℄ USH 41 NB

EX. USH 41 NB

EX. USH 41 SB

℄ USH 41 SB

EX. RAMP IH 43 NB TO USH 41 NB

N

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

SITE PLAN
UNITS 3, 4 & 5

SHEET 2 OF 143
685

DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER

1133-11-74

GENERAL NOTES

THIS CONTRACT INCLUDES ERECTING STRUCTURAL STEEL AND BEARINGS FOR UNITS 3, 4 & 5 AND FURNISHING AND ERECTING PRESTRESSED GIRDERS, BEARINGS FOR UNITS 1& 2 AND FURNISHING AND CONSTRUCTING/INSTALLING EXPANSION DEVICES, SHEAR STUD CONNECTORS, LIGHTING SYSTEMS, CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURES, INCLUDING FOUNDATIONS AND AESTHETICS, AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

"STEEL FABRICATION CONTRACT" PLANS ARE ATTACHED TO THESE "STEEL ERECTION AND SITE CONSTRUCTION CONTRACT" PLANS FOR REFERENCE. USE FOR ERECTION AND INSTALLATION OF STEEL GIRDERS AND BEARINGS UNDER THIS CONTRACT.

SHOP DRAWINGS ARE AVAILABLE UPON REQUEST FOR BIDDERS TO REVIEW.

AFTER STRUCTURE SHOP ASSEMBLY AND DISASSEMBLY, ANY ELEMENTS NOT INSTALLED BY THE CONTRACTOR OF THE FABRICATION CONTRACT ARE TO BE INSTALLED BY THE CONTRACTOR OF THIS ERECTION AND CONSTRUCTION CONTRACT.

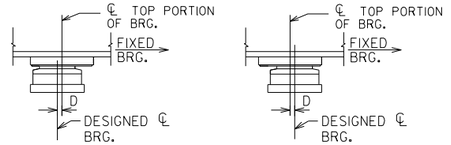
DRAWINGS SHALL NOT BE SCALED

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (1991).

GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS "LEFT" AND "RIGHT". THESE ORIENTATIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING IN THE DIRECTION OF INCREASING STATION.

SEE SECTION 1 OF ROADWAY SPECIFICATIONS FOR FURTHER REQUIREMENTS FOR USING EXISTING STRUCTURES DURING CONSTRUCTION.



BELOW 60° F.

(MOVE TOP PORTION OF BRG. TOWARD FIXED BRG.)

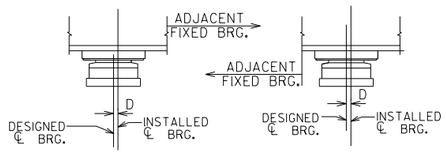
ABOVE 60° F.

(MOVE TOP PORTION OF BRG. AWAY FROM FIXED BRG.)

SETTING EXP. BRG.

B-5-678

LOCATION	EXPANSION LENGTH FEET	"D" DIMENSION FOR EVERY 10° F. CHANGE FROM 60° F.
PIER 10	233.20	3/16"
PIER 11	96.03	1/16"
PIER 12	95.97	1/16"
PIER 13	325.25	1/4"
PIER 14 UNIT 3	505.50	3/8"
PIER 14 UNIT 4	296.70	1/4"
PIER 15	120.20	1/8"
PIER 16	121.38	1/8"
PIER 17	362.96	5/16"
PIER 18 UNIT 4	539.38	7/16"
PIER 18 UNIT 5	398.20	5/16"
PIER 19	247.00	3/16"
PIER 20	0.00	0"
PIER 21	247.00	3/16"
PIER 22	494.00	3/8"
W. ABUTMENT	642.25	1/2"



BELOW 60° F.

(INSTALL BEARING SO THAT CENTERLINE IS TOWARDS ADJACENT FIXED BRG.)

ABOVE 60° F.

INSTALL BEARING SO THAT CENTERLINE OF BEARING IS AWAY FROM ADJACENT FIXED BRG.)

SETTING ANCHOR BOLTS AT FIXED BRG.

GENERAL NOTES (CONT.)

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III, OR M213.

STAY-IN-PLACE METAL DECK FORMS ARE PERMITTED INSIDE BOX GIRDERS ONLY. STAY-IN-PLACE METAL DECK FORMS ARE CONSIDERED INCIDENTAL TO THE COST OF "HPC MASONRY STRUCTURES".

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF THE DECK, INSIDE OF PARAPETS, AND TOP OF PARAPETS.

STRUCTURAL STEEL

FABRICATED STRUCTURAL STEEL AND BEARINGS ARE FURNISHED BY OTHERS UNDER A SEPARATE CONTRACT. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE PRIOR TO WHEN THESE MATERIALS ARE REQUIRED ON SITE.

THE COST OF INSTALLING BEARINGS, ACCESS HATCHES, ERECTING STRUCTURAL STEEL AND FIELD DRILLING HOLES IN THE WEBS OF GIRDERS FOR DRAINAGE PIPE SUPPORT BRACKETS ARE INCLUDED IN THE BID ITEM "ERECTING STRUCTURAL STEEL B-05-678."

A TECHNICAL REPRESENTATIVE FROM THE BEARING MANUFACTURER MUST BE PRESENT DURING INSTALLATION OF THE FIRST BEARING. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE OF THE SPECIFIC DAY THE BEARING MANUFACTURER REPRESENTATIVE NEEDS TO BE ON SITE. PAYMENT FOR THIS WORK IS MADE UNDER THE STEEL FABRICATION CONTRACT 1133-11-76.

THE CONTRACTOR IS RESPONSIBLE NOT TO OVER-ROTATE BEARING ASSEMBLIES. DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

THE CONTRACTOR MUST COORDINATE WITH THE BEARING MANUFACTURER REGARDING FINAL DIMENSIONS AND DETAILS OF MASONRY PLATES AND ANCHOR BOLTS. NO ADDITIONAL PAYMENT WILL BE MADE DUE TO ANY CHANGES IN THE SUPPLIED BEARINGS AND AS SHOWN ON CONTRACT 1133-11-76.

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

TEMPORARY SUPPORTS AND FALSEWORK (INCLUDING DECK OVERHANG BRACKETS) SHALL NOT BE ATTACHED TO OR BEAR ON GIRDER WEBS EXCEPT AT WEB STIFFENER LOCATIONS.

DESIGN THE CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS (OPTIONAL FORMS) AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED.

TOP OF STAY-IN-PLACE METAL FORMS SHALL BE ALIGNED WITH THE UNDERSIDE OF THE DECK SLAB AS SHOWN ON THE SUPERSTRUCTURE DETAILS SHEET.

REINFORCING STEEL

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

REINFORCING STEEL SHALL BE HIGH STRENGTH, GRADE 60 WITH FY=60 KSI. PROVIDE STAINLESS STEEL REINFORCEMENT CONFORMING TO ASTM A615, GRADE 60 REQUIREMENTS.

REINFORCING STEEL SHALL BE UNCOATED IN FOUNDATIONS (EXCEPT PIER SHAFT DOWELS) AND EPOXY COATED IN ALL OTHER LOCATIONS (INCLUDING PIER SHAFT DOWELS).

PLACE ALL REINFORCEMENT WITH A MINIMUM CLEAR COVER OF 2" UNLESS NOTED OTHERWISE.

PLACE REINFORCEMENT IN FOOTINGS AND PILECAPS WITH A MINIMUM CLEAR COVER OF 3" BOTTOM AND 2" TOP AND SIDES UNLESS NOTED OTHERWISE.

PLACE TOP LAYER OF REINFORCING STEEL IN THE DECK SURFACE WITH 2½" CLEAR COVER TO TOP OF SLAB.

PLACE BOTTOM LAYER OF REINFORCING STEEL IN THE DECK WITH 1½" CLEAR COVER TO BOTTOM OF SLAB.

ONLY REINFORCEMENT REQUIRED BY DESIGN IS SHOWN EXPLICITLY ON THE DRAWINGS. ADDITIONAL REINFORCEMENT MAY BE USED TO SIMPLIFY ASSEMBLY AND ERECTION OF THE REINFORCING STEEL AND MAY BE REQUIRED TO ENSURE STABILITY AND POSITIONING OF THE COMPLETED REINFORCEMENT CAGE. REINFORCEMENT IN ADDITION TO THAT SHOWN WILL NOT BE INCLUDED FOR PAYMENT.

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

OTHER DESIGN LOADS

PROFILE GRADE LINE AND TOP OF DECK ELEVATIONS ARE TO THE TOP OF THE 10" DECK THICKNESS FOR UNITS 3, 4 & 5 AND 8½" DECK THICKNESS FOR UNITS 1& 2. THE DECK THICKNESS INCLUDES A ½" INTEGRAL WEARING SURFACE, BUT DOES NOT INCLUDE AN ADDITIONAL POLYMER OVERLAY THAT WILL BE PROVIDED AFTER POURING OF THE DECK.

THE STRUCTURE IS DESIGNED FOR THE WEIGHT OF THE DECK THICKNESS OF CONCRETE PLUS ⅜" THICKNESS OF POLYMER OVERLAY. UNIT WEIGHTS ASSUMED FOR DESIGN WERE 150 PCF FOR CONCRETE AND 3 PSF FOR ⅜" POLYMER OVERLAY.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES:
- = 90°F FOR UNITS 3, 4 & 5
- = 45°F FOR UNITS 1& 2.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMMODATING 90°F OF MOVEMENT IN EITHER DIRECTION FOR UNITS 3, 4 & 5.

DESIGN ASSUMED A WEIGHT PER GIRDER OF 10 PSF FOR STAY-IN-PLACE METAL DECK FORMS INSIDE EACH GIRDER ONLY AND 13.5 PSF FOR CONCRETE WITHIN THE RIBS OF THESE FORMS.

DESIGN ASSUMED 7.5 PSF FOR TEMPORARY FORMWORK IN ADDITION TO STAY-IN-PLACE METAL DECK FORMS.

PARAPETS WERE ASSUMED TO WEIGH 563 PLF AND 464 PLF FOR 42SS AND 32SS SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

DESIGN LIVE LOADS

DESIGN LOADING: HL-93

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

INVENTORY RATING FACTOR: RF = 1.05

OPERATING RATING FACTOR: RF = 1.36

EXCAVATION AND BACKFILL

THE FINISHED GRADE LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

FOR PIER EXCAVATIONS IN WETLAND AREAS PROVIDE COFFERDAMS OR OTHER MEANS TO ADHERE TO 404 PERMIT REQUIREMENTS. SEE SPECIFICATIONS FOR 404 PERMIT REQUIREMENTS. THE COST OF SELECTED EXCAVATION METHOD IS CONSIDERED INCLUDED IN THE PRICE OF BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-5-678"

EXCAVATION REQUIRED FOR TEMPORARY RETAINING WALLS TW-5-001 AND TW-5-002 IS INCLUDED WITH LUMP SUM PRICE OF BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-5-678".

CONCRETE

CONCRETE QUANTITY IN THE HAUNCHES FOR UNITS 3, 4, AND 5 IS CALCULATED BASED ON AN ASSUMED CONSTANT DEPTH OF 4" MEASURED FROM TOP OF WEB TO UNDERSIDE OF SLAB (EXCLUDING THE VOLUME TAKEN UP BY THE TOP FLANGE). THIS IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH PAYMENT WILL BE MADE.

THE HAUNCH CONCRETE QUANTITY FOR UNITS 1& 2 IS BASED ON AN AVERAGE DEPTH OF 3" WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

CONCRETE QUANTITY IN THE STAY-IN-PLACE METAL DECK FORM RIBS IS CALCULATED BASED ON AN ASSUMED RIB HEIGHT OF 3", WIDTH OF 3" AND RIB ANGLE OF 45°. THIS IS THE MAXIMUM RIB QUANTITY FOR WHICH PAYMENT WILL BE MADE.

CHAMFER ALL EXPOSED OUTSIDE CORNERS ¾" UNLESS NOTED OTHERWISE.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL NOTES

SHEET 3 OF 143
686

DATE: 5/31/2013
I.D.

FILE= G:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\003 - B-5-678 - General Notes.dgn

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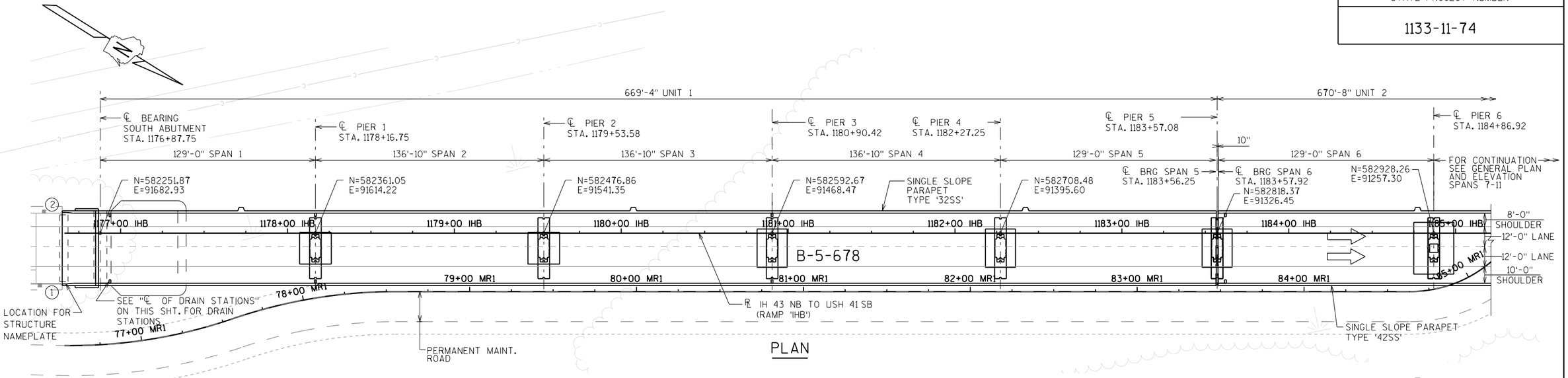
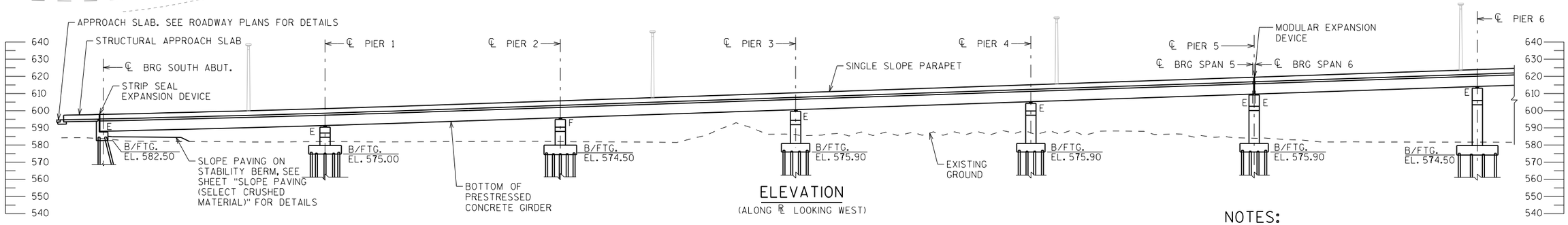
STATE PROJECT NUMBER

1133-11-74



PLAN



ELEVATION

(ALONG ℄ LOOKING WEST)

LOCATION	S. ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	PIER 9	PIER 10	PIER 11	PIER 12	PIER 13	PIER 14	PIER 15	PIER 16	PIER 17	PIER 18	PIER 19	PIER 20	PIER 21	PIER 22	W. ABUT.
ESTIMATED PILE LENGTH (FEET)	69	78	68	63	67	70	73	69	80	64	67	79	64	68	62	67	69	65	54	63	71	60	54	82
* MIN. PILE TIP EL. FOR UPLIFT	N/A	515.00	530.00	525.00	520.00	514.00	516.00	516.00	521.00	520.00	523.00	523.00	535.00	547.00	538.00	534.00	520.00	526.00	528.00	534.00	543.00	536.00	540.00	524.00

* HARD DRIVING MATERIAL SHOULD BE ANTICIPATED IN LAYERS SIGNIFICANTLY ABOVE MINIMUM TIP ELEVATION AT SOME LOCATIONS. IT IS RECOMMENDED THAT THE CONTRACTOR VERIFY THAT THE PILE DRIVING SYSTEM CAN ADVANCE PILES TO DEVELOP THE REQUIRED DRIVING RESISTANCE AND MINIMUM TIP ELEVATION WITHOUT DAMAGE TO THE PILE. DETAILED DRIVEABLITY ANALYSIS SHOULD BE PART OF CONTRACTOR VERIFICATION. IF MINIMUM TIP ELEVATION CANNOT BE ACHIEVED SEE ENGINEER.

℄ OF DRAIN STATIONS

SUBSTRUCTURE	S. ABUT	PIER 1	PIER 3	PIER 5
TYPE	H	H	H	H
STATION	1176+94.42	1178+16.75	1180+90.42	1183+62.08
REMARK	BOTH SIDES	BOTH SIDES	BOTH SIDES	BOTH SIDES

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 1301	DISK ON EAST PARAPET WALL OF USH 41 NB	612.17

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB----------f'c = 4,000 P.S.I.
ALL OTHER----------f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60----------fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL,----------fy = 50,000 P.S.I.
(ASTM A709, GRADE 50 AND HPS50W)
PRESTRESSED GIRDER, CONCRETE MASONRY----------f'c = 8,000 P.S.I.
STRANDS - 0.6"Φ WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.
STAINLESS STEEL REINFORCEMENT---------- fy = 60,000 P.S.I.
(ASTM A615, GRADE 60)

STRUCTURE TYPE

5-SPAN CONTINUOUS PRESTRESSED CONCRETE GIRDER BRIDGE UNIT 1
5-SPAN CONTINUOUS PRESTRESSED CONCRETE GIRDER BRIDGE UNIT 2
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 3
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 4
5-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 5

FOUNDATION DATA

SOUTH AND WEST ABUTMENTS TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS** PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. SEE TABLE ON THIS SHEET FOR ESTIMATED LENGTH.

PIERS 1 THROUGH PIER 22 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS** PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. SEE TABLE ON THIS SHEET FOR ESTIMATED LENGTH.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION IS FURTHER REDUCED BY DOWN DRAG FORCES AS FOLLOWS USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY:

FACTORED AXIAL RESISTANCE WITH DOWN DRAG

SOUTH ABUTMENT	354 KIPS
WEST ABUTMENT	286 KIPS
PIER 14	284 KIPS
PIER 17	314 KIPS
PIER 19	322 KIPS

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING
(1) INDICATES WINGWALL NUMBER

TRAFFIC VOLUME:

RAMP 'NIH'
ADT (2015) = 8,600
ADT (2035) = 10,200
R.D.S. = 70 M.P.H.

RAMP 'IHB'
ADT (2015) = 13,500
ADT (2035) = 14,000
R.D.S. = 60-70 M.P.H.

USH 41 NB
ADT (2015) = 15,800
ADT (2035) = 31,500
R.D.S. = 70 M.P.H.

USH 41 SB
ADT (2015) = 15,500
ADT (2035) = 26,400
R.D.S. = 70 M.P.H.

RAMP 'SIH'
ADT (2015) = 9,000
ADT (2035) = 10,700
R.D.S. = 70 M.P.H.

NOTES:

* HARD DRIVING MATERIAL SHOULD BE ANTICIPATED IN LAYERS SIGNIFICANTLY ABOVE MINIMUM TIP ELEVATION AT SOME LOCATIONS.

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄ IHB.

DIMENSIONS SHOWN ARE ALONG ℄ IHB.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄ IHB.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

GUIDED LONGITUDINAL BEARINGS ARE ORIENTED PARALLEL TO ℄ IHB.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

SEE SHEET TITLED "REINFORCEMENT AT EXPANSION JOINTS UNITS 3, 4 & 5" AND SHEET "MODULAR EXPANSION JOINT PIERS 5 & 10" AND SHEET "STRIP SEAL JOINT - SOUTH ABUTMENT" FOR END OF DECK STATIONS.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 1-6

SHEET 4 OF 143
687

DATE: 5/31/2013
I.D.

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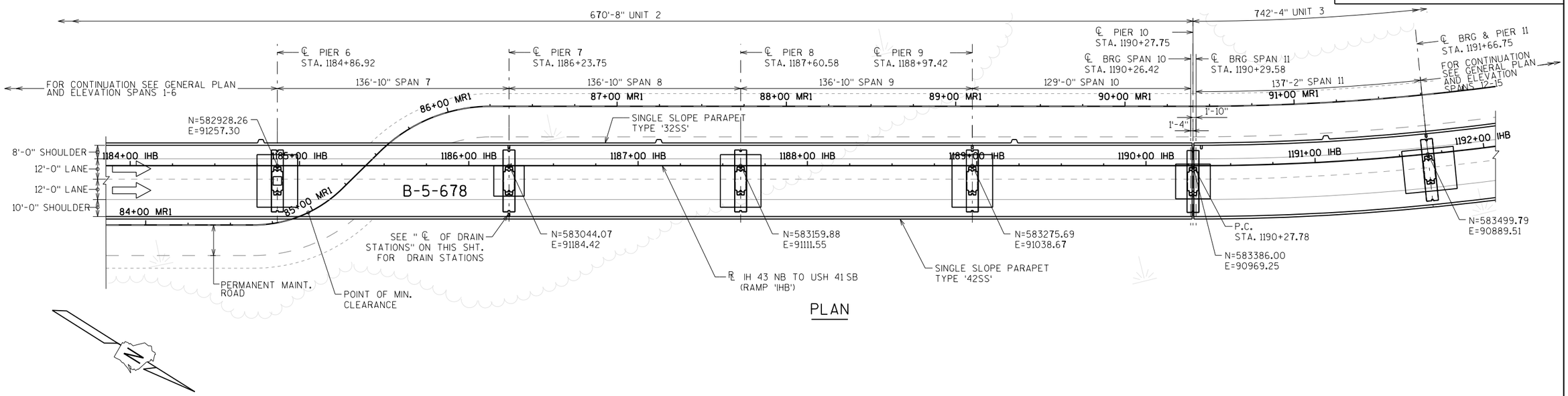
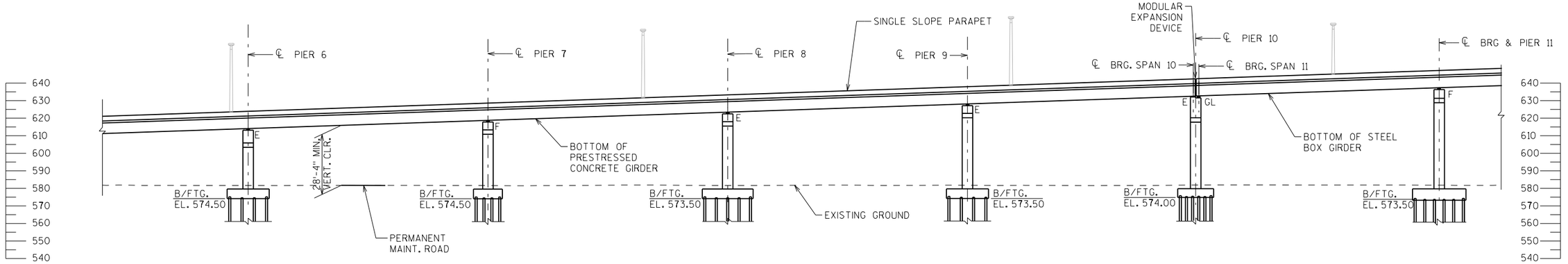
STATE PROJECT NUMBER

1133-11-74



PLAN



ELEVATION

(ALONG ℄ LOOKING WEST)

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

℄ OF DRAIN STATIONS

SUBSTRUCTURE	PIER 7	PIER 9	PIER 10	PIER 11
TYPE	H	H	GC	GC
STATION	1186+23.75	1188+97.42	1190+34.58	1191+66.75
REMARK	BOTH SIDES	-	-	-

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 7-11

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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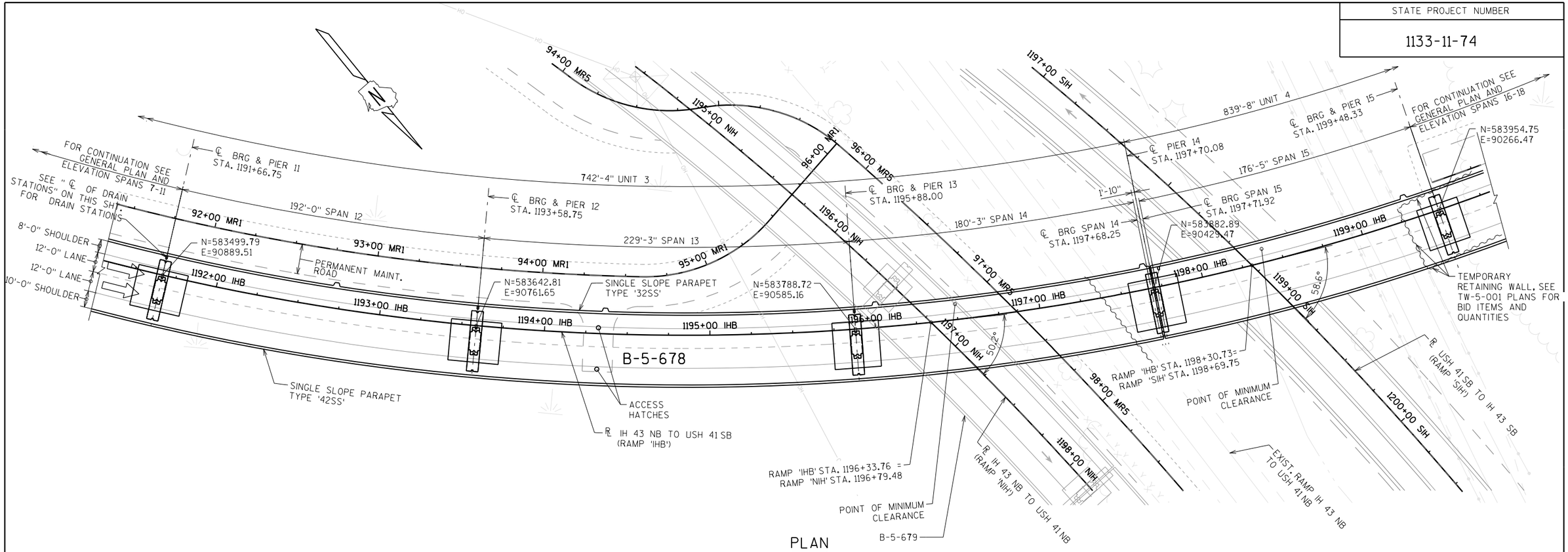
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER
1133-11-74



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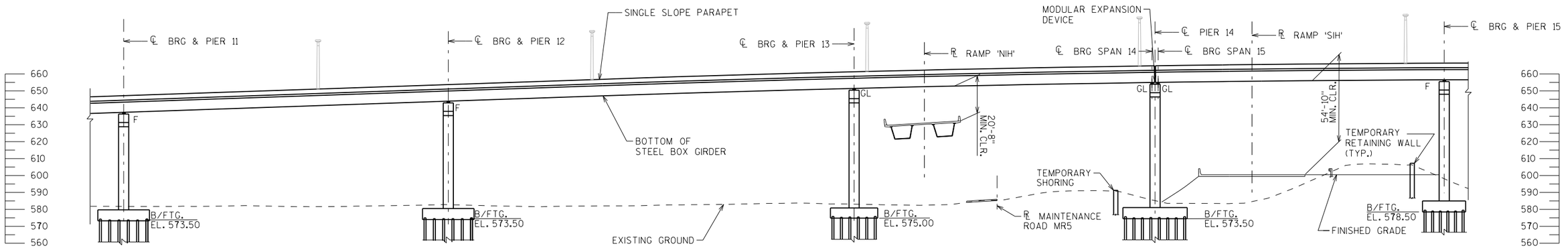

ELEVATION

(ALONG ℄ LOOKING SOUTHWEST)

℄ OF DRAIN STATIONS

SUSTRUCTURE	PIER 11	PIER 12	PIER 13	PIER 14
TYPE	GC	GC	GC	GC
STATION	1191+66.75	1193+58.75	1195+88.00	1197+76.92

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GENERAL PLAN AND ELEVATION SPANS 12-15

SHEET 6 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER
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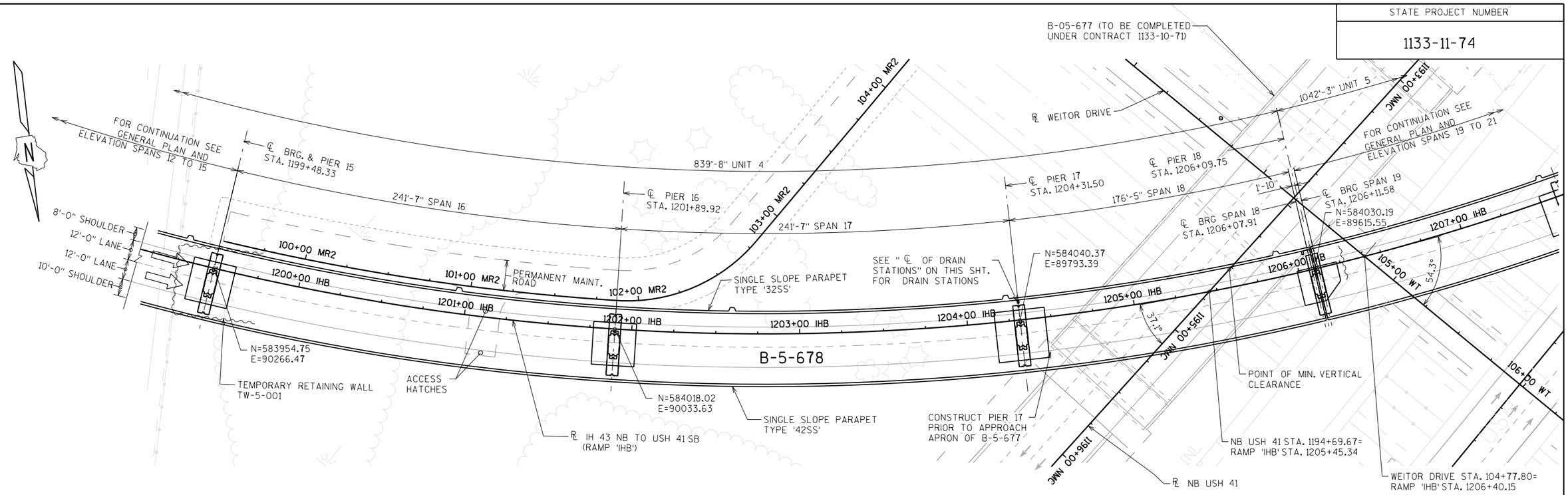

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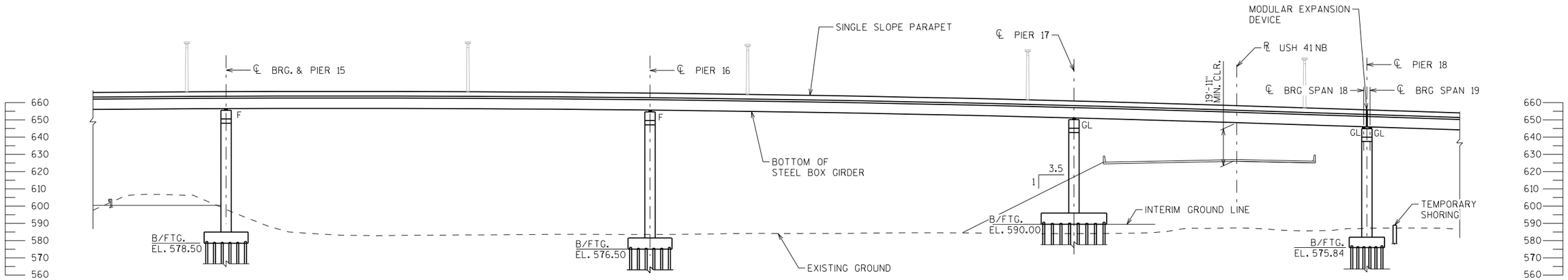

ELEVATION

(ALONG ℄ LOOKING SOUTH)

℄ OF DRAIN STATIONS

DRAINS	PIER 17	PIER 18
TYPE	GC	GC
STATIONS	1204+31.50	1206+02.92

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 16-18

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I.D.

STATE PROJECT NUMBER

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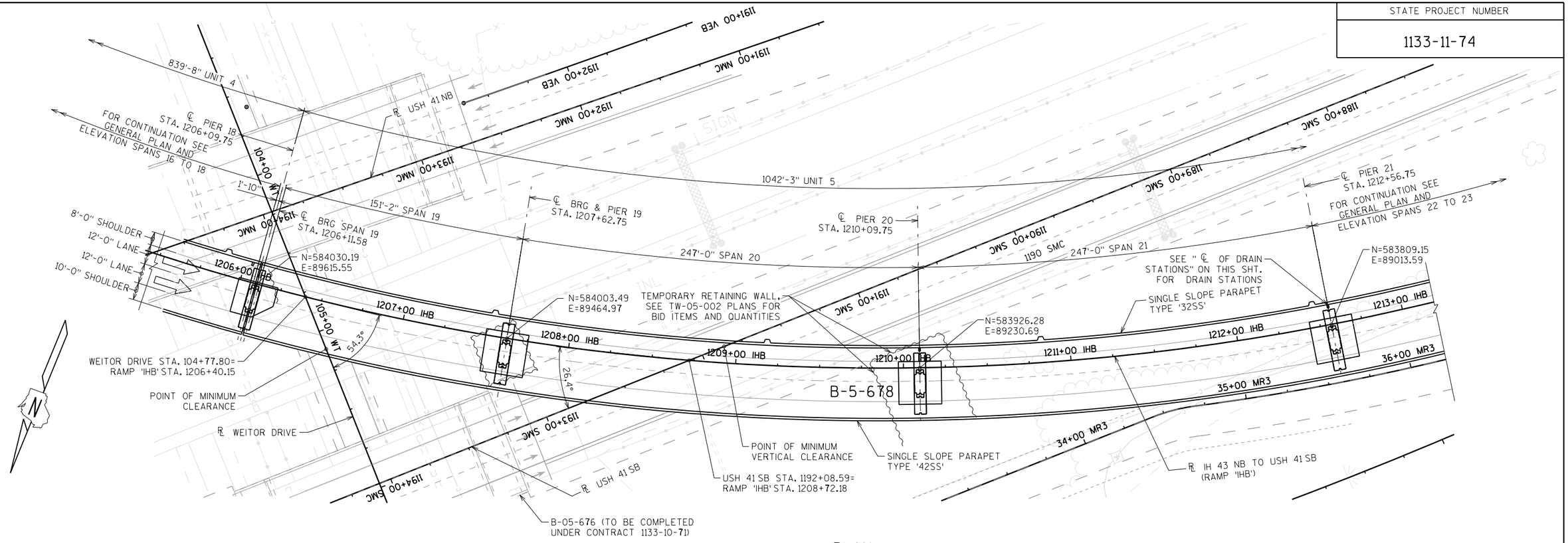

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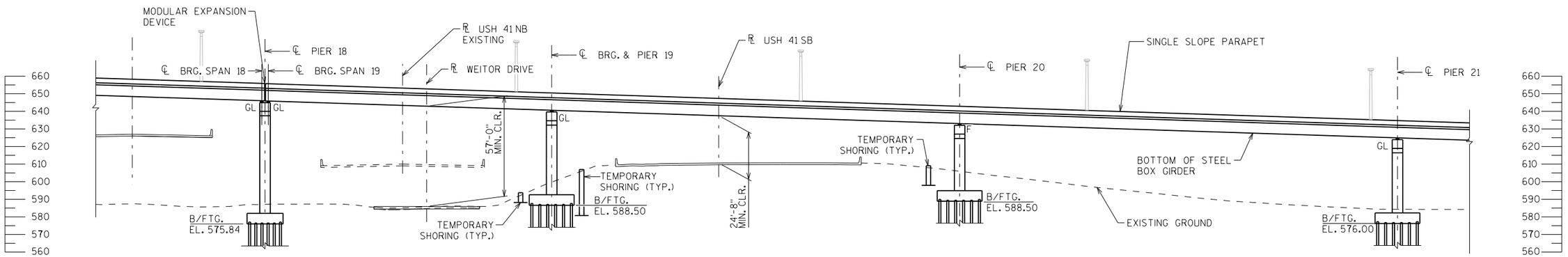

ELEVATION

(ALONG ℄ USH 41 NB LOOKING SOUTH)

℄ OF DRAIN STATIONS

SUBSTRUCTURE	PIER 20	PIER 21
TYPE	GC	GC
STATIONS	1210+09.75	1212+56.75

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GENERAL PLAN AND ELEVATION SPANS 19-21

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STATE PROJECT NUMBER
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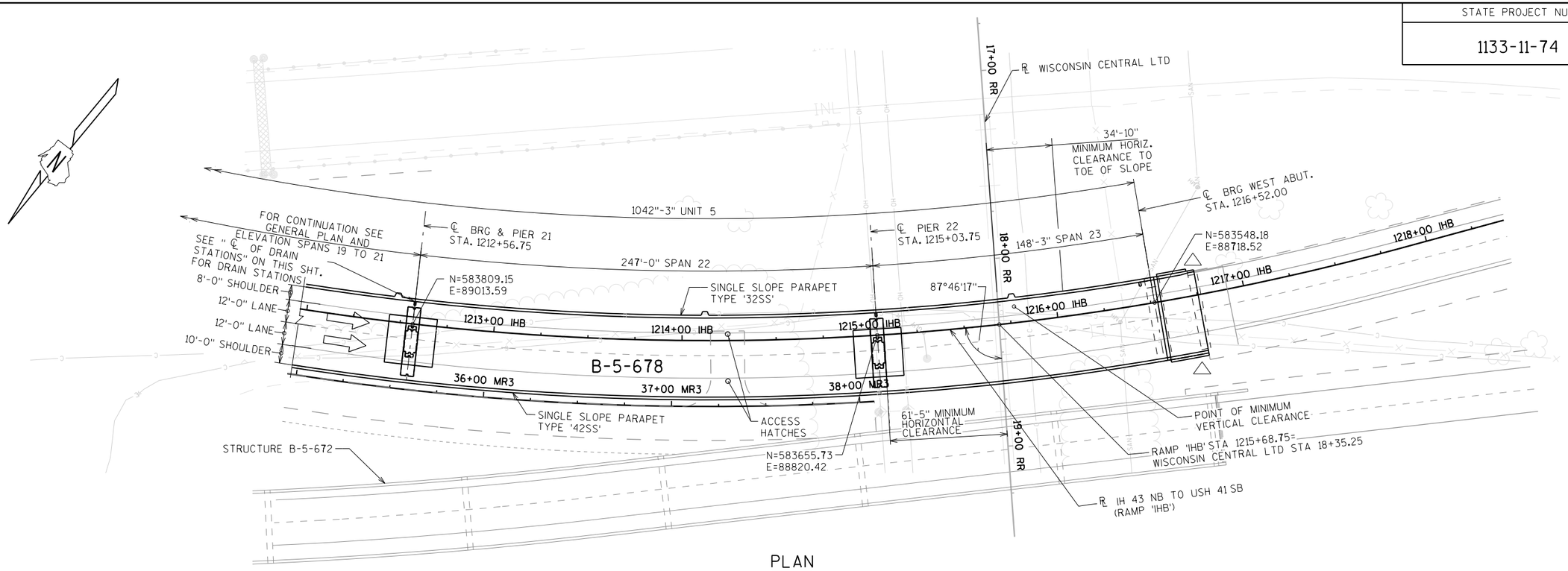

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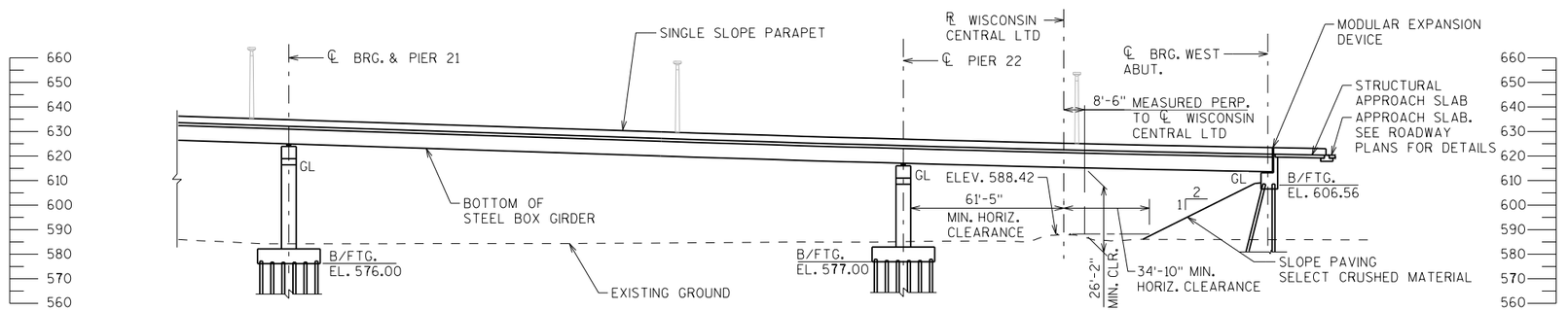

ELEVATION

(ALONG ℄ USH 41 NB LOOKING SOUTH)

℄ OF DRAIN STATIONS

SUBSTRUCTURE	PIER 21	PIER 22	W. ABUT.
TYPE	GC	GC	GC
STATIONS	1212+56.75	1215+03.75	1216+46.08

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING
△ ANCHORAGES FOR STEEL PLATE BEAM GUARD

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 22-23

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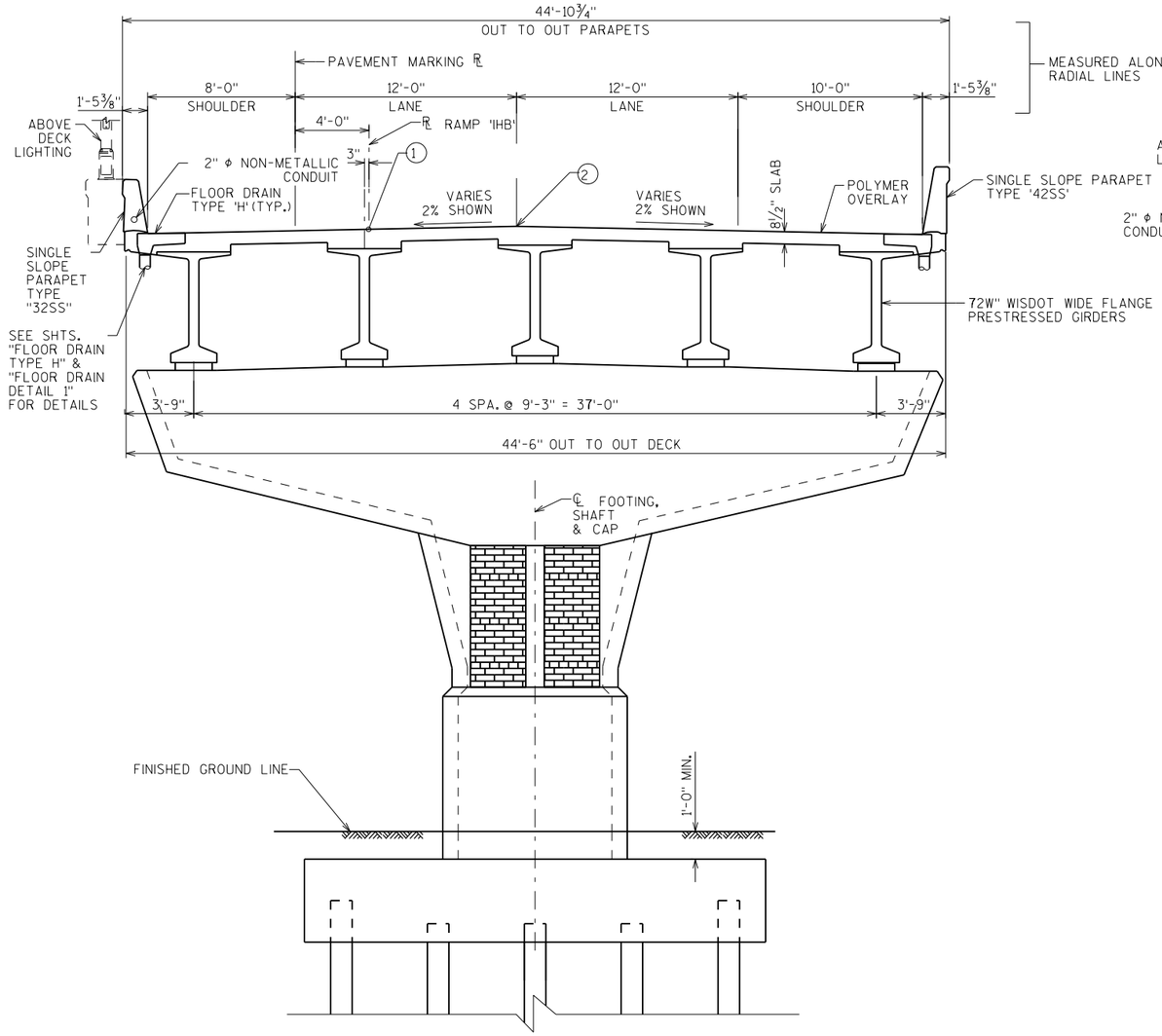
STATE PROJECT NUMBER
1133-11-74

(1) POINT REFERRED TO ON PROFILE GRADE AND POINT OF SE ROTATION STA. 1189+48.00 TO STA. 1216+80.00

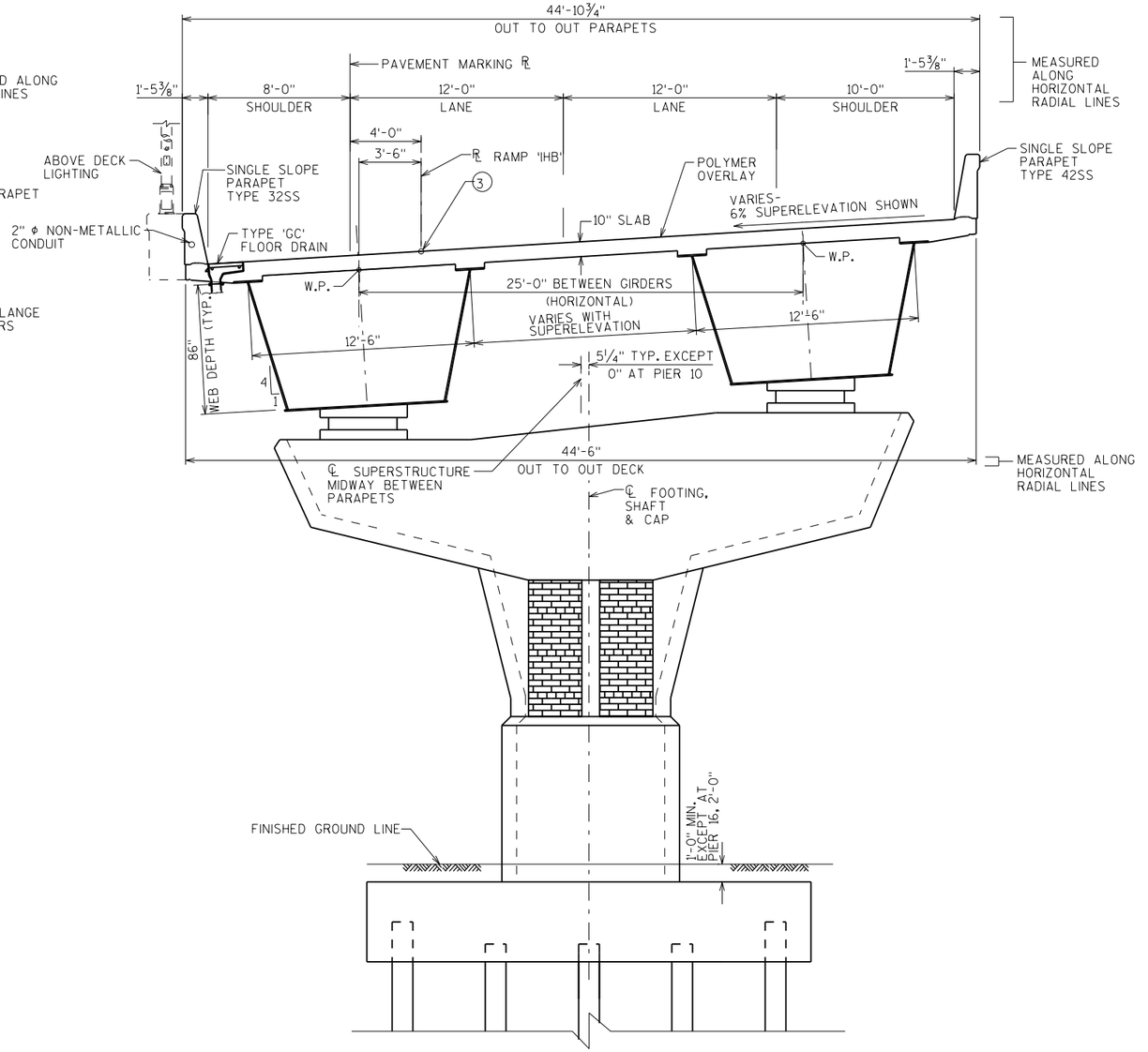
(2) CROWN POINT OF SE ROTATION STA. 1176+87.75 TO STA. 1189+48.00



TYPICAL SECTION - UNITS 1-2

(LOOKING AHEAD STATION)

(3) POINT REFERRED TO ON PROFILE GRADE AND POINT OF SE ROTATION STA. 1176+87.75 TO STA. 1189+48.00



TYPICAL SECTION - UNITS 3-5

(LOOKING AHEAD STATION)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR STANDARDS FOR FLYOVER STRUCTURES.

STEEL GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

THEORETICAL HAUNCH HEIGHT FOR STEEL TUB GIRDERS IS CONSTANT AT 4" FROM BOTTOM OF SLAB TO BOTTOM OF TOP FLANGE

SEE SHEET "LIGHT STANDARD" FOR LOCATIONS OF ABOVE DECK LIGHTING.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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CROSS SECTIONS AT PIERS

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STATE PROJECT NUMBER

1133-11-74

TOTAL ESTIMATED QUANTITIES

						UNIT 1		UNIT 2		UNIT 3		UNIT 4		UNIT 5				
BID ITEM #	BID ITEM	UNIT	S. APPR. APRON	S. ABUT.	SUPER. SPANS 1-5	PIERS 1-5	SUPER. SPANS 6-10	PIERS 6-10	SUPER. SPANS 11-14	PIERS 11-14	SUPER. SPANS 15-18	PIERS 15-18	SUPER. SPANS 19-22	PIERS 19-22	W. ABUT	W. APPR. APRON	TOTAL
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-5-678	LS															1
206.6000.S	TEMPORARY SHORING	SF								833		168		1,638			2,639
210.0100	BACKFILL STRUCTURE	CY	-	213	-	708	-	982	-	1,073		1,179		995	331	-	5,480
502.3110.S	EXPANSION DEVICE MODULAR B-5-678	LS	-		-	-	-	-	-	-						-	1
502.3100	EXPANSION DEVICE B-5-678	LS		1													1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	112	-	3738	-	3,741		3,491	-	3,950		4,909		-	112	20,053
503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH	LF			3343		3,343										6,685
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB		4,710		28,499		57,022		76,741		57,651		45,545	6,040		276,209
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	11,269	5,800	281,295	98,905	281,316	154,018	328,986	187,956	371,119	182,334	462,971	147,164	10,397	11,169	2,534,698
** 506.3025	WELDED STUD SHEAR CONNECTORS 7/8 X 8-INCH	EACH	-	-		-		-	9,948	-	11,844		15,411		-	-	37,203
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH				10		10									20
506.4000	STEEL DIAPHRAGMS B-5-678	EACH			10		10										20
506.6000	BEARING ASSEMBLIES EXPANSION B-5-678	EACH		5		35		40									80
514.0445	FLOOR DRAINS TYPE GC	EACH	-		-		-		4	-	3		3		1	-	11
514.0460	FLOOR DRAINS TYPE H	EACH	-	2	6		4									-	12
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	15	-		-		-						15	-	30
550.1140	PILING STEEL HP 14-INCH X 73 LB	LF		1,096		7,350		7,952		9,356		10,410		8,933	1,472		46,569
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY		298	-	-	-	-	-	-					291		589
606.0300	RIPRAP HEAVY	CY		8		10		12		10		7		7	21		75
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	46	-	-	-	-	-	-	-					-	46	92
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	120	-	-		-		-						-	218	338
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH		-		-	-	-	-	-					-	2	2
645.0130	GEOTEXTILE FABRIC TYPE R	SY				54		45		36		18		27			180
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	22													22	43
652.0135	CONDUIT RIGID METALLIC 3-INCH	LF	-	-	-	-	-	-	2,972	0	3,360		4,172		-	-	10,504
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-	-	670	-	671	-	735	-	832		1,032		-	-	3,940
652.0240	CONDUIT RIGID NONMETALLIC SCHEDULE 40 4-INCH	LF	-	-		-		-		-		80			-	-	80
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH			4		4		4		5		5				22
655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	-						14,550		22,410		24,630		-	-	61,590
655.0635	ELECTRICAL WIRE LIGHTING 2 AWG	LF							3,520		7,520		4,560				15,600
657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH			4		4		4		5		5				22
SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	65	112.0	1240.9	783.0	1241.7	1,450.7	1351.9	1,635.2	1,529	1,616.6	1,899	1,271.0	131.6	65	14,392
SPV.0060.350	GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES	EACH	-	-					16	-	18	-	26		-	-	60
SPV.0060.351	VAPOR PROOF L.E.D. LIGHT FIXTURE	EACH	-	-	-	-	-	-	36	0	40		52		-	-	128
SPV.0060.352	JUNCTION BOXES STAINLESS STEEL 27X18X8-INCH	EACH	-	-				-	36		40		52		-	-	128
SPV.0060.353	JUNCTION BOXES STAINLESS STEEL 27X24X12-INCH	EACH	-		-	-	-	-	2	-		4	2			-	8
SPV.0060.701	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH		3		20		20		12		16		20	3		94
SPV.0060.702	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH		3		20		20		12		16		20	3		94
SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	-	765	-		-		-						765	-	1,530
SPV.0090.350	CONDUIT RIGID METALLIC PVC COATED 4-INCH	LF	-		-		-		-			50				-	50
SPV.0090.702	DOWNSPOUT RTRP 6-INCH	LF	-	31		244		340		337		141		161	14	-	1,270
SPV.0105.351	ELECTRICAL SERVICE INSTALLATION B-5-678	LS										1					1
SPV.0105.701	ERECTING STRUCTURAL STEEL B-5-678	LS															1
SPV.0105.705	FIELD PAINTING STRUCTURAL STEEL B-5-678	LS															1
SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	-	194	-	1318	-	3,368	-	4,233		3,793		1,499	194	-	14,599
SPV.0165.701	STAINING CONCRETE	SF	221	722	9940	6201	9,948	9,268	11,094	7,892	12,548	7,731	15,576	7,470	831	222	99,665
SPV.0165.702	STAINING CONCRETE BRICK	SF		194	-	1318	-	3,368	-	4,233		3,793		1,499	194		14,599
SPV.0180.700	POLYMER OVERLAY	SY	102		3127		3,129		3,480		3,938		4,897			101	18,773

NOTE

** SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2" OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

QUANTITIES

SHEET 11 OF 143
694

DATE: 5/31/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\011 - B-5-678-QUANTITIES.dgn

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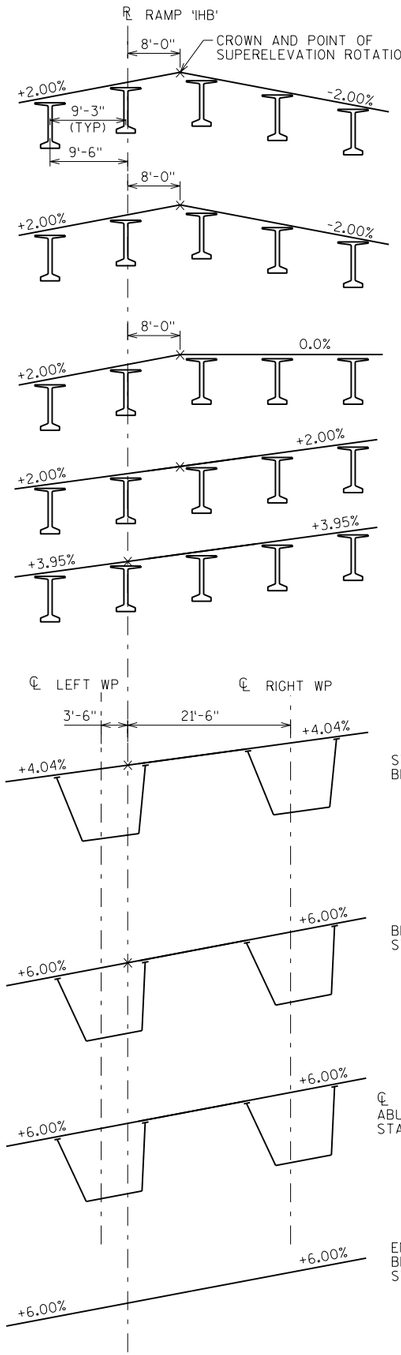
X INDICATES POINT OF SUPERELEVATION ROTATION



℄ BEARING S. ABUT. B-05-678
STA 1176+87.75

END ADVERSE CROWN/BEGIN TRANSITION
STA 1187+88.00

TRANSITION
STA. 1188+68.00

END CROWN POINT
STA. 1189+48.00

STA. 1190+25.92
END UNIT 2

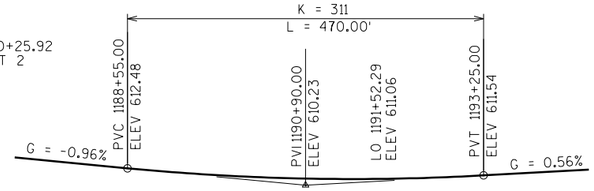
STA. 1190+29.58
BEGIN UNIT 3

BEGIN FULL SUPER
STA 1191+08.00

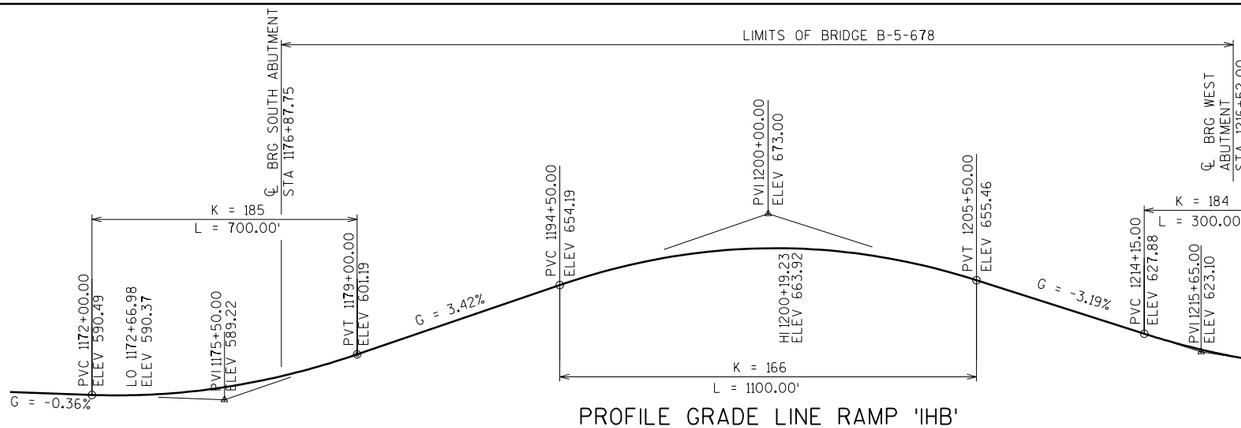
℄ BEARING W.
ABUT. B-05-678
STA 1216+52.00

END FULL SUPER
BEGIN TRANSITION
STA 1216+80.00

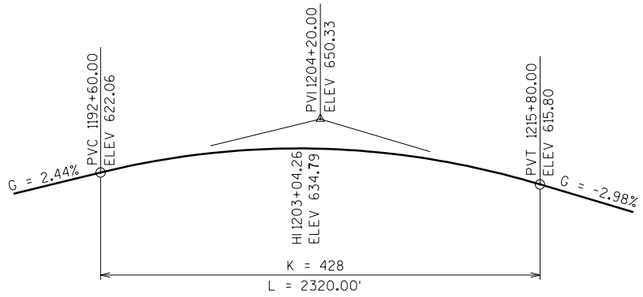
DECK SLOPE TRANSITION



PROFILE GRADE LINE 'SMC'



PROFILE GRADE LINE RAMP 'IHB'



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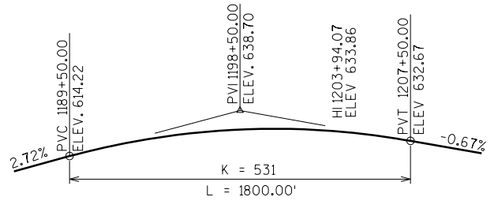
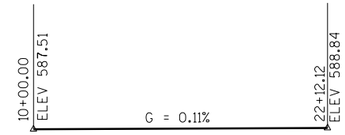
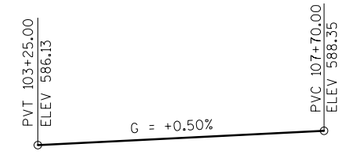


PROFILE GRADE LINE RAMP 'NIH'

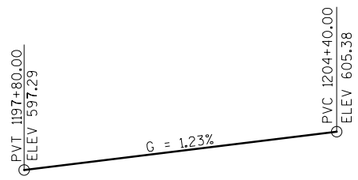


PROFILE GRADE LINE RR3

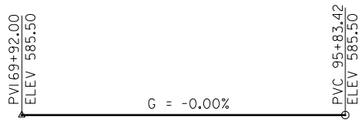
WISCONSIN CENTRAL LTD



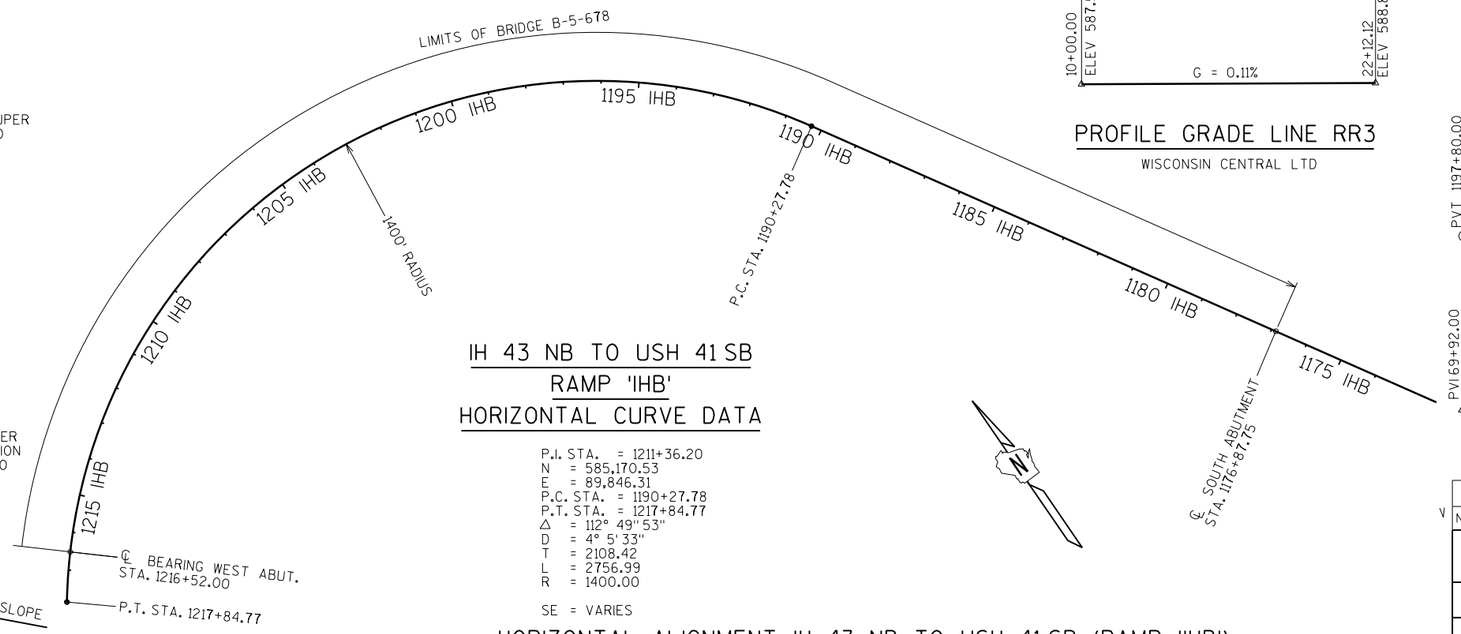
PROFILE GRADE LINE 'WT'



PROFILE GRADE LINE 'SIH'



PROFILE GRADE LINE 'MR1'



IH 43 NB TO USH 41 SB
RAMP 'IHB'
HORIZONTAL CURVE DATA

P.I. STA. = 1211+36.20
N = 585,170.53
E = 89,846.31
P.C. STA. = 1190+27.78
P.T. STA. = 1217+84.77
Δ = 112° 49' 53"
D = 4° 5' 33"
T = 2108.42
L = 2756.99
R = 1400.00

SE = VARIES

HORIZONTAL ALIGNMENT IH 43 NB TO USH 41 SB (RAMP 'IHB')

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER
1133-11-74

NO.	DATE	REVISION	BY
V			

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

ALIGNMENT AND SUPERELEVATION

SHEET 12 OF 143
695

DATE: 5/31/2013
I.D.

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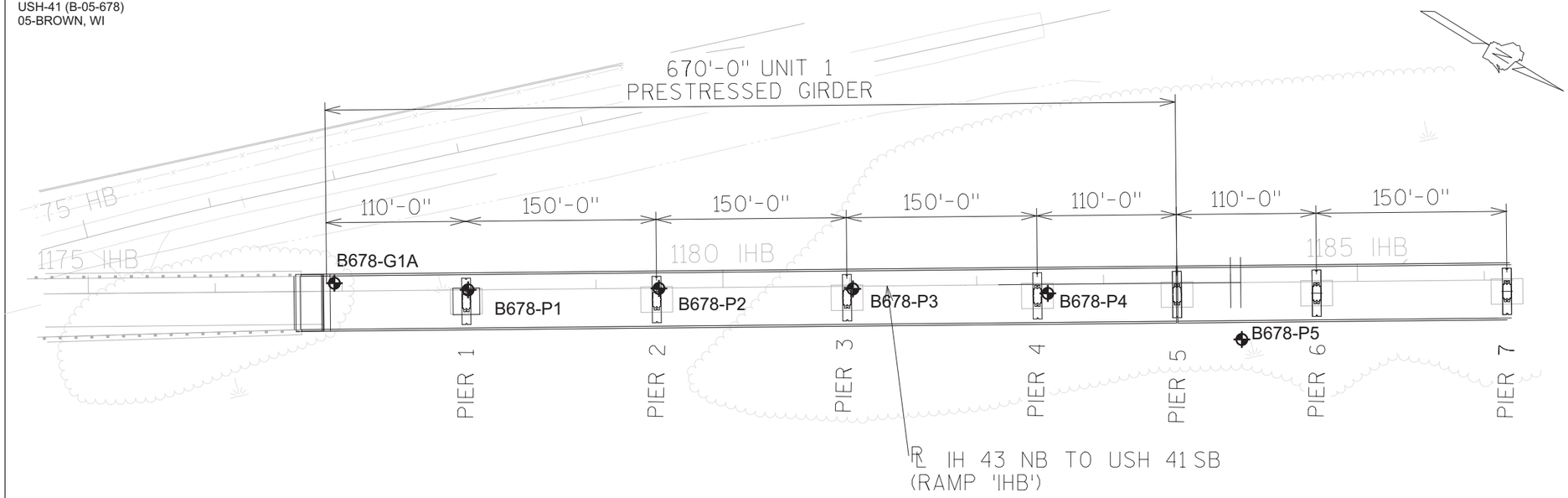
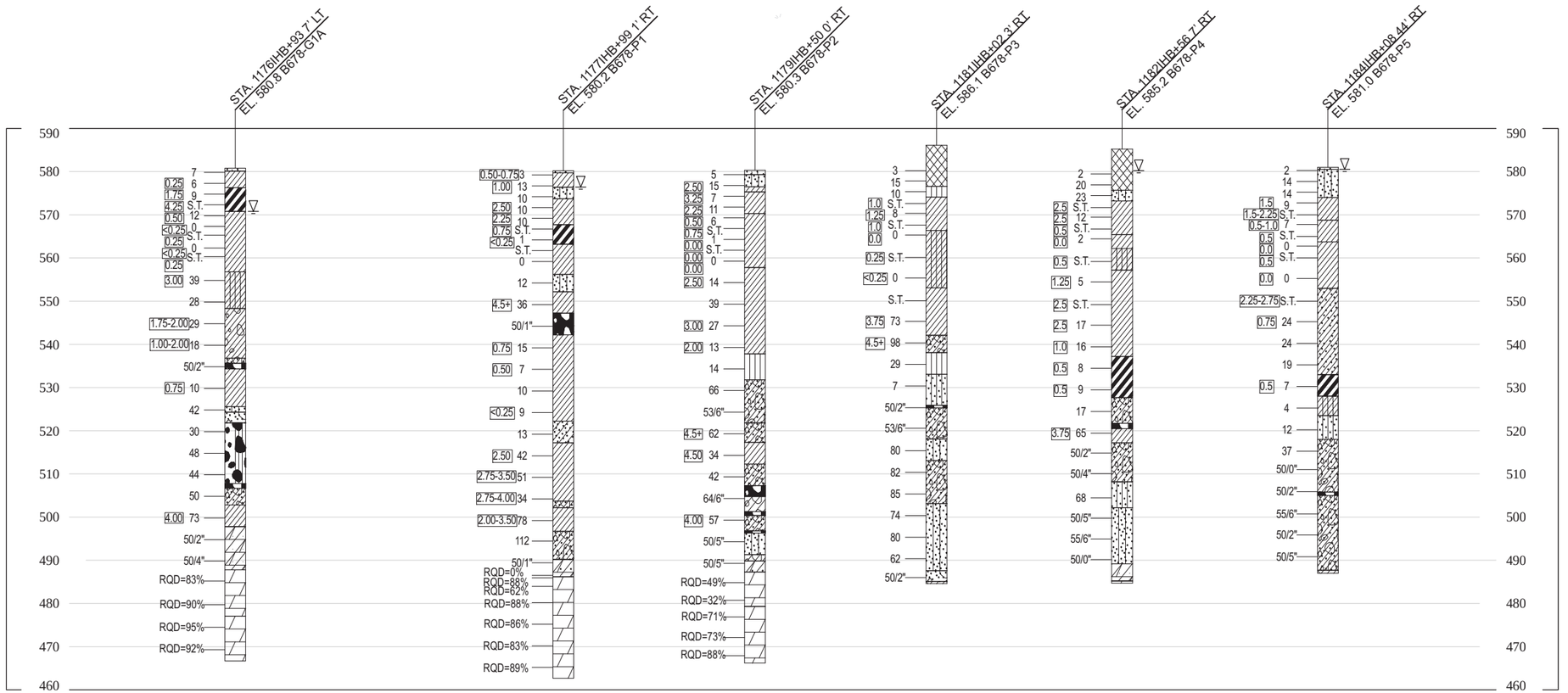
USH-41 (B-05-678)
05-BROWN, WI





NOTE: ▽ -WATER LEVEL DURING DRILLING ▽* -WATER LEVEL ASSUMED FROM SAMPLE

STATE PROJECT NUMBER

1133-11-74

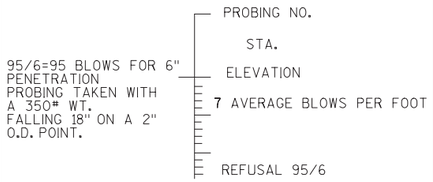
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

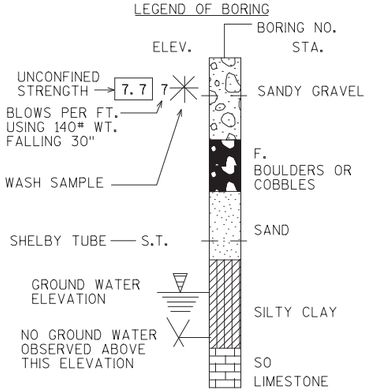
MATERIAL SYMBOLS

TOPSOIL, SILT, FAT CLAY, SAND, PEAT, DOLOMITE, GRAVEL, CLAY, FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY RE | PLANS CK'D. DB

SUBSURFACE EXPLORATION

SHEET 13 OF 143

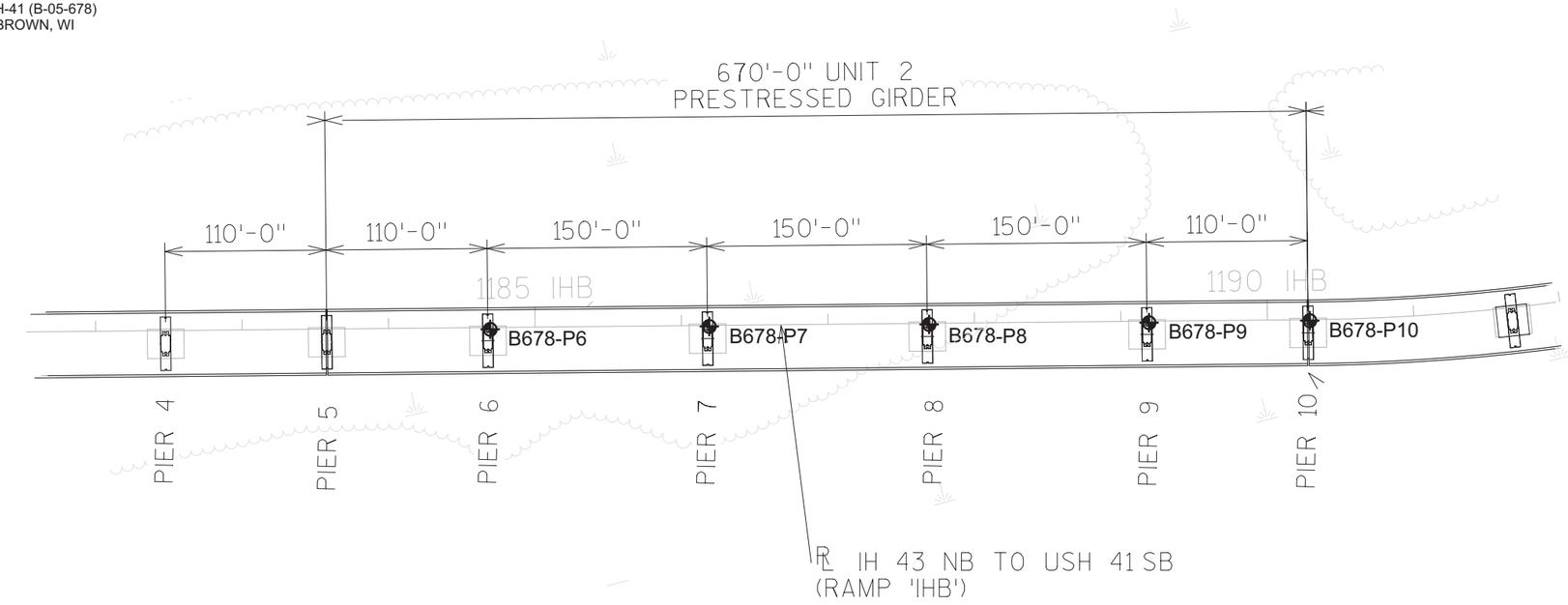
696

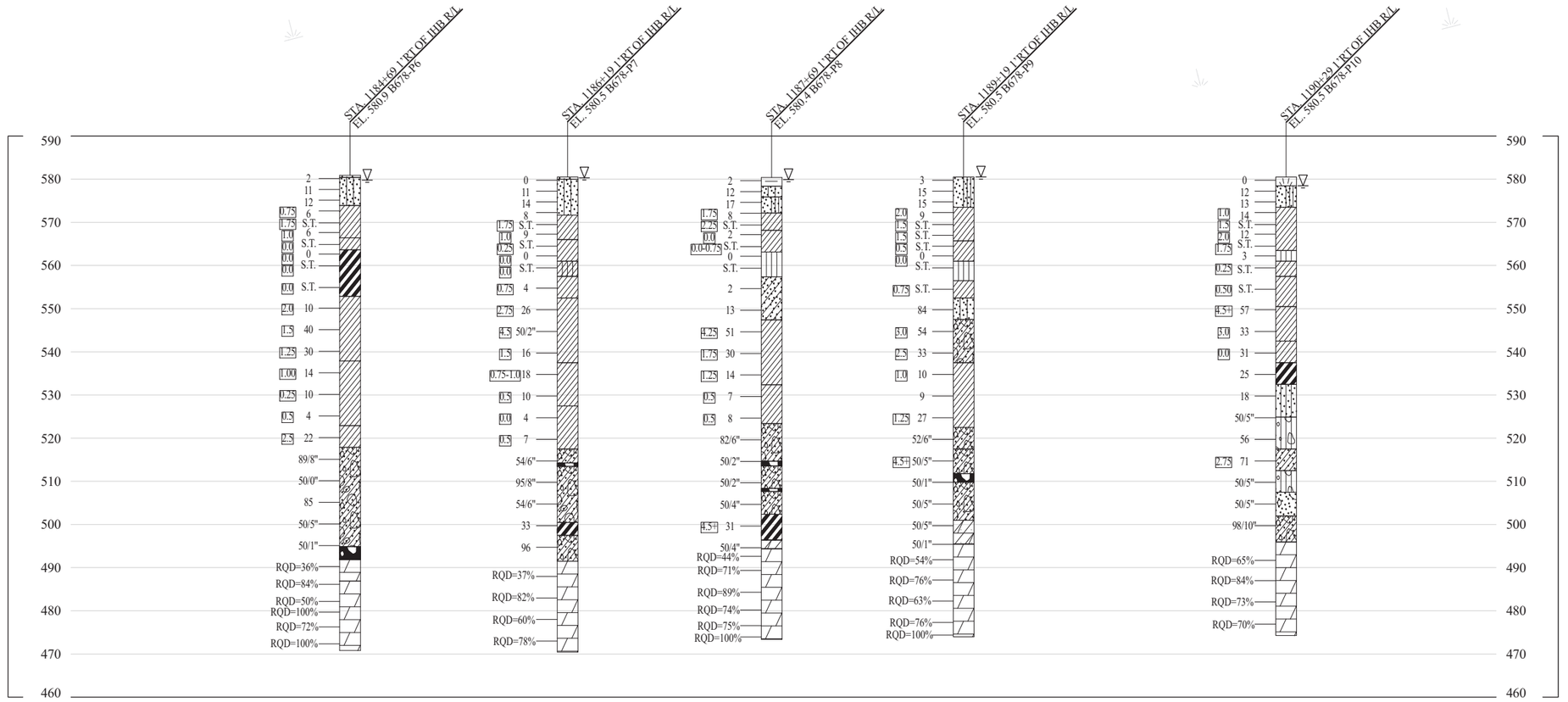
SCALE 1"=100'

8

8

USH-41 (B-05-678)
05-BROWN, WI





NOTE: ▽ -WATER LEVEL DURING DRILLING ▽* -WATER LEVEL ASSUMED FROM SAMPLE

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
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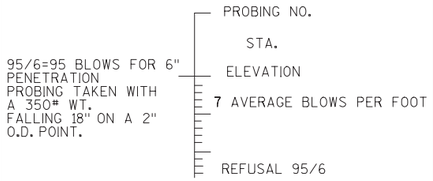
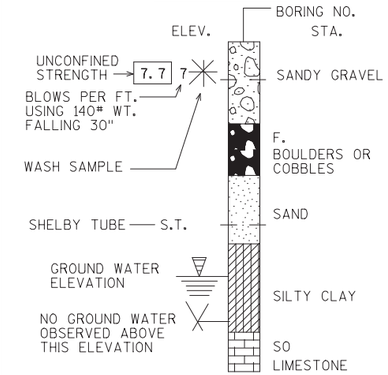
MATERIAL SYMBOLS

TOPSOIL SILT FAT CLAY
SAND PEAT DOLOMITE
GRAVEL CLAY FILL

LEGEND OF PROBING



LEGEND OF BORING



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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY RE | PLANS CK'D. DB

SUBSURFACE EXPLORATION

SHEET 14 OF 143

697

SCALE 1"=100'

8

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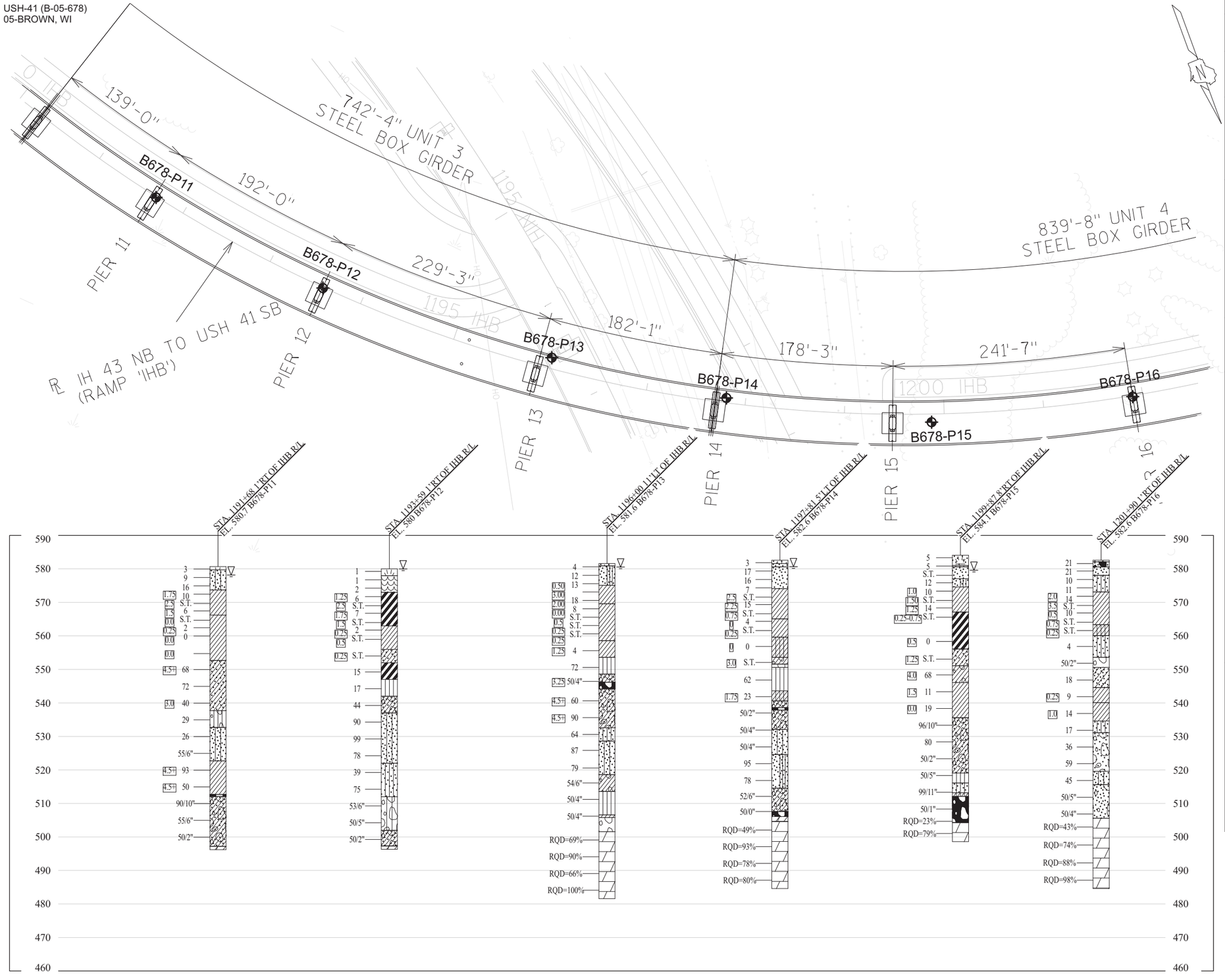
USH-41 (B-05-678)
05-BROWN, WI



NOTE: ▽ -WATER LEVEL DURING DRILLING ▽* -WATER LEVEL ASSUMED FROM SAMPLE

STATE PROJECT NUMBER

1133-11-74

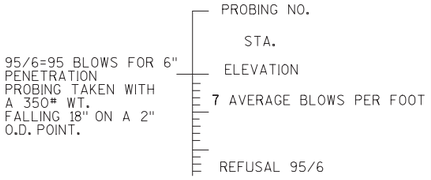
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

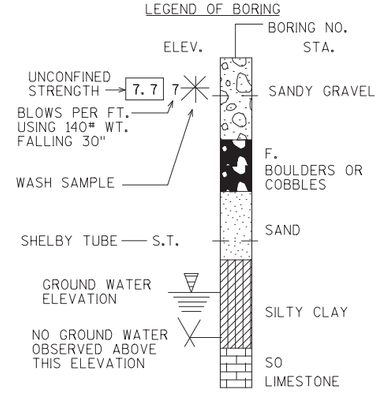
MATERIAL SYMBOLS

TOPSOIL SILT FAT CLAY
SAND PEAT DOLOMITE
GRAVEL CLAY FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY RE PLANS CK'D. DB

SUBSURFACE EXPLORATION

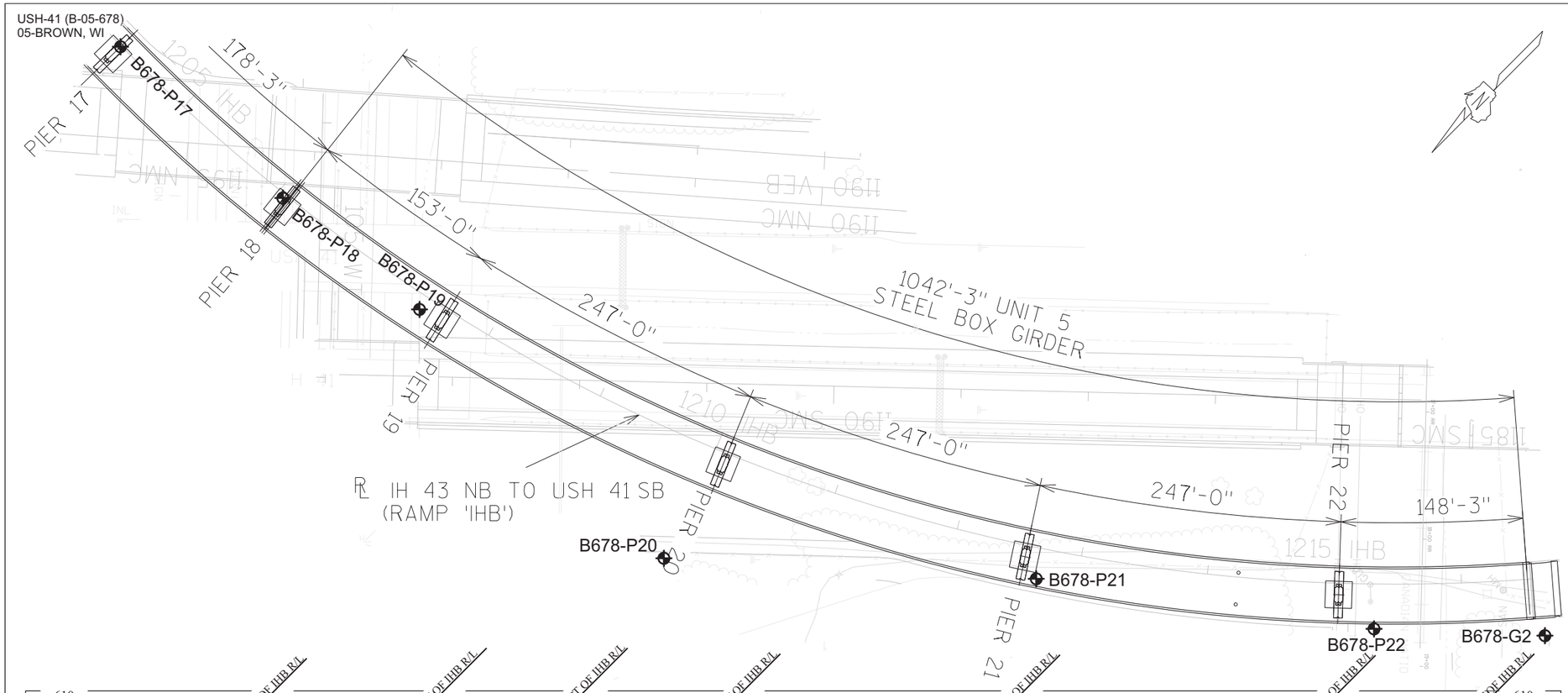
SHEET 15 OF 143

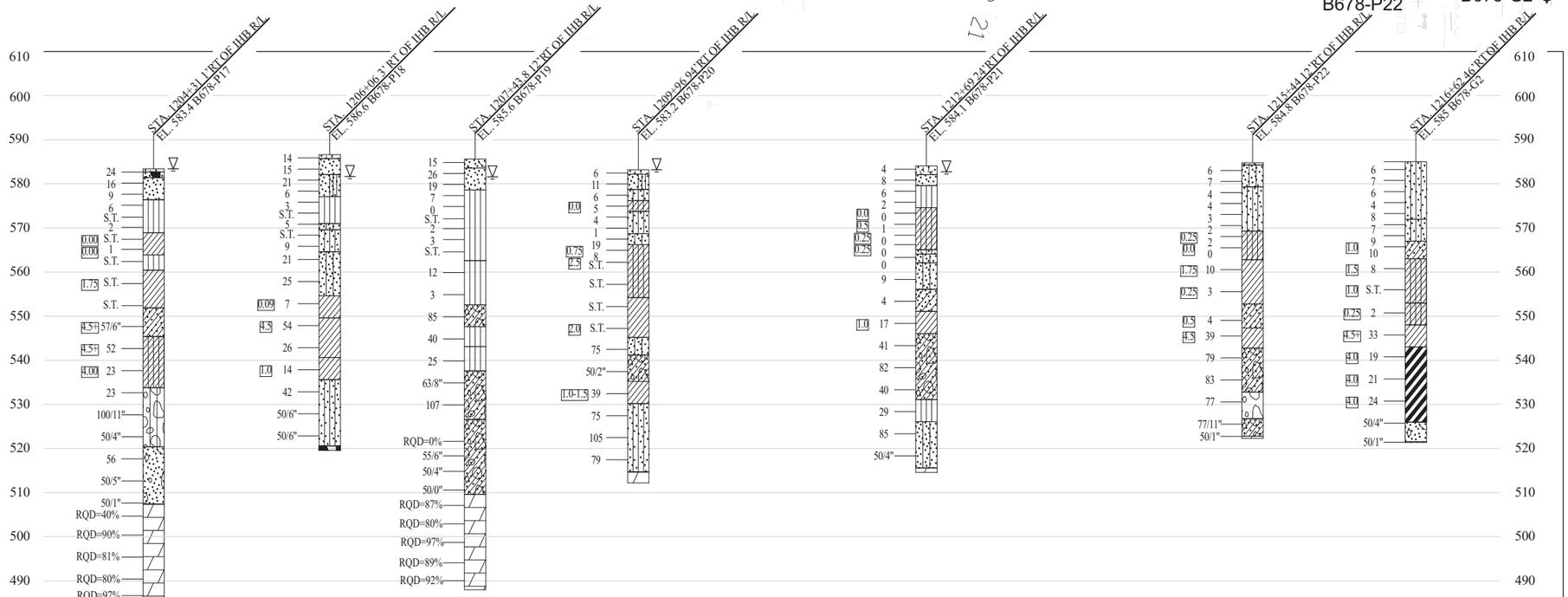
698

SCALE 1"=100'

8

8





NOTE: ▽ -WATER LEVEL DURING DRILLING ▽* -WATER LEVEL ASSUMED FROM SAMPLE

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
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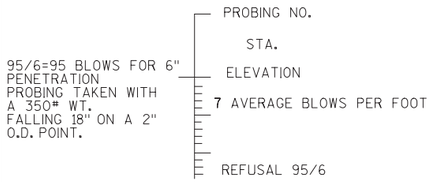
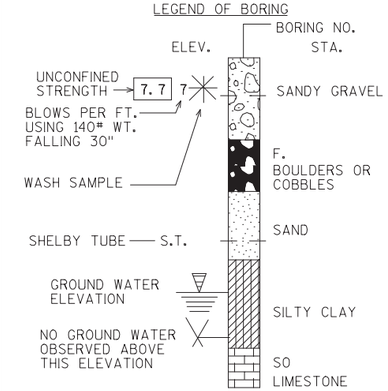
MATERIAL SYMBOLS

TOPSOIL, SILT, FAT CLAY, SAND, PEAT, DOLOMITE, GRAVEL, CLAY, FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SUBSURFACE EXPLORATION

SHEET 16 OF 143

699

SCALE 1"=100'

8

8

STATE PROJECT NUMBER

1133-11-74

POTENTIAL GIRDER ERECTION SEQUENCE

UNIT 3 (SPANS 11-14)

(2 CRANES LOCATED AT L-1 AND L-2)
1. OFFLOAD AND GROUND SPLICE FS1-R AND FS2-R.
2. LIFT GIRDER SECTIONS INTO PLACE AND STABILIZE.
3. OFFLOAD AND GROUND SPLICE FS1-L AND FS2-L.
4. LIFT GIRDER SECTIONS INTO PLACE.
5. INSTALL INTERMEDIATE DIAPHRAGMS AND ONES AT PIERS.

(2 CRANES LOCATED AT L-2 AND L-3)
1. OFFLOAD AND GROUND SPLICE FS3-R AND FS4-R.
2. LIFT GIRDER SECTIONS INTO PLACE, AIR SPLICE TO FS2-R AND STABILIZE.
3. OFFLOAD AND GROUND SPLICE FS3-L AND FS4-L.
4. LIFT GIRDER SECTIONS INTO PLACE AND AIR SPLICE TO FS2-L.
5. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.

(2 CRANES LOCATED AT L-3 AND L-4)
1. CONSTRUCT TEMPORARY SHORING TOWERS.
2. OFFLOAD FS5-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS4-R AND STABILIZE.
3. OFFLOAD FS5-L AND LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS4-L.
4. INSTALL INTERMEDIATE DIAPHRAGMS

(2 CRANES LOCATED AT L-4 AND L-5A)
1. OFFLOAD FS6-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS5-R AND STABILIZE.
2. OFFLOAD FS6-L, LIFT SECTION INTO PLACE, AIR SPLICE TO FS5-L
3. INSTALL INTERMEDIATE DIAPHRAGMS AND PIER DIAPHRAGM.
4. REMOVE TEMPORARY SHORING TOWERS.

(2 CRANES LOCATED AT L-5B AND L-6)
1. BEGIN SHORT DURATION CLOSURE OF IH 43 NB TO USH 41 NB RAMP FOR FS7-R.
2. OFFLOAD FS7-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS6-R AND STABILIZE.
3. END SHORT DURATION CLOSURE OF IH 43 NB TO USH 41 NB FOR FS7-R.
4. BEGIN SHORT DURATION CLOSURE OF IH 43 NB TO USH 41 NB RAMP FOR FS7-L.
5. OFFLOAD FS7-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS6-L.
6. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
7. END SHORT DURATION CLOSURE OF IH 43 NB TO USH 41 NB FOR FS7-L.

UNIT 4 (SPANS 15-18)

(2 CRANES LOCATED AT L-6 AND L-7)
1. CONSTRUCT TEMPORARY SHORING TOWERS
2. OFFLOAD FS8-R AND LIFT SECTION INTO PLACE AND STABILIZE.
3. OFFLOAD FS8-L AND LIFT SECTION INTO PLACE.
4. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.

(2 CRANES LOCATED AT L-7 AND L-8)
1. BEGIN SHORT DURATION CLOSURE OF EXISTING RAMP USH 41 NB TO IH 43 SB FOR FS9-R.
2. OFFLOAD FS9-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS8-R AND STABILIZE.
3. END SHORT DURATION CLOSURE OF EXISTING RAMP USH 41 NB TO IH 43 SB FOR FS9-R.
4. BEGIN SHORT DURATION CLOSURE OF EXISTING RAMP USH 41 NB TO IH 43 SB FOR FS9-L.
5. OFFLOAD FS9-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS8-L.
6. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
7. END SHORT DURATION OUTAGE FOR FS9-L
8. REMOVE TEMPORARY SHORING TOWERS.

(2 CRANES LOCATED AT L-8 AND L-9)
1. CONSTRUCT TEMPORARY SHORING TOWERS.
2. OFFLOAD FS10-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS9-R AND STABILIZE.
3. OFFLOAD FS10-L AND LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS9-L.
4. INSTALL INTERMEDIATE DIAPHRAGMS

(2 CRANES LOCATED AT L-9 AND L-10)
1. OFFLOAD FS11-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS10-R AND STABILIZE.
2. OFFLOAD FS11-L AND LIFT SECTION INTO PLACE AND AIR SPLICE TO FS10-L.
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS.

(2 CRANES LOCATED AT L-10 AND L-11)
1. CONSTRUCT SHORING TOWERS.
2. OFFLOAD FS12-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS11-R AND STABILIZE.
3. OFFLOAD FS12-L AND LIFT SECTION INTO PLACE, AND AIR SPLICE TO FS11-L.
4. INSTALL INTERMEDIATE DIAPHRAGMS

(2 CRANES LOCATED AT L-11 AND L-12)
1. OFFLOAD FS13-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS12-R AND STABILIZE.
2. OFFLOAD FS13-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS12-L.
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE SHORING TOWERS.

(2 CRANES LOCATED AT L-12 AND L-24)
1. BEGIN SHORT DURATION CLOSURE OF IH 43 NB FOR FS14-R.
2. OFFLOAD FS14-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS13-R AND STABILIZE.
3. END SHORT DURATION CLOSURE OF IH 43 NB FOR FS14-R.
4. BEGIN SHORT DURATION CLOSURE OF IH 43 NB AND SB FOR FS14-L.
5. OFFLOAD FS14-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS13-L.
6. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
7. END SHORT DURATION CLOSURE OF IH 43 NB AND SB FOR FS14-L.

UNIT 5 (SPANS 19-23)

(2 CRANES LOCATED AT L-14 AND L-15)
(RAILROAD COORDINATION REQUIRED.)
1. CONSTRUCT TEMPORARY RAILROAD CROSSING.
2. MOVE CRANE ACROSS TRACKS TO L-15.
3. CONSTRUCT TEMPORARY SHORING TOWERS.
4. BEGIN RAILROAD OUTAGE FOR FS23-L.
5. TRANSPORT FS23-L ACROSS TEMPORARY CROSSING, OFFLOAD, LIFT SECTION INTO PLACE, AND STABILIZE.
6. END RAILROAD OUTAGE.
7. BEGIN RAILROAD OUTAGE FOR FS23-R.
8. TRANSPORT FS23-R ACROSS TEMPORARY RAILROAD CROSSING, OFFLOAD, LIFT SECTION INTO PLACE.
9. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT ABUTMENT.
10. END RAILROAD OUTAGE.

(2 CRANES LOCATED AT L-13 AND L-14)
1. OFFLOAD FS22-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS23-L AND STABILIZE.
2. OFFLOAD FS22-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS23-R.
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS.

(2 CRANES LOCATED AT L-13 AND L-16)
1. CONSTRUCT TEMPORARY SHORING TOWERS.
2. OFFLOAD FS21-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS22-L AND STABILIZE.
3. OFFLOAD FS21-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS22-R.
4. INSTALL INTERMEDIATE DIAPHRAGMS.

(2 CRANES LOCATED AT L-16 AND L-17)
(DELIVER GIRDERS FROM HAUL ROAD)
1. OFFLOAD FS20-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS21-L AND STABILIZE.
2. OFFLOAD FS20-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS21-R.
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. REMOVE TEMPORARY SHORING TOWERS FOR FS21-L & FS21-R.

(2 CRANES LOCATED AT L-17 AND L-18)
(DELIVER GIRDERS FROM HAUL ROAD)
1. CONSTRUCT TEMPORARY SHORING TOWERS.
2. OFFLOAD FS19-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS20-L AND STABILIZE.
3. OFFLOAD FS19-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS20-R.
4. INSTALL INTERMEDIATE DIAPHRAGMS.

(2 CRANES LOCATED AT L-18 AND L-19)
(DELIVER GIRDER FROM HAUL ROAD)
1. CONSTRUCT EMBANKMENT PLATFORM FOR CRANES AT L-18 AND L-19.
2. OFFLOAD FS18-R AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS19-R AND STABILIZE.
3. INSTALL TEMPORARY BRACE AT PIER.

(2 CRANES LOCATED AT L-25 AND L-26)
(DELIVER GIRDER FROM USH 41 SB)
1. CONSTRUCT EMBANKMENT PLATFORM FOR CRANE AT L-25.
2. SHIFT USH 41 SB TO PORTION OF USH 41 NB.
3. OFFLOAD FS18-L AND LIFT SECTION INTO PLACE AND AIR SPLICE TO FS19-L.
4. INSTALL INTERMEDIATE DIAPHRAGMS AND DIAPHRAGM AT PIER.
5. REMOVE TEMPORARY SHORING TOWERS FOR FS19-L & FS19-R

(2 CRANES LOCATED AT L-21 AND L-26)
(DELIVER GIRDERS FROM USH 41 SB)
1. CONSTRUCT TEMPORARY SHORING TOWERS.
2. OFFLOAD FS17-R, LIFT SECTION INTO PLACE, AIR SPLICE TO FS18-R AND STABILIZE.
3. OFFLOAD FS17-L, LIFT SECTION INTO PLACE AND AIR SPLICE TO FS18-L.
4. INSTALL INTERMEDIATE DIAPHRAGMS.

(2 CRANES LOCATED AT L-20 AND L-22)
(DELIVER GIRDER FROM USH 41 SB)
1. OFFLOAD FS16-R AND LIFT GIRDER SECTION INTO PLACE, AIR SPLICE TO FS17-R AND STABILIZE.
2. REMOVE TEMPORARY SHORING TOWER FOR FS17-R
3. END TEMPORARY SHIFT OF USH 41 SB TO PORTION OF USH 41 NB.

(2 CRANES LOCATED AT L-22 AND L-27)
(DELIVER GIRDER FROM USH 41 NB)
1. SHORE EXISTING USH NB 41 BRIDGE OVER IH 43 RAMPS AS NEEDED TO SUPPORT CRANE AT L27
2. BEGIN SHORT DURATION CLOSURE OF USH 41 NB AND WEITOR DRIVE.
3. OFFLOAD FS15-R AND LIFT GIRDER SECTION INTO PLACE, AIR SPLICE TO FS16-R AND STABILIZE.
4. END SHORT DURATION CLOSURE OF USH 41 NB AND WEITOR DRIVE.

(2 CRANES LOCATED AT L-21 AND L-28)
(DELIVER GIRDER FROM USH 41 NB)
1. SHORE EXISTING USH NB 41 BRIDGE OVER WEITOR DRIVE AS NEEDED TO SUPPORT CRANE AT L28
2. BEGIN SHORT DURATION CLOSURE OF USH 41 NB.
3. OFFLOAD FS16-L AND LIFT SECTION INTO PLACE, AIR SPLICE TO FS17-L.
4. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER
5. END SHORT DURATION CLOSURE OF USH 41 NB
6. REMOVE TEMPORARY SHORING TOWER FOR FS17-L

2 CRANES LOCATED AT L-23 AND L-24)
(DELIVER GIRDER FROM USH 41 NB)
1. BEGIN SHORT DURATION CLOSURE OF USH 41 NB AND WEITOR DRIVE.
2. OFFLOAD FS15-L AND LIFT GIRDER SECTION INTO PLACE, AIR SPLICE TO FS16-L.
3. INSTALL INTERMEDIATE DIAPHRAGMS AND ONE AT PIER.
4. END SHORT DURATION CLOSURE OF USH 41 NB AND WEITOR DRIVE.

NOTES

1. SEE SHEET 18 FOR SPANS 11-14 STAGING PLANS & INFORMATION.
2. SEE SHEET 19 FOR SPANS 15-18 STAGING PLANS & INFORMATION.
3. SEE SHEET 20 FOR SPANS 19-21 STAGING PLANS & INFORMATION.
4. SEE SHEET 21 FOR SPANS 22-23 STAGING PLANS & INFORMATION.
5. THE POTENTIAL CONSTRUCTION SEQUENCE PLAN GIVEN IS PRESENTED FOR CONSIDERATION ONLY.
6. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE CONSTRUCTION SEQUENCES CHOSEN.
7. PREPARE A CONSTRUCTION SEQUENCE SCHEDULE AND SUBMIT IT TO THE ENGINEER FOR THE REVIEW NO LATER THEN 30 DAYS PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY UTILITY LOCATIONS AND TO PROVIDE ANY NECESSARY PROTECTION MEASURES TO AVOID UTILITY DAMAGE.
9. THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS TO AVOID DAMAGE.
10. THE CONTRACTOR IS REQUIRED TO PROVIDE NECESSARY PRECAUTIONS FOR STABILITY DURING ERECTION.
11. THE COST OF ANY TEMPORARY SHORING OF THE EXISTING BRIDGES IS INCLUDED WITH THE BID PRICE OF BID ITEM "ERECTING STRUCTURAL STEEL". DETERMINE THE NEED FOR SUCH TEMPORARY SHORING BASED ON THE CHOSEN ERECTION METHODS.
12. PRIOR TO REMOVING ANY TEMPORARY SHORING OF EXISTING BRIDGES REQUIRED FOR ERECTING STRUCTURAL STEEL, PERFORM A STRUCTURAL INSPECTION OF THE EXISTING BRIDGES IN THE PRESENCE OF THE RESIDENT ENGINEER.
13. THE ALLOWABLE ROAD CLOSURE DURATIONS OF WEITOR DRIVE, USH 41, IH 43, CONNECTING RAMPS AND OTHER PROJECT-WIDE ROAD CLOSURES ARE SPECIFIED IN THE ROADWAY SPECIAL PROVISIONS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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CONSTRUCTION STAGING NOTES

SHEET 17 OF 143
700

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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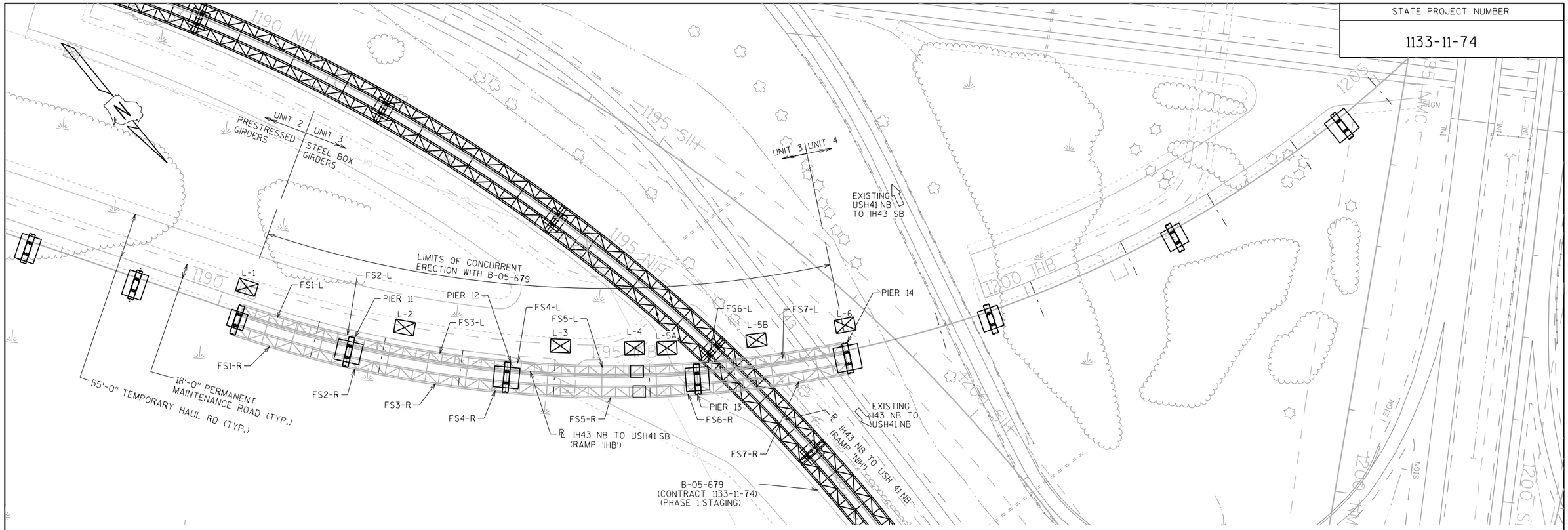
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



PLAN

LEGEND

L-X

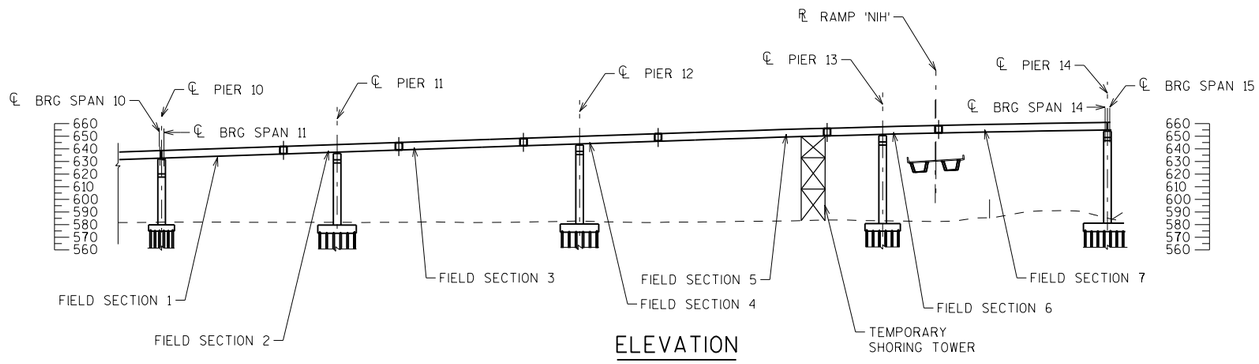
☒ POTENTIAL CRANE LOCATION L-X

FSX-L - FIELD SECTION X-LEFT

☐ POTENTIAL TEMPORARY SHORING TOWER LOCATION

NOTES

1. SEE SHEET 3 FOR GENERAL NOTES.
2. SEE SHEET 17 FOR CONSTRUCTION STAGING NOTES.



ELEVATION

	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 1	107,800	109,400
FIELD SECTION 2	109,500	111,700
FIELD SECTION 3	101,600	103,200
FIELD SECTION 4	161,100	162,800
FIELD SECTION 5	116,500	118,400
FIELD SECTION 6	151,700	153,900
FIELD SECTION 7	148,700	151,000

*FIELD SECTION WEIGHTS ARE APPROXIMATE AND INTENDED TO GIVE CONTRACTOR INFORMATION FOR LIFTING PIECES. CONTRACTOR IS RESPONSIBLE FOR MAKING A DETERMINATION OF ACTUAL PIECE WEIGHT PRIOR TO LIFTING.

FIELD SECTION WEIGHTS DO NOT INCLUDE SPLICE PLATES, BOLTS, BEARING ASSEMBLIES OR PORTIONS OF EXTERNAL DIAPHRAGMS NOT SHOP-CONNECTED TO THE BOX GIRDER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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STAGE CONSTRUCTION SPANS 11-14

SHEET 18 OF 143
701

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013

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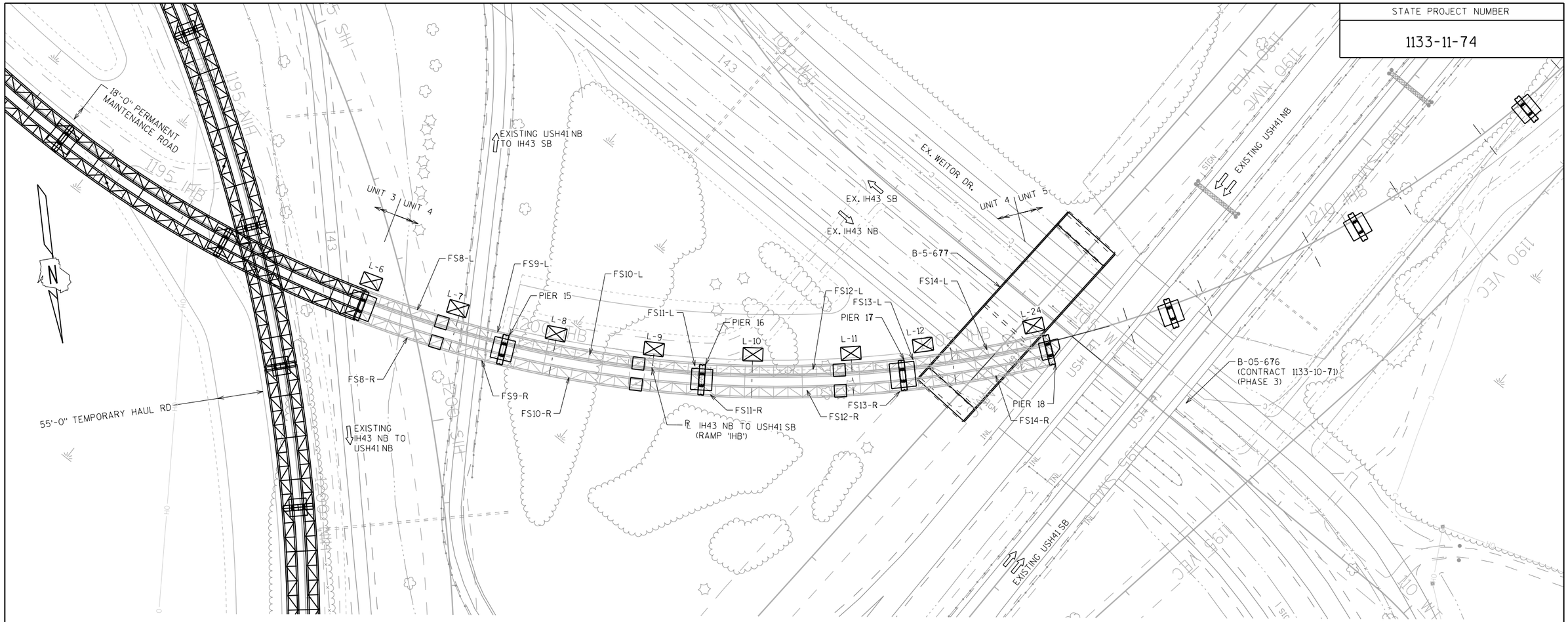
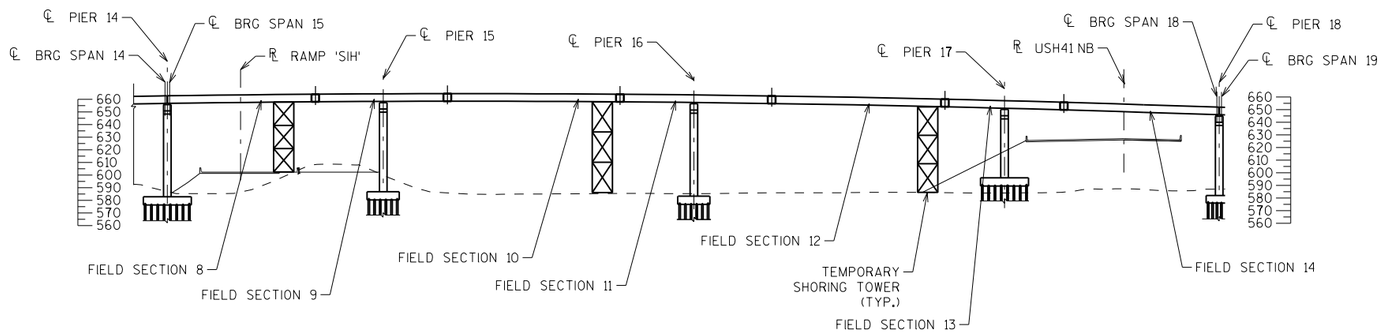


PLAN



ELEVATION

LEGEND

L-X ⊠ - POTENTIAL CRANE LOCATION L-X

FSX-L - FIELD SECTION X-LEFT

NOTES

1. SEE SHEET 3 FOR GENERAL NOTES.
2. SEE SHEET 17 FOR CONSTRUCTION STAGING NOTES.

	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 8	128,400	130,300
FIELD SECTION 9	186,800	183,100
FIELD SECTION 10	123,800	125,900
FIELD SECTION 11	193,200	196,200
FIELD SECTION 12	123,700	125,700
FIELD SECTION 13	183,300	186,100
FIELD SECTION 14	128,400	130,300

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-5-678

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STAGE CONSTRUCTION SPANS 15-18

SHEET 19 OF 143
702

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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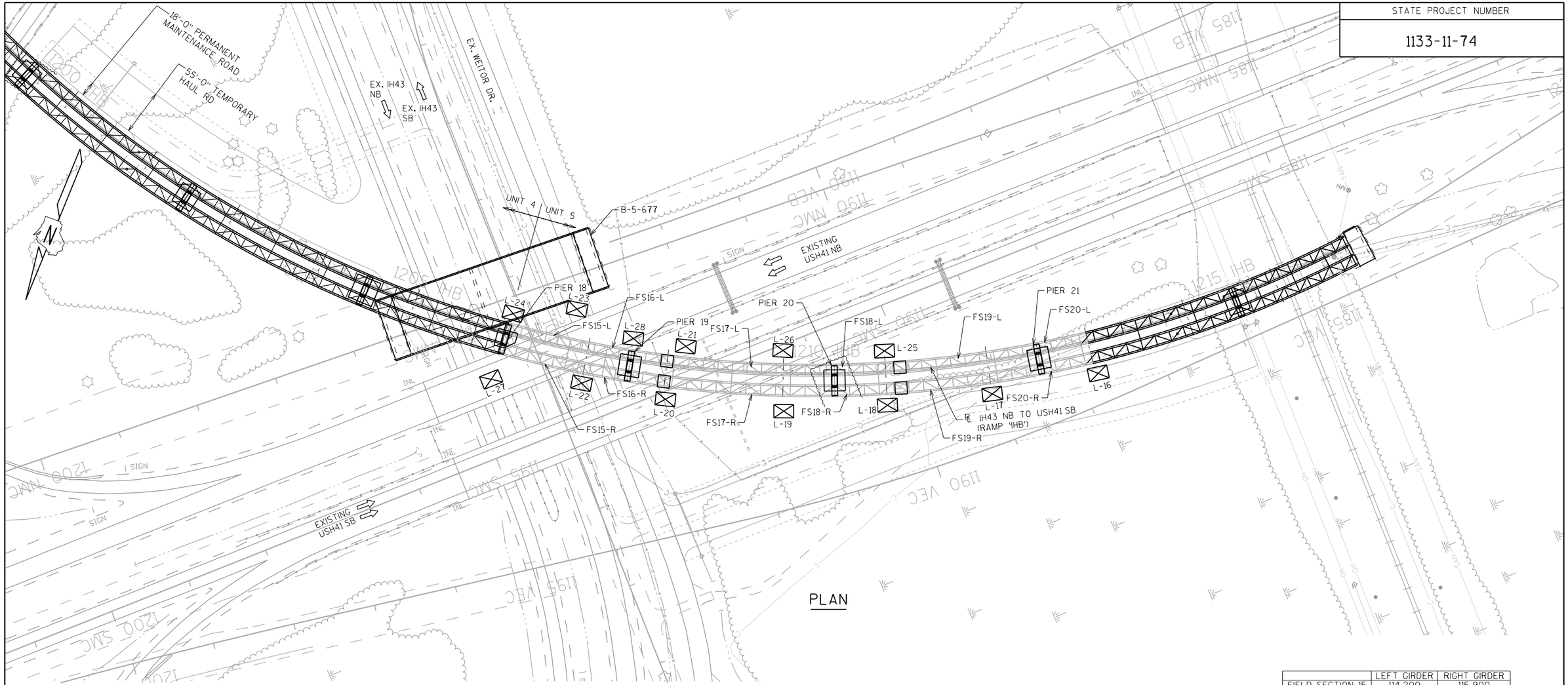
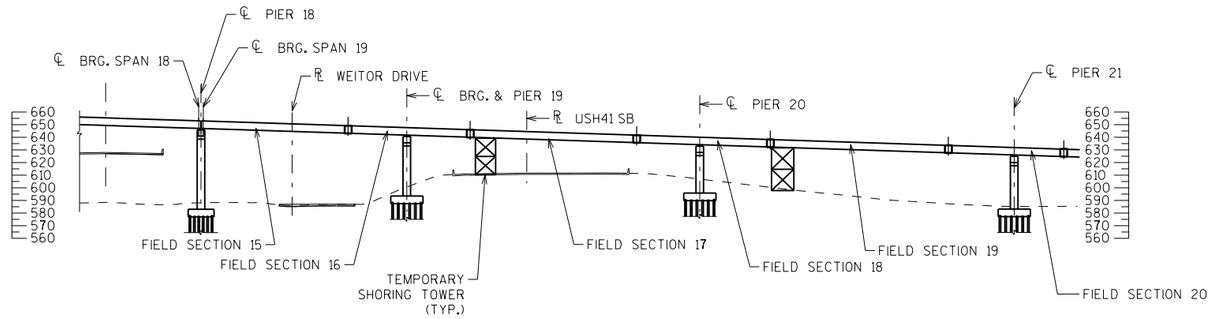
STATE PROJECT NUMBER

1133-11-74



PLAN



ELEVATION

	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 15	114,200	115,900
FIELD SECTION 16	148,000	150,300
FIELD SECTION 17	152,100	154,500
FIELD SECTION 18	196,200	199,300
FIELD SECTION 19	129,600	134,400
FIELD SECTION 20	196,400	199,500
FIELD SECTION 21	131,200	133,300
FIELD SECTION 22	175,200	178,800
FIELD SECTION 23	111,500	113,100

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LEGEND

L-X ☒ - POTENTIAL CRANE LOCATION L-X

FSX-L - FIELD SECTION X-LEFT

☒ - POTENTIAL TEMPORARY SHORING TOWER LOCATION

NOTES

1. SEE SHEET 3 FOR GENERAL NOTES.
2. SEE SHEET 17 FOR CONSTRUCTION STAGING NOTES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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STAGE CONSTRUCTION SPANS 19-21

SHEET 20 OF 143
703

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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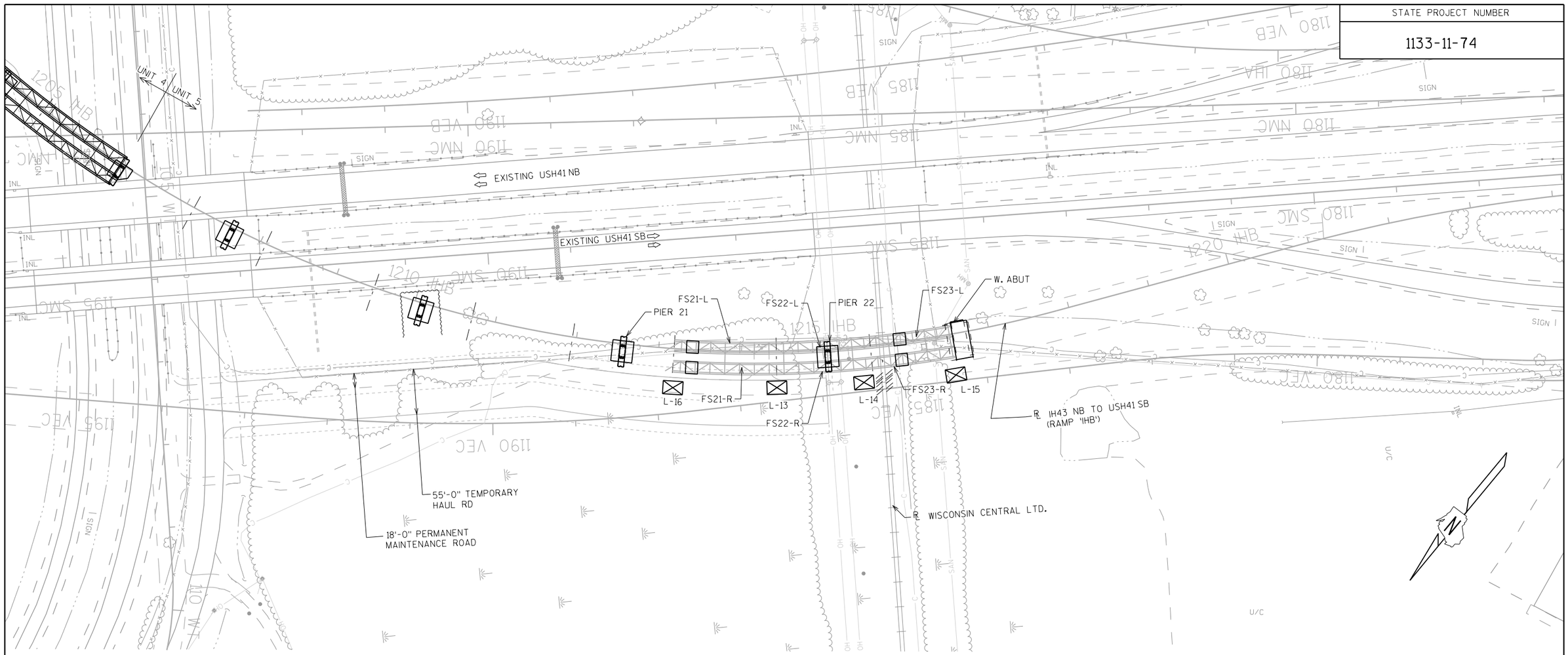
STATE PROJECT NUMBER

1133-11-74



PLAN

LEGEND

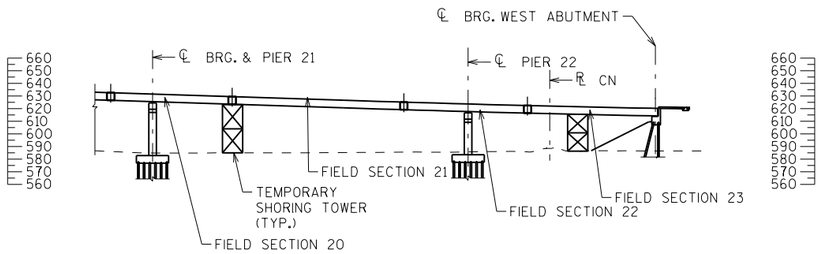
L-X
⊠ - CRANE LOCATION L-X

FSX-L - FIELD SECTION X-LEFT

⊠ -TEMPORARY SHORING TOWER

NOTES

1. SEE SHEET 3 FOR GENERAL NOTES.
2. SEE SHEET 17 FOR CONSTRUCTION STAGING NOTES.



ELEVATION

	LEFT GIRDER	RIGHT GIRDER
FIELD SECTION 15	114,200	115,900
FIELD SECTION 16	148,000	150,300
FIELD SECTION 17	152,100	154,500
FIELD SECTION 18	196,200	199,300
FIELD SECTION 19	129,600	134,400
FIELD SECTION 20	196,400	199,500
FIELD SECTION 21	131,200	133,300
FIELD SECTION 22	175,200	178,800
FIELD SECTION 23	111,500	113,100

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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STAGE CONSTRUCTION SPANS 22 & 23

SHEET 21 OF 143
704

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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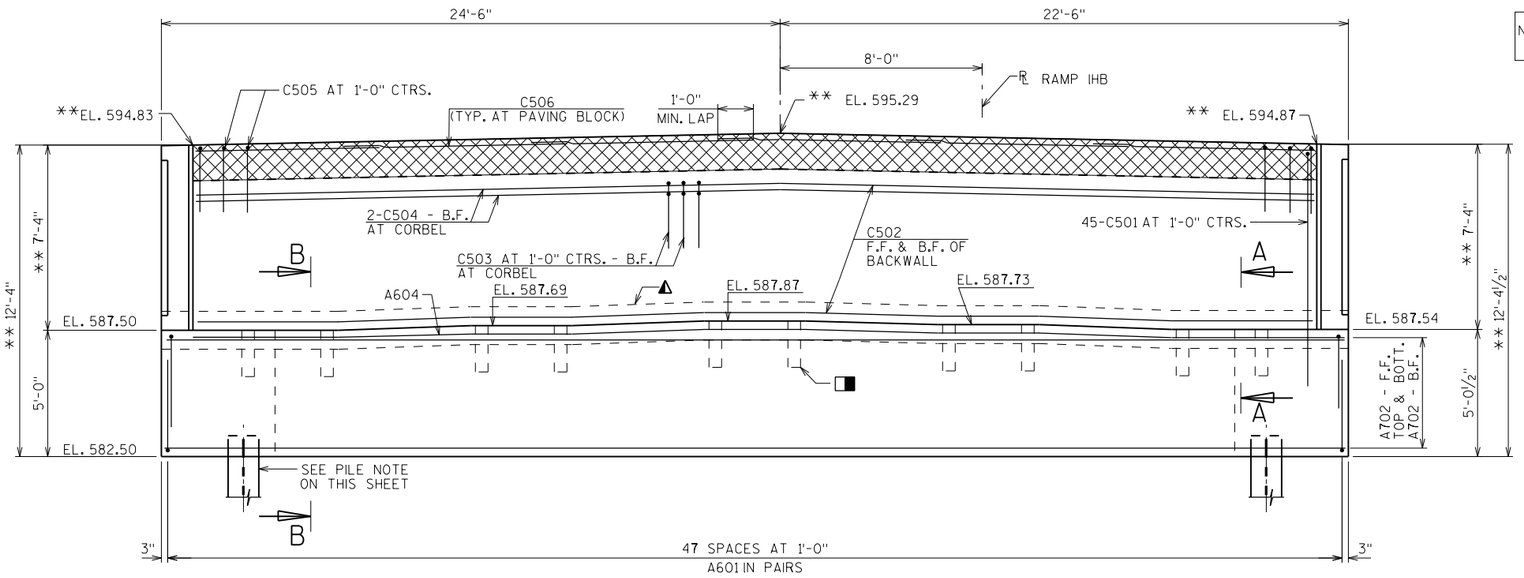
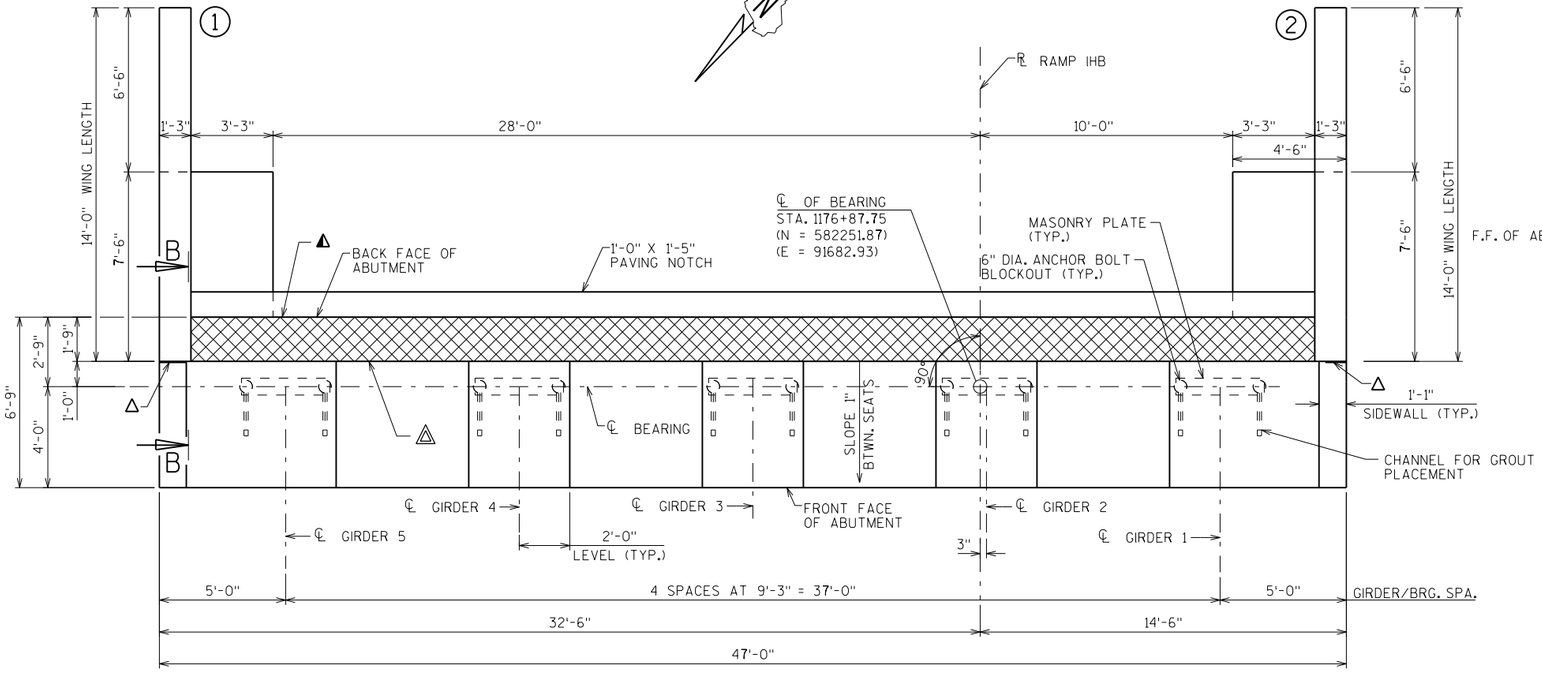


ELEVATION



PLAN

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.3.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS)

LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL AT TOP OF CONCRETE.

18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

KEYED CONST. JOINT FORMED BY BEVELED 2" X 6".

INDICATES PAVING BLOCK CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

(X) INDICATES WING NUMBER

6" DIA. ANCHOR BOLT BLOCKOUT. BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN ABUTMENT BODY AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT)

PILE NOTES

SOUTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 14 X 73 WITH A REQUIRED DRIVING RESISTANCE OF * 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 69' LONG.

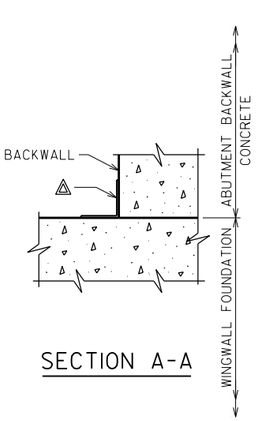
* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A FACTOR OF 0.8 (AND FURTHER REDUCED BY DOWN DRAG FORCES EQUAL TO 23 TONS) USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

FOR PILE LAYOUT DETAILS, SEE "SOUTH ABUTMENT LAYOUT" SHEET.

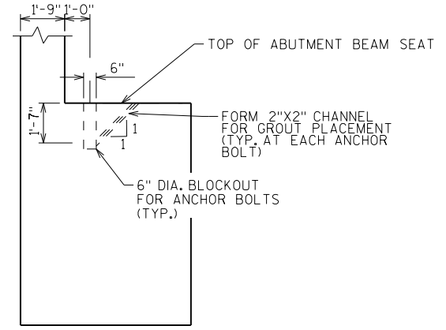
FOR PILE SPLICE DETAILS, SEE "SOUTH ABUTMENT CROSS SECTION" SHEET.

NOTES

1. FOR "TYPICAL SECTION THRU BODY", SEE "SOUTH ABUTMENT CROSS SECTION" SHEET
2. SPACE A601 & A702 BARS TO MISS PILES.



SECTION A-A



SECTION B-B

STATE PROJECT NUMBER

1133-11-74

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

SOUTH ABUTMENT PLAN AND ELEVATION

SHEET 22 OF 143
705

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

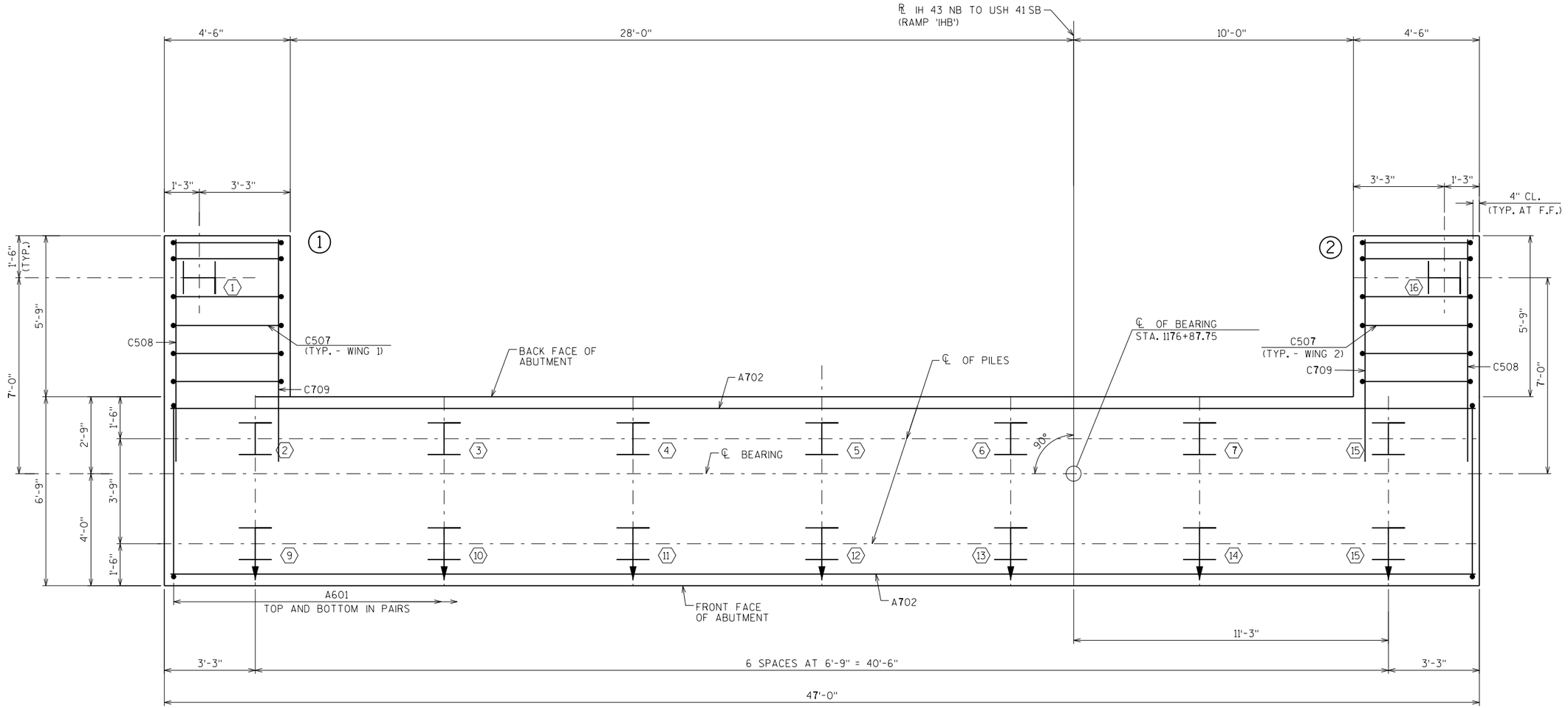
8

FILE= 0:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\022 B-05-678 - South Abutment Plan and Elevation.dgn

DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



PILE PLAN

LEGEND

- (X) INDICATES WING NUMBER
- ⟨1⟩ INDICATES PILES NUMBER
- INDICATES PILES BATTERED 3" PER FOOT

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

SOUTH ABUTMENT LAYOUT

SHEET 230F 143
706

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\023 B-05-678 - South Abutment Layout.dgn

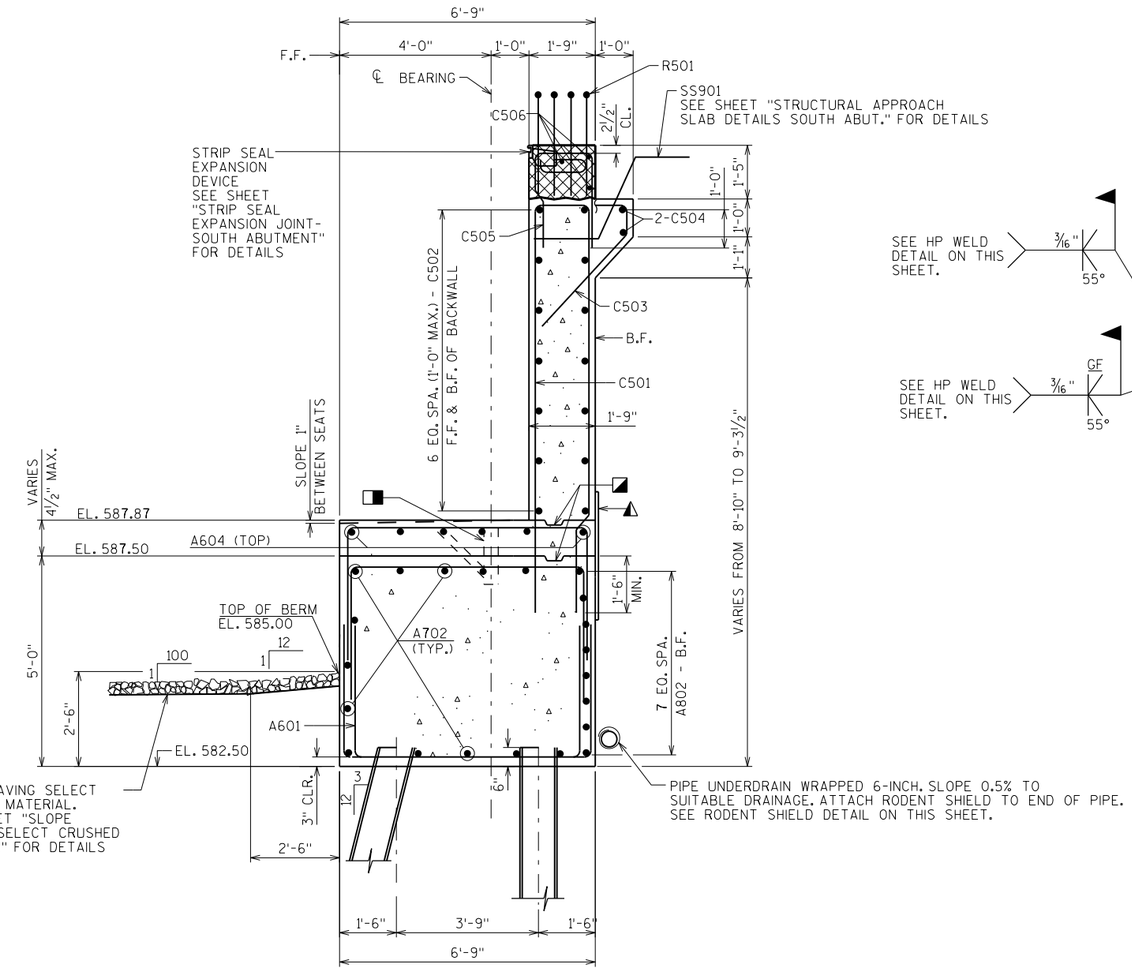
DATE: 5/31/2013
I.D.

8

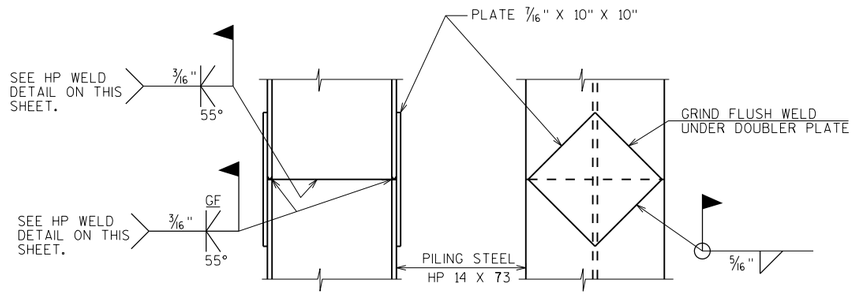
8

STATE PROJECT NUMBER

1133-11-74

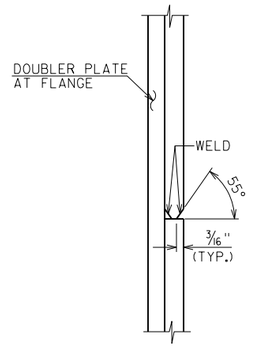


TYPICAL SECTION THRU BODY



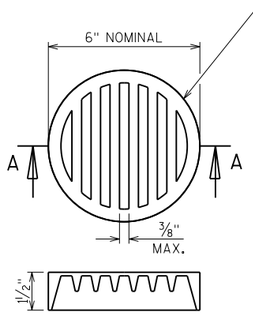
PILE SPLICE DETAIL

NOTE: STEEL "HP" PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)



SECTION A-A

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

RODENT SHIELD DETAIL

ORIENT SHIELD SO SLOTS ARE VERTICAL AS SHOWN
DIMENSIONS ARE APPROXIMATE.
THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

LEGEND

FOR SYMBOL DESCRIPTIONS, SEE SOUTH ABUTMENT PLAN AND ELEVATION SHEET

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

SOUTH ABUTMENT CROSS SECTION

SHEET 24 OF 143
707

DATE: 5/31/2013
I.D.

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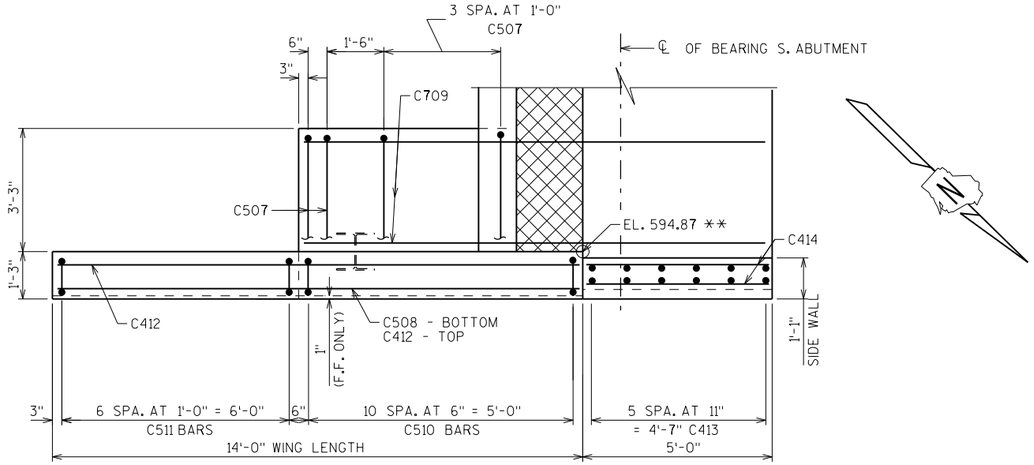
STATE PROJECT NUMBER

1133-11-74



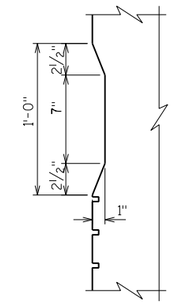
PLAN - WING 1

LEGEND

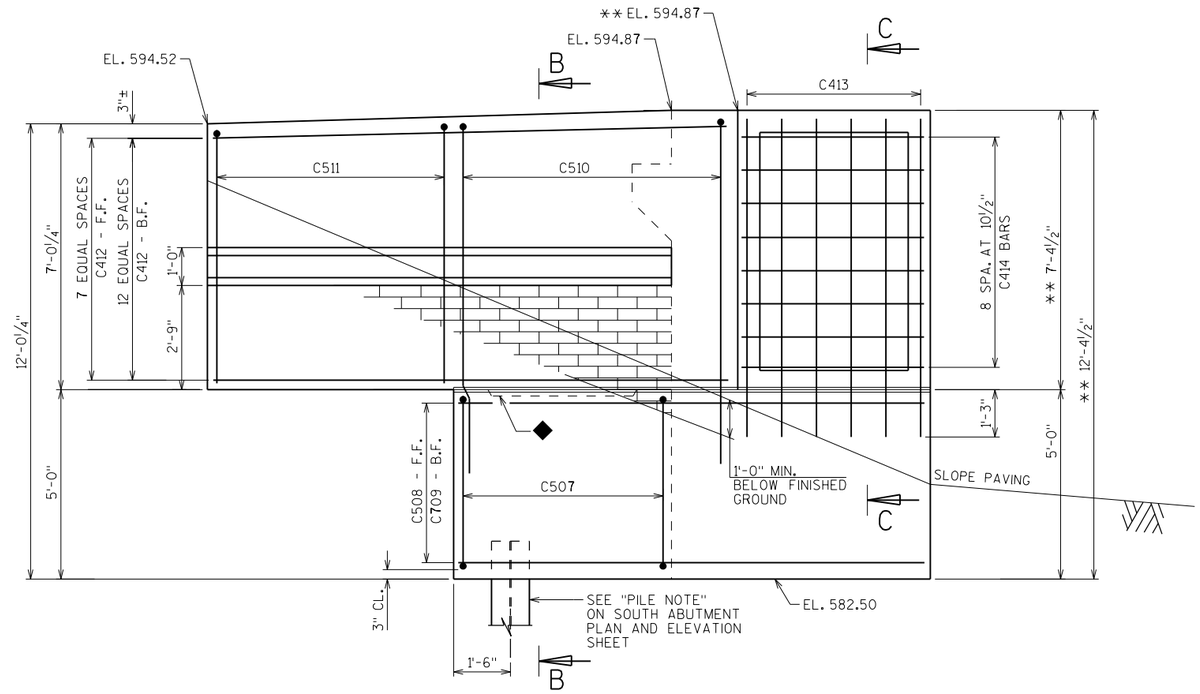
** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

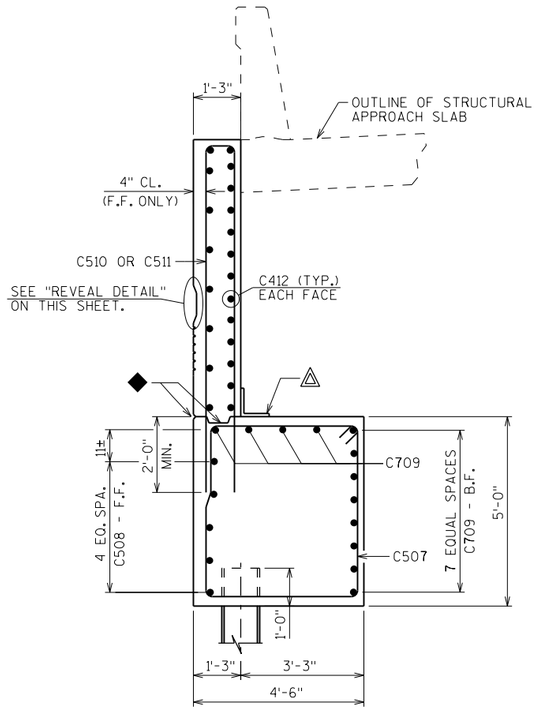
△ FOR SYMBOL DESCRIPTIONS, SEE SOUTH ABUTMENT PLAN AND ELEVATION SHEET.



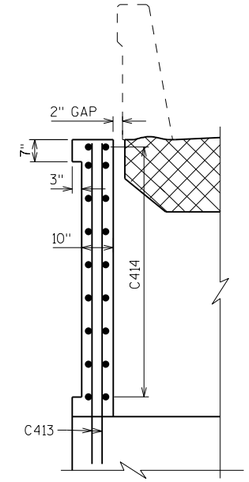
REVEAL DETAIL



ELEVATION - WING 1



SECTION B-B



SECTION C-C

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

SOUTH ABUTMENT WING 1

SHEET 25 OF 143
708

DATE: 5/31/2013
I.D.

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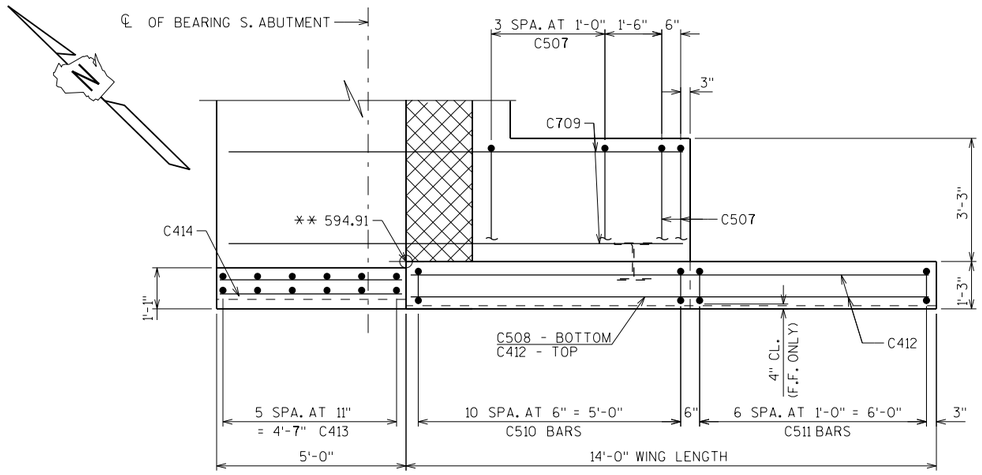
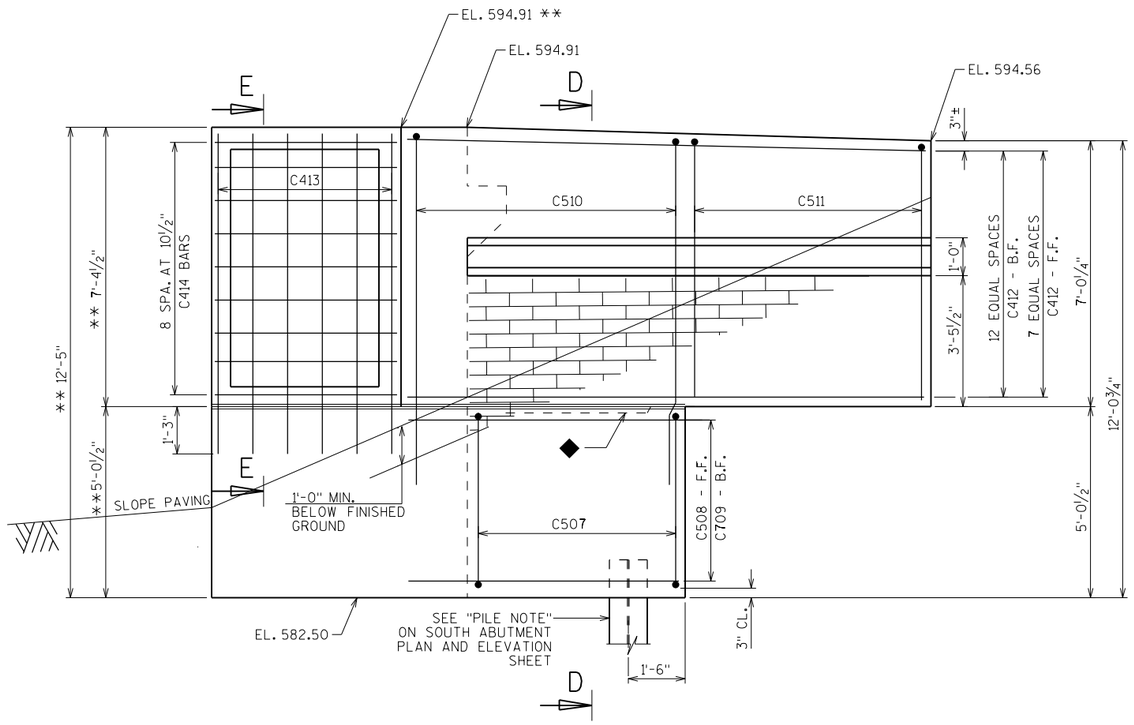
STATE PROJECT NUMBER

1133-11-74



PLAN - WING 2



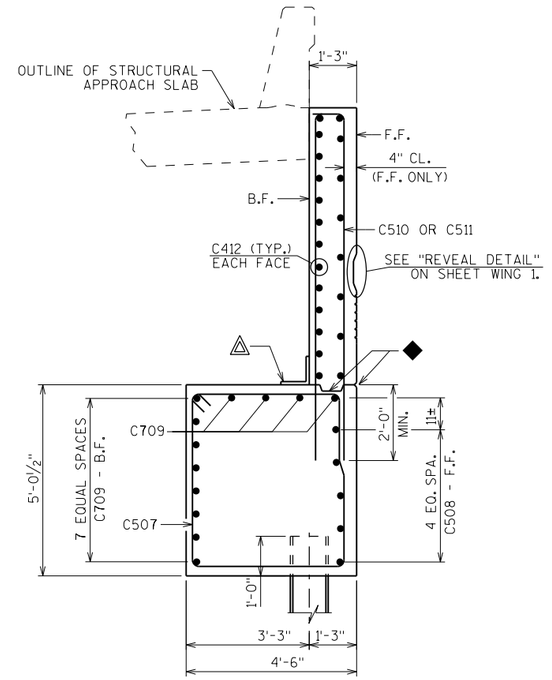
ELEVATION - WING 2

LEGEND

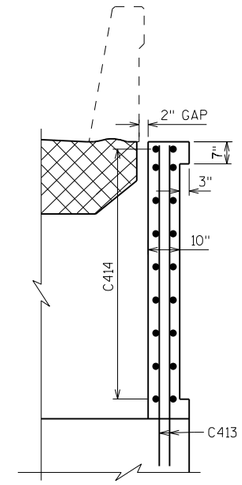
** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

⊠ △ FOR SYMBOL DESCRIPTIONS, SEE SOUTH ABUTMENT PLAN AND ELEVATION SHEET.



SECTION B-B



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

SOUTH ABUTMENT WING 2

SHEET 26 OF 143
709

DATE: 5/31/2013
I.D.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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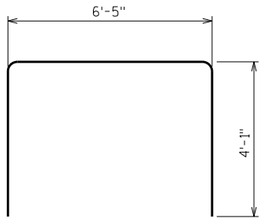
STATE PROJECT NUMBER

1133-11-74

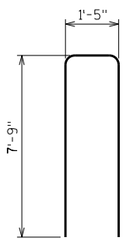


A601

BILL OF BARS

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
UNCOATED BARS					
A601	96	14'-3"	X		SOUTH ABUTMENT - STIRRUPS
A702	13	46'-8"			SOUTH ABUTMENT - TOP, BOTTOM, AND FRONT
A802	8	46'-8"			SOUTH ABUTMENT - BACK
A604	6	46'-8"			SOUTH ABUTMENT - SEAT
COATED BARS					
C501	48	16'-9"	X		BACKWALL - MAIN VERTICAL
C502	14	46'-8"			BACKWALL - MAIN HORIZONTAL
C503	41	6'-10"	X		BACKWALL - MAIN CORBEL
C504	2	40'-2"			BACKWALL - HORIZONTAL CORBEL
C505	48	5'-6"	X		PAVING BLOCK
C506	18	9'-0"			PAVING BLOCK
C507	12	17'-9"	X		WING 1 & 2 - STIRRUPS
C508	10	12'-2"			WING 1 - BOTTOM F.F.
C709	24	11'-6"			WING 1 - BOTTOM B.F.
C510	22	18'-7"	X		WING 1 & 2 - VERTICAL 1
C511	14	16'-10"	X		WING 1 & 2 - VERTICAL 2
C412	42	13'-8"			WING 1 & 2 - HORIZONTAL
C413	24	9'-2"			WING 1 & 2 - SIDEWALL - VERTICAL
C414	36	4'-8"			WINGS 1 & 2 - SIDEWALL - HORIZONTAL

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



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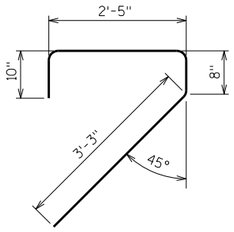

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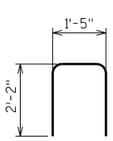

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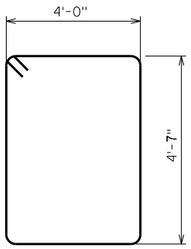

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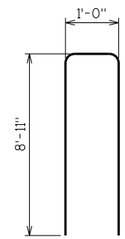

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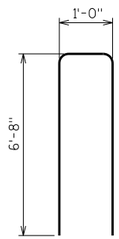

C511

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

SOUTH ABUTMENT
BILL OF BARS
AND BARS DETAILS

SHEET 27 OF 143
710

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\027 B-05-678 - South Abutment Details.dgn

DATE: 5/31/2013
I.D.

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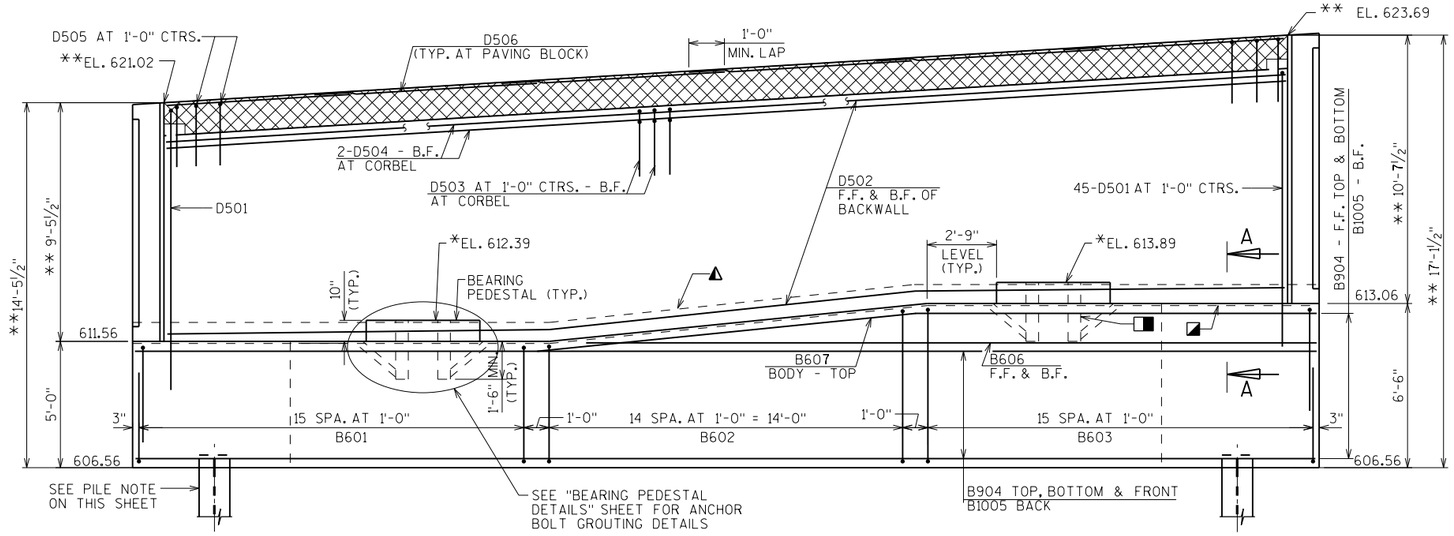
8

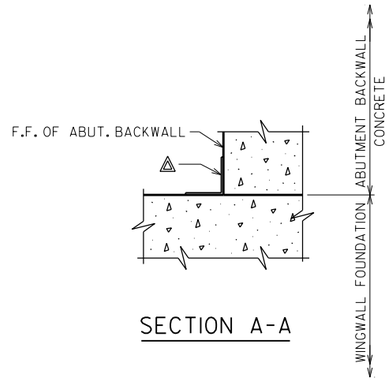
NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.3.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS)

STATE PROJECT NUMBER

1133-11-74



ELEVATION



SECTION A-A

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL AT TOP OF CONCRETE.

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE ABOVE FOOTING.

△ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

◪ KEYED CONST. JOINT FORMED BY BEVELED 2" X 6".

▨ INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

(X) INDICATES WING NUMBER

◧ 6" DIA. ANCHOR BOLT BLOCKOUT. BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN ◨ ABUTMENT BODY AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT)

PILE NOTES

WEST ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 14 X 73 WITH A REQUIRED DRIVING RESISTANCE OF *250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 82' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 524.00.

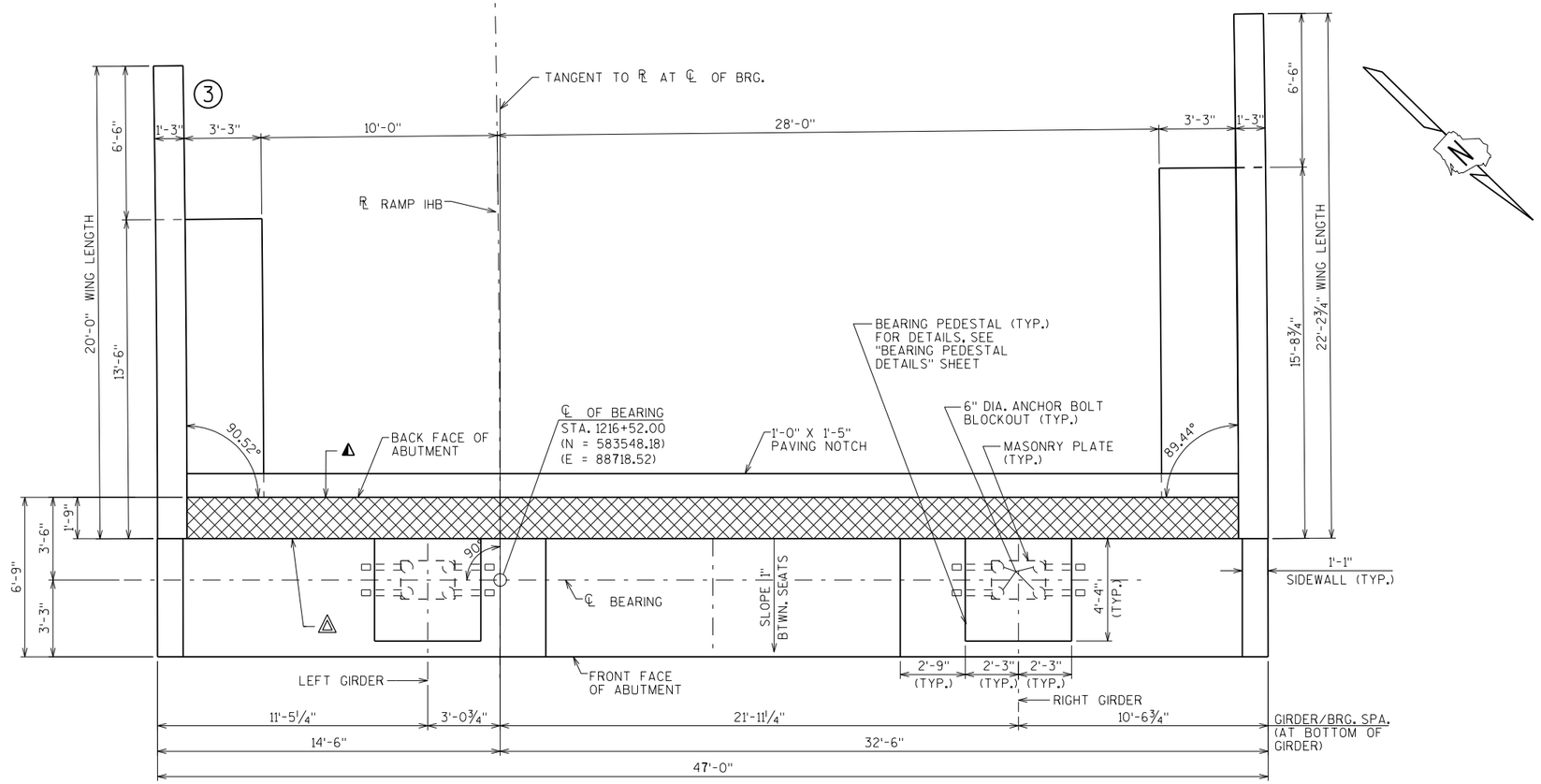
* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A FACTOR OF 0.8 (AND FURTHER REDUCED BY DOWN DRAG FORCES EQUAL TO 57 TONS) USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

FOR PILE LAYOUT DETAILS, SEE "WEST ABUTMENT LAYOUT" SHEET.

FOR PILE SPLICE DETAILS, SEE "WEST ABUTMENT CROSS SECTION" SHEET

NOTES

1. FOR "TYPICAL SECTION THRU BODY", SEE "WEST ABUTMENT CROSS SECTION" SHEET
2. SPACE B601, B602 & B603 BARS TO MISS PILES.



PLAN

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

WEST ABUTMENT PLAN AND ELEVATION

SHEET 28 OF 143
711

DATE: 5/31/2013
I.D.

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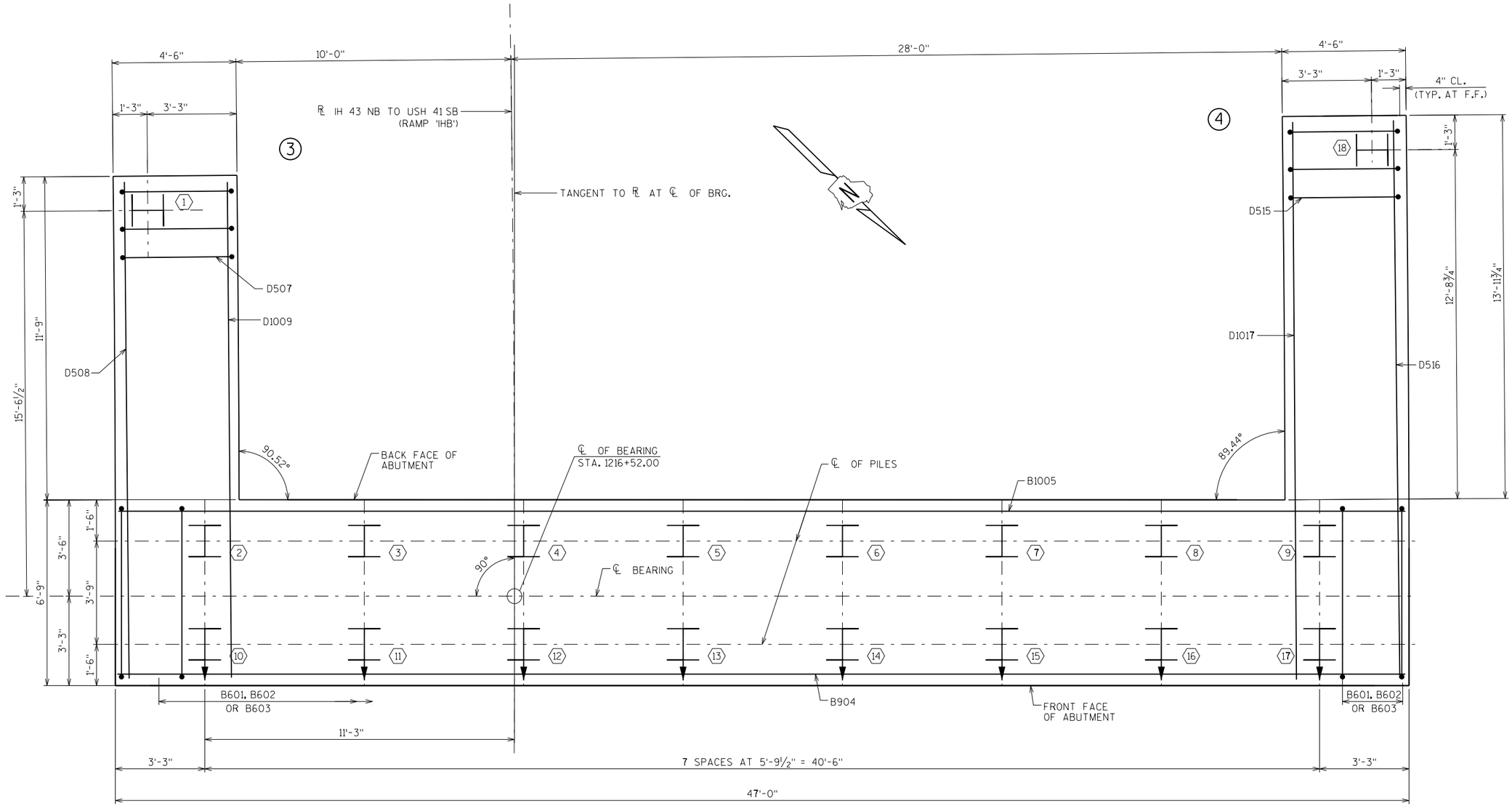
STATE PROJECT NUMBER

1133-11-74



PILE PLAN

LEGEND

(X) INDICATES WING NUMBER

⟨1⟩ INDICATES PILES NUMBER

INDICATES PILES BATTERED 3" PER FOOT

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

WEST ABUTMENT LAYOUT

SHEET 29 OF 143
712

DATE: 5/31/2013
I.D.

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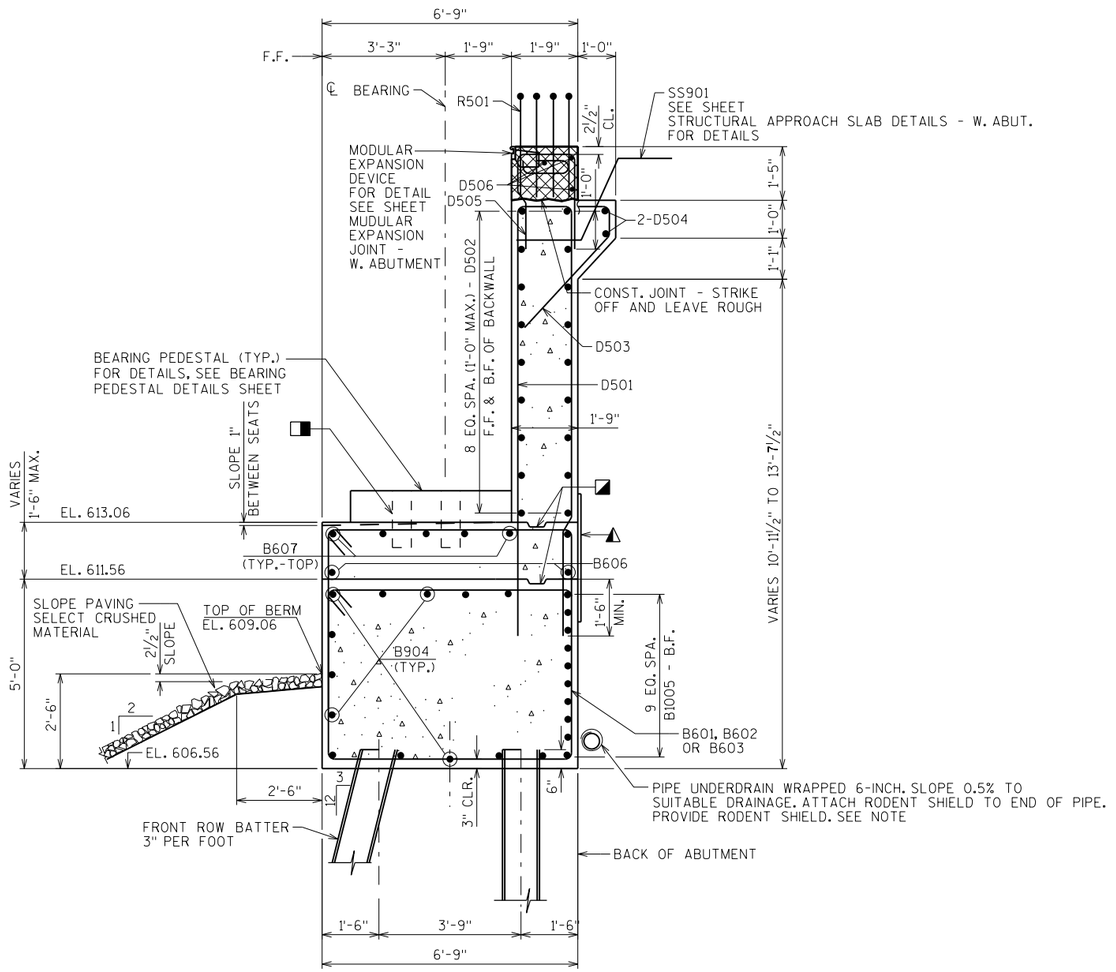
STATE PROJECT NUMBER
1133-11-74



TYPICAL SECTION THRU BODY

LEGEND

◪ ◭ ◨ ▨ FOR SYMBOL DESCRIPTIONS, SEE WEST ABUTMENT PLAN AND ELEVATION SHEET

NOTES:

BACKWALL MAY BE PLACED AFTER THE END DIAPHRAGM IS BOLTED.

PAVING BLOCK TO RECEIVE POLYMER OVERLAY.

SEE SHEET" SOUTH ABUTMENT CROSS SECTION" FOR PILE SPLICE DETAIL AND RODENT SHIELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

WEST ABUTMENT CROSS SECTION

SHEET 30 OF 143
713

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\030 B-05-678 - West Abutment Cross Section.dgn

DATE: 5/31/2013
I.D.

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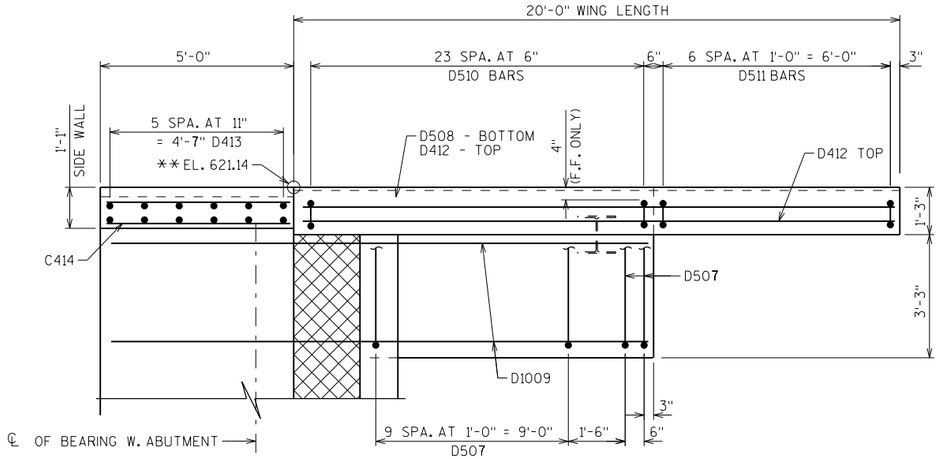
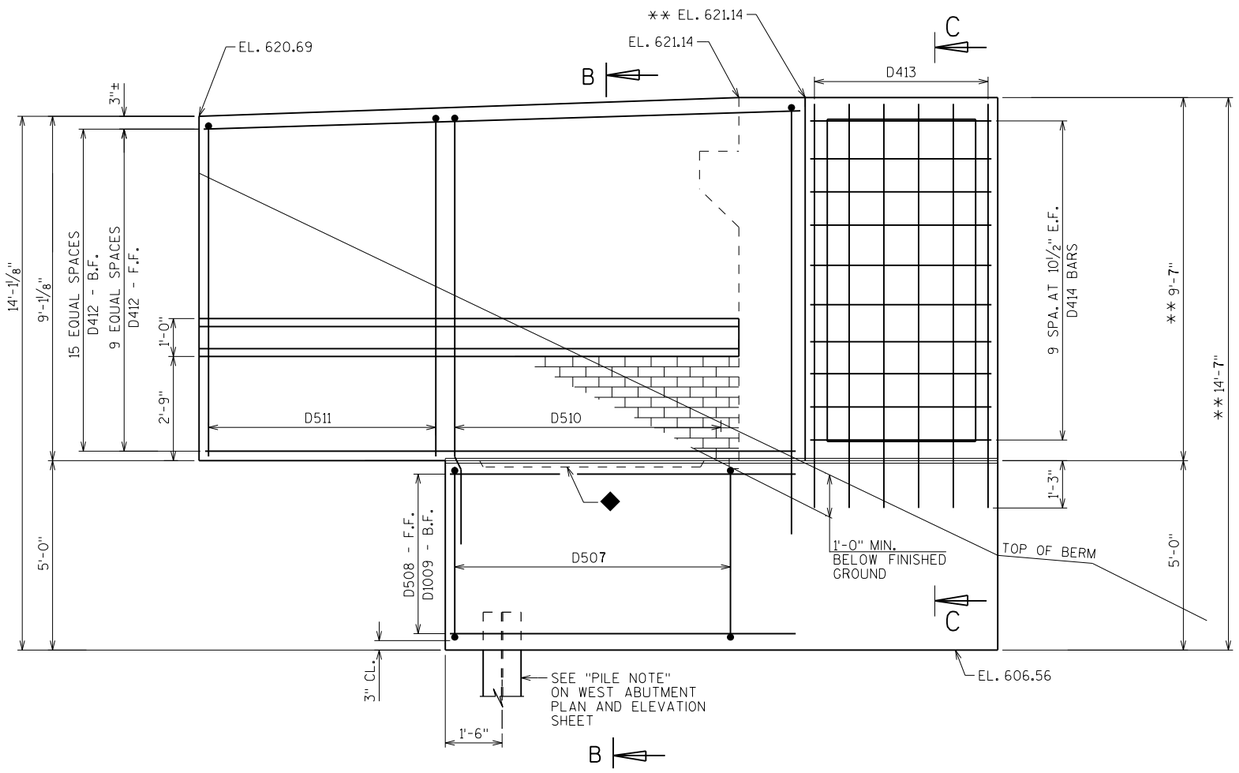
STATE PROJECT NUMBER

1133-11-74



PLAN - WING 3



ELEVATION - WING 3

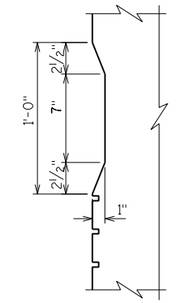
(LOOKING NORTH)

LEGEND

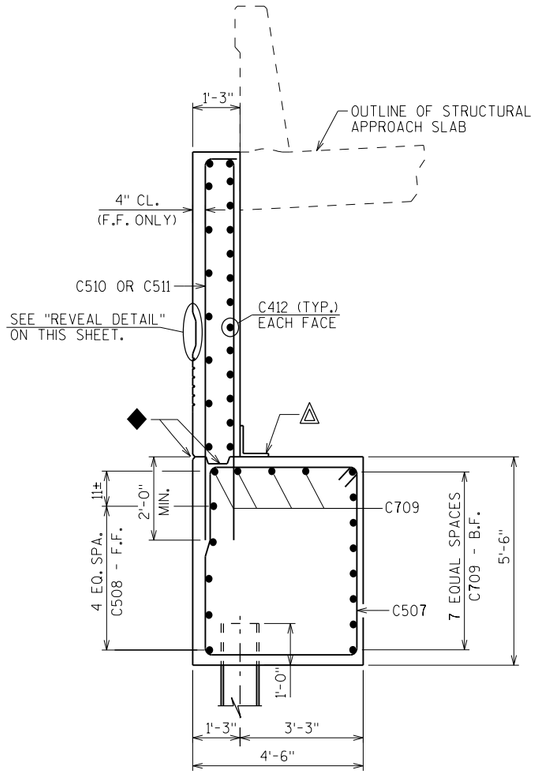
** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

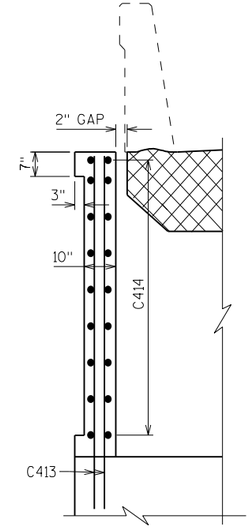
⊠ △ FOR SYMBOL DESCRIPTIONS, SEE WEST ABUTMENT PLAN AND ELEVATION SHEET.



REVEAL DETAIL



SECTION B-B



SECTION C-C

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

WING 3
WEST ABUTMENT

SHEET 31 OF 143
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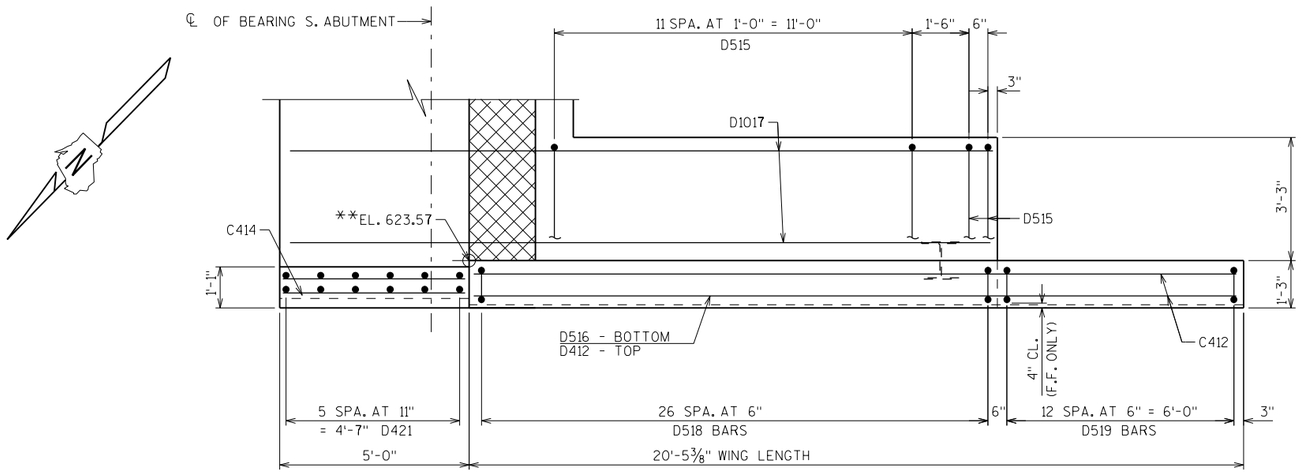
FILE= 0:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\031 B-05-678 -West Abutment Wing 3.dgn

DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



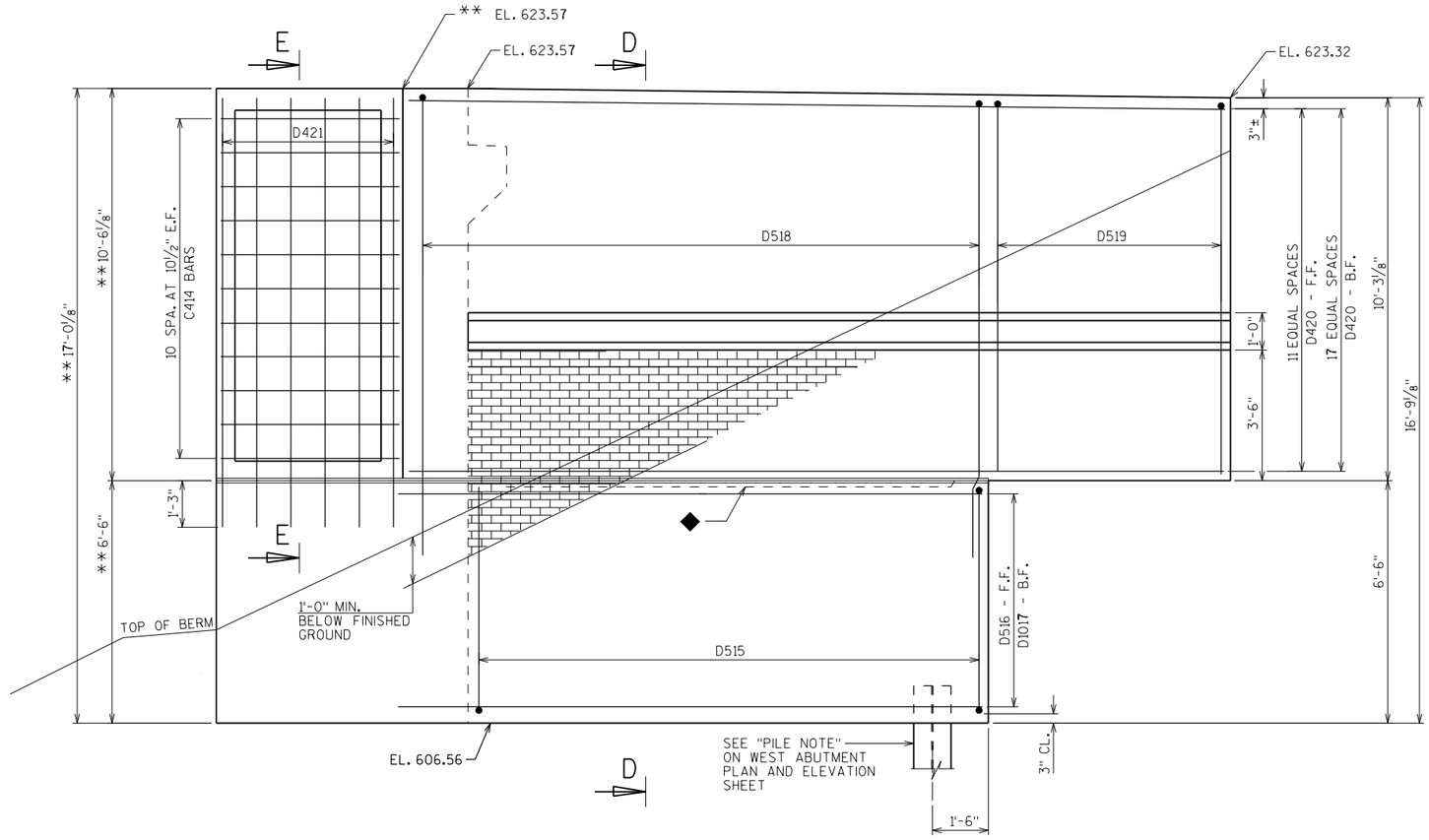
LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6" KEYWAY AND 3/4" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

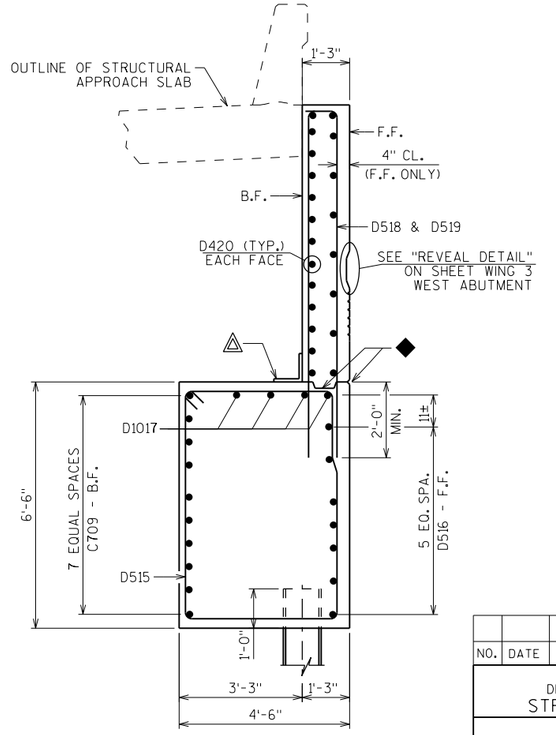
△ FOR SYMBOL DESCRIPTIONS, SEE WEST ABUTMENT PLAN AND ELEVATION SHEET.

PLAN - WING 4

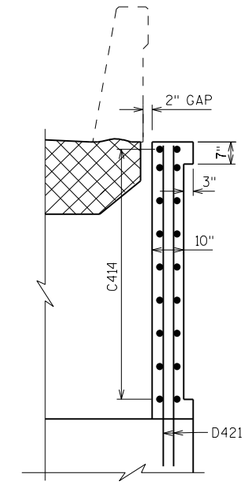


ELEVATION - WING 4

(LOOKING SOUTH)



SECTION B-B



SECTION C-C

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

WING 4
WEST ABUTMENT

SHEET 32 OF 143
715

DATE: 5/31/2013
I.D.

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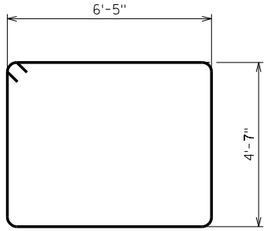
STATE PROJECT NUMBER

1133-11-74



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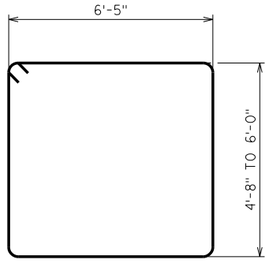

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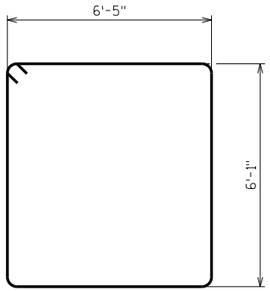

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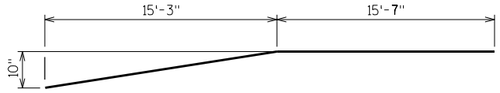

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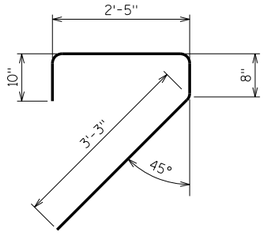
D501



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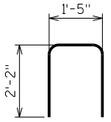

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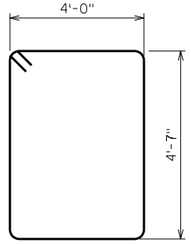

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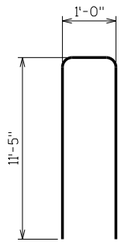

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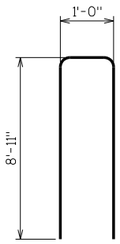

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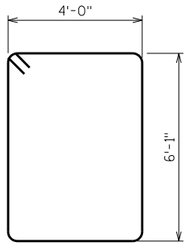

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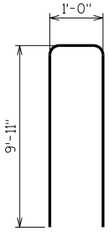

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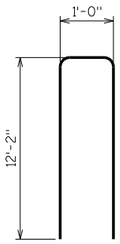

D519

BILL OF BARS

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
UNCOATED BARS					
B601	16	22'-10"	X		BODY - STIRRUPS
B602	15	24'-5"	X	*	BODY - STIRRUPS
B603	16	25'-10"	X		BODY - STIRRUPS
B904	13	44'-2"			BODY FRONT FACE TOP & BOTTOM
B606	2	25'-5"			BODY FRONT FACE & BACK FACE
B607	6	30'-10"	X		BODY - TOP
B1005	10	46'-8"			BODY BACK FACE
COATED BARS					
D501	45	25'-6"	X		BACKWALL - VERTICAL
D502	18	44'-2"			BACKWALL - HORIZONTAL
D503	41	6'-10"	X		BACKWALL - VERTICAL CORBEL
D504	2	40'-2"			BACKWALL - HORIZONTAL CORBEL
D505	45	5'-6"	X		PAVING BLOCK VERTICAL
D506	18	8'-3"			PAVING BLOCK HORIZONTAL
D508	5	18'-2"			WING 3 - BOTTOM F.F.
D1009	12	17'-6"			WING 3 - BOTTOM B.F.
D510	24	23'-8"	X		WING 3 - VERTICAL 1
D511	7	18'-8"	X		WING 3 - VERTICAL 2
D412	26	18'-11"			WING 3 - HORIZONTAL
D413	12	11'-5"			WING 3 - SIDEWALL - VERTICAL
C414	42	4'-8"			WINGS 3 & 4 - SIDEWALL - HORIZONTAL
D515	14	20'-9"	X		WING 4 - STIRRUPS
D516	6	20'-5"			WING 4 - BOTTOM F.F.
D1017	12	19'-9"			WING 4 - BOTTOM B.F.
D518	27	25'-11"	X		WING 4 - VERTICAL 1
D519	13	20'-11"	X		WING 4 - VERTICAL 2
D420	30	21'-9"			WING 4 - HORIZONTAL
D421	12	12'-4			WING 4 - SIDEWALL - VERTICAL
D507	12	17'-9"	X		WING 3 - STIRRUPS

* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

WEST ABUTMENT
BILL OF BARS
AND BAR DETAILS

SHEET 33 OF 143
716

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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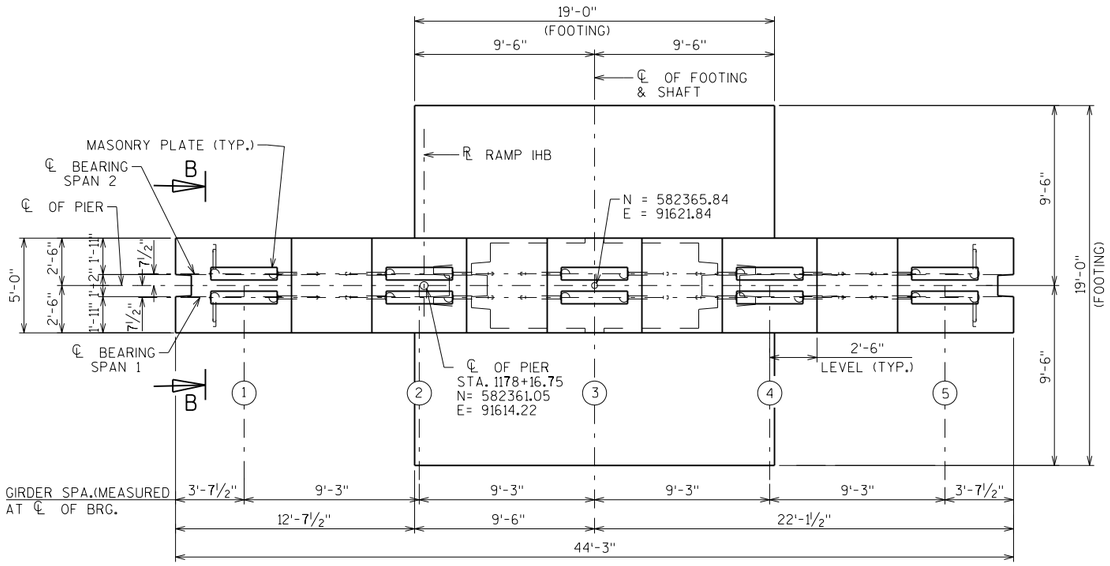
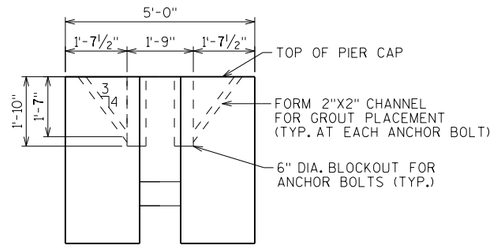
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

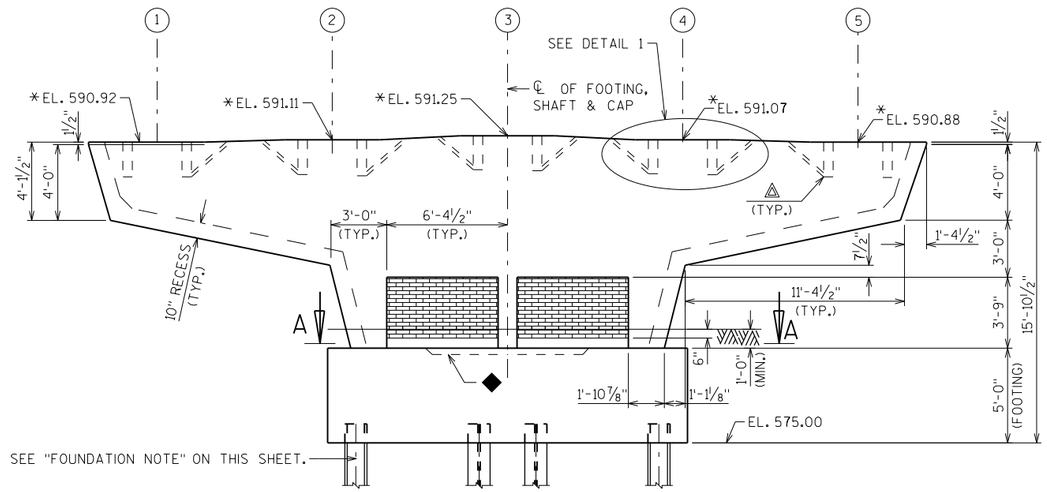
1133-11-74



PLAN

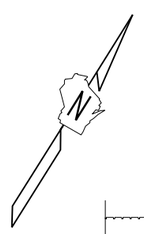


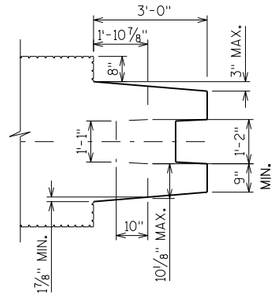
SECTION B-B



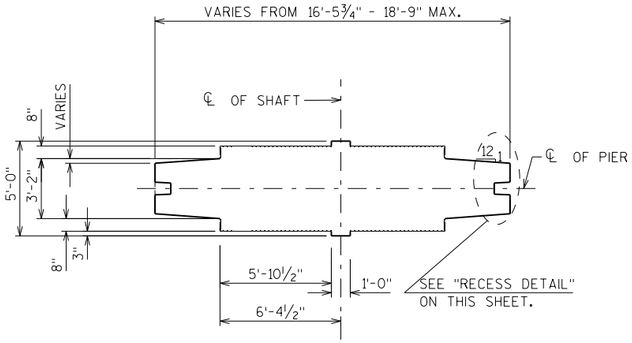
ELEVATION

(LOOKING UPSTATION)



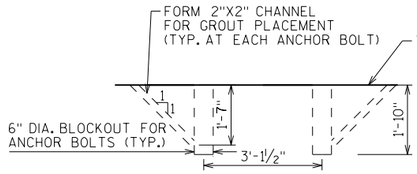


RECESS DETAIL



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



DETAIL 1

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

⚠ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

* ELEVATIONS ARE GIVEN FOR SPAN 1 BEAM SEAT. BEARINGS AT SPAN 2 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

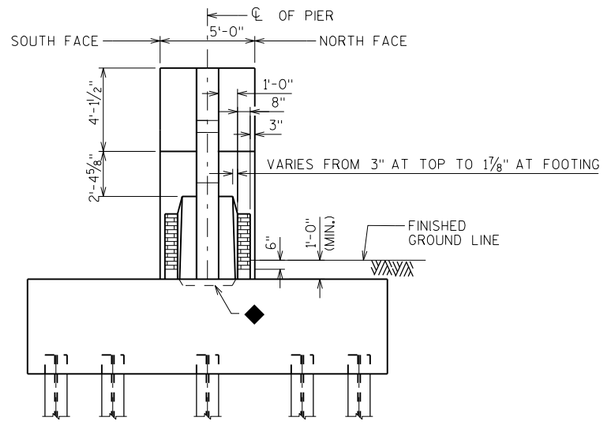
NOTES:

FOR PIER 1 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 1 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 78' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 515.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 1, 3, 4, & 5.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

PIER 1
LAYOUT DETAILS

SHEET 34 OF 143
717

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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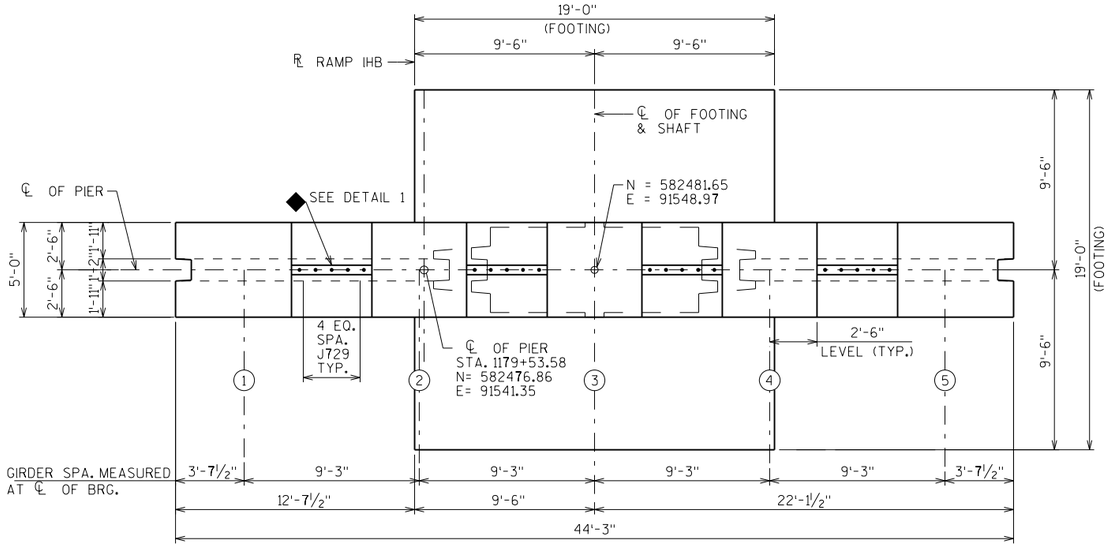
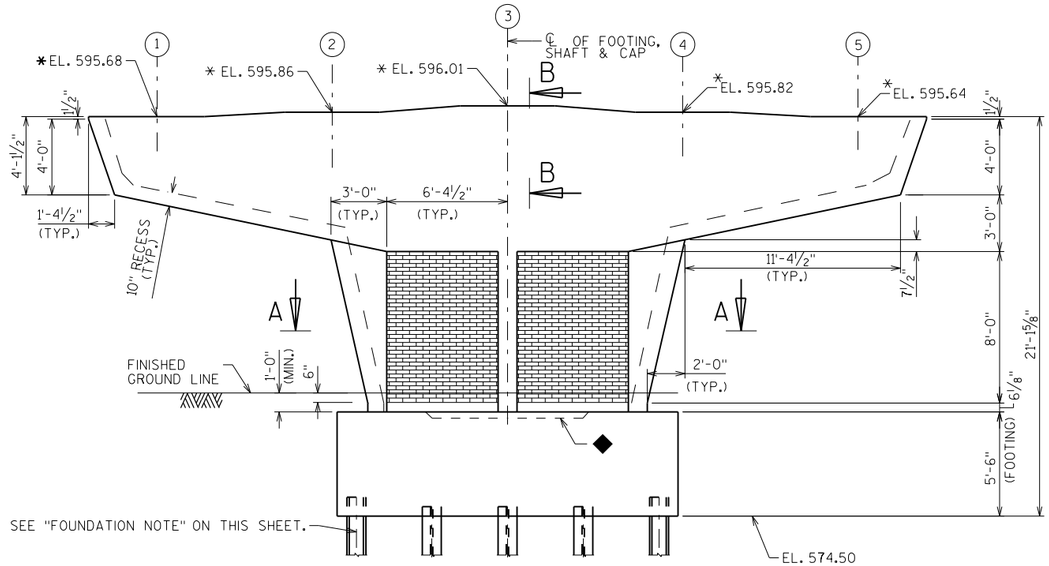
STATE PROJECT NUMBER

1133-11-74

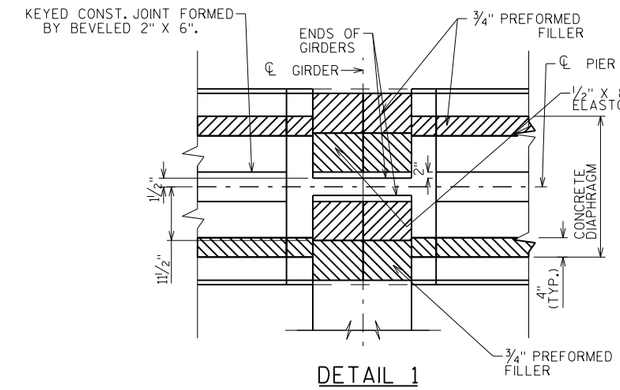


PLAN

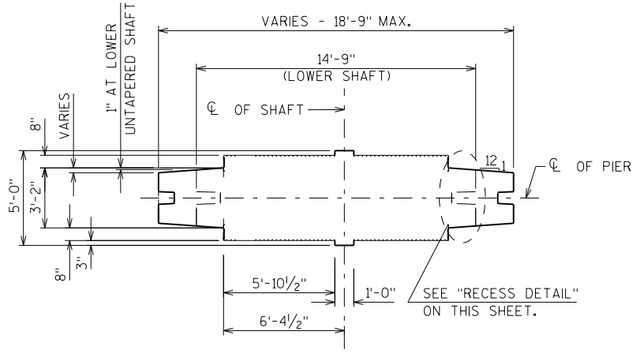


ELEVATION

(LOOKING UPSTATION)

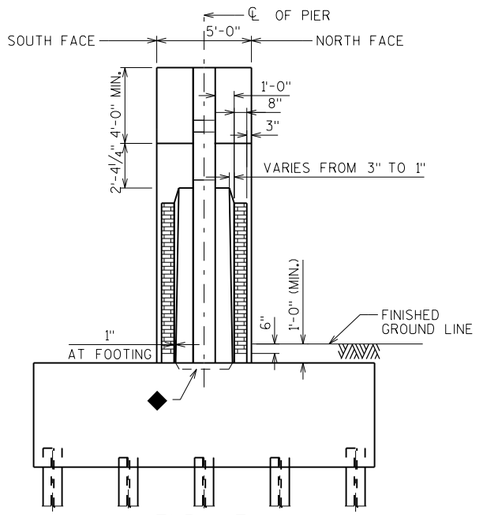


DETAIL 1



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

* ELEVATIONS ARE GIVEN FOR SPAN 2 BEAM SEAT.

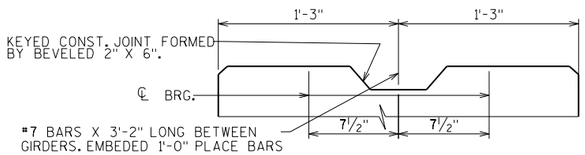
NOTES:

FOR PIER 2 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1& 2.

PIER 2 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 68' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 530.00.

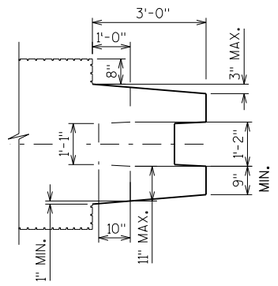
FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 2 & 7.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.



SECTION B-B

KEY CONST. JOINT



RECESS DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 2
LAYOUT DETAILS

SHEET 35 OF 143
718

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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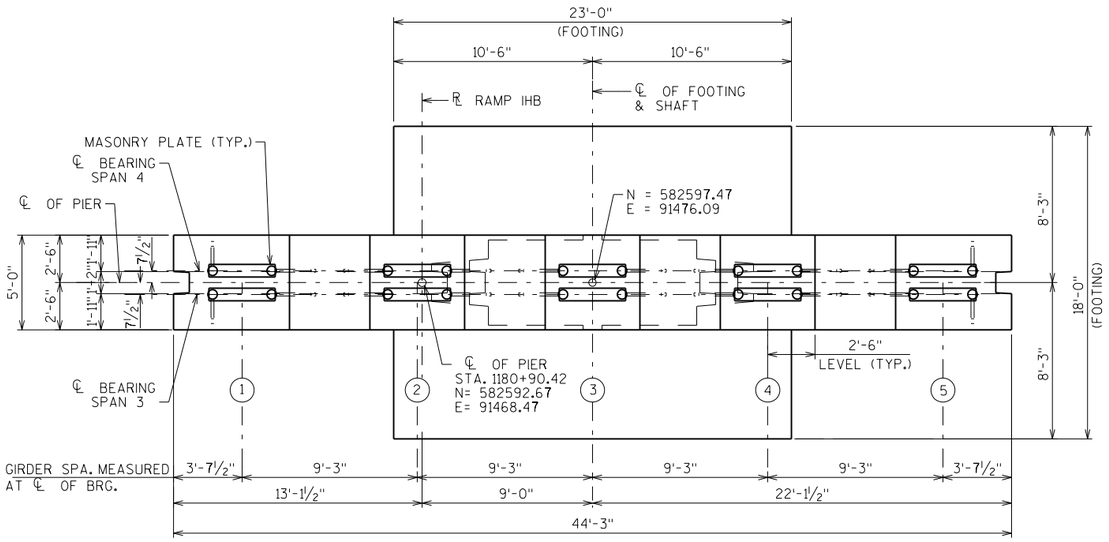
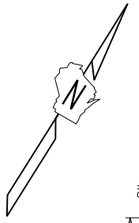
DATE: 5/31/2013
I.D.

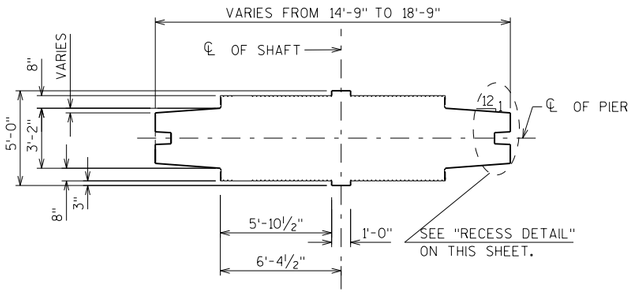
STATE PROJECT NUMBER

1133-11-74



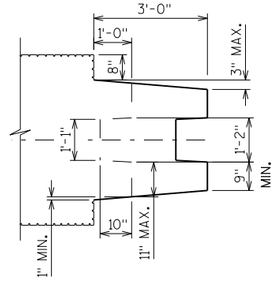
PLAN





SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



RECESS DETAIL

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 3 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS XXXXXXX

* ELEVATIONS ARE GIVEN FOR SPAN 3 BEAM SEAT. BEARINGS AT SPAN 4 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

▽ SEE SHEET TITLED 'PIER 1 LAYOUT DETAILS' FOR DETAILS OF ANCHOR BOLT GROUTING

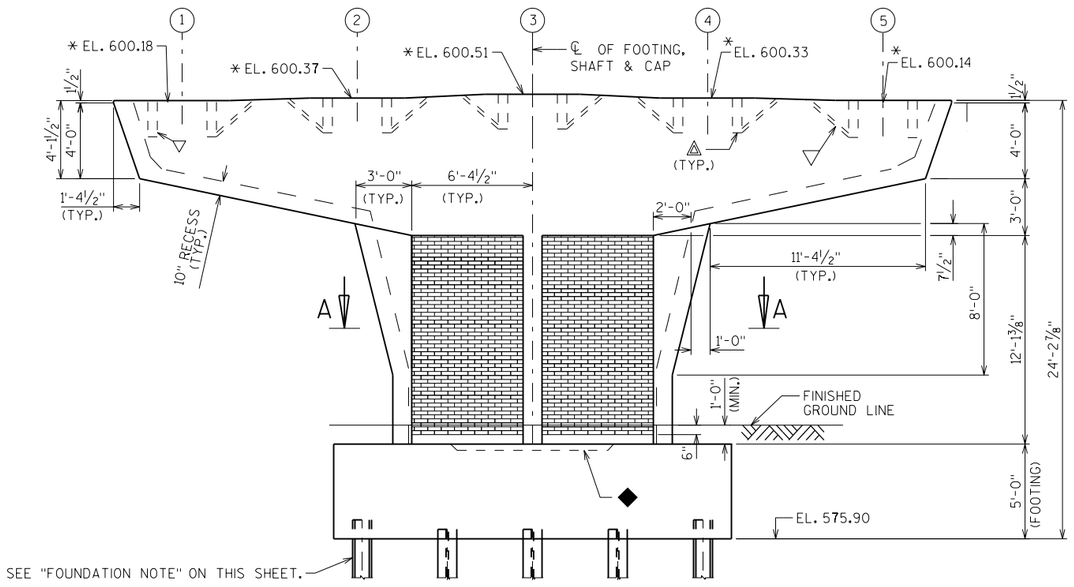
NOTES:

FOR PIER 3 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 3 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 63' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 525.00.

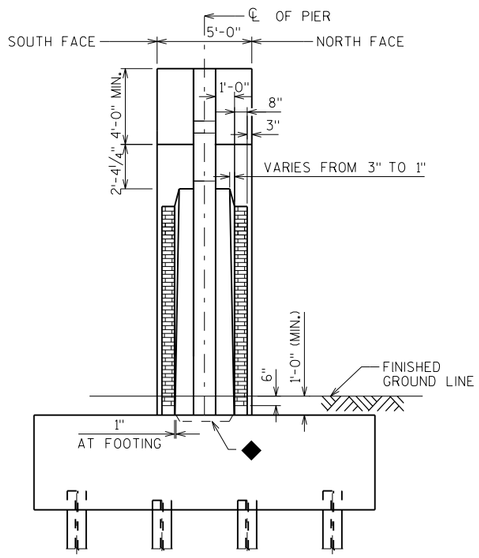
FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 1, 3, 4, & 5.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.



ELEVATION

(LOOKING UPSTATION)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 3
LAYOUT DETAILS

SHEET 36 OF 143
719

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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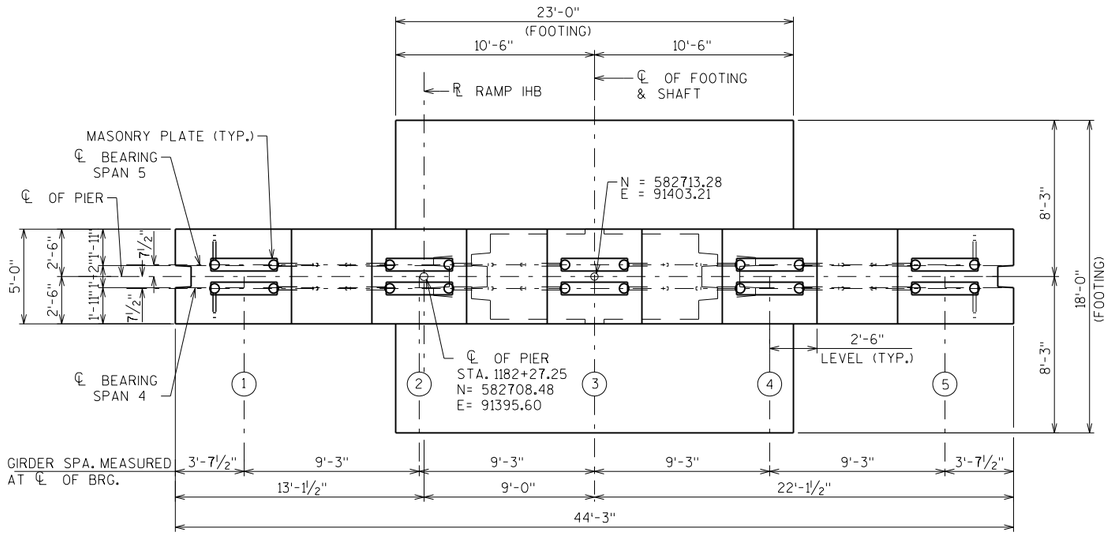
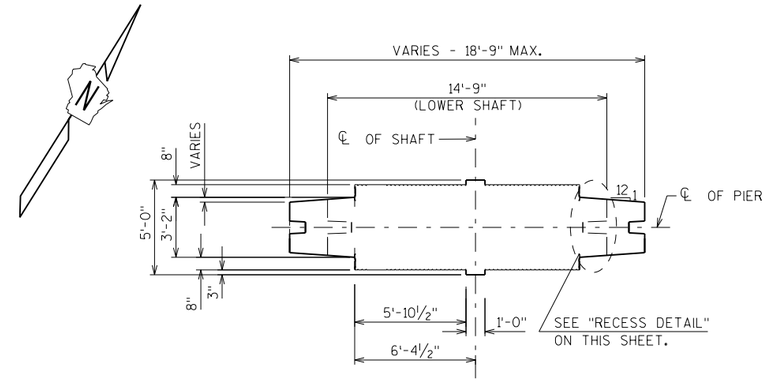
I.D.

STATE PROJECT NUMBER

1133-11-74

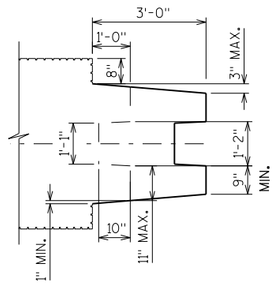


PLAN



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



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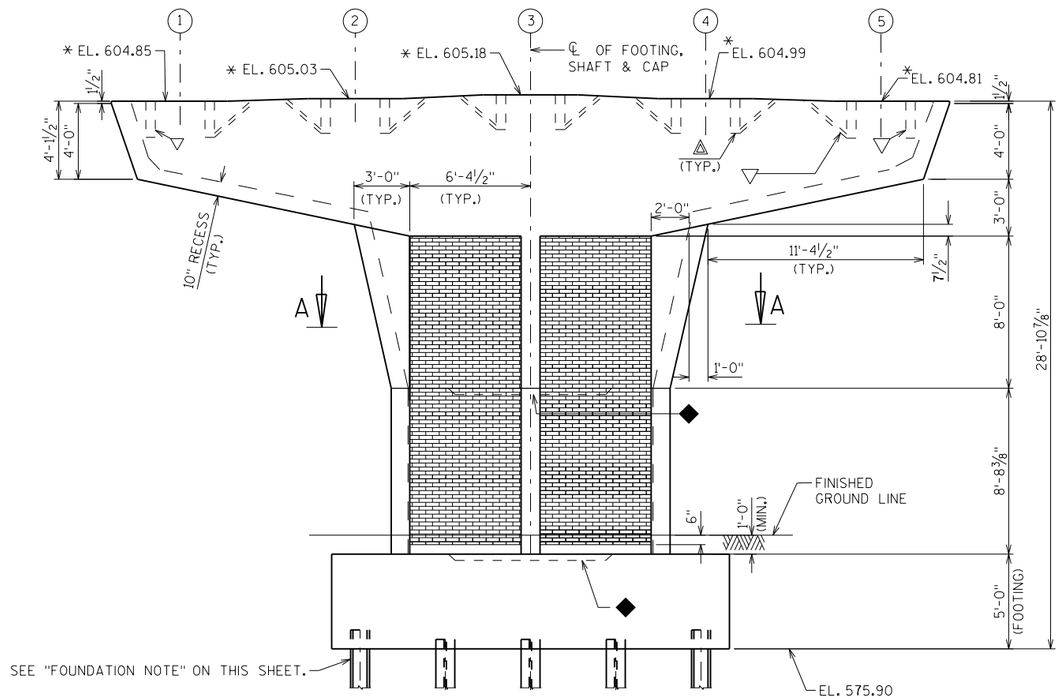
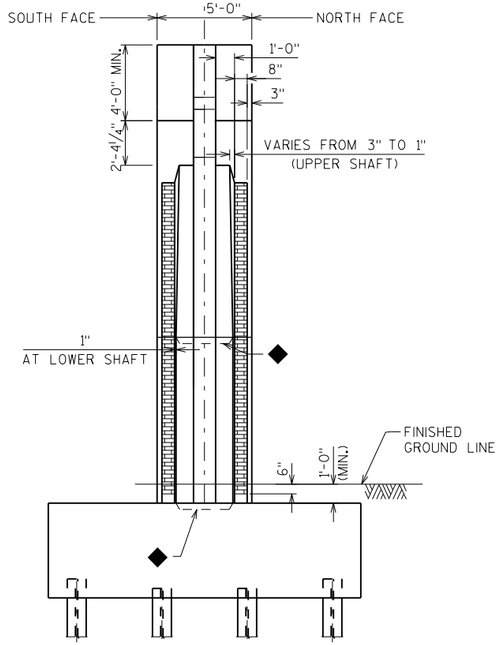


ELEVATION

(LOOKING UPSTATION)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

* ELEVATIONS ARE GIVEN FOR SPAN 4 BEAM SEAT. BEARINGS AT SPAN 5 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

▽ SEE SHEET TITLED 'PIER 1 LAYOUT DETAILS' FOR DETAILS OF ANCHOR BOLT GROUTING

NOTES:

FOR PIER 4 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 4 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 67' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 520.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 1, 3, 4, & 5.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

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STRUCTURE B-5-678

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PIER 4 LAYOUT DETAILS

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720

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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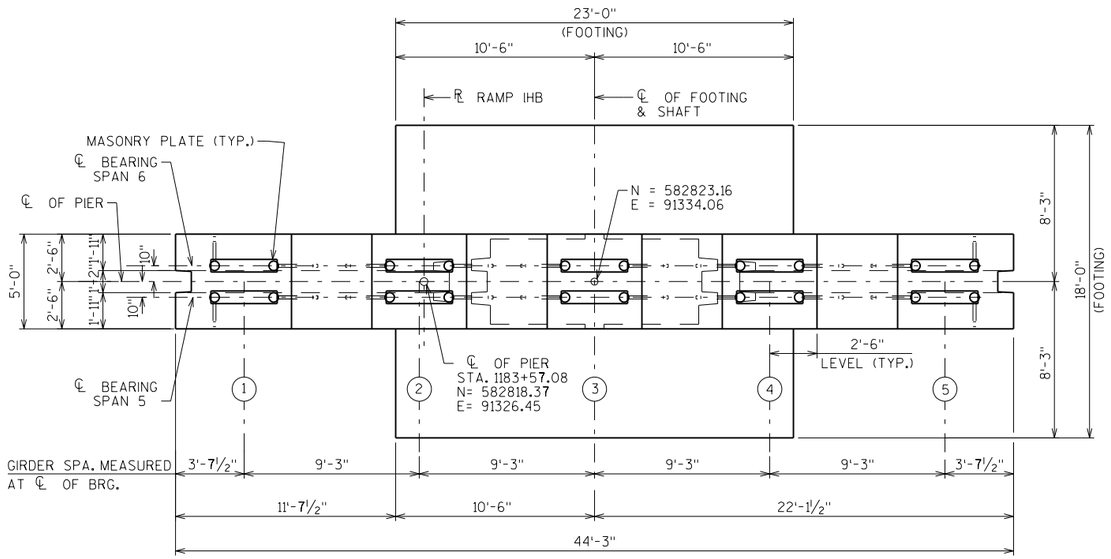
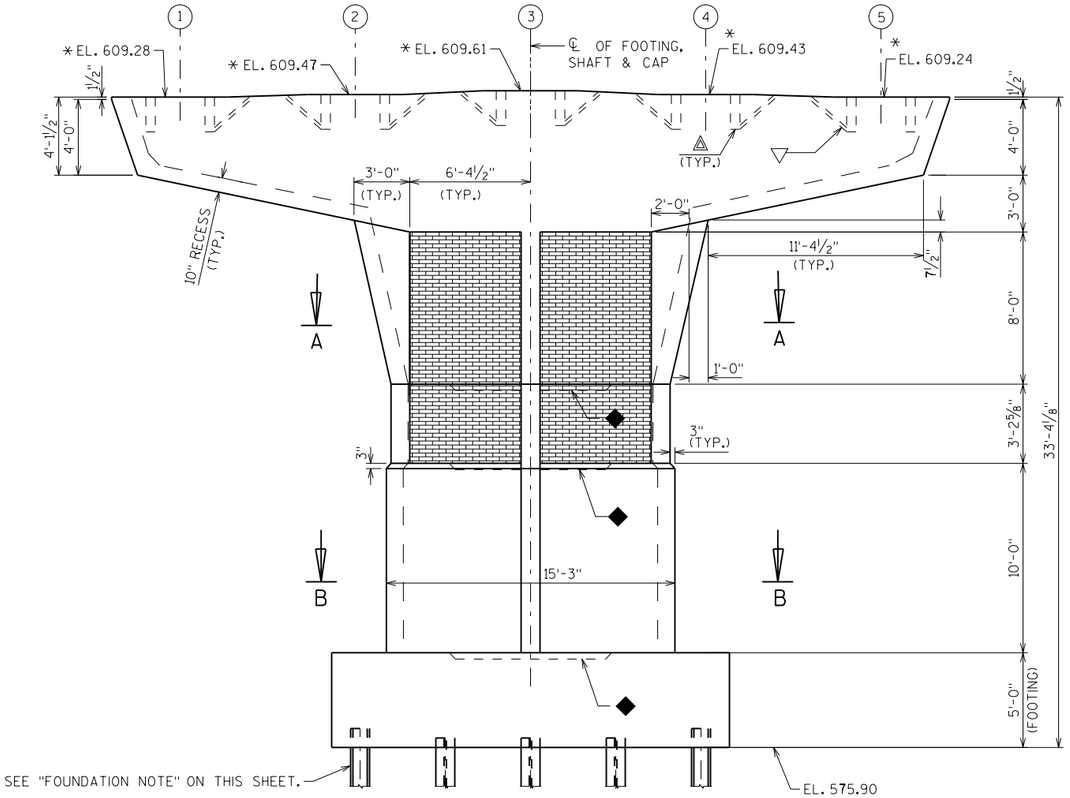
STATE PROJECT NUMBER

1133-11-74

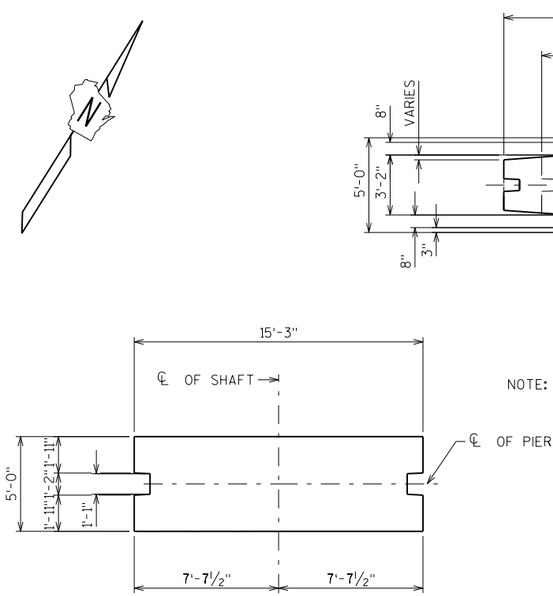


PLAN



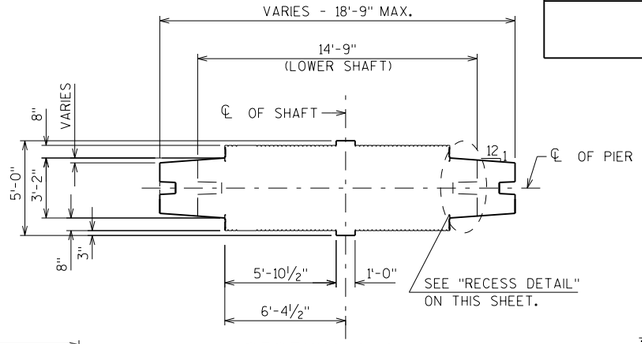
ELEVATION

(LOOKING UPSTATION)



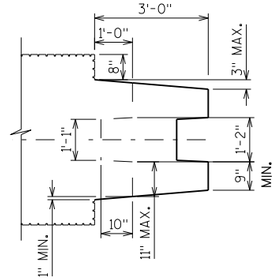
SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

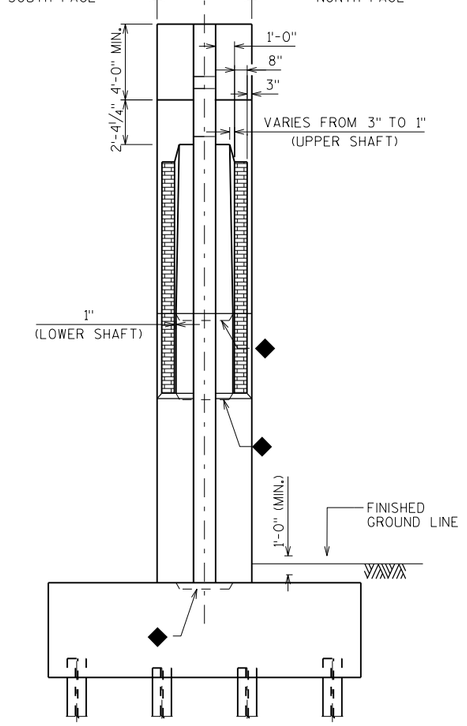


SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



RECESS DETAIL



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

* ELEVATIONS ARE GIVEN FOR SPAN 5 BEAM SEAT. BEARINGS AT SPAN 6 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

▽ SEE SHEET TITLED 'PIER 1 LAYOUT DETAILS' FOR DETAILS OF ANCHOR BOLT GROUTING

NOTES:

FOR PIER 5 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 5 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 70' LONG.
THE MINIMUM PILE TIP EL. FOR UPLIFT IS 514.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS 1, 3, 4, & 5.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 5
LAYOUT DETAILS

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721

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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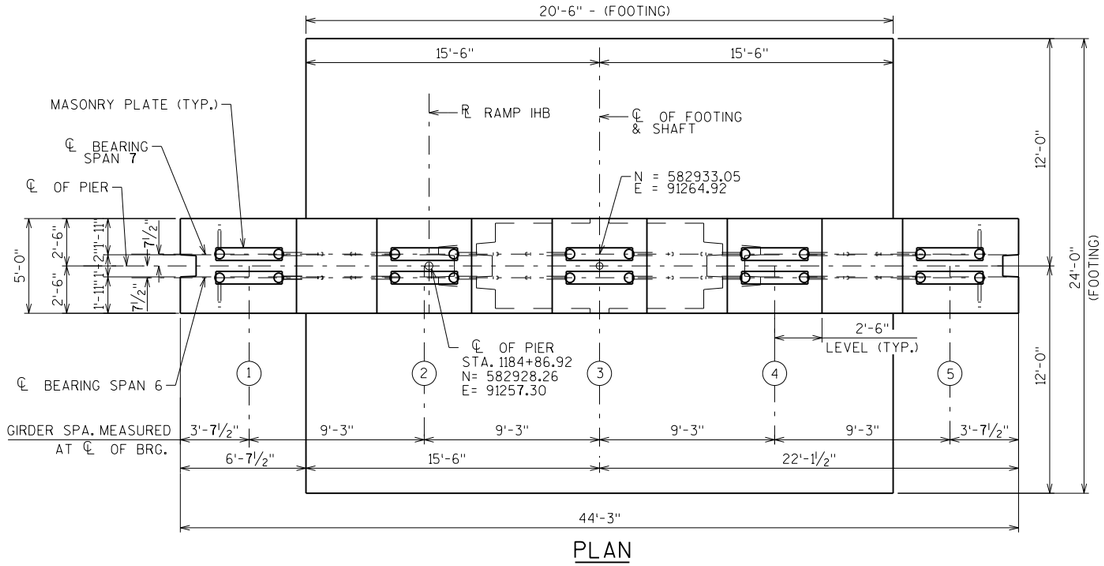
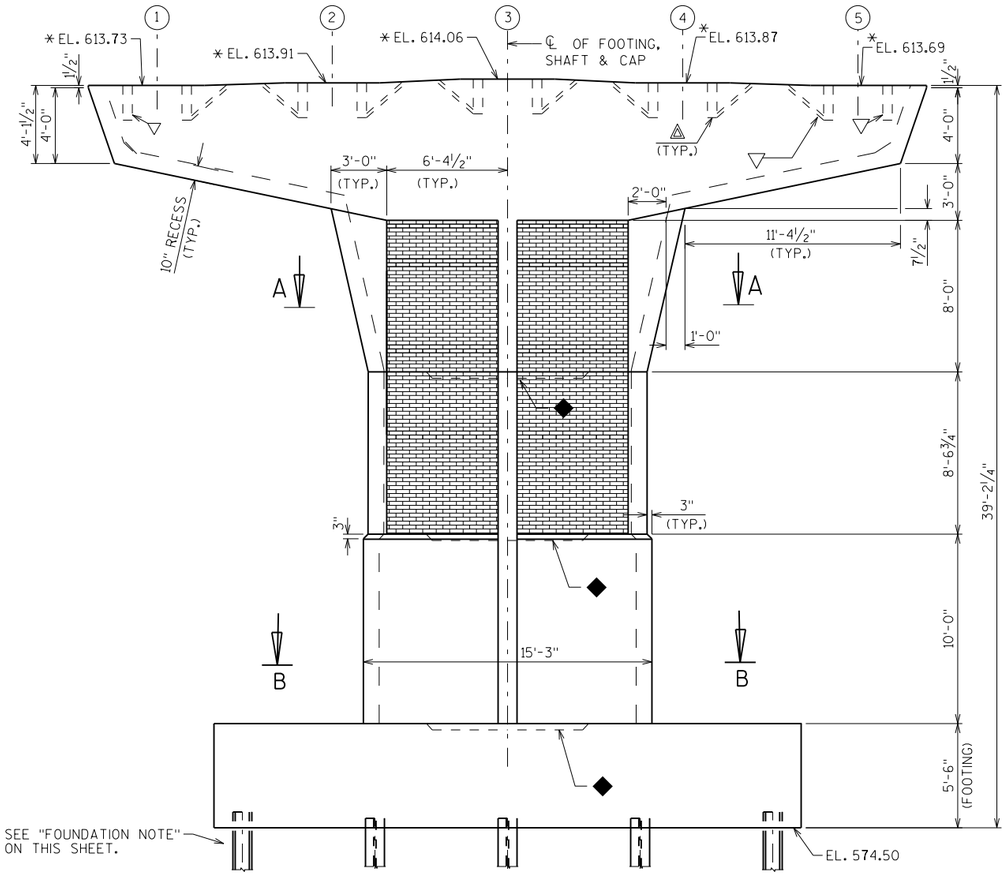
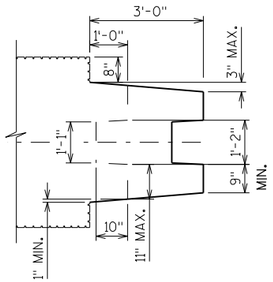


PLAN



ELEVATION
(LOOKING UPSTATION)



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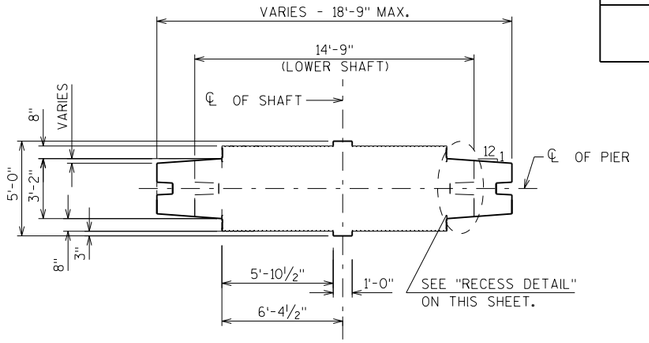
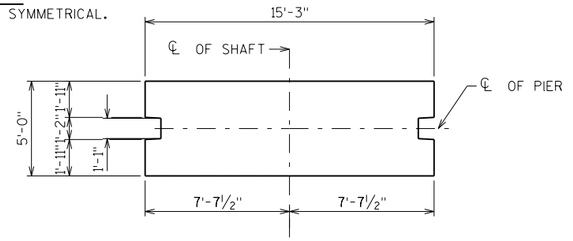
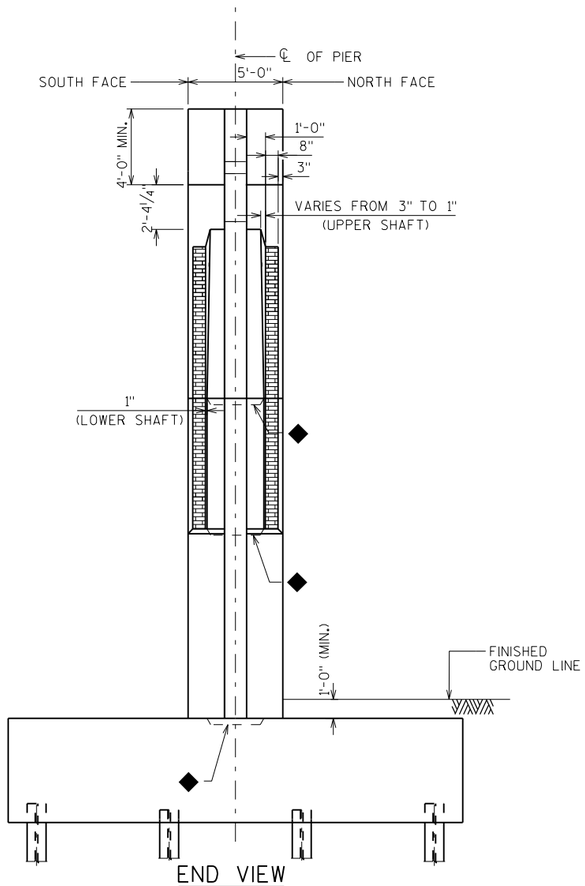


SECTION A-A
NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



SECTION B-B
NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

* ELEVATIONS ARE GIVEN FOR SPAN 6 BEAM SEAT. BEARINGS AT SPAN 7 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

▽ SEE SHEET TITLED 'PIER 1 LAYOUT DETAILS' FOR DETAILS OF ANCHOR BOLT GROUTING

NOTES:

FOR PIER 6 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 6 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 73' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 516.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 6, 8-10.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 6
LAYOUT DETAILS

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722

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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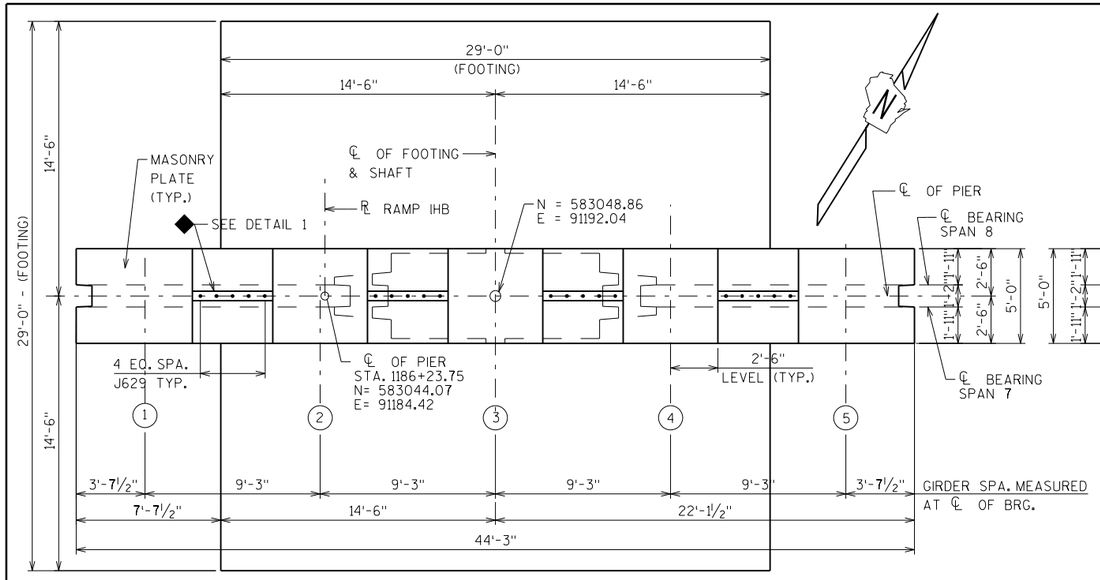
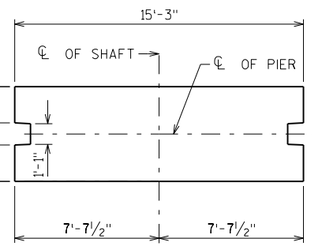
STATE PROJECT NUMBER

1133-11-74

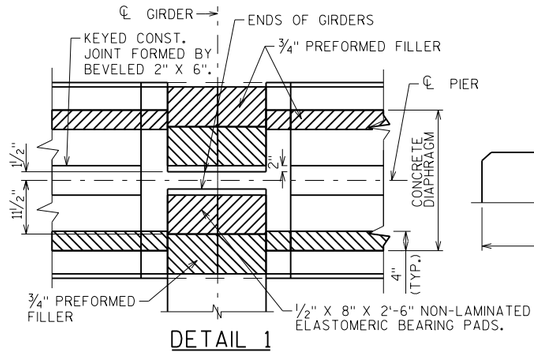


PLAN

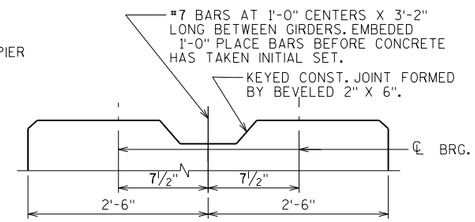


SECTION B-B

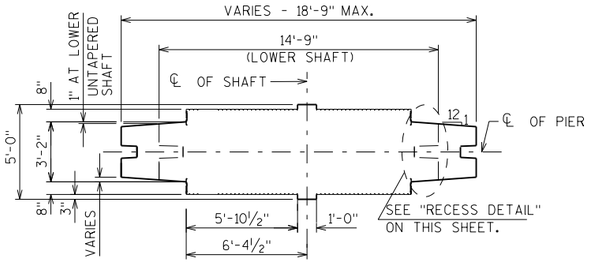
NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



DETAIL 1

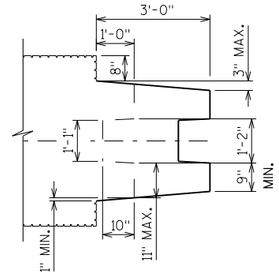


SECTION C-C



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



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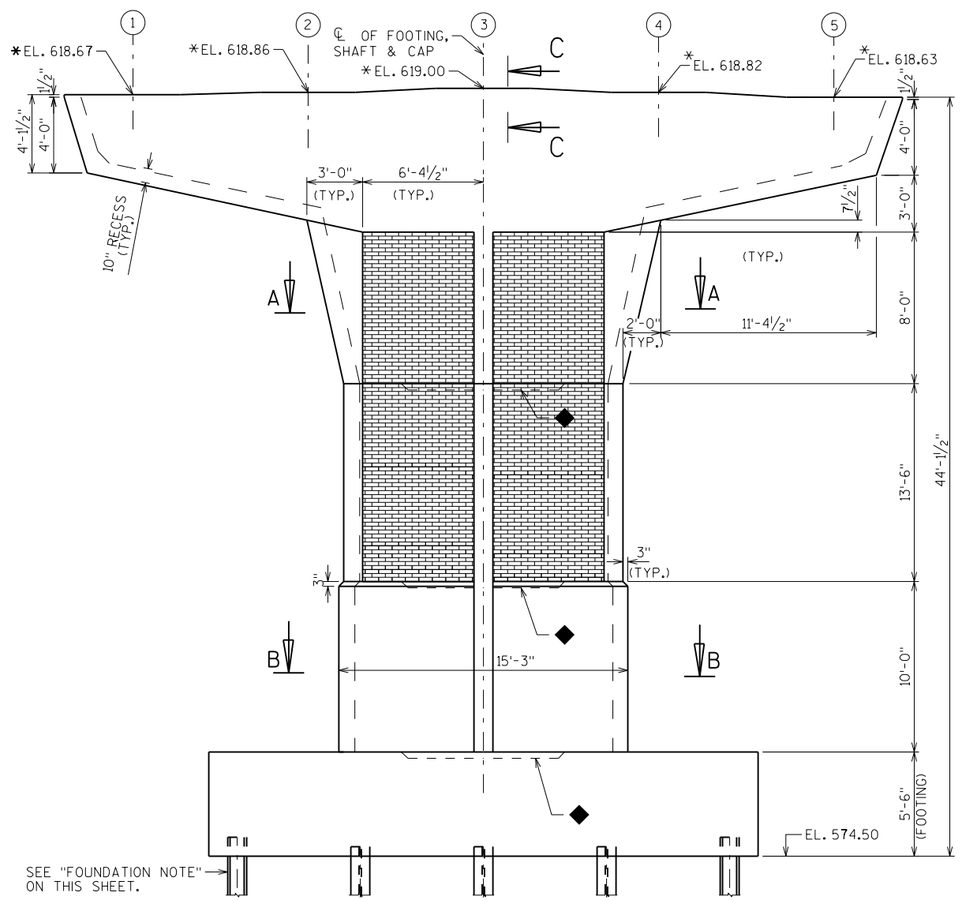
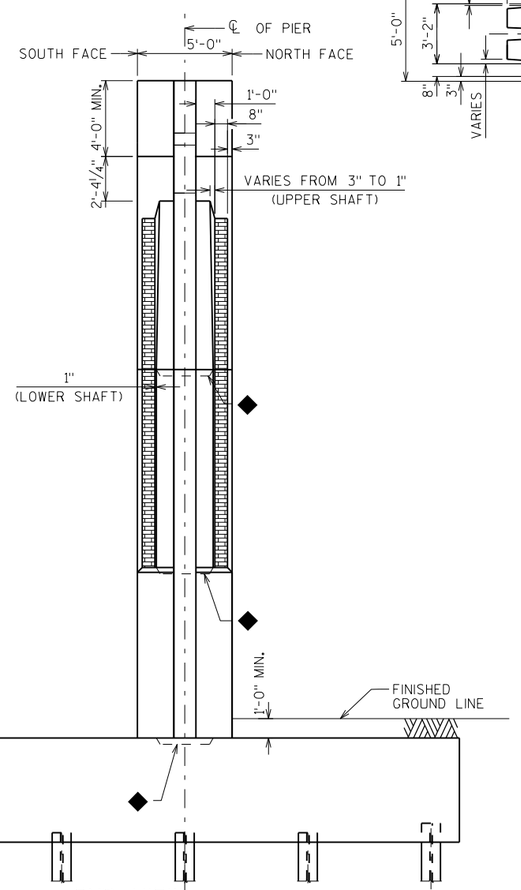


ELEVATION

(LOOKING UPSTATION)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

* ELEVATIONS ARE GIVEN FOR SPAN 7 BEAM SEAT.

NOTES:

FOR PIER 7 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 7 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 69'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 516.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 2 & 7.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 7 LAYOUT DETAILS

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723

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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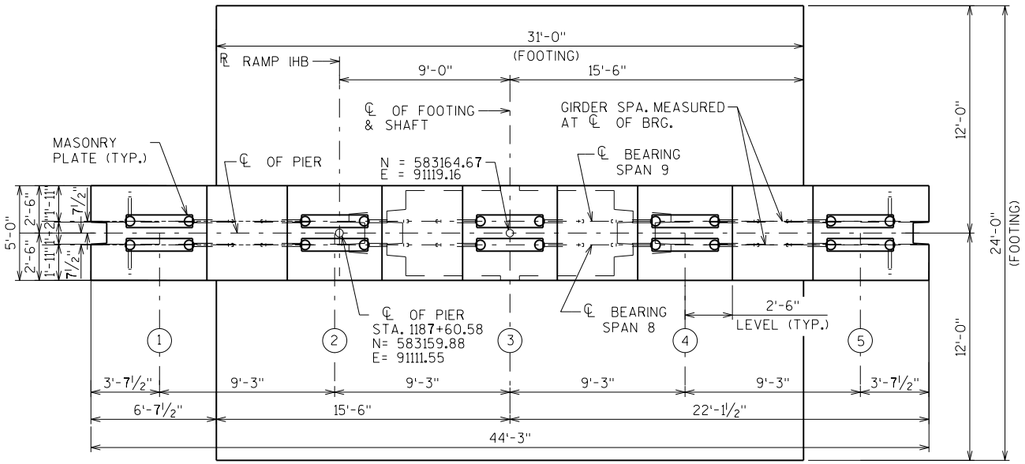
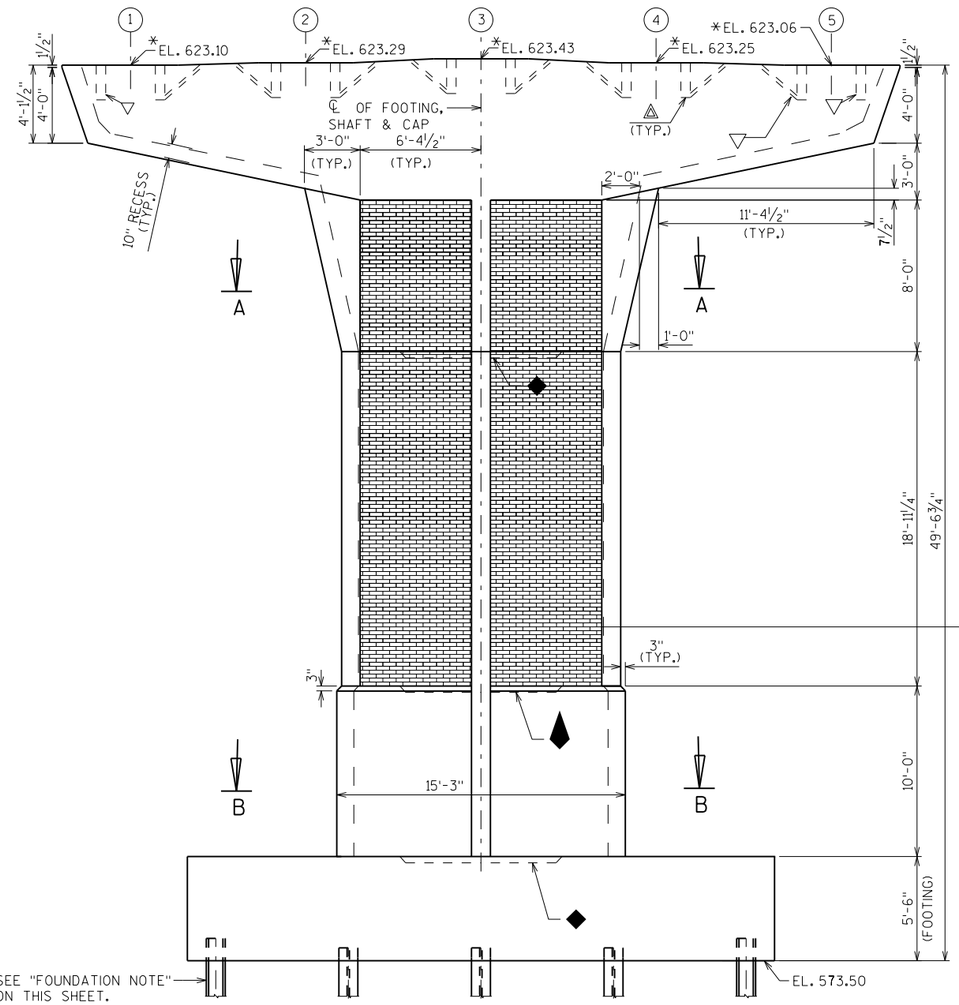
STATE PROJECT NUMBER
1133-11-74

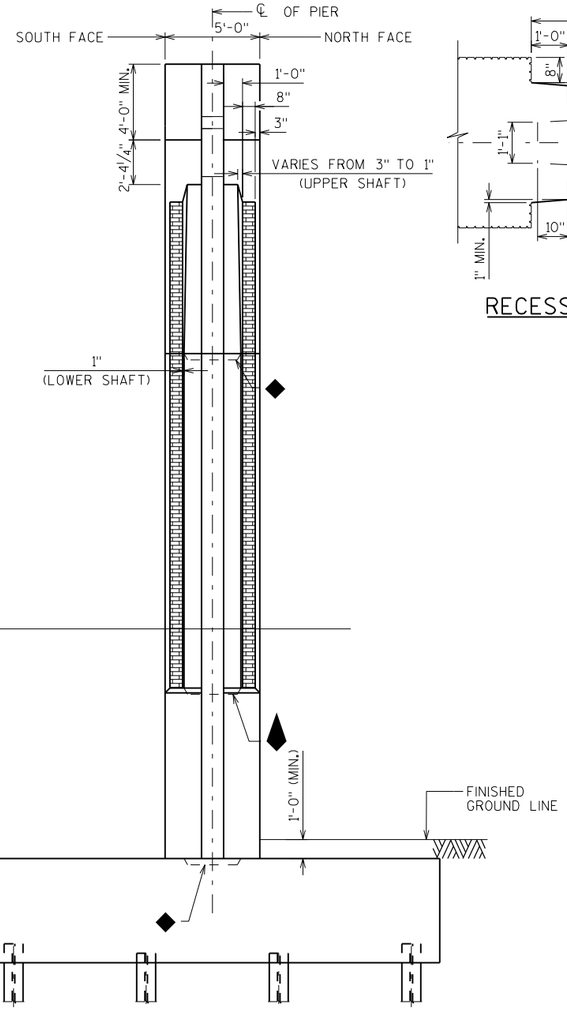


PLAN



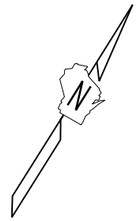
ELEVATION

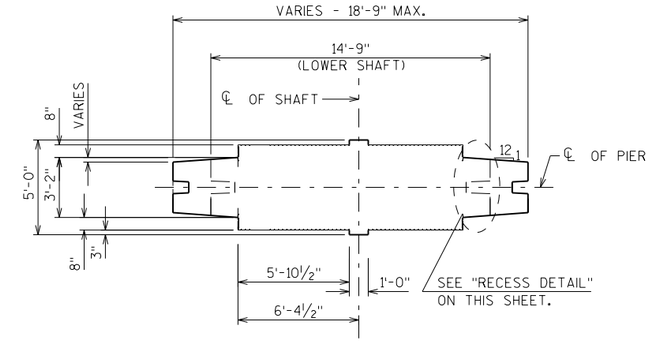
(LOOKING UPSTATION)



END VIEW

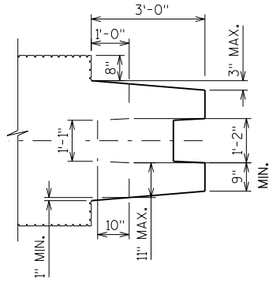
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



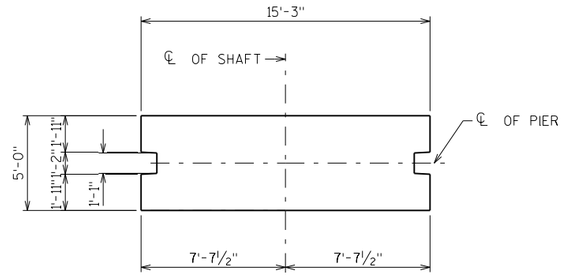


SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



RECESS DETAIL



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

* ELEVATIONS ARE GIVEN FOR SPAN 8 BEAM SEAT. BEARINGS AT SPAN 9 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

▽ SEE SHEET TITLED 'PIER 1 LAYOUT DETAILS' FOR DETAILS OF ANCHOR BOLT GROUTING

NOTES:

FOR PIER 8 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 8 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 80' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 521.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 6, 8-10.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 8
LAYOUT DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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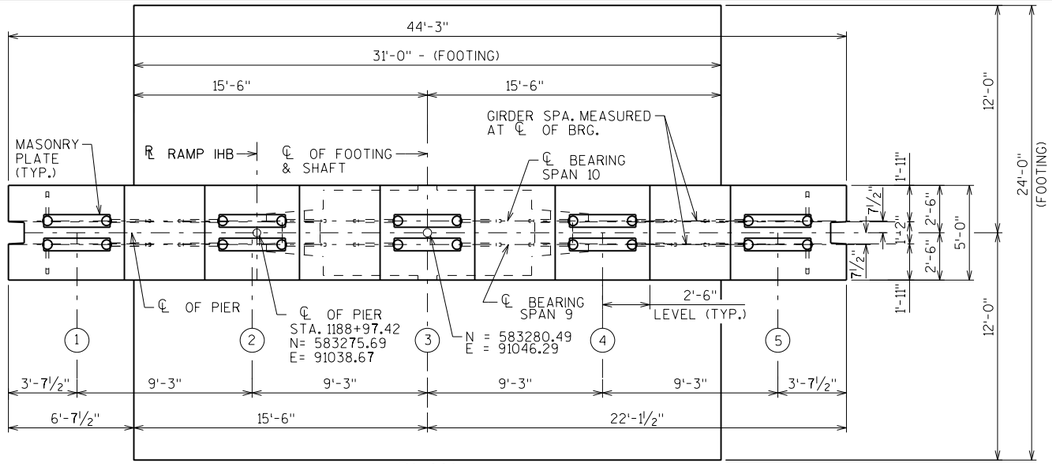
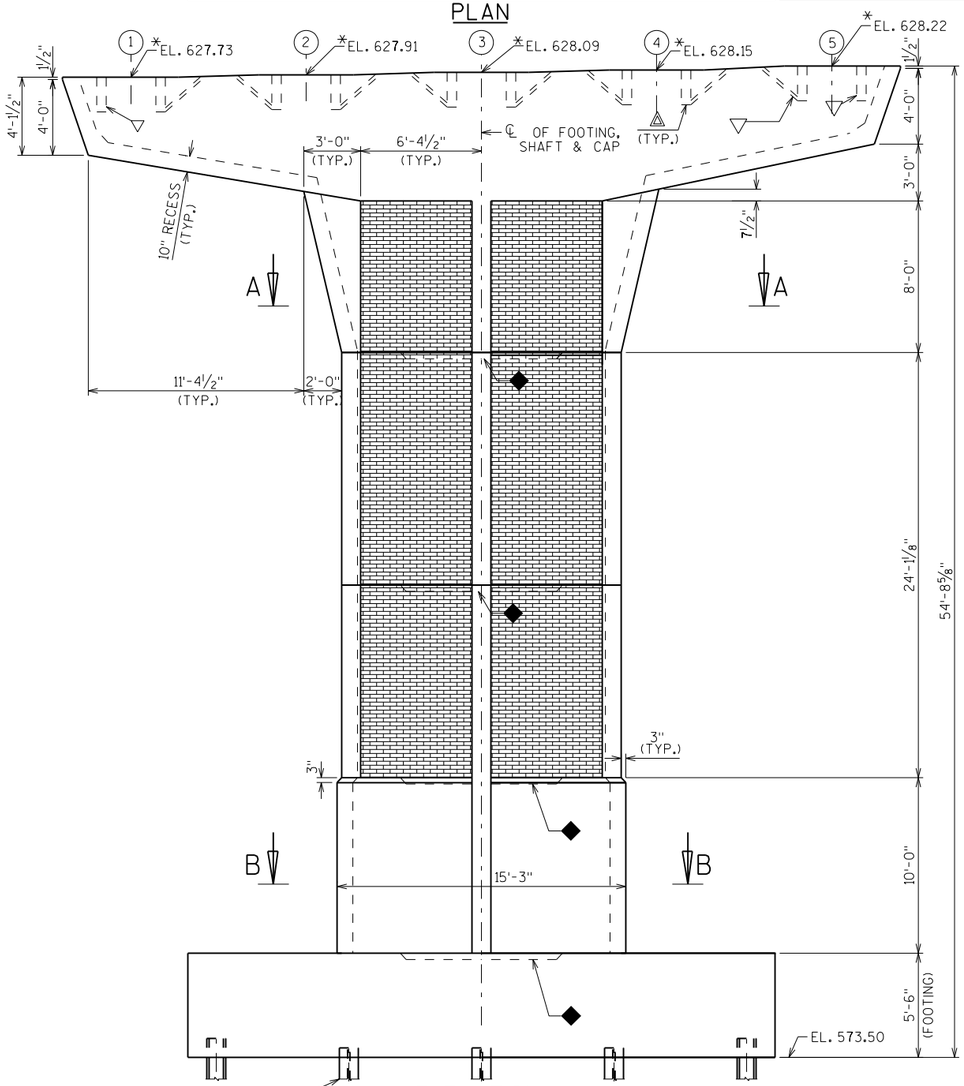
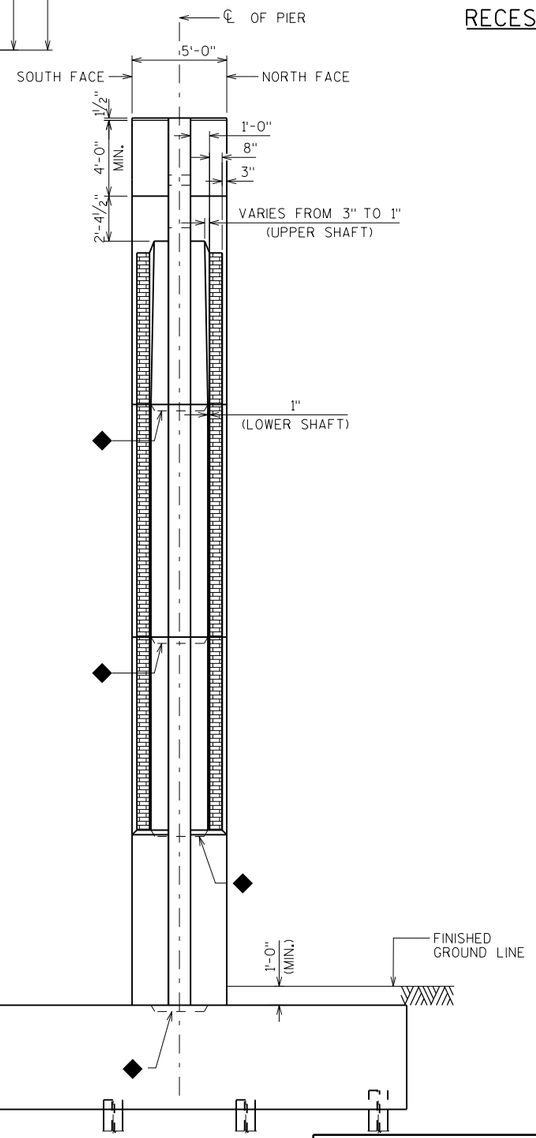
1133-11-74



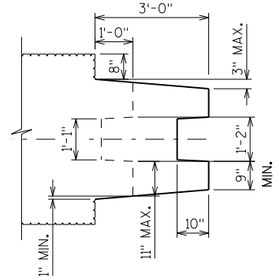
PLAN



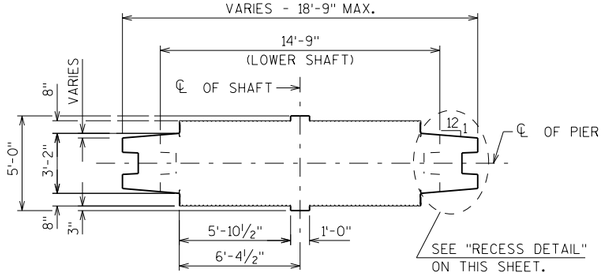
ELEVATION
(LOOKING UPSTATION)



END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

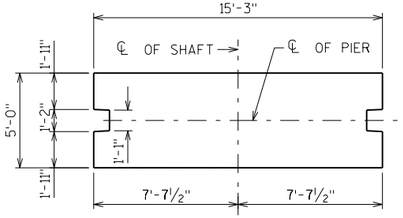


RECESS DETAIL



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

* ELEVATIONS ARE GIVEN FOR SPAN 9 BEAM SEAT. BEARINGS AT SPAN 10 WILL REQUIRE FILL PLATES. SEE "PRESTRESSED GIRDER STEEL BEARING" SHEET FOR DETAILS.

▽ SEE SHEET TITLED 'PIER 1 LAYOUT DETAILS' FOR DETAILS OF ANCHOR BOLT GROUTING

NOTES:

FOR PIER 9 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

PIER 9 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 64' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 520.00.

FOR FOOTING LAYOUT DETAILS. SEE SHEET PIER FOOTING DETAILS PIERS 6, 8-10.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

PIER 9
LAYOUT DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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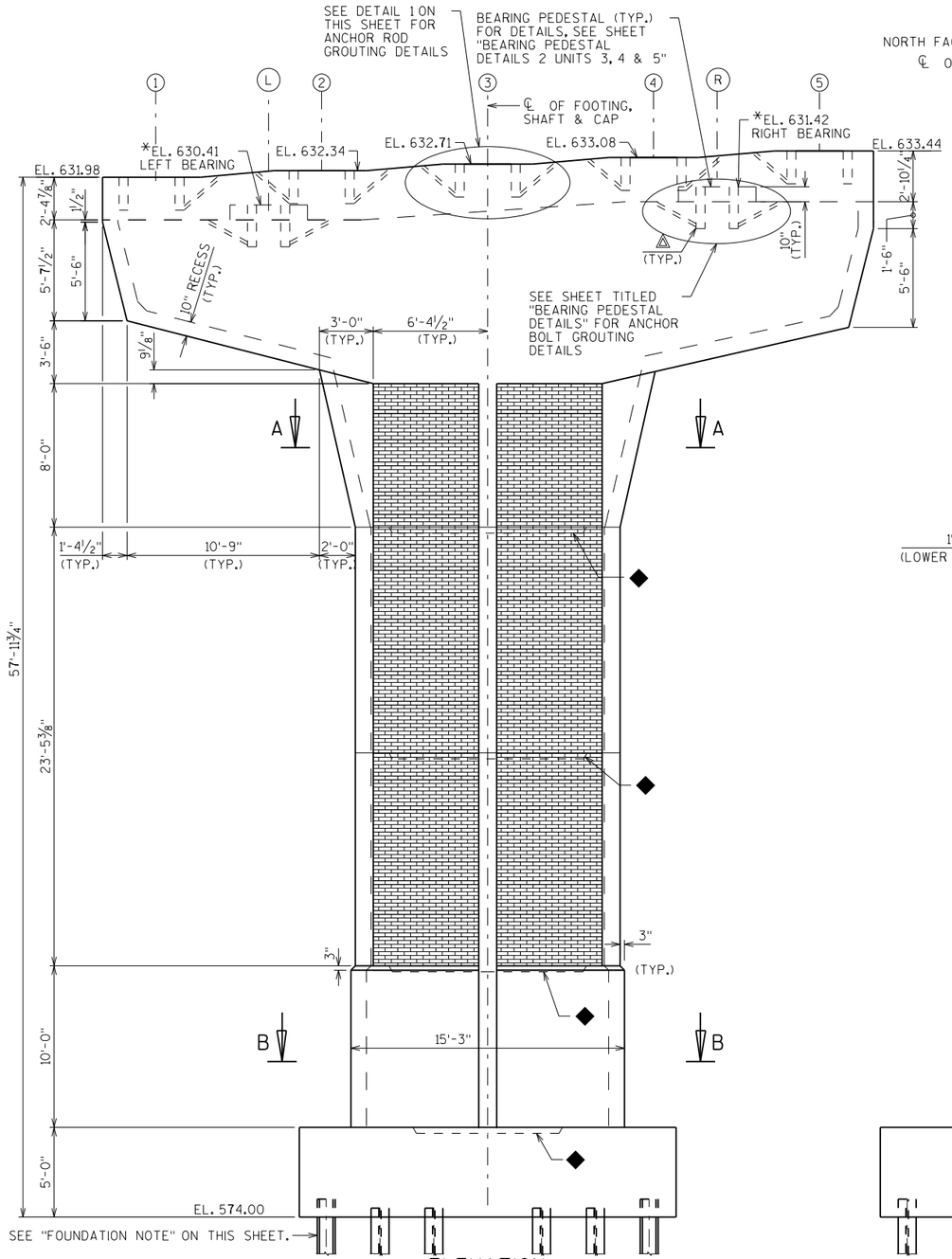
I.D.

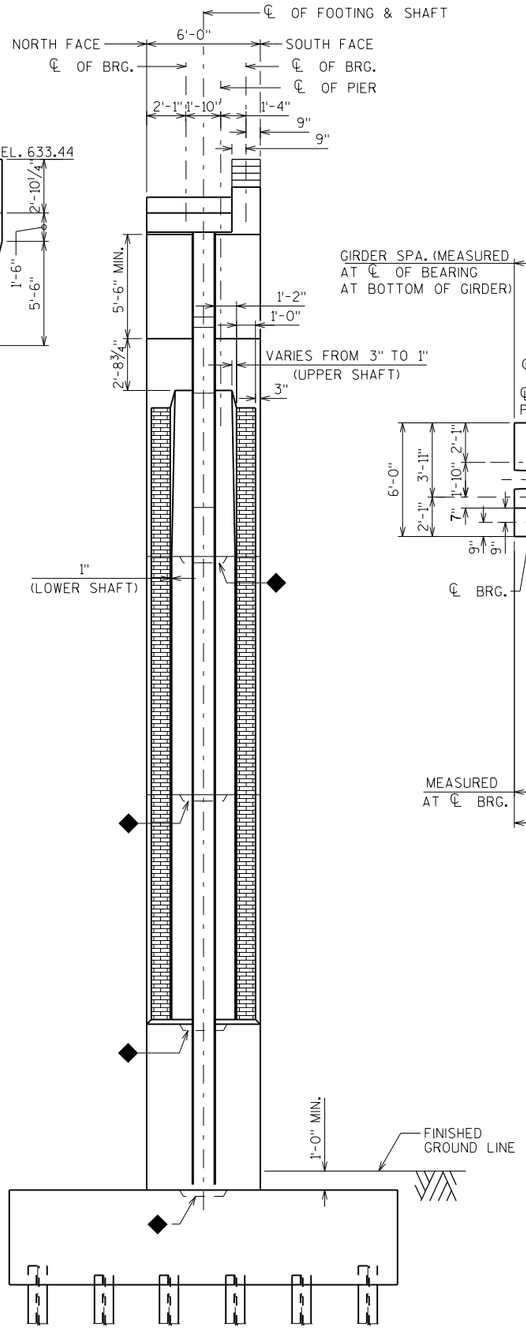
STATE PROJECT NUMBER

1133-11-74



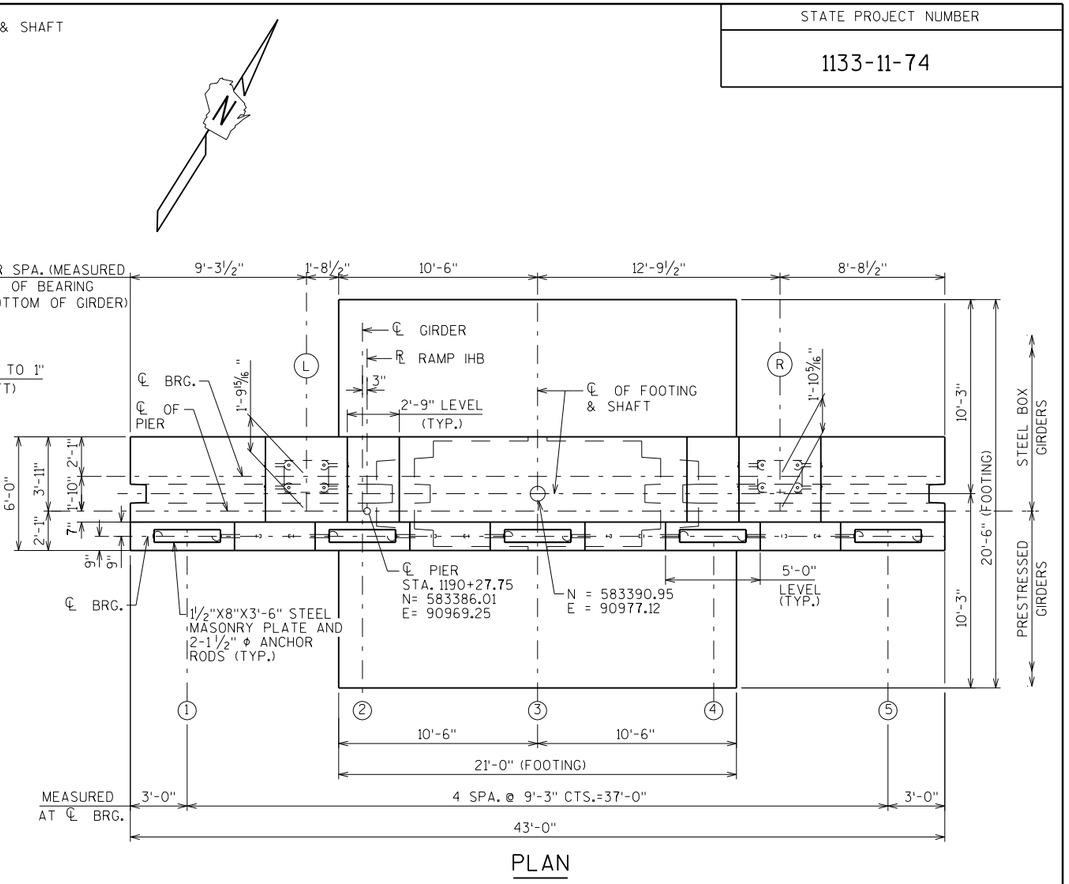
ELEVATION

(LOOKING UPSTATION)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING FOR STEEL BOX GIRDERS.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTES:

PIER 10 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 67' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 523.00.

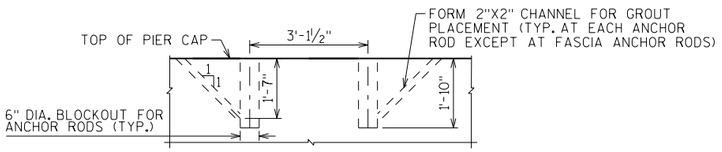
FOR FOOTING LAYOUT DETAILS. SEE SHEET "PIER FOOTING DETAILS PIERS 6, 8-10".

FOR PILE SPLICE DETAILS, SEE SHEET "SOUTH ABUTMENT CROSS SECTION".

FOR PIER 10 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

SEE SHEET PIER FOOTING DETAILS PIERS 6, 8-10 FOR FOOTING REINFORCEMENT.

SEE SHEET PIER 10 LAYOUT DETAILS-2 FOR SECTIONS A-A AND B-B.



DETAIL 1

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 10
LAYOUT DETAILS-1

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726

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STATE PROJECT NUMBER

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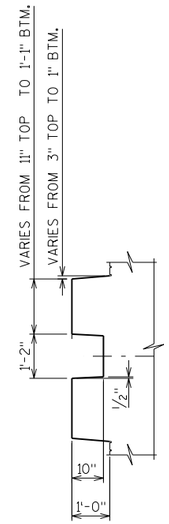
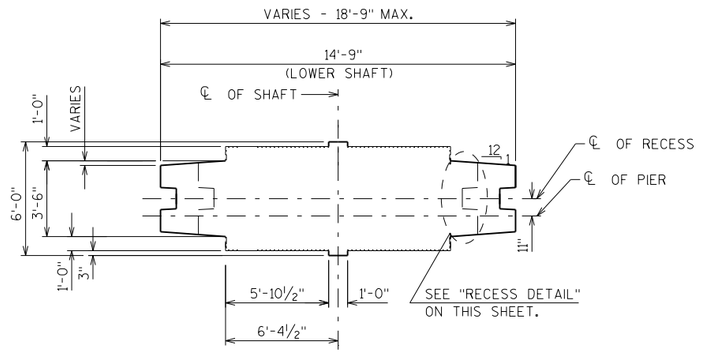
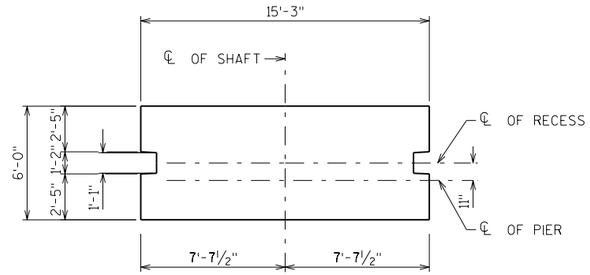


RECESS DETAIL



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



SECTION B-B

NOTE:

SEE SHEET TITLED "PIER 10 LAYOUT DETAILS-1" FOR LOCATIONS OF SECTIONS A-A AND B-B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 10
LAYOUT DETAILS-2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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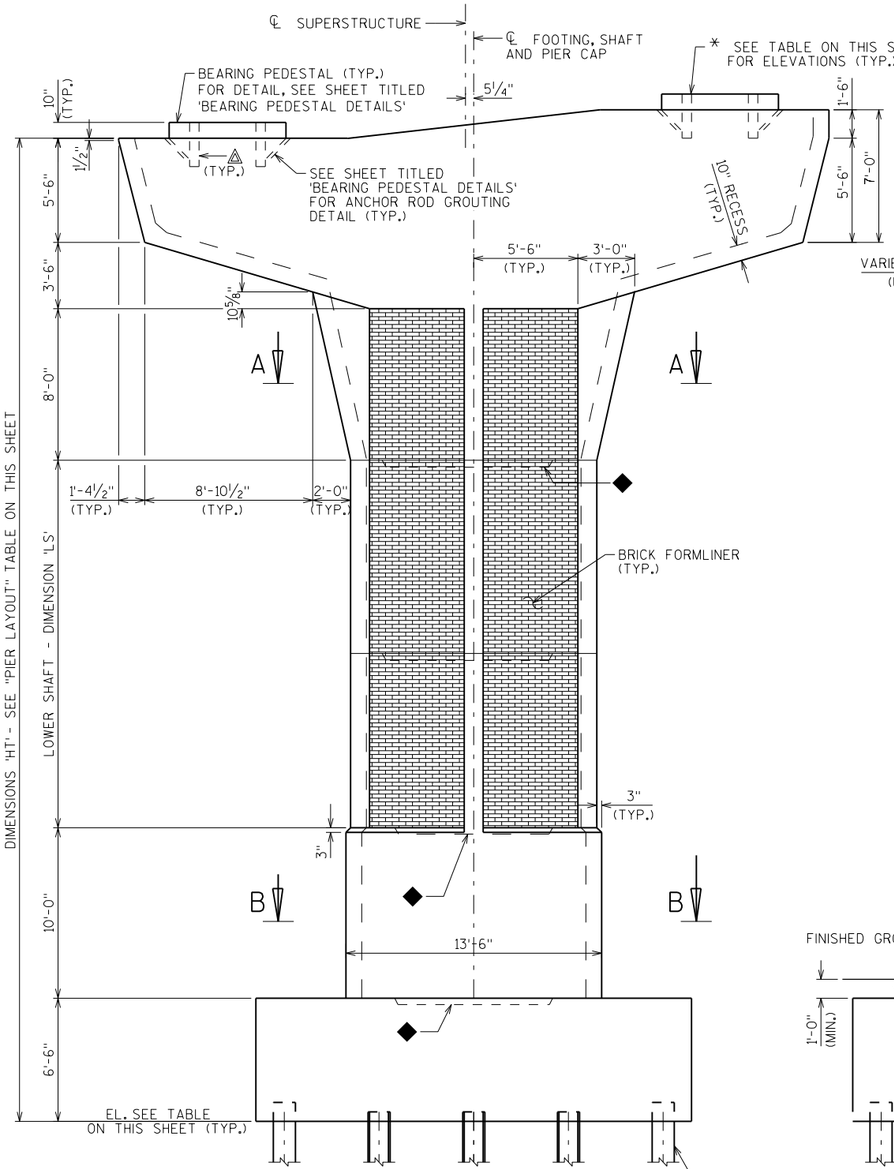
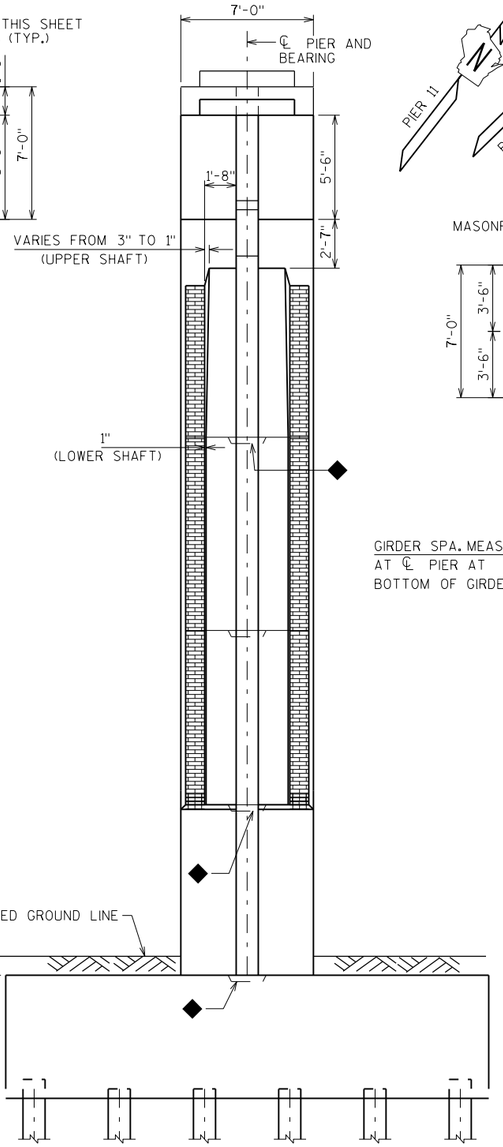
STATE PROJECT NUMBER

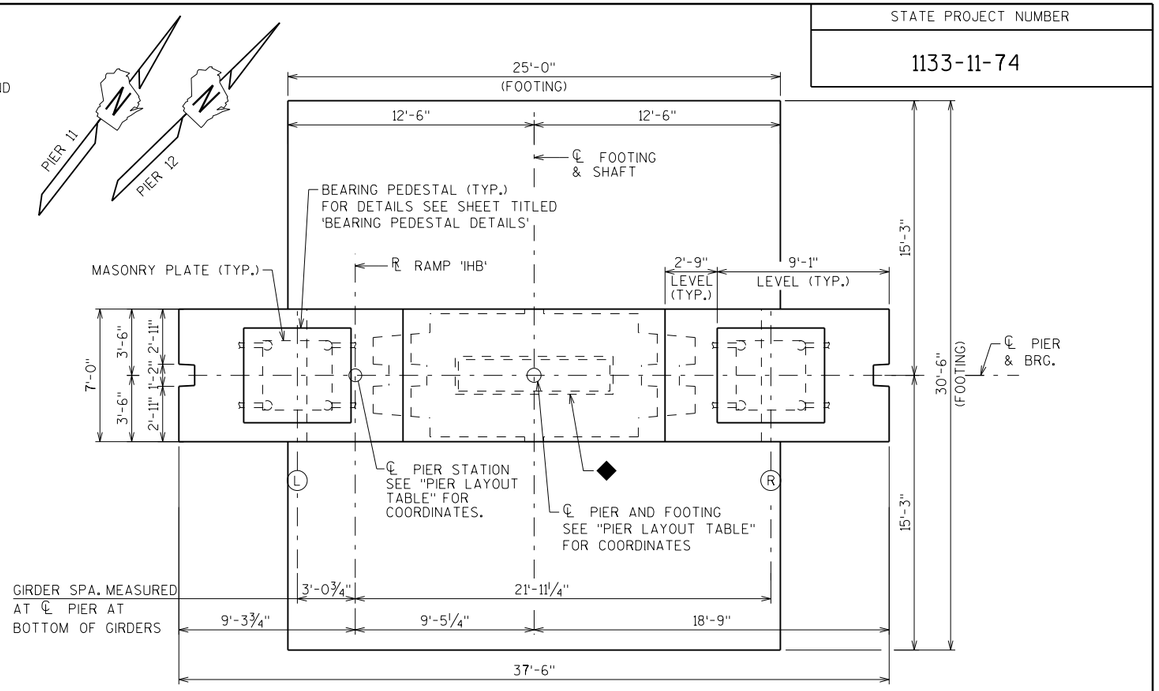
1133-11-74



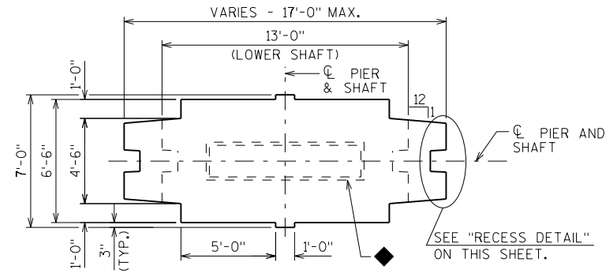
ELEVATION
(LOOKING UPSTATION)



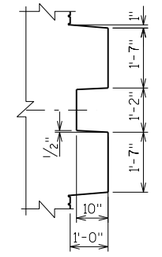
END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



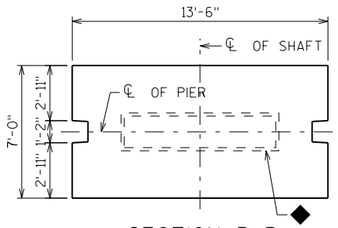
PLAN



SECTION A-A



RECESS DETAIL
(LOWER SHAFT)



SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)

NOTES:

PIERS 11 & 12 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 79' LONG FOR PIER 11 AND 64' LONG FOR PIER 12. THE MINIMUM PILE TIP EL. FOR UPLIFT PIER 11 IS 523.00 AND FOR PIER 12 EL. UPLIFT IS 535.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 11-14 & 17.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

FOR PIERS 11 & 12 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

PIER LAYOUT TABLE

	CENTERLINE BEARING STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER AND FOOTING COORDINATES
PIER 11	1191+66.75	634.71	636.21	26'-10½"	60'-4½"	573.50	N = 583499.79 E = 90889.51	N = 583505.58 E = 90896.96
PIER 12	1193+58.75	641.18	642.68	33'-4⅛"	66'-10⅛"	573.50	N = 583642.81 E = 90761.65	N = 583649.57 E = 90768.23

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

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PIERS 11 & 12 LAYOUT DETAILS

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STATE PROJECT NUMBER

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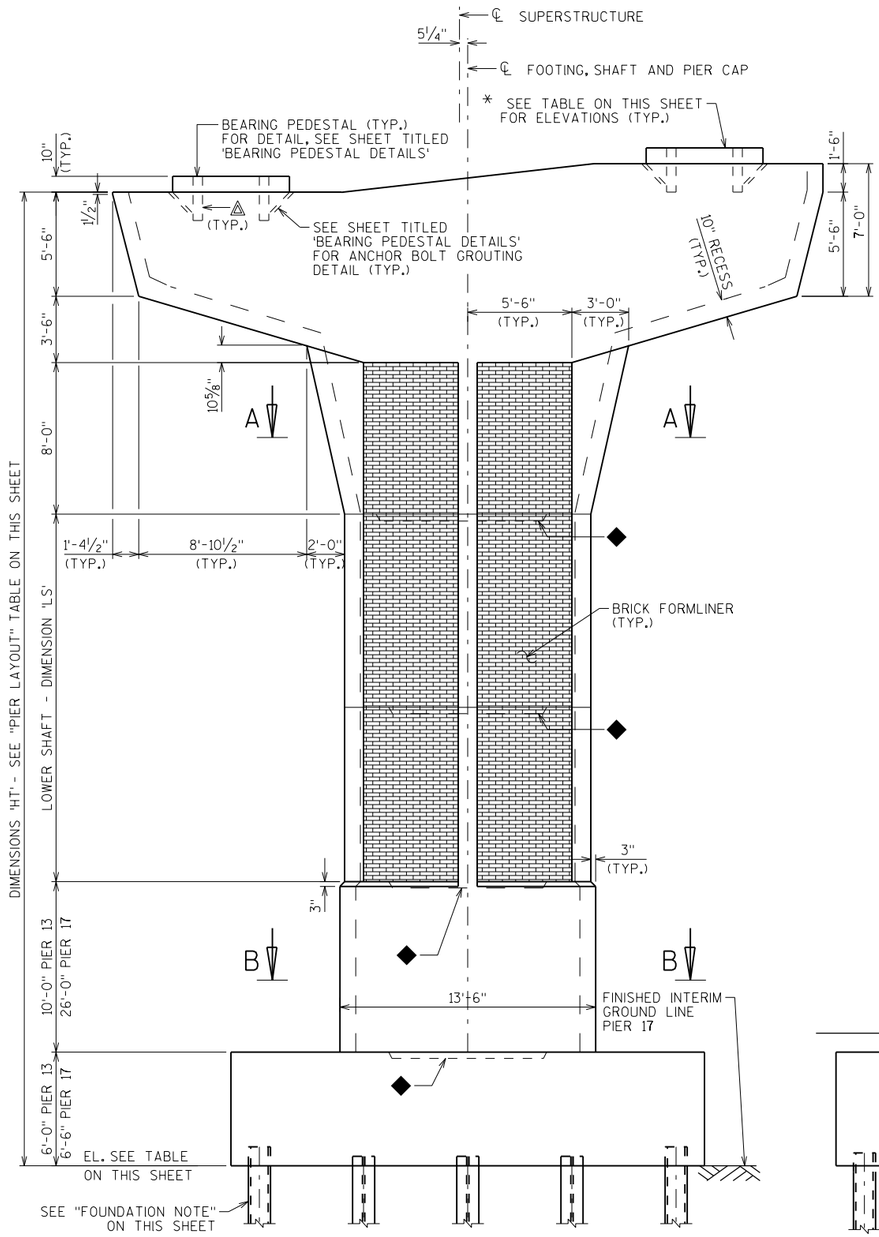
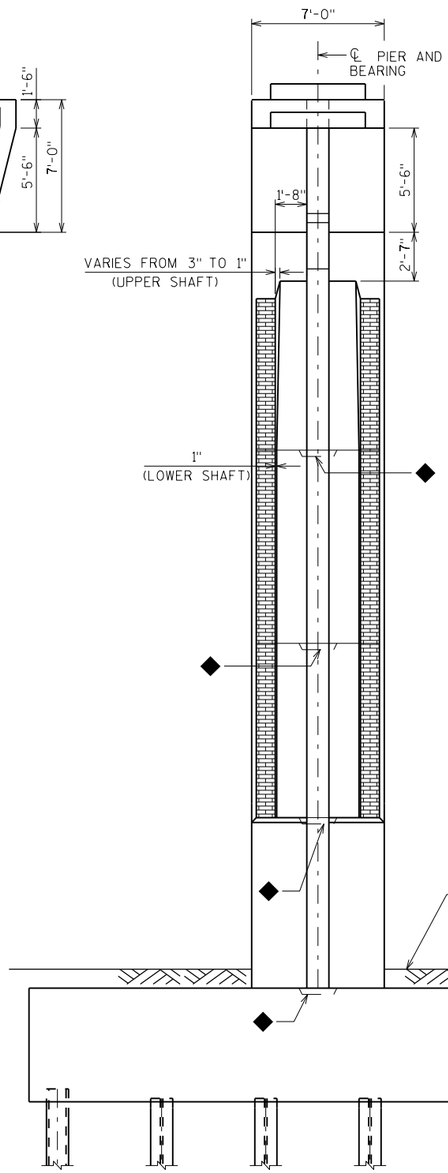


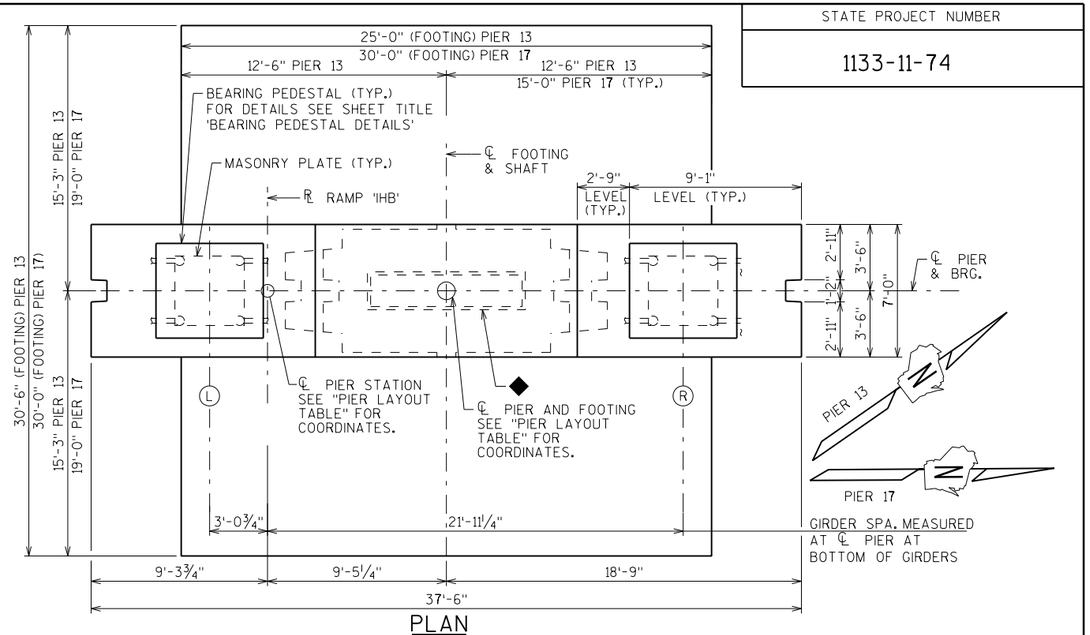
ELEVATION

(LOOKING UPSTATION)
(PIER 13 SHOWN, PIER 17 SIMILARE WITH 7 PILES)

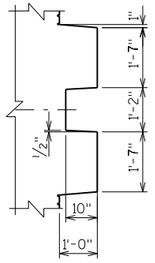


END VIEW

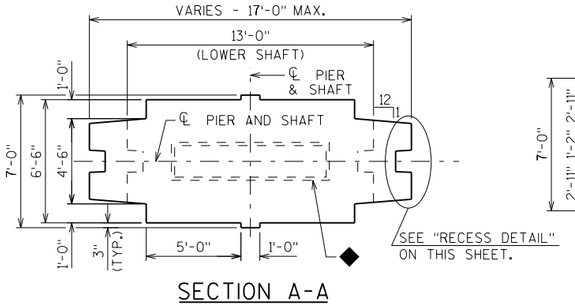
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)
(PIER 13 SHOWN, PIER 17 SIMILARE WITH 7 PILES)



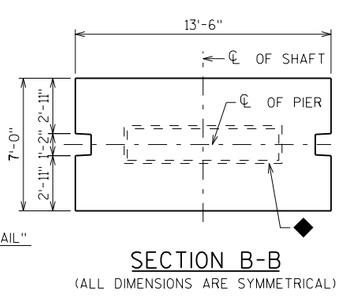
PLAN



RECESS DETAIL



SECTION A-A



SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

NOTES:

PIERS 13 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 68' LONG FOR PIER 13. MINIMUM PILE TIP EL. FOR UPLIFT IS 547.00 FOR PIER 13.

PIERS 17 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF *250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 65' LONG FOR PIER 17. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 526.00 FOR PIER 17.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A FACTOR OF 0.8 (AND FURTHER REDUCED BY DOWN DRAG FORCES EQUAL TO 43 TONS) USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 11-14 & 17.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

FOR PIERS 13 & 17 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1& 2.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

PIER LAYOUT TABLE

	CENTERLINE BEARING STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER AND FOOTING COORDINATES
PIER 13	1195+88.00	648.34	649.84	39'-6⅛"	72'-6⅛"	575.00	N = 583788.72 E = 90585.16	N = 583796.47 E = 90590.56
PIER 17	1204+31.50	648.80	650.30	8'-5⅝"	57'-11⅝"	590.00	N = 584040.37 E = 89793.39	N = 584049.81 E = 89793.45

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIERS 13 & 17 LAYOUT DETAILS

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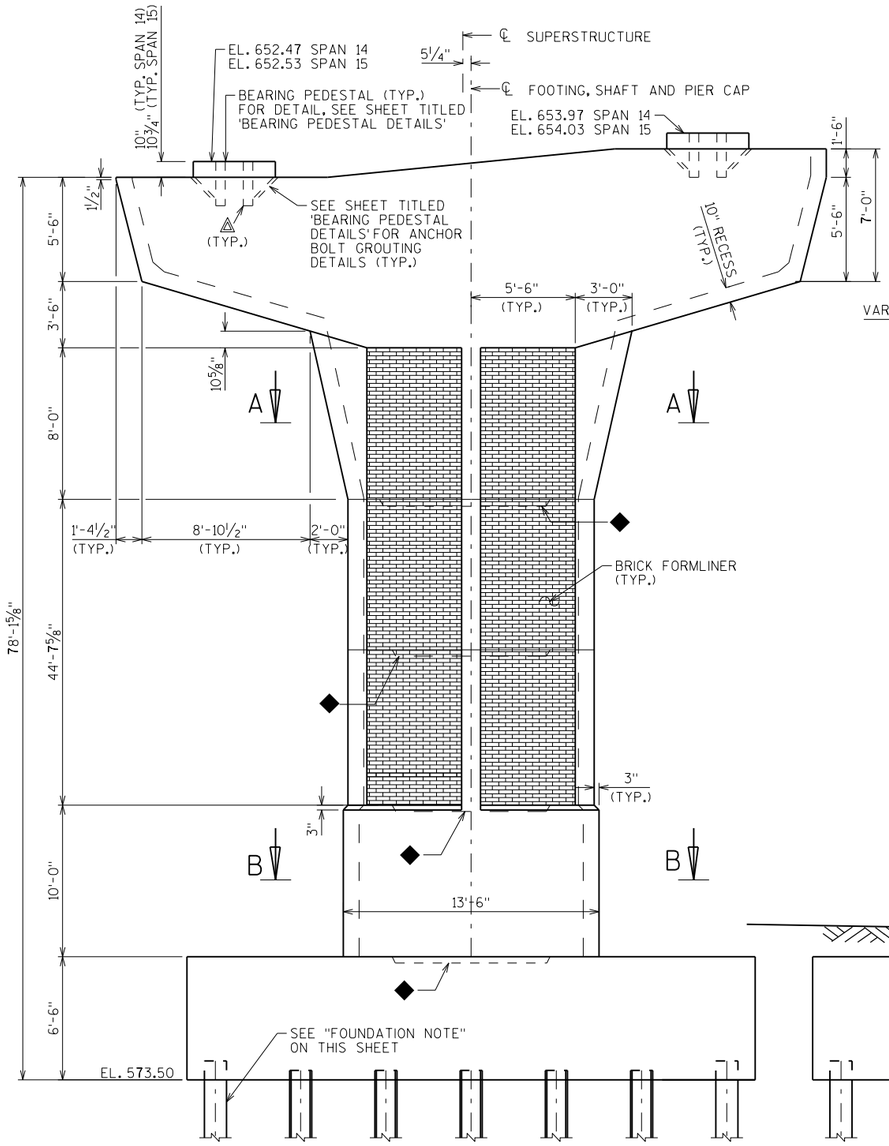
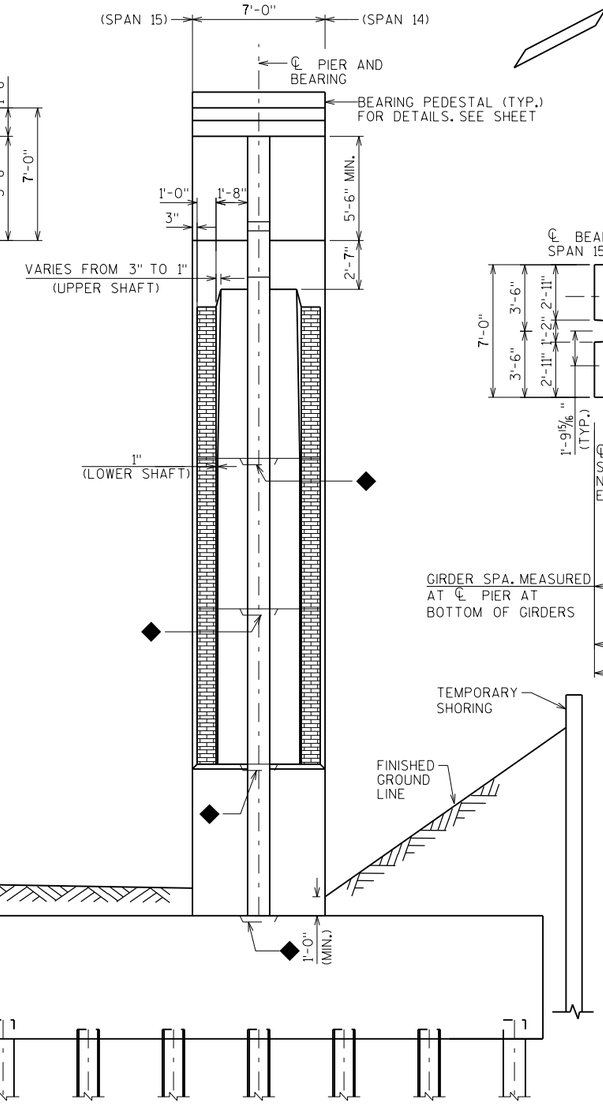
1133-11-74



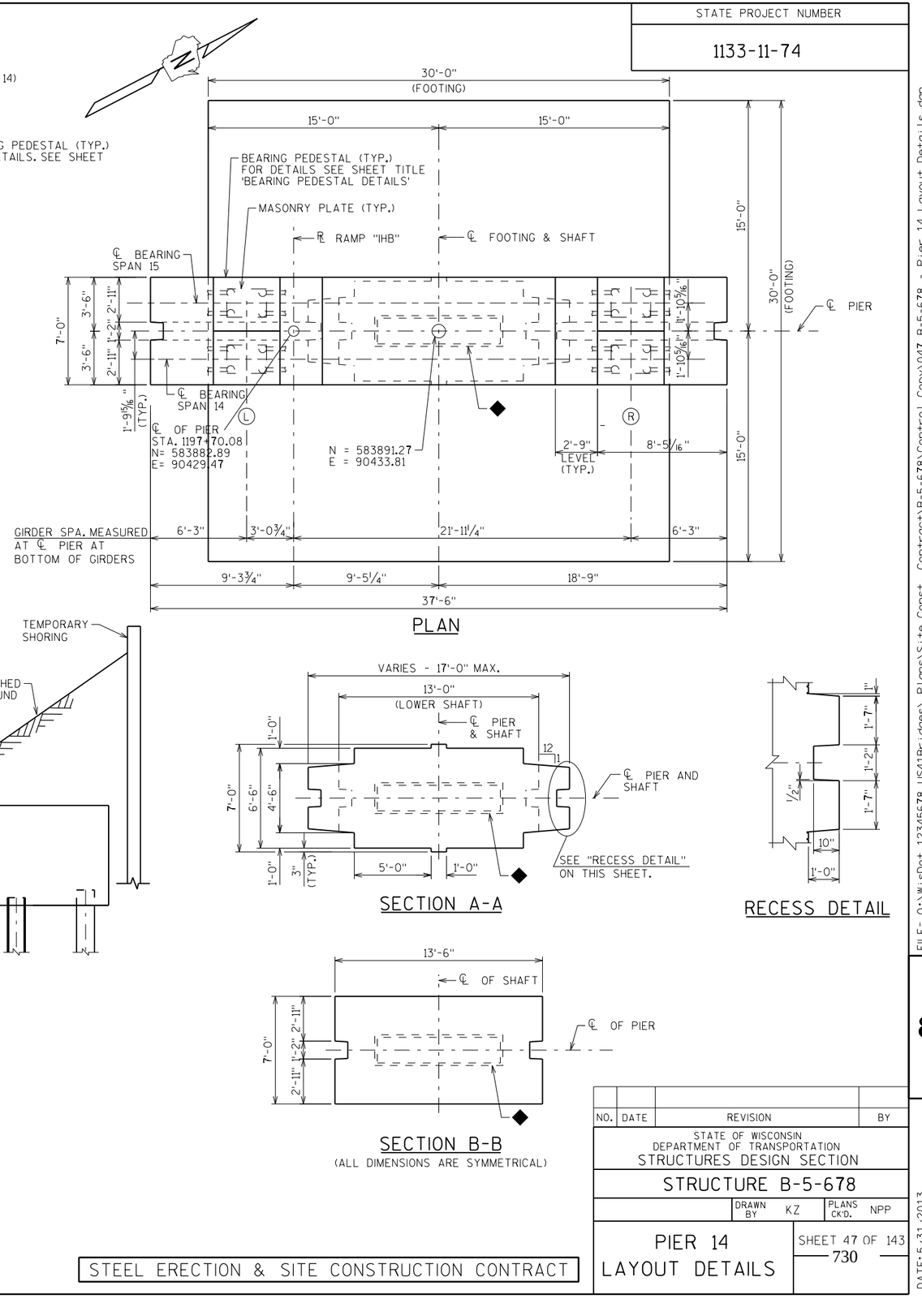
ELEVATION

(LOOKING UPSTATION)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN

SECTION A-A

RECESS DETAIL

SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

⚠ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTES:

PIER 14 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF *250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 62'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 538.00.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A FACTOR OF 0.8 (AND FURTHER REDUCED BY DOWN DRAG FORCES EQUAL TO 58 TONS) USING FHWA-MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 11-14, & 17.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

FOR PIER 14 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 14
LAYOUT DETAILS

SHEET 47 OF 143
730

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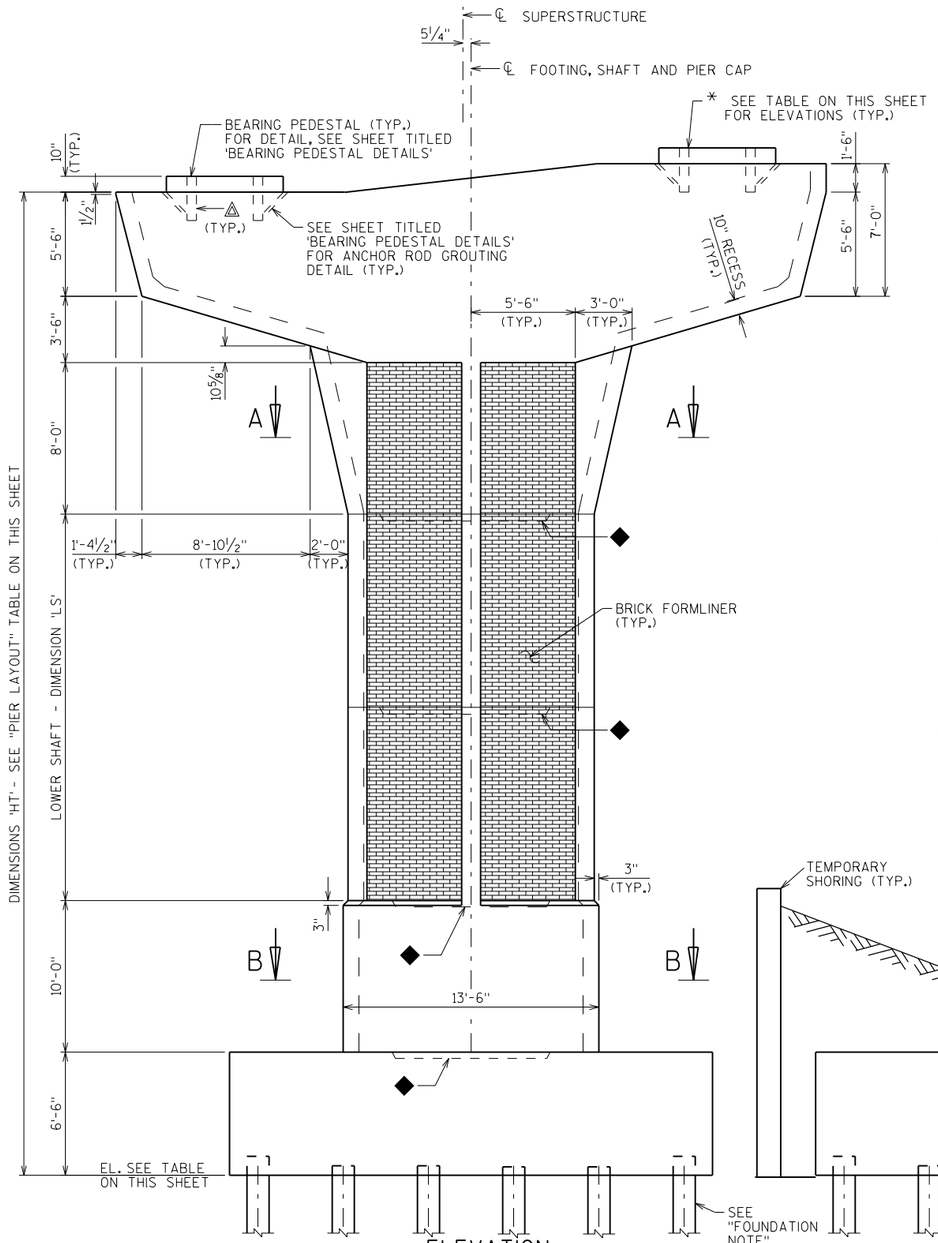

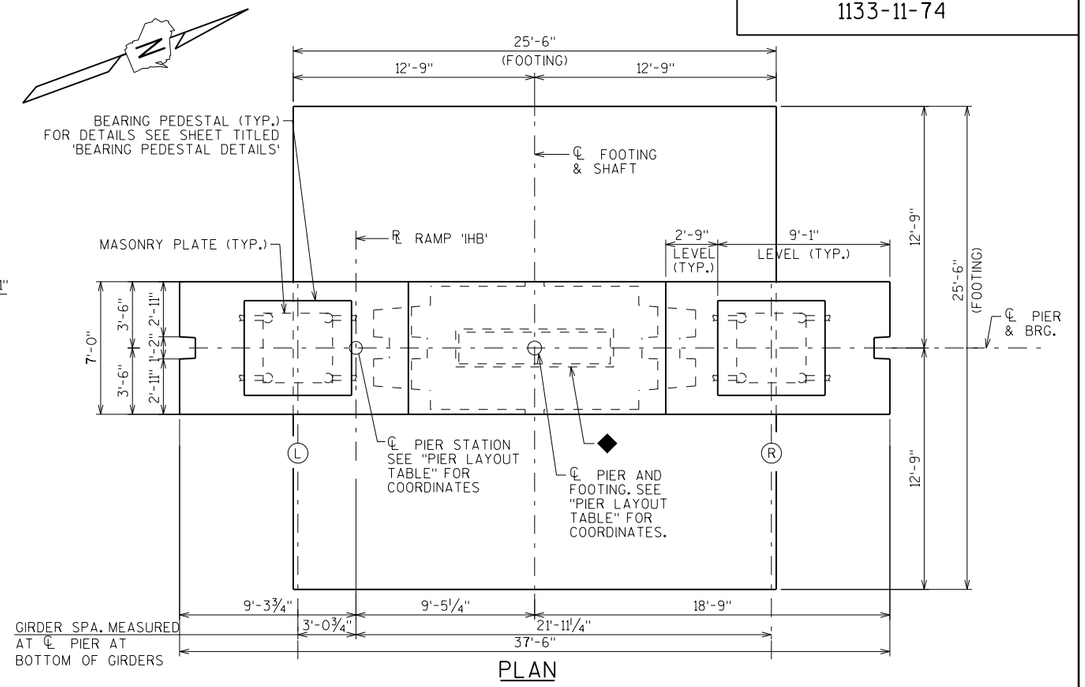

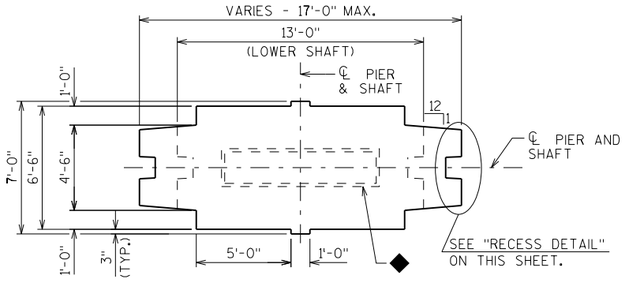

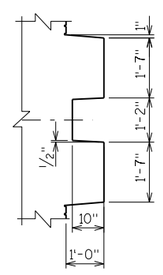

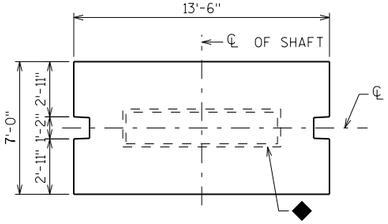

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

PIER LAYOUT TABLE

	CENTERLINE BEARING STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER AND FOOTING COORDINATES
PIER 15	1199+48.33	653.85	655.35	41'-0¼"	74'-6¼"	578.50	N = 583954.75 E = 90266.47	N = 583963.61 E = 90269.73

NOTES:

PIER 15 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 67' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 534.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 15, 16, 19-22.

SEE SHEET SOUTH ABUTMENT CROSS SECTION FOR PILE SPLICE DETAILS.

FOR PIER 15 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 15 LAYOUT DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013

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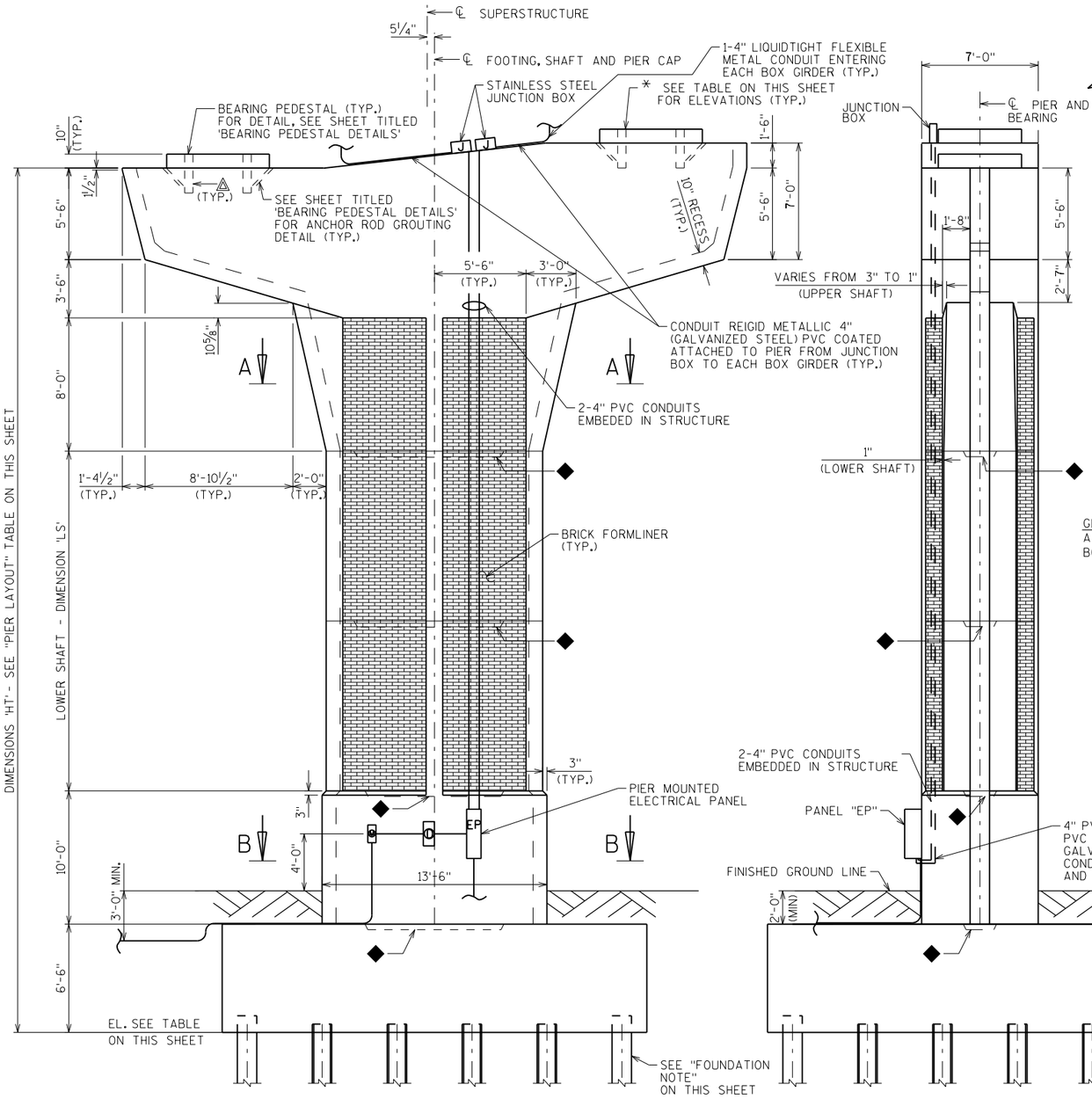
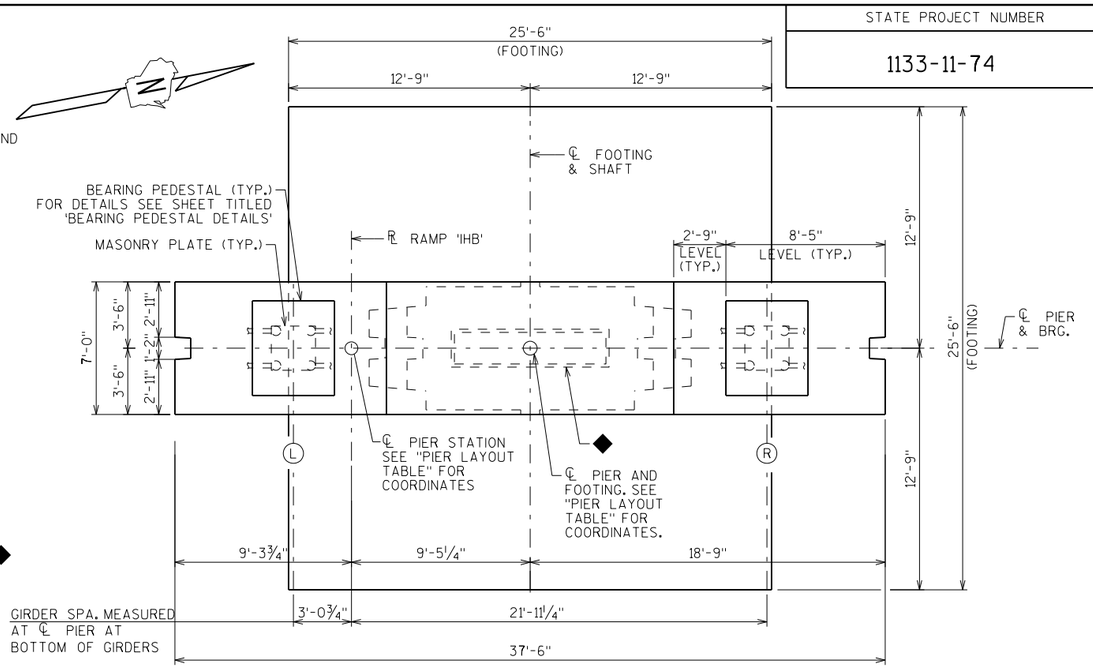
STATE PROJECT NUMBER

1133-11-74

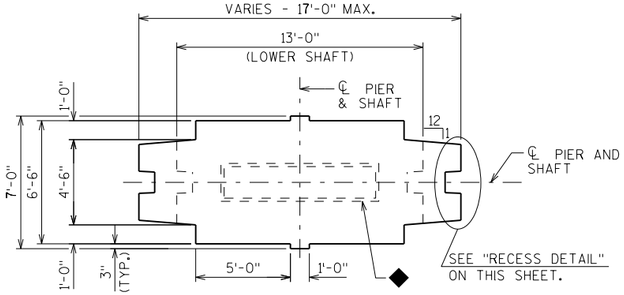


ELEVATION
(LOOKING UPSTATION)

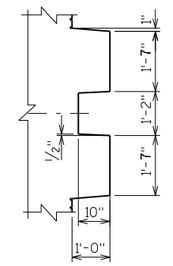
END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN



SECTION A-A



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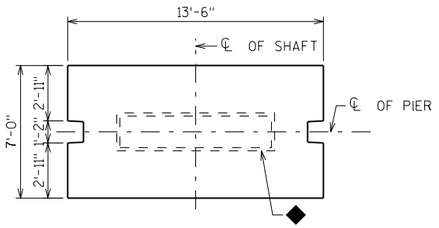

SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)

NOTES:

PIER 16 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 69' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 520.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 15, 16, 19-22.

SEE SHEET SOUTH ABUTMENT CROSS SECTION FOR PILE SPLICE DETAILS.

FOR PIER 16 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1& 2.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

⚠ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

PIER LAYOUT TABLE

	CENTERLINE BEARING STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER AND FOOTING COORDINATES
PIER 16	1201+89.92	653.08	654.58	42'-3"	75'-9"	576.50	N = 584018.02 E = 90033.63	N = 584027.31 E = 90035.31

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STATE OF WISCONSIN
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STRUCTURE B-5-678

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PIER 16 LAYOUT DETAILS

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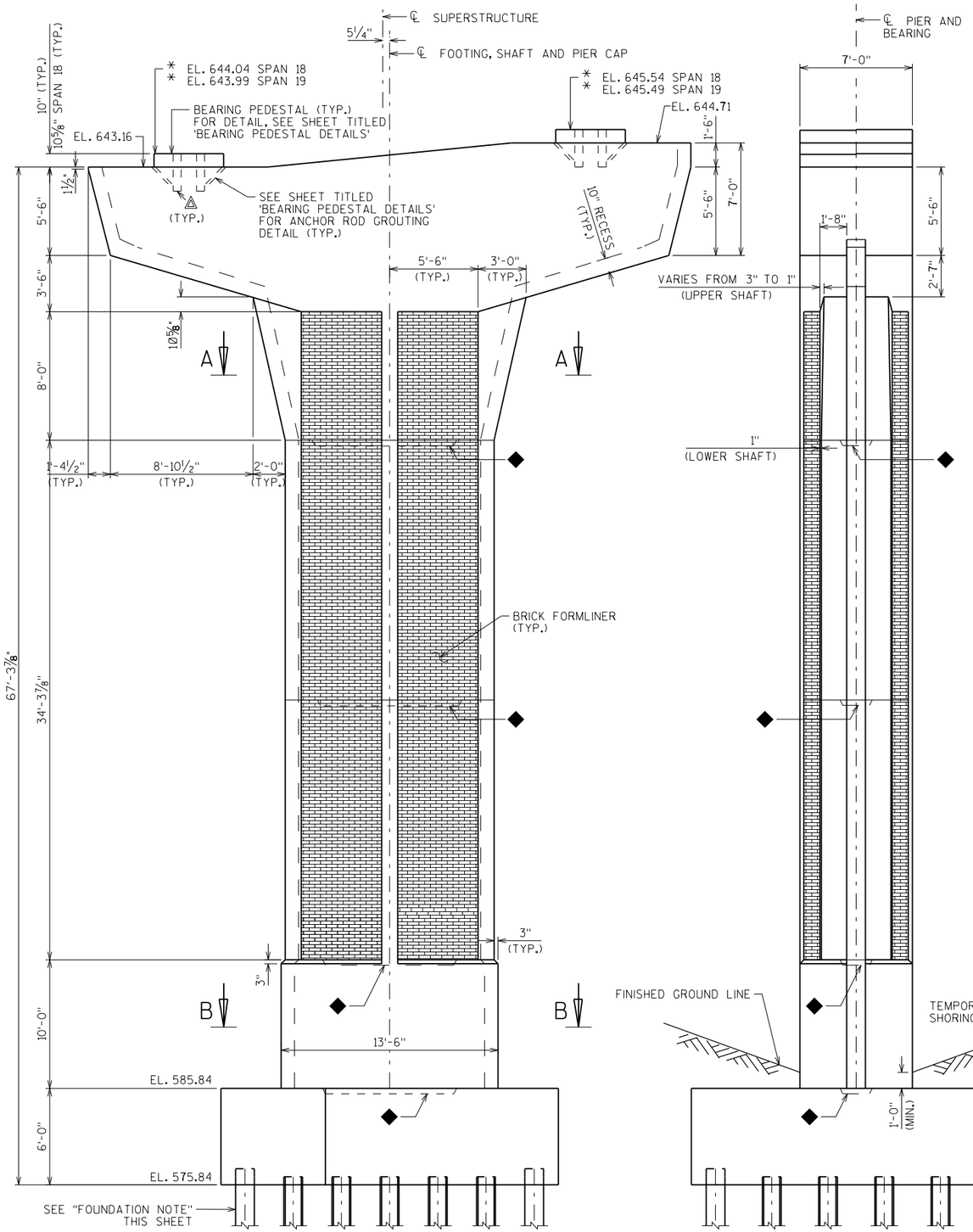
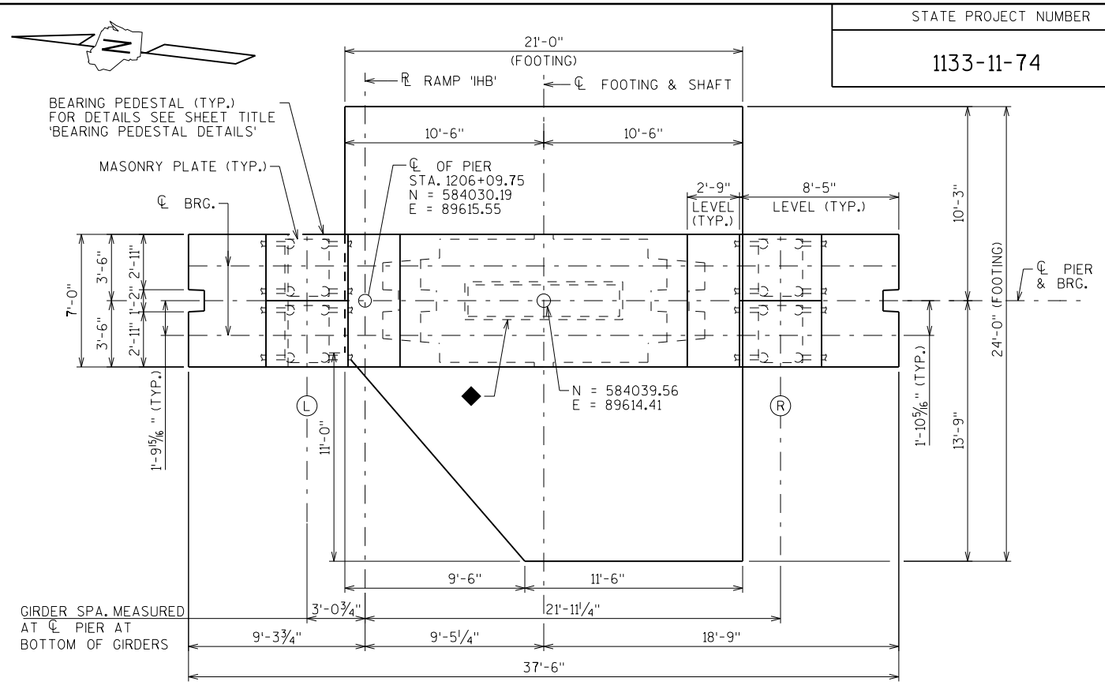
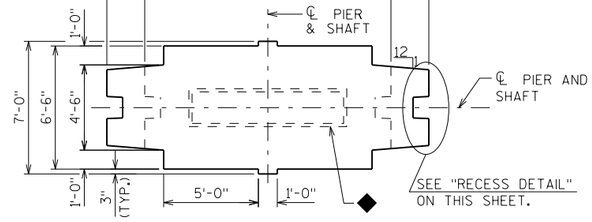


ELEVATION
(LOOKING UPSTATION)

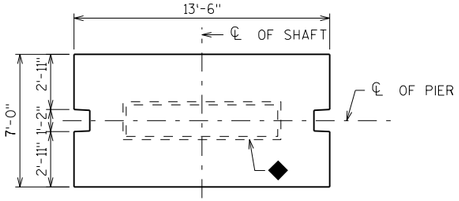
END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN



SECTION A-A



SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

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△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

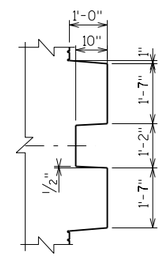
FOUNDATION NOTE

PIER 18 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 54' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 528.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIER 18.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

FOR PIER 18 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND AND BEARING PEDESTAL DETAILS 1 & 2.



RECESS DETAIL

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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PIER 18 LAYOUT DETAILS

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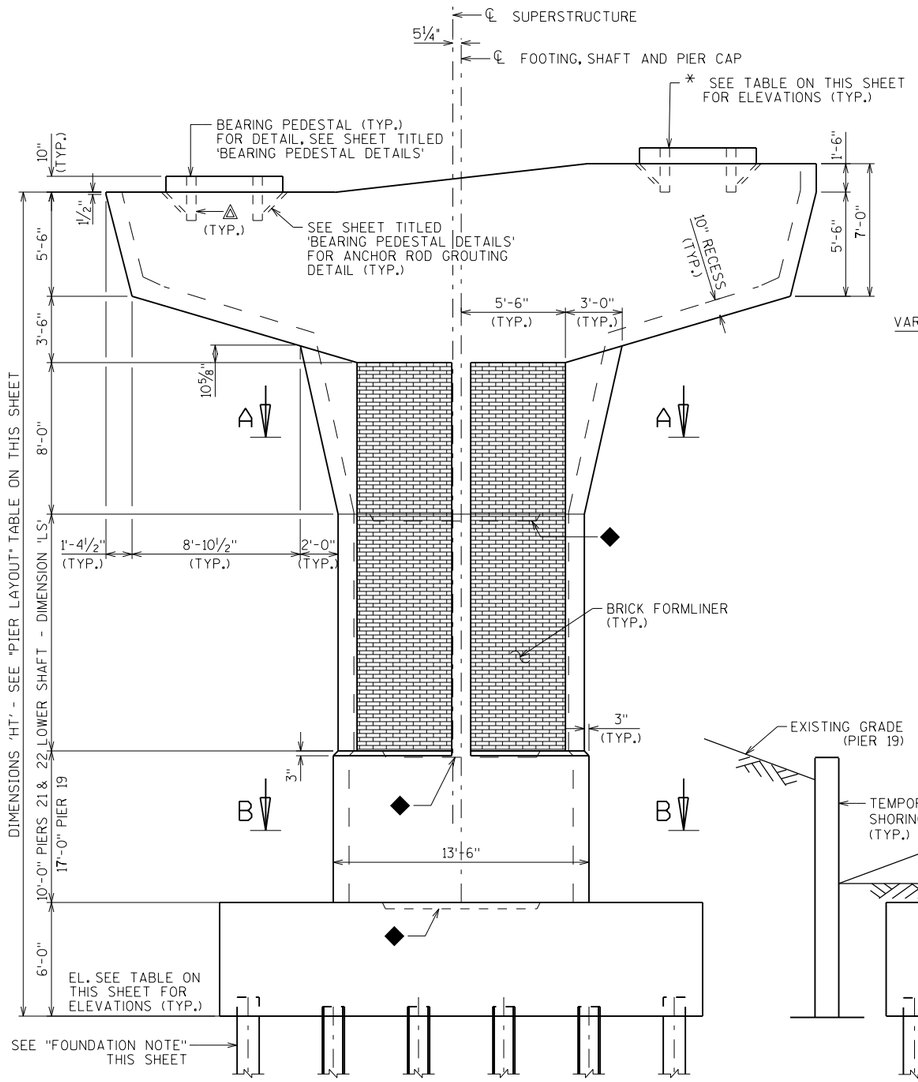

ELEVATION
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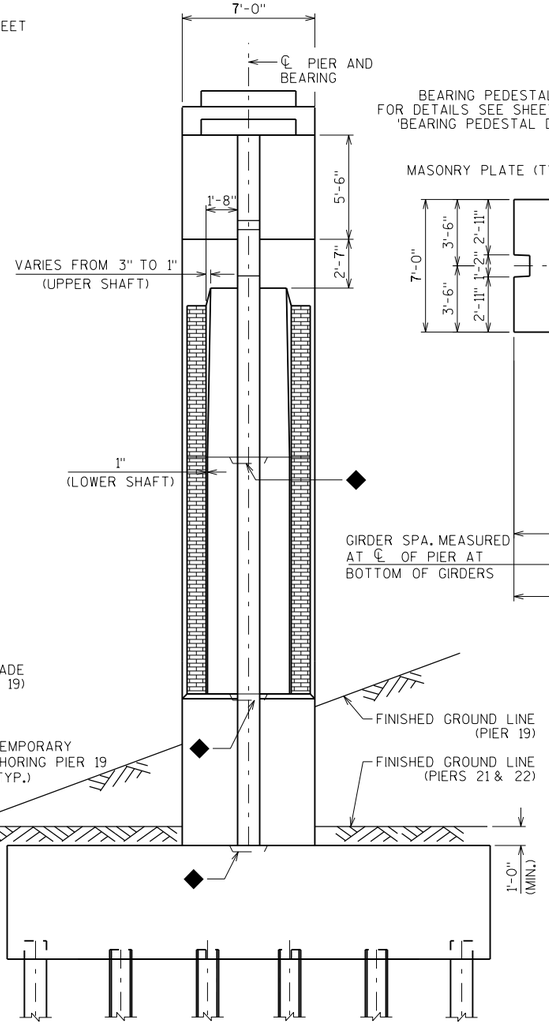
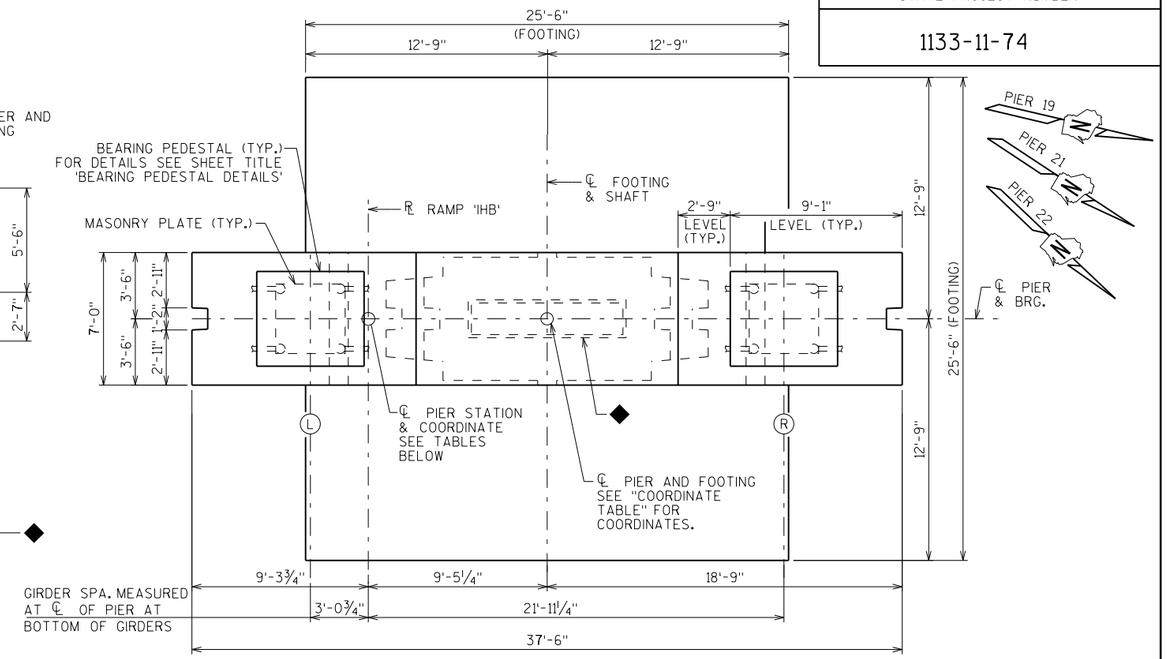
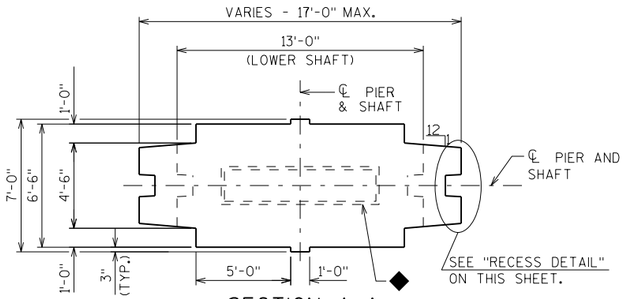


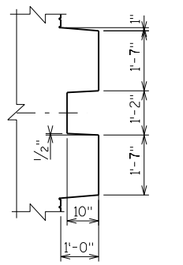
END VIEW
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



PLAN



SECTION A-A



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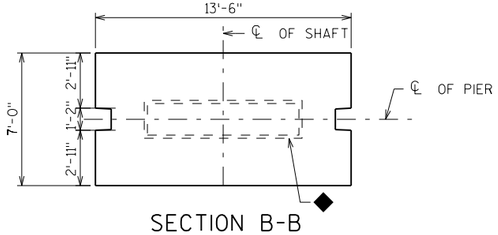

SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

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FOUNDATION NOTE

PIERS 19, 21, & 22 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 63'LONG FOR PIER 19, 60'LONG FOR PIER 21 AND 54'LONG FOR PIER 22. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 534.00, 536.00 AND 540.00 FOR PIERS 19, 21 AND 22, RESPECTIVELY.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION FOR PIER 19 IS FURTHER REDUCED FOR DOWN DRAG FORCES BY 78 KIPS.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIERS 19, 21 & 22.

FOR PILE SPLICE DETAILS, SEE SHEET SOUTH ABUTMENT CROSS SECTION.

FOR PIERS 19, 21 & 22 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

COORDINATE TABLE

LOCATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER AND FOOTING COORDINATES
PIER 19	N = 584003.49 E = 89464.97	N = 584012.68 E = 89462.82
PIER 21	N = 583809.15 E = 89013.59	N = 583817.03 E = 89008.40
PIER 22	N = 583655.73 E = 88820.42	N = 583662.58 E = 88813.93

PIER LAYOUT TABLE

LOCATION	CENTERLINE BEARING STATION	ELEVATION LEFT TOP OF PEDESTAL	ELEVATION RIGHT TOP OF PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FOOTING ELEVATION
PIER 19	1207+62.75	638.67	640.17	9'-4"	49'-4"	588.50
PIER 21	1212+56.75	622.83	624.33	13'-0"	46'-0"	576.00
PIER 22	1215+03.75	615.25	616.75	4'-5"	37'-5"	577.00

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIERS 19, 21 & 22 LAYOUT DETAILS

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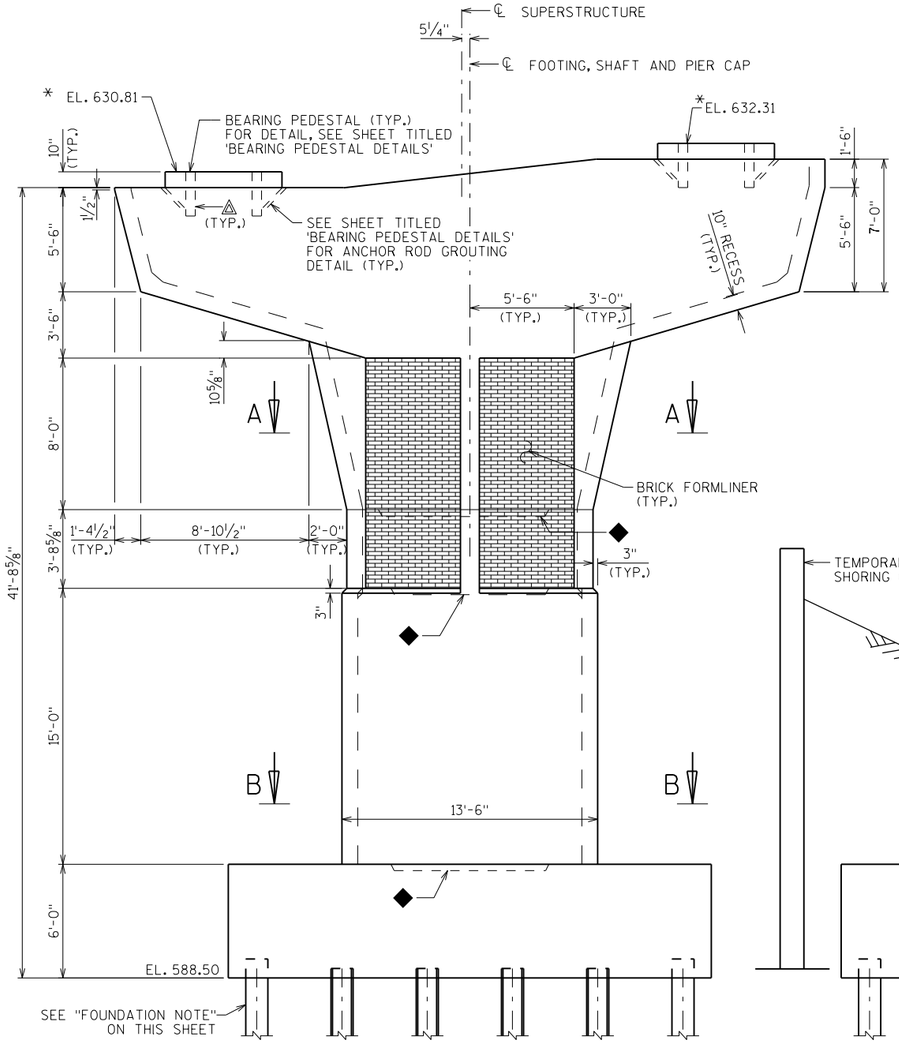
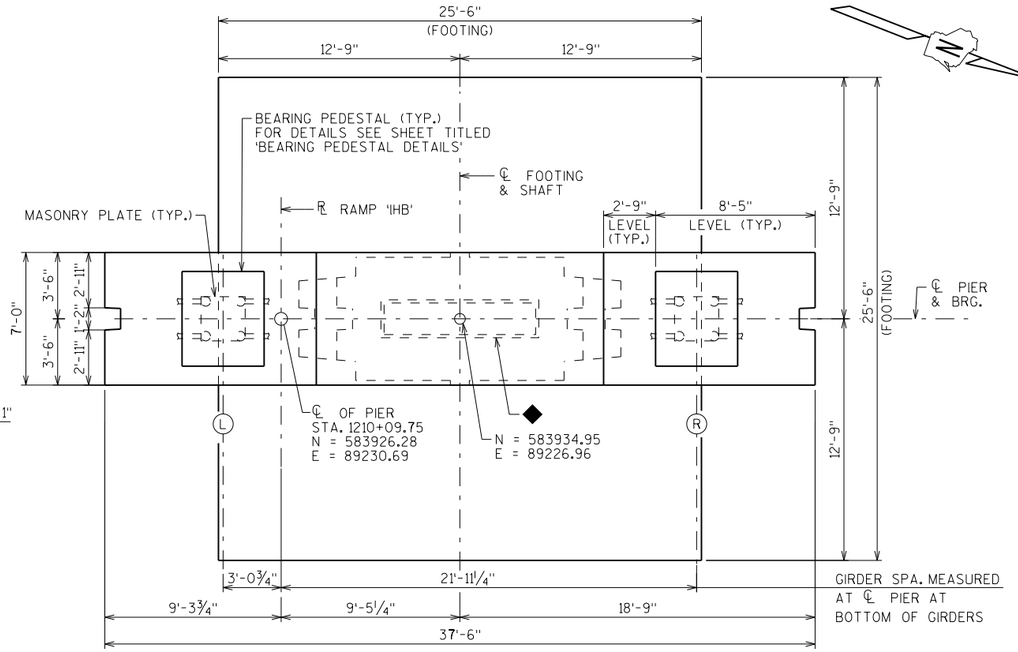
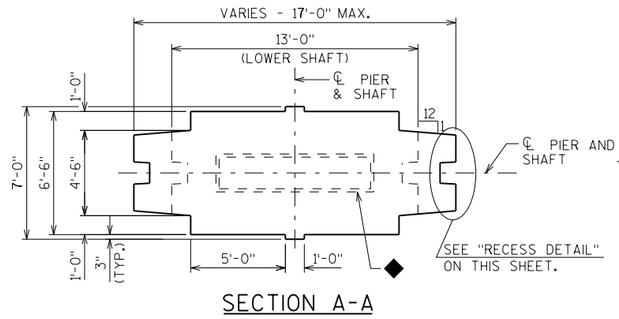
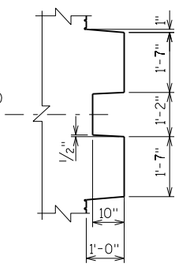




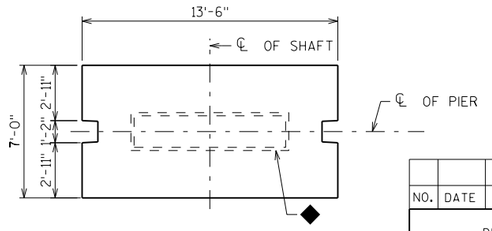
PLAN



SECTION A-A



RECESS DETAIL



SECTION B-B
(ALL DIMENSIONS ARE SYMMETRICAL)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR ROD BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR RODS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTES:

PIER 20 TO BE SUPPORTED ON HP 14X73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 71' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 543.00.

FOR FOOTING LAYOUT DETAILS, SEE SHEET PIER FOOTING DETAILS PIER 15, 16, 19-22.

SEE SHEET SOUTH ABUTMENT CROSS SECTION FOR PILE SPLICE DETAILS.

FOR PIER 20 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS BILL OF BARS - PIER CAP, BILL OF BARS - PIER SHAFT AND BEARING PEDESTAL DETAILS 1 & 2.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER 20
LAYOUT DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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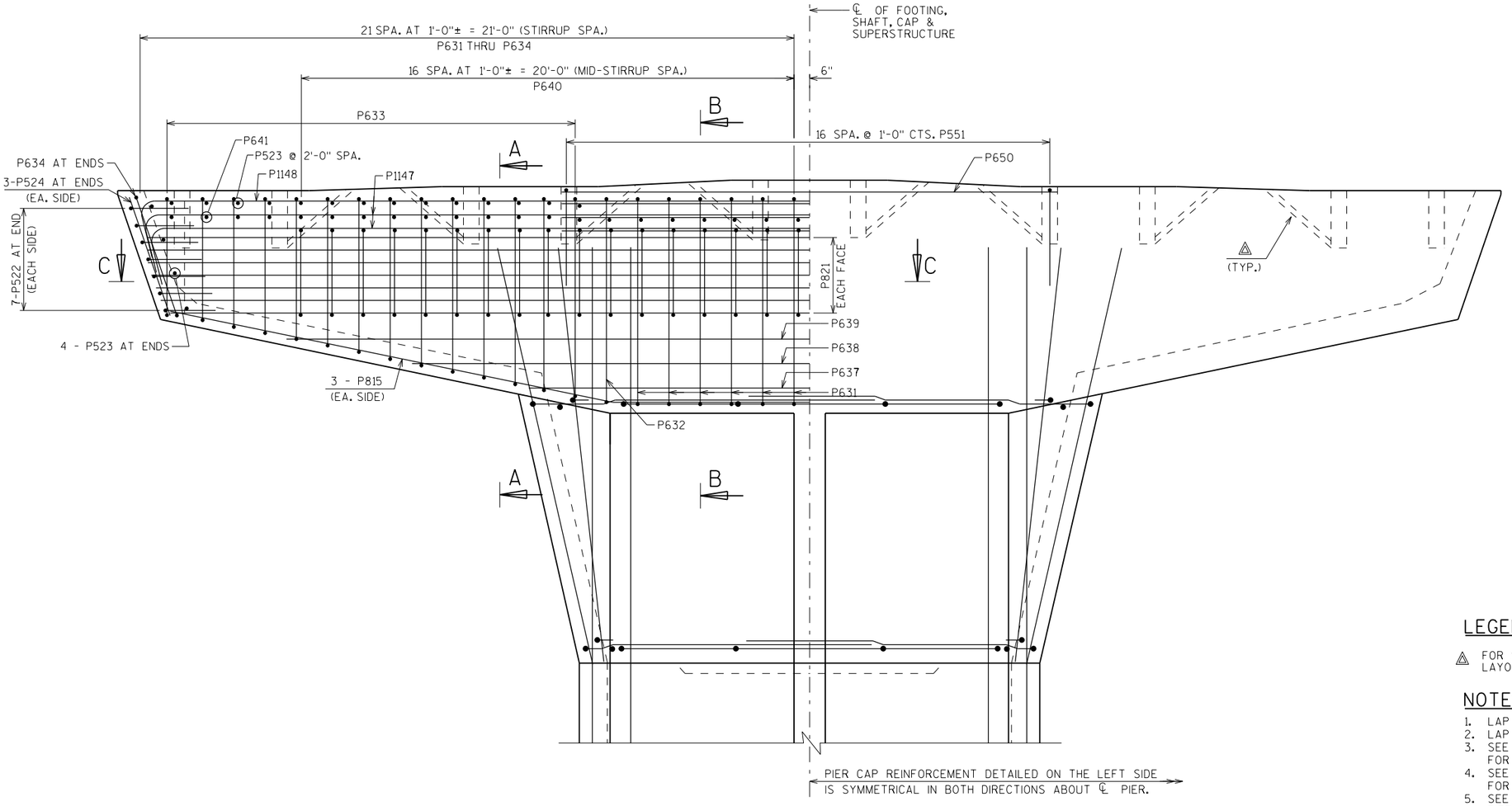
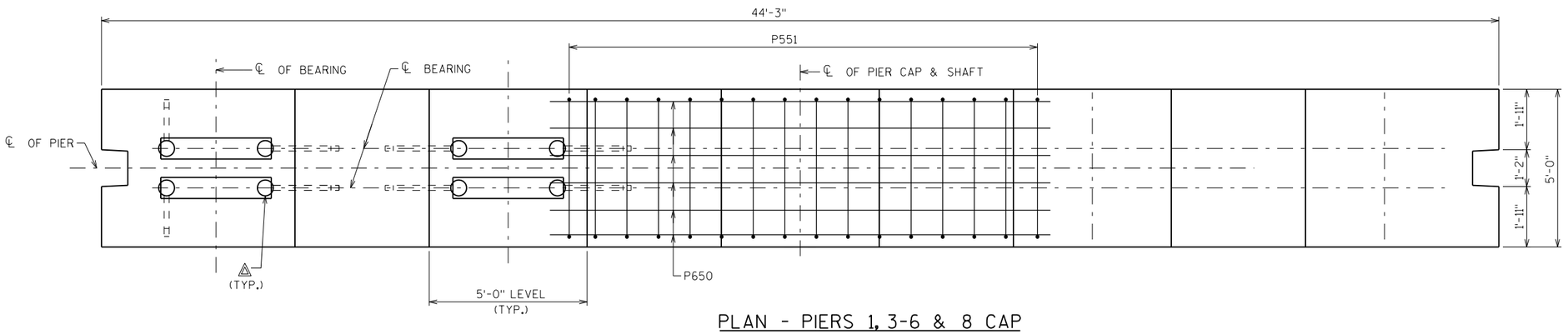


SECTION ELEVATION - PIERS 1, 3-6 & 8 CAP

(SHAFT REINFORCEMENT NOT SHOWN FOR CLARITY)



PLAN - PIERS 1, 3-6 & 8 CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEETS "PIER LAYOUT DETAILS" FOR PIERS 1, 3-6, 8 & 9.

NOTES

1. LAP P815 BARS 5'-1" MIN.
2. LAP P1147 & P1148 BARS 14'-2" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 1, 3-6, 8 & 9" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIER LAYOUT DETAILS" FOR PIERS 1, 3-6, 8 & 9 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS.

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STRUCTURE B-5-678

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PIER CAP DETAILS
PIERS 1, 3-6 & 8

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STATE PROJECT NUMBER

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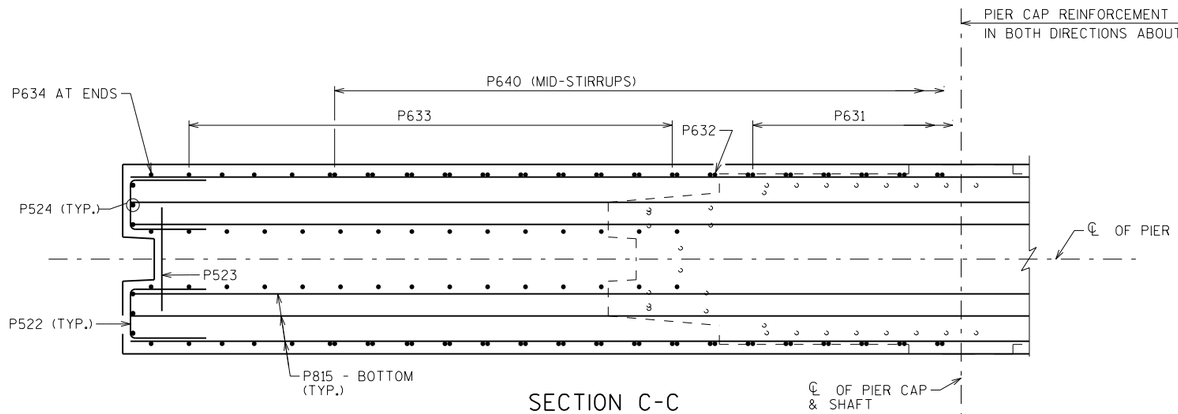
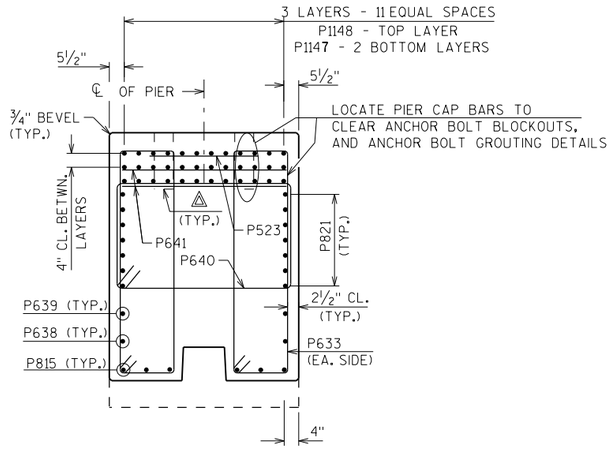
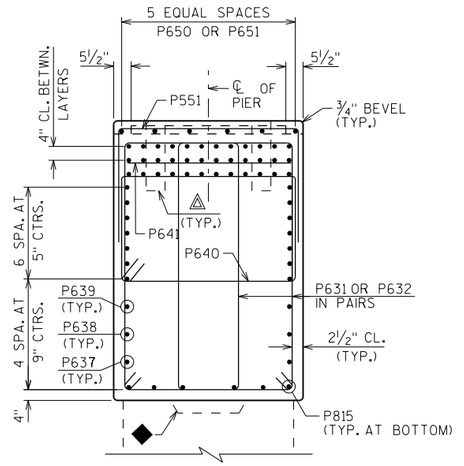


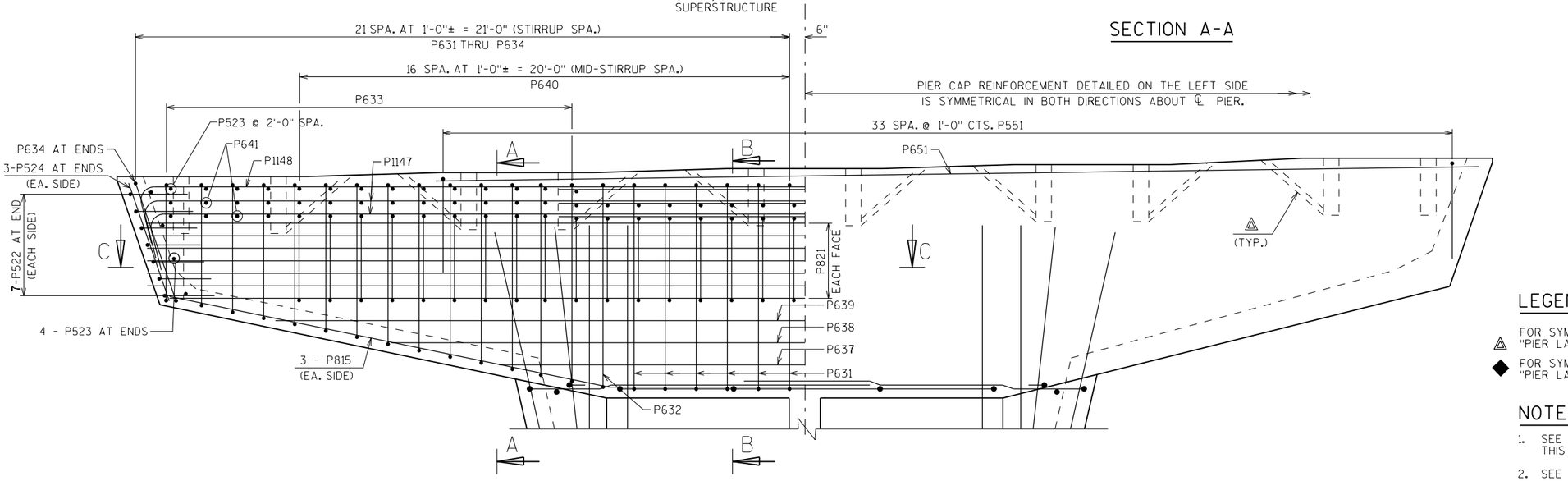
SECTION C-C



SECTION A-A



SECTION B-B



SECTION ELEVATION - PIER 9

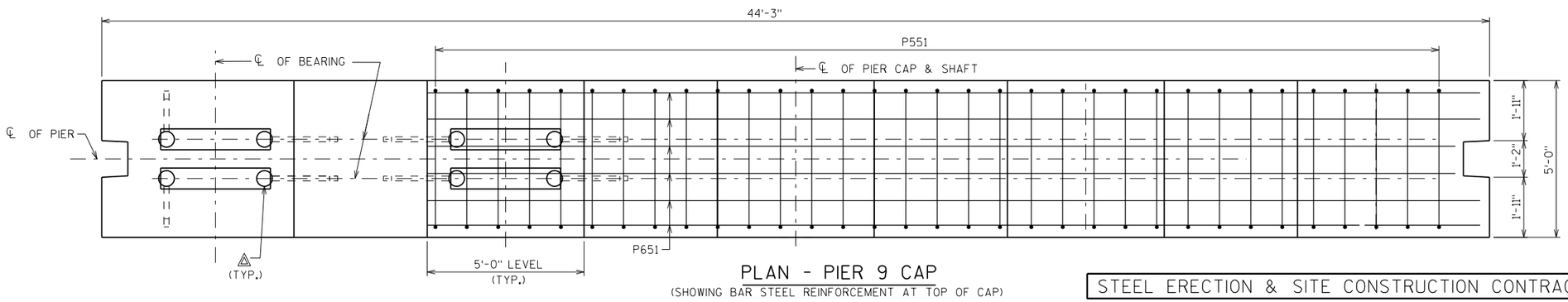
LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS" FOR PIERS 1, 3-6, 8 & 9.

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS" FOR PIERS 1, 3-6, 8 & 9.

NOTES

1. SEE SHEET "PIER CAP DETAILS - PIERS 1, 3-6, 8 & 9" & THIS SHEET FOR LOCATIONS OF SECTIONS A-A, B-B & C-C.
2. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS.



PLAN - PIER 9 CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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PIER CAP SECTIONS - PIERS 1, 3-6, 8 & 9

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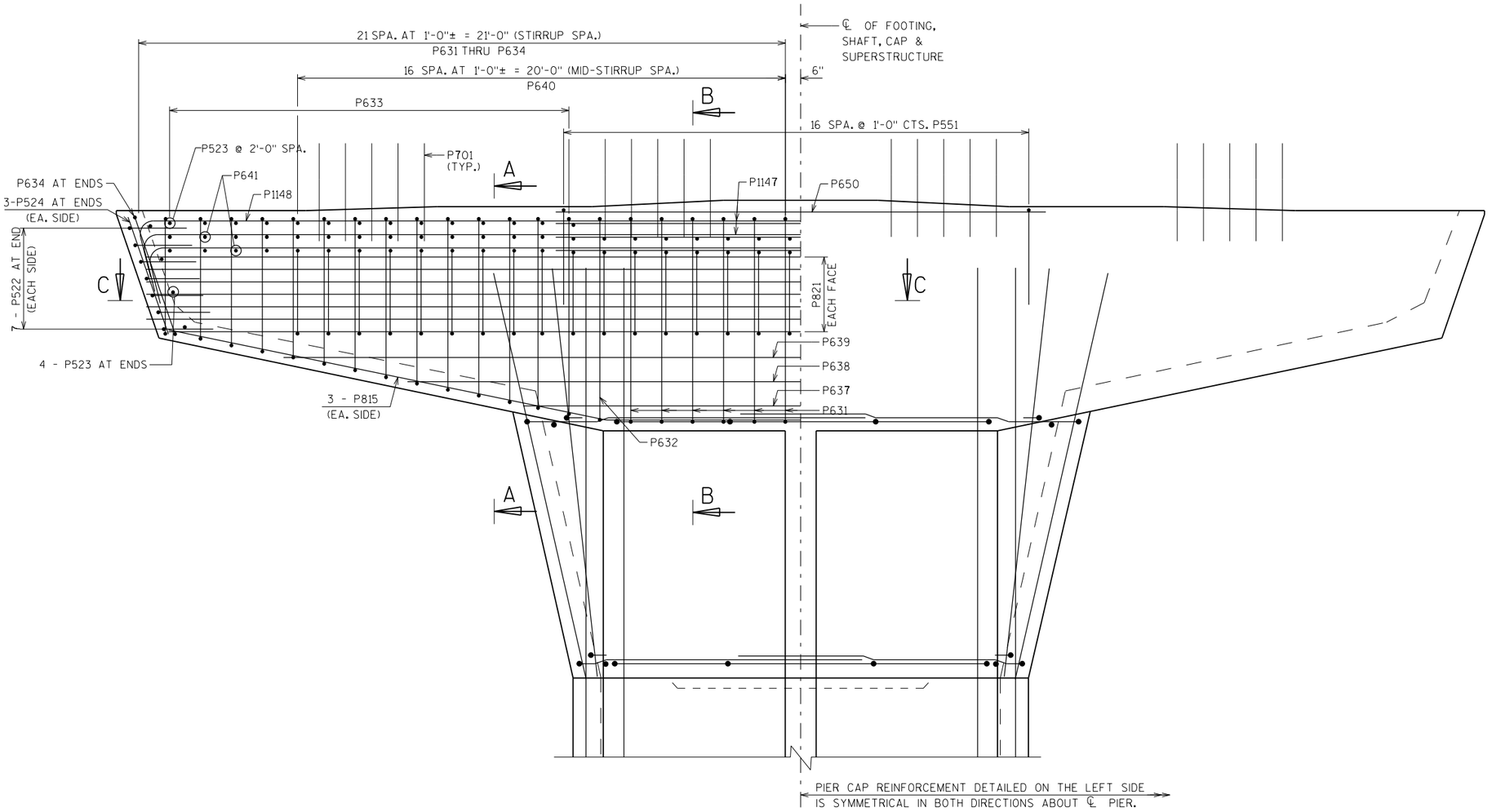
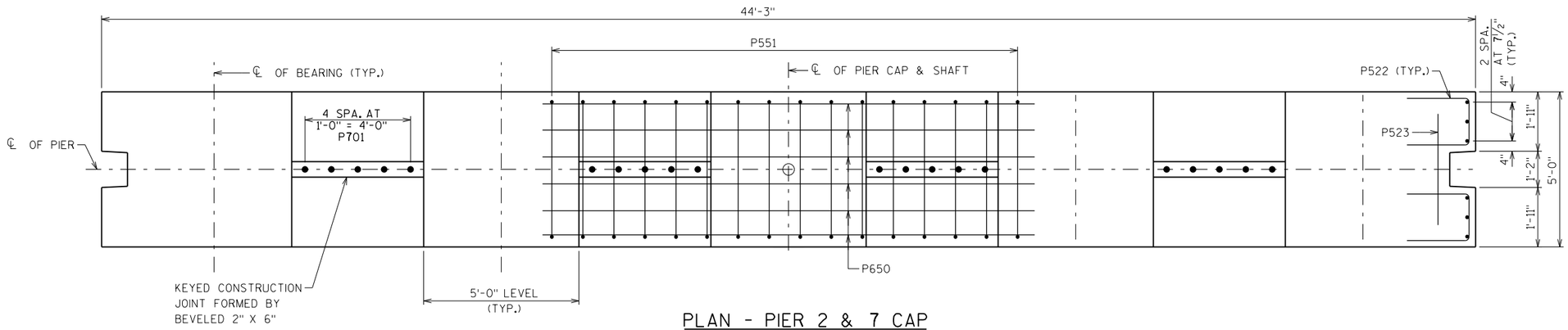


SECTION ELEVATION - PIER 2 & 7 CAP

(SHAFT REINFORCEMENT NOT SHOWN FOR CLARITY)



PLAN - PIER 2 & 7 CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

NOTES

1. LAP P815 BARS 5'-1" MIN.
2. LAP P1147 & P1148 BARS 14'-2" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 2 & 7" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIERS 2 & 7 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS.

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PIER CAP DETAILS PIERS 2 & 7

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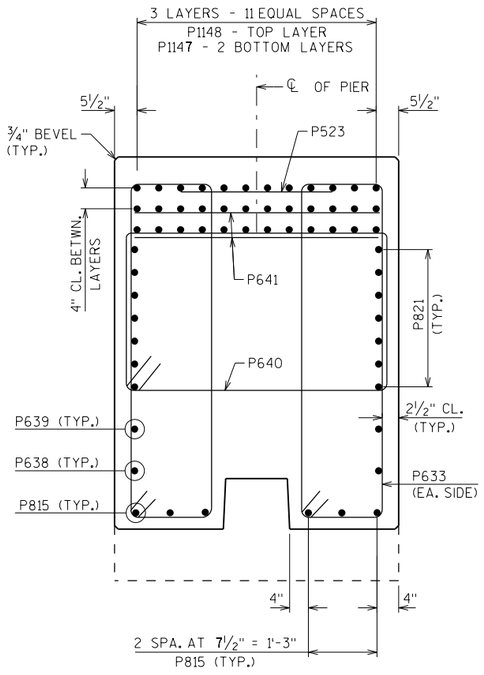
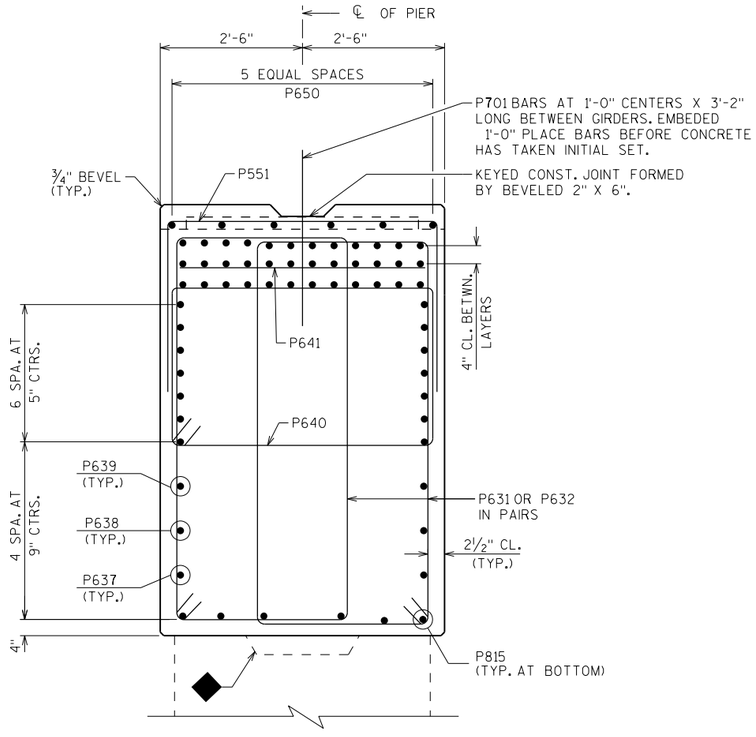


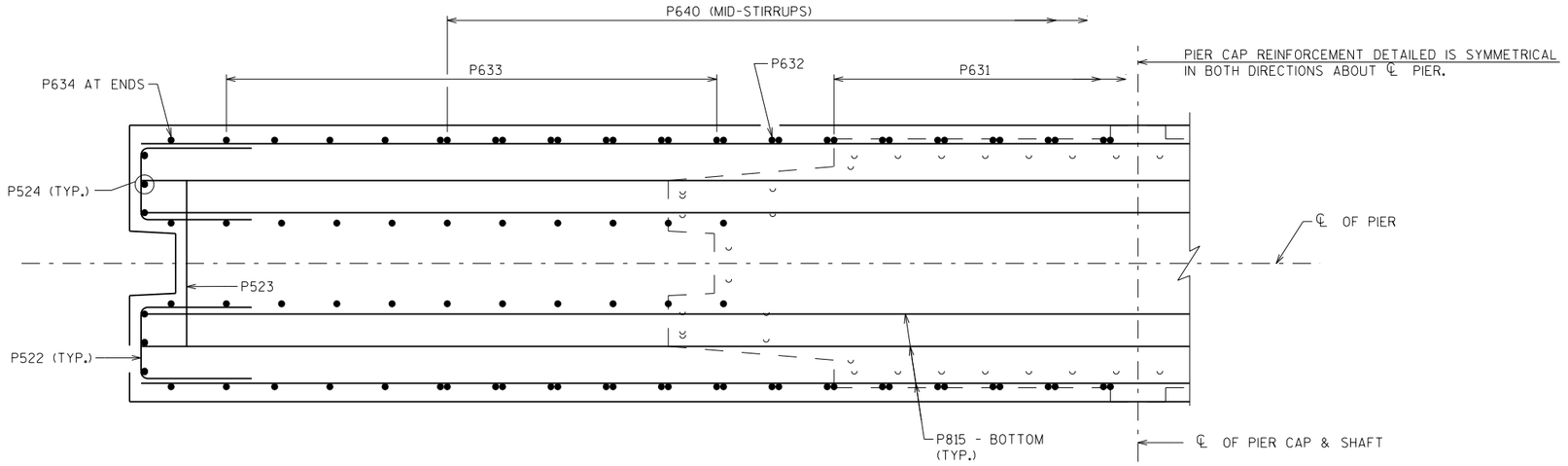
SECTION A-A



SECTION B-B

LEGEND

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".



SECTION C-C

NOTES

1. SEE SHEET TITLED "PIER CAP DETAILS - PIERS 2 & 7" FOR NOTES & LOCATIONS OF SECTIONS A-A, B-B & C-C.
2. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS.

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PIER CAP SECTIONS PIERS 2 & 7

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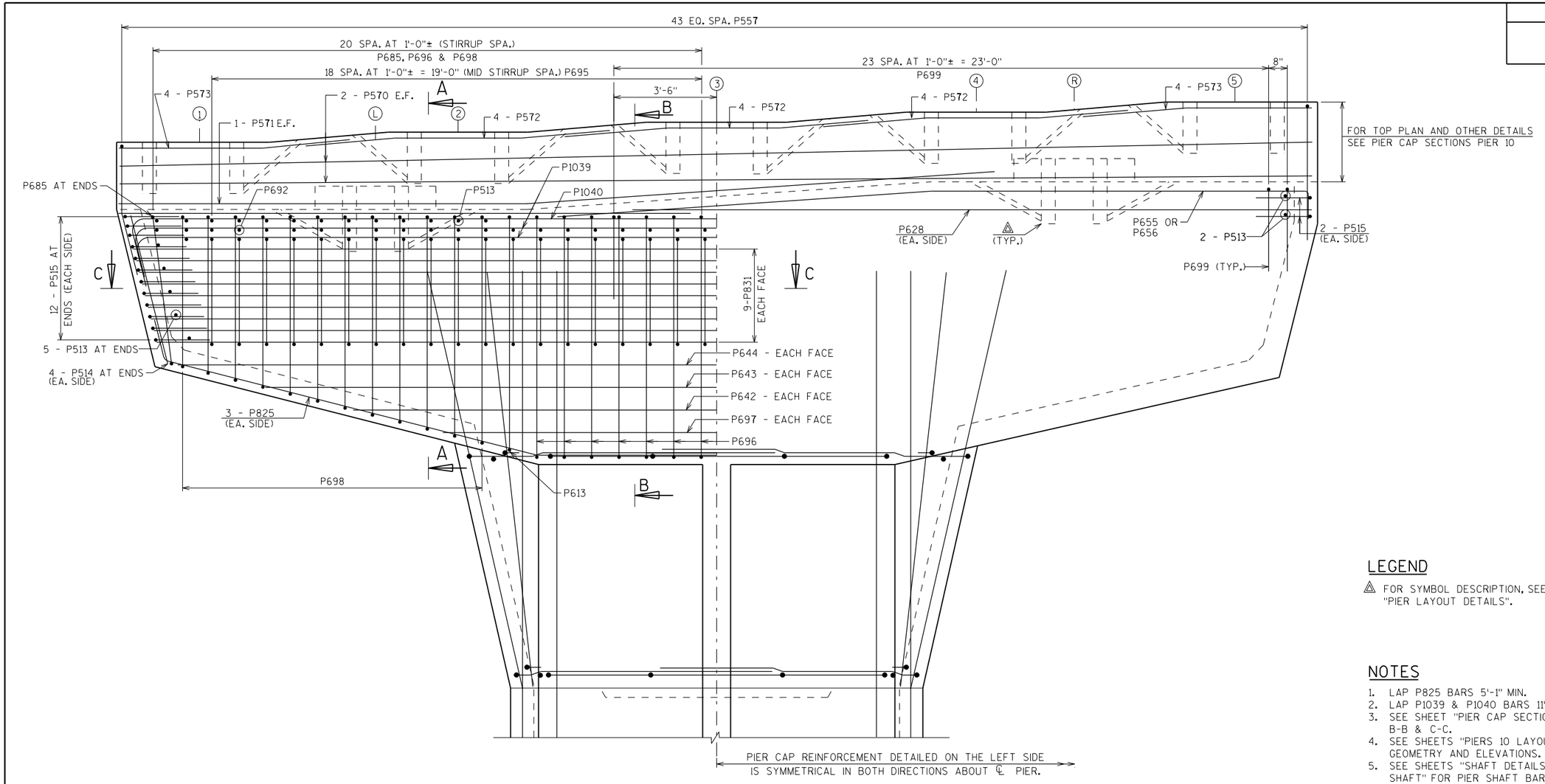
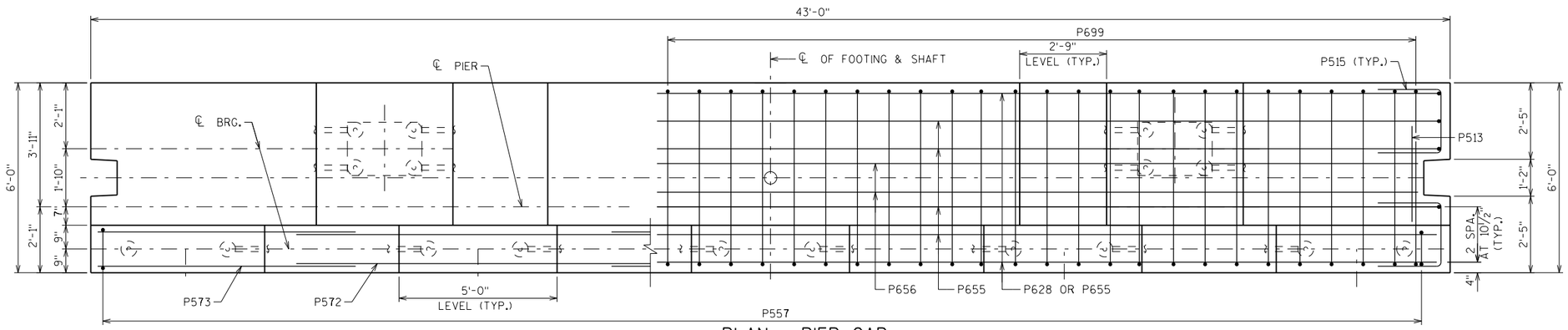


SECTION ELEVATION - PIER CAP

(SHAFT REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(TOP BEAM SEAT REINFORCEMENT IS NOT SHOWN FOR CLARITY
SEE PIER CAP SECTIONS PIER 10 FOR REINFORCEMENT DETAIL)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET "PIER LAYOUT DETAILS".

NOTES

1. LAP P825 BARS 5'-1" MIN.
2. LAP P1039 & P1040 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 10" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIERS 10 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS "SHAFT DETAILS - PIER 10" AND "BILL OF BARS - SHAFT" FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS UNITS 3, 4 & 5" FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

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PIER CAP DETAILS
PIER 10

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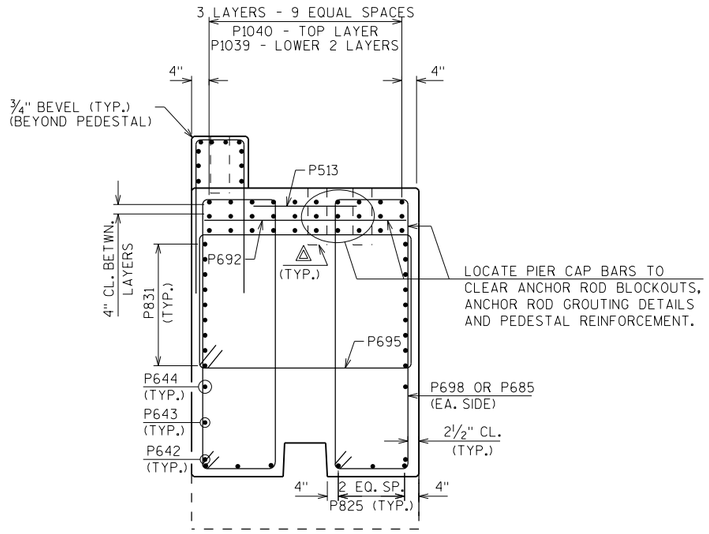
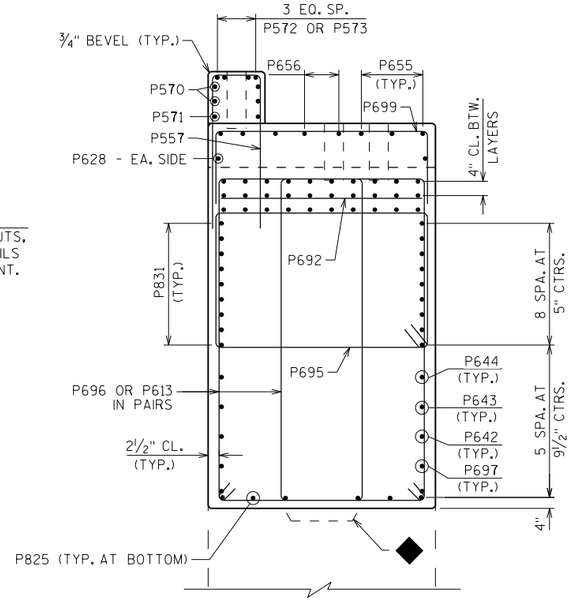
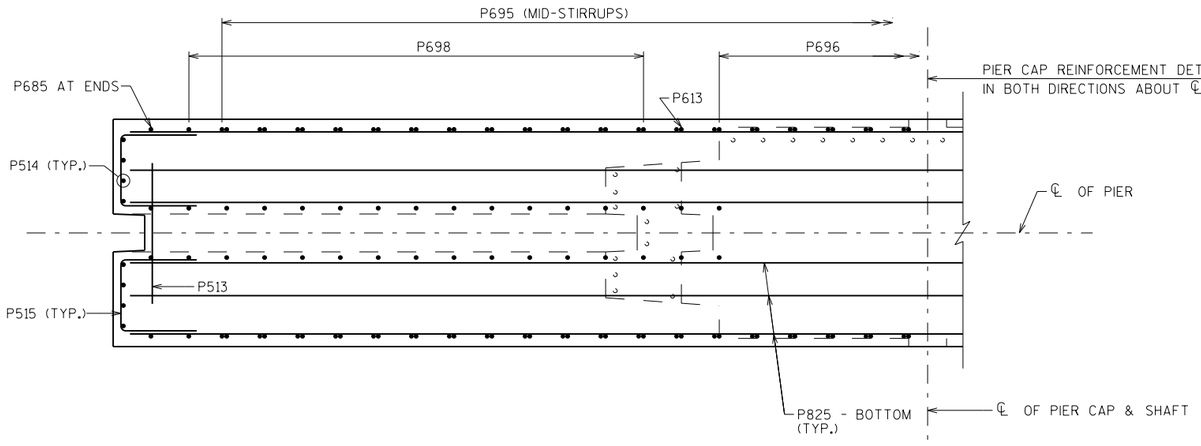


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

NOTES

SEE SHEET "PIER CAP DETAILS - PIERS 14 & 18" FOR NOTES AND LOCATIONS OF SECTIONS A-A, B-B & C-C

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PIER CAP SECTIONS PIER 10

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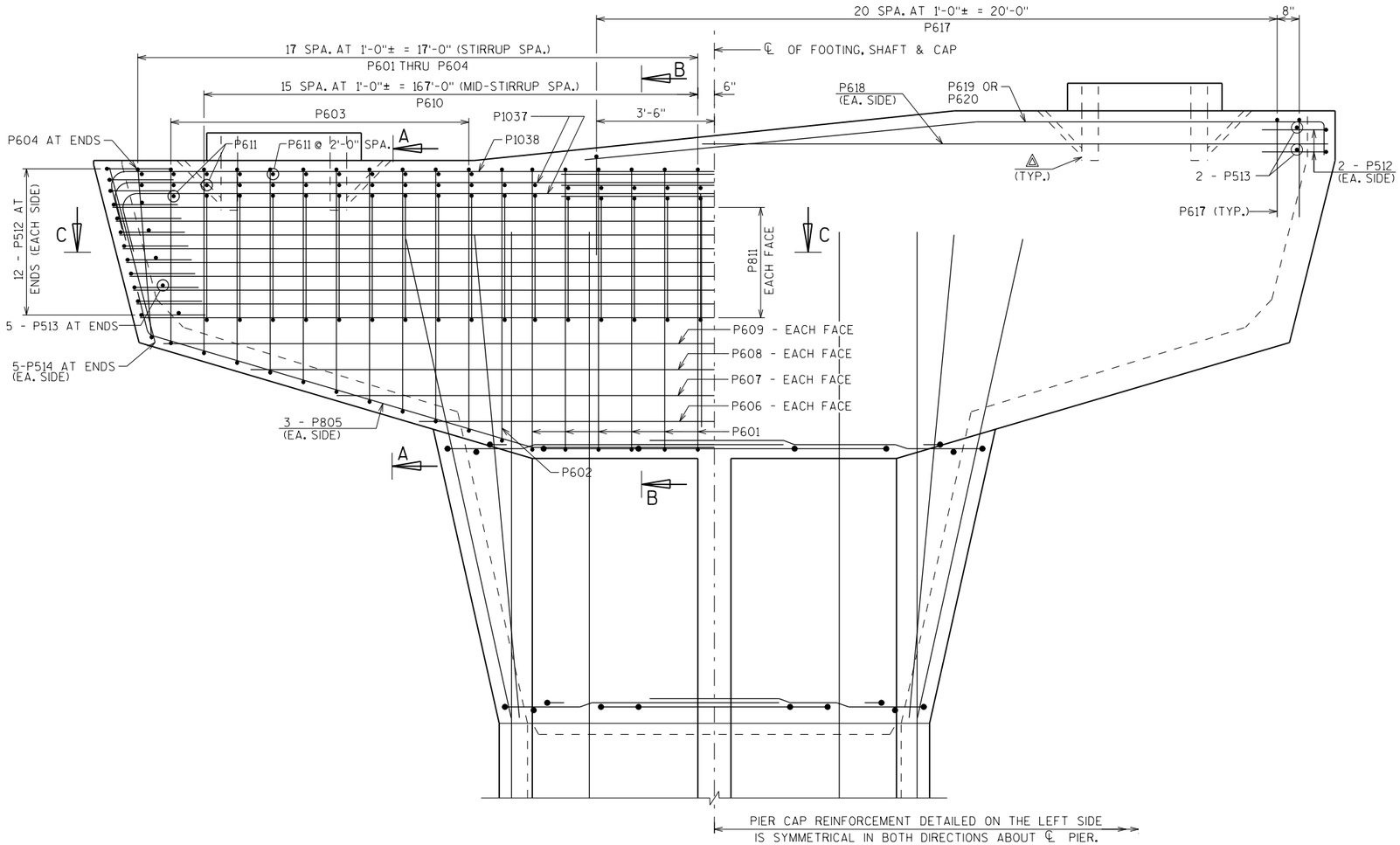
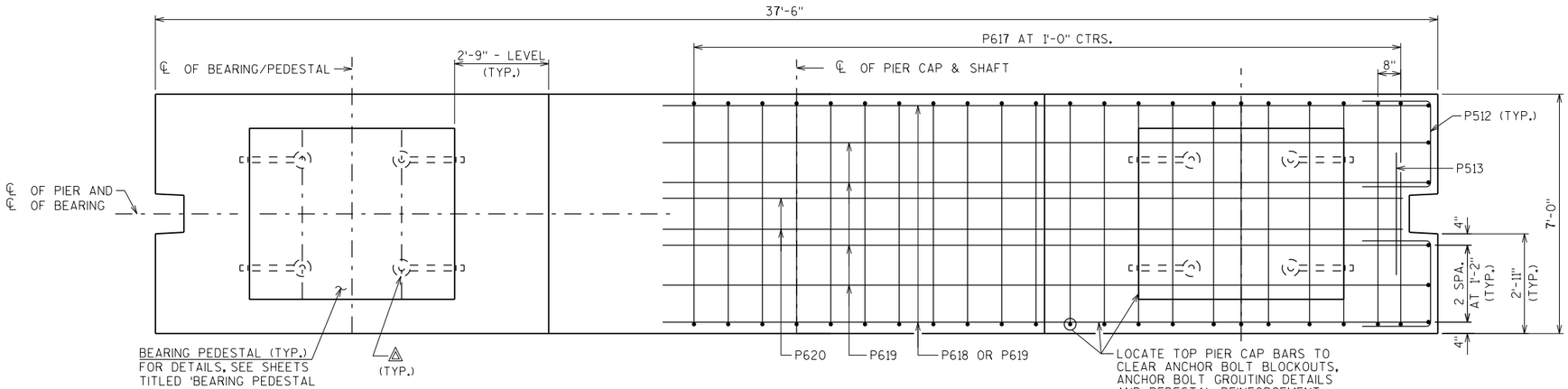


PIER CAP REINFORCEMENT DETAILED ON THE LEFT SIDE
IS SYMMETRICAL IN BOTH DIRECTIONS ABOUT ℄ PIER.

SECTION ELEVATION - PIER CAP

(SHAFT REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE "PIER LAYOUT DETAILS" SHEETS.

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1037 & P1038 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 11-13, 15-17 & 19-22" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIERS 11-13, 15-17 & 19-22 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET "BILL OF BARS PIER SHAFT" FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS UNITS 3, 4 & 5" FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.
7. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS

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PIER CAP DETAILS
PIERS 11-13,
15-17 & 19-22

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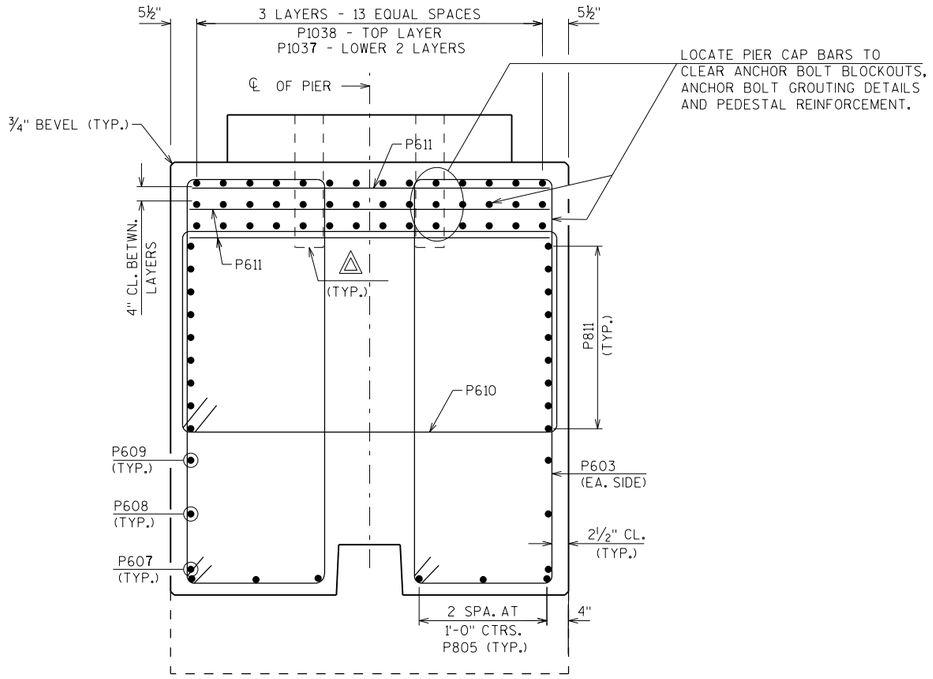
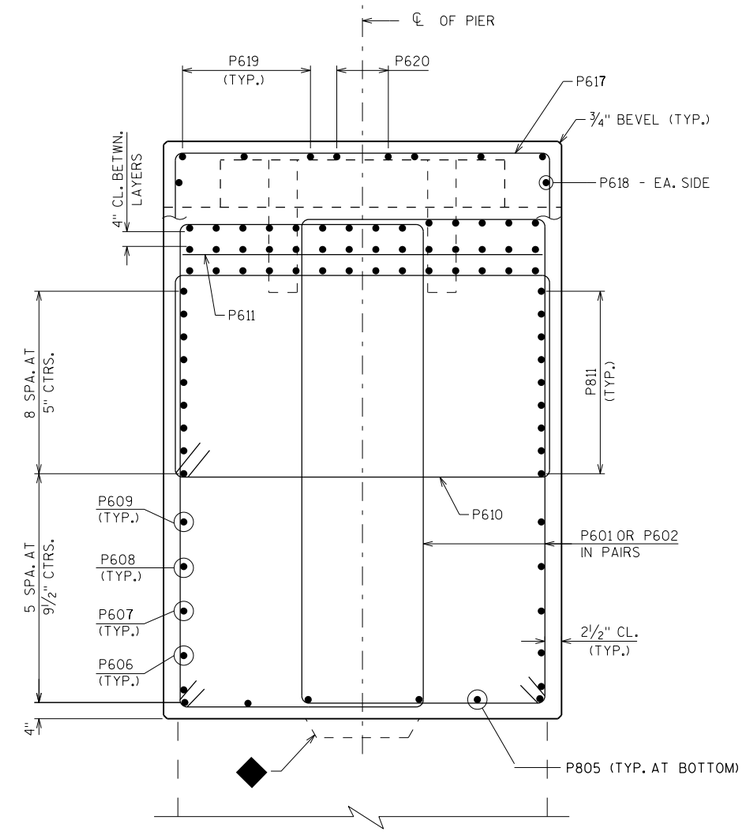
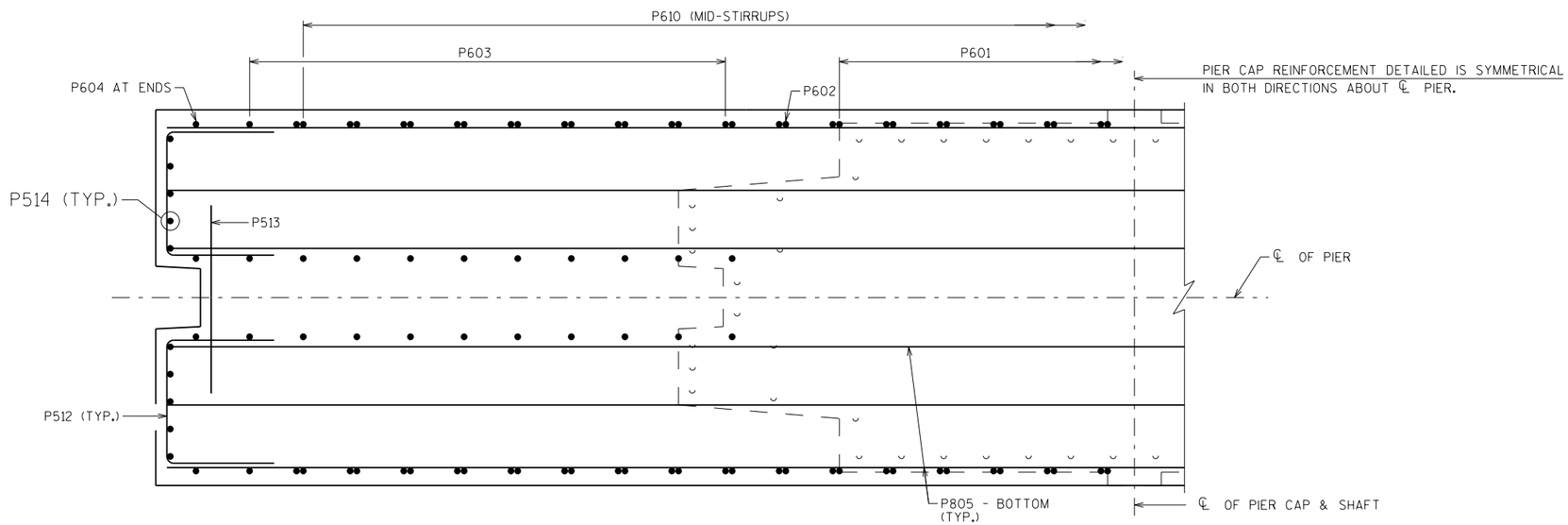


SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIERS 11-13, 15-17 & 19-22 LAYOUT DETAILS".

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIERS 11-13, 15-17 & 19-22 LAYOUT DETAILS".

NOTE

1. SEE SHEET "PIER CAP DETAILS - PIERS 11-13, 15-17 & 19-22" FOR NOTES AND FOR SECTIONS A-A, B-B & C-C LOCATION
2. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS

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PIER CAP SECTIONS PIERS 11-13, 15-17 & 19-22

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DATE: 5/31/2013
I.D.

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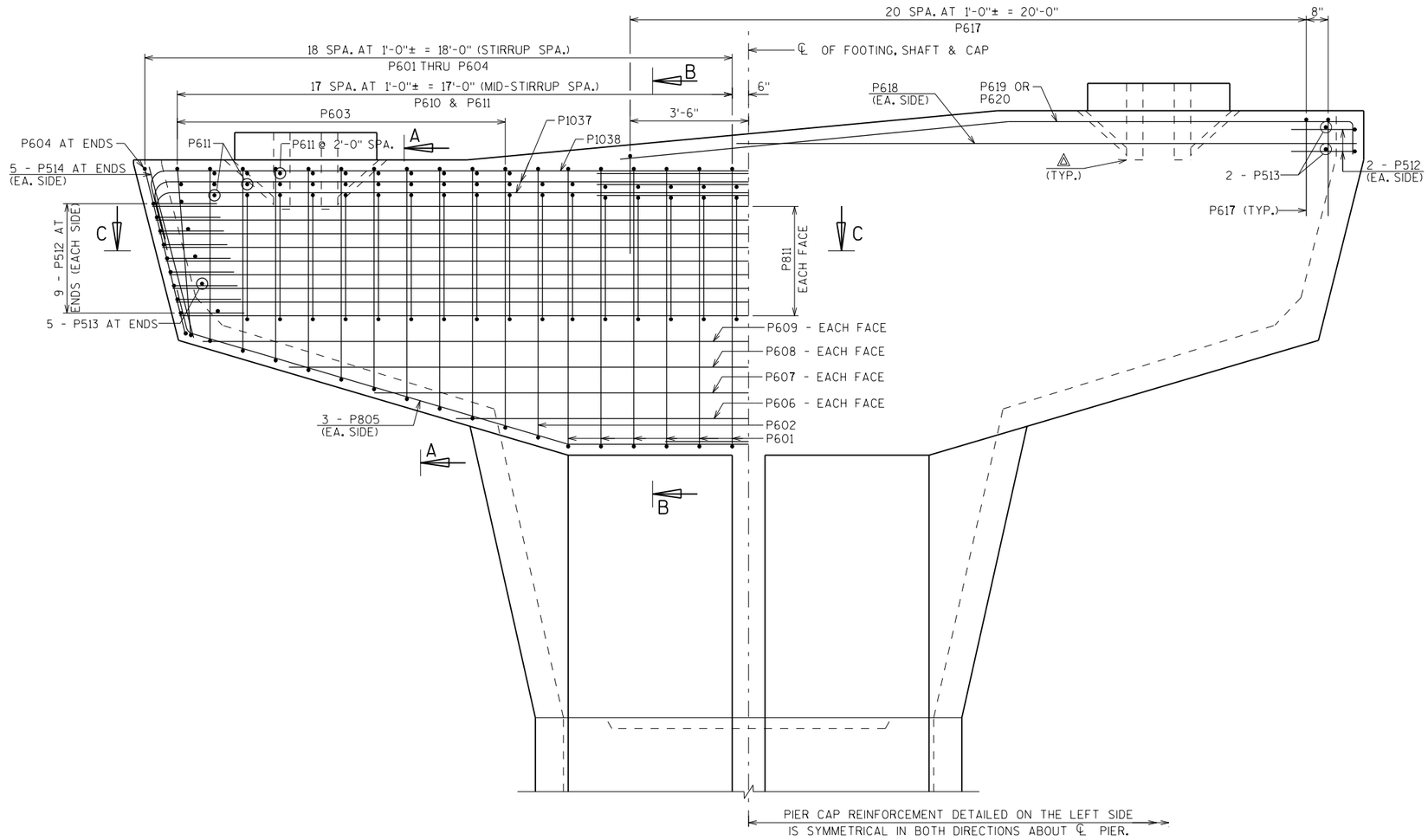
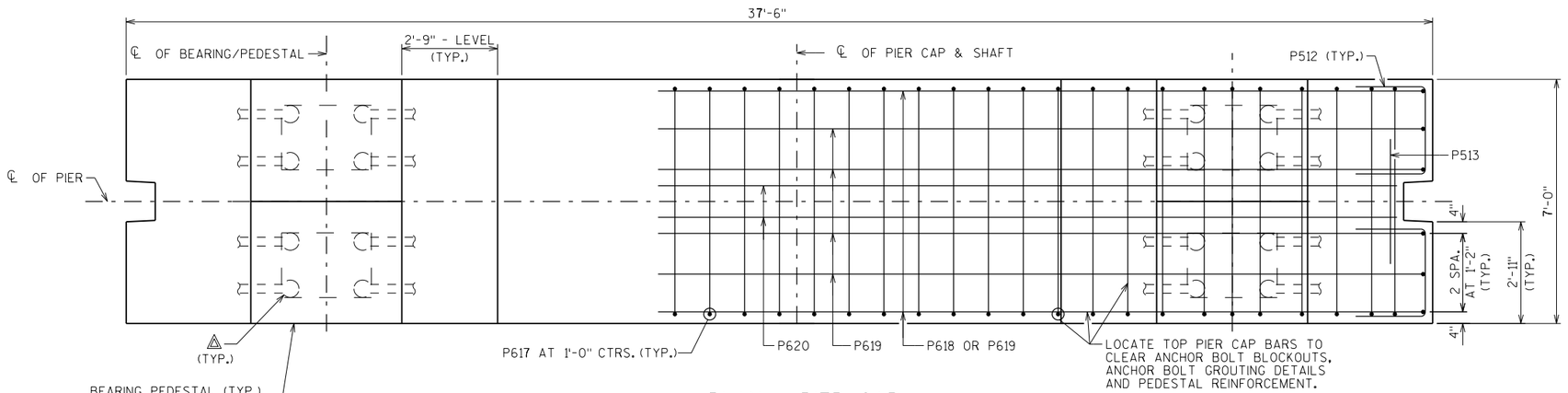


SECTION ELEVATION - PIER CAP

(SHAFT REINFORCEMENT IS NOT SHOWN FOR CLARITY)



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET "PIER LAYOUT DETAILS".

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1037 & P1038 BARS 11'-6" MIN.
3. SEE SHEET "PIER CAP SECTIONS PIERS 14 & 18" FOR SECTIONS A-A, B-B & C-C.
4. SEE SHEETS "PIERS 14 & 18 LAYOUT DETAILS" FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET "BEARING PEDESTAL DETAILS UNITS 3, 4 & 5" FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

PIER CAP DETAILS
PIERS 14 & 18

SHEET 61 OF 143
744

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\061 B-5-678 - Pier Cap Details - Piers 14 & 18.dgn

DATE: 5/31/2013
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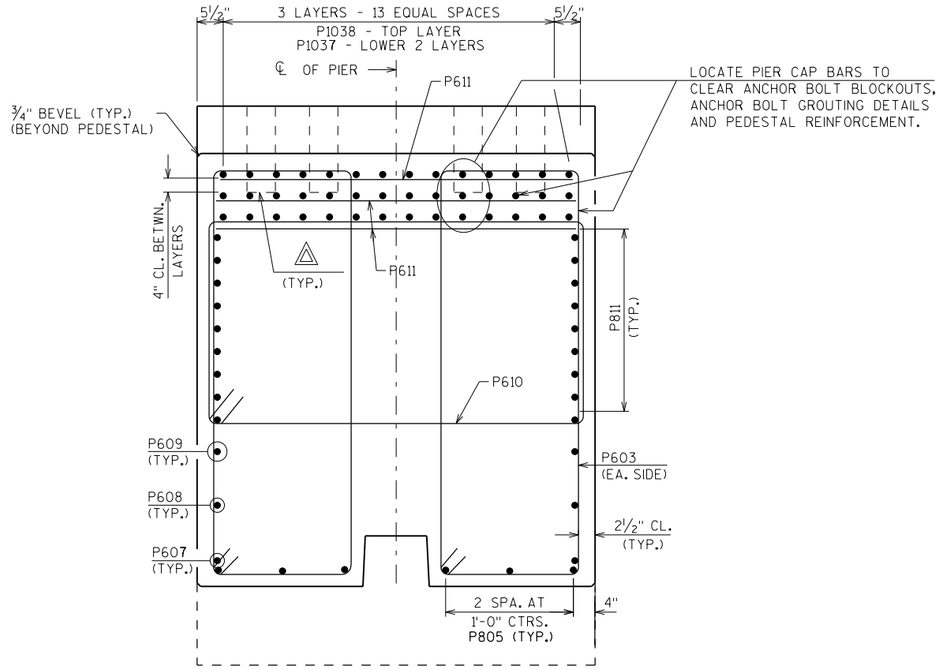
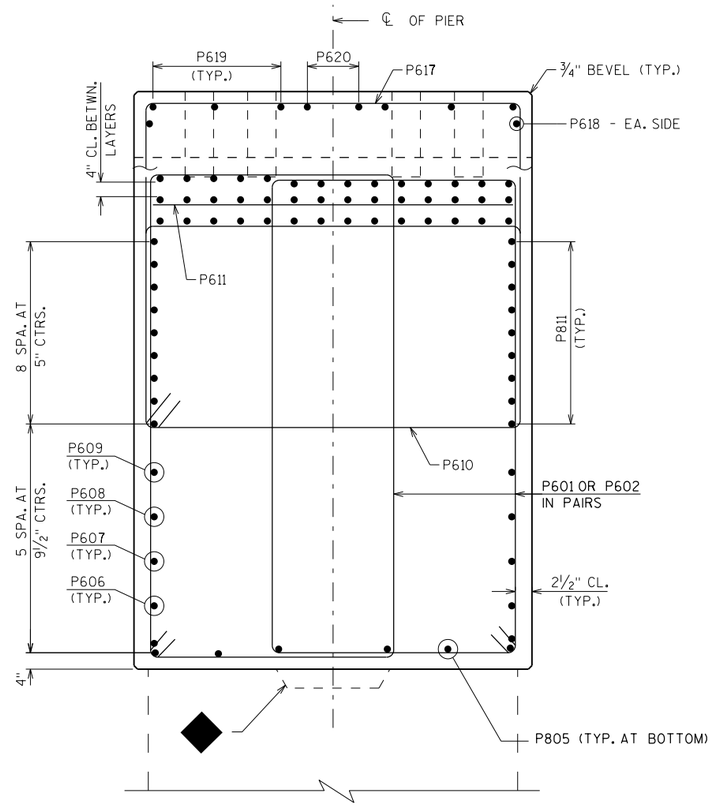
STATE PROJECT NUMBER

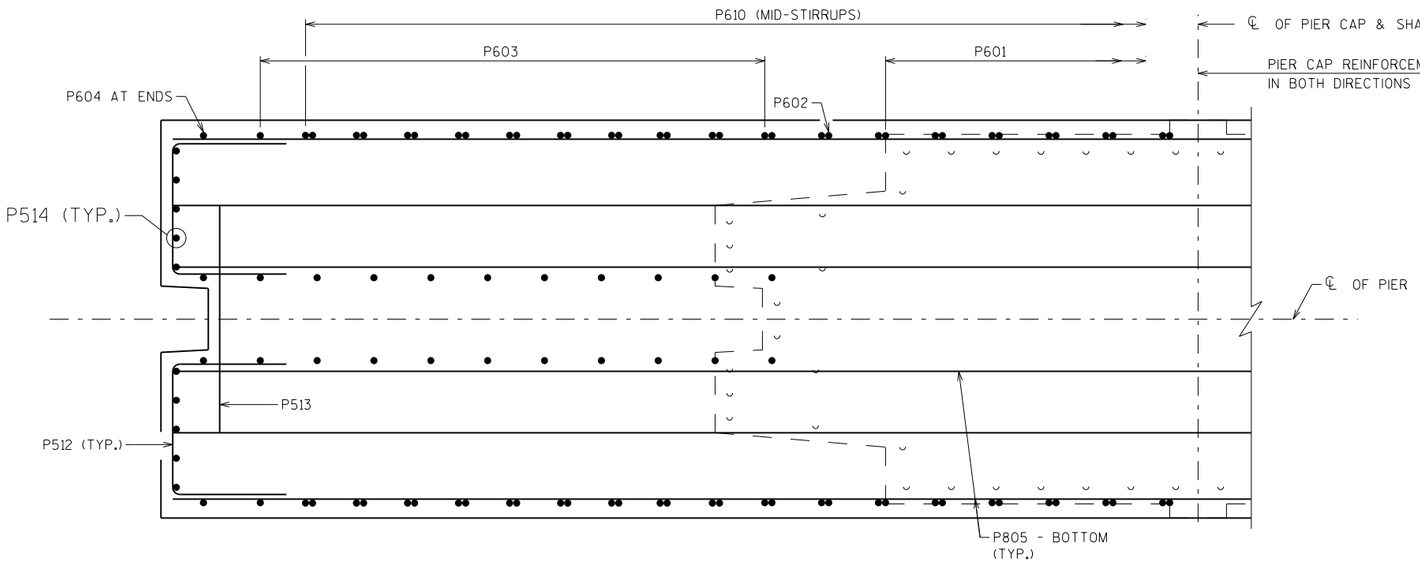
1133-11-74



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

◆ FOR SYMBOL DESCRIPTION, SEE SHEET TITLED "PIER LAYOUT DETAILS".

NOTES

1. SEE SHEET "PIER CAP DETAILS - PIERS 14 & 18" FOR NOTES AND LOCATIONS OF SECTIONS A-A, B-B & C-C
2. SEE SHEET "BILL OF BARS PIER CAP" FOR PIER CAP BAR STEEL REINFORCEMENT DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

PIER CAP SECTIONS PIERS 14 & 18

SHEET 62 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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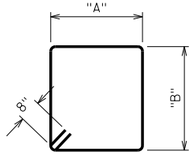
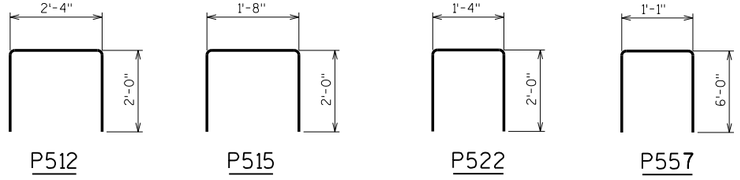
FOR BARS IN SERIES: LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

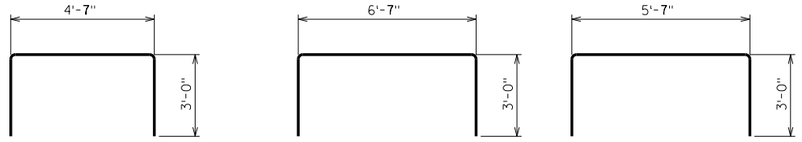


STIRRUP DETAIL

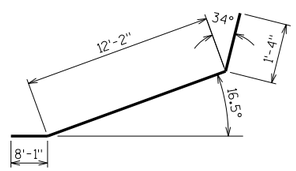
MARK	DIMENSION "A"	DIMENSION "B"
P601	5'-4"	8'-7"
P602	5'-4"	8'-3"
P603	2'-6"	5'-2" TO 7'-11"
P604	2'-6"	5'-2"
P610	6'-7"	4'-7"
P613	4'-4"	6'-4"
P631	3'-4"	6'-7"
P632	3'-4"	6'-4"
P633	1'-6"	3'-7" TO 6'-2"
P634	1'-6"	3'-7"
P640	4'-7"	2'-7"
P685	1'-8"	5'-4"
P695	5'-8	3'-11"
P696	4'-4'	6'-8"
P698	1'-8"	5'-4" TO 6'-0"



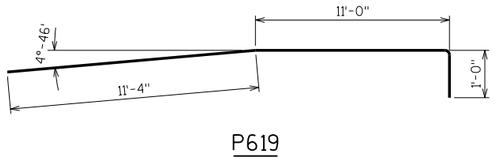
P512 P515 P522 P557



P551 P617 P699



P805



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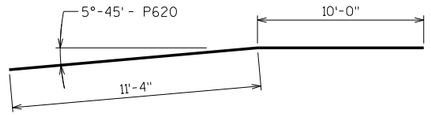

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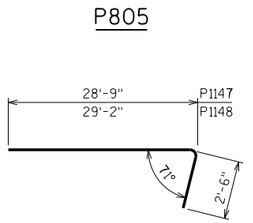
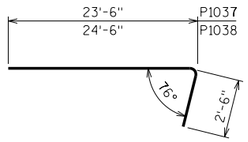
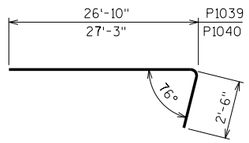


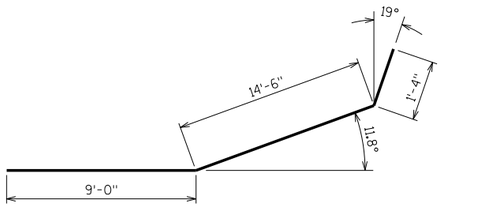
P1147 & P1148



P1037 & P1038



P1039 & P1040



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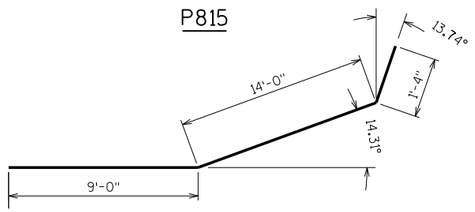

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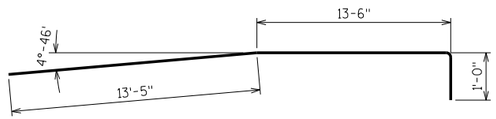

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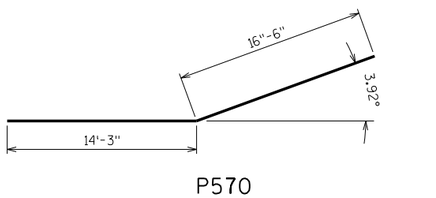

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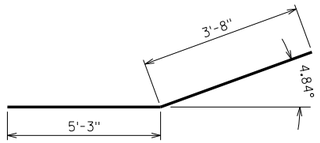

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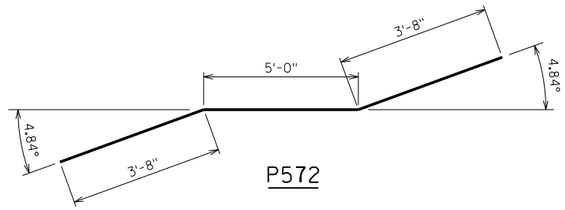

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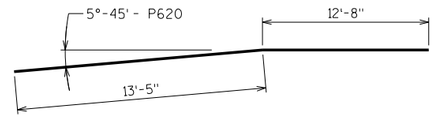

P656

PIER CAP - BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
P601	288	28'-8"	X		STIRRUPS - VERTICAL PIERS 11-22
P602	48	28'-0"	X		STIRRUPS - VERTICAL PIERS 11-22
P603	528	18'-11"	X	X	STIRRUPS - VERTICAL PIERS 11-22
P604	48	16'-2"	X		STIRRUPS - VERTICAL PIERS 11-22
P805	144	21'-5"	X		BOTTOM - HORIZONTAL PIERS 11-22
P606	24	17'-10"			SIDES - HORIZONTAL PIERS 11-22
P607	24	22'-8"			SIDES - HORIZONTAL PIERS 11-22
P608	24	28'-0"			SIDES - HORIZONTAL PIERS 11-22
P609	24	33'-1"			SIDES - HORIZONTAL PIERS 11-22
P610	432	23'-2"	X		MID STIRRUPS - VERTICAL PIERS 11-22
P611	432	6'-8"			TOP - ACROSS PIER WIDTH PIERS 11-22
P811	216	35'-6"		X	SIDES - HORIZONTAL PIERS 11-22
P512	480	6'-1"	X		ENDS - HORIZONTAL PIERS 11-22
P513	144	4'-0"			ENDS - HORIZONTAL PIERS 11-22
P514	240	5'-0"			ENDS - VERTICAL PIERS 11-22
P617	264	12'-3"	X		TOP - VERTICAL PIERS 11-22
P618	24	18'-11"			TOP - SIDES - HORIZONTAL PIERS 11-22
P619	72	23'-2"	X		TOP - HORIZONTAL PIERS 11-22
P620	24	21'-4"	X		TOP - HORIZONTAL PIERS 11-22
P1037	288	25'-9"	X		TOP - HORIZONTAL PIERS 11-22
P1038	144	26'-9"	X		TOP - HORIZONTAL PIERS 11-22
P631	216	20'-8"	X		STIRRUPS - VERTICAL PIERS 1-9
P632	36	20'-2"	X		STIRRUPS - VERTICAL PIERS 1-9
P633	504	14'-1"	X	X	STIRRUPS - VERTICAL PIERS 1-9
P634	36	11'-0"	X		STIRRUPS - VERTICAL PIERS 1-9
P815	108	24'-10"	X		BOTTOM - HORIZONTAL PIERS 1-9
P637	18	18'-0"			SIDES - HORIZONTAL PIERS 1-9
P638	18	25'-6"			SIDES - HORIZONTAL PIERS 1-9
P639	18	33'-8"			SIDES - HORIZONTAL PIERS 1-9
P640	378	15'-2"	X		MID STIRRUPS - VERTICAL PIERS 1-9
P641	378	4'-8"			TOP - ACROSS PIER WIDTH PIERS 1-9
P821	126	42'-1"		X	SIDES - HORIZONTAL PIERS 1-9
P522	252	5'-1"	X		ENDS - HORIZONTAL PIERS 1-9
P523	216	4'-0"			ENDS - HORIZONTAL PIERS 1-9
P524	108	3'-8"			ENDS - VERTICAL PIERS 1-9
P650	48	16'-0"			TOP - HORIZONTAL PIERS 1-9
P1147	180	31'-1"	X		TOP - HORIZONTAL PIERS 1-9
P1148	90	31'-6"	X		TOP - HORIZONTAL PIERS 1-9
P551	170	10'-4"	X		TOP -VERTICAL PIERS 1-9
P613	4	22'-1"	X		STIRRUPS - VERTICAL PIER 10
P825	12	24'-2"	X		BOTTOM - HORIZONTAL PIER 10
P697	2	19'-7"			SIDES - HORIZONTAL PIER 10
P642	2	26'-0"			SIDES - HORIZONTAL PIER 10
P643	2	32'-4"			SIDES - HORIZONTAL PIER 10
P644	2	38'-7"			SIDES - HORIZONTAL PIER 10
P831	18	42'-0"			SIDES - HORIZONTAL PIER 10
P515	52	5'-5"	X		ENDS - HORIZONTAL PIER 10
P570	4	42'-7"			TOP - SIDES - HORIZONTAL PIER 10
P655	6	27'-9"	X		TOP - HORIZONTAL PIER 10
P656	2	26'-1"	X		TOP - HORIZONTAL PIER 10
P1039	12	28'-6"	X		TOP - HORIZONTAL PIER 10
P1040	24	29'-0"	X		TOP - HORIZONTAL PIER 10
P557	44	12'-11"	X		TOP - VERTICAL PIER 10
P571	2	30'-9"			TOP - HORIZONTAL PIER 10
P572	12	12'-4"			TOP - HORIZONTAL PIER 10
P692	42	5'-7"			TOP - HORIZONTAL PIER 10
P696	28	22'-9"			TOP - VERTICAL PIER 10
P698	48	15'-5"			TOP - HORIZONTAL PIER 10
P685	4	14'-9"	X		TOP - HORIZONTAL PIER 10
P695	38	19'-11"	X		MID STIRRUPS -VERTICAL PIER 10
P513	50	4'-0"			ENDS & TOP HORIZONTAL PIER 10
P514	16	5'-0"			ENDS VERTICAL PIER 10
P628	2	22'-3"			TOP HORIZONTAL PIER 10
P699	24	11'-2"	X		TOP HORIZONTAL PIER 10
P573	8	8'-11"			TOP HORIZONTAL PIER 10
P701	40	3'-2"			DOWELS - VERTICAL PIERS 2 & 7
P651	6	33'-0"			TOP HORIZONTAL PIER 9

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
P603	12 SETS OF 10	16'-2" TO 21'-8"
P633	36 SETS OF 18	11'-0" TO 16'-2"
P811	24 SETS OF 9	34'-8" TO 36'-4"
P821	18 SETS OF 7	41'-2" TO 43'-0"
P831	2 SETS OF 9	40'-2" TO 41'-10"
P698	4 SETS OF 12	15'-10" TO 21'-2"

STATE PROJECT NUMBER

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

BILL OF BARS
PIER CAP

SHEET 63 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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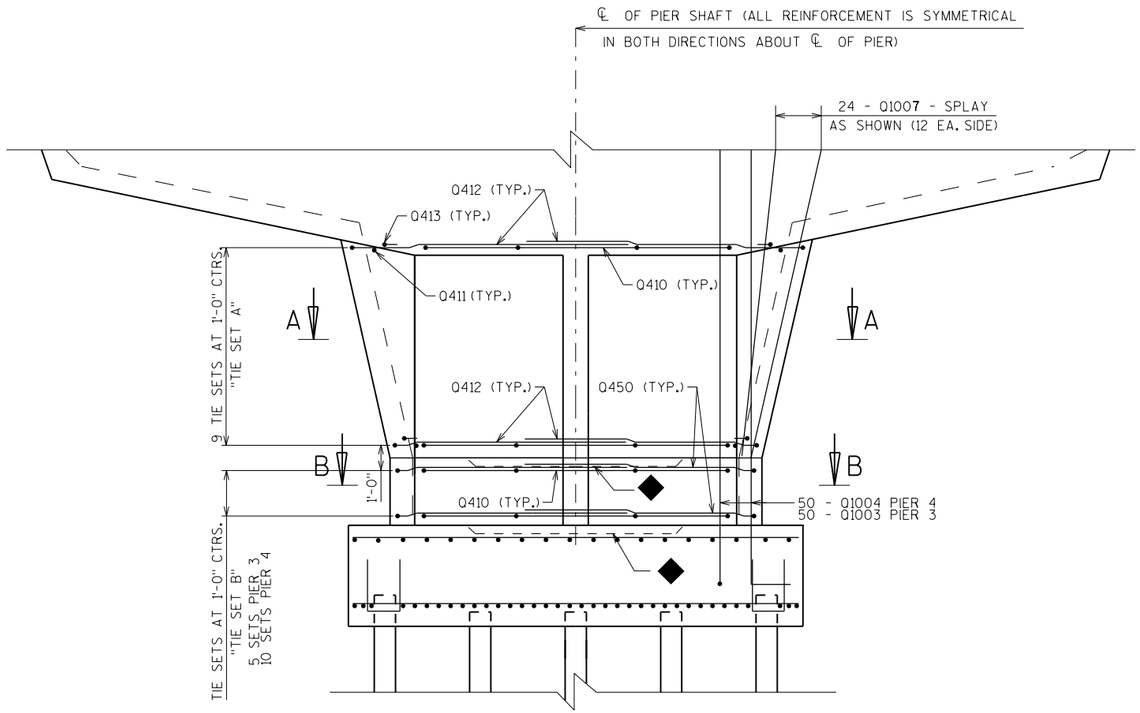
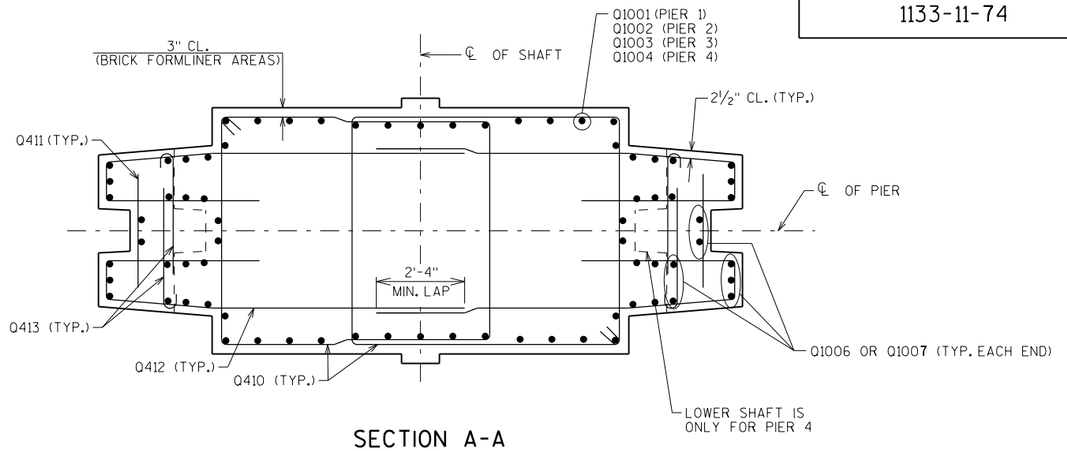
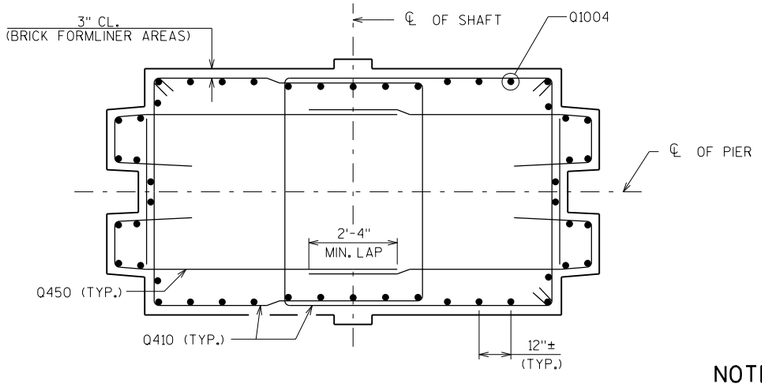


ELEVATION - PIER 4

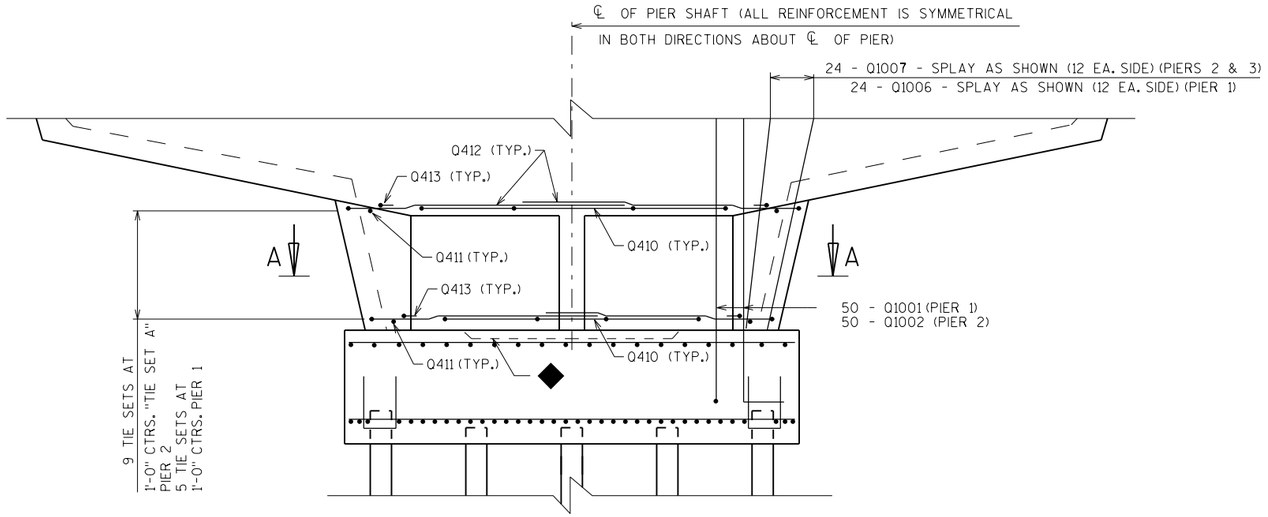
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



ELEVATION - PIERS 1&2

(LOOKING UPSTATION)

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS
SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q410 BARS
- 2 - Q411 BARS
- 4 - Q412 BARS
- 4 - Q413 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q450 BARS
- 2 - Q410 BARS
- 2 - Q411 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SHAFT DETAILS
PIERS 1-4

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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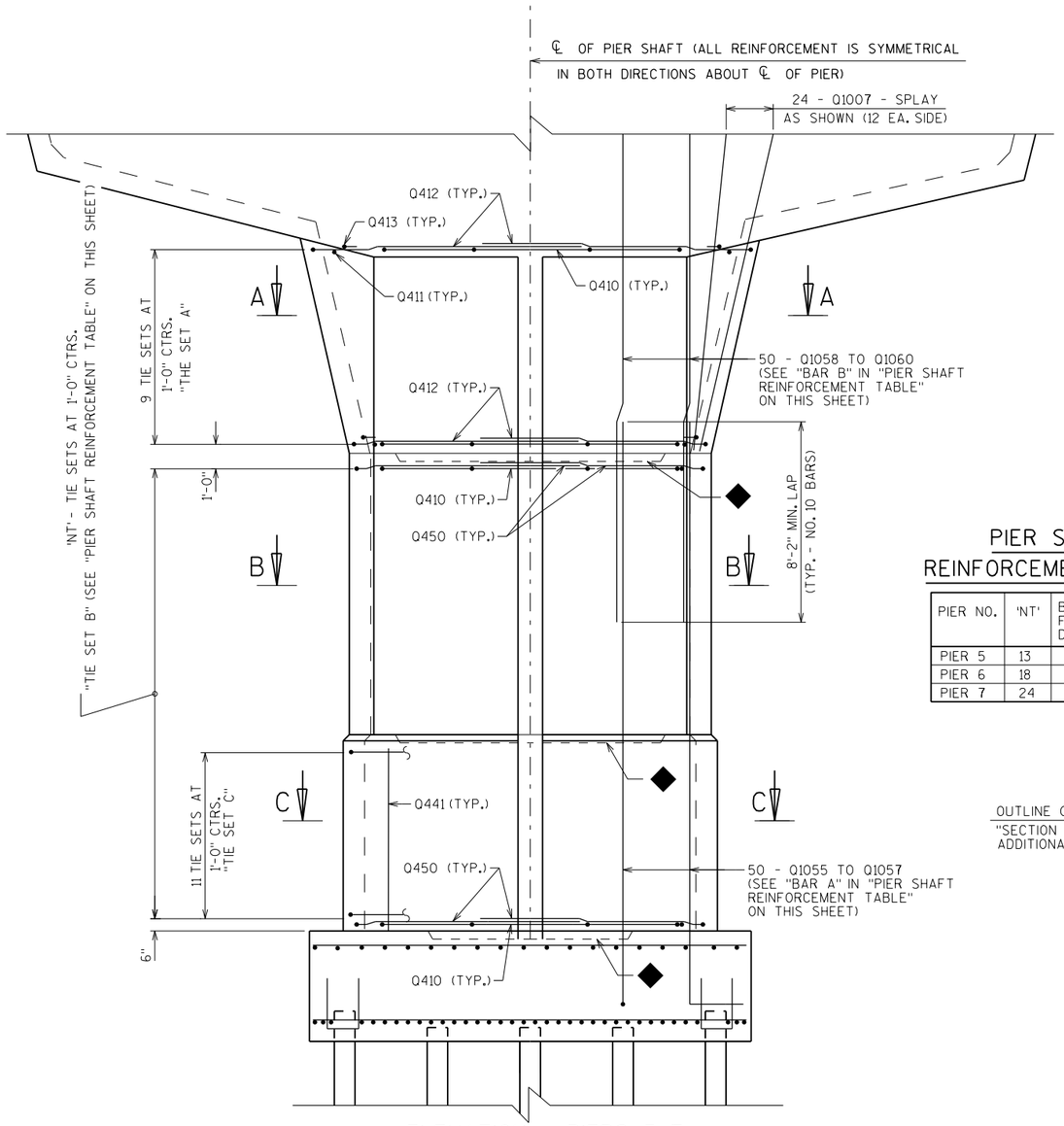
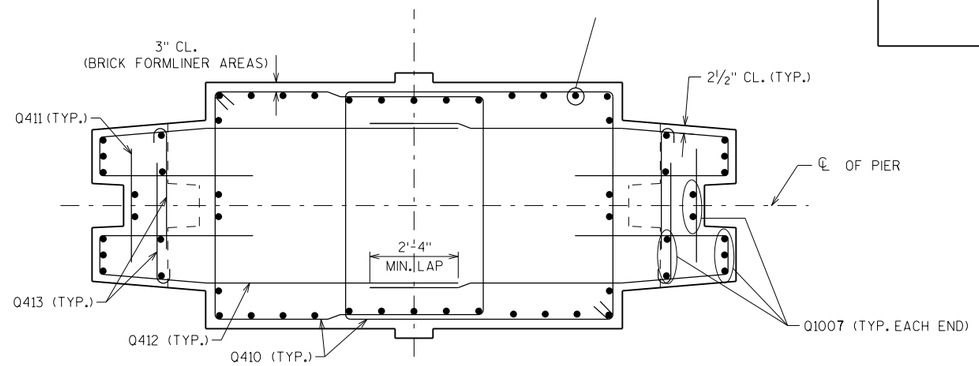
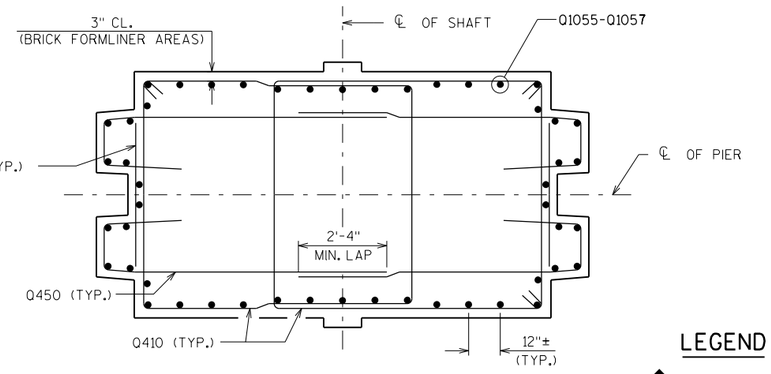


ELEVATION - PIERS 5-7

(LOOKING UPSTATION)



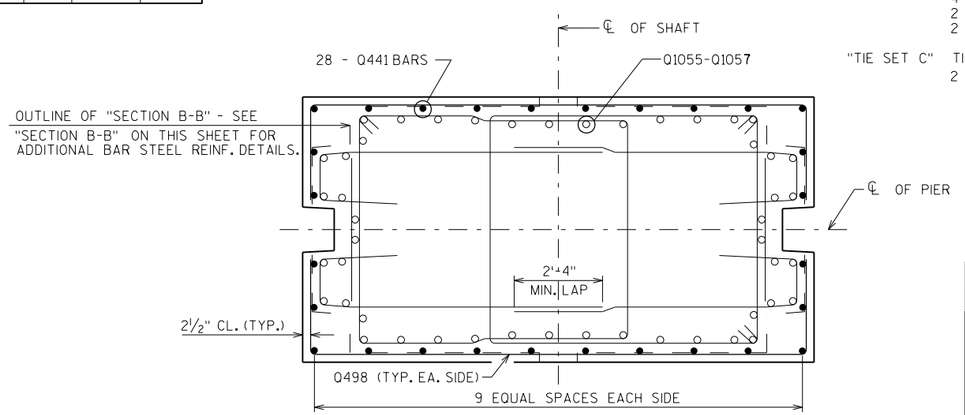
SECTION A-A



SECTION B-B

PIER SHAFT
REINFORCEMENT TABLE

PIER NO.	'NT'	BAR A FOOTING DOWELS	BAR B
PIER 5	13	Q1055	Q1058
PIER 6	18	Q1056	Q1059
PIER 7	24	Q1057	Q1060



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q410 BARS
2 - Q411 BARS
4 - Q412 BARS
4 - Q413 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
4 - Q450 BARS
2 - Q410 BARS
2 - Q411 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q498 BARS

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SHAFT DETAILS
PIERS 5-7

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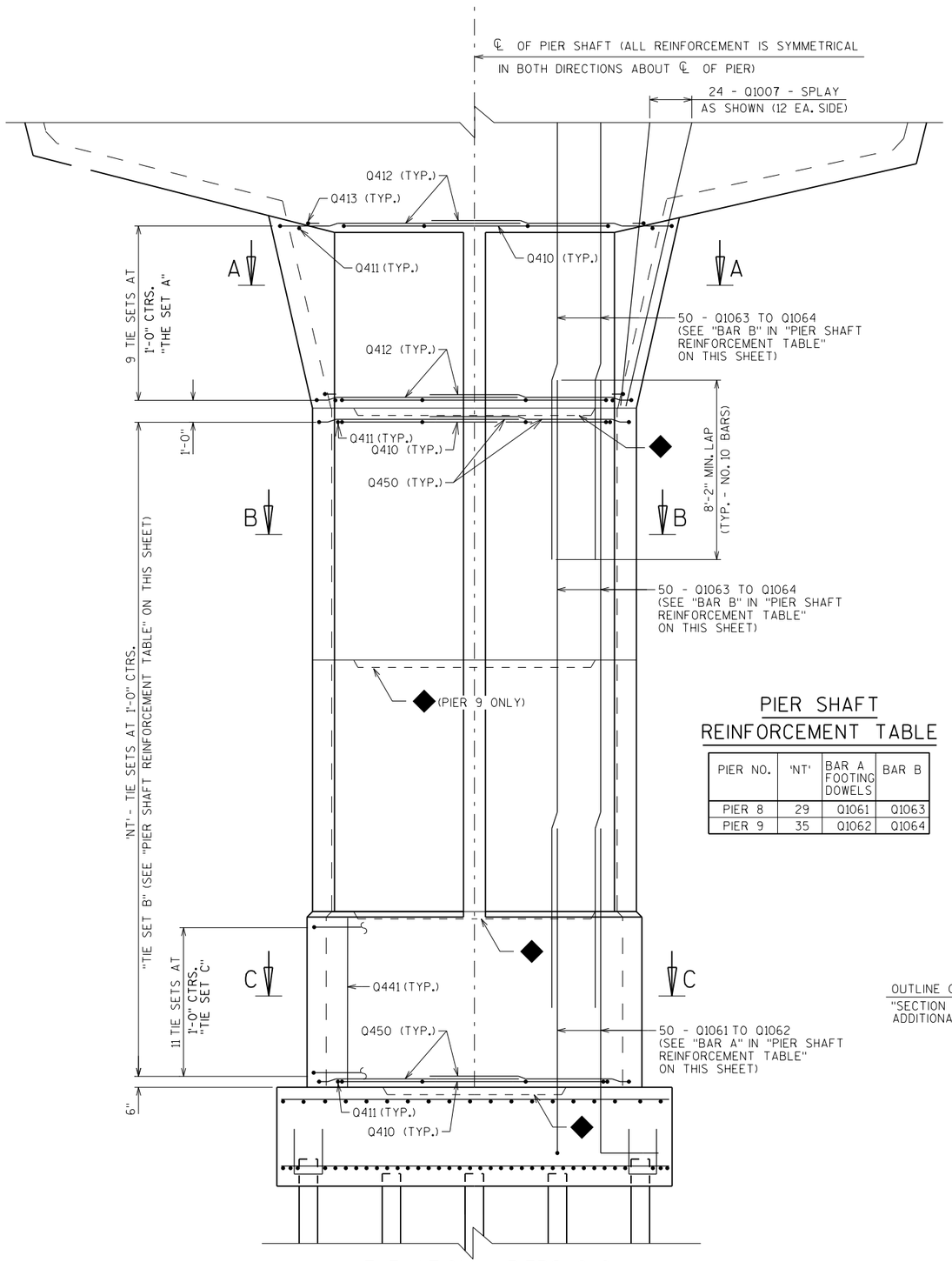
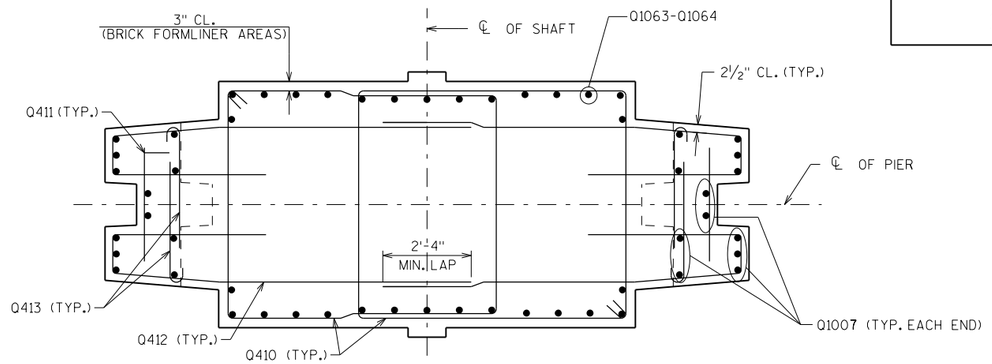


ELEVATION - PIERS 8-9

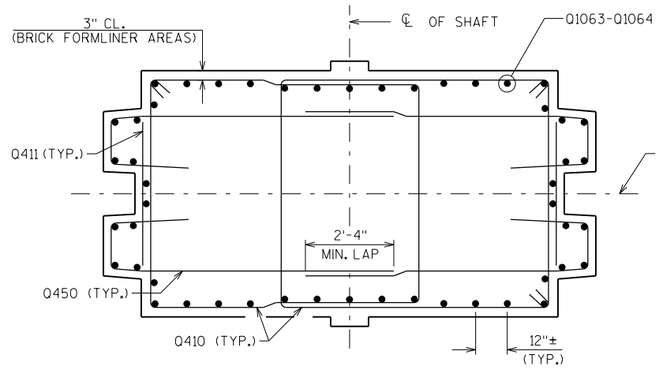
(LOOKING UPSTATION)

PIER SHAFT REINFORCEMENT TABLE

PIER NO.	'NT'	BAR A FOOTING DOWELS	BAR B
PIER 8	29	Q1061	Q1063
PIER 9	35	Q1062	Q1064



SECTION A-A



SECTION B-B

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

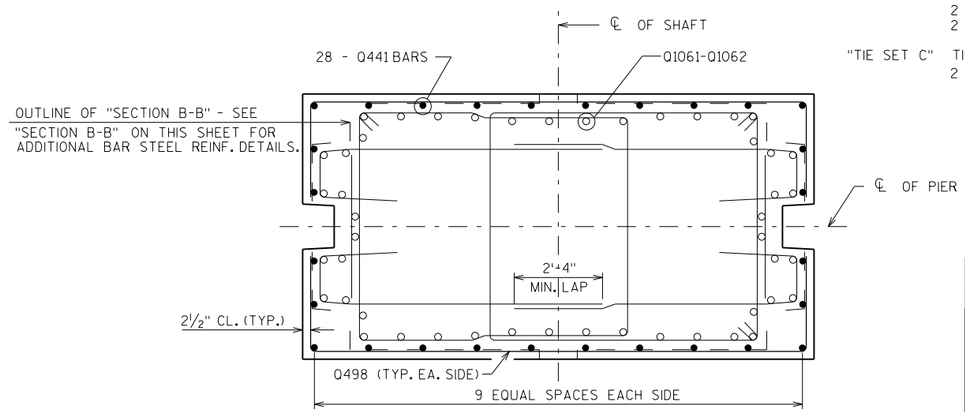
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q410 BARS
- 2 - Q411 BARS
- 4 - Q412 BARS
- 4 - Q413 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q450 BARS
- 2 - Q410 BARS
- 2 - Q411 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q498 BARS



SECTION C-C

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

SHAFT DETAILS PIERS 8-9

SHEET 66 OF 143

749

DATE: 5/31/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\066 B-5-678 - Shaft Details - Piers 8-9.dgn

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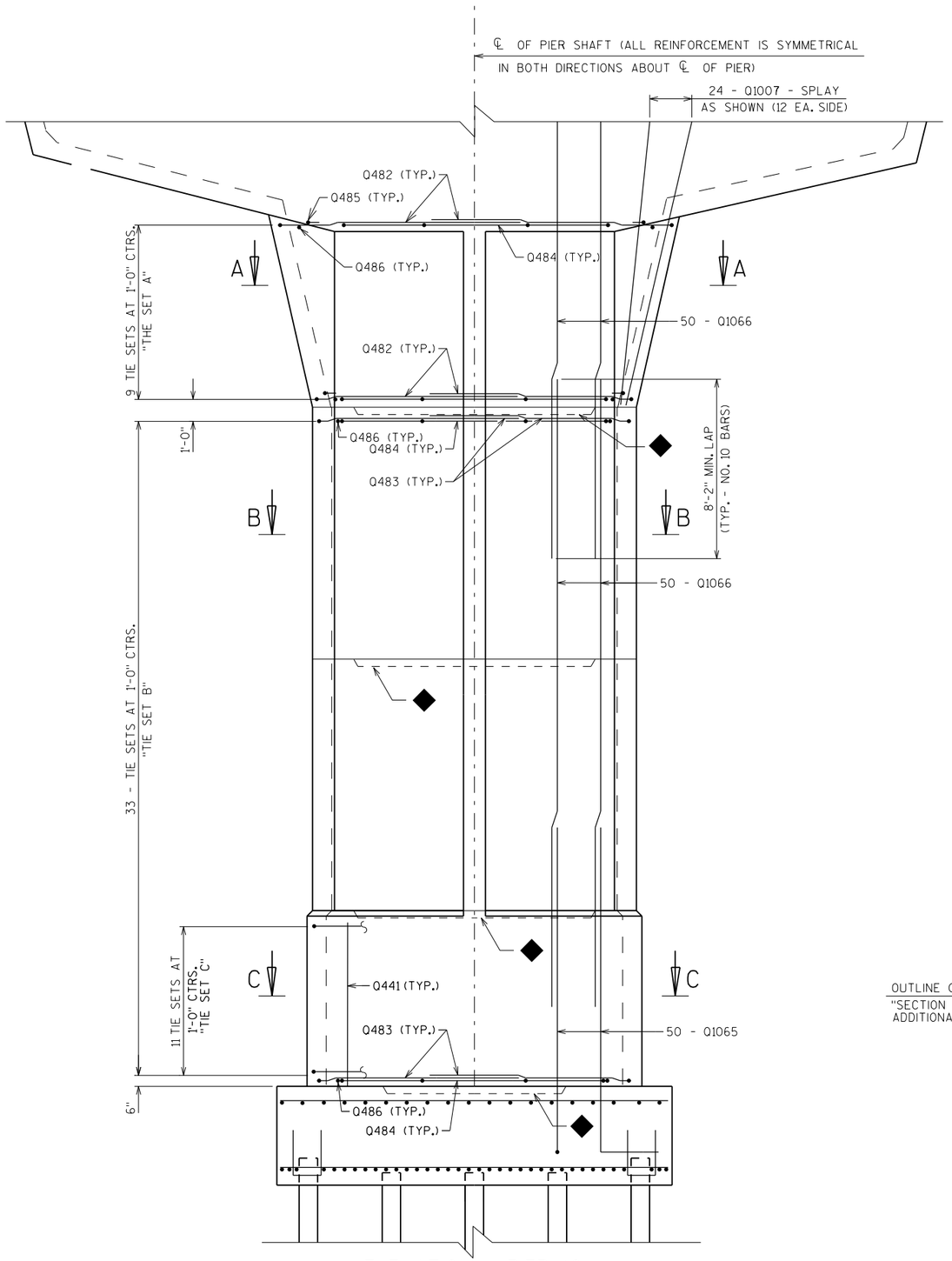
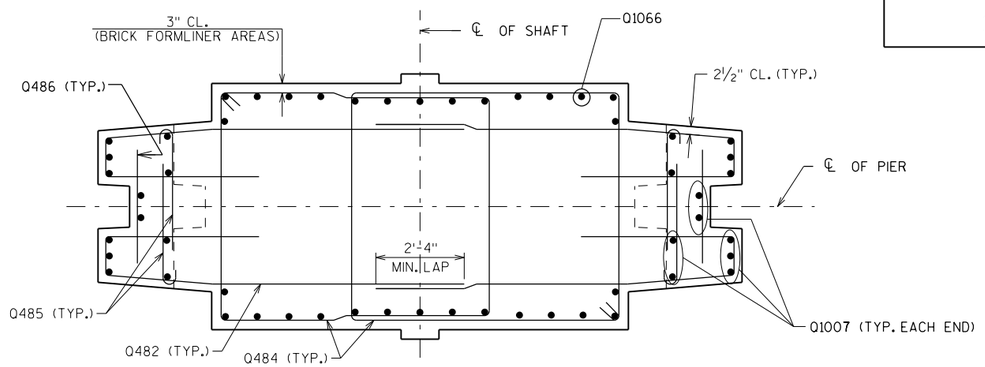
STATE PROJECT NUMBER

1133-11-74

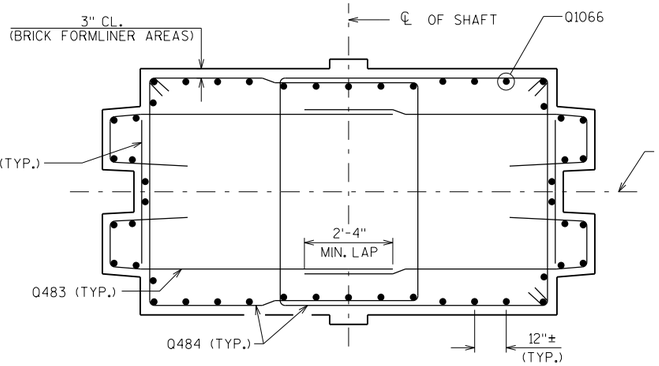


ELEVATION - PIER 10

(LOOKING UPSTATION)



SECTION A-A



SECTION B-B

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS
SEE SHEET "BILL OF BARS PIER SHAFT"

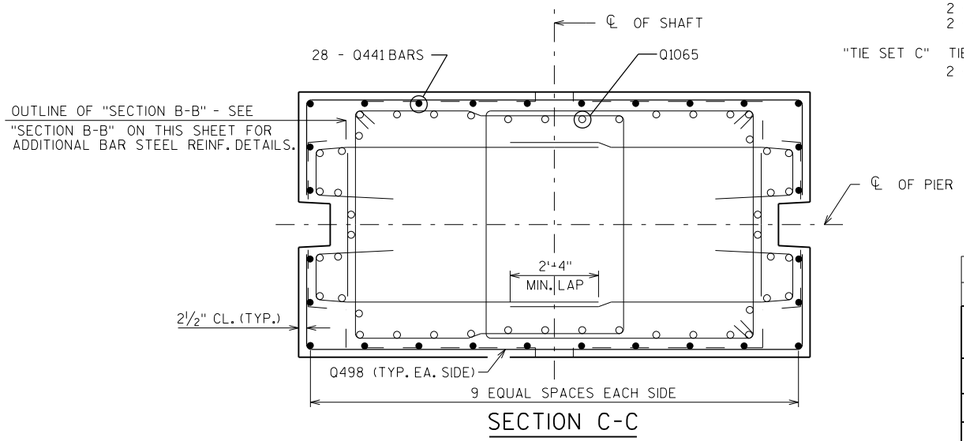
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q484 BARS
- 2 - Q486 BARS
- 4 - Q482 BARS
- 4 - Q485 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q483 BARS
- 2 - Q484 BARS
- 2 - Q486 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q498 BARS



SECTION C-C

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

SHAFT DETAILS
PIER 10

SHEET 67 OF 143
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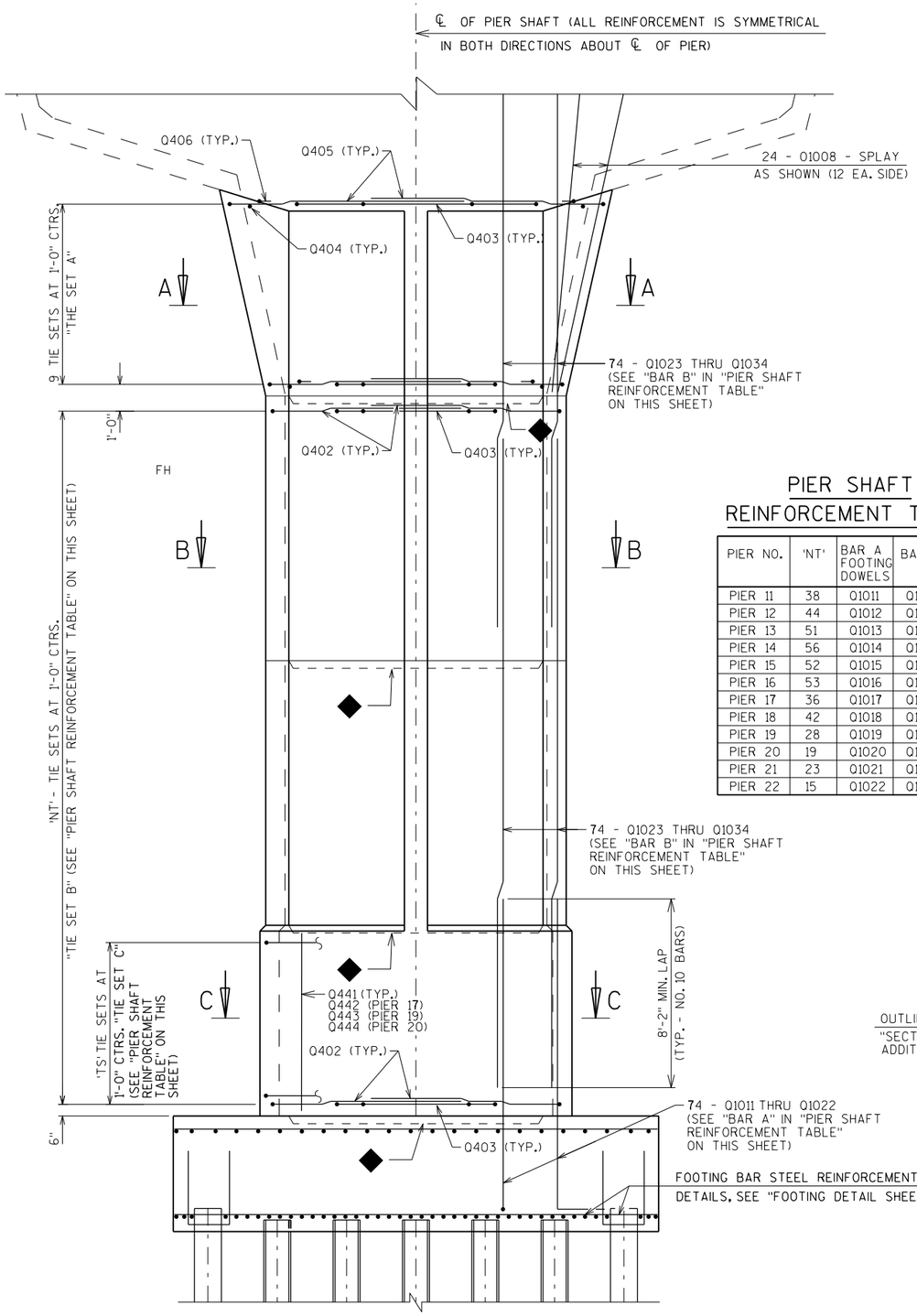
FILE= O:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\067 B-5-678 - Shaft Details - Pier 10.dgn

DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74

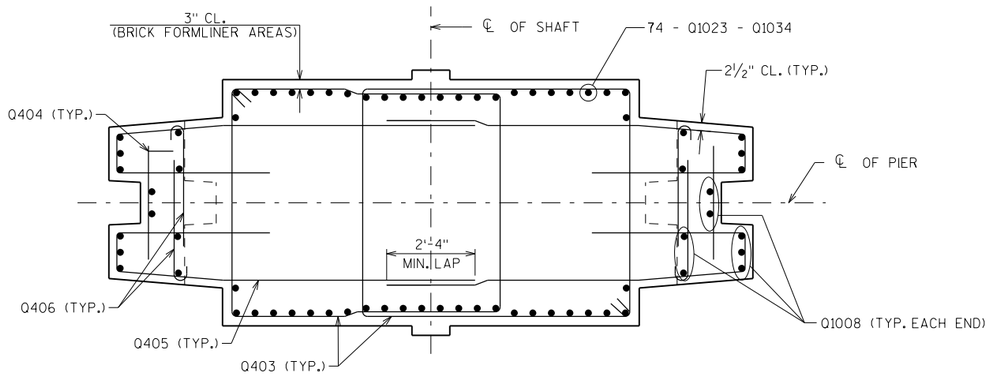


ELEVATION

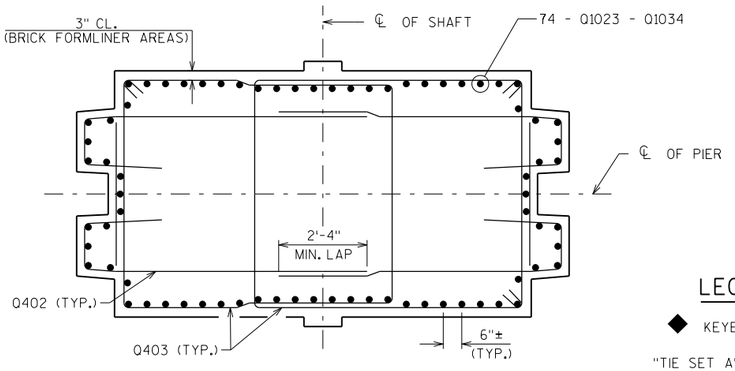
LOOKING UPSTATION

PIER SHAFT REINFORCEMENT TABLE

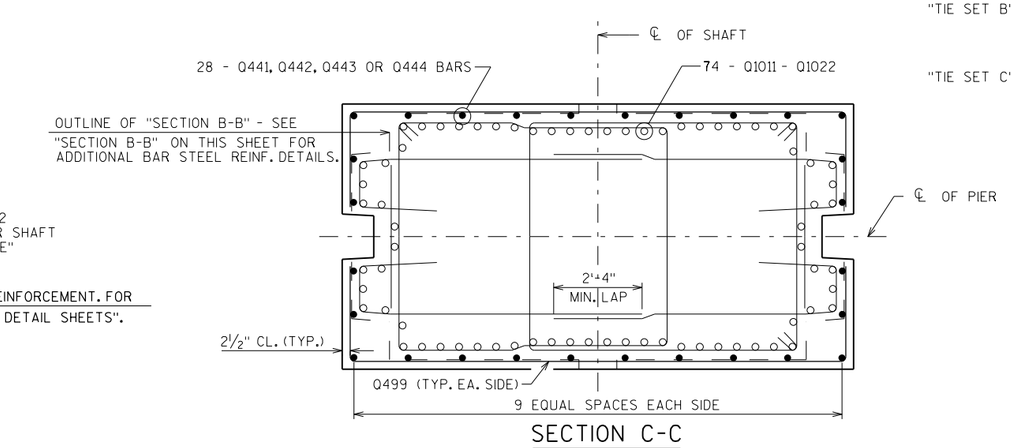
PIER NO.	'NT'	BAR A FOOTING DOWELS	BAR B	'TS'
PIER 11	38	Q1011	Q1023	11
PIER 12	44	Q1012	Q1024	11
PIER 13	51	Q1013	Q1025	11
PIER 14	56	Q1014	Q1026	11
PIER 15	52	Q1015	Q1027	11
PIER 16	53	Q1016	Q1028	11
PIER 17	36	Q1017	Q1029	27
PIER 18	42	Q1018	Q1030	11
PIER 19	28	Q1019	Q1031	18
PIER 20	19	Q1020	Q1032	16
PIER 21	23	Q1021	Q1033	11
PIER 22	15	Q1022	Q1034	11



SECTION A-A



SECTION B-B



SECTION C-C

NOTE:

FOR SHAFT BAR REINFORCEMENT DETAILS SEE SHEET "BILL OF BARS PIER SHAFT"

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" X 2'-0" X 8'-4".

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q499 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SHAFT DETAILS
PIERS 11 - 22

SHEET 68 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\068 B-5-678 - Shaft Details - Piers 11-22.dgn

DATE: 5/31/2013

I.D.

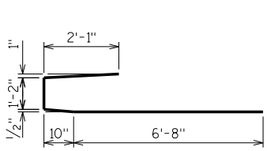
PIER SHAFT - BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

TOTAL WEIGHT = 499,010 LBS.

MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
Q402	1828	10'-7"	X		HORIZONTAL - HOOKS MIDDLE PIERS 11 -22
Q403	1130	26'-8"	X		SHAFT - TIES - HORIZONTAL PIERS 11-22
Q404	1130	3'-9"			HORIZONTAL - ENDS FLARED SECTION PIERS 11-22
Q405	432	12'-11"	X	X	HORIZONTAL - HOOKS TOP PIERS 11-22
Q406	432	3'-9"	X		HORIZONTAL - HOOKS FLARED SECTION PIERS 11-22
Q410	422	24'-6"	X		SHAFT - TIES - HORIZONTAL PIERS 1-9
Q411	422	2'-2"			HORIZONTAL - ENDS FLARED SECTION PIERS 1-9
Q412	308	13'-3"	X	X	HORIZONTAL - HOOKS TOP PIERS 1-9
Q413	308	2'-9"	X		HORIZONTAL - HOOKS FLARED SECTION PIERS 1-9
Q441	420	9'-8"			VERTICAL - PEDESTAL SECTION ONLY PIERS 5-22
Q450	536	11'-0"	X		HORIZONTAL - HOOKS MIDDLE PIERS 4-9
Q482	36	13'-6"	X	X	HORIZONTAL - HOOKS TOP PIER 10
Q483	132	11'-4"	X		HORIZONTAL - HOOKS MIDDLE PIER 10
Q484	84	26'-6"	X		SHAFT - TIES - HORIZONTAL PIER 10
Q485	36	2'-9"	X		HORIZONTAL - HOOKS FLARED SECTION PIER 10
Q486	84	3'-2"			HORIZONTAL - ENDS FLARED SECTION PIER 10
Q498	132	17'-8"	X		HORIZONTAL - PEDESTAL SECTION ONLY FF AND BF PIERS 5-10
Q499	320	17'-11"	X		HORIZONTAL - PEDESTAL SECTION ONLY FF AND BF PIERS 11-22
Q1001	50	16'-5"	X		VERTICAL - MAIN PIER 1
Q1002	50	21'-8"	X		VERTICAL - MAIN PIER 2
Q1003	50	25'-4"	X		VERTICAL - MAIN PIER 3
Q1004	50	30'-1"	X		VERTICAL - MAIN PIER 4
Q1006	24	9'-9"			VERTICAL - FLARED ENDS PIER 1
Q1007	192	14'-0"			VERTICAL - FLARED ENDS PIERS 2-9
Q1008	312	16'-0"			VERTICAL - FLARED ENDS PIERS 10-22
Q1011	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 11
Q1012	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 12
Q1013	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 13
Q1014	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 14
Q1015	74	16'-0"	X		VERTICAL - MAIN INTO FOOTING PIER 15
Q1016	74	16'-0"	X		VERTICAL - MAIN INTO FOOTING PIER 16
Q1017	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 17
Q1018	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 18
Q1019	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 19
Q1020	74	16'-0"	X		VERTICAL - MAIN INTO FOOTING PIER 20
Q1021	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 21
Q1022	74	15'-6"	X		VERTICAL - MAIN INTO FOOTING PIER 22
Q1023	148	31'-4"			VERTICAL - MAIN INTO CAP PIER 11
Q1024	148	34'-11"			VERTICAL - MAIN INTO CAP PIER 12
Q1025	148	37'-6"			VERTICAL - MAIN INTO CAP PIER 13
Q1026	148	39'-11"			VERTICAL - MAIN INTO CAP PIER 14
Q1027	148	35'-6"			VERTICAL - MAIN INTO CAP PIER 15
Q1028	148	38'-9"			VERTICAL - MAIN INTO CAP PIER 16
Q1029	148	26'-9"			VERTICAL - MAIN INTO CAP PIER 17
Q1030	148	32'-11"			VERTICAL - MAIN INTO CAP PIER 18
Q1031	148	26'-2"			VERTICAL - MAIN INTO CAP PIER 19
Q1032	148	20'-2"			VERTICAL - MAIN INTO CAP PIER 20
Q1033	148	24'-1"			VERTICAL - MAIN INTO CAP PIER 21
Q1034	148	19'-6"			VERTICAL - MAIN INTO CAP PIER 22
Q1055	50	14'-6"	X		VERTICAL - MAIN PIER 5
Q1056	50	15'-0"	X		VERTICAL - MAIN PIER 6
Q1057	50	15'-0"	X		VERTICAL - MAIN PIER 7
Q1058	50	28'-4"			VERTICAL - MAIN LAP PIER 5
Q1059	50	32'-9"			VERTICAL - MAIN LAP PIER 6
Q1060	50	37'-8"			VERTICAL - MAIN LAP PIER 7
Q1061	50	15'-0"	X		VERTICAL - MAIN PIER 8
Q1062	50	15'-0"	X		VERTICAL - MAIN PIER 9
Q1063	100	26'-0"			VERTICAL - MAIN LAP PIER 8
Q1064	100	30'-0"			VERTICAL - MAIN LAP PIER 9
Q1065	50	14'-7"	X		VERTICAL - MAIN PIER 10
Q1066	100	30'-6"			VERTICAL - MAIN LAP PIER 10
Q442	28	25'-8"			VERTICAL - PEDESTAL SECTION ONLY PIER 17
Q443	28	16'-8"			VERTICAL - PEDESTAL SECTION ONLY PIER 19
Q444	28	14'-8"			VERTICAL - PEDESTAL SECTION ONLY PIER 20

LENGTH SHOWN FOR BAR SERIES IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



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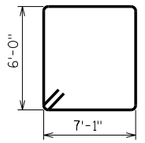

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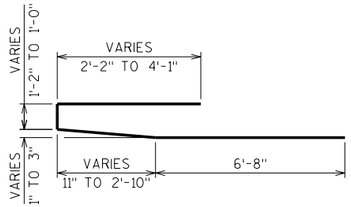

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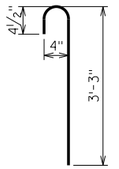

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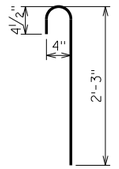

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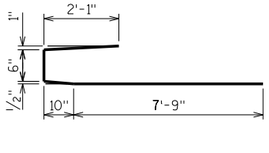

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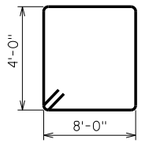

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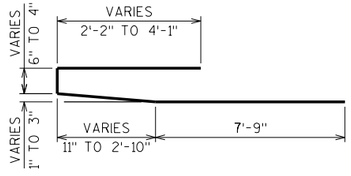

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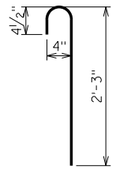

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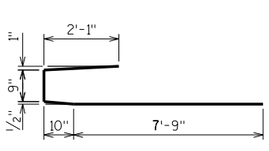

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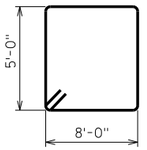

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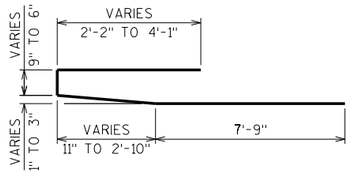

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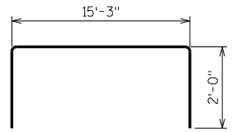

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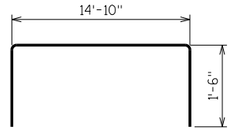

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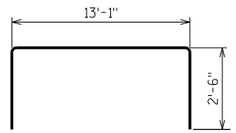
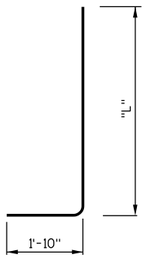


Q499

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
Q405	48 SETS OF 9	11'-0" TO 14'-10"
Q412	32 SETS OF 9 1 SETS OF 5	11'-4" TO 15'-2"
Q482	4 SETS OF 9	11'-9" TO 15'-3"



Q1001-Q1004
Q1011-Q1022
Q1055-Q1057
Q1061-Q1062
Q1065

MARK	DIMENSION "L"
Q1001	14'-10"
Q1002	20'-1"
Q1003	23'-9"
Q1004	28'-6"
Q1011	13'-11"
Q1012	13'-11"
Q1013	13'-11"
Q1014	13'-11"
Q1015	14'-5"
Q1016	14'-5"
Q1017	13'-11"
Q1018	13'-11"
Q1019	13'-11"
Q1020	14'-5"
Q1021	13'-11"
Q1022	13'-11"
Q1055	12'-11"
Q1056	13'-5"
Q1057	13'-5"
Q1061	13'-5"
Q1062	13'-5"
Q1065	13'-0"

STATE PROJECT NUMBER

1133-11-74

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

BILL OF BARS
PIER SHAFT

SHEET 69 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

FILE= G:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\069 B-5-678 - Bill of Bars - Pier Shaft.dgn

DATE:5/31/2013
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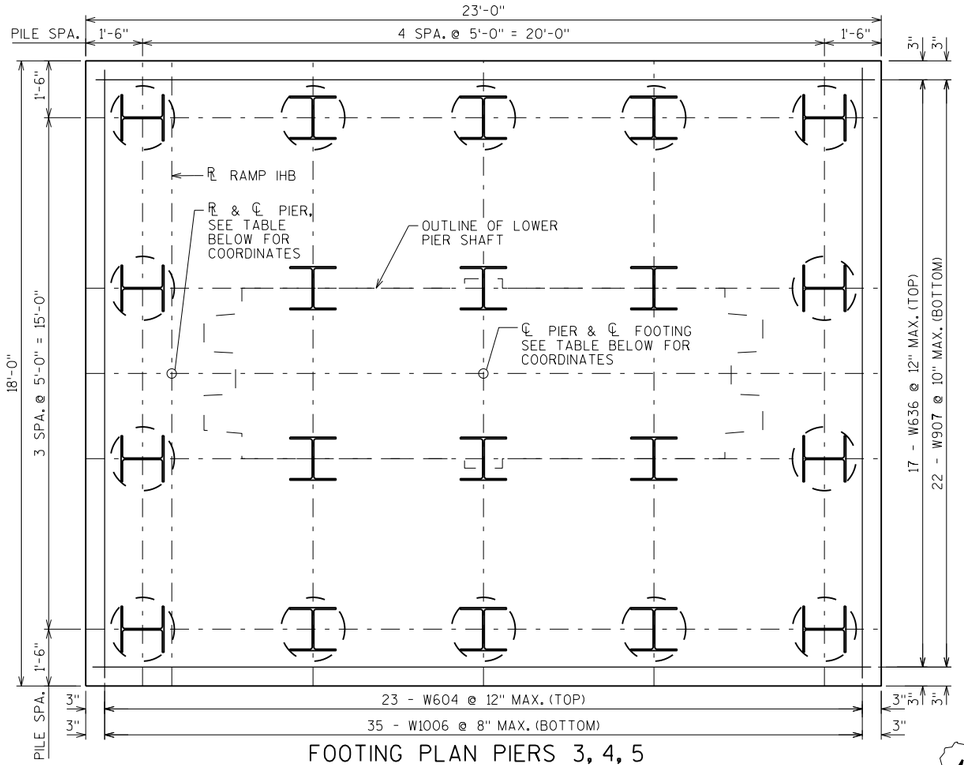
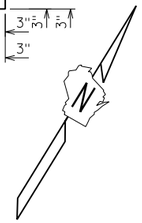


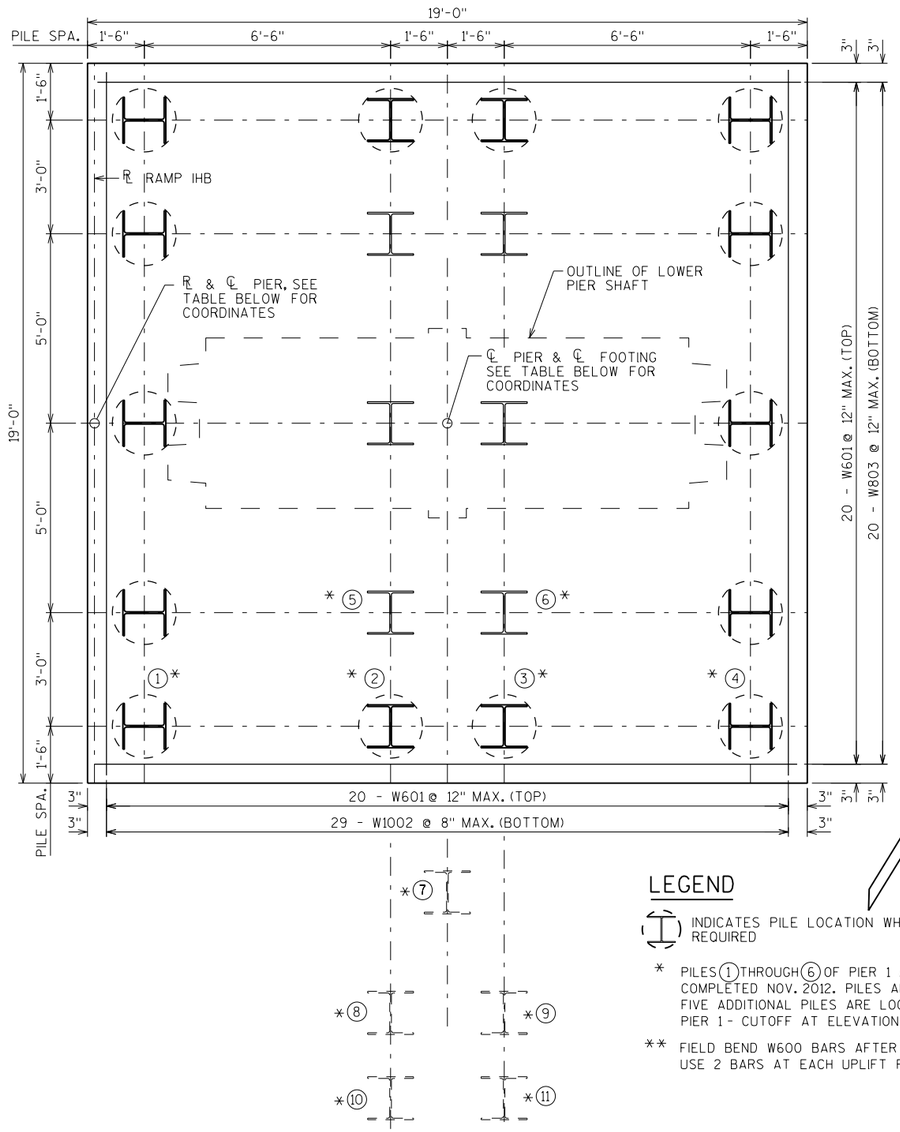
FOOTING PLAN PIERS 3, 4, 5

STATIONS & COORDINATES TABLE

LOCATION	℄ PIER STATION	℞ AND ℄ OF PIER COORDINATES	℄ OF PIER AND FOOTING COORDINATES
PIER 1	STA. 1178+16.75	N = 582361.05 E = 91614.22	N = 582365.84 E = 91621.84
PIER 2	STA. 1179+53.58	N = 582476.86 E = 91541.35	N = 582481.65 E = 91548.97
PIER 3	STA. 1180+90.42	N = 582592.67 E = 91468.47	N = 582597.47 E = 91476.09
PIER 4	STA. 1182+27.25	N = 582708.48 E = 91395.60	N = 582713.28 E = 91403.21
PIER 5	STA. 1183+57.08	N = 582818.37 E = 91326.45	N = 582823.16 E = 91334.06
PIER 6	STA. 1184+86.92	N = 582928.26 E = 91257.30	N = 582933.05 E = 91264.92
PIER 7	STA. 1186+23.75	N = 583044.07 E = 91184.42	N = 583048.86 E = 91192.04
PIER 8	STA. 1187+60.58	N = 583159.88 E = 91111.55	N = 583164.67 E = 91119.16
PIER 9	STA. 1188+97.42	N = 583275.69 E = 91038.67	N = 583280.49 E = 91046.29
PIER 10	STA. 1190+27.75	N = 583386.01 E = 90969.25	N = 583390.95 E = 90977.12
PIER 11	STA. 1191+66.75	N = 583499.79 E = 90889.51	N = 583505.58 E = 90896.96
PIER 12	STA. 1193+58.75	N = 583642.81 E = 90761.65	N = 583649.57 E = 90768.23
PIER 13	STA. 1195+88.00	N = 583788.72 E = 90585.16	N = 583796.47 E = 90590.56
PIER 14	STA. 1197+70.08	N = 583882.89 E = 90429.47	N = 583891.27 E = 90433.81
PIER 15	STA. 1199+48.33	N = 583954.75 E = 90266.47	N = 583963.61 E = 90269.73
PIER 16	STA. 1201+89.92	N = 584018.02 E = 90033.63	N = 584027.31 E = 90035.31
PIER 17	STA. 1204+31.50	N = 584040.37 E = 89793.39	N = 584049.81 E = 89793.45
PIER 18	STA. 1206+09.75	N = 584030.19 E = 89615.55	N = 584039.56 E = 89614.41
PIER 19	STA. 1207+62.75	N = 584003.49 E = 89464.97	N = 584012.68 E = 89462.82
PIER 20	STA. 1210+09.75	N = 583926.28 E = 89230.69	N = 583934.95 E = 89226.96
PIER 21	STA. 1212+56.75	N = 583809.15 E = 89013.59	N = 583817.03 E = 89008.40
PIER 22	STA. 1215+03.75	N = 583655.73 E = 88820.42	N = 583662.58 E = 88813.93



NORTH ARROW
PIERS 3-5



FOOTING PLAN, PIER 1

NORTH ARROW
PIER 1

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED

* PILES ① THROUGH ⑥ OF PIER 1 ARE EXISTING PILES FROM STATIC PILE LOAD TEST COMPLETED NOV. 2012. PILES ARE CUTOFF AT ELEVATION SHOWN IN TABLE. FIVE ADDITIONAL PILES ARE LOCATED WITHIN 20' OF THE NORTH SIDE OF THE PIER 1 - CUTOFF AT ELEVATION SHOWN IN TABLE.

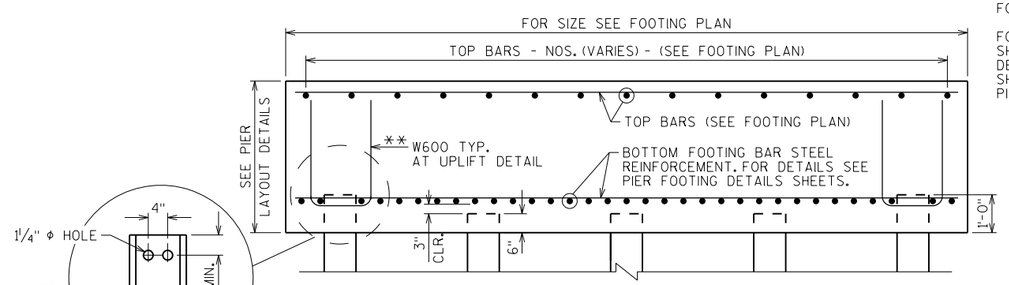
** FIELD BEND W600 BARS AFTER PLACING IN 1¼" HOLES BURNED INTO PILE. USE 2 BARS AT EACH UPLIFT PILE.

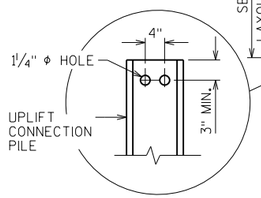
FOOTING PILE CUTOFF EL.

PILE MARK	CUTOFF EL.
1	580.56
2	580.36
3	580.49
4	580.41
5	580.47
6	580.47

PILES OUTSIDE OF FOOTING CUTOFF EL.

PILE MARK	CUTOFF EL.
7	580.48
8	580.60
9	580.31
10	580.53
11	580.42





TYPICAL UPLIFT CONNECTION DETAIL

NOTES:

SEE SHEET 'PIER FOOTING DETAILS - PIER 18' FOR FOOTING BILL OF BARS.

FOOTING DOWELS ARE NOT SHOWN. SEE SHEETS SHAFT DETAILS PIERS 1-4, SHAFT DETAILS PIERS 5-7, SHAFT DETAILS PIERS 8-9, SHAFT DETAILS PIER 10, AND SHAFT DETAILS PIERS 11-22 FOR FOOTING DOWELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER FOOTING DETAILS - PIERS 1, 3, 4 &5

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

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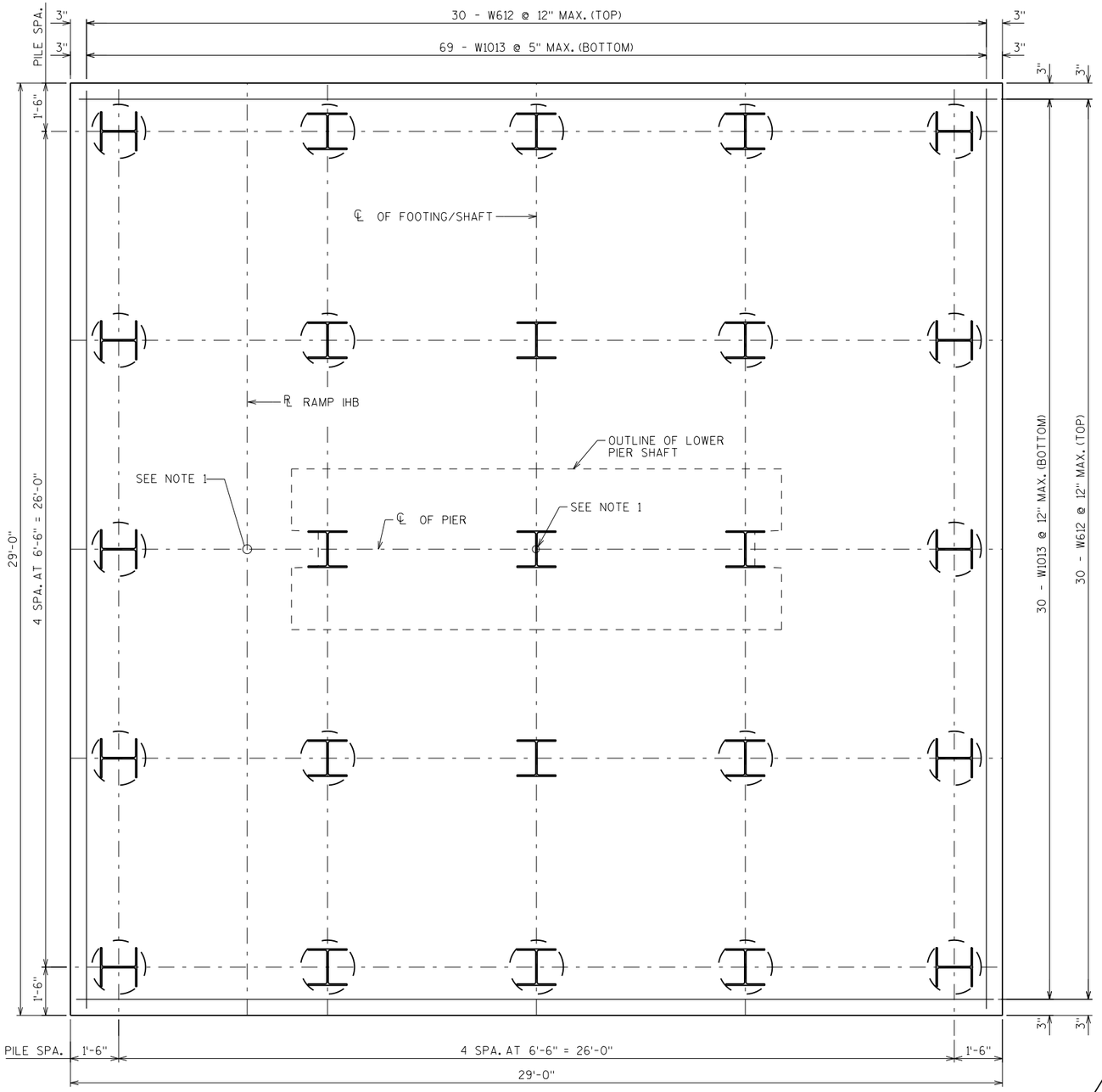
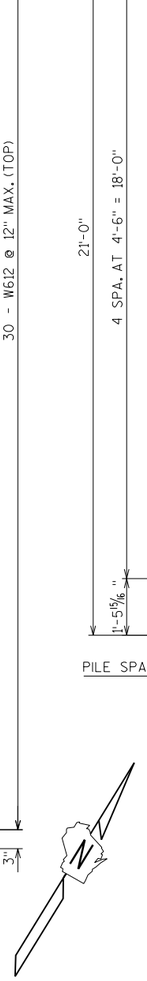
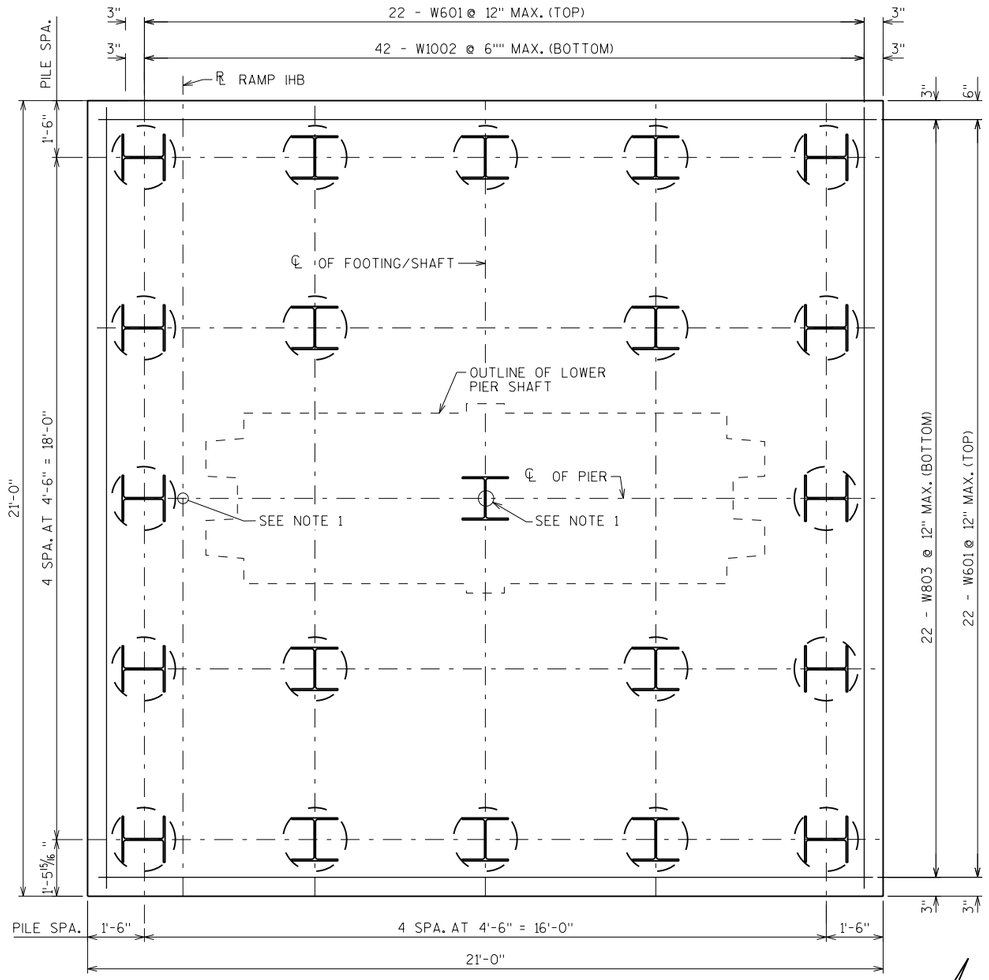


FOOTING PLAN - PIER 7





FOOTING PLAN - PIER 2

NOTES

1. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR STATIONS AND COORDINATES.
2. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR TYPICAL UPLIFT CONNECTION DETAIL.
3. SEE SHEET 'PIER FOOTING DETAILS - PIER 18' FOR FOOTING BILL OF BARS.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER FOOTING DETAILS - PIERS 2 & 7

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STATE PROJECT NUMBER

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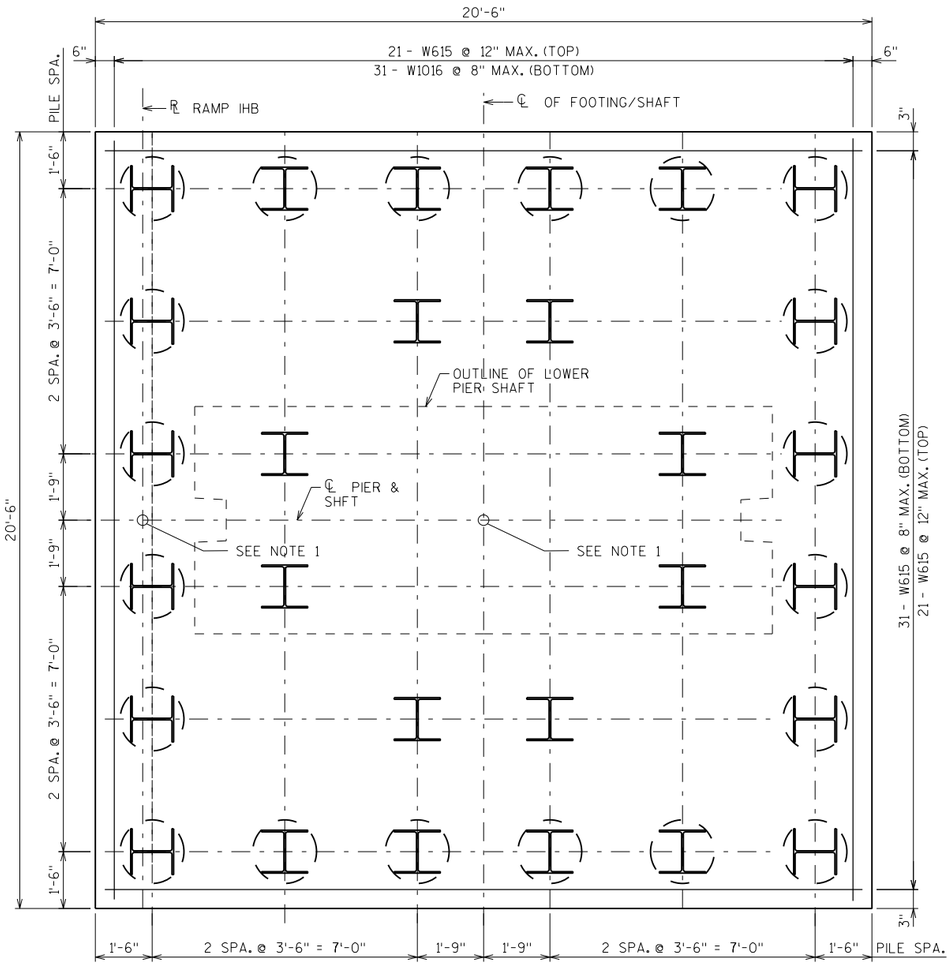


FOOTING PLAN - PIERS 10

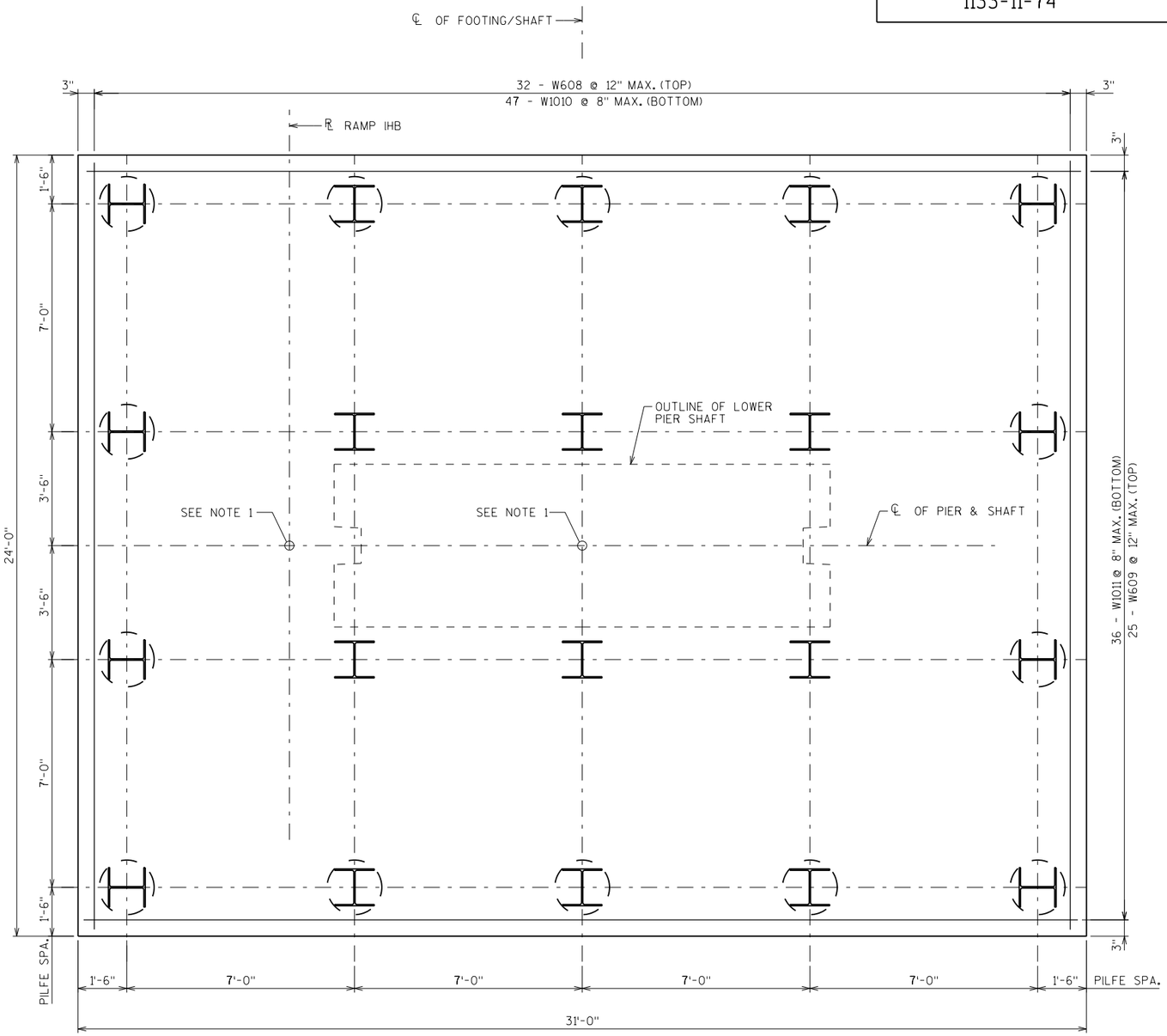
NORTH ARROW
PIER 10

NOTES:

1. SEE SHEET "PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5" FOR STATIONS AND COORDINATES.
2. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR TYPICAL UPLIFT CONNECTION DETAIL.
3. SEE SHEET 'PIER FOOTING DETAILS - PIER 18' FOR FOOTING BILL OF BARS.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED.



FOOTING PLAN - PIERS 6, 8 & 9

NORTH ARROW
PIERS 6, 8 & 9

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER FOOTING DETAILS - PIERS 6, 8 - 10

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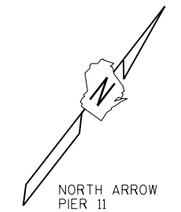
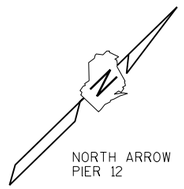
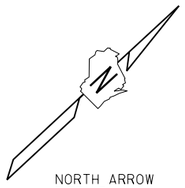
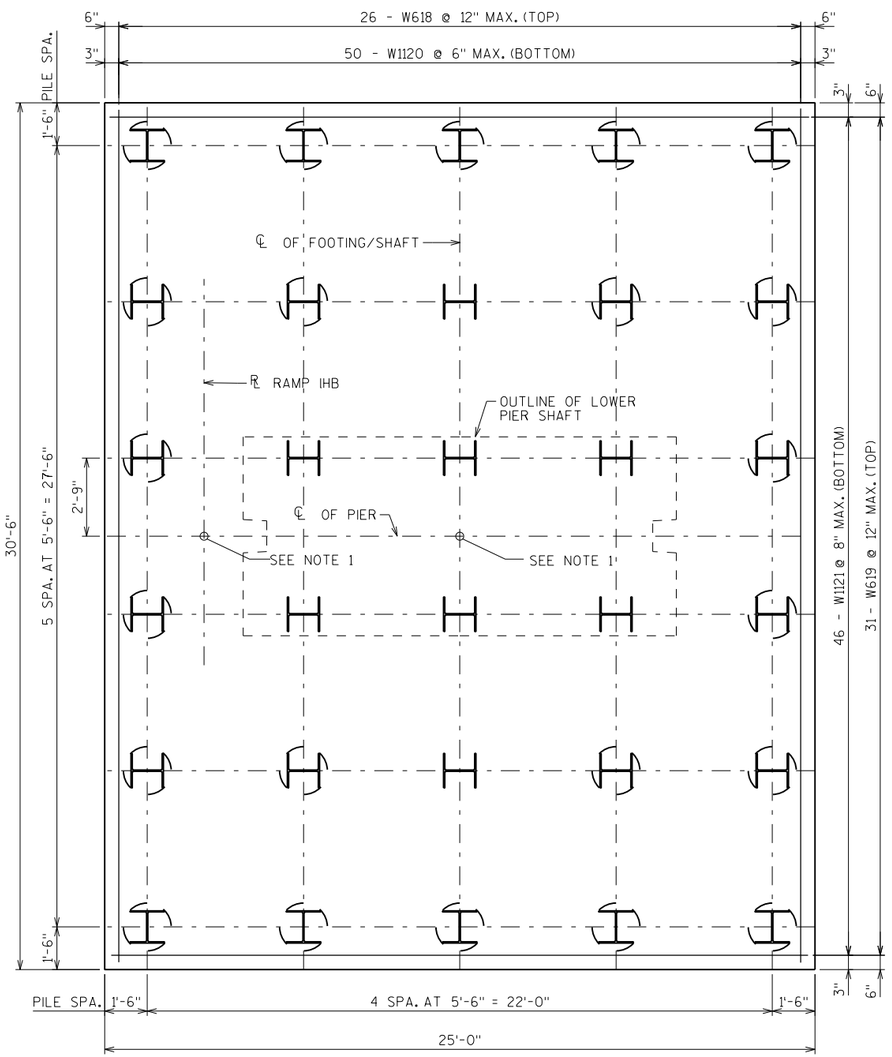
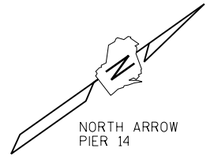


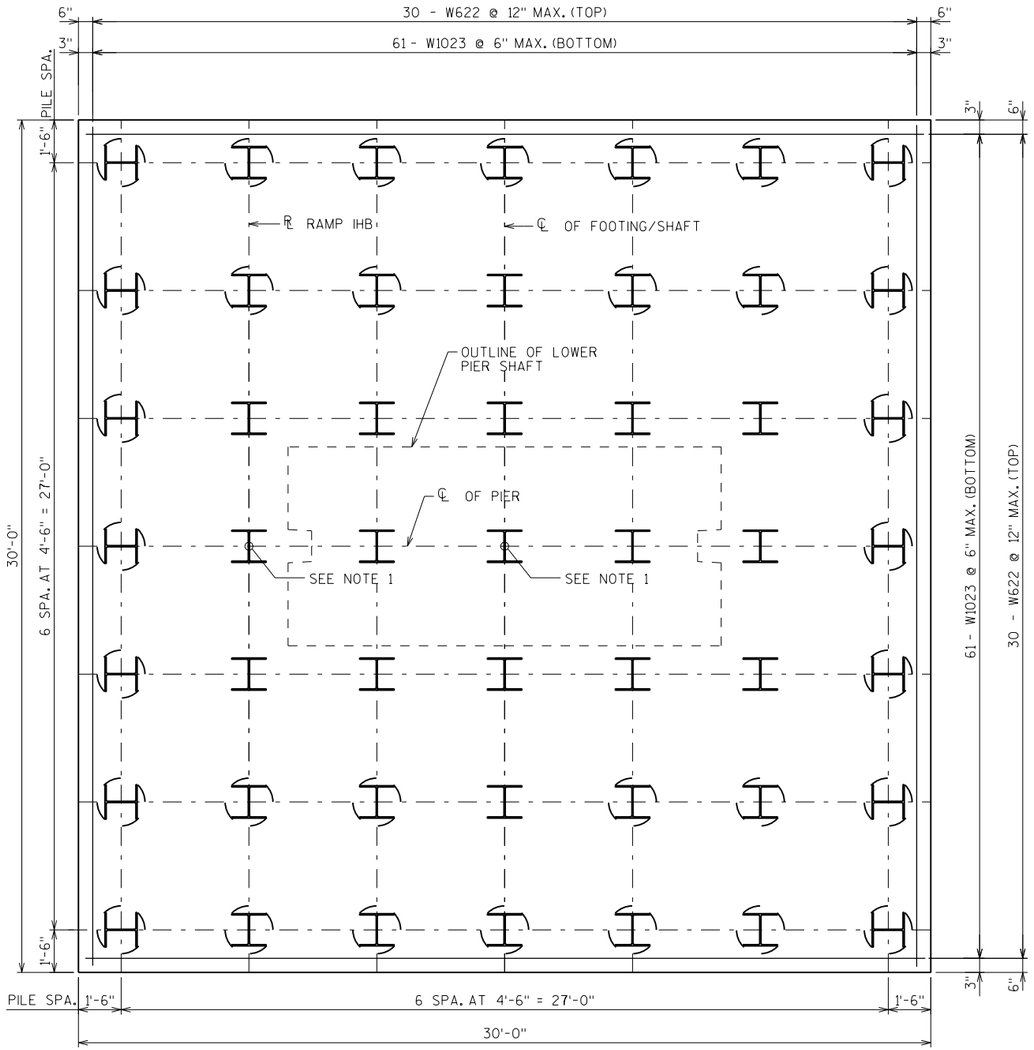






FOOTING PLAN - PIERS 11, 12 & 13





FOOTING PLAN - PIERS 14 & 17

NOTES:

1. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR STATIONS AND COORDINATES.
2. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR TYPICAL UPLIFT CONNECTION DETAIL.
3. SEE SHEET 'PIER FOOTING DETAILS - PIER 18' FOR FOOTING BILL OF BARS.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

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PIER FOOTING DETAILS PIERS 11 - 14, 17

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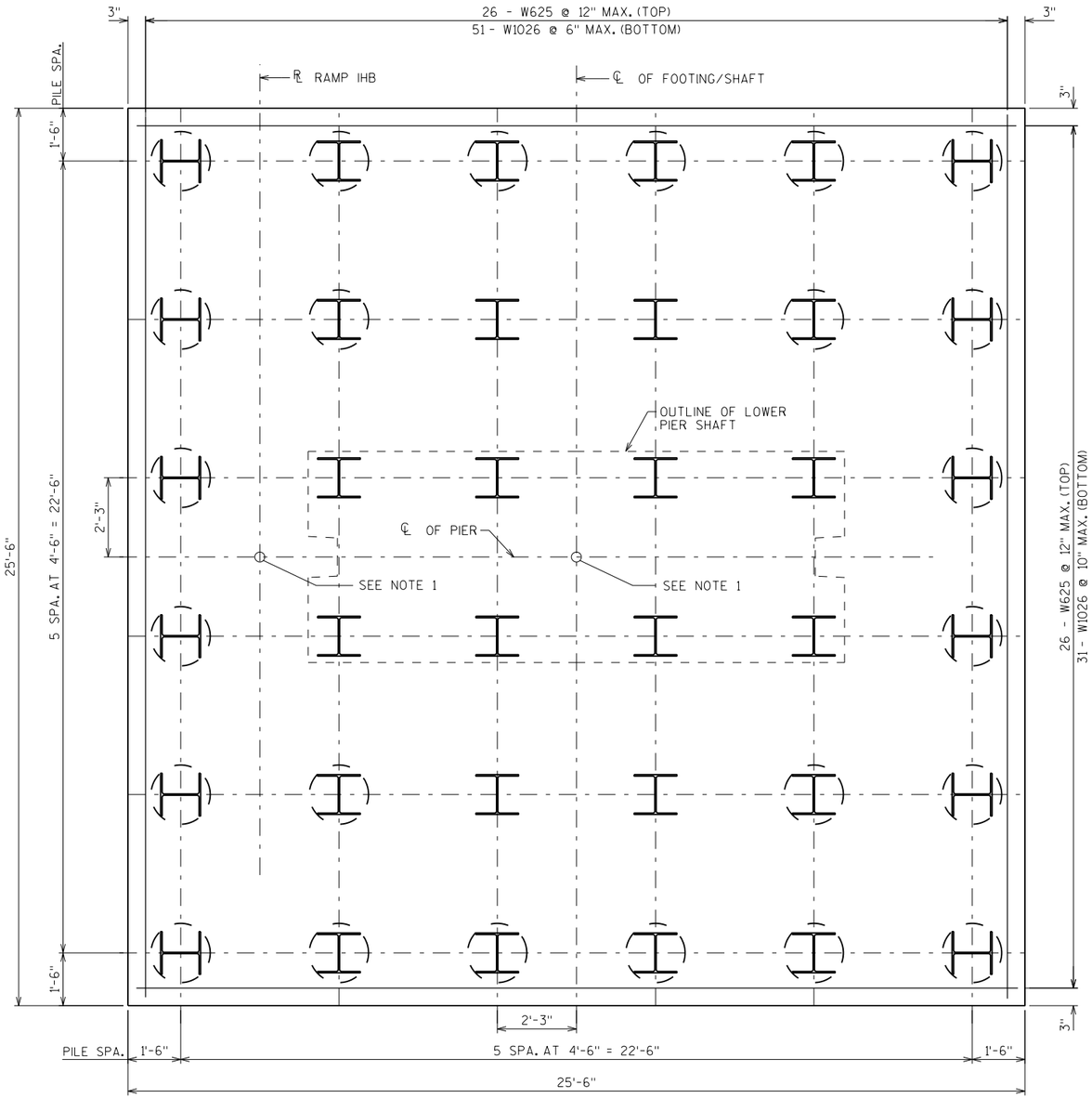
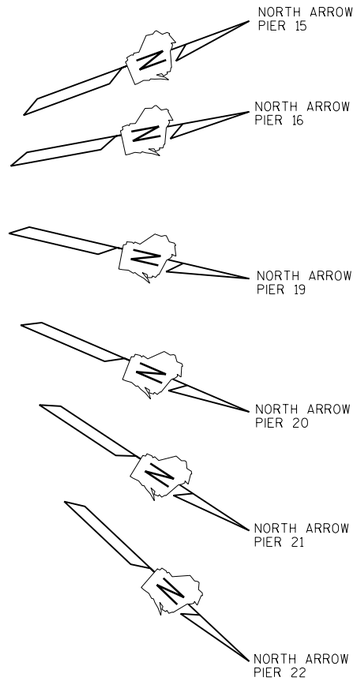


PIERS 15, 16, 19, 20, 21 & 22



NOTES

1. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR STATIONS AND COORDINATES.
2. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR TYPICAL UPLIFT CONNECTION DETAIL.
3. SEE SHEET 'PIER FOOTING DETAILS - PIER 18' FOR FOOTING BILL OF BARS.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER FOOTING DETAILS - PIERS 15, 16, 19-22

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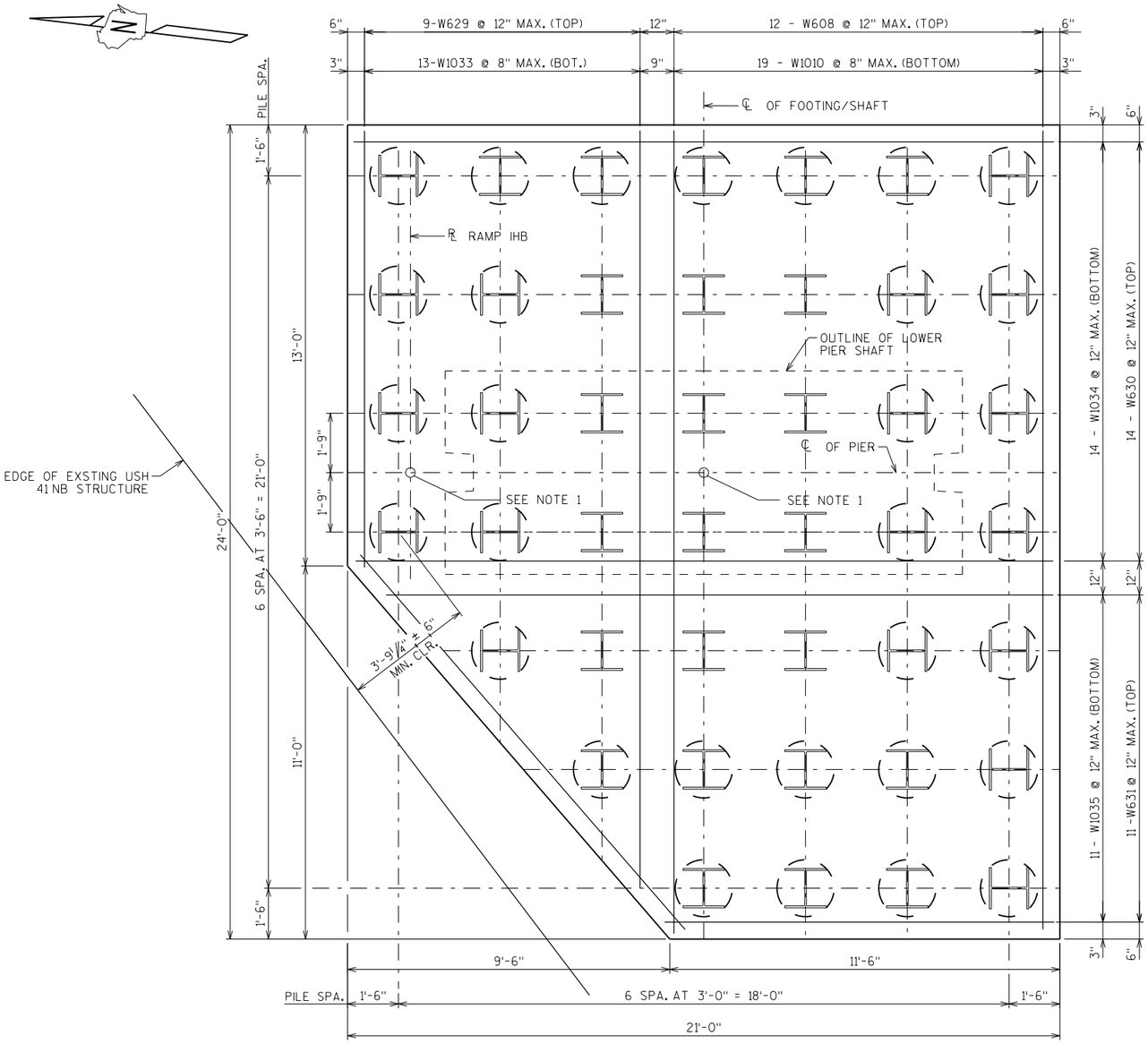

FOOTING PLAN - PIER 18

BILL OF BARS

BAR MARK	NO. REQUIRED	LENGTH	WEIGHT (LB)	SERIES	LOCATION
UNCOATED BARS					TOTAL WEIGHT: 265,459 LB
W600	926	7'-6"	10,431		UPLIFT BAR
W601	84	18'-8"	2,355		PIERS 1 & 2 TOP
W1002	71	18'-8"	5,703		PIERS 1 & 2 BOTTOM LONG.
W803	42	18'-8"	2,093		PIERS 1 & 2 BOTTOM TRANS.
W604	69	17'-8"	1,831		PIERS 3,4 & 5 TOP LONG
W1006	105	17'-8"	7,982		PIERS 3,4 & 5 BOTTOM LONG.
W907	66	22'-8"	5,086		PIERS 3,4 & 5 BOTTOM TRANS.
W608	108	23'-8"	3,839		PIERS 6, 8, 9 & 18 TOP LONG
W609	75	30'-8"	3,455		PIERS 6, 8 & 9 TOP TRANS.
W1010	160	23'-8"	16,294		PIERS 6, 8, 9 & 18 TOP LONG
W1011	108	30'-8"	14,252		PIERS 6, 8, & 9 BOTTOM
W612	60	28'-8"	2,583		PIER 7 TOP
W1013	99	28'-8"	12,212		PIER 7 BOTTOM
W615	73	20'-2"	2,211		PIER 10 TOP & BOTTOM
W1016	31	20'-2"	2,690		PIER 10 BOTTOM LONG.
W618	78	30'-2"	3,534		PIERS 11, 12 & 13 TOP LONG
W619	93	24'-8"	3,446		PIERS 3, 4, 5, 11, 12 & 13 TOP TRANS.
W1120	150	30'-2"	24,041		PIERS 11, 12 & 13 BOTTOM LONG.
W1121	138	24'-8"	18,085		PIERS 11, 12 & 13 BOTTOM TRANS.
W622	120	27'-8"	4,987		PIERS 14 & 17 TOP
W1023	244	27'-8"	35,866		PIERS 14 & 17 BOTTOM
W625	312	25'-2"	11,794		PIERS 15, 16, 19, 20, 21, 22 TOP
W1026	492	25'-2"	53,280		PIERS 15, 16, 19, 20, 21, 22 BOTTOM
W629	9	18'-0"	243	X	PIER 18 TOP LONG.
W630	14	20'-8"	435		PIERS 18 TOP TRANS.
W631	11	15'-9"	260	X	PIER 18 TOP TRANS.
W1032	20	20'-2"	1,736	X	PIER 18 BOTTOM LONG.
W1033	13	18'-0"	1,007	X	PIER 18 BOTTOM LONG.
W1034	14	20'-8"	1,245		PIER 18 BOTTOM TRANS.
W1035	11	15'-9"	745	X	PIER 18 BOTTOM TRANS.
W636	51	22'-8"	1,736		PIERS 3, 4, 5 TOP
W1023	84	27'-8"	10,000		PIERS 13, 14 & 17 BOTTOM

TOTAL: 265,459 LB

BAR SERIES

BAR SERIES LENGTH IS AVERAGE AND TO BE USED FOR BAR WEIGHT CALCULATION ONLY.

MARK	NO. REQ'D.	LENGTH
W629	1 SERIES OF 7	13'-3" TO 22'-8"
W631	1 SERIES OF 8	11'-8" TO 19'-10"
W1033	1 SERIES OF 10	13'-3" TO 22'-8"
W1035	1 SERIES OF 8	11'-8" TO 19'-10"

NOTES:

1. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR STATIONS AND COORDINATES.
2. SEE SHEET 'PIER FOOTING DETAILS - PIERS 1, 3, 4 & 5' FOR TYPICAL UPLIFT CONNECTION DETAIL.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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PIER FOOTING DETAILS PIER 18

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STATE PROJECT NUMBER

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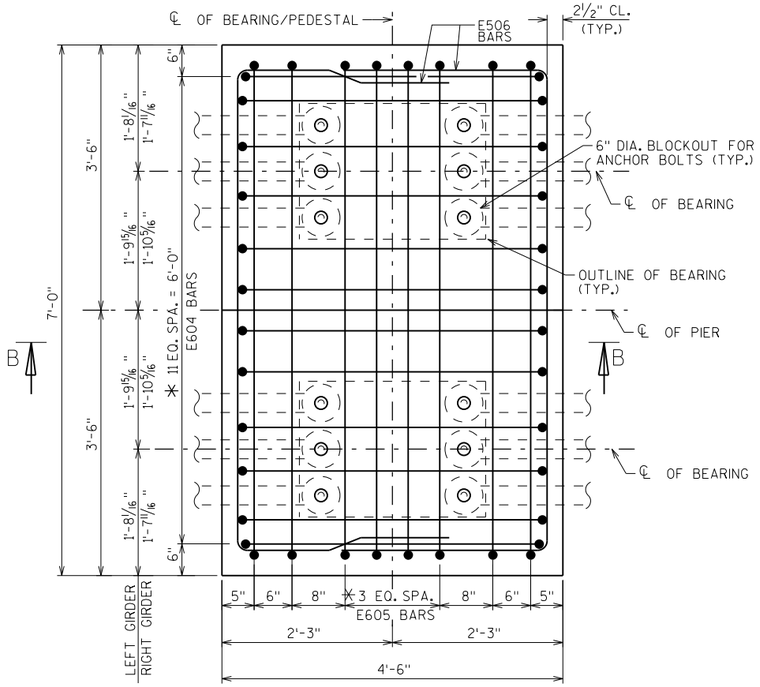
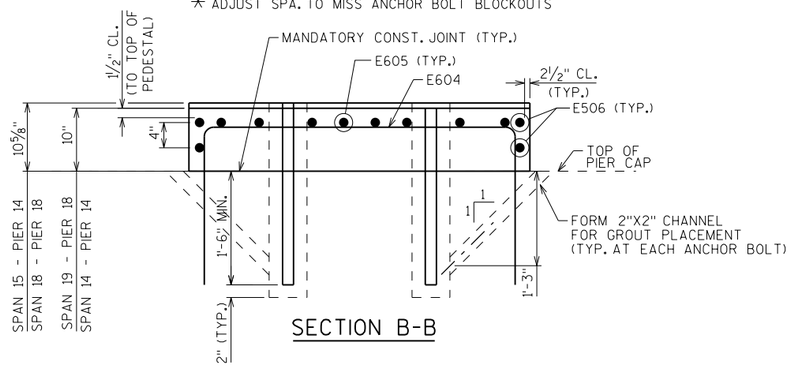


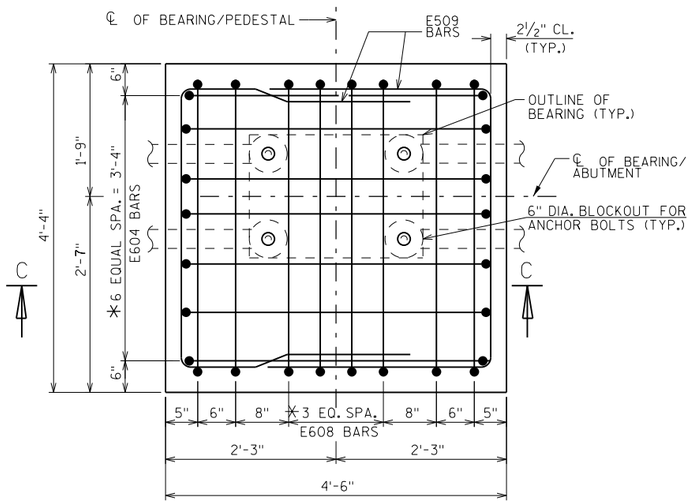
PLAN

(PIER PEDESTAL - PIERS 14 & 18)

✳ ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS



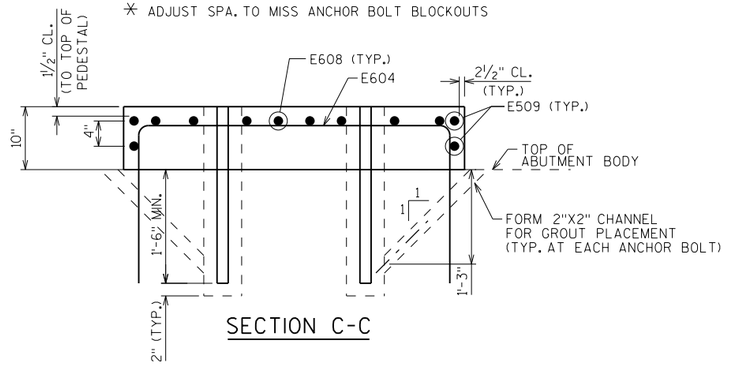
SECTION B-B



PLAN

(WEST ABUTMENT PEDESTAL)

✳ ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS



SECTION C-C

NOTES:

1. FOR ANCHOR GROUT SLEEVE, GROUT CHANNEL AND BASEPLATE SEATING USE HIGH MODULUS FLOWABLE EPOXY RESIN GROUT.

   SIKADUR 42 GROUT-PAK
   W. R. MEDOWS REZI-WELD EPOXY GROUT GROUT
   L. & M. CONSTRUCTION CHEMICALS, INC., EPOXY GROUT 758

   OR APPROVED EQUAL. GROUT SLEEVE AND GROUT WILL BE CONSIDERED INCIDENTAL TO THE COST OF "HPC MASONRY STRUCTURES".

2. ADJUST TOP OF PEDESTAL ELEVATIONS IF ACTUAL BEARING THICKNESSES ARE DIFFERENT THAN THOSE SHOWN ON SHEETS 13 - 15OF 63 OF THE STEEL FABRICATION PLANS.

3. THE BLOCKOUT HOLES AND GROUTING HOLES MUST BE PROTECTED FROM WATER ENTERING INTO THE HOLES PRIOR TO INSTALLING ANCHOR BOLT AND GROUTING.

4. CONSTRUCT TOP BEARING SURFACE OF CONCRETE PEDESTALS IN STRICT ACCORDANCE WITH AASHTO CONSTRUCTION SPECIFICATIONS, SECTION 8.10.5. THE CONTRACTOR WILL CORRECT ANY VARIANCE FROM THE CONSTRUCTION SPECIFICATION AT THE DIRECTION OF THE ENGINEER.

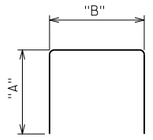
5. THE TOP OF THE 6" DIAMETER BLOCKOUT FORMS MUST BE BELOW THE BEARING SURFACE PRIOR TO PLACEMENT OF THE BEARING.

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BARS IN THIS BILL OF BARS SHALL BE EPOXY COATED.

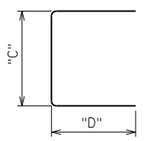
MARK	NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
E601	200	8'-6"	X		PEDESTAL - AT PIERS 11-13, 15-17, 19-22
E602	160	9'-6"	X		PEDESTAL - AT PIERS 11-13, 15-17, 19-22
E604	78	8'-0"	X		PEDESTAL - AT PIERS 10, 14, 18, W. ABUT.
E605	32	10'-8"	X		PEDESTAL - AT PIERS 14 & 18
E506	16	13'-7"	X		PEDESTAL - AT PIERS 14 & 18
E608	16	8'-0"	X		PEDESTAL - AT W. ABUT.
E509	8	10'-11"	X		PEDESTAL - AT W. ABUT.
E510	80	13'-1"	X		PEDESTAL - AT PIERS 11-13, 15-17, 19-22
E611	16	8'-2"	X		PEDESTAL - AT PIER 10
E512	8	11'-1"	X		PEDESTAL - AT PIER 10

TOTAL WEIGHT = 8,177 LBS.



E601, E602, E604, E605, E607, E608, E609 & E611

MARK	"A"	"B"
E601	2'-2"	4'-6"
E602	2'-2"	5'-6"
E604	2'-2"	4'-0"
E605	2'-2"	6'-8"
E607	2'-2"	4'-0"
E608	2'-2"	4'-0"
E611	2'-2"	4'-2"



E503, E506, E509, E510 & E512

MARK	"C"	"D"
E506	6'-6"	3'-8"
E509	3'-10"	3'-8"
E510	4'-6"	4'-5"
E512	4'-0"	3'-8"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

BEARING PEDESTAL DETAILS 1 UNITS 3, 4 & 5

SHEET 76 OF 143
759

DATE: 5/31/2013
I.D.

FILE= 0:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\076 B-05-678-brg_pedestal Details 1-Units 3, 4, & 5.dgn

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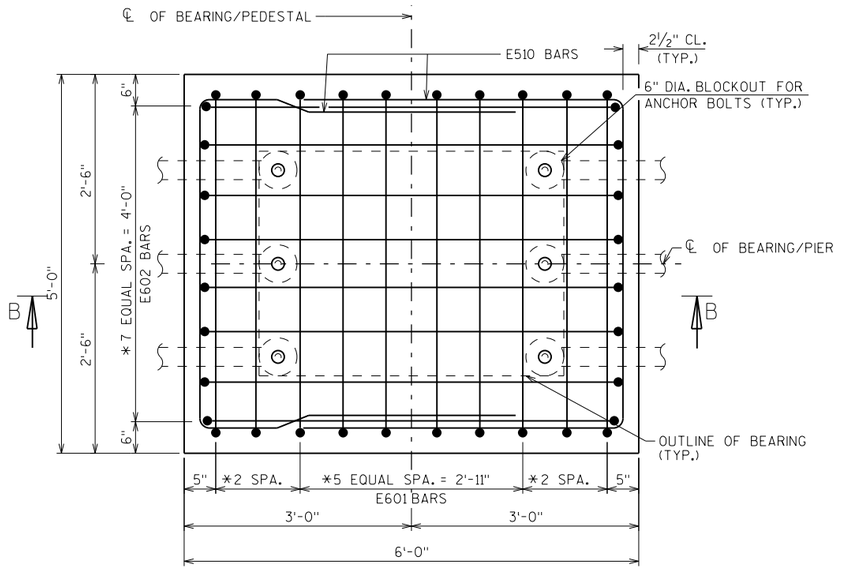
STATE PROJECT NUMBER

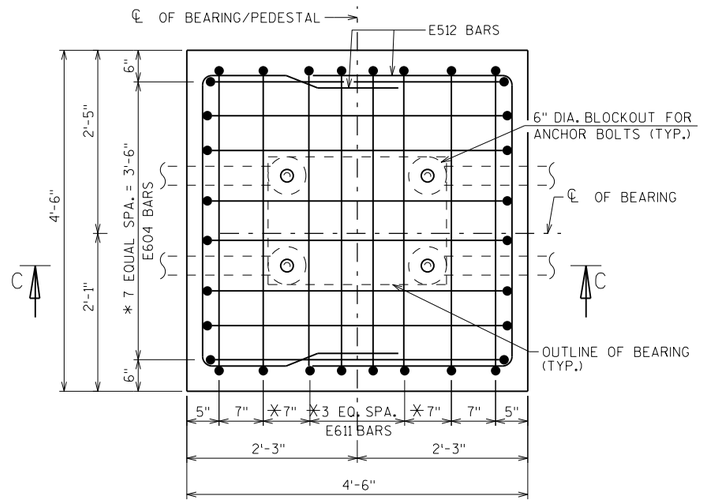
1133-11-74



PLAN

(PIER PEDESTAL - PIERS 11-13, 15-17, 19-22)

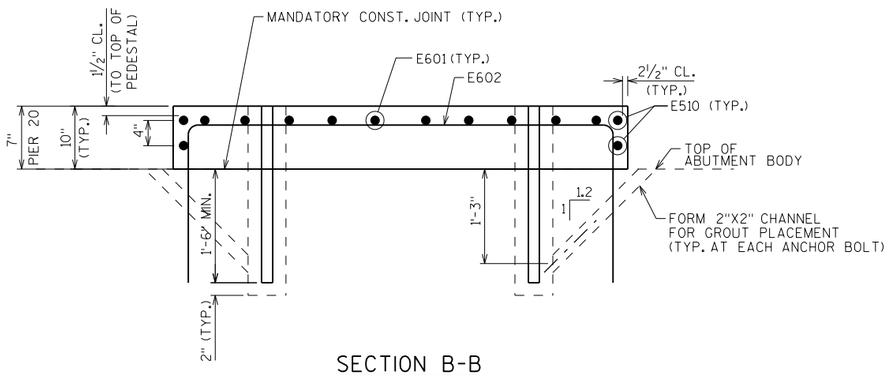
* ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS



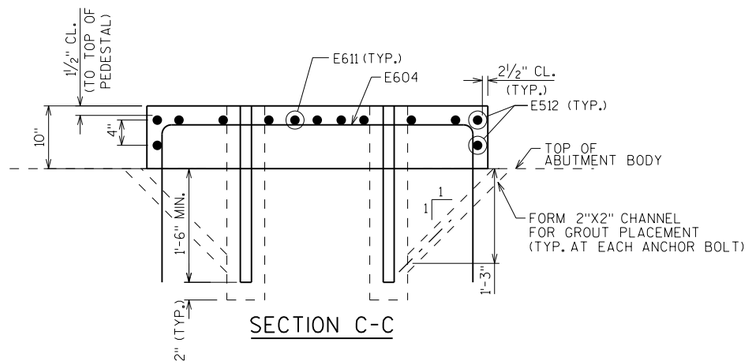
PLAN

(PIER PEDESTAL - PIER 10)

* ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS



SECTION B-B



SECTION C-C

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

BEARING PEDESTAL DETAILS 2 UNITS 3, 4 & 5

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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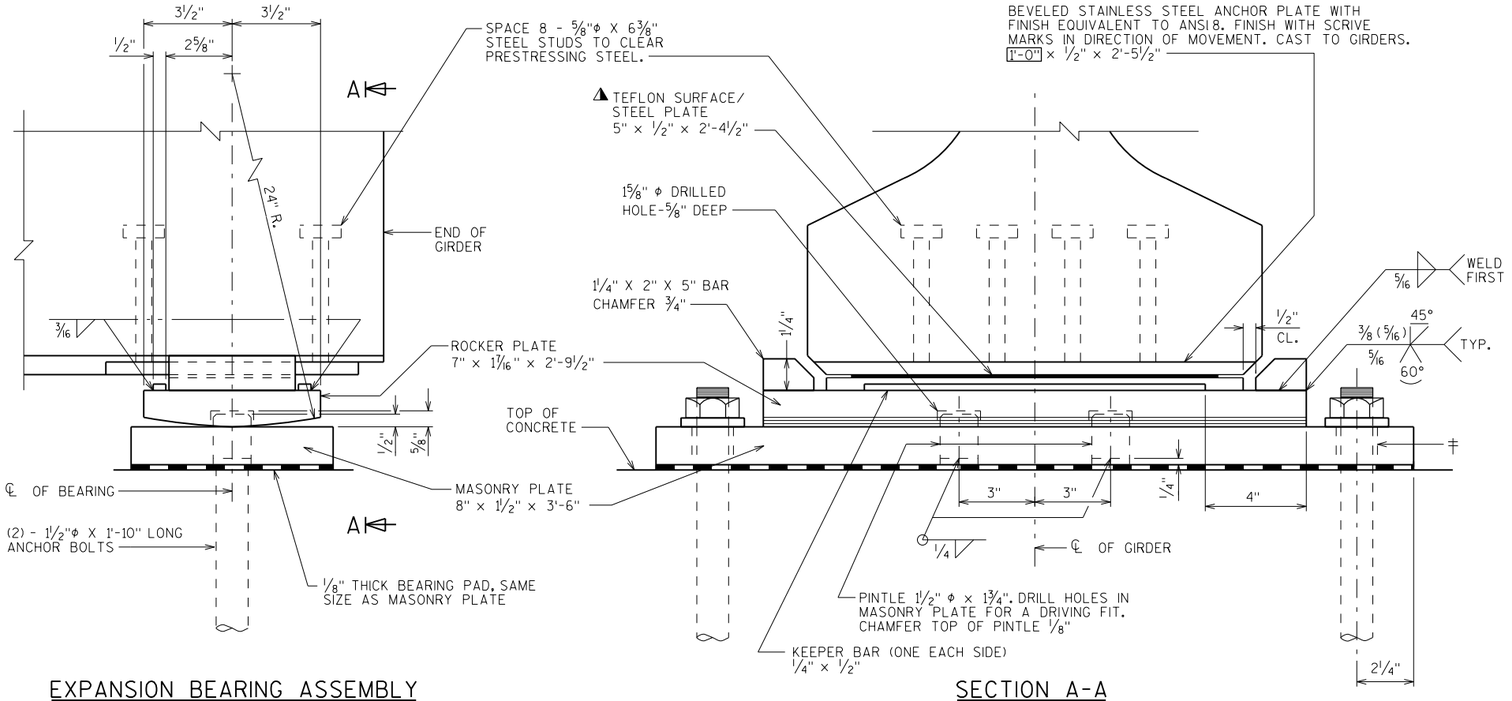


EXPANSION BEARING ASSEMBLY

SECTION A-A

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

ALL MATERIAL IN BEARINGS, BUT EXCLUDING STAINLESS STEEL PLATE, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

STAINLESS STEEL PLATE SHALL CONFORM TO ASTM A240, TYPE 304.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS, MASONRY PLATE THICKNESS + 2¼", ABOVE TOP OF CONCRETE.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

MASONRY PLATE , ROCKER PLATE , ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS "C". STEEL PLATE ATTACHED TO TEFLON SURFACE SHALL BE SHOP PAINTED. DO NOT PAINT TEFLON SURFACE.

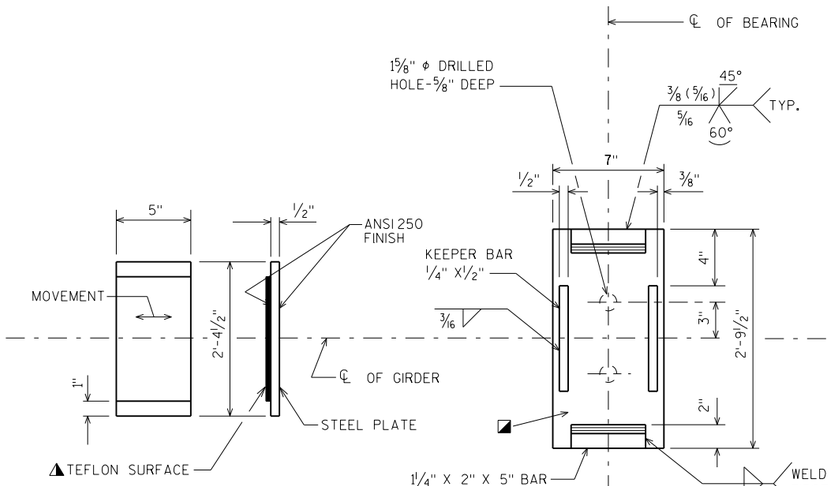
ALL MATERIAL IN "STEEL BEARINGS FOR PRESTRESSED CONCRETE GIRDERS", INCLUDING BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-5-678, EACH.

‡ DRILLED HOLES FOR ANCHOR BOLTS IN MASONRY PLATE SHALL HAVE A DIAMETER ⅜" LARGER THAN ANCHOR BOLT.

◭ TEFLON SURFACE, USE UNFILLED WITH MINIMUM 1/16" THICKNESS. PLACE WITH SCRIVE MARKS IN DIRECTION OF MOVEMENT. BOND STEEL PLATE AND TEFLON WITH ADHESIVE MATERIAL MEETING FEDERAL SPECIFICATION MMM-A-134, FEP FILM OR EQUAL.

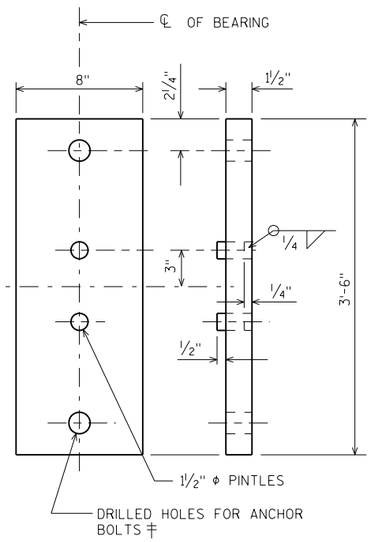
◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE DURING GALVANIZING.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.



TEFLON SURFACE ON STEEL PLATE

ROCKER PLATE



MASONRY PLATE

EXPANSION BEARING

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

PRESTRESSED GIRDER STEEL BEARINGS

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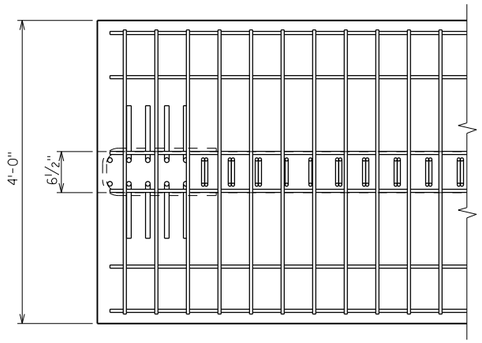
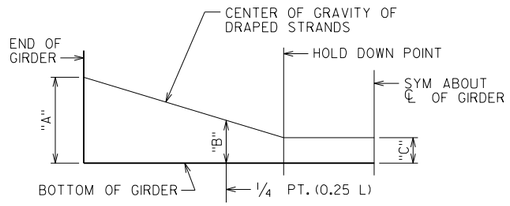
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74





DRAPED STRAND PROFILE

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON -BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT CHIEF, (608)266-5161.

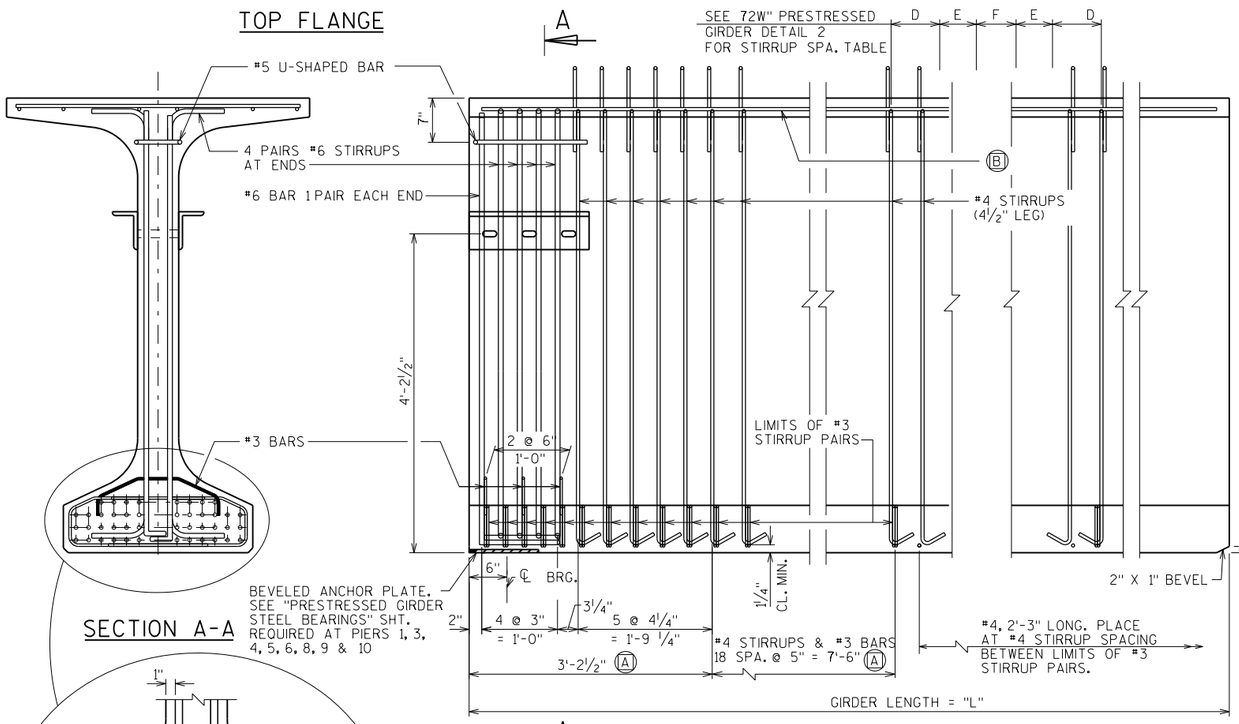
PRESTRESSING STRANDS SHALL BE 0.6" DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "INTERMEDIATE STEEL DIAPHRAGMS, UNITS 1& 2" SHEET.

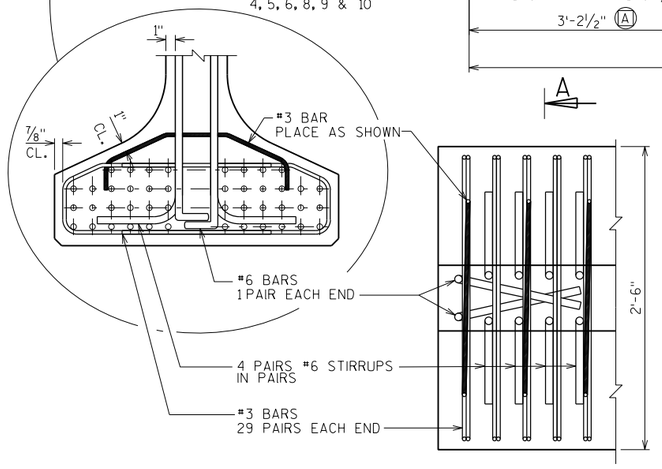
FOR FLOOR DRAIN BRACKET INSERT DETAILS SEE "FLOOR DRAIN DETAILS-1" SHEET.

FOR STORAGE, HANDLING, AND TRANSPORTING, THIS GIRDER IS REINFORCED TO ALLOW A MAXIMUM OVERHANG FROM THE LIFTING LOCATION UP TO 1/10TH THE GIRDER LENGTH. THE CONTRACTOR IS RESPONSIBLE FOR LATERAL STABILITY OF THE GIRDER UNTIL THE DECK IS CURED.

TOP FLANGE



SECTION A-A

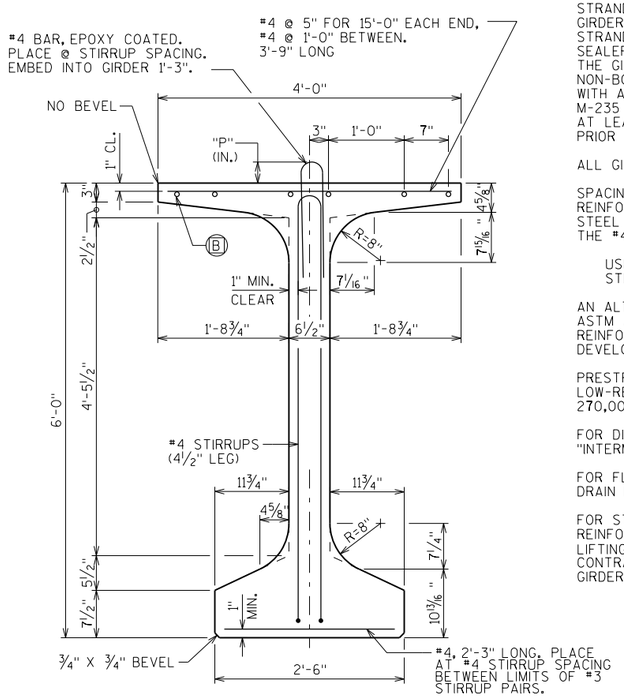


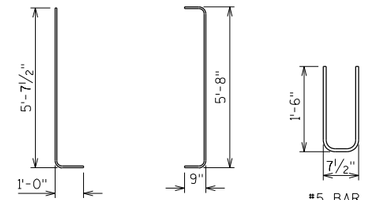
BOTTOM FLANGE

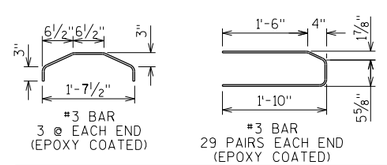
SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 BARS, FULL LENGTH, MIN. LAP = 3'-1"







* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1, 5	ALL	129'-4½"	0.5	1.0	1.3	1.6	1.7	8,000	7"	7"	7"	0.6	36	6,800	67.0	2.1	23.5	5.0
2-4	ALL	136'-7"	0.6	1.1	1.5	1.8	1.8	8,000	7"	7"	7"	0.6	38	6,800	67.0	2.1	23.5	5.0
6, 10	ALL	129'-4½"	0.5	1.0	1.3	1.5	1.7	8,000	7"	7"	7"	0.6	36	6,800	67.0	2.1	23.5	5.0
7-9	ALL	136'-7"	0.6	1.1	1.5	1.8	1.8	8,000	7"	7"	7"	0.6	38	6,800	67.0	2.1	23.5	5.0

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

72W" PRESTRESSED GIRDER DETAILS 1

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762

DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER

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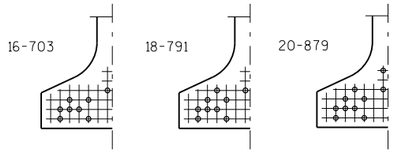
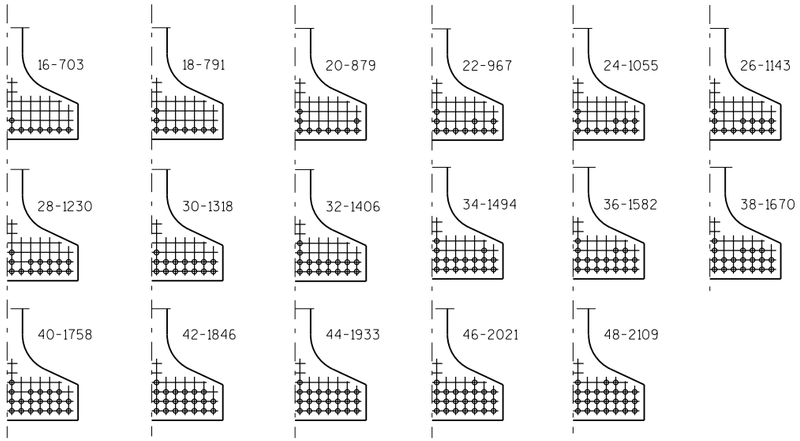


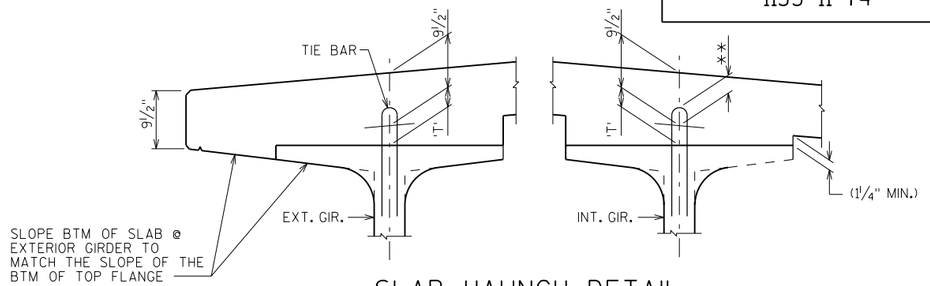
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



SLAB HAUNCH DETAIL

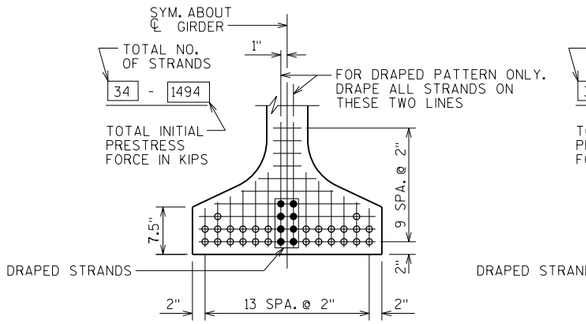
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

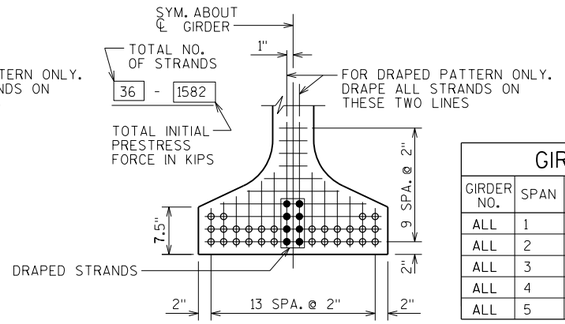
TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2.92" WAS USED IN THE QUANTITY "HIGH PERFORMANCE CONCRETE (HPC) MASONRY BRIDGES".



TYP. STRAND PATTERN

(SPANS 1, 5, 6 & 10)



TYP. STRAND PATTERN

(SPANS 2, 3, 4, 7, 8, & 9)

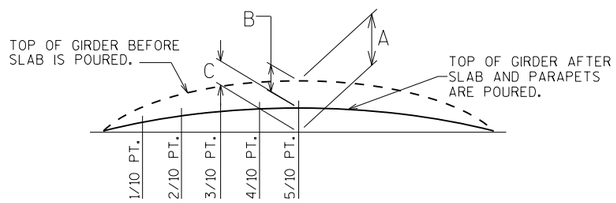
GIRDER STIRRUP SPACING				
GIRDER NO.	SPAN	D	E	F
ALL	1	8 SPA. @ 5"	18 SPA. @ 8"	58 SPA. @ 16"
ALL	2	8 SPA. @ 5"	18 SPA. @ 9"	98 SPA. @ 10"
ALL	3	8 SPA. @ 5"	18 SPA. @ 9"	98 SPA. @ 10"
ALL	4	8 SPA. @ 5"	18 SPA. @ 9"	98 SPA. @ 10"
ALL	5	8 SPA. @ 5"	18 SPA. @ 8"	58 SPA. @ 16"

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	5.05"
2	6.01"
3	6.01"
4	6.01"
5	5.05"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DEAD LOAD DEFLECTION DIAGRAM

"A" = PRESTRESSED CAMBER
"B" = DEAD LOAD DEFLECTION
"C" = RESIDUAL CAMBER

SEE TABLE ON SHEET "72W" PRESTRESSED GIRDER DETAILS 1" FOR DEAD LOAD DEFLECTION.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

72W" PRESTRESSED GIRDER DETAILS 2

SHEET 800F 143
763

DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER

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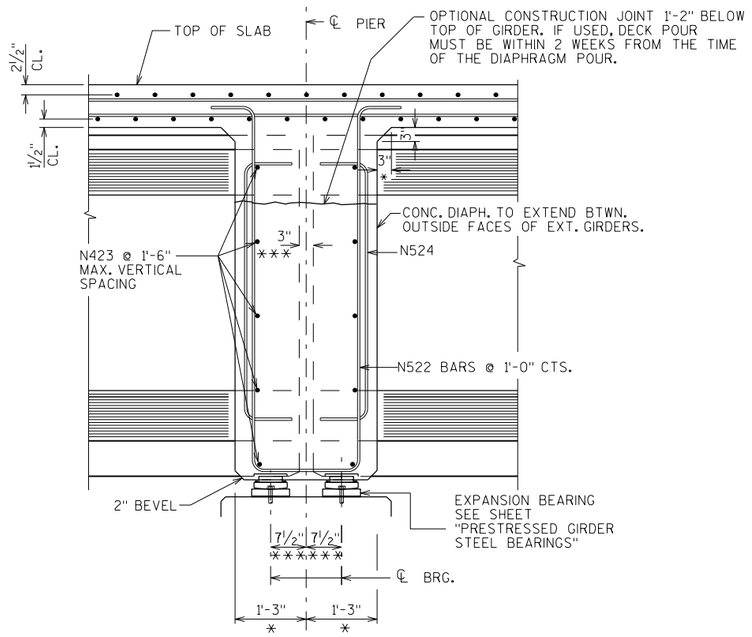
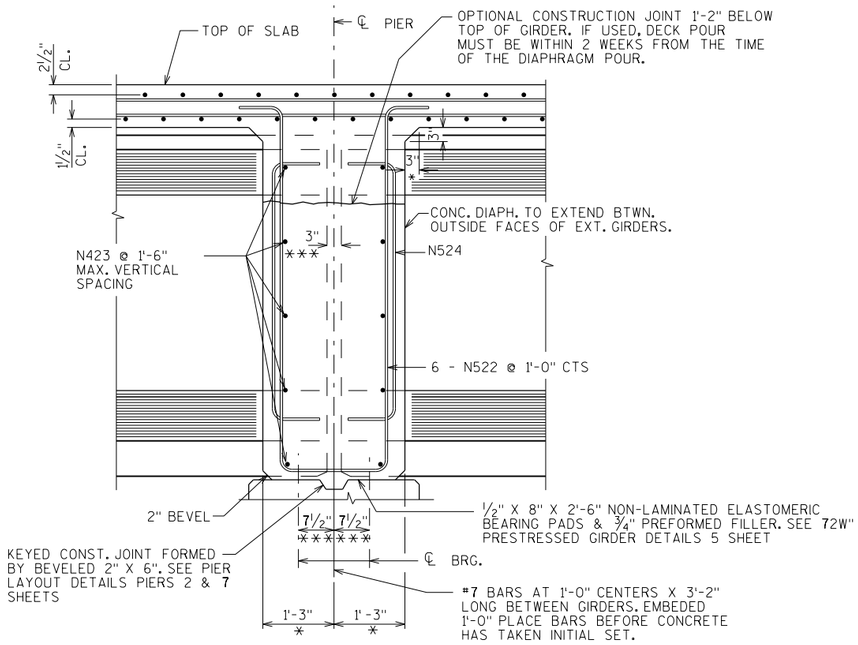


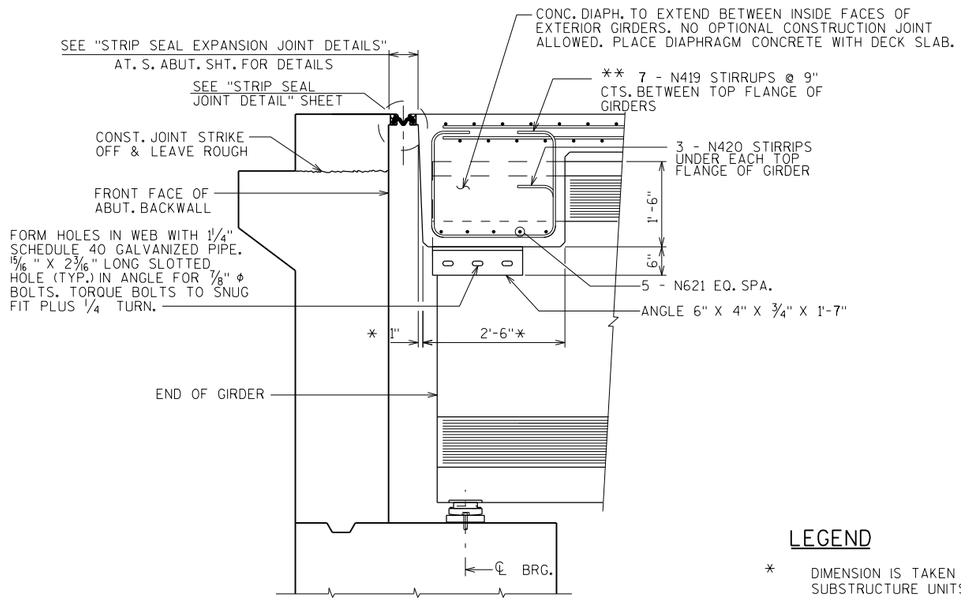
FULL DEPTH DIAPHRAGM AT EXPANSION PIERS

(PIERS 1, 3, 4, 6, 8, & 9)



FULL DEPTH DIAPHRAGM AT FIXED PIERS

(PIERS 2 & 7)



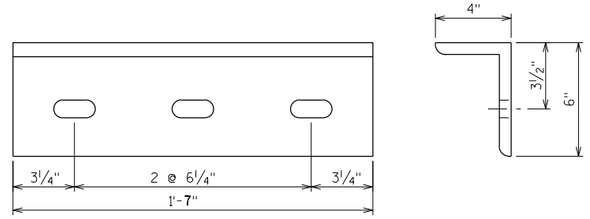
PARTIAL DEPTH DIAPHRAGM AT SOUTH ABUTMENT

LEGEND

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** DIMENSION IS TAKEN PERPENDICULAR TO ℄ GIRDER.

*** DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER.



ANGLE

<6" X 4" X ¾" X 1'-7" LG

PROVIDE 3½" X 3½" X 5/16" PLATE WASHERS AT ALL LOCATIONS EXCEPT AT EXTERIOR FACES OF EXTERIOR GIRDERS WHERE 3½" X 3½" X ½" PLATE WASHERS SHALL BE PROVIDED.

NOTES

1. DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUT AND WASHERS SHALL BE ASTM A325 TYPE 1.
2. ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.
3. ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES".
4. LAP LENGTHS FOR DIAPHRAGM REINFORCEMENT SHALL BE BASED ON A CLASS "C" TENSION LAP SPLICE, UNLESS OTHERWISE NOTED.
5. FOR BILL OF BARS AND BAR BEND DIAGRAMS, SEE SHEET "SUPERSTRUCTURE BILL OF BARS"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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72W" PRESTRESSED GIRDER DETAILS-3

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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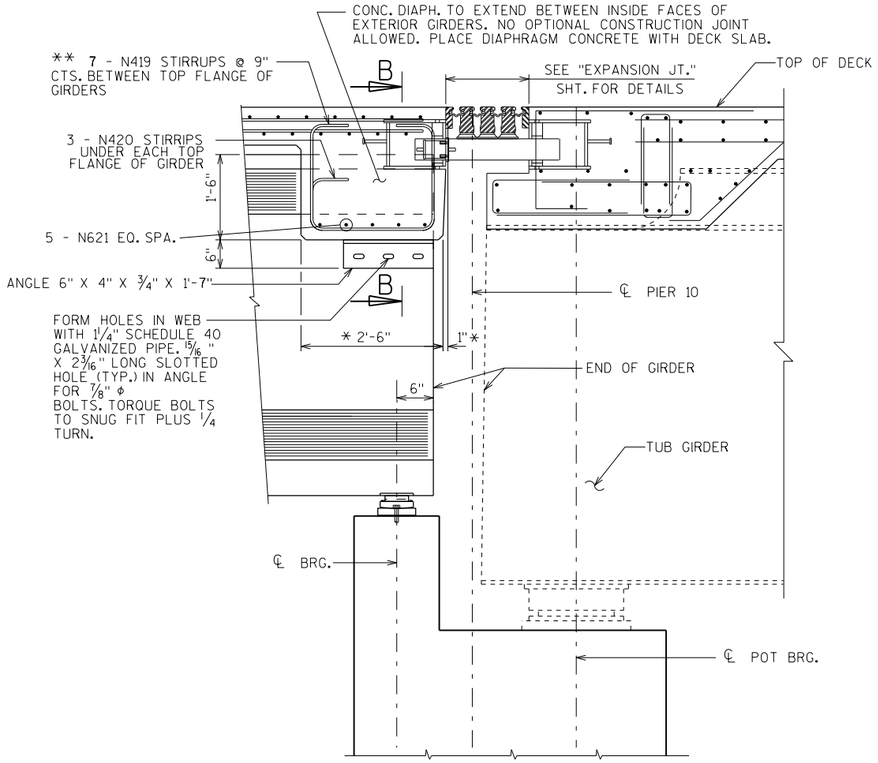
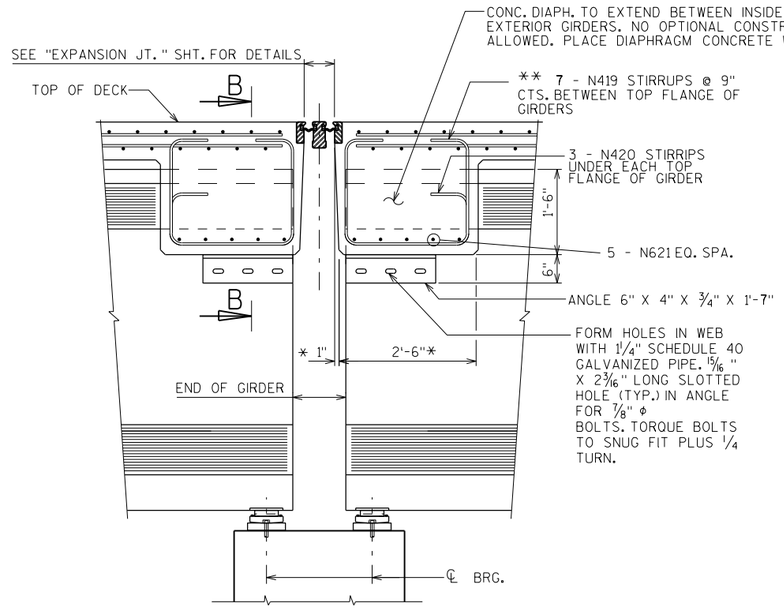


PARTIAL DEPTH DIAPHRAGM AT PIER 10



PARTIAL DEPTH DIAPHRAGM AT PIER 5

LEGEND

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** DIMENSION IS TAKEN PERPENDICULAR TO ℄ GIRDER.

*** DIMENSION IS TAKEN PARALLEL ATO ℄ GIRDER.

NOTE

1. SEE "72W" PRESTRESSED GIRDER DETAILS 3" SHEET FOR NOTES.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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72W" PRESTRESSED GIRDER DETAILS-4

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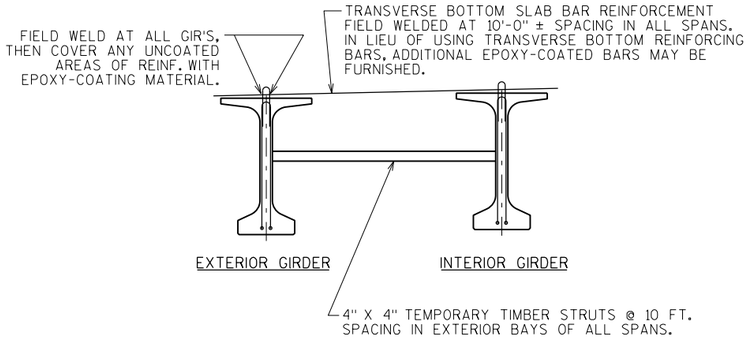
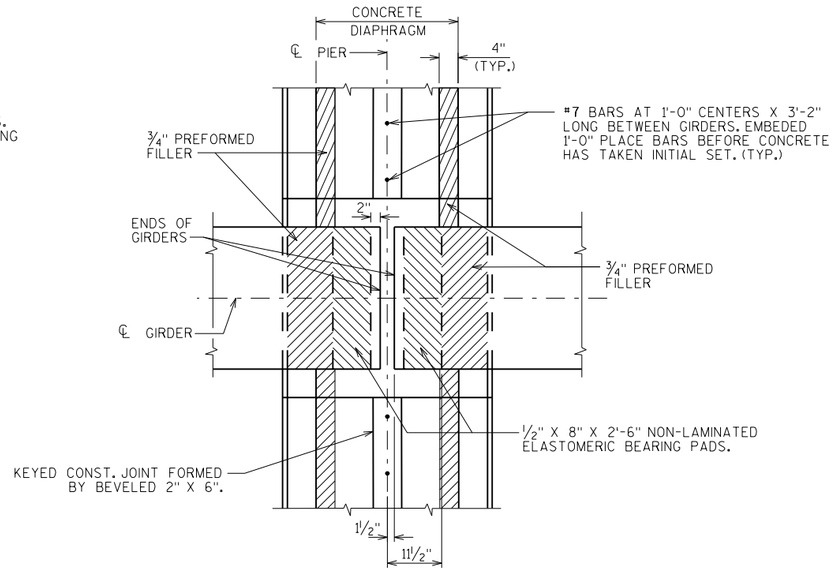
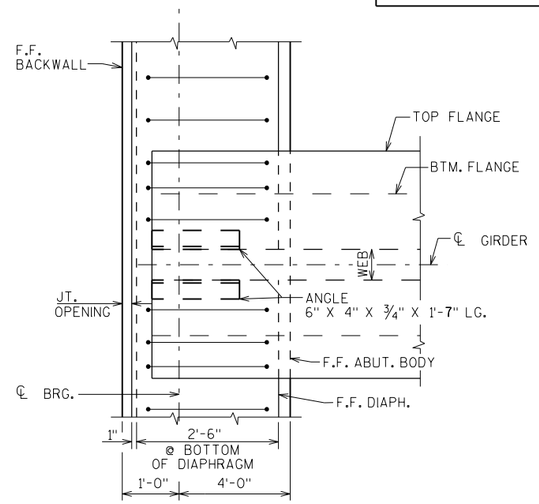


TEMPORARY BRACING DETAIL



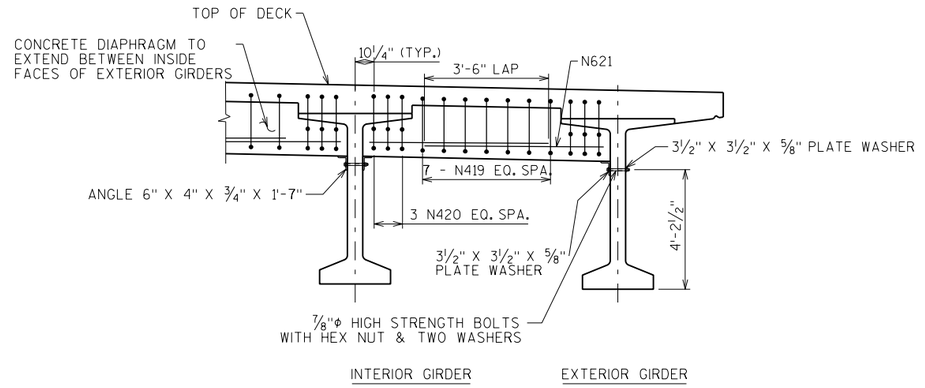
TOP VIEW OF DIAPHRAGM AT PIERS 2 & 7

(FIXED PIERS)



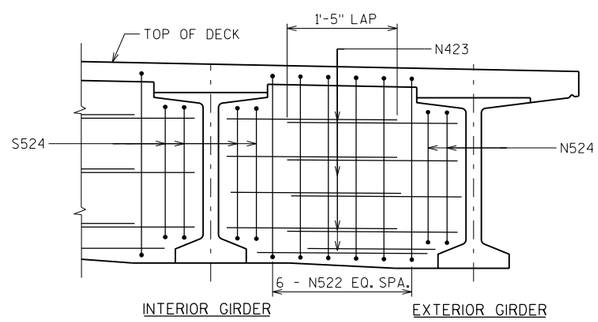
TOP VIEW OF DIAPHRAGM

(S. ABUT.)



SECTION AT PARTIAL DEPTH DIAPHRAGM

(S. ABUT., PIERS 5 & 10)



SECTION AT FULL DEPTH DIAPHRAGM

8

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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72W" PRESTRESSED GIRDER DETAILS 5

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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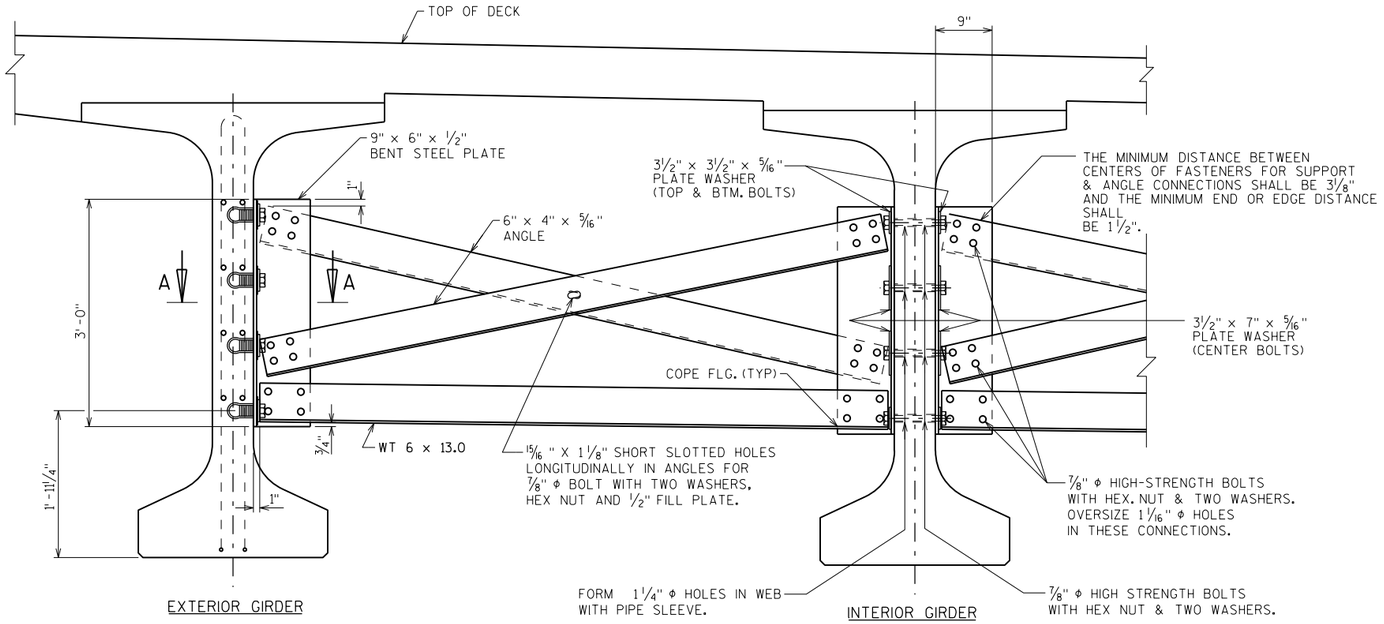
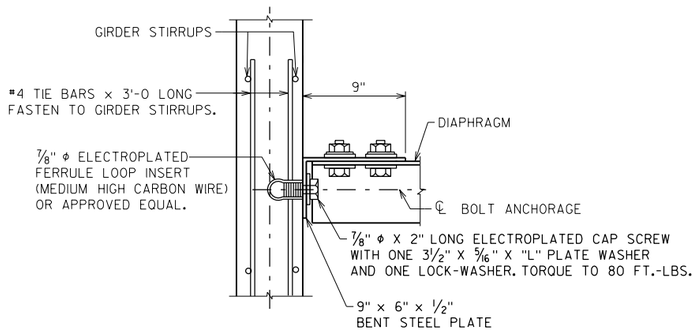


PART TRANSVERSE SECTION AT DIAPHRAGM

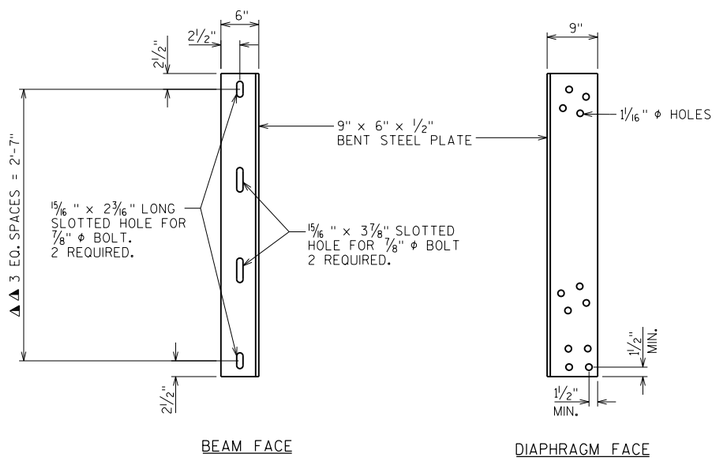
(20 REQUIRED)



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

"L" = 3 1/2"; TOP AND BOTTOM BOLTS
"L" = 7"; CENTER BOLTS



BEAM FACE

DIAPHRAGM FACE

DIAPHRAGM SUPPORT

▲▲ BOLT HOLES SHALL BE SPACED SO AS TO MISS PRESTRESSED STRANDS IN CONCRETE BEAMS.

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-5-678, EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.

DIAPHRAGMS REQUIRED AT 1/3rd AND 2/3rd OF SPAN.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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INTERMEDIATE STEEL DIAPHRAGMS UNITS 1 & 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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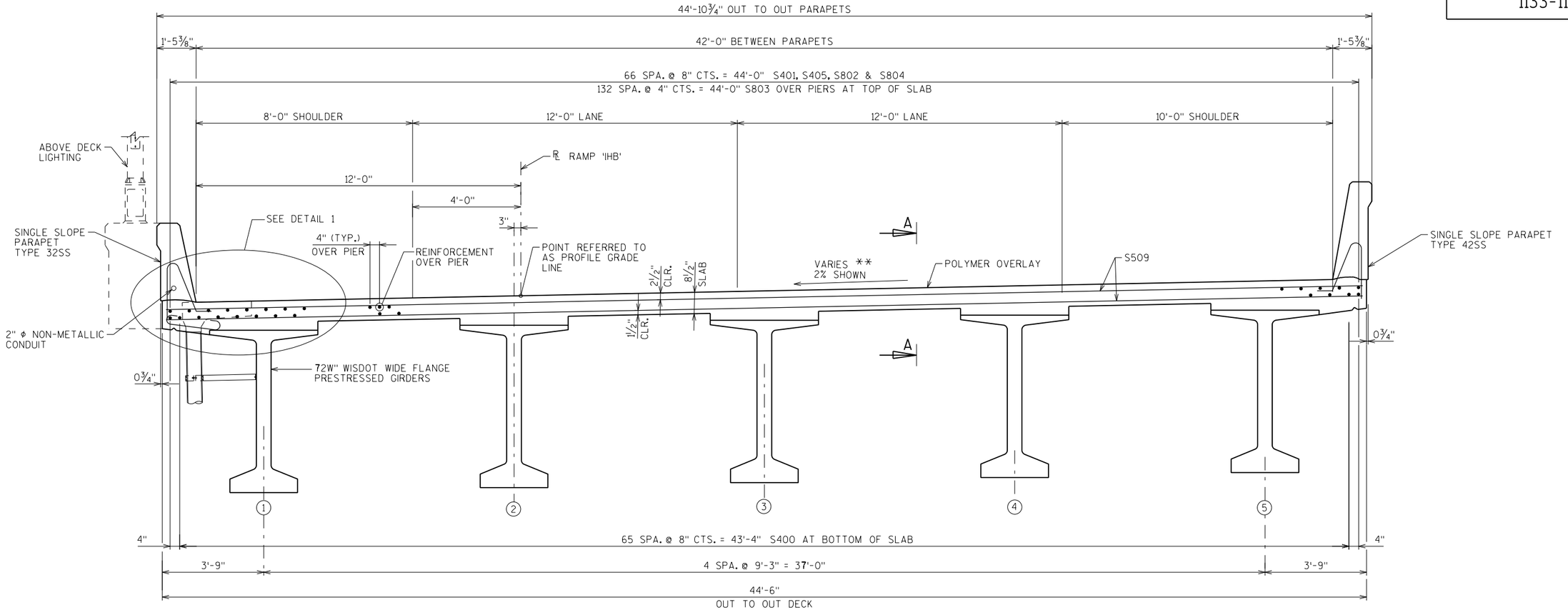
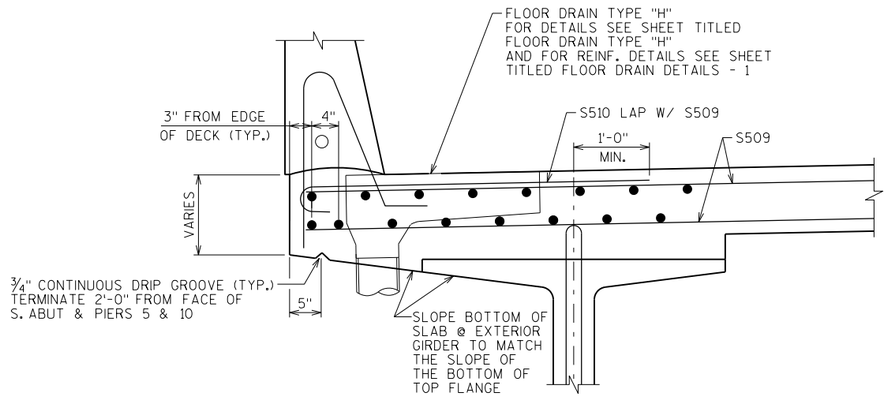
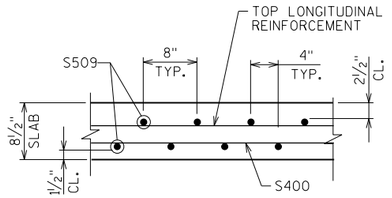


TYPICAL CROSS SECTION (UNITS 1 & 2)

(LOOKING UPSTATION)



DETAIL 1



SECTION A-A

NOTES:

SEE SHEET TITLED "TYPICAL DECK REINF. SECTION UNITS 3, 4 & 5 FOR PARAPET DETAILS.

** SEE SHEET TITLED "ALIGNMENT AND SUPERELEVATION" FOR VARIATION IN CROSS SLOPE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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TYP. DECK REINF. CROSS SECTION UNITS 1 & 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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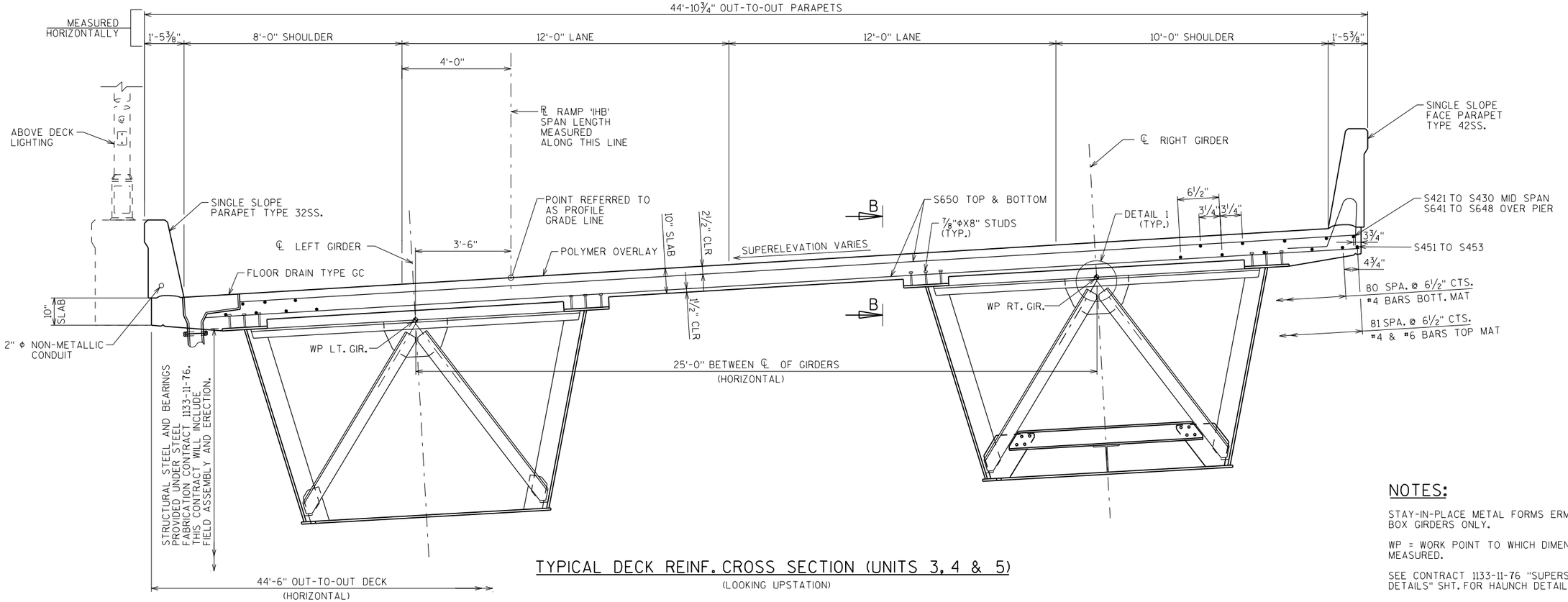
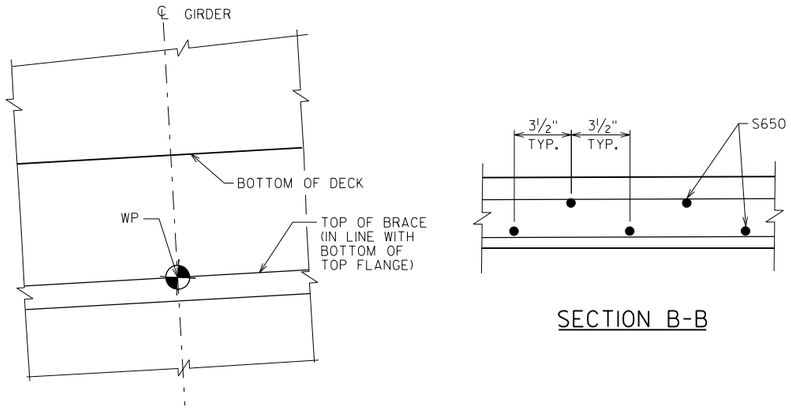


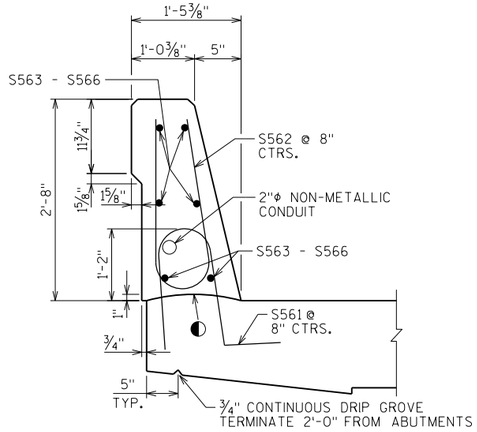
TYPICAL DECK REINF. CROSS SECTION (UNITS 3, 4 & 5)

(LOOKING UPSTATION)

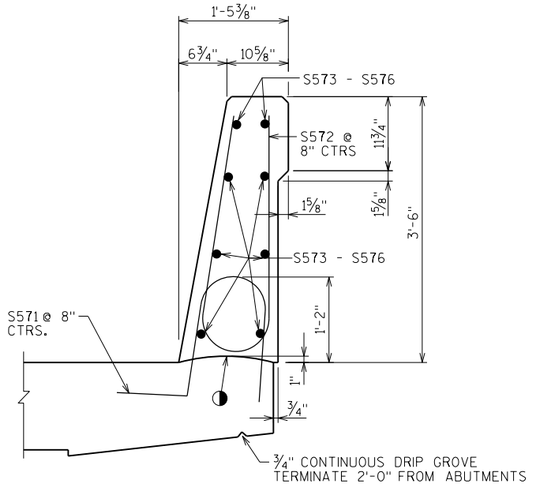


DETAIL 1

SECTION B-B



SECTION THRU PARAPET ON BRIDGE SINGLE SLOPE PARAPET 32SS



SECTION THRU PARAPET ON BRIDGE SINGLE SLOPE PARAPET 42SS

NOTES:

STAY-IN-PLACE METAL FORMS ERMITTED INSIDE BOX GIRDERS ONLY.

WP = WORK POINT TO WHICH DIMENSIONS ARE MEASURED.

SEE CONTRACT 1133-11-76 "SUPERSTRUCTURE DETAILS" SHT. FOR HAUNCH DETAILS.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2" OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

LAP S563 - S566, S573 - S576 BARS IN PARAPETS 2'-7" MIN.

DO NOT PLACE SHEAR STUDS AT FLOOR DRAIN LOCATIONS.

◐ CONSTRUCTION JOINT-STRIKE OFF AS SHOWN.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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TYPICAL DECK REINF. SECTION UNITS 3, 4 & 5

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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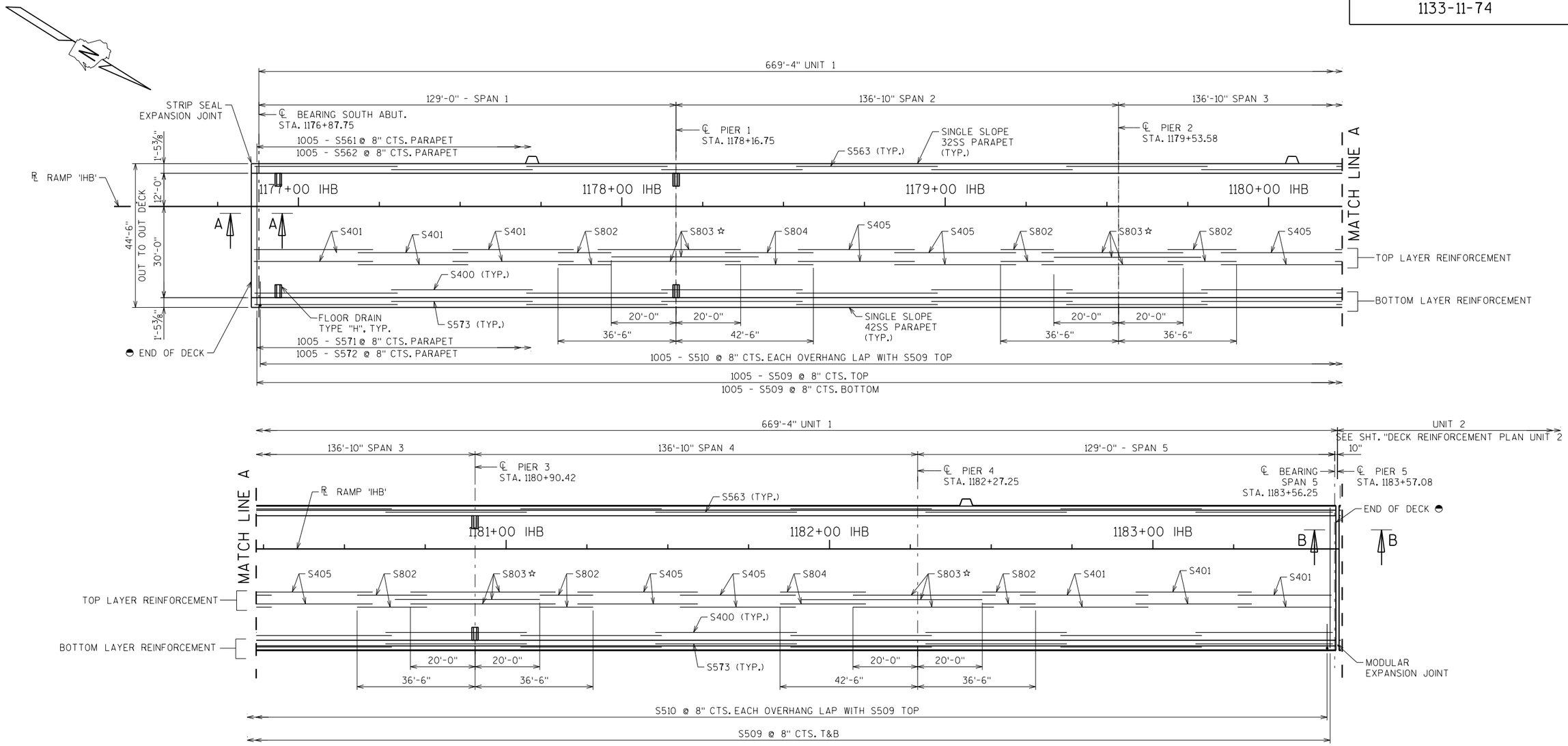
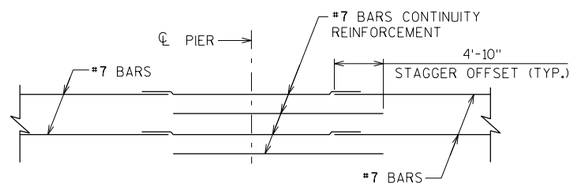


DECK REINFORCEMENT UNIT 1

NOTES:

1. SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR BAR BILL.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.
4. SEE GENERAL PLAN AND ELEVATIONS SHEETS FOR LOCATIONS OF FLOOR DRAINS. FOR FLOOR DRAIN DETAILS SEE SHEET TITLED "FLOOR DRAIN DETAILS".
5. SPLICE ALL DECK LONGITUDINAL NO. 7 BARS 4'-10" MINIMUM, NO. 6 BARS 3'-10" MINIMUM, NO. 5 BARS 3'-3" MIN.UM. AND NO. 4 BARS 2'-1" MINIMUM UNLESS NOTED OTHERWISE.
6. FOR LIGHT BLISTER REINFORCEMENT DETAILS SEE SHEET TITLED "LIGHT STANDARDS".
7. FOR SECTION A-A THROUGH E-E DETAILS SEE SHEET TITLED "REINFORCING AT EXPANSION JOINT".
8. ALL TRANSVERSE BAR STEEL FOR UNITS 3, 4 AND 5 SHALL BE PLACED RADIALLY TO THE RAMP IHB REFERENCE LINE.
9. SEE SHEET "FLOOR DRAIN DETAILS-2" FOR LOCATIONS AND DETAILS OF CONCRETE INSERTS.



CONTINUITY REINFORCEMENT PLAN DETAIL

LEGEND

◓ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, WEST ABUTMENT, PIER 5, PIER 10, PIER 14 AND PIER 18. SEE MODULAR EXPANSION JOINT & STRIP SEAL JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

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DECK REINFORCEMENT PLAN UNIT 1

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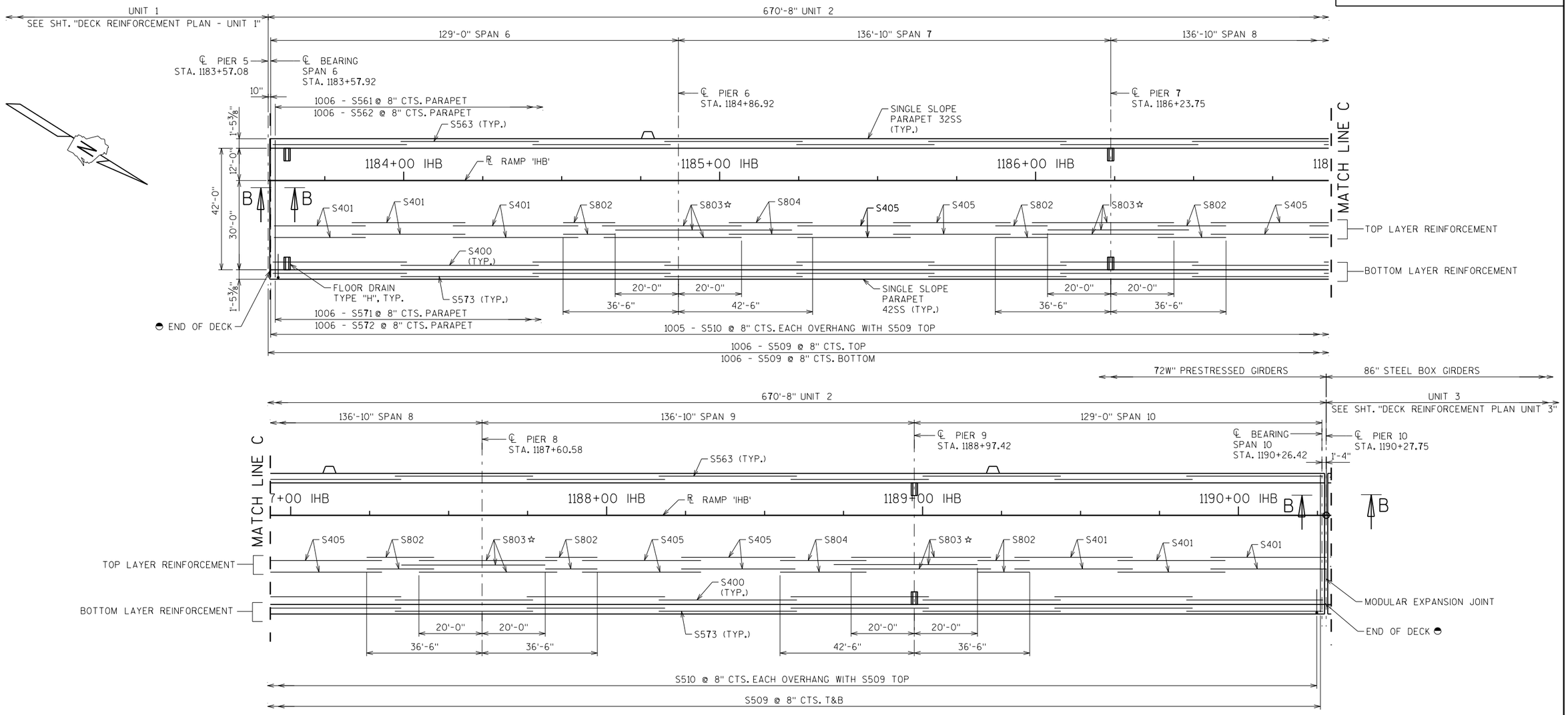
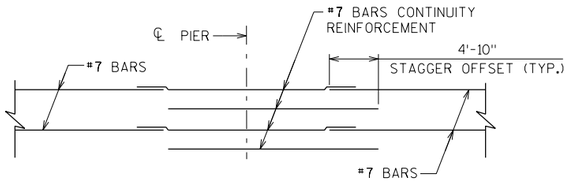


DECK REINFORCEMENT UNIT 2



CONTINUITY REINFORCEMENT PLAN DETAIL

LEGEND

◓ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, WEST ABUTMENT, PIER 5, AND PIER 10. SEE MODULAR EXPANSION JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

✡ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

NOTES:

FOR NOTES SEE SHEET "DECK REINFORCEMENT PLAN UNIT 1"

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STRUCTURES DESIGN SECTION

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DECK REINFORCEMENT PLAN UNIT 2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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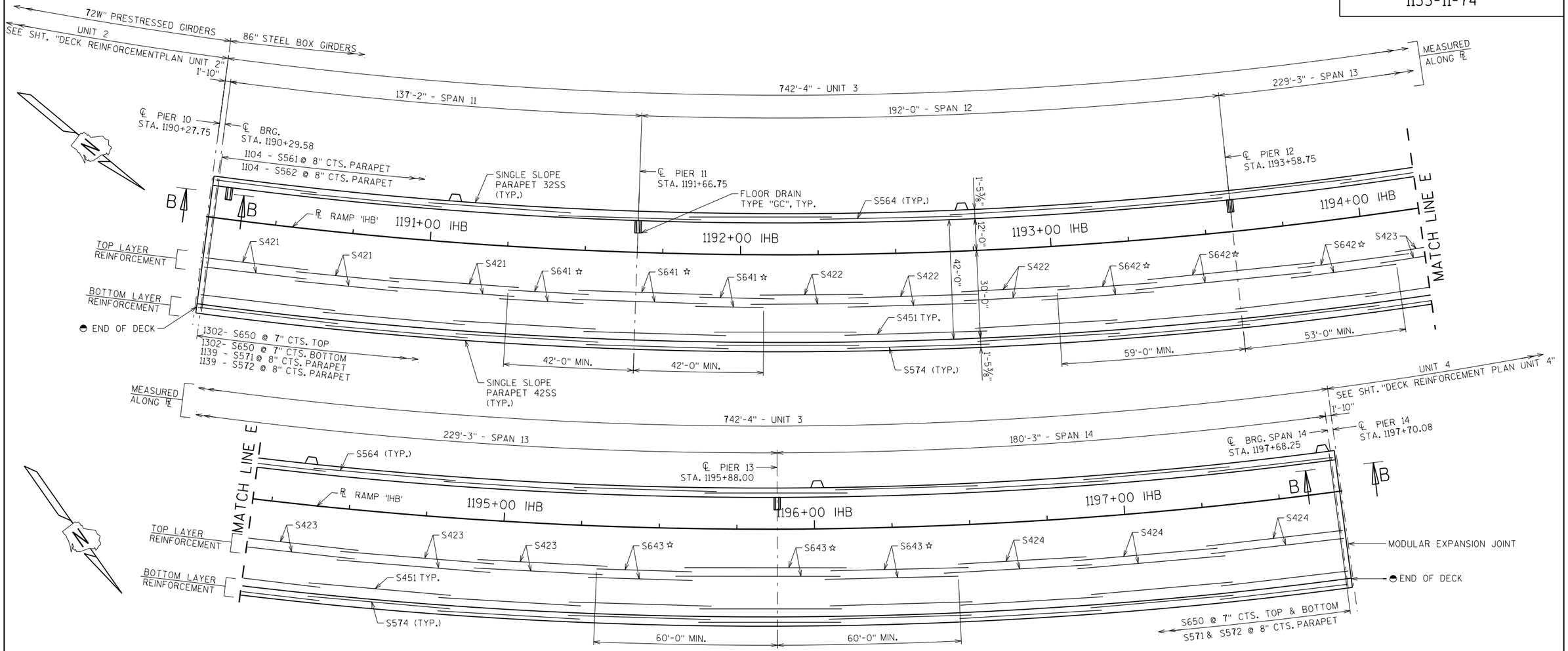
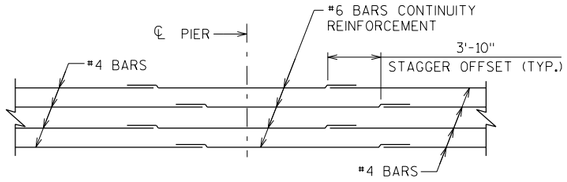


DECK REINFORCEMENT UNIT 3

NOTES:

1. FOR NOTES SEE SHEET "DECK REINFORCEMENT PLAN UNIT 1"
2. SEE SHEET "FLOOR DRAIN DETAILS-2" FOR LOCATIONS AND DETAILS OF CONCRETE INSERTS.



CONTINUITY REINFORCEMENT PLAN DETAIL

LEGEND

◓ END OF DECK = END OF SLAB SEE MODULAR EXPANSION JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

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STATE OF WISCONSIN
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STRUCTURE B-5-678

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DECK REINFORCEMENT PLAN UNIT 3

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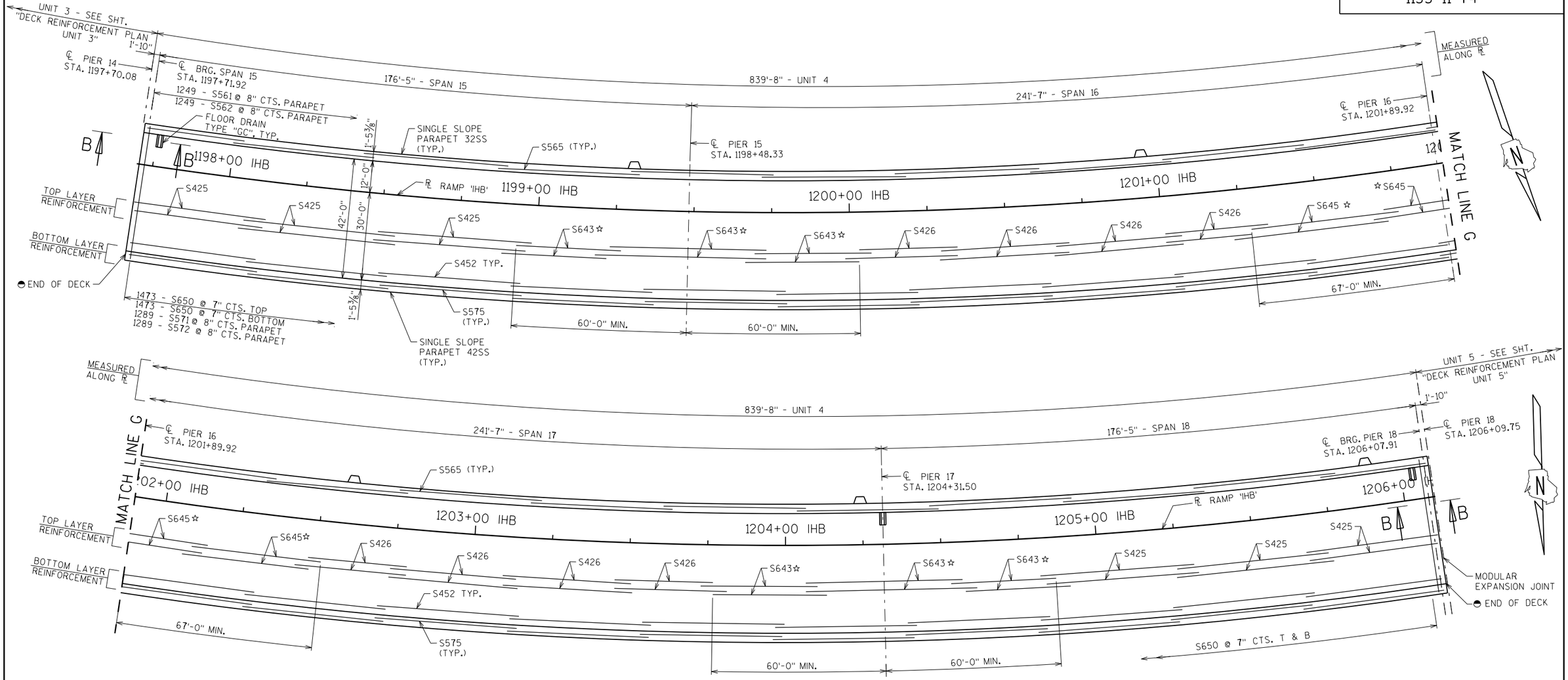


DECK REINFORCEMENT UNIT 4

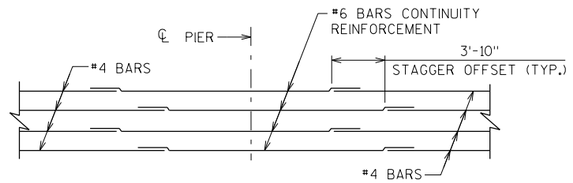
LEGEND

◓ END OF DECK = END OF SLAB. SEE MODULAR EXPANSION JOINT DETAIL SHEETS FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

NOTES:

1. FOR NOTES SEE SHEET "DECK REINFORCEMENT PLAN UNIT 1"
2. SEE SHEET "FLOOR DRAIN DETAILS-2" FOR LOCATIONS AND DETAILS OF CONCRETE INSERTS.



CONTINUITY REINFORCEMENT PLAN DETAIL

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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DECK REINFORCEMENT PLAN UNIT 4

SHEET 90 OF 143
773

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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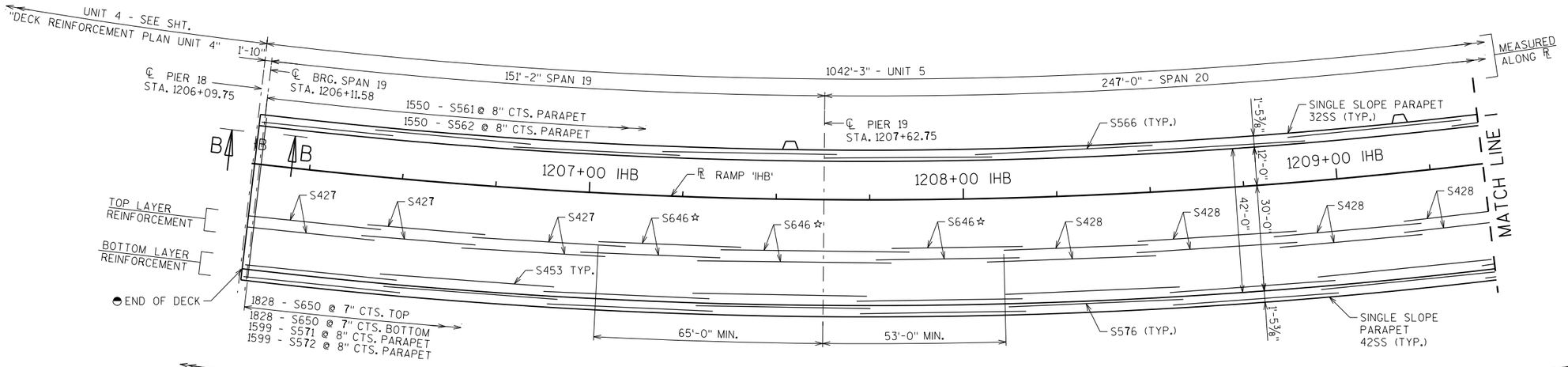
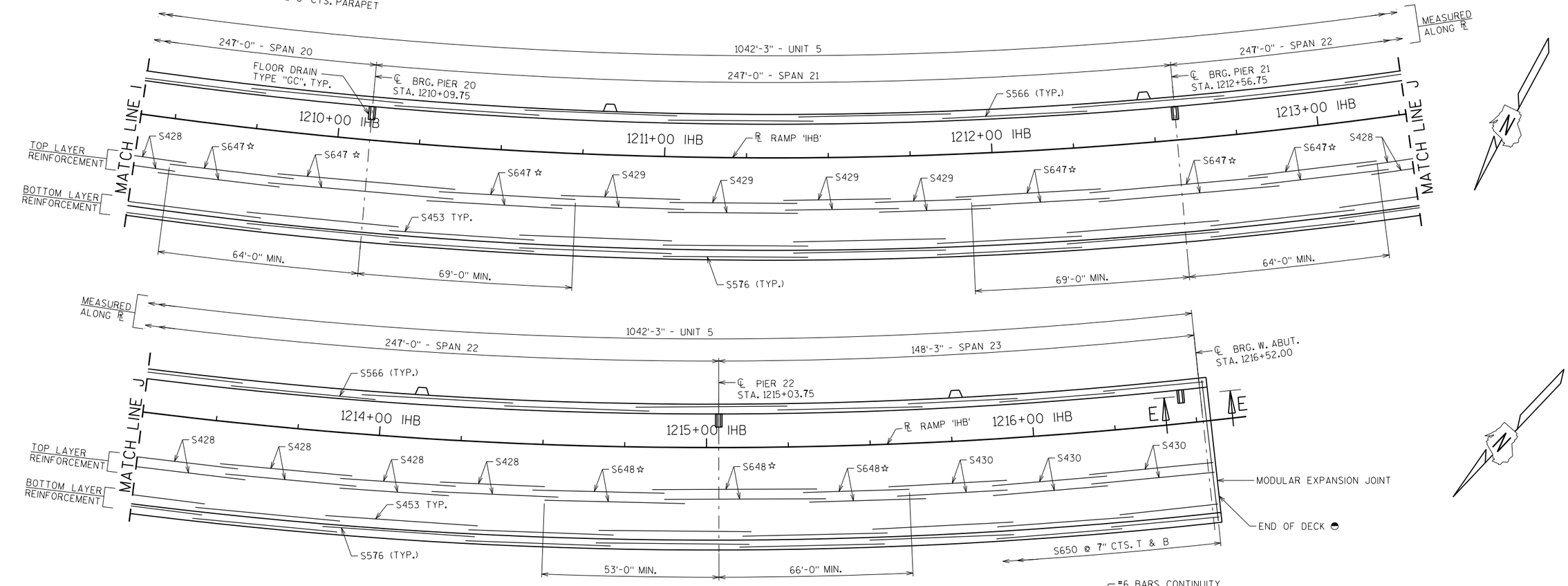
FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\090 B-05-678-Deck Reinf. Plan - Unit 4.dgn

DATE: 5/31/2013
I.D.

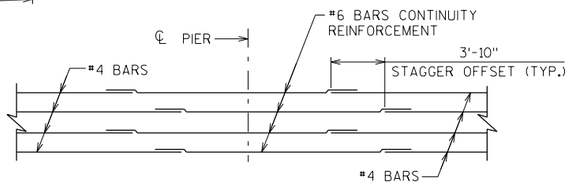
STATE PROJECT NUMBER

1133-11-74





DECK REINFORCEMENT UNIT 5



CONTINUITY REINFORCEMENT PLAN DETAIL

LEGEND

◓ END OF DECK = END OF SLAB. FOR WEST ABUTMENT, PIERS 14 AND 18, SEE SHEET TITLED "REINFORCING AT EXPANSION JOINT UNITS 3, 4 AND 5" FOR FURTHER INFORMATION.

☆ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

NOTES:

1. FOR NOTES SEE SHEET "DECK REINFORCEMENT PLAN UNIT 1"
2. SEE SHEET "FLOOR DRAIN DETAILS-2" FOR LOCATIONS AND DETAILS OF CONCRETE INSERTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY K.Z | PLANS CK'D. NPP

DECK REINFORCEMENT PLAN UNIT 5

SHEET 91 OF 143
774

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

DATE: 5/31/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\091 B-05-678-Deck Reinf. Plan - Unit 5.dgn

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STATE PROJECT NUMBER

1133-11-74

BILL OF BARS - SUPERSTRUCTURE

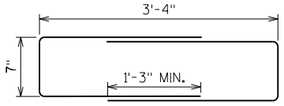
BAR MARK	COAT	NO. REQ'D	LENGTH	WEIGHT (LB)	BENT	LOCATION
S400	X	2112	44'-0"	62,076		BOTTOM LONGITUDINAL UNITS 1 & 2
S401	X	804	33'-2"	17,828		TOP LONGITUDINAL UNITS 1 & 2
S802	X	804	16'-6"	35,420		TOP LONGITUDINAL OVER PIER UNITS 1 & 2
S803	X	1064	44'-10"	127,366		TOP LONGITUDINAL OVER PIER UNITS 1 & 2
S804	X	268	27'-4"	19,559		TOP LONGITUDINAL OVER PIER UNITS 1 & 2
S405	X	804	32'-1"	17,209		TOP LONGITUDINAL UNITS 1 & 2
S509	X	4022	44'-2"	185,278		TOP & BOTT. TRANSVERSE UNITS 1 & 2
S510	X	4022	5'-9"	24,121	X	TOP TRANSVERSE AT OVERHANG UNITS 1 & 2
S421	X	246	34'-9"	5,710		TOP LONGITUDINAL UNIT 3
S422	X	246	33'-9"	5,539		TOP LONGITUDINAL UNIT 3
S423	X	246	42'-5"	6,963		TOP LONGITUDINAL UNIT 3
S424	X	246	43'-5"	7,130		TOP LONGITUDINAL UNIT 3
S425	X	492	40'-0"	13,155		TOP LONGITUDINAL UNIT 4
S426	X	656	31'-11"	14,000		TOP LONGITUDINAL UNIT 4
S427	X	246	31'-8"	5,204		TOP LONGITUDINAL UNIT 5
S428	X	656	35'-10"	15,702		TOP LONGITUDINAL UNIT 5
S429	X	328	30'-1"	6,591		TOP LONGITUDINAL UNIT 5
S430	X	246	30'-6"	5,012		TOP LONGITUDINAL UNIT 5
S641	X	246	32'-3"	11,916		TOP LONGITUDINAL OVER PIER UNIT 3
S642	X	246	41'-7"	15,365		TOP LONGITUDINAL OVER PIER UNIT 3
S643	X	738	44'-3"	49,050		TOP LONGITUDINAL OVER PIER UNIT 3 & 4
S645	X	246	48'-10"	18,044		TOP LONGITUDINAL OVER PIER UNIT 4
S646	X	246	43'-6"	16,073		TOP LONGITUDINAL OVER PIER UNIT 5
S647	X	492	48'-6"	35,841		TOP LONGITUDINAL OVER PIER UNIT 5
S648	X	246	43'-10"	16,196		TOP LONGITUDINAL OVER PIER UNIT 5
S650	X	9206	44'-2"	610,715		TOP & BOTT. TRANSVERSE UNITS 3, 4 & 5
S451	X	1494	44'-0"	43,949		BOTTOM LONGITUDINAL UNIT 3
S452	X	1660	44'-10"	49,687		BOTTOM LONGITUDINAL UNIT 4
S453	X	2158	43'-0"	62,009		BOTTOM LONGITUDINAL UNIT 5
S654	X	92	7'-10"	1,082	X	FLOOR DRAIN
S561	X	5914	4'-5"	27,243	X	32SS PARAPET
S562	X	5914	5'-0"	30,842	X	32SS PARAPET
S563	X	192	38'-9"	7,766		32SS PARAPET UNITS 1 & 2
S564	X	108	45'-0"	5,069		32SS PARAPET UNIT 3
S565	X	120	43'-6"	5,444		32SS PARAPET UNIT 4
S566	X	156	41'-6"	6,752		32SS PARAPET UNIT 5
S571	X	6038	4'-5"	27,815	X	42SS PARAPET
S572	X	6038	6'-8"	41,984	X	42SS PARAPET
S573	X	256	45'-0"	12,015		42SS PARAPET UNITS 1 & 2
S574	X	144	44'-0"	6,608		42SS PARAPET UNIT 3
S575	X	160	44'-9"	7,468		42SS PARAPET UNIT 4
S576	X	208	43'-0"	9,329		42SS PARAPET UNIT 5

TOTAL WEIGHT: 1,692,127

BILL OF BARS - PRESTRESSED GIRDER DIAPHRAGM

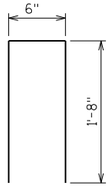
BAR MARK	COAT	NO. REQ'D	LENGTH	WEIGHT (LB)	BENT	LOCATION
N419	X	112	6'-8"	499	X	PARTIAL DEPTH DIAPHRAGM VERTICAL
N420	X	96	5'-7"	358	X	PARTIAL DEPTH DIAPHRAGM VERTICAL
N621	X	80	5'-11"	711		PARTIAL DEPTH DIAPHRAGM HORIZONTAL
N522	X	192	16'-7"	3,321	X	FULL DEPTH DIAPHRAGM VERTICAL
N423	X	320	4'-11"	1,051		FULL DEPTH DIAPHRAGM HORIZONTAL
N524	X	256	5'-7"	1,491	X	FULL DEPTH DIAPHRAGM VERTICAL

TOTAL WEIGHT: 7,430

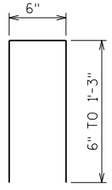


M401

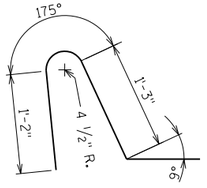
TWO BARS SHOWN



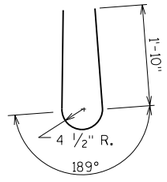
M402



M403



S561 & S571



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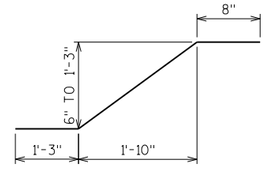

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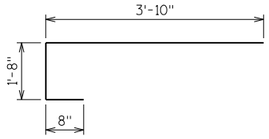
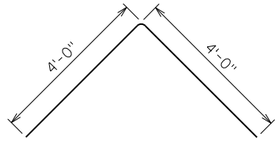


M411



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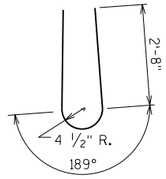

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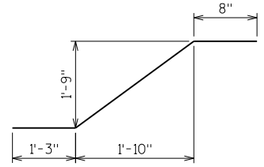

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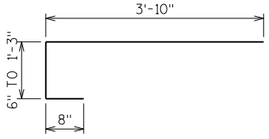
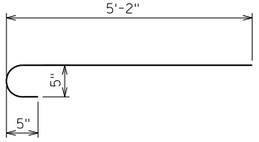
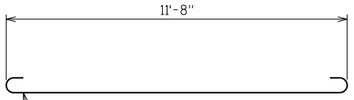


M408



S510



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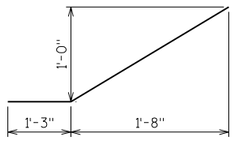

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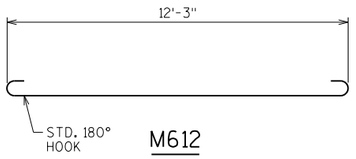

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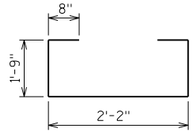
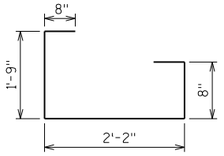


N419



N420

BILL OF BARS - MODULAR EXPANSION JOINT

BAR MARK	COAT	NO. REQ'D	LENGTH	WEIGHT (LB)	BENT	LOCATION
M401	X	804	5'-0"	2,685	X	LONGITUDINAL
M402	X	732	3'-8"	1,793	X	VERTICAL
M403	X	72	2'-1"	100	X	VERTICAL
M604	X	120	3'-2"	571	X	TOP & BOTTOM TRANSVERSE
M405	X	312	4'-5"	922	X	LONGITUDINAL
M406	X	36	3'-11"	94	X	LONGITUDINAL
M607	X	18	44'-2"	1,194		TOP TRANSVERSE
M408	X	36	5'-2"	124	X	TOP LONGITUDINAL
M509	X	432	8'-0"	3,605		TRANSVERSE
M610	X	60	39'-10"	3,590		TOP & BOTTOM TRANSVERSE
M411	X	366	6'-0"	1,467	X	TOP & BOTTOM TRANSVERSE
M612	X	24	13'-7"	490	X	TRANSVERSE
M613	X	48	13'-0"	937	X	TRANSVERSE

TOTAL WEIGHT: 17,572

BAR SERIES

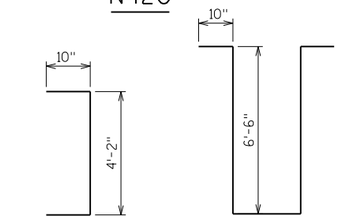
BAR SERIES LENGTH IS AVERAGE AND TO BE USED FOR BAR WEIGHT CALCULATION ONLY.

MARK	NO. REQ'D.	LENGTH
M403	24 SERIES OF 3	1'-4" TO 2'-10"
M406	12 SERIES OF 3	3'-9" TO 4'-1"
M408	12 SERIES OF 3	4'-10" TO 5'-7"

NOTES:

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BARS.



N524 N522

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

SUPERSTRUCTURE BILL OF BARS

SHEET 92 OF 143
775

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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FILE= G:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\092 B-05-678-SUPERSTRUCTURE BILL OF BARS.dgn

DATE:5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74

SPAN 1

LOCATION	W. ABUT.	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 1
STATION	1176+87.75	1177+00.65	1177+13.55	1177+26.45	1177+39.35	1177+52.25	1177+65.15	1177+78.05	1177+90.95	1178+03.85	1178+16.75
LT. EDGE OF SLAB	594.89	595.19	595.50	595.81	596.14	596.47	596.81	597.17	597.53	597.90	598.27
GIRDER 1	594.97	595.27	595.57	595.89	596.21	596.55	596.89	597.24	597.60	597.97	598.35
GIRDER 2	595.15	595.45	595.76	596.07	596.40	596.73	597.07	597.43	597.79	598.16	598.53
GIRDER 3	595.30	595.60	595.90	596.22	596.54	596.88	597.22	597.57	597.93	598.30	598.68
GIRDER 4	595.11	595.41	595.72	596.03	596.36	596.69	597.03	597.39	597.75	598.12	598.49
GIRDER 5	594.93	595.23	595.53	595.85	596.17	596.51	596.85	597.20	597.56	597.93	598.31
RT. EDGE OF SLAB	594.85	595.15	595.46	595.77	596.10	596.43	596.77	597.13	597.49	597.86	598.23

SPAN 2

LOCATION	PIER 1	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 2
STATION	1178+16.75	1178+30.43	1178+44.12	1178+57.80	1178+71.48	1178+85.17	1178+98.85	1179+12.53	1179+26.21	1179+39.90	1179+53.58
LT. EDGE OF SLAB	598.27	598.69	599.11	599.54	599.98	600.43	600.90	601.35	601.82	602.29	602.76
GIRDER 1	598.35	598.76	599.18	599.61	600.06	600.51	600.97	601.43	601.90	602.36	602.83
GIRDER 2	598.53	598.95	599.37	599.80	600.24	600.69	601.16	601.61	602.08	602.55	603.02
GIRDER 3	598.68	599.09	599.51	599.94	600.39	600.84	601.30	601.76	602.23	602.69	603.16
GIRDER 4	598.49	598.91	599.33	599.76	600.20	600.65	601.12	601.57	602.04	602.51	602.98
GIRDER 5	598.31	598.72	599.14	599.57	600.02	600.47	600.93	601.39	601.86	602.32	602.79
RT. EDGE OF SLAB	598.23	598.65	599.07	599.50	599.94	600.39	600.86	601.31	601.78	602.25	602.72

SPAN 3

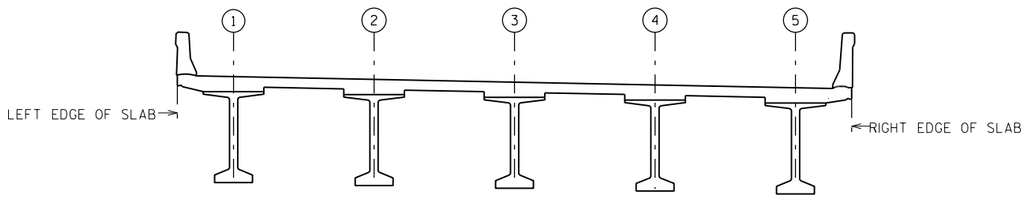
LOCATION	PIER 2	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 3
STATION	1179+53.58	1179+67.26	1179+80.95	1179+94.63	1180+08.32	1180+22.00	1180+35.68	1180+49.37	1180+63.05	1180+76.74	1180+90.42
LT. EDGE OF SLAB	602.76	603.23	603.69	604.16	604.63	605.10	605.57	606.03	606.50	606.97	607.44
GIRDER 1	602.83	603.30	603.77	604.24	604.70	605.17	605.64	606.11	606.58	607.04	607.51
GIRDER 2	603.02	603.49	603.95	604.42	604.89	605.36	605.83	606.29	606.76	607.23	607.70
GIRDER 3	603.16	603.63	604.10	604.57	605.03	605.50	605.97	606.44	606.91	607.37	607.84
GIRDER 4	602.98	603.45	603.91	604.38	604.85	605.32	605.79	606.25	606.72	607.19	607.66
GIRDER 5	602.79	603.26	603.73	604.20	604.66	605.13	605.60	606.07	606.54	607.00	607.47
RT. EDGE OF SLAB	602.72	603.19	603.65	604.12	604.59	605.06	605.53	605.99	606.46	606.93	607.40

SPAN 4

LOCATION	PIER 3	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 4
STATION	1180+90.42	1181+04.10	1181+17.79	1181+31.47	1181+45.15	1181+58.84	1181+72.52	1181+86.20	1181+99.88	1182+13.57	1182+27.25
LT. EDGE OF SLAB	607.44	607.91	608.37	608.84	609.31	609.78	610.25	610.71	611.18	611.65	612.12
GIRDER 1	607.51	607.98	608.45	608.92	609.38	609.85	610.32	610.79	611.26	611.72	612.19
GIRDER 2	607.70	608.17	608.63	609.10	609.57	610.04	610.51	610.97	611.44	611.91	612.38
GIRDER 3	607.84	608.31	608.78	609.25	609.71	610.18	610.65	611.12	611.59	612.05	612.52
GIRDER 4	607.66	608.13	608.59	609.06	609.53	610.00	610.47	610.93	611.40	611.87	612.34
GIRDER 5	607.47	607.94	608.41	608.88	609.34	609.81	610.28	610.75	611.22	611.68	612.15
RT. EDGE OF SLAB	607.40	607.87	608.33	608.80	609.27	609.74	610.21	610.67	611.14	611.61	612.08

SPAN 5

LOCATION	PIER 4	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 5
STATION	1182+27.25	1182+40.15	1182+53.05	1182+65.95	1182+78.85	1182+91.75	1183+04.65	1183+17.55	1183+30.45	1183+43.35	1183+56.25
LT. EDGE OF SLAB	612.12	612.56	613.00	613.44	613.88	614.32	614.76	615.21	615.65	616.09	616.53
GIRDER 1	612.19	612.63	613.07	613.52	613.96	614.40	614.84	615.28	615.72	616.16	616.60
GIRDER 2	612.38	612.82	613.26	613.70	614.14	614.58	615.02	615.47	615.91	616.35	616.79
GIRDER 3	612.52	612.96	613.40	613.85	614.29	614.73	615.17	615.61	616.05	616.49	616.93
GIRDER 4	612.34	612.78	613.22	613.66	614.10	614.54	614.98	615.43	615.87	616.31	616.75
GIRDER 5	612.15	612.59	613.03	613.48	613.92	614.36	614.80	615.24	615.68	616.12	616.56
RT. EDGE OF SLAB	612.08	612.52	612.96	613.40	613.84	614.28	614.72	615.17	615.61	616.05	616.49



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS-1

SHEET 93 OF 143
776

DATE: 5/31/2013
I.D.

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STATE PROJECT NUMBER

1133-11-74

SPAN 6

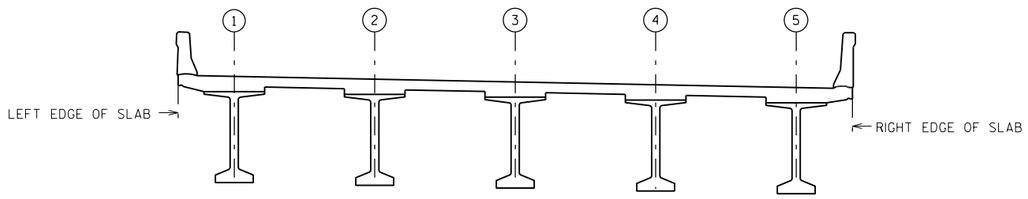
LOCATION	PIER 5	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 6
STATION	1183+57.92	1183+70.82	1183+83.72	1183+96.62	1184+09.52	1184+22.42	1184+35.32	1184+48.22	1184+61.12	1184+74.02	1184+86.92
LT. EDGE OF SLAB	616.59	617.03	617.47	617.91	618.35	618.79	619.23	619.67	620.12	620.56	621.00
GIRDER 1	616.66	617.10	617.54	617.98	618.43	618.87	619.31	619.75	620.19	620.63	621.07
GIRDER 2	616.85	617.29	617.73	618.17	618.61	619.05	619.49	619.93	620.38	620.82	621.26
GIRDER 3	616.99	617.43	617.87	618.31	618.76	619.20	619.64	620.08	620.52	620.96	621.40
GIRDER 4	616.81	617.25	617.69	618.13	618.57	619.01	619.45	619.89	620.34	620.78	621.22
GIRDER 5	616.62	617.06	617.50	617.94	618.39	618.83	619.27	619.71	620.15	620.59	621.03
RT. EDGE OF SLAB	616.55	616.99	617.43	617.87	618.31	618.75	619.19	619.63	620.08	620.52	620.96

SPAN 7

LOCATION	PIER 6	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 7
STATION	1184+86.92	1185+00.60	1185+14.29	1185+27.97	1185+41.65	1185+55.34	1185+69.02	1185+82.70	1185+96.38	1186+10.07	1186+23.75
LT. EDGE OF SLAB	621.00	621.47	621.93	622.40	622.87	623.34	623.81	624.27	624.74	625.21	625.68
GIRDER 1	621.07	621.54	622.01	622.48	622.94	623.41	623.88	624.35	624.82	625.28	625.75
GIRDER 2	621.26	621.73	622.19	622.66	623.13	623.60	624.07	624.53	625.00	625.47	625.94
GIRDER 3	621.40	621.87	622.34	622.81	623.27	623.74	624.21	624.68	625.15	625.61	626.08
GIRDER 4	621.22	621.69	622.15	622.62	623.09	623.56	624.03	624.49	624.96	625.43	625.90
GIRDER 5	621.03	621.50	621.97	622.44	622.90	623.37	623.84	624.31	624.78	625.24	625.71
RT. EDGE OF SLAB	620.96	621.43	621.89	622.36	622.83	623.30	623.77	624.23	624.70	625.17	625.64

SPAN 8

LOCATION	PIER 7	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 8
STATION	1186+23.75	1186+37.43	1186+51.12	1186+64.80	1186+78.48	1186+92.17	1187+05.85	1187+19.53	1187+33.21	1187+46.90	1187+60.58
LT. EDGE OF SLAB	625.68	626.15	626.61	627.08	627.55	628.02	628.49	628.95	629.42	629.89	630.36
GIRDER 1	625.75	626.22	626.69	627.16	627.62	628.09	628.56	629.03	629.50	629.96	630.43
GIRDER 2	625.94	626.41	626.87	627.34	627.81	628.28	628.75	629.21	629.68	630.15	630.62
GIRDER 3	626.08	626.55	627.02	627.49	627.95	628.42	628.89	629.36	629.83	630.29	630.76
GIRDER 4	625.90	626.37	626.83	627.30	627.77	628.24	628.71	629.17	629.64	630.11	630.58
GIRDER 5	625.71	626.18	626.65	627.12	627.58	628.05	628.52	628.99	629.46	629.92	630.39
RT. EDGE OF SLAB	625.64	626.11	626.57	627.04	627.51	627.98	628.45	628.91	629.38	629.85	630.32



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

SPAN 9

LOCATION	PIER 8	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 9
STATION	1187+60.58	1187+74.26	1187+87.95	1188+01.63	1188+15.32	1188+29.00	1188+42.68	1188+56.37	1188+70.05	1188+83.74	1188+97.42
LT. EDGE OF SLAB	630.36	630.82	631.29	631.76	632.23	632.70	633.16	633.63	634.10	634.57	635.04
GIRDER 1	630.43	630.90	631.37	631.84	632.30	632.77	633.24	633.71	634.18	634.64	635.11
GIRDER 2	630.62	631.08	631.55	632.02	632.49	632.96	633.42	633.89	634.36	634.83	635.30
GIRDER 3	630.76	631.23	631.70	632.17	632.64	633.11	633.58	634.05	634.53	635.00	635.47
GIRDER 4	630.58	631.04	631.51	632.02	632.52	633.02	633.52	634.03	634.53	635.03	635.54
GIRDER 5	630.39	630.86	631.33	631.86	632.40	632.93	633.47	634.00	634.54	635.07	635.61
RT. EDGE OF SLAB	630.32	630.78	631.25	631.80	632.35	632.90	633.44	633.99	634.54	635.09	635.63

SPAN 10

LOCATION	PIER 9	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	PIER 10
STATION	1188+97.42	1189+10.32	1189+23.22	1189+36.12	1189+49.02	1189+61.92	1189+74.82	1189+87.72	1190+00.62	1190+13.52	1190+26.42
LT. EDGE OF SLAB	635.04	635.48	635.92	636.36	636.80	637.20	637.59	637.99	638.39	638.79	639.19
GIRDER 1	635.11	635.55	635.99	636.44	636.87	637.28	637.70	638.11	638.52	638.93	639.34
GIRDER 2	635.30	635.74	636.18	636.62	637.06	637.50	637.94	638.38	638.82	639.26	639.70
GIRDER 3	635.47	635.91	636.36	636.80	637.25	637.72	638.19	638.66	639.13	639.60	640.07
GIRDER 4	635.54	636.01	636.49	636.96	637.44	637.94	638.44	638.94	639.44	639.94	640.44
GIRDER 5	635.61	636.11	636.61	637.12	637.62	638.15	638.68	639.21	639.74	640.27	640.80
RT. EDGE OF SLAB	635.63	636.15	636.67	637.18	637.70	638.24	638.78	639.33	639.87	640.41	640.95

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS-2

SHEET 94 OF 143
777

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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STATE PROJECT NUMBER

1133-11-74

SPAN 11

LOCATION	PIER 10	P1-2	P1-3	P1-4	P1-5	P1-6	FS #1	P2-1	P2-2	PIER 11
STATION	1190+29.58	1190+46.73	1190+63.87	1190+81.02	1190+98.17	1191+15.31	1191+23.88	1191+32.46	1191+49.60	1191+66.75
1 LEFT EDGE OF SLAB	639.29	639.82	640.35	640.88	641.40	641.96	642.25	642.55	643.13	643.72
2 LEFT GIRDER LT. WEB	639.43	639.97	640.52	641.06	641.61	642.17	642.46	642.76	643.34	643.93
3 LEFT GIRDER RT. WEB	639.93	640.53	641.13	641.73	642.33	642.92	643.21	643.51	644.09	644.68
4 RIGHT GIRDER LT. WEB	640.44	641.09	641.74	642.39	643.04	643.67	643.96	644.26	644.84	645.43
5 RIGHT GIRDER RT. WEB	640.94	641.65	642.35	643.06	643.76	644.42	644.71	645.01	645.59	646.18
6 RIGHT EDGE OF SLAB	641.08	641.80	642.52	643.25	643.97	644.63	644.92	645.22	645.80	646.39

SPAN 12

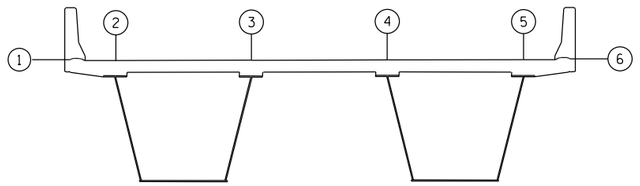
LOCATION	PIER 11	P2-4	P2-5	P2-6	FS #2	P3-1	P3-2	P3-3	P3-4	P3-5	FS #3	P4-1	P4-2	P4-3	PIER 12
STATION	1191+66.75	1191+82.75	1191+98.75	1192+06.75	1192+14.75	1192+30.75	1192+46.75	1192+62.75	1192+78.75	1192+94.75	1193+02.75	1193+10.75	1193+26.75	1193+42.75	1193+58.75
1 LEFT EDGE OF SLAB	643.72	644.27	644.81	645.09	645.36	645.91	646.45	647.00	647.55	648.10	648.37	648.64	649.19	649.74	650.28
2 LEFT GIRDER LT. WEB	643.93	644.48	645.02	645.30	645.57	646.12	646.66	647.21	647.76	648.31	648.58	648.85	649.40	649.95	650.49
3 LEFT GIRDER RT. WEB	644.68	645.23	645.77	646.05	646.32	646.87	647.41	647.96	648.51	649.06	649.33	649.60	650.15	650.70	651.24
4 RIGHT GIRDER LT. WEB	645.43	645.98	646.52	646.80	647.07	647.62	648.16	648.71	649.26	649.81	650.08	650.35	650.90	651.45	651.99
5 RIGHT GIRDER RT. WEB	646.18	646.73	647.27	647.55	647.82	648.37	648.91	649.46	650.01	650.56	650.83	651.10	651.65	652.20	652.74
6 RIGHT EDGE OF SLAB	646.39	646.94	647.48	647.76	648.03	648.58	649.12	649.67	650.22	650.77	651.04	651.31	651.86	652.41	652.95

SPAN 13

LOCATION	PIER 12	P4-5	P4-6	P4-7	FS #4	P5-1	P5-2	P5-3	P5-4	P5-5	P5-6	P5-7	FS #5	P6-1	P6-2	P6-3	PIER 13
STATION	1193+58.75	1193+75.13	1193+91.50	1194+07.88	1194+16.06	1194+24.25	1194+40.63	1194+57.00	1194+73.38	1194+89.75	1195+06.13	1195+22.50	1195+30.69	1195+38.88	1195+55.25	1195+71.63	1195+88.00
1 LEFT EDGE OF SLAB	650.28	650.84	651.40	651.96	652.24	652.52	653.08	653.63	654.18	654.71	655.22	655.72	655.96	656.20	656.66	657.11	657.54
2 LEFT GIRDER LT. WEB	650.49	651.05	651.61	652.17	652.45	652.73	653.29	653.84	654.39	654.92	655.43	655.93	656.17	656.41	656.87	657.32	657.75
3 LEFT GIRDER RT. WEB	651.24	651.80	652.36	652.92	653.20	653.48	654.04	654.59	655.14	655.67	656.18	656.68	656.92	657.16	657.62	658.07	658.50
4 RIGHT GIRDER LT. WEB	651.99	652.55	653.11	653.67	653.95	654.23	654.79	655.34	655.89	656.42	656.93	657.43	657.67	657.91	658.37	658.82	659.25
5 RIGHT GIRDER RT. WEB	652.74	653.30	653.86	654.42	654.70	654.98	655.54	656.09	656.64	657.17	657.68	658.18	658.42	658.66	659.12	659.57	660.00
6 RIGHT EDGE OF SLAB	652.95	653.51	654.07	654.63	654.91	655.19	655.75	656.30	656.85	657.38	657.89	658.39	658.63	658.87	659.33	659.78	660.21

SPAN 14

LOCATION	PIER 13	P6-5	P6-6	P6-7	FS #6	P7-1	P7-2	P7-3	P7-4	P7-5	P7-6	PIER 14
STATION	1195+88.00	1196+06.03	1196+24.05	1196+33.06	1196+42.08	1196+60.10	1196+78.13	1196+96.15	1197+14.18	1197+32.20	1197+50.23	1197+68.25
1 LEFT EDGE OF SLAB	657.54	658.00	658.44	658.65	658.86	659.25	659.63	659.99	660.33	660.65	660.95	661.24
2 LEFT GIRDER LT. WEB	657.75	658.21	658.65	658.86	659.07	659.46	659.84	660.20	660.54	660.86	661.16	661.45
3 LEFT GIRDER RT. WEB	658.50	658.96	659.40	659.61	659.82	660.21	660.59	660.95	661.29	661.61	661.91	662.20
4 RIGHT GIRDER LT. WEB	659.25	659.71	660.15	660.36	660.57	660.96	661.34	661.70	662.04	662.36	662.66	662.95
5 RIGHT GIRDER RT. WEB	660.00	660.46	660.90	661.11	661.32	661.71	662.09	662.45	662.79	663.11	663.41	663.70
6 RIGHT EDGE OF SLAB	660.21	660.67	661.11	661.32	661.53	661.92	662.30	662.66	663.00	663.32	663.62	663.91



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS-3

SHEET 95 OF 143
778

DATE: 5/31/2013
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STATE PROJECT NUMBER

1133-11-74

SPAN 15

LOCATION	PIER 14	P8-2	P8-3	P8-4	P8-5	P8-6	P8-7	FS #7	P9-1	P9-2	P9-3	PIER 15
STATION	1197+71.92	1197+89.56	1198+07.20	1198+24.84	1198+42.48	1198+60.13	1198+77.77	1198+86.59	1198+95.41	1199+13.05	1199+30.69	1199+48.33
1 LEFT EDGE OF SLAB	661.29	661.54	661.78	661.99	662.19	662.37	662.53	662.60	662.67	662.79	662.89	662.98
2 LEFT GIRDER LT. WEB	661.50	661.75	661.99	662.20	662.40	662.58	662.74	662.81	662.88	663.00	663.10	663.19
3 LEFT GIRDER RT. WEB	662.25	662.50	662.74	662.95	663.15	663.33	663.49	663.56	663.63	663.75	663.85	663.94
4 RIGHT GIRDER LT. WEB	663.00	663.25	663.49	663.70	663.90	664.08	664.24	664.31	664.38	664.50	664.60	664.69
5 RIGHT GIRDER RT. WEB	663.75	664.00	664.24	664.45	664.65	664.83	664.99	665.06	665.13	665.25	665.35	665.44
6 RIGHT EDGE OF SLAB	663.96	664.21	664.45	664.66	664.86	665.04	665.20	665.27	665.34	665.46	665.56	665.65

SPAN 16

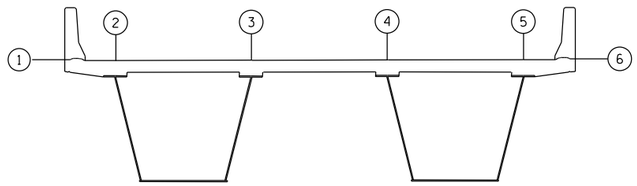
LOCATION	PIER 15	P9-5	P9-6	P9-7	FS #8	P10-1	P10-2	P10-3	P10-4	P10-5	P10-6	P10-7	FS #9	P11-1	P11-2	P11-3	PIER 16
STATION	1199+48.33	1199+65.59	1199+82.84	1200+00.10	1200+08.73	1200+17.36	1200+34.61	1200+51.87	1200+69.13	1200+86.38	1201+03.64	1201+20.89	1201+29.52	1201+38.15	1201+55.41	1201+72.66	1201+89.92
1 LEFT EDGE OF SLAB	662.98	663.04	663.09	663.12	663.12	663.13	663.12	663.10	663.05	662.99	662.91	662.82	662.76	662.70	662.57	662.42	662.25
2 LEFT GIRDER LT. WEB	663.19	663.25	663.30	663.33	663.33	663.34	663.33	663.31	663.26	663.20	663.12	663.03	662.97	662.91	662.78	662.63	662.46
3 LEFT GIRDER RT. WEB	663.94	664.00	664.05	664.08	664.08	664.09	664.08	664.06	664.01	663.95	663.87	663.78	663.72	663.66	663.53	663.38	663.21
4 RIGHT GIRDER LT. WEB	664.69	664.75	664.80	664.83	664.83	664.84	664.83	664.81	664.76	664.70	664.62	664.53	664.47	664.41	664.28	664.13	663.96
5 RIGHT GIRDER RT. WEB	665.44	665.50	665.55	665.58	665.58	665.59	665.58	665.56	665.51	665.45	665.37	665.28	665.22	665.16	665.03	664.88	664.71
6 RIGHT EDGE OF SLAB	665.65	665.71	665.76	665.79	665.79	665.80	665.79	665.77	665.72	665.66	665.58	665.49	665.43	665.37	665.24	665.09	664.92

SPAN 17

LOCATION	PIER 16	P11-5	P11-6	P11-7	FS #10	P12-1	P12-2	P12-3	P12-4	P12-5	P12-6	P12-7	FS #11	P13-1	P13-2	P13-3	PIER 17
STATION	1201+89.92	1202+07.18	1202+24.43	1202+41.69	1202+50.32	1202+58.94	1202+76.20	1202+93.45	1203+10.71	1203+27.97	1203+45.22	1203+62.48	1203+71.11	1203+79.73	1203+96.99	1204+14.24	1204+31.50
1 LEFT EDGE OF SLAB	662.25	662.06	661.86	661.64	661.52	661.40	661.14	660.87	660.57	660.26	659.93	659.59	659.41	659.22	658.84	658.44	658.02
2 LEFT GIRDER LT. WEB	662.46	662.27	662.07	661.85	661.73	661.61	661.35	661.08	660.78	660.47	660.14	659.80	659.62	659.43	659.05	658.65	658.23
3 LEFT GIRDER RT. WEB	663.21	663.02	662.82	662.60	662.48	662.36	662.10	661.83	661.53	661.22	660.89	660.55	660.37	660.18	659.80	659.40	658.98
4 RIGHT GIRDER LT. WEB	663.96	663.77	663.57	663.35	663.23	663.11	662.85	662.58	662.28	661.97	661.64	661.30	661.12	660.93	660.55	660.15	659.73
5 RIGHT GIRDER RT. WEB	664.71	664.52	664.32	664.10	663.98	663.86	663.60	663.33	663.03	662.72	662.39	662.05	661.87	661.68	661.30	660.90	660.48
6 RIGHT EDGE OF SLAB	664.92	664.73	664.53	664.31	664.19	664.07	663.81	663.54	663.24	662.93	662.60	662.26	662.08	661.89	661.51	661.11	660.69

SPAN 18

LOCATION	PIER 17	P13-5	P13-6	P13-7	FS #12	P14-1	P14-2	P14-3	P14-4	P14-5	P14-6	PIER 18
STATION	1204+31.50	1204+49.14	1204+66.78	1204+75.60	1204+84.42	1205+02.06	1205+19.71	1205+37.35	1205+54.99	1205+72.63	1205+90.27	1206+07.91
1 LEFT EDGE OF SLAB	6+58.02	6+57.57	6+57.11	6+56.87	6+56.62	6+56.12	6+55.6	6+55.06	6+54.51	6+53.94	6+53.38	6+52.82
2 LEFT GIRDER LT. WEB	6+58.23	6+57.78	6+57.32	6+57.08	6+56.83	6+56.33	6+55.81	6+55.27	6+54.72	6+54.15	6+53.59	6+53.03
3 LEFT GIRDER RT. WEB	6+58.98	6+58.53	6+58.07	6+57.83	6+57.58	6+57.08	6+56.56	6+56.02	6+55.47	6+54.9	6+54.34	6+53.78
4 RIGHT GIRDER LT. WEB	6+59.73	6+59.28	6+58.82	6+58.58	6+58.33	6+57.83	6+57.31	6+56.77	6+56.22	6+55.65	6+55.09	6+54.53
5 RIGHT GIRDER RT. WEB	6+60.48	6+60.03	6+59.57	6+59.33	6+59.08	6+58.58	6+58.06	6+57.52	6+56.97	6+56.4	6+55.84	6+55.28
6 RIGHT EDGE OF SLAB	6+60.69	6+60.24	6+59.78	6+59.54	6+59.29	6+58.79	6+58.27	6+57.73	6+57.18	6+56.61	6+56.05	6+55.49



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS-4

SHEET 96 OF 143
779

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DATE: 5/31/2013
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STATE PROJECT NUMBER

1133-11-74

SPAN 19

LOCATION	PIER 18	P15-2	P15-3	P15-4	P15-5	P15-6	P15-7	FS #13	P16-1	P16-2	P16-3	PIER 19
STATION	1206+11.58	1206+26.70	1206+41.81	1206+56.93	1206+72.05	1206+87.17	1207+02.28	1207+09.84	1207+17.40	1207+32.52	1207+47.63	1207+62.75
1 LEFT EDGE OF SLAB	652.70	652.22	651.74	651.25	650.77	650.29	649.81	649.57	649.32	648.84	648.36	647.88
2 LEFT GIRDER LT. WEB	652.91	652.43	651.95	651.46	650.98	650.50	650.02	649.78	649.53	649.05	648.57	648.09
3 LEFT GIRDER RT. WEB	653.66	653.18	652.70	652.21	651.73	651.25	650.77	650.53	650.28	649.80	649.32	648.84
4 RIGHT GIRDER LT. WEB	654.41	653.93	653.45	652.96	652.48	652.00	651.52	651.28	651.03	650.55	650.07	649.59
5 RIGHT GIRDER RT. WEB	655.16	654.68	654.20	653.71	653.23	652.75	652.27	652.03	651.78	651.30	650.82	650.34
6 RIGHT EDGE OF SLAB	655.37	654.89	654.41	653.92	653.44	652.96	652.48	652.24	651.99	651.51	651.03	650.55

SPAN 20

LOCATION	PIER 19	P16-5	P16-6	P16-7	FS #14	P17-1	P17-2	P17-3	P17-4	P17-5	P17-6	P17-7	FS #15	P18-1	P18-2	P18-3	PIER 20
STATION	1207+62.75	1207+80.39	1207+98.04	1208+15.68	1208+24.50	1208+33.32	1208+50.96	1208+68.61	1208+86.25	1209+03.89	1209+21.54	1209+39.18	1209+48.00	1209+56.82	1209+74.46	1209+92.11	1210+09.75
1 LEFT EDGE OF SLAB	647.88	647.32	646.75	646.19	645.91	645.63	645.06	644.50	643.94	643.38	642.81	642.25	641.97	641.69	641.12	640.56	640.00
2 LEFT GIRDER LT. WEB	648.09	647.53	646.96	646.40	646.12	645.84	645.27	644.71	644.15	643.59	643.02	642.46	642.18	641.90	641.33	640.77	640.21
3 LEFT GIRDER RT. WEB	648.84	648.28	647.71	647.15	646.87	646.59	646.02	645.46	644.90	644.34	643.77	643.21	642.93	642.65	642.08	641.52	640.96
4 RIGHT GIRDER LT. WEB	649.59	649.03	648.46	647.90	647.62	647.34	646.77	646.21	645.65	645.09	644.52	643.96	643.68	643.40	642.83	642.27	641.71
5 RIGHT GIRDER RT. WEB	650.34	649.78	649.21	648.65	648.37	648.09	647.52	646.96	646.40	645.84	645.27	644.71	644.43	644.15	643.58	643.02	642.46
6 RIGHT EDGE OF SLAB	650.55	649.99	649.42	648.86	648.58	648.30	647.73	647.17	646.61	646.05	645.48	644.92	644.64	644.36	643.79	643.23	642.67

SPAN 21

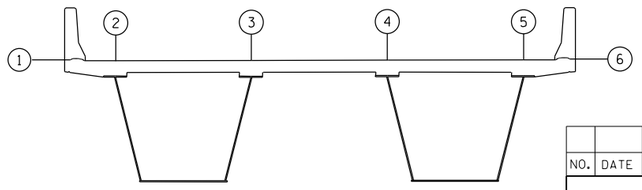
LOCATION	PIER 20	P18-5	P18-6	P18-7	FS #16	P19-1	P19-2	P19-3	P19-4	P19-5	P19-6	P19-7	FS #17	P20-1	P20-2	P20-3	PIER 21
STATION	1210+09.75	1210+27.39	1210+45.04	1210+62.68	1210+71.50	1210+80.32	1210+97.96	1211+15.61	1211+33.25	1211+50.89	1211+68.54	1211+86.18	1211+95.00	1212+03.82	1212+21.46	1212+39.11	1212+56.75
1 LEFT EDGE OF SLAB	640.00	639.44	638.87	638.31	638.03	637.75	637.18	636.62	636.06	635.50	634.93	634.37	634.09	633.81	633.25	632.68	632.12
2 LEFT GIRDER LT. WEB	640.21	639.65	639.08	638.52	638.24	637.96	637.39	636.83	636.27	635.71	635.14	634.58	634.30	634.02	633.46	632.89	632.33
3 LEFT GIRDER RT. WEB	640.96	640.40	639.83	639.27	638.99	638.71	638.14	637.58	637.02	636.46	635.89	635.33	635.05	634.77	634.21	633.64	633.08
4 RIGHT GIRDER LT. WEB	641.71	641.15	640.58	640.02	639.74	639.46	638.89	638.33	637.77	637.21	636.64	636.08	635.80	635.52	634.96	634.39	633.83
5 RIGHT GIRDER RT. WEB	642.46	641.90	641.33	640.77	640.49	640.21	639.64	639.08	638.52	637.96	637.39	636.83	636.55	636.27	635.71	635.14	634.58
6 RIGHT EDGE OF SLAB	642.67	642.11	641.54	640.98	640.70	640.42	639.85	639.29	638.73	638.17	637.60	637.04	636.76	636.48	635.92	635.35	634.79

SPAN 22

LOCATION	PIER 21	P20-5	P20-6	P20-7	FS #18	P21-1	P21-2	P21-3	P21-4	P21-5	P21-6	P21-7	FS #19	P22-1	P22-2	P22-3	PIER 22
STATION	1212+56.75	1212+74.39	1212+92.04	1213+09.68	1213+18.50	1213+27.32	1213+44.96	1213+62.61	1213+80.25	1213+97.89	1214+15.54	1214+33.18	1214+42.00	1214+50.82	1214+68.46	1214+86.11	1215+03.75
1 LEFT EDGE OF SLAB	632.12	631.56	630.99	630.43	630.15	629.87	629.31	628.74	628.18	627.62	627.07	626.51	626.24	625.98	625.46	624.95	624.47
2 LEFT GIRDER LT. WEB	632.33	631.77	631.20	630.64	630.36	630.08	629.52	628.95	628.39	627.83	627.28	626.72	626.45	626.19	625.67	625.16	624.68
3 LEFT GIRDER RT. WEB	633.08	632.52	631.95	631.39	631.11	630.83	630.27	629.70	629.14	628.58	628.03	627.47	627.20	626.94	626.42	625.91	625.43
4 RIGHT GIRDER LT. WEB	633.83	633.27	632.70	632.14	631.86	631.58	631.02	630.45	629.89	629.33	628.78	628.22	627.95	627.69	627.17	626.66	626.18
5 RIGHT GIRDER RT. WEB	634.58	634.02	633.45	632.89	632.61	632.33	631.77	631.20	630.64	630.08	629.53	628.97	628.70	628.44	627.92	627.41	626.93
6 RIGHT EDGE OF SLAB	634.79	634.23	633.66	633.10	632.82	632.54	631.98	631.41	630.85	630.29	629.74	629.18	628.91	628.65	628.13	627.62	627.14

SPAN 23

LOCATION	PIER 22	P22-5	P22-6	P22-7	FS #20	P23-1	P23-2	P23-3	P23-4	P23-5	P23-6	W. ABUT.
STATION	1215+03.75	1215+18.58	1215+33.40	1215+48.23	1215+55.64	1215+63.05	1215+77.88	1215+92.70	1216+07.53	1216+22.35	1216+37.18	1216+52.00
1 LEFT EDGE OF SLAB	624.47	624.07	623.69	623.32	623.14	622.96	622.61	622.27	621.95	621.64	621.34	621.05
2 LEFT GIRDER LT. WEB	624.68	624.28	623.90	623.53	623.35	623.17	622.82	622.48	622.16	621.85	621.55	621.26
3 LEFT GIRDER RT. WEB	625.43	625.03	624.65	624.28	624.10	623.92	623.57	623.23	622.91	622.60	622.30	622.01
4 RIGHT GIRDER LT. WEB	626.18	625.78	625.40	625.03	624.85	624.67	624.32	623.98	623.66	623.35	623.05	622.76
5 RIGHT GIRDER RT. WEB	626.93	626.53	626.15	625.78	625.60	625.42	625.07	624.73	624.41	624.10	623.80	623.51
6 RIGHT EDGE OF SLAB	627.14	626.74	626.36	625.99	625.81	625.63	625.28	624.94	624.62	624.31	624.01	623.72



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

TOP OF DECK ELEVATIONS-5

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780

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DATE: 5/31/2013
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STATE PROJECT NUMBER

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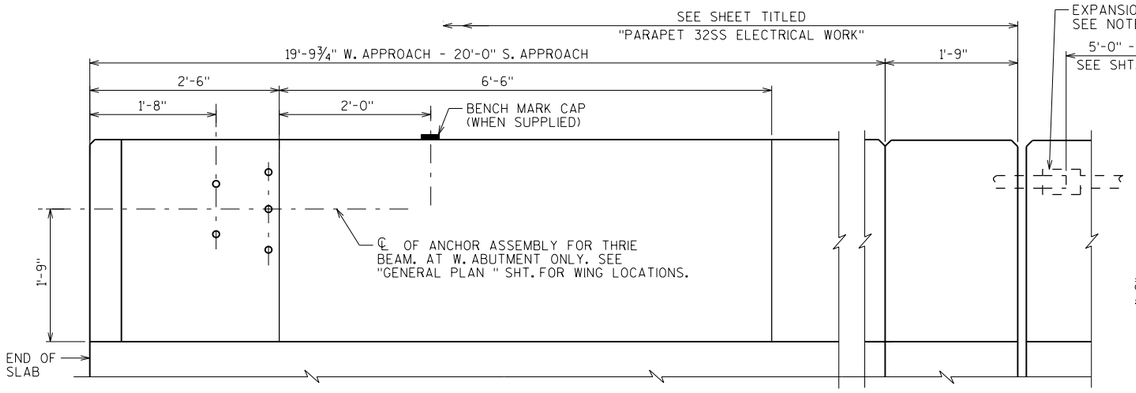
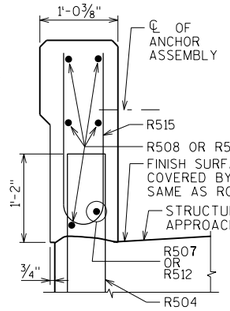


INSIDE ELEVATION



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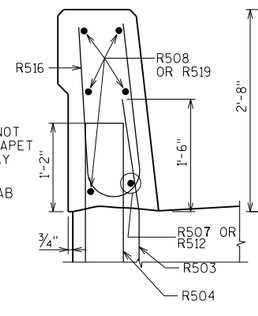

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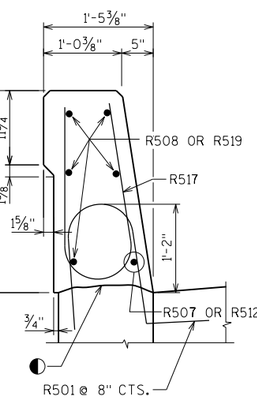

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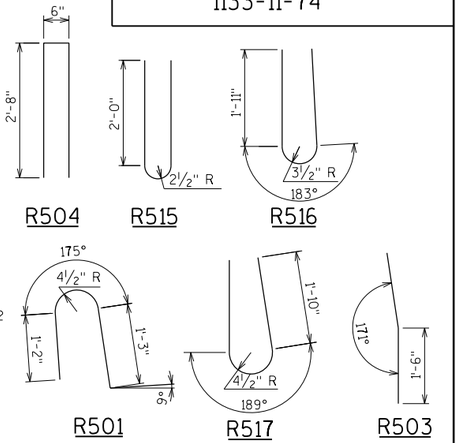
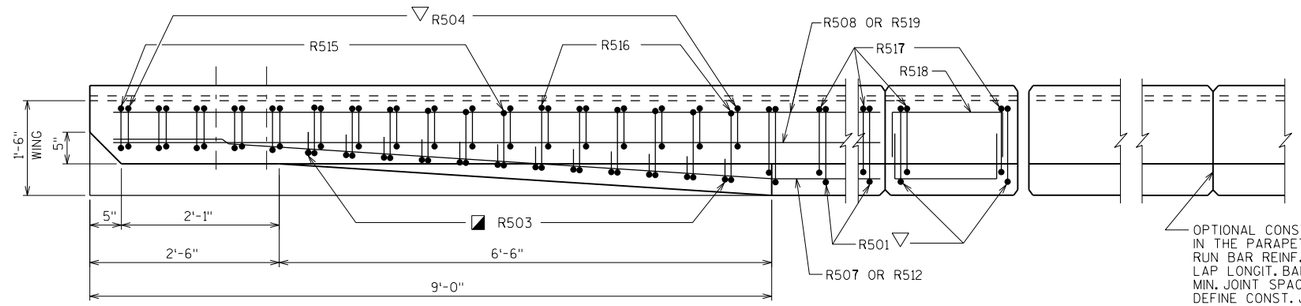
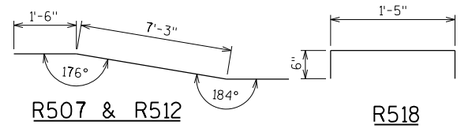




PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

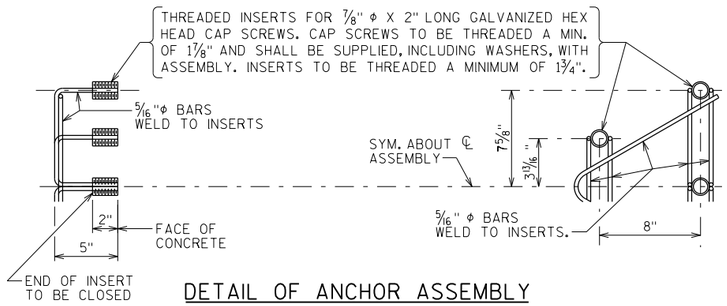


R507 & R512

R518

BILL OF BARS

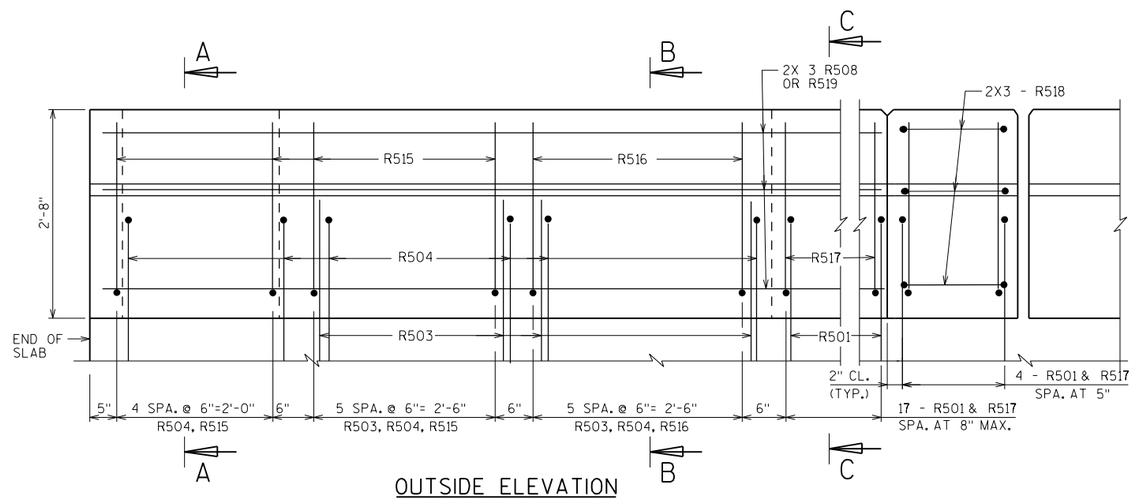
BAR MARK	NO. REQUIRED S. APPR.	NO. REQUIRED W. APPR.	LENGTH	WEIGHT (LB)	BENT	LOCATION
EPOXY COATED				TOTAL = 1157 LB		
R501	21	21	4'-5"	193	X	PARAPET VERTICAL
R503	12	12	3'-0"	75	X	PARAPET VERTICAL
R504	17	17	5'-7"	198	X	PARAPET VERTICAL
R507	1	0	19'-8"	21	X	PARAPET HORIZONTAL
R508	5	0	19'-8"	103		PARAPET HORIZONTAL
R512	0	1	19'-5"	20	X	PARAPET HORIZONTAL
R515	11	11	5'-7"	128	X	PARAPET VERTICAL
R516	6	6	4'-9"	59	X	PARAPET HORIZONTAL
R517	21	21	5'-0"	219	X	PARAPET VERTICAL
R518	6	6	2'-2"	39	X	PARAPET HORIZONTAL
R519	0	5	19'-5"	101		PARAPET HORIZONTAL



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



OUTSIDE ELEVATION

LEGEND

● POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING. SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE BELLOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BAR CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE SLAB IS POURED.

NOTES

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING: (HORIZ. AND VERT. MOVEMENT):
O-Z/GEDNEY TYPE AXDX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT) AT SOUTH ABUTMENT.
O-Z/GEDNEY TYPE AXDX-8-200 AND BONDING JUMPER (8" TOTAL CONDUIT MOVEMENT) AT PIERS 5 AND 10 AND WEST. ABUTMENT.
O-Z/GEDNEY TYPE EXDX-200 WITH PBS-200-12S AND BONDING JUMPER (10" TOTAL CONDUIT MOVEMENT) AT PIER 14. USE FLEXIBLE CONDUIT AT PIER 18.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

SINGLE SLOPE PARAPET 32SS

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STATE PROJECT NUMBER

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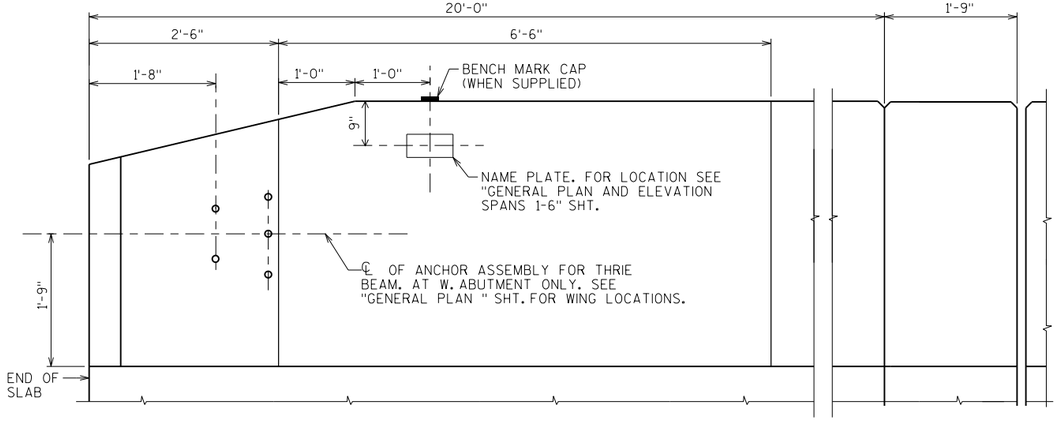
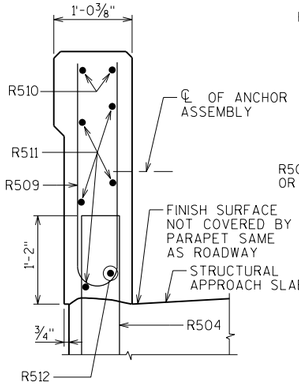


INSIDE ELEVATION - AT SOUTH ABUTMENT



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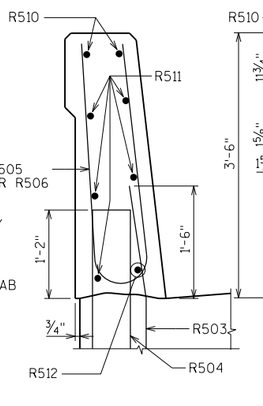

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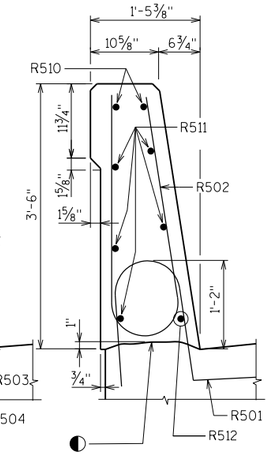

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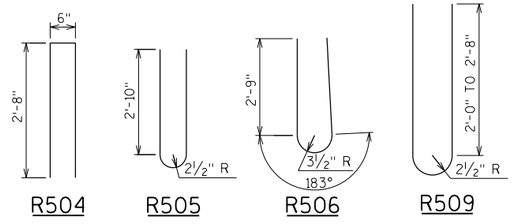
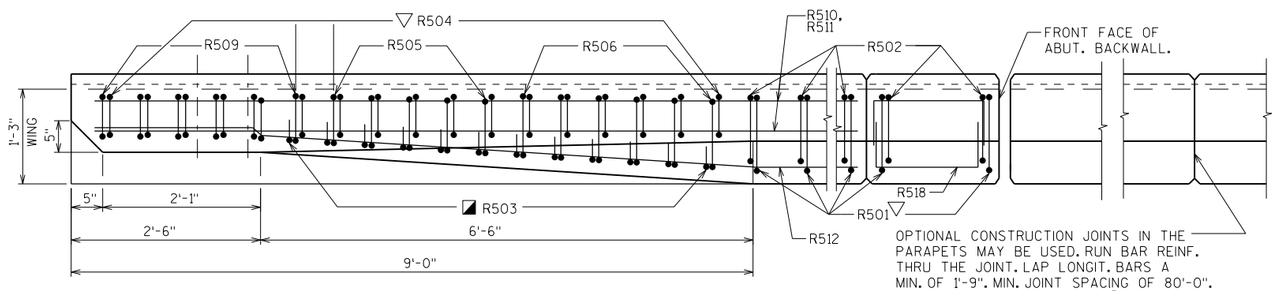
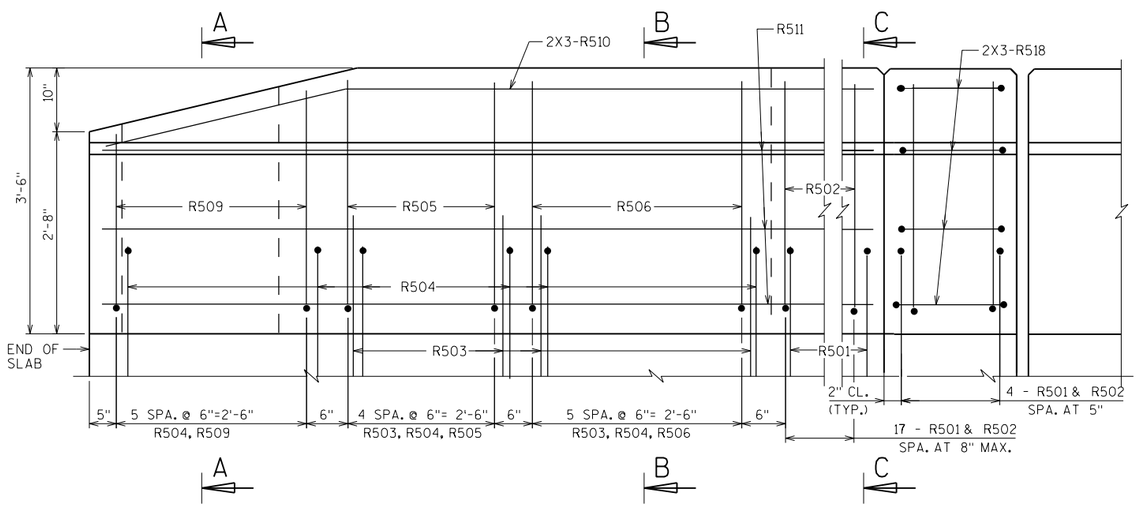




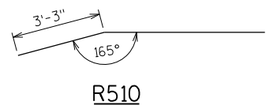
PLAN



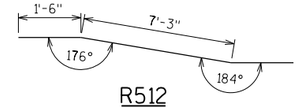
OUTSIDE ELEVATION - AT SOUTH ABUTMENT

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
R509	1 SERIES OF 6	4'-9" TO 6'-1"



R510



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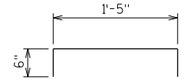
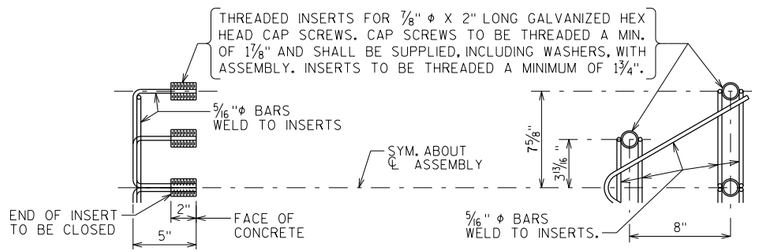


R518

BILL OF BARS

BAR MARK	NO. REQUIRED S. APPR.	NO. REQUIRED W. APPR.	LENGTH	WEIGHT (LB)	BENT	LOCATION
EPOXY COATED						TOTAL = 1284 LB
R501	21	36	4'-5"	263	X	PARAPET VERTICAL
R502	21	36	6'-8"	396	X	PARAPET VERTICAL
R503	11	0	3'-0"	34	X	PARAPET VERTICAL
R504	17	0	5'-7"	99	X	PARAPET VERTICAL
R505	5	0	6'-5"	33	X	PARAPET VERTICAL
R506	6	0	6'-6"	59	X	PARAPET VERTICAL
◭ R509	6	0	5'-5"	34	X	PARAPET VERTICAL
R510	2	0	20'-0"	42	X	PARAPET HORIZONTAL
R511	5	0	19'-8"	103		PARAPET HORIZONTAL
R512	1	0	20'-1"	21	X	PARAPET HORIZONTAL
R513	0	8	19'-8"	164		PARAPET HORIZONTAL
R518	8	8	2'-2"	36	X	PARAPET HORIZONTAL

◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

SINGLE SLOPE PARAPET 42SS-1

SHEET 99 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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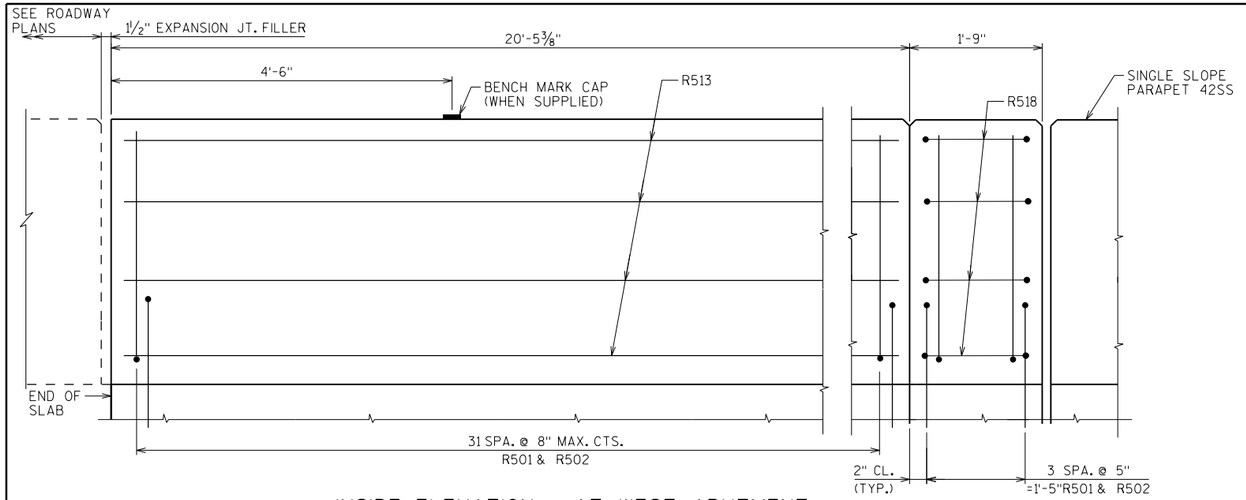
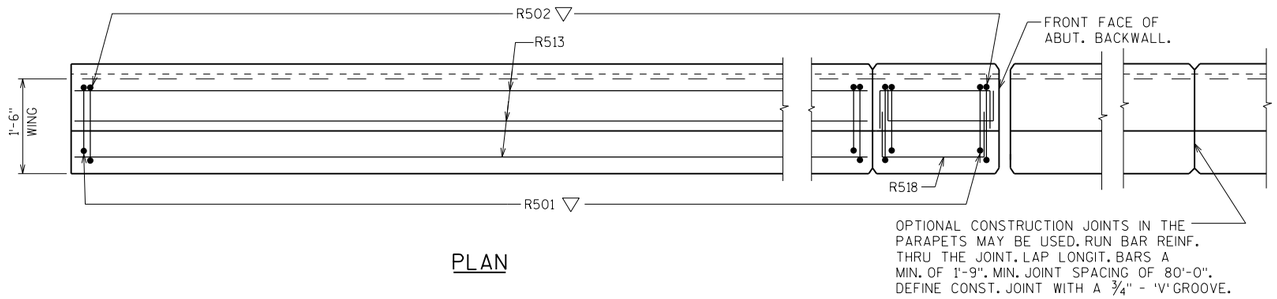
STATE PROJECT NUMBER

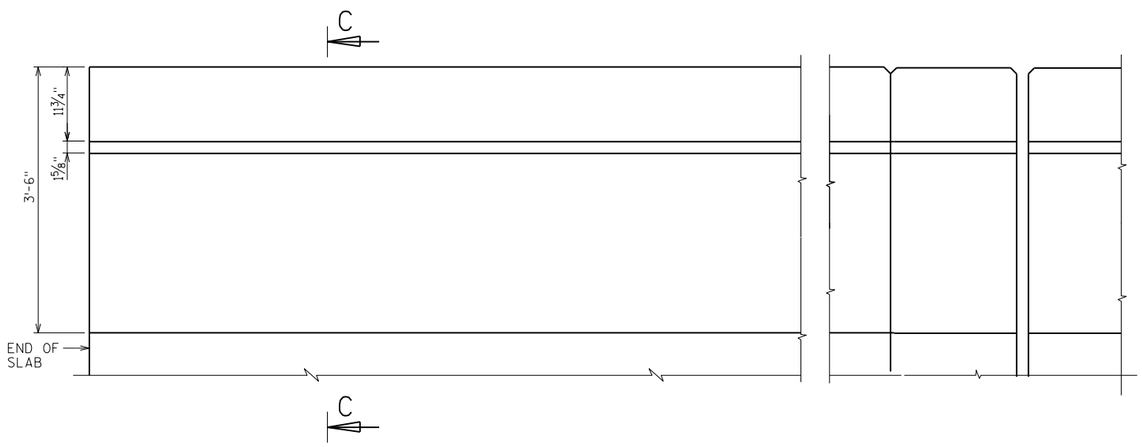
1133-11-74



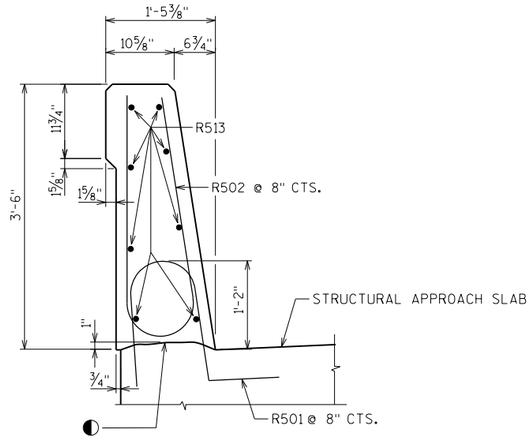
INSIDE ELEVATION - AT WEST ABUTMENT



PLAN



OUTSIDE ELEVATION - AT WEST ABUTMENT



SECTION C-C

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ S501 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SINGLE SLOPE PARAPET 42SS-2

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

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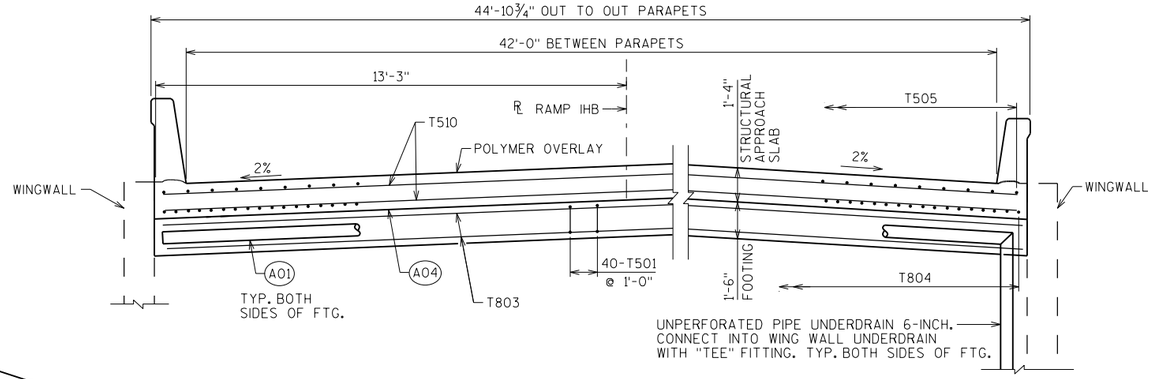
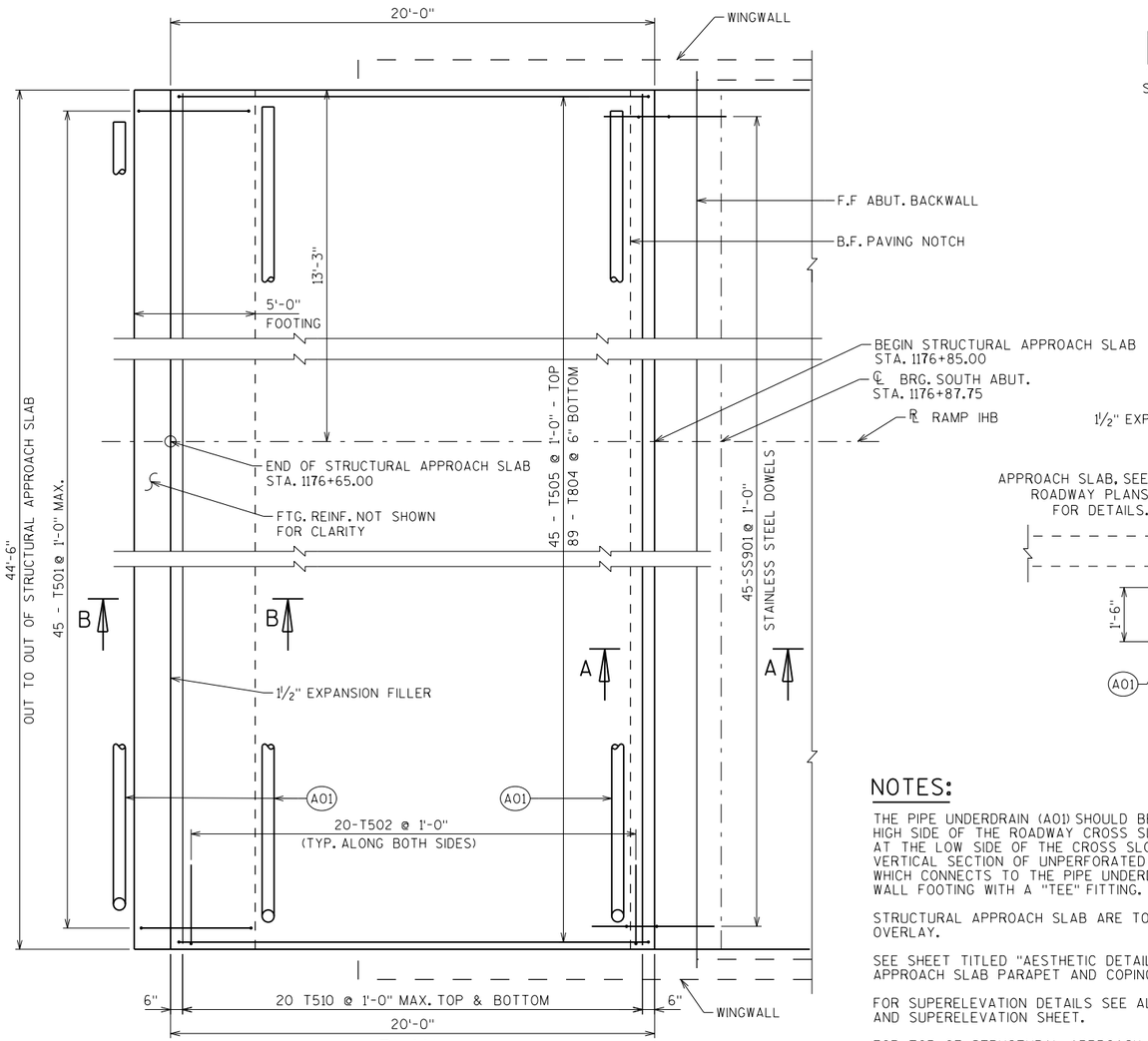


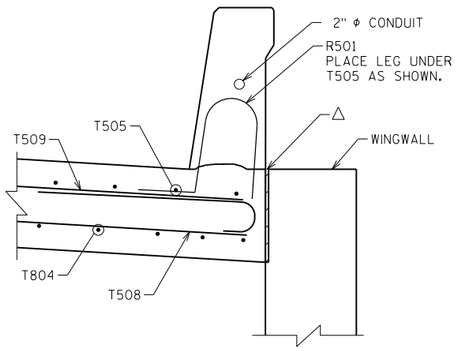
CROSS SECTION THRU STRUCTURAL APPROACH SLAB

(LOOKING UPSTATION)
SOUTH STRUCTURAL APPROACH SLAB SHOWN



PLAN

SOUTH STRUCTURAL APPROACH SLAB SHOWN
℄ RAMP IHB ON TANGENT AT S. ABUT.



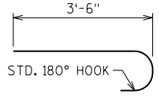
DETAIL AT WALL

'32SS' PARAPET SHOWN, '42SS' PARAPET SIMILAR.

BILL OF BARS

ALL BARS ARE EPOXY COATED.

BAR MARK	NO. REQUIRED S. APPR.	NO. REQUIRED W. APPR.	LENGTH	WEIGHT (LB)	BENT	LOCATION
EPOXY COATED						TOTAL = 19998 LB
T500		3	8'-3"	26	X	FOOTING - STIRRUPS
T501	45	43	12'-1"	1,109	X	FOOTING - STIRRUPS
T502	40	40	4'-10"	403	X	TRANS. EDGE
T803	12		44'-2"	1,415		FOOTING - HORIZONTAL
T804	89		21'-4"	5,069	X	LONG. BTM (SOUTH)
T505	45		19'-6"	915		LONG. TOP (SOUTH)
T806		44	21'-4"	2,506	X	LONG. BTM (WEST)
T807		44	21'-8"	2,545	X	LONG. BTM (WEST)
T508		25	19'-6"	508		LONG. TOP (WEST)
T509		25	19'-10"	517		LONG. TOP (WEST)
T510	40	40	44'-0"	3,671		TRANS T & B
T812		6	39'-10"	638		FOOTING HORIZONTAL
T813		6	42'-0"	673		FOOTING HORIZONTAL
STAINLESS STEEL						
SS901	45	45	5'-0"	1,530	X	ABUT. BACKWALL



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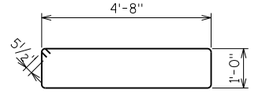

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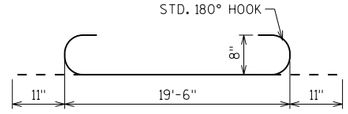

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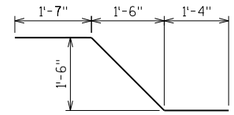

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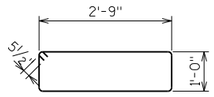

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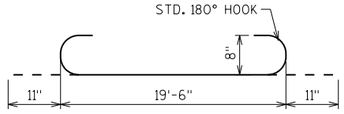

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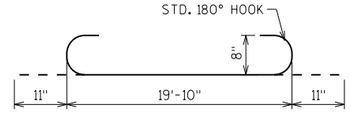

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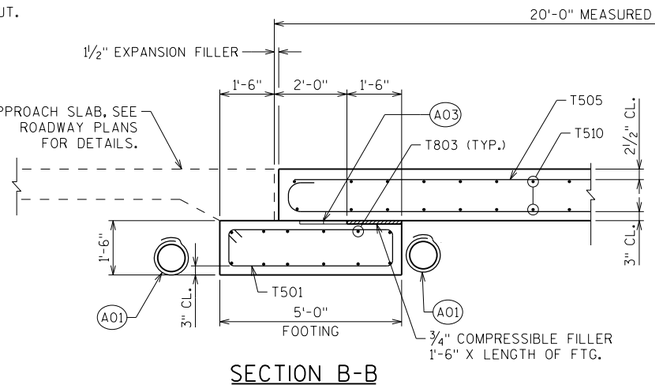
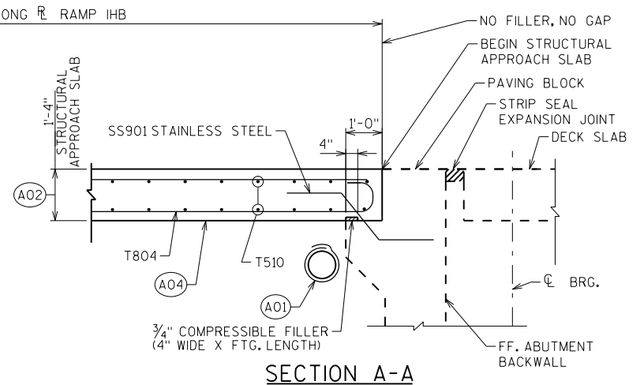


SECTION B-B



SECTION A-A

NOTES:

THE PIPE UNDERDRAIN (A01) SHOULD BE CAPPED AT THE HIGH SIDE OF THE ROADWAY CROSS SLOPE. AT THE LOW SIDE OF THE CROSS SLOPE, PROVIDE A VERTICAL SECTION OF UNPERFORATED PIPE UNDERDRAIN WHICH CONNECTS TO THE PIPE UNDERDRAIN AT THE WING WALL FOOTING WITH A "TEE" FITTING.

STRUCTURAL APPROACH SLAB ARE TO RECIEVE POLYMER OVERLAY.

SEE SHEET TITLED "AESTHETIC DETAILS" FOR STRUCTURAL APPROACH SLAB PARAPET AND COPING STAIN COLOR.

FOR SUPERELEVATION DETAILS SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

FOR TOP OF STRUCTURAL APPROACH SLAB ELEVATIONS SEE TOP OF DECK ELEVATIONS-1 SHEET.

TRANSVERSE SECTION THRU STRUCTURAL APPROACH SLAB

(A01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO VERTICAL SECTION OF PIPE UNDERDRAIN.

(A02) STRUCTURAL APPROACH SLAB AND STRUCTURAL APPROACH SLAB PARAPETS SHALL BE "HPC MASONRY STRUCTURES".

(A03) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(A04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH AND WIDTH OF THE SUBGRADE.

△ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

STRUCTURAL APPROACH SLAB DETAILS - S. ABUT.

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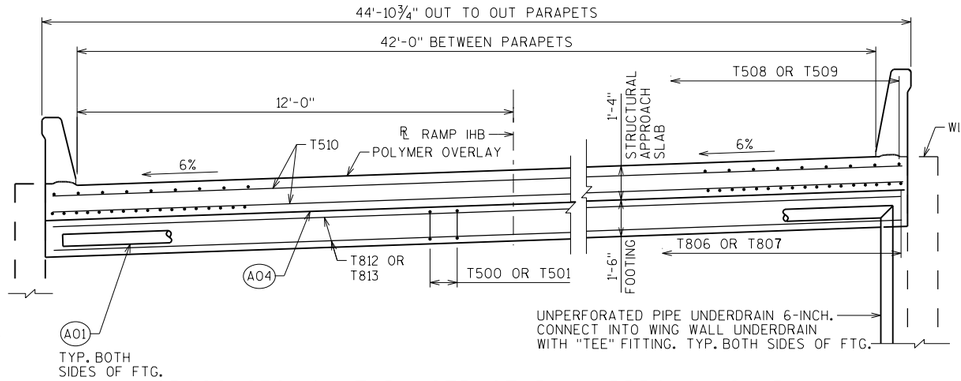
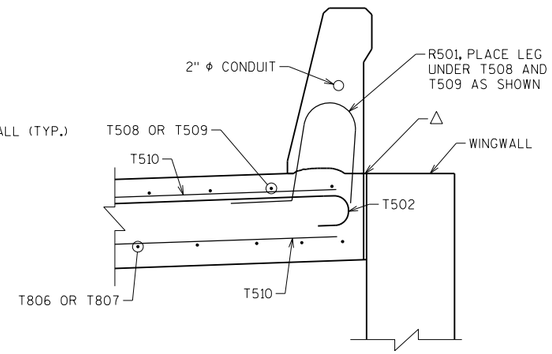


CROSS SECTION THRU STRUCTURAL APPROACH SLAB

(LOOKING UPSTATION)
WEST STRUCTURAL APPROACH SLAB SHOWN

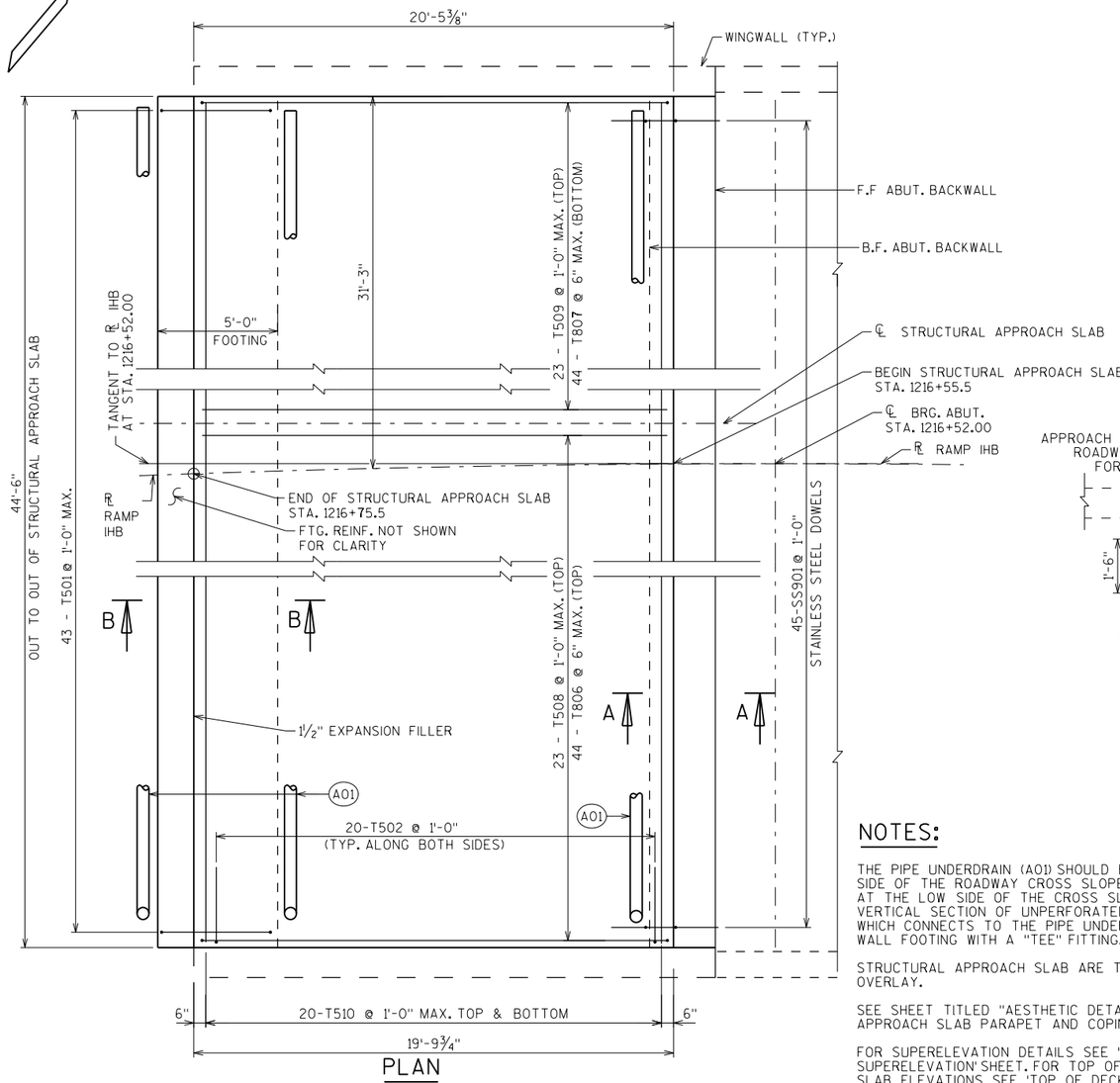


DETAIL AT WALL

'32SS' PARAPET SHOWN, '42SS' PARAPET SIMILAR.

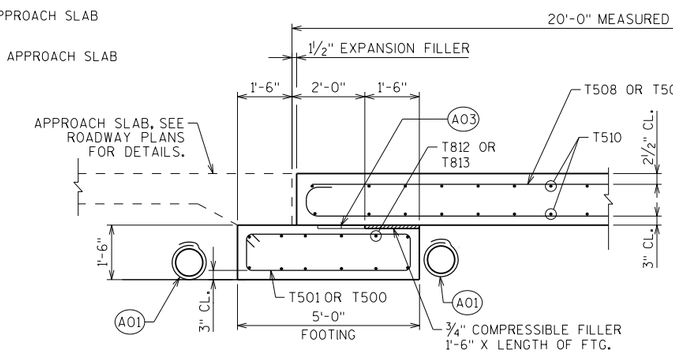
BILL OF BARS

FOR BILL OF BARS SEE SHEET TITLED "STRUCTURAL APPROACH SLAB DETAILS - S. ABUT."

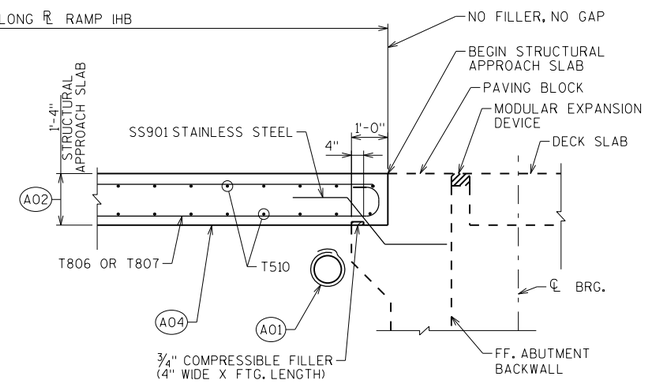


PLAN

WEST STRUCTURAL APPROACH SLAB SHOWN, ℄ RAMP IHB ON TANGENT AT W. ABUT.



SECTION B-B



SECTION A-A

TRANSVERSE SECTION THRU STRUCTURAL APPROACH SLAB

NOTES:

THE PIPE UNDERDRAIN (A01) SHOULD BE CAPPED AT THE HIGH SIDE OF THE ROADWAY CROSS SLOPE.
AT THE LOW SIDE OF THE CROSS SLOPE, PROVIDE A VERTICAL SECTION OF UNPERFORATED PIPE UNDERDRAIN WHICH CONNECTS TO THE PIPE UNDERDRAIN AT THE WING WALL FOOTING WITH A "TEE" FITTING.

STRUCTURAL APPROACH SLAB ARE TO RECIEVE POLYMER OVERLAY.

SEE SHEET TITLED "AESTHETIC DETAILS" FOR STRUCTURAL APPROACH SLAB PARAPET AND COPING STAIN COLOR.

FOR SUPERELEVATION DETAILS SEE 'ALIGNMENT AND SUPERELEVATION' SHEET. FOR TOP OF STRUCTURAL APPROACH SLAB ELEVATIONS SEE 'TOP OF DECK ELEVATIONS-1' SHEET.

(A01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO VERTICAL SECTION OF PIPE UNDERDRAIN.

(A02) STRUCTURAL APPROACH SLAB AND STRUCTURAL APPROACH SLAB PAPAPETS SHALL BE "HPC MASONRY STRUCTURES".

(A03) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(A04) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHELENE SHEETS OVER THE ENTIRE LENGTH AND WIDTH OF THE SUBGRADE.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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STRUCTURAL APPROACH SLAB DETAILS - W. ABUT.

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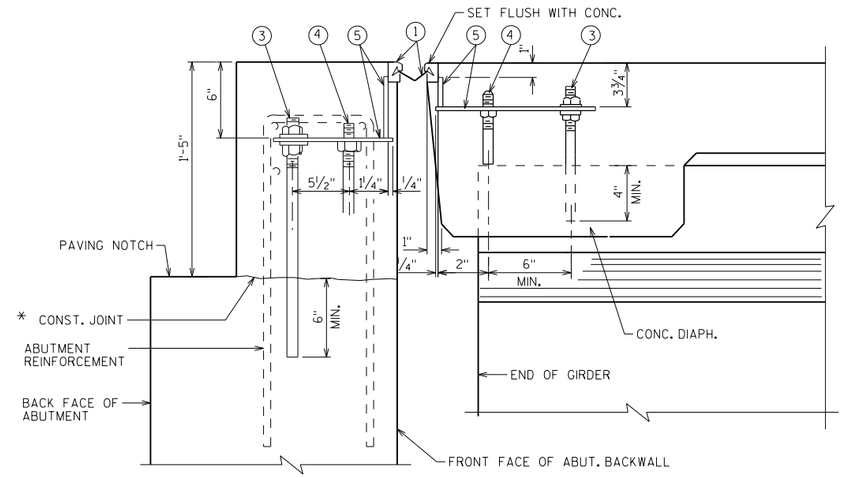
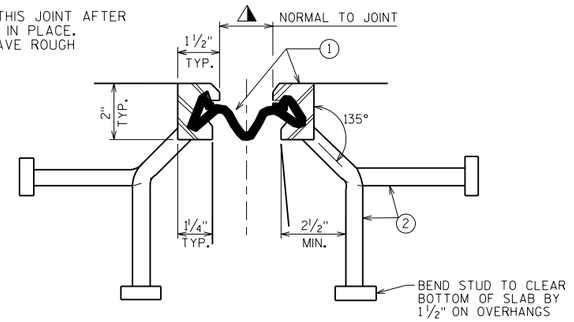


PART SECTION THRU JOINT AT SOUTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH



SECTION THRU JOINT

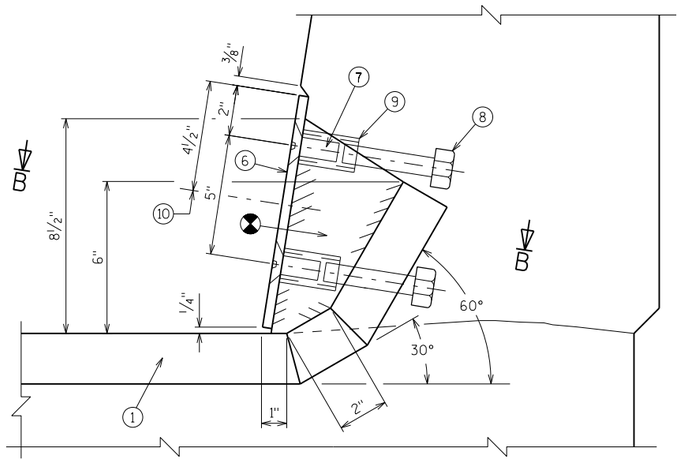
EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS, MEDIANS & SIDEWALKS

TEMP. TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. 3⁄16" OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (+5° F TO +85° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.



SECTION A-A

LEGEND

▲ (1) NEOPRENE STRIP SEAL (4 INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1¾" WHEN EXPANSION LENGTH < 230'-0". WHEN EXPANSION LENGTH > 230'-0", PREPARE A TEMPERATURE TABLE SHOWING JOINT OPENINGS FROM 5° F TO 85° F, IN 10° F INCREMENTS. ACCOUNT FOR PRESTRESSED GIRDER SHRINKAGE DUE TO CREEP WHEN DETERMINING THIS TABLE. JOINT OPENINGS GIVEN NORMAL TO JOINT.

(2) STUDS 5⁄8" ϕ X 6 3⁄8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH 5⁄8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.

(3) ¾" ϕ THREADED ROD WITH 2 NUTS AND WASHERS. FOR PRESTRESSED GIRDERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDERS. FOR STEEL GIRDERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.

(6) GALVANIZED PLATE 3⁄8" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

(7) ¾" ϕ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1⁄16" BELOW PLATE SURFACE.

(8) ¾" ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) ¾" ϕ X 2¼" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

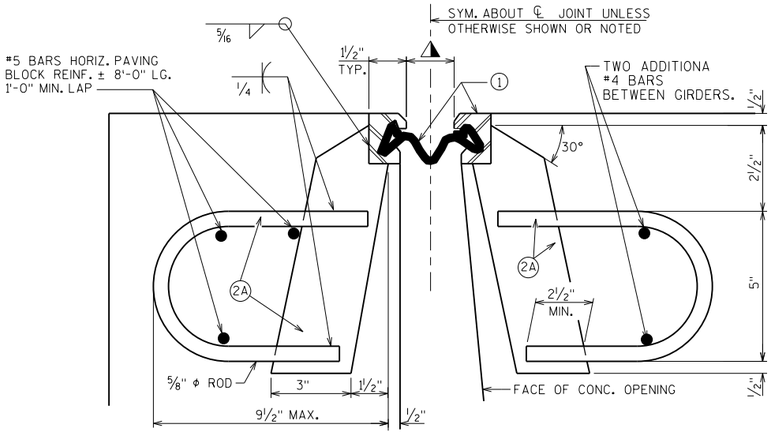
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PROTECTION ANGLE, PLATES AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

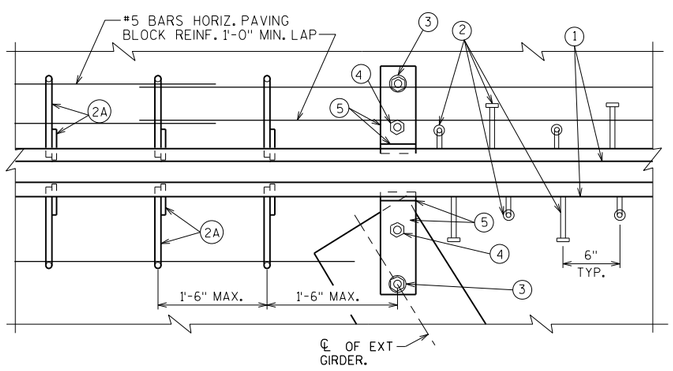
ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-678".

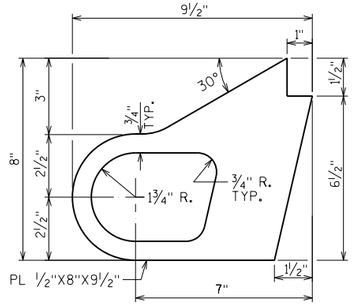


SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN



ALTERNATE STRIP SEAL ANCHOR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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STRIP SEAL EXP. JOINT DETAILS AT SOUTH ABUT.

SHEET 103 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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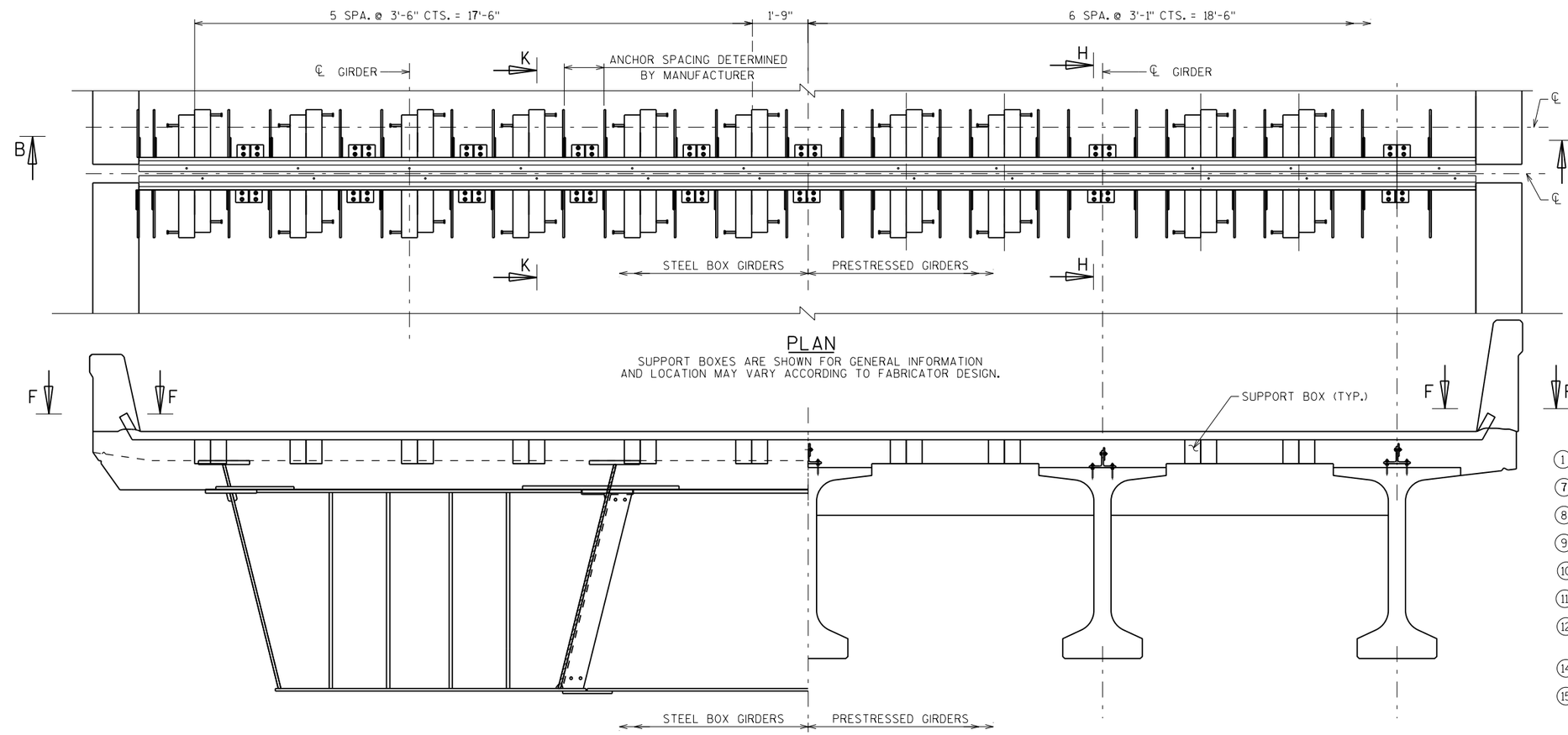


PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.

VIEW B-B

(NOT TO SCALE)

TEMPERATURE TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. MOVEMENT PER 10° F:
   PIER 5 = 9/16"
   PIER 10 - PRESTRESSED GIRDER: 1/4"
   PIER 10 - STEEL BOX GIRDER: 3/16"
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE:
   PRESTRESSED GIRDER: FROM (+5° F TO +85° F)
   STEEL BOX GIRDER: FROM (-30° F TO +120° F)

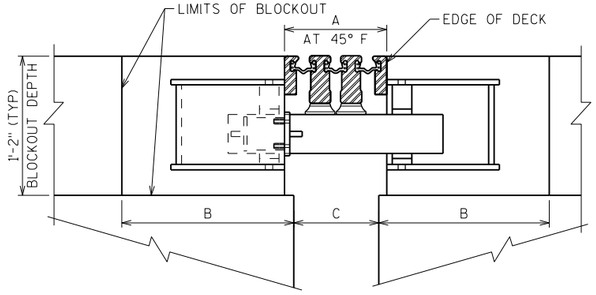
A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

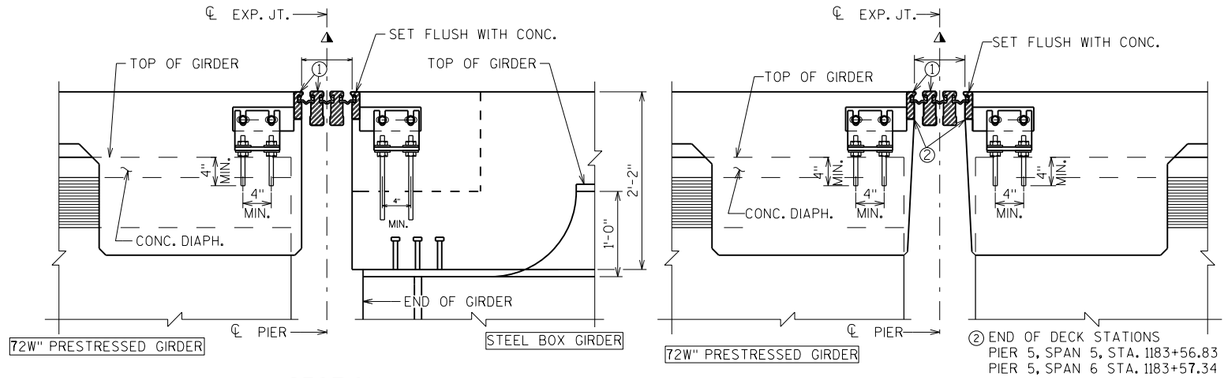
(1) MODULAR EXPANSION DEVICE.
(7) 3/4" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.
(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.
(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS. RECESS 1/16" BELOW PLATE SURFACE.
(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

EXPANSION JT. BLOCK OUT DIMENSIONS

		PIER 5	PIER 10
CELLS		3	3
DIM.	A	1'-0 1/4"	1'-0 1/4"
	B	1'-6"	1'-6"
	C MIN	5"	5"
	C MAX	9 5/8"	9 5/8"



TYPICAL SECTION THRU SUPPORT BOX

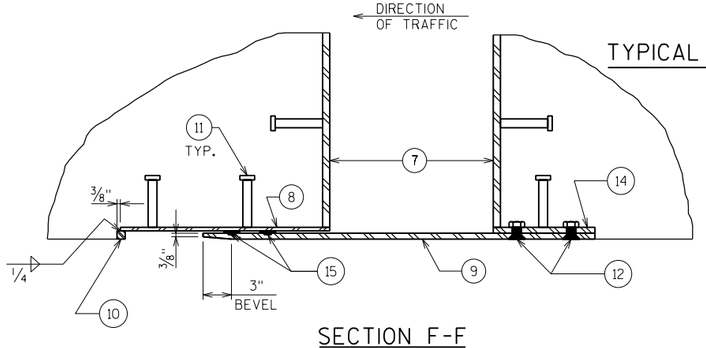


SECTION K-K THRU JOINT AT PIER 10

NORMAL TO SUBSTRUCTURE

SECTION H-H THRU JOINT AT PIER 5

NORMAL TO SUBSTRUCTURE



SECTION F-F

(NOT TO SCALE)

NOTES

FOR NOTES SEE SHEET TITLED "MODULAR EXPANSION JOINT WEST ABUTMENT".

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT PIERS 5 & 10

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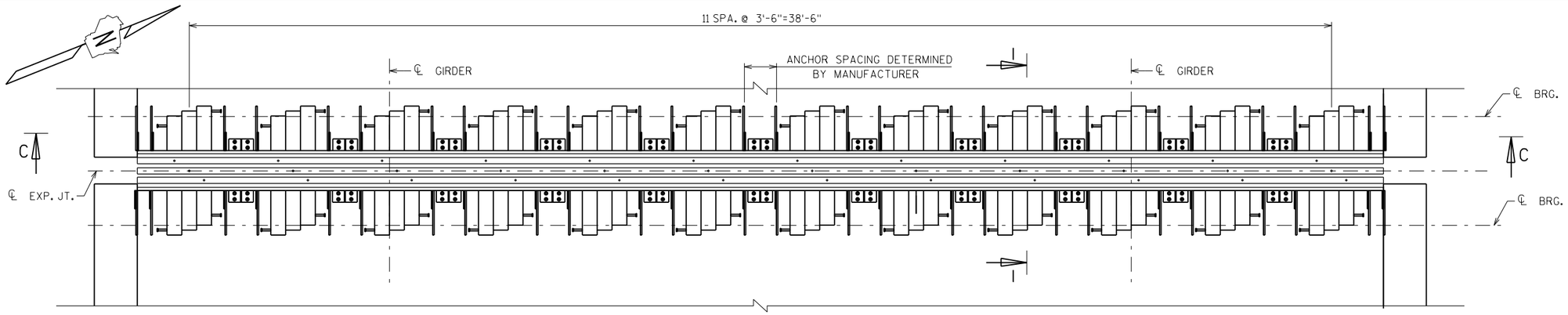
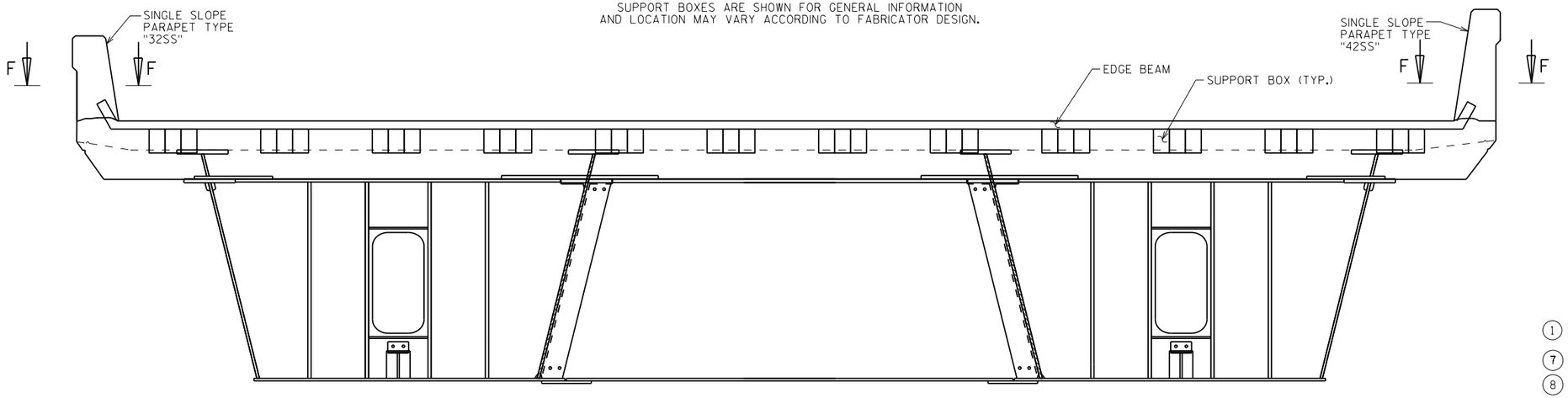


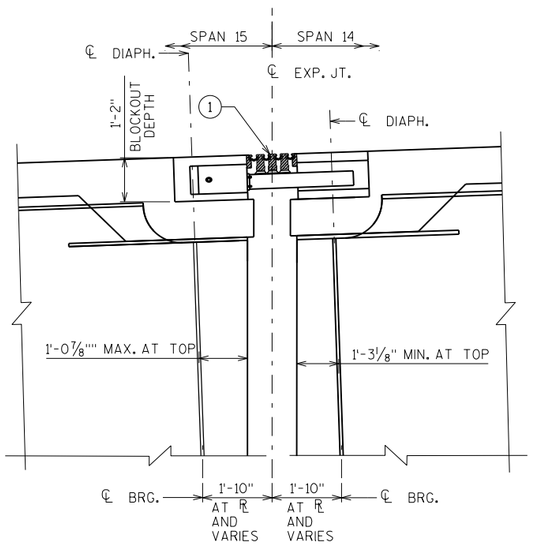
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



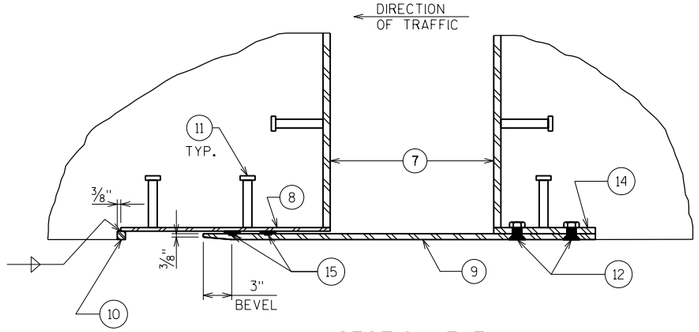
VIEW C-C

(NOT TO SCALE)



SECTION I-I

(SEE SECTION B-B, REINFORCING AT EXPANSION JOINT UNIT 3, 4 & 5 SHEET FOR FURTHER DETAIL)



SECTION F-F

(NOT TO SCALE)

TEMPERATURE TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. 5/8" OF MOVEMENT PER 10° F:
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.

(7) 3/4" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.

(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.

(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.

(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.

(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.

(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS. RECESS 1/16" BELOW PLATE SURFACE.

(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.

(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

FOR NOTES SEE SHEET TITLED "MODULAR EXPANSION JOINT WEST ABUTMENT".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT AT PIER 14

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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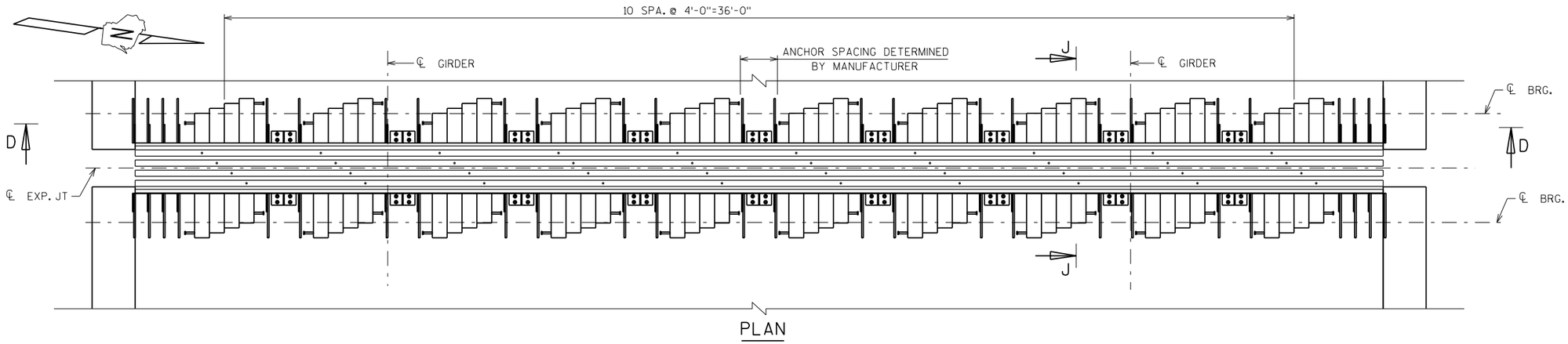
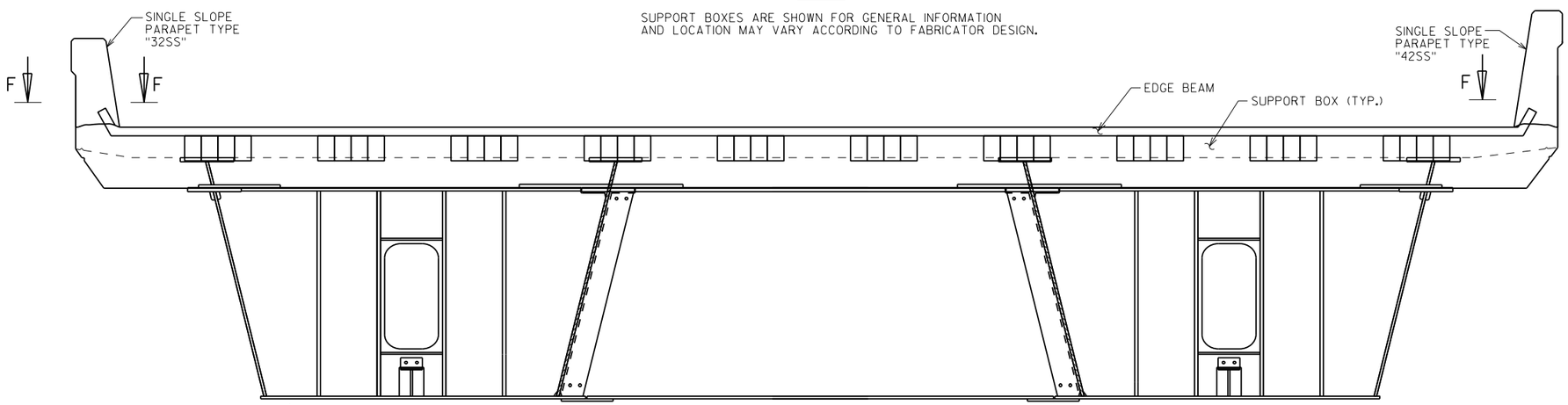


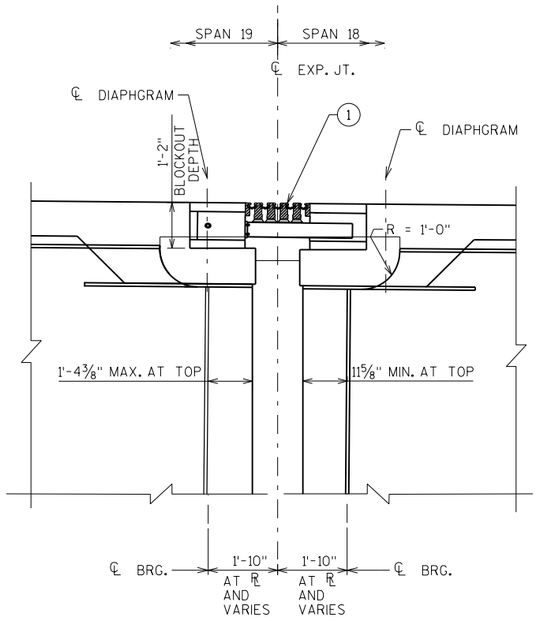
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



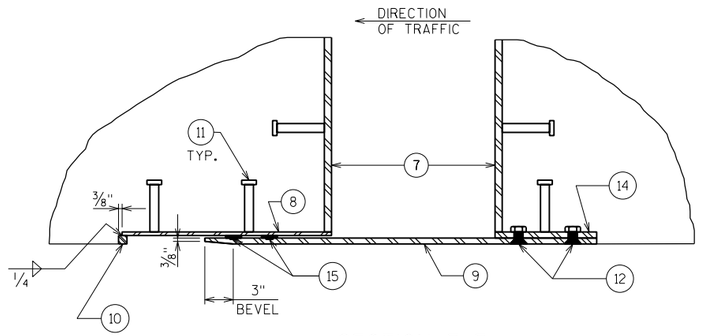
VIEW D-D

(NOT TO SCALE)



SECTION J-J

(SEE SECTION B-B SHEET 84 FOR FURTHER DETAIL)



SECTION F-F

(NOT TO SCALE)

TEMP. TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. 3/4" OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.

(7) 3/4" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.

(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.

(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.

(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.

(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.

(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS. RECESS 1/16" BELOW PLATE SURFACE.

(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.

(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

FOR NOTES SEE "EXPANSION JOINT SOUTH ABUTMENT" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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MODULAR EXPANSION JOINT PIER 18

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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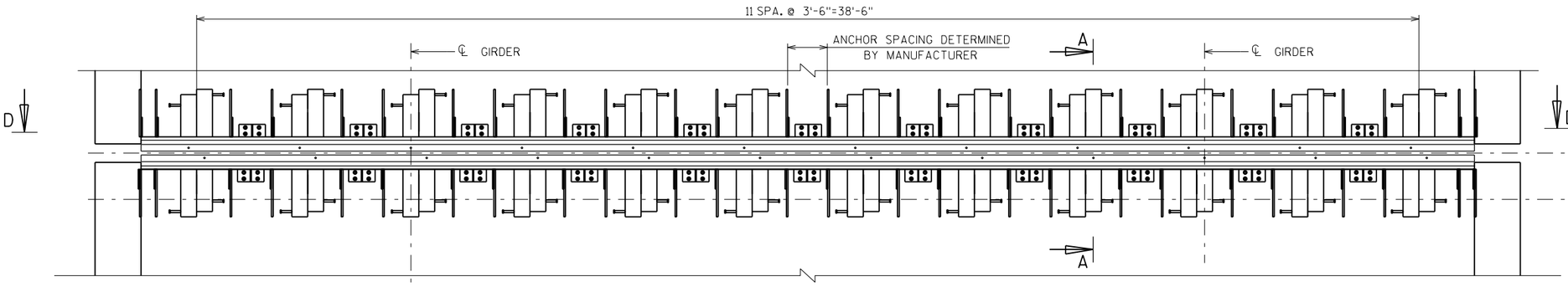
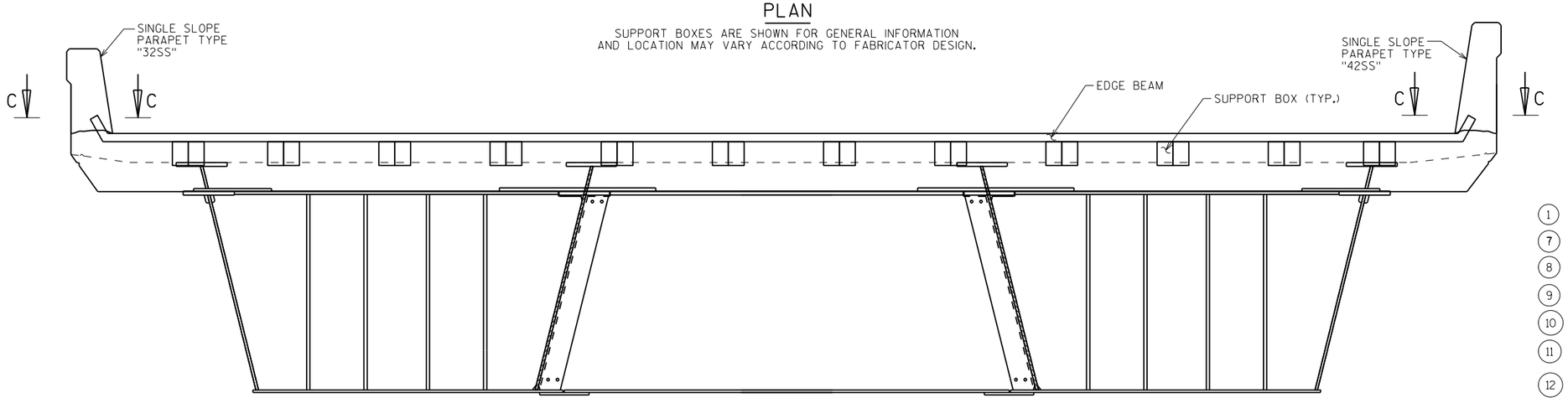


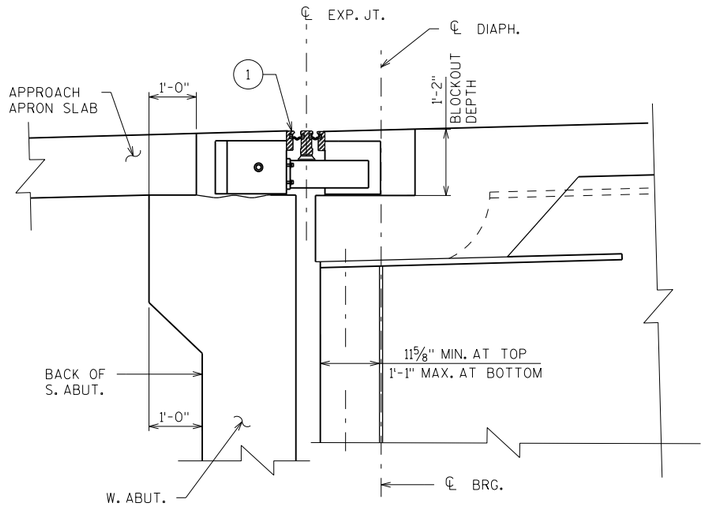
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



VIEW D-D

(NOT TO SCALE)



SECTION A-A

(SEE SECTION A-A, REINFORCING AT EXPANSION JOINT UNIT 3, 4 & 5 SHEET FOR FURTHER DETAIL)

NOTES

ALL DIMENSIONS SHOWN ARE AT MEDIAN TEMP OF 45° F.

FABRICATOR WILL DESIGN EACH JOINT DEPENDING ON THE CONDITIONS AND THE DESIGN CRITERIA USED BY THE SUPPLIER. FABRICATION DRAWINGS ARE SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE GLAND.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST, & SWEEP.

NO EXPANSION JOINT PROTRUSIONS PERMITTED ABOVE ROADWAY SURFACE OR ON PARAPET ROADWAY FACE.

THE EXPANSION JOINT SEALS SHALL BE PLACED, BONDED, & SEALED AS RECOMMENDED BY THE MANUFACTURER. FORM WORK SHALL BE PLACED BETWEEN THE SUPPORT BOXES TO PREVENT CONCRETE INTRUSION INTO THE SUPPORT BOX. A TECHNICAL REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT DURING INSTALLATION. PRIOR TO SETTING THE JOINT ASSEMBLY INTO POSITION, THE PROJECT ENGINEER SHALL DETERMINE THE PROPER JOINT OPENING.

EXPANSION JOINT EXTRUSIONS SHALL BE FABRICATED TO CONFORM TO ROADWAY CROWN & GRADE. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST BARS, PLATES, WT-SECTION, ANCHORAGE LOOP, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THIS ASSEMBLY SHALL BE HOT DIPPED GALVANIZED.

COST OF FURNISHING & PLACING OF THE EXPANSION JOINTS COMPLETE WITH PARAPET PLATES SHALL BE PAID FOR UNDER THE PRICE BID FOR "MODULAR EXPANSION DEVICE STRUCTURE B-5-678".

BAR STEEL REINF. IN DECK AND CONC. DIAPHRAGM SHALL BE RE SPACED AS NECESSARY TO ALLOW PLACEMENT OF JOINT ASSEMBLY.

SEE SHEET TITLED "MODULAR EXPANSION JOINT COVER PLATES" FOR DETAILS AT THE PARAPETS.

SEE SHEET TITLED "MODULAR EXPANSION JOINT DETAILS" FOR MODULAR JOINT DETAILS.

TEMP. TABLE

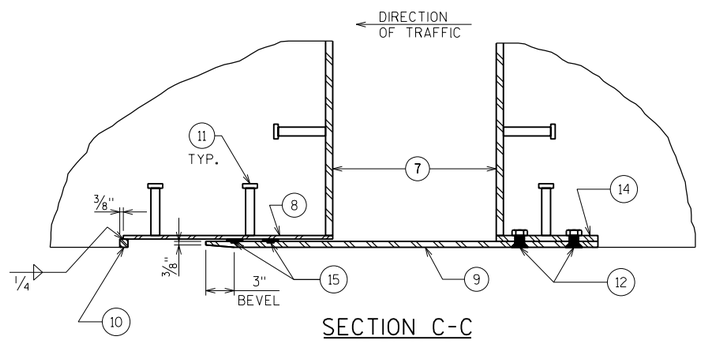
TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. ½" OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.
(7) ¾" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.
(8) INSIDE PLATE. FABRICATE FROM ⅜" PLATE.
(9) OUTSIDE PLATE. FABRICATE FROM ⅝" PLATE.
(10) ⅞" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
(11) ¾" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.
(12) ¾" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS. RECESS 1/16" BELOW PLATE SURFACE.
(14) INSIDE PLATE. FABRICATE FROM ⅝" PLATE.
(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.



SECTION C-C

(NOT TO SCALE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT WEST ABUTMENT

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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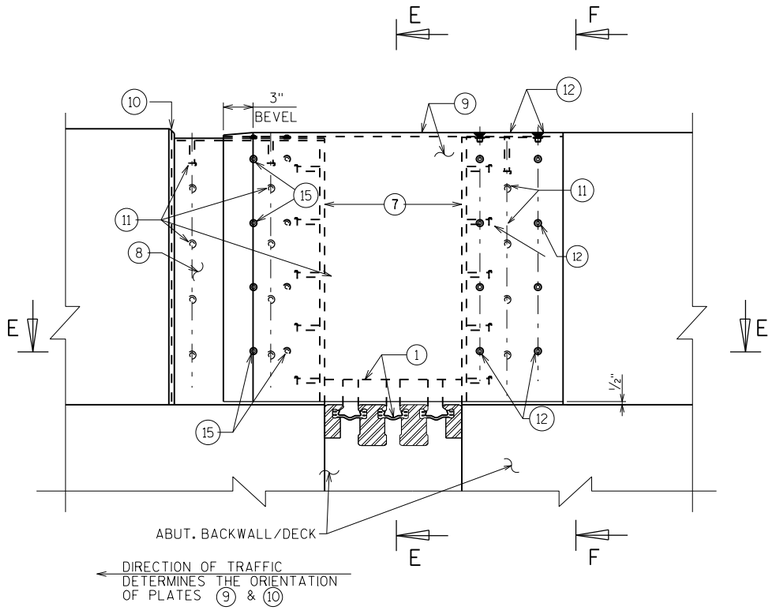
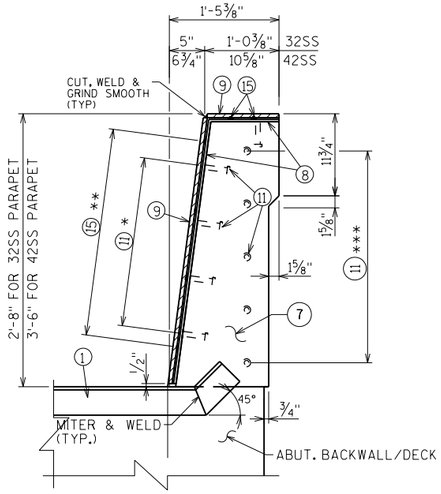
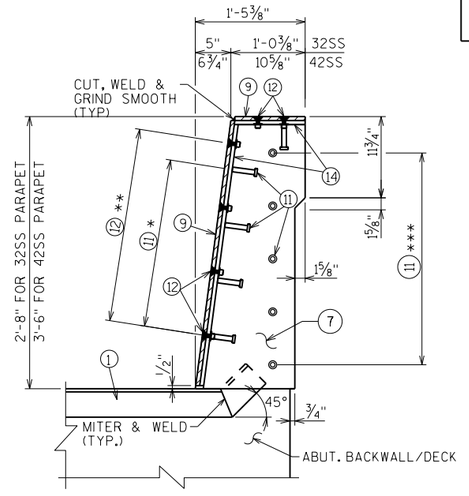


PARAPET ELEVATION LF/HF



SECTION E-E

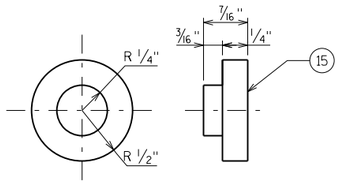


SECTION F-F

* 3 EQ. SPA. (32SS)
5 EQ. SPA. (42SS)

** 3 SPA. (32SS)
5 SPA. (42SS)

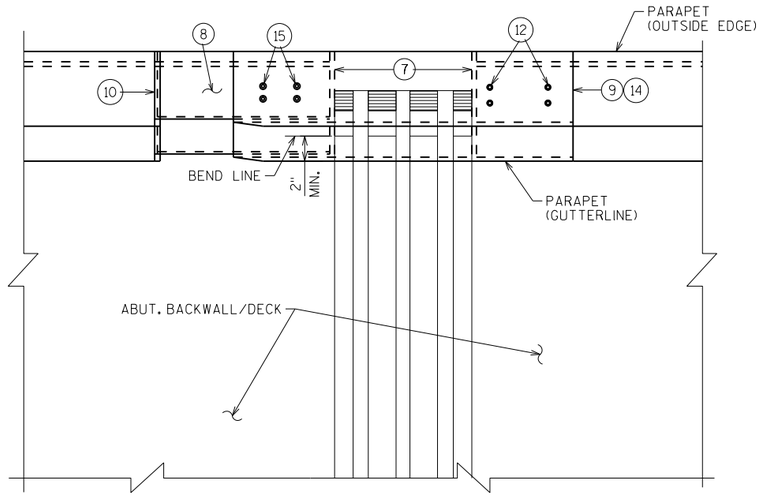
*** 4 SPA. (32SS)
6 SPA. (42SS)



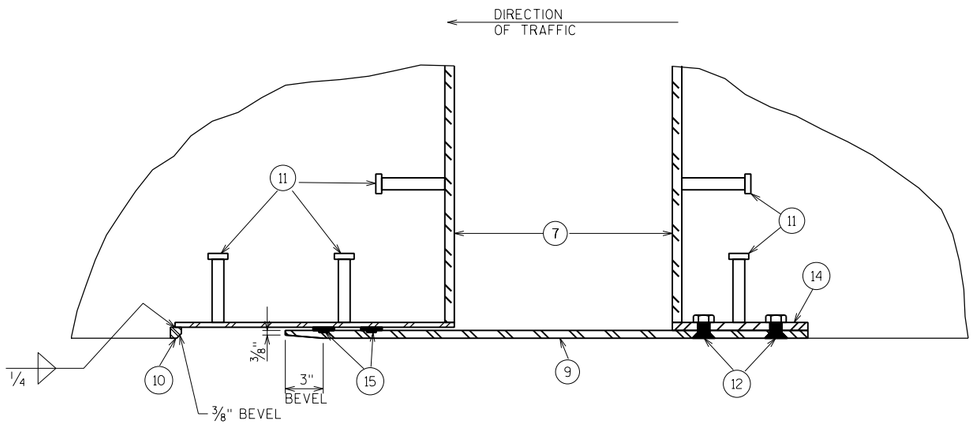
ADIPRENE BUTTON DETAIL

LEGEND

(1) MODULAR EXPANSION JOINT DEVICE.
(7) 3/4" BULKHEAD PLATE WELD TO NO. 1, NO. 8, AND NO. 14.
(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO.7, AND NO. 14.
(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS, RECESS 1/16" BELOW PLATE SURFACE.
(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.



PLAN OF SINGLE SLOPE PARAPET



SECTION H-H

(NOT TO SCALE)

NOTES

DRAWINGS ARE NOT TO SCALE.

SEE 'TYPICAL DECK SECTION' DRAWING FOR PARAPET DIMENSIONS.

COVER PLATES SHALL BE GALVINIZED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT COVER PLATES

SHEET 108 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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DATE:5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74

LEGEND

(1) MODULAR EXPANSION JOINT DEVICES, CELLS.

(2) 1/2" PLATE, ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.

(3) WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.

(4) 3/4" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)

(5) 3/4" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)

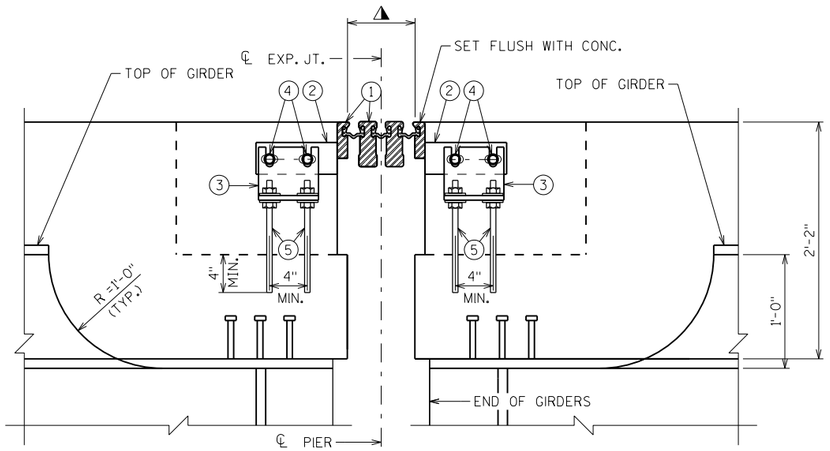
(5A) 3/4" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. FIELD DRILL HOLES IN GIRDER TOP FLANGE. (A325 GALV.)

(6) SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM 1/2" PLATES.

(13) 1/2" PLATE WITH 5/8" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

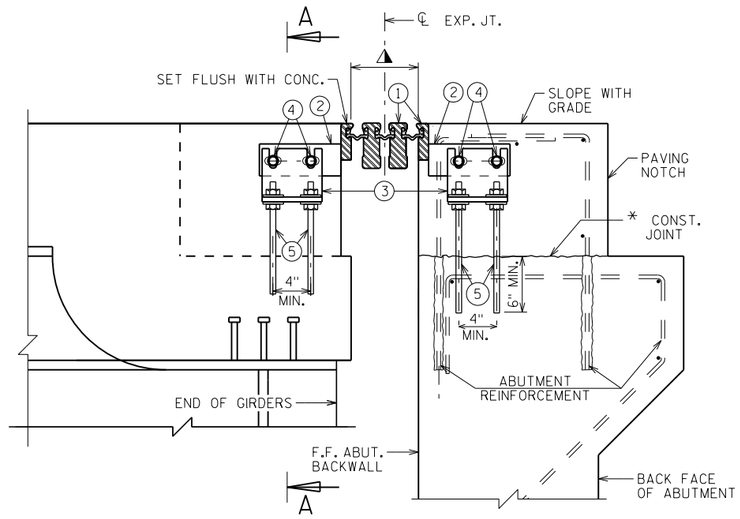
* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONC. IS IN PLACE. STRIKE OFF & LEAVE ROUGH.

◭ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN (1).



SECTION THRU JOINT @ PIER

NORMAL TO ℄ SUBSTRUCTURE

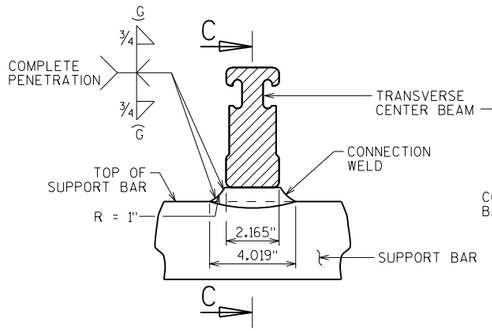


SECTION THRU JOINT @ W. ABUTMENT

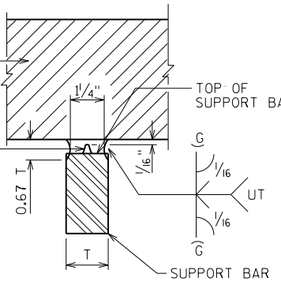
NORMAL TO ℄ SUBSTRUCTURE

SECTION THRU JOINT @ PIERS 14 & 18

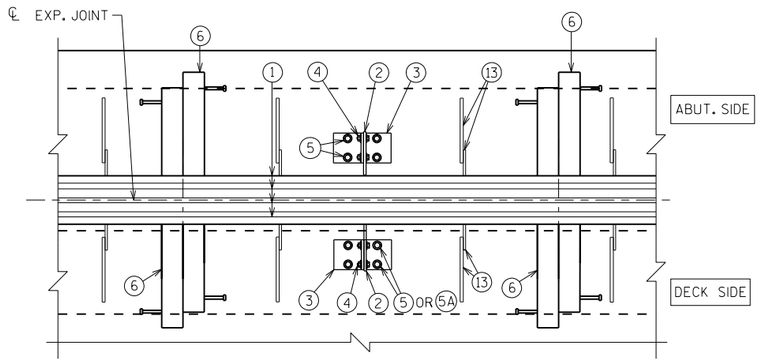
NORMAL TO ℄ SUBSTRUCTURE



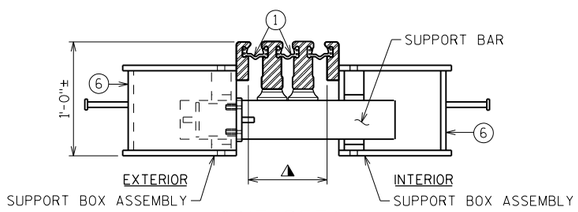
MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION



SECTION C-C

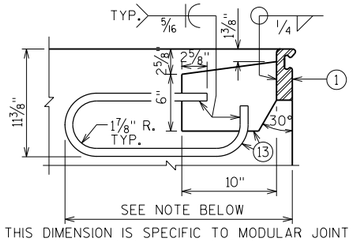


PART PLAN



JOINT DETAIL

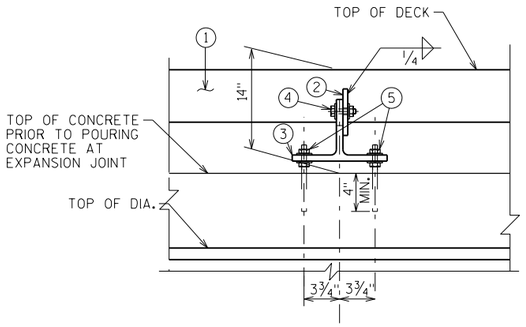
AT SUPPORT BAR & SUPPORT BOX ASSEMBLY



THIS DIMENSION IS SPECIFIC TO MODULAR JOINT SUPPLIED BY THE MANUFACTURER

ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN PAVING BLOCK @ ABUT. & IN DECK @ CONC. DIAPH.



SECTION A-A

GENERAL NOTES

FOR NOTES SEE SHEET "MODULAR EXPANSION JOINT WEST ABUTMENT"

MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY KZ | PLANS CK'D. NPP

MODULAR EXPANSION JOINT DETAILS-1

SHEET 109 OF 143
792

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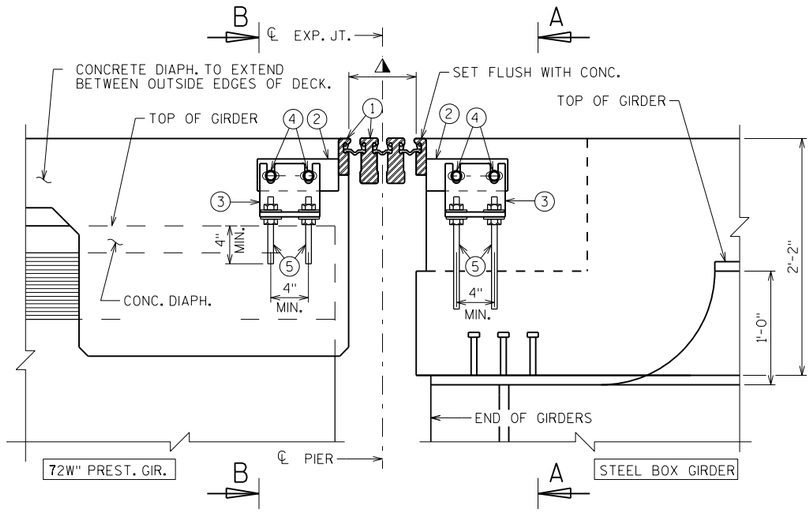
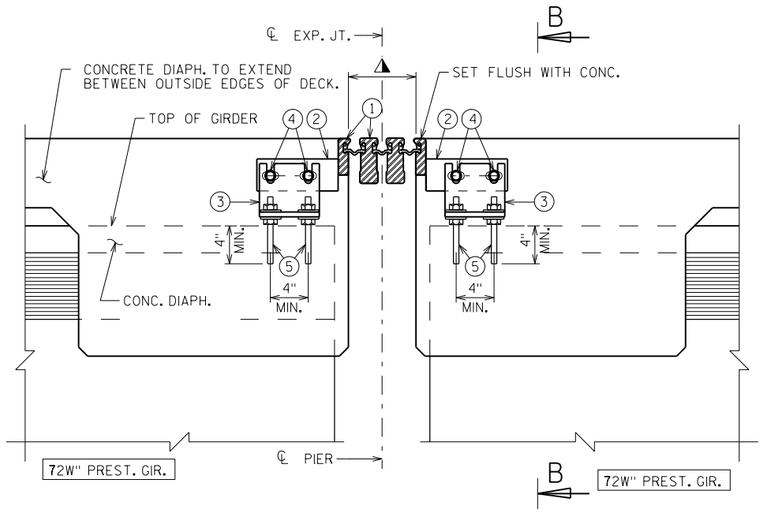
DATE: 5/31/2013

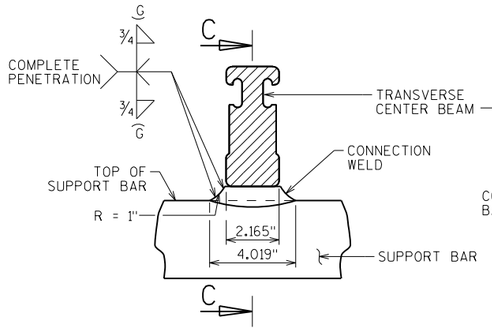
I.D.

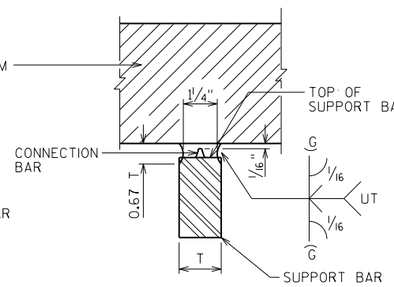




SECTION THRU JOINT @ PIER 10
NORMAL TO ℄ SUBSTRUCTURE

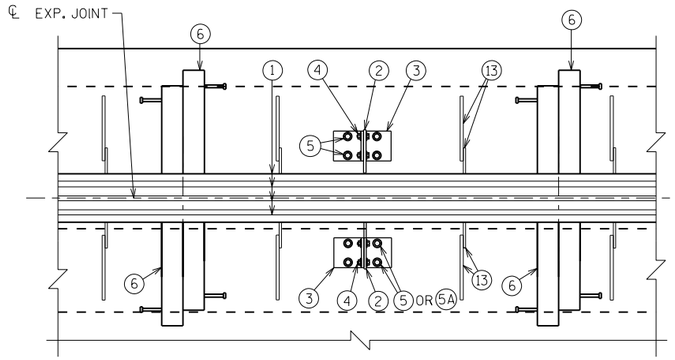
SECTION THRU JOINT @ PIER 5
NORMAL TO ℄ SUBSTRUCTURE



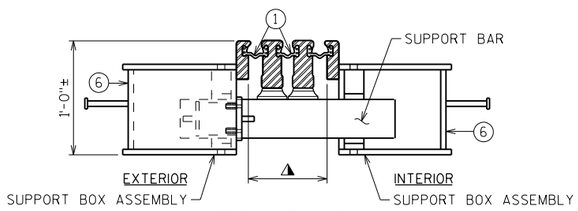


MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION

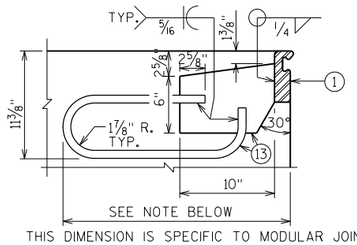
SECTION C-C



PART PLAN



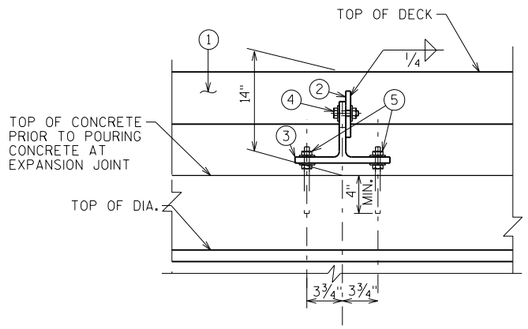
JOINT DETAIL
AT SUPPORT BAR & SUPPORT BOX ASSEMBLY



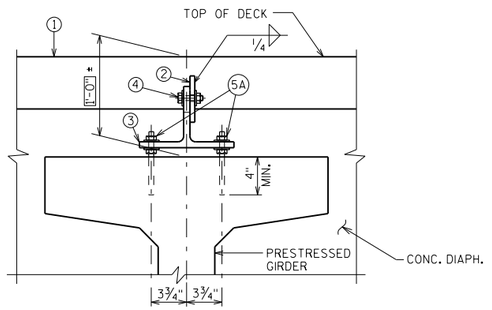
THIS DIMENSION IS SPECIFIC TO MODULAR JOINT SUPPLIED BY THE MANUFACTURER

ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN PAVING BLOCK @ ABUT. & IN DECK @ CONC. DIAPH.



SECTION A-A



SECTION B-B

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

1133-11-74

LEGEND

(1) MODULAR EXPANSION JOINT DEVICES, CELLS.

(2) 1/2" PLATE, ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.

(3) WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.

(4) 3/4" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)

(5) 3/4" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)

(5A) 3/4" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. FIELD DRILL HOLES IN GIRDER TOP FLANGE. (A325 GALV.)

(6) SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM 1/2" PLATES.

(13) 1/2" PLATE WITH 5/8" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONC. IS IN PLACE. STRIKE OFF & LEAVE ROUGH.

△ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN (1).

GENERAL NOTES

FOR NOTES SEE SHEET "MODULAR EXPANSION JOINT WEST ABUTMENT"

MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.

JOINT MANUFACTURER SHALL INFORM AND PROVIDE NECESSARY DETAILS TO THE PRESTRESSED GIRDER FABRICATOR, WHEN FORM-OUT OF THE TOP FLANGE IS REQUIRED TO ALLOW PLACEMENT OF SUPPORT BOX ASSEMBLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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MODULAR EXPANSION JOINT DETAILS-2

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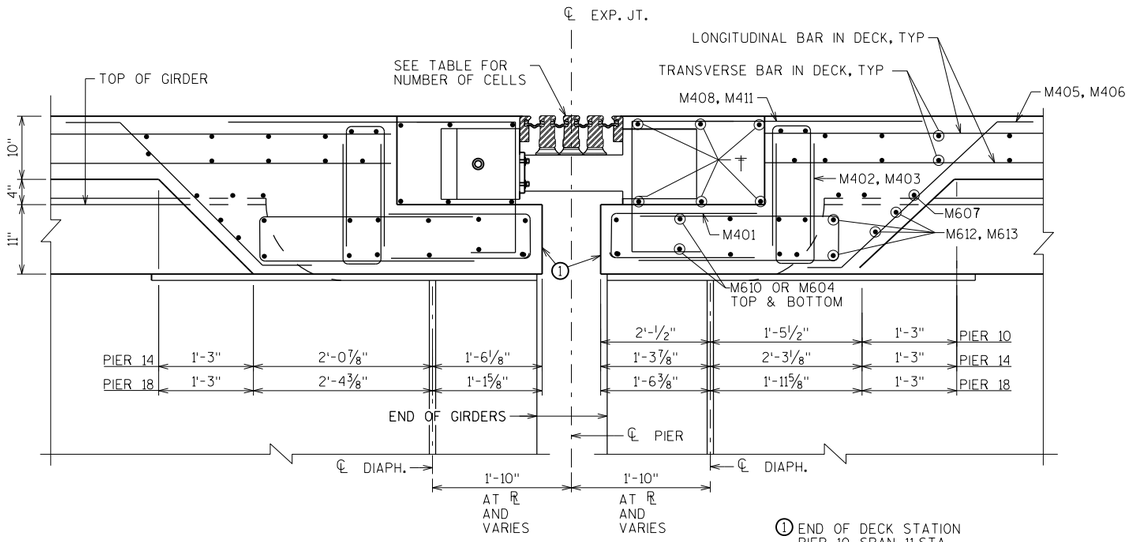
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

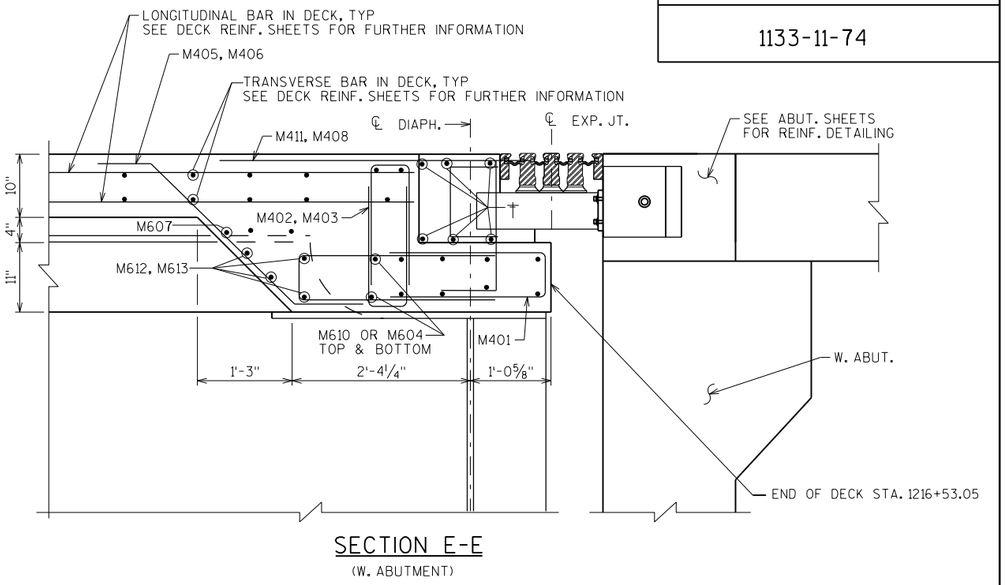
1133-11-74



SECTION B-B

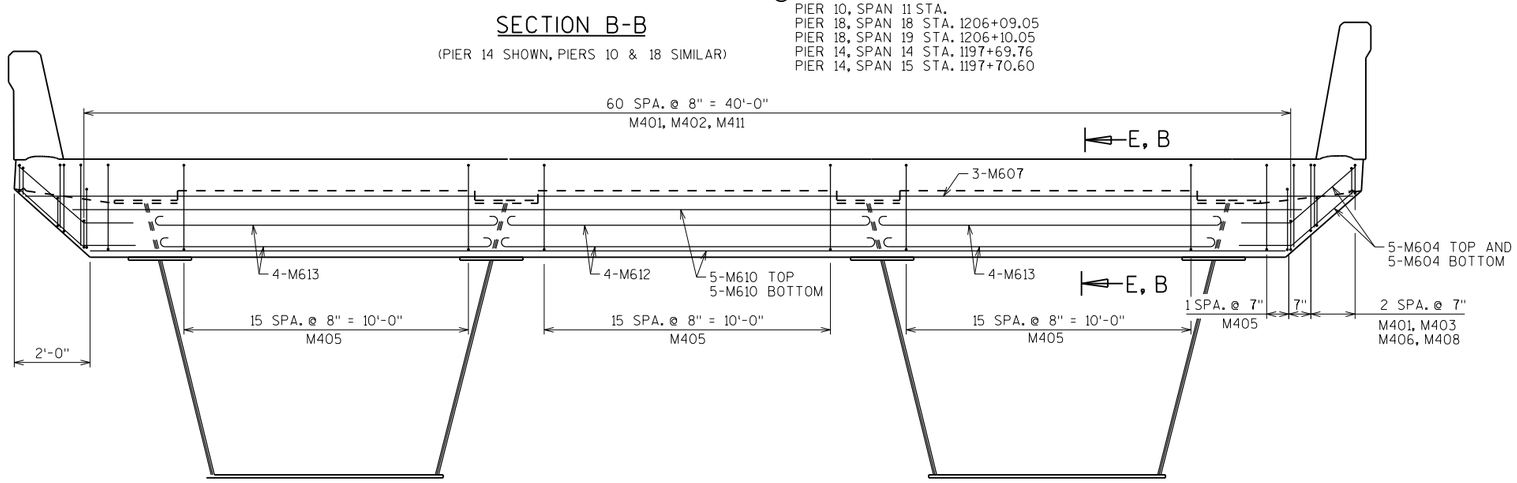
(PIER 14 SHOWN, PIERS 10 & 18 SIMILAR)

① END OF DECK STATION
PIER 10, SPAN 11 STA.
PIER 18, SPAN 18 STA. 1206+09.05
PIER 18, SPAN 19 STA. 1206+10.05
PIER 14, SPAN 14 STA. 1197+69.76
PIER 14, SPAN 15 STA. 1197+70.60



SECTION E-E

(W. ABUTMENT)

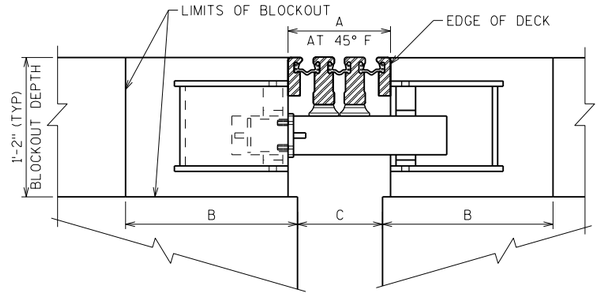


SECTION THRU DECK AT END DIAPHRAGMS

(DECK REINFORCEMENT NOT SHOWN FOR CLARITY)
LOOKING UPSTATION

EXPANSION JT. BLOCK OUT DIMENSIONS

		PIER 10	PIER 14	PIER 18	W. ABUT.
CELLS		3	4	5	4
DIM.	A	1'-0¼"	1'-4⅜"	1'-8⅜"	1'-4⅜"
	B	1'-6"	1'-10"	2'-1"	1'-10"
	C MIN	5"	6½"	8"	6½"
	C MAX	9⅝"	1'-1⅞"	1'-5⅞"	1'-1⅞"



TYPICAL SECTION THRU SUPPORT BOX

NOTES:

1. SEE STEEL FABRICATION PLANS FOR END DIAPHRAGM DETAILS.
2. SEE SHEETS TITLED "MODULAR EXPANSION JOINT" FOR PLAN LAYOUT OF EXPANSION DEVICE.
3. ALL SIZE, SPACING AND DETAIL INFORMATION SHALL BE TAKEN ONLY FROM THE APPROVED EXPANSION JOINT SHOP DRAWINGS.
4. SPACE REINFORCEMENT TO MISS LOOP ANCHORS AND SUPPORT BOX ASSEMBLIES.
5. SEE DECK REINFORCEMENT SHEETS FOR SECTION A-A, B-B & E-E LOCATIONS.
6. SEE SHEET TITLE "SUPERSTRUCTURE BILL OF BARS" FOR REINFORCEMENT DETAILS.

LEGEND

† 72- M509 BARS, 8'-0" LONG WITH 1'-0" MIN. LAP. CUT IN FIELD TO CLEAR JOINT SUPPORT AS REQ'D.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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REINFORCING AT EXPANSION JOINT UNITS 3, 4 & 5

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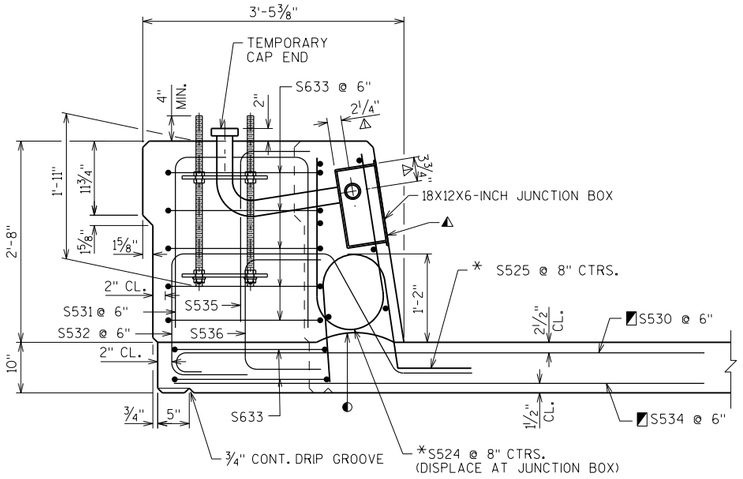
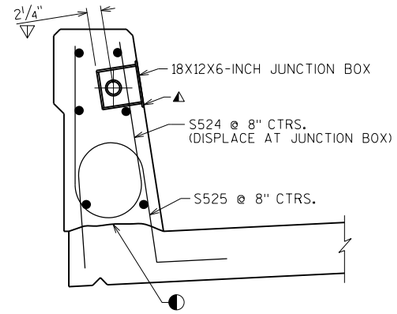
DATE: 5/31/2013
I.D.

STATE PROJECT NUMBER

1133-11-74



SECTION A-A



SECTION THRU PARAPET

SHOWING 18X12X6-INCH JUNCTION BOX (SINGLE CONDUIT APPLICATION ONLY)

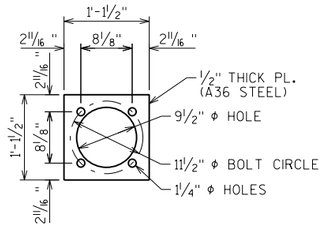


PLATE DETAIL FOR 11 1/2" ϕ BOLT CIRCLE

(16 REQ'D. FOR LIGHT STANDARDS)

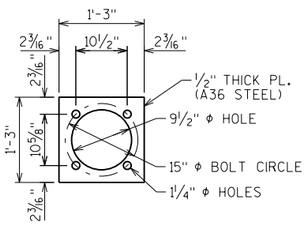
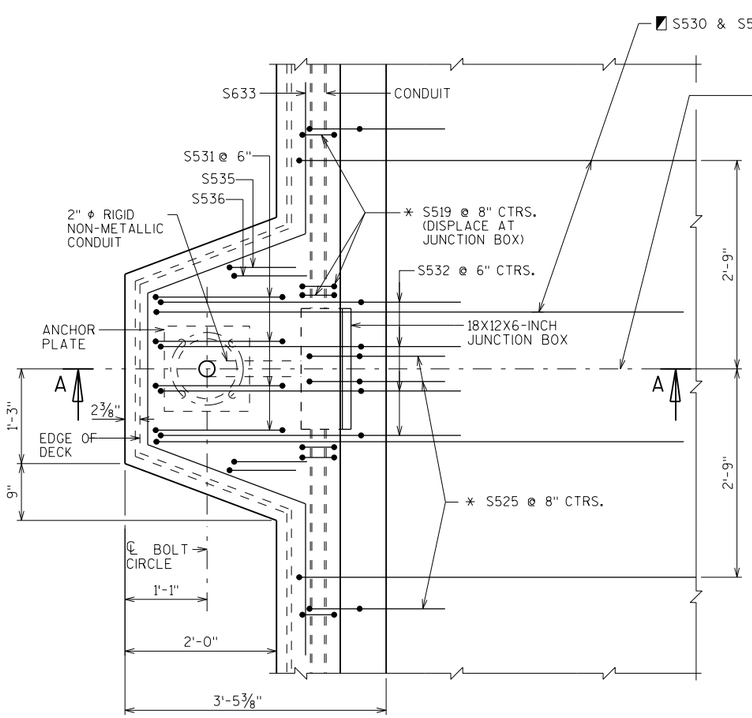
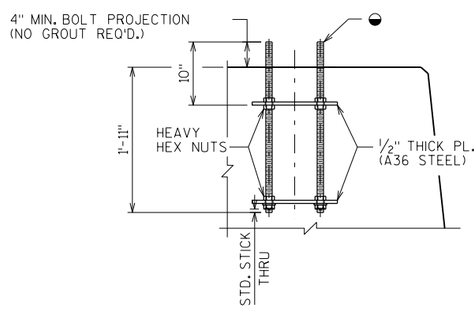


PLATE DETAIL FOR 15" ϕ BOLT CIRCLE

(6 REQ'D. FOR LIGHT STANDARDS)



PLAN AT LIGHT STANDARD

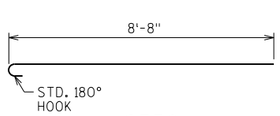


ANCHORAGE DETAIL

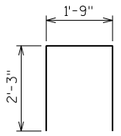
(22 REQ'D.)

BAR MARK	NO. REQ'D	LENGTH	WEIGHT (LB)	BENT	LOCATION
S530	264	8'-11"	2,454	X	DECK TRANSVERSE AT LIGHT STD.
S531	88	6'-0"	551	X	PARAPET VERT. AT LIGHT STD.
S532	88	7'-0"	643	X	PARAPET VERT. AT LIGHT STD.
S633	154	10'-0"	2,314	X	PARAPET HORZ. AT LIGHT STD.
S534	264	8'-4"	2,294		DECK TRANSVERSE AT LIGHT STD.
S535	44	3'-2"	145	X	PARAPET VERT. AT LIGHT STD.
S536	44	3'-5"	157	X	PARAPET VERT. AT LIGHT STD.

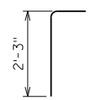
ALL BARS ARE EPOXY COATED.



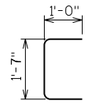
S530



S531



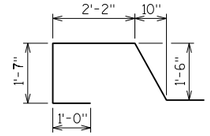
S535



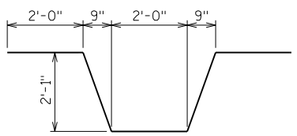
S536

LIGHT POLE TABLE

℄ LIGHT POLE STATIONS	ANCHOR BOLT CIRCLE DIA.
STA 1177+72.28	15"
STA 1180+07.28	15"
STA 1182+42.28	15"
STA 1184+77.28	15"
STA 1187+12.28	15"
STA 1189+22.28	15"
STA 1191+07.10	11.5"
STA 1192+71.75	11.5"
STA 1194+36.40	11.5"
STA 1196+01.04	11.5"
STA 1197+65.69	11.5"
STA 1199+30.34	11.5"
STA 1200+94.99	11.5"
STA 1202+59.63	11.5"
STA 1204+24.28	11.5"
STA 1205+88.93	11.5"
STA 1207+53.58	11.5"
STA 1209+18.22	11.5"
STA 1210+82.87	11.5"
STA 1212+47.52	11.5"
STA 1214+12.16	11.5"
STA 1215+76.81	11.5"



S532



S633

LEGEND

◐ CONSTR. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN DECK.

◒ 1"ϕ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, ENTIRE ANCHORAGE. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

✳ SEE SHEET, TITLED "DECK REINFORCEMENT UNITS 1, 2 AND 3" AND "TYPICAL DECK REINFORCEMENT SECTION" FOR ADDITIONAL BAR STEEL DETAILS

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX8DX-200/AXDX-200 AND BONDING JUMPER COMBINATION EXPANSION AND DEFLECTION FITTING. SEE SHT. TITLED "SINGLE SLOPE PARAPET 32SS" FOR LOCATION OF EXPANSION FITTINGS.

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

JUNCTION BOX REQUIREMENTS
PLACE A 18"X12"X6" JUNCTION BOX AT EACH LIGHT STANDARAD (CENTERED ON LIGHT ℄)

USE A JUNCTION BOX TO KEEP A CONTINUOUS RUN OF CONDUIT (PULL LENGTH) TO A MAXIMUM OF 190 FT. CONTACT THE BUREAU OF HIGHWAY OPERATIONS, ELECTRICAL SECTION WHEN PULL LENGTH IS >190' BUT <200'.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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LIGHT STANDARD

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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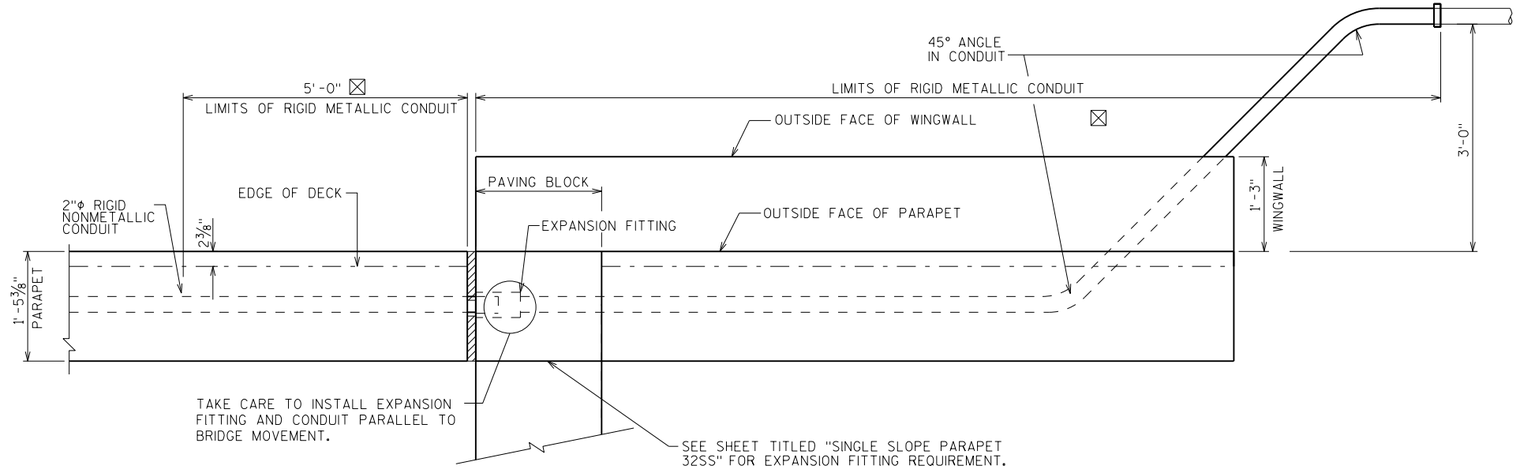
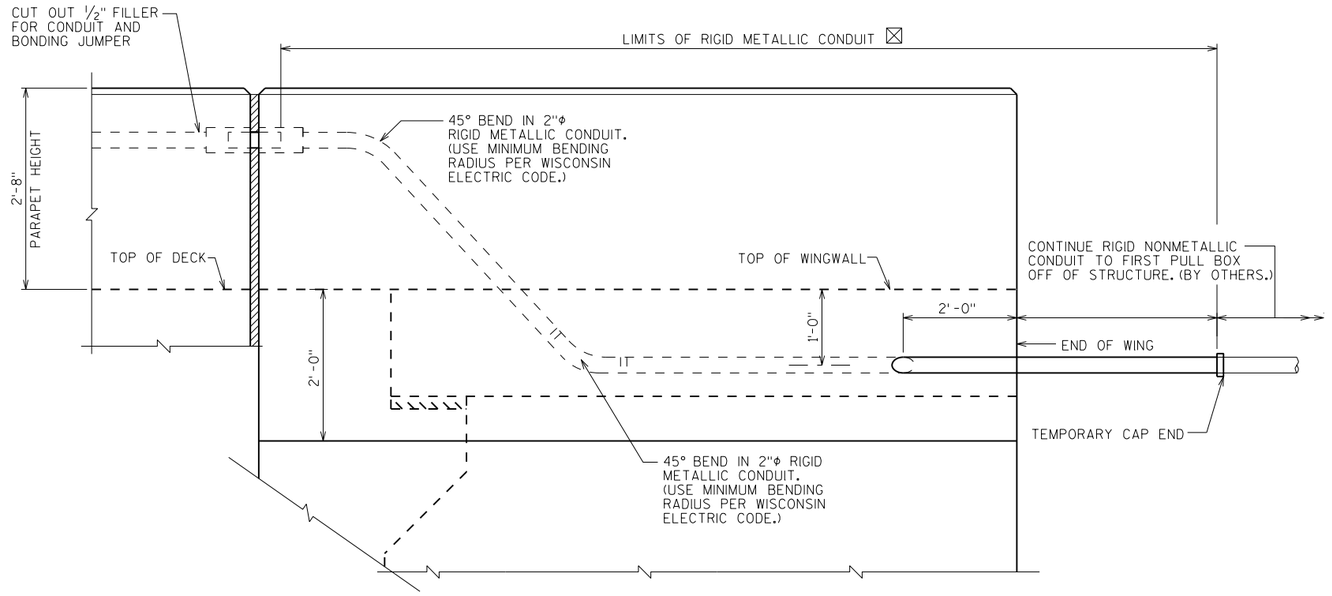
1133-11-74



PLAN OF PARAPET "32SS" AT WEST ABUTMENT WING



OUTSIDE ELEVATION OF PARAPET "32SS" AT WEST ABUTMENT WING

LEGEND

☒ USE 2" DIA. RIGID NON-METALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 5'-0" INTO WALL SEGMENT OR PARAPET. FOR SHORTER DISTANCES BETWEEN EXPANSION FITTINGS <20' USE METALLIC CONDUIT BETWEEN EXPANSION FITTINGS. ON THE SOUTH WINGWALL OF THE WEST ABUTMENT PROVIDE RIGID METALLIC CONDUIT TO A MINIMUM OF 6" BEYOND END OF WINGWALL (FOR GROUNDING PURPOSES). PROVIDE #10 AWG BONDING JUMPER BETWEEN METALLIC CONDUIT AND JUNCTION BOX. BONDING JUMPERS SHALL EITHER ENTER THE JUNCTION BOX AND BE TERMINATED TO THE GROUNDING LUG USING TERMINAL BLOCKS; OR CAN BE EXOTHERMICALLY WELDED TO A FIELD INSTALLED GROUNDING LUG ON THE BACK SIDE OF THE JUNCTION BOX. BONDING JUMPERS WILL BE PAID FOR UNDER BID ITEM 652.0125 "CONDUIT RIGID METALLIC 2-INCH"

NOTE

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS ARE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

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PARAPET "32SS" ELECTRICAL WORK

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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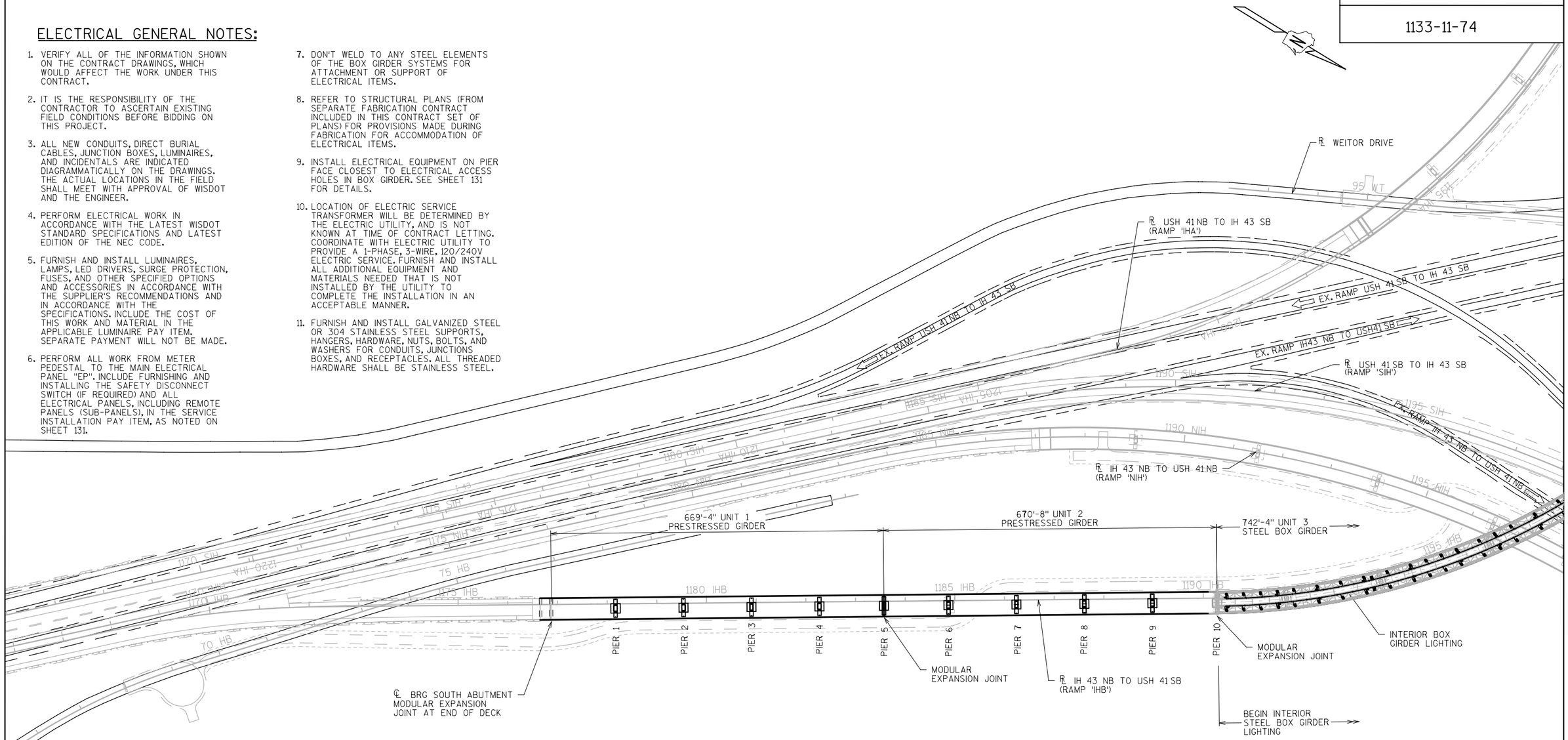
ELECTRICAL GENERAL NOTES:

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS, WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT.
3. ALL NEW CONDUITS, DIRECT BURIAL CABLES, JUNCTION BOXES, LUMINAIRES, AND INCIDENTALS ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF WISDOT AND THE ENGINEER.
4. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE LATEST WISDOT STANDARD SPECIFICATIONS AND LATEST EDITION OF THE NEC CODE.
5. FURNISH AND INSTALL LUMINAIRES, LAMPS, LED DRIVERS, SURGE PROTECTION, FUSES, AND OTHER SPECIFIED OPTIONS AND ACCESSORIES IN ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. INCLUDE THE COST OF THIS WORK AND MATERIAL IN THE APPLICABLE LUMINAIRE PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
6. PERFORM ALL WORK FROM METER PEDESTAL TO THE MAIN ELECTRICAL PANEL "EP". INCLUDE FURNISHING AND INSTALLING THE SAFETY DISCONNECT SWITCH (IF REQUIRED) AND ALL ELECTRICAL PANELS, INCLUDING REMOTE PANELS (SUB-PANELS), IN THE SERVICE INSTALLATION PAY ITEM, AS NOTED ON SHEET 131.
7. DON'T WELD TO ANY STEEL ELEMENTS OF THE BOX GIRDER SYSTEMS FOR ATTACHMENT OR SUPPORT OF ELECTRICAL ITEMS.
8. REFER TO STRUCTURAL PLANS (FROM SEPARATE FABRICATION CONTRACT INCLUDED IN THIS CONTRACT SET OF PLANS) FOR PROVISIONS MADE DURING FABRICATION FOR ACCOMMODATION OF ELECTRICAL ITEMS.
9. INSTALL ELECTRICAL EQUIPMENT ON PIER FACE CLOSEST TO ELECTRICAL ACCESS HOLES IN BOX GIRDER. SEE SHEET 131 FOR DETAILS.
10. LOCATION OF ELECTRIC SERVICE TRANSFORMER WILL BE DETERMINED BY THE ELECTRIC UTILITY, AND IS NOT KNOWN AT TIME OF CONTRACT LETTING. COORDINATE WITH ELECTRIC UTILITY TO PROVIDE A 1-PHASE, 3-WIRE, 120/240V ELECTRIC SERVICE. FURNISH AND INSTALL ALL ADDITIONAL EQUIPMENT AND MATERIALS NEEDED THAT IS NOT INSTALLED BY THE UTILITY TO COMPLETE THE INSTALLATION IN AN ACCEPTABLE MANNER.
11. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, HANGERS, HARDWARE, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.



STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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ELECTRICAL SITE PLAN B-5-678 UNITS 1-2

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EX. RAMP USH 41 NB TO IH 43 SB

℄ WEITOR DRIVE

EX. RAMP IH 43 NB TO USH 41 SB

EX. RAMP USH 41 SB TO IH 43 SB

℄ USH 41 NB TO IH 43 SB
(RAMP 'IHA')

670'-0" UNIT 2
PRESTRESSED GIRDER

BEGIN INTERIOR BOX
GIRDER LIGHTING

742'-4" UNIT 3
STEEL BOX GIRDER

PIER 10

MODULAR EXPANSION
JOINT

INTERIOR BOX GIRDER LIGHTING
(TYP.)

PIER 11

ELECTRICAL
SUB-PANEL "C"
INSIDE LEFT
BOX GIRDER

℄ IH 43 NB TO USH 41 SB
(RAMP 'IHB')

MODULAR
EXPANSION JOINT

PIER 12

ELECTRICAL
SUB-PANEL "A"
INSIDE RIGHT
BOX GIRDER

ACCESS
HATCH
LOCATION

839'-8" UNIT 4
STEEL BOX GIRDER

PIER 13

PIER 14

℄ IH 43 NB TO USH 41 NB
(RAMP 'NIH')

ACCESS
HATCH
LOCATION

PIER 15

PIER 16

ELECTRICAL
EQUIPMENT
INSTALLED
ON PIER 16
FACE SEE SHEET
131 FOR DETAILS
NOTE 9

EX. RAMP IH 43 NB TO USH 41 NB

℄ USH 41 SB TO IH 43 SB
(RAMP 'SIH')

℄ USH 41 NB

EX. USH 41 NB

EX. USH 41 SB

ELECTRIC UTILITY
WILL DETERMINE
FINAL LOCATION
OF SERVICE
TRANSFORMER,
SEE NOTE 10

℄ USH 41 SB

PIER 17

PIER 18

PIER 19

PIER 20

PIER 21

PIER 22

ELECTRICAL
SUB-PANEL "D"
INSIDE LEFT
BOX GIRDER

MODULAR
EXPANSION JOINT

1042'-3" UNIT 5
STEEL BOX GIRDER

ACCESS
HATCH
LOCATION

INTERIOR BOX
GIRDER LIGHTING

ELECTRICAL
SUB-PANEL "B"
INSIDE RIGHT
BOX GIRDER

℄ BRG WEST ABUTMENT
MODULAR EXPANSION
JOINT AT END OF DECK

℄ WISCONSIN
CENTRAL LTD

N

LEGEND

- MP — MAIN ELECTRICAL PANEL "EP"
- M — METER PEDESTAL
- UTILITY TRANSFORMER
  VERIFY LOCATION WITH UTILITY

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ELECTRICAL
SITE PLAN B-5-678
UNITS 3-5

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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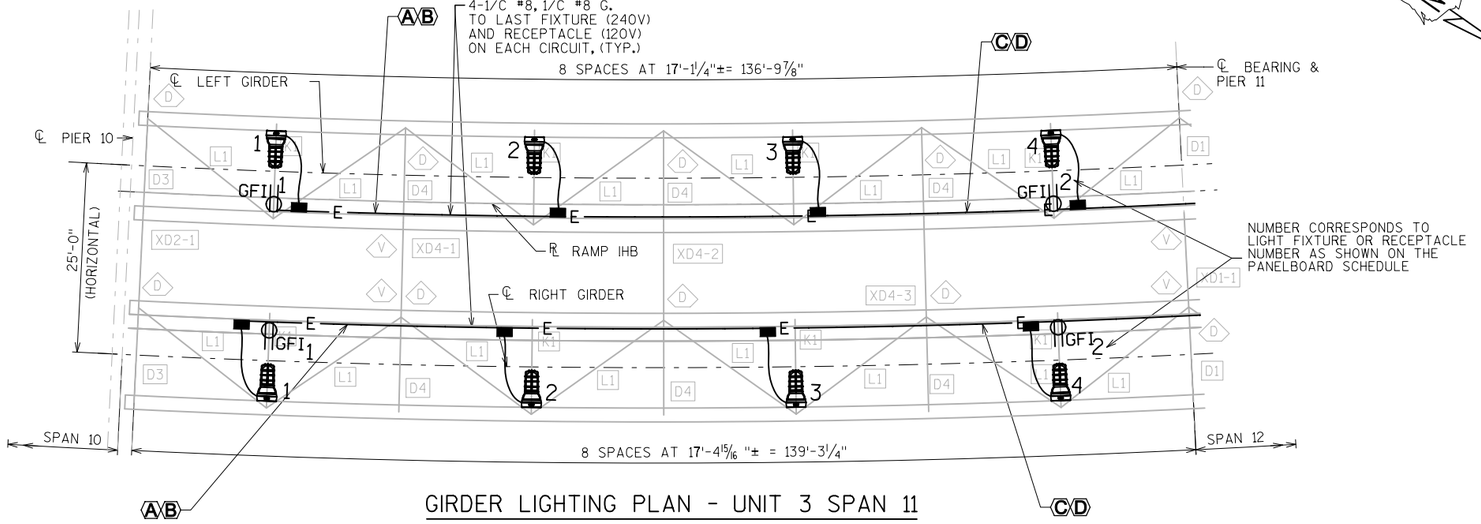
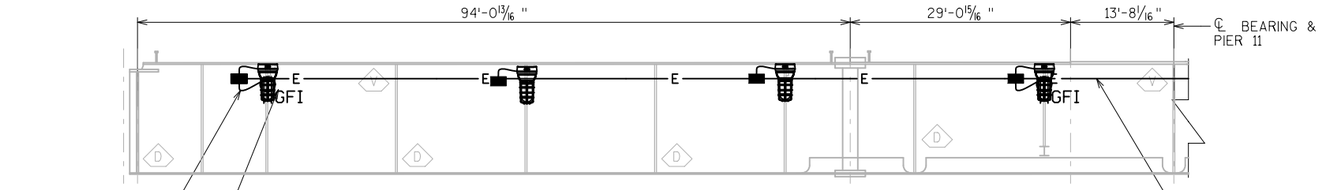
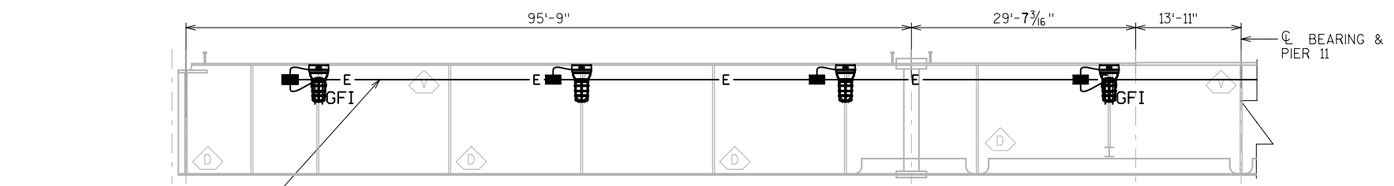


GIRDER LIGHTING PLAN - UNIT 3 SPAN 11



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 11



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 11

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V. CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- ℗GFI GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING

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STRUCTURES DESIGN SECTION

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GIRDER LIGHTING PLAN AND ELEV UNIT 3 SPAN 11

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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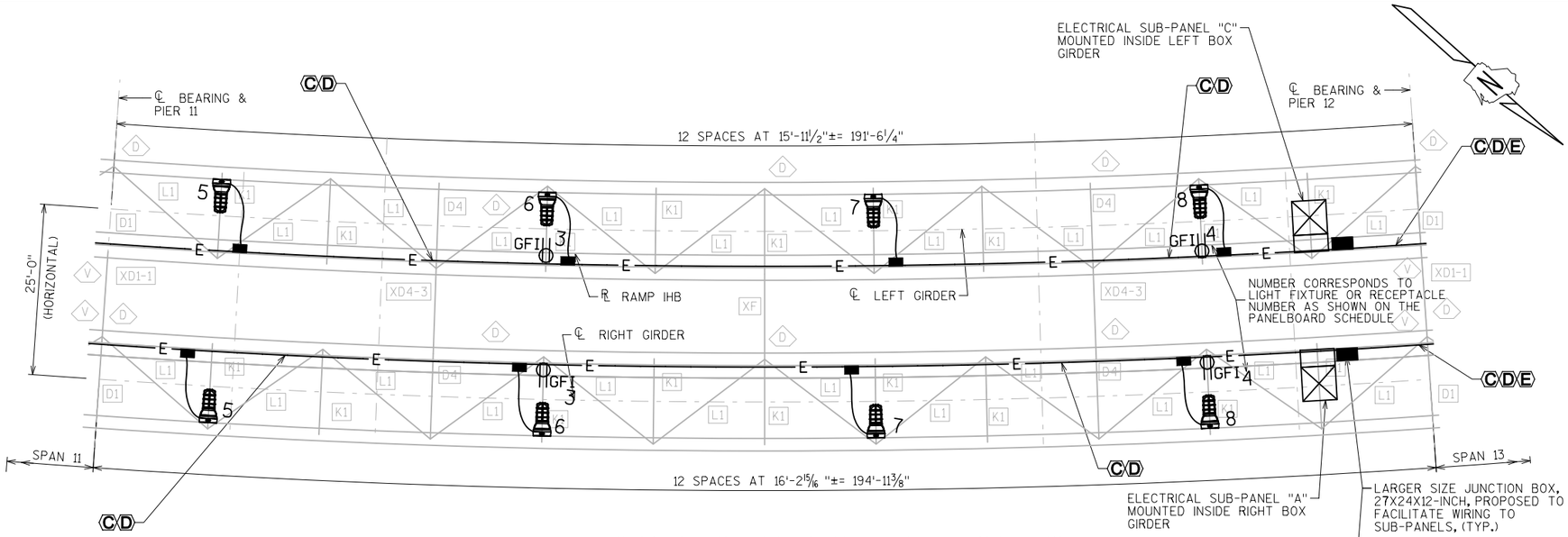
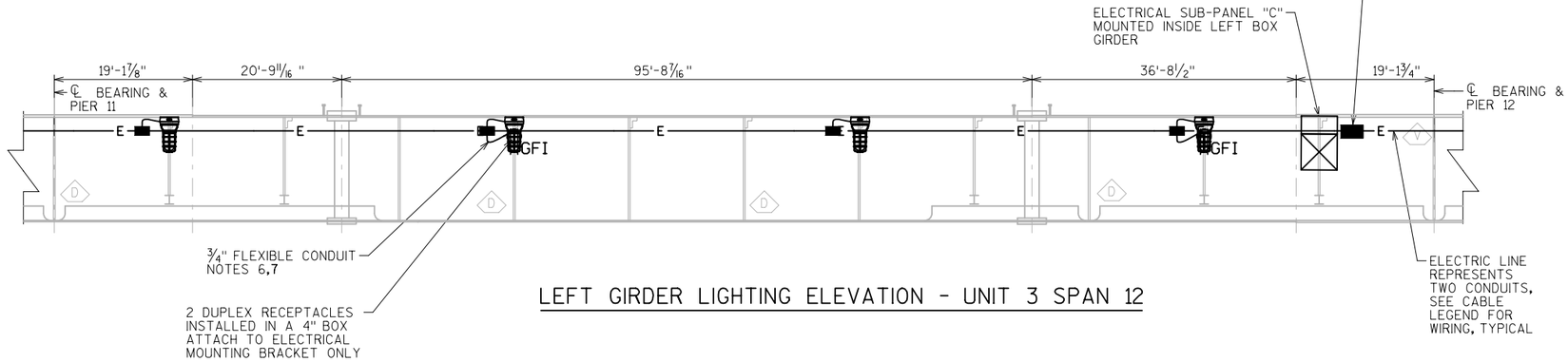
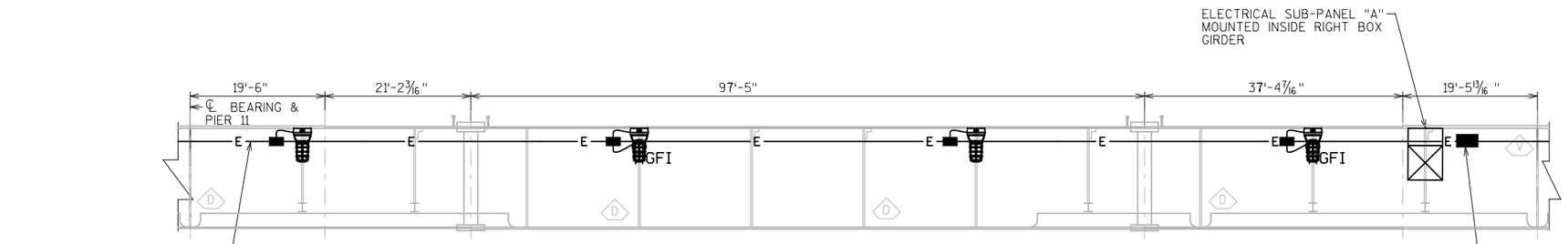


GIRDER LIGHTING PLAN - UNIT 3 SPAN 12



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 12



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 12

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- E — CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)
- ELECTRICAL REMOTE PANEL (SUB-PANEL) TWO IN EACH BOX GIRDER 120/240V, 1-PHASE, 3-WIRE SEE PANELBOARD SCHEDULES

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100', PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

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STATE OF WISCONSIN
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STRUCTURE B-5-678

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GIRDER LIGHTING PLAN AND ELEV UNIT 3 SPAN 12

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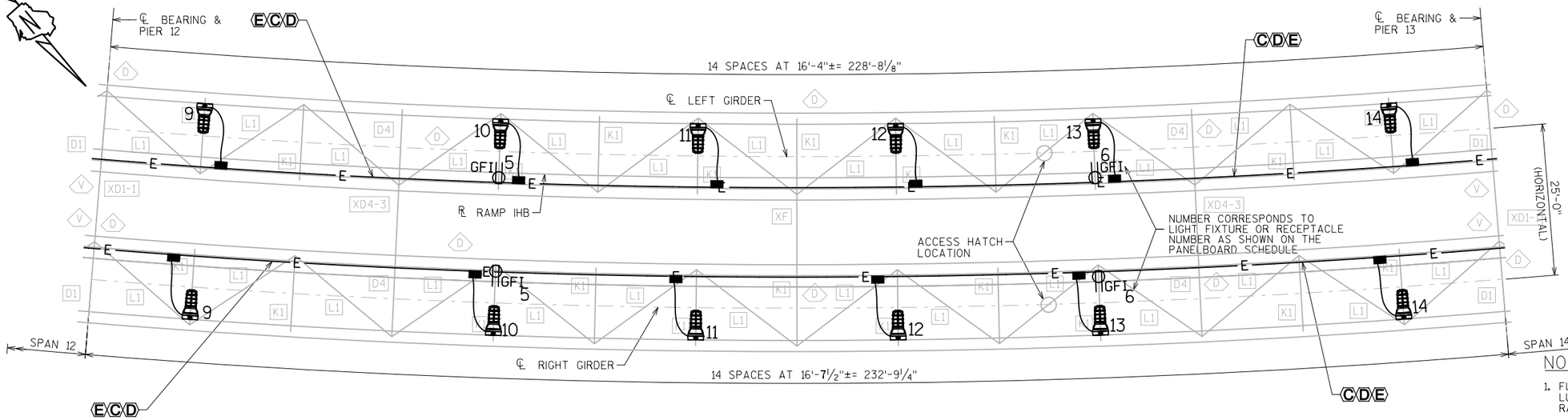
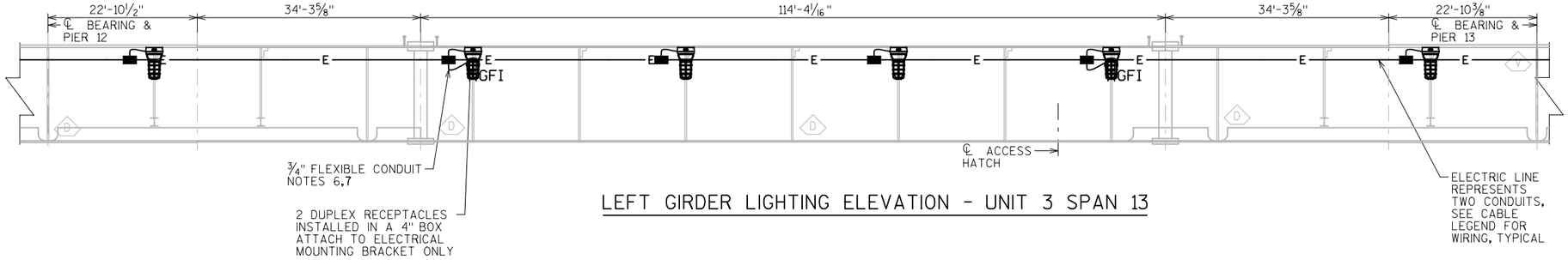
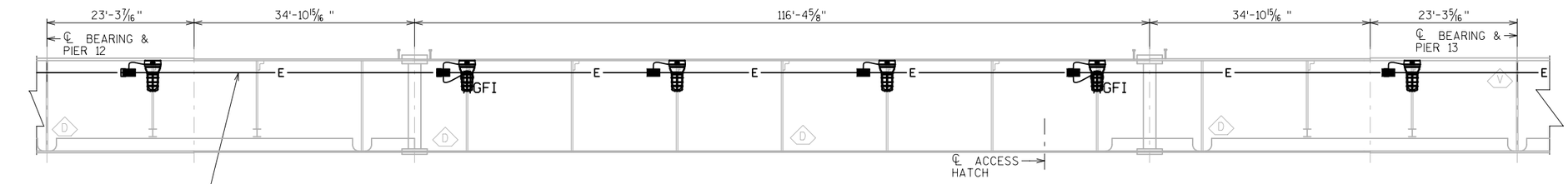


GIRDER LIGHTING PLAN - UNIT 3 SPAN 13



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 13



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 13

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 3 SPAN 13

SHEET 118 OF 143
801

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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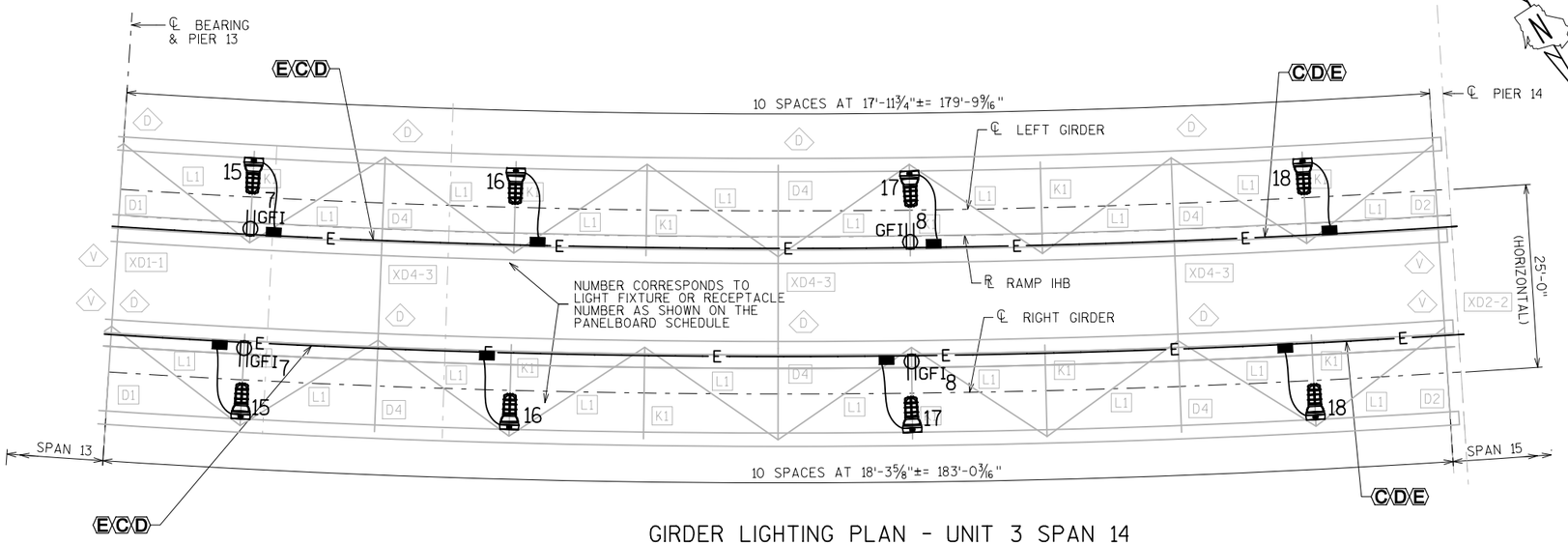
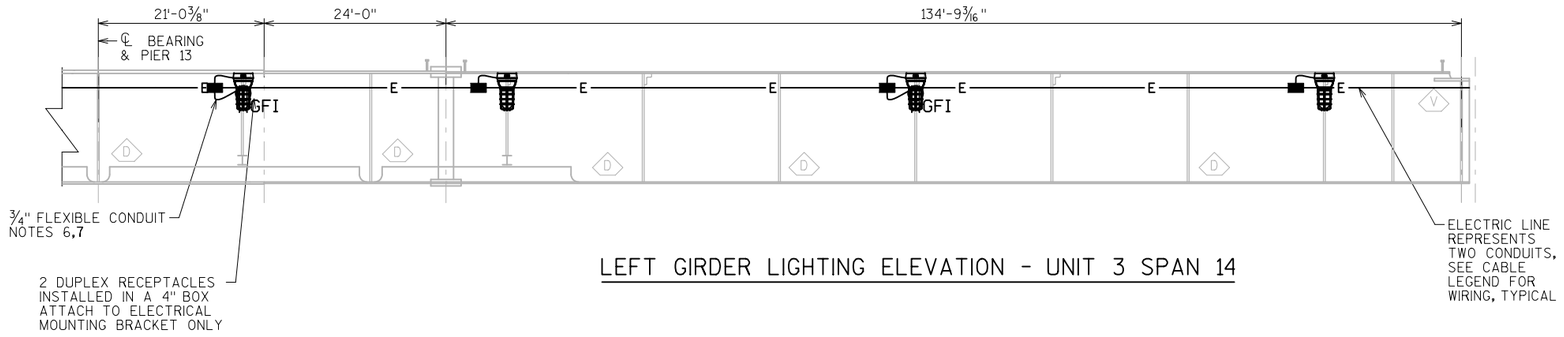
DATE: 5/1/2013
I.D.

STATE PROJECT NUMBER

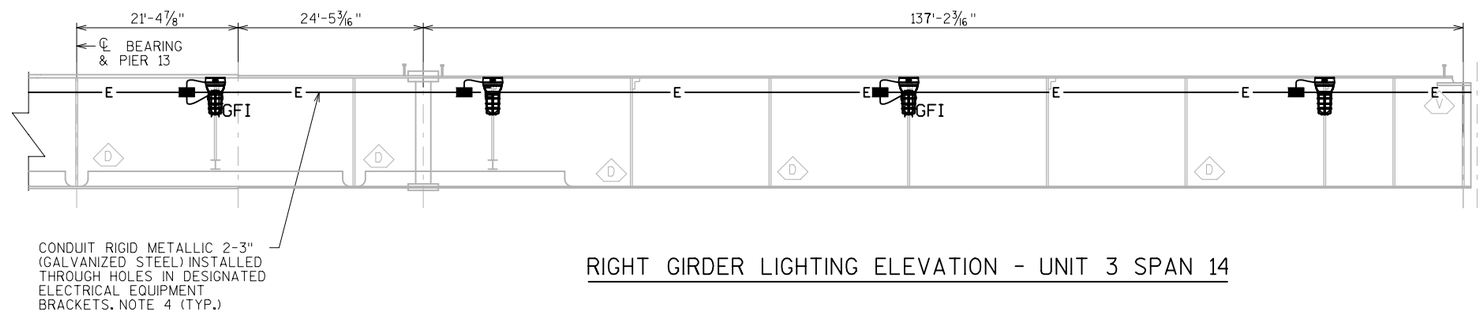
1133-11-74



GIRDER LIGHTING PLAN - UNIT 3 SPAN 14



LEFT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 14



RIGHT GIRDER LIGHTING ELEVATION - UNIT 3 SPAN 14

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- E — CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100', PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 3 SPAN 14

SHEET 119 OF 143
802

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

DATE: 5/1/2013
I.D.

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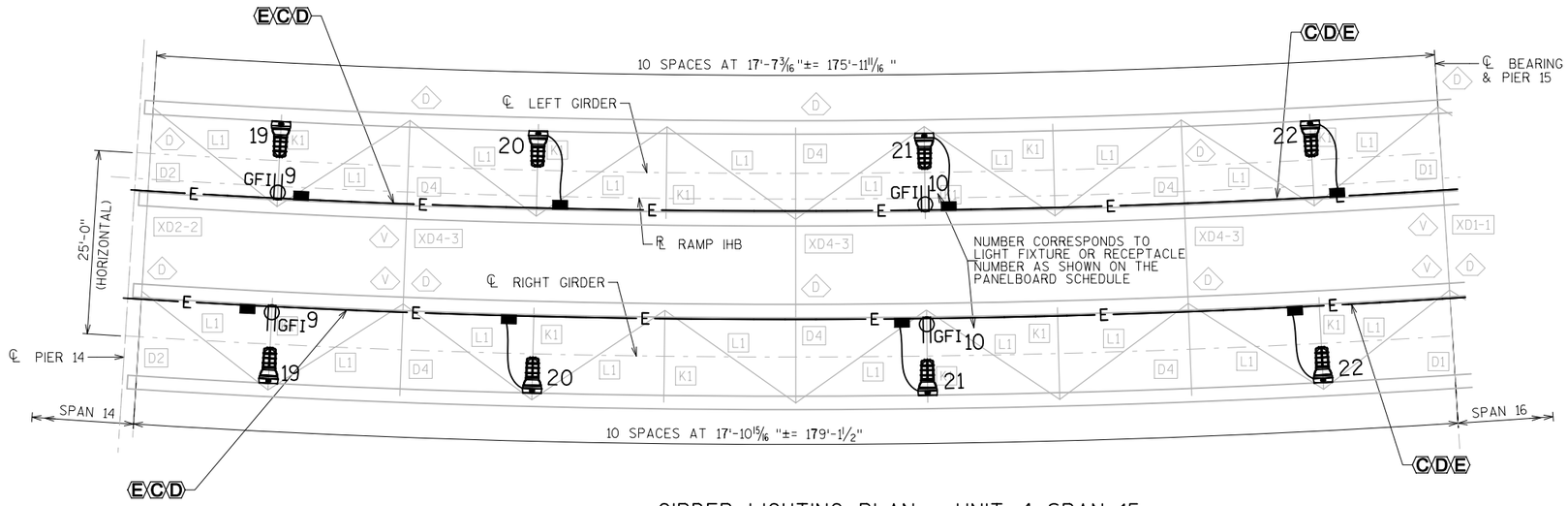
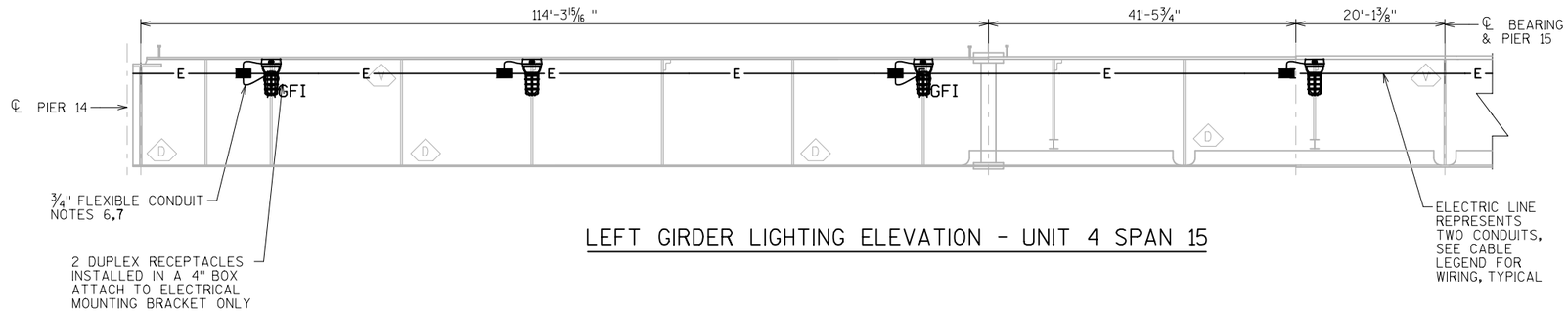
STATE PROJECT NUMBER

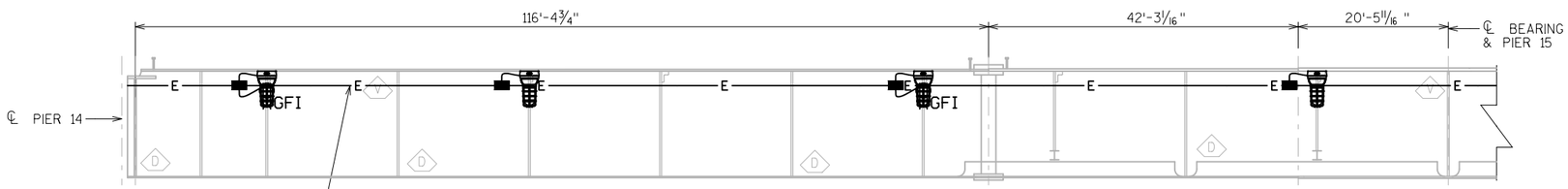
1133-11-74



GIRDER LIGHTING PLAN - UNIT 4 SPAN 15



LEFT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 15



RIGHT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 15

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- ℄GFI GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- Ⓐ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- Ⓑ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- Ⓔ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 4 SPAN 15

SHEET 120 OF 143
803

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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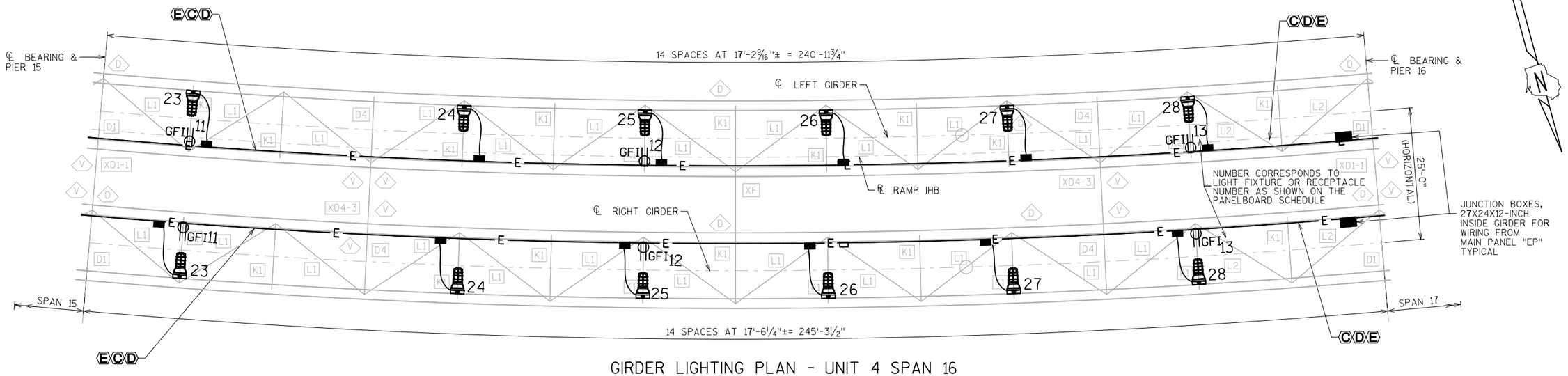
FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-678\120 - B-5-678E - GIRDER LIGHTING PLAN AND ELEV UNIT 4 SPAN 15.dgn

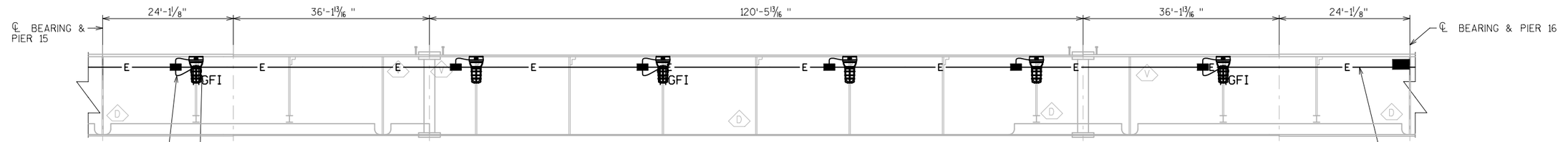
DATE: 5/1/2013
I.D.

STATE PROJECT NUMBER

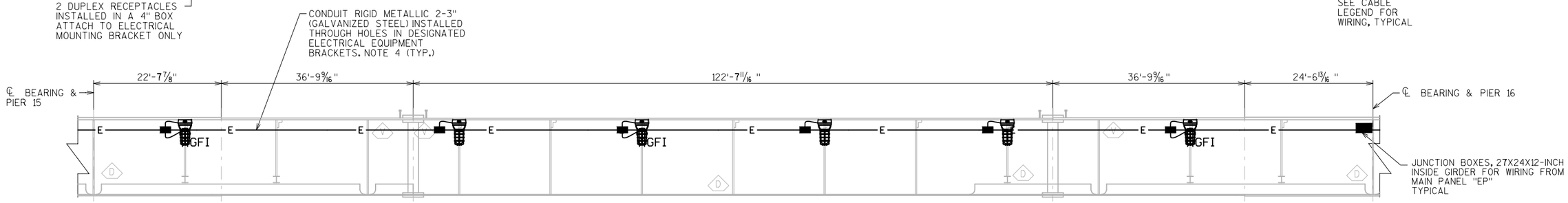
1133-11-74



GIRDER LIGHTING PLAN - UNIT 4 SPAN 16



LEFT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 16



RIGHT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 16

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

CABLE LEGEND

- Ⓐ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- Ⓑ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- Ⓔ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER BOX GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 4 SPAN 16

SHEET 121 OF 143
804

DATE: 5/1/2013
I.D.

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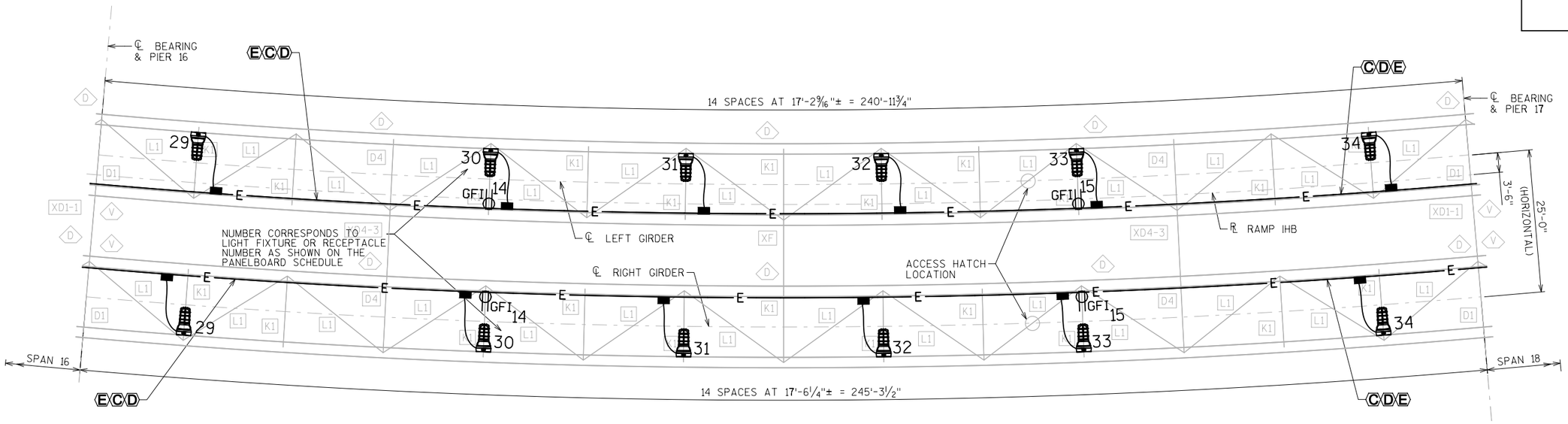
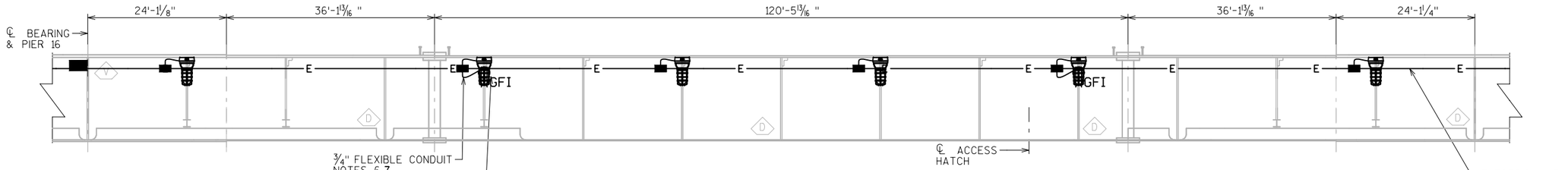
STATE PROJECT NUMBER
1133-11-74

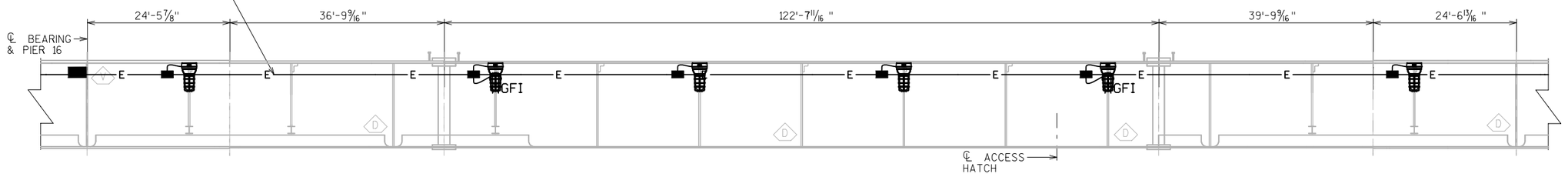


GIRDER LIGHTING PLAN - UNIT 4 SPAN 17



LEFT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 17

CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) INSTALLED THROUGH HOLES IN DESIGNATED ELECTRICAL EQUIPMENT BRACKETS. NOTE 4 (TYP.)



RIGHT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 17

CABLE LEGEND

- ⟨A⟩ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- ⟨B⟩ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- ⟨C⟩ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- ⟨D⟩ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- ⟨E⟩ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

SEE OTHER BOX GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 4 SPAN 17

SHEET 122 OF 143
805

DATE: 5/1/2013
I.D.

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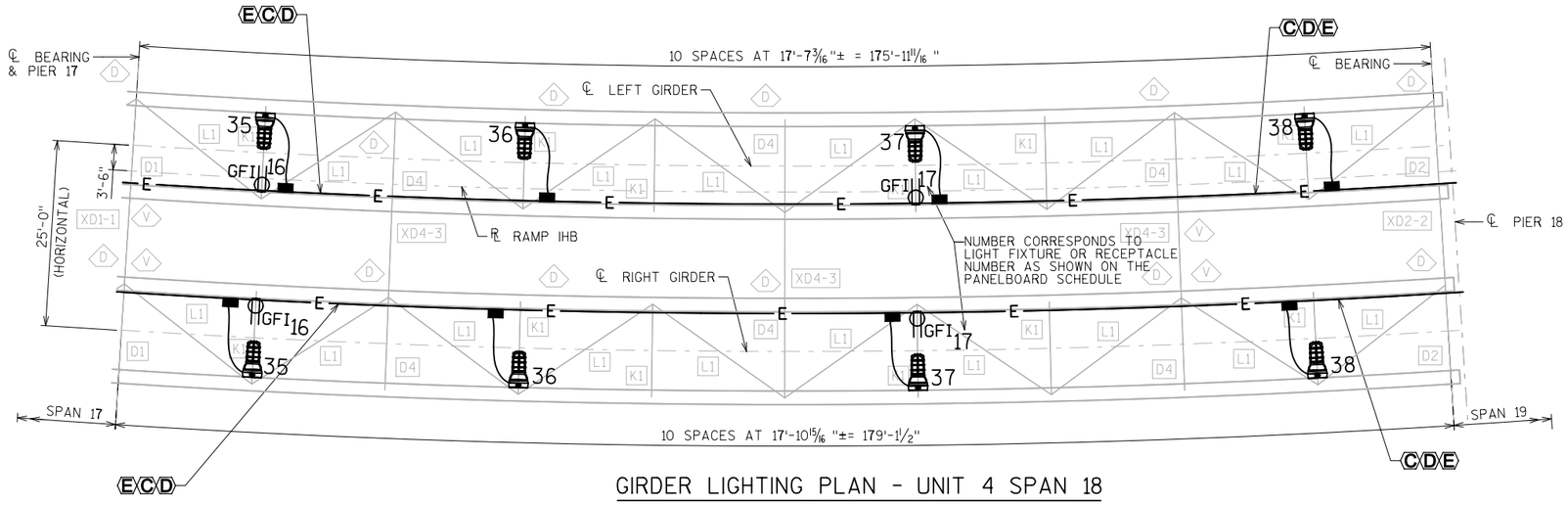
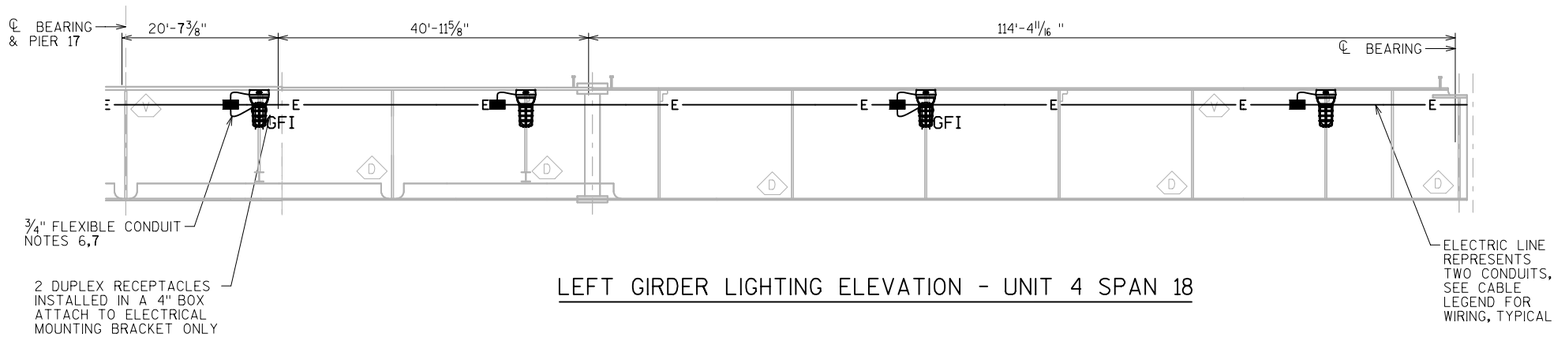
STATE PROJECT NUMBER

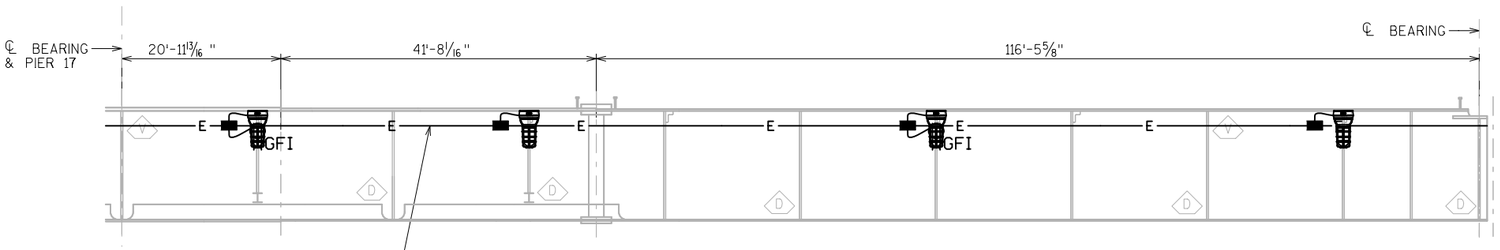
1133-11-74



GIRDER LIGHTING PLAN - UNIT 4 SPAN 18



LEFT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 18



RIGHT GIRDER LIGHTING ELEVATION - UNIT 4 SPAN 18

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- ℄GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
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NOTES:

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3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
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CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 4 SPAN 18

SHEET 123 OF 143
806

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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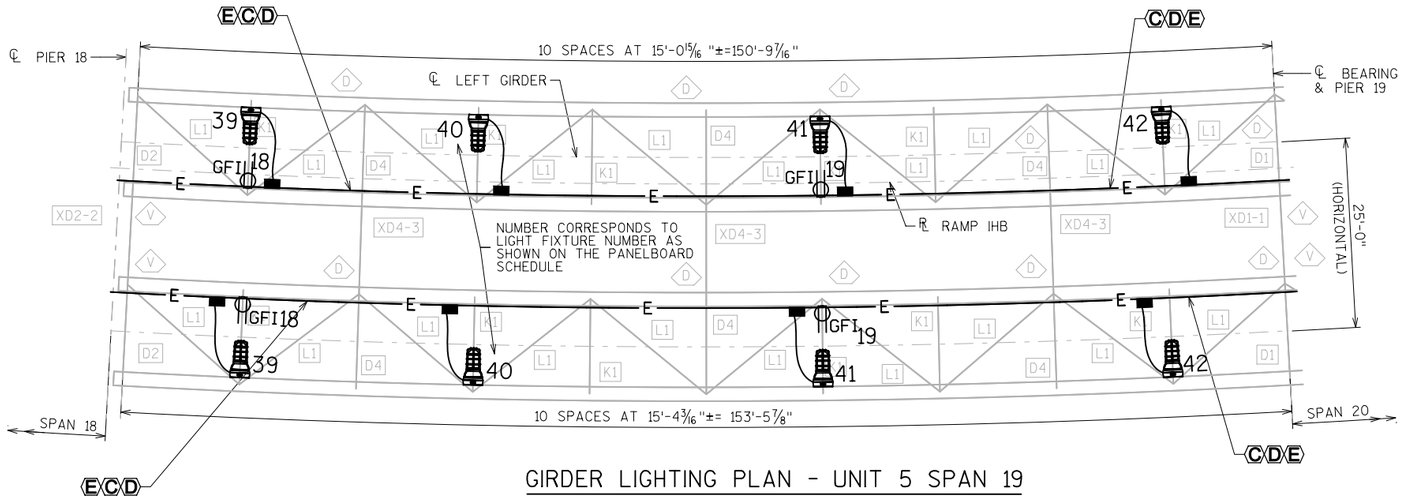
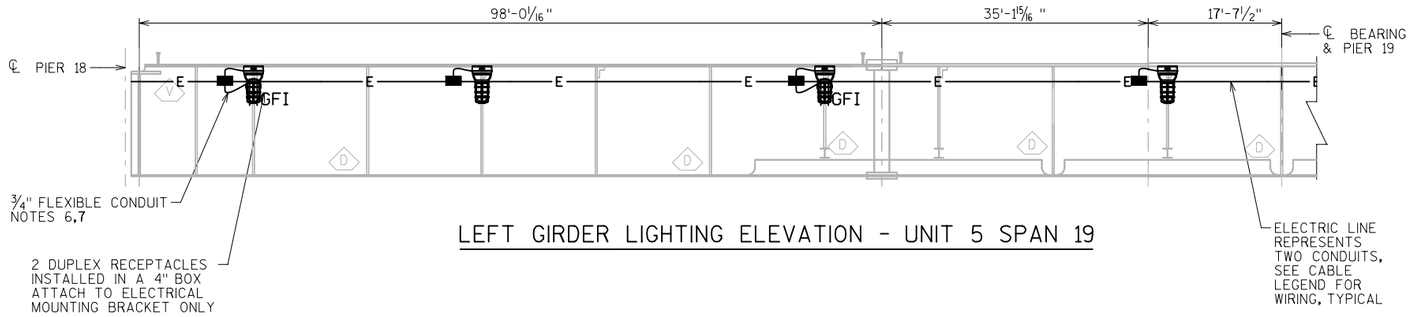
FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-678\123 - B-5-678E - GIRDER LIGHTING PLAN AND ELEV UNIT 4 SPAN 18.dgn

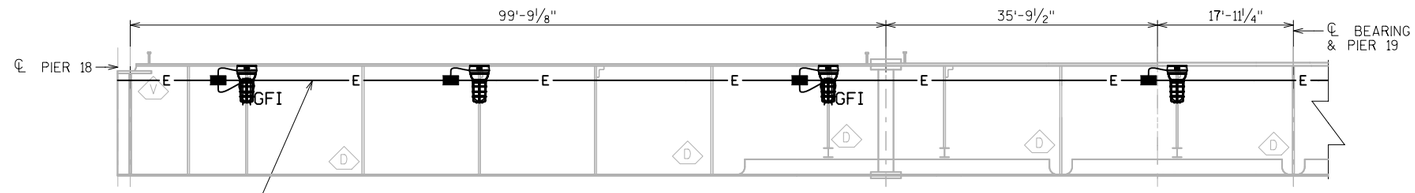
DATE: 5/1/2013
I.D.



GIRDER LIGHTING PLAN - UNIT 5 SPAN 19



LEFT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 19



RIGHT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 19

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
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NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 19

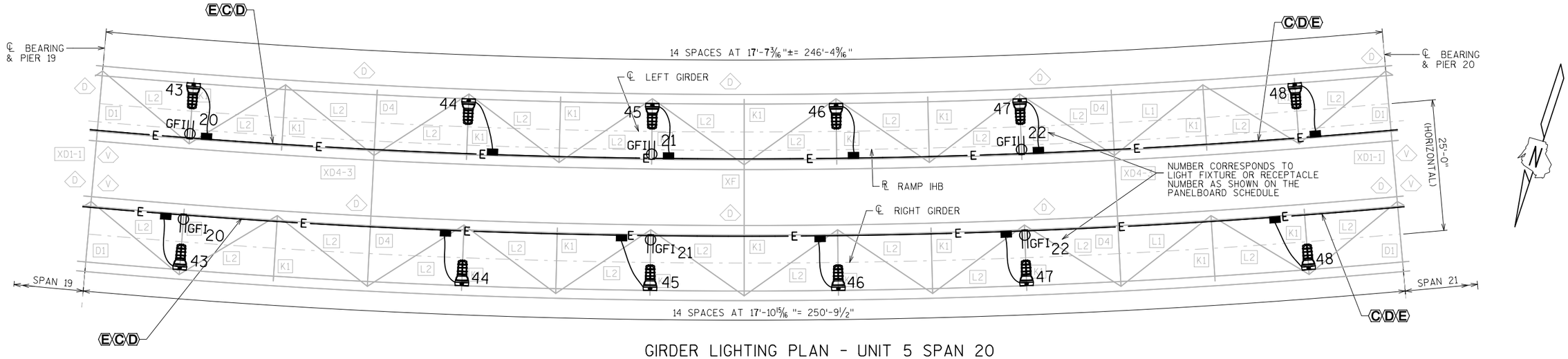
SHEET 124 OF 143
807

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

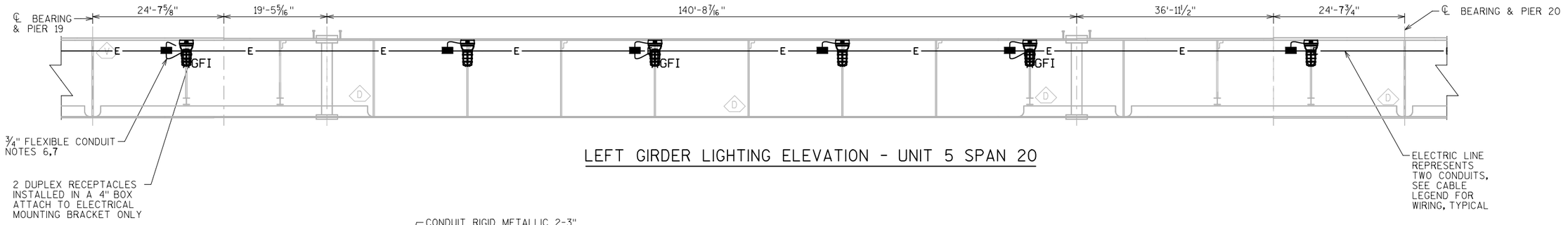
FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-678\124 - B-5-678E - GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 19.dgn

DATE: 5/1/2013
I.D.

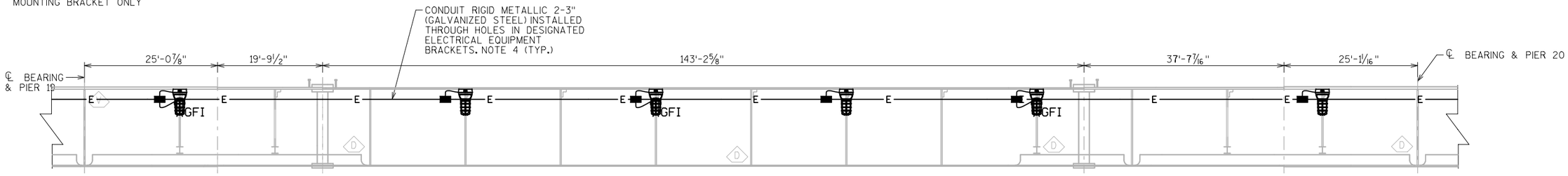
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 5 SPAN 20



LEFT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 20



RIGHT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 20

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

CABLE LEGEND

- ⟨A⟩ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- ⟨B⟩ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- ⟨C⟩ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- ⟨D⟩ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- ⟨E⟩ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER BOX GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 20

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808

FILE= G:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-678\125 - B-5-678E - GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 20.dgn

DATE: 5/1/2013
I.D.

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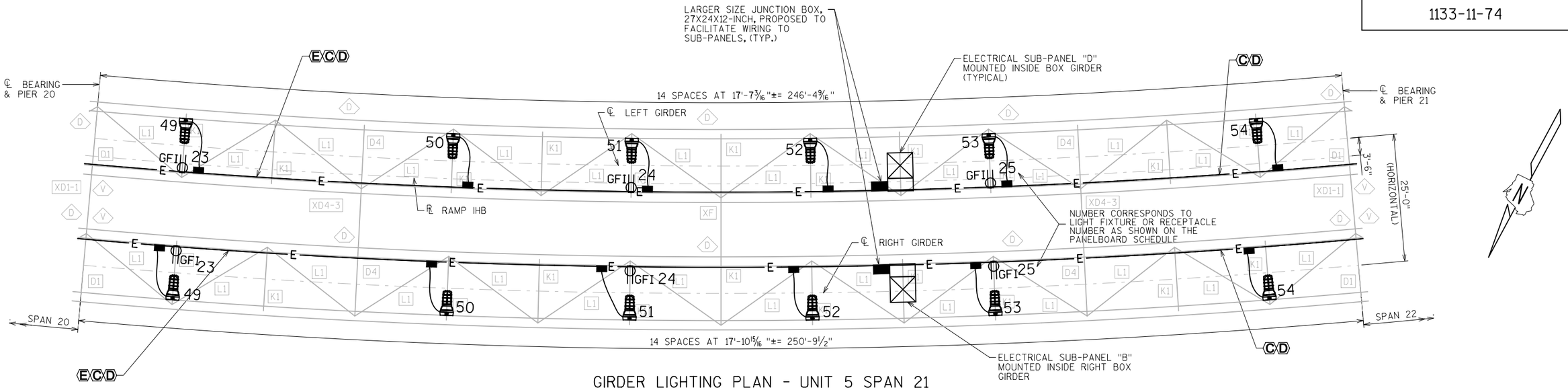
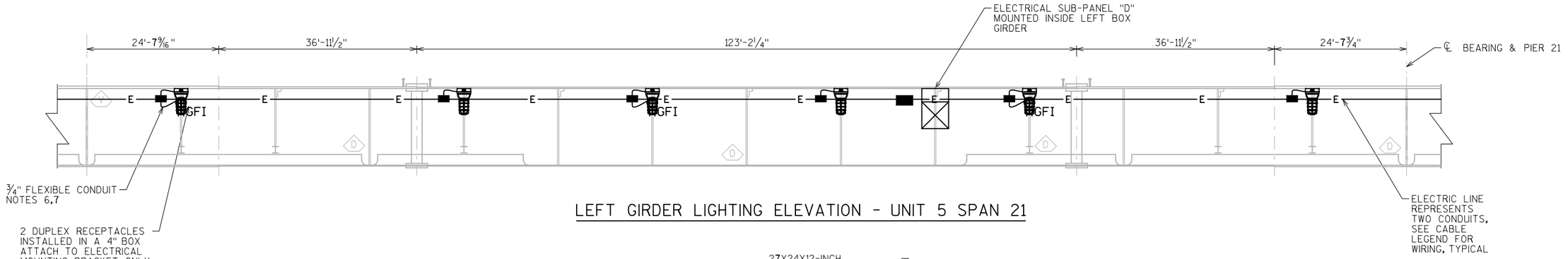
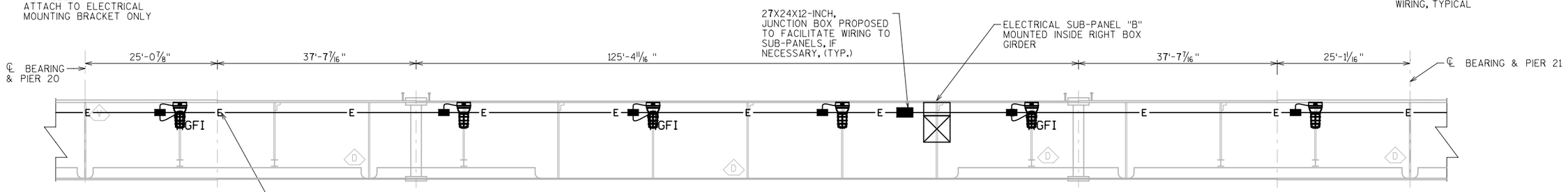
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 5 SPAN 21



LEFT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 21



RIGHT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 21

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)
- ELECTRICAL REMOTE PANEL (SUB-PANEL) TWO IN EACH BOX GIRDER 120/240V, 1-PHASE, 3-WIRE SEE PANELBOARD SCHEDULES

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER BOX GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 21

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DATE: 5/1/2013
I.D.

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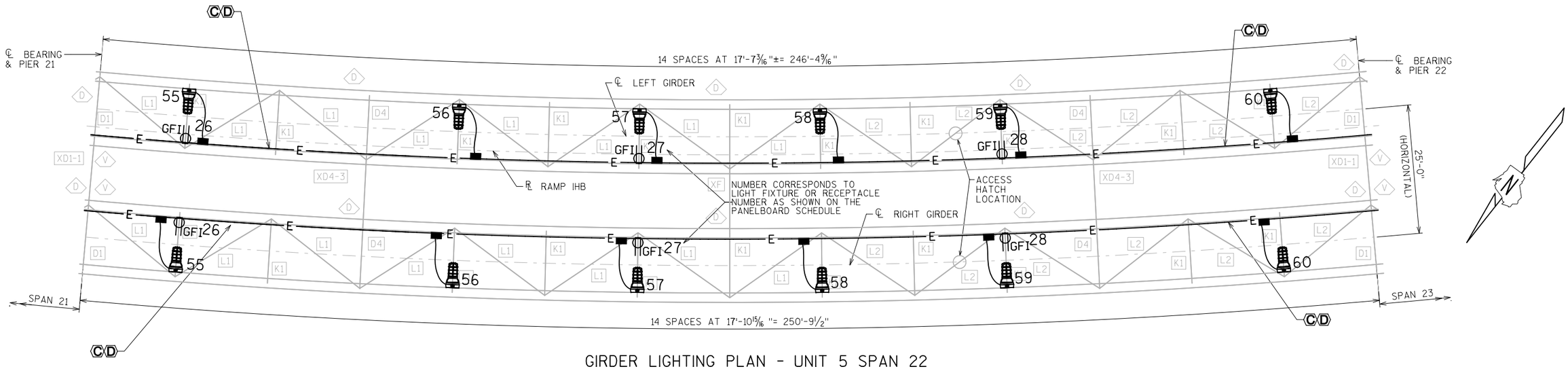
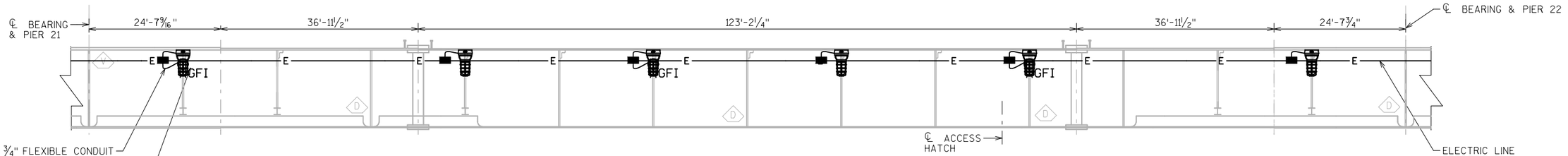
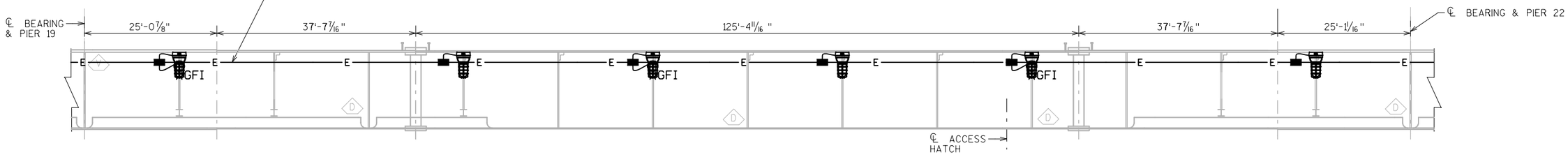
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 5 SPAN 22



LEFT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 22



RIGHT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 22

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

SEE OTHER BOX GIRDER LIGHTING SHEETS FOR NOTES

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	MAE	PLANS CK'D.	DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 22

SHEET 127 OF 143
810

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DATE: 5/1/2013
I.D.

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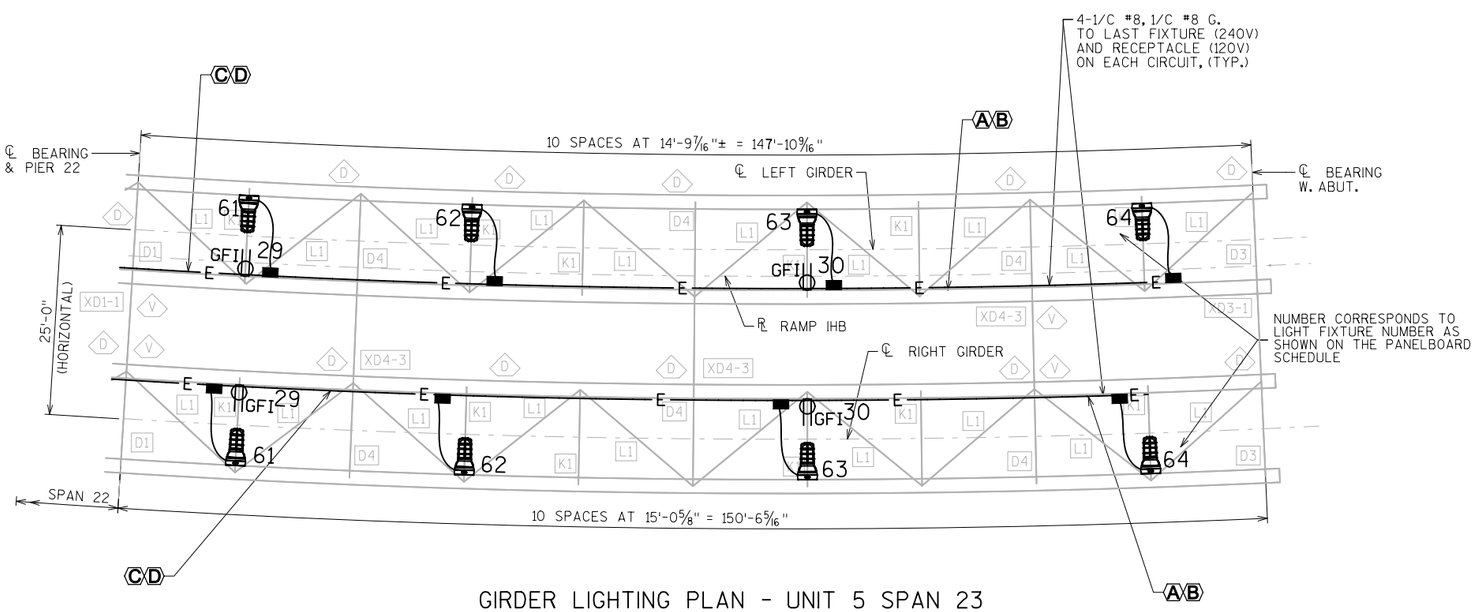
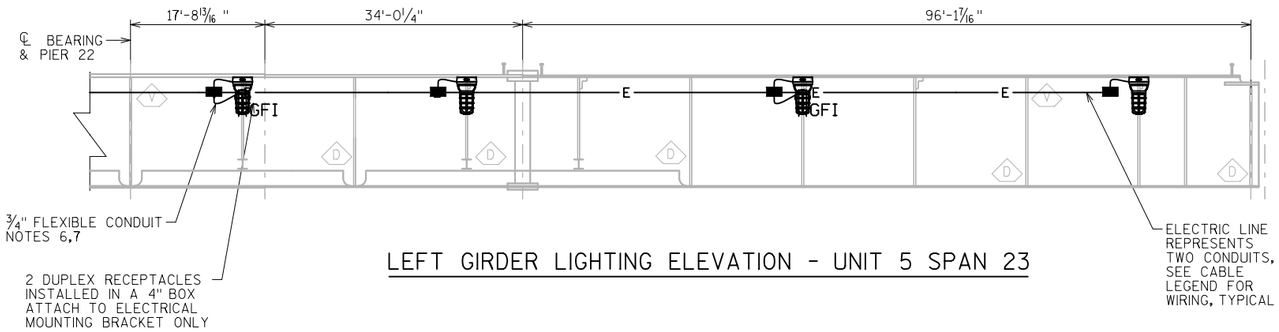
STATE PROJECT NUMBER

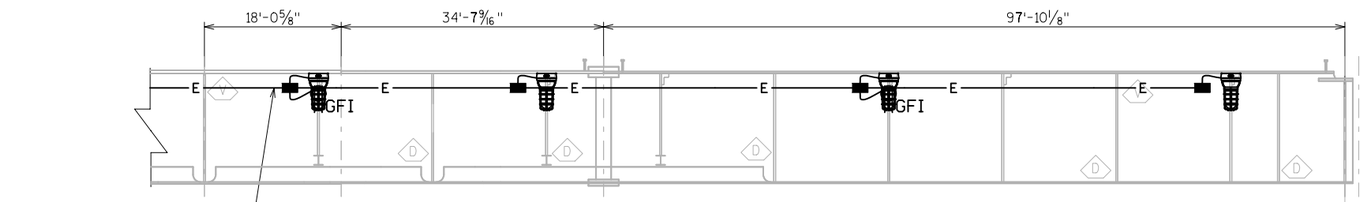
1133-11-74



GIRDER LIGHTING PLAN - UNIT 5 SPAN 23



LEFT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 23



RIGHT GIRDER LIGHTING ELEVATION - UNIT 5 SPAN 23

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL)

NOTES:

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, (2) LIGHTING CIRCUITS, ALTERNATING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER LIGHTING PLAN AND ELEV UNIT 5 SPAN 23

SHEET 128 OF 143

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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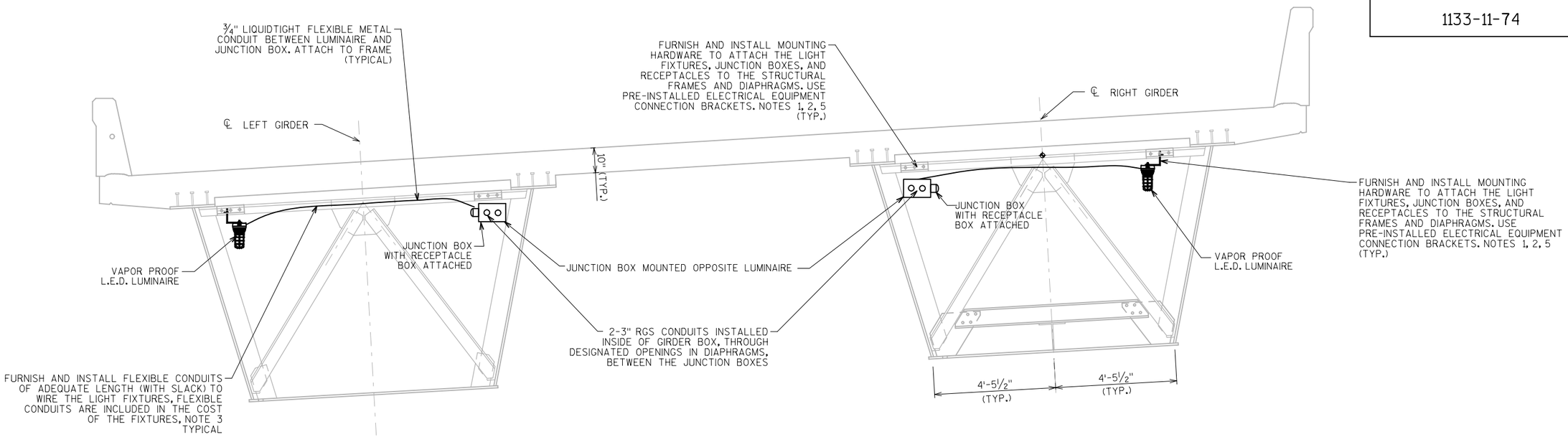
DATE: 5/1/2013

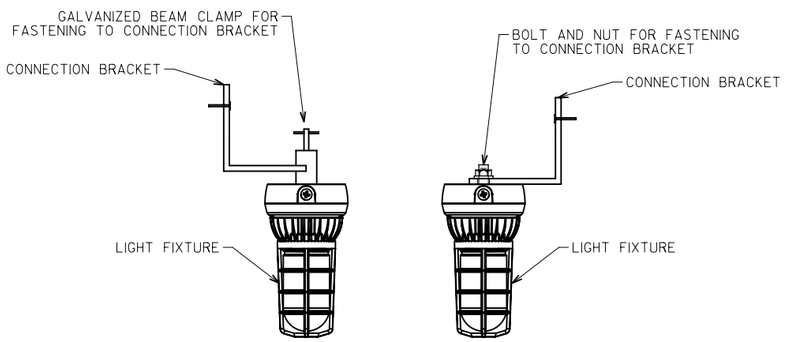
I.D.

STATE PROJECT NUMBER
1133-11-74

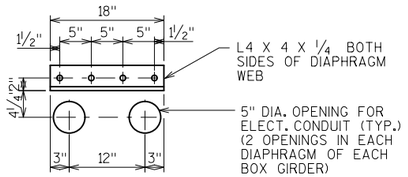


TYPICAL BOX GIRDER CROSS SECTION (UNITS 3-5)

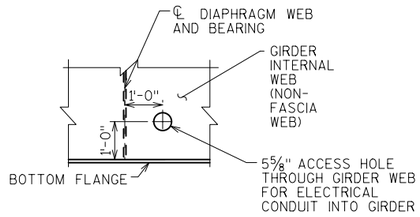
(LOOKING UPSTATION)



VAPOR PROOF L.E.D. LIGHT FIXTURE INSTALLATION DETAILS



OPENINGS AND CONNECTION BRACKET DETAILS FOR ELECTRICAL

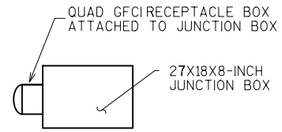


EXTERNAL ELECTRICAL ACCESS DETAIL

TWO ACCESS LOCATIONS FOR INCOMING POWER TO INTERIOR OF GIRDER (LOC. TO BE DETERMINED DURING FABRICATION) (TYP. BOTH GIRDERS)

NOTES:

1. CONNECTION BRACKETS AND ATTACHING BOLTS SHOWN ARE FURNISHED BY STEEL GIRDER FABRICATOR FOR USE BY THE ELECTRICAL CONTRACTOR TO ATTACH THE LIGHT FIXTURES, CONDUITS AND BOXES. MODIFY BRACKETS AS NECESSARY AND FURNISH AND INSTALL MOUNTING HARDWARE TO PROVIDE A PROPER INSTALLATION FOR THE ELECTRICAL AND LIGHTING EQUIPMENT.
2. DON'T SUPPORT ANY JUNCTION BOXES, LIGHT FIXTURES, RECEPTACLES, OR ELECTRICAL REMOTE PANELS (SUB-PANELS) BY ATTACHING DIRECTLY TO CONDUITS. INSTALL AND SUPPORT ALL EQUIPMENT BY FURNISHING MOUNTING CLAMPS, BRACKETS, AND OTHER HARDWARE APPROPRIATE FOR THE MOUNTING LOCATION TO PROVIDE A FIXED AND SECURE INSTALLATION.
3. FURNISH AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS OF ADEQUATE LENGTH BETWEEN JUNCTION BOXES AND LIGHT FIXTURES/RECEPTACLES AND ELECTRICAL REMOTE PANELS (SUB-PANELS). PROVIDE ADDITIONAL SLACK IN ALL FLEXIBLE CONDUITS IN ORDER TO ALLOW FOR ADEQUATE MOVEMENT IN ALL DIRECTIONS. INCLUDE COST OF LIQUIDTIGHT FLEXIBLE METAL CONDUITS, ADAPTERS, FITTINGS, AND OTHER HARDWARE AND ACCESSORIES IN THE COST OF LIGHT FIXTURES AND RECEPTACLES. NO SEPARATE PAYMENT FOR THIS WORK WILL BE ALLOWED.
4. SEAL OPENINGS AROUND ALL CONDUITS ENTERING THE BOX GIRDERS TO PROVIDE A WEATHER-PROOF SEAL.
5. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, CLAMPS, BRACKETS, HANGER RODS, HARDWARE, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.
6. FURNISH AND INSTALL CONDUIT EXPANSION/DEFLECTION COUPLINGS AND FLEXIBLE BONDING JUMPERS BYPASSING THE COUPLINGS TO ENSURE GROUND CONTINUITY FOR CONDUITS CROSSING EXPANSION JOINTS. USE ONLY COMBINATION EXPANSION/DEFLECTION FITTINGS SIMILAR TO O-Z/GEDNEY MODEL NO. AX8DX. DON'T USE "EXPANSION ONLY" FITTINGS.
7. PROVIDE FLEXIBLE METALLIC CONDUITS BETWEEN RIGID CONDUITS ACROSS JOINTS WHERE THE CALCULATED CONDUIT MOVEMENT EXCEEDS THE MAXIMUM ALLOWABLE MOVEMENT OF THE COMBINATION EXPANSION/DEFLECTION FITTINGS. FLEXIBLE CONDUITS AND FITTINGS ARE INCLUDED IN THE COST OF THE CONDUITS.



JUNCTION BOX

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

ELECTRICAL BOX GIRDER DETAIL 1

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812

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DATE: 5/1/2013
I.D.

STATE PROJECT NUMBER

1133-11-74

Electrical Panel: EP

Rating: 200A
Voltage: 120/240 Volts, 1 Phase 3 Wire
Feeder Conductors: 4/0 AWG
Main Brkr: 200 Trip Amps

BRIDGE **B-5-678**

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 8-12 EVEN	1080		X		90		RIGHT BOX GIRDER LIGHTS 18-28 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 9-13 ODD		1080		X		90				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 14-16 EVEN	720		X		90		RIGHT BOX GIRDER LIGHTS 17-27 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 15-17 ODD		720		X		90				8
9	20	1	LEFT BOX GIRDER RECEPTACLES 8-12 EVEN	1080		X		75		RIGHT BOX GIRDER LIGHTS 30-38 (EVEN)	2	20	10
11	20	1	LEFT BOX GIRDER RECEPTACLES 9-13 ODD		1080		X		75				12
13	20	1	LEFT BOX GIRDER RECEPTACLES 14-16 EVEN	720		X		75		RIGHT BOX GIRDER LIGHTS 29-37 (ODD)	2	20	14
15	20	1	LEFT BOX GIRDER RECEPTACLES 15-17 ODD		720		X		75				16
17	20	1	SPARE			X		90		LEFT BOX GIRDER LIGHTS 18-28 (EVEN)	2	20	18
19	20	1	SPARE				X		90				20
21	20	1	SPARE			X		90		LEFT BOX GIRDER LIGHTS 17-27 (ODD)	2	20	22
23	20	1	SPARE				X		90				24
25	20	2	SPARE			X		75		LEFT BOX GIRDER LIGHTS 30-38 (EVEN)	2	20	26
27							X		75				28
29	20	2	SPARE			X		75		LEFT BOX GIRDER LIGHTS 29-37 (ODD)	2	20	30
31							X		75				32
33	60	2	**ELECTRICAL SUB-PANEL "A" FEEDER (RIGHT GIRDER)**	1320		X		2910		**ELECTRICAL SUB-PANEL "B" FEEDER (RIGHT GIRDER)**	2	60	34
35					1680		X		2550				36
37	60	2	**ELECTRICAL SUB-PANEL "C" FEEDER (LEFT GIRDER)**	1320		X		2910		**ELECTRICAL SUB-PANEL "D" FEEDER (LEFT GIRDER)**	2	60	38
39					1680		X		2550				40
41	20	1	SPARE			X				SPARE	1	20	42
			TOTALS	6240	6960			6480	5760	TOTALS			

BUS A: 12720
BUS B: 12720

LOAD: 25440

25.44 KVA DEMAND
106.0 LINE AMPS
132.5 TRIP MAIN AMPS

Electrical Panel: SUB-PANEL "A"

Rating: 100A
Voltage: 120/240 Volts, 1 Phase 3 Wire
Feeder Conductors: 2 AWG
Main Brkr: 60 amps

BRIDGE **B-5-678**
RIGHT
BOX GIRDER

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 2-4 EVEN	720		X		60		RIGHT BOX GIRDER LIGHTS 2-8 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 1-3 ODD		720		X		60				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 6	360		X		60		RIGHT BOX GIRDER LIGHTS 1-7 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 5-7 ODD		720		X		60				8
9	20	1				X		60		RIGHT BOX GIRDER LIGHTS 10-16 (EVEN)	2	20	10
11	20	1					X		60				12
13	20	1				X		60		RIGHT BOX GIRDER LIGHTS 9-15 (ODD)	2	20	14
15	20	1					X		60				16
17	20	2				X					2	20	18
			TOTALS	1080	1440			240	240	TOTALS			

BUS A: 1320
BUS B: 1680

LOAD: 3000

3.00 KVA DEMAND
12.5 LINE AMPS
15.6 TRIP MAIN AMPS

ELECTRICAL SUB-PANELS "A" & "C" IN BOTH RIGHT AND LEFT BOX GIRDERS HAVE THE SAME LOADS.

Electrical Panel: SUB-PANEL "B"

Rating: 100A
Voltage: 120/240 Volts, 1 Phase 3 Wire
Feeder Conductors: 2 AWG
Main Brkr: 60 amps

BRIDGE **B-5-678**
RIGHT
BOX GIRDER

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 18-24 EVEN	1440		X		105		RIGHT BOX GIRDER LIGHTS 40-52 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 19-23 ODD		1080		X		105				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 26-30 EVEN	1080		X		105		RIGHT BOX GIRDER LIGHTS 39-51 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 25-29 ODD		1080		X		105				8
9	20	1				X		90		RIGHT BOX GIRDER LIGHTS 54-64 (EVEN)	2	20	10
11	20	1					X		90				12
13	20	1				X		90		RIGHT BOX GIRDER LIGHTS 53-63 (ODD)	2	20	14
15	20	1					X		90				16
17	20	2				X					2	20	18
			TOTALS	2520	2160			390	390	TOTALS			

BUS A: 2910
BUS B: 2550

LOAD: 5460

5.46 KVA DEMAND
22.8 LINE AMPS
28.4 TRIP MAIN AMPS

ELECTRICAL SUB-PANELS "B" AND "D" IN BOTH RIGHT AND LEFT BOX GIRDERS HAVE THE SAME LOADS.

NOTES:

1. CONTROL THE OPERATION OF THE BOX GIRDER LIGHTING FROM THE MAIN ELECTRICAL PANEL "EP", OR REMOTE PANELS (SUB-PANELS) "A" AND "B". LIGHT SWITCHES INSIDE THE BOX GIRDERS WILL NOT BE INSTALLED. USE MAIN BREAKER IN PANEL "EP" TO TURN ALL LIGHTS ON OR OFF. USE INDIVIDUAL BRANCH CIRCUIT BREAKERS TO TURN ON/OFF INDIVIDUAL CIRCUITS FOR LIGHTING OR RECEPTACLES, IF NECESSARY.
2. USE MULTIPLE CIRCUIT BREAKERS TO WIRE THE LIGHTING FIXTURES AND GFCI RECEPTACLES IN EACH BOX GIRDER, AS SHOWN.
3. FURNISH AND INSTALL FOUR (4) ELECTRICAL REMOTE PANELS (SUB-PANELS) IN ADDITION TO THE MAIN ELECTRICAL PANEL "EP". INSTALL TWO (2) SUB-PANELS INSIDE EACH BOX GIRDER AS SHOWN ON THESE PLANS.
4. BRANCH CIRCUIT LOAD DISTRIBUTION AND TOTAL LOAD IS THE SAME FOR SUB-PANELS "A" AND "B" IN BOTH RIGHT AND LEFT BOX GIRDERS. LOCATION OF ALL ELECTRICAL AND LIGHTING EQUIPMENT IS ALSO THE SAME FOR BOTH RIGHT AND LEFT BOX GIRDERS AS SHOWN ON THE PLANS.
5. FURNISH AND INSTALL SPARE BREAKERS FOR ALL UNUSED CIRCUITS, NO EMPTY SPACES IN PANELS.
6. FURNISH COPPER FOR ALL WIRING AND BUS BARS.
7. FURNISH AND INSTALL HEAVY DUTY, COMMERCIAL QUALITY, OUTDOOR RATED EQUIPMENT, PANELS, JUNCTION BOXES, AND CABINETS. FURNISH AND INSTALL NEMA 4X RATED STAINLESS STEEL JUNCTION BOXES, RECEPTACLE BOXES AND ENCLOSURES FOR ALL OUTDOOR ELECTRICAL EQUIPMENT. SAFETY DISCONNECT SWITCH SHALL BE SERVICE ENTRANCE RATED.
8. FURNISH AND INSTALL ELECTRICAL PANELS WITH MAIN AND BRANCH CIRCUIT BREAKERS THAT WILL ACCOMMODATE THE WIRE SIZES PROPOSED ON THESE PLANS. VERIFY MANUFACTURER STANDARD WIRE TERMINAL SIZES ON MAIN AND BRANCH BREAKERS AND PROVIDE CUSTOM OR SPECIAL ORDER BREAKERS AND TERMINALS THAT ARE DESIGNED FOR THE CONDUCTORS SPECIFIED ON THESE PLANS. INCLUDE ALL MATERIALS AND LABOR NECESSARY TO DO THIS WORK IN THE COST OF THE ELECTRICAL PANELS.
9. REARRANGE BRANCH CIRCUIT DESIGNATIONS IN THE PANELBOARD SCHEDULES, AS NECESSARY, AND MAINTAIN BALANCED LOADS AND PHASES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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ELECTRICAL BOX GIRDER DETAIL 2

SHEET 130 OF 143
813

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/1/2013
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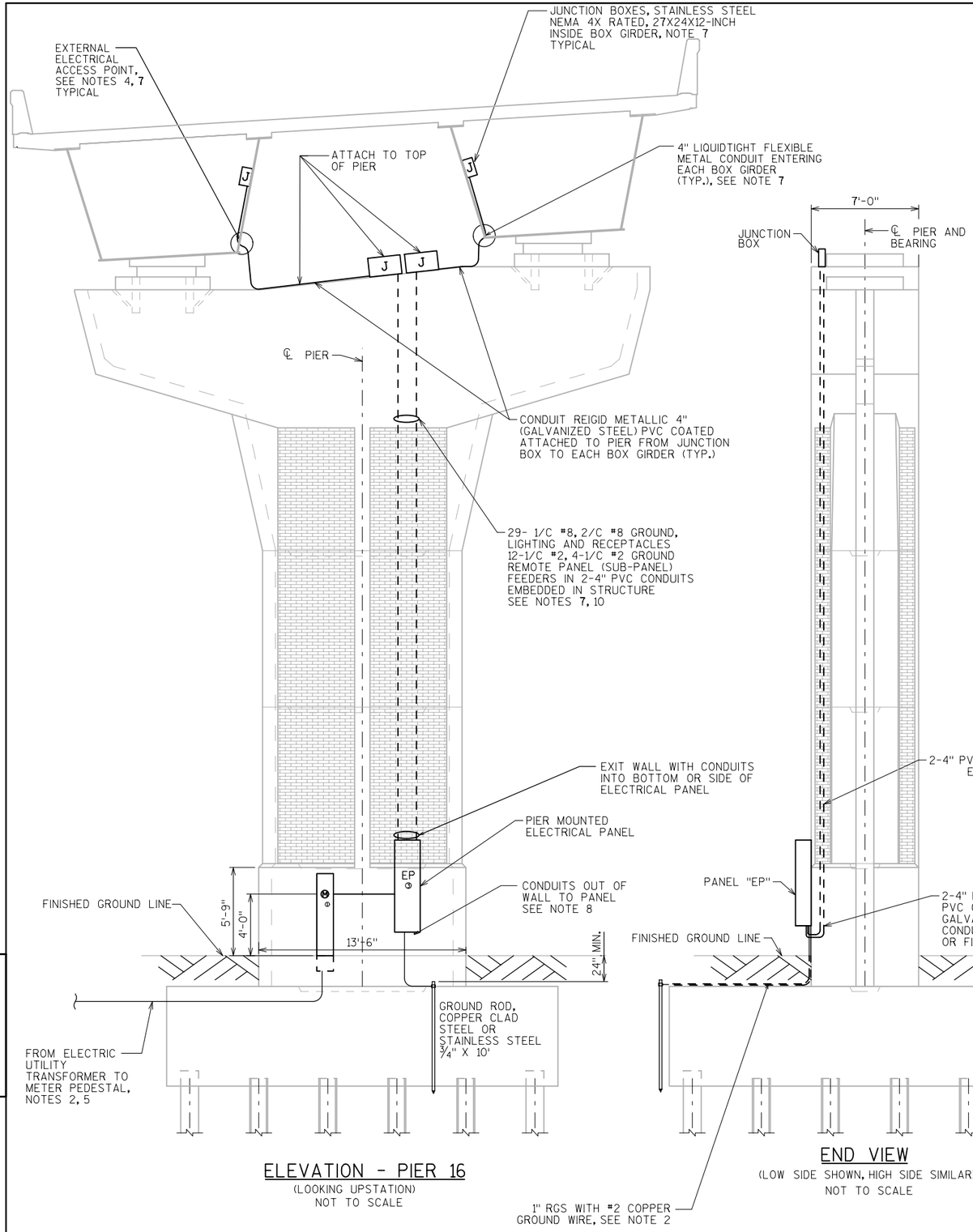


ELEVATION - PIER 16

(LOOKING UPSTATION)
NOT TO SCALE

END VIEW

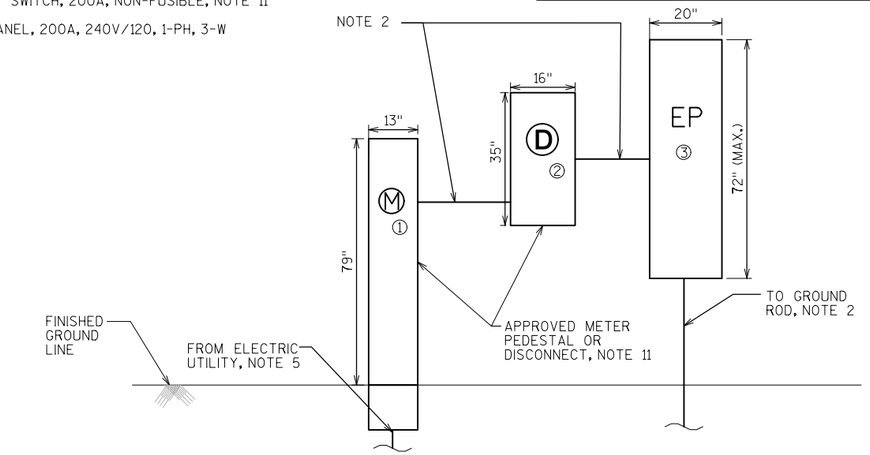
(LOW SIDE SHOWN, HIGH SIDE SIMILAR)
NOT TO SCALE

LEGEND:

① METER PEDESTAL, 200A, NEMA 3R, WITH MAIN BREAKER, NOTE 11

② SAFETY DISCONNECT SWITCH, 200A, NON-FUSIBLE, NOTE 11

③ MAIN ELECTRICAL PANEL, 200A, 240V/120, 1-PH, 3-W



ELECTRICAL SERVICE EQUIPMENT DETAILS

* DIMENSIONS ARE APPROXIMATE AND VARY BY MANUFACTURER.
NOT TO SCALE

NOTES:

1. FURNISH AND INSTALL NEMA 4X RATED STAINLESS STEEL OUTDOOR CABINETS AND ENCLOSURES, WHEN AVAILABLE. ALL CABINETS MUST HAVE PAD-LOCKING PROVISIONS.

2. FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT, AND INCIDENTALS NEEDED TO CONNECT THE SERVICE FROM THE METER PEDESTAL TO THE MAIN ELECTRICAL PANEL "EP" AND TO REMOTE PANELS (SUB-PANELS) AS PART OF PAY ITEM FOR "ELECTRICAL SERVICE INSTALLATION B-5-678". THAT PAYMENT INCLUDES THE APPROVED METER PEDESTAL, ALL ELECTRICAL PANELS INCLUDING SUB-PANELS, SAFETY DISCONNECT SWITCH (WHEN REQUIRED), CABLES, CONDUITS, GROUNDING, AND TRENCHING FOR CONDUITS SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW ELECTRICAL PANELS AND METER PEDESTAL IS ALSO INCLUDED UNDER THE SAME PAY ITEM. FURNISH, INSTALL, AND PAY FOR ELECTRICAL EQUIPMENT GROUNDING MATERIALS, EQUIPMENT AND LABOR UNDER THIS PAY ITEM. CABLE AND CONDUIT FROM PANEL "EP" TO BOX GIRDERS AND JUNCTION BOXES SHOWN ARE PAID FOR SEPARATELY.

3. EXTEND THE SERVICE UP THE PIER TO THE DISTRIBUTION JUNCTION BOXES. FROM THERE, ROUTE THE BRANCH CIRCUIT WIRING AND REMOTE PANEL FEEDERS THROUGH ACCESS HOLES TO EACH BOX GIRDER.

4. SEE EXTERNAL ELECTRICAL ACCESS DETAIL ON SHEET 129. ALSO SEE INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1 FOR EXACT LOCATION OF ELECTRICAL ACCESS HOLES.

5. COORDINATE WITH THE UTILITY TO PROVIDE ELECTRIC SERVICE TO PIER MOUNTED EQUIPMENT.

6. FURNISH AND INSTALL 2-4" CONDUIT RIGID NONMETALLIC SCHEDULE 40 (PVC) CAST INTO THE PIER (EMBEDDED) AS SHOWN. INSTALL CONDUITS ENTERING EACH BOX GIRDER THAT WILL HAVE THE CONDUCTORS FOR THE LIGHTING CIRCUITS, GFCI RECEPTACLE CIRCUITS, AND POWER FEEDS TO EACH OF THE ELECTRICAL SUB-PANELS.

7. FURNISH AND INSTALL 4" LIQUIDTIGHT FLEXIBLE METAL CONDUITS (LTFMC) WHEN ENTERING THE BOX GIRDERS THROUGH THE ELECTRICAL ACCESS HOLES. INSTALL THE LTFMC BETWEEN THE RIGID GALVANIZED STEEL CONDUITS. SEAL THE AREA AROUND THE FLEXIBLE CONDUITS ENTERING THE BOX GIRDERS AT THE ACCESS HOLE TO PROVIDE A TIGHT, WEATHER-PROOF SEAL. PAYMENT FOR ALL 3" AND LARGER LIQUIDTIGHT FLEXIBLE METAL CONDUITS, ADAPTERS AND FITTINGS IS INCLUDED IN THE CONDUIT RIGID METALLIC PAY ITEM, AND NO SEPARATE PAYMENT WILL BE MADE.

8. STUB CONDUIT EMBEDDED IN STRUCTURE OUT OF WALL UNDER (OR SIDE OF) THE ELECTRICAL PANEL "EP". FURNISH AND INSTALL CONDUIT RIGID METALLIC 4" (GALVANIZED STEEL) PVC COATED FOR ALL EXPOSED LOCATIONS AND BETWEEN THE PVC CONDUIT EMBEDDED IN THE PIER AND THE ELECTRICAL PANEL "EP". FURNISH AND INSTALL ALL NECESSARY ELBOWS, FITTINGS, AND PVC TO RGS CONDUIT ADAPTERS TO COMPLETE THE INSTALLATION. INCLUDE COST FOR THE MATERIALS AND LABOR NEEDED, AND DESCRIBED HERE, IN THE COST OF THE ELECTRICAL PANEL.

9. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, HARDWARE, CLAMPS, BRACKETS, HANGER RODS, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.

10. FURNISH AND INSTALL GROUND CONDUCTORS IN ALL CONDUITS. GROUND CONDUCTORS SHALL BE BONDED TO METAL CONDUITS, BOXES, AND OTHER PARTS TO ENSURE GROUND CONTINUITY THROUGHOUT ELECTRICAL SYSTEM. GROUNDING AND BONDING SHALL BE ACCORDING TO NEC STANDARDS.

11. FURNISH AND INSTALL A NEMA 3R RATED, 200A METER PEDESTAL WITH A MAIN CIRCUIT BREAKER IN PLACE OF A DISCONNECT SWITCH. FURNISH PEDESTAL ENCLOSURE WITH PAD-LOCKING PROVISIONS. INCLUDE METER PEDESTAL EXTENSIONS IF REQUIRED BY UTILITY AT NO ADDITIONAL COST. FURNISH A 200A, MOLDED CASE, THERMAL MAGNETIC MAIN CIRCUIT BREAKER IN THE PEDESTAL RATED AT 25K AIC MINIMUM. FURNISH AND INSTALL A HEAVY DUTY, OUTDOOR RATED, NON-FUSIBLE DISCONNECT SWITCH IN A NEMA 4X RATED ENCLOSURE THAT IS PAD-LOCKABLE ONLY IF AN APPROVED METER PEDESTAL CANNOT BE PROVIDED.

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

1133-11-74

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY MAE | PLANS CK'D. DAD

ELECTRICAL CROSS SECTION AT PIER

SHEET 131 OF 143
814

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DATE: 5/1/2013
I.D.

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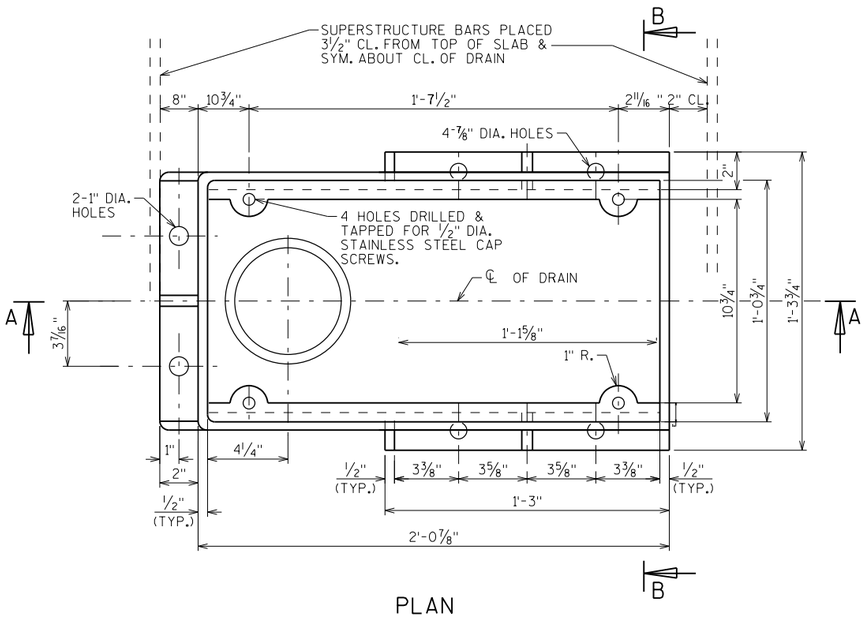
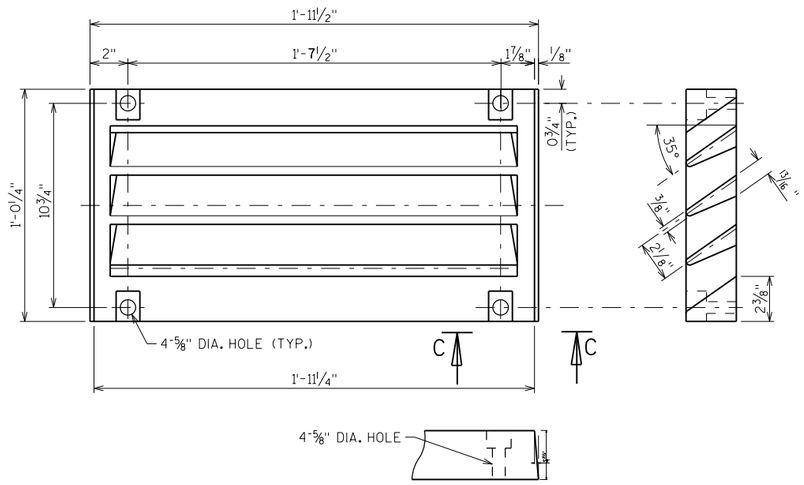
STATE PROJECT NUMBER

1133-11-74



PLAN



SECTION C-C

NOTES

ALL MATERIAL FOR TYPE "GC" CASTINGS, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48, CLASS 30. (APPROX. WEIGHT= 225#)

MATERIAL FOR BRACKETS SHALL CONFORM TO A.S.T.M. A36.

PAINT THE BRACKETS WITH THE SAME PAINT SYSTEM SPECIFIED FOR THE TUB GIRDERS OR GALVANIZED THE BRACKETS AND PAINT WITH THE TOP COAT IN THE FIELD TO MATCH WITH TUB GIRDER TOP COAT.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

FLANGED 6" DIA. DOWNSPOUTS SHALL FIBERGLASS CONFORMING TO A.S.T.M. D2996, GRADE 1, CLASS A.

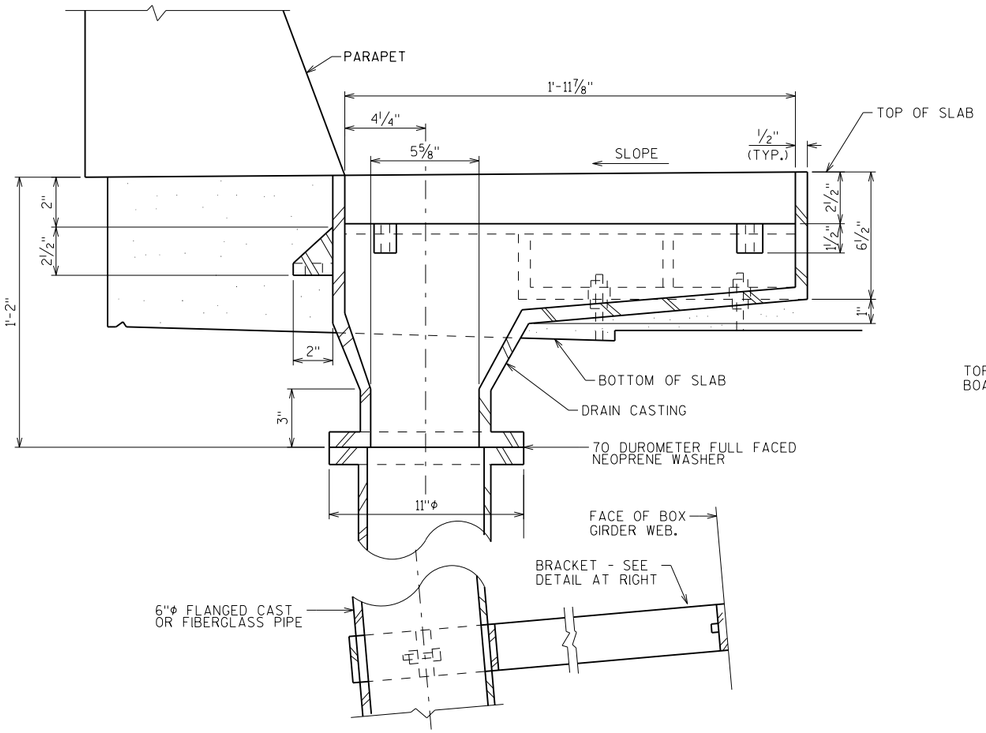
TRANSVERSE AND LONGITUDINAL SLAB BAR REINFORCEMENT TO BE CUT A MINIMUM 1" CLEAR FROM DRAIN. DISPLACE BARS WHERE POSSIBLE.

DO NOT PLACE SHEAR STUDS ON TOP FLANGE OF LEFT BOX GIRDER WHERE THEY INTERFERE WITH THE FLOOR DRAIN.

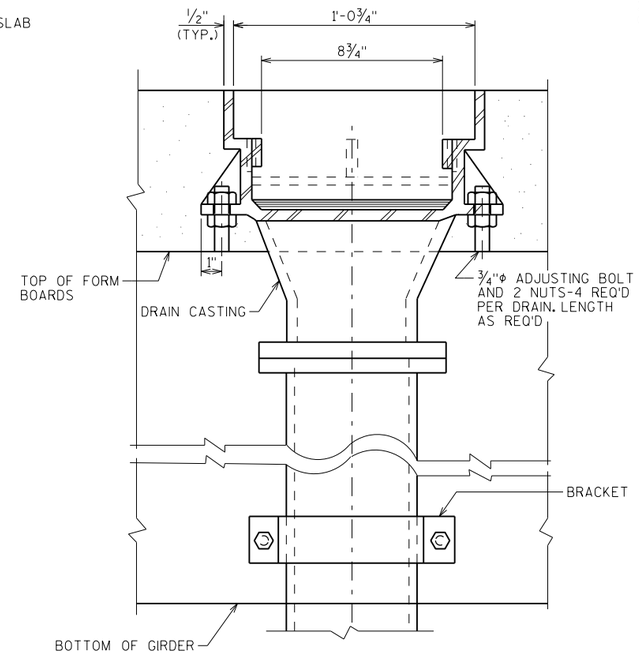
SEE SHEETS TITLED "GENERAL PLAN AND ELEVATION" FOR "SPANS 7-11, 12-15, 16-18 19-21 AND 22-23" FOR LOCATIONS OF FLOOR DRAINS.

GRATE CASTING DETAIL

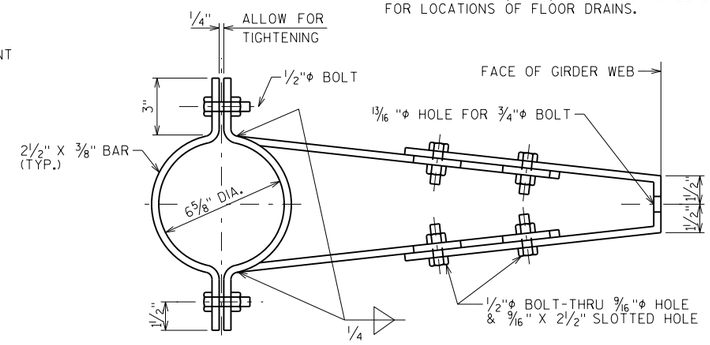
ATTACH GRATE TO FRAME FOR SHIPMENT



SECTION A-A



SECTION B-B



BRACKET DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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FLOOR DRAIN TYPE 'GC'

SHEET 132 OF 143
815

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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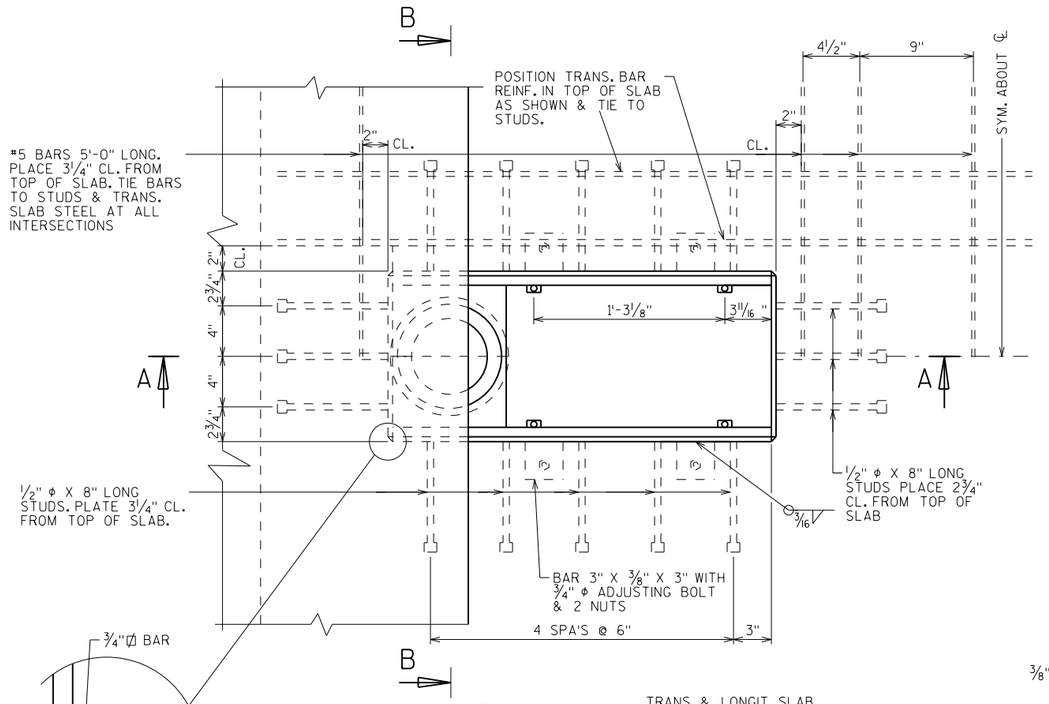
DATE: 5/31/2013
I.D.

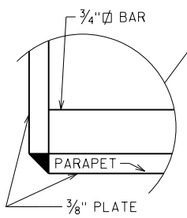
STATE PROJECT NUMBER

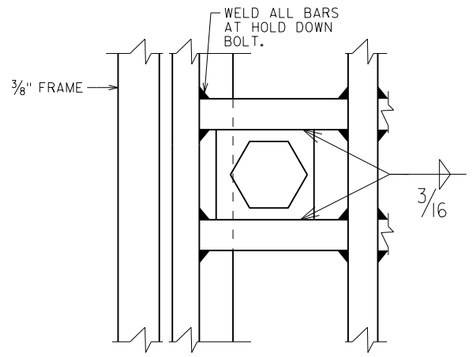
1133-11-74



PLAN

TRANS. & LONGIT. SLAB BAR REINFORCEMENT TO BE CUT A MAX. OF 1" CL. FROM DRAIN FRAME. DISPLACE BARS WHERE POSSIBLE.





DETAIL 1

NOTES

ALL DRAIN MATERIAL INCLUDING GRATE, EXCLUDING PIPE & GRATE HOLD DOWN BOLTS, SHALL BE ASTM A36 STEEL.

PAINT THE BRACKETS WITH THE SAME PAINT SYSTEM SPECIFIED FOR THE TUB GIRDERS OR GALVANIZE AND PAINT WITH THE TOP COAT IN THE FIELD TO MATCH WITH THE GIRDER TOP COAT.

ALL STEEL SHALL BE GALVANIZED. WELD SHALL BE MADE WITH LOW HYDROGEN ELECTRODES.

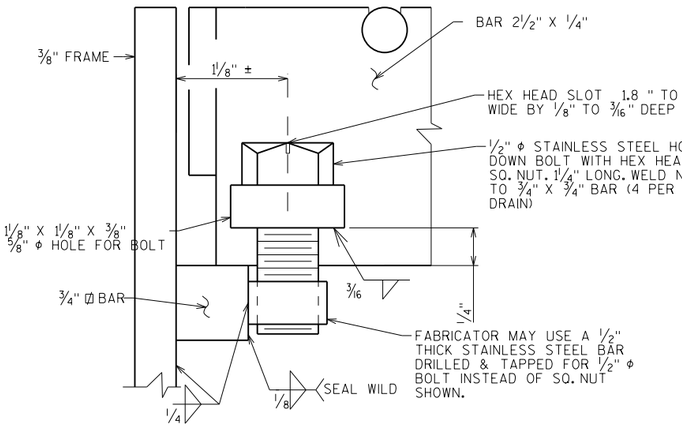
SEAL WELD INSIDE OF DRAIN.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

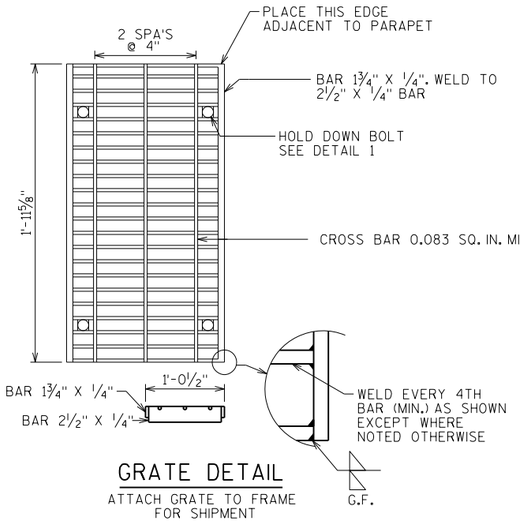
FLANGED 6"ϕ FIBERGLASS PIPE CONFORMING TO ASTM D2996 GRADE 1, CLASS A, MAY BE USED AS AN ALTERNATE TO GALVANIZED STANDARD PIPE CONFORMING TO ASTM A53.

PRIOR TO GALVANIZING A NO. 6 BLAST CLEANING IS REQUIRED.

SEE SHEETS TITLED "GENERAL PLAN AND ELEVATION" FOR SPANS 1-3, 4-6, 7-9, AND 10-11" FOR LOCATIONS OF FLOOR DRAINS

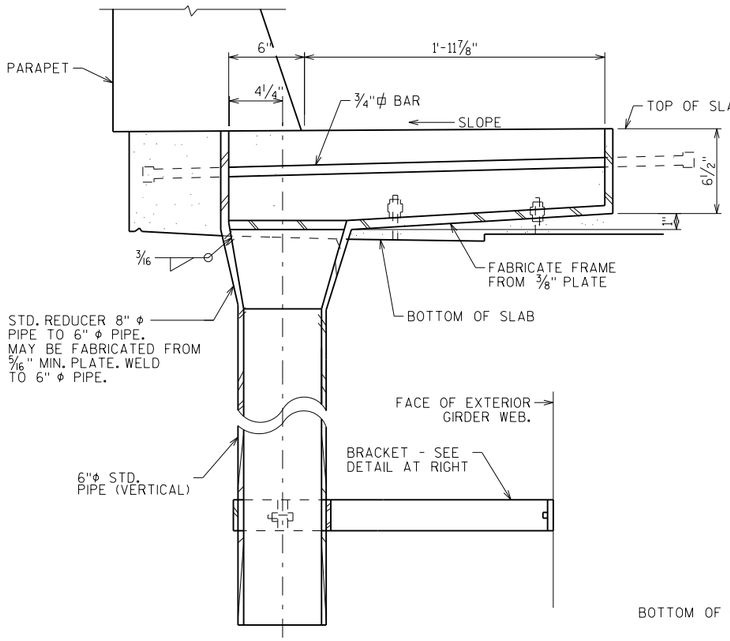


SECTION AT HOLD DOWN BOLT

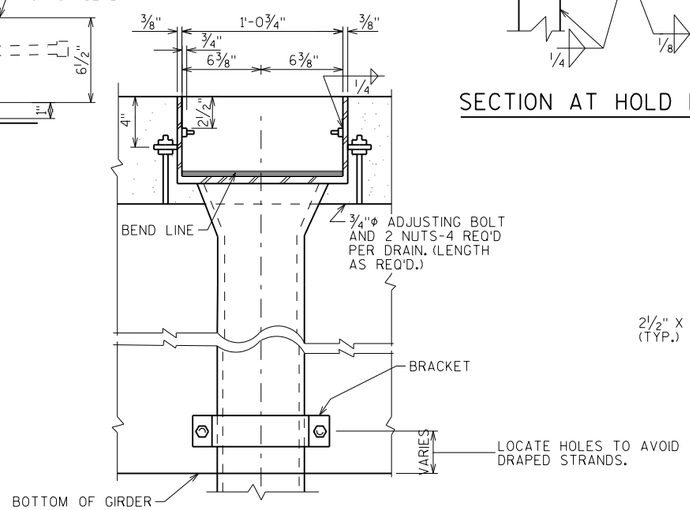


GRATE DETAIL

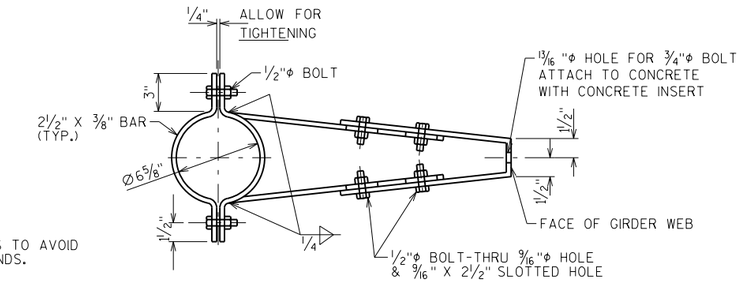
ATTACH GRATE TO FRAME FOR SHIPMENT



SECTION A-A



SECTION B-B



BRACKET DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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FLOOR DRAIN TYPE 'H'

SHEET 133 OF 143
816

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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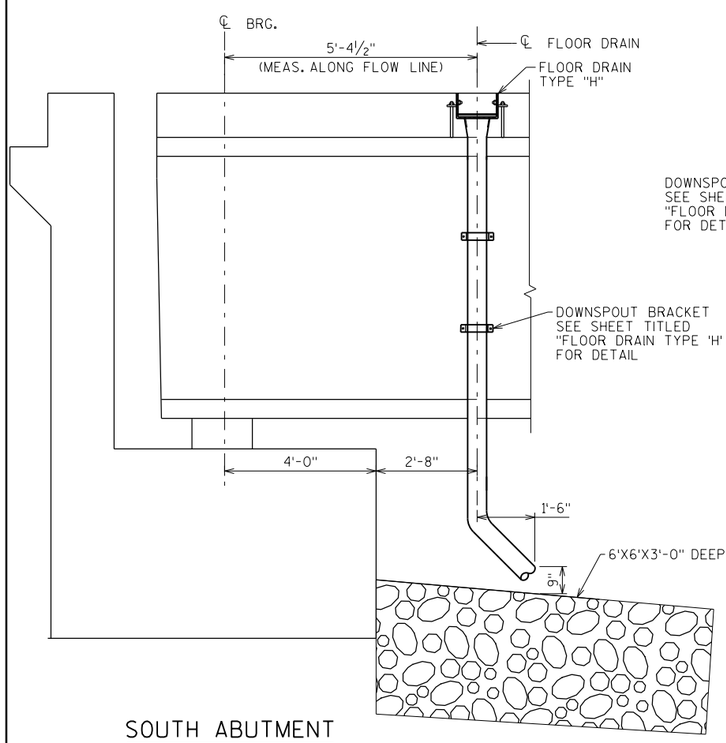
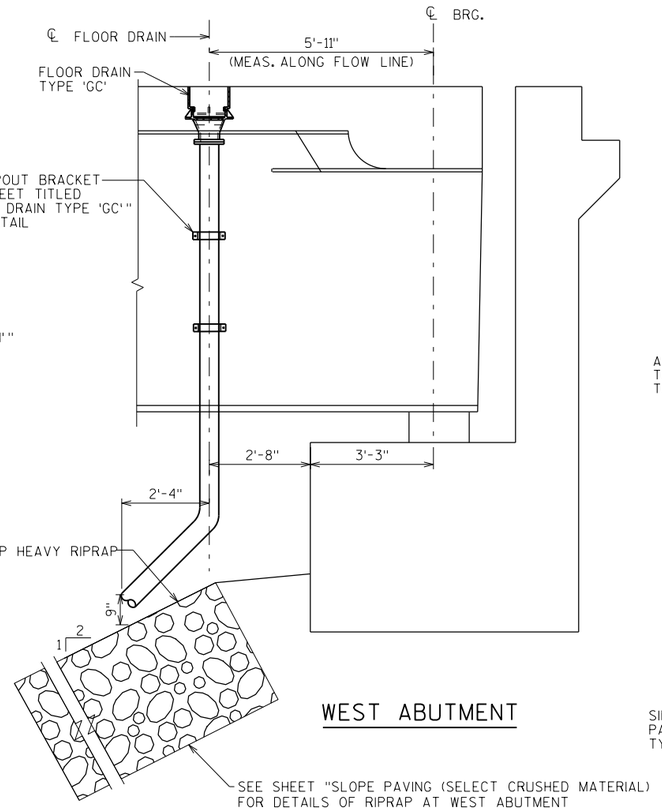
STATE PROJECT NUMBER

1133-11-74

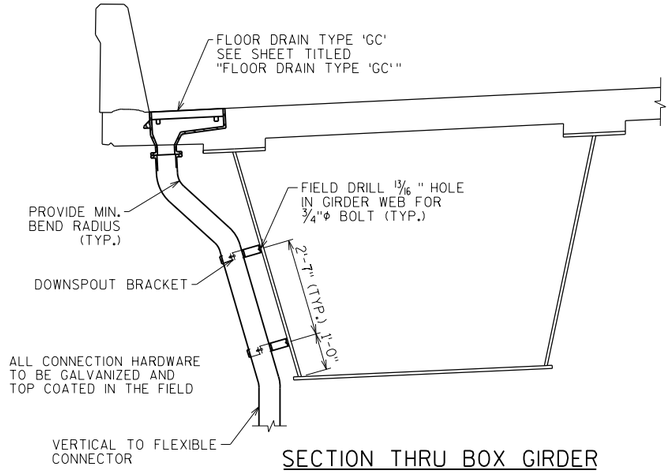


SOUTH ABUTMENT

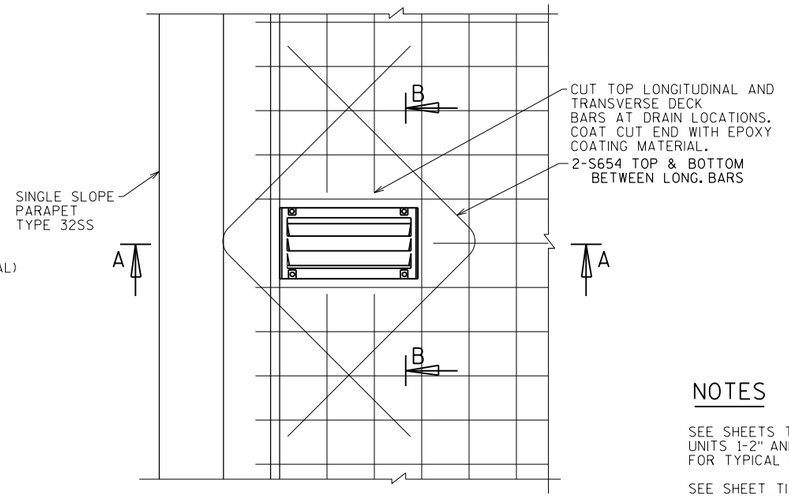


WEST ABUTMENT

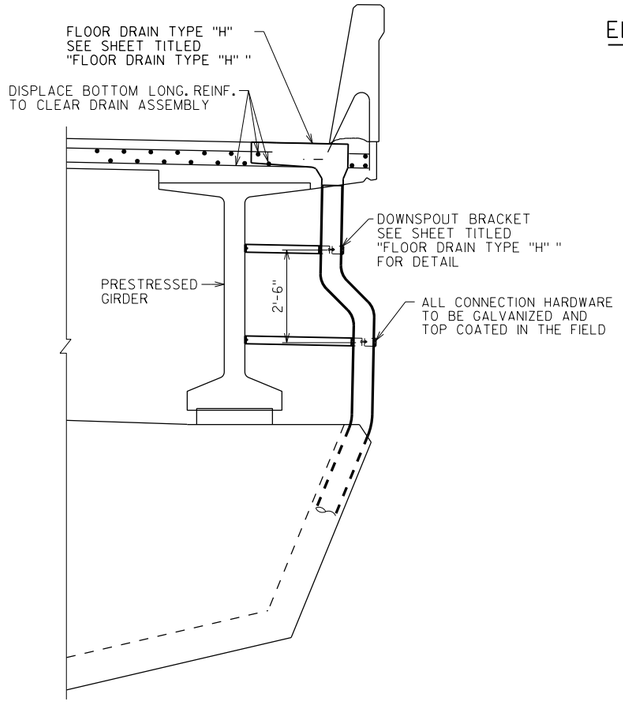
ELEVATION



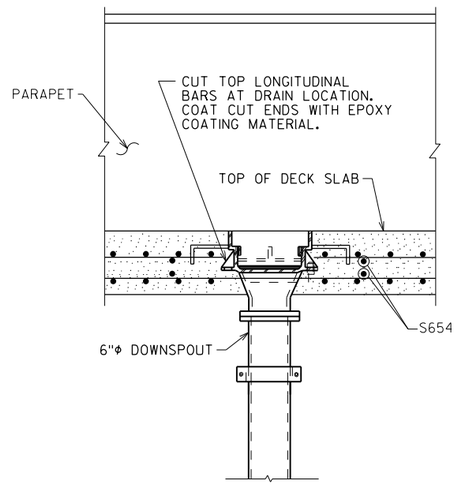
SECTION THRU BOX GIRDER



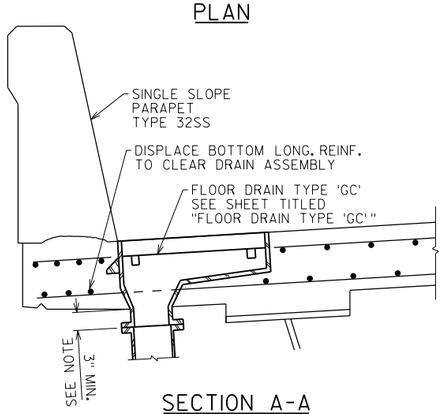
PLAN



SECTION THRU PRESTRESSED GIRDER



SECTION B-B



SECTION A-A

NOTES

SEE SHEETS TITLED "DECK REINFROCEMENT UNITS 1-2" AND "DECK REINF. UNITS 3-5" FOR TYPICAL DECK SLAB REINFORCEMENT.

SEE SHEET TITLED "TYPICAL DECK SECTION" FOR PARAPET DETAILS AND REINFORCEMENT.

PARAPET REINFORCEMENT AND DOWELS NOT SHOWN FOR CLARITY - RESPACE LOCALLY AS REQUIRED TO CLEAR FLOOR DRAIN.

FORM DECK AROUND DRAIN PIPE CASTING TO ALLOW SUFFICIENT CLEARANCE TO TIGHTEN FLANGE BOLTS.

PAYMENT FOR 6"ϕ DOWNSPOUT, FLEXIBLE CONNECTOR, DOWNSPOUT BRACKETS, AND ALL NECESSARY HARDWARE IS INCLUDED IN BID ITEM SPV.0090.705 "DOWNSPOUT 6-INCH."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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FLOOR DRAIN DETAILS - 1

SHEET 134 OF 143
817

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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FILE= G:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\B-5-678\Control Copy\134 B-05-678-FLOOR DRAIN DETAILS-1.dgn

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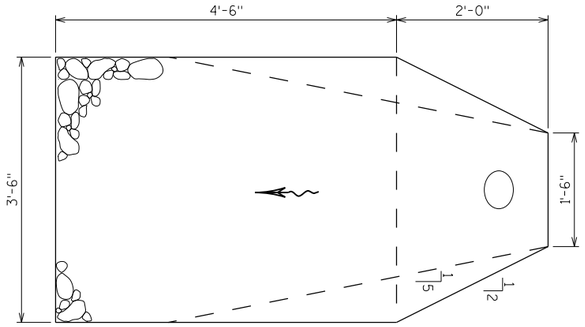
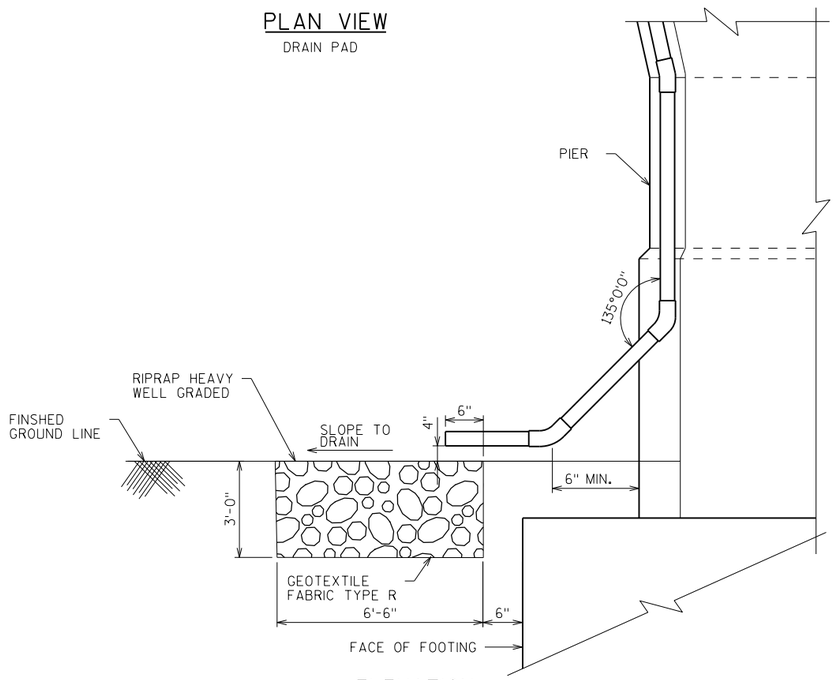
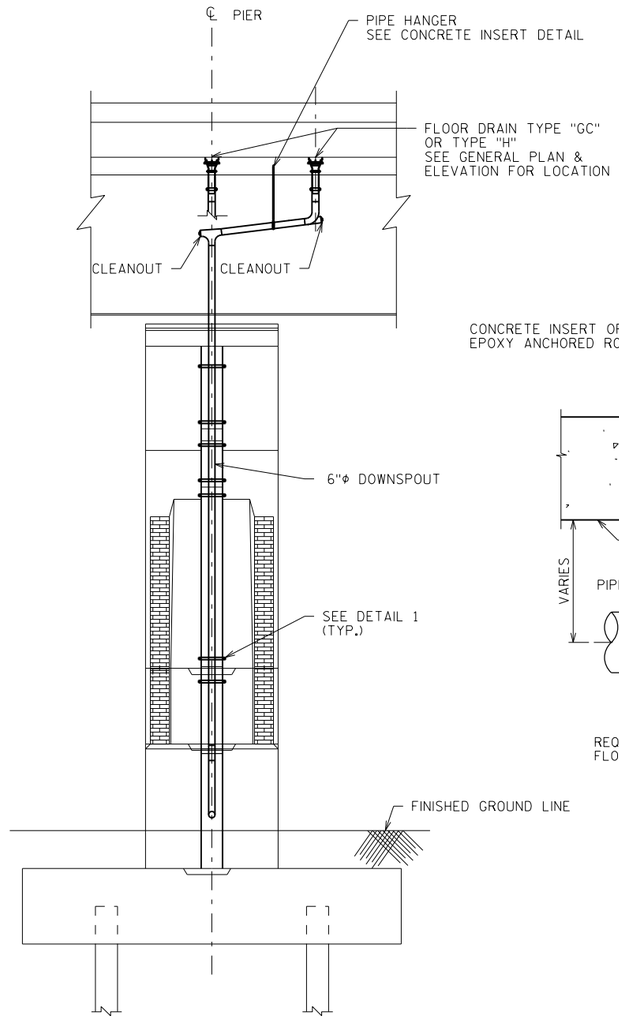


PLAN VIEW

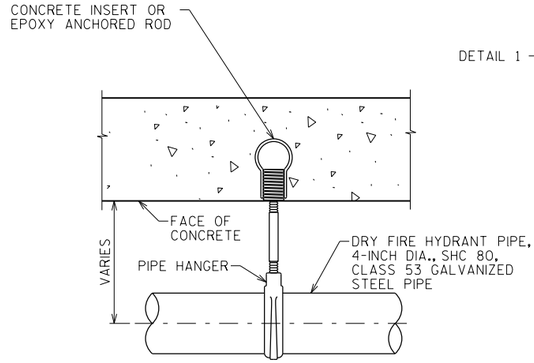
DRAIN PAD



ELEVATION

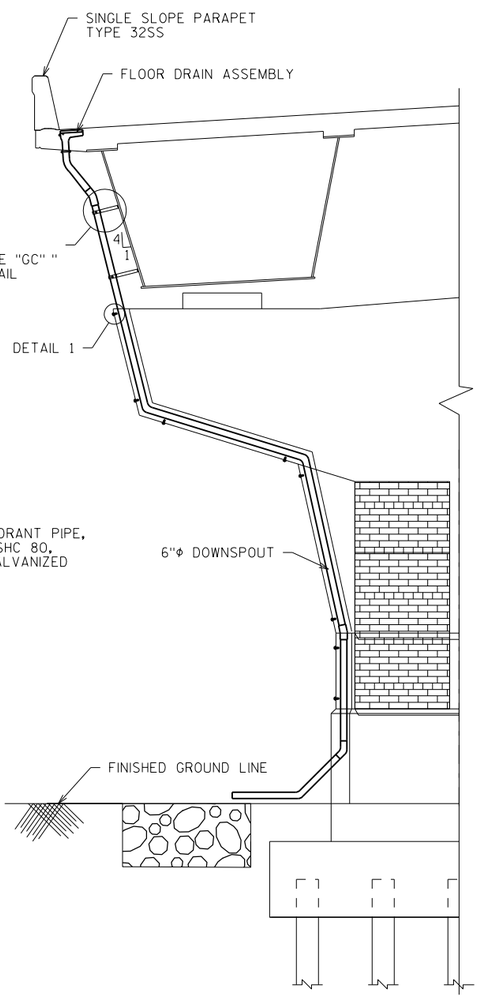


TYPICAL ELEVATION



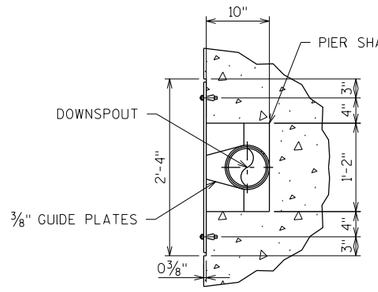
CONCRETE INSERT

REQUIRED ONLY AT LOCATIONS WHERE
FLOOR DRAIN IS NOT AT ℄ OF PIER

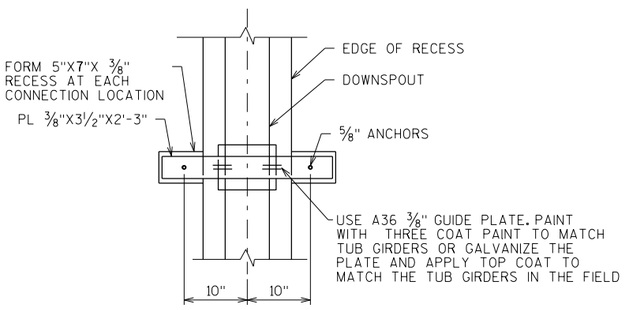


TYPICAL SECTION

FLOOR DRAIN AT BOX GIRDER SHOWN
PRESTRESSED GIRDER SIMILAR



PLAN



FRONT ELEVATION

DETAIL 1

NOTES

1. SEE SHEET TITLED "FLOOR DRAIN DETAILS" FOR DRAIN PIPE SPECIFICATIONS.
2. EXCAVATION INCIDENTAL TO ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-05-678".
3. VERIFY ALL DIMENSIONS PRIOR TO FABRICATING DOWNSPOUT.
4. ALL FLEXIBLE CONNECTORS, FITTINGS, ELBOWS, CLEANOUTS, HANGERS AND ALL CONNECTION AND INSTALLATION HARDWARE ARE CONSIDERED INCIDENTAL TO ITEM "DOWNSPOUT RTRP 6-INCH".
5. THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE DOWNSPOUT MAY BE ALTERED TO AVOID INTERFERENCE WITH THE GIRDER CROSS FRAME. MAINTAIN A 2% MINIMUM SLOPE AND TRANSITION TO STEEPER SLOPE AS SOON AS POSSIBLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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FLOOR DRAIN DETAILS - 2

SHEET 135 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
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STATE PROJECT NUMBER

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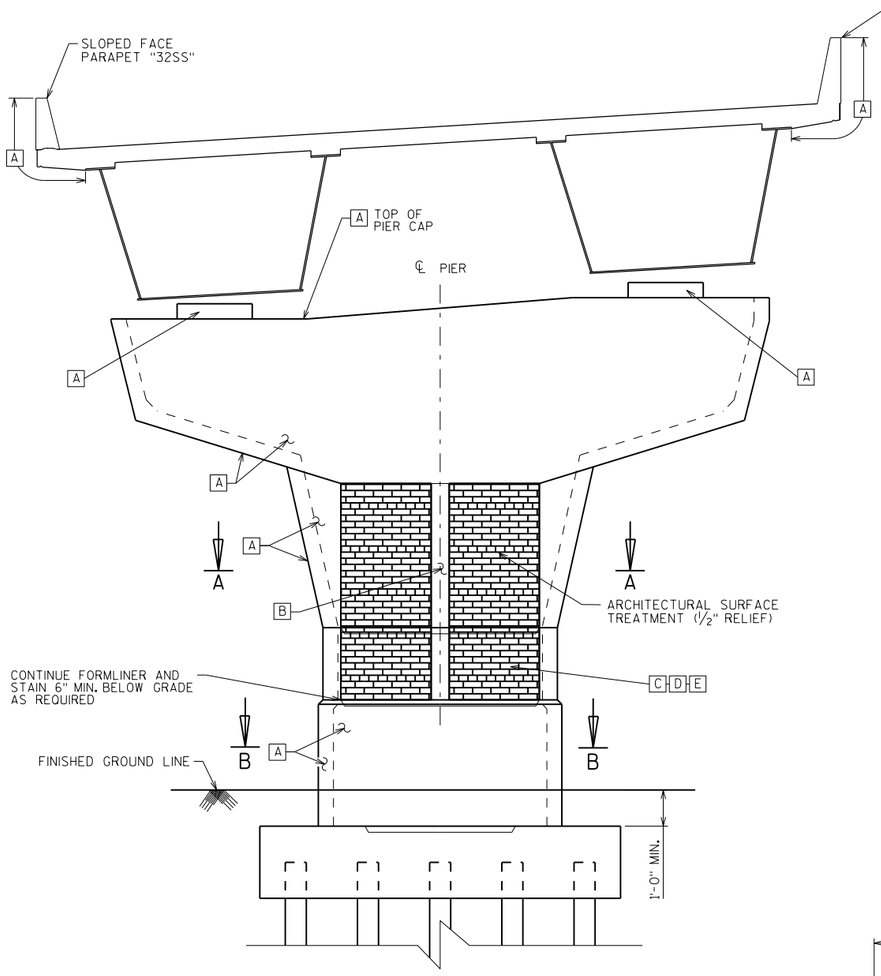
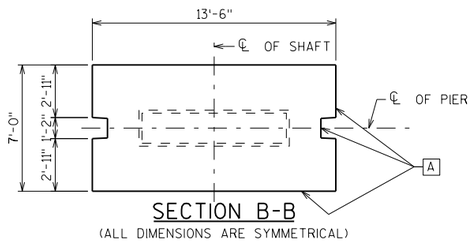


TYPICAL CROSS SECTION

(LOOKING UPSTATION)



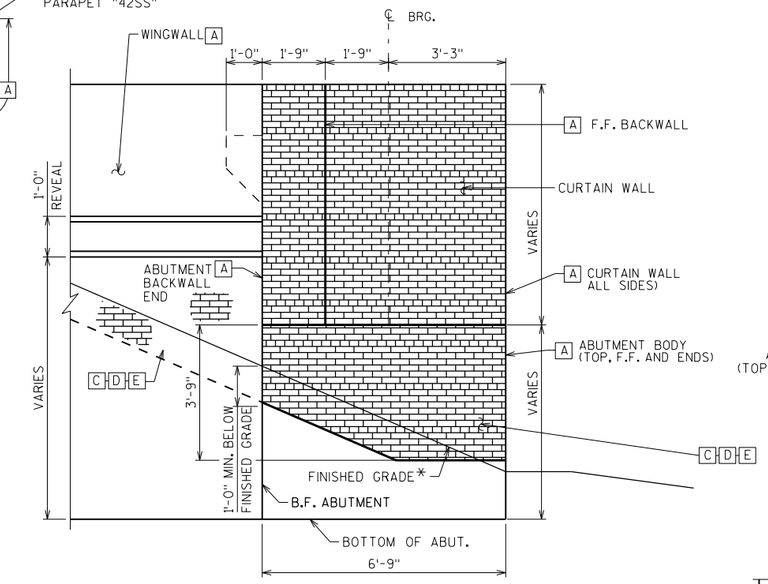
SECTION B-B

(ALL DIMENSIONS ARE SYMMETRICAL)

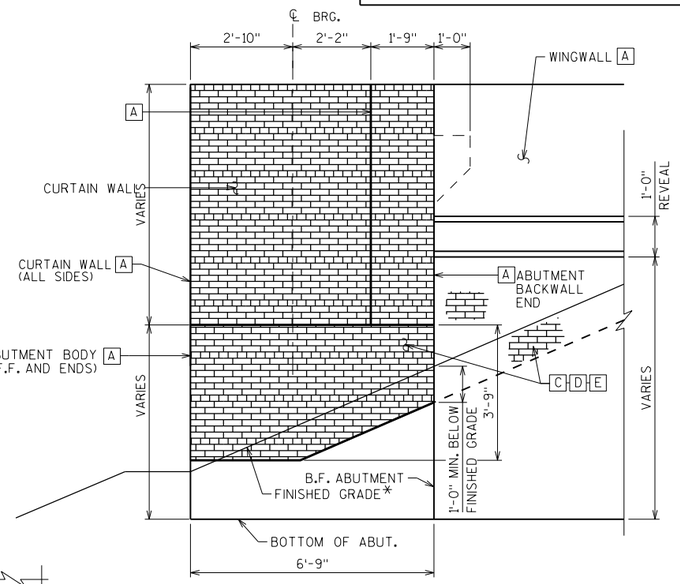
CONCRETE STAINING SCHEDULE

MARK	COLOR	COLOR DESIGNATION	LOCATION
A	BASE COLOR	BASKET BEIGE - SW 6143	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	VIRTUAL TAUPE - SW 7039	REVEALS, OUTSIDE OF CONC.
C	ACCENT COLOR #3	ROOKWOOD TERRA COTTA - SW 2803	BRICK COLOR (70% OF BRICK)
D	ACCENT COLOR #4	CAJUN RED - SW 0008	BRICK COLOR (15% OF BRICK)
E	ACCENT COLOR #5	MEADOW LARK - SW 7522	BRICK COLOR (15% OF BRICK)

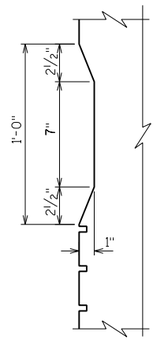
NOTE: 1. FINISH ON COLORS IS FLAT (LUSTERLESS)



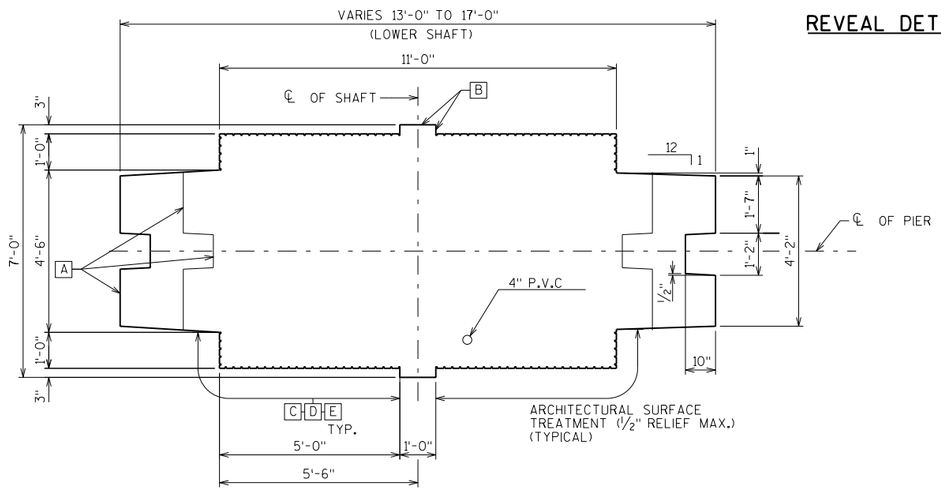
SOUTH ABUTMENT ELEVATION



WEST ABUTMENT ELEVATION



REVEAL DETAIL



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

PIER NOTES:

FORMLINER COURSING ON PIERS SHALL BE LEVEL.

THE FORMLINER COURSING ON ALL FACES OF EACH COLUMN SHALL BE VERTICALLY ALIGNED.

THE FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

FOR ABUT. AND PIER DETAILS SEE SHEETS TITLED "SOUTH ABUTMENT", "WEST ABUTMENT" & "PIER 1-22 LAYOUT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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AESTHETIC DETAILS

SHEET 136 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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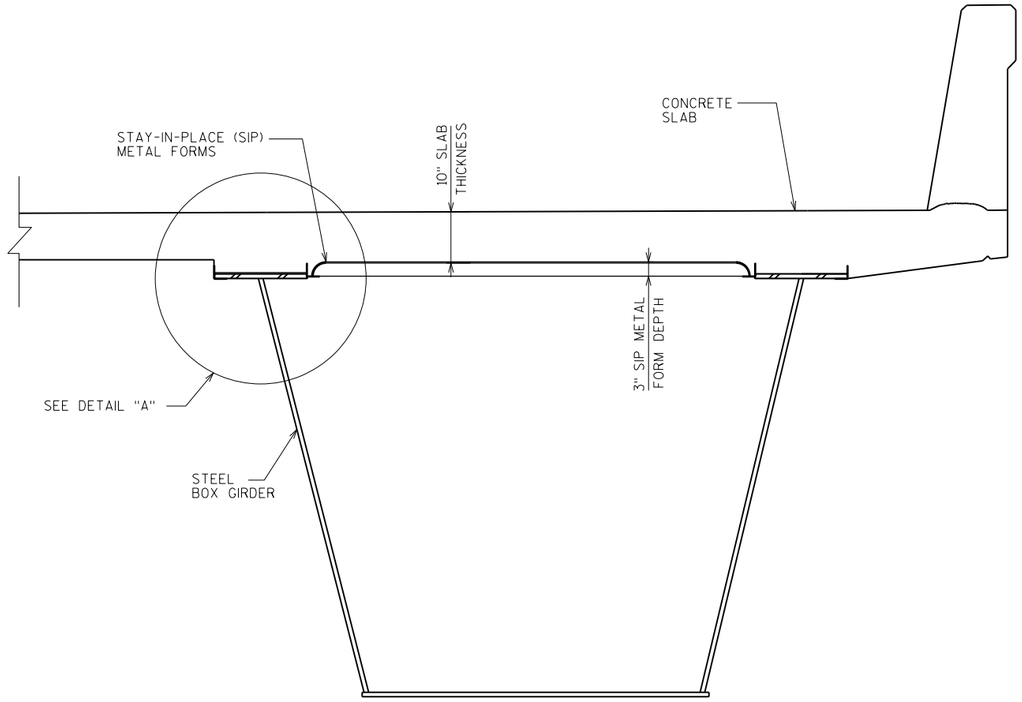
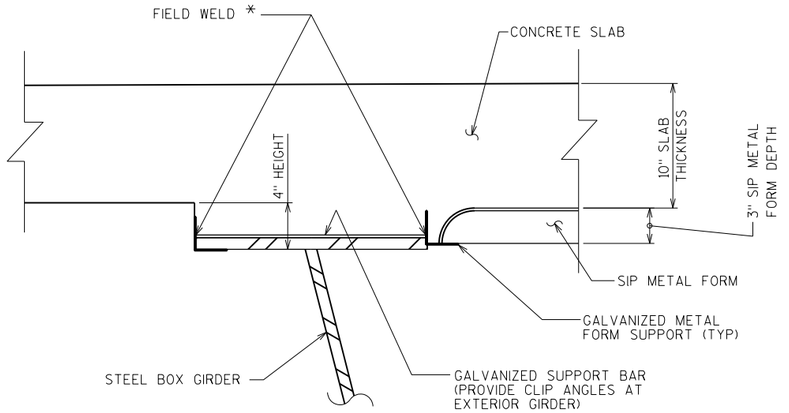


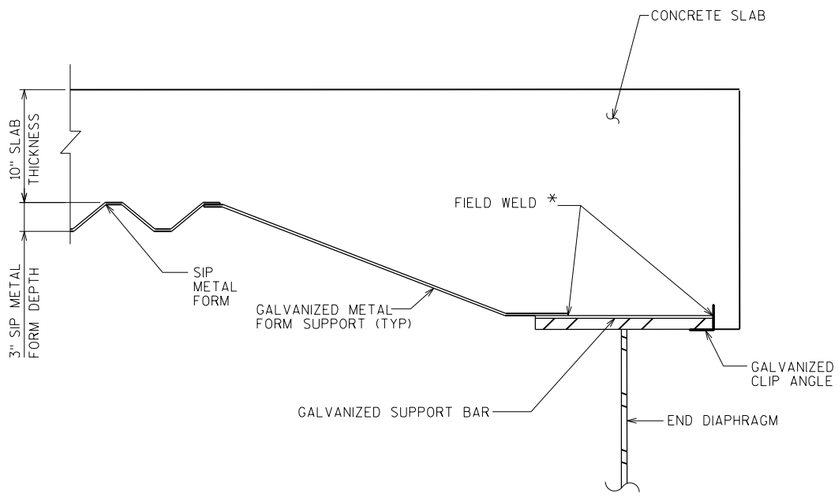
PARTIAL SECTION THROUGH SUPERSTRUCTURE

(SHOWING TYPICAL DETAILS AND NOTES FOR SIP METAL FORMS)



DETAIL "A"

* DO NOT WELD TO NOR PERMIT WELD SPATTER ON SUPPORTING STEEL GIRDER, DIAPHRAGMS, BRACING ETC. ELECTRICAL GROUNDING TO STRUCTURAL STEEL IS PROHIBITED. SEE SPECIFICATIONS FOR FIELD WELDING OF SIP FORMS IN PLACE AND PAINTING OF THE TOP FLANGE.



PARTIAL SECTION THROUGH END OF SPAN

(INTERIOR OF BOXES ONLY)

NOTES:

STAY-IN-PLACE (SIP) FORM DETAILS ARE SHOWN FOR REFERENCE ONLY. SIP FORMS ARE OPTIONAL. PAYMENT FOR SIP FORMS IS CONSIDERED INCLUDED IN THE CONTRACT UNIT BID PRICE FOR HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES.

LOCATING WEEP HOLES IN THE INTERIOR FLUTES OF THE STAY IN PLACE DECK FORMS IS PERMITTED.

WELDING OF THE DECK FORM SUPPORT HANGERS TO THE TUB GIRDER FLANGES WILL NOT BE PERMITTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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DECK FORM DETAILS

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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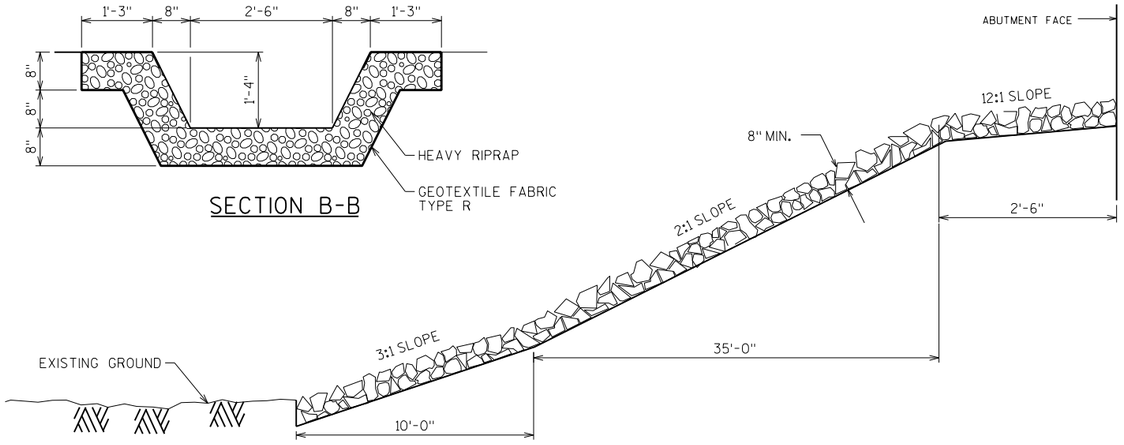
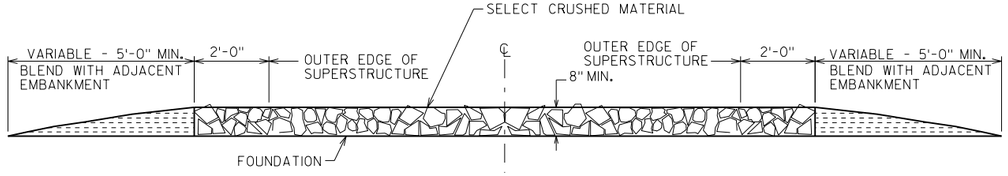
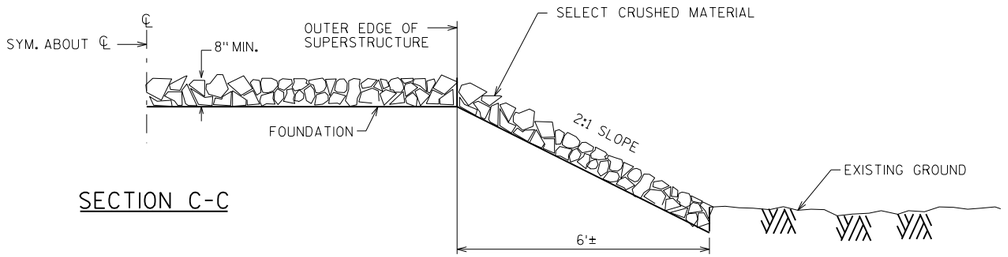


SECTION B-B

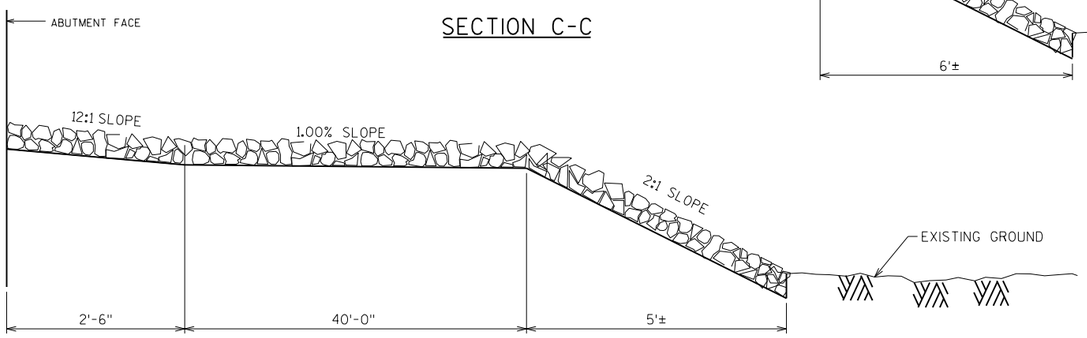
WEST ABUTMENT
(NOT TO SCALE)



SECTION A-A

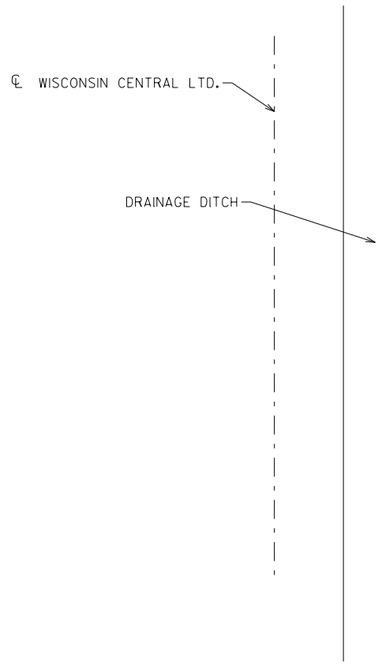


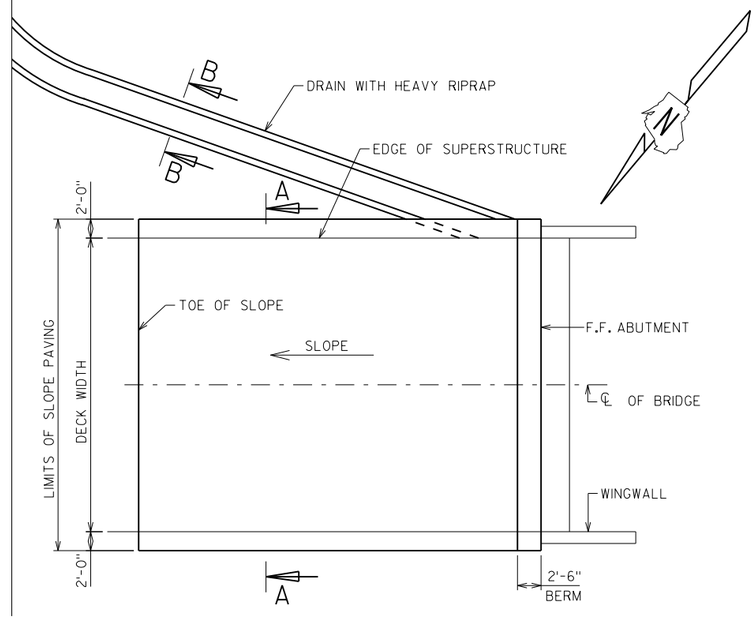
SECTION C-C



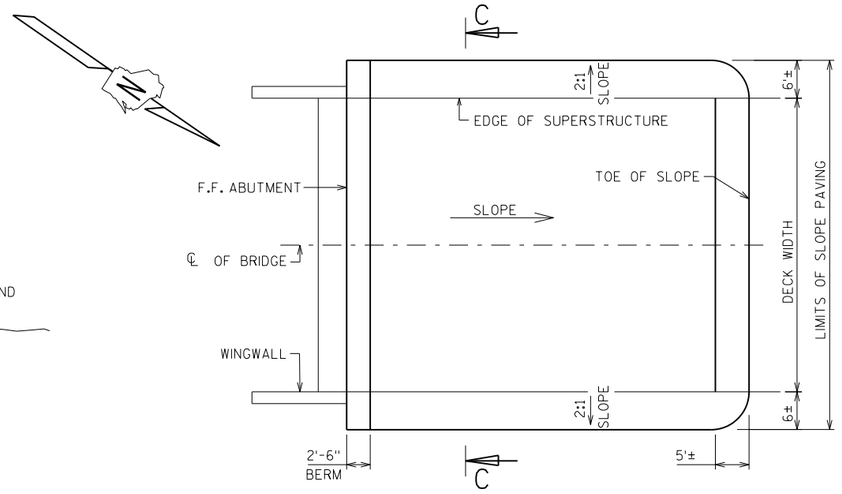
SOUTH ABUTMENT
(NOT TO SCALE)

CROSS SECTION THRU SELECT CRUSHED MATERIAL
ASPHALTIC MATERIAL SHALL NOT BE APPLIED TO THE SURFACE OF SELECT CRUSHED MATERIAL.





WEST ABUTMENT PLAN



SOUTH ABUTMENT PLAN

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SLOPE PAVING (SELECT CRUSHED MATERIAL)

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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013

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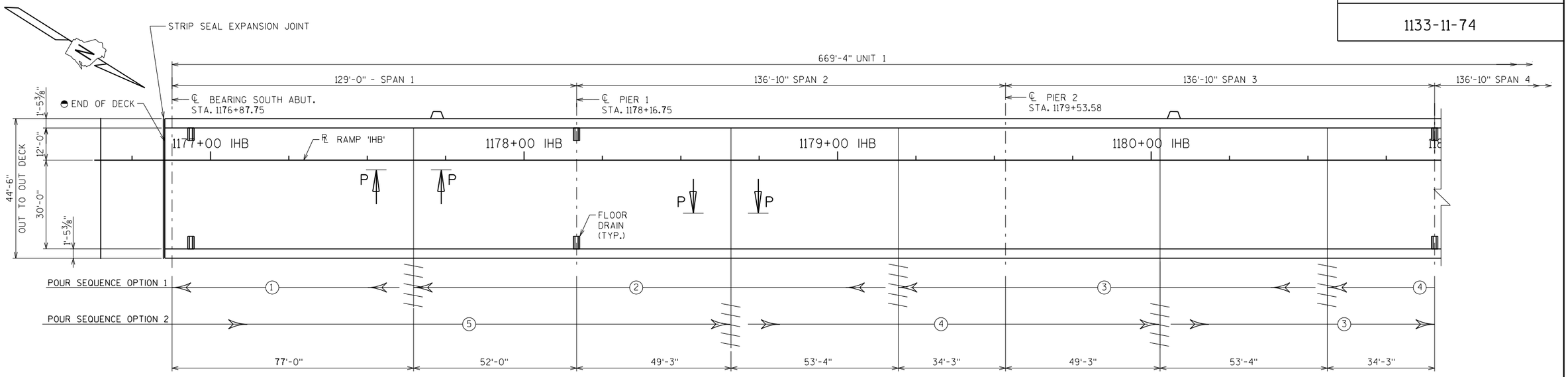
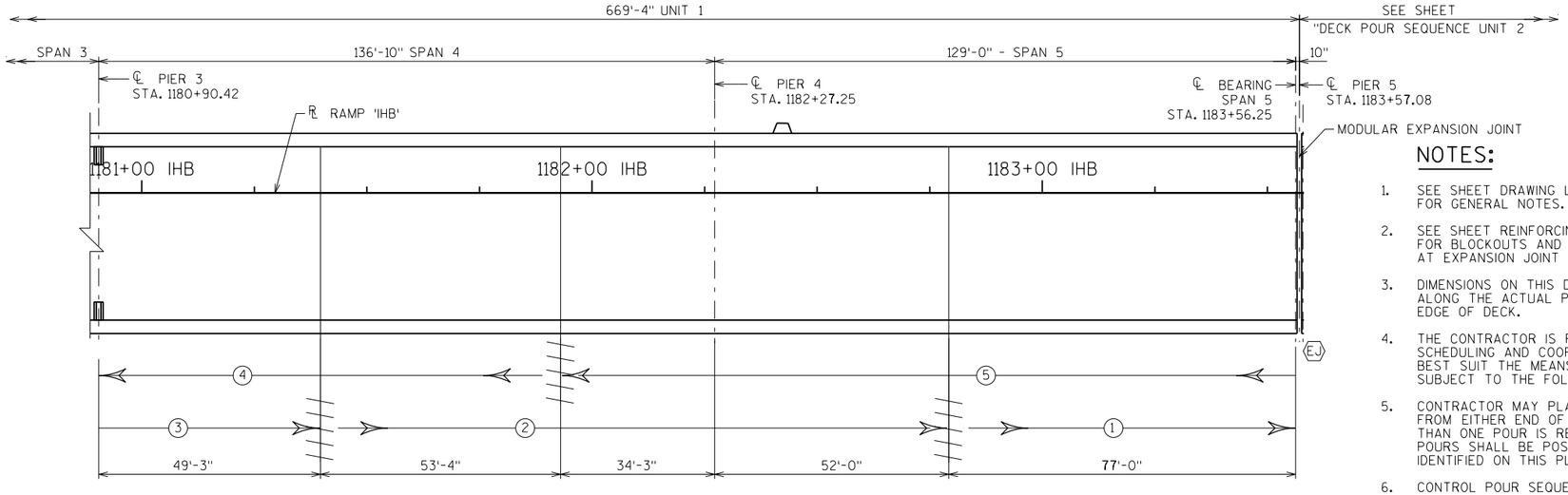
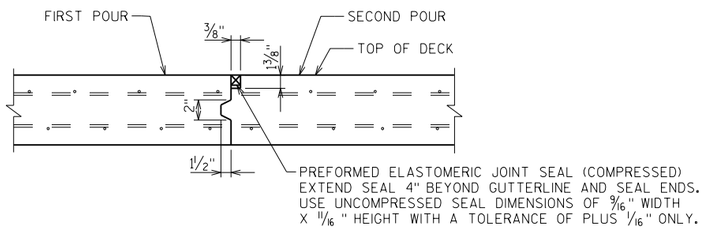


DECK POUR SEQUENCE SPANS 1-3 - UNIT 1

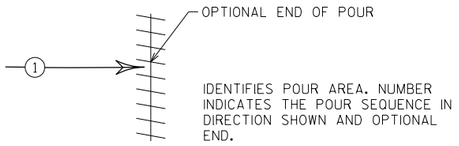


DECK POUR SEQUENCE SPANS 4 & 5 - UNIT 1



SECTION P-P

LEGEND



NOTES:

1. SEE SHEET DRAWING LIST AND GENERAL NOTES FOR GENERAL NOTES.
2. SEE SHEET REINFORCING AT EXPANSION JOINTS FOR BLOCKOUTS AND OTHER DETAILS REQUIRED AT EXPANSION JOINT LOCATIONS.
3. DIMENSIONS ON THIS DRAWING ARE MEASURED ALONG THE ACTUAL PROFILE OF THE FINISHED EDGE OF DECK.
4. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING DECK POURS TO BEST SUIT THE MEANS AND METHODS AVAILABLE, SUBJECT TO THE FOLLOWING RESTRICTIONS.
5. CONTRACTOR MAY PLACE THE DECK CONTINUOUSLY FROM EITHER END OF THE STRUCTURE. IF MORE THAN ONE POUR IS REQUIRED, BULKHEADS BETWEEN POURS SHALL BE POSITIONED AT THE LOCATIONS IDENTIFIED ON THIS PLAN - SEE LEGEND.
6. CONTROL POUR SEQUENCE AND PLACEMENT RATE TO ENSURE THAT BEFORE THE CONCRETE IN ANY 'PIER' AREA REACHED THE INITIAL SET CONDITION, THE CONCRETE IN BOTH ADJACENT 'SPAN' AREAS IS ALREADY IN PLACE.
7. PREVENT UPLIFT AT ALL BEARING LOCATIONS. NOTE THAT ANY POUR SEQUENCE THAT REQUIRES POURING THE FIRST INTERIOR SPAN BEFORE THE ADJACENT END SPAN (SUCH AS THE END-TO-END SEQUENCES REFERRED TO ABOVE) WILL RESULT IN UPLIFT FORCES AT THE EXPANSION END BEARINGS. THE CONTRACTOR SHALL ACCOUNT FOR THIS CONDITION.
8. FOR LIGHT BLISTER REINFORCEMENT DETAILS SEE SHEET TITLED "LIGHT STANDARD".
9. DEPOSIT FRESH CONCRETE FIRST IN THE AREA BETWEEN THE GIRDERS FOLLOWED BY THE OVERHANG AREA TO THE INSIDE OF THE CURVE AND THEN BY THE OVERHANG AREA TO THE OUTSIDE OF THE CURVE.
10. CONTROL THE PLACEMENT TO ENSURE THAT THE FURTHEST PROGRESS OF FRESH CONCRETE VARIES BY NO MORE THAN 10 FEET ACROSS THE WIDTH OF THE DECK.
11. PREVIOUSLY PLACED DECK CONCRETE MUST HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE THE AREAS IMMEDIATELY ADJACENT MAY BE PLACED.
12. FOLLOW PROCEDURES OUTLINED IN THE SPECIAL PROVISIONS FOR PROMPTLY FOGGING, COVERING, AND CURING FRESHLY PLACED CONCRETE.
13. STAY-IN-PLACE METAL FORMS WILL ONLY BE PERMITTED INSIDE THE BOX GIRDERS - THE OVERHANGS AND THE ZONE BETWEEN THE GIRDERS SHALL USE CONVENTIONAL TEMPORARY FORMS.
14. THE USE OF STAY-IN-PLACE METAL FORMS IS OPTIONAL - CONVENTIONAL FORMWORK MAY BE USED INSIDE THE BOXES BUT MUST BE COMPLETELY REMOVED.
15. DESIGN CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED. WELDING TO THE GIRDER FLANGES WILL NOT BE ALLOWED.
16. ALL STEEL SHALL BE SECURED IN ITS PROPER PLACE & ELEVATION PRIOR TO ANY CONCRETE PLACEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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DECK POUR SEQUENCE UNIT 1

SHEET 139 OF 143
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/31/2013
I.D.

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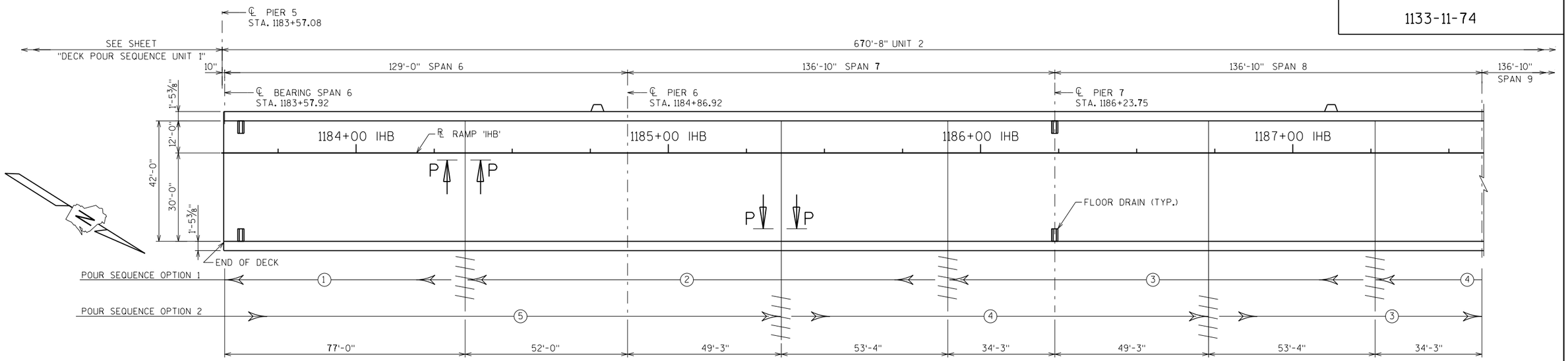
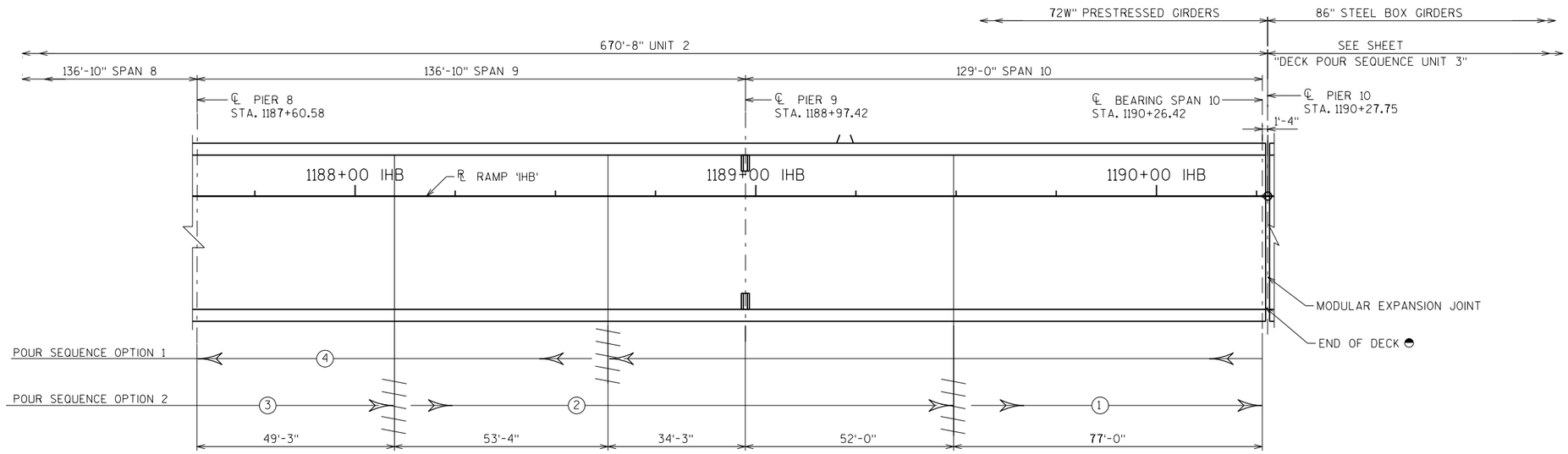


DECK POUR SEQUENCE SPANS 6-8 - UNIT 2



DECK POUR SEQUENCE SPANS 9 & 10 - UNIT 2

NOTE:

FOR NOTES, LEGEND AND SECTION P-P
SEE SHEET "DECK POUR SEQUENCE UNIT 1"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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DECK REINFORCEMENT PLAN UNIT 2

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STATE PROJECT NUMBER

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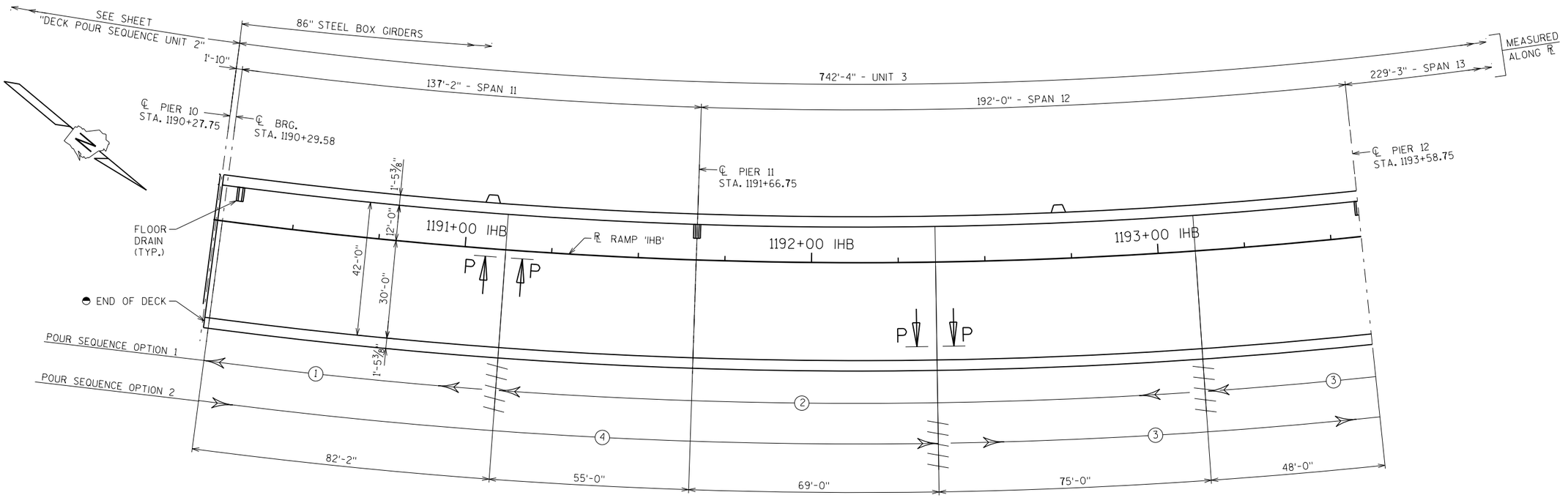
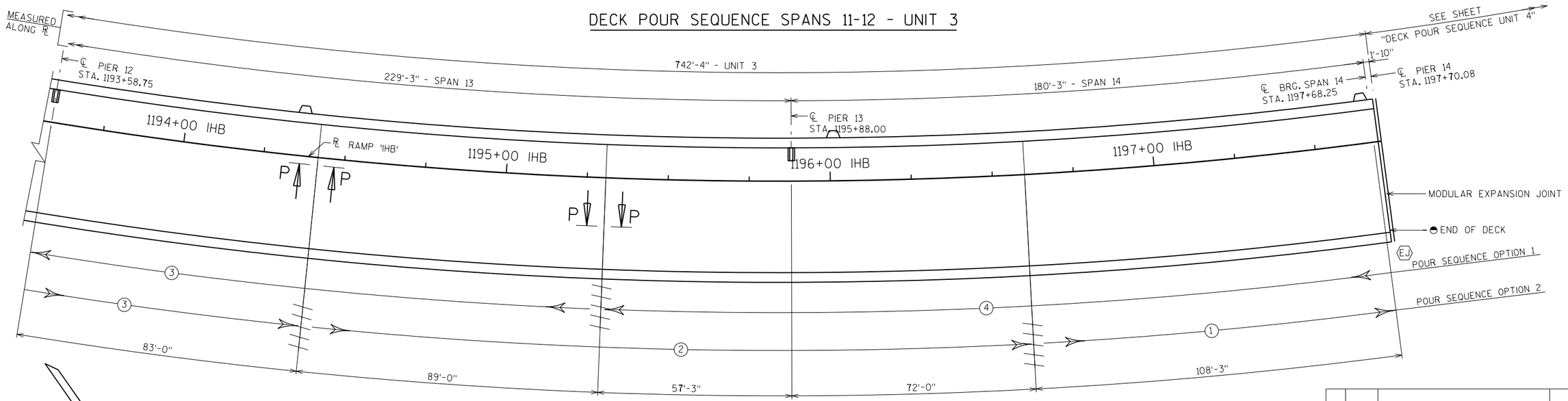


DECK POUR SEQUENCE SPANS 11-12 - UNIT 3



DECK POUR SEQUENCE SPANS 13 & 14 - UNIT 3

NOTE:

FOR NOTES, LEGEND AND SECTION P-P
SEE SHEET "DECK POUR SEQUENCE UNIT 1"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY PMV | PLANS CK'D. NPP

DECK POUR SEQUENCE UNIT 3

SHEET 141 OF 143
824

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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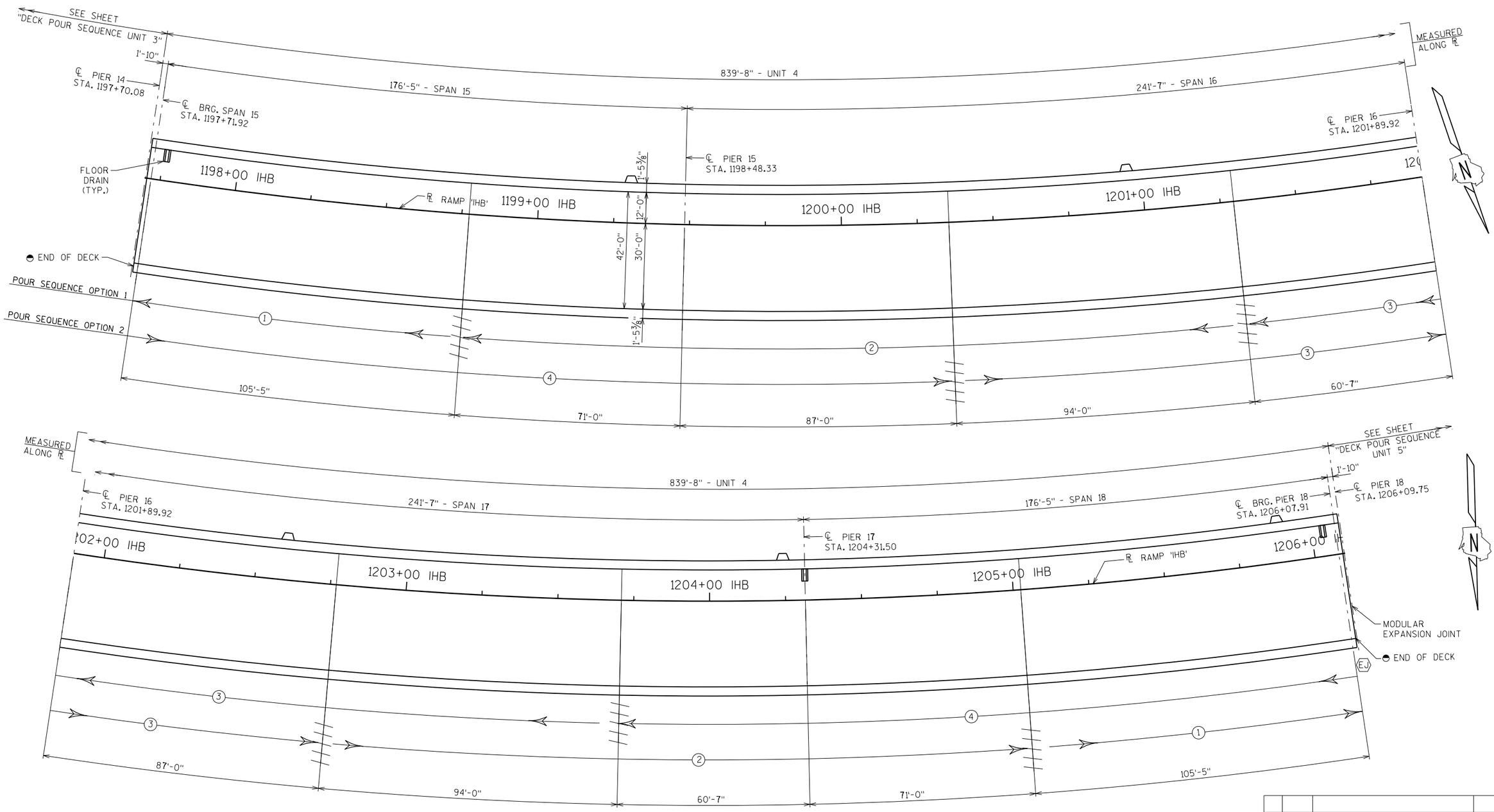
DATE:5/31/2013
I.D.

STATE PROJECT NUMBER
1133-11-74



DECK POUR SEQUENCE UNIT 4

NOTE:
FOR NOTES, LEGEND AND SECTION P-P
SEE SHEET "DECK POUR SEQUENCE UNIT 1"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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DECK POUR SEQUENCE UNIT 4

SHEET 142 OF 143
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DATE: 5/31/2013
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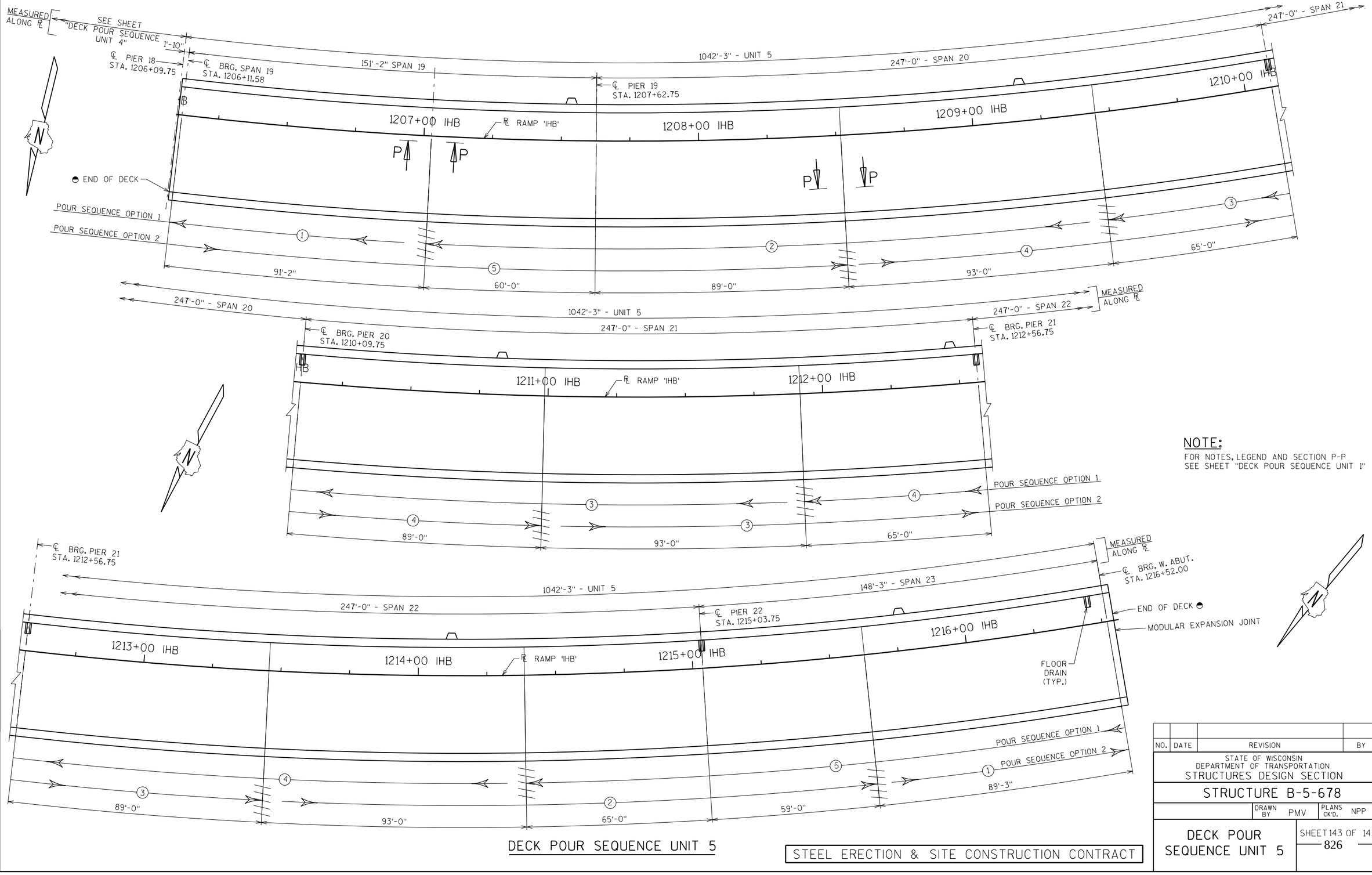
STATE PROJECT NUMBER

1133-11-74



NOTE:

FOR NOTES, LEGEND AND SECTION P-P SEE SHEET "DECK POUR SEQUENCE UNIT 1"

DECK POUR SEQUENCE UNIT 5

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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DECK POUR SEQUENCE UNIT 5

SHEET 143 OF 143
826

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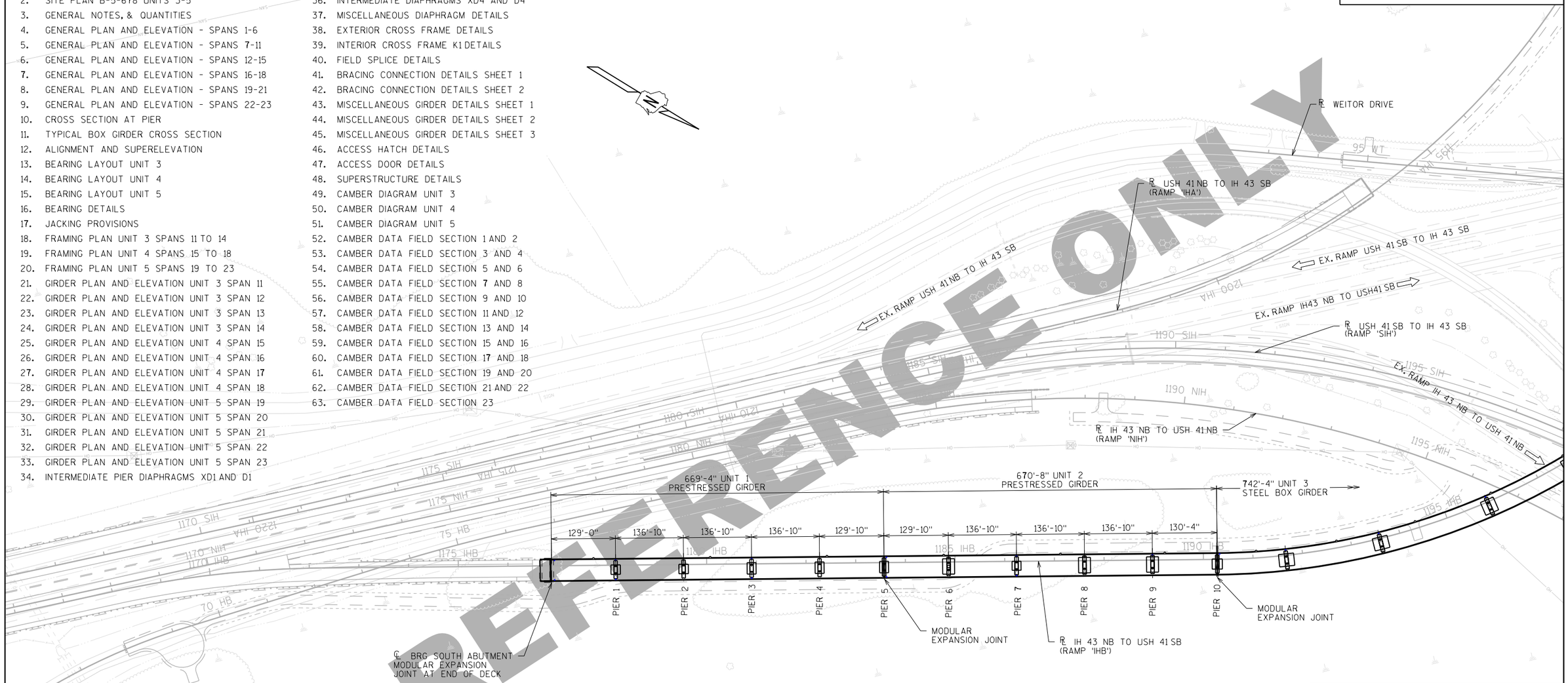
LIST OF DRAWINGS

1. SITE PLAN B-5-678 UNITS 1-2 & DRAWING LIST
2. SITE PLAN B-5-678 UNITS 3-5
3. GENERAL NOTES, & QUANTITIES
4. GENERAL PLAN AND ELEVATION - SPANS 1-6
5. GENERAL PLAN AND ELEVATION - SPANS 7-11
6. GENERAL PLAN AND ELEVATION - SPANS 12-15
7. GENERAL PLAN AND ELEVATION - SPANS 16-18
8. GENERAL PLAN AND ELEVATION - SPANS 19-21
9. GENERAL PLAN AND ELEVATION - SPANS 22-23
10. CROSS SECTION AT PIER
11. TYPICAL BOX GIRDER CROSS SECTION
12. ALIGNMENT AND SUPERELEVATION
13. BEARING LAYOUT UNIT 3
14. BEARING LAYOUT UNIT 4
15. BEARING LAYOUT UNIT 5
16. BEARING DETAILS
17. JACKING PROVISIONS
18. FRAMING PLAN UNIT 3 SPANS 11 TO 14
19. FRAMING PLAN UNIT 4 SPANS 15 TO 18
20. FRAMING PLAN UNIT 5 SPANS 19 TO 23
21. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 11
22. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 12
23. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 13
24. GIRDER PLAN AND ELEVATION UNIT 3 SPAN 14
25. GIRDER PLAN AND ELEVATION UNIT 4 SPAN 15
26. GIRDER PLAN AND ELEVATION UNIT 4 SPAN 16
27. GIRDER PLAN AND ELEVATION UNIT 4 SPAN 17
28. GIRDER PLAN AND ELEVATION UNIT 4 SPAN 18
29. GIRDER PLAN AND ELEVATION UNIT 5 SPAN 19
30. GIRDER PLAN AND ELEVATION UNIT 5 SPAN 20
31. GIRDER PLAN AND ELEVATION UNIT 5 SPAN 21
32. GIRDER PLAN AND ELEVATION UNIT 5 SPAN 22
33. GIRDER PLAN AND ELEVATION UNIT 5 SPAN 23
34. INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1
35. UNIT END DIAPHRAGMS XD2, XD3, D2, AND D3
36. INTERMEDIATE DIAPHRAGMS XD4 AND D4
37. MISCELLANEOUS DIAPHRAGM DETAILS
38. EXTERIOR CROSS FRAME DETAILS
39. INTERIOR CROSS FRAME K1 DETAILS
40. FIELD SPLICE DETAILS
41. BRACING CONNECTION DETAILS SHEET 1
42. BRACING CONNECTION DETAILS SHEET 2
43. MISCELLANEOUS GIRDER DETAILS SHEET 1
44. MISCELLANEOUS GIRDER DETAILS SHEET 2
45. MISCELLANEOUS GIRDER DETAILS SHEET 3
46. ACCESS HATCH DETAILS
47. ACCESS DOOR DETAILS
48. SUPERSTRUCTURE DETAILS
49. CAMBER DIAGRAM UNIT 3
50. CAMBER DIAGRAM UNIT 4
51. CAMBER DIAGRAM UNIT 5
52. CAMBER DATA FIELD SECTION 1 AND 2
53. CAMBER DATA FIELD SECTION 3 AND 4
54. CAMBER DATA FIELD SECTION 5 AND 6
55. CAMBER DATA FIELD SECTION 7 AND 8
56. CAMBER DATA FIELD SECTION 9 AND 10
57. CAMBER DATA FIELD SECTION 11 AND 12
58. CAMBER DATA FIELD SECTION 13 AND 14
59. CAMBER DATA FIELD SECTION 15 AND 16
60. CAMBER DATA FIELD SECTION 17 AND 18
61. CAMBER DATA FIELD SECTION 19 AND 20
62. CAMBER DATA FIELD SECTION 21 AND 22
63. CAMBER DATA FIELD SECTION 23

STATE PROJECT NUMBER

1133-11-76



FOR REFERENCE ONLY

NE REGION CONTACT - DANIELLE BLOCK (920) 492-2212
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - ROBERT FIELDBINDER (414) 831-4129

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

URS
6737 West Washington Street
Suite 2265
Milwaukee, WI 53214
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-5-678

IH 43 NB TO USH 41 SB (RAMP IHB)

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JRS	NPP	ZMG	NPP

SITE PLAN B-5-678 UNITS 1-2 & DRAWING LIST

SHEET 1 OF 63

827

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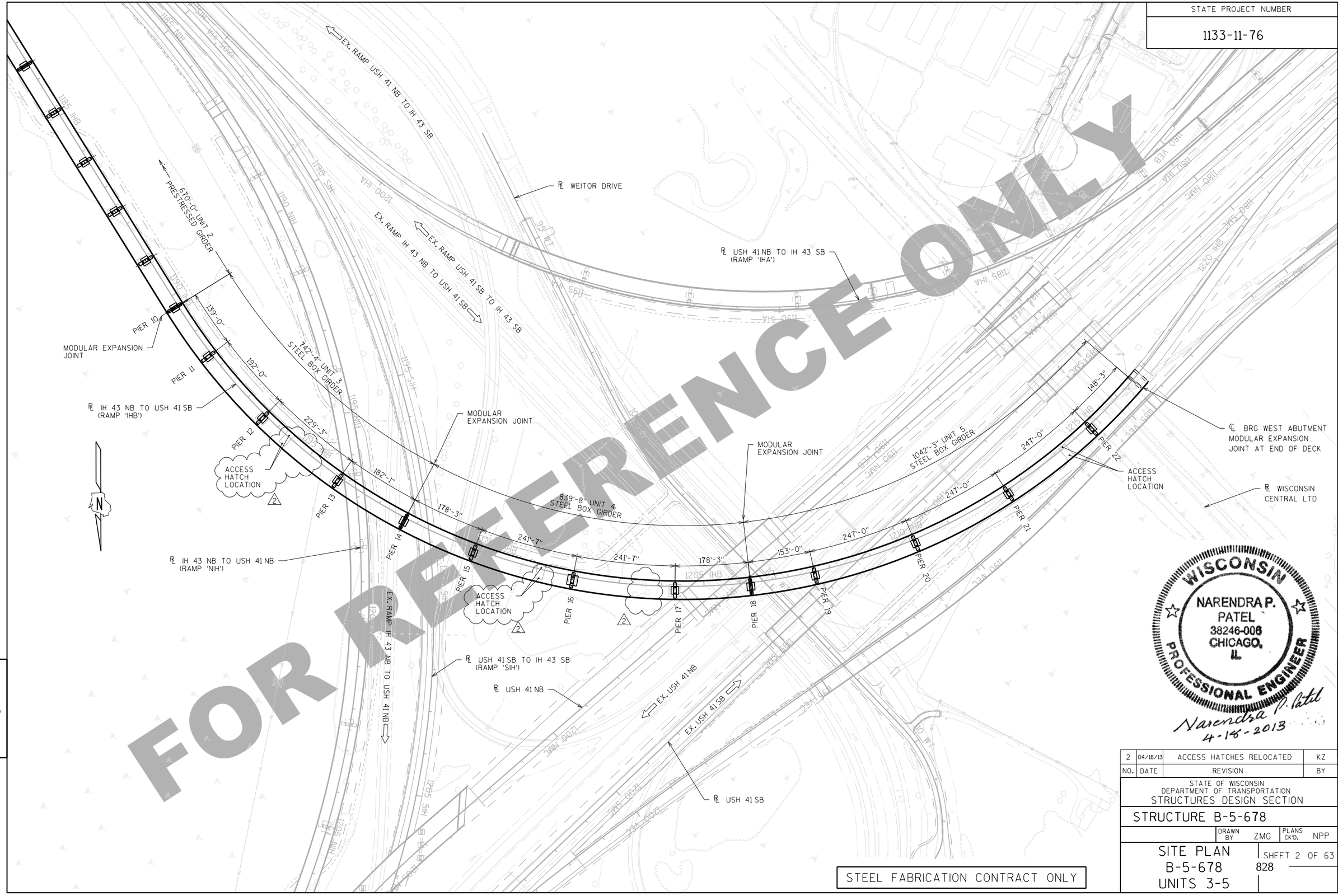
DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER
1133-11-76



FOR REFERENCE ONLY

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER
Narendra P. Patel
4-16-2013

NO.	DATE	REVISION	BY
2	04/18/13	ACCESS HATCHES RELOCATED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

SITE PLAN
B-5-678
UNITS 3-5

SHEET 2 OF 63
828

STEEL FABRICATION CONTRACT ONLY

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DATE: 4/30/2013
I.D.

STATE PROJECT NUMBER

1133-11-76

GENERAL NOTES

DO NOT SCALE THE DRAWINGS.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (1991).

GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS 'LEFT' AND 'RIGHT'. THESE ORIENTATIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING IN THE DIRECTION OF INCREASING STATION.

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THIS CONTRACT INCLUDES FABRICATING, FURNISHING, STORING AND DELIVERING STRUCTURAL STEEL AND BEARINGS AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

STRUCTURAL STEEL

ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS, BOX GIRDER FLANGE AND WEB SPLICE PLATES, EXTERNAL AND INTERNAL DIAPHRAGMS FOR BOX GIRDERS, AND ALL OTHER STEEL PLATE COMPONENTS WELDED TO ANY OF THESE ELEMENTS SHALL BE HIGH STRENGTH ASTM A709 (AASHTO M270) GRADE HPS 50W (FY=50 KSI). 2-WAY BEVELED JACKING PADS SHALL BE A709-50W (FCM). ALL OTHER STEEL SHALL BE IN ACCORDANCE WITH ASTM A709 GRADE 50 (FY=50 KSI).

ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS IN TENSION ZONES AS SHOWN ON THE PLANS AND ALL ASSOCIATED SPLICE PLATES, ALL TRANSVERSE WEB STIFFENERS AND CONNECTION PLATES, AND ALL STEEL PLATE ELEMENTS OF EXTERNAL AND INTERNAL DIAPHRAGMS FOR BOX GIRDERS SHALL MEET THE FRACTURE CRITICAL TENSION COMPONENT IMPACT TEST REQUIREMENTS FOR HPS 50WF/HPS 345WF OF TABLE 10 OF ASTM A709/A709M-05 FOR ZONE 2.

ALL WELDING PERFORMED IN TENSION ZONES SHOWN ON THE PLANS FOR BOX GIRDER WEB AND FLANGE ELEMENTS, INCLUDING ATTACHING TRANSVERSE WEB STIFFENER AND CONNECTION PLATES, AND ALL WELDING PERFORMED FOR ALL ELEMENTS OF EXTERNAL AND INTERNAL STEEL PLATE DIAPHRAGMS FOR BOX GIRDERS SHALL BE PERFORMED, TESTED, AND INSPECTED IN ACCORDANCE WITH REQUIREMENTS FOR FABRICATION OF FRACTURE CRITICAL MEMBERS.

CHARPY V-NOTCH TOUGHNESS REQUIREMENTS FOR ALL STEEL SHALL CONFORM TO THE REQUIREMENTS FOR ZONE 2.

ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO/AWS D1.5 BRIDGE WELDING CODE.

USE WELD MATERIAL WITH A TENSILE STRENGTH AT LEAST 20 KSI GREATER THAN THE YIELD STRENGTH OF THE STEEL BEING WELDED. NON-WEATHERING CONSUMABLES MAY BE USED FOR SINGLE-PASS FILLET WELDS.

FABRICATE BEARING ASSEMBLIES FROM ASTM A709 GRADE 50W MATERIAL (FY=50 KSI).

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

ALL BOLTS SHALL BE ASTM A325 TYPE 1, BOLTS SHALL BE 7/8" DIAMETER UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE STANDARD DIAMETER. NO OVERSIZE HOLES WILL BE PERMITTED WITHOUT PRIOR APPROVAL. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS. DESIGN ASSUMED SURFACE CLASS A.

PAINT ALL STRUCTURAL STEEL, INCLUDING SURFACES AND BRACING MEMBERS ON THE INSIDE OF THE BOX GIRDERS, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE COMPRESSIVE STRENGTH OF THE BEARING PEDESTAL AND PIER CONCRETE IS 4,000 PSI.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIM REVISIONS, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

DESIGN LIVE LOAD

DESIGN LOADING: HL-93

INVENTORY RATING FACTOR: RF = 1.28

OPERATING RATING FACTOR: RF = 1.66

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

OTHER DESIGN LOADS

PROFILE GRADE LINE AND TOP OF DECK ELEVATIONS ARE TO THE TOP OF THE 10" DECK THICKNESS. THE 10" DECK THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE, BUT DOES NOT INCLUDE AN ADDITIONAL EPOXY OVERLAY THAT WILL BE PROVIDED AFTER POURING OF THE DECK.
THE STRUCTURE IS DESIGNED FOR THE WEIGHT OF THE 10" THICKNESS OF CONCRETE PLUS 3/8" THICKNESS OF EPOXY OVERLAY.
UNIT WEIGHTS ASSUMED FOR DESIGN WERE 150 PCF FOR CONCRETE AND 3 PSF FOR 3/8" EPOXY OVERLAY.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 90°F.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

DESIGN ASSUMED A WEIGHT PER GIRDER OF 10 PSF FOR STAY-IN-PLACE METAL FORMS INSIDE EACH GIRDER ONLY AND 13.5 PSF FOR CONCRETE WITHIN THE RIBS OF THESE FORMS.

DESIGN ASSUMED 7.5 PSF FOR TEMPORARY FORMWORK IN ADDITION TO STAY-IN-PLACE FORMS.

PARAPETS WERE ASSUMED TO WEIGH 563 PLF AND 464 PLF FOR "42SS" AND "32SS" SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

FOR REFERENCE ONLY

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	UNIT 3 QUANTITY	UNIT 4 QUANTITY	UNIT 5 QUANTITY	TOTAL
SPV.0060.01	BEARING HIGH-LOAD MULTI-ROTATIONAL FIXED B-5-678	EACH	4	4	2	10
SPV.0060.02	BEARING HIGH-LOAD MULTI-ROTATIONAL UNI-DIRECTIONAL B-5-678	EACH	~~6~~	~~6~~	~~10~~	~~22~~
SPV.0085.01	FABRICATED STRUCTURAL STEEL HPS 50W B-5-678	LB	1,821,100	2,144,300	2,707,900	6,673,300
SPV.0085.02	FABRICATED STRUCTURAL STEEL HS B-5-678	LB	145,900	162,800	211,300	520,000
SPV.0105.01	PAINTING POLYSILOXANE SYSTEM B-5-678	LS	-	-	-	1

1

MINIMUM FILLET WELD SIZE:

THICKNESS OF THICKER PART JOINED	MINIMUM WELD SIZE
T <= 1/2"	3/16"
1/2" < T <= 3/4"	1/4"
3/4" < T <= 1 1/2"	5/16"
1 1/2" < T <= 2 1/4"	3/8"
T > 2 1/4"	1/2"

MINIMUM WELD SIZES SHOWN SHALL BE USED WHEN A SIZE IS NOT OTHERWISE SPECIFIED OR SHOWN.

WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART BEING JOINED.

FOR ALL WELDS 5/16" OR LARGER THE MINIMUM PASS SIZE SHALL BE 5/16".

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1		REVISED STEEL QUANTITIES	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GENERAL NOTES, & QUANTITIES

SHEET 3 OF 63

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DATE: 4/30/2013

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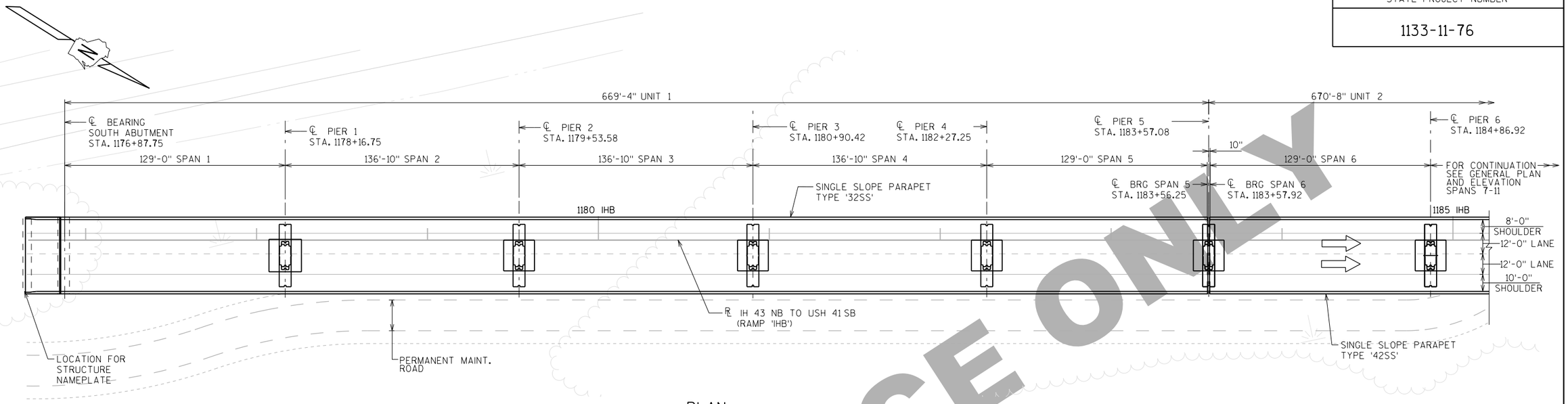
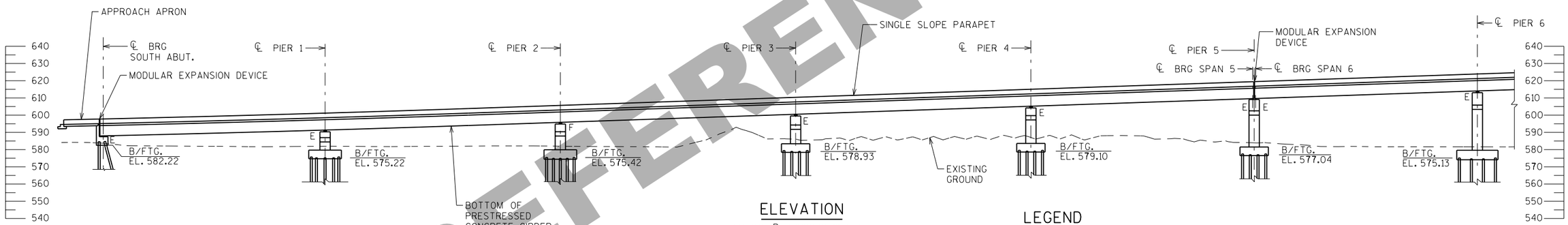
STATE PROJECT NUMBER
1133-11-76



PLAN



ELEVATION

(ALONG ℄ LOOKING WEST)

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 1301	DISK ON PARAPET WALL	612.17

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB----------f'c = 4,000 P.S.I.
ALL OTHER----------f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60----------fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL,----------fy = 50,000 P.S.I.
(ASTM A709, GRADE 50 AND HPS50W)
PRESTRESSED GIRDER, CONCRETE MASONRY----------f'c = 8,000 P.S.I.
STRANDS - 0.6"Φ WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

STRUCTURE TYPE

5-SPAN CONTINUOUS PRESTRESSED CONCRETE GIRDER BRIDGE UNIT 1
5-SPAN CONTINUOUS PRESTRESSED CONCRETE GIRDER BRIDGE UNIT 2
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 3
4-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 4
5-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 5

FOUNDATION DATA

SOUTH AND WEST ABUTMENTS TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

PIERS 1 THROUGH PIER 22 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

TRAFFIC VOLUME:

RAMP 'NIH'
ADT (2015) = 8,600
ADT (2035) = 10,200
R.D.S. = 70 M.P.H.

RAMP 'IHB'
ADT (2015) = 13,500
ADT (2035) = 14,000
R.D.S. = 60-70 M.P.H.

RAMP 'SIH'
ADT (2015) = 9,000
ADT (2035) = 10,700
R.D.S. = 70 M.P.H.

USH 41 NB
ADT (2015) = 15,800
ADT (2035) = 31,500
R.D.S. = 70 M.P.H.

USH 41 SB
ADT (2015) = 15,500
ADT (2035) = 26,400
R.D.S. = 70 M.P.H.

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄.

DIMENSIONS SHOWN ARE ALONG ℄.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

△ VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY.

FLOOR DRAIN AND LIGHT POLE LOCATIONS ARE NOT YET DETERMINED.

GUIDED LONGITUDINAL BEARINGS ARE ORIENTED PARALLEL TO ℄.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GENERAL PLAN AND ELEVATION SPANS 1-6

SHEET 4 OF 63

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DATE: 4/30/2013
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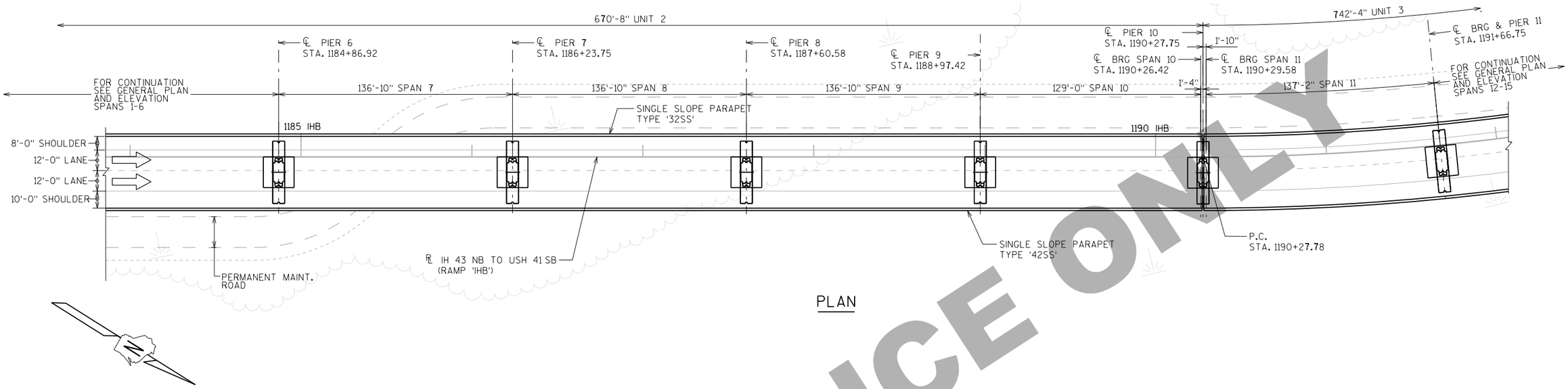
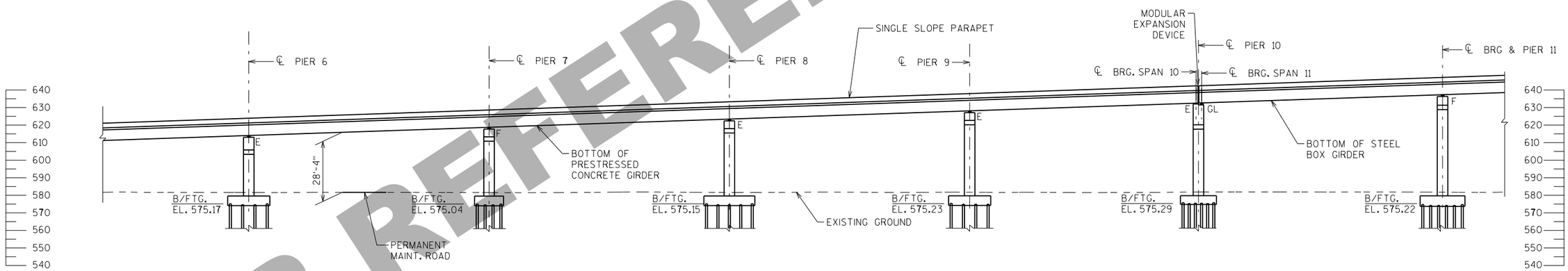
STATE PROJECT NUMBER
1133-11-76



PLAN



ELEVATION

(ALONG ℄ LOOKING WEST)

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GENERAL PLAN AND ELEVATION SPANS 7-11

SHEET 5 OF 63

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DATE: 4/30/2013

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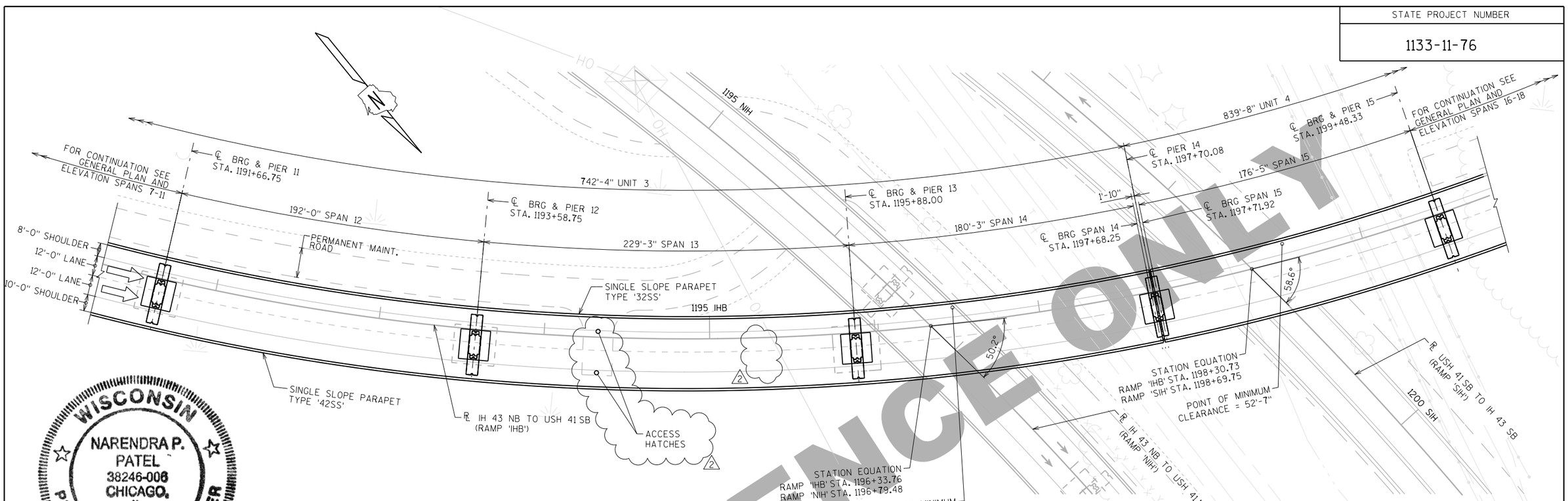
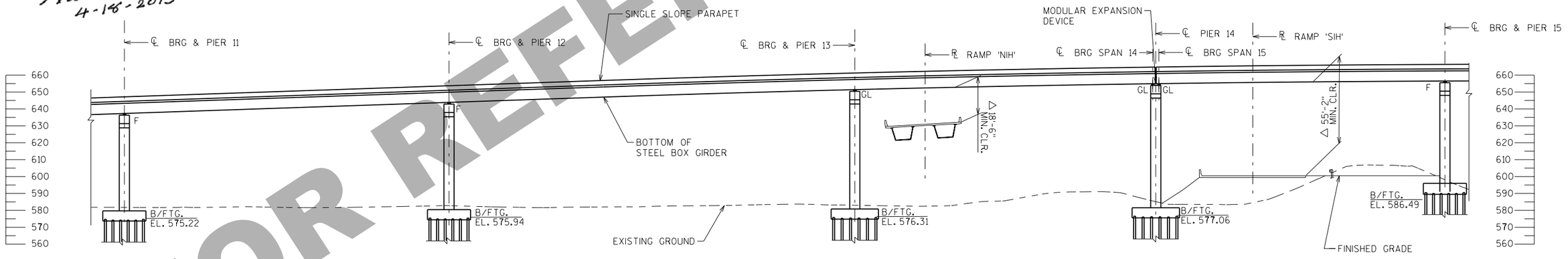
1133-11-76



PLAN



ELEVATION

(ALONG ℞ LOOKING SOUTHWEST)

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
2	04/18/13	ACCESS HATCHES RELOCATED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION SPANS 12-15

SHEET 6 OF 63

832

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER
Narendra P. Patel
4-14-2013

FOR REFERENCE ONLY

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DATE: 4/30/2013

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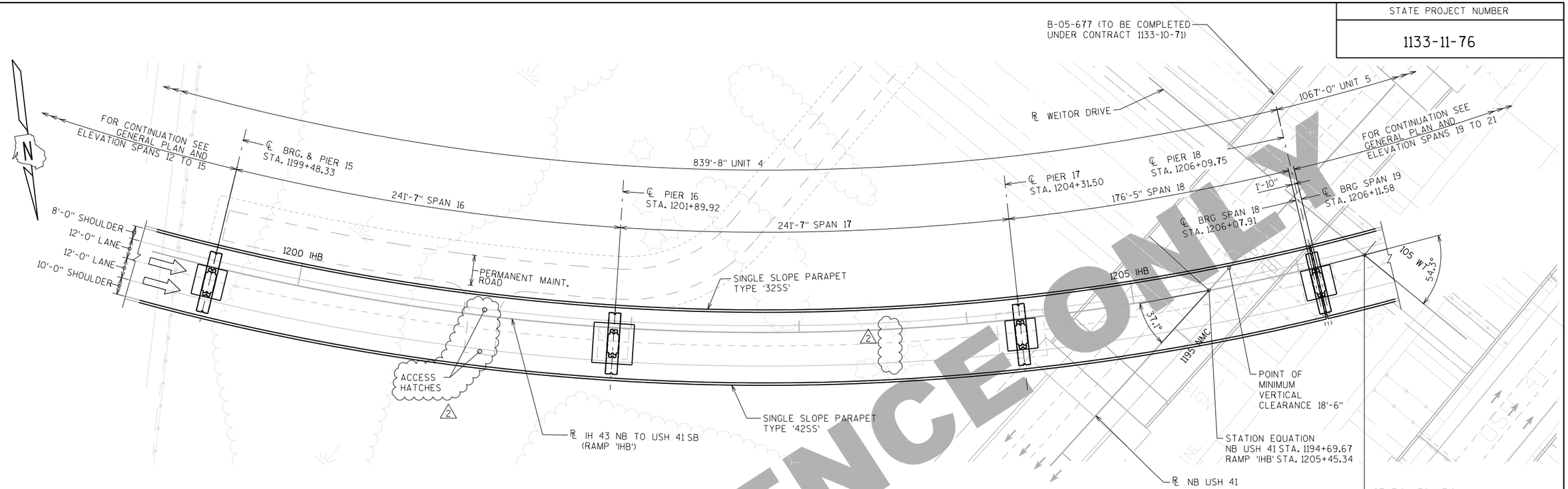
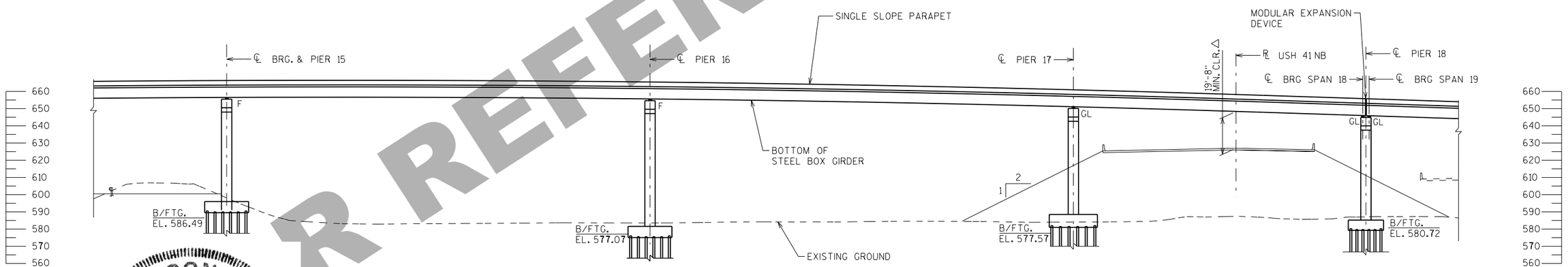
STATE PROJECT NUMBER
1133-11-76



PLAN



ELEVATION

(ALONG ℄ LOOKING SOUTH)

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL FABRICATION CONTRACT ONLY

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER
Narendra P. Patel
4-16-2013

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
2	04/18/13	ACCESS HATCHES RELOCATED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION SPANS 16-18

SHEET 7 OF 63

833

8

8

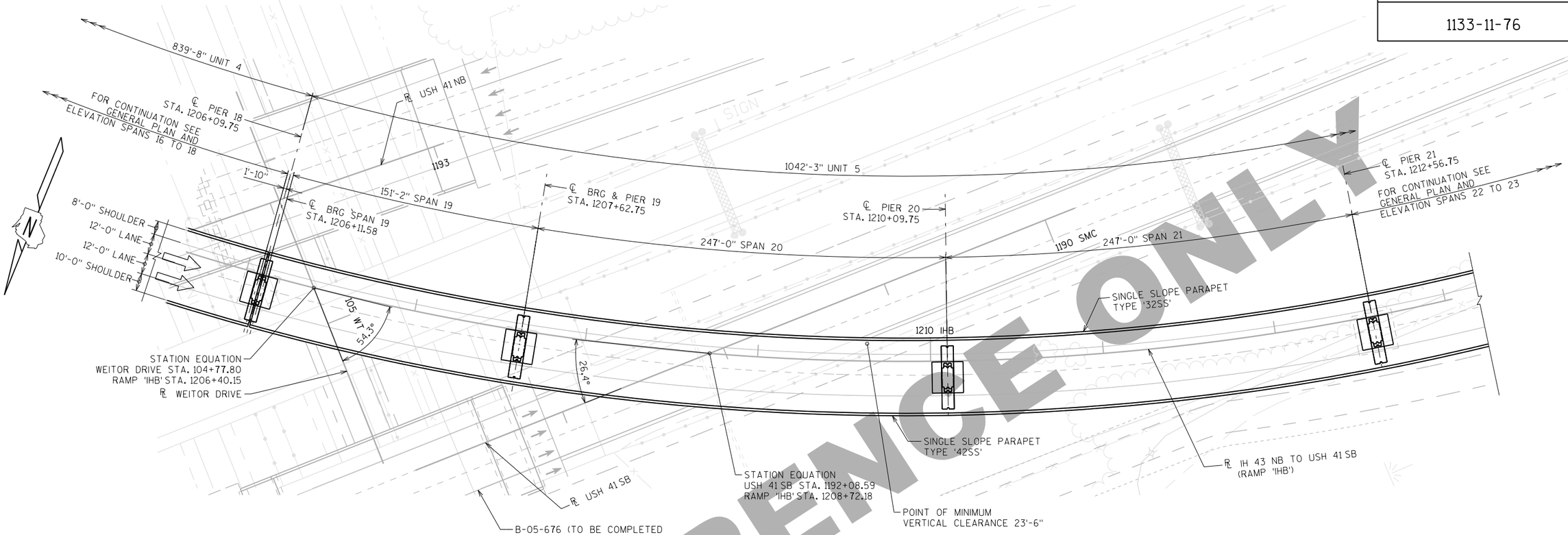
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E\007 - B-5-678E - Plan and Elevation - Spans 16-18.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76



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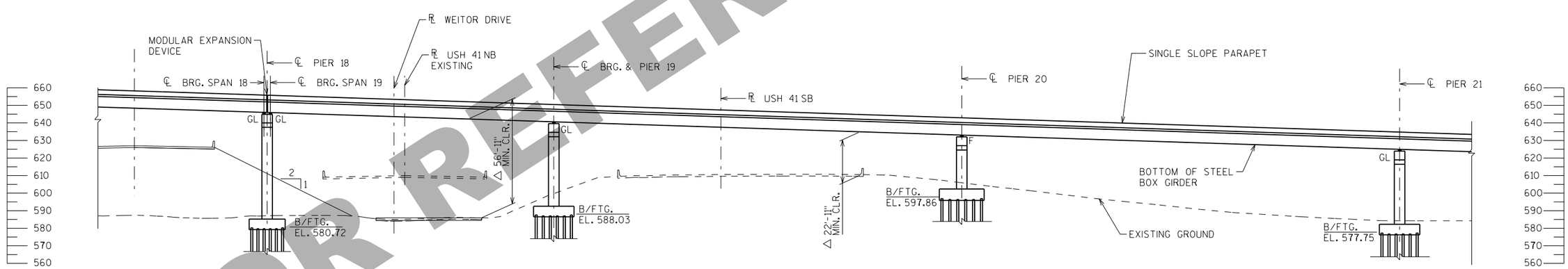

ELEVATION

(ALONG ℞ LOOKING SOUTH)

FOR REFERENCE ONLY

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 19-21

SHEET 8 OF 63

834

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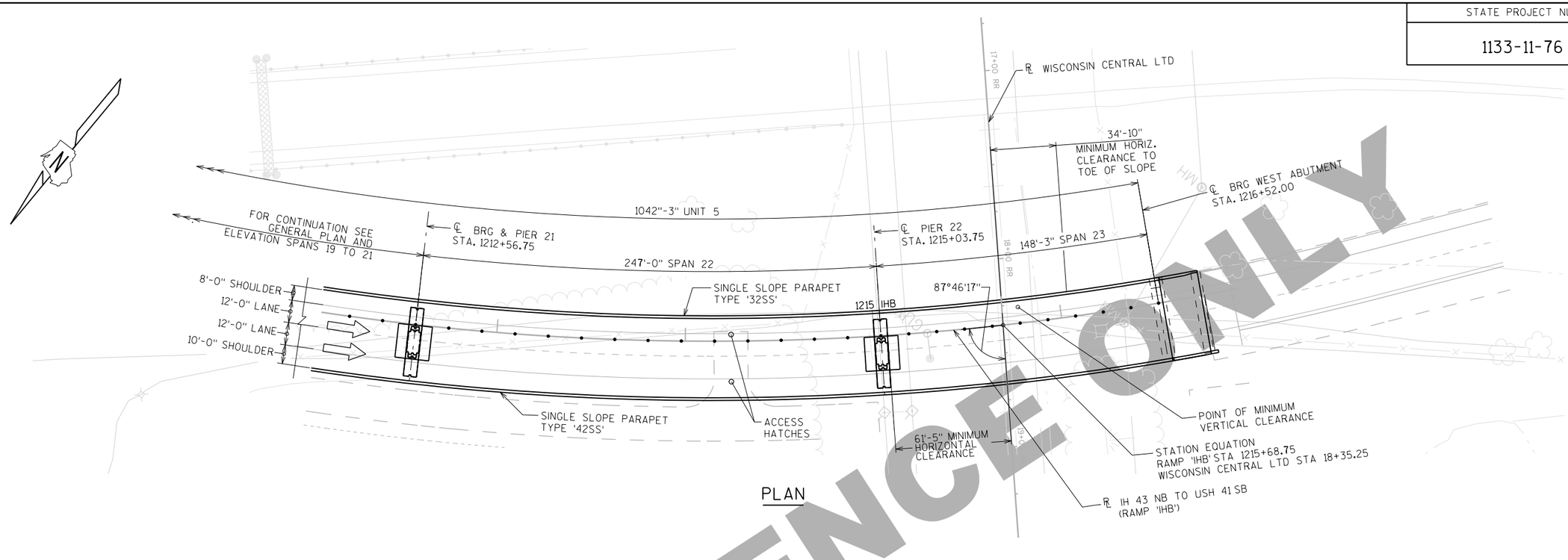
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\008 - B-5-678E - Plan and Elevation - Spans 19-21.dgn

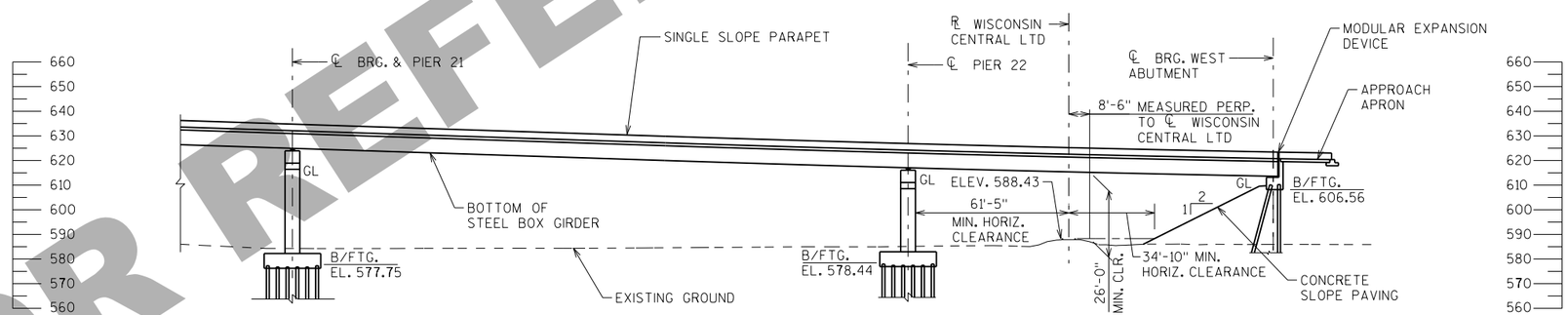
DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER
1133-11-76



PLAN



ELEVATION

(ALONG ℄ LOOKING SOUTH)

FOR REFERENCE ONLY

LEGEND

F - FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
E - ELASTOMERIC EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-6"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION SPANS 22-23

SHEET 9 OF 63

835

DATE: 4/30/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\009 - B-5-678E - Plan and Elevation - Spans 22-23.dgn

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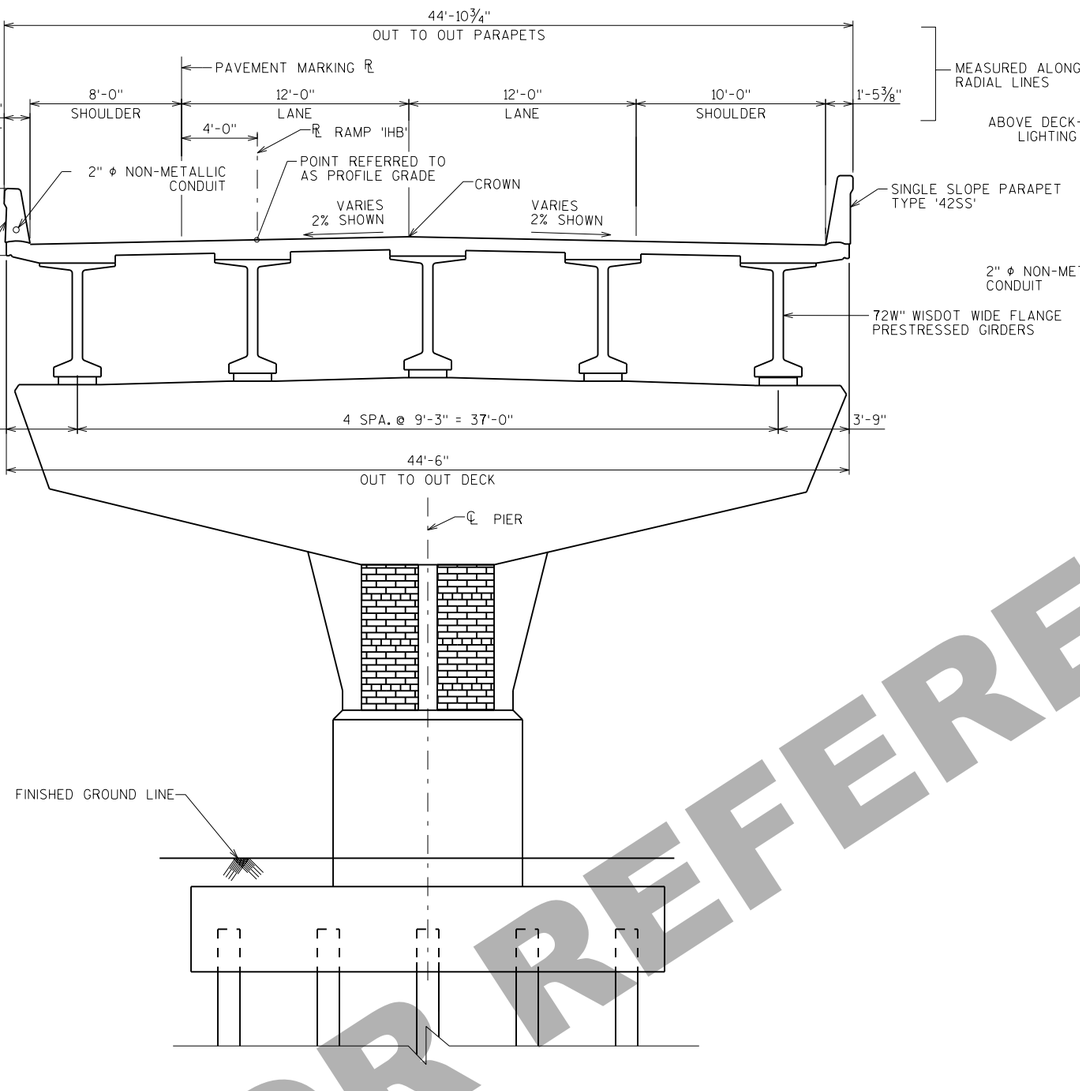
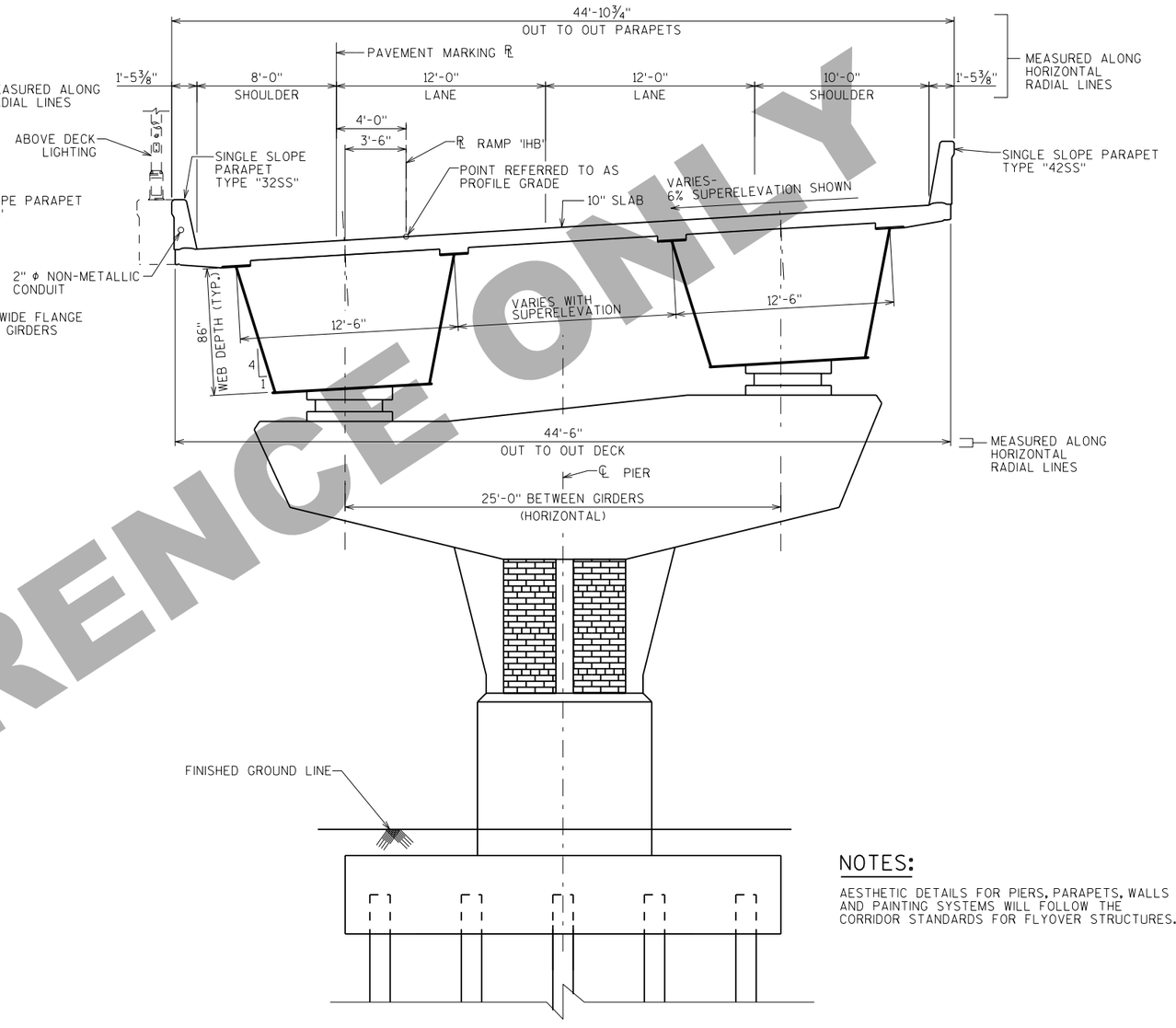
STATE PROJECT NUMBER

1133-11-76



TYPICAL SECTION - UNITS 1-2

(LOOKING UPSTATION)



TYPICAL SECTION - UNITS 3-5

(LOOKING UPSTATION)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR STANDARDS FOR FLYOVER STRUCTURES.

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

CROSS SECTION AT PIER

SHEET 10 OF 63

836

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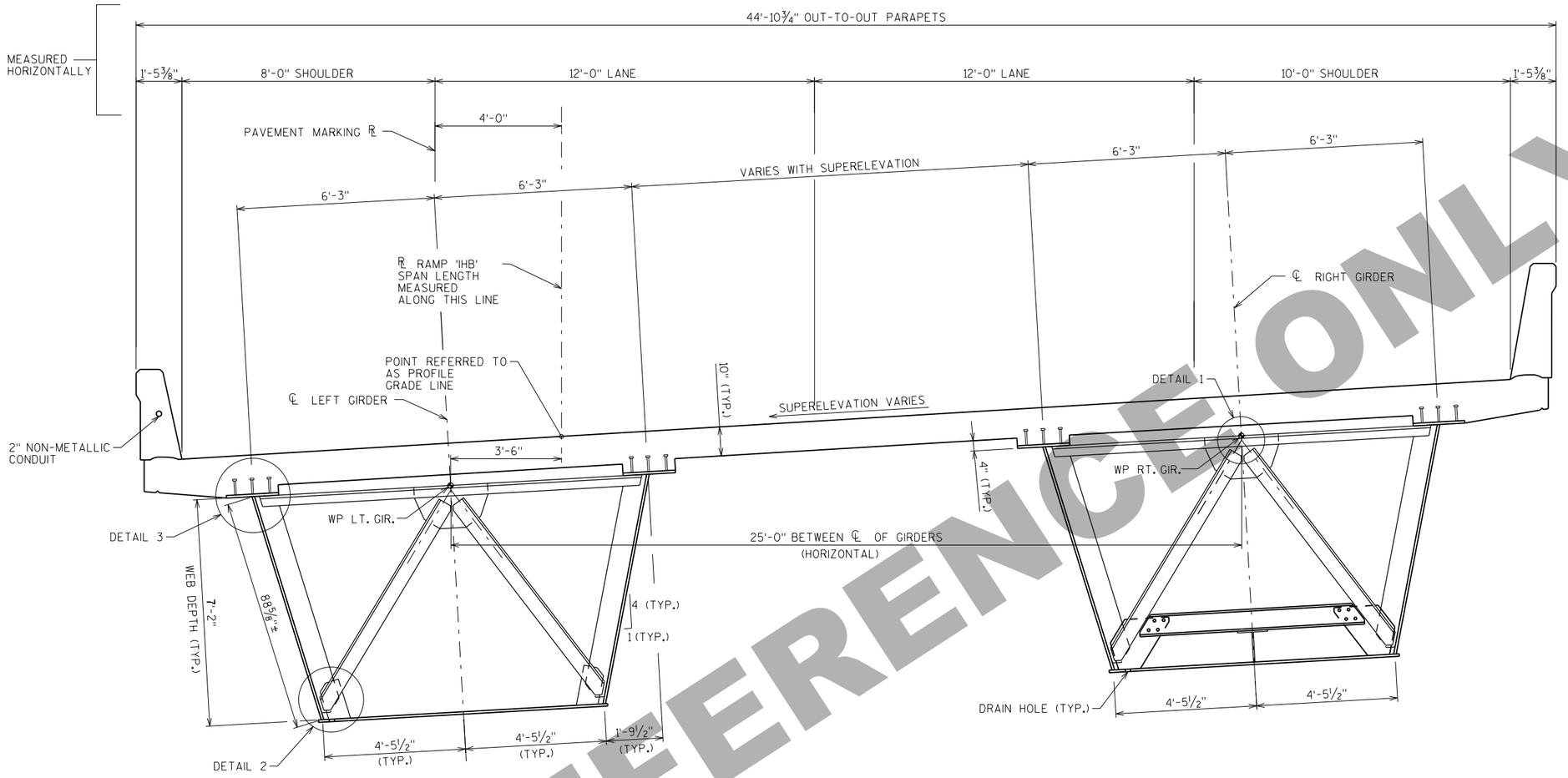
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\010 - B-5-678E - Cross Section at Pier.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

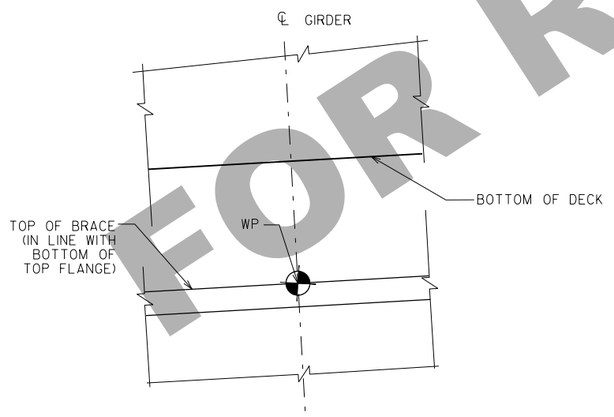


(SHOWING CROSS FRAMES AT LOCATIONS WITHOUT LONGITUDINAL STIFFENER)

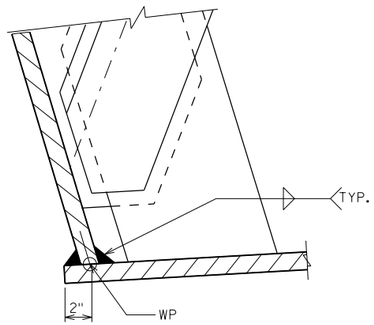
(SHOWING CROSS FRAMES AT LOCATIONS WITH LONGITUDINAL STIFFENER)

TYPICAL BOX GIRDER CROSS SECTION (UNITS 3-5)

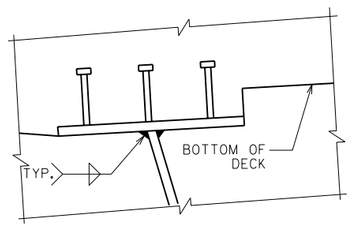
(LOOKING UPSTATION)



DETAIL 1



DETAIL 2



DETAIL 3

(LATERAL BRACING NOT SHOWN FOR CLARITY)

NOTES:

WP = WORK POINT TO WHICH DIMENSIONS ARE MEASURED.

STAY-IN-PLACE METAL FORMS PERMITTED INSIDE BOX GIRDERS ONLY.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

TYPICAL BOX GIRDER CROSS SECTION

SHEET 11 OF 63

837

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\011 - B-5-678E - Typical Cross Section.dgn

DATE: 4/30/2013

I.D.

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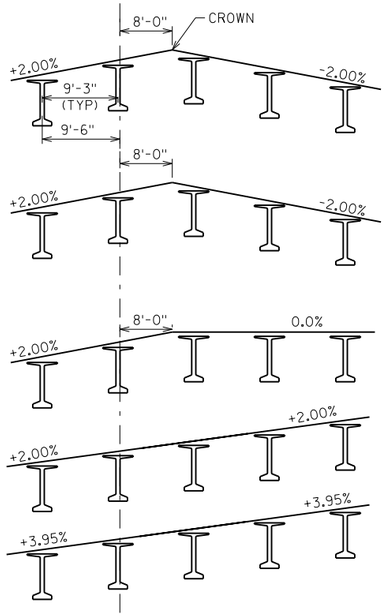
FOR REFERENCE ONLY

FOR REFERENCE ONLY

STATE PROJECT NUMBER

1133-11-76

℄ RAMP 'IHB'



℄ BEARING SOUTH ABUTMENT B-5-678
STA 1176+87.75

END ADVERSE CROWN/BEGIN TRANSITION
STA 1187+88.00

TRANSITION
STA. 1188+68.00

END CROWN POINT
STA. 1189+48.00

STA. 1190+25.92
END UNIT 2

STA. 1190+29.58
BEGIN UNIT 3

BEGIN FULL SUPER
STA 1191+08.00

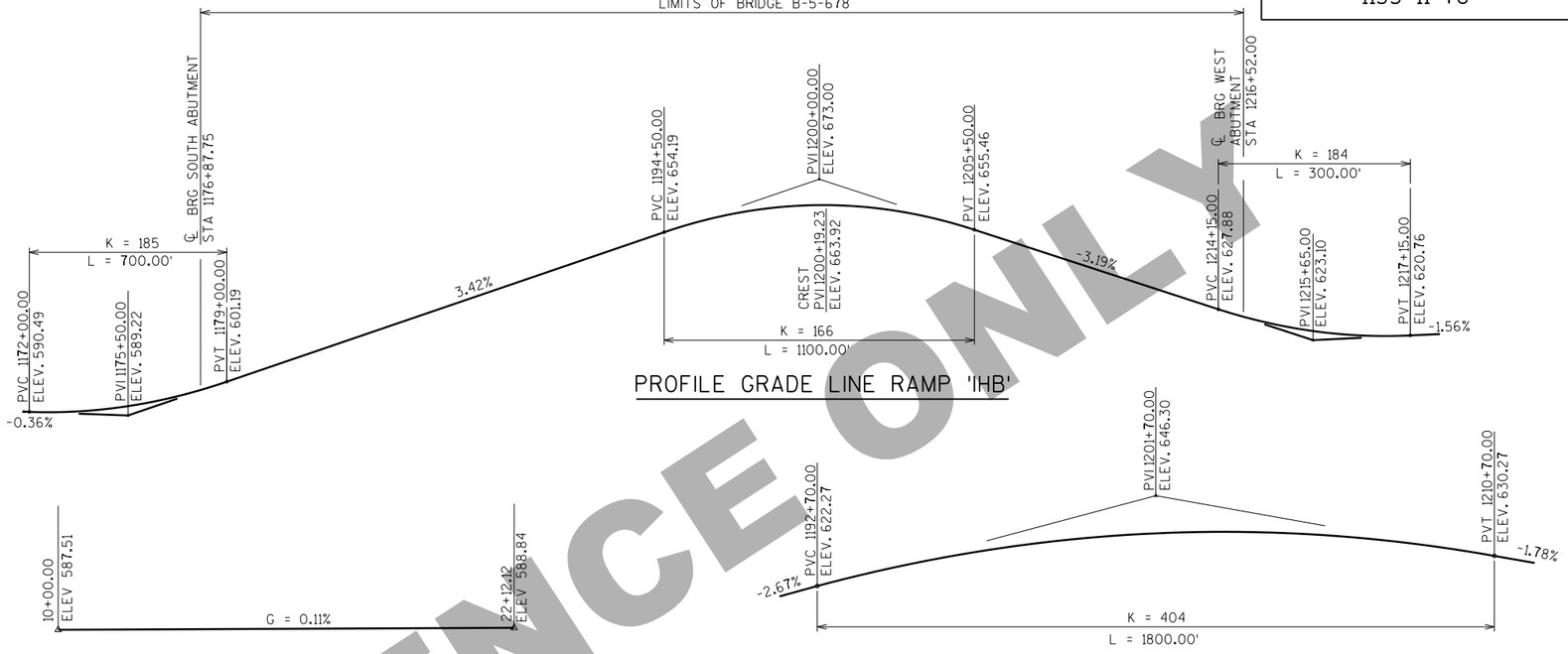
℄ BEARING WEST ABUTMENT B-5-678
STA 1216+52.00

END FULL SUPER
BEGIN TRANSITION
STA 1216+80.00

END TRANSITION
STA 1221+60.00

DECK SLOPE TRANSITION

+ SLOPE - SLOPE



PROFILE GRADE LINE RAMP 'IHB'

PROFILE GRADE LINE RR3

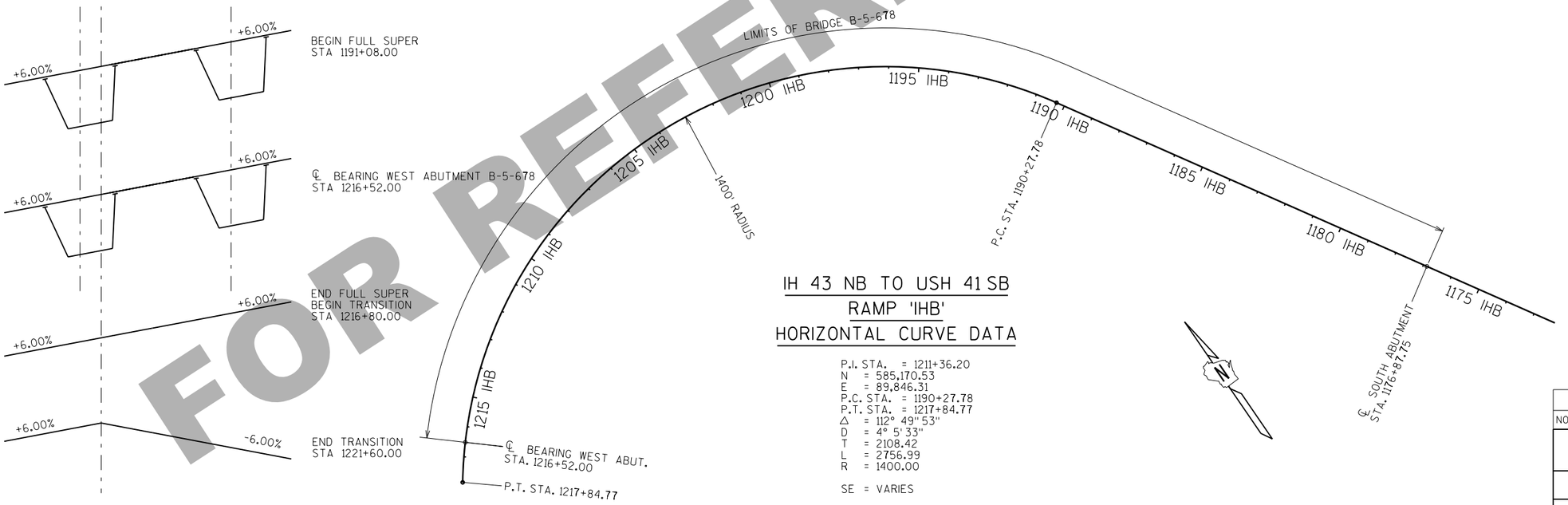
WISCONSIN CENTRAL LTD

PROFILE GRADE LINE RAMP 'NIH'

NOTES:

STEEL GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

THEORETICAL HAUNCH HEIGHT FOR STEEL TUB GIRDERS IS CONSTANT AT 4"



IH 43 NB TO USH 41 SB
RAMP 'IHB'
HORIZONTAL CURVE DATA

P.I. STA. = 1211+36.20
N = 585,170.53
E = 89,846.31
P.C. STA. = 1190+27.78
P.T. STA. = 1217+84.77
△ = 112° 49' 53"
D = 4° 5' 33"
T = 2108.42
L = 2756.99
R = 1400.00

SE = VARIES

HORIZONTAL ALIGNMENT IH 43 NB TO USH 41 SB (RAMP 'IHB')

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

ALIGNMENT AND SUPERELEVATION

SHEET 12 OF 63

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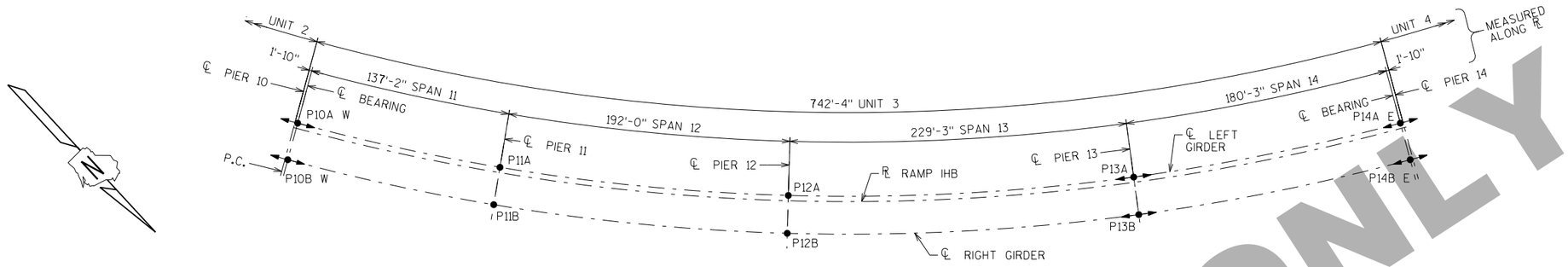
DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER
1133-11-76



BEARING LAYOUT

LENGTH NOT TO SCALE

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
P10A W	GUIDED	275	234	22	4	4	36	6	2	28	29	0.0019	0.0030	3.30	1.00	2.32	1.73	3.05	2.02	33	21.25	28.25	20.25	1.75	8.375	4-1" DIA.	4-1" DIA.
P10B W	GUIDED	275	234	22	4	4	36	6	2	28	29	0.0019	0.0030	3.30	1.00	2.32	1.73	3.05	2.02	33	21.25	28.25	20.25	1.75	8.375	4-1" DIA.	4-1" DIA.
P11A	FIXED	911	478	51	9	0	40	13	4	90	33	0.0002	0.0009	N/A	1.00	3.24	2.00	4.24	2.62	37.25	29.25	41.25	33.25	1.75	11.5	6-1 1/4" DIA.	8-1" DIA.
P11B	FIXED	911	478	51	9	0	40	13	4	90	33	0.0002	0.0009	N/A	1.00	3.24	2.00	4.24	2.62	37.25	29.25	41.25	33.25	1.75	11.5	6-1 1/4" DIA.	8-1" DIA.
P12A	FIXED	1132	525	64	11	0	40	16	5	90	33	0.0002	0.0021	N/A	1.00	3.40	2.09	4.49	2.75	40	32	44	36	1.75	12.375	6-1 1/2" DIA.	10-1" DIA.
P12B	FIXED	1132	525	64	11	0	40	16	5	90	33	0.0002	0.0021	N/A	1.00	3.40	2.09	4.49	2.75	40	32	44	36	1.75	12.375	6-1 1/2" DIA.	10-1" DIA.
P13A	GUIDED	1229	533	63	11	9	40	0	5	36	33	0.0002	0.0014	4.57	1.00	4.00	1.91	4.91	2.95	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P13B	GUIDED	1229	533	63	11	9	40	0	5	36	33	0.0002	0.0014	4.57	1.00	4.00	1.91	4.91	2.95	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P14A E	GUIDED	359	266	28	5	6	38	0	2	36	31	0.0037	0.0063	7.10	1.00	3.09	1.34	3.42	2.21	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
P14B E	GUIDED	359	266	28	5	6	38	0	2	36	31	0.0037	0.0063	7.10	1.00	3.09	1.34	3.42	2.21	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.

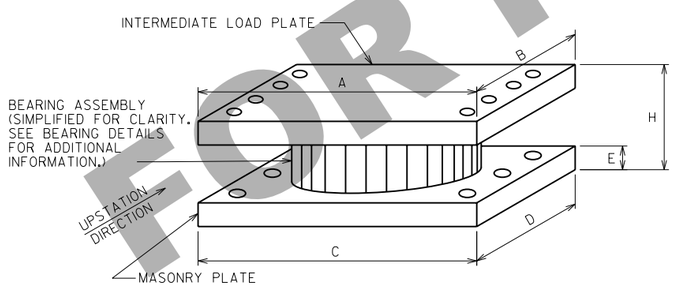
NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

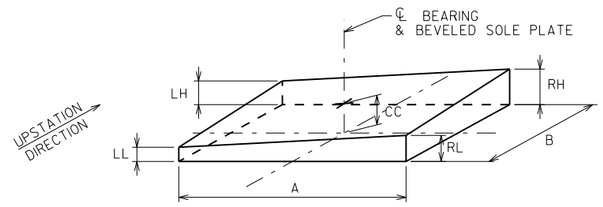
BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

BEARING LAYOUT UNIT 3

SHEET 13 OF 63

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DATE: 4/30/2013

I.D.

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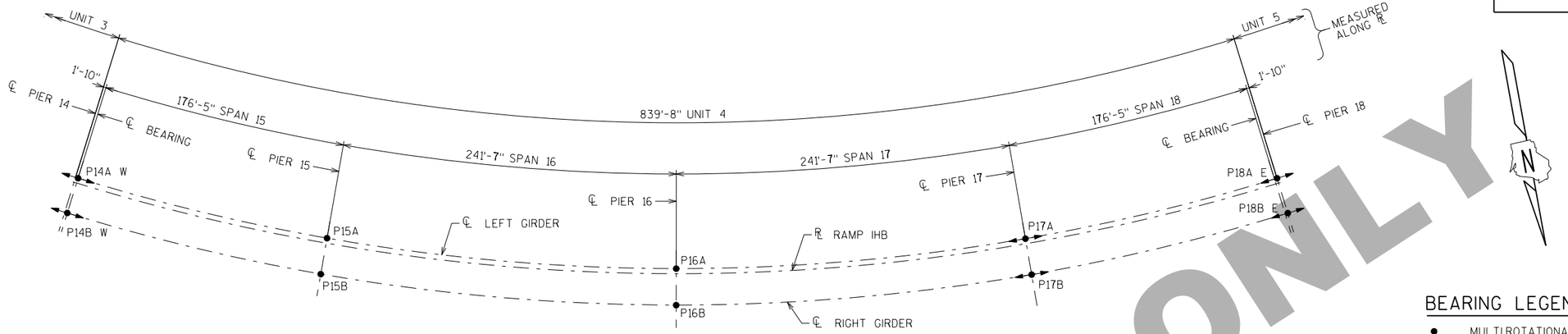
FOR REFERENCE ONLY

STATE PROJECT NUMBER
1133-11-76



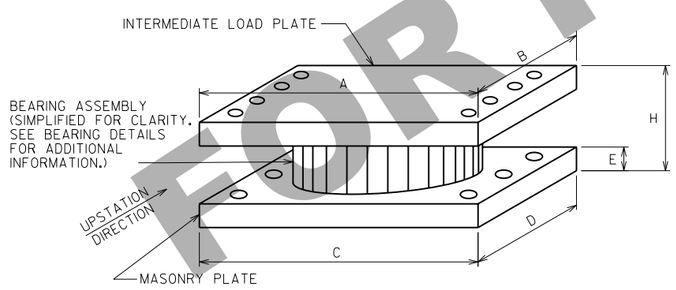
BEARING LAYOUT
LENGTH NOT TO SCALE

BEARING LEGEND

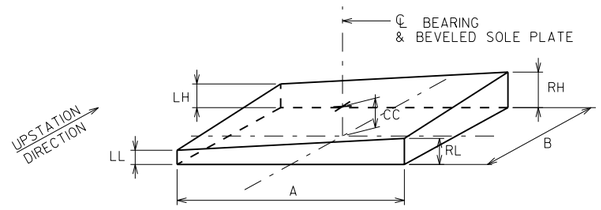
●	MULTIROTATIONAL FIXED
●→	MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
DC	DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
LL+I	VEHICULAR LIVE LOAD AND IMPACT
WS	WIND ON STRUCTURE
WL	WIND ON LIVE LOAD
TU	FORCE EFFECT DUE TO UNIFORM TEMPERATURE
CE	VEHICULAR CENTRIFUGAL FORCE
BR	VEHICULAR BRAKING FORCE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
P14A W	GUIDED	344	265	27	5	4	38	7	5	35	31	0.0037	0.0054	4.17	1.00	3.09	1.33	3.42	2.21	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
P14B W	GUIDED	344	265	27	5	4	38	7	5	35	31	0.0037	0.0054	4.17	1.00	3.09	1.33	3.42	2.21	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
P15A	FIXED	1238	541	64	11	0	40	16	11	73	33	0.0003	0.0017	N/A	1.00	3.46	1.14	3.60	2.30	41	33	45	37	1.75	12.75	6-1 1/2" DIA.	10-1" DIA.
P15B	FIXED	1238	541	64	11	0	40	16	11	73	33	0.0003	0.0017	N/A	1.00	3.46	1.14	3.60	2.30	41	33	45	37	1.75	12.75	6-1 1/2" DIA.	10-1" DIA.
P16A	FIXED	1340	563	74	13	0	40	18	13	73	33	0.0002	0.0021	N/A	1.36	3.92	1.00	3.57	2.46	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	12-1" DIA.
P16B	FIXED	1340	563	74	13	0	40	18	13	73	33	0.0002	0.0021	N/A	1.36	3.92	1.00	3.57	2.46	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	12-1" DIA.
P17A	GUIDED	1235	541	64	11	8	40	16	11	35	33	0.0005	0.0019	5.09	1.87	4.87	1.00	4.00	2.93	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P17B	GUIDED	1235	541	64	11	8	40	16	11	35	33	0.0005	0.0019	5.09	1.87	4.87	1.00	4.00	2.93	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P18A E	GUIDED	342	264	27	5	5	38	7	5	35	31	0.0037	0.0054	7.56	1.72	3.80	1.00	3.09	2.40	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.
P18B E	GUIDED	342	264	27	5	5	38	7	5	35	31	0.0037	0.0054	7.56	1.72	3.80	1.00	3.09	2.40	34.75	22.5	29.5	21.5	1.75	9.125	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY
(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

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HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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BEARING LAYOUT
UNIT 4

SHEET 14 OF 63
840

STEEL FABRICATION CONTRACT ONLY

8

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DATE: 4/30/2013

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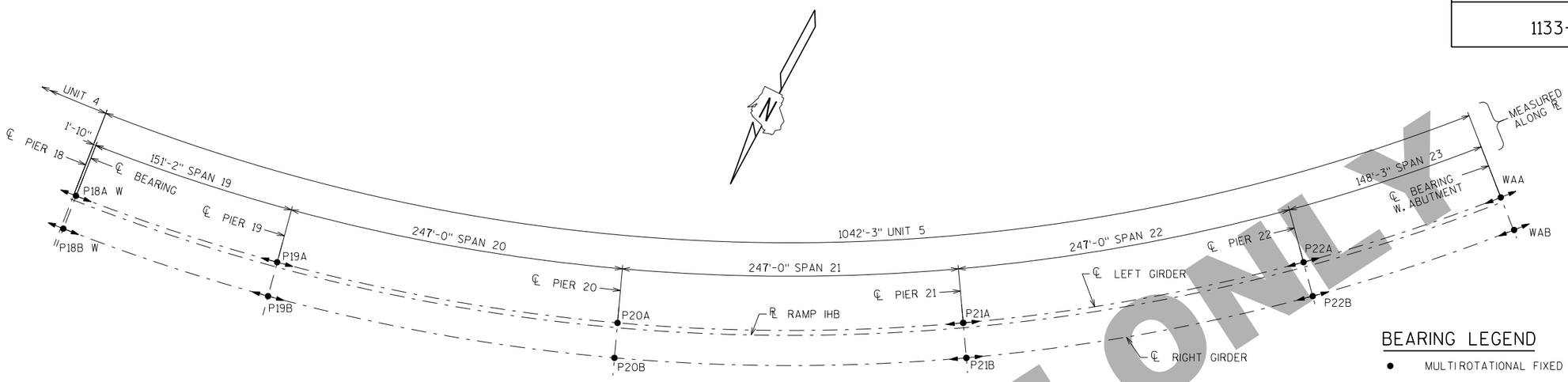
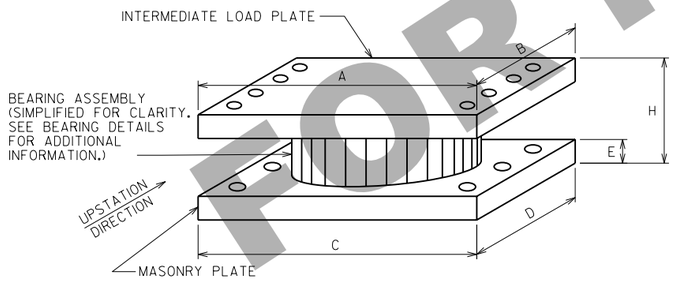
STATE PROJECT NUMBER
1133-11-76



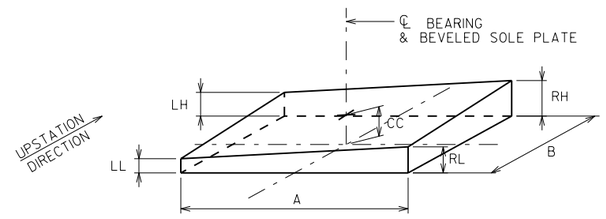
BEARING LAYOUT
LENGTH NOT TO SCALE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
P18A W	GUIDED	251	250	23	4	4	38	6	2	26	31	0.0016	0.0017	5.59	1.68	3.66	1.00	2.98	2.33	33	21.25	28.25	20.25	1.75	8.375	4-1" DIA.	4-1" DIA.
P18B W	GUIDED	251	250	23	4	4	38	6	2	26	31	0.0016	0.0017	5.59	1.68	3.66	1.00	2.98	2.33	33	21.25	28.25	20.25	1.75	8.375	4-1" DIA.	4-1" DIA.
P19A	GUIDED	1183	534	61	10	8	41	15	4	119	33	0.0019	0.0033	3.47	2.12	5.12	1.00	4.00	3.06	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P19B	GUIDED	1183	534	61	10	8	41	15	4	119	33	0.0019	0.0033	3.47	2.12	5.12	1.00	4.00	3.06	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P20A	FIXED	1357	571	75	13	0	40	19	5	236	33	0.0003	0.0038	N/A	2.11	4.67	1.00	3.57	2.84	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	10-1 1/8" DIA.
P20B	FIXED	1357	571	75	13	0	40	19	5	236	33	0.0003	0.0038	N/A	2.11	4.67	1.00	3.57	2.84	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	10-1 1/8" DIA.
P21A	GUIDED	1366	571	75	13	8	40	19	5	137	33	0.0005	0.0038	3.47	2.16	5.30	1.00	4.14	3.15	52.25	36.5	42.5	34.5	1.75	13.75	6-1 1/2" DIA.	12-1" DIA.
P21B	GUIDED	1366	571	75	13	8	40	19	5	137	33	0.0005	0.0038	3.47	2.16	5.30	1.00	4.14	3.15	52.25	36.5	42.5	34.5	1.75	13.75	6-1 1/2" DIA.	12-1" DIA.
P22A	GUIDED	1186	534	60	10	8	41	15	4	119	33	0.0017	0.0030	6.94	1.95	4.95	1.00	4.00	2.97	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P22B	GUIDED	1186	534	60	10	8	41	15	4	119	33	0.0017	0.0030	6.94	1.95	4.95	1.00	4.00	2.97	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
WA A	GUIDED	238	248	23	4	4	38	6	2	24	31	0.0014	0.0014	9.02	1.39	3.37	1.00	2.98	2.18	33	20.5	27.5	19.5	1.75	8	4-1" DIA.	4-1" DIA.
WA B	GUIDED	238	248	23	4	4	38	6	2	24	31	0.0014	0.0014	9.02	1.39	3.37	1.00	2.98	2.18	33	20.5	27.5	19.5	1.75	8	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY
(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

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DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES.
DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

BEARING LAYOUT UNIT 5

SHEET 15 OF 63
841

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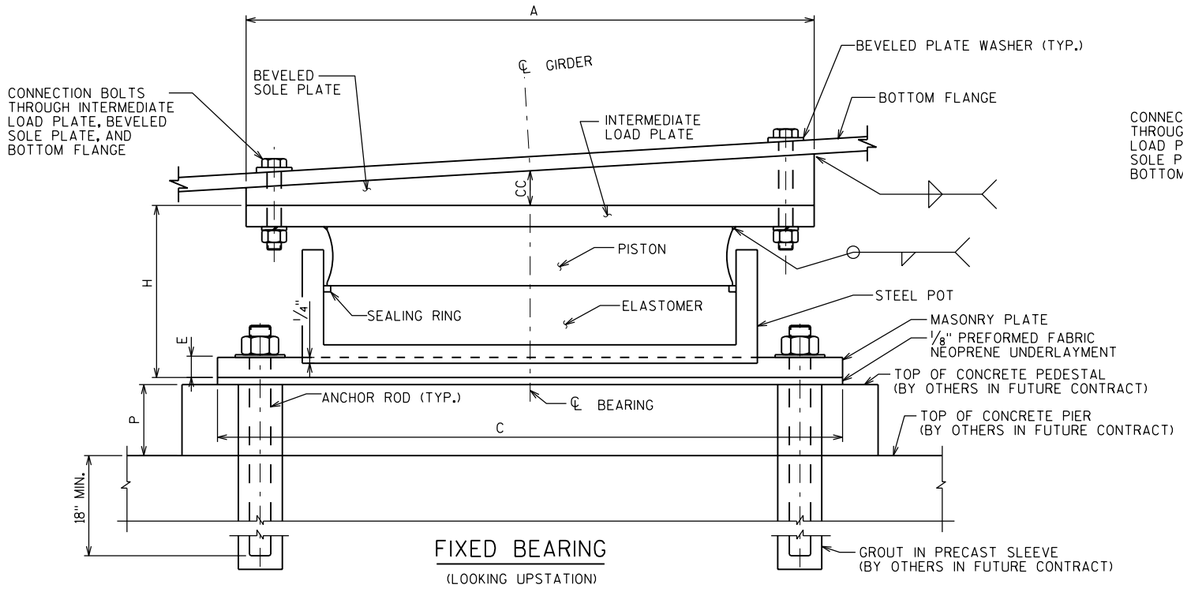
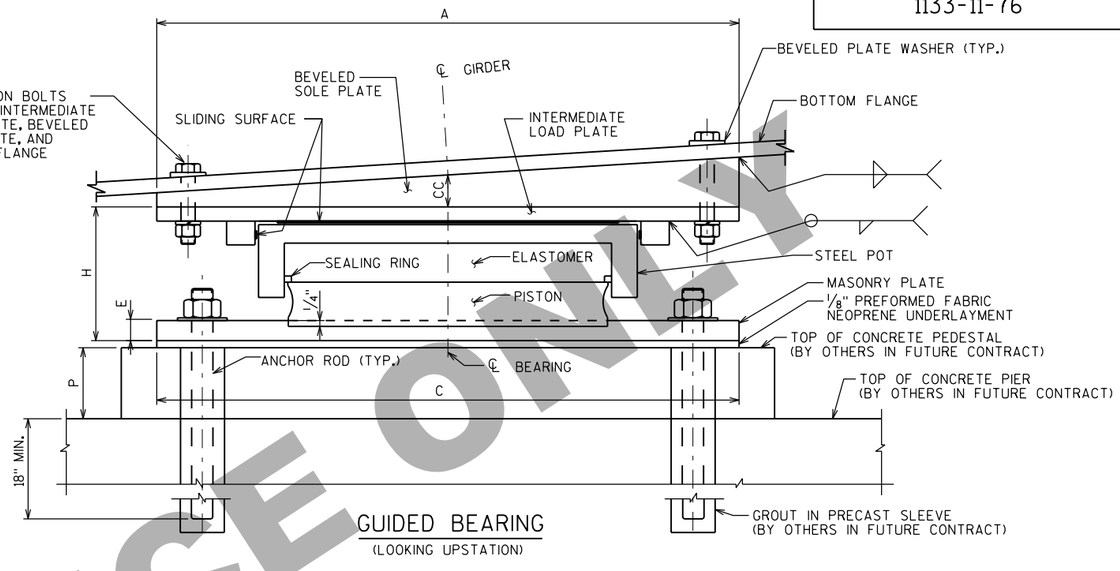


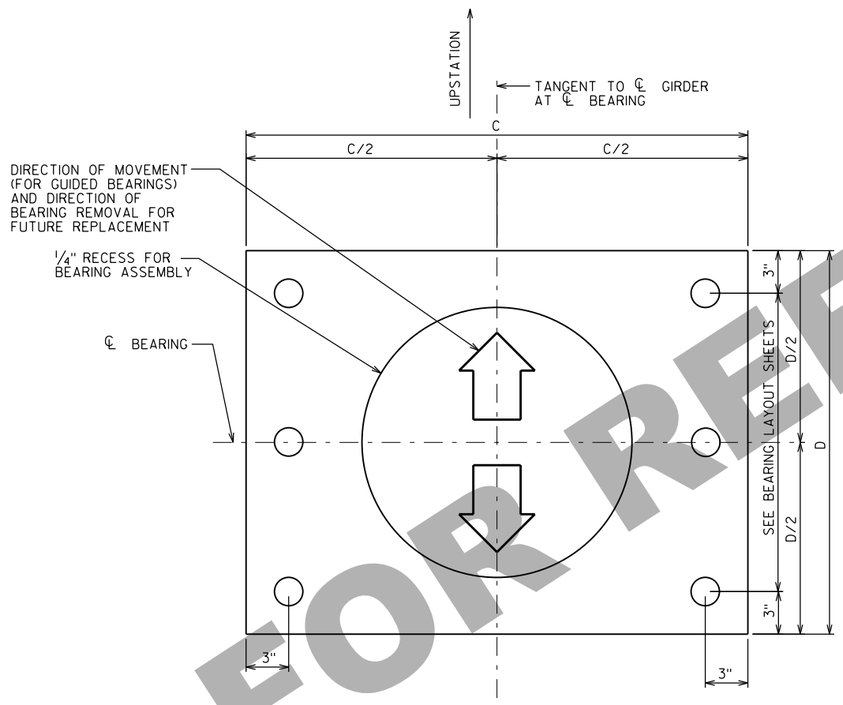
FIXED BEARING

(LOOKING UPSTATION)



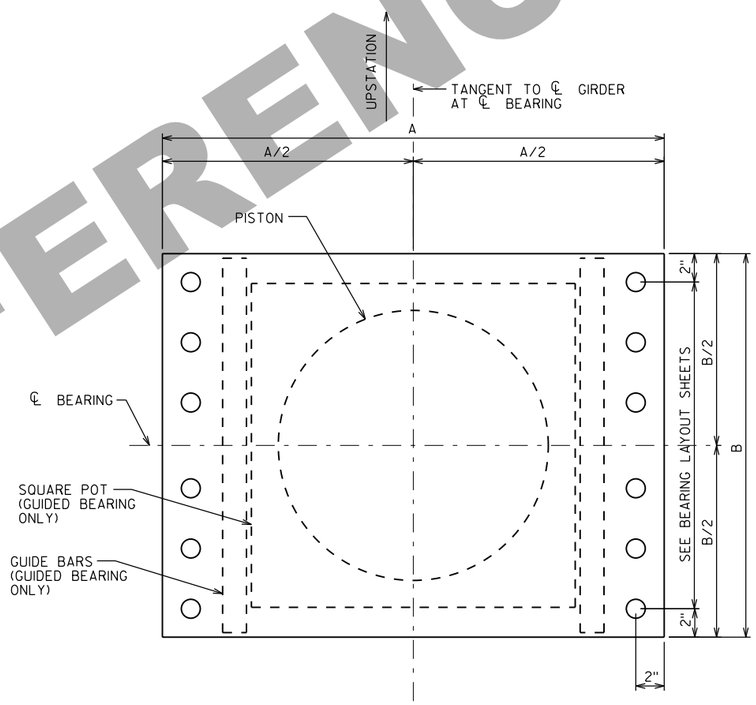
GUIDED BEARING

(LOOKING UPSTATION)



PLAN - MASONRY PLATE

SEE BEARING LAYOUT SHEETS FOR REQUIRED NUMBER OF ANCHOR RODS PER RESPECTIVE BEARING



PLAN - INTERMEDIATE LOAD PLATE

(BEVELED SOLE PLATE SIMILAR)

NOTES:

SEE BEARING LAYOUT SHEETS FOR LOCATION-SPECIFIC DIMENSIONS.

SEE JACKING PROVISIONS SHEET FOR LOCATION AND SIZE OF BEARING REPLACEMENT JACKING PADS ATTACHED TO BOTTOM OF GIRDER FLANGE.

DESIGN BOLTED CONNECTION BETWEEN BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE FOR THE COMBINED SPECIFIED HORIZONTAL LOADS SHOWN ON THE BEARING LAYOUT SHEETS PER AASHTO LRFD AND THE WISDOT BRIDGE MANUAL. FOR FUTURE BEARING REPLACEMENT, ARRANGE THE CONNECTION TO ENSURE ALL BOLTS CAN BE REMOVED WITHOUT INTERFERENCE FROM ANCHOR BOLTS OR OTHER OBSTRUCTIONS AFTER BEARING IS INSTALLED.

HOLES IN TOP PLATE MAY BE SLOTTED OR OVERSIZED AS REQUIRED TO FACILITATE STEEL ERECTION. IF OVERSIZED OR SLOTTED HOLES ARE USED, DESIGN CONNECTION AS SLIP-RESISTANT PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

HOLES IN MASONRY PLATE SHALL BE A MAXIMUM OF 1/8" LARGER THAN THE SPECIFIED ANCHOR BOLT DIAMETER.

BEVELED SOLE PLATE, INTERMEDIATE LOAD PLATE AND MASONRY PLATES ARE ALIGNED WITH THE GIRDER AND THE SUBSTRUCTURE BELOW.

BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE THICKNESSES TO BE SELECTED BY THE BEARING DESIGNER. MINIMUM 1".

MASONRY PLATE THICKNESS TO BE CONFIRMED BY THE BEARING DESIGNER AND INCREASED IF REQUIRED, BUT NOT DECREASED FROM 1.75".

PROVIDE ANCHOR BOLTS IN ACCORDANCE WITH ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.

DESIGN BEARINGS TO PERMIT REPLACEMENT BY JACKING THE BRIDGE A MAXIMUM OF 1/2".

FINAL DISTANCE BETWEEN BOTTOM OF STEEL GIRDER AND TOP OF PIER IS THE SUMMATION OF "CC", THE ACTUAL "H" OF THE BEARING, 1/8" UNDERLAYMENT AND THE ACTUAL PEDESTAL HEIGHT "P". HEIGHT "P" IS ASSUMED TO BE 10" FOR ALL LOCATIONS.

ALL ELEMENTS SHOWN ARE PROVIDED BY THE BEARING MANUFACTURER (UNLESS OTHERWISE NOTED) AND COORDINATED WITH THE STEEL FABRICATOR.

THE CONTRACTOR IS RESPONSIBLE DURING STORAGE AND FUTURE ERECTION OF THE BEARING TO PREVENT OVER-ROTATION OR SLIDING OF THE BEARING. CONSTRUCTION ROTATIONS MUST NOT EXCEED THE ALLOWABLE ROTATIONS SHOWN.

DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

INSTALL BEARINGS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AS APPROVED BY THE ENGINEER. THE MANUFACTURER SHALL HAVE ITS TECHNICAL REPRESENTATIVE PRESENT FOR THE PLACEMENT OF THE FIRST BEARING. AT THE OPTION OF THE ENGINEER, CONTRACTOR OR MANUFACTURER, THE TECHNICAL REPRESENTATIVE MAY BE REQUIRED TO BE PRESENT FOR THE PLACEMENT OF ANY NUMBER OF ADDITIONAL BEARINGS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

BEARING DETAILS 842

SHEET 16 OF 63

STEEL FABRICATION CONTRACT ONLY

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DATE: 4/30/2013
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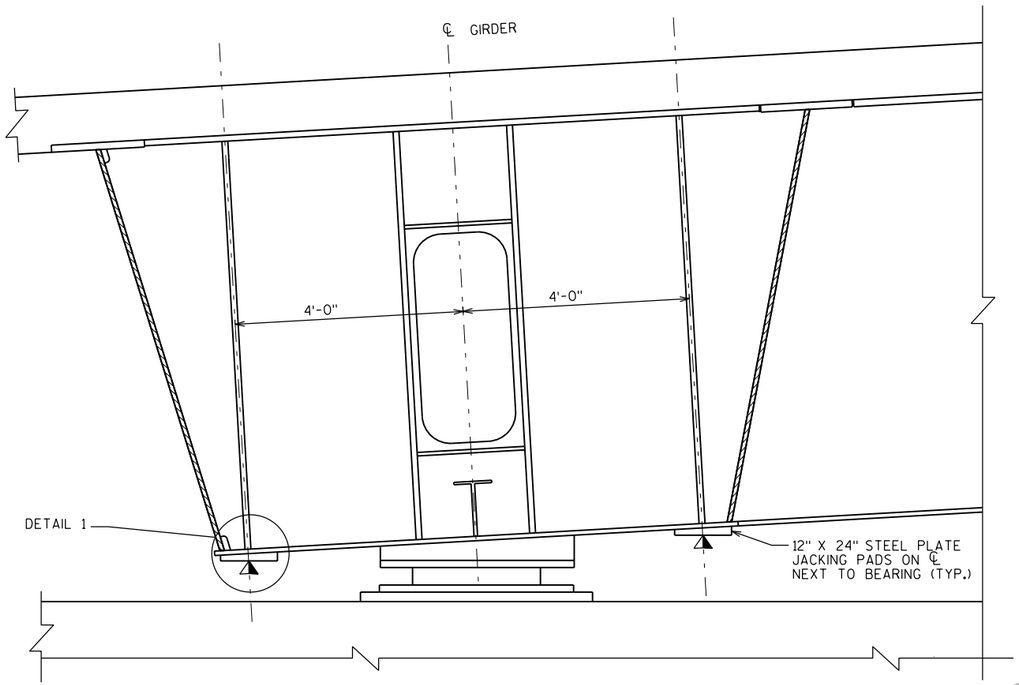
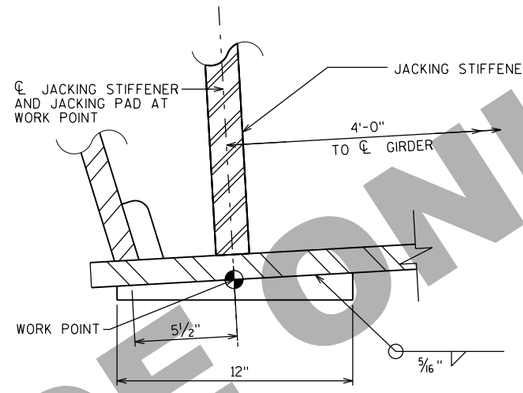
1133-11-76



TYPICAL ELEVATION
(LOOKING UPSTATION)



DETAIL 1
NOT TO SCALE

LEGEND:

▲ SUGGESTED JACKING LOCATIONS FOR FUTURE BEARING REPLACEMENT.

NOTES:

THIS DRAWING SHOWS DETAILS AND LOCATION OF JACKING PADS AND ADDITIONAL JACKING STIFFENERS REQUIRED FOR FUTURE BEARING REPLACEMENT.

JACKING PAD DIMENSIONS AND LOCATIONS ARE BASED ON THE MINIMUM CLEARANCES SHOWN AND THE NOMINAL BEARING DIMENSIONS GIVEN ON BEARING LAYOUT SHEETS. MAKE ADJUSTMENTS AS REQUIRED TO ACCOMMODATE ACTUAL BEARINGS SUPPLIED.

JACKING PADS ARE PROVIDED TO GIVE A JACKING SURFACE THAT IS APPROXIMATELY LEVEL AND TO ENSURE THAT JACKING LOADS ARE APPLIED TO THE CORRECT LOCATION.

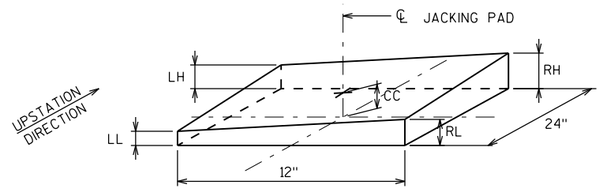
ADDITIONAL MEASURES SHALL BE TAKEN TO CORRECT FOR ANY UNINTENDED SLOPE AND TO ENSURE THAT JACKS ARE POSITIVELY HELD IN POSITION ON THE JACKING PADS.

ESTIMATED JACKING FORCES ARE GIVEN AT EACH PAD AND ARE BASED ON DEAD LOAD AND LIVE LOAD REACTIONS ONLY AND NO ADDITIONAL ALLOWANCES HAVE BEEN MADE. THESE FORCES MUST BE INCREASED TO ALLOW FOR JACK FRICTION AND OTHER FACTORS. RECOMMENDED MINIMUM JACK CAPACITY IS 2 TIMES THE TABULATED JACK FORCE.

FORCES AND RECOMMENDATIONS ARE PROVIDED FOR INFORMATION ONLY AND MUST BE VERIFIED BY THE ENGINEER RESPONSIBLE FOR JACKING OPERATIONS.

CONTROL JACKS TO ENSURE THAT FORCES APPLIED TO ALL JACKING PADS AT A SINGLE BEARING LOCATION ARE APPROXIMATELY EQUAL. IF THIS REQUIREMENT IS NOT MET, A COMPLETE ANALYSIS OF THE PIER DIAPHRAGM SYSTEM WILL BE REQUIRED IN ORDER TO ACCOUNT FOR THE REDISTRIBUTION OF FORCES WITHIN THE SYSTEM.

LOCATION	NUMBER OF PADS PER BOX	LEFT BOX JACKING PAD DIMENSIONS LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	RIGHT BOX JACKING PAD DIMENSIONS LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	MIN. JACK FORCE (KIP)
PIER 10W	2	1.00	1.48	1.82	2.30	1.65	1.00	1.48	1.82	2.30	1.65	260
PIER 11	2	1.00	1.72	1.82	2.54	1.77	1.00	1.72	1.82	2.54	1.77	700
PIER 12	2	1.00	1.72	1.82	2.54	1.77	1.00	1.72	1.82	2.54	1.77	830
PIER 13	2	1.00	1.72	1.62	2.34	1.67	1.00	1.72	1.62	2.34	1.67	890
PIER 14E	2	1.00	1.72	1.36	2.08	1.54	1.00	1.72	1.36	2.08	1.54	320
PIER 14W	2	1.00	1.72	1.36	2.08	1.54	1.00	1.72	1.36	2.08	1.54	310
PIER 15	2	1.00	1.72	1.10	1.82	1.41	1.00	1.72	1.10	1.82	1.41	890
PIER 16	2	1.25	1.97	1.00	1.72	1.48	1.25	1.97	1.00	1.72	1.48	960
PIER 17	2	1.59	2.31	1.00	1.72	1.66	1.59	2.31	1.00	1.72	1.66	890
PIER 18E	2	1.77	2.49	1.00	1.72	1.74	1.77	2.49	1.00	1.72	1.74	310
PIER 18W	2	1.77	2.49	1.00	1.72	1.74	1.77	2.49	1.00	1.72	1.74	260
PIER 19	2	1.77	2.49	1.00	1.72	1.74	1.77	2.49	1.00	1.72	1.74	860
PIER 20	2	1.77	2.49	1.00	1.72	1.74	1.77	2.49	1.00	1.72	1.74	970
PIER 21	2	1.77	2.49	1.00	1.72	1.74	1.77	2.49	1.00	1.72	1.74	970
PIER 22	2	1.65	2.37	1.00	1.72	1.68	1.65	2.37	1.00	1.72	1.68	860
W. ABUT.	2	1.46	2.18	1.00	1.72	1.59	1.46	2.18	1.00	1.72	1.59	250



JACKING PAD DIMENSION KEY

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

JACKING PROVISIONS

SHEET 17 OF 63

843

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STATE PROJECT NUMBER
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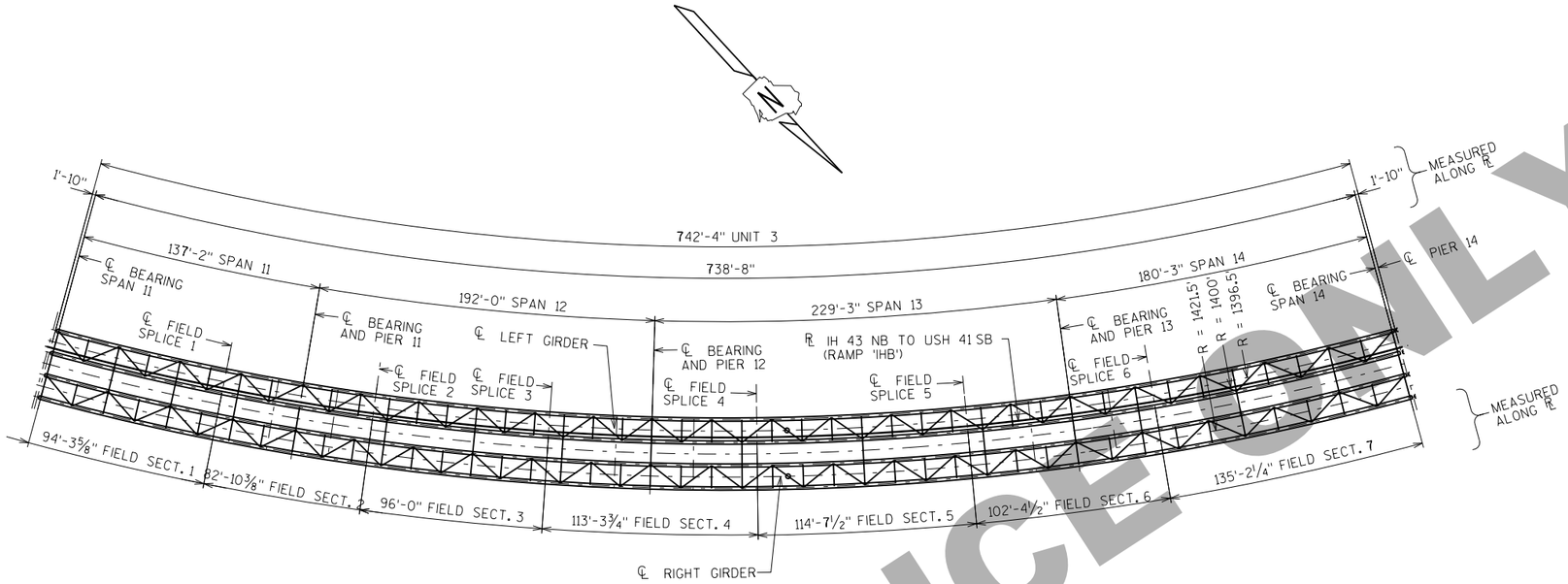

FRAMING PLAN - UNIT 3

FOR REFERENCE ONLY

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STEEL FABRICATION CONTRACT ONLY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

FRAMING PLAN
UNIT 3
SPANS 11 TO 14

SHEET 18 OF 63
844

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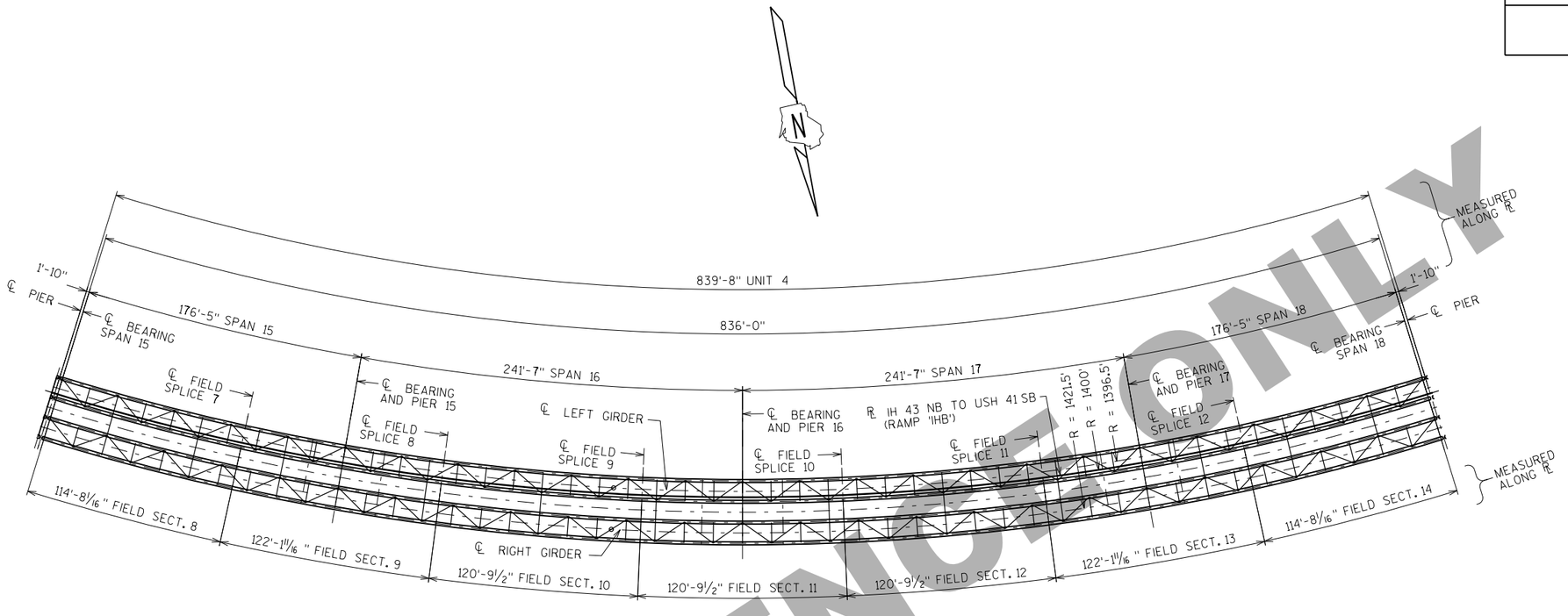
DATE: 4/30/2013
I.D.

STATE PROJECT NUMBER

1133-11-76



FRAMING PLAN - UNIT 4

FOR REFERENCE ONLY

8

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

FRAMING PLAN
UNIT 4
SPANS 15 TO 18

SHEET 19 OF 63

845

DATE: 4/30/2013

I.D.

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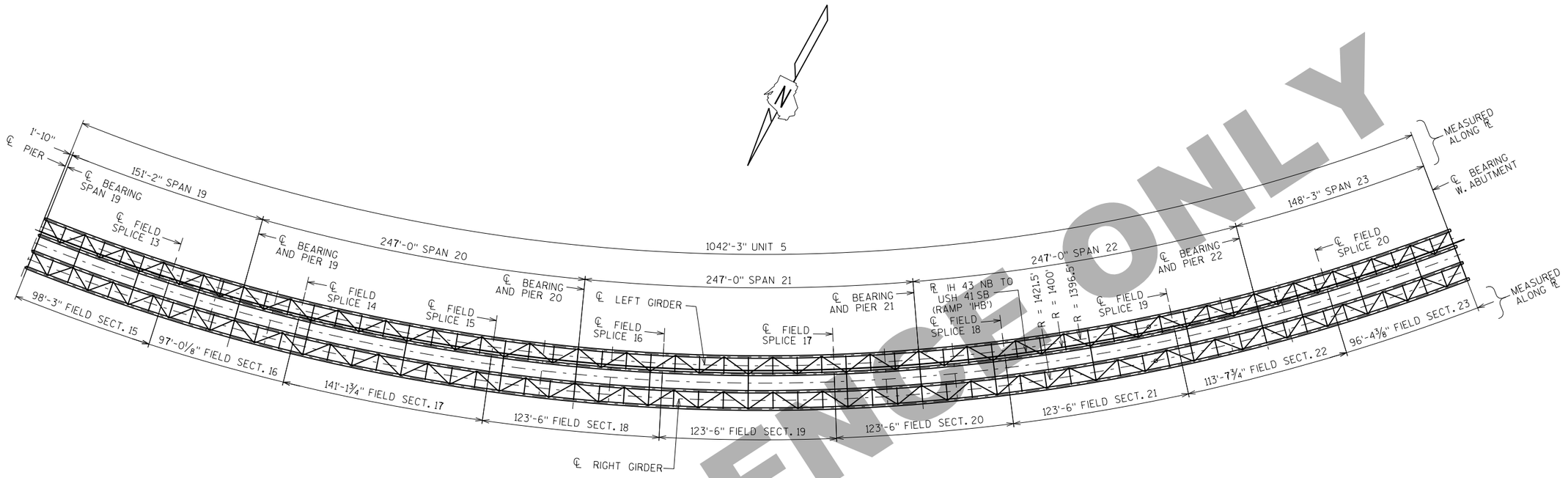
STATE PROJECT NUMBER
1133-11-76



FRAMING PLAN - UNIT 5

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

FRAMING PLAN
UNIT 5
SPANS 19 TO 23

SHEET 20 OF 63

846

8

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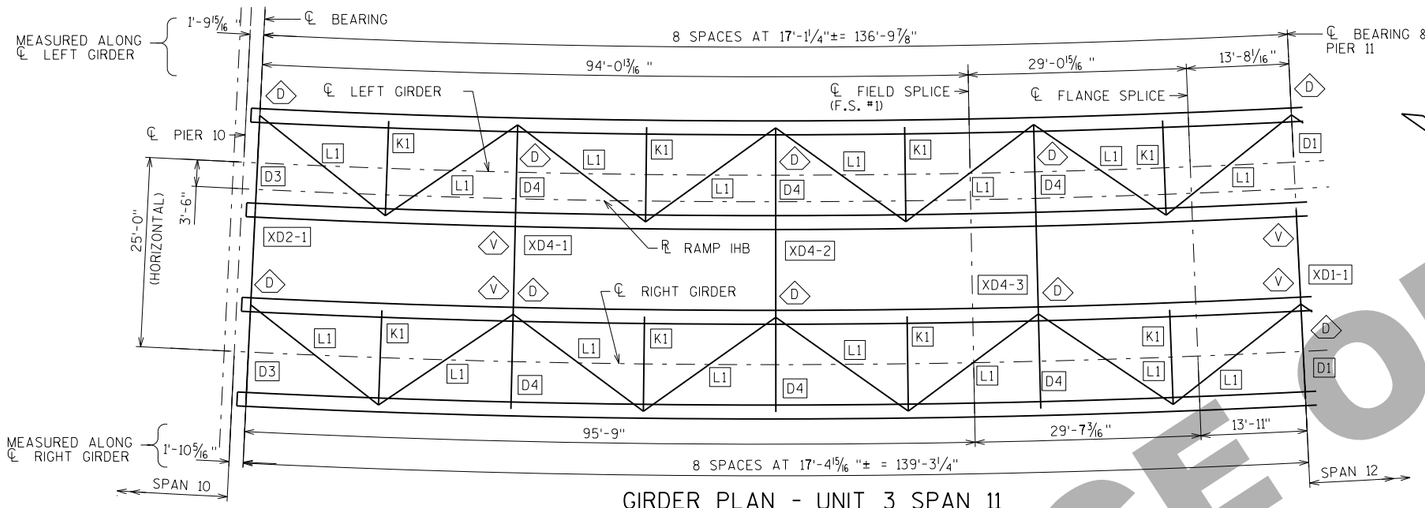
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E\020 - B-5-678E - FRAMING PLAN UNIT 5.dgn

DATE: 4/30/2013

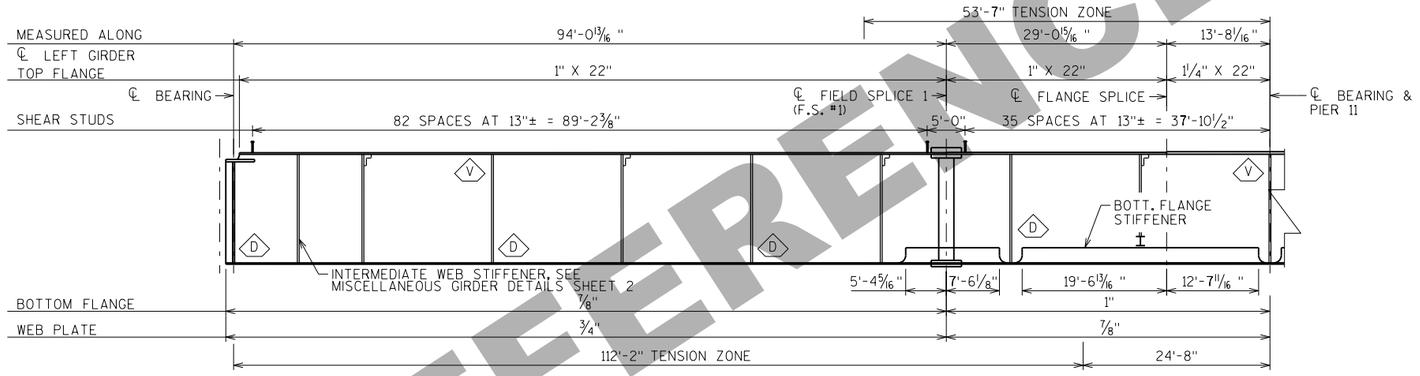
I.D.

STATE PROJECT NUMBER

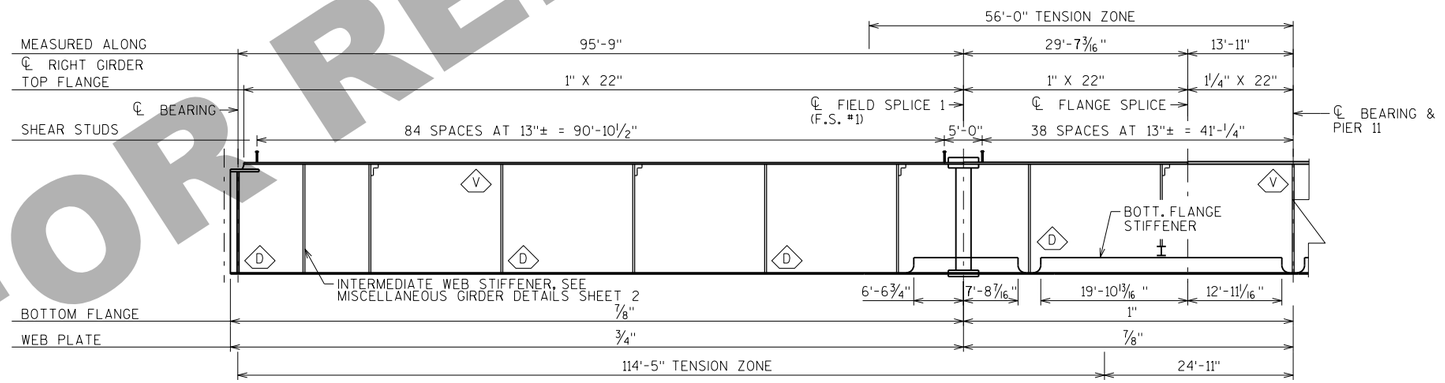
1133-11-76



GIRDER PLAN - UNIT 3 SPAN 11



LEFT GIRDER ELEVATION - UNIT 3 SPAN 11



RIGHT GIRDER ELEVATION - UNIT 3 SPAN 11

LEGEND

- D1 — INTERIOR DIAPHRAGM OVER PIER FOR CONTINUOUS SPAN
- D2 — INTERIOR DIAPHRAGM OVER PIER AT UNIT BREAK
- D3 — INTERIOR DIAPHRAGM AT ABUTMENT
- D4 — INTERIOR INTERMEDIATE DIAPHRAGM
- XDA-B — EXTERIOR DIAPHRAGM (WHERE 'A' INDICATES CORRESPONDING INTERIOR DIAPHRAGM NUMBER AND 'B' INDICATES SEQUENTIAL NUMBER WHICH VARIES DUE TO CHANGE IN CROSS SLOPE)
- K1 — INTERIOR K FRAME
- XF — EXTERIOR INTERMEDIATE CROSS FRAME
- L1 — TOP FLANGE LATERAL BRACING MARK NUMBER
- V — VENT HOLE LOCATION
- D — DRAIN HOLE LOCATION

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING FUTURE ERECTION CONTRACT.

ALL LONGITUDINAL DIMENSIONS SHOWN ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF EACH GIRDER. CONTRACTOR SHALL MAKE ADJUSTMENTS FOR CAMBER AND GRADE.

FOR SHOP WELDED BUTT SPLICES OF FLANGES, FABRICATOR MAY CHOOSE TO ELIMINATE SPLICE AND CONTINUE THICKER PLATE TO END OF SECTION AT FIELD SPLICE AT NO ADDITIONAL COST TO THE OWNER. ADJUST CAMBER IF PLATE SIZES ARE CHANGED.

TENSION ZONES SHOWN ABOVE THE GIRDER ELEVATION INDICATE TENSION ZONES FOR TOP FLANGE AND UPPER PORTION OF WEB.

TENSION ZONES SHOWN BELOW THE GIRDER ELEVATION INDICATE TENSION ZONES FOR BOTTOM FLANGE AND LOWER PORTION OF WEB.

FOR OPTIONAL SHOP SPLICE DETAIL AS REQUIRED DUE TO MAXIMUM PLATE LENGTHS AVAILABLE FROM MILL, SEE MISCELLANEOUS GIRDER DETAILS SHEET.

FOR LONGITUDINAL STIFFENER TERMINATION DETAILS SEE SHEETS MISCELLANEOUS GIRDER DETAILS 1 AND MISCELLANEOUS GIRDER DETAILS 2.

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STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 11

SHEET 21 OF 63

847

8

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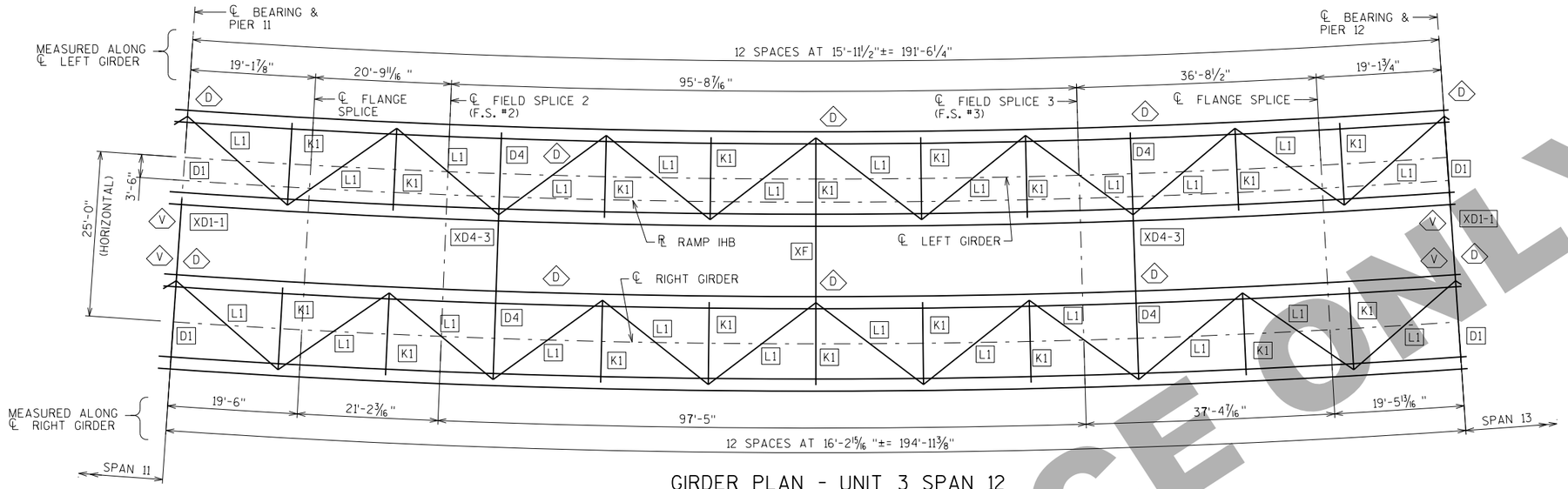
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E\021 - B-5-678E - GIRDER PLAN AND ELEV UNIT 3 SPAN 11.dgn

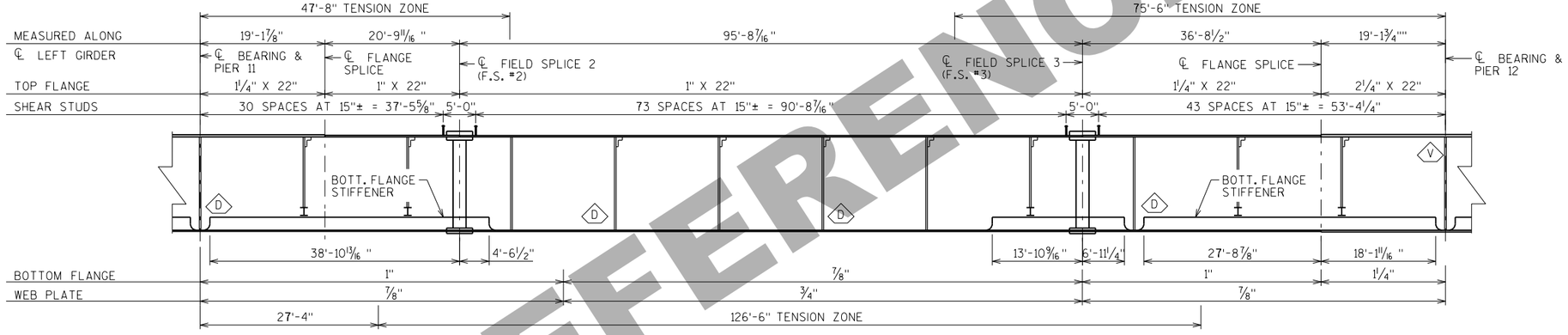
DATE: 4/30/2013
I.D.

STATE PROJECT NUMBER

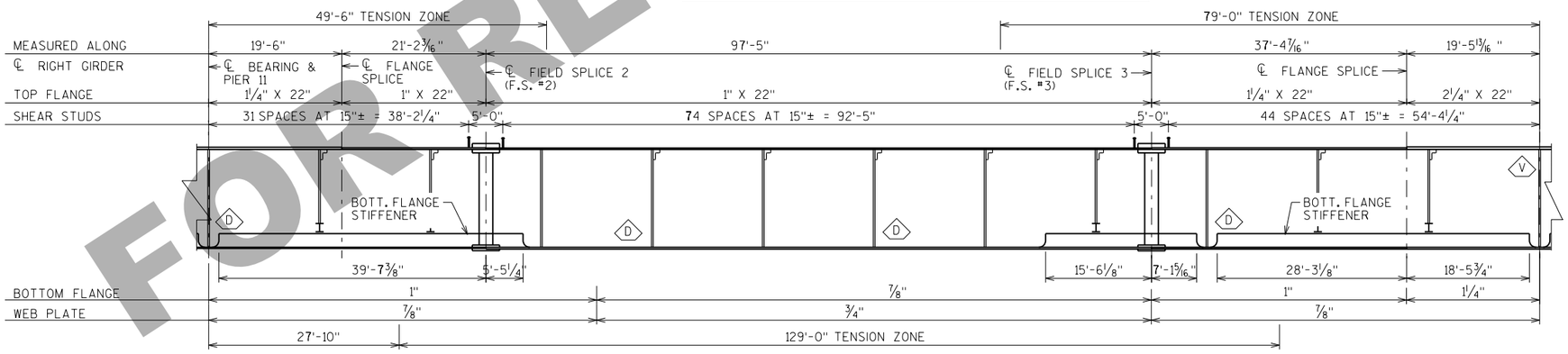
1133-11-76



GIRDER PLAN - UNIT 3 SPAN 12



LEFT GIRDER ELEVATION - UNIT 3 SPAN 12



RIGHT GIRDER ELEVATION - UNIT 3 SPAN 12

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 12

SHEET 22 OF 63

848

DATE: 4/30/2013
I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\022 - B-5-678E - GIRDER PLAN AND ELEV UNIT 3 SPAN 12.dgn

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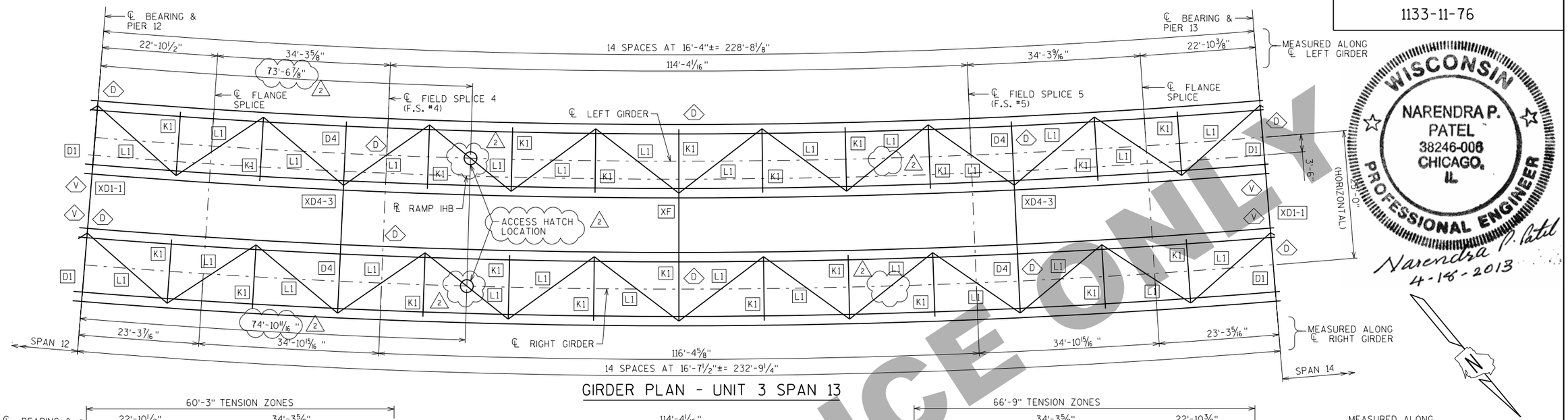
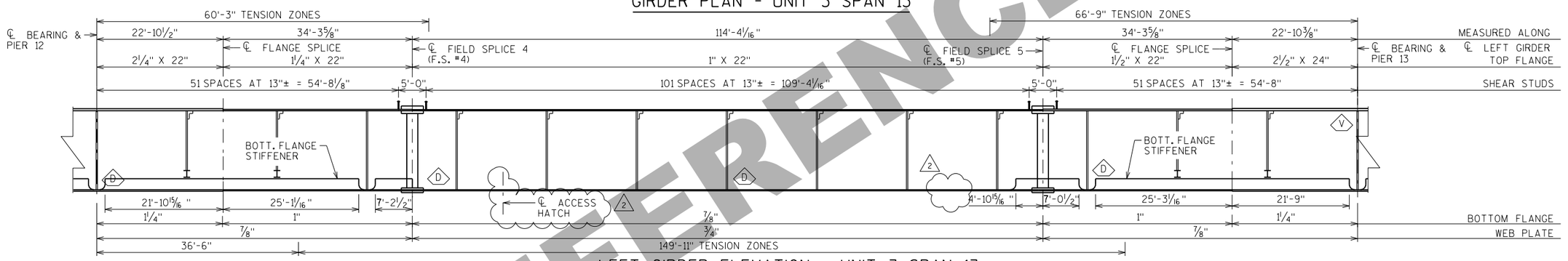
STATE PROJECT NUMBER

1133-11-76



GIRDER PLAN - UNIT 3 SPAN 13



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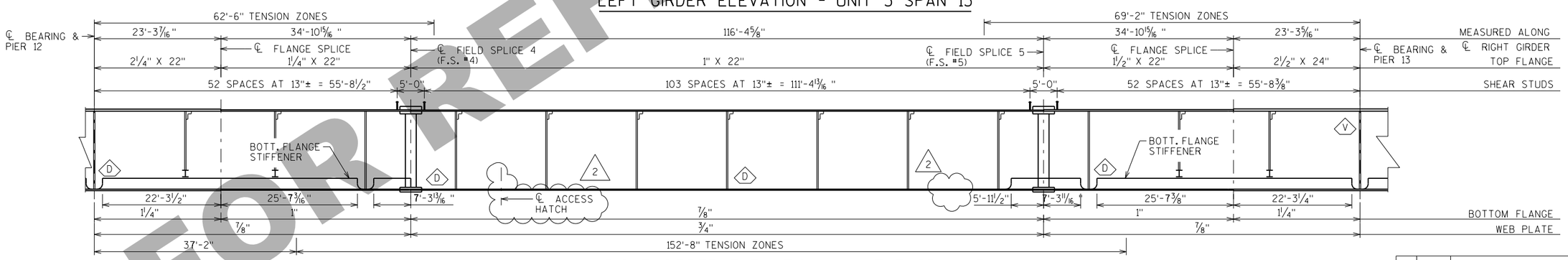

RIGHT GIRDER ELEVATION - UNIT 3 SPAN 13

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
2	04/18/13	ACCESS HATCHES RELOCATED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

GIRDER PLAN AND ELEVATION UNIT 3 SPAN 13

SHEET 23 OF 63

849

DATE: 4/30/2013

I.D.

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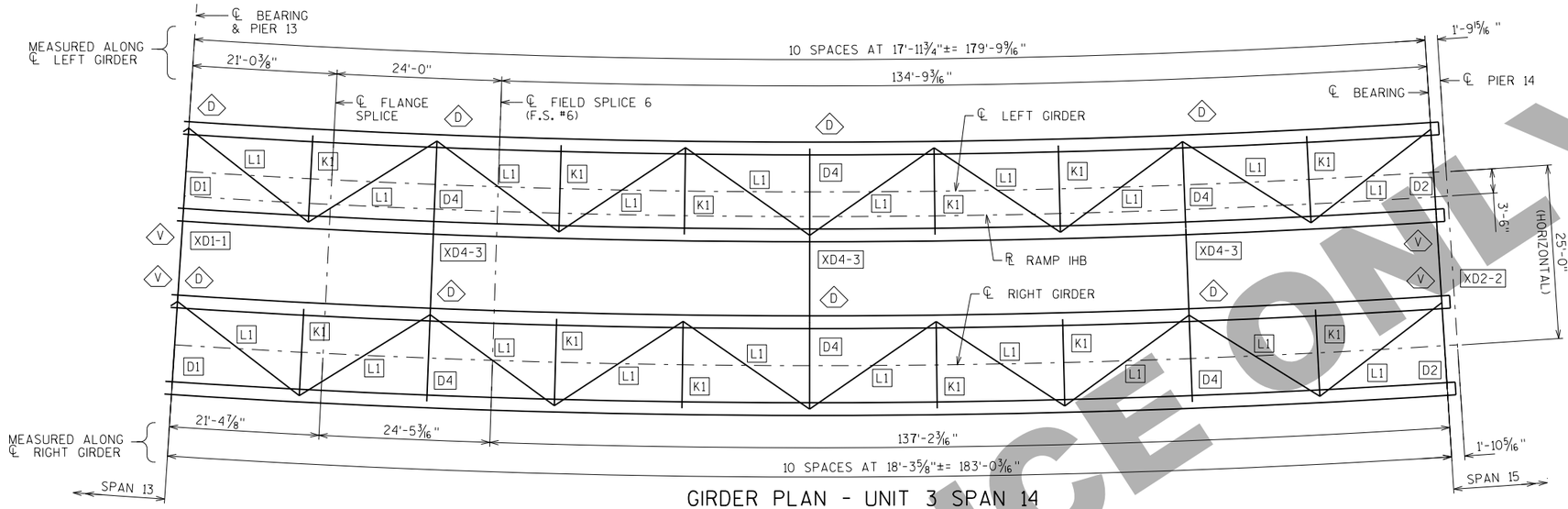
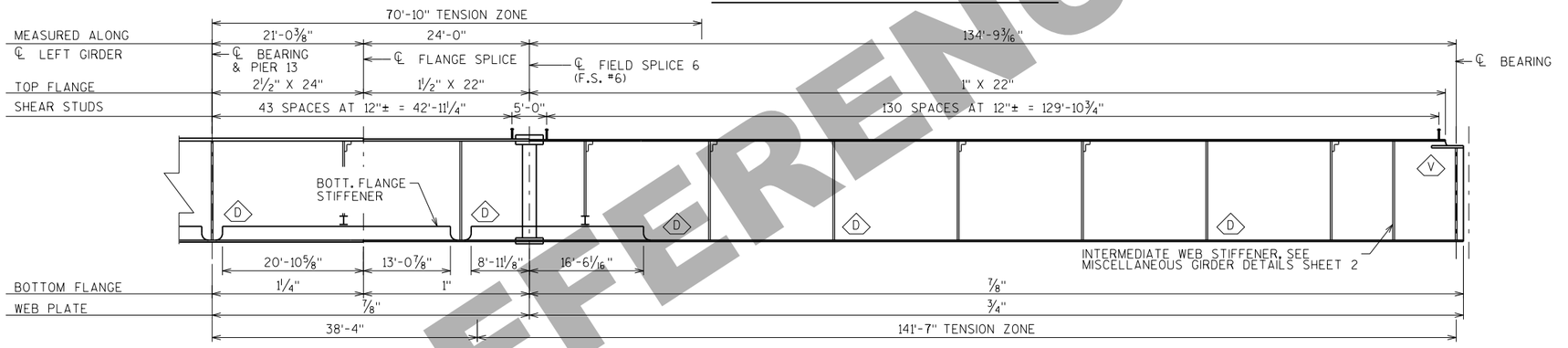
STATE PROJECT NUMBER

1133-11-76



GIRDER PLAN - UNIT 3 SPAN 14



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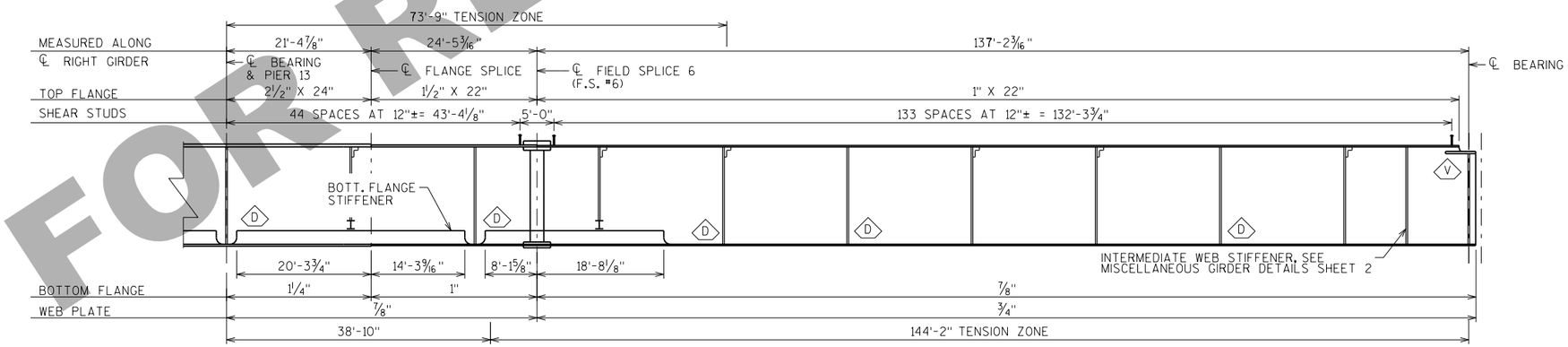

RIGHT GIRDER ELEVATION - UNIT 3 SPAN 14

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 3 SPAN 14

SHEET 24 OF 63

850

DATE: 4/30/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\C

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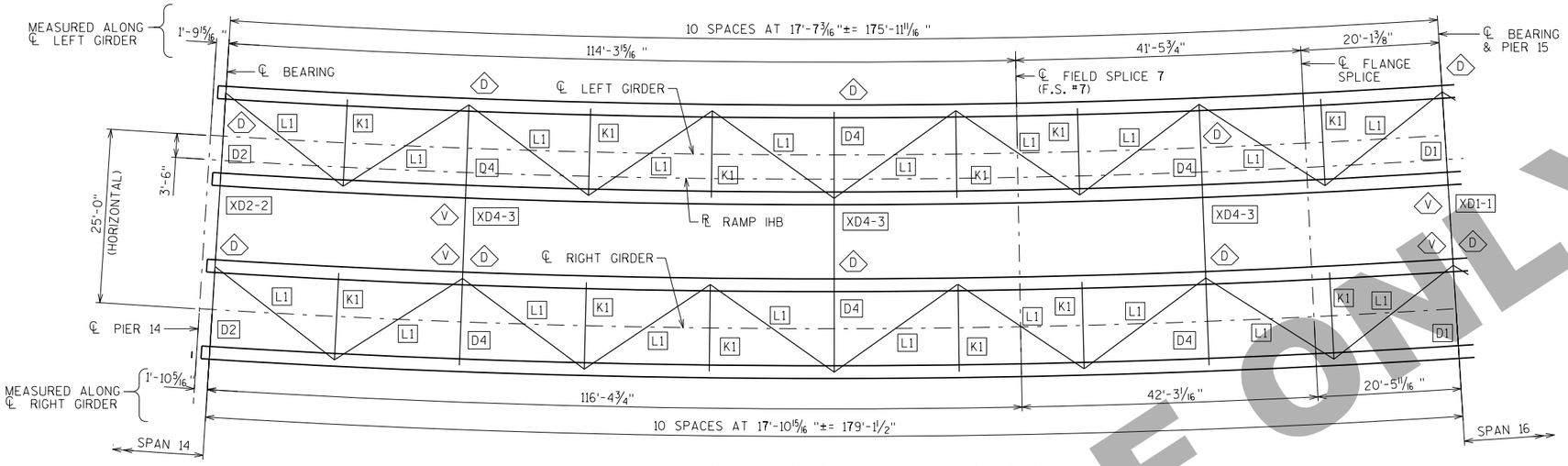
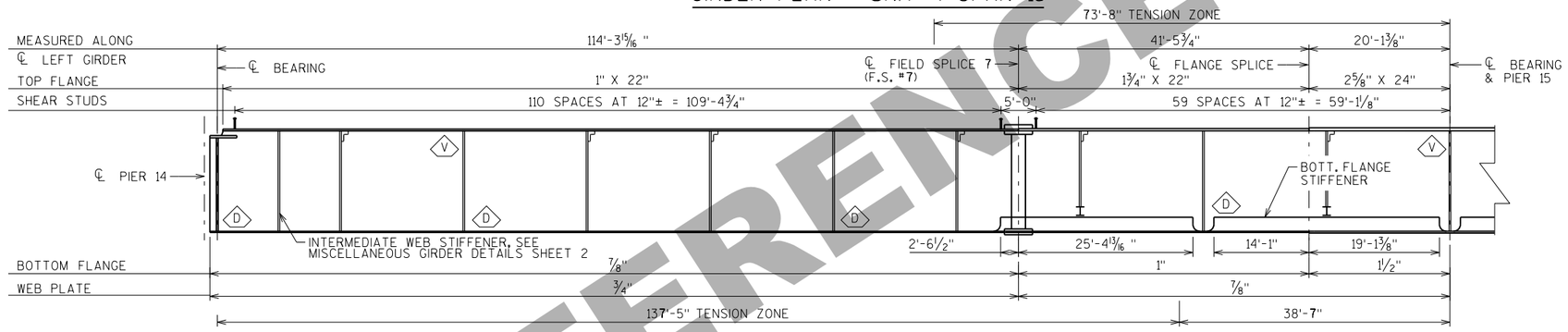
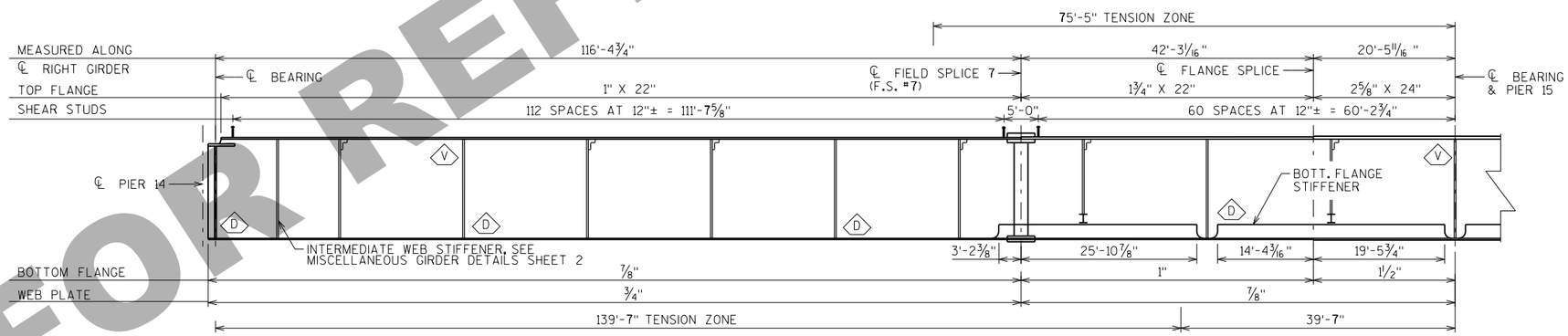
STATE PROJECT NUMBER
1133-11-76



GIRDER PLAN - UNIT 4 SPAN 15



LEFT GIRDER ELEVATION - UNIT 4 SPAN 15



RIGHT GIRDER ELEVATION - UNIT 4 SPAN 15

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 4 SPAN 15

SHEET 25 OF 63

851

DATE: 4/30/2013

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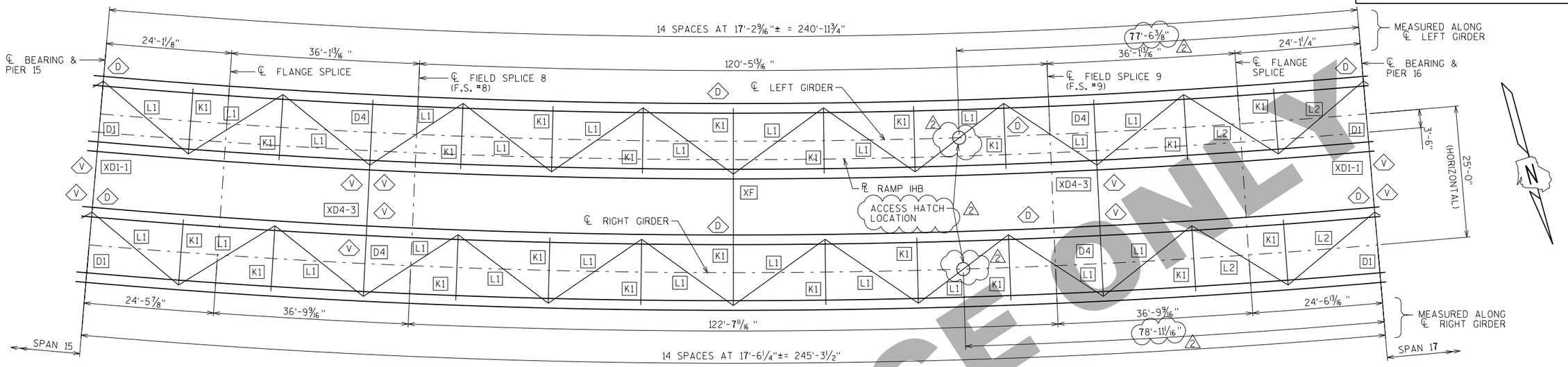
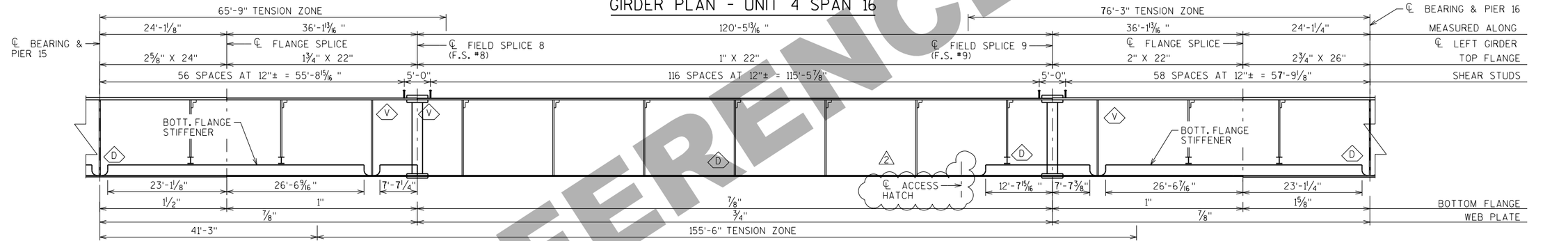
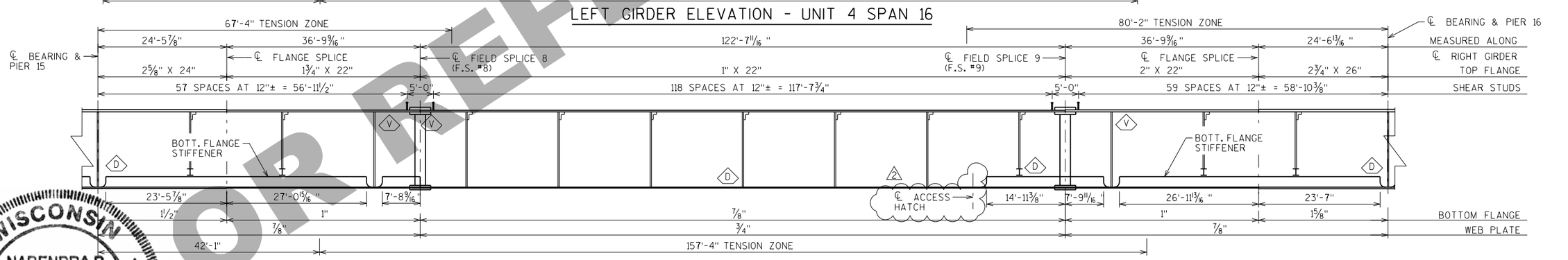
STATE PROJECT NUMBER
1133-11-76



GIRDER PLAN - UNIT 4 SPAN 16



LEFT GIRDER ELEVATION - UNIT 4 SPAN 16



RIGHT GIRDER ELEVATION - UNIT 4 SPAN 16

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER
Narendra P. Patel
4-16-2013

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
2	4/18/13	ACCESS HATCHES RELOCATED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 4 SPAN 16

SHEET 26 OF 63

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STEEL FABRICATION CONTRACT ONLY

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DATE: 4/30/2013

I.D.

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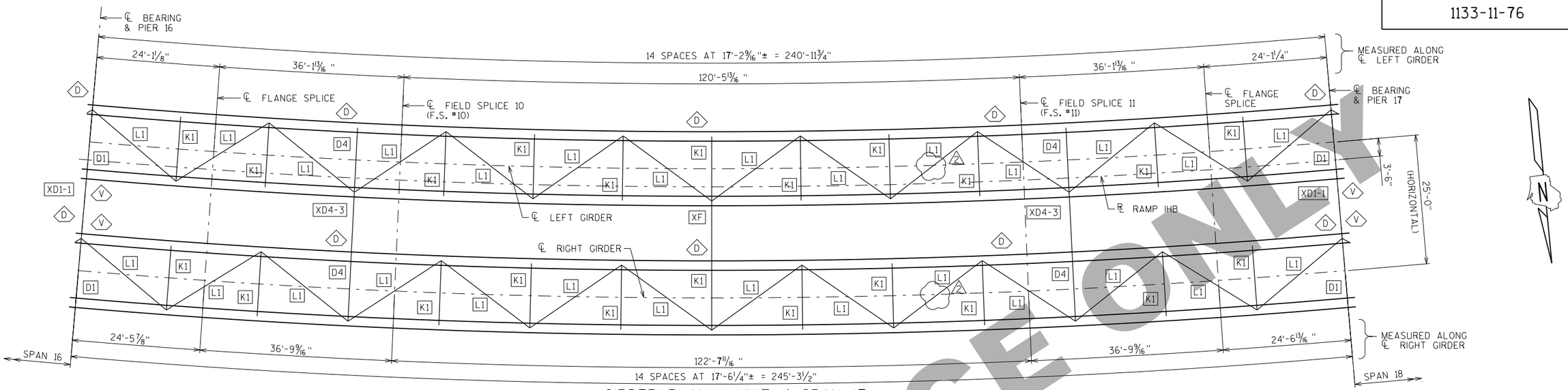
STATE PROJECT NUMBER

1133-11-76



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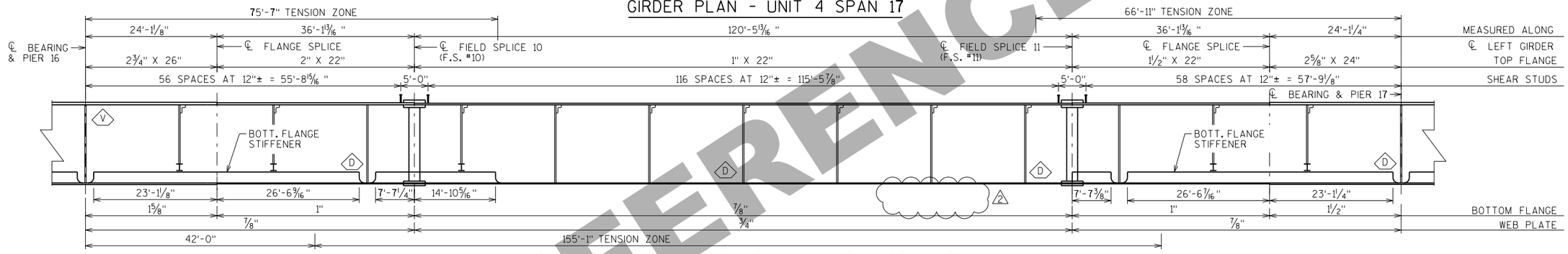

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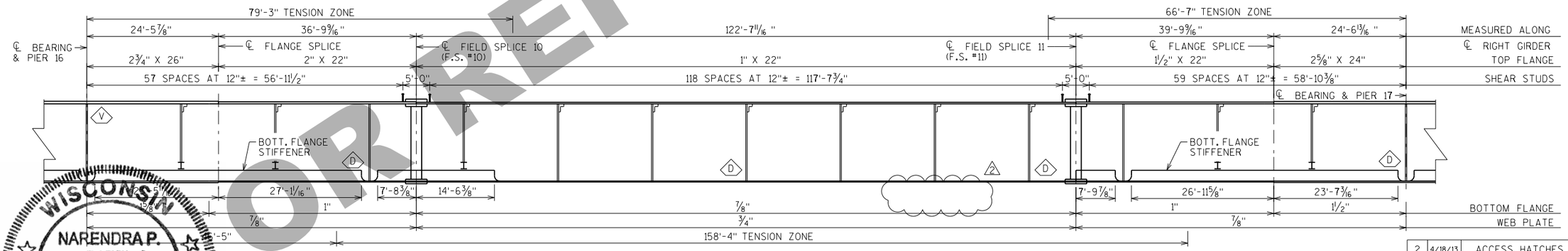

RIGHT GIRDER ELEVATION - UNIT 4 SPAN 17

STEEL FABRICATION CONTRACT ONLY

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER
Narendra P. Patel
4-14-2013

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
2	4/18/13	ACCESS HATCHES RELOCATED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 4 SPAN 17

SHEET 27 OF 63

853

DATE: 4/30/2013

I.D.

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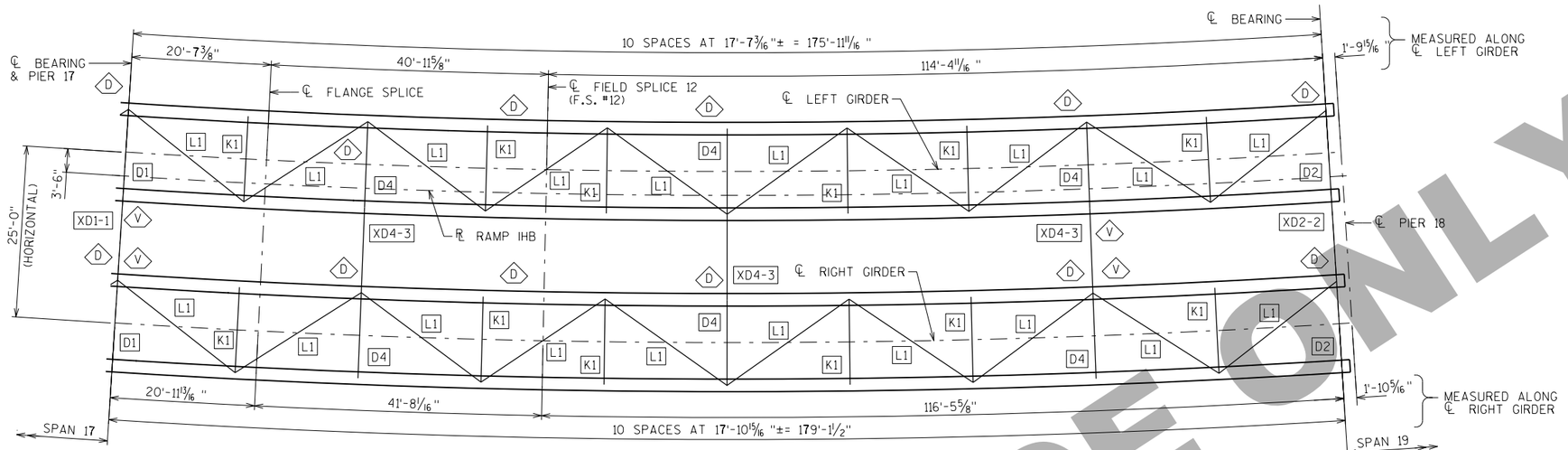
STATE PROJECT NUMBER

1133-11-76



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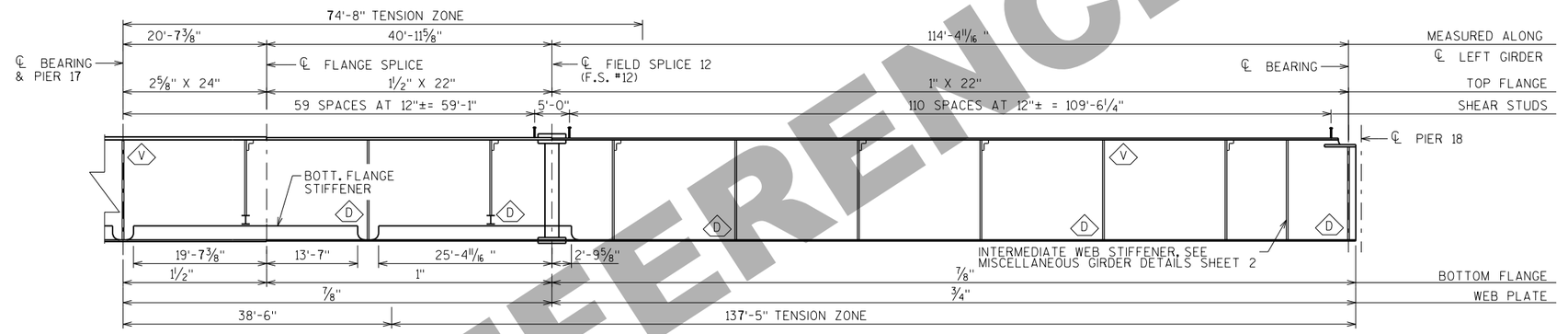
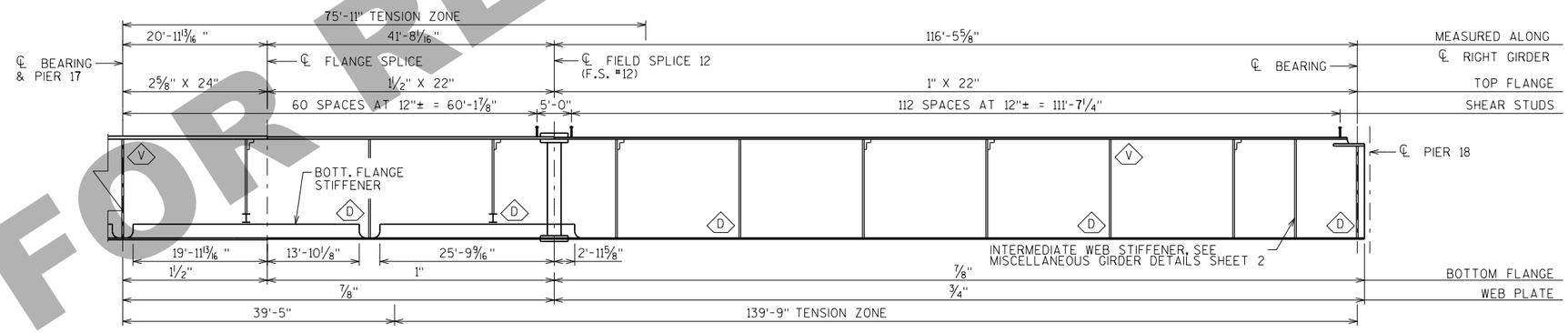


LEFT GIRDER ELEVATION - UNIT 4 SPAN 18



RIGHT GIRDER ELEVATION - UNIT 4 SPAN 18

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 4 SPAN 18

SHEET 28 OF 63

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DATE: 4/30/2013

I.D.

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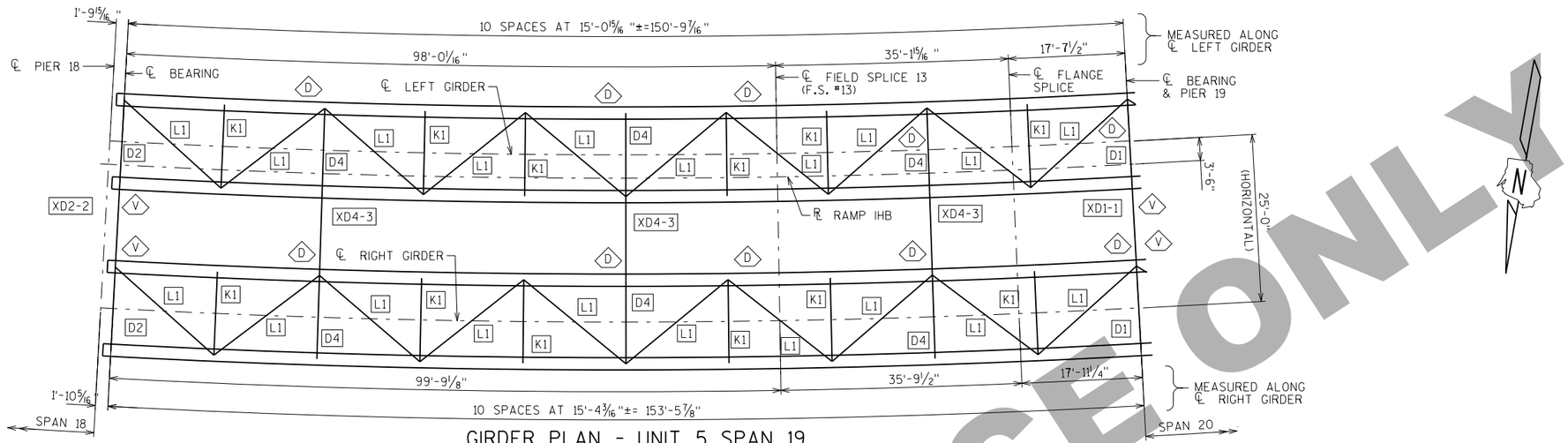
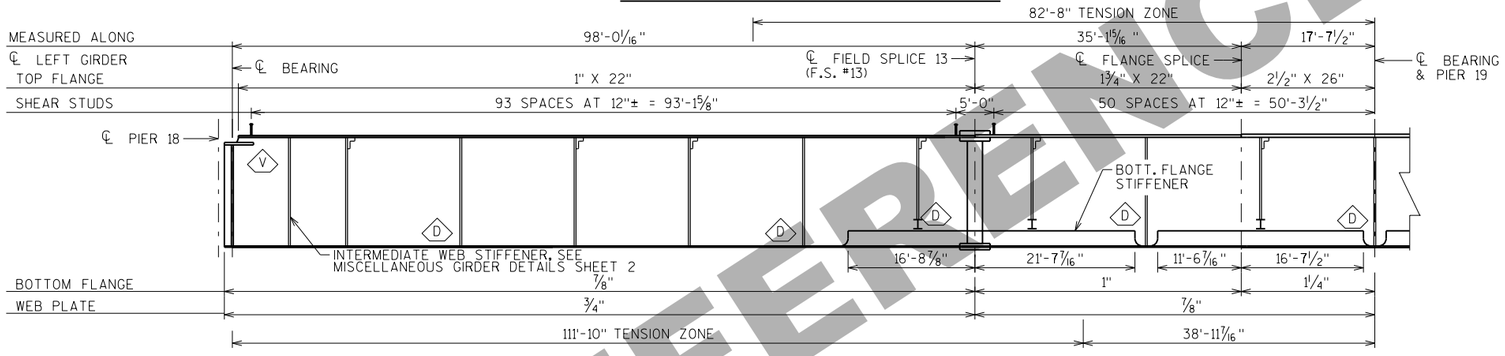
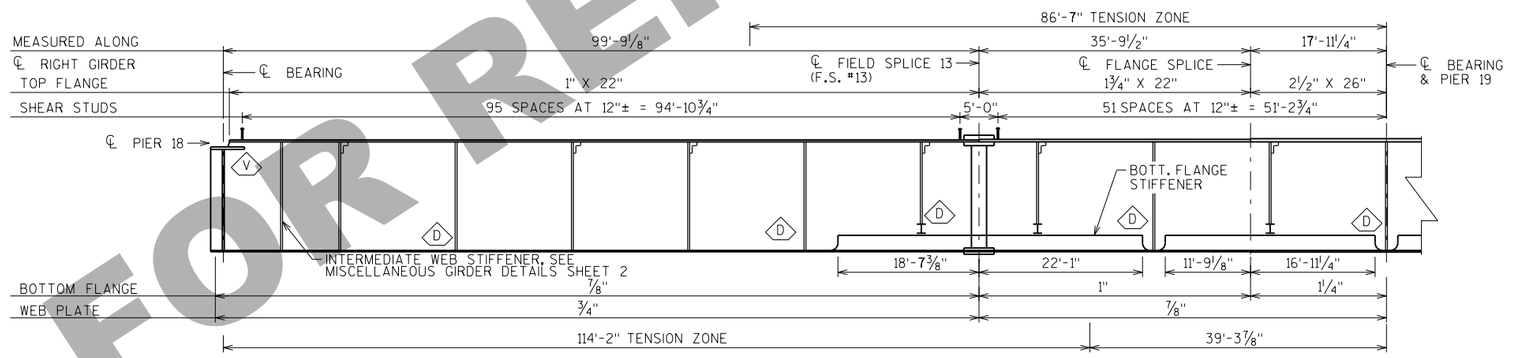
1133-11-76



GIRDER PLAN - UNIT 5 SPAN 19



LEFT GIRDER ELEVATION - UNIT 5 SPAN 19



RIGHT GIRDER ELEVATION - UNIT 5 SPAN 19

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 5 SPAN 19

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855

DATE: 4/30/2013

I.D.

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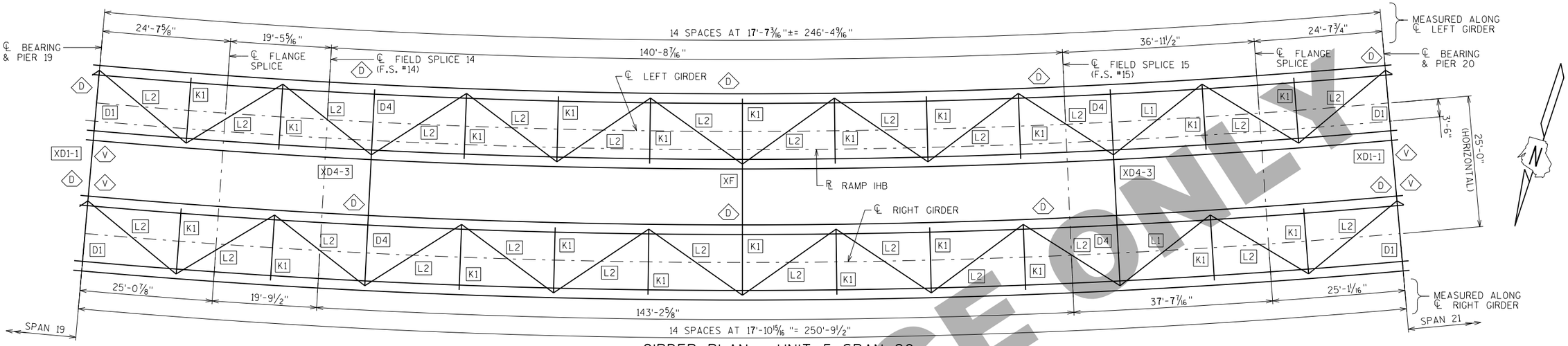
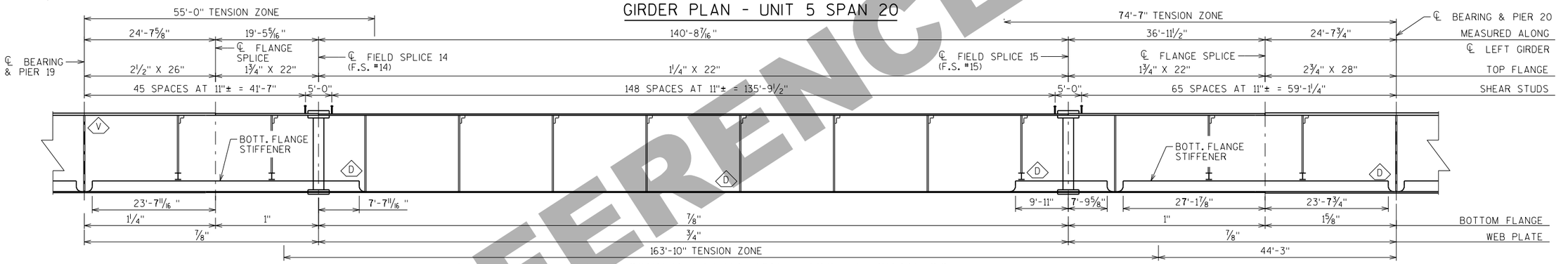
STATE PROJECT NUMBER

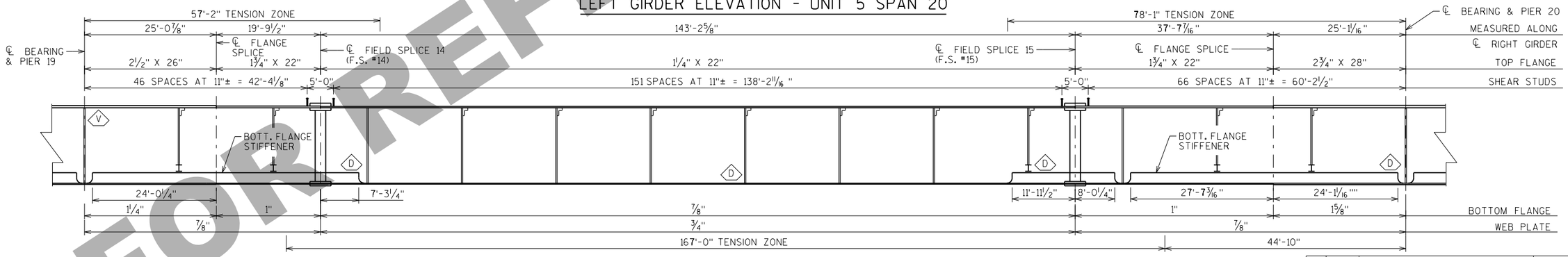
1133-11-76



GIRDER PLAN - UNIT 5 SPAN 20



LEFT GIRDER ELEVATION - UNIT 5 SPAN 20



RIGHT GIRDER ELEVATION - UNIT 5 SPAN 20

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 5 SPAN 20

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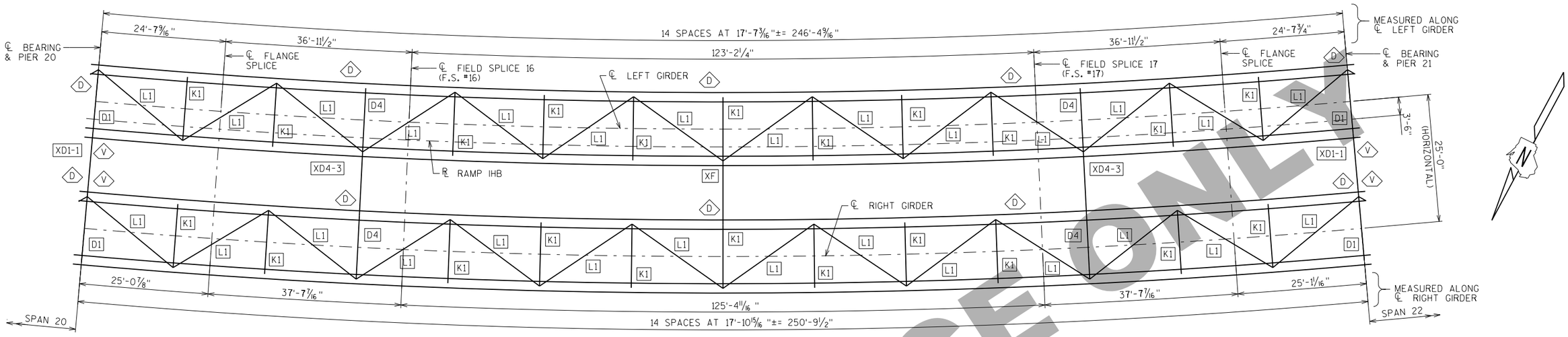
DATE: 4/30/2013

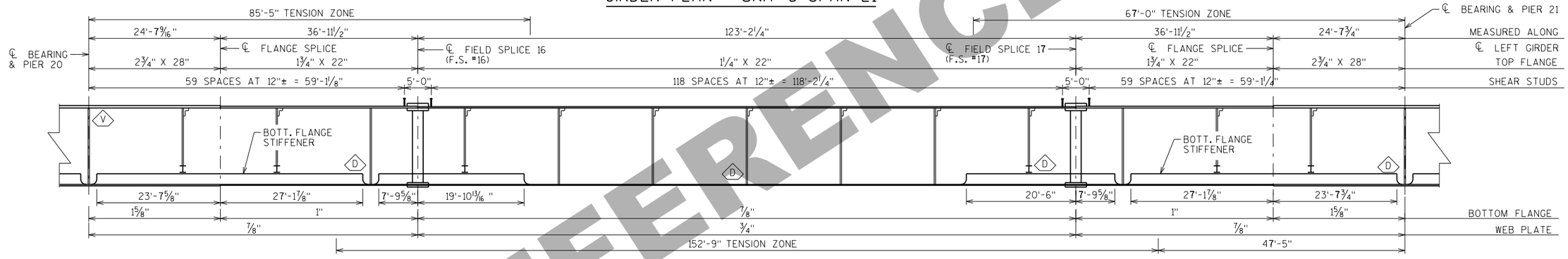
I.D.

STATE PROJECT NUMBER

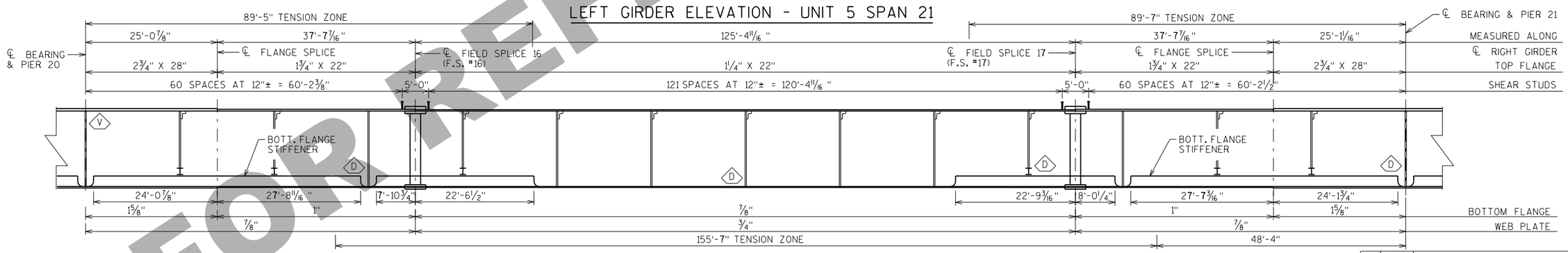
1133-11-76



GIRDER PLAN - UNIT 5 SPAN 21



LEFT GIRDER ELEVATION - UNIT 5 SPAN 21



RIGHT GIRDER ELEVATION - UNIT 5 SPAN 21

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY ZMG | PLANS CK'D. NPP

GIRDER PLAN AND ELEVATION UNIT 5 SPAN 21

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STEEL FABRICATION CONTRACT ONLY

8

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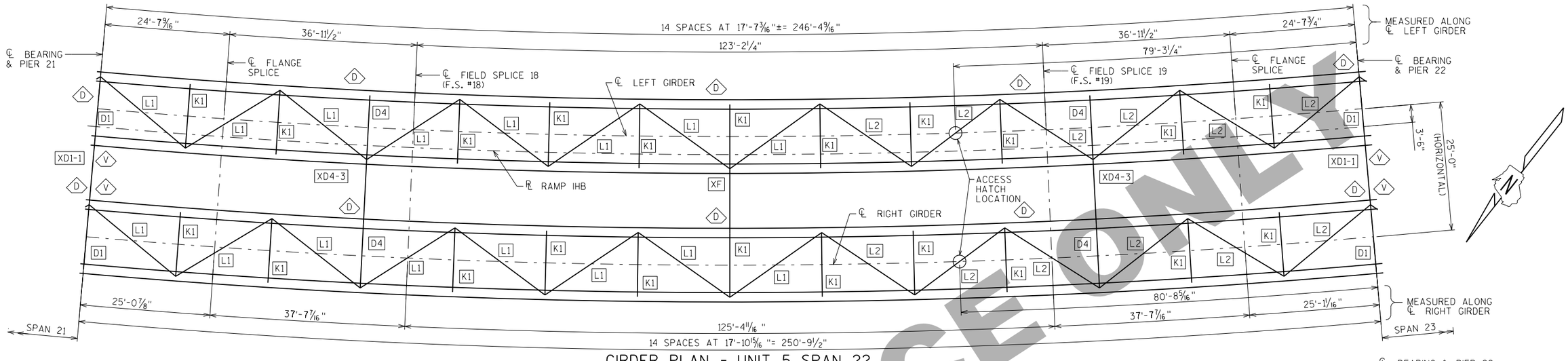
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E\B-05-678EV031 - B-5-678E - GIRDER PLAN AND ELEV UNIT 5 SPAN 21.dgn

DATE: 4/30/2013

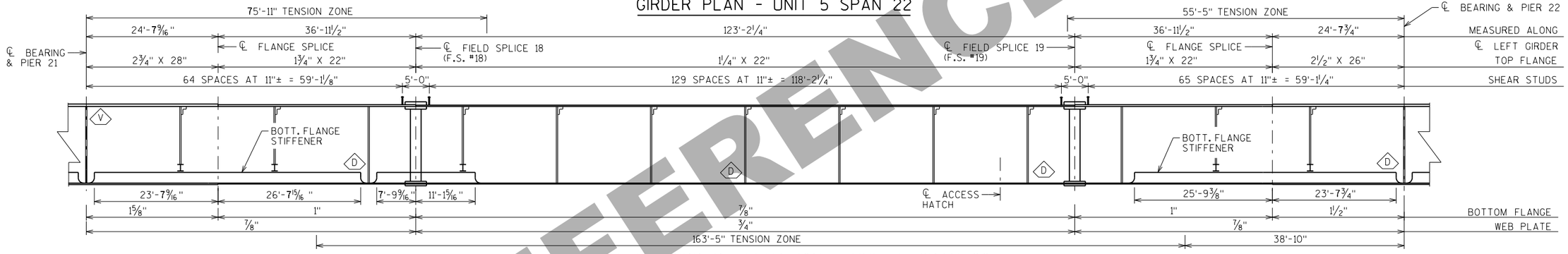
I.D.

STATE PROJECT NUMBER

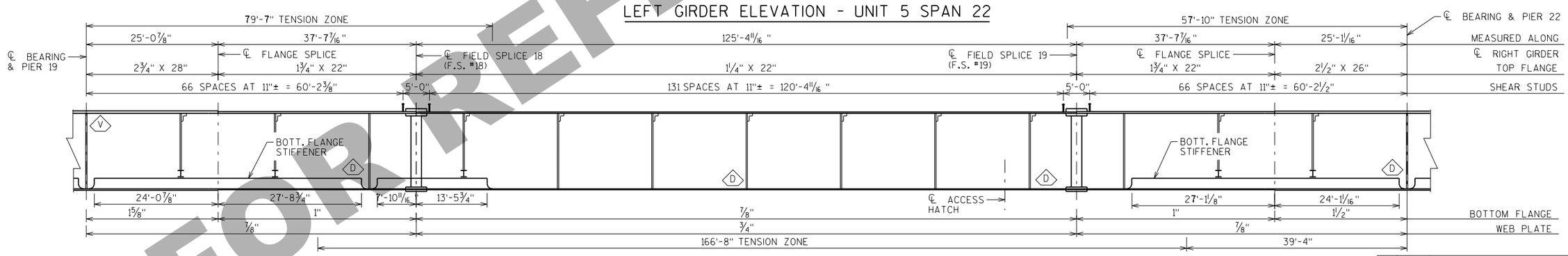
1133-11-76



GIRDER PLAN - UNIT 5 SPAN 22



LEFT GIRDER ELEVATION - UNIT 5 SPAN 22



RIGHT GIRDER ELEVATION - UNIT 5 SPAN 22

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 5 SPAN 22

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DATE: 4/30/2013

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STATE PROJECT NUMBER

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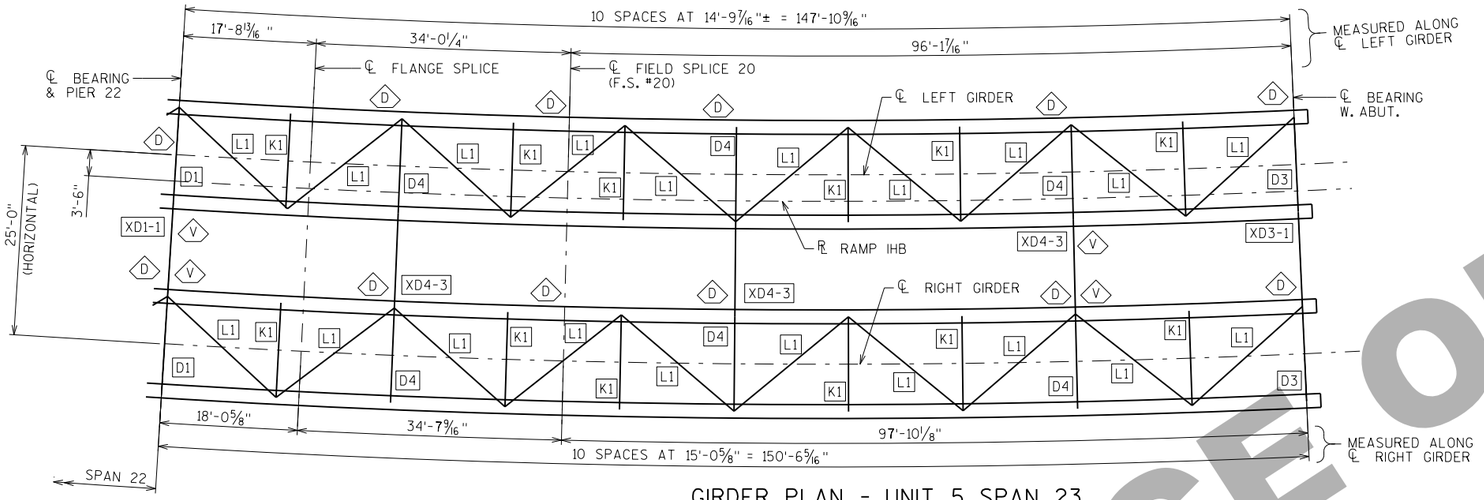
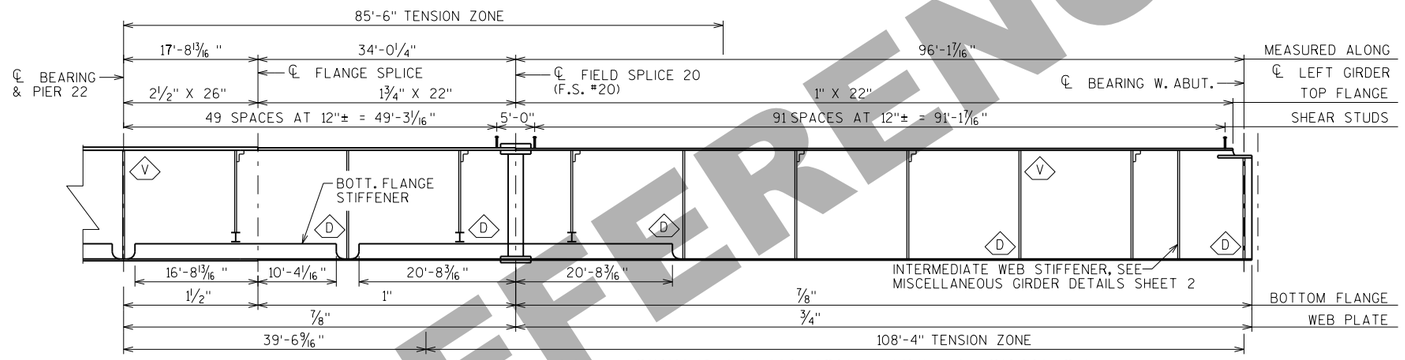
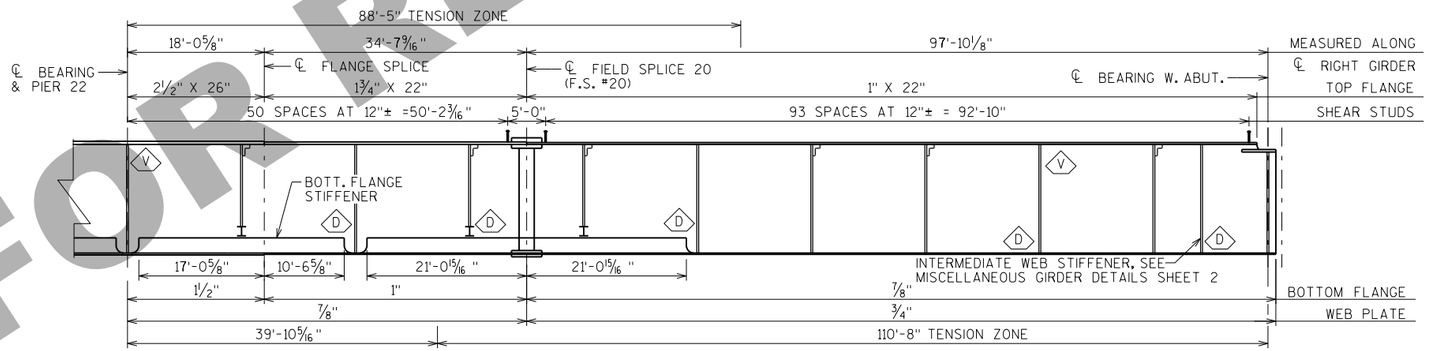


GIRDER PLAN - UNIT 5 SPAN 23



LEFT GIRDER ELEVATION - UNIT 5 SPAN 23



RIGHT GIRDER ELEVATION - UNIT 5 SPAN 23

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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GIRDER PLAN AND ELEVATION UNIT 5 SPAN 23

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I.D.

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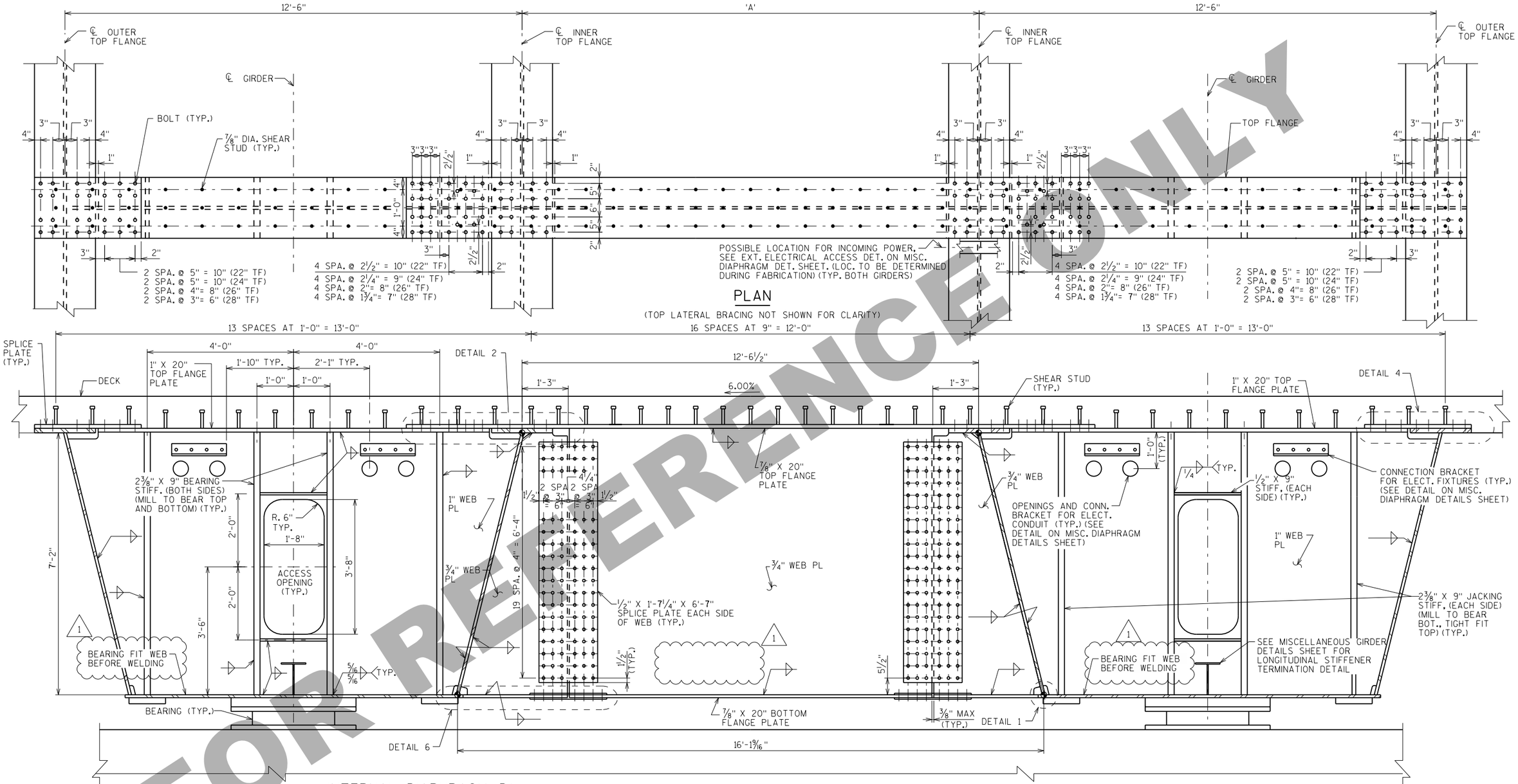
STATE PROJECT NUMBER
1133-11-76



FOR REFERENCE ONLY

INTERNAL DIAPHRAGM D1

EXTERNAL DIAPHRAGM 'XD1'

INTERNAL DIAPHRAGM D1

ELEVATION

(SUPERELEVATION NOT SHOWN)

+ SLOPE

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE ⅞" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 2, 4 AND 6 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1

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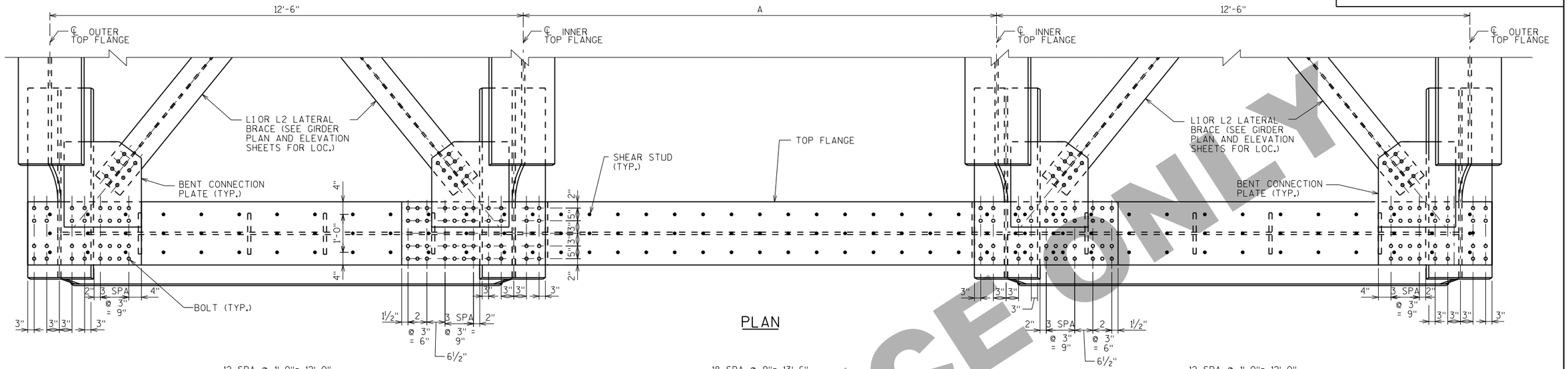
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\034-B-05-678E_INTERMEDIATE PIER DIAPHRAGMS XD1 D1.dgn

DATE: 4.30.2013

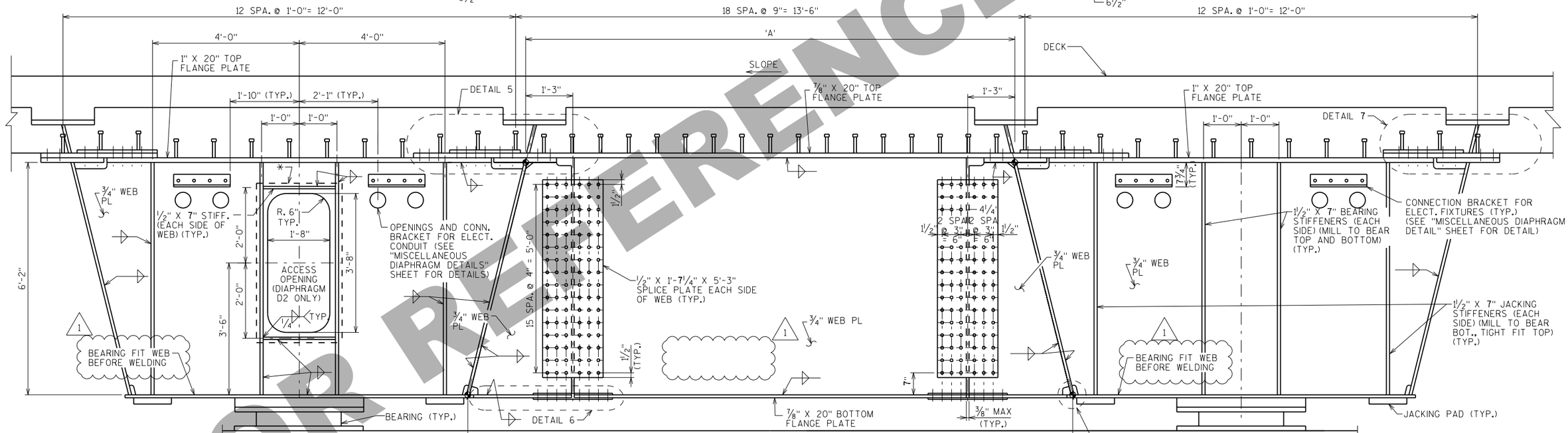
I.D.

STATE PROJECT NUMBER

1133-11-76



PLAN



INTERNAL DIAPHRAGM 'D2'

EXTERNAL DIAPHRAGM 'XD2' OR 'XD3'
(BETWEEN TWO "D2" DIAPHRAGMS OR TWO "D3" DIAPHRAGMS)

INTERNAL DIAPHRAGM 'D3'

ELEVATION
(SUPERELEVATION NOT SHOWN)

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE 7/8" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF AN ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 5, 6 AND 7 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

* ACCESS DOOR REQUIRED AT INTERNAL DIAPHRAGM D2, SEE ACCESS DOOR DETAILS SHEET.

TABLE OF VARIABLES

	A	B	SLOPE
XD2-1	13'-0 1/4"	16'-1 1/4"	+4.04%
XD2-2	13'-0 9/16"	16'-1 9/16"	+6.00%
XD3-1	13'-0 9/16"	16'-1 9/16"	+6.00%

+ SLOPE

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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UNIT END DIAPHRAGMS XD2, XD3, D2, AND D3

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678\E\035-B-05-678E_UNIT END DIAPHRAGMS XD2 XD3 D2 D3.dgn

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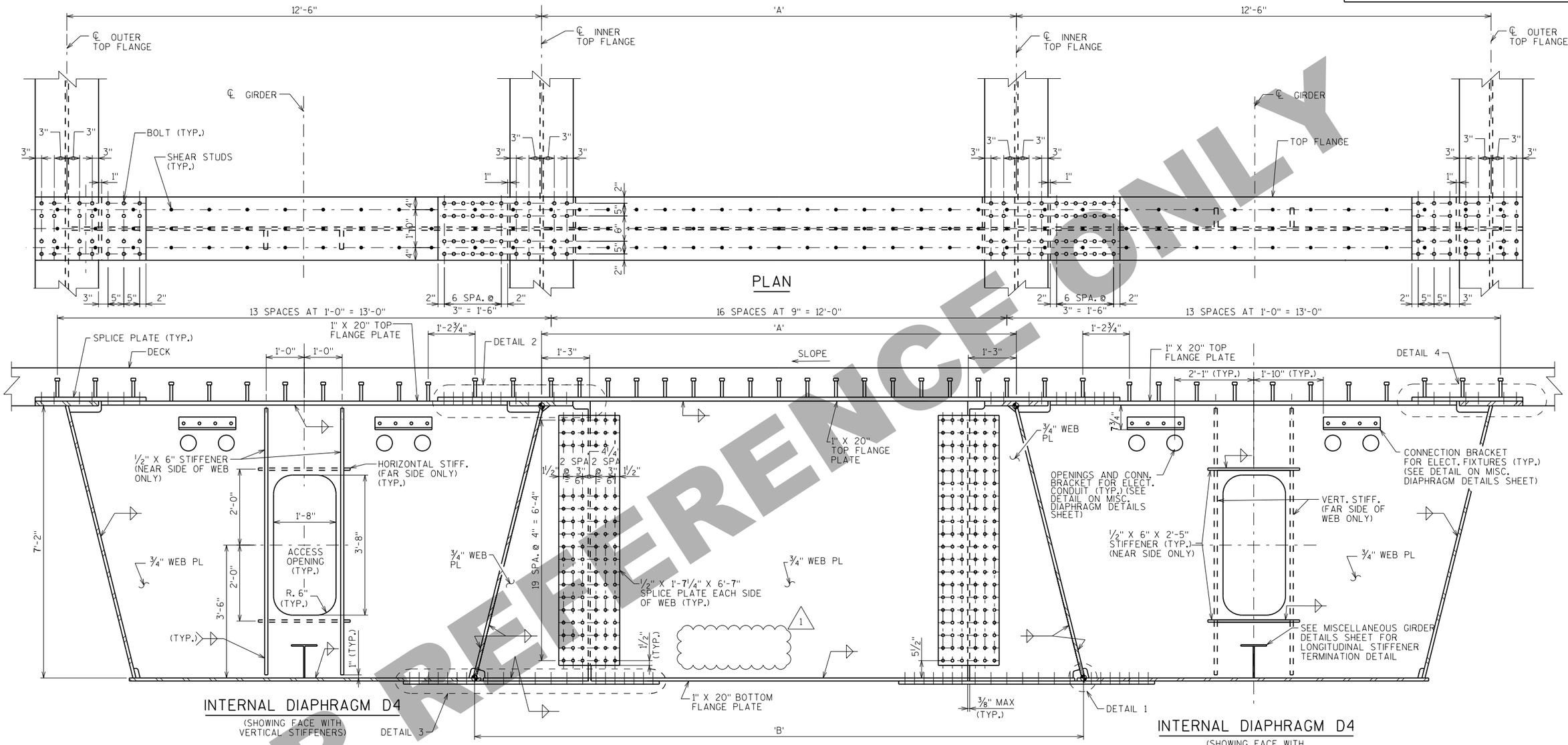
STATE PROJECT NUMBER

1133-11-76



INTERNAL DIAPHRAGM D4

(SHOWING FACE WITH VERTICAL STIFFENERS)

INTERNAL DIAPHRAGM D4

(SHOWING FACE WITH HORIZONTAL STIFFENERS)

EXTERNAL DIAPHRAGM 'XD4'

ELEVATION

(SUPERELEVATION NOT SHOWN)

FOR REFERENCE ONLY

TABLE OF VARIABLES

	A	B	SLOPE
XD4-1	12'-6 3/8"	16'-1 3/8"	+4.90%
XD4-2	12'-6 7/16"	16'-1 7/16"	+5.50%
XD4-3	12'-6 1/2"	16'-1 9/16"	+6.00%

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

+ SLOPE

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE ⅞" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 2, 3 AND 4 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE DELETED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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INTERMEDIATE DIAPHRAGMS XD4 AND D4

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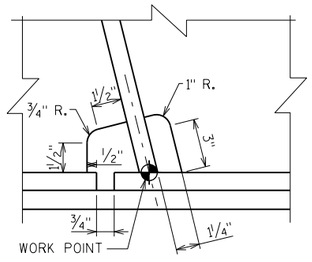
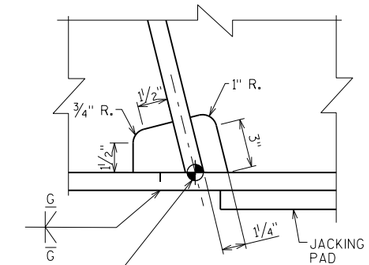


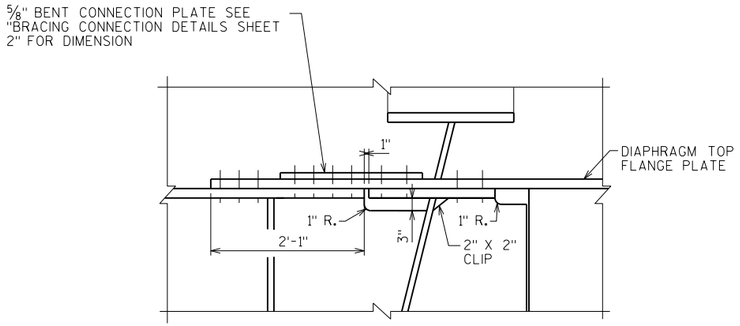
DETAIL 1

DIAPHRAGM XD4/D4



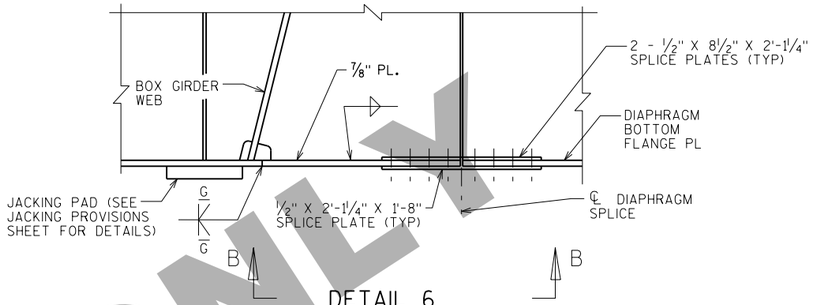
DETAIL 1

DIAPHRAGMS XD1/D1 AND XD2/D2/XD3/D3



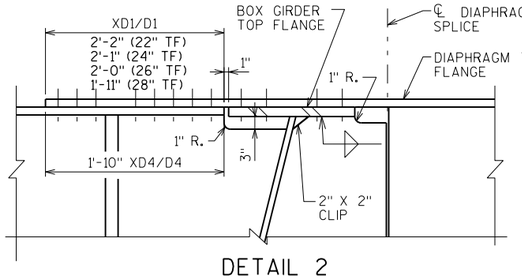
DETAIL 5

DIAPHRAGMS XD2/D2/XD3/D3



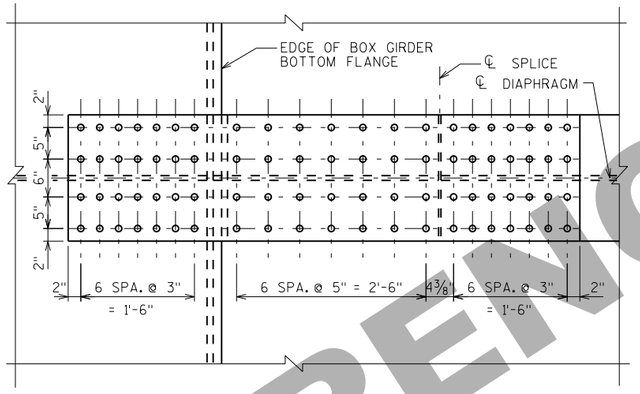
DETAIL 6

DIAPHRAGMS XD1/D1, XD2/D2 AND XD3/D3



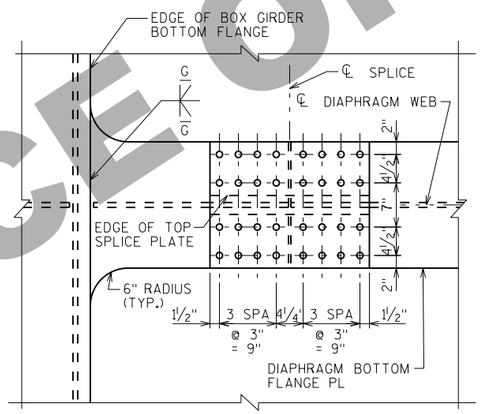
DETAIL 2

SHEET XD1/D1 AND XD4/D4



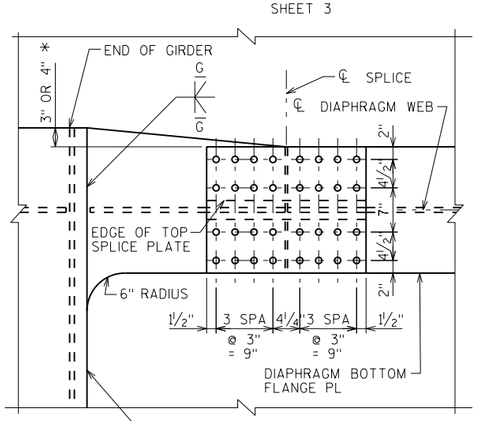
SECTION A-A

THIS SHEET



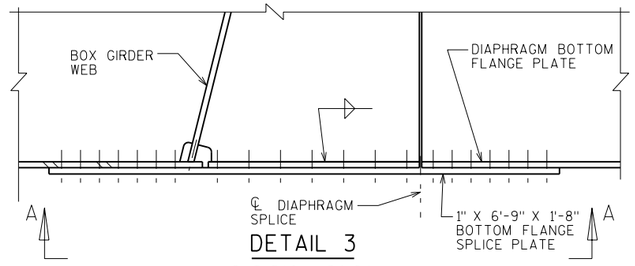
SECTION B-B

THIS SHEET
(DIAPHRAGM XD1/D1)



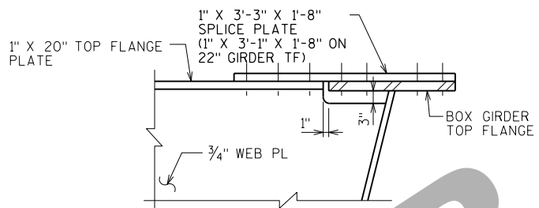
SECTION B-B

THIS SHEET
(DIAPHRAGM XD2/D2 AND XD3/D3)



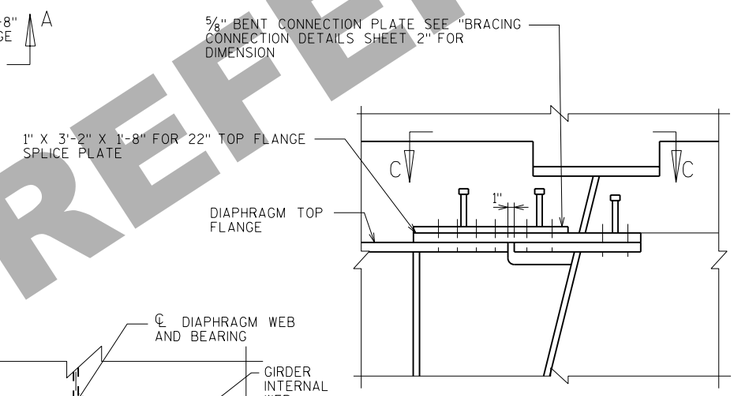
DETAIL 3

DIAPHRAGM XD4/D4



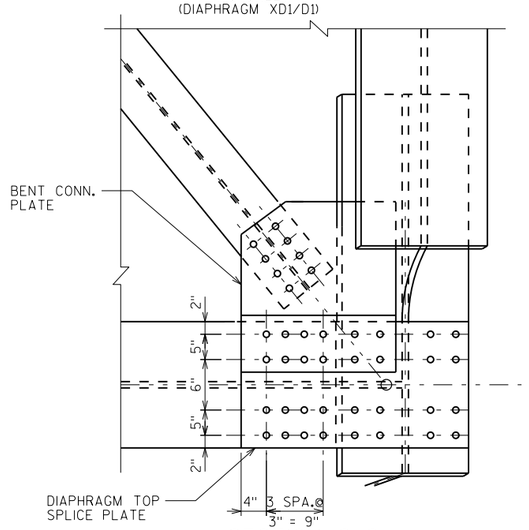
DETAIL 4

DIAPHRAGMS XD1/D1 AND XD4/D4



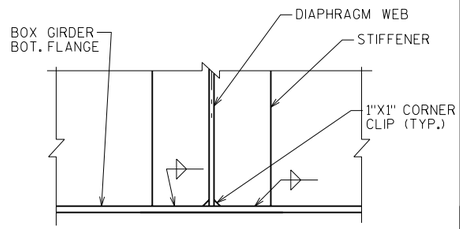
DETAIL 7

DIAPHRAGMS XD2/D2/XD3/D3



SECTION C-C

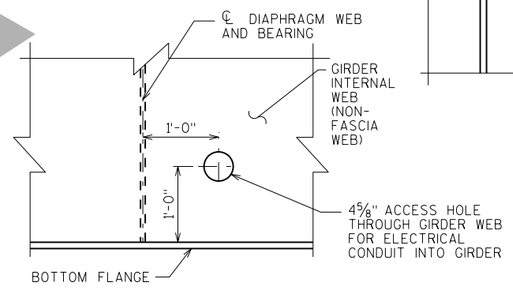
THIS SHEET
(SHEAR STUDS NOT SHOWN FOR CLARITY)



STIFFENER TO FLANGE DETAIL

ALL DIAPHRAGMS AND ALL STIFFENERS
NO WELD AT TOP OF STIFFENERS

OPENINGS AND CONNECTION BRACKET DETAILS FOR ELECTRICAL



EXTERNAL ELECTRICAL ACCESS DETAIL

TWO ACCESS LOCATIONS FOR INCOMING POWER TO INTERIOR OF GIRDER (LOC. TO BE DETERMINED DURING FABRICATION) (TYP. BOTH GIRDERS)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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MISCELLANEOUS DIAPHRAGM DETAILS

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DATE: 4/30/2013

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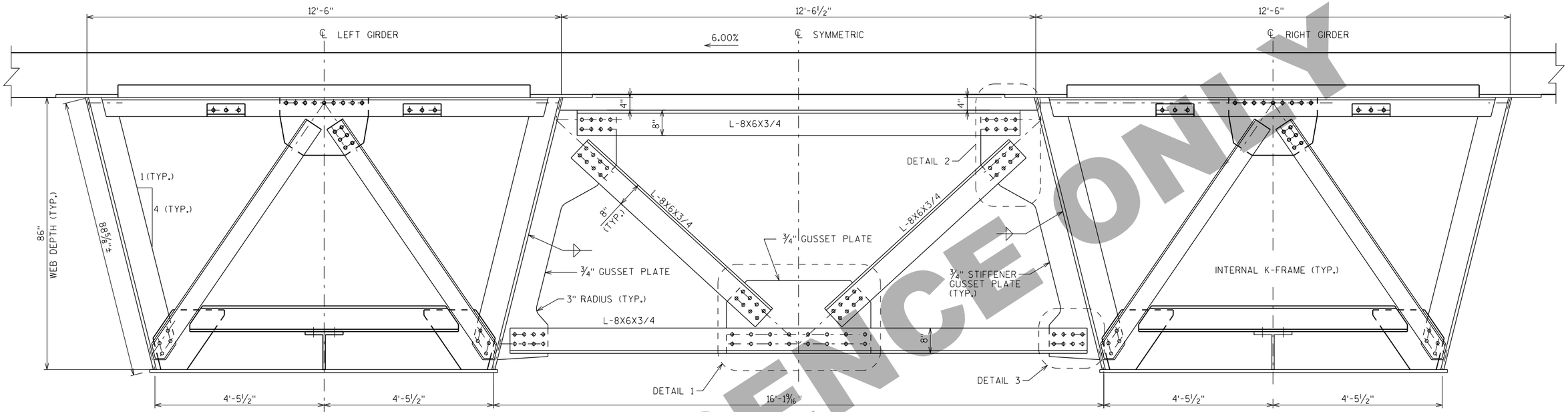
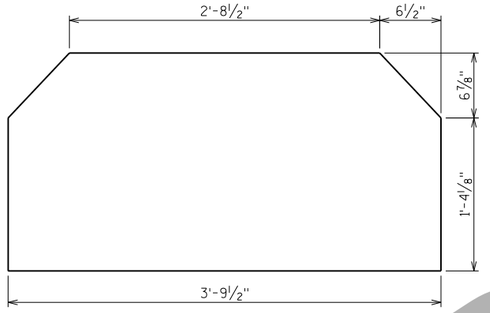
STATE PROJECT NUMBER
1133-11-76

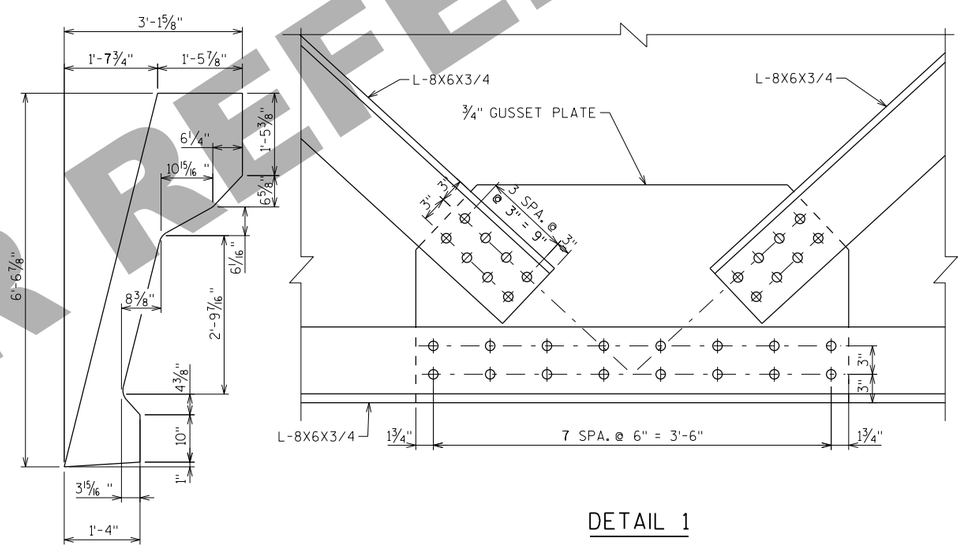


ELEVATION EXTERIOR CROSS FRAME XF

(SUPERELEVATION NOT SHOWN)
(LOOKING UPSTATION)

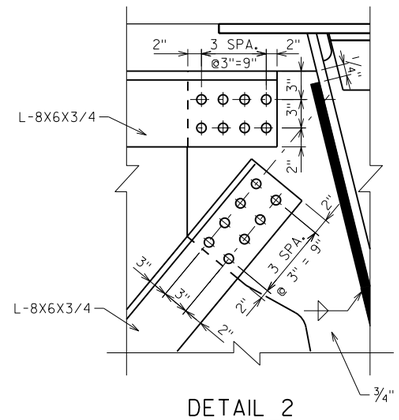


GUSSET PLATE DETAILS

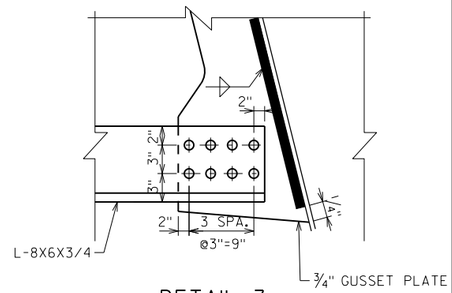


STIFFENER GUSSET PLATE DETAILS

DETAIL 1



DETAIL 2



DETAIL 3

NOTES:

1. ALL HOLES SHALL BE STANDARD DIAMETER - NO OVERSIZE HOLES.
2. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS
3. CROSS FRAMES ARE ALIGNED NORMAL TO THE GIRDERS.
4. EXTERIOR CONNECTION PLATES SHALL BE LOCATED DIRECTLY IN LINE WITH THE CORRESPONDING WEB STIFFENER LOCATED INSIDE THE BOX.
5. FOR SUPERELEVATED ROAD SECTION, THE EXTERIOR FRAMES VARY IN LENGTH

TABLE OF VARIABLES

	A	B	C
XF	12'-6½"	16'-1⅞16"	+6.00%

+SLOPE 'C'

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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EXTERIOR CROSS FRAME DETAILS

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I.D.

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FOR REFERENCE ONLY

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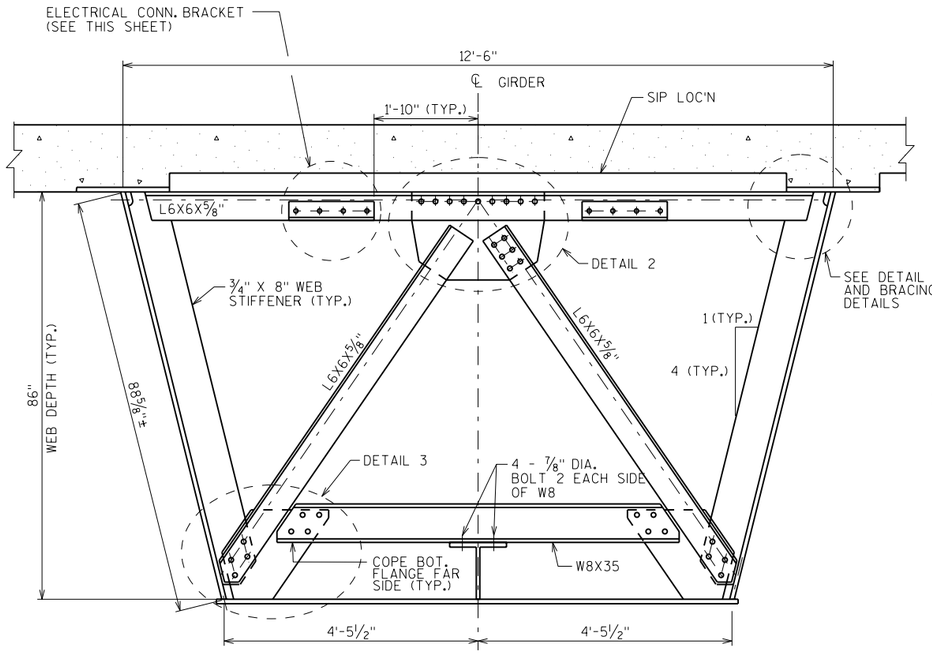
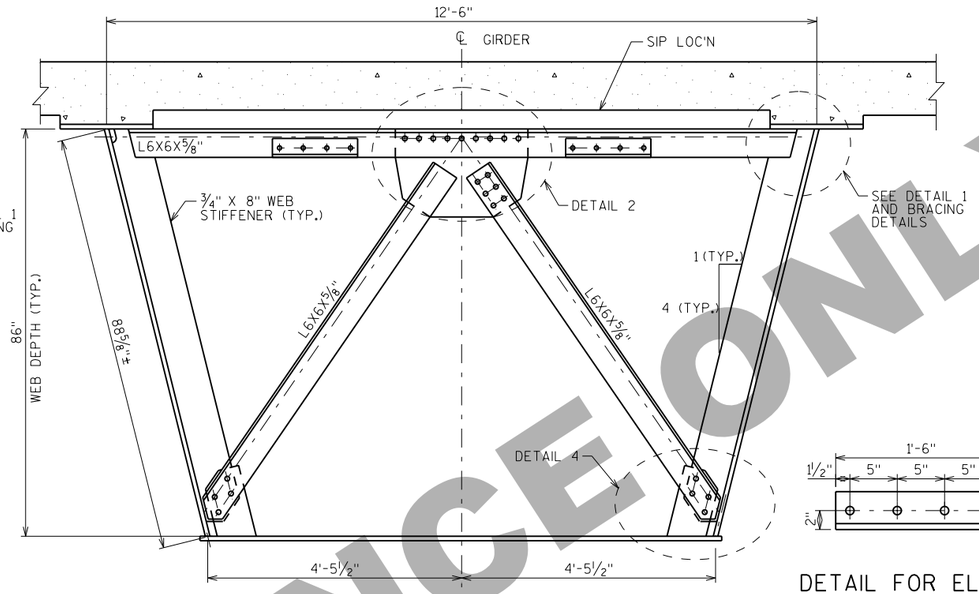
STATE PROJECT NUMBER

1133-11-76



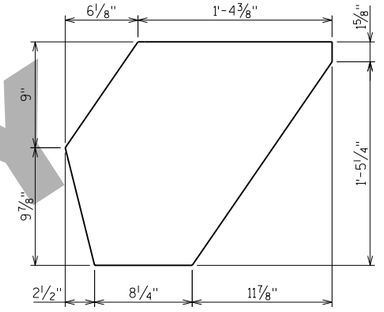
TYPICAL SECTION AT K-FRAME K1

(DETAIL WITH LONGITUDINAL STIFFENER)

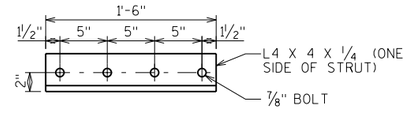


TYPICAL SECTION AT K-FRAME K1

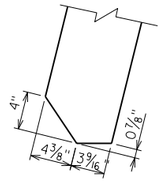
(DETAIL WITHOUT LONGITUDINAL STIFFENER)



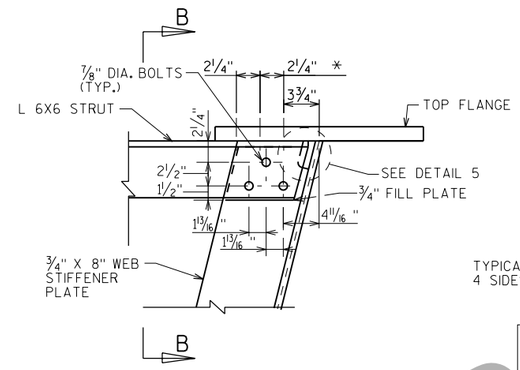
PL 3/4" DETAIL



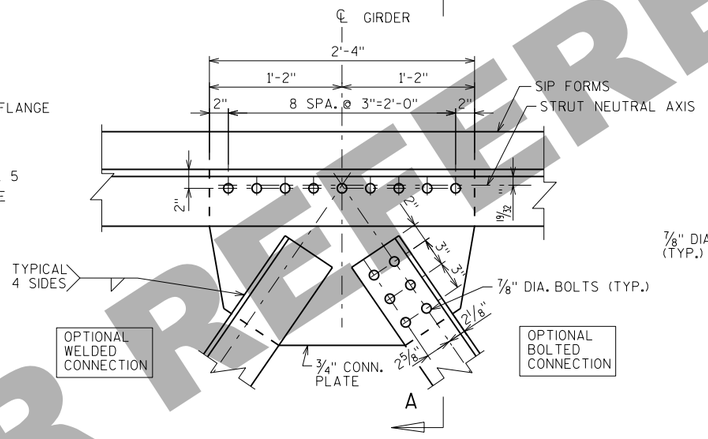
DETAIL FOR ELECTRICAL CONNECTION BRACKET



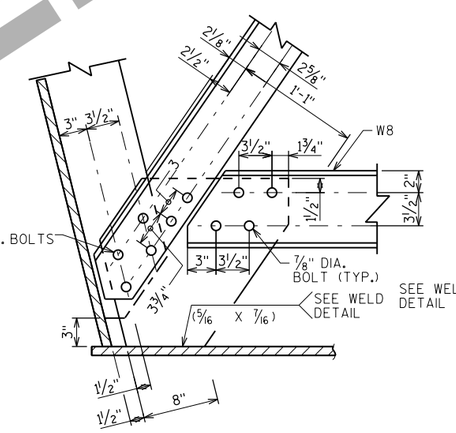
WEB STIFFENER DETAIL



DETAIL 1

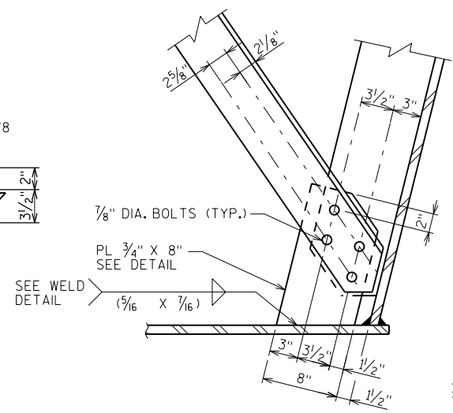


DETAIL 2



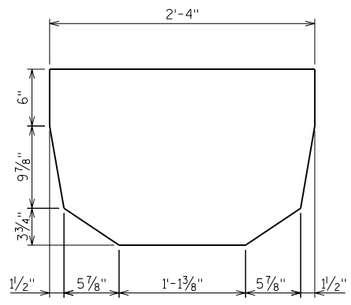
DETAIL 3

(DETAIL FOR CROSS FRAMES WITH BOTTOM CHORD)



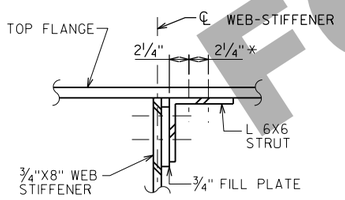
DETAIL 4

(DETAIL FOR CROSS FRAMES WITHOUT BOTTOM CHORD)

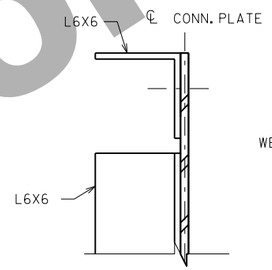


3/4" CONN. PLATE DETAIL

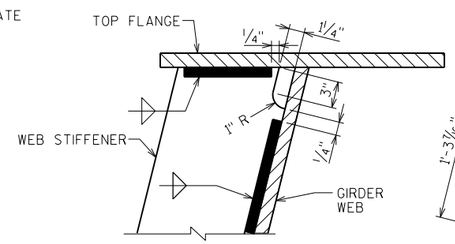
* BOLT SPACING FOR STRUT TO TOP FLANGE CONNECTION. SEE BRACING DETAILS SHEET FOR PLAN VIEW.



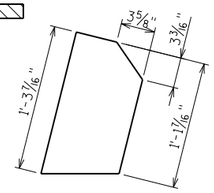
SECTION B-B



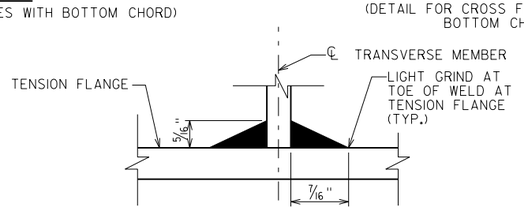
SECTION A-A



DETAIL 5



PL 3/4"X8" DETAIL



TRANSVERSE WELD TO TENSION FLANGE DETAIL

TYP. FOR ANY TENSION FLANGE (BOTTOM FLANGE SHOWN)

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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INTERIOR CROSS FRAME K1 865 DETAILS

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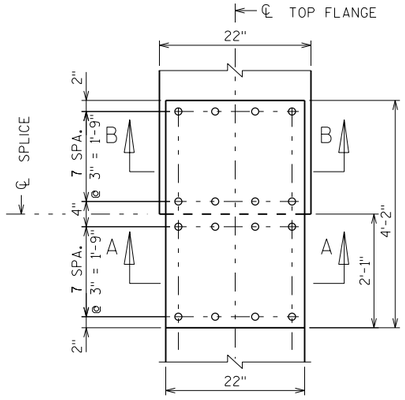
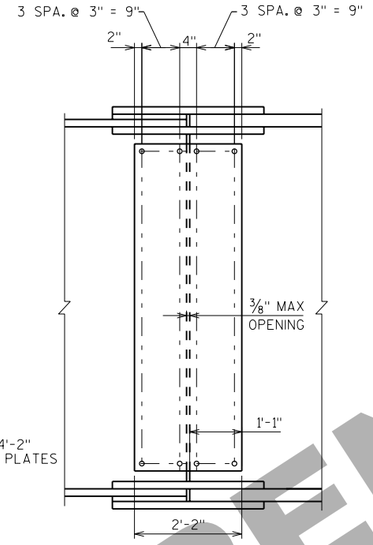
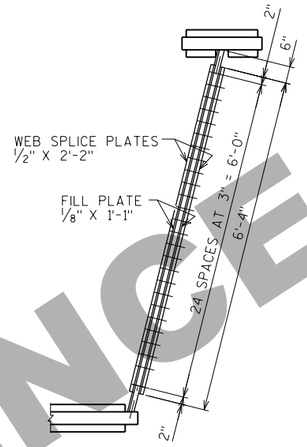


PLAN



ELEVATION



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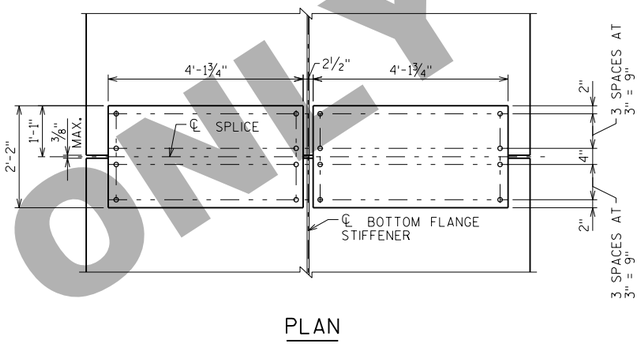
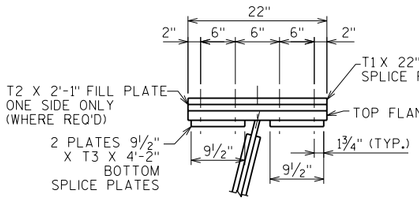
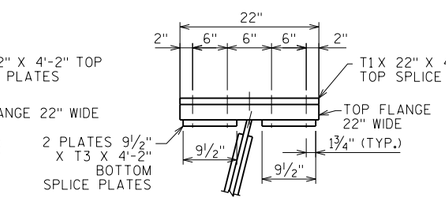


PLAN



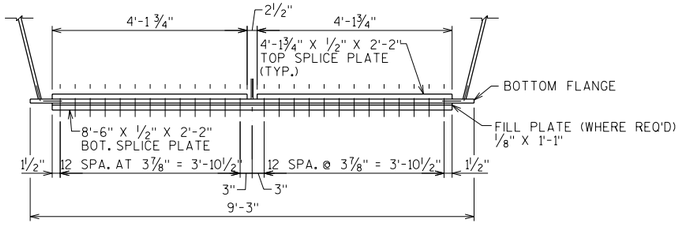
SECTION A-A



SECTION B-B

TYPICAL TOP FLANGE CONNECTION

TYPICAL WEB CONNECTION



SECTION

TYPICAL BOTTOM FLANGE CONNECTION

FIELD SPLICE NO.	VARIABLE DIMENSIONS		
	T1 (IN)	T2 (IN)	T3 (IN)
1	0.5	0	0.625
2	0.5	0	0.625
3	0.5	0.25	0.625
4	0.5	0.25	0.625
5	0.5	0.5	0.625
6	0.5	0.5	0.625
7	0.5	0.75	0.625
8	0.5	0.75	0.625
9	0.5	1	0.625
10	0.5	1	0.625
11	0.5	0.5	0.625
12	0.5	0.5	0.625
13	0.5	0.75	0.625
14	0.625	0.5	0.75
15	0.625	0.5	0.75
16	0.625	0.5	0.75
17	0.625	0.5	0.75
18	0.625	0.5	0.75
19	0.625	0.5	0.75
20	0.5	0.75	0.625

NOTES:

ALL BOLTS SHOWN ARE 7/8" DIAMETER ASTM A325 TYPE 1.

ALL HOLES SHALL BE STANDARD DIAMETER NO OVERSIZE HOLES.

ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CLASS A CONNECTIONS

ALL SPLICE PLATES SHALL BE ASTM A709 GRADE HPS 50W.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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FIELD SPLICE DETAILS

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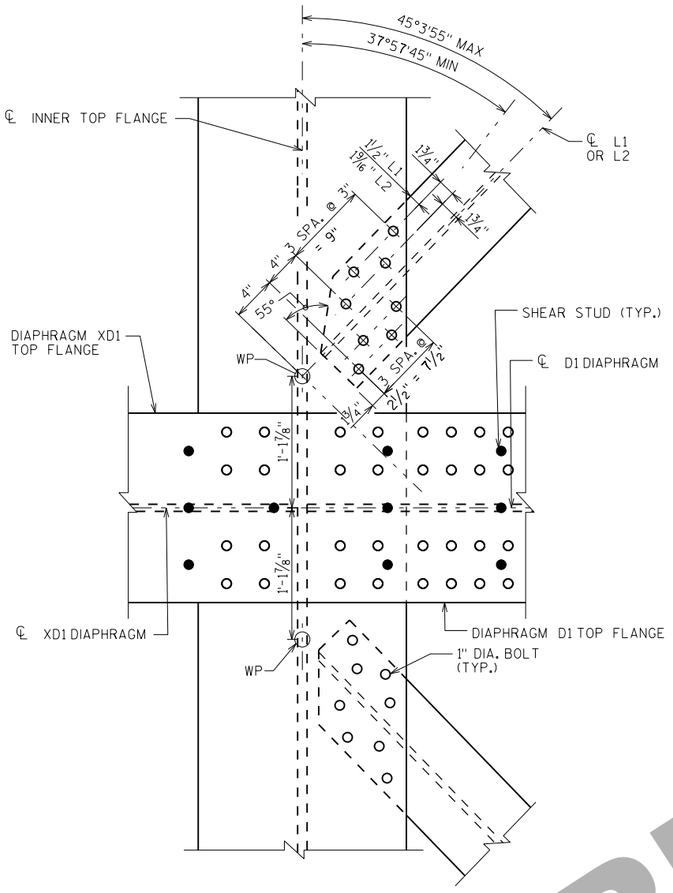
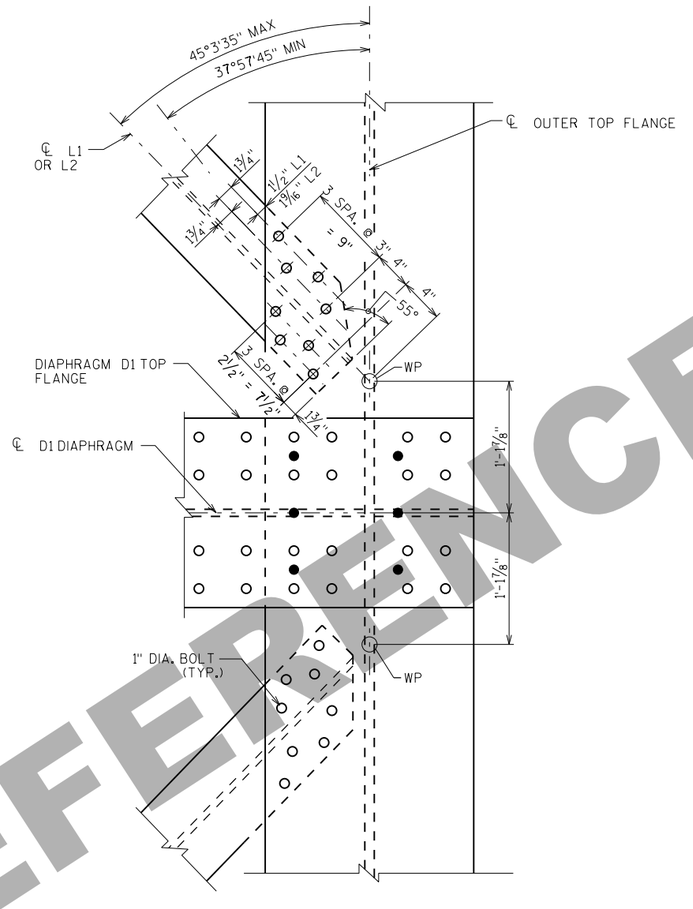


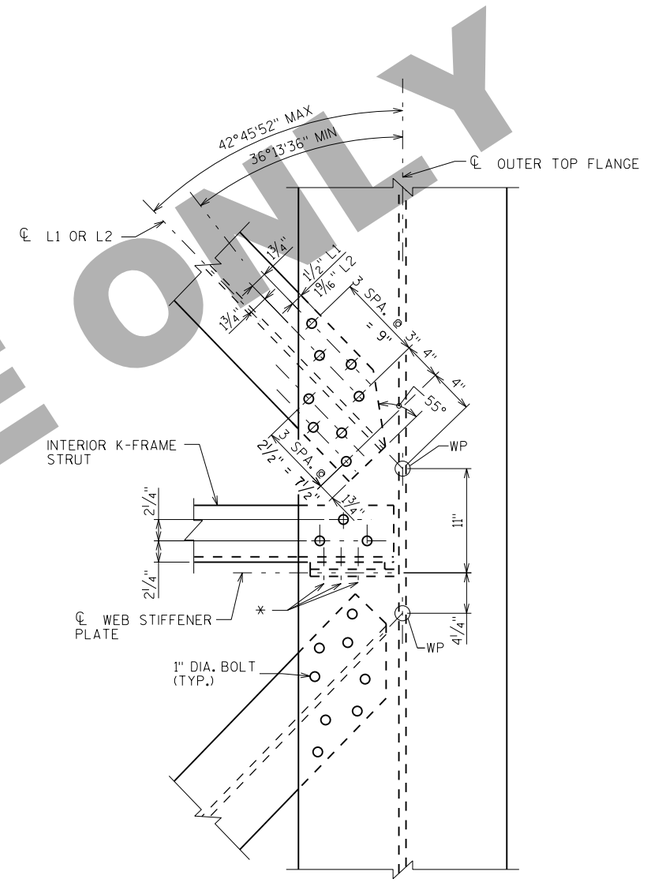
PLAN VIEW AT DIAPHRAGM XD1/D1

(SHOWING INNER TOP FLANGE)
(XD4/D4 SIMILAR)



PLAN VIEW AT DIAPHRAGM XD1/D1

(SHOWING OUTER TOP FLANGE)
(XD4/D4 SIMILAR)



PLAN VIEW AT K-FRAME

(SHOWING OUTER TOP FLANGE)
(INNER TOP FLANGE SIMILAR)

8

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR LOCATIONS OF DETAILS.

LATERAL BRACE MEMBERS:

L1: WT7X34
L2: WT7X41

* SEE INTERIOR CROSS FRAME K-1 DETAILS SHEET FOR ADDITIONAL DETAILS FOR BOLTED CONNECTION THROUGH STRUT ANGLE LEG TO WEB STIFFENER.

NOTES:

LATERAL BRACE L1 SHALL BE CONNECTED TO THE DIAPHRAGM TOP FLANGE AND GIRDER TOP FLANGE WITH 8-1" DIAMETER BOLTS. LATERAL BRACES L2 SHALL BE CONNECTED WITH 10-1" DIAMETER BOLTS.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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BRACING CONNECTION DETAILS SHEET 1

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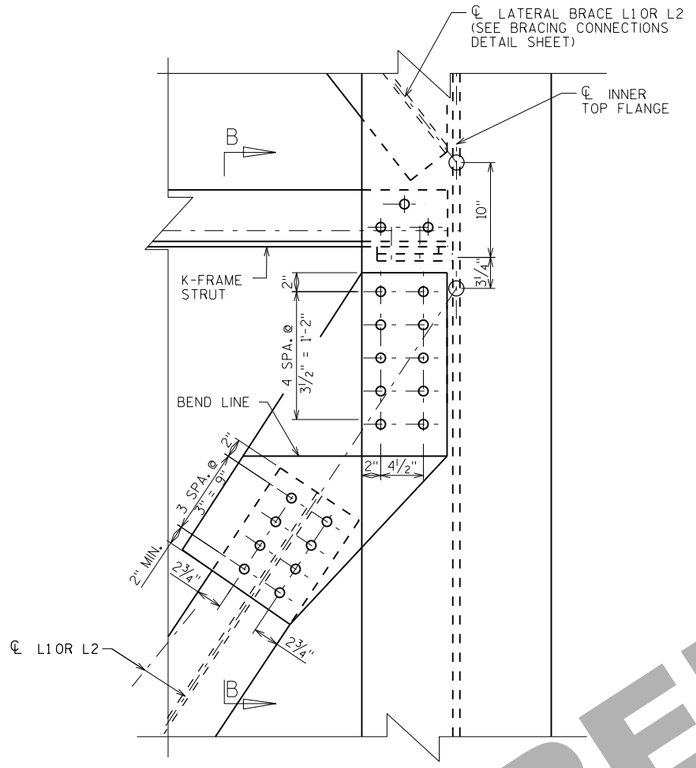
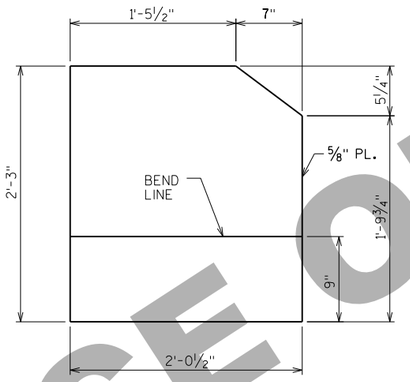
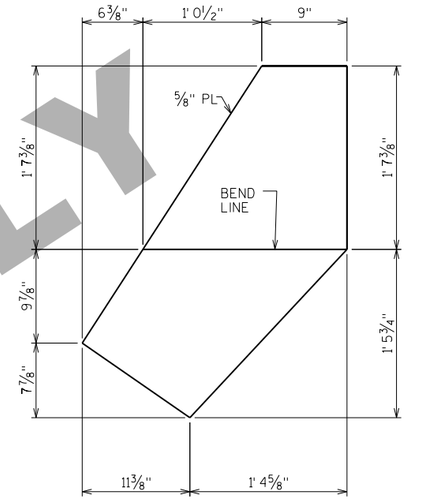


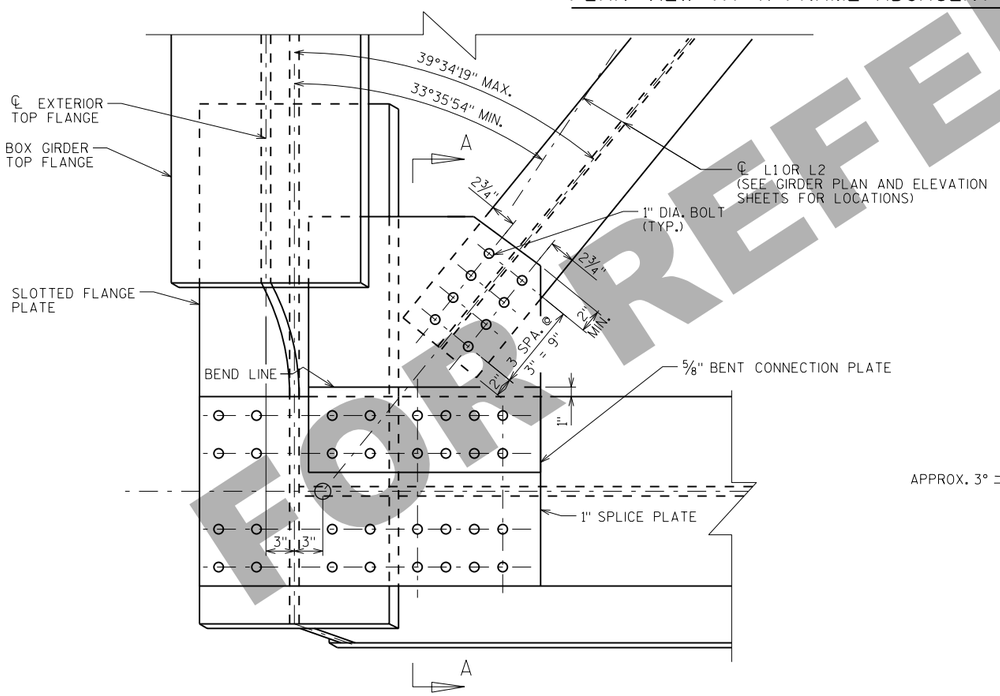
PLAN VIEW AT K-FRAME ADJACENT TO UNIT END



BENT CONNECTION PLATE DETAIL

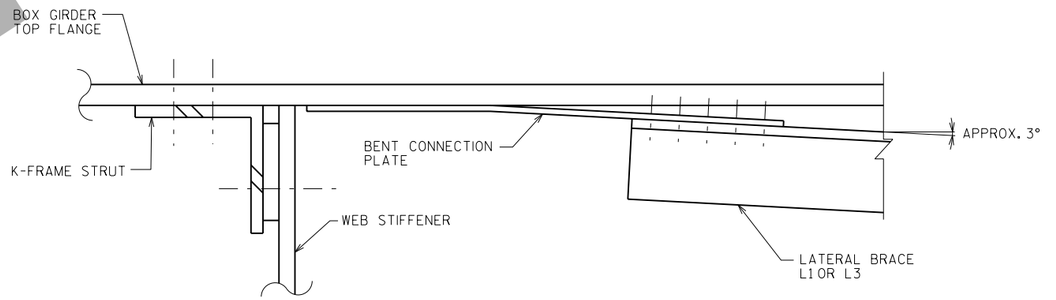


BENT CONNECTION PLATE DETAIL



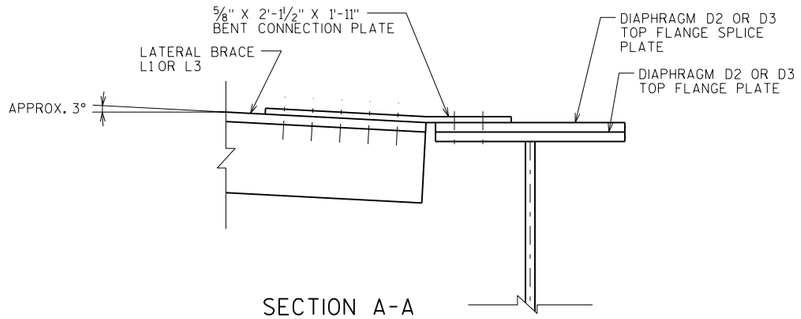
PLAN VIEW AT UNIT END DIAPHRAGM

(EXTERIOR GIRDER SHOWN, INTERIOR GIRDER SIMILAR)



SECTION B-B

THIS SHEET



SECTION A-A

THIS SHEET

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR LOCATIONS OF DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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BRACING CONNECTION DETAILS SHEET 2

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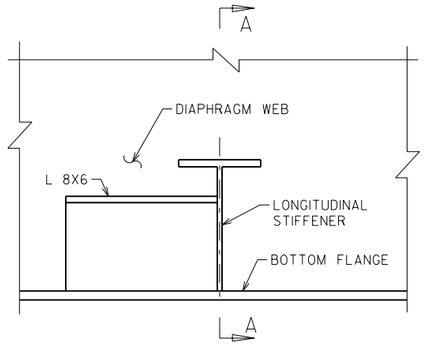
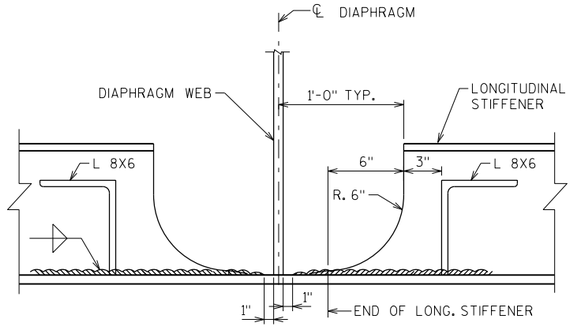
1133-11-76

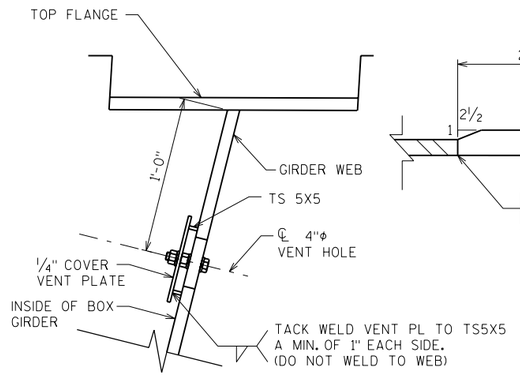


STIFFENER TERMINATION AT INTERIOR DIAPHRAGM

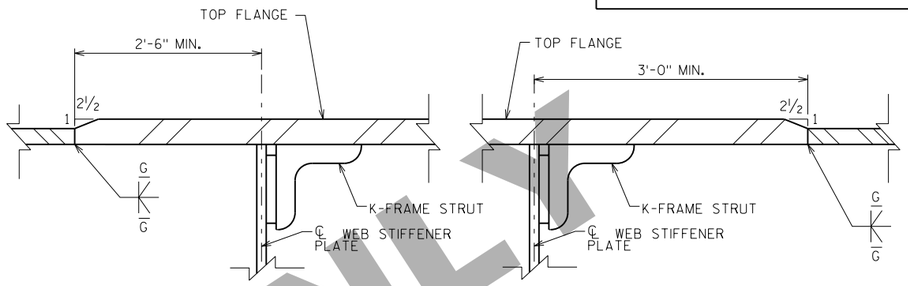


SECTION A-A

FOR MORE INFORMATION AND DETAILS SEE MISCELLANEOUS GIRDER DETAILS SHEET 2

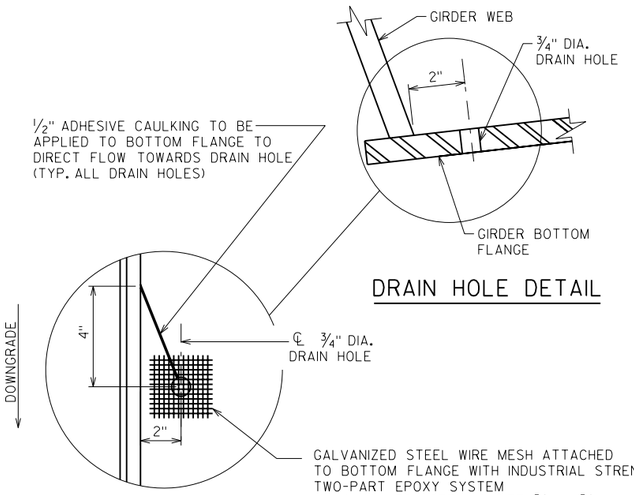


VENT HOLE LOCATION



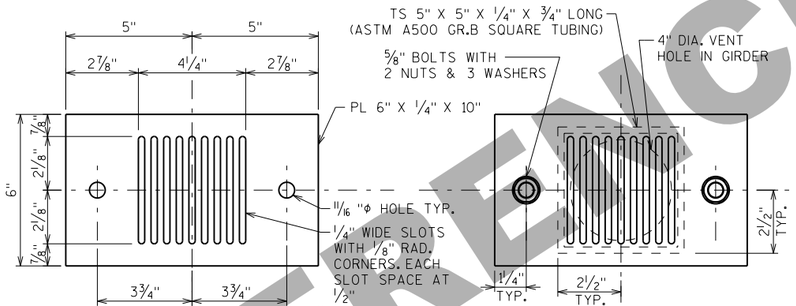
FLANGE THICKNESS TRANSITION DETAIL

NOT TO SCALE



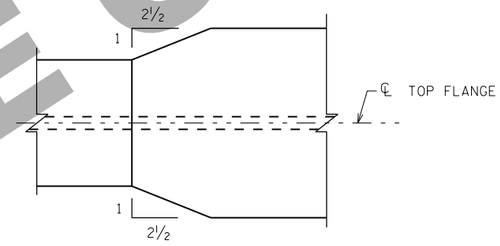
DRAIN HOLE DETAIL

PLAN OF DRAIN HOLES



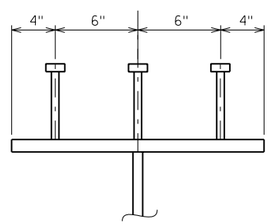
VENT HOLE COVER ASSEMBLY

NOT TO SCALE



TOP FLANGE WIDTH TRANSITION DETAIL

NOT TO SCALE



SHEAR STUD DETAIL AT DIAPHRAGM

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR DRAIN AND VENT HOLE LOCATIONS.

LOCATE ALL VENT HOLES ON THE INTERIOR WEBS - I.E. THE RIGHT WEB OF THE LEFT GIRDER AND THE LEFT WEB OF THE RIGHT GIRDER.

VENT HOLE COVER ASSEMBLIES SHALL BE HOT- DIP GALVANIZED AFTER FABRICATION AND INSTALLED AFTER GIRDERS ARE PAINTED.

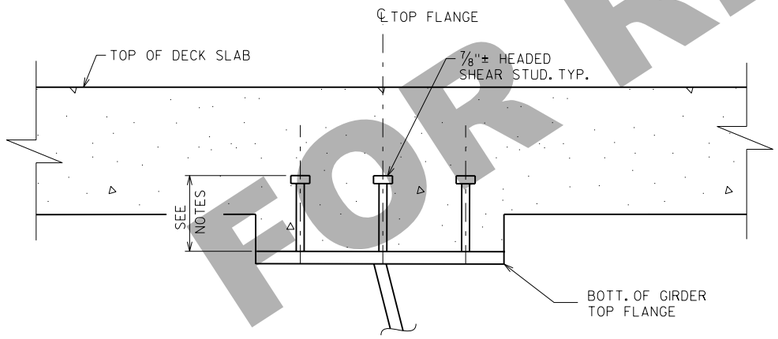
LOCATE ALL DRAIN HOLES ON THE LOW SIDE OF THE GIRDER AS SHOWN.

COST OF ADHESIVE CAULKING, WIRE MESH AND ATTACHMENT IS INCLUDED IN THE COST OF "FABRICATED STRUCTURAL STEEL HPS 50W B-5-678".

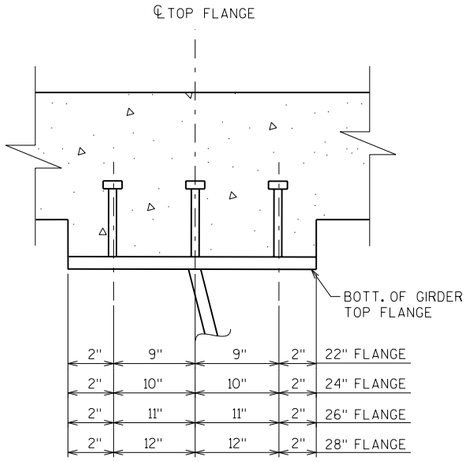
SHEAR STUD CONNECTORS ARE SHOWN FOR REFERENCE ONLY AND ARE NOT FURNISHED OR INSTALLED AS PART OF THIS CONTRACT.

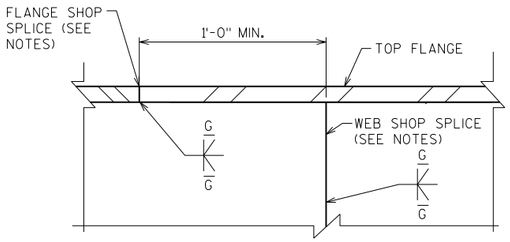
SHEAR CONNECTORS PROVIDED IN FUTURE CONTRACT WILL PENETRATE INTO DECK 2" ABOVE BOTTOM MAT OF REINFORCING STEEL.

FOR WEB PLATES WITH LENGTHS MORE THAN 90'-0", ONE OPTIONAL WELDED SHOP SPLICE IS ALLOWED PER FIELD SECTION. FOR ALL FLANGE PLATES, A MAXIMUM OF TWO OPTIONAL WELDED SHOP SPLICES IS ALLOWED PER FIELD SECTION. NO ADDITIONAL PAYMENT WILL BE MADE FOR OPTIONAL WELDED SHOP SPLICES OR FOR SHOP SPLICES AS REQUIRED DUE TO MAXIMUM PLATE LENGTH AVAILABILITY FROM THE MILL.



SHEAR STUD DETAIL





OPTIONAL SHOP SPLICE DETAIL

NOT TO SCALE
(SEE FLANGE THICKNESS TRANSITION DETAIL FOR MINIMUM SPACING OF SHOP SPLICES TO STIFFENERS AND K-FRAMES)

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY	ZMG	PLANS CK'D.	NPP

MISCELLANEOUS GIRDER DETAILS SHEET 1

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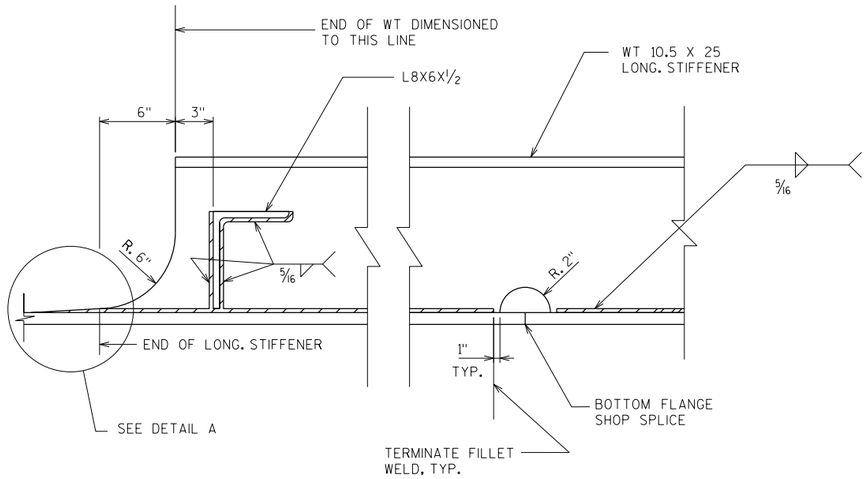
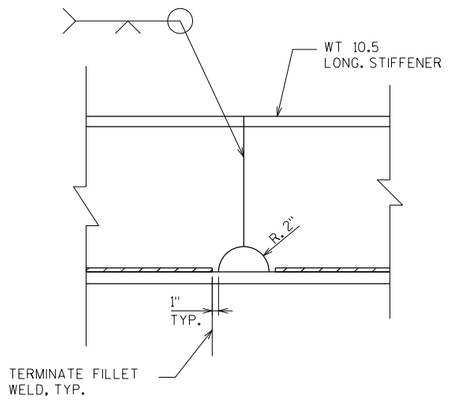
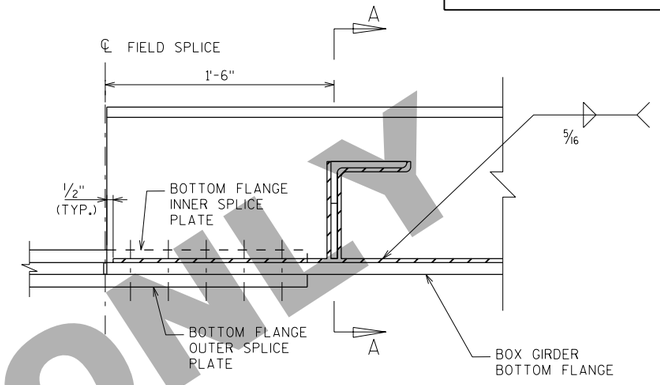


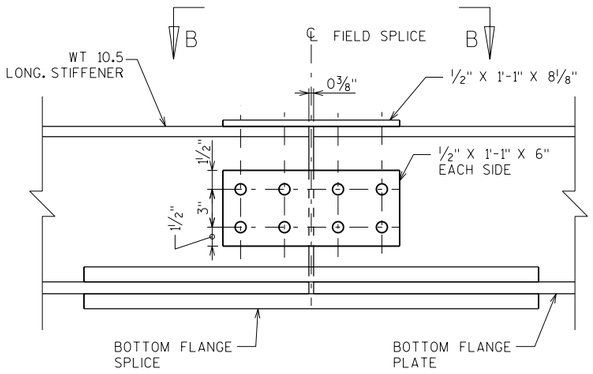
BOTTOM FLANGE LONGITUDINAL STIFFENER TYPICAL TERMINATION DETAIL



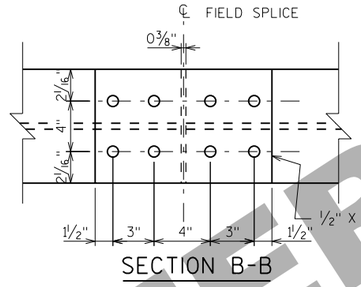
BOTTOM FLANGE LONGITUDINAL STIFFENER SPLICE



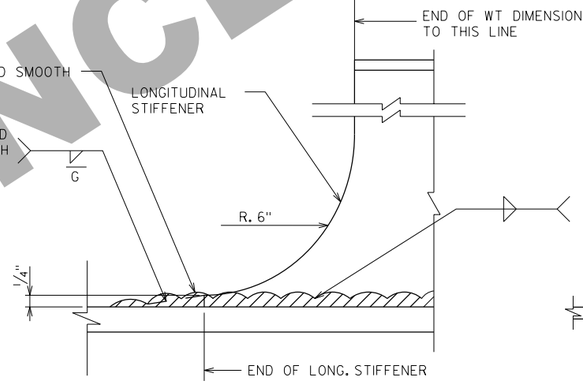
BOTTOM FLANGE LONGITUDINAL STIFFENER TERMINATION DETAIL AT GIRDER FIELD SPLICE



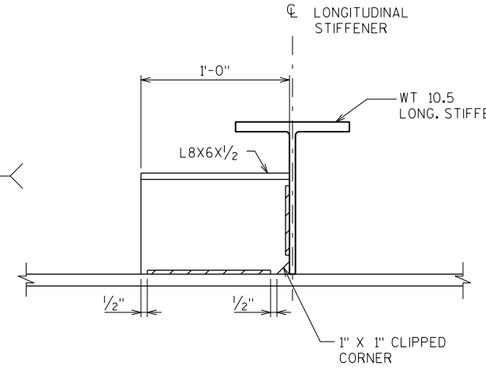
BOTTOM FLANGE LONGITUDINAL STIFFENER FIELD SPLICE DETAIL



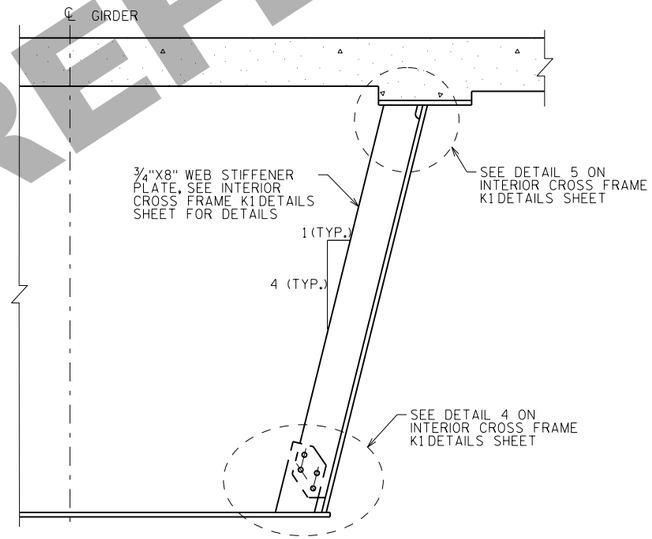
SECTION B-B



DETAIL A



SECTION A-A



TYPICAL SECTION AT INTERMEDIATE WEB STIFFENER

(HALF-SECTION SHOWN)

BOTTOM FLANGE LONGITUDINAL STIFFENER TERMINATION DETAIL

NOTES:

FOR NOTES SEE MISCELLANEOUS GIRDER DETAILS SHEET.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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MISCELLANEOUS GIRDER DETAILS SHEET 2 870

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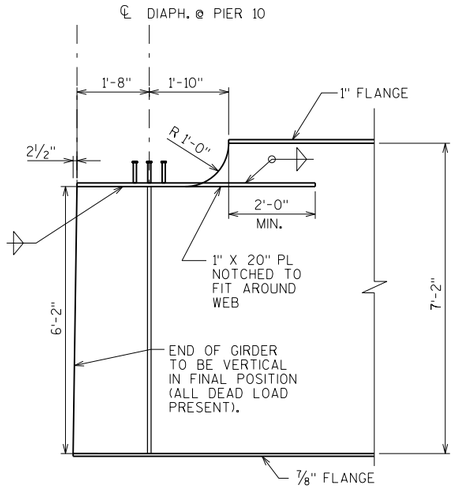
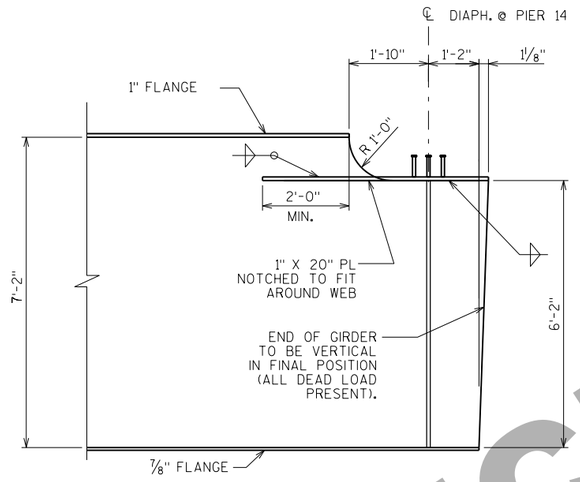
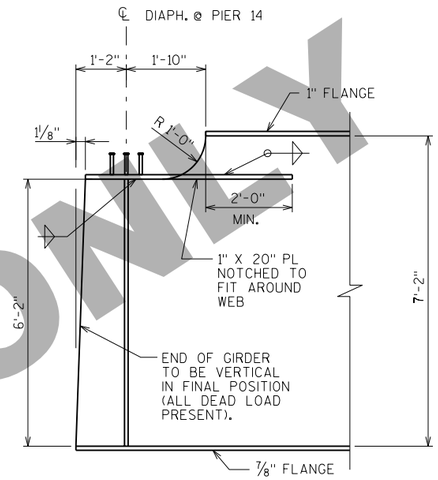


UNIT 3 SPAN 11

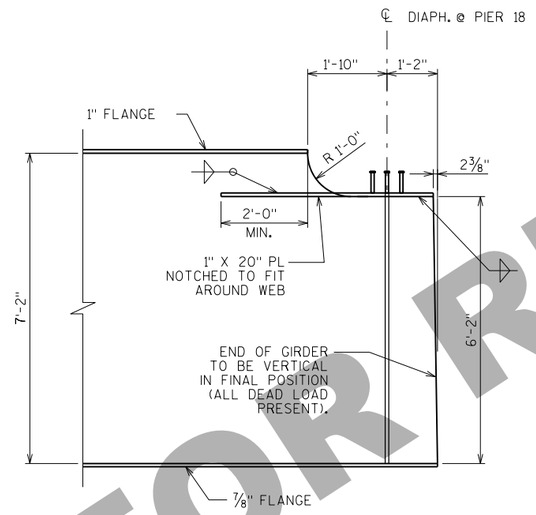
(GIRDER IS PARALLEL TO VERTICAL CURVE)



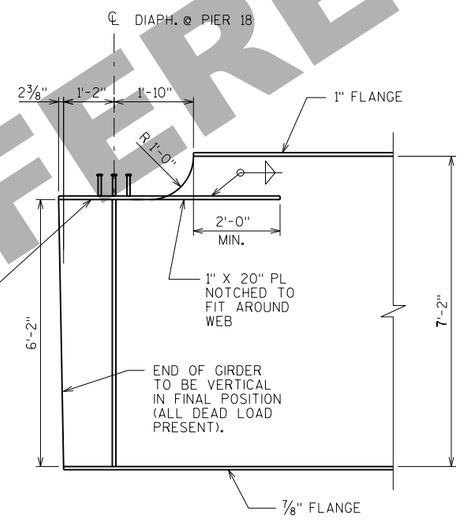
UNIT 3 SPAN 14



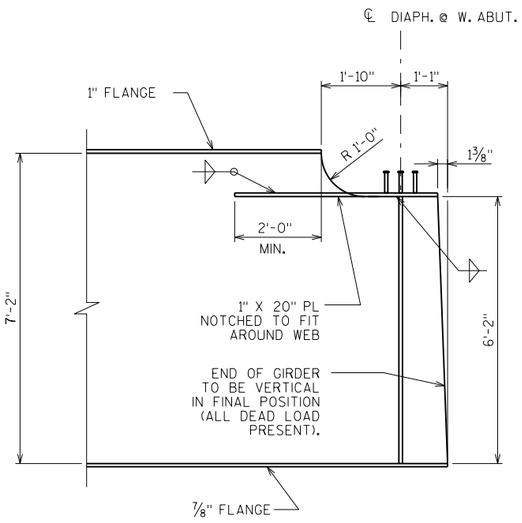
UNIT 4 SPAN 15



UNIT 4 SPAN 18



UNIT 5 SPAN 19



UNIT 5 SPAN 23

NOTE:

GIRDER FLANGES ARE NOT HORIZONTAL, BUT PARALLEL TO VERTICAL CURVE. DIAPHRAGMS ARE PERPENDICULAR TO GIRDERS FLANGES. ONLY ENDS OF GIRDER WEBS ARE VERTICAL.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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MISCELLANEOUS GIRDER DETAILS SHEET 3

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STEEL FABRICATION CONTRACT ONLY

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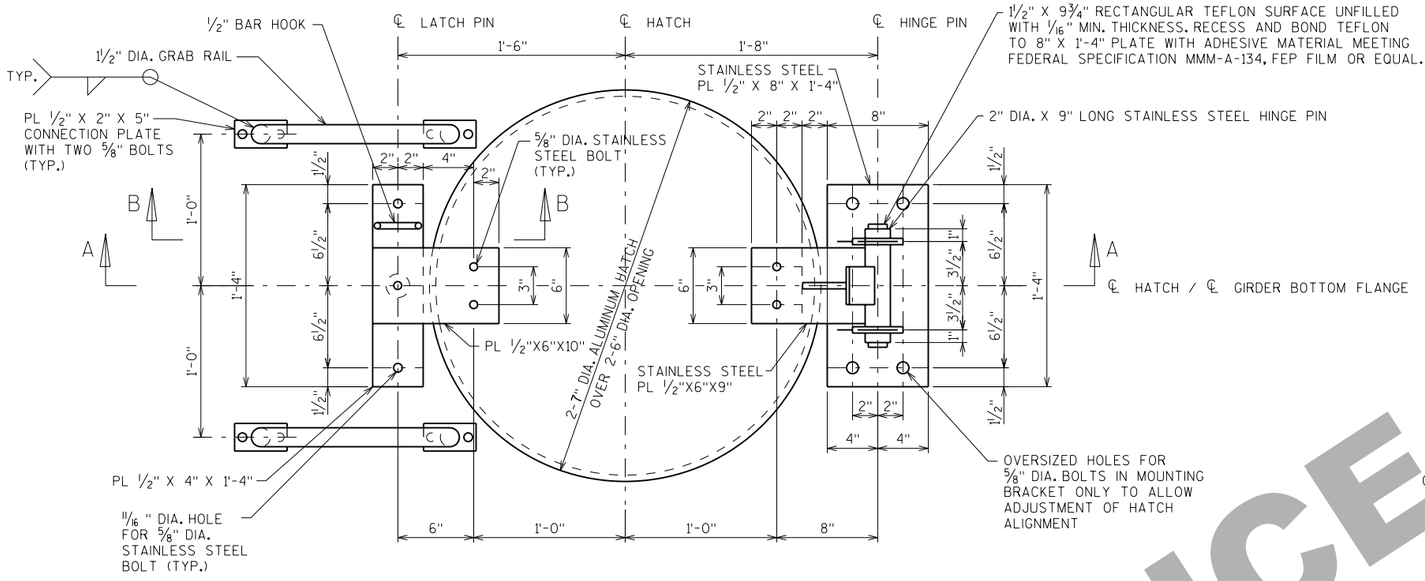
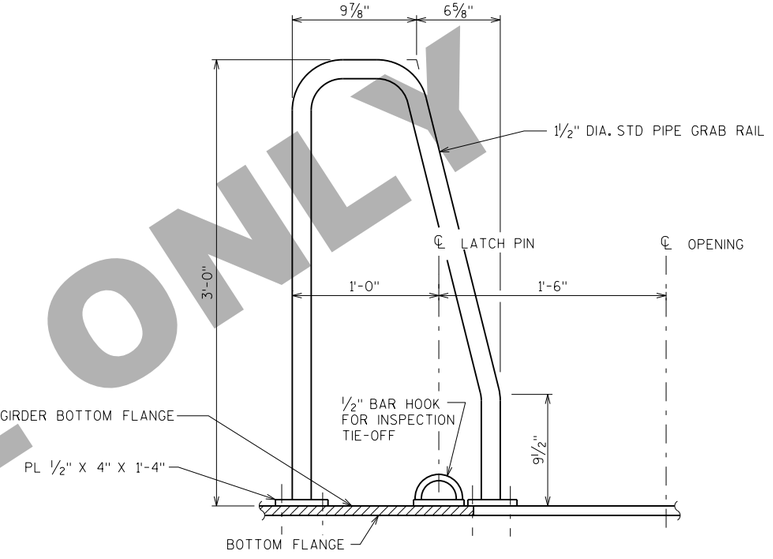
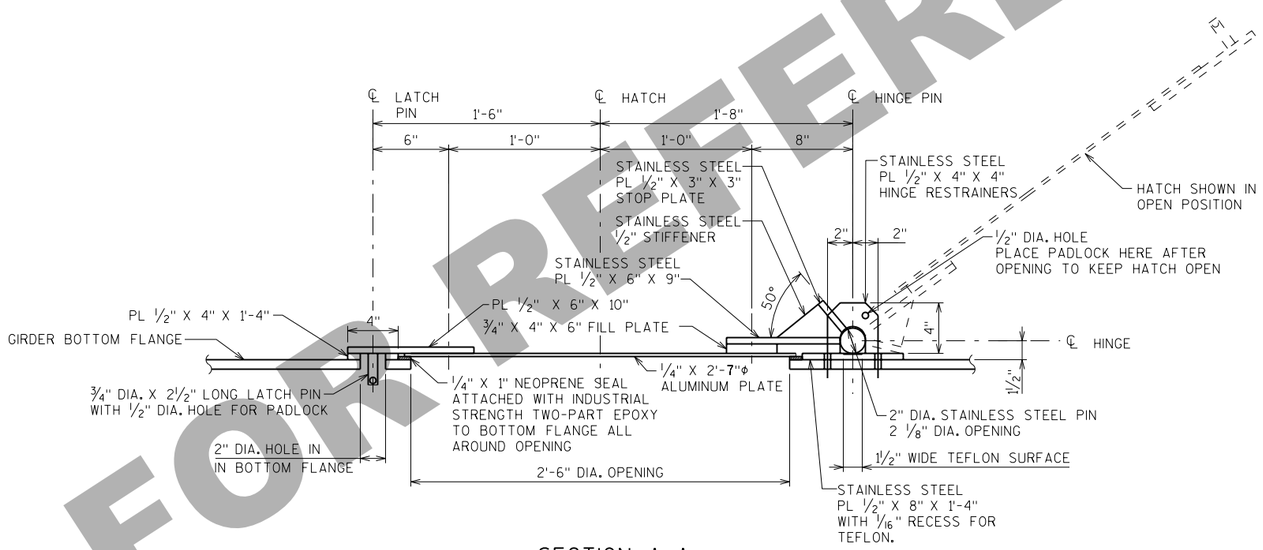


PLAN



SECTION B-B



SECTION A-A

NOTES:

ALL BOLTS SHOWN ARE 5/8" DIAMETER STAINLESS STEEL.

FOUR ACCESS HATCHES REQUIRED. SEE GIRDER PLAN AND ELEVATION SHEETS FOR HATCH LOCATIONS IN SPANS 5 AND 10.

STEEL FOR HATCH IS A709 GRADE 50 UNLESS OTHERWISE NOTED.

ALL MATERIALS SHOWN WILL BE PAID FOR AT THE UNIT PRICE BID FOR "FABRICATED STRUCTURAL STEEL HS B-5-678".

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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ACCESS HATCH DETAILS

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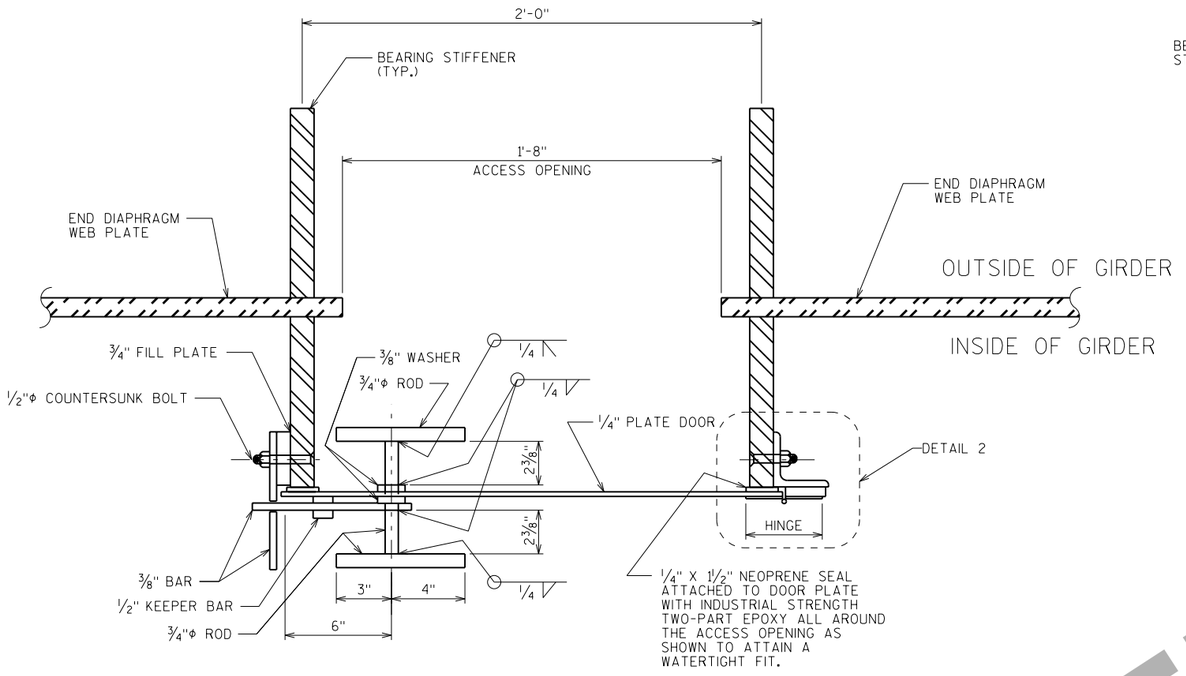
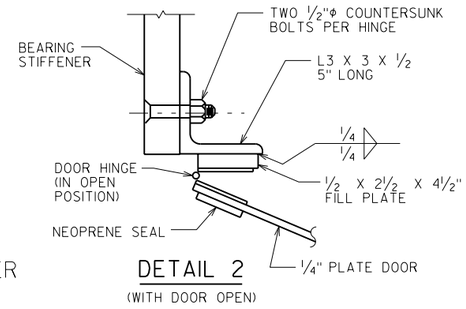
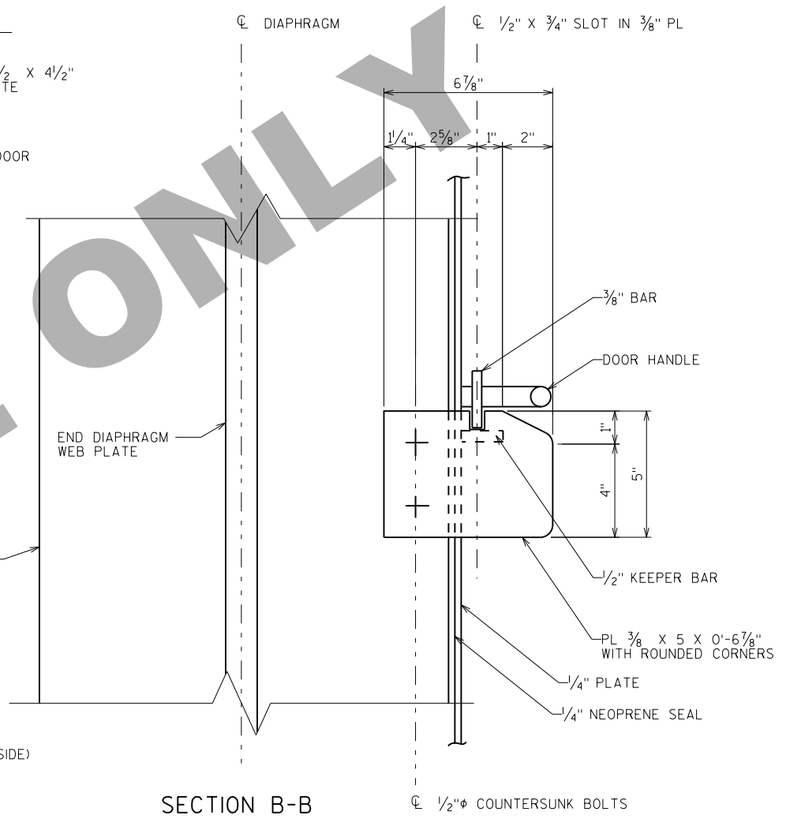


SECTION A-A

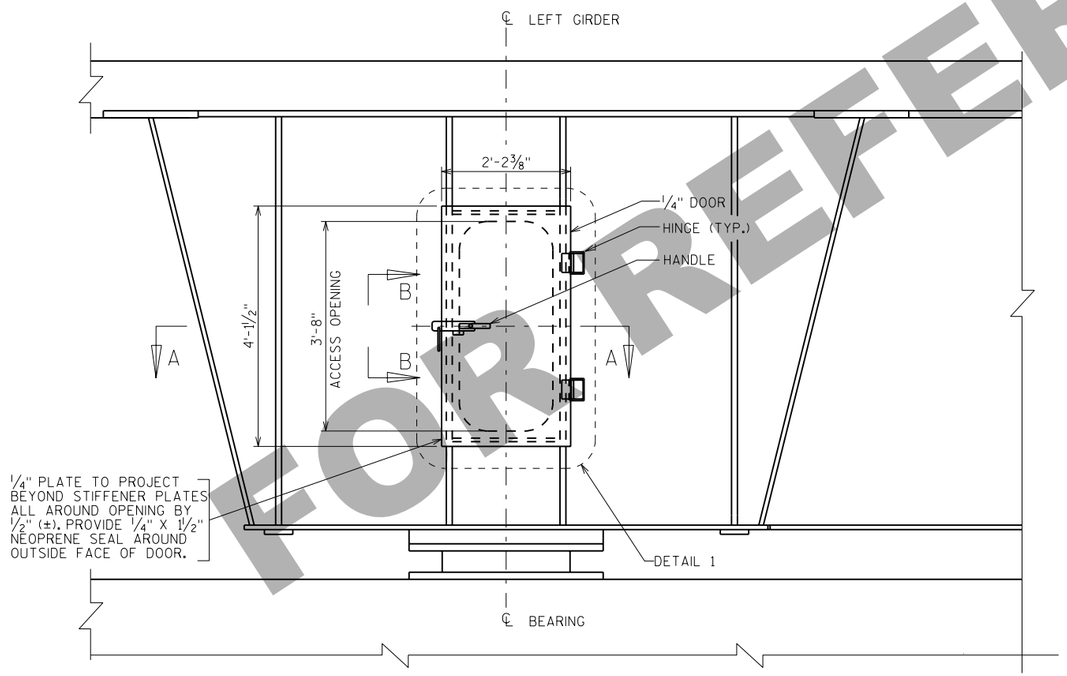


DETAIL 2

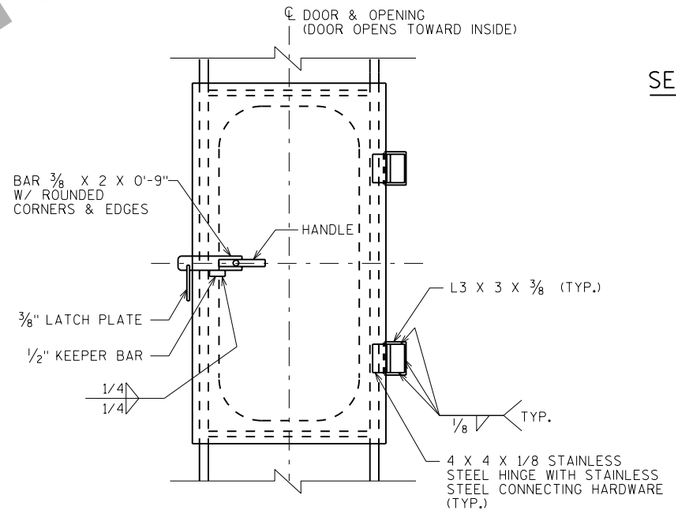
(WITH DOOR OPEN)



SECTION B-B



ELEVATION



DETAIL 1

NOTES:

8 DOORS TOTAL REQUIRED:
4 AT PIER 14
4 AT PIER 18

DOORS OPEN TOWARDS THE INSIDE OF THE BOX GIRDERS.

THE COST OF ACCESS DOOR AND ITS ATTACHMENT IS INCLUDED IN THE COST OF "FABRICATED STRUCTURAL STEEL HS B-5-678".

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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ACCESS DOOR DETAILS

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STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

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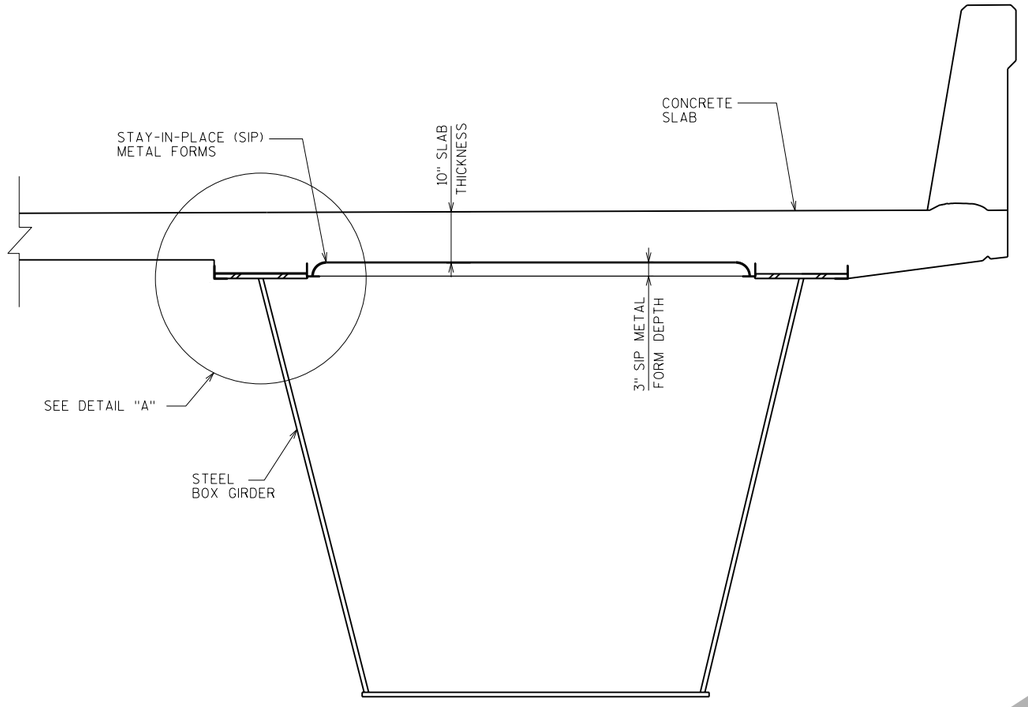
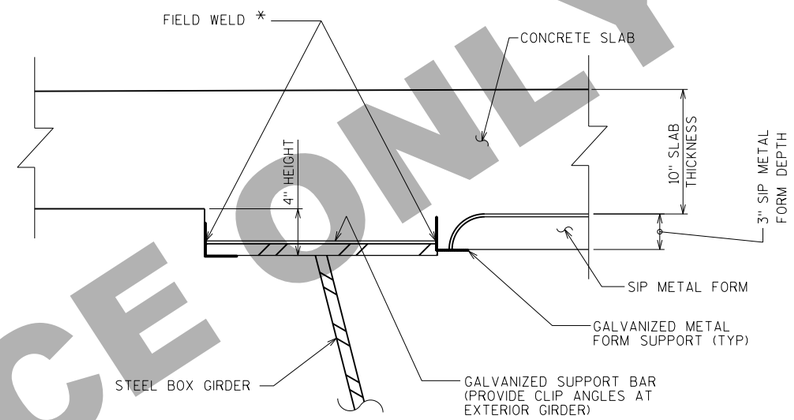


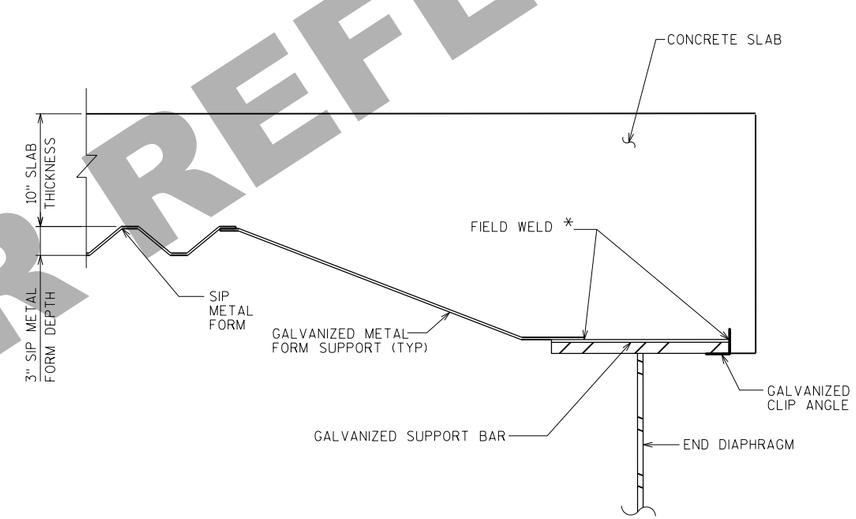
PARTIAL SECTION THROUGH SUPERSTRUCTURE

(SHOWING TYPICAL DETAILS AND NOTES FOR SIP METAL FORMS)



DETAIL "A"

* DO NOT WELD TO NOR PERMIT WELD SPATTER ON SUPPORTING STEEL GIRDER, DIAPHRAGMS, BRACING ETC. ELECTRICAL GROUNDING TO STRUCTURAL STEEL IS PROHIBITED. SEE SPECIFICATIONS FOR FIELD WELDING OF SIP FORMS IN PLACE AND PAINTING OF THE TOP FLANGE.



PARTIAL SECTION THROUGH END OF SPAN

(INTERIOR OF BOXES ONLY)

NOTES:

STAY-IN-PLACE (SIP) FORM DETAILS ARE SHOWN FOR REFERENCE ONLY. SIP FORMS, GALVANIZED SUPPORT BARS, FORM SUPPORTS, AND CLIP ANGLES ARE NOT FURNISHED AS PART OF THIS CONTRACT.

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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SUPERSTRUCTURE DETAILS

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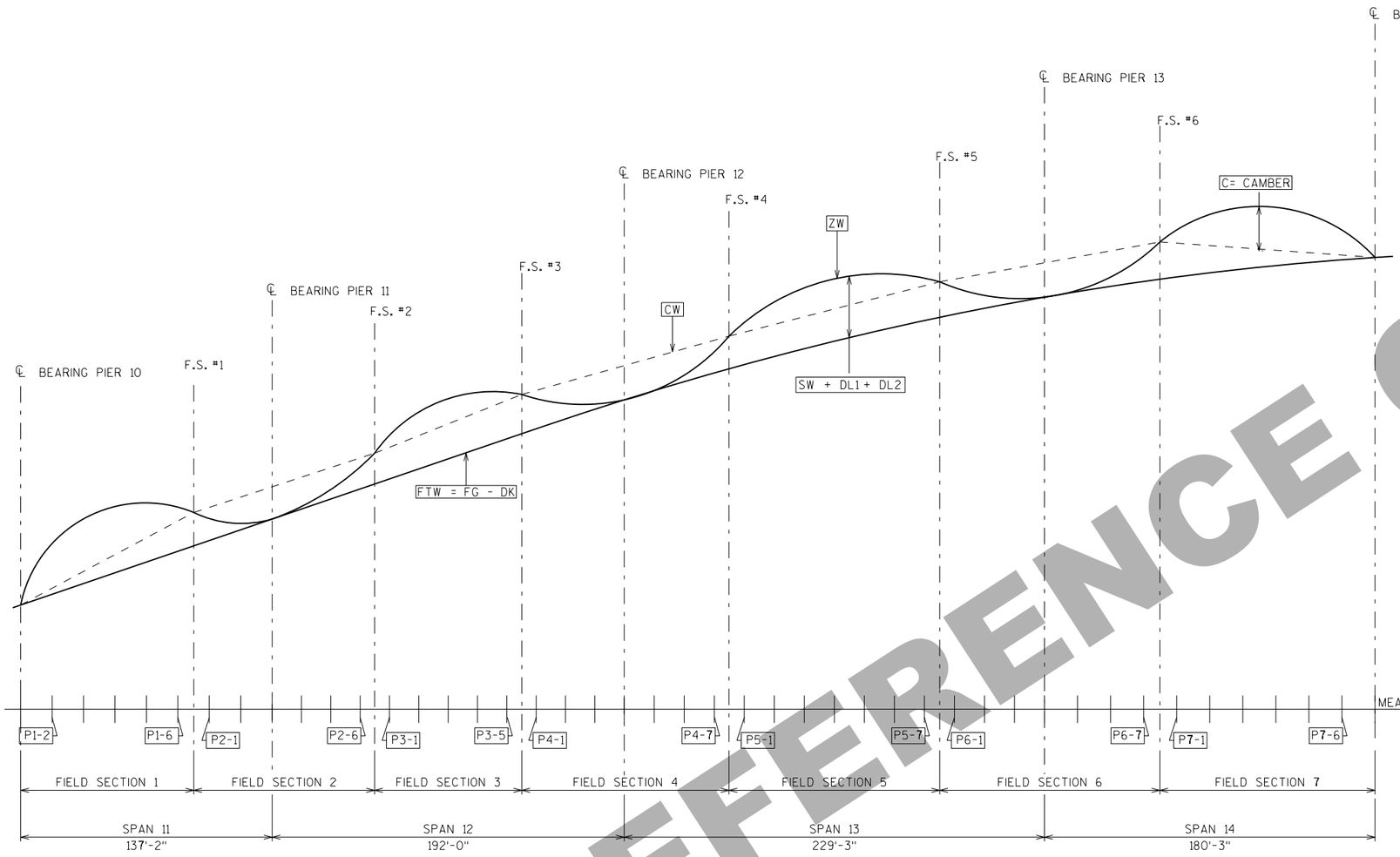
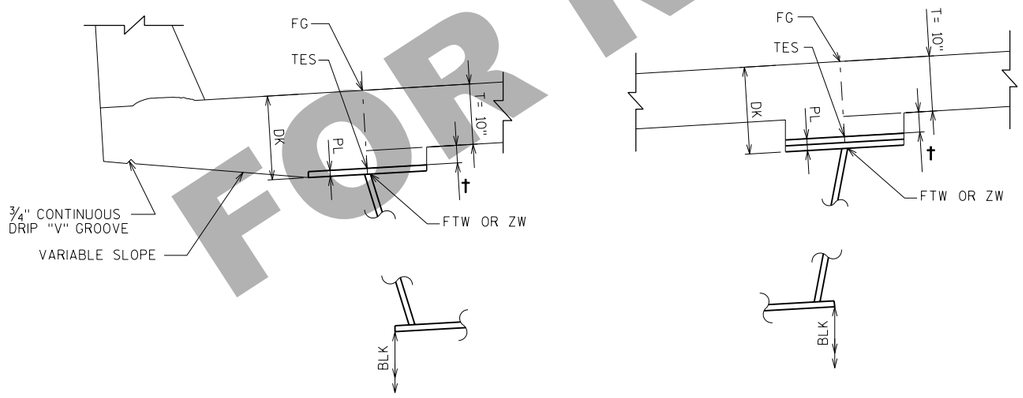


CAMBER & BLOCKING DIAGRAM



TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

FG FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION.
= ZW + PL - SW

ZW TOP OF ERECTED WEB ELEVATION NEGLECTING ALL DEFLECTIONS
= FG + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT CORRESPONDING TO THE ERECTED STEEL CONDITION NEGLECTING ALL DEFLECTIONS.

TABULATED DEFLECTIONS

SW SELF -WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS, BRACING, AND PERMANENT METAL FORMS.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION.

DL2 PARAPETS AND WEARING SURFACE APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

PL =THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK =DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

C =CAMBER= ZW - CW

LEGEND:

P1-2 INTERMEDIATE ELEVATION POINT AT PANEL POINTS.

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '2' IS THE PANEL NUMBER WITHIN THIS FIELD SECTION.

NOTES:

POSITIVE DEFLECTIONS ARE DOWNWARD.

POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.

TES ELEVATIONS ARE TO TOP OF STEEL (SPLICE AND COVER PLATE THICKNESS, IF APPLICABLE, ARE ACCOUNTED FOR) AND THEY ARE FOR THE MATERIAL AS ERECTED. THE ELEVATION OF THE TOP STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED, AND CORRECTED, IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY BOLTING THE DIAPHRAGMS IN PLACE.

BECAUSE VERTICAL PROFILE AND DEFLECTIONS ARE EXAGGERATED TO DIFFERENT DEGREES, THE CAMBERS SHOWN ON THIS DIAGRAM ARE SCHEMATIC ONLY.

SPECIFICALLY COMPARING RELATIVE CAMBER MAGNITUDES BETWEEN FIELD SECTIONS MAY BE MISLEADING.

CAMBERS ACCOUNT FOR PERMANENT FORMWORK WEIGHT OF 10.0 PSF INSIDE EACH GIRDER PLUS 13.5 PSF FOR ADDITIONAL CONCRETE IN RIBS OF PERMANENT FORMWORK. THE CONTRACTOR MAY NEED TO REVISE THE CAMBERS IF THE PERMANENT FORMWORK IS USED DIFFERS FROM THAT SHOWN ON THE PLANS.

ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.

TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING A CONSTANT 4" DIMENSION. MEASURED FROM THE UNDERSIDE OF THE TOP FLANGE (TOP OF WEB) TO THE UNDERSIDE OF THE DECK (TOP OF STAY-IN-PLACE METAL FORMS).

HAUNCH NOTE:

† = HAUNCH HEIGHT AT CENTERLINE OF WEB.

TO DETERMINE "†" AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN.

TOP OF DECK ELEV. AT FINAL GRADE

\- TOP OF STEEL ELEV. AFTER PLACEMENT

\+ CONC. ONLY DEFLECTIONS (DOWNWARD DEFLECTION IS POSITIVE, UPWARD DEFLECTION IS NEGATIVE.)

\- SLAB THICKNESS (10")

= "†" VALUE FOR SETTING HAUNCH

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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CAMBER DIAGRAM UNIT 3

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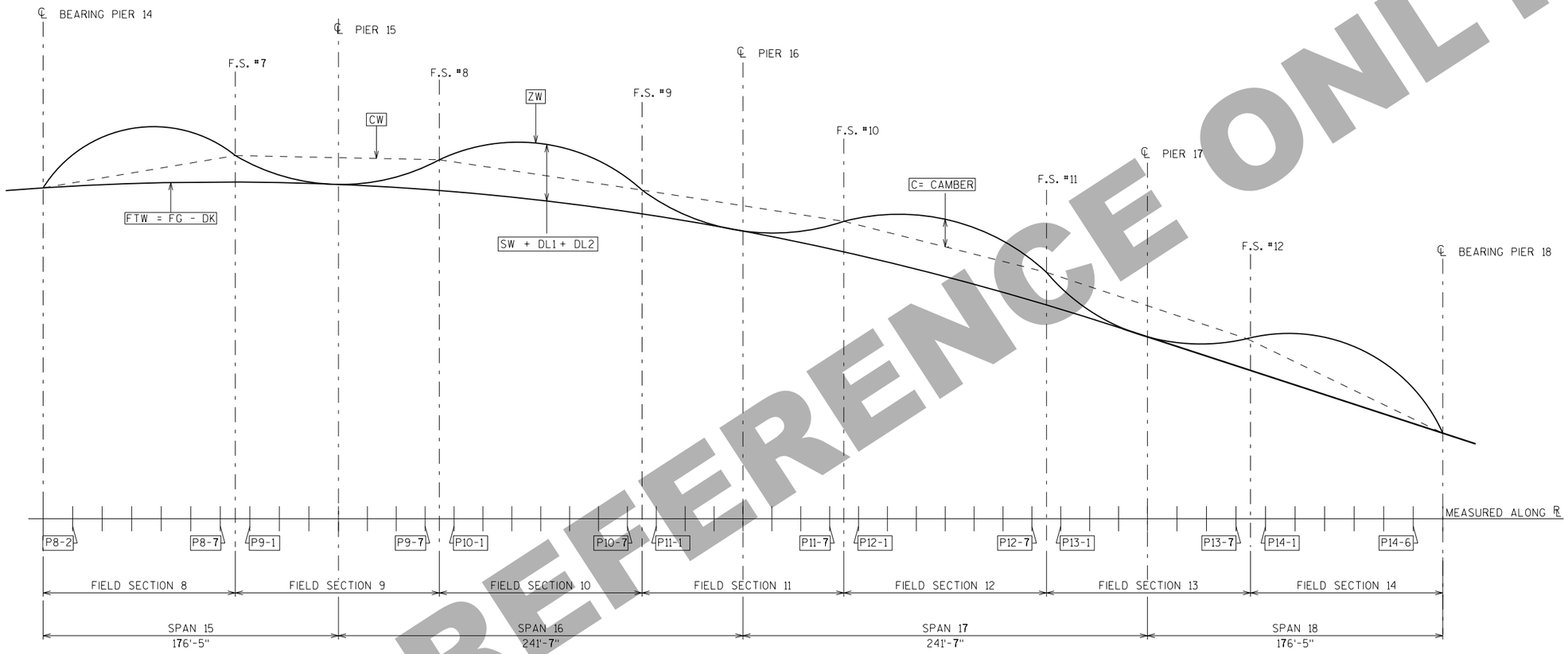

CAMBER & BLOCKING DIAGRAM

FOR REFERENCE ONLY

8

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 3 SHEET.

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 3 SHEET

HAUNCH NOTES:

FOR HAUNCH NOTES SEE CAMBER DIAGRAM UNIT 3 SHEET.

STEEL FABRICATION CONTRACT ONLY

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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CAMBER DIAGRAM UNIT 4

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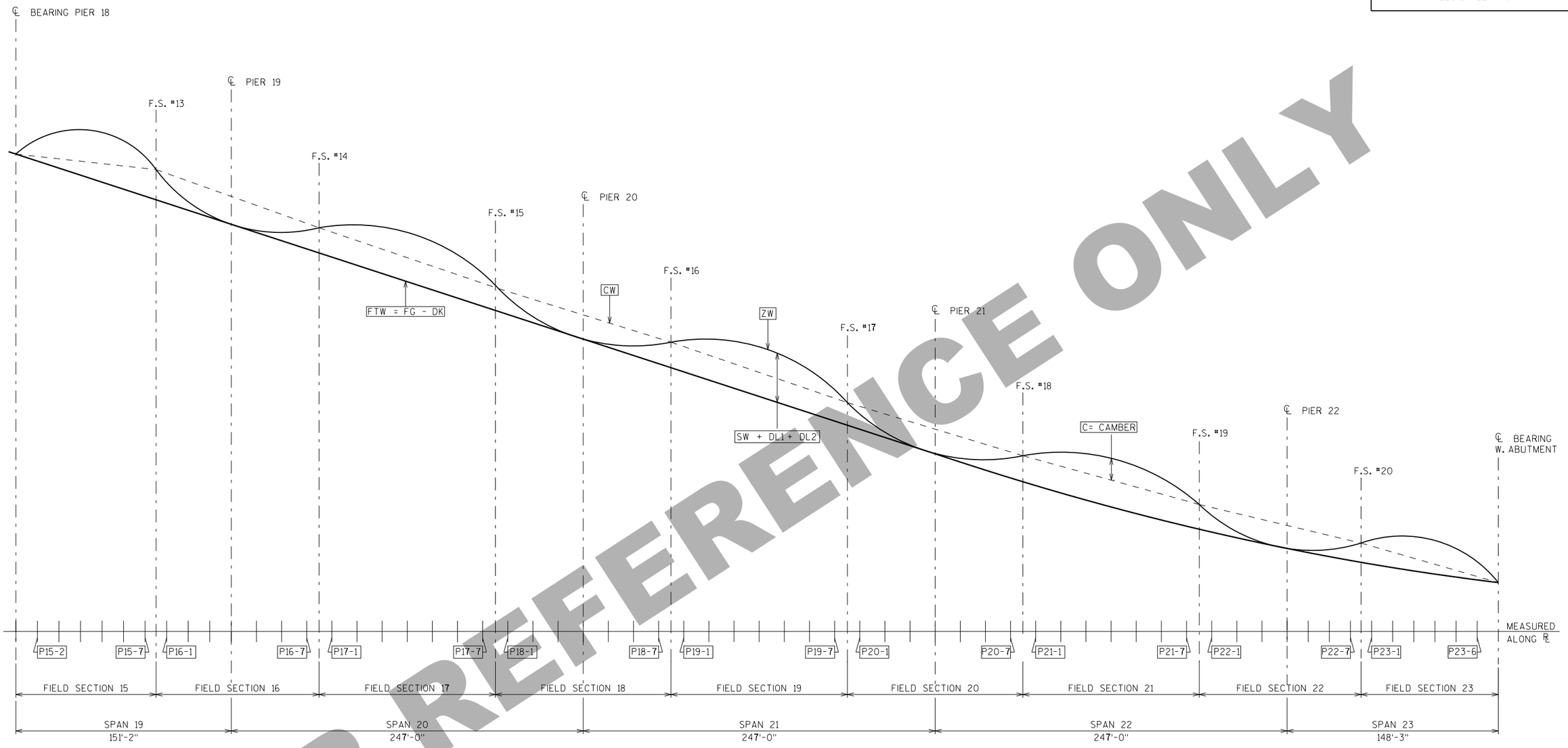

CAMBER & BLOCKING DIAGRAM

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LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 3 SHEET.

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 3 SHEET

HAUNCH NOTES:

FOR HAUNCH NOTES SEE CAMBER DIAGRAM UNIT 3 SHEET.

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

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CAMBER DIAGRAM
UNIT 5

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FIELD SECTION 1

HORIZ. LOC.	VALUE	POSITION AND STATION						
		PIER 10 1190+29.58	P1-2 1190+46.73	P1-3 1190+63.87	P1-4 1190+81.02	P1-5 1190+98.16	P1-6 1191+15.31	FS #1 1191+23.88
CAMBER DATA								
1 LEFT GIRDER	FG	639.42	639.96	640.51	641.05	641.60	642.16	642.45
	TES	638.33	638.92	639.49	640.05	640.59	641.14	641.46
	ZW	638.25	638.85	639.43	640.00	640.54	641.07	641.35
	CW	638.25	638.81	639.38	639.94	640.50	641.07	641.35
LEFT WEB	SW	0.00	0.01	0.02	0.03	0.03	0.02	0.02
	DL1	0.00	0.04	0.07	0.08	0.07	0.06	0.04
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.03	0.06	0.06	0.03	0.01	0.00
2 LEFT GIRDER	FG	639.92	640.52	641.12	641.72	642.32	642.91	643.20
	TES	638.84	639.48	640.11	640.72	641.31	641.89	642.21
	ZW	638.76	639.41	640.05	640.67	641.26	641.83	642.10
	CW	638.76	639.36	639.97	640.58	641.19	641.80	642.10
RIGHT WEB	SW	0.00	0.01	0.03	0.03	0.03	0.02	0.02
	DL1	0.00	0.04	0.07	0.08	0.08	0.06	0.05
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.04	0.08	0.09	0.07	0.03	0.00
3 RIGHT GIRDER	FG	640.43	641.08	641.73	642.38	643.03	643.66	643.95
	TES	639.34	640.04	640.72	641.39	642.04	642.64	642.96
	ZW	639.26	639.97	640.67	641.34	641.98	642.58	642.85
	CW	639.26	639.91	640.57	641.22	641.87	642.53	642.85
LEFT WEB	SW	0.00	0.01	0.03	0.03	0.03	0.02	0.02
	DL1	0.00	0.04	0.07	0.08	0.08	0.06	0.05
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.05	0.10	0.12	0.11	0.05	0.00
4 RIGHT GIRDER	FG	640.93	641.64	642.34	643.05	643.75	644.41	644.70
	TES	639.85	640.60	641.34	642.06	642.76	643.39	643.71
	ZW	639.77	640.53	641.28	642.01	642.71	643.33	643.61
	CW	639.77	640.46	641.16	641.86	642.56	643.26	643.61
RIGHT WEB	SW	0.00	0.01	0.03	0.03	0.03	0.02	0.02
	DL1	0.00	0.04	0.07	0.08	0.08	0.06	0.05
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00
	C	0.00	0.07	0.12	0.14	0.15	0.08	0.00
BLOCKING HEIGHTS								
5	BLK	0.00						3.10
6		0.36						3.71
7		1.01						4.60
8		1.37						5.21

FIELD SECTION 2

HORIZ. LOC.	VALUE	POSITION AND STATION						
		FS #1 1191+23.88	P2-1 1191+32.46	P2-2 1191+49.60	PIER 11 1191+66.75	P2-4 1191+82.75	P2-5 1191+98.75	FS #2 1192+06.75
CAMBER DATA								
1 LEFT GIRDER	FG	642.45	642.74	643.33	643.92	644.46	645.01	645.29
	TES	641.46	641.69	642.26	642.86	643.42	643.98	644.31
	ZW	641.35	641.62	642.18	642.75	643.32	643.91	644.20
	CW	641.35	641.64	642.24	642.83	643.38	643.93	644.20
LEFT WEB	SW	0.02	0.01	0.00	0.00	0.01	0.01	0.02
	DL1	0.04	0.03	0.01	0.00	0.02	0.04	0.06
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.06	-0.07	-0.06	-0.02	0.00
2 LEFT GIRDER	FG	643.20	643.49	644.08	644.67	645.21	645.76	646.04
	TES	642.21	642.45	643.01	643.61	644.17	644.73	645.06
	ZW	642.10	642.38	642.93	643.50	644.07	644.66	644.96
	CW	642.10	642.40	642.99	643.58	644.13	644.68	644.96
RIGHT WEB	SW	0.02	0.01	0.00	0.00	0.01	0.01	0.02
	DL1	0.05	0.03	0.01	0.00	0.02	0.04	0.06
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.06	-0.08	-0.06	-0.02	0.00
3 RIGHT GIRDER	FG	643.95	644.24	644.83	645.42	645.96	646.51	646.79
	TES	642.96	643.20	643.76	644.36	644.92	645.48	645.81
	ZW	642.85	643.13	643.68	644.25	644.82	645.41	645.71
	CW	642.85	643.15	643.74	644.33	644.88	645.43	645.71
LEFT WEB	SW	0.02	0.01	0.00	0.00	0.01	0.01	0.02
	DL1	0.05	0.03	0.01	0.00	0.02	0.05	0.06
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.06	-0.08	-0.06	-0.02	0.00
4 RIGHT GIRDER	FG	644.70	644.99	645.58	646.17	646.71	647.26	647.54
	TES	643.71	643.95	644.51	645.11	645.67	646.23	646.57
	ZW	643.61	643.88	644.43	645.00	645.57	646.16	646.46
	CW	643.61	643.90	644.49	645.08	645.63	646.19	646.46
RIGHT WEB	SW	0.02	0.01	0.00	0.00	0.01	0.02	0.02
	DL1	0.05	0.03	0.01	0.00	0.02	0.05	0.06
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.06	-0.08	-0.06	-0.02	0.00
BLOCKING HEIGHTS								
5	BLK	3.10			4.50			5.95
6		3.71			5.11			6.56
7		4.60			6.00			7.46
8		5.21			6.61			8.07

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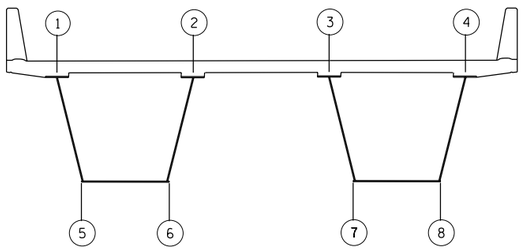

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 1 AND 2

SHEET 52 OF 63

878

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DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

FIELD SECTION 3

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS #2 1192+06.75	P3-1 1192+14.75	P3-2 1192+30.75	P3-3 1192+46.75	P3-4 1192+62.75	P3-5 1192+78.75	P3-6 1192+94.75	FS #3 1193+02.75
CAMBER DATA									
1	FG	645.29	645.56	646.11	646.65	647.20	647.75	648.30	648.57
LEFT GIRDER	TES	644.31	644.56	645.13	645.70	646.24	646.77	647.29	647.61
	ZW	644.20	644.50	645.08	645.65	646.20	646.72	647.23	647.48
	CW	644.20	644.48	645.02	645.57	646.12	646.66	647.21	647.48
LEFT WEB	SW	0.02	0.02	0.03	0.04	0.04	0.03	0.02	0.02
	DL1	0.06	0.07	0.10	0.11	0.11	0.10	0.07	0.05
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.02	0.06	0.08	0.08	0.06	0.02	0.00
2	FG	646.04	646.31	646.86	647.40	647.95	648.50	649.05	649.32
LEFT GIRDER	TES	645.06	645.31	645.89	646.45	647.00	647.53	648.04	648.36
	ZW	644.96	645.25	645.84	646.40	646.95	647.47	647.98	648.23
	CW	644.96	645.23	645.78	646.32	646.87	647.41	647.96	648.23
RIGHT WEB	SW	0.02	0.03	0.03	0.04	0.04	0.03	0.02	0.02
	DL1	0.06	0.08	0.10	0.12	0.12	0.10	0.07	0.06
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.02	0.06	0.08	0.08	0.06	0.02	0.00
3	FG	646.79	647.06	647.61	648.15	648.70	649.25	649.80	650.07
RIGHT GIRDER	TES	645.81	646.06	646.64	647.20	647.75	648.28	648.80	649.11
	ZW	645.71	646.01	646.59	647.16	647.71	648.23	648.74	648.99
	CW	645.71	645.98	646.53	647.07	647.62	648.17	648.71	648.99
LEFT WEB	SW	0.02	0.03	0.03	0.04	0.04	0.03	0.02	0.02
	DL1	0.06	0.08	0.11	0.12	0.12	0.10	0.07	0.06
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.02	0.06	0.08	0.09	0.06	0.02	0.00
4	FG	647.54	647.81	648.36	648.90	649.45	650.00	650.55	650.82
RIGHT GIRDER	TES	646.57	646.82	647.39	647.96	648.51	649.03	649.55	649.87
	ZW	646.46	646.76	647.35	647.91	648.46	648.98	649.49	649.74
	CW	646.46	646.74	647.28	647.83	648.37	648.92	649.46	649.74
RIGHT WEB	SW	0.02	0.03	0.04	0.04	0.04	0.03	0.02	0.02
	DL1	0.06	0.08	0.11	0.12	0.12	0.11	0.08	0.06
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.03	0.07	0.09	0.09	0.06	0.02	0.00
BLOCKING HEIGHTS									
5	BLK	5.95							9.23
6		6.56							9.84
7		7.46							10.73
8		8.07							11.34

FIELD SECTION 4

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #3 1193+02.75	P4-1 1193+10.75	P4-2 1193+26.75	P4-3 1193+42.75	PIER 12 1193+58.75	P4-5 1193+75.12	P4-6 1193+91.50	P4-7 1194+07.87	FS #4 1194+16.06
CAMBER DATA										
1	FG	648.57	648.84	649.39	649.94	650.48	651.04	651.60	652.16	652.44
LEFT GIRDER	TES	647.61	647.82	648.34	648.95	649.51	650.11	650.64	651.27	651.63
	ZW	647.48	647.73	648.24	648.76	649.32	649.93	650.57	651.22	651.55
	CW	647.48	647.77	648.34	648.92	649.49	650.08	650.67	651.25	651.55
LEFT WEB	SW	0.02	0.01	0.00	0.00	0.00	0.01	0.03	0.06	0.07
	DL1	0.05	0.04	0.01	-0.01	0.00	0.04	0.09	0.15	0.18
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.11	-0.16	-0.17	-0.15	-0.10	-0.03	0.00
2	FG	649.32	649.59	650.14	650.69	651.23	651.79	652.35	652.91	653.19
LEFT GIRDER	TES	648.36	648.57	649.09	649.70	650.25	650.86	651.39	652.03	652.38
	ZW	648.23	648.48	648.99	649.51	650.07	650.68	651.32	651.98	652.31
	CW	648.23	648.52	649.10	649.67	650.25	650.83	651.42	652.01	652.31
RIGHT WEB	SW	0.02	0.01	0.00	0.00	0.00	0.01	0.03	0.06	0.07
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.09	0.16	0.19
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.11	-0.16	-0.18	-0.15	-0.10	-0.03	0.00
3	FG	650.07	650.34	650.89	651.44	651.98	652.54	653.10	653.66	653.94
RIGHT GIRDER	TES	649.11	649.33	649.84	650.45	651.01	651.61	652.15	652.78	653.14
	ZW	648.99	649.23	649.74	650.26	650.82	651.43	652.08	652.74	653.07
	CW	648.99	649.27	649.85	650.43	651.00	651.59	652.18	652.77	653.07
LEFT WEB	SW	0.02	0.01	0.00	0.00	0.00	0.01	0.04	0.06	0.07
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.10	0.16	0.19
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.11	-0.16	-0.18	-0.16	-0.10	-0.03	0.00
4	FG	650.82	651.09	651.64	652.19	652.73	653.29	653.85	654.41	654.69
RIGHT GIRDER	TES	649.87	650.08	650.59	651.20	651.75	652.36	652.90	653.54	653.90
	ZW	649.74	649.99	650.49	651.01	651.57	652.19	652.83	653.49	653.82
	CW	649.74	650.03	650.60	651.18	651.76	652.35	652.94	653.53	653.82
RIGHT WEB	SW	0.02	0.01	0.00	0.00	0.00	0.02	0.04	0.06	0.07
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.10	0.17	0.20
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.17	-0.19	-0.16	-0.11	-0.03	0.00
BLOCKING HEIGHTS										
5	BLK	9.23				11.07				13.30
6		9.84				11.67				13.91
7		10.73				12.57				14.81
8		11.34				13.17				15.43

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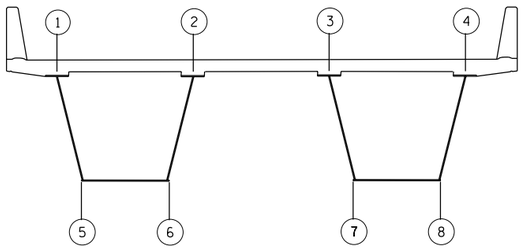

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 3 AND 4

SHEET 53 OF 63

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DATE: 4/30/2013

I.D.

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STATE PROJECT NUMBER

1133-11-76

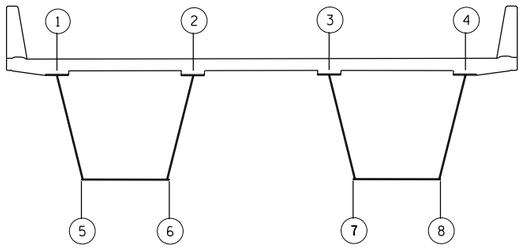
FIELD SECTION 5

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #4	P5-1	P5-2	P5-3	P5-4	P5-5	P5-6	P5-7	FS #5
		1194+16.06	1194+24.25	1194+40.62	1194+57.00	1194+73.37	1194+89.75	1195+06.12	1195+22.50	1195+30.68
CAMBER DATA										
1	FG	652.44	652.72	653.28	653.84	654.39	654.92	655.43	655.93	656.17
LEFT GIRDER	TES	651.63	651.88	652.50	653.09	653.64	654.15	654.62	655.05	655.35
	ZW	651.55	651.87	652.51	653.11	653.67	654.17	654.62	655.04	655.24
	CW	651.55	651.81	652.34	652.87	653.39	653.92	654.45	654.97	655.24
LEFT WEB	SW	0.07	0.08	0.10	0.11	0.11	0.10	0.09	0.07	0.06
	DL1	0.18	0.21	0.27	0.30	0.30	0.28	0.25	0.19	0.16
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.17	0.25	0.28	0.25	0.18	0.07	0.00
2	FG	653.19	653.47	654.03	654.59	655.14	655.67	656.18	656.68	656.92
LEFT GIRDER	TES	652.38	652.64	653.26	653.85	654.40	654.91	655.38	655.81	656.10
	ZW	652.31	652.63	653.27	653.88	654.43	654.93	655.39	655.80	655.99
	CW	652.31	652.57	653.10	653.62	654.15	654.68	655.20	655.73	655.99
RIGHT WEB	SW	0.07	0.08	0.10	0.11	0.11	0.11	0.09	0.07	0.06
	DL1	0.19	0.22	0.27	0.31	0.31	0.29	0.25	0.19	0.16
	DL2	0.02	0.02	0.03	0.03	0.04	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.18	0.25	0.28	0.26	0.18	0.07	0.00
3	FG	653.94	654.22	654.78	655.34	655.89	656.42	656.93	657.43	657.67
RIGHT GIRDER	TES	653.14	653.39	654.01	654.61	655.16	655.67	656.14	656.57	656.86
	ZW	653.07	653.39	654.03	654.64	655.20	655.70	656.15	656.56	656.75
	CW	653.07	653.33	653.85	654.38	654.91	655.43	655.96	656.49	656.75
LEFT WEB	SW	0.07	0.08	0.10	0.11	0.12	0.11	0.09	0.07	0.06
	DL1	0.19	0.23	0.28	0.31	0.32	0.30	0.26	0.20	0.17
	DL2	0.02	0.03	0.03	0.04	0.04	0.03	0.03	0.02	0.02
	C	0.00	0.07	0.18	0.26	0.29	0.26	0.19	0.07	0.00
4	FG	654.69	654.97	655.53	656.09	656.64	657.17	657.68	658.18	658.42
RIGHT GIRDER	TES	653.90	654.15	654.77	655.37	655.93	656.43	656.90	657.32	657.61
	ZW	653.82	654.15	654.80	655.40	655.96	656.46	656.91	657.32	657.51
	CW	653.82	654.09	654.61	655.14	655.67	656.19	656.72	657.24	657.51
RIGHT WEB	SW	0.07	0.09	0.11	0.12	0.12	0.11	0.10	0.07	0.06
	DL1	0.20	0.23	0.29	0.32	0.33	0.31	0.27	0.21	0.17
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.07	0.18	0.26	0.30	0.27	0.19	0.07	0.00
BLOCKING HEIGHTS										
5	BLK	13.30								16.98
6		13.91								17.60
7		14.81								18.50
8		15.43								19.11

FIELD SECTION 6

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS #5	P6-1	P6-2	P6-3	PIER 13	P6-5	P6-6	FS #6
		1195+30.68	1195+38.87	1195+55.25	1195+71.62	1195+88.00	1196+06.02	1196+24.05	1196+33.06
CAMBER DATA									
1	FG	656.17	656.41	656.87	657.32	657.75	658.21	658.65	658.86
LEFT GIRDER	TES	655.35	655.51	655.90	656.39	656.79	657.27	657.66	657.95
	ZW	655.24	655.43	655.80	656.19	656.59	657.06	657.56	657.81
	CW	655.24	655.44	655.85	656.26	656.68	657.13	657.58	657.81
LEFT WEB	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.03
	DL1	0.16	0.13	0.06	0.02	0.00	0.02	0.05	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.01	-0.05	-0.08	-0.09	-0.06	-0.02	0.00
2	FG	656.92	657.16	657.62	658.07	658.50	658.96	659.40	659.61
LEFT GIRDER	TES	656.10	656.26	656.65	657.14	657.54	658.02	658.42	658.70
	ZW	655.99	656.18	656.55	656.94	657.34	657.81	658.31	658.56
	CW	655.99	656.20	656.61	657.02	657.43	657.88	658.34	658.56
RIGHT WEB	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.03
	DL1	0.16	0.13	0.07	0.02	0.00	0.02	0.06	0.08
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.02	-0.06	-0.08	-0.09	-0.07	-0.03	0.00
3	FG	657.67	657.91	658.37	658.82	659.25	659.71	660.15	660.36
RIGHT GIRDER	TES	656.86	657.02	657.41	657.89	658.29	658.77	659.17	659.45
	ZW	656.75	656.94	657.31	657.69	658.09	658.57	659.06	659.32
	CW	656.75	656.96	657.37	657.78	658.19	658.64	659.09	659.32
LEFT WEB	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.03
	DL1	0.17	0.13	0.07	0.02	0.00	0.02	0.06	0.09
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.02	-0.06	-0.09	-0.10	-0.07	-0.03	0.00
4	FG	658.42	658.66	659.12	659.57	660.00	660.46	660.90	661.11
RIGHT GIRDER	TES	657.61	657.77	658.16	658.64	659.04	659.52	659.92	660.20
	ZW	657.51	657.69	658.06	658.44	658.84	659.32	659.81	660.07
	CW	657.51	657.71	658.12	658.53	658.94	659.39	659.84	660.07
RIGHT WEB	SW	0.06	0.05	0.03	0.01	0.00	0.01	0.02	0.03
	DL1	0.17	0.14	0.07	0.02	0.00	0.02	0.06	0.09
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.06	-0.09	-0.11	-0.08	-0.03	0.00
BLOCKING HEIGHTS									
5	BLK	16.98				18.34			19.56
6		17.60				18.94			20.17
7		18.50				19.84			21.06
8		19.11				20.44			21.67

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 5 AND 6

SHEET 54 OF 63

880

STEEL FABRICATION CONTRACT ONLY

8

8

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E-CAMBER DATA FS 5 AND 6.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

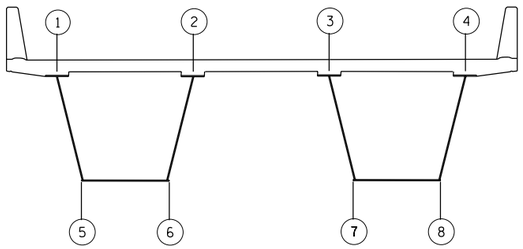
FIELD SECTION 7

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #6 1196+33.06	P7-1 1196+42.07	P7-2 1196+60.10	P7-3 1196+78.12	P7-4 1196+96.15	P7-5 1197+14.17	P7-6 1197+32.20	P7-7 1197+50.22	PIER 14 1197+68.25
CAMBER DATA										
1	FG	658.86	659.07	659.46	659.84	660.20	660.54	660.86	661.16	661.45
	TES	657.95	658.10	658.55	658.97	659.35	659.67	659.94	660.17	660.36
LEFT GIRDER	ZW	657.81	658.05	658.53	658.96	659.34	659.65	659.91	660.11	660.28
	CW	657.81	657.97	658.30	658.63	658.96	659.29	659.62	659.95	660.28
	SW	0.03	0.04	0.06	0.07	0.07	0.07	0.05	0.03	0.00
LEFT WEB	DL1	0.08	0.11	0.16	0.20	0.21	0.19	0.15	0.08	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.08	0.22	0.33	0.38	0.36	0.29	0.16	0.00
2	FG	659.61	659.82	660.21	660.59	660.95	661.29	661.61	661.91	662.20
	TES	658.70	658.85	659.31	659.73	660.11	660.42	660.70	660.92	661.11
LEFT GIRDER	ZW	658.56	658.81	659.28	659.72	660.10	660.41	660.67	660.86	661.03
	CW	658.56	658.73	659.06	659.38	659.71	660.04	660.37	660.70	661.03
	SW	0.03	0.04	0.06	0.07	0.08	0.07	0.05	0.03	0.00
RIGHT WEB	DL1	0.08	0.11	0.16	0.20	0.22	0.20	0.15	0.08	0.00
	DL2	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.08	0.23	0.34	0.39	0.37	0.29	0.16	0.00
3	FG	660.36	660.57	660.96	661.34	661.70	662.04	662.36	662.66	662.95
	TES	659.45	659.61	660.07	660.49	660.86	661.18	661.45	661.67	661.86
RIGHT GIRDER	ZW	659.32	659.56	660.04	660.48	660.86	661.17	661.42	661.62	661.78
	CW	659.32	659.48	659.81	660.14	660.46	660.79	661.12	661.45	661.78
	SW	0.03	0.04	0.06	0.07	0.08	0.07	0.06	0.03	0.00
LEFT WEB	DL1	0.09	0.11	0.17	0.21	0.22	0.20	0.16	0.08	0.00
	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.08	0.23	0.34	0.40	0.38	0.30	0.17	0.00
4	FG	661.11	661.32	661.71	662.09	662.45	662.79	663.11	663.41	663.70
	TES	660.20	660.36	660.82	661.25	661.62	661.94	662.21	662.42	662.61
RIGHT GIRDER	ZW	660.07	660.32	660.80	661.24	661.62	661.93	662.18	662.37	662.53
	CW	660.07	660.23	660.56	660.89	661.22	661.55	661.87	662.20	662.53
	SW	0.03	0.04	0.06	0.08	0.08	0.07	0.06	0.03	0.00
RIGHT WEB	DL1	0.09	0.12	0.17	0.22	0.23	0.21	0.16	0.09	0.00
	DL2	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.09	0.24	0.35	0.40	0.38	0.31	0.17	0.00
BLOCKING HEIGHTS										
5	BLK	19.56								22.03
6		20.17								22.63
7		21.06								23.53
8		21.67								24.13

FIELD SECTION 8

HORIZ. LOC.	VALUE	POSITION AND STATION							
		PIER 14 1197+71.92	P8-2 1197+89.56	P8-3 1198+07.20	P8-4 1198+24.85	P8-5 1198+42.49	P8-6 1198+60.13	P8-7 1198+77.77	FS #7 1198+86.59
CAMBER DATA									
1	FG	661.50	661.75	661.99	662.20	662.40	662.58	662.74	662.81
	TES	660.42	660.75	661.05	661.30	661.51	661.67	661.79	661.94
LEFT GIRDER	ZW	660.33	660.69	661.01	661.28	661.49	661.65	661.76	661.80
	CW	660.33	660.56	660.78	661.01	661.24	661.46	661.69	661.80
	SW	0.00	0.03	0.05	0.06	0.07	0.06	0.05	0.04
LEFT WEB	DL1	0.00	0.07	0.13	0.17	0.18	0.16	0.13	0.11
	DL2	0.00	0.01	0.01	0.01	0.02	0.01	0.01	0.01
	C	0.00	0.13	0.23	0.27	0.26	0.19	0.07	0.00
2	FG	662.25	662.50	662.74	662.95	663.15	663.33	663.49	663.56
	TES	661.17	661.50	661.80	662.06	662.27	662.43	662.55	662.70
LEFT GIRDER	ZW	661.08	661.44	661.77	662.04	662.25	662.41	662.51	662.55
	CW	661.08	661.31	661.54	661.76	661.99	662.21	662.44	662.55
	SW	0.00	0.03	0.05	0.06	0.07	0.06	0.05	0.04
RIGHT WEB	DL1	0.00	0.07	0.13	0.17	0.18	0.17	0.13	0.11
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.13	0.23	0.27	0.26	0.19	0.07	0.00
3	FG	663.00	663.25	663.49	663.70	663.90	664.08	664.24	664.31
	TES	661.92	662.25	662.56	662.81	663.02	663.18	663.30	663.45
RIGHT GIRDER	ZW	661.83	662.20	662.52	662.79	663.01	663.17	663.27	663.31
	CW	661.83	662.06	662.29	662.51	662.74	662.97	663.20	663.31
	SW	0.00	0.03	0.05	0.07	0.07	0.07	0.05	0.04
LEFT WEB	DL1	0.00	0.07	0.14	0.18	0.19	0.17	0.14	0.11
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.13	0.24	0.28	0.27	0.20	0.07	0.00
4	FG	663.75	664.00	664.24	664.45	664.65	664.83	664.99	665.06
	TES	662.67	663.00	663.31	663.57	663.78	663.94	664.06	664.21
RIGHT GIRDER	ZW	662.58	662.95	663.28	663.55	663.77	663.93	664.03	664.06
	CW	662.58	662.81	663.04	663.27	663.49	663.72	663.95	664.06
	SW	0.00	0.03	0.05	0.07	0.07	0.07	0.05	0.05
RIGHT WEB	DL1	0.00	0.08	0.14	0.18	0.20	0.18	0.14	0.12
	DL2	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.01
	C	0.00	0.14	0.24	0.29	0.28	0.20	0.08	0.00
BLOCKING HEIGHTS									
5	BLK	8.48							9.94
6		9.02							10.48
7		9.98							11.45
8		10.52							11.99

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 7 AND 8

SHEET 55 OF 63

881

STEEL FABRICATION CONTRACT ONLY

8

8

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E-CAMBER DATA FS 7 AND 8.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

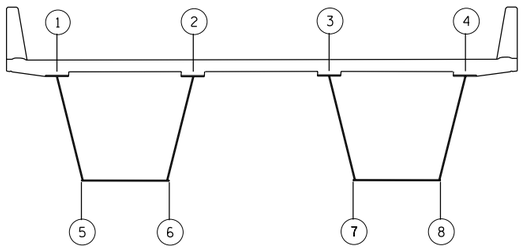
FIELD SECTION 9

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS *7 1198+86.59	P9-1 1198+95.41	P9-2 1199+13.05	P9-3 1199+30.70	PIER 15 1199+48.34	P9-5 1199+65.59	P9-6 1199+82.85	P9-7 1200+00.10	FS *8 1200+08.73
CAMBER DATA										
1	FG	662.81	662.88	663.00	663.10	663.19	663.25	663.30	663.33	663.33
LEFT GIRDER	TES	661.94	661.94	662.02	662.16	662.24	662.34	662.37	662.47	662.56
	ZW	661.80	661.83	661.89	661.95	662.02	662.13	662.25	662.38	662.43
	CW	661.80	661.84	661.94	662.03	662.12	662.21	662.30	662.39	662.43
LEFT WEB	SW	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06
	DL1	0.11	0.08	0.04	0.01	0.00	0.03	0.08	0.15	0.18
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.01	-0.05	-0.08	-0.10	-0.08	-0.05	-0.01	0.00
2	FG	663.56	663.63	663.75	663.85	663.94	664.00	664.05	664.08	664.08
LEFT GIRDER	TES	662.70	662.70	662.77	662.91	662.99	663.09	663.12	663.23	663.31
	ZW	662.55	662.58	662.64	662.70	662.77	662.88	663.00	663.13	663.19
	CW	662.55	662.60	662.69	662.78	662.88	662.97	663.06	663.15	663.19
RIGHT WEB	SW	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06
	DL1	0.11	0.08	0.04	0.01	0.00	0.03	0.08	0.15	0.19
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.01	-0.05	-0.09	-0.11	-0.09	-0.05	-0.01	0.00
3	FG	664.31	664.38	664.50	664.60	664.69	664.75	664.80	664.83	664.83
RIGHT GIRDER	TES	663.45	663.45	663.52	663.66	663.74	663.84	663.87	663.98	664.07
	ZW	663.31	663.34	663.39	663.45	663.52	663.63	663.76	663.89	663.95
	CW	663.31	663.35	663.45	663.54	663.63	663.72	663.81	663.90	663.95
LEFT WEB	SW	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.07
	DL1	0.11	0.09	0.04	0.01	0.00	0.03	0.08	0.15	0.19
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.06	-0.09	-0.11	-0.09	-0.06	-0.02	0.00
4	FG	665.06	665.13	665.25	665.35	665.44	665.50	665.55	665.58	665.58
RIGHT GIRDER	TES	664.21	664.20	664.27	664.41	664.49	664.59	664.62	664.73	664.83
	ZW	664.06	664.09	664.14	664.20	664.27	664.38	664.51	664.64	664.71
	CW	664.06	664.11	664.20	664.30	664.39	664.48	664.57	664.66	664.71
RIGHT WEB	SW	0.05	0.04	0.02	0.00	0.00	0.01	0.03	0.05	0.07
	DL1	0.12	0.09	0.04	0.01	0.00	0.03	0.09	0.16	0.20
	DL2	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.02	0.03
	C	0.00	-0.02	-0.06	-0.10	-0.12	-0.10	-0.06	-0.02	0.00
BLOCKING HEIGHTS										
5	BLK	9.94				10.17				10.58
6		10.48				10.70				11.12
7		11.45				11.67				12.09
8		11.99				12.20				12.64

FIELD SECTION 10

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS *8 1200+08.73	P10-1 1200+17.36	P10-2 1200+34.62	P10-3 1200+51.87	P10-4 1200+69.13	P10-5 1200+86.38	P10-6 1201+03.64	P10-7 1201+20.90	FS *9 1201+29.52
CAMBER DATA										
1	FG	663.33	663.34	663.33	663.31	663.26	663.20	663.12	663.03	662.97
LEFT GIRDER	TES	662.56	662.49	662.55	662.56	662.53	662.45	662.32	662.16	662.19
	ZW	662.43	662.48	662.56	662.59	662.56	662.47	662.32	662.14	662.03
	CW	662.43	662.40	662.35	662.29	662.23	662.18	662.12	662.06	662.03
LEFT WEB	SW	0.06	0.07	0.09	0.11	0.11	0.10	0.09	0.07	0.05
	DL1	0.18	0.21	0.27	0.31	0.32	0.30	0.25	0.19	0.16
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.08	0.21	0.29	0.32	0.29	0.21	0.08	0.00
2	FG	664.08	664.09	664.08	664.06	664.01	663.95	663.87	663.78	663.72
LEFT GIRDER	TES	663.31	663.25	663.31	663.32	663.29	663.21	663.08	662.91	662.94
	ZW	663.19	663.24	663.32	663.35	663.32	663.23	663.09	662.90	662.79
	CW	663.19	663.16	663.10	663.05	662.99	662.93	662.88	662.82	662.79
RIGHT WEB	SW	0.06	0.08	0.10	0.11	0.11	0.11	0.09	0.07	0.06
	DL1	0.19	0.22	0.28	0.31	0.32	0.30	0.26	0.20	0.16
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.08	0.22	0.30	0.33	0.30	0.21	0.08	0.00
3	FG	664.83	664.84	664.83	664.81	664.76	664.70	664.62	664.53	664.47
RIGHT GIRDER	TES	664.07	664.01	664.07	664.08	664.05	663.97	663.83	663.67	663.70
	ZW	663.95	664.00	664.08	664.11	664.08	663.99	663.84	663.65	663.55
	CW	663.95	663.92	663.86	663.80	663.75	663.69	663.63	663.58	663.55
LEFT WEB	SW	0.07	0.08	0.10	0.11	0.12	0.11	0.09	0.07	0.06
	DL1	0.19	0.23	0.28	0.32	0.33	0.31	0.26	0.20	0.16
	DL2	0.02	0.03	0.04	0.04	0.04	0.04	0.03	0.02	0.02
	C	0.00	0.08	0.22	0.31	0.34	0.30	0.21	0.08	0.00
4	FG	665.58	665.59	665.58	665.56	665.51	665.45	665.37	665.28	665.22
RIGHT GIRDER	TES	664.83	664.76	664.82	664.84	664.81	664.72	664.59	664.42	664.45
	ZW	664.71	664.76	664.84	664.87	664.85	664.75	664.60	664.41	664.30
	CW	664.71	664.68	664.62	664.56	664.50	664.45	664.39	664.33	664.30
RIGHT WEB	SW	0.07	0.08	0.10	0.11	0.12	0.11	0.10	0.07	0.06
	DL1	0.20	0.23	0.29	0.33	0.34	0.32	0.27	0.20	0.17
	DL2	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.08	0.22	0.31	0.34	0.31	0.21	0.08	0.00
BLOCKING HEIGHTS										
5	BLK	10.58								10.18
6		11.12								10.72
7		12.09								11.69
8		12.64								12.23

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 9 AND 10

SHEET 56 OF 63

882

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\056 B-05-678E-CAMBER DATA FS 9 AND 10.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

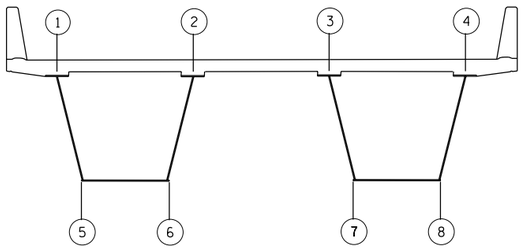
FIELD SECTION 11

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #9	P11-1	P11-2	P11-3	PIER 16	P11-5	P11-6	P11-7	FS #10
		1201+29.52	1201+38.15	1201+55.41	1201+72.66	1201+89.92	1202+07.18	1202+24.43	1202+41.69	1202+50.32
CAMBER DATA										
1	FG	662.97	662.91	662.78	662.63	662.46	662.27	662.07	661.85	661.73
LEFT GIRDER	TES	662.19	662.05	661.85	661.71	661.52	661.36	661.15	660.99	660.95
	ZW	662.03	661.92	661.70	661.49	661.29	661.15	661.00	660.87	660.81
	CW	662.03	661.95	661.77	661.60	661.42	661.24	661.07	660.89	660.81
LEFT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.05	0.06
	DL1	0.16	0.12	0.06	0.02	0.00	0.02	0.07	0.13	0.16
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.07	-0.11	-0.13	-0.10	-0.06	-0.02	0.00
2	FG	663.72	663.66	663.53	663.38	663.21	663.02	662.82	662.60	662.48
LEFT GIRDER	TES	662.94	662.80	662.60	662.46	662.27	662.11	661.90	661.74	661.71
	ZW	662.79	662.68	662.45	662.24	662.04	661.89	661.75	661.63	661.56
	CW	662.79	662.70	662.53	662.35	662.18	662.00	661.82	661.65	661.56
RIGHT WEB	SW	0.06	0.04	0.02	0.01	0.00	0.01	0.03	0.05	0.06
	DL1	0.16	0.12	0.06	0.02	0.00	0.02	0.07	0.13	0.16
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.08	-0.12	-0.13	-0.11	-0.07	-0.02	0.00
3	FG	664.47	664.41	664.28	664.13	663.96	663.77	663.57	663.35	663.23
RIGHT GIRDER	TES	663.70	663.56	663.35	663.22	663.02	662.86	662.64	662.50	662.46
	ZW	663.55	663.44	663.21	662.99	662.79	662.64	662.50	662.38	662.31
	CW	663.55	663.46	663.28	663.11	662.93	662.75	662.58	662.40	662.31
LEFT WEB	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.05	0.06
	DL1	0.16	0.13	0.07	0.02	0.00	0.02	0.06	0.13	0.17
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.07	-0.11	-0.14	-0.11	-0.08	-0.03	0.00
4	FG	665.22	665.16	665.03	664.88	664.71	664.52	664.32	664.10	663.98
RIGHT GIRDER	TES	664.45	664.31	664.10	663.97	663.77	663.61	663.39	663.25	663.21
	ZW	664.30	664.19	663.96	663.74	663.54	663.39	663.25	663.13	663.07
	CW	664.30	664.22	664.04	663.86	663.69	663.51	663.33	663.16	663.07
RIGHT WEB	SW	0.06	0.05	0.02	0.01	0.00	0.01	0.02	0.05	0.06
	DL1	0.17	0.13	0.07	0.02	0.00	0.02	0.06	0.13	0.17
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.02	-0.08	-0.12	-0.14	-0.12	-0.08	-0.03	0.00
BLOCKING HEIGHTS										
5	BLK	10.18				9.44				8.95
6		10.72				9.97				9.49
7		11.69				10.94				10.46
8		12.23				11.47				11.00

FIELD SECTION 12

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #10	P12-1	P12-2	P12-3	P12-4	P12-5	P12-6	P12-7	FS #11
		1202+50.32	1202+58.94	1202+76.20	1202+93.46	1203+10.71	1203+27.97	1203+45.22	1203+62.48	1203+71.11
CAMBER DATA										
1	FG	661.73	661.61	661.35	661.08	660.78	660.47	660.14	659.80	659.62
LEFT GIRDER	TES	660.95	660.74	660.55	660.33	660.06	659.73	659.37	658.96	658.82
	ZW	660.81	660.73	660.56	660.35	660.09	659.76	659.38	658.95	658.72
	CW	660.81	660.66	660.36	660.06	659.76	659.47	659.17	658.87	658.72
LEFT WEB	SW	0.06	0.07	0.09	0.11	0.12	0.11	0.10	0.08	0.07
	DL1	0.16	0.19	0.26	0.30	0.32	0.31	0.27	0.22	0.19
	DL2	0.02	0.02	0.03	0.03	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.08	0.20	0.29	0.33	0.30	0.21	0.08	0.00
2	FG	662.48	662.36	662.10	661.83	661.53	661.22	660.89	660.55	660.37
LEFT GIRDER	TES	661.71	661.50	661.31	661.09	660.82	660.49	660.13	659.71	659.58
	ZW	661.56	661.49	661.32	661.11	660.85	660.53	660.14	659.71	659.48
	CW	661.56	661.41	661.11	660.82	660.52	660.22	659.93	659.63	659.48
RIGHT WEB	SW	0.06	0.07	0.10	0.11	0.12	0.12	0.10	0.08	0.07
	DL1	0.16	0.20	0.26	0.31	0.33	0.32	0.28	0.22	0.19
	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.08	0.21	0.30	0.33	0.30	0.22	0.08	0.00
3	FG	663.23	663.11	662.85	662.58	662.28	661.97	661.64	661.30	661.12
RIGHT GIRDER	TES	662.46	662.25	662.07	661.85	661.58	661.25	660.88	660.47	660.34
	ZW	662.31	662.24	662.08	661.88	661.62	661.29	660.90	660.47	660.24
	CW	662.31	662.17	661.87	661.57	661.28	660.98	660.68	660.39	660.24
LEFT WEB	SW	0.06	0.07	0.10	0.11	0.12	0.12	0.10	0.08	0.07
	DL1	0.17	0.20	0.27	0.32	0.34	0.33	0.29	0.23	0.20
	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.03	0.03	0.02
	C	0.00	0.08	0.21	0.30	0.34	0.31	0.22	0.08	0.00
4	FG	663.98	663.86	663.60	663.33	663.03	662.72	662.39	662.05	661.87
RIGHT GIRDER	TES	663.21	663.01	662.83	662.61	662.34	662.01	661.64	661.23	661.09
	ZW	663.07	663.00	662.84	662.64	662.38	662.05	661.67	661.23	661.00
	CW	663.07	662.92	662.62	662.33	662.03	661.74	661.44	661.15	661.00
RIGHT WEB	SW	0.06	0.08	0.10	0.12	0.13	0.12	0.11	0.09	0.07
	DL1	0.17	0.21	0.27	0.32	0.35	0.34	0.30	0.24	0.20
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.08	0.22	0.31	0.35	0.31	0.22	0.08	0.00
BLOCKING HEIGHTS										
5	BLK	8.95								6.87
6		9.49								7.41
7		10.46								8.39
8		11.00								8.93

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 11 AND 12

SHEET 57 OF 63

883

STEEL FABRICATION CONTRACT ONLY

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E-CAMBER DATA FS 11 AND 12.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

FIELD SECTION 13

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #11 1203+71.11	P13-1 1203+79.74	P13-2 1203+96.99	P13-3 1204+14.25	PIER 17 1204+31.50	P13-5 1204+49.15	P13-6 1204+66.79	P13-7 1204+84.43	FS #12 1204+93.25
CAMBER DATA										
1 LEFT GIRDER	FG	659.62	659.43	659.05	658.65	658.23	657.78	657.32	656.83	656.58
	TES	658.82	658.56	658.10	657.73	657.28	656.84	656.31	655.88	655.70
	ZW	658.72	658.49	658.00	657.52	657.06	656.62	656.20	655.78	655.57
	CW	658.72	658.50	658.05	657.61	657.16	656.71	656.25	655.80	655.57
LEFT WEB	SW	0.07	0.05	0.03	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.19	0.15	0.08	0.03	0.00	0.01	0.03	0.08	0.10
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.01	-0.05	-0.08	-0.10	-0.08	-0.05	-0.01	0.00
2 LEFT GIRDER	FG	660.37	660.18	659.80	659.40	658.98	658.53	658.07	657.58	657.33
	TES	659.58	659.31	658.85	658.48	658.03	657.59	657.06	656.63	656.45
	ZW	659.48	659.24	658.76	658.28	657.81	657.37	656.95	656.53	656.32
	CW	659.48	659.26	658.81	658.37	657.92	657.46	657.01	656.55	656.32
RIGHT WEB	SW	0.07	0.06	0.03	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.19	0.15	0.08	0.03	0.00	0.01	0.03	0.08	0.11
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.01	-0.06	-0.09	-0.11	-0.09	-0.06	-0.02	0.00
3 RIGHT GIRDER	FG	661.12	660.93	660.55	660.15	659.73	659.28	658.82	658.33	658.08
	TES	660.34	660.07	659.61	659.24	658.78	658.34	657.81	657.38	657.20
	ZW	660.24	660.00	659.52	659.03	658.56	658.12	657.70	657.29	657.08
	CW	660.24	660.02	659.57	659.12	658.68	658.22	657.76	657.31	657.08
LEFT WEB	SW	0.07	0.06	0.03	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.20	0.16	0.09	0.04	0.00	0.01	0.04	0.08	0.11
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.01	-0.05	-0.09	-0.11	-0.10	-0.06	-0.02	0.00
4 RIGHT GIRDER	FG	661.87	661.68	661.30	660.90	660.48	660.03	659.57	659.08	658.83
	TES	661.09	660.82	660.36	659.99	659.53	659.09	658.56	658.14	657.96
	ZW	661.00	660.76	660.27	659.79	659.31	658.87	658.45	658.04	657.83
	CW	661.00	660.78	660.33	659.88	659.43	658.98	658.52	658.06	657.83
RIGHT WEB	SW	0.07	0.06	0.03	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.20	0.16	0.09	0.04	0.00	0.00	0.04	0.09	0.11
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.02	-0.06	-0.10	-0.12	-0.10	-0.07	-0.02	0.00
BLOCKING HEIGHTS										
5	BLK	6.87				5.21				3.71
6		7.41				5.74				4.25
7		8.39				6.71				5.22
8		8.93				7.24				5.76

FIELD SECTION 14

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #12 1204+93.25	P14-1 1205+02.07	P14-2 1205+19.71	P14-3 1205+37.35	P14-4 1205+55.00	P14-5 1205+72.64	P14-6 1205+90.28	PIER 18 1206+07.92	
CAMBER DATA										
1 LEFT GIRDER	FG	656.58	656.33	655.81	655.27	654.71	654.15	653.59	653.02	
	TES	655.70	655.38	654.90	654.38	653.81	653.21	652.58	651.94	
	ZW	655.57	655.35	654.88	654.36	653.78	653.17	652.52	651.85	
	CW	655.57	655.28	654.71	654.14	653.57	653.00	652.43	651.85	
LEFT WEB	SW	0.04	0.05	0.06	0.06	0.06	0.05	0.02	0.00	
	DL1	0.10	0.13	0.16	0.18	0.17	0.13	0.07	0.00	
	DL2	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.00	
	C	0.00	0.06	0.17	0.22	0.21	0.17	0.09	0.00	
2 LEFT GIRDER	FG	657.33	657.08	656.56	656.02	655.46	654.90	654.34	653.77	
	TES	656.45	656.14	655.66	655.14	654.56	653.96	653.33	652.69	
	ZW	656.32	656.10	655.64	655.12	654.54	653.93	653.27	652.61	
	CW	656.32	656.04	655.46	654.89	654.32	653.75	653.18	652.61	
RIGHT WEB	SW	0.04	0.05	0.06	0.07	0.06	0.05	0.03	0.00	
	DL1	0.11	0.13	0.17	0.18	0.17	0.13	0.07	0.00	
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00	
	C	0.00	0.07	0.17	0.22	0.22	0.18	0.09	0.00	
3 RIGHT GIRDER	FG	658.08	657.83	657.31	656.77	656.21	655.65	655.09	654.52	
	TES	657.20	656.89	656.42	655.89	655.32	654.72	654.08	653.44	
	ZW	657.08	656.86	656.39	655.88	655.30	654.68	654.03	653.35	
	CW	657.08	656.79	656.22	655.65	655.07	654.50	653.93	653.35	
LEFT WEB	SW	0.04	0.05	0.06	0.07	0.06	0.05	0.03	0.00	
	DL1	0.11	0.13	0.17	0.19	0.18	0.14	0.07	0.00	
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00	
	C	0.00	0.07	0.18	0.23	0.23	0.18	0.10	0.00	
4 RIGHT GIRDER	FG	658.83	658.58	658.06	657.52	656.96	656.40	655.84	655.27	
	TES	657.96	657.65	657.17	656.65	656.08	655.47	654.84	654.19	
	ZW	657.83	657.61	657.15	656.63	656.06	655.44	654.78	654.11	
	CW	657.83	657.54	656.97	656.40	655.83	655.25	654.68	654.11	
RIGHT WEB	SW	0.04	0.05	0.06	0.07	0.06	0.05	0.03	0.00	
	DL1	0.11	0.14	0.18	0.20	0.18	0.14	0.08	0.00	
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00	
	C	0.00	0.07	0.18	0.24	0.23	0.19	0.10	0.00	
BLOCKING HEIGHTS										
5	BLK	3.71							0.00	
6		4.25							0.54	
7		5.22							1.50	
8		5.76							2.04	

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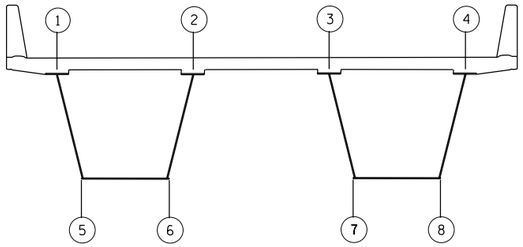

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 13 AND 14

SHEET 58 OF 63

884

STEEL FABRICATION CONTRACT ONLY

8

8

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E-CAMBER DATA FS 13 AND 14.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-76

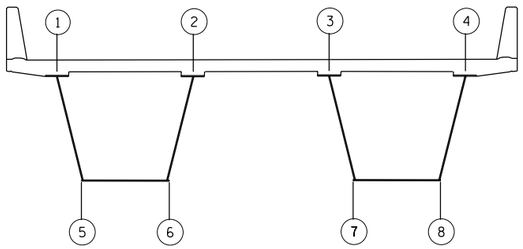
FIELD SECTION 15

HORIZ. LOC.	VALUE	POSITION AND STATION							
		PIER 18 1206+11.58	P15-2 1206+26.70	P15-3 1206+41.82	P15-4 1206+56.93	P15-5 1206+72.05	P15-6 1206+87.17	P15-7 1207+02.28	FS #13 1207+09.83
CAMBER DATA									
1	FG	652.91	652.42	651.94	651.46	650.98	650.49	650.01	649.77
LEFT GIRDER	TES	651.82	651.36	650.90	650.42	649.94	649.44	648.94	648.79
	ZW	651.74	651.29	650.83	650.35	649.87	649.37	648.86	648.60
	CW	651.74	651.26	650.77	650.29	649.81	649.33	648.84	648.60
LEFT WEB	SW	0.00	0.01	0.01	0.02	0.02	0.01	0.00	0.00
	DL1	0.00	0.02	0.04	0.04	0.04	0.02	0.01	0.00
	DL2	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
	C	0.00	0.03	0.05	0.06	0.06	0.04	0.01	0.00
2	FG	653.66	653.17	652.69	652.21	651.73	651.24	650.76	650.52
LEFT GIRDER	TES	652.57	652.11	651.65	651.17	650.69	650.19	649.69	649.54
	ZW	652.49	652.04	651.58	651.11	650.62	650.12	649.61	649.35
	CW	652.49	652.01	651.52	651.04	650.56	650.08	649.59	649.35
RIGHT WEB	SW	0.00	0.01	0.01	0.02	0.02	0.01	0.00	0.00
	DL1	0.00	0.02	0.04	0.04	0.04	0.02	0.01	0.00
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
	C	0.00	0.03	0.06	0.07	0.06	0.04	0.01	0.00
3	FG	654.41	653.92	653.44	652.96	652.48	651.99	651.51	651.27
RIGHT GIRDER	TES	653.32	652.86	652.40	651.93	651.44	650.94	650.44	650.29
	ZW	653.24	652.79	652.33	651.86	651.37	650.87	650.36	650.10
	CW	653.24	652.76	652.27	651.79	651.31	650.83	650.34	650.10
LEFT WEB	SW	0.00	0.01	0.02	0.02	0.02	0.01	0.00	0.00
	DL1	0.00	0.02	0.04	0.04	0.04	0.03	0.01	0.00
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
	C	0.00	0.03	0.06	0.07	0.06	0.04	0.02	0.00
4	FG	655.16	654.67	654.19	653.71	653.23	652.74	652.26	652.02
RIGHT GIRDER	TES	654.07	653.62	653.15	652.68	652.19	651.69	651.19	651.04
	ZW	653.99	653.54	653.08	652.61	652.12	651.62	651.11	650.85
	CW	653.99	653.51	653.02	652.54	652.06	651.58	651.09	650.85
RIGHT WEB	SW	0.00	0.01	0.02	0.02	0.02	0.01	0.00	0.00
	DL1	0.00	0.02	0.04	0.04	0.04	0.03	0.01	0.00
	DL2	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
	C	0.00	0.03	0.06	0.07	0.06	0.05	0.02	0.00
BLOCKING HEIGHTS									
5	BLK	31.64							28.50
6		32.18							29.04
7		33.14							30.00
8		33.68							30.54

FIELD SECTION 16

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS #13 1207+09.83	P16-1 1207+17.40	P16-2 1207+32.52	P16-3 1207+47.63	PIER 19 1207+62.75	P16-5 1207+80.39	P16-6 1207+98.04	FS #14 1208+06.84
CAMBER DATA									
1	FG	649.77	649.53	649.05	648.57	648.08	647.52	646.96	646.68
LEFT GIRDER	TES	648.79	648.50	648.00	647.58	647.12	646.63	646.09	645.91
	ZW	648.60	648.35	647.84	647.37	646.92	646.44	645.99	645.78
	CW	648.60	648.38	647.94	647.50	647.06	646.55	646.04	645.78
LEFT WEB	SW	0.00	0.00	-0.01	-0.01	0.00	0.02	0.05	0.07
	DL1	0.00	-0.01	-0.03	-0.02	0.00	0.06	0.14	0.18
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.03	-0.10	-0.13	-0.15	-0.11	-0.04	0.00
2	FG	650.52	650.28	649.80	649.32	648.83	648.27	647.71	647.43
LEFT GIRDER	TES	649.54	649.25	648.75	648.33	647.87	647.38	646.85	646.67
	ZW	649.35	649.10	648.59	648.12	647.67	647.19	646.75	646.54
	CW	649.35	649.13	648.69	648.26	647.82	647.30	646.79	646.54
RIGHT WEB	SW	0.00	0.00	-0.01	-0.01	0.00	0.02	0.05	0.07
	DL1	0.00	-0.01	-0.03	-0.02	0.00	0.06	0.14	0.19
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.03	-0.10	-0.14	-0.15	-0.11	-0.04	0.00
3	FG	651.27	651.03	650.55	650.07	649.58	649.02	648.46	648.18
RIGHT GIRDER	TES	650.29	650.00	649.50	649.08	648.62	648.13	647.60	647.42
	ZW	650.10	649.85	649.34	648.87	648.42	647.95	647.51	647.30
	CW	650.10	649.88	649.45	649.01	648.57	648.06	647.55	647.30
LEFT WEB	SW	0.00	0.00	-0.01	-0.01	0.00	0.02	0.05	0.07
	DL1	0.00	-0.01	-0.03	-0.02	0.00	0.06	0.15	0.20
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.03	-0.10	-0.14	-0.15	-0.11	-0.04	0.00
4	FG	652.02	651.78	651.30	650.82	650.33	649.77	649.21	648.93
RIGHT GIRDER	TES	651.04	650.75	650.25	649.83	649.37	648.89	648.36	648.18
	ZW	650.85	650.60	650.09	649.61	649.17	648.70	648.26	648.05
	CW	650.85	650.63	650.20	649.76	649.33	648.82	648.31	648.05
RIGHT WEB	SW	0.00	0.00	-0.01	-0.01	0.00	0.02	0.05	0.07
	DL1	0.00	-0.01	-0.03	-0.02	0.00	0.07	0.15	0.20
	DL2	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.11	-0.15	-0.16	-0.12	-0.04	0.00
BLOCKING HEIGHTS									
5	BLK	28.50				26.82			25.68
6		29.04				27.35			26.22
7		30.00				28.32			27.20
8		30.54				28.85			27.74

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 15 AND 16

SHEET 59 OF 63

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\059 B-05-678E-CAMBER DATA FS 15 AND 16.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

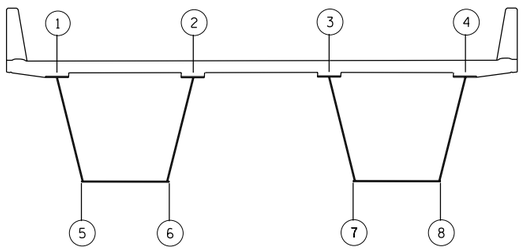
1133-11-76

FIELD SECTION 17

HORIZ. LOC.	VALUE	POSITION AND STATION									
		FS "14 1208+06.84	P17-1 1208+15.68	P17-2 1208+33.32	P17-3 1208+50.96	P17-4 1208+68.61	P17-5 1208+86.25	P17-6 1209+03.89	P17-7 1209+21.54	P17-8 1209+39.18	FS "15 1209+47.99
CAMBER DATA											
1	FG	646.68	646.39	645.83	645.27	644.71	644.14	643.58	643.02	642.46	642.17
LEFT GIRDER	TES	645.91	645.59	645.11	644.63	644.11	643.55	642.96	642.34	641.69	641.45
	ZW	645.78	645.56	645.12	644.66	644.15	643.60	643.00	642.35	641.68	641.33
	CW	645.78	645.50	644.94	644.39	643.83	643.28	642.72	642.17	641.61	641.33
LEFT WEB	SW	0.07	0.08	0.11	0.13	0.15	0.15	0.14	0.12	0.09	0.08
	DL1	0.18	0.23	0.31	0.38	0.42	0.43	0.40	0.34	0.27	0.22
	DL2	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.06	0.18	0.27	0.32	0.32	0.27	0.19	0.07	0.00
2	FG	647.43	647.14	646.58	646.02	645.46	644.89	644.33	643.77	643.21	642.92
LEFT GIRDER	TES	646.67	646.34	645.88	645.39	644.87	644.32	643.72	643.10	642.45	642.21
	ZW	646.54	646.32	645.89	645.42	644.92	644.37	643.77	643.12	642.44	642.09
	CW	646.54	646.26	645.70	645.15	644.59	644.04	643.48	642.93	642.37	642.09
RIGHT WEB	SW	0.07	0.08	0.11	0.14	0.15	0.16	0.15	0.13	0.10	0.08
	DL1	0.19	0.24	0.32	0.39	0.43	0.44	0.41	0.36	0.28	0.23
	DL2	0.02	0.03	0.03	0.04	0.05	0.05	0.04	0.04	0.03	0.02
	C	0.00	0.06	0.18	0.28	0.33	0.33	0.28	0.19	0.07	0.00
3	FG	648.18	647.89	647.33	646.77	646.21	645.64	645.08	644.52	643.96	643.67
RIGHT GIRDER	TES	647.42	647.10	646.64	646.15	645.64	645.08	644.49	643.86	643.21	642.97
	ZW	647.30	647.08	646.65	646.19	645.69	645.14	644.53	643.89	643.20	642.85
	CW	647.30	647.02	646.46	645.91	645.35	644.80	644.24	643.69	643.13	642.85
LEFT WEB	SW	0.07	0.09	0.12	0.14	0.16	0.16	0.15	0.13	0.10	0.08
	DL1	0.20	0.24	0.33	0.40	0.45	0.46	0.42	0.37	0.28	0.24
	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.05	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.29	0.34	0.34	0.29	0.20	0.07	0.00
4	FG	648.93	648.64	648.08	647.52	646.96	646.39	645.83	645.27	644.71	644.42
RIGHT GIRDER	TES	648.18	647.86	647.40	646.92	646.40	645.85	645.25	644.62	643.97	643.73
	ZW	648.05	647.84	647.42	646.96	646.46	645.91	645.30	644.65	643.97	643.61
	CW	648.05	647.78	647.22	646.67	646.11	645.56	645.00	644.45	643.89	643.61
RIGHT WEB	SW	0.07	0.09	0.12	0.15	0.16	0.17	0.15	0.13	0.10	0.09
	DL1	0.20	0.25	0.34	0.42	0.46	0.47	0.44	0.38	0.29	0.24
	DL2	0.02	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.07	0.19	0.29	0.35	0.36	0.30	0.21	0.08	0.00
BLOCKING HEIGHTS											
5	BLK	25.68									21.23
6		26.22									21.78
7		27.20									22.75
8		27.74									23.30

FIELD SECTION 18

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS "15 1209+47.99	P18-1 1209+56.82	P18-2 1209+74.46	P18-3 1209+92.11	PIER 20 1210+09.75	P18-5 1210+27.39	P18-6 1210+45.04	P18-7 1210+62.68	FS "16 1210+71.49
CAMBER DATA										
1	FG	642.17	641.89	641.33	640.77	640.20	639.64	639.08	638.52	638.23
LEFT GIRDER	TES	641.45	641.07	640.41	639.86	639.27	638.71	638.10	637.59	637.39
	ZW	641.33	640.99	640.30	639.65	639.04	638.49	637.97	637.48	637.24
	CW	641.33	641.04	640.45	639.87	639.28	638.70	638.11	637.53	637.24
LEFT WEB	SW	0.08	0.06	0.03	0.01	0.00	0.00	0.02	0.03	0.04
	DL1	0.22	0.18	0.10	0.03	0.00	0.01	0.04	0.08	0.11
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.05	-0.15	-0.22	-0.25	-0.21	-0.14	-0.05	0.00
2	FG	642.92	642.64	642.08	641.52	640.95	640.39	639.83	639.27	638.98
LEFT GIRDER	TES	642.21	641.82	641.17	640.62	640.02	639.46	638.85	638.34	638.14
	ZW	642.09	641.74	641.06	640.40	639.79	639.24	638.72	638.23	637.99
	CW	642.09	641.80	641.21	640.63	640.04	639.46	638.87	638.28	637.99
RIGHT WEB	SW	0.08	0.06	0.03	0.01	0.00	0.00	0.02	0.03	0.04
	DL1	0.23	0.18	0.10	0.03	0.00	0.01	0.04	0.08	0.11
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.06	-0.16	-0.23	-0.25	-0.22	-0.15	-0.05	0.00
3	FG	643.67	643.39	642.83	642.27	641.70	641.14	640.58	640.02	639.73
RIGHT GIRDER	TES	642.97	642.58	641.92	641.37	640.77	640.21	639.60	639.09	638.90
	ZW	642.85	642.50	641.81	641.15	640.54	639.99	639.47	638.98	638.75
	CW	642.85	642.56	641.97	641.39	640.80	640.21	639.63	639.04	638.75
LEFT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.02	0.04	0.05
	DL1	0.24	0.19	0.10	0.03	0.00	0.01	0.04	0.09	0.11
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.06	-0.16	-0.24	-0.26	-0.23	-0.15	-0.05	0.00
4	FG	644.42	644.14	643.58	643.02	642.45	641.89	641.33	640.77	640.48
RIGHT GIRDER	TES	643.73	643.34	642.67	642.12	641.52	640.96	640.35	639.85	639.65
	ZW	643.61	643.26	642.56	641.90	641.29	640.74	640.22	639.74	639.50
	CW	643.61	643.32	642.73	642.14	641.56	640.97	640.38	639.79	639.50
RIGHT WEB	SW	0.09	0.07	0.04	0.01	0.00	0.00	0.02	0.04	0.05
	DL1	0.24	0.20	0.10	0.04	0.00	0.01	0.04	0.09	0.12
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.06	-0.17	-0.24	-0.27	-0.23	-0.16	-0.06	0.00
BLOCKING HEIGHTS										
5	BLK	21.23				18.94				17.14
6		21.78				19.47				17.68
7		22.75				20.44				18.65
8		23.30				20.97				19.19



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 17 AND 18

SHEET 60 OF 63

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STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\060 B-05-678E-CAMBER DATA FS 17 AND18.dgn

DATE: 4/30/2013

I.D.

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STATE PROJECT NUMBER

1133-11-76

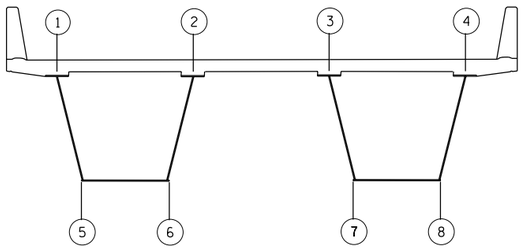
FIELD SECTION 19

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #16 1210+71.49	P19-1 1210+80.32	P19-2 1210+97.96	P19-3 1211+15.61	P19-4 1211+33.25	P19-5 1211+50.89	P19-6 1211+68.54	P19-7 1211+86.18	FS #17 1211+94.99
CAMBER DATA										
1	FG	638.23	637.95	637.39	636.83	636.26	635.70	635.14	634.58	634.29
LEFT GIRDER	TES	637.39	637.05	636.54	636.01	635.46	634.88	634.28	633.66	633.44
	ZW	637.24	637.00	636.50	635.99	635.44	634.86	634.24	633.60	633.28
	CW	637.24	636.95	636.39	635.82	635.26	634.69	634.13	633.56	633.28
LEFT WEB	SW	0.04	0.05	0.07	0.08	0.09	0.08	0.07	0.05	0.04
	DL1	0.11	0.14	0.18	0.22	0.23	0.21	0.18	0.13	0.10
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.04	0.12	0.17	0.19	0.16	0.12	0.04	0.00
2	FG	638.98	638.70	638.14	637.58	637.01	636.45	635.89	635.33	635.04
LEFT GIRDER	TES	638.14	637.80	637.29	636.77	636.22	635.64	635.03	634.41	634.19
	ZW	637.99	637.75	637.26	636.75	636.20	635.62	635.00	634.36	634.03
	CW	637.99	637.71	637.14	636.58	636.01	635.45	634.88	634.31	634.03
RIGHT WEB	SW	0.04	0.06	0.07	0.08	0.09	0.08	0.07	0.05	0.04
	DL1	0.11	0.14	0.19	0.22	0.23	0.22	0.18	0.13	0.10
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.04	0.12	0.17	0.19	0.17	0.12	0.04	0.00
3	FG	639.73	639.45	638.89	638.33	637.76	637.20	636.64	636.08	635.79
RIGHT GIRDER	TES	638.90	638.56	638.05	637.52	636.98	636.39	635.79	635.17	634.95
	ZW	638.75	638.51	638.02	637.51	636.96	636.37	635.76	635.11	634.79
	CW	638.75	638.46	637.90	637.33	636.77	636.20	635.63	635.07	634.79
LEFT WEB	SW	0.05	0.06	0.07	0.09	0.09	0.08	0.07	0.05	0.04
	DL1	0.11	0.14	0.19	0.23	0.24	0.22	0.19	0.13	0.10
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.04	0.12	0.18	0.20	0.17	0.12	0.04	0.00
4	FG	640.48	640.20	639.64	639.08	638.51	637.95	637.39	636.83	636.54
RIGHT GIRDER	TES	639.65	639.31	638.81	638.28	637.73	637.15	636.55	635.92	635.70
	ZW	639.50	639.26	638.78	638.27	637.72	637.13	636.51	635.87	635.54
	CW	639.50	639.22	638.65	638.09	637.52	636.95	636.39	635.82	635.54
RIGHT WEB	SW	0.05	0.06	0.08	0.09	0.09	0.09	0.07	0.05	0.04
	DL1	0.12	0.15	0.20	0.23	0.25	0.23	0.19	0.14	0.11
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.05	0.13	0.18	0.20	0.18	0.13	0.04	0.00
BLOCKING HEIGHTS										
5	BLK	17.14								13.18
6		17.68								13.72
7		18.65								14.69
8		19.19								15.23

FIELD SECTION 20

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #17 1211+94.99	P20-1 1212+03.82	P20-2 1212+21.46	P20-3 1212+39.11	PIER 21 1212+56.75	P20-5 1212+74.39	P20-6 1212+92.04	P20-7 1213+09.68	FS #18 1213+18.49
CAMBER DATA										
1	FG	634.29	634.01	633.45	632.89	632.32	631.76	631.20	630.64	630.36
LEFT GIRDER	TES	633.44	633.07	632.46	631.95	631.39	630.87	630.30	629.82	629.64
	ZW	633.28	632.95	632.32	631.71	631.16	630.66	630.19	629.75	629.53
	CW	633.28	633.01	632.47	631.94	631.40	630.87	630.33	629.80	629.53
LEFT WEB	SW	0.04	0.03	0.01	0.00	0.00	0.02	0.04	0.07	0.09
	DL1	0.10	0.07	0.02	-0.01	0.00	0.04	0.11	0.19	0.23
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.06	-0.16	-0.22	-0.24	-0.21	-0.14	-0.05	0.00
2	FG	635.04	634.76	634.20	633.64	633.07	632.51	631.95	631.39	631.11
LEFT GIRDER	TES	634.19	633.83	633.21	632.69	632.14	631.62	631.05	630.58	630.40
	ZW	634.03	633.71	633.07	632.46	631.91	631.41	630.95	630.50	630.29
	CW	634.03	633.76	633.23	632.69	632.16	631.62	631.09	630.56	630.29
RIGHT WEB	SW	0.04	0.03	0.01	0.00	0.00	0.02	0.04	0.07	0.09
	DL1	0.10	0.07	0.02	-0.01	0.00	0.04	0.11	0.19	0.24
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.06	-0.16	-0.23	-0.25	-0.22	-0.14	-0.05	0.00
3	FG	635.79	635.51	634.95	634.39	633.82	633.26	632.70	632.14	631.86
RIGHT GIRDER	TES	634.95	634.58	633.96	633.45	632.89	632.37	631.80	631.33	631.16
	ZW	634.79	634.46	633.82	633.21	632.66	632.16	631.70	631.26	631.05
	CW	634.79	634.52	633.98	633.45	632.92	632.38	631.85	631.32	631.05
LEFT WEB	SW	0.04	0.03	0.01	0.00	0.00	0.02	0.04	0.08	0.09
	DL1	0.10	0.07	0.02	-0.01	0.00	0.05	0.11	0.20	0.24
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.03
	C	0.00	-0.06	-0.16	-0.24	-0.26	-0.22	-0.15	-0.05	0.00
4	FG	636.54	636.26	635.70	635.14	634.57	634.01	633.45	632.89	632.61
RIGHT GIRDER	TES	635.70	635.33	634.71	634.19	633.64	633.12	632.56	632.09	631.91
	ZW	635.54	635.21	634.57	633.96	633.41	632.91	632.46	632.02	631.81
	CW	635.54	635.27	634.74	634.21	633.67	633.14	632.61	632.08	631.81
RIGHT WEB	SW	0.04	0.03	0.01	0.00	0.00	0.02	0.04	0.08	0.09
	DL1	0.11	0.07	0.02	-0.01	0.00	0.05	0.12	0.20	0.25
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.03
	C	0.00	-0.06	-0.17	-0.24	-0.27	-0.23	-0.15	-0.05	0.00
BLOCKING HEIGHTS										
5	BLK	13.18				11.06				9.43
6		13.72				11.59				9.97
7		14.69				12.56				10.95
8		15.23				13.09				11.50

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 19 AND 20

SHEET 61 OF 63

887

DATE: 4/30/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-678E\061 B-05-678E-CAMBER DATA FS 19 AND 20.dgn

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8

STATE PROJECT NUMBER

1133-11-76

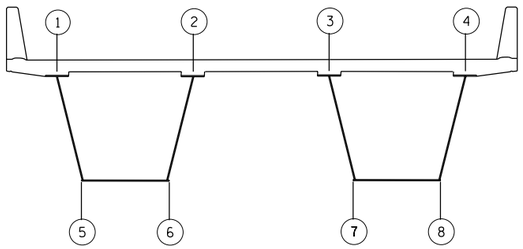
FIELD SECTION 21

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #18 1213+18.49	P21-1 1213+27.32	P21-2 1213+44.96	P21-3 1213+62.61	P21-4 1213+80.25	P21-5 1213+97.89	P21-6 1214+15.54	P21-7 1214+33.18	FS #19 1214+41.99
CAMBER DATA										
1 LEFT GIRDER	FG	630.36	630.07	629.51	628.95	628.39	627.82	627.28	626.73	626.46
	TES	629.64	629.31	628.83	628.32	627.79	627.22	626.63	626.00	625.78
	ZW	629.53	629.31	628.85	628.37	627.84	627.26	626.66	626.01	625.68
	CW	629.53	629.25	628.70	628.15	627.61	627.06	626.51	625.96	625.68
LEFT WEB	SW	0.09	0.10	0.13	0.15	0.16	0.15	0.14	0.11	0.10
	DL1	0.23	0.27	0.35	0.40	0.42	0.41	0.37	0.30	0.26
	DL2	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.05	0.15	0.21	0.24	0.21	0.16	0.05	0.00
2 LEFT GIRDER	FG	631.11	630.82	630.26	629.70	629.14	628.57	628.03	627.48	627.21
	TES	630.40	630.07	629.59	629.09	628.56	627.98	627.39	626.76	626.54
	ZW	630.29	630.07	629.62	629.14	628.61	628.03	627.43	626.78	626.44
	CW	630.29	630.01	629.46	628.92	628.37	627.82	627.27	626.72	626.44
RIGHT WEB	SW	0.09	0.11	0.13	0.15	0.16	0.16	0.14	0.12	0.10
	DL1	0.24	0.28	0.36	0.41	0.44	0.43	0.38	0.31	0.27
	DL2	0.02	0.03	0.04	0.04	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.06	0.15	0.22	0.25	0.22	0.16	0.06	0.00
3 RIGHT GIRDER	FG	631.86	631.57	631.01	630.45	629.89	629.32	628.78	628.23	627.96
	TES	631.16	630.83	630.35	629.85	629.32	628.75	628.16	627.53	627.30
	ZW	631.05	630.83	630.39	629.91	629.38	628.80	628.20	627.54	627.21
	CW	631.05	630.77	630.23	629.68	629.13	628.58	628.03	627.48	627.21
LEFT WEB	SW	0.09	0.11	0.14	0.16	0.17	0.16	0.15	0.12	0.10
	DL1	0.24	0.29	0.37	0.42	0.45	0.44	0.40	0.32	0.28
	DL2	0.03	0.03	0.04	0.04	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.06	0.16	0.23	0.25	0.22	0.17	0.06	0.00
4 RIGHT GIRDER	FG	632.61	632.32	631.76	631.20	630.64	630.07	629.53	628.98	628.71
	TES	631.91	631.59	631.12	630.62	630.09	629.51	628.92	628.29	628.06
	ZW	631.81	631.59	631.15	630.67	630.15	629.57	628.97	628.31	627.97
	CW	631.81	631.53	630.99	630.44	629.89	629.34	628.79	628.24	627.97
RIGHT WEB	SW	0.09	0.11	0.14	0.16	0.17	0.17	0.15	0.12	0.11
	DL1	0.25	0.30	0.38	0.43	0.46	0.45	0.41	0.33	0.29
	DL2	0.03	0.03	0.04	0.05	0.05	0.05	0.04	0.04	0.03
	C	0.00	0.06	0.17	0.24	0.26	0.23	0.17	0.06	0.00
BLOCKING HEIGHTS										
5	BLK	9.43								5.58
6		9.97								6.13
7		10.95								7.11
8		11.50								7.66

FIELD SECTION 22

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #19 1214+41.99	P22-1 1214+50.82	P22-2 1214+68.46	P22-3 1214+86.11	PIER 22 1215+03.75	P22-5 1215+18.58	P22-6 1215+33.40	P22-7 1215+48.23	FS #20 1215+55.63
CAMBER DATA										
1 LEFT GIRDER	FG	626.46	626.19	625.67	625.17	624.68	624.29	623.90	623.53	623.35
	TES	625.78	625.42	624.80	624.27	623.72	623.31	622.85	622.49	622.36
	ZW	625.68	625.35	624.70	624.09	623.52	623.09	622.70	622.34	622.17
	CW	625.68	625.41	624.86	624.32	623.77	623.32	622.86	622.40	622.17
LEFT WEB	SW	0.10	0.08	0.05	0.02	0.00	-0.01	-0.01	-0.01	0.00
	DL1	0.26	0.22	0.13	0.06	0.00	-0.02	-0.03	-0.02	-0.01
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	C	0.00	-0.06	-0.16	-0.23	-0.26	-0.22	-0.16	-0.06	0.00
2 LEFT GIRDER	FG	627.21	626.94	626.42	625.92	625.43	625.04	624.65	624.28	624.10
	TES	626.54	626.17	625.55	625.02	624.47	624.06	623.60	623.24	623.11
	ZW	626.44	626.11	625.46	624.84	624.27	623.84	623.45	623.09	622.92
	CW	626.44	626.17	625.62	625.08	624.53	624.07	623.61	623.15	622.92
RIGHT WEB	SW	0.10	0.08	0.05	0.02	0.00	-0.01	-0.01	-0.01	0.00
	DL1	0.27	0.23	0.14	0.06	0.00	-0.02	-0.03	-0.02	-0.01
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	C	0.00	-0.06	-0.17	-0.24	-0.26	-0.23	-0.16	-0.06	0.00
3 RIGHT GIRDER	FG	627.96	627.69	627.17	626.67	626.18	625.79	625.40	625.03	624.85
	TES	627.30	626.93	626.31	625.78	625.22	624.81	624.35	623.99	623.86
	ZW	627.21	626.87	626.21	625.59	625.02	624.59	624.20	623.84	623.67
	CW	627.21	626.93	626.38	625.83	625.29	624.82	624.36	623.90	623.67
LEFT WEB	SW	0.10	0.09	0.05	0.02	0.00	-0.01	-0.01	-0.01	0.00
	DL1	0.28	0.24	0.14	0.06	0.00	-0.02	-0.03	-0.02	-0.01
	DL2	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00
	C	0.00	-0.06	-0.17	-0.24	-0.27	-0.23	-0.17	-0.06	0.00
4 RIGHT GIRDER	FG	628.71	628.44	627.92	627.42	626.93	626.54	626.15	625.78	625.60
	TES	628.06	627.69	627.06	626.53	625.97	625.56	625.10	624.74	624.61
	ZW	627.97	627.63	626.97	626.34	625.77	625.34	624.94	624.59	624.42
	CW	627.97	627.69	627.14	626.59	626.04	625.58	625.11	624.65	624.42
RIGHT WEB	SW	0.11	0.09	0.05	0.02	0.00	-0.01	-0.01	-0.01	0.00
	DL1	0.29	0.24	0.15	0.06	0.00	-0.02	-0.03	-0.02	-0.01
	DL2	0.03	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00
	C	0.00	-0.06	-0.17	-0.25	-0.27	-0.24	-0.17	-0.06	0.00
BLOCKING HEIGHTS										
5	BLK	5.58				3.42				2.07
6		6.13				3.95				2.61
7		7.11				4.92				3.57
8		7.66				5.45				4.11

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 21 AND 22

SHEET 62 OF 63

888

DATE: 4/30/2013

I.D.

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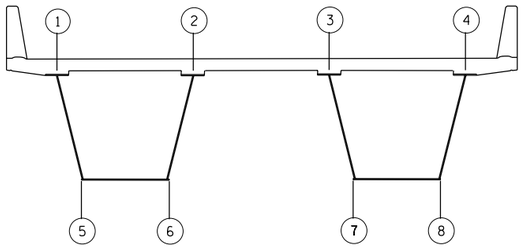
STATE PROJECT NUMBER

1133-11-76

FIELD SECTION 23

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS "20 1215+55.63	P23-1 1215+63.05	P23-2 1215+77.88	P23-3 1215+92.70	P23-4 1216+07.53	P23-5 1216+22.35	P23-6 1216+37.18	W. ABUT. 1216+52.00
CAMBER DATA									
1	FG	623.35	623.17	622.82	622.49	622.17	621.85	621.55	621.27
LEFT GIRDER	TES	622.36	622.09	621.76	621.44	621.12	620.80	620.49	620.18
	ZW	622.17	622.01	621.68	621.36	621.05	620.73	620.41	620.10
	CW	622.17	622.01	621.69	621.37	621.06	620.74	620.42	620.10
LEFT WEB	SW	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00
	DL1	-0.01	0.00	0.01	0.03	0.03	0.03	0.02	0.00
	DL2	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
	C	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00
2	FG	624.10	623.92	623.57	623.24	622.92	622.60	622.30	622.02
LEFT GIRDER	TES	623.11	622.84	622.51	622.19	621.87	621.55	621.24	620.93
	ZW	622.92	622.76	622.43	622.12	621.80	621.48	621.16	620.85
	CW	622.92	622.76	622.44	622.12	621.81	621.49	621.17	620.85
RIGHT WEB	SW	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00
	DL1	-0.01	0.00	0.02	0.03	0.03	0.03	0.02	0.00
	DL2	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
	C	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00
3	FG	624.85	624.67	624.32	623.99	623.67	623.35	623.05	622.77
RIGHT GIRDER	TES	623.86	623.59	623.26	622.94	622.62	622.31	621.99	621.68
	ZW	623.67	623.51	623.18	622.87	622.55	622.23	621.91	621.60
	CW	623.67	623.51	623.19	622.87	622.55	622.24	621.92	621.60
LEFT WEB	SW	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00
	DL1	-0.01	0.00	0.02	0.03	0.03	0.03	0.02	0.00
	DL2	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
	C	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00
4	FG	625.60	625.42	625.07	624.74	624.42	624.10	623.80	623.52
RIGHT GIRDER	TES	624.61	624.34	624.01	623.69	623.37	623.06	622.74	622.43
	ZW	624.42	624.26	623.94	623.62	623.30	622.99	622.67	622.35
	CW	624.42	624.26	623.94	623.62	623.30	622.99	622.67	622.35
RIGHT WEB	SW	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00
	DL1	-0.01	0.00	0.02	0.03	0.04	0.03	0.02	0.00
	DL2	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
	C	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00
BLOCKING HEIGHTS									
5	BLK	2.07							0.00
6		2.61							0.54
7		3.57							1.50
8		4.11							2.04

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTE:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-678

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTION 23

SHEET 63 OF 63

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-678E\063 B-05-678E-CAMBER DATA FS 23.dgn

DATE: 4/30/2013

I.D.

STATE PROJECT NUMBER

1133-11-74

℄ USH 41 NB TO IH 43 SB
(RAMP 'IHA')

℄ WEITOR DRIVE

EXISTING IH 43 SB

EXISTING IH 43 NB

℄ USH 41 NB

EXISTING USH 41 SB

EXISTING USH 41 NB

℄ USH 41 SB

℄ USH 41 SB TO IH 43 SB
(RAMP 'SIH')

℄ IH 43 NB TO USH 41 NB
(RAMP 'NIH')

EXISTING IH 43 NB TO USH 41 NB

ACCESS HATCH LOCATION

EXISTING USH 41 NB TO IH 43 SB

S. ABUTMENT

170'-5"

PIER 1

248'-0"

PIER 2

248'-0"

PIER 3

248'-0"

PIER 4

172'-0"

PIER 5

172'-0"

PIER 6

248'-0"

PIER 7

248'-0"

PIER 8

248'-0"

PIER 9

182'-8"

1086'-5" UNIT 1

1098'-8" UNIT 2

MODULAR EXPANSION JOINT

COMMON PIER C1

MODULAR EXPANSION JOINT

STRUCTURE B-5-681

℄ IH 43 NB TO USH 41 SB
(RAMP 'IHB')

R-5-256

MODULAR EXPANSION JOINT

ACCESS HATCH LOCATION

FILE NAME : P:\153 USH 41 1133-10-00 ERS\Structures\B-5-679\001_site plan_v8_b-5-679.dgn
PLOT DATE : 5/30/2013

8

NO.	DATE	REVISION	BY

Original Plans Prepared By
ROMENESKO ENGINEERING, INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 06/03/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-679

IH 43 NB TO USH 41 NB (RAMP 'NIH')

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TR	VR	TAW	TR

SITE PLAN
B-5-679

SHEET 1 OF 91
890

I.D. 1133-10-00 DATE : $$...date...$$

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER
5/31/13

ROMENESKO ENGINEERING, INC.
CONTACT: TOM ROMENESKO, P.E.
7325 CEDAR CREST DRIVE
SAUK CITY, WI 53583
(608) 644-1502

BRIDGE OFFICE CONTACT:
WILLIAM DREHER, P.E.
(608) 266-8489

NE REGION CONTACT:
DANIELLE BLOCK
(920) 492-2212

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

STATE PROJECT NUMBER

1133-11-74

LIST OF DRAWINGS

1. SITE PLAN B-5-679
2. DRAWING LIST AND GENERAL NOTES
3. GENERAL PLAN AND ELEVATION - SPANS 1-3
4. GENERAL PLAN AND ELEVATION - SPANS 4-6
5. GENERAL PLAN AND ELEVATION - SPANS 7-8
6. GENERAL PLAN AND ELEVATION - SPANS 9-10
7. CROSS SECTION
8. QUANTITIES
9. ALIGNMENT & SUPERELEVATION
10. SUBSURFACE EXPLORATION
11. SUBSURFACE EXPLORATION
12. SUBSURFACE EXPLORATION
13. SOUTH ABUTMENT
14. SOUTH ABUTMENT
15. SOUTH ABUTMENT
16. WING 1
17. SOUTH ABUTMENT DETAILS
18. PIER 1 LAYOUT DETAILS
19. PIER 2 LAYOUT DETAILS
20. PIER 3 LAYOUT DETAILS
21. PIERS 4, 6, 7, & 8 LAYOUT DETAILS
22. PIER 5 LAYOUT DETAILS
23. PIER 9 LAYOUT DETAILS
24. PIER C1 LAYOUT DETAILS
25. PIER CAP DETAILS - PIERS 1, 2, 4 & 6 THRU 8
26. PIER CAP DETAILS - PIERS 1, 2, 4 & 6 THRU 8
27. PIER CAP DETAILS - PIERS 3 & 9
28. PIER CAP DETAILS - PIERS 3 & 9
29. PIER CAP DETAILS - PIER 5
30. PIER CAP DETAILS - PIER 5
31. PIER CAP DETAILS - PIER C1
32. PIER CAP DETAILS - PIER C1
33. BILL OF BARS - PIER CAP
34. SHAFT DETAILS - PIER 1
35. SHAFT DETAILS - PIER 2
36. SHAFT DETAILS - PIER 3
37. SHAFT DETAILS - PIER 4
38. SHAFT DETAILS - PIERS 5, 7, & C1
39. SHAFT DETAILS - PIER 6
40. SHAFT DETAILS - PIER 8
41. SHAFT DETAILS - PIER 9
42. BILL OF BARS - SHAFT
43. PIER FOOTING DETAILS
44. PIER FOOTING DETAILS
45. BEARING PEDESTAL DETAILS
46. TYPICAL DECK SECTION
47. DECK REINFORCEMENT - SPANS 1-3
48. DECK REINFORCEMENT - SPAN 4-6
49. DECK REINFORCEMENT - SPANS 7-8
50. DECK REINFORCEMENT - SPANS 9-10
51. PARAPET TRANSITION DETAILS
52. SUPERSTRUCTURE BILL OF BARS
53. TOP OF DECK ELEVATIONS
54. TOP OF DECK ELEVATIONS
55. SINGLE SLOPE PARAPET 32SS
56. SOUTH APPROACH APRON DETAILS
57. SOUTH APPROACH APRON DETAILS
58. MODULAR EXPANSION JOINT SOUTH ABUTMENT
59. MODULAR EXPANSION JOINT AT PIER 5
60. MODULAR EXPANSION JOINT AT PIER C1
61. MODULAR EXPANSION JOINT DETAILS
62. MODULAR EXPANSION JOINT DETAILS
63. MODULAR EXPANSION JOINT COVER PLATES
64. REINFORCING AT EXPANSION JOINT
65. LIGHT STANDARD
66. PARAPET ELECTRICAL WORK
67. ELECTRICAL SITE PLAN B-5-679
68. GIRDER LIGHTING PLAN & ELEV UNIT 1 - SPAN 1
69. GIRDER LIGHTING PLAN & ELEV UNIT 1 - SPAN 2
70. GIRDER LIGHTING PLAN & ELEV UNIT 1 - SPAN 3
71. GIRDER LIGHTING PLAN & ELEV UNIT 1 - SPAN 4
72. GIRDER LIGHTING PLAN & ELEV UNIT 1 - SPAN 5
73. GIRDER LIGHTING PLAN & ELEV UNIT 2 - SPAN 6
74. GIRDER LIGHTING PLAN & ELEV UNIT 2 - SPAN 7
75. GIRDER LIGHTING PLAN & ELEV UNIT 2 - SPAN 8
76. GIRDER LIGHTING PLAN & ELEV UNIT 2 - SPAN 9
77. GIRDER LIGHTING PLAN & ELEV UNIT 2 - SPAN 10
78. ELECTRICAL BOX GIRDER DETAILS
79. ELECTRICAL BOX GIRDER DETAIL 2
80. ELECTRICAL CROSS SECTION AT PIER
81. AESTHETIC DETAILS
82. FLOOR DRAIN TYPE 'GC'
83. FLOOR DRAIN DETAILS
84. FLOOR DRAIN DETAILS - 2
85. DECK FORM DETAILS
86. SLOPE PAVING SELECT CRUSHED MATERIAL
87. DECK POUR SEQUENCE UNIT 1 - SPANS 1-3
88. DECK POUR SEQUENCE UNITS 1 & 2 - SPANS 4-6
89. DECK POUR SEQUENCE UNIT 2 - SPANS 7-8
90. DECK POUR SEQUENCE UNIT 2 - SPANS 9-10
91. BEARING DETAILS

GENERAL NOTES

THIS CONTRACT INCLUDES ERECTING STRUCTURAL STEEL AND BEARINGS AND FURNISHING AND CONSTRUCTING/INSTALLING EXPANSION DEVICES, SHEAR STUD CONNECTORS, LIGHTING SYSTEMS, CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURES, INCLUDING FOUNDATIONS AND AESTHETICS, AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

"STEEL FABRICATION CONTRACT" PLANS ARE ATTACHED TO THESE "STEEL ERECTION AND SITE CONSTRUCTION CONTRACT" PLANS FOR REFERENCE. USE FOR ERECTION AND INSTALLATION OF STEEL GIRDERS AND BEARINGS UNDER THIS CONTRACT.

SHOP DRAWINGS ARE AVAILABLE UPON REQUEST FOR BIDDERS TO REVIEW.

AFTER STRUCTURE SHOP ASSEMBLY AND DISASSEMBLY, ANY ELEMENTS NOT INSTALLED BY THE CONTRACTOR OF THE FABRICATION CONTRACT ARE TO BE INSTALLED BY THE CONTRACTOR OF THIS ERECTION AND CONSTRUCTION CONTRACT.

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (1991).

GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS 'LEFT' AND 'RIGHT'. THESE ORIENTATIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING IN THE DIRECTION OF INCREASING STATION.

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

STRUCTURE PLANS PREPARED BY:

ROMENESKO ENGINEERING, INC.

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER
5/31/13

ELECTRICAL PLANS PREPARED BY:

URS

WISCONSIN
MOHAMMED A. ELSHOLI
E-37874-6
ORLAND HILLS, IL
PROFESSIONAL ENGINEER
05.01.2013

GENERAL NOTES (CONT.)

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III OR M213.

STAY-IN-PLACE METAL DECK FORMS ARE PERMITTED INSIDE BOX GIRDERS ONLY. STAY-IN-PLACE METAL DECK FORMS ARE CONSIDERED INCIDENTAL TO THE COST OF "HPC MASONRY STRUCTURES".

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE INSIDE OF PARAPETS, AND TOP OF PARAPETS.

STRUCTURAL STEEL

FABRICATED STRUCTURAL STEEL AND BEARINGS ARE FURNISHED BY OTHERS UNDER A SEPARATE CONTRACT. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE PRIOR TO WHEN THESE MATERIALS ARE REQUIRED ON SITE.

THE COST OF INSTALLING BEARINGS, ACCESS HATCHES, AND ERECTING STRUCTURAL STEEL ARE INCLUDED IN THE BID ITEM "ERECTING STRUCTURAL STEEL B-5-679."

A TECHNICAL REPRESENTATIVE FROM THE BEARING MANUFACTURER MUST BE PRESENT DURING INSTALLATION OF THE FIRST BEARING. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE OF THE SPECIFIC DAY THE BEARING MANUFACTURER REPRESENTATIVE NEEDS TO BE ON SITE. PAYMENT FOR THIS WORK IS MADE UNDER THE STEEL FABRICATION CONTRACT (1133-11-71).

THE CONTRACTOR IS RESPONSIBLE NOT TO OVER-ROTATE BEARING ASSEMBLIES. DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

THE CONTRACTOR MUST COORDINATE WITH THE BEARING MANUFACTURER REGARDING FINAL DIMENSIONS AND DETAILS OF MASONRY PLATES AND ANCHOR BOLTS. NO ADDITIONAL PAYMENT WILL BE MADE DUE TO ANY CHANGES IN THE SUPPLIED BEARINGS AND AS SHOWN ON CONTRACT 1133-11-71.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE 3MM COAT OF PRIMER FROM THE TOP FLANGE AT LOCATIONS OF SHEAR STUDS BEFORE INSTALLING STUDS.

SHEAR STUDS MUST BE EMBEDDED A MINIMUM OF 2" ABOVE BOTTOM MAT OF STEEL REINFORCEMENT.

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

TEMPORARY SUPPORTS AND FALSEWORK (INCLUDING DECK OVERHANG BRACKETS) SHALL NOT BE ATTACHED TO OR BEAR ON GIRDER WEBS EXCEPT AT WEB STIFFENER LOCATIONS.

DESIGN THE CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS (OPTIONAL FORMS) AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED.

TOP OF STAY-IN-PLACE METAL FORMS SHALL BE ALIGNED WITH THE UNDERSIDE OF THE DECK SLAB AS SHOWN ON THE SUPERSTRUCTURE DETAILS SHEET.

REINFORCING STEEL

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

REINFORCING STEEL SHALL BE HIGH STRENGTH, GRADE 60 WITH FY=60 KSI. PROVIDE STAINLESS STEEL REINFORCEMENT CONFORMING TO ASTM A615, GRADE 60 REQUIREMENTS.

REINFORCING STEEL SHALL BE UNCOATED IN FOUNDATIONS (EXCEPT PIER SHAFT DOWELS) AND EPOXY COATED IN ALL OTHER LOCATIONS (INCLUDING PIER SHAFT DOWELS).

PLACE ALL REINFORCEMENT WITH A MINIMUM CLEAR COVER OF 2" UNLESS NOTED OTHERWISE.

PLACE REINFORCEMENT IN FOOTINGS AND PILECAPS WITH A MINIMUM CLEAR COVER OF 3" BOTTOM AND 2" TOP AND SIDES UNLESS NOTED OTHERWISE.

PLACE TOP LAYER OF REINFORCING STEEL IN THE DECK SURFACE WITH 2½" CLEAR COVER TO TOP OF SLAB.

PLACE BOTTOM LAYER OF REINFORCING STEEL IN THE DECK WITH 1½" CLEAR COVER TO BOTTOM OF SLAB.

ONLY REINFORCEMENT REQUIRED BY DESIGN IS SHOWN EXPLICITLY ON THE DRAWINGS. ADDITIONAL REINFORCEMENT MAY BE USED TO SIMPLIFY ASSEMBLY AND ERECTION OF THE REINFORCING STEEL AND MAY BE REQUIRED TO ENSURE STABILITY AND POSITIONING OF THE COMPLETED REINFORCEMENT CAGE. REINFORCEMENT IN ADDITION TO THAT SHOWN WILL NOT BE INCLUDED FOR PAYMENT.

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIM REVISIONS, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

OTHER DESIGN LOADS

PROFILE GRADE LINE AND TOP OF DECK ELEVATIONS ARE TO THE TOP OF THE 10" DECK THICKNESS. THE 10" DECK THICKNESS INCLUDES A ½" INTEGRAL WEARING SURFACE, BUT DOES NOT INCLUDE AN ADDITIONAL EPOXY OVERLAY THAT WILL BE PROVIDED AFTER POURING OF THE DECK.
THE STRUCTURE IS DESIGNED FOR THE WEIGHT OF THE 10" THICKNESS OF CONCRETE PLUS ⅜" THICKNESS OF EPOXY OVERLAY.
UNIT WEIGHTS ASSUMED FOR DESIGN WERE 150 PCF FOR CONCRETE AND 3 PSF FOR ⅜" EPOXY OVERLAY.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 90°F.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

DESIGN ASSUMED A WEIGHT PER GIRDER OF 10 PSF FOR STAY-IN-PLACE METAL DECK FORMS INSIDE EACH GIRDER ONLY AND 13.5 PSF FOR CONCRETE WITHIN THE RIBS OF THESE FORMS.

DESIGN ASSUMED 7.5 PSF FOR TEMPORARY FORMWORK IN ADDITION TO STAY-IN-PLACE METAL DECK FORMS.

PARAPETS WERE ASSUMED TO WEIGH 563 PLF AND 464 PLF FOR 42" AND 32" SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

DESIGN LIVE LOAD

DESIGN LOADING: HL-93

INVENTORY RATING FACTOR: RF = 1.28

OPERATING RATING FACTOR: RF = 1.66

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EXCAVATION AND BACKFILL

THE FINISHED GRADE LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

CONCRETE

CONCRETE QUANTITY IN THE HAUNCHES IS CALCULATED BASED ON AN ASSUMED CONSTANT DEPTH OF 4" MEASURED FROM TOP OF WEB TO UNDERSIDE OF SLAB (EXCLUDING THE VOLUME TAKEN UP BY THE TOP FLANGE). THIS IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH PAYMENT WILL BE MADE.

CONCRETE QUANTITY IN THE STAY-IN-PLACE METAL DECK FORM RIBS IS CALCULATED BASED ON AN ASSUMED RIB HEIGHT OF 3", WIDTH OF 3" AND RIB ANGLE OF 45°. THIS IS THE MAXIMUM RIB QUANTITY FOR WHICH PAYMENT WILL BE MADE.

CHAMFER ALL EXPOSED OUTSIDE CORNERS ¾" UNLESS NOTED OTHERWISE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DRAWING LIST AND GENERAL NOTES

SHEET 2 OF 91
891

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 UBS\Structures\B-5-679\002.drawinglist_notes_v8.b-5-679.dgn

PLOT DATE : 5/29/2013

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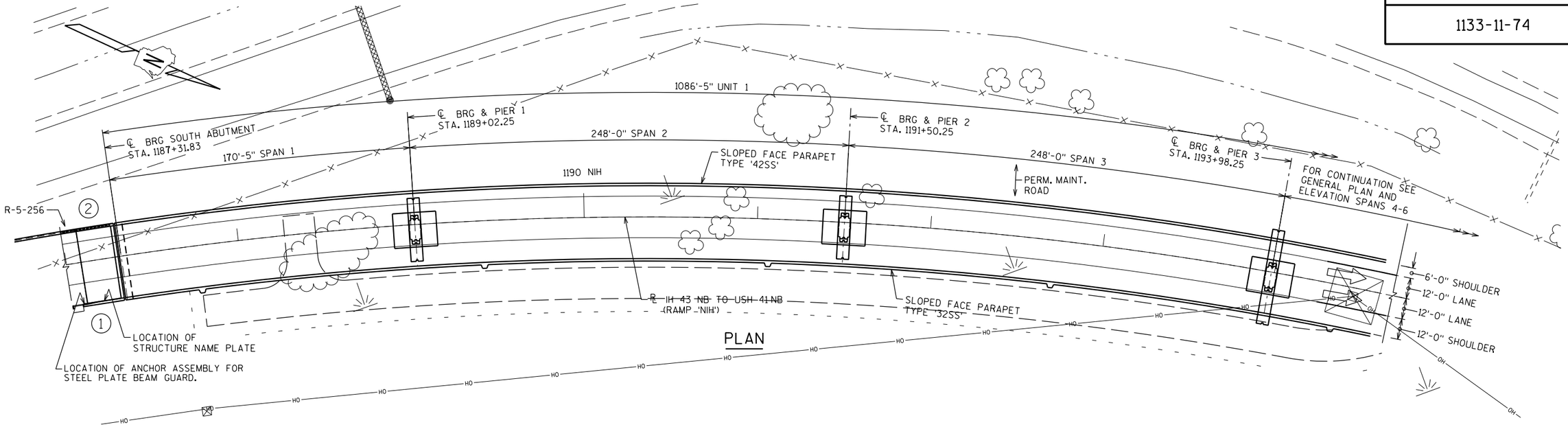
STATE PROJECT NUMBER

1133-11-74



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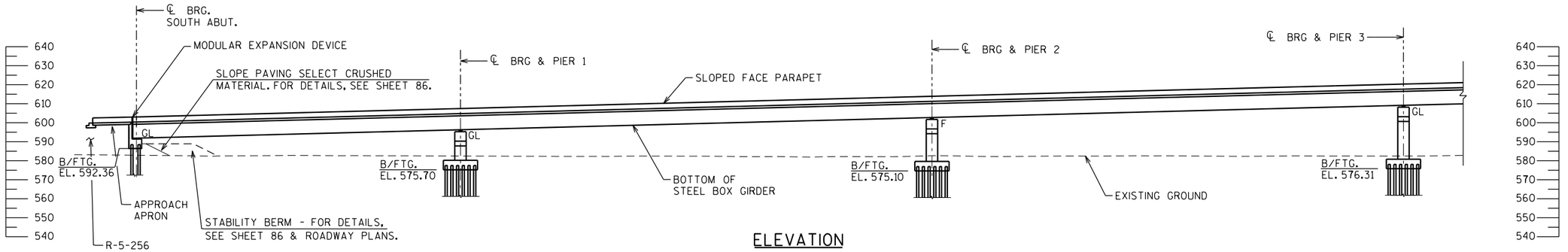

ELEVATION

(ALONG ℄ LOOKING SOUTHWEST)

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 778	RR SPIKE IN DECIDUOUS TREE	586.61

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB---------- f'c = 4,000 P.S.I.
ALL OTHER---------- f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60---------- fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL,---------- fy = 50,000 P.S.I.
(ASTM A709, GRADE 50, HPS50W)

FOUNDATION DATA

SOUTH ABUTMENT TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED 75 FEET LONG.

PIERS 1 THROUGH PIER C1 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. SEE PIER SHEETS FOR ESTIMATED LENGTHS.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

HARD DRIVING MATERIAL SHOULD BE ANTICIPATED IN LAYERS SIGNIFICANTLY ABOVE MINIMUM TIP ELEVATION AT SOME LOCATIONS. IT IS RECOMMENDED THAT THE CONTRACTOR VERIFY THAT THE PILE DRIVING SYSTEM CAN ADVANCE PILES TO DEVELOP THE REQUIRED DRIVING RESISTANCE AND MINIMUM TIP ELEVATION WITHOUT DAMAGE TO THE PILE. DETAILED DRIVEABILITY ANALYSIS SHOULD BE PART OF CONTRACTOR VERIFICATION. IF MINIMUM TIP ELEVATION CANNOT BE ACHIEVED SEE ENGINEER.

TRAFFIC VOLUME:

RAMP NIH
ADT (2035) = 10,200
R.D.S. = 70 M.P.H.

RAMP IHB
ADT (2035) = 17,600
R.D.S. = 60-70 M.P.H.

STRUCTURE TYPE

5-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 1
5-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 2

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄.

DIMENSIONS SHOWN ARE ALONG ℄.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

LIGHT POLE LOCATIONS ARE NOT YET DETERMINED.

GUIDED LONGITUDINAL BEARINGS WILL BE ALIGNED PARALLEL WITH ℄.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING
(X) INDICATES WING/CORNER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

GENERAL PLAN AND ELEVATION SPANS 1-3

SHEET 3 OF 91
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STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-679\003_genplan_spans_1-3_v8_b-5-679.dgn

PLOT DATE : 5/30/2013

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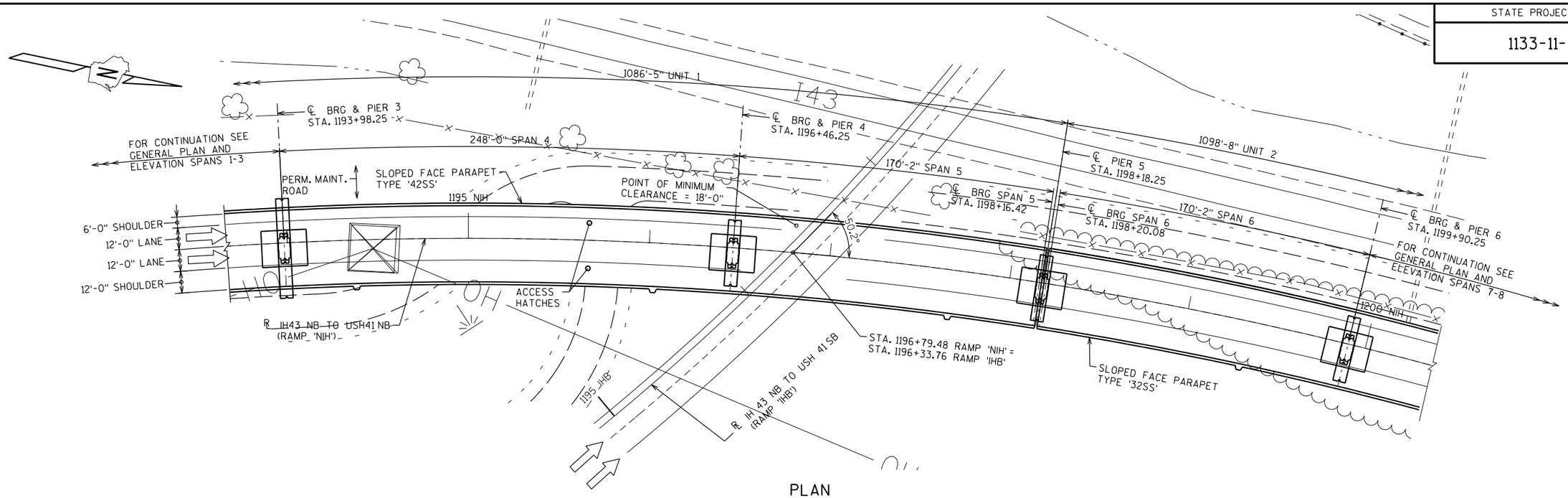
STATE PROJECT NUMBER

1133-11-74



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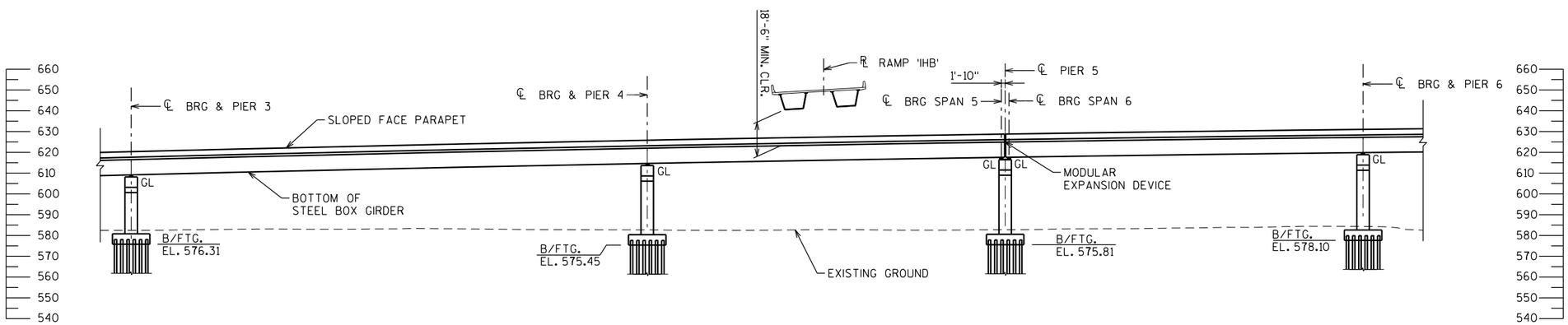

ELEVATION

(ALONG ℞ LOOKING SOUTHWEST)

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

GENERAL PLAN AND ELEVATION SPANS 4-6

SHEET 4 OF 91

893

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

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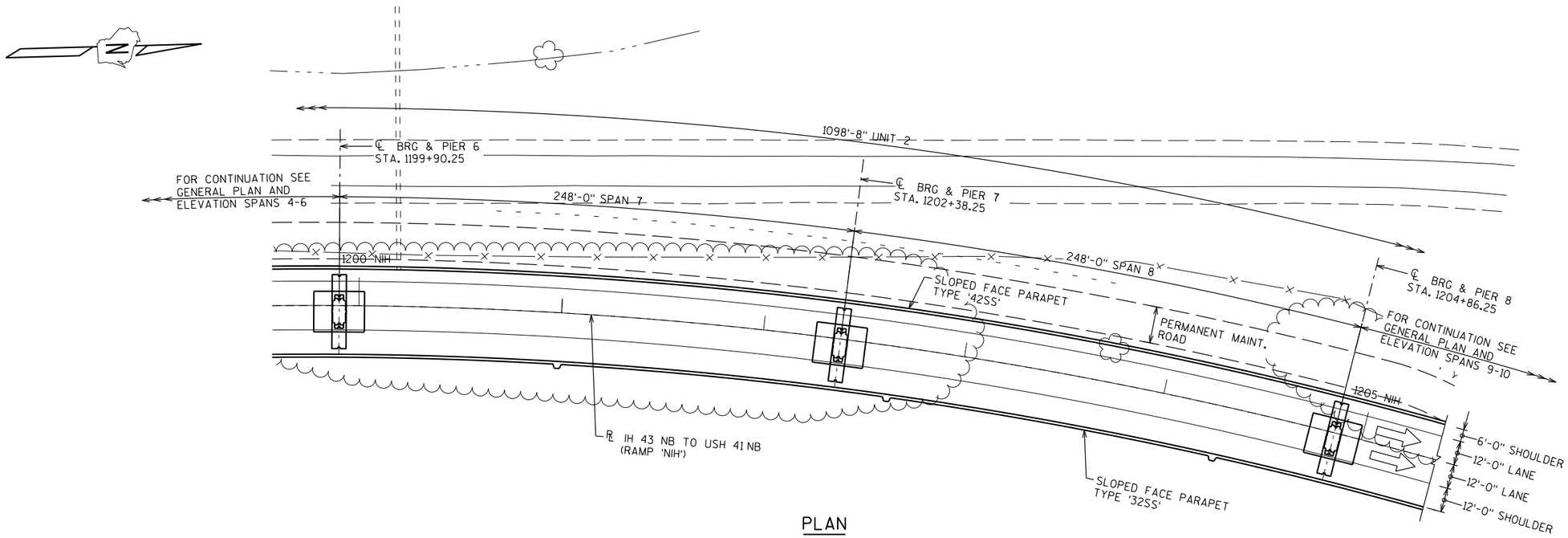
FILE NAME : P:\153 USH 41 1133-10-00 UDCS\Structures\B-5-679\004_genplan_spans_4-6_v8_b-5-679.dgn

PLOT DATE : 5/30/2013

STATE PROJECT NUMBER
1133-11-74



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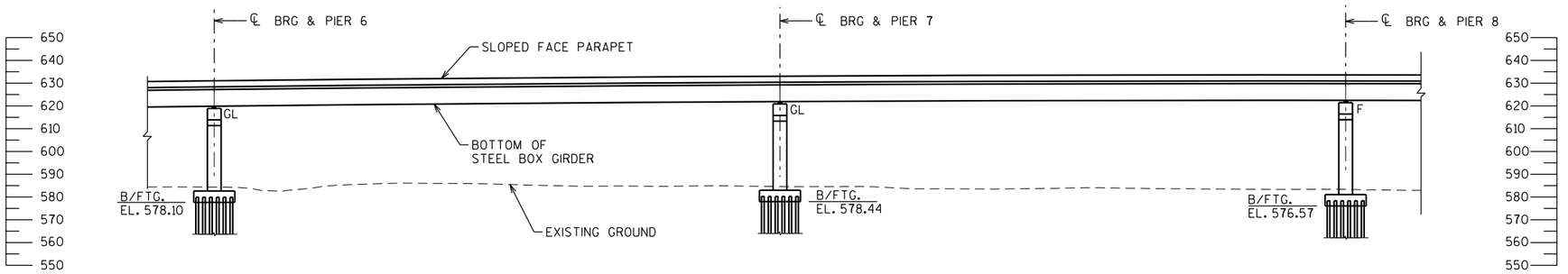

ELEVATION

(ALONG ℄ LOOKING WEST)

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GENERAL PLAN AND ELEVATION SPANS 7-8

SHEET 5 OF 91
894

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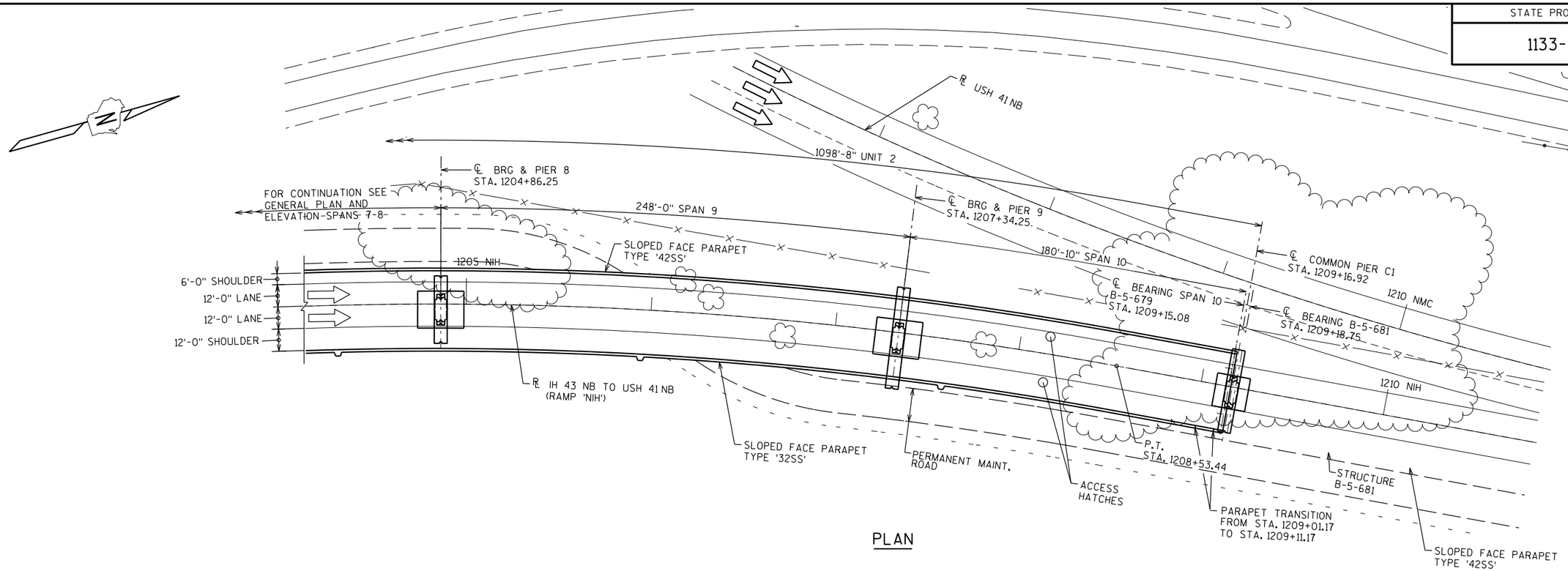
FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-679\005.gendlan.spans_7-8_v8_b-5-679.dgn

PLOT DATE : 5/30/2013

STATE PROJECT NUMBER

1133-11-74



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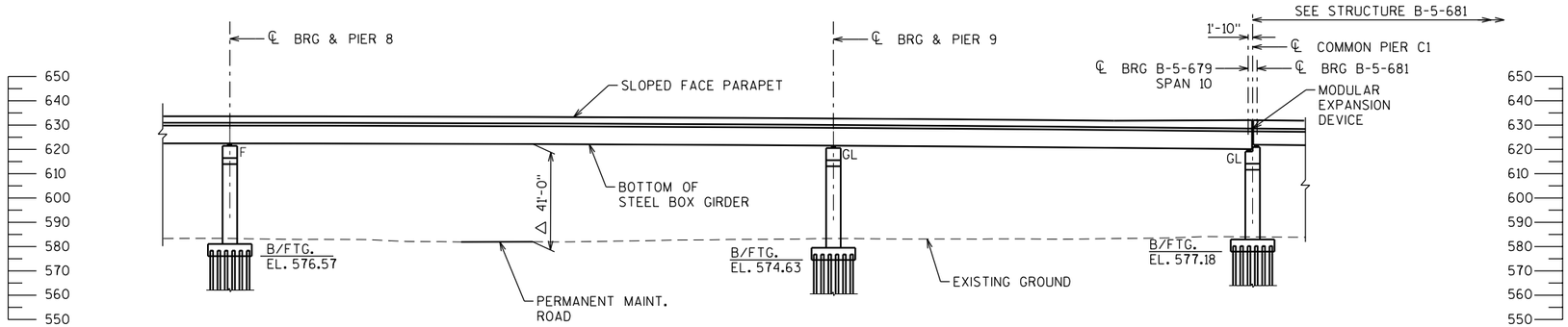

ELEVATION

(ALONG ℄ LOOKING WEST)

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

GENERAL PLAN AND ELEVATION SPANS 9-10

SHEET 6 OF 91

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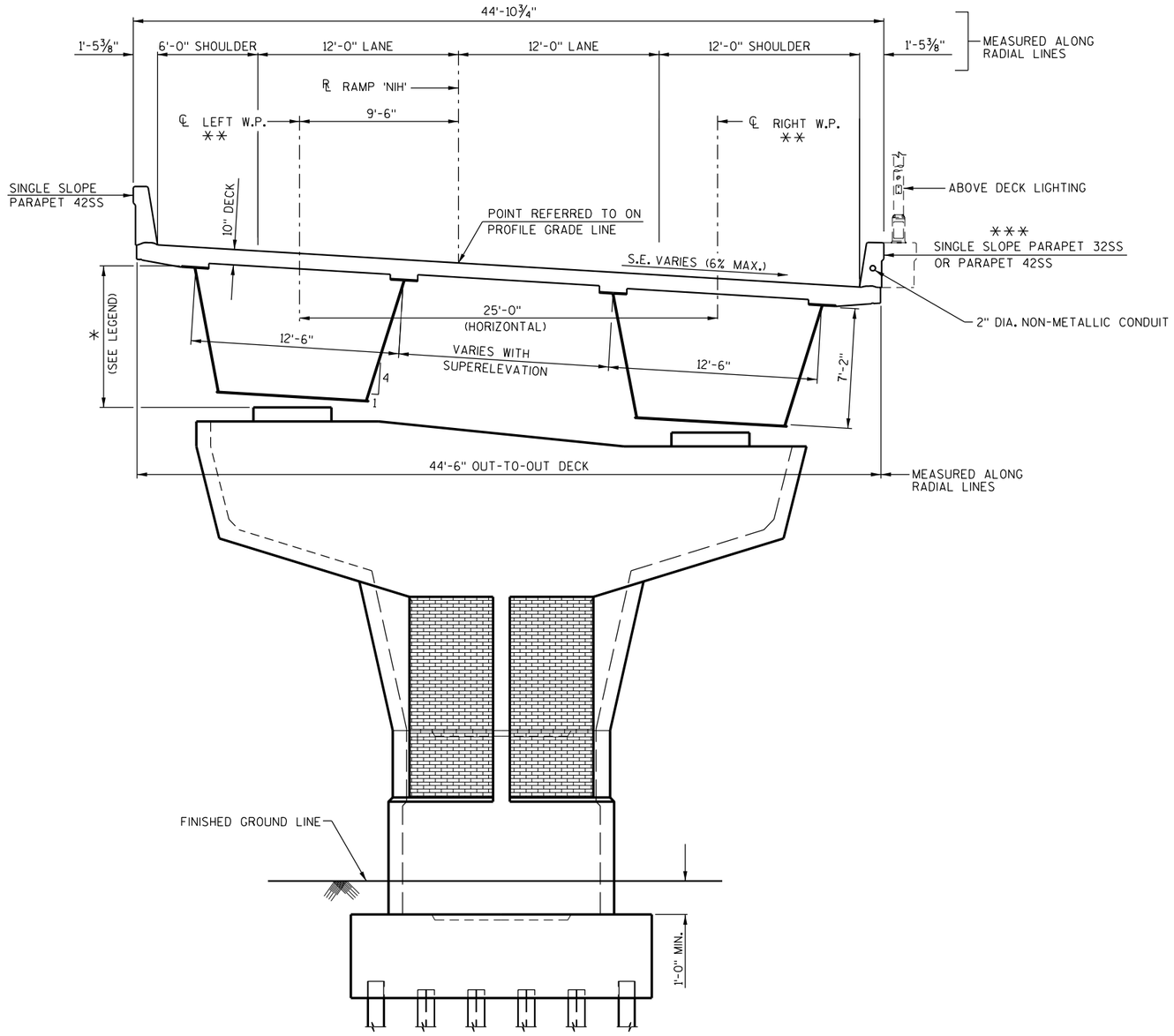
FILE NAME : P:\153 USH 41 1133-10-00 ldRS\Structures\B-5-679\006.genplan_spans_9-10_48_b-5-679.dgn

PLOT DATE : 5/30/2013

STATE PROJECT NUMBER
1133-11-74



TYPICAL CROSS SECTION
(LOOKING UPSTATION)

LEGEND

* STRUCTURAL STEEL AND BEARINGS ARE PROVIDED UNDER A SEPARATE STRUCTURAL STEEL FABRICATION CONTRACT AND WILL BE INSTALLED UNDER THIS CONSTRUCTION CONTRACT.

** W.P. = WORK POINT. SEE SHEET "TYPICAL DECK SECTION" FOR DETAILS.

*** PARAPET TRANSITION FROM STA. 1209+01.17 TO STA. 1209+11.17. FOR DETAILS, SEE SHEET 51 "PARAPET TRANSITION DETAILS".

NOTES

STAY-IN-PLACE METAL DECK FORMS PERMITTED INSIDE BOX GIRDERS ONLY. SEE "SUPERSTRUCTURE DETAILS" SHEET IN CONTRACT 1133-11-71 FOR HAUNCH.

GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

CROSS SECTION

SHEET 7 OF 91
896

FILE NAME : P:\153 USH 41 1133-10-00 LRG\Structures\B-5-679\007.cross.section.v8.b-5-679.dgn
PLOT DATE : 4/22/2013

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STATE PROJECT NUMBER

1133-11-74

TOTAL ESTIMATED QUANTITIES

	BID ITEM #	BID ITEM	UNIT	S. APPR. APRON	S. ABUT.	UNIT 1 SUPER. SPANS 1-5	UNIT 1 PIERS 1-5	UNIT 2 SUPER. SPANS 6-10	UNIT 2 PIERS 6-C1	TOTAL
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-5-679	LS	———	———	———	———	———	———	1
	210.0100	BACKFILL STRUCTURE	CY	———	330	———	———	———	———	330
	502.3110.S	EXPANSION DEVICE MODULAR B-5-679	LS	———	———	———	———	———	———	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	112	———	6,057	———	6,127	———	12,296
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	———	5,910	———	30,850	———	30,850	67,610
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	10,130	6,730	419,660	175,860	421,880	198,570	1,232,830
*	506.3025	WELDED STUD SHEAR CONNECTORS 7/8 X 8-INCH	EACH	———	———	14,916	———	15,030	———	29,946
	514.0445	FLOOR DRAINS TYPE GC	EACH	———	———	4	———	3	———	7
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	12	———	———	———	———	12
**	550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	———	975	———	9,760	———	6,600	17,005
	604.0400	SLOPE PAVING SELECT CRUSHED AGGREGATE	SY	———	170	———	———	———	———	170
	606.0300	RIPRAP HEAVY	CY	———	3	———	12	———	9	24
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	150	90	———	———	———	———	240
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	———	———	———	———	———	1
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	———	15	———	60	———	45	120
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	25	———	10	———	10	———	45
	652.0135	CONDUIT RIGID METALLIC 3-INCH	LF	———	———	4,348	———	4,400	———	8,748
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	———	———	1,080	———	1,090	———	2,170
	652.0240	CONDUIT RIGID NONMETALLIC SCHEDULE 40 4-INCH	LF	———	———	———	50	———	50	100
	653.0222	JUNCTION BOXES 18x12x6-INCH	EACH	———	———	7	———	6	———	13
	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	———	———	25,515	———	23,745	———	49,260
	655.0635	ELECTRICAL WIRE LIGHTING 2 AWG	LF	———	———	6,400	———	6,400	———	12,800
	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	———	———	7	———	6	———	13
	SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	58	125	1,932	1,105	1,954	1,261	6,435
	SPV.0060.350	GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTACLES	EACH	———	———	24	———	24	———	48
	SPV.0060.351	VAPOR PROOF L.E.D. LIGHT FIXTURE	EACH	———	———	52	———	52	———	104
	SPV.0060.352	JUNCTION BOXES STAINLESS STEEL 27x18x8-INCH	EACH	———	———	52	———	52	———	104
	SPV.0060.353	JUNCTION BOXES STAINLESS STEEL 27x24x12-INCH	EACH	———	———	4	———	4	———	8
	SPV.0060.701	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	———	3	———	20	———	20	43
	SPV.0060.702	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	———	3	———	20	———	20	43
	SPV.0060.703	ANCHOR BOLT ASSEMBLY OVERHEAD SIGN SUPPORTS	EACH	———	———	———	2	———	2	4
	SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	———	720	———	———	———	———	720
	SPV.0090.350	CONDUIT RIGID METALLIC PVC COATED 4-INCH	LF	———	———	25	———	25	———	50
**	SPV.0090.700	DRIVING PILING STEEL STATE FURNISHED HP 14-INCH X 89 LB	LF	———	———	———	———	———	3,650	3,650
	SPV.0090.702	DOWNSPOUT RTRP 6-INCH	LF	———	20	———	137	———	168	325
	SPV.0105.352	ELECTRICAL SERVICE INSTALLATION B-5-679	LS	———	———	———	———	———	———	1
	SPV.0105.702	ERECTING STRUCTURAL STEEL B-5-679	LS	———	———	———	———	———	———	1
	SPV.0105.706	FIELD PAINTING STRUCTURAL STEEL B-5-679	LS	———	———	———	———	———	———	1
	SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	———	80	———	1,730	———	2,430	4,240
	SPV.0165.701	STAINING CONCRETE	SF	140	800	14,340	9,890	14,480	11,020	50,670
	SPV.0165.702	STAINING CONCRETE BRICK	SF	———	80	———	1,730	———	2,430	4,240
	SPV.0180.700	POLYMER OVERLAY	SY	187	———	5,071	———	5,129	———	10,387

NOTES:

* SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2 OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

** STATE OWNED HP14X89 PILES SHALL BE USED FOR PIERS 6 & 7. CONTRACTOR SHALL PROVIDE HP14X73 PILES FOR REMAINDER OF SUBSTRUCTURE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

QUANTITIES

SHEET 8 OF 91
897

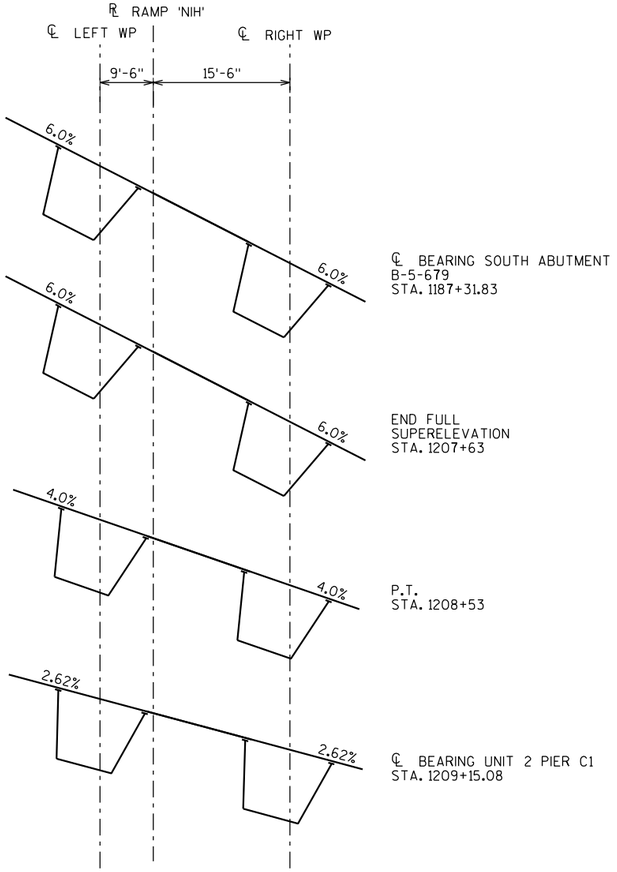
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 LRGS\Structures\B-5-679\008_quants_v8_b-5-679.dgn

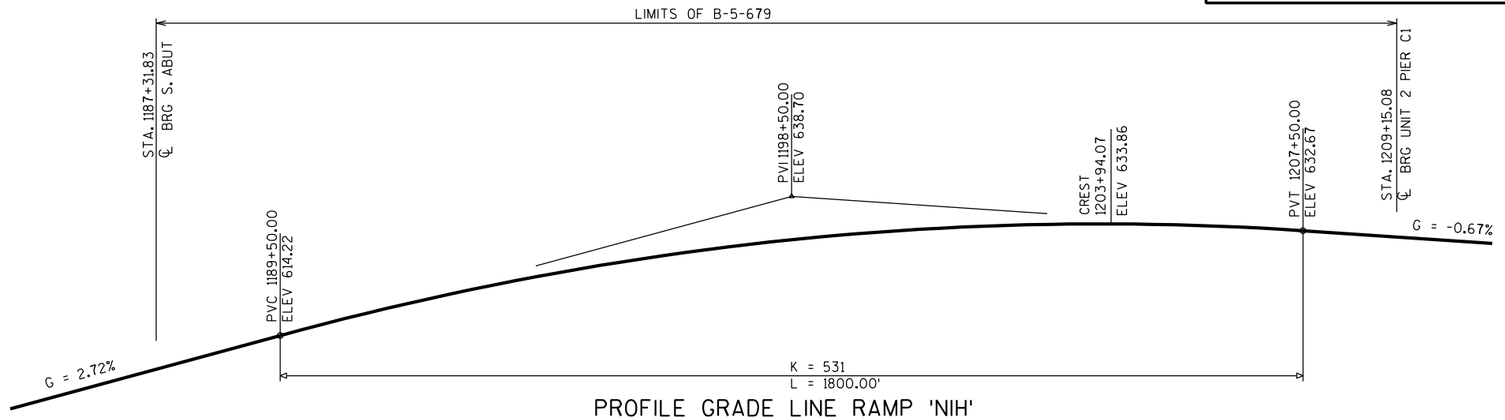
PLOT DATE : 5/30/2013

STATE PROJECT NUMBER

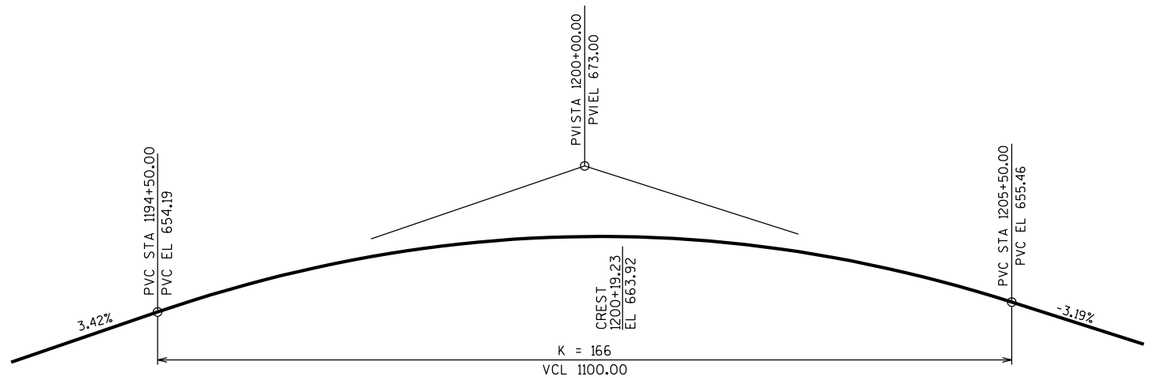
1133-11-74



DECK SLOPE TRANSITION



PROFILE GRADE LINE RAMP 'NIH'

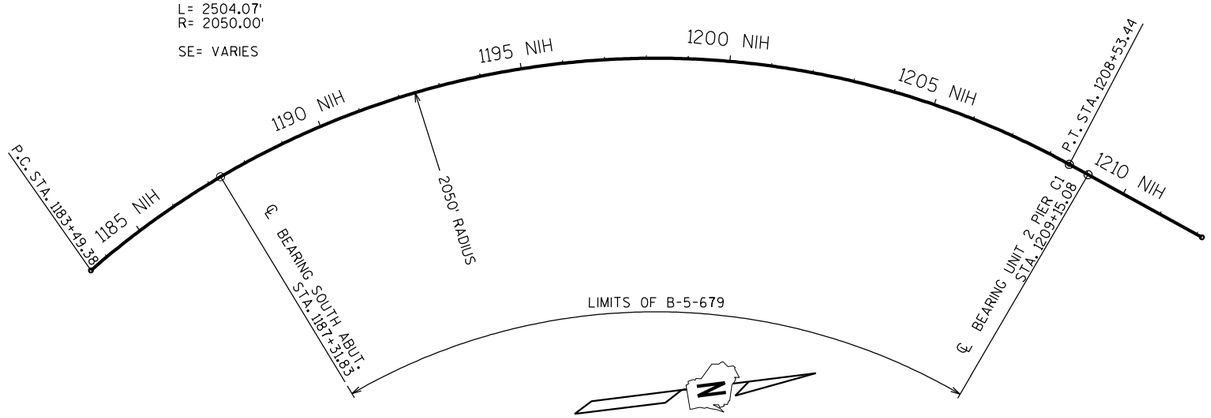


PROFILE GRADE LINE RAMP 'IHB'

IH 43 NB TO USH 41 NB
RAMP 'NIH'
HORIZONTAL CURVE DATA

P.I. STA.= 1197+84.44
N= 583666.47
E= 90111.04
P.C. STA.= 1183+49.38
P.T. STA.= 1208+53.44
Δ= 69°59'11"
D= 5°35'23"
T= 1435.07'
L= 2504.07'
R= 2050.00'

SE= VARIES



HORIZONTAL ALIGNMENT IH 43 NB TO USH 41 NB (RAMP 'NIH')

NOTES:

STEEL GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

THEORETICAL HAUNCH HEIGHT IS CONSTANT AT 4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

ALIGNMENT AND SUPERELEVATION

SHEET 9 OF 91
898

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

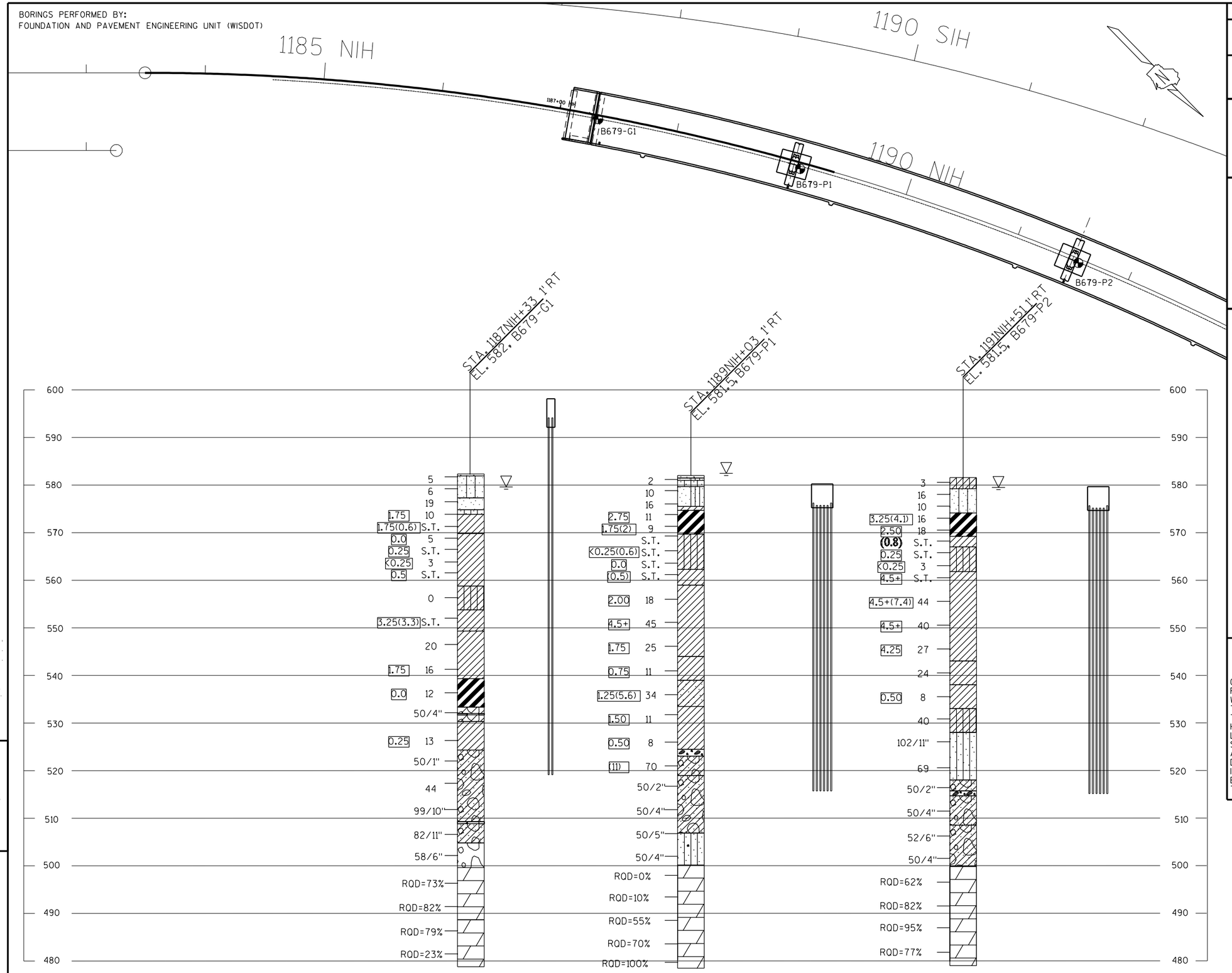
8

8

FILE NAME : P:\153 USH 41 1133-10-00 LRS\Structures\B-5-679\009.dgn_super_v8.b-5-679.dgn

PLOT DATE : 4/22/2013

BORINGS PERFORMED BY:
FOUNDATION AND PAVEMENT ENGINEERING UNIT (WISDOT)



Note: ▽ - Water level during drilling, ▽* - Water level assumed from sample condition

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

STATE PROJECT NUMBER

1133-11-74

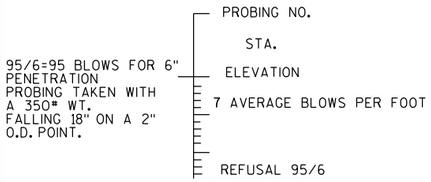
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

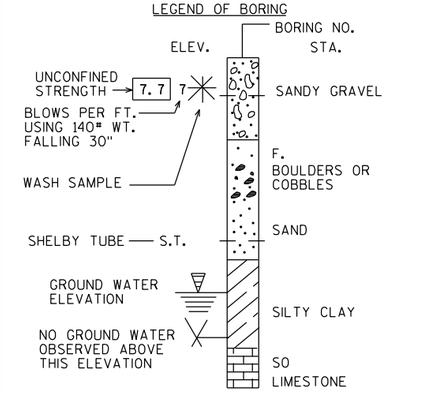
MATERIAL SYMBOLS

TOPSOIL, SILT, FAT CLAY, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY RE | PLANS CK'D. DB

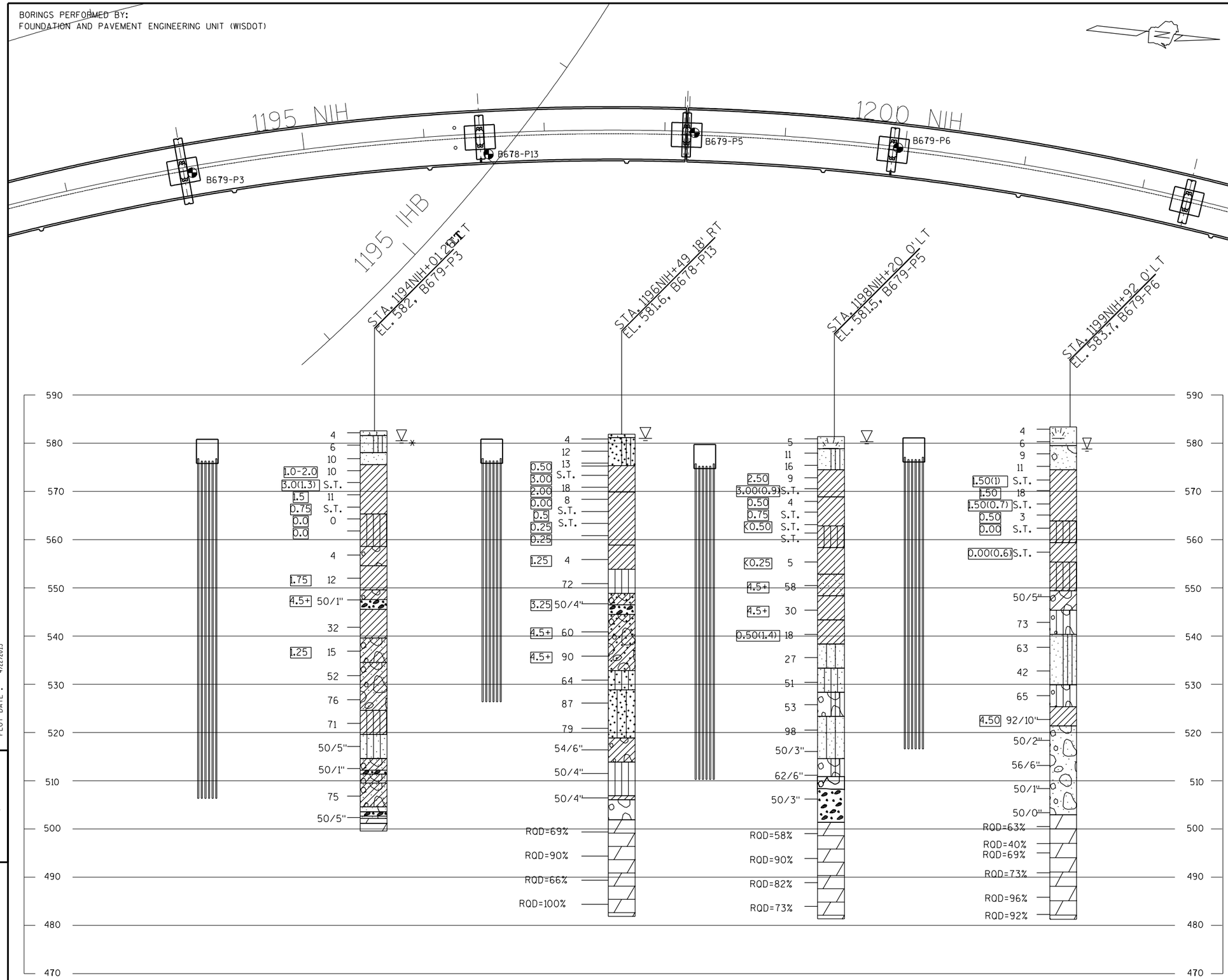
SUBSURFACE EXPLORATION

SHEET 10 OF 91
899

8

8

BORINGS PERFORMED BY:
FOUNDATION AND PAVEMENT ENGINEERING UNIT (WISDOT)



Note: ▽ - Water level during drilling, ▽* - Water level assumed from sample condition

STATE PROJECT NUMBER

1133-11-74

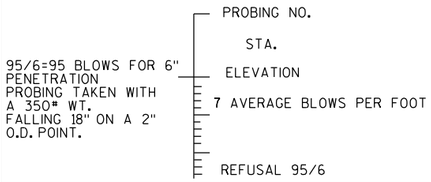
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

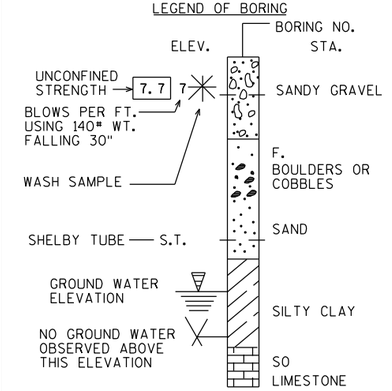
MATERIAL SYMBOLS

TOPSOIL SILT FAT CLAY
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY RE | PLANS CK'D. DB

SUBSURFACE EXPLORATION

SHEET 11 OF 91
900

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 DRGS\Structures\B-5-679\011_soils_v8.b-5-679.dgn
PLOT DATE : 4/22/2013

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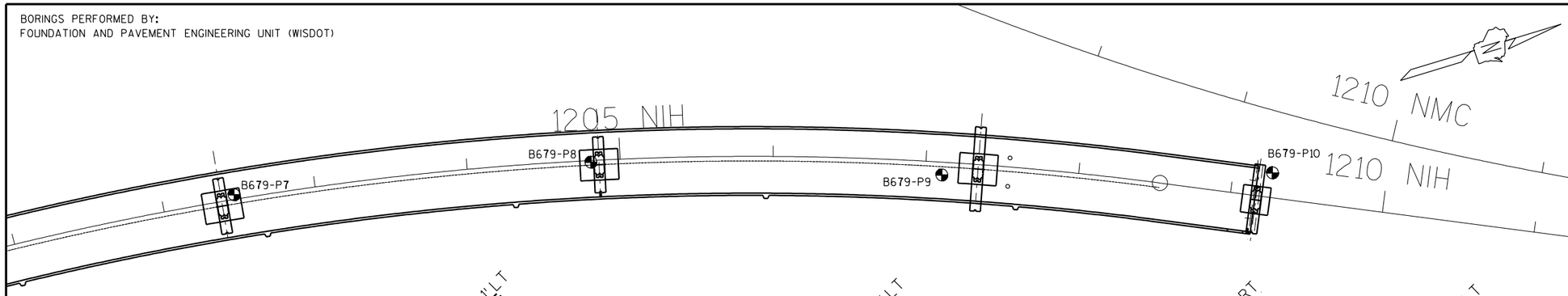
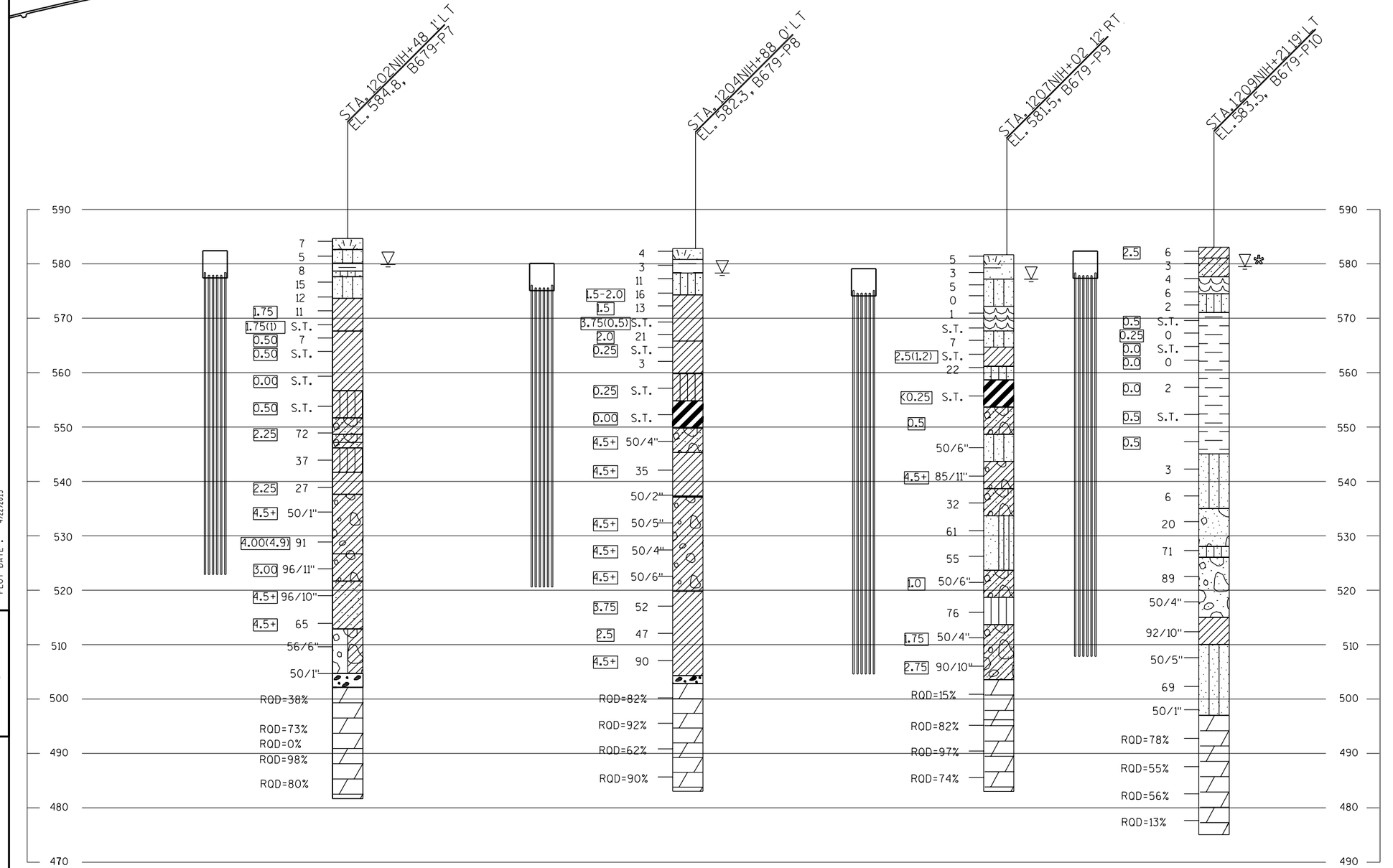
8

BORINGS PERFORMED BY:
FOUNDATION AND PAVEMENT ENGINEERING UNIT (WISDOT)





Note: ▽ - Water level during drilling, ▽* - Water level assumed from sample condition

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

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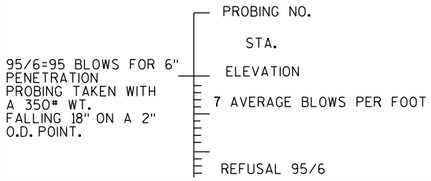
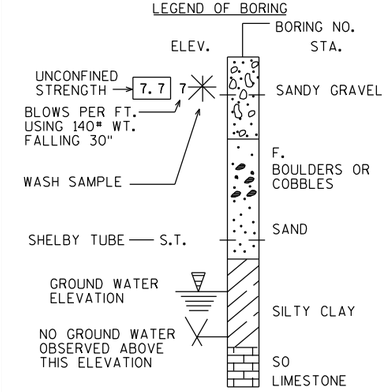
TOPSOIL, SILT, FAT CLAY
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



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SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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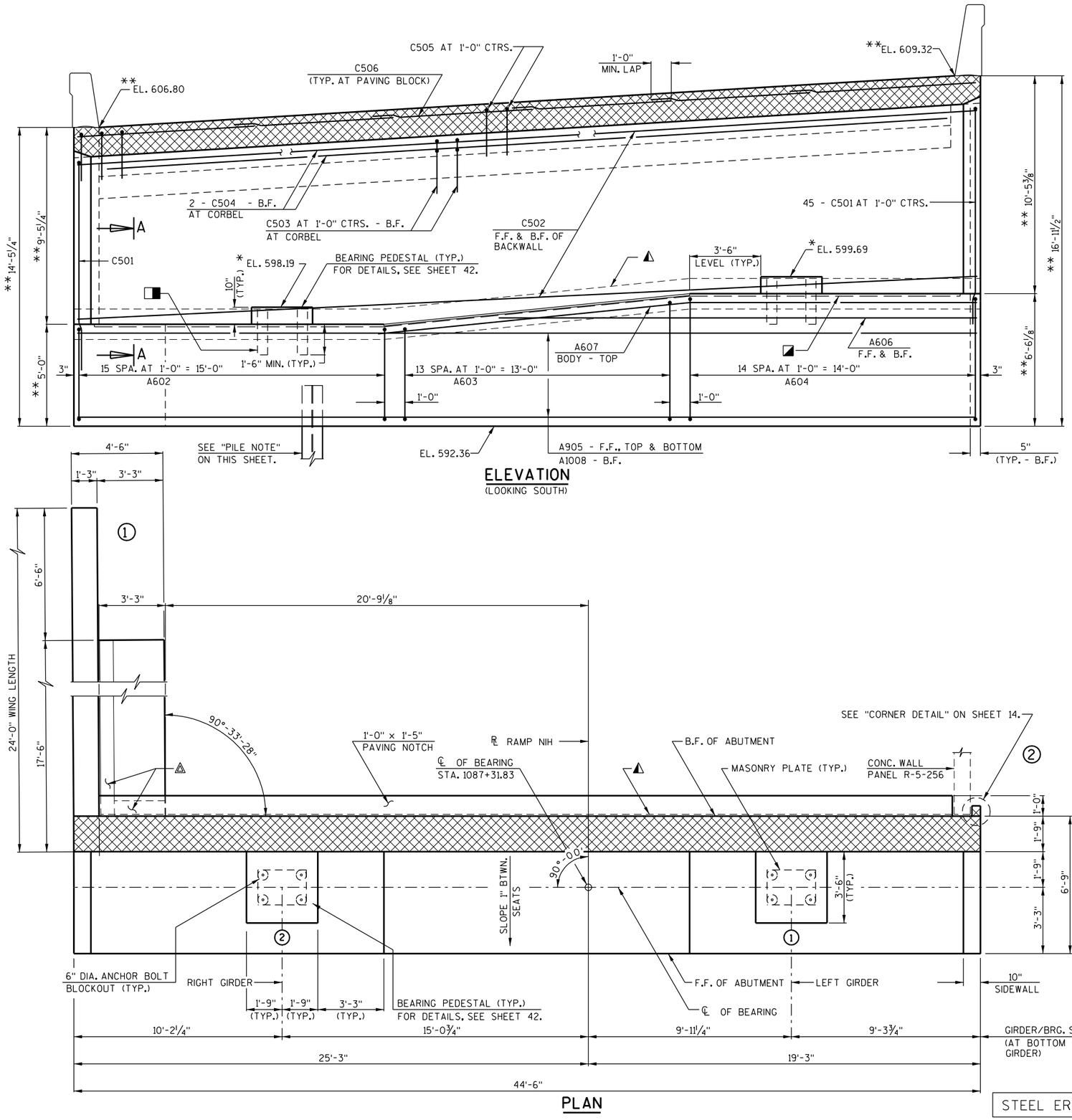
SUBSURFACE EXPLORATION

SHEET 12 OF 91
901

FILE NAME : P:\153\DSH 41 1133-10-00 DRS\Structures\B-5-679\012.soils.v8.b-5-679.dgn
PLOT DATE : 4/22/2013

8

8



ELEVATION
(LOOKING SOUTH)

PLAN

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.3.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS).

STATE PROJECT NUMBER

1133-11-74

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL AT TOP OF CONCRETE. FOR WING 1 DETAILS, SEE SHEET 16.

18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE ABOVE FOOTING.

PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON THIS SHEET.

KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.

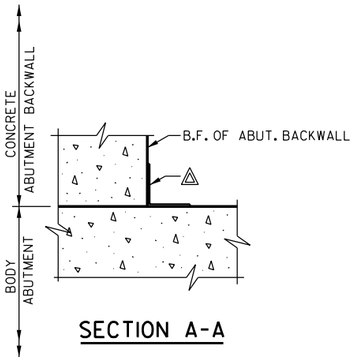
(X) INDICATES WING/CORNER NUMBER

6" DIA. ANCHOR BOLT BLOCKOUT. BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN ABUTMENT BODY AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT)

PILE NOTE

SOUTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 14 x 73 WITH A REQUIRED DRIVING RESISTANCE OF 230 TONS PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. ESTIMATED 75'LONG. FOR PILE LAYOUT DETAILS, SEE SHEET 14. FOR PILE SPLICE DETAILS, SEE SHEET 15.

NOTE: FOR "TYPICAL SECTION THRU BODY", SEE SHEET 15. SPACE A603, A604 & A605 BARS TO MISS PILES.



SECTION A-A

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

SHEET 13 OF 91
902

8

8

FILE NAME : P:\853 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\013_SABUT1_V7.0_B-5-679.DGN

PLOT DATE : 4/22/2013

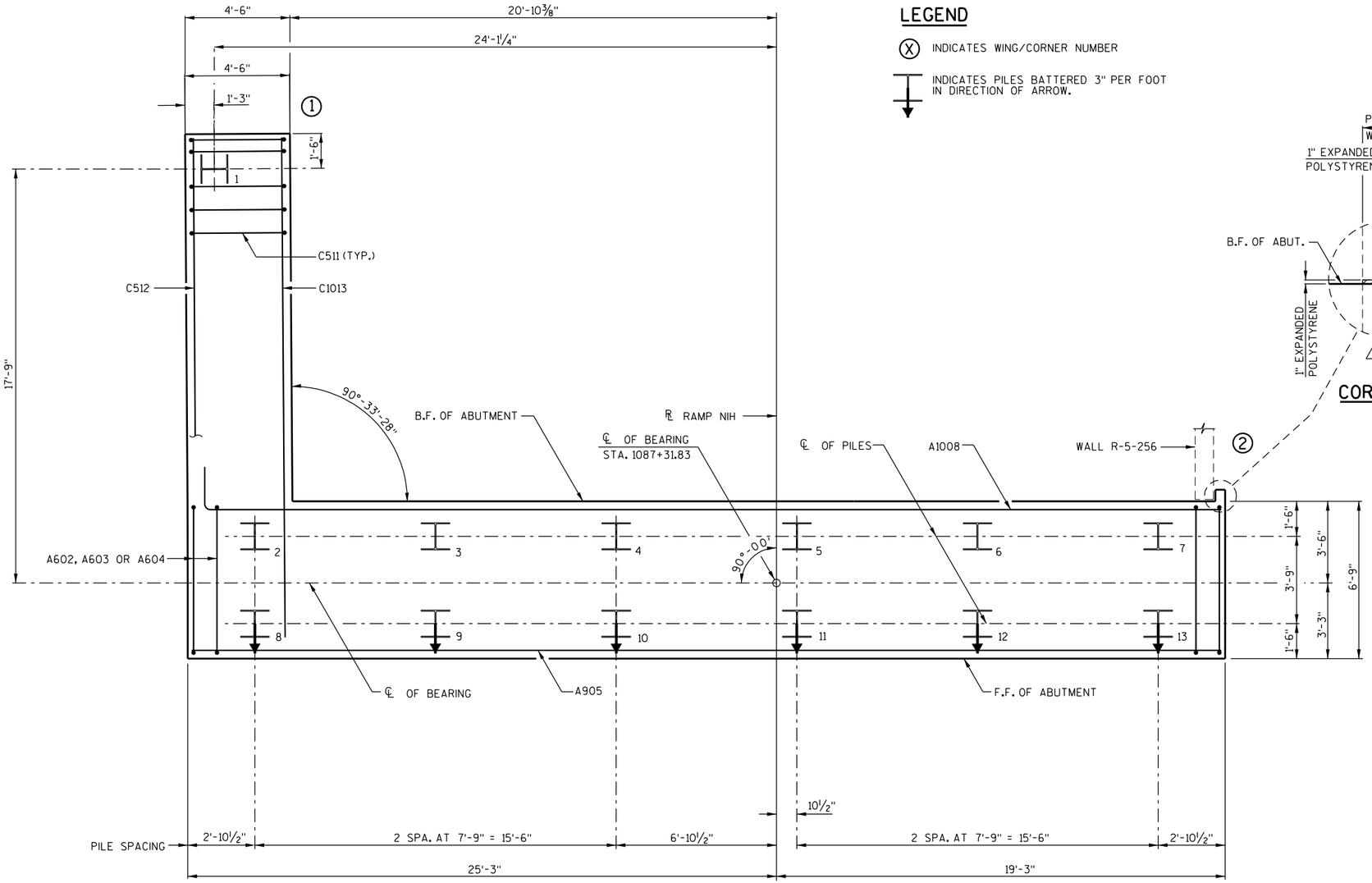
STATE PROJECT NUMBER

1133-11-74

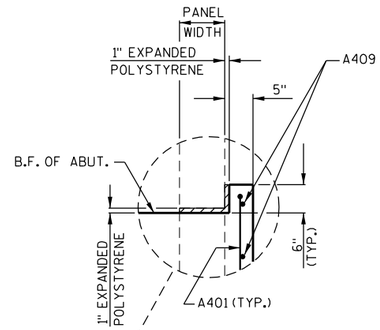
LEGEND

(X) INDICATES WING/CORNER NUMBER

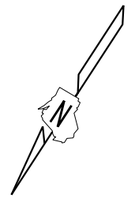
INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.



PILE PLAN



CORNER DETAIL



STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

SHEET 14 OF 91
903

8

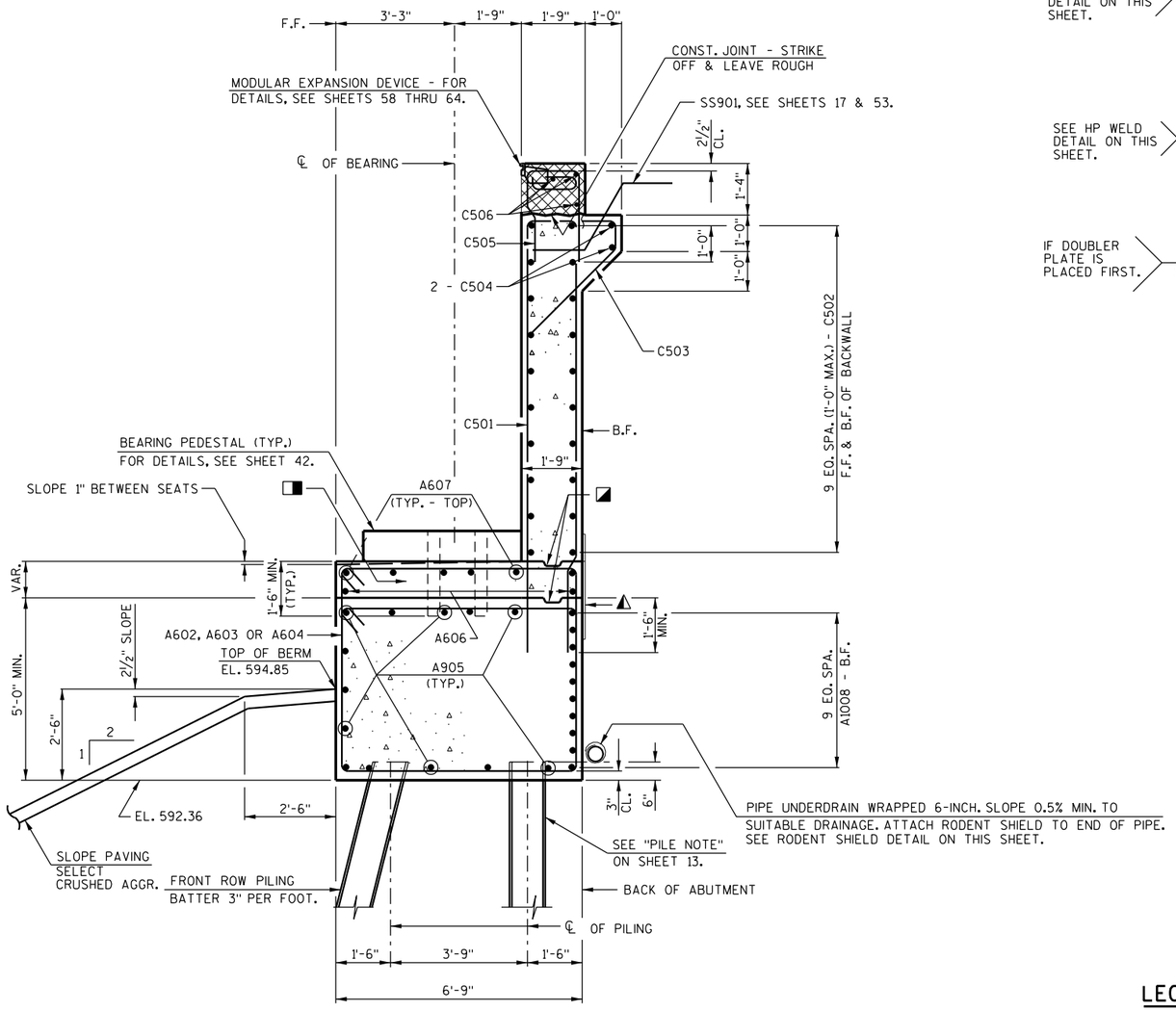
8

FILE NAME : P:\453 USH 41\1133-10-00 URGs\STRUCTURES\B-5-679\04.SABUT2.V7.B-5-679.DGN

PLOT DATE : 4/22/2013

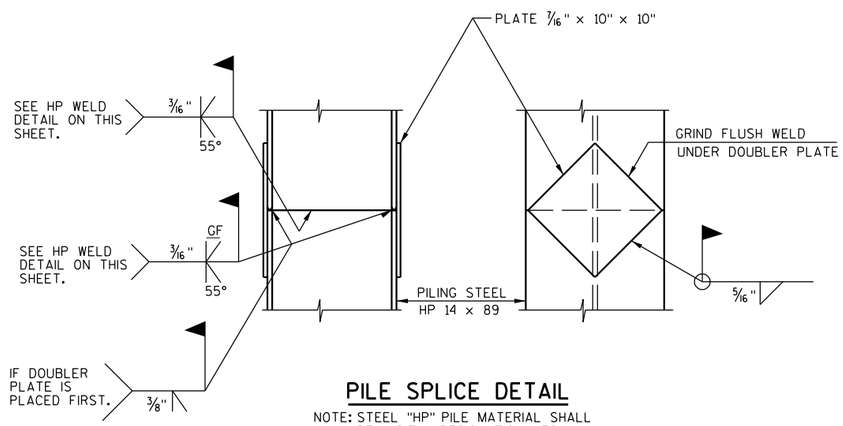
STATE PROJECT NUMBER

1133-11-74



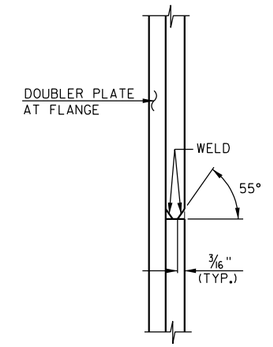
TYPICAL SECTION THRU BODY

(LOOKING EAST)



PILE SPLICE DETAIL

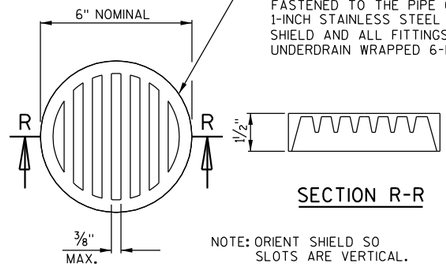
NOTE: STEEL "HP" PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



SECTION R-R

NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

RODENT SHIELD

LEGEND

◪ ◭ ◨ ▨ FOR SYMBOL DESCRIPTIONS, SEE SHEET 13.

NOTE: BACKWALL MAY BE PLACED AFTER THE END DIAPHRAGM IS BOLTED.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

SHEET 15 OF 91
904

8

8

FILE NAME : P:\853 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\405_SABUT3.V7.B-5-679.DGN

PLOT DATE : 4/26/2013

STATE PROJECT NUMBER

1133-11-74

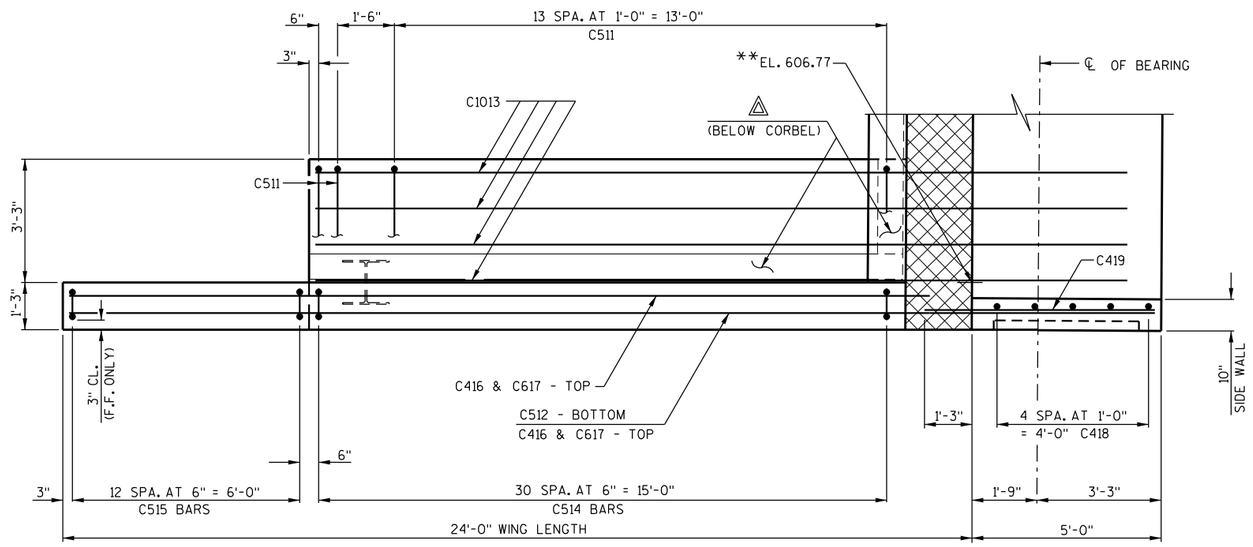
LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

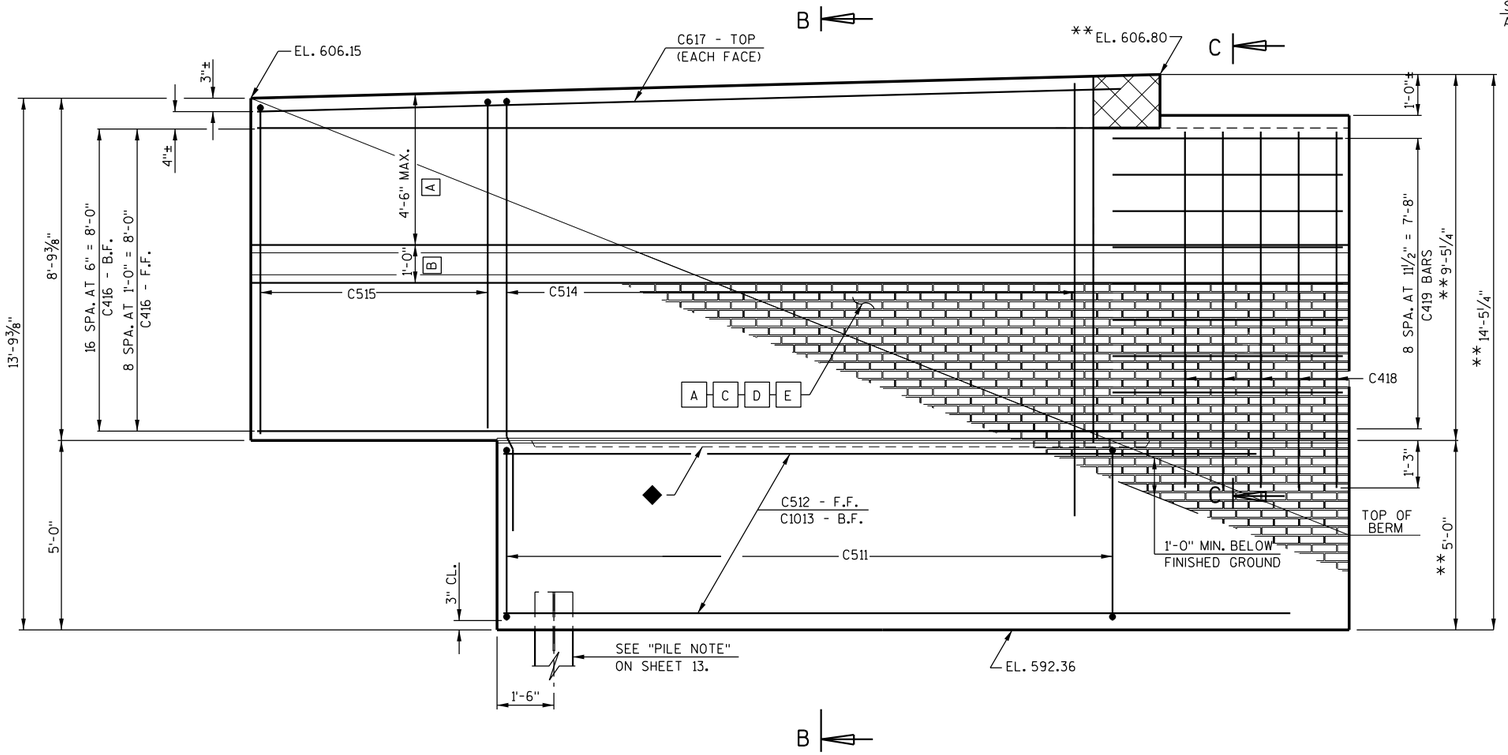
◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" x 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

⊠ △ FOR SYMBOL DESCRIPTIONS, SEE SHEET 13.

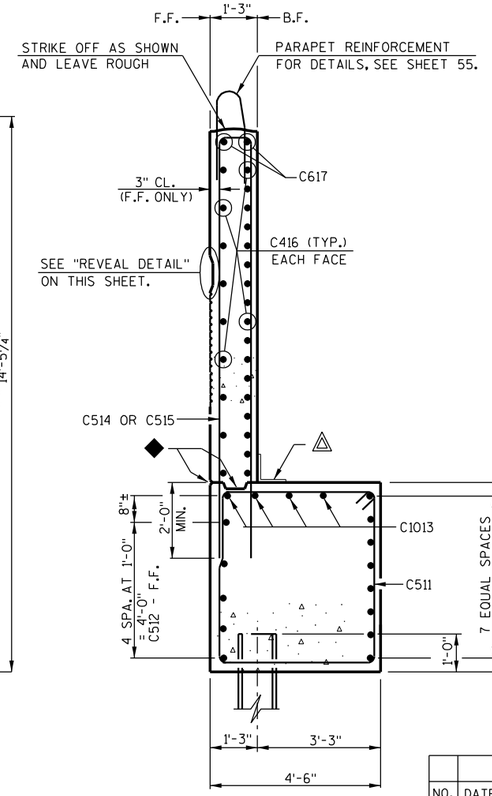
A C D E FOR SYMBOL DESCRIPTIONS, SEE SHEET 81.



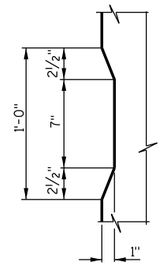
PLAN - WING 1



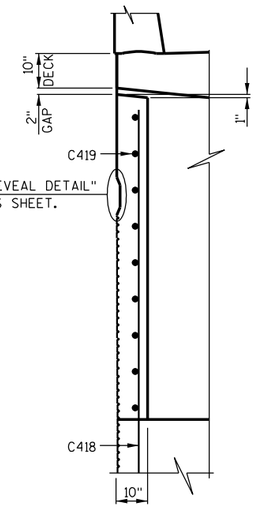
ELEVATION - WING 1



SECTION B-B



REVEAL DETAIL



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

WING 1

SHEET 16 OF 91
905

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\06_WING1_V7.B-5-679.DGN

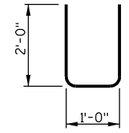
PLOT DATE : 4/22/2013

8

8

STATE PROJECT NUMBER

1133-11-74



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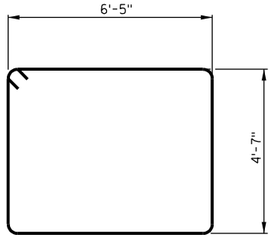

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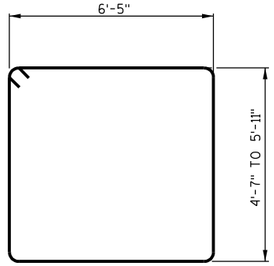

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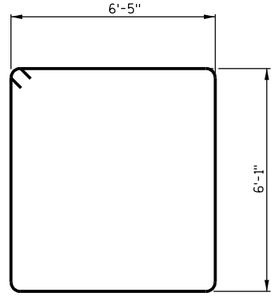

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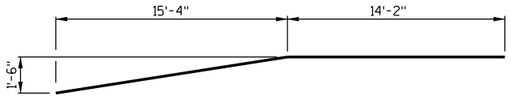

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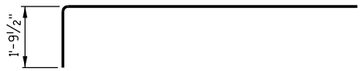

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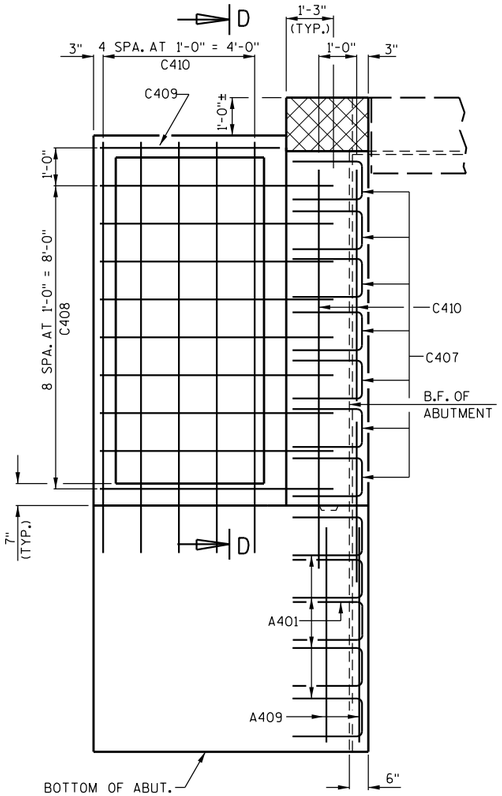
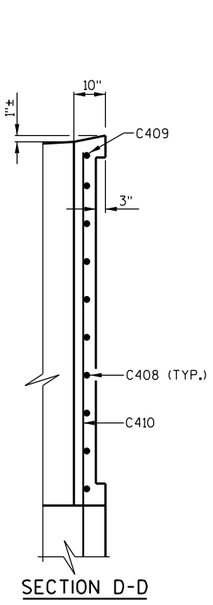
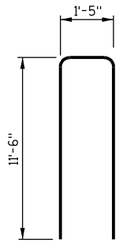


END VIEW - WEST END (CORNER 2)

(SHOWING SIDEWALL & B.F. NOTCH REINFORCEMENT)



SECTION D-D



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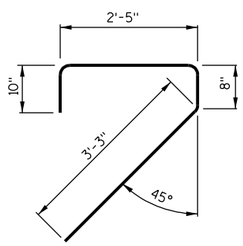

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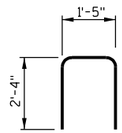

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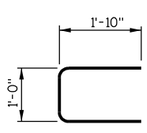

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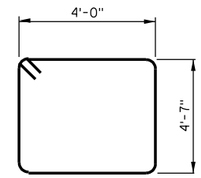

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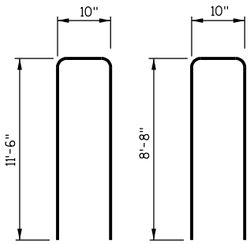


C514 C515

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT SHOWN IN THIS BILL IS INCLUDED WITH UNIT 1 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 5,910 LBS.
A401	5	4-10	X		BODY - BOTTOM - WEST END	HORIZ.
A602	16	22-10	X		BODY -STIRRUPS	VERT.
A603	14	24-2	X	⚹	BODY -STIRRUPS	VERT.
A604	15	25-10	X		BODY -STIRRUPS	VERT.
A905	13	44-2			BODY - F.F., TOP, & BOTTOM	HORIZ.
A606	2	23-6			BODY - F.F. & B.F.	HORIZ.
A607	6	29-6	X		BODY - TOP	HORIZ.
A1008	10	45-6	X		BODY - B.F.	HORIZ.
A409	2	6-1			BODY - WEST END - CORNER 2	VERT.
EPOXY COATED BARS						TOTAL WEIGHT = 6,100 LBS.
C501	45	24-3	X		ABUTMENT BACKWALL	VERT.
C502	20	44-2			ABUTMENT BACKWALL	HORIZ.
C503	43	6-10	X		ABUTMENT BACKWALL - CORBEL	VERT.
C504	2	42-8			ABUTMENT BACKWALL - CORBEL	HORIZ.
C505	45	5-10	X		PAVING BLOCK	VERT.
C506	18	8-3			PAVING BLOCK	HORIZ.
C407	7	4-6	X		SIDEWALL - WEST END - CORNER 2	HORIZ.
C408	9	6-3			SIDEWALL - WEST END - CORNER 2	HORIZ.
C409	1	4-8			SIDEWALL - WEST END - CORNER 2	HORIZ.
C410	7	10-11			SIDEWALL - WEST END - CORNER 2	VERT.
C511	16	17-9	X		WING 1 - STIRRUPS	VERT.
C512	5	22-0			WING 1 - F.F. - BOTTOM	HORIZ.
C1013	12	22-0			WING 1 - B.F. - BOTTOM	HORIZ.
C514	31	23-7	X		WING 1 - F.F. & B.F.	VERT.
C515	13	17-11	X		WING 1 - F.F. & B.F.	VERT.
C416	26	23-7			WING 1 - F.F. & B.F.	HORIZ.
C617	2	23-7			WING 1 - F.F. & B.F. - TOP	HORIZ.
C418	5	9-9			WING 1 - SIDEWALL	VERT.
C419	9	6-1			WING 1 - SIDEWALL	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

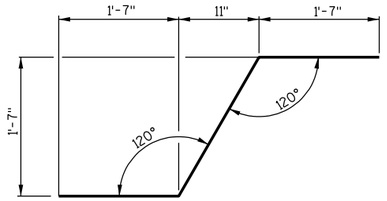
MARK	NO. REQ'D.	LENGTH
A603	1 SERIES OF 14	22'-10" TO 25'-6"

STAINLESS STEEL BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT SHOWN IN THIS BILL IS INCLUDED WITH UNIT 1 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
SS901	42	5-0	X		S. APPROACH APRON AT BRIDGE PAVING NOTCH	LONGIT.

TOTAL WEIGHT = 720 LBS.



SS901

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT DETAILS

SHEET 17 OF 91
906

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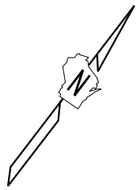
8

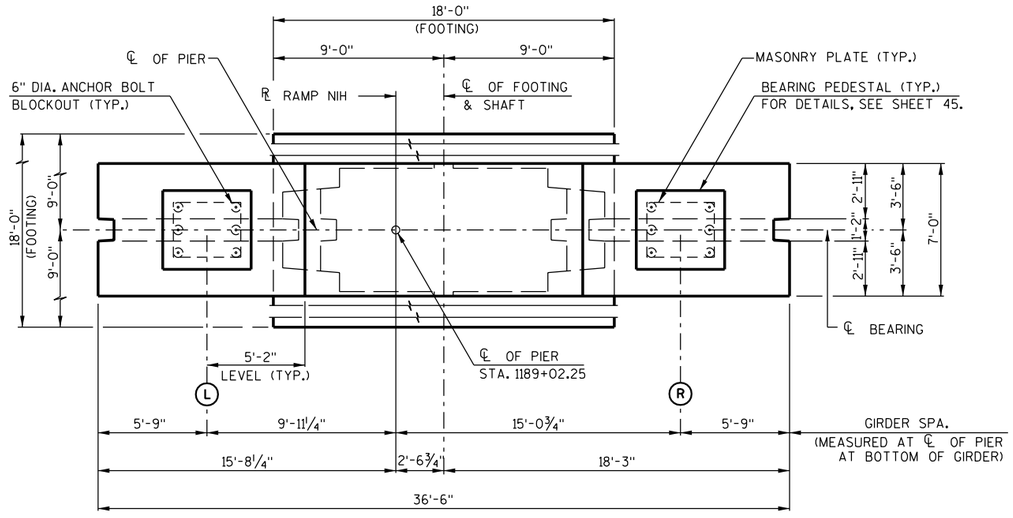
FILE NAME : P:\153 USH 41\1133-10-00 UPGRADE\STRUCTURES\B-5-679\d17.SABUTDET.V7.B-5-679.DGN

PLOT DATE : 4/22/2013

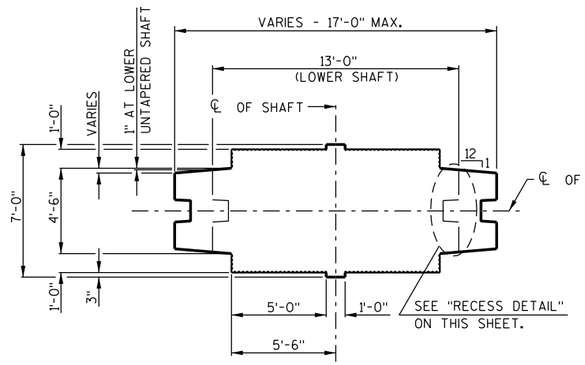
STATE PROJECT NUMBER

1133-11-74



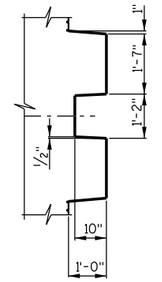


PLAN



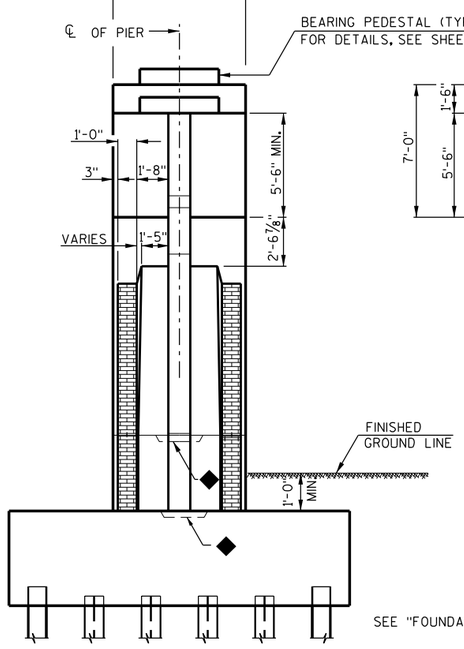
SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



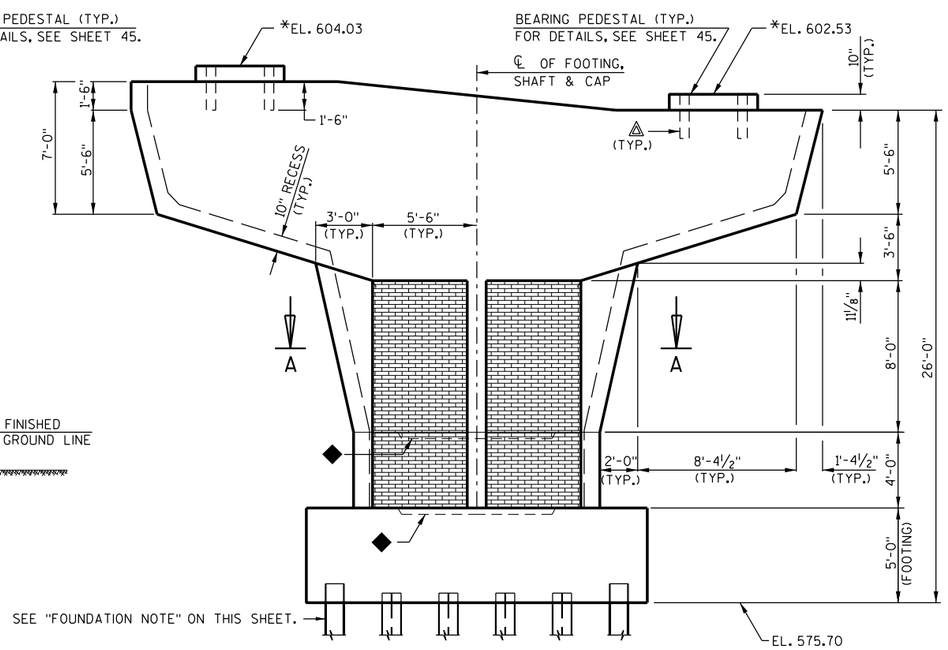
RECESS DETAIL

(LOWER SHAFT)



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



ELEVATION

(LOOKING UPSTATION)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 1 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 25, 26 & 34.

FOUNDATION NOTE

PIER 1 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 70' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 520.00.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER 1
LAYOUT DETAILS

SHEET 18 OF 91
907

8

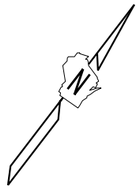
8

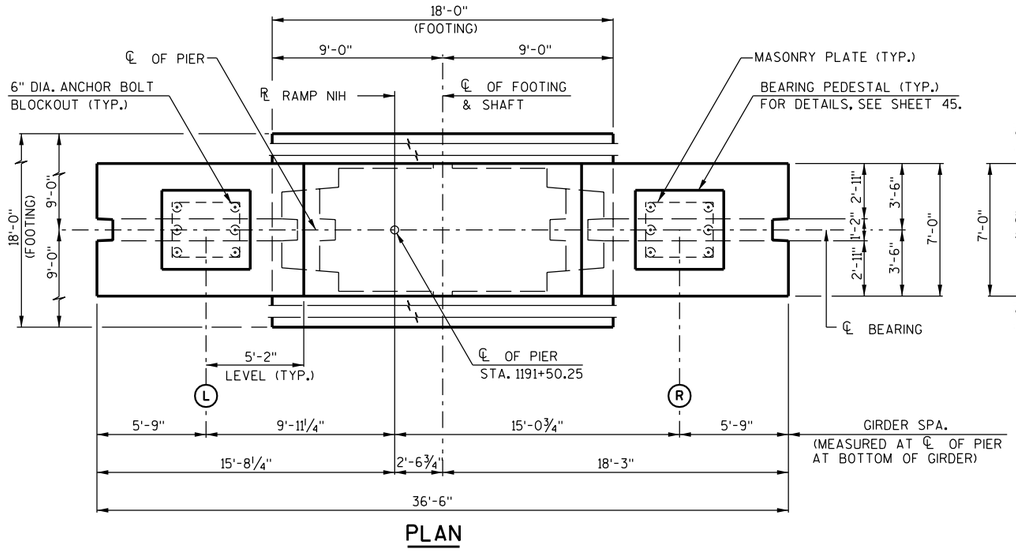
FILE NAME : P:\453 USH 41\1133-10-00 URGs\STRUCTURES\B-5-679\408_PIER1_VT_B-5-679.DGN

PLOT DATE : 4/22/2013

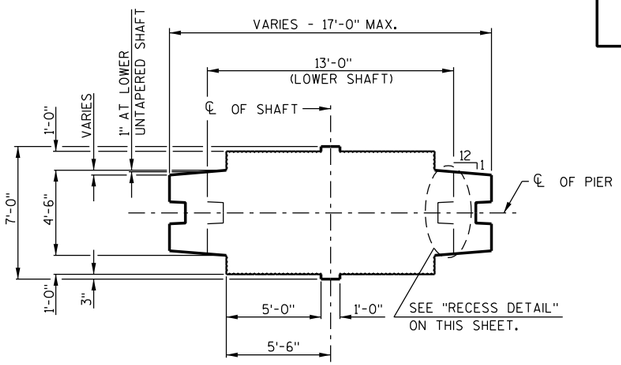
STATE PROJECT NUMBER

1133-11-74



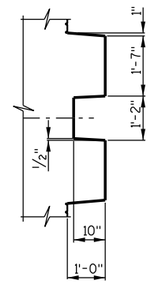


PLAN



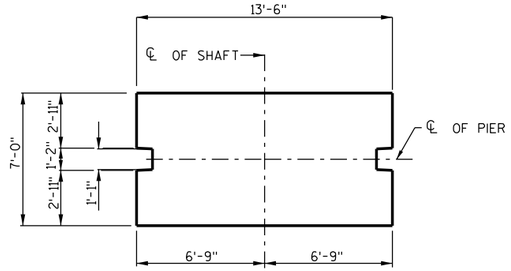
SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

ELEVATION

(LOOKING UPSTATION)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 2 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 25, 26 & 35.

FOUNDATION NOTE

PIER 2 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 65'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 523.00.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER 2
LAYOUT DETAILS

SHEET 19 OF 91
908

8

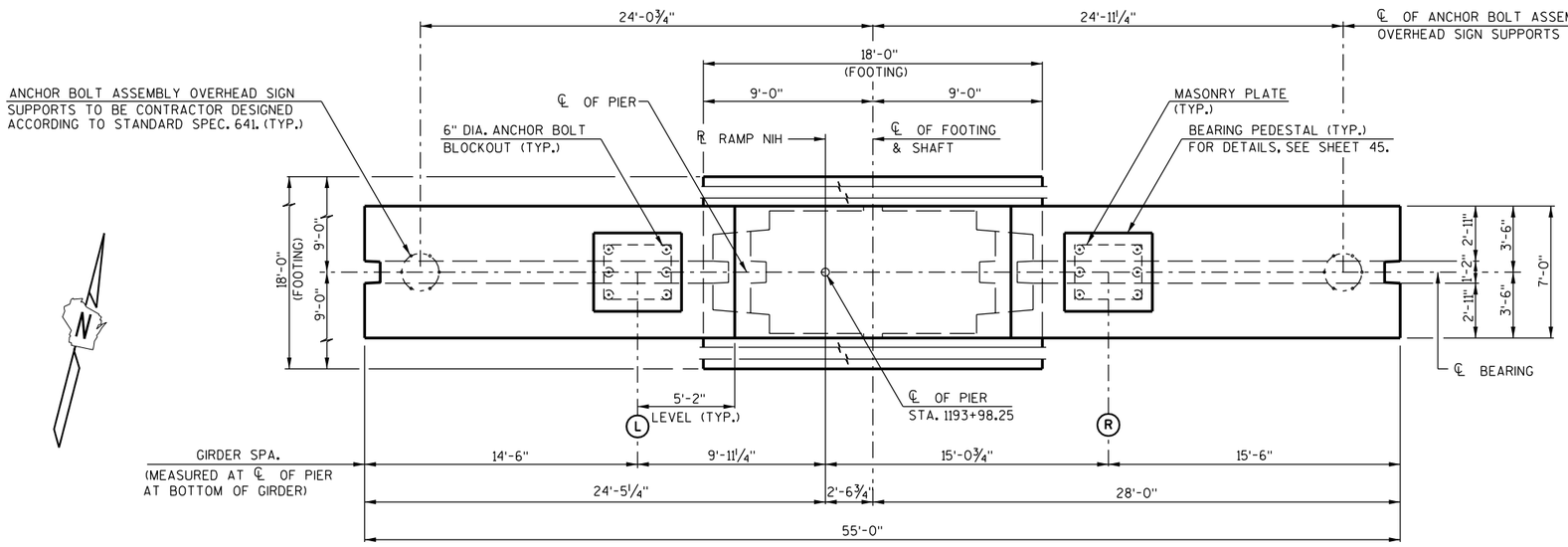
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\d09_PIER2_V7_B-5-679.DGN

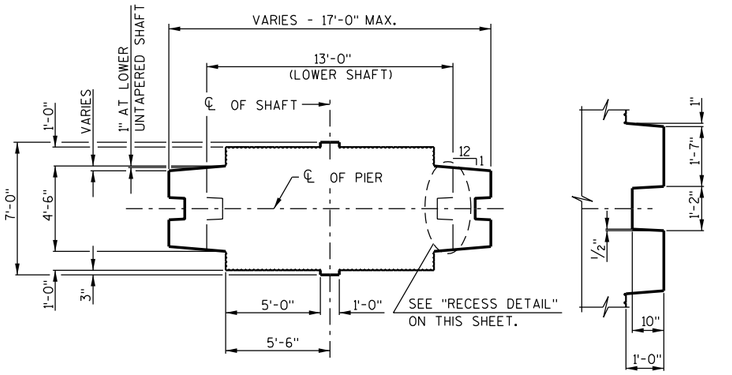
PLOT DATE : 4/22/2013

STATE PROJECT NUMBER

1133-11-74



PLAN

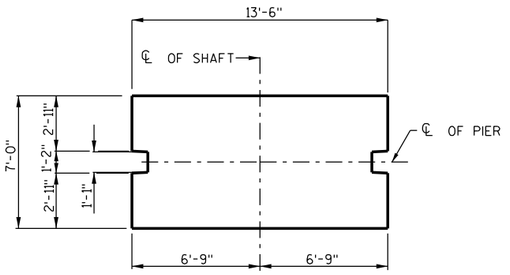


SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

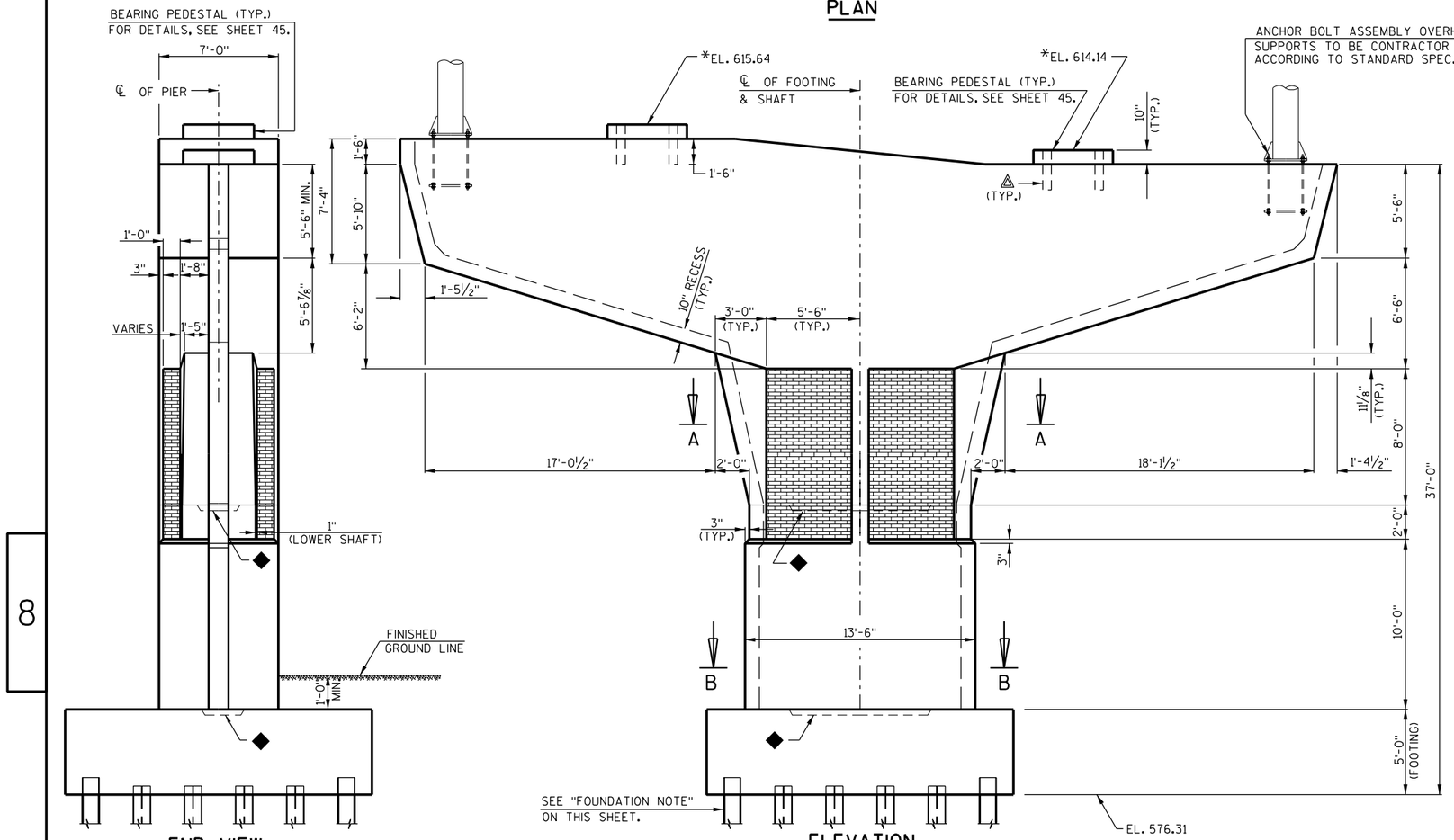
RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)

ELEVATION

(LOOKING UPSTATION)

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 3 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 27, 28 & 36.

FOUNDATION NOTE

PIER 3 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 75'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 528.00.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER 3
LAYOUT DETAILS

SHEET 20 OF 91
909

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\020.PIER3.V7.B-5-679.DGN

PLOT DATE : 4/26/2013

STATE PROJECT NUMBER

1133-11-74

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

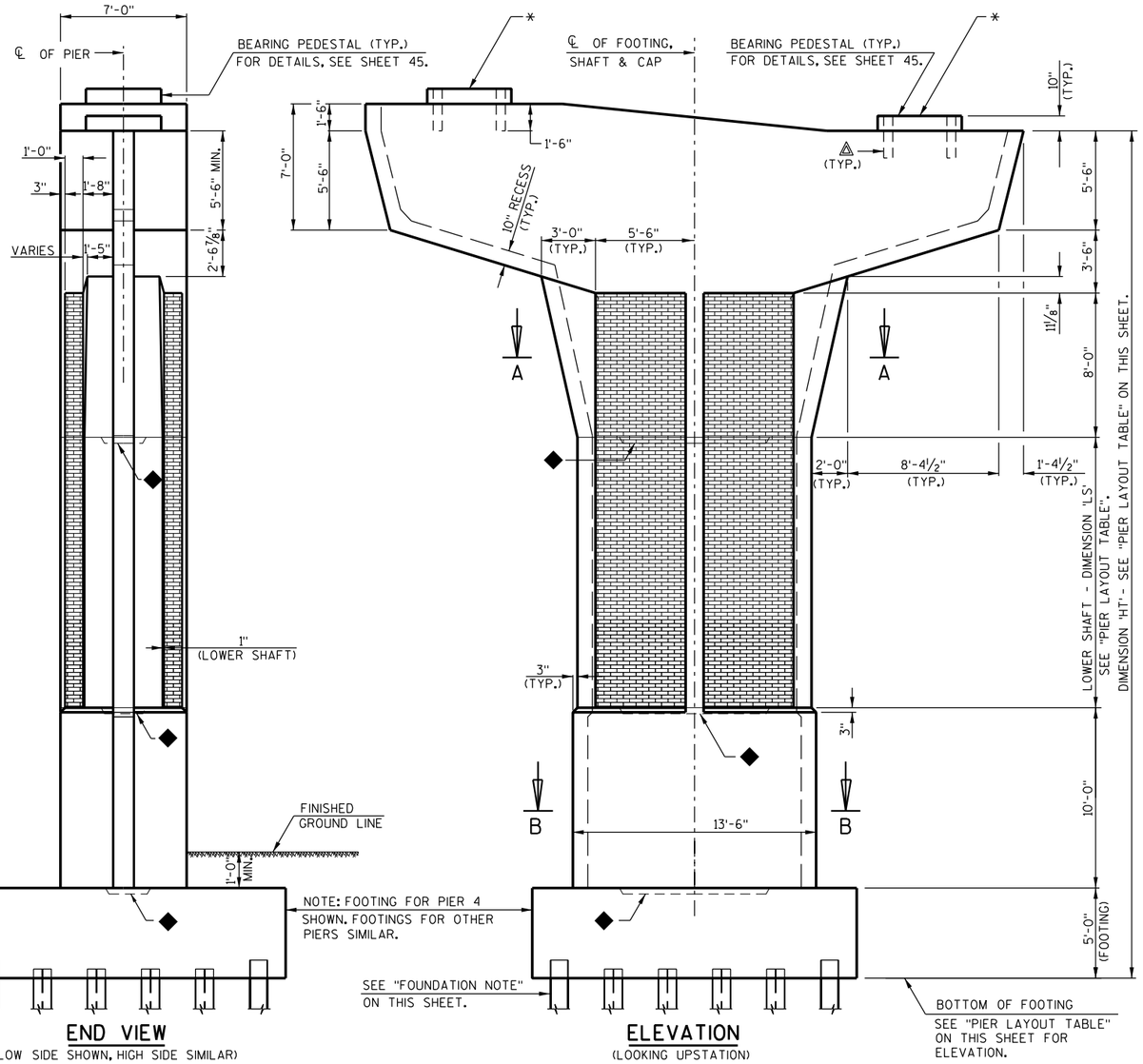
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

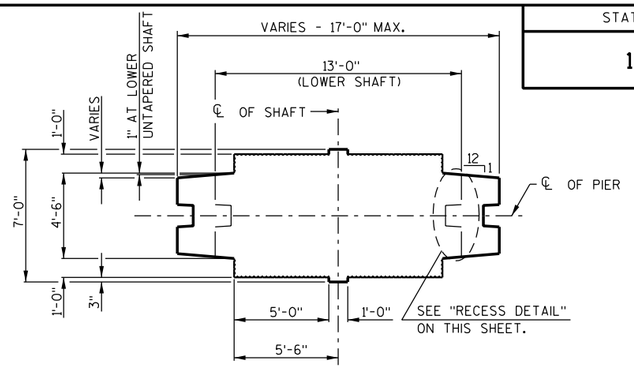
△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIERS 4 & 6 THRU 8 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 25, 26, & 37-40.

PIER LAYOUT TABLE

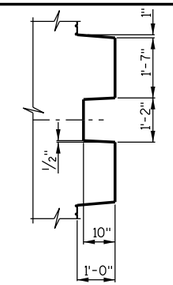
	℄ OF BRG. STATION	* ELEVATION LEFT PEDESTAL	* ELEVATION RIGHT PEDESTAL	SHAFT DIM. 'LS'	DIMENSION 'HT'	BOTTOM FTG. ELEVATION
PIER 4	1196+46.25	619.78	618.28	10'-0"	42'-0"	575.45
PIER 6	1199+90.25	623.43	621.93	11'-0"	43'-0"	578.10
PIER 7	1202+38.25	624.77	623.27	12'-0"	44'-0"	578.44
PIER 8	1204+86.25	624.90	623.40	14'-0"	46'-0"	576.57





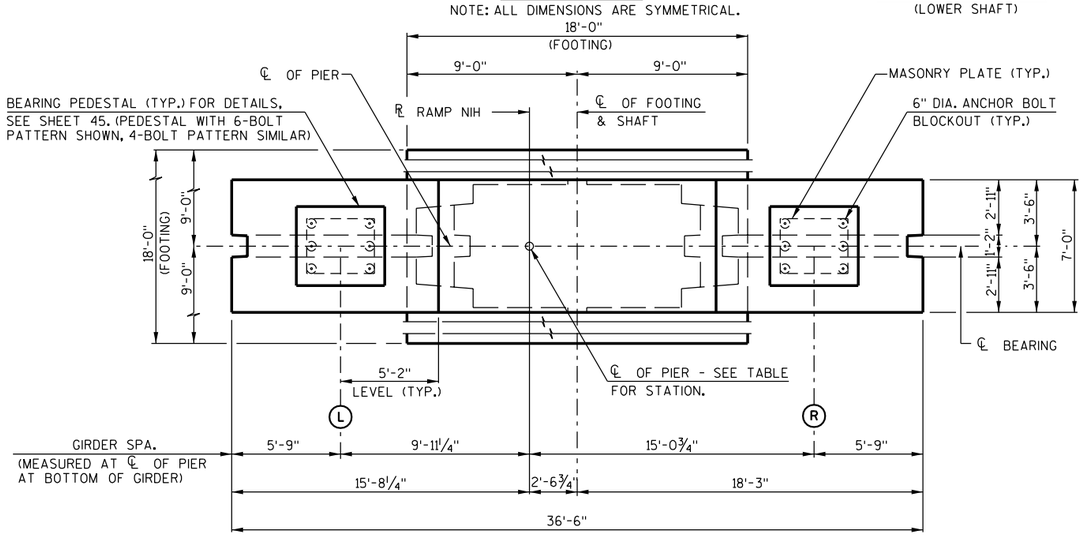
SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

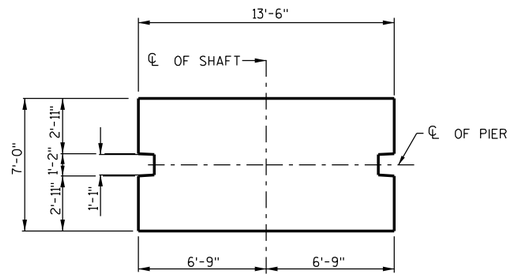


RECESS DETAIL

(LOWER SHAFT)



PLAN



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

FOUNDATION NOTE

PIERS 4 & 6 THRU 8 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. ESTIMATED 70'LONG AT PIERS 4, 6 & 7, AND 75'AT PIER 8. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 543.00 AT PIER 4, 548.00 AT PIER 6, 531.00 AT PIER 7, AND 533.00 AT PIER 8. STATE OWNED HP 14x89 PILES SHALL BE USED FOR PIERS 6 & 7. IF ADDITIONAL PILES ARE REQUIRED, PILING STEEL HP 14-INCH x 73 LB SHALL BE PROVIDED BY THE CONTRACTOR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIERS 4, 6, 7, & 8 LAYOUT DETAILS

SHEET 21 OF 91
910

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\SD\5-679\021.PIER4678.V7.B-5-679.DGN
PLOT DATE : 4/26/2013

STATE PROJECT NUMBER

1133-11-74

LEGEND

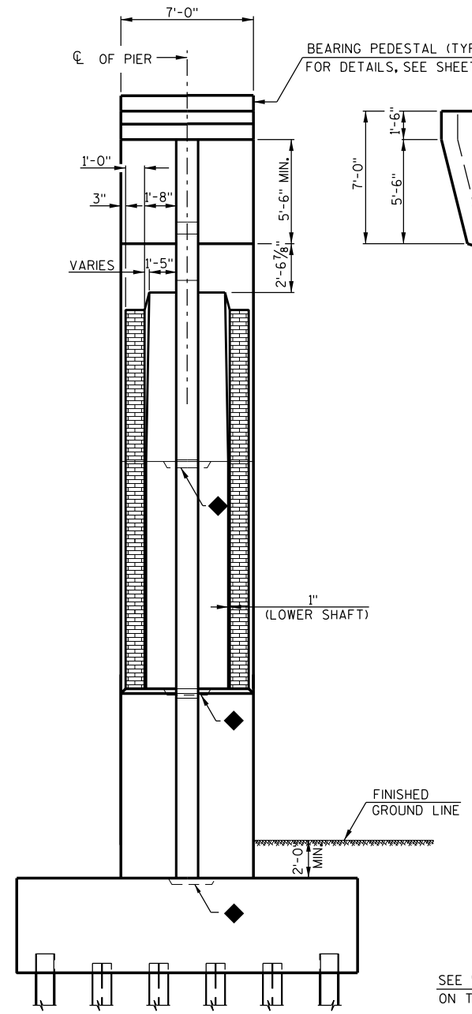
* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

** ℄ PIER AND ℄ BEARINGS ARE RADIAL. DIMENSION SHOWN IS AT THE REFERENCE LINE.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

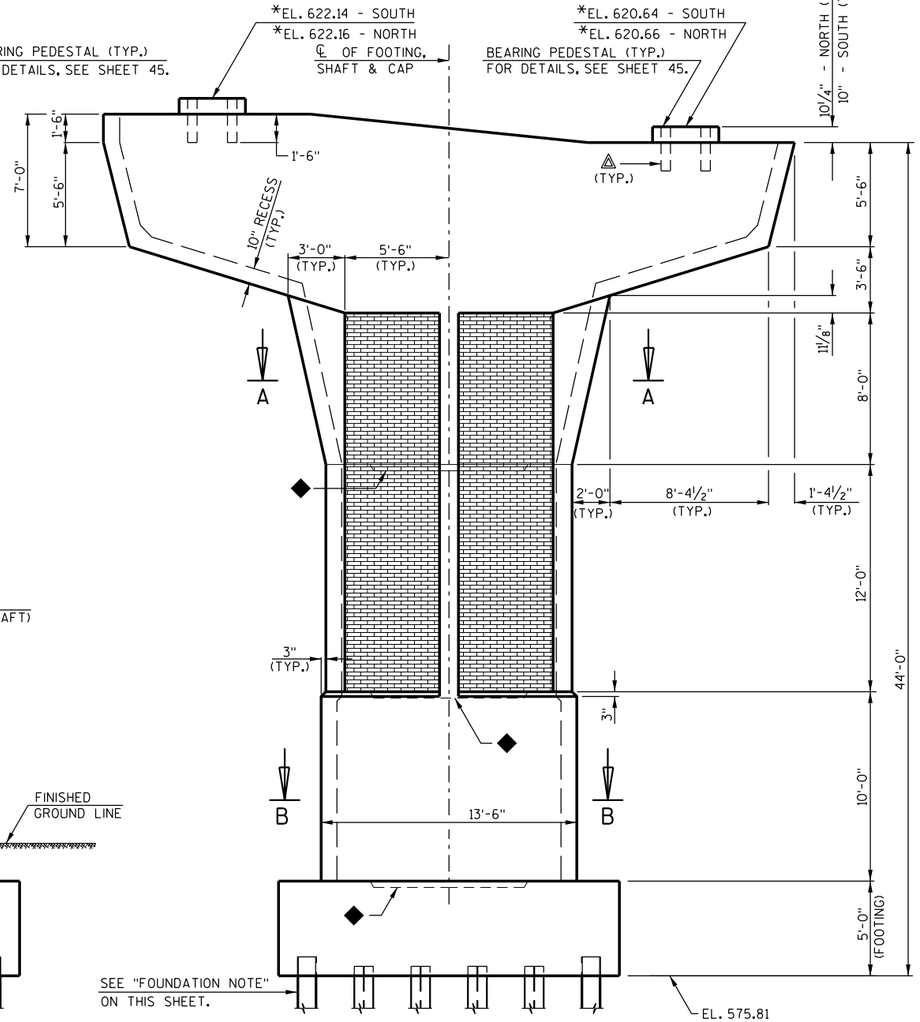
△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 5 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 29, 30 & 38.



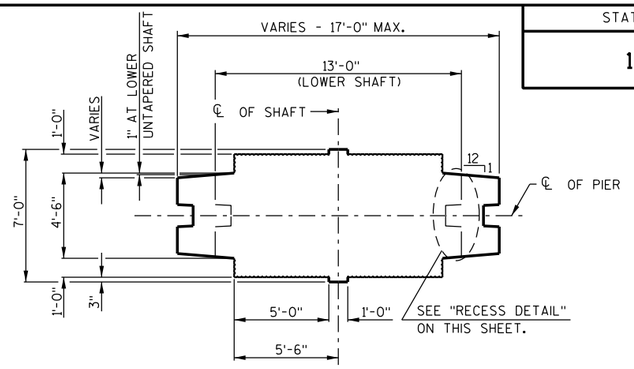
END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



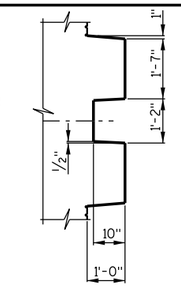
ELEVATION

(LOOKING UPSTATION)



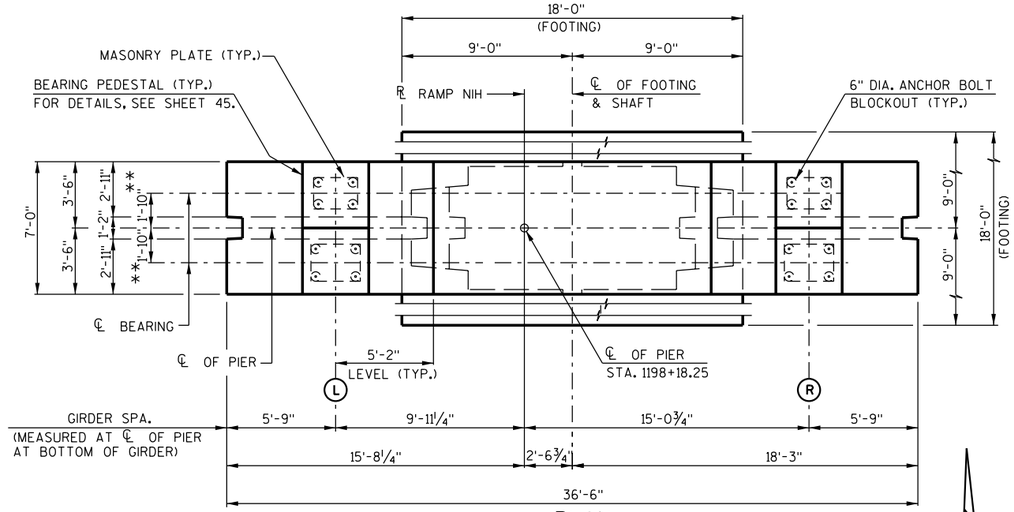
SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

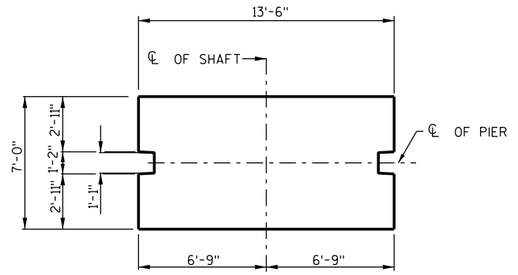


RECESS DETAIL

(LOWER SHAFT)



PLAN



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

FOUNDATION NOTE

PIER 5 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 75'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 526.00.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER 5
LAYOUT DETAILS

SHEET 22 OF 91
911

8

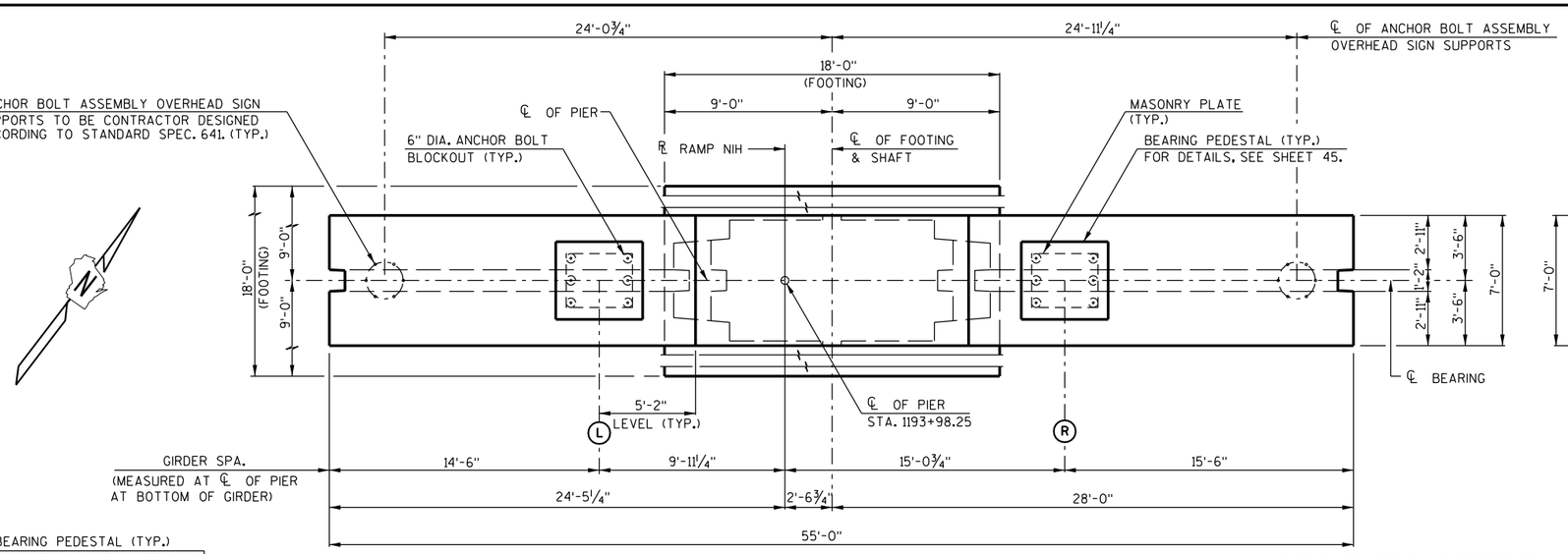
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\02_PIER5_V7_B-5-679.DGN

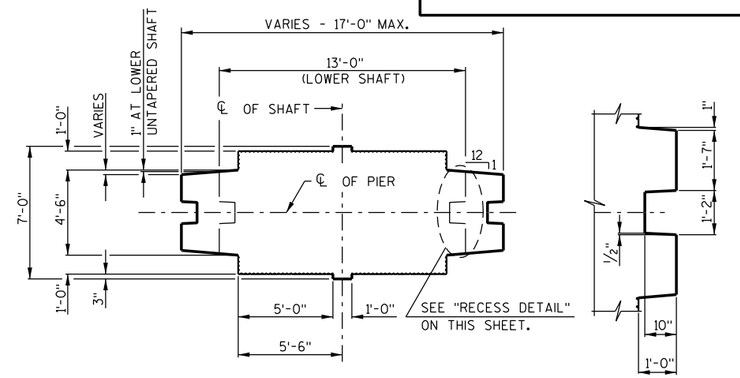
PLOT DATE : 4/24/2013

STATE PROJECT NUMBER

1133-11-74



PLAN

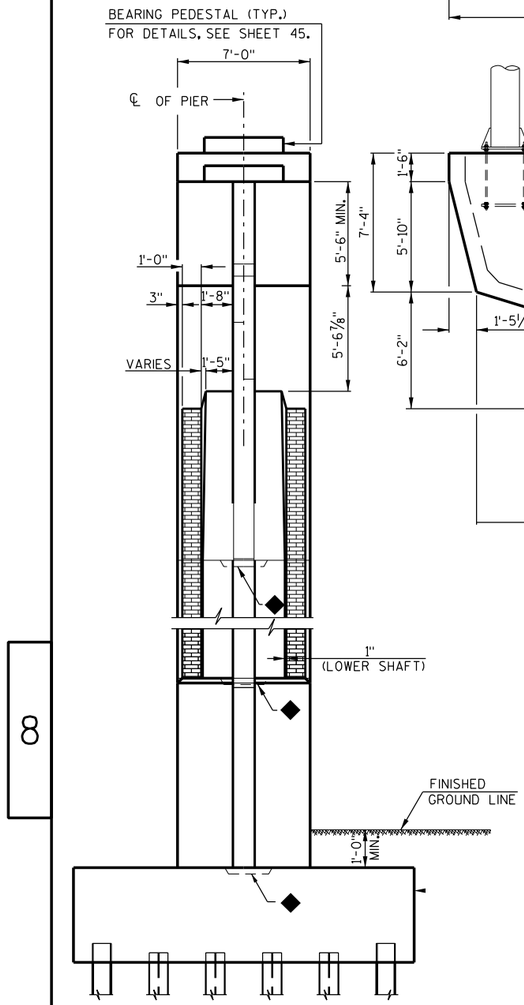


SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

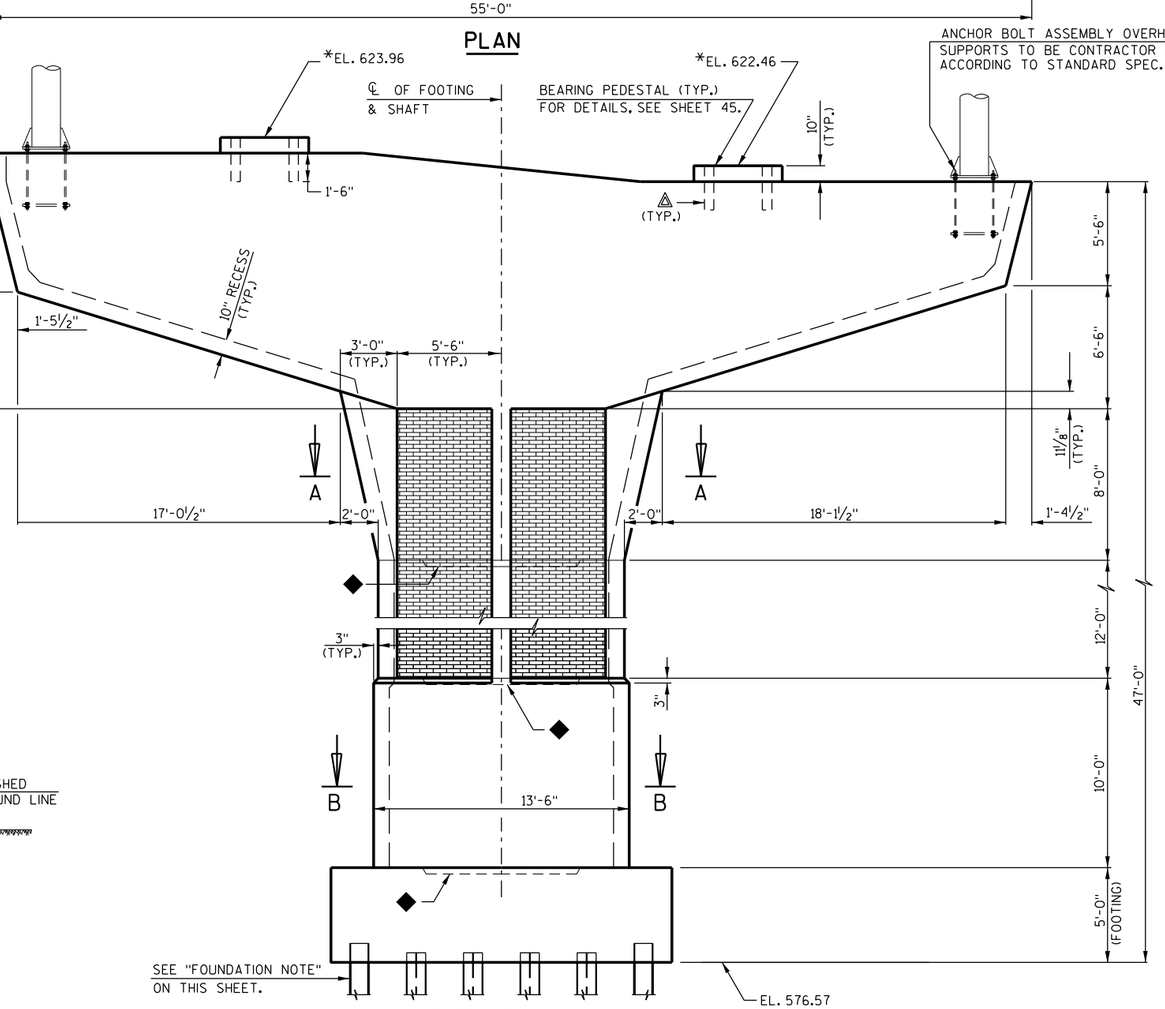
RECESS DETAIL

(LOWER SHAFT)



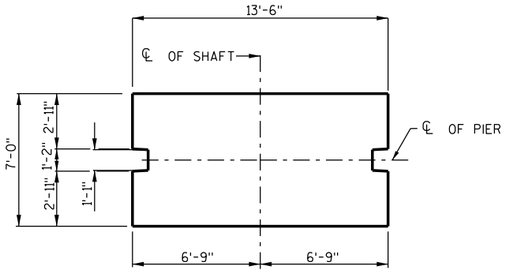
END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)



ELEVATION

(LOOKING UPSTATION)



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER 9 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 27, 28, & 41.

FOUNDATION NOTE

PIER 9 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 75'LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 541.00.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER 9
LAYOUT DETAILS

SHEET 23 OF 91
912

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

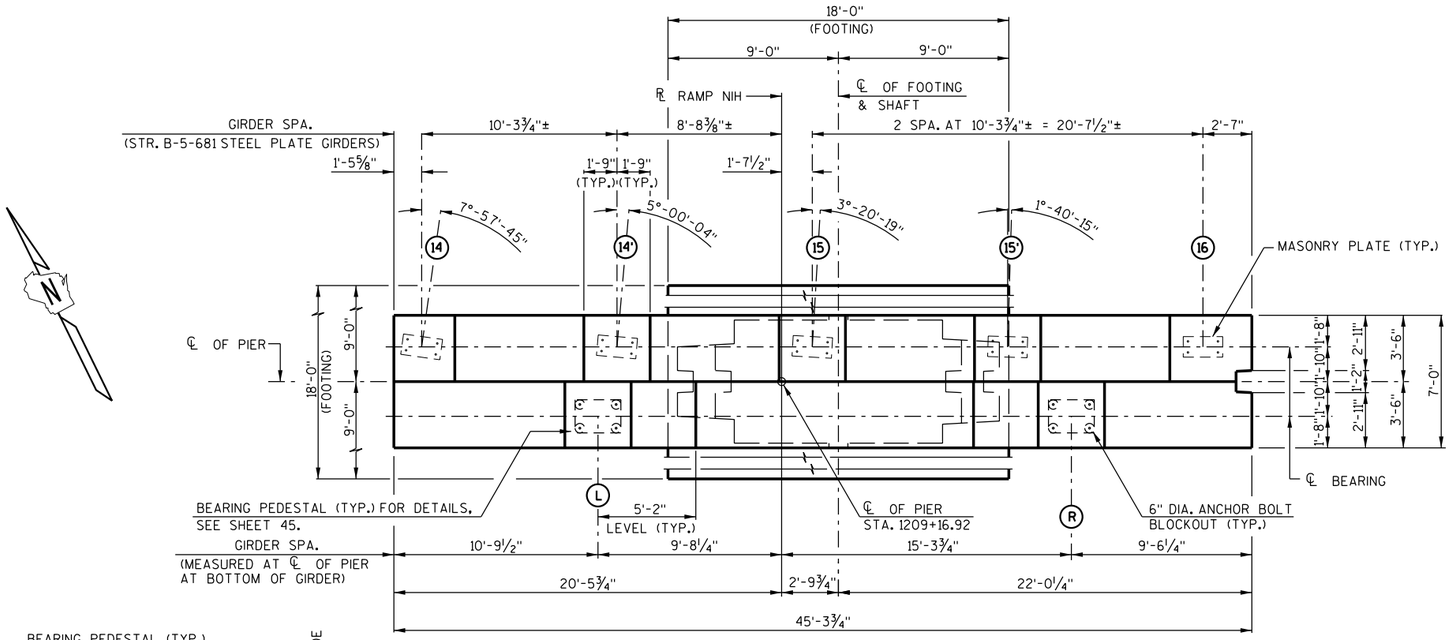
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\d023_PIER9_V7.B-5-679.DGN

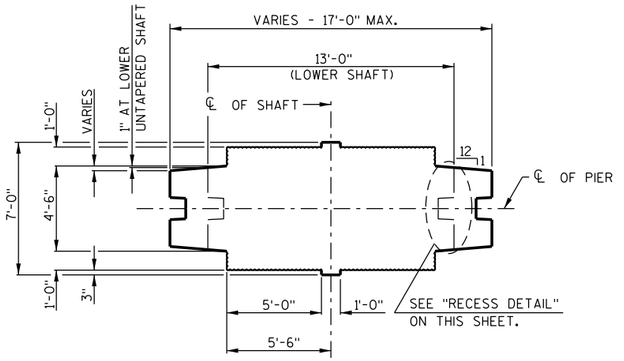
PLOT DATE : 4/26/2013

STATE PROJECT NUMBER

1133-11-74

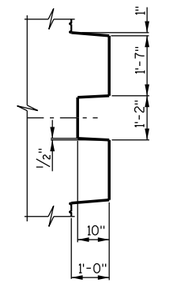


PLAN



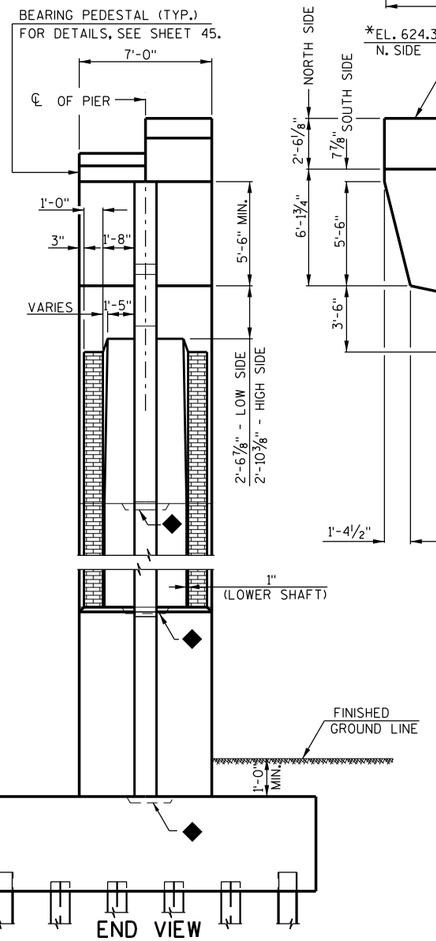
SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



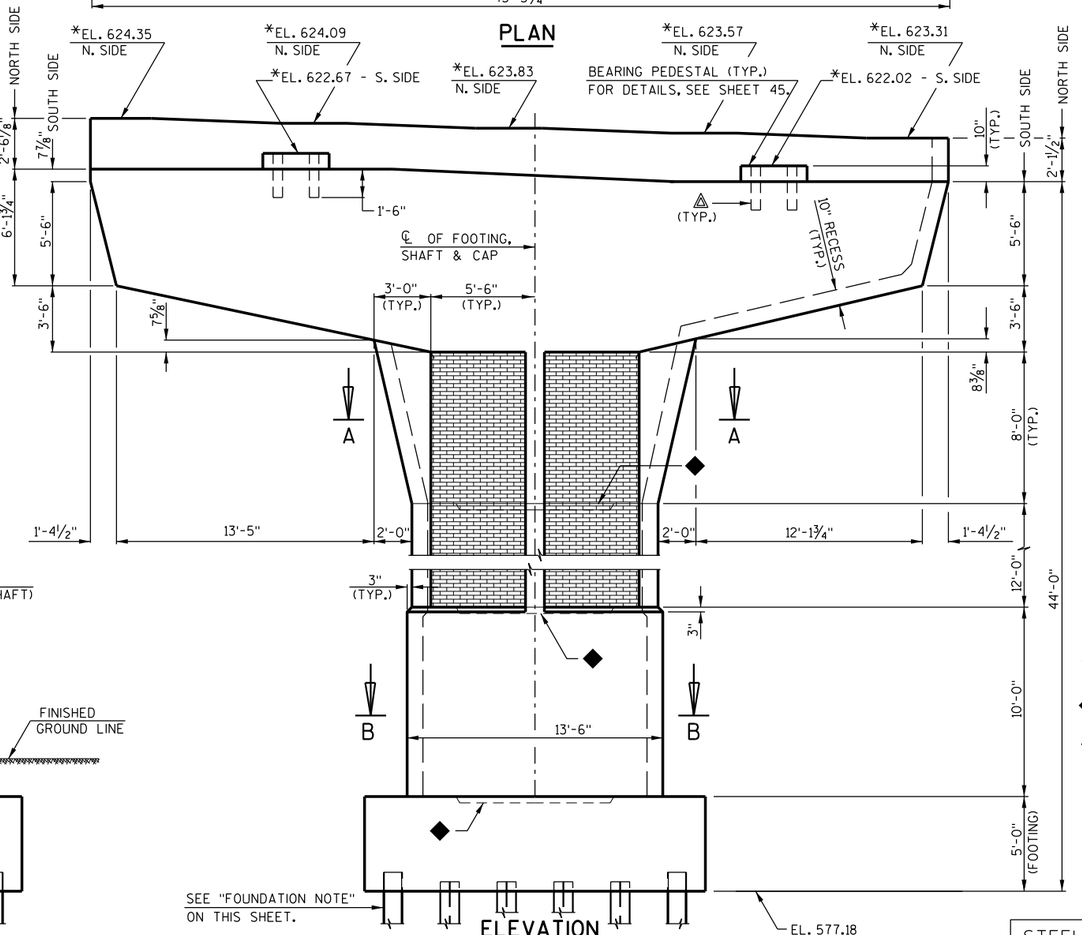
RECESS DETAIL

(LOWER SHAFT)



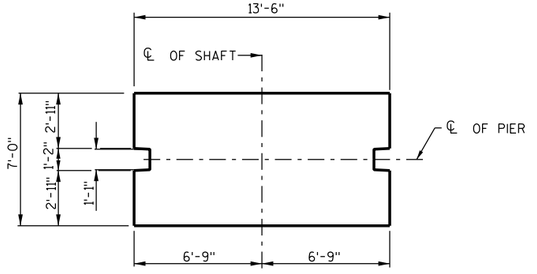
END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR EXCEPT OMIT NOTCH IN PIER CAP)



ELEVATION

(LOOKING UPSTATION)



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

FOUNDATION NOTE

PIER C1 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 70' LONG. THE MINIMUM PILE TIP EL. FOR UPLIFT IS 525.00.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE PEDESTAL AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

△ 6" DIA. ANCHOR BOLT BLOCKOUT (TYP.) BLOCKOUTS SHALL BE FORMED USING CORRUGATED FORMS THAT WILL PROVIDE POSITIVE INTERLOCK BETWEEN PIER CAP AND THE GROUT SURROUNDING THE ANCHOR BOLTS. (DISPLACE BAR STEEL AS NECESSARY TO CLEAR BOXOUT).

NOTE: FOR PIER C1 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 28, 29 & 38.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER C1
LAYOUT DETAILS

SHEET 24 OF 91
913

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\024_PIERC1_V7_B-5-679.DGN

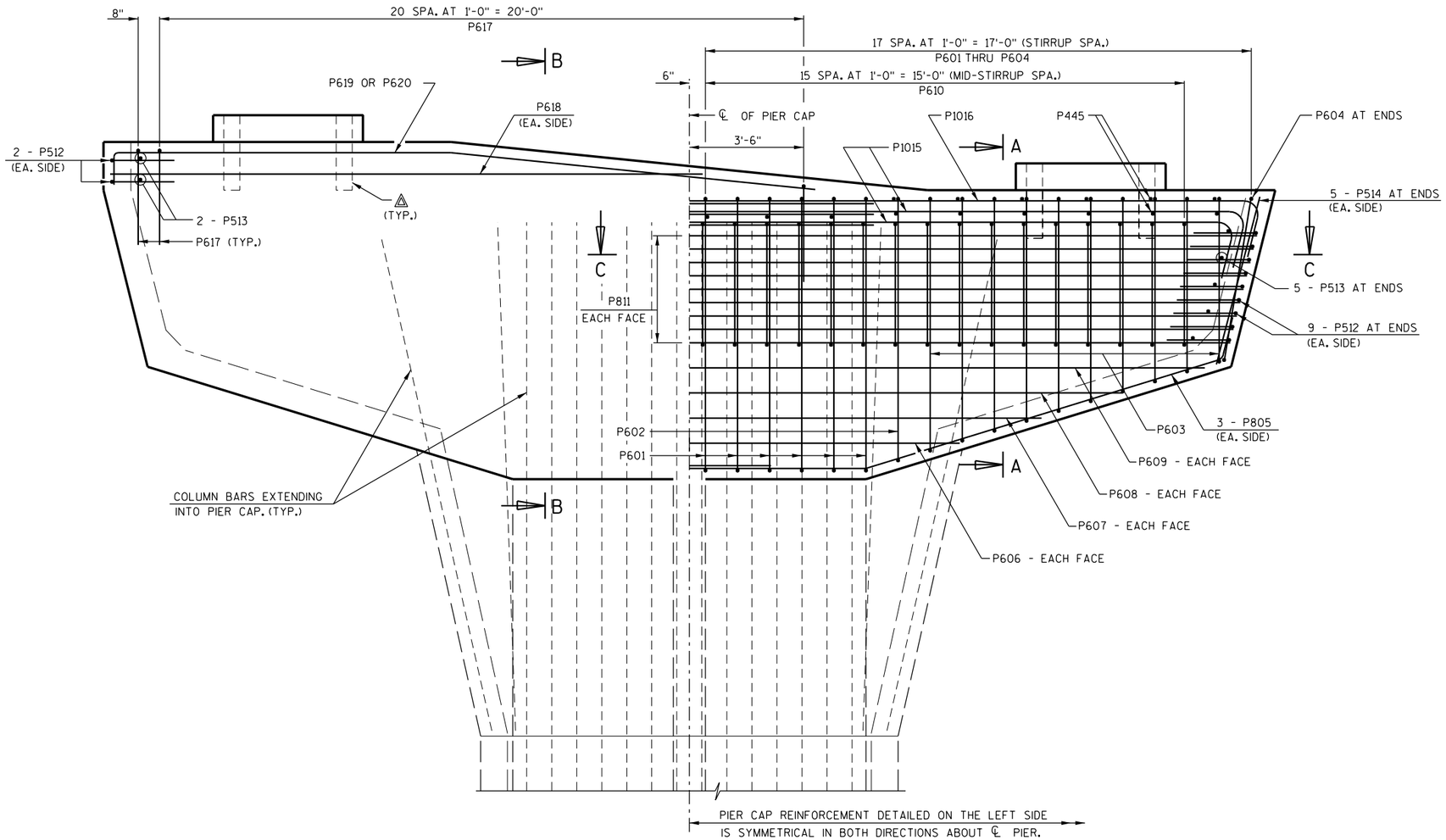
PLOT DATE : 4/26/2013

8

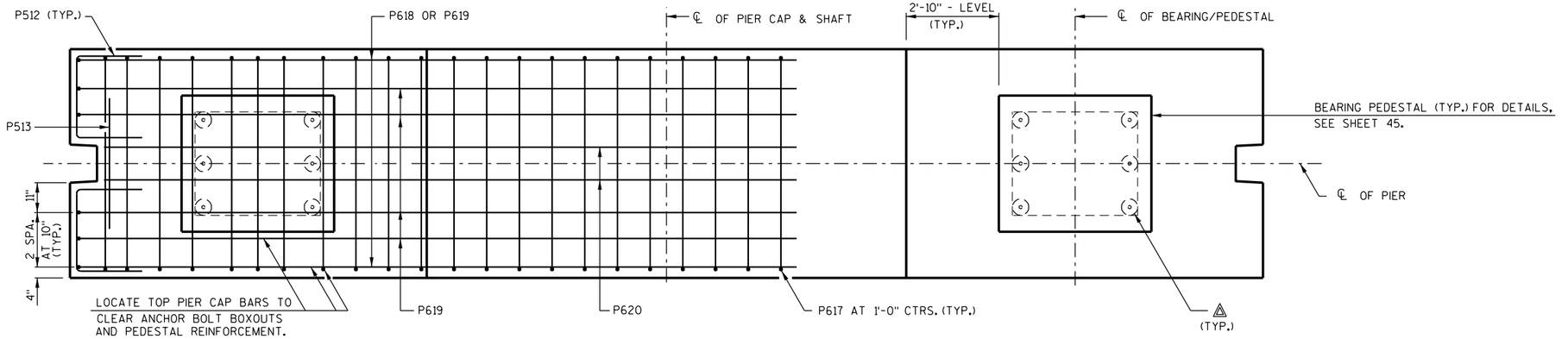
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

⚠ FOR SYMBOL DESCRIPTION, SEE SHEET 18.

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1015 & P1016 BARS 11'-6" MIN.
3. SEE SHEET 26 FOR SECTIONS THRU PIER CAP.
4. SEE SHEETS 18, 19 & 21 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS 34, 35, & 37-40 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.
7. SPACE P445 BARS AT 2'-0" SPACING AS NESSARY TO SUPPORT TOP TWO LAYERS OF P1015 & P1016 BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIERS 1, 2, 4 & 6 THRU 8

SHEET 25 OF 91

914

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

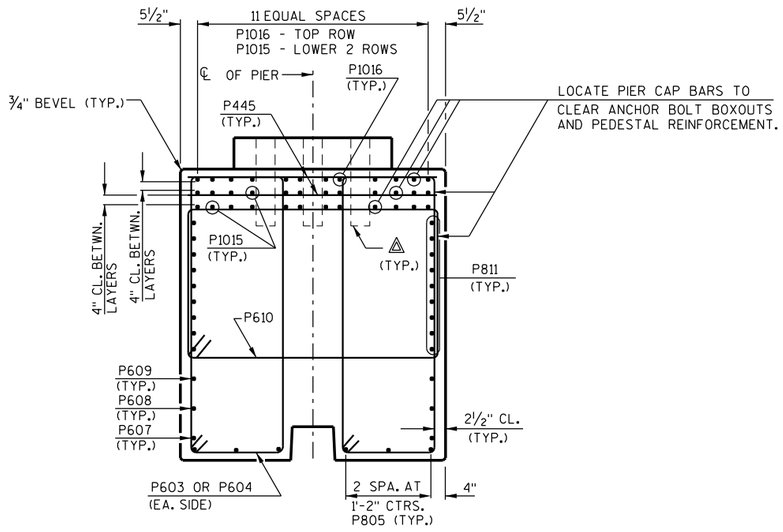
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\sb\B-5-679\s025_CAP_124_6-8A_V7.B-5-679.DGN

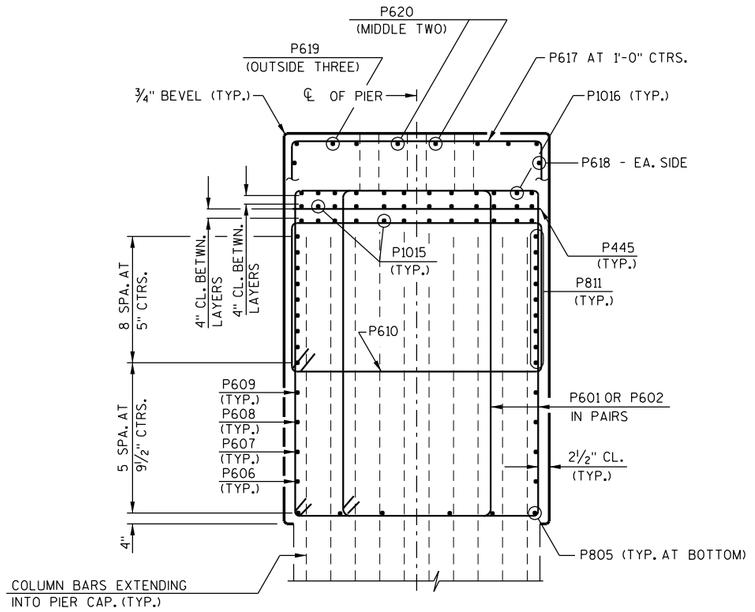
PLOT DATE : 4/22/2013

STATE PROJECT NUMBER

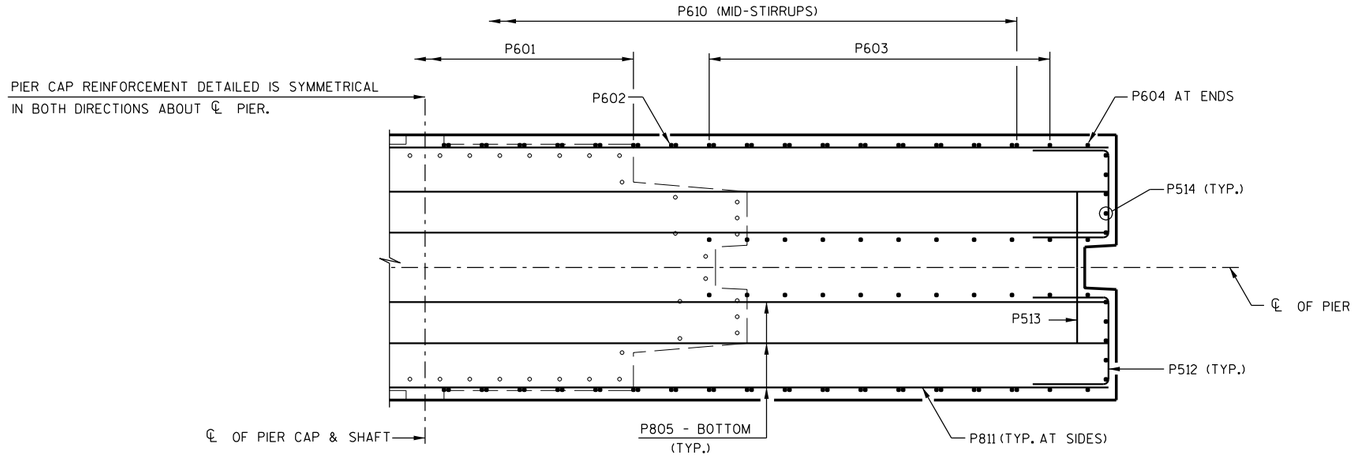
1133-11-74



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET 18.

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1015 & P1016 BARS 11'-6" MIN.
3. SEE SHEETS 18, 19 & 21 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
4. SEE SHEETS 34, 35, 37-40 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
5. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIERS 1, 2, 4 & 6 THRU 8

SHEET 26 OF 91

915

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

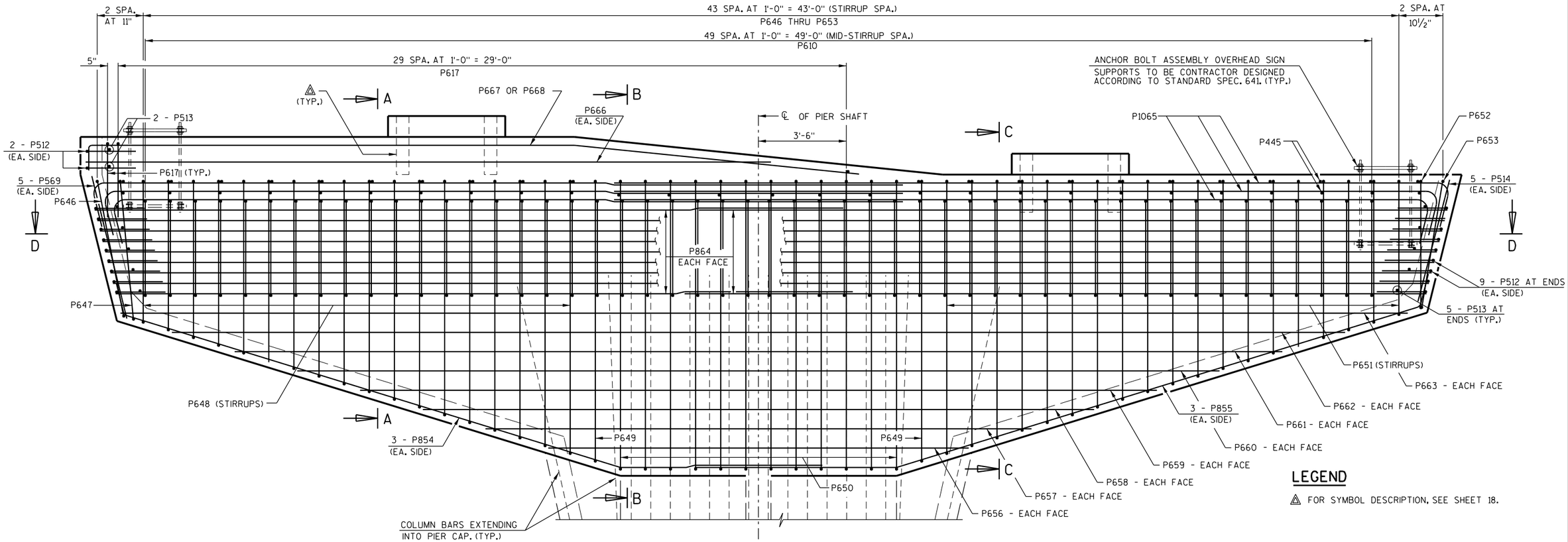
8

8

FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\d026_CAP_124_6-BB_V7_B-5-679.DGN

PLOT DATE : 4/24/2013

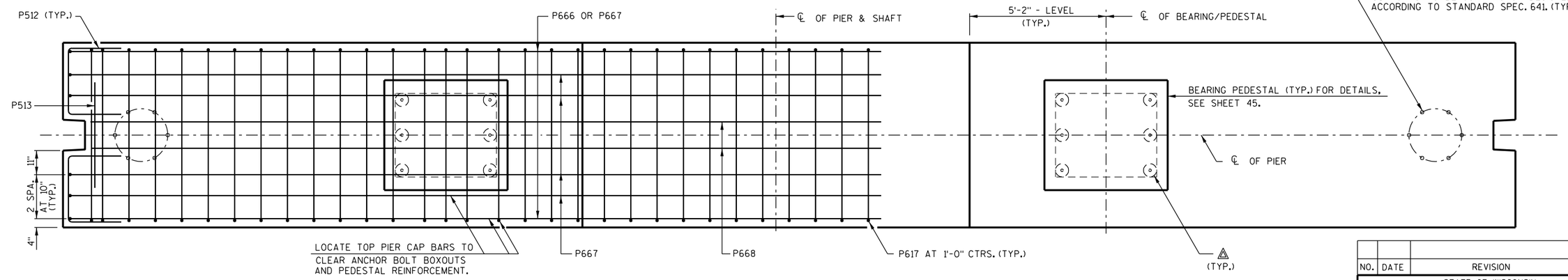
STATE PROJECT NUMBER
1133-11-74



ELEVATION - PIER CAP

LEGEND

⚠ FOR SYMBOL DESCRIPTION, SEE SHEET 18.



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

NOTES

1. LAP P854 & P855 BARS 5'-1" MIN.
2. LAP P1065 BARS 11'-6" MIN.
3. SEE SHEET 28 FOR SECTIONS THRU PIER CAP.
4. SEE SHEETS 20 & 23 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEETS 36 & 41 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.
7. SPACE P445 BARS AT 2'-0" SPACING AS NESSARY TO SUPPORT TOP TWO LAYERS OF P1065 BARS.
8. LAP P864 BARS 5'-9" MIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIERS 3 & 9

SHEET 27 OF 91
916

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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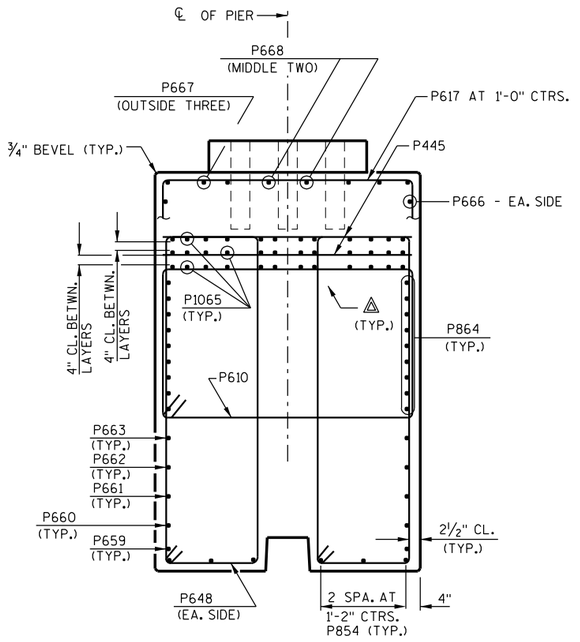
FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\d027.CAP.39A.V7.B-5-679.DGN

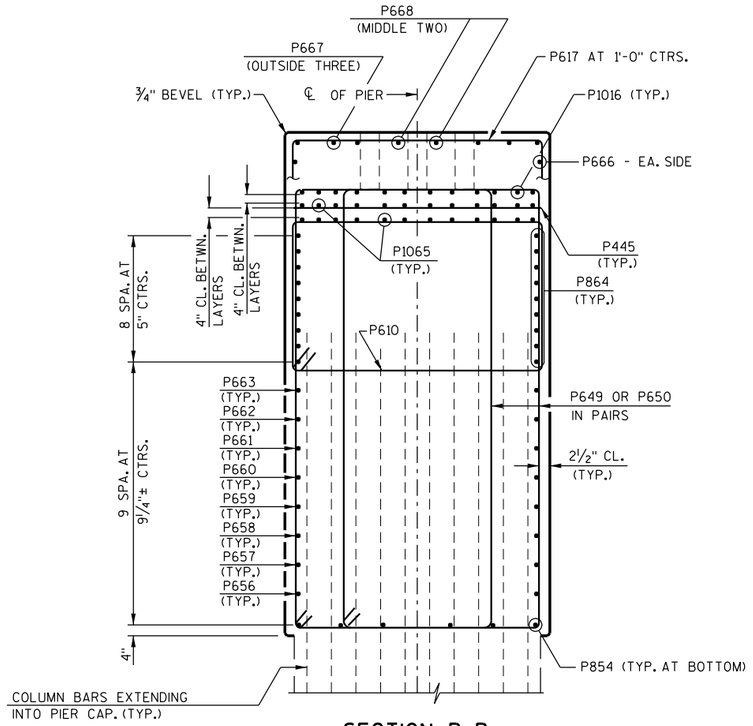
PLOT DATE : 4/26/2013

STATE PROJECT NUMBER

1133-11-74



SECTION A-A



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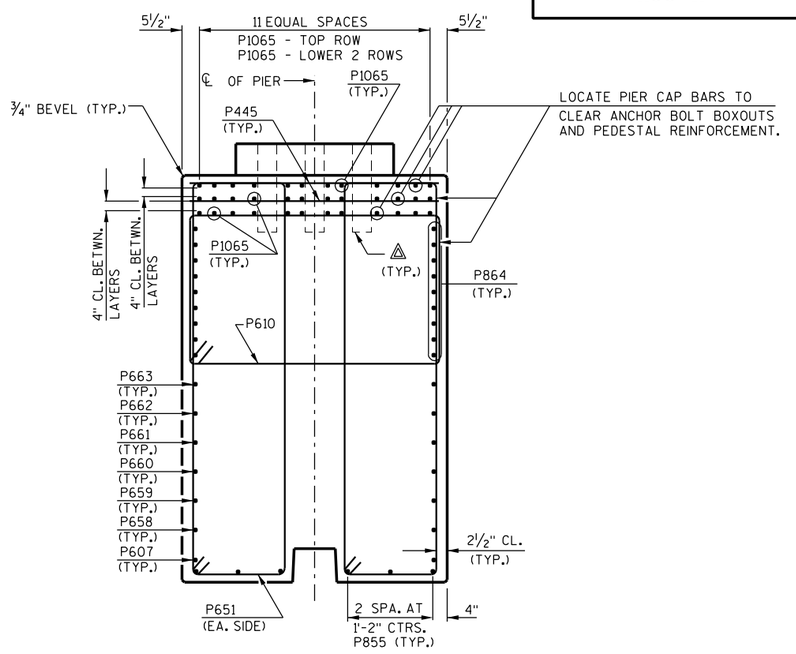
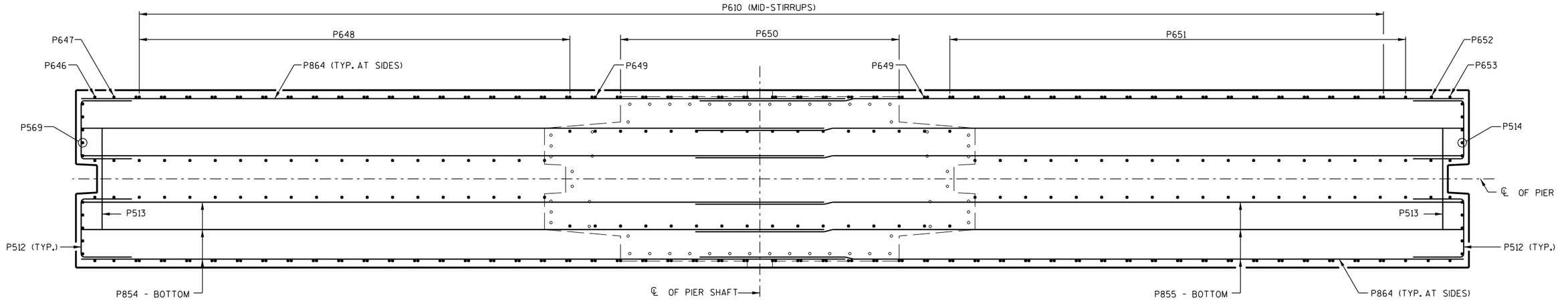


SECTION C-C



SECTION D-D

NOTES

1. LAP P854 & P855 BARS 5'-1" MIN.
2. LAP P1065 BARS 11'-6" MIN.
3. SEE SHEETS 20 & 23 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
4. SEE SHEETS 36 & 41 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
5. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.
6. LAP P864 BARS 5'-9" MIN.

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET 18.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIERS 3 & 9

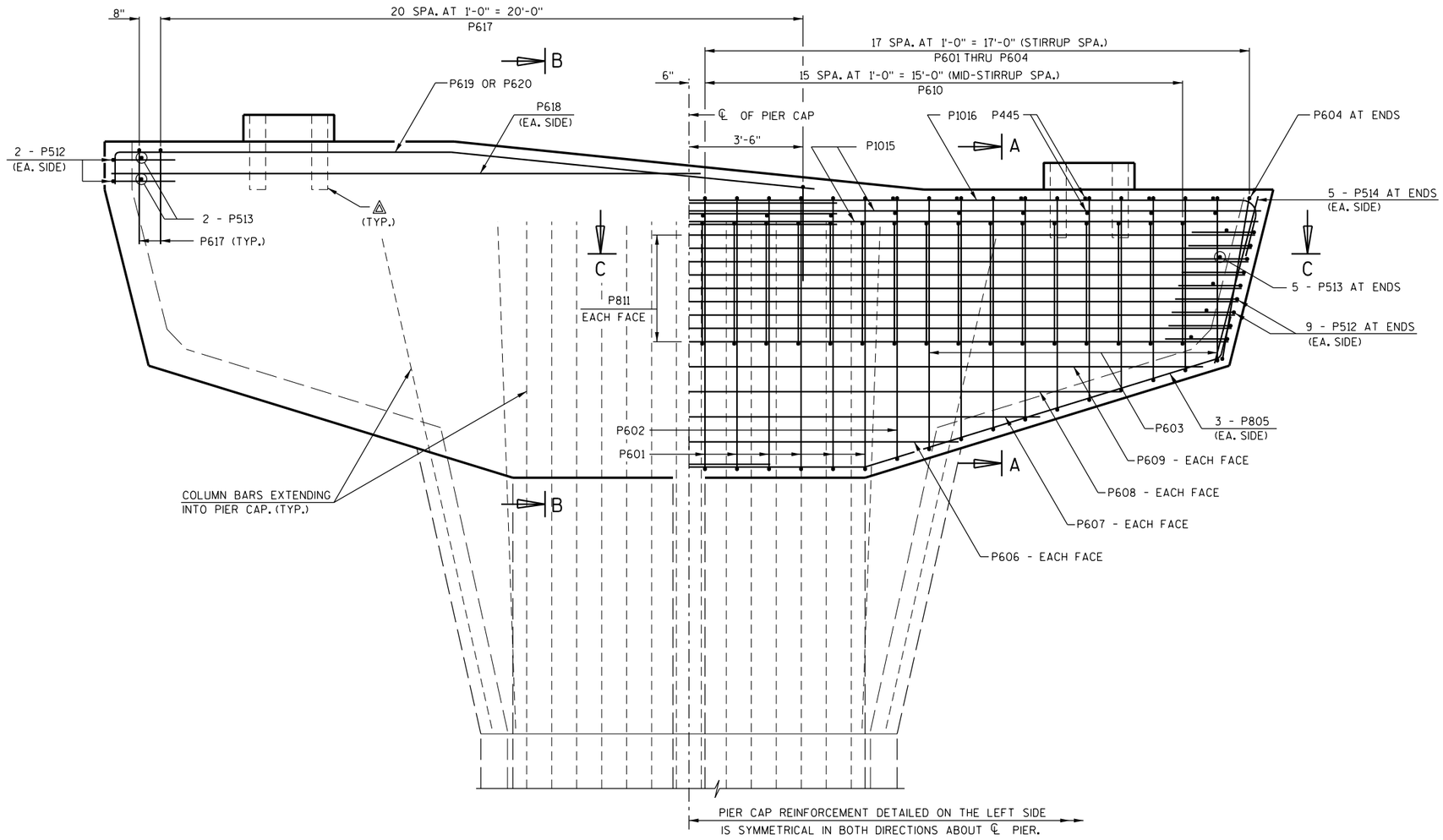
SHEET 28 OF 91
917

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\d028_CAP_398_V7.0-5-679.DGN

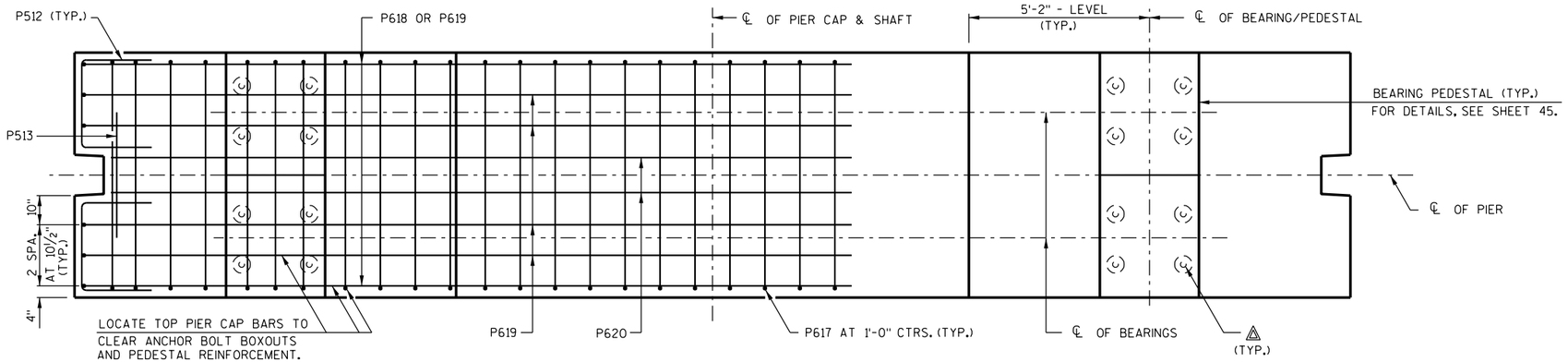
PLOT DATE : 4/26/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET 22.

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1015 & P1016 BARS 11'-6" MIN.
3. SEE SHEET 30 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 22 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
6. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.
7. SPACE P445 BARS AT 2'-0" SPACING AS NESSARY TO SUPPORT TOP TWO LAYERS OF P1015 & P1016 BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIER 5

SHEET 29 OF 91
918

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\d029_CAP_5A_V7_B-5-679.DGN

PLOT DATE : 4/26/2013

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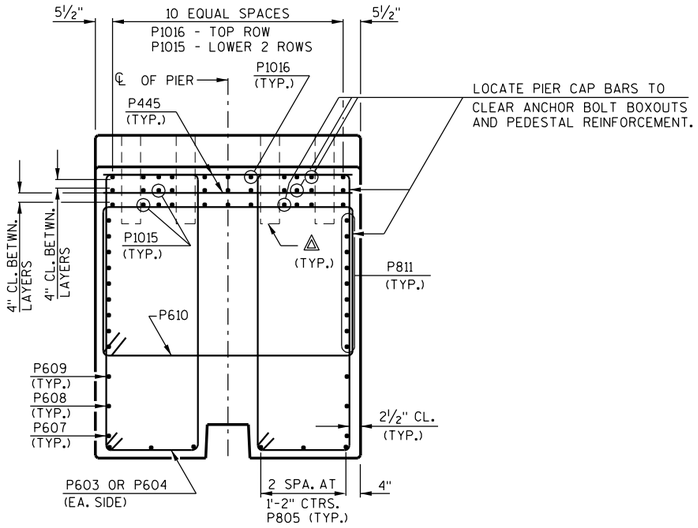
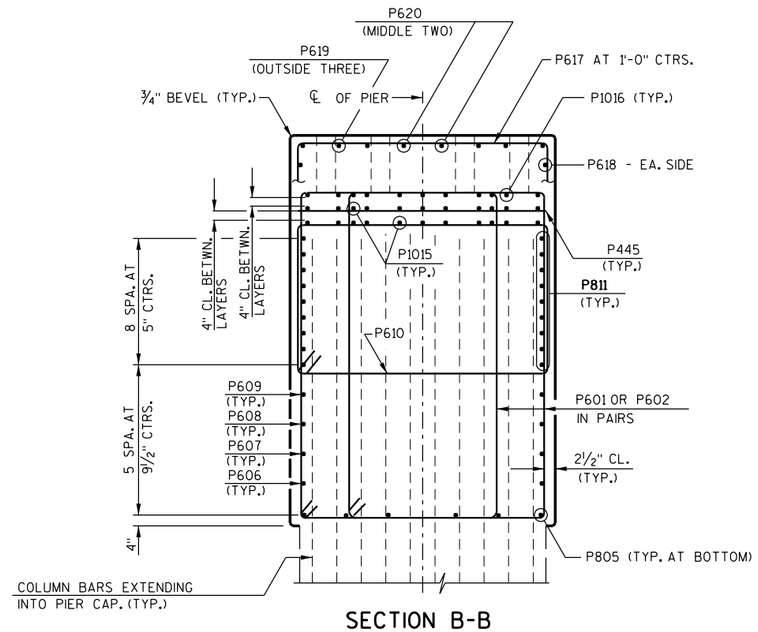
8

STATE PROJECT NUMBER

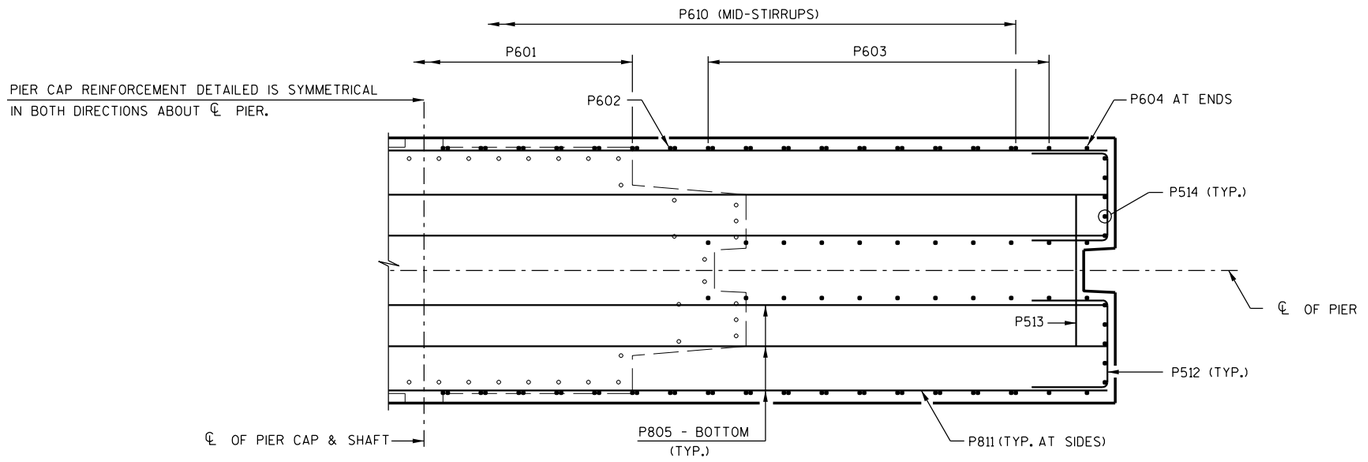
1133-11-74



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

⚠ FOR SYMBOL DESCRIPTION, SEE SHEET 22.

NOTES

1. LAP P805 BARS 5'-1" MIN.
2. LAP P1015 & P1016 BARS 11'-6" MIN.
3. SEE SHEET 22 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
4. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
5. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIER 5

SHEET 30 OF 91
919

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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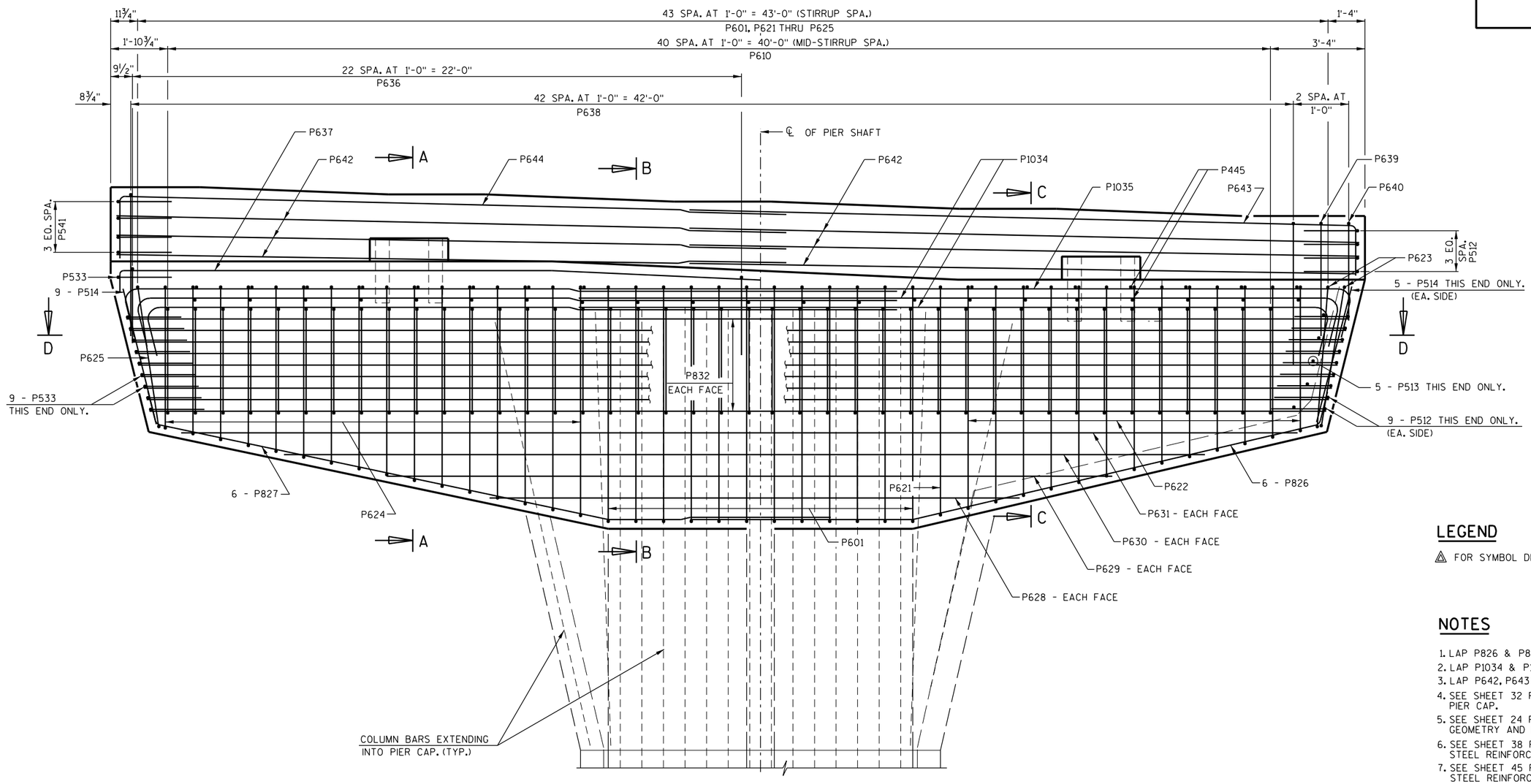
FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\030_CAP_SB_V7_B-5-679.DGN

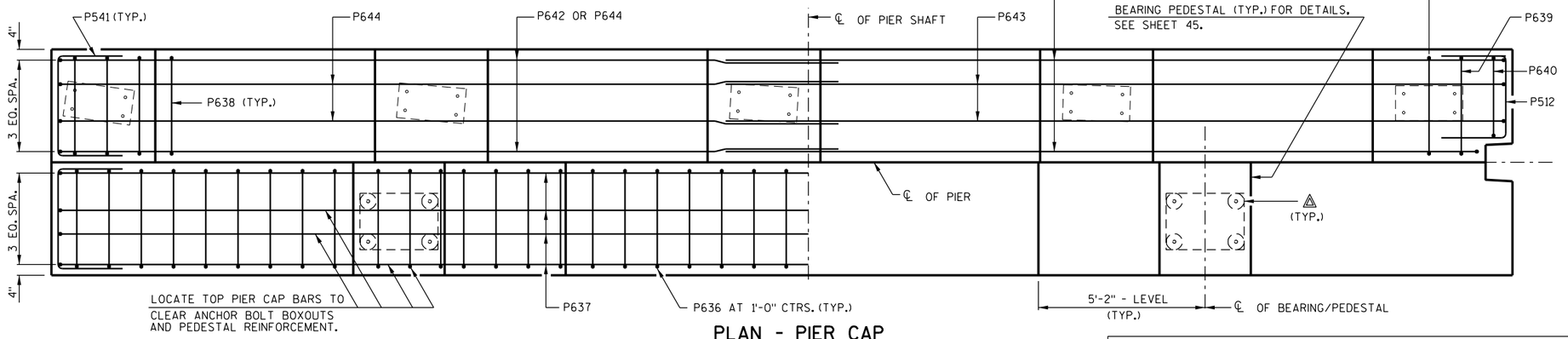
PLOT DATE : 4/24/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP



PLAN - PIER CAP

(SHOWING BAR STEEL REINFORCEMENT AT TOP OF CAP)

LEGEND

⚠ FOR SYMBOL DESCRIPTION, SEE SHEET 24.

NOTES

1. LAP P826 & P827 BARS 5'-1" MIN.
2. LAP P1034 & P1035 BARS 11'-6" MIN.
3. LAP P642, P643 & P644 BARS 3'-6" MIN.
4. SEE SHEET 32 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 24 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
7. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.
8. SPACE P445 BARS AT 2'-0" SPACING AS NESSARY TO SUPPORT TOP TWO LAYERS OF P1034 & P1035 BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIER C1

SHEET 31 OF 91
920

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\031.CAP.C1A.V7.B-5-679.DGN

PLOT DATE : 4/26/2013

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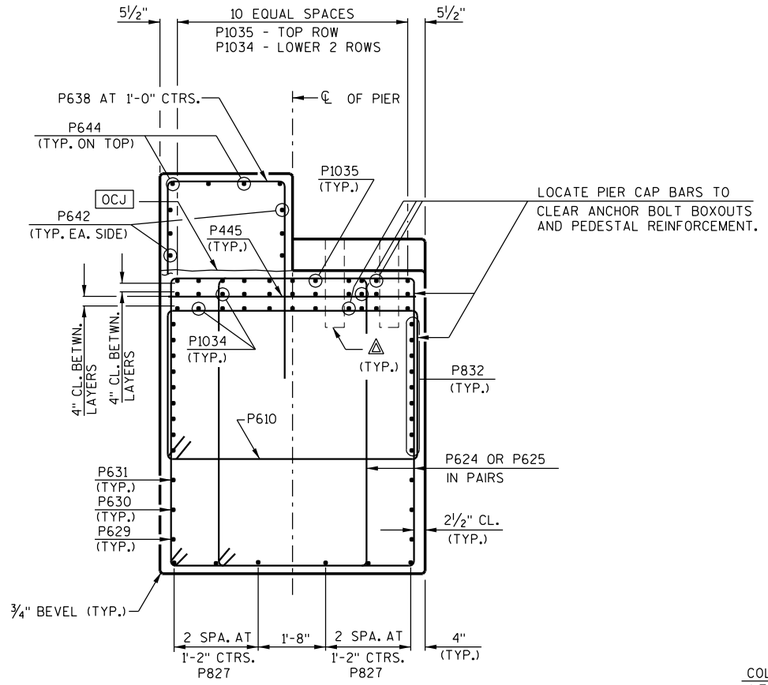
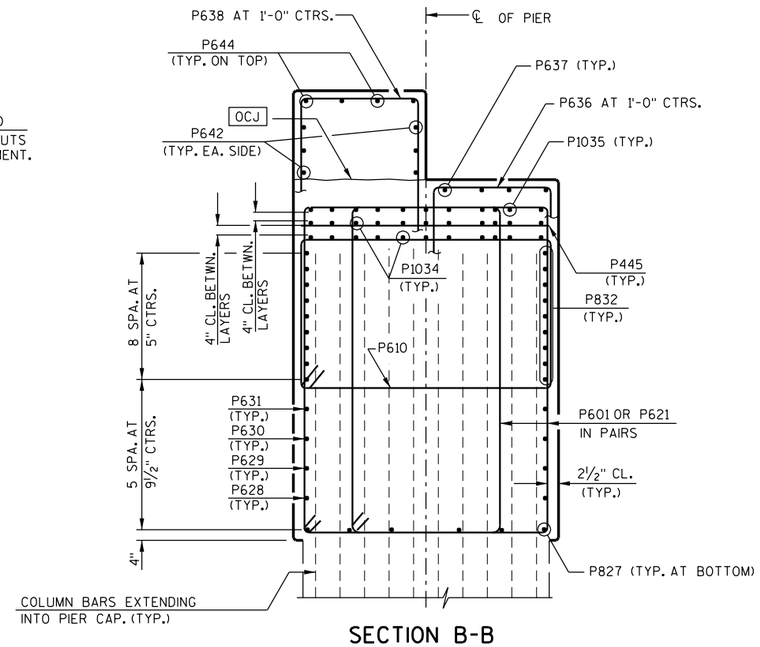
8

STATE PROJECT NUMBER

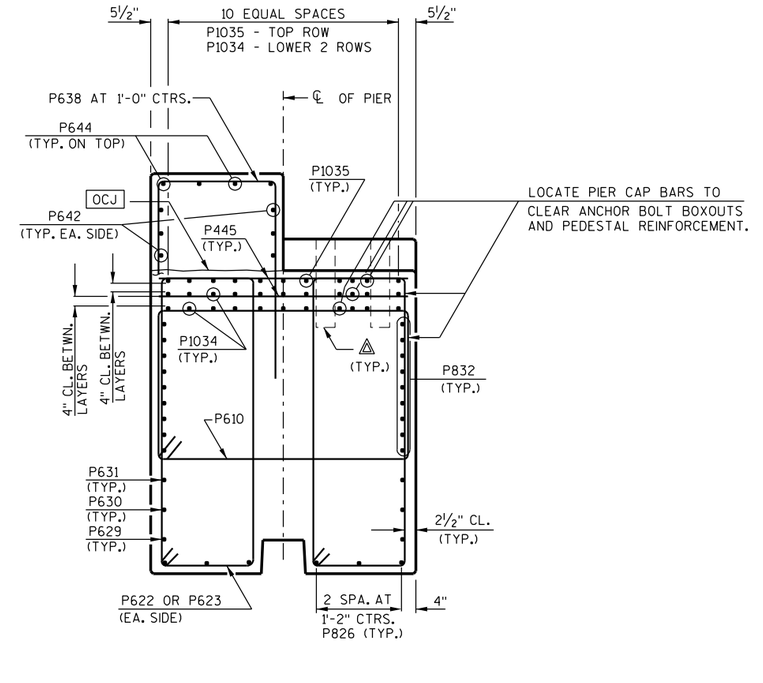
1133-11-74



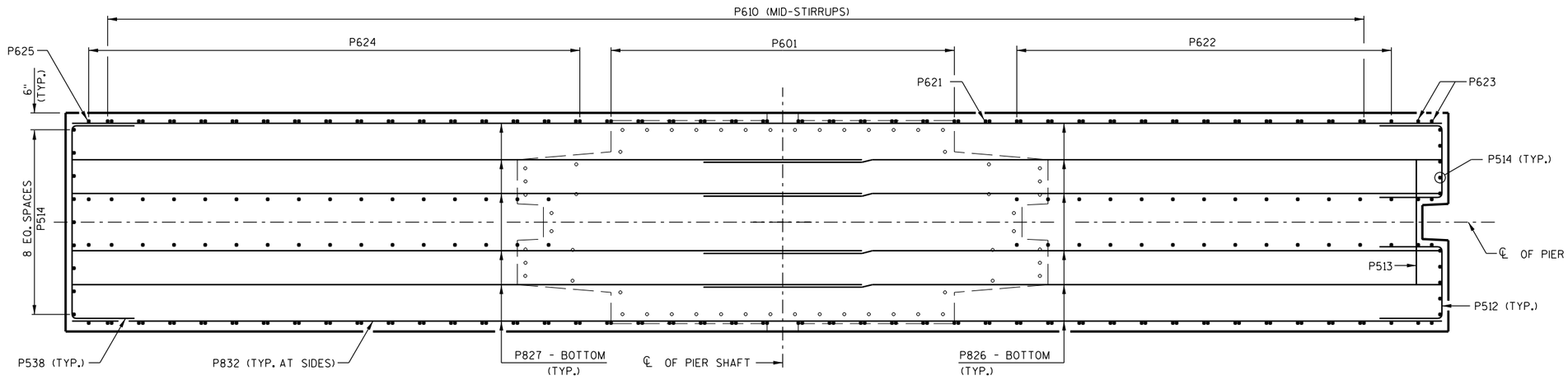
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

LEGEND

⚠ FOR SYMBOL DESCRIPTION, SEE SHEET 24.

OCJ OPT. CONST. JOINT - STRIKE OFF AS SHOWN.

NOTES

1. LAP P826 & P827 BARS 5'-1" MIN.
2. LAP P1034 & P1035 BARS 11'-6" MIN.
3. SEE SHEET 24 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
4. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.
5. SEE SHEET 45 FOR TYPICAL PEDESTAL BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER CAP DETAILS - PIER C1

SHEET 32 OF 91

921

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\032.CAP.CB.V7.B-5-679.DGN

PLOT DATE : 4/22/2013

PIER CAP - BILL OF BARS

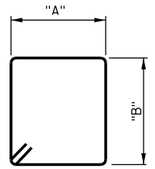
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
(PIERS 1 THRU 5 = UNIT 1, PIERS 6 THRU C1 = UNIT 2)

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 169,730 LBS.	
P601	96	96	28-8	X		PIERS 1, 2, 4 THRU 8 & C1 - STIRRUPS	VERT.
P602	16	12	28-0	X		PIERS 1, 2, 4 THRU 8 - STIRRUPS	VERT.
P603	160	120	18-11	X	⚹	PIERS 1, 2, 4 THRU 8 - STIRRUPS	VERT.
P604	16	12	16-2	X		PIERS 1, 2, 4 THRU 8 - STIRRUPS	VERT.
P805	48	36	20-10	X		PIERS 1, 2, 4 THRU 8 - BOTTOM	HORIZ.
P606	8	6	16-10			PIERS 1, 2, 4 THRU 8 - SIDES	HORIZ.
P607	8	6	21-11			PIERS 1, 2, 4 THRU 8 - SIDES	HORIZ.
P608	8	6	27-0			PIERS 1, 2, 4 THRU 8 - SIDES	HORIZ.
P609	8	6	32-1			PIERS 1, 2, 4 THRU 8 - SIDES	HORIZ.
P610	178	187	21-10	X		PIERS 1 THRU C1 - MID-STIRRUPS	VERT.
P811	72	54	34-6		⚹	PIERS 1, 2, 4 THRU 8 - SIDES	HORIZ.
P512	200	182	6-3	X		PIERS 1 THRU C1 - ENDS	HORIZ.
P513	60	53	4-0			PIERS 1 THRU C1 - ENDS	HORIZ.
P514	90	89	5-0			PIERS 1 THRU C1 - ENDS	VERT.
P1015	188	140	24-7	X		PIERS 1, 2, 4 THRU 8 - TOP	HORIZ.
P1016	94	70	25-1	X		PIERS 1, 2, 4 THRU 8 - TOP	HORIZ.
P617	119	97	12-3	X		PIERS 1, 2, 4 THRU 8 - TOP	VERT.
P618	8	6	18-5			PIERS 1, 2, 4 THRU 8 - TOP - SIDES	HORIZ.
P619	24	18	22-8	X		PIERS 1, 2, 4 THRU 8 - TOP	HORIZ.
P620	8	6	20-10	X		PIERS 1, 2, 4 THRU 8 - TOP	HORIZ.
P621	---	2	28-2	X		PIER C1 - STIRRUPS	VERT.
P622	---	26	19-2	X	⚹	PIER C1 - STIRRUPS	VERT.
P623	---	4	16-4	X		PIER C1 - STIRRUPS	VERT.
P624	---	32	25-0	X	⚹	PIER C1 - STIRRUPS	VERT.
P625	---	2	22-0	X		PIER C1 - STIRRUPS	VERT.
P826	---	6	24-7	X		PIER C1 - BOTTOM	HORIZ.
P827	---	6	25-10	X		PIER C1 - BOTTOM	HORIZ.
P628	---	2	19-1			PIER C1- SIDES	HORIZ.
P629	---	2	26-2			PIER C1- SIDES	HORIZ.
P630	---	2	33-3			PIER C1- SIDES	HORIZ.
P631	---	2	40-4			PIER C1- SIDES	HORIZ.
P832	---	18	43-4		⚹	PIER C1- SIDES	HORIZ.
P533	---	10	10-2	X		PIER C1 - END	HORIZ.
P1034	---	44	29-3	X		PIER C1 - TOP	HORIZ.
P1035	---	22	29-9	X		PIER C1 - TOP	HORIZ.
P636	---	23	7-5	X		PIER C1 - TOP - SOUTH SIDE	VERT.
P637	---	4	23-10	X		PIER C1 - TOP - SOUTH SIDE	HORIZ.
P638	---	43	13-1	X		PIER C1 - TOP - NORTH SIDE	VERT.
P639	---	1	10-11	X		PIER C1 - TOP - NORTH SIDE	VERT.
P640	---	1	9-11	X		PIER C1 - TOP - NORTH SIDE	VERT.
P541	---	4	6-8	X		PIER C1 - TOP - NORTH SIDE	HORIZ.
P642	---	12	24-3			PIER C1 - TOP - NORTH SIDE	HORIZ.
P643	---	4	25-11	X		PIER C1 - TOP - NORTH SIDE	HORIZ.
P644	---	4	26-4	X		PIER C1 - TOP - NORTH SIDE	HORIZ.
P445	168	174	6-7	X		ALL PIERS	HORIZ.
P646	2	2	17-0	X		PIERS 3 & 9 - STIRRUPS	VERT.
P647	2	2	17-2	X		PIERS 3 & 9 - STIRRUPS	VERT.
P648	36	36	22-6	X	⚹	PIERS 3 & 9 - STIRRUPS	VERT.
P649	4	4	34-0	X		PIERS 3 & 9 - STIRRUPS	VERT.
P650	24	24	34-8	X		PIERS 3 & 9 - STIRRUPS	VERT.
P651	38	38	22-2	X	⚹	PIERS 3 & 9 - STIRRUPS	VERT.
P652	2	2	16-0	X		PIERS 3 & 9 - STIRRUPS	VERT.
P653	2	2	16-2	X		PIERS 3 & 9 - STIRRUPS	VERT.
P854	6	6	29-11	X		PIERS 3 & 9 - BOTTOM	HORIZ.
P855	6	6	30-11	X		PIERS 3 & 9 - BOTTOM	HORIZ.
P656	2	2	16-8			PIERS 3 & 9 - SIDES	HORIZ.
P657	2	2	21-8			PIERS 3 & 9 - SIDES	HORIZ.
P658	2	2	26-8			PIERS 3 & 9 - SIDES	HORIZ.
P659	2	2	31-8			PIERS 3 & 9 - SIDES	HORIZ.
P660	2	2	36-8			PIERS 3 & 9 - SIDES	HORIZ.
P661	2	2	41-8			PIERS 3 & 9 - SIDES	HORIZ.
P662	2	2	46-8			PIERS 3 & 9 - SIDES	HORIZ.
P663	2	2	51-3			PIERS 3 & 9 - SIDES	HORIZ.
P864	36	36	29-10			PIERS 3 & 9 - SIDES	HORIZ.
P1065	72	72	34-7	X		PIERS 3 & 9 - TOP	HORIZ.
P666	2	2	27-3			PIERS 3 & 9 - TOP	HORIZ.
P667	6	6	31-5	X		PIERS 3 & 9 - TOP	HORIZ.
P668	2	2	29-7	X		PIERS 3 & 9 - TOP	HORIZ.
P569	10	10	5-11			PIERS 3 & 9 - END	VERT.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

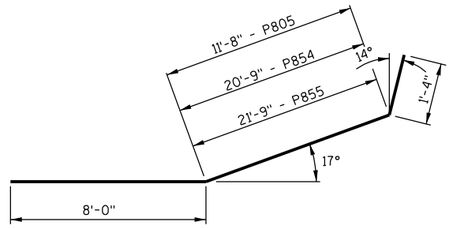
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P603	36 SETS OF 10	16'-2" TO 21'-8"
P811	16 SETS OF 9	33'-8" TO 35'-4"
P622	2 SETS OF 13	16'-4" TO 22'-0"
P624	2 SETS OF 16	21'-10" TO 28'-2"
P832	2 SETS OF 9	42'-6" TO 44'-2"
P648	4 SETS OF 18	17'-4" TO 27'-8"
P651	4 SETS OF 19	16'-8" TO 27'-8"

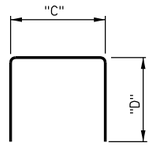


P601 THRU P604, P610, P621 THRU P625 & P646 THRU P653

MARK	DIMENSION "A"	DIMENSION "B"
P601	5'-4"	8'-7"
P602	5'-4"	8'-3"
P603	2'-6"	5'-2" TO 7'-11"
P604	2'-6"	5'-2"
P610	6'-7"	3'-11"
P621	5'-4"	8'-4"
P622	2'-6"	5'-3" TO 8'-1"
P623	2'-6"	5'-3"
P624	5'-4"	5'-3" TO 8'-4"
P625	5'-4"	5'-3"
P646	2'-6"	5'-7"
P647	2'-6"	5'-8"
P648	2'-6"	5'-9" TO 10'-11"
P649	5'-4"	11'-3"
P650	5'-4"	11'-7"
P651	2'-6"	5'-5" TO 10'-11"
P652	2'-6"	5'-1"
P653	2'-6"	5'-2"

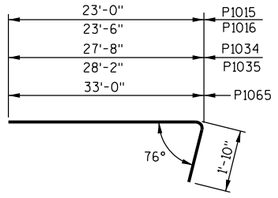


P805, P854 & P855



MARK	DIMENSION "C"	DIMENSION "D"
P512	2'-6"	2'-0"
P617	6'-7"	3'-0"
P533	6'-5"	2'-0"
P636	3'-1"	2'-4"
P638	3'-1"	5'-2"
P639	3'-1"	4'-1"
P640	3'-1"	3'-7"
P541	2'-11"	2'-0"

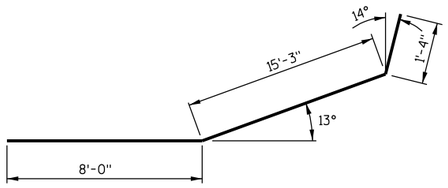
P512, P617, P533, P636 & P638 THRU P541



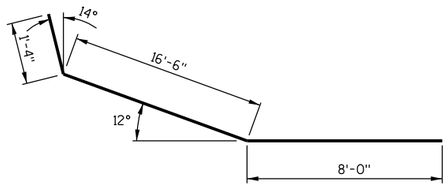
P1015, P1016, P1034, P1035 & P1065

P619 & P667

P620 & P668



P826



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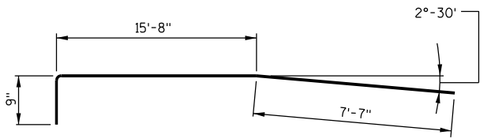
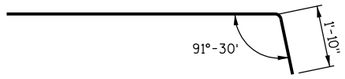
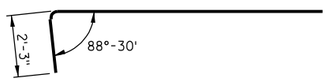


P637



P643



P644

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

BILL OF BARS - PIER CAP

SHEET 33 OF 91
922

STATE PROJECT NUMBER
1133-11-74

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\033_PIER_CAP_BARS_V7.B-5-679.DGN
PLOT DATE : 4/26/2013

8

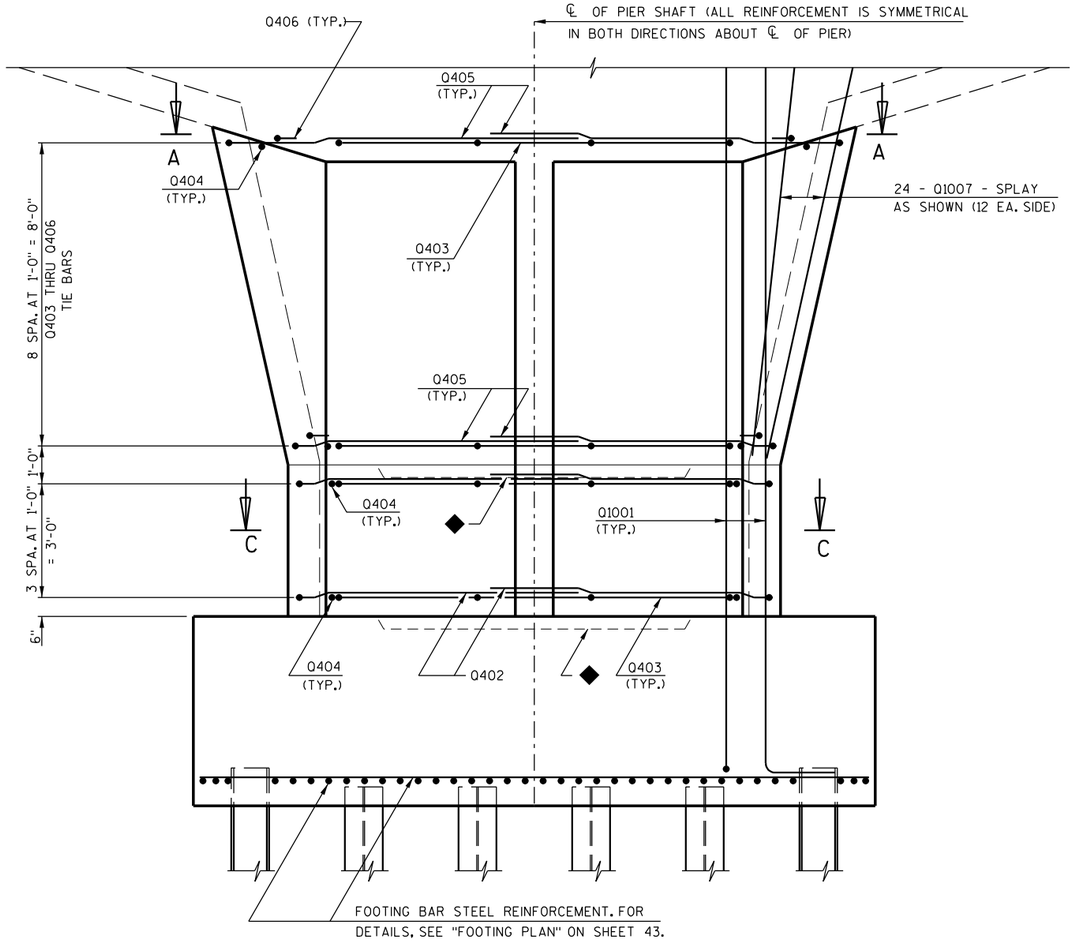
8

STATE PROJECT NUMBER

1133-11-74

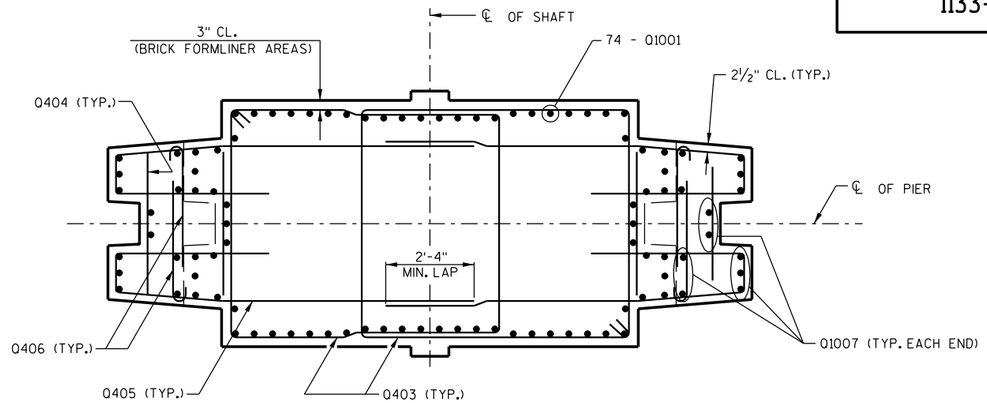
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

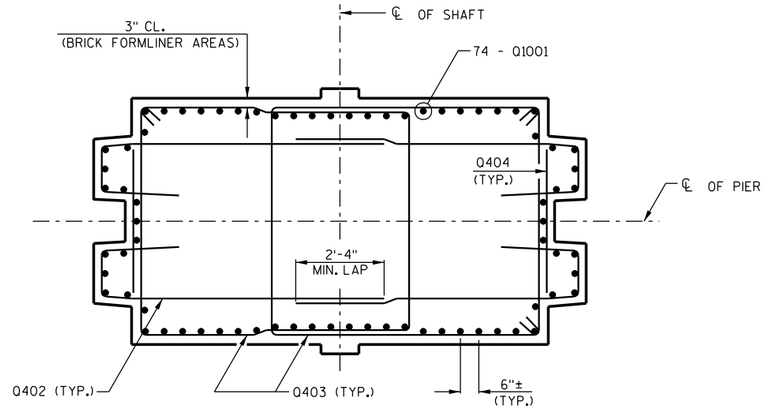


ELEVATION - PIER 1

(LOOKING UPSTATION)



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 1

SHEET 34 OF 91

923

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\d034_PIER_SHAFT1_V7.B-5-679.DGN

PLOT DATE : 4/22/2013

8

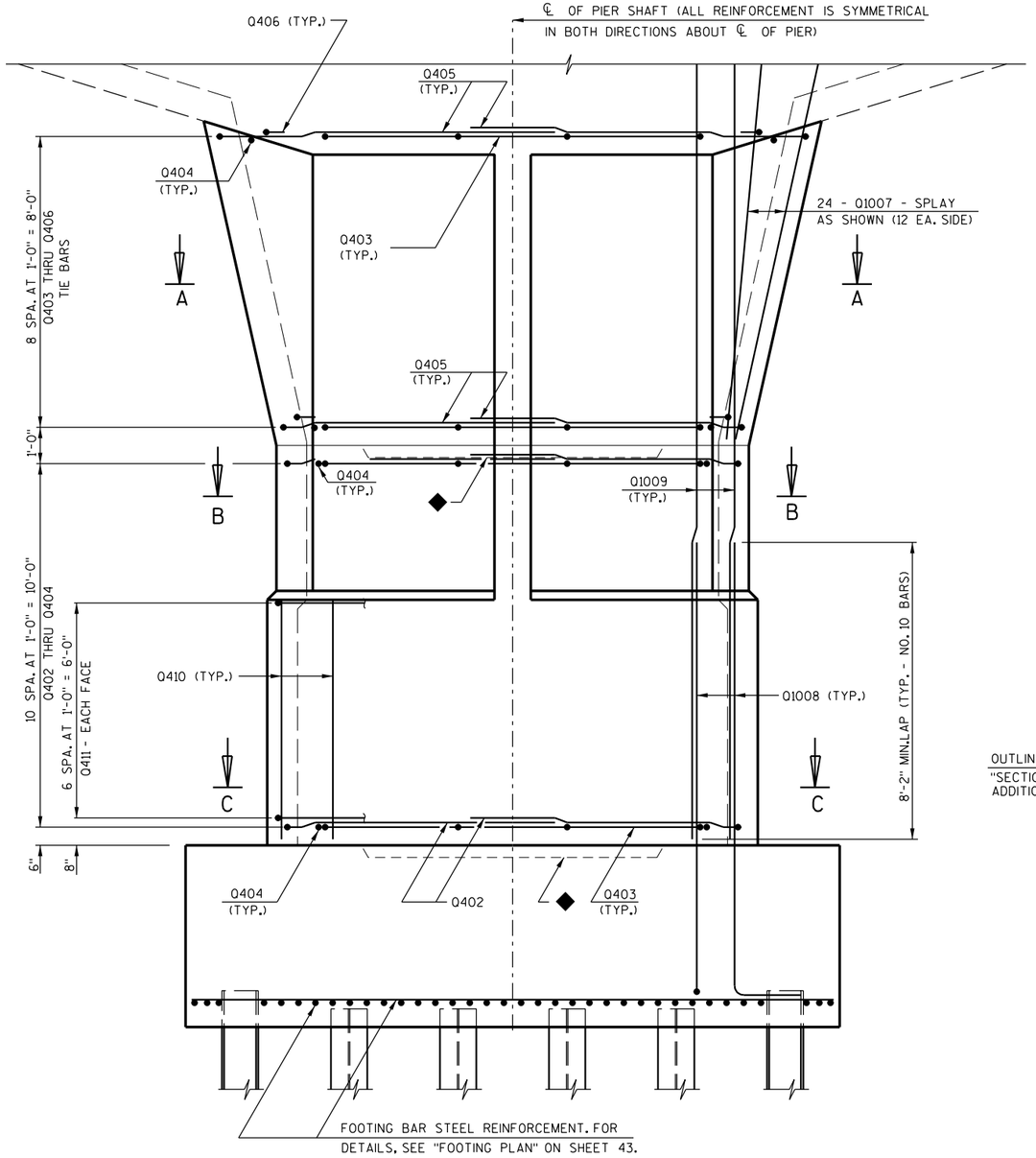
8

STATE PROJECT NUMBER

1133-11-74

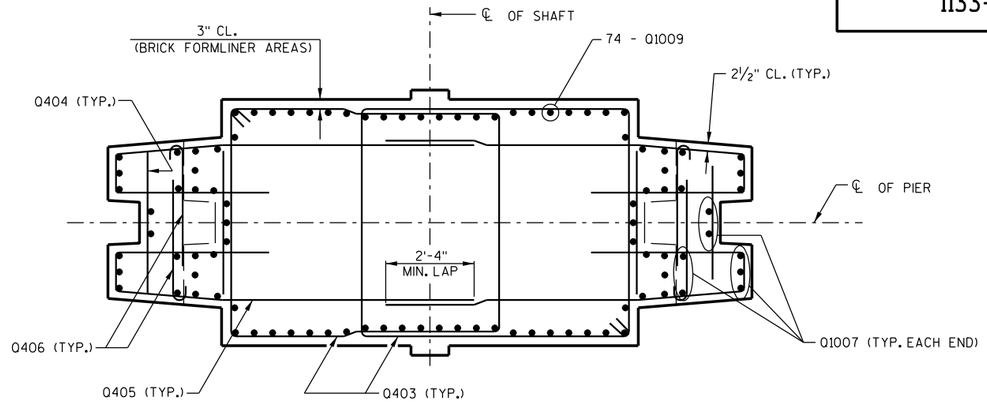
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

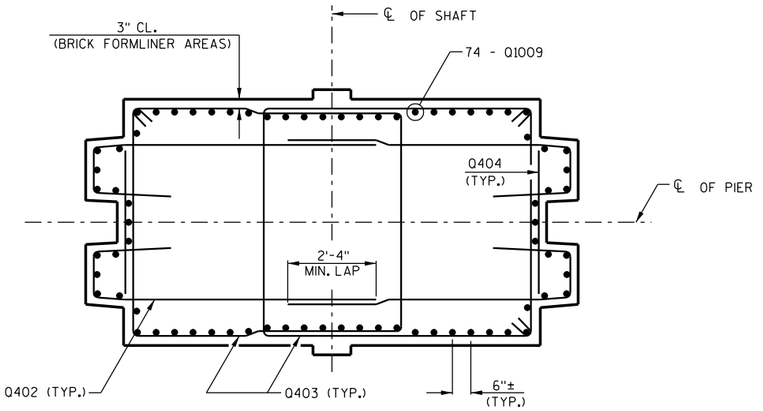


ELEVATION - PIER 2

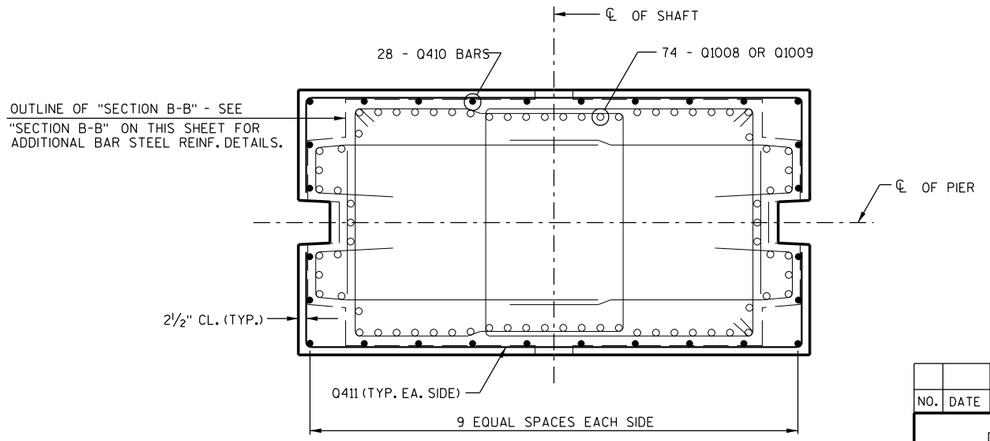
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 2

SHEET 35 OF 91
924

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URG\STRUCTURES\B-5-679\035_PIER_SHAFT2_V7_B-5-679.DGN

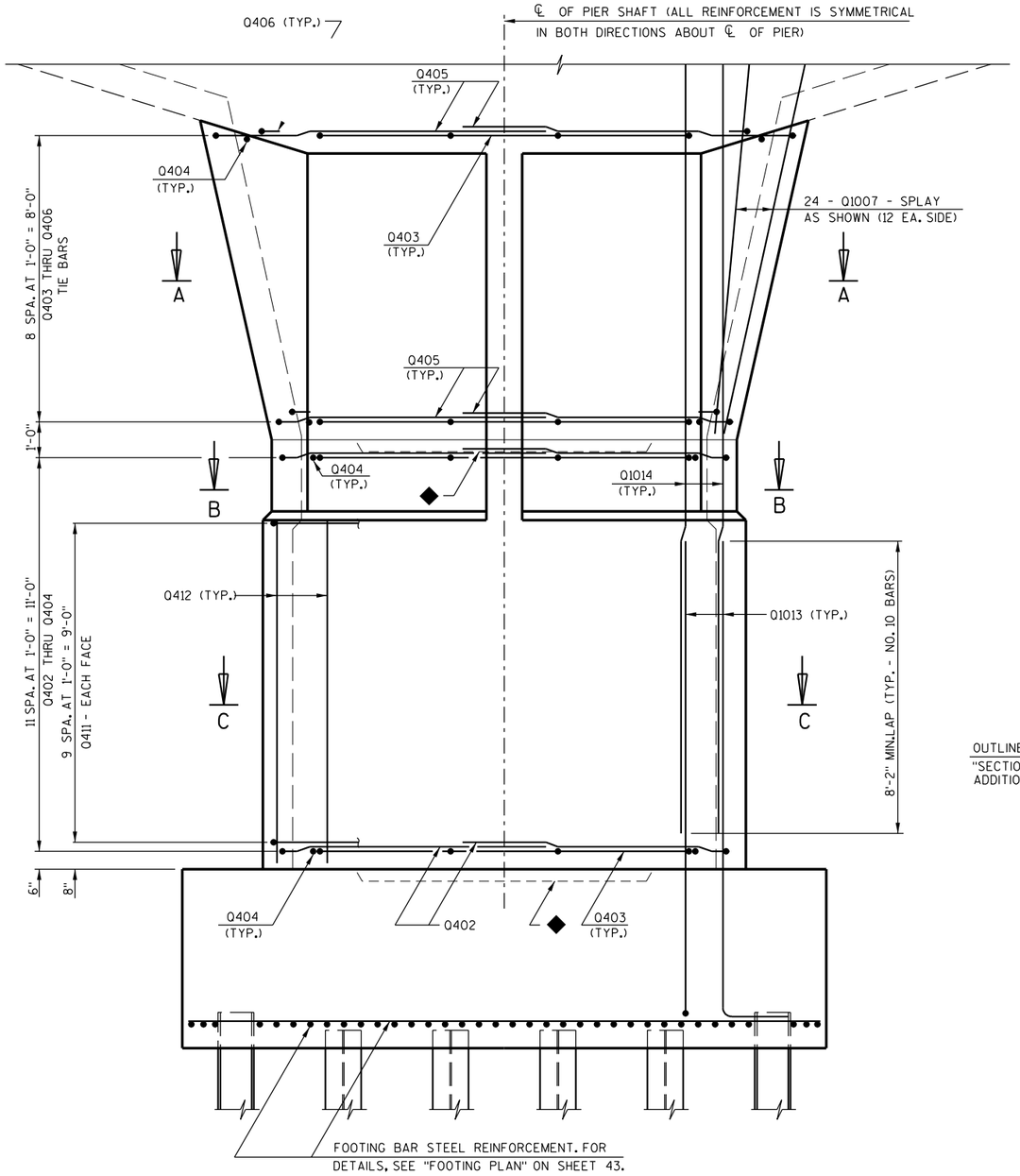
PLOT DATE : 4/22/2013

STATE PROJECT NUMBER

1133-11-74

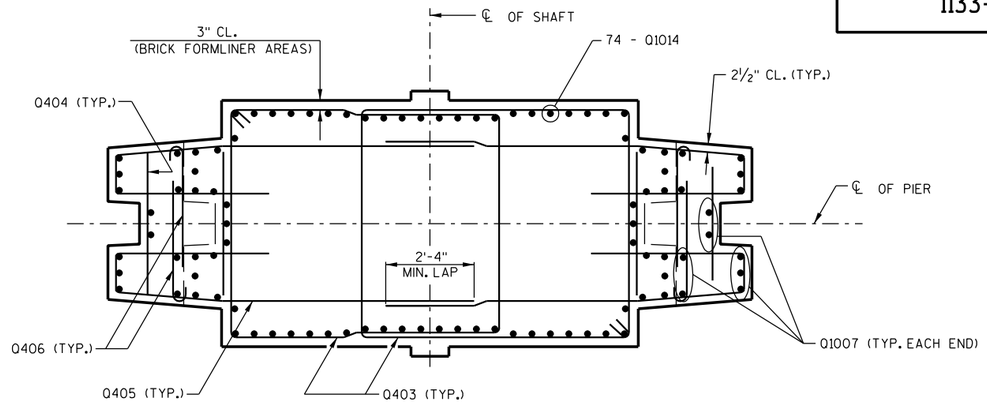
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

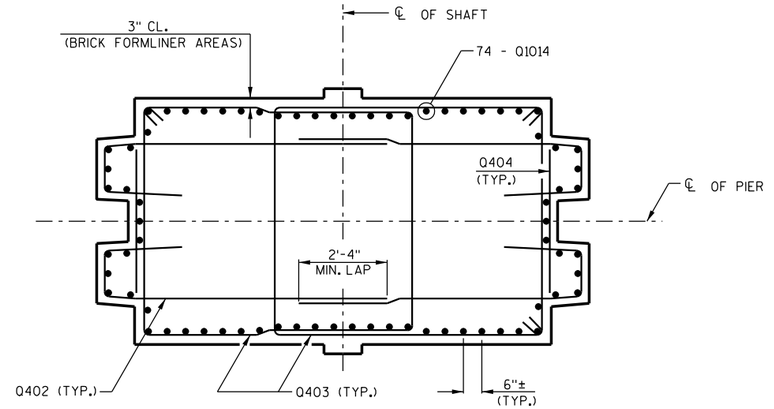


ELEVATION - PIER 3

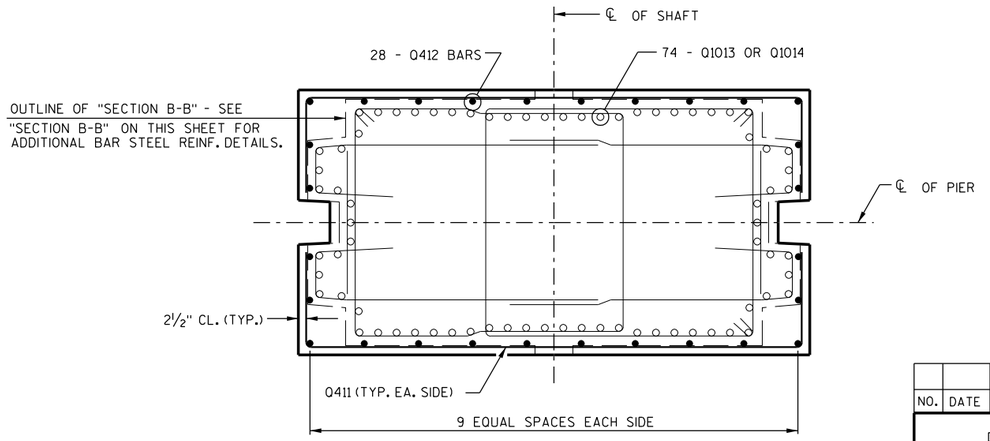
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 3

SHEET 36 OF 91

925

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-679\d036_PIER_SHAFT3_V7_B-5-679.DGN

PLOT DATE : 4/22/2013

8

8

STATE PROJECT NUMBER

1133-11-74

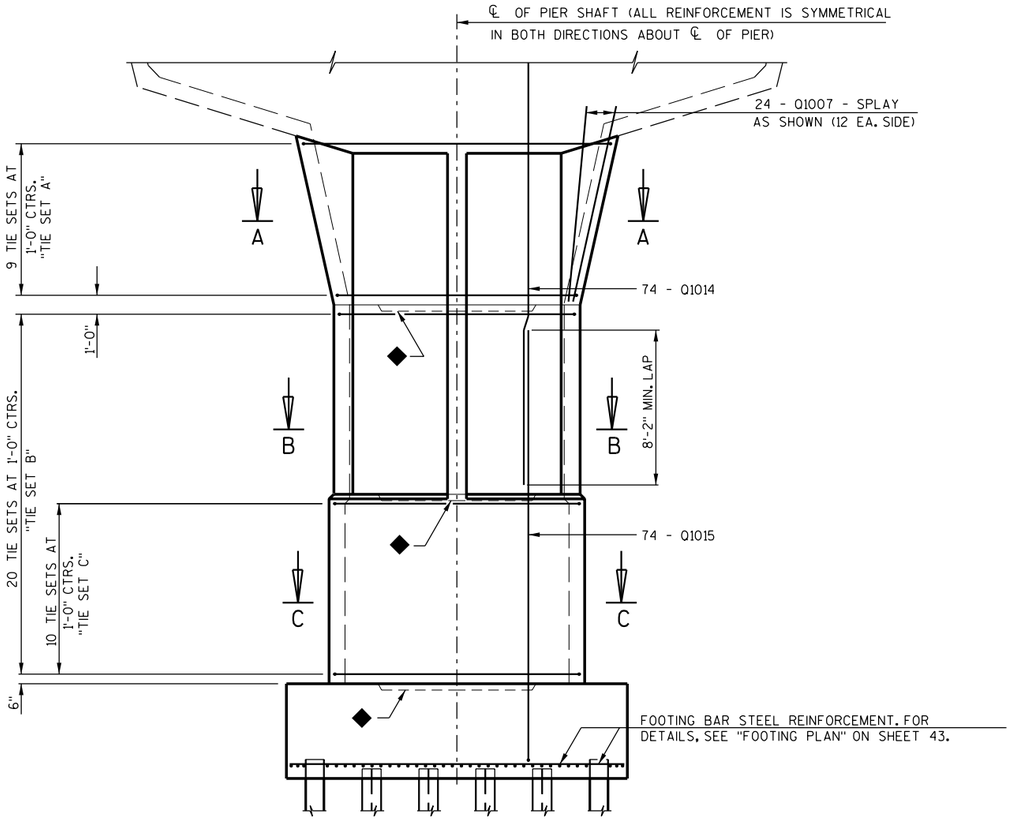
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

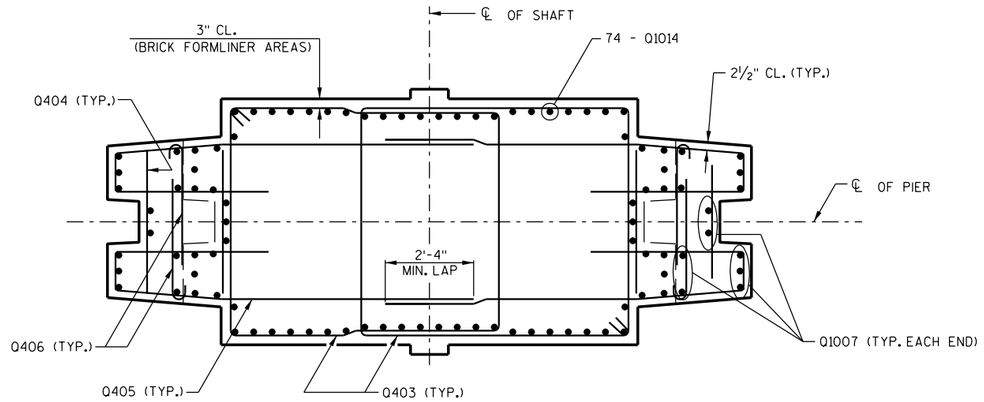
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q403 BARS
2 - Q404 BARS
4 - Q405 BARS
4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
4 - Q402 BARS
2 - Q403 BARS
2 - Q404 BARS

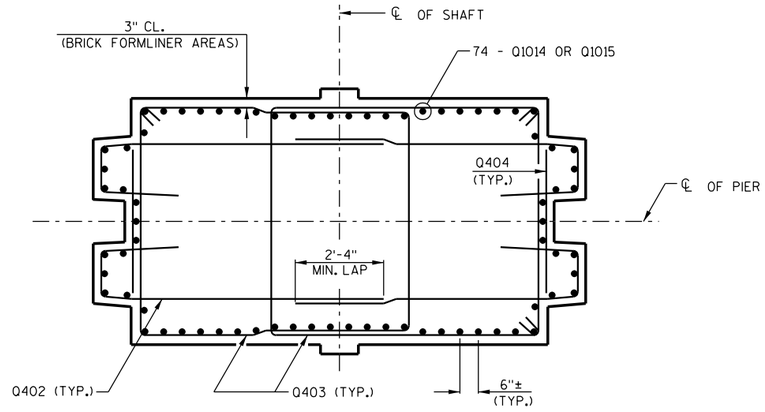
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q411 BARS



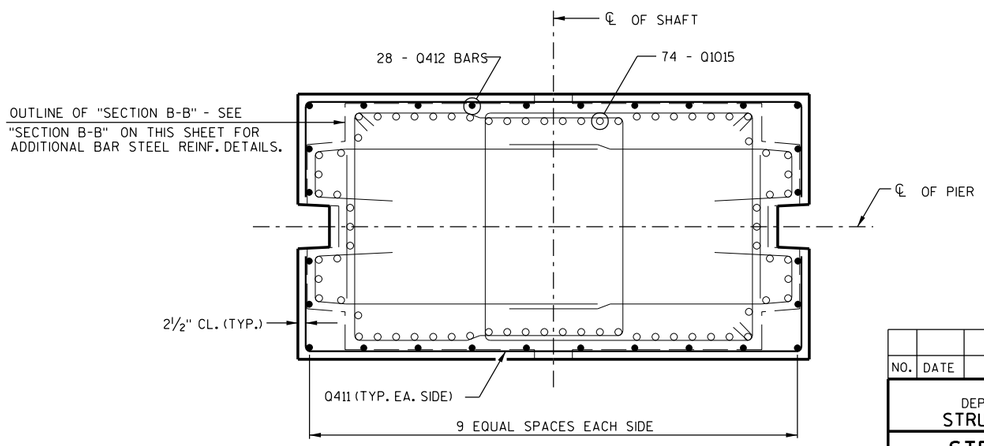
ELEVATION
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 4

SHEET 37 OF 91
926

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\037_PIER_SHAFT4_V7.B-5-679.DGN

PLOT DATE : 4/22/2013

8

8

STATE PROJECT NUMBER

1133-11-74

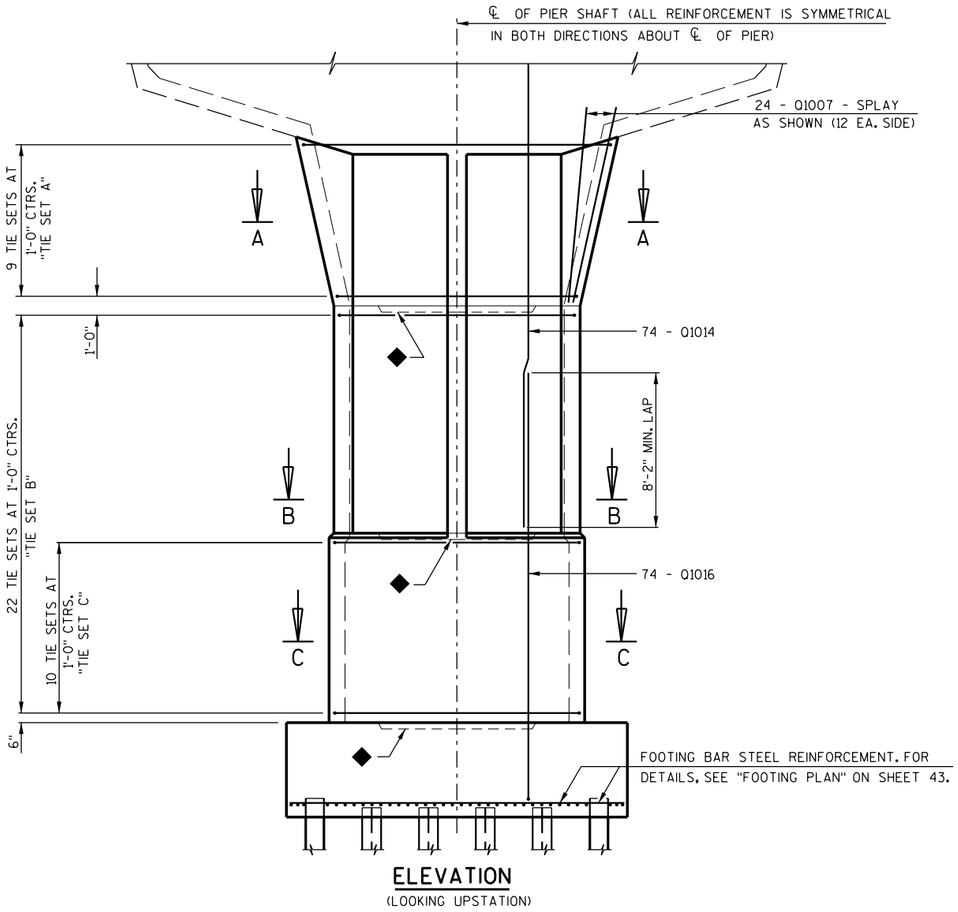
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

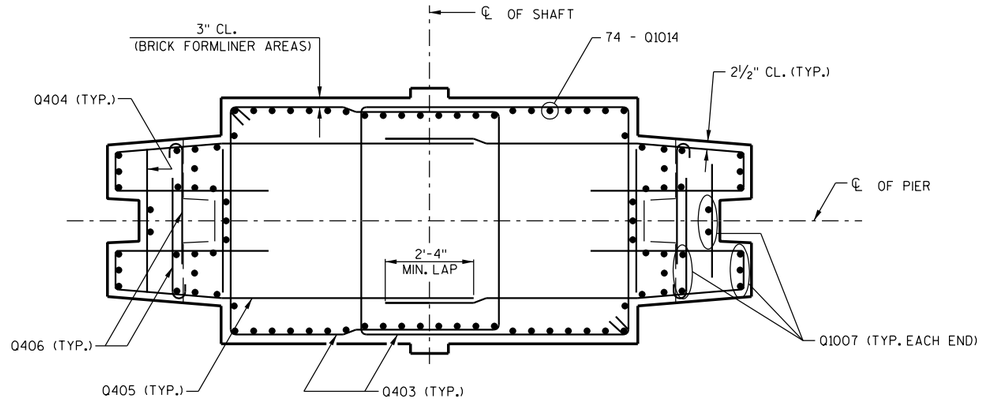
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q403 BARS
2 - Q404 BARS
4 - Q405 BARS
4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
4 - Q402 BARS
2 - Q403 BARS
2 - Q404 BARS

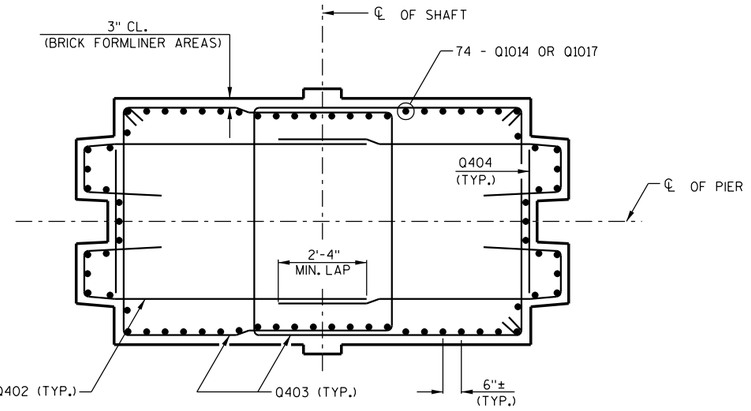
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q411 BARS



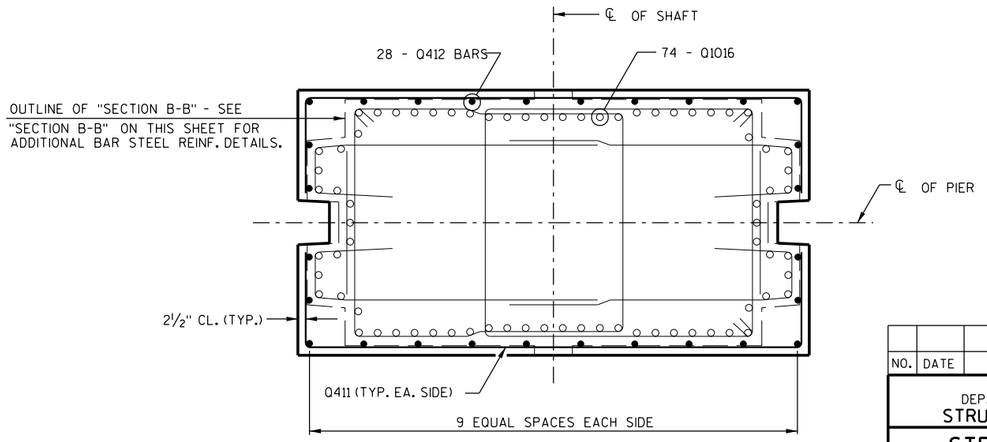
ELEVATION
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIERS 5, 7, & C1

SHEET 38 OF 91
927

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\038_PIER_SHAFT15C1_V7_B-5-679.DGN

PLOT DATE : 4/22/2013

8

8

STATE PROJECT NUMBER

1133-11-74

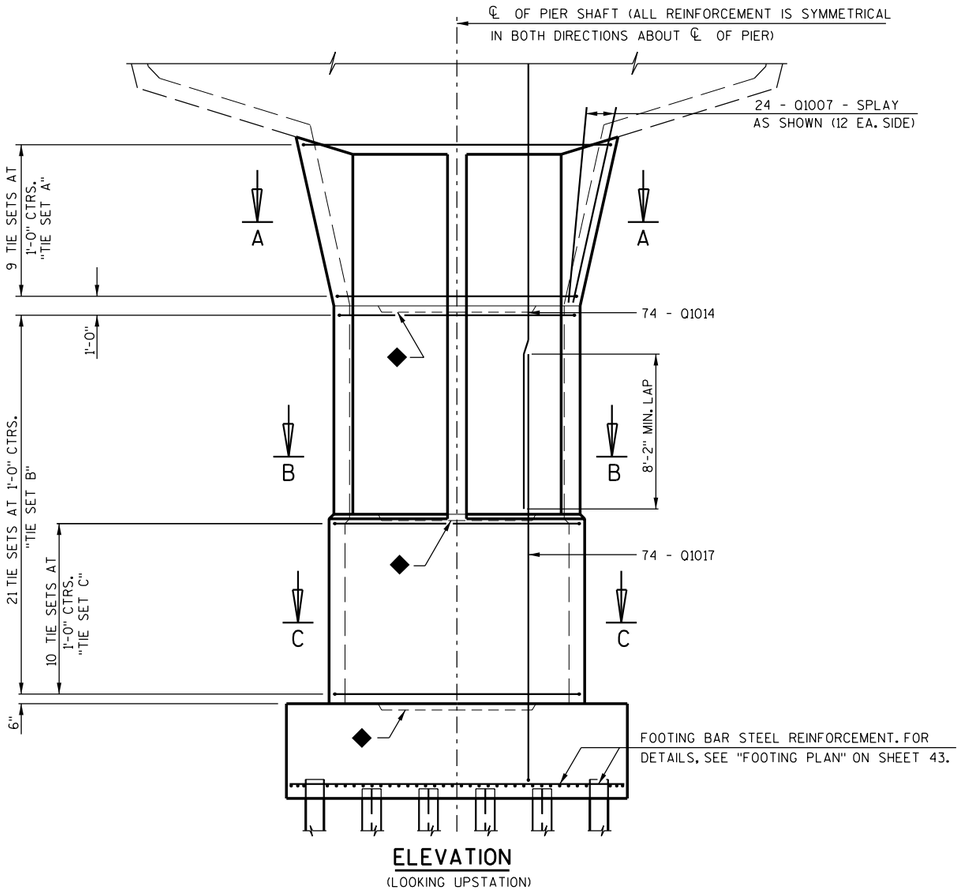
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

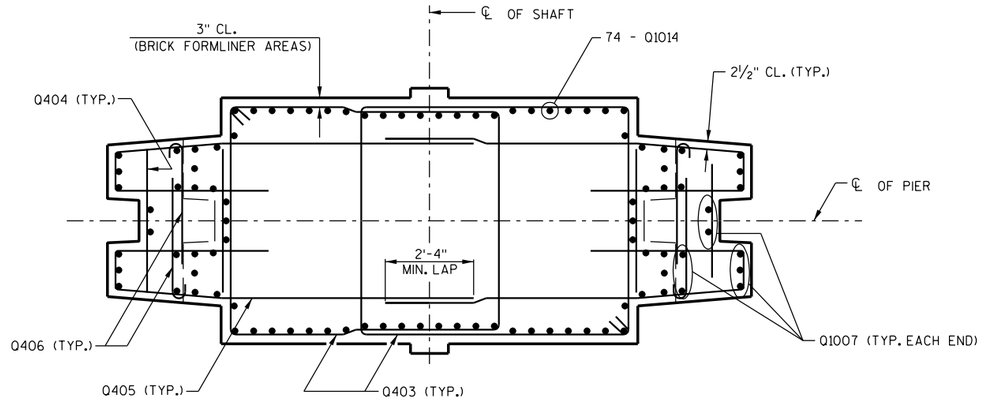
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q403 BARS
2 - Q404 BARS
4 - Q405 BARS
4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
4 - Q402 BARS
2 - Q403 BARS
2 - Q404 BARS

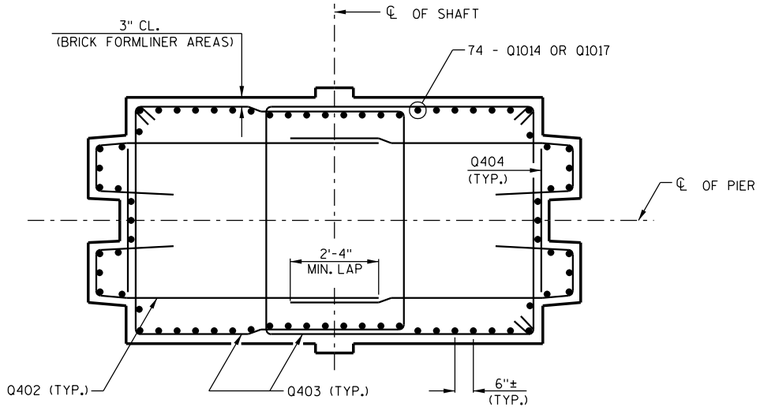
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - Q411 BARS



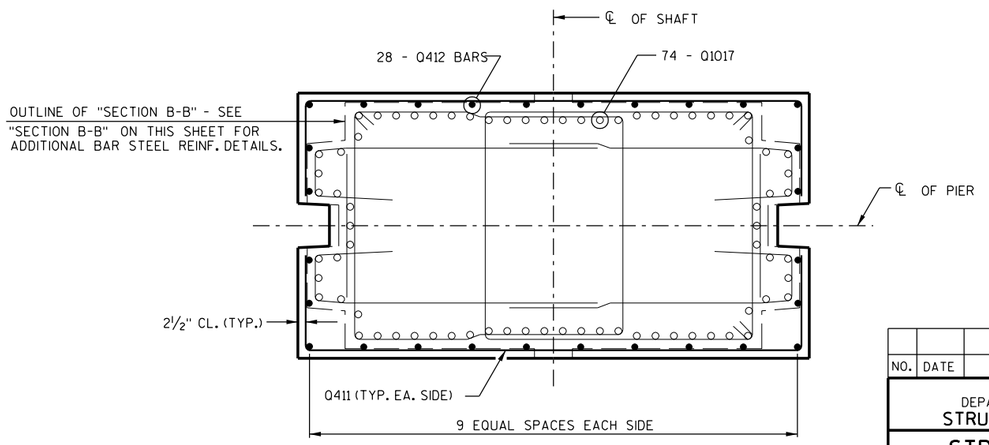
ELEVATION
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 6

SHEET 39 OF 91
928

8

8

FILE NAME : P:\153 USH 41\133-10-00 URS\STRUCTURES\B-5-679\039_PIER_SHAFT6_V7_B-5-679.DGN

PLOT DATE : 4/22/2013

STATE PROJECT NUMBER

1133-11-74

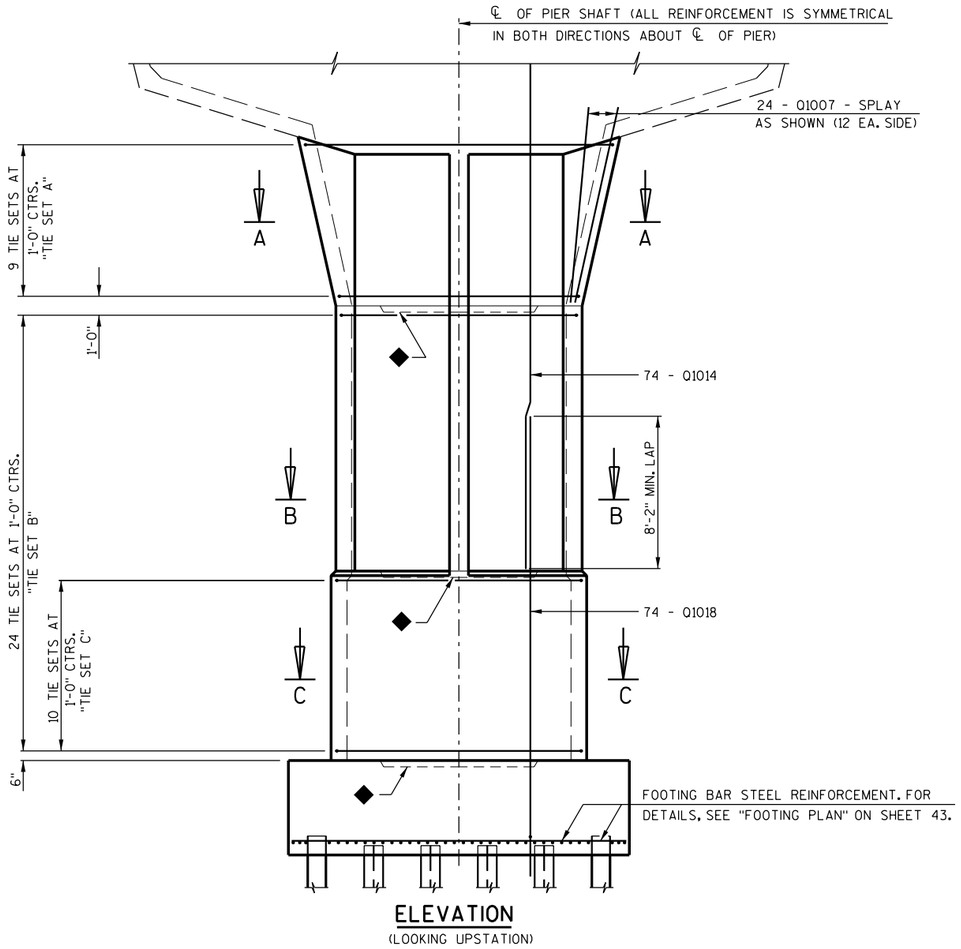
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

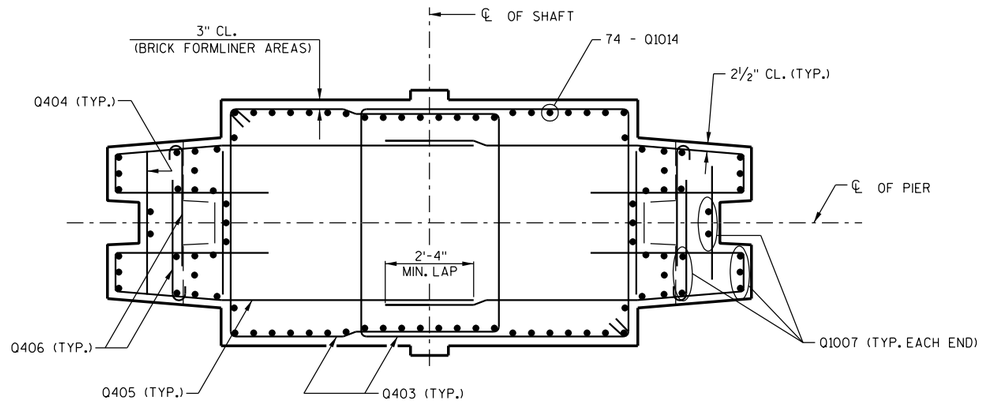
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q403 BARS
- 2 - Q404 BARS
- 4 - Q405 BARS
- 4 - Q406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - Q402 BARS
- 2 - Q403 BARS
- 2 - Q404 BARS

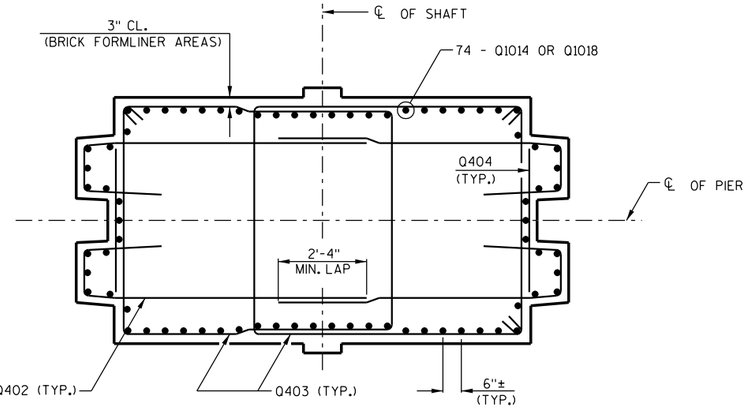
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - Q411 BARS



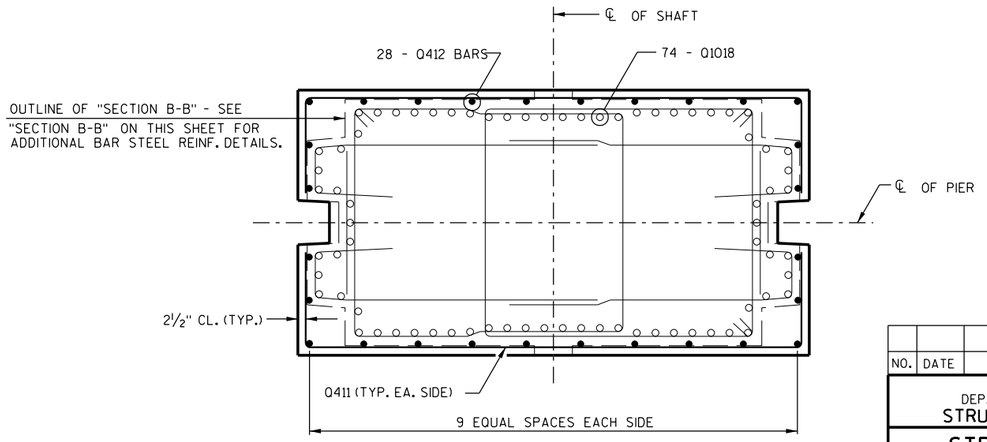
ELEVATION
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 8

SHEET 40 OF 91
929

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\040_PIER_SHAFT8_V7_B-5-679.DGN

PLOT DATE : 4/22/2013

STATE PROJECT NUMBER

1133-11-74

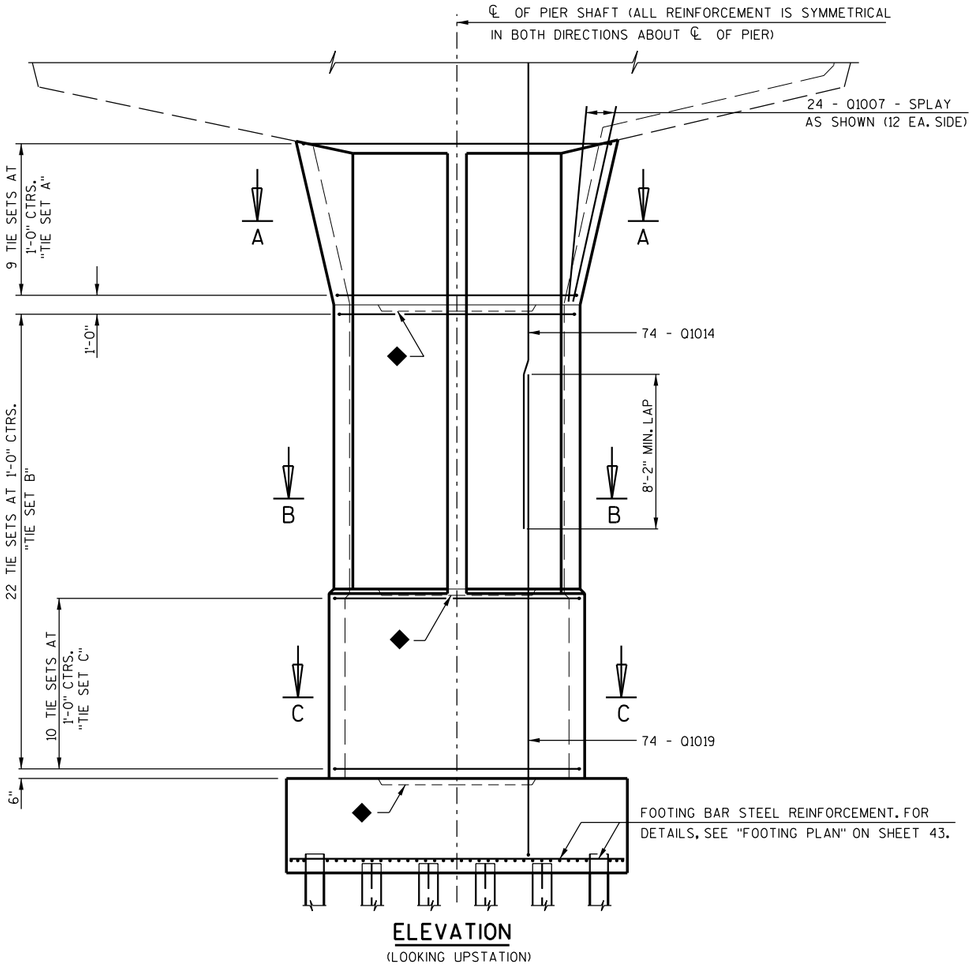
LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 2'-0" X 8'-4".

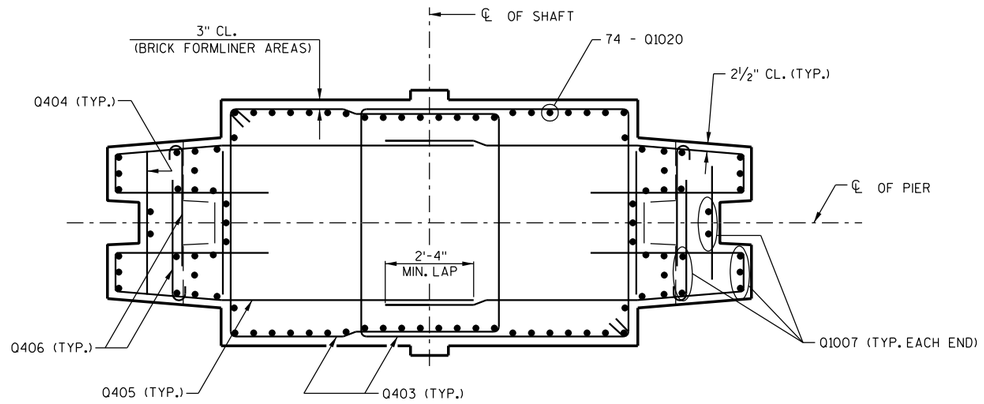
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - 0403 BARS
2 - 0404 BARS
4 - 0405 BARS
4 - 0406 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
4 - 0402 BARS
2 - 0403 BARS
2 - 0404 BARS

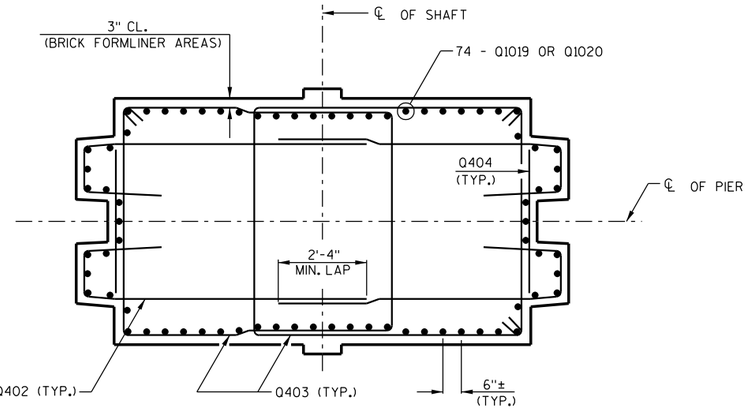
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
2 - 0411 BARS



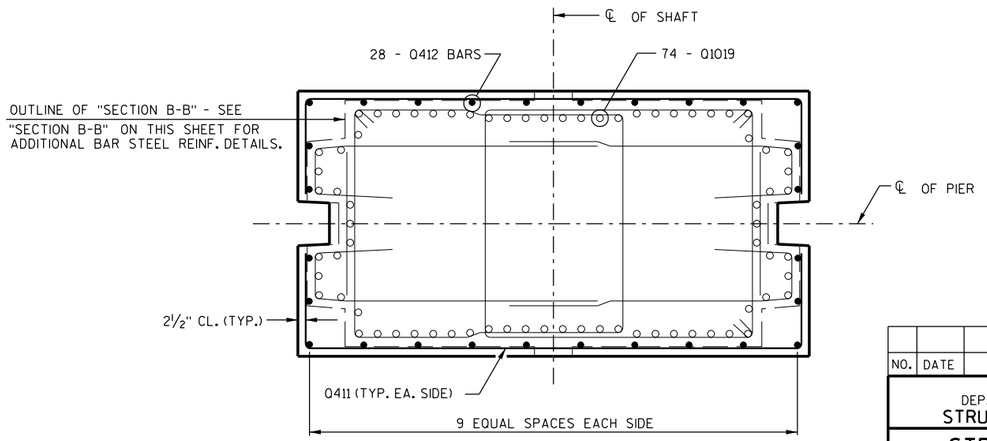
ELEVATION
(LOOKING UPSTATION)



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SHAFT DETAILS - PIER 9

SHEET 41 OF 91
930

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\041_PIER_SHAFT9_V7.B-5-679.DGN
PLOT DATE : 4/22/2013

STATE PROJECT NUMBER

1133-11-74

PIER SHAFT - BILL OF BARS

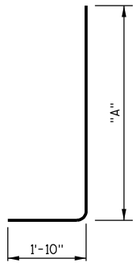
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
(PIERS 1 THRU 5 = UNIT 1, PIERS 6 THRU C1 = UNIT 2)

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 201,500 LBS.	
01001	74	---	25-9	X		SHAFT & FOOTING - PIER 1	VERT.
0402	276	442	10-7	X		SHAFT - TIES - ALL PIERS	HORIZ.
0403	232	312	26-8	X		SHAFT - STIRRUPS - ALL PIERS	HORIZ.
0404	232	312	3-9			SHAFT - TIES AT ENDS - ALL PIERS	HORIZ.
0405	180	180	12-7	X	⚹	SHAFT - TIES - ALL PIERS	HORIZ.
0406	180	180	3-9	X		SHAFT - ENDS - ALL PIERS	HORIZ.
01007	120	120	15-0			SHAFT & CAP - ENDS - ALL PIERS	VERT.
01008	74	---	14-2	X		SHAFT & FOOTING - PIER 2	VERT.
01009	74	---	26-10			SHAFT - PIER 2	VERT.
0410	28	---	6-7			LOWER SHAFT - PIER 2	VERT.
0411	74	100	17-11	X		LOWER SHAFT - PIERS 2 THRU C1	HORIZ.
0412	84	140	9-7			LOWER SHAFT - PIERS 3 THRU C1	VERT.
01013	74	---	13-5	X		SHAFT & FOOTING - PIER 3	VERT.
01014	222	370	30-0			SHAFT - PIERS 3 THRU C1	VERT.
01015	74	---	20-11	X		SHAFT & FOOTING - PIER 4	VERT.
01016	74	148	22-11	X		SHAFT & FOOTING - PIERS 5, 7, & C1	VERT.
01017	---	74	21-11	X		SHAFT & FOOTING - PIER 6	VERT.
01018	---	74	24-11	X		SHAFT & FOOTING - PIER 8	VERT.
01019	---	74	25-11	X		SHAFT & FOOTING - PIER 9	VERT.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

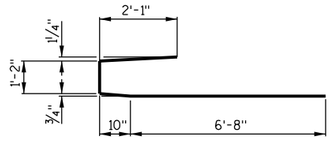
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
0405	40 SERIES OF 9	10'-9" TO 14'-5"

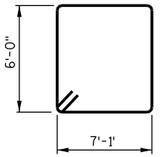


MARK	DIMENSION "A"
01001	24'-2"
01008	12'-7"
01013	13'-5"
01015	19'-4"
01016	21'-4"
01017	20'-4"
01018	23'-4"
01019	24'-4"

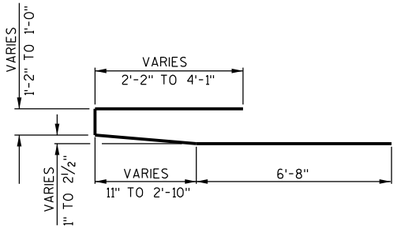
01001, 01008, 01013 & 01015 THRU 01019



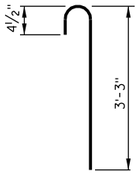
0402



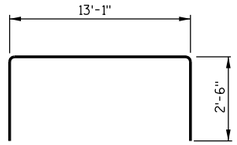
0403



0405



0406



0411

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

BILL OF BARS - SHAFT

SHEET 42 OF 91
931

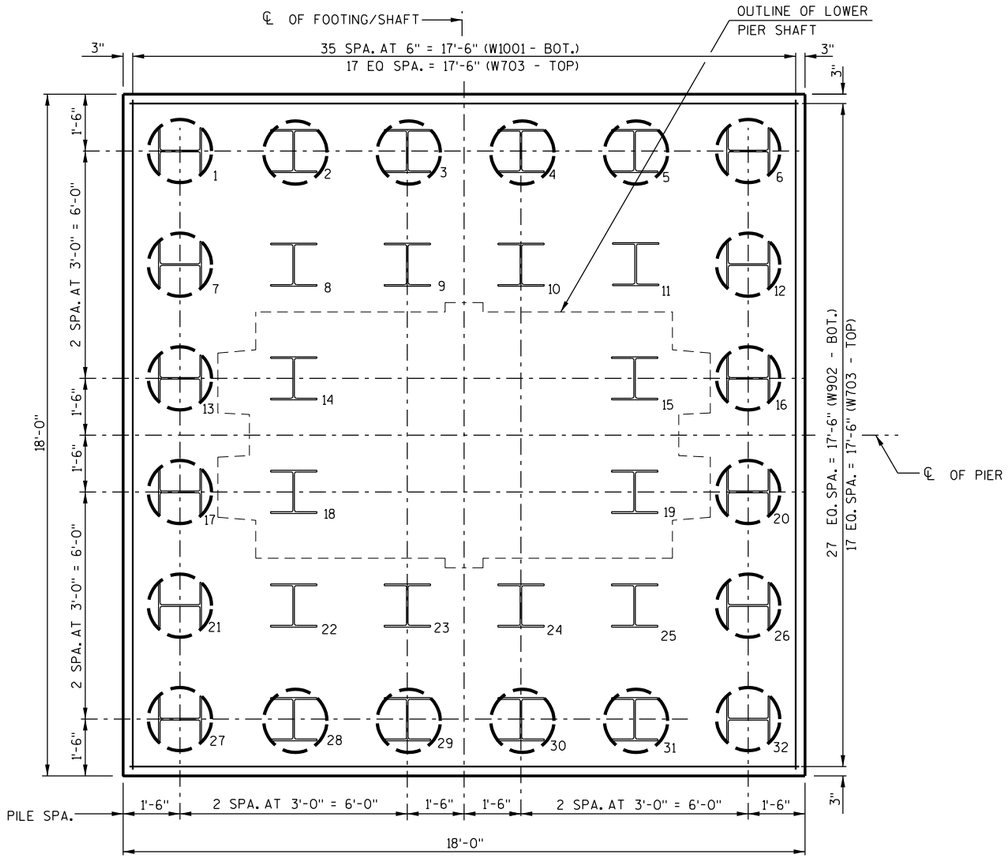
8

8

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\b5-679\502_PIER_SHAFT_BARS_V17.B5-679.DGN

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER
1133-11-74



FOOTING PLAN - ALL PIERS

NOTE: FOR FOOTING BILL OF BARS, SEE SHEET 44.

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED.

PILE DYNAMIC ANALYZER (PDA) TESTING LOCATIONS

THE BID ITEMS FOR THIS WORK ARE "PILE DYNAMIC ANALYZER (PDA) TESTING, ITEM SPV. 0060.702 PILE DYNAMIC ANALYZER (PDA) RESTRIKES, ITEM SPV. 0060.703".

	PILE NUMBERS
S. ABUT.	2, 5, & 8
PIER 1	1, 6, 27, & 32
PIER 2	1, 6, 27, & 32
PIER 3	1, 6, 27, & 32
PIER 4	1, 6, 27, & 32
PIER 5	1, 6, 27, & 32
PIER 6	1, 6, 27, & 32
PIER 7	1, 6, 27, & 32
PIER 8	1, 6, 27, & 32
PIER 9	1, 6, 27, & 32
PIER C1	1, 6, 27, & 32

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER FOOTING DETAILS

SHEET 43 OF 91
932

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\043_PIER_FOOTINGA_V7_B-5-679.DGN
PLOT DATE : 4/22/2013

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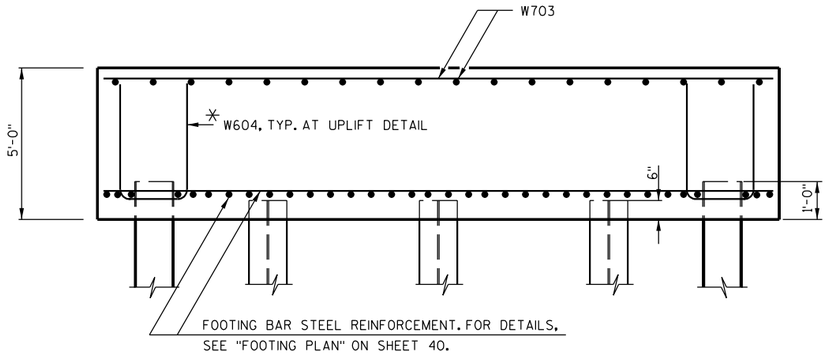
STATE PROJECT NUMBER

1133-11-74



TYPICAL UPLIFT CONNECTION DETAIL

LEGEND

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED.

FIELD BEND W604 BARS AFTER PLACING IN 1¼" HOLES BURNED INTO PILE. USE 2 BARS AT EACH UPLIFT PILE.

BILL OF BARS - FOOTINGS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE UNCOATED BARS.
(PIERS 1 THRU 5 = UNIT 1, PIERS 6 THRU C1 = UNIT 2)

MARK	NO. REQ'D.		LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 61,700 LBS.
	UNIT 1	UNIT 2					
W1001	180	180	17-8			FOOTING - ALL PIERS	HORIZ.
W902	140	140	17-8			FOOTING - ALL PIERS	HORIZ.
W703	180	180	17-8			FOOTING - ALL PIERS	HORIZ.
W604	200	200	7-6			FOOTING - ALL PIERS	HORIZ.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PIER FOOTING DETAILS

SHEET 44 OF 91
933

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\10-5-679\044_PIER_FOOTINGS_V7.10-5-679.DGN

PLOT DATE : 4/22/2013

8

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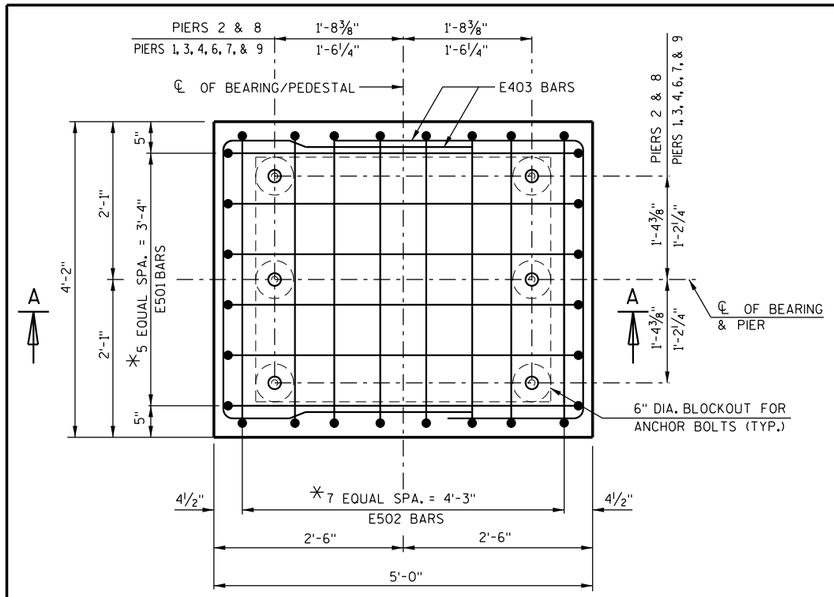
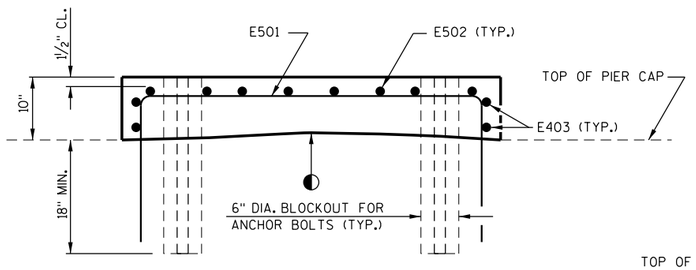
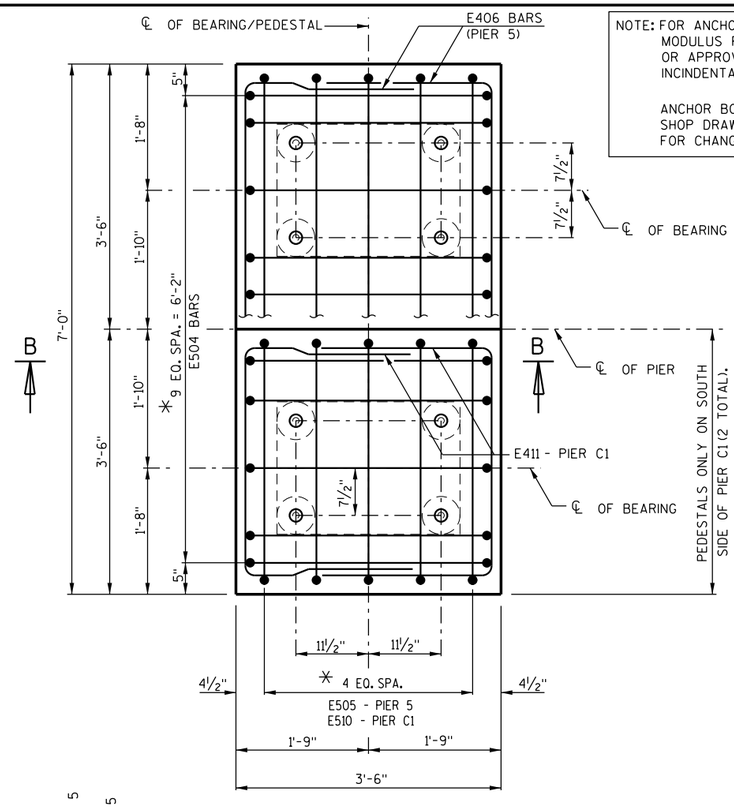


PLAN

(PIER PEDESTAL - PIERS 1 THRU 4 & 6 THRU 9)
✳ ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS.

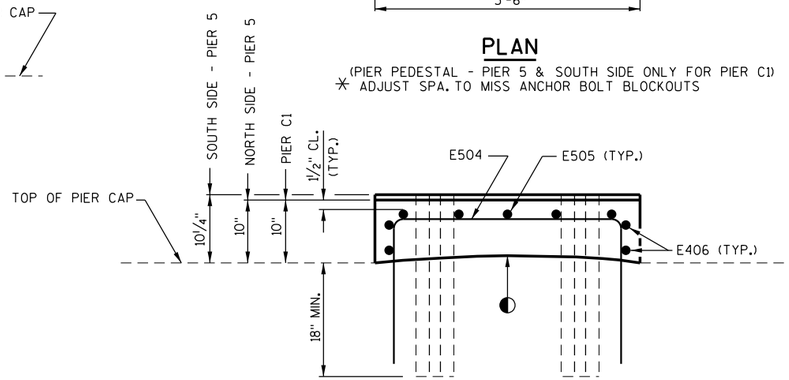


SECTION A-A

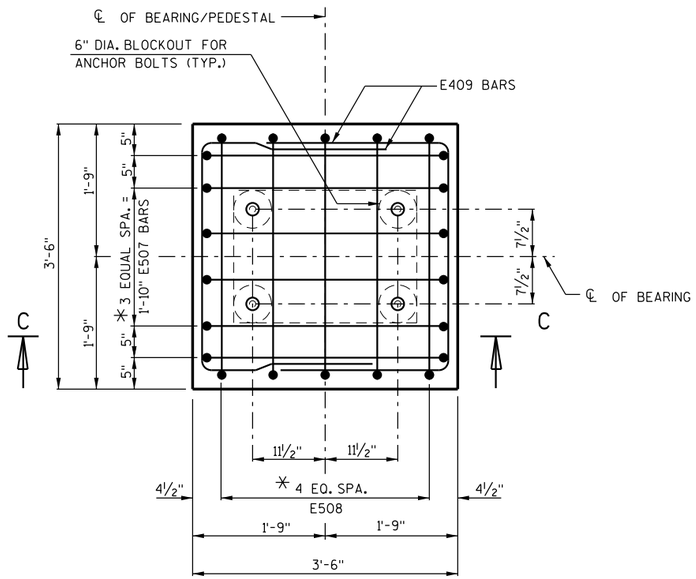


PLAN

(PIER PEDESTAL - PIER 5 & SOUTH SIDE ONLY FOR PIER C1)
✳ ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS

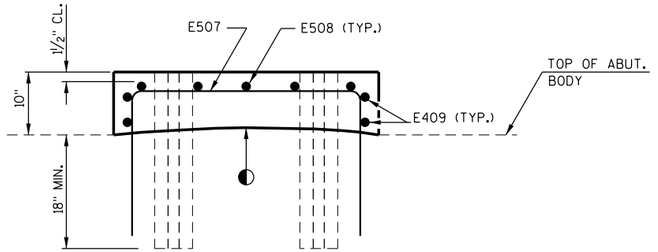


SECTION B-B



PLAN

(SOUTH ABUTMENT PEDESTAL)
✳ ADJUST SPA. TO MISS ANCHOR BOLT BLOCKOUTS



SECTION C-C

NOTE: FOR ANCHOR GROUT SLEEVE AND BASEPLATE SEATING USE HIGH MODULUS FLOWABLE EPOXY RESIN GROUT, SIKADUR 42 GROUT-PAK OR APPROVED EQUAL. GROUT SLEEVE AND GROUT WILL BE CONSIDERED INCINDENTAL TO THE COST OF "HPC MASONRY STRUCTURES".

ANCHOR BOLT SPACING AND ELEVATIONS ARE BASED ON BEARING SHOP DRAWINGS LAST DATED 12/12/12. ADJUST AS NECESSARY FOR CHANGES FROM THOSE DRAWINGS.

STATE PROJECT NUMBER

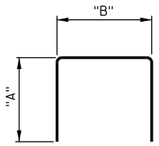
1133-11-74

◐ CONST. JT. - STRIKE OFF AS SHOWN.

PIER CAP - BILL OF BARS

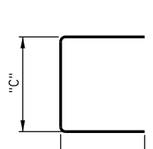
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
(PIERS 1 THRU 5 = UNIT 1, PIERS 6 THRU C1 = UNIT 2)

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 3,200 LBS.
E501	48	48	9-1	X		PEDESTAL - AT PIERS 1-4 & 6-9	VERT.
E502	64	64	8-6	X		PEDESTAL - AT PIERS 1-4 & 6-9	VERT.
E403	32	32	10-6	X		PEDESTAL - AT PIERS 1-4 & 6-9	HORIZ.
E504	16	8	7-7	X		PEDESTAL - AT PIERS 5 & C1	VERT.
E505	10	---	11-4	X		PEDESTAL - AT PIER 5	VERT.
E406	8	---	11-4	X		PEDESTAL - AT PIER 5	HORIZ.
E507	12	---	7-6	X		PEDESTAL - AT SOUTH ABUTMENT	VERT.
E508	8	---	7-10	X		PEDESTAL - AT SOUTH ABUTMENT	VERT.
E409	8	---	8-0	X		PEDESTAL - AT SOUTH ABUTMENT	HORIZ.
E510	---	10	7-10	X		PEDESTAL - AT PIER C1	VERT.
E411	---	8	8-0	X		PEDESTAL - AT PIER C1	HORIZ.



MARK	"A"	"B"
E501	2'-4"	4'-8"
E502	2'-5"	3'-11"
E504	2'-4"	3'-2"
E505	2'-5"	6'-9"
E507	2'-4"	3'-1"
E508	2'-5"	3'-3"
E510	2'-5"	3'-3"

E501, E502, E504, E505, E507, E508 & E510



MARK	"C"	"D"
E403	3'-10"	3'-5"
E406	6'-6"	2'-6"
E409	3'-2"	2'-6"
E411	3'-2"	2'-6"

E403, E406, E409 & E411

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

BEARING PEDESTAL DETAILS

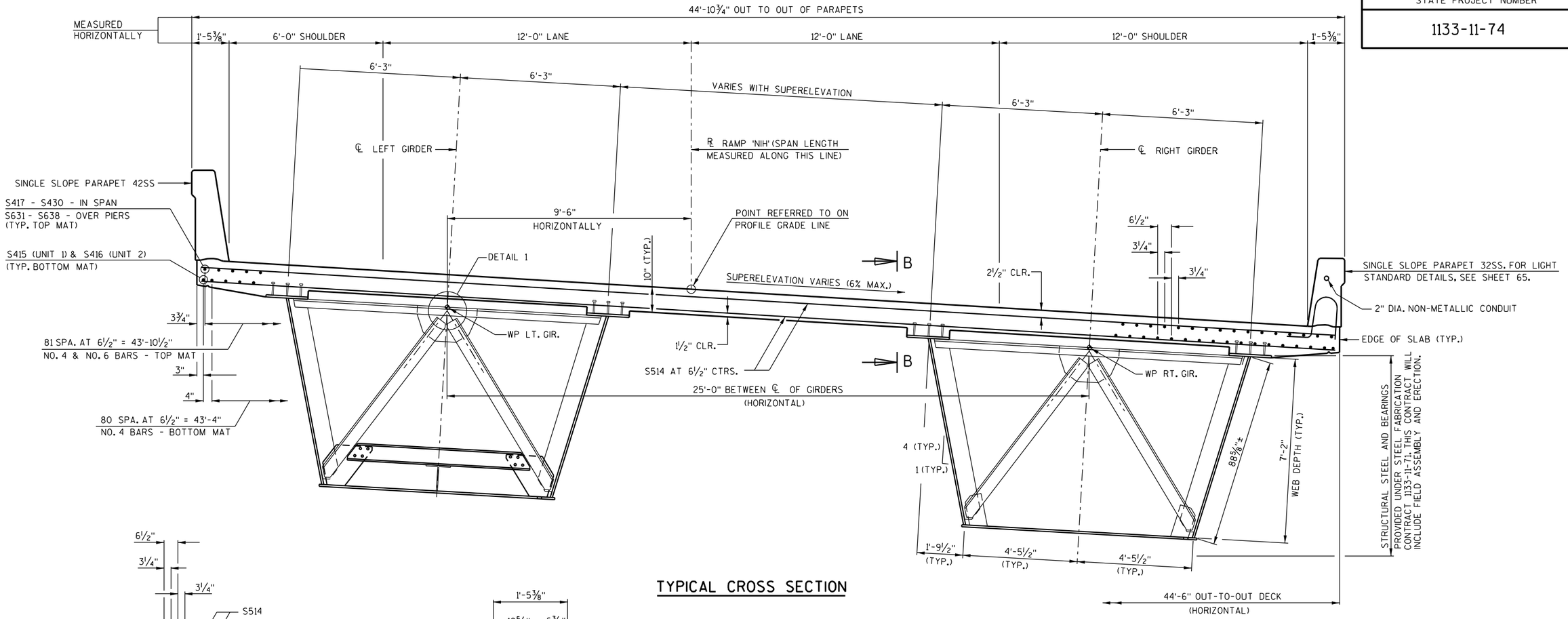
SHEET 45 OF 91
934

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\045_BRG_PED_V7.B-5-679.DGN
PLOT DATE : 5/1/2013

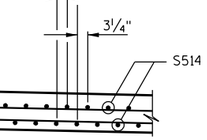
8

STATE PROJECT NUMBER

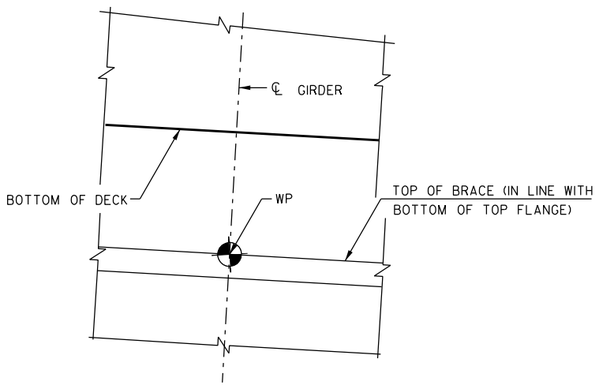
1133-11-74



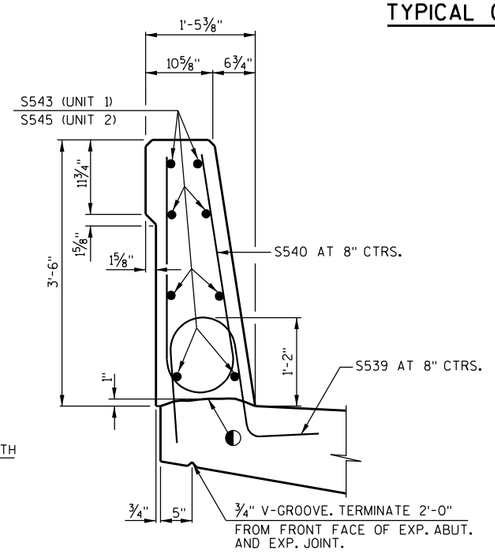
TYPICAL CROSS SECTION



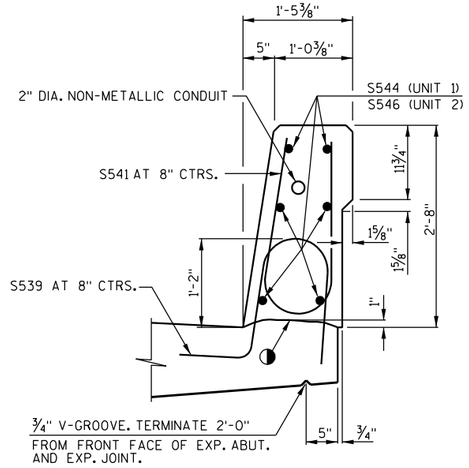
SECTION B-B
(TRANSVERSE BAR STEEL STAGGER DETAIL)



DETAIL 1



SECTION THRU PARAPET ON BRIDGE
SINGLE SLOPE PARAPET 42SS



✳✳✳ SECTION THRU PARAPET ON BRIDGE
SINGLE SLOPE PARAPET 32SS
(REINFORCEMENT BARS SHOWN IN THIS DETAIL ARE BETWEEN STA. 1187+30.9± TO STA. 1209+01.17)

NOTES:

WP = WORK POINT TO WHICH DIMENSIONS ARE MEASURED.

STAY-IN-PLACE METAL FORMS PERMITTED INSIDE BOX GIRDERS ONLY.

SEE CONTRACT 1133-11-71 "SUPERSTRUCTURE DETAILS" SHEET FOR HAUNCH DETAILS.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE 3MM COAT OF PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS.

LAP NO. 5 BARS 1'-9" MIN. IN PARAPETS.

LAP NO. 4 BARS 1'-8" MIN. IN DECK.

LAP NO. 6 BARS 3'-1" MIN. IN SLAB.

◑ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN.

✳✳✳ STA. 1187+30.9± TO STA. 1209+01.17 (SINGLE SLOPE PARAPET 32SS)
STA. 1209+01.17 TO STA. 1209+11.17 TRANSITION PARAPET FROM 32SS TO 42SS
STA. 1209+11.17 TO STA. 1209+16.17± (SINGLE SLOPE PARAPET 42SS)
FOR DETAILS, SEE SHEET "PARAPET TRANSITION DETAILS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

TYPICAL DECK SECTION

SHEET 46 OF 91
935

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

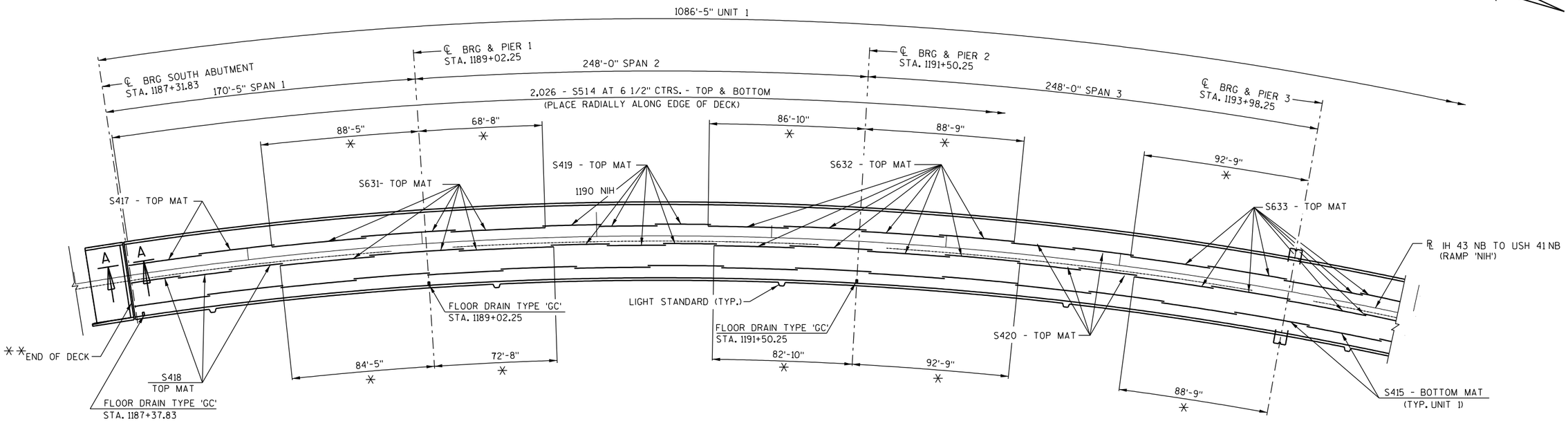
8

8

FILE NAME : P:\153 USH 41 1133-10-00 UBS\Structures\B-5-679\046_deck_section_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER
1133-11-74



PLAN - SPANS 1 - 3

LEGEND

✳ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

✳✳ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, PIER 5 OR PIER C1. SEE SHEET TITLED "REINFORCING AT EXPANSION JOINT" FOR FURTHER DETAILS.

NOTES

(THESE NOTES APPLY TO ALL DECK REINFORCEMENT SHEETS)

1. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINOUS BAR CHAIRS SHALL BE PLACED NEAR EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
2. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CTRS.
3. ALL TRANSVERSE BAR STEEL SHALL BE PLACED RADIALLY TO THE RAMP NIH REFERENCE LINE.
4. ALL LONGITUDINAL BAR STEEL SHALL BE PLACED CONCENTRIC TO THE RAMP NIH REFERENCE LINE.
5. LAP LONGITUDINAL NO. 6 BARS 3'-1" MIN. AND LAP LONGITUDINAL NO. 4 BARS 1'-8" MIN.
6. SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR BAR BILL.
7. SEE SHEET "LIGHT STANDARD" FOR REINFORCEMENT DETAILS AT THE LIGHT STANDARDS.
8. SEE SHEET "REINFORCING AT EXPANSION JOINT" FOR SECTION A-A & B-B DETAILS.

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT SPANS 1-3

SHEET 47 OF 91
936

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

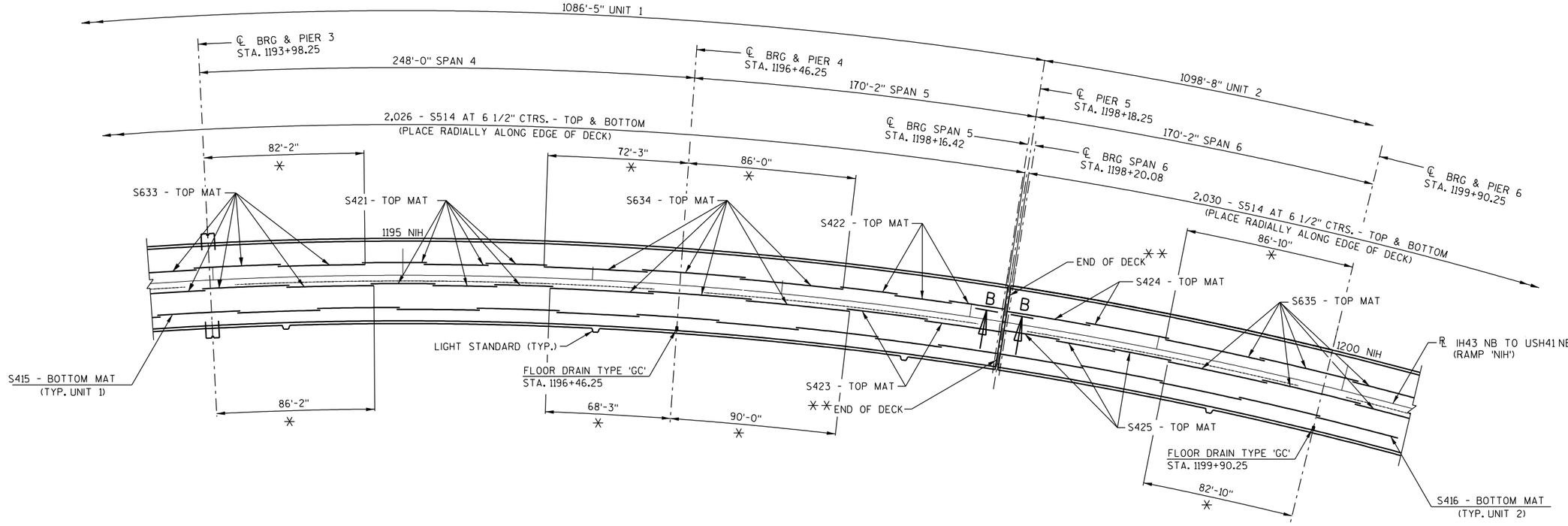
8

FILE NAME : P:\153 USH 41 1133-10-00 UDOS\Structures\B-5-679\04\deck_reinf_spans_1-3_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 4 - 6

LEGEND

* STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

** END OF DECK = END OF SLAB AT SOUTH ABUTMENT, PIER 5 OR PIER C1. SEE SHEET TITLED "REINFORCING AT EXPANSION JOINT" FOR FURTHER DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT SPANS 4-6

SHEET 48 OF 91
937

8

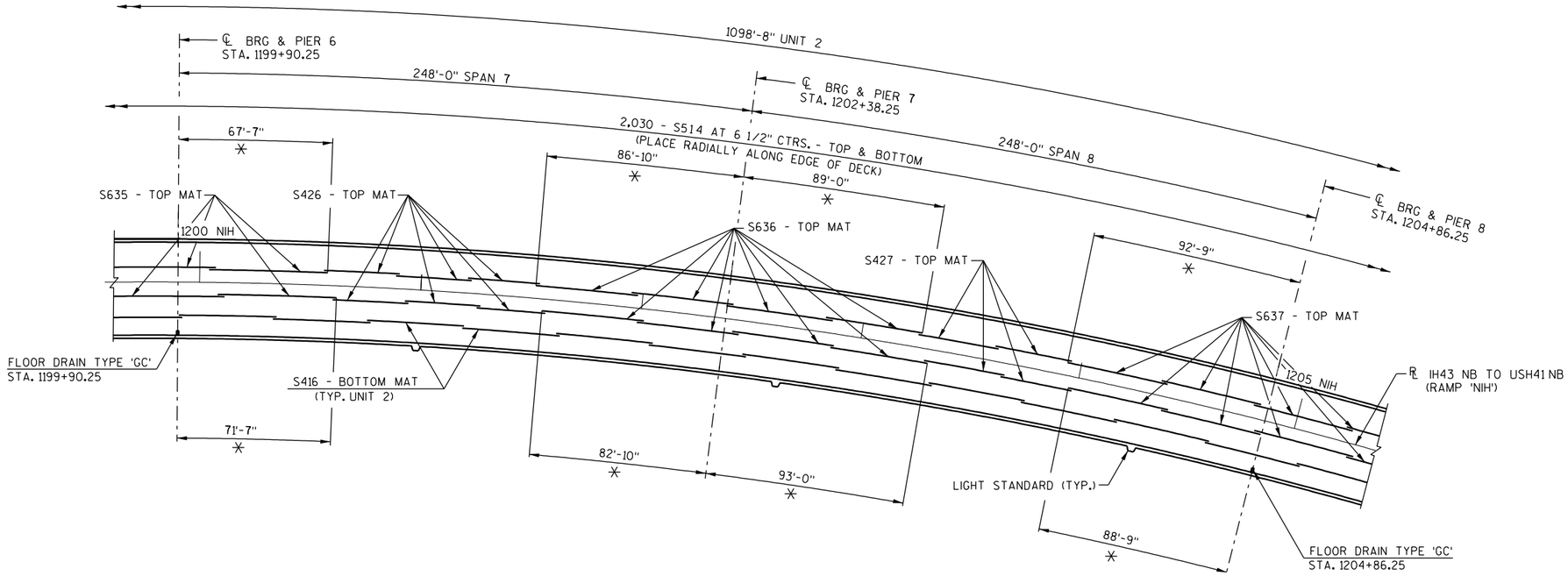
8

FILE NAME : P:\153 USH 41 1133-10-00 UPS\Structures\B-5-679\048_deck_reinf_spans_4-6_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 7 & 8

LEGEND

✳ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT SPANS 7-8

SHEET 49 OF 91
938

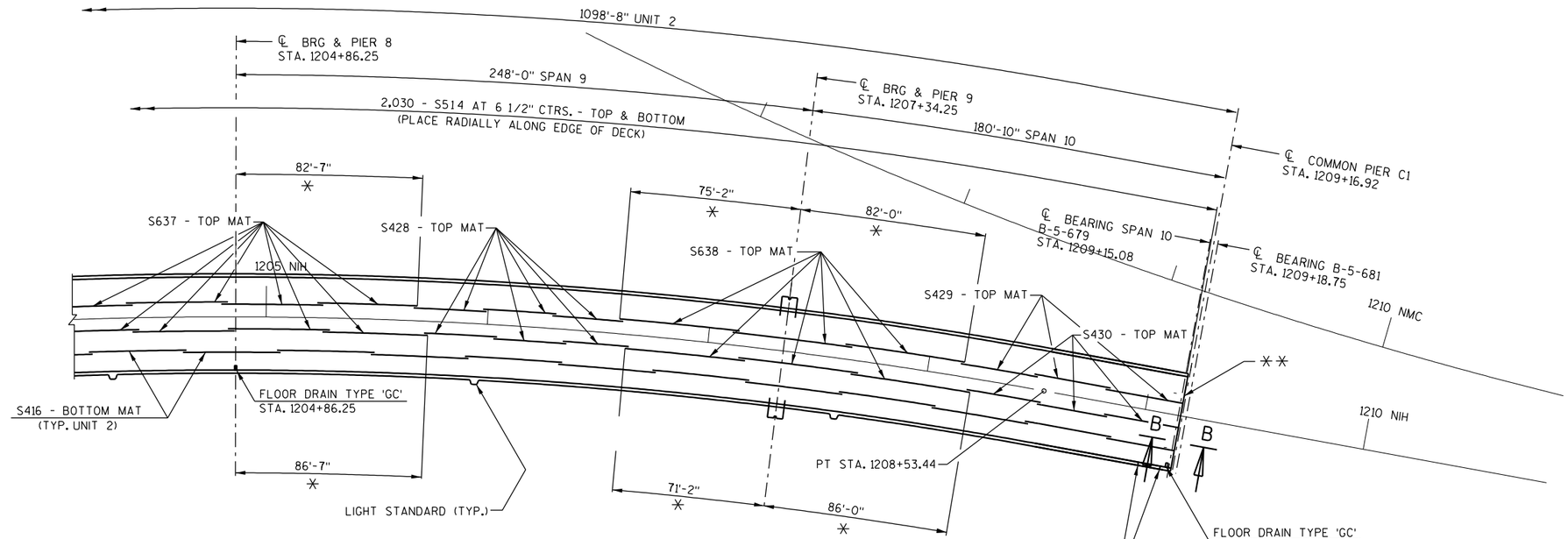
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 LRGS\Structures\B-5-679\049_deck_reinf_spans_7-8_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74



TRANSITION PARAPET FROM SINGLE SLOPE PARAPET 32SS TO SINGLE SLOPE PARAPET 42SS FROM STA. 1209+01.17 TO STA. 1209+11.17. USE SINGLE SLOPE PARAPET 42SS FROM STA. 1209+11.17 TO STA. 1209+16.17± (EXPANSION JOINT). FOR DETAILS, SEE SHEET "PARAPET TRANSITION DETAILS".

PLAN - SPANS 9 & 10

LEGEND

✳ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

✳✳ END OF DECK = END OF SLAB AT SOUTH ABUTMENT, PIER 5 OR PIER C1. SEE SHEET TITLED "REINFORCING AT EXPANSION JOINT" FOR FURTHER DETAILS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT SPANS 9-10

SHEET 50 OF 91
939

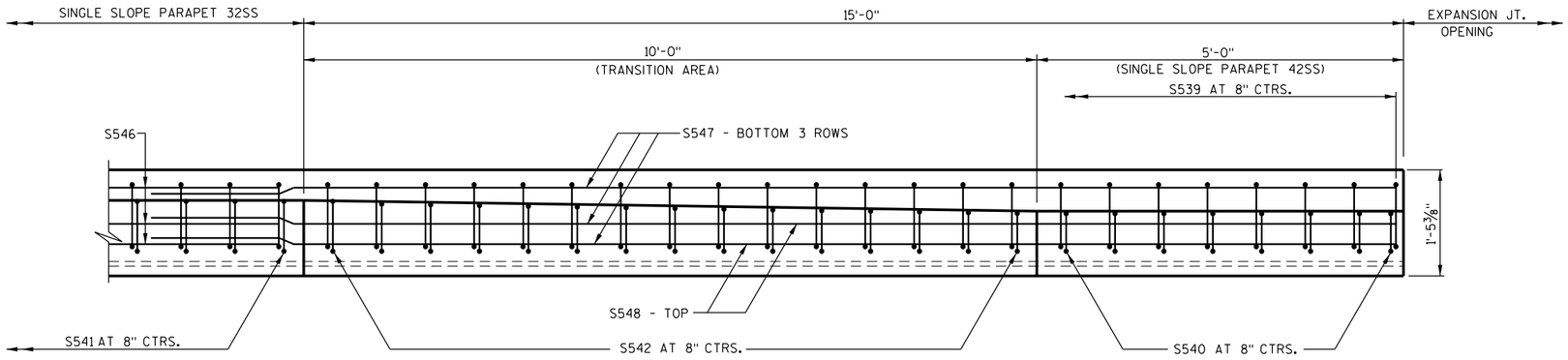
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 UBS\Structures\B-5-679\050_deck_reinf_spans_9-10_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

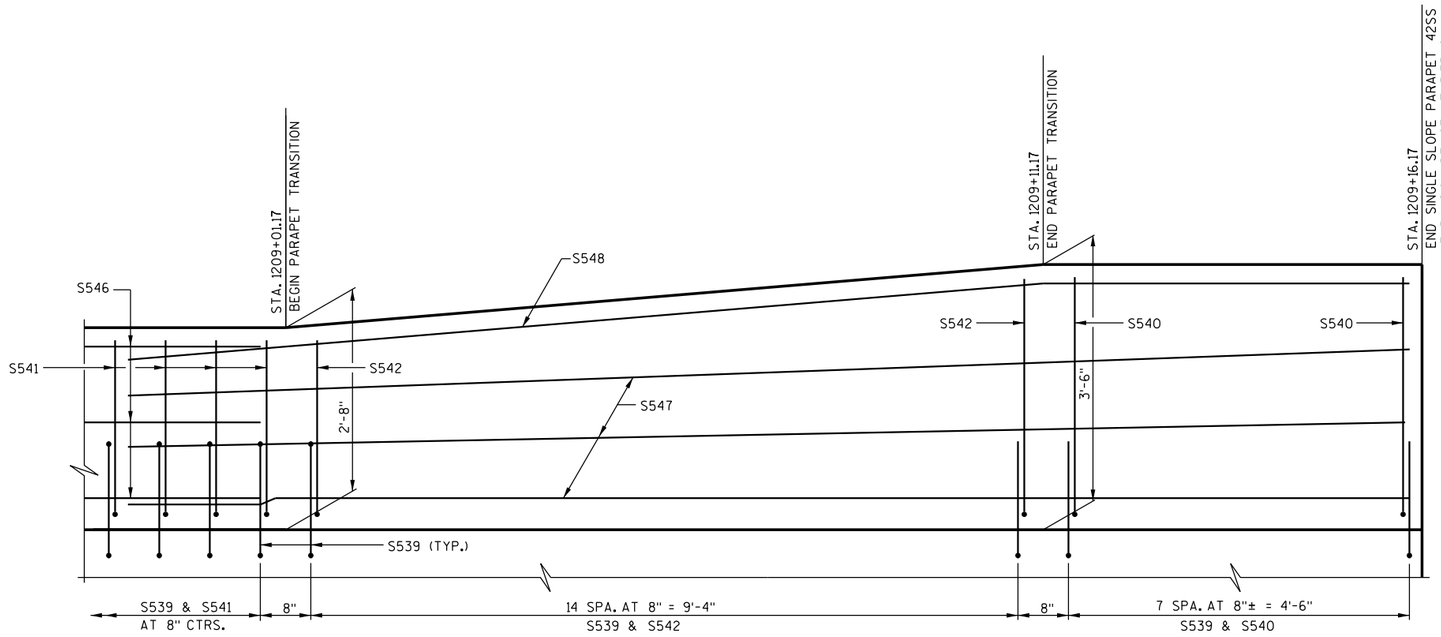
STATE PROJECT NUMBER

1133-11-74

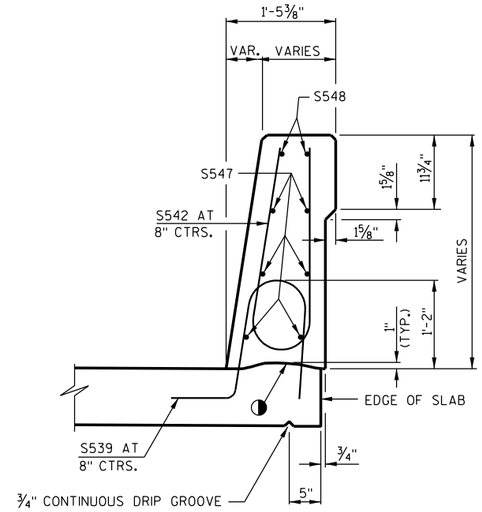


PLAN - TRANSITION AREA

NOTE: SEE SHEET "TYPICAL DECK SECTION" FOR ADDITIONAL SINGLE SLOPE PARAPET DETAILS.



ELEVATION - TRANSITION AREA



SECTION THRU PARAPET AT TRANSITION AREA

NOTE: SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR BAR STEEL REINFORCEMENT DETAILS AND BILL OF BARS FOR PARAPET ON BRIDGE.

◑ CONSTRUCTION JOINT STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PARAPET TRANSITION DETAILS

SHEET 51 OF 91

940

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\05L.PARAPET.TRANSITION.V7.B-5-679.DGN

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74

BILL OF BARS

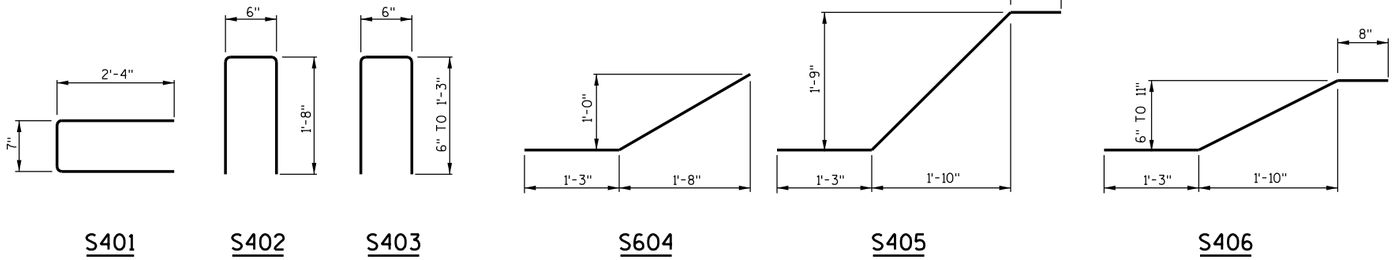
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 836,900 LBS.
S401	268	268	5-1	X		EXPANSION JOINTS	LONGIT.
S402	244	244	3-8	X		EXPANSION JOINTS	VERT.
S403	24	24	2-1	X	⚹	EXPANSION JOINTS	VERT.
S604	40	40	3-2	X		EXPANSION JOINTS	TRANS.
S405	104	104	4-5	X		EXPANSION JOINTS	LONGIT.
S406	12	12	3-11	X	⚹	EXPANSION JOINTS	LONGIT.
S607	6	6	43-4			EXPANSION JOINTS	TRANS.
S408	12	12	5-3	X	⚹	EXPANSION JOINTS	LONGIT.
S509	84	84	8-0			EXPANSION JOINTS	TRANS.
S610	20	20	40-4			EXPANSION JOINTS	TRANS.
S411	122	122	6-0	X		EXPANSION JOINTS	LONGIT.
S612	8	8	13-7	X		EXPANSION JOINTS	TRANS.
S613	16	16	13-0	X		EXPANSION JOINTS	TRANS.
S514	4,052	4,060	44-2			SLAB - TOP & BOTTOM	TRANS.
S415	2,158	---	43-10			SLAB - BOTTOM	LONGIT.
S416	---	2,158	44-2			SLAB - BOTTOM	LONGIT.
S417	82	---	43-3			SLAB - TOP - SPAN 1	LONGIT.
S418	123	---	30-9			SLAB - TOP - SPAN 1	LONGIT.
S419	246	---	34-10			SLAB - TOP - SPAN 2	LONGIT.
S420	164	---	36-11			SLAB - TOP - SPAN 3	LONGIT.
S421	246	---	34-3			SLAB - TOP - SPAN 4	LONGIT.
S422	123	---	30-9			SLAB - TOP - SPAN 5	LONGIT.
S423	82	---	43-1			SLAB - TOP - SPAN 5	LONGIT.
S424	---	82	44-8			SLAB - TOP - SPAN 6	LONGIT.
S425	---	123	31-8			SLAB - TOP - SPAN 6	LONGIT.
S426	---	246	34-3			SLAB - TOP - SPAN 7	LONGIT.
S427	---	164	36-10			SLAB - TOP - SPAN 8	LONGIT.
S428	---	246	33-1			SLAB - TOP - SPAN 9	LONGIT.
S429	---	123	35-4			SLAB - TOP - SPAN 10	LONGIT.
S430	---	123	34-0			SLAB - TOP - SPAN 10	LONGIT.
S631	246	---	54-5			SLAB - TOP - PIER 1	LONGIT.
S632	328	---	46-3			SLAB - TOP - PIER 2	LONGIT.
S633	328	---	46-1			SLAB - TOP - PIER 3	LONGIT.
S634	246	---	54-10			SLAB - TOP - PIER 4	LONGIT.
S635	---	246	53-7			SLAB - TOP - PIER 6	LONGIT.
S636	---	328	46-4			SLAB - TOP - PIER 7	LONGIT.
S637	---	328	46-2			SLAB - TOP - PIER 8	LONGIT.
S638	---	246	54-6			SLAB - TOP - PIER 9	LONGIT.
S539	3,257	3,290	4-5	X		PARAPET - EACH SIDE	VERT.
S540	1,646	1,669	6-8	X		PARAPET - 42SS - EACH SIDE	VERT.
S541	1,611	1,606	5-0	X		PARAPET - 32SS - EAST SIDE ONLY	VERT.
S542	---	15	5-9	X	⚹	PARAPET - TRANSITION AREA - EAST SIDE	VERT.
S543	240	---	38-4			PARAPET - 42SS - WEST SIDE	LONGIT.
S544	174	---	34-6			PARAPET - 32SS - EAST SIDE	LONGIT.
S545	---	240	38-7			PARAPET - 42SS - WEST SIDE	LONGIT.
S546	---	168	39-11			PARAPET - 32SS - EAST SIDE	LONGIT.
S547	---	6	17-0			PARAPET - TRANSITION AREA - EAST SIDE	LONGIT.
S548	---	2	17-0	X		PARAPET - TRANSITION AREA - EAST SIDE	LONGIT.
S649	16	24	7-10	X		SLAB - AT DECK DRAINS	HORIZ.

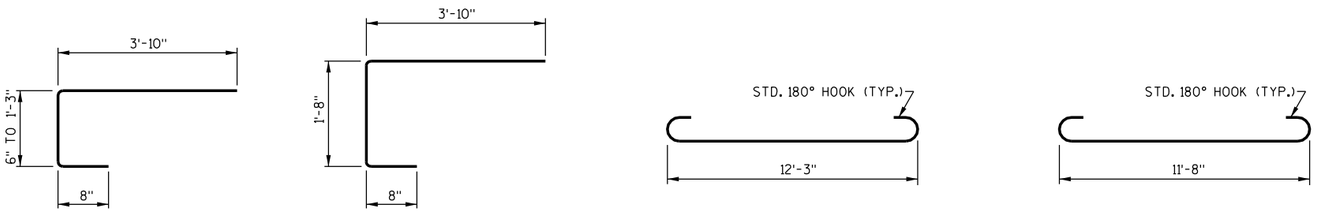
⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

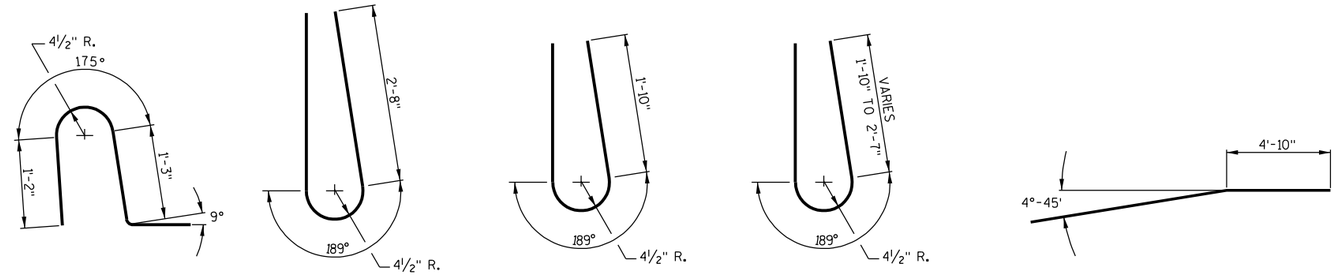
MARK	NO. REQ'D.	LENGTH
S403	16 SERIES OF 3	1'-4" TO 2'-10"
S406	8 SERIES OF 3	3'-9" TO 4'-1"
S408	8 SERIES OF 3	4'-10" TO 5'-7"
S542	1 SERIES OF 15	5'-0" TO 6'-6"



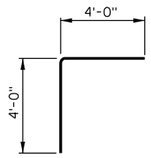
S401 S402 S403 S604 S405 S406



S408 S411 S612 S613



S539 S540 S541 S542 S548



S649

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SUPERSTRUCTURE
BILL OF BARS

SHEET 52 OF 91
941

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679+052_SUPER_BILL_BARS_V7_B-5-679.DGN

PLOT DATE : 4/23/2013

8

8

STATE PROJECT NUMBER

1133-11-74

TOP OF DECK ELEVATIONS - UNIT 1

	℄ OF BRG. S. ABUT.	1.1 PT.	1.2 PT.	1.3 PT.	1.4 PT.	1.5 PT.	1.6 PT.	F.S. 1	1.7 PT.	1.8 PT.	1.9 PT.	℄ OF PIER 1	2.1 PT.	2.2 PT.	F.S. 2	2.3 PT.	2.4 PT.	2.5 PT.	2.6 PT.	2.7 PT.	F.S. 3	2.8 PT.	2.9 PT.	℄ OF PIER 2
LEFT. EOD	609.44	609.90	610.37	610.83	611.29	611.76	612.22	612.45	612.69	613.15	613.61	614.08	614.75	615.43	615.76	616.09	616.75	617.39	618.03	618.65	618.96	619.26	619.86	620.44
LT. GIRDER/LT. WEB	609.12	609.59	610.05	610.51	610.98	611.44	611.90	612.14	612.37	612.83	613.30	613.76	614.43	615.11	615.44	615.78	616.43	617.08	617.71	618.33	618.64	618.94	619.54	620.13
LT. GIRDER/RT. WEB	608.59	609.05	609.52	609.98	610.44	610.91	611.37	611.60	611.83	612.30	612.76	613.22	613.90	614.57	614.91	615.24	615.90	616.54	617.17	617.80	618.10	618.41	619.00	619.59
RT. GIRDER/LT. WEB	607.62	608.09	608.55	609.01	609.48	609.94	610.40	610.64	610.87	611.33	611.80	612.26	612.93	613.61	613.94	614.28	614.93	615.58	616.21	616.83	617.14	617.44	618.04	618.63
RT. GIRDER/RT. WEB	607.09	607.55	608.02	608.48	608.94	609.41	609.87	610.10	610.33	610.80	611.26	611.72	612.40	613.07	613.41	613.74	614.40	615.04	615.67	616.30	616.60	616.91	617.50	618.09
RIGHT EOD	606.77	607.23	607.70	608.16	608.62	609.09	609.55	609.78	610.02	610.48	610.94	611.41	612.08	612.76	613.09	613.42	614.08	614.72	615.36	615.98	616.29	616.59	617.19	617.77

	3.1 PT.	3.2 PT.	F.S. 4	3.3 PT.	3.4 PT.	3.5 PT.	3.6 PT.	3.7 PT.	F.S. 5	3.8 PT.	3.9 PT.	℄ OF PIER 3	4.1 PT.	4.2 PT.	F.S. 6	4.3 PT.	4.4 PT.	4.5 PT.	4.6 PT.	4.7 PT.	F.S. 7	4.8 PT.	4.9 PT.	℄ OF PIER 4
LEFT. EOD	614.75	615.43	615.76	616.09	616.75	617.39	618.03	618.65	618.96	619.26	619.86	625.68	626.13	626.58	626.80	627.02	627.44	627.86	628.26	628.65	628.84	629.03	629.39	629.75
LT. GIRDER/LT. WEB	614.43	615.11	615.44	615.78	616.43	617.08	617.71	618.33	618.64	618.94	619.54	625.36	625.82	626.26	626.48	626.70	627.13	627.54	627.94	628.33	628.52	628.71	629.08	629.43
LT. GIRDER/RT. WEB	613.90	614.57	614.91	615.24	615.90	616.54	617.17	617.80	618.10	618.41	619.00	624.82	625.28	625.73	625.95	626.17	626.59	627.00	627.41	627.80	627.99	628.17	628.54	628.90
RT. GIRDER/LT. WEB	612.93	613.61	613.94	614.28	614.93	615.58	616.21	616.83	617.14	617.44	618.04	623.86	624.32	624.76	624.98	625.20	625.63	626.04	626.44	626.83	627.02	627.21	627.58	627.93
RT. GIRDER/RT. WEB	612.40	613.07	613.41	613.74	614.40	615.04	615.67	616.30	616.60	616.91	617.50	623.32	623.78	624.23	624.45	624.67	625.09	625.50	625.91	626.30	626.49	626.67	627.04	627.40
RIGHT EOD	612.08	612.76	613.09	613.42	614.08	614.72	615.36	615.98	616.29	616.59	617.19	623.01	623.46	623.91	624.13	624.35	624.77	625.19	625.59	625.98	626.17	626.36	626.72	627.08

	5.1 PT.	5.2 PT.	5.3 PT.	F.S. 8	5.4 PT.	5.5 PT.	5.6 PT.	5.7 PT.	5.8 PT.	5.9 PT.	℄ BRG. PIER 5
LEFT. EOD	629.99	630.22	630.44	630.55	630.66	630.88	631.09	631.29	631.49	631.68	631.87
LT. GIRDER/LT. WEB	629.67	629.90	630.13	630.24	630.35	630.56	630.77	630.98	631.17	631.37	631.56
LT. GIRDER/RT. WEB	629.13	629.36	629.59	629.70	629.81	630.03	630.24	630.44	630.64	630.83	631.02
RT. GIRDER/LT. WEB	628.17	628.40	628.63	628.74	628.85	629.06	629.27	629.48	629.67	629.87	630.06
RT. GIRDER/RT. WEB	627.63	627.86	628.09	628.20	628.31	628.53	628.74	628.94	629.14	629.33	629.52
RIGHT EOD	627.32	627.55	627.77	627.88	627.99	628.21	628.42	628.62	628.82	629.01	629.20

8

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

TOP OF DECK ELEVATIONS

SHEET 53 OF 91
942

8

FILE NAME : P:\153 USH 41 1133-10-00 LRPS\Structures\B-5-679\053_deck_elev_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74

TOP OF DECK ELEVATIONS - UNIT 2

	℄ OF BRG. PIER 5	6.1 PT.	6.2 PT.	6.3 PT.	6.4 PT.	6.5 PT.	6.6 PT.	F.S. 9	6.7 PT.	6.8 PT.	6.9 PT.	℄ OF PIER 6	7.1 PT.	7.2 PT.	F.S. 10	7.3 PT.	7.4 PT.	7.5 PT.	7.6 PT.	7.7 PT.	F.S. 11	7.8 PT.	7.9 PT.	℄ OF PIER 7
LEFT. EOD	631.91	632.09	632.27	632.44	632.60	632.76	632.92	632.99	633.07	633.21	633.35	633.48	633.66	633.83	633.92	633.99	634.14	634.28	634.40	634.52	634.57	634.62	634.71	634.79
LT. GIRDER/LT. WEB	631.59	631.78	631.95	632.12	632.29	632.45	632.60	632.68	632.75	632.89	633.03	633.16	633.35	633.52	633.60	633.68	633.82	633.96	634.09	634.20	634.25	634.30	634.39	634.47
LT. GIRDER/RT. WEB	631.06	631.24	631.42	631.59	631.75	631.91	632.07	632.14	632.21	632.36	632.50	632.63	632.81	632.98	633.06	633.14	633.29	633.43	633.55	633.66	633.72	633.77	633.86	633.94
RT. GIRDER/LT. WEB	630.09	630.28	630.45	630.62	630.79	630.95	631.10	631.18	631.25	631.39	631.53	631.66	631.85	632.02	632.10	632.18	632.32	632.46	632.59	632.70	632.75	632.80	632.89	632.97
RT. GIRDER/RT. WEB	629.56	629.74	629.92	630.09	630.25	630.41	630.57	630.64	630.71	630.86	631.00	631.13	631.31	631.48	631.56	631.64	631.79	631.93	632.05	632.16	632.22	632.27	632.36	632.44
RIGHT EOD	629.24	629.42	629.60	629.77	629.93	630.09	630.25	630.32	630.40	630.54	630.68	630.81	630.99	631.16	631.25	631.32	631.47	631.61	631.73	631.85	631.90	631.95	632.04	632.12

	8.1 PT.	8.2 PT.	F.S. 12	8.3 PT.	8.4 PT.	8.5 PT.	8.6 PT.	8.7 PT.	F.S. 13	8.8 PT.	8.9 PT.	℄ OF PIER 8	9.1 PT.	9.2 PT.	F.S. 14	9.3 PT.	9.4 PT.	9.5 PT.	9.6 PT.	9.7 PT.	F.S. 15	9.8 PT.	9.9 PT.	℄ OF PIER 9
LEFT. EOD	633.66	633.83	633.92	633.99	634.14	634.28	634.40	634.52	634.57	634.62	634.71	634.94	634.89	634.83	634.79	634.76	634.67	634.58	634.47	634.35	634.29	634.22	634.08	633.93
LT. GIRDER/LT. WEB	633.35	633.52	633.60	633.68	633.82	633.96	634.09	634.20	634.25	634.30	634.39	634.62	634.57	634.51	634.48	634.44	634.36	634.26	634.15	634.03	633.97	633.91	633.76	633.61
LT. GIRDER/RT. WEB	632.81	632.98	633.06	633.14	633.29	633.43	633.55	633.66	633.72	633.77	633.86	634.08	634.04	633.98	633.94	633.90	633.82	633.72	633.62	633.50	633.44	633.37	633.23	633.08
RT. GIRDER/LT. WEB	631.85	632.02	632.10	632.18	632.32	632.46	632.59	632.70	632.75	632.80	632.89	633.12	633.07	633.01	632.98	632.94	632.86	632.76	632.65	632.53	632.47	632.41	632.26	632.11
RT. GIRDER/RT. WEB	631.31	631.48	631.56	631.64	631.79	631.93	632.05	632.16	632.22	632.27	632.36	632.58	632.54	632.48	632.44	632.40	632.32	632.22	632.12	632.00	631.94	631.87	631.73	631.58
RIGHT EOD	630.99	631.16	631.25	631.32	631.47	631.61	631.73	631.85	631.90	631.95	632.04	632.27	632.22	632.16	632.12	632.09	632.00	631.91	631.80	631.68	631.62	631.55	631.41	631.26

	10.1 PT.	10.2 PT.	10.3 PT.	F.S. 16	10.4 PT.	10.5 PT.	10.6 PT.	10.7 PT.	10.8 PT.	10.9 PT.	℄ BRG. PIER C1
LEFT. EOD	633.81	633.66	633.46	633.36	633.26	633.06	632.86	632.66	632.47	632.27	632.07
LT. GIRDER/LT. WEB	633.49	633.35	633.17	633.08	632.99	632.82	632.64	632.46	632.28	632.11	631.93
LT. GIRDER/RT. WEB	632.96	632.83	632.69	632.62	632.54	632.40	632.26	632.12	631.98	631.84	631.70
RT. GIRDER/LT. WEB	631.99	631.89	631.81	631.77	631.74	631.66	631.58	631.51	631.43	631.35	631.27
RT. GIRDER/RT. WEB	631.46	631.37	631.33	631.31	631.29	631.25	631.20	631.16	631.12	631.08	631.04
RIGHT EOD	631.14	631.06	631.04	631.03	631.02	631.00	630.98	630.96	630.94	630.92	630.90

8

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

TOP OF DECK ELEVATIONS

SHEET 54 OF 91
943

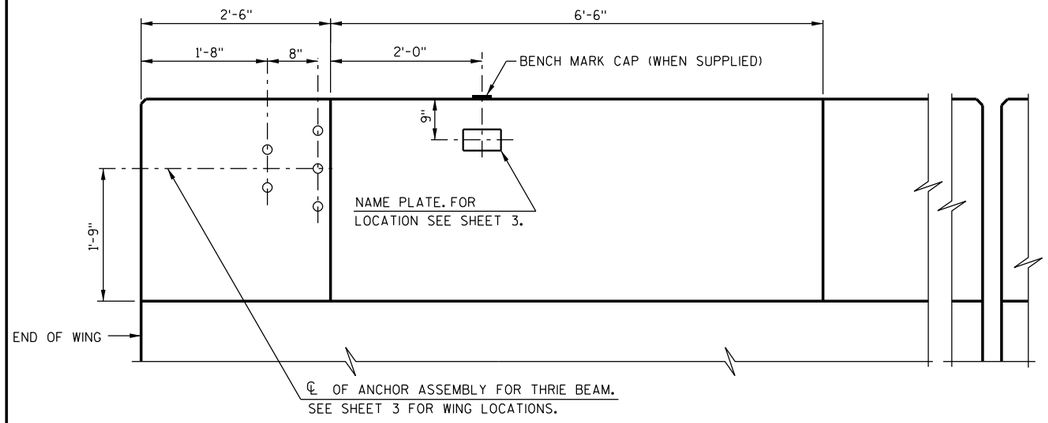
FILE NAME : P:\153 USH 41 1133-10-00 LRPS\Structures\B-5-679\054_deck_elev_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

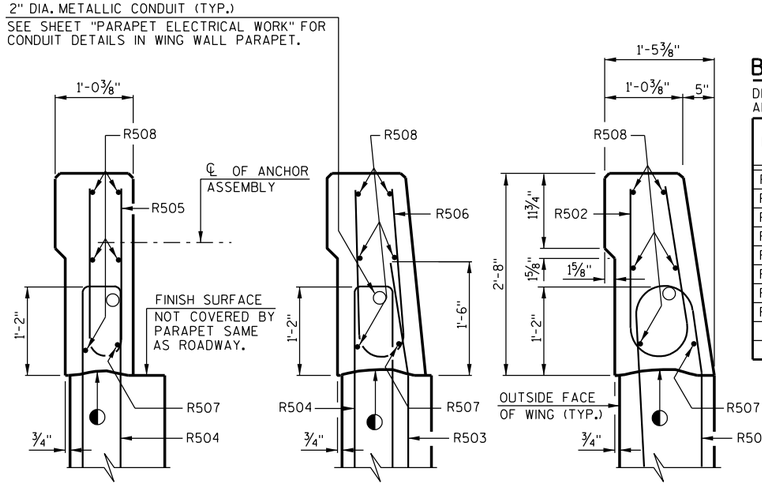
8

STATE PROJECT NUMBER

1133-11-74



INSIDE ELEVATION - WING 1



SECTION A-A

SECTION B-B

SECTION C-C

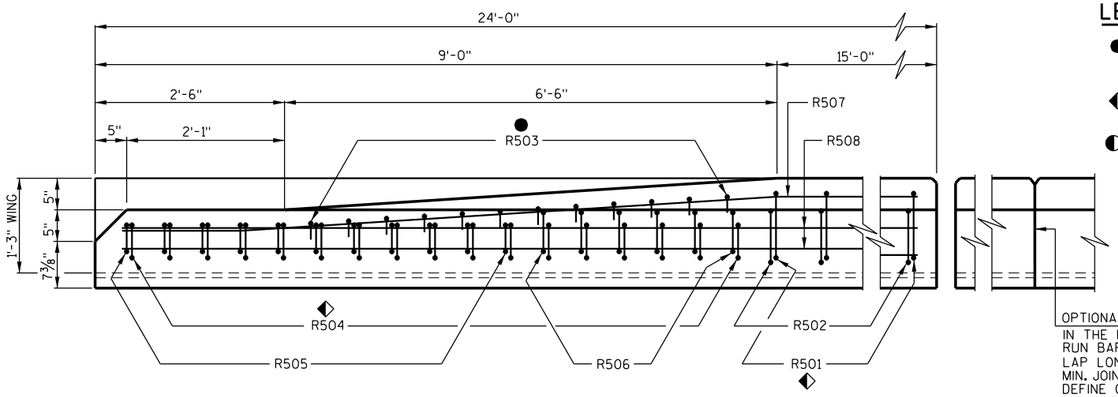
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

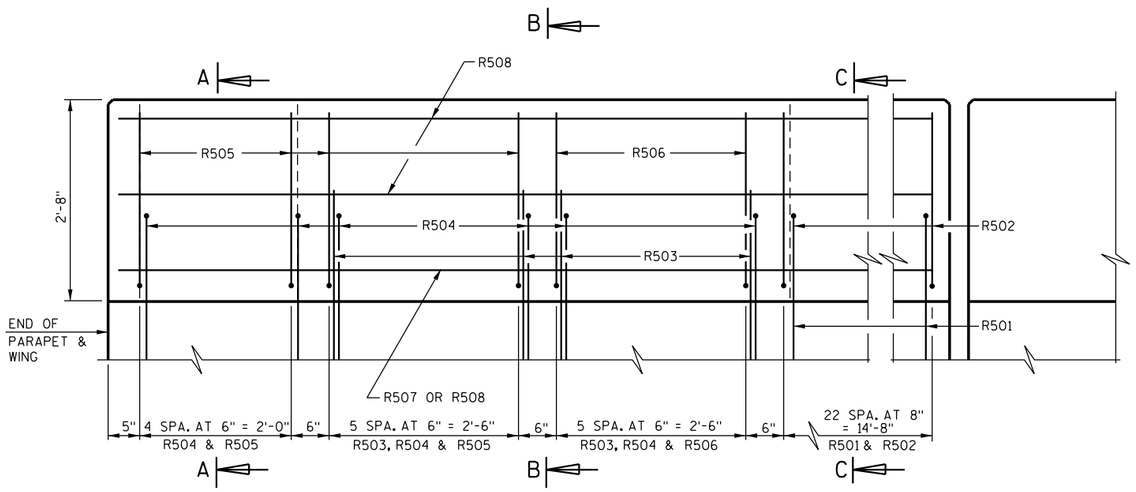
MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 630 LBS.
R501	23	5-10	X		PARAPET - WING 1	VERT.
R502	23	5-0	X		PARAPET - WING 1	VERT.
R503	12	3-0	X		PARAPET - WING 1	VERT.
R504	17	5-7	X		PARAPET - WING 1	VERT.
R505	11	4-9	X		PARAPET - WING 1	VERT.
R506	6	4-10	X		PARAPET - WING 1	VERT.
R507	1	23-6	X		PARAPET - WING 1	HORIZ.
R508	5	23-6			PARAPET - WING 1	HORIZ.

LEGEND

- ● R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INTIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TANSITION OF PARAPET.
- ◆ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.
- ◐ CONST. JT. - STRIKE OFF AS SHOWN.

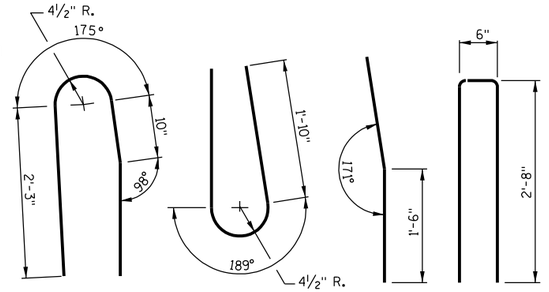


PLAN - WING 1

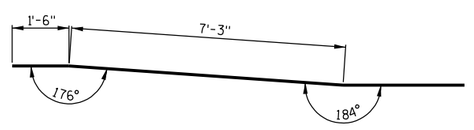


OUTSIDE ELEVATION - WING 1

NOTE: QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT ARE INCLUDED IN THE ABUTMENT QUANTITIES ON SHEET 8.

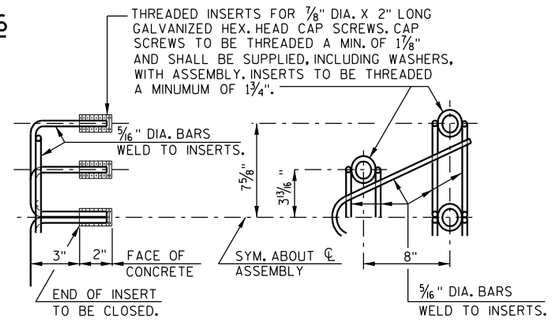


R501 R502 R503 R504



R507

R505 R506



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SINGLE SLOPE PARAPET 32SS

SHEET 55 OF 91
944

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGs\STRUCTURES\B-5-679\055_PARAPET_32SS_V7_B-5-679.DGN

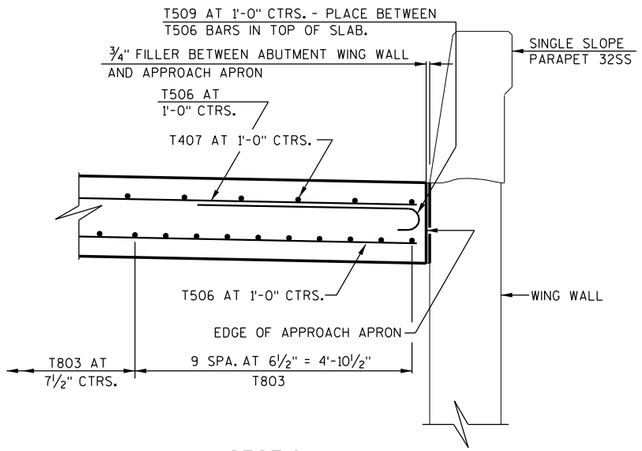
PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

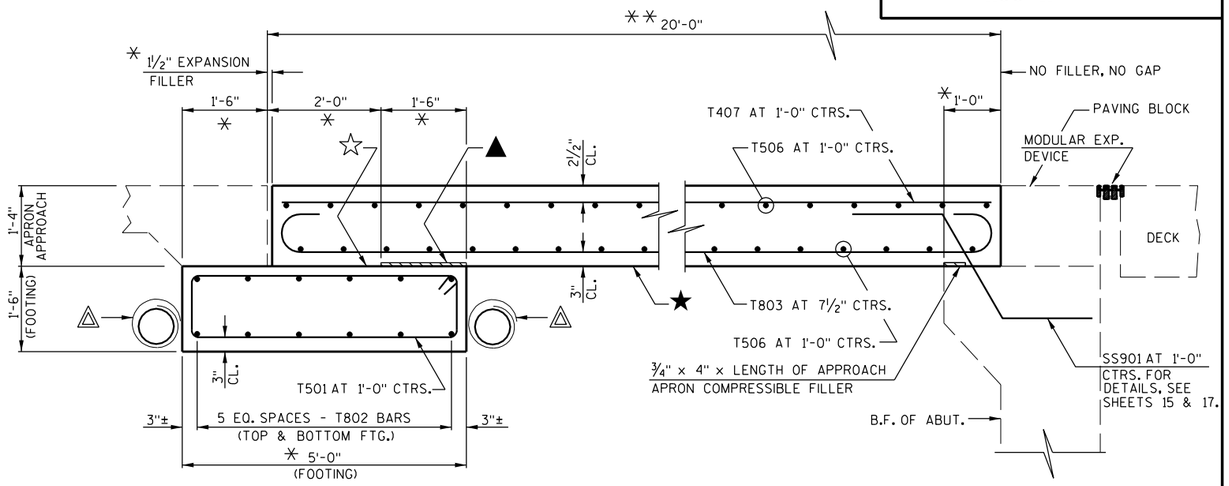
1133-11-74

LEGEND

- ✳ DIMENSIONS ARE GIVEN NORMAL ℄ SUBSTRUCTURE.
- ✳✳ DIMENSIONS ARE MEASURED ALONG ℞ RAMP 'NIH'.
- ☆ STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF FOOTING. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ★ PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF SUBGRADE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ▲ ¾" × 1'-6" × LENGTH OF FOOTING COMPRESSIBLE FILLER.
- △ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO END OF PIPE. SEE "RODENT SHIELD" DETAIL ON THIS SHEET.
- ● CONST. JT. - STRIKE OFF AS SHOWN.



SECTION A-A

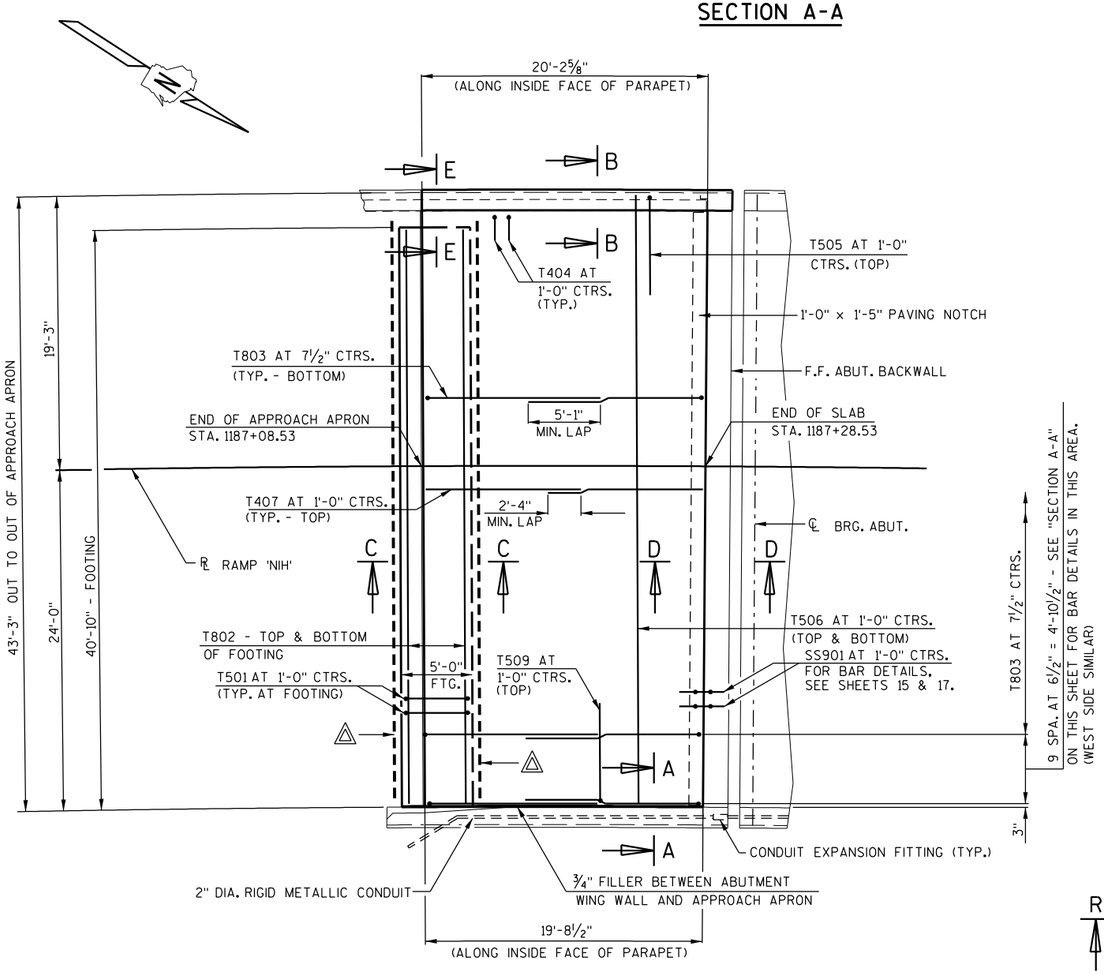


SECTION C-C

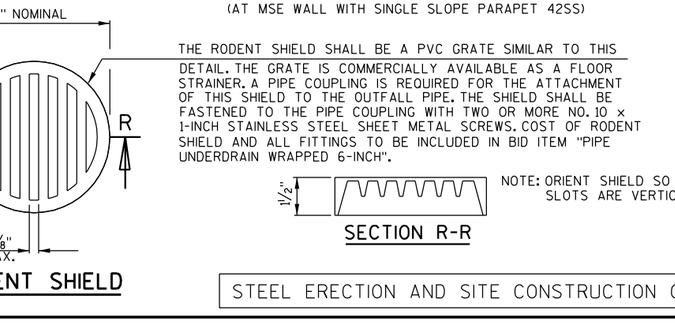
SECTION D-D

LONGITUDINAL SECTION AT S. APPROACH APRON

NOTE: BAR STEEL REINFORCEMENT FOR THE SOUTH APPROACH APRON AND THE PARAPETS LOCATED ON EACH SIDE OF THE SOUTH APPROACH APRON IS INCLUDED IN THE BILL OF BARS ON SHEET 57.

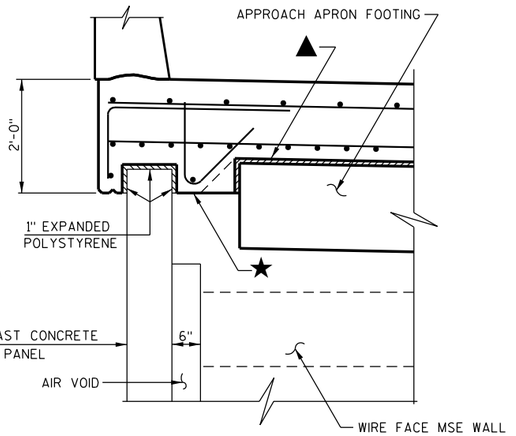


SOUTH APPROACH APRON - PART PLAN



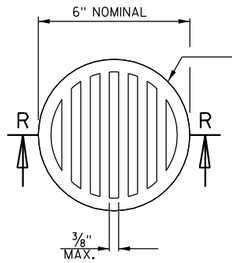
SECTION B-B

(AT MSE WALL WITH SINGLE SLOPE PARAPET 42SS)



SECTION E-E

(AT MSE WALL)



RODENT SHIELD

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 × 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

SECTION R-R

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SOUTH APPROACH APRON DETAILS

SHEET 56 OF 91
945

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\056_APPR_APRON_B-5-679.DGN

PLOT DATE : 4/23/2013

8

8

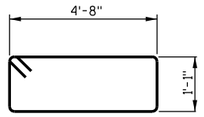
STATE PROJECT NUMBER

1133-11-74

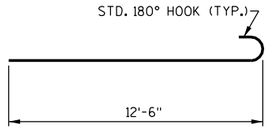
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL SHALL BE EPOXY COATED.

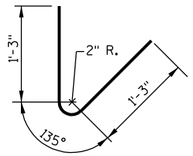
MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 10,130 LBS.
T501	41	12-1	X		S. APPROACH APRON - FOOTING	VERT.
T802	12	40-5			S. APPROACH APRON - FOOTING	TRANS.
T803	144	13-2	X		S. APPROACH APRON - SLAB - BOTTOM	LONGIT.
T404	20	2-11	X		S. APPROACH APRON - SLAB - BOTTOM	TRANS.
T505	19	5-0	X		S. APPROACH APRON - SLAB - TOP - WEST SIDE	TRANS.
T506	40	42-11			S. APPROACH APRON - SLAB - TOP & BOTTOM	TRANS.
T407	92	11-1			S. APPROACH APRON - SLAB - TOP	LONGIT.
T508	33	4-5	X		S. APPROACH APRON - PARAPET - WEST SIDE	VERT.
T509	19	4-1	X		S. APPROACH APRON - SLAB - TOP - EAST SIDE	TRANS.
T510	33	6-8	X		S. APPROACH APRON - PARAPET - WEST SIDE	VERT.
T511	8	21-6			S. APPROACH APRON - PARAPET - WEST SIDE	LONGIT.



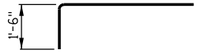
T501



T803



T404



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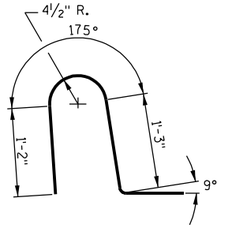

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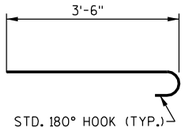

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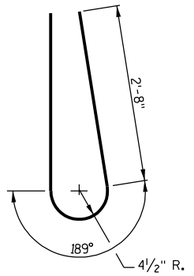


T510

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SOUTH APPROACH APRON DETAILS

SHEET 57 OF 91
946

FILE NAME : P:\153 USH 41\1133-10-00 JPG\STRUCTURES\B-5-679\D57_APPR_APRON_BARS_B-5-679.DGN

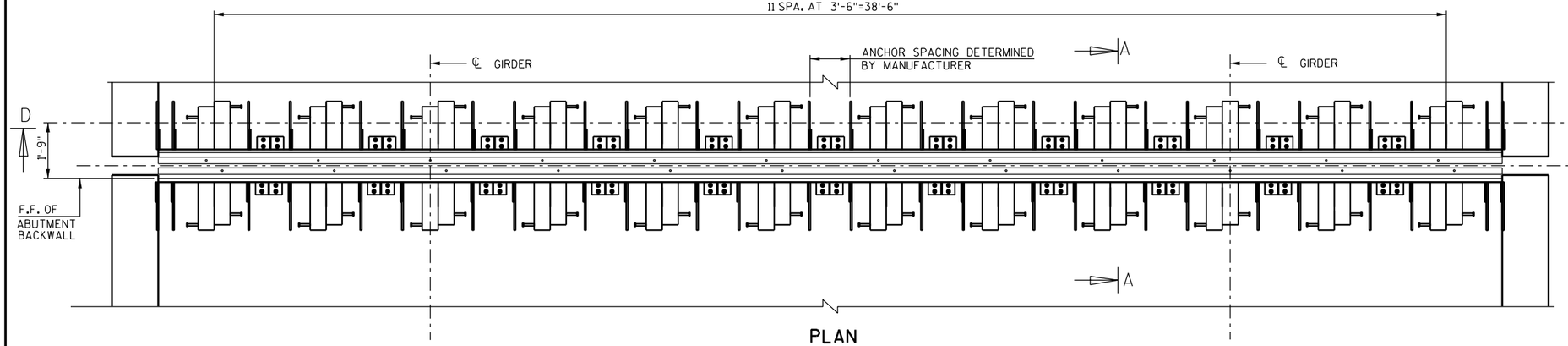
PLOT DATE : 4/23/2013

8

8

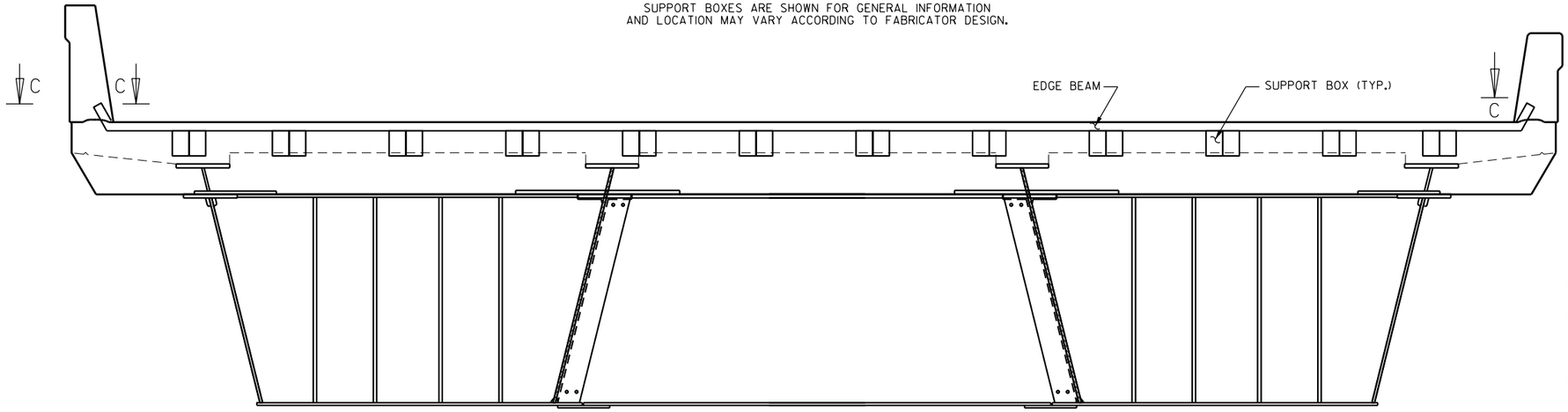
STATE PROJECT NUMBER

1133-11-74



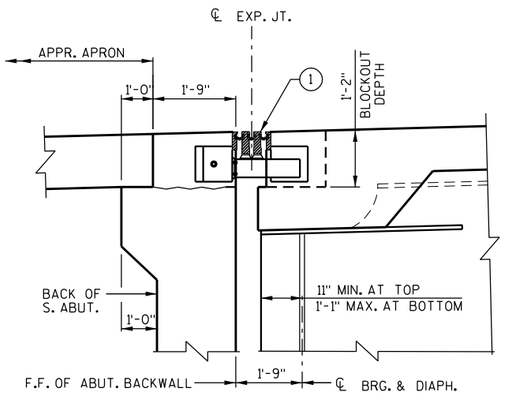
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



VIEW D-D

(LOOKING UPSTATION - NOT TO SCALE)



SECTION A-A

(FOR FURTHER DETAIL, SEE SHEET 61.)

NOTES

ALL DIMENSIONS SHOWN ARE AT MEDIAN TEMP OF 45° F.

FABRICATOR WILL DESIGN EACH JOINT DEPENDING ON THE CONDITIONS AND THE DESIGN CRITERIA USED BY THE SUPPLIER. FABRICATION DRAWINGS ARE SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE GLAND.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST, & SWEEP.

NO EXPANSION JOINT PROTRUSIONS PERMITTED ABOVE ROADWAY SURFACE OR ON PARAPET ROADWAY FACE.

THE EXPANSION JOINT SEALS SHALL BE PLACED, BONDED, & SEALED AS RECOMMENDED BY THE MANUFACTURER. FORM WORK SHALL BE PLACED BETWEEN THE SUPPORT BOXES TO PREVENT CONCRETE INTRUSION INTO THE SUPPORT BOX. A TECHNICAL REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT DURING INSTALLATION. PRIOR TO SETTING THE JOINT ASSEMBLY INTO POSITION, THE PROJECT ENGINEER SHALL DETERMINE THE PROPER JOINT OPENING.

EXPANSION JOINT EXTRUSIONS SHALL BE FABRICATED TO CONFORM TO ROADWAY CROWN & GRADE. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST BARS, PLATES, WT-SECTION, ANCHORAGE LOOP, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THIS ASSEMBLY SHALL BE HOT DIPPED GALVANIZED.

COST OF FURNISHING & PLACING OF THE EXPANSION JOINTS COMPLETE WITH PARAPET PLATES SHALL BE PAID FOR UNDER THE PRICE BID FOR "MODULAR EXPANSION DEVICE STRUCUTURE B-5-679".

BAR STEEL REINF. IN DECK AND CONC. DIAPHRAGM SHALL BE RESPACED AS NECESSARY TO ALLOW PLACEMENT OF JOINT ASSEMBLY.

TEMP. TABLE

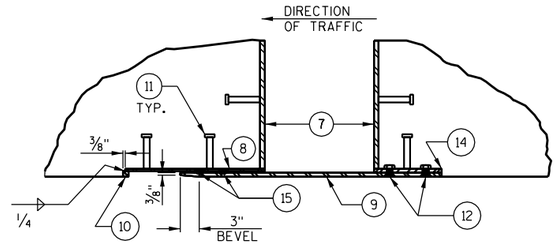
TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. 5/16" OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.
(7) 3/4" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.
(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.
(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS W/ ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
(15) ADIPRENE BUTTON. SEE DETAIL ON SHEET 63. SET IN OUTSIDE PLATE.



SECTION C-C

(NOT TO SCALE)

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT SOUTH ABUTMENT

SHEET 58 OF 91
947

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-679\058_SOUTH_ABUT_EXP_JT_V7.0-5-679.DGN

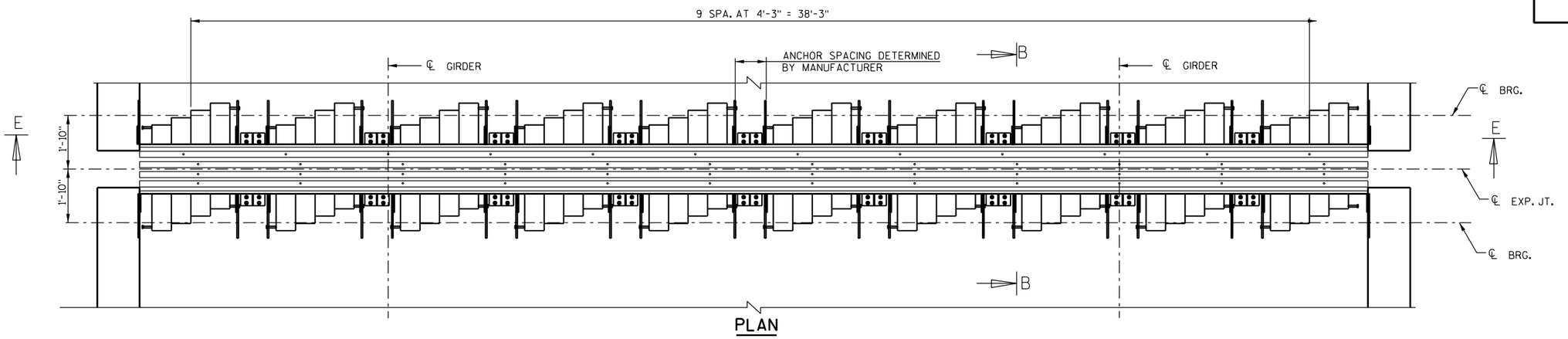
PLOT DATE : 4/26/2013

8

8

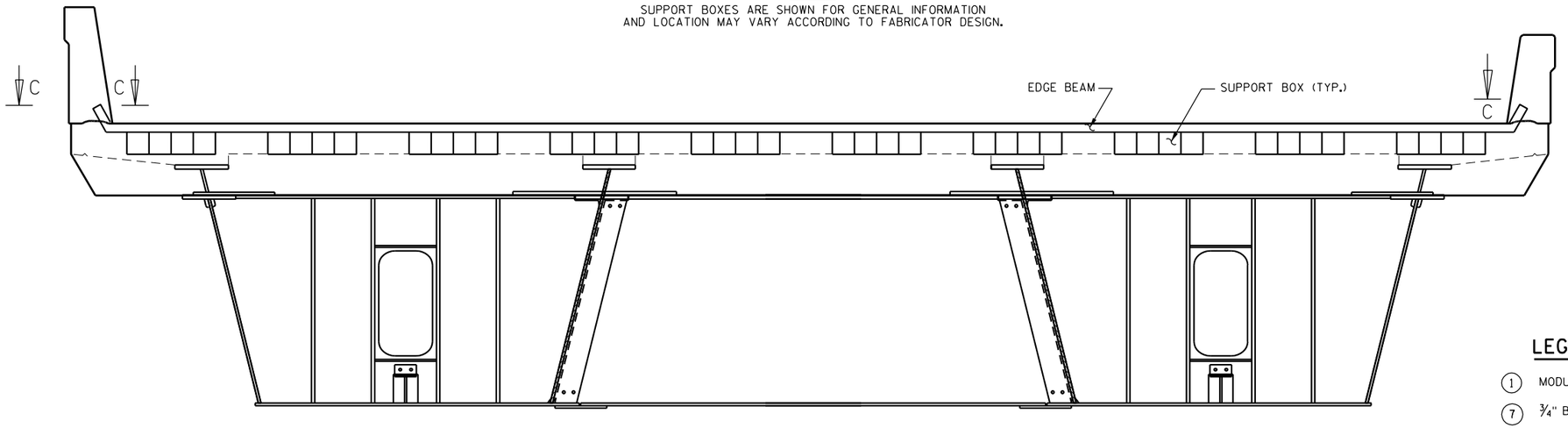
STATE PROJECT NUMBER

1133-11-74



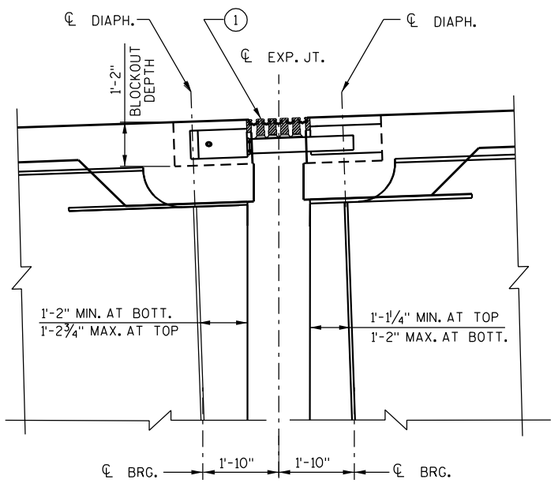
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



VIEW E-E

(LOOKING UPSTATION - NOT TO SCALE)

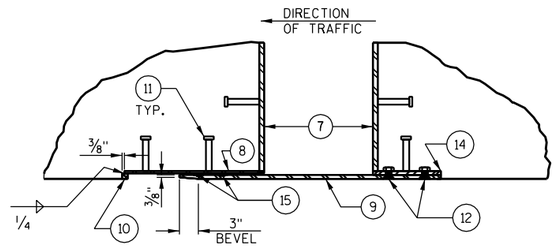


SECTION B-B

(FOR FURTHER DETAIL, SEE SHEET 61.)

NOTES

FOR NOTES, SEE SHEET "MODULAR EXPANSION JOINT SOUTH ABUTMENT".



SECTION C-C

(NOT TO SCALE)

TEMP. TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. 15/16 " OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

LEGEND

(1) MODULAR EXPANSION DEVICE.

(7) ¾" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.

(8) INSIDE PLATE. FABRICATE FROM ⅜" PLATE.

(9) OUTSIDE PLATE. FABRICATE FROM ⅝" PLATE.

(10) ⅞" SQUARE BAR. WELD TO NO. 8 AS SHOWN.

(11) ¾" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.

(12) ¾" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS W/ ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.

(14) INSIDE PLATE. FABRICATE FROM ⅝" PLATE.

(15) ADIPRENE BUTTON. SEE DETAIL ON SHEET 63. SET IN OUTSIDE PLATE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT AT PIER 5

SHEET 59 OF 91
948

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\059_PIERS_EXP_JT_V7_B-5-679.DGN

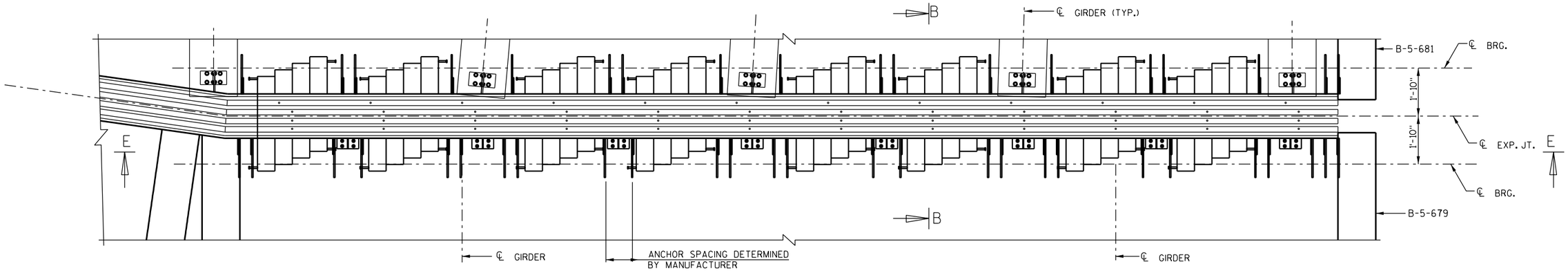
PLOT DATE : 4/23/2013

8

8

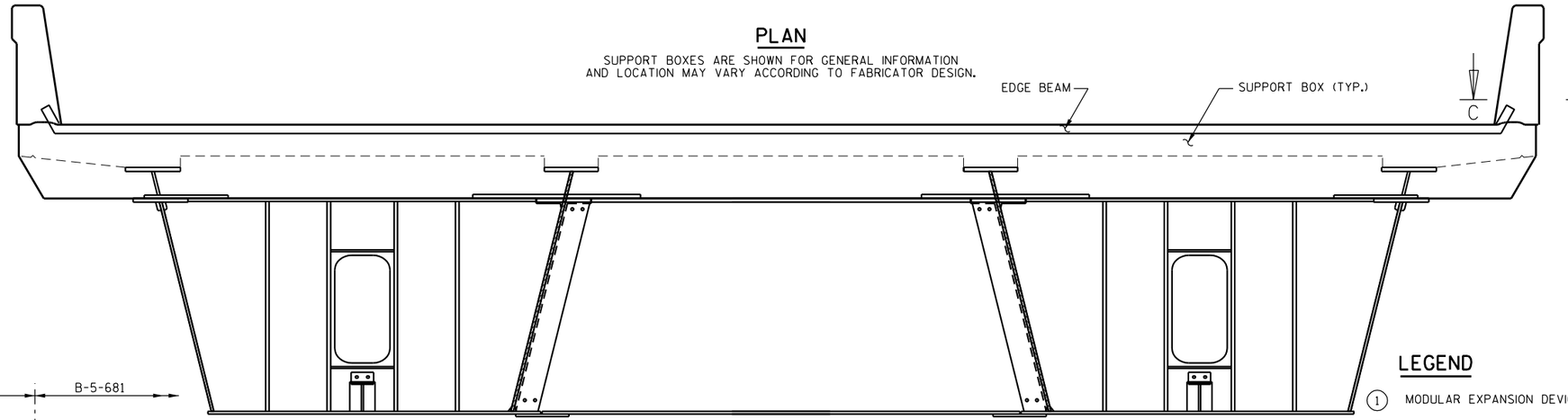
STATE PROJECT NUMBER

1133-11-74



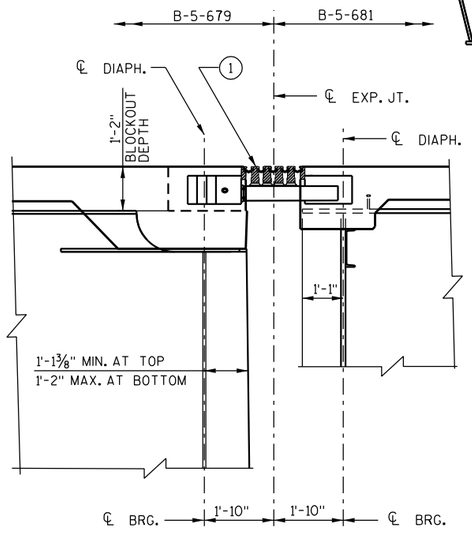
PLAN

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN.



VIEW E-E

(LOOKING UPSTATION - NOT TO SCALE)



SECTION B-B

(FOR FURTHER DETAIL, SEE SHEET 62.)

NOTES

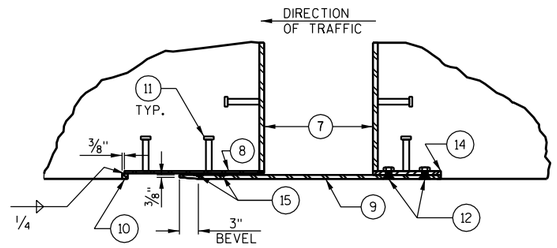
FOR NOTES, SEE SHEET "MODULAR EXPANSION JOINT SOUTH ABUTMENT".

TEMP. TABLE

TEMPERATURE TABLE FOR SETTING JOINT OPENINGS TO BE DETERMINED BY JOINT MANUFACTURER WITH THE FOLLOWING DESIGN DATA:

1. 7/8" OF MOVEMENT PER 10° F
2. MEDIAN TEMPERATURE OF 45° F
3. TEMP. RANGE IN TABLE FROM (-30° F TO +120° F)

A TABLE OF JOINT OPENINGS BASED ON ABOVE DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.



SECTION C-C

(NOT TO SCALE)

LEGEND

1. MODULAR EXPANSION DEVICE.
7. 3/4" BULKHEAD PLATE. WELD TO NO. 1, NO. 8, AND NO. 14.
8. INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
9. OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
10. 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
11. 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.
12. 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS W/ ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
14. INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
15. ADIPRENE BUTTON. SEE DETAIL ON SHEET 63. SET IN OUTSIDE PLATE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT AT PIER C1

SHEET 60 OF 91
949

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

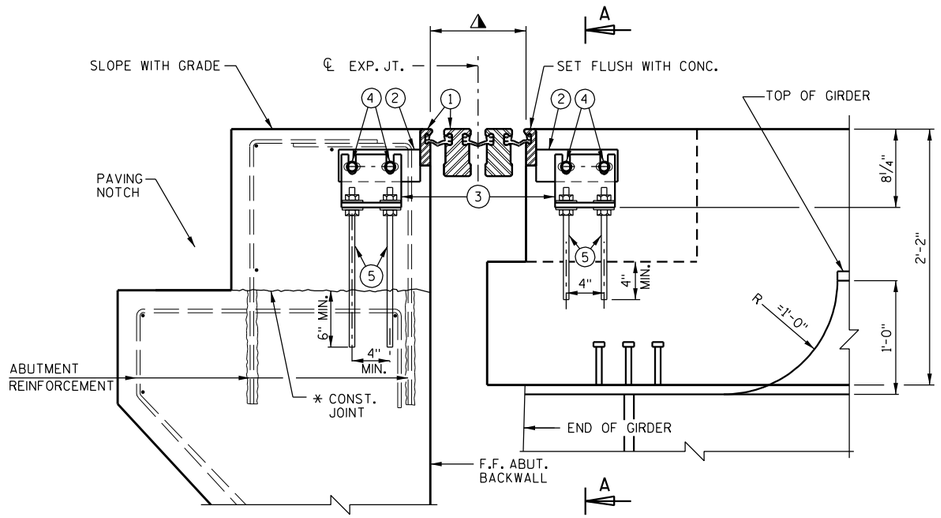
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\SB-5-679\060_PIERC1_EXP_JT_V7_B-5-679.DGN

PLOT DATE : 4/23/2013

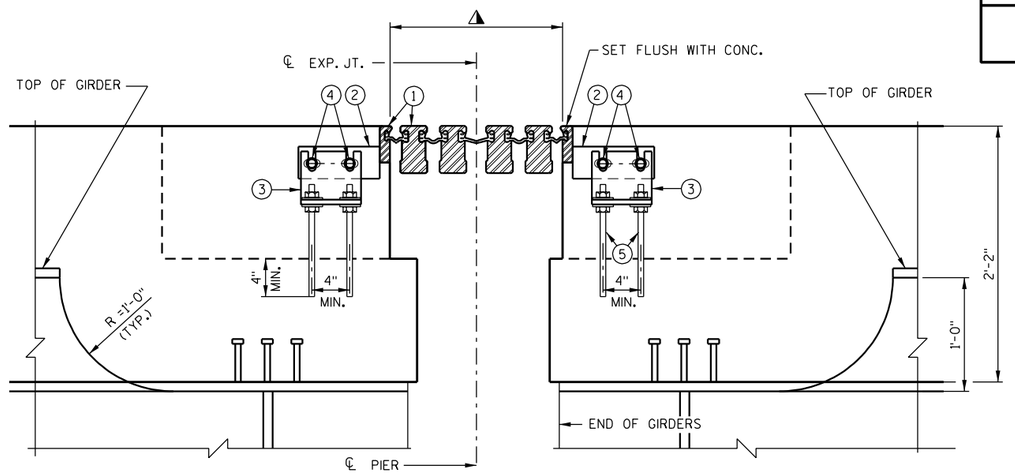
STATE PROJECT NUMBER

1133-11-74



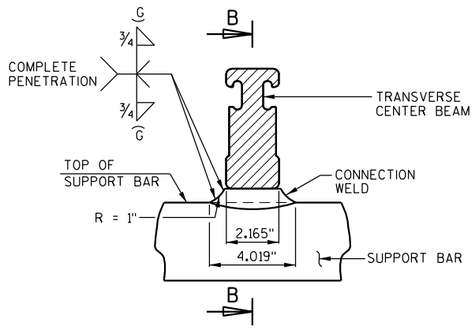
SECTION THRU JOINT AT S. ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE

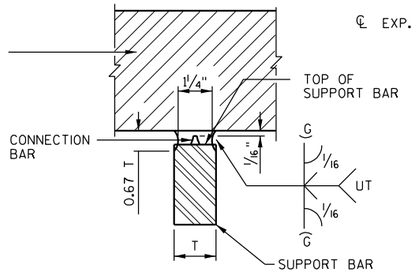


SECTION THRU JOINT AT PIER 5

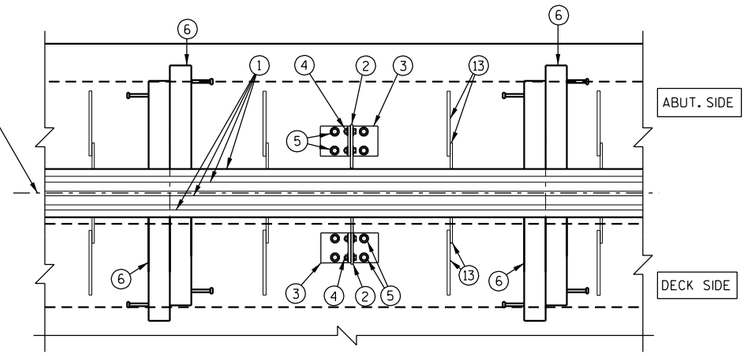
NORMAL TO ℄ SUBSTRUCTURE



MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION

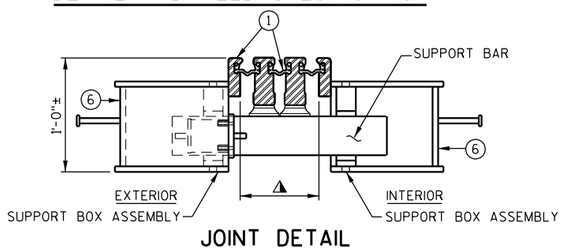


SECTION B-B



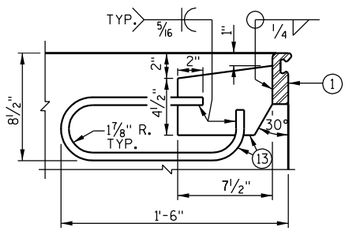
PART PLAN

(AT SOUTH ABUTMENT)



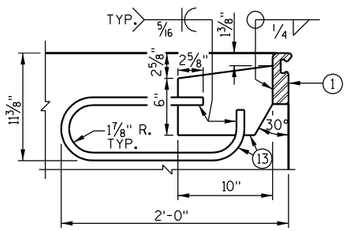
JOINT DETAIL

AT SUPPORT BAR & SUPPORT BOX ASSEMBLY (SHOWN AT ABUT., PIER SIMILAR)



ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN PAVING BLOCK AT S. ABUT.



ANCHORAGE DETAIL

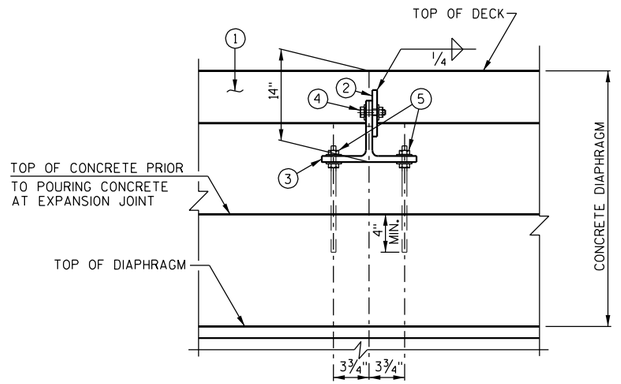
PLACE ADJACENT TO SUPPORT BOXES IN IN DECK AT CONC. DIAPH. AT PIERS 5 & C1

LEGEND

1. MODULAR EXPANSION JOINT DEVICES, 3 CELLS (S. ABUT.) & 5 CELLS (PIER 5).
2. ½" PLATE, ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.
3. WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.
4. ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)
5. ¾" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)
6. SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM ½" PLATES.
13. ½" PLATE WITH ⅝" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONC. IS IN PLACE. STRIKE OFF & LEAVE ROUGH.

⚠ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN 1.



SECTION A-A

GENERAL NOTES

FOR NOTES, SEE SHEET "MODULAR EXPANSION JOINT SOUTH ABUTMENT".

MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT DETAILS

SHEET 61 OF 91
950

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

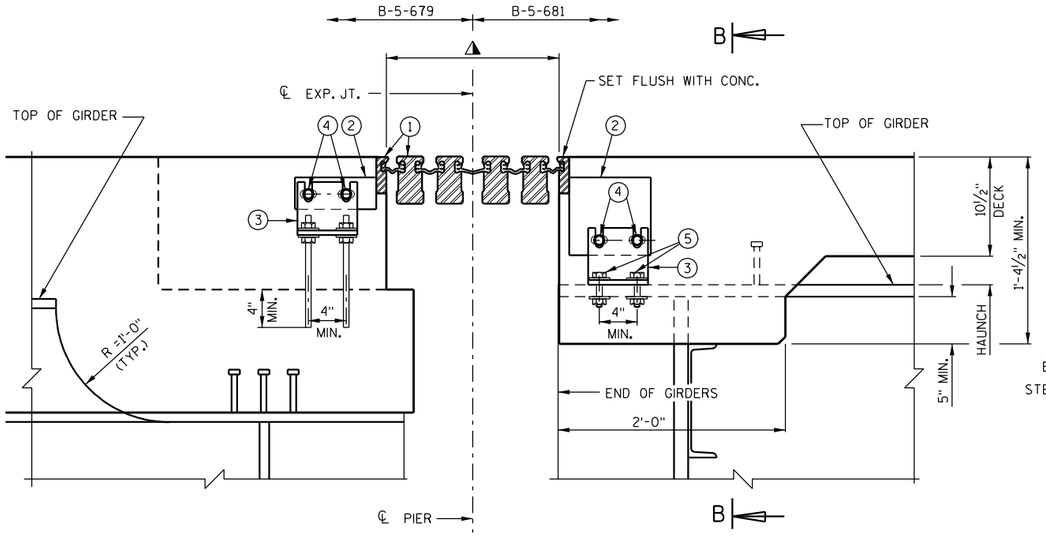
1 2 3 4 7

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\06L.MOD.EXP_JT01.V7.B-5-679.DGN

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

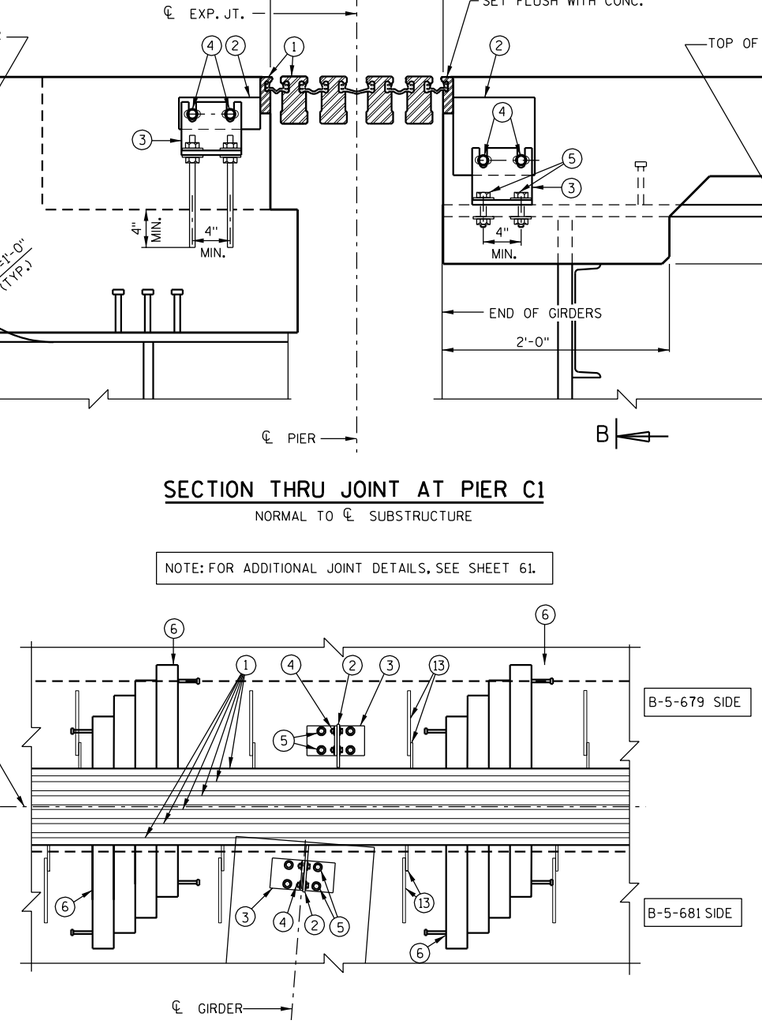
1133-11-74



SECTION THRU JOINT AT PIER C1

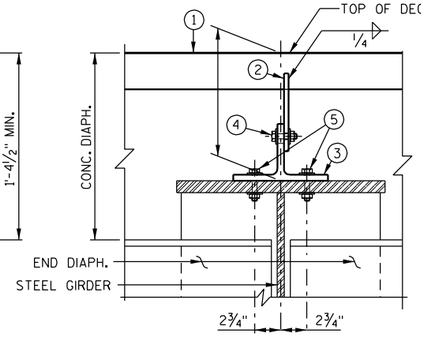
NORMAL TO ℄ SUBSTRUCTURE

NOTE: FOR ADDITIONAL JOINT DETAILS, SEE SHEET 61.



PART PLAN

(AT PIER C1)



SECTION B-B

LEGEND

(1) MODULAR EXPANSION JOINT DEVICES, 5 CELLS. (PIER C1)

(2) ½" PLATE. ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.

(3) WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.

(4) ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)

(5) ¾" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)

(6) SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM ½" PLATES.

(13) ½" PLATE WITH ⅝" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

▲ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN 1.

GENERAL NOTES

FOR NOTES SEE SHEET "MODULAR EXPANSION JOINT SOUTH ABUTMENT"

MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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MODULAR EXPANSION JOINT DETAILS

SHEET 62 OF 91

951

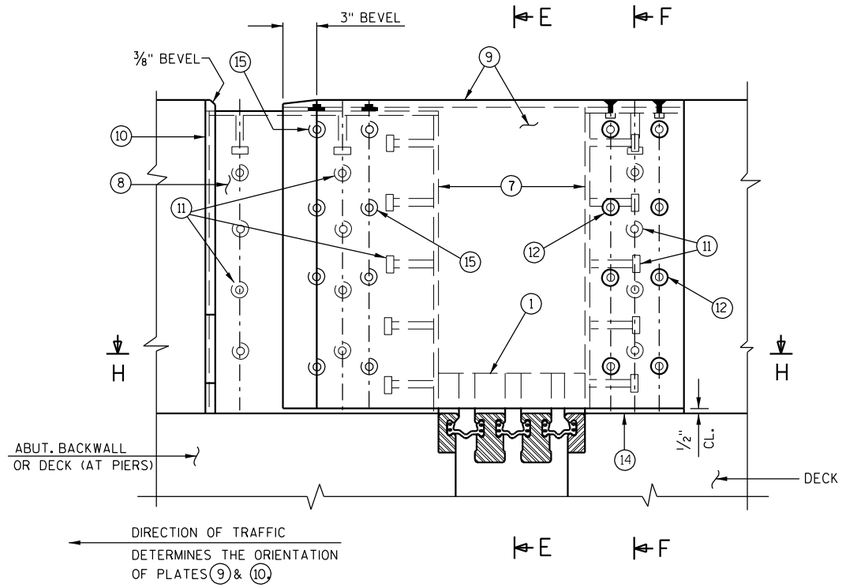
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\062_MOD.EXP.JT02.VT.B-5-679.DGN

PLOT DATE : 4/23/2013

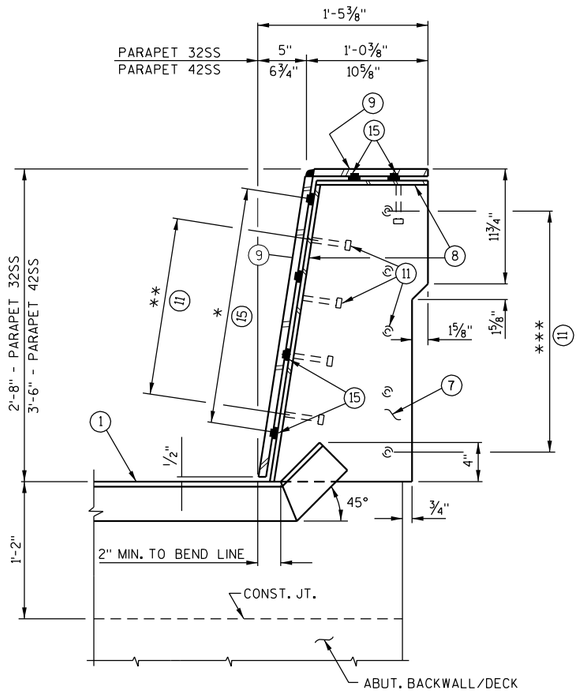
STATE PROJECT NUMBER

1133-11-74

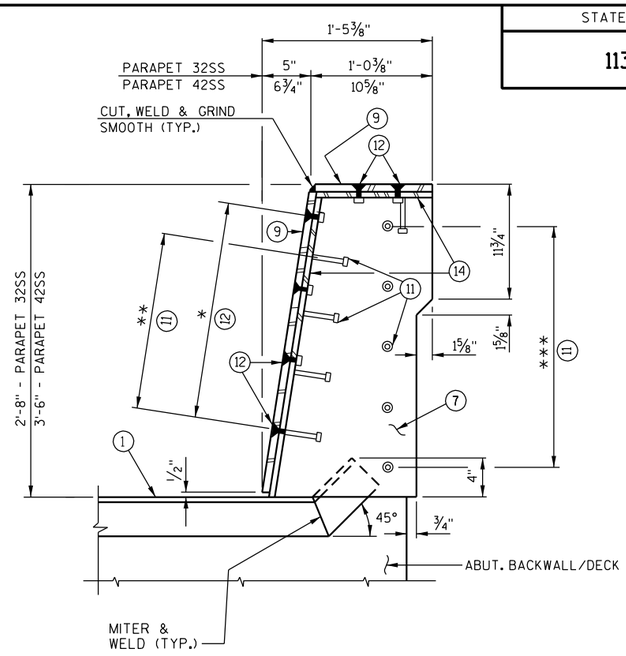


ELEVATION OF SINGLE SLOPE PARAPET

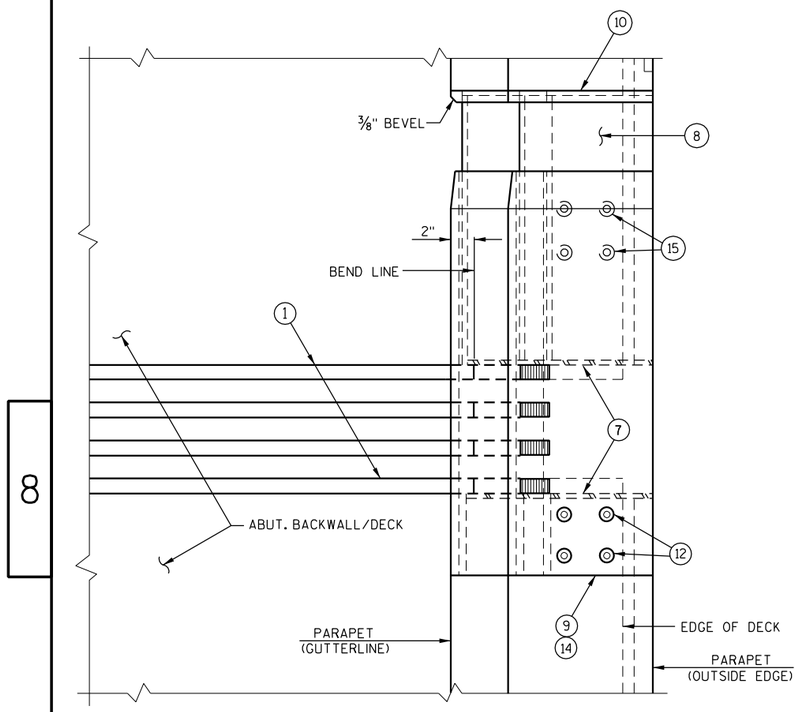
(SHOWN AT SOUTH ABUTMENT, PIER LOCATIONS SIMILAR)



SECTION E-E

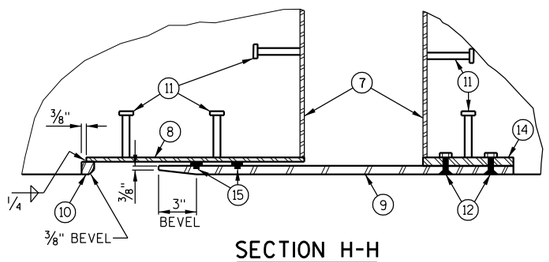


SECTION F-F

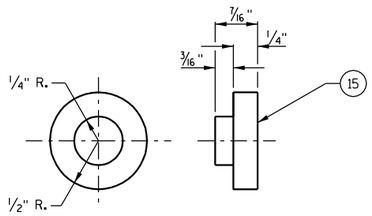


PLAN OF SINGLE SLOPE PARAPET

(SHOWN AT SOUTH ABUTMENT, PIER LOCATIONS SIMILAR)



SECTION H-H



ADIPRENE BUTTON DETAIL

LEGEND

* 3 EQ. SPA. (32SS)
5 EQ. SPA. (42SS)

** 3 SPA. (32SS)
5 SPA. (42SS)

*** 4 SPA. (32SS)
6 SPA. (42SS)

(1) MODULAR EXPANSION JOINT DEVICE.

(7) 3/4" BULKHEAD PLATE WELD TO NO. 1, NO. 8, AND NO. 14. WHEN CONDUIT IS PRESENT IN PARAPET, ACCOMODATE FOR BY PROVIDING OPENING IN NO. 7.

(8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.

(9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.

(10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.

(11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO. 7, AND NO. 14.

(12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS W/ ANTI-SEIZE LUBRICANT, RECESS 1/16" BELOW PLATE SURFACE.

(14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.

(15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

DRAWINGS ARE NOT TO SCALE.

SEE SHEET "TYPICAL DECK SECTION" FOR PARAPET DIMENSIONS.

COVER PLATES SHALL BE GALVANIZED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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MODULAR EXPANSION JOINT COVER PLATES

SHEET 63 OF 91
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STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

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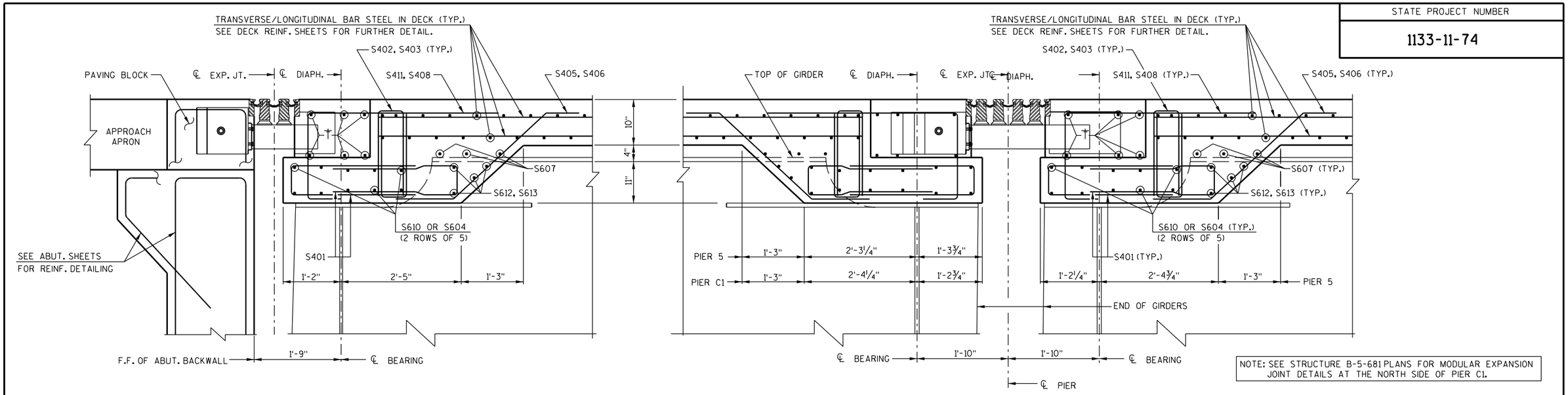
FILE NAME : P:\153 USH 41\1133-10-00 UBGS\STRUCTURES\B-5-679\063.MOD.EXP_JT03.V7.8-5-679.DGN

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

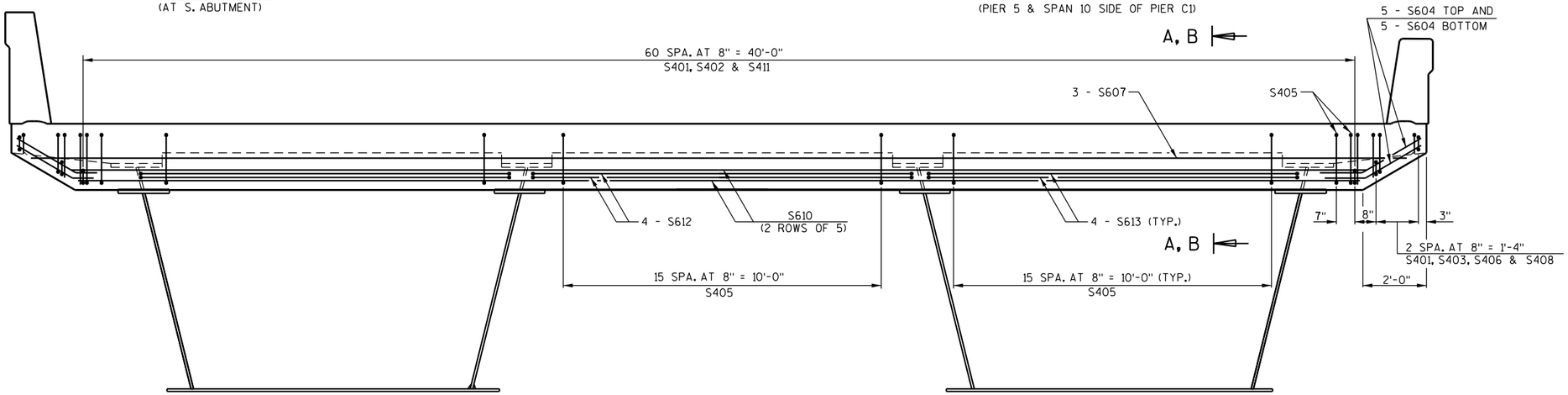
1133-11-74



NOTE: SEE STRUCTURE B-5-681 PLANS FOR MODULAR EXPANSION JOINT DETAILS AT THE NORTH SIDE OF PIER C1.

SECTION A-A
(AT S. ABUTMENT)

SECTION B-B
(PIER 5 & SPAN 10 SIDE OF PIER C1)



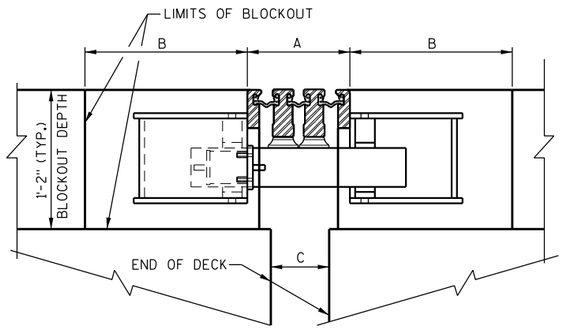
SECTION THRU DECK AT END DIAPHRAGMS
(DECK REINFORCEMENT NOT SHOWN FOR CLARITY)
LOOKING UPSTATION AT S. ABUTMENT, PIER 5 & SOUTH SIDE OF PIER C1

NOTES:

1. SEE STEEL FABRICATION PLANS FOR END DIAPHRAGM DETAILS.
2. SEE SHEETS TITLED "MODULAR EXPANSION JOINT" FOR PLAN LAYOUT OF EXPANSION DEVICE.
3. ALL SIZE, SPACING AND DETAIL INFORMATION SHALL BE TAKEN ONLY FROM THE APPROVED EXPANSION JOINT SHOP DRAWINGS.
4. SPACE REINFORCEMENT TO MISS LOOP ANCHORS AND SUPPORT BOX ASSEMBLIES.
5. SEE DECK REINFORCEMENT SHEETS FOR SECTION A-A & B-B LOCATIONS.
6. SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR REINFORCEMENT DETAILS.

LEGEND

† 42- S509 BARS, 8'-0" LONG WITH 1'-0" MIN. LAP. CUT IN FIELD TO CLEAR JOINT SUPPORT AS REQ'D.



TYPICAL SECTION THRU SUPPORT BOX
(SHOWN AT S. ABUT., PIER JOINTS SIMILAR)

	S. ABUT.	PIER 5	PIER C1
A	1'-0¼"	1'-8⅜"	1'-8⅜"
B	1'-5"	1'-11"	1'-11"
C	7"	1'-2"	1'-3¼"

DIMENSIONS SHOWN ARE BASED ON A MEDIAN TEMP. OF 45° F.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

REINFORCING AT EXPANSION JOINT

SHEET 64 OF 91
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FILE NAME : P:\153 USH 41\1133-10-00 URGs\STRUCTURES\B-5-679\064.MOD.EXP.JT04.VT.B-5-679.DGN

PLOT DATE : 4/23/2013

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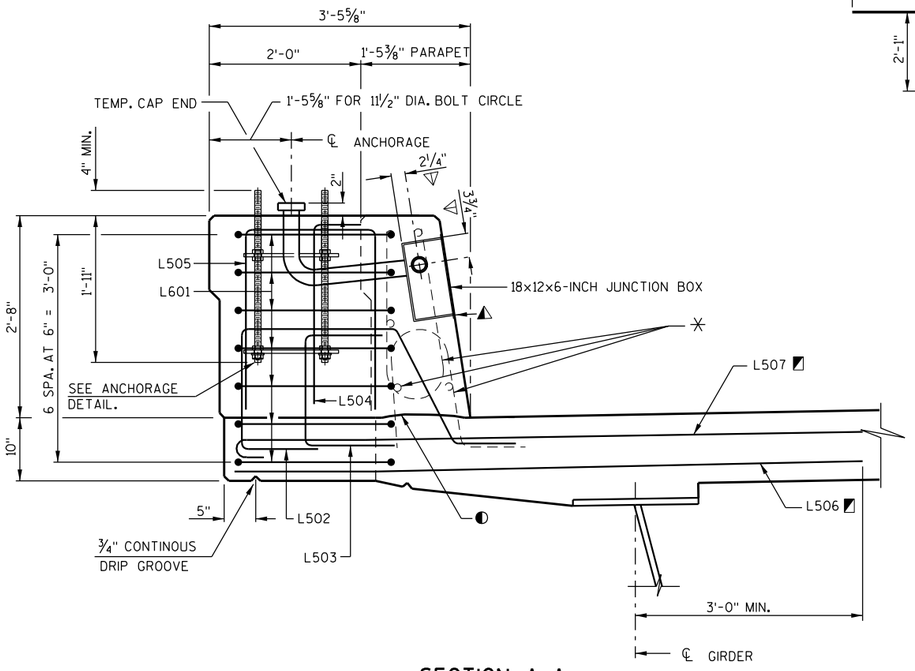
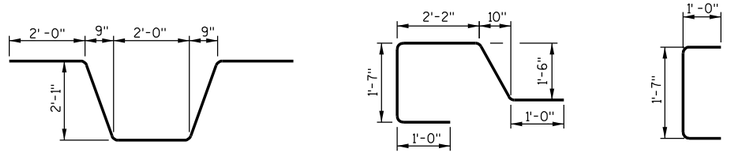
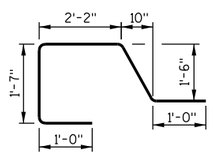
1133-11-74



SECTION A-A



L601



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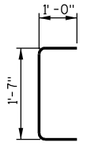

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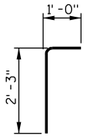

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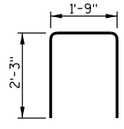

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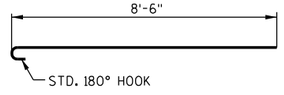

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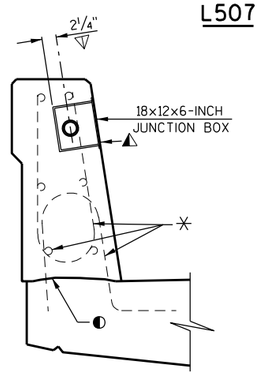


SECTION THRU PARAPET

SHOWING 18x12x6-INCH JUNCTION BOX (SINGLE CONDUIT APPLICATION ONLY)

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 4,640 LBS.
L601	49	42	10-0	X		LIGHT STANDARD BASE	HORIZ.
L502	28	24	7-0	X		LIGHT STANDARD BASE	VERT.
L503	14	12	3-5	X		LIGHT STANDARD BASE	VERT.
L504	14	12	3-2	X		LIGHT STANDARD BASE	VERT.
L505	28	24	6-0	X		LIGHT STANDARD BASE	VERT.
L506	70	60	8-6			LIGHT STANDARD BASE	TRANS.
L507	70	60	9-1	X		LIGHT STANDARD BASE	TRANS.

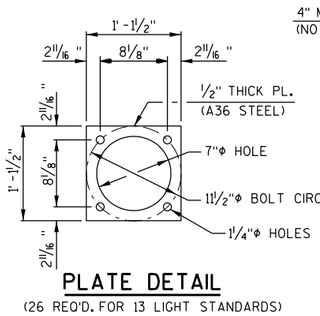
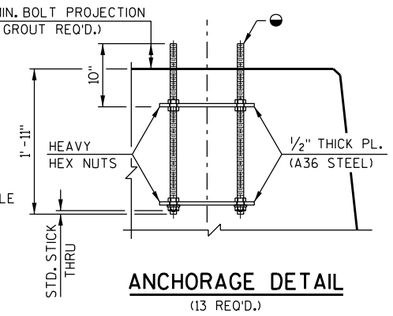


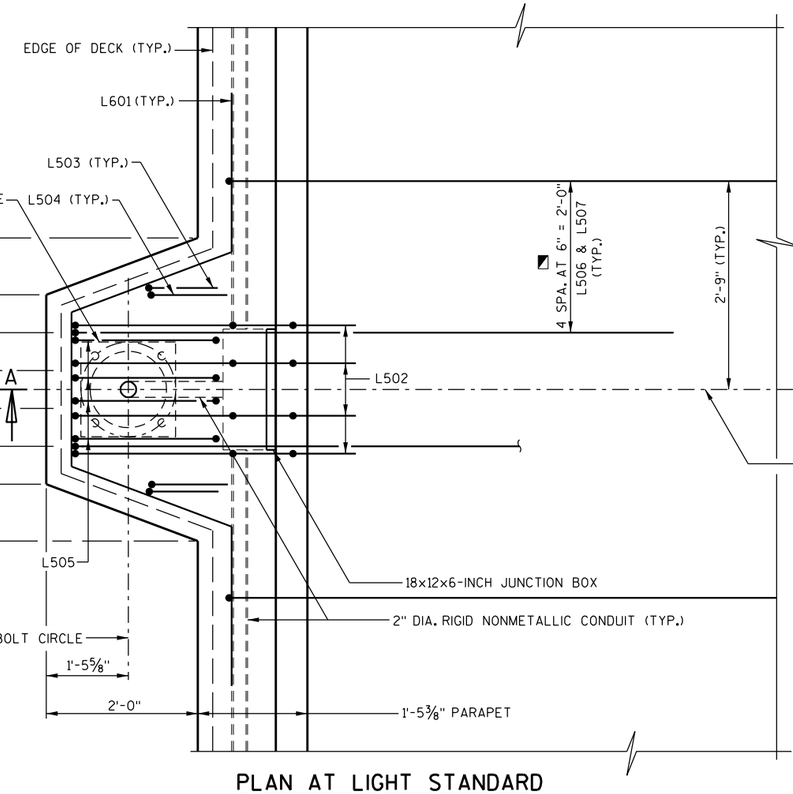
PLATE DETAIL

(26 REQ'D. FOR 13 LIGHT STANDARDS)



ANCHORAGE DETAIL

(13 REQ'D.)



PLAN AT LIGHT STANDARD

℄ OF LIGHT STANDARD & ℄ OF JUNCTION BOX AT:
STA. 1187+76 NIH, RIGHT
STA. 1189+41 NIH, RIGHT
STA. 1191+07 NIH, RIGHT
STA. 1192+72 NIH, RIGHT
STA. 1194+38 NIH, RIGHT
STA. 1196+03 NIH, RIGHT
STA. 1197+68 NIH, RIGHT
STA. 1199+34 NIH, RIGHT
STA. 1200+99 NIH, RIGHT
STA. 1202+65 NIH, RIGHT
STA. 1204+30 NIH, RIGHT
STA. 1205+95 NIH, RIGHT
STA. 1207+61 NIH, RIGHT

LEGEND

◐ CONSTR. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

◒ 1"Φ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

✳ TYPICAL BAR STEEL REINFORCEMENT IN SINGLE SLOPE PARAPET. FOR DETAILS, SEE DECK REINF. SHEETS. (ALL BAR STEEL REINFORCEMENT SHOWN FOR THE LIGHT STD. IS IN ADDITION TO THE BAR STEEL REINFORCEMENT REQUIRED FOR THE PARAPET & DECK. DISPLACE BAR STEEL AS NECESSARY TO CLEAR THE JUNCTION BOX BY 2" MIN.)

◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN BRIDGE DECK.

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.
"CONDUIT RIGID METALLIC 2-INCH".
APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX8DX-200/AXDX-200 AND BONDING JUMPER COMBINATION EXPANSION AND DEFLECTION FITTING (8" & 4" TOTAL VERT. & HORIZ. CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

JUNCTION BOX REQUIREMENTS:

PLACE A 18"X12"X6" JUNCTION BOX AT EACH LIGHT STANDARAD (CENTERED ON LIGHT ℄)

USE A JUNCTION BOX TO KEEP A CONTINUOUS RUN OF CONDUIT (PULL LENGTH) TO A MAXIMUM OF 190 FT. CONTACT THE BUREAU OF HIGHWAY OPERATIONS, ELECTRICAL SECTION WHEN PULL LENGTH IS >190' BUT <200'.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

LIGHT STANDARD

SHEET 65 OF 91
954

8

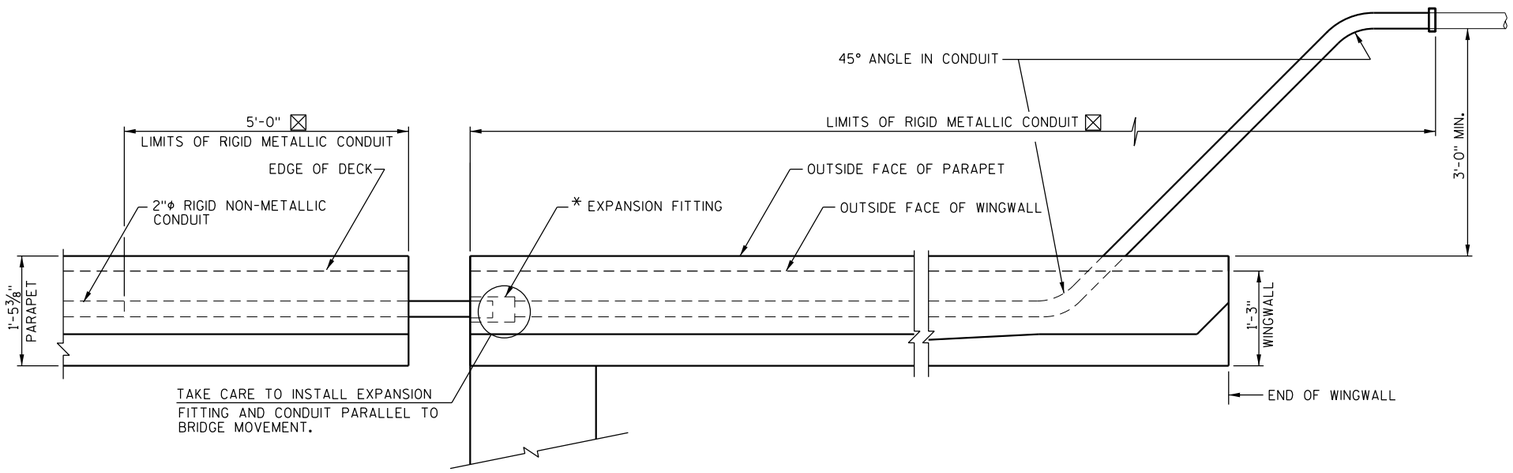
8

FILE NAME : P:\853 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\065_LIGHT_STD_V7_B-5-679.DGN

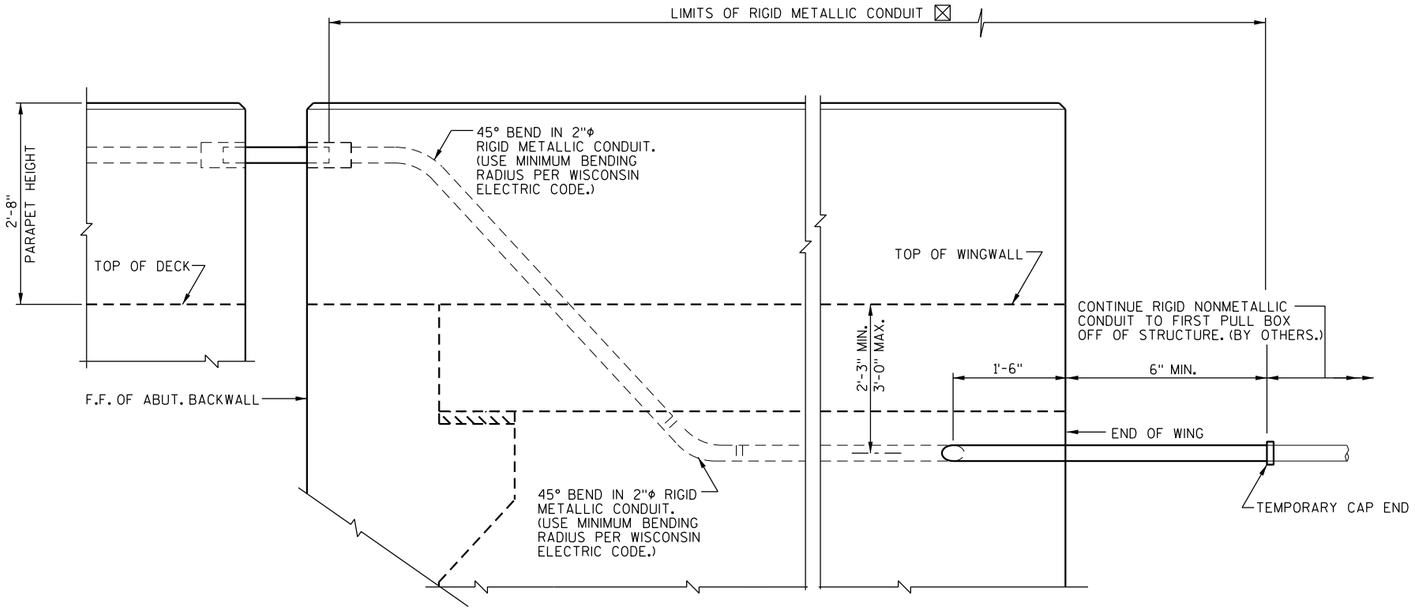
PLOT DATE : 5/30/2013

STATE PROJECT NUMBER

1133-11-74



PLAN OF SINGLE SLOPE PARAPET 32SS AT SOUTH ABUTMENT WING 1



OUTSIDE ELEVATION OF SINGLE SLOPE PARAPET 32SS AT SOUTH ABUTMENT WING 1

NOTE

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS ARE INCIDENTAL TO "CONDUIT RIGID NON-METALLIC 2-INCH".

LEGEND

☒ USE 2" DIA. RIGID NON-METALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 5'-0" INTO WALL SEGMENT OR PARAPET. FOR SHORTER DISTANCES BETWEEN EXPANSION FITTINGS <20' USE METALLIC CONDUIT BETWEEN EXPANSION FITTINGS. ON THE NORTH WINGWALL OF THE WEST ABUTMENT PROVIDE RIGID METALLIC CONDUIT TO A MINIMUM OF 6" BEYOND END OF WINGWALL (FOR GROUNDING PURPOSES). PROVIDE #10 AWG BONDING JUMPER BETWEEN METALLIC CONDUIT AND JUNCTION BOX. BONDING JUMPERS SHALL EITHER ENTER THE JUNCTION BOX AND BE TERMINATED TO THE GROUNDING LUG USING TERMINAL BLOCKS; OR CAN BE EXOTHERMICALLY WELDED TO A FIELD INSTALLED GROUNDING LUG ON THE BACK SIDE OF THE JUNCTION BOX. BONDING JUMPERS WILL BE PAID FOR UNDER BID ITEM 652.0125 "CONDUIT RIGID METALLIC 2-INCH"

* ALSO PROVIDE EXPANSION FITTING AT CONNECTION TO B-5-681.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

PARAPET ELECTRICAL WORK

SHEET 66 OF 91
955

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\133-10-00 URS\STRUCTURES\B-5-679\066_PARAPET_CONDUIT_B-5-679.DGN

PLOT DATE : 5/31/2013

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11

STATE PROJECT NUMBER

1133-11-74

℄ USH 41 NB TO IH 43 SB (RAMP 'IHA')

℄ WEITOR DRIVE

EXISTING IH 43 SB

EXISTING IH 43 NB

℄ USH 41 NB

EXISTING USH 41 SB

EXISTING USH 41 NB

℄ USH 41 SB

ELECTRICAL EQUIPMENT INSTALLED ON PIER 5 FACE SEE SHEET **77** FOR DETAILS NOTE 9

℄ USH 41 SB TO IH 43 SB (RAMP 'SIH')

℄ IH 43 NB TO USH 41 NB (RAMP 'NIH')

EXISTING IH 43 NB TO USH 41 NB

ELECTRICAL SUB-PANEL "D" INSIDE LEFT BOX GIRDER

ELECTRICAL SUB-PANEL "C" INSIDE LEFT BOX GIRDER

ACCESS HATCH LOCATION

EXISTING USH 41 NB TO IH 43 SB

PIER 1

PIER 2

PIER 3

PIER 4

PIER 5

PIER 6

PIER 7

PIER 8

PIER 9

1086'-5" UNIT 1

1098'-8" UNIT 2

S. ABUTMENT

MODULAR EXPANSION JOINT

ELECTRIC UTILITY WILL DETERMINE FINAL LOCATION OF SERVICE TRANSFORMER, SEE NOTE 10

ELECTRICAL SUB-PANEL "A" INSIDE RIGHT BOX GIRDER

ELECTRICAL SUB-PANEL "B" INSIDE RIGHT BOX GIRDER

COMMON PIER C1

STRUCTURE B-5-681

℄ IH 43 NB TO USH 41 SB (RAMP 'IHB')

R-5-256

MODULAR EXPANSION JOINT

ELECTRICAL GENERAL NOTES:

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS, WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT.
3. ALL NEW CONDUITS, DIRECT BURIAL CABLES, JUNCTION BOXES, LUMINAIRES, AND INCIDENTALS ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF WISDOT AND THE ENGINEER.
4. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH THE LATEST WISDOT STANDARD SPECIFICATIONS AND LATEST EDITION OF THE NEC CODE.
5. FURNISH AND INSTALL LUMINAIRES, LAMPS, LED DRIVERS, SURGE PROTECTION, FUSES, AND OTHER SPECIFIED OPTIONS AND ACCESSORIES IN ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. INCLUDE THE COST OF THIS WORK AND MATERIAL IN THE APPLICABLE LUMINAIRE PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
6. PERFORM ALL WORK FROM METER PEDESTAL TO THE MAIN ELECTRICAL PANEL "EP". INCLUDE FURNISHING AND INSTALLING THE SAFETY DISCONNECT SWITCH (IF REQUIRED) AND ALL ELECTRICAL PANELS, INCLUDING REMOTE PANELS (SUB-PANELS), IN THE SERVICE INSTALLATION PAY ITEM, AS NOTED ON SHEET **77**.
7. DON'T WELD TO ANY STEEL ELEMENTS OF THE BOX GIRDER SYSTEMS FOR ATTACHMENT OR SUPPORT OF ELECTRICAL ITEMS.
8. REFER TO STRUCTURAL PLANS (FROM SEPARATE FABRICATION CONTRACT INCLUDED IN THIS CONTRACT SET OF PLANS) FOR PROVISIONS MADE DURING FABRICATION FOR ACCOMMODATION OF ELECTRICAL ITEMS.
9. INSTALL ELECTRICAL EQUIPMENT ON PIER FACE CLOSEST TO ELECTRICAL ACCESS HOLES IN BOX GIRDER. VERIFY WITH STRUCTURAL PLANS. ALSO SEE SHEET **77** FOR DETAILS.
10. LOCATION OF ELECTRIC SERVICE TRANSFORMER WILL BE DETERMINED BY THE ELECTRIC UTILITY, AND IS NOT KNOWN AT TIME OF CONTRACT LETTING. COORDINATE WITH ELECTRIC UTILITY TO PROVIDE A 1-PHASE, 3-WIRE, 120/240V ELECTRIC SERVICE. FURNISH AND INSTALL ALL ADDITIONAL EQUIPMENT AND MATERIALS NEEDED THAT IS NOT INSTALLED BY THE UTILITY TO COMPLETE THE INSTALLATION IN AN ACCEPTABLE MANNER.
11. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, HANGERS, HARDWARE, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.

LEGEND

- EP — MAIN ELECTRICAL PANEL "EP"
- M — METER PEDESTAL
- UTILITY TRANSFORMER VERIFY LOCATION WITH UTILITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

ELECTRICAL SITE PLAN B-5-679

SHEET 67 OF 91
956

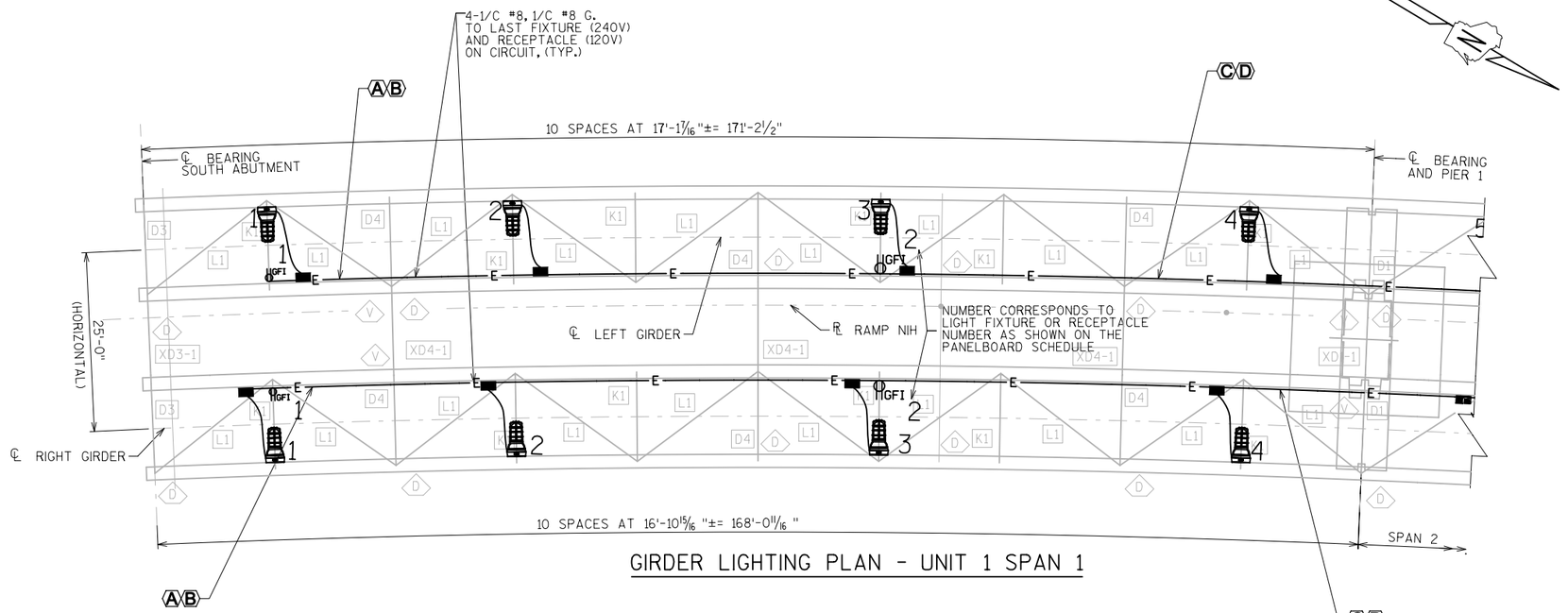
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT

8

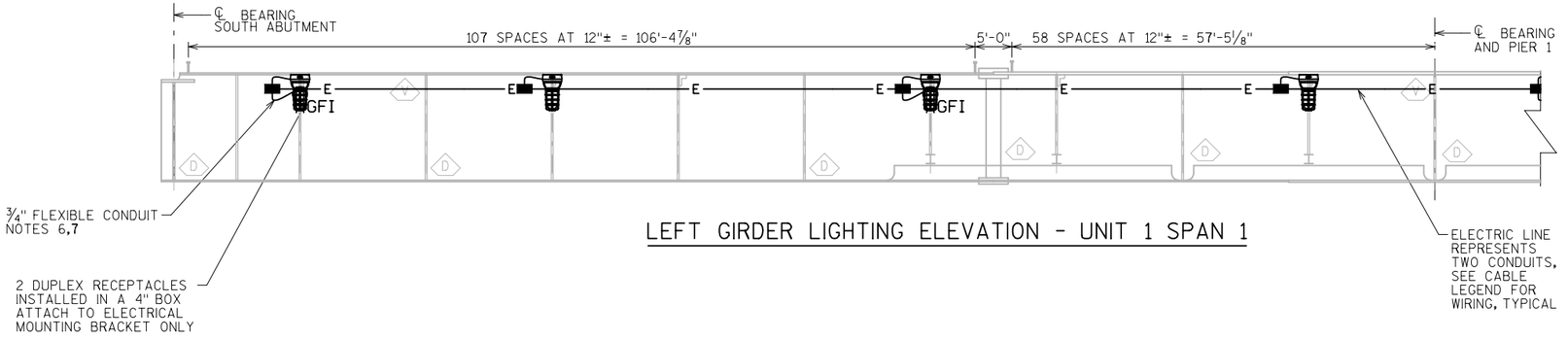
8

FILE= O:\WisDot_12345678_US41Bridges\LightingVPLANS\B-5-679\067 - B-05-679E_Electrical Site Plan.dgn

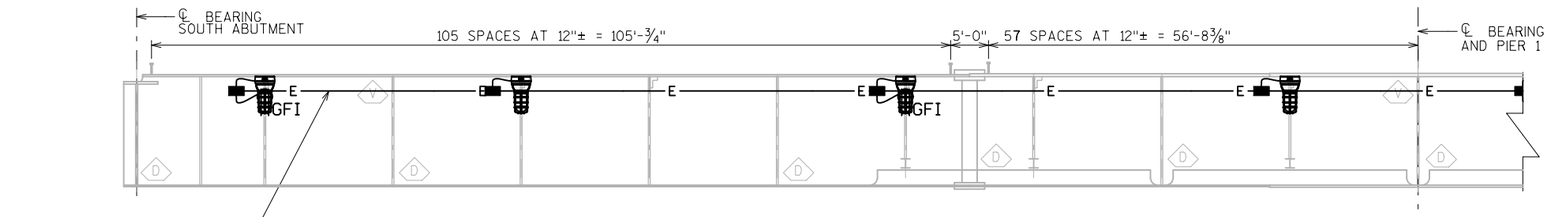
DATE: 5/1/2013
I.D.



GIRDER LIGHTING PLAN - UNIT 1 SPAN 1



LEFT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 1



RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 1

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

NOTES

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER LIGHTING PLAN AND ELEV UNIT 1 SPAN 1

SHEET 68 OF 91

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DATE: 5/1/2013

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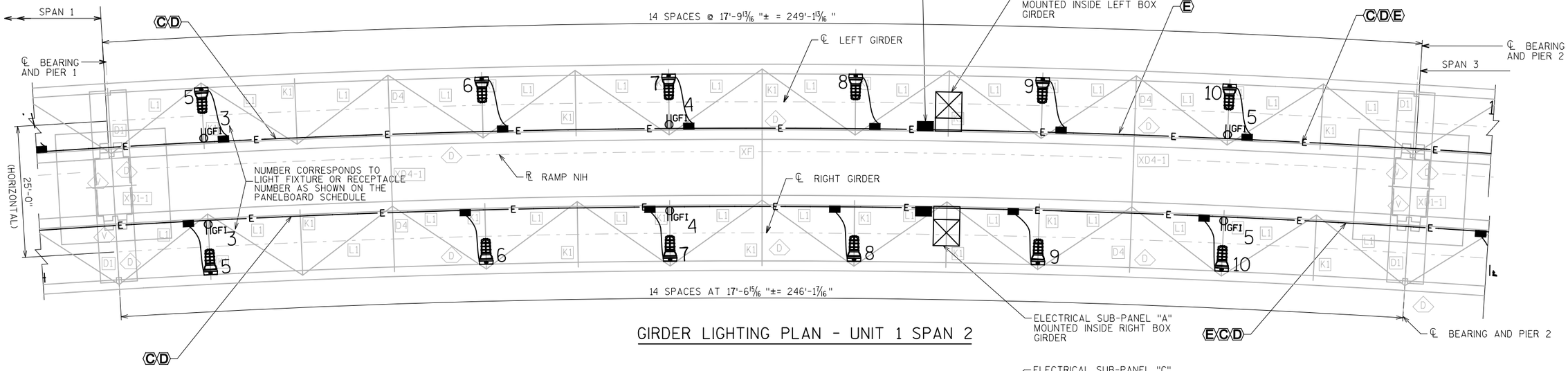
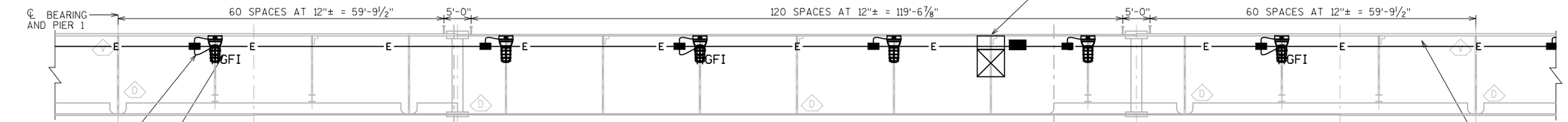
STATE PROJECT NUMBER

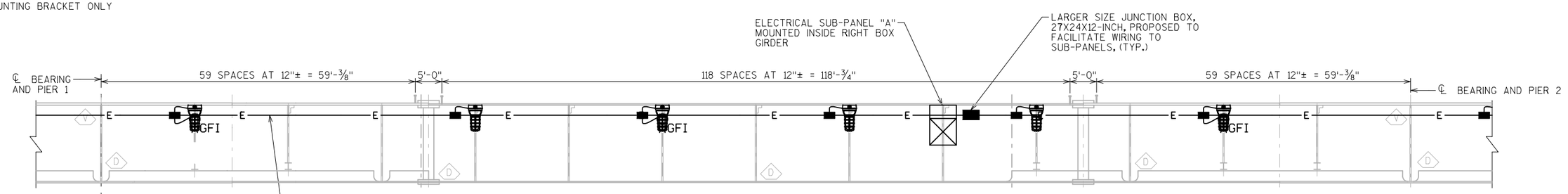
1133-11-74



GIRDER LIGHTING PLAN - UNIT 1 SPAN 2



LEFT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 2



RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 2

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING
- ELECTRICAL REMOTE PANEL (SUB-PANEL) TWO IN EACH BOX GIRDER 120/240V, 1-PHASE, 3-WIRE SEE PANELBOARD SCHEDULES

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER LIGHTING PLAN AND ELEV UNIT 1 SPAN 2

SHEET 69 OF 91

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DATE: 5/1/2013
I.D.

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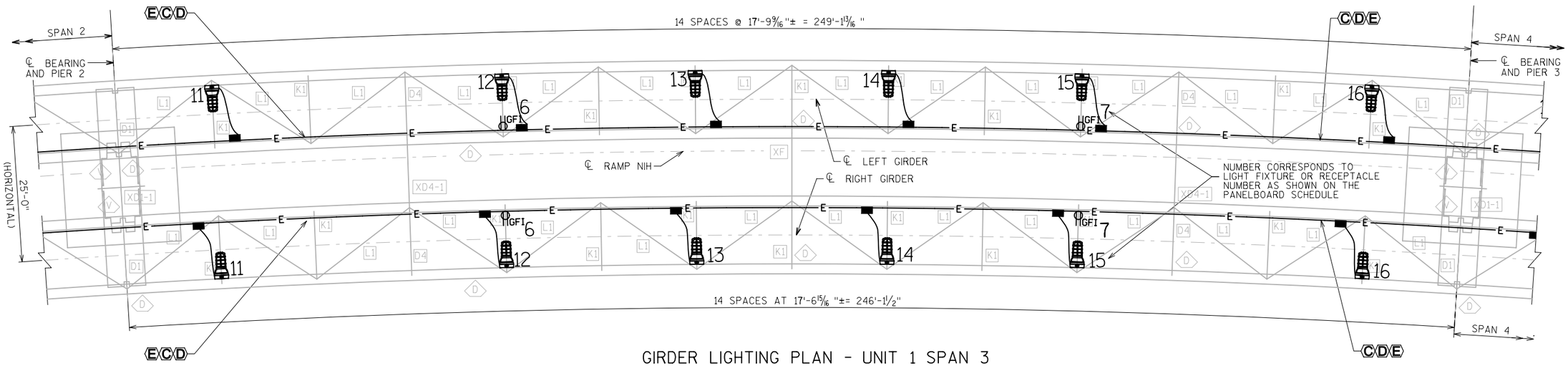
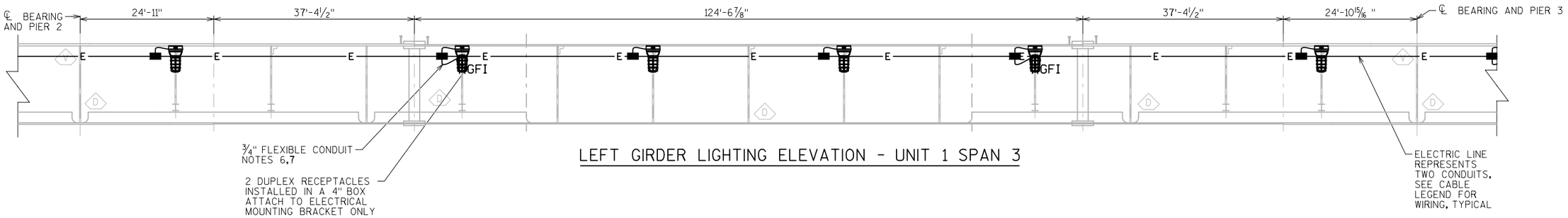
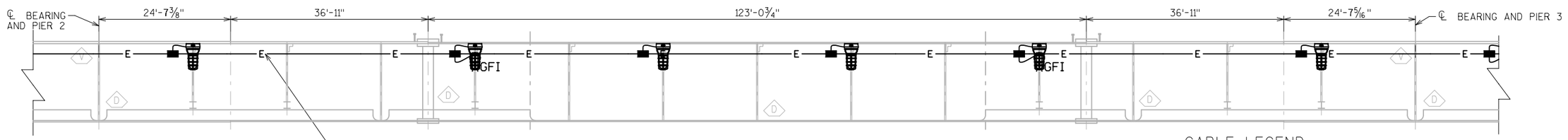
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 1 SPAN 3



LEFT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 3



RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 3

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 1 SPAN 3

SHEET 70 OF 91
959

FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-679\070 - B-5-679E - GIRDER LIGHTING PLAN AND ELEV UNIT 1 SPAN 3.dgn

DATE= 5/1/2013
I.D.

8

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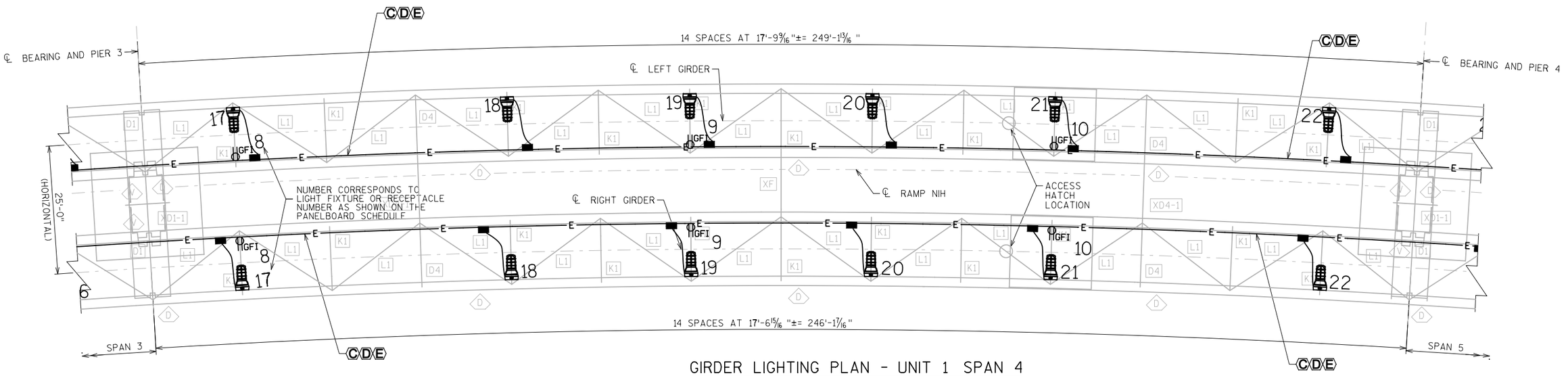
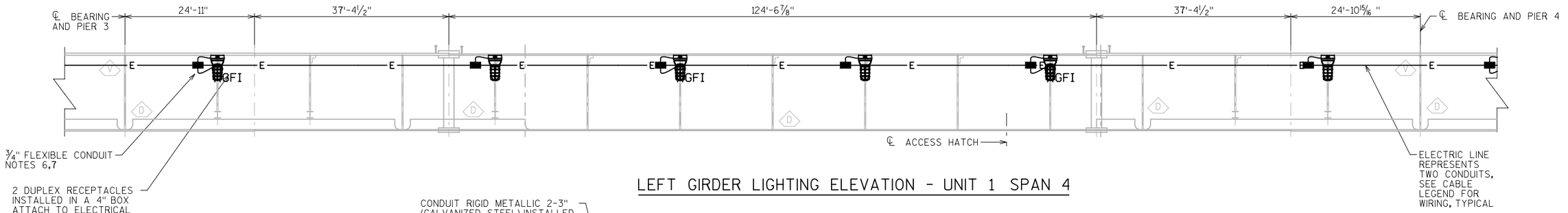
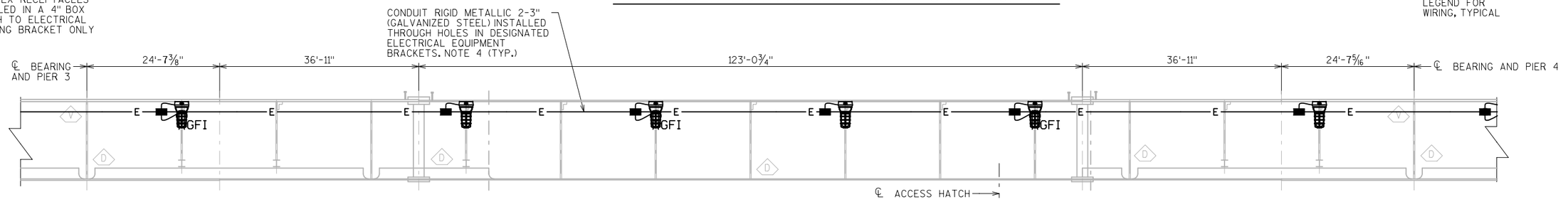
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 1 SPAN 4



LEFT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 4



RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 4

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

CABLE LEGEND

- ⟨A⟩ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- ⟨B⟩ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- ⟨C⟩ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- ⟨D⟩ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- ⟨E⟩ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 1 SPAN 4

SHEET 71 OF 91
960

DATE: 5/1/2013
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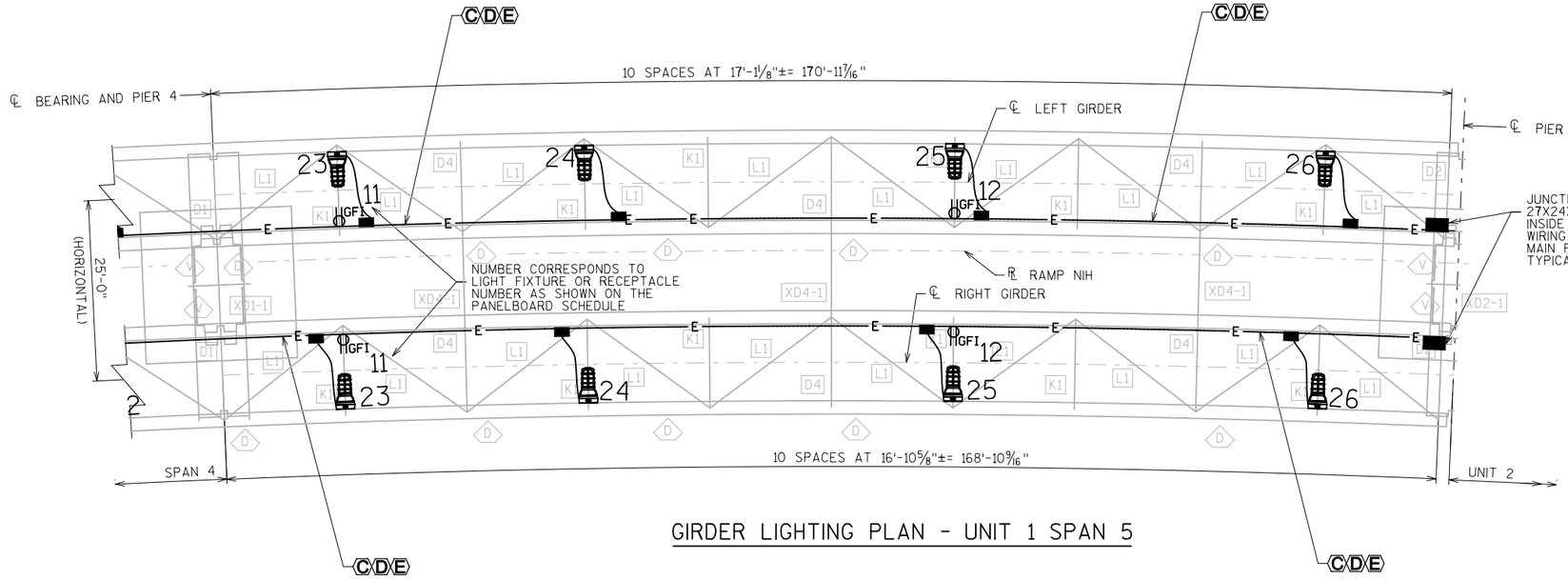
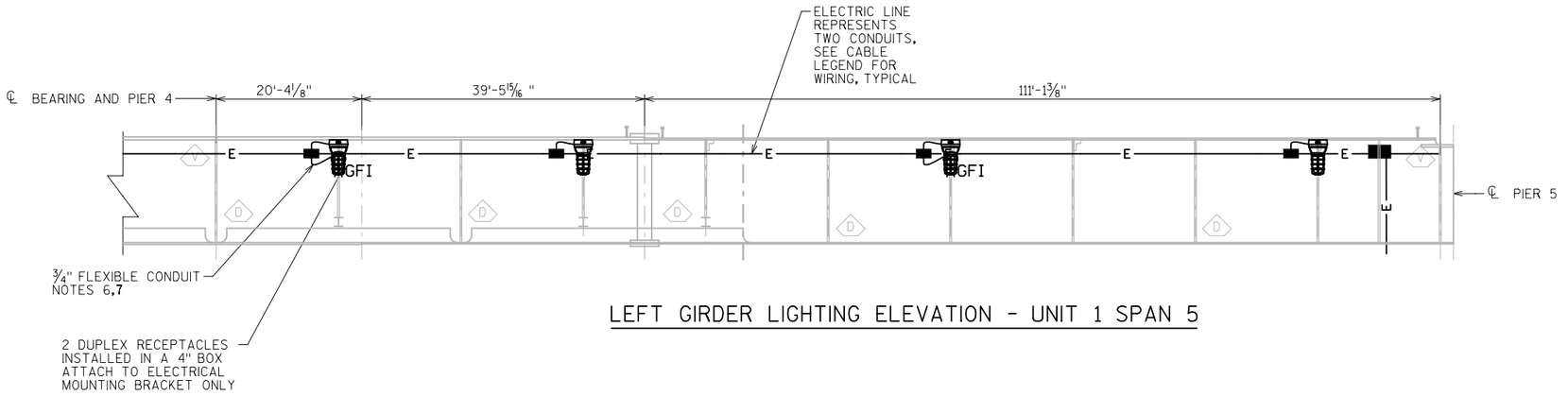
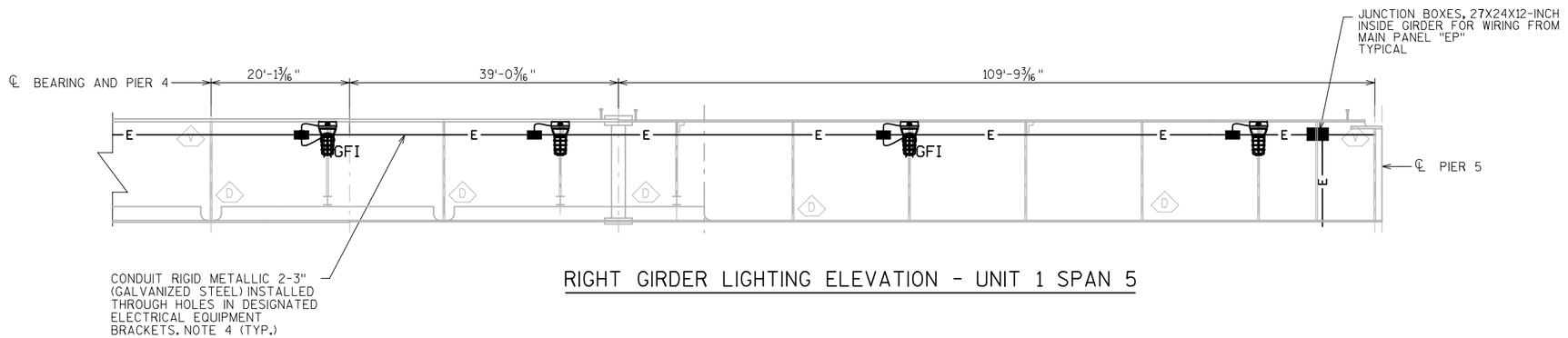


GIRDER LIGHTING PLAN - UNIT 1 SPAN 5



LEFT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 5



RIGHT GIRDER LIGHTING ELEVATION - UNIT 1 SPAN 5

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- ΦGFI — GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

NOTES

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- Ⓐ 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- Ⓑ 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- Ⓒ 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- Ⓓ 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- Ⓔ 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 1 SPAN 5

SHEET 72 OF 91
961

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DATE: 5/1/2013
I.D.

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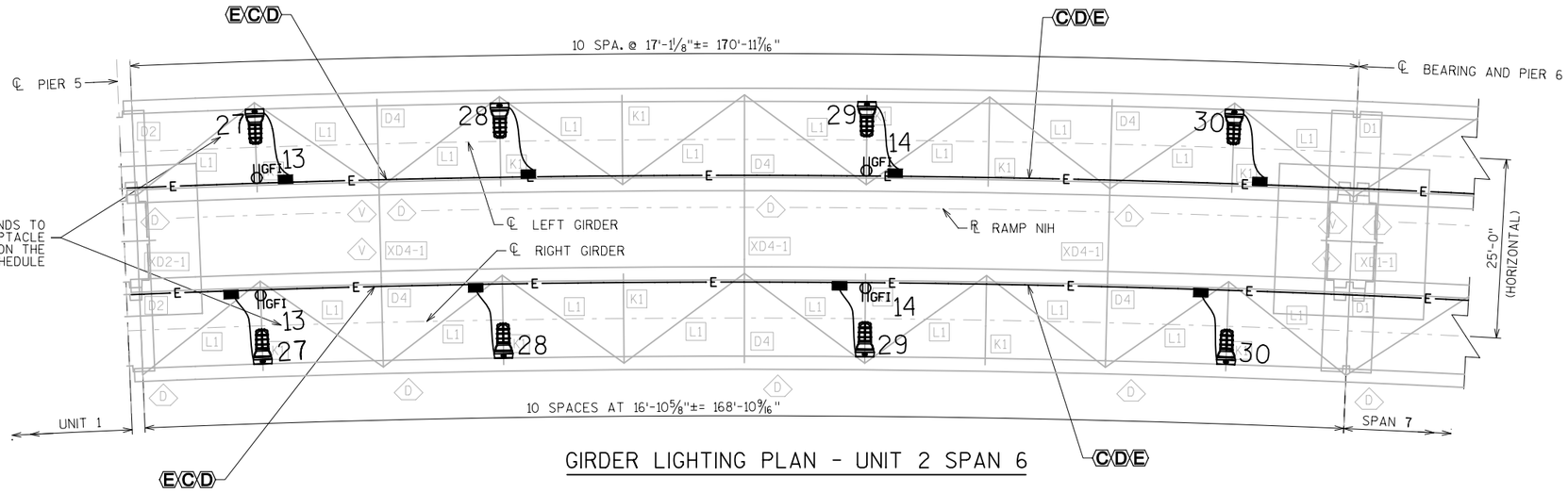
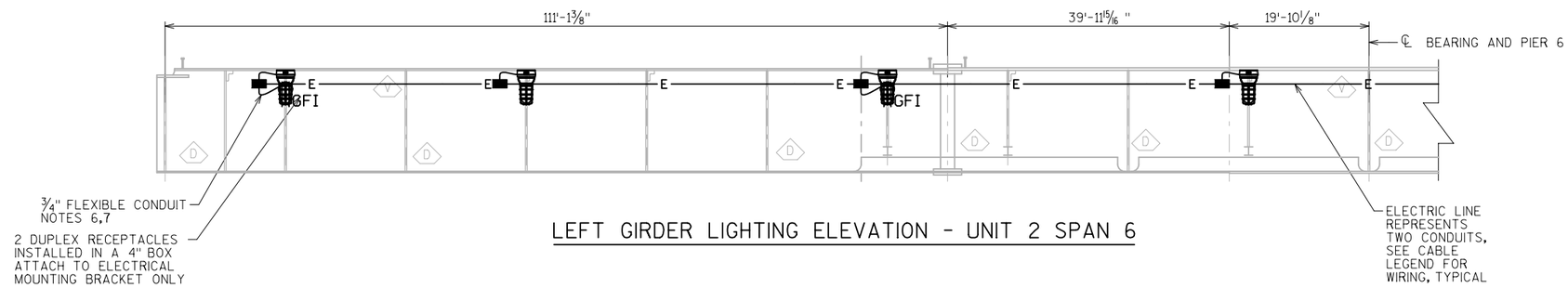
STATE PROJECT NUMBER

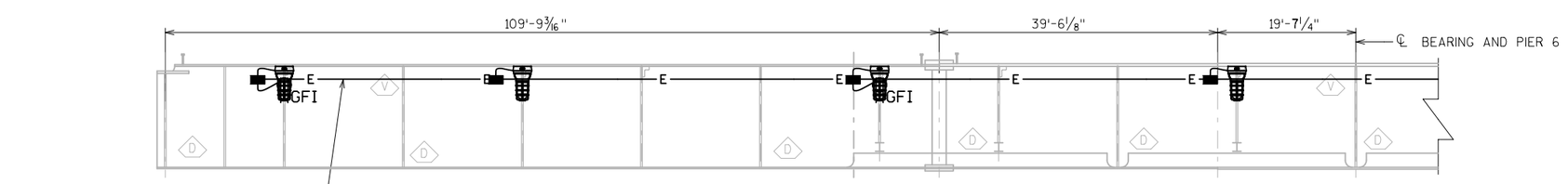
1133-11-74



GIRDER LIGHTING PLAN - UNIT 2 SPAN 6



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 6



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 6

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- E — CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

LEGEND

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 2 SPAN 6

SHEET 73 OF 91

962

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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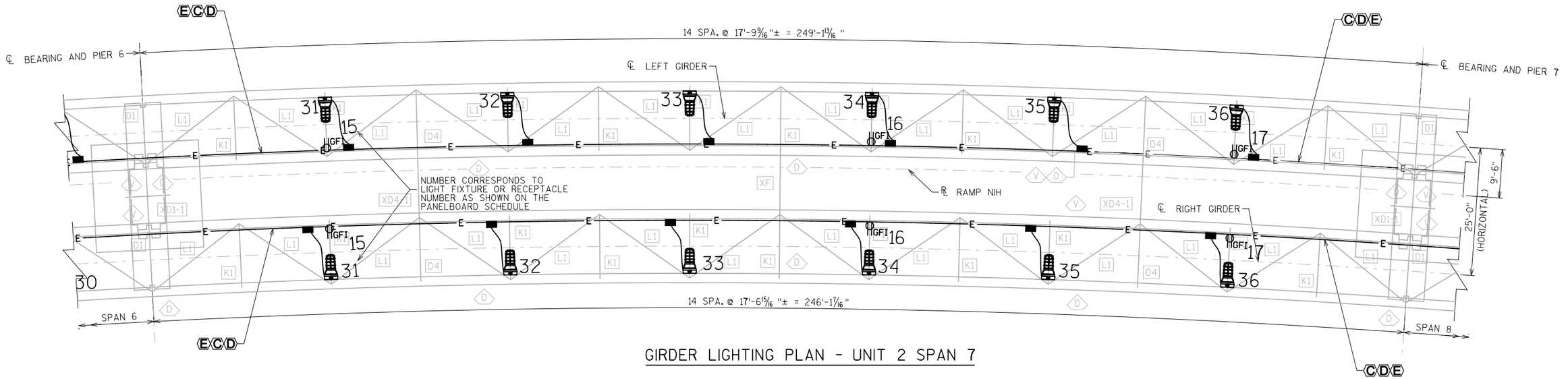
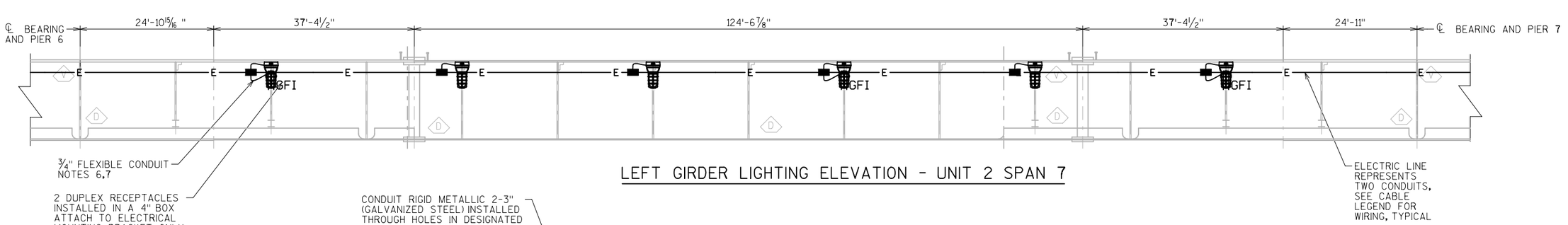
DATE: 5/1/2013

I.D.

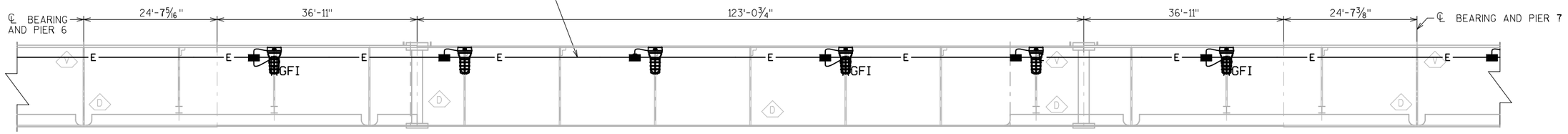
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 2 SPAN 7



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 7



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 7

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 2 SPAN 7

SHEET 74 OF 91
963

DATE: 5/1/2013
I.D.

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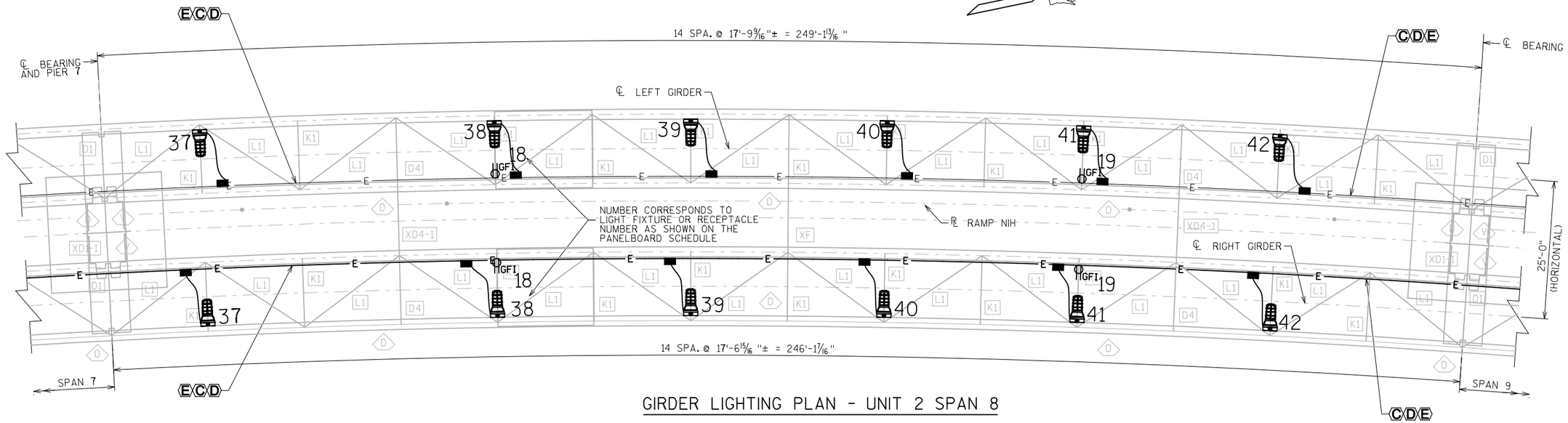
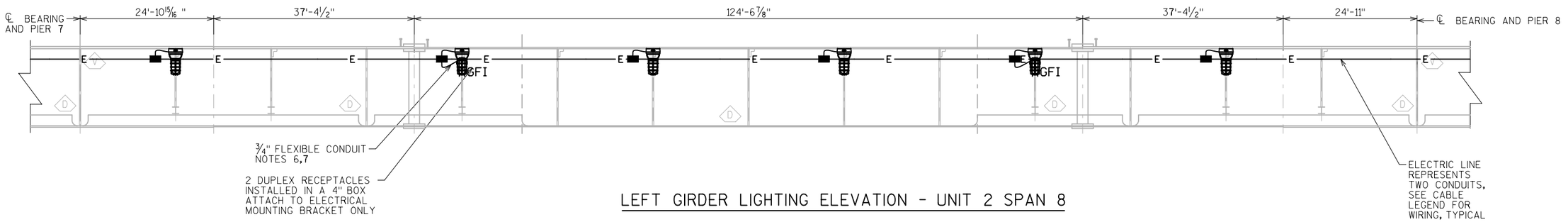
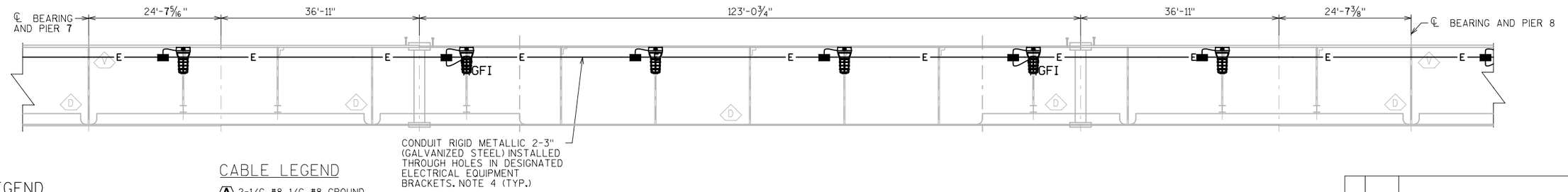
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 2 SPAN 8



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 8



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 8

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V. CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 2 SPAN 8

SHEET 75 OF 91
964

DATE: 5/1/2013
I.D.

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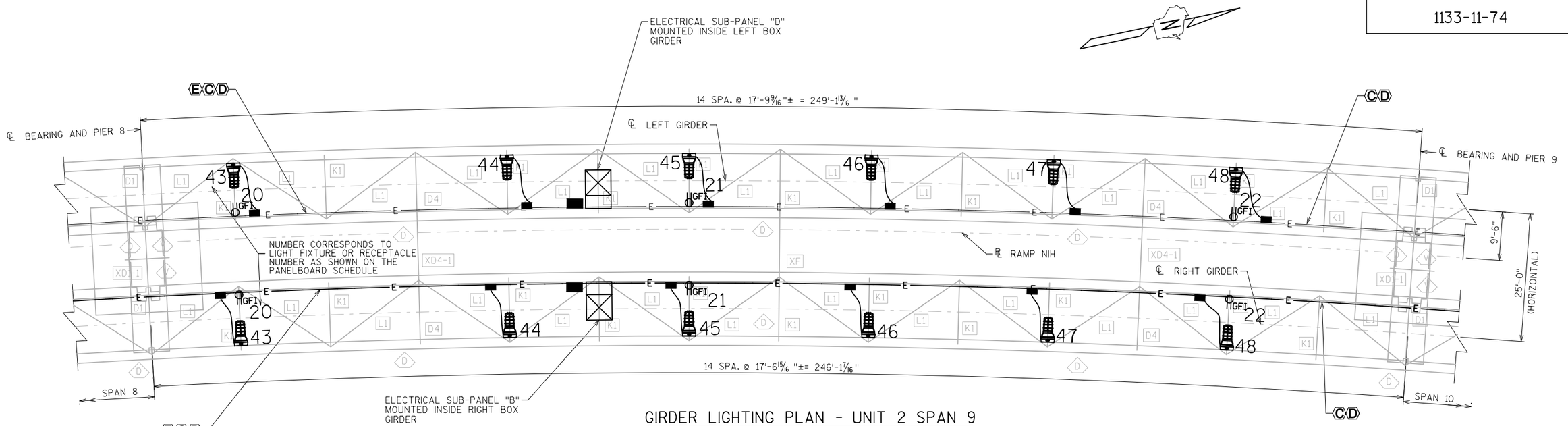
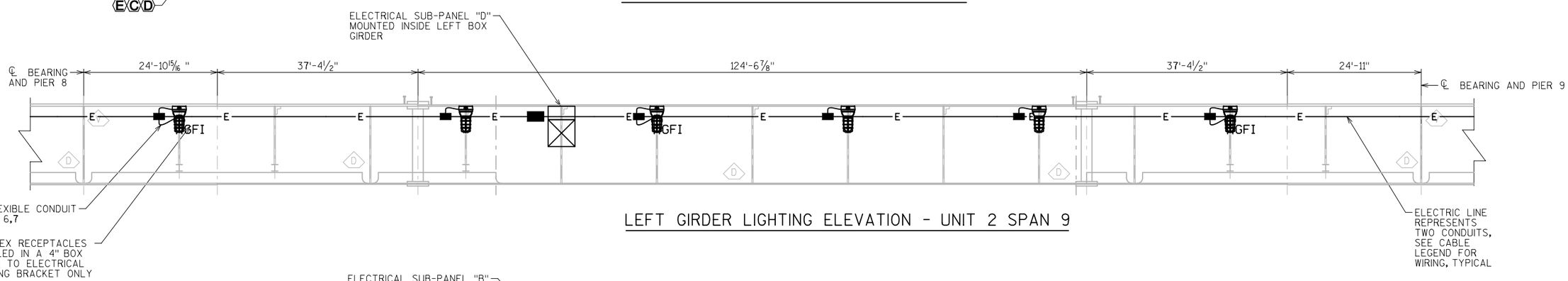
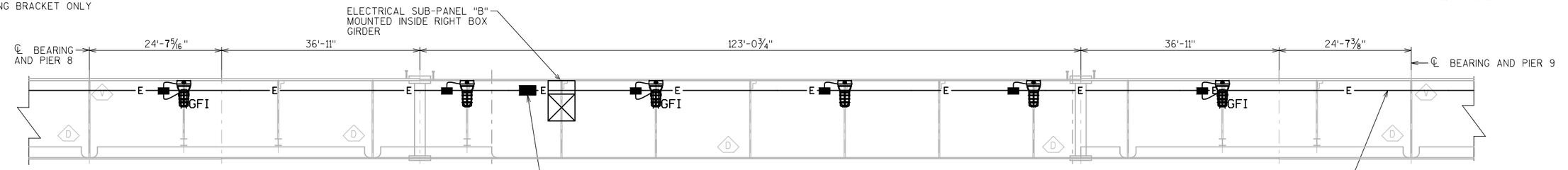
STATE PROJECT NUMBER
1133-11-74



GIRDER LIGHTING PLAN - UNIT 2 SPAN 9



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 9



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 9

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING
- ELECTRICAL REMOTE PANEL (SUB-PANEL) TWO IN EACH BOX GIRDER 120/240V, 1-PHASE, 3-WIRE SEE PANELBOARD SCHEDULES

CABLE LEGEND

- (A) 2-1/C #8, 1/C #8 GROUND RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, 1/C #8 GROUND LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, 1/C #8 GROUND (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, 1/C #8 GROUND (2) LIGHTING CIRCUITS, ALTERNATING
- (E) 3-1/C #2, 1/C #2 GROUND SUB-PANEL FEEDER FROM MAIN PANEL "EP"

SEE OTHER GIRDER LIGHTING SHEETS FOR NOTES

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

GIRDER LIGHTING PLAN AND ELEV UNIT 2 SPAN 9

SHEET 76 OF 91
965

DATE: 5/1/2013
I.D.

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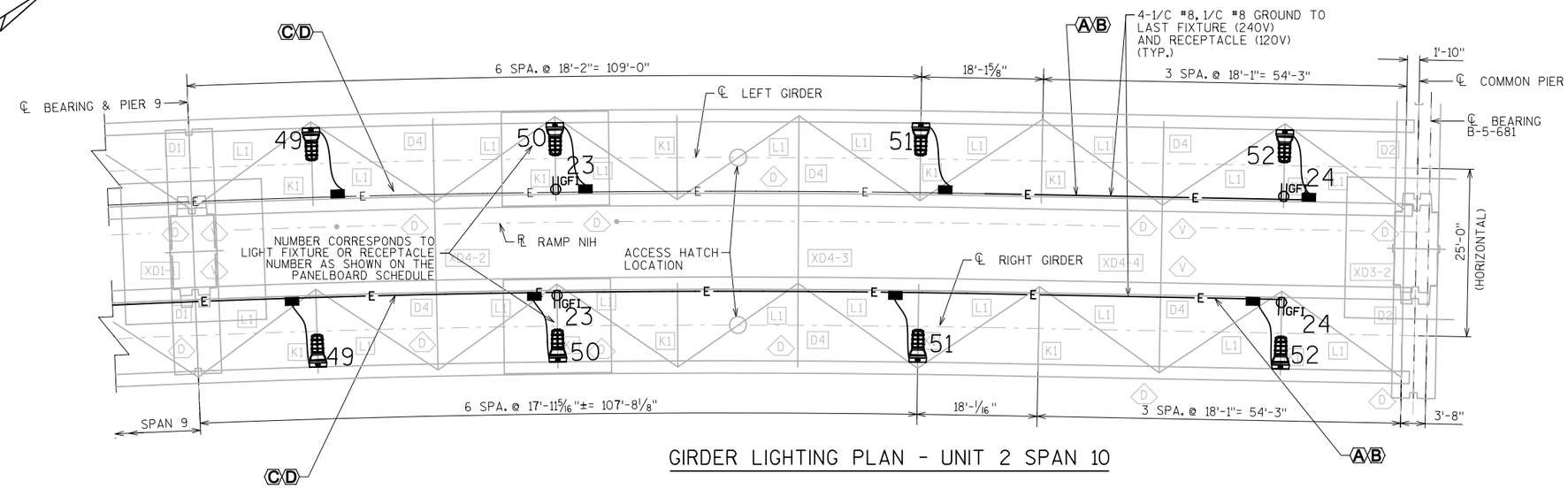
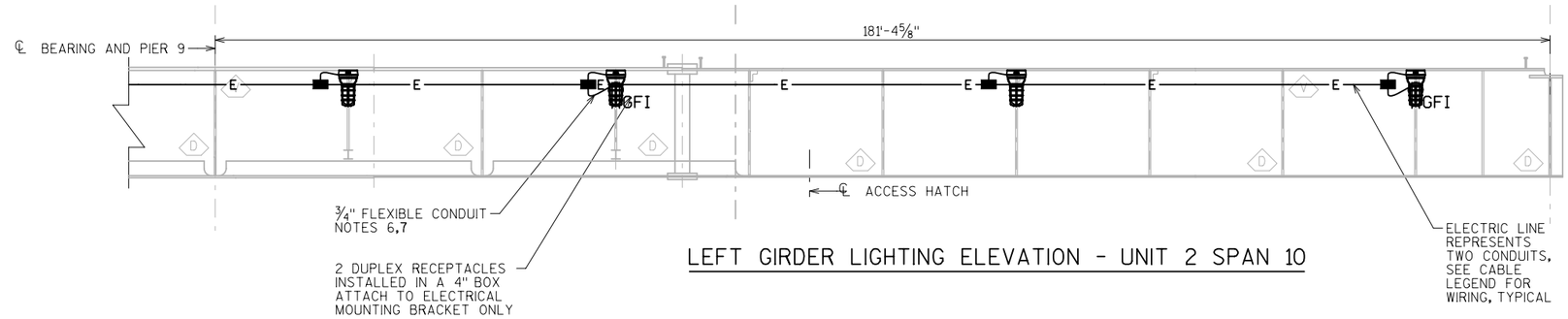
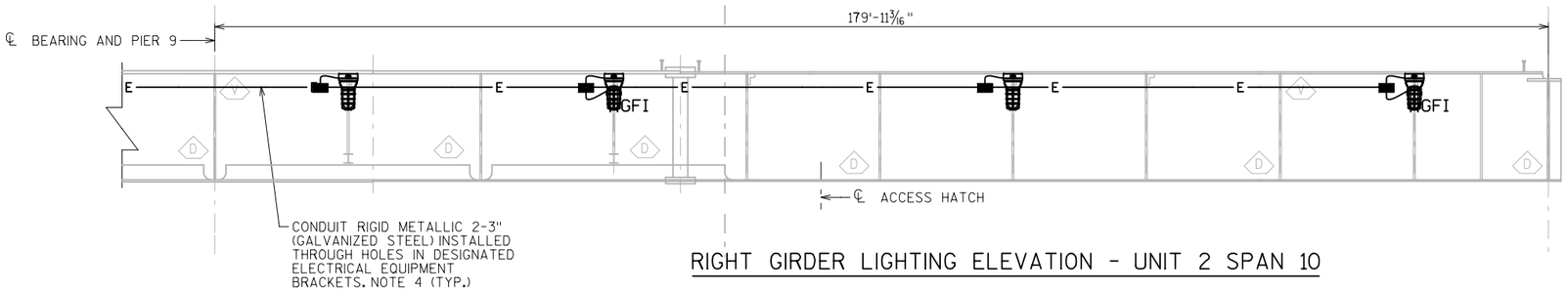


GIRDER LIGHTING PLAN - UNIT 2 SPAN 10



LEFT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 10



RIGHT GIRDER LIGHTING ELEVATION - UNIT 2 SPAN 10

STATE PROJECT NUMBER

1133-11-74

LEGEND

- VAPOR PROOF L.E.D. LIGHT FIXTURE 26 WATT, 240V, CEILING MOUNTED HEAVY DUTY, COMMERCIAL GRADE
- GFCI RECEPTACLES, TWO DUPLEX RECEPTACLES IN A 4" BOX, 120V, MEASURED PER EACH COMPLETE UNIT WITH FLEX CONDUIT FOR PAYMENT
- JUNCTION BOX, STAINLESS STEEL, 27"X18"X8"
- —E— CONDUIT RIGID METALLIC 2-3" (GALVANIZED STEEL) WITH 7-1/C #8, 1/C #8 GROUND ELECTRICAL WIRE LIGHTING

NOTES

1. FURNISH AND INSTALL VAPOR PROOF L.E.D. LUMINAIRES THAT ARE ENCLOSED, GASKETED, AND RATED FOR DAMP AND COLD WEATHER LOCATIONS.
2. INSTALL ELECTRICAL CONDUITS THROUGH DESIGNATED OPENINGS IN STEEL BOX GIRDER DIAPHRAGMS.
3. INSTALL CABLES FOR THE LIGHTING CIRCUITS AND RECEPTACLES IN SEPARATE CONDUITS. THE LIGHTING CIRCUITS ARE ON SEPARATE BREAKERS.
4. DO NOT PERFORM DRILLING IN ANY STRUCTURAL MEMBERS. DRILL ONLY ON ELECTRICAL BRACKETS. DO NOT DRILL INTO BOTTOM OF CONCRETE DECK.
5. INSTALL GFCI RECEPTACLES IN DESIGNATED LOCATIONS SPACED AT APPROXIMATELY 100'. PROVIDE TWO (2) DUPLEX RECEPTACLES IN ONE BOX AT EACH LOCATION WITH COVER PLATE.
6. PROVIDE AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS BETWEEN JUNCTION BOXES AND RECEPTACLES AND BETWEEN JUNCTION BOXES AND LUMINAIRES, AS NEEDED. COST OF SUCH CONDUITS SHALL BE INCLUDED IN THE COST OF THE RECEPTACLES OR LUMINAIRES. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS OR LABOR TO PERFORM THIS WORK.
7. INSTALL LUMINAIRES ON SIDE OF BOX GIRDER OPPOSITE JUNCTION BOXES AND RECEPTACLES AS SHOWN. FURNISH AND INSTALL FLEXIBLE CONDUIT OF ADEQUATE SIZE AND LENGTH FROM JUNCTION BOX TO LUMINAIRE.

CABLE LEGEND

- (A) 2-1/C #8, RECEPTACLE CIRCUIT, 120V
- (B) 2-1/C #8, LIGHTING CIRCUIT, 240V
- (C) 3-1/C #8, (2) RECEPTACLE CIRCUITS, ALTERNATING
- (D) 4-1/C #8, (2) LIGHTING CIRCUITS, ALTERNATING

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER LIGHTING PLAN AND ELEV UNIT 2 SPAN 10

SHEET 77 OF 91
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/1/2013
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STATE PROJECT NUMBER

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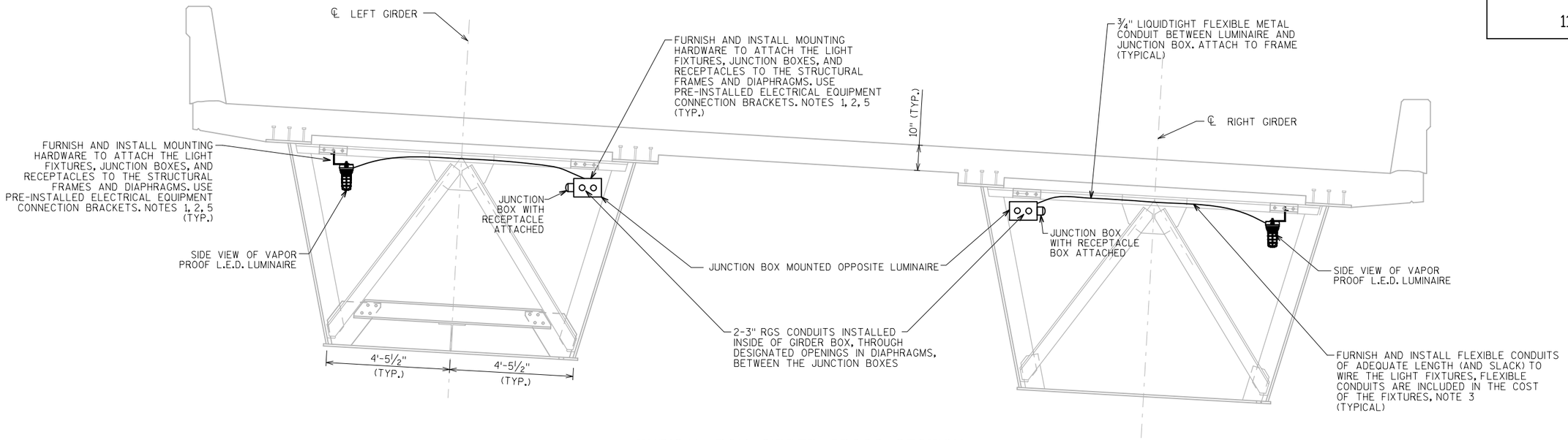
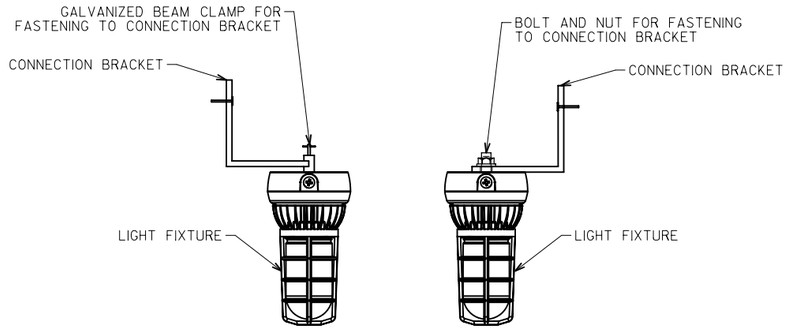
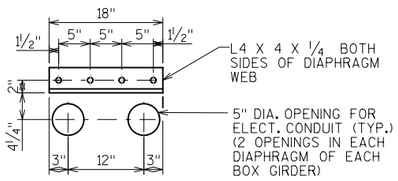


TYPICAL BOX GIRDER CROSS SECTION

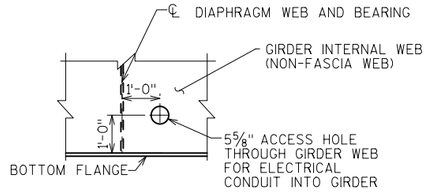
(LOOKING UPSTATION)



VAPOR PROOF L.E.D. LIGHT FIXTURE INSTALLATION DETAILS



OPENINGS AND CONNECTION BRACKET DETAILS FOR ELECTRICAL

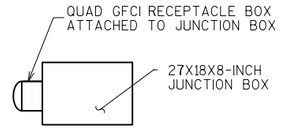


EXTERNAL ELECTRICAL ACCESS DETAIL

TWO ACCESS LOCATIONS FOR INCOMING POWER TO INTERIOR OF GIRDER (LOC. TO BE DETERMINED DURING FABRICATION) (TYP. BOTH GIRDERS)

NOTES:

1. CONNECTION BRACKETS AND ATTACHING BOLTS SHOWN ARE FURNISHED BY STEEL GIRDER FABRICATOR FOR USE BY THE ELECTRICAL CONTRACTOR TO ATTACH THE LIGHT FIXTURES, CONDUITS AND BOXES. MODIFY BRACKETS AS NECESSARY AND FURNISH AND INSTALL MOUNTING HARDWARE TO PROVIDE A PROPER INSTALLATION FOR THE ELECTRICAL AND LIGHTING EQUIPMENT.
2. DON'T SUPPORT ANY JUNCTION BOXES, LIGHT FIXTURES, RECEPTACLES, OR ELECTRICAL REMOTE PANELS (SUB-PANELS) BY ATTACHING DIRECTLY TO CONDUITS. INSTALL AND SUPPORT ALL EQUIPMENT BY FURNISHING MOUNTING CLAMPS, BRACKETS, AND OTHER HARDWARE APPROPRIATE FOR THE MOUNTING LOCATION TO PROVIDE A FIXED AND SECURE INSTALLATION.
3. FURNISH AND INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUITS OF ADEQUATE LENGTH BETWEEN JUNCTION BOXES AND LIGHT FIXTURES/RECEPTACLES AND ELECTRICAL REMOTE PANELS. PROVIDE ADDITIONAL SLACK IN ALL FLEXIBLE CONDUITS IN ORDER TO ALLOW FOR ADEQUATE MOVEMENT IN ALL DIRECTIONS. INCLUDE COST OF LIQUIDTIGHT FLEXIBLE METAL CONDUITS, ADAPTERS, FITTINGS, AND OTHER HARDWARE AND ACCESSORIES IN THE COST OF LIGHT FIXTURES AND RECEPTACLES. NO SEPARATE PAYMENT FOR THIS WORK WILL BE ALLOWED.
4. SEAL OPENINGS AROUND ALL CONDUITS ENTERING THE BOX GIRDERS TO PROVIDE A WEATHER-PROOF SEAL.
5. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, CLAMPS, BRACKETS, HANGER RODS, HARDWARE, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.
6. FURNISH AND INSTALL CONDUIT EXPANSION/DEFLECTION COUPLINGS AND FLEXIBLE BONDING JUMPERS BYPASSING THE COUPLINGS TO ENSURE GROUND CONTINUITY FOR CONDUITS CROSSING EXPANSION JOINTS. USE ONLY COMBINATION EXPANSION/DEFLECTION FITTINGS SIMILAR TO O-Z/GEDNEY MODEL NO. AX8DX. DON'T USE "EXPANSION ONLY" FITTINGS.
7. PROVIDE FLEXIBLE METALLIC CONDUITS BETWEEN RIGID CONDUITS ACROSS JOINTS WHERE THE CALCULATED CONDUIT MOVEMENT EXCEEDS THE MAXIMUM ALLOWABLE MOVEMENT OF THE COMBINATION EXPANSION/DEFLECTION FITTINGS. FLEXIBLE CONDUITS AND FITTINGS ARE INCLUDED IN THE COST OF THE CONDUITS.



JUNCTION BOX

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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STRUCTURE B-5-679

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ELECTRICAL BOX GIRDER DETAILS

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STATE PROJECT NUMBER

1133-11-74

Electrical Panel: EP

Rating: 200A
Voltage: 120/240 Volts, 1 Phase 3 Wire
Feeder Conductors: 4/0 AWG
Main Brkr: 200 A

BRIDGE B-5-679

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 10-12 EVEN	720		X		75		RIGHT BOX GIRDER LIGHTS 18-28 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 9-11 ODD		720		X		75				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 14-16 EVEN	720		X		60		RIGHT BOX GIRDER LIGHTS 19-25 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 13-17 ODD		1080		X		60				8
9	20	1	LEFT BOX GIRDER RECEPTACLES 10-12 EVEN	720		X		75		RIGHT BOX GIRDER LIGHTS 28-36 (EVEN)	2	20	10
11	20	1	LEFT BOX GIRDER RECEPTACLES 9-11 ODD		720		X		75				12
13	20	1	LEFT BOX GIRDER RECEPTACLES 14-16 EVEN	720		X		75		RIGHT BOX GIRDER LIGHTS 27-35 (ODD)	2	20	14
15	20	1	LEFT BOX GIRDER RECEPTACLES 13-17 ODD		1080		X		75				16
17	20	1	SPARE			X		75		LEFT BOX GIRDER LIGHTS 18-28 (EVEN)	2	20	18
19	20	1	SPARE				X		75				20
21	20	1	SPARE			X		60		LEFT BOX GIRDER LIGHTS 19-25 (ODD)	2	20	22
23	20	1	SPARE				X		60				24
25	20	2	SPARE			X		75		LEFT BOX GIRDER LIGHTS 28-36 (EVEN)	2	20	26
27							X		75				28
29	20	2	SPARE			X		75		LEFT BOX GIRDER LIGHTS 27-35 (ODD)	2	20	30
31							X		75				32
33	60	2	ELECTRICAL SUB-PANEL"A" FEEDER (RIGHT GIRDER)	1680		X		1695		ELECTRICAL SUB-PANEL "B" FEEDER (RIGHT GIRDER)	2	60	34
35					1680		X		1335				36
37	60	2	ELECTRICAL SUB-PANEL"C" FEEDER (LEFT GIRDER)	1680		X		1695		ELECTRICAL SUB-PANEL "D" FEEDER (LEFT GIRDER)	2	60	38
39					1680		X		1335				40
41	20	1	SPARE			X				SPARE	1	20	42
			TOTALS	6240	6960			3980	3240	TOTALS			

BUS A: 10200
BUS B: 10200

LOAD: 20400

20.40 KVA DEMAND
85.0 LINE AMPS
108.3 TRIP MAIN AMPS

Electrical Panel: SUB-PANEL "A"

Rating: 100A
Voltage: 120/240 Volts, 1 Phase 3 Wire
Feeder Conductors: 2 AWG
Main Brkr: 60 amps

BRIDGE B-5-679
RIGHT
BOX GIRDER

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 2-4 EVEN	720		X		60		RIGHT BOX GIRDER LIGHTS 2-8 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 1-3 ODD		720		X		60				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 6-8 EVEN	720		X		60		RIGHT BOX GIRDER LIGHTS 1-7 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 5-7 ODD		720		X		60				8
9	20	1	SPARE			X		60		RIGHT BOX GIRDER LIGHTS 10-16 (EVEN)	2	20	10
11	20	1	SPARE				X		60				12
13	20	1	SPARE			X		60		RIGHT BOX GIRDER LIGHTS 9-17 (ODD)	2	20	14
15	20	1	SPARE				X		60				16
17	20	2	SPARE			X				SPARE	2	20	18
			TOTALS	1440	1440			240	240	TOTALS			

BUS A: 1680
BUS B: 1680

LOAD: 3360

3.36 KVA DEMAND
14.0 LINE AMPS
17.5 TRIP MAIN AMPS

ELECTRICAL SUB-PANELS "A" & "C" IN BOTH RIGHT AND LEFT BOX GIRDERS HAVE THE SAME LOADS.

Electrical Panel: SUB-PANEL "B"

Rating: 100A
Voltage: 120/240 Volts, 1 Phase 3 Wire
Feeder Conductors: 2 AWG
Main Brkr: 60 amps

BRIDGE B-5-679
RIGHT
BOX GIRDER

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	20	1	RIGHT BOX GIRDER RECEPTACLES 18-20 EVEN	720		X		60		RIGHT BOX GIRDER LIGHTS 38-44 (EVEN)	2	20	2
3	20	1	RIGHT BOX GIRDER RECEPTACLES 19 ODD		360		X		60				4
5	20	1	RIGHT BOX GIRDER RECEPTACLES 22-24 EVEN	720		X		60		RIGHT BOX GIRDER LIGHTS 37-43 (ODD)	2	20	6
7	20	1	RIGHT BOX GIRDER RECEPTACLES 21-23 ODD		720		X		60				8
9	20	1	SPARE			X		60		RIGHT BOX GIRDER LIGHTS 46-52 (EVEN)	2	20	10
11	20	1	SPARE				X		60				12
13	20	1	SPARE			X		75		RIGHT BOX GIRDER LIGHTS 45-51 (ODD)	2	20	14
15	20	1	SPARE				X		75				16
17	20	2	SPARE			X				SPARE	2	20	18
			TOTALS	1440	1080			255	255	TOTALS			

BUS A: 1695
BUS B: 1335

LOAD: 3030

3.03 KVA DEMAND
12.6 LINE AMPS
15.8 TRIP MAIN AMPS

ELECTRICAL SUB-PANELS "B" AND "D" IN BOTH RIGHT AND LEFT BOX GIRDERS HAVE THE SAME LOADS.

NOTES:

1. CONTROL THE OPERATION OF THE BOX GIRDER LIGHTING FROM THE MAIN ELECTRICAL PANEL "EP", OR REMOTE PANELS (SUB-PANELS) "A" AND "B". LIGHT SWITCHES INSIDE THE BOX GIRDERS WILL NOT BE INSTALLED. USE MAIN BREAKER IN PANEL "EP" TO TURN ALL LIGHTS ON OR OFF. USE INDIVIDUAL BRANCH CIRCUIT BREAKERS TO TURN ON/OFF INDIVIDUAL CIRCUITS FOR LIGHTING OR RECEPTACLES, IF NECESSARY.
2. USE MULTIPLE CIRCUIT BREAKERS TO WIRE THE LIGHTING FIXTURES AND GFCI RECEPTACLES IN EACH BOX GIRDER, AS SHOWN.
3. FURNISH AND INSTALL FOUR (4) ELECTRICAL REMOTE PANELS (SUB-PANELS) IN ADDITION TO THE MAIN ELECTRICAL PANEL "EP". INSTALL TWO (2) REMOTE PANELS (SUB-PANELS) INSIDE EACH BOX GIRDER AS SHOWN ON THESE PLANS.
4. BRANCH CIRCUIT LOAD DISTRIBUTION AND TOTAL LOAD IS THE SAME FOR SUB-PANELS "A" AND "B" IN BOTH RIGHT AND LEFT BOX GIRDERS. LOCATION OF ALL ELECTRICAL AND LIGHTING EQUIPMENT IS ALSO THE SAME FOR BOTH RIGHT AND LEFT BOX GIRDERS AS SHOWN ON THE PLANS.
5. FURNISH AND INSTALL SPARE BREAKERS FOR ALL UNUSED CIRCUITS, NO EMPTY SPACES IN PANELS.
6. FURNISH COPPER FOR ALL WIRING AND BUS BARS.
7. FURNISH AND INSTALL HEAVY DUTY, COMMERCIAL QUALITY, OUTDOOR RATED EQUIPMENT, PANELS, JUNCTION BOXES, AND CABINETS. FURNISH AND INSTALL NEMA 4X RATED STAINLESS STEEL JUNCTION BOXES, RECEPTACLE BOXES AND ENCLOSURES FOR ALL OUTDOOR ELECTRICAL EQUIPMENT. SAFETY DISCONNECT SWITCH SHALL BE SERVICE ENTRANCE RATED.
8. FURNISH AND INSTALL ELECTRICAL PANELS WITH MAIN AND BRANCH CIRCUIT BREAKERS THAT WILL ACCOMMODATE THE WIRE SIZES PROPOSED ON THESE PLANS. VERIFY MANUFACTURER STANDARD WIRE TERMINAL SIZES ON MAIN AND BRANCH BREAKERS AND PROVIDE CUSTOM OR SPECIAL ORDER BREAKERS AND TERMINALS THAT ARE DESIGNED FOR THE CONDUCTORS SPECIFIED ON THESE PLANS. INCLUDE ALL MATERIALS AND LABOR NECESSARY TO DO THIS WORK IN THE COST OF THE ELECTRICAL PANELS.
9. REARRANGE BRANCH CIRCUIT DESIGNATIONS IN THE PANELBOARD SCHEDULES, AS NECESSARY, AND MAINTAIN BALANCED LOADS AND PHASES.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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ELECTRICAL BOX GIRDER DETAIL 2

SHEET 79 OF 91
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/1/2013
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STATE PROJECT NUMBER

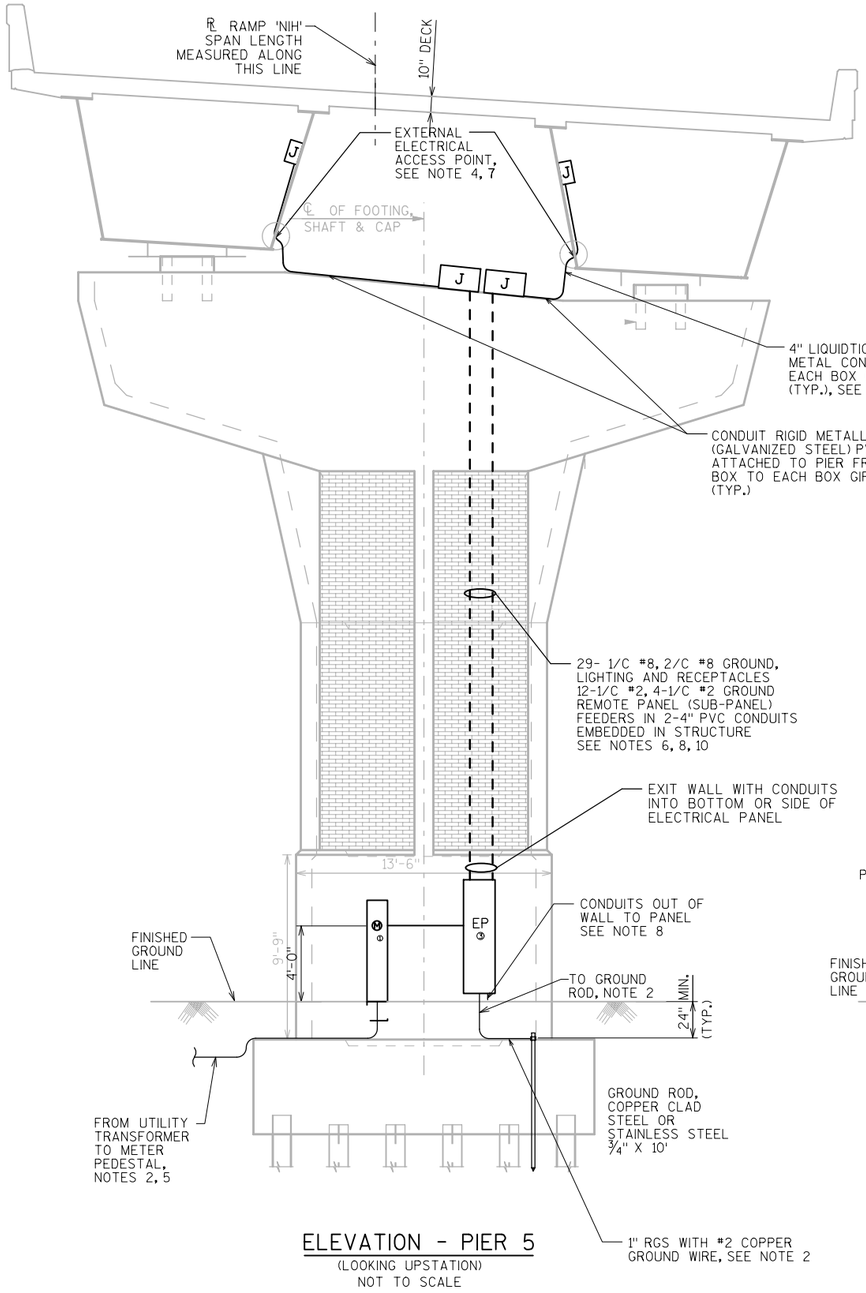
1133-11-74

LEGEND:

① METER PEDESTAL, 200A, NEMA 3R, WITH MAIN BREAKER, NOTE 11

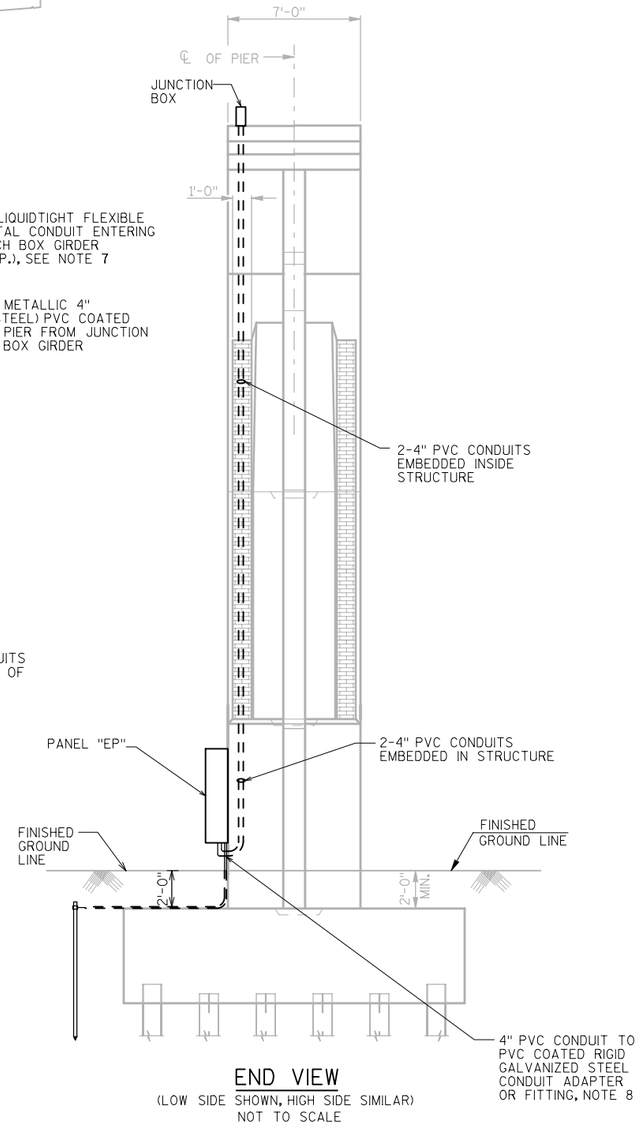
② SAFETY DISCONNECT SWITCH, 200A, NON-FUSIBLE, NOTE 11

③ MAIN ELECTRICAL PANEL, 200A, 240V/120, 1-PH, 3-W



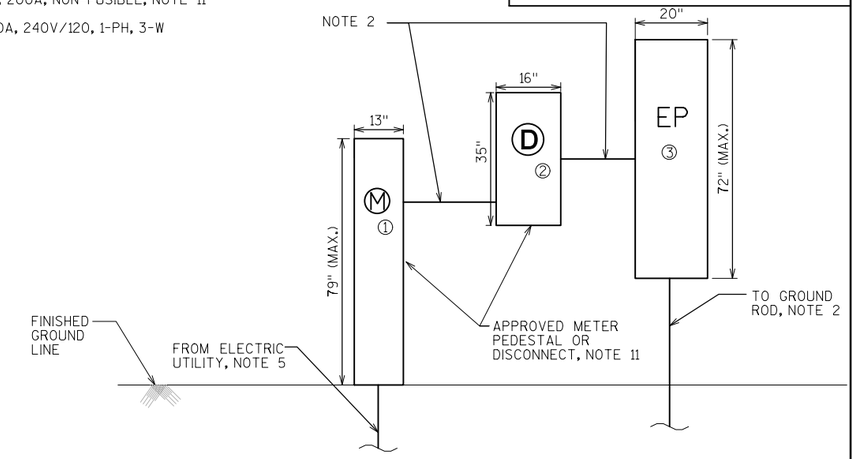
ELEVATION - PIER 5

(LOOKING UPSTATION)
NOT TO SCALE



END VIEW

(LOW SIDE SHOWN, HIGH SIDE SIMILAR)
NOT TO SCALE



ELECTRICAL SERVICE EQUIPMENT DETAILS

* DIMENSIONS ARE APPROXIMATE AND VARY BY MANUFACTURER.
NOT TO SCALE

NOTES:

1. FURNISH AND INSTALL NEMA 4X RATED STAINLESS STEEL OUTDOOR CABINETS AND ENCLOSURES, WHEN AVAILABLE. ALL CABINETS MUST HAVE PAD-LOCKING PROVISIONS.

2. FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT, AND INCIDENTALS NEEDED TO CONNECT THE SERVICE FROM THE METER PEDESTAL TO THE MAIN ELECTRICAL PANEL "EP" AND TO REMOTE PANELS (SUB-PANELS) AS PART OF PAY ITEM FOR "ELECTRICAL SERVICE INSTALLATION B-5-679". THAT PAYMENT INCLUDES THE APPROVED METER PEDESTAL, ALL ELECTRICAL PANELS INCLUDING SUB-PANELS, SAFETY DISCONNECT SWITCH (WHEN REQUIRED), CABLES, CONDUITS, GROUNDING, AND TRENCHING FOR CONDUITS SHOWN ON THE PLANS. ALL CONNECTIONS, SPLICING, AND WIRING TO THE NEW ELECTRICAL PANELS AND METER PEDESTAL IS ALSO INCLUDED UNDER THE SAME PAY ITEM. FURNISH, INSTALL, AND PAY FOR ELECTRICAL EQUIPMENT GROUNDING MATERIALS, EQUIPMENT AND LABOR UNDER THIS PAY ITEM. CABLE AND CONDUIT FROM PANEL "EP" TO BOX GIRDERS AND JUNCTION BOXES SHOWN ARE PAID FOR SEPARATELY.

3. EXTEND THE SERVICE UP THE PIER TO THE DISTRIBUTION JUNCTION BOXES. FROM THERE, ROUTE THE BRANCH CIRCUIT WIRING AND REMOTE PANEL FEEDERS THROUGH ACCESS HOLES TO EACH BOX GIRDER.

4. SEE EXTERNAL ELECTRICAL ACCESS DETAIL ON SHEET 75. ALSO SEE INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1 FOR EXACT LOCATION OF ELECTRICAL ACCESS HOLES.

5. COORDINATE WITH THE UTILITY TO PROVIDE ELECTRIC SERVICE TO PIER MOUNTED EQUIPMENT.

6. FURNISH AND INSTALL 2-4" CONDUIT RIGID NONMETALLIC SCHEDULE 40 (PVC) CAST INTO THE PIER (EMBEDDED) AS SHOWN. INSTALL CONDUITS ENTERING EACH BOX GIRDER THAT WILL HAVE THE CONDUCTORS FOR THE LIGHTING CIRCUITS, GFCI RECEPTACLE CIRCUITS, AND POWER FEEDS TO EACH OF THE ELECTRICAL REMOTE PANELS (SUB-PANELS).

7. FURNISH AND INSTALL 4" LIQUIDTIGHT FLEXIBLE METAL CONDUITS (LTFMC) WHEN ENTERING THE BOX GIRDERS THROUGH THE ELECTRICAL ACCESS HOLES. INSTALL THE LTFMC BETWEEN THE RIGID GALVANIZED STEEL CONDUITS. SEAL THE AREA AROUND THE FLEXIBLE CONDUITS ENTERING THE BOX GIRDERS AT THE ACCESS HOLE TO PROVIDE A TIGHT, WEATHER-PROOF SEAL. PAYMENT FOR ALL 4" AND LARGER FLEXIBLE METAL CONDUITS, ADAPTERS AND FITTINGS ARE INCLUDED IN THE "CONDUIT RIGID METALLIC PVC COATED" PAY ITEM, SEPARATE PAYMENT WILL NOT BE MADE.

8. STUB CONDUITS EMBEDDED IN STRUCTURE OUT OF WALL UNDER (OR SIDE OF) THE ELECTRICAL PANEL "EP". FURNISH AND INSTALL CONDUIT RIGID METALLIC 4" (GALVANIZED STEEL) PVC COATED FOR ALL EXPOSED LOCATIONS AND BETWEEN THE PVC CONDUIT EMBEDDED IN THE PIER AND THE ELECTRICAL PANEL "EP". FURNISH AND INSTALL ALL NECESSARY ELBOWS, FITTINGS, AND PVC TO RGS CONDUIT ADAPTERS TO COMPLETE THE INSTALLATION. INCLUDE COST FOR THE MATERIALS AND LABOR NEEDED, AND DESCRIBED HERE, IN THE COST OF THE ELECTRICAL PANEL.

9. FURNISH AND INSTALL GALVANIZED STEEL OR 304 STAINLESS STEEL SUPPORTS, HARDWARE, CLAMPS, BRACKETS, HANGER RODS, NUTS, BOLTS, AND WASHERS FOR CONDUITS, JUNCTIONS BOXES, AND RECEPTACLES. ALL THREADED HARDWARE SHALL BE STAINLESS STEEL.

10. FURNISH AND INSTALL GROUND CONDUCTORS IN ALL CONDUITS. GROUND CONDUCTORS SHALL BE BONDED TO METAL CONDUITS, BOXES, AND OTHER PARTS TO ENSURE SYSTEM GROUND CONTINUITY THROUGHOUT ELECTRICAL SYSTEM. GROUNDING AND BONDING SHALL BE ACCORDING TO NEC STANDARDS.

11. FURNISH AND INSTALL A NEMA 3R RATED, 200A METER PEDESTAL WITH A MAIN CIRCUIT BREAKER IN PLACE OF A DISCONNECT SWITCH. FURNISH PEDESTAL ENCLOSURE WITH PAD-LOCKING PROVISIONS. INCLUDE METER PEDESTAL EXTENSIONS IF REQUIRED BY UTILITY AT NO ADDITIONAL COST. FURNISH A 200A, MOLDED CASE, THERMAL MAGNETIC MAIN CIRCUIT BREAKER IN THE PEDESTAL RATED AT 25K AIC MINIMUM. FURNISH AND INSTALL A HEAVY DUTY, OUTDOOR RATED, NON-FUSIBLE DISCONNECT SWITCH IN A NEMA 4X RATED ENCLOSURE THAT IS PAD-LOCKABLE ONLY IF AN APPROVED METER PEDESTAL CANNOT BE PROVIDED.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY MAE | PLANS CK'D. DAD

ELECTRICAL CROSS SECTION AT PIER

SHEET 80 OF 91
969

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

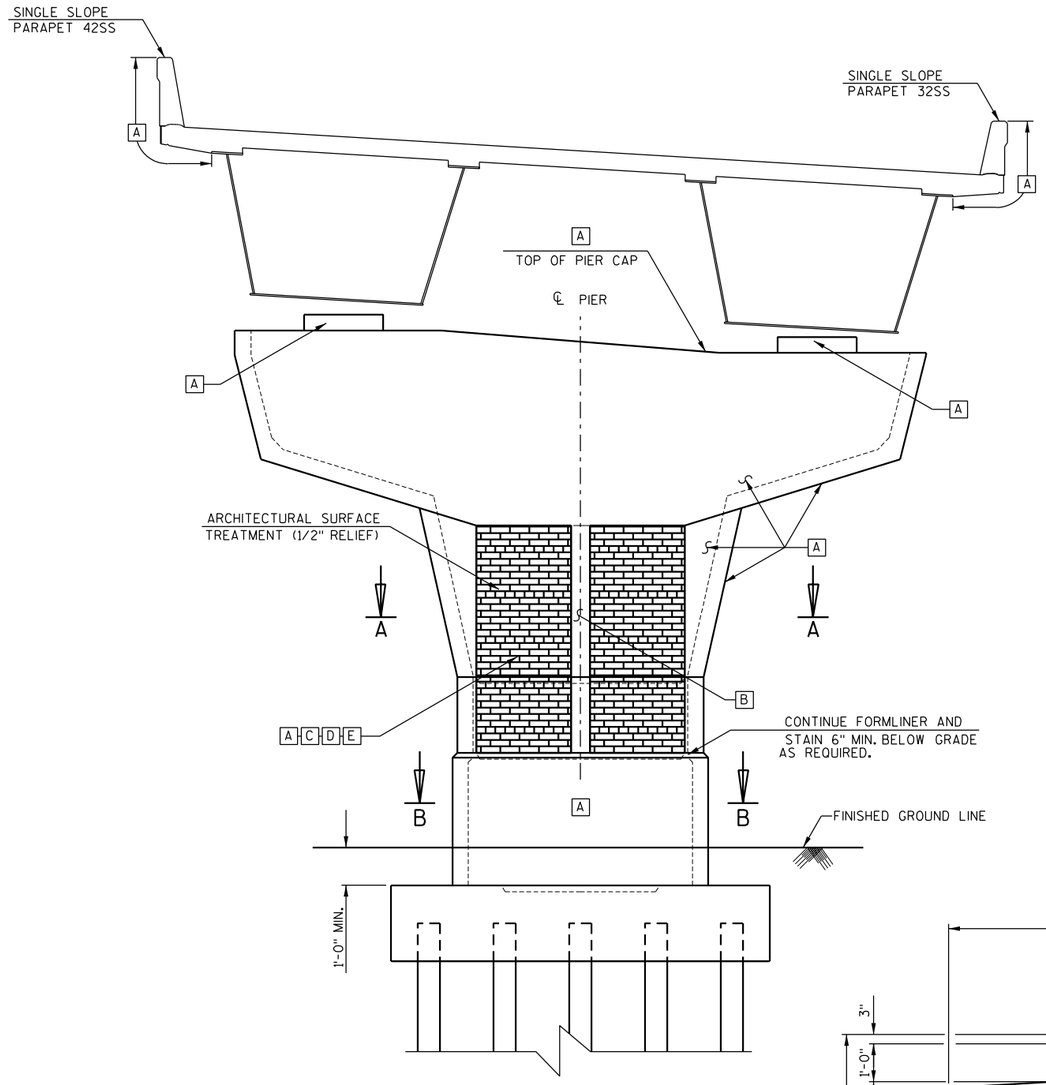
8

FILE= Q:\WisDot_12345678_US41Bridges\Lighting\PLANS\B-5-679\080 - B-5-679E - Electrical Detail 3 - Cross-Section At Pier.dgn

DATE: 5/1/2013
I.D.

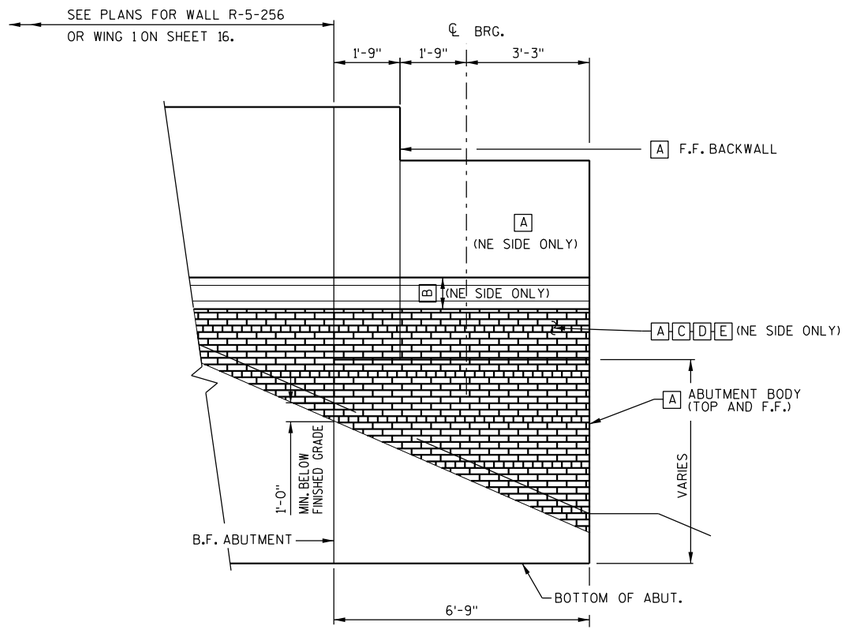
STATE PROJECT NUMBER

1133-11-74

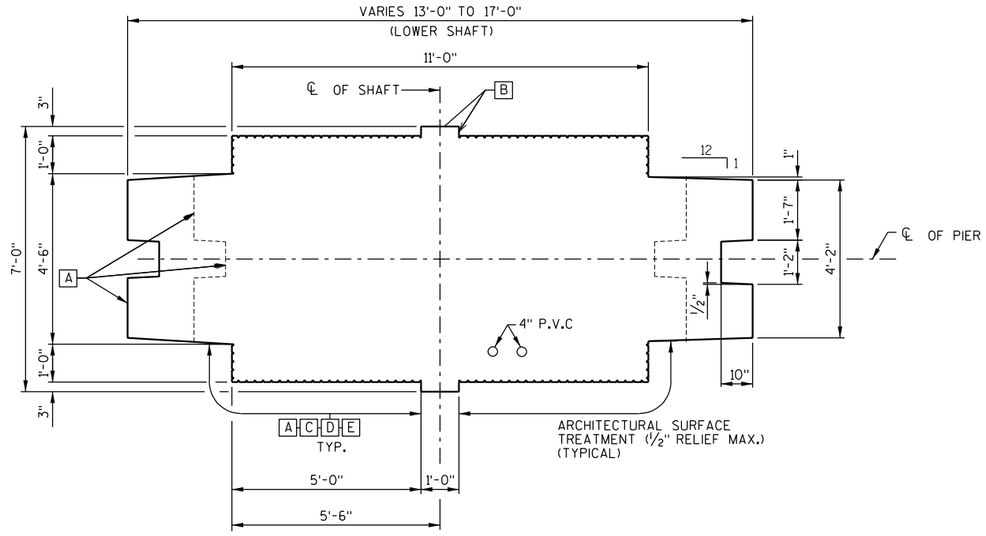


TYPICAL CROSS SECTION

(LOOKING UPSTATION)



SOUTH ABUTMENT ELEVATION



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, OUTSIDE OF CONC. GIRDER, STEEL BOX GIRDERS
C	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
D	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
E	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

NOTE: 1. FINISH ON COLORS IS FLAT (LUSTERLESS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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AESTHETIC DETAILS

SHEET 81 OF 91
970

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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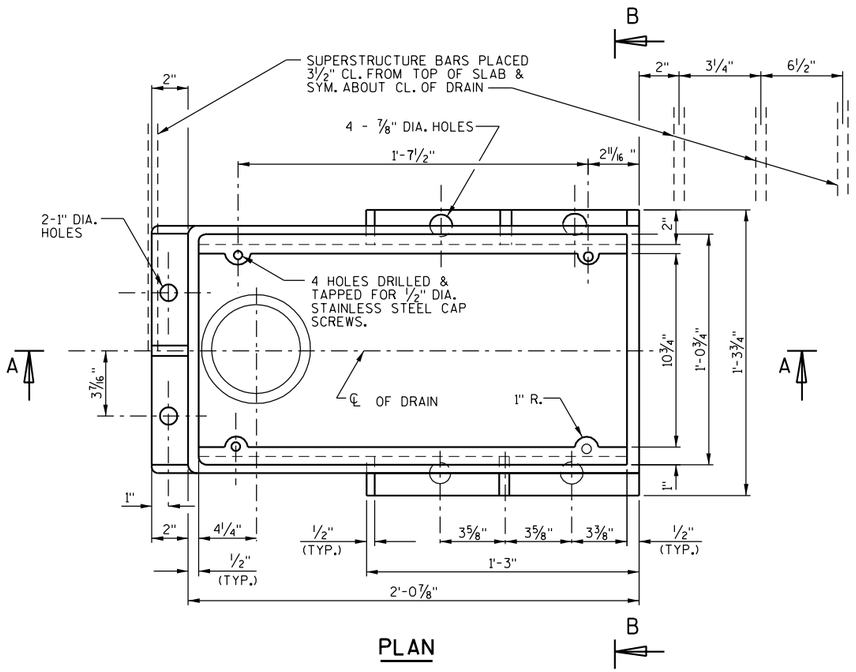
FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-679\08LAESTHETICS_V17.B-5-679.DGN

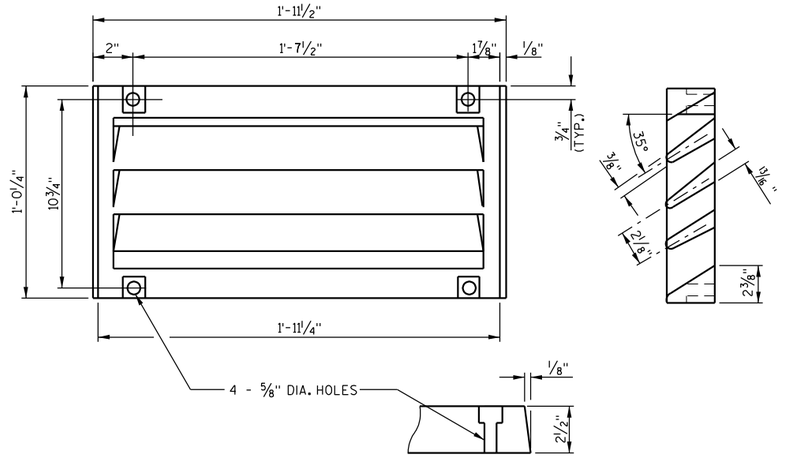
PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74



PLAN



GRATE CASTING DETAIL

ATTACH GRATE TO FRAME FOR SHIPMENT

NOTES

ALL MATERIAL FOR TYPE "GC" CASTINGS, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48, CLASS 30. (APPROX. WEIGHT= 225#)

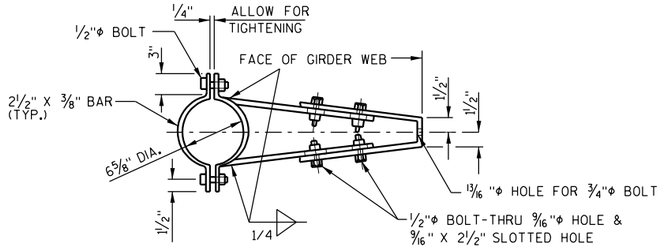
MATERIAL FOR BRACKETS SHALL CONFORM TO A.S.T.M. A36.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

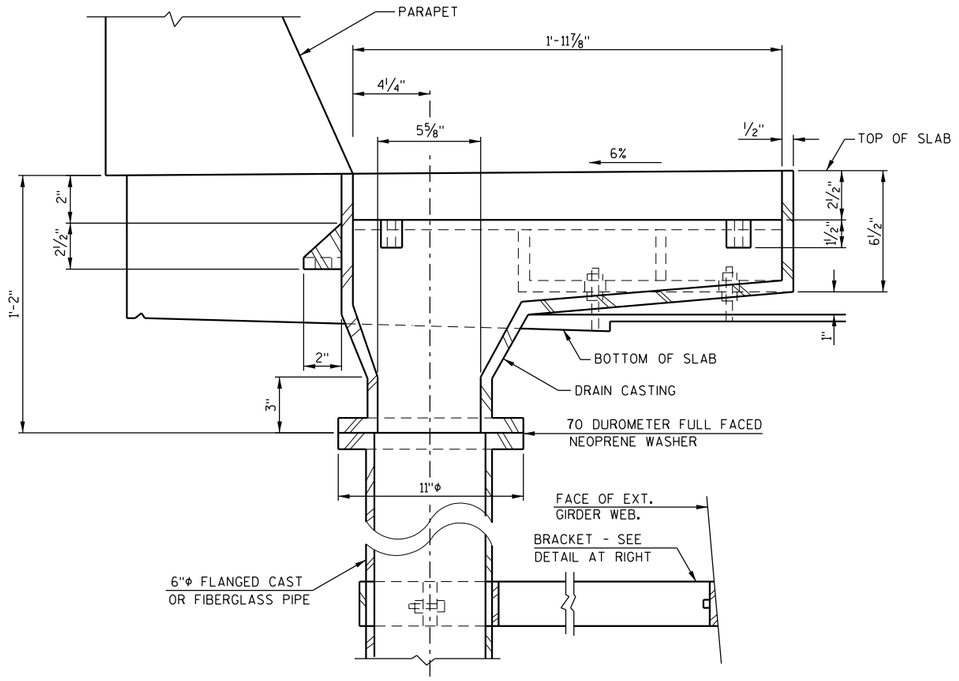
FLANGED 6" DIA. DOWNSPOUTS SHALL FIBERGLASS CONFORMING TO A.S.T.M. D2996, GRADE 1, CLASS A.

TRANSVERSE AND LONGITUDINAL SLAB BAR REINFORCEMENT TO BE CUT A MINIMUM 1" CLEAR FROM DRAIN. DISPLACE BARS WHERE POSSIBLE.

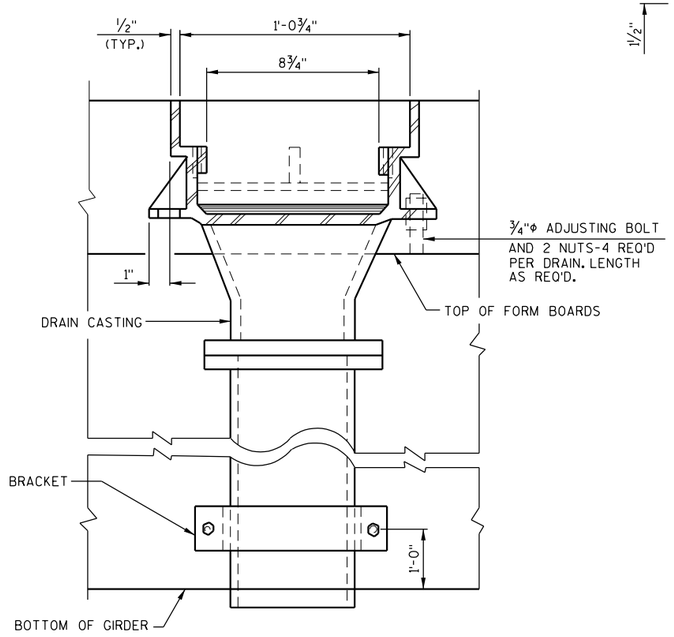
DO NOT PLACE SHEAR STUDS ON TOP FLANGE OF LEFT GIRDER WHERE THEY INTERFERE WITH THE FLOOR DRAIN.



BRACKET DETAIL



SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

FLOOR DRAIN TYPE 'GC'

SHEET 82 OF 91
971

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

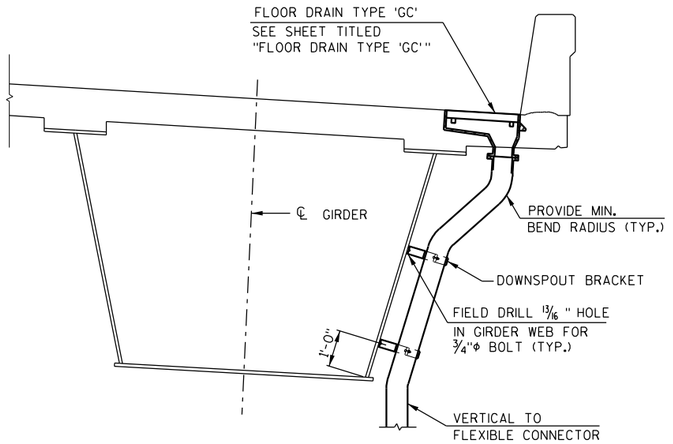
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-679\d02_DRAIN_GC_V7.B-5-679.DGN

PLOT DATE : 4/23/2013

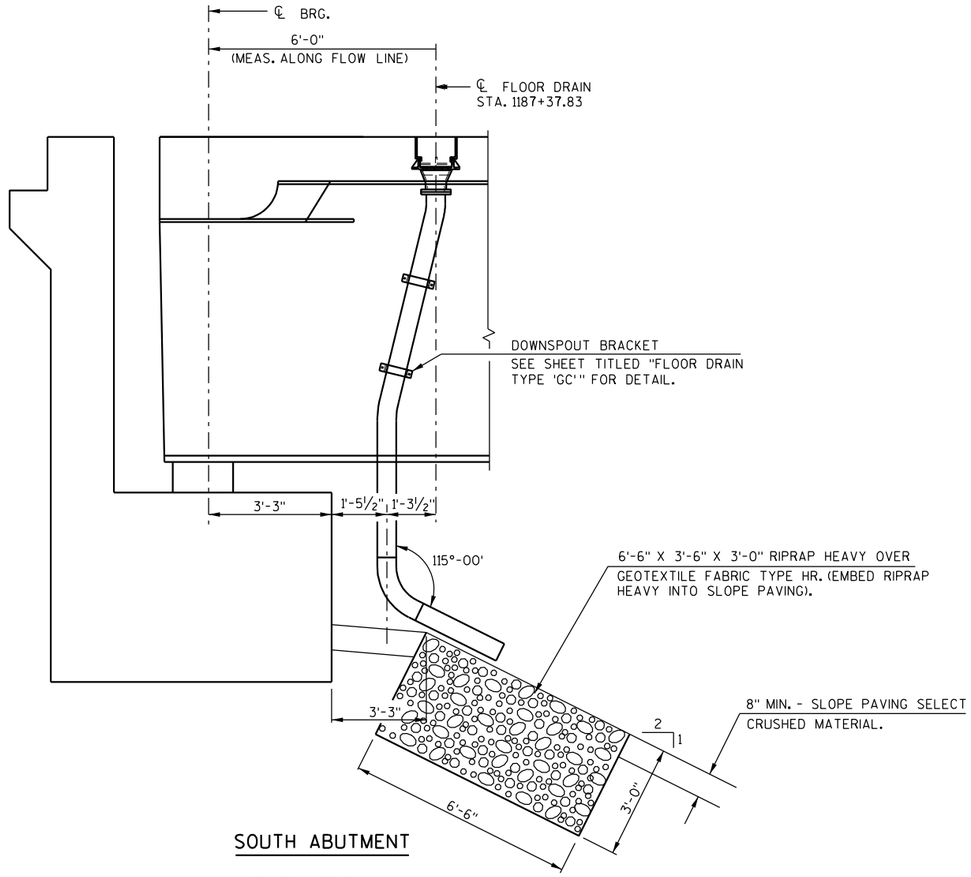
STATE PROJECT NUMBER

1133-11-74



PART SECTION THRU BRIDGE

(LOOKING UPSTATION)



SOUTH ABUTMENT

ELEVATION

(LOOKING WEST)

NOTES

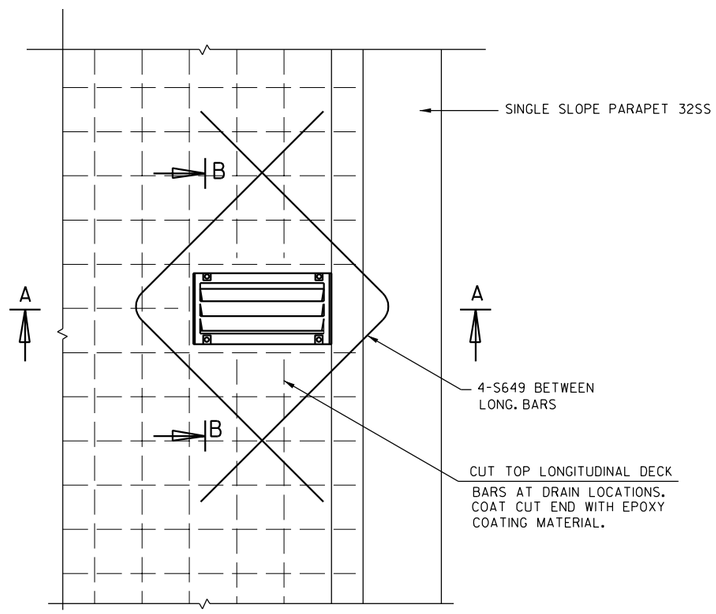
SEE SHEETS "DECK REINFORCEMENT SPANS X-X" FOR TYPICAL DECK SLAB REINFORCEMENT.

SEE SHEET "TYPICAL DECK SECTION" FOR PARAPET DETAILS AND REINFORCEMENT.

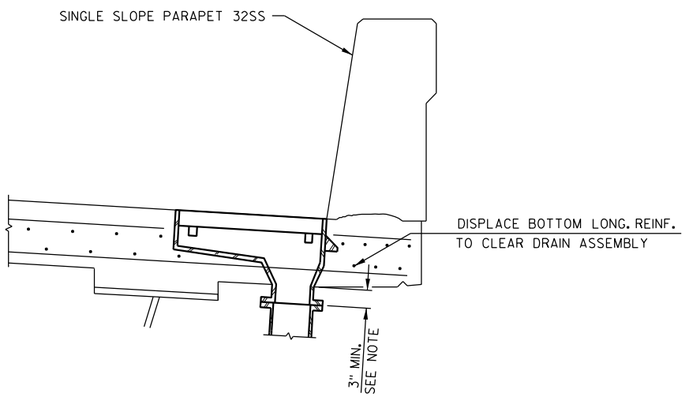
PARAPET REINFORCEMENT AND DOWELS NOT SHOWN FOR CLARITY - RESPACE LOCALLY AS REQUIRED TO CLEAR FLOOR DRAIN.

FORM DECK AROUND DRAIN PIPE CASTING TO ALLOW SUFFICIENT CLEARANCE TO TIGHTEN FLANGE BOLTS.

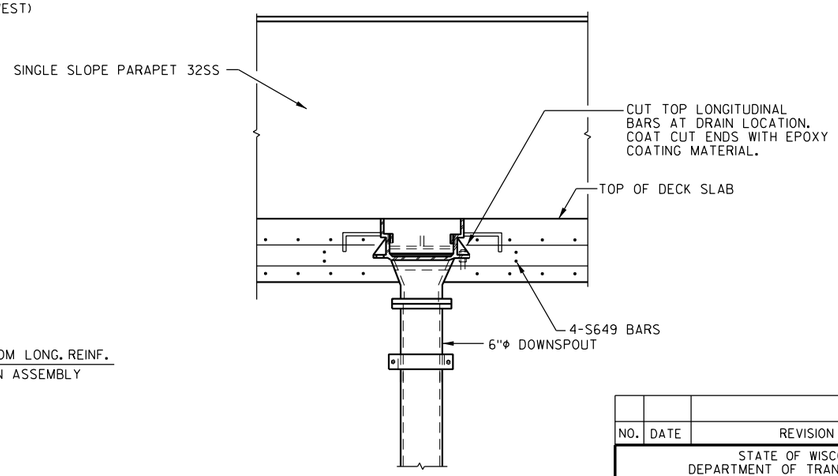
PAYMENT FOR 6"Φ DOWNSPOUT, FLEXIBLE CONNECTOR, DOWNSPOUT BRACKETS, AND ALL NECESSARY HARDWARE IS INCLUDED IN BID ITEM SPV.0090.705 "DOWNSPOUT RTRP 6-INCH."



PLAN



SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

FLOOR DRAIN DETAILS

SHEET 83 OF 91
972

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

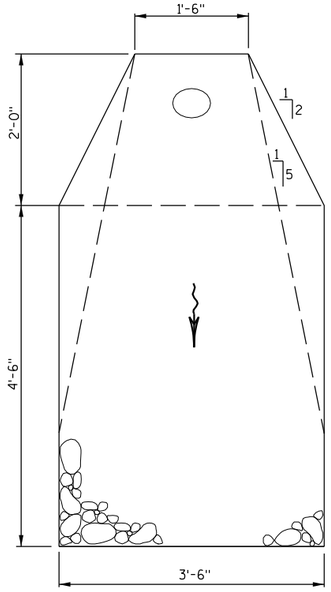
8

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-679\B5B-5-679x083_FLOOR_DRAIN01_V7.B-5-679.DGN

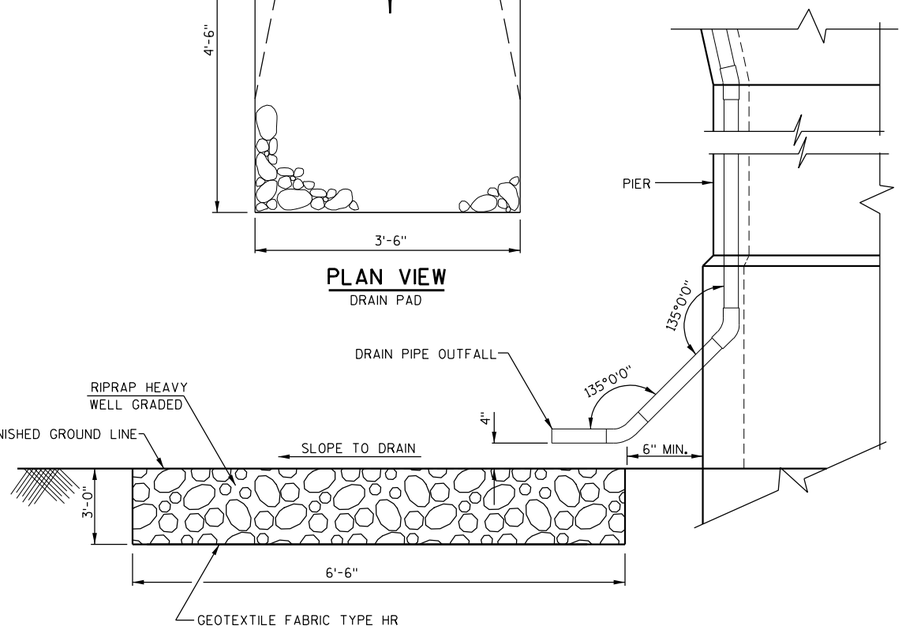
PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

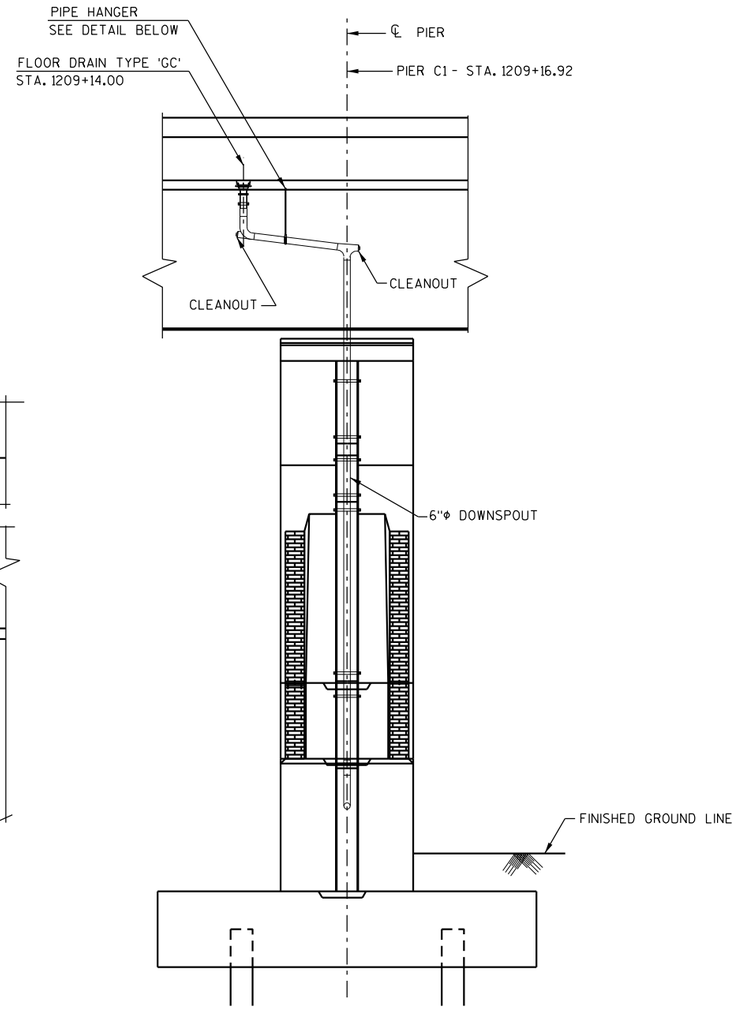
1133-11-74



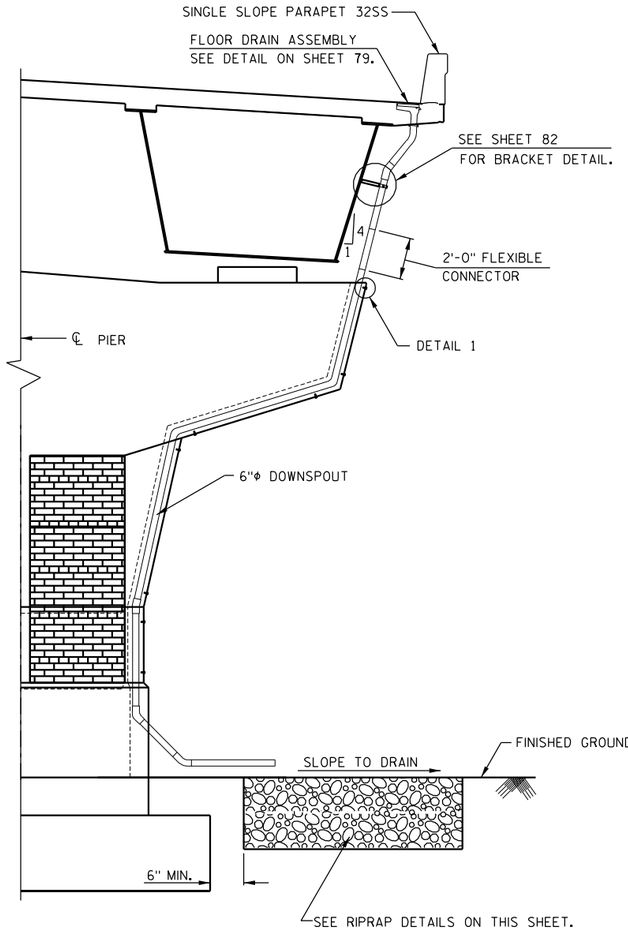
PLAN VIEW
DRAIN PAD



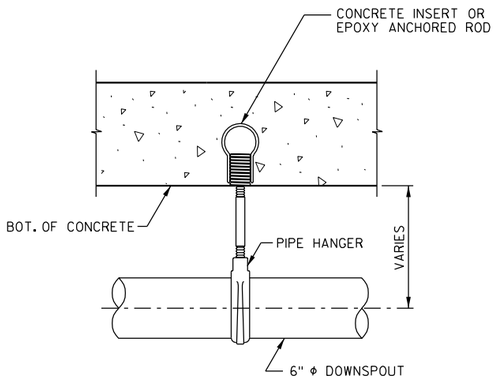
ELEVATION



ELEVATION AT EXPANSION DEVICE
(LOOKING WEST AT PIER C1)



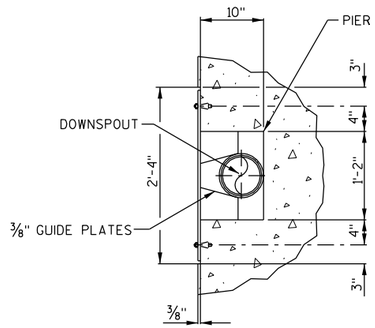
ELEVATION
(LOOKING UPSTATION)



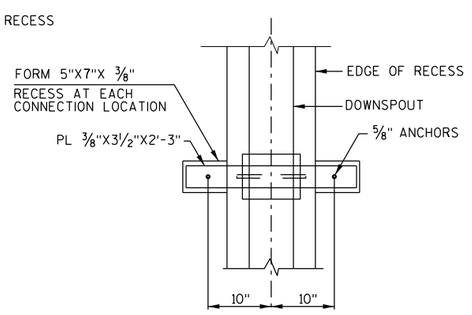
CONCRETE INSERT

NOTES

1. SEE SHEET "FLOOR DRAIN DETAILS" FOR DRAIN PIPE SPECIFICATIONS.
2. EXCAVATION INCIDENTAL TO ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-05-679".
3. VERIFY ALL DIMENSIONS PRIOR TO FABRICATING DOWNSPOUT.
4. ALL FLEXIBLE CONNECTORS, FITTINGS, ELBOWS, CLEANOUTS, HANGERS AND ALL CONNECTION AND INSTALLATION HARDWARE ARE CONSIDERED INCIDENTAL TO ITEM "DOWNSPOUT RTRP 6-INCH".
5. THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE DOWNSPOUT MAY BE ALTERED TO AVOID INTERFERENCE WITH THE GIRDER CROSS FRAME. MAINTAIN A 2% MINIMUM SLOPE AND TRANSITION TO STEEPER SLOPE AS SOON AS POSSIBLE.



PLAN



FRONT ELEVATION

DETAIL 1

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

FLOOR DRAIN DETAILS - 2

SHEET 84 OF 91
973

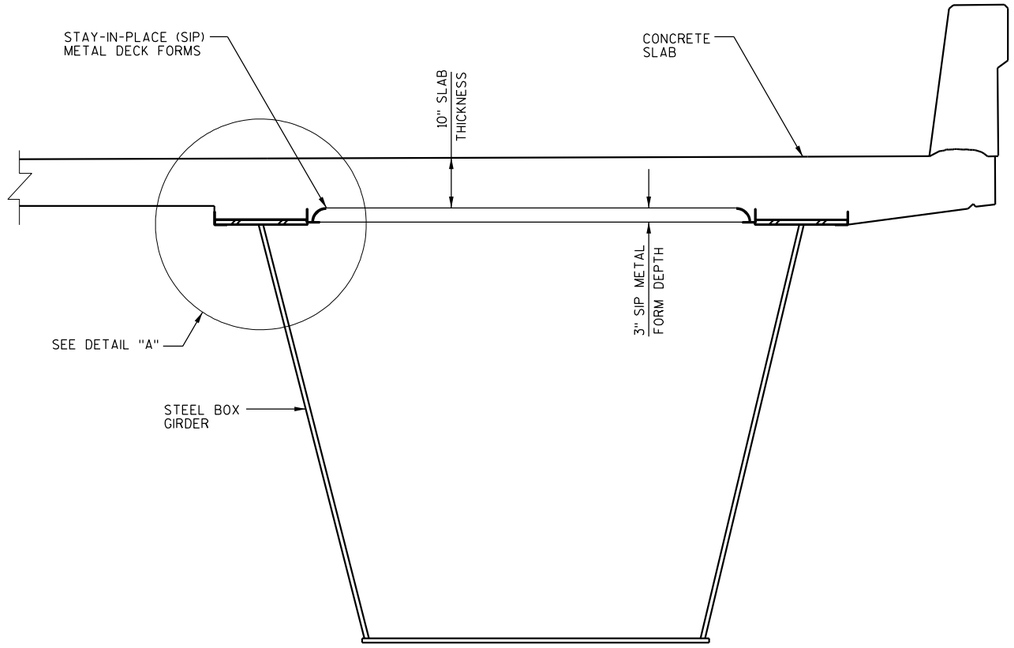
8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\084-FLOOR_DRAIN02.V7.B-5-679.DGN

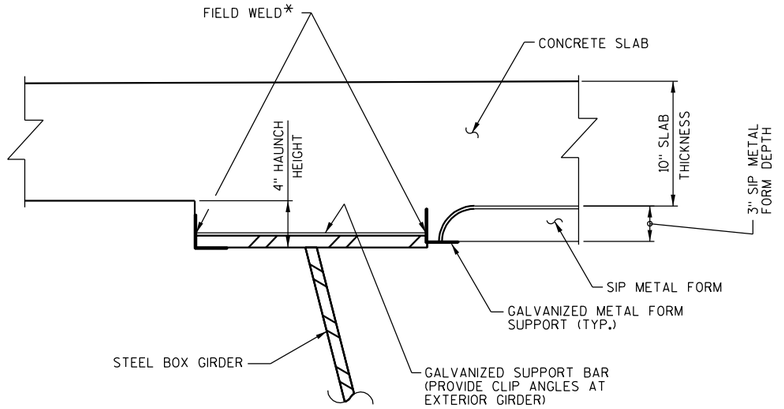
PLOT DATE : 4/26/2013

STATE PROJECT NUMBER
1133-11-74



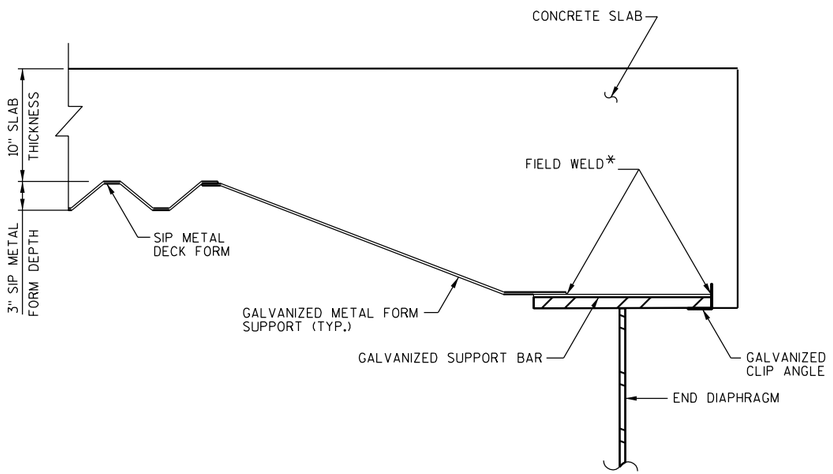
PARTIAL SECTION THROUGH SUPERSTRUCTURE

(SHOWING TYPICAL DETAILS AND NOTES FOR SIP METAL FORMS)



DETAIL "A"

* DO NOT WELD TO NOR PERMIT WELD SPATTER ON SUPPORTING STEEL GIRDER, DIAPHRAGMS, BRACING ETC. ELECTRICAL GROUNDING TO STRUCTURAL STEEL IS PROHIBITED. SEE SPECIFICATIONS FOR FIELD WELDING OF SIP FORMS IN PLACE AND PAINTING OF THE TOP FLANGE.



PARTIAL SECTION THROUGH END OF SPAN

(INTERIOR OF BOXES ONLY)

NOTES:

STAY-IN-PLACE (SIP) METAL DECK FORM DETAILS ARE SHOWN FOR REFERENCE ONLY. SIP FORMS ARE OPTIONAL. PAYMENT FOR SIP FORMS IS CONSIDERED INCLUDED IN THE CONTRACT UNIT BID PRICE FOR HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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DECK FORM DETAILS

SHEET 85 OF 91
974

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

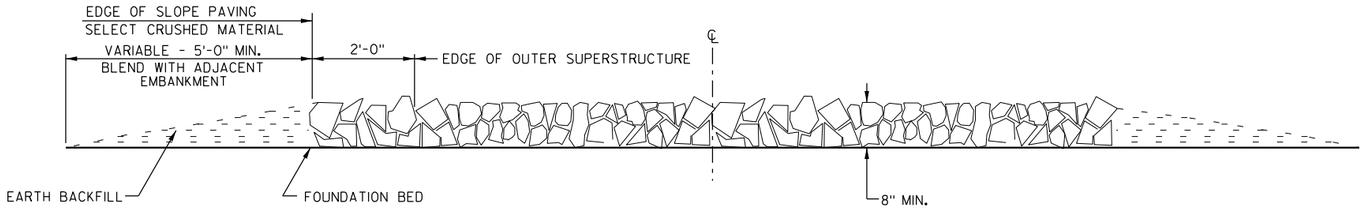
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\085_DECK_FORM_V17_B-5-679.DGN

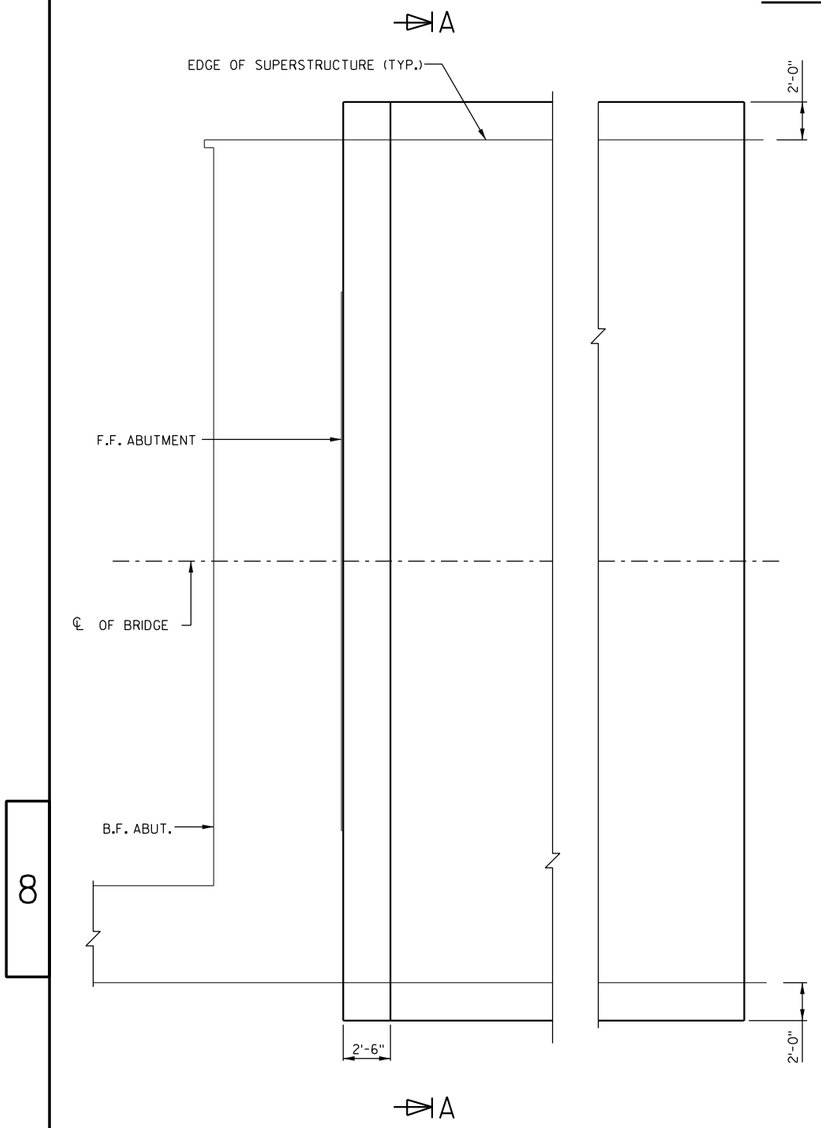
PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74

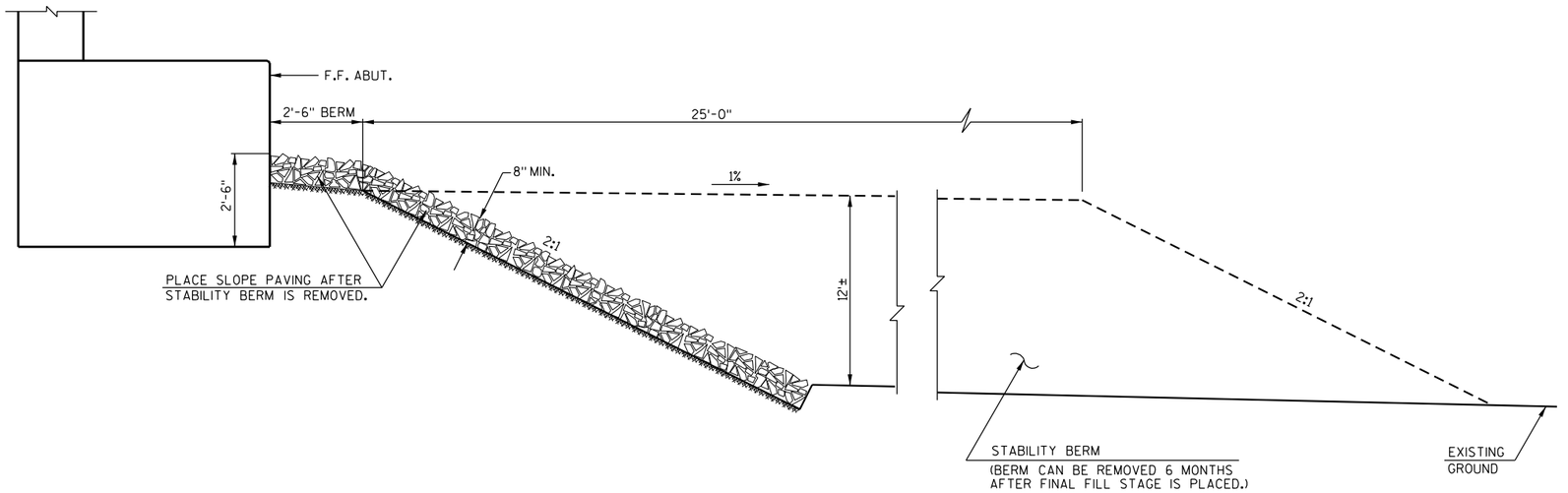


SECTION A-A



PLAN

(S. ABUTMENT - SHOWING LIMITS OF SLOPE PAVING)



TYPICAL SECTION

(SOUTH ABUTMENT)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

SLOPE PAVING SELECT CRUSHED MATERIAL

SHEET 86 OF 91
975

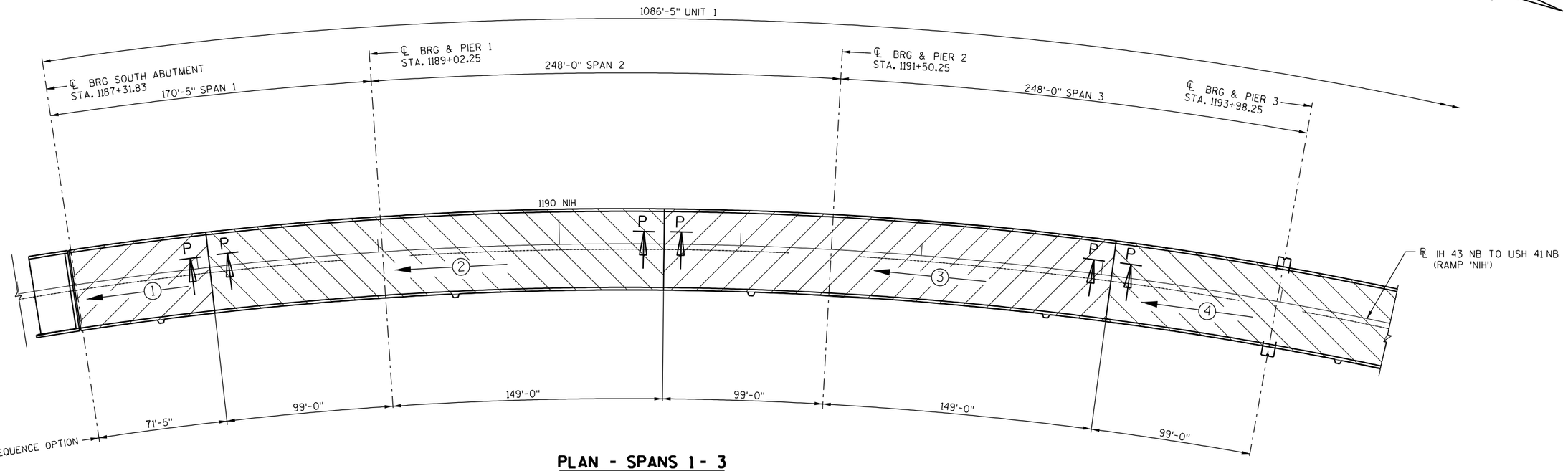
8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-679\t086_SLOPE_PAVING_V7.B-5-679.DGN

PLOT DATE : 5/30/2013

STATE PROJECT NUMBER
1133-11-74

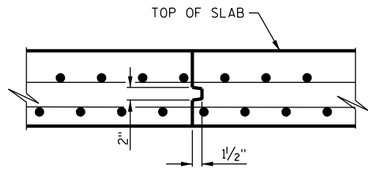


PLAN - SPANS 1 - 3

NOTES

(THESE NOTES APPLY TO ALL DECK POUR SEQUENCE SHEETS)

1. SEE SHEET 2 FOR GENERAL NOTES.
2. SEE SHEETS 58 THRU 63 FOR BLOCKOUTS AND OTHER DETAILS REQUIRED AT EXPANSION JOINT LOCATIONS.
3. DIMENSIONS ON THIS DRAWING ARE MEASURED ALONG THE ℄.
4. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING DECK POURS TO BEST SUIT THE MEANS AND METHODS AVAILABLE, SUBJECT TO THE FOLLOWING RESTRICTIONS.
5. CONTRACTOR MAY PLACE THE DECK CONTINUOUSLY FROM EITHER END OF THE STRUCTURE. IF MORE THAN ONE POUR IS REQUIRED, BULKHEADS BETWEEN POURS SHALL BE POSITIONED AT THE LOCATIONS IDENTIFIED ON THIS PLAN - SEE LEGEND.
6. CONTROL POUR SEQUENCE AND PLACEMENT RATE TO ENSURE THAT BEFORE THE CONCRETE IN ANY "PIER" AREA REACHED THE INITIAL SET CONDITION, THE CONCRETE IN BOTH ADJACENT "SPAN" AREAS IS ALREADY IN PLACE.
7. PREVENT UPLIFT AT ALL BEARING LOCATIONS. NOTE THAT ANY POUR SEQUENCE THAT REQUIRES POURING THE FIRST INTERIOR SPAN BEFORE THE ADJACENT END SPAN (SUCH AS THE END-TO-END SEQUENCES REFERRED TO ABOVE) WILL RESULT IN UPLIFT FORCES AT THE EXPANSION END BEARINGS. THE CONTRACTOR SHALL ACCOUNT FOR THIS CONDITION.
8. SEE SHEET "LIGHT STANDARD" FOR REINFORCEMENT DETAILS AT THE LIGHT STANDARDS.
9. DEPOSIT FRESH CONCRETE FIRST IN THE AREA BETWEEN THE GIRDERS FOLLOWED BY THE OVERHANG AREA TO THE INSIDE OF THE CURVE AND THEN BY THE OVERHANG AREA TO THE OUTSIDE OF THE CURVE.
10. CONTROL THE CONCRETE PLACEMENT TO ENSURE THAT THE FARTHEST PROGRESS OF FRESH CONCRETE VARIES BY NO MORE THAN 10 FEET ACROSS THE WIDTH OF THE DECK.
11. PREVIOUSLY PLACED DECK CONCRETE MUST HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE THE AREAS IMMEDIATELY ADJACENT MAY BE PLACED.
12. FOLLOW PROCEDURES OUTLINED IN THE SPECIAL PROVISIONS FOR PROMPTLY FOGGING, COVERING, AND CURING FRESHLY PLACED CONCRETE.
13. STAY-IN-PLACE METAL FORMS WILL ONLY BE PERMITTED INSIDE THE BOX GIRDERS - THE OVERHANGS AND THE ZONE BETWEEN THE GIRDERS SHALL USE CONVENTIONAL TEMPORARY FORMS.
14. THE USE OF STAY-IN-PLACE METAL FORMS IS OPTIONAL - CONVENTIONAL FORMWORK MAY BE USED INSIDE THE BOXES, BUT MUST BE COMPLETELY REMOVED.
15. DESIGN CONNECTION BETWEEN STAY-IN-PLACE METAL FORMS AND GIRDER FLANGES TO PROVIDE ADJUSTMENT OF VERTICAL POSITION BASED ON THE ACTUAL HAUNCH HEIGHT REQUIRED. WELDING TO THE GIRDER FLANGES WILL NOT BE ALLOWED.
16. ALL STEEL SHALL BE SECURED IN ITS PROPER PLACE AND ELEVATION PRIOR TO ANY CONCRETE PLACEMENT.
17. THE CONTRACTOR MAY SUBMIT ALTERNATE POUR SEQUENCE PLANS SUBJECT TO APPROVAL BY THE ENGINEER/BRIDGE OFFICE.



SECTION P-P

LEGEND

② IDENTIFIES POUR SEQUENCE NUMBER AND DIRECTION OF POUR.

✳ POUR SEQUENCE MAY BEGIN AT OPPOSITE END IN REVERSE DIRECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DECK POUR SEQUENCE UNIT 1 - SPANS 1-3

SHEET 87 OF 91
976

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

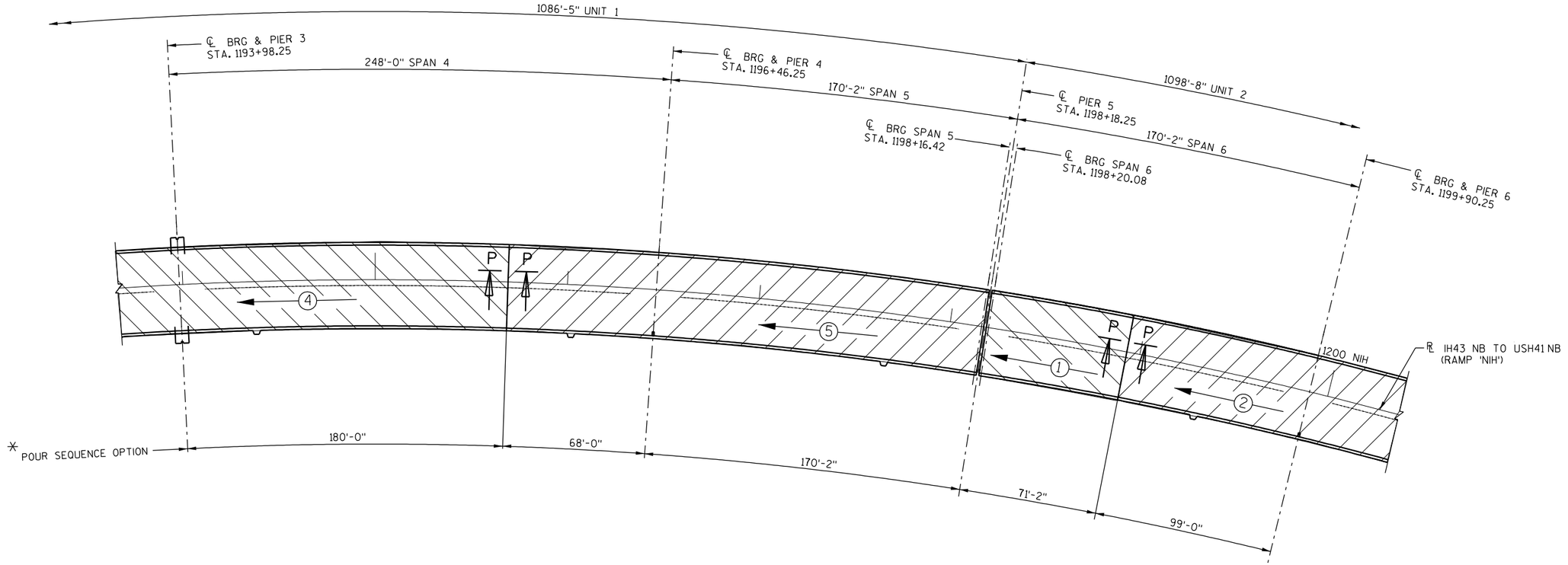
8

8

FILE NAME : P:\153 USH 41 1133-10-00 UPG\Structures\B-5-679\087_deck_pour_spans_1-3_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER
1133-11-74



PLAN - SPANS 4 - 6

NOTES

FOR "SECTION P-P" DETAIL, SEE SHEET 87.

LEGEND

* FOR SYMBOL DESCRIPTION, SEE SHEET 87.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

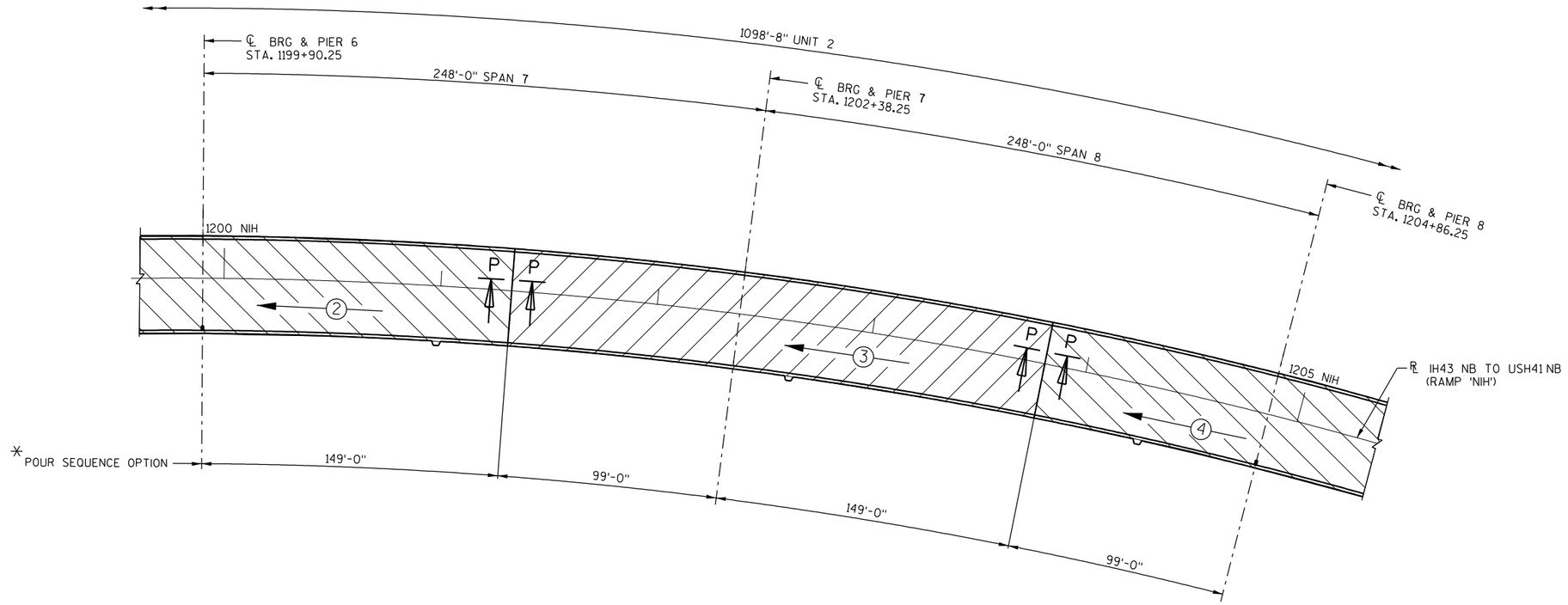
DRAWN BY TAW | PLANS CK'D. TR

DECK POUR SEQUENCE UNITS 1 & 2 - SPANS 4-6

SHEET 88 OF 91
977

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

STATE PROJECT NUMBER
1133-11-74



PLAN - SPANS 7 & 8

NOTES

FOR "SECTION P-P" DETAIL, SEE SHEET 87.

LEGEND

* FOR SYMBOL DESCRIPTION, SEE SHEET 87.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

DECK POUR SEQUENCE UNIT 2 - SPANS 7-8

SHEET 89 OF 91
978

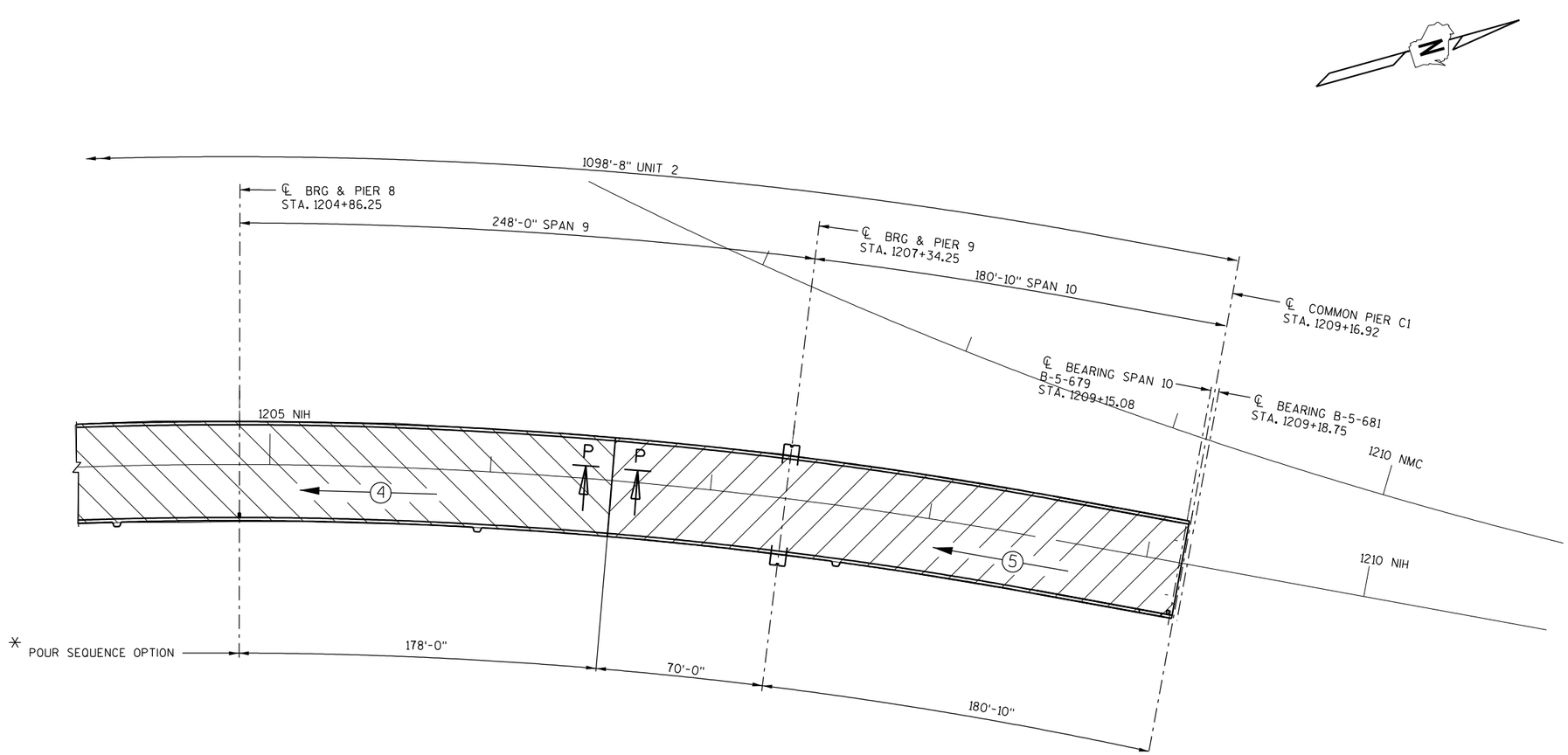
8

8

FILE NAME : P:\153 USH 41 1133-10-00 LRG\Structures\B-5-679\08_deck_pour_spans_7-8_v8_b-5-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER
1133-11-74



PLAN - SPANS 9 & 10

NOTES

FOR "SECTION P-P" DETAIL, SEE SHEET 87.

LEGEND

⚹ FOR SYMBOL DESCRIPTION, SEE SHEET 87.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY	TAW	PLANS CK'D.	TR

DECK POUR SEQUENCE UNIT 2 - SPANS 9-10

SHEET 90 OF 91
979

8

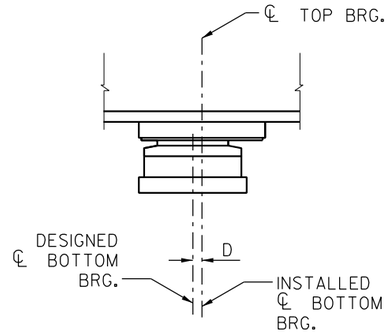
8

FILE NAME : P:\153 USH 41 1133-10-00 LRS\Structures\B-5-679\090_deck_pour_spans_9-10_v8_b-5-679.dgn

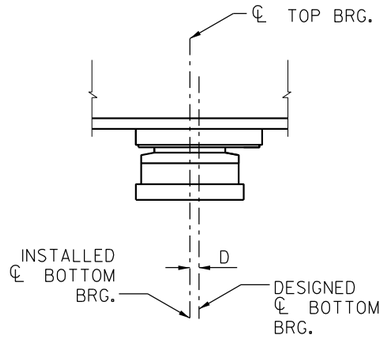
PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-74

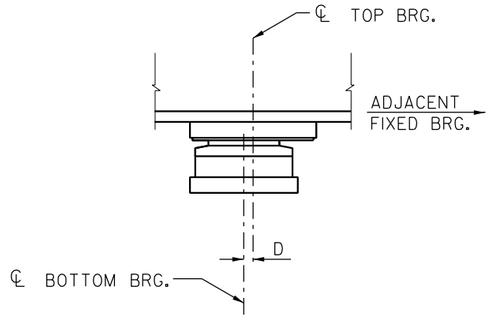


BELOW 60° F.
(MOVE ANCHOR BOLTS TOWARDS ADJACENT FIXED BRG.)

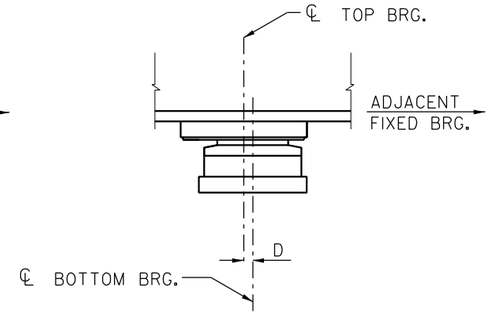


ABOVE 60° F.
(MOVE ANCHOR BOLTS AWAY FROM ADJACENT FIXED BRG.)

SETTING ANCHOR BOLTS AT FIXED BRG.



BELOW 60° F.
(MOVE BOTTOM BRG. AWAY FROM FIXED BRG.)



ABOVE 60° F.
(MOVE BOTTOM BRG. TOWARD FIXED BRG.)

SETTING ANCHOR BOLTS AT EXP. BRG.

LOCATION	BRG. TYPE	EXPANSION LENGTH FEET	"D" DIMENSION FOR EVERY 10° F. CHANGE FROM 60° F.
S. ABUTMENT	E	418.42	5/16"
PIER 1	E	248.00	3/16"
PIER 2	F	---	---
PIER 3	E	248.00	3/16"
PIER 4	E	496.00	3/8"
PIER 5 UNIT 1	E	663.00	1/2"
PIER 5 UNIT 2	E	663.00	1/2"
PIER 6	E	496.00	3/8"
PIER 7	E	248.00	3/16"
PIER 8	F	---	---
PIER 9	E	248.00	3/16"
PIER C1	E	428.83	5/16"

E = EXPANSION BRG.
F = FIXED BRG.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY TAW | PLANS CK'D. TR

BEARING DETAILS

SHEET 91 OF 91
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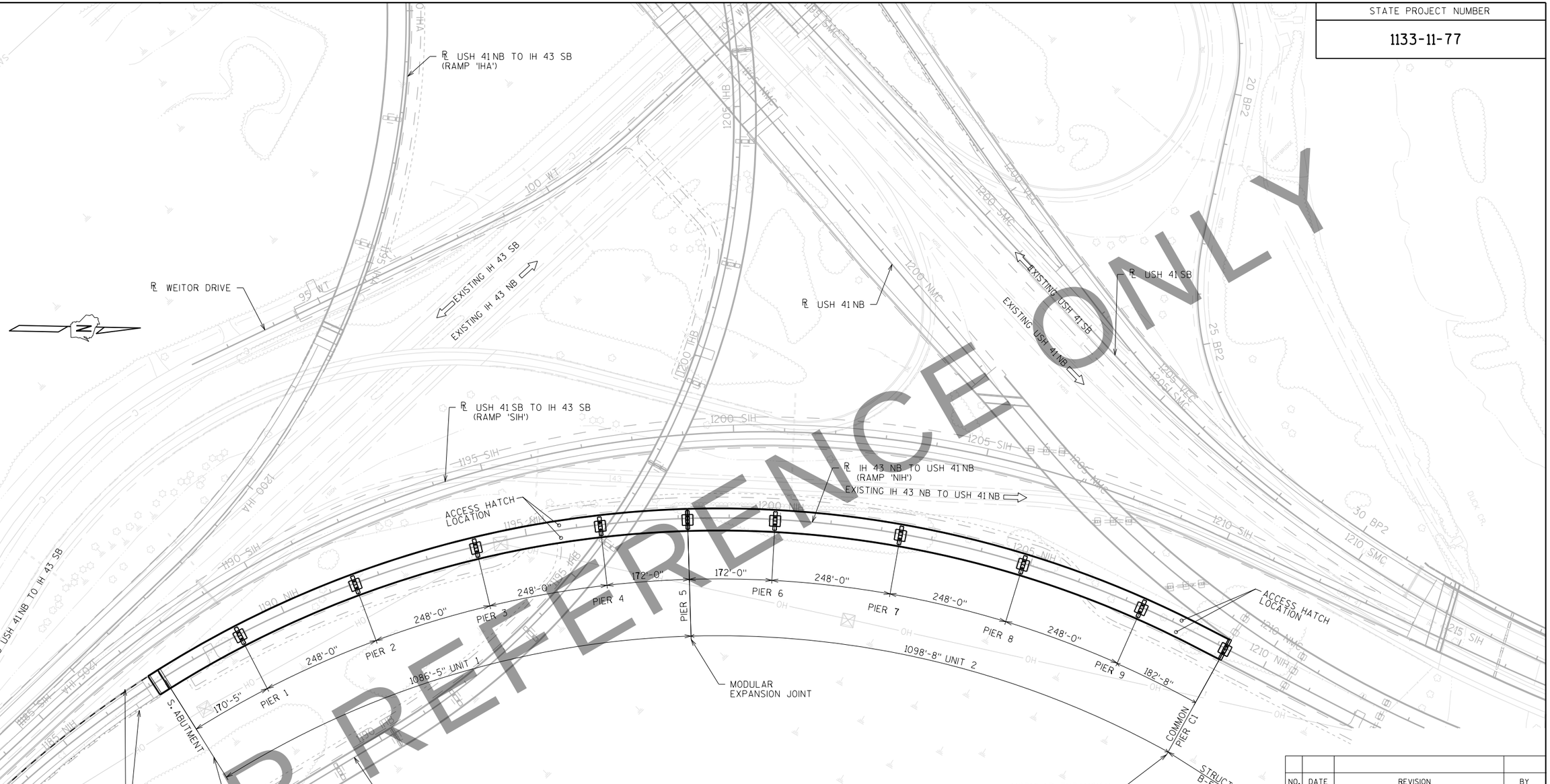
FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-679\091_bearing_detail_v8_b-6-679.dgn

PLOT DATE : 4/23/2013

STATE PROJECT NUMBER

1133-11-77



FOR REFERENCE ONLY

8

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

Narendra P. Patel
7-24-2012

NE REGION CONTACT - DANIELLE BLOCK (920) 492-2212
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - ROBERT FIELDBINDER (414) 831-4129

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

URS
6737 West Washington Street
Suite 2265
Milwaukee, WI 53214
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-679

IH 43 NB TO USH 41 NB (RAMP 'NIH')

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JRS	NPP	ZMG	NPP

SITE PLAN
B-5-679

SHEET 1 OF 51
981

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\001 - B-05-679E_Site Plan.dgn
DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

1133-11-77

LIST OF DRAWINGS

1. SITE PLAN B-5-679
2. DRAWING LIST, GENERAL NOTES, AND QUANTITIES
3. GENERAL PLAN AND ELEVATION - SPANS 1-3
4. GENERAL PLAN AND ELEVATION - SPANS 4-6
5. GENERAL PLAN AND ELEVATION - SPANS 7-8
6. GENERAL PLAN AND ELEVATION - SPANS 9-10
7. CROSS SECTION AT PIER
8. TYPICAL BOX GIRDER CROSS SECTION
9. ALIGNMENT AND SUPERELEVATION
10. BEARING LAYOUT UNIT 1
11. BEARING LAYOUT UNIT 2
12. BEARING DETAILS
13. JACKING PROVISIONS
14. FRAMING PLAN UNIT 1 SPANS 1 TO 5
15. FRAMING PLAN UNIT 2 SPANS 6 TO 10
16. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 1
17. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 2
18. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 3
19. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 4
20. GIRDER PLAN AND ELEVATION UNIT 1 SPAN 5
21. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 6
22. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 7
23. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 8
24. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 9
25. GIRDER PLAN AND ELEVATION UNIT 2 SPAN 10
26. INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1
27. UNIT END DIAPHRAGMS XD2, XD3, D2, AND D3
28. INTERMEDIATE DIAPHRAGMS XD4 AND D4
29. MISCELLANEOUS DIAPHRAGM DETAILS
30. EXTERIOR CROSS FRAME DETAILS
31. INTERIOR CROSS FRAME K1 DETAILS
32. FIELD SPLICE DETAILS
33. BRACING CONNECTION DETAILS SHEET 1
34. BRACING CONNECTION DETAILS SHEET 2
35. MISCELLANEOUS GIRDER DETAILS SHEET 1
36. MISCELLANEOUS GIRDER DETAILS SHEET 2
37. MISCELLANEOUS GIRDER DETAILS SHEET 3
38. ACCESS HATCH DETAILS
39. ACCESS DOOR DETAILS
40. SUPERSTRUCTURE DETAILS
41. CAMBER DIAGRAM UNIT 1
42. CAMBER DIAGRAM UNIT 2
43. CAMBER DATA FIELD SECTION 1 AND 2
44. CAMBER DATA FIELD SECTION 3 AND 4
45. CAMBER DATA FIELD SECTION 5 AND 6
46. CAMBER DATA FIELD SECTION 7 AND 8
47. CAMBER DATA FIELD SECTION 9 AND 10
48. CAMBER DATA FIELD SECTION 11 AND 12
49. CAMBER DATA FIELD SECTION 13 AND 14
50. CAMBER DATA FIELD SECTION 15 AND 16
51. CAMBER DATA FIELD SECTION 17 AND 18

GENERAL NOTES

DO NOT SCALE THE DRAWINGS.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1988 (1991).

GIRDERS AND OTHER ELEMENTS OF THE STRUCTURE ARE REFERRED TO AS 'LEFT' AND 'RIGHT'. THESE ORIENTATIONS ARE WITH RESPECT TO THE REFERENCE LINE WHEN LOOKING IN THE DIRECTION OF INCREASING STATION.

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THIS CONTRACT INCLUDES FABRICATING, FURNISHING, STORING AND DELIVERING STRUCTURAL STEEL AND BEARINGS AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

STRUCTURAL STEEL

ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS, BOX GIRDER FLANGE AND WEB SPLICE PLATES, EXTERNAL AND INTERNAL DIAPHRAGMS FOR BOX GIRDERS, AND ALL OTHER STEEL PLATE COMPONENTS WELDED TO ANY OF THESE ELEMENTS SHALL BE HIGH STRENGTH ASTM A709 (AASHTO M270) GRADE HPS 50W (FY=50 KSI). 2-WAY BEVELED JACKING PADS SHALL BE A709-50W (FCM). ALL OTHER STEEL SHALL BE IN ACCORDANCE WITH ASTM A709 GRADE 50 (FY=50 KSI).

ALL STRUCTURAL STEEL PLATE FOR BOX GIRDER FLANGES AND WEBS IN TENSION ZONES AS SHOWN ON THE PLANS AND ALL ASSOCIATED SPLICE PLATES, ALL TRANSVERSE WEB STIFFENERS AND CONNECTION PLATES, AND ALL STEEL PLATE ELEMENTS OF EXTERNAL AND INTERNAL DIAPHRAGMS FOR BOX GIRDERS SHALL MEET THE FRACTURE CRITICAL TENSION COMPONENT IMPACT TEST REQUIREMENTS FOR HPS 50WF/HPS 345WF OF TABLE 10 OF ASTM A709/A709M-05 FOR ZONE 2.

ALL WELDING PERFORMED IN TENSION ZONES SHOWN ON THE PLANS FOR BOX GIRDER WEB AND FLANGE ELEMENTS, INCLUDING ATTACHING TRANSVERSE WEB STIFFENER AND CONNECTION PLATES, AND ALL WELDING PERFORMED FOR ALL ELEMENTS OF EXTERNAL AND INTERNAL STEEL PLATE DIAPHRAGMS FOR BOX GIRDERS SHALL BE PERFORMED, TESTED, AND INSPECTED IN ACCORDANCE WITH REQUIREMENTS FOR FABRICATION OF FRACTURE CRITICAL MEMBERS.

CHARPY V-NOTCH TOUGHNESS REQUIREMENTS FOR ALL STEEL SHALL CONFORM TO THE REQUIREMENTS FOR ZONE 2.

ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO/AWS D1.5 BRIDGE WELDING CODE.

USE WELD MATERIAL WITH A TENSILE STRENGTH AT LEAST 20 KSI GREATER THAN THE YIELD STRENGTH OF THE STEEL BEING WELDED. NON-WEATHERING CONSUMABLES MAY BE USED FOR SINGLE-PASS FILLET WELDS.

FABRICATE BEARING ASSEMBLIES FROM ASTM A709 GRADE 50W MATERIAL (FY=50 KSI).

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

ALL BOLTS SHALL BE ASTM A325 TYPE 1, BOLTS SHALL BE 7/8" DIAMETER UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE STANDARD DIAMETER. NO OVERSIZE HOLES WILL BE PERMITTED WITHOUT PRIOR APPROVAL. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS. DESIGN ASSUMED SURFACE CLASS A.

PAINT ALL STRUCTURAL STEEL, INCLUDING SURFACES AND BRACING MEMBERS ON THE INSIDE OF THE BOX GIRDERS, IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE COMPRESSIVE STRENGTH OF THE BEARING PEDESTAL AND PIER CONCRETE IS 4000 PSI.

MINIMUM FILLET WELD SIZE:

THICKNESS OF THICKER PART JOINED	MINIMUM WELD SIZE
T <= 1/2"	3/16"
1/2" < T <= 3/4"	1/4"
3/4" < T <= 1 1/2"	5/16"
1 1/2" < T <= 2 1/4"	3/8"
T > 2 1/4"	1/2"

MINIMUM WELD SIZES SHOWN SHALL BE USED WHEN A SIZE IS NOT OTHERWISE SPECIFIED OR SHOWN.

WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART BEING JOINED.

FOR ALL WELDS 5/16" OR LARGER THE MINIMUM PASS SIZE SHALL BE 5/16".

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIM REVISIONS, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

DESIGN LIVE LOAD

DESIGN LOADING: HL-93

INVENTORY RATING FACTOR: RF = 1.28

OPERATING RATING FACTOR: RF = 1.66

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

OTHER DESIGN LOADS

PROFILE GRADE LINE AND TOP OF DECK ELEVATIONS ARE TO THE TOP OF THE 10" DECK THICKNESS. THE 10" DECK THICKNESS INCLUDES A 1/2" INTEGRAL WEARING SURFACE, BUT DOES NOT INCLUDE AN ADDITIONAL EPOXY OVERLAY THAT WILL BE PROVIDED AFTER POURING OF THE DECK.
THE STRUCTURE IS DESIGNED FOR THE WEIGHT OF THE 10" THICKNESS OF CONCRETE PLUS 3/8" THICKNESS OF EPOXY OVERLAY.
UNIT WEIGHTS ASSUMED FOR DESIGN WERE 150 PCF FOR CONCRETE AND 3 PSF FOR 3/8" EPOXY OVERLAY.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 90°F.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

DESIGN ASSUMED A WEIGHT PER GIRDER OF 10 PSF FOR STAY-IN-PLACE METAL FORMS INSIDE EACH GIRDER ONLY AND 13.5 PSF FOR CONCRETE WITHIN THE RIBS OF THESE FORMS.

DESIGN ASSUMED 7.5 PSF FOR TEMPORARY FORMWORK IN ADDITION TO STAY-IN-PLACE FORMS.

PARAPETS WERE ASSUMED TO WEIGH 563 PLF AND 464 PLF FOR "42SS" AND "32SS" SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	UNIT 1 QUANTITY	UNIT 2 QUANTITY	TOTAL
SPV.0060.01	BEARING HIGH-LOAD MULTI-ROTATIONAL FIXED B-5-679	EACH	2	2	4
SPV.0060.02	BEARING HIGH-LOAD MULTI-ROTATIONAL UNI-DIRECTIONAL B-5-679	EACH	10	10	20
SPV.0085.01	FABRICATED STRUCTURAL STEEL HPS 50W B-5-679	LB	2,775,100	2,796,600	5,571,700
SPV.0085.02	FABRICATED STRUCTURAL STEEL HS B-5-679	LB	228,100	228,600	456,700
SPV.0105.01	PAINTING POLYSILOXANE SYSTEM B-5-679	LS	-	-	1

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FOR REFERENCE ONLY

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

Narendra P. Patel
7-24-2012

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1		REVISED STEEL QUANTITIES	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY: KZ | PLANS CK'D.: NPP

DRAWING LIST, GENERAL NOTES, & QUANTITIES

SHEET 2 OF 51

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DATE: 4/3/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E\0

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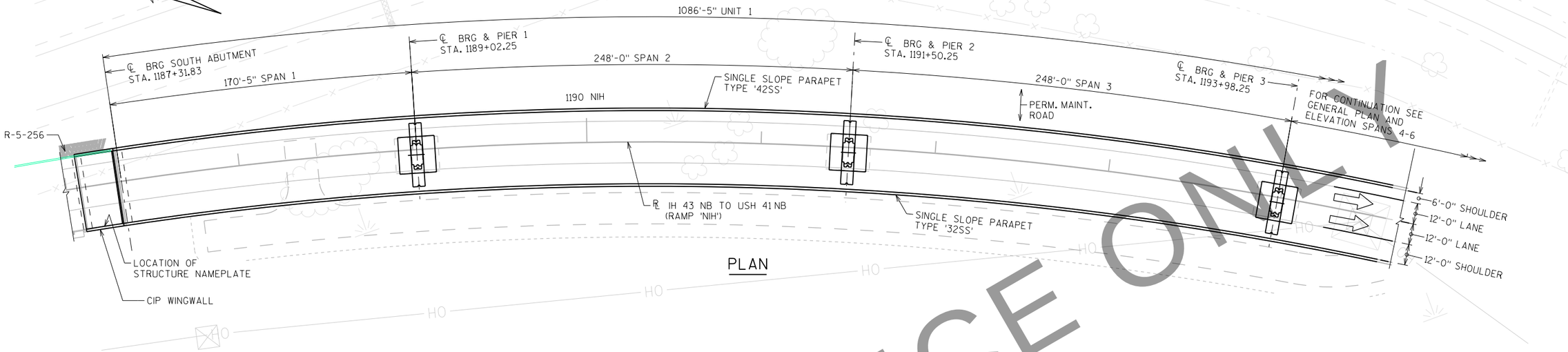
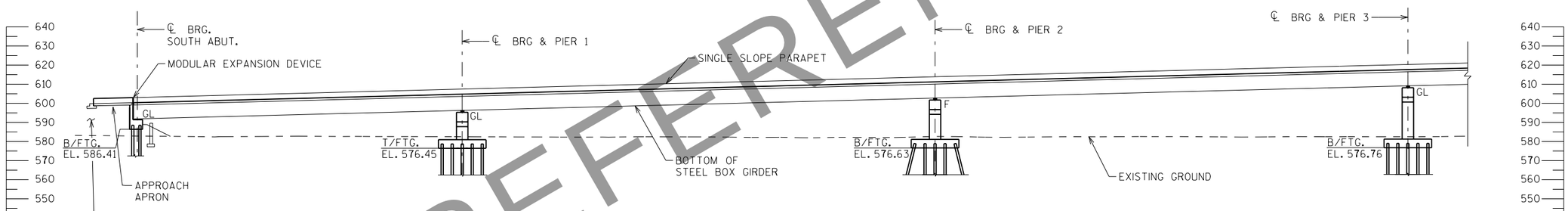
STATE PROJECT NUMBER
1133-11-77



PLAN



ELEVATION

(ALONG ℄ LOOKING SOUTHWEST)

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 778	RR SPIKE IN DECIDUOUS TREE	586.61

DESIGN DATA

ULTIMATE DESIGN STRESSES;

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB---------- f'c = 4,000 P.S.I.
ALL OTHER---------- f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60---------- fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL,---------- fy = 50,000 P.S.I.
(ASTM A709, GRADE 50, HPS50W)

STRUCTURE TYPE

5-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 1
5-SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE UNIT 2

FOUNDATION DATA

SOUTH ABUTMENT TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

PIERS 1 THROUGH PIER 10 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

TRAFFIC VOLUME:

RAMP NIH	RAMP IHB
ADT (2015) = 8,600	ADT (2015) = 13,500
ADT (2035) = 10,200	ADT (2035) = 14,000
R.D.S. = 70 M.P.H.	R.D.S. = 60-70 M.P.H.

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄.

DIMENSIONS SHOWN ARE ALONG ℄.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

△ VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY.

FLOOR DRAIN AND LIGHT POLE LOCATIONS ARE NOT YET DETERMINED.

GUIDED LONGITUDINAL BEARINGS WILL BE ALIGNED PARALLEL WITH ℄.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 1-3

SHEET 3 OF 51

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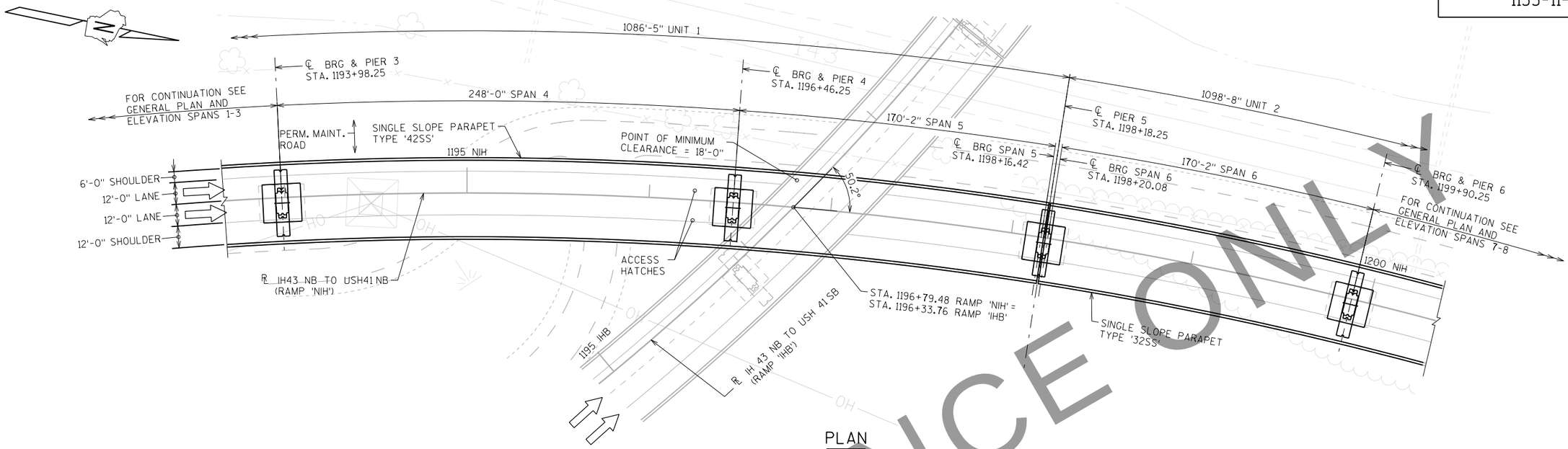
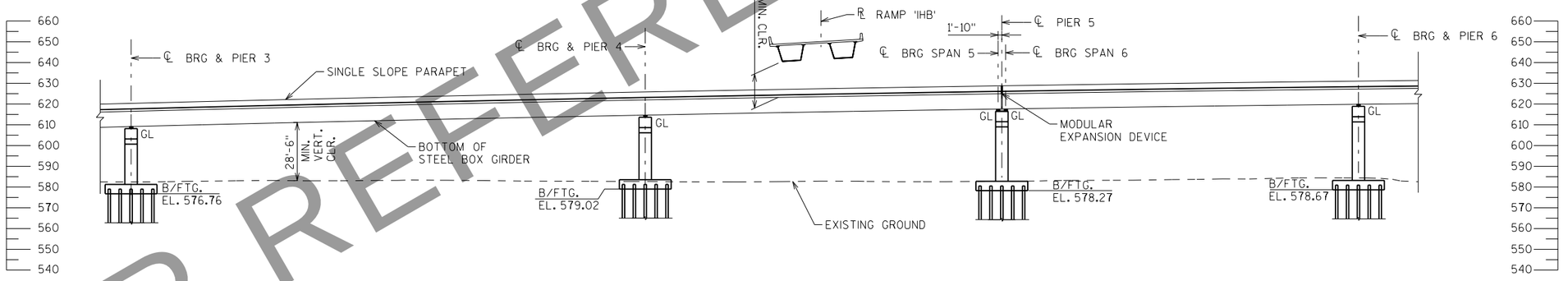
DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

1133-11-77



PLAN



ELEVATION

(ALONG ℟ LOOKING SOUTHWEST)

FOR REFERENCE ONLY

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN & ELEVATION SPANS 1-3"

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 4-6

SHEET 4 OF 51

984

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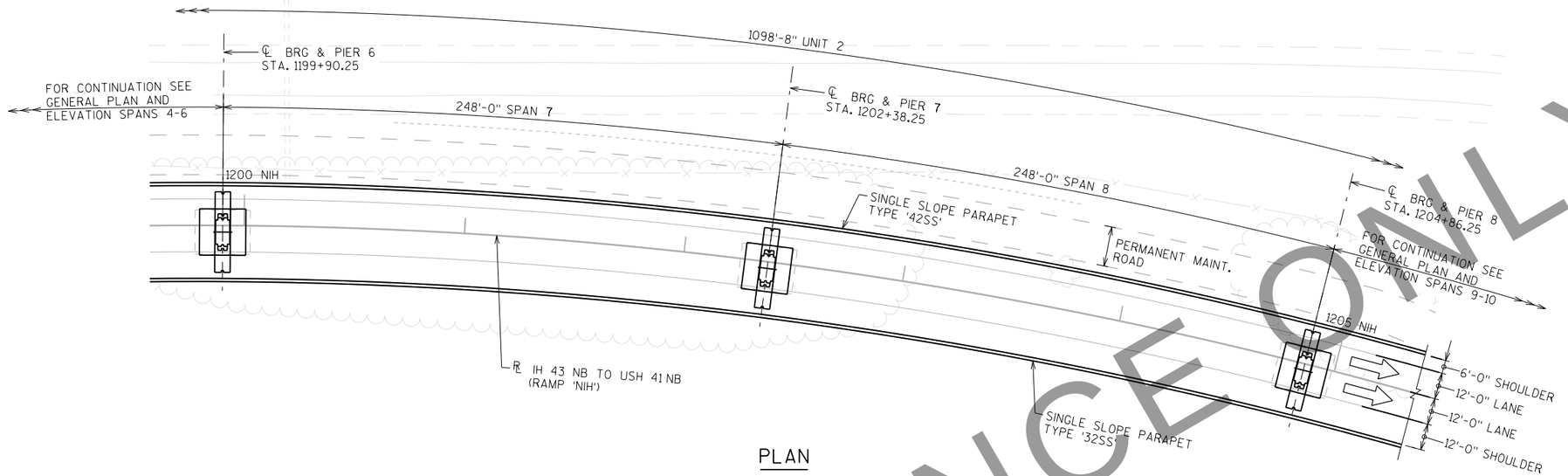
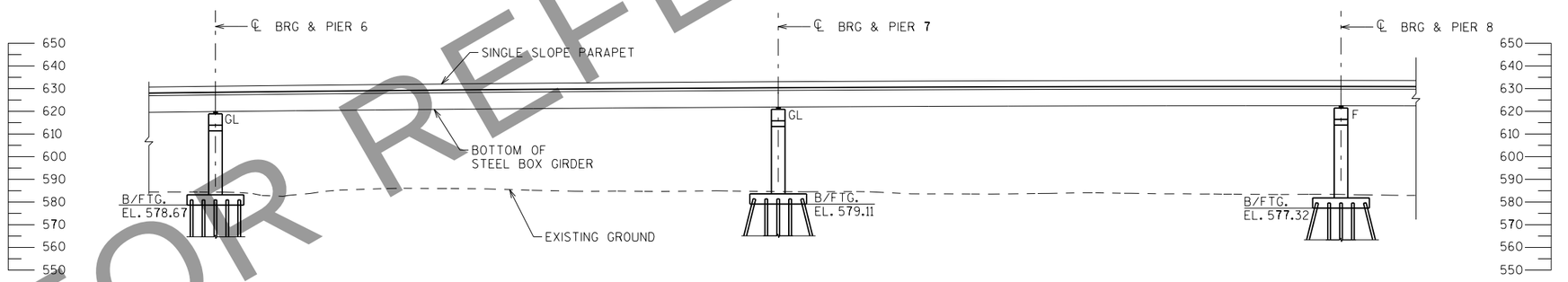
DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER
1133-11-77



PLAN



ELEVATION
(ALONG ℄ LOOKING WEST)

FOR REFERENCE ONLY

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-3"

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 7-8

SHEET 5 OF 51

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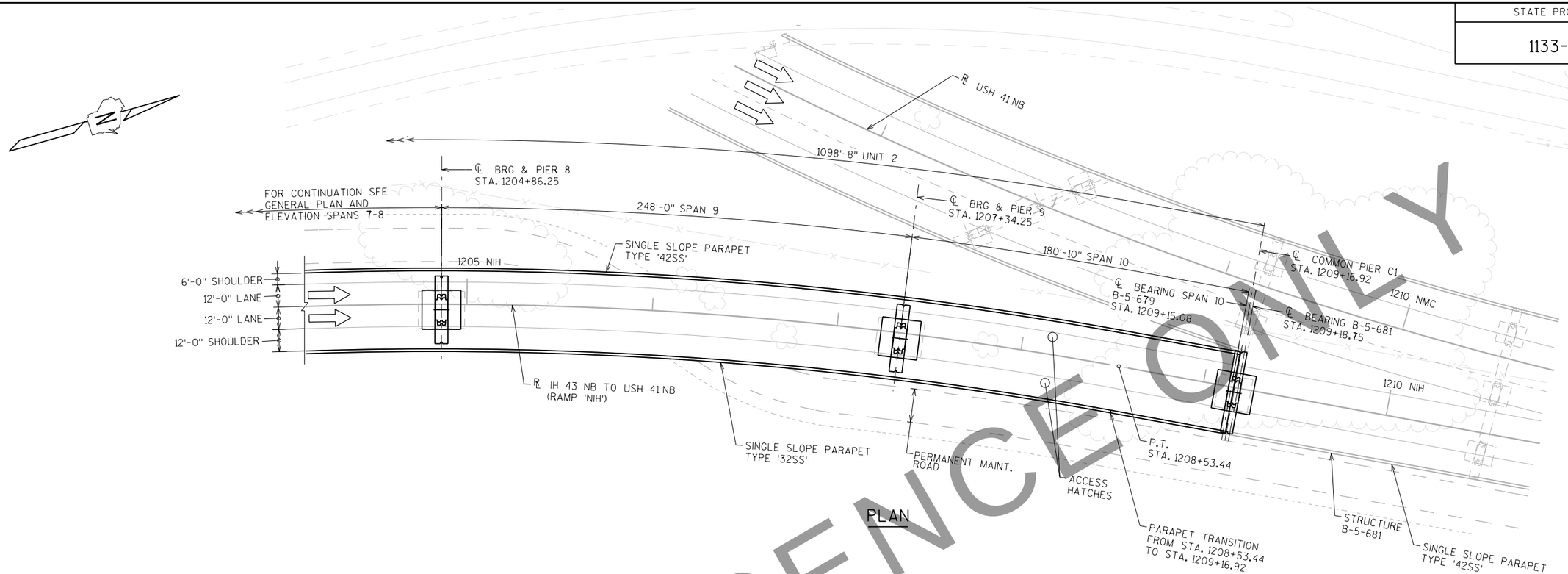
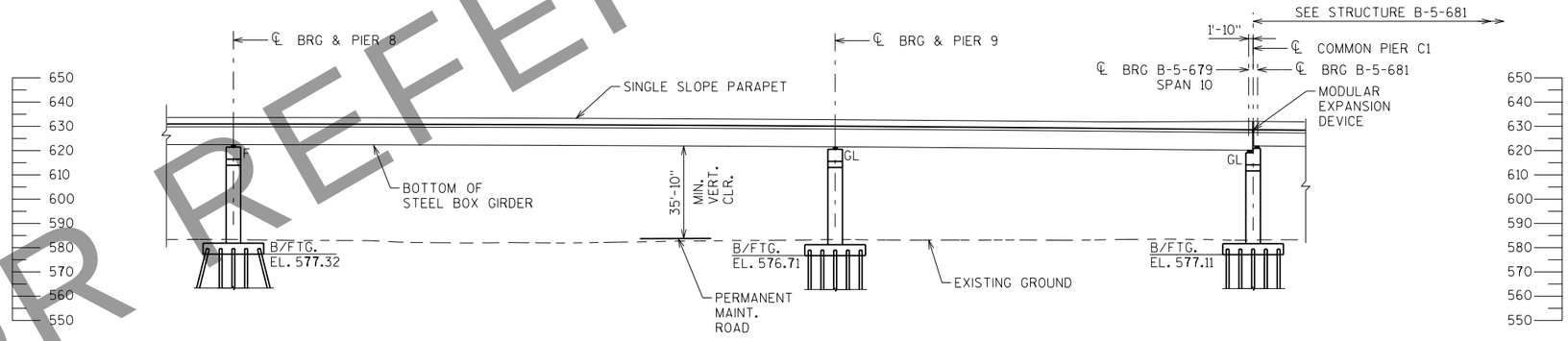
DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER
1133-11-77



PLAN



ELEVATION

(ALONG ℄ LOOKING WEST)

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN & ELEVATION SPANS 1-3"

LEGEND

F- FIXED BEARING
GL - GUIDED LONGITUDINAL UNIDIRECTIONAL BEARING

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY	ZMG	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION SPANS 9-10

SHEET 6 OF 51

986

FOR REFERENCE ONLY

8

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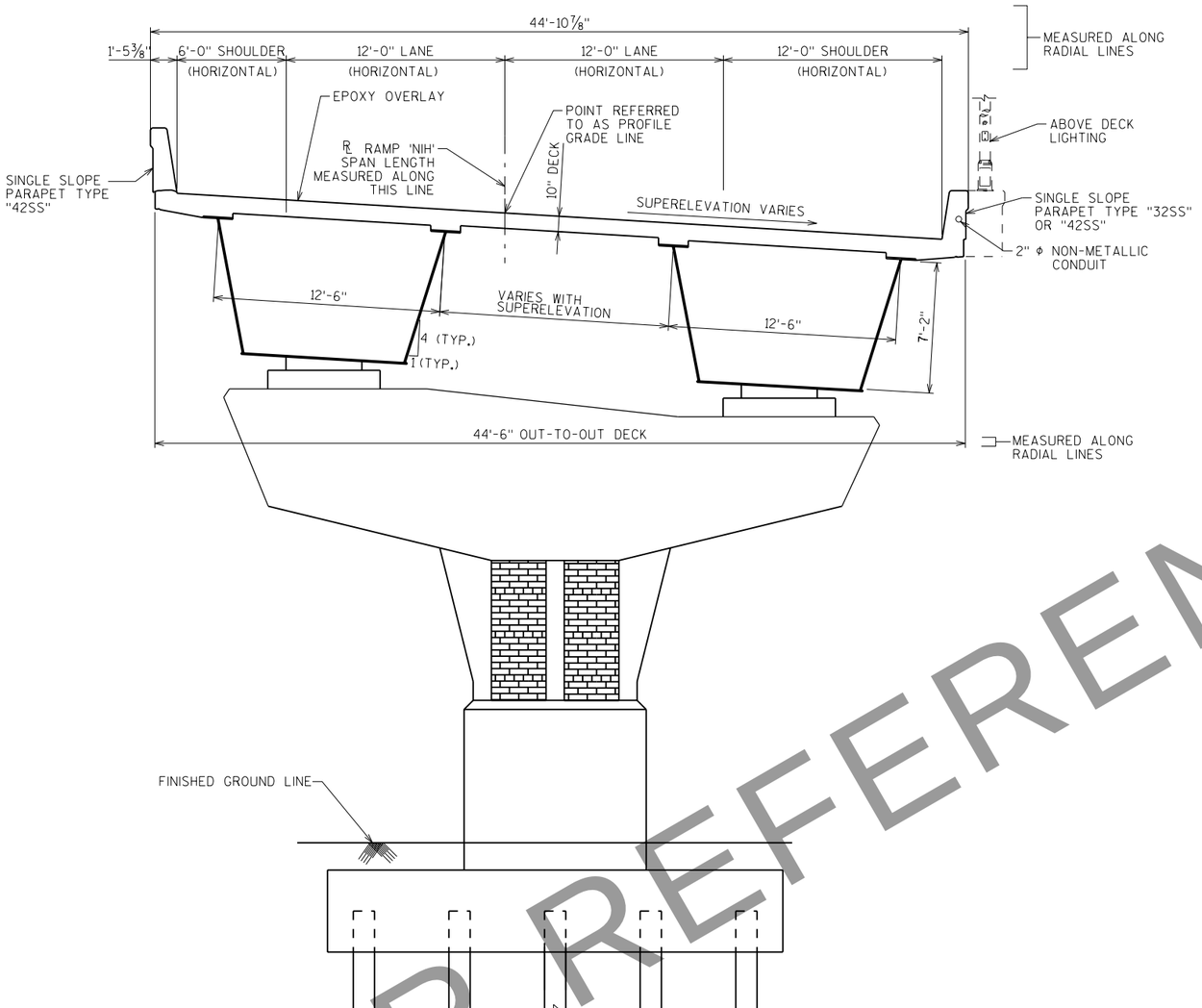
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E_Plan and Elevation - Spans 9-10.dgn

DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER
1133-11-77



TYPICAL CROSS SECTION

(LOOKING UPSTATION)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS, AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR STANDARDS FOR FLYOVER STRUCTURES.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

CROSS SECTION AT PIER

SHEET 7 OF 51

987

STEEL FABRICATION CONTRACT ONLY

8

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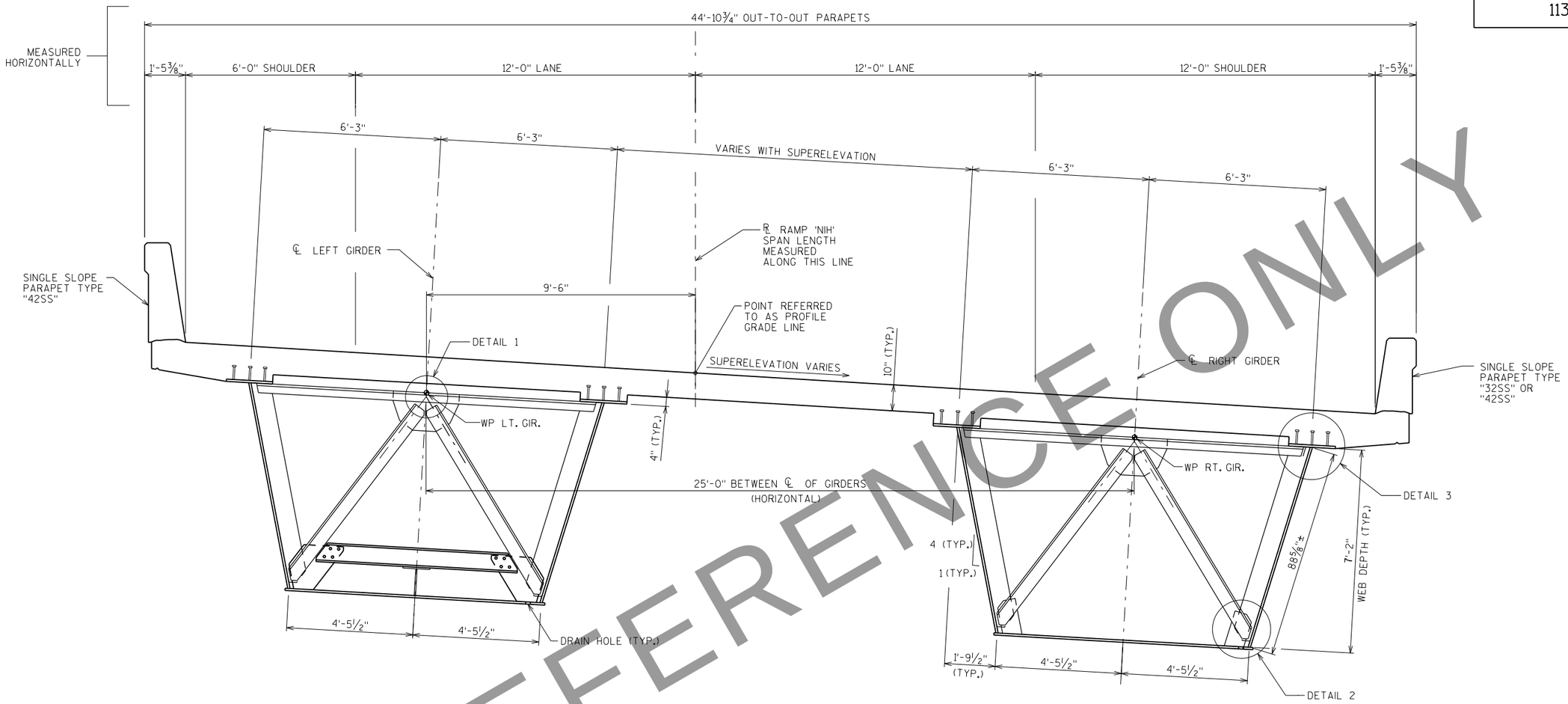
FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E\007 - B-05-679E_Cross Section at Pier.dgn

DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER

1133-11-77

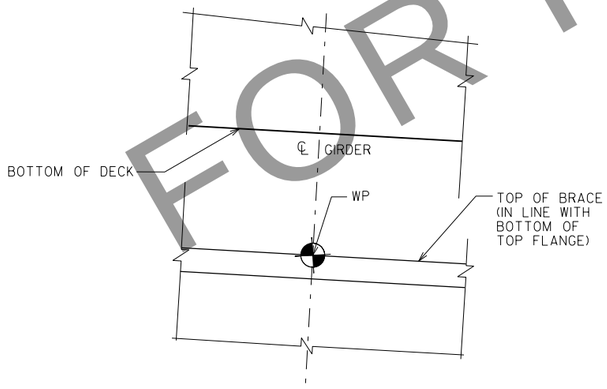


(SHOWING CROSS FRAMES AT LOCATIONS WITH LONGITUDINAL STIFFENER)

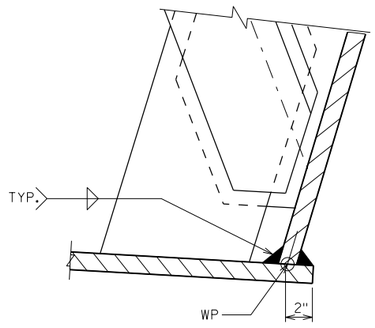
(SHOWING CROSS FRAMES AT LOCATIONS WITHOUT LONGITUDINAL STIFFENER)

TYPICAL BOX GIRDER CROSS SECTION

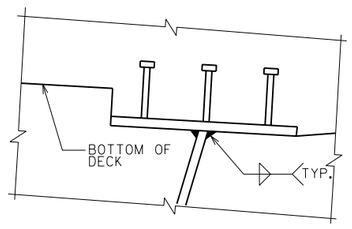
(LOOKING UPSTATION)



DETAIL 1



DETAIL 2



DETAIL 3

(LATERAL BRACING NOT SHOWN FOR CLARITY)

NOTES:

WP = WORK POINT TO WHICH DIMENSIONS ARE MEASURED.

STAY-IN-PLACE METAL FORMS PERMITTED INSIDE BOX GIRDERS ONLY.

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS, AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR STANDARDS FOR FLYOVER STRUCTURES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

TYPICAL BOX GIRDER CROSS SECTION

SHEET 8 OF 51

988

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

8

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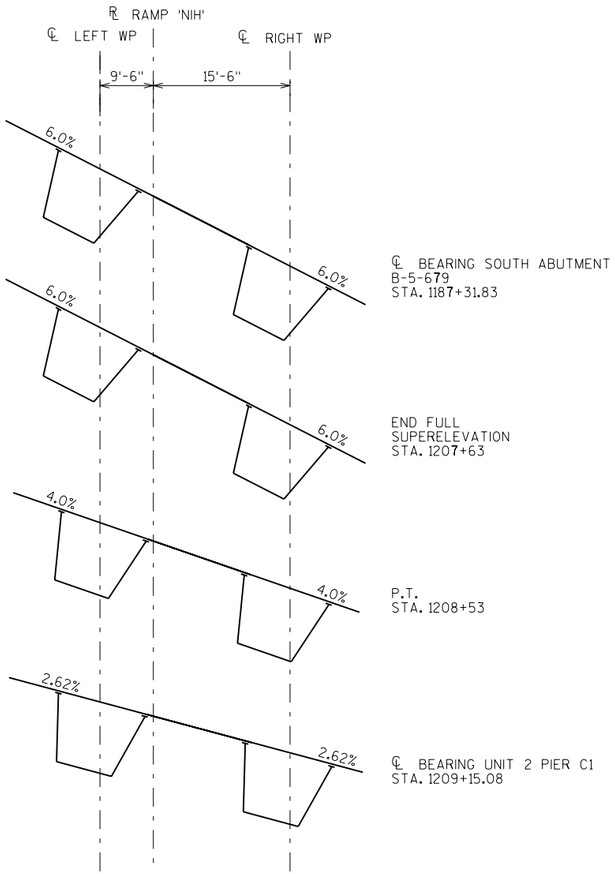
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\008 - B-05-679E - Typical Cross Section.dgn

DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER
1133-11-77



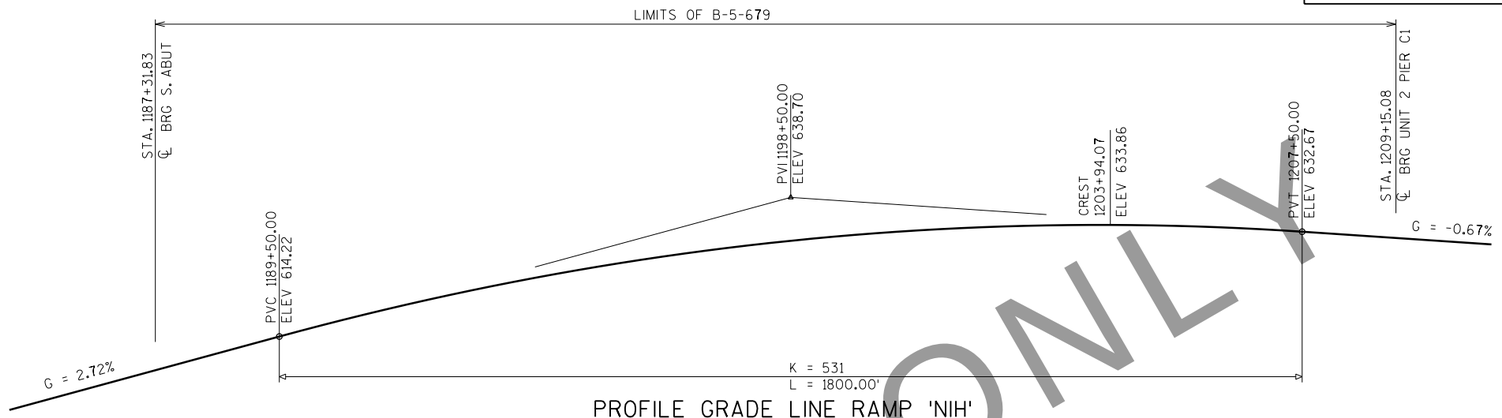
℄ BEARING SOUTH ABUTMENT
B-5-679
STA. 1187+31.83

END FULL
SUPERELEVATION
STA. 1207+63

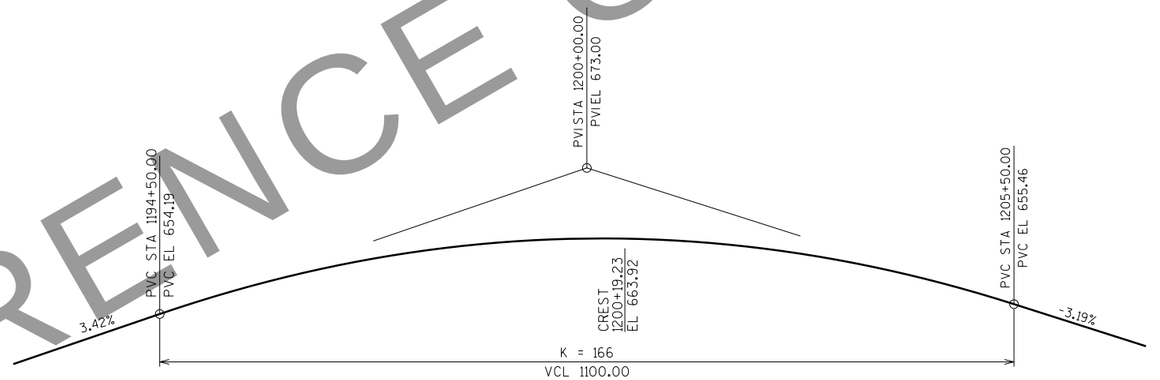
P.T.
STA. 1208+53

℄ BEARING UNIT 2 PIER C1
STA. 1209+15.08

DECK SLOPE TRANSITION



PROFILE GRADE LINE RAMP 'NIH'

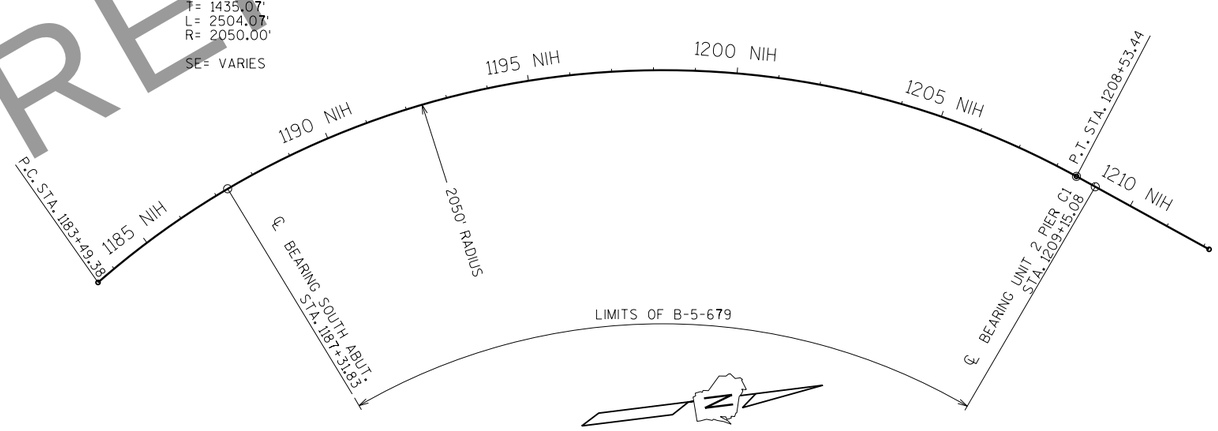


PROFILE GRADE LINE RAMP 'IHB'

IH 43 NB TO USH 41 NB
RAMP 'NIH'
HORIZONTAL CURVE DATA

P.I. STA.= 1197+84.44
N= 583666.47
E= 901111.04
P.C. STA.= 1183+49.38
P.T. STA.= 1208+53.44
△= 69°59'11"
D= 2°47'42"
T= 1435.07'
L= 2504.07'
R= 2050.00'

SE= VARIES



HORIZONTAL ALIGNMENT IH 43 NB TO USH 41 NB (RAMP 'NIH')

NOTES:

STEEL GIRDER FLANGES ALWAYS PARALLEL TO DECK ABOVE.

THEORETICAL HAUNCH HEIGHT IS CONSTANT AT 4"

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY	ZMG	PLANS CK'D.	NPP

ALIGNMENT AND SUPERELEVATION

SHEET 9 OF 51

989

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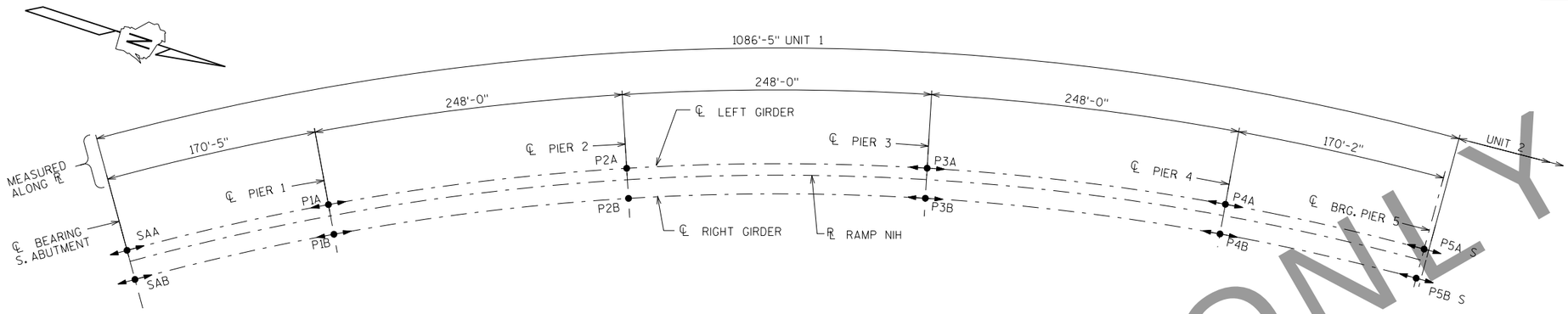
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\D05-679EX009 - B-05-679E_Alignment & Superelevation.dgn

DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER
1133-11-77



BEARING LAYOUT
LENGTH NOT TO SCALE

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
SAA	GUIDED	296	267	26	5	3	28	7	2	30	32	0.0024	0.0042	5.90	3.03	1.00	3.71	1.69	2.36	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
SAB	GUIDED	296	267	26	5	3	28	7	2	30	32	0.0024	0.0042	5.90	3.03	1.00	3.71	1.69	2.36	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P1A	GUIDED	1,218	560	64	11	6	29	16	5	122	34	0.0007	0.0019	3.50	4.00	1.00	4.98	1.98	2.99	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P1B	GUIDED	1,218	560	64	11	6	29	16	5	122	34	0.0007	0.0019	3.50	4.00	1.00	4.98	1.98	2.99	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P2A	FIXED	1,309	590	76	13	0	29	19	5	238	34	0.0002	0.0024	N/A	3.52	1.00	4.32	1.80	2.66	42	34	46	38	1.75	13.125	6-1 1/2" DIA.	12-1" DIA.
P2B	FIXED	1,309	590	76	13	0	29	19	5	238	34	0.0002	0.0024	N/A	3.52	1.00	4.32	1.80	2.66	42	34	46	38	1.75	13.125	6-1 1/2" DIA.	12-1" DIA.
P3A	GUIDED	1,307	589	76	13	6	29	19	5	131	34	0.0002	0.0024	3.50	4.09	1.00	4.77	1.68	2.88	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
P3B	GUIDED	1,307	589	76	13	6	29	19	5	131	34	0.0002	0.0024	3.50	4.09	1.00	4.77	1.68	2.88	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
P4A	GUIDED	1,225	560	64	11	6	29	16	5	123	34	0.0009	0.0024	7.00	4.00	1.00	4.49	1.49	2.75	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P4B	GUIDED	1,225	560	64	11	6	29	16	5	123	34	0.0009	0.0024	7.00	4.00	1.00	4.49	1.49	2.75	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P5A S	GUIDED	296	266	26	5	3	27	7	2	30	32	0.0024	0.0040	9.40	3.03	1.00	3.26	1.24	2.13	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P5B S	GUIDED	296	266	26	5	3	27	7	2	30	32	0.0024	0.0040	9.40	3.03	1.00	3.26	1.24	2.13	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.

1

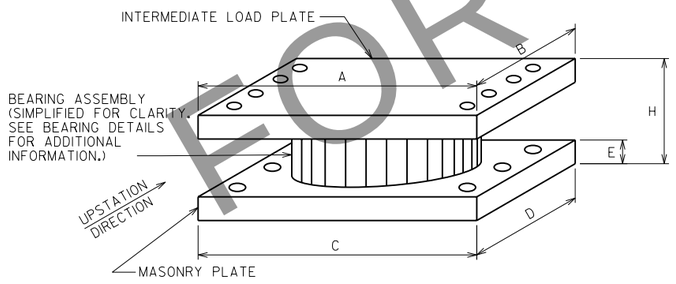
NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

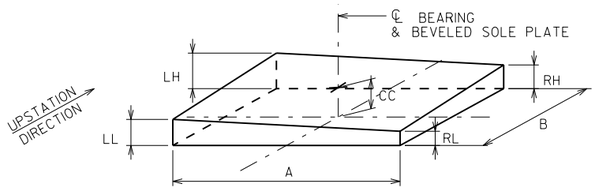
BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY
(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY
1	11/09/12	SOLE PLATE THICKNESS	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

BEARING LAYOUT UNIT 1

SHEET 10 OF 51

990

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

8

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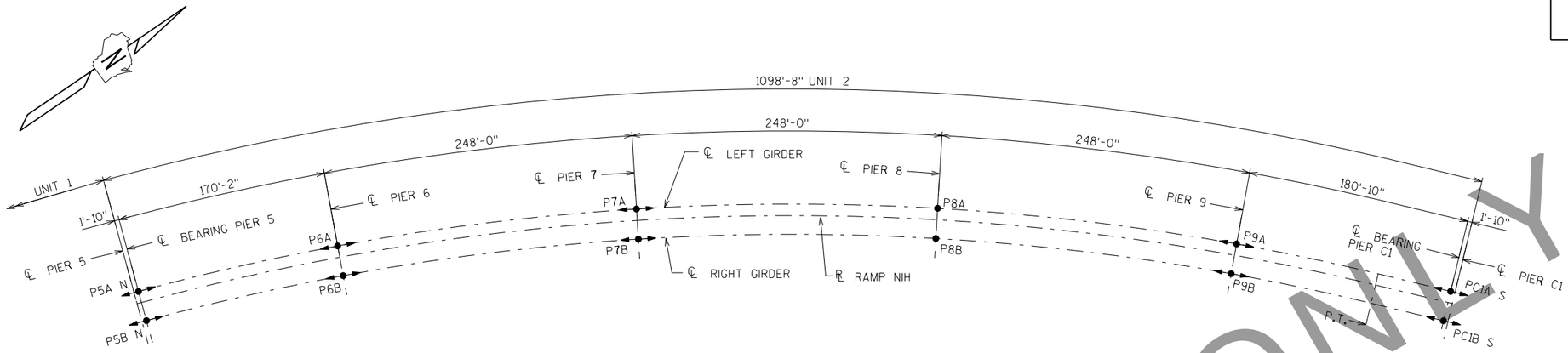
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679-BEARING LAYOUT UNIT 1.dgn

DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER

1133-11-77



BEARING LAYOUT

LENGTH NOT TO SCALE

BEARING MARK	TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
		DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
P5A N	GUIDED	306	258	26	5	3	26	7	2	31	31	0.0024	0.0044	9.40	3.03	1.00	3.26	1.24	2.13	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P5B N	GUIDED	306	258	26	5	3	26	7	2	31	31	0.0024	0.0044	9.40	3.03	1.00	3.26	1.24	2.13	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
P6A	GUIDED	1,242	543	64	11	6	28	16	5	125	33	0.0007	0.0023	7.00	4.00	1.00	4.27	1.27	2.63	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P6B	GUIDED	1,242	543	64	11	6	28	16	5	125	33	0.0007	0.0023	7.00	4.00	1.00	4.27	1.27	2.63	50	35	40.875	32.875	1.75	13.25	6-1 1/2" DIA.	10-1" DIA.
P7A	GUIDED	1,342	574	76	13	6	28	19	5	135	33	0.0002	0.0023	3.50	4.14	1.00	4.24	1.11	2.62	52.25	36.5	42.5	34.5	1.75	13.75	6-1 1/2" DIA.	12-1" DIA.
P7B	GUIDED	1,342	574	76	13	6	28	19	5	135	33	0.0002	0.0023	3.50	4.14	1.00	4.24	1.11	2.62	52.25	36.5	42.5	34.5	1.75	13.75	6-1 1/2" DIA.	12-1" DIA.
P8A	FIXED	1,333	574	76	13	0	28	19	5	241	33	0.0003	0.0023	N/A	3.63	1.06	3.57	1.00	2.31	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	12-1" DIA.
P8B	FIXED	1,333	574	76	13	0	28	19	5	241	33	0.0003	0.0023	N/A	3.63	1.06	3.57	1.00	2.31	42.75	34.75	46.75	38.75	1.75	13	6-1 1/2" DIA.	12-1" DIA.
P9A	GUIDED	1,280	548	66	11	6	28	16	5	128	33	0.0007	0.0019	3.50	4.32	1.23	4.09	1.00	2.66	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
P9B	GUIDED	1,280	548	66	11	6	28	16	5	128	33	0.0007	0.0019	3.50	4.32	1.23	4.09	1.00	2.66	51.5	36	42	34	1.75	13.625	6-1 1/2" DIA.	12-1" DIA.
PC1A S	GUIDED	325	260	28	5	3	26	7	2	33	30	0.0031	0.0056	6.04	2.10	1.22	1.88	1.00	1.55	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.
PC1B S	GUIDED	325	260	28	5	3	26	7	2	33	30	0.0031	0.0056	6.04	2.10	1.22	1.88	1.00	1.55	33.75	22	29	21	1.75	8.5	4-1" DIA.	4-1" DIA.

BEARING FORCES SHOWN ARE UNFACTORED.

1

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

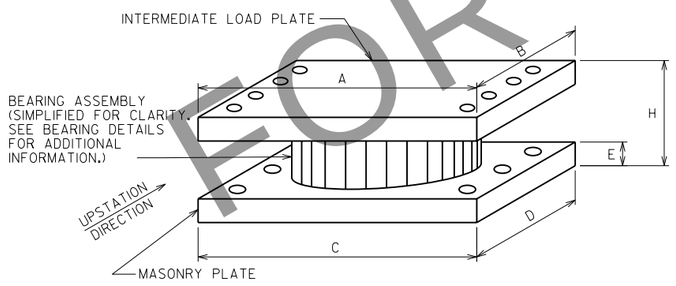
NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

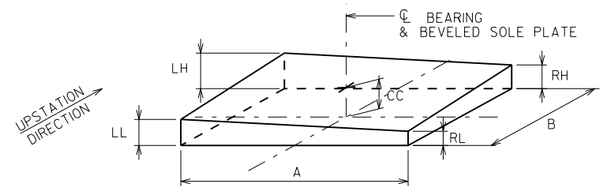
BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.



BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY
1	11/06/12	SOLE PLATE THICKNESS	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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BEARING LAYOUT UNIT 2

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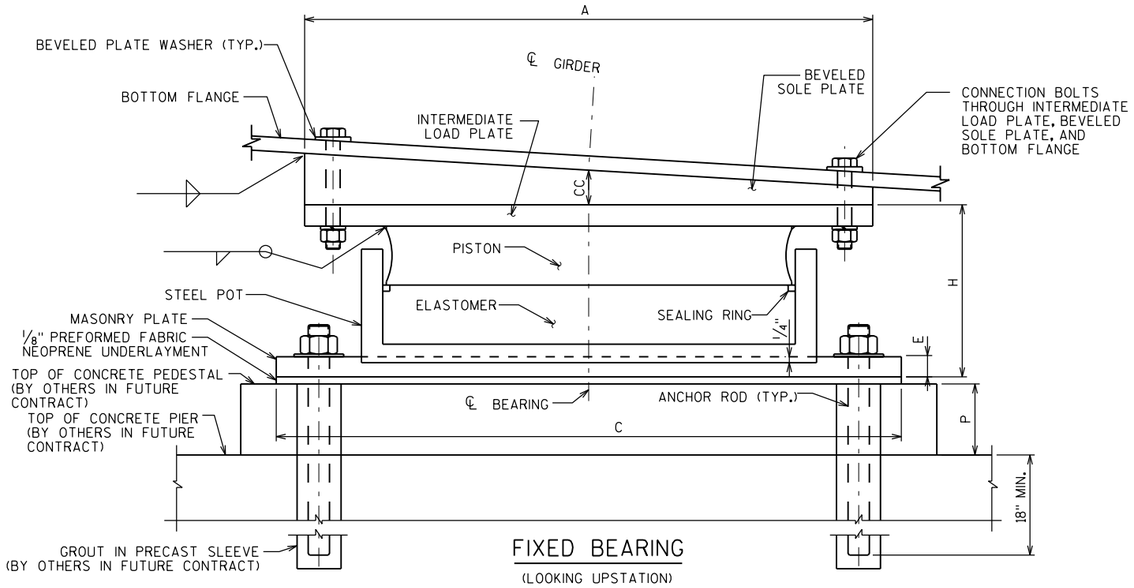

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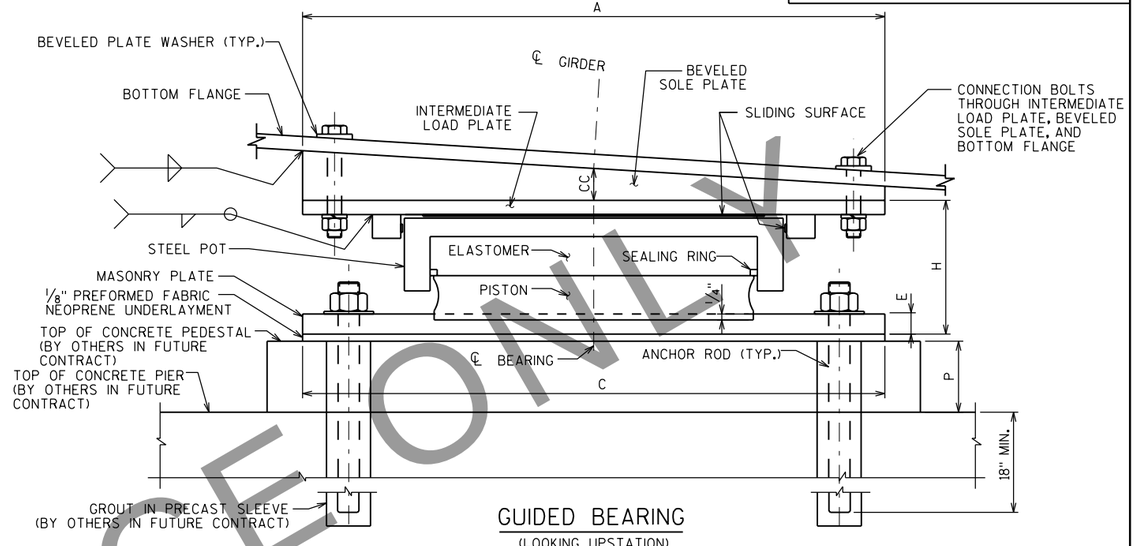

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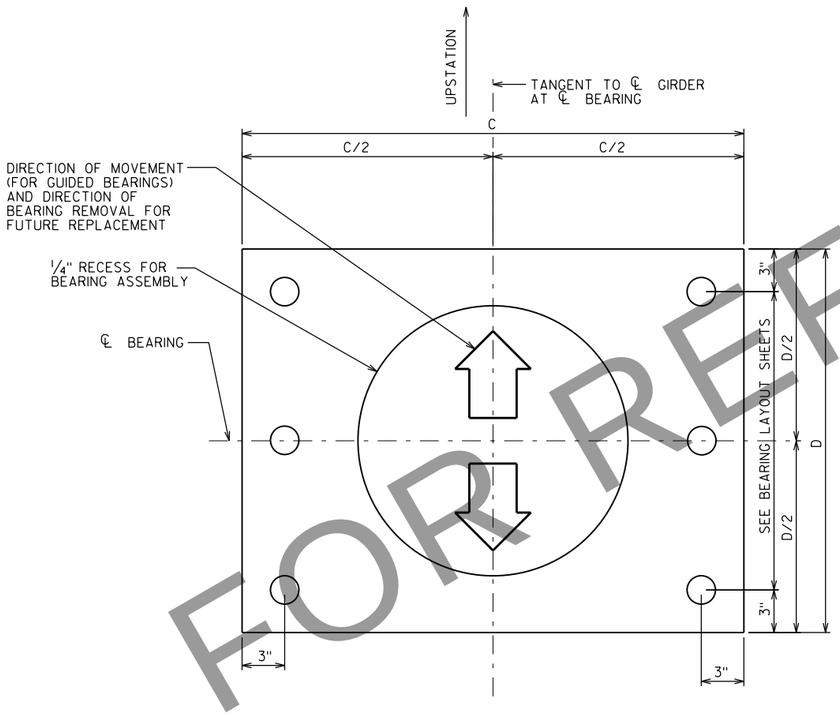
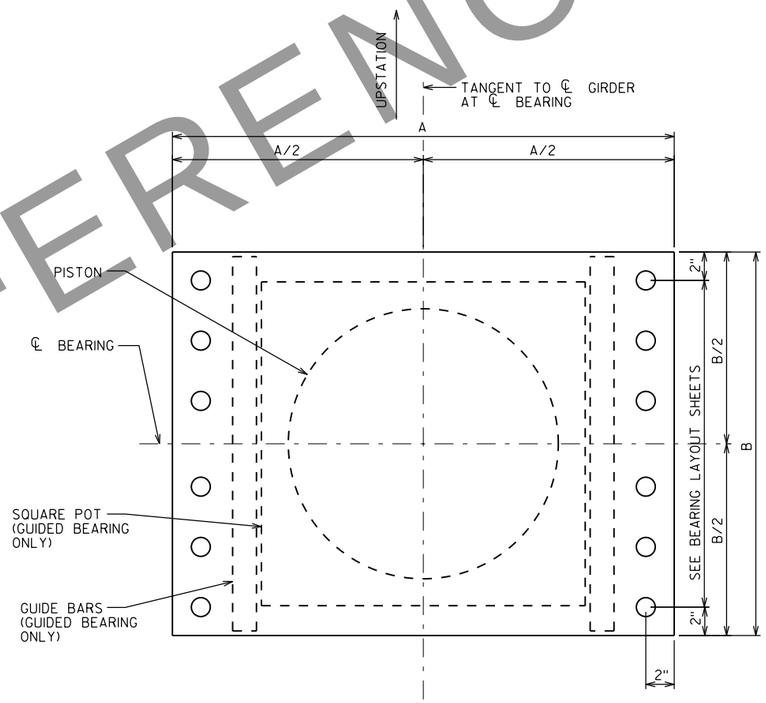


PLAN - MASONRY PLATE

SEE BEARING LAYOUT SHEETS FOR REQUIRED NUMBER OF ANCHOR RODS PER RESPECTIVE BEARING



PLAN - INTERMEDIATE LOAD PLATE

(BEVELED SOLE PLATE SIMILAR)

NOTES:

SEE BEARING LAYOUT SHEETS FOR LOCATION-SPECIFIC DIMENSIONS.

SEE JACKING PROVISIONS SHEET FOR LOCATION AND SIZE OF BEARING REPLACEMENT JACKING PADS ATTACHED TO BOTTOM OF GIRDER FLANGE.

DESIGN BOLTED CONNECTION BETWEEN BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE FOR THE COMBINED SPECIFIED HORIZONTAL LOADS SHOWN ON THE BEARING LAYOUT SHEETS PER AASHTO LRFD AND THE WISDOT BRIDGE MANUAL. FOR FUTURE BEARING REPLACEMENT, ARRANGE THE CONNECTION TO ENSURE ALL BOLTS CAN BE REMOVED WITHOUT INTERFERENCE FROM ANCHOR BOLTS OR OTHER OBSTRUCTIONS AFTER BEARING IS INSTALLED.

HOLES IN TOP PLATE MAY BE SLOTTED OR OVERSIZED AS REQUIRED TO FACILITATE STEEL ERECTION. IF OVERSIZED OR SLOTTED HOLES ARE USED, DESIGN CONNECTION AS SLIP-RESISTANT PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

HOLES IN MASONRY PLATE SHALL BE A MAXIMUM OF 1/8" LARGER THAN THE SPECIFIED ANCHOR BOLT DIAMETER.

BEVELED SOLE PLATE, INTERMEDIATE LOAD PLATE AND MASONRY PLATES ARE ALIGNED WITH THE GIRDER AND THE SUBSTRUCTURE BELOW.

BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE THICKNESSES TO BE SELECTED BY THE BEARING DESIGNER. MINIMUM 1".

MASONRY PLATE THICKNESS TO BE CONFIRMED BY THE BEARING DESIGNER AND INCREASED IF REQUIRED, BUT NOT DECREASED FROM 1.75".

PROVIDE ANCHOR BOLTS IN ACCORDANCE WITH ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.

DESIGN BEARINGS TO PERMIT REPLACEMENT BY JACKING THE BRIDGE A MAXIMUM OF 1/2".

FINAL DISTANCE BETWEEN BOTTOM OF STEEL GIRDER AND TOP OF PIER IS THE SUMMATION OF "CC", THE ACTUAL "H" OF THE BEARING, 1/8" UNDERLAYMENT AND THE ACTUAL PEDESTAL HEIGHT "P". HEIGHT "P" IS ASSUMED TO BE 10" FOR ALL LOCATIONS.

ALL ELEMENTS SHOWN ARE PROVIDED BY THE BEARING MANUFACTURER (UNLESS OTHERWISE NOTED) AND COORDINATED WITH THE STEEL FABRICATOR.

THE CONTRACTOR IS RESPONSIBLE DURING STORAGE AND FUTURE ERECTION OF THE BEARING TO PREVENT OVER-ROTATION OR SLIDING OF THE BEARING. CONSTRUCTION ROTATIONS MUST NOT EXCEED THE ALLOWABLE ROTATIONS SHOWN.

DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

INSTALL BEARINGS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AS APPROVED BY THE ENGINEER. THE MANUFACTURER SHALL HAVE ITS TECHNICAL REPRESENTATIVE PRESENT FOR THE PLACEMENT OF THE FIRST BEARING. AT THE OPTION OF THE ENGINEER, CONTRACTOR OR MANUFACTURER, THE TECHNICAL REPRESENTATIVE MAY BE REQUIRED TO BE PRESENT FOR THE PLACEMENT OF ANY NUMBER OF ADDITIONAL BEARINGS.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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BEARING DETAILS 992

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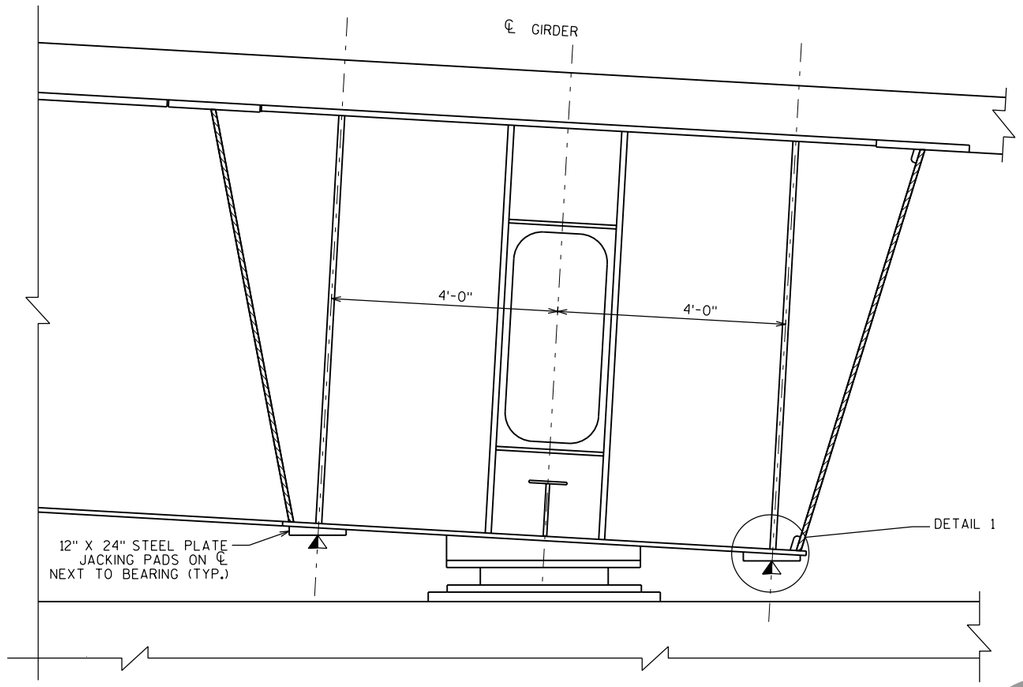

TYPICAL ELEVATION
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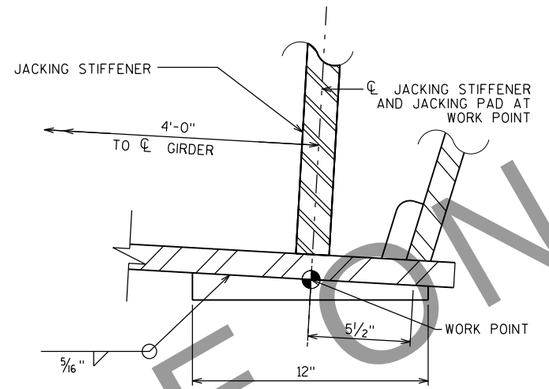


DETAIL 1
NOT TO SCALE

LEGEND:

△ SUGGESTED JACKING LOCATIONS FOR FUTURE BEARING REPLACEMENT.

NOTES:

THIS DRAWING SHOWS DETAILS AND LOCATION OF JACKING PADS AND ADDITIONAL JACKING STIFFENERS REQUIRED FOR FUTURE BEARING REPLACEMENT.

JACKING PAD DIMENSIONS AND LOCATIONS ARE BASED ON THE MINIMUM CLEARANCES SHOWN AND THE NOMINAL BEARING DIMENSIONS GIVEN ON BEARING LAYOUT SHEETS. MAKE ADJUSTMENTS AS REQUIRED TO ACCOMMODATE ACTUAL BEARINGS SUPPLIED.

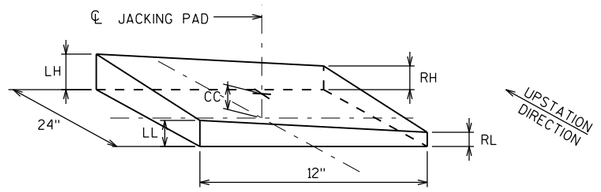
JACKING PADS ARE PROVIDED TO GIVE A JACKING SURFACE THAT IS APPROXIMATELY LEVEL AND TO ENSURE THAT JACKING LOADS ARE APPLIED TO THE CORRECT LOCATION.

ADDITIONAL MEASURES SHALL BE TAKEN TO CORRECT FOR ANY UNINTENDED SLOPE AND TO ENSURE THAT JACKS ARE POSITIVELY HELD IN POSITION ON THE JACKING PADS.

ESTIMATED JACKING FORCES ARE GIVEN AT EACH PAD AND ARE BASED ON DEAD LOAD AND LIVE LOAD REACTIONS ONLY AND NO ADDITIONAL ALLOWANCES HAVE BEEN MADE. THESE FORCES MUST BE INCREASED TO ALLOW FOR JACK FRICTION AND OTHER FACTORS. RECOMMENDED MINIMUM JACK CAPACITY IS 2 TIMES THE TABULATED JACK FORCE.

FORCES AND RECOMMENDATIONS ARE PROVIDED FOR INFORMATION ONLY AND MUST BE VERIFIED BY THE ENGINEER RESPONSIBLE FOR JACKING OPERATIONS.

CONTROL JACKS TO ENSURE THAT FORCES APPLIED TO ALL JACKING PADS AT A SINGLE BEARING LOCATION ARE APPROXIMATELY EQUAL. IF THIS REQUIREMENT IS NOT MET, A COMPLETE ANALYSIS OF THE PIER DIAPHRAGM SYSTEM WILL BE REQUIRED IN ORDER TO ACCOUNT FOR THE REDISTRIBUTION OF FORCES WITHIN THE SYSTEM.



JACKING PAD DIMENSION KEY

△1

LOCATION	NUMBER OF PADS PER BOX	LEFT BOX JACKING PAD DIMENSIONS LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	RIGHT BOX JACKING PAD DIMENSIONS LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	MIN. JACK FORCE (KIP)
S. ABUT.	2	1.72	1.00	2.47	1.75	1.74	1.72	1.00	2.47	1.75	1.74	290
PIER 1	2	1.72	1.00	2.39	1.67	1.70	1.72	1.00	2.39	1.67	1.70	890
PIER 2	2	1.72	1.00	2.28	1.56	1.64	1.72	1.00	2.28	1.56	1.64	950
PIER 3	2	1.72	1.00	2.17	1.45	1.59	1.72	1.00	2.17	1.45	1.59	950
PIER 4	2	1.72	1.00	2.06	1.34	1.53	1.72	1.00	2.06	1.34	1.53	900
PIER 5 S	2	1.72	1.00	1.98	1.26	1.49	1.72	1.00	1.98	1.26	1.49	290
PIER 5 N	2	1.72	1.00	1.98	1.26	1.49	1.72	1.00	1.98	1.26	1.49	290
PIER 6	2	1.72	1.00	1.90	1.18	1.45	1.72	1.00	1.90	1.18	1.45	900
PIER 7	2	1.72	1.00	1.79	1.07	1.40	1.72	1.00	1.79	1.07	1.40	960
PIER 8	2	1.76	1.04	1.72	1.00	1.38	1.76	1.04	1.72	1.00	1.38	960
PIER 9	2	1.87	1.15	1.72	1.00	1.44	1.87	1.15	1.72	1.00	1.44	920
PIER C1	2	1.55	1.24	1.31	1.00	1.27	1.55	1.24	1.31	1.00	1.27	300

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1	11/06/12	JACKING PAD DIMENSION	KZ

STATE OF WISCONSIN
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STRUCTURE B-5-679

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JACKING PROVISIONS

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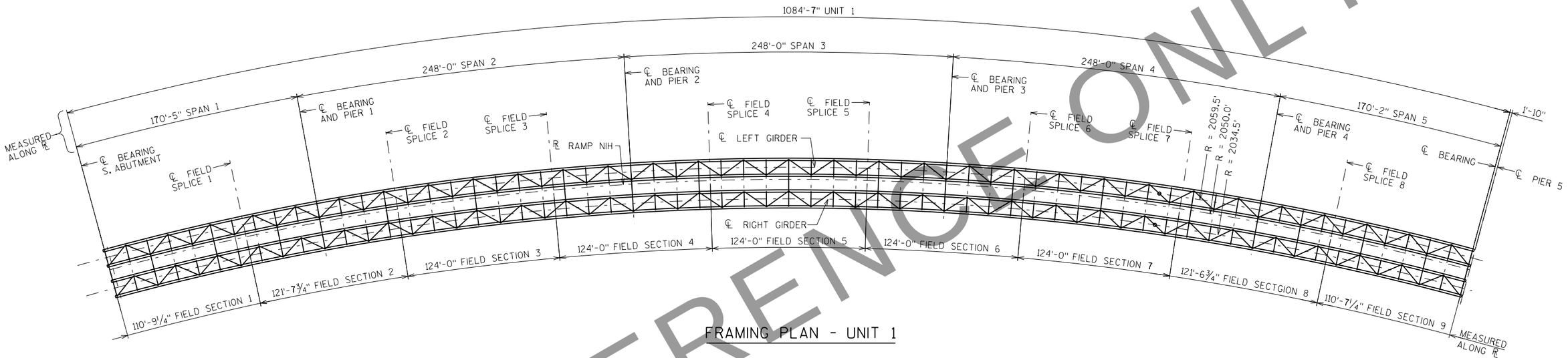

FRAMING PLAN - UNIT 1

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FRAMING PLAN
UNIT 1
SPANS 1 TO 5

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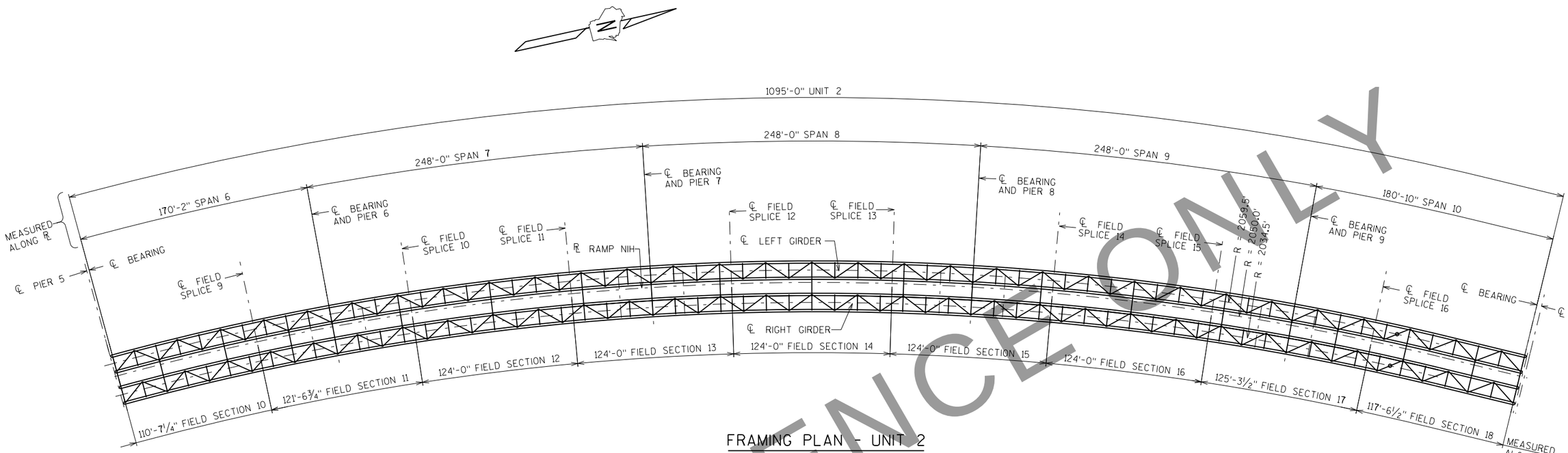

FRAMING PLAN - UNIT 2

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FRAMING PLAN
UNIT 2
SPANS 6 TO 10

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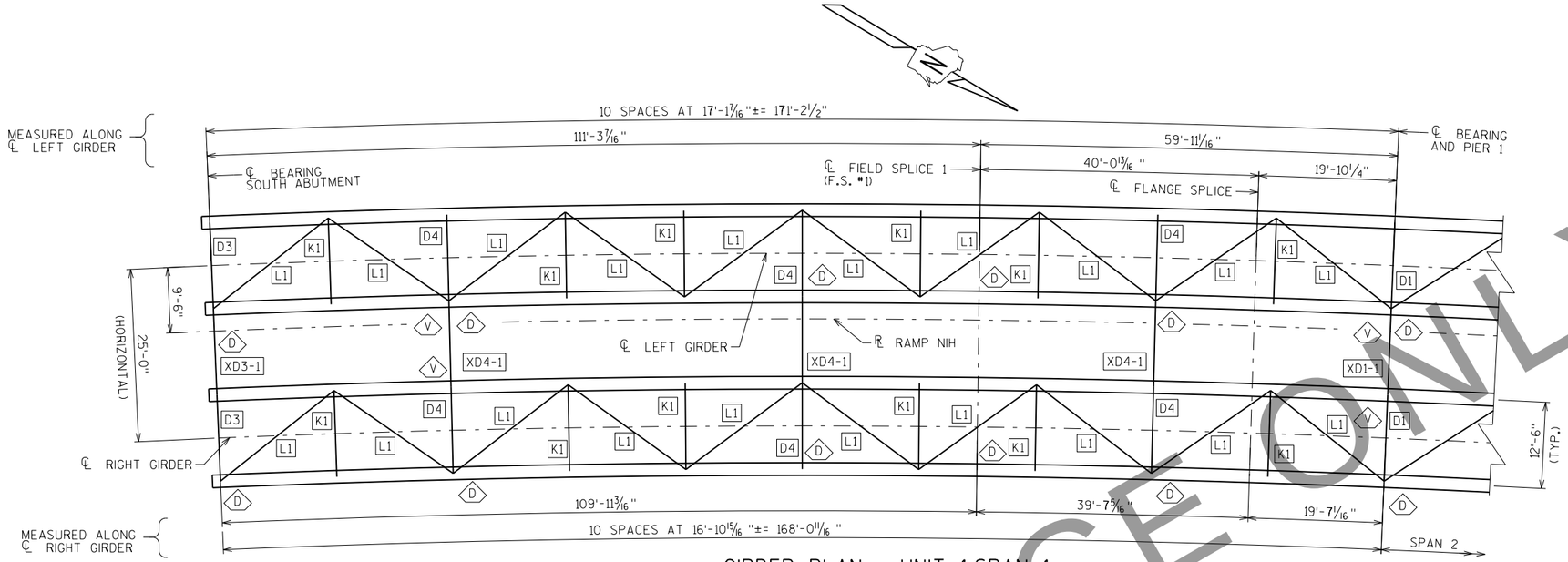
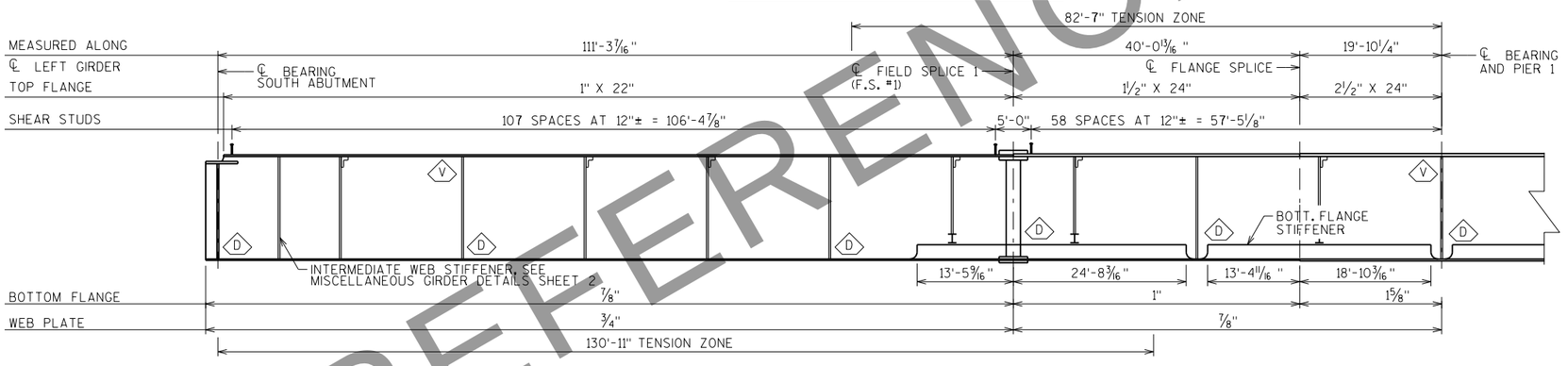
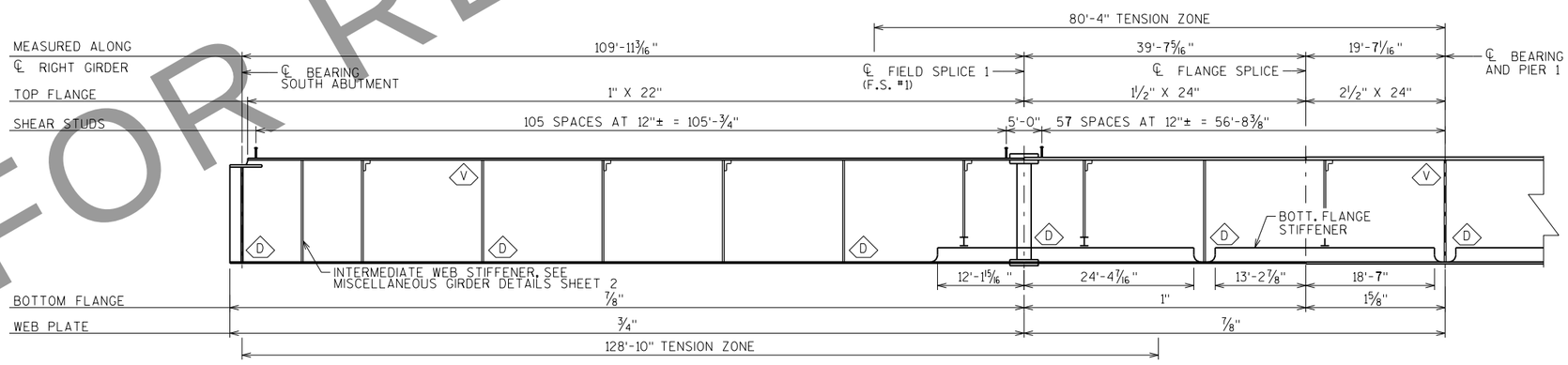


GIRDER PLAN - UNIT 1 SPAN 1



LEFT GIRDER ELEVATION - UNIT 1 SPAN 1



RIGHT GIRDER ELEVATION - UNIT 1 SPAN 1

LEGEND

- D1 — INTERIOR DIAPHRAGM OVER PIER FOR CONTINUOUS SPAN
- D2 — INTERIOR DIAPHRAGM OVER PIER AT UNIT BREAK
- D3 — INTERIOR DIAPHRAGM AT ABUTMENT
- D4 — INTERIOR INTERMEDIATE DIAPHRAGM
- XDA-B — EXTERIOR DIAPHRAGM (WHERE 'A' INDICATES CORRESPONDING INTERIOR DIAPHRAGM NUMBER AND 'B' INDICATES SEQUENTIAL NUMBER WHICH VARIES DUE TO CHANGE IN CROSS SLOPE)
- K1 — INTERIOR K FRAME
- XF — EXTERIOR INTERMEDIATE CROSS FRAME
- L1 — TOP FLANGE LATERAL BRACING MARK NUMBER
- V — VENT HOLE LOCATION
- D — DRAIN HOLE LOCATION

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING FUTURE ERECTION CONTRACT.

ALL LONGITUDINAL DIMENSIONS SHOWN ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF EACH GIRDER. CONTRACTOR SHALL MAKE ADJUSTMENTS FOR CAMBER AND GRADE.

FOR SHOP WELDED BUTT SPLICES OF FLANGES, FABRICATOR MAY CHOOSE TO ELIMINATE SPLICE AND CONTINUE THICKER PLATE TO END OF SECTION AT FIELD SPLICE AT NO ADDITIONAL COST TO THE OWNER. ADJUST CAMBER IF PLATE SIZES ARE CHANGED.

TENSION ZONES SHOWN ABOVE THE GIRDER ELEVATION INDICATE TENSION ZONES FOR TOP FLANGE AND UPPER PORTION OF WEB.

TENSION ZONES SHOWN BELOW THE GIRDER ELEVATION INDICATE TENSION ZONES FOR BOTTOM FLANGE AND LOWER PORTION OF WEB.

FOR OPTIONAL SHOP SPLICE DETAIL AS REQUIRED DUE TO MAXIMUM PLATE LENGTHS AVAILABLE FROM MILL, SEE MISCELLANEOUS GIRDER DETAILS SHEET.

FOR LONGITUDINAL STIFFENER TERMINATION DETAILS SEE SHEETS MISCELLANEOUS GIRDER DETAILS 1 AND MISCELLANEOUS GIRDER DETAILS 2.

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 1

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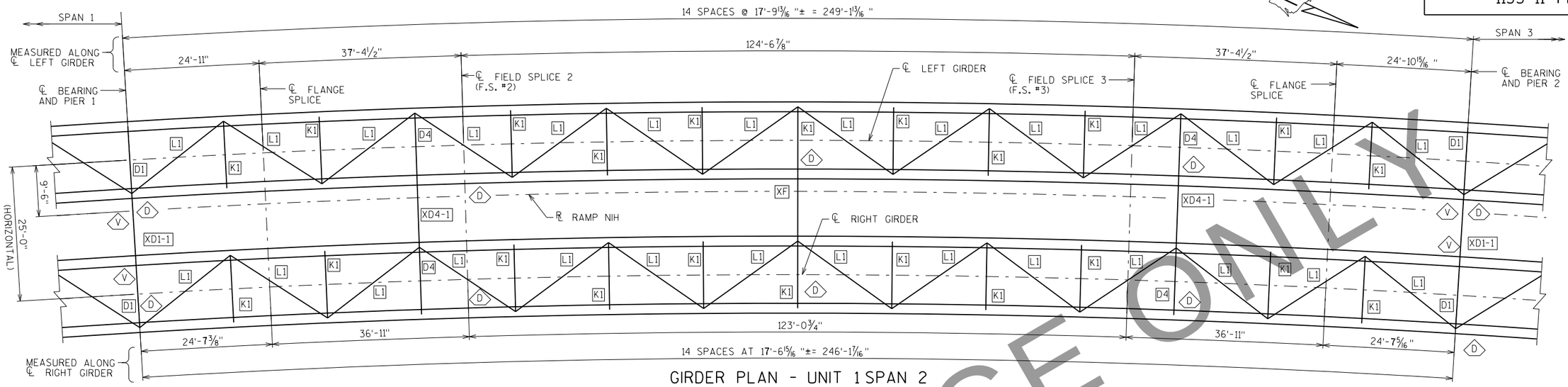
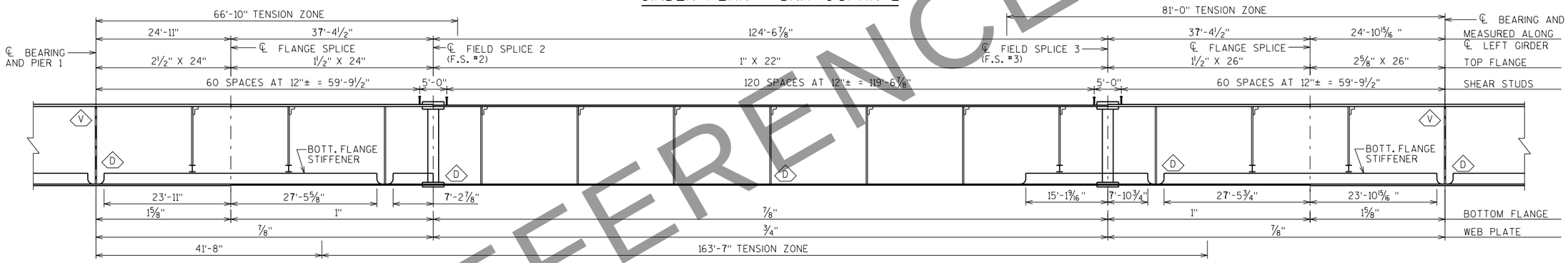
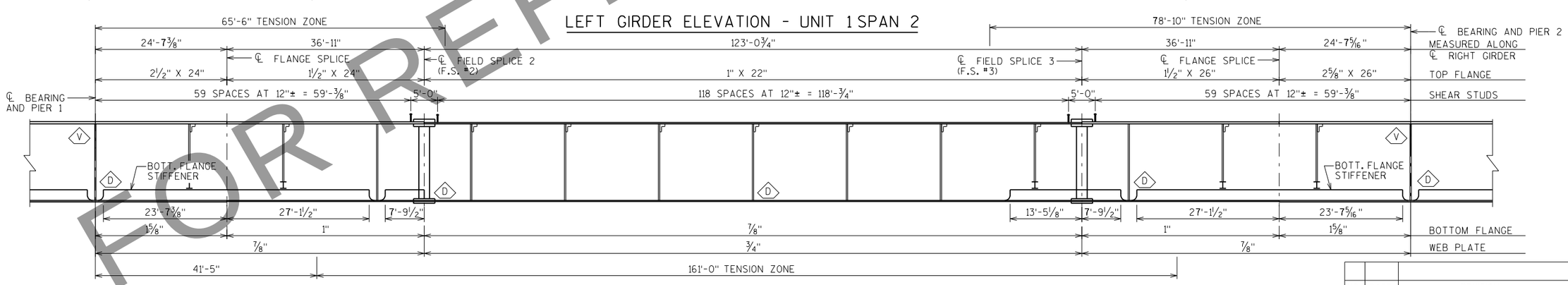


GIRDER PLAN - UNIT 1 SPAN 2



LEFT GIRDER ELEVATION - UNIT 1 SPAN 2



RIGHT GIRDER ELEVATION - UNIT 1 SPAN 2

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 2

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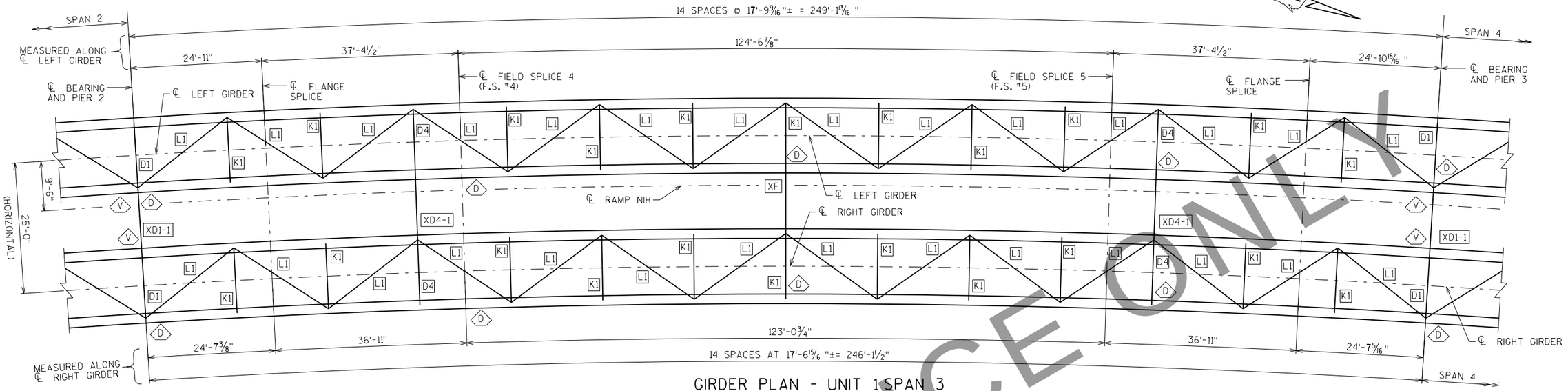
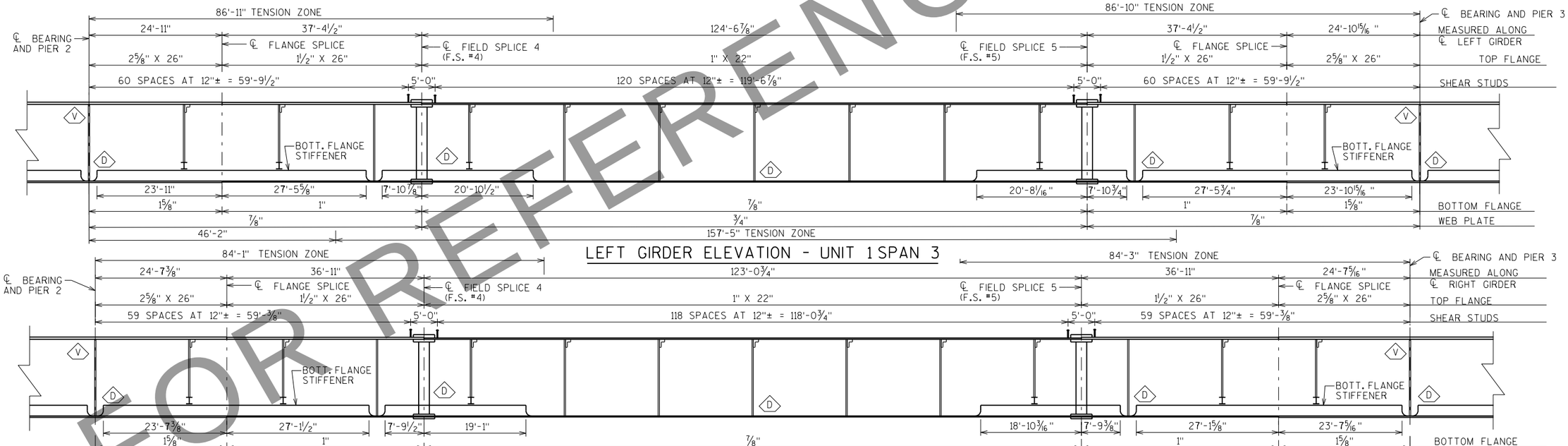


GIRDER PLAN - UNIT 1 SPAN 3



LEFT GIRDER ELEVATION - UNIT 1 SPAN 3

RIGHT GIRDER ELEVATION - UNIT 1 SPAN 3

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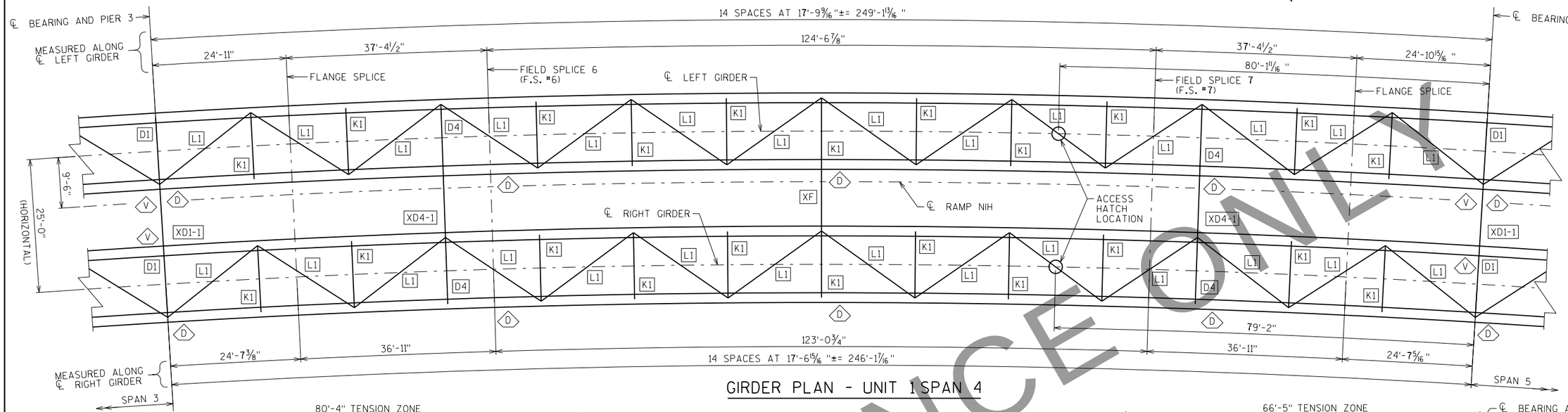
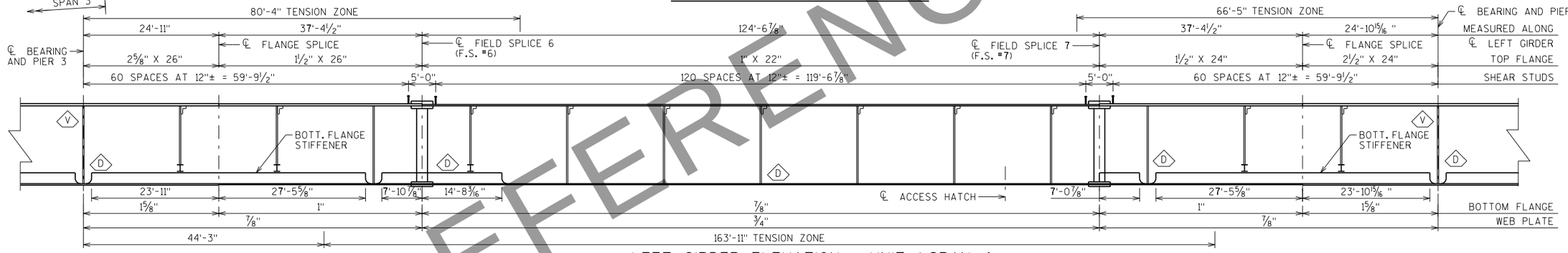


GIRDER PLAN - UNIT 1 SPAN 4



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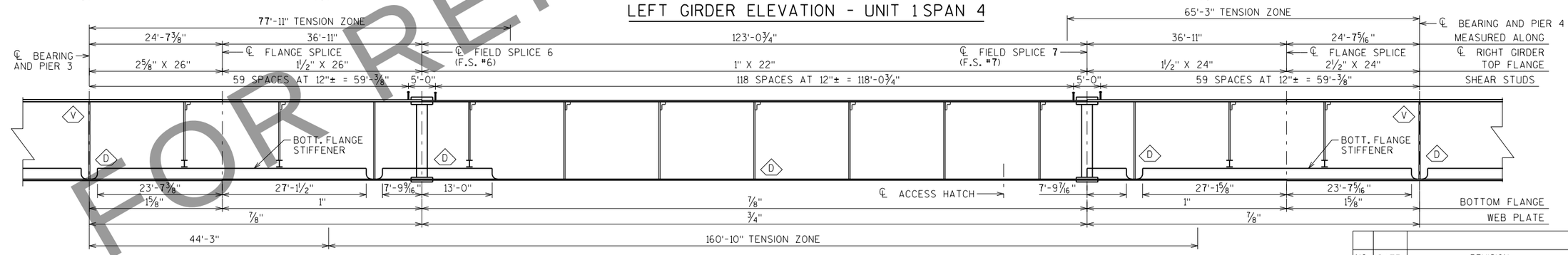

RIGHT GIRDER ELEVATION - UNIT 1 SPAN 4

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 4

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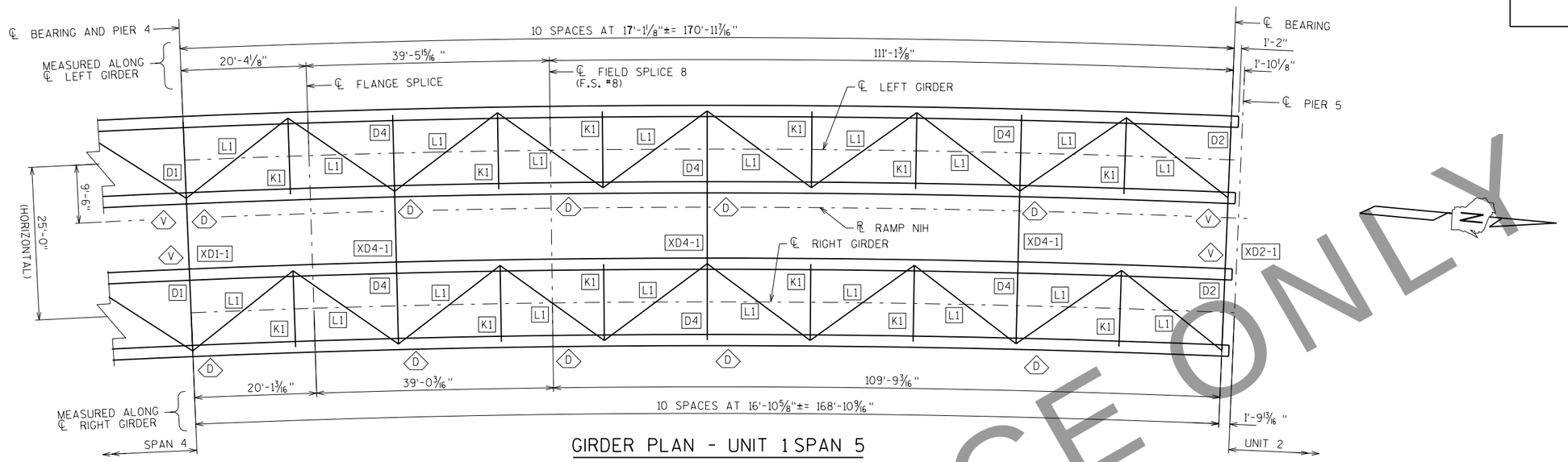
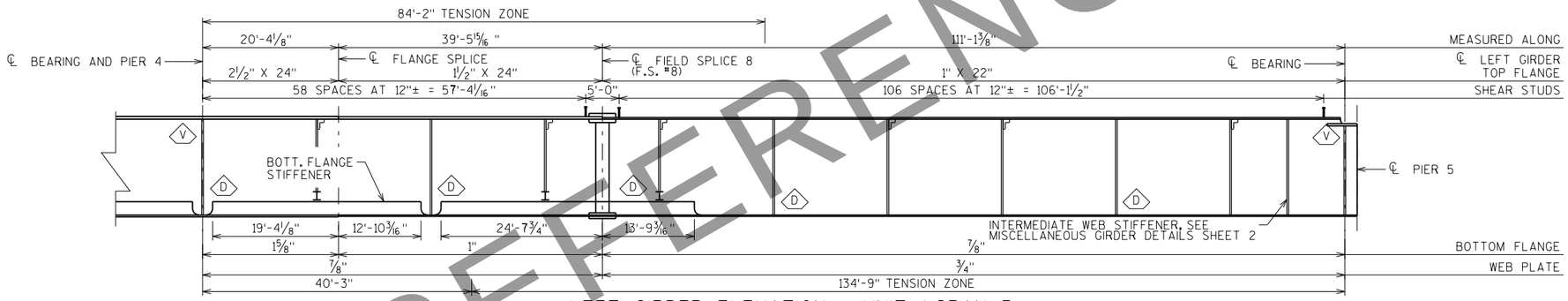


GIRDER PLAN - UNIT 1 SPAN 5



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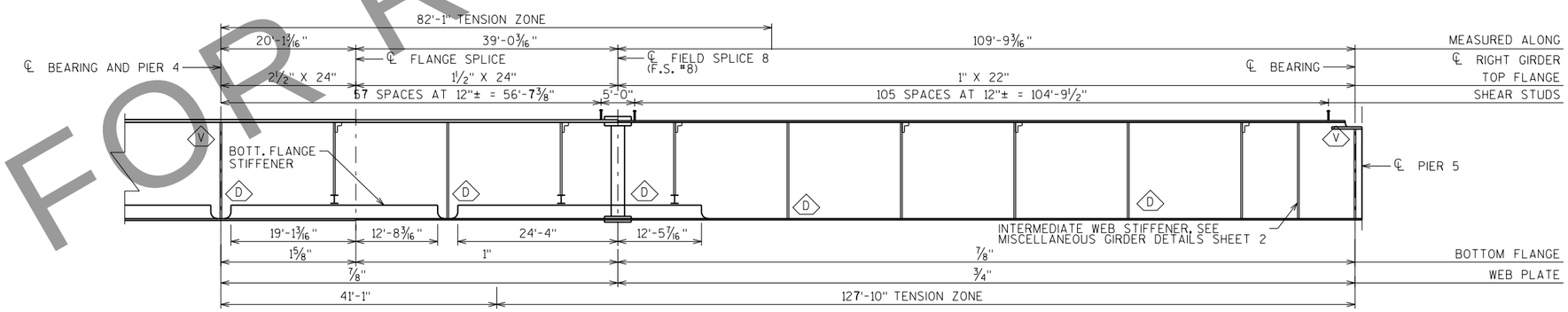

RIGHT GIRDER ELEVATION - UNIT 1 SPAN 5

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GIRDER PLAN AND ELEVATION UNIT 1 SPAN 5

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DATE: 4.3.2013
I.D.

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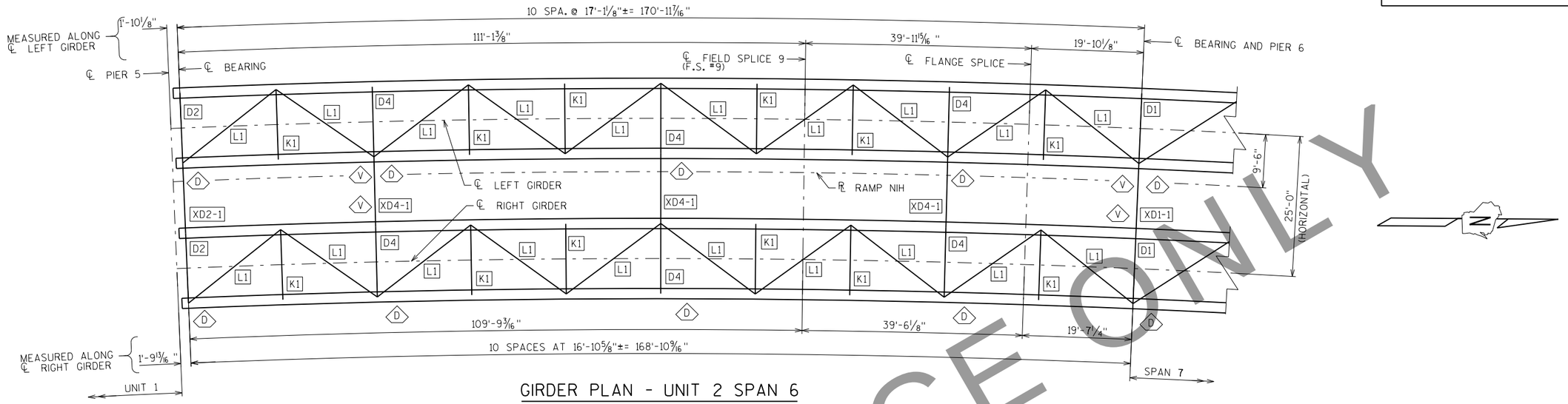
8

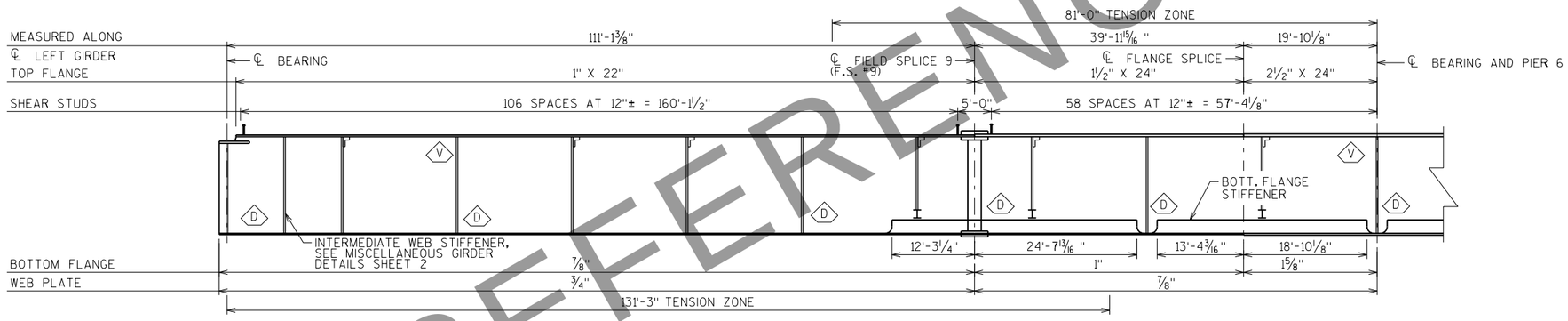
8

STATE PROJECT NUMBER

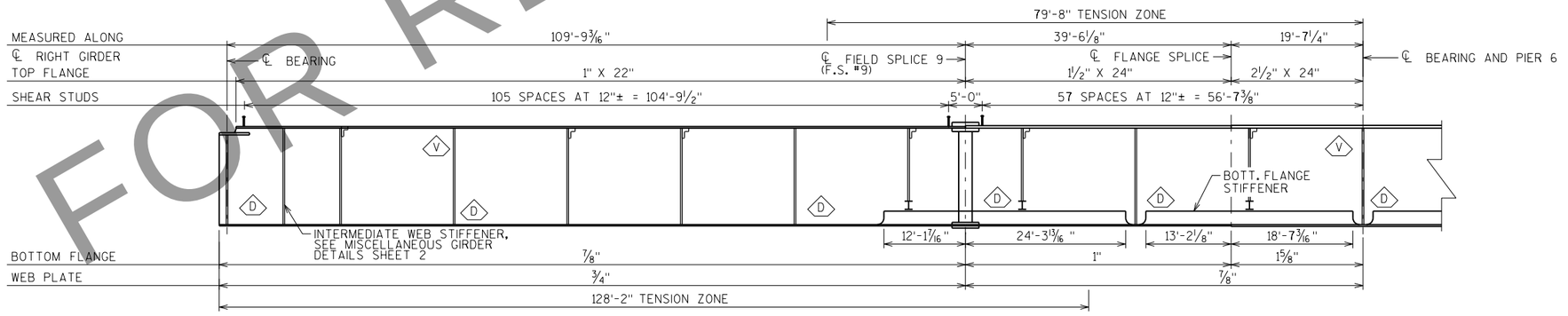
1133-11-77



GIRDER PLAN - UNIT 2 SPAN 6



LEFT GIRDER ELEVATION - UNIT 2 SPAN 6



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 6

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 6

SHEET 21 OF 51

1001

DATE: 4/3/2013
I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E\021 - B-5-679E - GIRDER PLAN AND ELEV UNIT 2 SPAN 6.dgn

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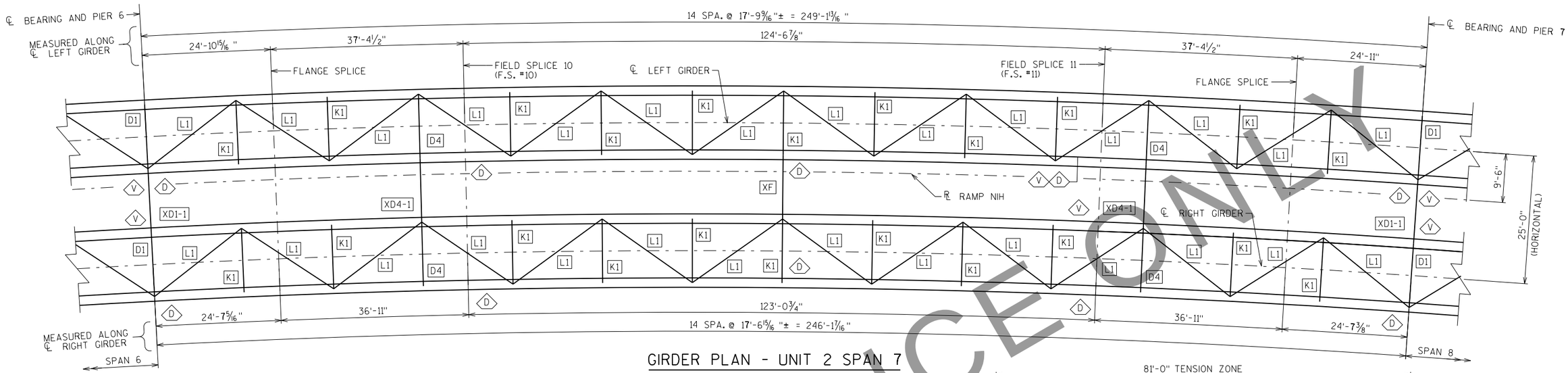
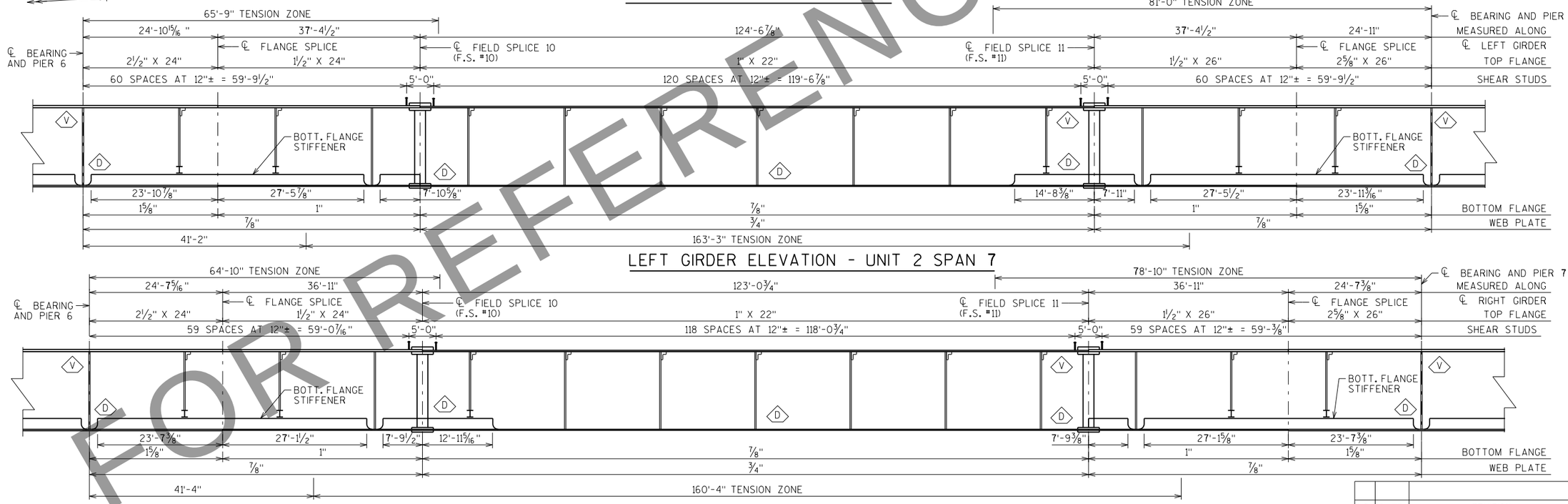
8

STATE PROJECT NUMBER

1133-11-77



GIRDER PLAN - UNIT 2 SPAN 7



LEFT GIRDER ELEVATION - UNIT 2 SPAN 7

RIGHT GIRDER ELEVATION - UNIT 2 SPAN 7

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

GIRDER PLAN AND ELEVATION UNIT 2 SPAN 7

SHEET 22 OF 51

1002

I.D.

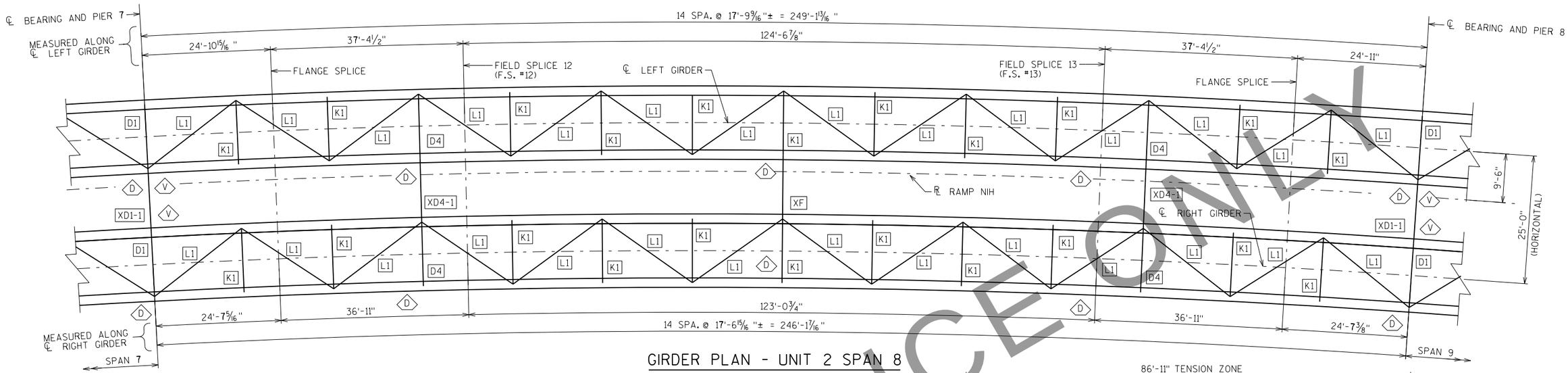
DATE: 4/3/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\022 - B-5-679E - GIRDER PLAN AND ELEV UNIT 2 SPAN 7.dgn

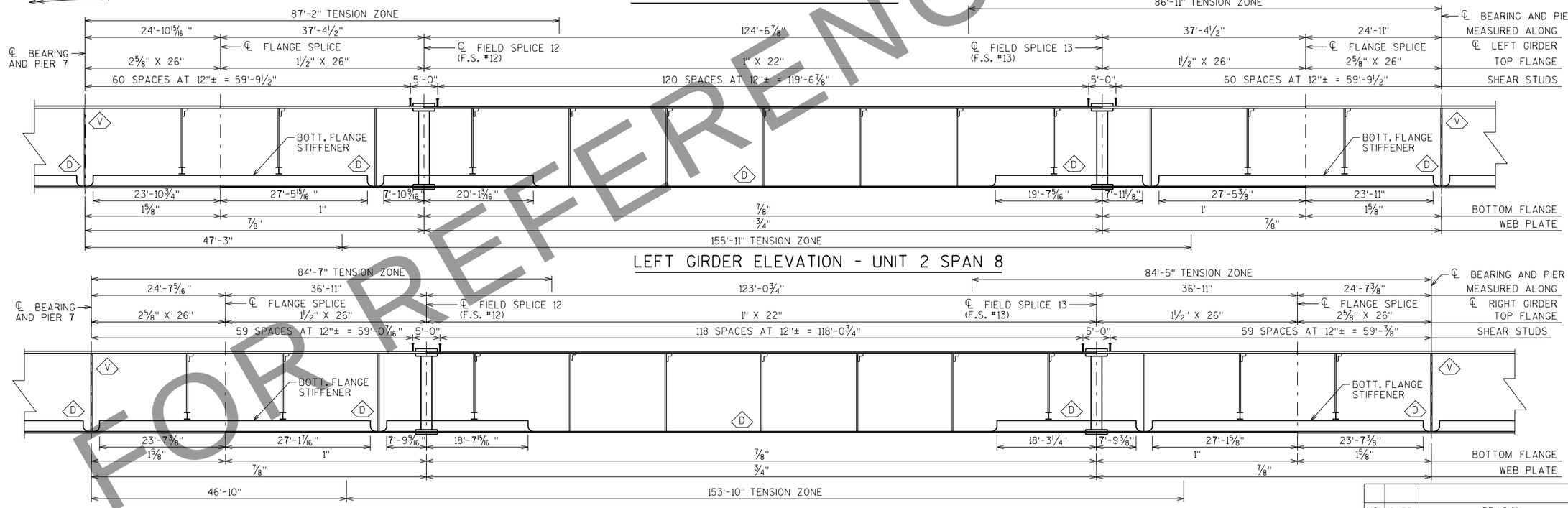
8

8

STATE PROJECT NUMBER
1133-11-77



GIRDER PLAN - UNIT 2 SPAN 8



LEFT GIRDER ELEVATION - UNIT 2 SPAN 8

RIGHT GIRDER ELEVATION - UNIT 2 SPAN 8

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 8

SHEET 23 OF 51
1003

STEEL FABRICATION CONTRACT ONLY

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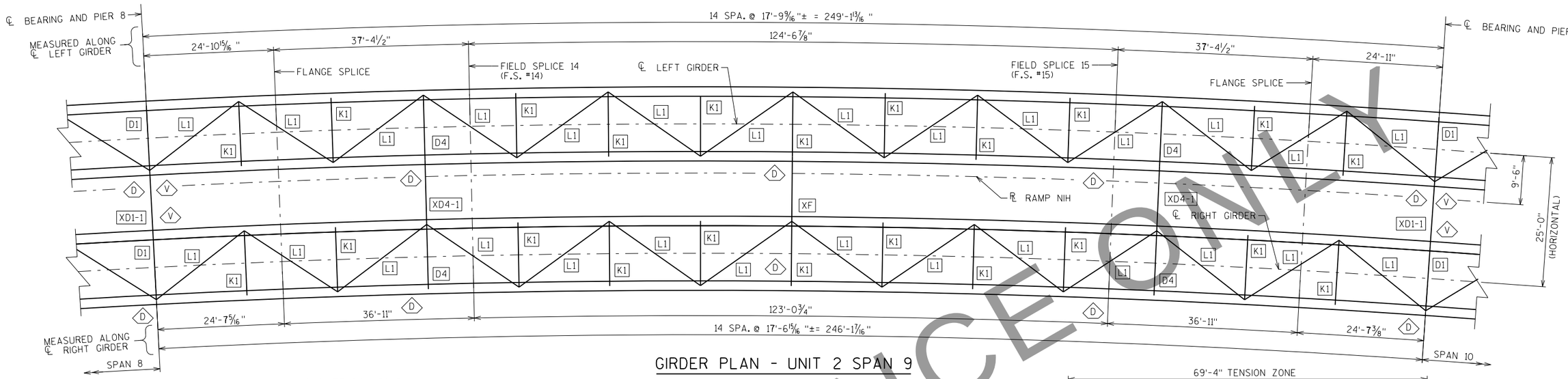
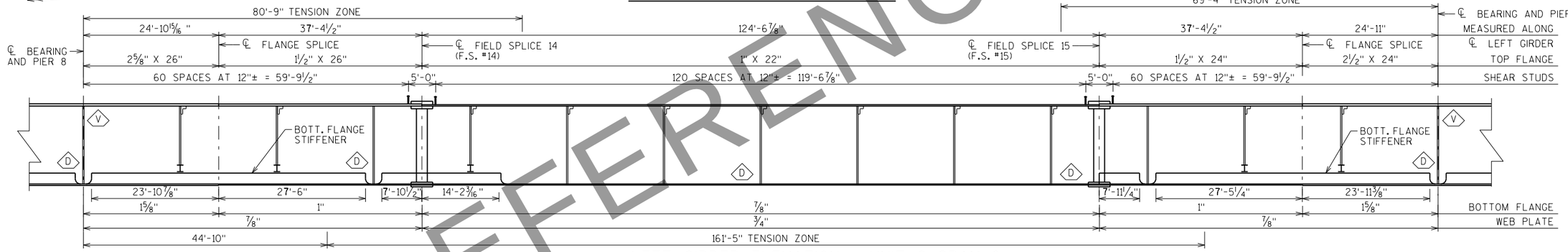
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679\B-05-679EV023 - B-5-679E - GIRDER PLAN AND ELEV UNIT 2 SPAN 8.dgn

DATE: 4/3/2013
I.D.

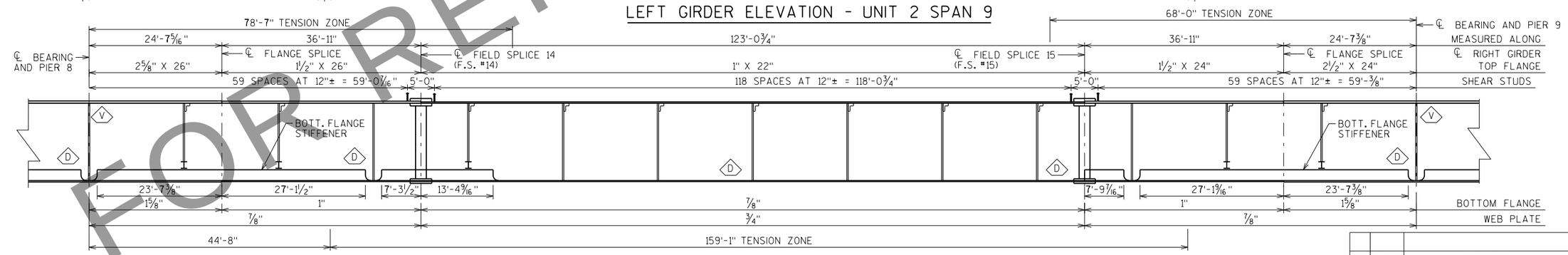
STATE PROJECT NUMBER
1133-11-77



GIRDER PLAN - UNIT 2 SPAN 9



LEFT GIRDER ELEVATION - UNIT 2 SPAN 9



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 9

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 9

SHEET 24 OF 51
1004

I.D.

DATE: 4/3/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679\E024 - B-5-679E - GIRDER PLAN AND ELEV UNIT 2 SPAN 9.dgn

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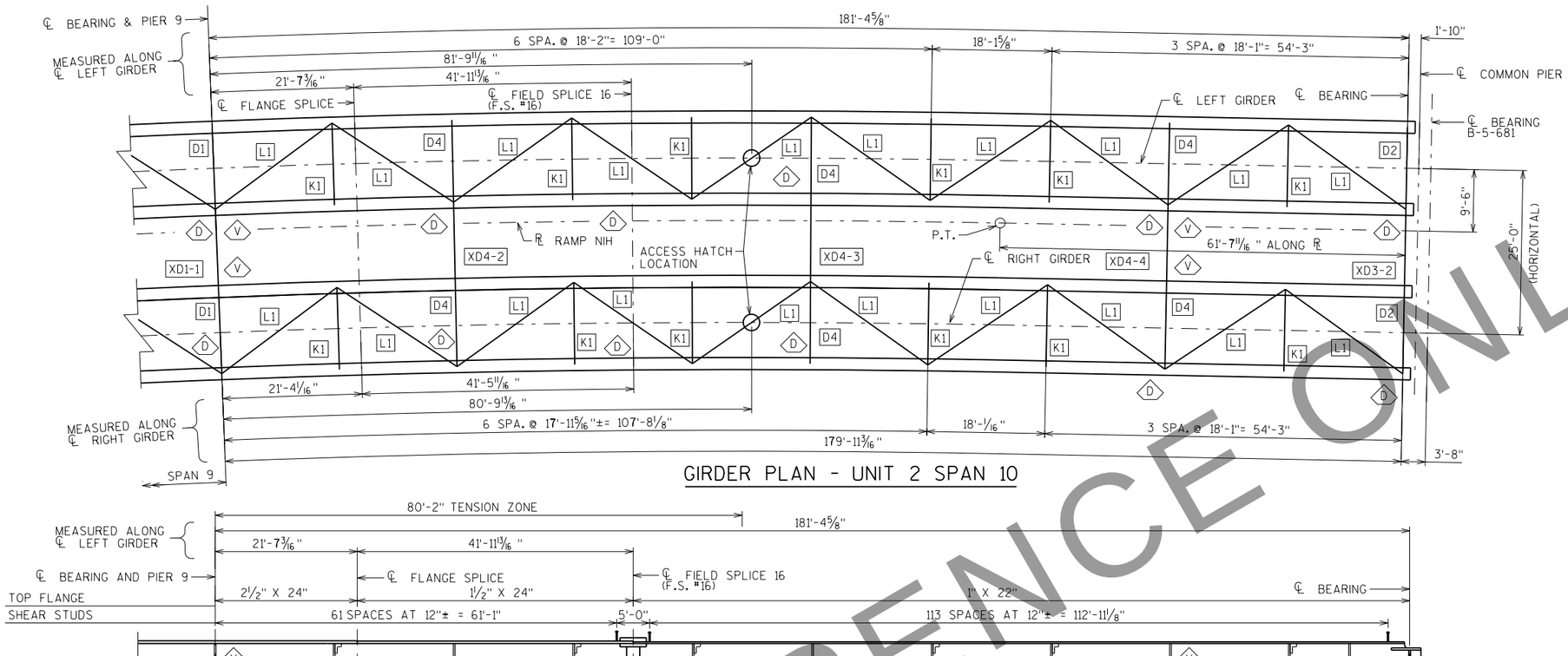
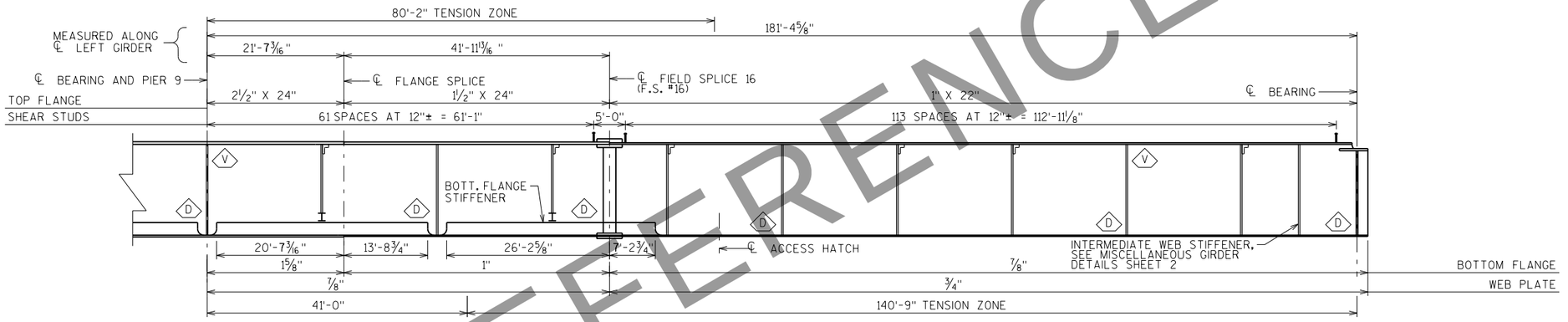
8

STATE PROJECT NUMBER

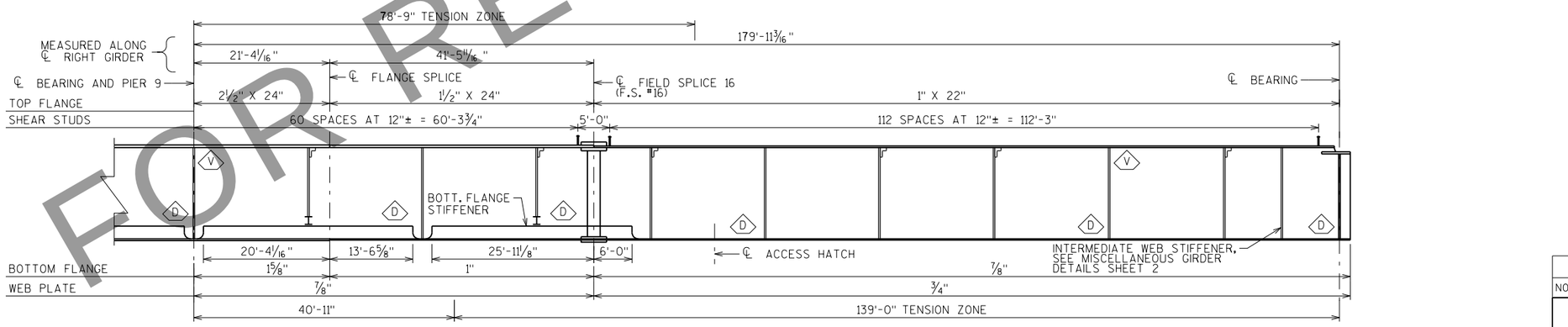
1133-11-77



GIRDER PLAN - UNIT 2 SPAN 10



LEFT GIRDER ELEVATION - UNIT 2 SPAN 10



RIGHT GIRDER ELEVATION - UNIT 2 SPAN 10

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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GIRDER PLAN AND ELEVATION UNIT 2 SPAN 10

SHEET 25 OF 51

1005

DATE: 4/3/2013

I.D.

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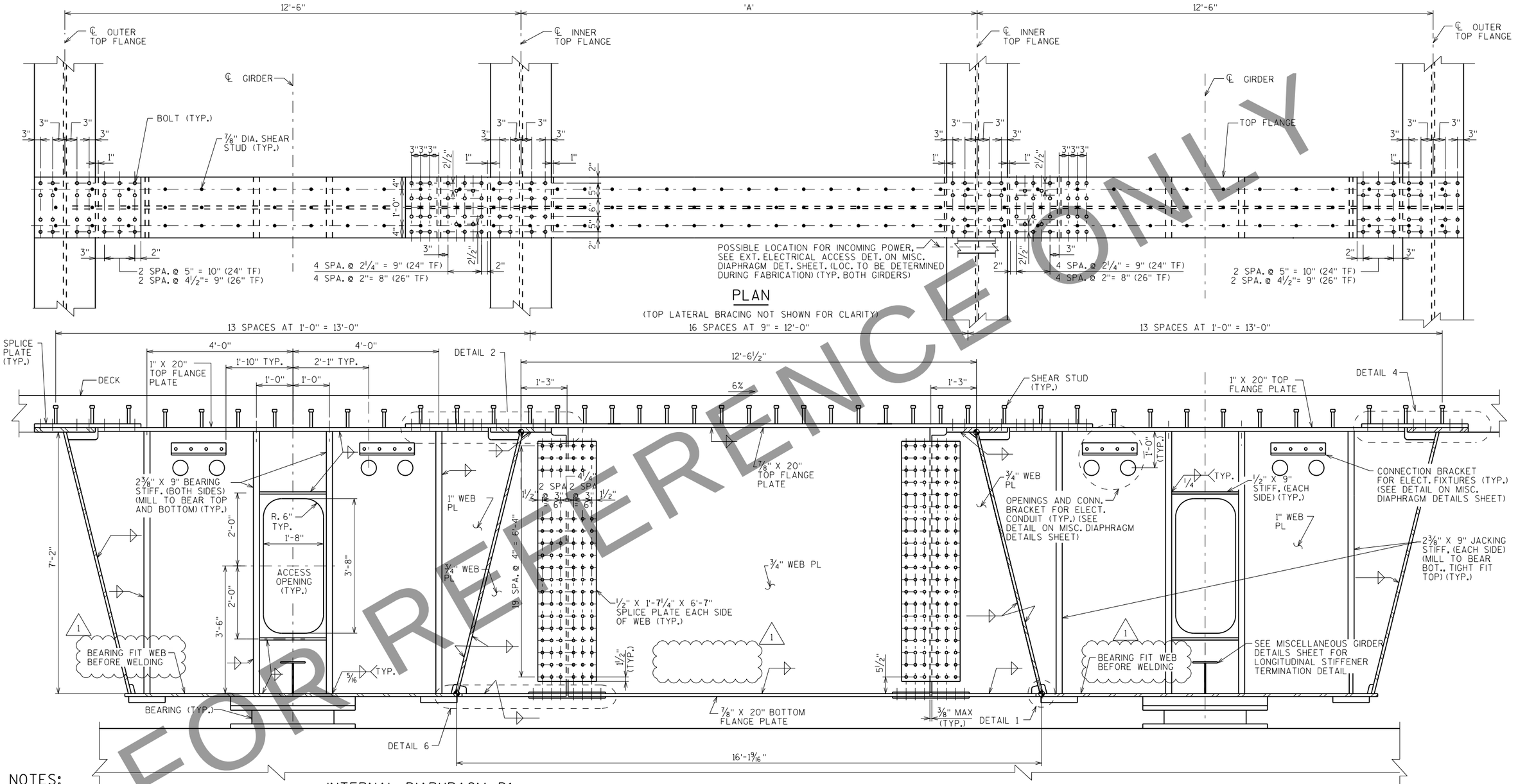
STATE PROJECT NUMBER
1133-11-77



INTERNAL DIAPHRAGM D1 — EXTERNAL DIAPHRAGM 'XD1' — INTERNAL DIAPHRAGM D1

ELEVATION

(SUPERELEVATION NOT SHOWN)

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

STEEL FABRICATION CONTRACT ONLY

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE ⅞" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 2, 4 AND 6 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY JRS | PLANS CK'D. NPP

INTERMEDIATE PIER DIAPHRAGMS XD1 AND D1 1006

SHEET 26 OF 51

DATE: 4.3.2013
I.D.

FILE= O:\Wisdot_12345678_US41Bridges_Plans\B-05-679E\02_B-05-679EX026-B-05-679E_INTERMEDIATE PIER DIAPHRAGMS XD1 D1.dgn

FOR REFERENCE ONLY

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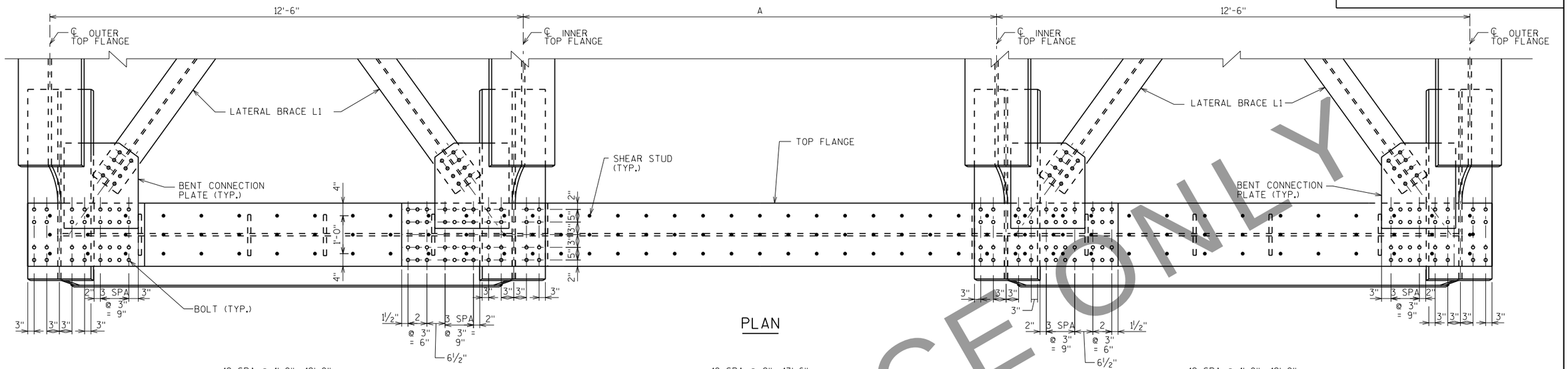
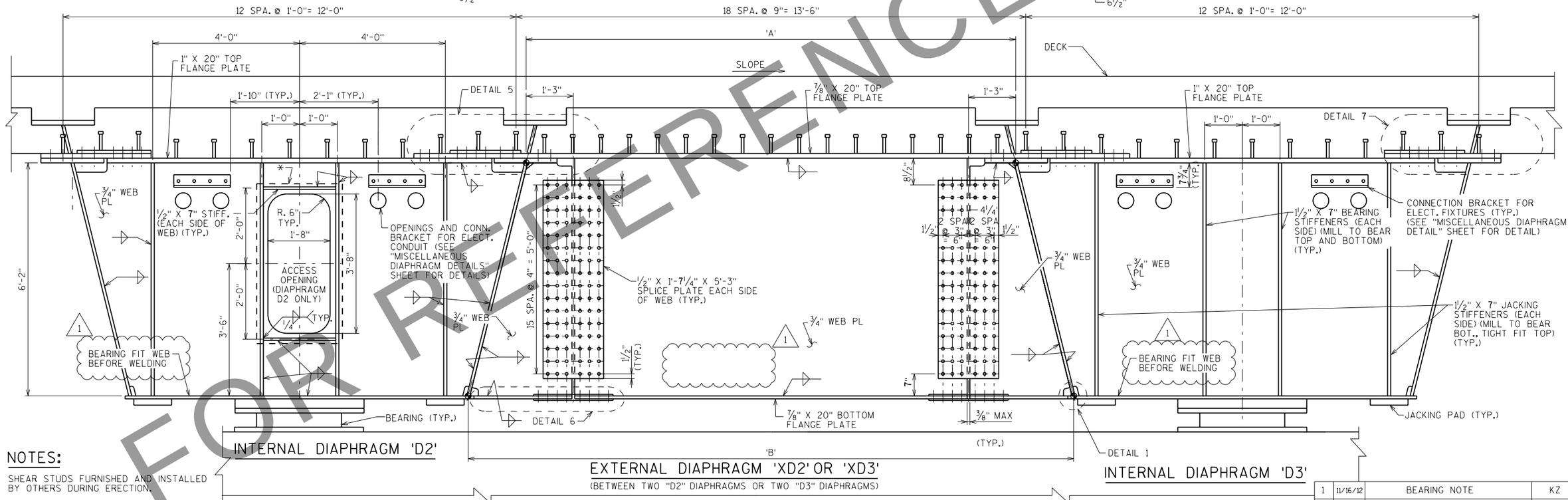
8

STATE PROJECT NUMBER
1133-11-77



PLAN



ELEVATION

(SUPERELEVATION NOT SHOWN)

- SLOPE

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE 7/8" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF AN ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 5, 6 AND 7 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

* ACCESS DOOR REQUIRED AT INTERNAL DIAPHRAGM D2, SEE ACCESS DOOR DETAILS SHEET.

DIMENSIONS ARE MEASURED ALONG SUPERELEVATION.

TABLE OF VARIABLES

	A	B	SLOPE
XD2-1	13'-0 9/16"	16'-1 9/16"	-6.00%
XD3-1	13'-0 9/16"	16'-1 9/16"	-6.00%
XD3-2	13'-0 1/8"	16'-1 1/8"	-2.62%

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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UNIT END DIAPHRAGMS XD2, XD3, D2, AND D3

SHEET 27 OF 51

DATE: 4/3/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679\E_UNIT END DIAPHRAGMS XD2 XD3 D2 D3.dgn

I.D.

FOR REFERENCE ONLY

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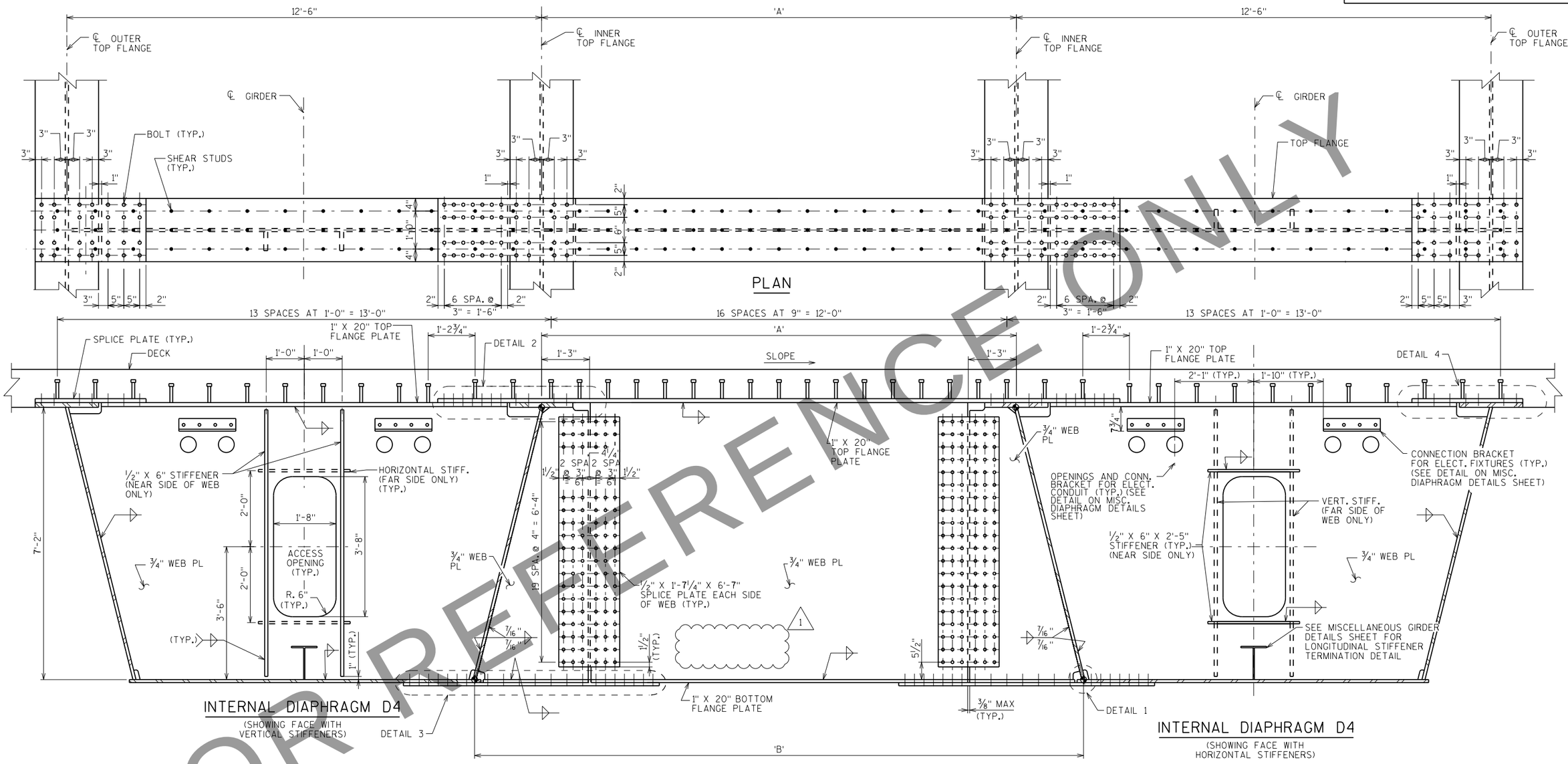
8

STATE PROJECT NUMBER

1133-11-77



INTERNAL DIAPHRAGM D4

(SHOWING FACE WITH VERTICAL STIFFENERS)

INTERNAL DIAPHRAGM D4

(SHOWING FACE WITH HORIZONTAL STIFFENERS)

EXTERNAL DIAPHRAGM 'XD4'

ELEVATION

(SUPERELEVATION NOT SHOWN)

- SLOPE

NOTES:

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING ERECTION.

ALL BOLTS SHOWN SHALL BE ⅞" DIAMETER.

TOP OF DIAPHRAGM TOP FLANGE PLATE TO BE PROVIDED WITH 3 MIL OF ORGANIC ZINC RICH PRIMER.

SEE MISCELLANEOUS DIAPHRAGM DETAILS SHEET FOR DETAILS 1, 2, 3 AND 4 AND SECTIONS.

UNLESS OTHERWISE NOTED, ALL DIMENSIONS GIVEN ARE PARALLEL OR PERPENDICULAR TO SUPERELEVATION.

TABLE OF VARIABLES

	A	B	SLOPE
XD4-1	12'-6½"	16'-1⁹⁄₁₆"	-6.00%
XD4-2	12'-6½"	16'-1½"	-5.84%
XD4-3	12'-6⁵⁄₁₆"	16'-1⁵⁄₁₆"	-4.63%
XD4-4	12'-6³⁄₁₆"	16'-1³⁄₁₆"	-3.42%

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/16/12	BEARING NOTE DELETED	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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INTERMEDIATE DIAPHRAGMS XD4 AND D4 1008

SHEET 28 OF 51

DATE: 4/3/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\XD04_INTERMEDIATE DIAPHRAGMS XD4 D4.dgn

I.D.

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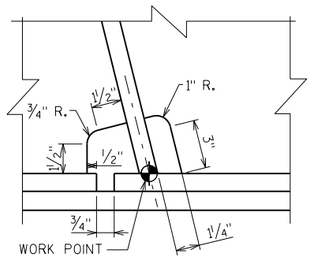
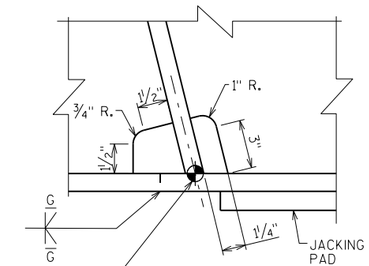
STATE PROJECT NUMBER

1133-11-77



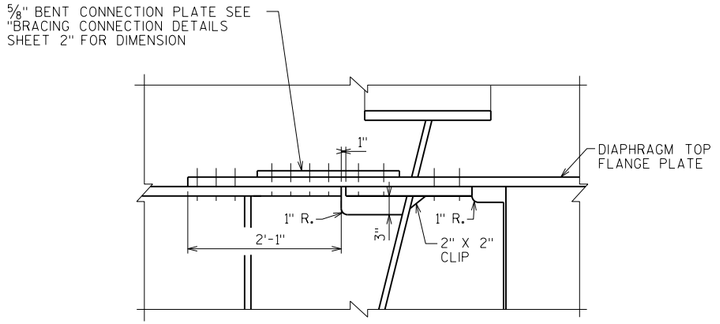
DETAIL 1

DIAPHRAGM XD4/D4



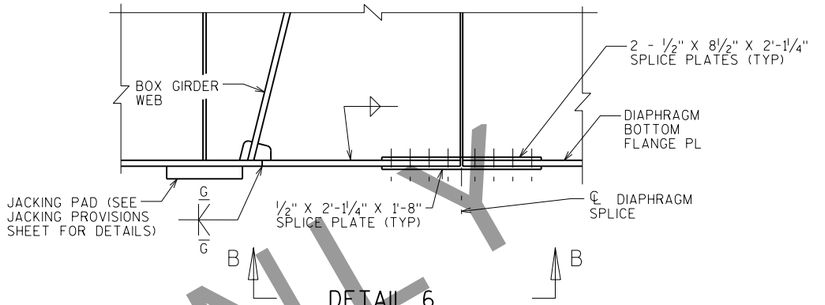
DETAIL 1

DIAPHRAGMS XD1/D1 AND XD2/D2/XD3/D3



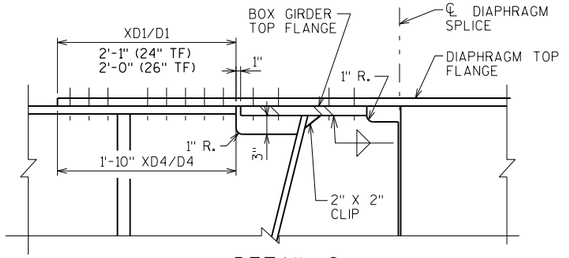
DETAIL 5

DIAPHRAGMS XD2/D2/XD3/D3



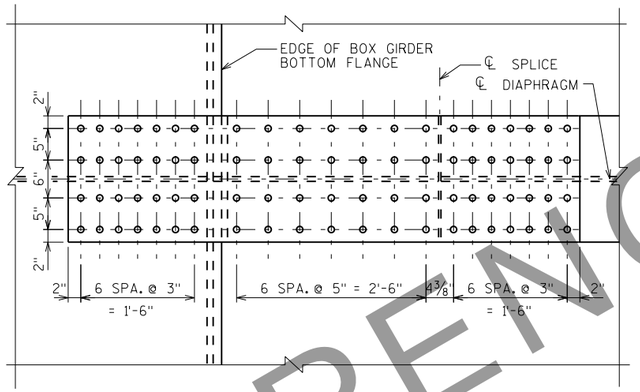
DETAIL 6

DIAPHRAGMS XD1/D1, XD2/D2 AND XD3/D3



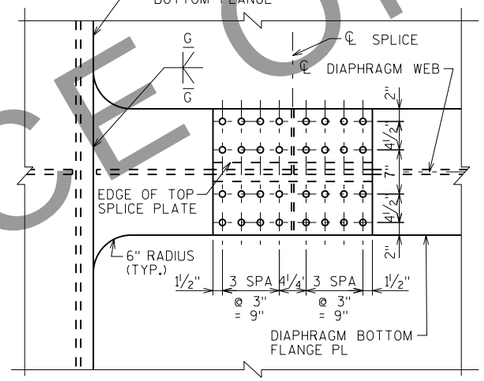
DETAIL 2

SHEET XD1/D1 AND XD4/D4



SECTION A-A

THIS SHEET



SECTION B-B

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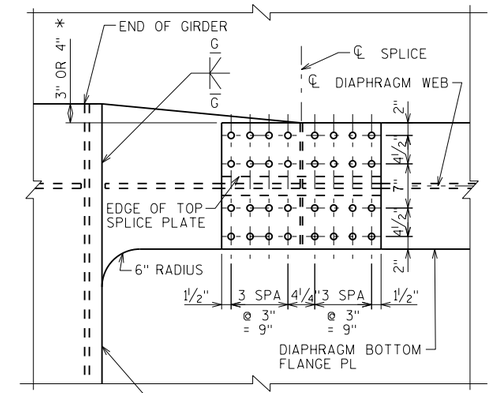
(DIAPHRAGM XD1/D1)



SECTION B-B

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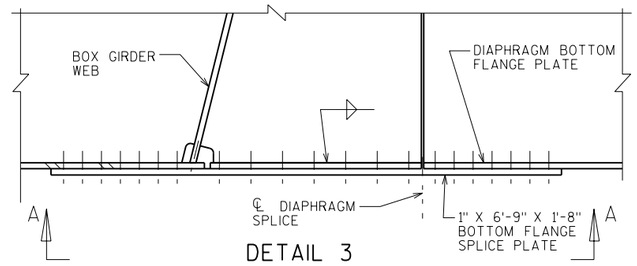
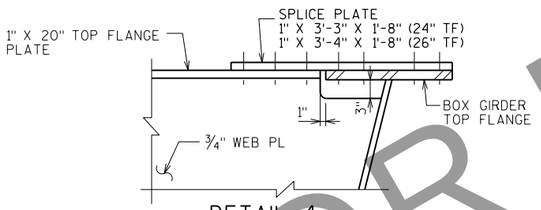
(DIAPHRAGM XD2/D2 AND XD3/D3)



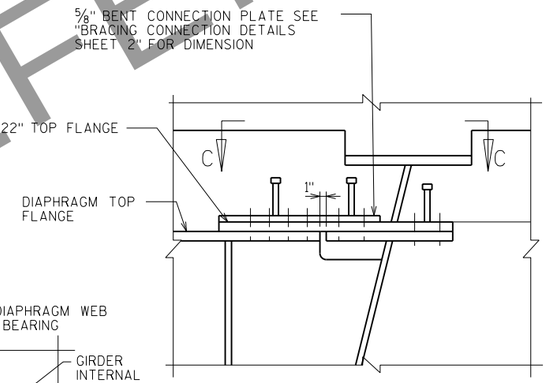
DETAIL 3

DIAPHRAGM XD4/D4



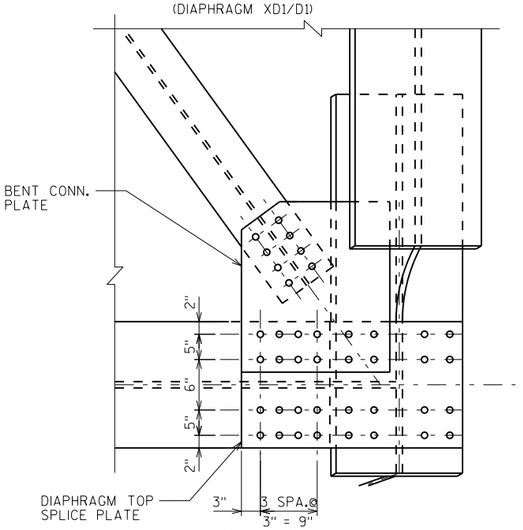
DETAIL 4

DIAPHRAGMS XD1/D1 AND XD4/D4



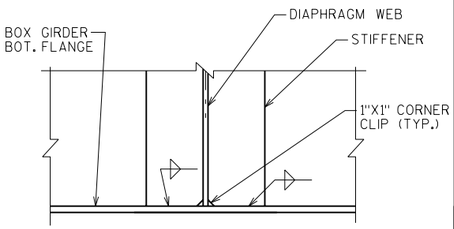
DETAIL 7

DIAPHRAGMS XD2/D2/XD3/D3



SECTION C-C

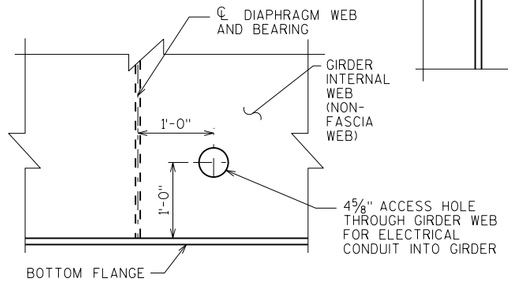
THIS SHEET
(SHEAR STUDS NOT SHOWN FOR CLARITY)



STIFFENER TO FLANGE DETAIL

ALL DIAPHRAGMS AND ALL STIFFENERS
NO WELD AT TOP OF STIFFENERS

OPENINGS AND CONNECTION BRACKET DETAILS FOR ELECTRICAL



EXTERNAL ELECTRICAL ACCESS DETAIL

TWO ACCESS LOCATIONS FOR INCOMING POWER TO INTERIOR OF GIRDER (LOC. TO BE DETERMINED DURING FABRICATION) (TYP. BOTH GIRDERS)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY JRS | PLANS CK'D. NPP

MISCELLANEOUS DIAPHRAGM DETAILS

SHEET 29 OF 51

1009

DATE: 4/3/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\029-B-05-679E_DIAPHRAGM MISC DETAILS.dgn

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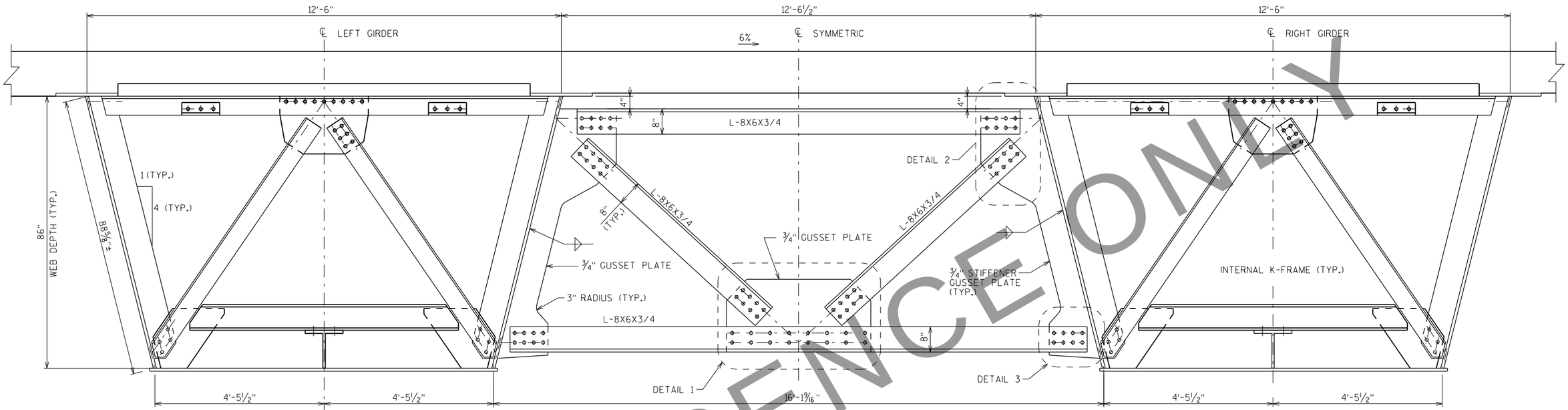
8

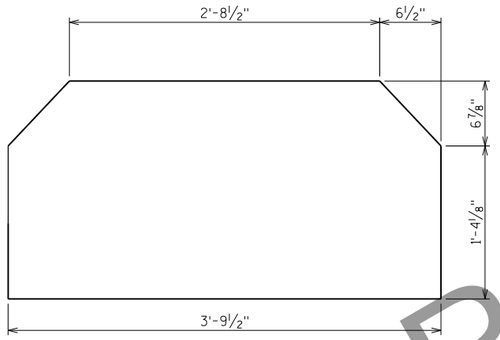
FOR REFERENCE ONLY

STATE PROJECT NUMBER
1133-11-77

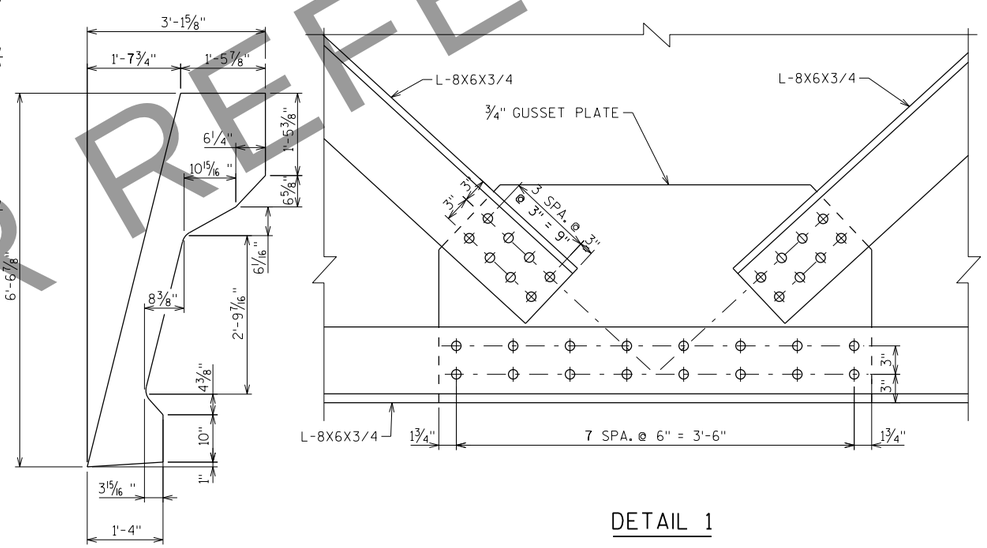


ELEVATION EXTERIOR CROSS FRAME XF

(SUPERELEVATION NOT SHOWN)
(LOOKING UPSTATION)

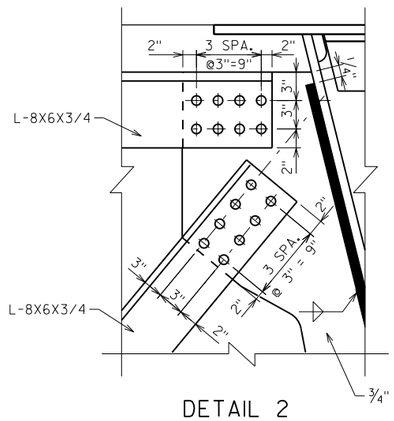


GUSSET PLATE DETAILS

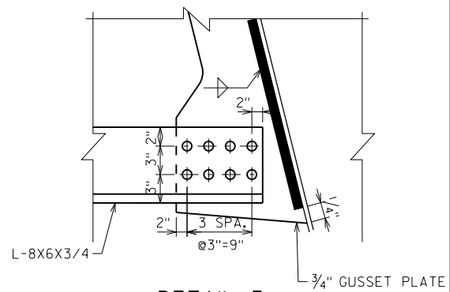


STIFFENER GUSSET PLATE DETAILS

DETAIL 1



DETAIL 2



DETAIL 3

NOTES:

1. ALL HOLES SHALL BE STANDARD DIAMETER - NO OVERSIZE HOLES.
2. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS
3. CROSS FRAMES ARE ALIGNED NORMAL TO THE GIRDERS.
4. EXTERIOR CONNECTION PLATES SHALL BE LOCATED DIRECTLY IN LINE WITH THE CORRESPONDING WEB STIFFENER LOCATED INSIDE THE BOX.
5. FOR SUPERELEVATED ROAD SECTION, THE EXTERIOR FRAMES VARY IN LENGTH

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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EXTERIOR CROSS FRAME DETAILS

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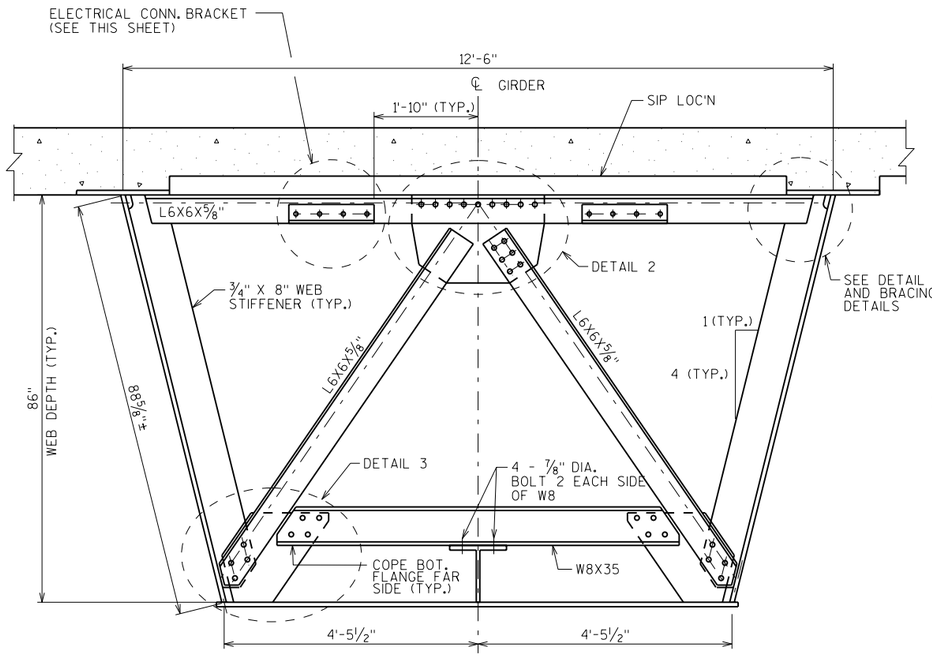
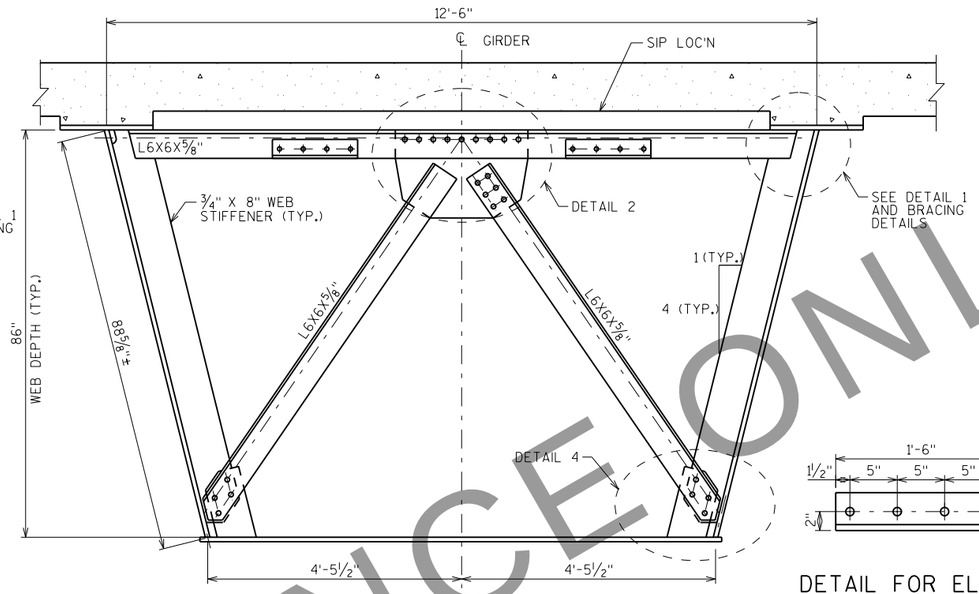
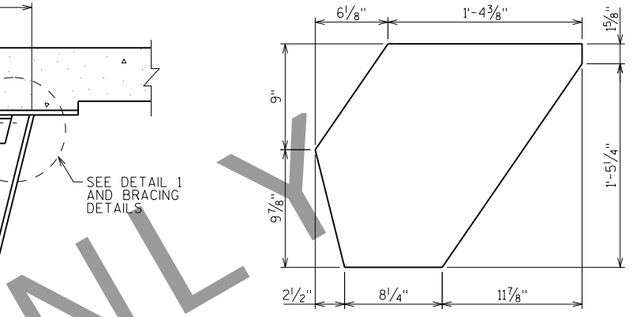
STATE PROJECT NUMBER
1133-11-77



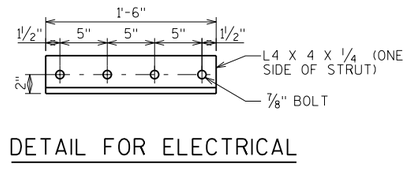
TYPICAL SECTION AT K-FRAME K1
(DETAIL WITH LONGITUDINAL STIFFENER)



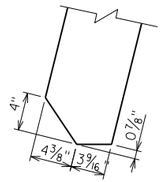
TYPICAL SECTION AT K-FRAME K1
(DETAIL WITHOUT LONGITUDINAL STIFFENER)



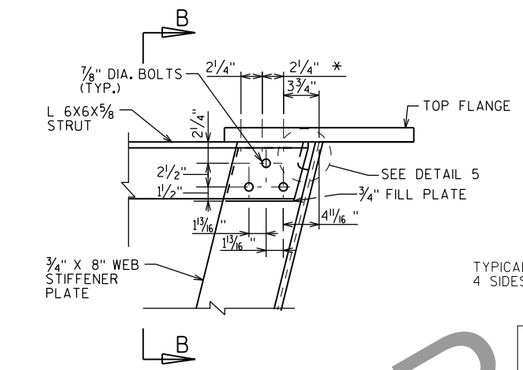
PL 3/4" DETAIL



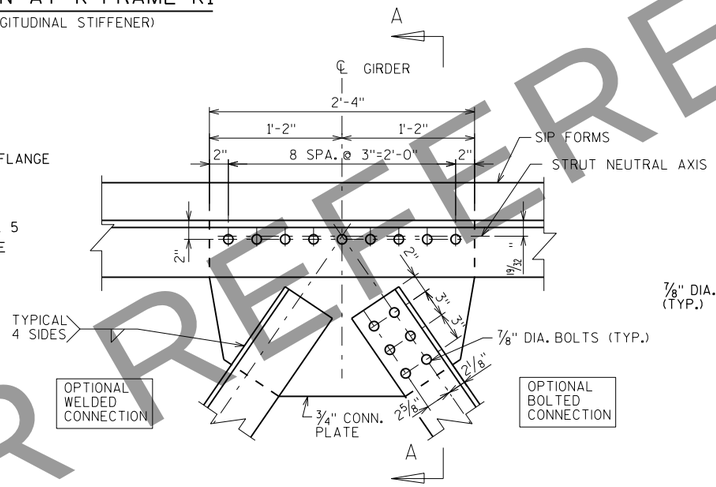
DETAIL FOR ELECTRICAL CONNECTION BRACKET



WEB STIFFENER DETAIL



DETAIL 1



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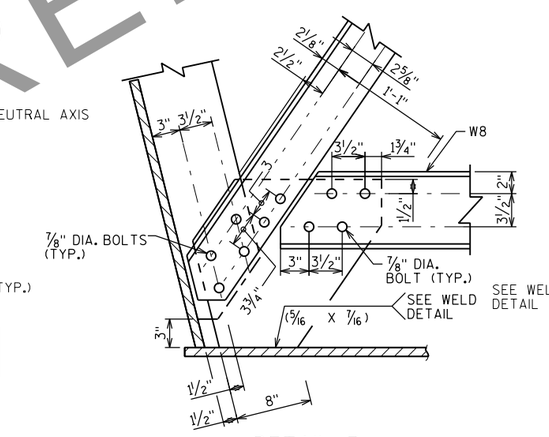
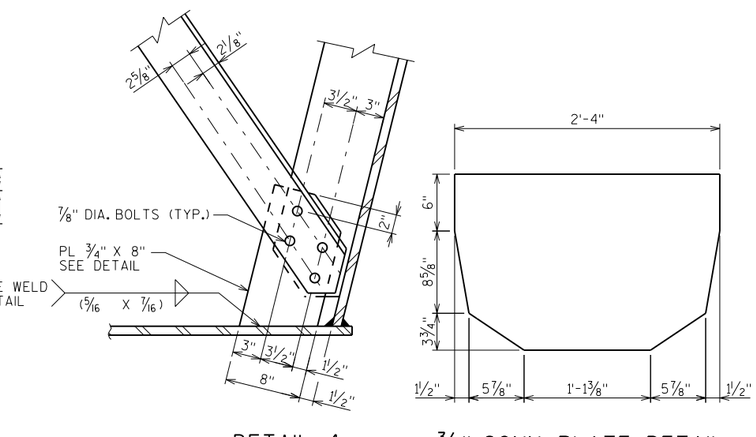


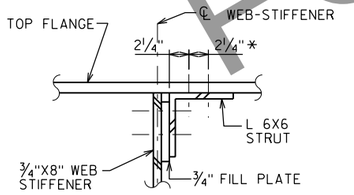
DETAIL 3



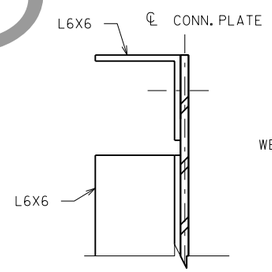
DETAIL 4
(DETAIL FOR CROSS FRAMES WITHOUT BOTTOM CHORD)

3/4" CONN. PLATE DETAIL

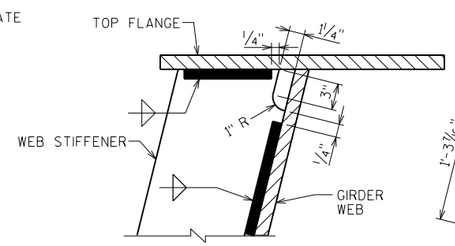
* BOLT SPACING FOR STRUT TO TOP FLANGE CONNECTION. SEE BRACING DETAILS SHEET FOR PLAN VIEW.



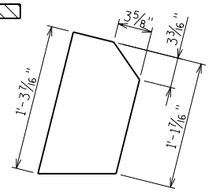
SECTION B-B



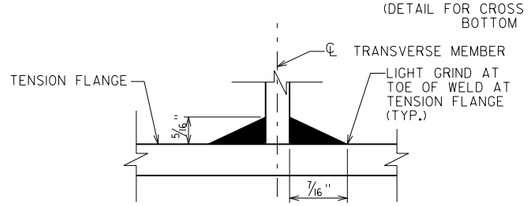
SECTION A-A



DETAIL 5



PL 3/4"X8" DETAIL



TRANSVERSE WELD TO TENSION FLANGE DETAIL
TYP. FOR ANY TENSION FLANGE (BOTTOM FLANGE SHOWN)

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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INTERIOR CROSS FRAME K1 DETAILS 1011

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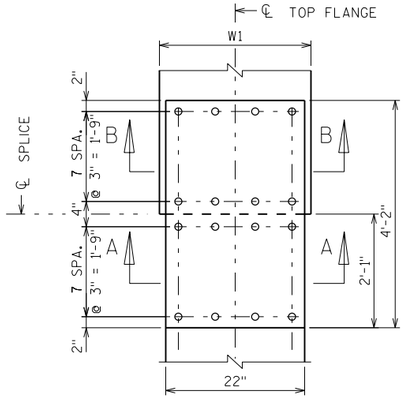
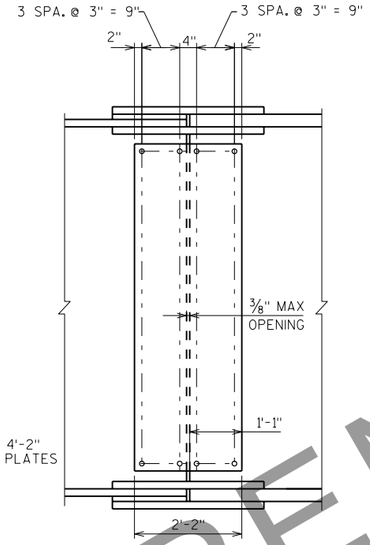
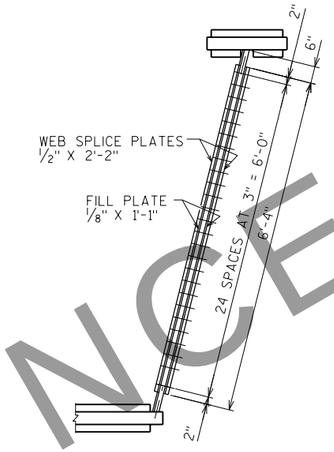


PLAN



ELEVATION



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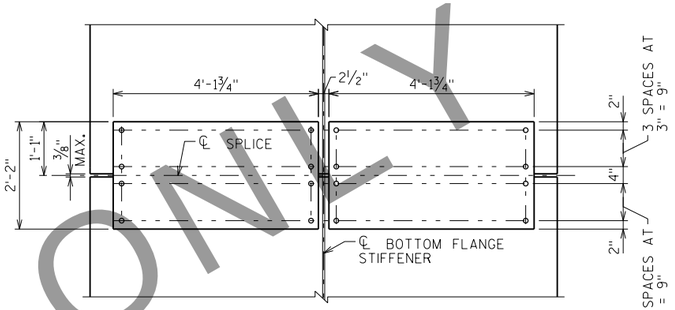
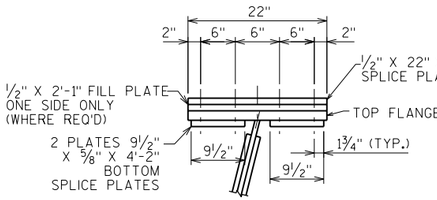
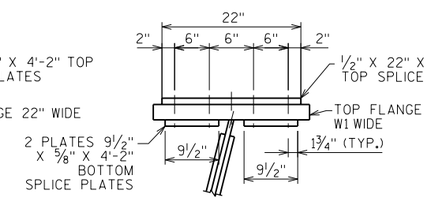


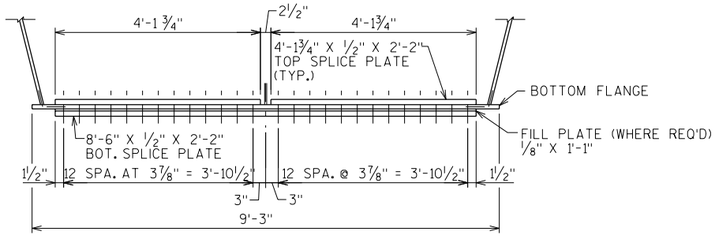
PLAN



SECTION A-A



SECTION B-B



SECTION

TYPICAL TOP FLANGE CONNECTION

TYPICAL WEB CONNECTION

TYPICAL BOTTOM FLANGE CONNECTION

FIELD SPLICE NO.	VARIABLE DIMENSIONS
	W1 (IN)
1	24
2	24
3	26
4	26
5	26
6	26
7	24
8	24
9	24
10	24
11	26
12	26
13	26
14	26
15	24
16	24

NOTES:

ALL BOLTS SHOWN ARE 7/8" DIAMETER ASTM A325 TYPE 1.

ALL HOLES SHALL BE STANDARD DIAMETER NO OVERSIZE HOLES.

ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CLASS A CONNECTIONS

ALL SPLICE PLATES SHALL BE ASTM A709 GRADE HPS 50W.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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FIELD SPLICE DETAILS

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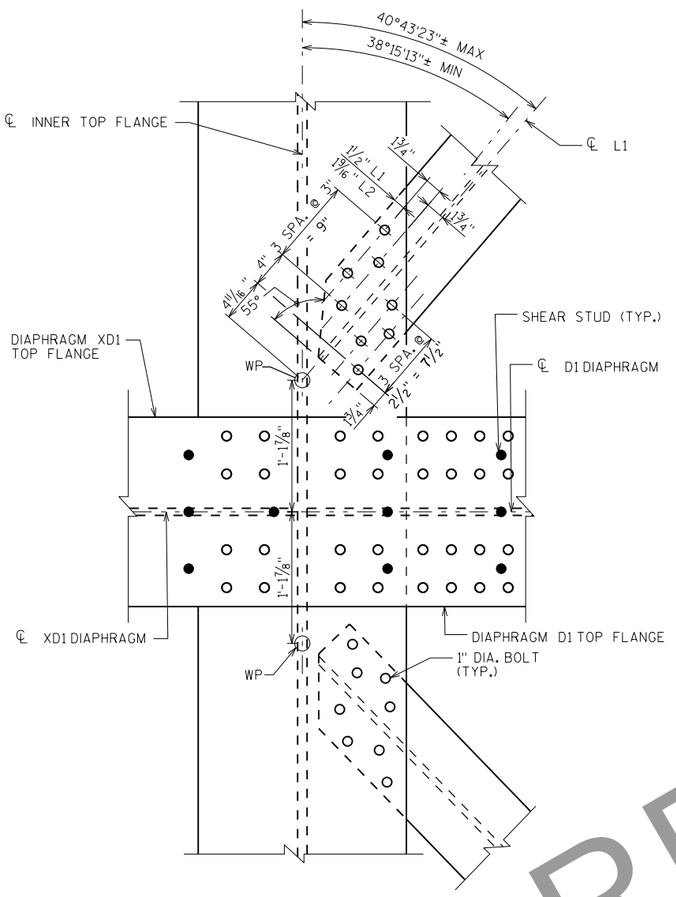
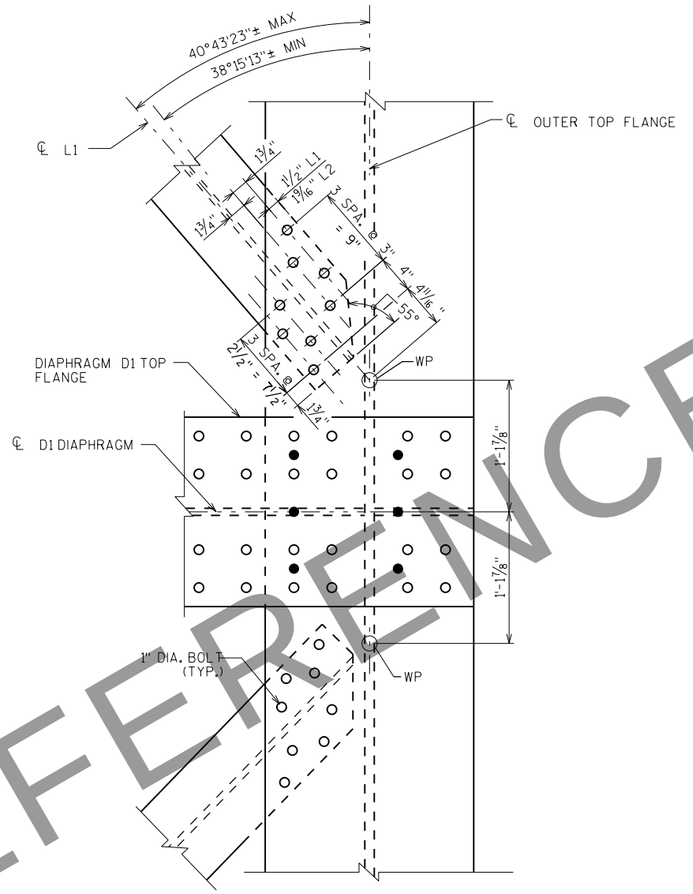


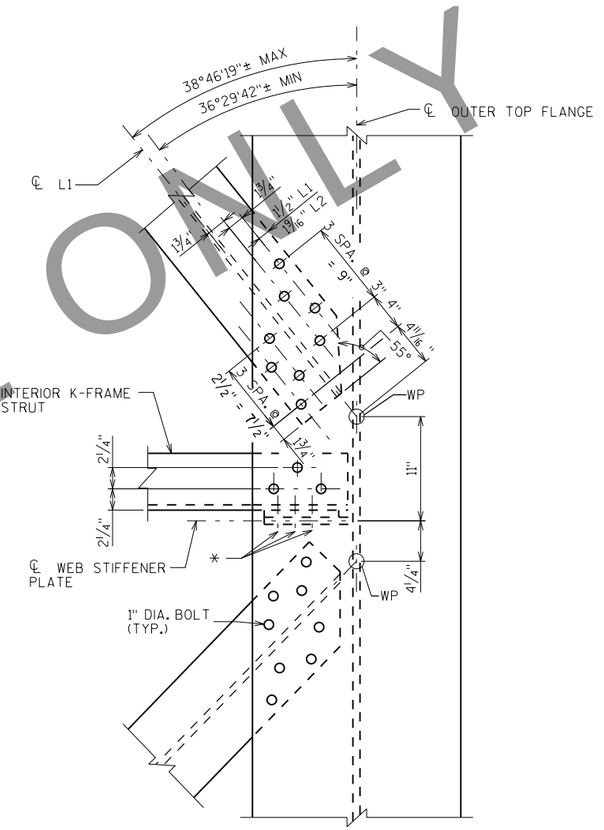
PLAN VIEW AT DIAPHRAGM XD1/D1

(SHOWING INNER TOP FLANGE)
(XD4/D4 SIMILAR)



PLAN VIEW AT DIAPHRAGM XD1/D1

(SHOWING OUTER TOP FLANGE)
(XD4/D4 SIMILAR)



PLAN VIEW AT K-FRAME

(SHOWING OUTER TOP FLANGE)
(INNER TOP FLANGE SIMILAR)

NOTES:

LATERAL BRACE L1 SHALL BE CONNECTED TO THE DIAPHRAGM TOP FLANGE AND GIRDER TOP FLANGE WITH 8-1" DIAMETER BOLTS.

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR LOCATIONS OF DETAILS.

LATERAL BRACE MEMBERS:

L1: WT7X34

* SEE INTERIOR CROSS FRAME K-1 DETAILS SHEET FOR ADDITIONAL DETAILS FOR BOLTED CONNECTION THROUGH STRUT ANGLE LEG TO WEB STIFFENER.

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STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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BRACING CONNECTION DETAILS SHEET 1

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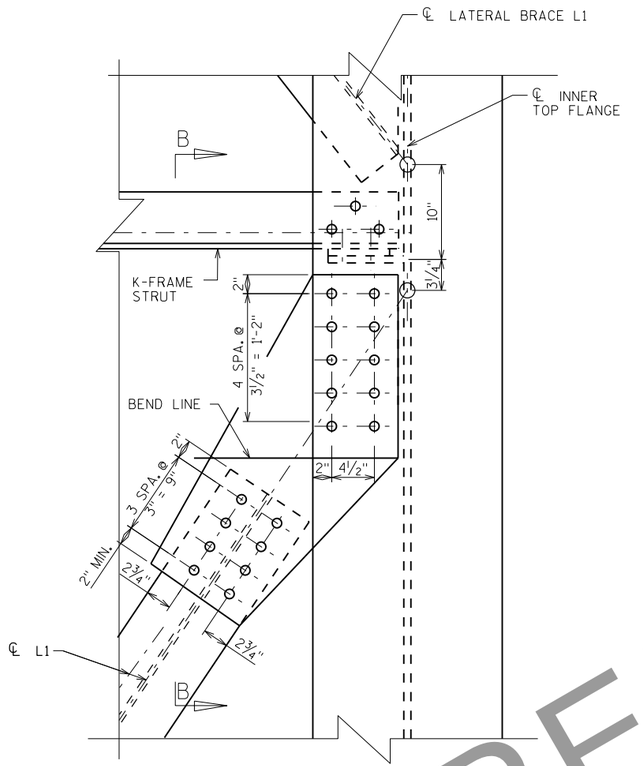
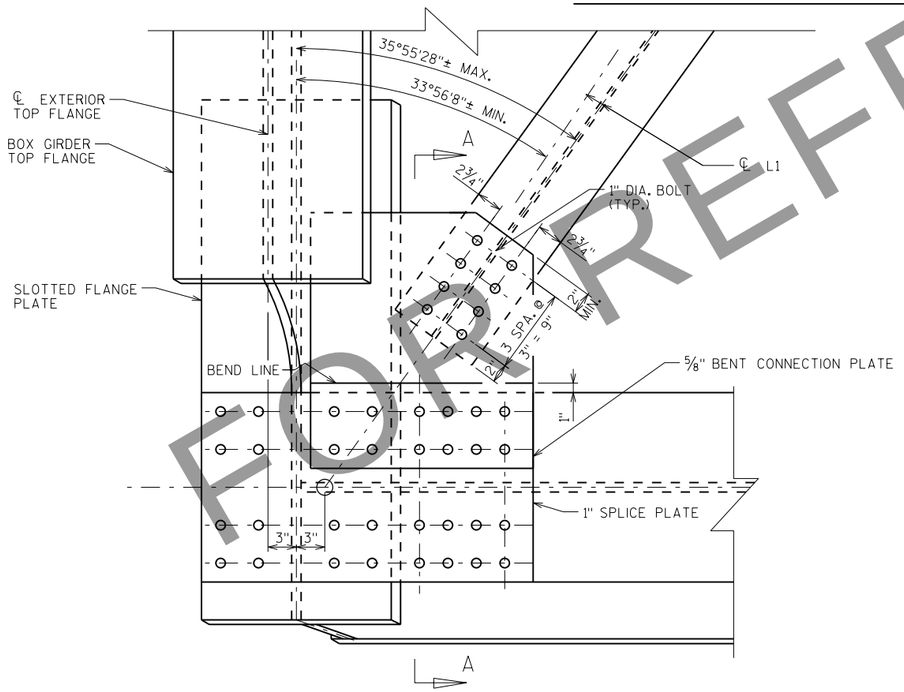
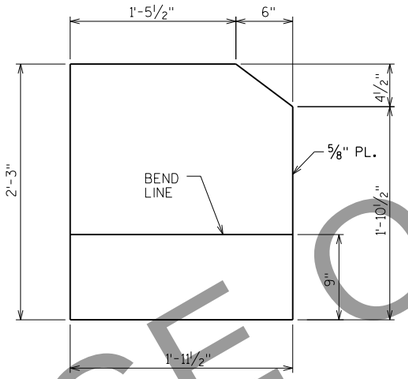


PLAN VIEW AT K-FRAME ADJACENT TO UNIT END

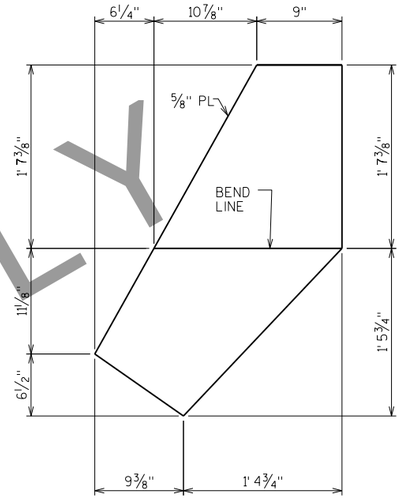


PLAN VIEW AT UNIT END DIAPHRAGM

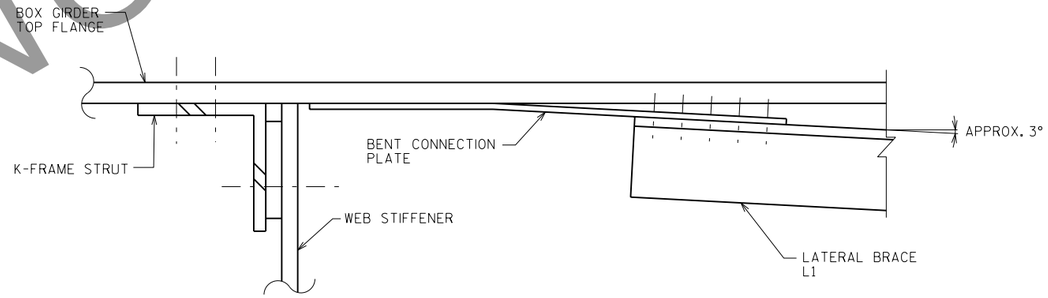
(EXTERIOR GIRDER SHOWN, INTERIOR GIRDER SIMILAR)



BENT CONNECTION PLATE DETAIL

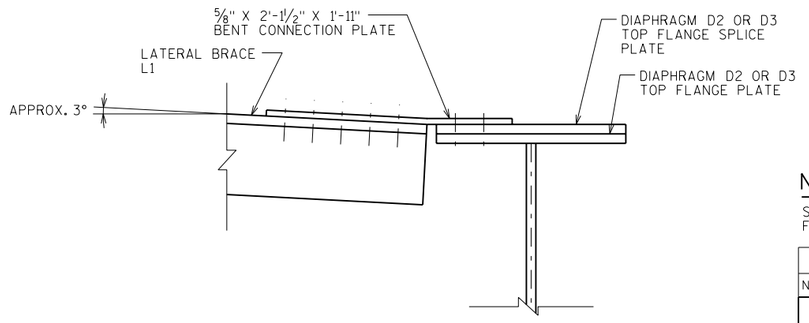


BENT CONNECTION PLATE DETAIL



SECTION B-B

THIS SHEET



SECTION A-A

THIS SHEET

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR LOCATIONS OF DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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BRACING CONNECTION DETAILS SHEET 2

SHEET 34 OF 51

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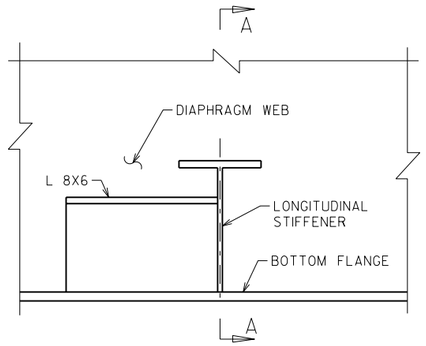
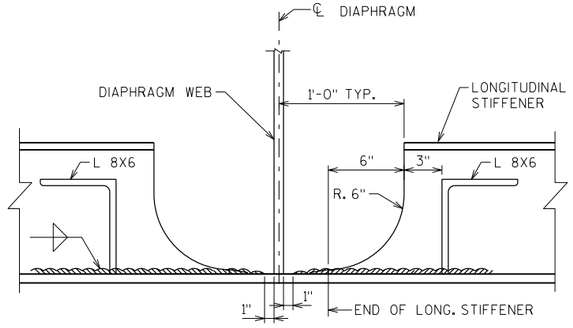
1133-11-77

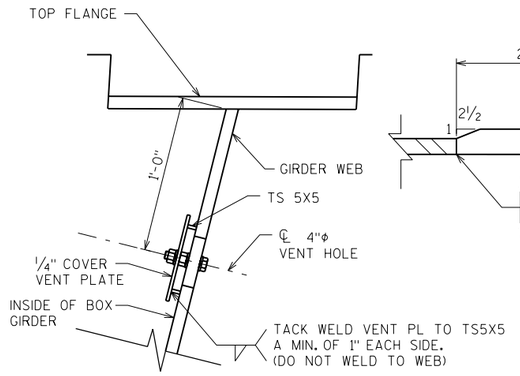


STIFFENER TERMINATION AT INTERIOR DIAPHRAGM

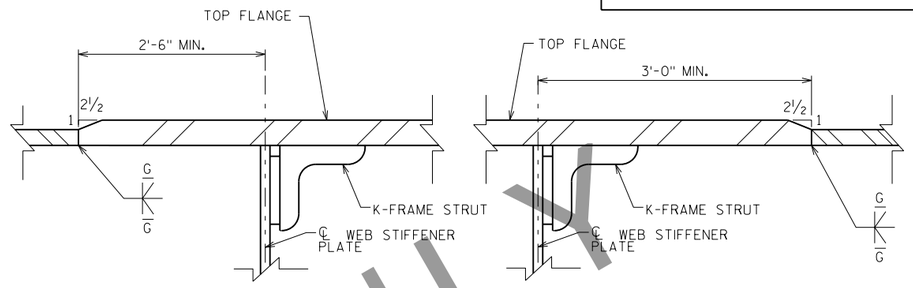


SECTION A-A

FOR MORE INFORMATION AND DETAILS SEE MISCELLANEOUS GIRDER DETAILS SHEET 2

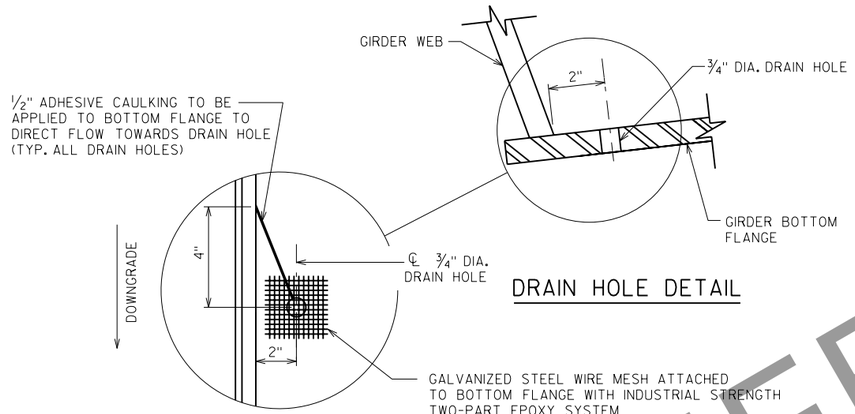


VENT HOLE LOCATION



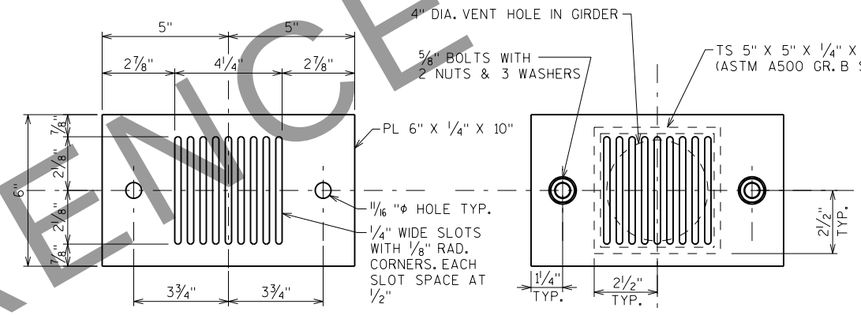
FLANGE THICKNESS TRANSITION DETAIL

NOT TO SCALE



DRAIN HOLE DETAIL

PLAN OF DRAIN HOLES



COVER VENT PLATE — INSIDE FACE

VENT HOLE COVER ASSEMBLY

NOT TO SCALE

NOTES:

SEE GIRDER PLAN AND ELEVATION SHEETS FOR DRAIN AND VENT HOLE LOCATIONS.

LOCATE ALL VENT HOLES ON THE INTERIOR WEBS - I.E. THE RIGHT WEB OF THE LEFT GIRDER AND THE LEFT WEB OF THE RIGHT GIRDER.

VENT HOLE COVER ASSEMBLIES SHALL BE HOT- DIP GALVANIZED AFTER FABRICATION AND INSTALLED AFTER GIRDERS ARE PAINTED.

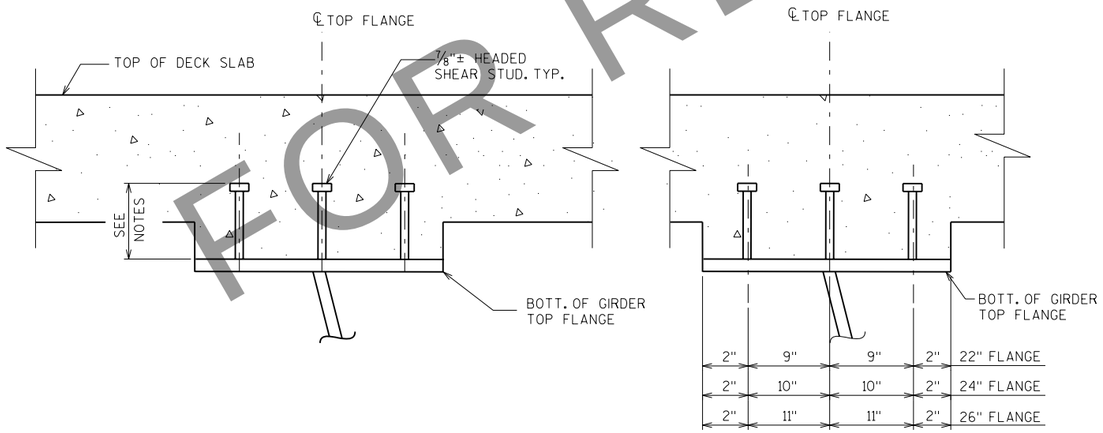
LOCATE ALL DRAIN HOLES ON THE LOW SIDE OF THE GIRDER AS SHOWN.

COST OF ADHESIVE CAULKING, WIRE MESH AND ATTACHMENT IS INCLUDED IN THE COST OF "FABRICATED STRUCTURAL STEEL HPS 50W B-5-679".

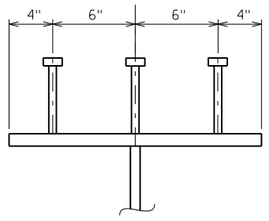
SHEAR STUD CONNECTORS ARE SHOWN FOR REFERENCE ONLY AND ARE NOT FURNISHED OR INSTALLED AS PART OF THIS CONTRACT.

SHEAR CONNECTORS PROVIDED IN FUTURE CONTRACT WILL PENETRATE INTO DECK 2" ABOVE BOTTOM MAT OF REINFORCING STEEL.

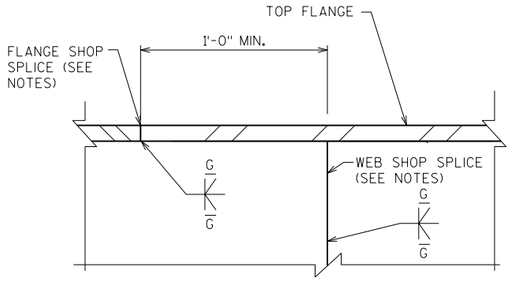
FOR WEB PLATES WITH LENGTHS MORE THAN 90'-0", ONE OPTIONAL WELDED SHOP SPLICE IS ALLOWED PER FIELD SECTION. FOR ALL FLANGE PLATES, A MAXIMUM OF TWO OPTIONAL WELDED SHOP SPLICES IS ALLOWED PER FIELD SECTION. NO ADDITIONAL PAYMENT WILL BE MADE FOR OPTIONAL WELDED SHOP SPLICES OR FOR SHOP SPLICES AS REQUIRED DUE TO MAXIMUM PLATE LENGTH AVAILABILITY FROM THE MILL.



SHEAR STUD DETAIL



SHEAR STUD DETAIL AT DIAPHRAGM



OPTIONAL SHOP SPLICE DETAIL

NOT TO SCALE
(SEE FLANGE THICKNESS TRANSITION DETAIL FOR MINIMUM SPACING OF SHOP SPLICES TO STIFFENERS AND K-FRAMES)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY ZMG | PLANS CK'D. NPP

MISCELLANEOUS GIRDER DETAILS SHEET 1

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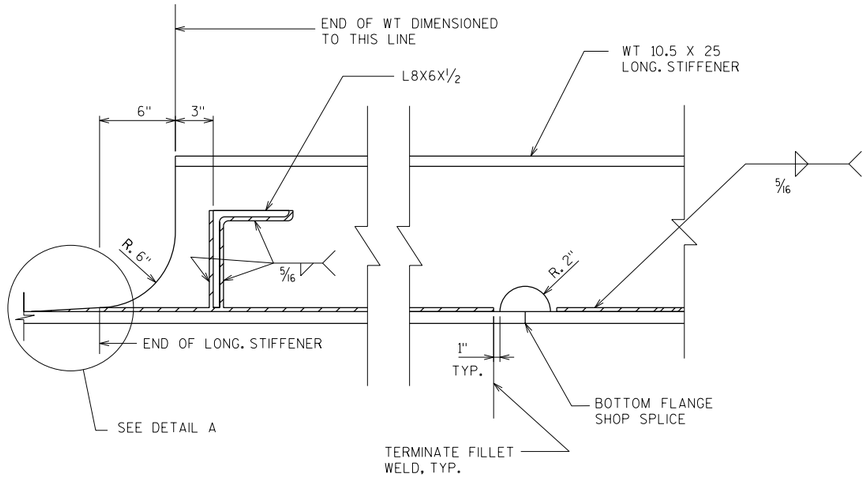
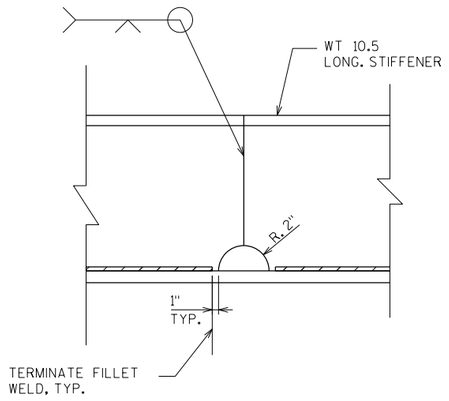
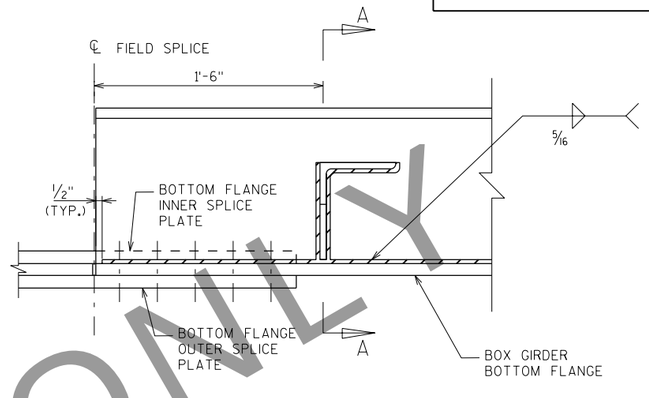


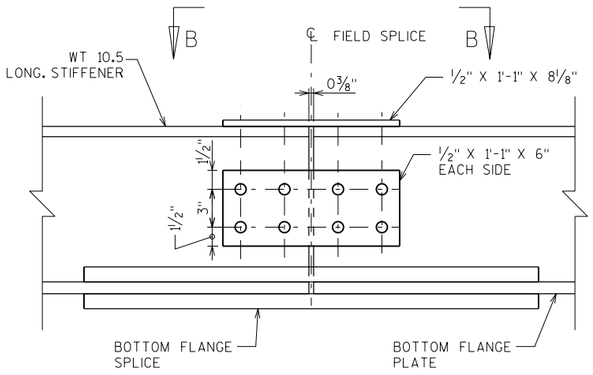
BOTTOM FLANGE LONGITUDINAL STIFFENER TYPICAL TERMINATION DETAIL



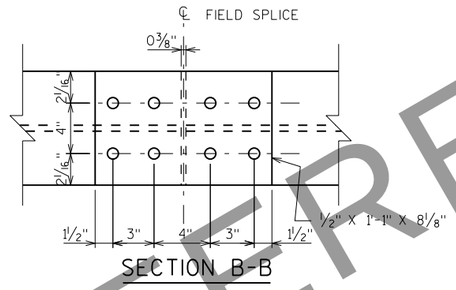
BOTTOM FLANGE LONGITUDINAL STIFFENER SPLICE



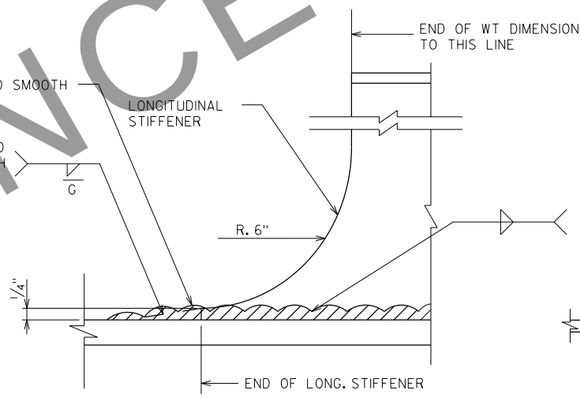
BOTTOM FLANGE LONGITUDINAL STIFFENER TERMINATION DETAIL AT GIRDER FIELD SPLICE



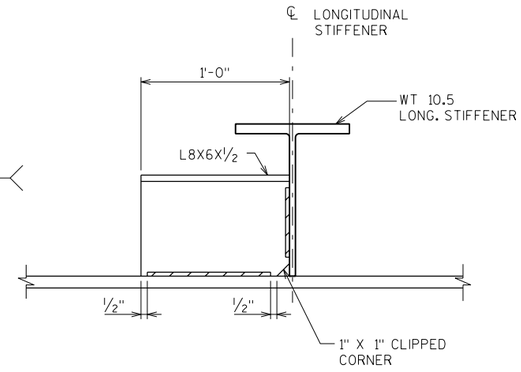
BOTTOM FLANGE LONGITUDINAL STIFFENER FIELD SPLICE DETAIL



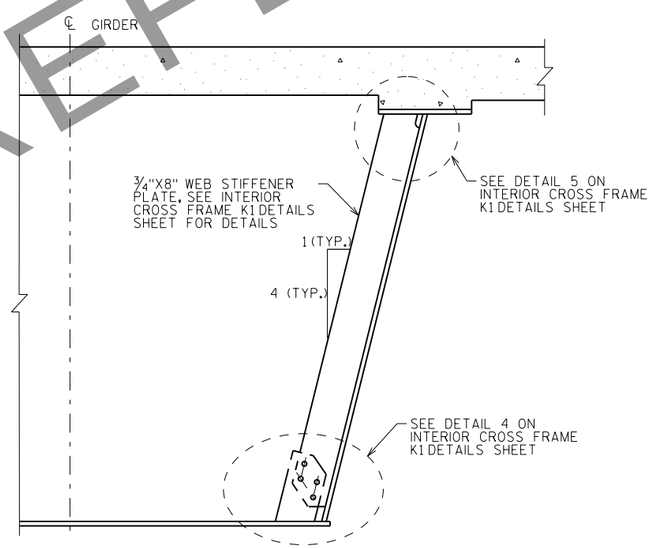
SECTION B-B



DETAIL A



SECTION A-A



TYPICAL SECTION AT INTERMEDIATE WEB STIFFENER

(HALF-SECTION SHOWN)

BOTTOM FLANGE LONGITUDINAL STIFFENER TERMINATION DETAIL

NOTES:

FOR NOTES SEE MISCELLANEOUS GIRDER DETAILS SHEET.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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MISCELLANEOUS GIRDER DETAILS SHEET 2 1016

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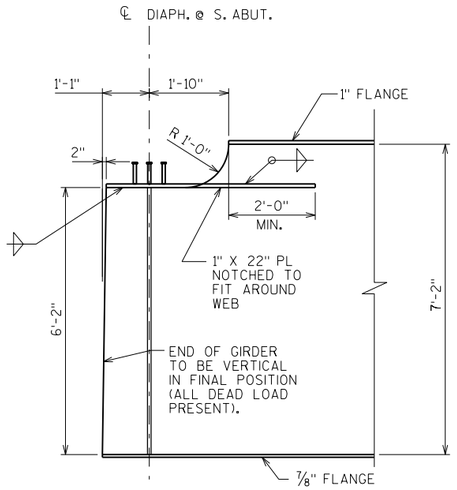
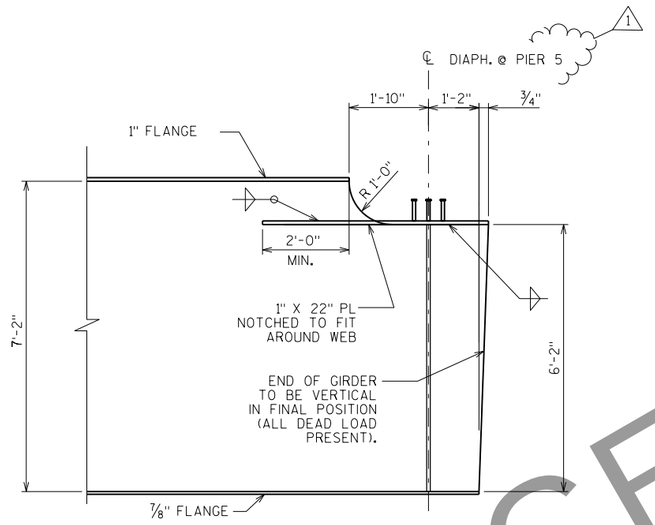
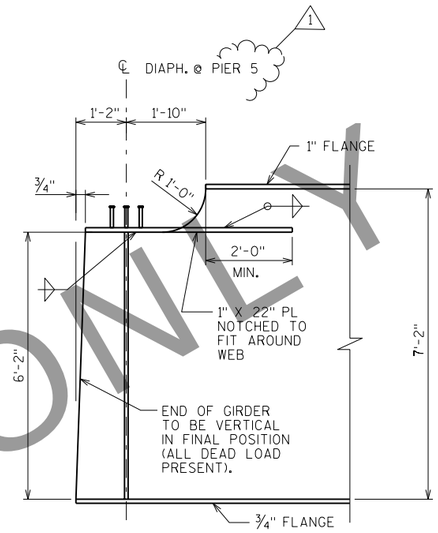


UNIT 1 SPAN 1

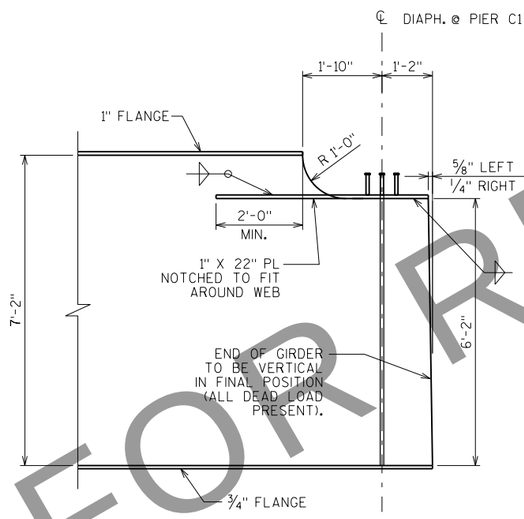
(GIRDER IS PARALLEL TO VERTICAL CURVE)



UNIT 1 SPAN 5



UNIT 2 SPAN 6



UNIT 2 SPAN 10

FOR REFERENCE ONLY

NOTE:

GIRDER FLANGES ARE NOT HORIZONTAL, BUT PARALLEL TO VERTICAL CURVE. DIAPHRAGMS ARE PERPENDICULAR TO GIRDERS FLANGES. ONLY ENDS OF GIRDER WEBS ARE VERTICAL.

NO.	DATE	REVISION	BY
1		REVISED CALL OUTS FOR PIER 5	PMV

STATE OF WISCONSIN
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STRUCTURE B-5-679

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MISCELLANEOUS GIRDER DETAILS SHEET 3

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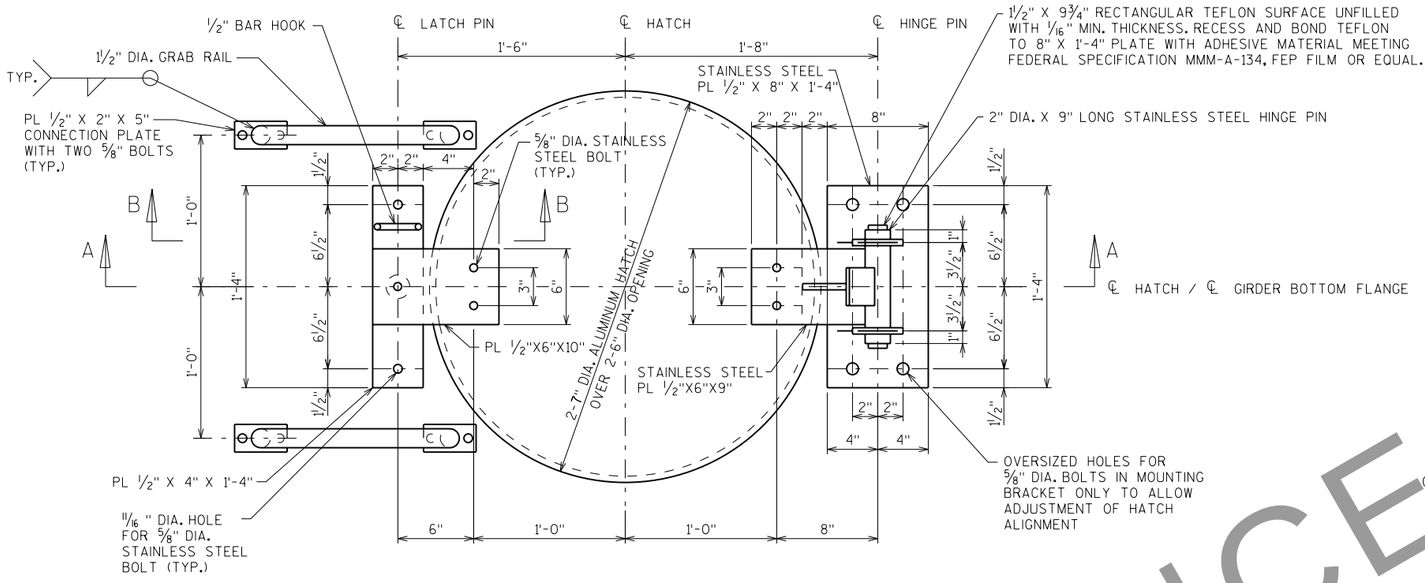
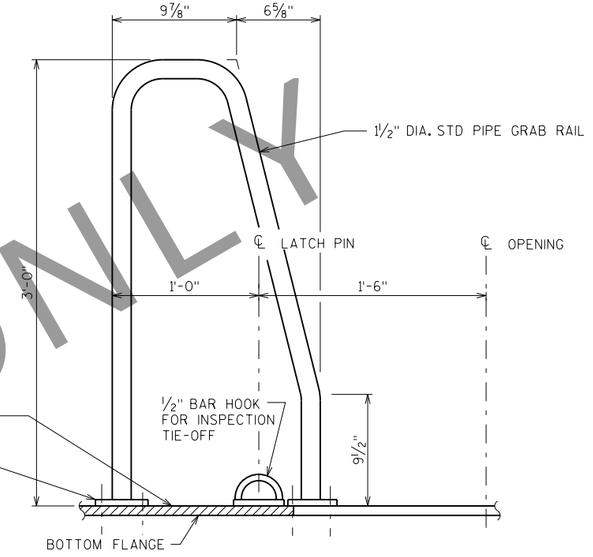
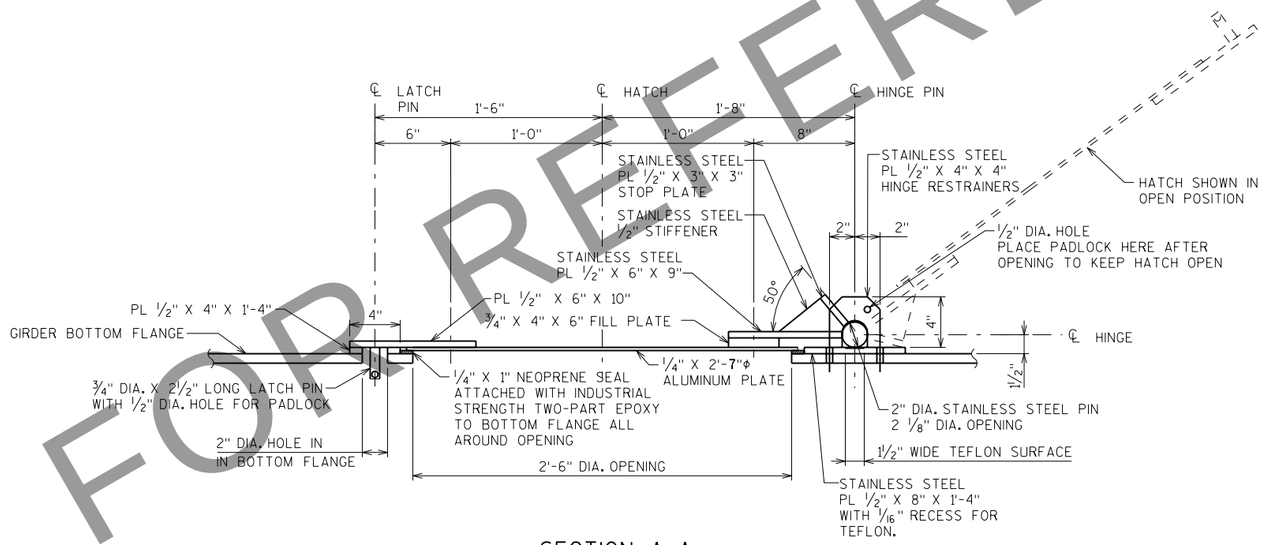


PLAN



SECTION B-B



SECTION A-A

NOTES:

ALL BOLTS SHOWN ARE ⅝" DIAMETER STAINLESS STEEL.

FOUR ACCESS HATCHES REQUIRED. SEE GIRDER PLAN AND ELEVATION SHEETS FOR HATCH LOCATIONS IN SPANS 4 AND 10.

STEEL FOR HATCH IS A709 GRADE 50 UNLESS OTHERWISE NOTED.

ALL MATERIALS SHOWN WILL BE PAID FOR AT THE UNIT PRICE BID FOR "FABRICATED STRUCTURAL STEEL HS B-5-679".

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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ACCESS HATCH DETAILS

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STEEL FABRICATION CONTRACT ONLY

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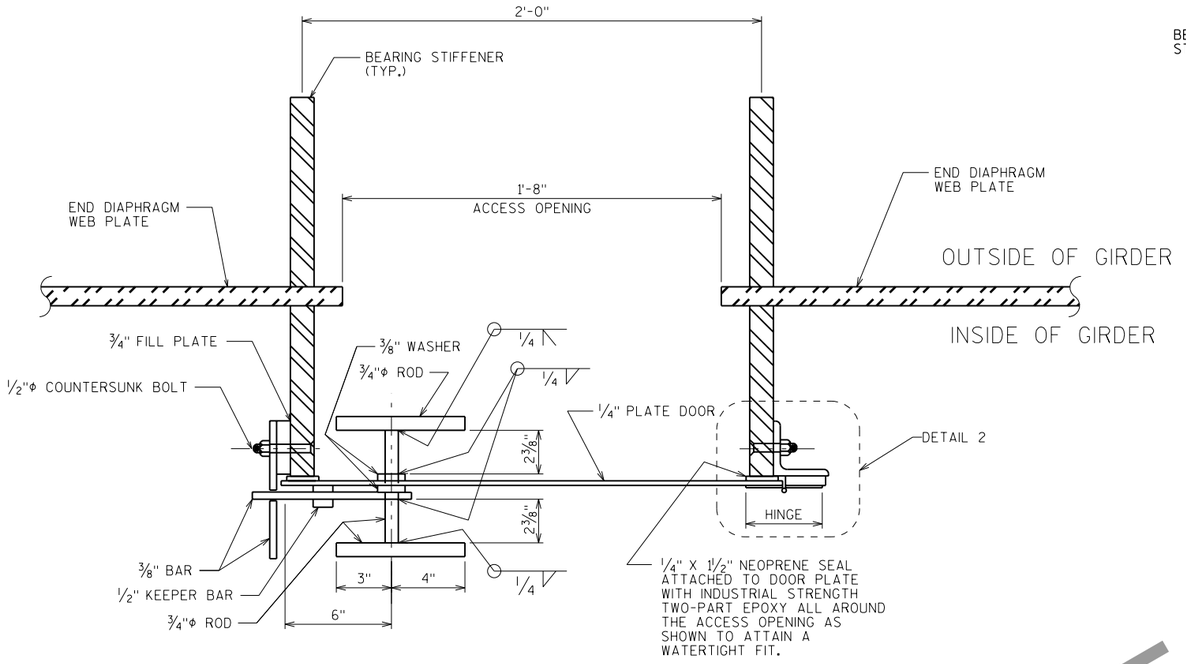
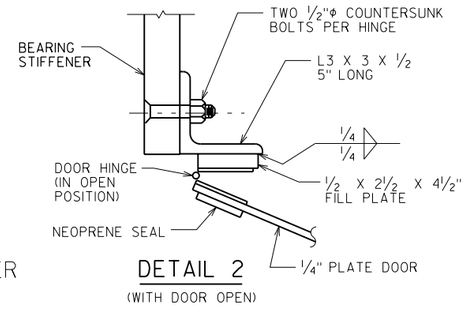
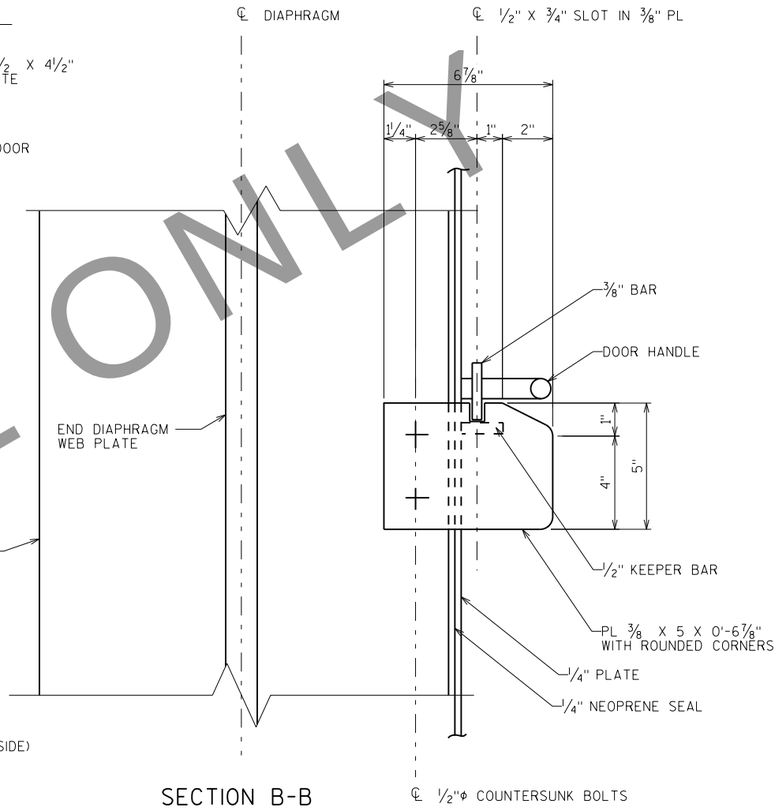


SECTION A-A

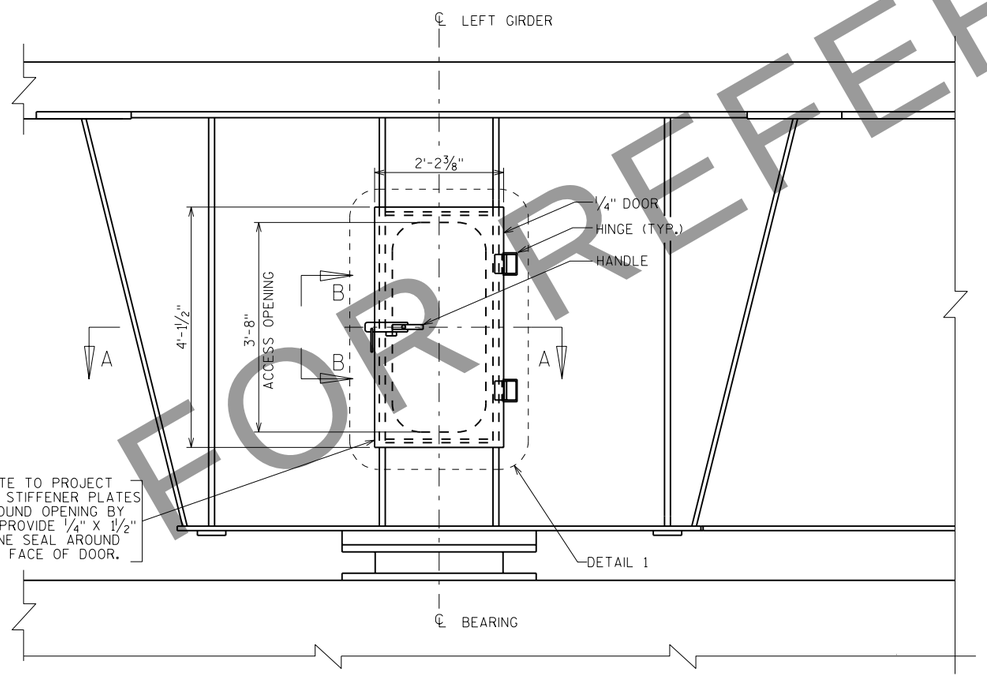


DETAIL 2

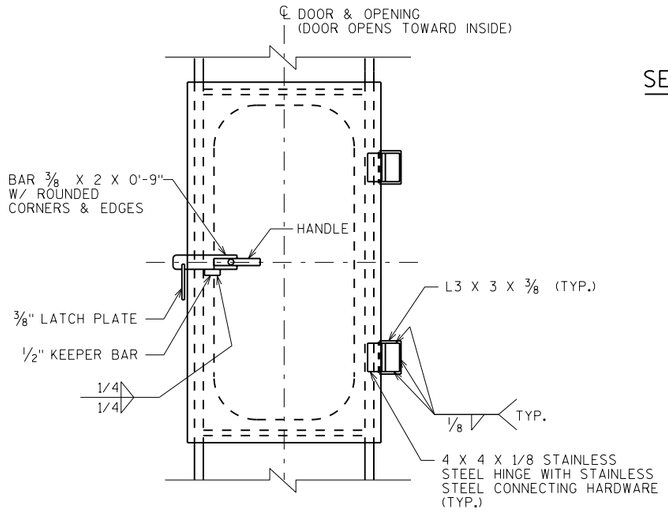
(WITH DOOR OPEN)



SECTION B-B



ELEVATION



DETAIL 1

NOTES:

8 DOORS TOTAL REQUIRED:
4 AT PIER 3
4 AT PIER 8

DOORS OPEN TOWARDS THE INSIDE OF THE BOX GIRDERS.

THE COST OF ACCESS DOOR AND ITS ATTACHMENT IS INCLUDED IN THE COST OF "FABRICATED STRUCTURAL STEEL HS B-5-679".

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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ACCESS DOOR DETAILS

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STEEL FABRICATION CONTRACT ONLY

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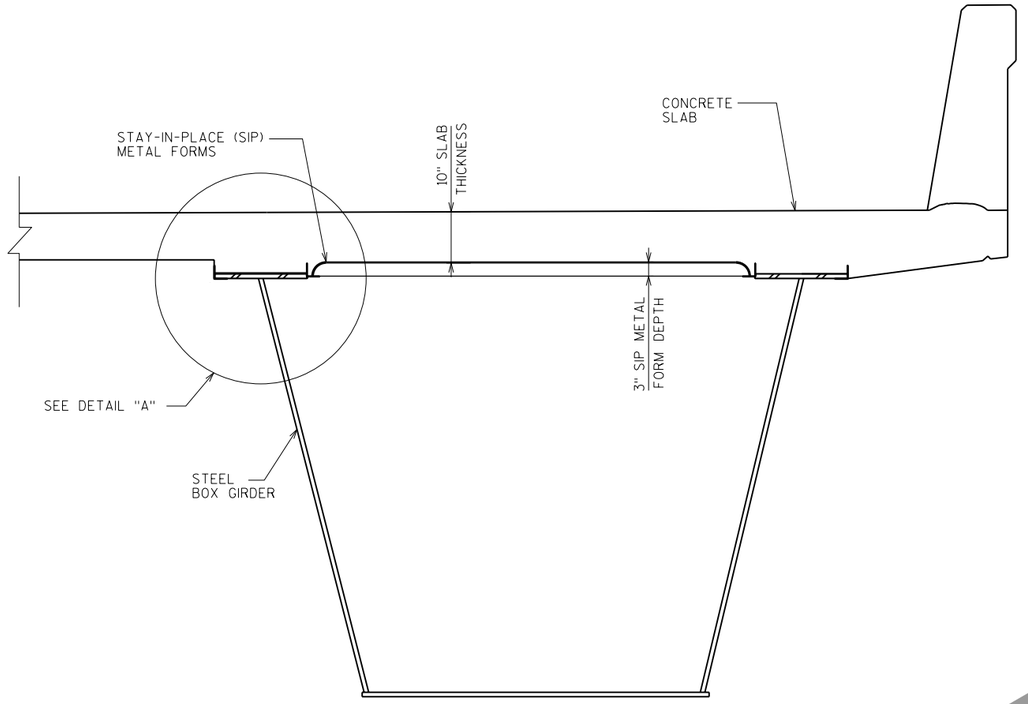
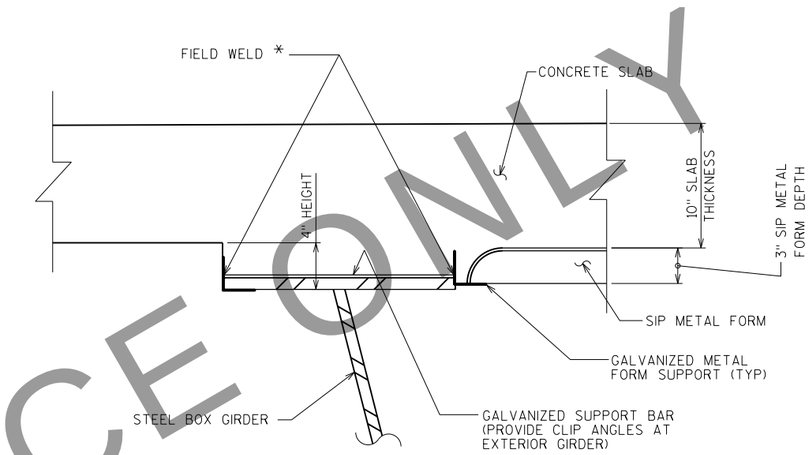


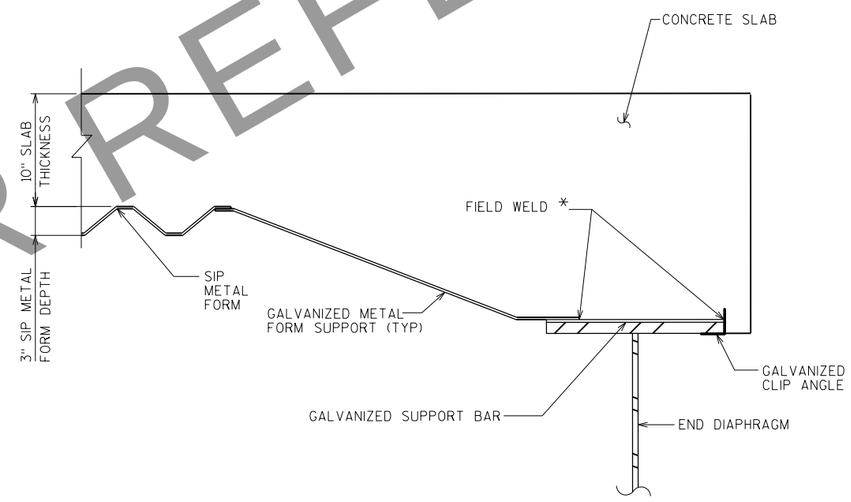
PARTIAL SECTION THROUGH SUPERSTRUCTURE

(SHOWING TYPICAL DETAILS AND NOTES FOR SIP METAL FORMS)



DETAIL "A"

* DO NOT WELD TO NOR PERMIT WELD SPATTER ON SUPPORTING STEEL GIRDER, DIAPHRAGMS, BRACING ETC. ELECTRICAL GROUNDING TO STRUCTURAL STEEL IS PROHIBITED. SEE SPECIFICATIONS FOR FIELD WELDING OF SIP FORMS IN PLACE AND PAINTING OF THE TOP FLANGE.



PARTIAL SECTION THROUGH END OF SPAN

(INTERIOR OF BOXES ONLY)

NOTES:

STAY-IN-PLACE (SIP) FORM DETAILS ARE SHOWN FOR REFERENCE ONLY. SIP FORMS, GALVANIZED SUPPORT BARS, FORM SUPPORTS, AND CLIP ANGLES ARE NOT FURNISHED AS PART OF THIS CONTRACT.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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SUPERSTRUCTURE DETAILS

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STEEL FABRICATION CONTRACT ONLY

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TABULATED ELEVATIONS

FTW FINISHED ELEVATION AT TOP OF WEB.

FG FINISHED ELEVATION AT TOP OF DECK SLAB.

TES TOP OF ERECTED STEEL ELEVATION. = ZW + PL - SW

ZW TOP OF ERECTED WEB ELEVATION NEGLECTING ALL DEFLECTIONS = FG + SW + DL1 + DL2 - DK

CW ELEVATION OF CHORD LINES JOINING TOP OF WEB ELEVATION 'ZW' AT FIELD SPLICES AND END SUPPORTS.

BLK BLOCKING HEIGHT CORRESPONDING TO THE ERECTED STEEL CONDITION NEGLECTING ALL DEFLECTIONS.

TABULATED DEFLECTIONS

SW SELF -WEIGHT OF STEEL GIRDERS, INCLUDING ALL DIAPHRAGMS, STIFFENERS, BRACING, AND PERMANENT METAL FORMS.

DL1 CONCRETE DECK SLAB AND HAUNCHES APPLIED TO BARE STEEL SECTION.

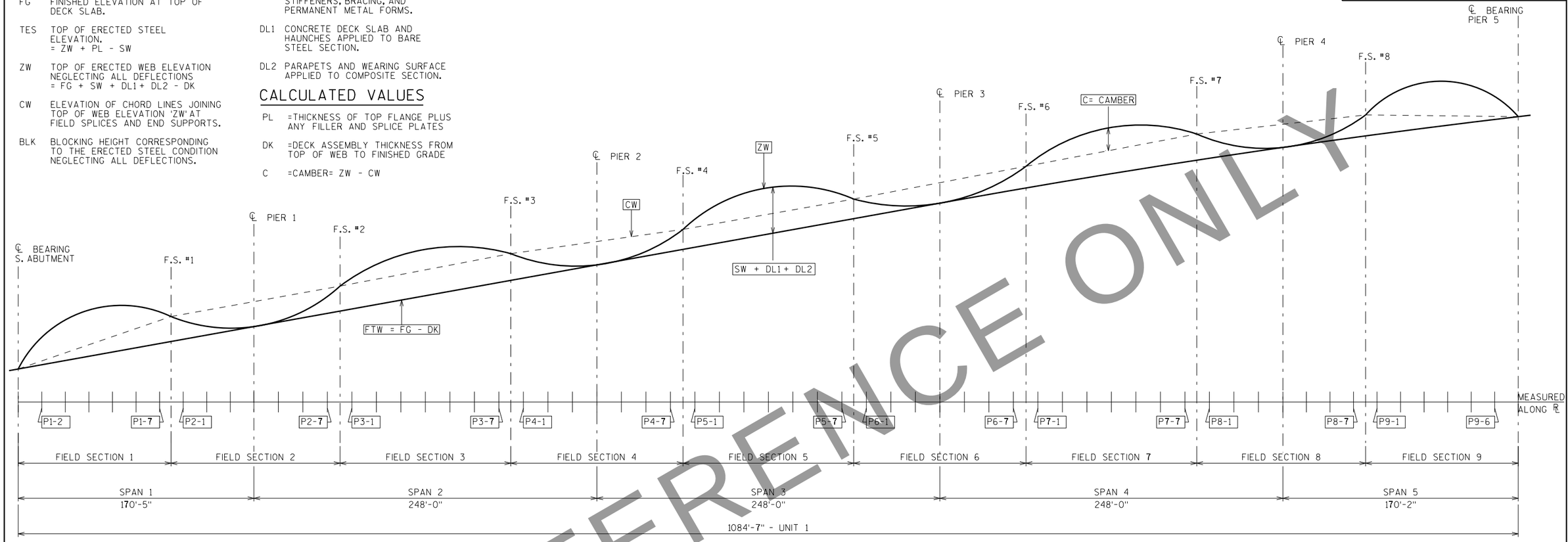
DL2 PARAPETS AND WEARING SURFACE APPLIED TO COMPOSITE SECTION.

CALCULATED VALUES

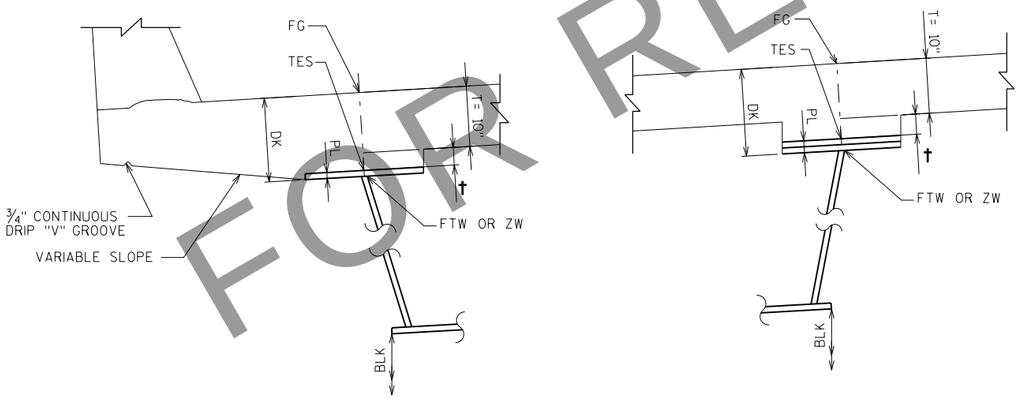
PL =THICKNESS OF TOP FLANGE PLUS ANY FILLER AND SPLICE PLATES

DK =DECK ASSEMBLY THICKNESS FROM TOP OF WEB TO FINISHED GRADE

C =CAMBER= ZW - CW



CAMBER & BLOCKING DIAGRAM



NOTES:

POSITIVE DEFLECTIONS ARE DOWNWARD.

POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS.

TES ELEVATIONS ARE TO TOP OF STEEL (SPLICE AND COVER PLATE THICKNESS, IF APPLICABLE, ARE ACCOUNTED FOR) AND THEY ARE FOR THE MATERIAL AS ERECTED. THE ELEVATION OF THE TOP STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED, AND CORRECTED, IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY BOLTING THE DIAPHRAGMS IN PLACE.

BECAUSE VERTICAL PROFILE AND DEFLECTIONS ARE EXAGGERATED TO DIFFERENT DEGREES, THE CAMBERS SHOWN ON THIS DIAGRAM ARE SCHEMATIC ONLY.

SPECIFICALLY COMPARING RELATIVE CAMBER MAGNITUDES BETWEEN FIELD SECTIONS MAY BE MISLEADING.

CAMBERS ACCOUNT FOR PERMANENT FORMWORK WEIGHT OF 10.0 PSF INSIDE EACH GIRDER PLUS 13.5 PSF FOR ADDITIONAL CONCRETE IN RIBS OF PERMANENT FORMWORK. THE CONTRACTOR MAY NEED TO REVISE THE CAMBERS IF THE PERMANENT FORMWORK IS USED DIFFERS FROM THAT SHOWN ON THE PLANS.

ALL TABULATED VALUES ARE IN DECIMALS OF A FOOT.

TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

CAMBER DIAGRAMS HAVE BEEN DEVELOPED ASSUMING A CONSTANT 4" DIMENSION. MEASURED FROM THE UNDERSIDE OF THE TOP FLANGE (TOP OF WEB) TO THE UNDERSIDE OF THE DECK (TOP OF STAY-IN-PLACE METAL FORMS).

HAUNCH NOTE:

† = HAUNCH HEIGHT AT CENTERLINE OF WEB.

TO DETERMINE "†" AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN.

TOP OF DECK ELEV. AT FINAL GRADE

\- TOP OF STEEL ELEV. AFTER PLACEMENT

\+ CONC. ONLY DEFLECTIONS (DOWNWARD DEFLECTION IS POSITIVE, UPWARD DEFLECTION IS NEGATIVE.)

\- SLAB THICKNESS (10")

= "†" VALUE FOR SETTING HAUNCH

LEGEND:

P1-2 INTERMEDIATE ELEVATION POINT AT PANEL POINTS.

IN THIS EXAMPLE, '1' IS THE FIELD SECTION NUMBER AND '2' IS THE PANEL NUMBER WITHIN THIS FIELD SECTION.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY SOI | PLANS CK'D. NPP

CAMBER DIAGRAM UNIT 1

SHEET 41 OF 51

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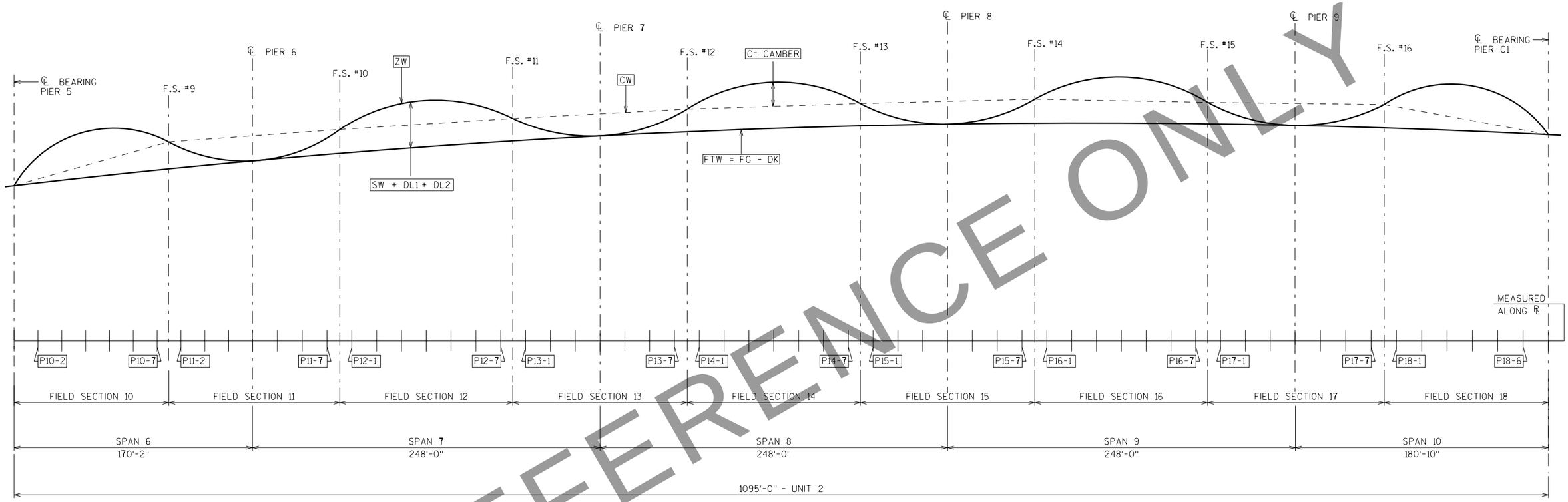

CAMBER & BLOCKING DIAGRAM

FOR REFERENCE ONLY

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LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1 SHEET.

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET

HAUNCH NOTES:

FOR HAUNCH NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET.

STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

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CAMBER DIAGRAM UNIT 2

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E_CAMBER DIAGRAM UNIT 2.dgn

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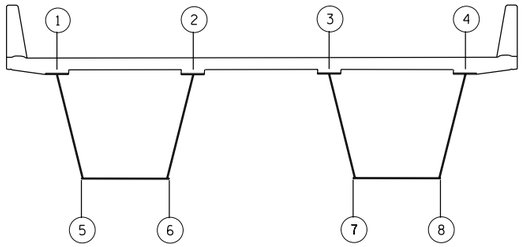
FIELD SECTION 1

HORIZ. LOC.	VALUE	POSITION AND STATION							
		S. ABUT. 1187+31.83	P1-2 1187+48.88	P1-3 1187+65.92	P1-4 1187+82.96	P1-5 1188+00.00	P1-6 1188+17.04	P1-7 1188+34.08	FS #1 1188+42.60
CAMBER DATA									
1	FG	609.23	609.69	610.16	610.62	611.09	611.55	612.01	612.24
LEFT GIRDER	TES	608.15	608.67	609.18	609.67	610.14	610.58	611.01	611.31
	ZW	608.06	608.61	609.13	609.63	610.10	610.54	610.96	611.17
	CW	608.06	608.54	609.02	609.50	609.97	610.45	610.93	611.17
LEFT WEB	SW	0.00	0.02	0.04	0.05	0.05	0.04	0.03	0.02
	DL1	0.00	0.05	0.10	0.12	0.12	0.11	0.08	0.06
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.06	0.12	0.14	0.13	0.09	0.03	0.00
2	FG	608.48	608.94	609.41	609.87	610.34	610.80	611.26	611.49
LEFT GIRDER	TES	607.40	607.92	608.43	608.92	609.38	609.83	610.26	610.56
	ZW	607.31	607.85	608.38	608.88	609.35	609.79	610.21	610.41
	CW	607.31	607.79	608.27	608.74	609.22	609.70	610.18	610.41
RIGHT WEB	SW	0.00	0.02	0.04	0.04	0.05	0.04	0.03	0.02
	DL1	0.00	0.05	0.09	0.12	0.12	0.11	0.07	0.06
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.06	0.11	0.13	0.13	0.09	0.03	0.00
3	FG	607.73	608.19	608.66	609.12	609.59	610.05	610.51	610.74
RIGHT GIRDER	TES	606.65	607.17	607.68	608.16	608.63	609.08	609.51	609.81
	ZW	606.56	607.10	607.63	608.12	608.59	609.04	609.46	609.66
	CW	606.56	607.04	607.52	607.99	608.47	608.95	609.42	609.66
LEFT WEB	SW	0.00	0.02	0.03	0.04	0.05	0.04	0.03	0.02
	DL1	0.00	0.05	0.09	0.11	0.12	0.10	0.07	0.06
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.06	0.11	0.13	0.12	0.09	0.03	0.00
4	FG	606.98	607.44	607.91	608.37	608.84	609.30	609.76	609.99
RIGHT GIRDER	TES	605.90	606.41	606.92	607.41	607.88	608.33	608.76	609.05
	ZW	605.81	606.35	606.87	607.37	607.84	608.28	608.70	608.91
	CW	605.81	606.29	606.77	607.24	607.72	608.20	608.67	608.91
RIGHT WEB	SW	0.00	0.02	0.03	0.04	0.04	0.04	0.03	0.02
	DL1	0.00	0.05	0.09	0.11	0.11	0.10	0.07	0.05
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.06	0.11	0.13	0.12	0.09	0.03	0.00
BLOCKING HEIGHTS									
5	BLK	2.04							5.14
6		1.50							4.60
7		0.54							3.63
8		0.00							3.10

FIELD SECTION 2

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #1 1188+42.60	P2-1 1188+51.13	P2-2 1188+68.17	P2-3 1188+85.21	PIER 1 1189+02.25	P2-5 1189+19.96	P2-6 1189+37.68	P2-7 1189+55.39	FS #2 1189+64.25
CAMBER DATA										
1	FG	612.24	612.48	612.94	613.40	613.87	614.35	614.83	615.31	615.55
LEFT GIRDER	TES	611.31	611.48	611.90	612.44	612.91	613.44	613.91	614.49	614.82
	ZW	611.17	611.37	611.78	612.23	612.70	613.24	613.83	614.44	614.74
	CW	611.17	611.42	611.92	612.42	612.92	613.44	613.96	614.48	614.74
LEFT WEB	SW	0.02	0.02	0.00	0.00	0.00	0.01	0.04	0.07	0.09
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.11	0.20	0.24
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.05	-0.13	-0.19	-0.22	-0.20	-0.13	-0.04	0.00
2	FG	611.49	611.73	612.19	612.65	613.12	613.60	614.08	614.56	614.80
LEFT GIRDER	TES	610.56	610.73	611.15	611.69	612.16	612.69	613.16	613.74	614.06
	ZW	610.41	610.62	611.03	611.48	611.95	612.49	613.08	613.68	613.98
	CW	610.41	610.66	611.16	611.66	612.16	612.68	613.20	613.72	613.98
RIGHT WEB	SW	0.02	0.02	0.00	0.00	0.00	0.01	0.04	0.07	0.08
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.11	0.19	0.24
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.04	-0.13	-0.19	-0.21	-0.19	-0.13	-0.04	0.00
3	FG	610.74	610.98	611.44	611.90	612.37	612.85	613.33	613.81	614.05
RIGHT GIRDER	TES	609.81	609.98	610.40	610.94	611.41	611.93	612.41	612.98	613.31
	ZW	609.66	609.87	610.28	610.73	611.20	611.74	612.32	612.92	613.23
	CW	609.66	609.91	610.41	610.91	611.41	611.93	612.45	612.97	613.23
LEFT WEB	SW	0.02	0.02	0.00	0.00	0.00	0.01	0.04	0.07	0.08
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.11	0.19	0.23
	DL2	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03
	C	0.00	-0.04	-0.13	-0.18	-0.21	-0.19	-0.12	-0.04	0.00
4	FG	609.99	610.23	610.69	611.15	611.62	612.10	612.58	613.06	613.30
RIGHT GIRDER	TES	609.05	609.23	609.65	610.19	610.66	611.18	611.66	612.23	612.55
	ZW	608.91	609.12	609.53	609.98	610.45	610.99	611.57	612.17	612.47
	CW	608.91	609.16	609.66	610.16	610.65	611.17	611.69	612.21	612.47
RIGHT WEB	SW	0.02	0.02	0.00	0.00	0.00	0.01	0.04	0.07	0.08
	DL1	0.05	0.04	0.01	-0.01	0.00	0.04	0.11	0.19	0.23
	DL2	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03
	C	0.00	-0.04	-0.12	-0.18	-0.20	-0.18	-0.12	-0.04	0.00
BLOCKING HEIGHTS										
5	BLK	5.14				6.67				8.71
6		4.60				6.14				8.17
7		3.63				5.17				7.20
8		3.10				4.64				6.65

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 1 AND 2

SHEET 43 OF 51

1023

STEEL FABRICATION CONTRACT ONLY

DATE: 4/3/2013

I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E\043 B-05-679E-CAMBER DATA FS 1 AND 2.dgn

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STATE PROJECT NUMBER

1133-11-77

FIELD SECTION 3

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #2 1189+64.25	P3-1 1189+73.11	P3-2 1189+90.82	P3-3 1190+08.54	P3-4 1190+26.25	P3-5 1190+43.96	P3-6 1190+61.68	P3-7 1190+79.39	FS #3 1190+88.25
CAMBER DATA										
1	FG	615.55	615.79	616.26	616.72	617.18	617.64	618.09	618.53	618.75
LEFT GIRDER	TES	614.82	615.02	615.57	616.08	616.56	616.98	617.37	617.73	617.99
	ZW	614.74	615.04	615.61	616.14	616.62	617.04	617.41	617.75	617.90
	CW	614.74	614.97	615.42	615.87	616.32	616.77	617.23	617.68	617.90
LEFT WEB	SW	0.09	0.10	0.13	0.14	0.15	0.14	0.12	0.10	0.08
	DL1	0.24	0.28	0.35	0.39	0.41	0.38	0.33	0.26	0.22
	DL2	0.03	0.03	0.04	0.05	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.20	0.27	0.30	0.27	0.19	0.07	0.00
2	FG	614.80	615.04	615.51	615.97	616.43	616.89	617.34	617.78	618.00
LEFT GIRDER	TES	614.06	614.26	614.81	615.32	615.80	616.22	616.62	616.98	617.23
	ZW	613.98	614.28	614.85	615.38	615.86	616.28	616.65	616.99	617.15
	CW	613.98	614.21	614.66	615.11	615.56	616.02	616.47	616.92	617.15
RIGHT WEB	SW	0.08	0.10	0.12	0.14	0.15	0.14	0.12	0.10	0.08
	DL1	0.24	0.28	0.34	0.39	0.40	0.38	0.33	0.26	0.21
	DL2	0.03	0.03	0.04	0.04	0.05	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.27	0.30	0.26	0.18	0.07	0.00
3	FG	614.05	614.29	614.76	615.22	615.68	616.14	616.59	617.03	617.25
RIGHT GIRDER	TES	613.31	613.51	614.05	614.56	615.04	615.47	615.86	616.22	616.48
	ZW	613.23	613.52	614.09	614.62	615.10	615.52	615.89	616.23	616.39
	CW	613.23	613.45	613.90	614.36	614.81	615.26	615.71	616.17	616.39
LEFT WEB	SW	0.08	0.10	0.12	0.14	0.14	0.14	0.12	0.09	0.08
	DL1	0.23	0.27	0.34	0.38	0.39	0.37	0.32	0.25	0.21
	DL2	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.26	0.29	0.26	0.18	0.07	0.00
4	FG	613.30	613.54	614.01	614.47	614.93	615.39	615.84	616.28	616.50
RIGHT GIRDER	TES	612.55	612.75	613.30	613.81	614.28	614.71	615.10	615.47	615.73
	ZW	612.47	612.76	613.33	613.86	614.34	614.76	615.14	615.48	615.64
	CW	612.47	612.69	613.15	613.60	614.05	614.50	614.96	615.41	615.64
RIGHT WEB	SW	0.08	0.10	0.12	0.14	0.14	0.13	0.12	0.09	0.08
	DL1	0.23	0.26	0.33	0.37	0.39	0.36	0.31	0.25	0.21
	DL2	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.26	0.28	0.25	0.18	0.07	0.00
BLOCKING HEIGHTS										
5	BLK	8.71								11.87
6		8.17								11.33
7		7.20								10.36
8		6.65								9.82

FIELD SECTION 4

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #3 1190+88.25	P4-1 1190+97.11	P4-2 1191+14.82	P4-3 1191+32.54	PIER 2 1191+50.25	P4-5 1191+67.96	P4-6 1191+85.68	P4-7 1192+03.39	FS #4 1192+12.25
CAMBER DATA										
1	FG	618.75	618.96	619.39	619.82	620.23	620.65	621.05	621.45	621.65
LEFT GIRDER	TES	617.99	618.12	618.46	618.91	619.29	619.70	620.06	620.52	620.80
	ZW	617.90	618.06	618.37	618.70	619.07	619.48	619.95	620.43	620.68
	CW	617.90	618.10	618.50	618.89	619.29	619.69	620.08	620.48	620.68
LEFT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.04	0.05
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.04	0.10	0.13
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.13	-0.19	-0.22	-0.20	-0.14	-0.05	0.00
2	FG	618.00	618.21	618.64	619.07	619.48	619.90	620.30	620.70	620.90
LEFT GIRDER	TES	617.23	617.36	617.71	618.16	618.54	618.95	619.31	619.77	620.04
	ZW	617.15	617.30	617.62	617.95	618.32	618.73	619.19	619.68	619.92
	CW	617.15	617.35	617.74	618.14	618.54	618.93	619.33	619.73	619.92
RIGHT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.03	0.05
	DL1	0.21	0.17	0.10	0.04	0.00	0.00	0.04	0.10	0.13
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.12	-0.19	-0.22	-0.20	-0.14	-0.05	0.00
3	FG	617.25	617.46	617.89	618.32	618.73	619.15	619.55	619.95	620.15
RIGHT GIRDER	TES	616.48	616.61	616.96	617.41	617.79	618.20	618.55	619.02	619.29
	ZW	616.39	616.55	616.87	617.20	617.57	617.98	618.44	618.93	619.17
	CW	616.39	616.59	616.99	617.38	617.78	618.18	618.58	618.97	619.17
LEFT WEB	SW	0.08	0.06	0.04	0.01	0.00	0.00	0.01	0.03	0.05
	DL1	0.21	0.17	0.10	0.04	0.00	0.00	0.04	0.09	0.13
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.21	-0.19	-0.13	-0.05	0.00
4	FG	616.50	616.71	617.14	617.57	617.98	618.40	618.80	619.20	619.40
RIGHT GIRDER	TES	615.73	615.86	616.21	616.66	617.04	617.45	617.80	618.26	618.54
	ZW	615.64	615.79	616.12	616.45	616.82	617.23	617.69	618.17	618.42
	CW	615.64	615.83	616.23	616.63	617.03	617.42	617.82	618.22	618.42
RIGHT WEB	SW	0.08	0.06	0.04	0.01	0.00	0.00	0.01	0.03	0.05
	DL1	0.21	0.17	0.09	0.04	0.00	0.00	0.04	0.09	0.12
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.21	-0.19	-0.13	-0.05	0.00
BLOCKING HEIGHTS										
5	BLK	11.87				13.04				14.65
6		11.33				12.50				14.11
7		10.36				11.54				13.14
8		9.82				11.00				12.60

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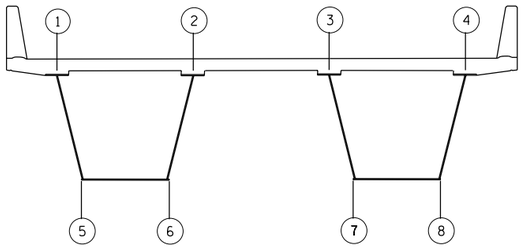

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 3 AND 4

SHEET 44 OF 51

1024

STEEL FABRICATION CONTRACT ONLY

DATE: 4/3/2013

I.D.

FILE= Q:\WisDot_12345678_US41Bridges\Plans\B-05-679E\044 B-05-679E-CAMBER DATA FS 3 AND 4.dgn

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STATE PROJECT NUMBER

1133-11-77

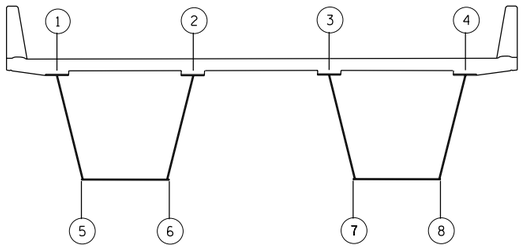
FIELD SECTION 5

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #4	P5-1	P5-2	P5-3	P5-4	P5-5	P5-6	P5-7	FS #5
		1192+12.25	1192+21.11	1192+38.82	1192+56.54	1192+74.25	1192+91.96	1193+09.68	1193+27.39	1193+36.25
CAMBER DATA										
1	FG	621.65	621.85	622.24	622.62	622.99	623.37	623.73	624.09	624.27
LEFT GIRDER	TES	620.80	620.95	621.40	621.83	622.22	622.58	622.90	623.20	623.42
	ZW	620.68	620.92	621.40	621.84	622.24	622.59	622.91	623.18	623.31
	CW	620.68	620.87	621.24	621.62	621.99	622.37	622.75	623.12	623.31
LEFT WEB	SW	0.05	0.06	0.08	0.10	0.10	0.10	0.09	0.07	0.05
	DL1	0.13	0.16	0.22	0.26	0.28	0.26	0.23	0.17	0.14
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.16	0.22	0.25	0.22	0.16	0.06	0.00
2	FG	620.90	621.10	621.49	621.87	622.24	622.62	622.98	623.34	623.52
LEFT GIRDER	TES	620.04	620.19	620.65	621.07	621.47	621.82	622.15	622.44	622.67
	ZW	619.92	620.17	620.64	621.08	621.49	621.84	622.15	622.43	622.56
	CW	619.92	620.11	620.49	620.86	621.24	621.62	621.99	622.37	622.56
RIGHT WEB	SW	0.05	0.06	0.08	0.10	0.10	0.10	0.08	0.06	0.05
	DL1	0.13	0.16	0.22	0.26	0.27	0.26	0.22	0.17	0.14
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.16	0.22	0.25	0.22	0.16	0.06	0.00
3	FG	620.15	620.35	620.74	621.12	621.49	621.87	622.23	622.59	622.77
RIGHT GIRDER	TES	619.29	619.44	619.89	620.32	620.71	621.07	621.39	621.69	621.92
	ZW	619.17	619.41	619.89	620.33	620.73	621.08	621.39	621.67	621.80
	CW	619.17	619.36	619.74	620.11	620.49	620.86	621.24	621.62	621.80
LEFT WEB	SW	0.05	0.06	0.08	0.09	0.10	0.09	0.08	0.06	0.05
	DL1	0.13	0.16	0.21	0.25	0.27	0.25	0.22	0.16	0.13
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.15	0.22	0.24	0.22	0.15	0.06	0.00
4	FG	619.40	619.60	619.99	620.37	620.74	621.12	621.48	621.84	622.02
RIGHT GIRDER	TES	618.54	618.69	619.14	619.56	619.96	620.31	620.64	620.94	621.17
	ZW	618.42	618.66	619.13	619.57	619.97	620.32	620.64	620.92	621.05
	CW	618.42	618.61	618.98	619.36	619.73	620.11	620.49	620.86	621.05
RIGHT WEB	SW	0.05	0.06	0.08	0.09	0.10	0.09	0.08	0.06	0.05
	DL1	0.12	0.15	0.21	0.25	0.26	0.25	0.22	0.16	0.13
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.05	0.15	0.21	0.24	0.21	0.15	0.06	0.00
BLOCKING HEIGHTS										
5	BLK	14.65								17.28
6		14.11								16.74
7		13.14								15.77
8		12.60								15.24

FIELD SECTION 6

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #5	P6-1	P6-2	P6-3	PIER 3	P6-5	P6-6	P6-7	FS #6
		1193+36.25	1193+45.11	1193+62.82	1193+80.54	1193+98.25	1194+15.96	1194+33.68	1194+51.39	1194+60.25
CAMBER DATA										
1	FG	624.27	624.44	624.79	625.13	625.47	625.79	626.12	626.44	626.59
LEFT GIRDER	TES	623.42	623.52	623.81	624.20	624.52	624.88	625.17	625.58	625.83
	ZW	623.31	623.44	623.70	623.98	624.30	624.67	625.08	625.52	625.74
	CW	623.31	623.48	623.83	624.18	624.52	624.87	625.22	625.56	625.74
LEFT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.06	0.08
	DL1	0.14	0.11	0.05	0.01	0.00	0.03	0.09	0.17	0.21
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.13	-0.19	-0.23	-0.20	-0.14	-0.05	0.00
2	FG	623.52	623.69	624.04	624.38	624.72	625.04	625.37	625.69	625.84
LEFT GIRDER	TES	622.67	622.77	623.06	623.45	623.77	624.13	624.42	624.83	625.07
	ZW	622.56	622.69	622.95	623.23	623.55	623.92	624.33	624.76	624.98
	CW	622.56	622.73	623.08	623.42	623.77	624.12	624.46	624.81	624.98
RIGHT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.06	0.07
	DL1	0.14	0.11	0.05	0.01	0.00	0.03	0.09	0.16	0.21
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.19	-0.22	-0.20	-0.13	-0.05	0.00
3	FG	622.77	622.94	623.29	623.63	623.97	624.29	624.62	624.94	625.09
RIGHT GIRDER	TES	621.92	622.02	622.30	622.70	623.02	623.38	623.67	624.07	624.32
	ZW	621.80	621.93	622.20	622.48	622.80	623.17	623.57	624.01	624.22
	CW	621.80	621.98	622.32	622.67	623.01	623.36	623.71	624.05	624.22
LEFT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.06	0.07
	DL1	0.13	0.10	0.05	0.01	0.00	0.03	0.08	0.16	0.20
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.22	-0.19	-0.13	-0.05	0.00
4	FG	622.02	622.19	622.54	622.88	623.22	623.54	623.87	624.19	624.34
RIGHT GIRDER	TES	621.17	621.27	621.55	621.95	622.27	622.63	622.92	623.32	623.56
	ZW	621.05	621.18	621.45	621.73	622.05	622.42	622.82	623.25	623.47
	CW	621.05	621.22	621.57	621.91	622.26	622.60	622.95	623.30	623.47
RIGHT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.06	0.07
	DL1	0.13	0.10	0.05	0.01	0.00	0.03	0.08	0.16	0.20
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.21	-0.19	-0.13	-0.04	0.00
BLOCKING HEIGHTS										
5	BLK	17.28				18.27				19.71
6		16.74				17.73				19.17
7		15.77				16.77				18.20
8		15.24				16.23				17.65

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA:
FIELD SECTIONS
5 AND 6

SHEET 45 OF 51

1025

STEEL FABRICATION CONTRACT ONLY

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8

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-679E\045 B-05-679E-CAMBER DATA FS 5 AND 6.dgn

DATE: 4/3/2013

I.D.

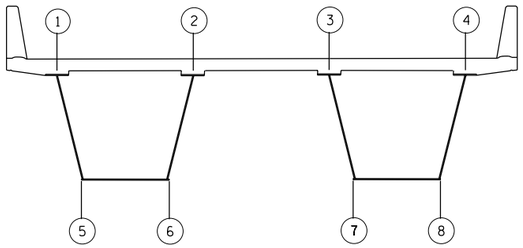
STATE PROJECT NUMBER
1133-11-77

FIELD SECTION 7

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #6 1194+60.25	P7-1 1194+69.11	P7-2 1194+86.82	P7-3 1195+04.54	P7-4 1195+22.25	P7-5 1195+39.96	P7-6 1195+57.68	P7-7 1195+75.39	FS #7 1195+84.25
CAMBER DATA										
1	FG	626.59	626.75	627.05	627.35	627.65	627.93	628.22	628.49	628.63
LEFT GIRDER	TES	625.83	625.95	626.34	626.70	627.02	627.30	627.53	627.73	627.90
	ZW	625.74	625.96	626.38	626.75	627.09	627.36	627.58	627.75	627.83
	CW	625.74	625.89	626.19	626.48	626.78	627.08	627.38	627.68	627.83
LEFT WEB	SW	0.08	0.09	0.12	0.14	0.15	0.15	0.13	0.11	0.09
	DL1	0.21	0.25	0.33	0.38	0.41	0.40	0.36	0.29	0.25
	DL2	0.02	0.03	0.04	0.04	0.05	0.05	0.04	0.03	0.03
	C	0.00	0.07	0.19	0.27	0.30	0.28	0.20	0.07	0.00
2	FG	625.84	626.00	626.30	626.60	626.90	627.18	627.47	627.74	627.88
LEFT GIRDER	TES	625.07	625.19	625.58	625.94	626.26	626.54	626.77	626.97	627.15
	ZW	624.98	625.20	625.61	625.99	626.32	626.60	626.82	626.99	627.07
	CW	624.98	625.13	625.43	625.73	626.03	626.33	626.62	626.92	627.07
RIGHT WEB	SW	0.07	0.09	0.12	0.14	0.15	0.14	0.13	0.10	0.09
	DL1	0.21	0.25	0.32	0.38	0.40	0.39	0.35	0.28	0.24
	DL2	0.02	0.03	0.04	0.04	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.19	0.26	0.30	0.27	0.19	0.07	0.00
3	FG	625.09	625.25	625.55	625.85	626.15	626.43	626.72	626.99	627.13
RIGHT GIRDER	TES	624.32	624.44	624.82	625.18	625.50	625.78	626.01	626.22	626.39
	ZW	624.22	624.44	624.85	625.23	625.56	625.83	626.06	626.23	626.31
	CW	624.22	624.37	624.67	624.97	625.27	625.57	625.87	626.16	626.31
LEFT WEB	SW	0.07	0.09	0.11	0.13	0.14	0.14	0.13	0.10	0.09
	DL1	0.20	0.24	0.32	0.37	0.39	0.38	0.34	0.27	0.24
	DL2	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.18	0.26	0.29	0.27	0.19	0.07	0.00
4	FG	624.34	624.50	624.80	625.10	625.40	625.68	625.97	626.24	626.38
RIGHT GIRDER	TES	623.56	623.68	624.07	624.42	624.74	625.02	625.26	625.46	625.64
	ZW	623.47	623.68	624.09	624.47	624.80	625.07	625.29	625.48	625.56
	CW	623.47	623.62	623.92	624.21	624.51	624.81	625.11	625.41	625.56
RIGHT WEB	SW	0.07	0.09	0.11	0.13	0.14	0.14	0.12	0.10	0.09
	DL1	0.20	0.24	0.31	0.36	0.38	0.37	0.33	0.27	0.23
	DL2	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.18	0.25	0.29	0.26	0.19	0.07	0.00
BLOCKING HEIGHTS										
5	BLK	19.71								21.80
6		19.17								21.26
7		18.20								20.28
8		17.65								19.74

FIELD SECTION 8

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #7 1195+84.25	P8-1 1195+93.11	P8-2 1196+10.82	P8-3 1196+28.54	PIER 4 1196+46.25	P8-5 1196+63.27	P8-6 1196+80.28	P8-7 1196+97.30	FS #8 1197+05.81
CAMBER DATA										
1	FG	628.63	628.76	629.03	629.29	629.54	629.78	630.01	630.23	630.34
LEFT GIRDER	TES	627.90	627.95	628.12	628.39	628.59	628.81	628.97	629.23	629.40
	ZW	627.83	627.90	628.04	628.19	628.37	628.59	628.84	629.12	629.26
	CW	627.83	627.93	628.14	628.35	628.56	628.76	628.96	629.16	629.26
LEFT WEB	SW	0.09	0.08	0.05	0.02	0.00	0.00	0.00	0.01	0.02
	DL1	0.25	0.20	0.12	0.05	0.00	-0.01	0.00	0.03	0.05
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.10	-0.16	-0.19	-0.17	-0.12	-0.04	0.00
2	FG	627.88	628.01	628.28	628.54	628.79	629.03	629.26	629.48	629.59
LEFT GIRDER	TES	627.15	627.19	627.37	627.64	627.84	628.06	628.22	628.48	628.65
	ZW	627.07	627.14	627.29	627.44	627.62	627.84	628.09	628.37	628.50
	CW	627.07	627.18	627.38	627.59	627.80	628.00	628.20	628.40	628.50
RIGHT WEB	SW	0.09	0.07	0.04	0.02	0.00	0.00	0.00	0.01	0.02
	DL1	0.24	0.20	0.12	0.05	0.00	-0.01	0.00	0.03	0.05
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.10	-0.15	-0.18	-0.16	-0.11	-0.04	0.00
3	FG	627.13	627.26	627.53	627.79	628.04	628.28	628.51	628.73	628.84
RIGHT GIRDER	TES	626.39	626.44	626.61	626.89	627.09	627.32	627.47	627.73	627.90
	ZW	626.31	626.39	626.53	626.69	626.87	627.09	627.34	627.61	627.75
	CW	626.31	626.42	626.63	626.84	627.05	627.25	627.45	627.65	627.75
LEFT WEB	SW	0.09	0.07	0.04	0.02	0.00	0.00	0.00	0.01	0.02
	DL1	0.24	0.19	0.11	0.05	0.00	-0.01	0.00	0.03	0.05
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.10	-0.15	-0.18	-0.16	-0.11	-0.04	0.00
4	FG	626.38	626.51	626.78	627.04	627.29	627.53	627.76	627.98	628.09
RIGHT GIRDER	TES	625.64	625.68	625.86	626.14	626.34	626.57	626.72	626.98	627.15
	ZW	625.56	625.63	625.78	625.94	626.12	626.34	626.59	626.86	627.00
	CW	625.56	625.66	625.87	626.08	626.29	626.49	626.70	626.90	627.00
RIGHT WEB	SW	0.09	0.07	0.04	0.02	0.00	0.00	0.00	0.01	0.02
	DL1	0.23	0.19	0.11	0.04	0.00	-0.01	0.00	0.03	0.05
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.01
	C	0.00	-0.03	-0.09	-0.15	-0.17	-0.15	-0.10	-0.03	0.00
BLOCKING HEIGHTS										
5	BLK	21.80				22.34				23.23
6		21.26				21.81				22.69
7		20.28				20.84				21.72
8		19.74				20.31				21.18



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

FOR REFERENCE ONLY

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY: STB | PLANS CK'D.: NPP

CAMBER DATA:
FIELD SECTIONS 7 AND 8

SHEET 46 OF 51
1026

STEEL FABRICATION CONTRACT ONLY

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E\046 B-05-679E-CAMBER DATA FS 7 AND 8.dgn

DATE: 4/3/2013
I.D.

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STATE PROJECT NUMBER

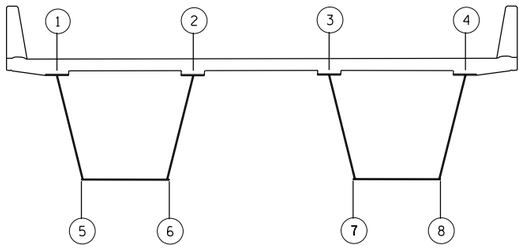
1133-11-77

FIELD SECTION 9

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS *8 1197+05.81	P9-1 1197+14.32	P9-2 1197+31.33	P9-3 1197+48.35	P9-4 1197+65.37	P9-5 1197+82.38	P9-6 1197+99.40	PIER 5 1198+16.42
CAMBER DATA									
1 LEFT GIRDER	FG	630.34	630.45	630.67	630.88	631.08	631.28	631.47	631.66
	TES	629.40	629.45	629.70	629.93	630.13	630.30	630.45	630.58
	ZW	629.26	629.39	629.66	629.89	630.09	630.25	630.38	630.50
	CW	629.26	629.35	629.54	629.73	629.92	630.11	630.31	630.50
LEFT WEB	SW	0.02	0.03	0.04	0.04	0.04	0.03	0.02	0.00
	DL1	0.05	0.07	0.10	0.12	0.12	0.09	0.05	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.16	0.16	0.14	0.08	0.00
2 LEFT GIRDER	FG	629.59	629.70	629.92	630.13	630.33	630.53	630.72	630.91
	TES	628.65	628.70	628.95	629.17	629.37	629.55	629.70	629.83
	ZW	628.50	628.64	628.90	629.13	629.33	629.50	629.63	629.75
	CW	628.50	628.60	628.79	628.98	629.17	629.36	629.55	629.75
RIGHT WEB	SW	0.02	0.03	0.04	0.04	0.04	0.03	0.02	0.00
	DL1	0.05	0.07	0.10	0.12	0.11	0.09	0.05	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.15	0.16	0.14	0.08	0.00
3 RIGHT GIRDER	FG	628.84	628.95	629.17	629.38	629.58	629.78	629.97	630.16
	TES	627.90	627.95	628.19	628.42	628.62	628.80	628.95	629.08
	ZW	627.75	627.89	628.15	628.38	628.58	628.75	628.88	629.00
	CW	627.75	627.85	628.04	628.23	628.42	628.61	628.80	629.00
LEFT WEB	SW	0.02	0.02	0.04	0.04	0.04	0.03	0.02	0.00
	DL1	0.05	0.07	0.10	0.11	0.11	0.09	0.05	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.15	0.16	0.13	0.08	0.00
4 RIGHT GIRDER	FG	628.09	628.20	628.42	628.63	628.83	629.03	629.22	629.41
	TES	627.15	627.19	627.44	627.67	627.87	628.04	628.19	628.33
	ZW	627.00	627.13	627.39	627.62	627.82	627.99	628.13	628.25
	CW	627.00	627.09	627.29	627.48	627.67	627.86	628.05	628.25
RIGHT WEB	SW	0.02	0.02	0.03	0.04	0.04	0.03	0.02	0.00
	DL1	0.05	0.07	0.10	0.11	0.11	0.09	0.05	0.00
	DL2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
	C	0.00	0.04	0.11	0.15	0.15	0.13	0.07	0.00
BLOCKING HEIGHTS									
5	BLK	23.23							24.47
6		22.69							23.93
7		21.72							22.97
8		21.18							22.43

FIELD SECTION 10

HORIZ. LOC.	VALUE	POSITION AND STATION							
		PIER 5 1198+20.08	P10-2 1198+37.10	P10-3 1198+54.12	P10-4 1198+71.13	P10-5 1198+88.15	P10-6 1199+05.17	P10-7 1199+22.18	FS *9 1199+30.69
CAMBER DATA									
1 LEFT GIRDER	FG	631.70	631.88	632.06	632.23	632.39	632.55	632.71	632.78
	TES	630.62	630.86	631.09	631.28	631.45	631.60	631.71	631.86
	ZW	630.54	630.80	631.04	631.25	631.42	631.56	631.66	631.71
	CW	630.54	630.72	630.90	631.08	631.26	631.44	631.62	631.71
LEFT WEB	SW	0.00	0.02	0.04	0.04	0.05	0.04	0.03	0.02
	DL1	0.00	0.05	0.10	0.12	0.13	0.11	0.08	0.06
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.08	0.14	0.17	0.16	0.12	0.04	0.00
2 LEFT GIRDER	FG	630.95	631.13	631.31	631.48	631.64	631.80	631.96	632.03
	TES	629.87	630.11	630.33	630.53	630.70	630.84	630.96	631.11
	ZW	629.79	630.04	630.29	630.49	630.66	630.80	630.91	630.95
	CW	629.79	629.97	630.15	630.33	630.51	630.69	630.86	630.95
RIGHT WEB	SW	0.00	0.02	0.04	0.04	0.05	0.04	0.03	0.02
	DL1	0.00	0.05	0.10	0.12	0.12	0.11	0.08	0.06
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.08	0.14	0.17	0.16	0.12	0.04	0.00
3 RIGHT GIRDER	FG	630.20	630.38	630.56	630.73	630.89	631.05	631.21	631.28
	TES	629.12	629.36	629.58	629.78	629.95	630.09	630.21	630.36
	ZW	629.04	629.29	629.53	629.74	629.91	630.04	630.15	630.20
	CW	629.04	629.21	629.39	629.57	629.75	629.93	630.11	630.20
LEFT WEB	SW	0.00	0.02	0.03	0.04	0.04	0.04	0.03	0.02
	DL1	0.00	0.05	0.09	0.12	0.12	0.11	0.07	0.06
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.08	0.14	0.16	0.15	0.11	0.04	0.00
4 RIGHT GIRDER	FG	629.45	629.63	629.81	629.98	630.14	630.30	630.46	630.53
	TES	628.37	628.61	628.83	629.02	629.19	629.34	629.46	629.60
	ZW	628.29	628.54	628.78	628.98	629.15	629.29	629.40	629.45
	CW	628.29	628.46	628.64	628.82	629.00	629.18	629.36	629.45
RIGHT WEB	SW	0.00	0.02	0.03	0.04	0.04	0.04	0.03	0.02
	DL1	0.00	0.05	0.09	0.11	0.12	0.10	0.07	0.05
	DL2	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	C	0.00	0.08	0.13	0.16	0.15	0.11	0.04	0.00
BLOCKING HEIGHTS									
5	BLK	2.04							3.21
6		1.50							2.67
7		0.54							1.70
8		0.00							1.16



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 9 AND 10

SHEET 47 OF 51

1027

DATE: 4/3/2013

I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E-CAMBER DATA FS 9 AND 10.dgn

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STATE PROJECT NUMBER

1133-11-77

FIELD SECTION 11

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #9	P11-1	P11-2	P11-3	PIER 6	P11-5	P11-6	P11-7	FS #10
		1199+30.69	1199+39.20	1199+56.22	1199+73.23	1199+90.25	1200+07.96	1200+25.68	1200+43.39	1200+52.25
CAMBER DATA										
1	FG	632.78	632.86	633.00	633.14	633.27	633.40	633.53	633.65	633.71
LEFT GIRDER	TES	631.86	631.86	631.96	632.17	632.31	632.50	632.62	632.84	633.00
	ZW	631.71	631.75	631.84	631.96	632.10	632.31	632.54	632.79	632.91
	CW	631.71	631.79	631.96	632.13	632.30	632.47	632.65	632.83	632.91
LEFT WEB	SW	0.02	0.02	0.00	0.00	0.00	0.02	0.04	0.07	0.09
	DL1	0.06	0.04	0.01	-0.01	0.00	0.05	0.12	0.21	0.25
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.04	-0.12	-0.17	-0.20	-0.17	-0.11	-0.04	0.00
2	FG	632.03	632.11	632.25	632.39	632.52	632.65	632.78	632.90	632.96
LEFT GIRDER	TES	631.11	631.11	631.21	631.42	631.56	631.75	631.87	632.08	632.24
	ZW	630.95	631.00	631.09	631.21	631.35	631.55	631.78	632.03	632.15
	CW	630.95	631.04	631.21	631.37	631.54	631.72	631.89	632.07	632.15
RIGHT WEB	SW	0.02	0.02	0.00	0.00	0.00	0.02	0.04	0.07	0.09
	DL1	0.06	0.04	0.01	-0.01	0.00	0.05	0.12	0.20	0.25
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.04	-0.11	-0.17	-0.19	-0.16	-0.11	-0.03	0.00
3	FG	631.28	631.36	631.50	631.64	631.77	631.90	632.03	632.15	632.21
RIGHT GIRDER	TES	630.36	630.36	630.46	630.67	630.81	630.99	631.11	631.33	631.48
	ZW	630.20	630.25	630.34	630.46	630.60	630.80	631.03	631.27	631.39
	CW	630.20	630.28	630.45	630.62	630.78	630.96	631.13	631.31	631.39
LEFT WEB	SW	0.02	0.01	0.00	0.00	0.00	0.02	0.04	0.07	0.09
	DL1	0.06	0.04	0.01	-0.01	0.00	0.04	0.11	0.20	0.24
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.04	-0.11	-0.16	-0.18	-0.16	-0.11	-0.03	0.00
4	FG	630.53	630.61	630.75	630.89	631.02	631.15	631.28	631.40	631.46
RIGHT GIRDER	TES	629.60	629.61	629.71	629.92	630.06	630.24	630.36	630.57	630.73
	ZW	629.45	629.50	629.59	629.71	629.85	630.05	630.27	630.51	630.63
	CW	629.45	629.53	629.70	629.86	630.03	630.20	630.37	630.55	630.63
RIGHT WEB	SW	0.02	0.01	0.00	0.00	0.00	0.02	0.04	0.07	0.08
	DL1	0.05	0.04	0.00	-0.01	0.00	0.04	0.11	0.19	0.24
	DL2	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
	C	0.00	-0.04	-0.11	-0.15	-0.18	-0.15	-0.10	-0.03	0.00
BLOCKING HEIGHTS										
5	BLK	3.21				3.60				4.41
6		2.67				3.07				3.87
7		1.70				2.10				2.89
8		1.16				1.57				2.35

FIELD SECTION 12

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #10	P12-1	P12-2	P12-3	P12-4	P12-5	P12-6	P12-7	FS #11
		1200+52.25	1200+61.11	1200+78.82	1200+96.54	1201+14.25	1201+31.96	1201+49.68	1201+67.39	1201+76.25
CAMBER DATA										
1	FG	633.71	633.76	633.87	633.97	634.07	634.16	634.24	634.32	634.36
LEFT GIRDER	TES	633.00	633.01	633.20	633.35	633.46	633.52	633.54	633.54	633.62
	ZW	632.91	633.03	633.24	633.41	633.53	633.58	633.59	633.55	633.53
	CW	632.91	632.96	633.04	633.13	633.22	633.31	633.40	633.48	633.53
LEFT WEB	SW	0.09	0.11	0.13	0.15	0.15	0.14	0.13	0.10	0.08
	DL1	0.25	0.30	0.37	0.41	0.42	0.40	0.34	0.27	0.23
	DL2	0.03	0.03	0.04	0.05	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.20	0.28	0.31	0.27	0.19	0.07	0.00
2	FG	632.96	633.01	633.12	633.22	633.32	633.41	633.49	633.57	633.61
LEFT GIRDER	TES	632.24	632.25	632.44	632.59	632.70	632.76	632.79	632.78	632.87
	ZW	632.15	632.27	632.48	632.65	632.76	632.82	632.82	632.79	632.77
	CW	632.15	632.20	632.29	632.37	632.46	632.55	632.64	632.73	632.77
RIGHT WEB	SW	0.09	0.10	0.13	0.14	0.15	0.14	0.12	0.10	0.08
	DL1	0.25	0.29	0.36	0.40	0.42	0.39	0.34	0.26	0.22
	DL2	0.03	0.03	0.04	0.04	0.05	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.19	0.28	0.30	0.27	0.19	0.07	0.00
3	FG	632.21	632.26	632.37	632.47	632.57	632.66	632.74	632.82	632.86
RIGHT GIRDER	TES	631.48	631.49	631.68	631.83	631.94	632.00	632.03	632.03	632.11
	ZW	631.39	631.51	631.72	631.88	632.00	632.05	632.06	632.04	632.01
	CW	631.39	631.44	631.53	631.62	631.70	631.79	631.88	631.97	632.01
LEFT WEB	SW	0.09	0.10	0.13	0.14	0.15	0.14	0.12	0.09	0.08
	DL1	0.24	0.28	0.35	0.39	0.41	0.38	0.33	0.26	0.22
	DL2	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.27	0.30	0.26	0.18	0.07	0.00
4	FG	631.46	631.51	631.62	631.72	631.82	631.91	631.99	632.07	632.11
RIGHT GIRDER	TES	630.73	630.73	630.92	631.07	631.18	631.24	631.27	631.27	631.36
	ZW	630.63	630.75	630.96	631.12	631.24	631.29	631.30	631.28	631.26
	CW	630.63	630.68	630.77	630.86	630.95	631.03	631.12	631.21	631.26
RIGHT WEB	SW	0.08	0.10	0.12	0.14	0.14	0.13	0.12	0.09	0.08
	DL1	0.24	0.27	0.34	0.39	0.40	0.37	0.32	0.25	0.21
	DL2	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.07	0.19	0.26	0.29	0.26	0.18	0.07	0.00
BLOCKING HEIGHTS										
5	BLK	4.41								5.03
6		3.87								4.49
7		2.89								3.51
8		2.35								2.97

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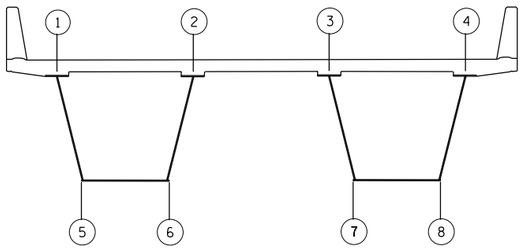

HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 11 AND 12

SHEET 48 OF 51

1028

STEEL FABRICATION CONTRACT ONLY

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DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER
1133-11-77

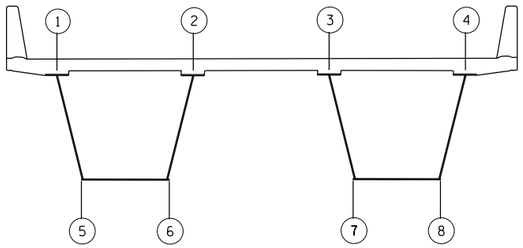
FIELD SECTION 13

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #11 1201+76.25	P13-1 1201+85.11	P13-2 1202+02.82	P13-3 1202+20.54	PIER 7 1202+38.25	P13-5 1202+55.96	P13-6 1202+73.68	P13-7 1202+91.39	FS #12 1203+00.25
CAMBER DATA										
1	FG	634.36	634.39	634.46	634.52	634.58	634.63	634.67	634.71	634.72
LEFT GIRDER	TES	633.62	633.56	633.53	633.62	633.63	633.68	633.67	633.77	633.88
	ZW	633.53	633.50	633.45	633.41	633.41	633.47	633.56	633.68	633.75
	CW	633.53	633.54	633.57	633.61	633.64	633.67	633.70	633.73	633.75
LEFT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.03	0.05
	DL1	0.23	0.18	0.10	0.04	0.00	0.00	0.04	0.10	0.13
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.13	-0.19	-0.23	-0.20	-0.14	-0.05	0.00
2	FG	633.61	633.64	633.71	633.77	633.83	633.88	633.92	633.96	633.97
LEFT GIRDER	TES	632.87	632.80	632.78	632.87	632.88	632.93	632.92	633.02	633.13
	ZW	632.77	632.74	632.69	632.66	632.66	632.72	632.81	632.93	633.00
	CW	632.77	632.79	632.82	632.85	632.88	632.92	632.95	632.98	633.00
RIGHT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.04	0.09	0.13
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.12	-0.19	-0.22	-0.20	-0.14	-0.05	0.00
3	FG	632.86	632.89	632.96	633.02	633.08	633.13	633.17	633.21	633.22
RIGHT GIRDER	TES	632.11	632.05	632.03	632.12	632.13	632.18	632.17	632.27	632.38
	ZW	632.01	631.99	631.94	631.91	631.91	631.97	632.06	632.18	632.24
	CW	632.01	632.03	632.06	632.10	632.13	632.16	632.19	632.23	632.24
LEFT WEB	SW	0.08	0.07	0.04	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.04	0.09	0.13
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.22	-0.19	-0.14	-0.05	0.00
4	FG	632.11	632.14	632.21	632.27	632.33	632.38	632.42	632.46	632.47
RIGHT GIRDER	TES	631.36	631.29	631.28	631.37	631.38	631.43	631.42	631.52	631.62
	ZW	631.26	631.23	631.19	631.16	631.16	631.22	631.31	631.43	631.49
	CW	631.26	631.27	631.31	631.34	631.37	631.41	631.44	631.47	631.49
RIGHT WEB	SW	0.08	0.06	0.04	0.01	0.00	0.00	0.01	0.03	0.04
	DL1	0.21	0.17	0.10	0.04	0.00	0.00	0.04	0.09	0.12
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.21	-0.19	-0.13	-0.05	0.00
BLOCKING HEIGHTS										
5	BLK	5.03				4.91				5.25
6		4.49				4.38				4.71
7		3.51				3.41				3.74
8		2.97				2.88				3.20

FIELD SECTION 14

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #12 1203+00.25	P14-1 1203+09.11	P14-2 1203+26.82	P14-3 1203+44.54	P14-4 1203+62.25	P14-5 1203+79.96	P14-6 1203+97.68	P14-7 1204+15.39	FS #13 1204+24.25
CAMBER DATA										
1	FG	634.72	634.74	634.76	634.78	634.80	634.80	634.81	634.80	634.80
LEFT GIRDER	TES	633.88	633.84	633.93	634.00	634.03	634.02	633.98	633.91	633.97
	ZW	633.75	633.81	633.93	634.01	634.05	634.03	633.98	633.89	633.84
	CW	633.75	633.76	633.77	633.78	633.80	633.81	633.82	633.84	633.84
LEFT WEB	SW	0.05	0.06	0.08	0.09	0.10	0.10	0.08	0.06	0.05
	DL1	0.13	0.16	0.22	0.27	0.28	0.27	0.23	0.17	0.14
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.16	0.23	0.25	0.22	0.16	0.06	0.00
2	FG	633.97	633.99	634.01	634.03	634.05	634.05	634.06	634.05	634.05
LEFT GIRDER	TES	633.13	633.09	633.18	633.24	633.27	633.27	633.23	633.16	633.22
	ZW	633.00	633.06	633.17	633.25	633.29	633.28	633.22	633.14	633.09
	CW	633.00	633.00	633.02	633.03	633.04	633.06	633.07	633.08	633.09
RIGHT WEB	SW	0.04	0.06	0.08	0.09	0.10	0.09	0.08	0.06	0.05
	DL1	0.13	0.16	0.22	0.26	0.28	0.26	0.23	0.17	0.14
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.06	0.15	0.22	0.25	0.22	0.15	0.06	0.00
3	FG	633.22	633.24	633.26	633.28	633.30	633.30	633.31	633.30	633.30
RIGHT GIRDER	TES	632.38	632.33	632.42	632.49	632.52	632.51	632.47	632.41	632.46
	ZW	632.24	632.30	632.41	632.49	632.53	632.52	632.47	632.39	632.34
	CW	632.24	632.25	632.26	632.28	632.29	632.30	632.32	632.33	632.34
LEFT WEB	SW	0.04	0.06	0.08	0.09	0.10	0.09	0.08	0.06	0.05
	DL1	0.13	0.16	0.21	0.26	0.27	0.26	0.22	0.17	0.14
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.05	0.15	0.22	0.24	0.22	0.15	0.06	0.00
4	FG	632.47	632.49	632.51	632.53	632.55	632.55	632.56	632.55	632.55
RIGHT GIRDER	TES	631.62	631.58	631.67	631.73	631.76	631.75	631.72	631.65	631.71
	ZW	631.49	631.55	631.66	631.74	631.77	631.76	631.71	631.63	631.58
	CW	631.49	631.50	631.51	631.52	631.54	631.55	631.56	631.58	631.58
RIGHT WEB	SW	0.04	0.05	0.07	0.09	0.10	0.09	0.08	0.06	0.05
	DL1	0.12	0.15	0.21	0.25	0.27	0.25	0.22	0.16	0.13
	DL2	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.02
	C	0.00	0.05	0.15	0.21	0.24	0.21	0.15	0.05	0.00
BLOCKING HEIGHTS										
5	BLK	5.25								5.34
6		4.71								4.80
7		3.74								3.84
8		3.20								3.30

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 13 AND 14

SHEET 49 OF 51

1029

STEEL FABRICATION CONTRACT ONLY

8

8

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E-CAMBER DATA FS 13 AND 14.dgn

DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

1133-11-77

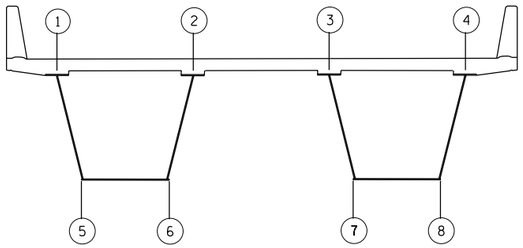
FIELD SECTION 15

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #13 1204+24.25	P15-1 1204+33.11	P15-2 1204+50.82	P15-3 1204+68.54	PIER 8 1204+86.25	P15-5 1205+03.96	P15-6 1205+21.68	P15-7 1205+39.39	FS #14 1205+48.25
CAMBER DATA										
1	FG	634.80	634.79	634.78	634.75	634.73	634.69	634.65	634.61	634.58
LEFT GIRDER	TES	633.97	633.87	633.80	633.82	633.78	633.78	633.70	633.75	633.82
	ZW	633.84	633.79	633.69	633.61	633.56	633.57	633.61	633.68	633.72
	CW	633.84	633.83	633.82	633.80	633.78	633.76	633.74	633.73	633.72
LEFT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.06	0.07
	DL1	0.14	0.11	0.05	0.01	0.00	0.03	0.08	0.16	0.20
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.13	-0.19	-0.22	-0.20	-0.14	-0.05	0.00
2	FG	634.05	634.04	634.03	634.00	633.98	633.94	633.90	633.86	633.83
LEFT GIRDER	TES	633.22	633.12	633.04	633.07	633.03	633.03	632.95	632.99	633.07
	ZW	633.09	633.04	632.94	632.86	632.81	632.82	632.86	632.92	632.96
	CW	633.09	633.08	633.06	633.04	633.03	633.01	632.99	632.97	632.96
RIGHT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.06	0.07
	DL1	0.14	0.11	0.05	0.01	0.00	0.03	0.08	0.16	0.20
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.22	-0.19	-0.13	-0.05	0.00
3	FG	633.30	633.29	633.28	633.25	633.23	633.19	633.15	633.11	633.08
RIGHT GIRDER	TES	632.46	632.37	632.29	632.32	632.28	632.27	632.20	632.24	632.31
	ZW	632.34	632.29	632.19	632.11	632.06	632.07	632.10	632.17	632.21
	CW	632.34	632.33	632.31	632.29	632.27	632.25	632.23	632.21	632.21
LEFT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.05	0.07
	DL1	0.14	0.11	0.05	0.01	0.00	0.03	0.08	0.16	0.20
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.21	-0.19	-0.13	-0.04	0.00
4	FG	632.55	632.54	632.53	632.50	632.48	632.44	632.40	632.36	632.33
RIGHT GIRDER	TES	631.71	631.62	631.54	631.57	631.53	631.53	631.45	631.49	631.56
	ZW	631.58	631.53	631.44	631.36	631.31	631.32	631.35	631.42	631.45
	CW	631.58	631.57	631.55	631.54	631.52	631.50	631.48	631.46	631.45
RIGHT WEB	SW	0.05	0.04	0.02	0.01	0.00	0.01	0.03	0.05	0.07
	DL1	0.13	0.10	0.05	0.01	0.00	0.03	0.08	0.15	0.19
	DL2	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02
	C	0.00	-0.04	-0.12	-0.18	-0.21	-0.18	-0.13	-0.04	0.00
BLOCKING HEIGHTS										
5	BLK	5.34				5.06				5.22
6		4.80				4.52				4.68
7		3.84				3.56				3.70
8		3.30				3.02				3.16

FIELD SECTION 16

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #14 1205+48.25	P16-1 1205+57.11	P16-2 1205+74.82	P16-3 1205+92.54	P16-4 1206+10.25	P16-5 1206+27.96	P16-6 1206+45.68	P16-7 1206+63.39	FS #15 1206+72.25
CAMBER DATA										
1	FG	634.58	634.56	634.50	634.44	634.37	634.29	634.21	634.12	634.08
LEFT GIRDER	TES	633.82	633.75	633.77	633.77	633.72	633.63	633.50	633.34	633.35
	ZW	633.72	633.75	633.80	633.82	633.78	633.69	633.54	633.36	633.25
	CW	633.72	633.68	633.62	633.55	633.48	633.42	633.35	633.29	633.25
LEFT WEB	SW	0.07	0.09	0.11	0.13	0.14	0.14	0.12	0.10	0.08
	DL1	0.20	0.25	0.32	0.37	0.39	0.38	0.34	0.27	0.23
	DL2	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.19	0.27	0.30	0.27	0.19	0.07	0.00
2	FG	633.83	633.81	633.75	633.69	633.62	633.54	633.46	633.37	633.33
LEFT GIRDER	TES	633.07	632.99	633.02	633.01	632.97	632.87	632.75	632.59	632.59
	ZW	632.96	632.99	633.04	633.06	633.02	632.93	632.78	632.60	632.50
	CW	632.96	632.93	632.86	632.80	632.73	632.66	632.60	632.53	632.50
RIGHT WEB	SW	0.07	0.09	0.11	0.13	0.14	0.13	0.12	0.10	0.08
	DL1	0.20	0.24	0.31	0.37	0.39	0.37	0.33	0.26	0.23
	DL2	0.02	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.07	0.18	0.26	0.29	0.26	0.19	0.07	0.00
3	FG	633.08	633.06	633.00	632.94	632.87	632.79	632.71	632.62	632.58
RIGHT GIRDER	TES	632.31	632.24	632.26	632.25	632.21	632.12	631.99	631.83	631.84
	ZW	632.21	632.24	632.28	632.30	632.26	632.16	632.02	631.84	631.74
	CW	632.21	632.17	632.11	632.04	631.97	631.91	631.84	631.77	631.74
LEFT WEB	SW	0.07	0.08	0.11	0.13	0.14	0.13	0.12	0.09	0.08
	DL1	0.20	0.24	0.31	0.36	0.38	0.37	0.32	0.26	0.22
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.03
	C	0.00	0.06	0.18	0.26	0.29	0.26	0.18	0.07	0.00
4	FG	632.33	632.31	632.25	632.19	632.12	632.04	631.96	631.87	631.83
RIGHT GIRDER	TES	631.56	631.48	631.50	631.49	631.45	631.36	631.23	631.07	631.08
	ZW	631.45	631.48	631.53	631.53	631.50	631.40	631.26	631.08	630.98
	CW	631.45	631.42	631.35	631.28	631.22	631.15	631.08	631.02	630.98
RIGHT WEB	SW	0.07	0.08	0.11	0.12	0.13	0.13	0.11	0.09	0.08
	DL1	0.19	0.23	0.30	0.35	0.37	0.36	0.32	0.25	0.22
	DL2	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.03	0.02
	C	0.00	0.06	0.18	0.25	0.28	0.25	0.18	0.07	0.00
BLOCKING HEIGHTS										
5	BLK	5.22								4.75
6		4.68								4.21
7		3.70								3.24
8		3.16								2.70

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 15 AND 16

SHEET 50 OF 51

1030

STEEL FABRICATION CONTRACT ONLY

8

8

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E-CAMBER DATA FS 15 AND 16.dgn

DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER
1133-11-77

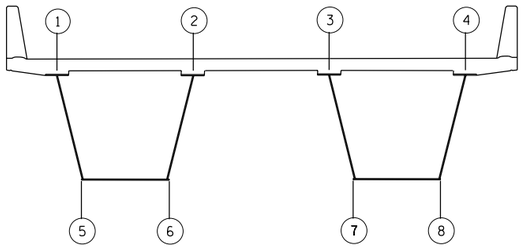
FIELD SECTION 17

HORIZ. LOC.	VALUE	POSITION AND STATION								
		FS #15 1206+72.25	P17-1 1206+81.11	P17-2 1206+98.82	P17-3 1207+16.54	PIER 9 1207+34.25	P17-5 1207+52.33	P17-6 1207+70.42	P17-7 1207+88.50	FS #16 1207+97.54
CAMBER DATA										
1	FG	634.08	634.03	633.93	633.83	633.72	633.60	633.45	633.27	633.18
LEFT GIRDER	TES	633.35	633.20	633.01	632.93	632.77	632.65	632.44	632.31	632.30
	ZW	633.25	633.15	632.93	632.73	632.55	632.43	632.33	632.22	632.16
	CW	633.25	633.18	633.02	632.87	632.71	632.56	632.40	632.24	632.16
LEFT WEB	SW	0.08	0.07	0.04	0.02	0.00	0.00	0.01	0.03	0.04
	DL1	0.23	0.19	0.11	0.04	0.00	0.00	0.03	0.08	0.11
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.03	-0.09	-0.14	-0.16	-0.13	-0.07	-0.03	0.00
2	FG	633.33	633.28	633.18	633.08	632.97	632.85	632.72	632.59	632.52
LEFT GIRDER	TES	632.59	632.45	632.26	632.18	632.02	631.90	631.71	631.64	631.65
	ZW	632.50	632.39	632.18	631.98	631.80	631.68	631.60	631.54	631.51
	CW	632.50	632.43	632.29	632.15	632.01	631.87	631.72	631.58	631.51
RIGHT WEB	SW	0.08	0.07	0.04	0.02	0.00	0.00	0.01	0.03	0.04
	DL1	0.23	0.18	0.11	0.04	0.00	0.00	0.03	0.08	0.11
	DL2	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.04	-0.11	-0.17	-0.21	-0.18	-0.12	-0.04	0.00
3	FG	632.58	632.53	632.43	632.33	632.22	632.10	631.99	631.91	631.87
RIGHT GIRDER	TES	631.84	631.69	631.51	631.43	631.27	631.15	630.98	630.96	630.99
	ZW	631.74	631.63	631.42	631.22	631.05	630.93	630.87	630.86	630.85
	CW	631.74	631.68	631.55	631.43	631.30	631.17	631.05	630.92	630.85
LEFT WEB	SW	0.08	0.07	0.04	0.02	0.00	0.00	0.01	0.03	0.04
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.03	0.08	0.11
	DL2	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.04	-0.13	-0.20	-0.25	-0.24	-0.18	-0.06	0.00
4	FG	631.83	631.78	631.68	631.58	631.47	631.35	631.26	631.23	631.21
RIGHT GIRDER	TES	631.08	630.94	630.76	630.68	630.52	630.40	630.25	630.28	630.34
	ZW	630.98	630.88	630.67	630.47	630.30	630.18	630.14	630.18	630.20
	CW	630.98	630.93	630.82	630.71	630.60	630.48	630.37	630.26	630.20
RIGHT WEB	SW	0.08	0.07	0.04	0.02	0.00	0.00	0.01	0.03	0.04
	DL1	0.22	0.18	0.10	0.04	0.00	0.00	0.03	0.08	0.10
	DL2	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01
	C	0.00	-0.05	-0.15	-0.23	-0.29	-0.30	-0.23	-0.08	0.00
BLOCKING HEIGHTS										
5	BLK	4.75				4.05				3.66
6		4.21				3.52				3.22
7		3.24				2.55				2.35
8		2.70				2.02				1.91

FIELD SECTION 18

HORIZ. LOC.	VALUE	POSITION AND STATION							
		FS #16 1207+97.54	P18-1 1208+06.58	P18-2 1208+24.67	P18-3 1208+42.75	P18-4 1208+60.83	P18-5 1208+78.92	P18-6 1208+97.00	PIER C1 1209+15.08
CAMBER DATA									
1	FG	633.18	633.08	632.90	632.71	632.53	632.35	632.16	631.98
LEFT GIRDER	TES	632.30	632.15	632.01	631.84	631.65	631.42	631.16	630.89
	ZW	632.16	632.11	631.99	631.83	631.62	631.38	631.11	630.81
	CW	632.16	632.06	631.85	631.64	631.44	631.23	631.02	630.81
LEFT WEB	SW	0.04	0.05	0.06	0.07	0.06	0.05	0.03	0.00
	DL1	0.11	0.13	0.17	0.19	0.18	0.14	0.08	0.00
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.05	0.13	0.18	0.19	0.16	0.09	0.00
2	FG	632.52	632.45	632.32	632.19	632.05	631.92	631.78	631.65
LEFT GIRDER	TES	631.65	631.52	631.43	631.31	631.16	630.99	630.78	630.57
	ZW	631.51	631.48	631.40	631.30	631.14	630.95	630.73	630.48
	CW	631.51	631.43	631.27	631.11	630.96	630.80	630.64	630.48
RIGHT WEB	SW	0.04	0.05	0.06	0.07	0.06	0.05	0.03	0.00
	DL1	0.11	0.13	0.17	0.19	0.18	0.14	0.08	0.00
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.05	0.13	0.18	0.19	0.16	0.09	0.00
3	FG	631.87	631.83	631.74	631.66	631.57	631.49	631.40	631.32
RIGHT GIRDER	TES	630.99	630.89	630.85	630.78	630.68	630.56	630.41	630.24
	ZW	630.85	630.85	630.82	630.76	630.66	630.53	630.35	630.16
	CW	630.85	630.80	630.69	630.59	630.48	630.37	630.26	630.16
LEFT WEB	SW	0.04	0.04	0.06	0.07	0.06	0.05	0.03	0.00
	DL1	0.11	0.13	0.17	0.19	0.18	0.14	0.08	0.00
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.05	0.13	0.18	0.18	0.15	0.09	0.00
4	FG	631.21	631.20	631.16	631.13	631.10	631.06	631.03	630.99
RIGHT GIRDER	TES	630.34	630.26	630.27	630.25	630.20	630.13	630.03	629.91
	ZW	630.20	630.22	630.24	630.23	630.18	630.10	629.97	629.83
	CW	630.20	630.17	630.11	630.06	630.00	629.94	629.89	629.83
RIGHT WEB	SW	0.04	0.04	0.06	0.06	0.06	0.05	0.03	0.00
	DL1	0.10	0.13	0.17	0.19	0.17	0.14	0.08	0.00
	DL2	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.00
	C	0.00	0.05	0.13	0.18	0.18	0.15	0.09	0.00
BLOCKING HEIGHTS									
5	BLK	3.66							2.31
6		3.22							2.20
7		2.35							1.66
8		1.91							1.54

FOR REFERENCE ONLY



HORIZONTAL LOCATION KEY

LOOKING UPSTATION

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-679

DRAWN BY STB | PLANS CK'D. NPP

CAMBER DATA: FIELD SECTIONS 17 AND 18

SHEET 51 OF 51 1031

STEEL FABRICATION CONTRACT ONLY

8

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-679E-CAMBER DATA FS 17 AND18.dgn

DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER
1133-11-74

EXPANSION JOINT

℄ IH 43 NB TO USH 41 SB (RAMP 'IHB')

℄ BRG SOUTH ABUTMENT

115'-0"

622'-0" UNIT 1

190'-0"

190'-0"

127'-0"

135'-11"

190'-0"

1096'-5" UNIT 2

190'-0"

173'-0"

151'-0"

151'-0"

105'-6"

PIER 1

PIER 2

PIER 3

PIER 5

PIER 6

PIER 7

PIER 8

PIER 9

PIER 10

EXPANSION JOINT

B-5-679

COMMON PIER C1

EXPANSION JOINT

℄ BRG NORTH ABUTMENT

EX. USH 41 SB

EX. USH 41 NB

EX. RAMP IH 43 NB TO USH 41 NB

℄ USH 41 SB TO IH 43 SB (RAMP 'SIH')

℄ IH 43 NB TO USH 41 NB (RAMP 'NIH')

PERMANENT MAINT. ROAD

℄ USH 41 NB 'NMC'

MULTI-USE PATH

℄ USH 41 SB

DUCK CREEK

FILE NAME : P:\153 USH 41 1133-10-00 DRS\Structures\B-5-681\001_siteplan_v8_b-5-681.dgn
PLOT DATE : 5/30/2013

8

NO.	DATE	REVISION	BY

Original Plans Prepared By
ROMENESKO ENGINEERING, INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 06/03/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-681

USH 41 NB OVER DUCK CREEK

COUNTY	TOWN/CITY/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TR	VR	TAW	TR

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER
5/31/13

ROMENESKO ENGINEERING, INC.
CONTACT: TOM ROMENESKO, P.E.
7325 CEDAR CREST DRIVE
SAUK CITY, WI 53583
(608) 644-1502

BRIDGE OFFICE CONTACT:
WILLIAM DREHER, P.E.
(608) 266-8489

NE REGION CONTACT:
DANIELLE BLOCK
(920) 492-2212

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

SITE PLAN
B-5-681

SHEET 1 OF 129
1032

I.D. 1133-10-00 DATE : $$...date...$$

8

STATE PROJECT NUMBER

1133-11-74

LIST OF DRAWINGS

1. SITE PLAN B-5-681
2. DRAWING LIST AND GENERAL NOTES
3. GENERAL PLAN AND ELEVATION - SPANS 1-4
4. GENERAL PLAN AND ELEVATION - SPANS 5-8
5. GENERAL PLAN AND ELEVATION - SPANS 9-11
6. CROSS SECTION UNITS 1& 2
7. QUANTITIES
8. ALIGNMENT & SUPERELEVATION
9. SUBSURFACE EXPLORATION
10. SUBSURFACE EXPLORATION
11. SOUTH ABUTMENT
12. SOUTH ABUTMENT
13. SOUTH ABUTMENT
14. SOUTH ABUTMENT
15. SOUTH ABUTMENT
16. WING 1
17. WING 2
18. SOUTH ABUTMENT DETAILS
19. NORTH ABUTMENT
20. NORTH ABUTMENT
21. NORTH ABUTMENT
22. NORTH ABUTMENT
23. NORTH ABUTMENT
24. WING 3
25. WING 4
26. NORTH ABUTMENT DETAILS
27. PIER 1 LAYOUT DETAILS
28. PIER 2 LAYOUT DETAILS
29. PIER 3 LAYOUT DETAILS
30. PIER 4 LAYOUT DETAILS
31. PIER 5 LAYOUT DETAILS
32. PIER 6 LAYOUT DETAILS
33. PIER 7 LAYOUT DETAILS
34. PIER 8 LAYOUT DETAILS
35. PIER 9 LAYOUT DETAILS
36. PIER 10 LAYOUT DETAILS
37. PIER LAYOUT DETAILS
38. PIER 1 - SHAFT & FOOTING DETAILS
39. PIER 2 - SHAFT & FOOTING DETAILS
40. PIER 3 - SHAFT & FOOTING DETAILS
41. PIER 4 - SHAFT & FOOTING DETAILS
42. PIER 5 - SHAFT & FOOTING DETAILS
43. PIER 6 - SHAFT & FOOTING DETAILS
44. PIER 7 - SHAFT & FOOTING DETAILS
45. PIER 8 - SHAFT & FOOTING DETAILS
46. PIER 8 - SHAFT & FOOTING DETAILS
47. PIER 8 - SHAFT & FOOTING DETAILS
48. PIER 9 - SHAFT & FOOTING DETAILS
49. PIER 9 - SHAFT & FOOTING DETAILS
50. PIER 9 - SHAFT & FOOTING DETAILS
51. PIER 10 - SHAFT & FOOTING DETAILS
52. PIER 10 - SHAFT & FOOTING DETAILS
53. PIER 10 - SHAFT & FOOTING DETAILS
54. BILL OF BARS - PIER SHAFT & FOOTING
55. PIER 1 - CAP DETAILS
56. PIER 1 - CAP DETAILS
57. PIER 1 - CAP DETAILS
58. PIER 1 - CAP DETAILS
59. PIER 1 - CAP BILL OF BARS
60. PIER 2 - CAP DETAILS
61. PIER 2 - CAP DETAILS
62. PIER 2 - CAP DETAILS
63. PIER 2 - CAP DETAILS
64. PIER 2 - CAP BILL OF BARS
65. PIER 3 - CAP DETAILS
66. PIER 3 - CAP DETAILS
67. PIER 3 - CAP DETAILS
68. PIER 3 - CAP DETAILS
69. PIER 3 - CAP BILL OF BARS
70. PIER 4 - CAP DETAILS
71. PIER 4 - CAP DETAILS
72. PIER 4 - CAP DETAILS
73. PIER 4 - CAP BILL OF BARS
74. PIER 5 - CAP DETAILS
75. PIER 5 - CAP DETAILS
76. PIER 5 - CAP DETAILS
77. PIER 5 - CAP DETAILS
78. PIER 5 - CAP DETAILS
79. PIER 5 - CAP BILL OF BARS
80. PIER 6 - CAP DETAILS
81. PIER 6 - CAP DETAILS
82. PIER 6 - CAP DETAILS
83. PIER 6 - CAP DETAILS
84. PIER 6 - CAP BILL OF BARS
85. PIER 7 THRU 10 - CAP DETAILS
86. PIER 7 THRU 10 - CAP DETAILS
87. PIER 7 THRU 10 - CAP DETAILS
88. PIER 7 THRU 10 - CAP DETAILS
89. PIER 7 THRU 10 - CAP BILL OF BARS
90. ALTERNATE JOINT DETAILS
91. DECK SECTION - UNIT 1
92. DECK REINFORCEMENT - UNIT 1
93. DECK REINFORCEMENT - UNIT 1
94. DECK REINFORCEMENT - UNIT 1
95. DECK SECTION - UNIT 2
96. DECK REINFORCEMENT - UNIT 2
97. DECK REINFORCEMENT - UNIT 2
98. DECK REINFORCEMENT - UNIT 2
99. SUPERSTRUCTURE BILL OF BARS
100. TOP OF DECK ELEVATIONS
101. TOP OF DECK ELEVATIONS
102. SINGLE SLOPE PARAPET 42SS
103. SLOPED FACE PARAPET "51F"
104. SOUTH APPROACH APRON DETAILS
105. NORTH APPROACH APRON DETAILS
106. APPROACH APRON DETAILS
107. APPROACH APRON DETAILS
108. EXPANSION DEVICE - SOUTH ABUTMENT
109. EXPANSION DEVICE - SOUTH ABUTMENT
110. EXPANSION DEVICE - SOUTH ABUTMENT
111. MODULAR EXPANSION JOINT DETAILS
112. MODULAR EXPANSION JOINT DETAILS
113. MODULAR EXPANSION JOINT DETAILS
114. MODULAR EXPANSION JOINT - PIER 4
115. COVER PLATES - 42SS PARAPET
116. COVER PLATES - 51F PARAPET
117. LIGHT STANDARD - 42SS PARAPET
118. LIGHT STANDARD - 51F PARAPET
119. PARAPET ELECTRICAL WORK
120. FLOOR DRAIN TYPE 'GC'
121. FLOOR DRAIN DETAILS
122. FLOOR DRAIN DETAILS - 2
123. SLOPE PAVING SELECT CRUSHED MATERIAL DETAILS
124. SLOPE PAVING SELECT CRUSHED MATERIAL DETAILS
125. AESTHETIC DETAILS
126. DECK POUR SEQUENCE UNIT 1 - SPANS 1-4
127. DECK POUR SEQUENCE UNIT 2 - SPANS 5-8
128. DECK POUR SEQUENCE UNIT 2 - SPANS 9-11
129. BEARING DETAILS

STRUCTURE PLANS PREPARED BY:

ROMENESKO ENGINEERING, INC.

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER
5/31/13

GENERAL NOTES

THIS CONTRACT INCLUDES ERECTING STRUCTURAL STEEL AND BEARINGS AND FURNISHING AND CONSTRUCTING/INSTALLING EXPANSION DEVICES, SHEAR STUD CONNECTORS, LIGHTING SYSTEMS, CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURES, INCLUDING FOUNDATIONS AND AESTHETICS, AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

"STEEL FABRICATION CONTRACT" PLANS ARE ATTACHED TO THESE "STEEL ERECTION AND SITE CONSTRUCTION CONTRACT" PLANS FOR REFERENCE. USE FOR ERECTION AND INSTALLATION OF STEEL GIRDERS AND BEARINGS UNDER THIS CONTRACT.

SHOP DRAWINGS ARE AVAILABLE UPON REQUEST FOR BIDDERS TO REVIEW.

AFTER STRUCTURE SHOP ASSEMBLY AND DISASSEMBLY, ANY ELEMENTS NOT INSTALLED BY THE CONTRACTOR OF THE FABRICATION CONTRACT ARE TO BE INSTALLED BY THE CONTRACTOR OF THIS ERECTION AND CONSTRUCTION CONTRACT.

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (1991).

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III OR M213.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF THE DECK, INSIDE OF PARAPETS, AND TOP OF PARAPETS.

STRUCTURAL STEEL

FABRICATED STRUCTURAL STEEL AND BEARINGS ARE FURNISHED BY OTHERS UNDER A SEPARATE CONTRACT. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE PRIOR TO WHEN THESE MATERIALS ARE REQUIRED ON SITE.

THE COST OF INSTALLING BEARINGS, ACCESS HATCHES, AND ERECTING STRUCTURAL STEEL ARE INCLUDED IN THE BID ITEM "ERECTING STRUCTURAL STEEL B-5-681."

A TECHNICAL REPRESENTATIVE FROM THE BEARING MANUFACTURER MUST BE PRESENT DURING INSTALLATION OF THE FIRST BEARING. PROVIDE THE ENGINEER A MINIMUM OF THREE WEEKS WRITTEN NOTICE OF THE SPECIFIC DAY THE BEARING MANUFACTURER REPRESENTATIVE NEEDS TO BE ON SITE. PAYMENT FOR THIS WORK IS MADE UNDER THE STEEL FABRICATION CONTRACT (1133-11-71).

THE CONTRACTOR IS RESPONSIBLE NOT TO OVER-ROTATE BEARING ASSEMBLIES. DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

THE CONTRACTOR MUST COORDINATE WITH THE BEARING MANUFACTURER REGARDING FINAL DIMENSIONS AND DETAILS OF MASONRY PLATES AND ANCHOR BOLTS. NO ADDITIONAL PAYMENT WILL BE MADE DUE TO ANY CHANGES IN THE SUPPLIED BEARINGS AND AS SHOWN ON CONTRACT 1133-11-71.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE 3MM COAT OF PRIMER FROM THE TOP FLANGE AT LOCATIONS OF SHEAR STUDS BEFORE INSTALLING STUDS.

SHEAR STUDS MUST BE EMBEDDED A MINIMUM OF 2" ABOVE BOTTOM MAT OF STEEL REINFORCEMENT.

PROVIDE ANCHOR RODS, NUTS AND WASHERS CONFORMING TO ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZE IN ACCORDANCE WITH AASHTO M232.

TEMPORARY SUPPORTS AND FALSEWORK (INCLUDING DECK OVERHANG BRACKETS) SHALL NOT BE ATTACHED TO OR BEAR ON GIRDER WEBS EXCEPT AT WEB STIFFENER LOCATIONS.

REINFORCING STEEL

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

REINFORCING STEEL SHALL BE HIGH STRENGTH, GRADE 60 WITH FY=60 KSI. PROVIDE STAINLESS STEEL REINFORCEMENT CONFORMING TO ASTM A615, GRADE 60 REQUIREMENTS.

REINFORCING STEEL SHALL BE UNCOATED IN FOUNDATIONS (EXCEPT PIER SHAFT DOWELS) AND EPOXY COATED IN ALL OTHER LOCATIONS (INCLUDING PIER SHAFT DOWELS).

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

PLACE ALL REINFORCEMENT WITH A MINIMUM CLEAR COVER OF 2" UNLESS NOTED OTHERWISE.

PLACE REINFORCEMENT IN FOOTINGS AND PILECAPS WITH A MINIMUM CLEAR COVER OF 3" BOTTOM AND 2" TOP AND SIDES UNLESS NOTED OTHERWISE.

PLACE TOP LAYER OF REINFORCING STEEL IN THE DECK SURFACE WITH 3½" CLEAR COVER TO TOP OF SLAB.

PLACE BOTTOM LAYER OF REINFORCING STEEL IN THE DECK WITH 1½" CLEAR COVER TO BOTTOM OF SLAB.

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

HYDRAULIC DATA

100 YEAR FREQUENCY

DRAINAGE AREA = 145 SQ. MI.
Q100 = 6,500 CFS
VELOCITY = 2.9 FT/SEC
WATERWAY AREA = 2,265 SQ. FT.
HIGH WATER 100 ELEVATION = 584.13
SCOUR CRITICAL CODE = 5
REGULATORY HIGH WATER = 585.7
OVERTOPPING N/A
Q2 = 1,440 CFS
HW2 = 579.8

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIM REVISIONS, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

OTHER DESIGN LOADS

THE STRUCTURE IS DESIGNED FOR THE DECK THICKNESS SHOWN, WHICH INCLUDES A 1½" INTEGRAL WEARING SURFACE. NO ADDITIONAL LOAD FOR A FUTURE WEARING SURFACE IS CONSIDERED IN THE DESIGN.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 90°F.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

PARAPETS WERE ASSUMED TO WEIGH 512 PLF AND 563 PLF FOR 51F AND 42SS" SECTIONS RESPECTIVELY.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

DESIGN LIVE LOAD

DESIGN LOADING: HL-93

INVENTORY RATING FACTOR: RF = 1.11

OPERATING RATING FACTOR: RF = 1.44

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EXCAVATION AND BACKFILL

THE FINISHED GRADE LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

CONCRETE

CONCRETE QUANTITY IN THE HAUNCHES IS CALCULATED BASED ON AN ASSUMED AVERAGE DEPTH OF 3" MEASURED FROM TOP OF TOP FLANGE TO UNDERSIDE OF SLAB. THIS IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH PAYMENT WILL BE MADE.

CHAMFER ALL EXPOSED OUTSIDE CORNERS ¾" UNLESS NOTED OTHERWISE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DRAWING LIST AND GENERAL NOTES

SHEET 2 OF 129
1033

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41 1133-10-00 UBG\Structures\B-5-681\002.drawinglist_notes_v8.b-5-681.dgn

PLOT DATE : 5/30/2013

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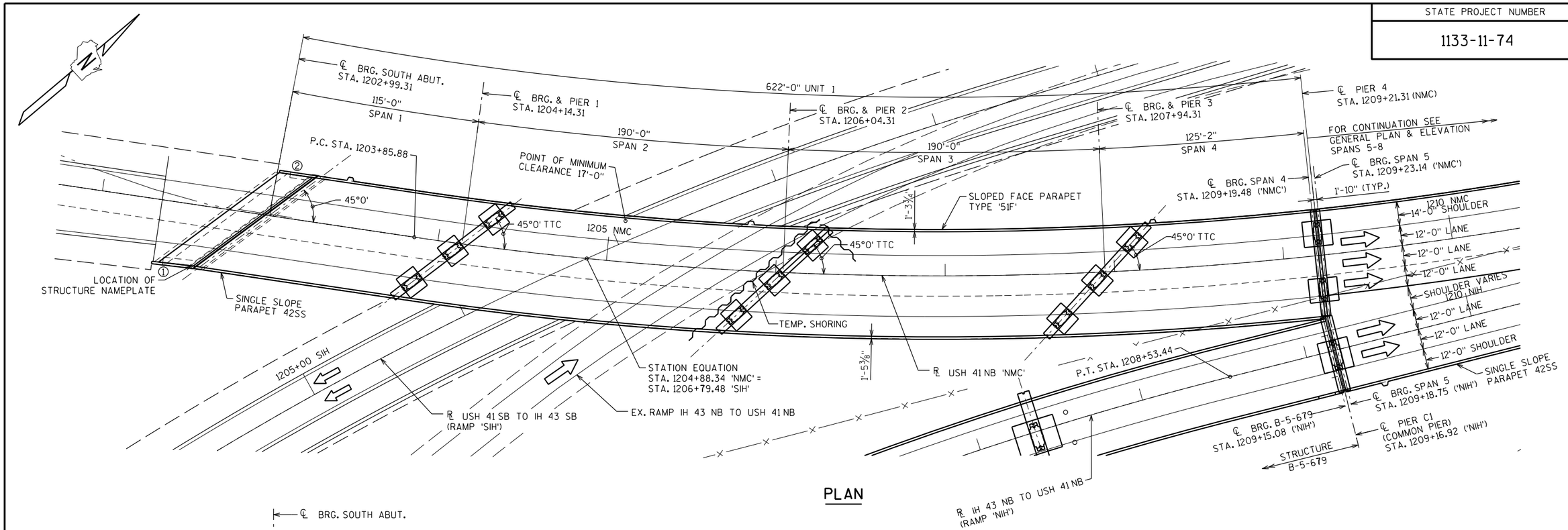
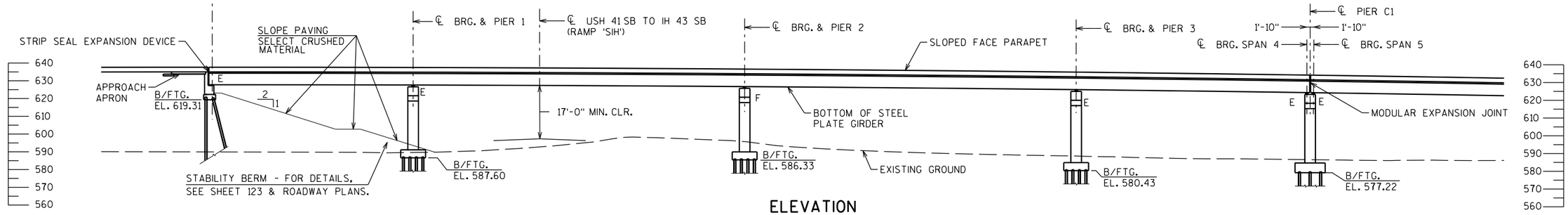
STATE PROJECT NUMBER
1133-11-74



PLAN



ELEVATION

(ALONG ℄ 'NMC' LOOKING WEST)

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 1300	DISK ON PARAPET WALL	601.80

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE
SLAB---------- f'c = 4,000 P.S.I.
ALL OTHER---------- f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60---------- fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL,---------- fy = 50,000 P.S.I.
(ASTM A709, GRADE 50, HS50)

TRAFFIC VOLUME:

RAMP 'NIH'	RAMP 'SIH'	RAMP 'NMC'
ADT (2035) = 10,200	ADT (2035) = 10,700	ADT (2035) = 29,800
R.D.S. = 70 M.P.H.	R.D.S. = 70 M.P.H.	R.D.S. = 70 M.P.H.

STRUCTURE TYPE

4-SPAN CONTINUOUS STEEL PLATE GIRDER UNIT 1.
7-SPAN CONTINUOUS STEEL PLATE GIRDER UNIT 2.

FOUNDATION DATA

NORTH AND SOUTH ABUTMENTS TO BE SUPPORTED ON HP12X53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 125 TONS PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. SEE ABUTMENT SHEETS FOR ESTIMATED LENGTH.

PIERS 1 THROUGH 10 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. FOR ESTIMATED PILE LENGTHS SEE FOUNDATION NOTE ON "PIER LAYOUT DETAIL" SHEETS.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PILE DRIVING ANALYZER TO DETERMINE PILE CAPACITY.

HARD DRIVING MATERIAL SHOULD BE ANTICIPATED IN LAYERS SIGNIFICANTLY ABOVE MINIMUM TIP ELEVATION AT SOME LOCATIONS. IT IS RECOMMENDED THAT THE CONTRACTOR VERIFY THAT THE PILE DRIVING SYSTEM CAN ADVANCE PILES TO DEVELOP THE REQUIRED DRIVING RESISTANCE AND MINIMUM TIP ELEVATION WITHOUT DAMAGE TO THE PILE. DETAILED DRIVEABILITY ANALYSIS SHOULD BE PART OF CONTRACTOR VERIFICATION. IF MINIMUM TIP ELEVATION CANNOT BE ACHIEVED SEE ENGINEER.

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄ 'NMC' UNLESS NOTED OTHERWISE.

DIMENSIONS SHOWN ARE ALONG ℄ 'NMC' UNLESS NOTED OTHERWISE.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄ 'NMC'.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

FLOOR DRAIN AND LIGHT POLE LOCATIONS ARE NOT YET DETERMINED.

ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING

TTC - TANGENT TO CURVE
① - INDICATES WING NUMBER

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

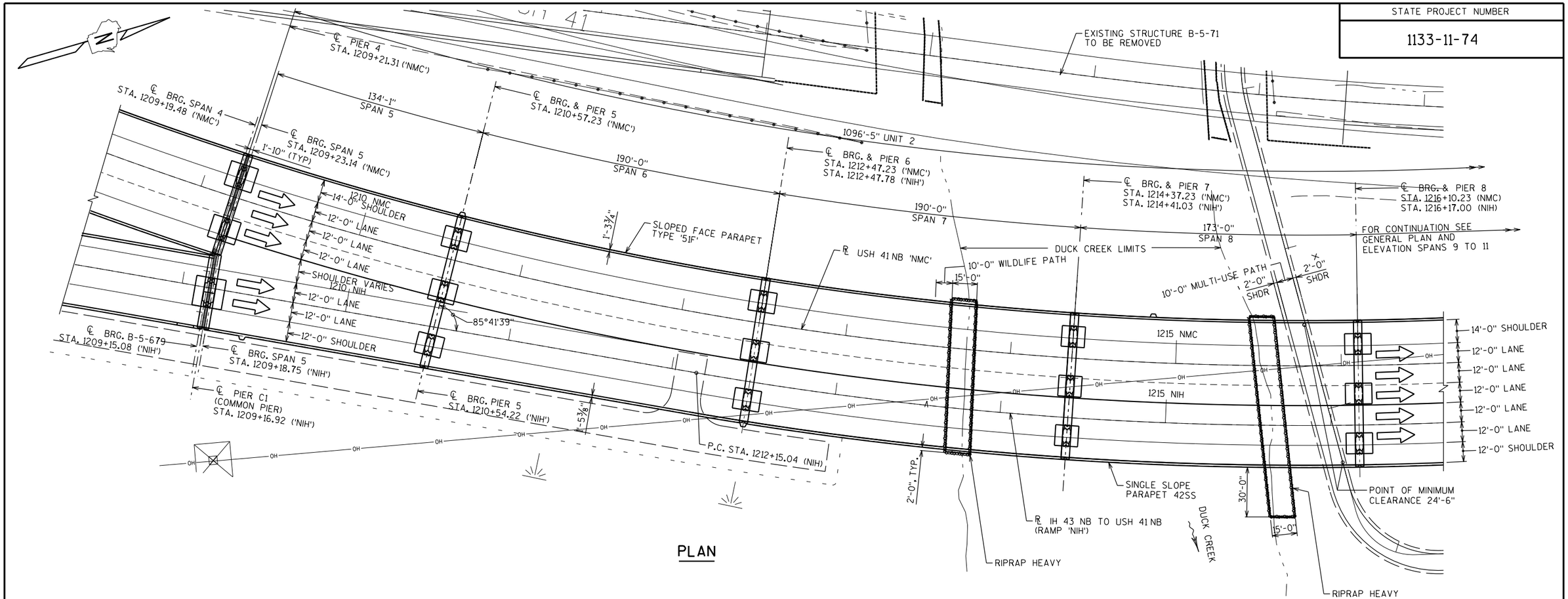
GENERAL PLAN AND ELEVATION SPANS 1-4

SHEET 3 OF 129
1034

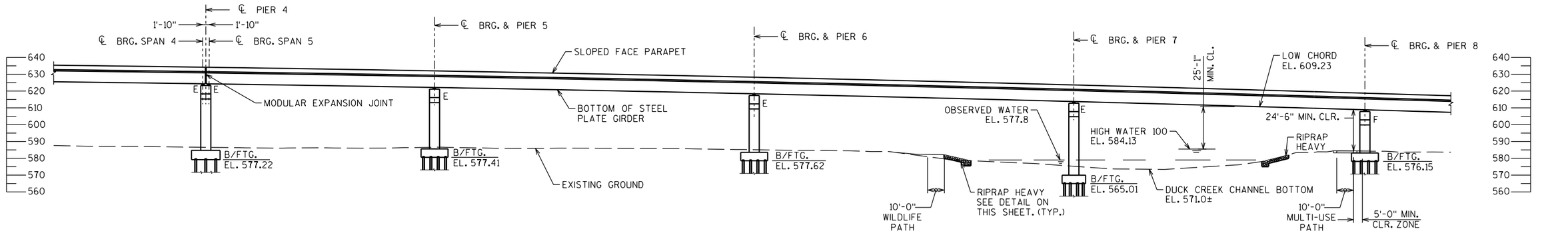
FILE NAME : P:\153 USH 41 1133-10-00 DRS\Structures\B-5-681\003.geopl.Spans.1-4_v8.b-5-681.dgn
PLOT DATE : 5/31/2013

STATE PROJECT NUMBER

1133-11-74

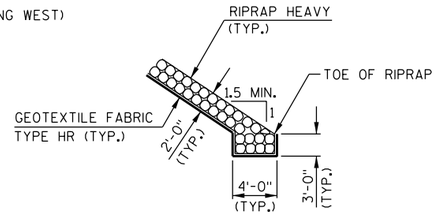


PLAN



ELEVATION

(ALONG ℄ "NMC" LOOKING WEST)



RIPRAP DETAIL

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING

NOTES:

FOR NOTES, SEE SHEET TITLED
"GENERAL PLAN AND ELEVATION SPANS 1-4".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

GENERAL PLAN AND ELEVATION SPANS 5-8

SHEET 4 OF 129
1035

FILE NAME : P:\153 USH 41 1133-10-00 UFS\Structures\B-5-681\1004_genplan_Spans.5-8_v8_b-5-681.dgn

PLOT DATE : 5/21/2013

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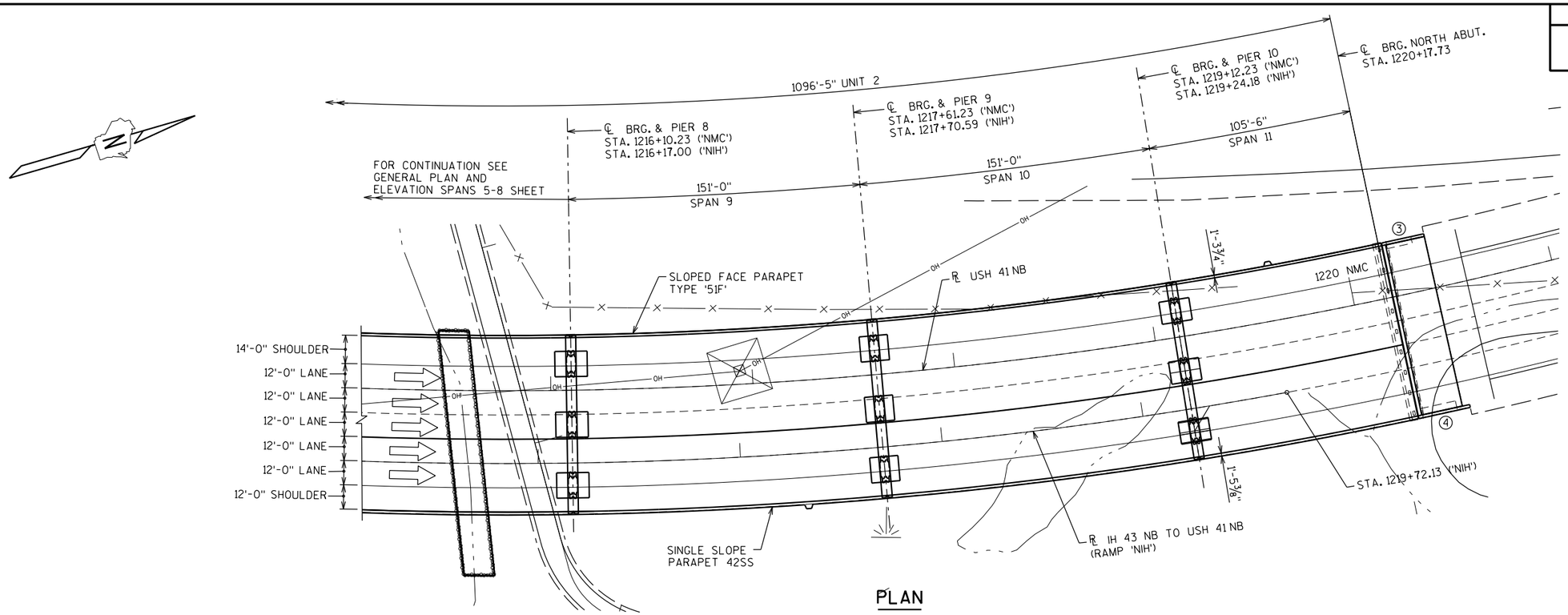
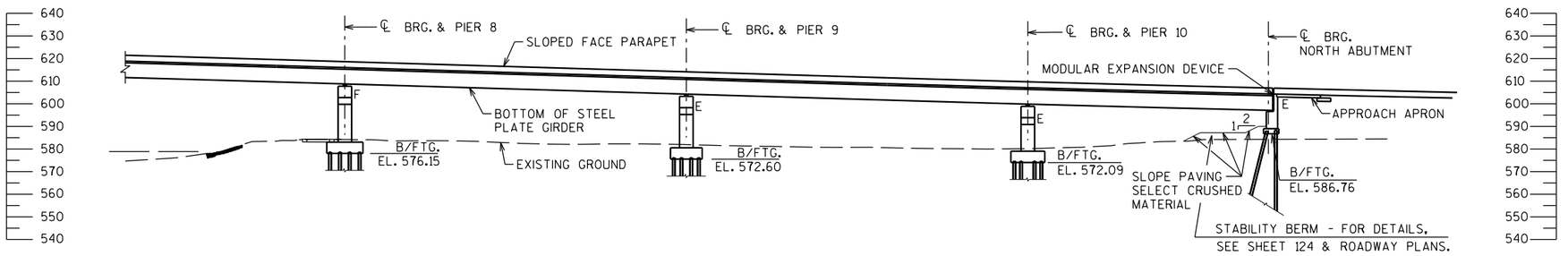
STATE PROJECT NUMBER

1133-11-74



PLAN



ELEVATION

(ALONG ℞ 'NMC' LOOKING WEST)

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING

③ INDICATES WING NUMBER

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN AND ELEVATION SPANS 1-4".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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GENERAL PLAN AND ELEVATION SPANS 9-11

SHEET 5 OF 129
1036

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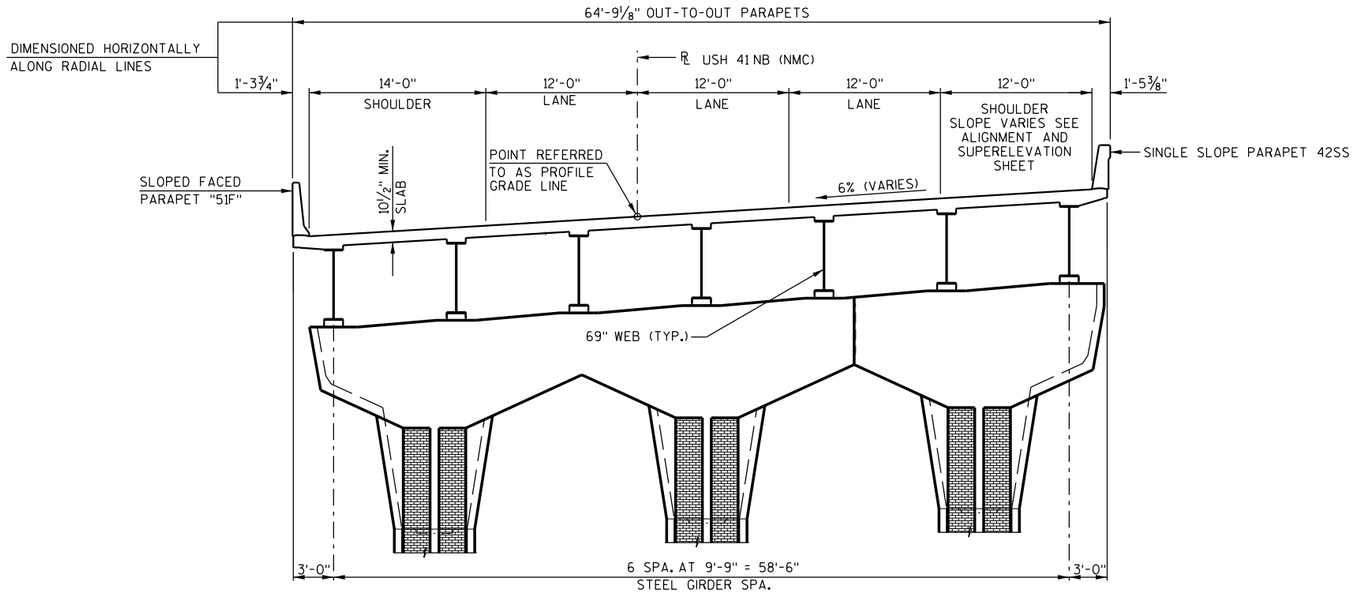
FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-681\005.genplan.Spans.9-11.v8.b-5-681.dgn

PLOT DATE : 5/31/2013

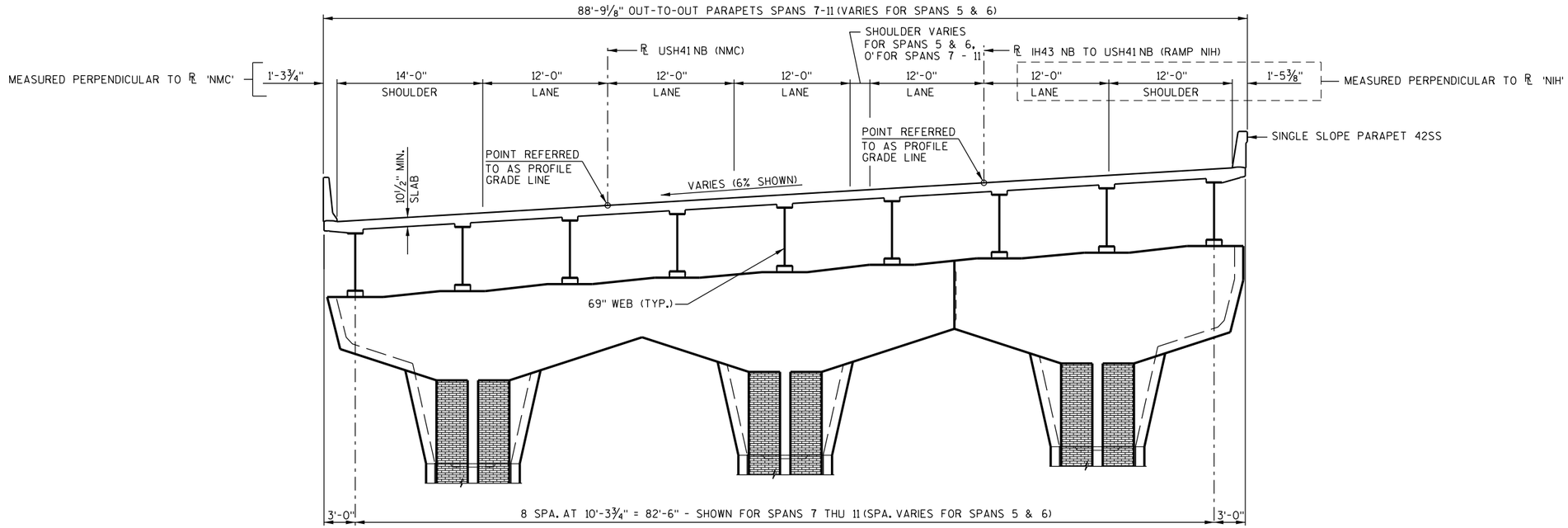
STATE PROJECT NUMBER

1133-11-74



CROSS SECTION THRU ROADWAY - UNIT 1

(LOOKING NORTH)



CROSS SECTION THRU ROADWAY - UNIT 2

(LOOKING NORTH)

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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CROSS SECTION UNITS 1 & 2

SHEET 6 OF 129
1037

FILE NAME : P:\153 USH 41 1133-10-00 UDS\Structures\B-5-681\006.cross.section.v8.b-5-681.dgn

PLOT DATE : 2/28/2013

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STATE PROJECT NUMBER

1133-11-74

TOTAL ESTIMATED QUANTITIES

	BID ITEM #	BID ITEM	UNIT	S. APPR. APRON	S. ABUT.	UNIT 1 SUPER. SPANS 1-4	UNIT 1 PIERS 1-4	UNIT 2 SUPER. SPANS 5-11	UNIT 2 PIERS 5-10	N. ABUT.	N. APPR. APRON	TOTAL
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-5-681	LS	---	---	---	---	---	---	---	---	1
	206.5000	COFFERDAM B-5-681	LS	---	---	---	---	---	---	---	---	1
	206.6000.S	TEMPORARY SHORING	SF	---	---	---	1,560	---	---	---	---	1,560
	210.0100	BACKFILL STRUCTURE	CY	---	620	---	1,030	---	---	780	---	2,430
	502.3100	EXPANSION DEVICE B-5-681	LS	---	---	---	---	---	---	---	---	1
	502.3110.S	EXPANSION DEVICE MODULAR B-5-681	LS	---	---	---	---	---	---	---	---	1
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	162	---	4,979	---	12,013	---	---	216	17,370
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	---	10,230	---	27,410	---	43,580	11,280	---	92,500
	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	13,700	10,360	361,900	238,640	857,050	362,120	12,170	19,850	1,875,790
	506.0105	STRUCTURAL STEEL CARBON	LB	---	73	---	193	---	---	97	---	363
**	506.3025	WELDED STUD SHEAR CONNECTORS 7/8 X 8-INCH	EACH	---	---	12,150	---	46,344	---	---	---	58,494
	514.0445	FLOOR DRAINS TYPE GC	EACH	---	---	2	---	6	---	---	---	8
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	24	---	---	---	---	24	---	48
	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	---	2,380	---	---	---	---	1,740	---	4,120
	550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	---	---	---	8,160	---	15,180	---	---	23,340
	604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	---	740	---	---	---	---	430	---	1,170
	606.0300	RIPRAP HEAVY	CY	---	---	---	10	---	315	5	---	330
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	240	150	---	---	---	---	160	220	770
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	---	---	---	25	---	800	15	---	840
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	---	25	10	---	20	---	60	---	115
	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	---	---	600	---	2,240	---	---	---	2,840
	653.0222	JUNCTION BOXES 18x12x6-INCH	EACH	---	---	5	---	12	---	---	---	17
	657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	---	---	3	---	6	---	---	---	9
	SPV.0035.700	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	90	245	1,611	1,674	3,848	1,574	283	114	9,439
	SPV.0060.701	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	---	4	---	16	---	22	4	---	46
	SPV.0060.702	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	---	4	---	16	---	22	4	---	46
	SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	---	1,310	---	---	---	---	1,420	---	2,730
	SPV.0090.702	DOWNSPOUT RTRP 6-INCH	LF	---	---	---	100	---	215	20	---	335
	SPV.0105.703	ERECTING STRUCTURAL STEEL B-5-681	LS	---	---	---	---	---	---	---	---	1
	SPV.0105.707	FIELD PAINTING STRUCTURAL STEEL B-5-681	LS	---	---	---	---	---	---	---	---	1
	SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	---	205	---	2,805	---	4,523	237	---	7,770
	SPV.0165.701	STAINING CONCRETE	SF	---	1,420	9,260	15,480	16,270	22,170	1,540	---	66,140
	SPV.0165.702	STAINING CONCRETE BRICK	SF	---	205	---	2,805	---	4,523	237	---	7,770
	SPV.0165.703	LONGITUDINAL GROOVING	SF	1,180	---	37,151	---	94,665	---	---	1,660	134,656

NOTES:

** SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE THE PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS. STUDS SHALL NOT BE ORDERED UNTIL DECK GRADES ARE SURVEYED AND HAUNCH HEIGHTS ARE DETERMINED. WHERE STUDS DO NOT PROVIDE A MINIMUM 2 OF EMBEDMENT ABOVE THE BOTTOM OF THE BOTTOM MAT OF DECK REINFORCING STEEL, LONGER STUDS SHALL BE PROVIDED. WHERE STUDS EXTEND ABOVE THE BOTTOM OF THE TOP MAT OF DECK REINFORCING STEEL, SHORTER STUDS SHALL BE PROVIDED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE COST OF LONGER OR SHORTER STUDS.

PILE DYNAMIC ANALYZER (PDA) TESTING LOCATIONS

THE BID ITEMS FOR THIS WORK ARE "PILE DYNAMIC ANALYZER (PDA) TESTING, ITEM SPV.0060.702 PILE DYNAMIC ANALYZER (PDA) RESTRIKES, ITEM SPV.0060.703".

	PILE NUMBERS
S. ABUT.	2, 14, 15, & 27
PIER 1	1 & 9 IN FTG. #1 - 4 & 12 IN FTG. #3
PIER 2	1 & 9 IN FTG. #1 - 4 & 12 IN FTG. #3
PIER 3	1 & 9 IN FTG. #1 - 4 & 12 IN FTG. #3
PIER 4	1 & 7 IN FTG. #1 - 4 & 10 IN FTG. #2
PIER 5	1 & 13 IN FTG. #1 - 4 & 16 IN FTG. #3
PIER 6	1 & 13 IN FTG. #1 - 4 & 16 IN FTG. #3
PIER 7	1 & 13 IN FTG. #1 - 4 & 16 IN FTG. #3
PIER 8	1 & 13 IN FTG. #1 - 4 & 16 IN FTG. #3
PIER 9	1 & 13 IN FTG. #1 - 4 & 16 IN FTG. #3
* PIER 10	1 & 10 IN FTG. #1
N. ABUT.	2, 14, 15, & 27

* PILES 1-6, & 9 IN FOOTING #3 ARE EXISTING PILES FROM PILE LOAD TEST COMPLETED SEPTEMBER 18 & 19, 2012. PILES ARE CUTOFF AT ELEVATION 575.1±. NO ADDITIONAL TESTING REQUIRED ON PILES IN THIS FOOTING.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

QUANTITIES

SHEET 7 OF 129
1038

8

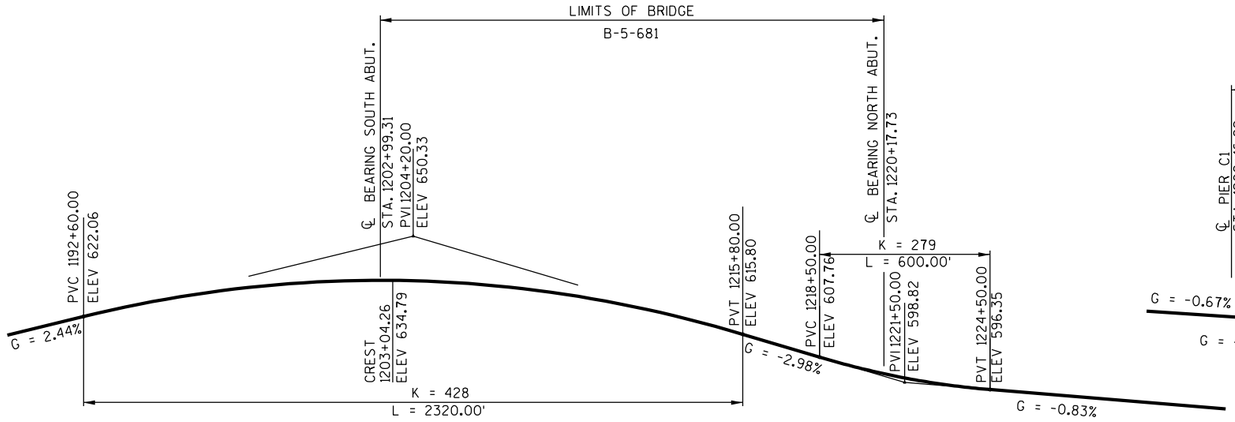
8

FILE NAME : P:\153 USH 41 1133-10-00 UR\S\Structures\B-5-681\007_quants_v8_b-5-681.dgn

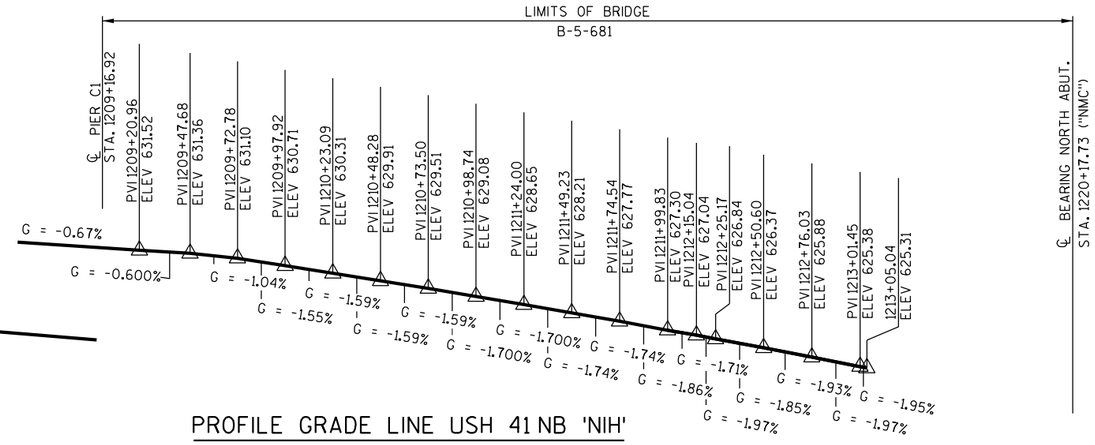
PLOT DATE : 5/30/2013

STATE PROJECT NUMBER

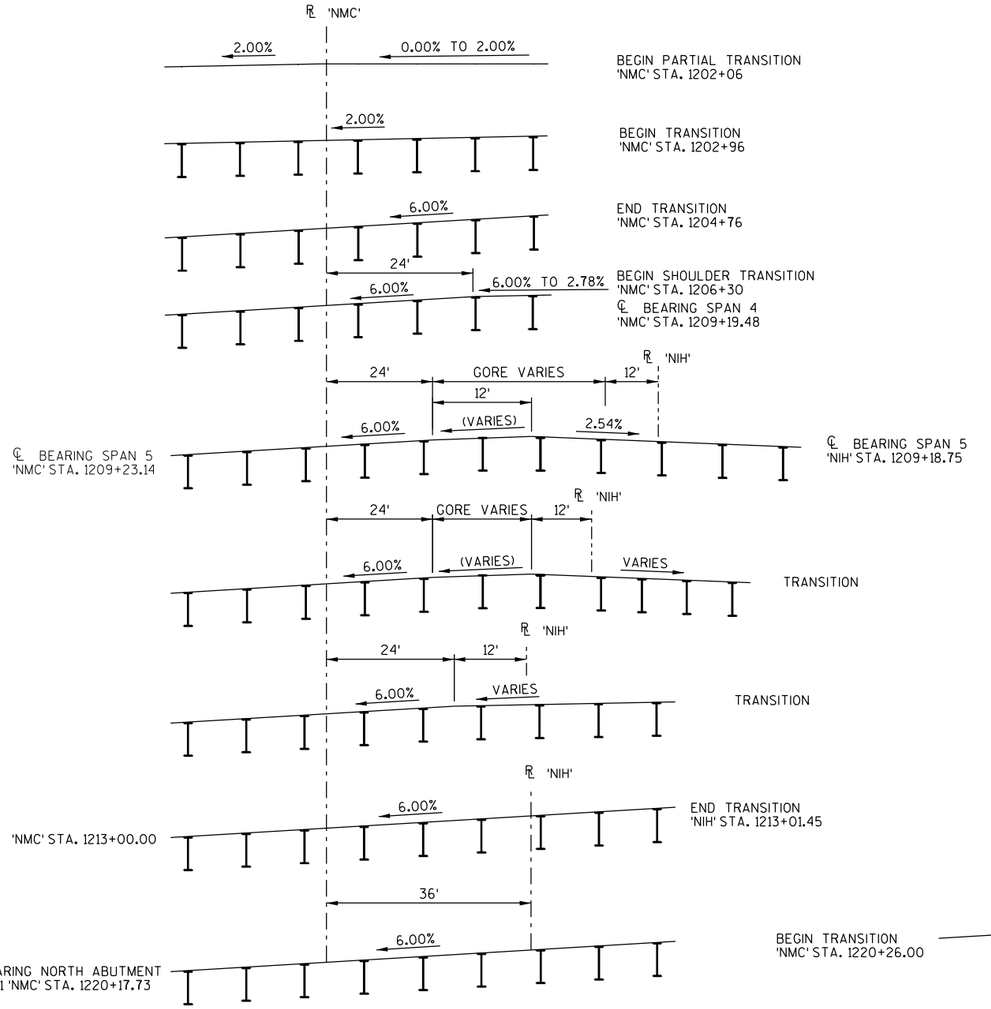
1133-11-74



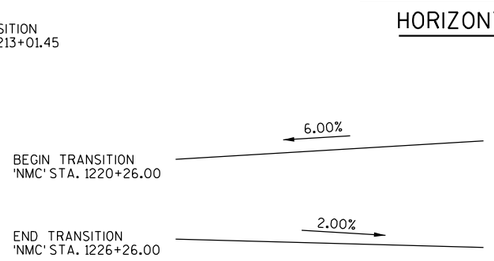
PROFILE GRADE LINE USH 41 NB 'NMC'



PROFILE GRADE LINE USH 41 NB 'NIH'

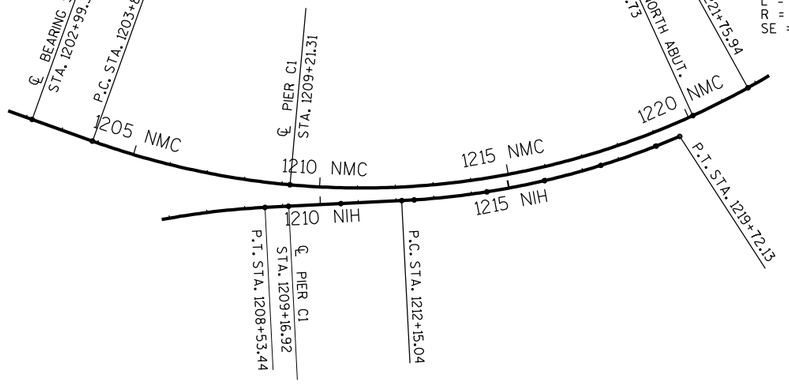


DECK SLOPE TRANSITION



USH 41 NB OVER DUCK CREEK (NMC)
HORIZONTAL CURVE DATA

P.I. STA. = 1213+39.35
N = 585271.63
E = 91083.25
PC STA. = 1203+85.88
PT STA. = 1221+75.94
Δ = 48° 50' 22"
D = 2° 43' 42"
T = 953.47
L = 1790.06
R = 2100'
SE = 6.000%



IH 43 NB - USH 41 NB
RAMP 'NIH'
HORIZONTAL CURVE DATA

P.I. STA. = 1215+97.60
N = 585624.64
E = 91067.37
PC STA. = 1212+15.04
PT STA. = 1219+72.13
Δ = 20° 18' 29"
D = 2° 40' 57"
T = 382.56
L = 757.09
R = 2136'
SE = 6.000%

HORIZONTAL ALIGNMENT USH 41 NB OVER DUCK CREEK (NMC)
HORIZONTAL ALIGNMENT RAMP IH 43 NB TO USH 41 NB

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

ALIGNMENT AND SUPERELEVATION

SHEET 8 OF 129
1039

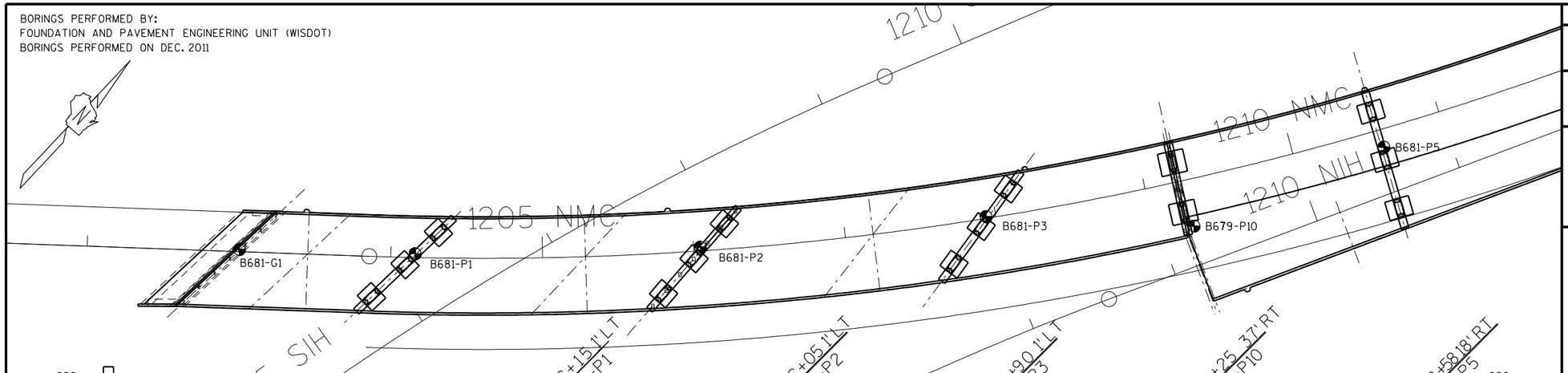
8

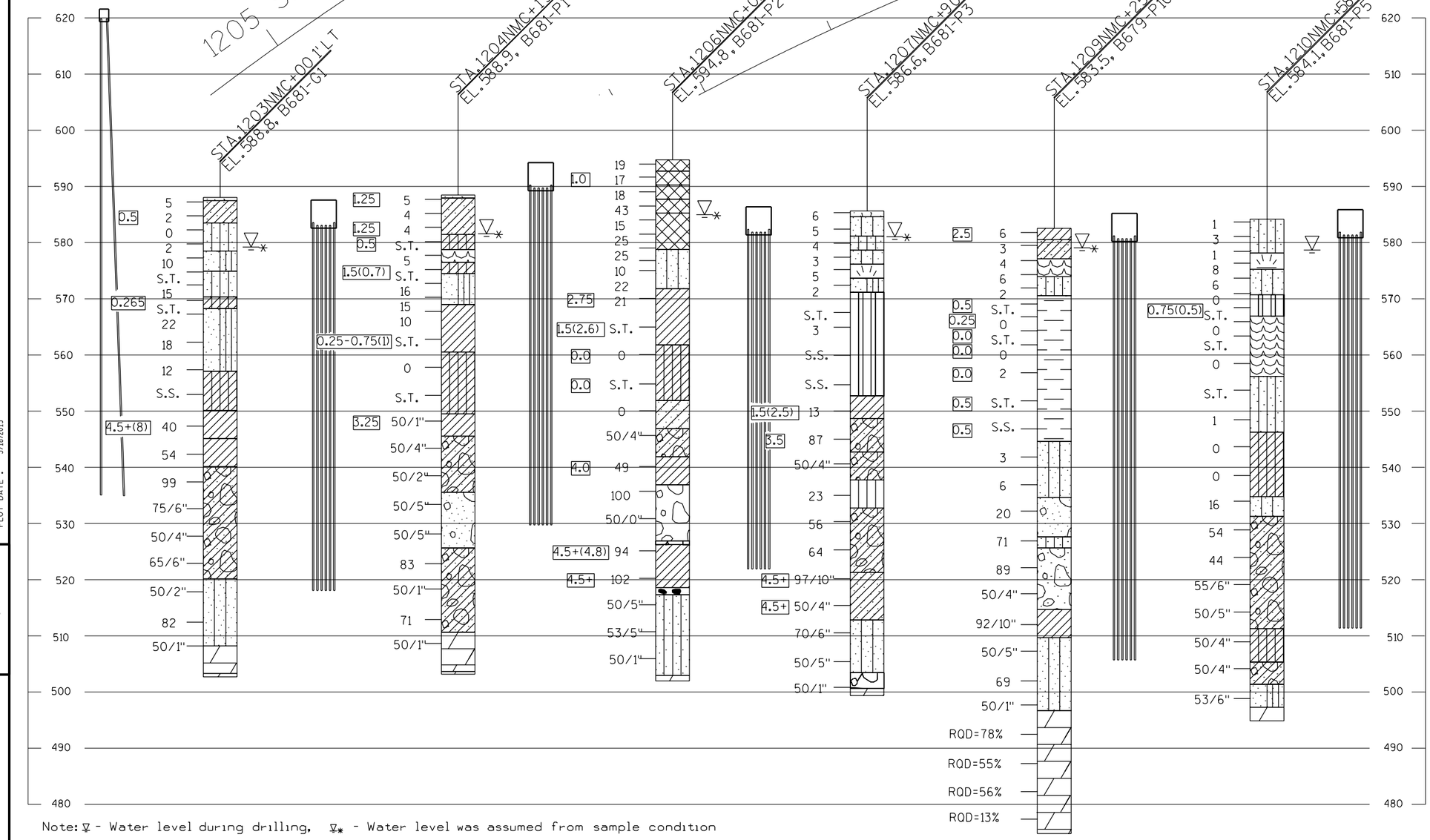
8

FILE NAME : P:\153 USH 41 1133-10-00 UPS\Structures\B-5-681\008.dgn_super_v8_b-5-681.dgn

PLOT DATE : 2/28/2013

BORINGS PERFORMED BY:
FOUNDATION AND PAVEMENT ENGINEERING UNIT (WISDOT)
BORINGS PERFORMED ON DEC. 2011





Note: ▽ - Water level during drilling, ▽* - Water level was assumed from sample condition

STATE PROJECT NUMBER

1133-11-74

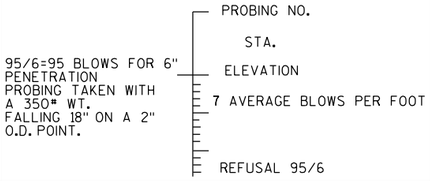
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

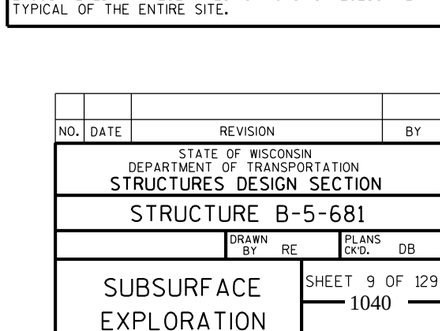
MATERIAL SYMBOLS

TOPSOIL, SILT, FAT CLAY, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY RE | PLANS CK'D. DB

SUBSURFACE EXPLORATION

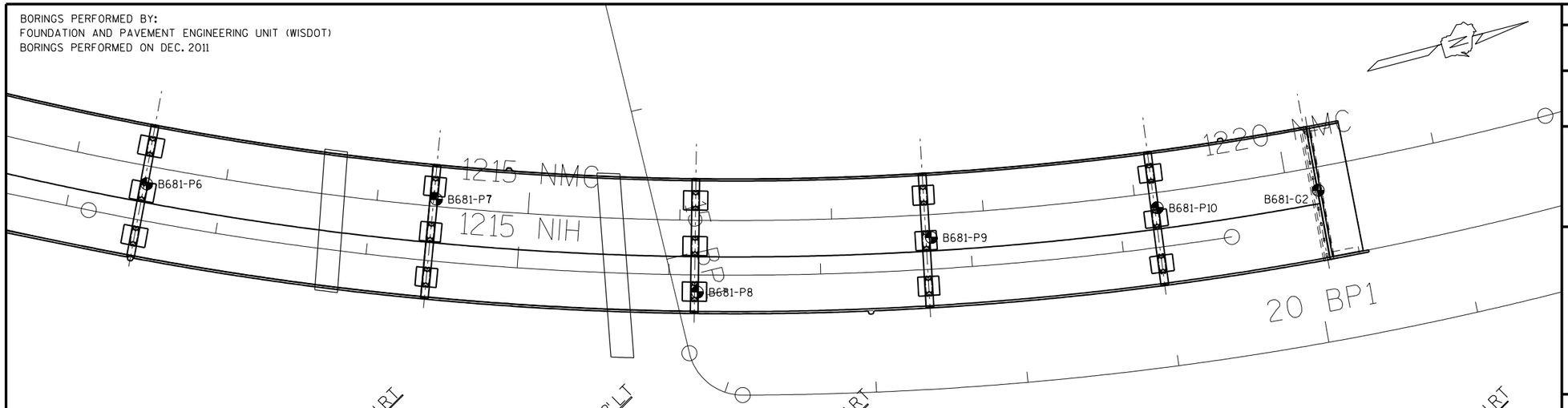
SHEET 9 OF 129
1040

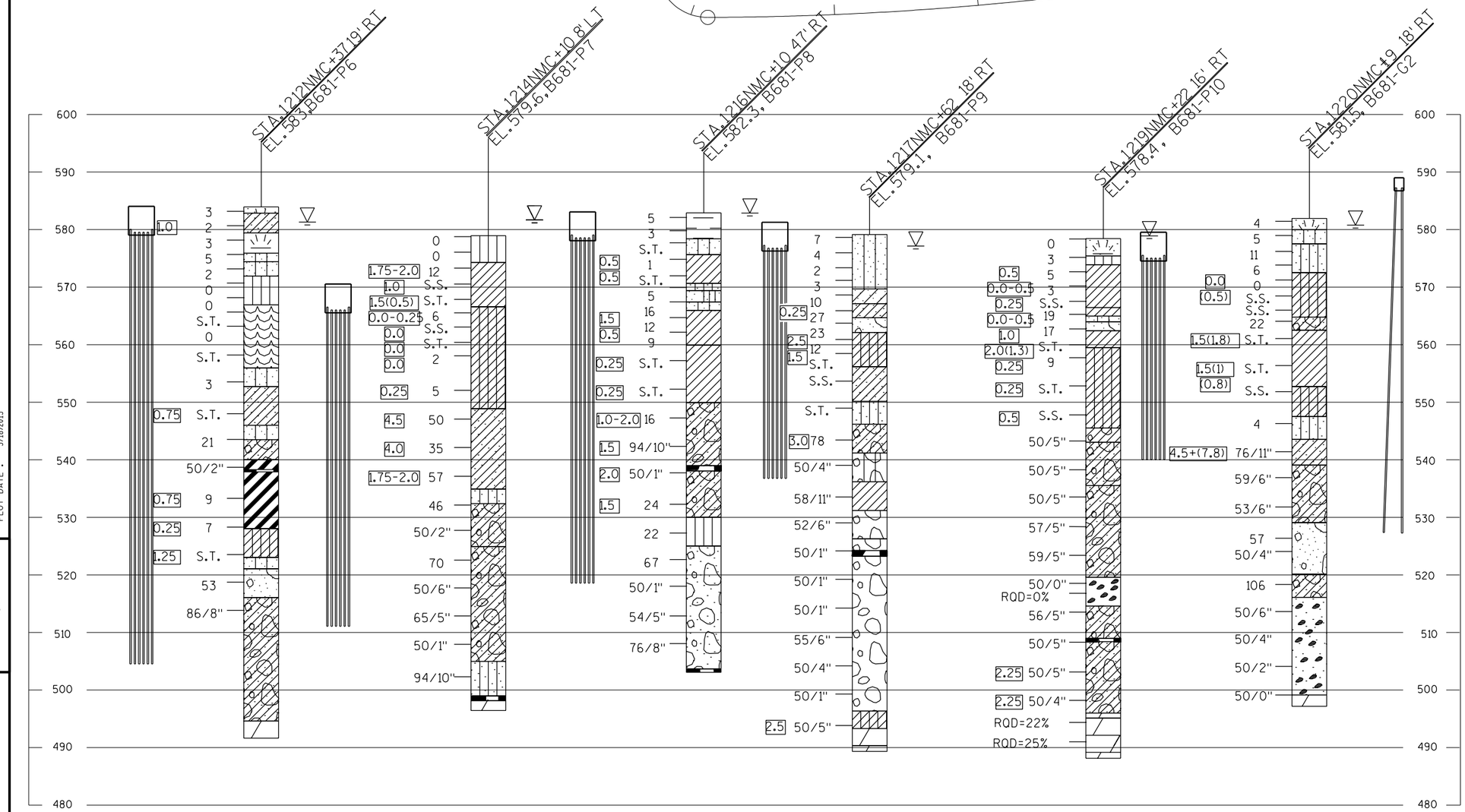
FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-681\009.soils.v8.b-5-681.dgn
PLOT DATE : 3/18/2013

8

8

BORINGS PERFORMED BY:
FOUNDATION AND PAVEMENT ENGINEERING UNIT (WISDOT)
BORINGS PERFORMED ON DEC. 2011





Note: ▽ - Water level during drilling, ▽* - Water level was assumed from sample condition

FILE NAME : P:\153 USH 41 1133-10-00 UPGS\Structures\B-5-681\010_soils_v8_b-5-681.dgn
PLOT DATE : 3/18/2013

8

STATE PROJECT NUMBER

1133-11-74

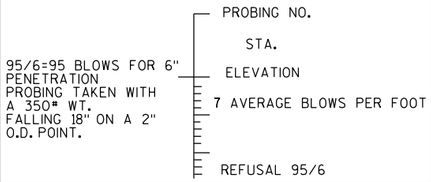
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

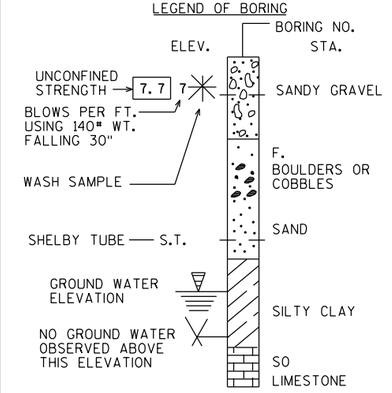
MATERIAL SYMBOLS

TOPSOIL, SILT, FAT CLAY, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

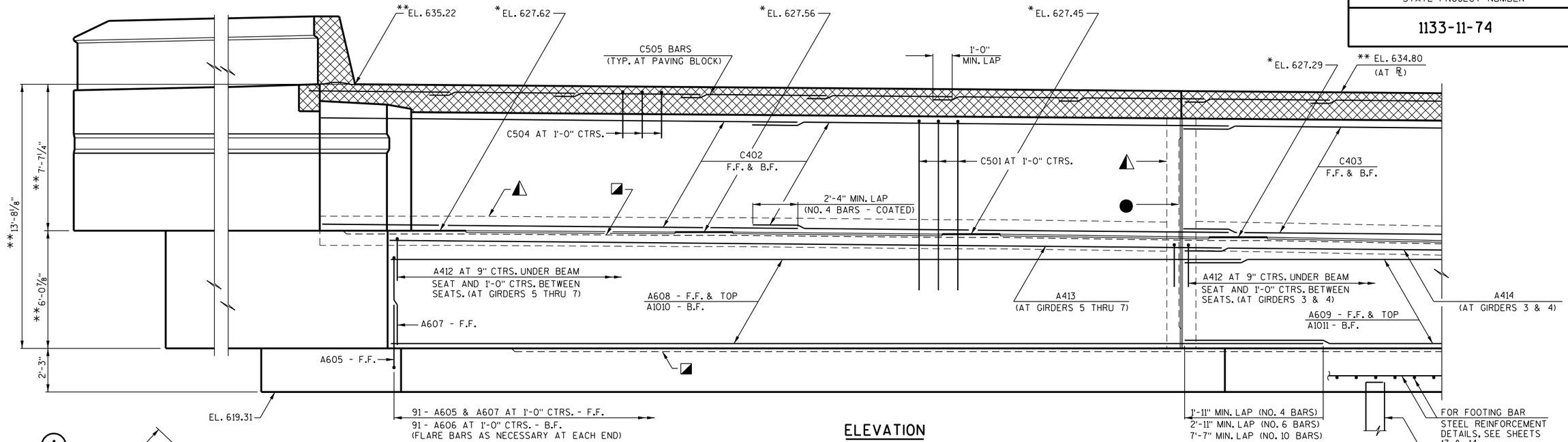
DRAWN BY RE | PLANS CK'D. DB

SUBSURFACE EXPLORATION

SHEET 10 OF 129
1041

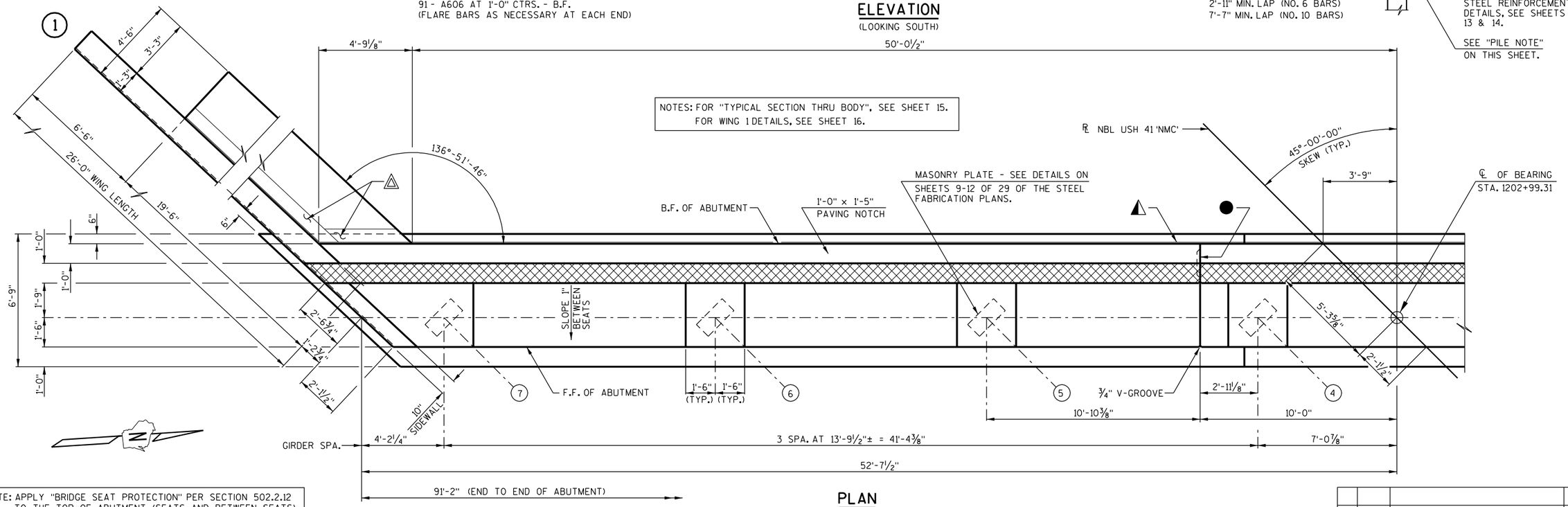
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING SOUTH)



NOTES: FOR "TYPICAL SECTION THRU BODY", SEE SHEET 15.
FOR WING 1 DETAILS, SEE SHEET 16.

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.2.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS).

LEGEND

- * ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.
- ** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.
- ◭ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- ◬ PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION A-A ON SHEET 12.
- ● KEYED CONST. JOINT FORMED BY A BEVELED 2" x 8".
- ▨ INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.
- (X) INDICATES WING NUMBER
- ◪ KEYED. CONST. JOINT FORMED BY BEVELED 2" x 6".

PLAN

PILE NOTE

SOUTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 12 x 53 WITH A REQUIRED DRIVING RESISTANCE OF 125 TONS PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. ESTIMATED LENGTH OF 85'-0". FOR PILE LAYOUT DETAILS, SEE SHEETS 13 & 14. FOR PILE SPLICE DETAILS, SEE SHEET 15.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

SHEET 11 OF 129
1042

FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\DTL SABUT1_B-5-681.DGN

PLOT DATE : 4/24/2013

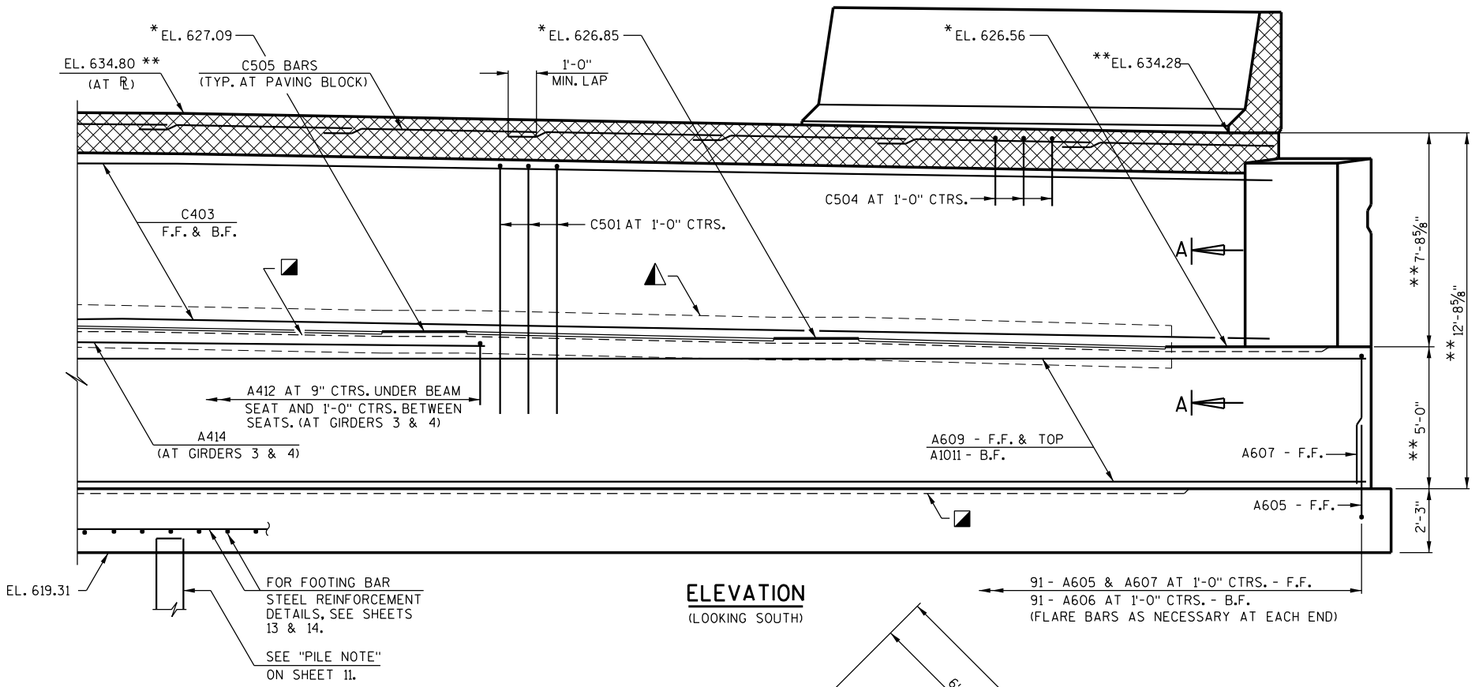
8

8

STATE PROJECT NUMBER

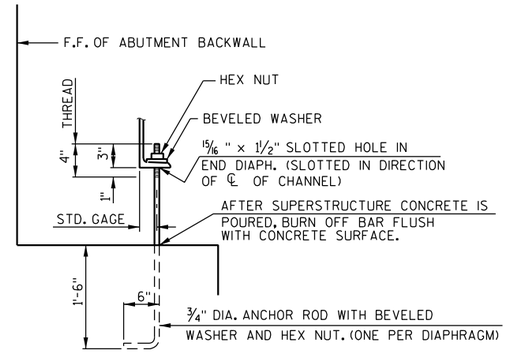
1133-11-74

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.2.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS).



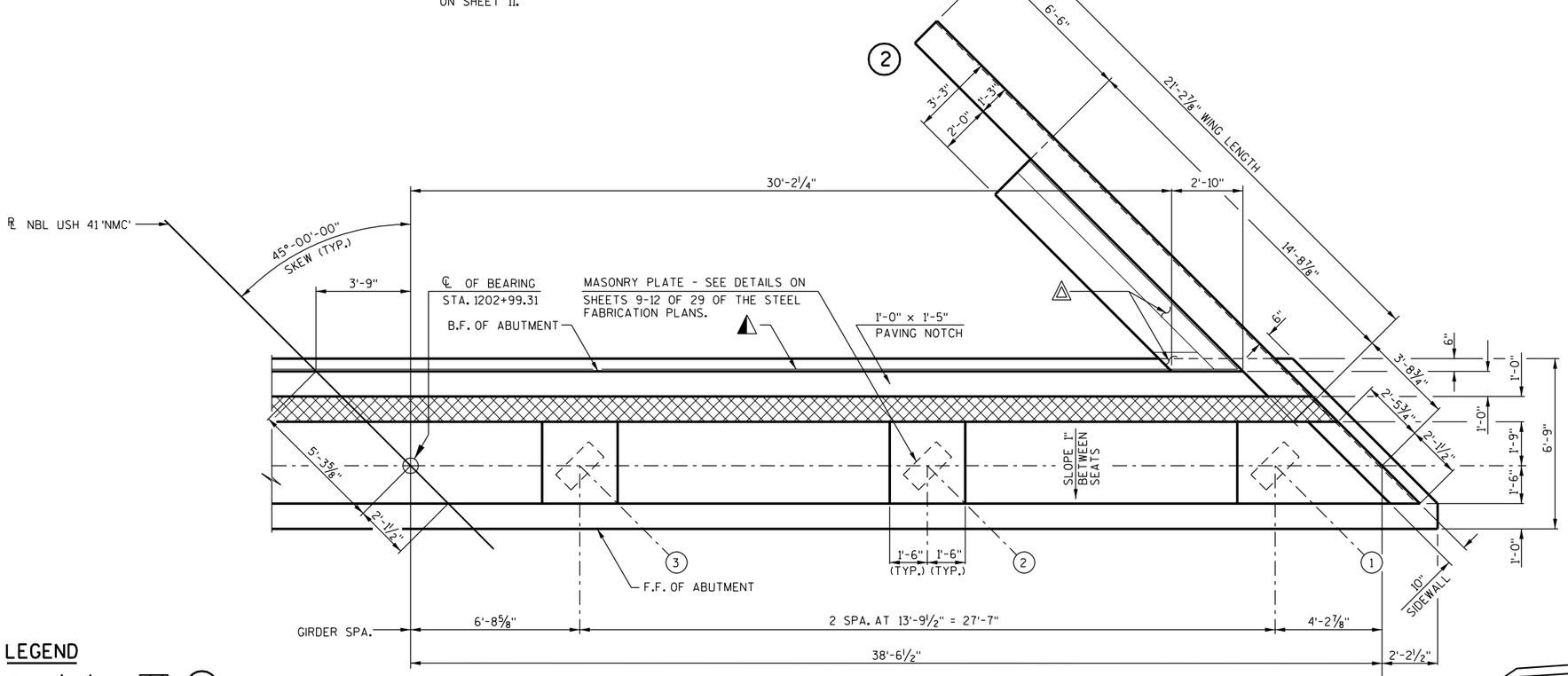
ELEVATION

(LOOKING SOUTH)

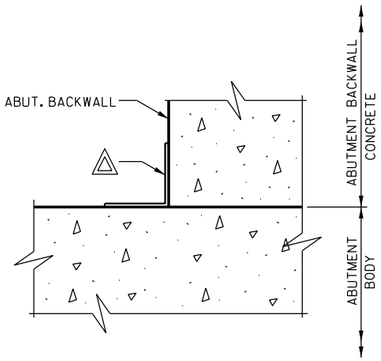


TEMPORARY HOLD DOWN

TEMPORARY HOLD DOWN DEVICES SHALL BE PLACED AT THE ENDS OF ALL CONTINUOUS STEEL GIRDER UNITS WHERE SLAB POUR TERMINATES (AT SOUTH ABUT., NORTH ABUT. & PIER 4) LOCATE 1'-6" (NORMAL) OFF ℄ OF GIRDER. TO BE PAID FOR AS "STRUCTURAL CARBON STEEL".



PLAN



SECTION A-A

LEGEND

● * △ ◭ ** ▨ Ⓧ ◪ FOR SYMBOL DESCRIPTIONS, SEE SHEET 11.

NOTES: FOR "TYPICAL SECTION THRU BODY", SEE SHEET 15.
FOR WING 2 DETAILS, SEE SHEET 17.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

SHEET 12 OF 129
1043

FILE NAME : P:\453 USH 41\1133-10-00 URGs\STRUCTURES\B-5-681\02_SABUT2_B-5-681.DGN

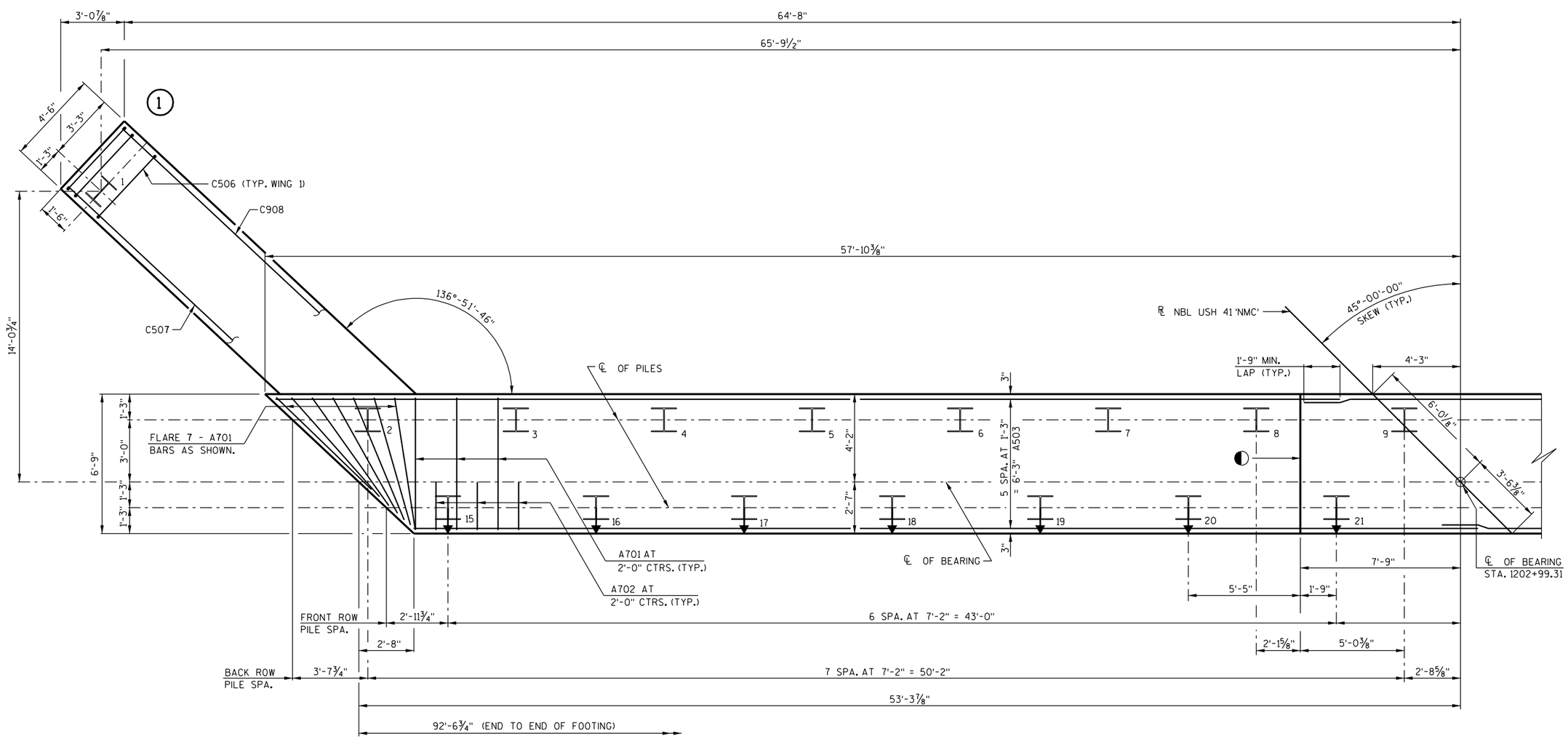
PLOT DATE : 4/24/2013

8

8

STATE PROJECT NUMBER

1133-11-74



PILE PLAN

LEGEND

INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

OPTIONAL CONST. JOINT.

(X) INDICATES WING NUMBER

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

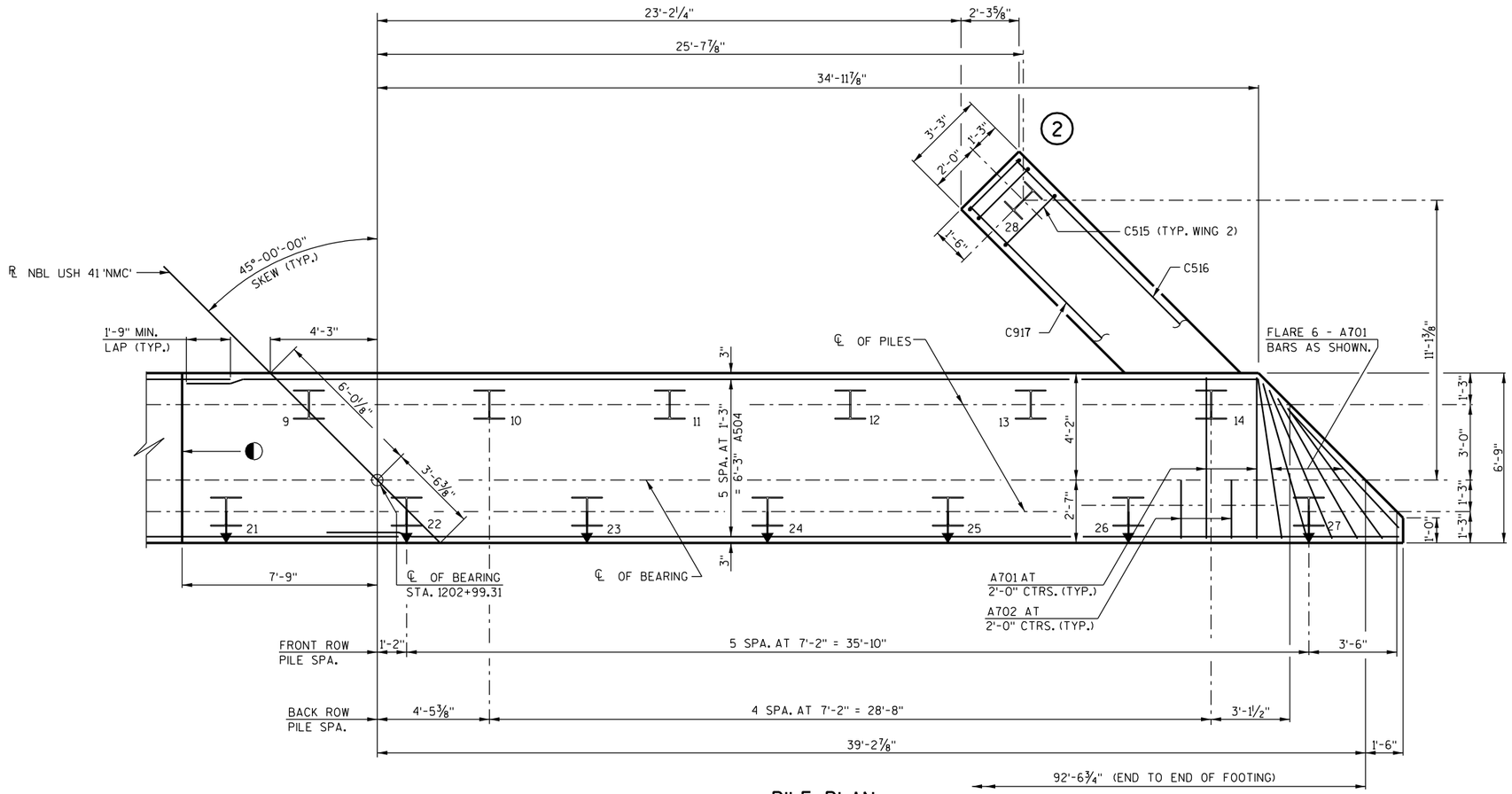
SHEET 13 OF 129
1044

FILE NAME : P:\53 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\013.SABUT3.B-5-681.dgn

PLOT DATE : 2/14/2013

STATE PROJECT NUMBER

1133-11-74



PILE PLAN

LEGEND

INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

OPTIONAL CONST. JOINT.

(X) INDICATES WING NUMBER

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT

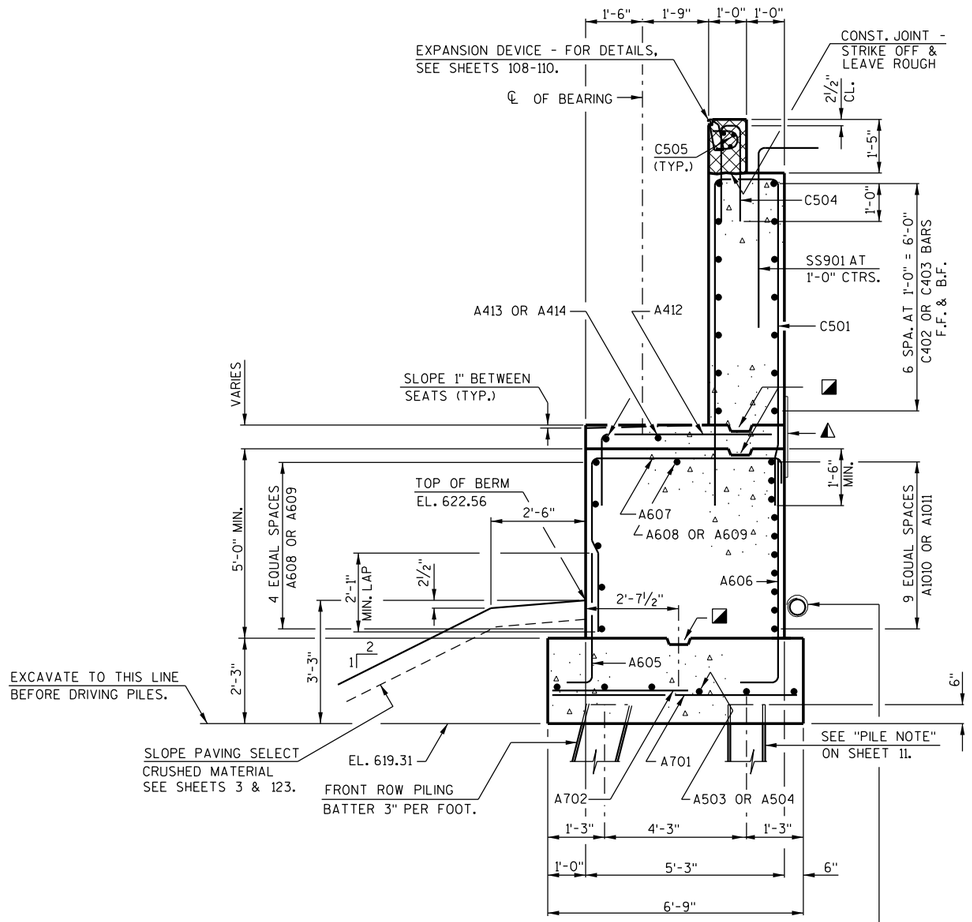
SHEET 14 OF 129
1045

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681t014_SABUT4_B-5-681DGN

PLOT DATE : 2/14/2013

STATE PROJECT NUMBER

1133-11-74



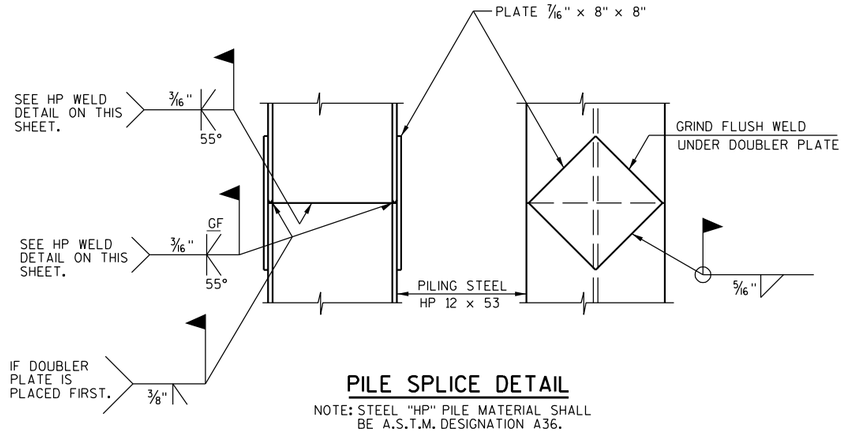
TYPICAL SECTION THRU BODY

(LOOKING EAST)

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO END OF PIPE. SEE RODENT SHIELD DETAIL ON THIS SHEET.

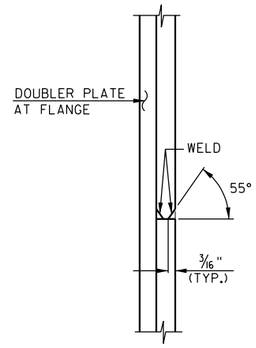
LEGEND

● ◭ ▨ FOR SYMBOL DESCRIPTIONS, SEE SHEET 11.



PILE SPLICE DETAIL

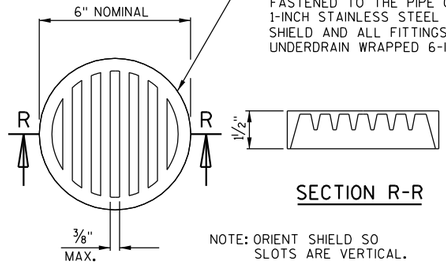
NOTE: STEEL "HP" PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 × 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



SECTION R-R

NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

RODENT SHIELD

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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SOUTH ABUTMENT

SHEET 15 OF 129
1046

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

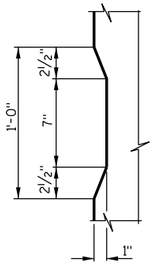
8

FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\sht\B-5-681+D15_SABUT5_B-5-681.DGN

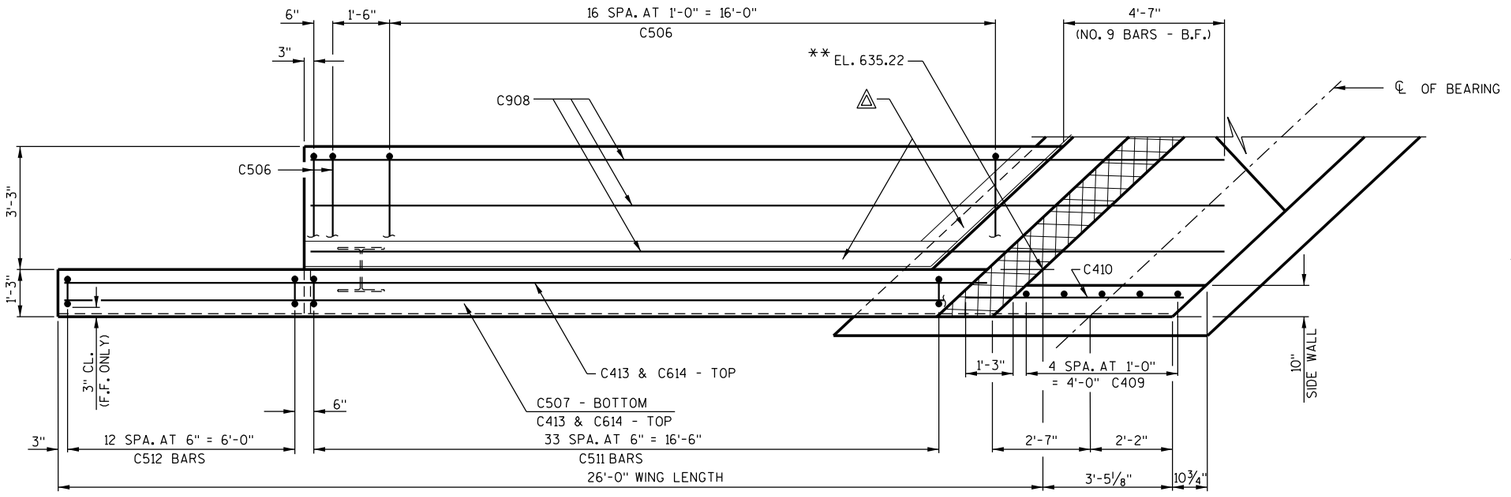
PLOT DATE : 4/24/2013

STATE PROJECT NUMBER

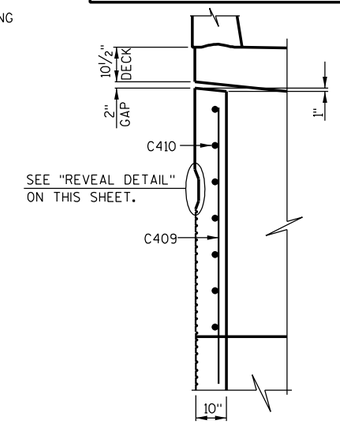
1133-11-74



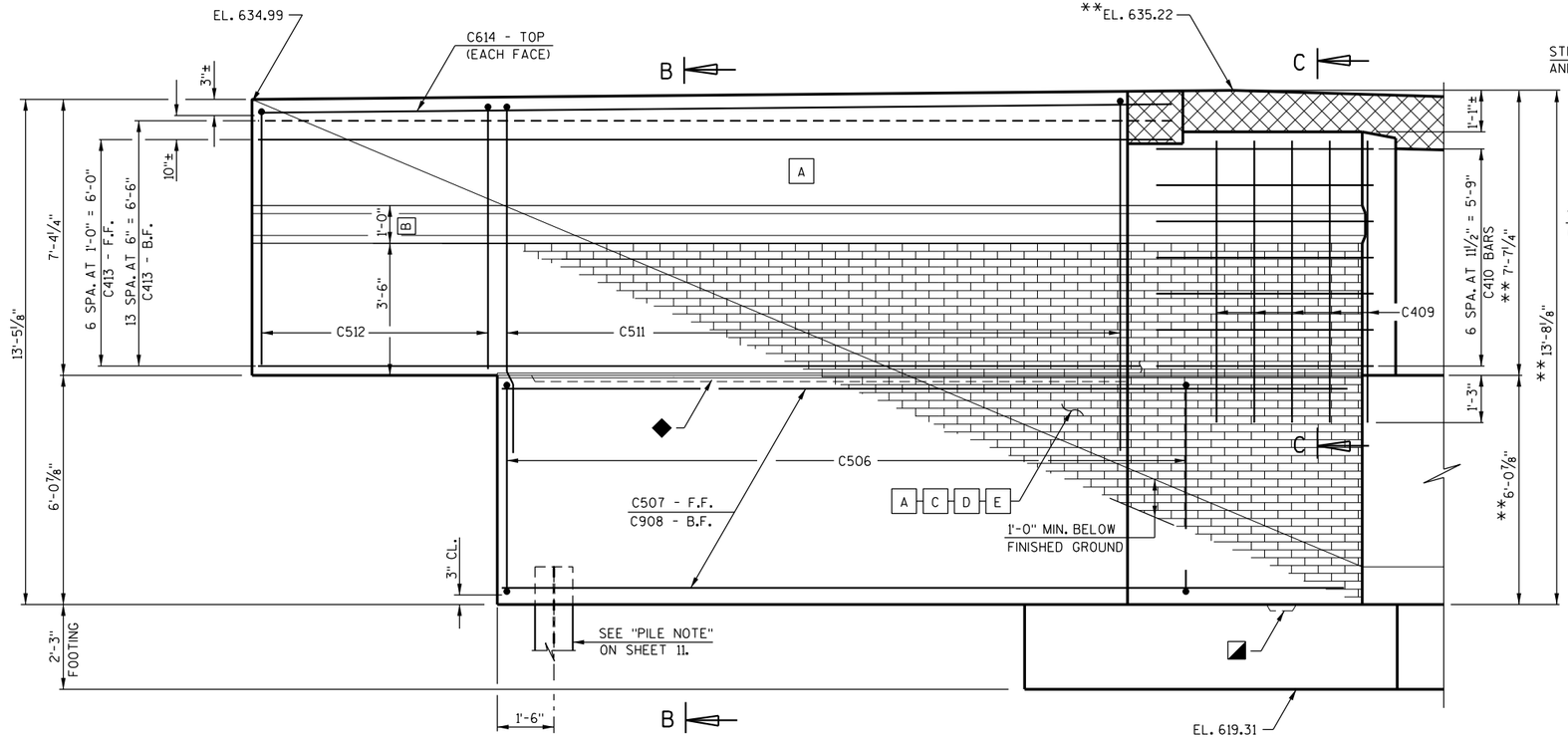
REVEAL DETAIL



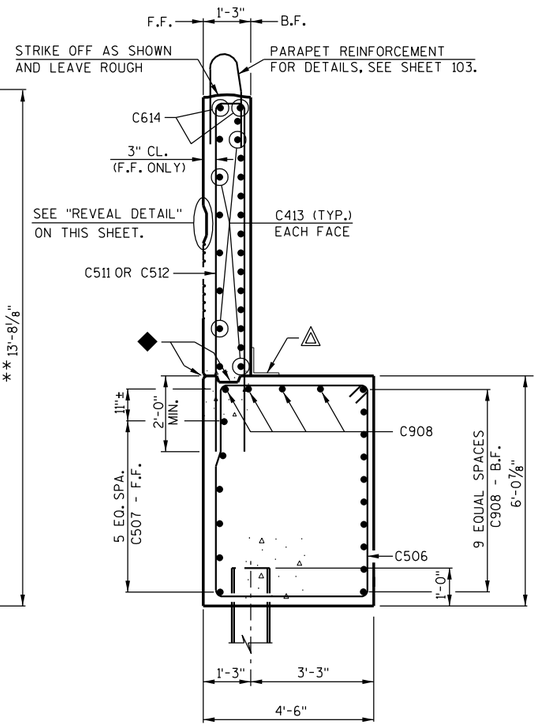
PLAN - WING 1



SECTION C-C



ELEVATION - WING 1



SECTION B-B

LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" × 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

FOR SYMBOL DESCRIPTIONS, SEE SHEET 11.

A C D E FOR SYMBOL DESCRIPTIONS, SEE SHEET 125.

NOTE: FOR FOOTING LAYOUT DETAILS, SEE SHEET 13.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

WING 1

SHEET 16 OF 129
1047

PLOT DATE : 4/24/2013

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\I06_WING1_B-5-681.DGN

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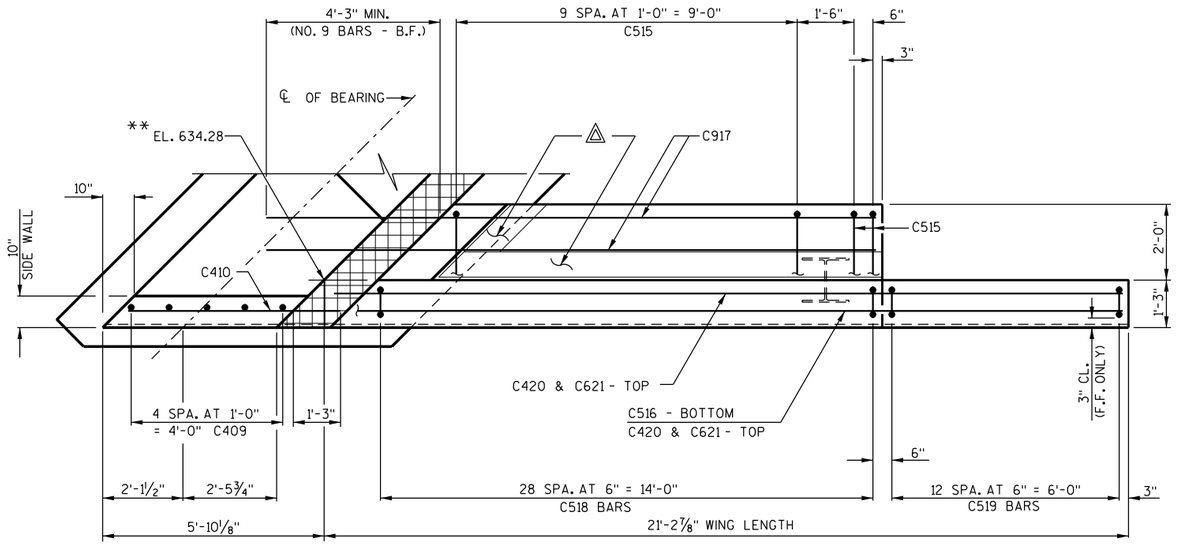
8

STATE PROJECT NUMBER

1133-11-74



PLAN - WING 2

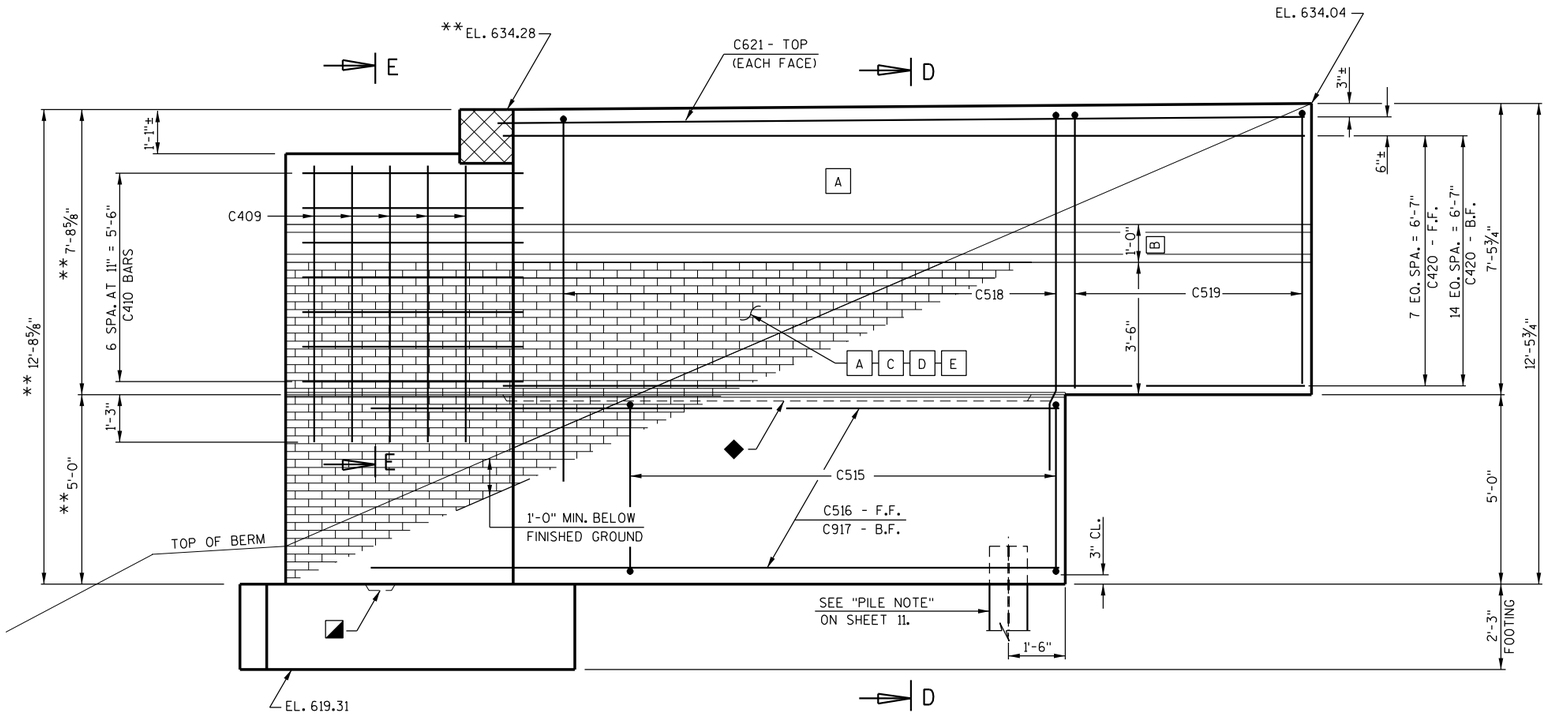
LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

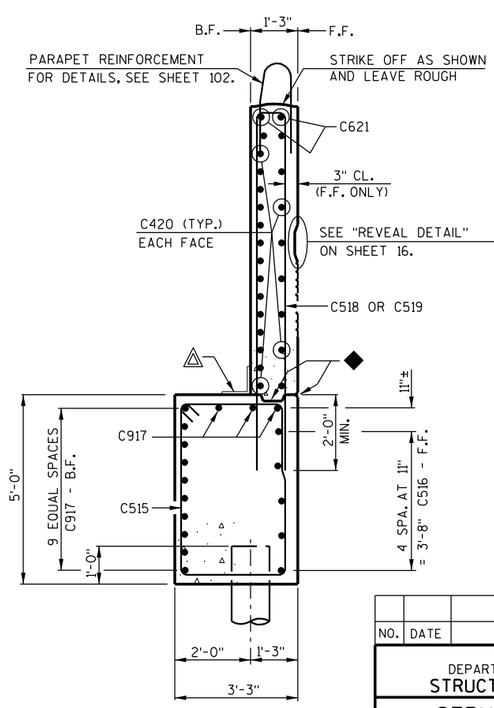
◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" x 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

FOR SYMBOL DESCRIPTIONS, SEE SHEET 11.

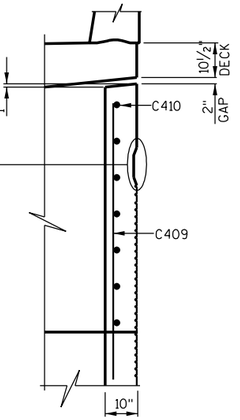
A C D E FOR SYMBOL DESCRIPTIONS, SEE SHEET 125.



ELEVATION - WING 2



SECTION D-D



SECTION E-E

NOTE: FOR FOOTING LAYOUT DETAILS, SEE SHEET 14.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

WING 2

SHEET 17 OF 129
1048

8

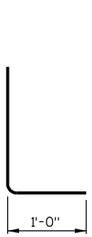
8

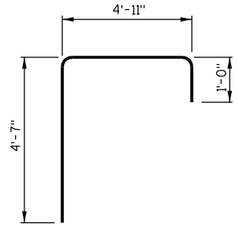
FILE NAME : P:\853 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\D17_WING2_B-5-681.DGN

PLOT DATE : 4/24/2013

STATE PROJECT NUMBER

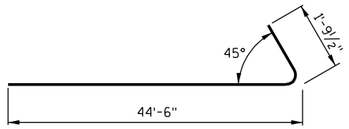
1133-11-74





A605 & A606

A607



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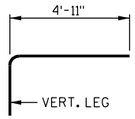

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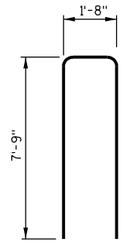
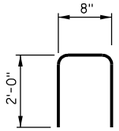


C501



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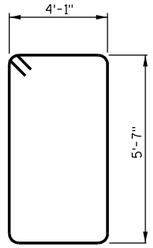

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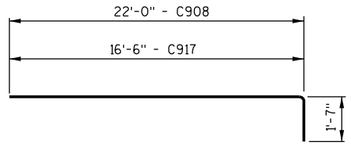
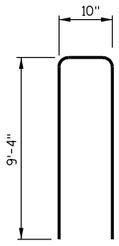


C908 & C917



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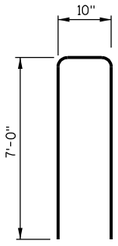

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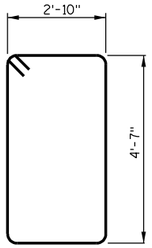

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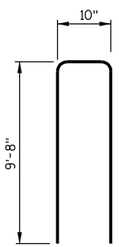

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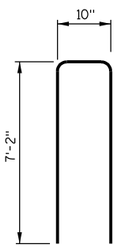


C519

BILL OF BARS

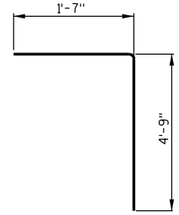
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 10,230 LBS.
A701	58	6-5			FOOTING - AT ABUTMENT BODY	TRANS.
A702	43	2-6			FOOTING - AT ABUTMENT BODY	TRANS.
A503	6	51-7			FOOTING - AT ABUTMENT BODY	LONGIT.
A504	6	42-7			FOOTING - AT ABUTMENT BODY	LONGIT.
A605	91	4-8	X		ABUTMENT - FOOTING & BODY - F.F.	VERT.
A606	91	7-2	X		ABUTMENT - FOOTING & BODY - B.F.	VERT.
A607	98	10-2	X		ABUTMENT BODY - F.F. & TOP	VERT.
A608	6	46-3			ABUTMENT BODY - F.F.	HORIZ.
A609	6	47-6			ABUTMENT BODY - F.F.	HORIZ.
A1010	10	53-11			ABUTMENT BODY - B.F.	HORIZ.
A1011	10	46-3	X		ABUTMENT BODY - B.F.	HORIZ.
A412	65	6-11	X		ABUTMENT BODY - UNDER GIRDERS 3 THRU 7	VERT.
A413	2	45-0			ABUTMENT BODY - UNDER GIRDERS 5 THRU 7	HORIZ.
A414	2	19-0			ABUTMENT BODY - UNDER GIRDERS 3 & 4	HORIZ.
EPOXY COATED BARS						TOTAL WEIGHT = 8,600 LBS.
C501	91	16-11	X		ABUTMENT BACKWALL	VERT.
C402	28	25-6			ABUTMENT BACKWALL	HORIZ.
C403	14	44-7			ABUTMENT BACKWALL	HORIZ.
C504	91	4-5	X		ABUTMENT BACKWALL & PAVING BLOCK	VERT.
C505	42	7-6			PAVING BLOCK	HORIZ.
C506	19	19-11	X		WING 1 - STIRRUPS	VERT.
C507	6	22-9			WING 1 - F.F.	HORIZ.
C908	14	23-4	X		WING 1 - B.F.	HORIZ.
C409	10	7-6			SIDEWALL - WINGS 1 & 2	VERT.
C510	14	5-8			SIDEWALL - WINGS 1 & 2	HORIZ.
C511	34	19-3	X		WING 1 - F.F. & B.F.	VERT.
C512	13	14-7	X		WING 1 - F.F. & B.F.	VERT.
C413	21	24-4			WING 1 - F.F. & B.F.	HORIZ.
C614	2	24-4			WING 1 - TOP - F.F. & B.F.	HORIZ.
C515	12	15-5	X		WING 2 - STIRRUPS	VERT.
C516	5	19-11			WING 2 - F.F.	HORIZ.
C917	13	17-10	X		WING 2 - B.F.	HORIZ.
C518	29	19-11	X		WINGS 1 & 2 - F.F. & B.F.	VERT.
C519	13	14-11	X		WINGS 1 & 2 - F.F. & B.F.	VERT.
C420	23	20-10			WING 2 - F.F. & B.F.	HORIZ.
C621	2	20-10			WING 2 - TOP - F.F. & B.F.	HORIZ.

STAINLESS STEEL BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	
SS901	63	-----	6-1	X		S. APPROACH APRON AT BRIDGE PAVING NOTCH	TOTAL WEIGHT = 1,310 LBS. LONGIT.



SS901

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SOUTH ABUTMENT DETAILS

SHEET 18 OF 129
1049

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\018.SABUTDET.B-5-681DGN

PLOT DATE : 2/28/2013

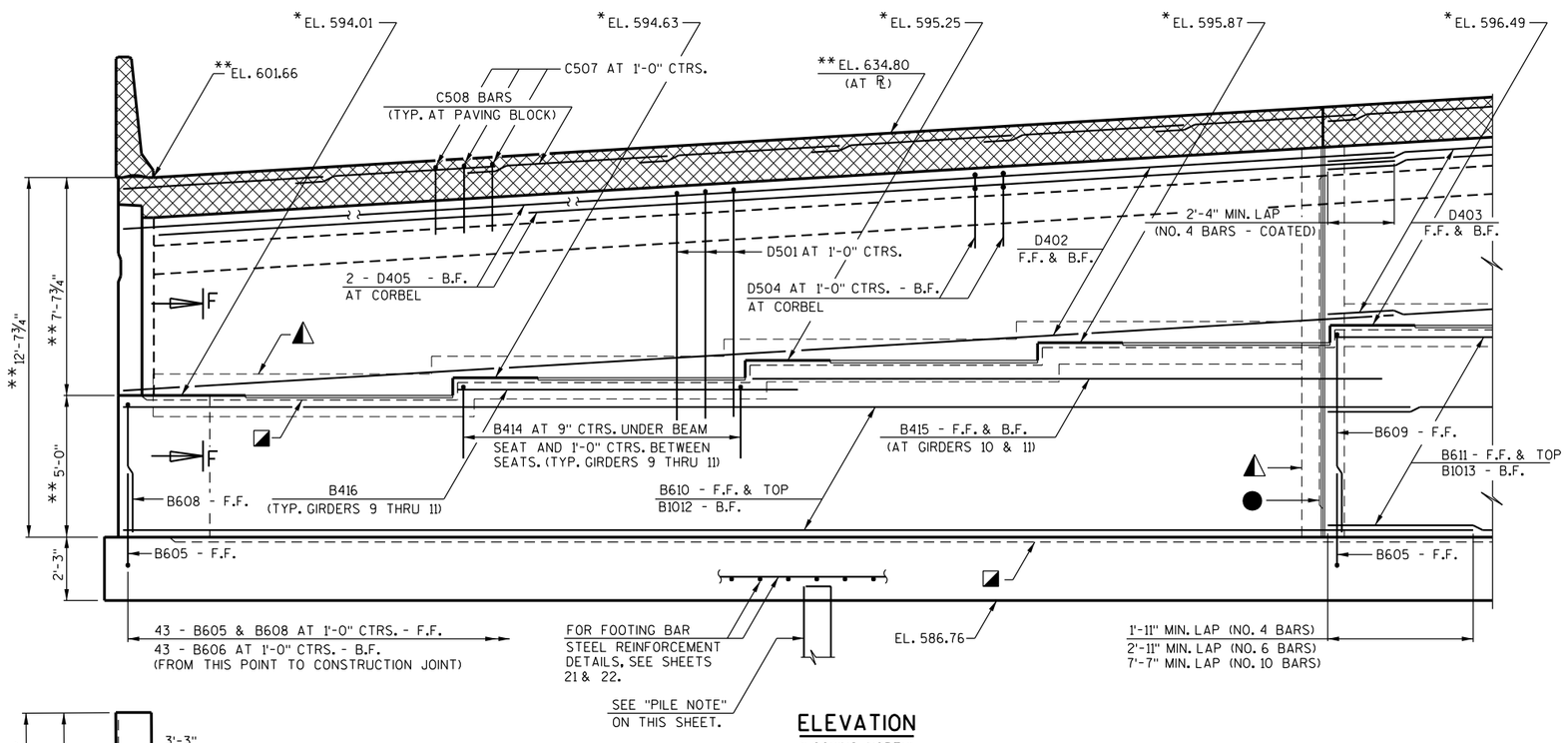
STATE PROJECT NUMBER

1133-11-74

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.2.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS).

LEGEND

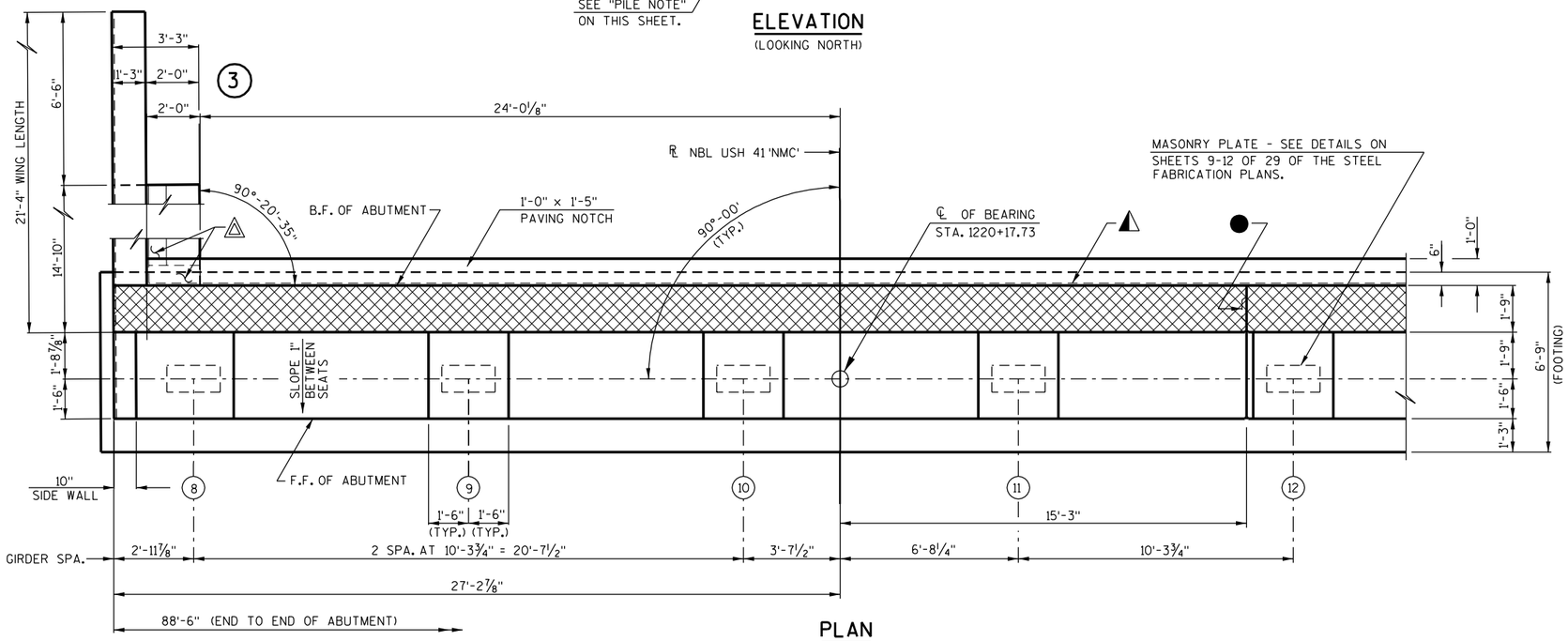
- * ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.
- ** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZONTAL IN THIS AREA. SEE SECTION G-G ON THIS SHEET.
- KEYED CONST. JOINT FORMED BY A BEVELED 2" x 8".
- KEYED. CONST. JOINT FORMED BY BEVELED 2" x 6".
- INDICATES CONCRETE AREA TO BE POURED AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE.
- (X) INDICATES WING NUMBER



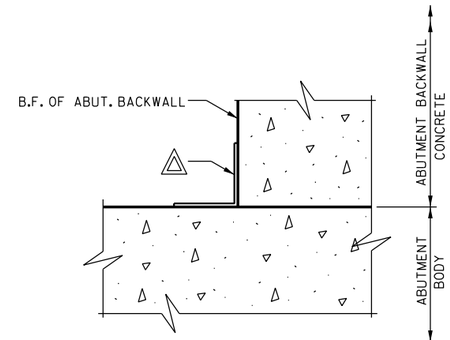
ELEVATION
(LOOKING NORTH)

PILE NOTE

NORTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 12 x 53 WITH A REQUIRED DRIVING RESISTANCE OF 125 TONS PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. ESTIMATED LENGTH OF 60'-0". FOR PILE LAYOUT DETAILS, SEE SHEETS 21 & 22. FOR PILE SPLICE DETAILS, SEE SHEET 15.



PLAN



SECTION F-F

NOTES: FOR "TYPICAL SECTION THRU BODY", SEE SHEET 23.
FOR WING 3 DETAILS, SEE SHEET 24.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH ABUTMENT

SHEET 19 OF 129
1050

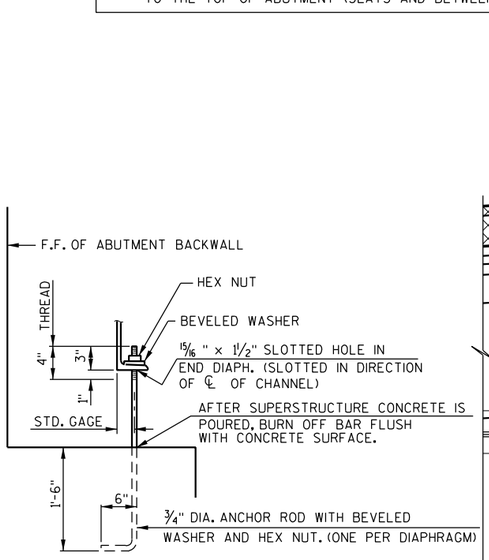
FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\019.MABUT1.B-5-681.DGN
PLOT DATE : 4/24/2013

8

STATE PROJECT NUMBER

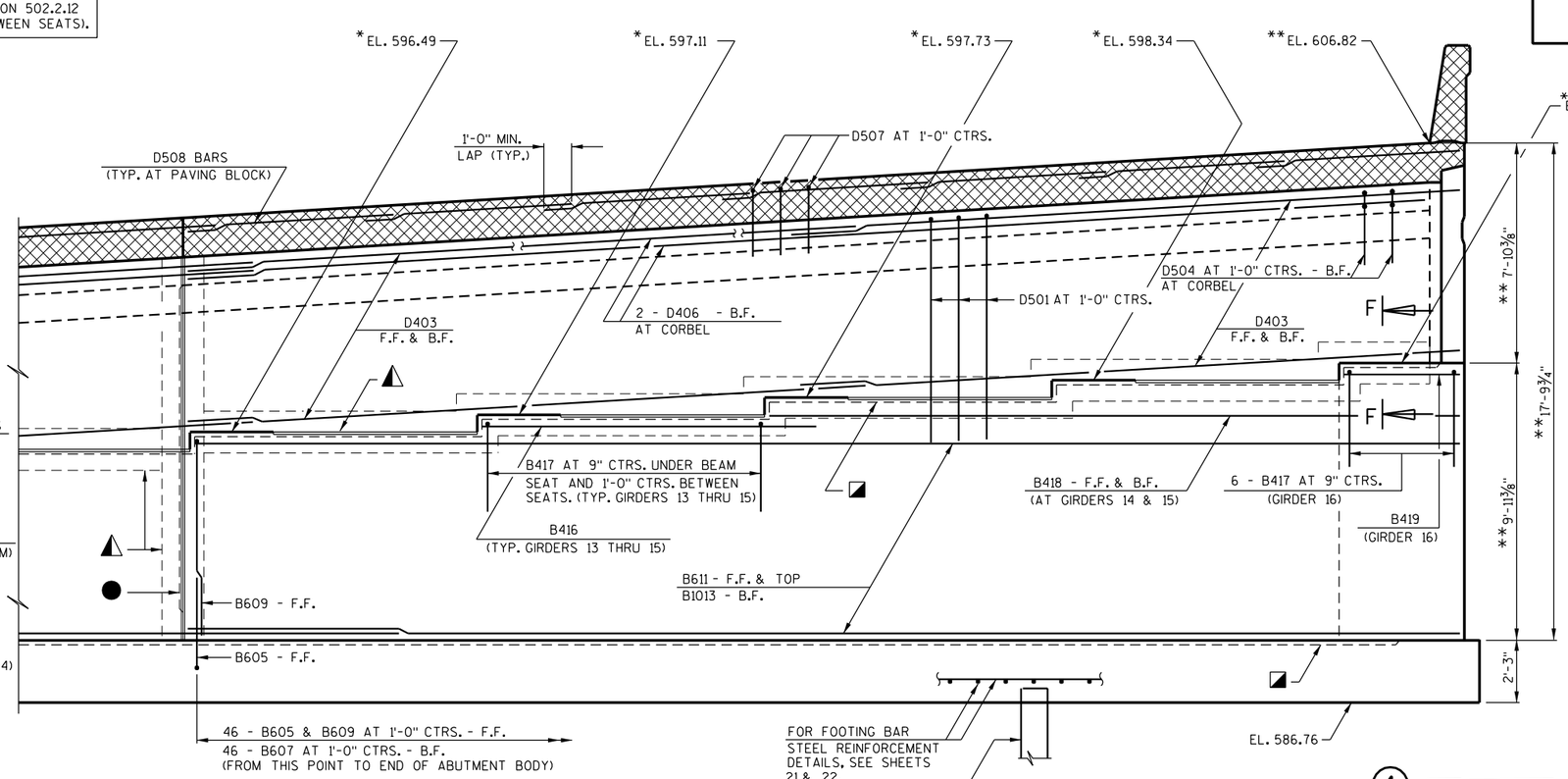
1133-11-74

NOTE: APPLY "BRIDGE SEAT PROTECTION" PER SECTION 502.2.12 TO THE TOP OF ABUTMENT (SEATS AND BETWEEN SEATS).



TEMPORARY HOLD DOWN

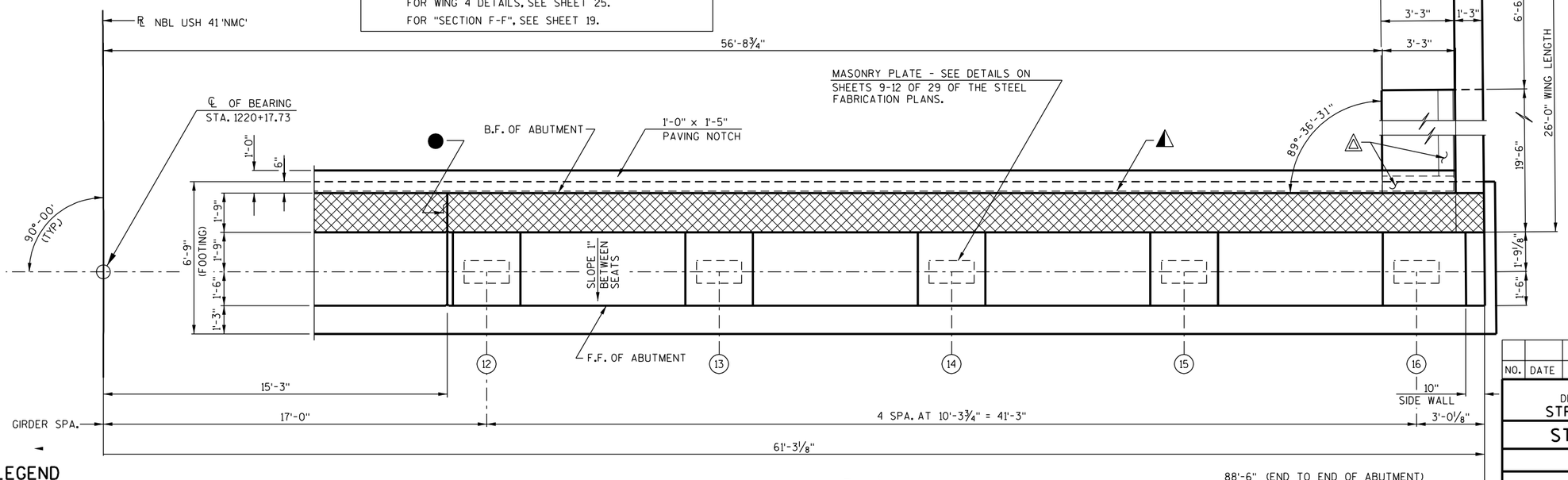
TEMPORARY HOLD DOWN DEVICES SHALL BE PLACED AT THE ENDS OF ALL CONTINUOUS STEEL GIRDER UNITS WHERE SLAB POUR TERMINATES (AT SOUTH ABUT., NORTH ABUT. & PIER 4) LOCATE 1'-6" (NORMAL) OFF ℄ OF GIRDER. TO BE PAID FOR AS "STRUCTURAL CARBON STEEL".



ELEVATION

(LOOKING NORTH)

NOTES: FOR "TYPICAL SECTION THRU BODY", SEE SHEET 23.
FOR WING 4 DETAILS, SEE SHEET 25.
FOR "SECTION F-F", SEE SHEET 19.



PLAN

LEGEND

● * ◬ ◭ ** ▨ (X) FOR SYMBOL DESCRIPTIONS, SEE SHEET 19.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH ABUTMENT

SHEET 20 OF 129
1051

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681H020.NABU12.B-5-681.DGN

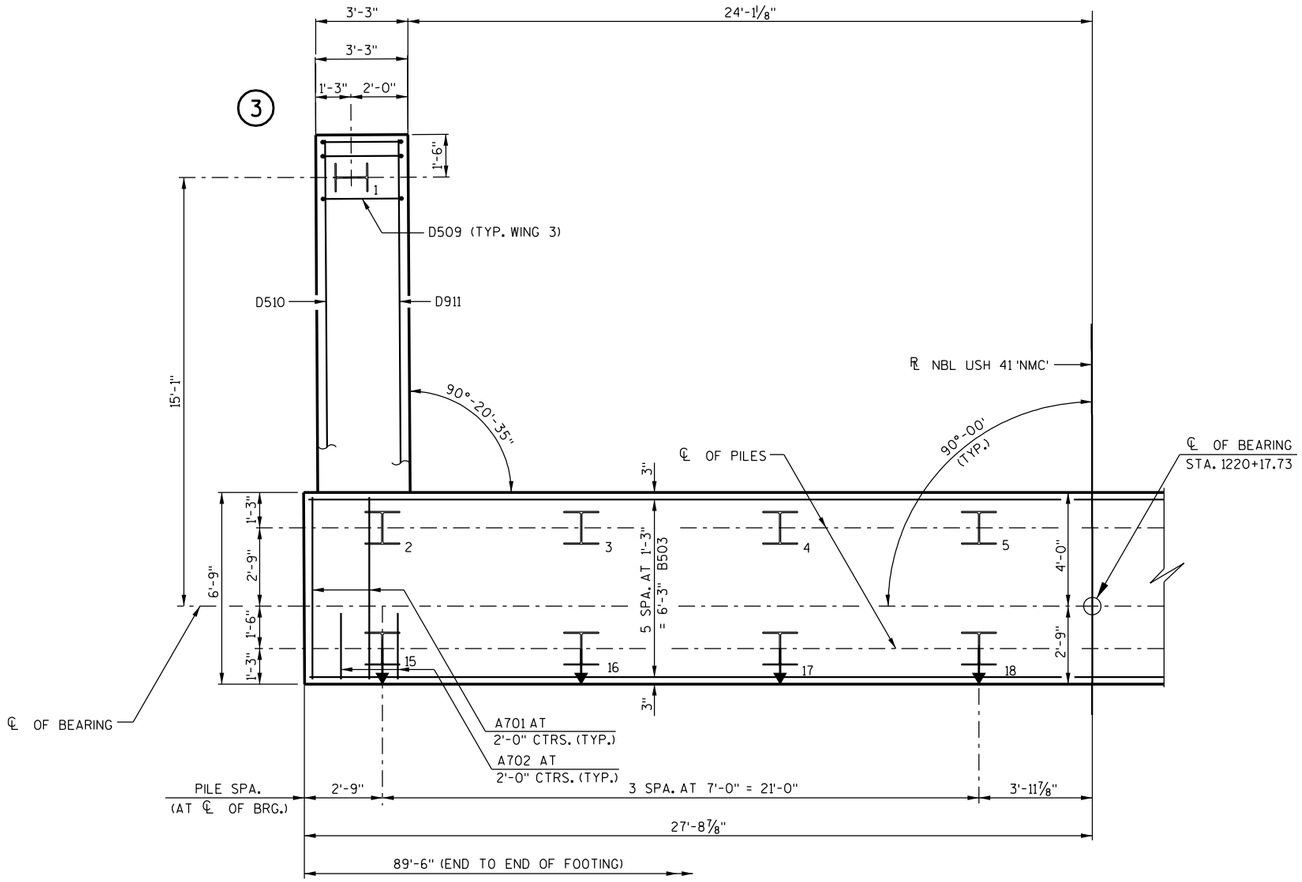
PLOT DATE : 4/24/2013

8

8

STATE PROJECT NUMBER

1133-11-74



PILE PLAN

LEGEND

INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

OPTIONAL CONST. JOINT.

(X) INDICATES WING NUMBER

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH ABUTMENT

SHEET 21 OF 129
1052

FILE NAME : P:\153 USH 41\1133-10-00 JPG\STRUCTURES\B-5-681\021_NABUT3_B-5-681.DGN

PLOT DATE : 2/14/2013

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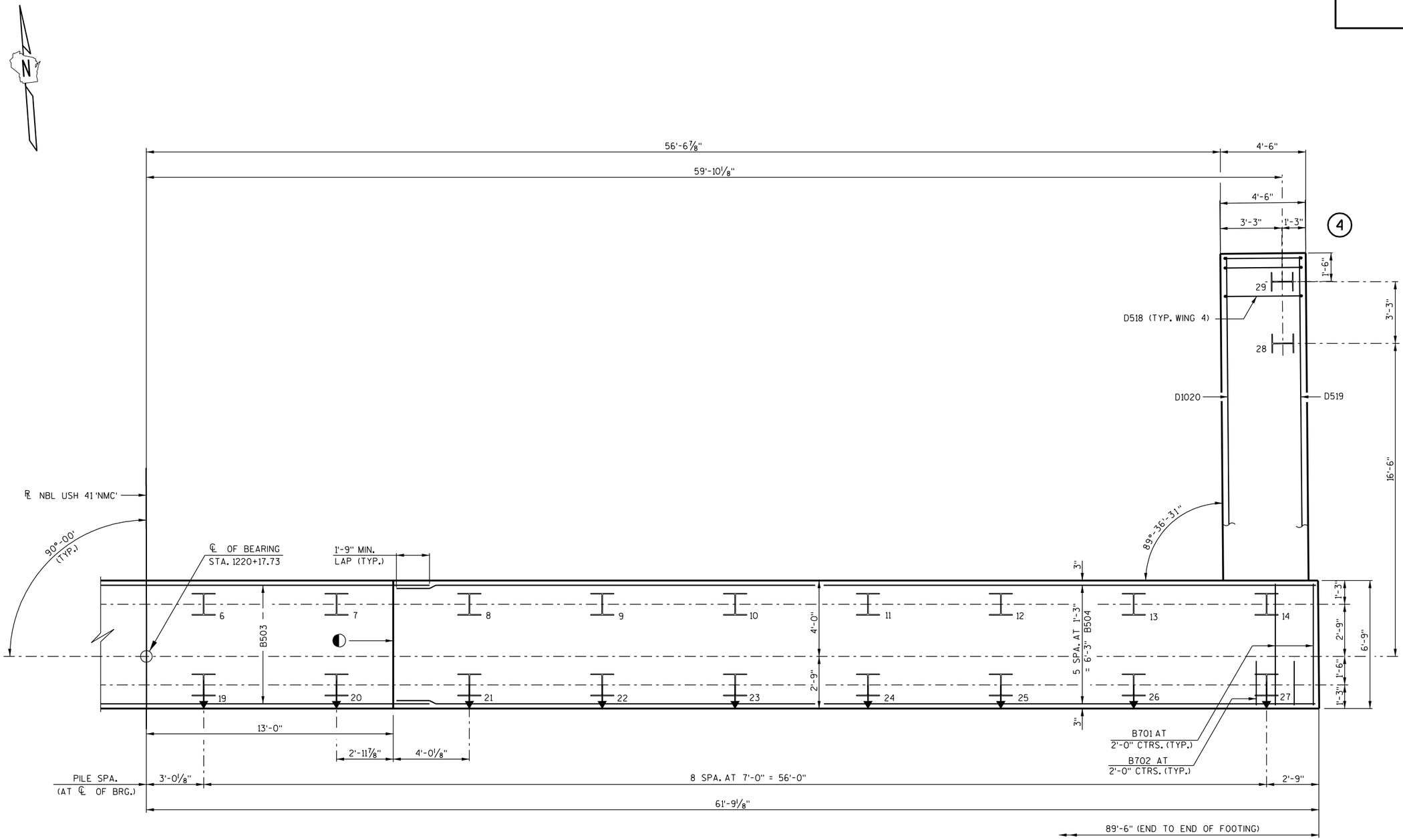
8

STATE PROJECT NUMBER

1133-11-74



PILE PLAN

LEGEND

I INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

◐ OPTIONAL CONST. JOINT.

(X) INDICATES WING NUMBER

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH ABUTMENT

SHEET 22 OF 129
1053

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\022-NABUT4.B-5-681.DGN

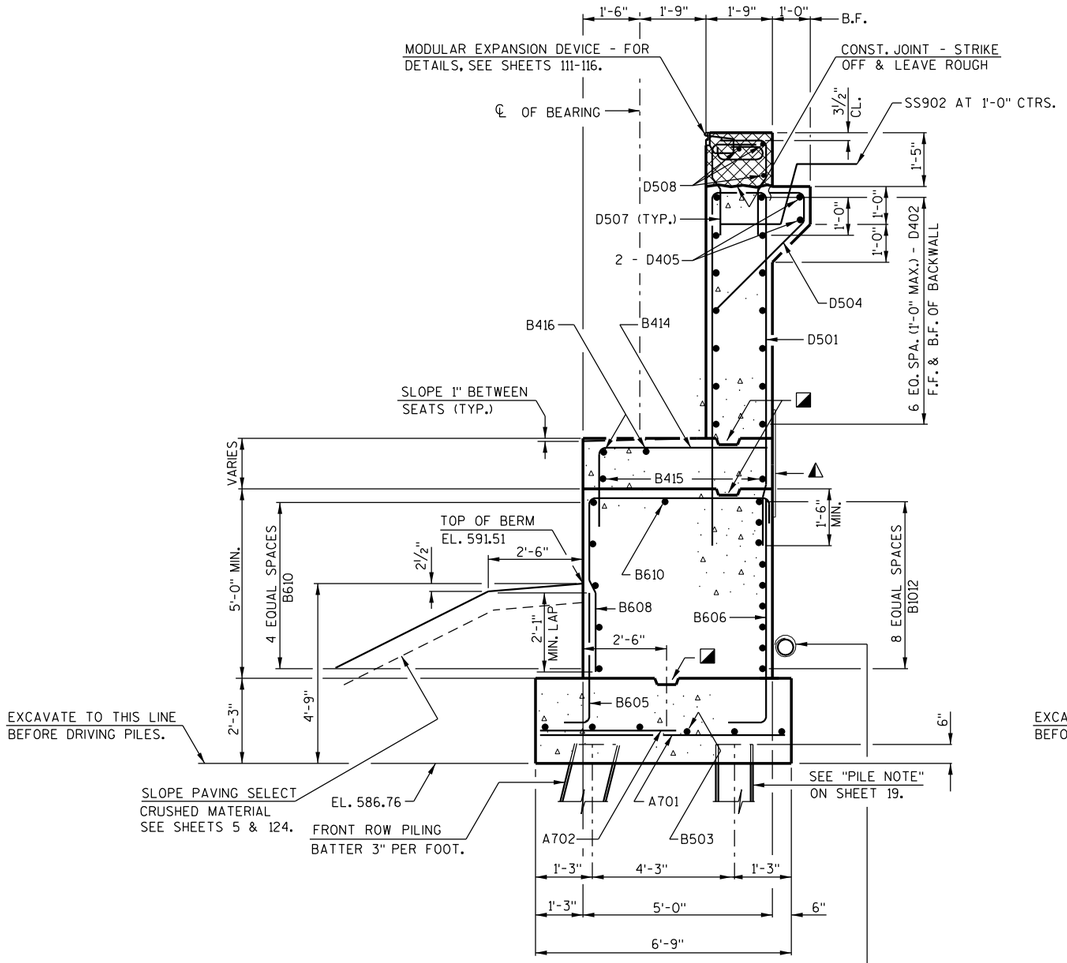
PLOT DATE : 2/15/2013

8

8

STATE PROJECT NUMBER

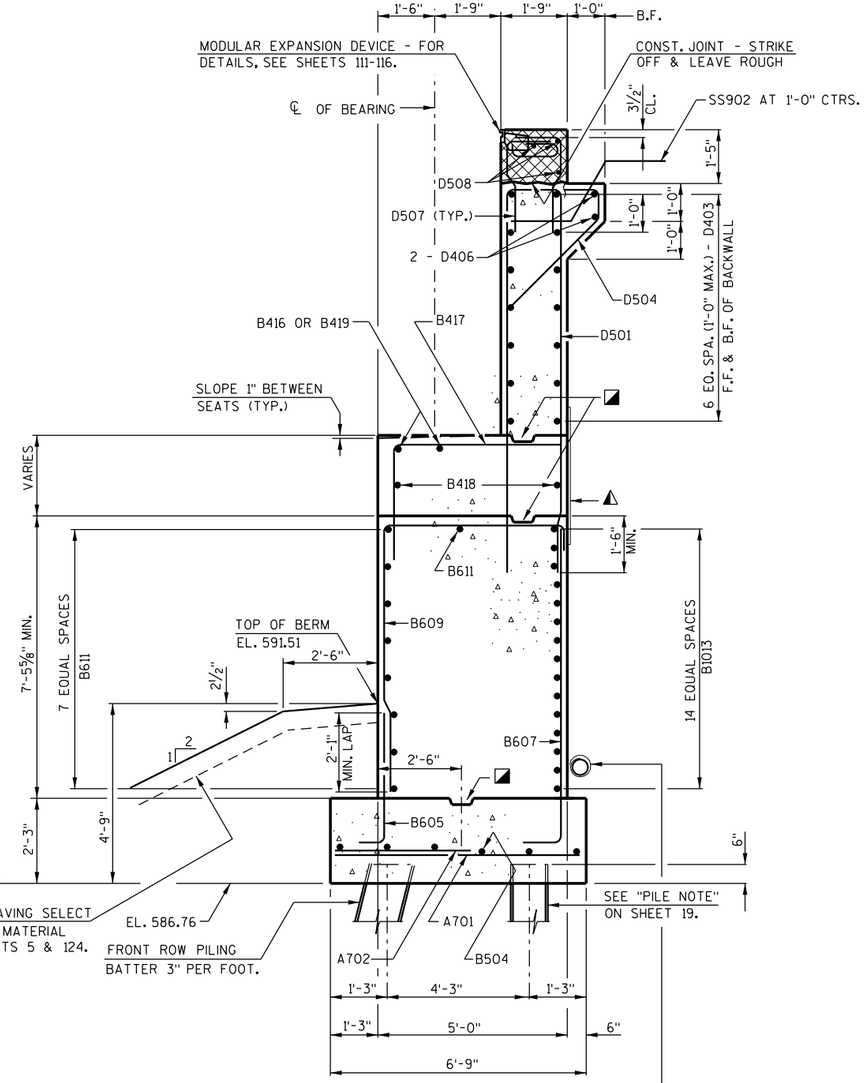
1133-11-74



TYPICAL SECTION THRU BODY

(SECTION WEST OF CONST. JOINT - LOOKING WEST)

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO END OF PIPE. SEE RODENT SHIELD DETAIL ON SHEET 15.



TYPICAL SECTION THRU BODY

(SECTION EAST OF CONST. JOINT - LOOKING WEST)

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO END OF PIPE. SEE RODENT SHIELD DETAIL ON SHEET 15.

LEGEND

● ◭ ▨ FOR SYMBOL DESCRIPTIONS, SEE SHEET 19.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH ABUTMENT

SHEET 23 OF 129
1054

8

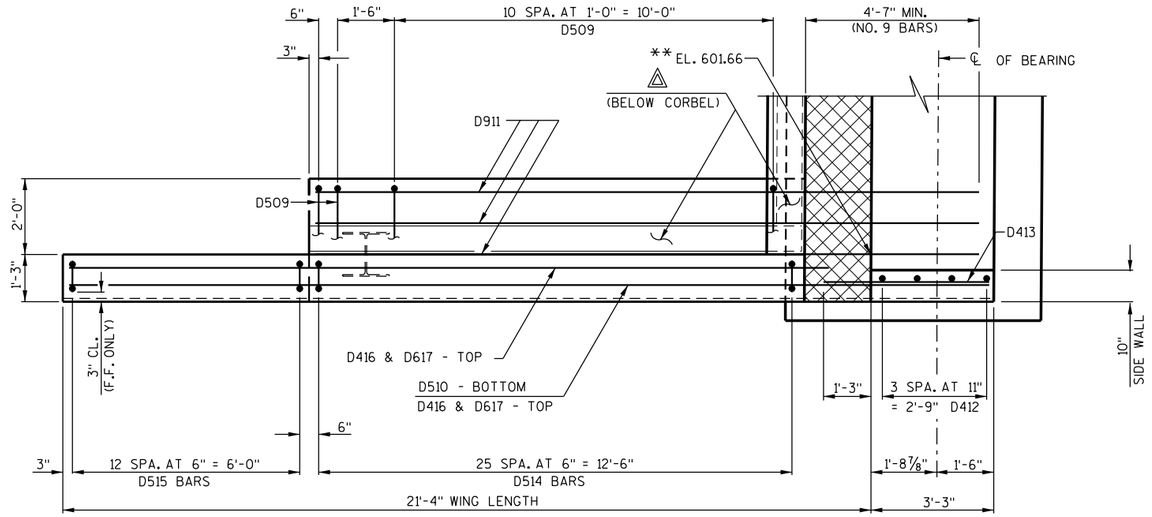
8

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\023.NABUT5.B-5-681.DGN

PLOT DATE : 4/24/2013

STATE PROJECT NUMBER

1133-11-74



PLAN - WING 3

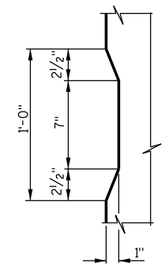
LEGEND

** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

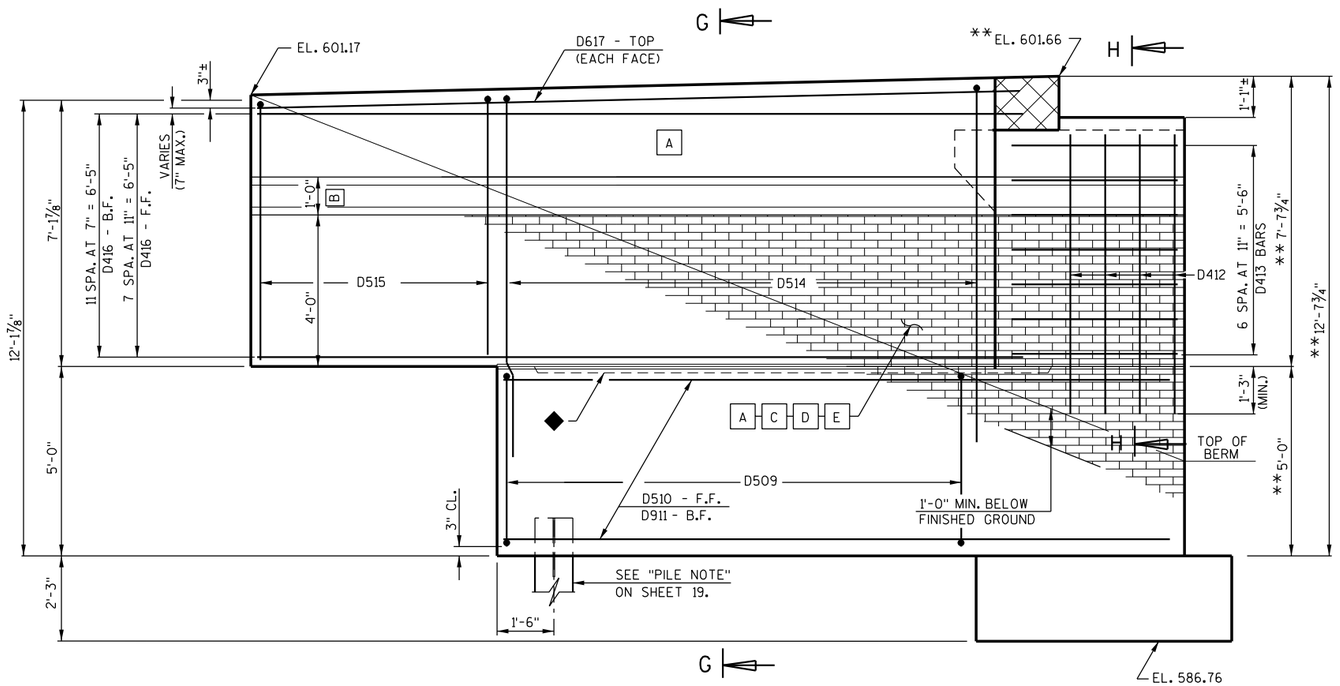
◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" x 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

⊠ △ FOR SYMBOL DESCRIPTIONS, SEE SHEET 19.

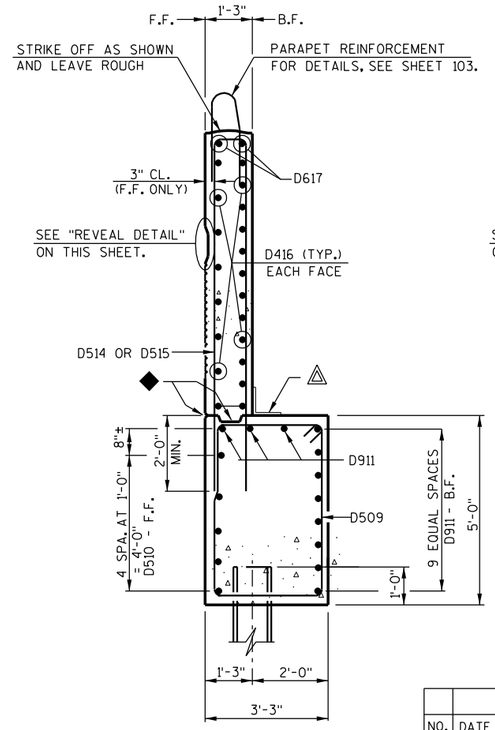
A C D E FOR SYMBOL DESCRIPTIONS, SEE SHEET 125.



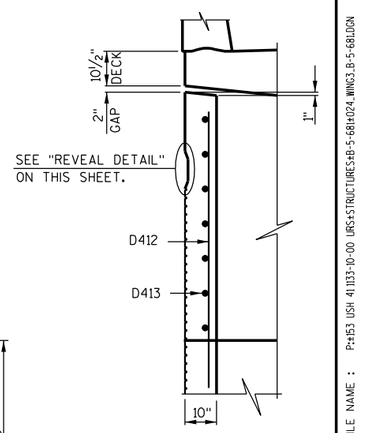
REVEAL DETAIL



ELEVATION - WING 3



SECTION G-G



SECTION H-H

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

WING 3

SHEET 24 OF 129
1055

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\024_WING3_B-5-681.DGN

PLOT DATE : 4/24/2013

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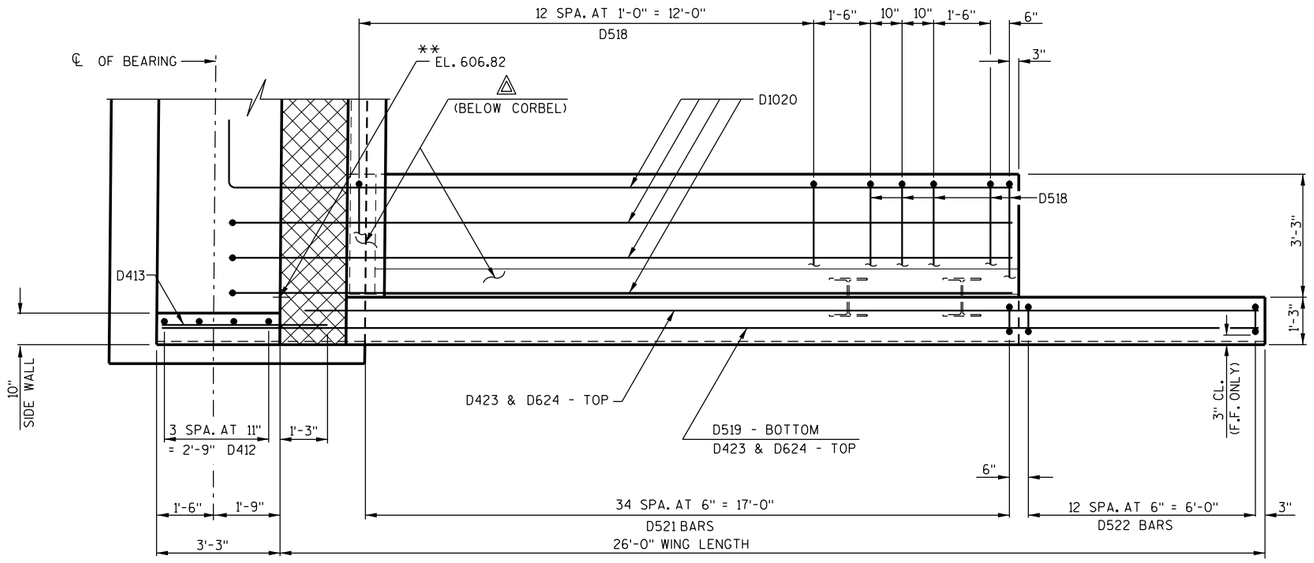
8

STATE PROJECT NUMBER

1133-11-74



PLAN - WING 4

LEGEND

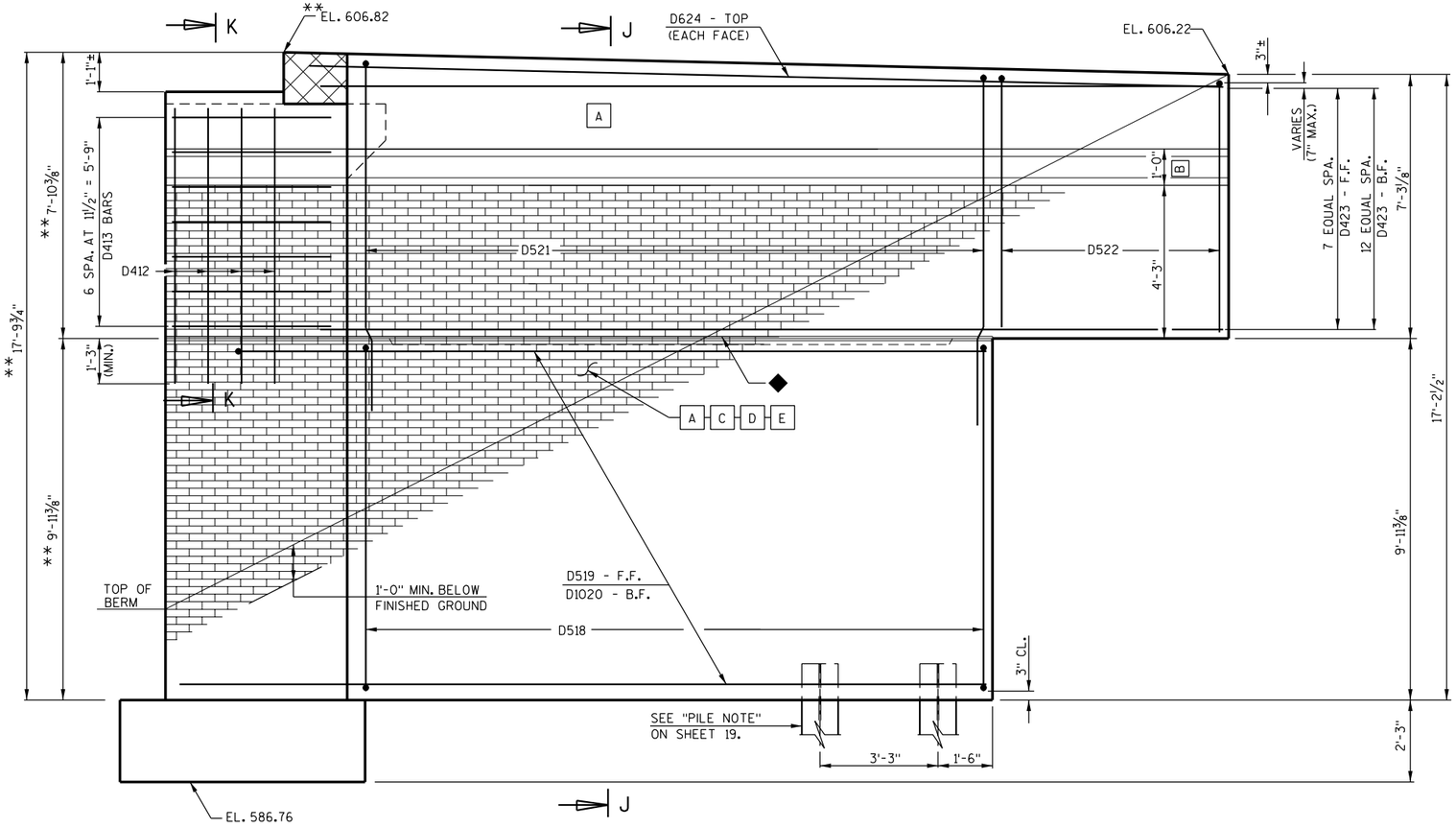
** DIMENSIONS AND ELEVATIONS ARE GIVEN AT THE F.F. OF ABUTMENT BACKWALL.

◆ OPTIONAL CONSTRUCTION JOINT FORMED BY A BEVELED 2" x 6" KEYWAY AND ¾" V-GROOVE ON FRONT FACE OF WINGWALL. OMIT V-GROOVE IF CONSTRUCTION JOINT IS NOT USED.

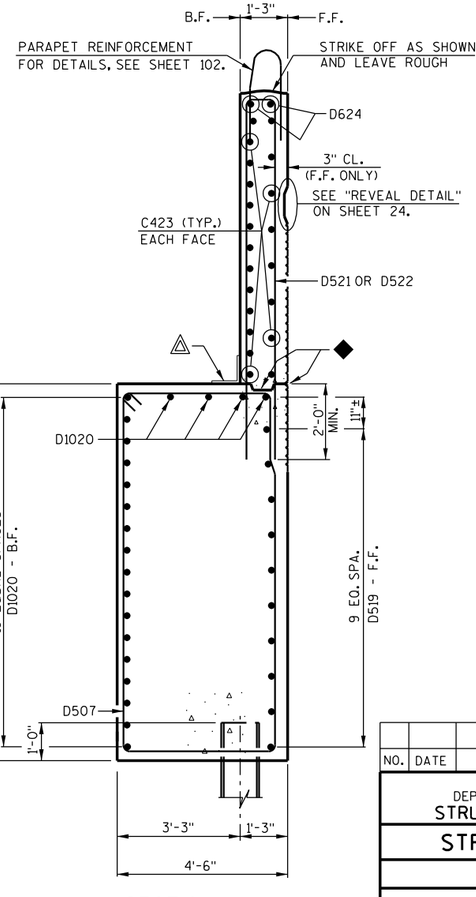
▨ △ ● FOR SYMBOL DESCRIPTIONS, SEE SHEET 19.

A C D E FOR SYMBOL DESCRIPTIONS, SEE SHEET 125.

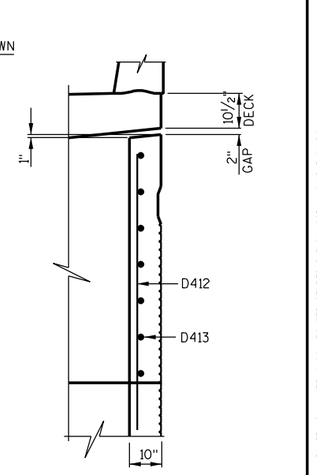
NOTE: FOR FOOTING LAYOUT DETAILS, SEE SHEET 22.



ELEVATION - WING 4



SECTION J-J



SECTION K-K

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

WING 4

SHEET 25 OF 129
1056

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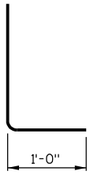
8

FILE NAME : P:\53 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\025_WING4_B-5-681.DGN

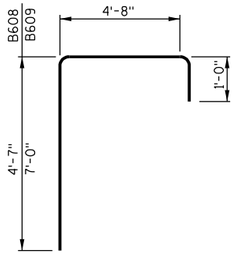
PLOT DATE : 4/24/2013

STATE PROJECT NUMBER

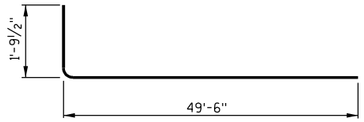
1133-11-74



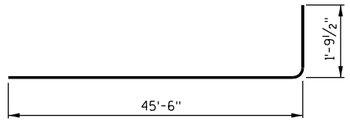
B605, B606 & B607



B608 & B609



B1012



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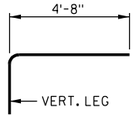
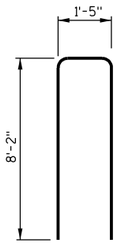
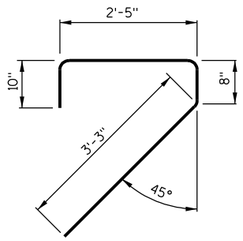


B414 & B417



D501



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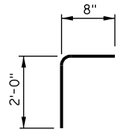

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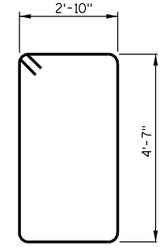

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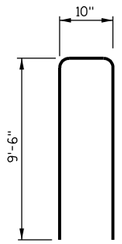

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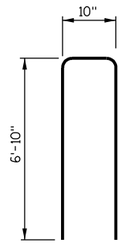

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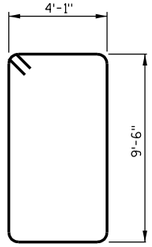

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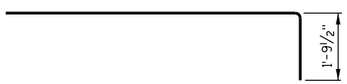

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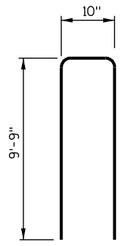

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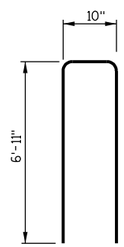

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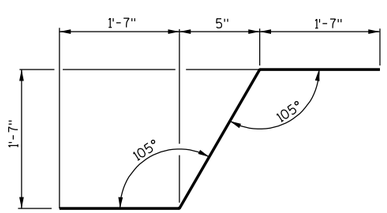


SS902

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 11,280 LBS.
B701	46	6-5			FOOTING - AT ABUTMENT BODY	TRANS.
B702	45	2-9			FOOTING - AT ABUTMENT BODY	TRANS.
B503	6	42-7			FOOTING - AT ABUTMENT BODY	LONGIT.
B504	6	48-5			FOOTING - AT ABUTMENT BODY	LONGIT.
B605	89	4-8	X		ABUTMENT - FOOTING & BODY - F.F.	VERT.
B606	43	7-2	X		ABUTMENT - FOOTING & BODY - B.F.	VERT.
B607	46	9-7	X		ABUTMENT - FOOTING & BODY - B.F.	VERT.
B608	43	9-11	X		ABUTMENT - FOOTING & BODY - F.F.	VERT.
B609	46	12-4	X		ABUTMENT - FOOTING & BODY - F.F.	VERT.
B610	6	45-5			ABUTMENT BODY - F.F. & TOP	VERT.
B611	9	45-8			ABUTMENT BODY - F.F. & TOP	HORIZ.
B1012	9	51-0	X		ABUTMENT BODY - B.F.	HORIZ.
B1013	15	47-0	X		ABUTMENT BODY - B.F.	HORIZ.
B414	36	7-6	X		ABUTMENT BODY - UNDER GIRDERS 9 THRU 11	VERT.
B415	2	22-7			ABUTMENT BODY - UNDER GIRDERS 10 & 11	HORIZ.
B416	12	12-3			ABUT. BODY - UNDER GIRDERS 9 - 11 & 13 - 15	HORIZ.
B417	42	8-1	X		ABUTMENT BODY - UNDER GIRDERS 13 THRU 16	VERT.
B418	2	24-9			ABUTMENT BODY - UNDER GIRDERS 14 & 15	HORIZ.
B419	2	4-2			ABUTMENT BODY - UNDER GIRDER 16	HORIZ.
EPOXY COATED BARS						TOTAL WEIGHT = 10,410 LBS.
D501	89	17-6	X		ABUTMENT BACKWALL	VERT.
D402	14	45-0			ABUTMENT BACKWALL	HORIZ.
D403	28	24-1			ABUTMENT BACKWALL	HORIZ.
D504	89	6-10	X		ABUTMENT BACKWALL & CORBEL	VERT.
D405	2	45-0			ABUTMENT BACKWALL & CORBEL	HORIZ.
D406	2	45-7			ABUTMENT BACKWALL & CORBEL	HORIZ.
D507	178	2-7	X		PAVING BLOCK	VERT.
D508	42	7-5			PAVING BLOCK	HORIZ.
D509	13	15-5	X		WING 3 - STIRRUPS	VERT.
D510	5	17-9			WING 3 - F.F.	HORIZ.
D911	13	17-7			WING 3 - B.F.	HORIZ.
D412	8	7-7			SIDEWALL - WINGS 3 & 4	VERT.
D413	14	4-5			SIDEWALL - WINGS 3 & 4	HORIZ.
D514	26	19-7	X		WING 3 - F.F. & B.F.	VERT.
D515	13	14-3	X		WING 3 - F.F. & B.F.	VERT.
D416	20	21-0			WING 3 - F.F. & B.F.	HORIZ.
D617	2	21-0			WING 3 - TOP - F.F. & B.F.	HORIZ.
D518	18	27-9	X		WING 4 - STIRRUPS	VERT.
D519	10	22-5			WING 4 - F.F.	HORIZ.
D1020	21	22-2	X		WING 4 - B.F.	HORIZ.
D521	35	20-1	X		WING 4 - F.F. & B.F.	VERT.
D522	13	14-5	X		WING 4 - F.F. & B.F.	VERT.
D423	21	25-8			WING 4 - F.F. & B.F.	HORIZ.
D624	2	25-8			WING 4 - TOP - F.F. & B.F.	HORIZ.

STAINLESS STEEL BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D.		LENGTH	BENT	BAR SERIES	LOCATION	
	UNIT 1	UNIT 2					TOTAL WEIGHT = 1,420 LBS.
SS902	-----	86	4-10	X		N. APPROACH APRON AT BRIDGE PAVING NOTCH	LONGIT.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH ABUTMENT DETAILS

SHEET 26 OF 129
1057

FILE NAME : P:\153 USH 41\1133-10-00 UBGS\STRUCTURES\B-5-681\I026.NABUTDET.B-5-681.DGN

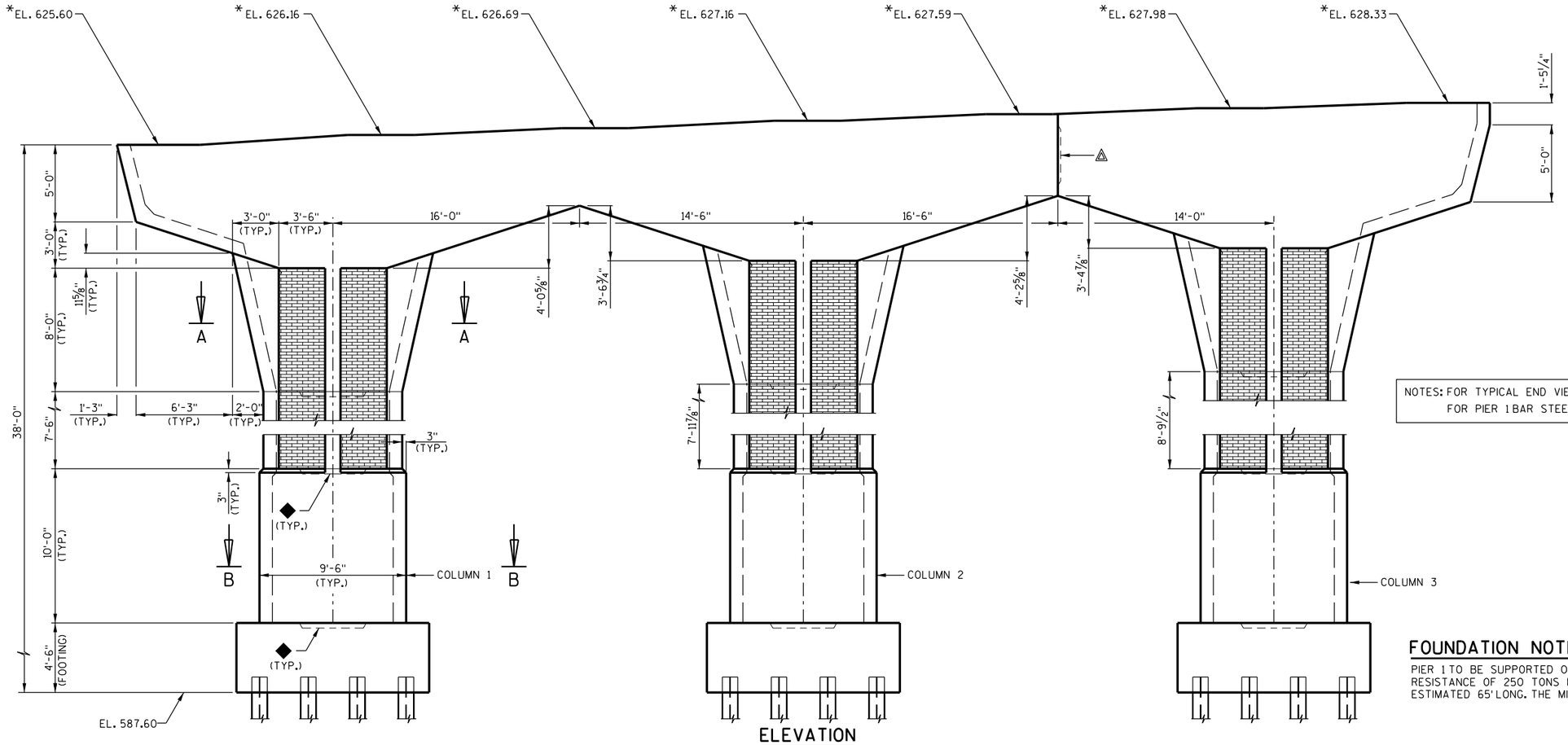
PLOT DATE : 2/28/2013

8

8

STATE PROJECT NUMBER

1133-11-74



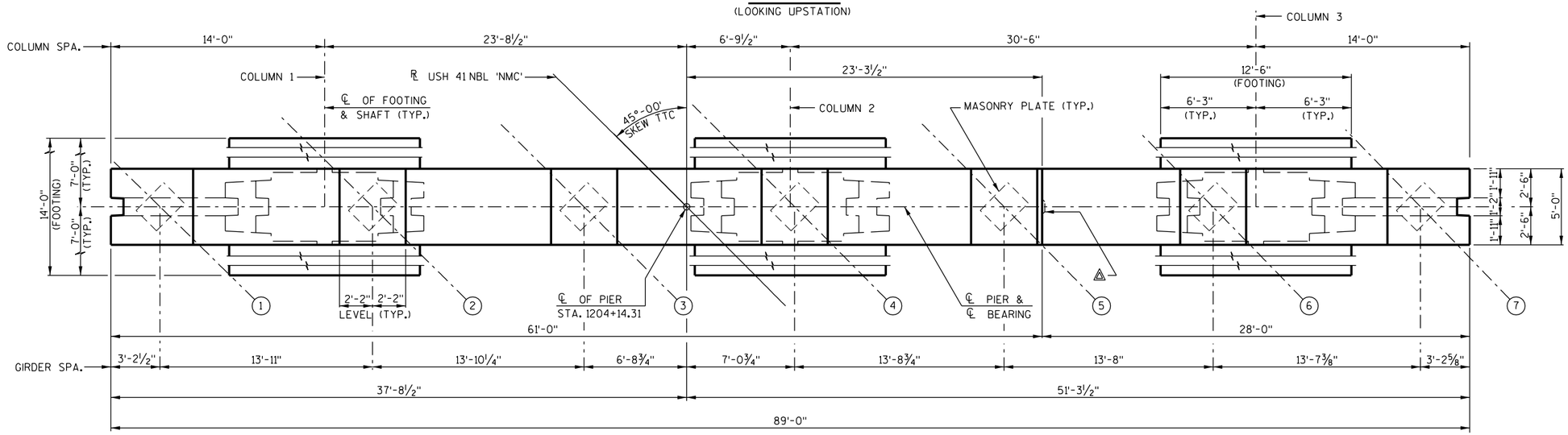
NOTES: FOR TYPICAL END VIEW, SECTION A-A & SECTION B-B, SEE SHEET 37.
FOR PIER 1 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 38 & 54-58.

FOUNDATION NOTE

PIER 1 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 65'LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 543.00.

ELEVATION

(LOOKING UPSTATION)



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1
LAYOUT DETAILS

SHEET 27 OF 129
1058

8

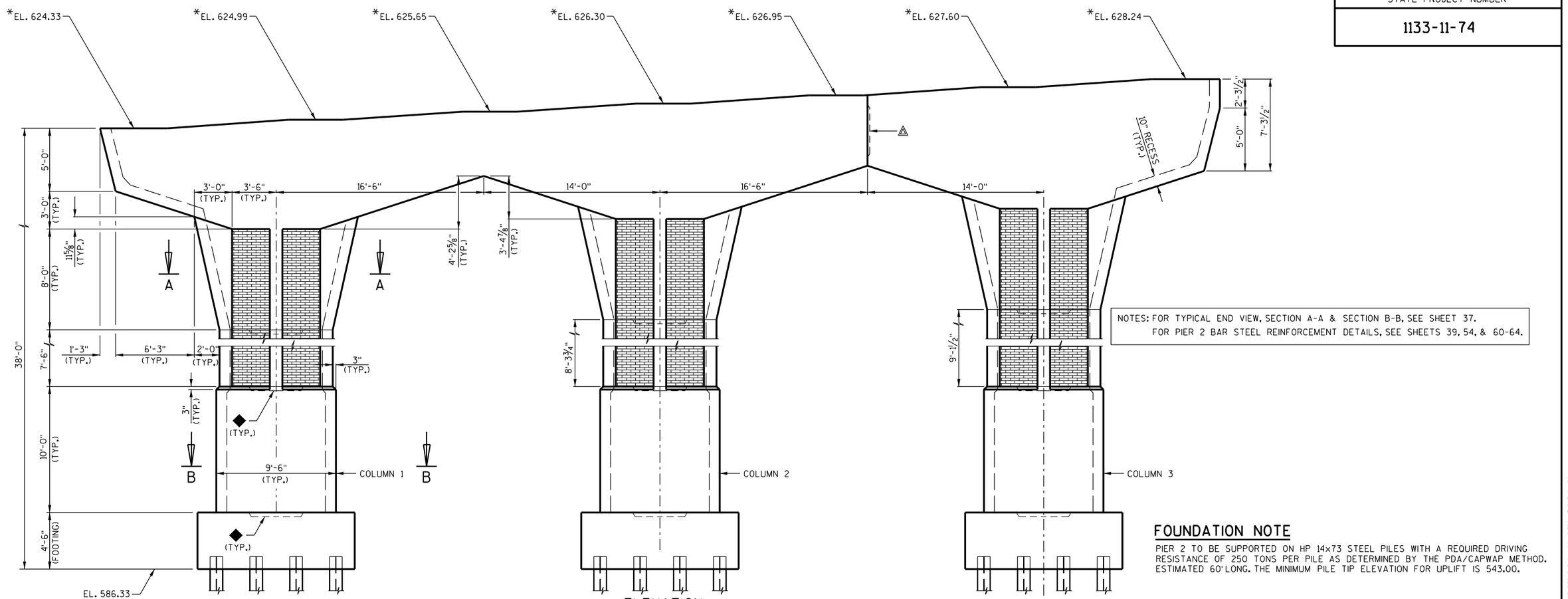
8

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\027.PIER1.V7.B-5-681.DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

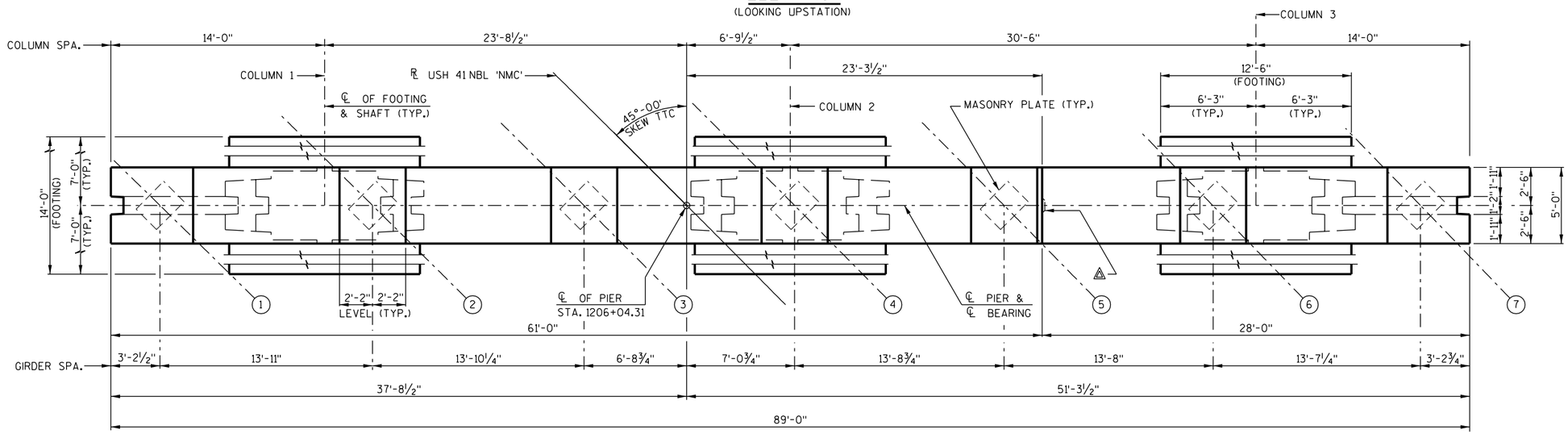
1133-11-74



ELEVATION
(LOOKING UPSTATION)

FOUNDATION NOTE

PIER 2 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 60' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 543.00.



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2
LAYOUT DETAILS

SHEET 28 OF 129
1059

8

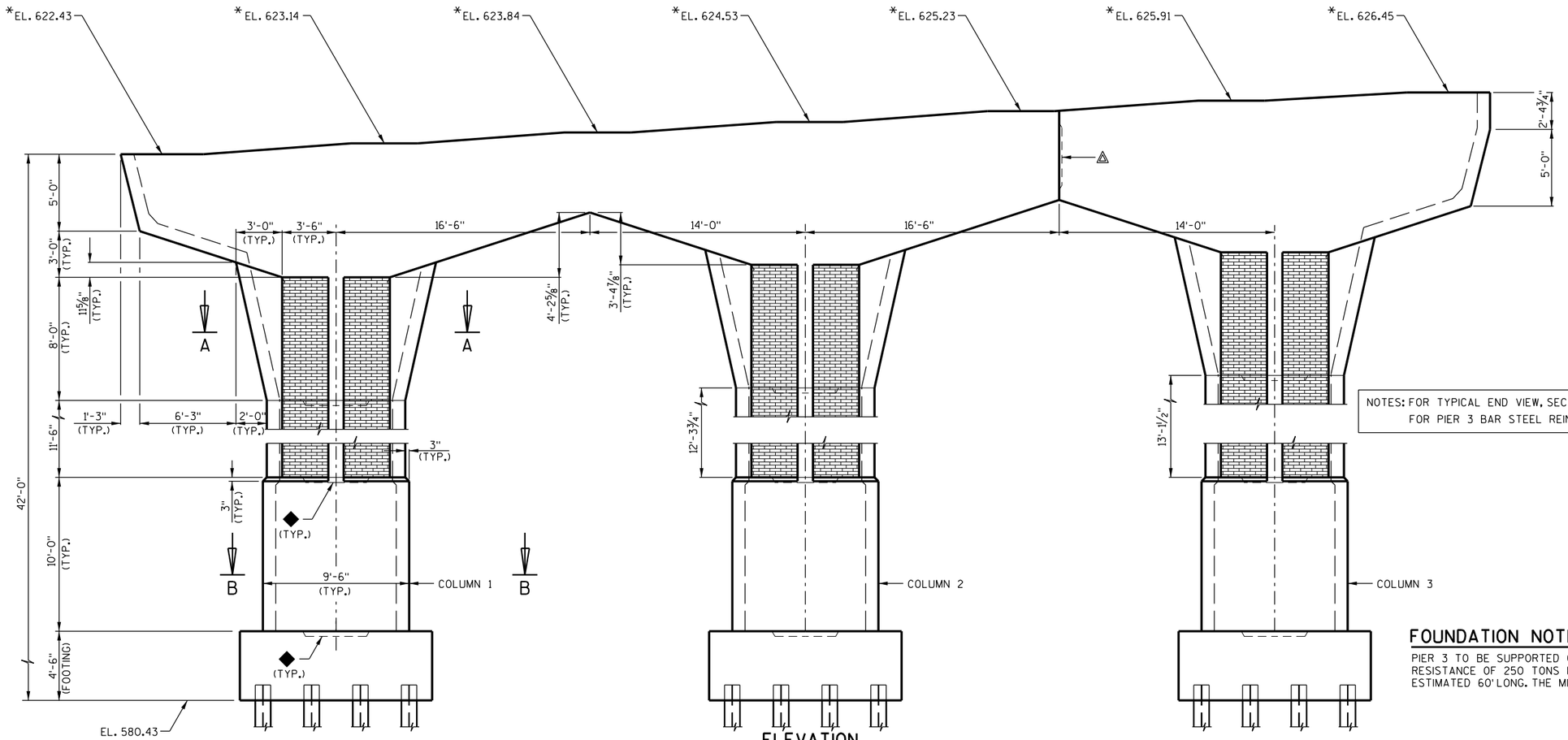
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\028-PIER2_V7.B-5-681DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



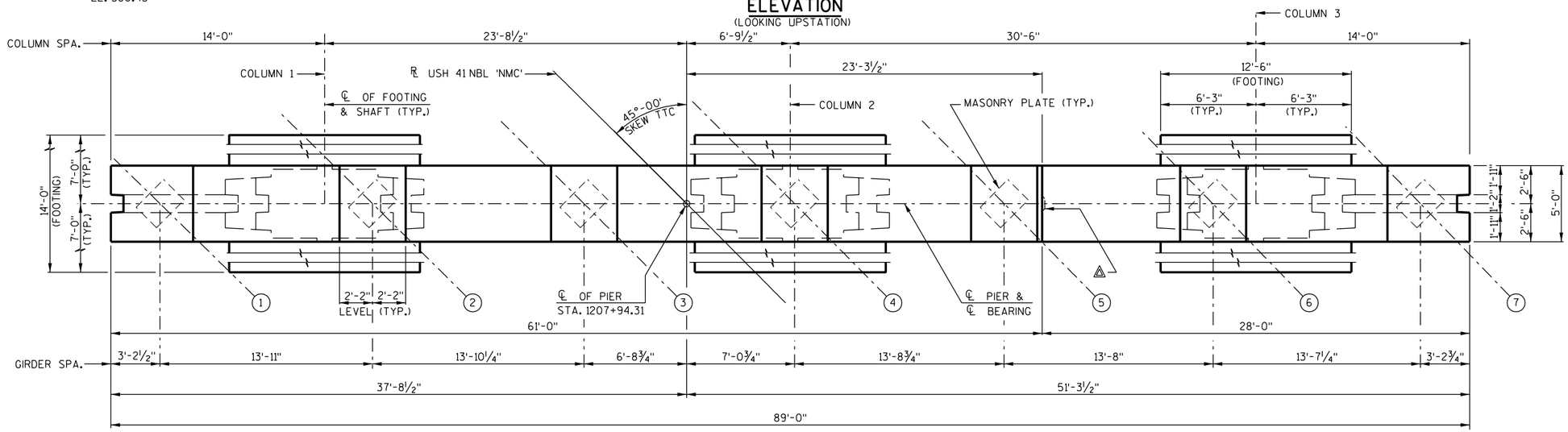
NOTES: FOR TYPICAL END VIEW, SECTION A-A & SECTION B-B, SEE SHEET 37.
FOR PIER 3 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 40, 54, & 65-69.

FOUNDATION NOTE

PIER 3 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 60'LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 543.00.

ELEVATION

(LOOKING UPSTATION)



PLAN

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3
LAYOUT DETAILS

SHEET 29 OF 129
1060

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

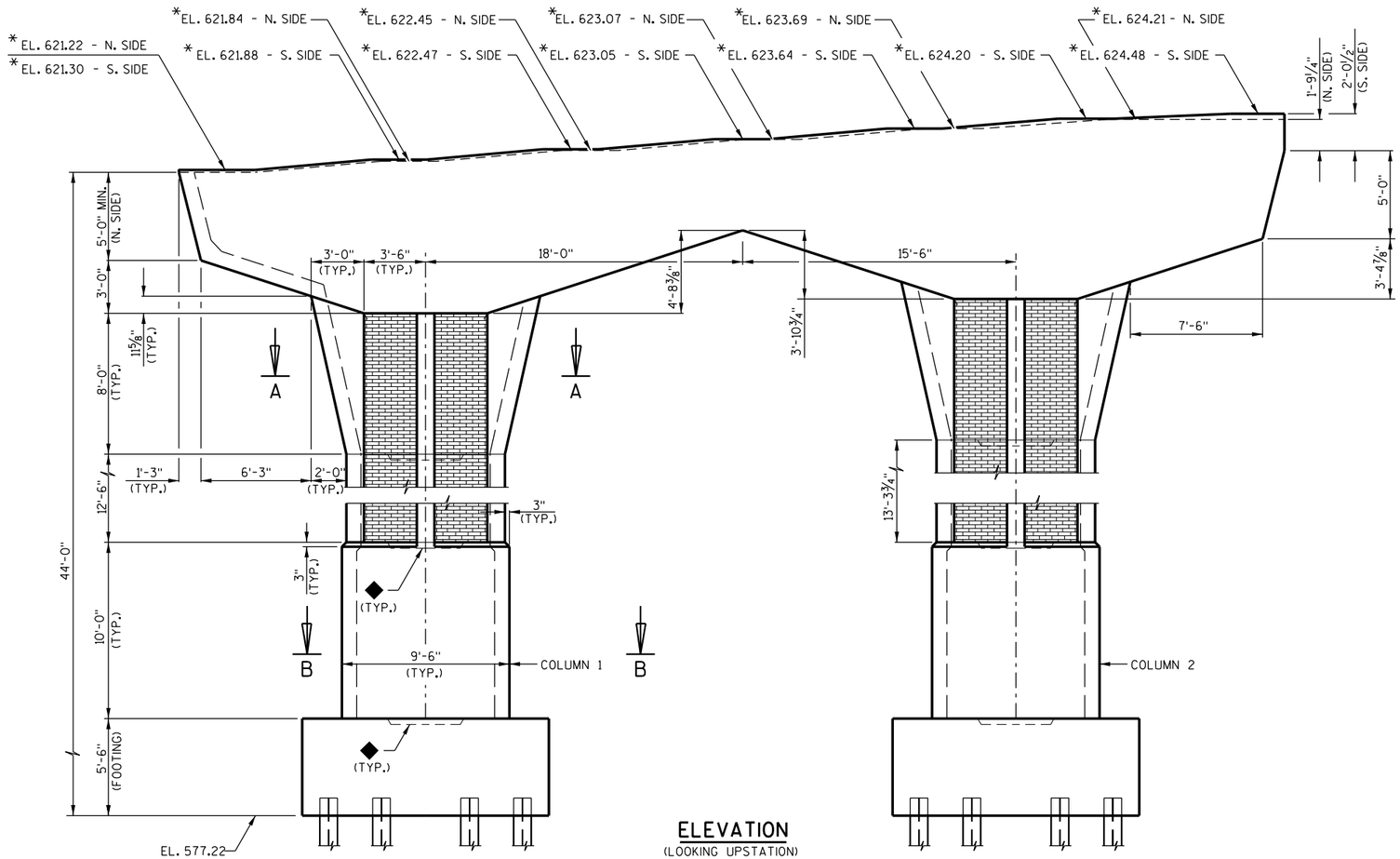
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\d029_PIER3_V7.B-5-681.DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION
(LOOKING UPSTATION)

NOTES: FOR TYPICAL END VIEW, SECTION A-A & SECTION B-B, SEE SHEET 37.
FOR PIER 4 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 42, 54, & 70-73.

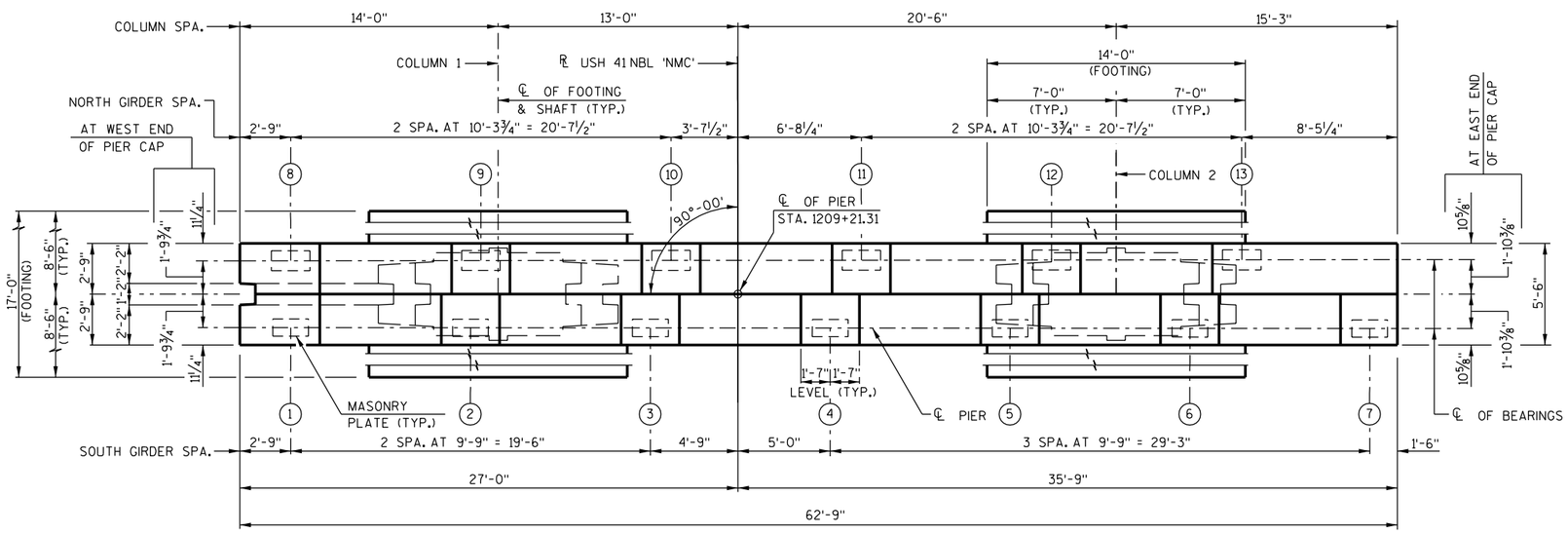
LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" × 1'-8" × 5'-6".

FOUNDATION NOTE

PIER 4 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 75'LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 527.00.



PLAN

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 4
LAYOUT DETAILS

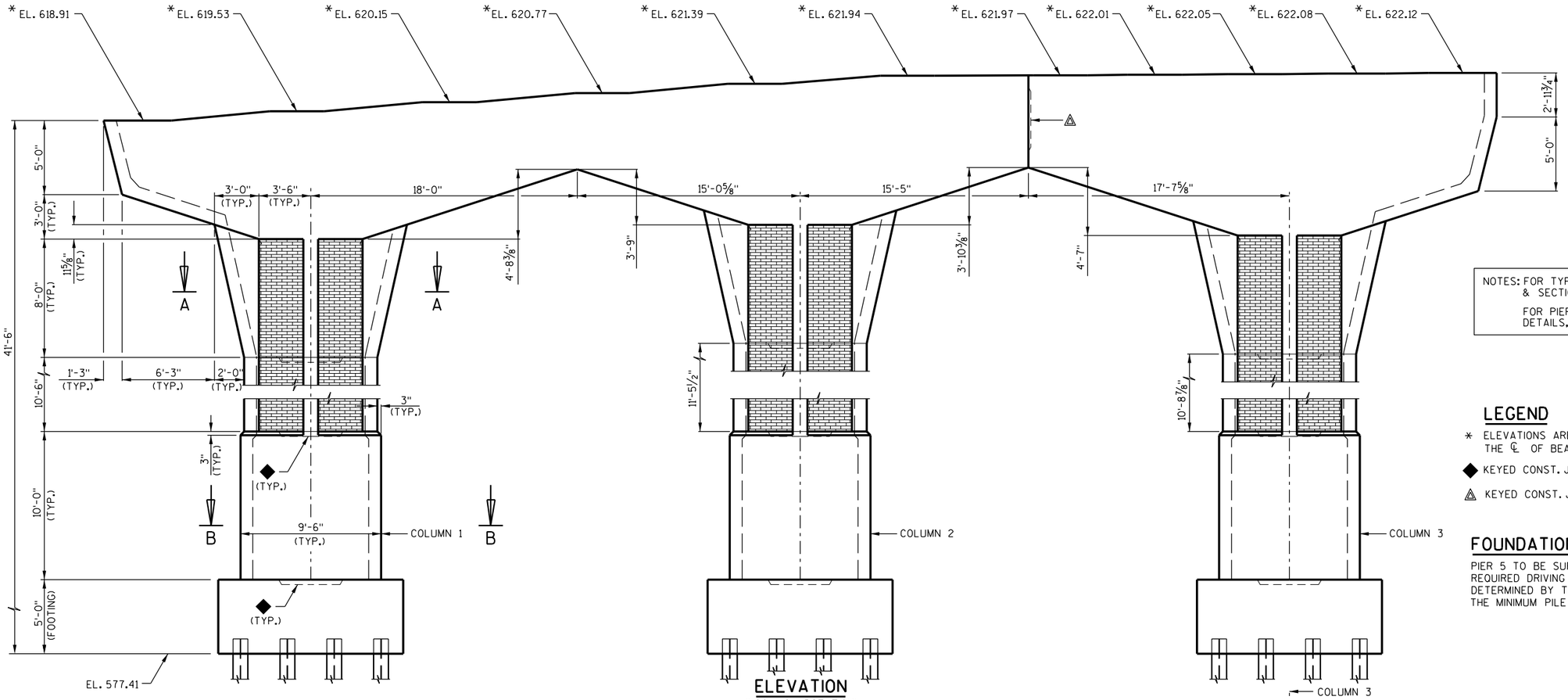
SHEET 30 OF 129
1061

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\030_PIER4_V7.B-5-681.DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



NOTES: FOR TYPICAL END VIEW, SECTION A-A & SECTION B-B, SEE SHEET 37.

FOR PIER 5 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 43, 54, & 74-79.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" × 1'-8" × 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" × 8".

FOUNDATION NOTE

PIER 5 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 70' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 527.00.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5
LAYOUT DETAILS

SHEET 31 OF 129
1062

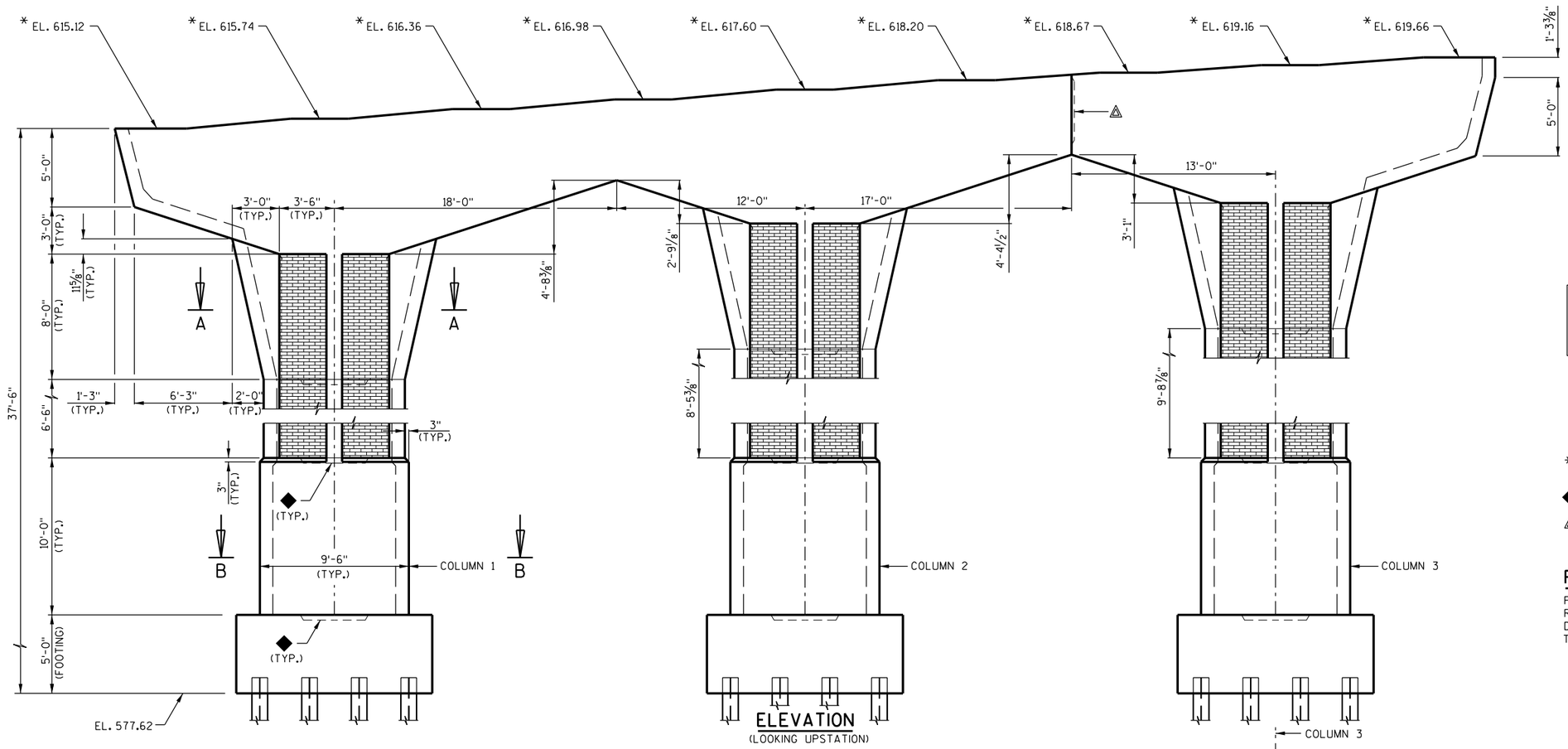
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\133-10-00 URS\STRUCTURES\B-5-681\031_PIERS_V7.B-5-681.DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



NOTES: FOR TYPICAL END VIEW, SECTION A-A & SECTION B-B, SEE SHEET 37.

FOR PIER 6 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 44, 54, & 80-84.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

FOUNDATION NOTE

PIER 6 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 75' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 518.00.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6
LAYOUT DETAILS

SHEET 32 OF 129
1063

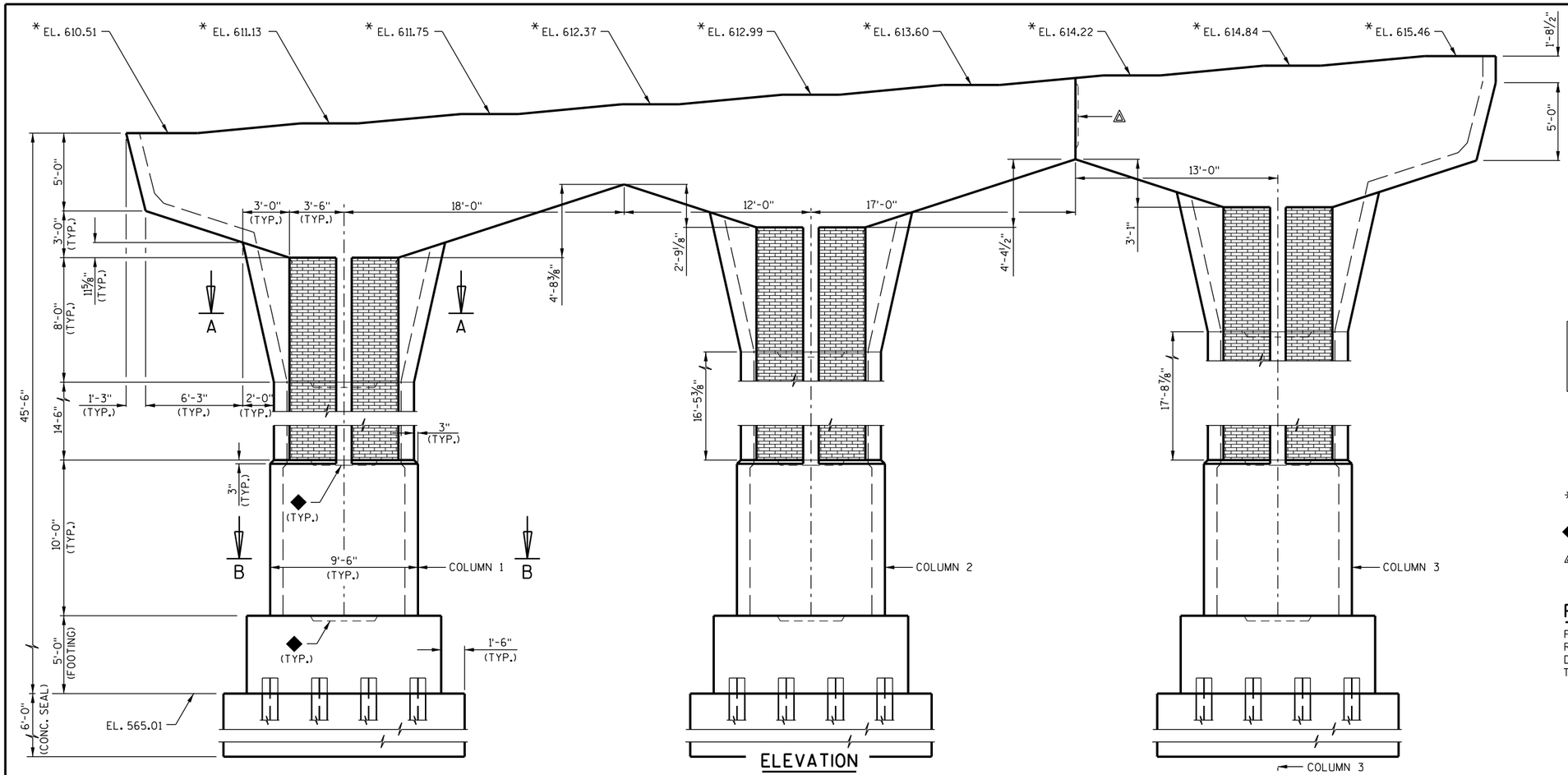
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGs\STRUCTURES\B-5-681\032_PIER6_V7.B-5-681DGN

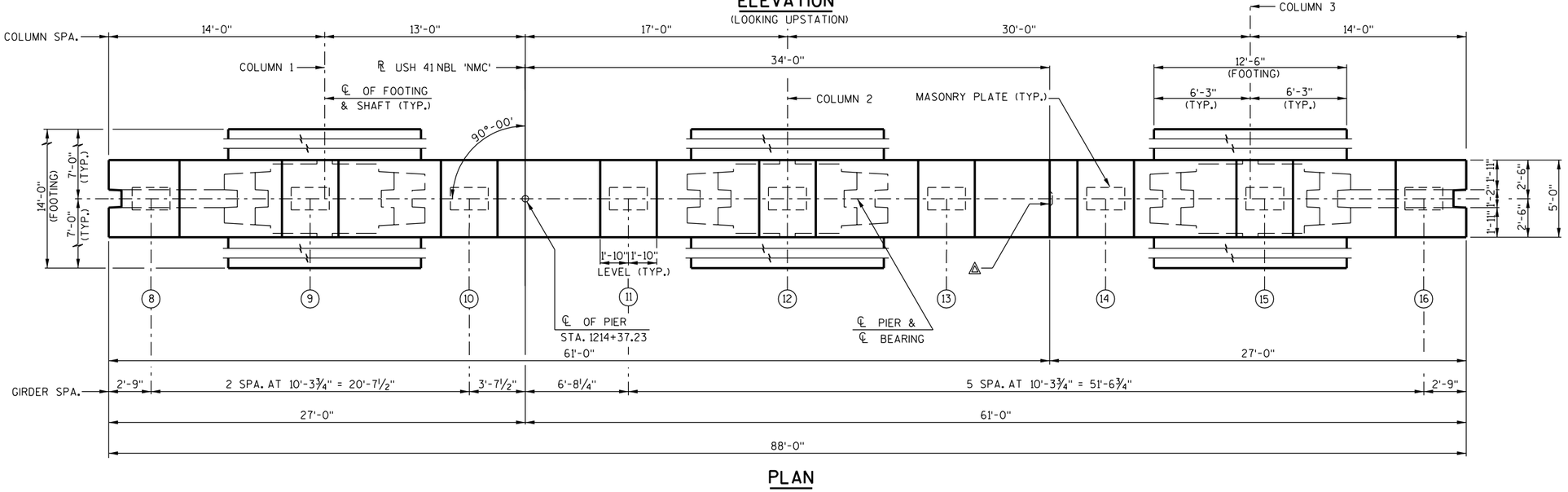
PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION
(LOOKING UPSTATION)



PLAN

NOTES: FOR TYPICAL END VIEW, SECTION A-A & SECTION B-B, SEE SHEET 37.

FOR PIER 7 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 45, 54, & 85-89.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-0".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

FOUNDATION NOTE

PIER 7 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 55' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 523.00.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 7
LAYOUT DETAILS

SHEET 33 OF 129
1064

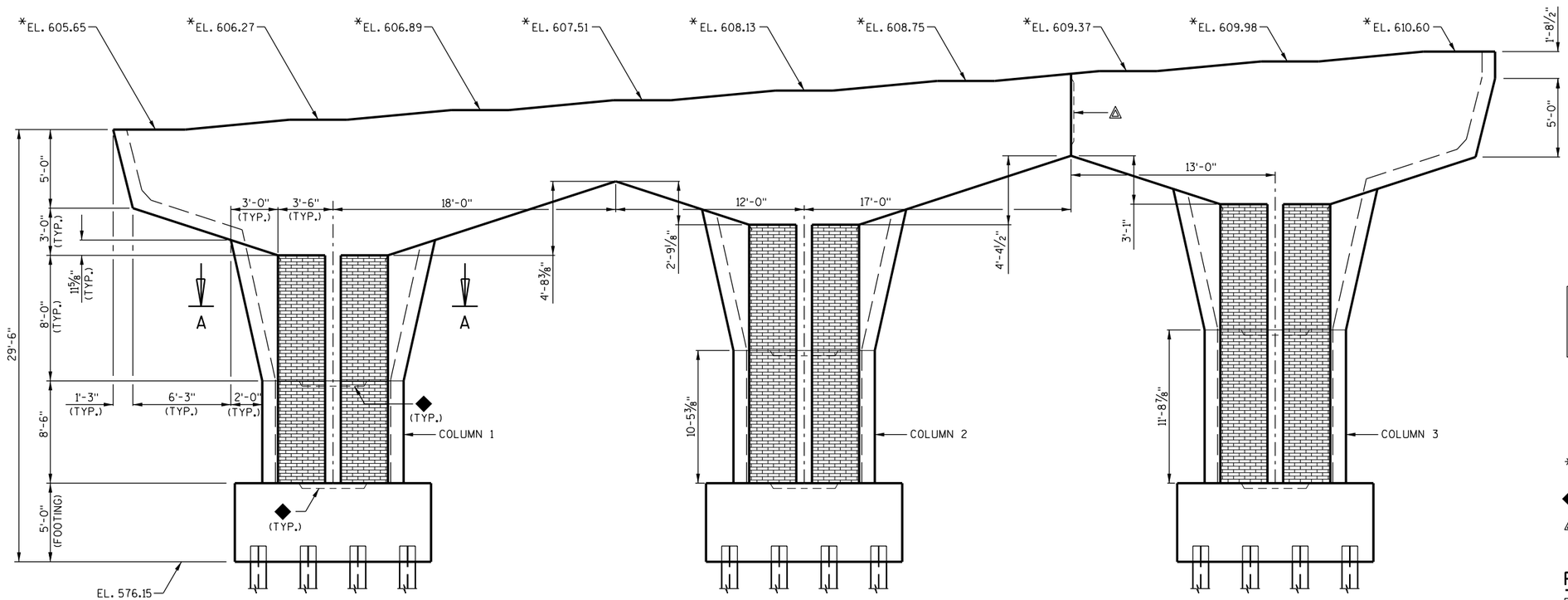
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGs\STRUCTURES\B-5-681\033.PIER7.V7.B-5-681.DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION
(LOOKING UPSTATION)

NOTES: FOR TYPICAL END VIEW AND SECTION A-A, SEE SHEET 37.

FOR PIER 8 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 45-47, 54, & 85-89.

LEGEND

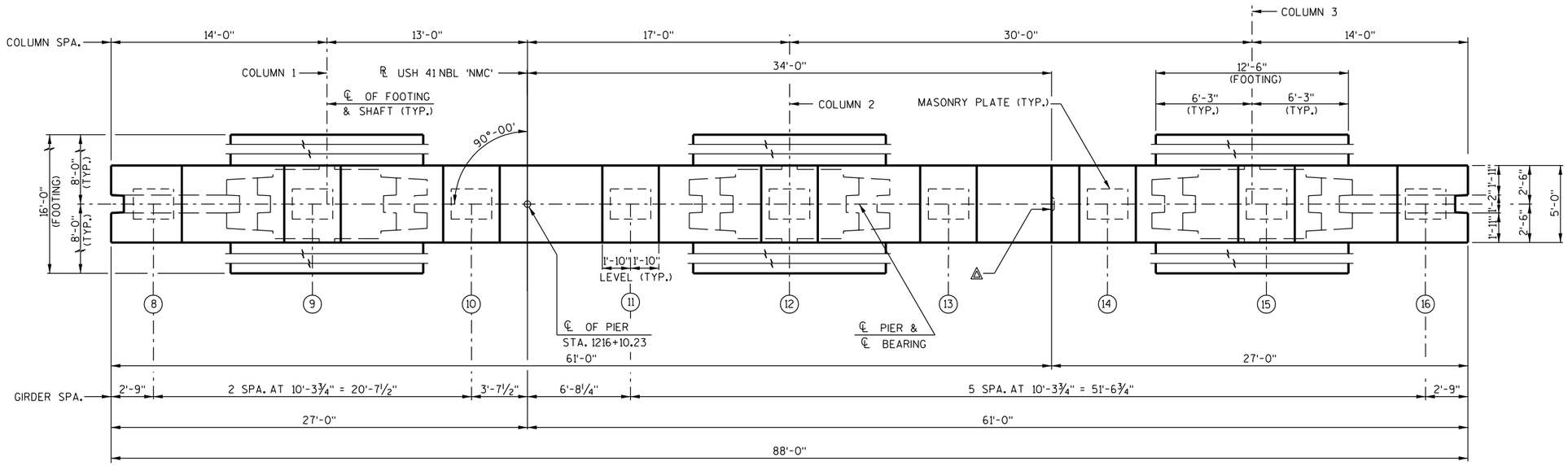
* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

FOUNDATION NOTE

PIER 8 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 60' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 521.00.



PLAN

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 8
LAYOUT DETAILS

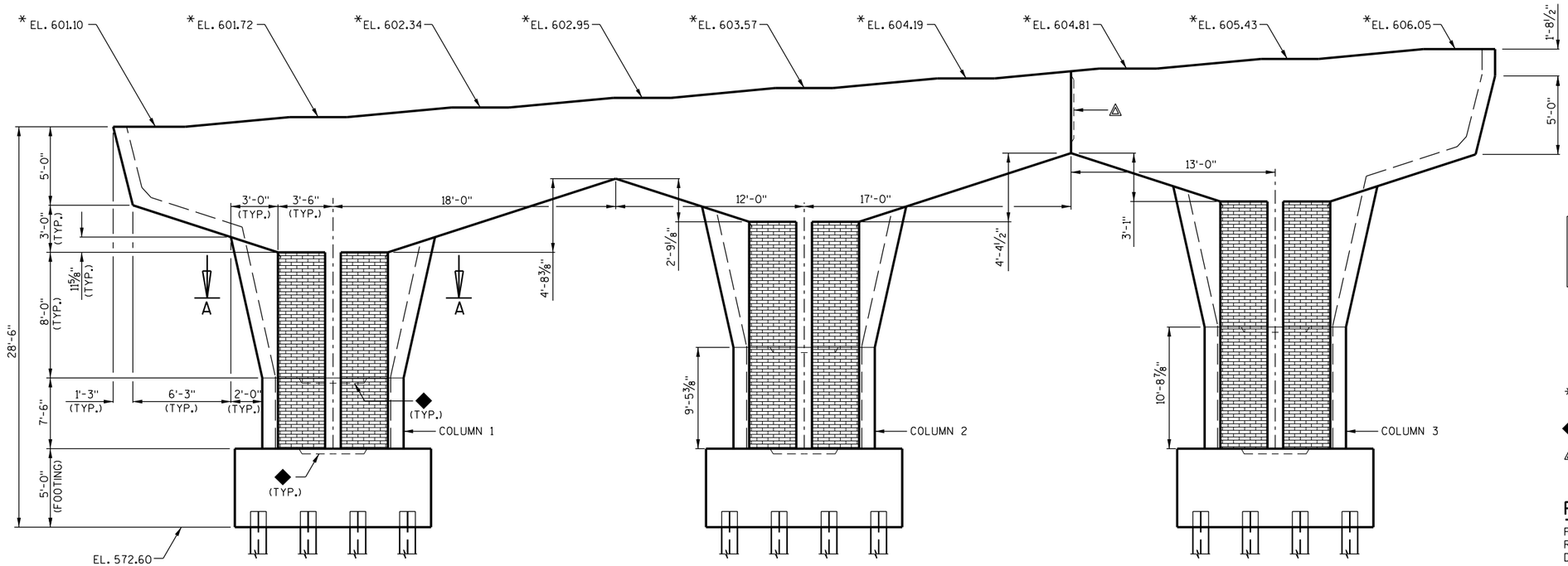
SHEET 34 OF 129
1065

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\034_PIER8_V7.B-5-681DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION
(LOOKING UPSTATION)

NOTES: FOR TYPICAL END VIEW AND SECTION A-A, SEE SHEET 37.

FOR PIER 9 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 48-50, 54, & 85-89.

LEGEND

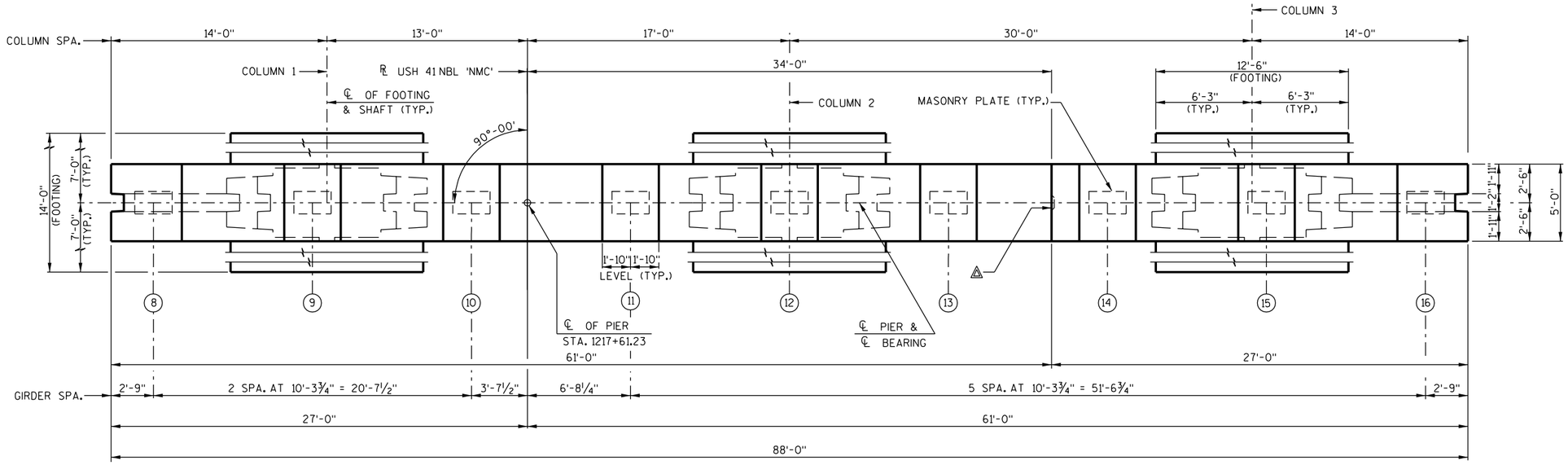
* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

FOUNDATION NOTE

PIER 9 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 40' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 543.00.



PLAN

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 9
LAYOUT DETAILS

SHEET 35 OF 129
1066

8

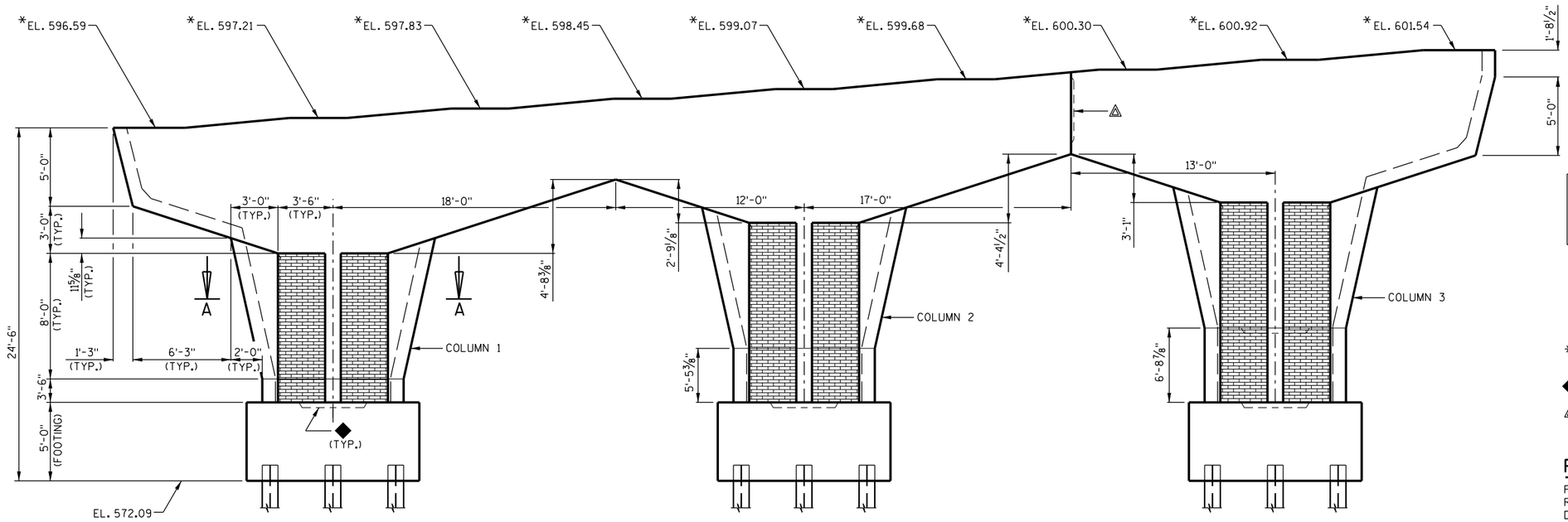
8

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\035_PIER9_V1.B-5-681.DGN

PLOT DATE : 4/25/2013

STATE PROJECT NUMBER

1133-11-74



NOTES: FOR TYPICAL END VIEW AND SECTION A-A, SEE SHEET 37.

FOR PIER 10 BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 51-54 & 85-89.

LEGEND

* ELEVATIONS ARE GIVEN AT THE TOP OF PIER AT THE ℄ OF BEARING.

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

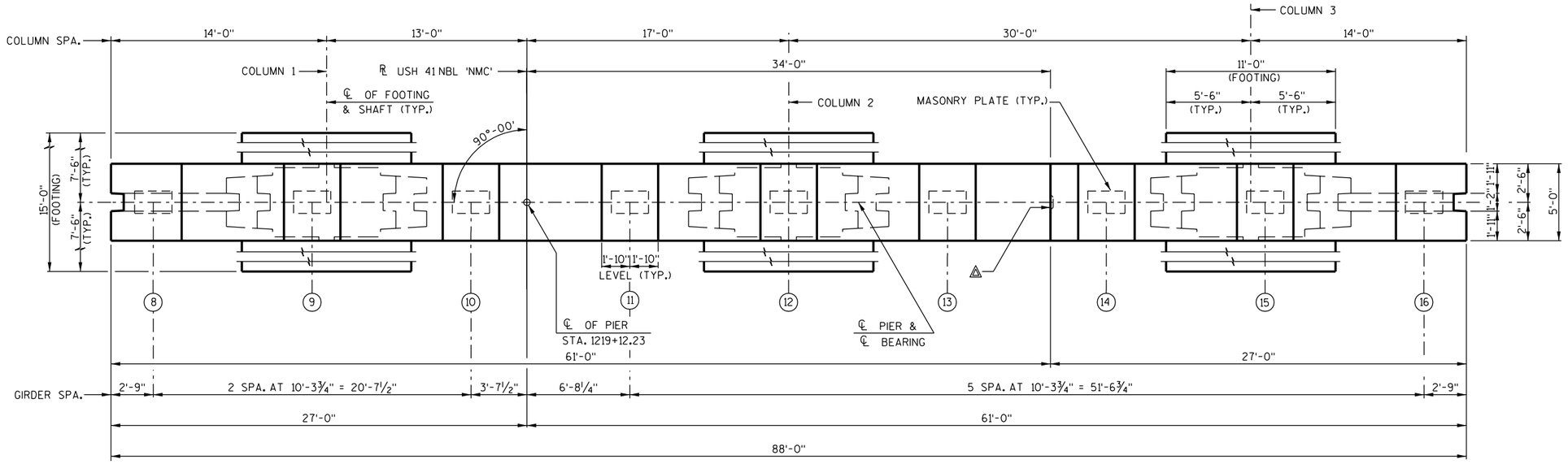
△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

FOUNDATION NOTE

PIER 10 TO BE SUPPORTED ON HP 14x73 STEEL PILES WITH A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD. ESTIMATED 35' LONG. THE MINIMUM PILE TIP ELEVATION FOR UPLIFT IS 543.00.

ELEVATION

(LOOKING UPSTATION)



PLAN

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STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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PIER 10
LAYOUT DETAILS

SHEET 36 OF 129
1067

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\036_PIER10_V7.B-5-681.DGN

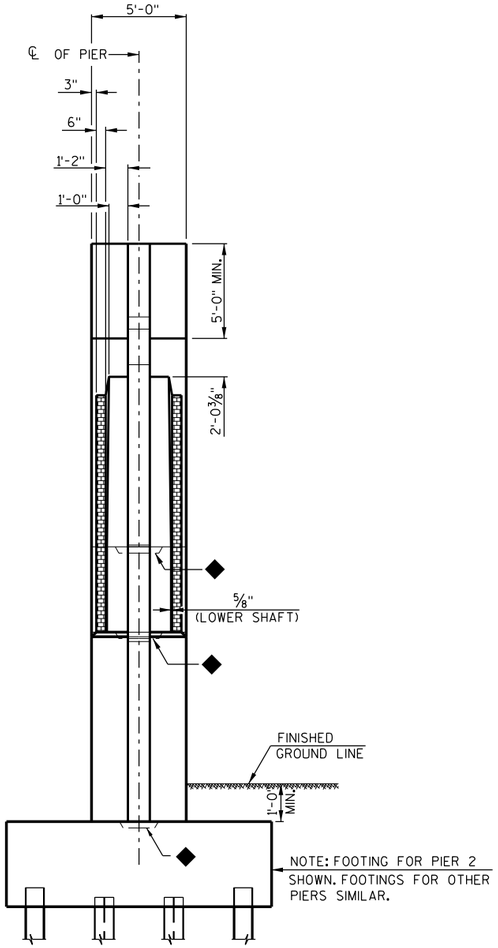
PLOT DATE : 4/25/2013

8

8

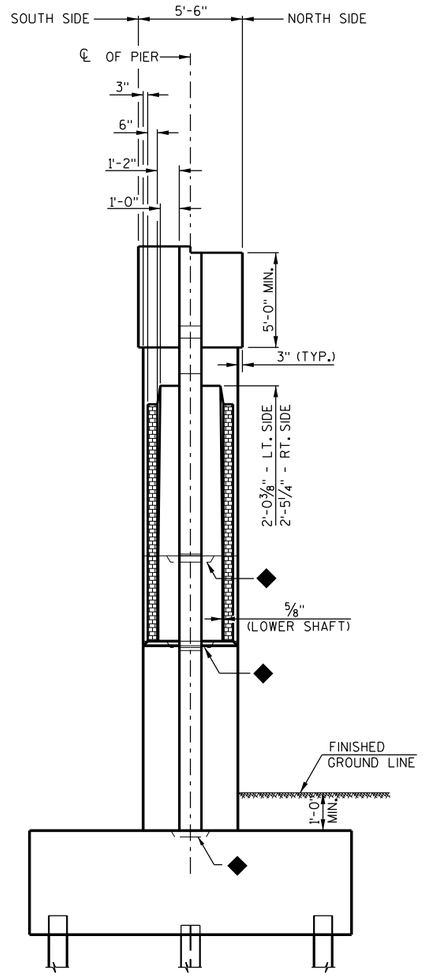
STATE PROJECT NUMBER

1133-11-74

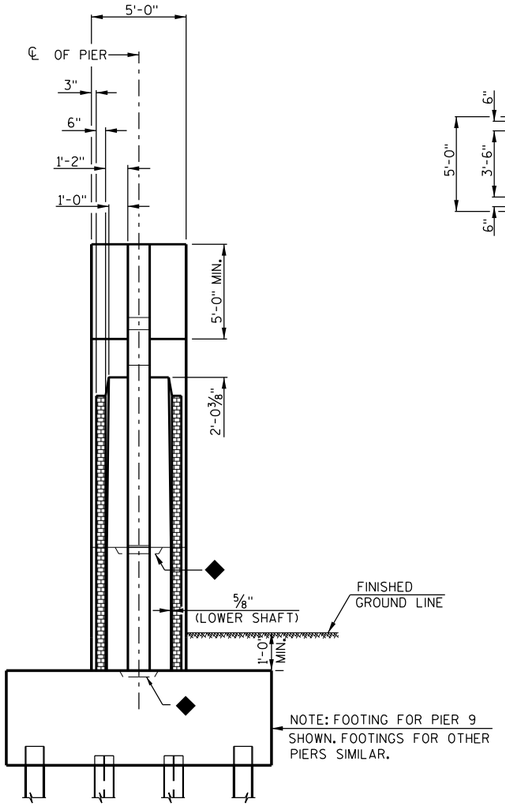


TYPICAL END VIEW - PIERS 1-3 & 5-7

(LOW SIDE SHOWN)

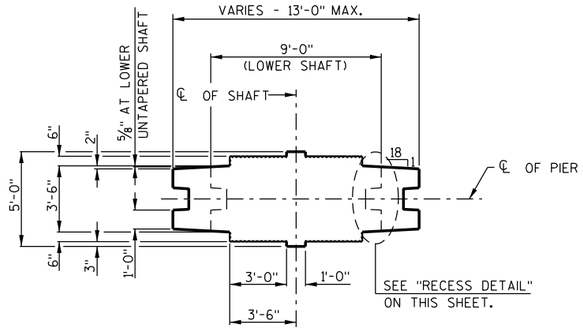


END VIEW - PIER 4



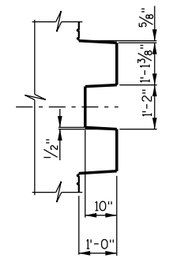
TYPICAL END VIEW - PIERS 8-10

(LOW SIDE AT PIER 9 SHOWN, PIERS 8 & 10 SIMILAR)



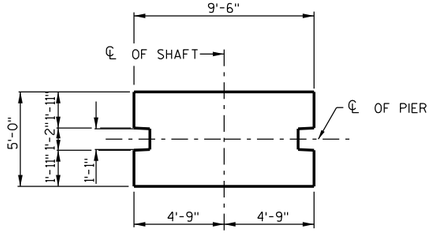
SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.



RECESS DETAIL

(LOWER SHAFT)



SECTION B-B

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" x 5'-6".

NOTES: FOR ADDITIONAL PIER LAYOUT DETAILS, SEE SHEETS 27 THRU 36.
FOR PIER BAR STEEL REINFORCEMENT DETAILS, SEE SHEETS 38 THRU 89.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER LAYOUT DETAILS

SHEET 37 OF 129
1068

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

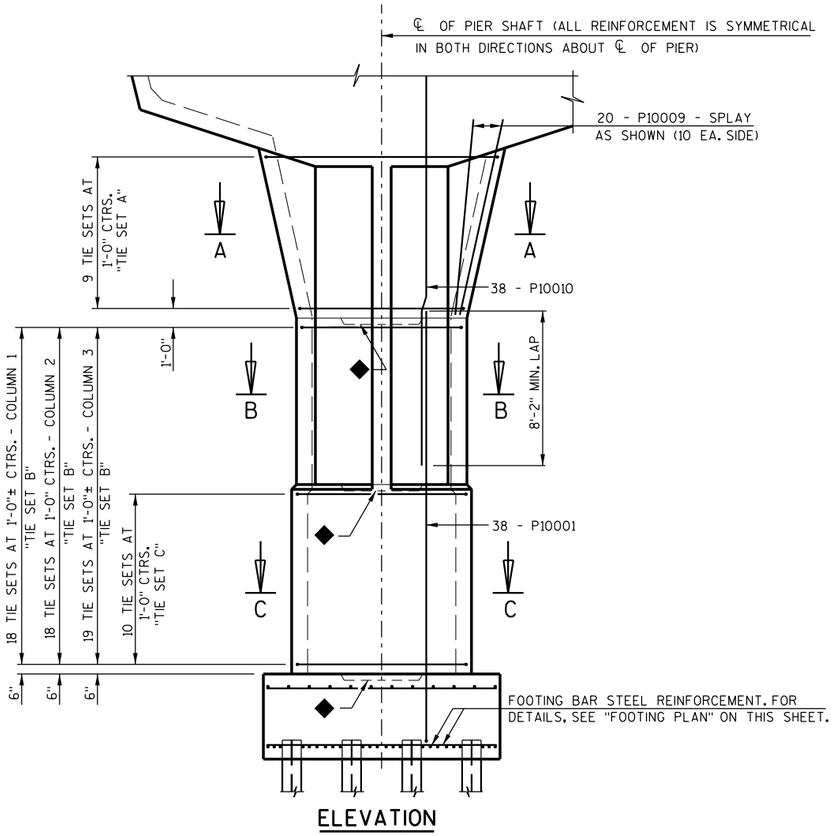
8

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\H037_PIER_LAYOUT_DET_V7_B-5-681.DGN

PLOT DATE : 2/26/2013

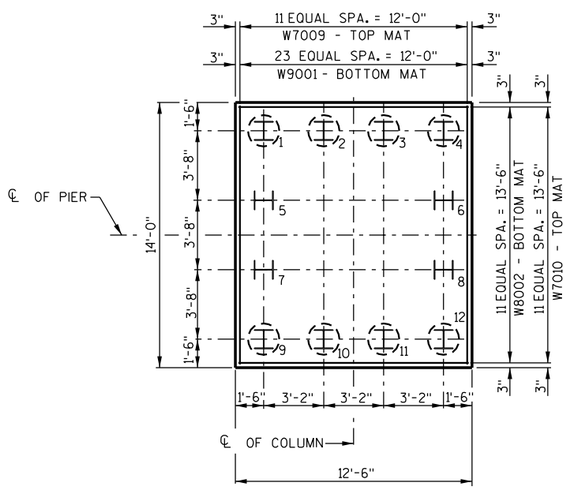
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING UPSTATION - COLUMN 1 SHOWN, OTHER COLUMNS SIMILAR)



FOOTING PLAN

LEGEND

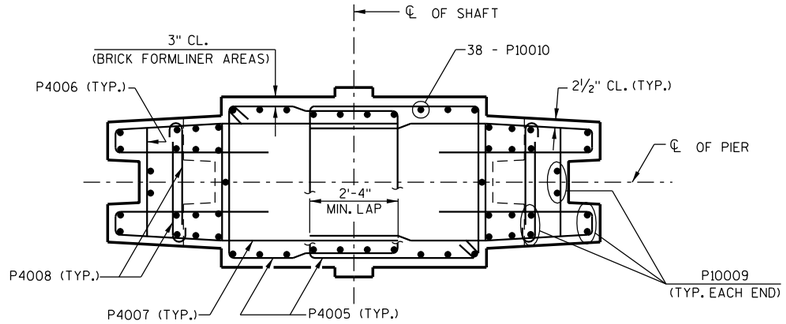
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

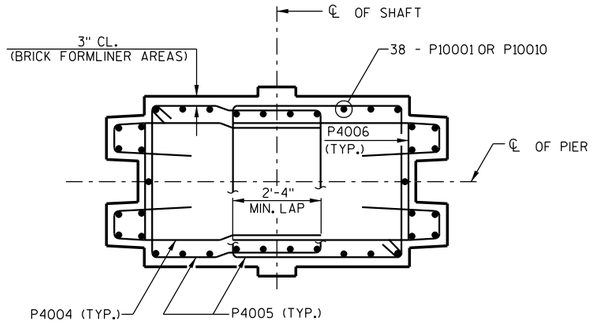
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

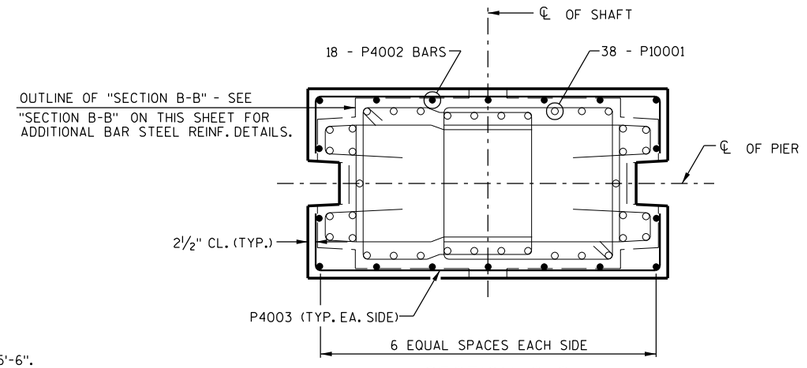
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS



SECTION A-A



SECTION B-B



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1 - SHAFT & FOOTING DETAILS

SHEET 38 OF 129
1069

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\038.PIERLDET01.V7.B-5-681LDCN

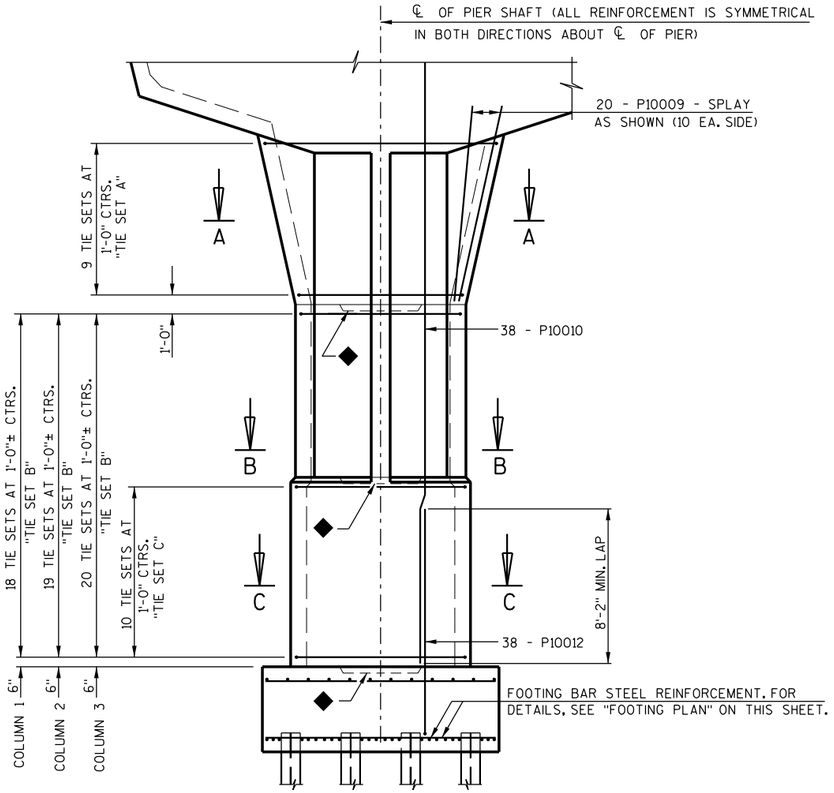
PLOT DATE : 2/18/2013

8

8

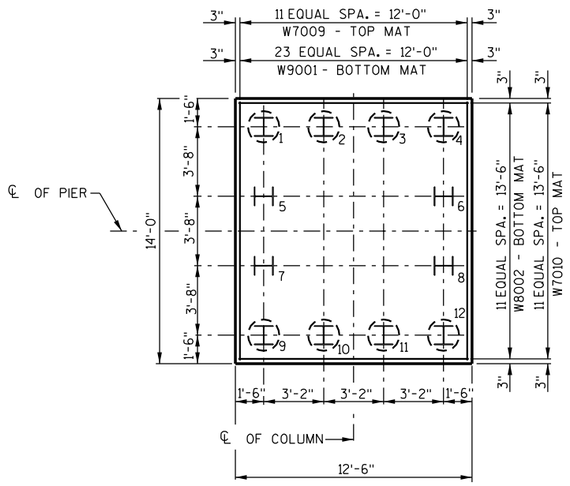
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING UPSTATION - COLUMN 1 SHOWN, OTHER COLUMNS SIMILAR)



FOOTING PLAN

LEGEND

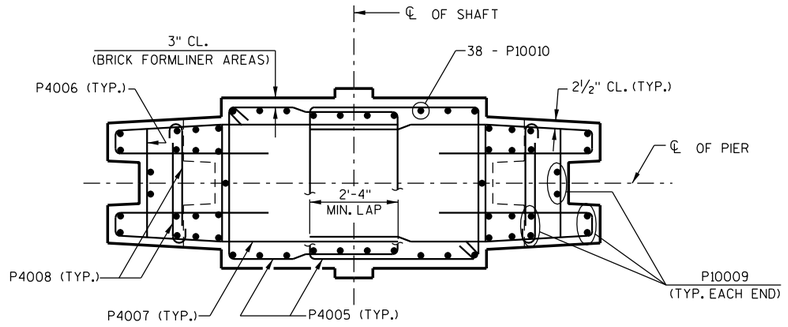
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

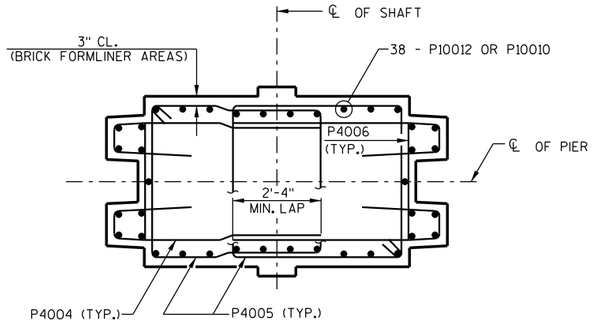
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

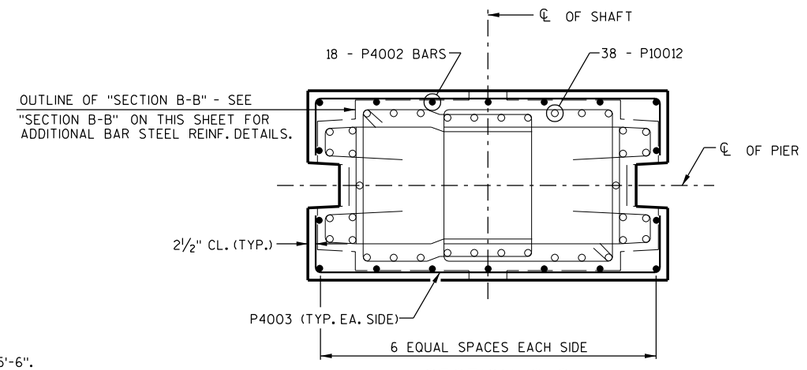
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS



SECTION A-A



SECTION B-B



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2 - SHAFT & FOOTING DETAILS

SHEET 39 OF 129
1070

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

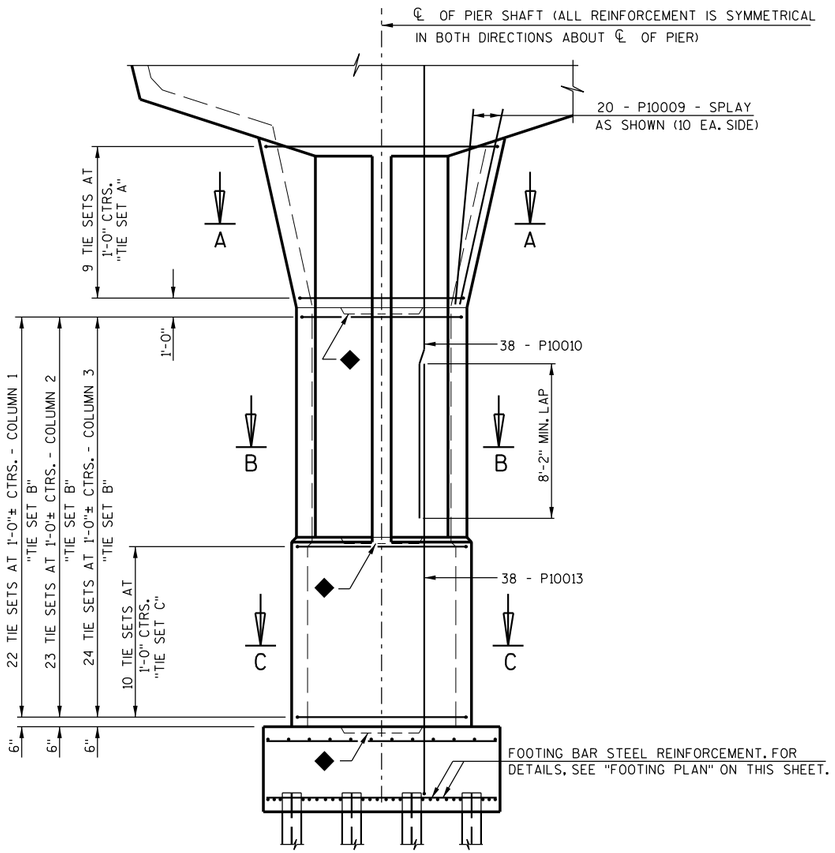
8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681t039.PIER2.DET01.V7.B-5-681.DGN
PLOT DATE : 2/18/2013

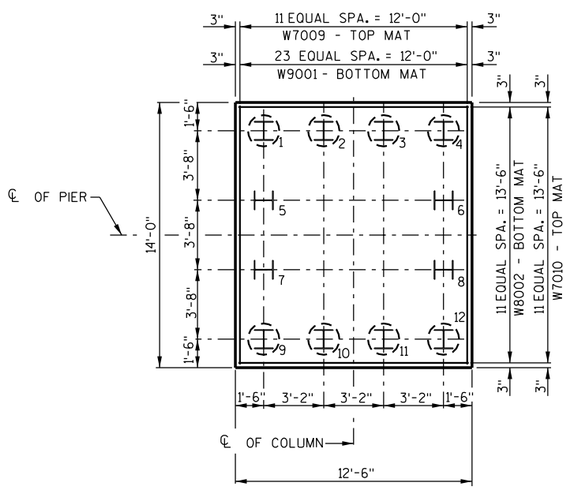
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING UPSTATION - COLUMN 1 SHOWN, OTHER COLUMNS SIMILAR)



FOOTING PLAN

LEGEND

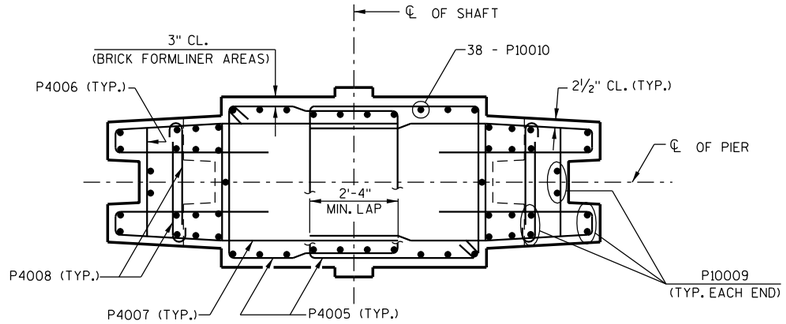
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

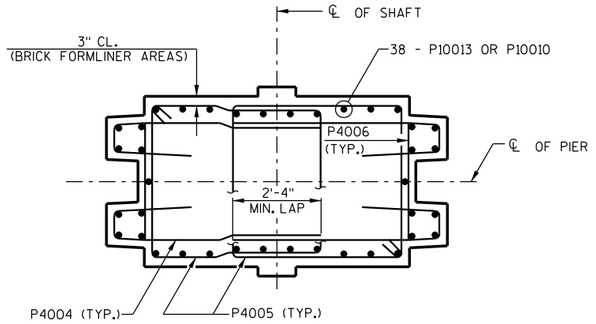
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

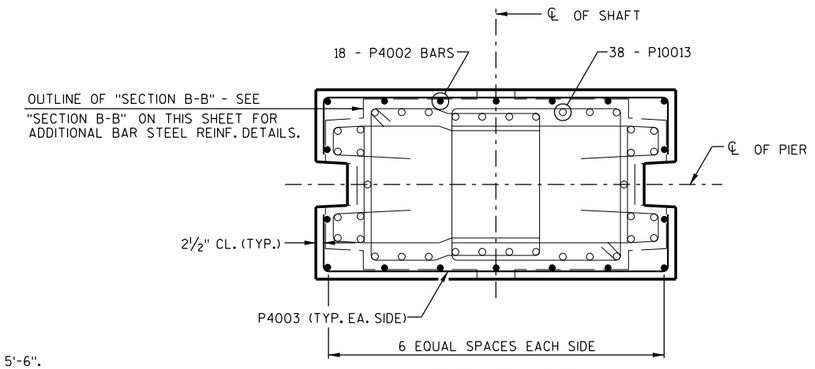
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS



SECTION A-A



SECTION B-B



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3 - SHAFT & FOOTING DETAILS

SHEET 40 OF 129
1071

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\53 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\040.PIER3.DET01.V7.B-5-681.DGN

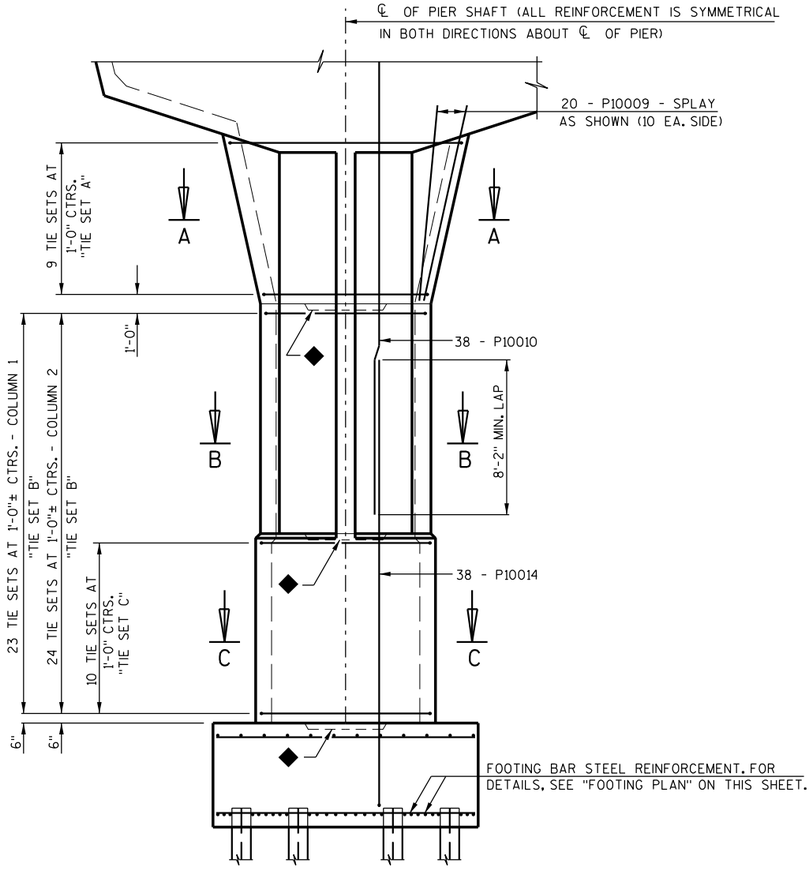
PLOT DATE : 2/18/2013

8

8

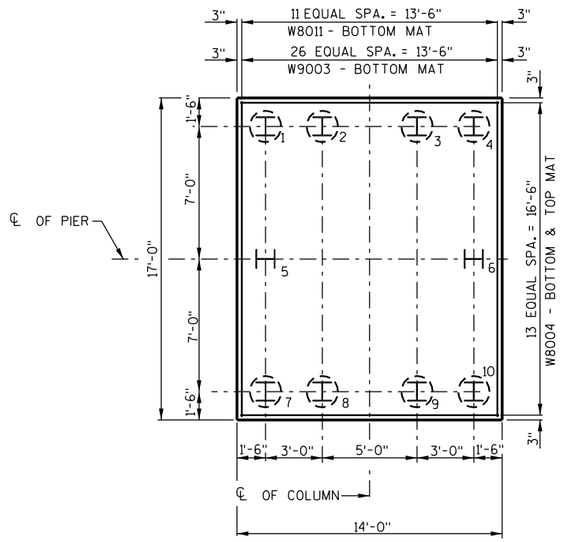
STATE PROJECT NUMBER

1133-11-74

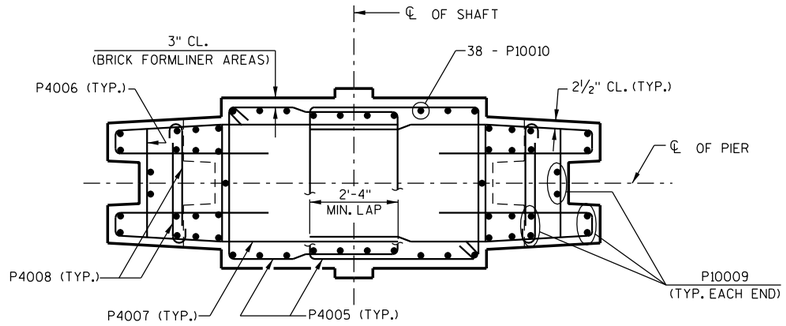


ELEVATION

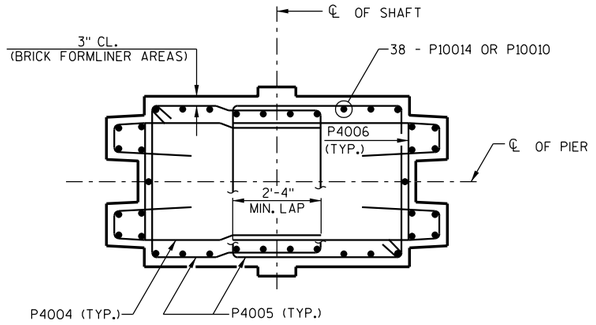
(LOOKING UPSTATION - COLUMN 1 SHOWN, COLUMN 2 SIMILAR)



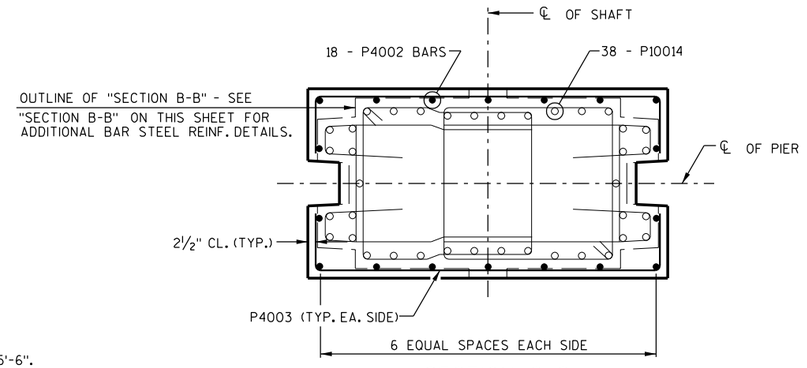
FOOTING PLAN



SECTION A-A



SECTION B-B



SECTION C-C

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 4 - SHAFT & FOOTING DETAILS

SHEET 41 OF 129
1072

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\04_PIER4_DET01_V7.B-5-681.DGN

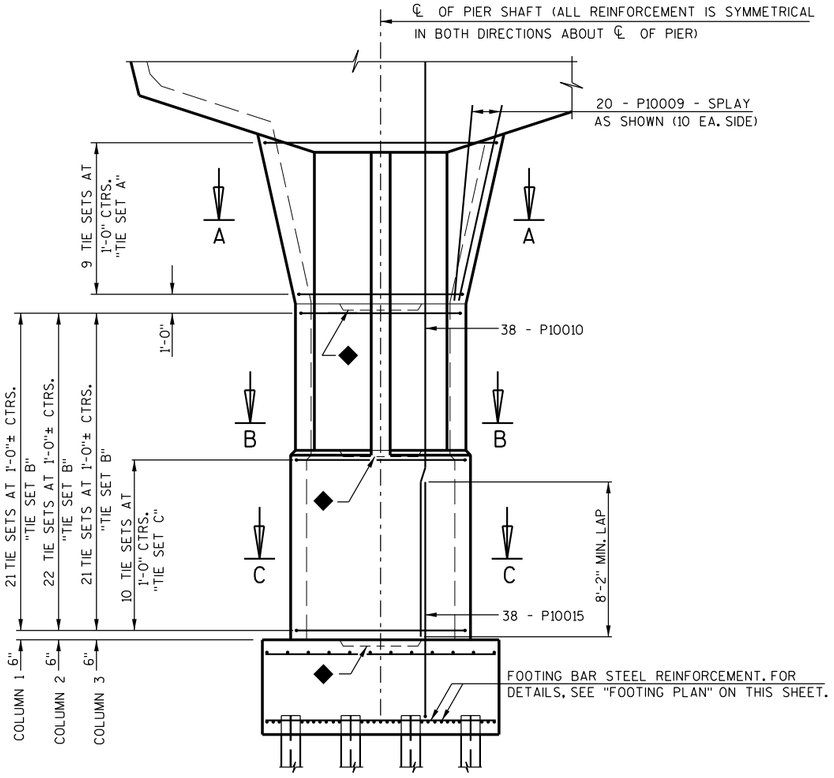
PLOT DATE : 2/28/2013

8

8

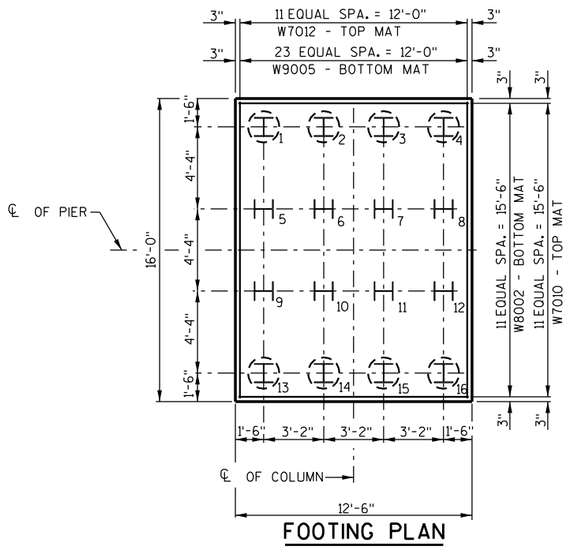
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING UPSTATION - COLUMN 1 SHOWN, OTHER COLUMNS SIMILAR)



FOOTING PLAN

LEGEND

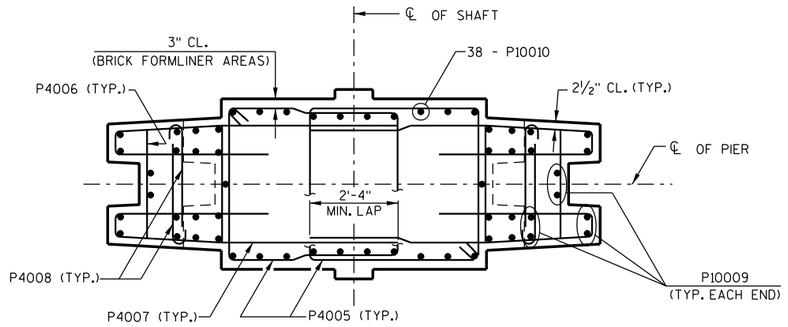
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

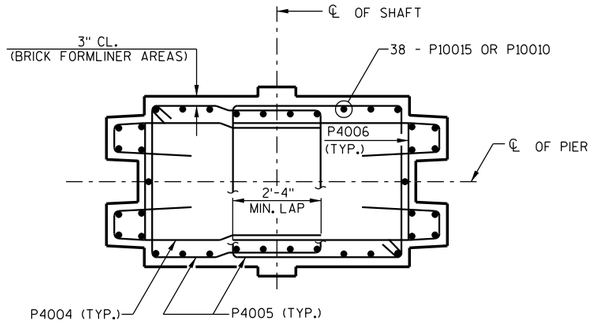
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

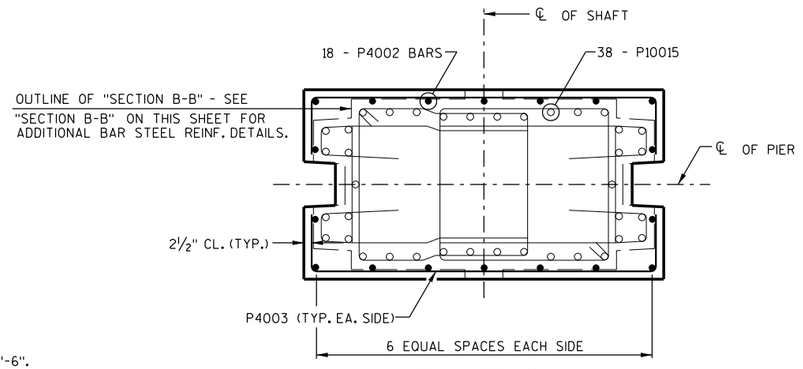
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - SHAFT & FOOTING DETAILS

SHEET 42 OF 129
1073

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\042.PIER5.DET01.V7.B-5-681.DGN

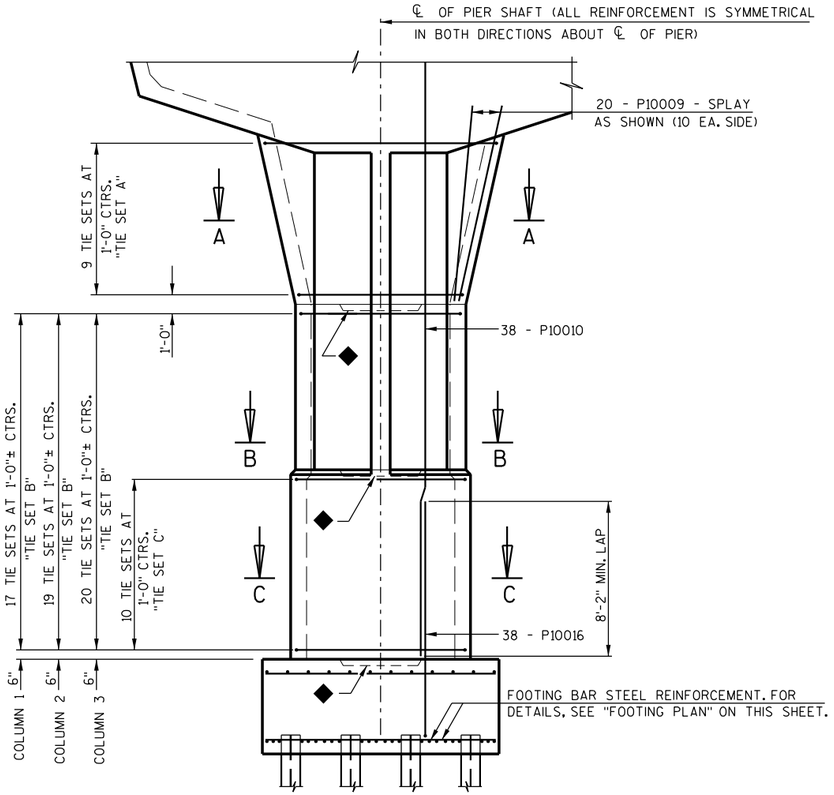
PLOT DATE : 2/28/2013

8

8

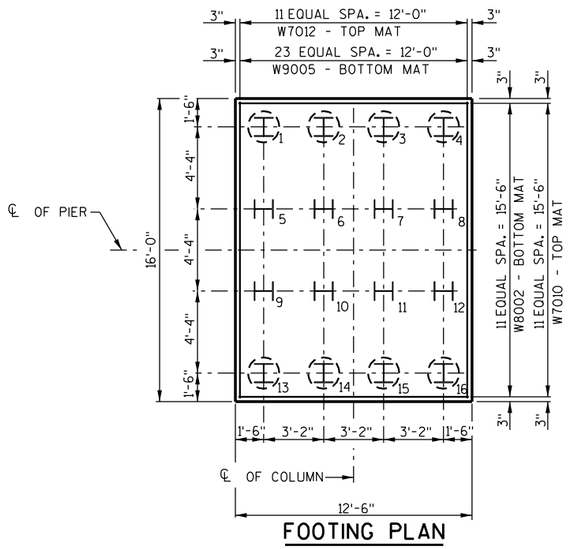
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING UPSTATION - COLUMN 1 SHOWN. OTHER COLUMNS SIMILAR)



FOOTING PLAN

LEGEND

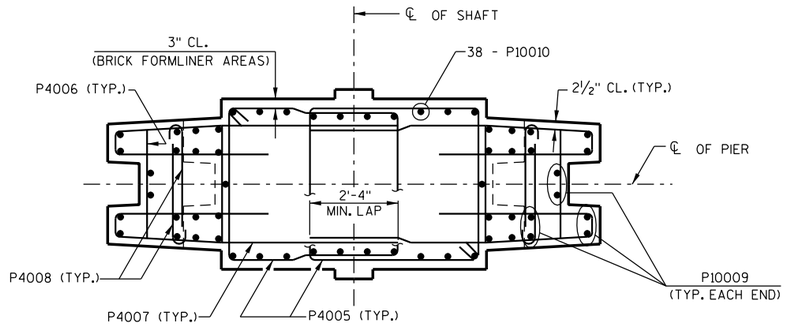
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

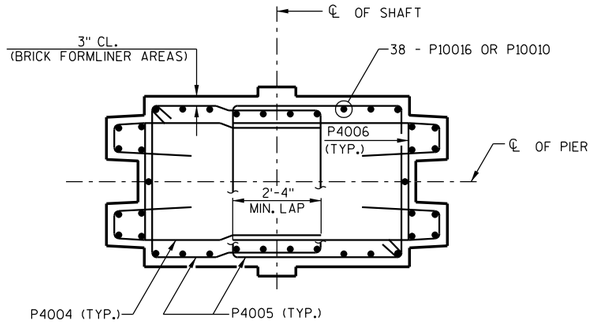
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

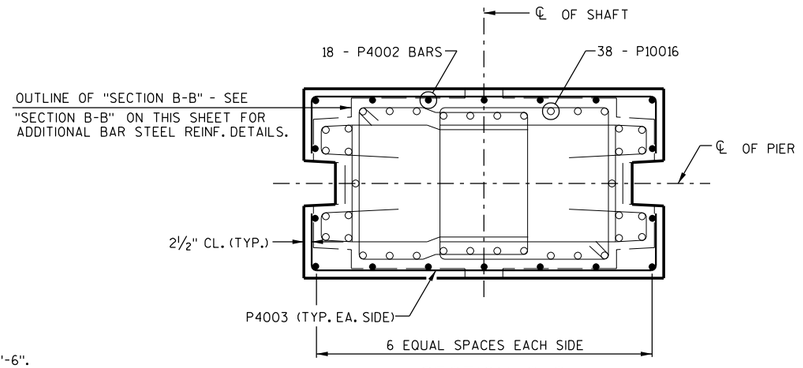
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS



SECTION A-A



SECTION B-B



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6 - SHAFT & FOOTING DETAILS

SHEET 43 OF 129
1074

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\043_PIERS_DETOL V7.B-5-681.DGN

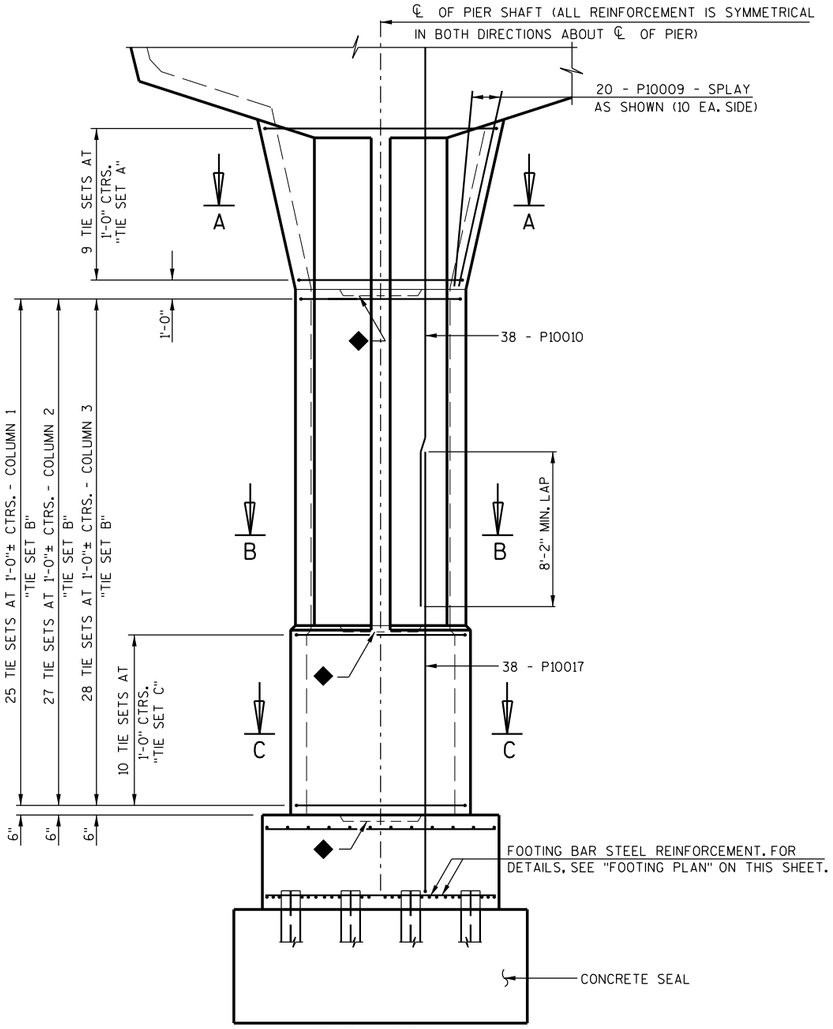
PLOT DATE : 2/28/2013

8

8

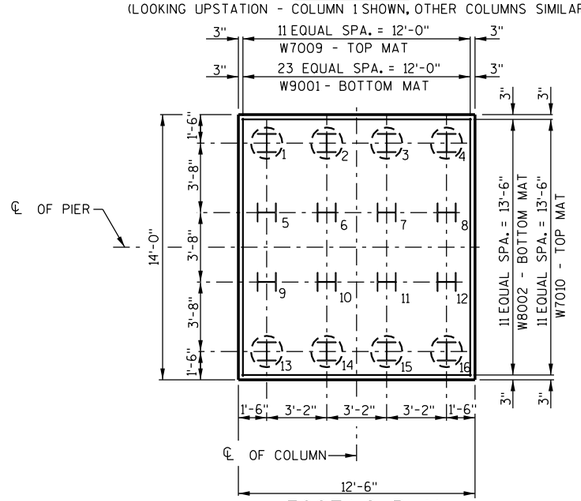
STATE PROJECT NUMBER

1133-11-74



ELEVATION

(LOOKING UPSTATION - COLUMN 1 SHOWN, OTHER COLUMNS SIMILAR)



FOOTING PLAN

LEGEND

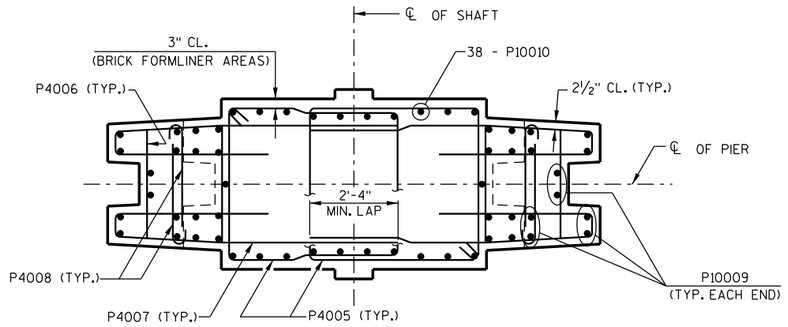
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

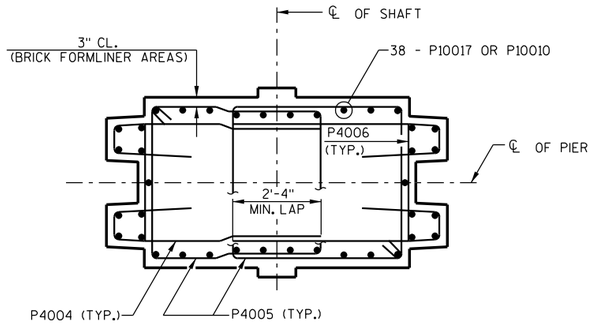
"TIE SET A" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4005 BARS
- 2 - P4006 BARS
- 4 - P4007 BARS
- 4 - P4008 BARS

"TIE SET B" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 4 - P4004 BARS
- 2 - P4005 BARS
- 2 - P4006 BARS

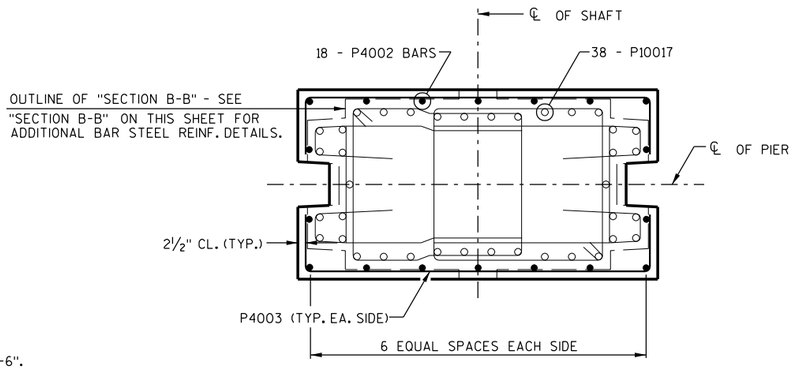
"TIE SET C" TIE BAR SET THAT CONSISTS OF THE FOLLOWING:
- 2 - P4003 BARS



SECTION A-A



SECTION B-B



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 7 - SHAFT & FOOTING DETAILS

SHEET 44 OF 129
1075

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\044_PIER7.DET01.V7.B-5-681.DGN

PLOT DATE : 2/28/2013

STATE PROJECT NUMBER

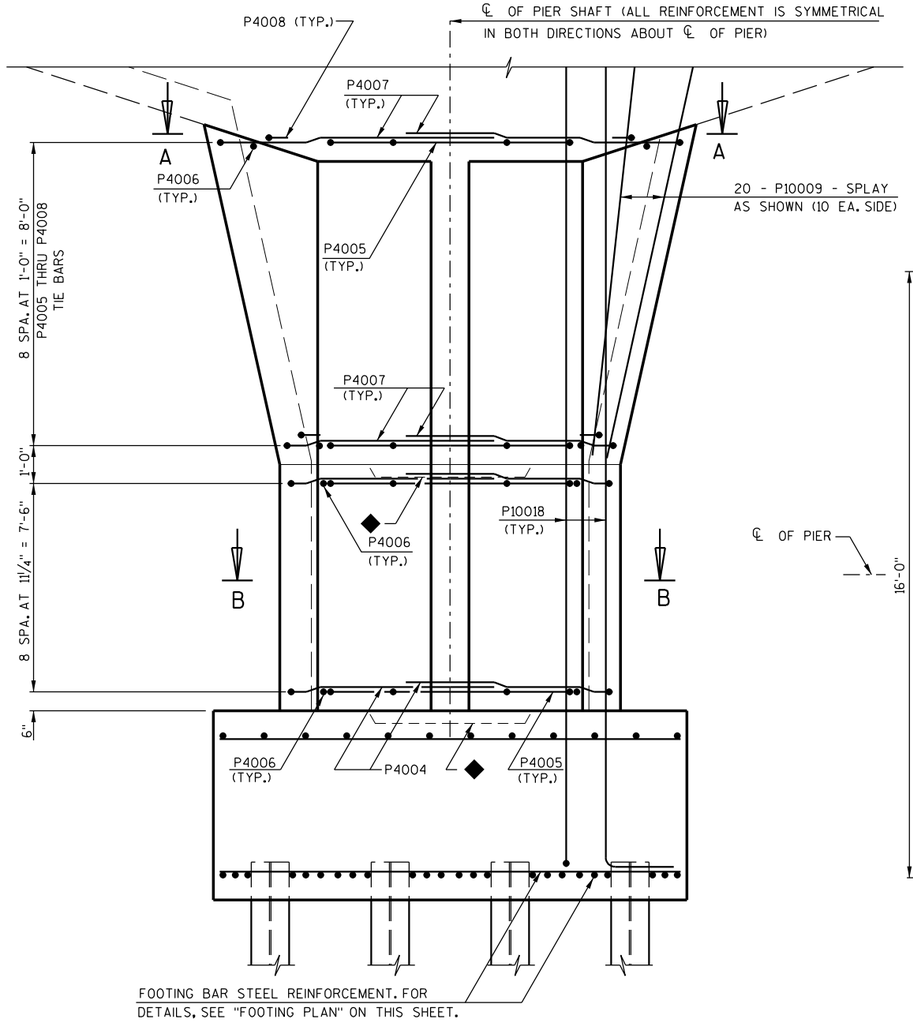
1133-11-74

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

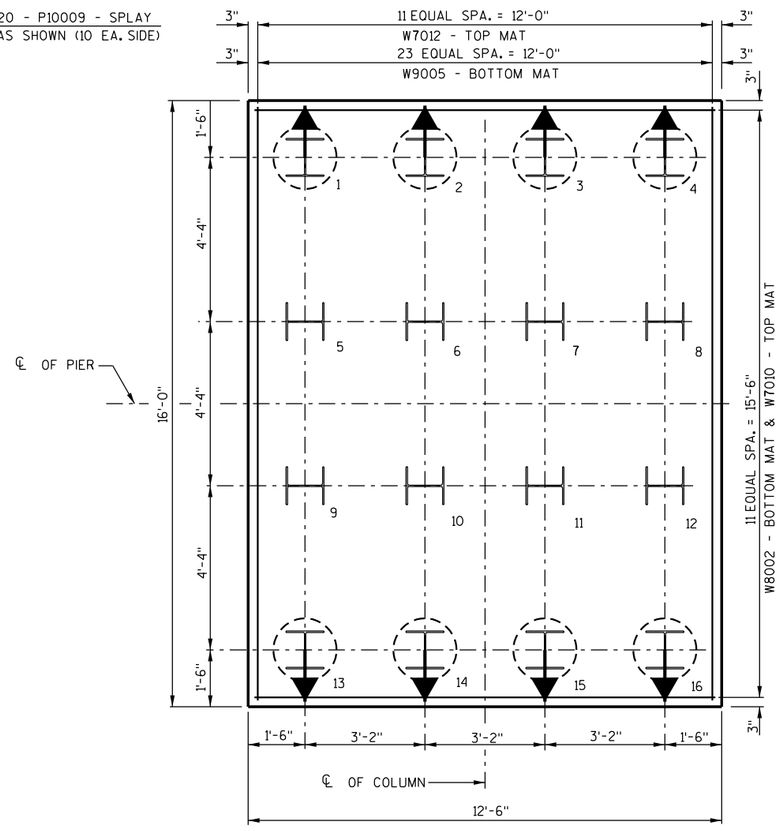
INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

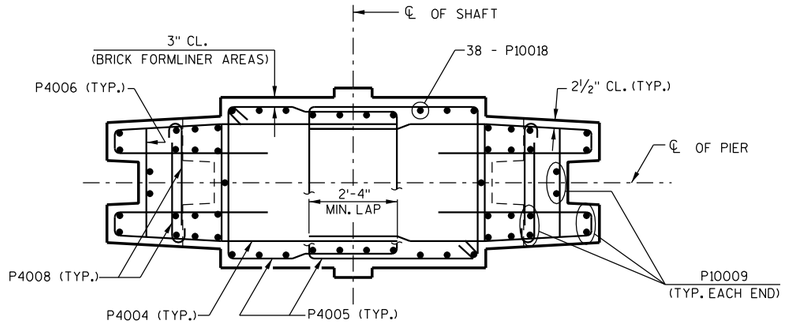


ELEVATION - COLUMN 1 - PIER 8

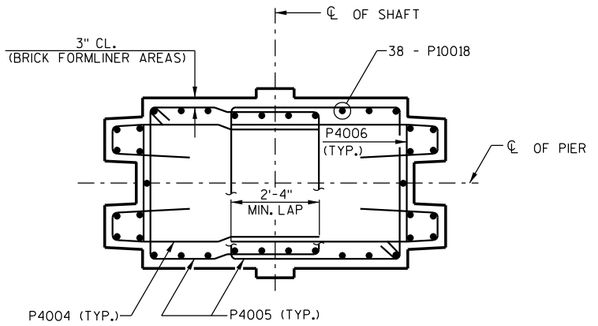
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 8 - SHAFT & FOOTING DETAILS

SHEET 45 OF 129
1076

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\045.PIER8.DET01.V7.B-5-681.DGN

PLOT DATE : 2/28/2013

8

STATE PROJECT NUMBER

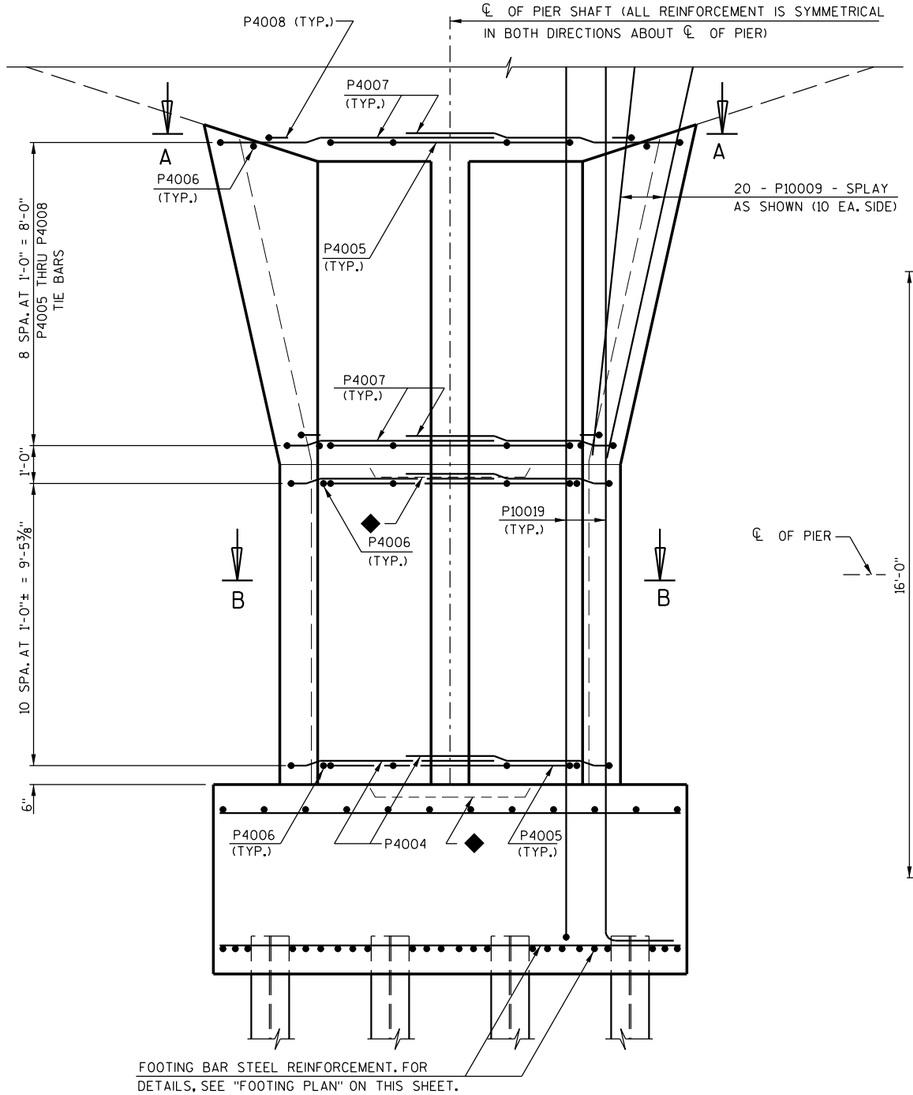
1133-11-74

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

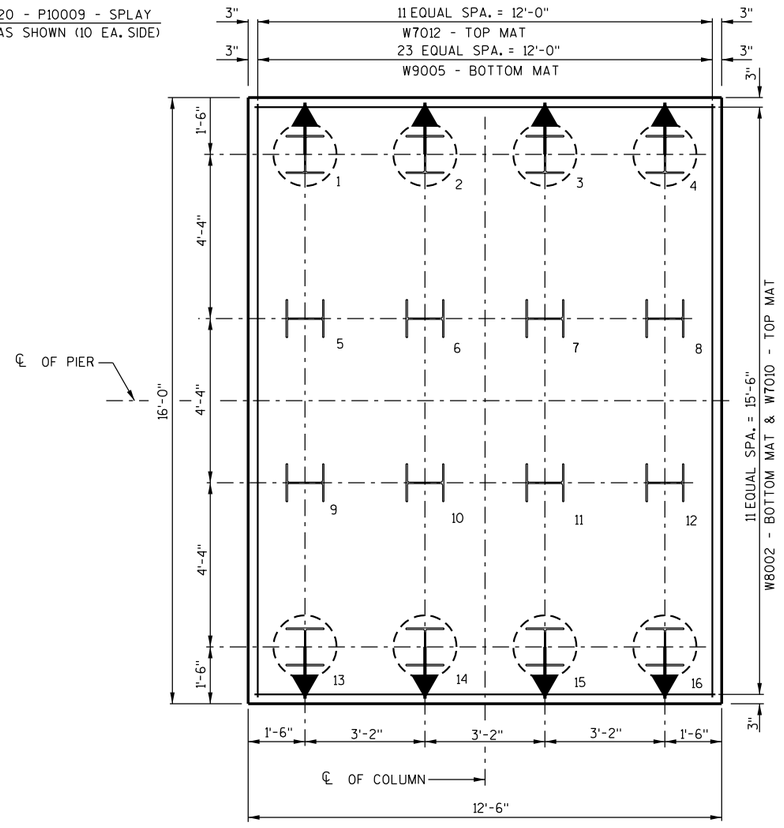
INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

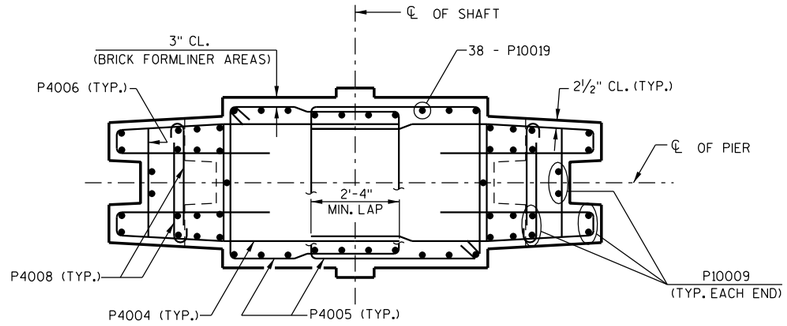


ELEVATION - COLUMN 2 - PIER 8

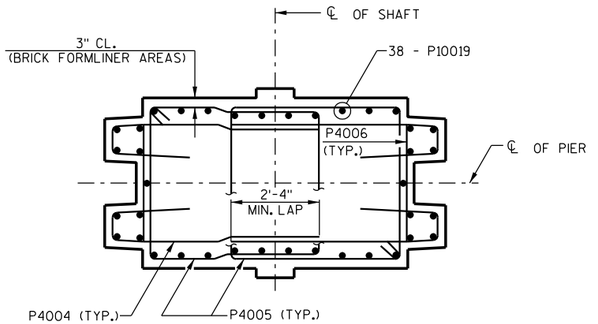
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 8 - SHAFT & FOOTING DETAILS

SHEET 46 OF 129
1077

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\046.PIER8.DET02.V7.B-5-681.DGN

PLOT DATE : 2/28/2013

8

8

STATE PROJECT NUMBER

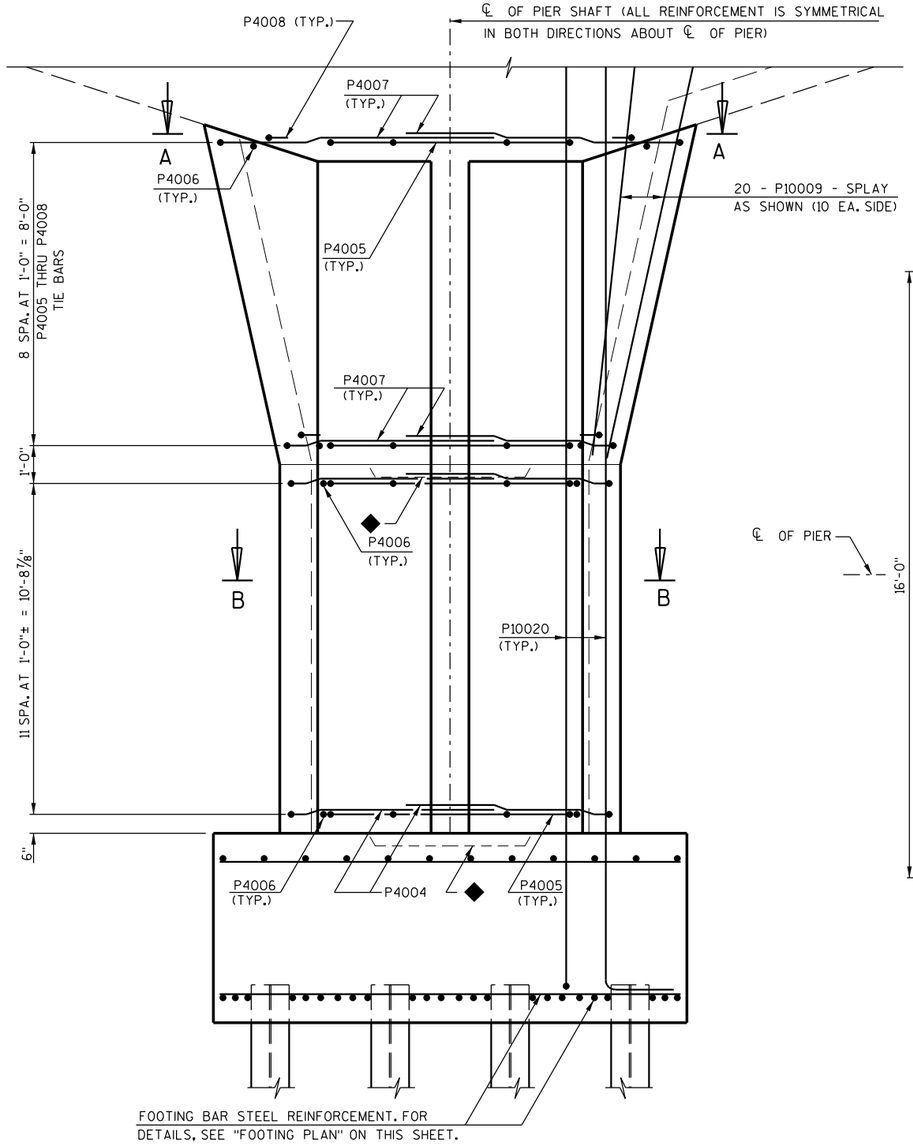
1133-11-74

LEGEND

◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

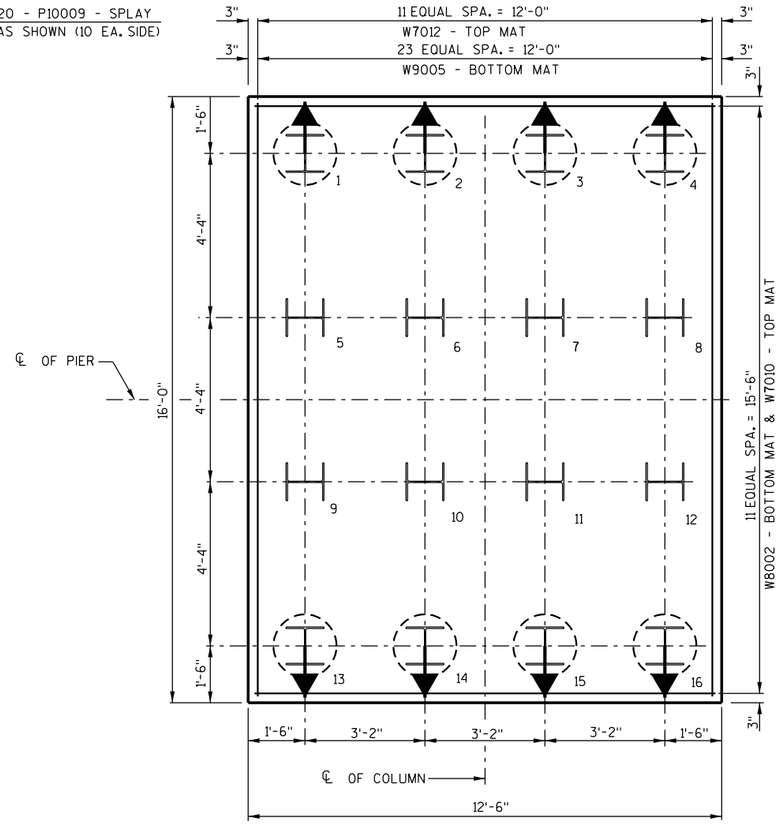
INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

INDICATES PILES BATTERED 3" PER FOOT IN DIRECTION OF ARROW.

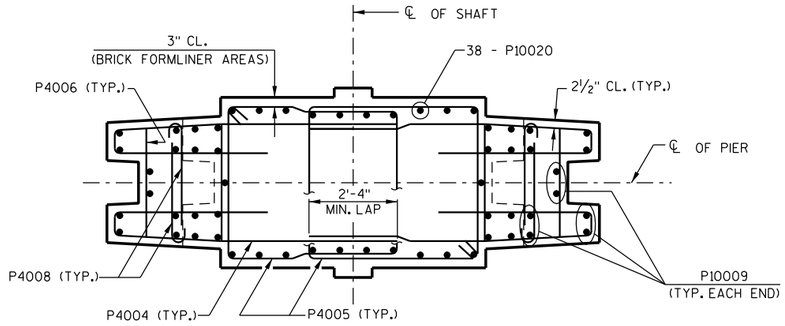


ELEVATION - COLUMN 3 - PIER 8

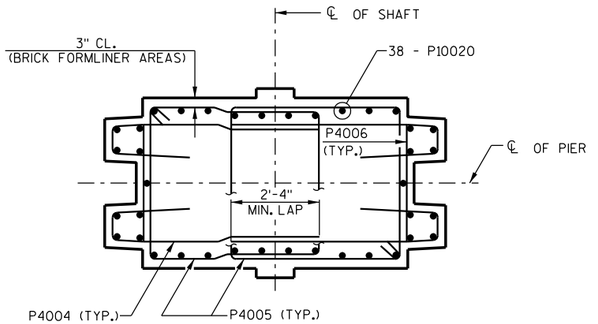
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 8 - SHAFT & FOOTING DETAILS

SHEET 47 OF 129
1078

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\047_PIER8.DET03.V7.B-5-681.DGN

PLOT DATE : 2/28/2013

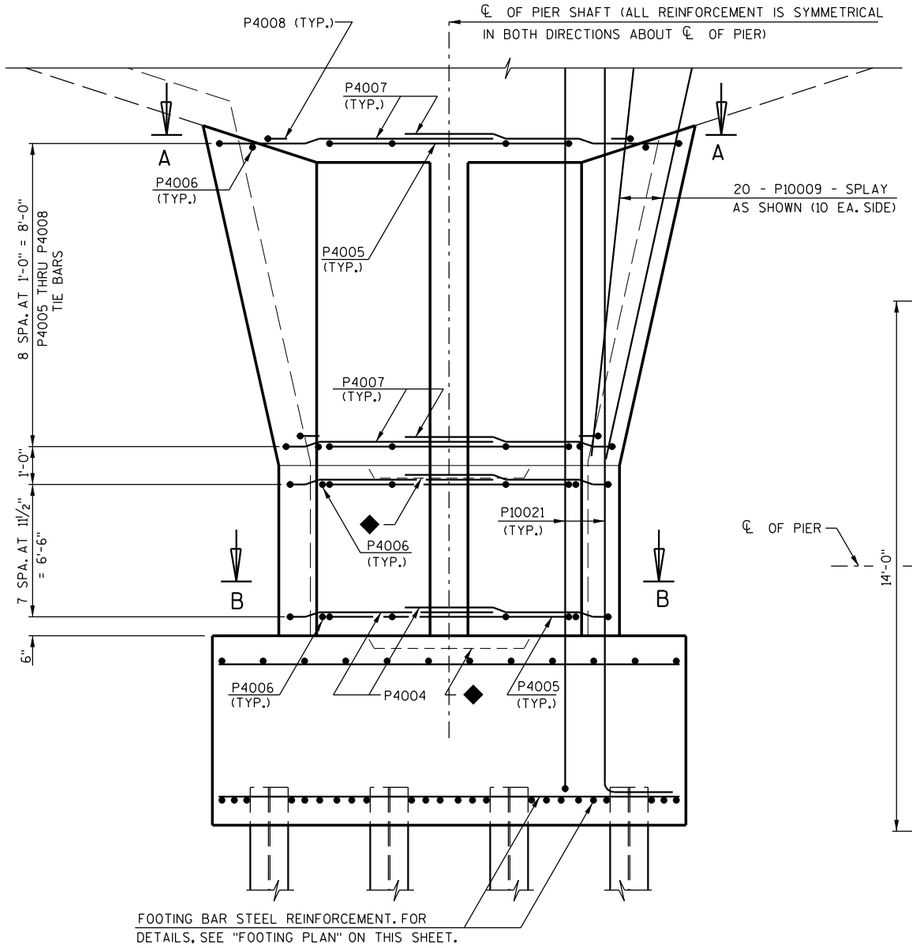
STATE PROJECT NUMBER

1133-11-74

LEGEND

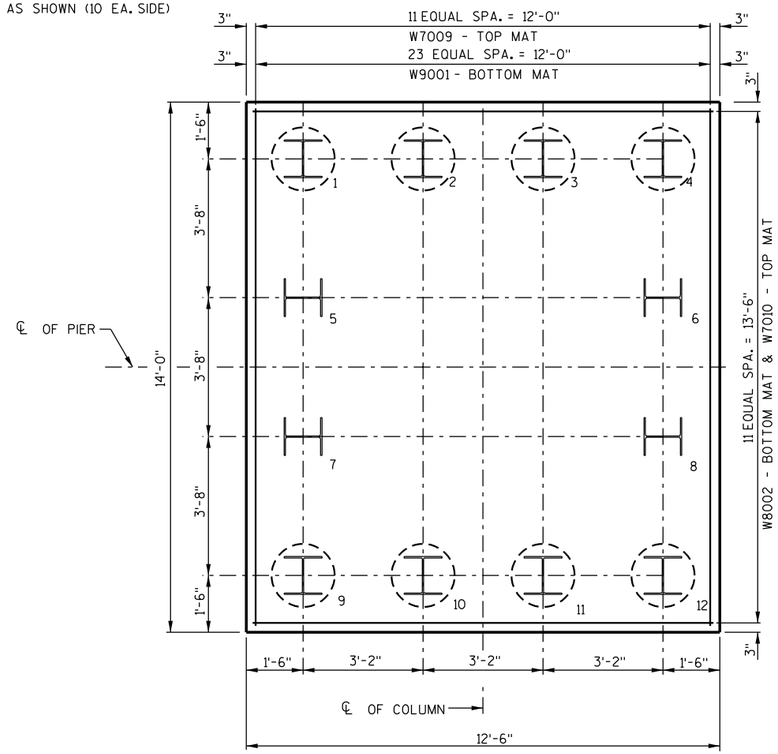
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

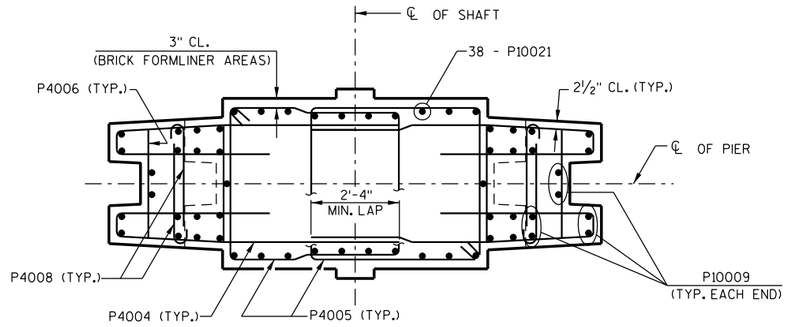


ELEVATION - COLUMN 1 - PIER 9

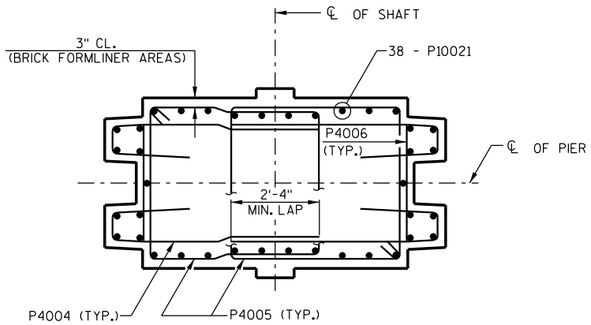
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 9 - SHAFT & FOOTING DETAILS

SHEET 48 OF 129
1079

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\048_PIER9_DET01.V7.8-5-681.DGN

PLOT DATE : 2/28/2013

8

8

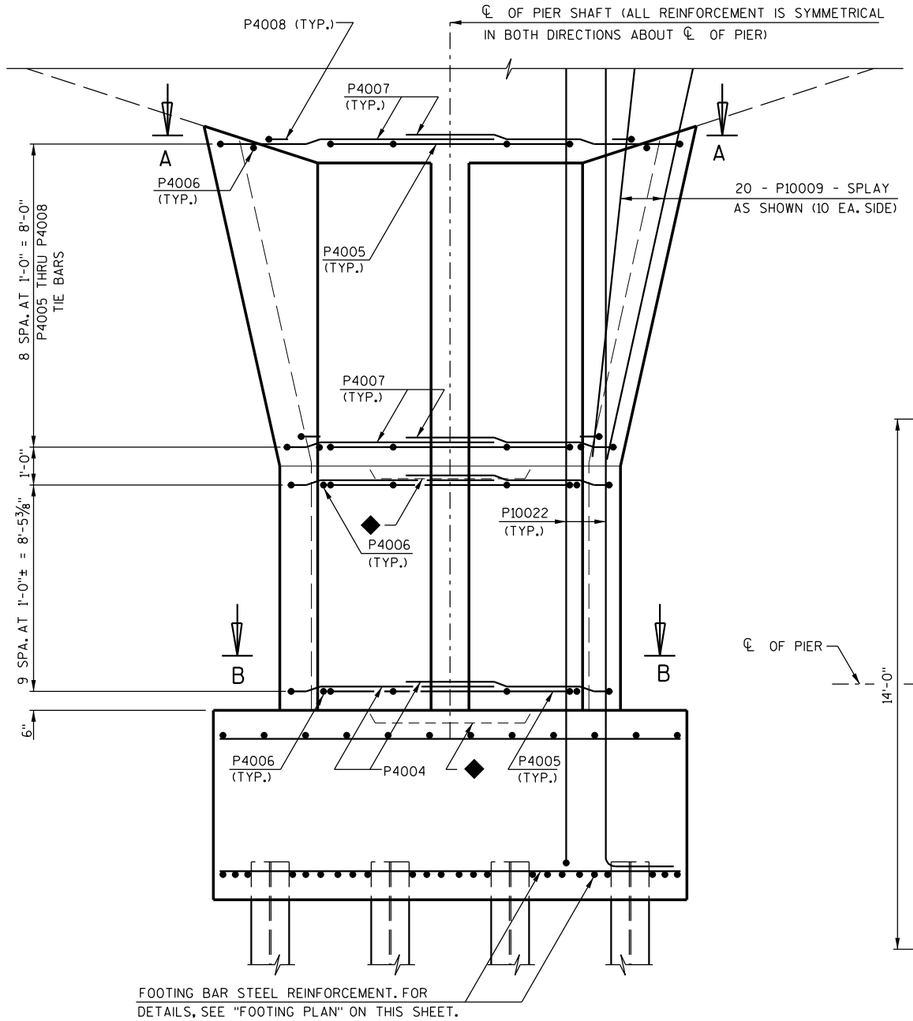
STATE PROJECT NUMBER

1133-11-74

LEGEND

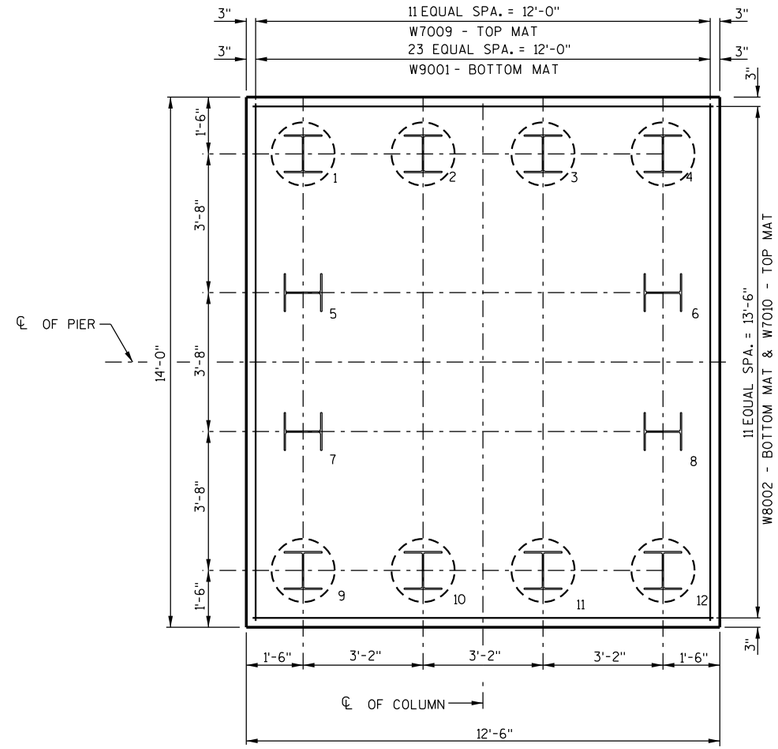
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

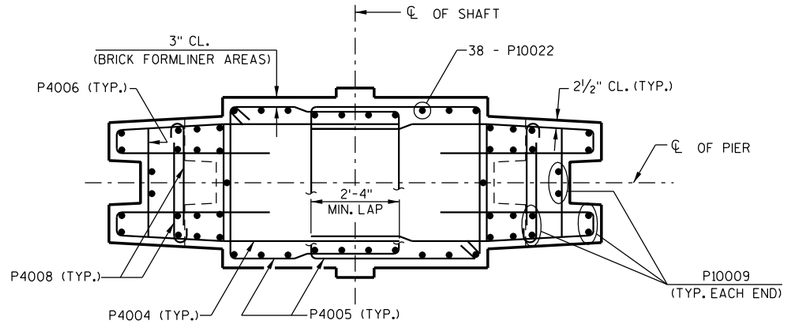


ELEVATION - COLUMN 2 - PIER 9

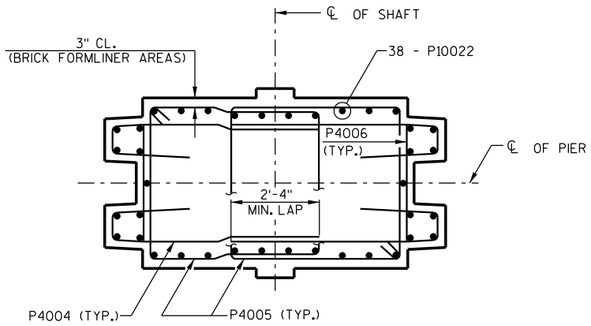
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 9 - SHAFT & FOOTING DETAILS

SHEET 49 OF 129
1080

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\1049_PIER9.DET02.V7.B-5-681.DGN

PLOT DATE : 2/26/2013

8

8

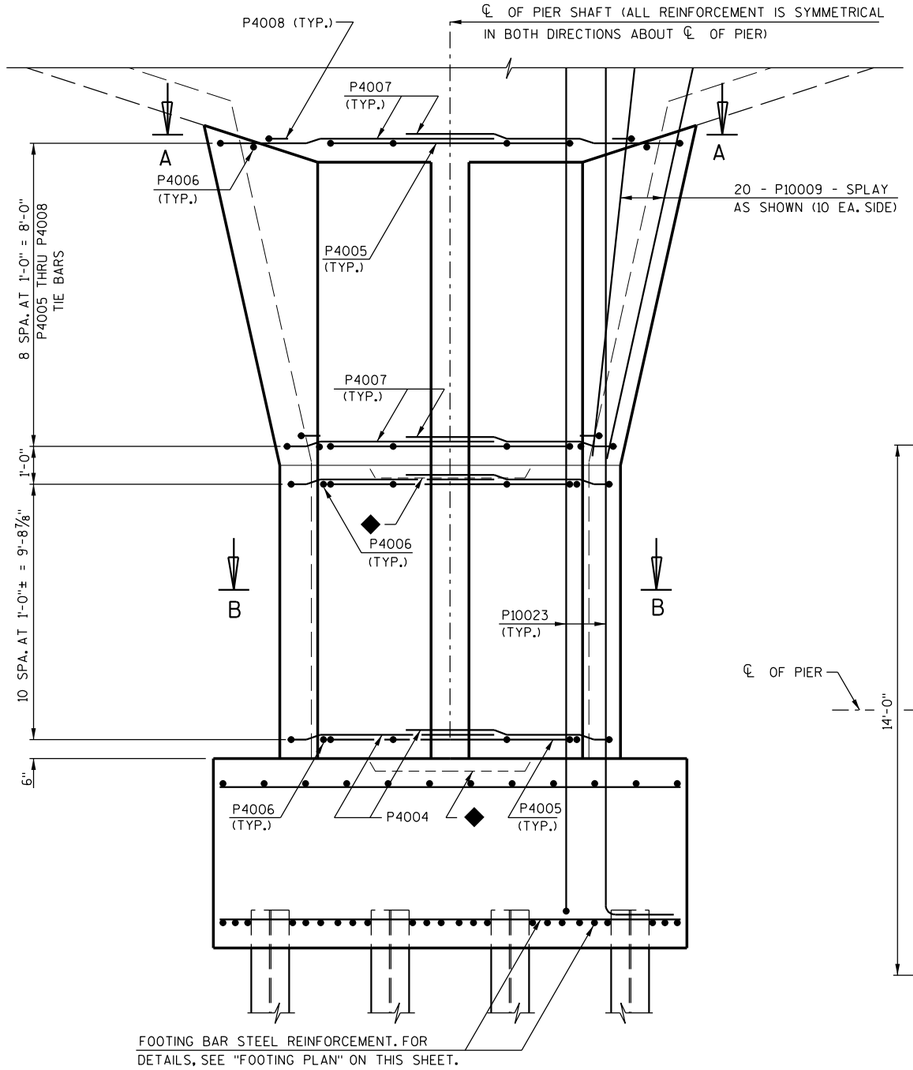
STATE PROJECT NUMBER

1133-11-74

LEGEND

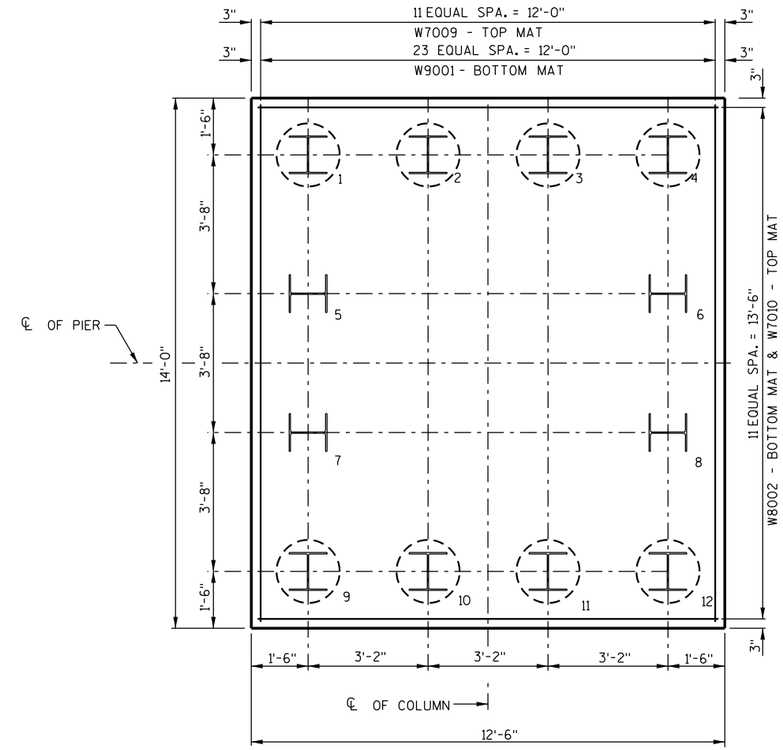
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

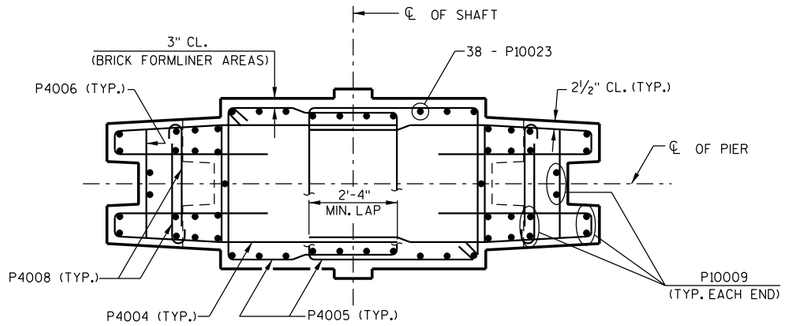


ELEVATION - COLUMN 3 - PIER 9

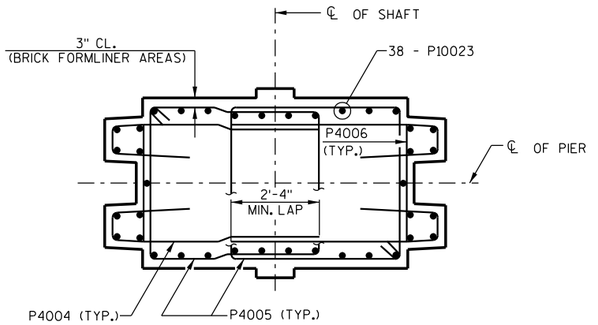
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 9 - SHAFT & FOOTING DETAILS

SHEET 50 OF 129
1081

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\DSD_PIER9_DET03_V7.B-5-68LDGN

PLOT DATE : 2/28/2013

8

8

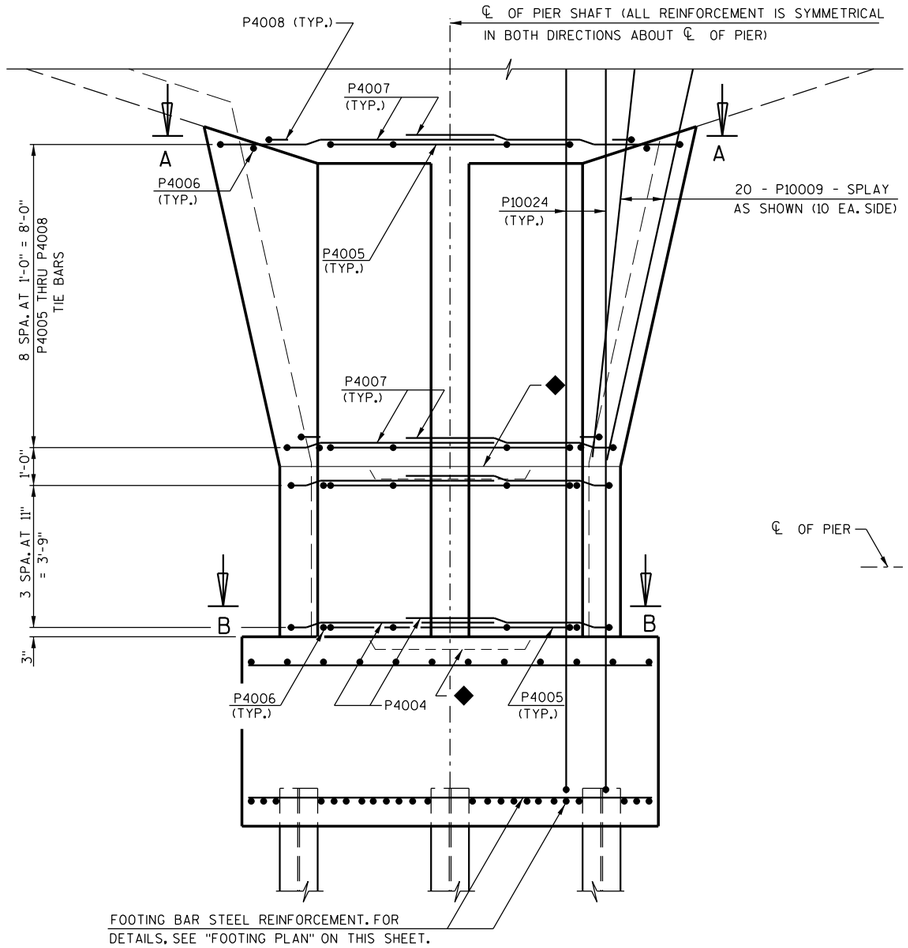
STATE PROJECT NUMBER

1133-11-74

LEGEND

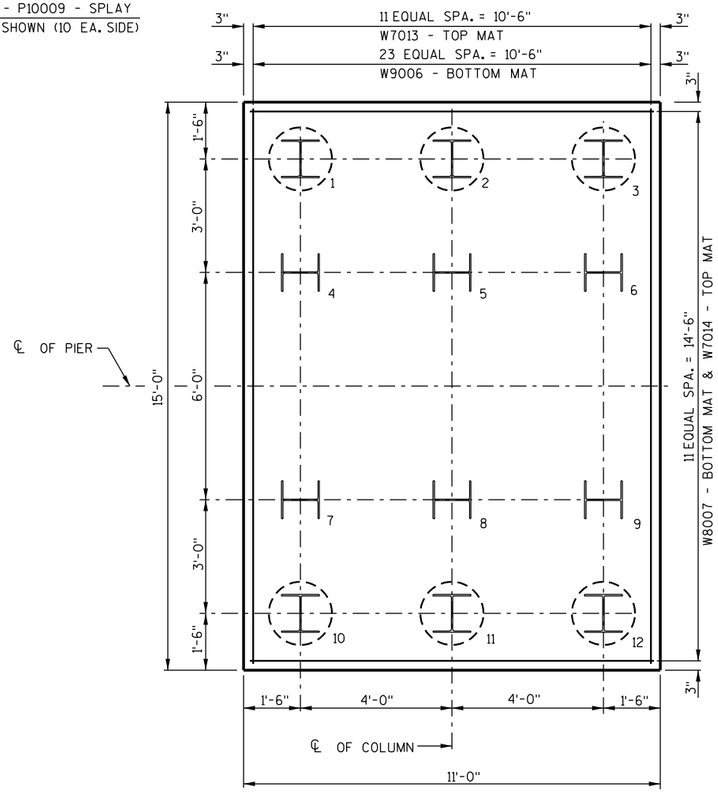
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

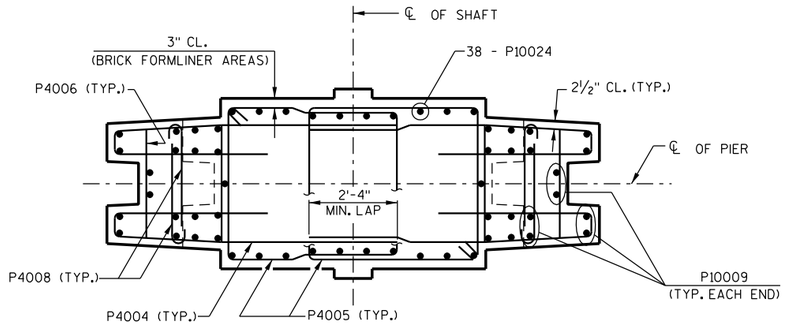


ELEVATION - COLUMN 1 - PIER 10

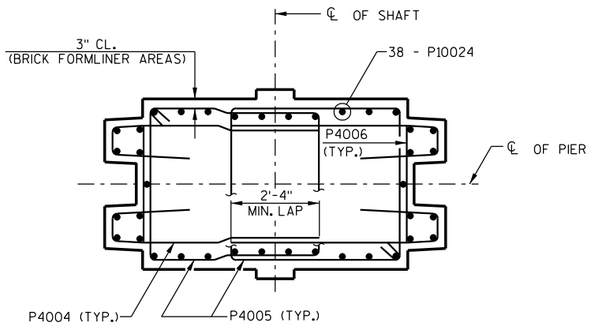
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 10 - SHAFT & FOOTING DETAILS

SHEET 51 OF 129
1082

8

8

FILE NAME : P:\153 USH 41\1133-10-00 LRGS\STRUCTURES\B-5-681\MOS\PIERR0.DET01.V7.8-5-681LDCN

PLOT DATE : 2/28/2013

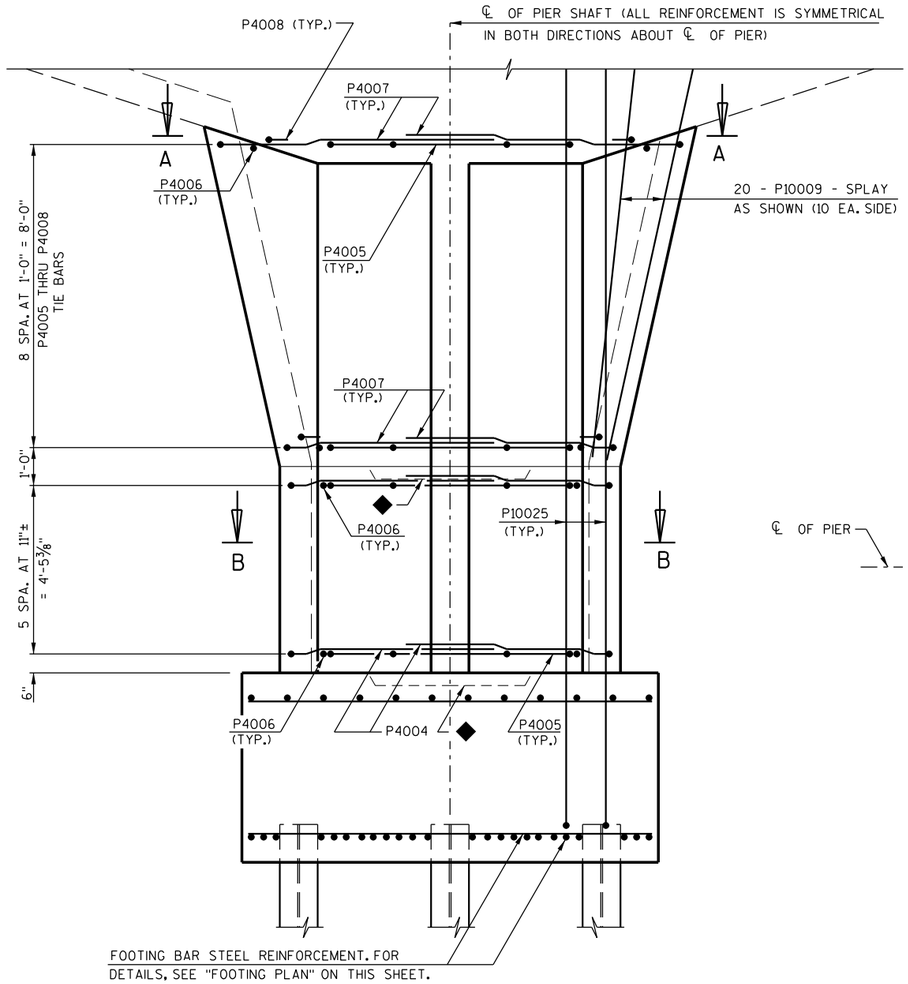
STATE PROJECT NUMBER

1133-11-74

LEGEND

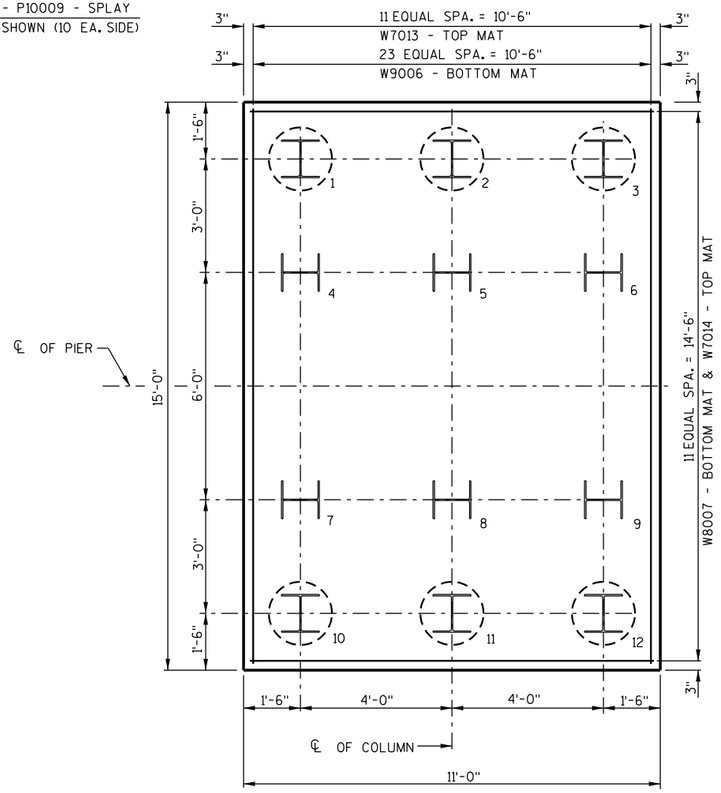
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

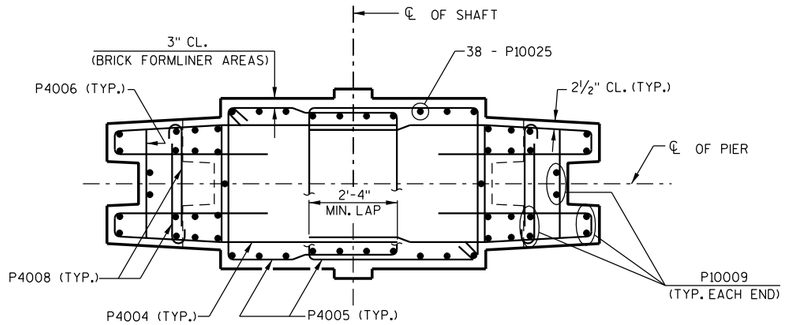


ELEVATION - COLUMN 2 - PIER 10

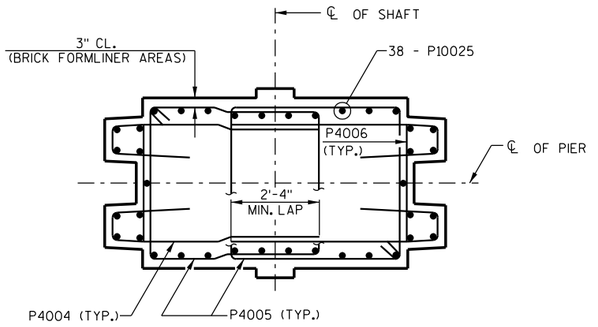
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 10 - SHAFT & FOOTING DETAILS

SHEET 52 OF 129
1083

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\052.PIER10.DET02.V7.B-5-681.DGN

PLOT DATE : 2/28/2013

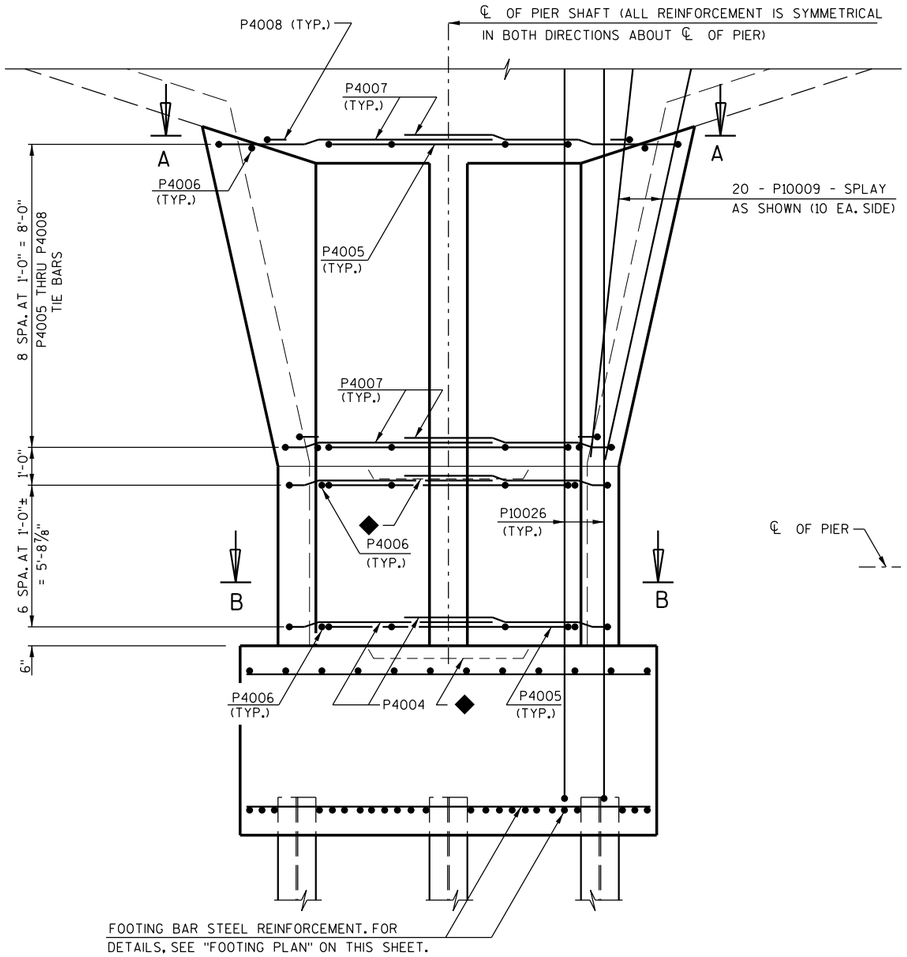
STATE PROJECT NUMBER

1133-11-74

LEGEND

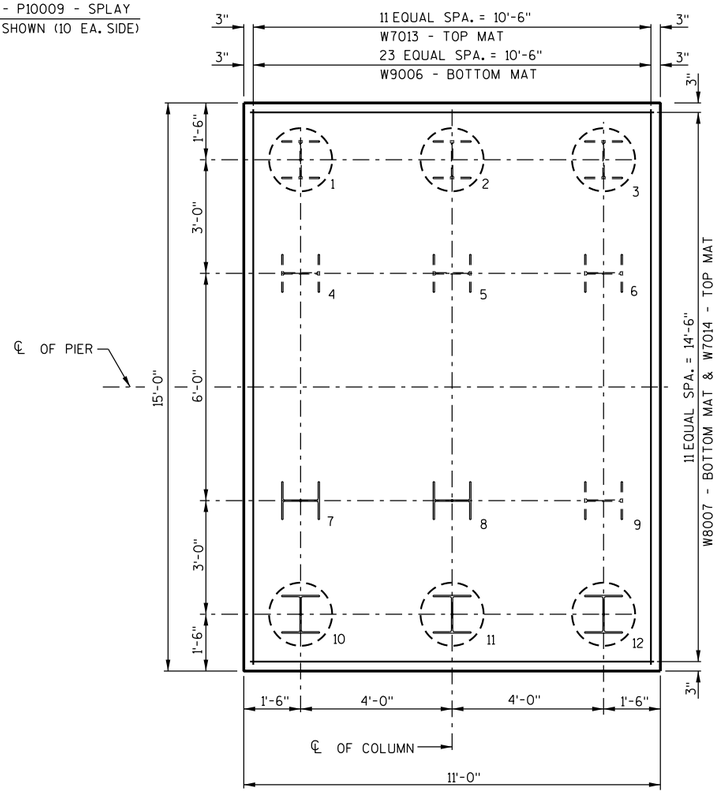
◆ KEYED CONST. JOINT FORMED BY BEVELED 4" x 1'-8" X 5'-6".

INDICATES PILE LOCATION WHERE UPLIFT CONNECTION IS REQUIRED. SEE "TYPICAL UPLIFT CONNECTION DETAIL" ON SHEET 54.

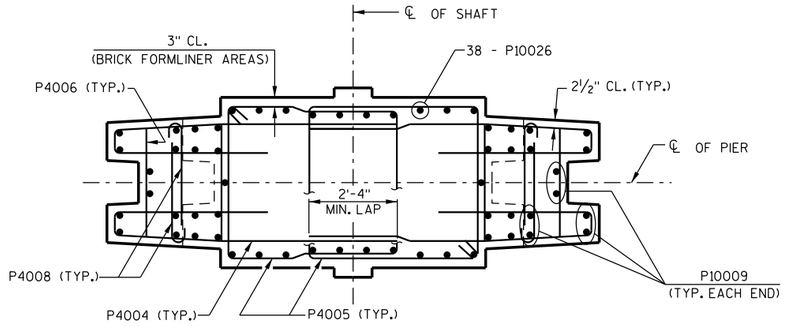


ELEVATION - COLUMN 3 - PIER 10

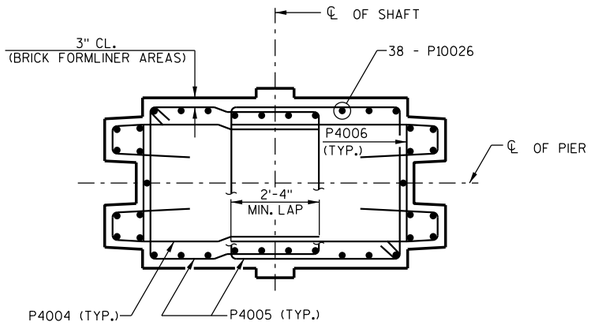
(LOOKING UPSTATION)



FOOTING PLAN



SECTION A-A



SECTION B-B

NOTE: PILES 1-6, & 9 ARE EXISTING PILES DRIVEN DURING PREVIOUS CONTRACT. PILES ARE CUT TO ELEVATION 575.1±. CUT PILES TO REQUIRED ELEVATION. COST OF CUTTING PILES SHALL BE INCLUDED IN BID PRICE FOR "PILING STEEL HP 14-INCH X 73 LB".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 10 - SHAFT & FOOTING DETAILS

SHEET 53 OF 129
1084

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\n053_PIER10_DET03.VT.B-5-681.DGN

PLOT DATE : 3/12/2013

STATE PROJECT NUMBER

1133-11-74

PIER FOOTING - BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
(PIERS 1 THRU 4 = UNIT 1, PIERS 5 THRU 10 = UNIT 2)

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 70,990 LBS.	
W9001	216	144	13-8			FOOTING - PIERS 1-3, 7 & 9	HORIZ.
W8002	108	180	12-2			FOOTING - PIERS 1-3 & 5-9	HORIZ.
W9003	54	---	16-8			FOOTING - PIER 4	HORIZ.
W8004	56	---	13-8			FOOTING - PIER 4	HORIZ.
W9005	---	216	15-8			FOOTING - PIERS 5, 6 & 8	HORIZ.
W9006	---	72	14-8			FOOTING - PIER 10	HORIZ.
W8007	---	36	10-8			FOOTING - PIER 10	HORIZ.
W6008	176	276	7-6			FOOTING - AT UPLIFT PILES	VERT.
W7009	108	72	13-8			FOOTING - PIERS 1-3, 7 & 9	HORIZ.
W7010	108	180	12-2			FOOTING - PIERS 1-3 & 5-9	HORIZ.
W8011	24	---	16-8			FOOTING - PIER 4 - TOP	HORIZ.
W7012	---	108	15-8			FOOTING - PIERS 5, 6 & 8 - TOP	HORIZ.
W7013	---	36	14-8			FOOTING - PIER 10 - TOP	HORIZ.
W7014	---	36	10-8			FOOTING - PIER 10 - TOP	HORIZ.

PIER SHAFT - BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
(PIERS 1 THRU 4 = UNIT 1, PIERS 5 THRU 10 = UNIT 2)

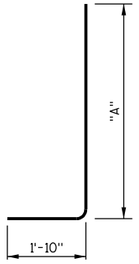
MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 296,680 LBS.	
P10001	114	---	18-0	X		SHAFT & FOOTING - PIERS 1 & 2	VERT.
P4002	198	162	9-7			LOWER SHAFT - PIERS 1 THRU 7	VERT.
P4003	220	180	11-11	X		LOWER SHAFT - PIERS 1 THRU 7	HORIZ.
P4004	912	1,088	8-1			SHAFT - STIRRUPS - ALL PIERS	HORIZ.
P4005	654	868	17-6	X		SHAFT - STIRRUPS - ALL PIERS	HORIZ.
P4006	654	868	3-1			SHAFT - TIES AT ENDS - ALL PIERS	HORIZ.
P4007	396	648	10-2	X	⚹	SHAFT - TIES - ALL PIERS	HORIZ.
P4008	396	648	3-1	X		SHAFT - ENDS - ALL PIERS	HORIZ.
P10009	220	360	15-6			SHAFT & CAP - ENDS - ALL PIERS	VERT.
P10010	418	342	30-0			SHAFT - PIERS 1 THRU 7	VERT.
P10012	114	---	20-0	X		SHAFT - PIER 2	VERT.
P10013	114	---	25-0	X		SHAFT - PIER 3	VERT.
P10014	76	---	25-6	X		SHAFT - PIER 4	VERT.
P10015	---	114	22-7	X		SHAFT - PIER 5	VERT.
P10016	---	114	20-0	X		SHAFT - PIER 6	VERT.
P10017	---	114	21-0	X		SHAFT - PIER 7	VERT.
P10018	---	38	29-6	X		SHAFT - PIER 8 - COLUMN 1	VERT.
P10019	---	38	31-6	X		SHAFT - PIER 8 - COLUMN 2	VERT.
P10020	---	38	33-1	X		SHAFT - PIER 8 - COLUMN 3	VERT.
P10021	---	38	28-4	X		SHAFT - PIER 9 - COLUMN 1	VERT.
P10022	---	38	30-3	X		SHAFT - PIER 9 - COLUMN 2	VERT.
P10023	---	38	32-1	X		SHAFT - PIER 9 - COLUMN 3	VERT.
P10024	---	38	24-4	X		SHAFT - PIER 10 - COLUMN 1	VERT.
P10025	---	38	26-3	X		SHAFT - PIER 10 - COLUMN 2	VERT.
P10026	---	38	27-7	X		SHAFT - PIER 10 - COLUMN 3	VERT.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

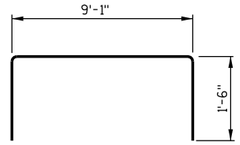
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P4007	116 SETS OF 9	8'-3" TO 12'-0"

MARK	DIMENSION "A"
P10001	16'-6"
P10012	18'-6"
P10013	23'-6"
P10014	24'-0"
P10015	21'-1"
P10016	18'-6"
P10017	19'-6"
P10018	28'-0"
P10019	30'-0"
P10020	31'-7"
P10021	26'-10"
P10022	28'-9"
P10023	30'-7"
P10024	22'-10"
P10025	24'-9"
P10026	26'-1"



P10001, P10012 THRU P10026



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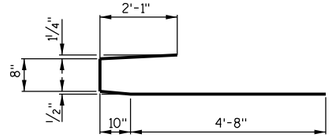

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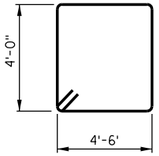

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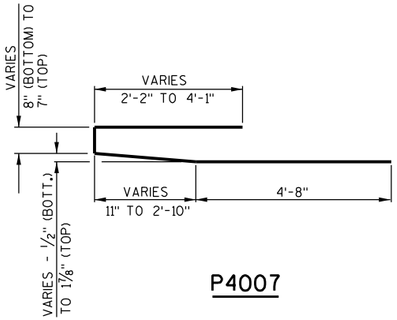

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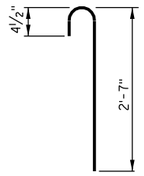
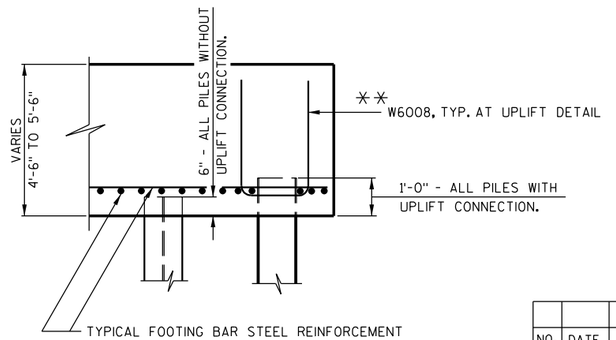


P4008



TYPICAL UPLIFT CONNECTION DETAIL

LEGEND

⚹⚹ FIELD BEND W6008 BARS AFTER PLACING IN 1¼" HOLES BURNED INTO PILE. USE 2 BARS AT EACH UPLIFT PILE.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

BILL OF BARS - PIER SHAFT & FOOTING

SHEET 54 OF 129
1085

FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\SB-5-681\054_PIER_SHAFT_FOOTING_BARS_V7.B-5-681.DGN

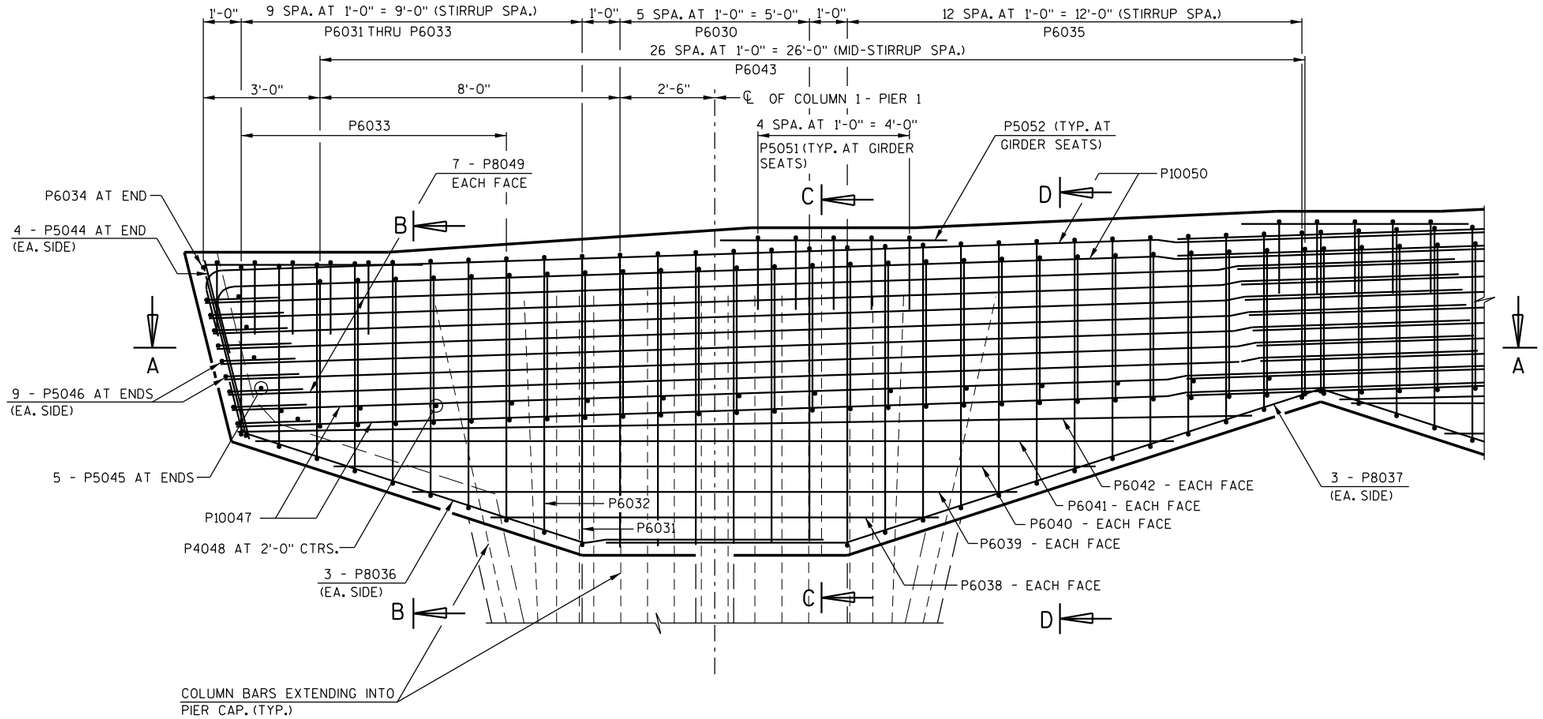
PLOT DATE : 2/28/2013

8

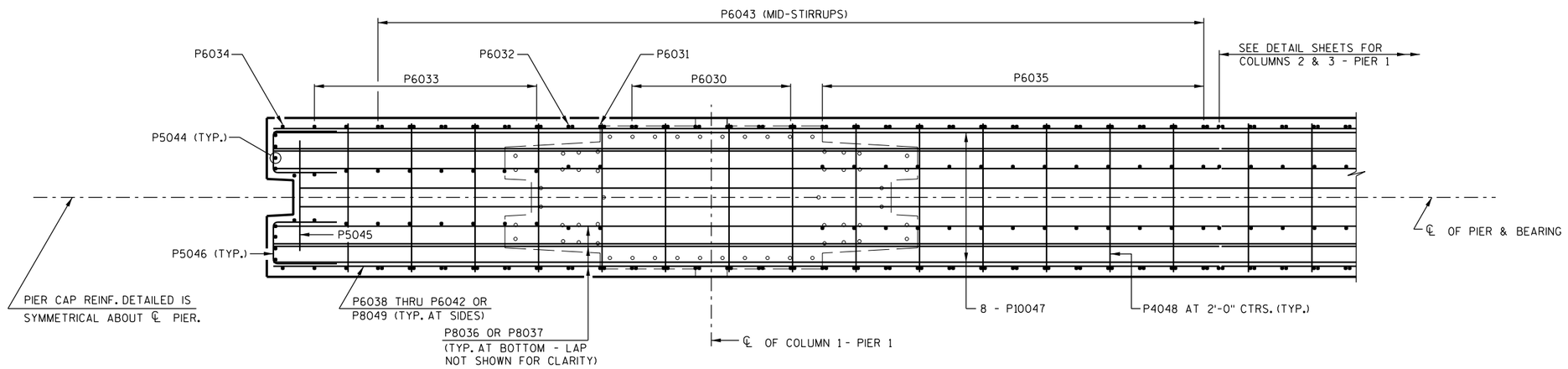
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

(SHOWING CAP STEEL AT COLUMN 1 - PIER 1)

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 56 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 27 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1 - CAP DETAILS

SHEET 55 OF 129
1086

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\D055_PIERIA_CAP_V7.B-5-681.DGN

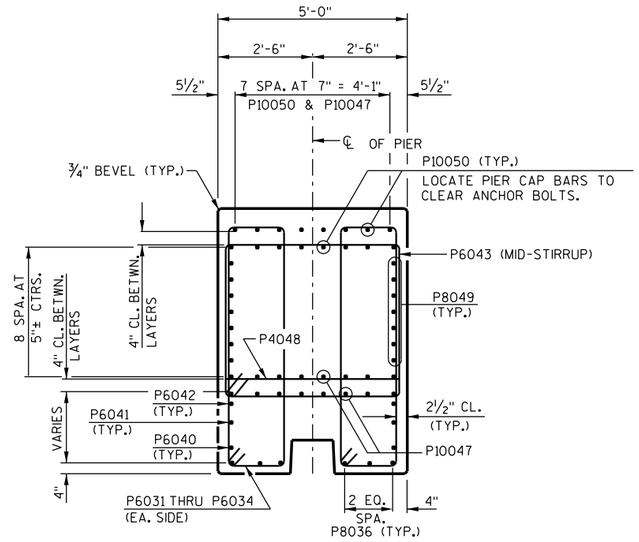
PLOT DATE : 3/14/2013

8

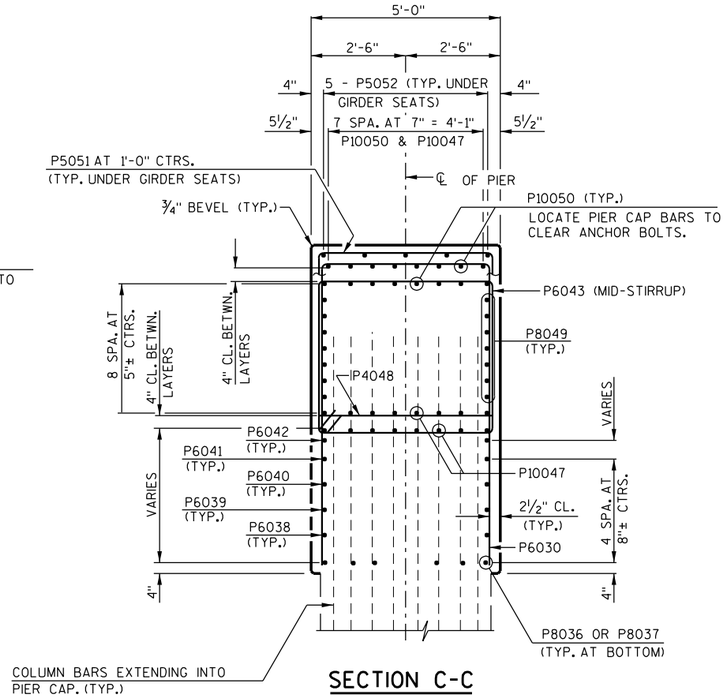
8

STATE PROJECT NUMBER

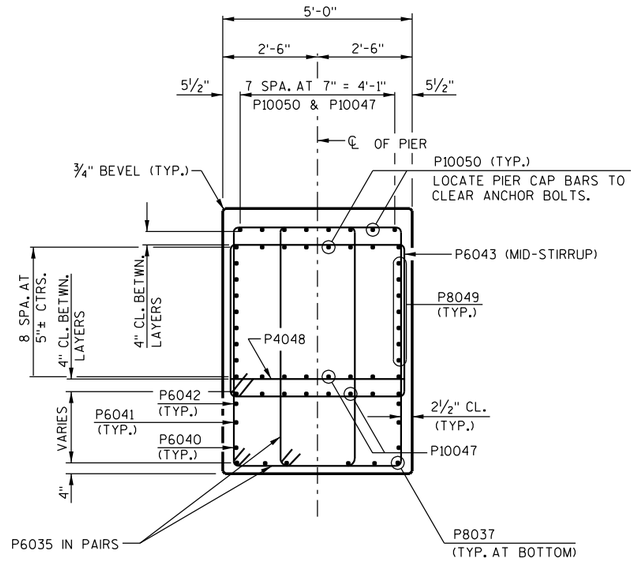
1133-11-74



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 55 FOR PIER CAP ELEVATION.
4. SEE SHEET 27 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1 - CAP DETAILS

SHEET 56 OF 129
1087

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

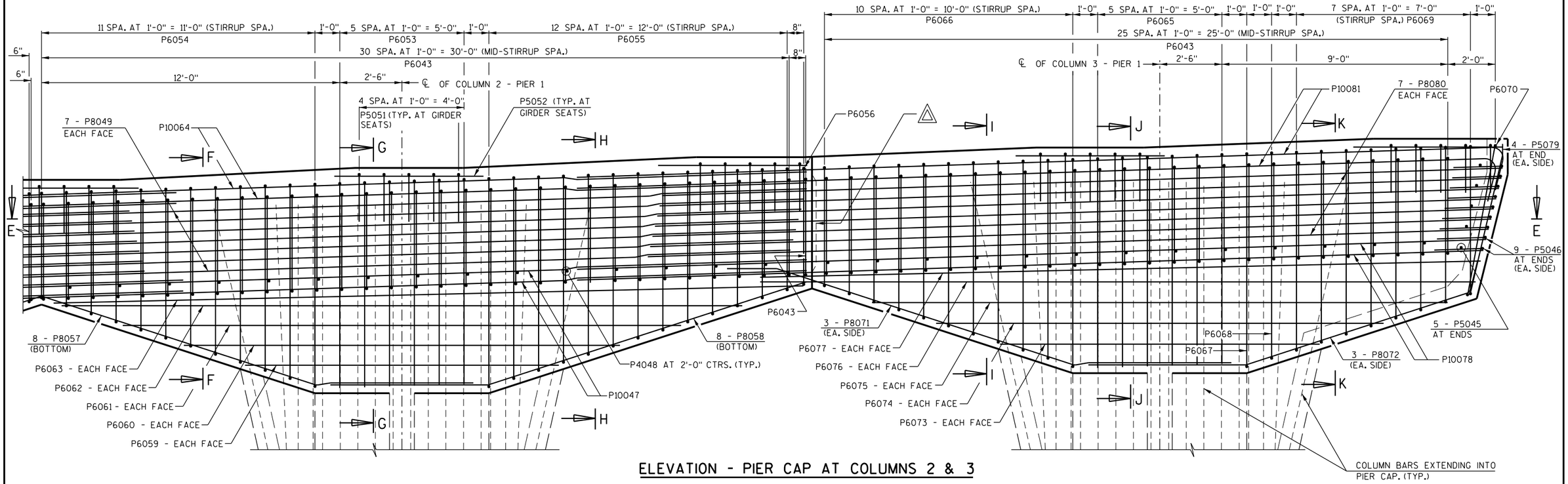
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\05\DGN\E5\B-5-681H056_PIERNB_CAP_V7_B-5-681.DGN

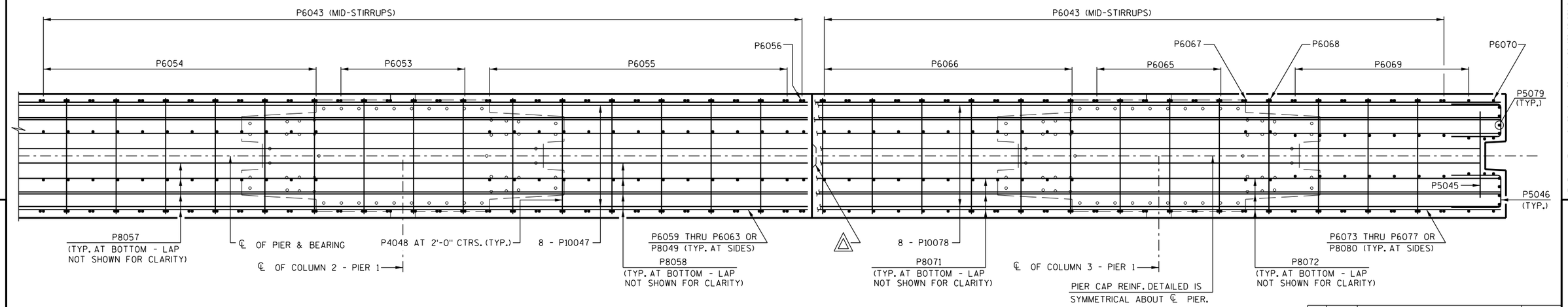
PLOT DATE : 3/14/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMNS 2 & 3



SECTION E-E

(SHOWING CAP STEEL AT COLUMNS 2 & 3 - PIER 1)

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 58 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 27 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1 - CAP DETAILS

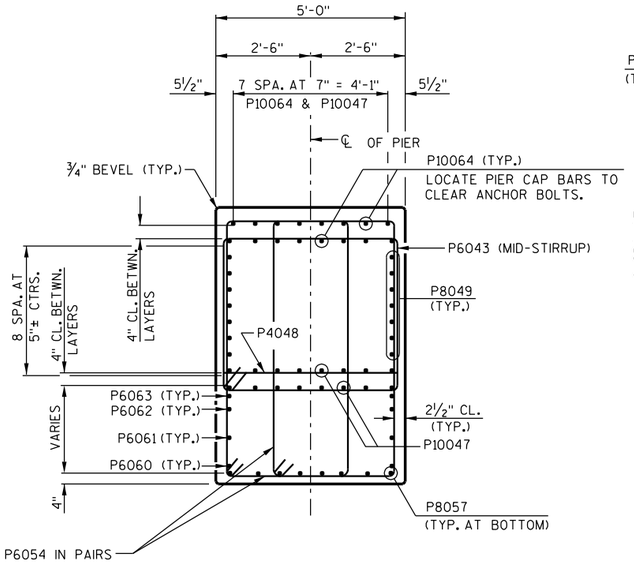
SHEET 57 OF 129
1088

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\DGN\B-5-681H057_PIERNC_CAP_V7.B-5-681.DGN

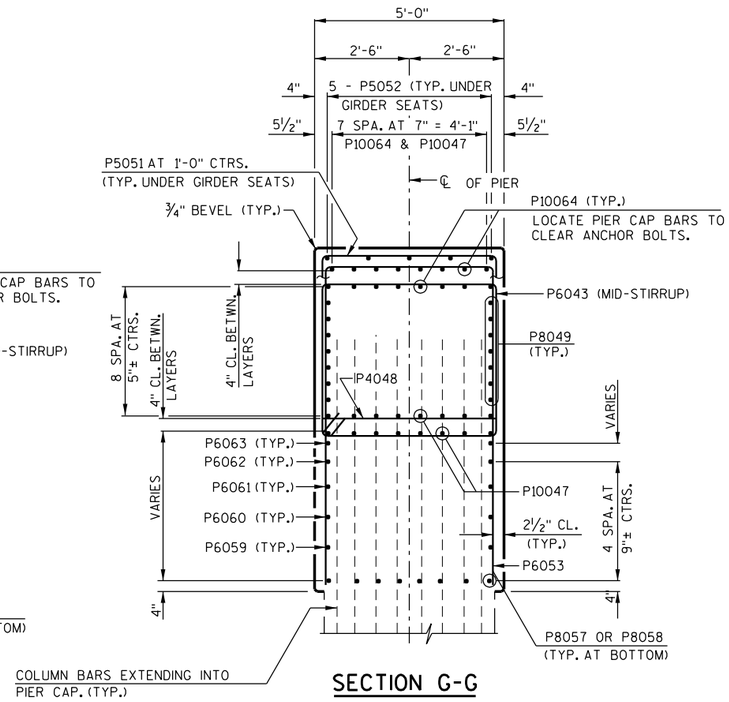
PLOT DATE : 3/14/2013

STATE PROJECT NUMBER

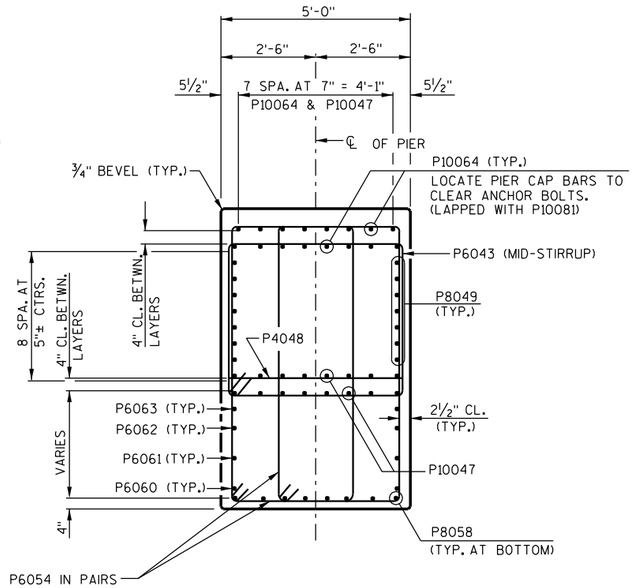
1133-11-74



SECTION F-F



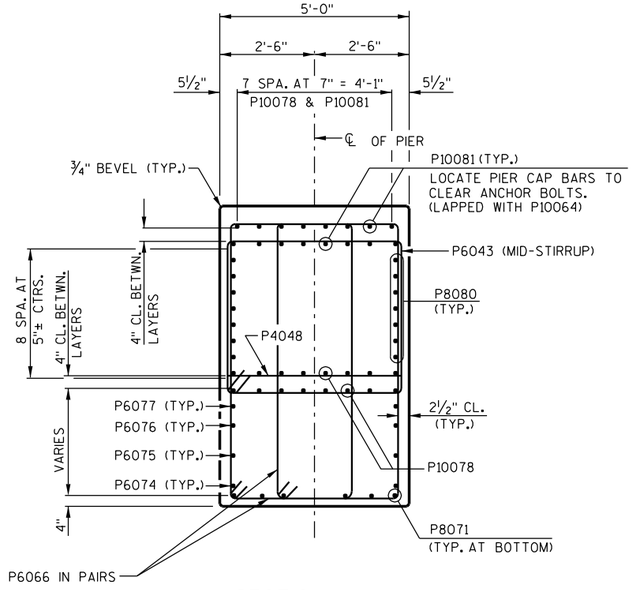
SECTION G-G



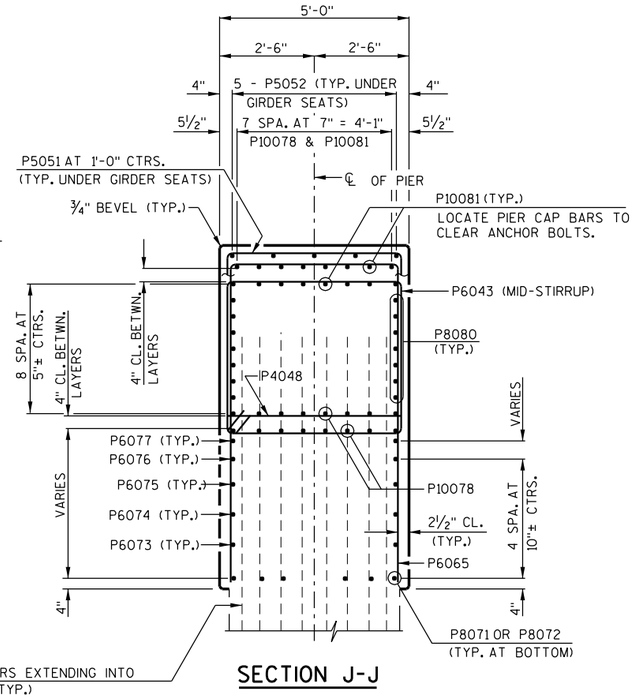
SECTION H-H

NOTES

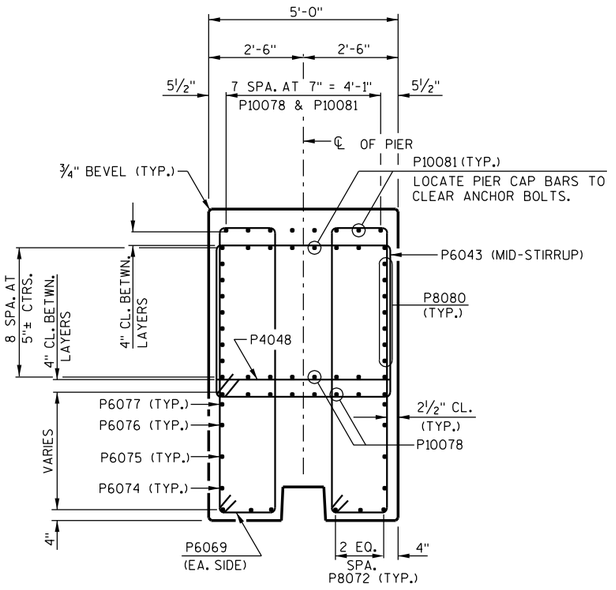
1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 57 FOR PIER CAP ELEVATION.
4. SEE SHEET 27 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 38 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



SECTION I-I



SECTION J-J



SECTION K-K

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1 - CAP DETAILS

SHEET 58 OF 129
1089

FILE NAME : P:\853 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\D58_PIERD_CAP_V7.8-5-681.DGN

PLOT DATE : 3/14/2013

8

8

PIER 1 CAP - BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 1 QUANTITIES.

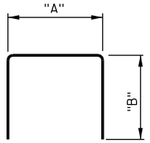
MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 29,650 LBS.	
P6030	6	19-11	X		ABOVE COLUMN 1	VERT.
P6031	2	23-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6032	2	22-4	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6033	16	15-4	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6034	2	13-2	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6035	26	20-0	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P8036	6	17-2	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P8037	6	19-6	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P6038	2	11-10			ABOVE COLUMN 1 - SIDES	HORIZ.
P6039	2	15-11			ABOVE COLUMN 1 - SIDES	HORIZ.
P6040	2	20-1			ABOVE COLUMN 1 - SIDES	HORIZ.
P6041	2	24-3			ABOVE COLUMN 1 - SIDES	HORIZ.
P6042	2	26-9			ABOVE COLUMN 1 - SIDES	HORIZ.
P6043	85	18-0	X		ABOVE COLUMNS - MID-STIRRUPS	VERT.
P5044	8	4-10			ABOVE COLUMN 1 - END	VERT.
P5045	10	3-6			ABOVE COLUMNS 1& 3 - ENDS	HORIZ.
P5046	36	5-1	X		ABOVE COLUMNS 1& 3 - ENDS	HORIZ.
P10047	32	34-5			ABOVE COLUMNS 1& 2	HORIZ.
P4048	42	4-7			ABOVE COLUMNS 1 THRU 3	HORIZ.
P8049	28	33-1			ABOVE COLUMNS 1& 2 - SIDES	HORIZ.
P10050	16	36-5	X		ABOVE COLUMNS 1& 2 - TOP	HORIZ.
P5051	35	8-4	X		TOP - UNDER GIRDER SEATS	VERT.
P5052	35	6-0			TOP - UNDER GIRDER SEATS	HORIZ.
P6053	6	20-11	X		ABOVE COLUMN 2	VERT.
P6054	24	20-1	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6055	26	21-0	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6056	2	17-2	X		ABOVE COLUMN 2 - STIRRUPS	VERT.
P8057	8	18-0	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P8058	8	19-10	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6059	2	12-7			ABOVE COLUMN 2 - SIDES	HORIZ.
P6060	2	17-6			ABOVE COLUMN 2 - SIDES	HORIZ.
P6061	2	22-5			ABOVE COLUMN 2 - SIDES	HORIZ.
P6062	2	27-4			ABOVE COLUMN 2 - SIDES	HORIZ.
P6063	2	30-2			ABOVE COLUMN 2 - SIDES	HORIZ.
P10064	16	34-11			ABOVE COLUMN 2 - TOP	HORIZ.
P6065	6	21-3	X		ABOVE COLUMN 3	VERT.
P6066	22	20-9	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6067	2	24-10	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6068	2	24-2	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6069	16	17-11	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6070	2	16-2	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P8071	6	20-11	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P8072	6	17-2	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P6073	2	12-10			ABOVE COLUMN 3 - SIDES	HORIZ.
P6074	2	18-0			ABOVE COLUMN 3 - SIDES	HORIZ.
P6075	2	23-2			ABOVE COLUMN 3 - SIDES	HORIZ.
P6076	2	28-9			ABOVE COLUMN 3 - SIDES	HORIZ.
P6077	2	29-0			ABOVE COLUMN 3 - SIDES	HORIZ.
P10078	16	36-8			ABOVE COLUMN 3	HORIZ.
P5079	8	6-0	X		ABOVE COLUMN 3 - END	VERT.
P8080	14	34-3			ABOVE COLUMN 3 - SIDES	HORIZ.
P10081	16	39-0	X		ABOVE COLUMN 3 - TOP	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

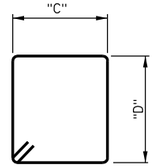
MARK	NO. REQ'D.	LENGTH
P6033	2 SETS OF 8	12'-10" TO 17'-10"
P6035	2 SETS OF 13	16'-6" TO 23'-6"
P6054	2 SETS OF 12	16'-2" TO 24'-0"
P6055	2 SETS OF 13	17'-6" TO 24'-6"
P6066	2 SETS OF 11	17'-2" TO 24'-4"
P6069	2 SETS OF 8	15'-10" TO 20'-0"

P6030, P5046, P5051, P6053 & P6065

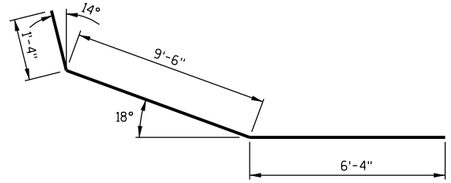


MARK	DIMENSION "A"	DIMENSION "B"
P6030	4'-7"	7'-10"
P5046	1'-4"	2'-0"
P5051	4'-7"	2'-0"
P6053	4'-7"	8'-4"
P6065	4'-7"	8'-6"

P6031 THRU P6035, P6043, P6054 THRU P6056, & P6066 THRU P6070



MARK	DIMENSION "C"	DIMENSION "D"
P6031	3'-4"	7'-9"
P6032	3'-4"	7'-5"
P6033	1'-6"	4'-6" TO 7'-0"
P6034	1'-6"	4'-8"
P6035	3'-4"	4'-6" TO 8'-0"
P6043	4'-7"	4'-0"
P6054	3'-4"	4'-4" TO 8'-3"
P6055	3'-4"	5'-0" TO 8'-6"
P6056	3'-4"	4'-10"
P6066	3'-4"	4'-10" TO 8'-5"
P6067	3'-4"	8'-8"
P6068	3'-4"	8'-4"
P6069	1'-6"	6'-0" TO 8'-1"
P6070	1'-6"	6'-2"



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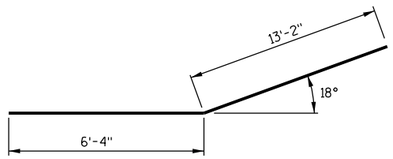
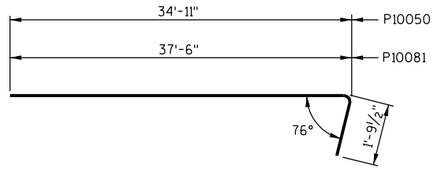
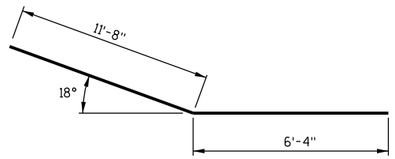


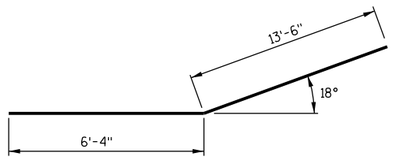
P8037



P10050 & P10081



P8057



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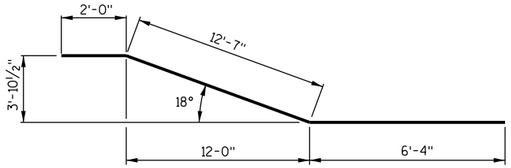
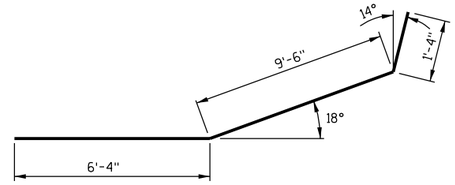


P8071



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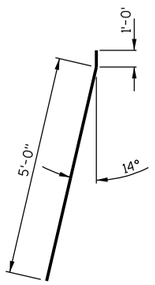

P5079

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 1 - CAP
BILL OF BARS

SHEET 59 OF 129
1090

STATE PROJECT NUMBER
1133-11-74

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\DS9_PIER1_CAP_BARS_V7.0-5-681.DGN
PLOT DATE : 2/28/2013

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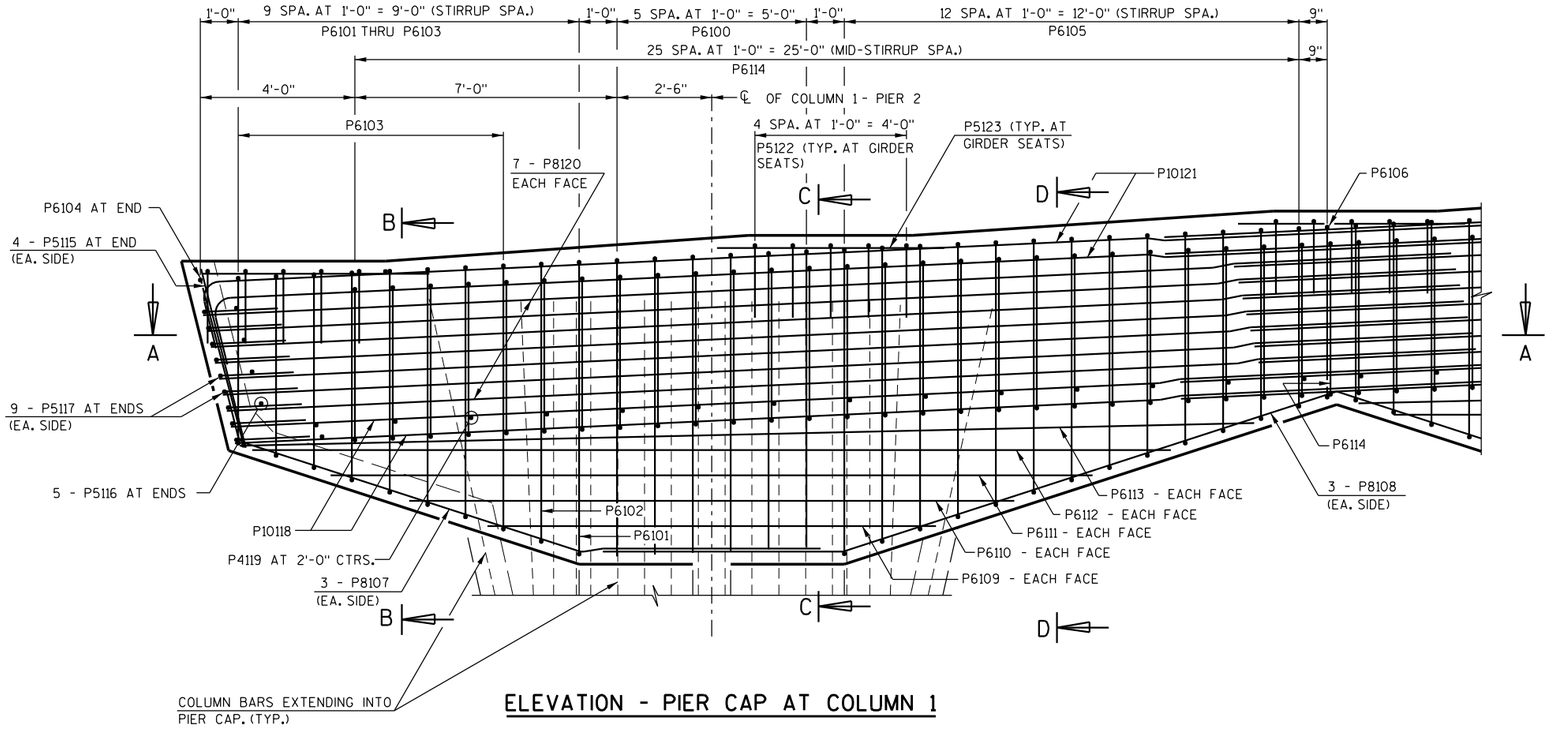
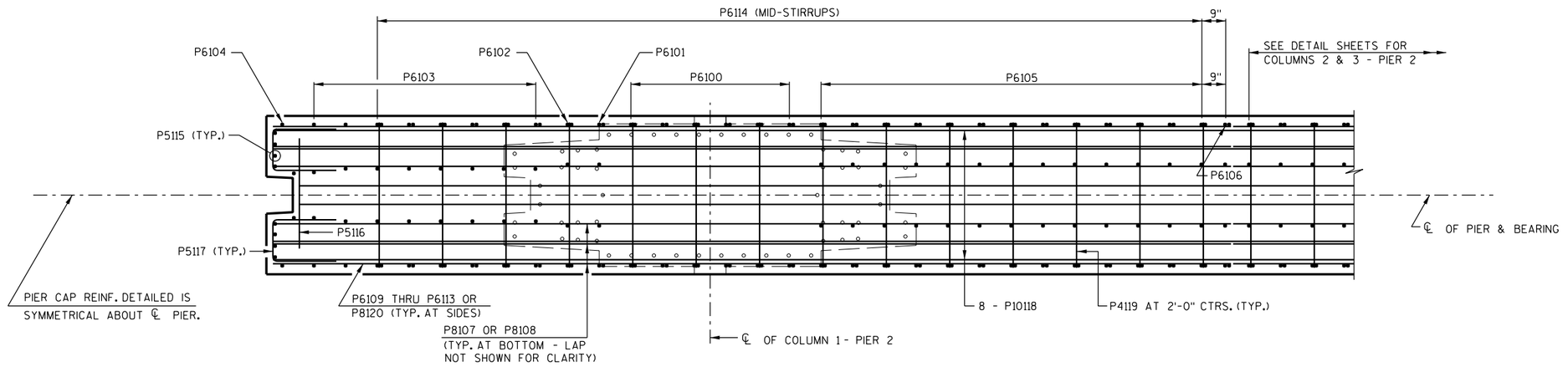
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

(SHOWING CAP STEEL AT COLUMN 1 - PIER 2)

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 61 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 28 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 39 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2 - CAP DETAILS

SHEET 60 OF 129
1091

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\060_PIER2A_CAP_V17.B-5-681.DGN

PLOT DATE : 3/14/2013

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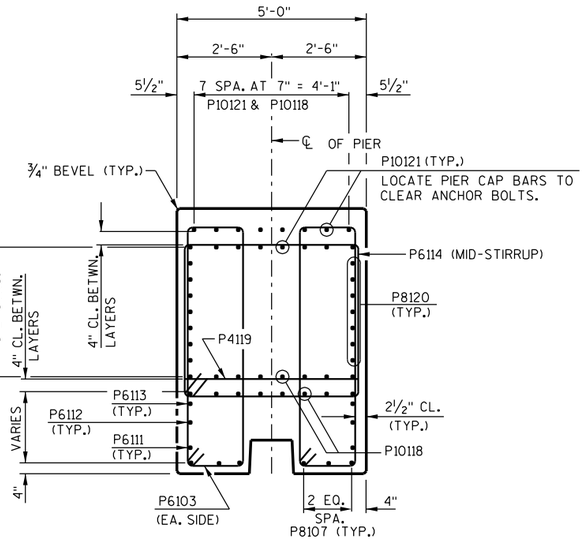
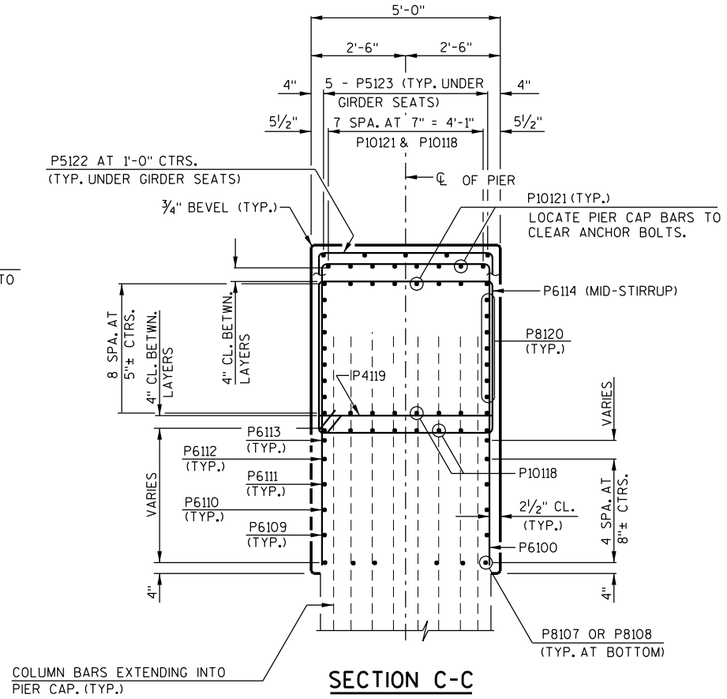
8

STATE PROJECT NUMBER

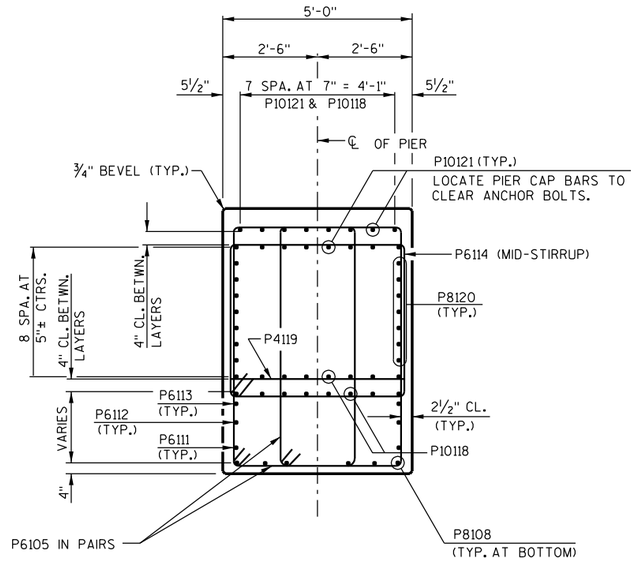
1133-11-74



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 60 FOR PIER CAP ELEVATION.
4. SEE SHEET 28 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 39 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2 - CAP DETAILS

SHEET 61 OF 129
1092

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\06I_PIER2B_CAP_V7_B-5-681.DGN

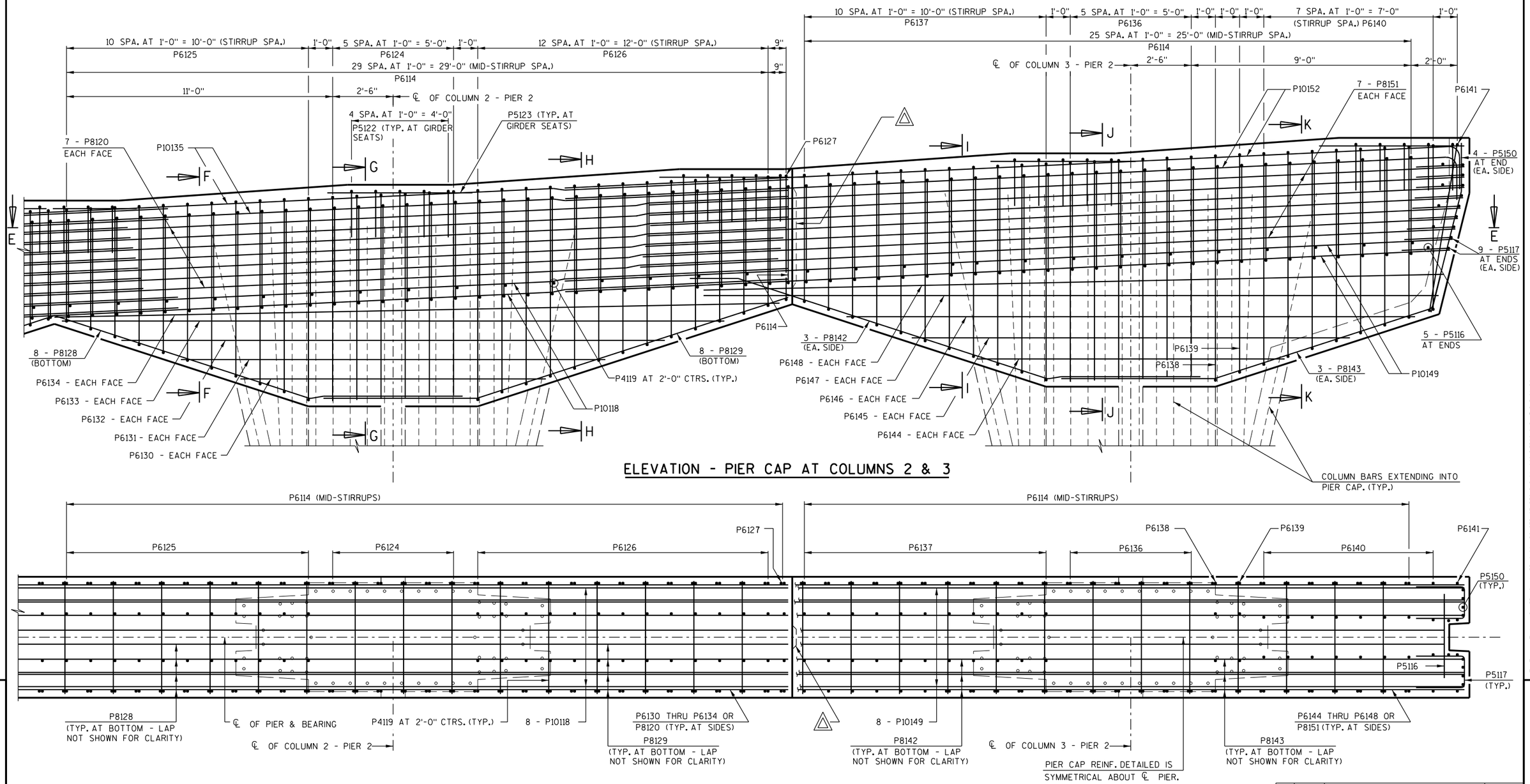
PLOT DATE : 3/14/2013

8

8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMNS 2 & 3

SECTION E-E

(SHOWING CAP STEEL AT COLUMNS 2 & 3 - PIER 2)

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 63 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 28 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 39 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2 - CAP DETAILS

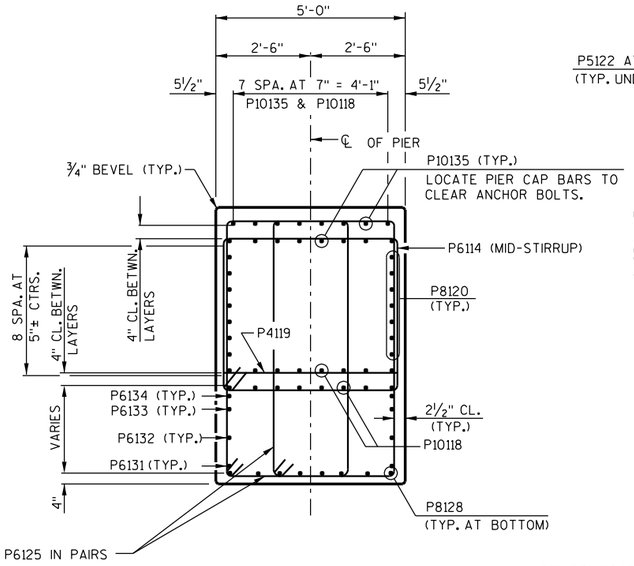
SHEET 62 OF 129
1093

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\D02_PIER2C_CAP_V7.B-5-681.DGN

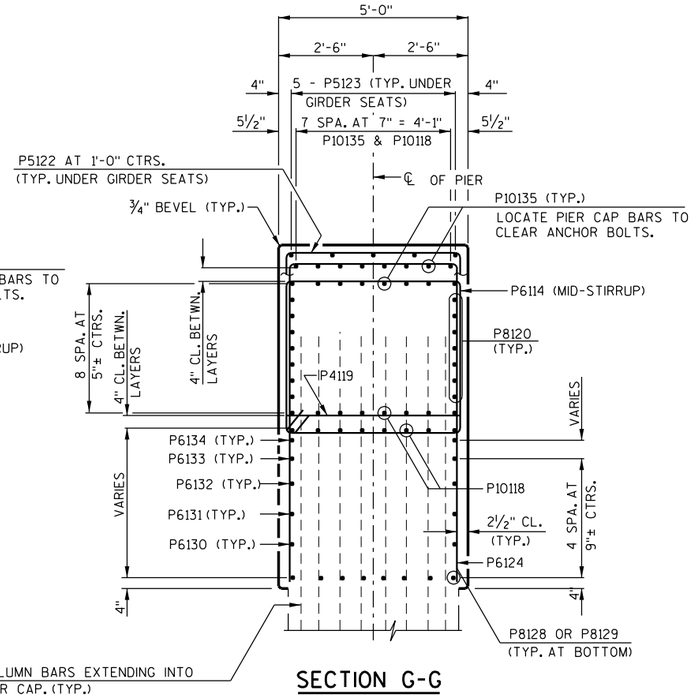
PLOT DATE : 3/14/2013

STATE PROJECT NUMBER

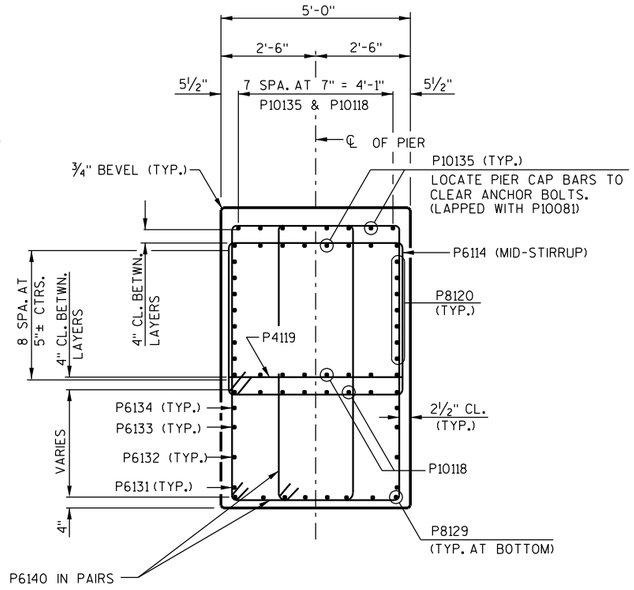
1133-11-74



SECTION F-F



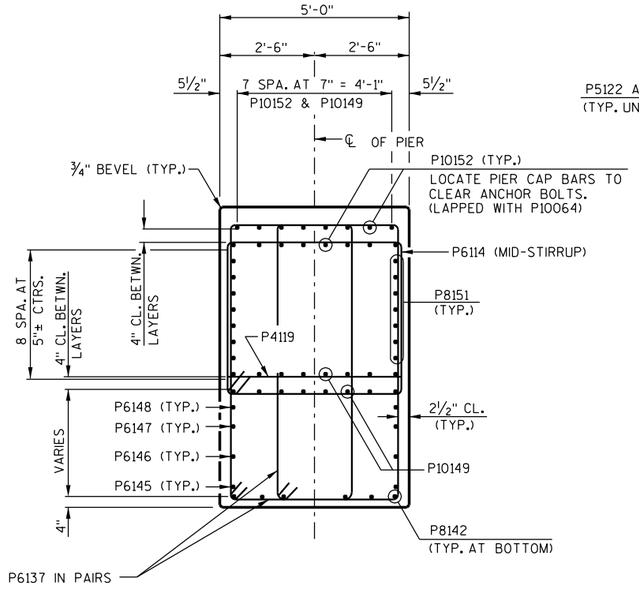
SECTION G-G



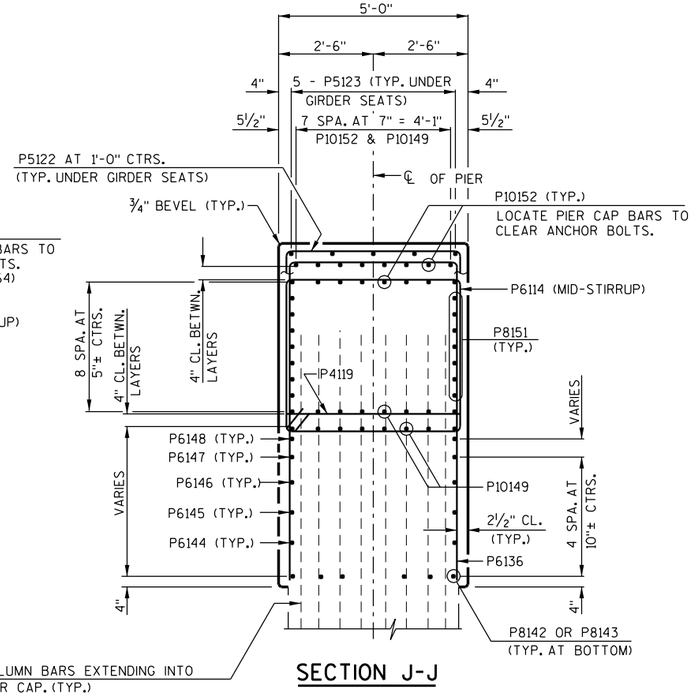
SECTION H-H

NOTES

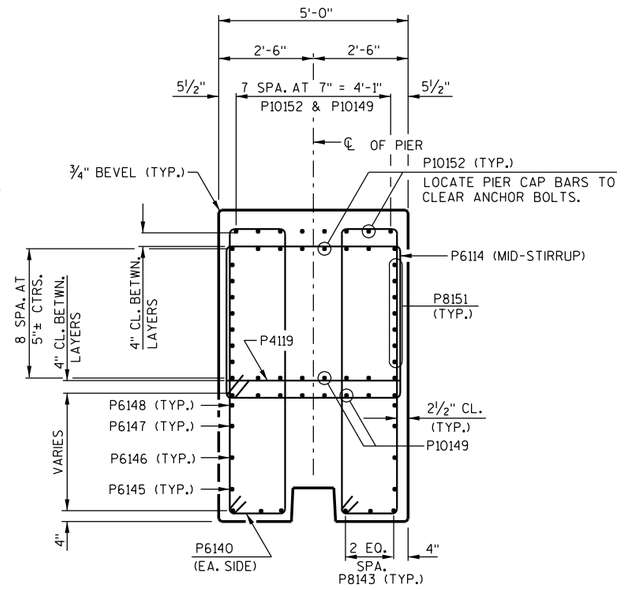
1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 62 FOR PIER CAP ELEVATION.
4. SEE SHEET 28 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 39 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



SECTION I-I



SECTION J-J



SECTION K-K

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2 - CAP DETAILS

SHEET 63 OF 129
1094

FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\063_PIER20_CAP_V7.B-5-681.DGN

PLOT DATE : 3/14/2013

8

8

PIER 2 CAP - BILL OF BARS

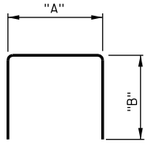
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 1 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 29,790 LBS.	
P6100	6	20-1	X		ABOVE COLUMN 1	VERT.
P6101	2	23-2	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6102	2	22-4	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6103	16	15-4	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6104	2	13-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6105	26	20-4	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6106	2	16-8	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P8107	6	17-2	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P8108	6	20-0	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P6109	2	11-10			ABOVE COLUMN 1 - SIDES	HORIZ.
P6110	2	15-11			ABOVE COLUMN 1 - SIDES	HORIZ.
P6111	2	20-1			ABOVE COLUMN 1 - SIDES	HORIZ.
P6112	2	24-3			ABOVE COLUMN 1 - SIDES	HORIZ.
P6113	2	26-9			ABOVE COLUMN 1 - SIDES	HORIZ.
P6114	84	18-0	X		ABOVE COLUMNS - MID-STIRRUPS	VERT.
P5115	8	4-10			ABOVE COLUMN 1 - END	VERT.
P5116	10	3-6			ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P5117	36	5-1	X		ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P10118	32	34-6			ABOVE COLUMNS 1 & 2	HORIZ.
P4119	42	4-7			ABOVE COLUMNS 1 THRU 3	HORIZ.
P8120	28	33-1			ABOVE COLUMNS 1 & 2 - SIDES	HORIZ.
P10121	16	36-5	X		ABOVE COLUMNS 1 & 2 - TOP	HORIZ.
P5122	35	8-4	X		TOP - UNDER GIRDER SEATS	VERT.
P5123	35	6-0			TOP - UNDER GIRDER SEATS	HORIZ.
P6124	6	21-3	X		ABOVE COLUMN 2	VERT.
P6125	22	20-7	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6126	26	21-8	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6127	2	17-10	X		ABOVE COLUMN 2 - STIRRUPS	VERT.
P8128	8	17-5	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P8129	8	19-10	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6130	2	12-7			ABOVE COLUMN 2 - SIDES	HORIZ.
P6131	2	17-6			ABOVE COLUMN 2 - SIDES	HORIZ.
P6132	2	22-5			ABOVE COLUMN 2 - SIDES	HORIZ.
P6133	2	27-4			ABOVE COLUMN 2 - SIDES	HORIZ.
P6134	2	30-0			ABOVE COLUMN 2 - SIDES	HORIZ.
P10135	16	34-11			ABOVE COLUMN 2 - TOP	HORIZ.
P6136	6	22-7	X		ABOVE COLUMN 3	VERT.
P6137	22	21-10	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6138	2	26-4	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6139	2	25-8	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6140	16	19-6	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6141	2	17-8	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P8142	6	21-10	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P8143	6	17-2	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P6144	2	12-8			ABOVE COLUMN 3 - SIDES	HORIZ.
P6145	2	18-1			ABOVE COLUMN 3 - SIDES	HORIZ.
P6146	2	23-6			ABOVE COLUMN 3 - SIDES	HORIZ.
P6147	2	30-5			ABOVE COLUMN 3 - SIDES	HORIZ.
P6148	2	30-8			ABOVE COLUMN 3 - SIDES	HORIZ.
P10149	16	36-10			ABOVE COLUMN 3	HORIZ.
P5150	8	7-0	X		ABOVE COLUMN 3 - END	VERT.
P8151	14	33-10			ABOVE COLUMN 3 - SIDES	HORIZ.
P10152	16	38-9	X		ABOVE COLUMN 3 - TOP	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

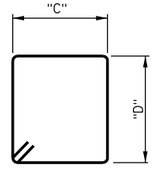
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P6103	2 SETS OF 8	12'-10" TO 17'-10"
P6105	2 SETS OF 13	17'-0" TO 23'-8"
P6125	2 SETS OF 11	16'-10" TO 24'-4"
P6126	2 SETS OF 13	18'-4" TO 25'-0"
P6137	2 SETS OF 11	18'-2" TO 25'-6"
P6140	2 SETS OF 8	17'-6" TO 21'-6"



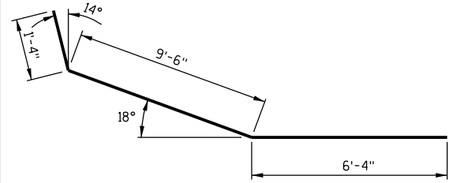
P6100, P5117, P5122, P6124 & P6136

MARK	DIMENSION "A"	DIMENSION "B"
P6100	4'-7"	7'-11"
P5117	1'-4"	2'-0"
P5122	4'-7"	2'-0"
P6124	4'-7"	8'-6"
P6136	4'-7"	9'-2"



P6101 THRU P6105, P6114, P6125 THRU P6127, & P6137 THRU P6141

MARK	DIMENSION "C"	DIMENSION "D"
P6101	3'-4"	7'-10"
P6102	3'-4"	7'-5"
P6103	1'-6"	4'-6" TO 7'-0"
P6104	1'-6"	4'-7"
P6105	3'-4"	4'-9" TO 8'-1"
P6106	3'-4"	4'-7"
P6114	4'-7"	4'-0"
P6125	3'-4"	4'-8" TO 8'-5"
P6126	3'-4"	5'-5" TO 8'-9"
P6127	3'-4"	5'-2"
P6137	3'-4"	5'-4" TO 9'-0"
P6138	3'-4"	9'-5"
P6139	3'-4"	9'-1"
P6140	1'-6"	6'-10" TO 8'-10"
P6141	1'-6"	6'-11"



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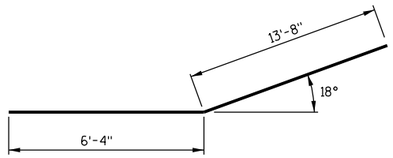

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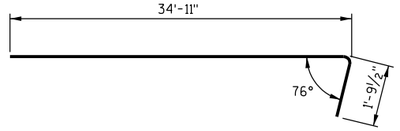
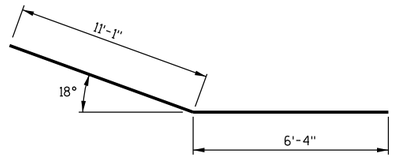


P10121



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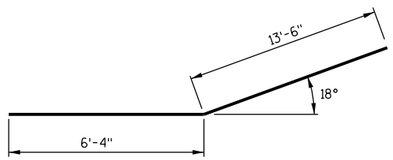

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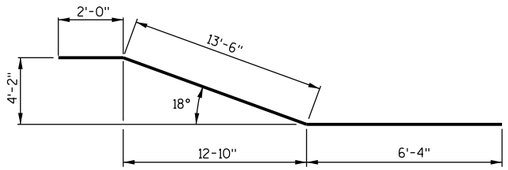
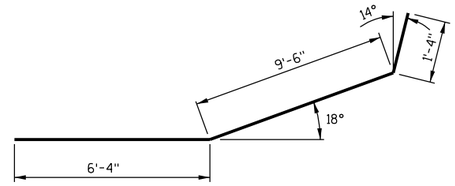


P8142



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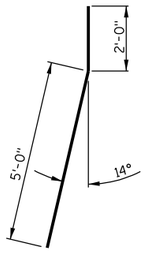
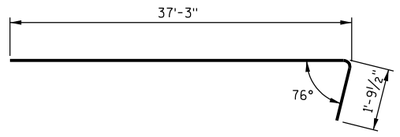


P5150



P10152

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE PROJECT NUMBER
1133-11-74

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 2 - CAP
BILL OF BARS

SHEET 64 OF 129
1095

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\dgn\064_PIER2_CAP_BARS_V7.B-5-681.DGN
PLOT DATE : 2/28/2013

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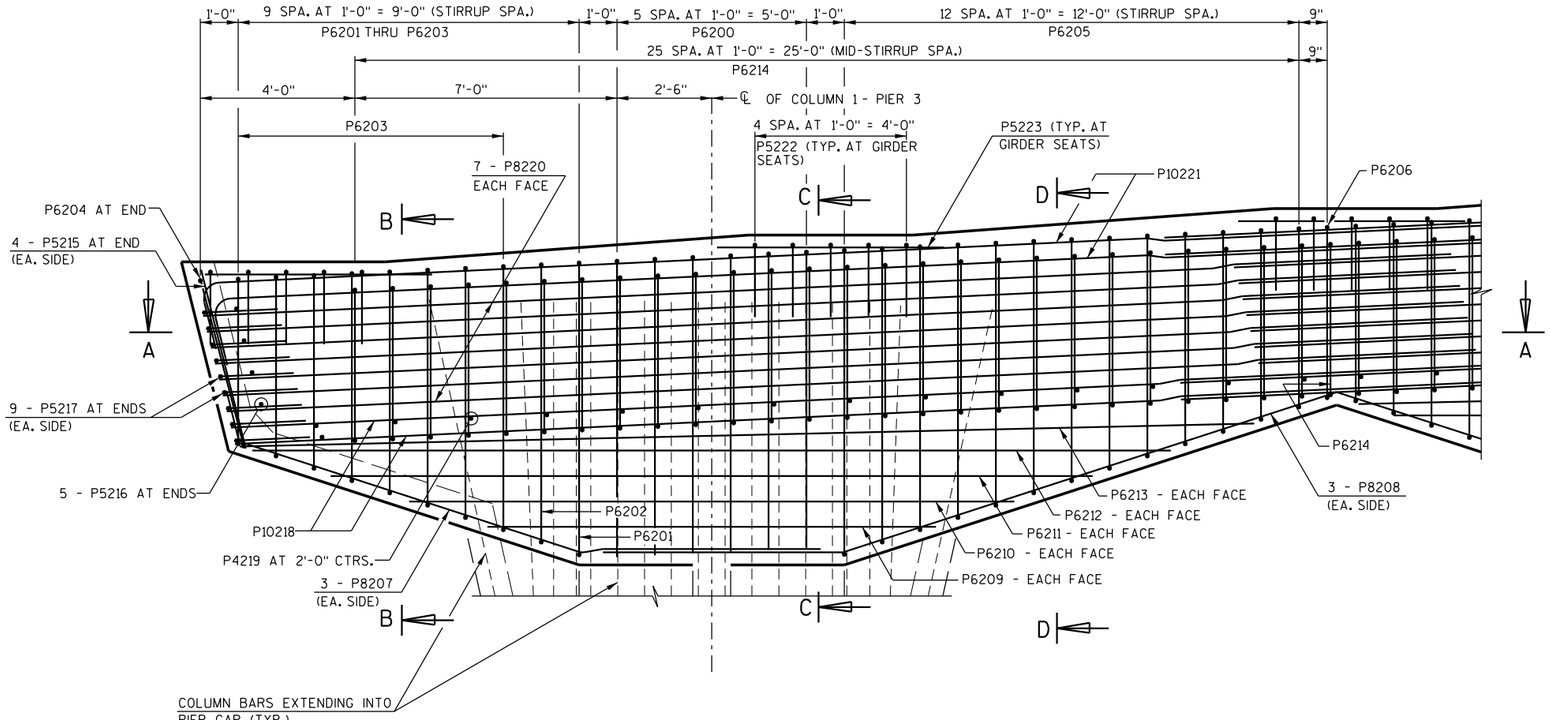
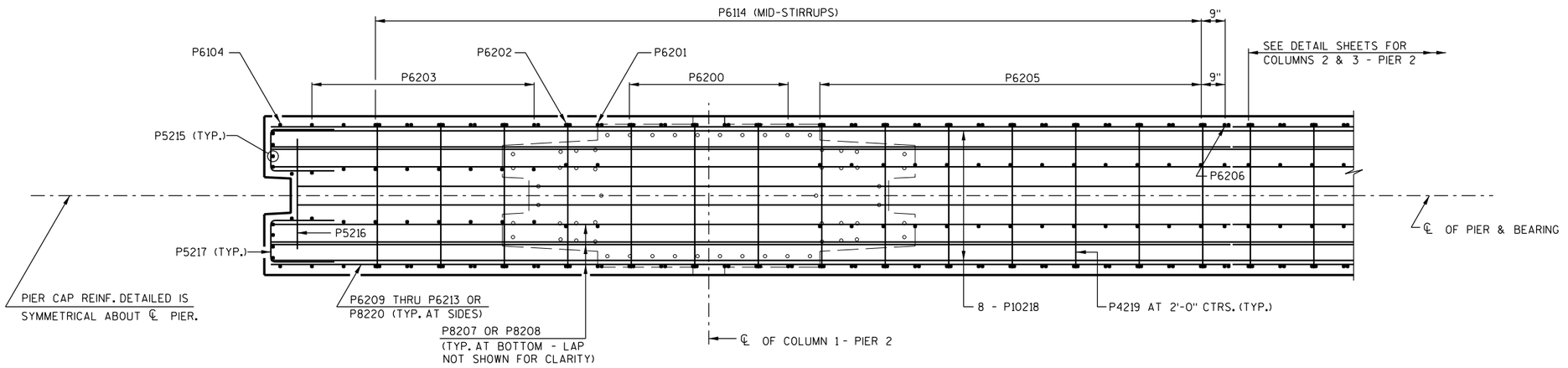
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

(SHOWING CAP STEEL AT COLUMN 1 - PIER 3)

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 66 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 29 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 40 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3 - CAP DETAILS

SHEET 65 OF 129
1096

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\065_PIER3A_CAP_V7.B-5-681.DGN

PLOT DATE : 3/14/2013

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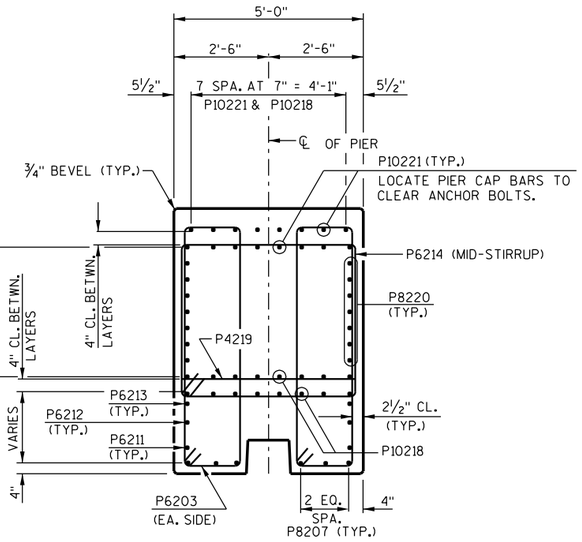
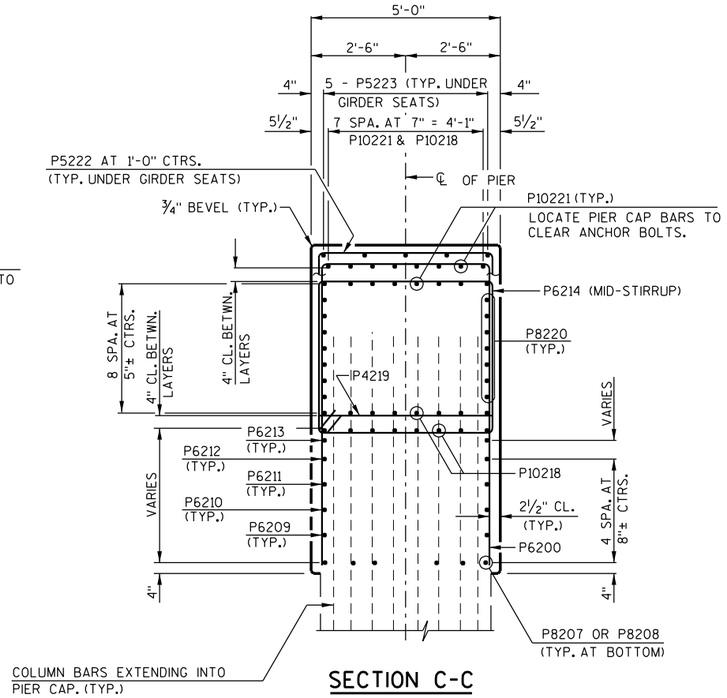
8

STATE PROJECT NUMBER

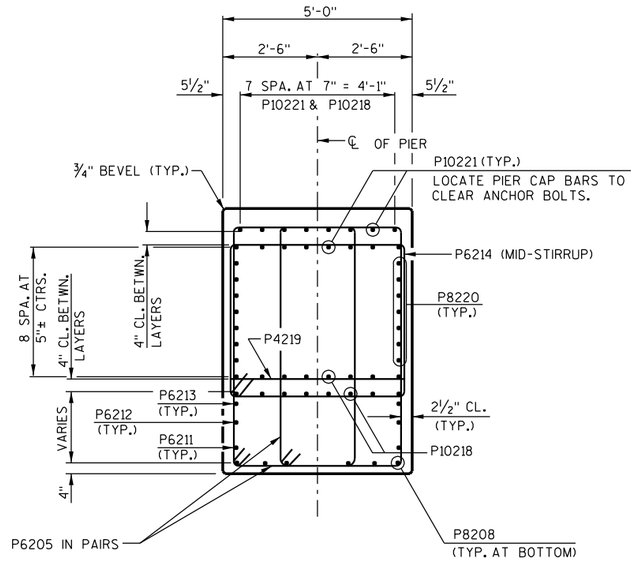
1133-11-74



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 65 FOR PIER CAP ELEVATION.
4. SEE SHEET 29 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 40 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3 - CAP DETAILS

SHEET 66 OF 129
1097

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\I066_PIER3B_CAP_V7.DGN

PLOT DATE : 3/14/2013

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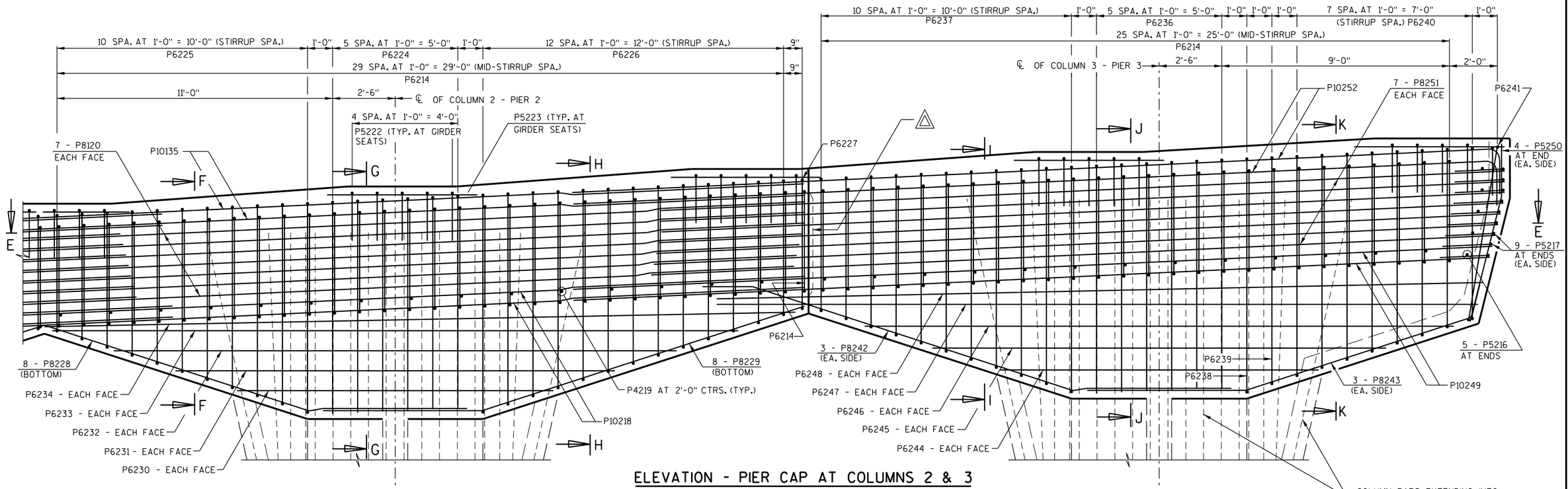
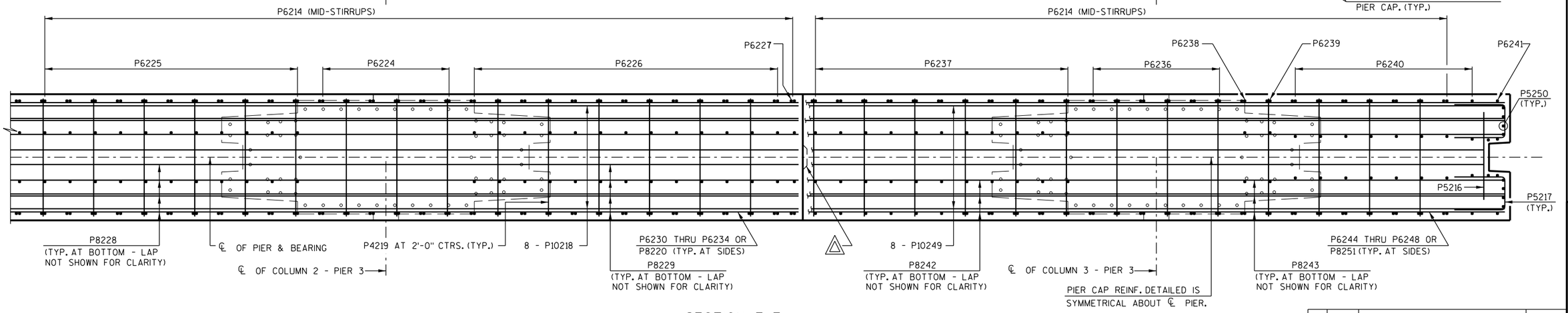
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMNS 2 & 3



SECTION E-E

(SHOWING CAP STEEL AT COLUMNS 2 & 3 - PIER 3)

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 68 FOR SECTIONS THRU PIER CAP.
4. SEE SHEET 29 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 40 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3 - CAP DETAILS

SHEET 67 OF 129
1098

FILE NAME : P:\153 USH 41\133-10-00 URS\STRUCTURES\B-5-681\067_PIER3C_CAP_V7.B-5-681.DGN

PLOT DATE : 3/14/2013

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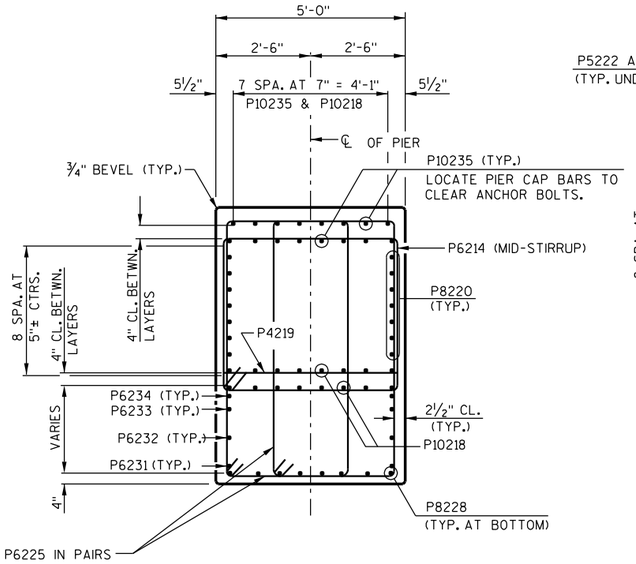
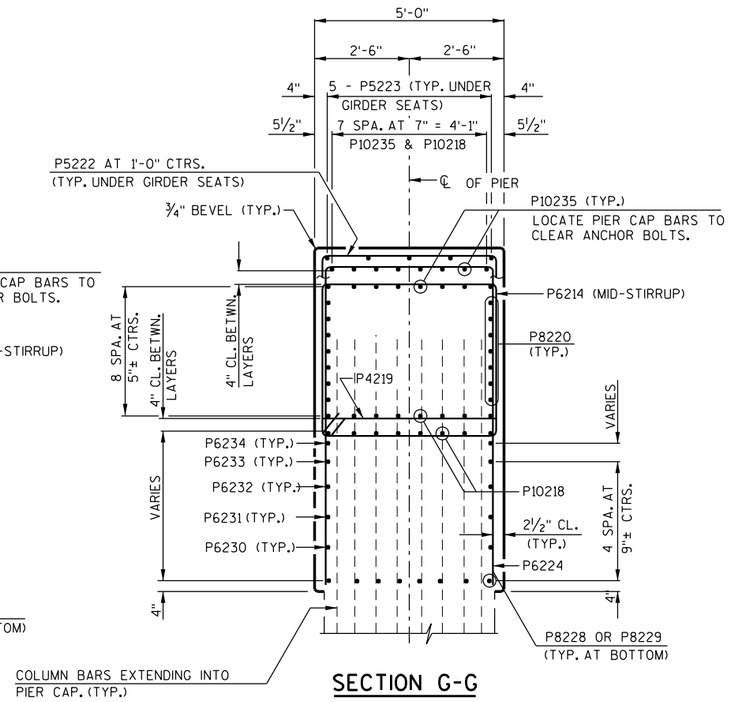
STATE PROJECT NUMBER

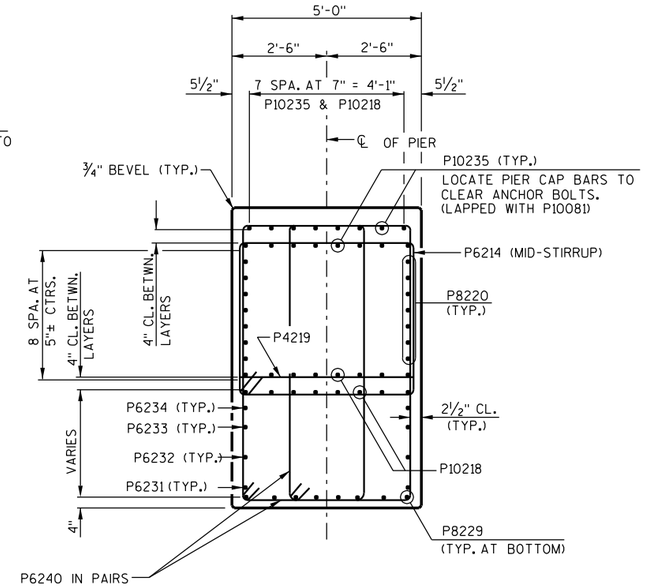
1133-11-74



SECTION F-F



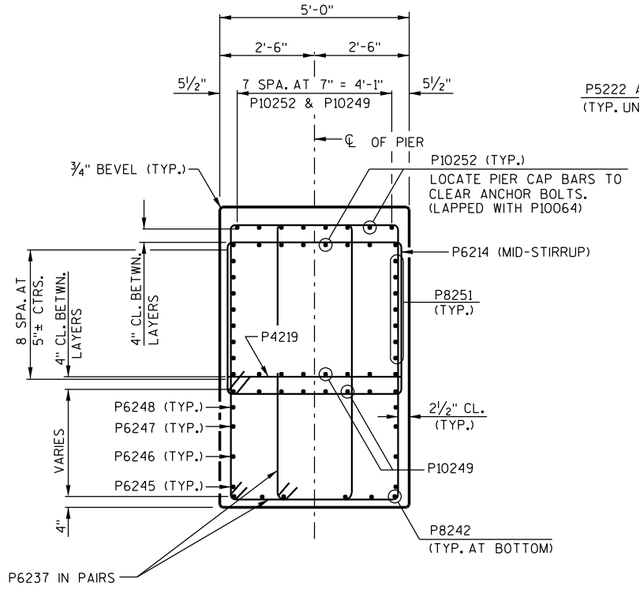
SECTION G-G



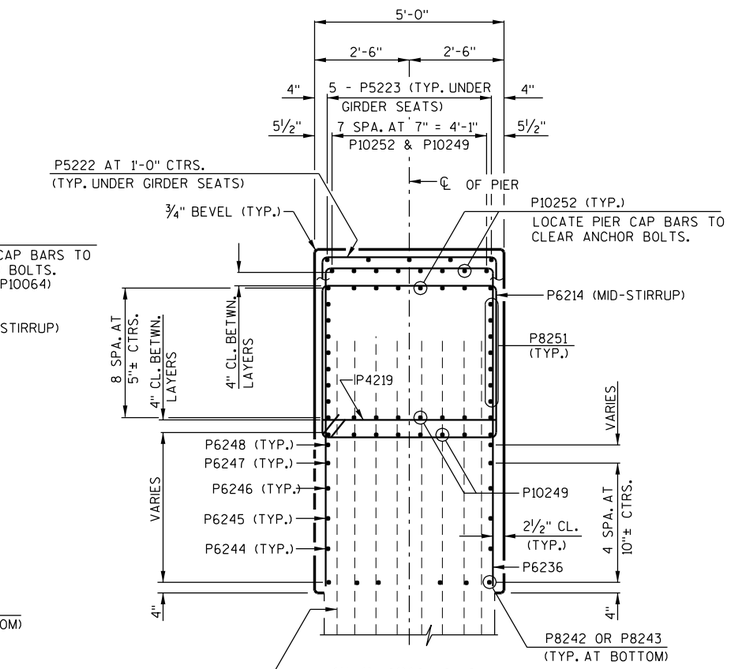
SECTION H-H

NOTES

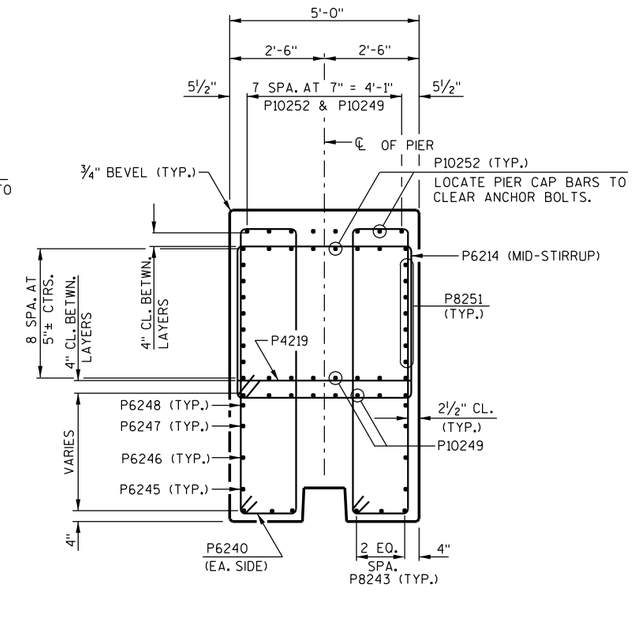
1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. SEE SHEET 67 FOR PIER CAP ELEVATION.
4. SEE SHEET 29 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
5. SEE SHEET 40 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



SECTION I-I



SECTION J-J



SECTION K-K

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3 - CAP DETAILS

SHEET 68 OF 129
1099

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

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FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\068.PIER3D.CAP.V7.B-5-681.DGN

PLOT DATE : 3/14/2013

PIER 3 CAP - BILL OF BARS

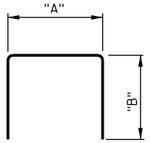
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 1 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 29,810 LBS.	
P6200	6	20-1	X		ABOVE COLUMN 1	VERT.
P6201	2	23-2	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6202	2	22-4	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6203	16	15-4	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6204	2	13-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6205	26	20-6	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6206	2	16-8	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P8207	6	17-2	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P8208	6	20-0	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P6209	2	11-10			ABOVE COLUMN 1 - SIDES	HORIZ.
P6210	2	15-11			ABOVE COLUMN 1 - SIDES	HORIZ.
P6211	2	20-1			ABOVE COLUMN 1 - SIDES	HORIZ.
P6212	2	24-3			ABOVE COLUMN 1 - SIDES	HORIZ.
P6213	2	26-9			ABOVE COLUMN 1 - SIDES	HORIZ.
P6214	84	18-0	X		ABOVE COLUMNS - MID-STIRRUPS	VERT.
P5215	8	4-10			ABOVE COLUMN 1 - END	VERT.
P5216	10	3-6			ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P5217	36	5-1	X		ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P10218	32	34-6			ABOVE COLUMNS 1 & 2	HORIZ.
P4219	42	4-7			ABOVE COLUMNS 1 THRU 3	HORIZ.
P8220	28	33-1			ABOVE COLUMNS 1 & 2 - SIDES	HORIZ.
P10221	16	36-5	X		ABOVE COLUMNS 1 & 2 - TOP	HORIZ.
P5222	35	8-4	X		TOP - UNDER GIRDER SEATS	VERT.
P5223	35	6-0			TOP - UNDER GIRDER SEATS	HORIZ.
P6224	6	21-3	X		ABOVE COLUMN 2	VERT.
P6225	22	20-8	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6226	26	21-8	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6227	2	18-0	X		ABOVE COLUMN 2 - STIRRUPS	VERT.
P8228	8	17-5	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P8229	8	19-10	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6230	2	12-7			ABOVE COLUMN 2 - SIDES	HORIZ.
P6231	2	17-6			ABOVE COLUMN 2 - SIDES	HORIZ.
P6232	2	22-5			ABOVE COLUMN 2 - SIDES	HORIZ.
P6233	2	27-4			ABOVE COLUMN 2 - SIDES	HORIZ.
P6234	2	30-0			ABOVE COLUMN 2 - SIDES	HORIZ.
P10235	16	34-11			ABOVE COLUMN 2 - TOP	HORIZ.
P6236	6	22-7	X		ABOVE COLUMN 3	VERT.
P6237	22	22-0	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6238	2	26-4	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6239	2	25-10	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6240	16	19-7	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6241	2	18-0	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P8242	6	21-10	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P8243	6	17-2	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P6244	2	12-8			ABOVE COLUMN 3 - SIDES	HORIZ.
P6245	2	18-1			ABOVE COLUMN 3 - SIDES	HORIZ.
P6246	2	23-6			ABOVE COLUMN 3 - SIDES	HORIZ.
P6247	2	30-5			ABOVE COLUMN 3 - SIDES	HORIZ.
P6248	2	30-8			ABOVE COLUMN 3 - SIDES	HORIZ.
P10249	16	36-10			ABOVE COLUMN 3	HORIZ.
P5250	8	7-2	X		ABOVE COLUMN 3 - END	VERT.
P8251	14	33-10			ABOVE COLUMN 3 - SIDES	HORIZ.
P10252	16	38-9	X		ABOVE COLUMN 3 - TOP	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

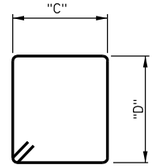
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P6203	2 SETS OF 8	12'-8" TO 18'-0"
P6205	2 SETS OF 13	17'-2" TO 23'-10"
P6225	2 SETS OF 11	17'-0" TO 24'-4"
P6226	2 SETS OF 13	18'-4" TO 25'-0"
P6237	2 SETS OF 11	18'-4" TO 25'-8"
P6240	2 SETS OF 8	17'-8" TO 21'-6"



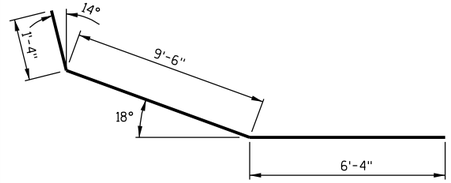
MARK	DIMENSION "A"	DIMENSION "B"
P6200	4'-7"	7'-11"
P5217	1'-4"	2'-0"
P5222	4'-7"	2'-0"
P6224	4'-7"	8'-6"
P6236	4'-7"	9'-2"

P6200, P5217, P5222, P6224 & P6236



P6201 THRU P6206, P6214, P6225 THRU P6227, & P6237 THRU P6241

MARK	DIMENSION "C"	DIMENSION "D"
P6201	3'-4"	7'-10"
P6202	3'-4"	7'-5"
P6203	1'-6"	4'-5" TO 7'-1"
P6204	1'-6"	4'-7"
P6205	3'-4"	4'-10" TO 8'-2"
P6206	3'-4"	4'-7"
P6214	4'-7"	4'-0"
P6225	3'-4"	4'-9" TO 8'-5"
P6226	3'-4"	5'-5" TO 8'-9"
P6227	3'-4"	5'-3"
P6237	3'-4"	5'-5" TO 9'-1"
P6238	3'-4"	9'-5"
P6239	3'-4"	9'-2"
P6240	1'-6"	6'-11" TO 8'-10"
P6241	1'-6"	7'-1"



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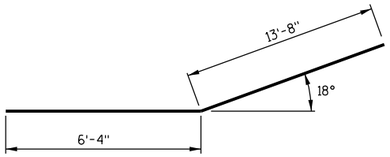

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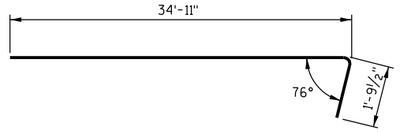

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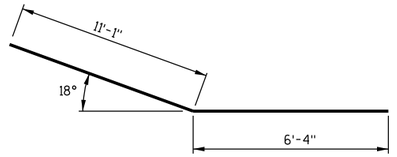

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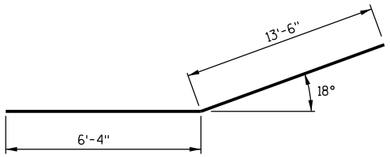

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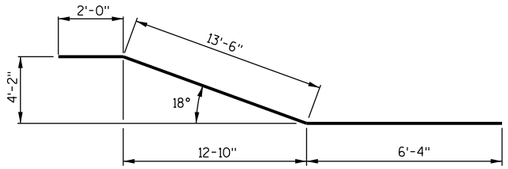

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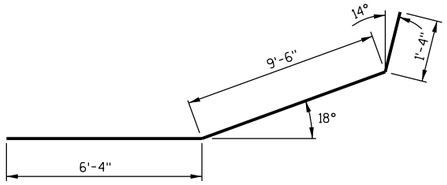

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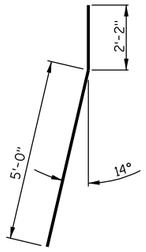

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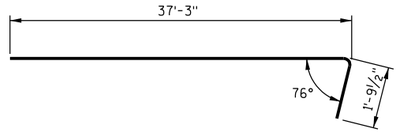

P10252

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 3 - CAP
BILL OF BARS

SHEET 69 OF 129
1100

STATE PROJECT NUMBER
1133-11-74

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\1069_PIER3_CAP_BARS_V7.B-5-681.DGN
PLOT DATE : 3/4/2013

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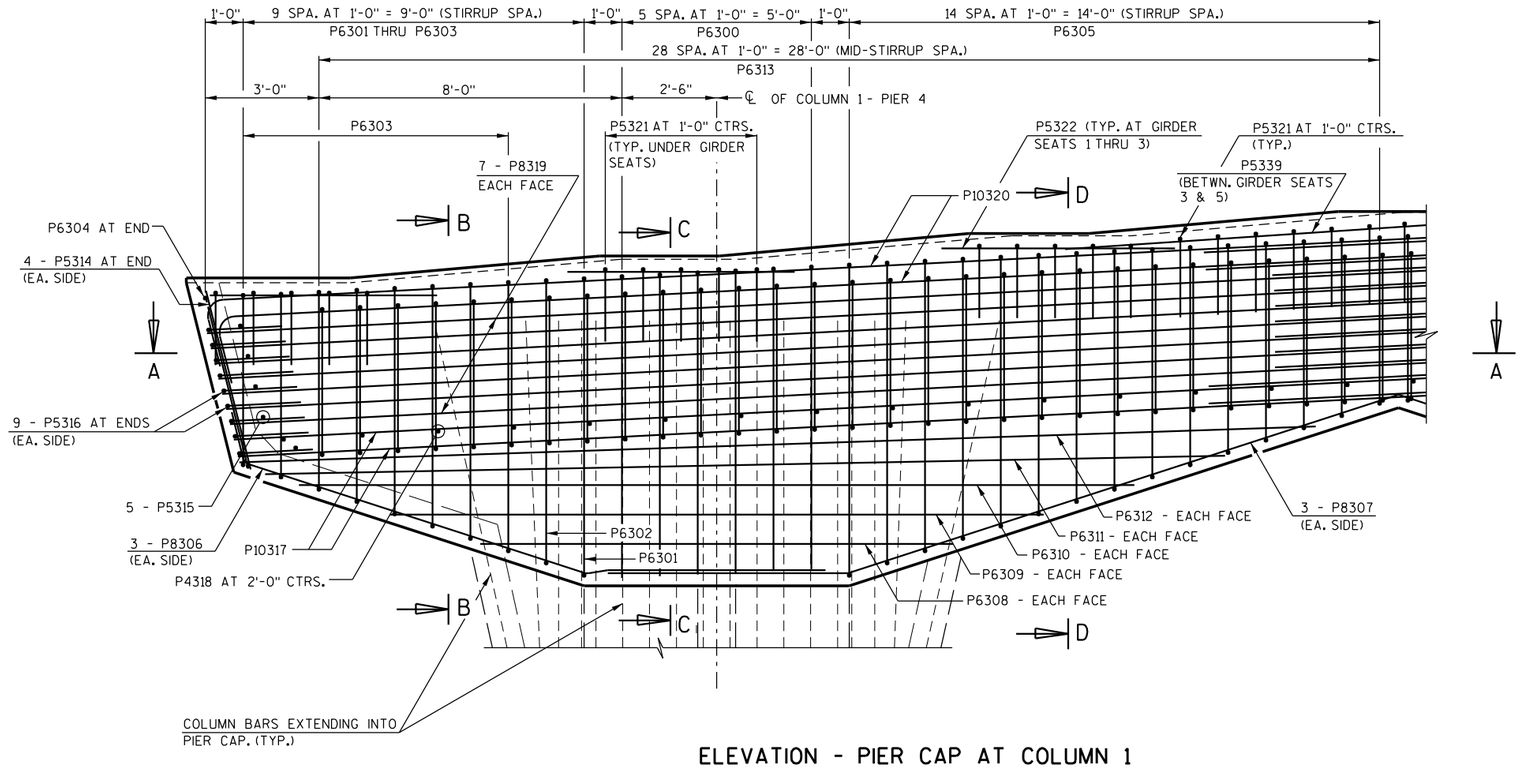
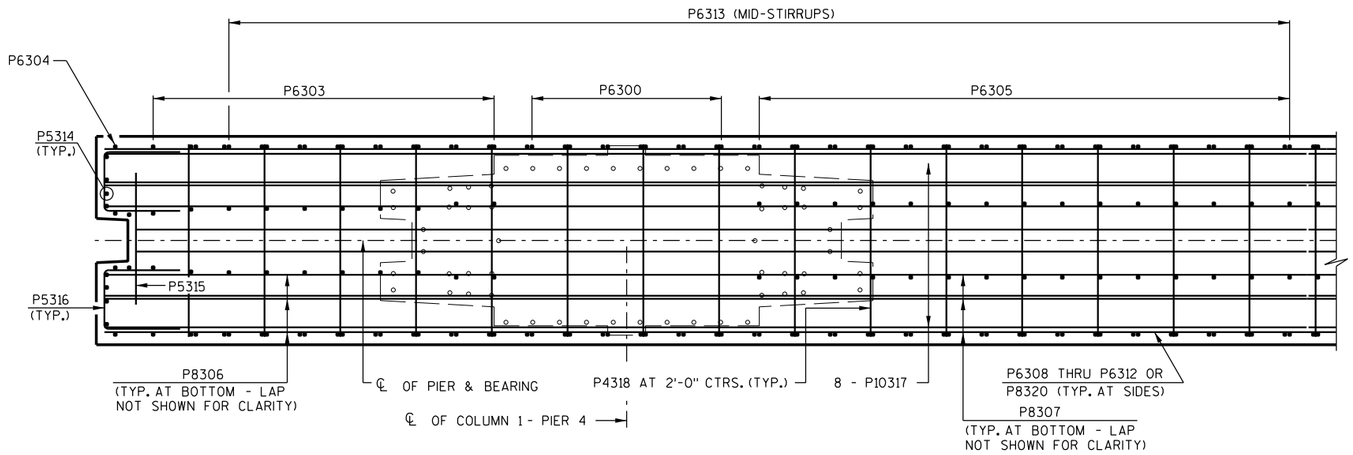
STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

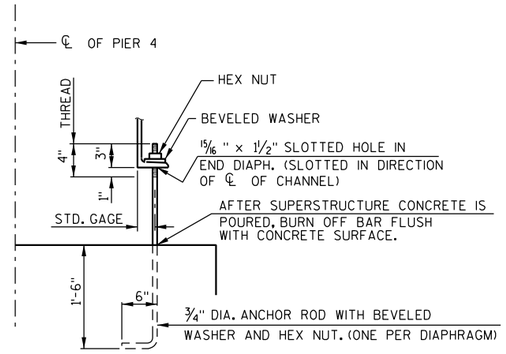
(SHOWING CAP STEEL AT COLUMN 1 - PIER 4)

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. LAP NO. 5 BARS 2'-11" MIN.
4. SEE SHEET 72 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 30 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 41 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".



TEMPORARY HOLD DOWN

TEMPORARY HOLD DOWN DEVICES SHALL BE PLACED AT THE ENDS OF ALL CONTINUOUS STEEL GIRDER UNITS WHERE SLAB POUR TERMINATES (AT SOUTH ABUT., NORTH ABUT. & PIER 4) LOCATE 1'-6" (NORMAL) OFF ℄ OF GIRDER. TO BE PAID FOR AS "STRUCTURAL CARBON STEEL".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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PIER 4 - CAP DETAILS

SHEET 70 OF 129
1101

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

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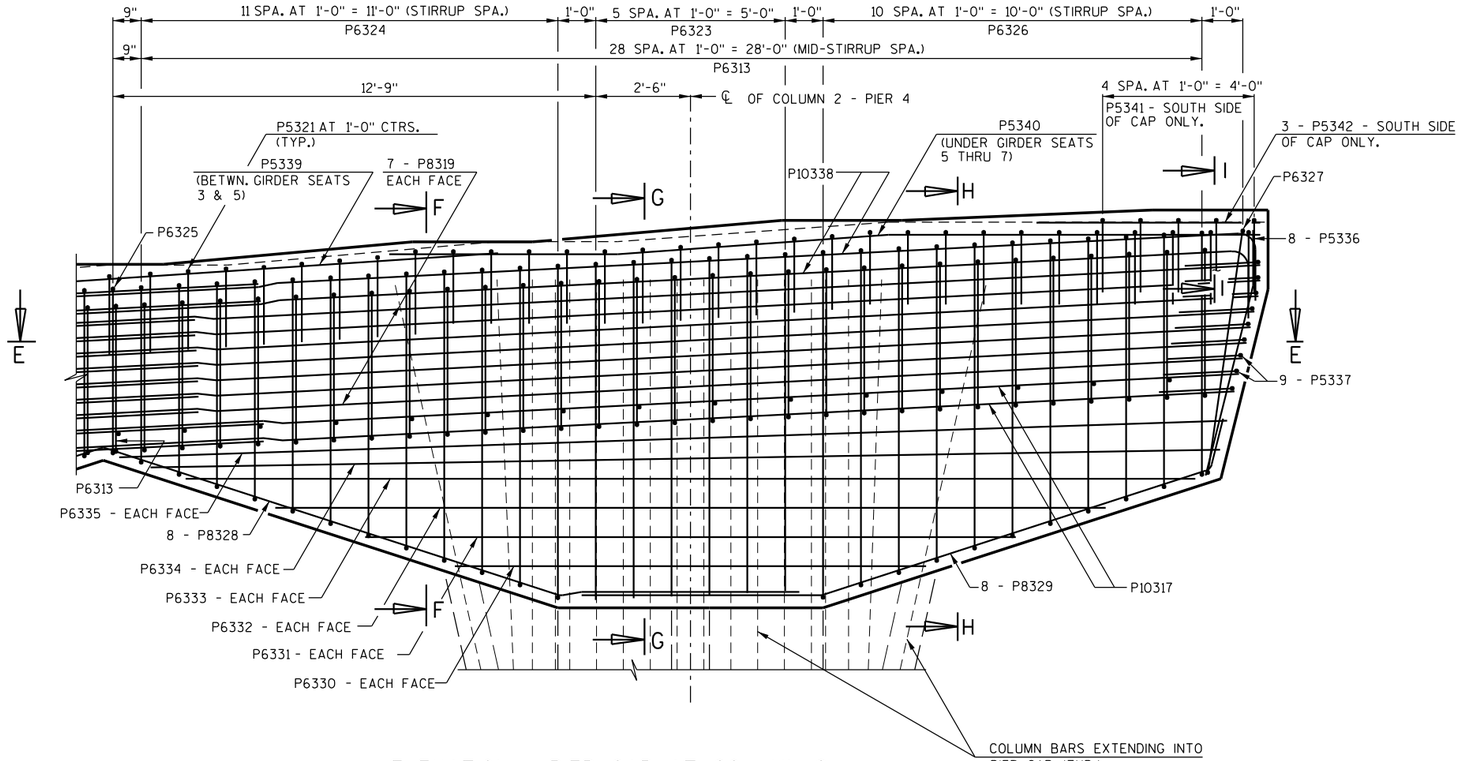
FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\070.PIER4A_CAP.V17.B-5-681.DGN

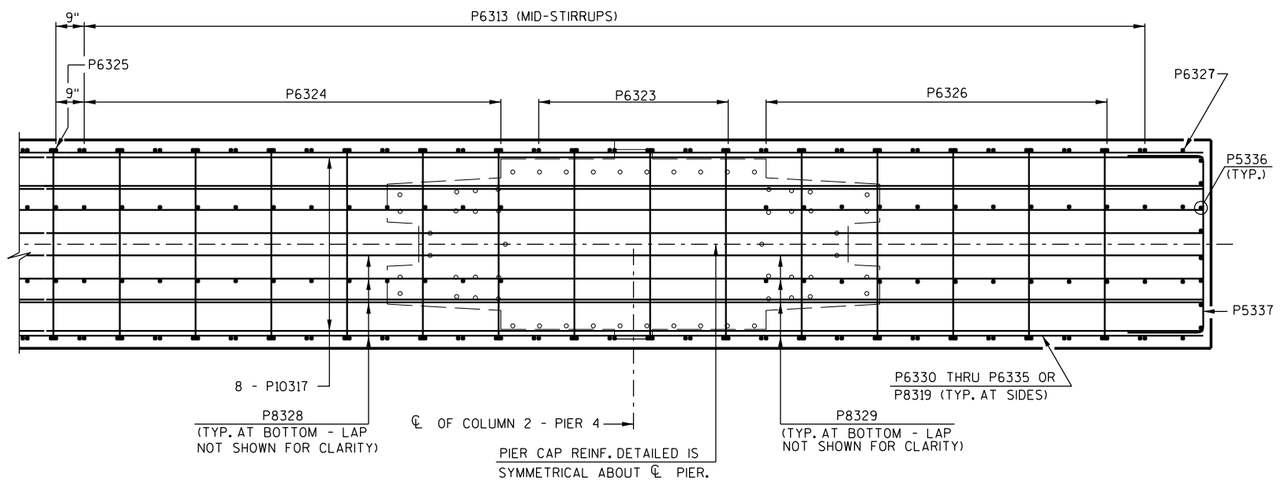
PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 2



SECTION E-E

(SHOWING CAP STEEL AT COLUMN 2 - PIER 4)

NOTES

1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. LAP NO. 5 BARS 2'-11" MIN.
4. SEE SHEET 72 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 30 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 41 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 4 - CAP DETAILS

SHEET 71 OF 129
1102

FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\071_PIERAB_CAP_V7_B-5-681.DGN

PLOT DATE : 3/15/2013

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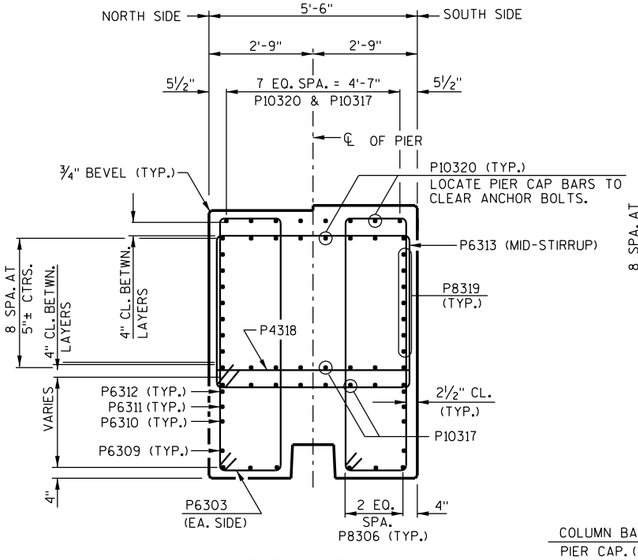
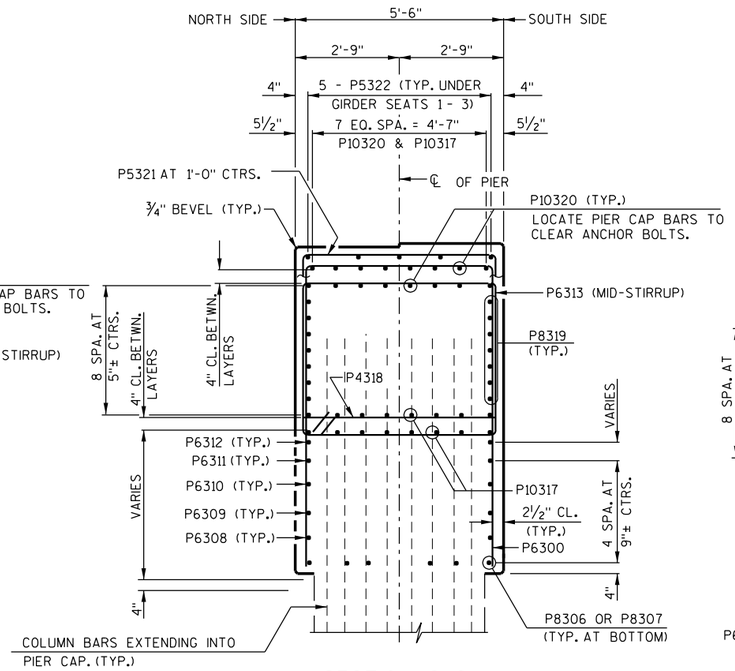
STATE PROJECT NUMBER

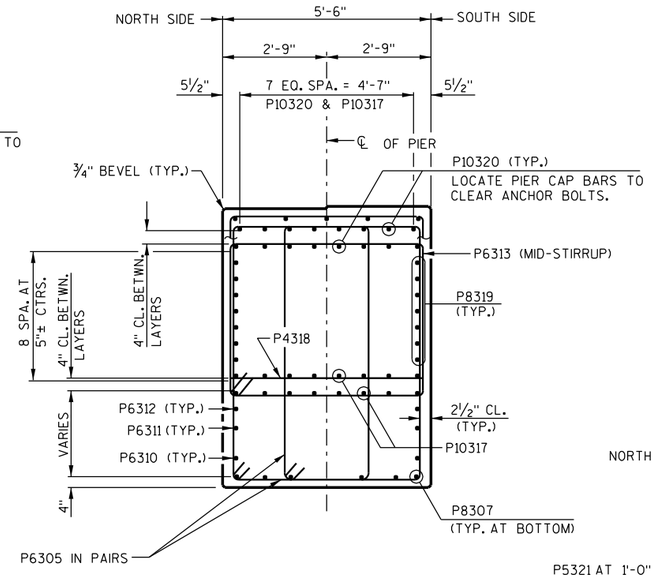
1133-11-74



SECTION B-B



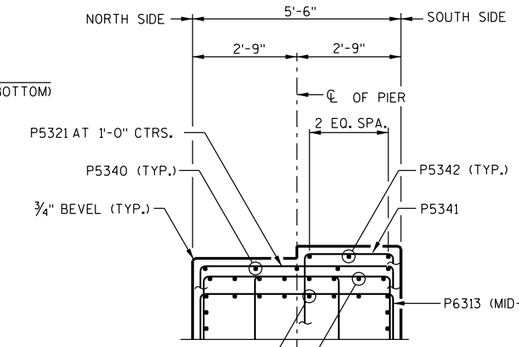
SECTION C-C



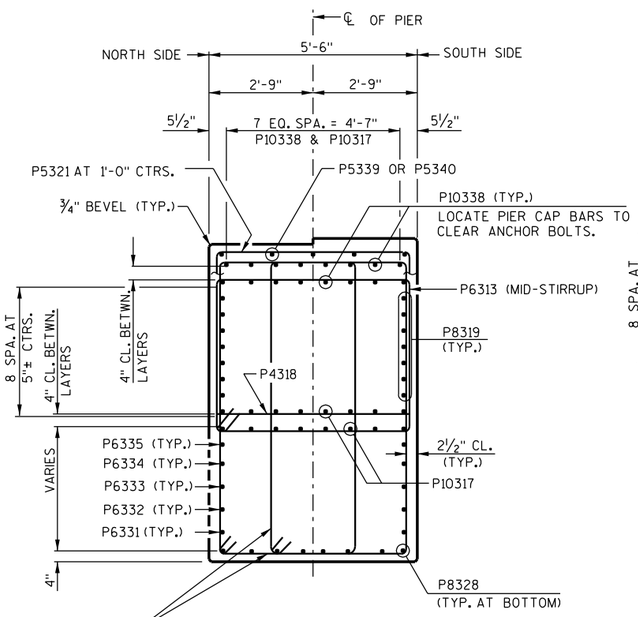
SECTION D-D

NOTES

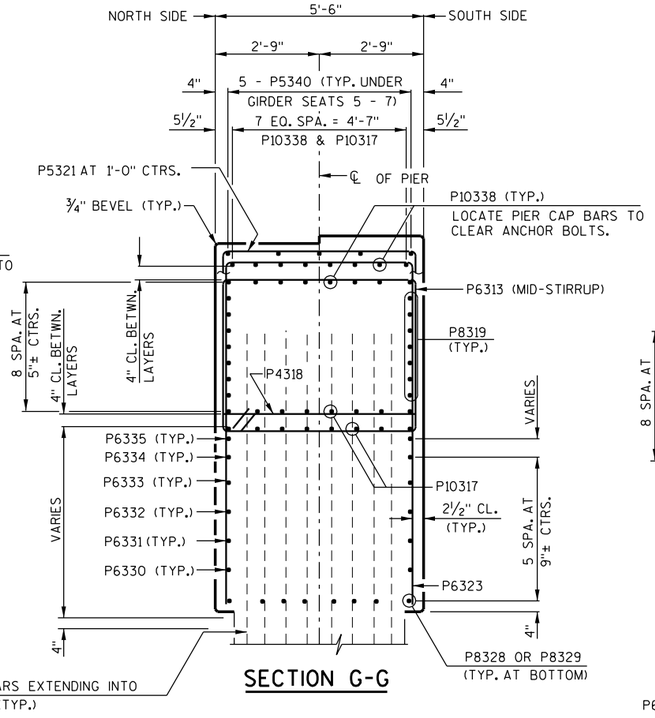
1. LAP NO. 8 BARS 5'-9" MIN.
2. LAP NO. 10 BARS 9'-3" MIN.
3. LAP NO. 5 BARS 2'-11" MIN.
4. SEE SHEETS 70 & 71 FOR PIER CAP ELEVATION.
5. SEE SHEET 30 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 41 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



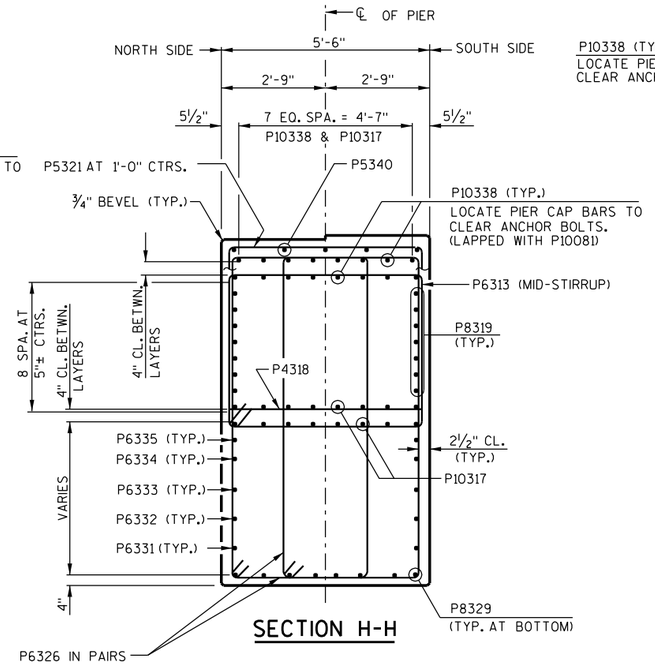
SECTION I-I



SECTION F-F



SECTION G-G



SECTION H-H

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 4 - CAP DETAILS

SHEET 72 OF 129
1103

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\072_PIERAC_CAP_V7.B-5-681.DGN

PLOT DATE : 3/15/2013

PIER 4 CAP - BILL OF BARS

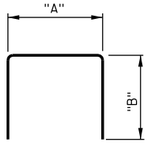
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 1 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 21,070 LBS.	
P6300	6	21-4	X		ABOVE COLUMN 1	VERT.
P6301	2	24-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6302	2	23-4	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6303	16	16-1	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6304	2	13-8	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6305	30	21-0	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P8306	6	17-2	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P8307	6	21-8	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P6308	2	12-6			ABOVE COLUMN 1 - SIDES	HORIZ.
P6309	2	17-3			ABOVE COLUMN 1 - SIDES	HORIZ.
P6310	2	22-0			ABOVE COLUMN 1 - SIDES	HORIZ.
P6311	2	25-4			ABOVE COLUMN 1 - SIDES	HORIZ.
P6312	2	28-5			ABOVE COLUMN 1 - SIDES	HORIZ.
P6313	59	19-0	X		ABOVE COLUMNS - MID-STIRRUPS	VERT.
P5314	8	4-10			ABOVE COLUMN 1 - END	VERT.
P5315	5	4-0			ABOVE COLUMN 1 - END	HORIZ.
P5316	18	5-4	X		ABOVE COLUMN 1 - END	HORIZ.
P10317	32	35-1			ABOVE COLUMNS 1 & 2	HORIZ.
P4318	30	5-1			ABOVE COLUMNS 1 & 2	HORIZ.
P8319	28	33-11			ABOVE COLUMNS - SIDES	HORIZ.
P10320	16	37-4	X		ABOVE COLUMNS - TOP	HORIZ.
P5321	52	9-10	X		TOP - UNDER GIRDER SEATS	VERT.
P5322	15	6-0			TOP - UNDER GIRDER SEATS 1 - 3	HORIZ.
P6323	6	22-8	X		ABOVE COLUMN 2	VERT.
P6324	24	21-9	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6325	2	17-0	X		ABOVE COLUMN 2 - STIRRUPS	VERT.
P6326	22	23-10	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6327	2	21-4	X		ABOVE COLUMN 2 - STIRRUPS	VERT.
P8328	8	19-0	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6329	8	18-7	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6330	2	12-5			ABOVE COLUMN 2 - SIDES	HORIZ.
P6331	2	17-2			ABOVE COLUMN 2 - SIDES	HORIZ.
P6332	2	21-11			ABOVE COLUMN 2 - SIDES	HORIZ.
P6333	2	26-8			ABOVE COLUMN 2 - SIDES	HORIZ.
P6334	2	28-3			ABOVE COLUMN 2 - SIDES	HORIZ.
P6335	2	29-3			ABOVE COLUMN 2 - SIDES	HORIZ.
P5336	8	6-8	X		ABOVE COLUMN 2 - END	VERT.
P5337	9	8-8	X		ABOVE COLUMN 2 - END	HORIZ.
P10338	16	37-4	X		ABOVE COLUMN 2 - TOP	VERT.
P5339	5	19-10			ABOVE COLUMNS 1 & 2 - UNDER GIRDER SEATS	HORIZ.
P5340	5	22-10			ABOVE COLUMN 2 - UNDER GIRDER SEATS	HORIZ.
P5341	5	6-7	X		ABOVE COLUMN 2 - UNDER GIRDER 7	VERT.
P5342	3	5-9			ABOVE COLUMN 2 - UNDER GIRDER 7	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

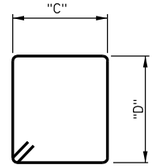
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P6303	2 SETS OF 8	13'-6" TO 18'-8"
P6035	2 SETS OF 15	17'-2" TO 24'-10"
P6324	2 SETS OF 12	17'-8" TO 25'-10"
P6326	2 SETS OF 11	21'-2" TO 26'-6"



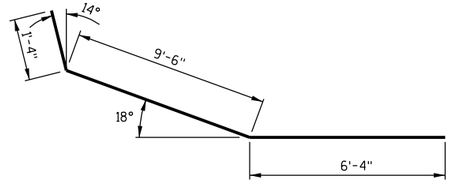
MARK	DIMENSION "A"	DIMENSION "B"
P6300	5'-1"	8'-3"
P5316	1'-7"	2'-0"
P5321	5'-1"	2'-6"
P6323	5'-1"	8'-11"
P5337	4'-11"	2'-0"
P5341	2'-4"	2'-3"

P6300, P5316, P5321, P6323, P5337 & P5341



P6301 THRU P6305, P6313, P6324 THRU P6327

MARK	DIMENSION "C"	DIMENSION "D"
P6301	3'-8"	7'-11"
P6302	3'-8"	7'-7"
P6303	1'-9"	4'-7" TO 7'-2"
P6304	1'-9"	4'-8"
P6305	3'-8"	4'-6" TO 8'-4"
P6313	5'-1"	4'-0"
P6324	3'-8"	4'-9" TO 8'-10"
P6325	3'-8"	4'-5"
P6326	3'-8"	6'-6" TO 9'-2"
P6327	3'-8"	6'-7"



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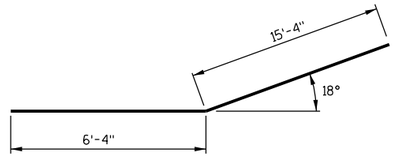

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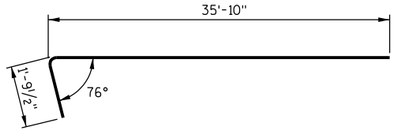

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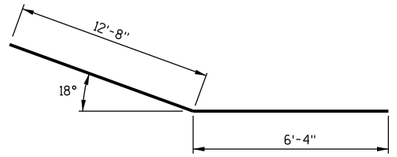

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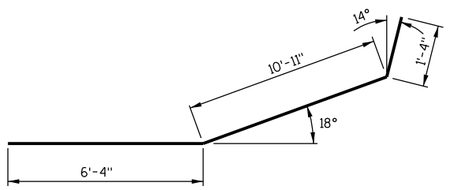

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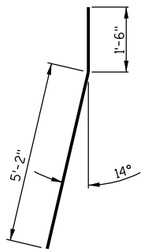

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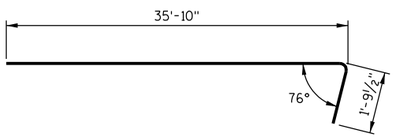


P10338

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 4 - CAP
BILL OF BARS

SHEET 73 OF 129
1104

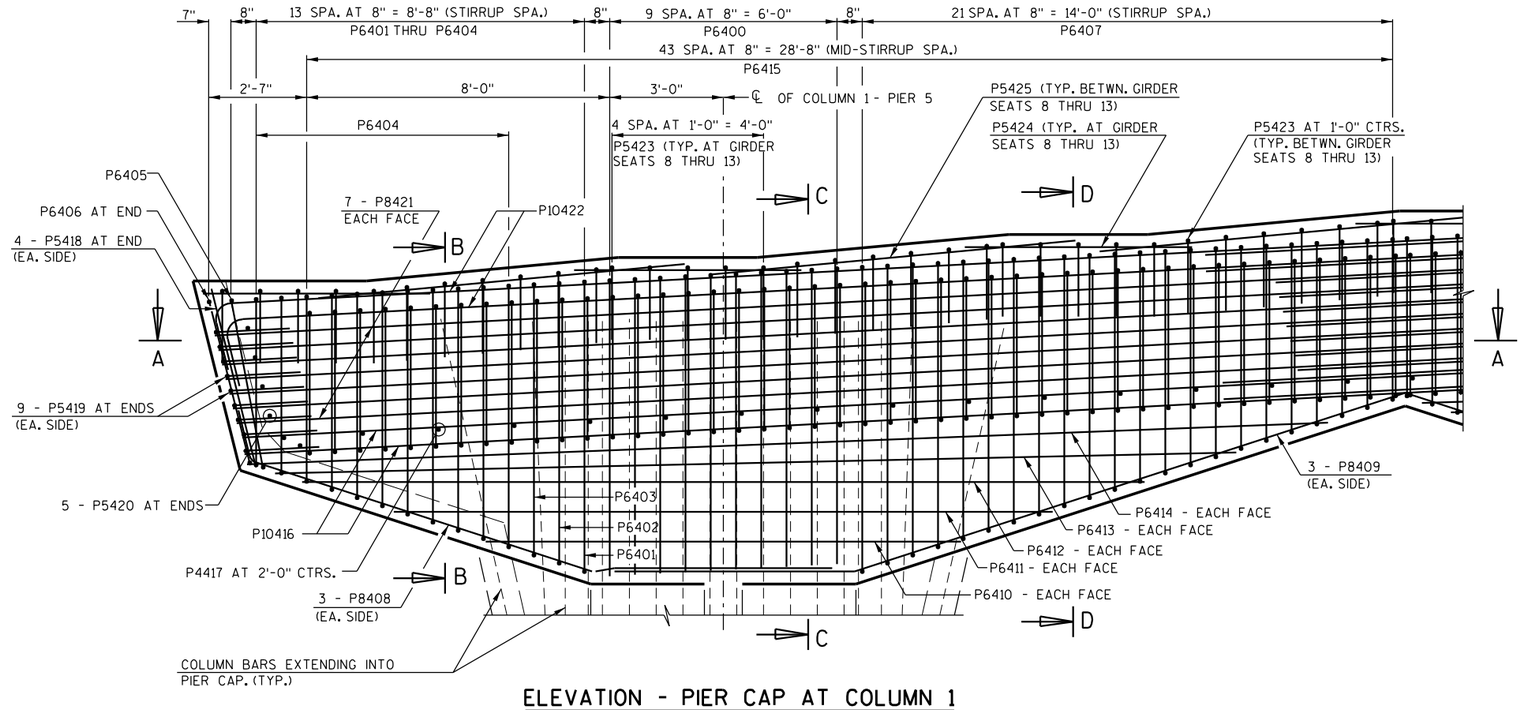
STATE PROJECT NUMBER
1133-11-74

FILE NAME : P:\453 USH 41\1133-10-00 URGs\STRUCTURES\B-5-681\073_PIER4_CAP_BARS_V7.B-5-681.DGN
PLOT DATE : 2/28/2013

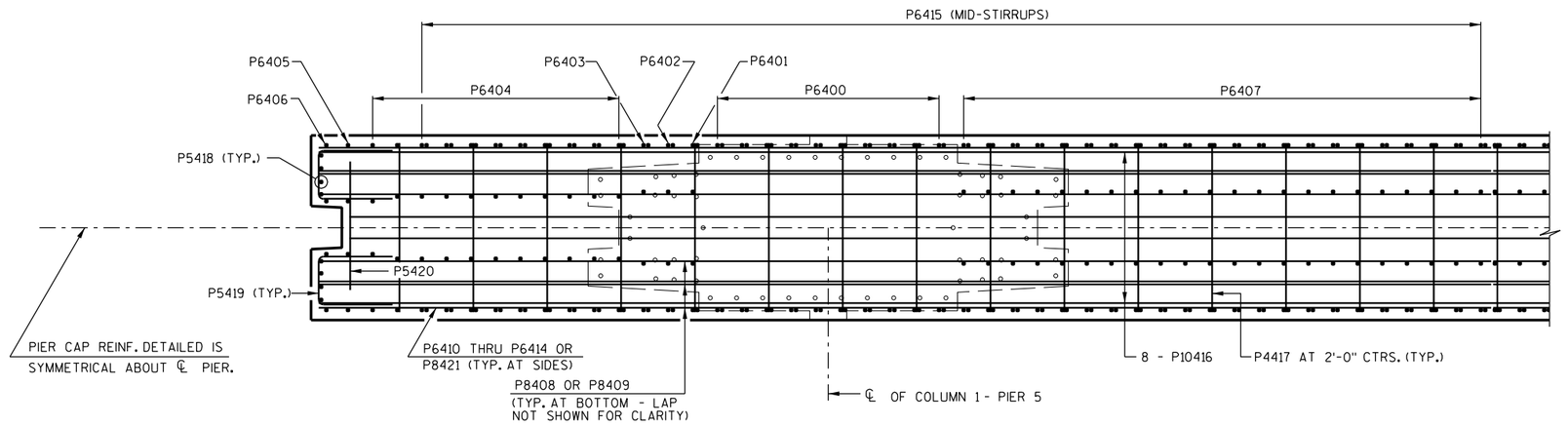
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

(SHOWING CAP STEEL AT COLUMN 1 - PIER 5)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 75 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 31 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 42 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - CAP DETAILS

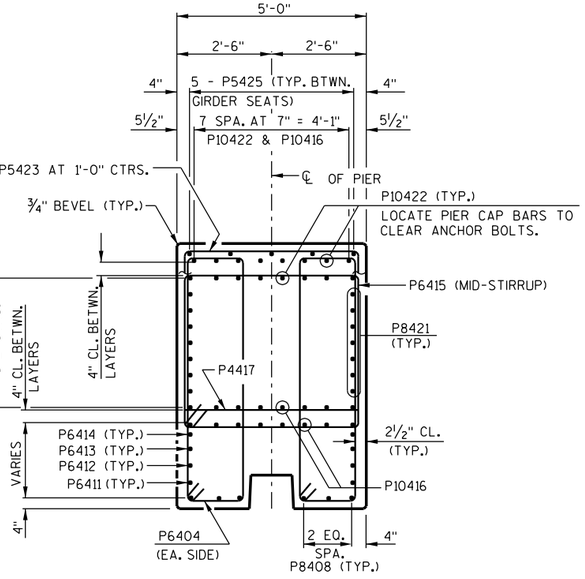
SHEET 74 OF 129
1105

FILE NAME : P:\B3 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\074_PIER5A_CAP_V7.B-5-681.DGN

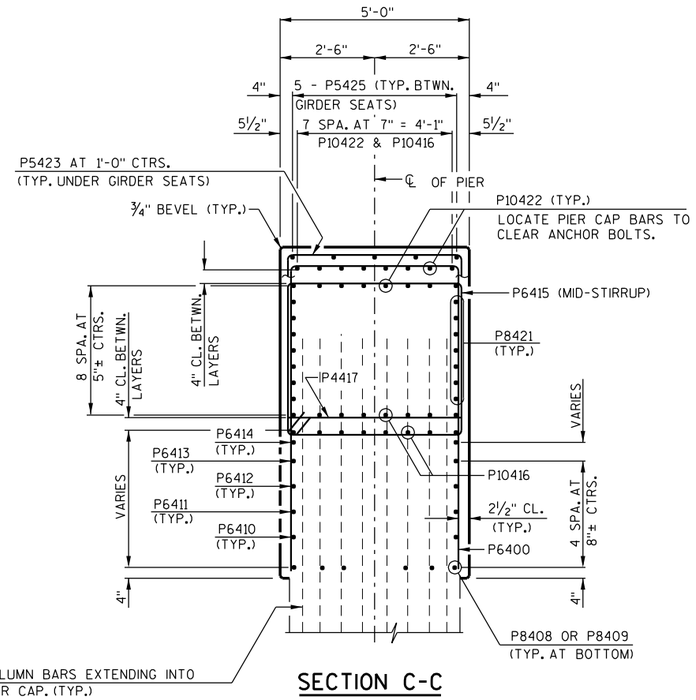
PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

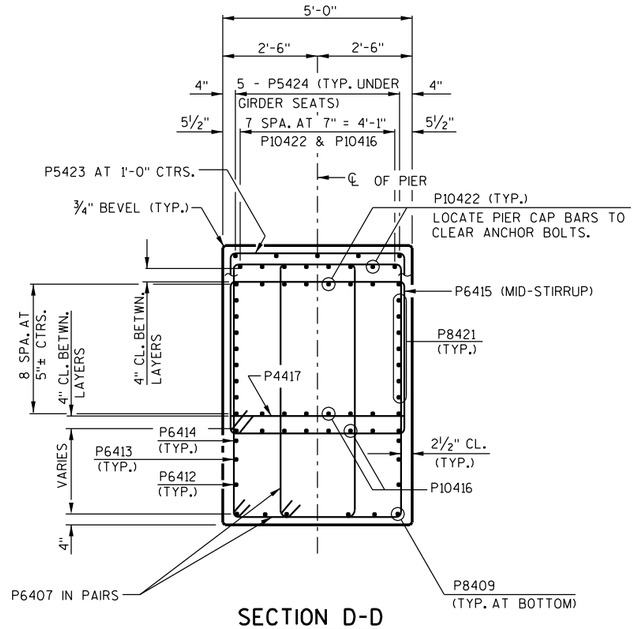
1133-11-74



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 74 FOR PIER CAP ELEVATION.
5. SEE SHEET 31 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 42 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - CAP DETAILS

SHEET 75 OF 129
1106

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\075_PIERSB_CAP_V17.B-5-681.DGN

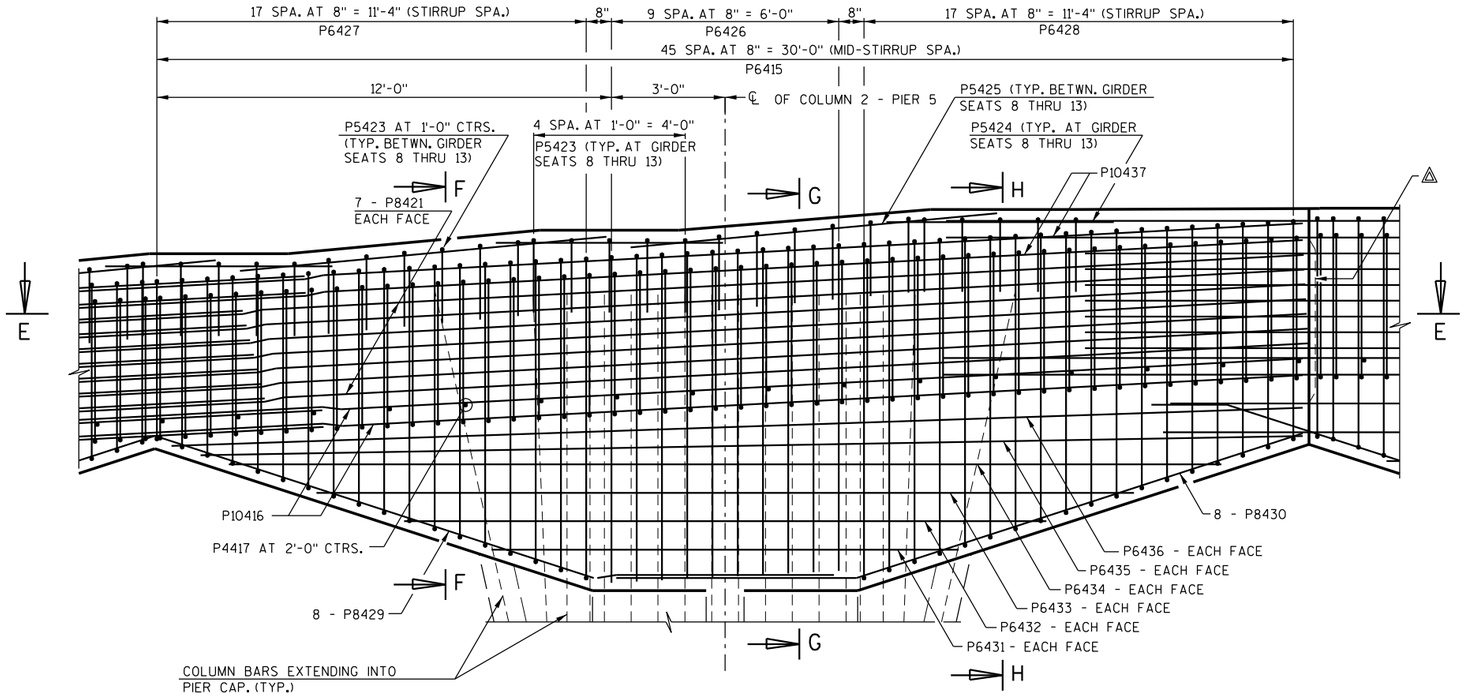
PLOT DATE : 3/15/2013

8

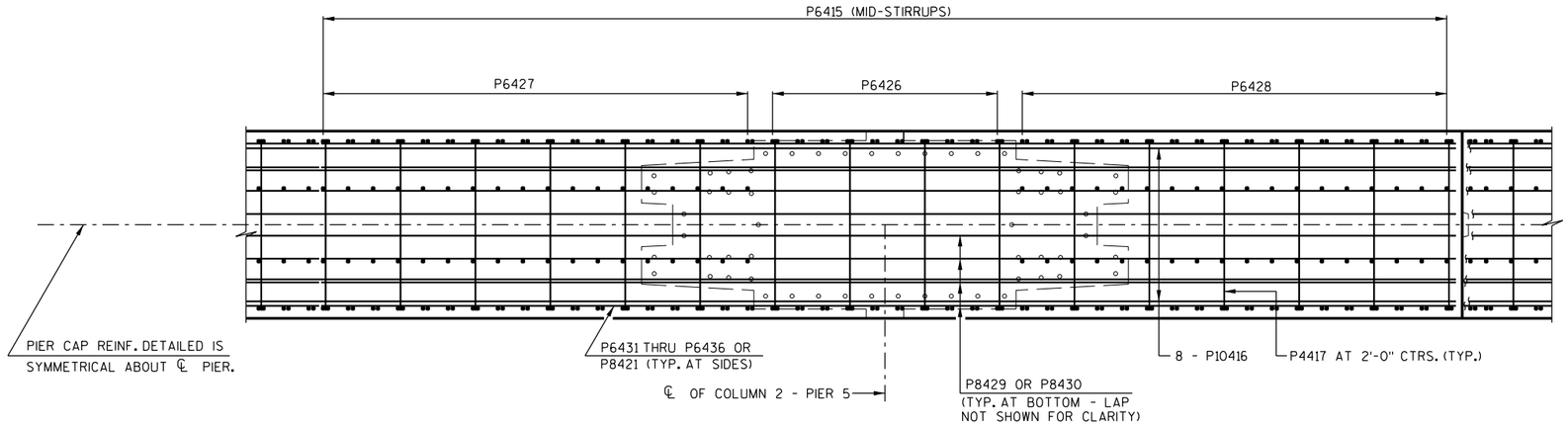
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 2



SECTION E-E

(SHOWING CAP STEEL AT COLUMN 2 - PIER 5)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 78 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 31 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 42 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - CAP DETAILS

SHEET 76 OF 129
1107

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\st\B-5-681\t076_PIER5C_CAP_V7.B-5-681.DGN

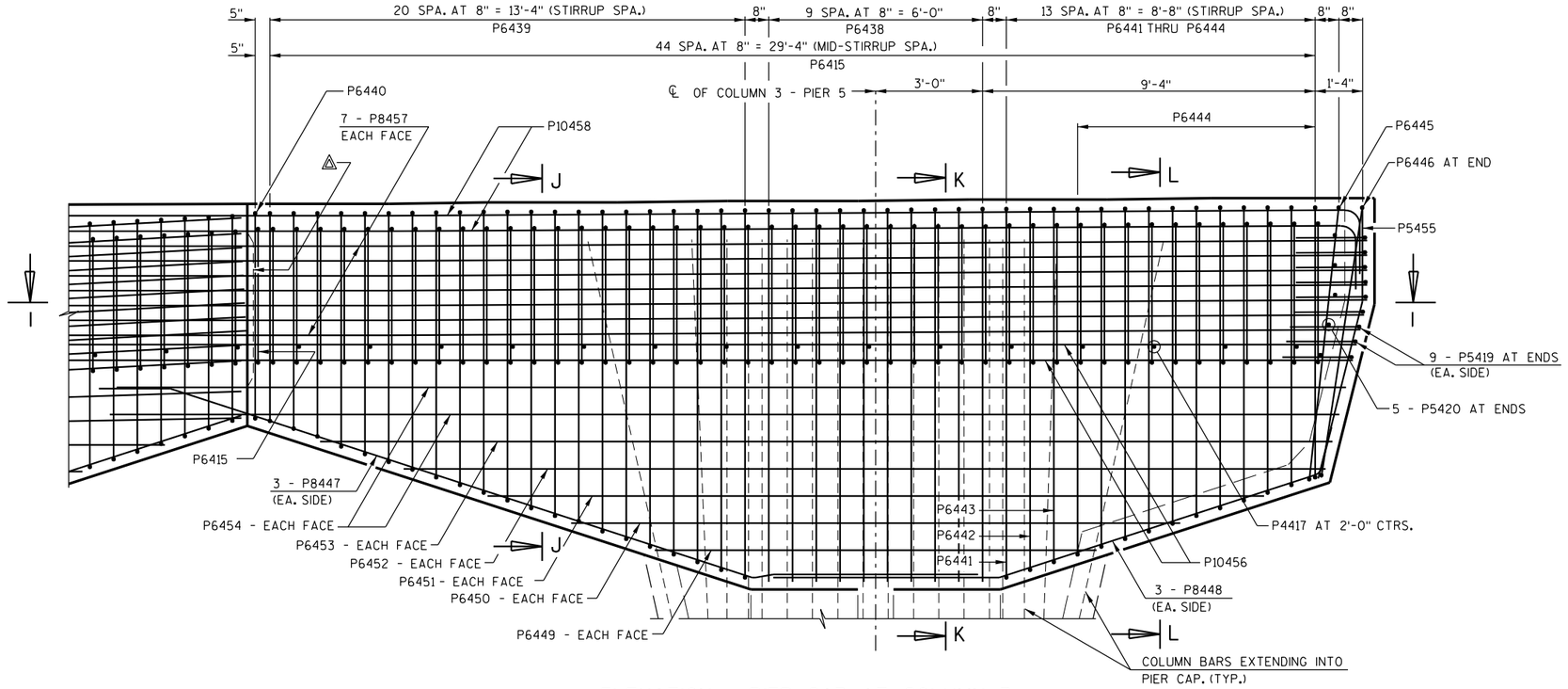
PLOT DATE : 3/15/2013

8

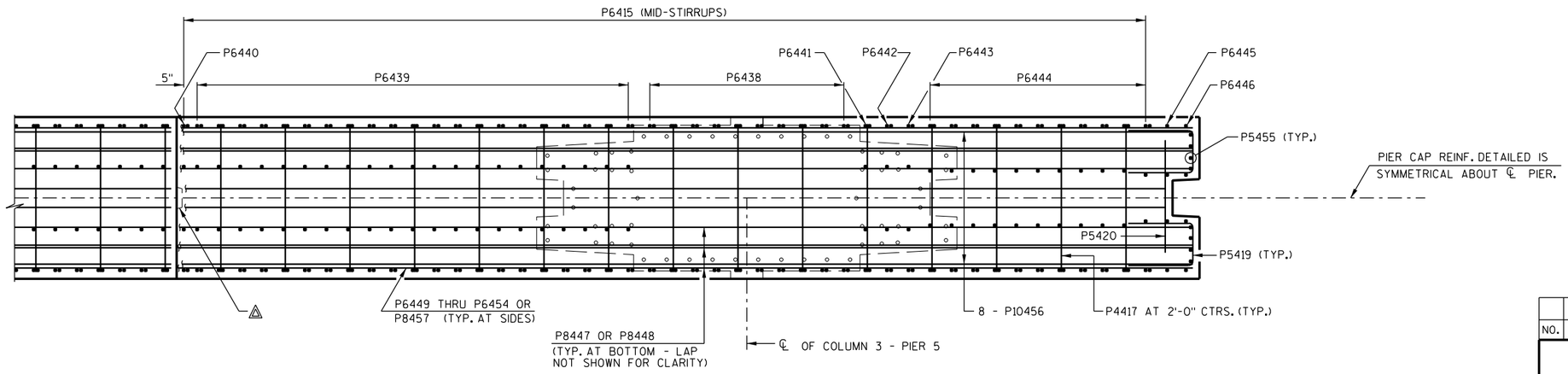
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 3



SECTION I-I

(SHOWING CAP STEEL AT COLUMN 3 - PIER 5)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 78 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 31 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 42 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - CAP DETAILS

SHEET 77 OF 129
1108

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

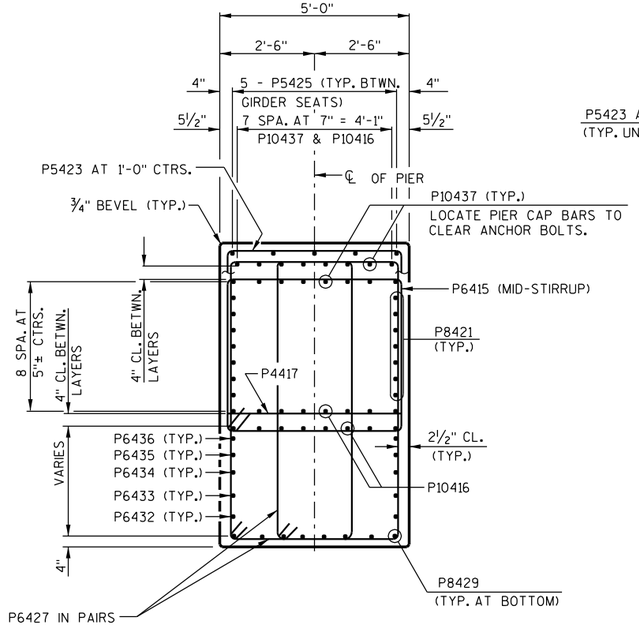
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\077.PIER5D.CAP.V7.B-5-681.DGN

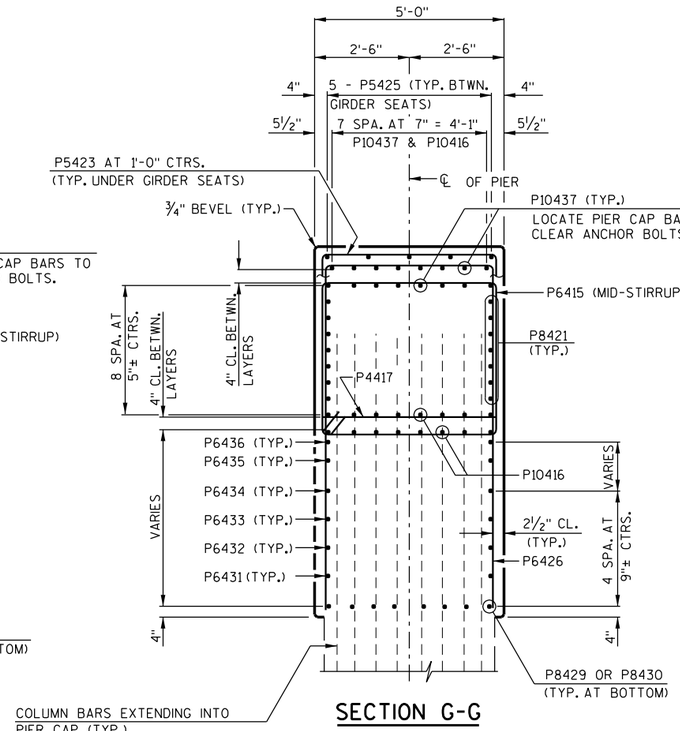
PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

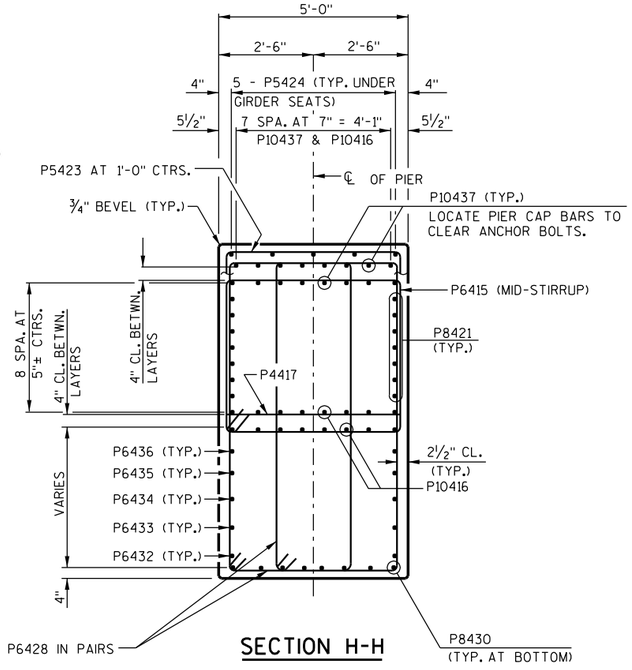
1133-11-74



SECTION F-F



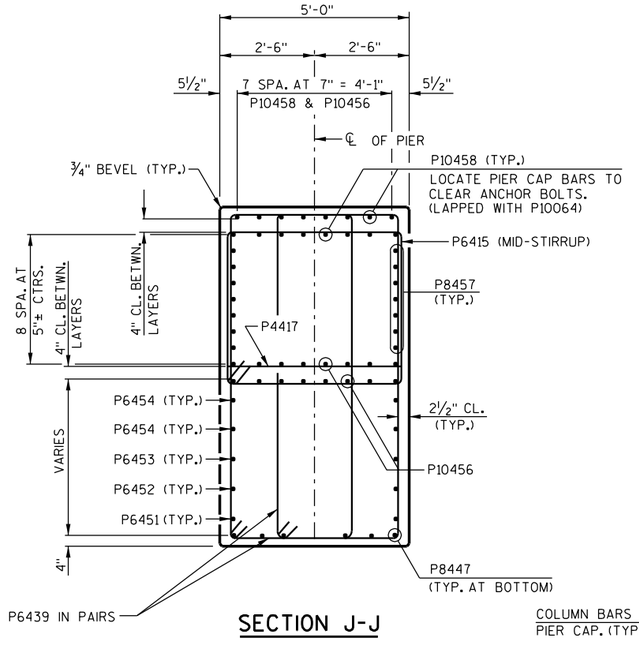
SECTION G-G



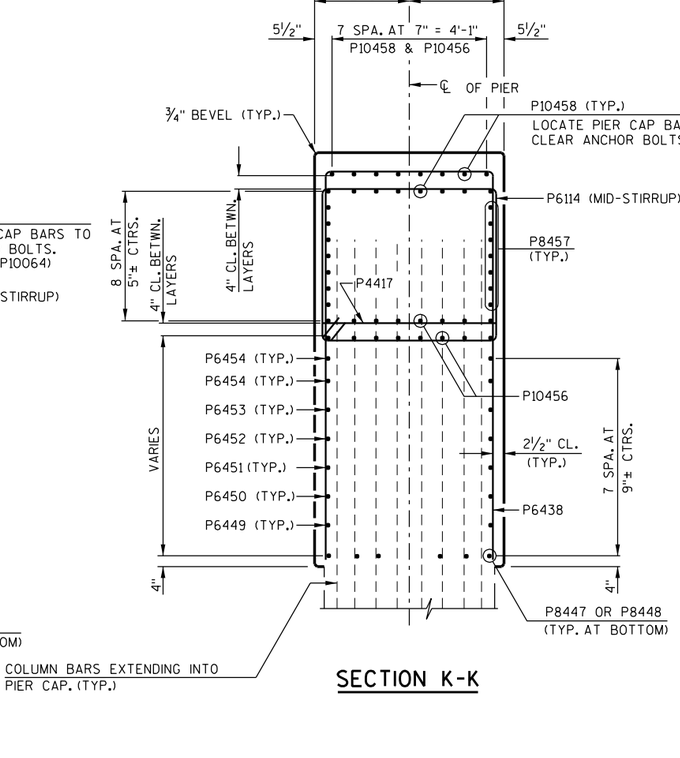
SECTION H-H

NOTES

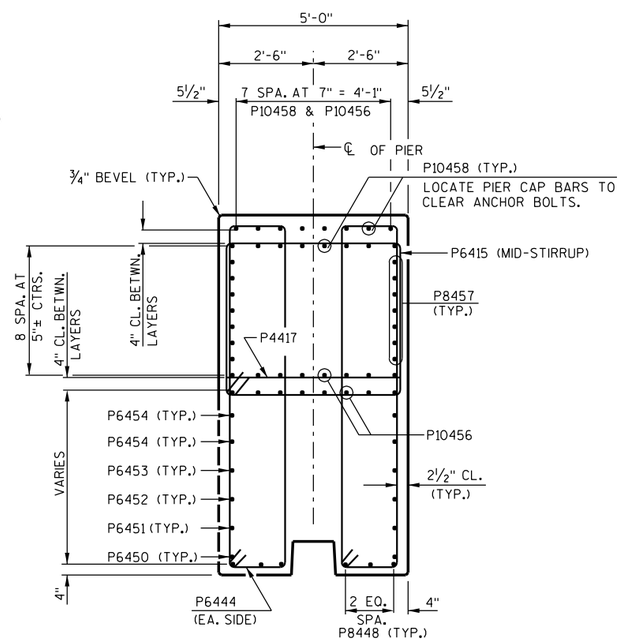
1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEETS 76 & 77 FOR PIER CAP ELEVATION.
5. SEE SHEET 31 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 42 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



SECTION J-J



SECTION K-K



SECTION L-L

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - CAP DETAILS

SHEET 78 OF 129
1109

PLOT DATE : 3/15/2013

FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\078_PIERSE_CAP_V7.8-5-681LDON

8

8

PIER 5 CAP - BILL OF BARS

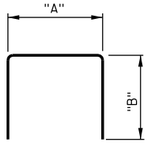
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 2 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 36,100 LBS.	
P6400	10	20-1	X		ABOVE COLUMN 1	VERT.
P6401	2	23-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6402	2	22-6	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6403	2	22-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6404	22	15-4	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6405	2	13-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6406	2	12-10	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6407	44	20-0	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P8408	6	17-2	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P8409	6	21-8	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P6410	2	12-6			ABOVE COLUMN 1 - SIDES	HORIZ.
P6411	2	17-4			ABOVE COLUMN 1 - SIDES	HORIZ.
P6412	2	22-3			ABOVE COLUMN 1 - SIDES	HORIZ.
P6413	2	25-4			ABOVE COLUMN 1 - SIDES	HORIZ.
P6414	2	28-6			ABOVE COLUMN 1 - SIDES	HORIZ.
P6415	135	18-0	X		ABOVE COLUMNS - MID-STIRRUPS	VERT.
P10416	32	35-9			ABOVE COLUMNS 1 & 2	HORIZ.
P4417	46	4-7			ABOVE COLUMNS 1 THRU 3	HORIZ.
P5418	8	4-10			ABOVE COLUMN 1 - END	VERT.
P5419	36	5-1	X		ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P5420	10	3-6			ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P8421	28	33-11			ABOVE COLUMNS 1 & 2 - SIDES	HORIZ.
P10422	16	37-2	X		ABOVE COLUMN 1 - TOP	HORIZ.
P5423	60	8-4	X		TOP - UNDER & BETWEEN GIRDER SEATS 8 - 13	VERT.
P5424	30	6-0			TOP - UNDER GIRDER SEATS 8 - 13	HORIZ.
P5425	25	9-9			TOP - BETWEEN GIRDER SEATS 8 - 13	HORIZ.
P6426	10	21-7	X		ABOVE COLUMN 2	VERT.
P6427	36	20-4	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6428	36	22-3	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P8429	8	18-6	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P8430	8	18-9	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6431	2	12-4			ABOVE COLUMN 2 - SIDES	HORIZ.
P6432	2	16-11			ABOVE COLUMN 2 - SIDES	HORIZ.
P6433	2	21-7			ABOVE COLUMN 2 - SIDES	HORIZ.
P6434	2	26-2			ABOVE COLUMN 2 - SIDES	HORIZ.
P6435	2	29-1			ABOVE COLUMN 2 - SIDES	HORIZ.
P6436	2	29-10			ABOVE COLUMN 2 - SIDES	HORIZ.
P10437	16	35-8			ABOVE COLUMN 2 - TOP	HORIZ.
P6438	10	25-3	X		ABOVE COLUMN 3	VERT.
P6439	42	23-10	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6440	2	19-2	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6441	2	28-4	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6442	2	28-0	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6443	2	27-6	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6444	22	21-3	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6445	2	19-4	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6446	2	19-2	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P8447	6	25-6	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P8448	6	17-2	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P6449	2	12-5			ABOVE COLUMN 3 - SIDES	HORIZ.
P6450	2	17-1			ABOVE COLUMN 3 - SIDES	HORIZ.
P6451	2	21-9			ABOVE COLUMN 3 - SIDES	HORIZ.
P6452	2	25-10			ABOVE COLUMN 3 - SIDES	HORIZ.
P6453	2	28-5			ABOVE COLUMN 3 - SIDES	HORIZ.
P6454	4	34-6			ABOVE COLUMN 3 - SIDES	HORIZ.
P5455	8	7-8	X		ABOVE COLUMN 3 - END	VERT.
P10456	16	40-10			ABOVE COLUMN 3	HORIZ.
P8457	14	37-5			ABOVE COLUMN 3	HORIZ.
P10458	16	42-7	X		ABOVE COLUMN 3 - TOP	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

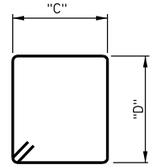
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P6404	2 SETS OF 11	12'-10" TO 17'-10"
P6407	2 SETS OF 22	16'-4" TO 23'-8"
P6427	2 SETS OF 18	16'-2" TO 24'-6"
P6428	2 SETS OF 18	19'-2" TO 25'-4"
P6439	2 SETS OF 21	19'-4" TO 28'-4"
P6444	2 SETS OF 11	19'-2" TO 23'-4"



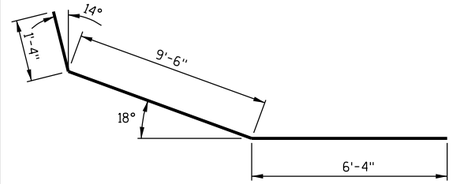
MARK	DIMENSION "A"	DIMENSION "B"
P6400	4'-7"	7'-11"
P5419	1'-4"	2'-0"
P5423	4'-7"	2'-0"
P6426	4'-7"	8'-8"
P6438	4'-7"	10'-6"

P6400, P5419, P5423, P6426 & P6438



P6401 THRU P6407, P6415, P6427, P6428, & P6439 THRU P6446

MARK	DIMENSION "C"	DIMENSION "D"
P6401	3'-4"	7'-9"
P6402	3'-4"	7'-6"
P6403	3'-4"	7'-3"
P6404	1'-6"	4'-6" TO 7'-0"
P6405	1'-6"	4'-7"
P6406	1'-6"	4'-6"
P6407	3'-4"	4'-5" TO 8'-1"
P6415	4'-7"	4'-0"
P6427	3'-4"	4'-4" TO 8'-6"
P6428	3'-4"	5'-10" TO 8'-11"
P6439	3'-4"	5'-11" TO 10'-5"
P6440	3'-4"	5'-10"
P6441	3'-4"	10'-5"
P6442	3'-4"	10'-3"
P6443	3'-4"	10'-0"
P6444	1'-6"	7'-8" TO 9'-9"
P6445	1'-6"	7'-9"
P6446	1'-6"	7'-8"



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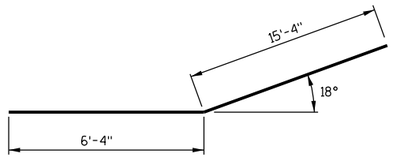

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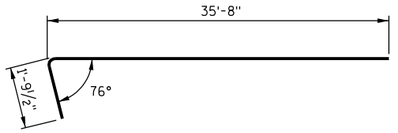

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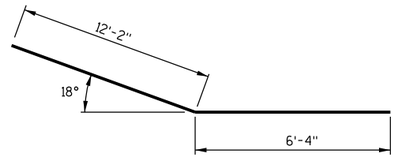

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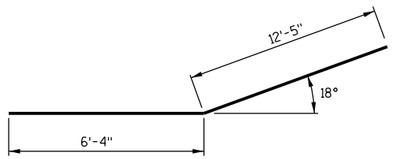

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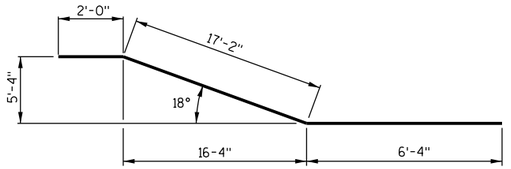

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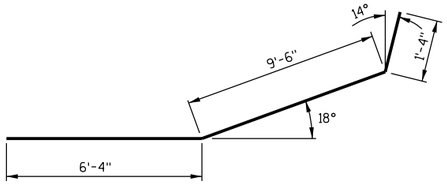

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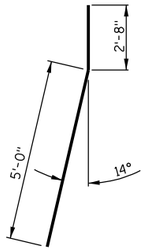

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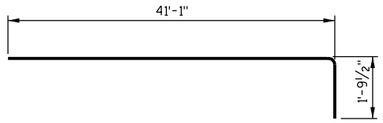


P10458

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 5 - CAP
BILL OF BARS

SHEET 79 OF 129
1110

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

STATE PROJECT NUMBER
1133-11-74

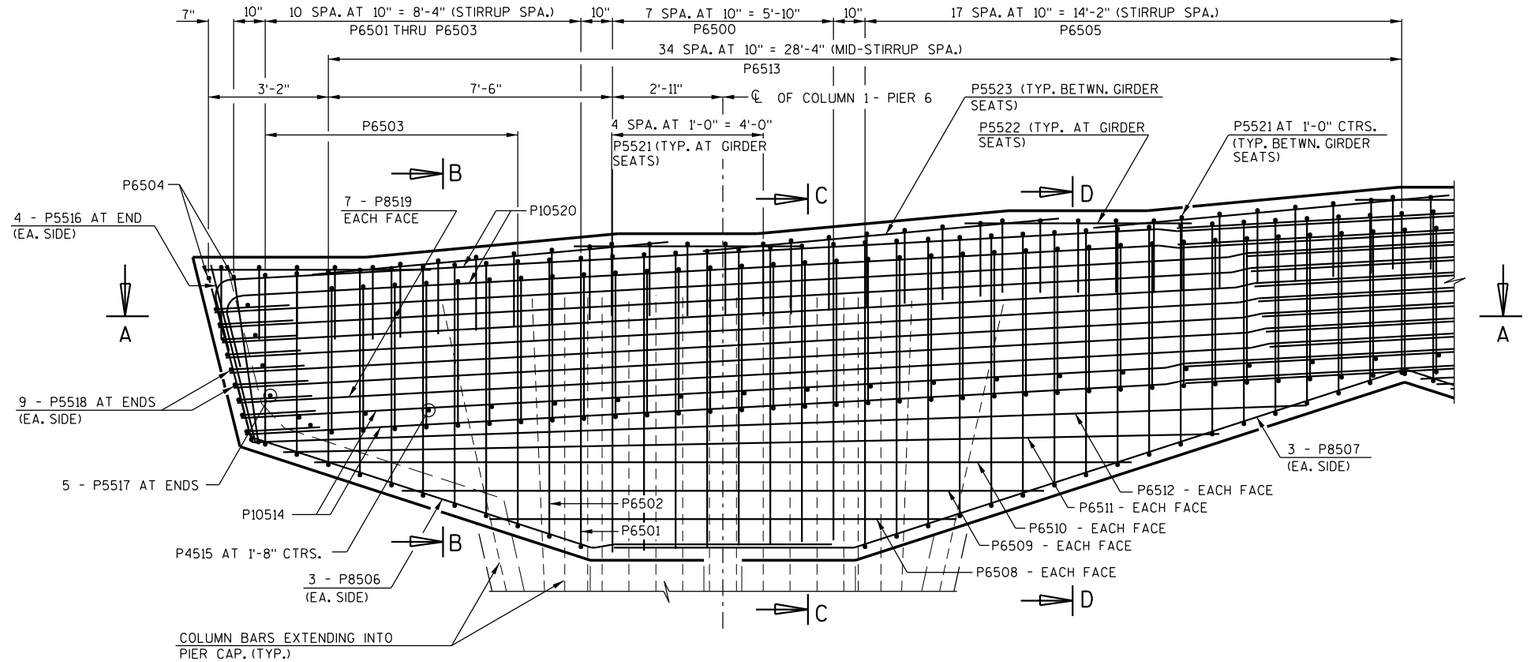
FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\079.PIER5_CAP_BARS.V7.B-5-681.DGN
PLOT DATE : 2/28/2013

8

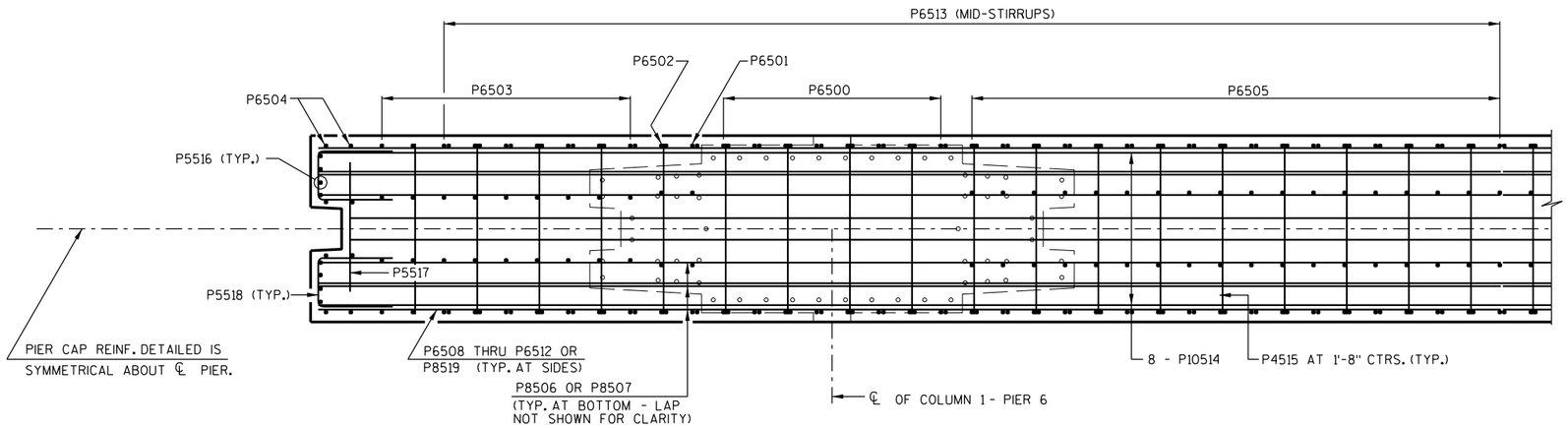
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

(SHOWING CAP STEEL AT COLUMN 1 - PIER 6)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 81 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 32 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 43 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" × 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6 - CAP DETAILS

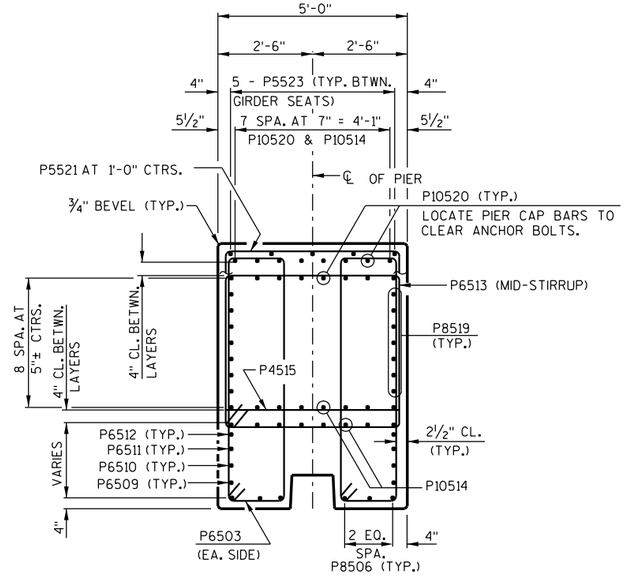
SHEET 80 OF 129
1111

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\080.PIER6A.CAP.V17.B-5-681.DGN

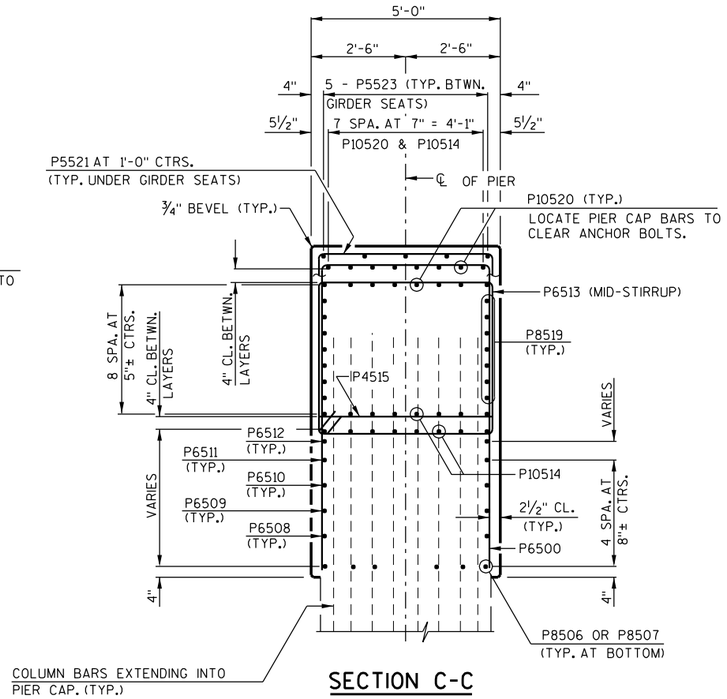
PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

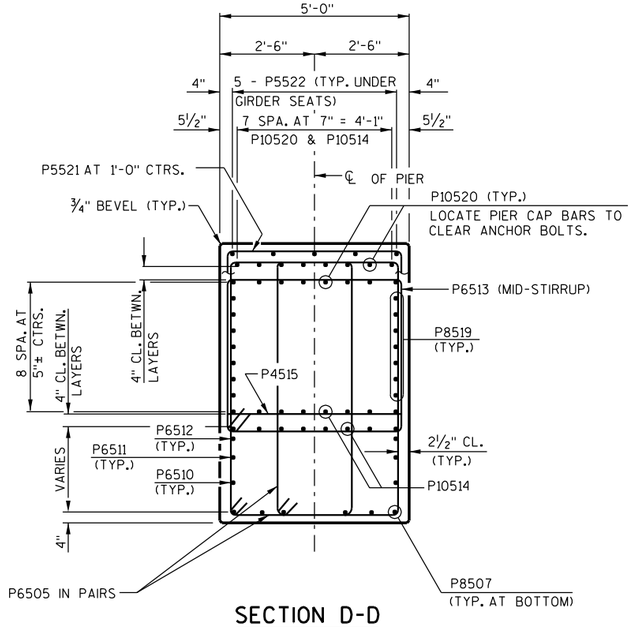
1133-11-74



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 80 FOR PIER CAP ELEVATION.
5. SEE SHEET 32 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 43 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6 - CAP DETAILS

SHEET 81 OF 129
1112

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\DGN\E5-B-5-681081_PIER6B_CAP_V7_B-5-681.DGN

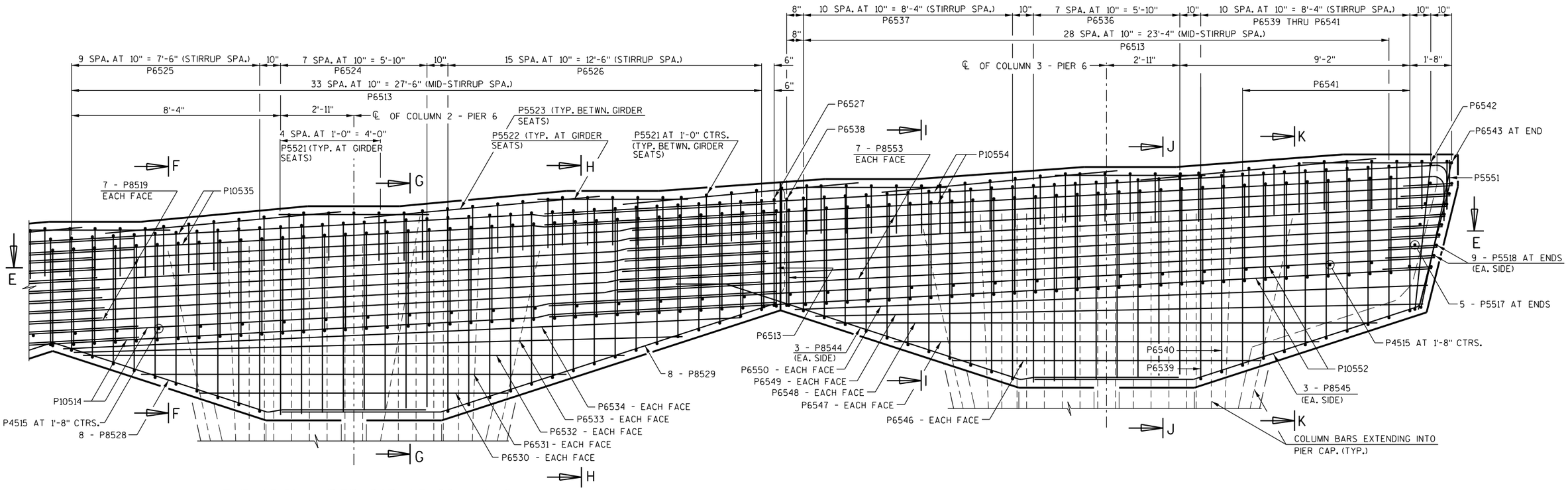
PLOT DATE : 3/15/2013

8

8

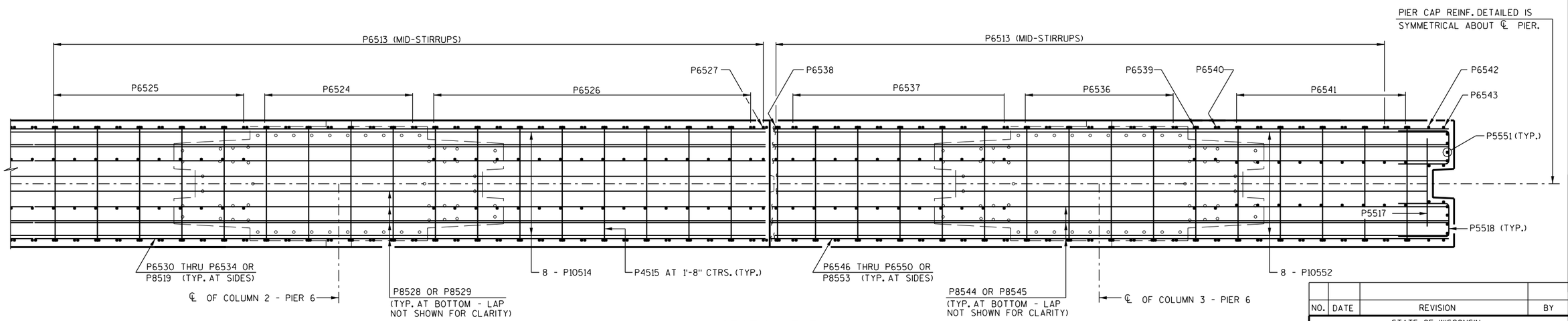
STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 2

ELEVATION - PIER CAP AT COLUMN 3



SECTION E-E

(SHOWING CAP STEEL AT COLUMNS 2 & 3 - PIER 6)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 83 FOR SECTIONS THRU PIER CAP.
5. SEE SHEET 32 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 43 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" x 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6 - CAP DETAILS

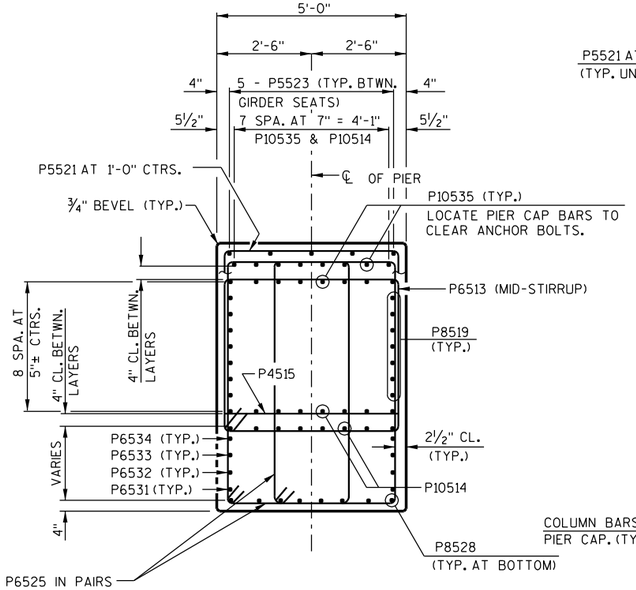
SHEET 82 OF 129
1113

FILE NAME : P:\853 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\D82_PIER6C_CAP_V7.B-5-681.DGN

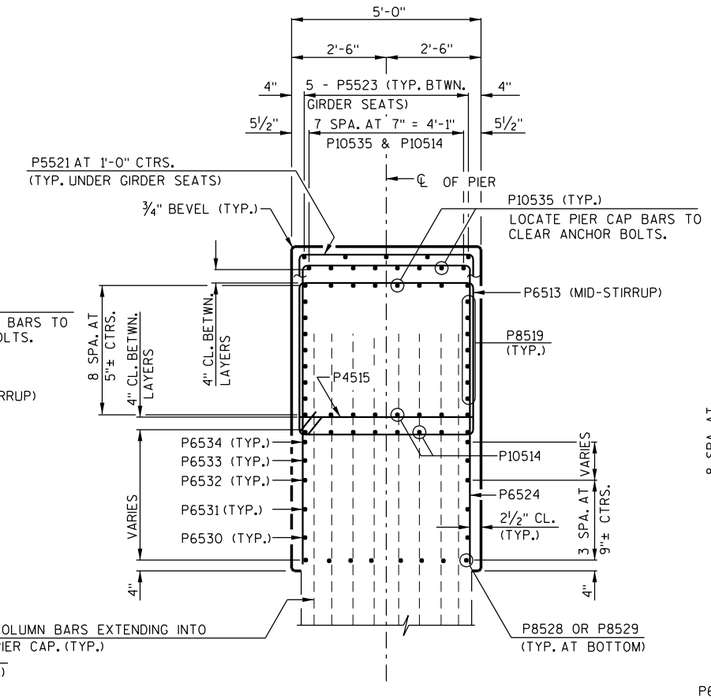
PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

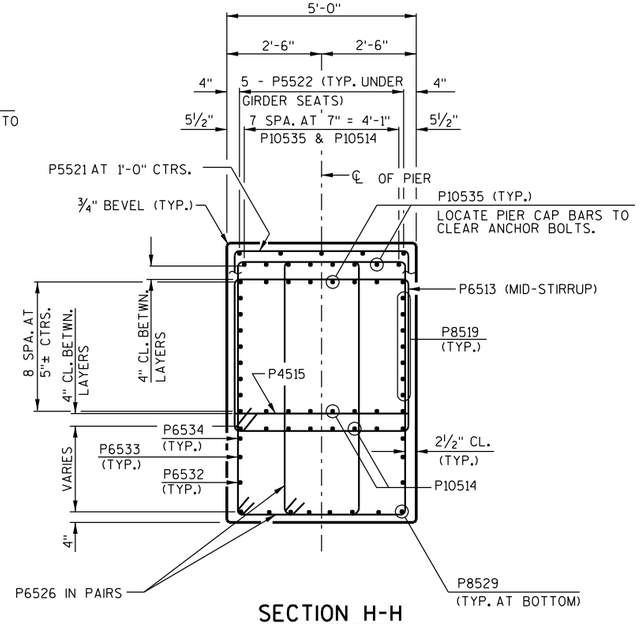
1133-11-74



SECTION F-F



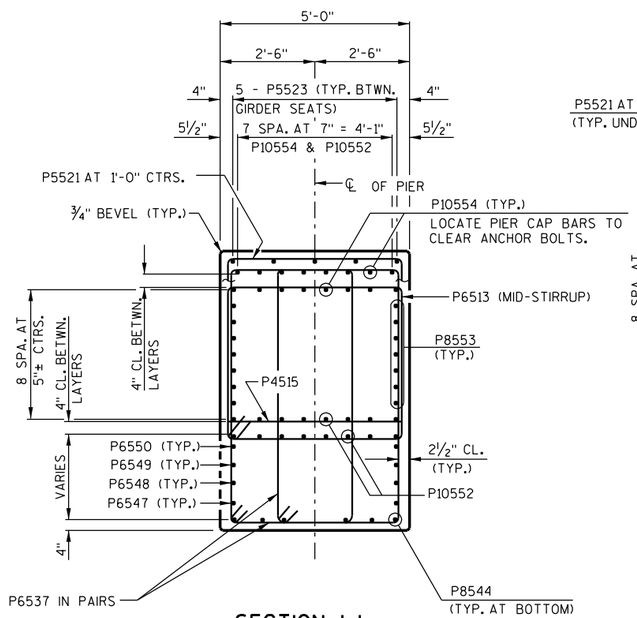
SECTION G-G



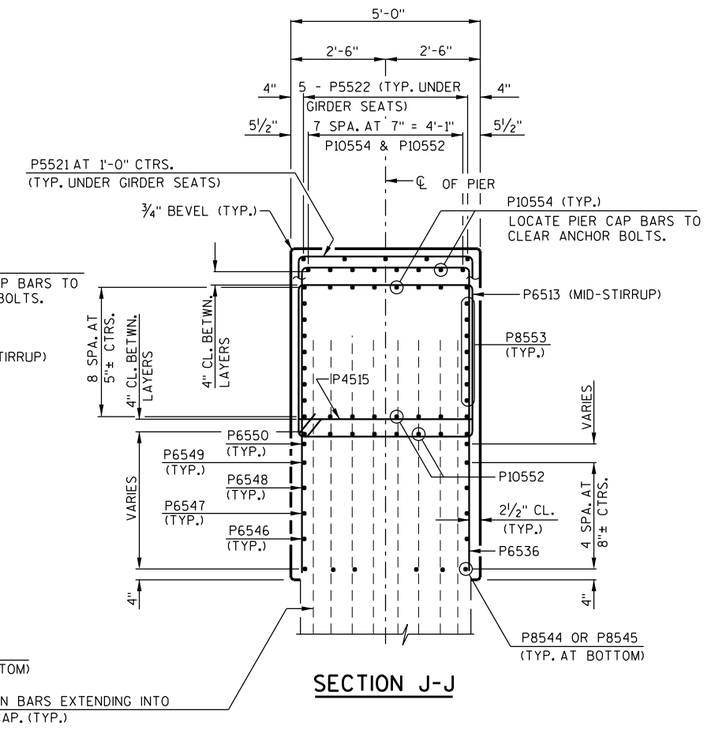
SECTION H-H

NOTES

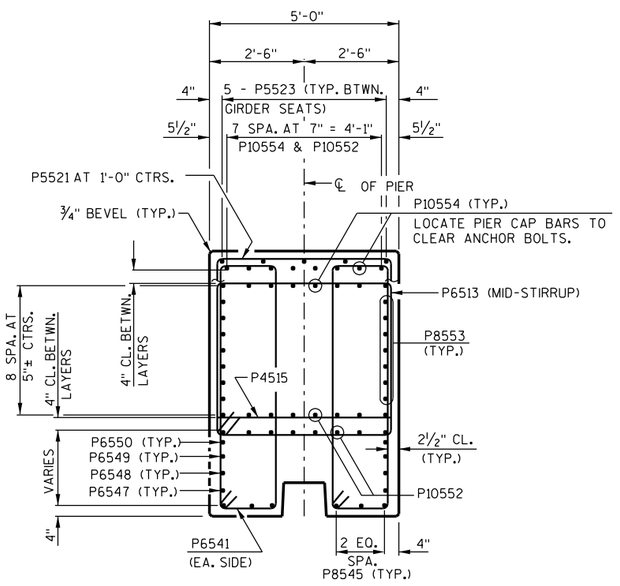
1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 82 FOR PIER CAP ELEVATION.
5. SEE SHEET 32 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEET 43 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



SECTION I-I



SECTION J-J



SECTION K-K

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6 - CAP DETAILS

SHEET 83 OF 129
1114

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\SB-5-681\083.PIERGD.CAP.V7.B-5-681.DGN

PLOT DATE : 3/15/2013

8

8

PIER 6 CAP - BILL OF BARS

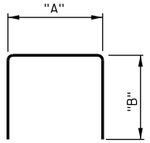
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 2 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 31,450 LBS.
P6500	8	20-1	X		ABOVE COLUMN 1 VERT.
P6501	2	23-0	X		ABOVE COLUMN 1 - STIRRUPS VERT.
P6502	2	22-4	X		ABOVE COLUMN 1 - STIRRUPS VERT.
P6503	18	15-6	X	⚹	ABOVE COLUMN 1 - STIRRUPS VERT.
P6504	4	12-10	X		ABOVE COLUMN 1 - STIRRUPS VERT.
P6505	36	20-0	X	⚹	ABOVE COLUMN 1 - STIRRUPS VERT.
P8506	6	17-2	X		ABOVE COLUMN 1 - BOTTOM HORIZ.
P8507	6	21-8	X		ABOVE COLUMN 1 - BOTTOM HORIZ.
P6508	2	12-4			ABOVE COLUMN 1 - SIDES HORIZ.
P6509	2	16-11			ABOVE COLUMN 1 - SIDES HORIZ.
P6510	2	21-7			ABOVE COLUMN 1 - SIDES HORIZ.
P6511	2	24-8			ABOVE COLUMN 1 - SIDES HORIZ.
P6512	2	27-10			ABOVE COLUMN 1 - SIDES HORIZ.
P6513	100	18-0	X		ABOVE COLUMNS - MID-STIRRUPS VERT.
P10514	32	34-8			ABOVE COLUMNS 1 & 2 HORIZ.
P4515	60	4-7			ABOVE COLUMNS 1 THRU 3 HORIZ.
P5516	8	4-10			ABOVE COLUMN 1 - END VERT.
P5517	10	3-6			ABOVE COLUMNS 1 & 3 - ENDS HORIZ.
P5518	36	5-1	X		ABOVE COLUMNS 1 & 3 - ENDS HORIZ.
P8519	28	33-1			ABOVE COLUMNS 1 & 2 - SIDES HORIZ.
P10520	16	36-5	X		ABOVE COLUMN 1 - TOP HORIZ.
P5521	93	8-4	X		TOP - UNDER & BETWEEN GIRDER SEATS VERT.
P5522	45	6-0			TOP - UNDER GIRDER SEATS HORIZ.
P5523	40	9-6			TOP - BETWEEN GIRDER SEATS HORIZ.
P6524	8	19-5	X		ABOVE COLUMN 2 VERT.
P6525	20	19-6	X	⚹	ABOVE COLUMN 2 - STIRRUPS VERT.
P6526	32	19-9	X	⚹	ABOVE COLUMN 2 - STIRRUPS VERT.
P6527	2	16-2	X		ABOVE COLUMN 2 - STIRRUPS VERT.
P8528	8	15-4	X		ABOVE COLUMN 2 - BOTTOM HORIZ.
P8529	8	20-5	X		ABOVE COLUMN 2 - BOTTOM HORIZ.
P6530	2	12-4			ABOVE COLUMN 2 - SIDES HORIZ.
P6531	2	16-11			ABOVE COLUMN 2 - SIDES HORIZ.
P6532	2	21-7			ABOVE COLUMN 2 - SIDES HORIZ.
P6533	2	24-3			ABOVE COLUMN 2 - SIDES HORIZ.
P6534	2	27-0			ABOVE COLUMN 2 - SIDES HORIZ.
P10535	16	34-11			ABOVE COLUMN 2 - TOP HORIZ.
P6536	8	20-1	X		ABOVE COLUMN 3 VERT.
P6537	22	19-10	X	⚹	ABOVE COLUMN 3 - STIRRUPS VERT.
P6538	2	16-2	X		ABOVE COLUMN 3 - STIRRUPS VERT.
P6539	2	23-10	X		ABOVE COLUMN 3 - STIRRUPS VERT.
P6540	2	23-4	X		ABOVE COLUMN 3 - STIRRUPS VERT.
P6541	18	17-5	X	⚹	ABOVE COLUMN 3 - STIRRUPS VERT.
P6542	2	15-8	X		ABOVE COLUMN 3 - STIRRUPS VERT.
P6543	2	15-10	X		ABOVE COLUMN 3 - STIRRUPS VERT.
P8544	6	20-8	X		ABOVE COLUMN 3 - BOTTOM HORIZ.
P8545	6	17-2	X		ABOVE COLUMN 3 - BOTTOM HORIZ.
P6546	2	12-4			ABOVE COLUMN 3 - SIDES HORIZ.
P6547	2	16-11			ABOVE COLUMN 3 - SIDES HORIZ.
P6548	2	21-7			ABOVE COLUMN 3 - SIDES HORIZ.
P6549	2	24-3			ABOVE COLUMN 3 - SIDES HORIZ.
P6550	2	25-3			ABOVE COLUMN 3 - SIDES HORIZ.
P5551	8	6-0	X		ABOVE COLUMN 3 - END VERT.
P10552	16	35-5			ABOVE COLUMN 3 HORIZ.
P8553	14	32-9			ABOVE COLUMN 3 HORIZ.
P10554	16	37-9	X		ABOVE COLUMN 3 - TOP HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

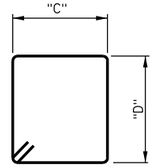
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P6503	2 SETS OF 9	13'-0" TO 18'-0"
P6505	2 SETS OF 18	16'-2" TO 23'-10"
P6525	2 SETS OF 10	16'-8" TO 22'-4"
P6526	2 SETS OF 16	16'-4" TO 23'-2"
P6537	2 SETS OF 11	16'-8" TO 23'-0"
P6541	2 SETS OF 9	15'-8" TO 19'-2"



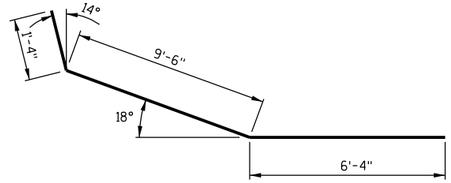
MARK	DIMENSION "A"	DIMENSION "B"
P6500	4'-7"	7'-11"
P5518	1'-4"	2'-0"
P5521	4'-7"	2'-0"
P6524	4'-7"	7'-7"
P6536	4'-7"	7'-11"

P6500, P5518, P5521, P6524 & P6536



P6501 THRU P6505, P6513, P6525 THRU P6527, & P6537 THRU P6543

MARK	DIMENSION "C"	DIMENSION "D"
P6501	3'-4"	7'-9"
P6502	3'-4"	7'-5"
P6503	1'-6"	4'-7" TO 7'-1"
P6504	1'-6"	4'-6"
P6505	3'-4"	4'-4" TO 8'-2"
P6513	4'-7"	4'-0"
P6525	3'-4"	4'-7" TO 7'-5"
P6526	3'-4"	4'-5" TO 7'-10"
P6527	3'-4"	4'-4"
P6537	3'-4"	4'-7" TO 7'-9"
P6538	3'-4"	4'-4"
P6539	3'-4"	8'-2"
P6540	3'-4"	7'-11"
P6541	1'-6"	5'-11" TO 7'-8"
P6542	1'-6"	5'-11"
P6543	1'-6"	6'-0"



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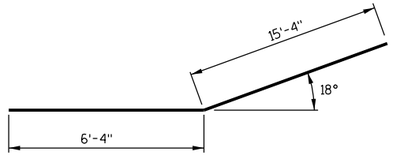

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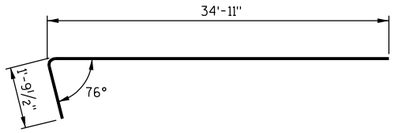

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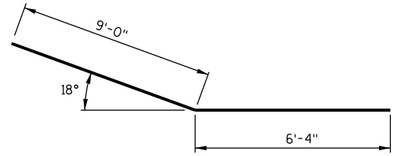

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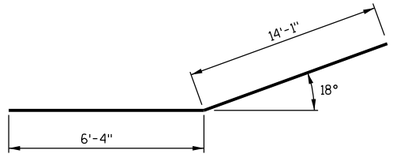

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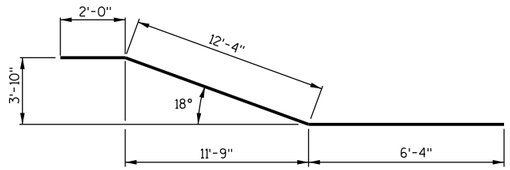

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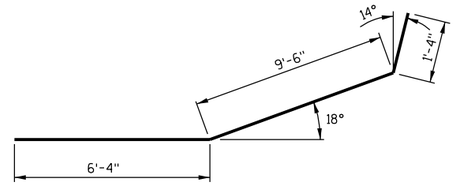

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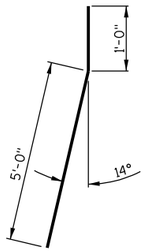

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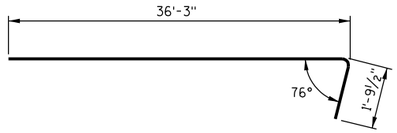


P10554

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIER 6 - CAP
BILL OF BARS

SHEET 84 OF 129
1115

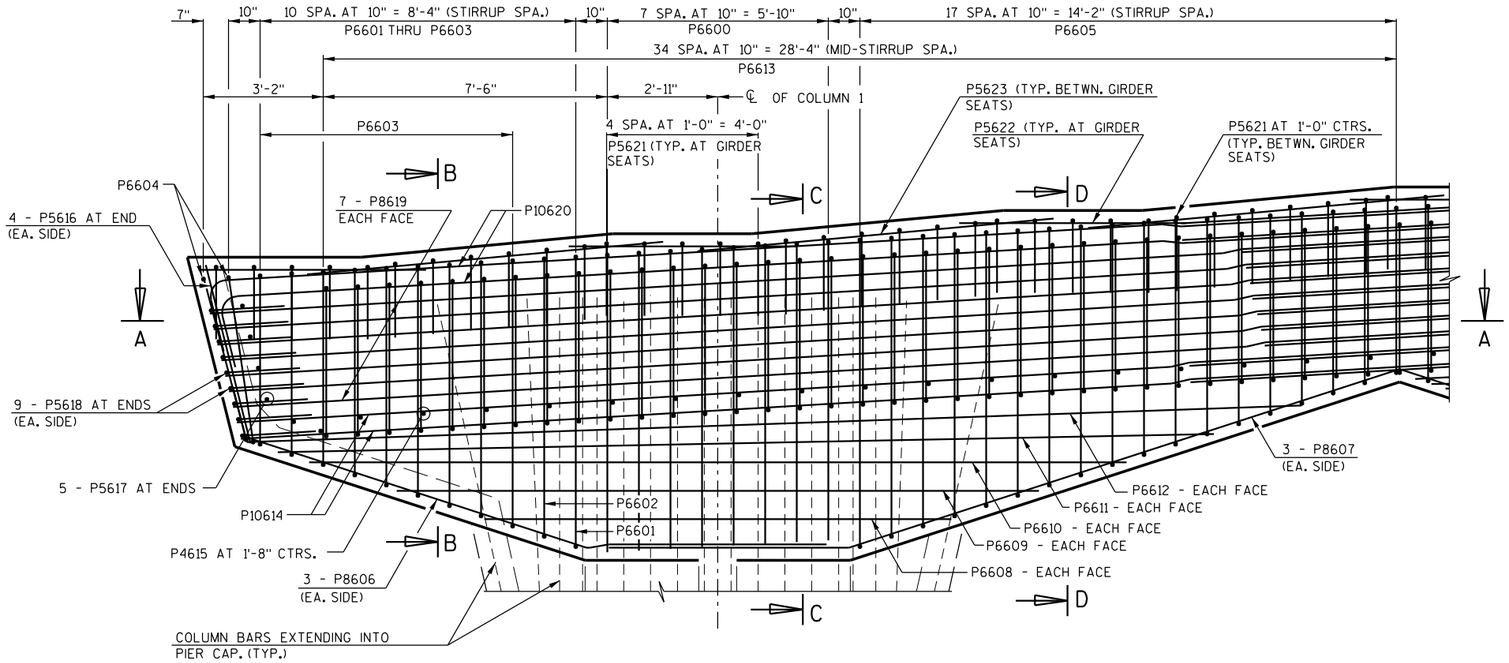
STATE PROJECT NUMBER
1133-11-74

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\084_PIER6_CAP_BARS_V7.B-5-681.DGN
PLOT DATE : 2/28/2013

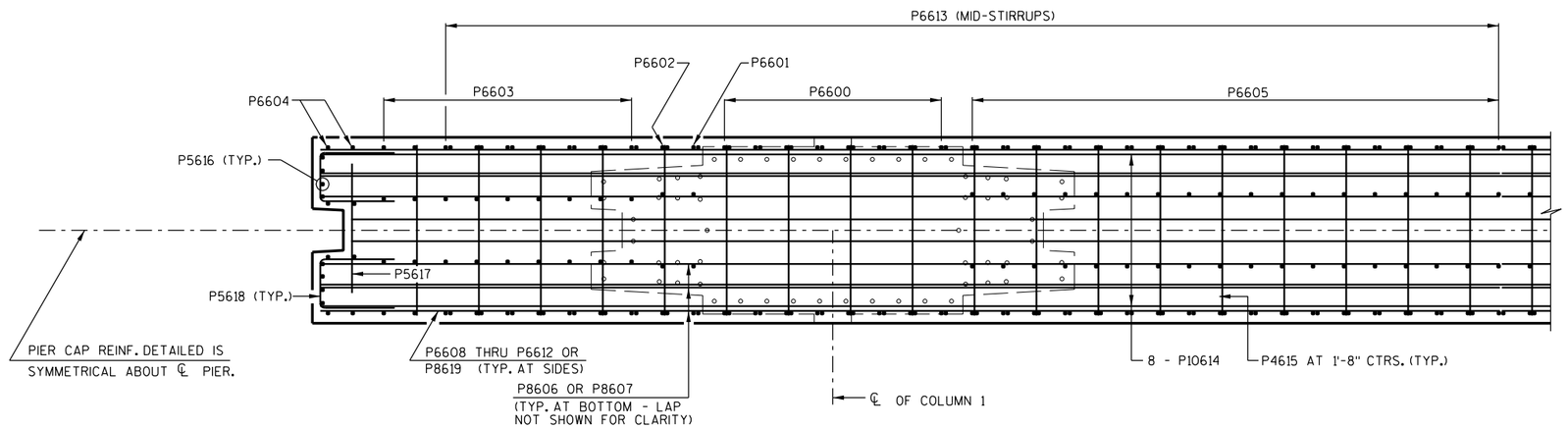
8

STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 1



SECTION A-A

(SHOWING CAP STEEL AT COLUMN 1 - PIERS 7 THRU 10)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 86 FOR SECTIONS THRU PIER CAP.
5. SEE SHEETS 33 - 36 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEETS 44 - 53 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" × 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIERS 7 THRU 10 - CAP DETAILS

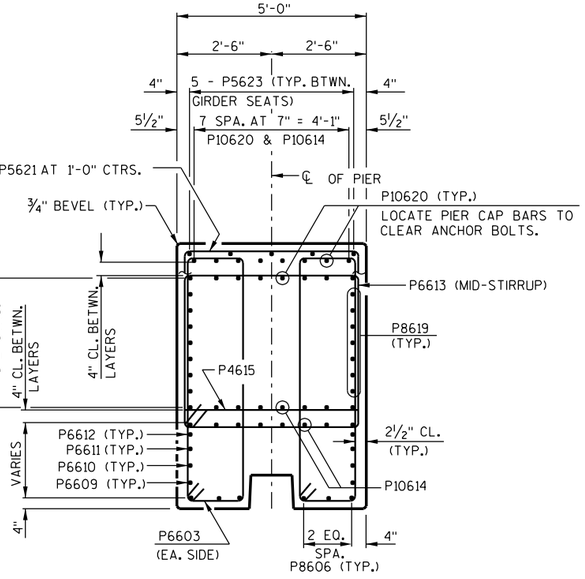
SHEET 85 OF 129
1116

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\085_PIERS7-10A_CAP_V7.0-5-681.DGN

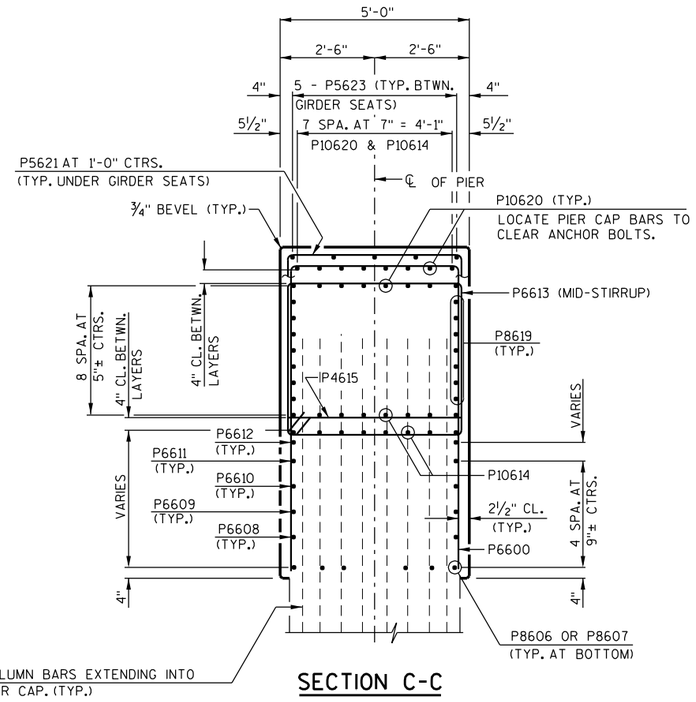
PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

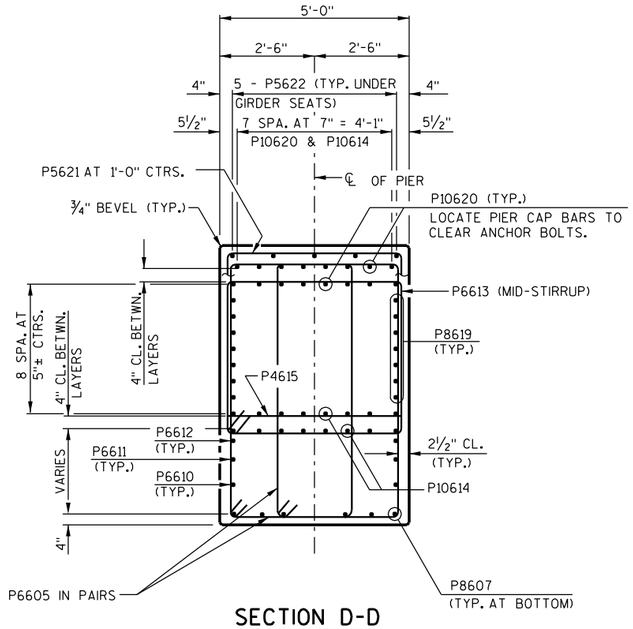
1133-11-74



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 85 FOR PIER CAP ELEVATION.
5. SEE SHEETS 33 - 36 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEETS 44 - 53 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIERS 7 THRU 10 - CAP DETAILS

SHEET 86 OF 129
1117

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

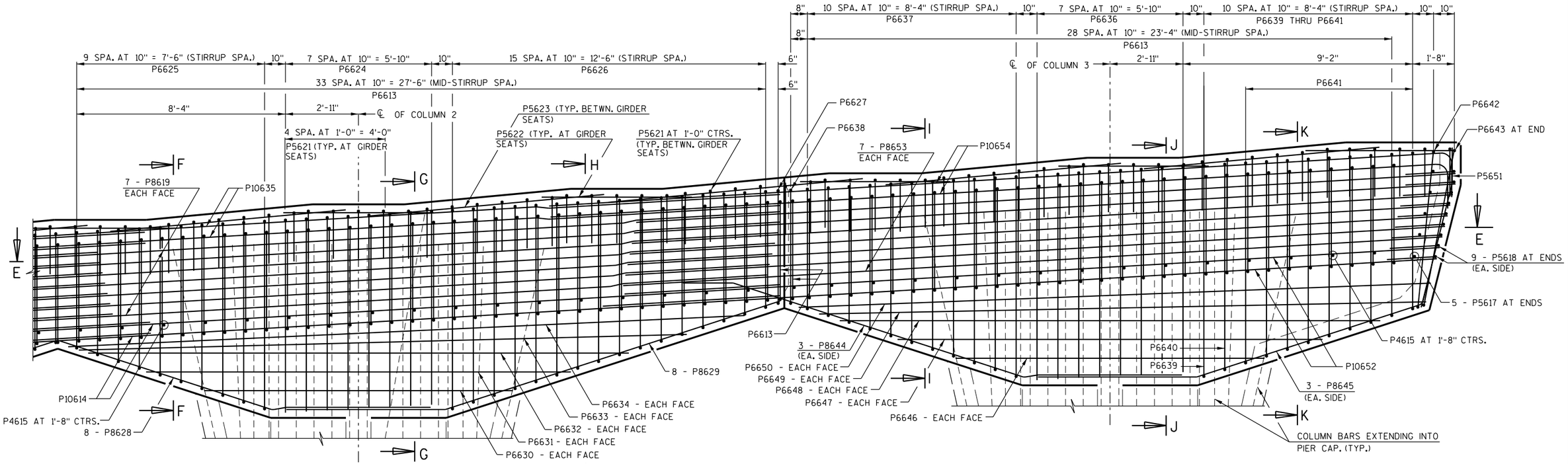
8

FILE NAME : P:\53 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\I086_PIERS7-10B_CAP_V7.0-5-681.DGN

PLOT DATE : 3/15/2013

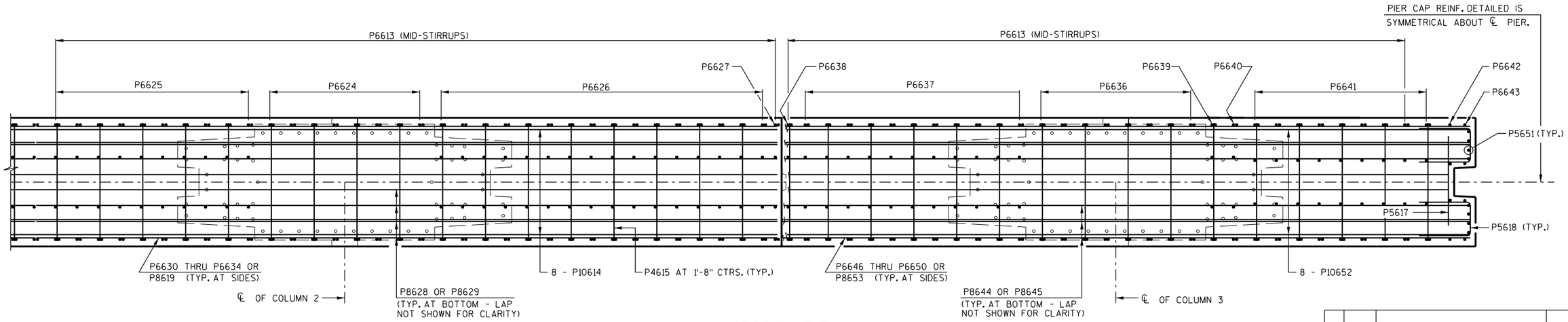
STATE PROJECT NUMBER

1133-11-74



ELEVATION - PIER CAP AT COLUMN 2

ELEVATION - PIER CAP AT COLUMN 3



SECTION E-E

(SHOWING CAP STEEL AT COLUMNS 2 & 3 - PIERS 7 THRU 10)

NOTES

1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 88 FOR SECTIONS THRU PIER CAP.
5. SEE SHEETS 33 - 36 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEETS 44 - 53 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.

LEGEND

△ KEYED CONST. JOINT FORMED BY BEVELED 2" × 8".

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIERS 7 THRU 10 - CAP DETAILS

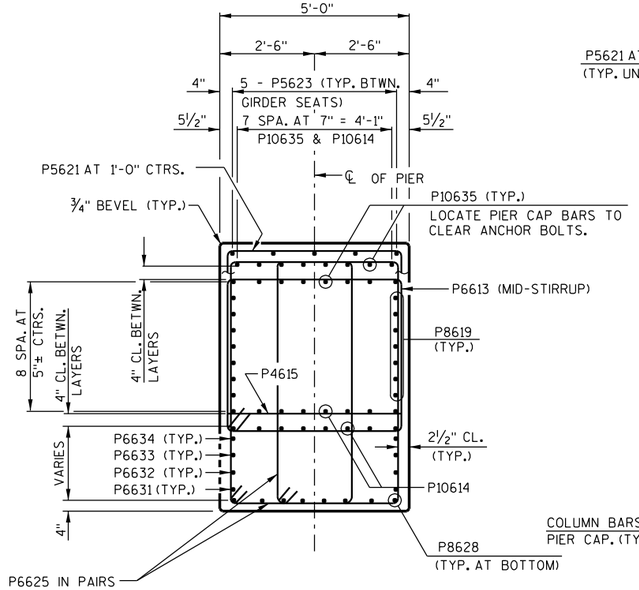
SHEET 87 OF 129
1118

PLOT DATE : 3/15/2013

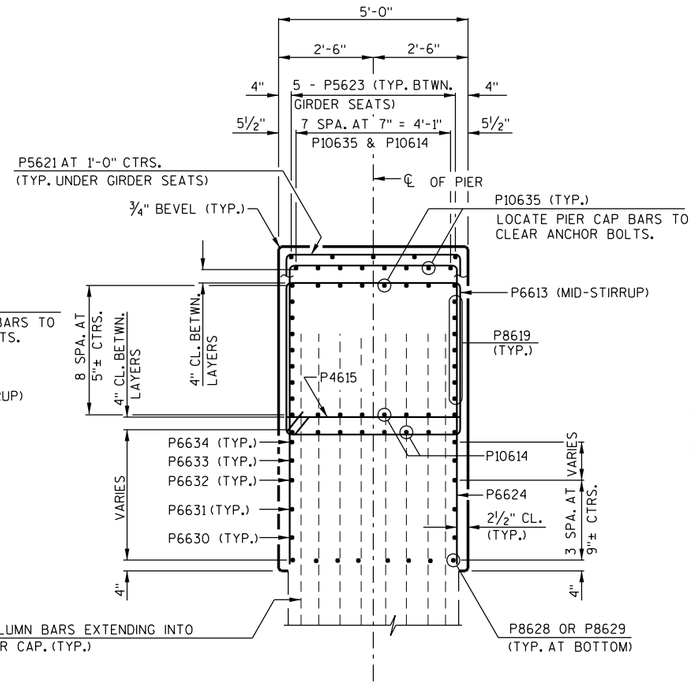
FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\087.PIERS7-10C_CAP_V7.B-5-681.DGN

STATE PROJECT NUMBER

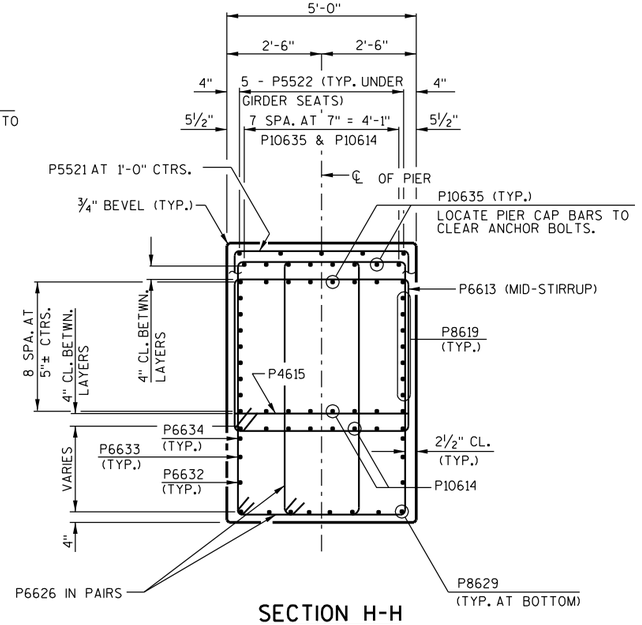
1133-11-74



SECTION F-F



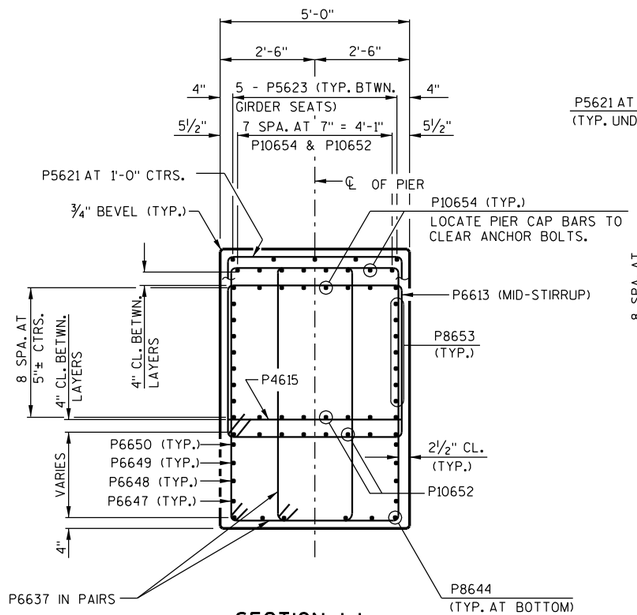
SECTION G-G



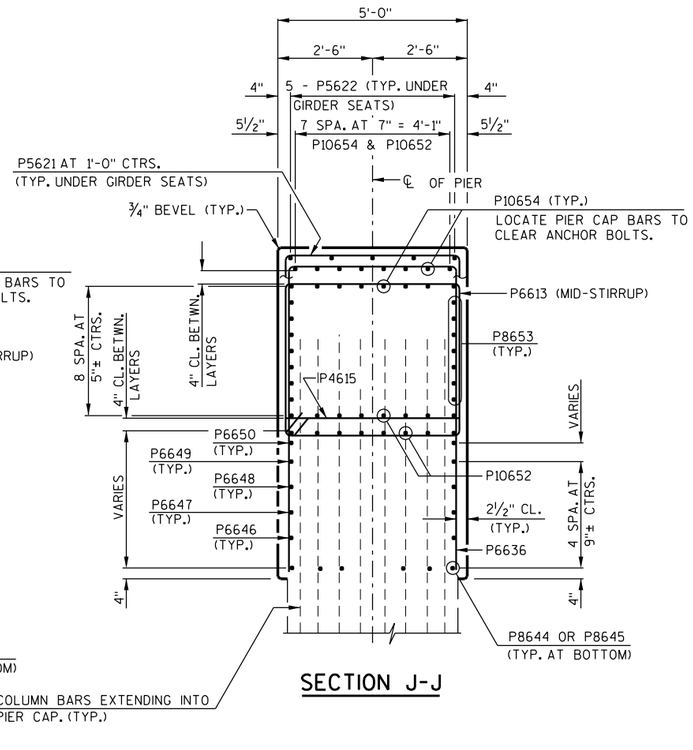
SECTION H-H

NOTES

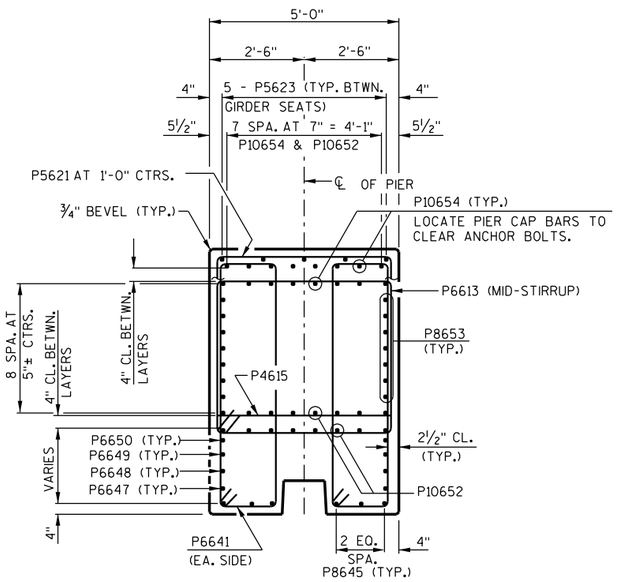
1. LAP NO. 5 BARS 2'-11" MIN.
2. LAP NO. 8 BARS 5'-9" MIN.
3. LAP NO. 10 BARS 9'-3" MIN.
4. SEE SHEET 87 FOR PIER CAP ELEVATION.
5. SEE SHEETS 33 - 36 FOR TYPICAL PIER GEOMETRY AND ELEVATIONS.
6. SEE SHEETS 44 - 53 FOR PIER SHAFT BAR STEEL REINFORCEMENT DETAILS.



SECTION I-I



SECTION J-J



SECTION K-K

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIERS 7 THRU 10 - CAP DETAILS

SHEET 88 OF 129
1119

FILE NAME : P:\153 USH 41\1133-10-00 URGs\STRUCTURES\40-5-681\088_PIERS7-10D.CAP_V7.0-5-681DGN

PLOT DATE : 3/15/2013

8

8

PIERS 7 THRU 10 CAP - BILL OF BARS

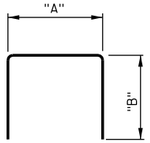
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS ARE INCLUDED IN UNIT 2 QUANTITIES.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 126,210 LBS.	
P6600	32	19-11	X		ABOVE COLUMN 1	VERT.
P6601	8	23-0	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6602	8	22-4	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6603	72	15-6	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P6604	16	12-10	X		ABOVE COLUMN 1 - STIRRUPS	VERT.
P6605	144	20-1	X	⚹	ABOVE COLUMN 1 - STIRRUPS	VERT.
P8606	24	17-2	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P8607	24	21-8	X		ABOVE COLUMN 1 - BOTTOM	HORIZ.
P6608	8	12-4			ABOVE COLUMN 1 - SIDES	HORIZ.
P6609	8	16-11			ABOVE COLUMN 1 - SIDES	HORIZ.
P6610	8	21-7			ABOVE COLUMN 1 - SIDES	HORIZ.
P6611	8	24-8			ABOVE COLUMN 1 - SIDES	HORIZ.
P6612	8	27-10			ABOVE COLUMN 1 - SIDES	HORIZ.
P6613	400	18-0	X		ABOVE COLUMNS - MID-STIRRUPS	VERT.
P10614	128	34-8			ABOVE COLUMNS 1 & 2	HORIZ.
P4515	240	4-7			ABOVE COLUMNS 1 THRU 3	HORIZ.
P5616	32	4-10			ABOVE COLUMN 1 - END	VERT.
P5617	40	3-6			ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P5618	144	5-1	X		ABOVE COLUMNS 1 & 3 - ENDS	HORIZ.
P8619	112	33-1			ABOVE COLUMNS 1 & 2 - SIDES	HORIZ.
P10620	64	36-5	X		ABOVE COLUMN 1 - TOP	HORIZ.
P5621	372	8-4	X		TOP - UNDER & BETWEEN GIRDER SEATS	VERT.
P5622	180	6-0			TOP - UNDER GIRDER SEATS	HORIZ.
P5623	160	9-6			TOP - BETWEEN GIRDER SEATS	HORIZ.
P6624	32	19-9	X		ABOVE COLUMN 2	VERT.
P6625	80	19-10	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6626	128	20-3	X	⚹	ABOVE COLUMN 2 - STIRRUPS	VERT.
P6627	8	16-8	X		ABOVE COLUMN 2 - STIRRUPS	VERT.
P8628	32	15-4	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P8629	32	20-5	X		ABOVE COLUMN 2 - BOTTOM	HORIZ.
P6630	8	12-4			ABOVE COLUMN 2 - SIDES	HORIZ.
P6631	8	16-11			ABOVE COLUMN 2 - SIDES	HORIZ.
P6632	8	21-7			ABOVE COLUMN 2 - SIDES	HORIZ.
P6633	8	24-3			ABOVE COLUMN 2 - SIDES	HORIZ.
P6634	8	27-0			ABOVE COLUMN 2 - SIDES	HORIZ.
P10635	64	34-11			ABOVE COLUMN 2 - TOP	HORIZ.
P6636	32	20-9	X		ABOVE COLUMN 3	VERT.
P6637	88	20-5	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6638	8	16-8	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6639	8	24-6	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6640	8	24-0	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6641	72	18-3	X	⚹	ABOVE COLUMN 3 - STIRRUPS	VERT.
P6642	8	16-6	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P6643	8	16-8	X		ABOVE COLUMN 3 - STIRRUPS	VERT.
P8644	24	20-8	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P8645	24	17-2	X		ABOVE COLUMN 3 - BOTTOM	HORIZ.
P6646	8	12-4			ABOVE COLUMN 3 - SIDES	HORIZ.
P6647	8	16-11			ABOVE COLUMN 3 - SIDES	HORIZ.
P6648	8	21-7			ABOVE COLUMN 3 - SIDES	HORIZ.
P6649	8	24-3			ABOVE COLUMN 3 - SIDES	HORIZ.
P6650	8	25-3			ABOVE COLUMN 3 - SIDES	HORIZ.
P5651	32	6-5	X		ABOVE COLUMN 3 - END	VERT.
P10652	64	35-5			ABOVE COLUMN 3	HORIZ.
P8653	56	32-9			ABOVE COLUMN 3	HORIZ.
P10654	64	37-9	X		ABOVE COLUMN 3 - TOP	HORIZ.

⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

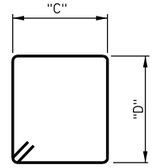
BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
P6603	8 SETS OF 9	13'-0" TO 18'-0"
P6605	8 SETS OF 18	16'-4" TO 23'-10"
P6625	8 SETS OF 10	17'-0" TO 22'-8"
P6626	8 SETS OF 16	17'-0" TO 23'-6"
P6637	8 SETS OF 11	17'-2" TO 23'-8"
P6641	8 SETS OF 9	16'-6" TO 20'-0"



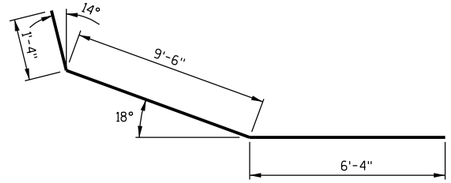
MARK	DIMENSION "A"	DIMENSION "B"
P6600	4'-7"	7'-10"
P5618	1'-4"	2'-0"
P5621	4'-7"	2'-0"
P6624	4'-7"	7'-9"
P6636	4'-7"	8'-3"

P6600, P5618, P5621, P6624 & P6636



P6601 THRU P6605, P6613, P6625 THRU P6627, & P6637 THRU P6643

MARK	DIMENSION "C"	DIMENSION "D"
P6601	3'-4"	7'-9"
P6602	3'-4"	7'-5"
P6603	1'-6"	4'-7" TO 7'-1"
P6604	1'-6"	4'-6"
P6605	3'-4"	4'-5" TO 8'-2"
P6613	4'-7"	4'-0"
P6625	3'-4"	4'-9" TO 7'-7"
P6626	3'-4"	4'-9" TO 8'-0"
P6627	3'-4"	4'-7"
P6637	3'-4"	4'-10" TO 8'-1"
P6638	3'-4"	4'-7"
P6639	3'-4"	8'-6"
P6640	3'-4"	8'-3"
P6641	1'-6"	6'-4" TO 8'-1"
P6642	1'-6"	6'-4"
P6643	1'-6"	6'-5"



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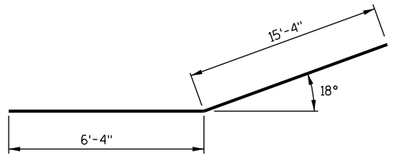

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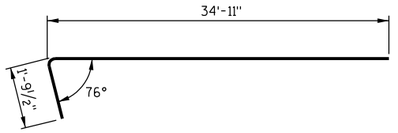

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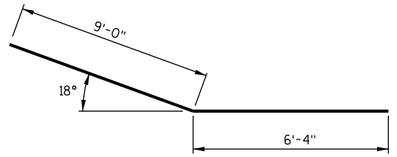

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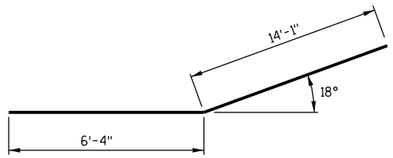

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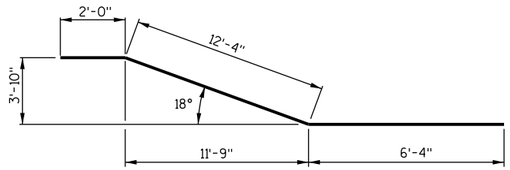

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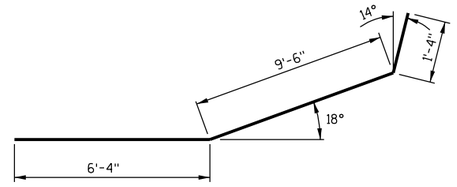

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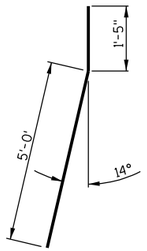

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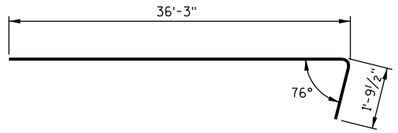


P10654

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PIERS 7 THRU 10 - CAP BILL OF BARS

SHEET 89 OF 129
1120

STATE PROJECT NUMBER
1133-11-74

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\dt89_PIERS7-10_CAP_BARS_V7_B-5-681.DGN

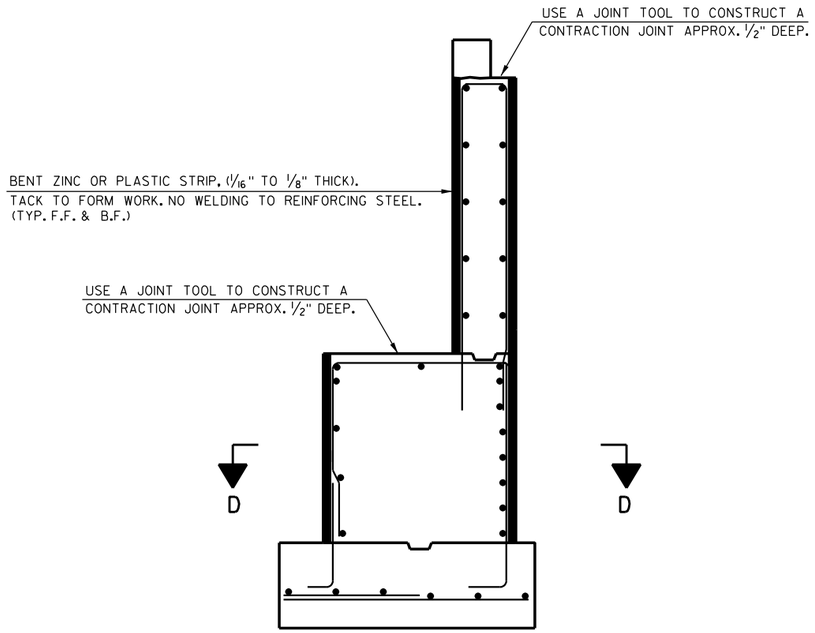
PLOT DATE : 2/28/2013

8

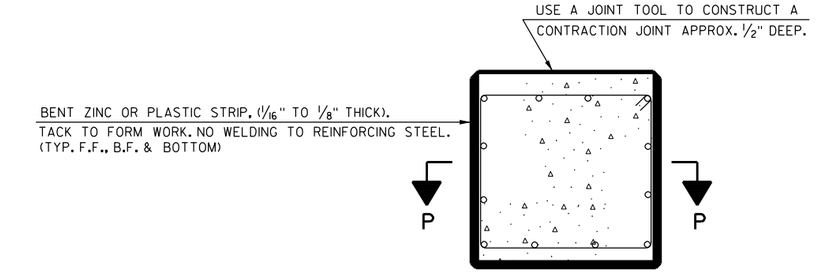
8

STATE PROJECT NUMBER

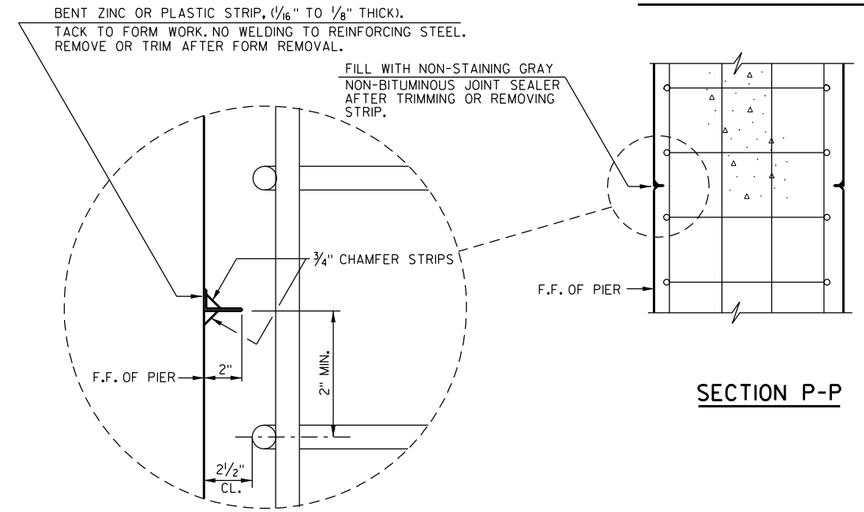
1133-11-74



SECTION THRU ABUTMENT BODY

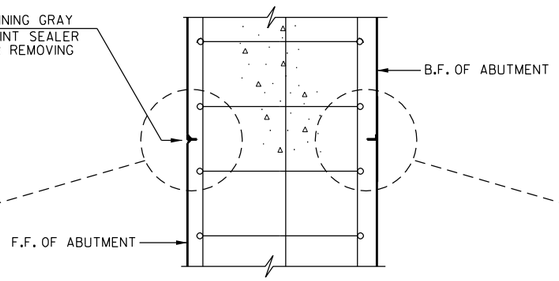


SECTION THRU PIER CAP

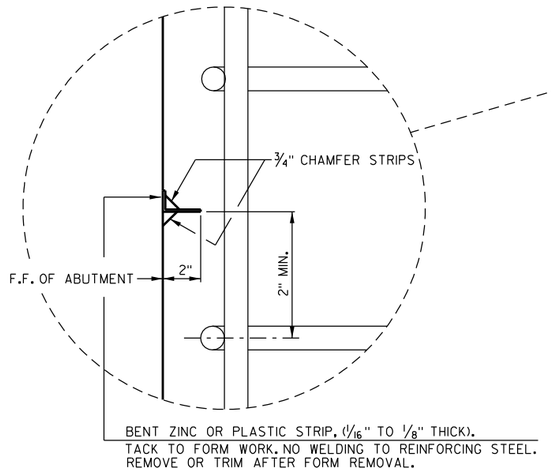


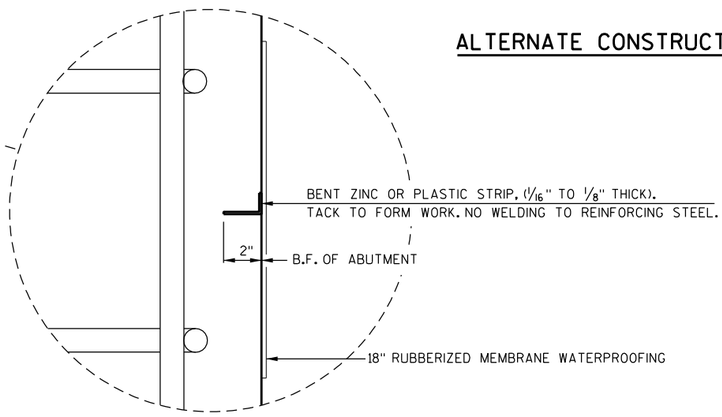
SECTION P-P

ALTERNATE CONSTRUCTION JOINT AT PIER CAP



SECTION D-D





ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

ALTERNATE JOINT DETAILS

SHEET 90 OF 129
1121

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

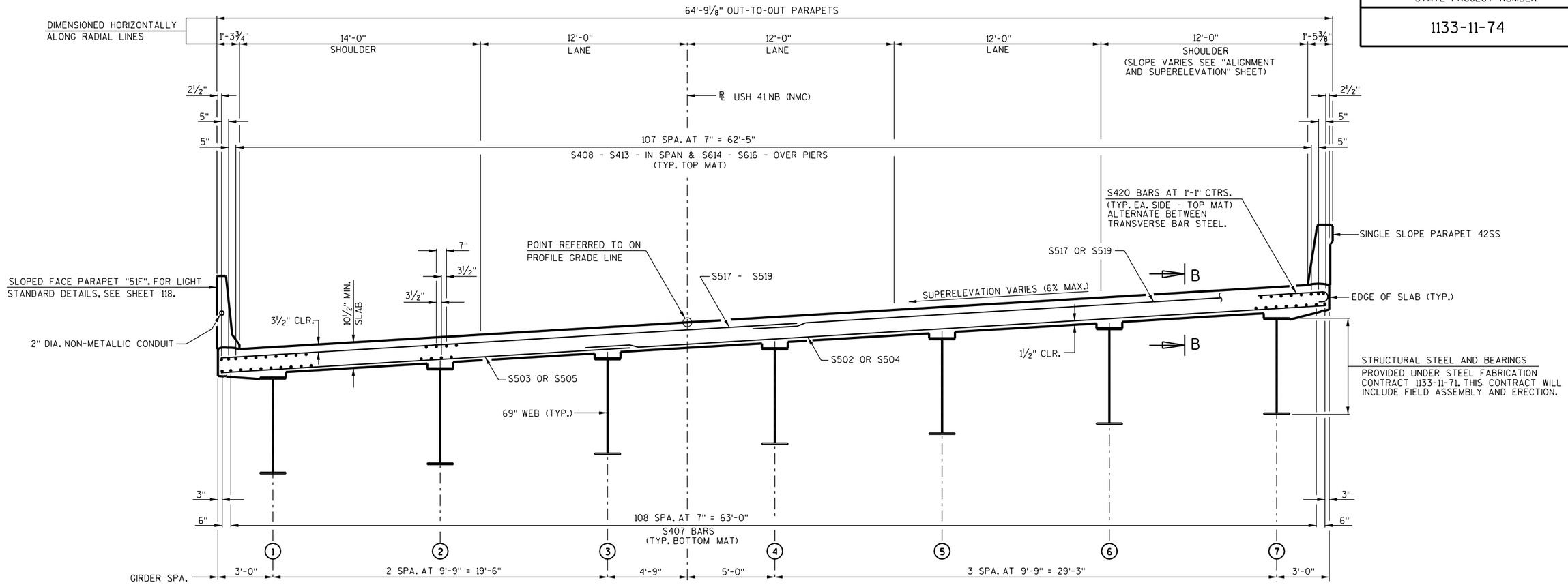
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\090.ALTCONSTJT.B-5-681.DGN

PLOT DATE : 2/21/2013

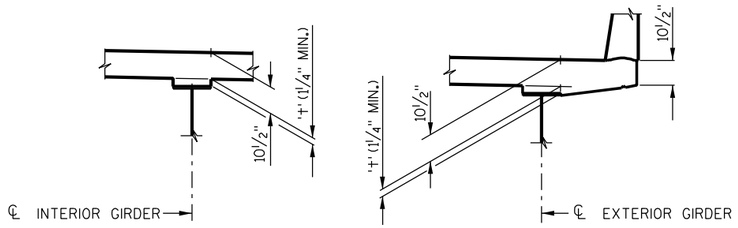
STATE PROJECT NUMBER

1133-11-74



CROSS SECTION THRU ROADWAY - UNIT 1

(LOOKING NORTH)



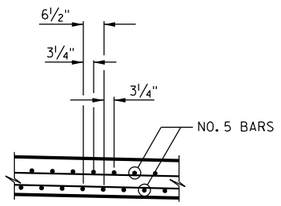
SLAB HAUNCH DETAIL

'+' = HAUNCH HEIGHT AT CENTERLINE OF GIRDER

TO DETERMINE '+': AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES SHALL BE TAKEN AT CENTERLINE OF BEARINGS AND AT 0.1 POINTS.

TOP OF DECK ELEVATION AT FINAL GRADE
- TOP OF STEEL ELEVATION AFTER STEEL ERECTION
+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED
- SLAB THICKNESS (10½")
= '+' VALUE SETTING HAUNCH

NOTE: AN AVERAGE HAUNCH ('+') OF 3" WAS USED IN THE QUANTITY "HPC MASONRY BRIDGES".



SECTION B-B

(TRANSVERSE BAR STEEL STAGGER DETAIL)

NOTES:

SEE CONTRACT 1133-11-71 "SUPERSTRUCTURE DETAILS" SHEET FOR HAUNCH DETAILS.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE 3MM COAT OF PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS.

LAP NO. 5 BARS 1'-9" MIN. IN SINGLE SLOPE PARAPET 42SS.

LAP NO. 8 BARS 3'-5" MIN. IN SLOPED FACE PARAPET "51F".

LAP NO. 4 BARS 1'-8" MIN. IN DECK.

LAP NO. 5 BARS 2'-7" MIN. IN DECK.

LAP NO. 6 BARS 3'-1" MIN. IN DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK SECTION UNIT 1

SHEET 91 OF 129
1122

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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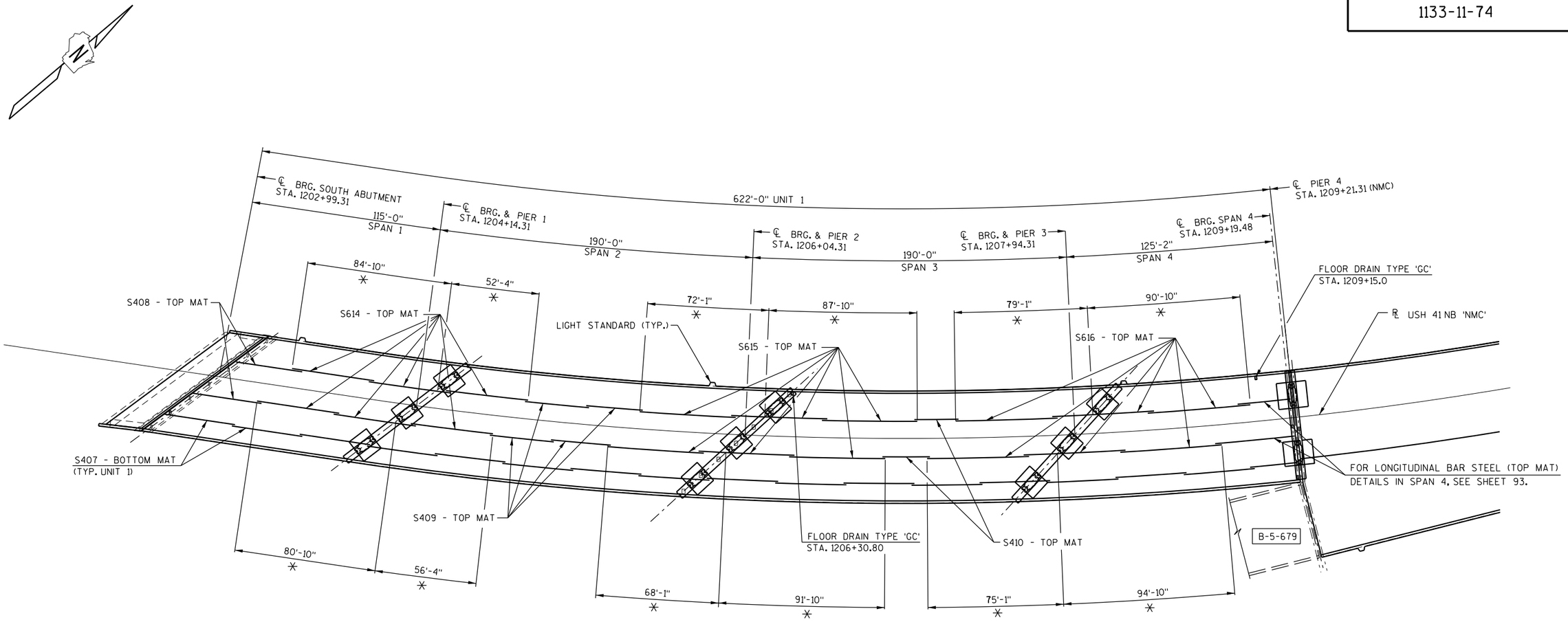
FILE NAME : P:\153 USH 41 1133-10-00 UFS\Structures\B-5-681\V091_deck_section_unit1_v8_b-5-681.dgn

PLOT DATE : 3/15/2013

STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 1 - 4 - UNIT 1

LEGEND

✳ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

NOTES

(THESE NOTES APPLY TO UNIT 1 DECK REINFORCEMENT SHEETS)

1. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINOUS BAR CHAIRS SHALL BE PLACED NEAR EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
2. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CTRS.
3. FOR TRANSVERSE BAR STEEL LAYOUT DETAILS, SEE SHEET 94.
4. ALL LONGITUDINAL BAR STEEL SHALL BE PLACED CONCENTRIC TO THE RAMP NMC REFERENCE LINE. FOR SPAN 4 LONGITUDINAL BAR STEEL LAYOUT DETAILS, SEE SHEET 93.
5. LAP LONGITUDINAL NO. 6 BARS 3'-1" MIN., LAP TRANSVERSE NO. 5 BARS 2'-7" MIN. AND LAP LONGITUDINAL NO. 4 BARS 1'-8" MIN.
6. LAP LONGITUDINAL NO. 8 BARS 3'-5" MIN. IN SLOPED FACE PARAPET "51F".
7. LAP LONGITUDINAL NO. 5 BARS 1'-9" MIN. IN SINGLE SLOPE PARAPET 42SS.
8. SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR BAR BILL.
9. SEE SHEET "LIGHT STANDARD" FOR REINFORCEMENT DETAILS AT THE LIGHT STANDARDS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT UNIT 1

SHEET 92 OF 129
1123

8

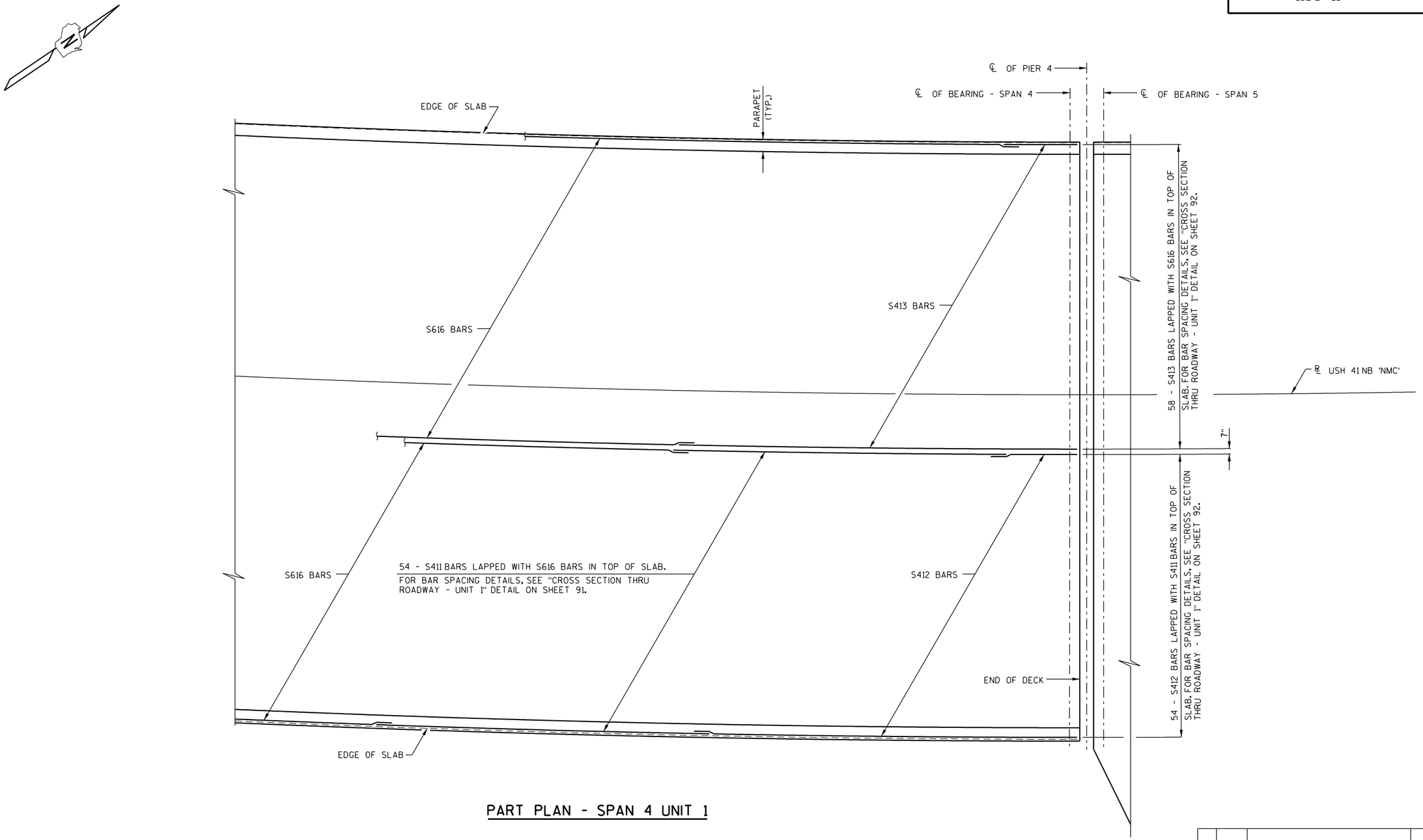
8

FILE NAME : P:\153 USH 41 1133-10-00 UPG\Structures\B-5-681\092_deck_reinf_uni1.v8.b-5-681.dgn

PLOT DATE : 2/28/2013

STATE PROJECT NUMBER

1133-11-74



PART PLAN - SPAN 4 UNIT 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT UNIT 1

SHEET 93 OF 129
1124

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

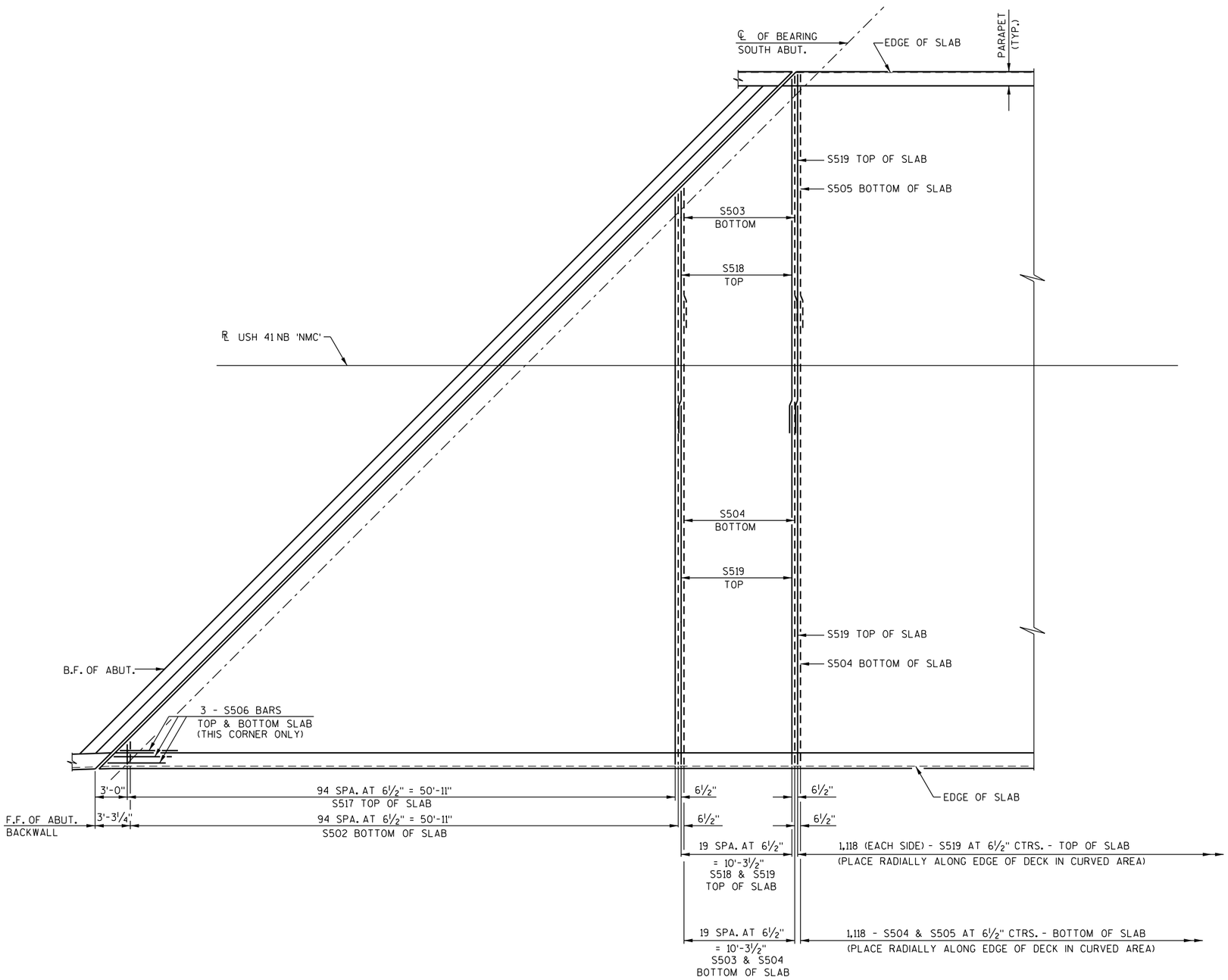
8

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\D93_DECK_REINF_UNIT1_V7_B-5-681.DGN

PLOT DATE : 2/21/2013

STATE PROJECT NUMBER

1133-11-74



PART PLAN - SUPERSTRUCTURE

(SHOWING TRANSVERSE BAR STEEL REINFORCEMENT)

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT UNIT 1

SHEET 94 OF 129

1125

PLOT DATE : 2/21/2013

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\094.DECK_REINF_UNIT1_V7.B-5-681.DGN

8

8

STATE PROJECT NUMBER

1133-11-74

DIMENSIONED HORIZONTALLY
ALONG RADIAL LINES

88'-9⅛" OUT-TO-OUT PARAPETS SPANS 7-11 (VARIES FOR SPANS 5 & 6)

1'-3¾" ✳ 14'-0" SHOULDER ✳ 12'-0" LANE ✳ 12'-0" LANE ✳ 12'-0" LANE ✳ 12'-0" LANE ✳✳ 12'-0" LANE ✳✳ 12'-0" SHOULDER ✳✳ 1'-5⅜"

℄ USH41 NB (NMC)

SHOULDER VARIES
FOR SPANS 5 & 6,
0' FOR SPANS 7 - 11

℄ IH43 NB TO USH41 NB (RAMP NIH)

3" 99 EQ. SPA. (7" MAX.) = 57'-9"± 3"
S433 - IN SPAN
(SPAN 5)

3" 74 EQ. SPA. (7" MAX.) = 43'-2"± 3"
S434 - IN SPAN & S640 - OVER PIER 5
(SPAN 6)

3" 63 SPA. AT 7" = 36'-9" 3"
S435 - S439 - IN SPANS & S641 - S645 - OVER PIERS 6 THRU 10
(SPANS 7 THRU 11)

3" 87 SPA. AT 7" = 50'-9" 3"
S433 - S439 - IN SPANS & S640 - S645 - OVER PIERS
(SPANS 5 THRU 11)

2" DIA. NON-METALLIC CONDUIT
(TYP. EA. SIDE)

S420 BARS AT 1'-1" CTRS.
(TYP. EA. SIDE - TOP MAT)
ALTERNATE BETWEEN
TRANSVERSE BAR STEEL.

SLOPED FACE PARAPET "51F". FOR LIGHT
STANDARD DETAILS, SEE SHEET

POINT REFERRED TO ON
PROFILE GRADE LINE

S527 OR S528

LONGITUDINAL CONST. JT.
FORMED BY A 2" X 6" KEYWAY.

POINT REFERRED TO ON
PROFILE GRADE LINE

S529 - SPAN 5
S530 - SPAN 6
S531 - SPANS 6 - 11

SINGLE SLOPE PARAPET 42SS. FOR LIGHT
STANDARD DETAILS, SEE SHEET

B

EDGE OF
SLAB
(TYP.)

7"
3½"
3½"
3½" CLR.
10½" MIN. SLAB

SUPERELEVATION VARIES (6% MAX.)

S527 OR S528

69" WEB (TYP.)

S529 - SPAN 5
S530 - SPAN 6
S531 - SPANS 6 - 11

B

3½" 5" 5"

84 SPA. AT 7" = 49'-0"
S432 - (SPANS 5 THRU 11)

STRUCTURAL STEEL AND BEARINGS
PROVIDED UNDER STEEL FABRICATION
CONTRACT 1133-11-71. THIS CONTRACT WILL
INCLUDE FIELD ASSEMBLY AND ERECTION.

3½" 5" 5" 3½" 5" 5"

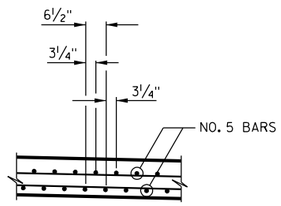
96 EQ. SPA. (7" MAX.) = 56'-0"±
S432 - (SPAN 5 - 464 BARS)
71 EQ. SPA. (7" MAX.) = 41'-5"±
S432 - (SPAN 6 - 375 BARS)
60 SPA. AT 7" = 35'-0"
S432 - (SPANS 7 THRU 11 - 1,365 BARS)

8 9 10 11 12 13 14 15 16

3'-0" 8 SPA. AT 10'-3¾" = 82'-6" - SHOWN FOR SPANS 7 THRU 11 (SPA. VARIES FOR SPANS 5 & 6) 3'-0"

CROSS SECTION THRU ROADWAY - UNIT 2

(LOOKING NORTH)



SECTION B-B

(TRANSVERSE BAR STEEL STAGGER DETAIL)

NOTES

SEE CONTRACT 1133-11-71 "SUPERSTRUCTURE DETAILS" SHEET FOR HAUNCH DETAILS.

SHEAR STUDS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SEE STEEL FABRICATION PLANS FOR LOCATIONS AND SPACING OF SHEAR STUDS. REMOVE 3MM COAT OF PRIMER FROM THE TOP FLANGE AT SHEAR STUD LOCATIONS BEFORE INSTALLING STUDS.

LAP NO. 5 BARS 1'-9" MIN. IN SINGLE SLOPE PARAPET 42SS.

LAP NO. 8 BARS 3'-5" MIN. IN SLOPED FACE PARAPET "51F".

LAP NO. 4 BARS 1'-8" MIN. IN DECK.

LAP NO. 5 BARS 2'-7" MIN. IN DECK.

LAP NO. 6 BARS 3'-1" MIN. IN DECK.

LEGEND

✳ MEASURED PERPENDICULAR TO ℄ 'NMC'

✳✳ MEASURED PERPENDICULAR TO ℄ 'NIH'

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK SECTION
UNIT 2

SHEET 95 OF 129
1126

PLOT DATE : 2/21/2013

FILE NAME : P:\153 USH 41 1133-10-00 UBS\Structures\B-5-681\05_deck_section_unit2_v8_b-5-681.dgn

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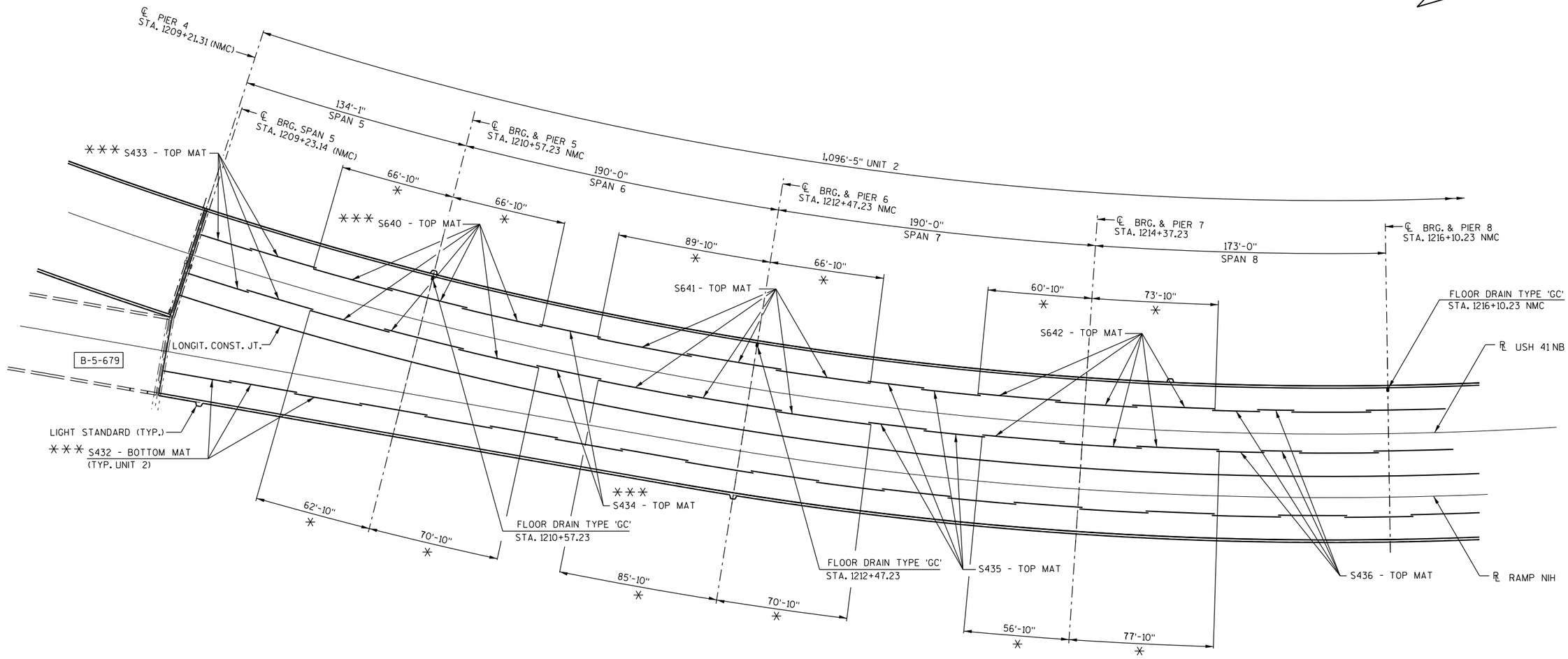
8

STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 5 - 8 - UNIT 2

LEGEND

✳ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

✳✳✳ FAN TOP & BOTTOM LONGITUDINAL (7" MAX. SPA.) AS NECESSARY IN SPANS 5 & 6. SEE "CROSS SECTION THRU ROADWAY - UNIT 2" ON SHEET 95 FOR LAYOUT DETAILS.

NOTES

(THESE NOTES APPLY TO UNIT 1 DECK REINFORCEMENT SHEETS)

1. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINOUS BAR CHAIRS SHALL BE PLACED NEAR EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
2. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CTRS.
3. FOR TRANSVERSE BAR STEEL LAYOUT DETAILS, SEE SHEET 98.
4. ALL LONGITUDINAL BAR STEEL SHALL BE PLACED CONCENTRIC TO THE USH 41 NB NMC REFERENCE LINE.
5. LAP LONGITUDINAL NO. 6 BARS 3'-1" MIN., LAP TRANSVERSE NO. 5 BARS 2'-7" MIN. AND LAP LONGITUDINAL NO. 4 BARS 1'-8" MIN.
6. LAP LONGITUDINAL NO. 8 BARS 3'-5" MIN. IN SLOPED FACE PARAPET "51F".
7. LAP LONGITUDINAL NO. 5 BARS 1'-9" MIN. IN SINGLE SLOPE PARAPET 42SS.
8. SEE SHEET "SUPERSTRUCTURE BILL OF BARS" FOR BAR BILL.
9. SEE SHEET "LIGHT STANDARD" FOR REINFORCEMENT DETAILS AT THE LIGHT STANDARDS.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT UNIT 2

SHEET 96 OF 129
1127

FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-681\096_deck_reinf_uni12.v8.b-5-681.dgn

PLOT DATE : 3/7/2013

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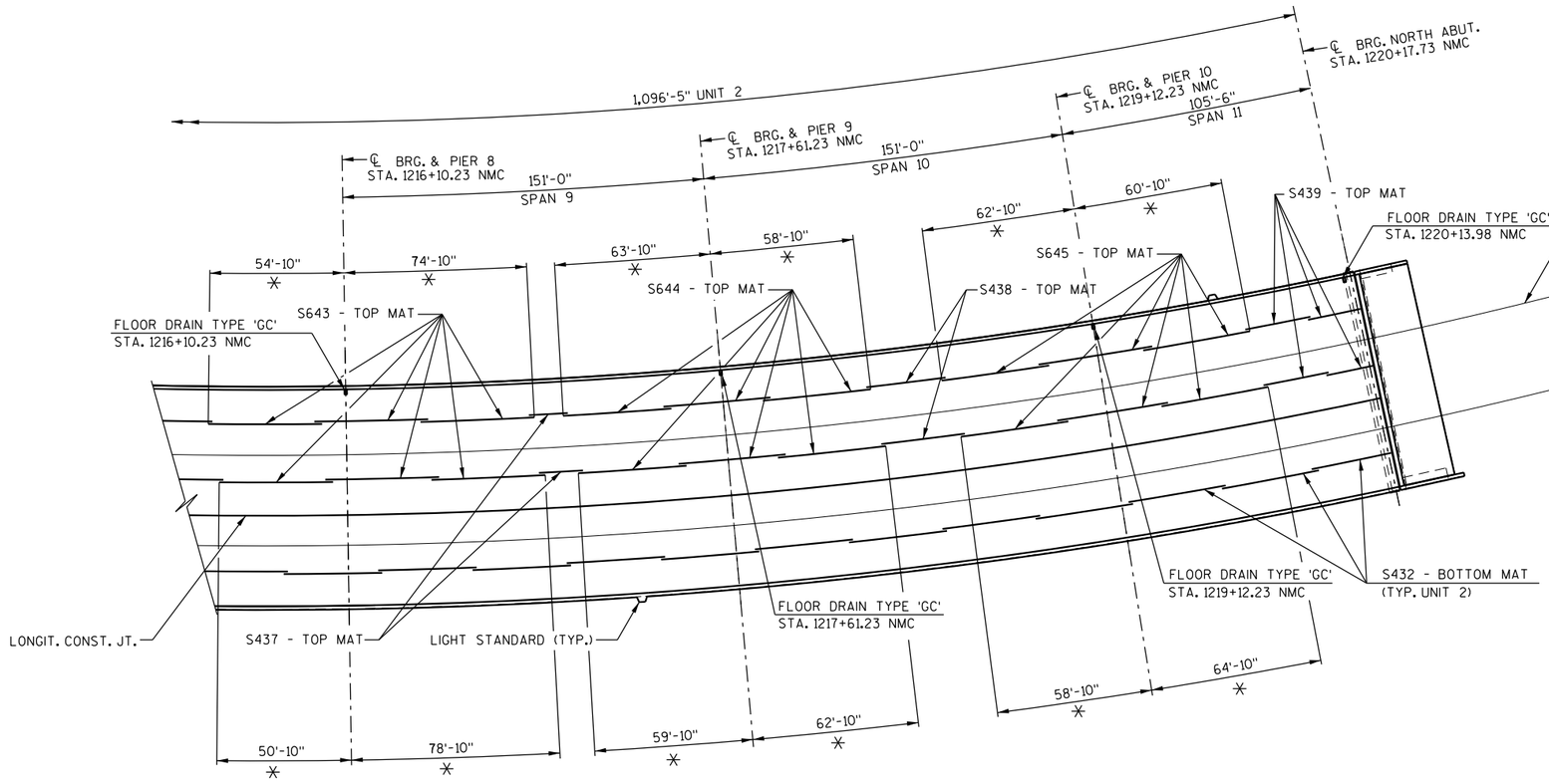
STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 9 - 11 - UNIT 2

LEGEND

⁜ STAGGER OFFSET AS SHOWN FOR EACH ADJACENT BAR

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT UNIT 2

SHEET 97 OF 129

1128

FILE NAME : P:\153 USH 41 1133-10-00 UFS\Structures\B-5-681\097.deck_reinf.uni2.v8.b-5-681.dgn

PLOT DATE : 2/21/2013

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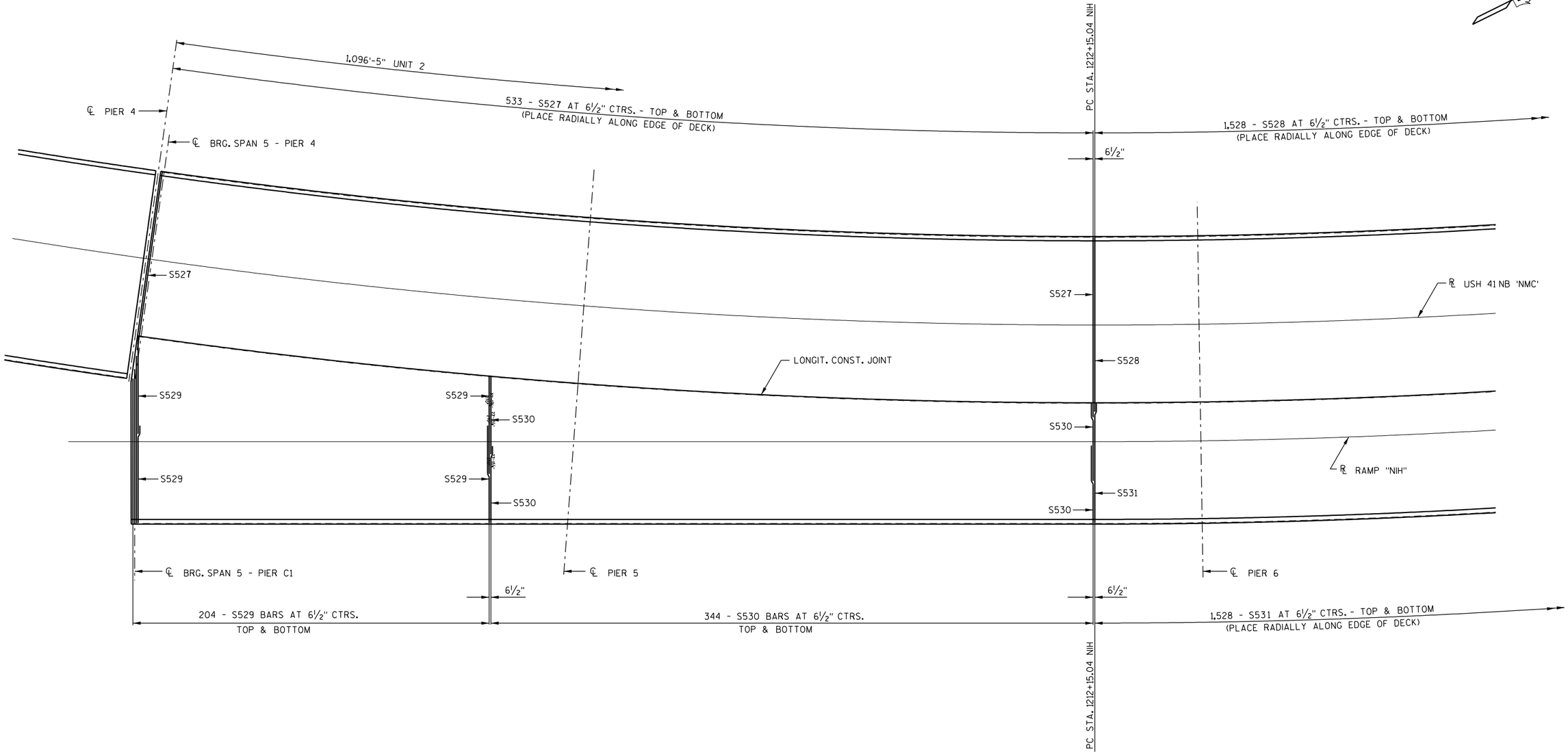
STATE PROJECT NUMBER

1133-11-74



PART PLAN - SPANS 5 & 6 - UNIT 2

(SHOWING TRANSVERSE BAR STEEL REINFORCEMENT LAYOUT)

NOTE: SEE "SECTION B-B" DETAIL ON SHEET 95 FOR TRANSVERSE BAR STEEL STAGGER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK REINFORCEMENT UNIT 2

SHEET 98 OF 129
1129

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

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FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\098.DECK_REINF_UNIT2_V7.8-5-681.DGN

PLOT DATE : 2/21/2013

STATE PROJECT NUMBER

1133-11-74

BILL OF BARS

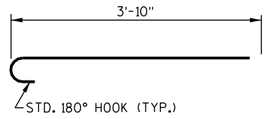
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL OF BARS SHALL BE EPOXY COATED.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION TOTAL WEIGHT = 1,215,290 LBS.	
S401	12	---	11-0			EXPANSION JOINT - SOUTH ABUTMENT	TRANS.
S502	95	---	27-7		⚹	SLAB - BOTTOM - SPAN 1	TRANS.
S503	20	---	18-5		⚹	SLAB - BOTTOM - SPAN 1	TRANS.
S504	1,138	---	43-2			SLAB - BOTTOM - SPANS 1 - 4	TRANS.
S505	1,118	---	23-8			SLAB - BOTTOM - SPANS 1 - 4	TRANS.
S506	6	---	5-0			SLAB - TOP & BOTTOM - WING CORNER 1	LONGIT.
S407	1,887	---	41-0			SLAB - BOTTOM - SPANS 1 - 4	LONGIT.
S408	112	---	38-6			SLAB - TOP - SPAN 1	LONGIT.
S409	224	---	37-0			SLAB - TOP - SPAN 2	LONGIT.
S410	112	---	30-0			SLAB - TOP - SPAN 3	LONGIT.
S411	54	---	36-0			SLAB - TOP - SPAN 4	LONGIT.
S412	54	---	25-6		⚹	SLAB - TOP - SPAN 4	LONGIT.
S413	58	---	25-7		⚹	SLAB - TOP - SPAN 4	LONGIT.
S614	336	---	47-10			SLAB - TOP - AT PIER 1	LONGIT.
S615	336	---	55-5			SLAB - TOP - AT PIER 2	LONGIT.
S616	336	---	58-9			SLAB - TOP - AT PIER 3	LONGIT.
S517	95	---	27-5		⚹	SLAB - TOP - SPAN 1	TRANS.
S518	20	---	27-10		⚹	SLAB - TOP - SPAN 1	TRANS.
S519	2,256	---	33-5			SLAB - TOP - SPANS 1 - 4	TRANS.
S420	1,174	2,067	4-5	X		SLAB - TOP - AT EACH EDGE	TRANS.
S521	1,007	1,688	4-5	X		PARAPET - 42SS	VERT.
S522	1,007	1,688	6-8	X		PARAPET - 42SS	VERT.
S523	160	---	35-3			PARAPET - 42SS	LONGIT.
S524	885	1,625	4-2	X		PARAPET - 51F	VERT.
S525	885	1,625	7-11	X		PARAPET - 51F	VERT.
S826	153	---	37-11			PARAPET - 51F	LONGIT.
S527	---	1,066	55-7			SLAB - TOP & BOTTOM - SPANS 5 & 6	TRANS.
S528	---	3,056	53-10			SLAB - TOP & BOTTOM - SPANS 6 - 11	TRANS.
S529	---	816	30-1			SLAB - TOP & BOTTOM - SPAN 5	TRANS.
S530	---	1,376	23-10			SLAB - TOP & BOTTOM - SPANS 5 & 6	TRANS.
S531	---	3,056	36-11			SLAB - TOP & BOTTOM - SPANS 6 - 11	TRANS.
S432	---	4,814	39-2			SLAB - BOTTOM - SPANS 5 - 11	LONGIT.
S433	---	376	39-6			SLAB - TOP - SPAN 5	LONGIT.
S434	---	163	42-9			SLAB - TOP - SPAN 6	LONGIT.
S435	---	304	36-6			SLAB - TOP - SPAN 7	LONGIT.
S436	---	304	27-3			SLAB - TOP - SPAN 8	LONGIT.
S437	---	152	20-0			SLAB - TOP - SPAN 9	LONGIT.
S438	---	152	37-1			SLAB - TOP - SPAN 10	LONGIT.
S439	---	304	26-4			SLAB - TOP - SPAN 11	LONGIT.
S640	---	489	46-8			SLAB - TOP - AT PIER 5	LONGIT.
S641	---	456	54-4			SLAB - TOP - AT PIER 6	LONGIT.
S642	---	456	47-0			SLAB - TOP - AT PIER 7	LONGIT.
S643	---	456	45-4			SLAB - TOP - AT PIER 8	LONGIT.
S644	---	456	43-0			SLAB - TOP - AT PIER 9	LONGIT.
S645	---	456	43-4			SLAB - TOP - AT PIER 10	LONGIT.
S546	---	256	37-0			PARAPET - 42SS	LONGIT.
S847	---	270	39-6			PARAPET - 51F	LONGIT.
S648	8	20	7-10	X		SLAB - AT DRAINS	LONGIT.
S749	30	---	13-2			EXPANSION JOINT. - S. ABUT.	TRANS.
S450	72	---	5-2	X		EXPANSION JOINT. - S. ABUT.	LONGIT.
S651	30	---	7-9			EXPANSION JOINT. - PIER 4 & N. ABUT.	TRANS.
S452	72	216	4-3	X		EXPANSION JOINT. - PIER 4 & N. ABUT.	LONGIT.
S653	---	90	8-0			EXPANSION JOINT. - PIER 4 & N. ABUT.	TRANS.

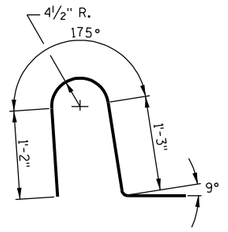
⚹ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
S502	1 SERIES OF 95	2'-2" TO 53'-0"
S503	1 SERIES OF 20	13'-3" TO 23'-6"
S412	1 SERIES OF 54	9'-6" TO 41'-6"
S413	1 SERIES OF 58	8'-1" TO 43'-1"
S517	1 SERIES OF 95	1'-11" TO 52'-10"
S518	1 SERIES OF 20	22'-7" TO 33'-0"



S420



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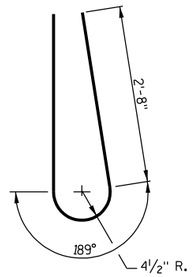

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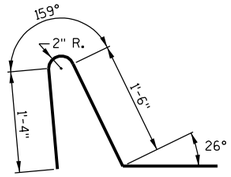

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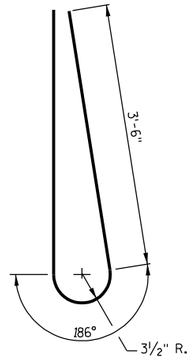

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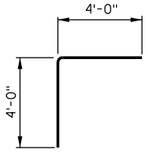

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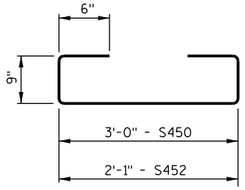

S450 & S452

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SUPERSTRUCTURE
BILL OF BARS

SHEET 99 OF 129
1130

FILE NAME : P:\153 USH 41\1133-10-00 LRS\STRUCTURES\B-5-681\1099.SUPER.BILL.BARS.V7.B-5-681.DGN

PLOT DATE : 3/4/2013

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STATE PROJECT NUMBER

1133-11-74

TOP OF DECK ELEVATIONS - UNIT 1

	℄ OF BRG. S. ABUT.	1.1 PT.	1.2 PT.	1.3 PT.	1.4 PT.	1.5 PT.	1.6 PT.	F.S. 1	1.7 PT.	1.8 PT.	1.9 PT.	℄ OF PIER 1	2.1 PT.	2.2 PT.	F.S. 2	2.3 PT.	2.4 PT.	2.5 PT.	2.6 PT.	2.7 PT.	F.S. 3	2.8 PT.	2.9 PT.	℄ OF PIER 2
W. EDGE/DECK	634.07	633.99	633.91	633.83	633.74	633.65	633.56	633.54	633.46	633.36	633.26	633.15	632.97	632.81	632.81	632.73	632.64	632.54	632.43	632.31	632.20	632.19	632.06	631.91
GIRDER #1	634.17	634.10	634.03	633.95	633.88	633.79	633.71	633.69	633.62	633.53	633.44	633.34	633.17	633.01	633.00	632.92	632.84	632.74	632.63	632.52	632.40	632.39	632.26	632.12
GIRDER #2	634.46	634.42	634.37	634.33	634.28	634.22	634.17	634.15	634.11	634.04	633.98	633.91	633.79	633.66	633.66	633.55	633.47	633.38	633.27	633.16	633.05	633.04	632.92	632.78
GIRDER #3	634.70	634.69	634.67	634.65	634.63	634.61	634.58	634.57	634.54	634.51	634.47	634.43	634.35	634.27	634.27	634.18	634.10	634.01	633.91	633.81	633.70	633.69	633.57	633.44
GIRDER #4	634.90	634.92	634.93	634.94	634.94	634.94	634.94	634.94	634.94	634.93	634.92	634.91	634.88	634.84	634.84	634.79	634.73	634.64	634.55	634.45	634.35	634.34	634.22	634.09
GIRDER #5	635.06	635.10	635.14	635.18	635.21	635.24	635.26	635.27	635.29	635.31	635.32	635.34	635.35	635.36	635.36	635.36	635.35	635.27	635.18	635.08	634.99	634.98	634.86	634.74
GIRDER #6	635.17	635.24	635.31	635.37	635.43	635.49	635.54	635.55	635.59	635.64	635.68	635.73	635.79	635.84	635.84	635.88	635.92	635.90	635.81	635.72	635.63	635.62	635.51	635.39
GIRDER #7	635.24	635.34	635.43	635.52	635.61	635.69	635.78	635.79	635.85	635.93	636.00	636.07	636.18	636.27	636.28	636.36	636.45	636.52	636.44	636.35	636.26	636.25	636.15	636.03
E. EDGE/DECK	635.25	635.36	635.46	635.56	635.66	635.75	635.84	635.86	635.93	636.01	636.09	636.17	636.29	636.40	636.40	636.50	636.60	636.69	636.63	636.54	636.46	636.45	636.34	636.23

	3.1 PT.	3.2 PT.	F.S. 4	3.3 PT.	3.4 PT.	3.5 PT.	3.6 PT.	3.7 PT.	F.S. 5	3.8 PT.	3.9 PT.	℄ OF PIER 3	4.1 PT.	4.2 PT.	4.3 PT.	4.4 PT.	4.5 PT.	F.S. 6	4.6 PT.	4.7 PT.	4.8 PT.	4.9 PT.	℄ OF BRG. PIER 4
W. EDGE/DECK	631.76	631.61	631.61	631.44	631.27	631.08	630.89	630.69	630.50	630.48	630.26	630.04	629.92	629.80	629.68	629.55	629.42	629.33	629.29	629.16	629.03	628.89	628.75
GIRDER #1	631.97	631.82	631.82	631.65	631.48	631.30	631.11	630.91	630.72	630.70	630.48	630.26	630.14	630.01	629.89	629.76	629.63	629.54	629.49	629.36	629.22	629.08	628.93
GIRDER #2	632.64	632.49	632.48	632.33	632.16	631.98	631.79	631.60	631.41	631.40	631.18	630.96	630.83	630.70	630.56	630.42	630.28	630.26	630.13	629.98	629.83	629.68	629.52
GIRDER #3	633.30	633.15	633.15	633.00	632.83	632.66	632.48	632.29	632.10	632.09	631.88	631.66	631.52	631.38	631.23	631.08	630.93	630.97	630.77	630.61	630.44	630.28	630.10
GIRDER #4	633.96	633.81	633.81	633.66	633.50	633.33	633.15	632.97	632.79	632.78	632.57	632.36	632.21	632.06	631.90	631.74	631.57	631.68	631.41	631.23	631.06	630.87	630.69
GIRDER #5	634.61	634.47	634.47	634.32	634.17	634.00	633.83	633.65	633.47	633.46	633.26	633.05	632.90	632.73	632.57	632.40	632.22	632.38	632.04	631.86	631.67	631.47	631.27
GIRDER #6	635.26	635.13	635.13	634.98	634.83	634.67	634.50	634.32	634.16	634.13	633.94	633.73	633.57	633.40	633.22	633.04	632.85	633.08	632.66	632.47	632.26	632.06	631.84
GIRDER #7	635.91	635.78	635.78	635.64	635.47	635.30	635.11	634.91	634.83	634.71	634.50	634.28	634.09	633.89	633.69	633.48	633.27	633.57	633.05	632.83	632.59	632.36	632.11
E. EDGE/DECK	636.11	635.98	635.98	635.84	635.68	635.49	635.30	635.10	635.04	634.89	634.68	634.45	634.25	634.05	633.84	633.62	633.40	633.71	633.17	632.94	632.70	632.45	632.20

TOP OF DECK ELEVATIONS - UNIT 2

	℄ OF BRG. PIER 4	5.1 PT.	5.2 PT.	5.3 PT.	5.4 PT.	5.5 PT.	5.6 PT.	F.S. 7	5.7 PT.	5.8 PT.	5.9 PT.	℄ OF PIER 5	6.1 PT.	6.2 PT.	F.S. 8	6.3 PT.	6.4 PT.	6.5 PT.	6.6 PT.	6.7 PT.	F.S. 9	6.8 PT.	6.9 PT.	℄ OF PIER 6
W. EDGE/DECK	628.70	628.50	628.30	628.10	627.89	627.68	627.46	627.24	627.20	627.01	626.78	626.55	626.21	625.86	625.86	625.51	625.15	624.77	624.39	624.00	623.82	623.61	623.20	622.79
GIRDER #8	628.88	628.69	628.49	628.28	628.07	627.86	627.64	627.42	627.38	627.20	626.97	626.73	626.39	626.05	626.05	625.69	625.33	624.96	624.58	624.19	624.01	623.79	623.38	622.97
GIRDER #9	629.50	629.30	629.10	628.90	628.69	628.48	628.26	628.04	628.00	627.82	627.59	627.35	627.01	626.67	626.67	626.31	625.95	625.58	625.20	624.81	624.62	624.41	624.00	623.59
GIRDER #10	630.12	629.92	629.72	629.52	629.31	629.10	628.88	628.66	628.62	628.43	628.20	627.97	627.63	627.29	627.29	626.93	626.57	626.19	625.81	625.43	625.24	625.03	624.62	624.21
GIRDER #11	630.74	630.54	630.34	630.14	629.93	629.72	629.50	629.28	629.24	629.05	628.82	628.59	628.25	627.90	627.90	627.55	627.19	626.81	626.43	626.04	625.86	625.65	625.24	624.83
GIRDER #12	631.36	631.16	630.96	630.76	630.55	630.33	630.12	629.90	629.86	629.67	629.44	629.21	628.87	628.52	628.52	628.17	627.80	627.43	627.05	626.66	626.48	626.27	625.86	625.45
GIRDER #13	631.87	631.68	631.48	631.28	631.08	630.87	630.65	630.44	630.40	630.21	629.99	629.76	629.43	629.08	629.08	628.73	628.38	628.01	627.63	627.25	627.07	626.86	626.46	626.05
GIRDER #14	632.02	631.84	631.67	631.46	631.26	630.99	630.74	630.49	630.39	630.25	630.02	629.79	629.48	629.15	629.11	628.83	628.52	628.21	627.90	627.57	627.39	627.23	626.88	626.52
GIRDER #14'	631.76	631.65	631.54	631.38	631.21	630.98	630.74	630.50	630.45	630.26	630.02	629.83	629.54	629.24										
GIRDER #15	631.49	631.40	631.31	631.18	631.04	630.84	630.64	630.44	630.40	630.24	630.05	629.87	629.61	629.33	629.32	629.05	628.77	628.48	628.21	627.91	627.76	627.62	627.31	627.01
GIRDER #15'	631.23	631.19	631.14	631.05	630.94	630.77	630.60	630.42	630.38	630.24	630.07	629.91	629.67	629.41										
GIRDER #16	630.97	630.95	630.94	630.88	630.81	630.67	630.53	630.38	630.34	630.24	630.09	629.94	629.73	629.50	629.50	629.26	629.03	628.79	628.54	628.29	628.15	628.03	627.77	627.50
E. EDGE/DECK	630.89	630.89	630.88	630.83	630.77	630.64	630.51	630.37	630.33	630.23	630.10	629.96	629.76	629.54	629.54	629.32	629.10	628.87	628.64	628.39	628.27	628.15	627.90	627.65

	7.1 PT.	7.2 PT.	F.S. 10	7.3 PT.	7.4 PT.	7.5 PT.	7.6 PT.	F.S. 11	7.7 PT.	7.8 PT.	7.9 PT.	℄ OF PIER 7	8.1 PT.	8.2 PT.	F.S. 12	8.3 PT.	8.4 PT.	8.5 PT.	8.6 PT.	8.7 PT.	F.S. 13	8.8 PT.	8.9 PT.	℄ OF PIER 8
W. EDGE/DECK	622.36	621.93	621.93	621.49	621.04	620.59	620.12	619.65	619.17	619.17	618.68	618.18	617.72	617.25	616.90	616.77	616.29	615.80	615.31	614.80	614.31	614.29	613.78	613.26
GIRDER #8	622.55	622.12	622.12	621.68	621.23	620.77	620.31	619.83	619.35	619.35	618.86	618.36	617.90	617.43	617.09	616.96	616.48	615.99	615.49	614.99	614.49	614.48	613.96	613.45
GIRDER #9	623.17	622.73	622.74	622.30	621.85	621.39	620.93	620.45	619.97	619.97	619.48	618.98	618.52	618.05	617.71	617.58	617.10	616.61	616.11	615.61	615.11	615.10	614.58	614.06
GIRDER #10	623.78	623.35	623.35	622.91	622.47	622.01	621.54	621.07	620.59	620.59	620.10	619.60	619.14	618.67	618.32	618.20	617.71	617.22	616.73	616.22	615.73	615.71	615.20	614.68
GIRDER #11	624.40	623.97	623.97	623.53	623.08	622.63	622.16	621.69	621.21	621.21	620.72	620.22	619.76	619.29	618.94	618.81	618.33	617.84	617.35	616.84	616.35	616.33	615.82	615.30
GIRDER #12	625.02	624.59	624.59	624.15	623.70	623.25	622.78	622.31	621.83	621.83	621.34	620.84	620.38	619.91	619.56	619.43	618.95	618.46	617.97	617.46	616.96	616.95	616.44	615.92
GIRDER #13	625.63	625.21	625.21	624.77	624.32	623.87	623.40	622.93	622.45	622.45	621.96	621.46	621.00	620.53	620.18	620.05	619.57	619.08	618.58	618.08	617.58	617.57	617.06	616.54
GIRDER #14	626.16	625.79	625.79	625.39	624.94	624.48	624.02	623.55	623.06	623.06	622.57	622.08	621.61	621.15	620.80	620.67	620.19	619.70	619.20	618.70	618.20	618.19	617.67	617.16
GIRDER #15	626.60	626.38	626.35	626.01	625.56	625.10	624.64	624.17	623.68	623.68	623.19	622.69	622.23	621.77	621.42	621.29	620.81	620.32	619.82	619.32	618.82	618.81	618.29	617.78
GIRDER #16	627.24	626.96	626.93	626.63	626.18	625.72	625.26	624.78	624.30	624.30	623.81	623.31	622.85	622.38	622.04	621.91	621.43	620.94	620.44	619.94	619.44	619.43	618.91	618.40
E. EDGE/DECK	627.39	627.13	627.10	626.81	626.36	625.90	625.44	624.96	624.48	624.48	623.99	623.49	623.03	622.56	622.22	622.09	621.61	621.12	620.62	620.12	619.62	619.61	619.09	618.58

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

TOP OF DECK ELEVATIONS

SHEET 100 OF 129
1131

FILE NAME : P:\153 USH 41 1133-10-00 UROS\Structures\B-5-681\100_deck_elev_v8_b-5-681.dgn

PLOT DATE : 2/21/2013

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STATE PROJECT NUMBER

1133-11-74

TOP OF DECK ELEVATIONS - UNIT 2

	9.1 PT.	9.2 PT.	F.S. 14	9.3 PT.	9.4 PT.	9.5 PT.	9.6 PT.	F.S. 15	9.7 PT.	9.8 PT.	9.9 PT.	℄ OF PIER 9	10.1 PT.	10.2 PT.	F.S. 16	10.3 PT.	10.4 PT.	10.5 PT.	10.6 PT.	10.7 PT.	F.S. 17	10.8 PT.	10.9 PT.	℄ OF PIER 10
W. EDGE/DECK	612.81	612.36	612.12	611.91	611.46	611.01	610.56	610.11	609.86	609.66	609.21	608.76	608.31	607.86	607.74	607.41	606.96	606.51	606.07	605.62	605.19	605.19	604.76	604.34
GIRDER #8	613.00	612.55	612.31	612.10	611.65	611.20	610.75	610.30	610.04	609.85	609.40	608.95	608.50	608.05	607.93	607.60	607.15	606.70	606.25	605.81	605.38	605.37	604.94	604.52
GIRDER #9	613.61	613.16	612.93	612.71	612.26	611.81	611.37	610.92	610.66	610.47	610.02	609.57	609.12	608.67	608.54	608.22	607.77	607.32	606.87	606.42	606.00	605.99	605.56	605.14
GIRDER #10	614.23	613.78	613.54	613.33	612.88	612.43	611.98	611.53	611.28	611.08	610.63	610.18	609.73	609.28	609.16	608.83	608.38	607.93	607.49	607.04	606.62	606.61	606.18	605.76
GIRDER #11	614.85	614.40	614.16	613.95	613.50	613.05	612.60	612.15	611.90	611.70	611.25	610.80	610.35	609.90	609.78	609.45	609.00	608.55	608.11	607.66	607.23	607.23	606.80	606.38
GIRDER #12	615.47	615.02	614.78	614.57	614.12	613.67	613.22	612.77	612.51	612.32	611.87	611.42	610.97	610.52	610.40	610.07	609.62	609.17	608.73	608.28	607.85	607.84	607.42	606.99
GIRDER #13	616.09	615.64	615.40	615.19	614.74	614.29	613.84	613.39	613.13	612.94	612.49	612.04	611.59	611.14	611.02	610.69	610.24	609.79	609.34	608.90	608.47	608.46	608.03	607.61
GIRDER #14	616.71	616.26	616.02	615.81	615.36	614.91	614.46	614.01	613.75	613.56	613.11	612.66	612.21	611.76	611.64	611.31	610.86	610.41	609.96	609.52	609.09	609.08	608.65	608.23
GIRDER #15	617.33	616.88	616.64	616.43	615.98	615.53	615.08	614.63	614.37	614.18	613.73	613.28	612.83	612.38	612.26	611.93	611.48	611.03	610.58	610.14	609.71	609.70	609.27	608.85
GIRDER #16	617.95	617.50	617.26	617.05	616.60	616.15	615.70	615.25	614.99	614.80	614.35	613.90	613.45	613.00	612.88	612.55	612.10	611.65	611.20	610.76	610.33	610.32	609.89	609.47
E. EDGE/DECK	618.13	617.68	617.44	617.23	616.78	616.33	615.88	615.43	615.17	614.98	614.53	614.08	613.63	613.18	613.06	612.73	612.28	611.83	611.38	610.94	610.51	610.50	610.07	609.65

	11.1 PT.	11.2 PT.	11.3 PT.	F.S. 18	11.4 PT.	11.5 PT.	11.6 PT.	11.7 PT.	11.8 PT.	11.9 PT.	℄ OF BRG. S. ABUT.
W. EDGE/DECK	604.05	603.76	603.48	603.37	603.20	602.93	602.66	602.40	602.14	601.88	601.63
GIRDER #8	604.23	603.95	603.67	603.55	603.39	603.12	602.85	602.58	602.32	602.06	601.81
GIRDER #9	604.85	604.56	604.28	604.17	604.01	603.73	603.47	603.20	602.94	602.68	602.43
GIRDER #10	605.47	605.18	604.90	604.79	604.63	604.35	604.08	603.82	603.56	603.30	603.05
GIRDER #11	606.09	605.80	605.52	605.41	605.24	604.97	604.70	604.44	604.18	603.92	603.67
GIRDER #12	606.71	606.42	606.14	606.03	605.86	605.59	605.32	605.06	604.80	604.54	604.29
GIRDER #13	607.32	607.04	606.76	606.64	606.48	606.21	605.94	605.68	605.41	605.16	604.90
GIRDER #14	607.94	607.66	607.38	607.26	607.10	606.83	606.56	606.29	606.03	605.78	605.52
GIRDER #15	608.56	608.28	608.00	607.88	607.72	607.45	607.18	606.91	606.65	606.39	606.14
GIRDER #16	609.18	608.90	608.62	608.50	608.34	608.07	607.80	607.53	607.27	607.01	606.76
E. EDGE/DECK	609.36	609.08	608.80	608.68	608.52	608.25	607.98	607.71	607.45	607.19	606.94

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

TOP OF DECK ELEVATIONS

SHEET 101 OF 129
1132

FILE NAME : P:\153 USH 41 1133-10-00 URGS\Structures\B-5-681\101_deck_elev_v8_b-5-681.dgn

PLOT DATE : 2/21/2013

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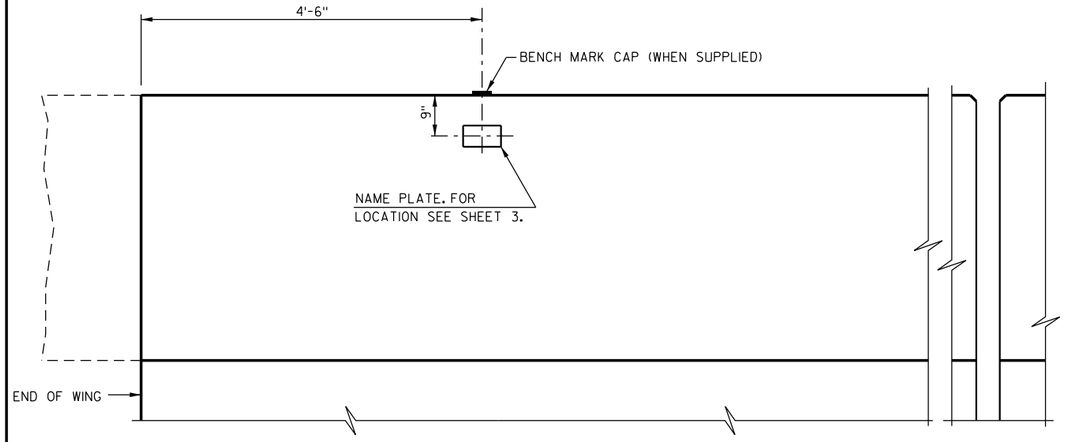
8

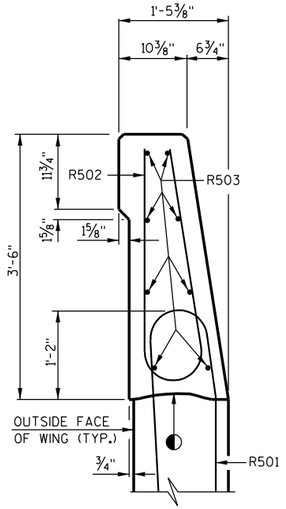
STATE PROJECT NUMBER

1133-11-74



INSIDE ELEVATION - WINGS 1 & 4

(WING 4 SHOWN, WING 1 SIMILAR)



SECTION C-C

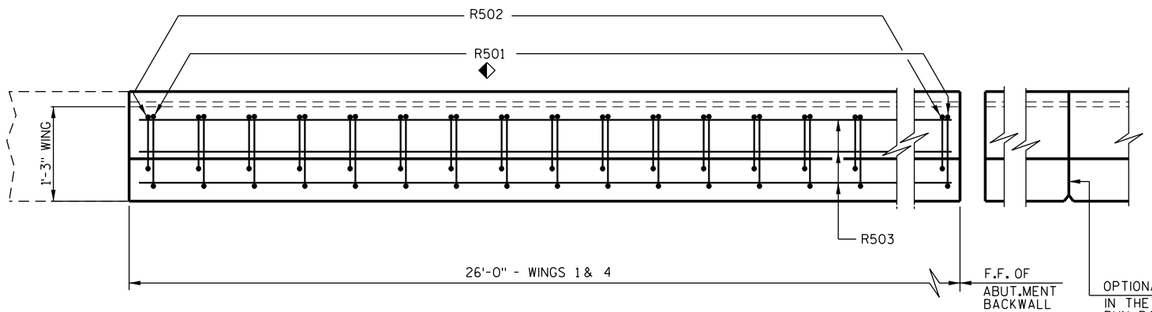
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 1,480 LBS.
R501	40	40	5-10	X		PARAPET - WINGS 1 & 4	VERT.
R502	40	40	6-8	X		PARAPET - WINGS 1 & 4	VERT.
R503	8	8	25-7			PARAPET - WINGS 1 & 4	HORIZ.

NOTES: QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT ARE INCLUDED IN THE ABUTMENT QUANTITIES ON SHEET 7.

SEE SHEET "PARAPET ELECTRICAL WORK" FOR CONDUIT DETAILS IN WING PARAPETS.



PLAN - WINGS 1 & 4

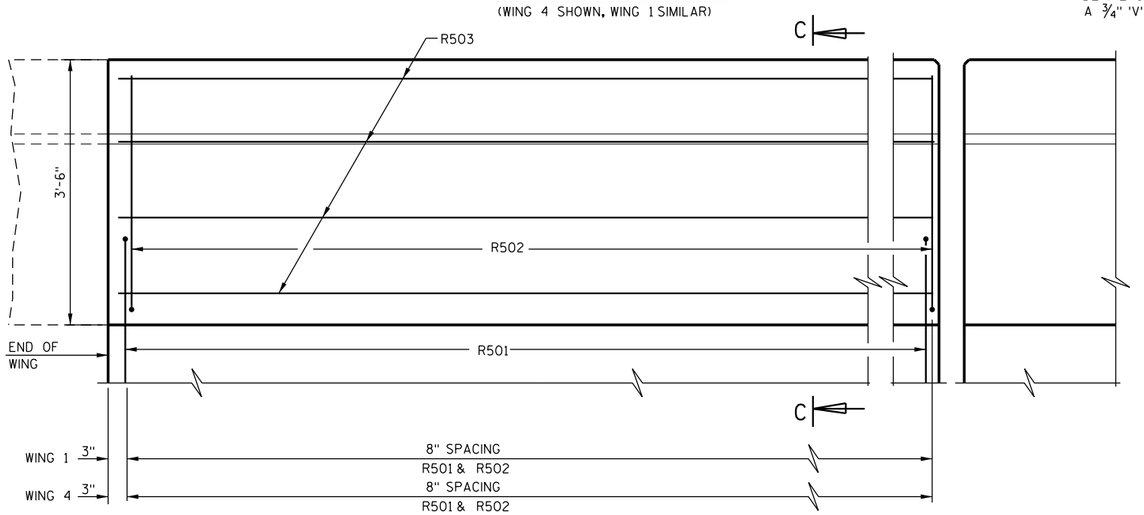
(WING 4 SHOWN, WING 1 SIMILAR)

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0" DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.

LEGEND

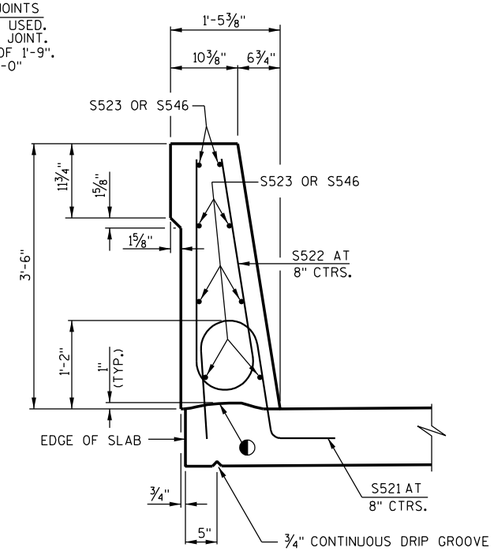
◆ R501 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

◐ CONST. JT. - STRIKE OFF AS SHOWN.



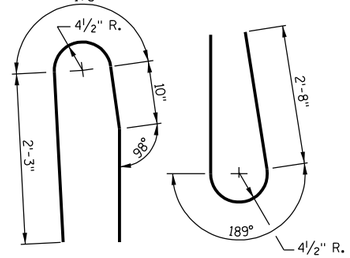
OUTSIDE ELEVATION - WINGS 1 & 4

(WING 4 SHOWN, WING 1 SIMILAR)



SECTION THRU PARAPET ON BRIDGE

NOTE: SEE SHEET 99 FOR BAR STEEL REINFORCEMENT DETAILS AND BILL OF BARS FOR PARAPET ON BRIDGE.



R501 R502

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SINGLE SLOPE PARAPET 42SS

SHEET 102 OF 129
1133

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\102_PARAPET_42SS_B-5-681.DGN

PLOT DATE : 2/28/2013

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8

STATE PROJECT NUMBER

1133-11-74

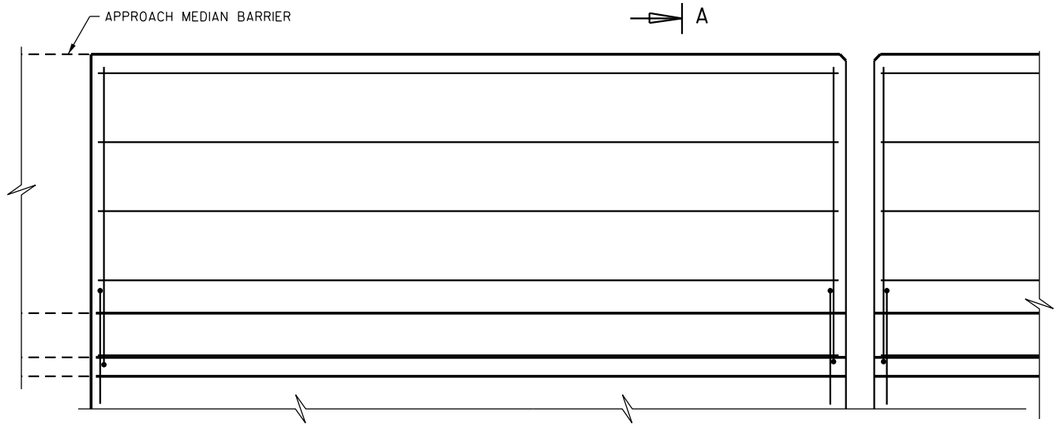
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 2,040 LBS.
R510	33	33	4-6	X		PARAPET - WINGS 2 & 3	VERT.
R511	33	33	7-11	X		PARAPET - WINGS 2 & 3	VERT.
R812	18	18	12-3			PARAPET - WINGS 2 & 3	HORIZ.

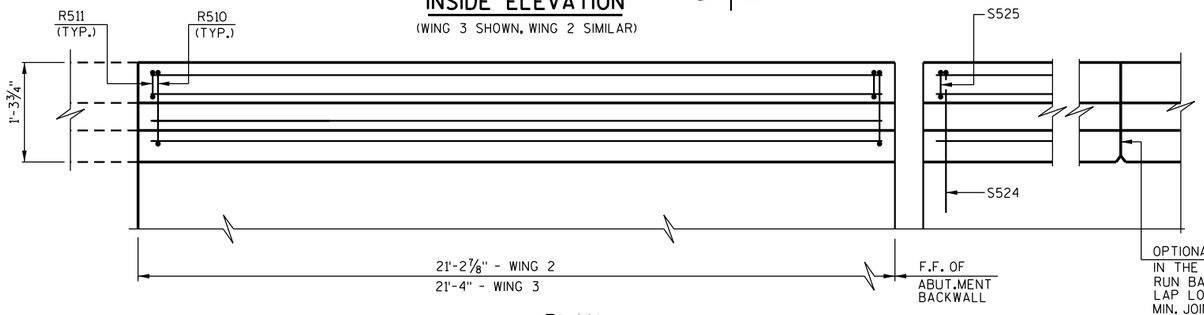
NOTES: QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT ARE INCLUDED IN THE ABUTMENT QUANTITIES ON SHEET 7.

SEE SHEET "PARAPET ELECTRICAL WORK" FOR CONDUIT DETAILS IN WING PARAPETS.



INSIDE ELEVATION

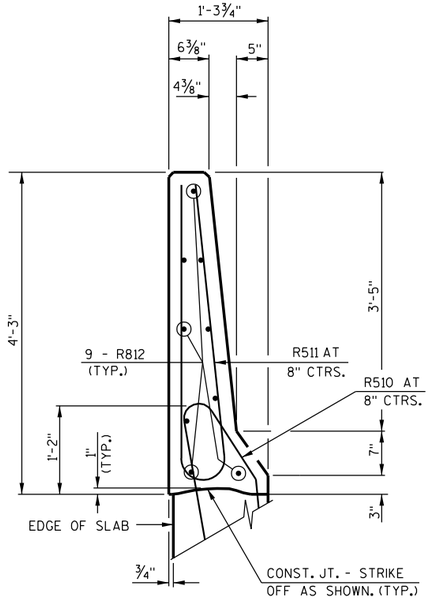
(WING 3 SHOWN, WING 2 SIMILAR)



PLAN

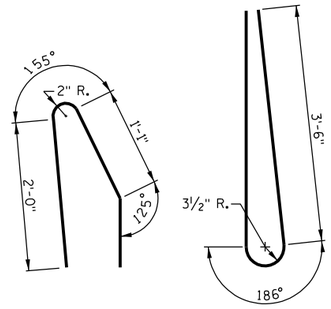
(WING 3 SHOWN, WING 2 SIMILAR)

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 3'-5". MIN. JOINT SPACING OF 80'-0" DEFINE CONST. JOINT WITH A ¾" 'V' GROOVE.

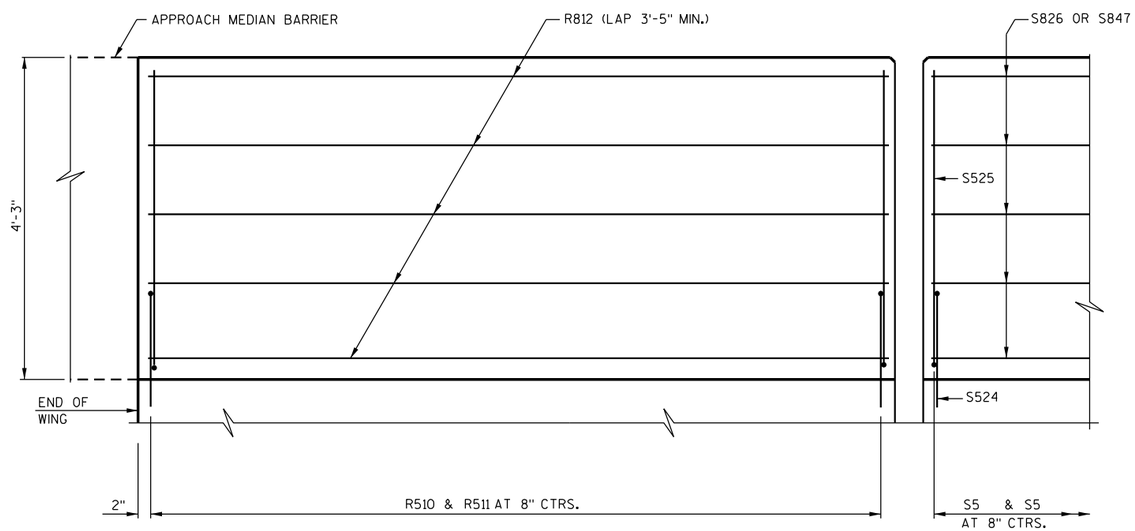


SECTION A-A

(FOR ABUTMENT/WING PARAPET)

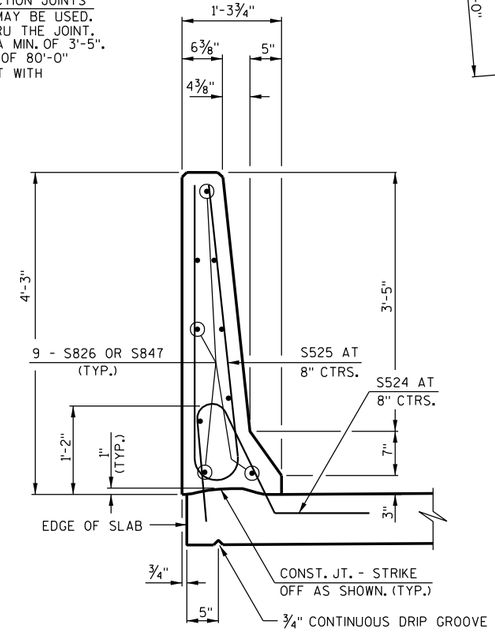


R510 R511



OUTSIDE ELEVATION

(WING 3 SHOWN, WING 2 SIMILAR)



SECTION THRU PARAPET ON BRIDGE

NOTE: SEE SHEET 99 FOR BAR STEEL REINFORCEMENT DETAILS AND BILL OF BARS FOR PARAPET ON BRIDGE.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SLOPED FACE PARAPET "51F"

SHEET 103 OF 129
1134

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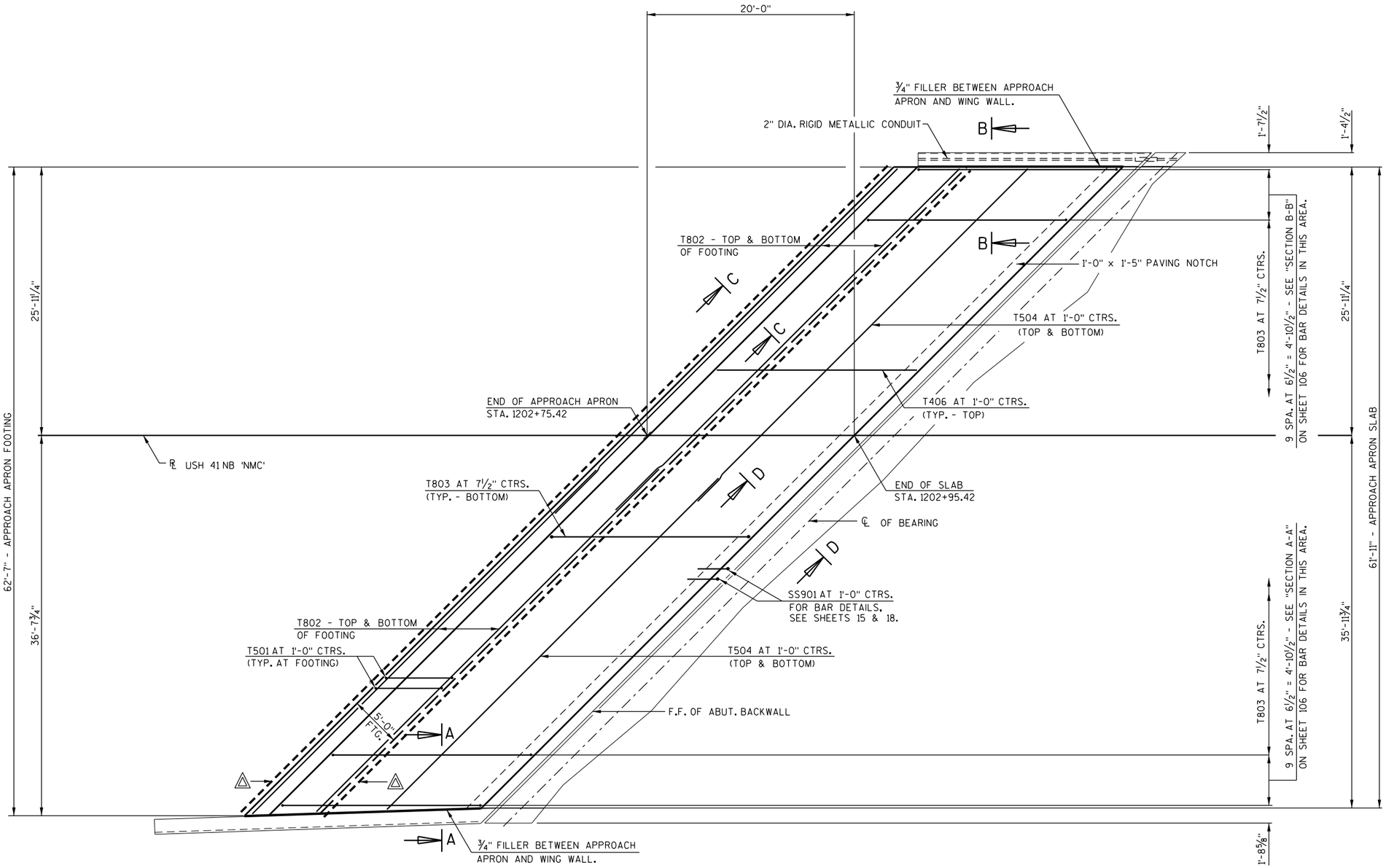
FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\103_PARAPET_51F_B-5-681.DGN

PLOT DATE : 2/28/2013

STATE PROJECT NUMBER

1133-11-74



PART PLAN - SOUTH APPROACH APRON

NOTES: LAP NO. 5 BARS 2'-11" MIN.
LAP NO. 8 BARS 5'-9" MIN.

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET 106.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SOUTH APPROACH APRON DETAILS

SHEET 104 OF 129
1135

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\104_SOUTH_APRON_B-5-681.DGN

PLOT DATE : 2/21/2013

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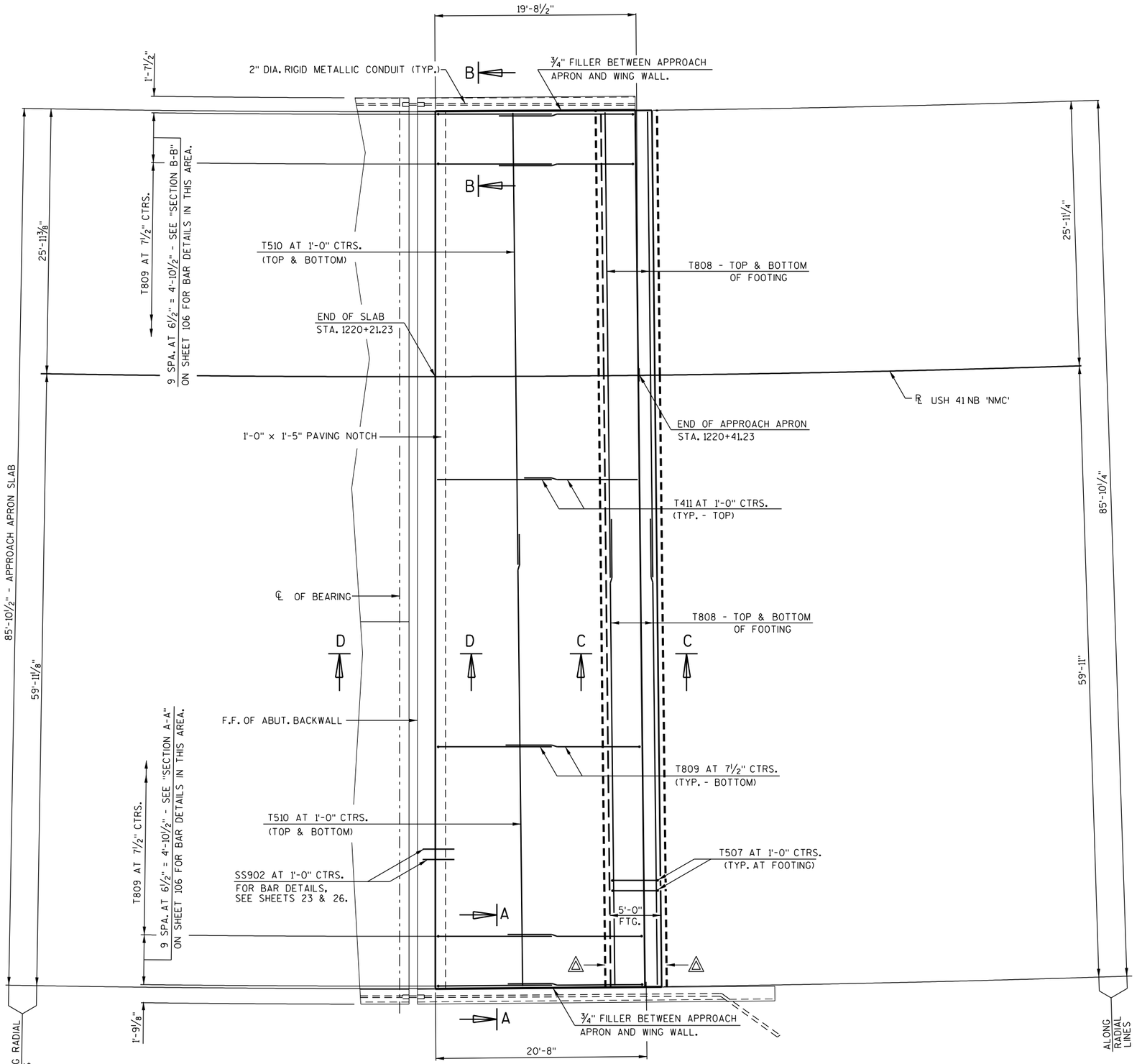
STATE PROJECT NUMBER

1133-11-74



PART PLAN - NORTH APPROACH APRON

NOTES: LAP NO. 4 BARS 2'-4" MIN.
LAP NO. 5 BARS 2'-11" MIN.
LAP NO. 8 BARS 5'-9" MIN.

LEGEND

△ FOR SYMBOL DESCRIPTION, SEE SHEET 106.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

NORTH APPROACH APRON DETAILS

SHEET 105 OF 129
1136

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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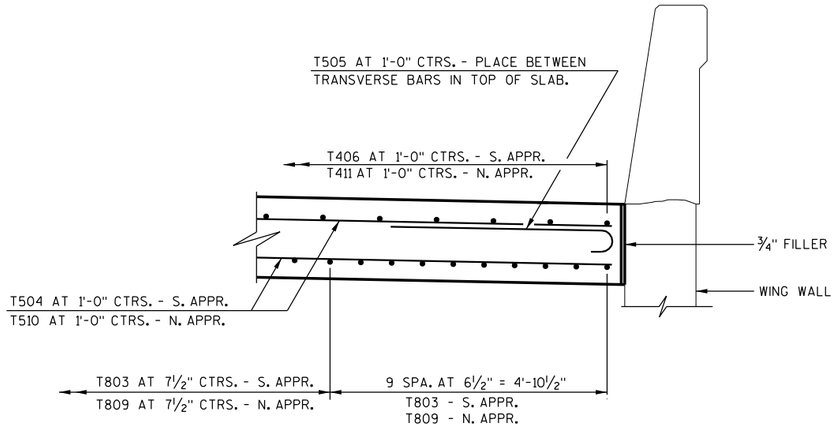
FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\105_NORTH_APRON_B-5-681.DGN

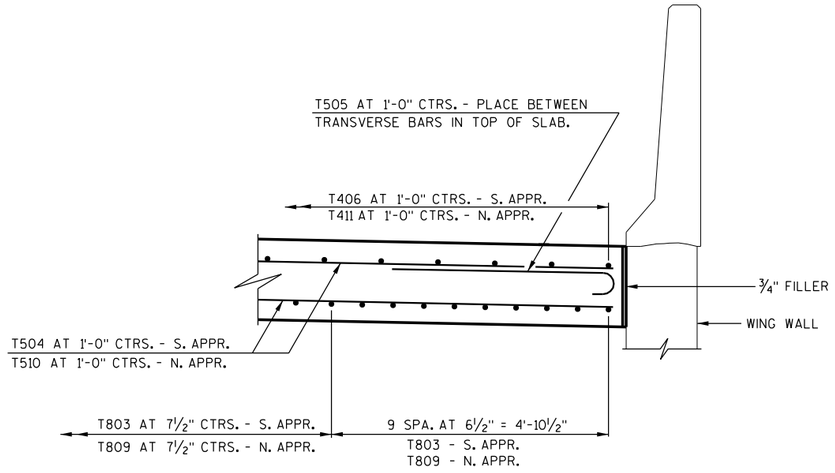
PLOT DATE : 2/21/2013

STATE PROJECT NUMBER

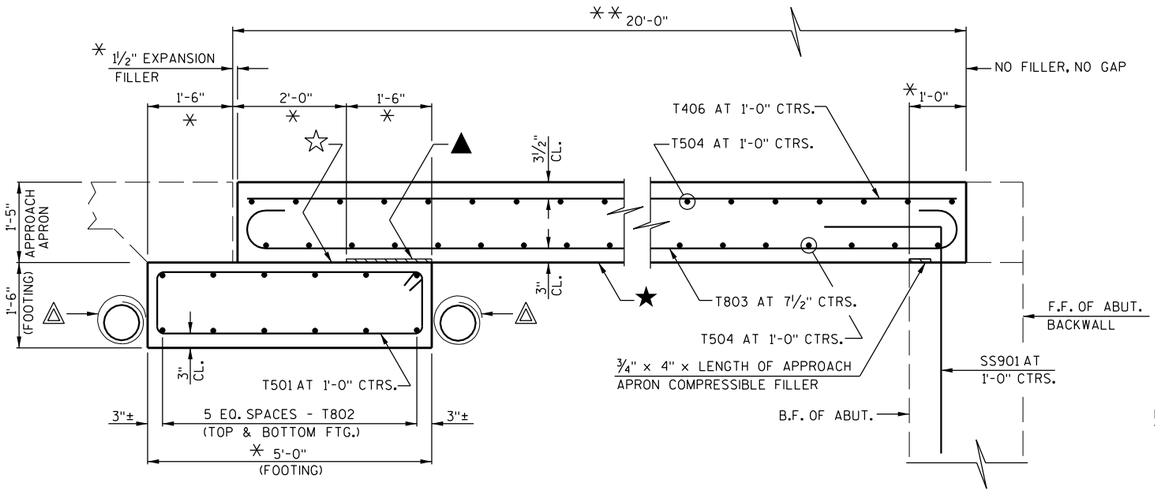
1133-11-74



SECTION A-A

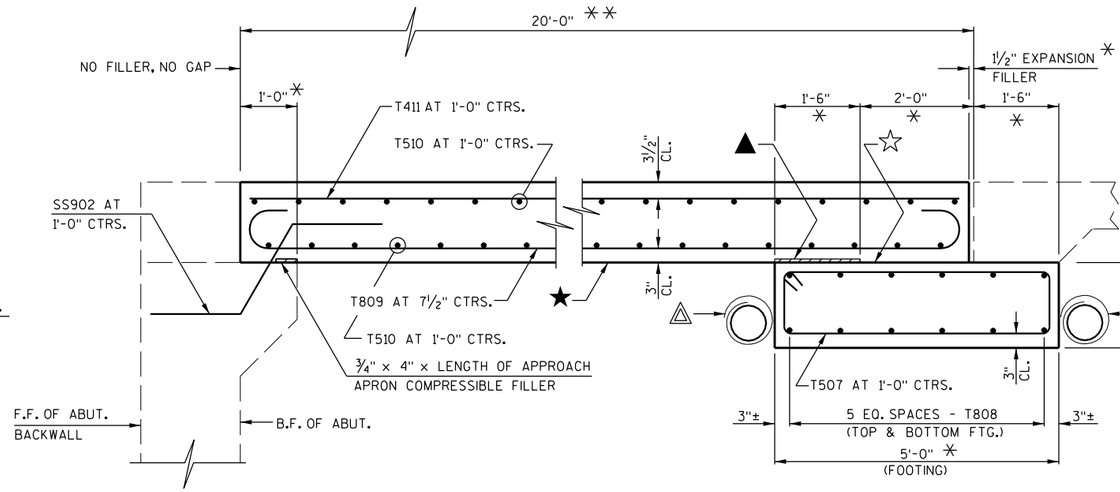


SECTION B-B



SECTION C-C

SECTION D-D



SECTION D-D

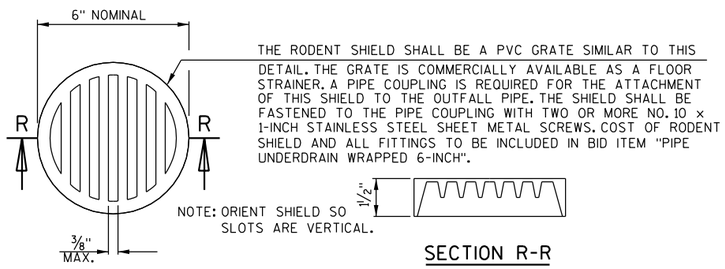
SECTION C-C

PART LONGITUDINAL SECTION AT SOUTH APPROACH APRON

(LOOKING WEST)

PART LONGITUDINAL SECTION AT NORTH APPROACH APRON

(LOOKING WEST)



THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

SECTION R-R

RODENT SHIELD

LEGEND

- * DIMENSIONS ARE GIVEN NORMAL ℄ SUBSTRUCTURE.
- ** DIMENSIONS ARE GIVEN PARALLEL TO ℞ USH 41 NB 'NMC'.
- ☆ STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF FOOTING. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ★ PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE LENGTH OF SUBGRADE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ▲ ¾" x 1'-6" x LENGTH OF FOOTING COMPRESSIBLE FILLER.
- △ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO END OF PIPE. SEE "RODENT SHIELD" DETAIL ON THIS SHEET.
- ● CONST. JT. - STRIKE OFF AS SHOWN.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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APPROACH APRON DETAILS

SHEET 106 OF 129
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PLOT DATE : 2/21/2013

FILE NAME : P:\153 USH 41\1133-10-00 UBGS\STRUCTURES\B-5-681\106_APRON_DET_B-5-681.DGN

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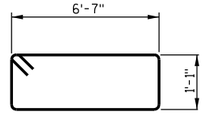
STATE PROJECT NUMBER

1133-11-74

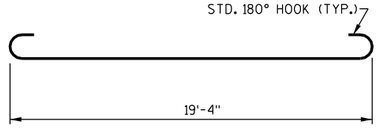
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D.		LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 33,550 LBS.
	UNIT 1	UNIT 2					
T501	63	-----	15-11	X		FOOTING - S. APPROACH	VERT.
T802	24	-----	47-0			FOOTING - S. APPROACH	TRANS.
T803	103	-----	21-2	X		SLAB - BOTTOM - S. APPROACH	LONGIT.
T504	60	-----	45-6			SLAB - TOP & BOTTOM - S. APPROACH	TRANS.
T505	28	40	5-3	X		SLAB - TOP - S. & N. APPROACH	TRANS.
T406	63	-----	19-4			SLAB - TOP - S. APPROACH	LONGIT.
T507	-----	87	12-1	X		FOOTING - N. APPROACH	VERT.
T808	-----	24	45-8			FOOTING - N. APPROACH	TRANS.
T809	-----	280	13-11	X		SLAB - BOTTOM - N. APPROACH	LONGIT.
T510	-----	84	44-3			SLAB - TOP & BOTTOM - N. APPROACH	TRANS.
T411	-----	174	11-4			SLAB - TOP - N. APPROACH	LONGIT.



T501



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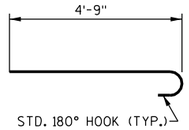

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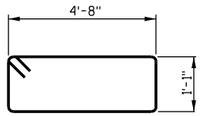

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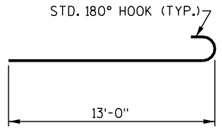

T809

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

APPROACH APRON DETAILS

SHEET 107 OF 129
1138

FILE NAME : P:\153 USH 41\1133-10-00 UBGS\STRUCTURES\B-5-681\107_APRON_BARS_B-5-681.DGN

PLOT DATE : 3/4/2013

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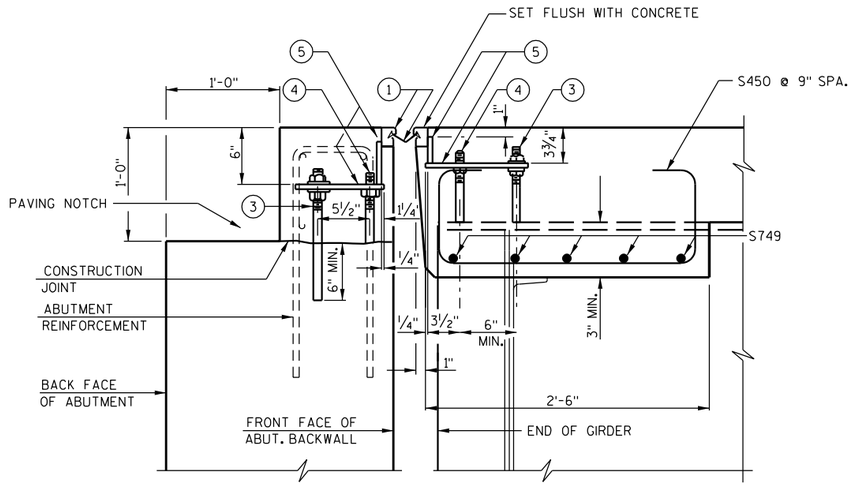
STATE PROJECT NUMBER

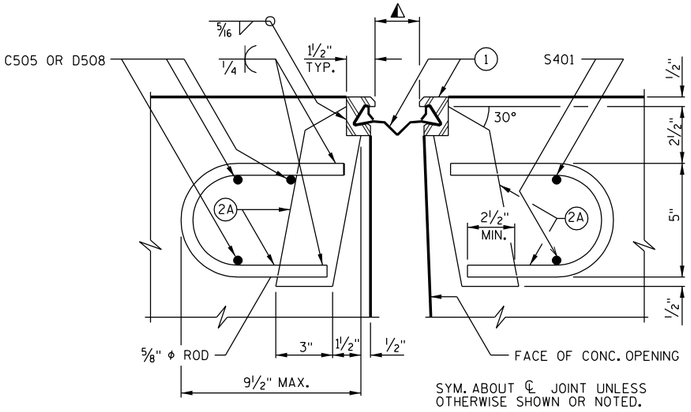
1133-11-74



AT ABUTMENT AT SLAB

TYPICAL SECTION THRU JOINT AT STEEL GIRDERS

(DIMENSIONS SHOWN ARE NORMAL TO ℄ SUBSTRUCTURE)



AT PAVING BLOCK AT SLAB

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

LEGEND

1. NEOPRENE STRIP SEAL (5-INCH) & STEEL EXTRUSIONS.
2. STUDS 5/8" ϕ × 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. FOR STEEL GIRDERS, WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" × 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.

TEMPERATURE TABLE

TEMP.	JT. OPENING
85° F.	1½"
75° F.	1¾"
65° F.	2"
55° F.	2¼"
45° F.	2½"
35° F.	2¾"
25° F.	3"
15° F.	3¼"
5° F.	3½"
-5° F.	3¾"

NOTES

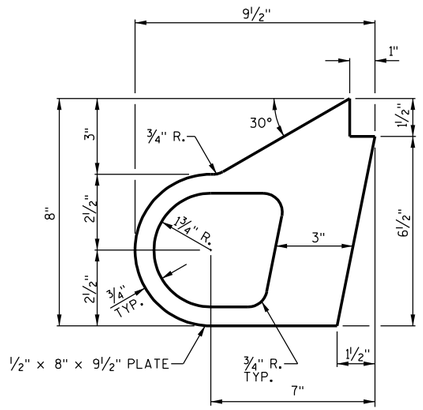
ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

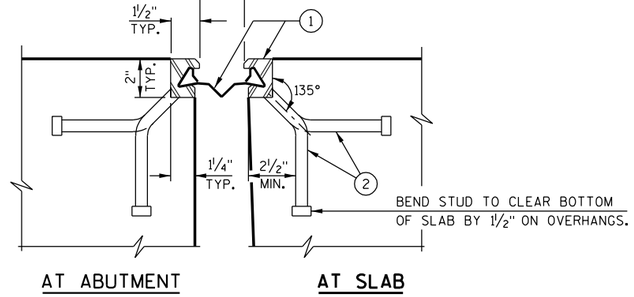
FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. *6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-681".



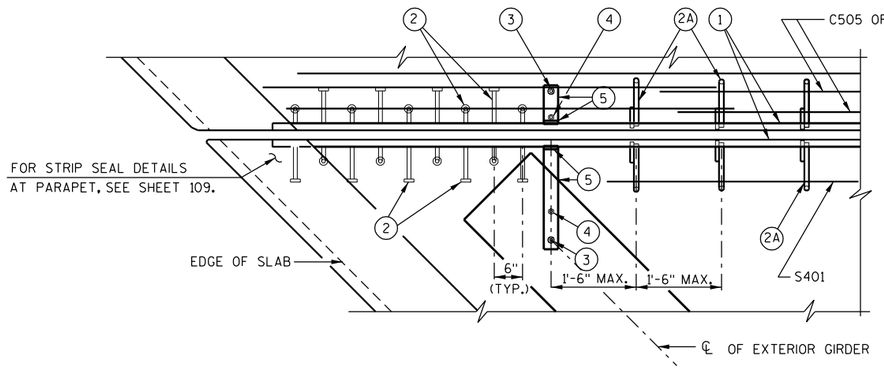
ALTERNATE STRIP SEAL ANCHOR



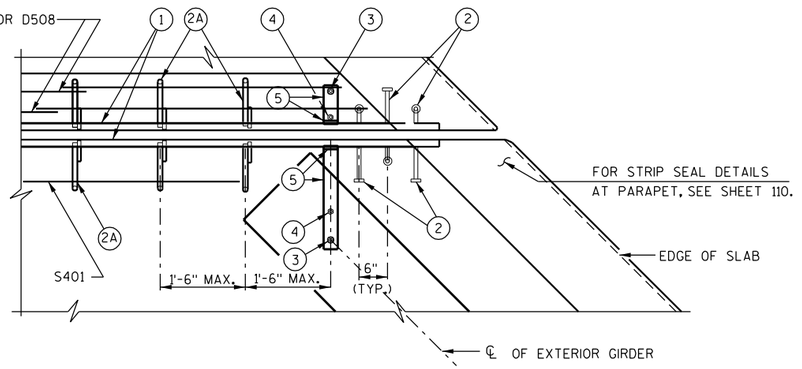
AT ABUTMENT AT SLAB

SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS.



PART PLAN - WING 1



PART PLAN - WING 2

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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EXPANSION DEVICE - SOUTH ABUTMENT

SHEET 108 OF 129
1139

8

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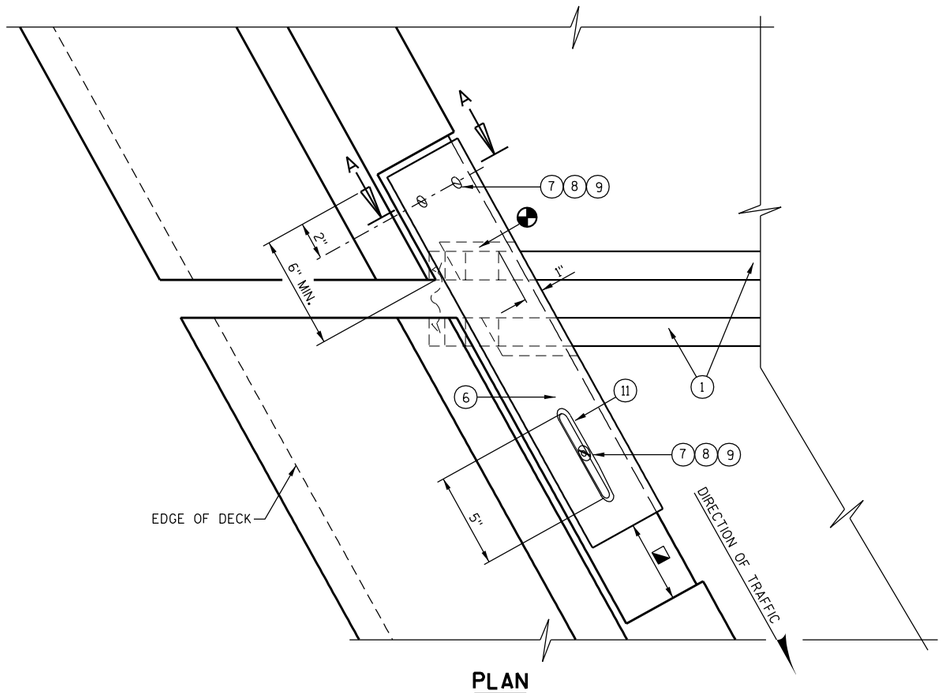
FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\H08_SA_EXP_IT1_B-5-681_DGN

PLOT DATE : 3/4/2013

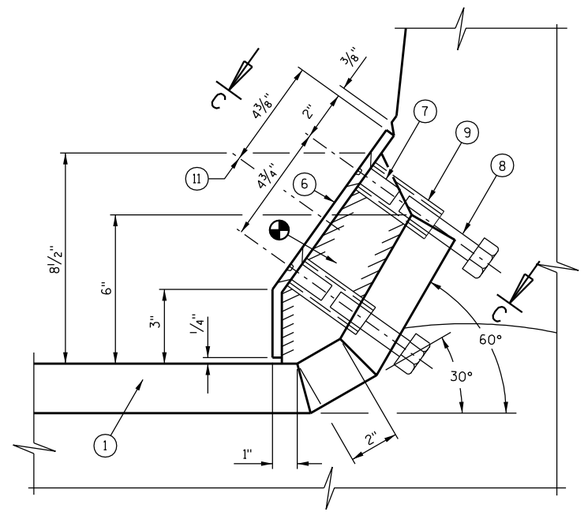
STATE PROJECT NUMBER

1133-11-74



PLAN

(PART PLAN SHOWN AT WING 1)



SECTION A-A

GENERAL NOTES

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-681".

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

LEGEND

(1) NEOPRENE STRIP SEAL (5-INCH) & STEEL EXTRUSIONS.

(2) STUDS 5/8" Φ x 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

◭ SEE TEMPERATURE TABLE ON SHEET 108.

◓ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"

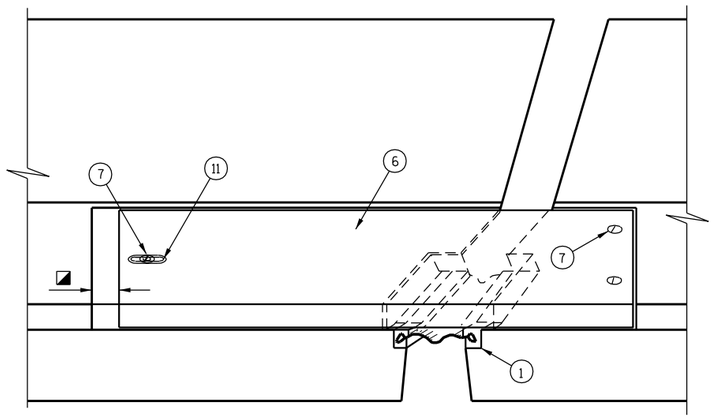
(6) GALVANIZED PLATE 3/8" x 10 1/2" x 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4" x 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

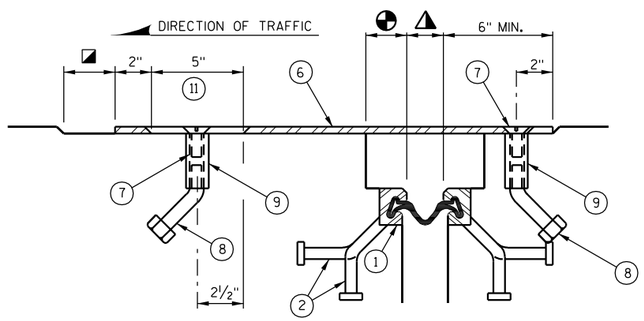
(8) 3/4" DIA. x 4" GALV. HEX HEAD BOLT. BEND 45°.

(9) 3/4" DIA. x 2 1/4" GALV. THREADED COUPLING.

(11) 1" x 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.



VIEW OF PARAPET PLATES FROM ROADWAY



SECTION C-C

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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EXPANSION DEVICE - SOUTH ABUTMENT

SHEET 109 OF 129
1140

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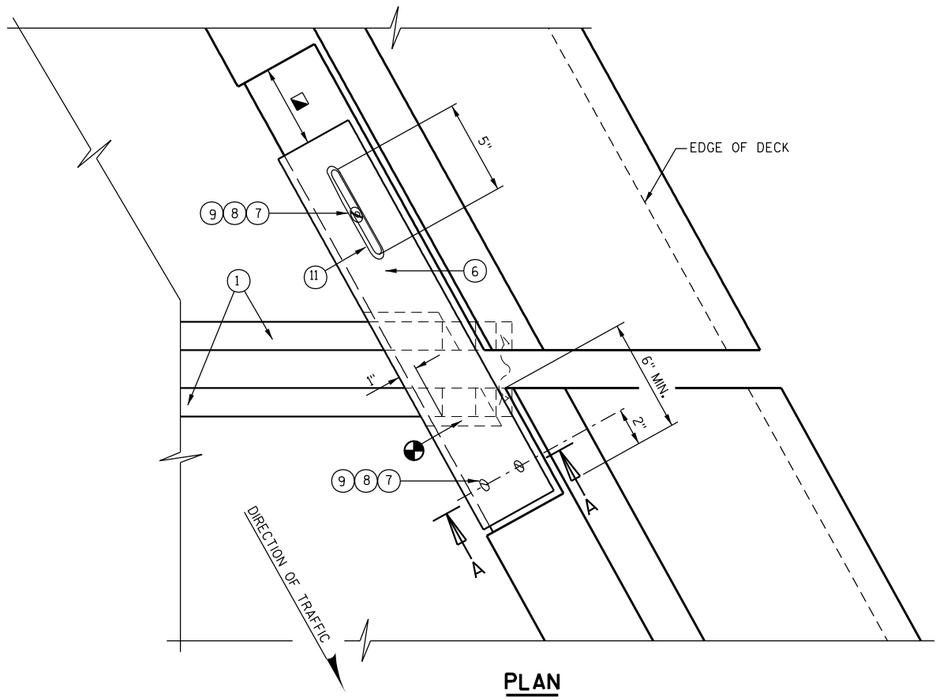
FILE NAME : P:\153 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\109.SA.EXP.JT2.B-5-681.DGN

PLOT DATE : 2/21/2013

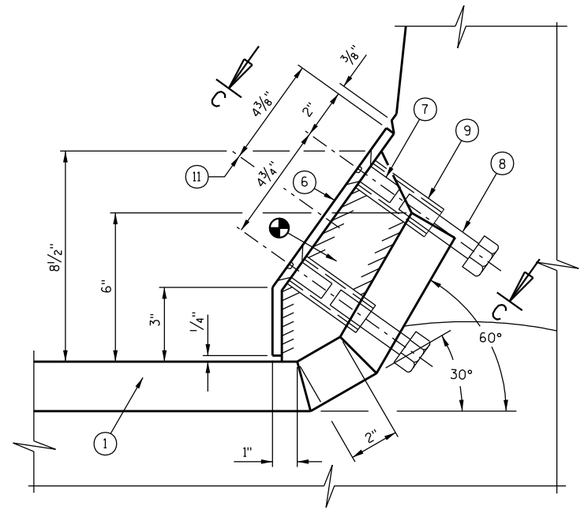
STATE PROJECT NUMBER

1133-11-74



PLAN

(PART PLAN SHOWN AT WING 2)



SECTION A-A

GENERAL NOTES

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-5-681.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

LEGEND

(1) NEOPRENE STRIP SEAL (5-INCH) & STEEL EXTRUSIONS.

(2) STUDS 5/8" ϕ × 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

◭ SEE TEMPERATURE TABLE ON SHEET 108.

◓ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"

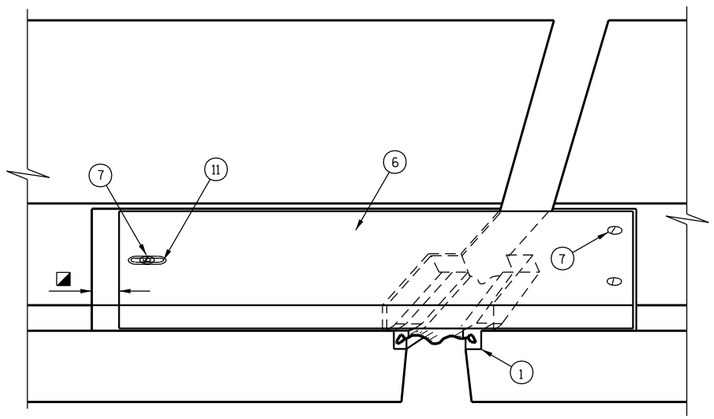
(6) GALVANIZED PLATE 3/8" × 10 1/2" × 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

(7) 3/4" × 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

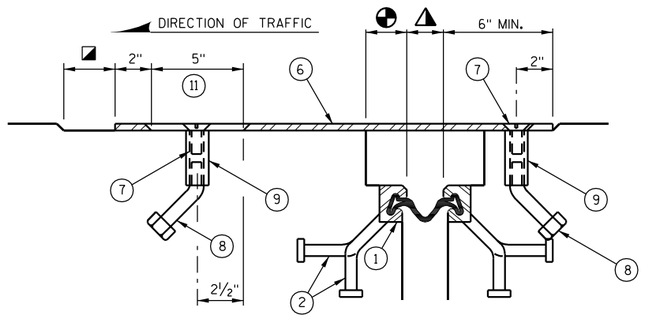
(8) 3/4" DIA. × 4" GALV. HEX HEAD BOLT. BEND 45°.

(9) 3/4" DIA. × 2 1/4" GALV. THREADED COUPLING.

(11) 1" × 5" SLOTTED CSK. HOLE FOR NO. 7. SLOT PARALLEL TO DIRECTION OF MOVEMENT.



VIEW OF PARAPET PLATES FROM ROADWAY



SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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EXPANSION DEVICE - SOUTH ABUTMENT

SHEET 110 OF 129
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STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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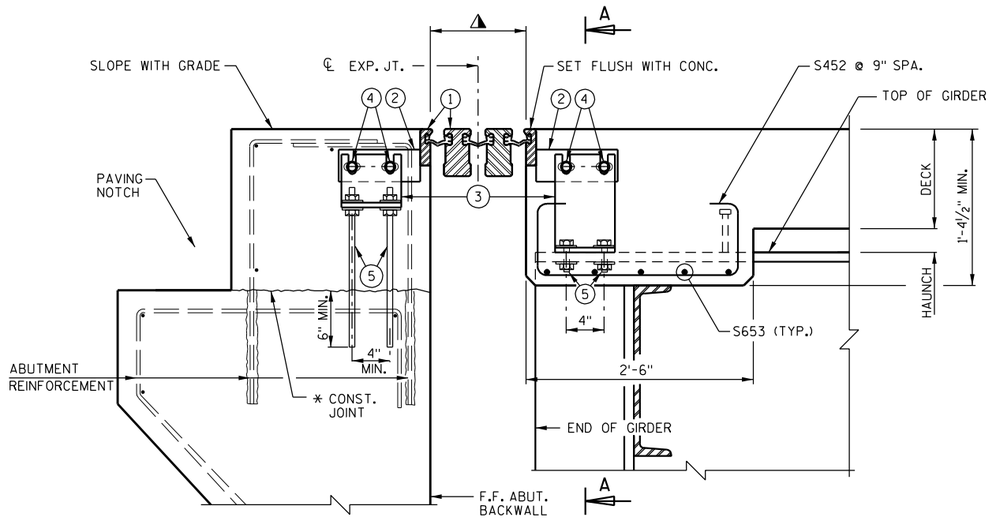
FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\110_SA_EXP_JT3_B-5-681.DGN

PLOT DATE : 2/21/2013

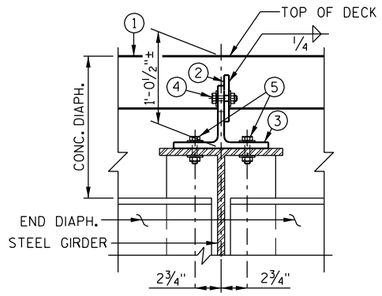
STATE PROJECT NUMBER

1133-11-74



SECTION THRU JOINT AT NORTH ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



SECTION A-A

LEGEND

1. MODULAR EXPANSION JOINT DEVICES, 3 CELLS (N. ABUT.) & 5 CELLS (PIER 4 & C1).
2. ½" PLATE, ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.
3. WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.
4. ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)
5. ¾" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)
6. SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM ½" PLATES.
13. ½" PLATE WITH ⅝" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

* POUR CONC. ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONC. IS IN PLACE. STRIKE OFF & LEAVE ROUGH.

△ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN 1.

NOTES

ALL DIMENSIONS SHOWN ARE AT MEDIAN TEMP OF 45° F.

FABRICATOR WILL DESIGN EACH JOINT DEPENDING ON THE CONDITIONS AND THE DESIGN CRITERIA USED BY THE SUPPLIER. FABRICATION DRAWINGS ARE SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE GLAND.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST, & SWEEP.

NO EXPANSION JOINT PROTRUSIONS PERMITTED ABOVE ROADWAY SURFACE OR ON PARAPET ROADWAY FACE.

THE EXPANSION JOINT SEALS SHALL BE PLACED, BONDED, & SEALED AS RECOMMENDED BY THE MANUFACTURER. FORM WORK SHALL BE PLACED BETWEEN THE SUPPORT BOXES TO PREVENT CONCRETE INTRUSION INTO THE SUPPORT BOX. A TECHNICAL REPRESENTATIVE OF THE MANUFACTURER SHALL BE PRESENT DURING INSTALLATION. PRIOR TO SETTING THE JOINT ASSEMBLY INTO POSITION, THE PROJECT ENGINEER SHALL DETERMINE THE PROPER JOINT OPENING.

EXPANSION JOINT EXTRUSIONS SHALL BE FABRICATED TO CONFORM TO ROADWAY CROWN & GRADE. FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

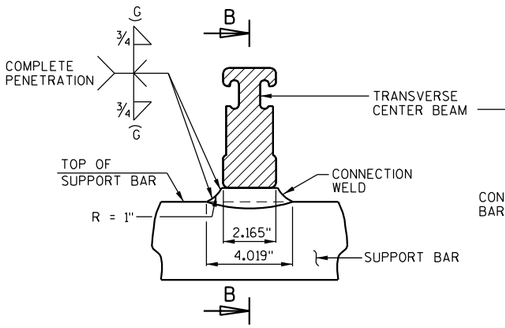
SANDBLAST BARS, PLATES, WT-SECTION, ANCHORAGE LOOP, & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THIS ASSEMBLY SHALL BE HOT DIPPED GALVANIZED.

COST OF FURNISHING & PLACING OF THE EXPANSION JOINTS COMPLETE WITH PARAPET PLATES SHALL BE PAID FOR UNDER THE PRICE BID FOR "MODULAR EXPANSION DEVICE STRUCUTURE B-5-681".

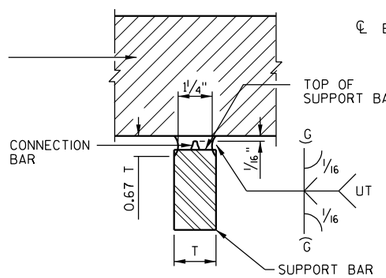
BAR STEEL REINF. IN DECK AND CONC. DIAPHRAGM SHALL BE RESPACED AS NECESSARY TO ALLOW PLACEMENT OF JOINT ASSEMBLY.

MODULAR EXPANSION DEVICE DESIGN AND DETAILS ARE SPECIFIC TO THE MANUFACTURER SELECTED FROM THOSE LISTED IN THE SPECIAL PROVISIONS. FABRICATION DRAWING IS SUBJECT TO THE APPROVAL OF THE BUREAU OF STRUCTURES.

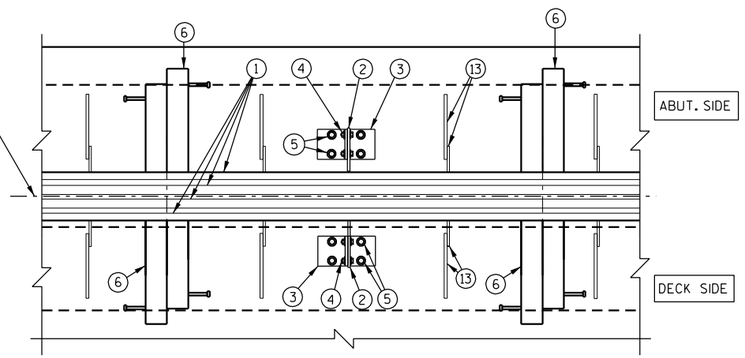
SUPPORT BOXES ARE SHOWN FOR GENERAL INFORMATION AND LOCATION MAY VARY ACCORDING TO FABRICATOR DESIGN. SPACE SUPPORT BOXES TO MISS GIRDER TOP FLANGES WHEN POSSIBLE, BUT NOT TO EXCEED MAXIMUM SPACING PER SPECIAL PROVISIONS.



MODULAR EXPANSION JOINT CONNECTION DETAIL AND WELD SPECIFICATION

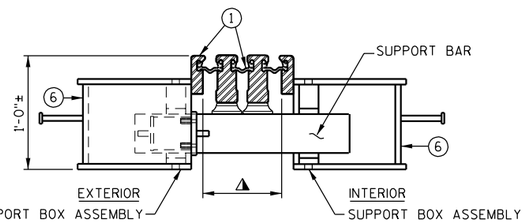


SECTION B-B



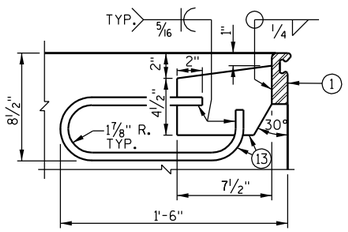
PART PLAN

(AT NORTH ABUTMENT)



JOINT DETAIL

AT SUPPORT BAR & SUPPORT BOX ASSEMBLY (SHOWN AT ABUT., PIER SIMILAR)



ANCHORAGE DETAIL

PLACE ADJACENT TO SUPPORT BOXES IN AT N. ABUT., PIER 4 & PIER C1.

NOTE: DETAILS SHOWN ON THIS SHEET APPLY TO SHEETS 112 & 113 ALSO.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT DETAILS

SHEET 111 OF 129
1142

8

8

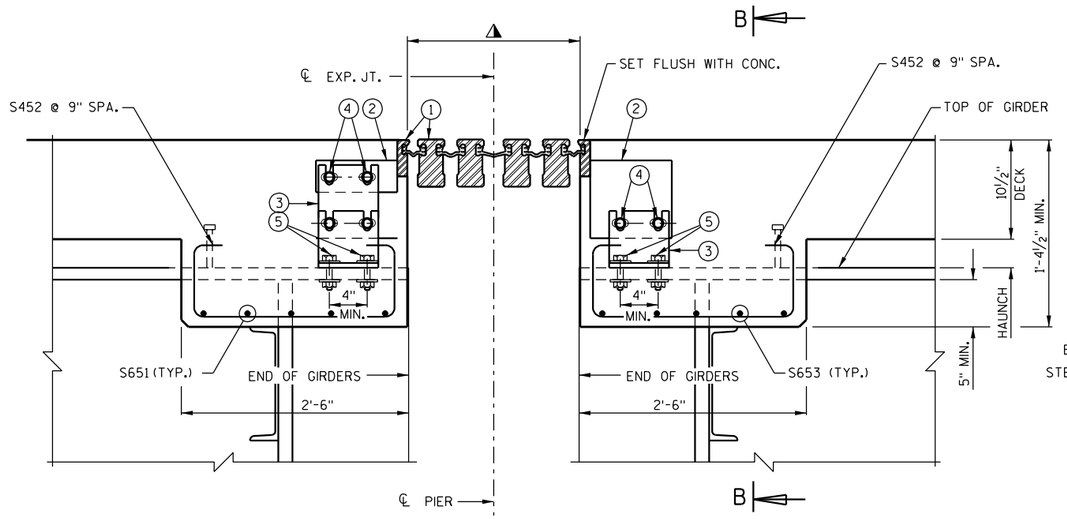
1234 7

FILE NAME : P:\853 USH 41\1133-10-00 URGs\STRUCTURES\B-5-681\ill\MOD_EXP_JTDL_V7_B-5-681DGN

PLOT DATE : 2/21/2013

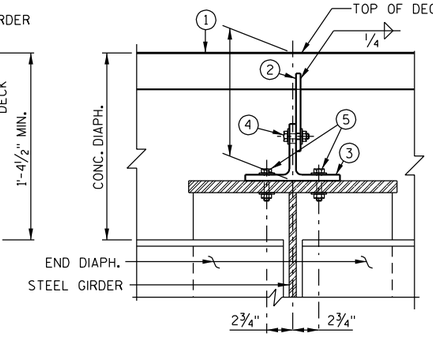
STATE PROJECT NUMBER

1133-11-74

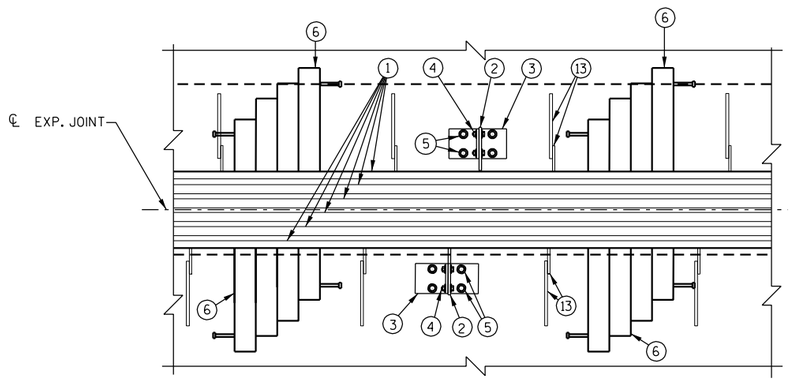


SECTION THRU JOINT AT PIER 4

NORMAL TO ℄ SUBSTRUCTURE



SECTION B-B



PART PLAN

(AT PIER 4)

LEGEND

(1) MODULAR EXPANSION JOINT DEVICES, 5 CELLS. (PIER 4)

(2) ½" PLATE. ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.

(3) WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.

(4) ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)

(5) ¾" DIA. THREADED ROD WITH 2 NUTS & WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES. (GALV.)

(6) SUPPORT BOX ASSEMBLY FOR SUPPORT BAR (SPA. PER MANUFACTURER). FABRICATE BOX FROM ½" PLATES.

(13) ½" PLATE WITH ⅝" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

▲ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN 1.

FOR NOTES, SEE SHEET 111.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT DETAILS

SHEET 112 OF 129
1143

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\H12.MOD.EXP._JT02.V7.B-5-681.DGN

PLOT DATE : 3/4/2013

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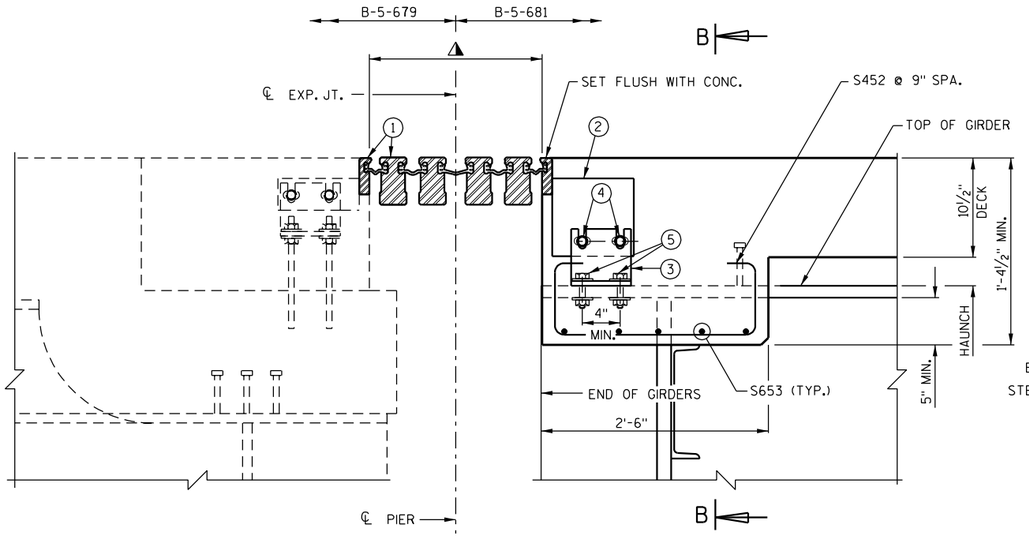
8

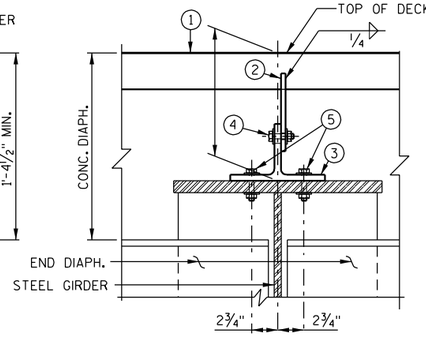
STATE PROJECT NUMBER

1133-11-74

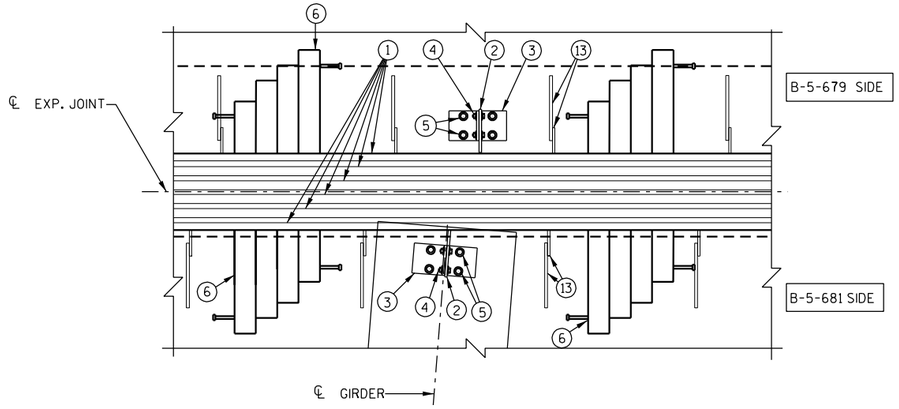


SECTION THRU JOINT AT PIER C1

NORMAL TO ℄ SUBSTRUCTURE



SECTION B-B



PART PLAN

(AT PIER C1)

LEGEND

(1) MODULAR EXPANSION JOINT DEVICES, 5 CELLS. (PIER C1)

(2) ½" PLATE, ONE PER WT NO. 3 MIN. PROVIDE 2 - 1" X 2" MIN. SLOTTED HOLES PLACED HORIZONTALLY FOR BOLTS NO. 4.

(3) WT 6 X 29 (OR EQUIVALENT BUILT UP T-SECTION SPA. PER MANUFACTURER) PROVIDE 2 - 1" X 3" MIN. SLOTTED HOLES PLACED VERTICALLY IN WEB OF WT FOR BOLTS NO. 4.

(4) ¾" DIA. HIGH STRENGTH BOLTS WITH NUTS & WASHERS. (A325 GALV.)

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(13) ½" PLATE WITH ⅝" DIA. LOOP ANCHOR FABRICATED AS SHOWN. SPACED AT MANUFACTURER'S SPEC.

▲ MANUFACTURER'S RECOMMENDED JOINT OPENING BASED ON THE TEMPERATURE ON THE DAY OF PLACEMENT PER TEMPERATURE TABLE. THE MODULAR EXPANSION DEVICE SHALL HAVE THE NUMBER OF CELLS AS INDICATED IN 1.

FOR NOTES, SEE SHEET 111.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT DETAILS

SHEET 113 OF 129
1144

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\113.MOD.EXP._JT03.V7.B-5-681.DGN

PLOT DATE : 2/21/2013

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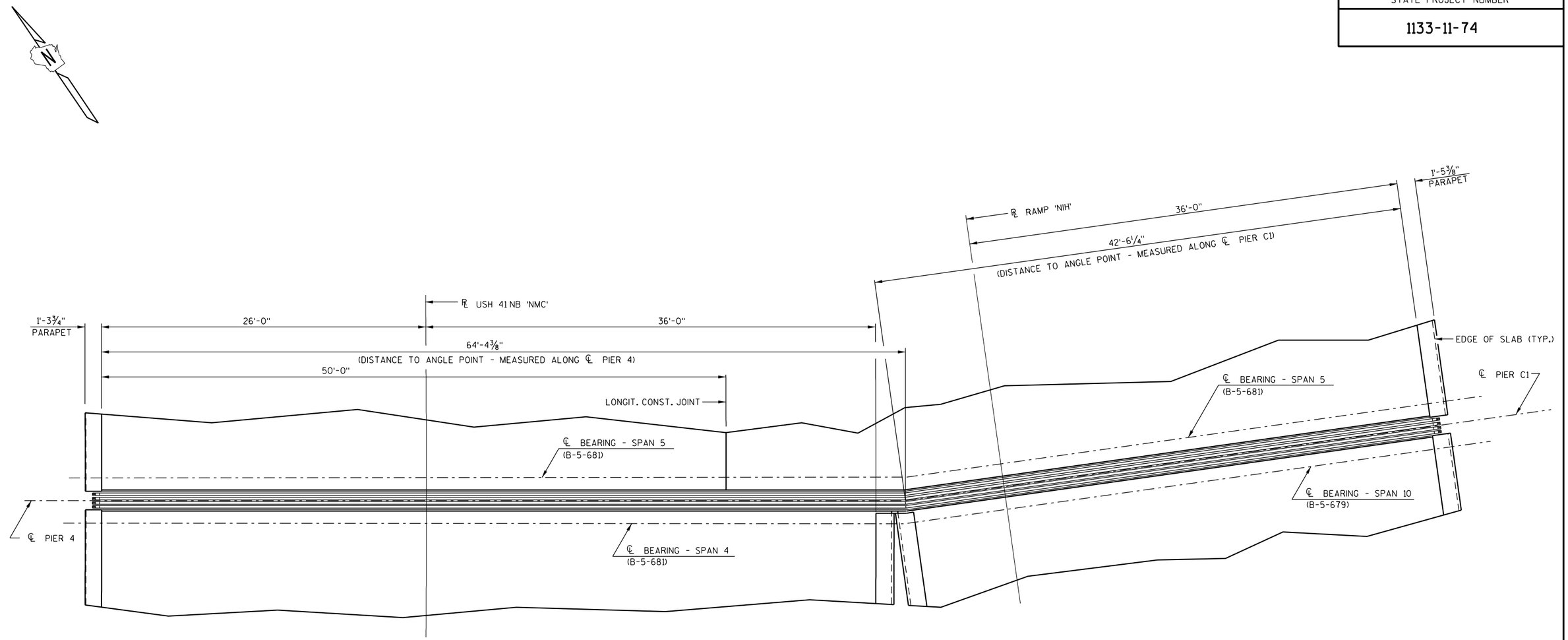
8

STATE PROJECT NUMBER

1133-11-74



PART PLAN AT PIER 4 (B-5-681) & PIER C1 (B-5-679)

(SHOWING LIMITS OF MODULAR EXPANSION DEVICE)

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

MODULAR EXPANSION JOINT AT PIER 4

SHEET 114 OF 129
1145

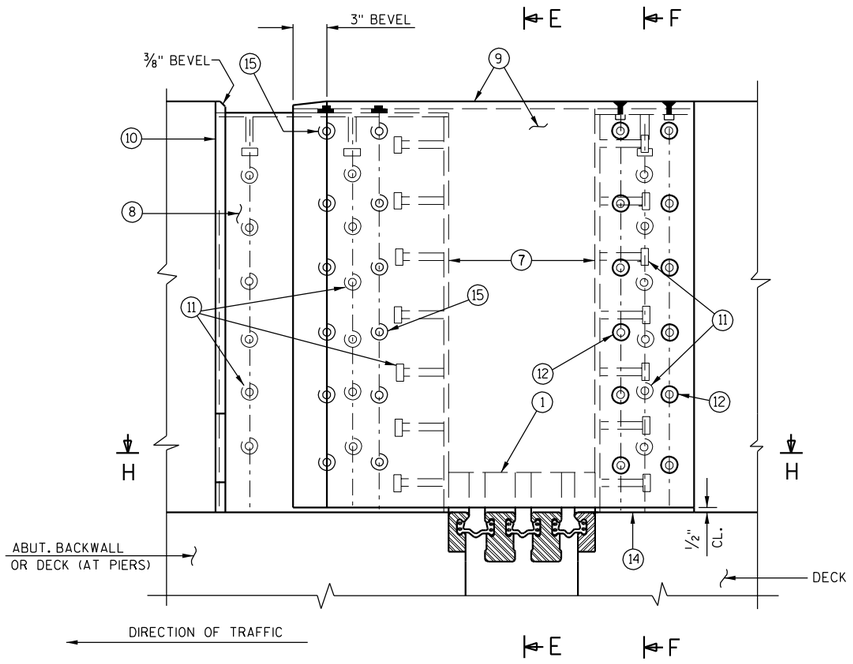
STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\H4_PIER4_EXP_JT_V7.0-5-681.DGN

PLOT DATE : 2/21/2013

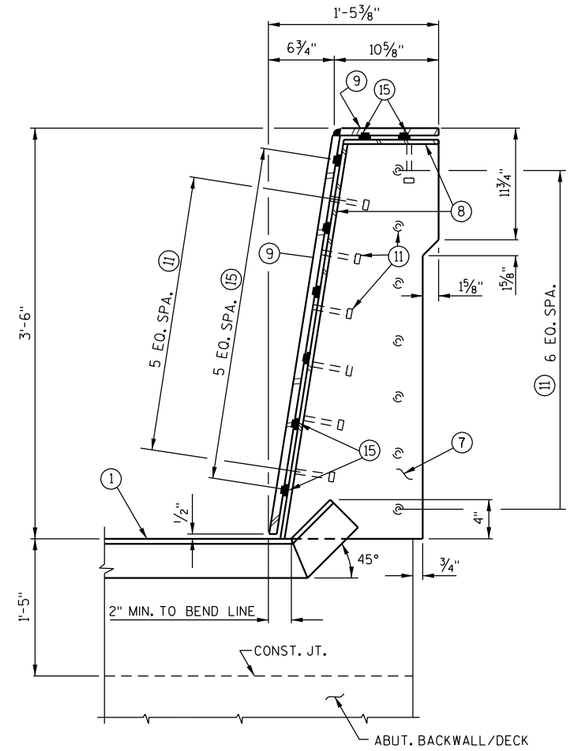
STATE PROJECT NUMBER

1133-11-74

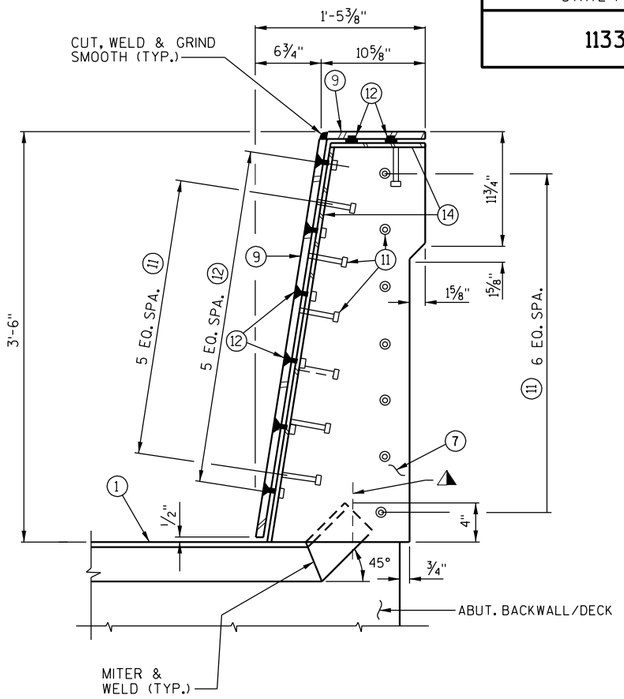


ELEVATION OF SINGLE SLOPE PARAPET

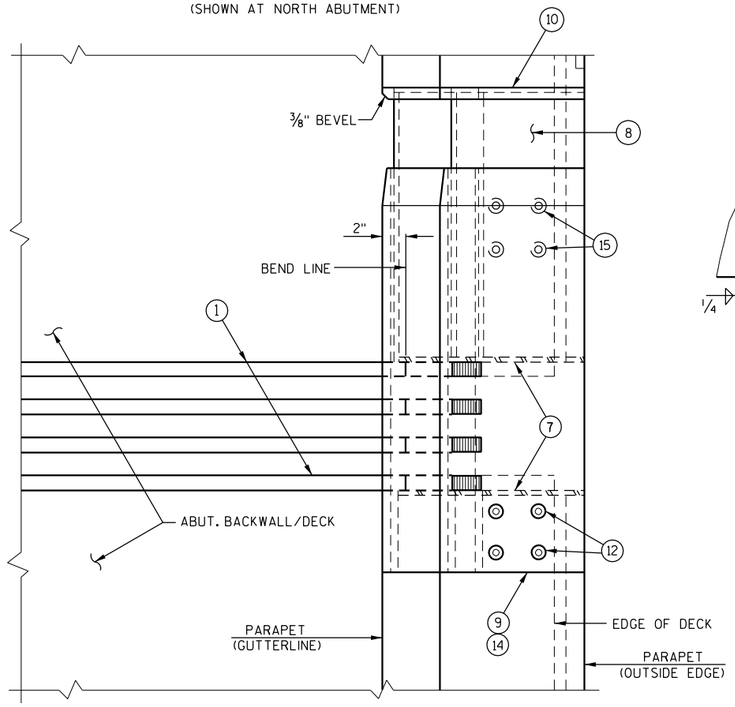
(SHOWN AT NORTH ABUTMENT)



SECTION E-E

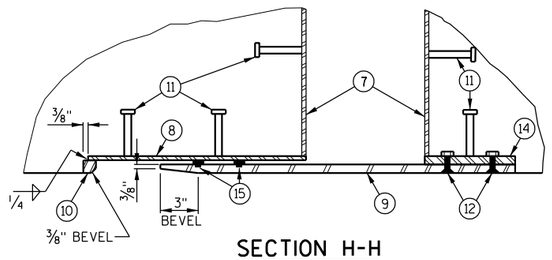


SECTION F-F

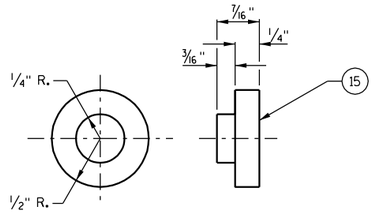


PLAN OF SINGLE SLOPE PARAPET

(SHOWN AT NORTH ABUTMENT)



SECTION H-H



ADIPRENE BUTTON DETAIL

LEGEND

- ▲ MITER EXTRUSION ENDS AS REQ'D TO PROVIDE CLEARANCE
- (1) MODULAR EXPANSION JOINT DEVICE.
- (7) 3/4" BULKHEAD PLATE WELD TO NO. 1, NO. 8, AND NO. 14.
- (8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
- (9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
- (10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
- (11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO.7, AND NO. 14.
- (12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
- (14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
- (15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

DRAWINGS ARE NOT TO SCALE.

SEE 'SINGLE SLOPE PARAPET 42SS' DRAWING FOR PARAPET DIMENSIONS.

COVER PLATES SHALL BE GALVANIZED.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

COVER PLATES - 42SS PARAPET

SHEET 115 OF 129
1146

FILE NAME : P:\453 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\115_COVERPLATE42SS_V7_B-5-681.DGN

PLOT DATE : 2/21/2013

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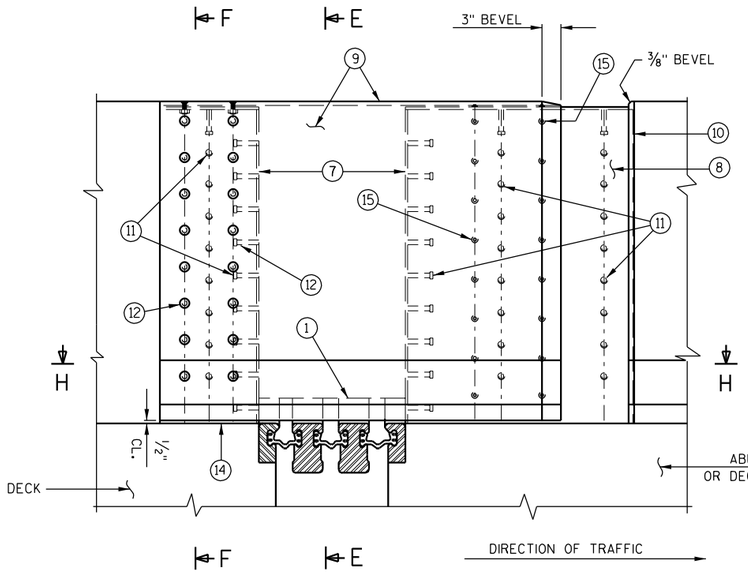
8

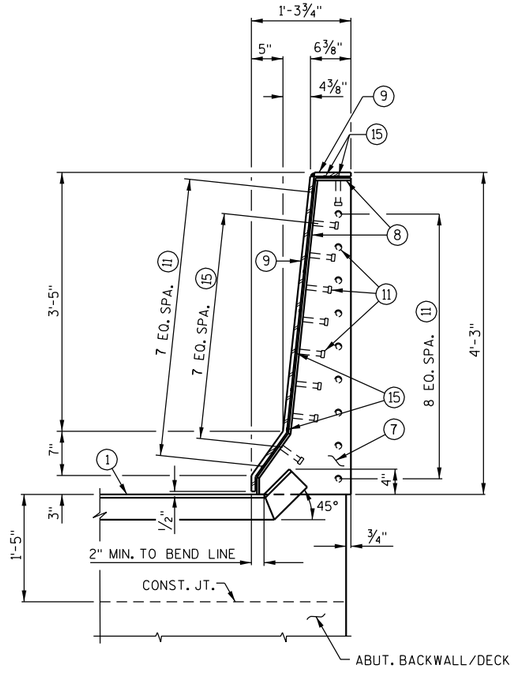
STATE PROJECT NUMBER

1133-11-74

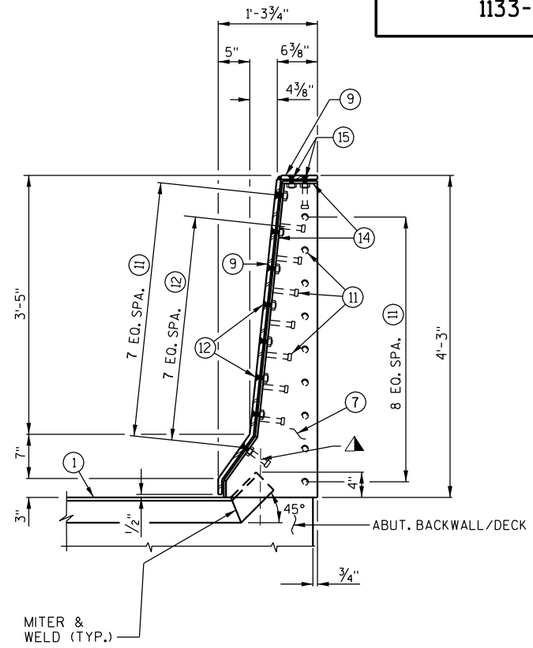


ELEVATION OF SLOPED FACE PARAPET '51F'

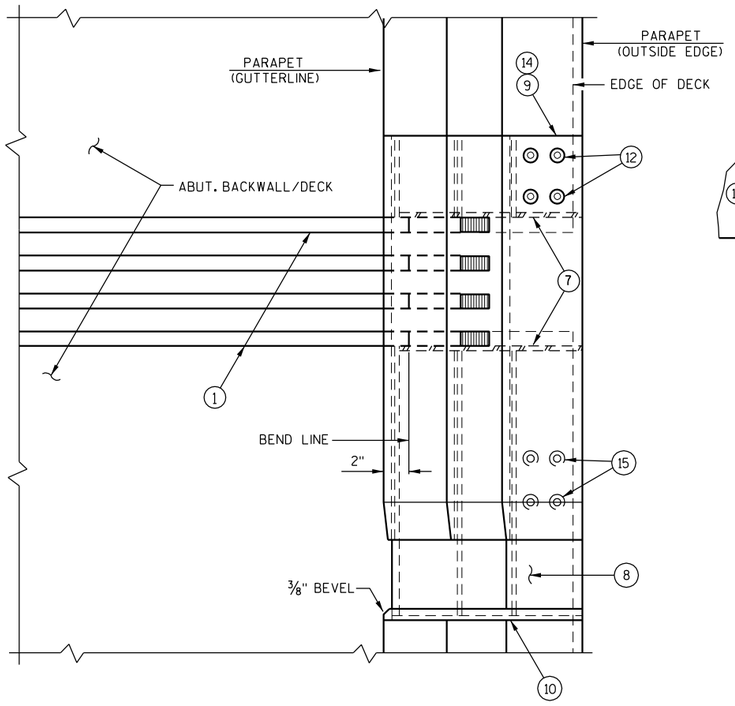
(SHOWN AT NORTH ABUTMENT)



SECTION E-E

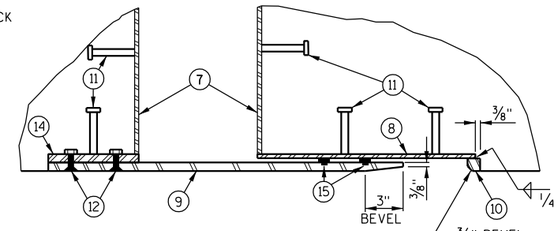


SECTION F-F

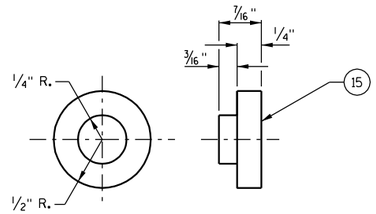


PLAN OF SINGLE SLOPE PARAPET

(SHOWN AT NORTH ABUTMENT)



SECTION H-H



ADIPRENE BUTTON DETAIL

LEGEND

- ◭ MITER EXTRUSION ENDS AS REQ'D TO PROVIDE CLEARANCE
- (1) MODULAR EXPANSION JOINT DEVICE.
- (7) 3/4" BULKHEAD PLATE WELD TO NO. 1, NO. 8, AND NO. 14.
- (8) INSIDE PLATE. FABRICATE FROM 3/8" PLATE.
- (9) OUTSIDE PLATE. FABRICATE FROM 5/8" PLATE.
- (10) 7/8" SQUARE BAR. WELD TO NO. 8 AS SHOWN.
- (11) 3/4" DIA. X 4" LONG STUDS. WELD TO NO. 8, NO.7, AND NO. 14.
- (12) 3/4" DIA. X 2" STAINLESS STEEL FLAT CTSK. SLOTTED HEAD CAP SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
- (14) INSIDE PLATE. FABRICATE FROM 5/8" PLATE.
- (15) ADIPRENE BUTTON. SEE DETAIL. SET IN OUTSIDE PLATE.

NOTES

DRAWINGS ARE NOT TO SCALE.

SEE 'SLOPED FACE PARAPET 51F' DRAWING FOR PARAPET DIMENSIONS.

COVER PLATES SHALL BE GALVANIZED.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

COVER PLATES - 51F PARAPET

SHEET 116 OF 129

1147

8

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FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\116.COVERPLATES51F.V7.B-5-681.DGN

PLOT DATE : 2/21/2013

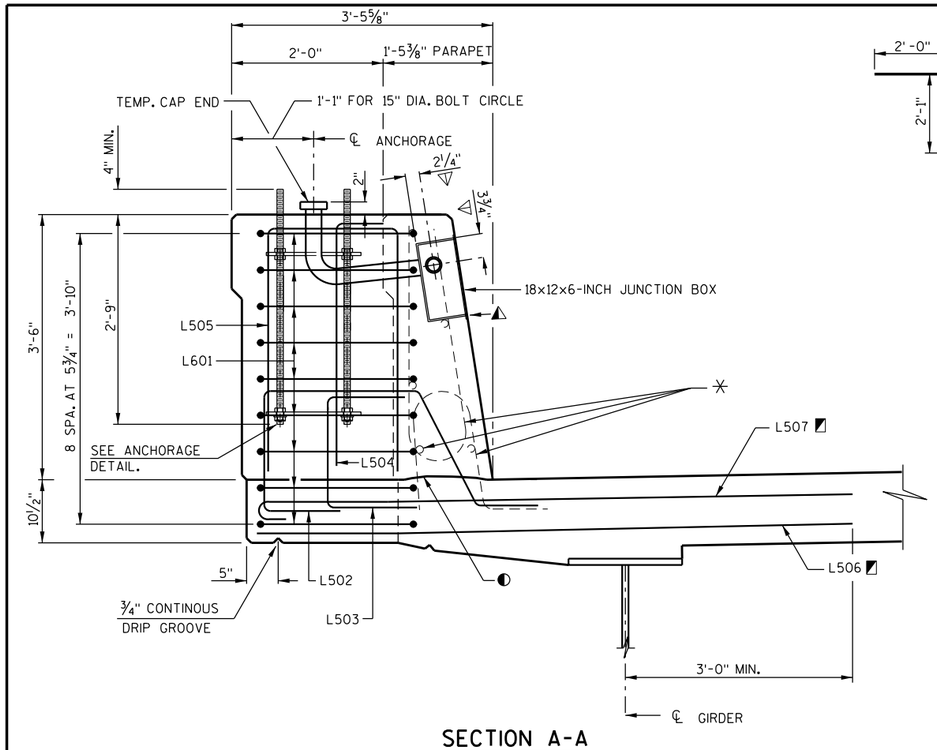
STATE PROJECT NUMBER

1133-11-74

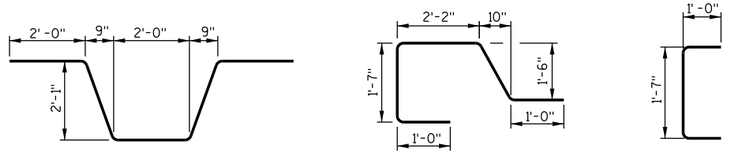
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

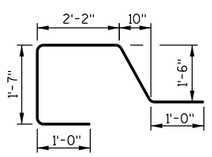
MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 1,160 LBS.
L601	---	27	10-0	X		LIGHT STANDARD BASE	HORIZ.
L502	---	12	7-0	X		LIGHT STANDARD BASE	VERT.
L503	---	6	3-5	X		LIGHT STANDARD BASE	VERT.
L504	---	6	4-0	X		LIGHT STANDARD BASE	VERT.
L505	---	12	7-8	X		LIGHT STANDARD BASE	VERT.
L506	---	30	8-0			LIGHT STANDARD BASE	TRANS.
L507	---	30	8-7	X		LIGHT STANDARD BASE	TRANS.



SECTION A-A



L601



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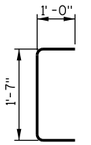

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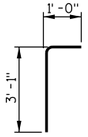

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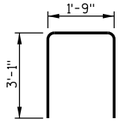

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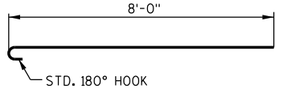

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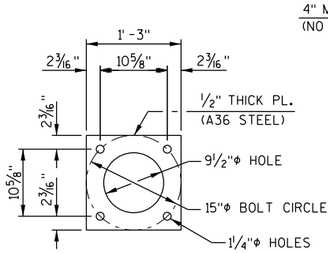
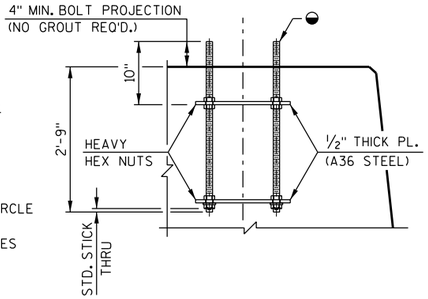


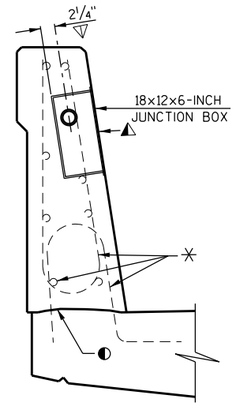
PLATE DETAIL

(6 REQ'D. FOR 3 LIGHT STANDARDS)



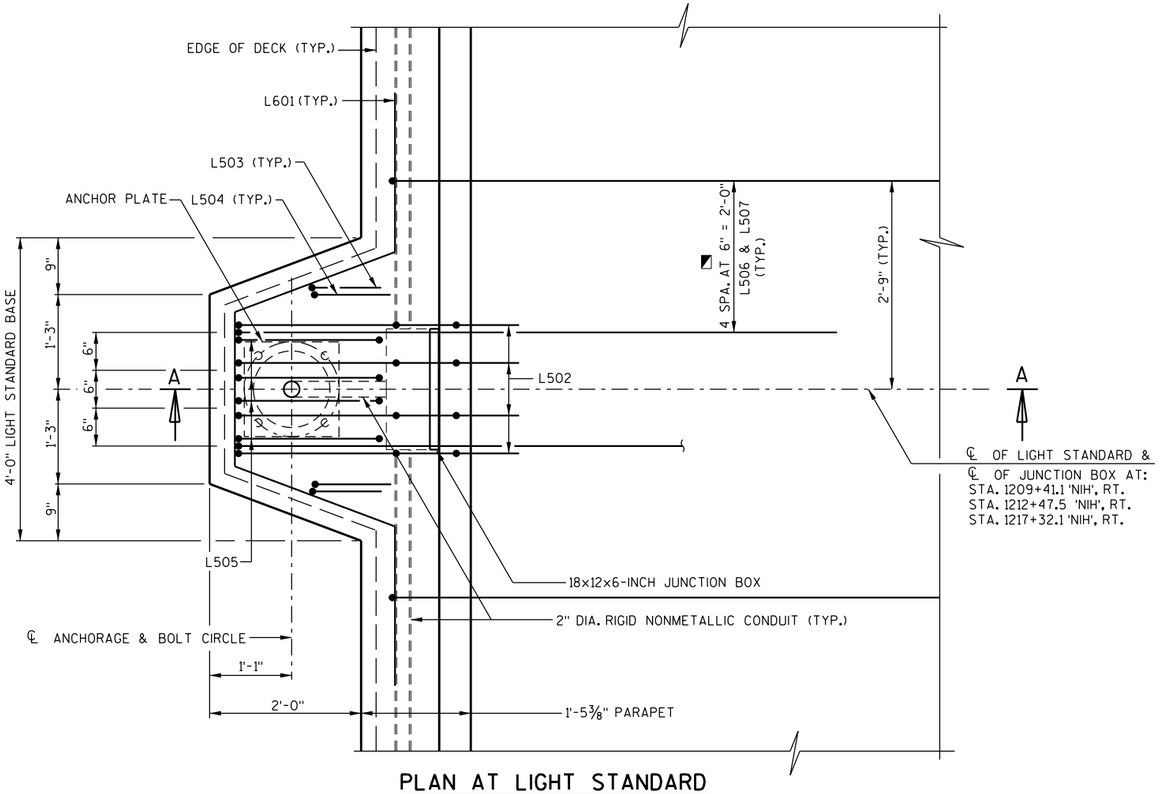
ANCHORAGE DETAIL

(3 REQ'D.)



SECTION THRU PARAPET

SHOWING 18×12×6-INCH JUNCTION BOX
(SINGLE CONDUIT APPLICATION)



PLAN AT LIGHT STANDARD

LEGEND

◐ CONSTR. JT. STRIKE OFF AS SHOWN

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

◒ 1"φ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.

✳ TYPICAL BAR STEEL REINFORCEMENT IN SINGLE SLOPE PARAPET. FOR DETAILS, SEE DECK REINF. SHEETS. (ALL BAR STEEL REINFORCEMENT SHOWN FOR THE LIGHT STD. IS IN ADDITION TO THE BAR STEEL REINFORCEMENT REQUIRED FOR THE PARAPET & DECK. DISPLACE BAR STEEL AS NECESSARY TO CLEAR THE JUNCTION BOX BY 2" MIN.)

◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN BRIDGE DECK.

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.
"CONDUIT RIGID METALLIC 2-INCH".
APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX8DX-200/AXDX-200 AND BONDING JUMPER COMBINATION EXPANSION AND DEFLECTION FITTING (8" & 4" TOTAL VERT. & HORIZ. CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

JUNCTION BOX REQUIREMENTS:

PLACE A 18"X12"X6" JUNCTION BOX AT EACH LIGHT STANDARAD (CENTERED ON LIGHT ℄)

USE A JUNCTION BOX TO KEEP A CONTINUOUS RUN OF CONDUIT (PULL LENGTH) TO A MAXIMUM OF 190 FT. CONTACT THE BUREAU OF HIGHWAY OPERATIONS, ELECTRICAL SECTION WHEN PULL LENGTH IS >190' BUT <200'.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

LIGHT STANDARD - 42SS PARAPET

SHEET 117 OF 129
1148

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\H17_LIGHT_STD_42SS_V7.10-5-681.DGN

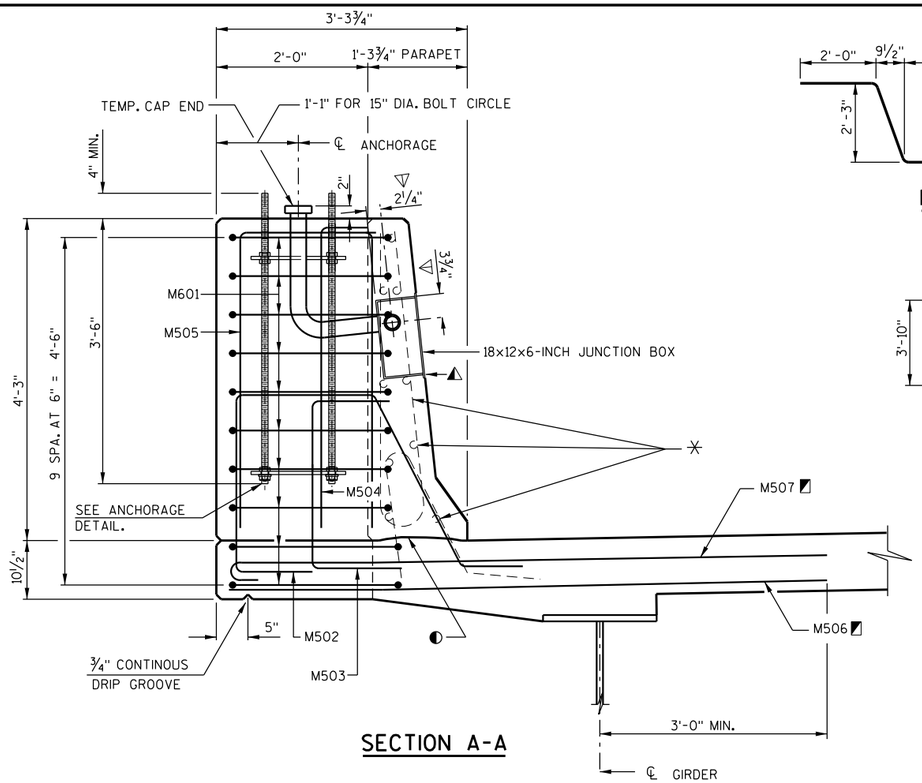
PLOT DATE : 5/21/2013

8

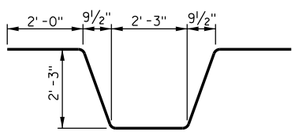
8

STATE PROJECT NUMBER

1133-11-74



SECTION A-A



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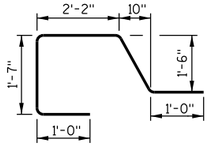

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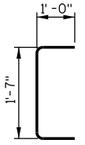

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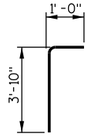

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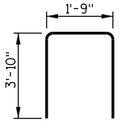

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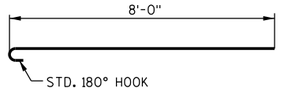

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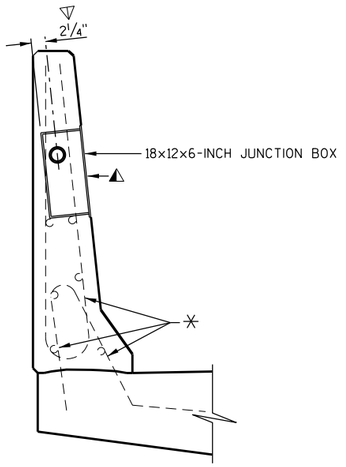
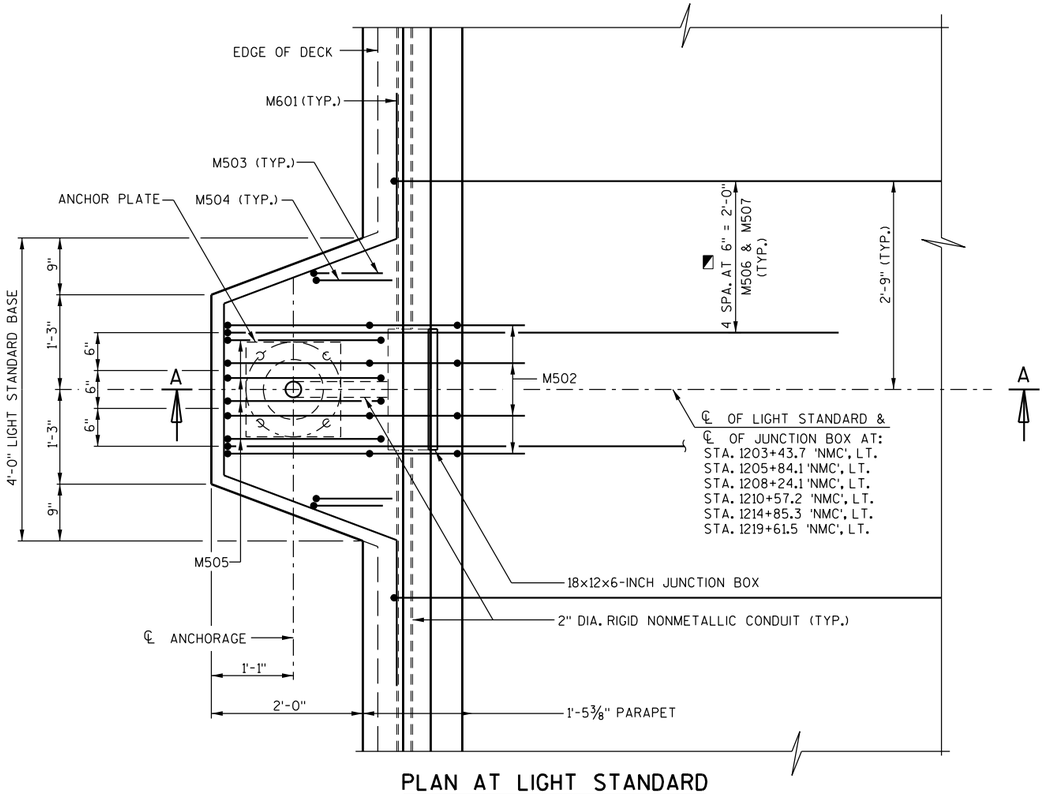


SECTION THRU PARAPET

SHOWING 18×12×6-INCH JUNCTION BOX
(SINGLE CONDUIT APPLICATION)



PLAN AT LIGHT STANDARD

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D. UNIT 1	NO. REQ'D. UNIT 2	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 2,500 LBS.
M601	30	30	10-7	X		LIGHT STANDARD BASE	HORIZ.
M502	12	12	7-0	X		LIGHT STANDARD BASE	VERT.
M503	6	6	3-5	X		LIGHT STANDARD BASE	VERT.
M504	6	6	4-9	X		LIGHT STANDARD BASE	VERT.
M505	12	12	9-2	X		LIGHT STANDARD BASE	VERT.
M506	30	30	8-0			LIGHT STANDARD BASE	TRANS.
M507	30	30	8-7	X		LIGHT STANDARD BASE	TRANS.

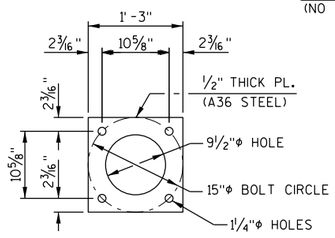
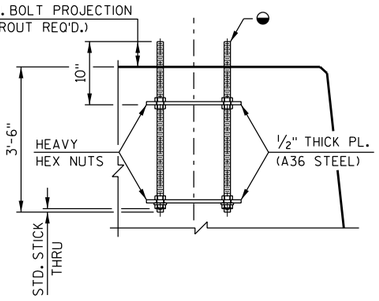


PLATE DETAIL

(12 REQ'D. FOR 6 LIGHT STANDARDS)



ANCHORAGE DETAIL

(6 REQ'D.)

LEGEND

- ◐ CONSTR. JT. STRIKE OFF AS SHOWN
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ◒ 1"Φ THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 8" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.
- ⚹ TYPICAL BAR STEEL REINFORCEMENT IN SLOPED FACE PARAPET & ANCHOR SLAB. FOR DETAILS, SEE SHEET 10. (ALL BAR STEEL REINFORCEMENT SHOWN FOR THE LIGHT STD. IS IN ADDITION TO THE BAR STEEL REINFORCEMENT SHOWN ON SHEET 10. DISPLACE BAR STEEL AS NECESSARY TO CLEAR THE JUNCTION BOX BY 2" MIN.)
- ◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN BRIDGE DECK.

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH"

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.
"CONDUIT RIGID METALLIC 2-INCH".
APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
O-Z/GEDNEY TYPE AX8DX-200/AXDX-200 AND BONDING JUMPER COMBINATION EXPANSION AND DEFLECTION FITTING (8" & 4" TOTAL VERT. & HORIZ. CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

JUNCTION BOX REQUIREMENTS:

PLACE A 18"X12"X6" JUNCTION BOX AT EACH LIGHT STANDARAD (CENTERED ON LIGHT ℄)

USE A JUNCTION BOX TO KEEP A CONTINUOUS RUN OF CONDUIT (PULL LENGTH) TO A MAXIMUM OF 190 FT. CONTACT THE BUREAU OF HIGHWAY OPERATIONS, ELECTRICAL SECTION WHEN PULL LENGTH IS >190' BUT <200'.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

LIGHT STANDARD - 51F PARAPET

SHEET 118 OF 129
1149

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

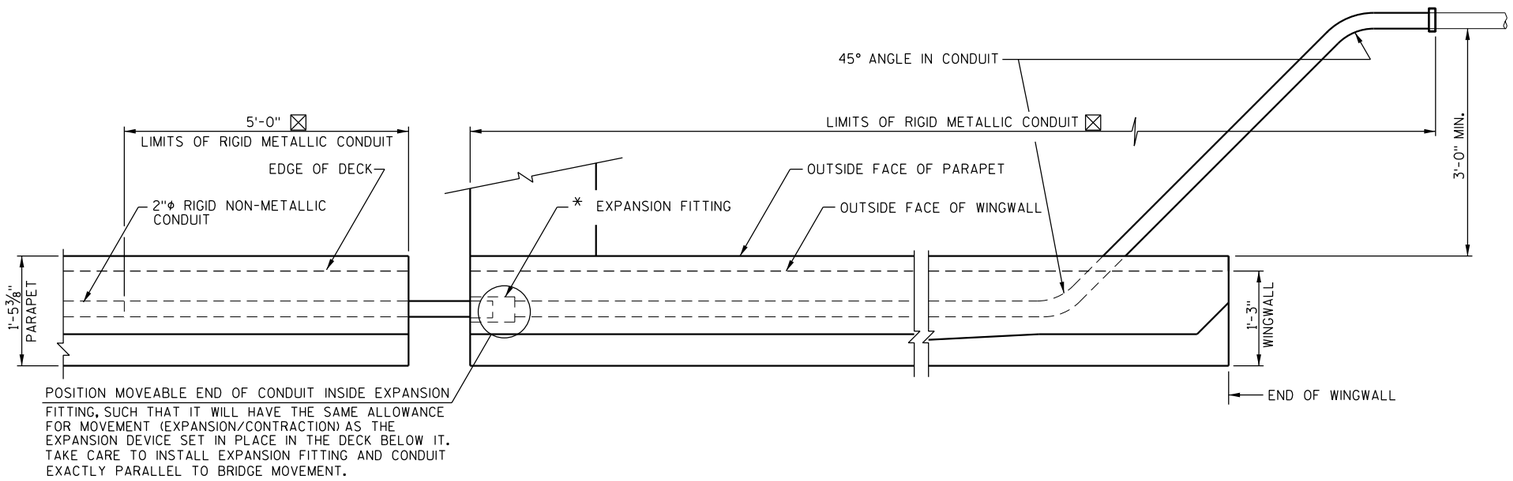
8

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\I18_LIGHT_STD_51F_V7.B-5-681DGN

PLOT DATE : 5/21/2013

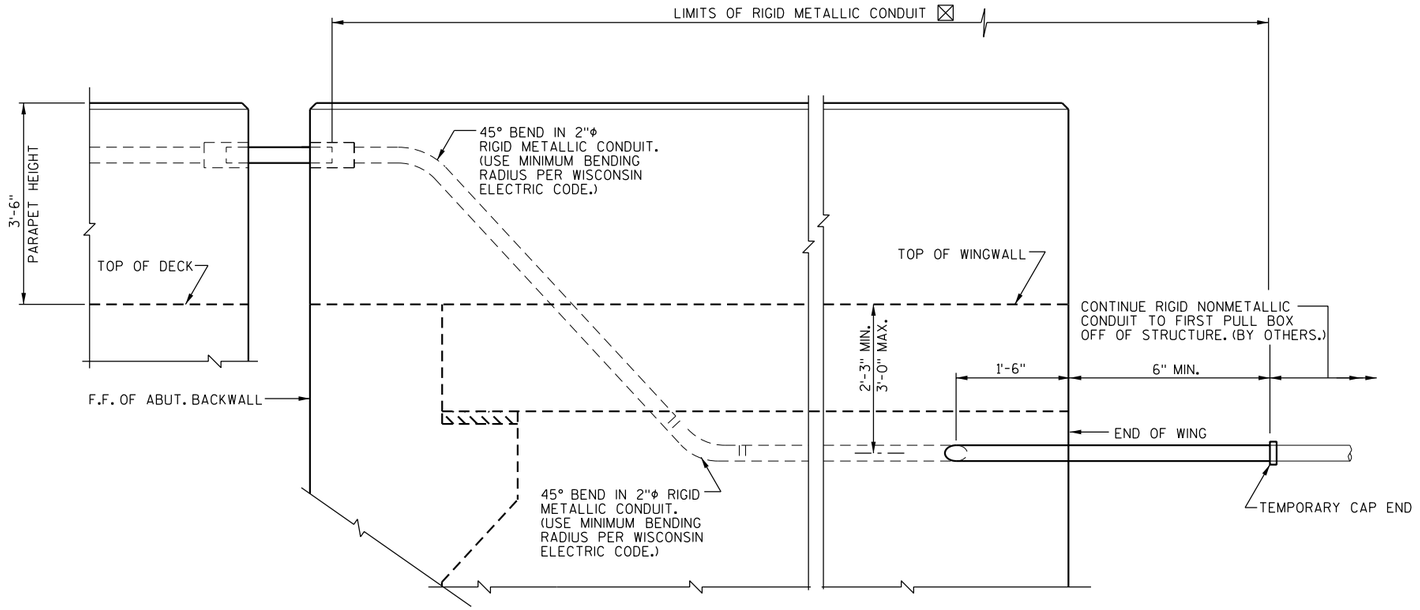
STATE PROJECT NUMBER

1133-11-74



PLAN OF SINGLE SLOPE PARAPET 42SS AT NORTH ABUTMENT WING 4

(WING 4 SHOWN, SLOPED FACE PARAPET '51F' AT WINGS 2 & 3 SIMILAR)



OUTSIDE ELEVATION OF SINGLE SLOPE PARAPET 42SS AT NORTH ABUTMENT WING 4

(WING 4 SHOWN, SLOPED FACE PARAPET '51F' AT WINGS 2 & 3 SIMILAR)

NOTE

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS ARE INCIDENTAL TO "CONDUIT RIGID NON-METALLIC 2-INCH".

LEGEND

☒ USE 2" DIA. RIGID NON-METALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 5'-0" INTO WALL SEGMENT OR PARAPET. FOR SHORTER DISTANCES BETWEEN EXPANSION FITTINGS <20' USE METALLIC CONDUIT BETWEEN EXPANSION FITTINGS. ON THE NORTH WINGWALL OF THE WEST ABUTMENT PROVIDE RIGID METALLIC CONDUIT TO A MINIMUM OF 6" BEYOND END OF WINGWALL (FOR GROUNDING PURPOSES). PROVIDE #10 AWG BONDING JUMPER BETWEEN METALLIC CONDUIT AND JUNCTION BOX. BONDING JUMPERS SHALL EITHER ENTER THE JUNCTION BOX AND BE TERMINATED TO THE GROUNDING LUG USING TERMINAL BLOCKS; OR CAN BE EXOTHERMICALLY WELDED TO A FIELD INSTALLED GROUNDING LUG ON THE BACK SIDE OF THE JUNCTION BOX. BONDING JUMPERS WILL BE PAID FOR UNDER BID ITEM 652.0125 "CONDUIT RIGID METALLIC 2-INCH"

* EXPANSION FITTING AT JUNCTION WITH B-5-679 IS PROVIDED ON B-5-679 SIDE OF JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

PARAPET ELECTRICAL WORK

SHEET 119 OF 129

1150

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

FILE NAME : P:\65 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\119_PARAPET_CONDUIT_B-5-681.DGN

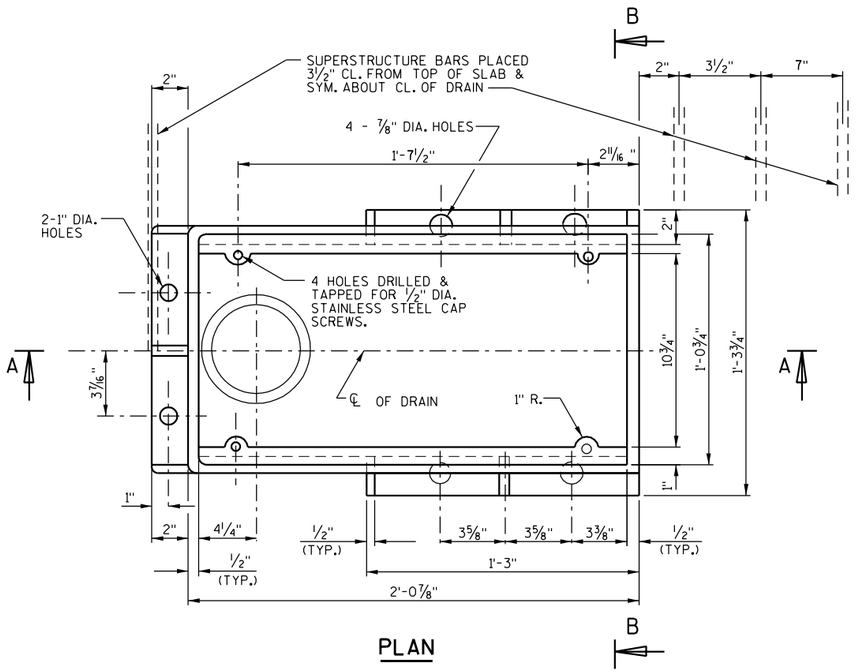
PLOT DATE : 5/31/2013

8

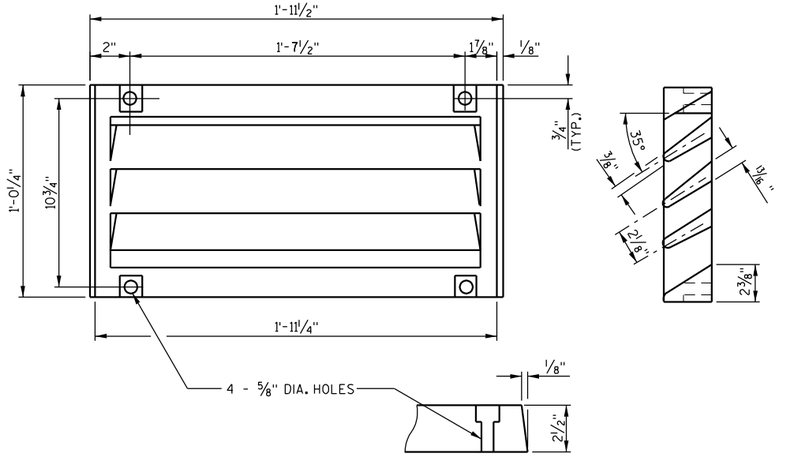
11

STATE PROJECT NUMBER

1133-11-74



PLAN



GRATE CASTING DETAIL

ATTACH GRATE TO FRAME FOR SHIPMENT

NOTES

ALL MATERIAL FOR TYPE "GC" CASTINGS, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO A.S.T.M. A48, CLASS 30. (APPROX. WEIGHT= 225#)

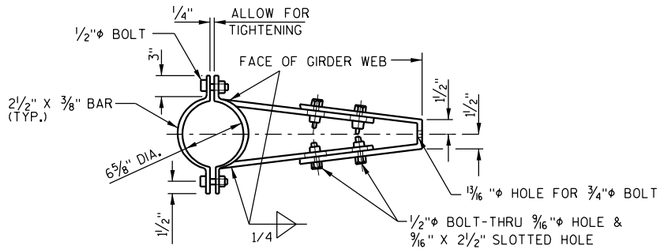
MATERIAL FOR BRACKETS SHALL CONFORM TO A.S.T.M. A36.

THE CONTRACTOR MAY PROPOSE AN ALTERNATE TYPE OF BRACKET. THE PROPOSED ALTERNATE DETAILS SHALL BE SUBMITTED AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

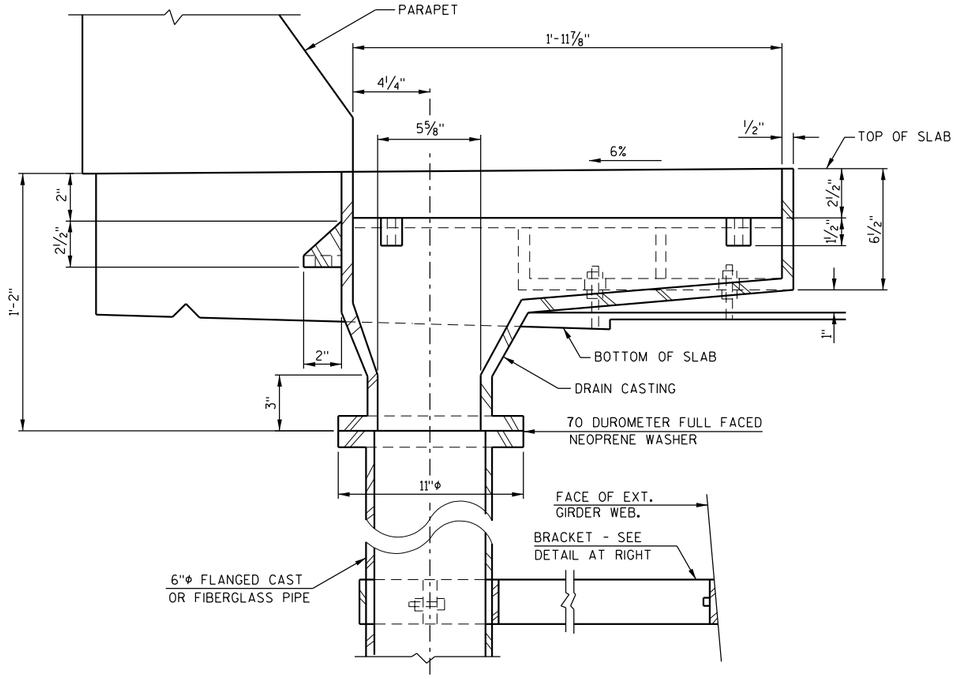
FLANGED 6" DIA. DOWNSPOUTS SHALL FIBERGLASS CONFORMING TO A.S.T.M. D2996, GRADE 1, CLASS A.

TRANSVERSE AND LONGITUDINAL SLAB BAR REINFORCEMENT TO BE CUT A MINIMUM 1" CLEAR FROM DRAIN. DISPLACE BARS WHERE POSSIBLE.

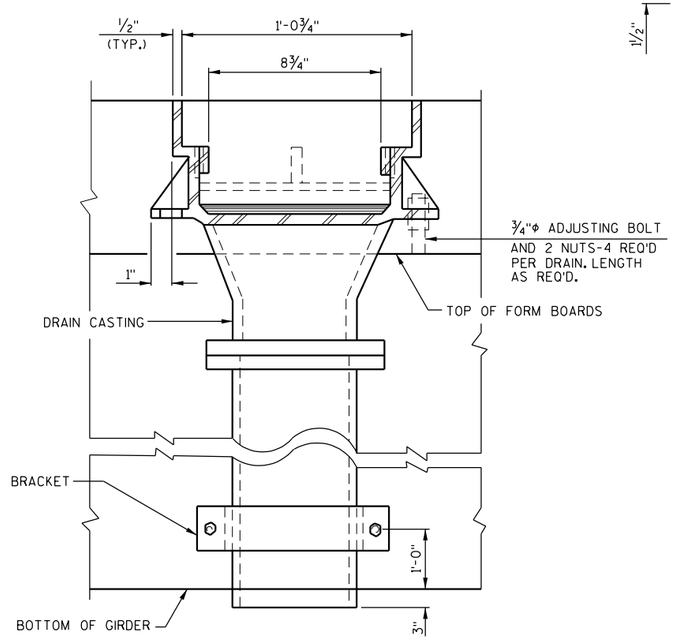
DO NOT PLACE SHEAR STUDS ON TOP FLANGE OF LEFT GIRDER WHERE THEY INTERFERE WITH THE FLOOR DRAIN.



BRACKET DETAIL



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

FLOOR DRAIN TYPE 'GC'

SHEET 120 OF 129
1151

PLOT DATE : 2/21/2013

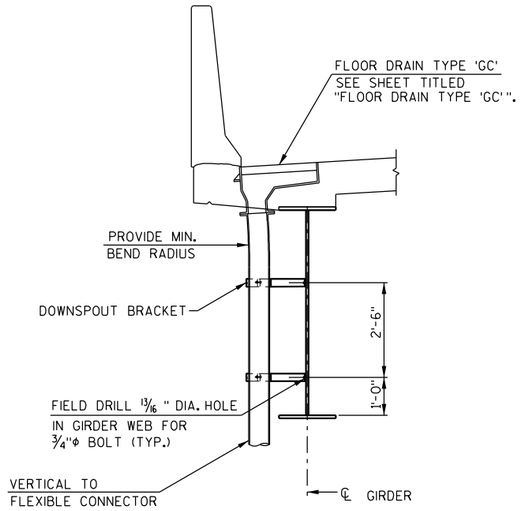
FILE NAME : P:\453 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\120_DRAIN_GC_V7.DB-5-681LDGN

8

8

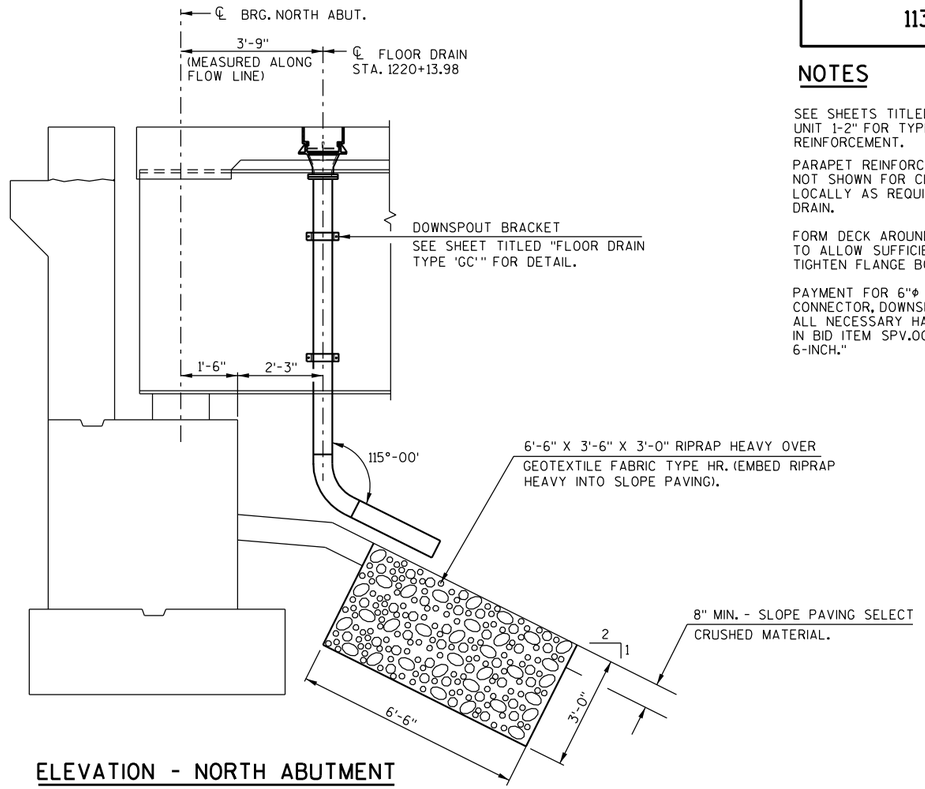
STATE PROJECT NUMBER

1133-11-74



PART SECTION THRU BRIDGE

(LOOKING UPSTATION)



ELEVATION - NORTH ABUTMENT

(LOOKING EAST)

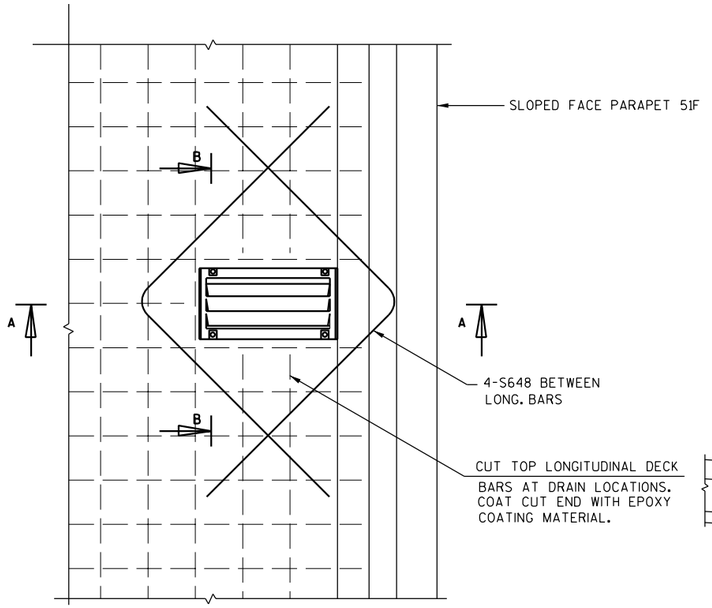
NOTES

SEE SHEETS TITLED "DECK REINFORCEMENT UNIT 1-2" FOR TYPICAL DECK SLAB REINFORCEMENT.

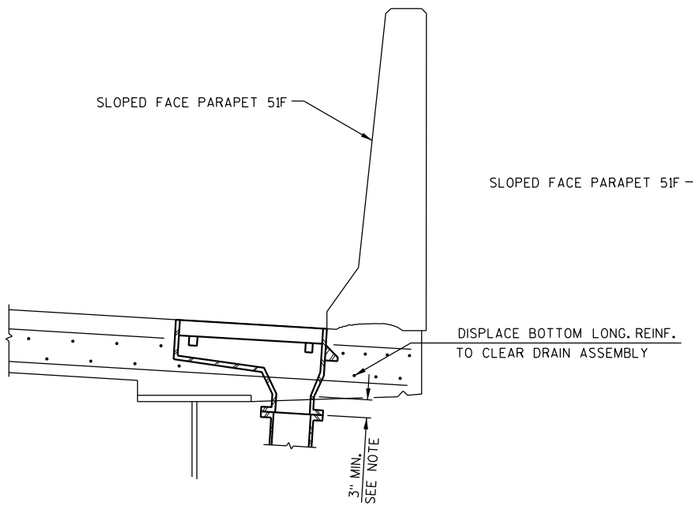
PARAPET REINFORCEMENT AND DOWELS NOT SHOWN FOR CLARITY - RESPACE LOCALLY AS REQUIRED TO CLEAR FLOOR DRAIN.

FORM DECK AROUND DRAIN PIPE CASTING TO ALLOW SUFFICIENT CLEARANCE TO TIGHTEN FLANGE BOLTS.

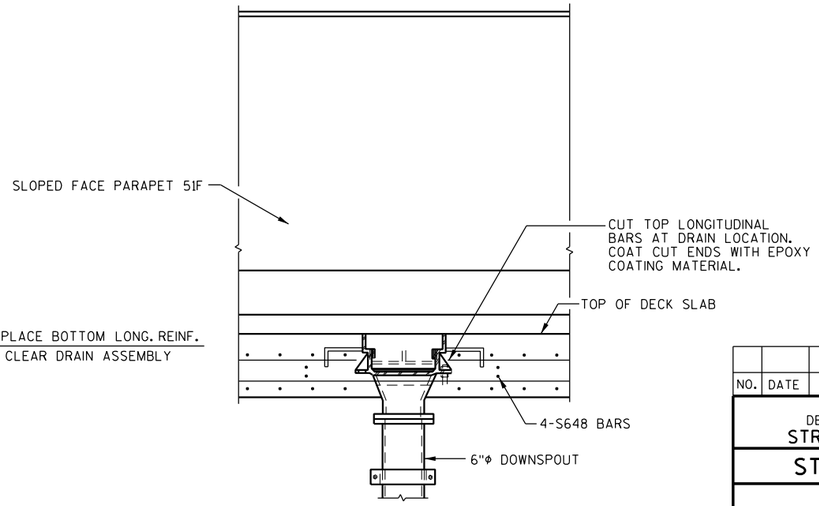
PAYMENT FOR 6"Φ DOWNSPOUT, FLEXIBLE CONNECTOR, DOWNSPOUT BRACKETS, AND ALL NECESSARY HARDWARE IS INCLUDED IN BID ITEM SPV.0090.705 "DOWNSPOUT 6-INCH."



PLAN



SECTION A-A



SECTION B-B

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

FLOOR DRAIN DETAILS

SHEET 121 OF 129
1152

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\121.FLOOR.DRAN01.V7.B-5-681.DGN

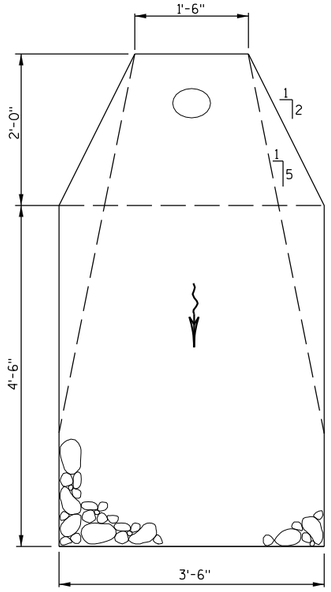
PLOT DATE : 3/14/2013

8

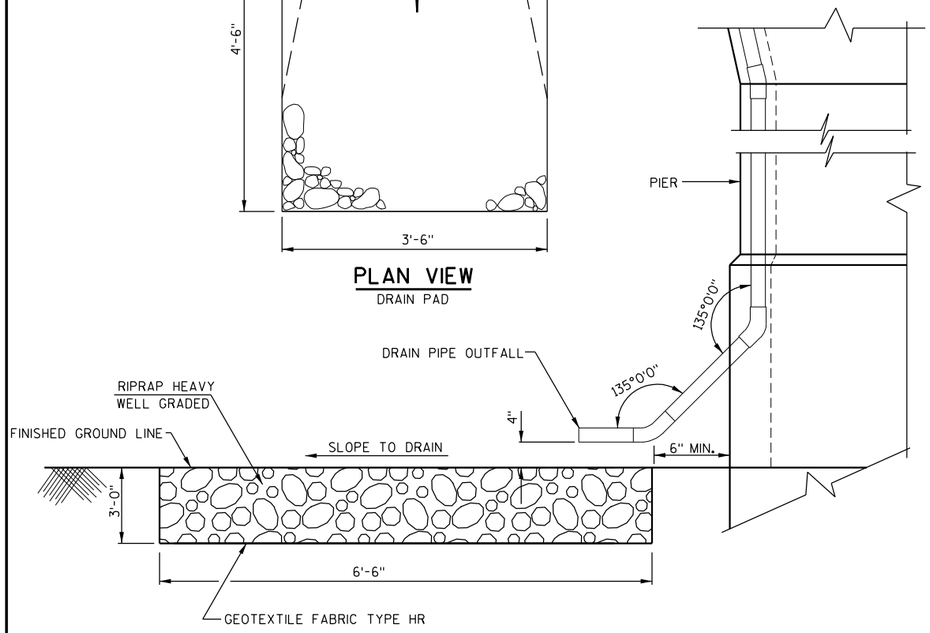
8

STATE PROJECT NUMBER

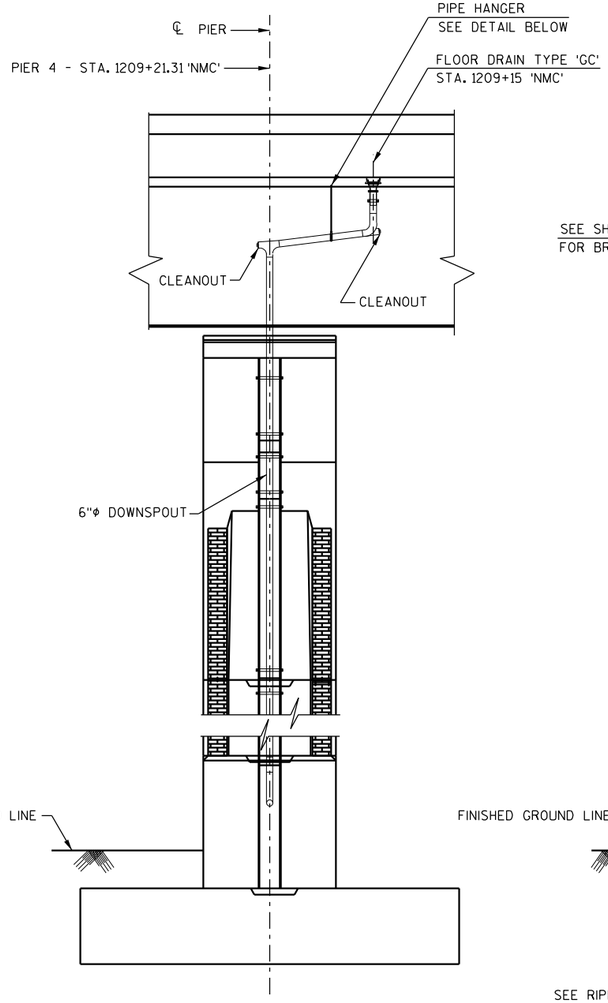
1133-11-74



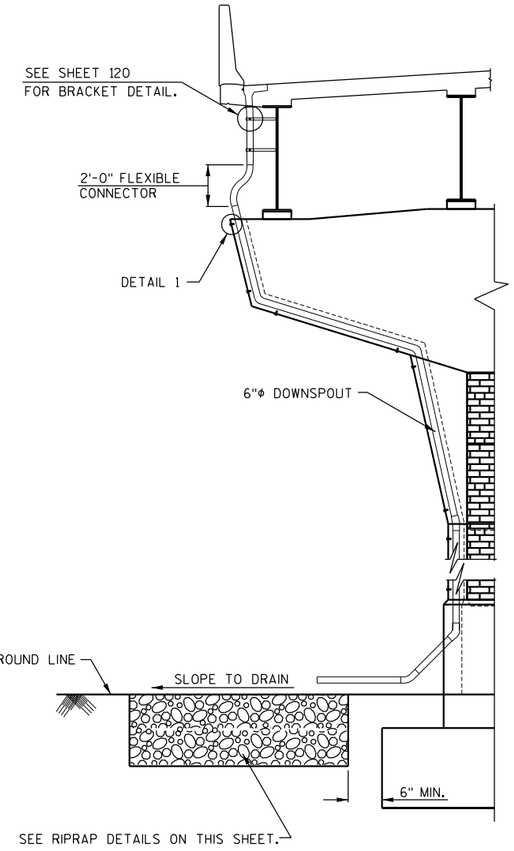
PLAN VIEW
DRAIN PAD



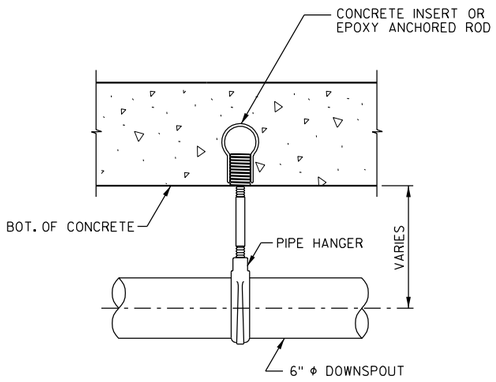
ELEVATION



ELEVATION AT EXPANSION DEVICE
(LOOKING EAST AT PIER 4)



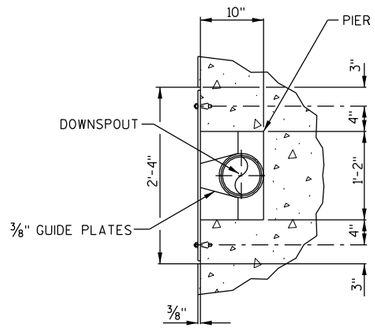
ELEVATION
(LOOKING UPSTATION)



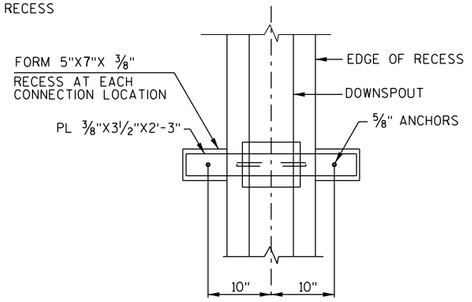
CONCRETE INSERT

NOTES

1. SEE SHEET "FLOOR DRAIN DETAILS" FOR DRAIN PIPE SPECIFICATIONS.
2. EXCAVATION INCIDENTAL TO ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-05-681".
3. VERIFY ALL DIMENSIONS PRIOR TO FABRICATING DOWNSPOUT.
4. ALL FLEXIBLE CONNECTORS, FITTINGS, ELBOWS, CLEANOUTS, HANGERS AND ALL CONNECTION AND INSTALLATION HARDWARE ARE CONSIDERED INCIDENTAL TO ITEM "DOWNSPOUT RTRP 6-INCH".
5. THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE DOWNSPOUT MAY BE ALTERED TO AVOID INTERFERENCE WITH THE GIRDER CROSS FRAME. MAINTAIN A 2% MINIMUM SLOPE AND TRANSITION TO STEEPER SLOPE AS SOON AS POSSIBLE.



PLAN



FRONT ELEVATION

DETAIL 1

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

FLOOR DRAIN DETAILS - 2

SHEET 122 OF 129
1153

FILE NAME : P:\153 USH 41\1133-10-00 URS\STRUCTURES\B-5-681\122-FLOOR_DRAIN02.V7.B-5-68LDDN

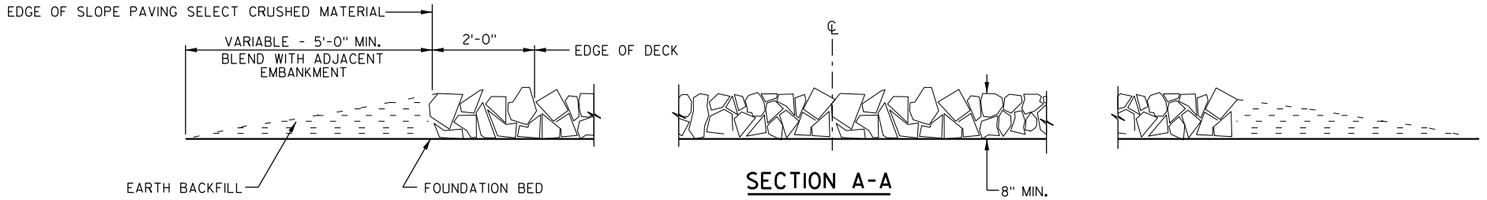
PLOT DATE : 3/14/2013

8

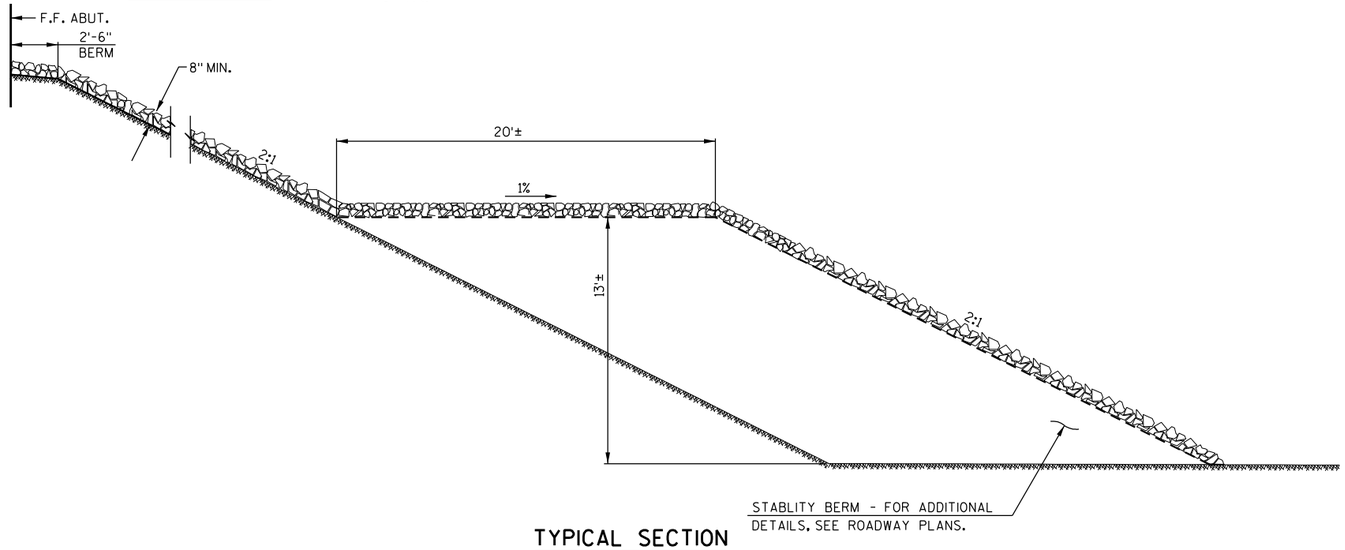
8

STATE PROJECT NUMBER

1133-11-74



SECTION A-A

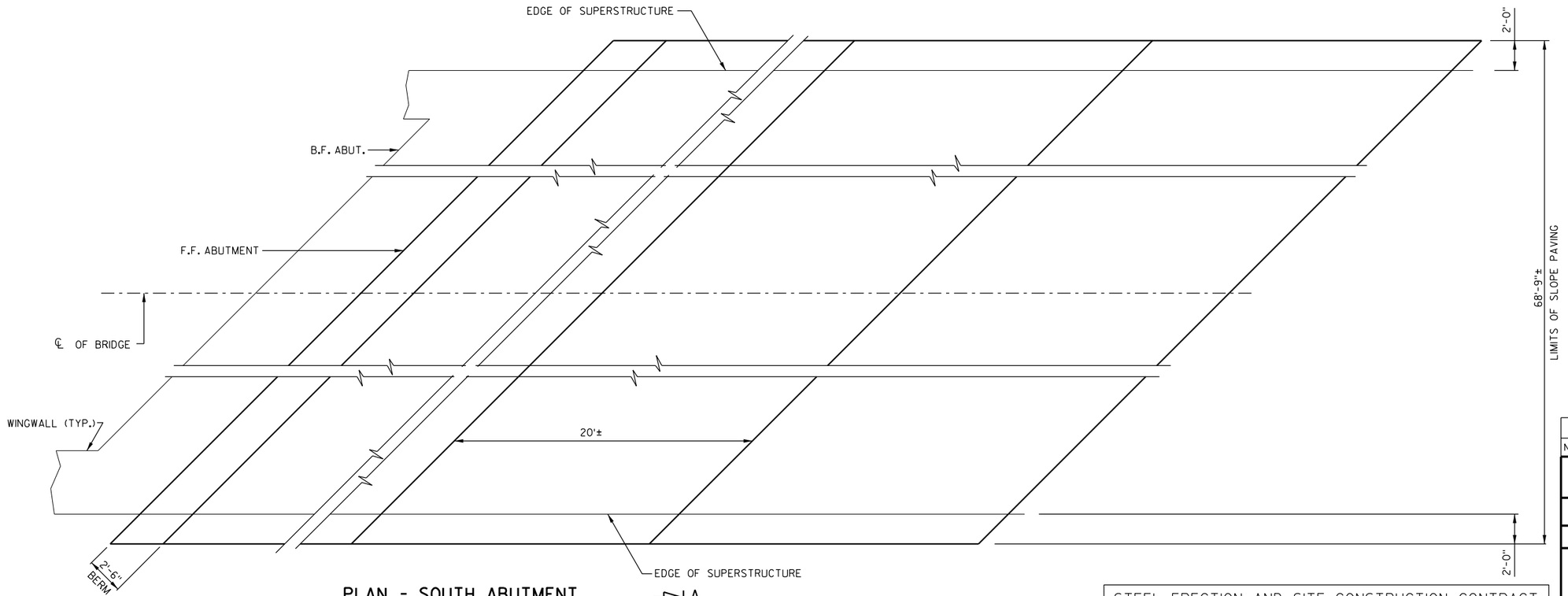


TYPICAL SECTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.



PLAN - SOUTH ABUTMENT

A

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SLOPE PAVING SELECT CRUSHED MATERIAL DETAILS

SHEET 123 OF 129
1154

8

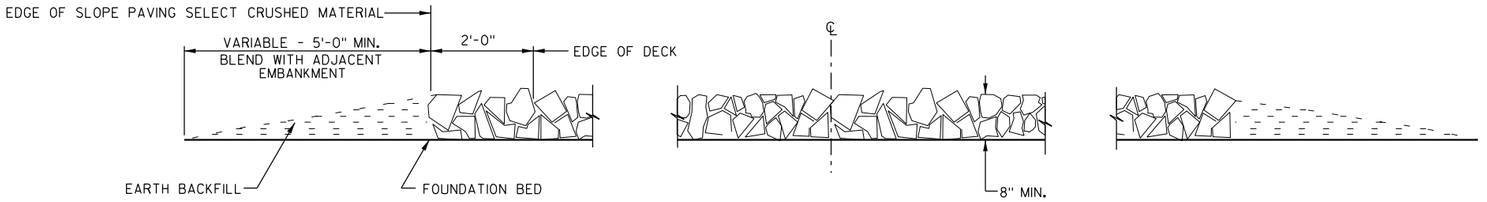
8

FILE NAME : P:\53 USH 41\1133-10-00 UPGS\STRUCTURES\B-5-681\123.SA.SLOPE_PAVING.V7.B-5-681.DGN

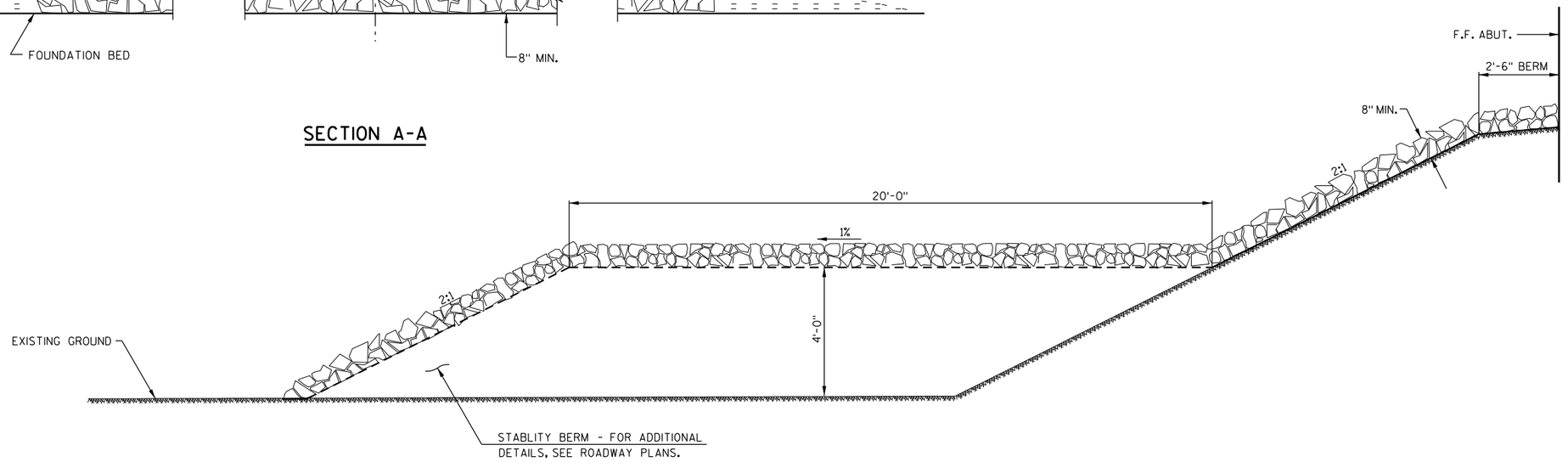
PLOT DATE : 5/31/2013

STATE PROJECT NUMBER

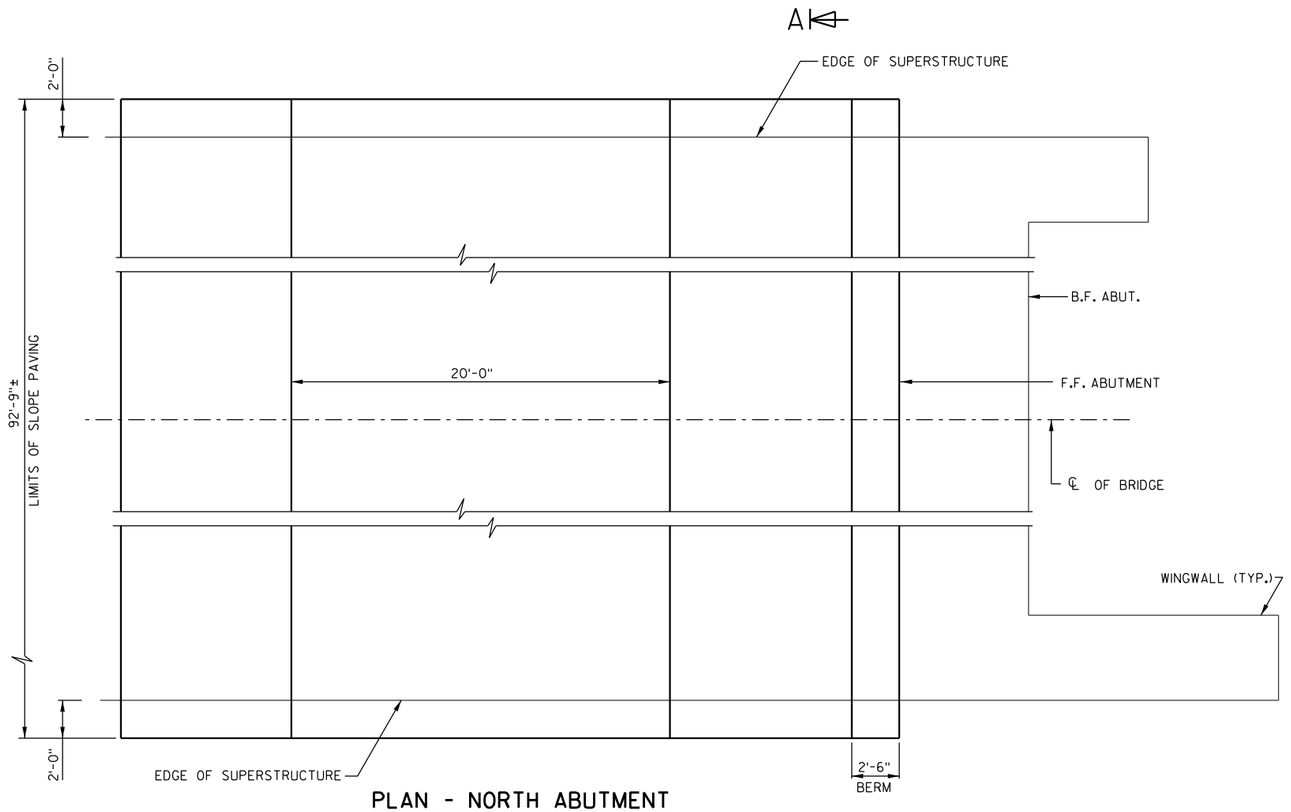
1133-11-74



SECTION A-A



TYPICAL SECTION



PLAN - NORTH ABUTMENT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

SLOPE PAVING SELECT CRUSHED MATERIAL DETAILS

SHEET 124 OF 129
1155

FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\124.NA_SLOPE_PAVING_V7.8-5-681.DGN

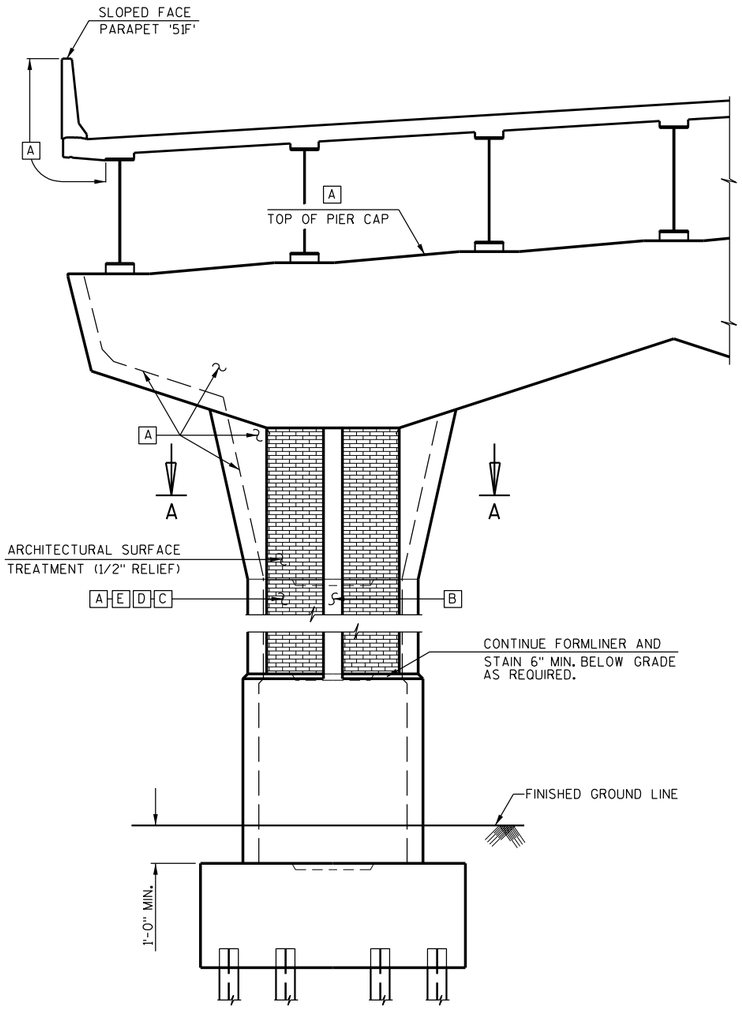
PLOT DATE : 5/30/2013

8

8

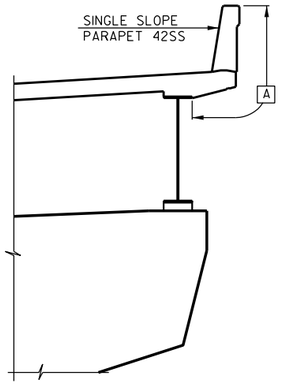
STATE PROJECT NUMBER

1133-11-74

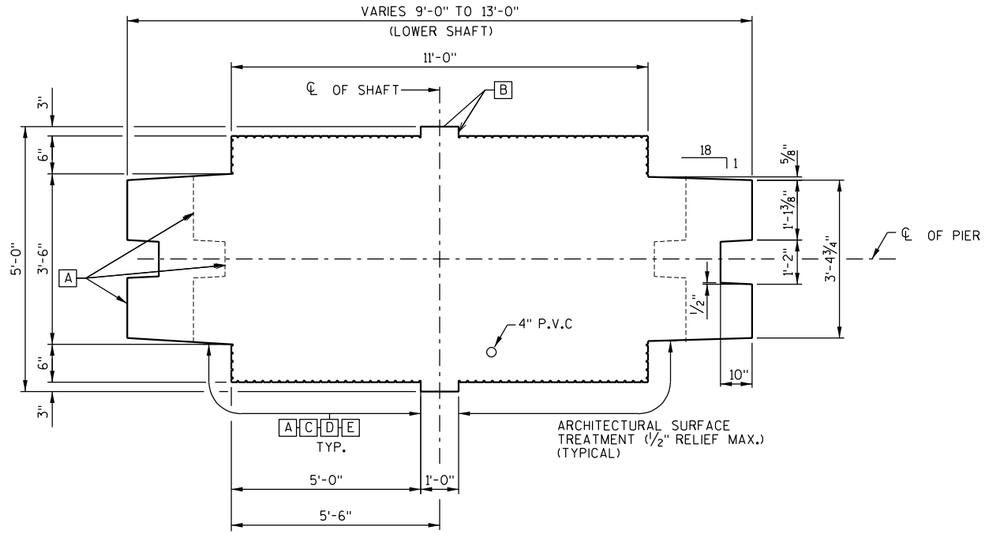


TYPICAL CROSS SECTION

(LOOKING UPSTATION)



NOTE: FOR AESTHETIC DETAILS AT ABUMENTS/WING WALLS, SEE SOUTH & NORTH ABUTMENT DETAIL SHEETS.



SECTION A-A

NOTE: ALL DIMENSIONS ARE SYMMETRICAL.

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, OUTSIDE OF CONC. GIRDER, STEEL BOX GIRDERS
C	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
D	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
E	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

NOTE: 1. FINISH ON COLORS IS FLAT (LUSTERLESS)

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

AESTHETIC DETAILS

SHEET 125 OF 129
1156

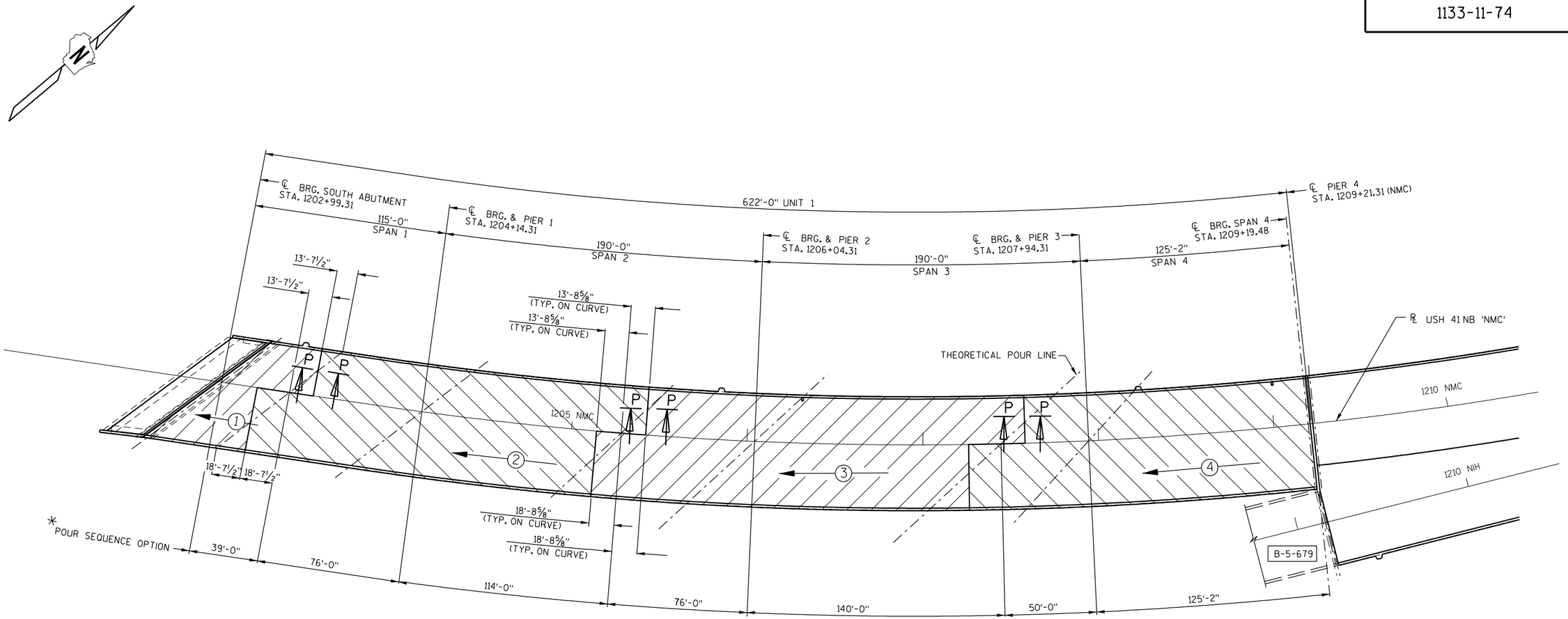
FILE NAME : P:\153 USH 41\1133-10-00 URGS\STRUCTURES\B-5-681\125.AESTHETICS.V7.8-5-681.DGN

PLOT DATE : 3/4/2013

8

8

STATE PROJECT NUMBER
1133-11-74

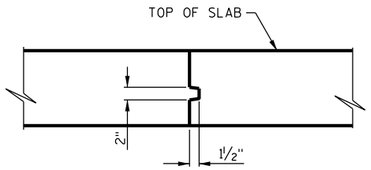


PLAN - SPANS 1 - 4 - UNIT 1

NOTES

(THESE NOTES APPLY TO ALL DECK POUR SEQUENCE SHEETS)

1. SEE SHEET 2 FOR GENERAL NOTES.
2. SEE SHEETS 108 THRU 116 FOR BLOCKOUTS AND OTHER DETAILS REQUIRED AT EXPANSION JOINT LOCATIONS.
3. DIMENSIONS ON THIS DRAWING ARE MEASURED ALONG THE ℄.
4. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND COORDINATING DECK POURS TO BEST SUIT THE MEANS AND METHODS AVAILABLE, SUBJECT TO THE FOLLOWING RESTRICTIONS.
5. CONTRACTOR MAY PLACE THE DECK CONTINUOUSLY FROM EITHER END OF THE STRUCTURE. IF MORE THAN ONE POUR IS REQUIRED, BULKHEADS BETWEEN POURS SHALL BE POSITIONED AT THE LOCATIONS IDENTIFIED ON THIS PLAN - SEE LEGEND.
6. CONTROL POUR SEQUENCE AND PLACEMENT RATE TO ENSURE THAT BEFORE THE CONCRETE IN ANY "PIER" AREA REACHED THE INITIAL SET CONDITION, THE CONCRETE IN BOTH ADJACENT "SPAN" AREAS IS ALREADY IN PLACE.
7. PREVENT UPLIFT AT ALL BEARING LOCATIONS. NOTE THAT ANY POUR SEQUENCE THAT REQUIRES POURING THE FIRST INTERIOR SPAN BEFORE THE ADJACENT END SPAN (SUCH AS THE END-TO-END SEQUENCES REFERRED TO ABOVE) WILL RESULT IN UPLIFT FORCES AT THE EXPANSION END BEARINGS. THE CONTRACTOR SHALL ACCOUNT FOR THIS CONDITION.
8. SEE SHEET "LIGHT STANDARD" FOR REINFORCEMENT DETAILS AT THE LIGHT STANDARDS.
9. DEPOSIT FRESH CONCRETE FIRST IN THE AREA BETWEEN THE GIRDERS FOLLOWED BY THE OVERHANG AREA TO THE INSIDE OF THE CURVE AND THEN BY THE OVERHANG AREA TO THE OUTSIDE OF THE CURVE.
10. CONTROL THE CONCRETE PLACEMENT TO ENSURE THAT THE FARTHEST PROGRESS OF FRESH CONCRETE VARIES BY NO MORE THAN 10 FEET ACROSS THE WIDTH OF THE DECK.
11. PREVIOUSLY PLACED DECK CONCRETE MUST HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE THE AREAS IMMEDIATELY ADJACENT MAY BE PLACED.
12. FOLLOW PROCEDURES OUTLINED IN THE SPECIAL PROVISIONS FOR PROMPTLY FOGGING, COVERING, AND CURING FRESHLY PLACED CONCRETE.
13. ALL STEEL SHALL BE SECURED IN ITS PROPER PLACE AND ELEVATION PRIOR TO ANY CONCRETE PLACEMENT.
14. THE CONTRACTOR MAY SUBMIT ALTERNATE POUR SEQUENCE PLANS SUBJECT TO APPROVAL BY THE ENGINEER/BRIDGE OFFICE.



SECTION P-P

LEGEND

② IDENTIFIES POUR SEQUENCE NUMBER AND DIRECTION OF POUR.

* POUR SEQUENCE MAY BEGIN AT OPPOSITE END IN REVERSE DIRECTION.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK POUR SEQUENCE UNIT 1 - SPANS 1-4

SHEET 126 OF 129
1157

8

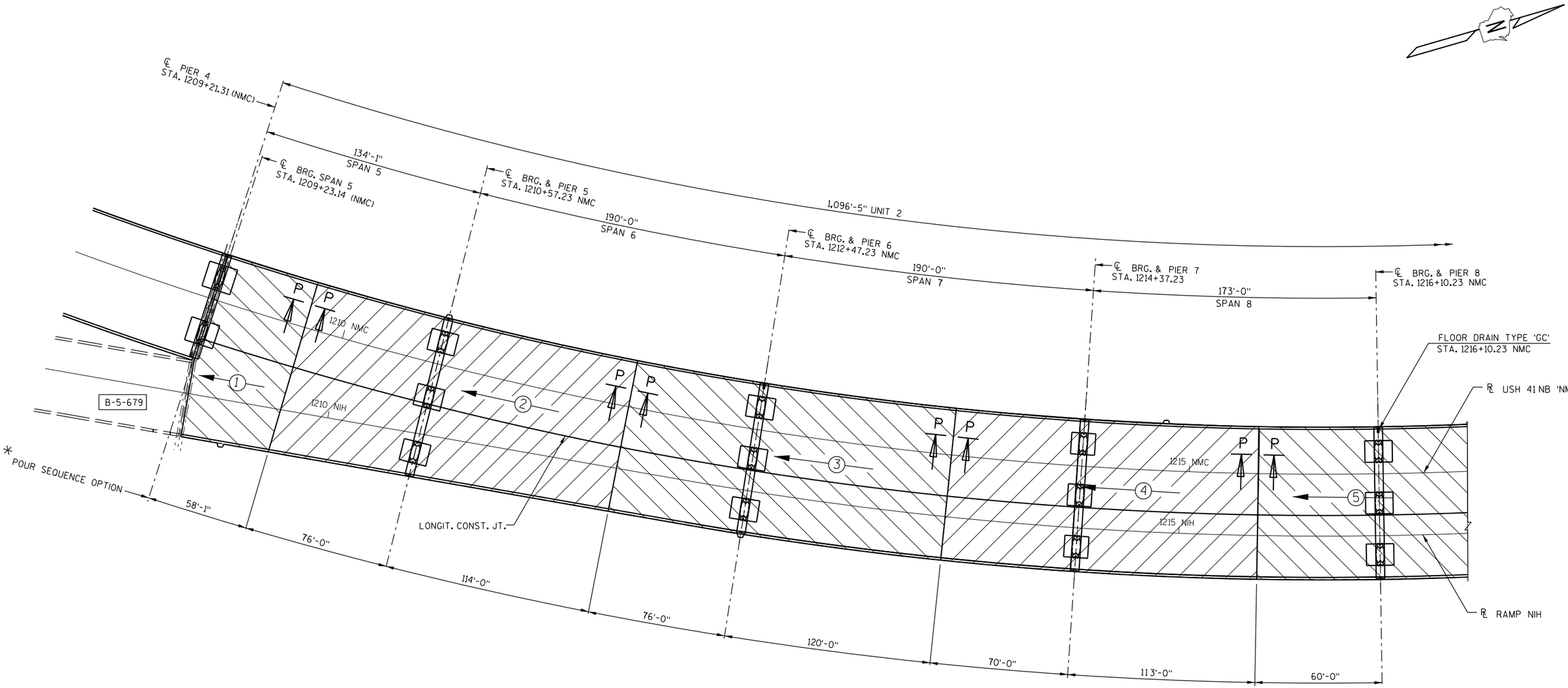
8

FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-681\126_deck_pour_unit1_v8_b-5-681.dgn

PLOT DATE : 2/25/2013

STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 5-8 - UNIT 2

8

NOTES

FOR "SECTION P-P" DETAIL, SEE SHEET 126.

LEGEND

* FOR SYMBOL DESCRIPTION, SEE SHEET 126.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK POUR SEQUENCE UNIT 2 - SPANS 5-8

SHEET 127 OF 129
1158

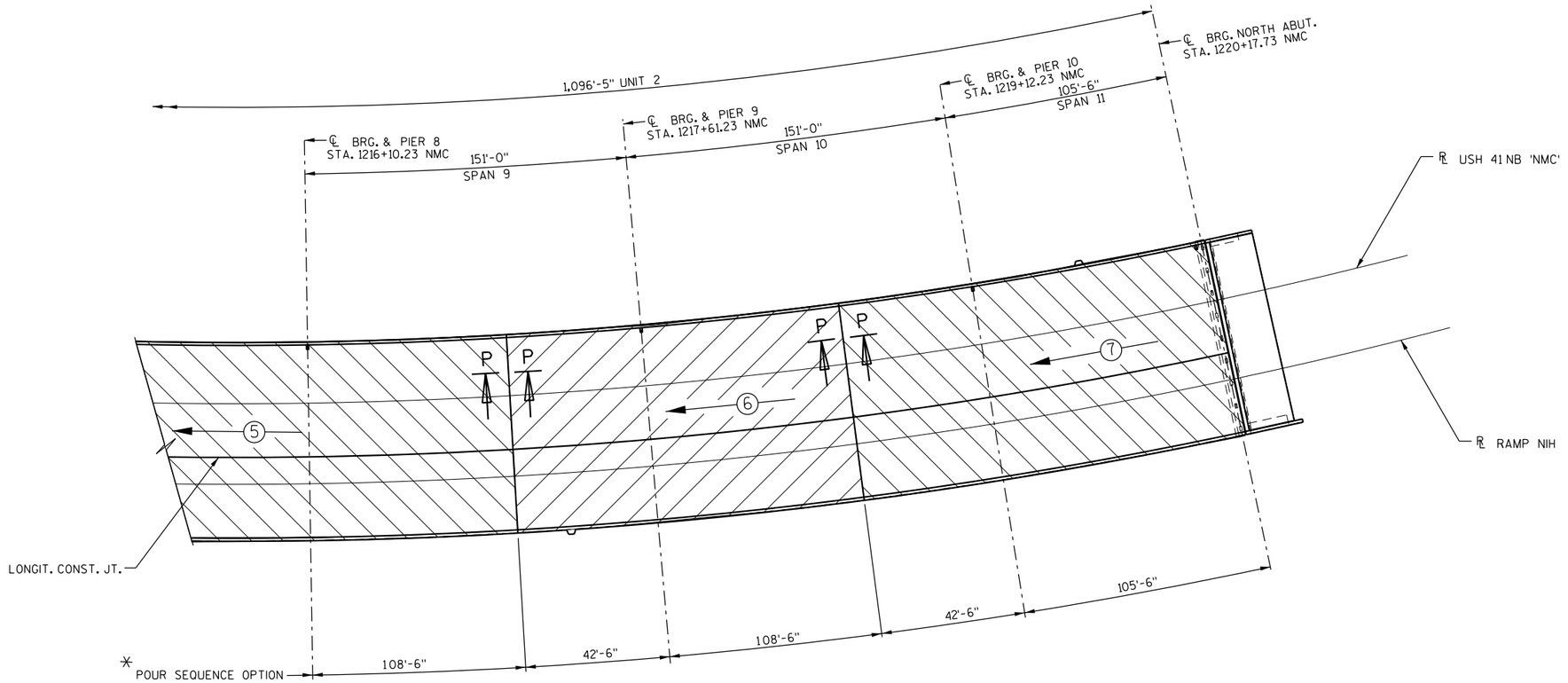
FILE NAME : P:\153 USH 41 1133-10-00 UFS\Structures\B-5-681\127_deck_pour_uni2_v8_b-5-681.dgn

PLOT DATE : 3/4/2013

8

STATE PROJECT NUMBER

1133-11-74



PLAN - SPANS 9-11 - UNIT 2

8

NOTES

FOR "SECTION P-P" DETAIL, SEE SHEET 126.

LEGEND

✳ FOR SYMBOL DESCRIPTION, SEE SHEET 126.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

DECK POUR SEQUENCE UNIT 2 - SPANS 9-11

SHEET 128 OF 129
1159

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

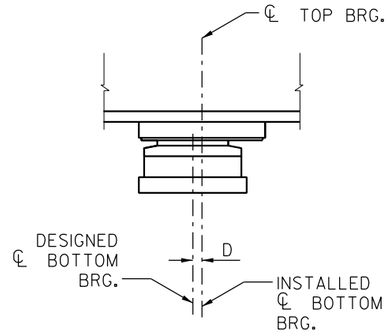
8

FILE NAME : P:\153 USH 41 1133-10-00 UBS\Structures\B-5-681\128_deck_pour_uni12_v8_b-5-681.dgn

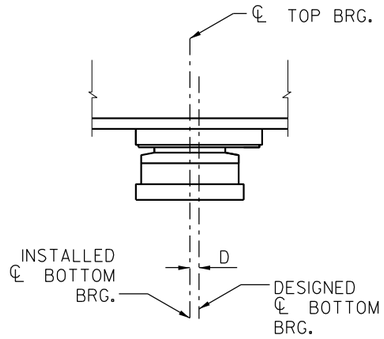
PLOT DATE : 3/4/2013

STATE PROJECT NUMBER

1133-11-74

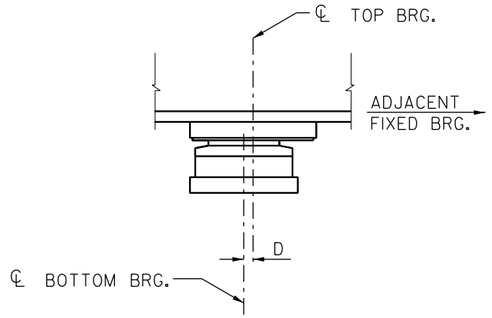


BELOW 60° F.
(MOVE ANCHOR BOLTS TOWARDS ADJACENT FIXED BRG.)

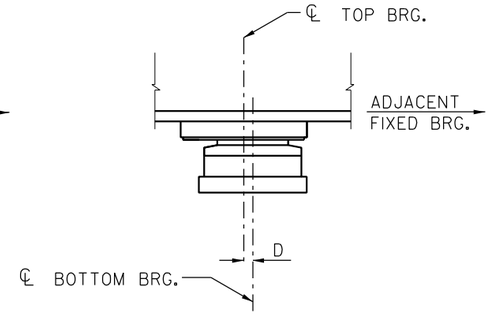


ABOVE 60° F.
(MOVE ANCHOR BOLTS AWAY FROM ADJACENT FIXED BRG.)

SETTING ANCHOR BOLTS AT FIXED BRG.



BELOW 60° F.
(MOVE BOTTOM BRG. AWAY FROM FIXED BRG.)



ABOVE 60° F.
(MOVE BOTTOM BRG. TOWARD FIXED BRG.)

SETTING ANCHOR BOLTS AT EXP. BRG.

LOCATION	BRG. TYPE	EXPANSION LENGTH FEET	"D" DIMENSION FOR EVERY 10° F. CHANGE FROM 60° F.
S. ABUTMENT	E	305.00	1/4"
PIER 1	E	190.00	1/8"
PIER 2	F	---	---
PIER 3	E	190.00	1/8"
PIER 4 UNIT 1	E	317.00	1/4"
PIER 4 UNIT 2	E	688.92	9/16"
PIER 5	E	553.00	7/16"
PIER 6	E	363.00	5/16"
PIER 7	E	173.00	1/8"
PIER 8	F	---	---
PIER 9	E	151.00	1/8"
PIER 10	E	302.00	1/4"

E = EXPANSION BRG.
F = FIXED BRG.

STEEL ERECTION AND SITE CONSTRUCTION CONTRACT.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY TAW | PLANS CK'D. TR

BEARING DETAILS

SHEET 129 OF 129
1160

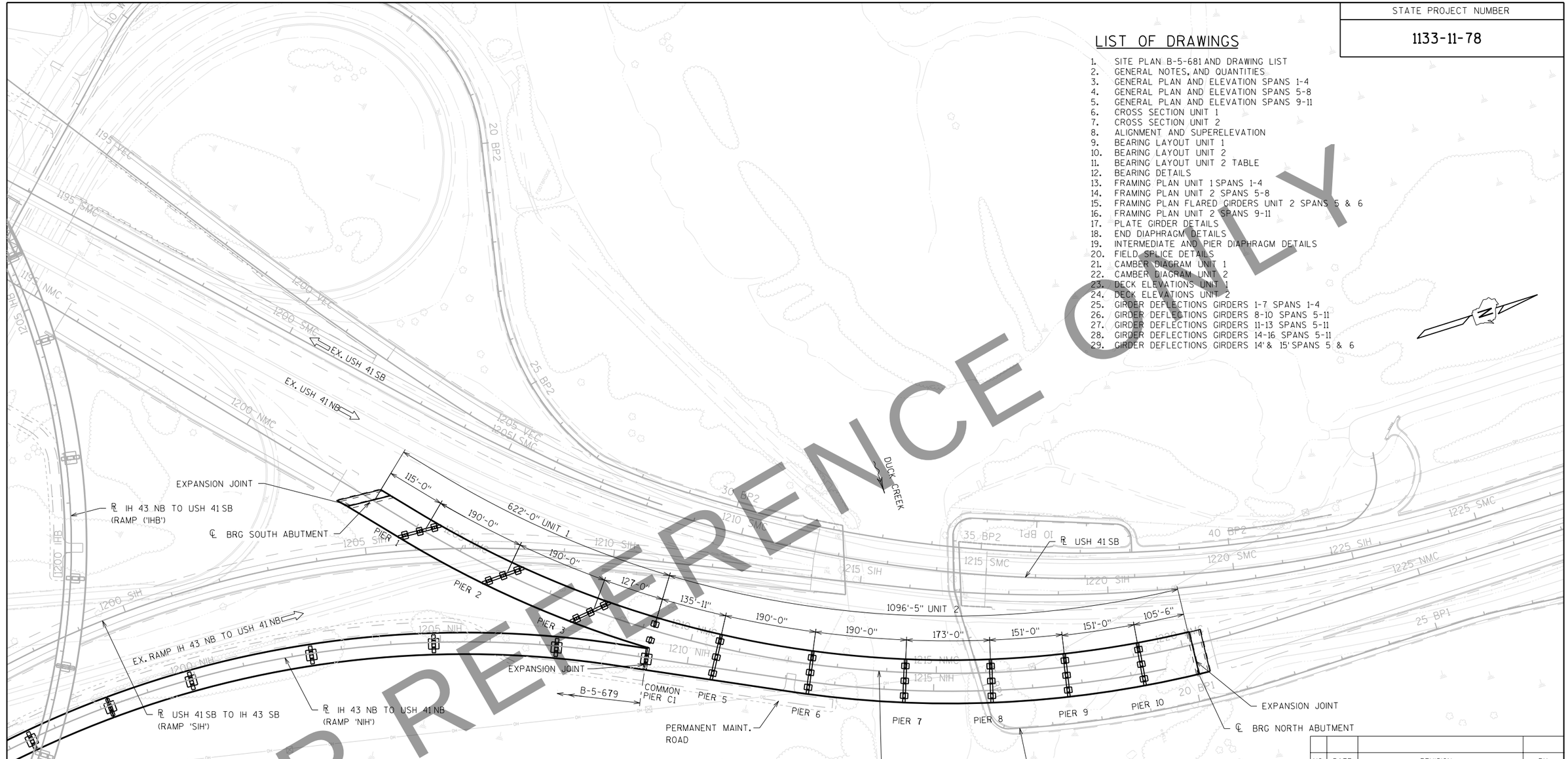
PLOT DATE : 3/4/2013

FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\B-5-681\129_bearing_detail_v8_b-5-681.dgn

STATE PROJECT NUMBER
1133-11-78

LIST OF DRAWINGS

1. SITE PLAN B-5-681 AND DRAWING LIST
2. GENERAL NOTES, AND QUANTITIES
3. GENERAL PLAN AND ELEVATION SPANS 1-4
4. GENERAL PLAN AND ELEVATION SPANS 5-8
5. GENERAL PLAN AND ELEVATION SPANS 9-11
6. CROSS SECTION UNIT 1
7. CROSS SECTION UNIT 2
8. ALIGNMENT AND SUPERELEVATION
9. BEARING LAYOUT UNIT 1
10. BEARING LAYOUT UNIT 2
11. BEARING LAYOUT UNIT 2 TABLE
12. BEARING DETAILS
13. FRAMING PLAN UNIT 1 SPANS 1-4
14. FRAMING PLAN UNIT 2 SPANS 5-8
15. FRAMING PLAN FLARED GIRDERS UNIT 2 SPANS 5 & 6
16. FRAMING PLAN UNIT 2 SPANS 9-11
17. PLATE GIRDER DETAILS
18. END DIAPHRAGM DETAILS
19. INTERMEDIATE AND PIER DIAPHRAGM DETAILS
20. FIELD SPLICE DETAILS
21. CAMBER DIAGRAM UNIT 1
22. CAMBER DIAGRAM UNIT 2
23. DECK ELEVATIONS UNIT 1
24. DECK ELEVATIONS UNIT 2
25. GIRDER DEFLECTIONS GIRDERS 1-7 SPANS 1-4
26. GIRDER DEFLECTIONS GIRDERS 8-10 SPANS 5-11
27. GIRDER DEFLECTIONS GIRDERS 11-13 SPANS 5-11
28. GIRDER DEFLECTIONS GIRDERS 14-16 SPANS 5-11
29. GIRDER DEFLECTIONS GIRDERS 14' & 15' SPANS 5 & 6



FOR REFERENCE ONLY
FOR REVIEW

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

Narendra P. Patel
7-24-2012

NE REGION CONTACT - DANIELLE BLOCK (920) 492-2212
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - ROBERT FIELDBINDER (414) 831-4129

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

URS
6737 West Washington Street
Suite 2265
Milwaukee, WI 53214
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-5-681

USH 41 NB OVER DUCK CREEK

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JRS	NPP	KZ	NPP

SITE PLAN B-5-681 AND DRAWING LIST

SHEET 1 OF 29
1161

DATE: 4/3/2013
I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681EN.dgn
B-05-681EX001-B-05-681E_SitePlan & Drawing List.dgn

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STATE PROJECT NUMBER

1133-11-78

GENERAL NOTES

DO NOT SCALE THE DRAWINGS.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (1991).

TRANSVERSE DIMENSIONS ARE RADIAL TO THE REFERENCE LINE UNLESS NOTED OTHERWISE.

THIS CONTRACT INCLUDES FABRICATING, FURNISHING, STORING AND DELIVERING STRUCTURAL STEEL AND BEARINGS AS SHOWN IN THESE PLANS AND DESCRIBED IN THE SPECIAL PROVISIONS.

STRUCTURAL STEEL

ALL STRUCTURAL STEEL PLATES FOR GIRDER FLANGES AND WEBS, GIRDER FLANGE AND WEB SPLICE PLATES, DIAPHRAGMS FOR GIRDERS, AND ALL OTHER STEEL PLATE COMPONENTS WELDED TO ANY OF THESE ELEMENTS SHALL BE HIGH STRENGTH A709 (AASHTO M270) GRADE HS 50 (FY=50 KSI).

CHARPY IMPACT TESTING REQUIRED FOR ALL FLANGE PLATES IN TENSION, WEB PLATES, FIELD SPLICE PLATES, DIAPHRAGM MEMBERS, CONNECTION PLATE, AND DIAPHRAGM GUSSET PLATES. CHARPY V-NOTCH TOUGHNESS REQUIREMENTS FOR THIS STEEL SHALL CONFORM TO THE REQUIREMENTS FOR ZONE 2.

ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO/AWS D1.5 BRIDGE WELDING CODE.

USE WELD MATERIAL WITH A TENSILE STRENGTH AT LEAST 20 KSI GREATER THAN THE YIELD STRENGTH OF THE STEEL BEING WELDED. NON-WEATHERING CONSUMABLES MAY BE USED FOR SINGLE-PASS FILLET WELDS.

FABRICATE BEARING ASSEMBLIES FROM HIGH STRENGTH STRUCTURAL WEATHERING STEEL (ASTM A709 GRADE 50W) MATERIAL (FY=50 KSI). ALL OTHER STEEL SHALL BE IN ACCORDANCE WITH ASTM A709 GRADE 50 (FY=50 KSI).

PROVIDE ANCHOR RODS, NUTS AND WASHERS ACCORDING TO ASTM F1554 (GRADE 105) AND HOT DIP GALVANIZE ACCORDING TO AASHTO M232.

ALL BOLTS SHALL BE ASTM A325 TYPE 1, BOLTS SHALL BE 7/8" DIAMETER UNLESS NOTED OTHERWISE. ALL HOLES SHALL BE STANDARD DIAMETER. NO OVERSIZE HOLES WILL BE PERMITTED WITHOUT PRIOR APPROVAL. ALL CONNECTIONS SHALL BE FABRICATED AND ASSEMBLED AS SLIP-CRITICAL CONNECTIONS. DESIGN ASSUMED SURFACE CLASS A.

PAINT ALL STRUCTURAL STEEL, INCLUDING BRACING MEMBERS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

FIELD WELDING AT THE TOP OR BOTTOM FLANGE, FOR CONSTRUCTION PURPOSES, WILL NOT BE ALLOWED, EXCEPT ADDING SHEAR STUDS AS SHOWN ON THE PLANS.

THE COMPRESSIVE STRENGTH OF THE BEARING PEDESTAL AND PIER CONCRETE IS 4,000 PSI.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIM REVISIONS, AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

DESIGN LIVE LOAD

DESIGN LOADING: HL-93

INVENTORY RATING FACTOR: RF = 1.11

OPERATING RATING FACTOR: RF = 1.44

WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 205 KIPS

OTHER DESIGN LOADS

THE STRUCTURE IS DESIGNED FOR THE DECK THICKNESS SHOWN, WHICH INCLUDES A 1 1/2" INTEGRAL WEARING SURFACE. NO ADDITIONAL LOAD FOR A FUTURE WEARING SURFACE IS CONSIDERED IN THE DESIGN.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 90°F.

DESIGN ASSUMES 7.5 PSF FOR TEMPORARY FORMWORK.

PARAPETS WERE ASSUMED TO WEIGH 512 PLF AND 563 PLF FOR "51F" AND "42SS" PARAPETS RESPECTIVELY.

BEARING MOVEMENT RANGE IS BASED ON BEARING CENTERED AT 60°F AND ACCOMMODATING 90°F OF MOVEMENT IN EITHER DIRECTION.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

MINIMUM FILLET WELD SIZE:

THICKNESS OF THICKER PART JOINED	MINIMUM WELD SIZE
T <= 1/2"	3/16"
1/2" < T <= 3/4"	1/4"
3/4" < T <= 1 1/2"	5/16"
1 1/2" < T <= 2 1/4"	3/8"
T > 2 1/4"	1/2"

MINIMUM WELD SIZES SHOWN SHALL BE USED WHEN A SIZE IS NOT OTHERWISE SPECIFIED OR SHOWN.

WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART BEING JOINED.

FOR ALL WELDS 5/16" OR LARGER, THE MINIMUM PASS SIZE SHALL BE 5/16".

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	UNIT 1 QUANTITY	UNIT 2 QUANTITY	TOTAL
SPV.0085.01	FABRICATED STRUCTURAL STEEL HS B-5-681	LB	1,793,900	4,510,129	6,304,029
SPV.0060.01	BEARING HIGH-LOAD MULTI-ROTATIONAL FIXED B-5-681	EACH	7	9	16
SPV.0060.02	BEARING HIGH-LOAD MULTI-ROTATIONAL UNI-DIRECTIONAL B-5-681	EACH	28	67	95
SPV.0105.01	PAINTING POLYSILOXANE SYSTEM B-5-681	LS	-	-	1

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY KJZ | PLANS CK'D. NPP

GENERAL NOTES, AND QUANTITIES

SHEET 2 OF 29

1162

DATE: 4/3/2013

I.D.

FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-681E_General Notes & Quantity.dgn

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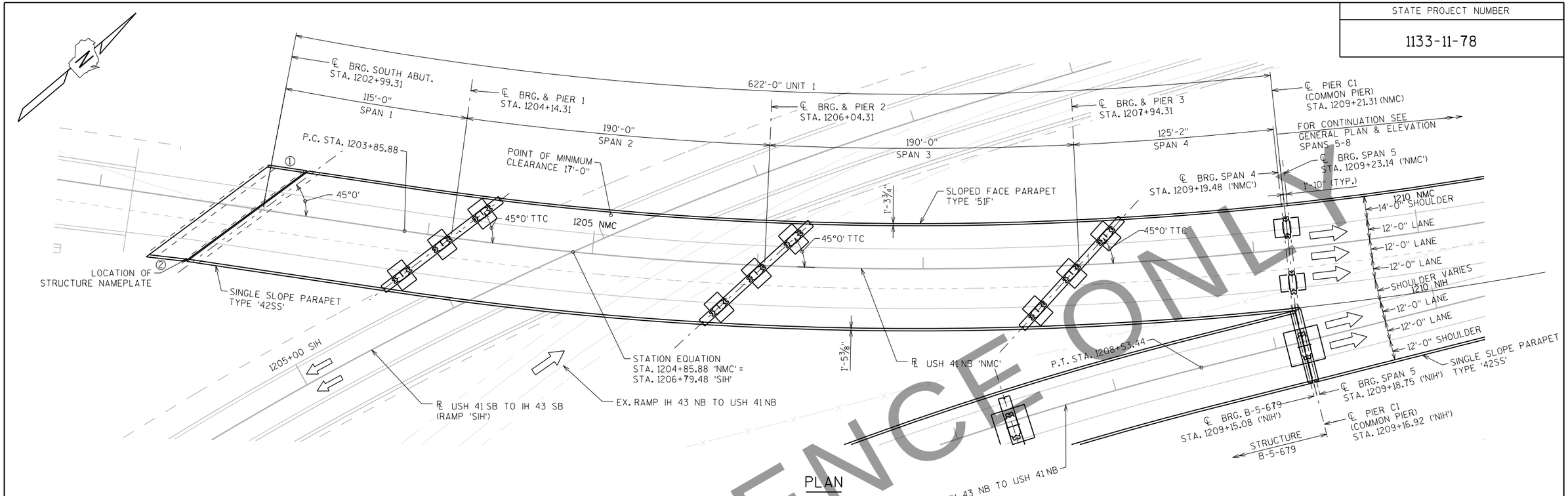
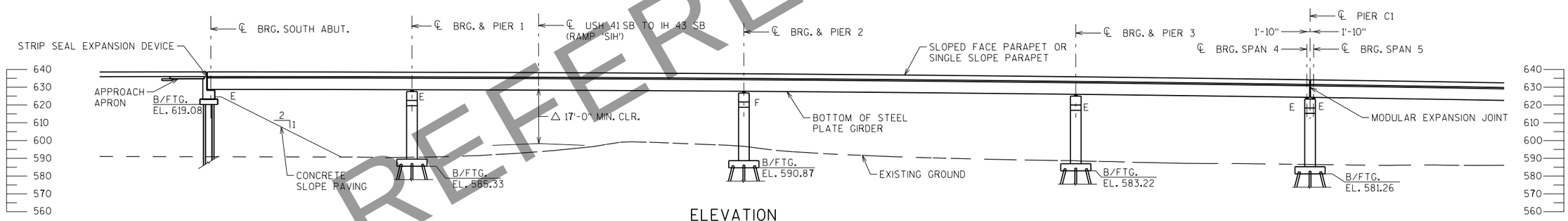
STATE PROJECT NUMBER
1133-11-78



PLAN



ELEVATION

(ALONG ℄ 'NMC' LOOKING WEST)

STRUCTURE TYPE

4-SPAN CONTINUOUS STEEL PLATE GIRDER UNIT 1.
7-SPAN CONTINUOUS STEEL PLATE GIRDER UNIT 2.

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 1300	DISK ON PARAPET WALL	601.80

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, HIGH PERFORMANCE CONCRETE	
SLAB	f'c = 4,000 P.S.I.
ALL OTHER	f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 P.S.I.
HIGH STRENGTH STRUCTURAL STEEL, (ASTM A709, GRADE 50, HS50)	fy = 50,000 P.S.I.

FOUNDATION DATA

NORTH AND SOUTH ABUTMENTS TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

PIERS 1 THROUGH PIER 10 TO BE SUPPORTED ON HP14X73 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP METHODS. ESTIMATED XX FEET LONG.

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.8 USING THE PDA/CAPWAP METHODS AND THE PREVIOUSLY COMPLETED STATIC LOAD TEST TO DETERMINE THE REQUIRED DRIVING RESISTANCE.

TRAFFIC VOLUME:

RAMP 'NIH'	RAMP 'SIH'	RAMP 'NMC'
ADT (2015) = 8,600	ADT (2015) = 9,000	ADT (2015) = 15,800
ADT (2035) = 10,200	ADT (2035) = 10,700	ADT (2035) = 31,500
R.D.S. = 70 M.P.H.	R.D.S. = 70 M.P.H.	R.D.S. = 70 M.P.H.

NOTES:

ALL SUBSTRUCTURE UNITS ARE NORMAL TO ℄ 'NMC' UNLESS NOTED OTHERWISE.

DIMENSIONS SHOWN ARE ALONG ℄ 'NMC' UNLESS NOTED OTHERWISE.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄ 'NMC'.

FOR CURVE DATA SEE ALIGNMENT LAYOUT AND SUPERELEVATION SHEET.

FLOOR DRAIN AND LIGHT POLE LOCATIONS ARE NOT YET DETERMINED.

ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

EXISTING AND FUTURE UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES PRIOR TO EXCAVATION OR PILE DRIVING.

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING
△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY.
TTC - TANGENT TO CURVE
① - INDICATES WING MEMBER.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 1-4

SHEET 3 OF 29
1163

FOR REFERENCE ONLY

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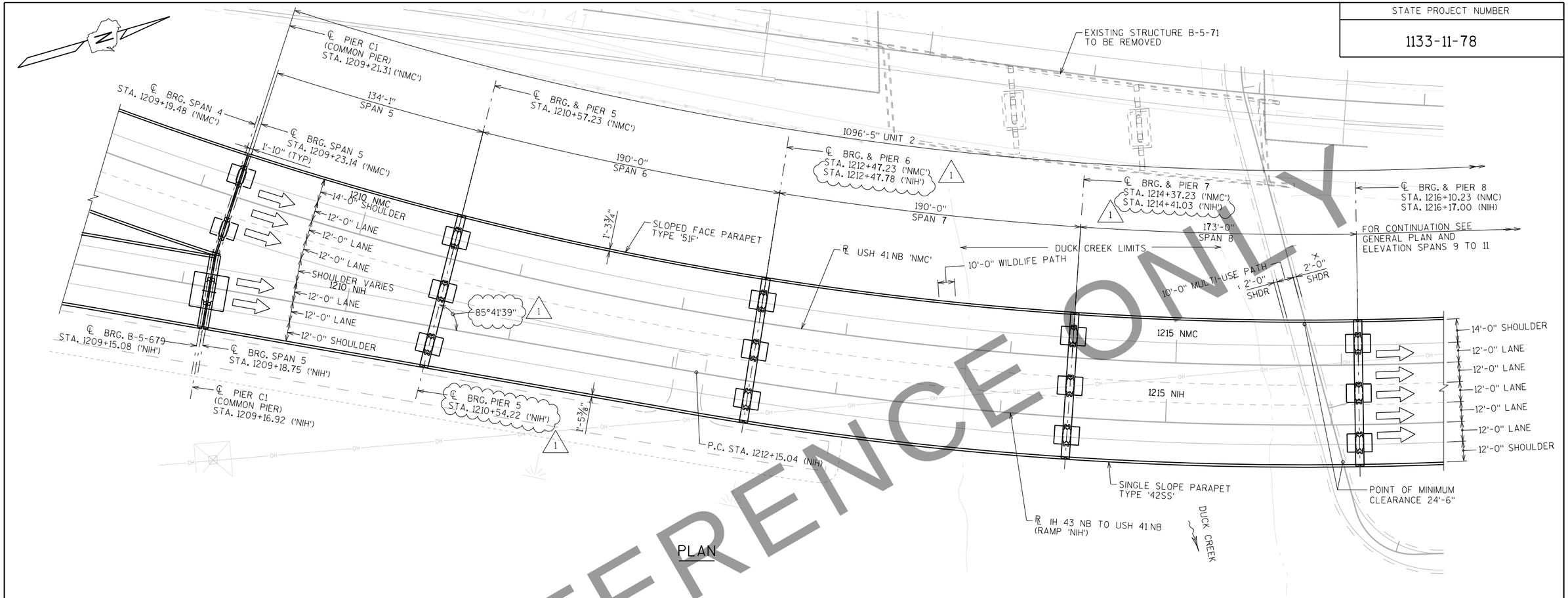
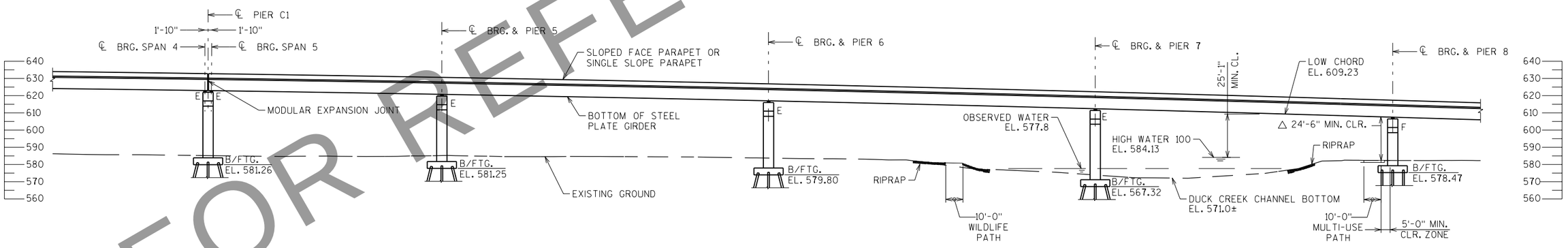
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\005-681EX003-B-05-681E_Plan and Elevation - Spans 1-4.dgn
DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

1133-11-78



PLAN



ELEVATION

(ALONG ℞ "NMC" LOOKING WEST)

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING
△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY.

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN AND ELEVATION SPANS 1-4".

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	11/06/12	℄ PIER ANGLE & 'NIH' STATIONS	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 5-8

SHEET 4 OF 29
1164

I.D.

DATE: 4/3/2013

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\004-B-05-681E_Plan and Elevation - Spans 5-8.dgn

FOR REFERENCE ONLY

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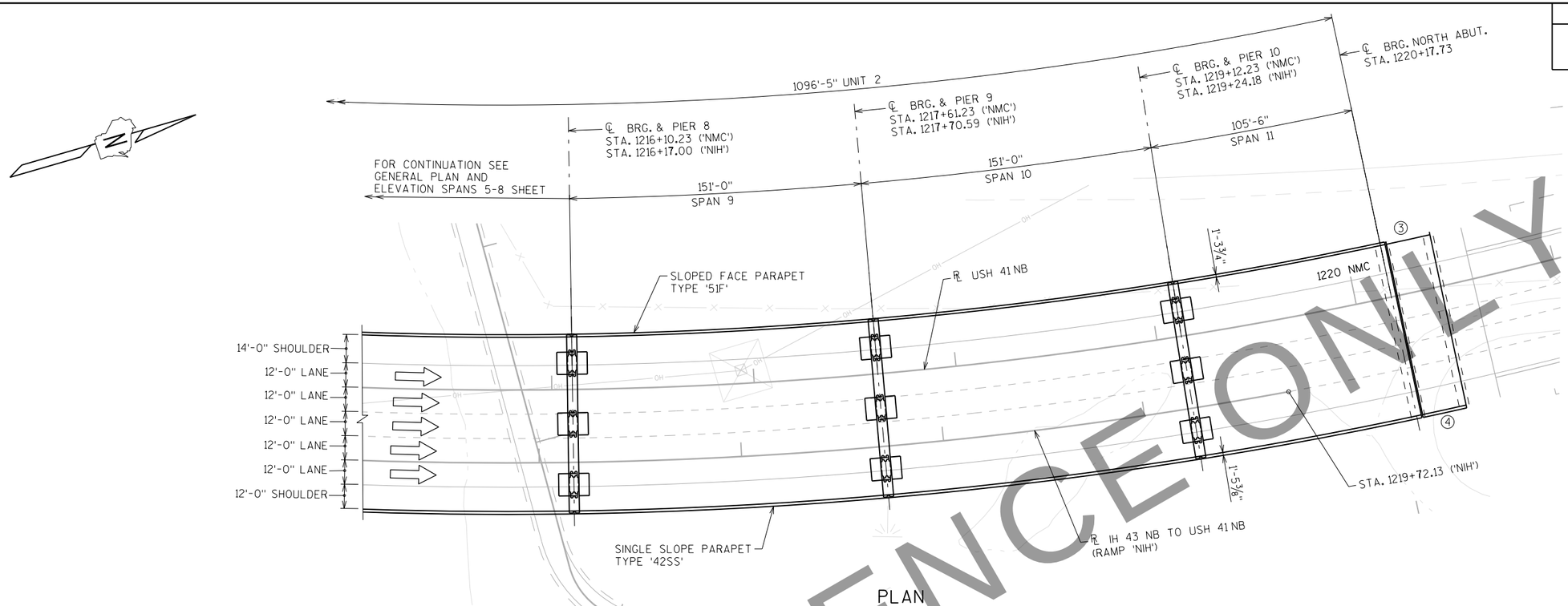
STATE PROJECT NUMBER
1133-11-78



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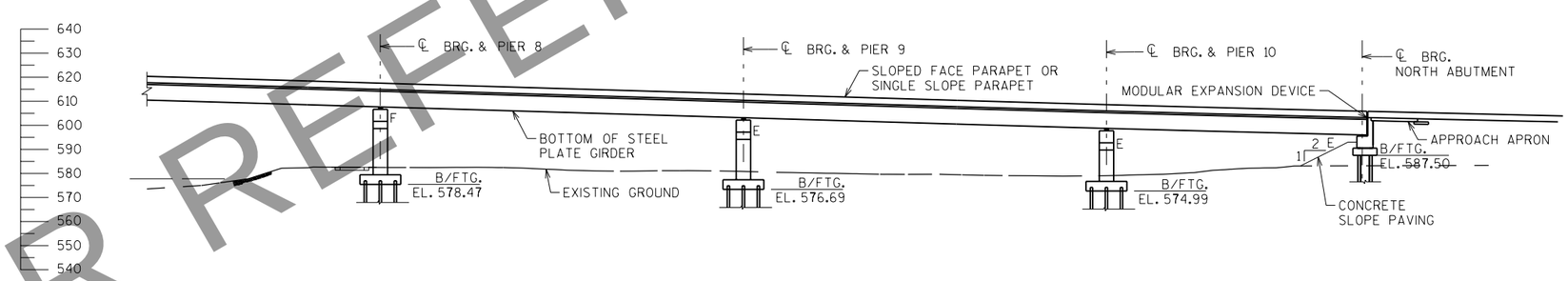

ELEVATION

(ALONG ℄ 'NMC' LOOKING WEST)

LEGEND

F - FIXED BEARING
E - EXPANSION BEARING
△ - VERTICAL CLEARANCE ESTIMATED BASED ON PRELIMINARY ROADWAY GEOMETRY.
③ INDICATES WING MEMBER

NOTES:

FOR NOTES, SEE SHEET TITLED "GENERAL PLAN AND ELEVATION SPANS 1-4".

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY KZ | PLANS CK'D. NPP

GENERAL PLAN AND ELEVATION SPANS 9-11

SHEET 5 OF 29

1165

8

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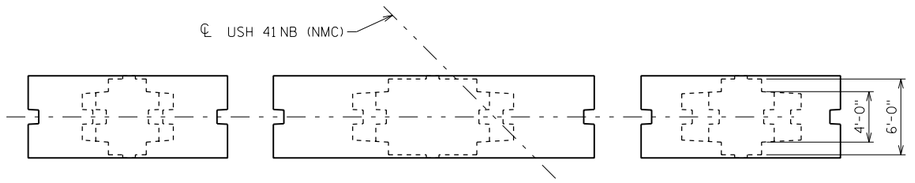
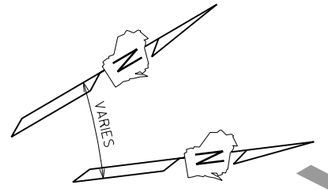
FOR REFERENCE ONLY

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\005-B-05-681E_Plan and Elevation - Spans 9-11.dgn
DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

1133-11-78





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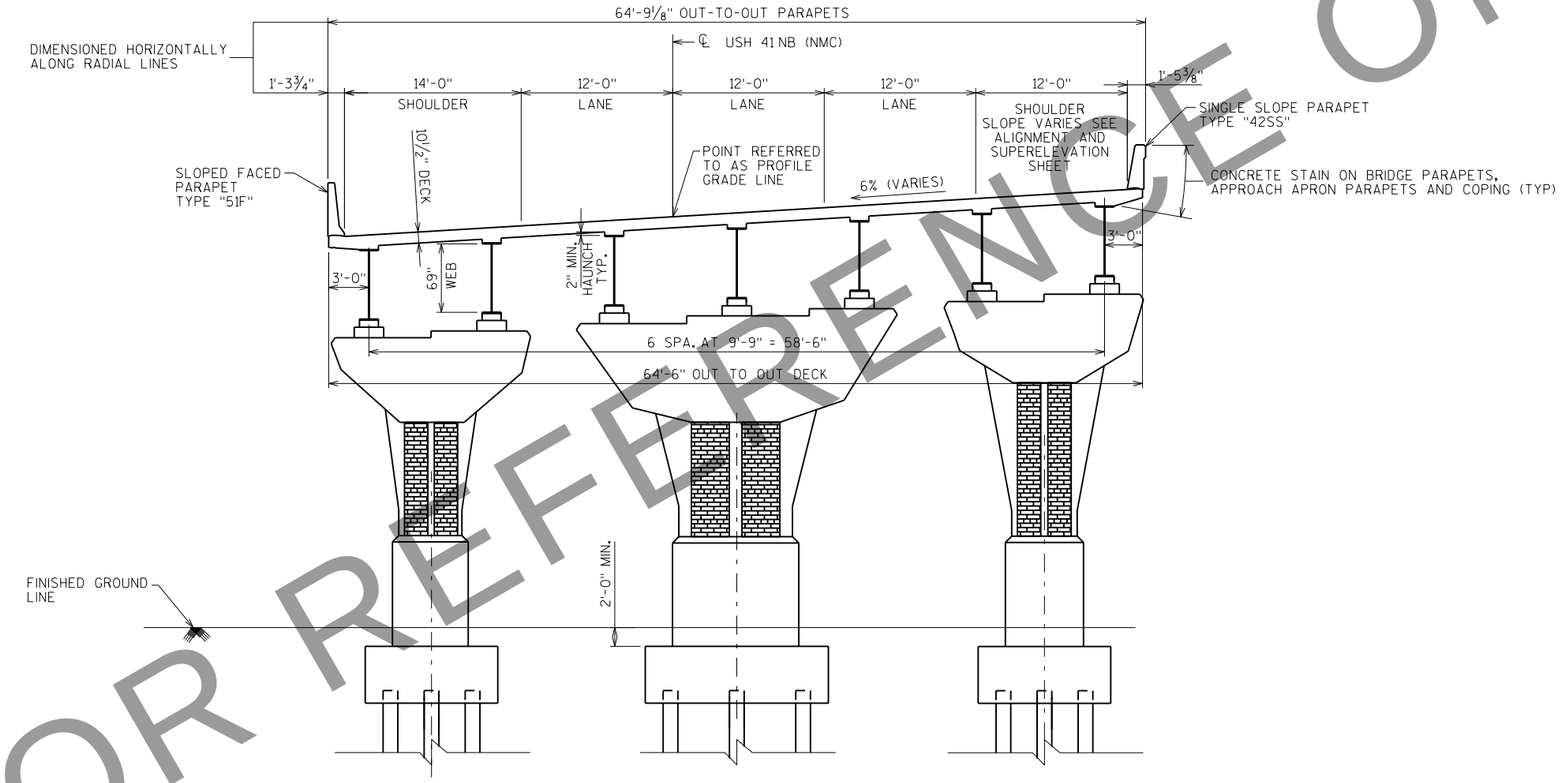

TYPICAL SECTION

(UNIT 1 LOOKING NORTH)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR'S STANDARDS FOR FLYOVER STRUCTURES.

UNO = UNLESS NOTED OTHERWISE

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY KZ | PLANS CK'D. NPP

CROSS SECTION
UNIT 1

SHEET 6 OF 29

1166

FOR REFERENCE ONLY

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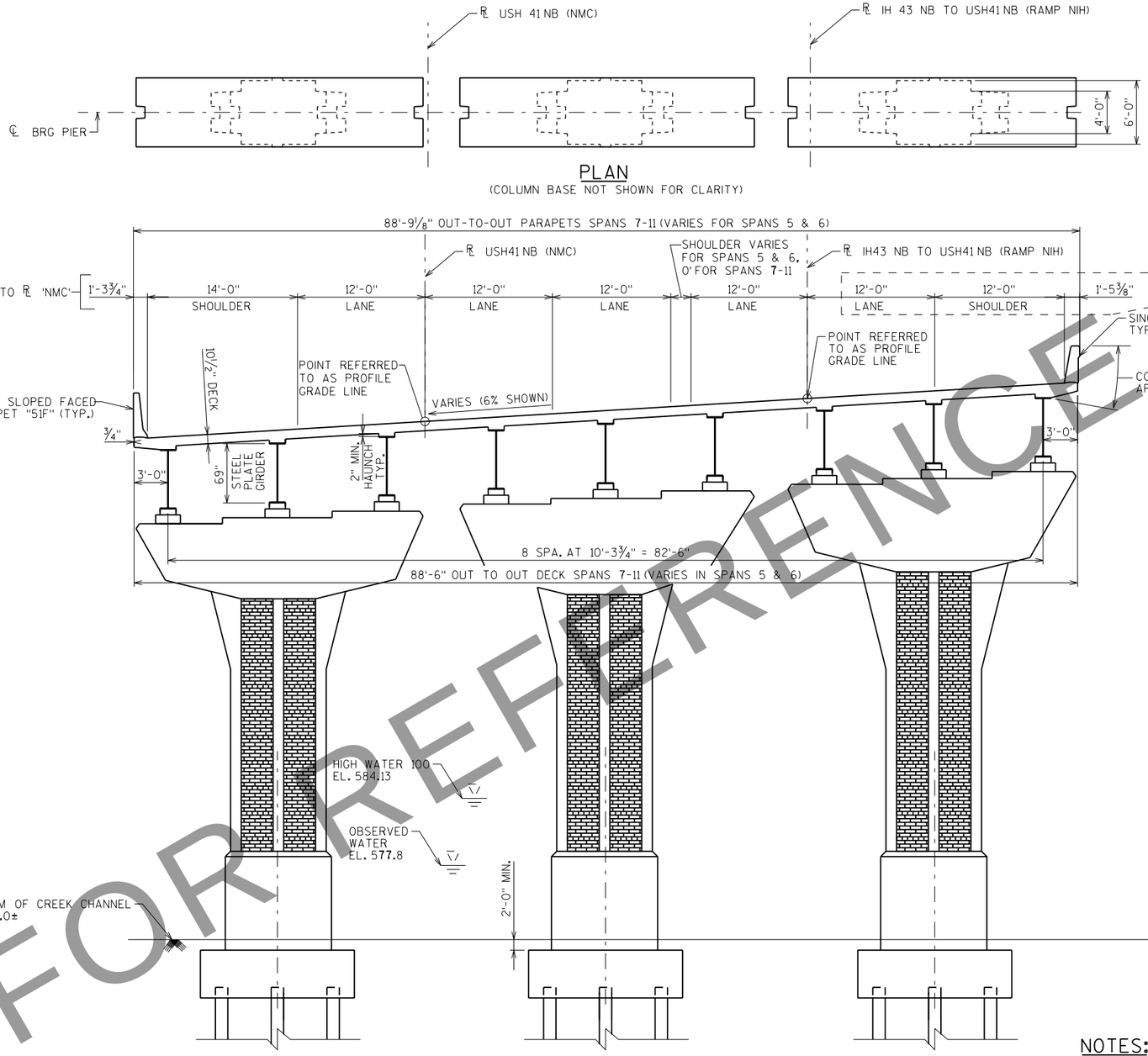
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\B-05-681E006-B-05-681E_Cross Section Unit 1.dgn

DATE: 4/3/2013

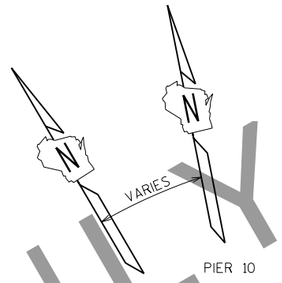
I.D.

STATE PROJECT NUMBER
1133-11-78



PLAN

(COLUMN BASE NOT SHOWN FOR CLARITY)



TYPICAL SECTION

(UNIT 2 LOOKING NORTH)
(DIAPHRAGMS NOT SHOWN FOR CLARITY)

NOTES:

AESTHETIC DETAILS FOR PIERS, PARAPETS, WALLS AND PAINTING SYSTEMS WILL FOLLOW THE CORRIDOR'S STANDARDS FOR FLYOVER STRUCTURES.

* COLUMN BASE ROUNDED FOR PIER 7 ONLY AT CREEK CHANNEL.

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY	KZ	PLANS CK'D.	NPP

CROSS SECTION
UNIT 2

SHEET 7 OF 29

1167

DATE: 4/3/2013
I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\007-B-05-681E_Cross Section Unit 2.dgn

FOR REFERENCE ONLY

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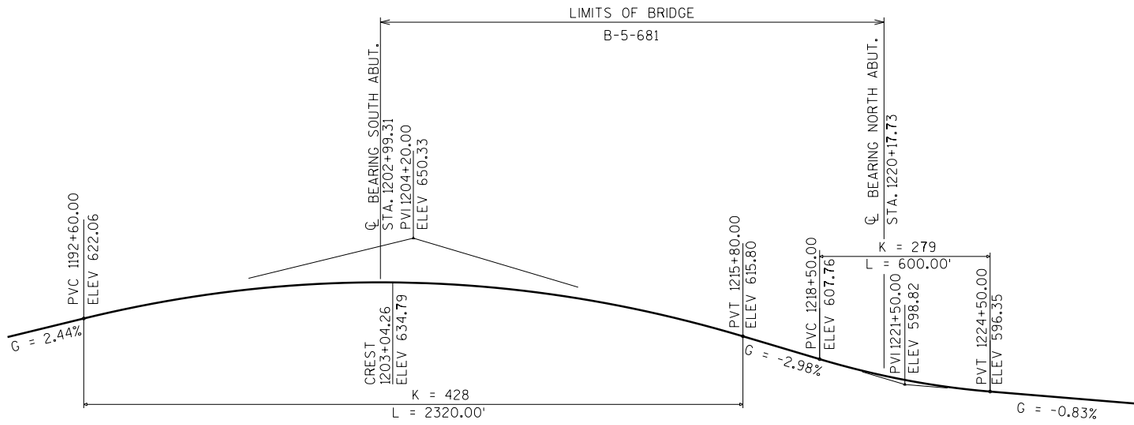
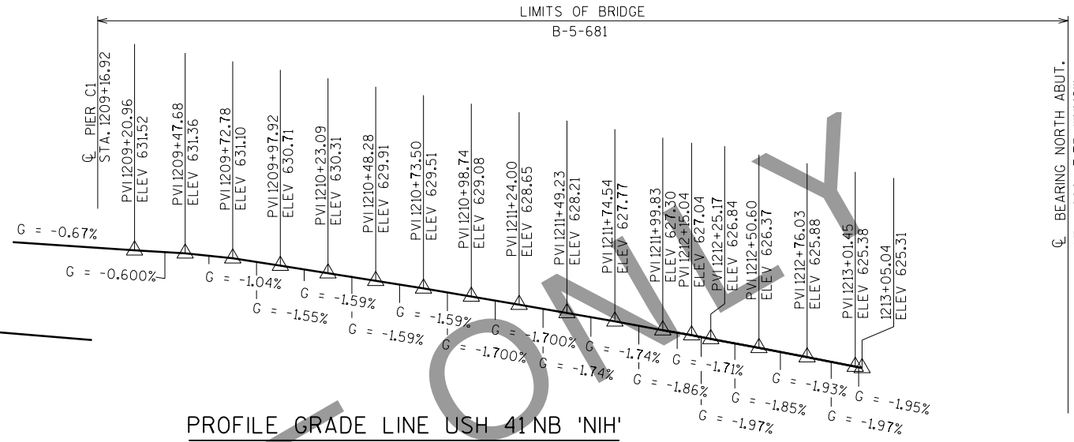
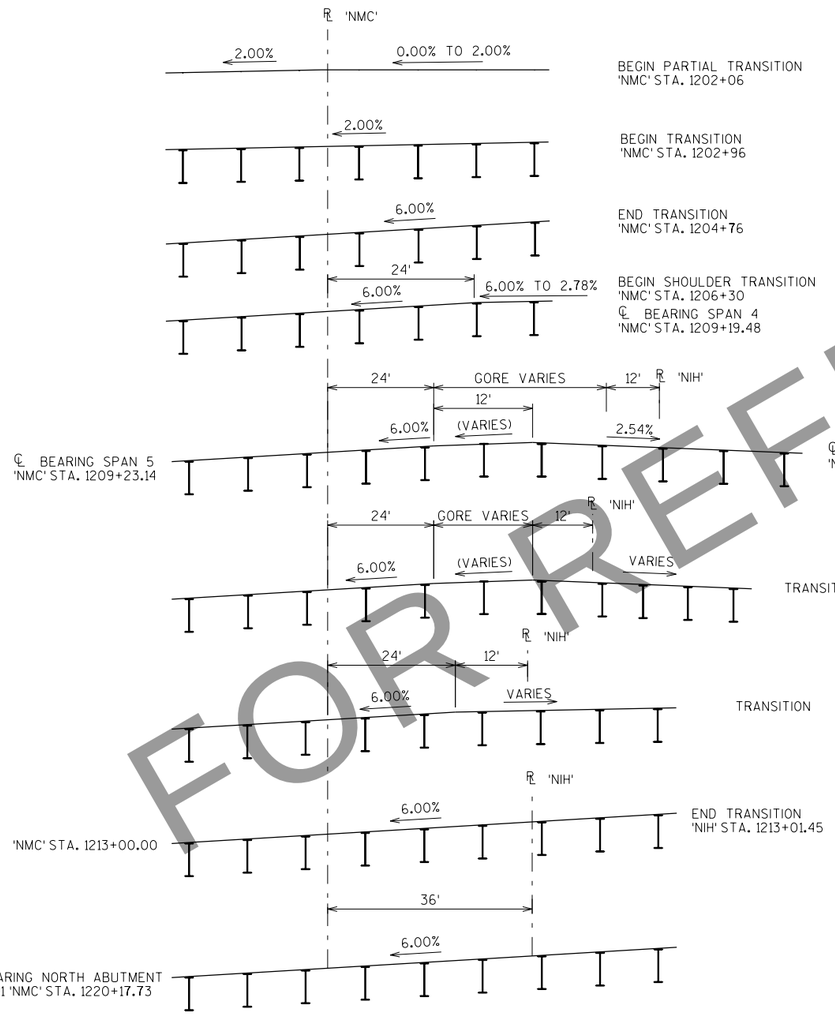
STATE PROJECT NUMBER
1133-11-78



PROFILE GRADE LINE USH 41 NB 'NMC'



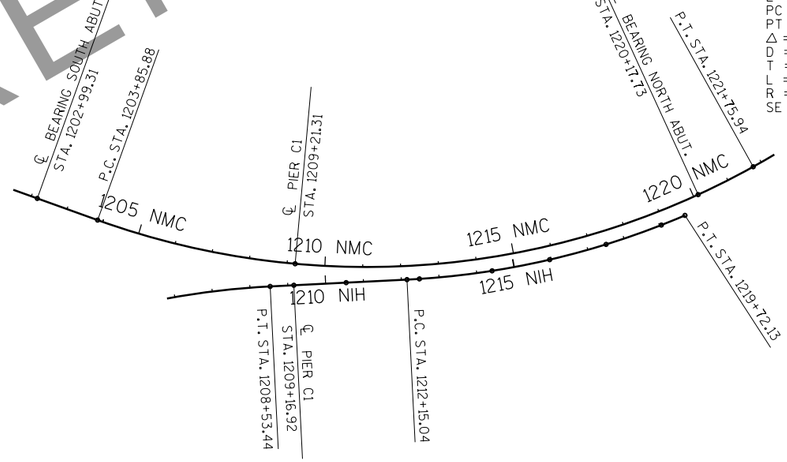
PROFILE GRADE LINE USH 41 NB 'NIH'



DECK SLOPE TRANSITION

USH 41 NB OVER DUCK CREEK (NMC)
HORIZONTAL CURVE DATA

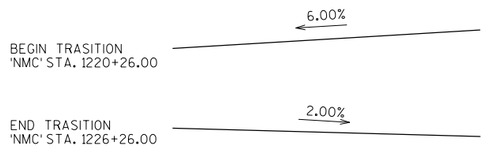
P.I. STA. = 1213+39.35
N = 585271.63
E = 91083.25
PC STA. = 1203+85.88
PT STA. = 1221+75.94
△ = 48° 50' 22"
D = 2° 43' 42"
T = 953.47
L = 1790.06
R = 2100'
SE = 6.000%



IH 43 NB - USH 41 NB
RAMP 'NIH'
HORIZONTAL CURVE DATA

P.I. STA. = 1215+97.60
N = 585624.64
E = 91067.37
PC STA. = 1212+15.04
PT STA. = 1219+72.13
△ = 20° 18' 29"
D = 2° 40' 57"
T = 382.56
L = 757.09
R = 2136'
SE = 6.000%

HORIZONTAL ALIGNMENT USH 41 NB OVER DUCK CREEK (NMC)
HORIZONTAL ALIGNMENT RAMP IH 43 NB TO USH 41 NB



STEEL FABRICATION CONTRACT ONLY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY KZ | PLANS CK'D. NPP

ALIGNMENT AND SUPERELEVATION

SHEET 8 OF 29
1168

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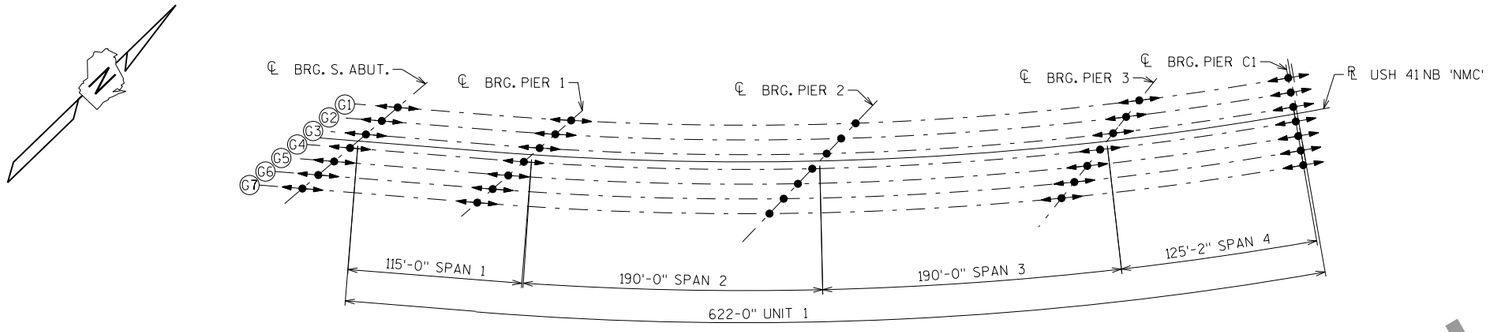
FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681\B-05-681EV008-B-05-681E_Alignment & Superelevation.dgn

DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER
1133-11-78



BEARING LAYOUT

LENGTH NOT TO SCALE

LOCATION	BEARING MARK	BEARING TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
			DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)		
SOUTH ABUTMENT	SAG7	GUIDED	58	109	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
	SAG6	GUIDED	68	103	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
	SAG5	GUIDED	68	97	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
	SAG4	GUIDED	67	93	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
	SAG3	GUIDED	68	105	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
	SAG2	GUIDED	68	106	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
	SAG1	GUIDED	62	126	4.44	0.86	2.37	11.99	1.07	0.34	6.87	14.55	0.0026	0.0016	4.39	1.00	1.00	1.00	1.00	1.00	20.00	21.25	22.25	10.25	1.75	5.75	4-1" DIA.	4-1" DIA.
PIER 1	P1G7	GUIDED	311	186	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
	P1G6	GUIDED	343	216	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
	P1G5	GUIDED	340	217	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
	P1G4	GUIDED	343	210	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
	P1G3	GUIDED	339	210	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
	P1G2	GUIDED	335	231	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
	P1G1	GUIDED	306	212	11.60	2.23	12.31	15.10	2.79	0.89	34.46	18.33	-0.0016	0.0042	2.71	1.07	1.07	1.00	1.00	1.04	26.00	27.75	28.63	16.63	1.75	7.13	4-1" DIA.	4-1" DIA.
PIER 2	P2G7	FIXED	346	212	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
	P2G6	FIXED	407	258	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
	P2G5	FIXED	402	246	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
	P2G4	FIXED	408	234	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
	P2G3	FIXED	405	239	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
	P2G2	FIXED	402	244	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
	P2G1	FIXED	368	217	2.05	2.76	0.00	16.55	3.45	1.10	38.18	20.09	-0.0002	0.0002	N/A	1.17	1.17	1.00	1.00	1.09	26.00	24.75	30.75	22.75	1.75	7.50	6-1" DIA.	4-1" DIA.
PIER 3	P3G7	GUIDED	345	213	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
	P3G6	GUIDED	395	246	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
	P3G5	GUIDED	371	232	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
	P3G4	GUIDED	361	226	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
	P3G3	GUIDED	352	223	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
	P3G2	GUIDED	334	223	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
	P3G1	GUIDED	296	186	13.13	2.53	12.54	16.55	3.16	1.01	39.53	19.92	-0.0009	0.0016	2.71	1.32	1.32	1.00	1.00	1.16	26.00	28.00	29.00	17.00	1.75	7.38	4-1" DIA.	4-1" DIA.
PIER 4	P4G7	GUIDED	111	114	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.
	P4G6	GUIDED	103	108	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.
	P4G5	GUIDED	95	101	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.
	P4G4	GUIDED	85	92	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.
	P4G3	GUIDED	74	97	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.
	P4G2	GUIDED	63	99	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.
	P4G1	GUIDED	45	111	5.97	1.15	6.95	12.14	1.44	0.46	11.05	14.73	0.0000	0.0003	4.97	1.32	1.32	1.00	1.00	1.16	20.00	22.25	23.25	11.25	1.75	5.88	4-1" DIA.	4-1" DIA.

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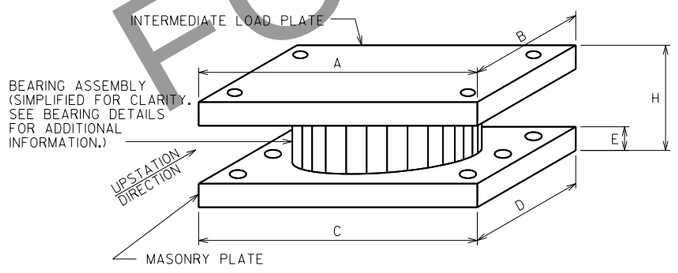
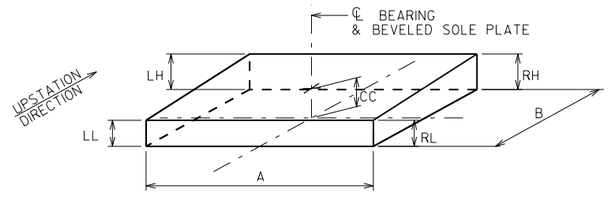


BEARING DIMENSION KEY



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.
- DC DEAD LOAD OF STRUCTURAL COMPONENTS AND NONSTRUCTURAL ATTACHMENTS
- LL+I VEHICULAR LIVE LOAD AND IMPACT
- WS WIND ON STRUCTURE
- WL WIND ON LIVE LOAD
- TU FORCE EFFECT DUE TO UNIFORM TEMPERATURE
- CE VEHICULAR CENTRIFUGAL FORCE
- BR VEHICULAR BRAKING FORCE

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY
1	10-31-12	REVISED SOLE PLATE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY JRS | PLANS CK'D. NPP

BEARING LAYOUT UNIT 1

SHEET 9 OF 29

1169

STEEL FABRICATION CONTRACT ONLY

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DATE: 4/3/2013

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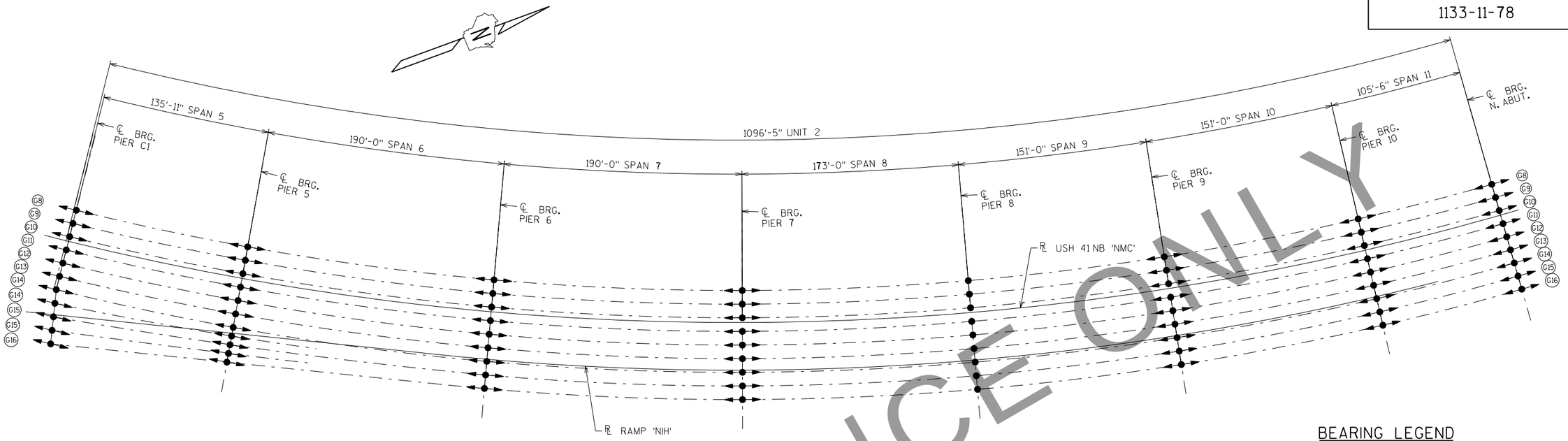
STATE PROJECT NUMBER
1133-11-78



BEARING LAYOUT
LENGTH NOT TO SCALE

BEARING LEGEND

- ● MULTIROTATIONAL FIXED
- ◄●► MULTIROTATIONAL UNI-DIRECTIONAL (GUIDED) ARROWHEADS DENOTE MOVEMENT DIRECTIONS.

NOTES:

SEE BEARING DETAILS SHEET FOR TYPICAL BEARING DETAILS

BEARING DIMENSIONS SHOWN ARE NOMINAL VALUES ONLY AND MAY VARY WITH THE SELECTED MANUFACTURER. IF BEARING DIMENSIONS VARY FROM THOSE SHOWN HERE, THE BEARING MANUFACTURER SHALL COORDINATE WITH THE STEEL GIRDER FABRICATOR TO ASSURE THERE ARE NO CONFLICTS WITH JACKING PADS OR ANY OTHER STEEL ELEMENTS. THE STEEL GIRDER FABRICATOR IS RESPONSIBLE TO DETERMINE WHAT ELEMENTS REQUIRE RE-DESIGN AND TO RE-DESIGN THEM, SUBJECT TO APPROVAL BY THE ENGINEER.

HORIZONTAL FORCES SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED FORCES. DESIGN BEARINGS AND CONNECTIONS FOR THESE VALUES OR 15 PERCENT OF THE VERTICAL DEAD LOAD, WHICHEVER IS LARGER.

ROTATIONS SPECIFIED IN THE TABLE ARE THE EXPECTED APPLIED ROTATIONS FROM APPLICABLE STRENGTH LOAD COMBINATIONS. DESIGN BEARINGS FOR AN ADDITIONAL 0.005 RADIANS FOR FABRICATION AND INSTALLATION TOLERANCES, AND 0.005 RADIANS FOR UNCERTAINTIES. DESIGN ALL BEARINGS FOR A MINIMUM 0.020 RADIANS OF TOTAL ROTATION.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY JRS | PLANS CK'D. NPP

BEARING LAYOUT UNIT 2

SHEET 10 OF 29
1170

STEEL FABRICATION CONTRACT ONLY

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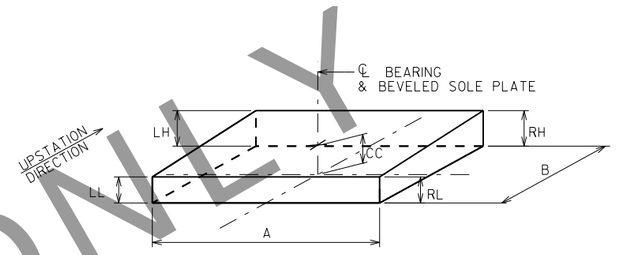
DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

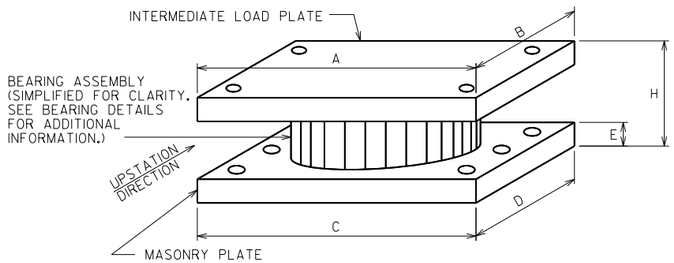
1133-11-78

LOCATION	BEARING MARK	BEARING TYPE	VERTICAL		TRANSVERSE				LONGITUDINAL				ROTATIONS		MOVEMENT RANGE (FOR 180 DEG.)	TAPERED SOLE PLATE THICKNESS					NOMINAL BEARING DIMENSIONS						MIN. ANCHOR BOLTS	MIN. TOP BOLTS
			DC (KIPS)	LL+I (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	CE (KIPS)	WS (KIPS)	WL (KIPS)	TU (KIPS)	BR (KIPS)	X-AXIS TORSION (RAD)	Y-AXIS FLEXURE (RAD)	LONGIT. (IN)	LL (IN)	RL (IN)	LH (IN)	RH (IN)	CC (IN)	A (IN)	B (IN)	C (IN)	D (IN)	E (IN)	H (IN)	
PIER C1	P4G16	GUIDED	87	169	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G15'	GUIDED	88	195	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	20	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G15	GUIDED	100	212	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G14'	GUIDED	99	215	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	20	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G14	GUIDED	83	199	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G13	GUIDED	110	230	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G12	GUIDED	93	169	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G11	GUIDED	96	215	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G10	GUIDED	100	217	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G9	GUIDED	87	199	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
	P4G8	GUIDED	81	168	3.86	0.74	4.56	16.44	0.93	0.30	10.99	19.95	0.0026	0.0045	9.87	1.35	1.35	1.00	1.00	1.17	22	24	25	13	1.75	6.375	4-1" DIA.	4-1" DIA.
PIER 5	P5G16	GUIDED	282	265	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G15'	GUIDED	244	255	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	22	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G15	GUIDED	281	291	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G14'	GUIDED	275	269	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	22	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G14	GUIDED	327	335	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G13	GUIDED	376	343	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G12	GUIDED	377	287	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G11	GUIDED	373	315	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G10	GUIDED	380	322	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G9	GUIDED	363	302	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
	P5G8	GUIDED	330	250	9.50	1.83	9.20	23.77	2.29	0.73	38.03	28.84	0.0005	0.0014	7.99	1.52	1.52	1.00	1.00	1.26	26	29.5	30.38	18.375	1.75	7.75	6-1" DIA.	4-1" DIA.
PIER 6	P6G16	GUIDED	328	282	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G15	GUIDED	318	304	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G14	GUIDED	381	335	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G13	GUIDED	399	344	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G12	GUIDED	421	311	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G11	GUIDED	407	334	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G10	GUIDED	404	321	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G9	GUIDED	374	297	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
	P6G8	GUIDED	379	257	11.28	2.17	9.20	23.45	2.72	0.87	42.07	28.45	0.0002	0.0009	5.24	1.66	1.66	1.00	1.00	1.33	26	29.75	30.75	18.75	1.75	7.875	6-1" DIA.	4-1" DIA.
PIER 7	P7G16	GUIDED	361	255	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G15	GUIDED	378	273	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G14	GUIDED	395	330	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G13	GUIDED	394	321	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G12	GUIDED	385	287	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G11	GUIDED	405	327	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G10	GUIDED	368	311	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G9	GUIDED	365	309	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
	P7G8	GUIDED	345	249	10.76	2.07	7.57	22.81	2.59	0.83	40.53	27.68	0.0000	0.0007	2.50	1.75	1.75	1.00	1.00	1.38	26	28.5	29.5	17.5	1.75	7.5	6-1" DIA.	4-1" DIA.
PIER 8	P8G16	FIXED	291	242	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G15	FIXED	330	308	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G14	FIXED	319	314	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G13	FIXED	352	327	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G12	FIXED	307	265	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G11	FIXED	343	309	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G10	FIXED	335	328	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G9	FIXED	307	297	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
	P8G8	FIXED	296	245	9.53	1.84	0.00	21.74	2.30	0.73	110.27	26.39	0.0003	0.0010	N/A	1.76	1.76	1.00	1.00	1.38	26	25.5	31.5	23.5	1.75	7.5	6-1" DIA.	4-1 1/4" DIA.
PIER 9	P9G16	GUIDED	275	229	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G15	GUIDED	306	281	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G14	GUIDED	309	301	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G13	GUIDED	321	296	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G12	GUIDED	310	260	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G11	GUIDED	307	302	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G10	GUIDED	307	288	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G9	GUIDED	288	277	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
	P9G8	GUIDED	276	227	8.88	1.71	5.79	21.21	2.14	0.68	32.10	25.74	-0.0002	0.0007	2.15	1.83	1.83	1.00	1.00	1.42	26	28	29	17	1.75	7.375	4-1" DIA.	4-1" DIA.
PIER 10	P10G16	GUIDED	264	230	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G15	GUIDED	288	284	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G14	GUIDED	312	296	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G13	GUIDED	292	300	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G12	GUIDED	296	243	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G11	GUIDED	301	304	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G10	GUIDED	295	286	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G9	GUIDED	281	285	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
	P10G8	GUIDED	264	228	7.60	1.46	5.79	21.08	1.83	0.59	31.19	25.58	0.0002	0.0012	4.33	1.77	1.77	1.00	1.00	1.39	26	28	29	17	2.75	8.375	4-1" DIA.	4-1" DIA.
NORTH ABUTMENT	NAG16	GUIDED	65	157	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG15	GUIDED	73	183	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG14	GUIDED	68	182	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG13	GUIDED	78	198	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG12	GUIDED	66	157	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG11	GUIDED	78	199	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG10	GUIDED	67	180	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG9	GUIDED	71	183	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.
	NAG8	GUIDED	60	145	3.13	0.00	2.83	15.55	0.75	0.24	7.84	18.87	0.0077	0.0019	5.85	1.55	1.55	1.00	1.00	1.27	20	23	24	12	3.75	8.25	4-1" DIA.	4-1" DIA.



BEVELED SOLE PLATE DIMENSION KEY

(HOLES MATCHING INTERMEDIATE LOAD PLATE NOT SHOWN FOR CLARITY)



BEARING DIMENSION KEY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY
1	10-31-12	REVISED SOLE PLATE	KZ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY JRS | PLANS CK'D. NPP

BEARING LAYOUT UNIT 2 TABLE

SHEET 11 OF 29

1171

DATE: 4/3/2013

I.D.

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\011-B-05-681E - BEARING LAYOUT UNIT 2 TABLE.dgn

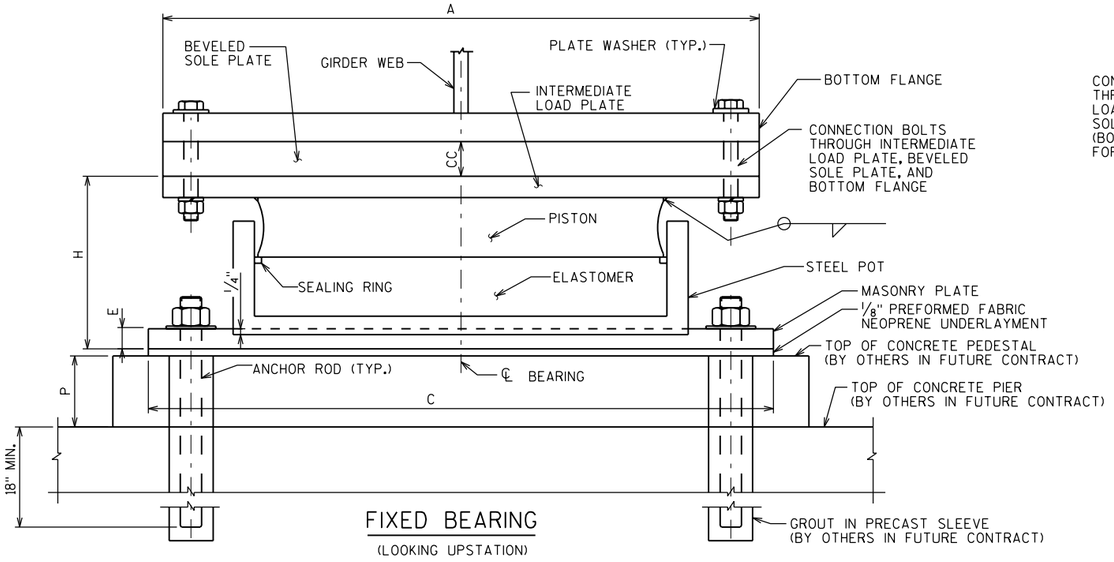
FOR REFERENCE ONLY

8

8

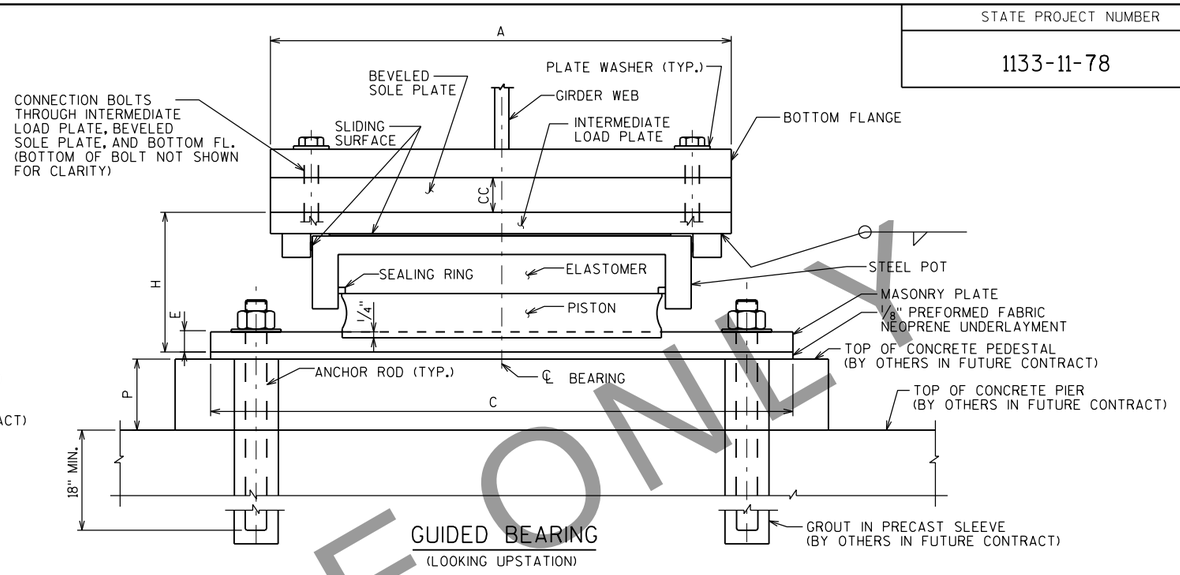
STATE PROJECT NUMBER

1133-11-78



FIXED BEARING

(LOOKING UPSTATION)



GUIDED BEARING

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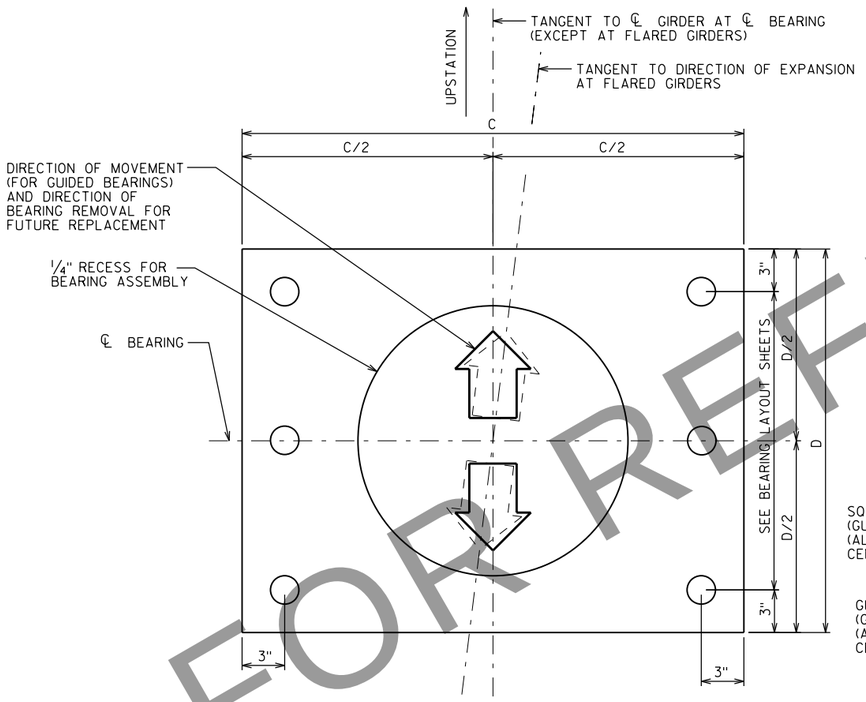
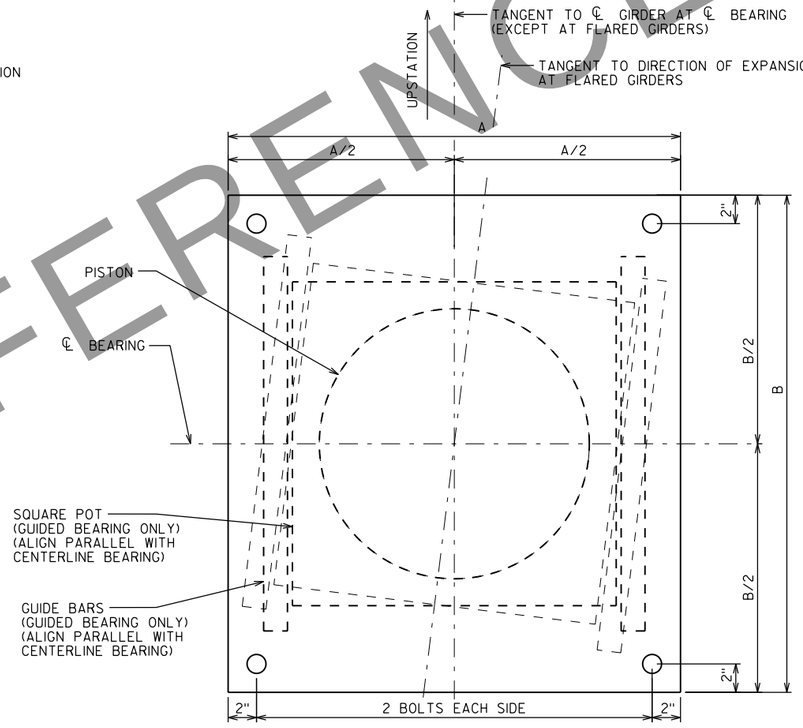


PLAN - MASONRY PLATE

SEE BEARING LAYOUT SHEETS FOR REQUIRED NUMBER OF ANCHOR RODS PER RESPECTIVE BEARING



PLAN - INTERMEDIATE LOAD PLATE

(SQUARE POT AND GUIDE BARS SHOWN FOR BEARINGS TANGENT TO ℄ GIRDER, EXCEPT FLARED GIRDERS)
(BEVELED SOLE PLATE SIMILAR)

NOTES:

SEE BEARING LAYOUT SHEETS FOR LOCATION-SPECIFIC DIMENSIONS.

JACKING STIFFENERS ARE PROVIDED, HOWEVER JACKING PADS ARE NOT REQUIRED.

DESIGN BOLTED CONNECTION BETWEEN BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE FOR THE COMBINED SPECIFIED HORIZONTAL LOADS SHOWN ON THE BEARING LAYOUT SHEETS PER AASHTO LRFD AND THE WISDOT BRIDGE MANUAL. FOR FUTURE BEARING REPLACEMENT, ARRANGE THE CONNECTION TO ENSURE ALL BOLTS CAN BE REMOVED WITHOUT INTERFERENCE FROM ANCHOR BOLTS OR OTHER OBSTRUCTIONS AFTER BEARING IS INSTALLED.

HOLES IN TOP PLATE MAY BE SLOTTED OR OVERSIZED AS REQUIRED TO FACILITATE STEEL ERECTION. IF OVERSIZED OR SLOTTED HOLES ARE USED, DESIGN CONNECTION AS SLIP-RESISTANT PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

HOLES IN MASONRY PLATE SHALL BE A MAXIMUM OF 1/8" LARGER THAN THE SPECIFIED ANCHOR BOLT DIAMETER.

BEVELED SOLE PLATE, INTERMEDIATE LOAD PLATE AND MASONRY PLATES ARE ALIGNED WITH THE GIRDER, EXCEPT FLARED GIRDERS, AND THE SUBSTRUCTURE BELOW.

BEVELED SOLE PLATE AND INTERMEDIATE LOAD PLATE THICKNESSES TO BE SELECTED BY THE BEARING DESIGNER. MINIMUM 1".

MASONRY PLATE THICKNESS TO BE CONFIRMED BY THE BEARING DESIGNER AND INCREASED IF REQUIRED, BUT NOT DECREASED FROM 1.75".

PROVIDE ANCHOR BOLTS IN ACCORDANCE WITH ASTM F1554 (GRADE 105) AND HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M232.

DESIGN BEARINGS TO PERMIT REPLACEMENT BY JACKING THE BRIDGE A MAXIMUM OF 1/2".

FINAL DISTANCE BETWEEN BOTTOM OF STEEL GIRDER AND TOP OF PIER IS THE SUMMATION OF "CC", THE ACTUAL "H" OF THE BEARING, 1/8" UNDERLAYMENT AND THE ACTUAL PEDESTAL HEIGHT "P". HEIGHT "P" IS ASSUMED TO BE 10" FOR ALL LOCATIONS.

ALL ELEMENTS SHOWN ARE PROVIDED BY THE BEARING MANUFACTURER (UNLESS OTHERWISE NOTED) AND COORDINATED WITH THE STEEL FABRICATOR.

THE CONTRACTOR IS RESPONSIBLE DURING STORAGE AND FUTURE ERECTION OF THE BEARING TO PREVENT OVER-ROTATION OR SLIDING OF THE BEARING. CONSTRUCTION ROTATIONS MUST NOT EXCEED THE ALLOWABLE ROTATIONS SHOWN.

DO NOT DISASSEMBLE ANY BEARING WITHOUT THE PRESENCE OF THE TECHNICAL REPRESENTATIVE OF THE BEARING MANUFACTURER.

INSTALL BEARINGS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AS APPROVED BY THE ENGINEER. THE MANUFACTURER SHALL HAVE ITS TECHNICAL REPRESENTATIVE PRESENT FOR THE PLACEMENT OF THE FIRST BEARING. AT THE OPTION OF THE ENGINEER, CONTRACTOR OR MANUFACTURER, THE TECHNICAL REPRESENTATIVE MAY BE REQUIRED TO BE PRESENT FOR THE PLACEMENT OF ANY NUMBER OF ADDITIONAL BEARINGS.

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY JRS | PLANS CK'D. NPP

BEARING DETAILS

SHEET 12 OF 29

1172

STEEL FABRICATION CONTRACT ONLY

8

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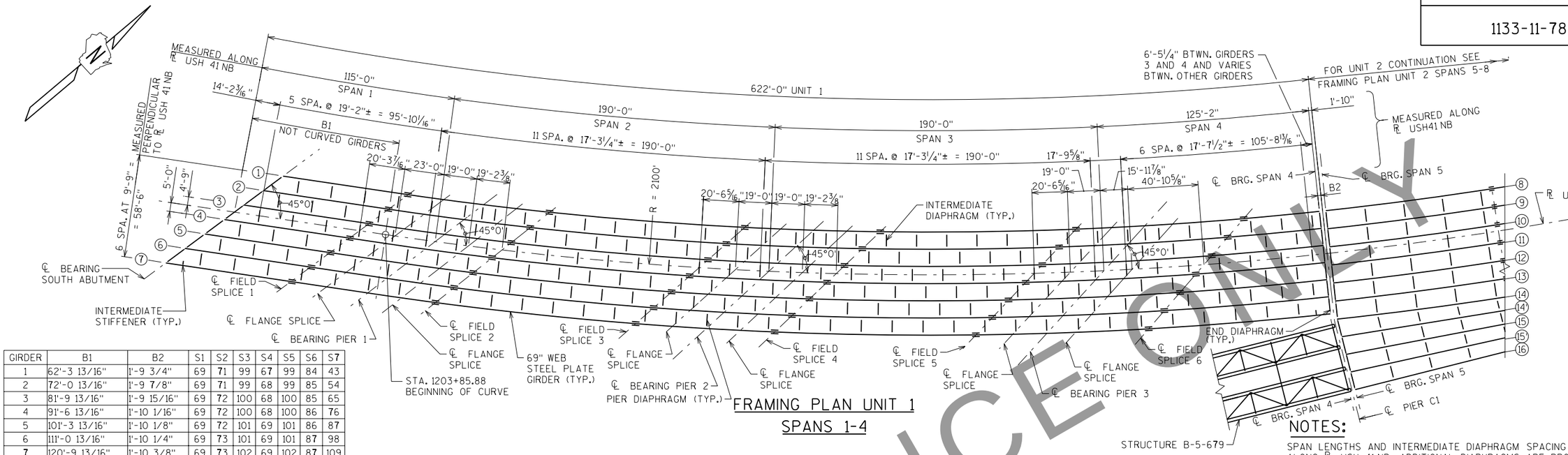
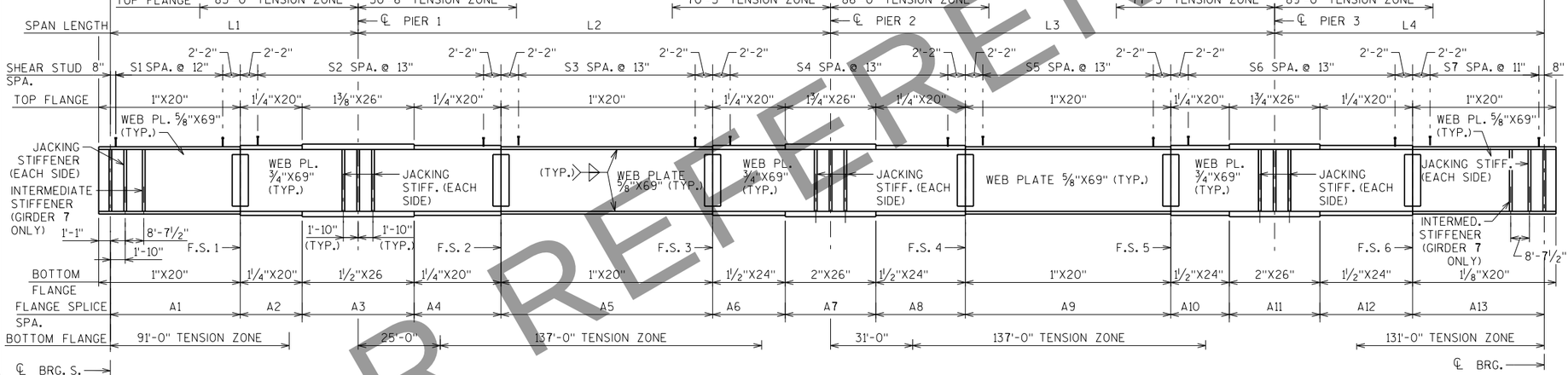
1133-11-78



FRAMING PLAN UNIT 1
SPANS 1-4

GIRDER	B1	B2	S1	S2	S3	S4	S5	S6	S7
1	62'-3 13/16"	1'-9 3/4"	69	71	99	67	99	84	43
2	72'-0 13/16"	1'-9 7/8"	69	71	99	68	99	85	54
3	81'-9 13/16"	1'-9 15/16"	69	72	100	68	100	85	65
4	91'-6 13/16"	1'-10 1/16"	69	72	100	68	100	86	76
5	101'-3 13/16"	1'-10 1/8"	69	72	101	69	101	86	87
6	111'-0 13/16"	1'-10 1/4"	69	73	101	69	101	87	98
7	120'-9 13/16"	1'-10 3/8"	69	73	102	69	102	87	109



GIRDER ELEVATION UNIT 1
SPANS 1-4

(CONNECTION STIFFENERS NOT SHOWN FOR CLARITY)

GIRDER	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	L1	L2	L3	L4	UNIT 1
1	71'-8 7/8"	20'-4 1/8"	41'-6 3/16"	18'-11 11/16"	110'-11 3/4"	20'-3 7/16"	37'-6 3/4"	18'-11 11/16"	110'-11 3/4"	20'-3 7/16"	34'-7"	40'-4 15/16"	43'-1 5/16"	114'-9 13/16"	187'-9 11/16"	187'-9 11/16"	99'-3 15/16"	589'-9 1/16"
2	71'-8 5/8"	20'-3 9/16"	41'-8 1/2"	19'-0 13/16"	111'-6"	20'-4 5/8"	37'-8 7/8"	19'-0 13/16"	111'-6"	20'-4 5/8"	34'-9"	40'-7 1/4"	53'-3 3/16"	114'-10 1/4"	188'-8 1/4"	188'-8 1/4"	109'-9"	601'-11 3/4"
3	71'-8 5/8"	20'-3 5/16"	41'-10 7/8"	19'-1 7/8"	112'-0 1/4"	20'-5 3/4"	37'-10 15/16"	19'-1 7/8"	112'-0 1/4"	20'-5 3/4"	34'-10 15/16"	40'-9 1/2"	63'-4 9/16"	114'-11 5/16"	189'-6 13/16"	189'-6 13/16"	120'-1 1/2"	614'-2 1/2"
4	71'-8 5/8"	20'-3 5/8"	42'-1 3/16"	19'-2 15/16"	112'-6 1/2"	20'-6 7/8"	38'-1 1/16"	19'-2 15/16"	112'-6 1/2"	20'-6 7/8"	35'-0 7/8"	40'-11 13/16"	73'-5 3/8"	115'-0 7/8"	190'-5 7/16"	190'-5 7/16"	130'-5 1/2"	626'-5 1/4"
5	71'-8 5/8"	20'-4 1/4"	42'-3 3/4"	19'-4"	113'-0 3/4"	20'-8 1/16"	38'-3 3/16"	19'-4"	113'-0 3/4"	20'-8 1/16"	35'-2 13/16"	41'-2 1/16"	83'-5 5/8"	115'-3"	191'-4"	191'-4"	140'-8 15/16"	638'-7 15/16"
6	71'-8 5/8"	20'-4 13/16"	42'-6 7/8"	19'-5 1/16"	113'-7"	20'-9 3/16"	38'-5 5/16"	19'-5 1/16"	113'-7"	20'-9 3/16"	35'-4 3/4"	41'-4 3/8"	93'-5 7/16"	115'-5 11/16"	192'-2 5/8"	192'-2 5/8"	150'-11 7/8"	650'-10 3/4"
7	71'-8 5/8"	20'-5 7/16"	42'-10 1/2"	19'-6 1/8"	114'-1 5/16"	20'-10 5/16"	38'-7 7/16"	19'-6 1/8"	114'-1 5/16"	20'-10 5/16"	35'-6 3/4"	41'-6 5/8"	103'-4 5/8"	115'-8 3/4"	193'-1 1/4"	193'-1 3/16"	161'-2 1/4"	663'-1 7/16"

NOTES:

SPAN LENGTHS AND INTERMEDIATE DIAPHRAGM SPACING MEASURED ALONG ℄ USH 41 NB. ADDITIONAL DIAPHRAGMS ARE PROVIDED AT CENTERLINE OF PIERS WHERE NONE IS PROVIDED BY ℄ SPACING SHOWN.

ALL DIMENSIONS ARE MEASURED ALONG THE CENTERLINE OF THE WEB. THE DIMENSIONS SHOWN ARE HORIZONTAL AND DO NOT ACCOUNT FOR CAMBER OR SLOPE OF GRADE.

ALL BOLTED CONNECTIONS SHALL BE SLIP CRITICAL TYPE USING 7/8-INCH DIAMETER HIGH STRENGTH BOLTS (ASTM A325) WITH WASHERS.

ALL STEEL SHALL BE ASTM A709 GRADE 50.

FOR SHOP WELDED BUTT SPLICES OF FLANGES, FABRICATOR MAY CHOOSE TO ELIMINATE SPLICE AND CONTINUE THICKER PLATE TO END OF SECTION AT FIELD SPLICE AT NO ADDITIONAL COST TO THE OWNER. ADJUST CAMBER IF PLATE SIZES ARE CHANGED.

TENSION ZONES SHOWN ABOVE THE GIRDER ELEVATION INDICATE TENSION ZONES FOR TOP FLANGE AND UPPER PORTION OF WEB.

TENSION ZONES SHOWN BELOW THE GIRDER ELEVATION INDICATE TENSION ZONES FOR BOTTOM FLANGE AND LOWER PORTION OF WEB.

FOR OPTIONAL SHOP SPLICE DETAIL AS REQUIRED DUE TO MAXIMUM PLATE LENGTHS AVAILABLE FROM MILL, SEE PLATE GIRDER DETAILS SHEET.

SHEAR STUDS FURNISHED AND INSTALLED BY OTHERS DURING FUTURE ERECTION CONTRACT.

THE COLOR OF THE FINAL COAT OF PAINT ON ALL STRUCTURAL STEEL SHALL BE AS SLECTED BY THE ENGINEER.

℄ OF BEARING AT PIER C1 SPAN 4 IS RADIAL TO ℞ 'NMC'.

ALL INTERMEDIATE DIAPHRAGMS ARE RADIAL TO ℞ 'NMC'. U.N.O.

INTERMEDIATE STIFFENERS FOR UNIT 1 ARE ON THE INSIDE FACE OF THE EXTERIOR GIRDER 7 AND PLACED AS SHOWN ON THE GIRDER ELEVATION.

INTERMEDIATE STIFFENERS FOR UNIT 2 ARE ON THE INSIDE FACE OF GIRDERS 8 AND 16 AND ON BOTH SIDES OF THE WEB ON ALL INTERIOR GIRDERS AND PLACED AS SHOWN ON THE GIRDER ELEVATIONS.

LEGEND:

F.S. - FIELD SPLICE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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FRAMING PLAN UNIT 1 SPANS 1 - 4

SHEET 13 OF 29

1173

STEEL FABRICATION CONTRACT ONLY

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DATE: 4.3.2013 L.D.

STATE PROJECT NUMBER
1133-11-78

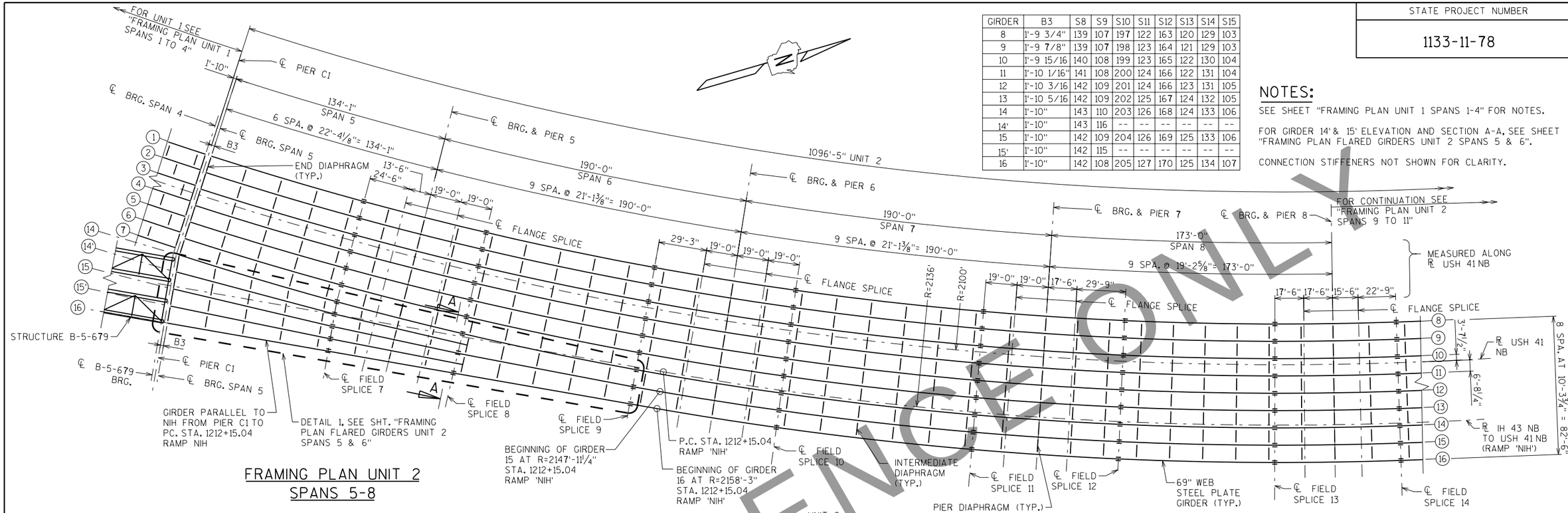
GIRDER	B3	S8	S9	S10	S11	S12	S13	S14	S15
8	1'-9 3/4"	139	107	197	122	163	120	129	103
9	1'-9 7/8"	139	107	198	123	164	121	129	103
10	1'-9 15/16"	140	108	199	123	165	122	130	104
11	1'-10 1/16"	141	108	200	124	166	122	131	104
12	1'-10 3/16"	142	109	201	124	166	123	131	105
13	1'-10 5/16"	142	109	202	125	167	124	132	105
14	1'-10"	143	110	203	126	168	124	133	106
14'	1'-10"	143	116	--	--	--	--	--	--
15	1'-10"	142	109	204	126	169	125	133	106
15'	1'-10"	142	115	--	--	--	--	--	--
16	1'-10"	142	108	205	127	170	125	134	107

NOTES:

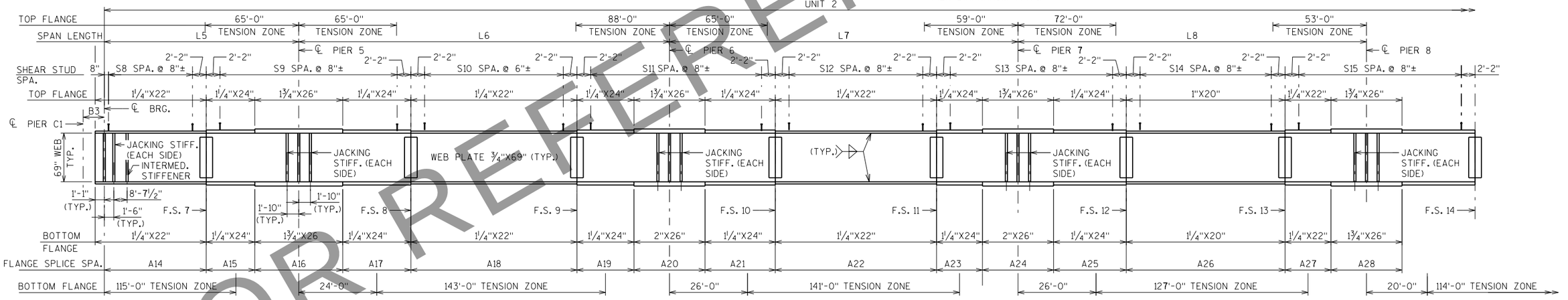
SEE SHEET "FRAMING PLAN UNIT 1 SPANS 1-4" FOR NOTES.

FOR GIRDER 14' & 15' ELEVATION AND SECTION A-A, SEE SHEET "FRAMING PLAN FLARED GIRDERS UNIT 2 SPANS 5 & 6".

CONNECTION STIFFENERS NOT SHOWN FOR CLARITY.



FRAMING PLAN UNIT 2
SPANS 5-8



GIRDER ELEVATION UNIT 2
SPANS 5-8

(CONNECTION STIFFENERS NOT SHOWN FOR CLARITY)

LEGEND:

F.S. - FIELD SPLICE

GIRDER	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	L5	L6	L7	L8
8	94'-11 11/16"	24'-2 5/8"	32'-1 1/2"	18'-9 3/8"	102'-6 5/8"	28'-10 15/16"	37'-6 3/4"	18'-9 3/8"	112'-8 3/16"	18'-9 3/8"	36'-0 15/16"	29'-4 7/8"	89'-8 7/16"	17'-3 9/16"	32'-7 7/16"	132'-6 7/16"	187'-9 11/16"	187'-9 11/16"	171'-0"
9	95'-5 3/8"	24'-4 1/16"	32'-3 7/16"	18'-10 1/2"	103'-0 3/4"	29'-0 11/16"	37'-9"	18'-10 1/2"	113'-2 15/16"	18'-10 1/2"	36'-3 1/16"	29'-6 5/8"	90'-1 3/4"	17'-4 5/8"	32'-9 3/8"	133'-2 5/16"	188'-8 7/8"	188'-8 7/8"	171'-10 1/4"
10	95'-11"	24'-5 1/2"	32'-5 5/16"	18'-11 5/8"	103'-6 7/8"	29'-2 3/8"	37'-11 3/16"	18'-11 5/8"	113'-9 5/8"	18'-11 5/8"	36'-5 1/4"	29'-8 3/8"	90'-7 1/8"	17'-5 5/8"	32'-11 5/16"	133'-10 1/4"	189'-8 1/16"	189'-8 1/16"	172'-8 7/16"
11	96'-4 11/16"	24'-6 15/16"	32'-7 1/4"	19'-0 3/4"	104'-0 15/16"	29'-4 1/8"	38'-1 7/16"	19'-0 3/4"	114'-4 3/8"	19'-0 3/4"	36'-7 3/8"	29'-10 1/8"	91'-0 7/16"	17'-6 11/16"	33'-1 1/4"	134'-6 1/8"	190'-7 1/4"	190'-7 1/4"	173'-6 5/8"
12	96'-10 5/16"	24'-8 3/8"	32'-9 3/16"	19'-1 7/8"	104'-7 1/16"	29'-5 13/16"	38'-3 11/16"	19'-1 7/8"	114'-11 1/16"	19'-1 7/8"	36'-9 9/16"	29'-11 7/8"	91'-5 13/16"	17'-7 11/16"	33'-3 3/16"	135'-2"	191'-6 7/16"	191'-6 7/16"	174'-4 13/16"
13	97'-4"	24'-9 13/16"	32'-11 1/16"	19'-2 15/16"	105'-1 3/16"	29'-7 9/16"	38'-5 15/16"	19'-2 15/16"	115'-5 13/16"	19'-2 15/16"	36'-11 11/16"	30'-1 5/8"	91'-11 3/16"	17'-8 3/4"	33'-5 1/8"	135'-9 15/16"	192'-5 5/8"	192'-5 5/8"	175'-3"
14	97'-11 1/16"	24'-11 1/4"	33'-1"	19'-4 1/16"	105'-7 5/16"	29'-9 5/16"	38'-8 3/16"	19'-4 1/16"	116'-0 1/2"	19'-4 1/16"	37'-1 7/8"	30'-3 3/8"	92'-4 1/2"	17'-9 3/4"	33'-7 1/8"	136'-7 1/4"	193'-4 7/8"	193'-4 7/8"	176'-1 3/16"
15	97'-5 1/16"	23'-8 15/16"	33'-3 11/16"	19'-5 1/2"	106'-2"	29'-11 1/16"	38'-10 7/16"	19'-5 3/16"	116'-7 1/4"	19'-5 3/16"	37'-4"	30'-5 1/8"	92'-9 7/8"	17'-10 13/16"	33'-9 1/16"	135'-0"	194'-5 3/8"	194'-4 1/16"	176'-11 3/8"
16	97'-3 1/16"	22'-6 15/16"	33'-7"	19'-7 3/16"	106'-9 1/8"	30'-0 3/4"	39'-0 5/8"	19'-6 5/16"	117'-1 15/16"	19'-6 5/16"	37'-6 1/8"	30'-6 7/8"	93'-3 3/16"	17'-11 13/16"	33'-11"	133'-9 1/2"	195'-6 15/16"	195'-3 1/4"	177'-9 9/16"

(SEE "FRAMING PLAN UNIT 2 SPANS 9 TO 11" FOR FLANGE SIZES FOR GIRDER 16 THAT DIFFER FROM SHOWN ON GIRDER ELEVATION UNIT 2 ON THIS SHEET)

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY: KJZ | PLANS CK'D.: NPP

FRAMING PLAN UNIT 2 SPANS 5 TO 8

SHEET 14 OF 29

1174

DATE: 4/3/2013

I.D.

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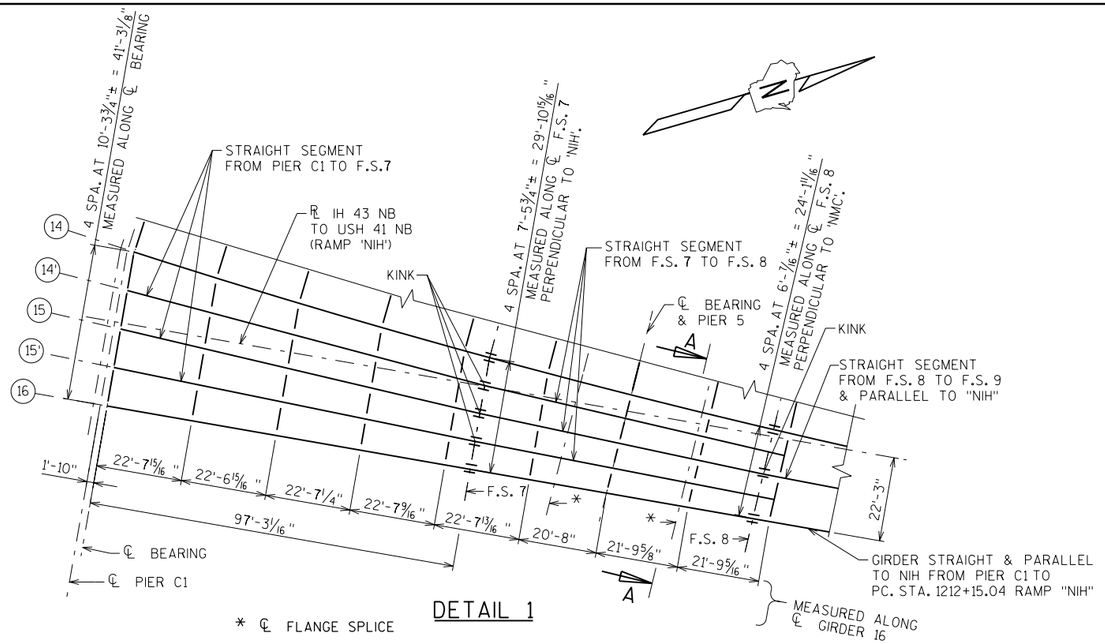
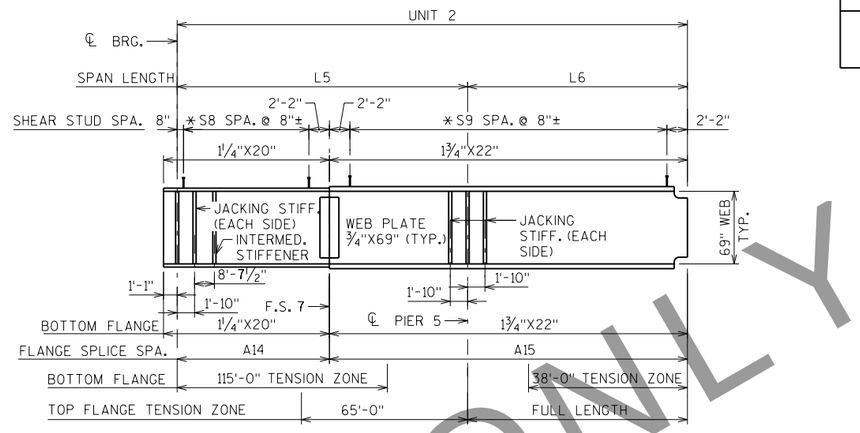
STATE PROJECT NUMBER

1133-11-78



DETAIL 1

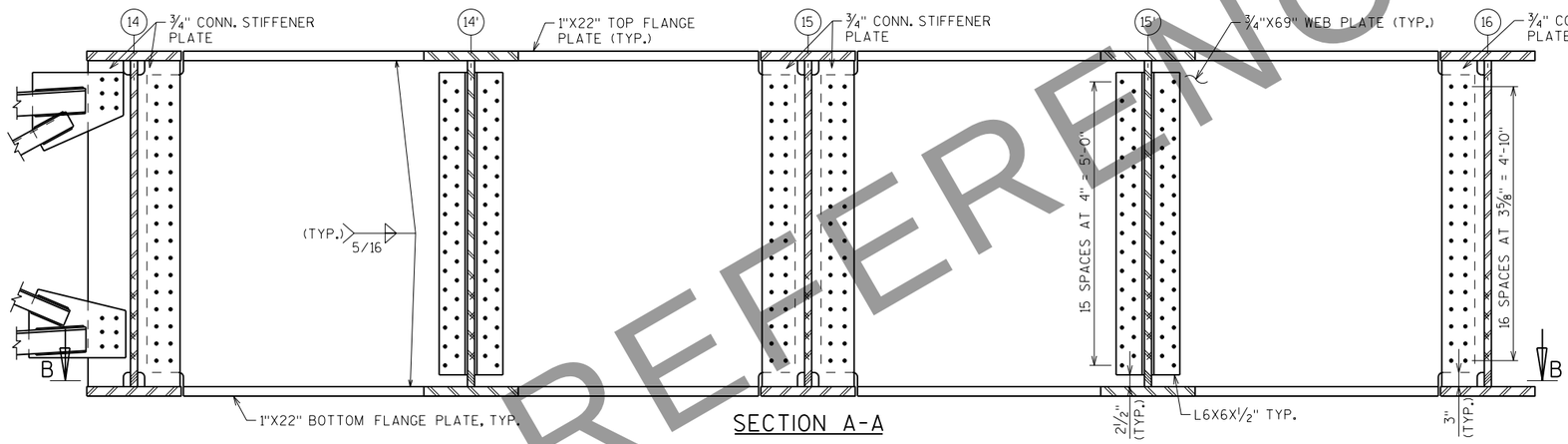


GIRDER 14' & 15' ELEVATION UNIT 2
SPANS 5 & 6

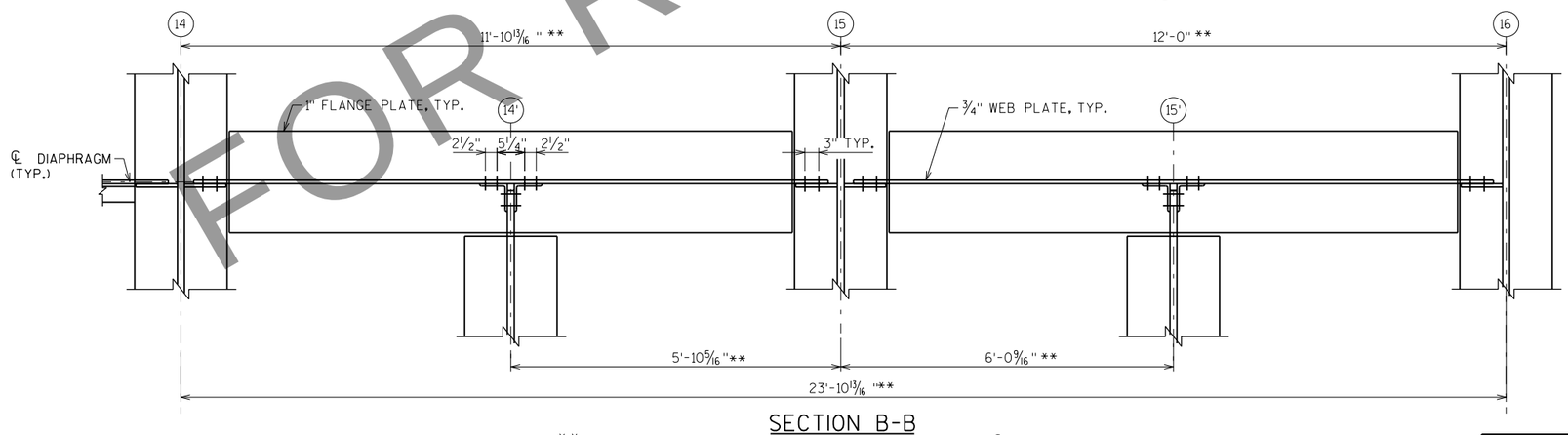
FOR S8 & S9, SEE "FRAMING PLAN UNIT 2 SPANS 5 TO 8"

CONNECTION STIFFENERS NOT SHOWN FOR CLARITY

GIRDER	A14	A15	L5	L6	UNIT 2
14'	97'-7 1/2"	81'-2 3/4"	135'-9"	43'-1 1/4"	178'-10 1/4"
15'	97'-3 9/16"	80'-5 1/2"	134'-4 3/16"	43'-4 7/8"	177'-9 1/16"



SECTION A-A



SECTION B-B

** SPACING VARIES. DIMENSIONS INDICATED ARE TAKEN AT ℄ OF DIAPHRAGM.

NOTES:

SEE SHEET "FRAMING PLAN UNIT 1 SPANS 1-4" FOR NOTES.

SEE SHEET "FRAMING PLAN UNIT 2 SPANS 5 TO 8" FOR LOCATION OF DETAIL 1.

LEGEND:

F.S. - FIELD SPLICE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI | PLANS CK'D. NPP

FRAMING PLAN
FLARED GIRDERS
UNIT 2
SPANS 5 & 6

SHEET 15 OF 29
1175

STEEL FABRICATION CONTRACT ONLY

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DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER
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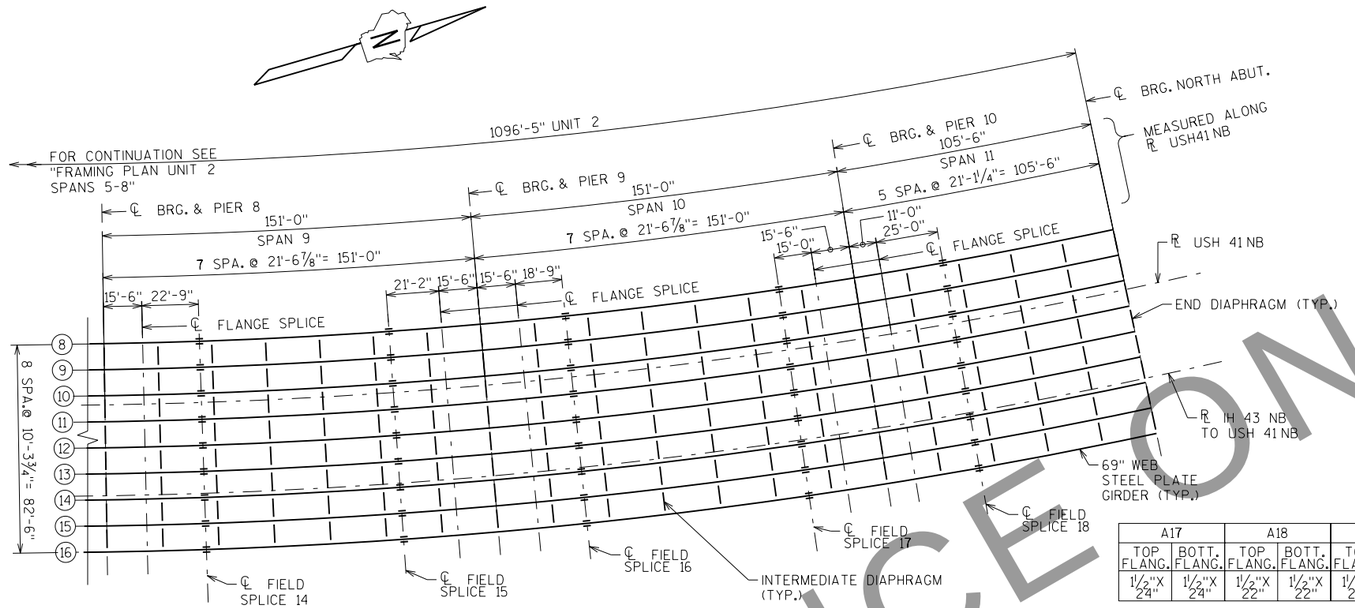


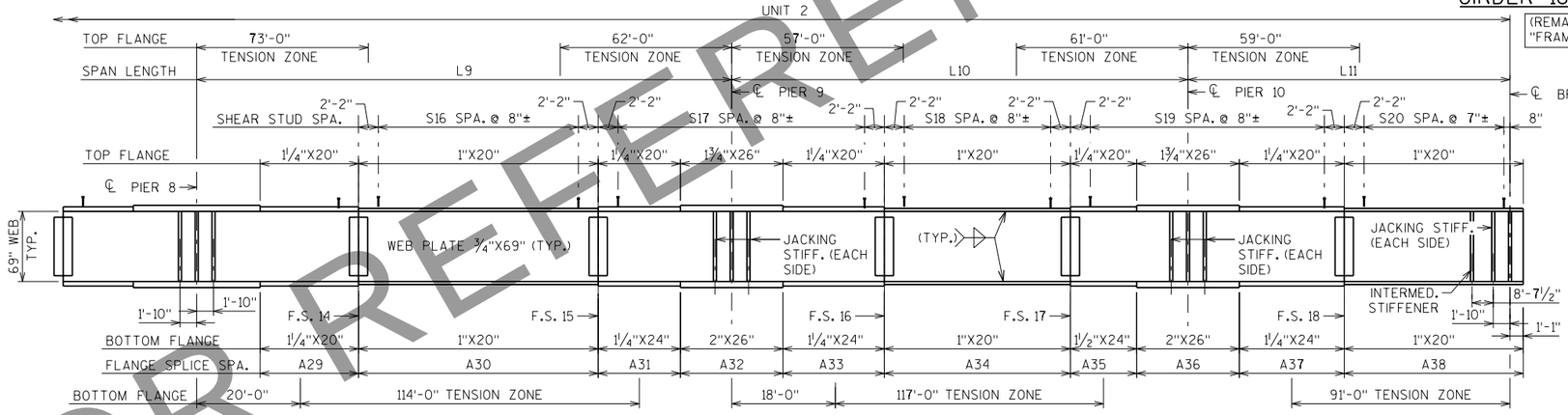
FRAMING PLAN UNIT 2
SPANS 9-11

A17		A18		A19		A21		A22		A23	
TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.
1½"X 24"	1½"X 24"	1½"X 22"	1½"X 22"	1½"X 24"	1½"X 24"	1⅜"X 24"	1⅜"X 24"	1⅜"X 22"	1⅜"X 22"	1⅜"X 24"	1⅜"X 24"

A29		A31		A32		A33		A35		A36		A37	
TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.	BOTT. FLANG.	TOP FLANG.
1¼"X 22"	1¼"X 22"	1¼"X 22"	1¼"X 22"	1½"X 24"	1½"X 24"	1¼"X 22"	1¼"X 22"	1¼"X 22"	1¼"X 22"	1½"X 24"	1½"X 24"	1¼"X 22"	1¼"X 22"

GIRDER 16 FLANGE SIZES

(REMAINING SIZES AS SHOWN IN ELEVATION ON SHEET "FRAMING PLAN UNIT 2 SPANS 5 TO 8")



GIRDER ELEVATION UNIT 2
SPANS 9-11

CONNECTION STIFFENERS NOT SHOWN FOR CLARITY

GIRDER	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	L9	L10	L11	UNIT 2	S16	S17	S18	S19	S20
8	22'-5 7/8"	75'-2 7/16"	20'-11 1/16"	30'-7 11/16"	18'-6 3/8"	85'-3 1/16"	14'-9 15/16"	26'-2 5/16"	24'-8 9/16"	68'-8 3/8"	149'-3 1/16"	149'-3 1/16"	104'-3 3/8"	1081'-11 5/16"	107	99	122	93	113
9	22'-7 3/16"	75'-6 15/16"	21'-0 5/16"	30'-9 1/2"	18'-7 1/2"	85'-8 1/8"	14'-10 13/16"	26'-3 7/8"	24'-10"	69'-0 7/16"	149'-12"	149'-12"	104'-9 5/8"	1087'-3 13/16"	107	100	123	93	114
10	22'-8 1/2"	75'-11 7/16"	21'-1 9/16"	30'-11 3/8"	18'-8 5/8"	86'-1 3/16"	14'-11 11/16"	26'-5 7/16"	24'-11 1/2"	69'-4 9/16"	150'-8 7/8"	150'-8 7/8"	105'-3 13/16"	1092'-8 5/16"	108	100	123	94	115
11	22'-9 7/8"	76'-3 15/16"	21'-2 13/16"	31'-1 3/16"	18'-9 11/16"	86'-6 5/16"	15'-0 9/16"	26'-7"	25'-0 15/16"	69'-8 5/8"	151'-5 3/4"	151'-5 3/4"	105'-10 1/16"	1098'-0 13/16"	108	101	124	94	115
12	22'-11 3/16"	76'-8 3/8"	21'-4 1/16"	31'-3"	18'-10 13/16"	86'-11 3/8"	15'-1 7/16"	26'-8 9/16"	25'-2 7/16"	70'-0 3/4"	152'-2 11/16"	152'-2 11/16"	106'-4 1/4"	1103'-5 5/16"	109	101	124	95	116
13	23'-0 9/16"	77'-0 7/8"	21'-5 5/16"	31'-4 13/16"	18'-11 15/16"	87'-4 7/16"	15'-2 5/16"	26'-10 1/8"	25'-3 7/8"	70'-4 7/8"	152'-11 9/16"	152'-11 9/16"	106'-10 7/16"	1108'-9 13/16"	110	102	125	95	116
14	23'-1 7/8"	77'-5 3/8"	21'-6 9/16"	31'-6 11/16"	19'-1 1/16"	87'-9 9/16"	15'-3 1/4"	26'-11 11/16"	25'-5 3/8"	70'-8 15/16"	153'-8 7/16"	153'-8 7/16"	107'-4 11/16"	1114'-3 3/4"	110	102	126	96	117
15	23'-3 1/4"	77'-9 13/16"	21'-7 13/16"	31'-8 1/2"	19'-2 1/8"	88'-2 5/8"	15'-4 1/8"	27'-1 1/4"	25'-6 7/8"	71'-1 1/16"	154'-5 3/8"	154'-5 3/8"	107'-10 7/8"	1117'-6 7/16"	111	103	126	96	118
16	23'-4 9/16"	78'-2 5/16"	21'-9 1/16"	31'-10 5/16"	19'-3 1/4"	88'-7 11/16"	15'-5"	27'-2 13/16"	25'-8 5/16"	71'-5 1/8"	155'-2 1/4"	155'-2 1/4"	108'-5 1/8"	1121'-2 7/8"	111	103	127	97	118

LEGEND:
F.S. - FIELD SPLICE

NOTES:
SPAN LENGTHS AND INTERMEDIATE DIAPHRAGM SPACING MEASURED ALONG ℄ USH 41 NB

SEE SHEET "FRAMING PLAN UNIT 1 SPANS 1-4" FOR NOTES.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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FRAMING PLAN UNIT 2 SPANS 9 TO 11

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1176

STEEL FABRICATION CONTRACT ONLY

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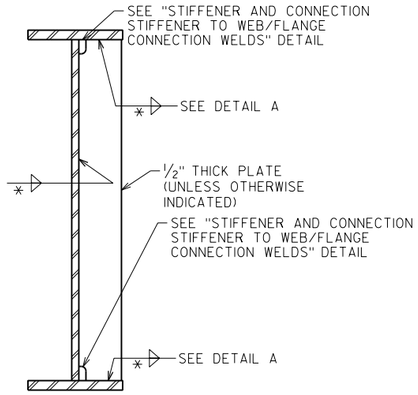
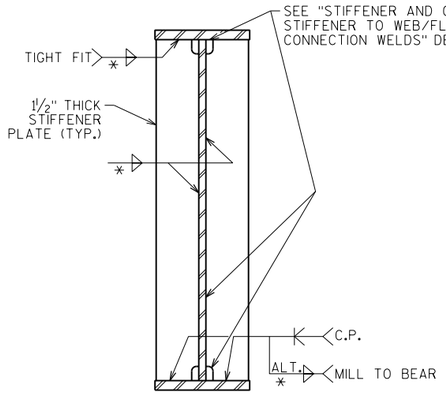
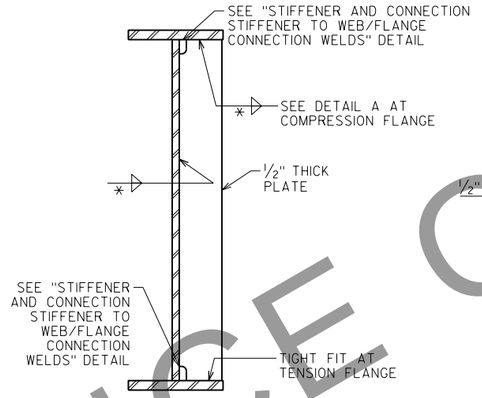
* SEE GENERAL NOTES SHEET FOR WELD SIZE. WELD SIZE INDICATED REFERS TO MINIMUM WELD LEG DIMENSION.



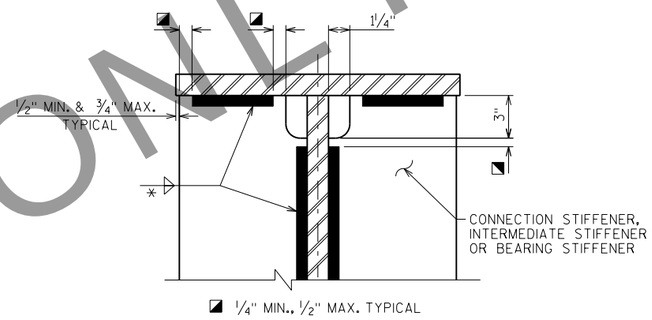
CONNECTION STIFFENER DETAILS



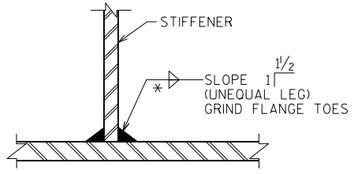
BEARING STIFFENER DETAILS AND JACKING MAINT. STIFFENER



INTERMEDIATE STIFFENER DETAILS

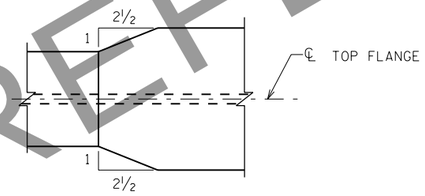


STIFFENER AND CONNECTION STIFFENER, TO WEB/FLANGE CONNECTION WELDS



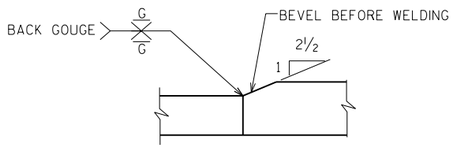
DETAIL A

CONNECTION STIFFENER DETAIL AT TENSION FLANGE

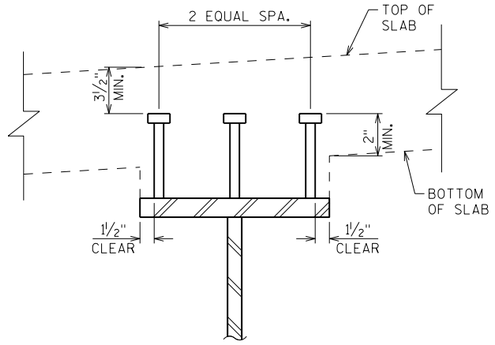


FLANGE WIDTH TRANSITION DETAIL

NOT TO SCALE



FLANGE THICKNESS TRANSITION DETAIL



SHEAR CONNECTION DETAIL

SHEAR STUD CONNECTORS ARE SHOWN FOR REFERENCE ONLY AND ARE NOT FURNISHED OR INSTALLED AS PART OF THIS CONTRACT

NOTES:

AT EXTERIOR GIRDERS PLACE INTERMEDIATE TRANSVERSE STIFFENERS ON INTERIOR FACE OF GIRDER.

AT INTERIOR GIRDERS PLACE INTERMEDIATE TRANSVERSE STIFFENERS ON ONE SIDE OF GIRDER.

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PLATE GIRDER DETAILS

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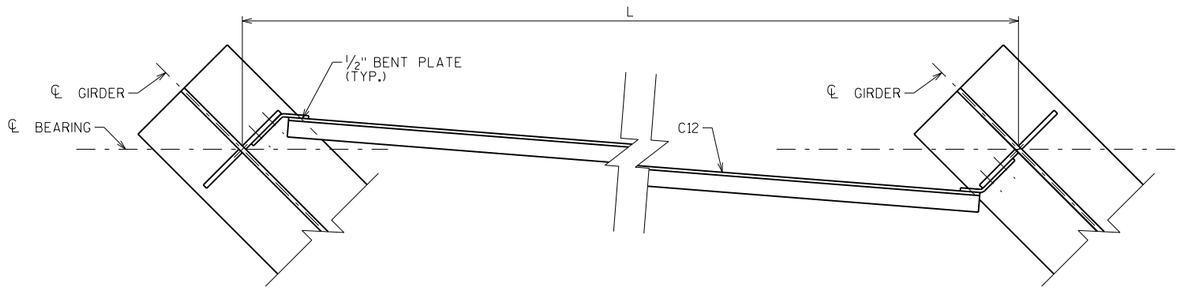
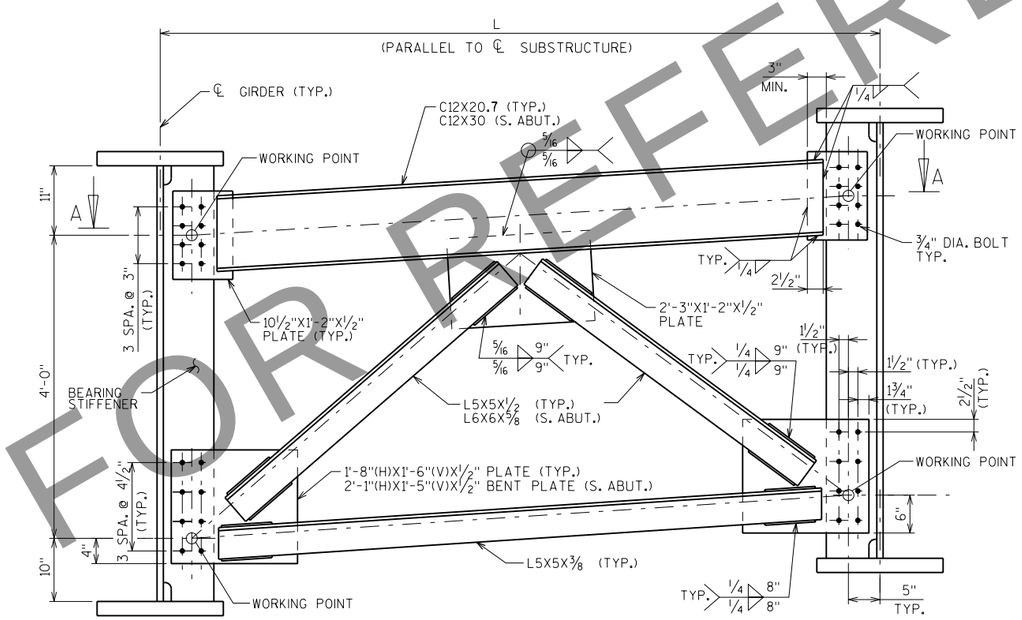


SECTION A-A
END DIAPHRAGM CONN. PLAN DETAIL

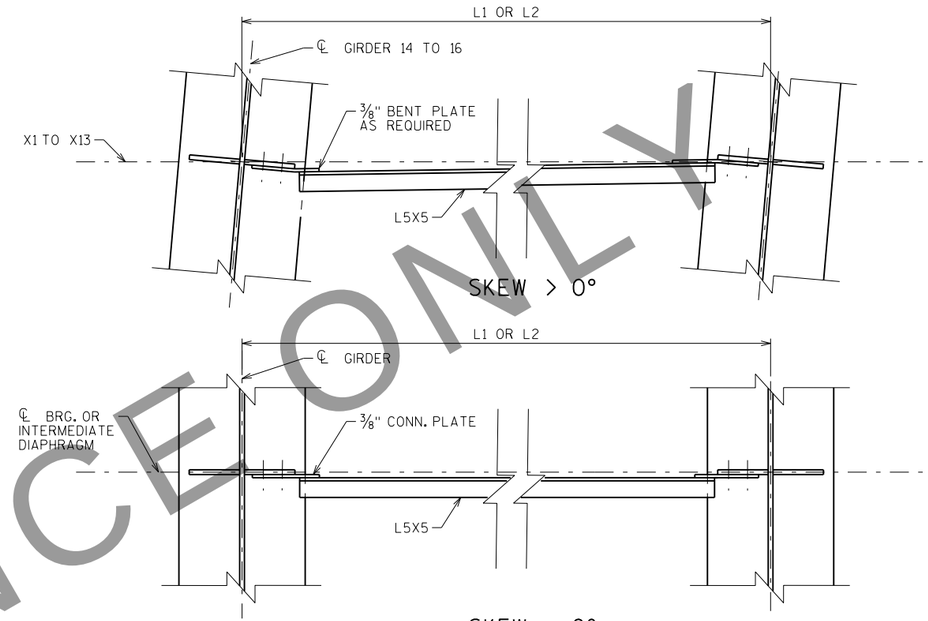
(SHOWN AT SOUTH ABUTMENT. AT PIER C1 AND NORTH ABUTMENT SIMILAR)

END DIAPHRAGMS TABLE

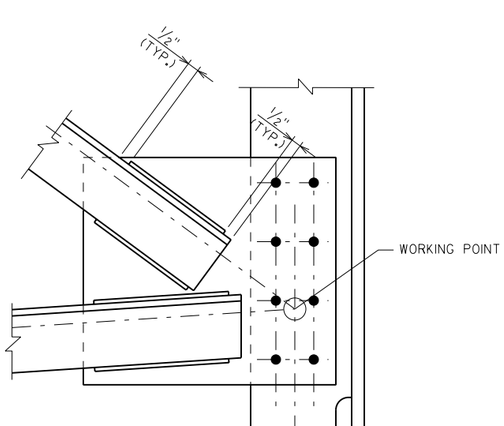
LOCATION	DIM. L	NO. OF DIAPHRAGMS REQUIRED
UNIT 1, SOUTH ABUT.	13'-9 7/16"	6
UNIT 1, SPAN 4, PIER C1	9'-9"	6
UNIT 2, SPAN 5, PIER C1	10'-3 3/4"	10
UNIT 2, NORTH ABUT.	10'-3 3/4"	8



END DIAPHRAGM DETAILS AT ABUTMENTS AND END OF UNIT



SECTION B-B
INTERMEDIATE & PIER DIAPHRAGM CONN. PLAN DETAIL



TYPICAL CONNECTION WELDS

NOTE:

SEE "INTERMEDIATE AND PIER DIAPHRAGMS DETAILS" SHEET FOR LOCATION OF SECTION B-B

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END DIAPHRAGM DETAILS

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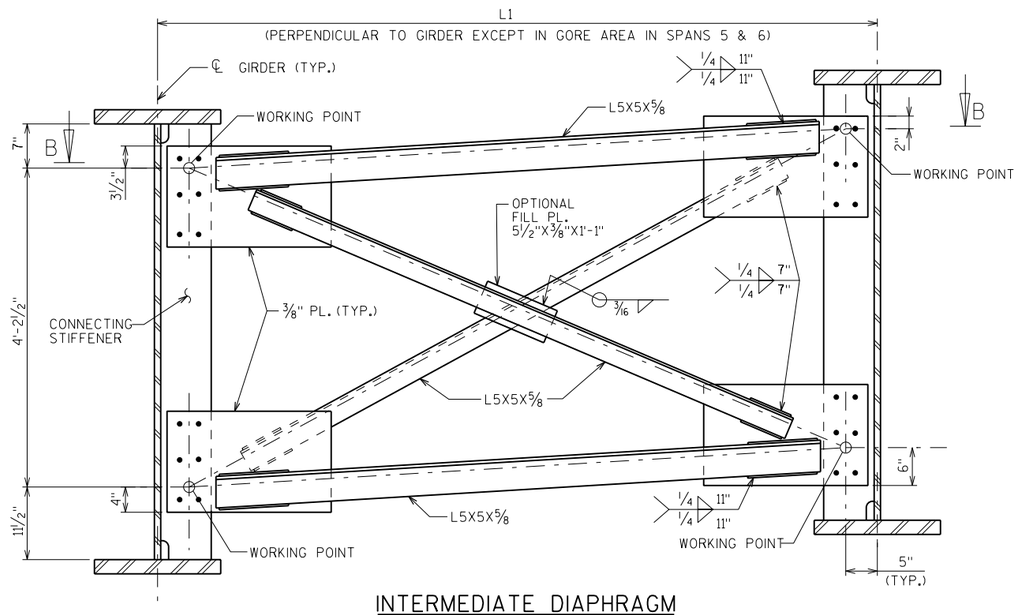
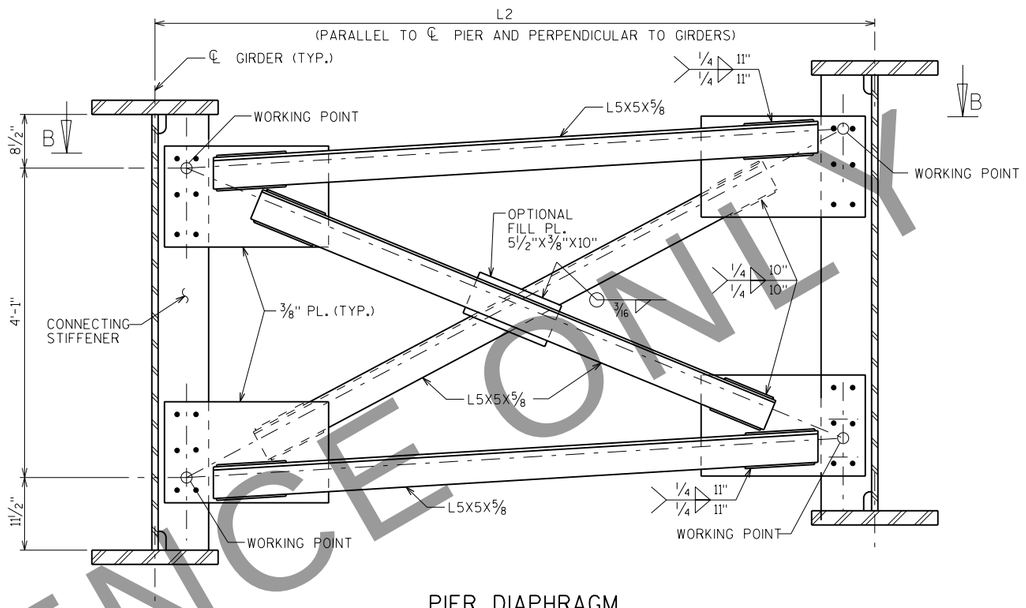


INTERMEDIATE DIAPHRAGM



PIER DIAPHRAGM

INTERMEDIATE DIAPHRAGMS TABLE

LOCATION	H	V	DIM. L1	NO. OF DIAPHRAGMS REQUIRED
UNIT 1, SPANS 1 THROUGH 4	1'-11"	1'-3"	9'-9"	192
UNIT 2, SPANS 5 THROUGH 11 (EXCEPT LISTED IN "TABLE 2")	1'-11"	1'-3"	10'-3 3/4"	336
UNIT 2, X1 TO X7 BETWEEN GIRDER 14 & 16	1'-11"	1'-3"	SEE TABLE 2	24
UNIT 2, X9 TO X13 BETWEEN GIRDER 14 & 16	2'-2"	1'-4"	SEE TABLE 2	10

PIER DIAPHRAGMS TABLE

LOCATION	H	V	DIM. L2	NO. OF DIAPHRAGMS REQUIRED
UNIT 1, PIERS 1 TO 3 BETWEEN GIRDERS 1 THROUGH 7	2'-2"	1'-4"	9'-9"	21
UNIT 2, PIER 5 BETWEEN GIRDERS 8 THROUGH 14	2'-2"	1'-4"	10'-3 3/4"	6
UNIT 2, PIERS 6 THROUGH 10 BETWEEN GIRDERS 8 THROUGH 16	2'-2"	1'-4"	10'-3 3/4"	40
BETWEEN GIRDERS 14 & 14' AT X6	1'-10"	1'-7"	6'-4 13/16"	1
BETWEEN GIRDERS 14' & 15 AT X6	1'-10"	1'-7"	6'-9 3/16"	1
BETWEEN GIRDERS 15 & 15' AT X6	1'-10"	1'-7"	6'-9 5/16"	1
BETWEEN GIRDERS 15' & 16 AT X6	1'-10"	1'-7"	6'-9 1/2"	1

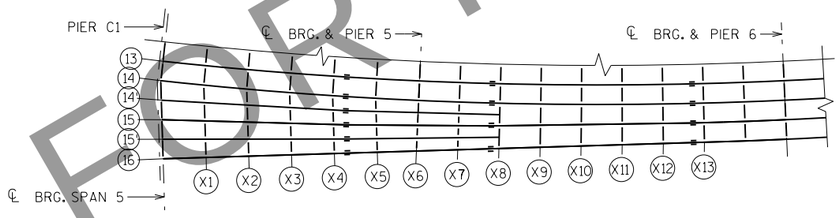
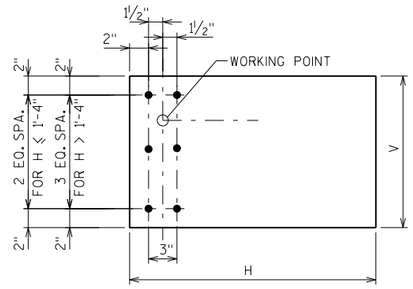


TABLE 2 - DIMENSION L1 FOR INTERMEDIATE DIAPHRAGMS

LOCATION	PERPENDICULAR TO RL NIH					PERPENDICULAR TO RL NMC					
	X1	X2	X3	X4	X5	X7	X9	X10	X11	X12	X13
BETWEEN GIRDERS 14 & 14'	9'-3"	8'-5 3/16"	7'-10 5/16"	7'-6 3/8"	6'-11 7/16"	6'-1 5/16"	---	---	---	---	---
BETWEEN GIRDERS 14' & 15	9'-7 13/16"	8'-11 15/16"	8'-4"	7'-8 1/8"	7'-2 3/16"	6'-4 5/16"	11'-1 15/16"	10'-7 13/16"	10'-4 3/16"	10'-3 1/4"	10'-3 13/16"
BETWEEN GIRDERS 15 & 15'	9'-7 13/16"	8'-11 15/16"	8'-4"	7'-8 1/8"	7'-2 1/8"	6'-4 3/8"	---	---	---	---	---
BETWEEN GIRDERS 15' & 16	9'-7 13/16"	8'-11 15/16"	8'-4"	7'-8 1/8"	7'-2 1/8"	6'-4 7/16"	11'-7 3/4"	11'-3 9/16"	10'-11 5/16"	10'-7 1/8"	10'-4"



GUSSET PLATE DETAIL

NOTE:

SEE "END DIAPHRAGM DETAILS" SHEET FOR SECTION B-B.

SEE "END DIAPHRAGM DETAILS" SHEET FOR END DIAPHRAGM DETAILS AT PIER C1.

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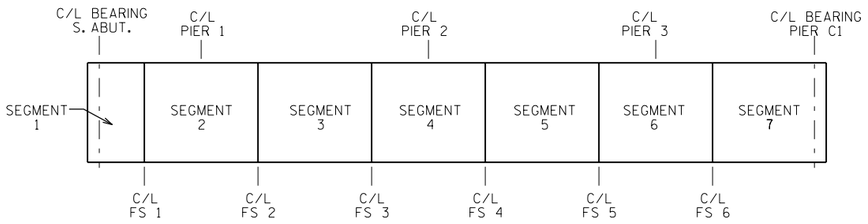


FIELD SPLICE DESIGNATIONS - UNIT 1

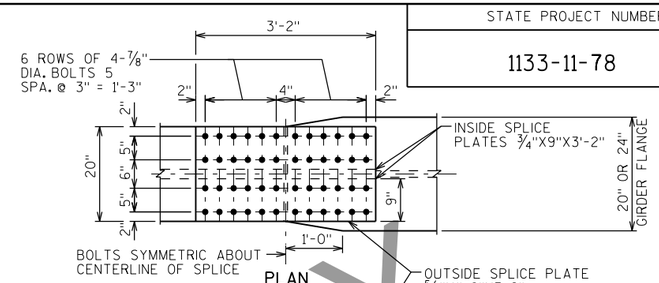
(APPLIES TO ALL UNIT 1 GIRDERS)

FIELD SPLICE TYPE & FILL PLATE THICKNESS - UNIT 1

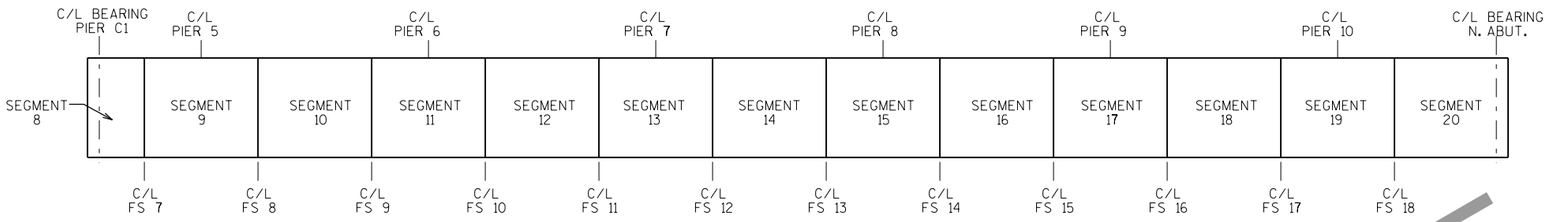
LOCATION		UNIT 1					
		FS 1	FS 2	FS 3	FS 4	FS 5	FS 6
GIRDERS 1 TO 7	FLANGE SPLICE	TYPE 1	TYPE 1	TYPE 1	TYPE 1	TYPE 1	TYPE 1
	TOP FL. FILL PLATE	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
	BOTTOM FL. FILL PLATE	1/4"	1/4"	1/2"	1/2"	1/2"	1/2"

LEGEND

FS = FIELD SPLICE

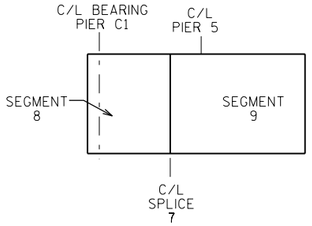


TOP AND BOTTOM FLANGE SPLICE TYPE 3



FIELD SPLICE DESIGNATIONS - UNIT 2

(APPLIES TO UNIT 2 GIRDERS 8-16)

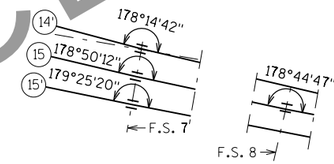


FIELD SPLICE DESIGNATIONS - UNIT 2

(APPLIES TO UNIT 2 GIRDERS 14' AND 15')

FIELD SPLICE TYPE & FILL PLATE THICKNESS - UNIT 2

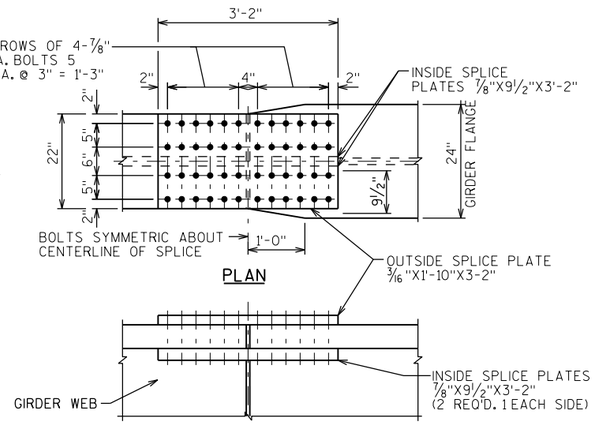
	LOCATION	UNIT 2											
		FS 7	FS 8	FS 9	FS 10	FS 11	FS 12	FS 13	FS 14	FS 15	FS 16	FS 17	FS 18
GIRDERS 8 TO 15	FLANGE SPLICE	TYPE 2	TYPE 2	TYPE 2	TYPE 2	TYPE 2	TYPE 3	TYPE 3	TYPE 1	TYPE 1	TYPE 1	TYPE 1	TYPE 1
	TOP FL. FILL PLATE	-	-	-	-	-	-	-	1/4"	1/4"	1/4"	1/4"	1/4"
	BOTTOM FL. FILL PLATE	-	-	-	-	-	-	-	1/4"	1/4"	1/4"	1/4"	1/4"
GIRDERS 14' & 15'	FLANGE SPLICE	TYPE 3	-	-	-	-	-	-	-	-	-	-	-
	TOP FL. FILL PLATE	1/2"	-	-	-	-	-	-	-	-	-	-	-
	BOTTOM FL. FILL PLATE	1/2"	-	-	-	-	-	-	-	-	-	-	-
GIRDER 16	FLANGE SPLICE	TYPE 2	TYPE 4	TYPE 4	TYPE 4	TYPE 4	TYPE 3	TYPE 3	TYPE 1	TYPE 1	TYPE 1	TYPE 1	TYPE 1
	TOP FL. FILL PLATE	-	-	-	-	-	-	-	1/4"	1/4"	1/4"	1/4"	1/4"
	BOTTOM FL. FILL PLATE	-	-	-	-	-	-	-	1/4"	1/4"	1/4"	1/4"	1/4"



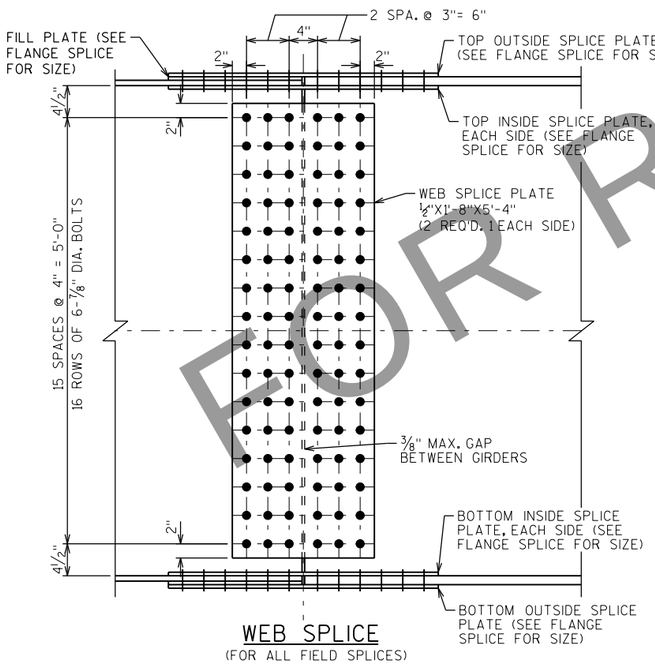
KINKED GIRDER DETAIL

(BEND FLANGE AND WEB SPLICE AND FILL PLATES AT THE KINK AS REQUIRED)

LEGEND F.S. = FIELD SPLICE

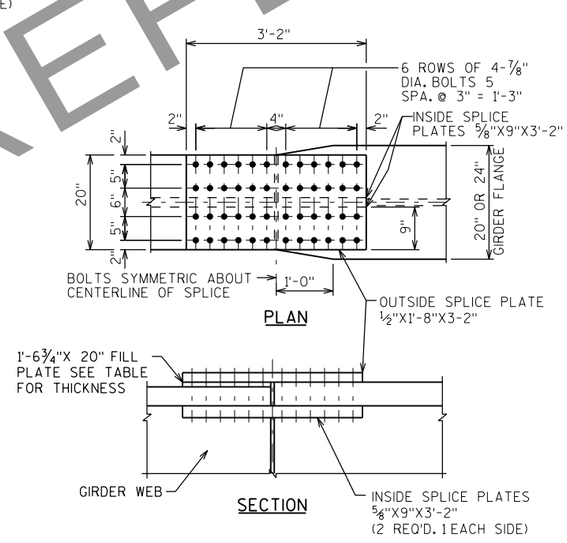


TOP AND BOTTOM FLANGE SPLICE TYPE 4

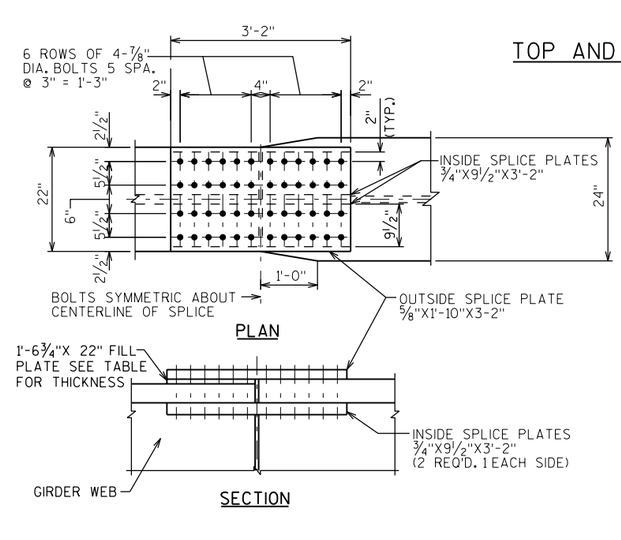


WEB SPLICE

(FOR ALL FIELD SPLICES)



TOP AND BOTTOM FLANGE SPLICE TYPE 1



TOP AND BOTTOM FLANGE SPLICE TYPE 2

GIRDER FIELD SPLICE NOTES

1. ALL BOLT HOLES SHALL BE 15/16" DIAMETER STANDARD HOLES
2. ALL SPLICE PLATES SHALL CONFORM TO ASTM A709, GRADE 50
3. ALL BOLTS SHALL BE 7/8" DIAMETER A325 WITH DOUBLE WASHERS.
4. ALL BOLTS SHALL BE FABRICATED SUCH THAT THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANES AT FIELD SPLICE CONNECTIONS.

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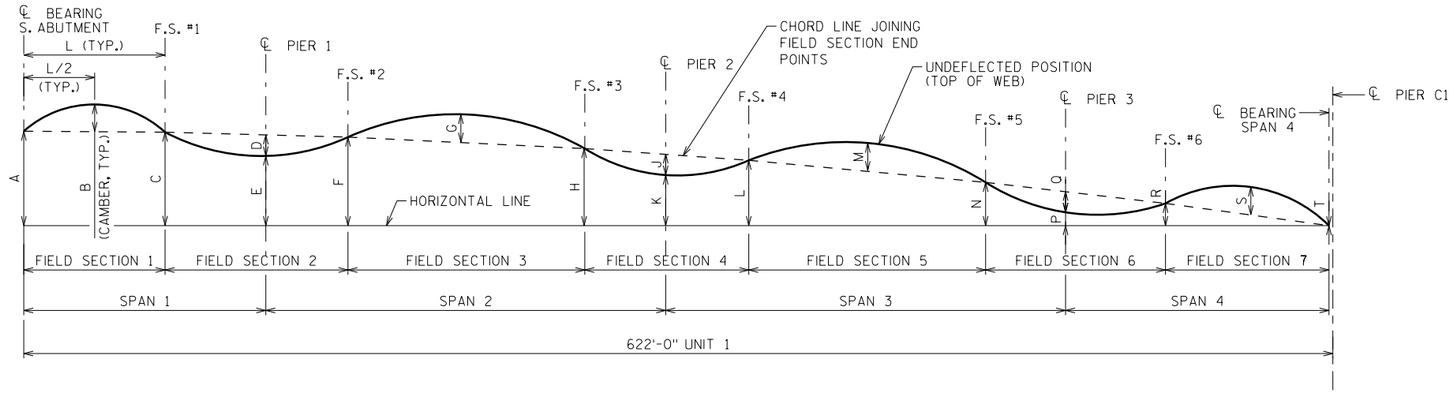


CAMBER & BLOCKING DIAGRAM

LEGEND

F.S. = FIELD SPLICE

NOTES:

POSITIVE CAMBER IS UPWARD RELATIVE TO A CHORD LINE JOINING THE FIELD SECTION ENDPOINTS. THE ELEVATION OF THE TOP STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED, AND CORRECTED, IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY BOLTING THE DIAPHRAGMS IN PLACE.

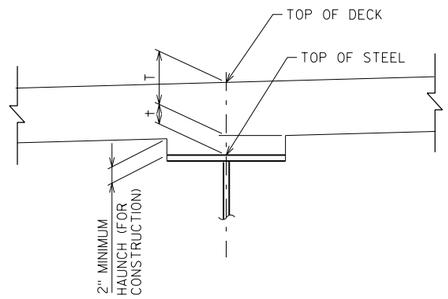
BECAUSE VERTICAL PROFILE AND DEFLECTIONS ARE EXAGGERATED TO DIFFERENT DEGREES, THE CAMBERS SHOWN ON THIS DIAGRAM ARE SCHEMATIC ONLY.

SPECIFICALLY COMPARING RELATIVE CAMBER MAGNITUDES BETWEEN FIELD SECTIONS MAY BE MISLEADING.

TOP OF ERECTED STEEL ELEVATIONS AT SUPPORTS AND FIELD SPLICES SHALL BE CHECKED AFTER ERECTION IS COMPLETE AND BEFORE BOLTED CONNECTIONS ARE FINALLY TORQUED.

IF SURVEYED ELEVATIONS DIFFER FROM THOSE EXPECTED BY MORE THAN 0.02 FT (1/4") AT SUPPORTS OR 0.083 FT (1") AT FIELD SPLICES, CORRECTIVE MEASURES SHALL BE TAKEN BEFORE FURTHER CONSTRUCTION OPERATIONS MAY PROCEED.

THE VALUES OF CAMBER AND BLOCKING PROVIDED IN THE TABLES ARE IN INCHES.



HAUNCH DETAIL

HAUNCH NOTE:

† = HAUNCH HEIGHT AT CENTERLINE OF WEB.

TO DETERMINE "†" AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN.

TOP OF DECK ELEV. AT FINAL GRADE

\- TOP OF STEEL ELEV. AFTER PLACEMENT

\+ CONC. ONLY DEFLECTIONS (DOWNWARD DEFLECTION IS POSITIVE, UPWARD DEFLECTION IS NEGATIVE.)

\- SLAB THICKNESS (10½")

= "†" VALUE FOR SETTING HAUNCH

TOP OF ERECTED STEEL ELEVATIONS

LOCATION	S. ABUT.	FS #1	PIER 1	FS #2	FS #3	PIER 2	FS #4	FS #5	PIER 3	FS #6	PIER C1
GIRDER 1	633.08	632.61	632.25	632.08	631.44	631.03	630.84	629.82	629.17	628.44	627.85
GIRDER 2	633.37	633.07	632.82	632.77	632.12	631.69	631.52	630.53	629.88	629.18	628.43
GIRDER 3	633.61	633.48	633.34	633.39	632.77	632.35	632.18	631.21	630.58	629.92	629.02
GIRDER 4	633.81	633.85	633.81	633.96	633.43	633.00	632.83	631.88	631.27	630.68	629.60
GIRDER 5	633.97	634.18	634.24	634.49	634.08	633.65	633.48	632.54	631.97	631.44	630.19
GIRDER 6	634.08	634.46	634.63	634.98	634.73	634.30	634.12	633.19	632.65	632.20	630.76
GIRDER 7	634.14	634.69	634.98	635.41	635.36	634.94	634.75	633.70	633.19	632.79	631.01

CAMBER AND BLOCKING TABLE

LOCATION	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H	DIM J	DIM K	DIM L	DIM M	DIM N	DIM P	DIM Q	DIM R	DIM S	DIM T
GIRDER 1	62 3/4	1 1/16	56 7/16	0	53 1/16	50 1/16	3 1/2	42 3/8	-1 1/4	39 15/16	35 1/8	3 9/16	22 7/8	17 1/8	-1	6 3/8	0	0
GIRDER 2	59 3/16	1 1/16	54 7/8	0	52 15/16	51 1/4	3 13/16	43 7/16	-1 7/16	41 1/4	36 1/4	3 15/16	24 7/16	19	-1 3/16	8 3/16	0	0
GIRDER 3	55 1/8	1 1/16	52 13/16	- 3/4	52 15/16	51 11/16	3 15/16	44 5/16	-1 7/16	42 1/8	37 1/8	3 7/8	25 9/16	20 9/16	-1 5/16	10 1/8	1	0
GIRDER 4	50 1/2	1 1/16	50 3/16	-13/16	51 3/4	51 9/16	4 5/16	45 3/16	-1 1/2	43	37 15/16	3 3/4	26 9/16	22 1/16	-1 3/8	12 3/16	1 7/16	0
GIRDER 5	45 5/16	1 1/16	47 1/8	-13/16	49 15/16	50 15/16	5	45 15/16	-1 1/2	43 13/16	38 3/4	3 11/16	27 1/2	23 5/8	-1 1/2	14 5/16	2	0
GIRDER 6	39 7/8	1 1/16	43 3/4	- 7/8	47 7/8	49 7/8	5 7/8	46 15/16	-1 7/16	44 5/8	39 9/16	3 1/2	28 7/16	25 3/16	-1 5/8	16 5/8	2 3/4	0
GIRDER 7	37 5/8	15/16	43 3/8	-13/16	48 13/16	52 1/16	6 7/8	51 7/16	-1 5/16	49 1/16	44 1/8	3 1/4	31 1/2	28 11/16	-1 5/8	20 5/8	3 15/16	0

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STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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CAMBER DIAGRAM UNIT 1

SHEET 21 OF 29

1181

STATE PROJECT NUMBER

1133-11-78

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DATE: 4/3/2013

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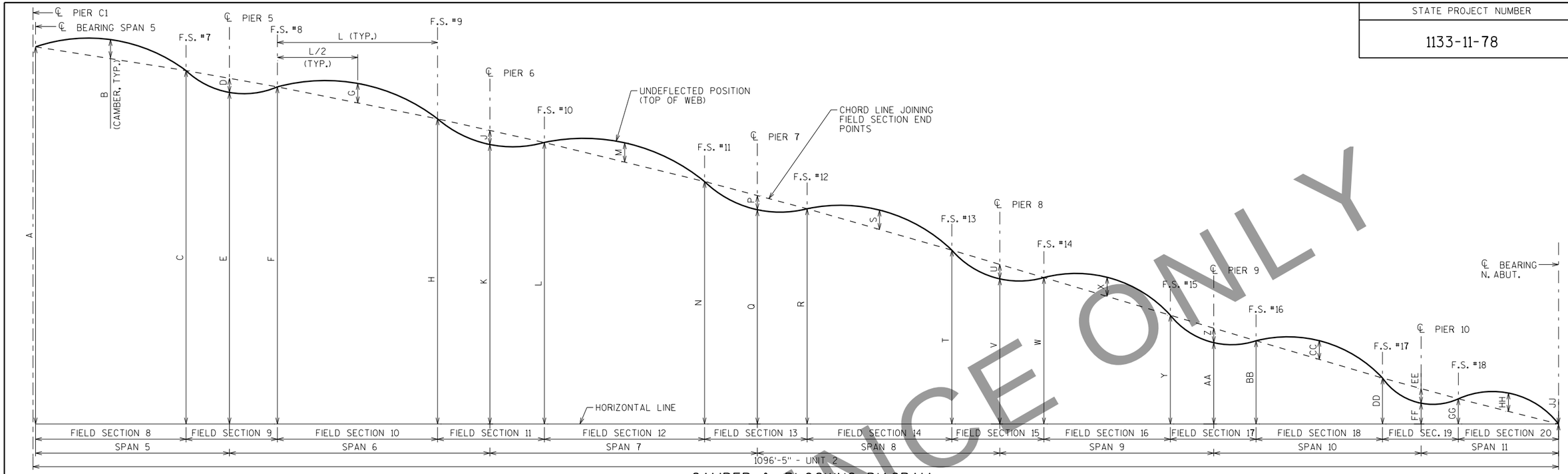
STATE PROJECT NUMBER
1133-11-78



CAMBER & BLOCKING DIAGRAM

TOP OF ERECTED STEEL TABLE

LOCATION	PIER C1	FS #7	PIER 5	FS #8	FS #9	PIER 6	FS #10	FS #11	PIER 7	FS #12	FS #13	PIER 8	FS #8	FS #9	PIER 9	FS #10	FS #11	PIER 10	FS #12	N. ABUT.
GIRDER 8	627.79	626.34	625.65	625.11	623.10	621.89	621.13	618.39	617.29	616.13	613.52	612.35	611.25	608.99	607.85	606.91	604.36	603.43	602.48	600.72
GIRDER 9	628.41	626.97	626.27	625.74	623.74	622.51	621.76	619.02	617.91	616.76	614.15	612.97	611.87	609.61	608.47	607.54	604.99	604.05	603.10	601.34
GIRDER 10	629.03	627.59	626.89	626.37	624.36	623.13	622.39	619.65	618.52	617.38	614.77	613.59	612.49	610.24	609.09	608.16	605.61	604.67	603.72	601.96
GIRDER 11	629.65	628.21	627.51	626.98	624.98	623.75	623.02	620.28	619.14	618.00	615.39	614.21	613.11	610.86	609.71	608.79	606.23	605.28	604.34	602.58
GIRDER 12	630.27	628.84	628.12	627.60	625.59	624.36	623.65	620.90	619.76	618.62	616.01	614.83	613.73	611.48	610.33	609.41	606.85	605.90	604.96	603.20
GIRDER 13	630.77	629.32	628.60	628.04	626.10	624.94	624.27	621.53	620.38	619.24	616.63	615.45	614.35	612.10	610.95	610.02	607.47	606.52	605.58	603.81
GIRDER 14	630.92	629.42	628.68	628.15	626.45	625.43	624.86	622.16	621.00	619.85	617.24	616.06	614.97	612.71	611.57	610.64	608.09	607.14	606.20	604.43
GIRDER 15	630.40	629.39	628.76	628.31	626.79	625.93	625.44	622.76	621.62	620.44	617.84	616.68	615.57	613.31	612.19	611.24	608.68	607.76	606.82	605.05
GIRDER 16	629.88	629.33	628.85	628.45	627.12	626.39	626.02	623.38	622.24	621.04	618.44	617.30	616.18	613.92	612.80	611.85	609.30	608.38	607.44	605.67
GIRDER 14'	630.66	629.42	628.72	628.25*																
GIRDER 15'	630.14	629.36	628.79	628.25*																

*GIRDERS 14' AND 15' END IN SPAN 6 NEAR THE LOCATION OF FIELD SPLICE #8 AND DO NOT HAVE A SPLICE AT THIS LOCATION. THE ELEVATIONS GIVEN AT FS #8 FOR THESE GIRDERS REPRESENTS THE TOP OF STEEL ELEVATION AT THE END OF THE GIRDERS.

CAMBER OF ERECTED STEEL TABLE

LOCATION	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H	DIM J	DIM K	DIM L	DIM M	DIM N	DIM P	DIM Q	DIM R
GIRDER 8	324 5/8	1 11/16	306 9/16	-13/16	299 3/16	291 13/16	2 7/8	267 3/4	-1 3/16	254 7/16	244	3 1/16	211 1/8	-1 1/16	199 1/8	184 1/8
GIRDER 9	324 5/8	1 13/16	306 5/8	- 7/8	299 5/16	291 15/16	3 1/16	267 7/8	-1 5/16	254 5/8	244 1/8	3 1/4	211 5/16	-1 3/16	199 1/4	184 1/4
GIRDER 10	324 5/8	1 15/16	306 11/16	-15/16	299 3/8	292	3 3/16	268	-1 7/16	254 3/4	244 5/16	3 7/16	211 7/16	-1 5/16	199 5/16	184 5/16
GIRDER 11	324 5/8	2	306 3/4	-1	299 3/8	292	3 3/16	267 15/16	-1 1/2	254 3/4	244 3/8	3 5/8	211 1/2	-1 3/8	199 3/8	184 3/8
GIRDER 12	324 5/8	2 1/16	306 13/16	-1	299 3/8	291 15/16	3 1/8	267 13/16	-1 1/2	254 13/16	244 9/16	3 11/16	211 5/8	-1 7/16	199 7/16	184 5/16
GIRDER 13	323 3/16	2 1/16	305 1/4	- 7/8	297 9/16	289 13/16	2 5/8	266 9/16	-1 1/2	254 1/4	244 9/16	3 15/16	211 3/4	-1 1/2	199 1/2	184 5/16
GIRDER 14	317 5/8	2 15/16	298 15/16	-1 1/8	291 3/8	283 3/4	2 3/8	263 5/16	-1 3/8	252 5/8	244 1/4	4 1/4	211 13/16	-1 1/2	199 1/2	184 3/16
GIRDER 15	303 15/16	3 1/2	291 3/16	-1	284 13/16	278 3/16	2	260	-1 1/8	250 15/16	243 3/4	4 3/16	211 11/16	-1 1/4	199 5/16	183 7/8
GIRDER 16	290 1/4	3 3/4	283	0	277 15/16	272 1/2	1 15/16	256 1/2	-1 1/4	249 1/8	243 3/8	4 3/8	211 11/16	-1 1/8	199 3/16	183 11/16
GIRDER 14'	29 7/16	3 5/8	13 3/8	-1 7/16	7 1/8	0										
GIRDER 15'	23 1/8	3 15/16	12 5/8	0	6 13/16	0										

CONTINUATION OF ERECTED STEEL TABLE

LOCATION	DIM S	DIM T	DIM U	DIM V	DIM W	DIM X	DIM Y	DIM Z	DIM AA	DIM BB	DIM CC	DIM DD	DIM EE	DIM FF	DIM GG	DIM HH	DIM JJ
GIRDER 8	2 1/16	152 13/16	-1	139 13/16	125 9/16	1 5/16	98 1/2	0	85 9/16	73 9/16	1 5/8	42 15/16	- 7/8	32 9/16	20 3/8	0	0
GIRDER 9	2 3/16	152 15/16	-1 1/16	139 7/8	125 5/8	1 3/8	98 9/16	-13/16	85 11/16	73 5/8	1 3/4	43 1/16	-15/16	32 11/16	20 7/16	0	0
GIRDER 10	2 1/4	153	-1 1/8	139 15/16	125 5/8	1 7/16	98 9/16	- 7/8	85 3/4	73 3/4	1 13/16	43 1/8	-15/16	32 11/16	20 7/16	0	0
GIRDER 11	2 5/16	153 1/16	-1 1/8	139 15/16	125 11/16	1 7/16	98 5/8	- 7/8	85 3/4	73 3/4	1 7/8	43 1/8	-1	32 3/4	20 7/16	0	0
GIRDER 12	2 5/16	153 1/16	-1 3/16	140	125 11/16	1 7/16	98 5/8	-15/16	85 3/4	73 3/4	1 7/8	43 3/16	-1	32 3/4	20 7/16	0	0
GIRDER 13	2 5/16	153 1/16	-1 3/16	140	125 3/4	1 1/2	98 5/8	-15/16	85 13/16	73 3/4	1 7/8	43 3/16	-1	32 3/4	20 7/16	0	0
GIRDER 14	2 1/4	153	-1 1/8	139 15/16	125 11/16	1 1/2	98 5/8	- 7/8	85 3/4	73 3/4	1 7/8	43 1/8	-1	32 3/4	20 7/16	0	0
GIRDER 15	2 1/4	152 5/8	-13/16	139 11/16	125 7/16	1 1/2	98 3/8	0	85 1/2	73 1/2	1 7/8	42 13/16	-13/16	32 9/16	20 7/16	0	0
GIRDER 16	2 3/16	152 1/2	0	139 9/16	125 3/8	1 7/16	98 1/4	0	85 3/8	73 3/8	1 13/16	42 3/4	-13/16	32 1/2	20 7/16	0	0

LEGEND:

FOR LEGEND SEE CAMBER DIAGRAM UNIT 1 SHEET.

NOTES:

FOR NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET

HAUNCH NOTES:

FOR HAUNCH NOTES SEE CAMBER DIAGRAM UNIT 1 SHEET.

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STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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CAMBER DIAGRAM UNIT 2

SHEET 22 OF 29

1182

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DATE: 4/3/2013

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STATE PROJECT NUMBER
1133-11-78

LOCATION	TENTH POINT																							
	S. ABUT.	1.1	1.2	1.3	1.4	1.5	1.6	F.S. # 1	1.7	1.8	1.9	PIER 1	2.1	2.2	F.S. # 2	2.3	2.4	2.5	2.6	2.7	F.S. # 3	2.8	2.9
GIRDER 1	634.17	634.10	634.03	633.96	633.88	633.80	633.71	633.69	633.62	633.53	633.44	633.34	633.18	633.01	633.01	632.93	632.84	632.74	632.63	632.52	632.41	632.40	632.27
GIRDER 2	634.46	634.42	634.37	634.33	634.28	634.22	634.17	634.15	634.11	634.04	633.98	633.91	633.79	633.66	633.66	633.55	633.47	633.38	633.28	633.17	633.06	633.05	632.92
GIRDER 3	634.70	634.69	634.67	634.65	634.63	634.61	634.58	634.57	634.54	634.51	634.47	634.43	634.36	634.27	634.27	634.18	634.10	634.01	633.91	633.81	633.70	633.69	633.57
GIRDER 4	634.90	634.92	634.93	634.94	634.94	634.94	634.94	634.94	634.94	634.93	634.92	634.91	634.88	634.84	634.84	634.79	634.73	634.64	634.55	634.45	634.35	634.34	634.22
GIRDER 5	635.06	635.10	635.14	635.18	635.21	635.24	635.26	635.27	635.29	635.31	635.32	635.34	635.35	635.36	635.36	635.36	635.35	635.27	635.18	635.09	634.99	634.98	634.87
GIRDER 6	635.17	635.24	635.31	635.37	635.43	635.49	635.54	635.55	635.59	635.64	635.68	635.73	635.79	635.84	635.84	635.88	635.92	635.90	635.81	635.72	635.63	635.62	635.51
GIRDER 7	635.24	635.34	635.43	635.52	635.61	635.69	635.77	635.79	635.85	635.93	636.00	636.07	636.18	636.28	636.28	636.37	636.45	636.52	636.44	636.35	636.26	636.26	636.15

DECK ELEVATIONS
(TOP OF CONCRETE)

LOCATION	TENTH POINT																						
	PIER 2	3.1	3.2	F.S. # 4	3.3	3.4	3.5	3.6	3.7	F.S. # 5	3.8	3.9	PIER 3	4.1	4.2	4.3	4.4	4.5	F.S. # 6	4.6	4.7	4.8	4.9	PIER C1
GIRDER 1	632.13	631.98	631.82	631.82	631.66	631.48	631.30	631.11	630.91	630.72	630.71	630.49	630.27	630.14	630.02	629.89	629.76	629.63	629.55	629.50	629.36	629.23	629.08	628.94
GIRDER 2	632.79	632.64	632.49	632.49	632.33	632.16	631.98	631.80	631.60	631.42	631.40	631.19	630.97	630.84	630.70	630.57	630.43	630.28	630.26	630.14	629.99	629.84	629.68	629.53
GIRDER 3	633.44	633.30	633.15	633.15	633.00	632.83	632.66	632.48	632.29	632.11	632.09	631.89	631.67	631.53	631.39	631.24	631.09	630.93	630.98	630.78	630.61	630.45	630.28	630.11
GIRDER 4	634.09	633.96	633.82	633.82	633.66	633.50	633.34	633.16	632.97	632.80	632.78	632.58	632.37	632.22	632.06	631.91	631.75	631.58	631.69	631.41	631.24	631.06	630.88	630.70
GIRDER 5	634.74	634.61	634.48	634.47	634.33	634.17	634.01	633.83	633.65	633.48	633.46	633.27	633.06	632.90	632.74	632.57	632.40	632.23	632.39	632.05	631.86	631.67	631.48	631.28
GIRDER 6	635.39	635.27	635.13	635.13	634.99	634.83	634.67	634.50	634.33	634.15	634.14	633.94	633.74	633.58	633.40	633.23	633.05	632.86	633.08	632.67	632.47	632.27	632.06	631.85
GIRDER 7	636.04	635.91	635.78	635.78	635.64	635.48	635.30	635.11	634.92	634.73	634.72	634.51	634.29	634.10	633.90	633.70	633.49	633.28	633.58	633.06	632.83	632.60	632.36	632.11

DECK ELEVATIONS
(TOP OF CONCRETE)

FOR REFERENCE ONLY

LEGEND

F.S. = FIELD SPLICE

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

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DECK ELEVATIONS
UNIT 1

SHEET 23 OF 29
1183

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DATE: 4/3/2013

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STATE PROJECT NUMBER

1133-11-78

LOCATION	TENTH POINT																						
	PIER C1	5.1	5.2	5.3	5.4	5.5	5.6	5.7	F.S. # 7	5.8	5.9	PIER 5	6.1	6.2	F.S. # 8	6.3	6.4	6.5	6.6	6.7	F.S. # 9	6.8	6.9
GIRDER 8	628.89	628.69	628.49	628.29	628.08	627.87	627.65	627.43	627.39	627.21	626.98	626.74	626.40	626.06	626.06	625.70	625.34	624.97	624.59	624.20	624.02	623.80	623.40
GIRDER 9	629.51	629.31	629.11	628.91	628.70	628.49	628.27	628.05	628.01	627.82	627.60	627.36	627.02	626.68	626.68	626.32	625.96	625.59	625.21	624.82	624.64	624.42	624.02
GIRDER 10	630.13	629.93	629.73	629.53	629.32	629.11	628.89	628.67	628.63	628.44	628.21	627.98	627.64	627.30	627.30	626.94	626.58	626.21	625.83	625.44	625.26	625.04	624.63
GIRDER 11	630.74	630.55	630.35	630.15	629.94	629.72	629.51	629.29	629.25	629.06	628.83	628.60	628.26	627.91	627.91	627.56	627.20	626.82	626.44	626.06	625.87	625.66	625.25
GIRDER 12	631.36	631.17	630.97	630.76	630.56	630.34	630.13	629.91	629.87	629.68	629.45	629.22	628.88	628.53	628.53	628.18	627.82	627.44	627.06	626.67	626.49	626.28	625.87
GIRDER 13	631.86	631.66	631.47	631.25	631.04	630.82	630.60	630.38	630.34	630.16	629.92	629.69	629.36	629.00	629.00	628.64	628.28	627.92	627.57	627.20	627.03	626.83	626.44
GIRDER 14	632.02	631.83	631.65	631.45	631.23	630.97	630.72	630.47	630.43	630.23	630.00	629.78	629.46	629.14	629.14	628.82	628.51	628.19	627.89	627.56	627.41	627.23	626.88
GIRDER 14'	631.76	631.62	631.49	631.32	631.14	630.91	630.68	630.45	630.42	630.24	630.02	629.81	629.61	629.40									
GIRDER 15	631.50	631.40	631.31	631.17	631.04	630.83	630.63	630.43	630.40	630.24	630.05	629.86	629.59	629.31	629.32	629.03	628.75	628.46	628.18	627.89	627.79	627.62	627.33
GIRDER 15'	631.23	631.18	631.12	631.02	630.92	630.74	630.57	630.39	630.37	630.22	630.05	629.88	629.72	629.55									
GIRDER 16	630.97	630.95	630.94	630.88	630.81	630.67	630.52	630.38	630.34	630.23	630.09	629.94	629.73	629.49	629.49	629.25	629.02	628.77	628.53	628.27	628.16	628.03	627.74

DECK ELEVATIONS
(TOP OF CONCRETE)

LOCATION	TENTH POINT																						
	PIER 6	7.1	7.2	F.S. # 10	7.3	7.4	7.5	7.6	7.7	F.S. # 11	7.8	7.9	PIER 7	8.1	8.2	F.S. # 12	8.3	8.4	8.5	8.6	8.7	F.S. # 13	8.8	8.9
GIRDER 8	622.98	622.56	622.13	622.13	621.69	621.24	620.79	620.32	619.85	619.37	619.37	618.88	618.38	617.92	617.45	617.10	616.98	616.49	616.01	615.51	615.01	614.51	614.50	613.96
GIRDER 9	623.60	623.18	622.75	622.75	622.31	621.86	621.41	620.94	620.47	619.99	619.99	619.50	619.00	618.54	618.07	617.72	617.60	617.11	616.62	616.13	615.63	615.13	615.12	614.58
GIRDER 10	624.22	623.80	623.37	623.37	622.93	622.48	622.02	621.56	621.09	620.61	620.61	620.12	619.62	619.16	618.69	618.34	618.21	617.73	617.24	616.75	616.24	615.75	615.73	615.20
GIRDER 11	624.84	624.42	623.99	623.99	623.55	623.10	622.64	622.18	621.71	621.22	621.22	620.73	620.24	619.78	619.31	618.96	618.83	618.35	617.86	617.37	616.86	616.36	616.35	615.82
GIRDER 12	625.46	625.04	624.60	624.60	624.17	623.72	623.26	622.80	622.32	621.84	621.84	621.35	620.86	620.39	619.93	619.58	619.45	618.97	618.48	617.98	617.48	616.98	616.97	616.44
GIRDER 13	626.04	625.63	625.21	625.21	624.78	624.34	623.88	623.42	622.94	622.46	622.46	621.97	621.47	621.01	620.55	620.20	620.07	619.59	619.10	618.60	618.10	617.60	617.59	617.05
GIRDER 14	626.53	626.16	625.79	625.79	625.40	624.96	624.50	624.04	623.56	623.08	623.08	622.59	622.09	621.63	621.16	620.81	620.69	620.21	619.72	619.22	618.72	618.22	618.21	617.67
GIRDER 15	627.02	626.70	626.37	626.34	626.02	625.57	625.12	624.65	624.18	623.68	623.70	623.21	622.71	622.25	621.78	621.41	621.31	620.83	620.34	619.84	619.34	618.81	618.83	618.29
GIRDER 16	627.48	627.21	626.93	626.92	626.64	626.19	625.74	625.27	624.80	624.29	624.32	623.83	623.33	622.87	622.40	622.03	621.93	621.44	620.96	620.46	619.96	619.43	619.45	618.91

DECK ELEVATIONS
(TOP OF CONCRETE)

LOCATION	TENTH POINT																						
	PIER 8	9.1	9.2	F.S. # 14	9.3	9.4	9.5	9.6	9.7	F.S. # 15	9.8	9.9	PIER 9	10.1	10.2	F.S. # 16	10.3	10.4	10.5	10.6	10.7	F.S. # 17	10.8	10.9
GIRDER 8	613.45	613.00	612.55	612.31	612.10	611.65	611.20	610.75	610.30	610.04	609.85	609.40	608.95	608.50	608.05	607.93	607.60	607.15	606.70	606.25	605.81	605.38	605.37	604.94
GIRDER 9	614.06	613.61	613.16	612.92	612.71	612.27	611.82	611.37	610.92	610.66	610.47	610.02	609.57	609.12	608.67	608.55	608.22	607.77	607.32	606.87	606.42	606.00	605.99	605.56
GIRDER 10	614.68	614.23	613.78	613.54	613.33	612.88	612.43	611.98	611.54	611.28	611.09	610.64	610.19	609.74	609.29	609.17	608.84	608.39	607.94	607.49	607.04	606.62	606.61	606.18
GIRDER 11	615.30	614.85	614.40	614.16	613.95	613.50	613.05	612.60	612.15	611.90	611.70	611.25	610.80	610.36	609.91	609.78	609.46	609.01	608.56	608.11	607.66	607.23	607.23	606.80
GIRDER 12	615.92	615.47	615.02	614.78	614.57	614.12	613.67	613.22	612.77	612.52	612.32	611.87	611.42	610.97	610.52	610.40	610.07	609.62	609.18	608.73	608.28	607.85	607.84	607.42
GIRDER 13	616.54	616.09	615.64	615.40	615.19	614.74	614.29	613.84	613.39	613.13	612.94	612.49	612.04	611.59	611.14	611.02	610.69	610.24	609.79	609.34	608.90	608.47	608.46	608.04
GIRDER 14	617.16	616.71	616.26	616.02	615.81	615.36	614.91	614.46	614.01	613.75	613.56	613.11	612.66	612.21	611.76	611.64	611.31	610.86	610.41	609.96	609.52	609.09	609.08	608.65
GIRDER 15	617.78	617.33	616.88	616.61	616.43	615.98	615.53	615.08	614.63	614.35	614.18	613.73	613.28	612.83	612.38	612.23	611.93	611.48	611.03	610.58	610.14	609.69	609.70	609.27
GIRDER 16	618.39	617.95	617.50	617.23	617.05	616.60	616.15	615.70	615.25	614.96	614.80	614.35	613.90	613.45	613.00	612.85	612.55	612.10	611.65	611.20	610.76	610.30	610.32	609.89

DECK ELEVATIONS
(TOP OF CONCRETE)

LOCATION	TENTH POINT											
	PIER 10	11.1	11.2	11.3	F.S. # 18	11.4	11.5	11.6	11.7	11.8	11.9	N. ABUT.
GIRDER 8	604.52	604.23	603.95	603.67	603.55	603.39	603.12	602.85	602.58	602.32	602.07	601.81
GIRDER 9	605.14	604.85	604.57	604.29	604.17	604.01	603.74	603.47	603.20	602.94	602.69	602.43
GIRDER 10	605.76	605.47	605.19	604.90	604.79	604.63	604.36	604.09	603.82	603.56	603.30	603.05
GIRDER 11	606.38	606.09	605.80	605.52	605.41	605.25	604.97	604.71	604.44	604.18	603.92	603.67
GIRDER 12	607.00	606.71	606.42	606.14	606.03	605.87	605.59	605.32	605.06	604.80	604.54	604.29
GIRDER 13	607.62	607.33	607.04	606.76	606.65	606.48	606.21	605.94	605.68	605.42	605.16	604.91
GIRDER 14	608.23	607.95	607.66	607.38	607.27	607.10	606.83	606.56	606.30	606.04	605.78	605.53
GIRDER 15	608.85	608.56	608.28	608.00	607.88	607.72	607.45	607.18	606.92	606.65	606.40	606.15
GIRDER 16	609.47	609.18	608.90	608.62	608.50	608.34	608.07	607.80	607.53	607.27	607.02	606.76

DECK ELEVATIONS
(TOP OF CONCRETE)

FOR REFERENCE ONLY

LEGEND

F.S. = FIELD SPLICE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI/SB | PLANS CK'D. NPP

DECK ELEVATIONS
UNIT 2

SHEET 24 OF 29

1184

STEEL FABRICATION CONTRACT ONLY

8

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\B-05-681EX024- B-05-681E_Deck Elev. UNIT 2.dgn

DATE: 4/3/2013
I.D.

DEFLECTIONS ARE GIVEN IN INCHES.
NEGATIVE VALUE INDICATES UPWARD DEFLECTION.

DEAD LOAD DEFLECTION TABLES

(DIMENSIONS ARE IN INCHES)

STATE PROJECT NUMBER

1133-11-78

GIRDER 1	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.05	0.10	0.12	0.11	0.09	0.05	0.01	-0.03	-0.03	0.00	0.17	0.41	0.65	0.81	0.84	0.75	0.56	0.32	0.11	0.00	0.06	0.25	0.50	0.71	0.83	0.81	0.67	0.44	0.20	0.00	-0.06	-0.08	-0.07	-0.05	-0.03	-0.01	0.01	0.01	0.01	0.00
DL - DECK	0.00	0.21	0.36	0.45	0.44	0.34	0.18	0.03	-0.10	-0.13	0.00	0.62	1.52	2.40	2.99	3.11	2.74	1.99	1.10	0.36	0.00	0.26	1.02	1.98	2.78	3.18	3.09	2.53	1.65	0.73	0.00	-0.22	-0.30	-0.30	-0.23	-0.15	-0.07	-0.01	0.03	0.02	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.03	0.02	0.01	0.00	-0.01	-0.01	0.00	0.04	0.10	0.16	0.19	0.19	0.17	0.12	0.06	0.02	0.00	0.02	0.07	0.14	0.18	0.20	0.19	0.15	0.09	0.04	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.00
TOTAL	0.00	0.28	0.48	0.59	0.58	0.46	0.24	0.04	-0.13	-0.17	0.00	0.83	2.02	3.20	3.99	4.14	3.66	2.66	1.48	0.49	0.00	0.33	1.35	2.61	3.68	4.21	4.09	3.34	2.18	0.96	0.00	-0.29	-0.39	-0.38	-0.28	-0.18	-0.06	0.01	0.05	0.04	0.00

GIRDER 2	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.05	0.09	0.10	0.09	0.07	0.02	-0.02	-0.05	-0.05	0.00	0.19	0.46	0.72	0.89	0.92	0.82	0.60	0.34	0.12	0.00	0.06	0.26	0.52	0.75	0.87	0.86	0.70	0.46	0.20	0.00	-0.06	-0.07	-0.05	-0.02	0.01	0.04	0.05	0.05	0.03	0.00
DL - DECK	0.00	0.22	0.39	0.47	0.44	0.31	0.13	-0.06	-0.18	-0.18	0.00	0.78	1.87	2.94	3.66	3.80	3.34	2.42	1.33	0.44	0.00	0.27	1.14	2.24	3.18	3.68	3.57	2.89	1.86	0.81	0.00	-0.24	-0.29	-0.21	-0.08	0.07	0.19	0.24	0.22	0.13	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.03	0.02	0.01	0.00	-0.01	-0.01	0.00	0.04	0.10	0.15	0.19	0.19	0.17	0.12	0.07	0.02	0.00	0.02	0.07	0.12	0.17	0.19	0.18	0.15	0.09	0.04	0.00	-0.01	-0.01	0.00	0.01	0.01	0.02	0.02	0.02	0.01	0.00
TOTAL	0.00	0.29	0.50	0.59	0.56	0.40	0.17	-0.08	-0.24	-0.24	0.00	1.01	2.42	3.81	4.73	4.92	4.33	3.14	1.74	0.58	0.00	0.35	1.47	2.88	4.10	4.74	4.61	3.74	2.41	1.04	0.00	-0.31	-0.37	-0.27	-0.09	0.10	0.25	0.32	0.29	0.17	0.00

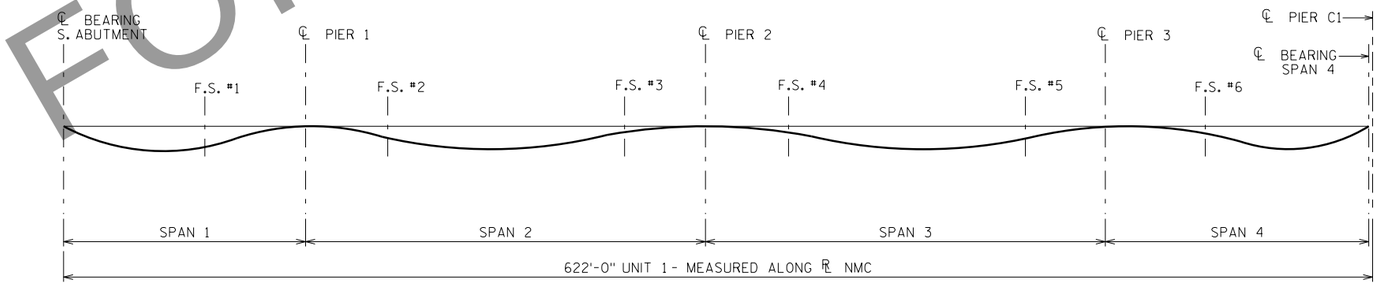
GIRDER 3	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.05	0.08	0.10	0.09	0.06	0.02	-0.03	-0.05	-0.05	0.00	0.20	0.47	0.74	0.91	0.95	0.84	0.62	0.35	0.12	0.00	0.05	0.25	0.50	0.73	0.84	0.82	0.67	0.43	0.19	0.00	-0.05	-0.04	-0.01	0.05	0.10	0.13	0.13	0.11	0.06	0.00
DL - DECK	0.00	0.21	0.37	0.44	0.40	0.28	0.09	-0.09	-0.21	-0.20	0.00	0.82	1.96	3.08	3.82	3.97	3.50	2.55	1.42	0.48	0.00	0.24	1.08	2.16	3.09	3.56	3.44	2.77	1.75	0.74	0.00	-0.19	-0.16	0.01	0.24	0.45	0.59	0.61	0.50	0.28	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.03	0.02	0.01	0.00	-0.01	-0.01	0.00	0.04	0.10	0.15	0.19	0.20	0.17	0.13	0.07	0.02	0.00	0.02	0.06	0.12	0.16	0.18	0.18	0.14	0.09	0.04	0.00	-0.01	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.00
TOTAL	0.00	0.27	0.48	0.56	0.52	0.35	0.12	-0.12	-0.27	-0.26	0.00	1.06	2.53	3.97	4.92	5.12	4.52	3.30	1.85	0.63	0.00	0.31	1.39	2.78	3.97	4.59	4.44	3.58	2.27	0.96	0.00	-0.25	-0.21	0.01	0.31	0.58	0.75	0.77	0.64	0.36	0.00

GIRDER 4	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.05	0.08	0.09	0.08	0.05	0.01	-0.03	-0.06	-0.05	0.00	0.21	0.49	0.76	0.95	0.99	0.88	0.66	0.38	0.14	0.00	0.04	0.23	0.47	0.68	0.79	0.77	0.62	0.39	0.16	0.00	-0.03	0.01	0.08	0.16	0.23	0.27	0.26	0.20	0.11	0.00
DL - DECK	0.00	0.21	0.36	0.42	0.38	0.25	0.06	-0.12	-0.24	-0.21	0.00	0.85	2.03	3.19	3.96	4.13	3.66	2.69	1.52	0.53	0.00	0.19	0.99	2.03	2.92	3.36	3.22	2.55	1.57	0.63	0.00	-0.11	0.06	0.37	0.72	1.02	1.17	1.13	0.90	0.50	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.03	0.02	0.01	0.00	-0.01	-0.01	0.00	0.04	0.10	0.16	0.20	0.20	0.18	0.13	0.07	0.03	0.00	0.02	0.06	0.11	0.16	0.18	0.17	0.13	0.08	0.03	0.00	-0.01	0.00	0.02	0.04	0.05	0.06	0.06	0.04	0.02	0.00
TOTAL	0.00	0.26	0.46	0.54	0.48	0.32	0.08	-0.15	-0.30	-0.27	0.00	1.10	2.62	4.11	5.10	5.32	4.72	3.47	1.97	0.69	0.00	0.25	1.28	2.61	3.76	4.33	4.16	3.30	2.04	0.82	0.00	-0.14	0.07	0.47	0.92	1.30	1.49	1.44	1.14	0.64	0.00

GIRDER 5	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.05	0.08	0.09	0.08	0.05	0.01	-0.04	-0.06	-0.05	0.00	0.21	0.50	0.79	0.98	1.02	0.92	0.68	0.40	0.15	0.00	0.03	0.21	0.44	0.64	0.74	0.71	0.56	0.34	0.13	0.00	0.00	0.08	0.19	0.31	0.40	0.44	0.41	0.32	0.18	0.00
DL - DECK	0.00	0.20	0.35	0.41	0.36	0.23	0.04	-0.14	-0.25	-0.22	0.00	0.88	2.10	3.29	4.10	4.29	3.82	2.82	1.61	0.58	0.00	0.15	0.91	1.90	2.75	3.16	3.00	2.32	1.38	0.52	0.00	0.01	0.34	0.84	1.36	1.75	1.92	1.81	1.41	0.78	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.03	0.02	0.01	0.00	-0.01	-0.01	0.00	0.04	0.10	0.16	0.20	0.21	0.19	0.14	0.08	0.03	0.00	0.01	0.06	0.11	0.15	0.17	0.17	0.13	0.08	0.03	0.00	0.00	0.01	0.04	0.06	0.08	0.09	0.08	0.06	0.03	0.00
TOTAL	0.00	0.26	0.45	0.52	0.47	0.30	0.06	-0.18	-0.32	-0.29	0.00	1.13	2.70	4.24	5.28	5.52	4.92	3.64	2.09	0.75	0.00	0.20	1.17	2.45	3.55	4.08	3.87	3.01	1.80	0.68	0.00	0.01	0.43	1.07	1.73	2.23	2.45	2.30	1.80	0.99	0.00

GIRDER 6	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.05	0.08	0.10	0.09	0.06	0.02	-0.02	-0.05	-0.05	0.00	0.21	0.50	0.80	1.00	1.05	0.95	0.71	0.42	0.16	0.00	0.02	0.17	0.38	0.56	0.65	0.61	0.47	0.27	0.09	0.00	0.04	0.17	0.35	0.51	0.63	0.67	0.62	0.48	0.26	0.00
DL - DECK	0.00	0.21	0.37	0.43	0.39	0.26	0.07	-0.11	-0.23	-0.21	0.00	0.87	2.13	3.37	4.21	4.42	3.95	2.95	1.72	0.64	0.00	0.08	0.74	1.63	2.39	2.74	2.56	1.93	1.08	0.34	0.00	0.18	0.73	1.46	2.17	2.67	2.85	2.64	2.04	1.11	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.03	0.02	0.01	0.00	-0.01	-0.01	0.00	0.04	0.11	0.17	0.22	0.23	0.20	0.15	0.09	0.03	0.00	0.01	0.05	0.11	0.15	0.17	0.17	0.13	0.08	0.03	0.00	0.00	0.03	0.06	0.09	0.11	0.12	0.11	0.09	0.05	0.00
TOTAL	0.00	0.27	0.47	0.56	0.51	0.34	0.10	-0.13	-0.29	-0.27	0.00	1.12	2.74	4.34	5.42	5.69	5.10	3.81	2.23	0.83	0.00	0.10	0.96	2.12	3.11	3.56	3.34	2.52	1.42	0.46	0.00	0.23	0.93	1.87	2.77	3.42	3.64	3.37	2.60	1.42	0.00

GIRDER 7	S. ABUT.	SPAN 1								PIER 1				SPAN 2								PIER 2				SPAN 3								PIER 3				SPAN 4								PIER C1
	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0
DL - STEEL ONLY	0.00	0.04	0.07	0.08	0.07	0.03	0.00	-0.04	-0.06	-0.05	0.00	0.22	0.54	0.85	1.07	1.12	1.01	0.75	0.43	0.15	0.00	0.03	0.17	0.35	0.50	0.56	0.49	0.33	0.14	0.00	0.00	0.13	0.36	0.62	0.87	1.04	1.08	0.99	0.75	0.41	0.00
DL - DECK	0.00	0.16	0.25	0.27	0.22	0.10	-0.05	-0.20	-0.27	-0.21	0.00	0.86	2.09	3.30	4.13	4.34	3.89	2.89	1.66	0.58	0.00	0.05	0.53	1.18	1.75	1.97	1.74	1.16	0.46	-0.02	0.00	0.49	1.32	2.32	3.25	3.89	4.07	3.72	2.85	1.55	0.00
DL - PARAPETS	0.00	0.01	0.03	0.03	0.03	0.03	0.02	0.01	0.00	-0.01	0.00	0.05	0.11	0.19	0.24	0.25	0.23	0.17	0.10	0.03	0.00	0.01	0.05	0.11	0.15	0.18	0.17	0.13	0.08	0.03	0.00	0.01	0.04	0.08	0.12	0.16	0.17	0.16	0.12	0.06	0.00
TOTAL	0.00	0.21	0.34	0.38	0.32	0.16	-0.04	-0.23	-0.33	-0.27	0.00	1.13	2.74	4.34	5.44	5.72	5.12	3.81	2.18	0.76	0.00	0.09	0.75	1.64	2.40	2.70	2.41	1.63	0.68	0.01	0.00	0.64	1.72	3.02	4.24	5.08	5.32	4.86	3.72	2.02	0.00



DEAD LOAD DEFLECTION DIAGRAM

(GIRDER 1 SHOWN, OTHERS SIMILAR)

STEEL FABRICATION CONTRACT ONLY

FOR REFERENCE ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI/SB | PLANS CK'D. NPP

GIRDER DEFLECTIONS GIRDERS 1-7 SPANS 1-4

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DATE: 4/3/2013

I.D.

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DEFLECTIONS ARE GIVEN IN INCHES.
NEGATIVE VALUE INDICATES UPWARD DEFLECTION.

DEAD LOAD DEFLECTION TABLES

DIMENSIONS ARE IN INCHES

GIRDER 8	PIER C1	SPAN 5							PIER 5	SPAN 6							PIER 6	SPAN 7							PIER 7	SPAN 8										PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.13	0.23	0.29	0.31	0.29	0.23	0.14	0.06	0.00	0.00	0.14	0.37	0.61	0.77	0.82	0.75	0.56	0.32	0.10	0.00	0.07	0.27	0.50	0.68	0.76	0.72	0.57	0.35	0.13	0.00	0.02	0.14	0.29	0.43	0.50	0.49	0.39	0.24	0.09	0.00
DL - DECK	0.00	0.42	0.72	0.92	0.98	0.88	0.68	0.40	0.13	-0.02	0.00	0.52	1.35	2.18	2.77	2.95	2.68	2.03	1.17	0.40	0.00	0.18	0.76	1.47	2.04	2.29	2.14	1.65	0.96	0.31	0.00	0.17	0.66	1.27	1.78	2.03	1.94	1.53	0.94	0.36	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.05	0.05	0.04	0.02	0.01	0.00	0.00	0.03	0.07	0.11	0.13	0.14	0.13	0.10	0.06	0.02	0.00	0.01	0.04	0.08	0.11	0.12	0.11	0.09	0.05	0.02	0.00	0.01	0.03	0.06	0.08	0.10	0.09	0.07	0.05	0.02	0.00
TOTAL	0.00	0.57	0.99	1.26	1.35	1.22	0.94	0.56	0.20	-0.02	0.00	0.69	1.79	2.90	3.68	3.92	3.56	2.68	1.55	0.53	0.00	0.26	1.07	2.05	2.83	3.17	2.98	2.30	1.35	0.46	0.00	0.20	0.83	1.62	2.30	2.63	2.52	2.00	1.23	0.47	0.00

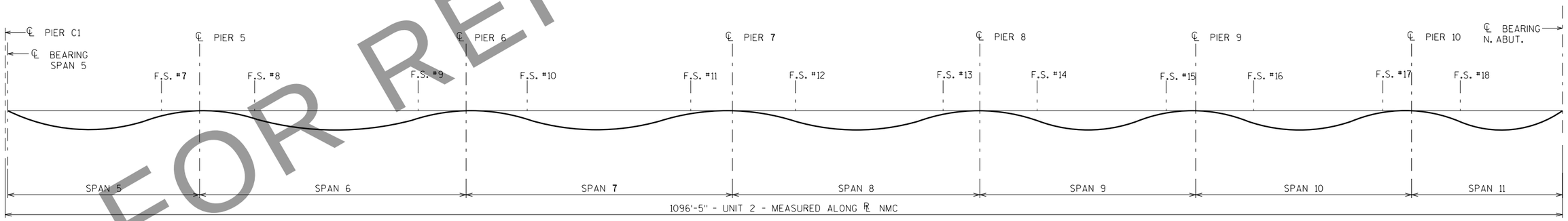
GIRDER 8	SPAN 9							PIER 9			SPAN 10							PIER 10				SPAN 11						N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.05	0.14	0.20	0.23	0.21	0.16	0.09	0.02	0.00	0.06	0.16	0.28	0.36	0.40	0.37	0.29	0.19	0.08	0.00	-0.01	0.01	0.04	0.08	0.11	0.12	0.12	0.09	0.05	0.00
DL - DECK	-0.03	0.15	0.42	0.64	0.75	0.71	0.51	0.27	0.06	0.00	0.21	0.59	1.02	1.32	1.45	1.36	1.07	0.68	0.28	0.00	-0.04	0.03	0.13	0.28	0.37	0.44	0.42	0.33	0.20	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06	0.07	0.07	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	-0.03	0.21	0.58	0.87	1.02	0.96	0.70	0.37	0.08	0.00	0.28	0.78	1.34	1.75	1.92	1.80	1.41	0.90	0.37	0.00	-0.05	0.05	0.17	0.38	0.49	0.58	0.56	0.44	0.26	0.00

GIRDER 9	PIER C1	SPAN 5							PIER 5	SPAN 6							PIER 6	SPAN 7							PIER 7	SPAN 8										PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.14	0.24	0.30	0.32	0.29	0.23	0.14	0.06	0.00	0.00	0.15	0.39	0.64	0.81	0.87	0.79	0.59	0.33	0.10	0.00	0.08	0.28	0.52	0.72	0.80	0.76	0.59	0.36	0.13	0.00	0.02	0.14	0.30	0.45	0.53	0.51	0.41	0.25	0.09	0.00
DL - DECK	0.00	0.48	0.84	1.07	1.14	1.03	0.79	0.47	0.17	-0.01	0.00	0.55	1.44	2.37	3.03	3.23	2.94	2.22	1.27	0.41	0.00	0.24	0.90	1.71	2.36	2.63	2.46	1.89	1.10	0.35	0.00	0.19	0.71	1.38	1.96	2.24	2.14	1.70	1.04	0.39	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.05	0.05	0.04	0.02	0.01	0.00	0.00	0.03	0.07	0.11	0.14	0.14	0.13	0.10	0.06	0.02	0.00	0.01	0.04	0.08	0.11	0.12	0.11	0.09	0.05	0.02	0.00	0.01	0.03	0.06	0.09	0.10	0.09	0.08	0.05	0.02	0.00
TOTAL	0.00	0.64	1.11	1.42	1.51	1.36	1.06	0.63	0.24	-0.01	0.00	0.72	1.89	3.11	3.97	4.24	3.85	2.90	1.66	0.53	0.00	0.33	1.23	2.31	3.18	3.56	3.33	2.57	1.51	0.50	0.00	0.22	0.89	1.75	2.49	2.86	2.75	2.19	1.34	0.50	0.00

GIRDER 9	SPAN 9							PIER 9			SPAN 10							PIER 10				SPAN 11						N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.05	0.13	0.20	0.23	0.22	0.16	0.09	0.02	0.00	0.06	0.17	0.29	0.37	0.41	0.39	0.31	0.20	0.08	0.00	-0.01	0.01	0.04	0.08	0.11	0.13	0.12	0.10	0.06	0.00
DL - DECK	-0.02	0.18	0.49	0.74	0.87	0.83	0.61	0.33	0.07	0.00	0.24	0.66	1.14	1.49	1.65	1.55	1.22	0.77	0.31	0.00	-0.04	0.05	0.16	0.34	0.44	0.52	0.49	0.39	0.23	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.06	0.07	0.07	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	-0.02	0.24	0.65	0.97	1.14	1.08	0.79	0.43	0.10	0.00	0.31	0.85	1.48	1.93	2.13	2.01	1.58	1.00	0.41	0.00	-0.05	0.06	0.21	0.43	0.57	0.67	0.63	0.50	0.29	0.00

GIRDER 10	PIER C1	SPAN 5							PIER 5	SPAN 6							PIER 6	SPAN 7							PIER 7	SPAN 8										PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.14	0.24	0.31	0.33	0.30	0.23	0.14	0.05	0.00	0.00	0.15	0.40	0.66	0.84	0.90	0.81	0.61	0.35	0.11	0.00	0.08	0.29	0.55	0.74	0.83	0.78	0.61	0.37	0.14	0.00	0.02	0.15	0.31	0.46	0.54	0.53	0.42	0.26	0.10	0.00
DL - DECK	0.00	0.53	0.92	1.18	1.26	1.14	0.88	0.53	0.21	0.00	0.00	0.56	1.50	2.47	3.17	3.38	3.07	2.30	1.31	0.43	0.00	0.27	1.03	1.92	2.62	2.91	2.71	2.09	1.21	0.41	0.00	0.18	0.75	1.46	2.07	2.37	2.27	1.80	1.10	0.42	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.05	0.05	0.04	0.02	0.01	0.00	0.00	0.03	0.07	0.11	0.14	0.15	0.13	0.10	0.06	0.02	0.00	0.01	0.04	0.08	0.11	0.12	0.11	0.09	0.05	0.02	0.00	0.01	0.03	0.06	0.09	0.10	0.09	0.08	0.05	0.02	0.00
TOTAL	0.00	0.69	1.20	1.53	1.64	1.48	1.15	0.69	0.27	0.00	0.00	0.74	1.97	3.24	4.15	4.43	4.01	3.01	1.71	0.56	0.00	0.37	1.37	2.55	3.47	3.87	3.61	2.79	1.63	0.56	0.00	0.21	0.93	1.84	2.62	3.01	2.89	2.30	1.41	0.54	0.00

GIRDER 10	SPAN 9							PIER 9			SPAN 10							PIER 10				SPAN 11						N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.05	0.13	0.20	0.23	0.22	0.16	0.09	0.02	0.00	0.06	0.17	0.30	0.39	0.42	0.40	0.31	0.20	0.08	0.00	-0.01	0.01	0.04	0.08	0.11	0.13	0.12	0.10	0.06	0.00
DL - DECK	-0.03	0.19	0.53	0.81	0.95	0.89	0.65	0.35	0.08	0.00	0.26	0.71	1.24	1.62	1.78	1.67	1.31	0.83	0.34	0.00	-0.05	0.05	0.17	0.36	0.47	0.56	0.53	0.42	0.25	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.07	0.07	0.07	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	-0.03	0.24	0.69	1.04	1.22	1.15	0.84	0.45	0.10	0.00	0.33	0.91	1.59	2.07	2.28	2.14	1.68	1.07	0.43	0.00	-0.06	0.06	0.21	0.46	0.60	0.71	0.67	0.53	0.31	0.00



DEAD LOAD DEFLECTION DIAGRAM

(GIRDER 8 SHOWN, OTHERS SIMILAR)

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

STATE PROJECT NUMBER

1133-11-78

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI/SB | PLANS CK'D. NPP

GIRDER DEFLECTIONS
GIRDERS 8-10
SPANS 5-11

SHEET 26 OF 29

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DATE: 4/3/2013

I.D.

STATE PROJECT NUMBER

1133-11-78

DEFLECTIONS ARE GIVEN IN INCHES.
NEGATIVE VALUE INDICATES UPWARD DEFLECTION.

DEAD LOAD DEFLECTION TABLES

DIMENSIONS ARE IN INCHES

GIRDER 11	PIER C1	SPAN 5							PIER 5	SPAN 6							PIER 6	SPAN 7							PIER 7	SPAN 8								PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.14	0.25	0.31	0.34	0.30	0.23	0.14	0.05	0.00	0.00	0.16	0.41	0.68	0.87	0.92	0.83	0.63	0.36	0.12	0.00	0.08	0.30	0.56	0.76	0.85	0.80	0.63	0.38	0.14	0.00	0.02	0.15	0.32	0.47	0.55	0.53	0.43	0.26	0.10	0.00
DL - DECK	0.00	0.57	0.99	1.27	1.36	1.24	0.97	0.59	0.25	0.02	0.00	0.55	1.48	2.46	3.15	3.36	3.04	2.27	1.28	0.40	0.00	0.32	1.14	2.10	2.84	3.15	2.94	2.26	1.31	0.44	0.00	0.17	0.74	1.48	2.12	2.44	2.34	1.85	1.12	0.42	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.05	0.05	0.04	0.02	0.01	0.00	0.00	0.03	0.07	0.11	0.14	0.15	0.13	0.10	0.06	0.02	0.00	0.01	0.04	0.08	0.11	0.13	0.12	0.09	0.05	0.02	0.00	0.01	0.03	0.06	0.09	0.10	0.10	0.08	0.05	0.02	0.00
TOTAL	0.00	0.73	1.27	1.63	1.74	1.58	1.24	0.75	0.31	0.02	0.00	0.73	1.96	3.25	4.15	4.43	4.01	3.00	1.69	0.53	0.00	0.42	1.48	2.74	3.72	4.13	3.86	2.97	1.74	0.59	0.00	0.20	0.91	1.86	2.68	3.09	2.97	2.35	1.43	0.54	0.00

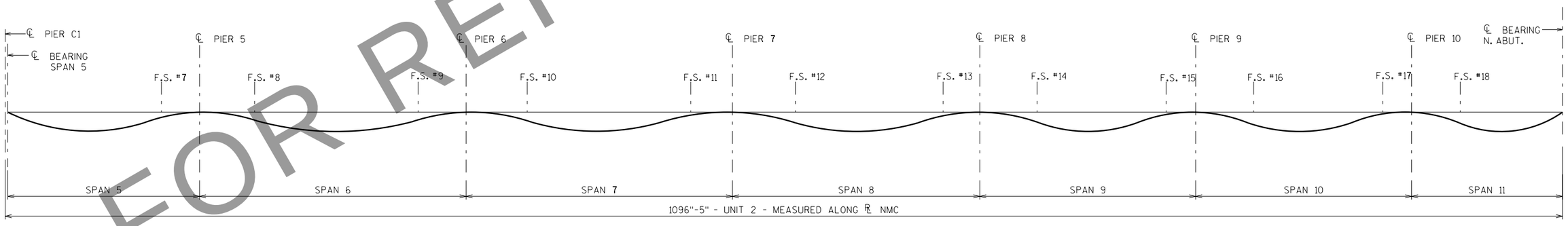
GIRDER 11	SPAN 9							PIER 9			SPAN 10							PIER 10				SPAN 11						N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.05	0.13	0.20	0.23	0.22	0.16	0.09	0.02	0.00	0.06	0.17	0.30	0.39	0.43	0.41	0.32	0.21	0.09	0.00	-0.01	0.01	0.04	0.08	0.11	0.13	0.13	0.10	0.06	0.00
DL - DECK	-0.02	0.20	0.56	0.84	0.99	0.93	0.68	0.36	0.08	0.00	0.27	0.74	1.29	1.68	1.85	1.74	1.37	0.87	0.36	0.00	-0.05	0.04	0.17	0.36	0.48	0.57	0.54	0.43	0.25	0.00
DL - PARAPETS	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.07	0.07	0.07	0.06	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	-0.02	0.26	0.71	1.08	1.26	1.19	0.87	0.46	0.10	0.00	0.34	0.95	1.64	2.14	2.36	2.22	1.75	1.11	0.46	0.00	-0.06	0.05	0.21	0.46	0.61	0.72	0.69	0.55	0.32	0.00

GIRDER 12	PIER C1	SPAN 5							PIER 5	SPAN 6							PIER 6	SPAN 7							PIER 7	SPAN 8								PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.15	0.25	0.32	0.34	0.31	0.24	0.14	0.05	-0.01	0.00	0.17	0.43	0.69	0.88	0.94	0.85	0.64	0.36	0.11	0.00	0.09	0.31	0.57	0.78	0.87	0.82	0.64	0.38	0.14	0.00	0.03	0.15	0.33	0.48	0.56	0.54	0.43	0.27	0.10	0.00
DL - DECK	0.00	0.60	1.05	1.35	1.46	1.34	1.07	0.68	0.30	0.04	0.00	0.51	1.38	2.30	2.96	3.15	2.83	2.08	1.13	0.30	0.00	0.42	1.30	2.30	3.08	3.39	3.14	2.41	1.41	0.47	0.00	0.16	0.73	1.47	2.12	2.45	2.36	1.87	1.14	0.43	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.05	0.05	0.04	0.02	0.01	0.00	0.00	0.03	0.07	0.11	0.14	0.15	0.14	0.10	0.06	0.02	0.00	0.01	0.05	0.09	0.12	0.13	0.12	0.09	0.06	0.02	0.00	0.01	0.03	0.06	0.09	0.10	0.10	0.08	0.05	0.02	0.00
TOTAL	0.00	0.76	1.34	1.72	1.85	1.70	1.34	0.83	0.35	0.04	0.00	0.70	1.87	3.10	3.98	4.24	3.82	2.82	1.54	0.43	0.00	0.52	1.66	2.96	3.97	4.39	4.08	3.15	1.85	0.63	0.00	0.20	0.91	1.85	2.68	3.11	2.99	2.38	1.46	0.55	0.00

GIRDER 12	SPAN 9							PIER 9			SPAN 10							PIER 10				SPAN 11						N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.06	0.14	0.21	0.24	0.22	0.16	0.09	0.02	0.00	0.06	0.18	0.31	0.40	0.44	0.41	0.33	0.21	0.08	0.00	-0.01	0.01	0.04	0.09	0.11	0.13	0.13	0.10	0.06	0.00
DL - DECK	-0.01	0.24	0.60	0.88	1.03	0.96	0.70	0.37	0.09	0.00	0.27	0.76	1.32	1.71	1.89	1.78	1.39	0.88	0.36	0.00	-0.05	0.05	0.18	0.38	0.49	0.58	0.55	0.44	0.26	0.00
DL - PARAPETS	0.00	0.01	0.02	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.07	0.07	0.07	0.06	0.04	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	-0.01	0.30	0.76	1.12	1.30	1.22	0.89	0.47	0.11	0.00	0.34	0.96	1.67	2.18	2.40	2.26	1.77	1.12	0.45	0.00	-0.06	0.07	0.23	0.48	0.63	0.74	0.70	0.55	0.32	0.00

GIRDER 13	PIER C1	SPAN 5							PIER 5	SPAN 6							PIER 6	SPAN 7							PIER 7	SPAN 8								PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.15	0.26	0.33	0.35	0.32	0.25	0.14	0.05	0.00	0.00	0.16	0.43	0.70	0.90	0.96	0.88	0.66	0.37	0.12	0.00	0.09	0.31	0.58	0.80	0.89	0.84	0.65	0.39	0.14	0.00	0.03	0.16	0.33	0.49	0.57	0.55	0.44	0.27	0.10	0.00
DL - DECK	0.00	0.63	1.10	1.43	1.55	1.45	1.18	0.78	0.39	0.10	0.00	0.39	1.14	1.96	2.54	2.71	2.43	1.75	0.90	0.20	0.00	0.51	1.46	2.52	3.33	3.63	3.36	2.58	1.52	0.52	0.00	0.14	0.70	1.43	2.08	2.41	2.32	1.84	1.12	0.41	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.06	0.05	0.04	0.02	0.01	0.00	0.00	0.03	0.07	0.11	0.15	0.16	0.14	0.11	0.06	0.02	0.00	0.01	0.05	0.09	0.12	0.14	0.13	0.10	0.06	0.02	0.00	0.01	0.03	0.06	0.09	0.10	0.10	0.08	0.05	0.02	0.00
TOTAL	0.00	0.80	1.40	1.81	1.96	1.82	1.46	0.95	0.45	0.09	0.00	0.58	1.64	2.77	3.59	3.83	3.45	2.52	1.34	0.33	0.00	0.61	1.82	3.19	4.25	4.66	4.32	3.33	1.97	0.68	0.00	0.18	0.89	1.83	2.66	3.08	2.97	2.35	1.43	0.53	0.00

GIRDER 13	SPAN 9							PIER 9			SPAN 10							PIER 10				SPAN 11						N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.06	0.14	0.21	0.24	0.23	0.17	0.09	0.02	0.00	0.06	0.18	0.31	0.40	0.45	0.42	0.33	0.21	0.09	0.00	-0.01	0.01	0.04	0.09	0.12	0.14	0.13	0.10	0.06	0.00
DL - DECK	0.01	0.26	0.63	0.93	1.07	0.99	0.72	0.38	0.09	0.00	0.27	0.75	1.32	1.72	1.90	1.79	1.41	0.90	0.36	0.00	-0.05	0.05	0.18	0.38	0.50	0.59	0.57	0.45	0.26	0.00
DL - PARAPETS	0.00	0.01	0.02	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.07	0.08	0.07	0.06	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	0.01	0.33	0.80	1.17	1.35	1.26	0.91	0.49	0.11	0.00	0.34	0.96	1.68	2.19	2.42	2.28	1.79	1.14	0.47	0.00	-0.06	0.06	0.23	0.48	0.64	0.75	0.71	0.57	0.33	0.00



DEAD LOAD DEFLECTION DIAGRAM
(GIRDER 11 SHOWN, OTHERS SIMILAR)

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI/SB | PLANS CK'D. NPP

GIRDER DEFLECTIONS
GIRDERS 11-13
SPANS 5-11

SHEET 27 OF 29
1187

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FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E027- B-05-681E_Girder Deflection Girders 11-13 Span 5-11. UNIT 2.dgn

DATE: 4/3/2013
I.D.

STATE PROJECT NUMBER

1133-11-78

DEFLECTIONS ARE GIVEN IN INCHES.
NEGATIVE VALUE INDICATES UPWARD DEFLECTION.

DEAD LOAD DEFLECTION TABLES

DIMENSIONS ARE IN INCHES

GIRDER 14	PIER C1				SPAN 5					PIER 5					SPAN 6					PIER 6					SPAN 7					PIER 7					SPAN 8					PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.15	0.26	0.34	0.36	0.33	0.26	0.16	0.06	0.00	0.00	0.15	0.42	0.70	0.91	0.98	0.90	0.68	0.39	0.13	0.00	0.08	0.31	0.59	0.81	0.90	0.85	0.67	0.40	0.15	0.00	0.03	0.16	0.34	0.50	0.58	0.56	0.45	0.28	0.11	0.00
DL - DECK	0.00	0.64	1.13	1.47	1.62	1.54	1.29	0.90	0.50	0.17	0.00	0.24	0.81	1.47	1.96	2.10	1.86	1.27	0.57	0.06	0.00	0.61	1.66	2.76	3.57	3.86	3.55	2.73	1.62	0.59	0.00	0.10	0.64	1.36	1.99	2.31	2.23	1.77	1.08	0.40	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.06	0.05	0.04	0.03	0.01	0.00	0.00	0.03	0.07	0.12	0.15	0.16	0.15	0.11	0.07	0.02	0.00	0.01	0.05	0.09	0.13	0.14	0.13	0.10	0.06	0.02	0.00	0.01	0.03	0.06	0.09	0.10	0.10	0.08	0.05	0.02	0.00
TOTAL	0.00	0.81	1.44	1.86	2.04	1.92	1.59	1.08	0.57	0.18	0.00	0.42	1.30	2.29	3.03	3.25	2.90	2.06	1.03	0.20	0.00	0.71	2.02	3.45	4.51	4.90	4.53	3.50	2.08	0.75	0.00	0.13	0.83	1.77	2.58	2.99	2.89	2.30	1.41	0.53	0.00

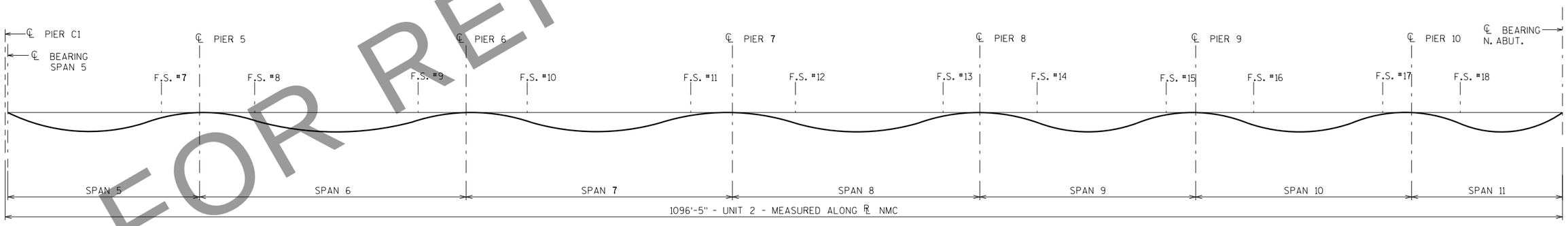
GIRDER 14	SPAN 9							PIER 9					SPAN 10							PIER 10					SPAN 11							N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.05	0.14	0.21	0.25	0.23	0.17	0.09	0.02	0.00	0.07	0.18	0.32	0.41	0.45	0.43	0.34	0.21	0.09	0.00	-0.01	0.01	0.04	0.09	0.12	0.14	0.13	0.10	0.06	0.00
DL - DECK	0.01	0.27	0.66	0.96	1.10	1.02	0.74	0.40	0.10	0.00	0.26	0.75	1.31	1.71	1.88	1.77	1.39	0.88	0.35	0.00	-0.05	0.06	0.19	0.39	0.51	0.60	0.57	0.45	0.27	0.00
DL - PARAPETS	0.00	0.01	0.03	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.05	0.07	0.08	0.07	0.06	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	0.01	0.34	0.83	1.20	1.38	1.29	0.94	0.51	0.12	0.00	0.34	0.96	1.68	2.19	2.41	2.27	1.78	1.13	0.46	0.00	-0.06	0.07	0.23	0.49	0.64	0.76	0.72	0.57	0.33	0.00

GIRDER 15	PIER C1				SPAN 5					PIER 5					SPAN 6					PIER 6					SPAN 7					PIER 7					SPAN 8					PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.15	0.26	0.33	0.35	0.32	0.25	0.15	0.06	0.00	0.00	0.16	0.42	0.71	0.93	1.00	0.91	0.69	0.40	0.13	0.00	0.09	0.33	0.60	0.82	0.92	0.86	0.67	0.40	0.14	0.00	0.04	0.18	0.36	0.52	0.60	0.58	0.46	0.29	0.11	0.00
DL - DECK	0.00	0.65	1.15	1.50	1.66	1.60	1.37	0.99	0.58	0.23	0.00	0.08	0.44	0.91	1.28	1.38	1.16	0.72	0.21	-0.12	0.00	0.76	1.87	2.97	3.75	4.01	3.68	2.83	1.69	0.61	0.00	0.07	0.56	1.24	1.84	2.16	2.09	1.67	1.01	0.37	0.00
DL - PARAPETS	0.00	0.03	0.04	0.06	0.06	0.06	0.05	0.03	0.01	0.00	0.00	0.03	0.07	0.12	0.16	0.17	0.16	0.12	0.07	0.02	0.00	0.02	0.06	0.10	0.14	0.15	0.14	0.11	0.06	0.02	0.00	0.01	0.03	0.07	0.09	0.11	0.10	0.08	0.05	0.02	0.00
TOTAL	0.00	0.82	1.45	1.89	2.07	1.97	1.66	1.17	0.66	0.23	0.00	0.26	0.93	1.73	2.36	2.55	2.23	1.52	0.67	0.03	0.00	0.87	2.25	3.68	4.71	5.07	4.68	3.61	2.16	0.78	0.00	0.12	0.77	1.66	2.45	2.86	2.77	2.21	1.35	0.49	0.00

GIRDER 15	SPAN 9							PIER 9					SPAN 10							PIER 10					SPAN 11							N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.06	0.14	0.21	0.25	0.23	0.17	0.09	0.02	0.00	0.07	0.19	0.33	0.42	0.47	0.44	0.34	0.22	0.09	0.00	-0.01	0.01	0.04	0.09	0.12	0.14	0.13	0.11	0.06	0.00
DL - DECK	0.03	0.29	0.66	0.94	1.08	1.01	0.73	0.39	0.09	0.00	0.26	0.74	1.28	1.67	1.83	1.72	1.34	0.85	0.34	0.00	-0.04	0.06	0.19	0.39	0.50	0.59	0.56	0.44	0.26	0.00
DL - PARAPETS	0.00	0.01	0.03	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.01	0.03	0.06	0.07	0.08	0.08	0.06	0.04	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
TOTAL	0.03	0.35	0.82	1.19	1.37	1.28	0.93	0.50	0.11	0.00	0.35	0.97	1.67	2.16	2.38	2.23	1.74	1.10	0.44	0.00	-0.05	0.08	0.24	0.49	0.64	0.75	0.71	0.57	0.33	0.00

GIRDER 16	PIER C1				SPAN 5					PIER 5					SPAN 6					PIER 6					SPAN 7					PIER 7					SPAN 8					PIER 8
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.3	7.4	7.5	7.6	7.7	7.8	7.9	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	9.0
DL - STEEL ONLY	0.00	0.13	0.23	0.29	0.31	0.28	0.21	0.12	0.04	-0.01	0.00	0.17	0.45	0.73	0.94	1.00	0.91	0.69	0.39	0.13	0.00	0.10	0.33	0.62	0.84	0.94	0.88	0.68	0.41	0.14	0.00	0.04	0.18	0.38	0.54	0.63	0.60	0.48	0.30	0.11	0.00
DL - DECK	0.00	0.59	1.05	1.39	1.56	1.52	1.33	0.99	0.61	0.26	0.00	-0.04	0.17	0.44	0.63	0.65	0.47	0.14	-0.19	-0.31	0.00	0.87	2.02	3.14	3.91	4.13	3.75	2.88	1.73	0.63	0.00	0.02	0.44	1.07	1.64	1.95	1.91	1.53	0.93	0.33	0.00
DL - PARAPETS	0.00	0.02	0.04	0.05	0.06	0.05	0.04	0.03	0.01	0.00	0.00	0.03	0.08	0.13	0.16	0.17	0.16	0.12	0.07	0.02	0.00	0.02	0.06	0.11	0.14	0.16	0.15	0.11	0.07	0.02	0.00	0.01	0.04	0.07	0.10	0.11	0.11	0.09	0.05	0.02	0.00
TOTAL	0.00	0.75	1.33	1.74	1.92	1.85	1.58	1.14	0.66	0.25	0.00	0.17	0.69	1.30	1.73	1.82	1.54	0.94	0.28	-0.17	0.00	0.98	2.41	3.86	4.89	5.22	4.77	3.67	2.20	0.80	0.00	0.06	0.66	1.51	2.28	2.69	2.62	2.09	1.28	0.46	0.00

GIRDER 16	SPAN 9							PIER 9					SPAN 10							PIER 10					SPAN 11							N. ABUT.
	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	12.0
DL - STEEL ONLY	0.00	0.05	0.14	0.21	0.25	0.23	0.17	0.09	0.02	0.00	0.07	0.20	0.34	0.44	0.48	0.45	0.35	0.22	0.09	0.00	-0.01	0.01	0.05	0.10	0.13	0.15	0.14	0.11	0.07	0.00
DL - DECK	0.03	0.27	0.62	0.89	1.02	0.95	0.69	0.37	0.08	0.00	0.25	0.69	1.21	1.58	1.75	1.65	1.29	0.81	0.33	0.00	-0.04	0.05	0.17	0.36	0.47	0.55	0.53	0.42	0.24	0.00
DL - PARAPETS	0.00	0.01	0.03	0.04	0.05	0.04	0.03	0.02	0.00	0.00	0.01	0.04	0.06	0.08	0.09	0.08	0.07	0.04	0.02	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.00
TOTAL	0.02	0.34	0.79	1.14	1.32	1.23	0.89	0.47	0.10	0.00	0.33	0.93	1.61	2.10	2.32	2.18	1.71	1.08	0.43	0.00	-0.06	0.07	0.23	0.47	0.62	0.73	0.69	0.55	0.32	0.00



DEAD LOAD DEFLECTION DIAGRAM

(GIRDER 14 SHOWN, OTHERS SIMILAR)

FOR REFERENCE ONLY

STEEL FABRICATION CONTRACT ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI/SB | PLANS CK'D. NPP

GIRDER DEFLECTIONS
GIRDERS 14-16
SPANS 5-11

SHEET 28 OF 29

1188

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FILE= Q:\WisDot_12345678_US41Bridges_Plans\B-05-681E\028- B-05-681E_Girder Deflection Girders 14-16 Span 5-11. UNIT 2.dgn

DATE: 4/3/2013
I.D.

GIRDER 14'	PIER C1	SPAN 5								PIER 5				SPAN 6							PIER 6
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1*	6.2*	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
DL - STEEL ONLY	0.00	0.15	0.26	0.34	0.36	0.33	0.26	0.16	0.06	0.00	0.00	0.32	0.80								
DL - DECK	0.00	0.65	1.15	1.50	1.66	1.58	1.34	0.96	0.55	0.21	0.00	0.43	1.37								
DL - PARAPETS	0.00	0.03	0.04	0.06	0.06	0.06	0.05	0.03	0.01	0.00	0.00	0.05	0.13								
TOTAL	0.00	0.83	1.46	1.90	2.08	1.97	1.64	1.14	0.63	0.21	0.00	0.80	2.30								

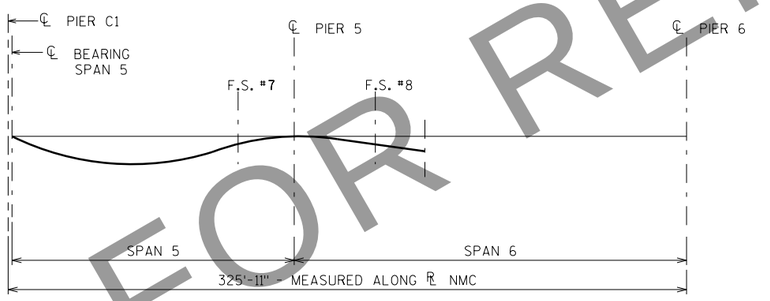
* SINCE GIRDER CANTILEVER IS APPROXIMATELY 20% OF THE LENGTH OF SPAN 6, DEFLECTION VALUES AT THE MID POINT AND END OF THE CANTILEVER SECTION HAVE BEEN DESIGNATED 6.1 AND 6.2, RESPECTIVELY.

GIRDER 15'	PIER C1	SPAN 5								PIER 5				SPAN 6							PIER 6
	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1*	6.2*	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0
DL - STEEL ONLY	0.00	0.14	0.25	0.31	0.34	0.30	0.23	0.14	0.05	0.00	0.00	0.33	0.82								
DL - DECK	0.00	0.63	1.12	1.47	1.63	1.57	1.36	1.00	0.60	0.25	0.00	0.18	0.80								
DL - PARAPETS	0.00	0.02	0.04	0.06	0.06	0.06	0.04	0.03	0.01	0.00	0.00	0.06	0.14								
TOTAL	0.00	0.80	1.41	1.84	2.02	1.93	1.63	1.16	0.66	0.25	0.00	0.57	1.75								

* SINCE GIRDER CANTILEVER IS APPROXIMATELY 20% OF THE LENGTH OF SPAN 6, DEFLECTION VALUES AT THE MID POINT AND END OF THE CANTILEVER SECTION HAVE BEEN DESIGNATED 6.1 AND 6.2, RESPECTIVELY.

DEAD LOAD DEFLECTION TABLES

DEFLECTIONS ARE GIVEN IN INCHES.
NEGATIVE VALUE INDICATES UPWARD DEFLECTION.



DEAD LOAD DEFLECTION DIAGRAM
(GIRDER 14' SHOWN, OTHERS SIMILAR)

FOR REFERENCE ONLY

STATE PROJECT NUMBER

1133-11-78

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-5-681

DRAWN BY SOI/SB | PLANS CK'D. NPP

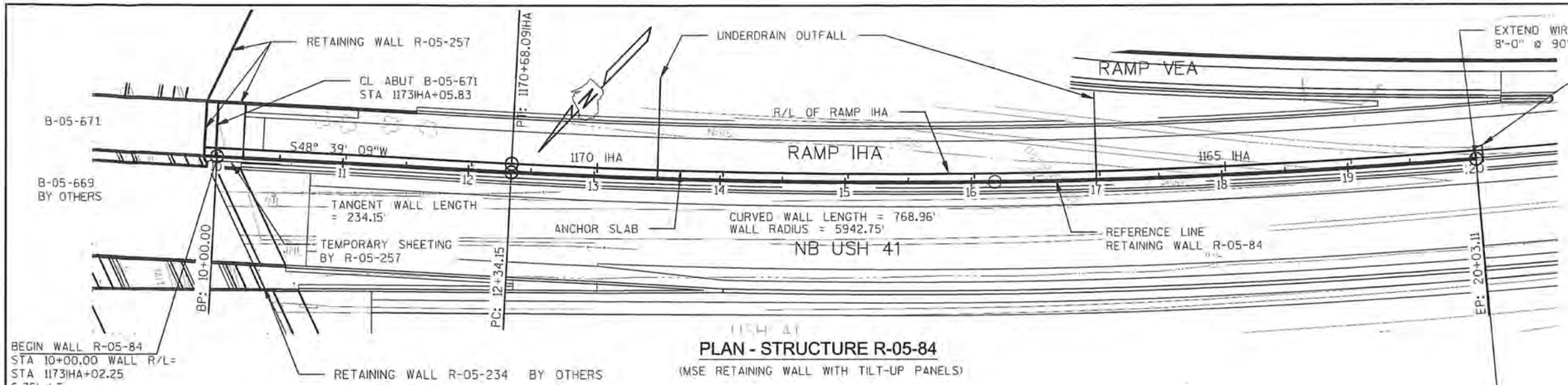
GIRDER DEFLECTIONS
GIRDERS 14' & 15' 1189
SPANS 5 & 6

SHEET 29 OF 29

STEEL FABRICATION CONTRACT ONLY

FILE= O:\WisDot_12345678_US41Bridges_Plans\B-05-681E\B-05-681EX029- B-05-681E_Girder Deflection Girders 14'&15' Span 5 & 6.dgn

DATE: 4/3/2013
I.D.

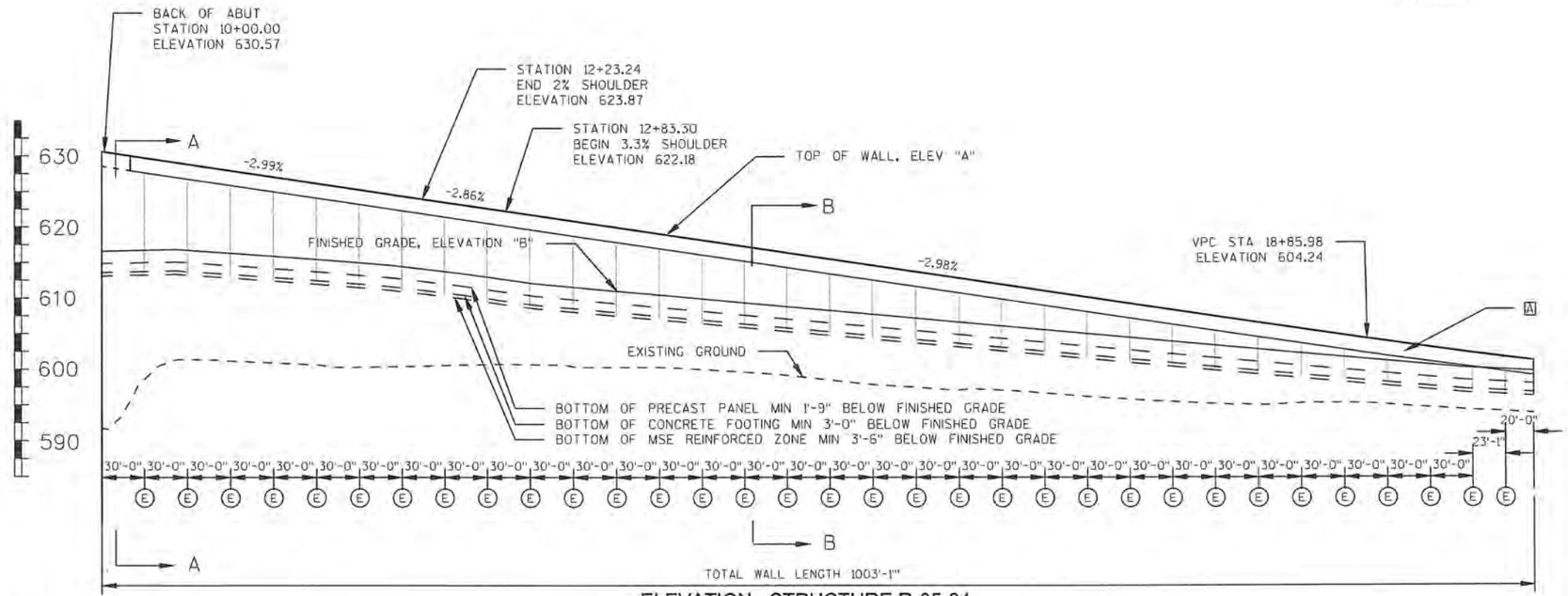


PLAN - STRUCTURE R-05-84

(MSE RETAINING WALL WITH TILT-UP PANELS)

GEOMETRY TABLE

WALL STATION	IHA STATION	OFFSET LT	TOP OF WALL ELEV "A"	FINISHED GRADE ELEV "B"
10+00.00	1173+02.25	6.75	630.57	616.10
10+02.24	1173+00.00	6.75	630.51	616.10
10+52.24	1172+50.00	6.75	629.01	616.87
11+02.24	1172+00.00	6.75	627.52	616.19
11+52.24	1171+50.00	6.75	626.02	615.45
12+02.24	1171+00.00	6.75	624.53	614.64
12+52.26	1170+50.00	6.75	623.07	613.47
13+02.32	1170+00.00	6.75	621.62	612.07
13+52.37	1169+50.00	6.75	620.12	611.15
14+02.43	1169+00.00	6.75	618.63	610.24
14+52.49	1168+50.00	6.75	617.13	609.33
15+02.54	1168+00.00	6.75	615.64	608.42
15+52.60	1167+50.00	6.75	614.14	607.50
16+02.66	1167+00.00	6.75	612.64	605.69
16+52.71	1166+50.00	6.75	611.15	605.68
17+02.77	1166+00.00	6.75	609.65	604.77
17+52.83	1165+50.00	6.75	608.16	603.85
18+02.89	1165+00.00	6.75	606.66	602.94
18+52.94	1164+50.00	6.75	605.17	602.03
19+03.00	1164+00.00	6.75	603.68	601.12
19+53.06	1163+50.00	6.75	602.41	599.35
20+03.11	1163+00.00	6.75	601.07	598.11



ELEVATION - STRUCTURE R-05-84

(LOOKING EAST AT FRONT FACE OF WALL)

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) 240 PSF

MATERIAL PROPERTIES

CONCRETE MASONRY RETAINING WALL	f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS	f'c = 5,000 PSI
BAR STEEL REINFORCEMENT	f'c = 60,000 PSI
STRUCTURAL CARBON STEEL (ASTM A709, GRADE 36)	f'c = 36,000 PSI

FOUNDATION DATA - ALLOWABLE SOIL BEARING CAPACITY
MSE WALL (SEE TABLE ON SHEET 2)

NOTE: THE WALL HAS BEEN DESIGNED FOR TRAFFIC LOADING ONLY. IF DURING CONSTRUCTION HEAVY EQUIPMENT IS OPERATING IN CLOSE PROXIMITY TO THE WALL OR IF MATERIAL IS STOCKPILED NEAR THE WALL, THE SAFETY FACTOR FOR THIS WALL WILL SIGNIFICANTLY DECREASE.

LIST OF DRAWINGS

1. GENERAL PLAN
2. DESIGN DATA & QUANTITIES
3. SUBSURFACE EXPLORATION
4. CROSS SECTIONS
5. WALL DETAILS I
6. WALL DETAILS II
7. WALL DETAILS III
8. WALL DETAILS IV
9. AESTHETIC DETAILS I
10. AESTHETIC DETAILS II

LEGEND

Ⓐ = NAME PLATE LOCATION

Ⓔ = EXPANSION JOINT LOCATION

DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489

NE REGION CONTACT:
PAUL VRANEY (920) 492-2232

CONSULTANT CONTACT:
JIM WENDELS (715) 423-3525

STATE PROJECT NUMBER
1133-11-74

WISCONSIN PROFESSIONAL ENGINEER
JAMES G WENDELS
E-35037
WISCONSIN RAPIDS WI
4/2/2013

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
QUEST
Civil Engineers, LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 05/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-05-84

RETAINING WALL AT SOUTH ABUTMENT OF B-05-671

COUNTY	TOWN/CITY/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJO	JGW	TNJ	JGW

GENERAL PLAN

SHEET 1 OF 10

1190

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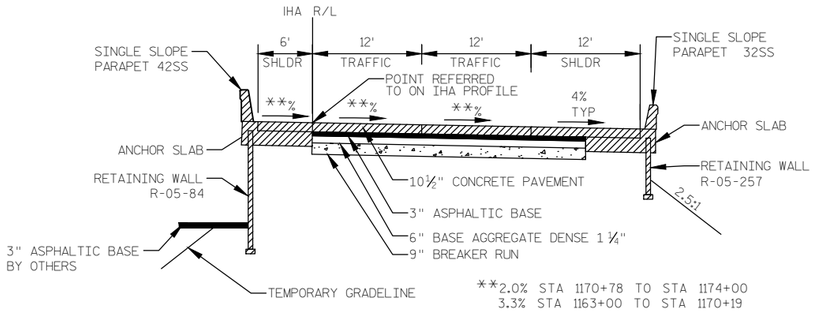
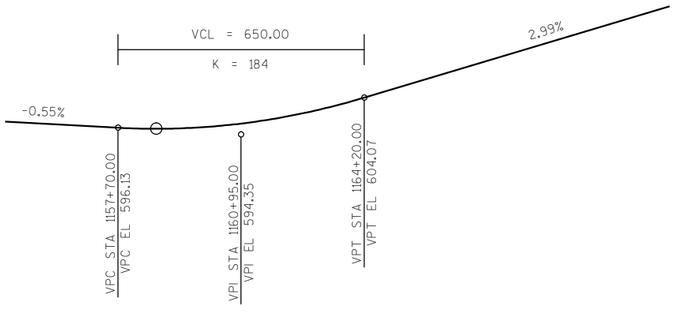
FILE NAME : S:\DESIGN\DESIGN PROJECTS\1130-10-00 (USH 41) - NE (RASMITH)\CIVIL 3D FILES\C3D\SHEETSPLAN\R-05-84.DWG PLOT DATE : 3/20/2013 9:52:18 AM PLOT BY : QUEST CIVIL ENG PLOT NAME :



TYPICAL FINISHED SECTION - RAMP IHA

(LOOKING NORTH)



PROFILE GRADE LINE - IHA

BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEVATION
1301	1189IHA+73.60	564.89' LT	DISK ON PARAPET WALL	612.17

SOIL PARAMETERS

	BOTTOM ELEVATION (FEET)				UNDRAINED		DRAINED	
SOIL UNIT	STA 10+03	STA 11+03	STA 13+03	SOIL UNIT WEIGHT (PCF)	COHESION (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)
REINFORCED MSE FILL (GRANULAR)	VARIES	VARIES	VARIES	120	5000	45	5000	45
NEW ENGINEERED GRANLAR FILL	VARIES	VARIES	VARIES	120	---	---	0	32
EXISTING EMBANKMENT	578	578	588	120	---	---	0	32
SELECT FILL	---	---	558	110	---	---	0	24
SOFT TO MEDIUM STIFF CLAY	553	553	---	125	500-1,000	0	50	26
DENSE SILTY SAND	548	548	---	125	---	---	0	32
VERY DENSE SILTY GRAVEL	543	543	545	135	---	---	0	36
HARD CLAY/HARDPAN	522	522	522	135	3,000	0	50	28

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	QUANTITY
502.3200	PROTECTIVE SURFACE TREATMENT	SY	490
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	495
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	58,900
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	45
532.0700.S	WALL WIRE FACED MECHANICALLY STABILIZED EARTH (LRFD)	SF	7,280
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1185
SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	8,280
SPV.0165.701	STAINING CONCRETE	SF	8,690
SPV.0165.702	STAINING CONCRETE BRICK	SF	3,040
SPV.0165.850	PRESTRESSED PRECAST CONCRETE WALL PANEL	SF	7,280
	NON BID ITEMS		
	PREFORMED FILLER	SIZE	3/4 " , 1"
	CORK FILLER	SIZE	1"
	EXPANDED POLYSTYRENE	SIZE	1"

IHA HORIZONTAL CURVE DATA

PI STA 1162+22.75
N = 581848.61
E = 87290.27
PC STA 1153+65.65
PT STA 1170+68.09
Δ = 16°25'56"
D = 0°57'55"
R = 5936.00
L = 1702.44

TRAFFIC DATA

RAMP IHA

A.D.T. (2015) = 13,000
A.D.T. (2035) = 10,000
DESIGN SPEED = 60 MPH

WALL EXTERNAL AND OVERALL STABILITY EVALUATION

DIMENSIONS			
WALL STATION	10+00	11+00	13+00
WALL HEIGHT (1) (FEET)	18.0'	14.8'	10.7'
EXPOSED WALL HEIGHT (FEET)	14.5'	11.3'	7.2'
MINIMUM LENGTH OF REINFORCEMENT (2) (FEET)	14	14	11
LENGTH OF REINFORCEMENT / WALL HEIGHT	0.78	0.95	0.84
CAPACITY TO DEMAND RATIO (CDR)			
SLIDING (CDR>1.0)	1.99	2.32	2.03
ECCENTRICITY (CDR>1.0)	1.89	2.64	2.06
GLOBAL STABILITY (CDR>1.0) (CONTROLLING CONDITION)	1.01	1.05	1.02
BEARING RESISTANCE (CDR>1.0)	2.25	2.76	2.54
FACTORED BEARING RESISTANCE (PSF)	8,000	8,000	8,000

NOTES:

1. WALL HEIGHT SHOWS ONLY THE MAXIMUM HEIGHT IN THE SECTION AND INCLUDES 3.5 FEET OF EMBEDMENT PER USH 41 BROWN COUNTY CORRIDOR MANUAL.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED FOR THE OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTOR'S RESPONSIBILITY

FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER

STATE PROJECT NUMBER

1133—11—74

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

THE CONTRACTOR MUST COORDINATE CONSTRUCTION OF THIS WALL WITH THE CONSTRUCTION OF B-05-671 SOUTH ABUTMENT AND WALL R-05-257.

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED SURFACE OF THE FRONT FACE AND TOP OF THE PARAPETS.

THE COST OF FURNISHING AND PLACING THE FOOTING UNDER THE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS INCLUDED IN THE ITEM "CONCRETE MASONRY RETAINING WALLS".

ALL REFERENCE LINE STATIONS FOR R-05-84 ARE ALONG THE FRONT FACE OF WALL (UNLESS SHOWN OTHERWISE).

AT END OF WALL CLOSE SPACE BETWEEN WIRE FACE WALL AND PRECAST CONCRETE WALL PANEL WITH 1'-6" WIDE COLUMN OF CONCRETE.

DESIGN MSE WALL FOR A SUCTION LOAD OF 20 PSF ACTING ON THE PRECAST WALL PANELS.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III OR AASHTO DESIGNATION M213.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 WITHOUT CERTIFIED TEST VALUES.

OPTIONAL TRANSVERSE CONSTRUCTION JOINTS ARE PERMITTED IN THE FOOTING WITH A MINIMUM SPACING OF TWO PANEL JOINTS. FOOTING JOINTS SHALL BE OFFSET A MINIMUM OF 1'-0" FROM WALL JOINTS. RUN BAR STEEL THROUGH FOOTING JOINTS.

DO NOT ALLOW CONCRETE OR FILL TO DROP OR ACCUMULATE IN WALL PANEL CAVITY.

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

PROVIDE A RUBBED SURFACE TREATMENT IN ACCORDANCE WITH SECTION 502.3.7.3 TO ALL PERMANENTLY EXPOSED SURFACES OF CONCRETE MASONRY RETAINING WALLS.

SEE SPECIAL PROVISIONS FOR AESTHETIC TREATMENT TO WALL.

DESIGN RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THESE PLANS AND THE ROADWAY CROSS SECTIONS.

PROPOSED STRUCTURE B-05-671 IS A MULTI SPAN CONTINUOUS STEEL BOX GIRDER BRIDGE. OVERALL WIDTH = 44'-10 ½", OVERALL LENGTH = 2343'-8"'

IN ACCORDANCE WITH THE SPECIAL PROVISIONS "STAINING CONCRETE" IS REQUIRED FOR BRICK SURFACES PRIOR TO "STAINING CONCRETE BRICK".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R—05—84

DRAWN BY AJO | PLANS CK'D. JGW

DESIGN DATA AND QUANTITIES

SHEET 2 OF 10

1191

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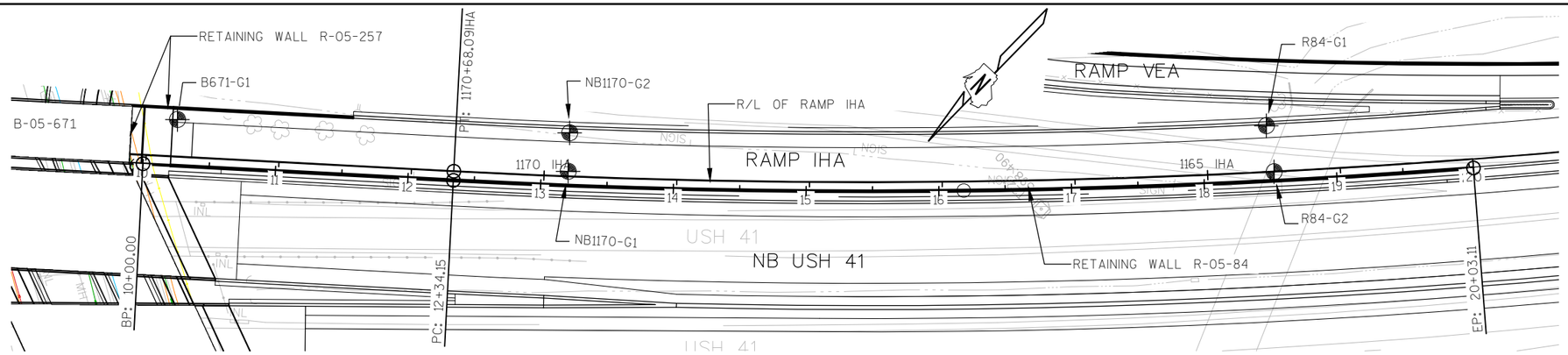

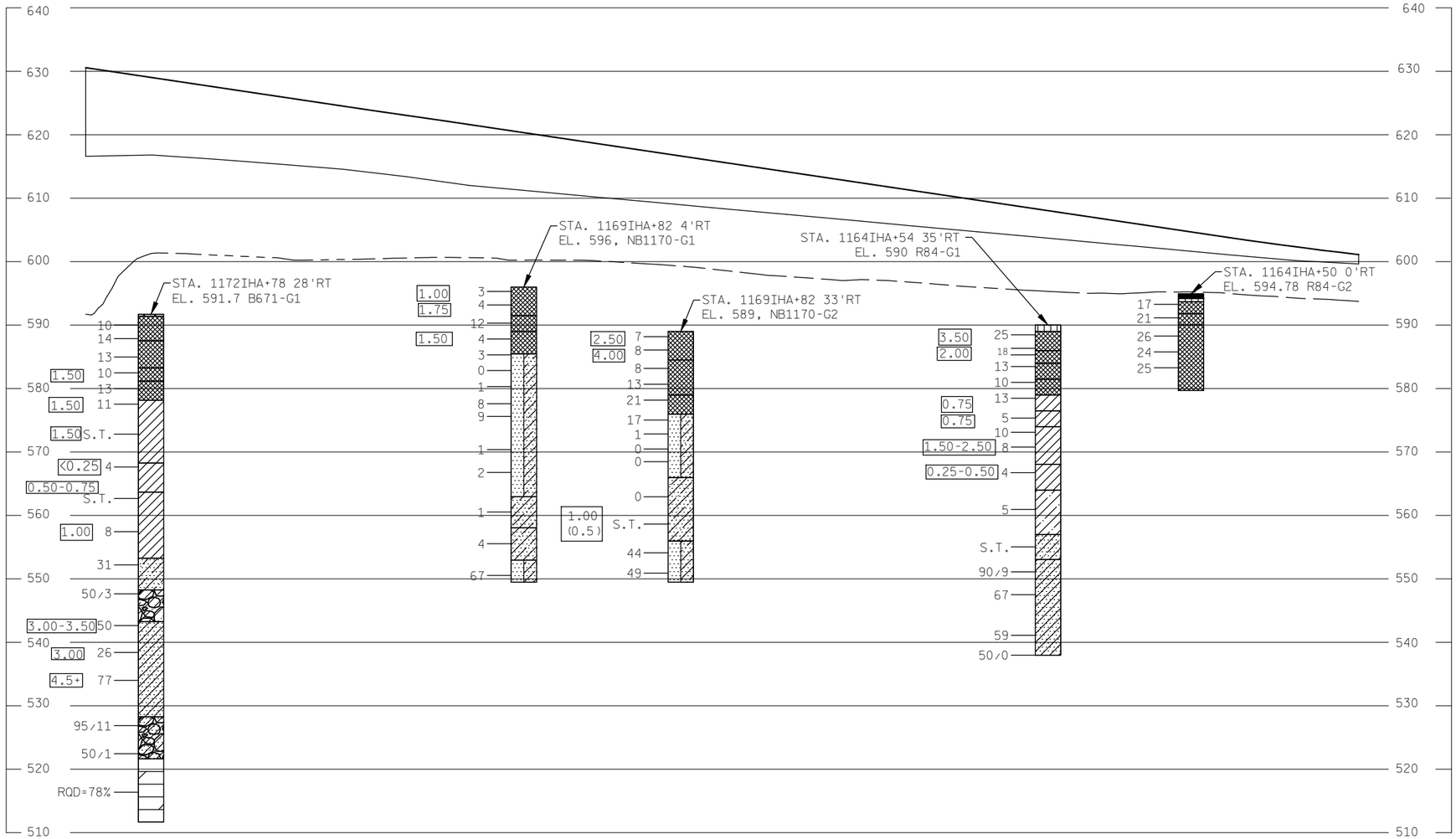

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, DOLOMITE, GRAVEL, CLAY, FILL

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D.POINT.

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

BORING NO.
STA.
ELEV.
UNCONFINED STRENGTH
BLOWS PER FT. USING 140# WT FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLE
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTRIBUTED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRACTION ON THE DRIVE PIPES.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA. THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE R-05-84

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SUBSURFACE EXPLORATION

SHEET 3 OF 10

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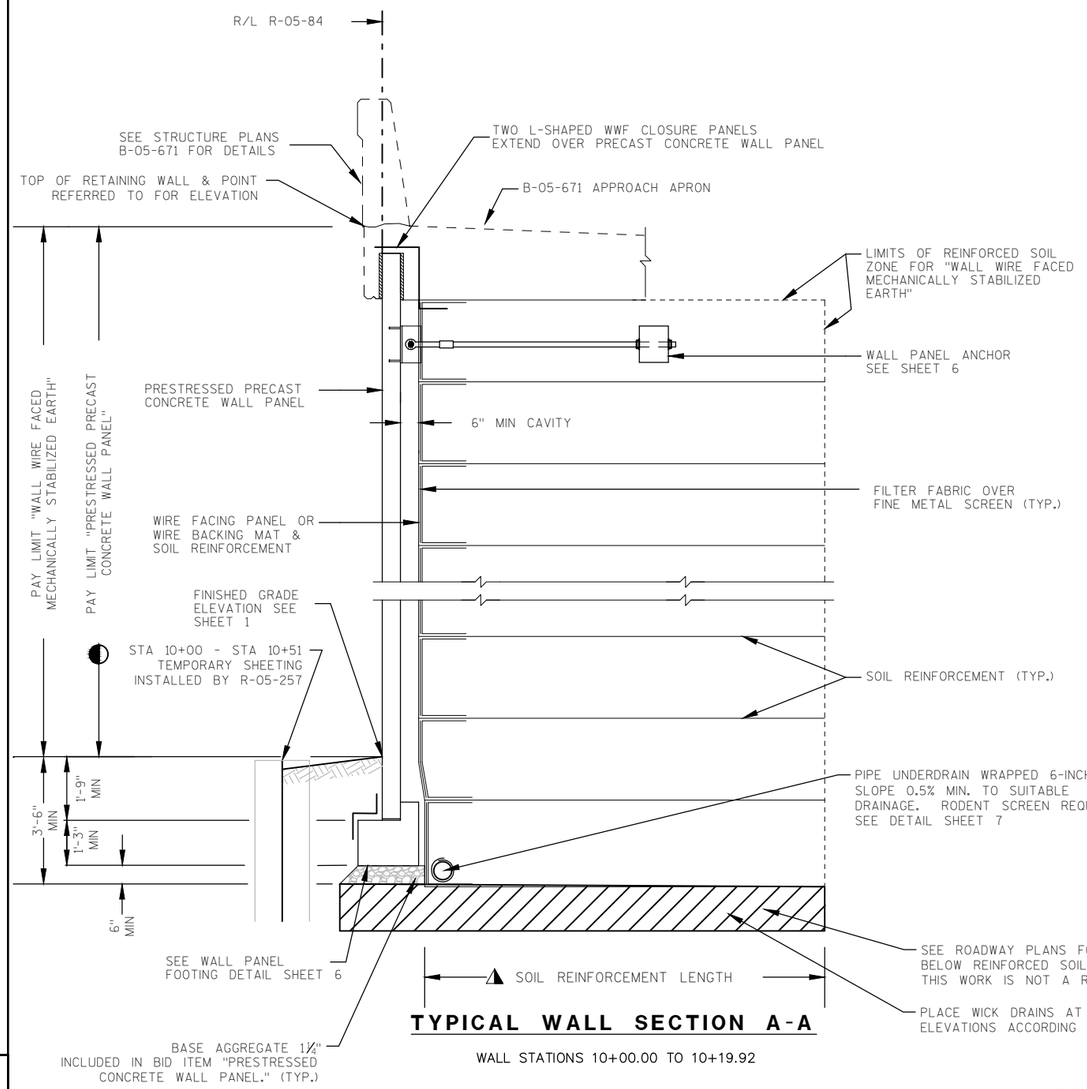
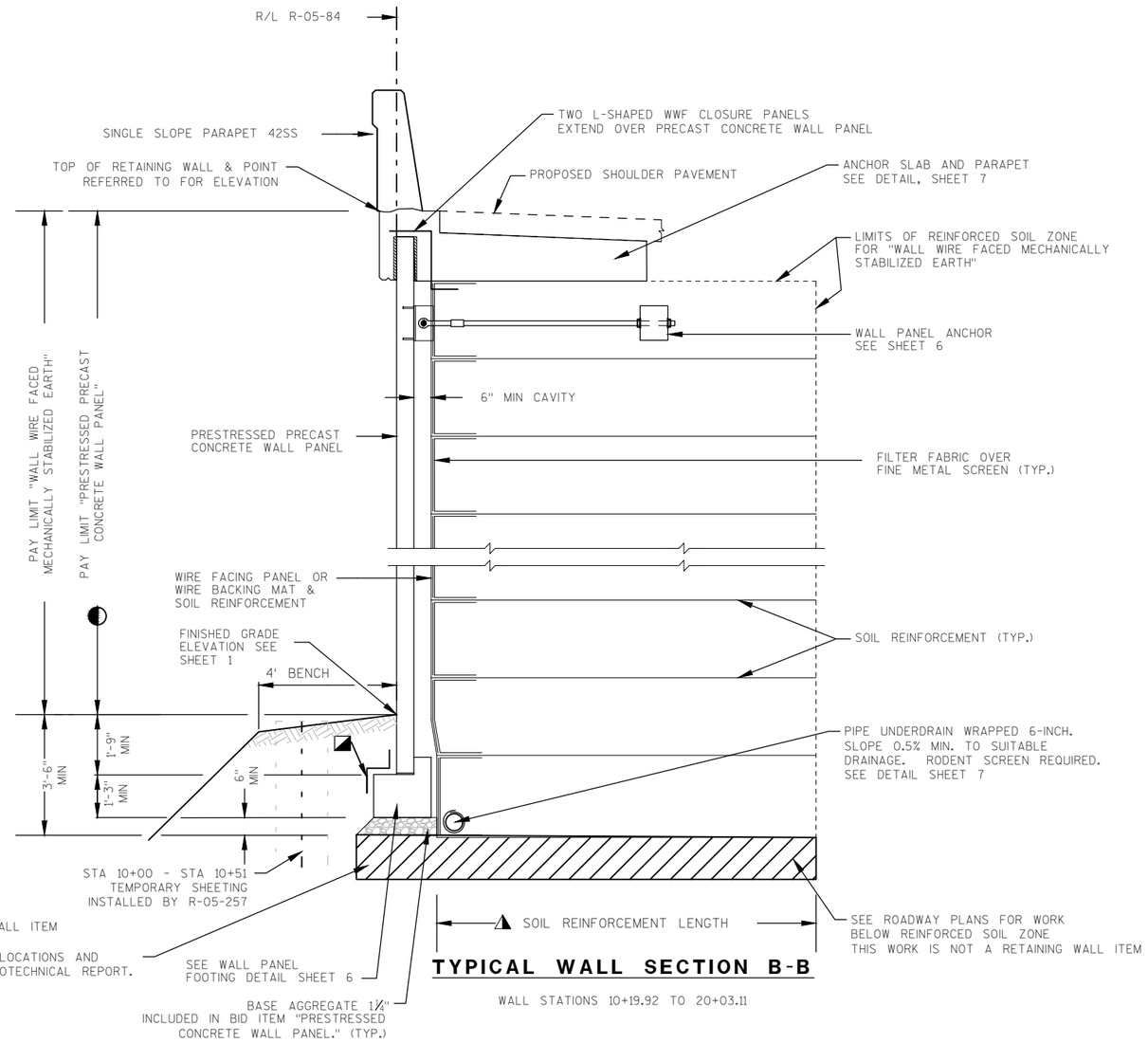


TYPICAL WALL SECTION A-A

WALL STATIONS 10+00.00 TO 10+19.92



TYPICAL WALL SECTION B-B

WALL STATIONS 10+19.92 TO 20+03.11

LEGEND

◐ THE PLAN QUANTITY FOR THE BID ITEMS "PRESTRESSED PRECAST CONCRETE WALL PANEL IS BASED ON A WALL HEIGHT MEASURED FROM THE FINSHED GRADE AT THE FRONT FACE OF THE WALL TO THE TOP OF THE WALL AS SHOWN. THE TOP OF THE FOOTING IS ASSUMED TO BE A CONSTANT 1'-9" BELOW FINISHED GRADE. COPING CONCRETE AND COPING REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "PRECAST CONCRETE WALL PANEL."

⚠ PER WISDOT, MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% OF THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH), OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS. ACTUAL CALCULATED LENGTHS OF REINFORCING STRIPS WILL NEED TO EXCEED THESE MINIMUMS IN ORDER TO SATISFY MINIMUM FACTORS OF SAFETY FOR VARIOUS MSE PARAMETERS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

◪ GEOTEXTILE FABRIC DF, 2'-0" WIDE, LENGTH OF FOOTING.

FINE METALLIC SCREEN SHALL BE ½" BY ½" MESH AND 0.025" MIN WIRE DIAMETER. WIRES TO BE HOT DIPPED GALVANIZED AFTER WELDING.

8

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NO.	DATE	REVISION	BY

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STRUCTURE R–05–84

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CROSS SECTIONS

SHEET 4 OF 10

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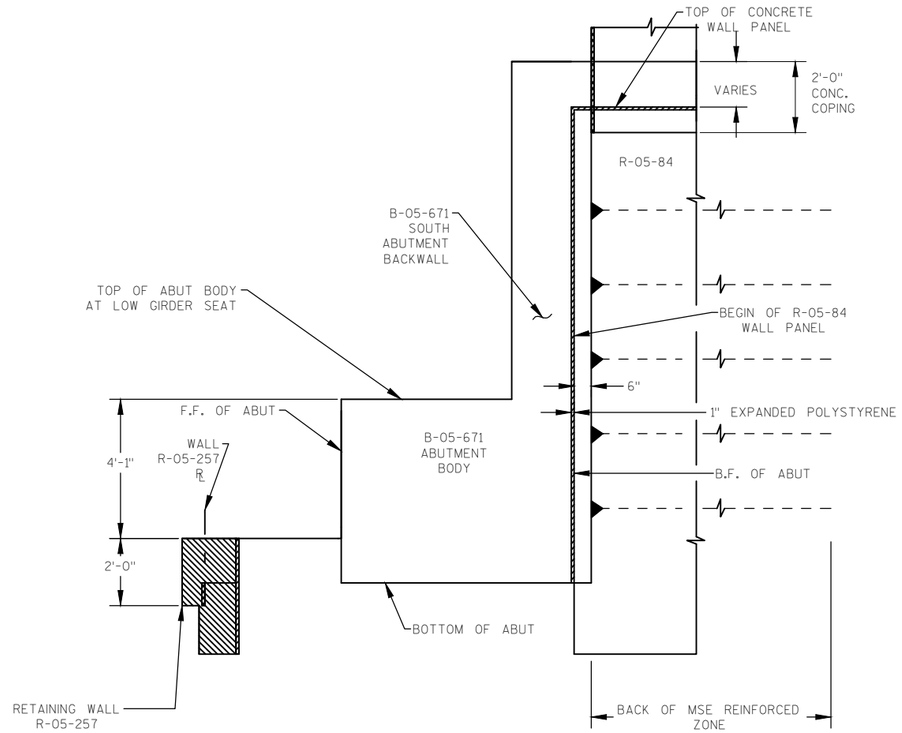
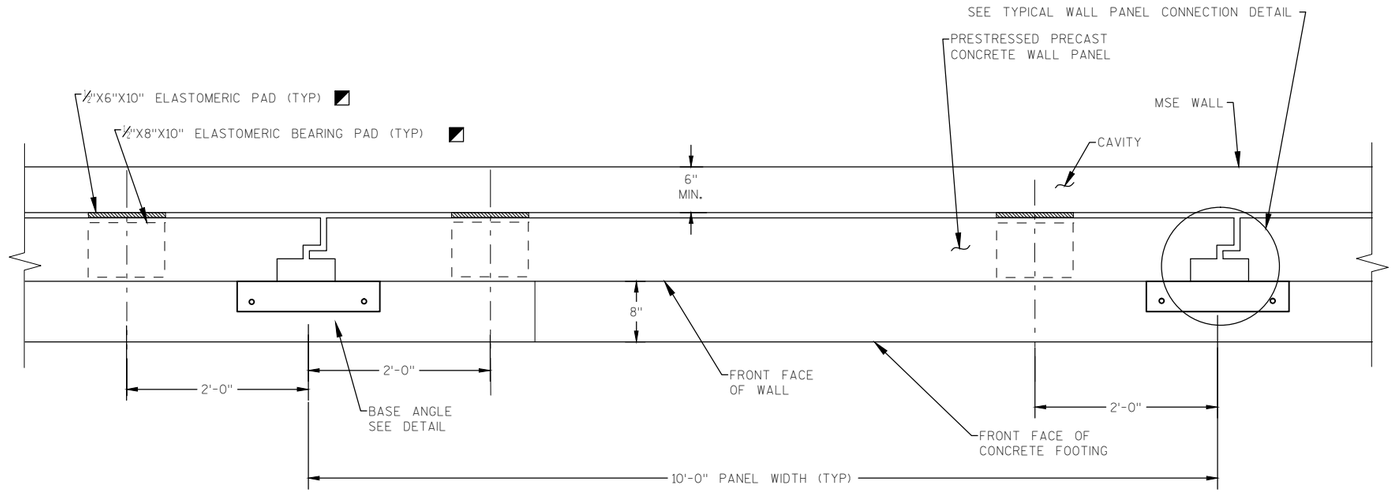


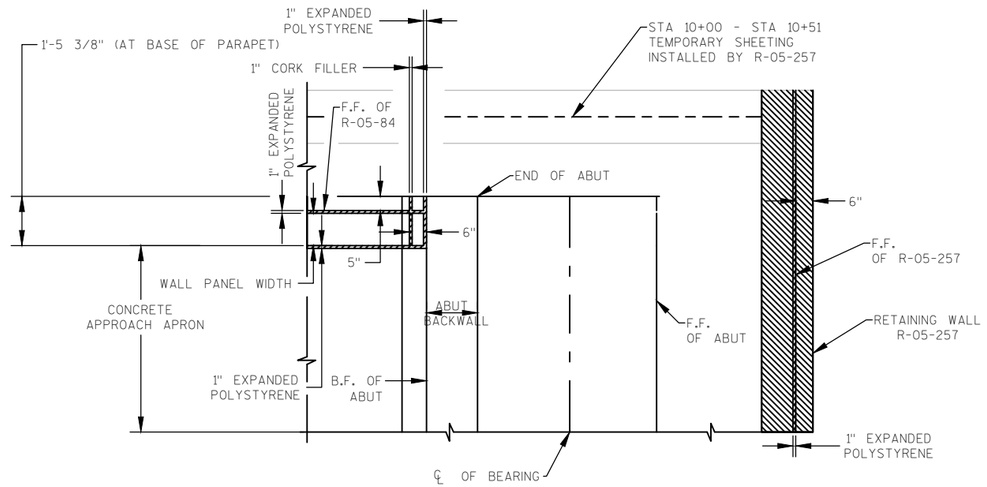
PART ELEVATION - ABUTMENT END VIEW

FOR AESTHETIC DETAILS, SEE SHEET 9

NOTE: UNFACTORED HORIZONTAL DESIGN LOAD FROM SUPERSTRUCTURE IS 3 KIPS PER LINEAR FOOT OF ABUTMENT LENGTH

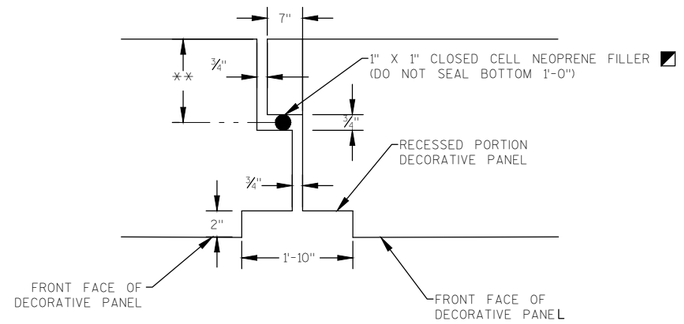


TYPICAL WALL PANEL CONNECTION



PART PLAN - TOP VIEW - TYPICAL CORNER DETAIL

(SHOWN AT S CORNER OF B-05-671)



TYPICAL WALL PANEL CONNECTION

** 4" FOR 9½" PANEL
3" FOR 7½" PANEL

LEGEND

◪ INCLUDED IN THE BID ITEM "PRESTRESSED CONCRETE WALL PANEL"

F.F. = FRONT FACE

B.F. = BACK FACE

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STATE OF WISCONSIN
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STRUCTURE R—05—84

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WALL DETAILS I

SHEET 5 OF 10

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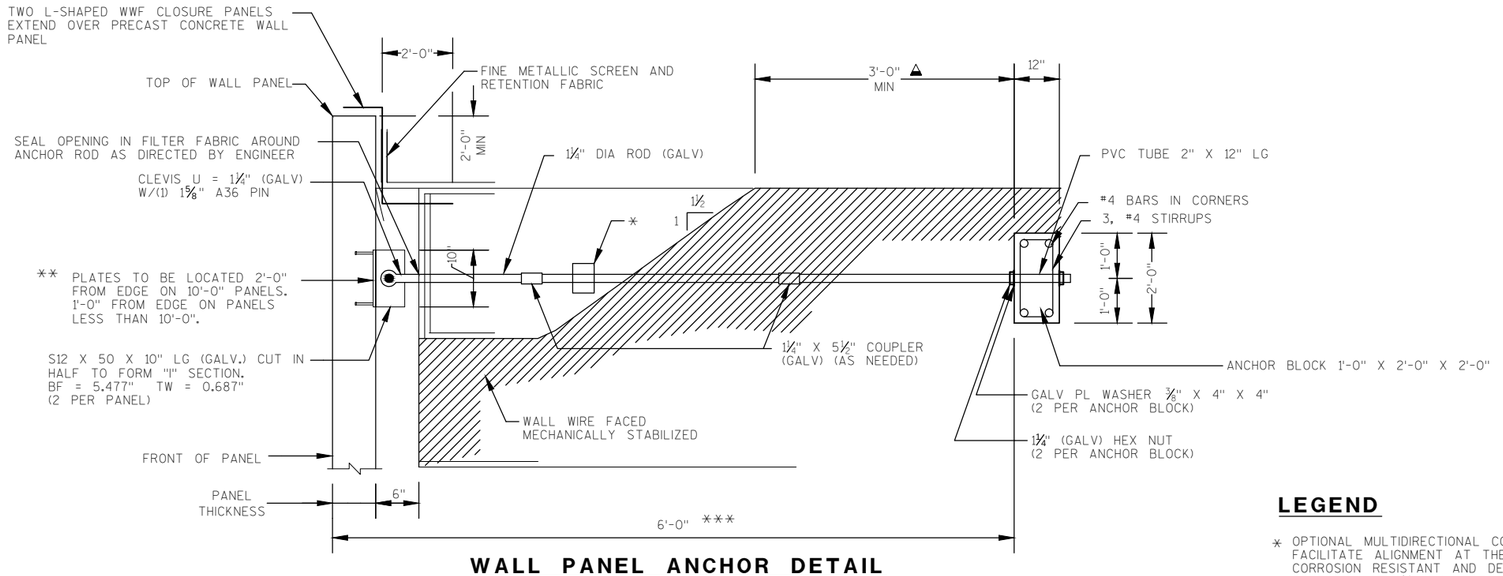
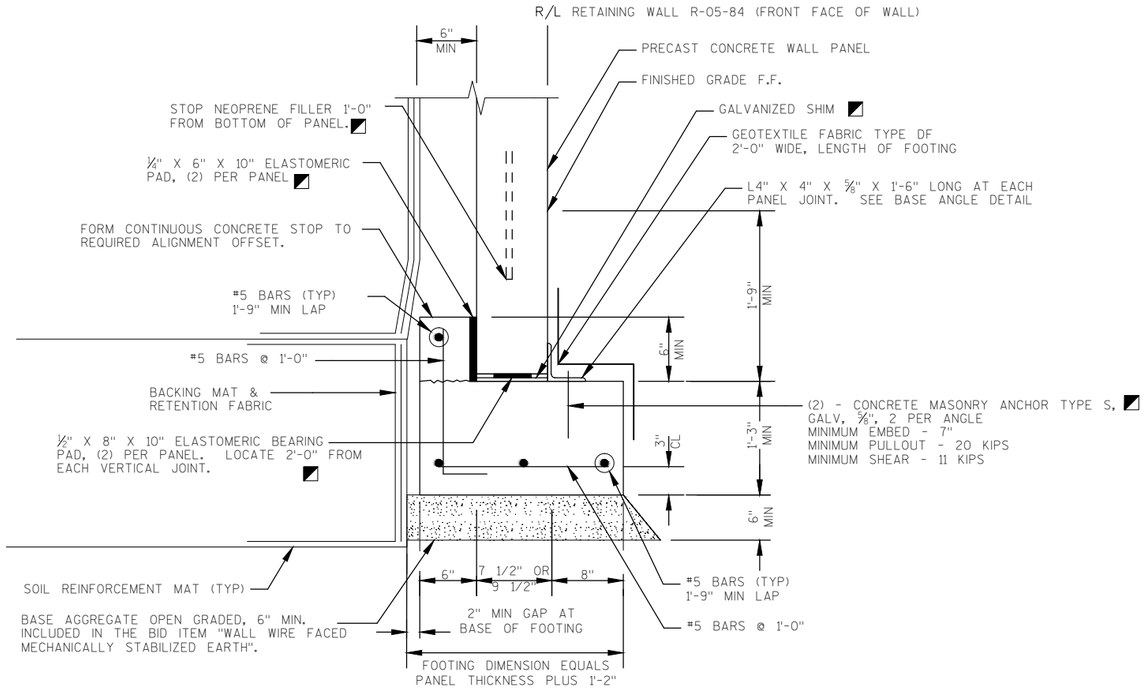


WALL PANEL ANCHOR DETAIL

WALL PANEL ANCHOR SYSTEM INCLUDES ANCHOR BLOCK, ANCHOR BLOCK COUPLER, 1¼" DIA. ANCHOR ROD, CLEVIS, AND OTHER PANEL CONNECTION COMPONENTS. DESIGN, DETAILING, AND FURNISHING OF THESE ITEMS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL". INSTALLATION OF THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH".



WALL PANEL FOOTING DETAIL

CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"

LEGEND

* OPTIONAL MULTIDIRECTIONAL CONNECTOR MAY BE USED TO FACILITATE ALIGNMENT AT THE CONNECTION (CONNECTOR TO BE CORROSION RESISTANT AND DEVELOP 100% OF THE ULTIMATE STRENGTH OF 1¼" DIA. BAR).

** AN OPTIONAL WELDED DETAIL OF TYPE S ANCHOR PLATE MAY BE SUBMITTED FOR CONSIDERATION BY THE ENGINEER. RESTORE ZINC COATING AROUND ANY WELD AREAS.

*** LENGTH MAY BE INCREASED TO AVOID OBSTRUCTIONS, SUCH AS ABUTMENT PILING.

▲ DESIGN LENGTH TO PROVIDE REQUIRED HORIZONTAL CAPACITY OF ANCHOR ASSEMBLY. MINIMUM OF 3'-0" OF COMPACTED FILL IN FRONT OF ANCHOR BLOCK PRIOR TO WALL PANEL ERECTION. ROD MIN. 2'-0" BELOW FINISH GRADE.

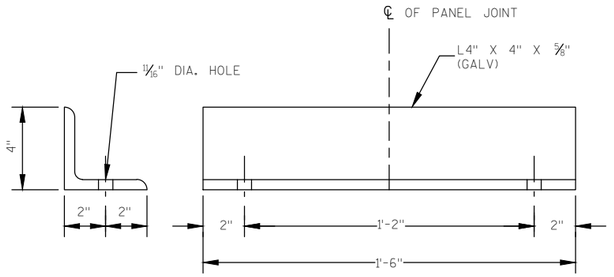
◒ AS AN ALTERNATE, ½" TYPE "S" ANCHORS MAY BE USED IN PLACE OF 4" STUDS.

◪ INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

NOTES

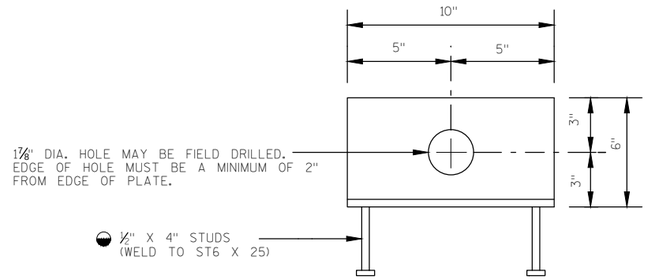
AN ALTERNATE DEADMEN AND PANEL CONNECTION SYSTEM MAY BE SUBMITTED FOR REVIEW AND POSSIBLE ACCEPTANCE BY THE ENGINEER.

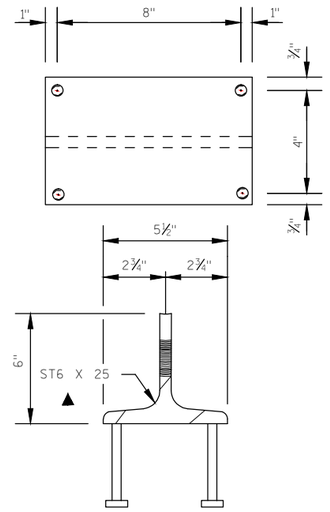
TILT UP PANEL DEADMAN MAY BE TRENCHED IN IF THE GEOMETERY OF THE DEADMEN LOCATION ALLOWS.



BASE ANGLE DETAIL

(1 AT EACH PANEL JOINT) ◪





PANEL CONNECTION DETAILS

ST6 X 25 MAY BE WELDED TO ¾" THICK PLATE ANCHORED IN TILT UP PANEL. DETAILS SUBJECT TO APPROVAL BY THE ENGINEER.

▲ SIZE 12X50 (ALV.) CUT IN ½ TO FORM "T" SECTION B.F. = 5.477" TW = 0.687"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-05-84

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WALL DETAILS II

SHEET 6 OF 10

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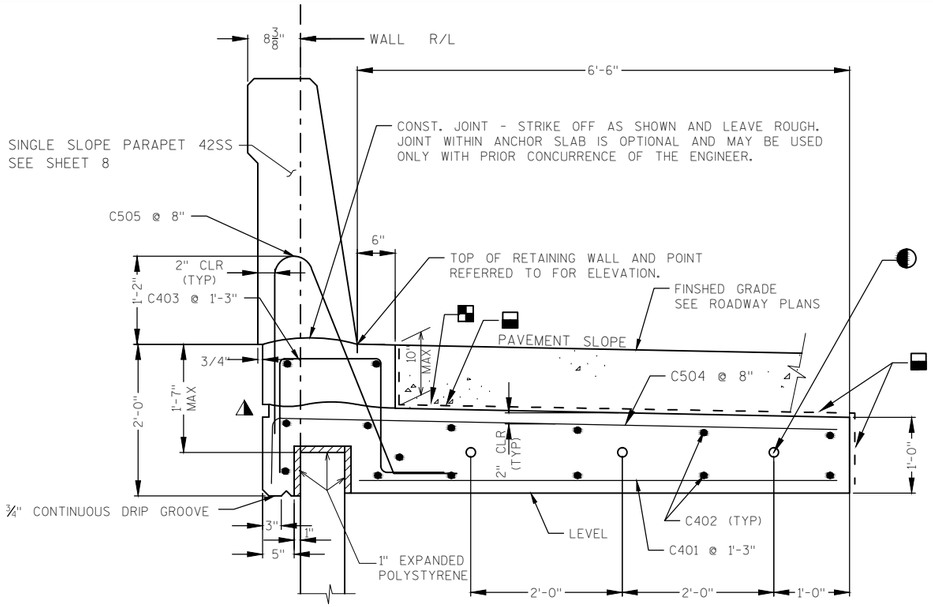
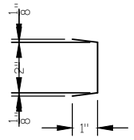


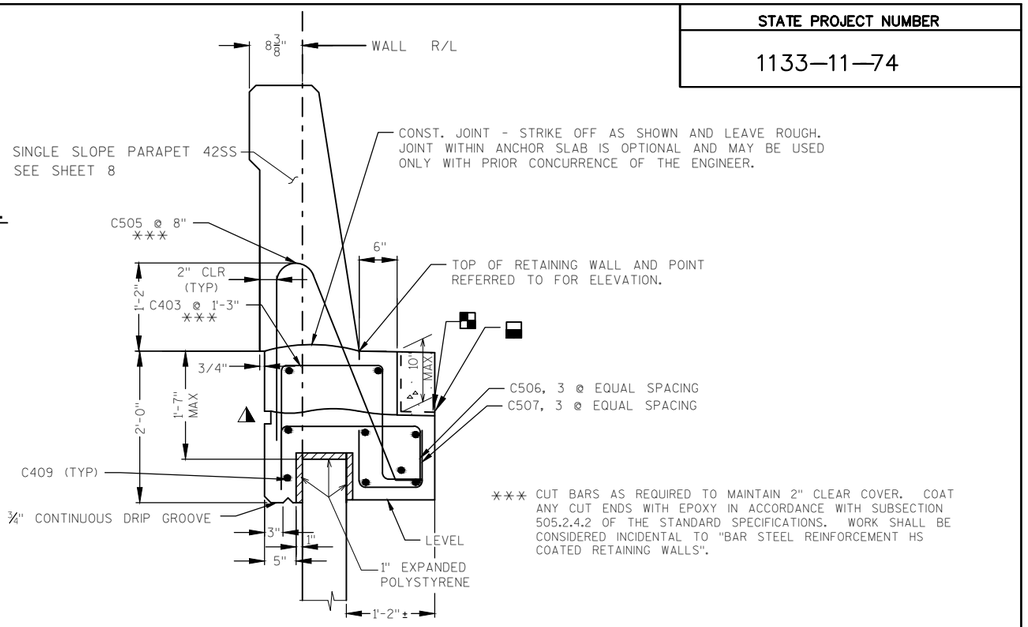
ANCHOR SLAB AND PARAPET DETAIL

STATION 10+21.42 - STATION 20+03.11



RUSTICATION DETAIL

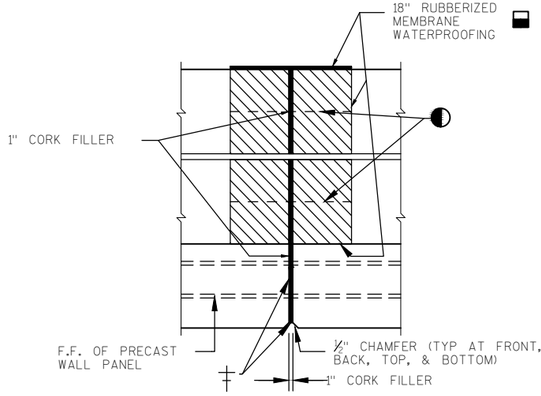
⚠ PROVIDE RUSTICATION IF OPTIONAL CONSTRUCTION JOINT IS USED



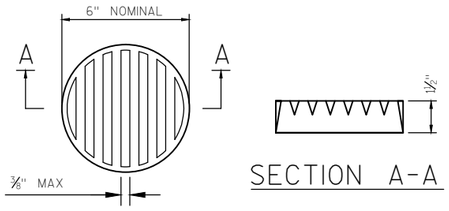
*** CUT BARS AS REQUIRED TO MAINTAIN 2" CLEAR COVER. COAT ANY CUT ENDS WITH EPOXY IN ACCORDANCE WITH SUBSECTION 505.2.4.2 OF THE STANDARD SPECIFICATIONS. WORK SHALL BE CONSIDERED INCIDENTAL TO "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS".

ANCHOR SLAB AND PARAPET DETAIL AT APPROACH

STATION 10+19.92 - STATION 10+21.42



⊛ ANCHOR SLAB EXPANSION JOINT DETAIL



RODENT SCREEN DETAIL

DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING, AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.

LEGEND

▬ 18" RUBBERIZED MEMBRANE WATERPROOFING - SEAL ALL HORIZONTAL AND VERTICAL JOINTS IN ANCHOR SLAB. TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

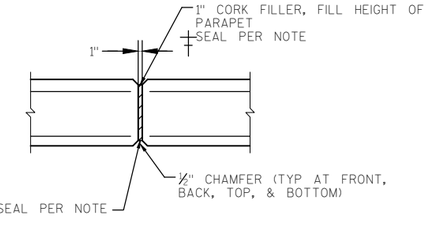
⊛ EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.

◐ PLACE (3) -¾" Ø SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS"

▚ IF THE OPTIONAL CONST. JOINT IS USED, PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONST. JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.

* AT WALL COPING AND ABUTMENT INTERFACE, PLACE 18" RUBBERIZED MEMBRANE ON TOP AND ALONG BACK OF COPING.



⊛ PARPET EXPANSION JOINT DETAIL

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STRUCTURE R-05-84

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WALL DETAILS III

SHEET 7 OF 10

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8

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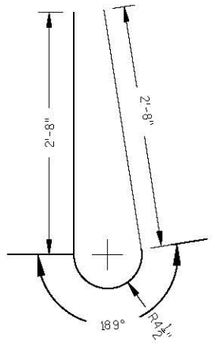
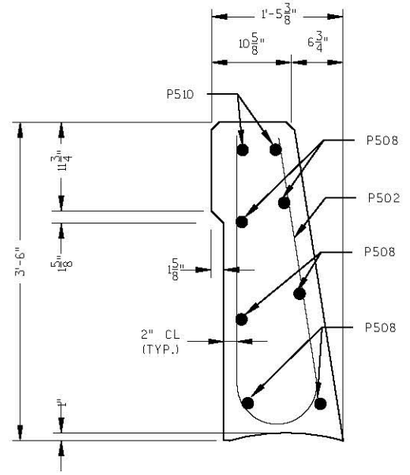


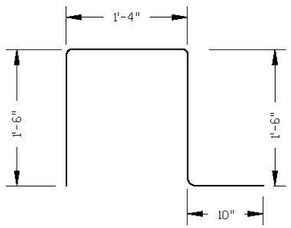
P502

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
C401	X	803	6'-3"			ANCHOR SLAB-BOTTOM -TRANS
C402	X	510	29'-8"			ANCHOR SLAB-LONGIT.
C403	X	803	5'-2"		X	ANCHOR SLAB-VERT
C504	X	1504	8'-3"		X	ANCHOR SLAB - TRANS
C505	X	1504	6'-7"		X	ANCHOR SLAB AND PARAPET - VERT
C506	X	3	3-5"		X	ANCHOR SLAB-VERT
C507	X	3	2'-4"		X	ANCHOR SLAB-VERT
C409	x	7	4'-6"			ANCHOR SLAB - TRANS
P502	X	1504	6-8		X	PARAPET-VERT
P508	X	204	29'-8"			PARAPET - LONGIT.
P510	X	68	29'-8"			PARAPET - LONGIT.



SINGLE SLOPE PARAPET 42SS



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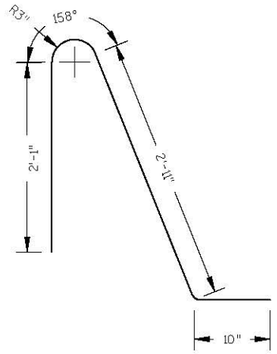

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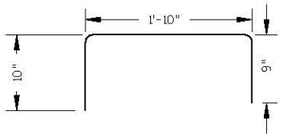

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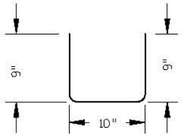

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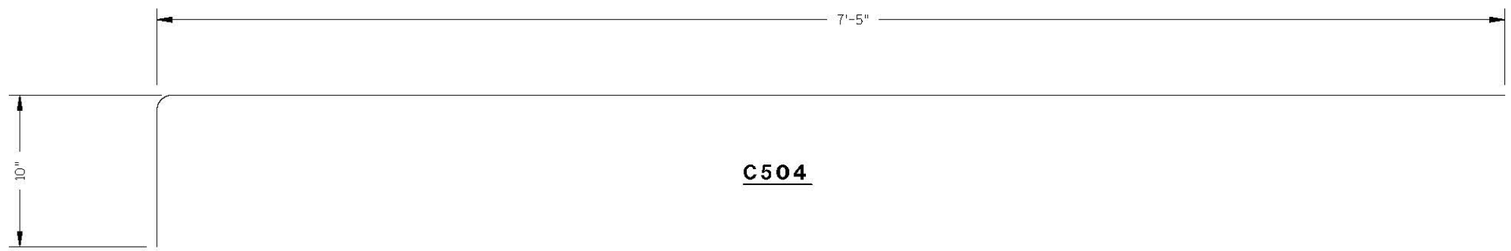

C504

BENDING DIAGRAMS

8

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STATE OF WISCONSIN
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STRUCTURE R-05-84

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WALL DETAILS IV

SHEET 8 OF 10

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STATE PROJECT NUMBER
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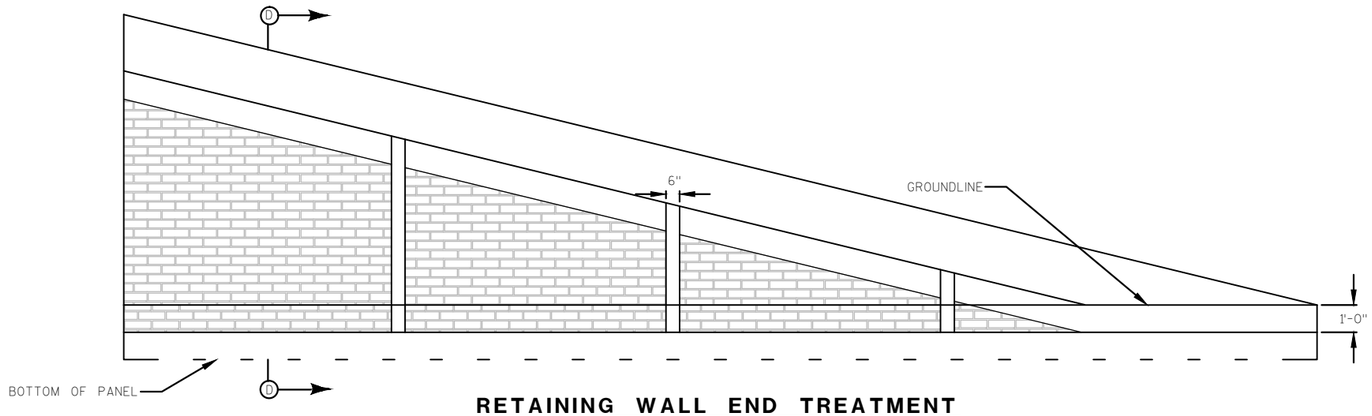
LEGEND

◑ STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

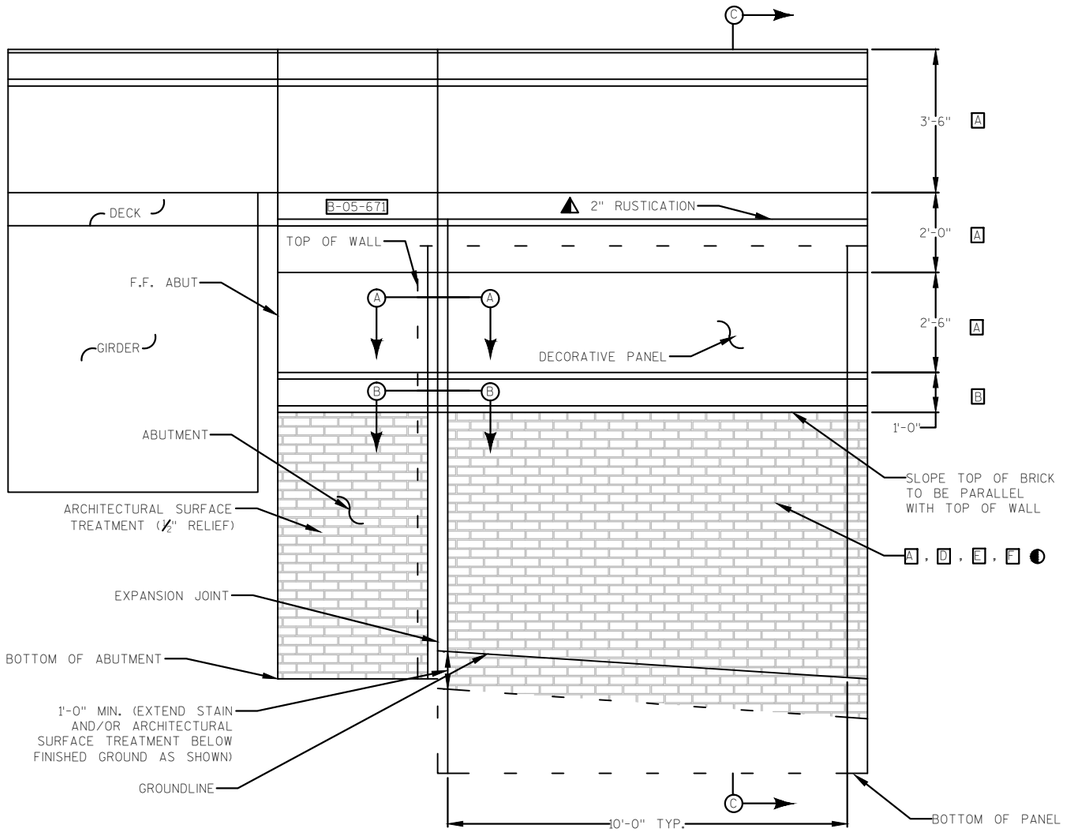
◪ PAY LIMIT FOR "ARCHITECTURAL SURFACE TREATMENT" FOR THE WALL PANELS IS FROM TOP OF WALL TO 1'-0" BELOW GRADE. SEE SHEET 10 AND SPECIAL PROVISIONS FOR FORMLINER DETAILS.

⚠ PROVIDE 2" RUSTICATION IF OPTIONAL CONSTRUCTION JOINT IS USED. FOR DETAIL SEE SHEET 7.

NOTE - SEE SHEET 10 FOR CROSS SECTION CUTS.



RETAINING WALL END TREATMENT



PARTIAL ELEVATION R-05-84

LOOKING SOUTH AT WEST SIDE OF WALL

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, OUTSIDE OF CONC. GIRDER, STEEL BOX GIRDERS
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R—05—84

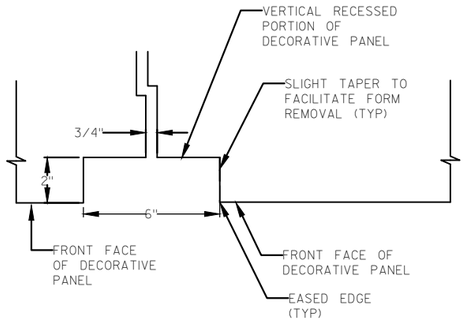
DRAWN BY AJO | PLANS CK'D. JGW

AESTHETIC DETAILS I

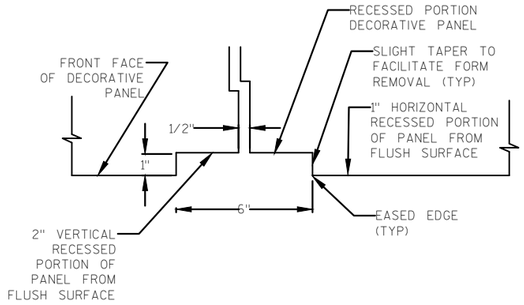
SHEET 9 OF 10

1198

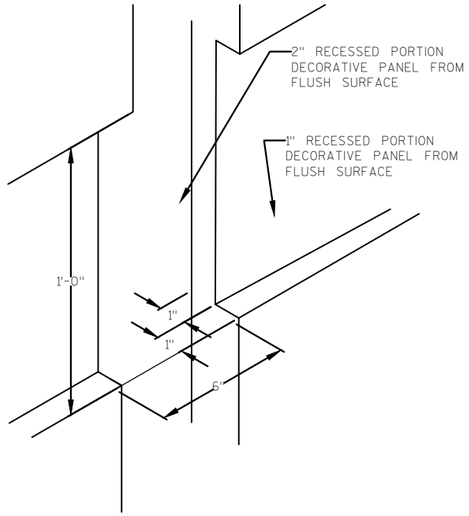
STATE PROJECT NUMBER
1133—11—74



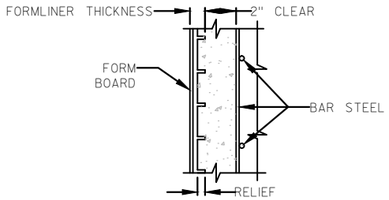
SECTION A-A



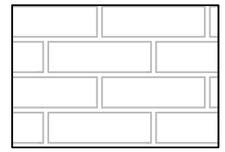
SECTION B-B



ISOMETRIC REVEAL DETAIL

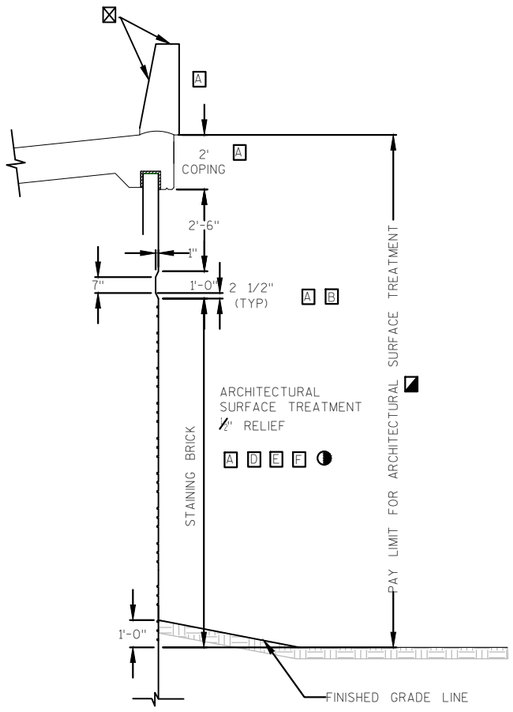


SECTION THRU FORMLINER

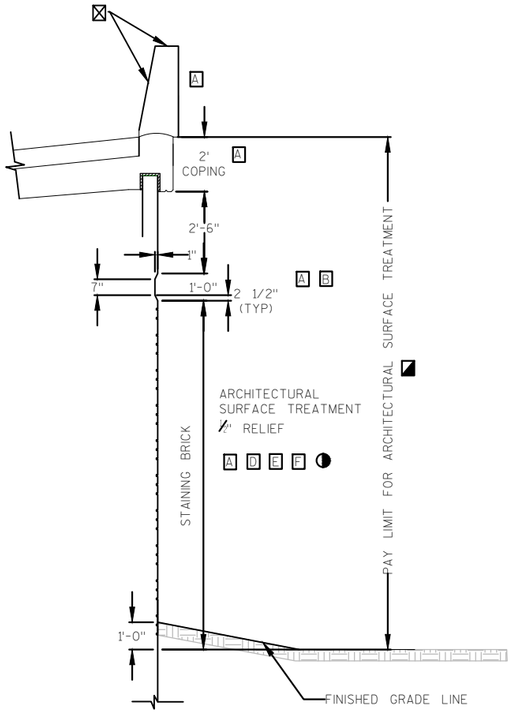


ARCHITECTURAL SURFACE TREATMENT
RECTANGULAR BRICK

SIZE = 2¼" TO 2⅝" X 7⅝" TO 8"
MAX RELIEF = ½"



SECTION C - C



SECTION D - D

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, OUTSIDE OF CONC. GIRDER, STEEL BOX GIRDERS
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

LEGEND

◑ STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

◪ PAY LIMIT FOR "ARCHITECTURAL SURFACE TREATMENT" FOR THE WALL PANELS IS FROM TOP OF WALL TO 1'-0" BELOW GRADE. SEE FORMLINER DETAILS AND SPECIAL PROVISIONS

⊠ PAY LIMIT FOR PROTECTIVE SURFACE TREATMENT IS ON TOP AND FRONT FACE OF PARAPET.

⚠ PROVIDE 2" RUSTICATION IF OPTIONAL CONSTRUCTION JOINT IS USED. FOR DETAIL SEE SHEET 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R—05—84

DRAWN BY AJO | PLANS CK'D. JGW

AESTHETIC DETAILS II

SHEET 10 OF 10

1199

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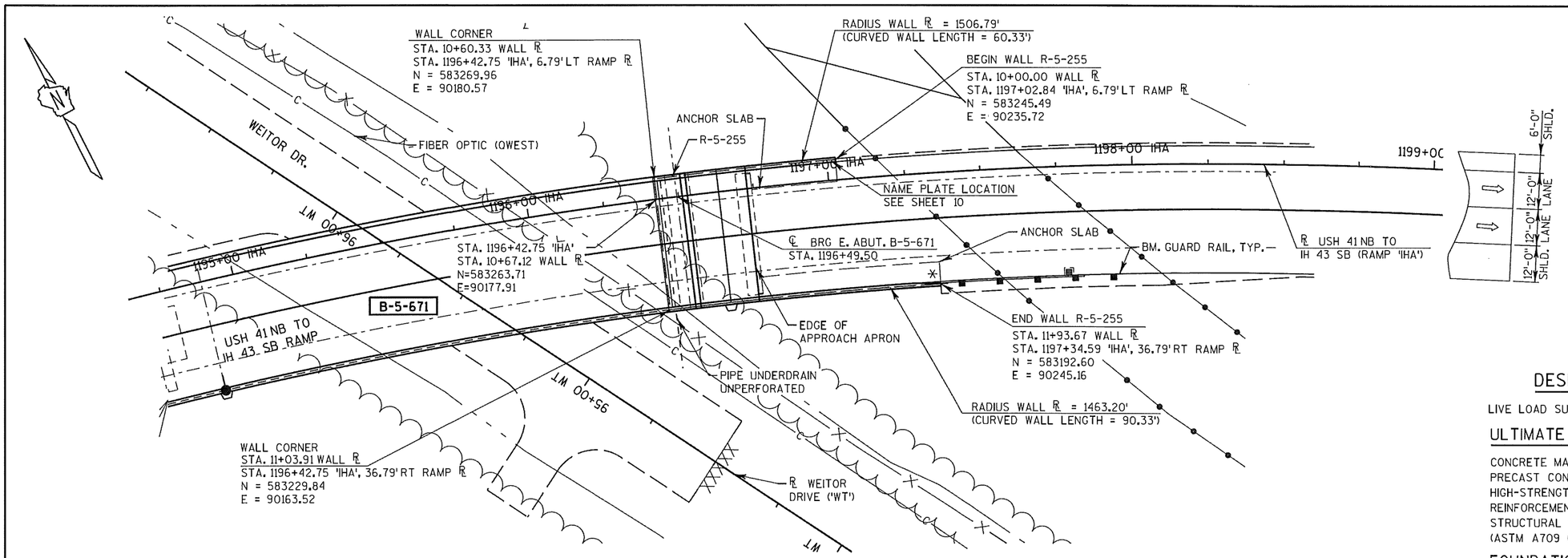
STATE PROJECT NUMBER

1133-11-74



PLAN - STRUCTURE R-5-255

(MSE RETAINING WALL WITH TILT-UP PANELS)

CURVE DATA - RAMP 'IHA' ℄

PISTA. 1193+68.84
N = 583934.76
E = 89660.93
PC STA. 1179+64.06
PT STA. 1202+21.95
Δ = 86° 14'42"
D = 3° 49'11"
T = 1404.78
R = 1500.00
L = 2257.89

DESIGN DATA

LIVE LOAD SURCHARGE (ROADWAY) = 240 P.S.F.

ULTIMATE DESIGN STRESSES:

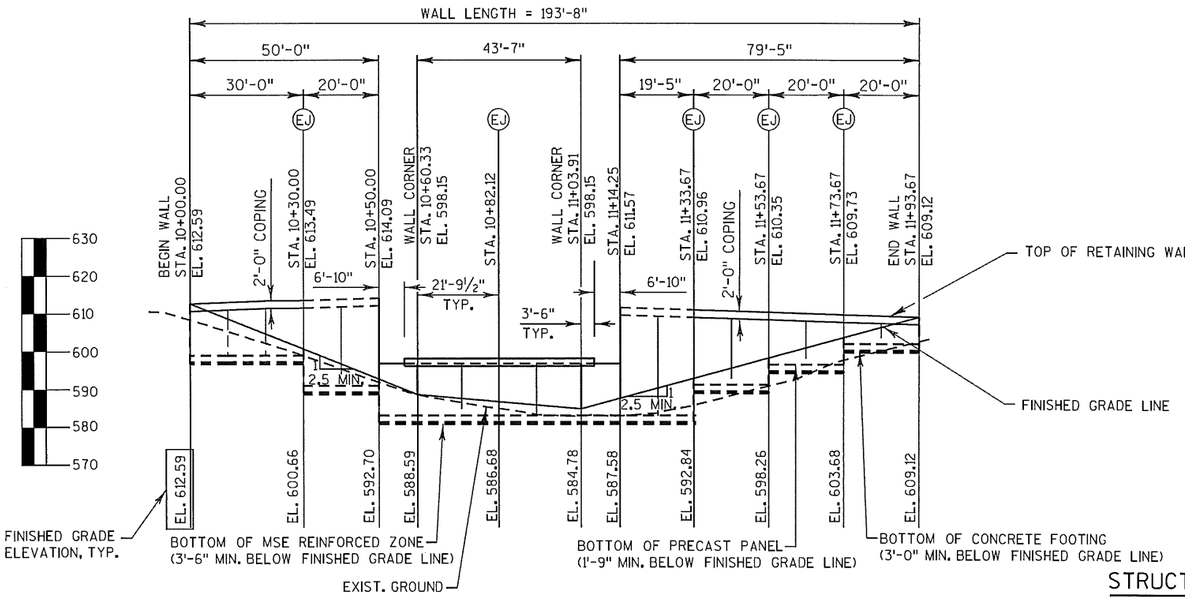
CONCRETE MASONRY - BARRIER & COPING----f'c= 4,000 P.S.I.
PRECAST CONCRETE WALL PANEL----------f'c= 5,000 P.S.I.
HIGH-STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60----------fy = 60,000 P.S.I.
STRUCTURAL STEEL CARBON----------fy = 36,000 P.S.I.
(ASTM A709 GRADE 36)

FOUNDATION DATA:

ULTIMATE SOIL BEARING CAPACITY -
MSE WALL PANEL---------- SEE TABLE ON SHEET 2.

LEGEND

(EJ) EXPANSION JOINT LOCATION IN COPING OR ANCHOR SLAB
F.F. = FRONT FACE
⚹ ANCHOR ASSEMBLY FOR GUARD RAIL



ELEVATION - STRUCTURE R-5-255

(UNFOLDED ELEVATION LOOKING AT F.F. OF WALL)

BENCH MARK TABLE

NO.	STATION	OFFSET	DESCRIPTION	ELEVATION
772	1206 'IHA' +00.96	293.88' RT	RR SPIKE IN DECIDUOUS TREE	601.80'
1301	1189 'IHA' +73.60	564.89' LT	DISK ON PARAPET WALL	612.17'

LIST OF DRAWINGS

1. GENERAL PLAN
2. NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WALL DETAILS 1
5. WALL DETAILS 2
6. WALL DETAILS 3
7. SECTIONS & DETAILS 1
8. SECTION & DETAILS 2
9. SINGLE SLOPE PARAPET 32SS
10. SINGLE SLOPE PARAPET 42SS
11. AESTHETIC DETAILS 1
12. AESTHETIC DETAILS 2

STRUCTURES DESIGN CONTACTS

NE REGION CONTACT:
PAUL VRANEY (920) 492-2232
BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT:
MAHMOUD MALAS (262) 821-1171

WISCONSIN
MAHMOUD N. MALAS
E-27922
MILWAUKEE, WI
PROFESSIONAL ENGINEER

5/1/2013

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Management Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 05/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-5-255

RETAINING WALL AT EAST ABUT. OF B-5-671

COUNTY BROWN ~~TOWN/CITY/~~VILLAGE HOWARD

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DRJ	DESIGN CK'D.	MNM	DRAWN BY	DRJ	PLANS CK'D.	MNM

GENERAL PLAN

SHEET 1 OF 12
1200

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STATE PROJECT NUMBER
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TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	45
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	43
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	5,030
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10
532.0700.S	WALL WIRE FACED MECHANICALLY STABILIZED EARTH (LRFD)	SF	2,180
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	45
612.0406	PIPE UNDERDRAIN 6-INCH WRAPPED	LF	195
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	1
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	60
SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	2,370
SPV.0165.701	STAINING CONCRETE	SF	1,230
SPV.0165.702	STAINING CONCRETE BRICK	SF	1,405
SPV.0165.850	PRESTRESSED PRECAST CONCRETE WALL PANEL	SF	2,180
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4", 1"
	CORK FILLER	SIZE	1/2"
	EXPANDED POLYSTYRENE	SIZE	1"

GEOMETRY TABLE

WALL STATION	RAMP 'IHA' STATION	OFFSET TO F.F. WALL	TOP OF WALL	FINISHED GRADE	EXISTING GRADE
10+00.00	1197+02.84	6.79' LT	612.59	612.59	608.28
10+30.00	1196+73.00	6.79' LT	613.49	600.66	598.87
10+50.00	1196+53.05	6.79' LT	614.09	592.70	591.82
10+60.33	1196+42.78	6.79' LT	598.15	588.59	588.59
10+82.12	1196+42.58	15.00' RT	598.15	586.68	584.94
11+03.91	1196+42.75	36.79' RT	598.15	584.78	583.03
11+14.25	1196+53.00	36.79' RT	611.57	587.58	583.00
11+33.67	1196+73.09	36.79' RT	610.96	592.84	585.72
11+53.67	1196+93.62	36.79' RT	610.35	598.26	590.88
11+73.67	1197+14.13	36.79' RT	609.73	603.68	597.70
11+93.67	1197+34.59	36.79' RT	609.12	609.12	602.64

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH."

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

COORDINATE THE CONSTRUCTION OF WALL R-5-255 WITH EAST ABUTMENT CONSTRUCTION FOR BRIDGE B-5-671.

THE COST OF FURNISHING AND PLACING THE FOOTING UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS."

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEETS 1 AND 2.

ALL STATIONS ARE ALONG THE REFERENCE LINE FOR R-5-255 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

DO NOT ALLOW CONCRETE OR FILL TO DROP OR ACCUMULATE INTO WALL PANEL CAVITY.

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE

PROVIDE A RUBBED SURFACE TREATMENT IN ACCORDANCE WITH SECTION 502.3.7.3 TO ALL PERMANENTLY EXPOSED SURFACES OF CONCRETE MASONRY RETAINING WALLS.

CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE PROPER CONSOLIDATION. WICK DRAINS SHALL BE INSTALLED WHEN REQUIRED. SEE R-5-255 GEOTECHNICAL REPORT AND ROADWAY PLANS FOR FURTHER DETAILS.

AT THE END AND BEGINNING OF WALL, CLOSE GAP BETWEEN WIRE-FACED WALL AND PRECAST CONCRETE PANEL WITH 1'-6" WIDE COLUMN OF CONCRETE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II OR III OR AASHTO DESIGNATION M213.

OPTIONAL TRANSVERSE CONSTRUCTION JOINTS ARE PERMITTED IN THE FOOTING WITH A MINIMUM SPACING OF TWO PANEL LENGTHS. FOOTING JOINTS SHOULD BE OFFSET A MINIMUM OF 1'-0" FROM WALL JOINTS. BAR STEEL SHALL BE RUN THRU FOOTING JOINTS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

DESIGN THE RETAINING WALL FOR HORIZONTAL FINISHED GRADE BEHIND THE WALL AND A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN MSE WALL FOR A SUCTION LOAD OF 20 PSF ACTING ON THE PRECAST WALL PANELS.

SEE SPECIAL PROVISIONS FOR AESTHETIC TREATMENT TO WALL.

IN ACCORDANCE WITH THE SPECIAL PROVISIONS BID ITEM "STAINING CONCRETE" IS REQUIRED FOR BRICK SURFACES PRIOR TO BID ITEM "STAINING CONCRETE BRICK".

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED SURFACE OF THE ANCHOR SLAB AND THE ROADWAY FACE AND TOP OF THE PARAPETS.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE. SLOPE BEHIND THE WALL AS SHOWN IN THESE PLANS AND THE ROADWAY CROSS SECTIONS.

AN ALTERNATE WALL PANEL ANCHOR AND PANEL CONSTRUCTION SYSTEM MAY BE SUBMITTED FOR REVIEW AND POSSIBLE ACCEPTANCE BY THE ENGINEER.

BASED ON CONTRACTOR MEANS AND METHODS, ANY GAPS BETWEEN THE PRESTRESSED PRECAST CONCRETE WALL PANEL AND THE PRESTRESSED PRECAST CONCRETE PANEL FOOTING THAT EXPOSE THE MSE WALL SHALL BE FILLED WITH MASONRY MATERIAL OR AS APPROVED BY THE ENGINEER. ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THIS WORK ARE CONSIDERED INCIDENTAL TO THE WALL CONSTRUCTION.

PROPOSED STRUCTURE B-5-671 IS A 11-SPAN - STEEL TUB GIRDER BRIDGE. OVERALL WIDTH = 44'-10¾". OVERALL LENGTH = 2343'-8".

CAPACITY TO DEMAND RATIOS & DIMENSIONS

DIMENSION			
BEGIN STA. (WALL STATION)	10+00.00	10+50.00	11+14.25
END STA. (WALL STATION)	10+50.00	11+14.25	11+94.25
WALL HEIGHT[1] (FEET)	23.0	15.0	28.0
FILL BELOW WALL (FEET)	VARIES	1.28	VARIES
REINFORCEMENT LENGTH[2] (FEET)	18.0	26.0	29.0
LENGTH OF REIN./WALL HEIGHT	0.8	1.7	1.0
CAPACITY TO DEMAND RATIO			
SLIDING	1.25	1.05	1.17
OVERTURNING	1.13	1.89	1.21
GLOBAL STABILITY	1.01[4]	1.01[4]	1.01[4]
BEARING CAPACITY	1.66	1.17	1.05
ULT. BEARING CAPACITY (psf)	4,000	4,000	4,000

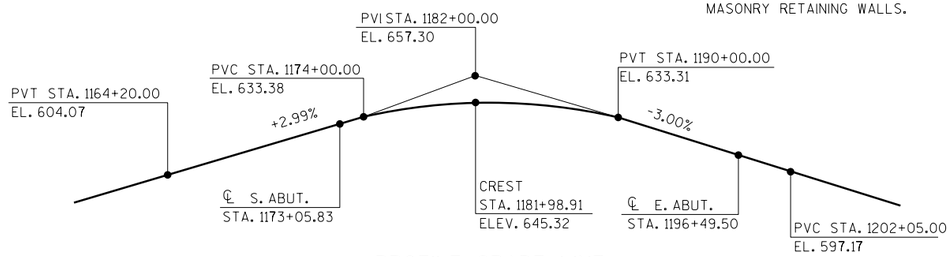
Notes

1. WALL HEIGHT SHOWS ONLY THE MAXIMUM HEIGHT IN THE SECTION AND INCLUDES 3.5 FEET OF EMBEDMENT PER US 41 BROWN COUNTY CORRIDOR MANUAL.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH FOR THE MAXIMUM WALL HEIGHT AT THE EVALUATED SECTION.
3. A RESISTANCE FACTOR OF 0.75 WAS USED FOR DETERMINING CDR FOR THE SLOPES NOT INCLUDING STRUCTURAL ELEMENTS.
4. A RESISTANCE FACTOR OF 0.75 WAS USED FOR DETERMINING CDR FOR TEMPORARY CONSTRUCTION STAGES.

FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

SOIL PARAMETERS

			UNDRAINED		DRAINED	
SOIL UNIT	BOTTOM ELEVATION (FEET)	SOIL UNIT WEIGHT (PSF)	COHESION (PSF)	FRICTION ANGLE (DEGREE)	COHESION (PSF)	FRICTION ANGLE (DEGREE)
NEW FILL	581.5	120	--	30	--	30
LOOSE TO MEDIUM DENSE SILTY SAND (FILL & NATIVE)	575.0	120	--	28	--	28
STIFF TO VERY STIFF LEAN CLAY	569.0	130	1,000	--	--	28
VERY SOFT TO SOFT CLAY	554.0	130	300	--	--	24
STIFF TO MEDIUM STIFF CLAY	549.0	130	1,000	--	--	28
VERY STIFF TO HARD LEAN CLAY	534.0	135	3,000	--	100	30
MEDIUM STIFF LEAN/ FAT/SILTY CLAY	519.0	130	1,000	--	--	28
VERY DENSE SILTY SAND	504.0	135	--	36	--	36
BEDROCK	--	150	200,000	--	200,000	--



PROFILE GRADE LINE -
USH41 NB TO IH43 SB (RAMP 'IHA')

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-255

DRAWN BY DRJ | PLANS CK'D. MNM

NOTES & QUANTITIES

SHEET 2 OF 12
1201

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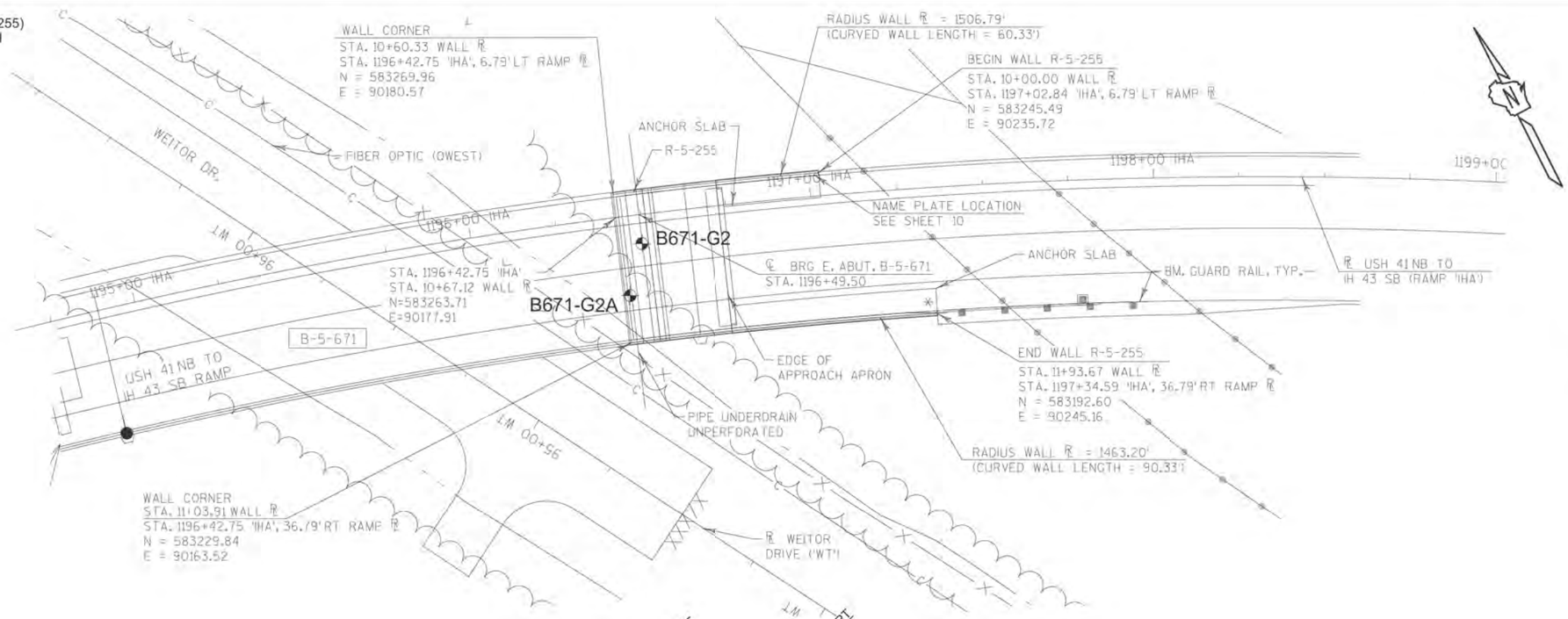
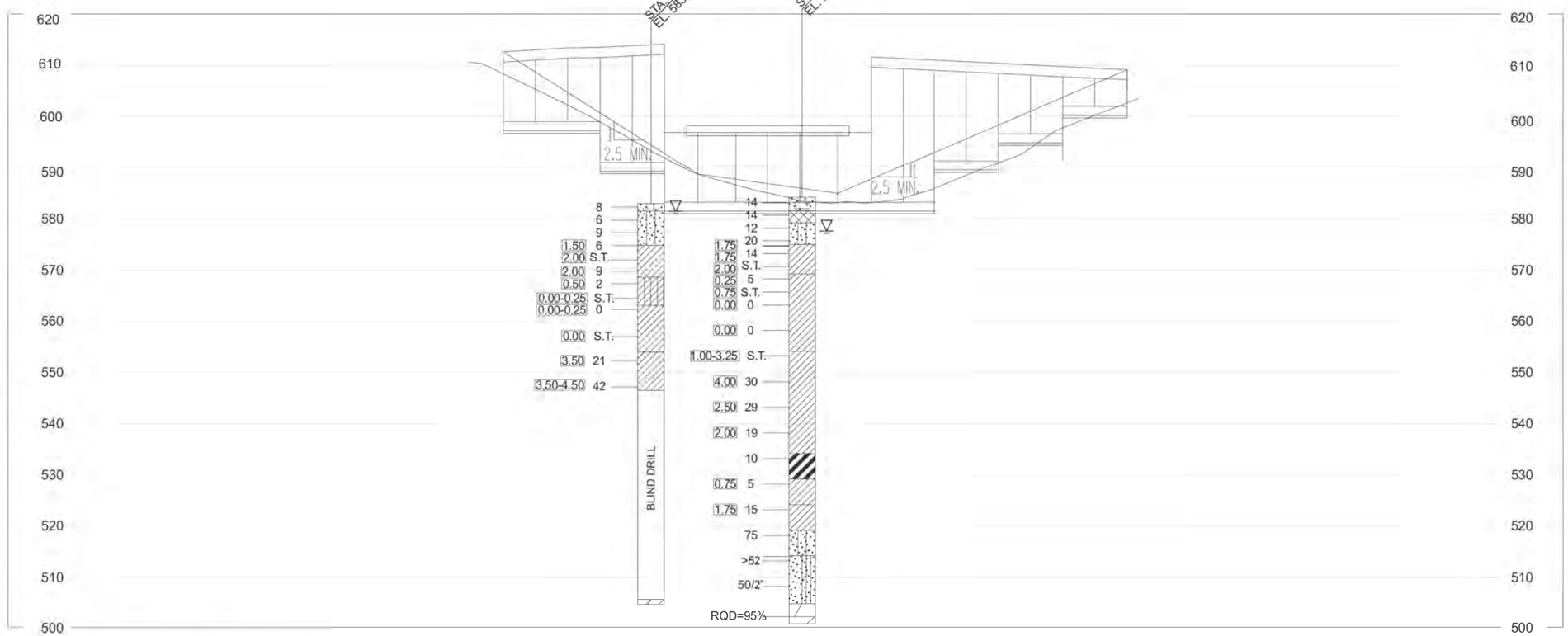
USH-41 (R-05-255)
05-BROWN, WI





NOTE: ▽ -WATER LEVEL DURING DRILLING

STATE PROJECT NUMBER

1133-11-74

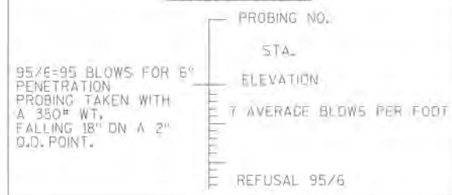
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

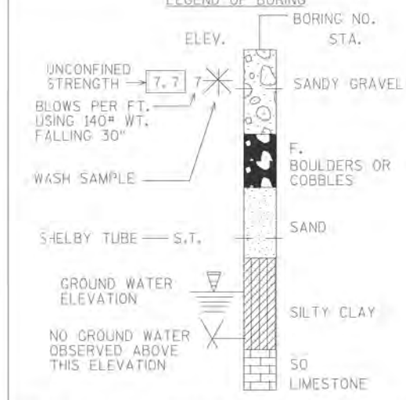
MATERIAL SYMBOLS

TOPSOIL | SILT | FAT CLAY
SAND | PEAT | DOLOMITE
GRAVEL | CLAY | FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-255

DRAWN BY RHE | PLANS CK'D. NS

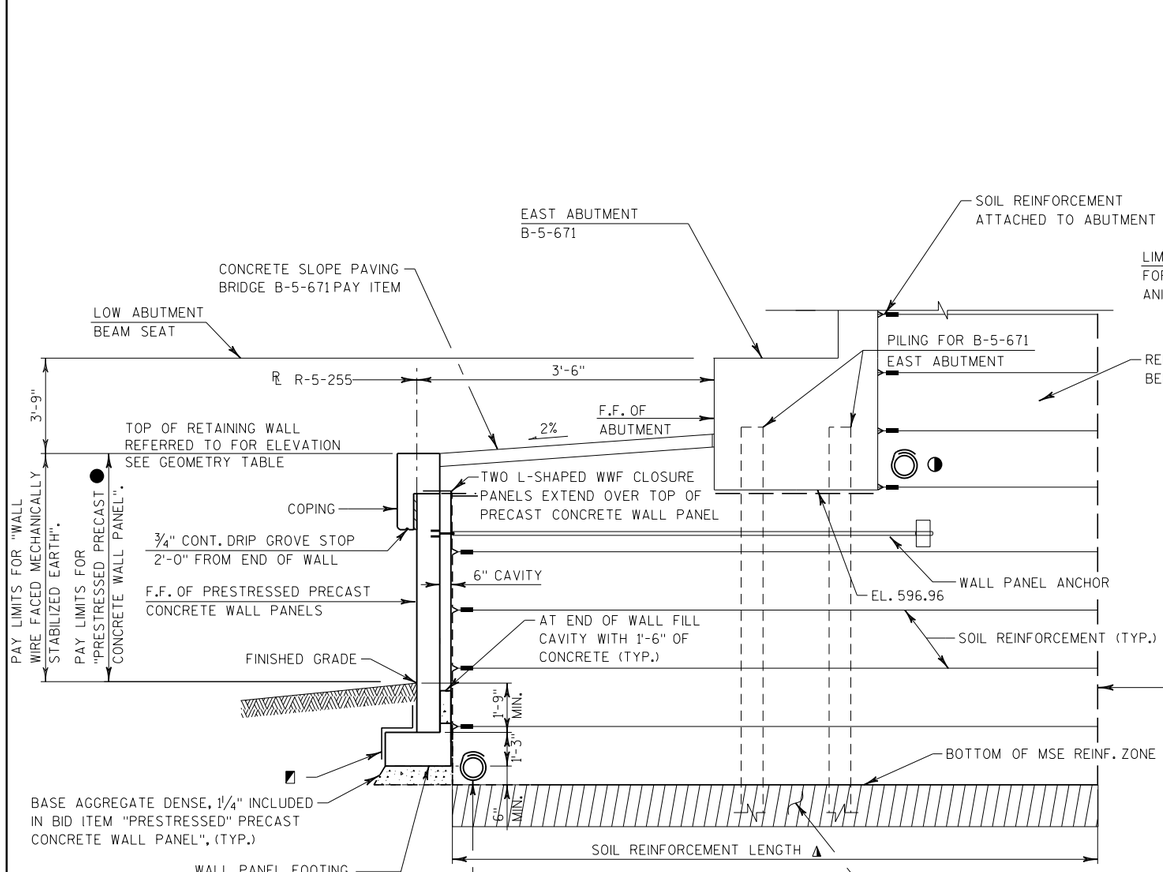
SUBSURFACE EXPLORATION

SHEET 3 OF 12
1202

SCALE 1"=40'

STATE PROJECT NUMBER

1133-11-74

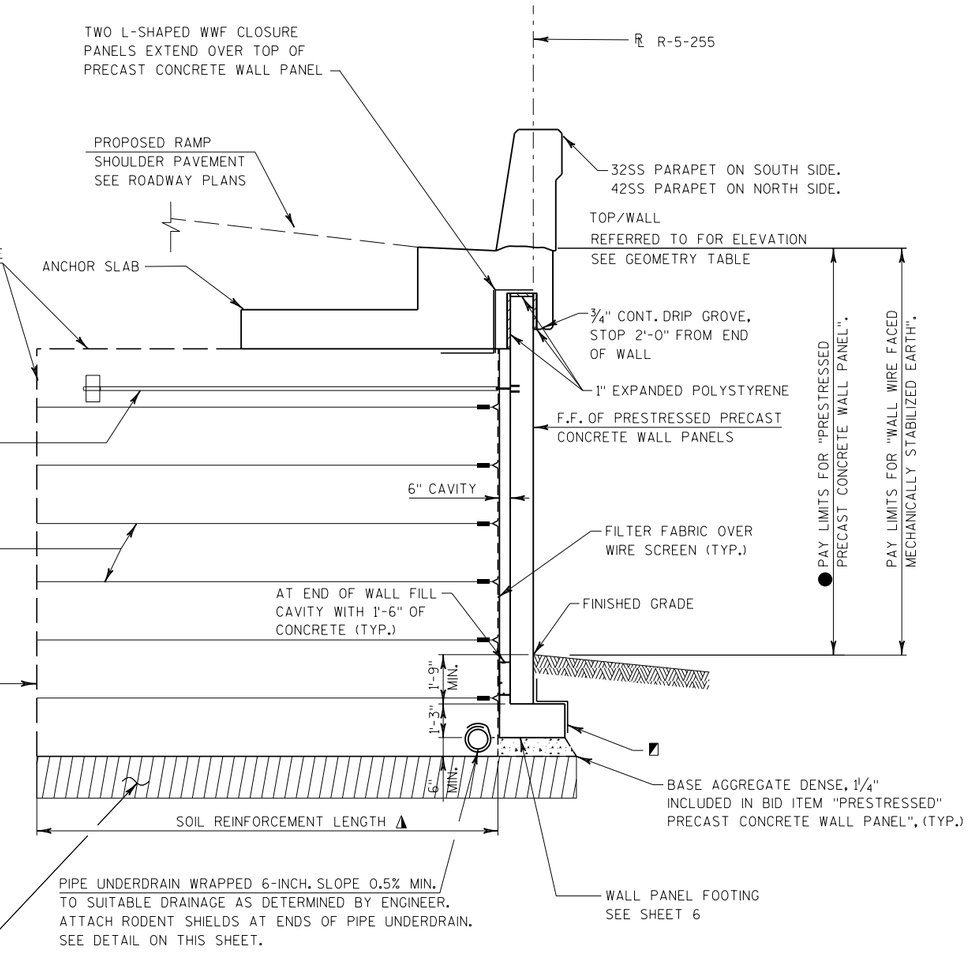


NOTES

1. INSTALL BRIDGE PILING BEFORE MSE WALL. PLACE REINFORCING MAT AROUND PILING FOR BRIDGE ABUTMENT.
2. INSTALLATION OF BRIDGE PILING IS NOT A RETAINING WALL ITEM.
3. UNFACTORED HORIZONTAL DESIGN LOAD FROM SUPERSTRUCTURE IS 3.0 KIPS PER LINEAR FOOT OF ABUTMENT LENGTH.

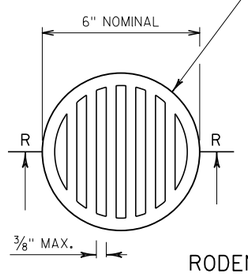
SECTION THRU RETAINING WALL AT EAST ABUTMENT

LOOKING NORTH THRU WALL



SECTION THRU RETAINING WALL

LOOKING EAST THRU WALL



THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

SECTION R-R

NOTE:
ORIENT RODENT SHIELD SO SLOTS ARE VERTICAL.

RODENT SHIELD

LEGEND

● THE PLAN QUANTITY FOR THE BID ITEMS "PRESTRESSED PRECAST CONCRETE WALL PANEL" IS BASED ON A WALL HEIGHT MEASURED FROM THE FINISHED GRADE AT THE FRONT FACE OF THE WALL TO THE TOP OF THE WALL AS SHOWN. THE TOP OF THE FOOTING IS ASSUMED TO BE A CONSTANT 1'-9" BELOW FINISHED GRADE. COPING CONCRETE AND COPING REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL."

◭ PER WISDOT, MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

◩ GEOTEXTILE FABRIC TYPE DF, 2'-0" WIDE, LENGTH OF FOOTING.

◑ PROVIDE VERTICAL PIPE UNDERDRAIN UNPERFORATED 6-INCH TO CONNECT R-5-255 WALL UNDERDRAIN TO B-5-671 ABUTMENT UNDERDRAIN. COORDINATE LOCATION OF VERTICAL PIPE CONNECTION TO ABUTMENT UNDERDRAIN WITH BRIDGE CONTRACTOR. CAP THE UNPERFORATED UNDERDRAIN AT ELEVATION 598.03 FOR CONNECTION TO THE ABUTMENT UNDERDRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-255

DRAWN BY	DRJ	PLANS CK'D.	MNM

WALL DETAILS 1

SHEET 4 OF 12
1203

8

8

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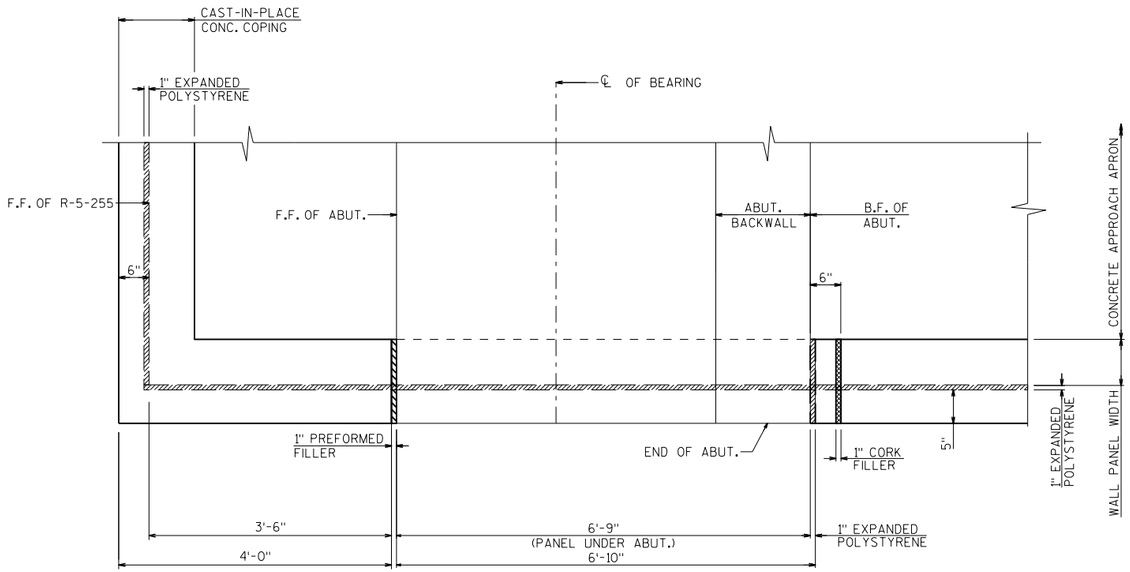
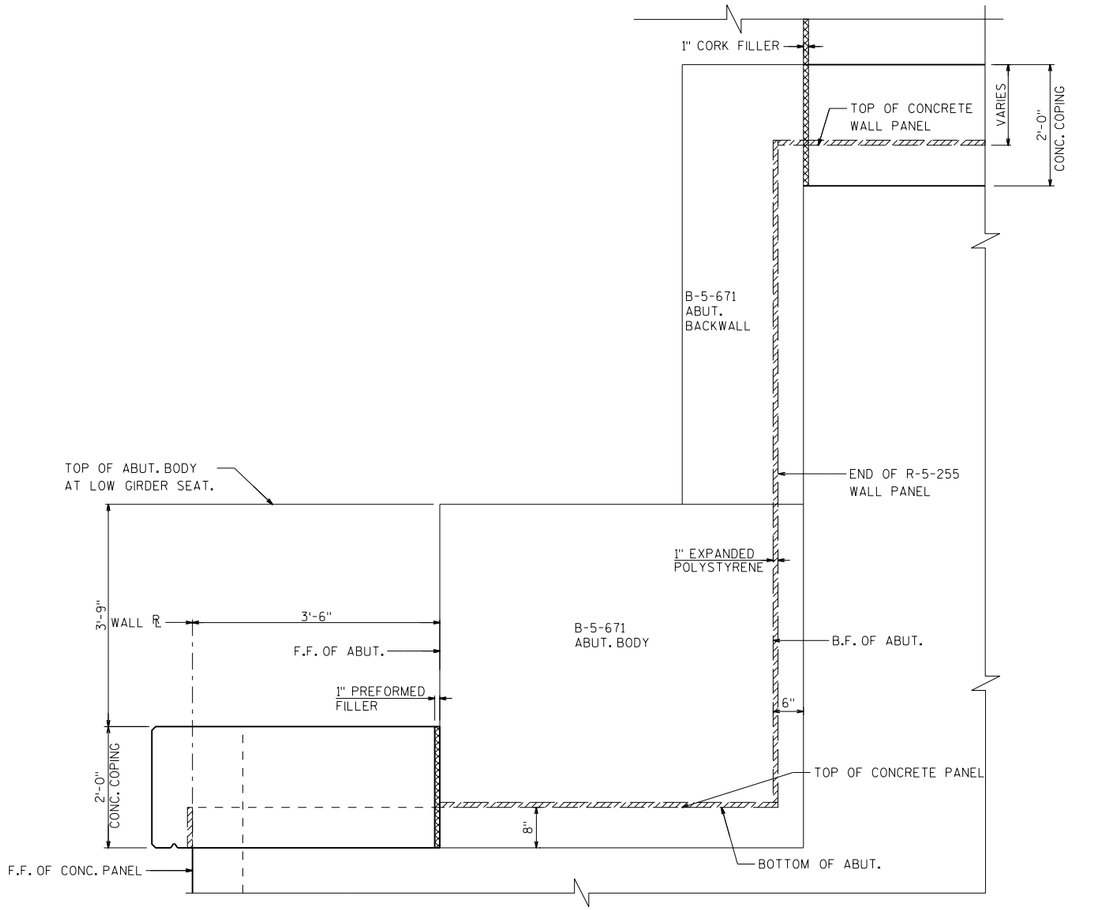


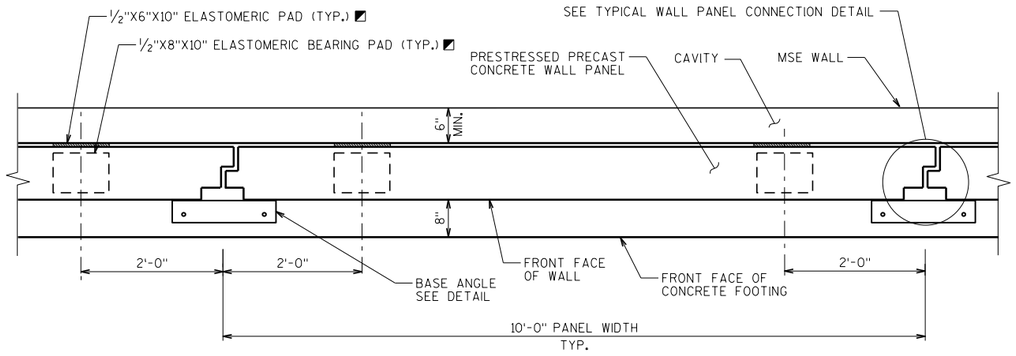
PARTIAL PLAN - TYPICAL CORNER DETAIL

(SHOWN AT S.E. CORNER OF B-5-671, N.E. CORNER SIMILAR)



PARTIAL ELEVATION - END VIEW

FOR AESTHETIC DETAILS, SEE SHEET 11



TYPICAL WALL PANEL CONNECTION

LEGEND

◩ INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"

F.F. = FRONT FACE

B.F. = BACK FACE

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WALL DETAILS 2

SHEET 5 OF 12

1204

8

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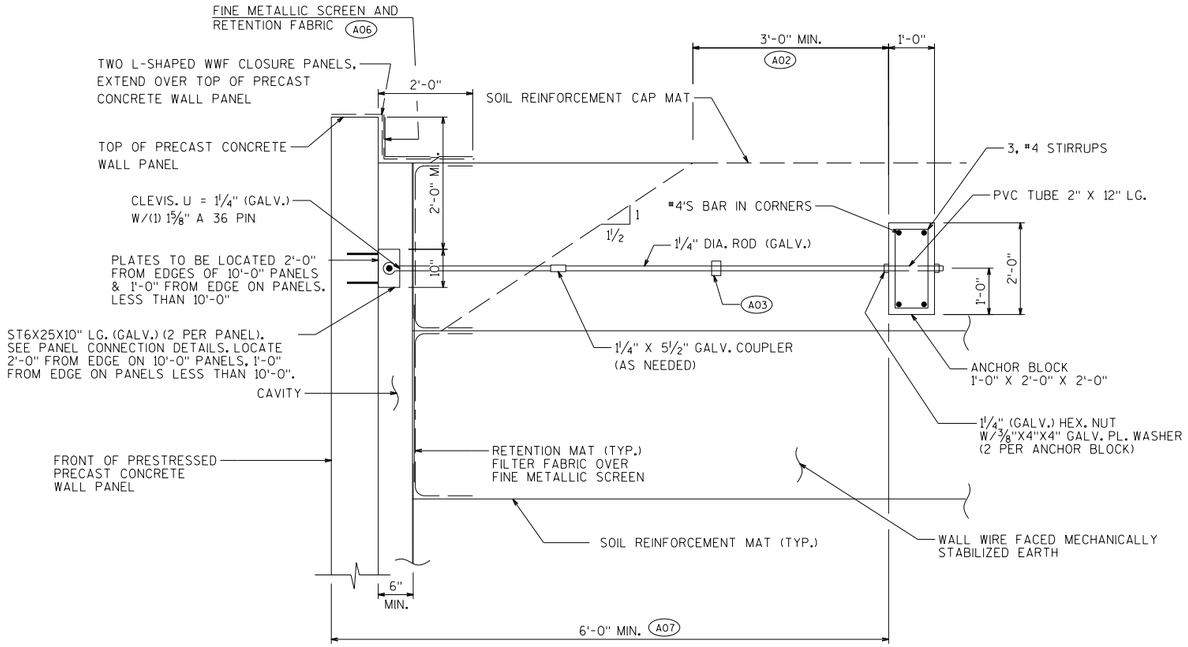


WALL PANEL ANCHOR DETAIL

(A01)

LEGEND

(A01) WALL PANEL ANCHOR SYSTEM INCLUDES ANCHOR BLOCK COUPLER, 1¼" DIA. ANCHOR ROD, CLEVIS, AND OTHER PANEL CONNECTION COMPONENTS. DESIGN, DETAILING, AND FURNISHING OF THESE ITEMS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL." INSTALLATION OF THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH."

(A02) DESIGN LENGTH TO PROVIDE REQUIRED HORIZONTAL CAPACITY ANCHOR ASSEMBLY. MINIMUM OF 3'-0" OF COMPACTED FILL IN FRONT OF ANCHOR BLOCK PRIOR TO WALL PANEL ERECTION. ROD MIN. 2'-0" BELOW FINISH GRADE.

(A03) OPTIONAL MULTIDIRECTIONAL CONNECTOR MAY BE USED TO FACILITATE ALIGNMENT AT THE CONNECTION (CONNECTOR TO BE CORROSION RESISTANT AND DEVELOP 100% OF THE ULTIMATE STRENGTH OF 1¼" DIAM. BAR)

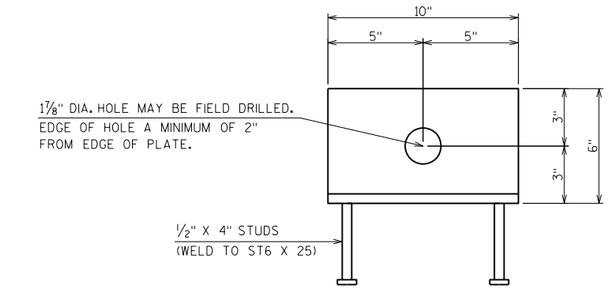
(A04) BASE AGGREGATE OPEN GRADED, 6" MIN. INCIDENTAL TO BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

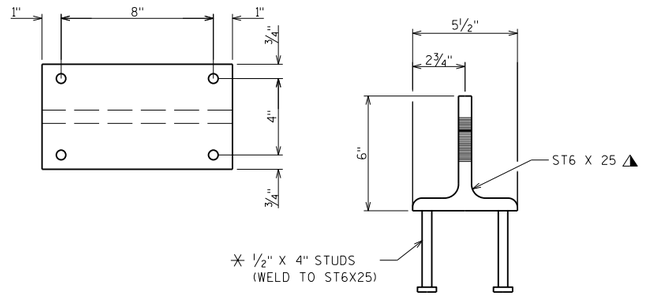
(A05) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO BOTTOM OF WALL PANEL FOOTING IS SHOWN. THE FOOTING MAY BE CONSTRUCTED ON A SLOPE PARALLEL TO THE PROPOSED GRADE, OR MAY BE STEPPED. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE WALL PANEL FOOTING WITH FABRICATION OF THE PRECAST PANELS.

(A06) ALTERNATE METHODS OF SEALING OFF THE 6" VOID IN FRONT OF THE MSE WALL MAY BE SUBMITTED TO WISDOT FOR CONSIDERATION.

(A07) LENGTH MAY BE INCREASED TO AVOID OBSTRUCTIONS, SUCH AS ABUTMENT PILES

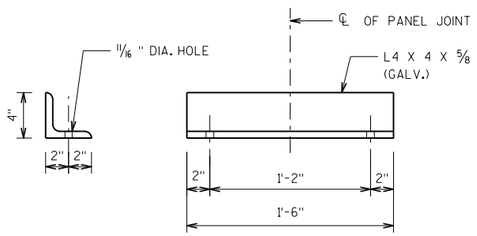
◪ INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"





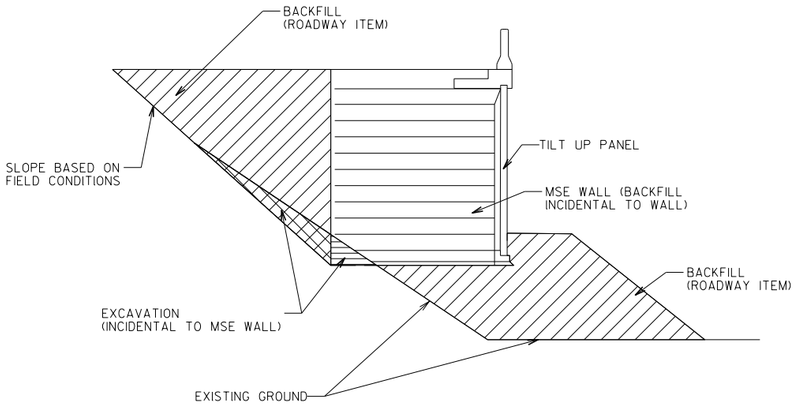
PANEL CONNECTION DETAILS

(2 PER PANEL)

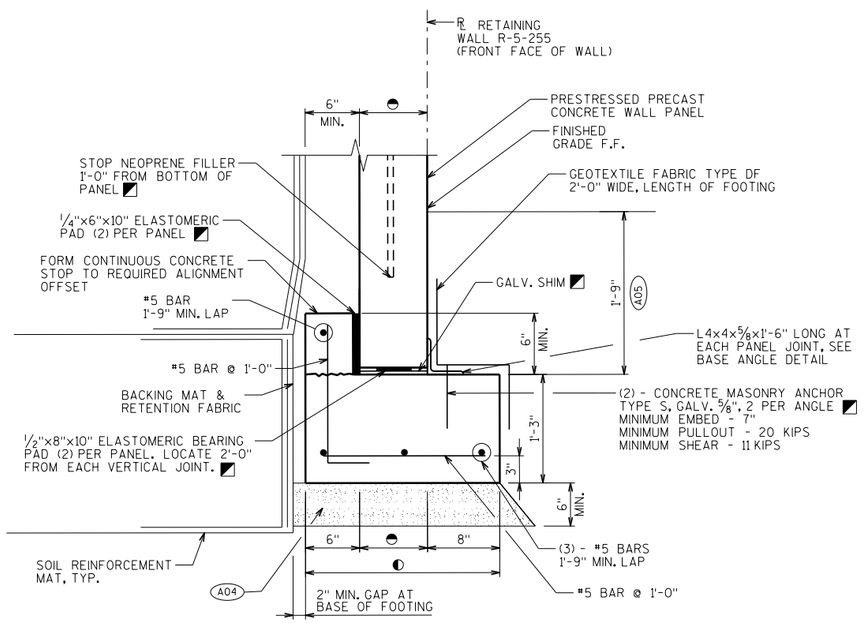


BASE ANGLE DETAIL

◪ ONE AT EACH PANEL JOINT



EXCAVATION/BACKFILL DETAIL



WALL PANEL FOOTING DETAIL

CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"

◓ = 7½" OR 9½"

◐ FOOTING DIMENSION EQUALS PANEL THICKNESS PLUS 1'-2"

◭ S12X50 (GALV.) CUT IN ½ TO FORM "T" SECTION. BF = 5.477" TW = 0.687"

✳ AS AN ALTERNATE, ½" TYPE "S" ANCHORS MAY BE USED IN PLACE OF THE 4" STUDS.

ST6 X 25 MAY BE WELDED TO ¾" THICK PLATE WITH (4) ½" X 4" STUDS ANCHORED IN PRECAST PANEL. RESTORE ZINC COATING AROUND ANY WELDED AREAS. SUBMIT DETAILS FOR APPROVAL BY ENGINEER. AS AN ALTERNATE, ½" TYPE "S" ANCHORS MAY BE USED IN PLACE OF THE 4" STUDS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-255

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WALL DETAILS 3

SHEET 6 OF 12

1205

8

8

STATE PROJECT NUMBER

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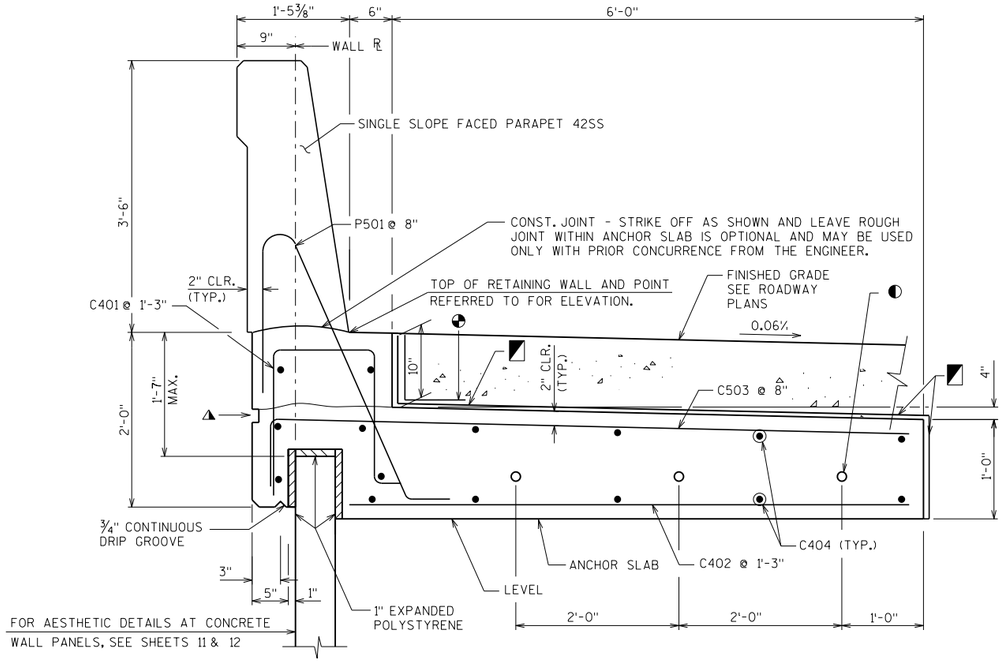
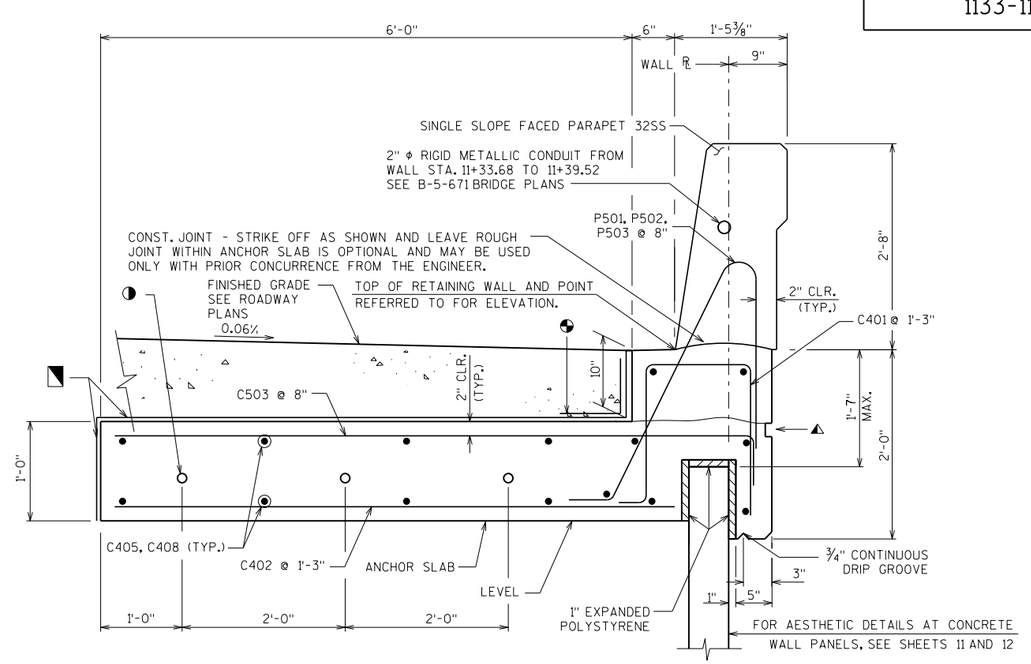


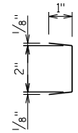
ANCHOR SLAB AND PARAPET DETAIL- NORTH SIDE

(LOOKING EAST)
STA. 10+00.00 TO STA. 10+28.50 WALL ℄

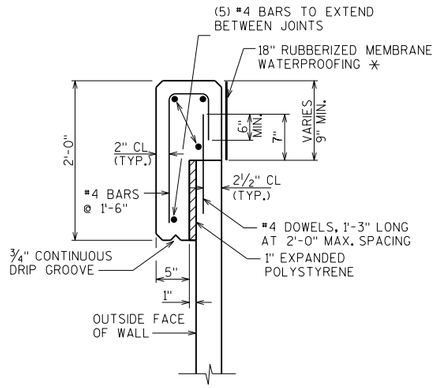


ANCHOR SLAB AND PARAPET DETAIL- SOUTH SIDE

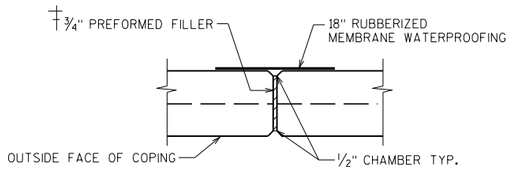
(LOOKING EAST)
STA. 11+35.18 TO STA. 11+93.67 WALL ℄



RUSTICATION DETAIL

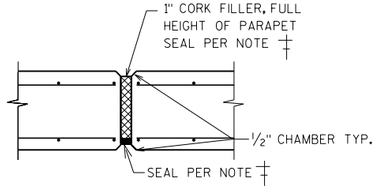


CAST-IN-PLACE
CONCRETE COPING DETAIL

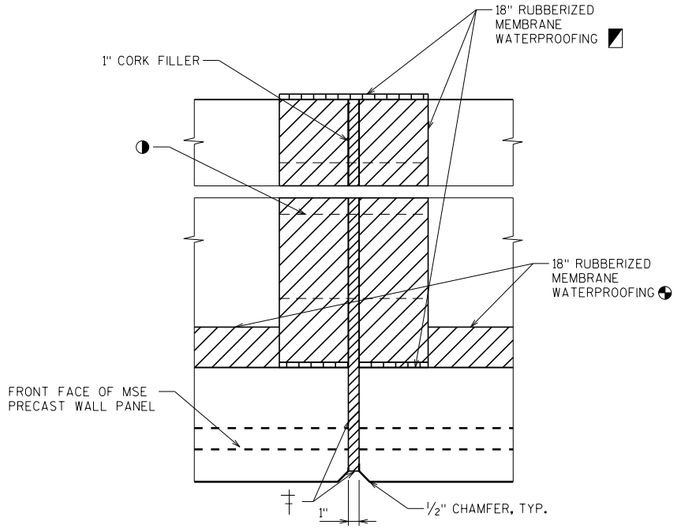


COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT. MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



⊛ PARAPET EXPANSION JOINT DETAIL



⊛ANCHOR SLAB
EXPANSION JOINT DETAIL

LEGEND

◪ 18" RUBBERIZED MEMBRANE WATERPROOFING - SEAL ALL HORIZONTAL & VERTICAL JOINTS IN ANCHOR SLAB. TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

⊛ EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

⧺ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

◑ PLACE (3) - ¾" ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".

◔ IF THE OPT. CONST. JOINT IS USED. PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONST. JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.

✳ AT WALL COPING AND ABUTMENT INTERFACE. PLACE 18" RUBBERIZED MEMBRANE ON TOP AND ALONG BACK OF COPING

◭ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED. SEE RUSTICATION DETAIL FOR DETAILS.

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STRUCTURE R-5-255

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SECTION & DETAILS 1

SHEET 7 OF 12
1206

8

8

STATE PROJECT NUMBER

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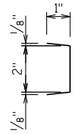
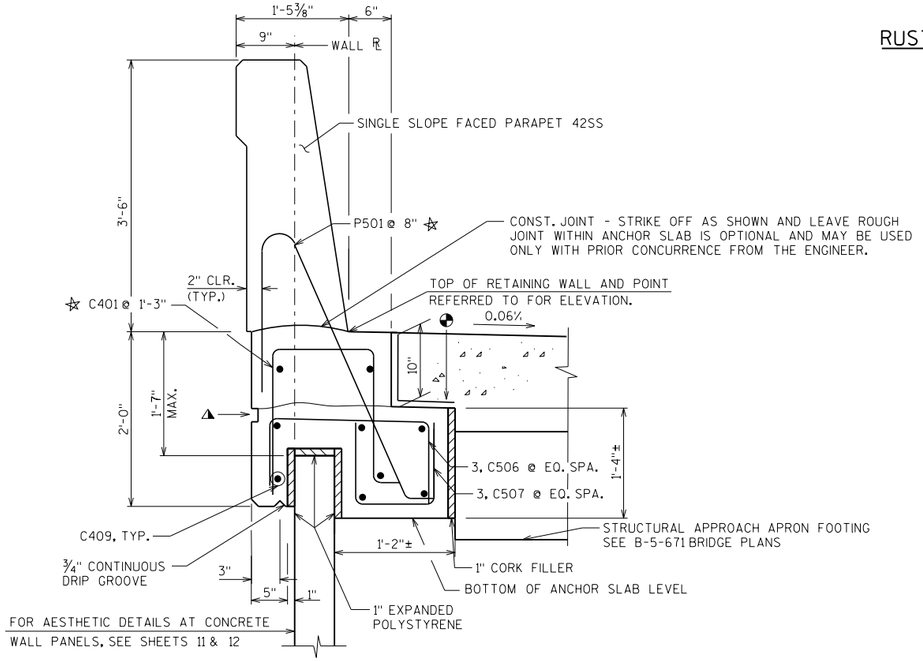
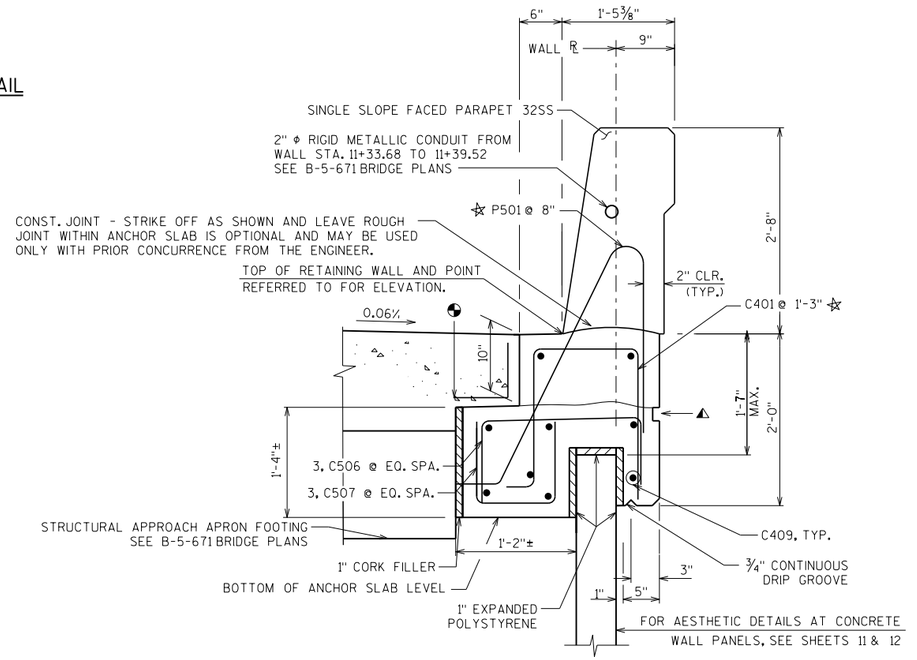


RUSTICATION DETAIL



ANCHOR SLAB AND PARAPET DETAIL- NORTH SIDE

(LOOKING EAST)
STA. 10+28.50 TO STA. 10+30.00 ℄, LT.



ANCHOR SLAB AND PARAPET DETAIL- SOUTH SIDE

(LOOKING EAST)
STA. 11+33.68 TO STA. 11+35.18 ℄, RT.

LEGEND

- ◔ IF THE OPT. CONST. JOINT IS USED. PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONST. JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.
- ☆ CUT BARS AS REQUIRED TO MAINTAIN 2" CLEAR COVER. COAT ANY CUT ENDS WITH EPOXY IN ACCORDANCE WITH SUBSECTION 505.2.4.2 OF THE STANDARD SPECIFICATIONS. WORK SHALL BE CONSIDERED INCIDENTAL TO "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS".
- ◭ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED. SEE RUSTICATION DETAIL FOR DETAILS.

NO.	DATE	REVISION	BY

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SECTION & DETAILS 2

SHEET 8 OF 12

1207

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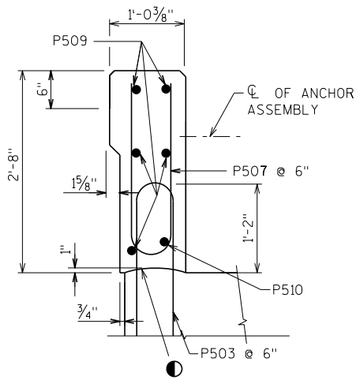
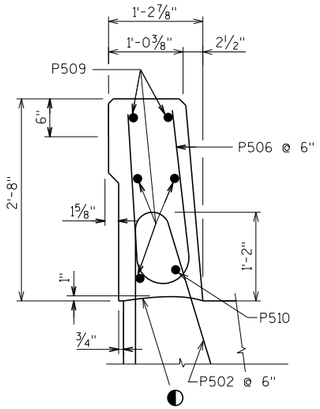


SECTION A



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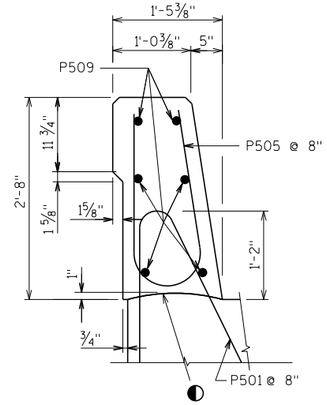

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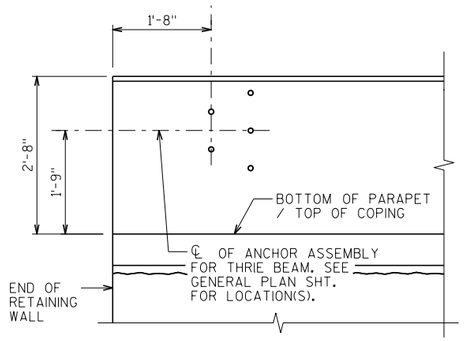
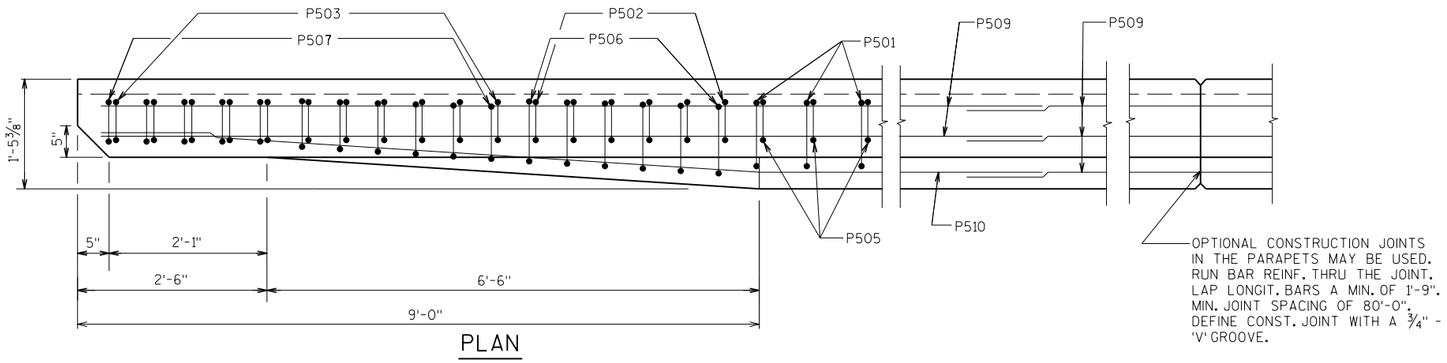
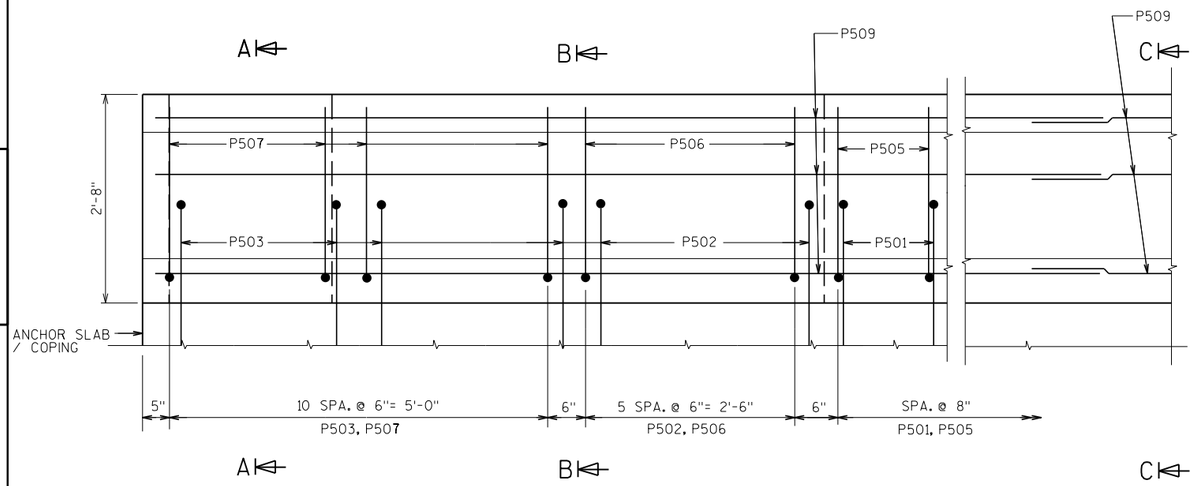


INSIDE ELEVATION 32SS



PLAN



OUTSIDE ELEVATION

LEGEND & NOTES

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

REFER TO SHEET 10 FOR BILL OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE R-5-255

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SINGLE SLOPE PARAPET 32SS

SHEET 9 OF 12

1208

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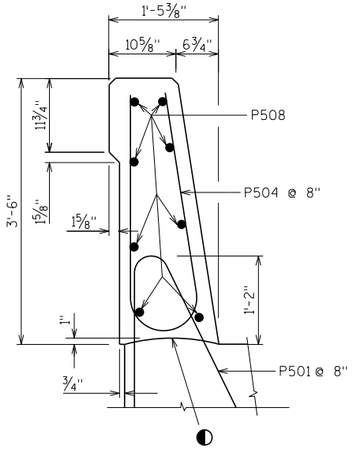
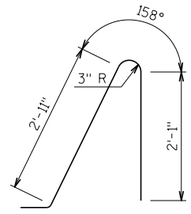
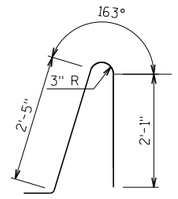


TYP. SECTION 42SS PARAPET



P501



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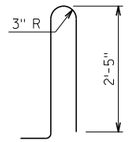

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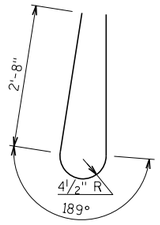

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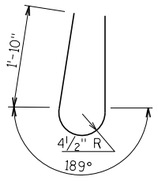

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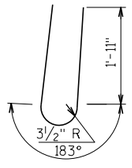

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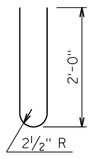

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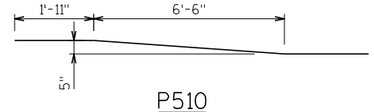

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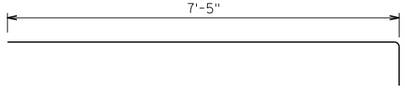

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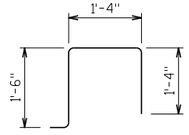

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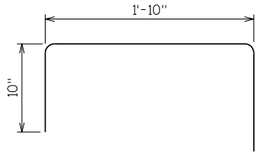

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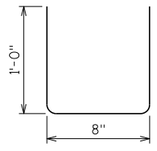


C507

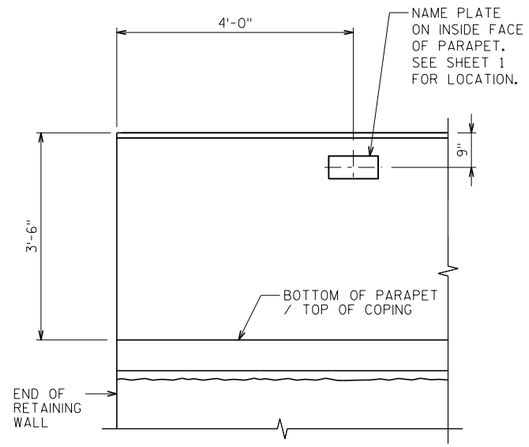
BILL OF BARS - ANCHOR SLAB

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
C401	X	74	4'-8"	X	-	COPING TIES - TRANSVERSE
C402	X	74	6'-3"	-	-	ANCHOR SLAB - TRANSVERSE BAR (BOTTOM)
C503	X	136	8'-4"	X	-	ANCHOR SLAB - TRANSVERSE (TOP)
C404	X	15	28'-2"	-	-	ANCHOR SLAB - LONGIT. (TOP & BOTTOM, 30' SEGMENT)
C405	X	30	19'-8"	-	-	ANCHOR SLAB - LONGIT. (TOP & BOTTOM, 20' SEGMENT)
C506	X	6	3'-5"	X	-	ANCHOR SLAB - TRANSVERSE BAR
C507	X	6	2'-5"	X	-	ANCHOR SLAB - TRANSVERSE BAR
C408	X	15	18'-2"	-	-	ANCHOR SLAB - LONGIT. (TOP & BOTTOM, 20' SEGMENT)
C409	X	9	4'-6"	-	-	ANCHOR SLAB - LONGIT. (TOP & BOTTOM)

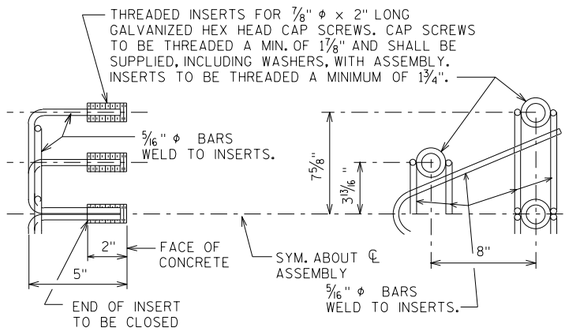
BILL OF BARS - PARAPETS

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
P501	X	125	6'-7"	X	-	PARAPET TIE TO ANCHOR SLAB - VERTICAL
P502	X	6	6'-2"	X	-	PARAPET TIE TO ANCHOR SLAB - VERTICAL
P503	X	11	5'-11"	X	-	PARAPET TIE TO ANCHOR SLAB - VERTICAL
P504	X	45	6'-8"	X	-	42SS PARAPET - VERTICAL
P505	X	78	5'-0"	X	-	32SS PARAPET - VERTICAL
P506	X	6	4'-10"	X	-	32SS PARAPET - VERTICAL
P507	X	11	4'-9"	X	-	32SS PARAPET - VERTICAL
P508	X	8	29'-8"	-	-	42SS PARAPET - HORIZONTAL (30' SEGMENT)
P509	X	17	19'-6"	-	-	32SS PARAPET - HORIZONTAL (20' SEGMENT)
P510	X	1	20'-3"	X	-	32SS PARAPET - HORIZONTAL

BENDING DIAGRAMS



INSIDE ELEVATION 42SS



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-255

DRAWN BY DRJ | PLANS CK'D. MNM

SINGLE SLOPE PARAPET 42SS

SHEET 10 OF 12

1209

8

8

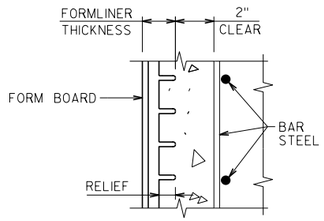
STATE PROJECT NUMBER

1133-11-74

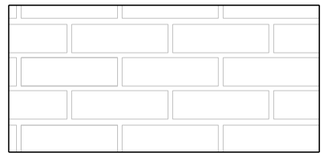
CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, BOTTOM AND OUTSIDE OF EXTERIOR CONCRETE GIRDER, STEEL BOX GIRDERS, PIER CAP
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

SEE SPECIAL PROVISIONS FOR STAIN COLORS.



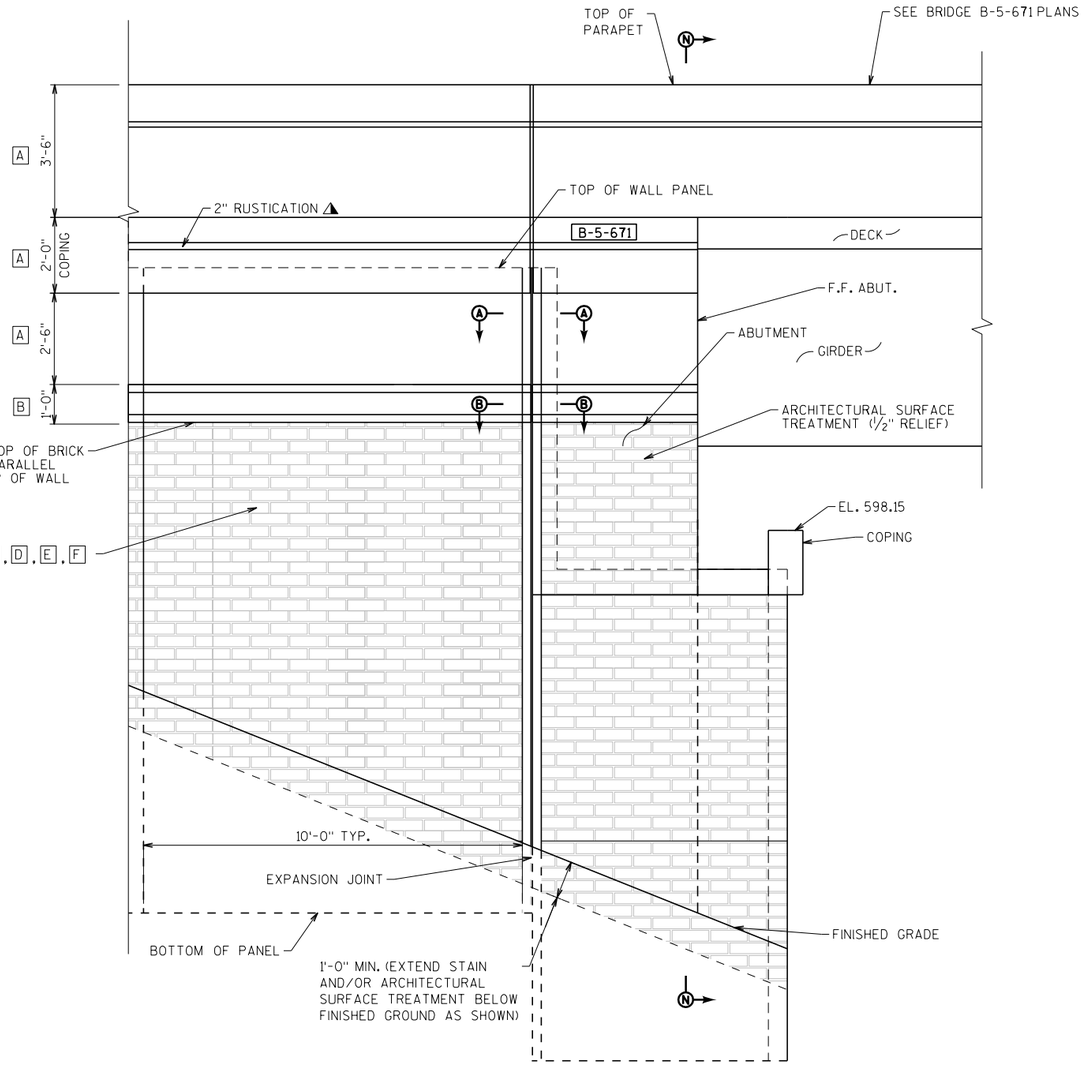
SECTION THRU FORMLINER



ARCHITECTURAL SURFACE TREATMENT

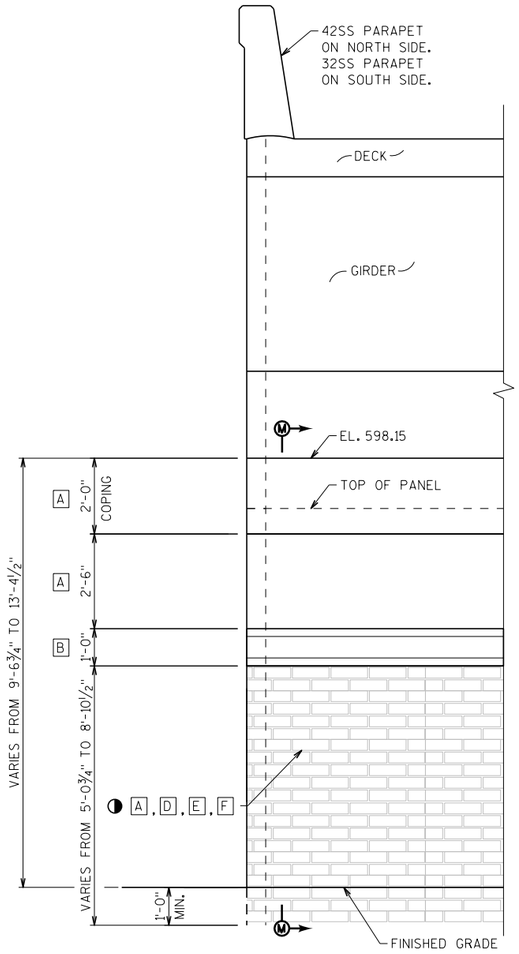
RECTANGULAR BRICK

SIZE = 2¼" TO 2⅜" X 7⅝" TO 8"
MAX. RELIEF = ½"



PARTIAL ELEVATION R-5-255

(LOOKING SOUTH AT NORTH SIDE OF WALL, SOUTH SIDE SIMILAR)



PARTIAL ELEVATION R-5-255

(LOOKING EAST)

LEGEND & NOTES

◑ STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

⚠ PROVIDE 2" RUSTICATION IF OPT. CONST. JOINT IS USED. FOR DETAILS SEE SHEETS 7 & 8.

NOTE - SEE SHEET 12 FOR CROSS SECTION CUTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-255

DRAWN BY DRJ | PLANS CK'D. MNM

AESTHETIC DETAILS 1

SHEET 11 OF 12
1210

8

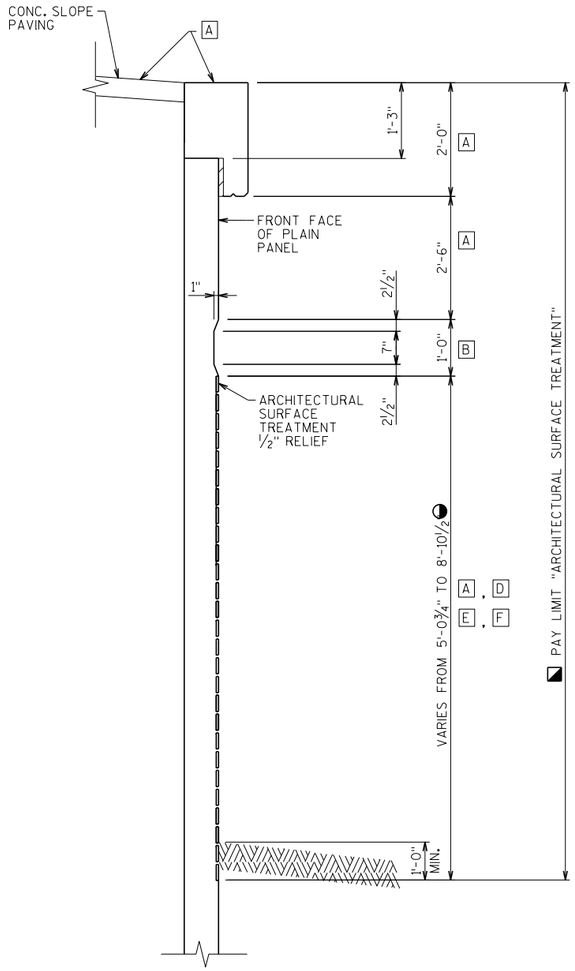
8

STATE PROJECT NUMBER
1133-11-74

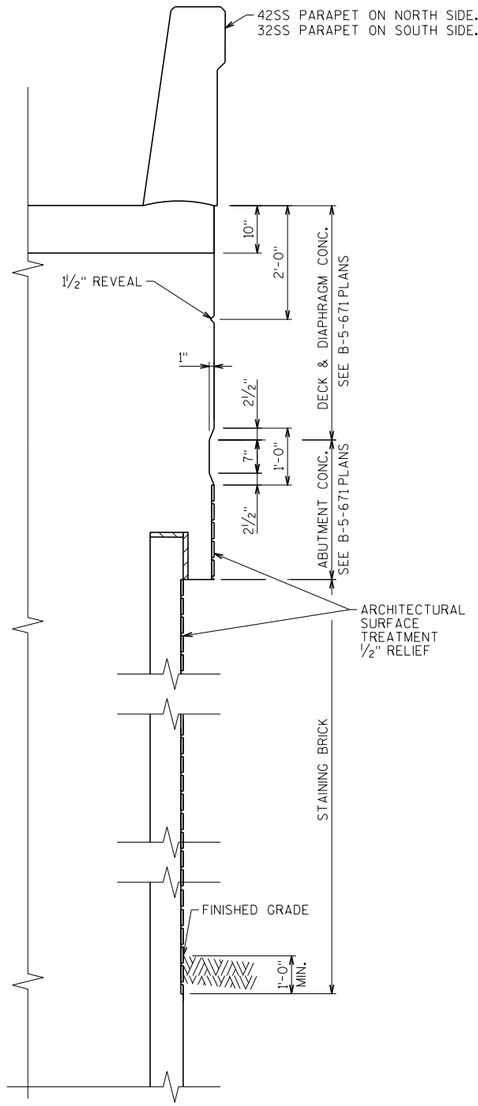
CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, BOTTOM AND OUTSIDE OF EXTERIOR CONCRETE GIRDER, STEEL BOX GIRDERS, PIER CAP
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

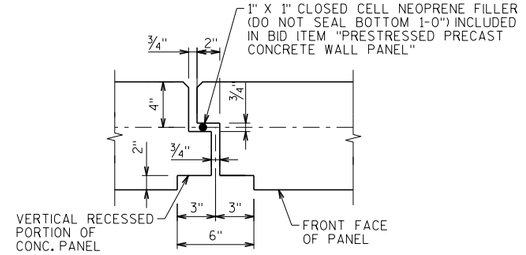
SEE SPECIAL PROVISIONS FOR STAIN COLORS.



SECTION M-M

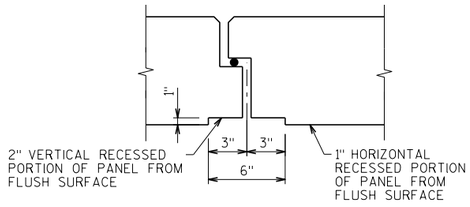


SECTION N-N



SECTION A-A

CHAMFER REVEALS 1/16" PER INCH OF DEPTH



SECTION B-B

LEGEND

◪ PAY LIMIT FOR "ARCHITECTURAL SURFACE TREATMENT" FOR THE WALL PANELS IS FROM TOP OF WALL TO 1'-0" BELOW GRADE. SEE SHEET 11 AND SPECIAL PROVISIONS FOR FORMLINER DETAILS.

◑ STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-255

DRAWN BY	DRJ	PLANS CK'D.	MNM

AESTHETIC DETAILS 2

SHEET 12 OF 12

1211

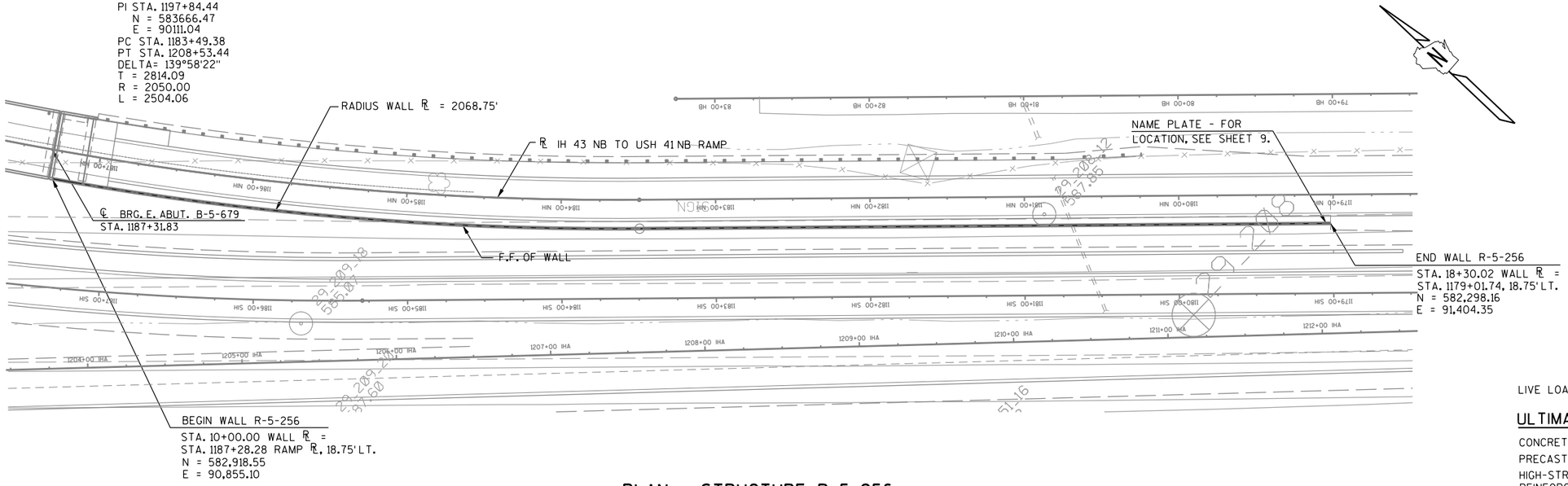
8

8

STATE PROJECT NUMBER
1133-11-74

CURVE DATA - RAMP ℄

PI STA. 1197+84.44
N = 583666.47
E = 90111.04
PC STA. 1183+49.38
PT STA. 1208+53.44
DELTA= 139°58'22"
T = 2814.09
R = 2050.00
L = 2504.06



PLAN - STRUCTURE R-5-256

LIST OF DRAWINGS

1. GENERAL PLAN
2. NOTES & QUANTITIES
3. SOIL DATA
4. SUBSURFACE EXPLORATION
5. WALL DETAILS
6. WALL DETAILS
7. WALL DETAILS
8. WALL DETAILS
9. 42" SINGLE SLOPE PARAPET
10. BILL OF BARS
11. AESTHETIC DETAILS

DESIGN DATA

LIVE LOAD SURCHARGE (ROADWAY) = 240 P.S.F.

ULTIMATE DESIGN STRESSES:

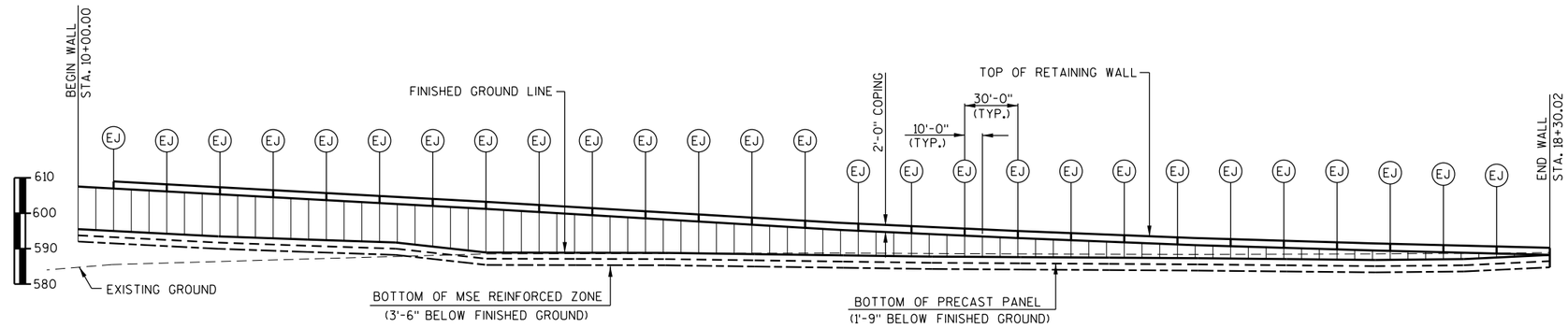
CONCRETE MASONRY - BARRIER & COPING	f'_c = 4,000 P.S.I.
PRECAST CONCRETE WALL PANEL	f'_c = 5,000 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	f_y = 60,000 P.S.I.
STRUCTURAL STEEL CARBON (ASTM A709 GRADE 36)	f_y = 36,000 P.S.I.

FOUNDATION DATA:

ALLOWABLE SOIL BEARING CAPACITY - SEE TABLE ON SHEET 3.

LEGEND

(EJ) EXPANSION JOINT LOCATION IN BARRIER FOOTING OR COPING.



NOTE: FOOTING MAY BE BUILT LEVEL AND STEPPED.

ELEVATION - R-5-256

(LOOKING AT F.F. OF WALL)

NOTE: SEE "WALL ELEVATION TABLE" ON SHEET 2.

ROMENESKO ENGINEERING, INC.
CONTACT: TOM ROMENESKO, P.E.
7325 CEDAR CREST DRIVE
SAUK CITY, WI 53583
(608) 644-1502

BRIDGE OFFICE CONTACT:
WILLIAM DREHER, P.E.
(608) 266-8489

NE REGION CONTACT:
DANIELLE BLOCK
(920) 492-2212

NO.	DATE	REVISION	BY

Original Plans Prepared By
ROMENESKO ENGINEERING, INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 05/22/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-5-256

RAMP 'NIH' RETAINING WALL

COUNTY	~~TOWN/CITY/~~VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TR	VR	TAW	TR

GENERAL PLAN

SHEET 1 OF 11
1212

I.D. 1133-11-02 DATE : 5/1/2013

FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\R-5-256\S12\01.genplan.v8.r-5-256.dgn
PLOT DATE : 5/1/2013

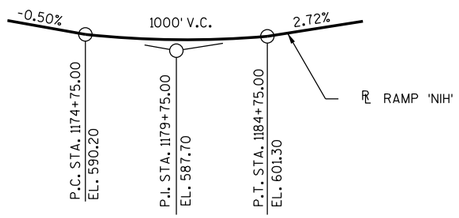
8

8

WALL ELEVATION TABLE

WALL STATION (LT. OF ℄)	TOP OF WALL ELEVATION	FINISHED GROUND ELEVATION
10+00.00	609.27	594.80
10+10.02	609.00	594.95
10+20.02	608.73	595.10
10+30.02	608.46	595.25
10+40.02	608.19	594.89
10+50.02	607.92	594.53
10+60.02	607.65	594.18
10+70.02	607.38	593.82
10+80.02	607.11	593.46
10+90.02	606.84	593.28
11+00.02	606.57	593.11
11+10.02	606.30	592.93
11+20.02	606.03	592.76
11+30.02	605.77	592.58
11+40.02	605.50	592.40
11+50.02	605.23	592.21
11+60.02	604.96	592.03
11+70.02	604.69	591.84
11+80.02	604.42	591.66
11+90.02	604.15	591.12
12+00.02	603.88	590.59
12+10.02	603.61	590.05
12+20.02	603.34	589.52
12+30.02	603.07	588.98
12+40.02	602.80	588.97
12+50.02	602.53	588.96
12+60.02	602.26	588.95
12+70.02	602.00	588.94
12+80.02	601.73	588.93
12+90.02	601.47	588.92
13+00.02	601.18	588.91
13+10.02	600.89	588.89
13+20.02	600.60	588.88
13+30.02	600.31	588.87
13+40.02	600.03	588.80
13+50.02	599.75	588.73
13+60.02	599.47	588.66
13+70.02	599.19	588.59
13+80.02	598.92	588.52
13+90.02	598.65	588.40
14+00.02	598.38	588.28
14+10.02	598.12	588.16

WALL STATION (LT. OF ℄)	TOP OF WALL ELEVATION	FINISHED GROUND ELEVATION
14+20.02	597.86	588.04
14+30.02	597.60	587.92
14+40.02	597.35	587.92
14+50.02	597.10	587.92
14+60.02	596.85	587.92
14+70.02	596.60	587.92
14+80.02	596.36	587.92
14+90.02	596.12	587.87
15+00.02	595.89	587.82
15+10.02	595.66	587.77
15+20.02	595.43	587.72
15+30.02	595.20	587.67
15+40.02	594.98	587.62
15+50.02	594.76	587.57
15+60.02	594.54	587.52
15+70.02	594.33	587.47
15+80.02	594.12	587.42
15+90.02	593.91	587.37
16+00.02	593.71	587.32
16+10.02	593.51	587.28
16+20.02	593.31	587.23
16+30.02	593.12	587.18
16+40.02	592.93	587.17
16+50.02	592.74	587.16
16+60.02	592.58	587.15
16+70.02	592.43	587.14
16+80.02	592.28	587.13
16+90.02	592.13	587.12
17+00.02	591.98	587.11
17+10.02	591.84	587.10
17+20.02	591.70	587.09
17+30.02	591.57	587.08
17+40.02	591.44	587.10
17+50.02	591.32	587.12
17+60.02	591.21	587.13
17+70.02	591.10	587.15
17+80.02	591.00	587.17
17+90.02	590.89	587.83
18+00.02	590.79	588.49
18+10.02	590.70	589.15
18+20.02	590.61	589.81
18+30.02	590.52	590.47



PROFILE GRADE LINE, RAMP 'NIH'

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 3/4", UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP AND INSIDE FACES OF PARAPETS.

COORDINATE THE CONSTRUCTION OF WALL R-5-256 WITH SOUTH ABUTMENT AND APPROACH APRON CONSTRUCTION FOR BRIDGE B-5-679.

THE COST OF FURNISHING AND PLACING THE FOOTING UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL."

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND AND PARAPETS IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET AND SHEET 1.

ALL STATIONS ARE ALONG THE ℄ FOR R-5-256 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

DO NOT PERMIT CONCRETE OR FILL TO DROP OR ACCUMULATE INTO THE WALL PANEL CAVITY.

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M153, TYPES I, II OR III OR M213.

OPTIONAL TRANSVERSE CONSTRUCTION JOINTS ARE PERMITTED IN THE FOOTING WITH A MINIMUM SPACING OF TWO PANEL LENGTHS. FOOTING JOINTS SHOULD BE OFFSET A MINIMUM OF 1'-0" FROM WALL JOINTS. RUN BAR STEEL THRU FOOTING JOINTS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN THE RETAINING WALL FOR HORIZONTAL FINISHED GRADE BEHIND THE WALL AND A LIVE LOAD SURCHARGE OF 240 PSF.

THE TOPS OF ABUTTING CONCRETE PANELS UNDER THE APPROACH APRON SHALL BE AT THE SAME ELEVATION.

APPLY CONCRETE STAIN (BASE COLOR A) TO THE OUTSIDE OF PARAPET, CONCRETE COPING, AND CONCRETE WALL PANELS.

AT THE ENDS OF WALL SEAL CAVITY BETWEEN WIRE FACE WALL AND PRECAST CONCRETE WALL PANEL WITH COLUMN OF CONCRETE 1'-6" WIDE.

"FINE METALLIC SCREEN" SHALL HAVE A MAXIMUM 1/4"x1/4" MESH AND MINIMUM 0.025" WIRE DIAMETER. WIRES TO BE HOT DIPPED GALVANIZED AFTER WELDING.

BASED ON CONTRACTOR MEANS AND METHODS, ANY GAPS BETWEEN PRESTRESSED PRECAST CONCRETE WALL PANEL AND PRESTRESSED PRECAST CONCRETE PANEL FOOTING THAT EXPOSE THE MSE WALL SHALL BE FILLED WITH MASONRY MATERIAL OR AS APPROVED BY THE ENGINEER. ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THIS WORK ARE CONSIDERED INCIDENTAL TO THE WALL CONSTRUCTION.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	392
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	480
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	49,000
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	34
532.0700.S	WALL WIRE FACED MECHANICALLY STABILIZED EARTH (LRFD)	SF	7,698
612.0406	PIPE UNDERDRAIN 6-INCH WRAPPED	LF	1,240
SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	4,110
SPV.0165.701	STAINING CONCRETE	SF	5,325
SPV.0165.702	STAINING CONCRETE BRICK	SF	4,110
SPV.0165.850	PRESTRESSED PRECAST CONCRETE WALL PANEL	SF	7,698
	NON - BID ITEMS		
	PREFORMED FILLER	SIZE	1"
	CORK FILLER	SIZE	1"
	EXPANDED POLYSTYRENE	SIZE	1"

STATE PROJECT NUMBER

1133-11-74

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

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NOTES & QUANTITIES

SHEET 2 OF 11
1213

8

8

FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\R-5-256\T202_notes_quant_v8_r-5-256.dgn
PLOT DATE : 4/18/2013

STATE PROJECT NUMBER

1133-11-74

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (psf)	UNIT WEIGHT (pcf)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL OR SOIL BEHIND THE REINFORCING ZONE	31	0	115
FILL OR SOIL BEHIND THE REINFORCING ZONE	31	0	115
FILL OR SOIL BEHIND THE REINFORCING ZONE	31	0	115

NOTE: 1. MSE BACKFILL ASSUMED TO EXTEND 3.5 FEET BELOW PROPOSED FINISHED GRADE. NOTE THAT HIGH VALUES OF COHESION AND FRICTION ANGLE WERE ASSUMED ONLY TO FORCE GLOBAL STABILITY SLIP SURFACES OUTSIDE THE REINFORCED MASS. THESE VALUES SHOULD NOT BE ASSUMED FOR INTERNAL STABILITY OR OTHER ANALYSES.

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (psf)	UNIT WEIGHT (pcf)
BORING B679-G1, STA. 1187'NIH'+33			
LOOSE TO M. DENSE SILTY SAND ELEV. 582 TO ELEV. 573.5	28	0	110
MEDIUM TO STIFF LEAN CLAY ELEV. 573.5 TO ELEV. 569.5	0	1,000	115
VERY SOFT LEAN CLAY ELEV. 569.5 TO ELEV. 553.5	0	400	105
VERY STIFF LEAN CLAY ELEV. 553.5 TO ELEV. 539.0	0	2,000	125
SOFT FAT CLAY ELEV. 539.0 TO ELEV. 533.0	0	600	120
DENSE GRAVEL ELEV. 533.0 TO ELEV. 530.0	36	0	135
SOFT LEAN CLAY ELEV. 530.0 TO ELEV. 524.0	0	750	120
HARD TILL ELEV. 524.0 TO ELEV. 499.3	0	3,000	135
DOLOMITE BEDROCK ELEV. 499.3 TO ELEV. ----	--	----	150
BORING R256-G2, STA. 1185'NIH'+00, 10' LT.			
LOOSE TO M. DENSE SILTY SAND ELEV. 587.4 TO ELEV. 574.9	28	0	110
MEDIUM TO STIFF LEAN CLAY ELEV. 574.9 TO ELEV. 565.9	0	1,000	105
VERY SOFT LEAN CLAY ELEV. 565.9 TO ELEV. 555.9	0	400	105
V. STIFF LEAN CLAY ELEV. 555.9 TO ELEV. 545.9	0	2,000	125
SOFT LEAN CLAY ELEV. 545.9 TO ELEV. 543.4	0	500	120
V. STIFF LEAN CLAY ELEV. 543.4 TO ELEV. 539.0	0	2,000	125
SOFT FAT CLAY ELEV. 539.0 TO ELEV. 533.0	0	600	120
DENSE GRAVEL ELEV. 533.0 TO ELEV. 530.0	36	0	135
SOFT LEAN CLAY ELEV. 530.0 TO ELEV. 524.0	0	750	120
HARD TILL ELEV. 524.0 TO ELEV. 499.3	0	3,000	135
DOLOMITE BEDROCK ELEV. 499.3 TO ELEV. ----	--	----	150

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (psf)	UNIT WEIGHT (pcf)
BORING R256-G1, STA. 1182'NIH'+98, 9' RT.			
LOOSE TO M. DENSE SILTY SAND ELEV. 584.3 TO ELEV. 575.0	28	0	110
MEDIUM TO STIFF LEAN CLAY ELEV. 575.0 TO ELEV. 565.0	0	1,000	115
VERY SOFT LEAN CLAY ELEV. 565.0 TO ELEV. 552.3	0	400	105
VERY STIFF LEAN CLAY ELEV. 552.3 TO ELEV. 539.0	0	2,000	125
SOFT FAT CLAY ELEV. 539.0 TO ELEV. 533.0	0	600	120
DENSE GRAVEL ELEV. 533.0 TO ELEV. 530.0	36	0	135
SOFT LEAN CLAY ELEV. 530.0 TO ELEV. 524.0	0	750	120
HARD TILL ELEV. 524.0 TO ELEV. 499.3	0	3,000	135
DOLOMITE BEDROCK ELEV. 499.3 TO ELEV. ----	--	----	150

* RETAINING WALL BORINGS R256-G1 AND R256-G2 WERE TERMINATED AT APPROXIMATE ELEVATION 544 FEET. THE SOIL PROFILE BENEATH ELEVATION 544 FEET WAS MODELED USING SOIL INFORMATION FROM THE LOG FOR BORING B679-G1.

SAFETY FACTORS & REQUIRED WALL MODIFICATIONS

	DIMENSIONS		
WALL HEIGHT (FEET) [1]	18.0	17.5	11.1
EXPOSED WALL HEIGHT (FEET)	14.5	14.0	7.6
LENGTH OF REINFORCEMENT (FEET)	13.0	12.5	8.0
LENGTH OF REINF./WALL HEIGHT	0.7	0.7	0.7
STATION	1187+00	1185+00	1182+00
BORING	B679-G1	R256-G2	R256-G1
SLIDING (FS_{req} > 1.0)	1.99	2.32	2.03
ECCENTRICITY (FS_{req} > 1.0)	1.89	2.64	2.06
GLOBAL STABILITY (FS_{req} > 1.0)	1.08 [2,3]	1.01 [2]	1.14
BEARING CAPACITY (FS_{req} > 1.0)	2.25	2.76	2.54
FACTORED BEARING RESISTANCE (PSF)	6,000	6,000	6,000

NOTES: 1. WALL HEIGHT INCLUDES A MINIMUM 3.5 FEET EMBEDMENT DEPTH.
2. CONTROLLING EXTERNAL STABILITY CONDITION.
3. STABILITY ANALYSIS INCLUDED GEOTEXTILE AT EL 587 FEET, EXTENDING FROM THE FACE OF THE WALL TO A DISTANCE OF 50 FEET BEHIND THE WALL.
4. SEE "ADDENDUM TO GEOTECHNICAL MEMORANDUM" DATED APRIL 26, 2013 FOR ADDITIONAL INFORMATION FOR DESIGN OF WALL.

FILE NAME : P:\153 USH 41 1133-10-00 UPS\Structures\R-5-256\S2\03_soils_data_v8_r-5-256.dgn
PLOT DATE : 4/29/2013

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

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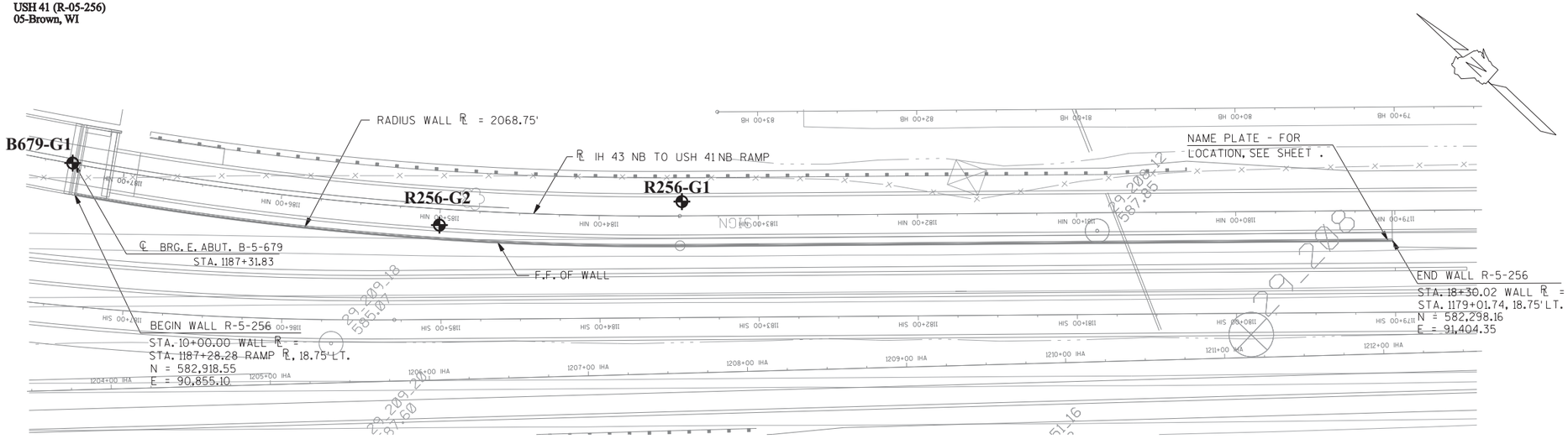
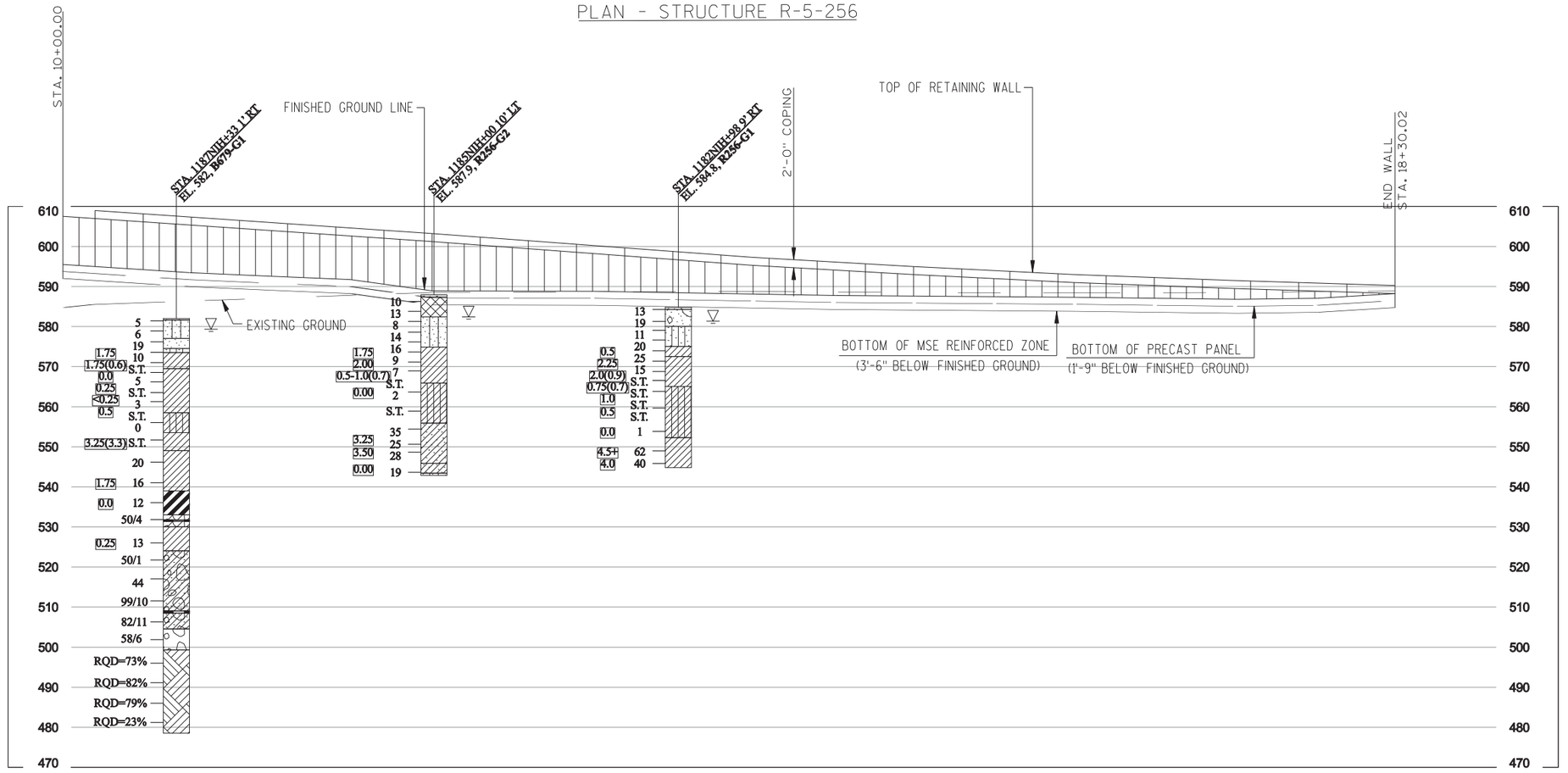
SOIL DATA

SHEET 3 OF 11
1214

USH 41 (R-05-256)
05-Brown, WI



PLAN - STRUCTURE R-5-256



STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Ws—Weathered So—Sound

MATERIAL SYMBOLS

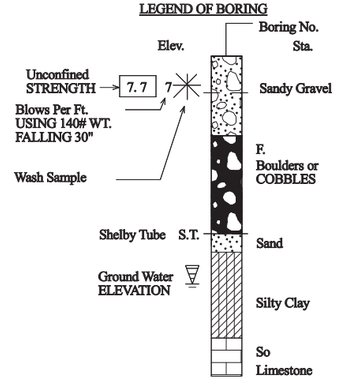
Topsoil, Silt, Fat Clay
Sand, Peat, Dolomite
Gravel, Clay, Fill

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal 95/6

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

GESTRA
Gestra Engineering Inc.
1626 W. Fond du Lac Avenue
Milwaukee, WI 53205
Phone: 414-933-7444, Fax: 414-933-7844

STRUCTURE R-05-256

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subsurface exploration

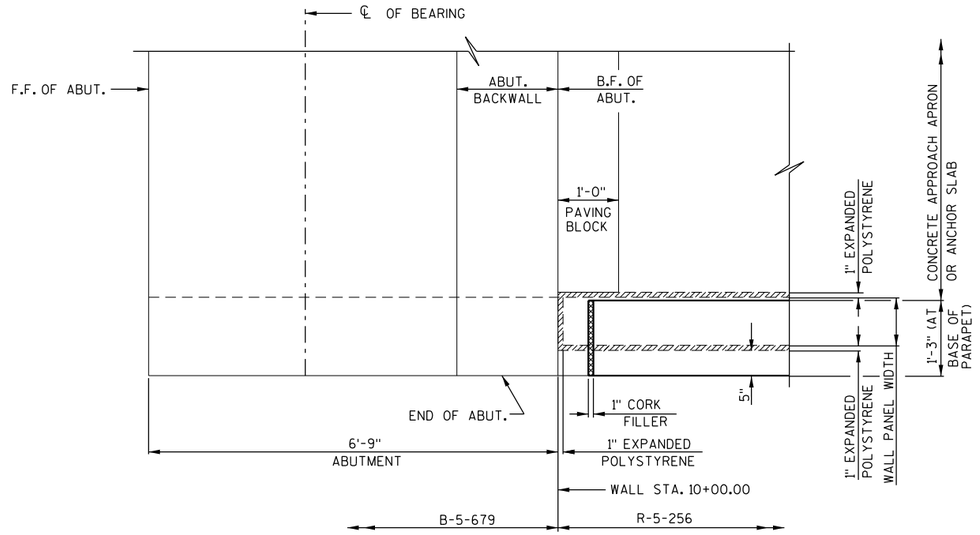
SHEET 4 OF 11

09/2 1215

SCALE 1"=80'

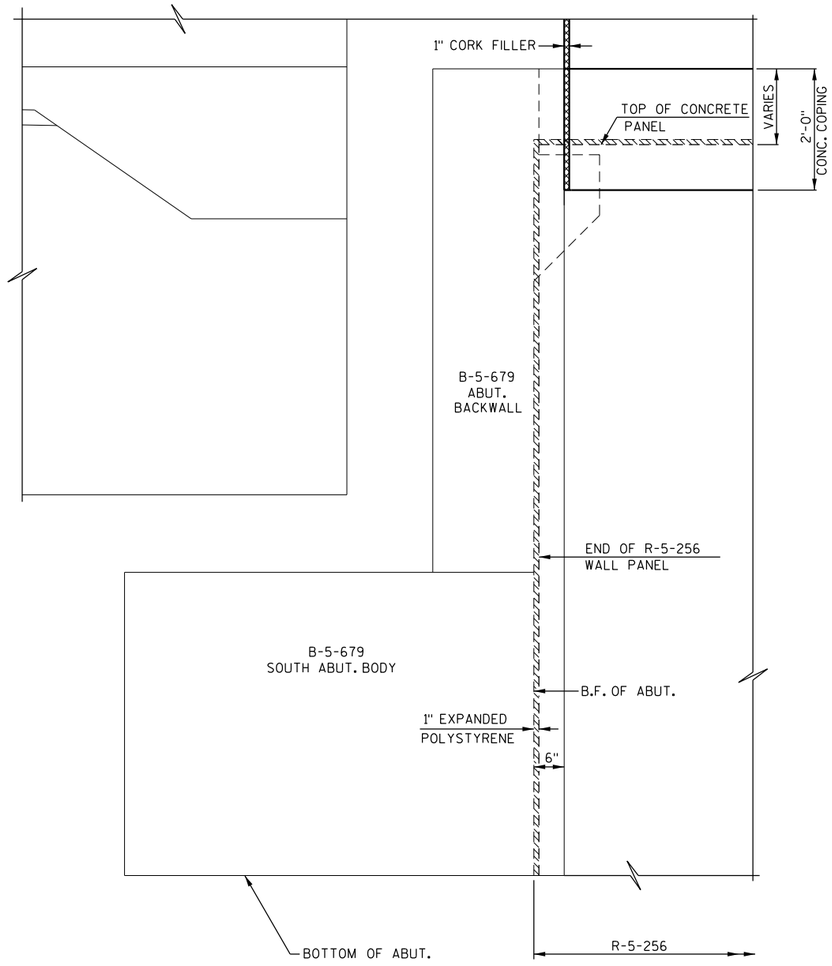
STATE PROJECT NUMBER

1133-11-74



PART PLAN - TYPICAL CORNER DETAIL

(SHOWN AT N.W. CORNER OF B-5-679)



PART ELEVATION - END VIEW

FOR AESTHETIC DETAILS, SEE SHEET 11.

8

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FILE NAME : P:\153 USH 41 1133-10-00 UFS\Structures\R-5-256\T205_wall_details_A_v8_r-5-256.dgn
PLOT DATE : 4/15/2013

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

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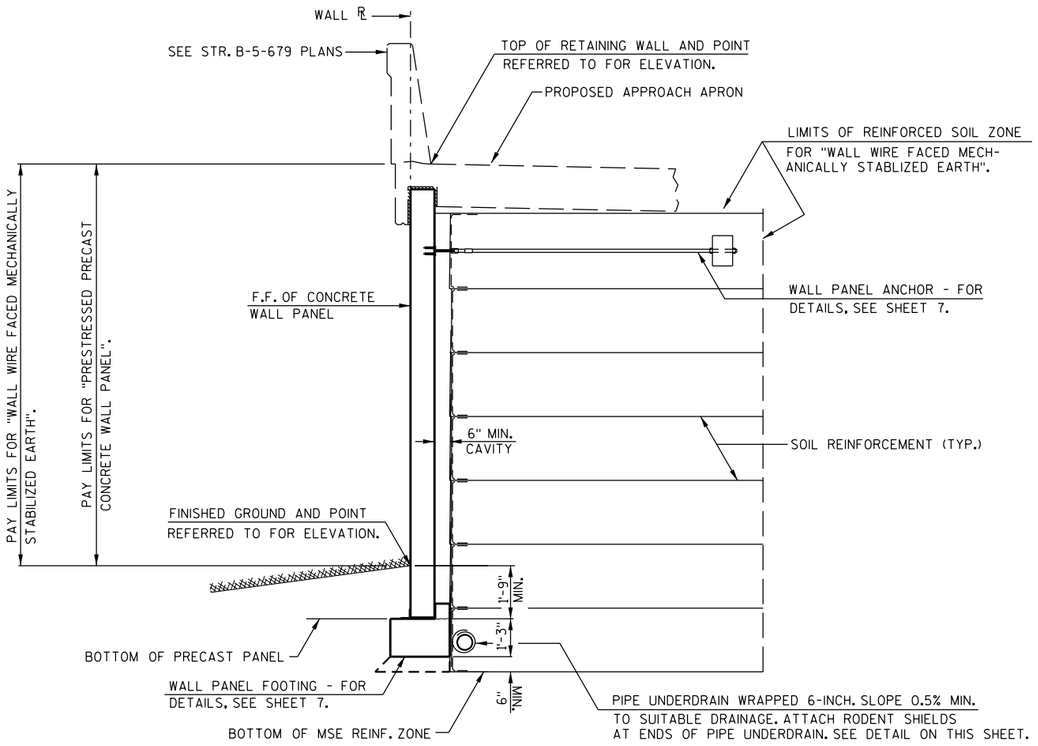
WALL DETAILS

SHEET 5 OF 11
1216

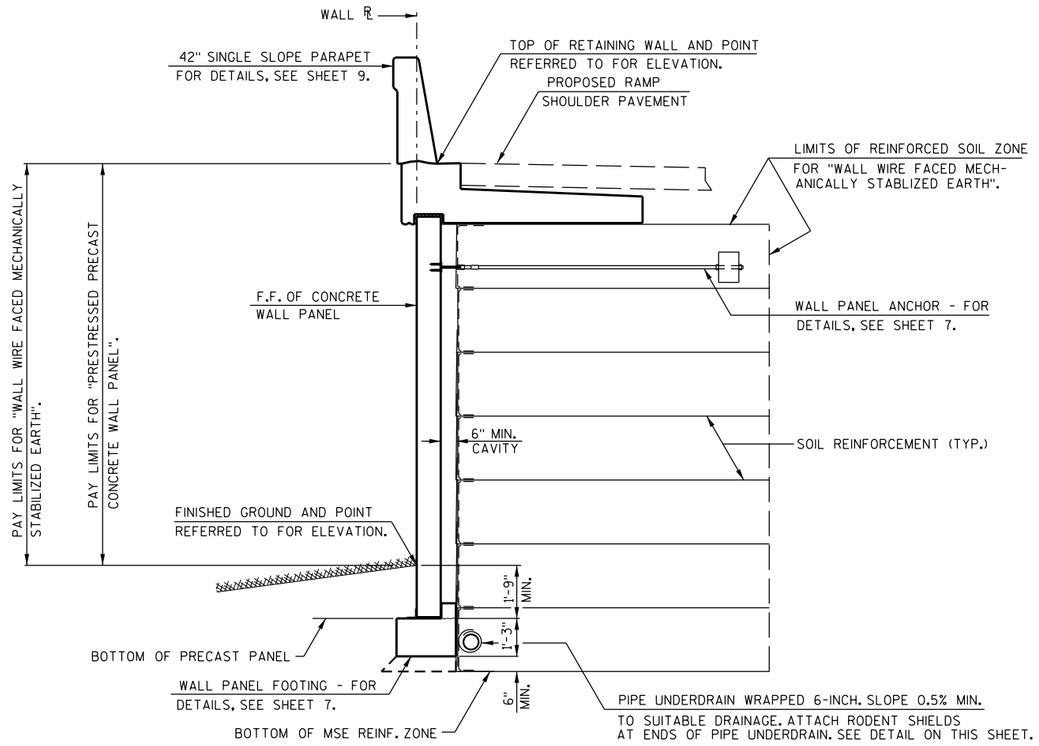
STATE PROJECT NUMBER

1133-11-74



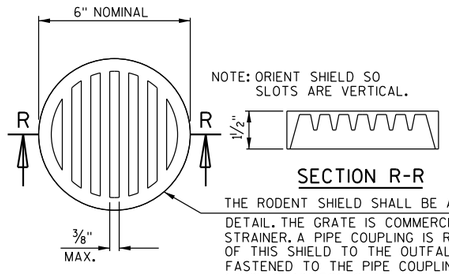
SECTION THRU RETAINING WALL - AT STRUCTURE B-5-679

(LOOKING NORTH THRU WALL)



SECTION THRU RETAINING WALL - AT ROADWAY SECTION

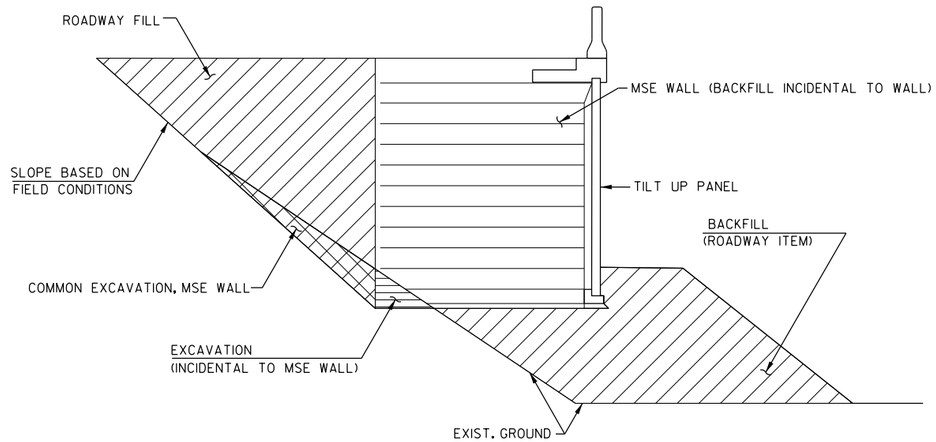
(LOOKING NORTH THRU WALL ON WEST SIDE)



SECTION R-R

RODENT SHIELD

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



EXCAVATION/BACKFILL DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

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WALL DETAILS

SHEET 6 OF 11
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FILE NAME : P:\153 USH 41 1133-10-00 URS\Structures\R-5-256S72V06_wall_details_B_v8_r-5-256.dgn
PLOT DATE : 4/15/2013

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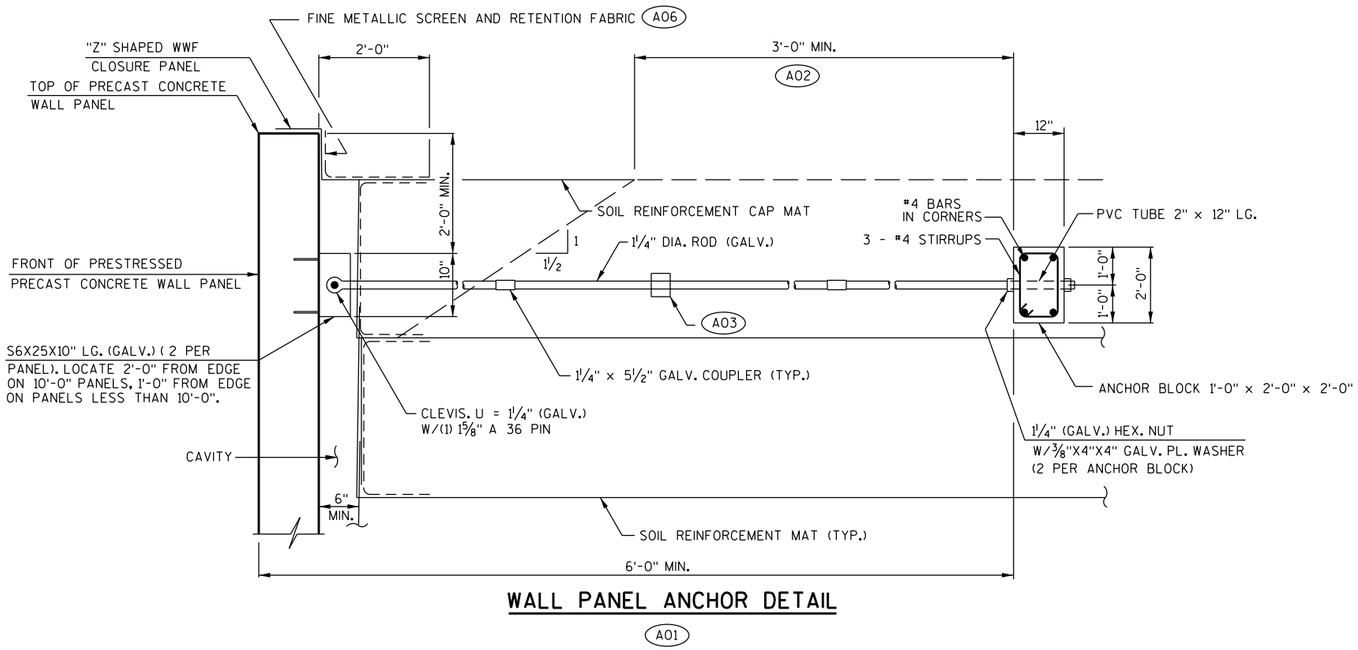


WALL PANEL ANCHOR DETAIL

A01

LEGEND

(A01) WALL PANEL ANCHOR SYSTEM INCLUDES ANCHOR BLOCK, ANCHOR BLOCK COUPLER, 1¼" DIA. ANCHOR ROD, CLEVIS, AND OTHER PANEL CONNECTION COMPONENTS. DESIGN, DETAILING, AND FURNISHING OF THESE ITEMS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL." INSTALLATION OF THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH."

(A02) DESIGN LENGTH TO PROVIDE REQUIRED HORIZONTAL CAPACITY OF ANCHOR ASSEMBLY. MINIMUM OF 3'-0" OF COMPACTED FILL IN FRONT OF ANCHOR BLOCK PRIOR TO WALL PANEL ERECTION. ROD MIN. 2'-0" BELOW FINISH GRADE.

(A03) OPTIONAL MULTIDIRECTIONAL CONNECTOR MAY BE USED TO FACILITATE ALIGNMENT AT THE CONNECTION. CONNECTOR TO BE CORROSION RESISTANT AND DEVELOP 100% OF THE ULTIMATE STRENGTH OF 1¼" DIA. BAR)

(A04) BASE AGGREGATE OPEN GRADED, 6" MIN. INCIDENTAL TO BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

(A05) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO BOTTOM OF WALL PANEL FOOTING IS SHOWN. THE FOOTING MAY BE CONSTRUCTED ON A SLOPE PARALLEL TO THE PROPOSED GRADE, OR MAY BE STEPPED. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE WALL PANEL FOOTING WITH FABRICATION OF THE PRECAST PANELS.

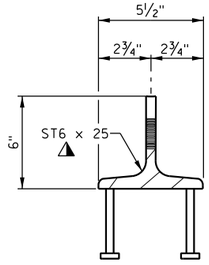
(A06) ALTERNATE METHODS OF SEALING OFF THE 6" VOID IN FRONT OF THE MSE WALL MAY BE SUBMITTED TO WISDOT FOR CONSIDERATION.

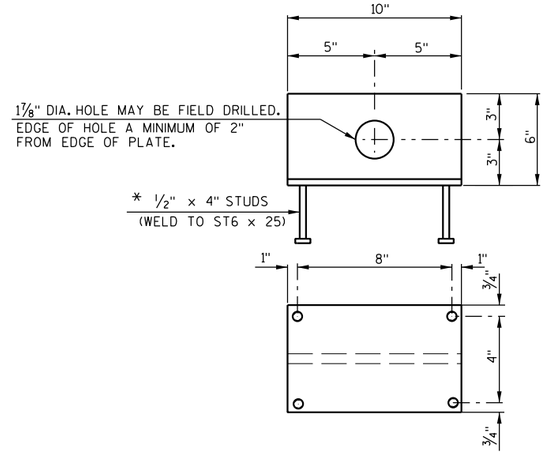
◩ INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"

NOTES

AN ALTERNATE WALL PANEL ANCHOR AND PANEL CONSTRUCTION SYSTEM MAY BE SUBMITTED FOR REVIEW AND POSSIBLE ACCEPTANCE BY THE ENGINEER.

TILT UP PANEL ANCHOR SYSTEM MAY BE TRENCHED IN IF THE GEOMETRY OF THE ANCHOR SYSTEM LOCATION ALLOWS.



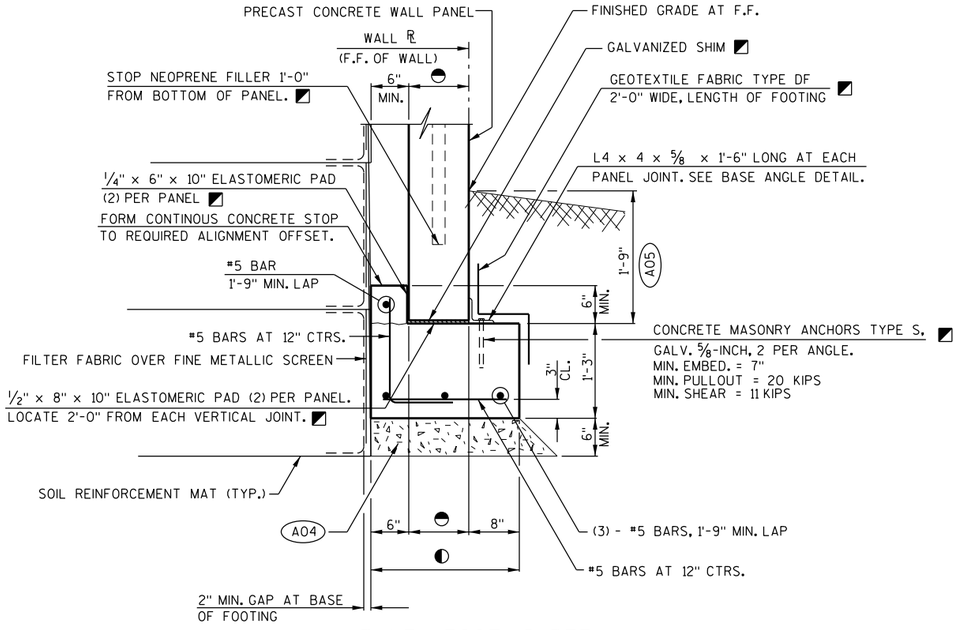


PANEL CONNECTION DETAILS

ST6 x 25 MAY BE WELDED TO ¾" THICK PLATE WITH (4) ½" X 4" STUDS ANCHORED IN PRECAST PANEL. RESTORE ZINC COATING AROUND ANY WELDED AREAS. SUBMIT DETAILS FOR APPROVAL BY ENGINEER.

◭ S12x50 (GALV.) CUT IN ½ TO FORM "T" SECTION. BF = 5.477" TW = 0.687".

* AS AN ALTERNATE, 1/2" TYPE S ANCHORS MAY BE USED IN PLACE OF THE 4" STUDS.

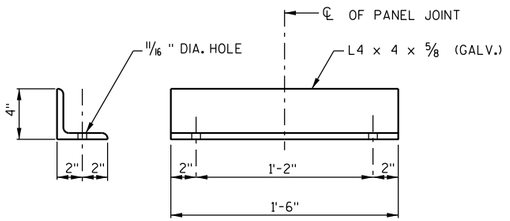


WALL PANEL FOOTING DETAIL

CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"

◓ = 7½" OR 9½"

◐ FOOTING DIMENSION EQUALS PANEL THICKNESS PLUS 1'-2"



BASE ANGLE DETAIL

(ONE AT EACH PANEL JOINT) ◩

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

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WALL DETAILS

SHEET 7 OF 11
1218

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FILE NAME : P:\153 USH 41 1133-10-00 LRSS\Structures\R-5-256\12\07_wall_details_C_v8_r-5-256.dgn
PLOT DATE : 4/15/2013

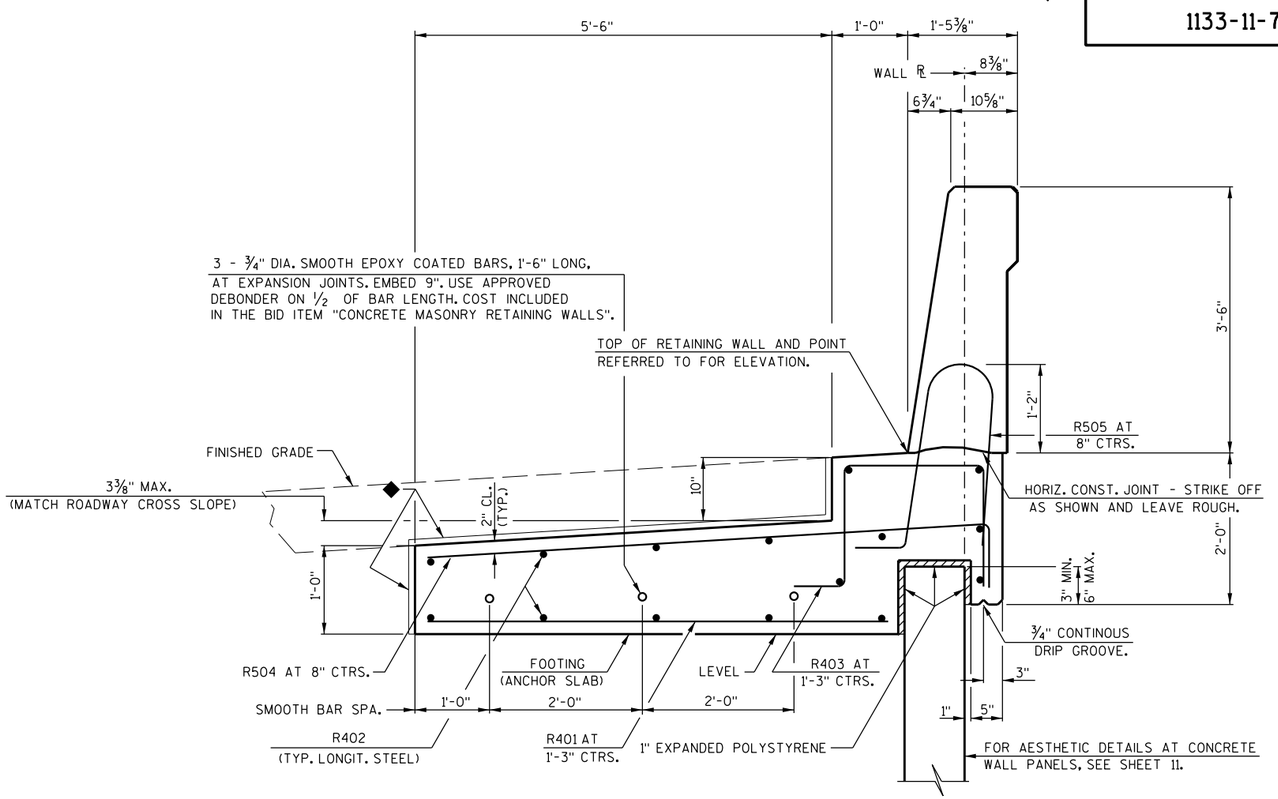
STATE PROJECT NUMBER

1133-11-74

NOTES: FOR PARAPET REINFORCEMENT DETAILS, SEE SHEET 9.
LAP R402 BARS 2'-4" MIN.
PLACE LONGITUDINAL BARS CONCENTRIC TO RAMP ℄ IN CURVED PORTION.

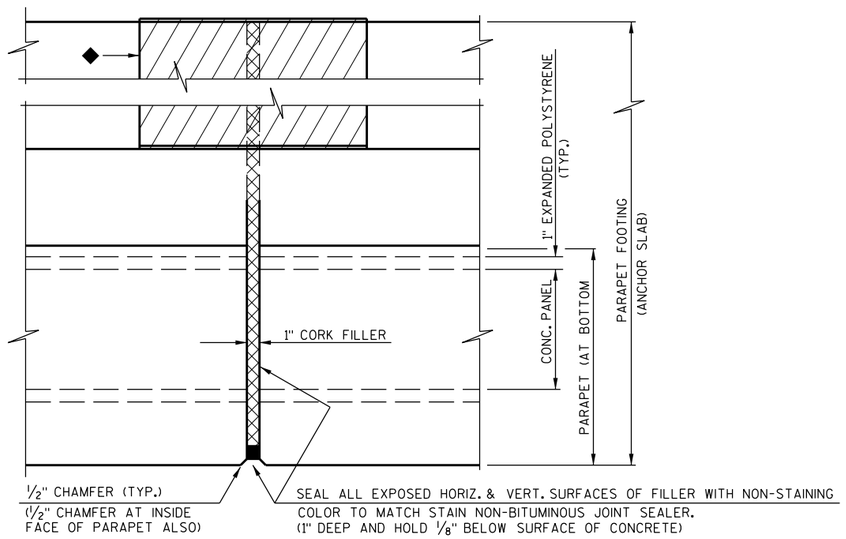
LEGEND

◆ 18" RUBBERIZED MEMBRANE WATERPROOFING - SEAL ALL HORIZONTAL & VERTICAL JOINTS IN FOOTING.



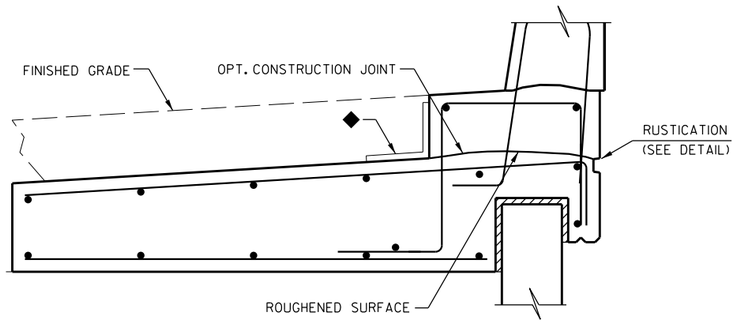
PARAPET AND ANCHOR SLAB DETAIL

(LOOKING SOUTH)
STA. 10+20.02 TO STA. 18+30.02



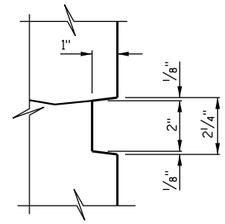
CONCRETE PARAPET/FOOTING EXPANSION JOINT DETAIL

EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'±.
LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT.



ALT. SECTION THRU PARAPET AND ANCHOR SLAB

COST OF RUBBERIZED MEMBRANE WATERPROOFING AT ALT. JOINT IS INCIDENTAL TO OTHER BID ITEMS.
THE ALT. JOINT MAY BE USED BY THE CONTRACTOR WITH THE CONCURRENCE OF THE ENGINEER.



RUSTICATION DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

DRAWN BY TAW | PLANS CK'D. TR

SECTION & DETAILS

SHEET 8 OF 11
1219

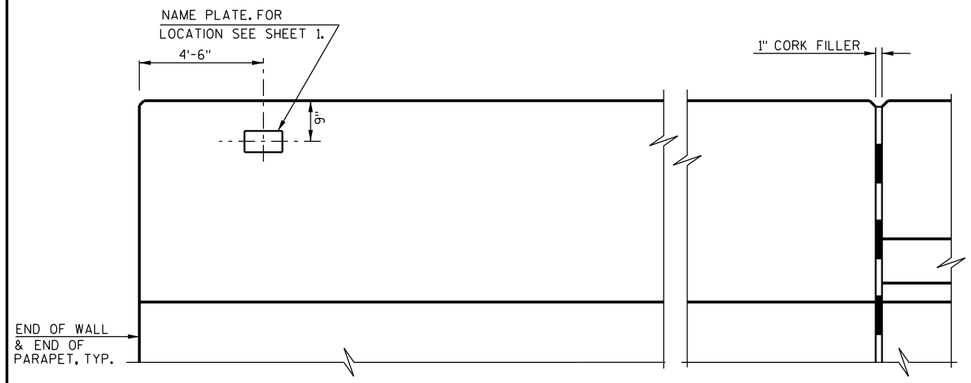
8

8

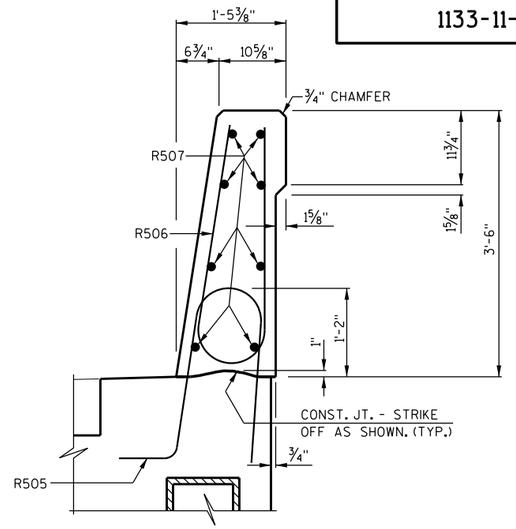
FILE NAME : P:\153 USH 41 1133-10-00 UKSStructures\R-5-256S12\08_wall_details.0.v8.r-5-256.dgn
PLOT DATE : 4/15/2013

STATE PROJECT NUMBER

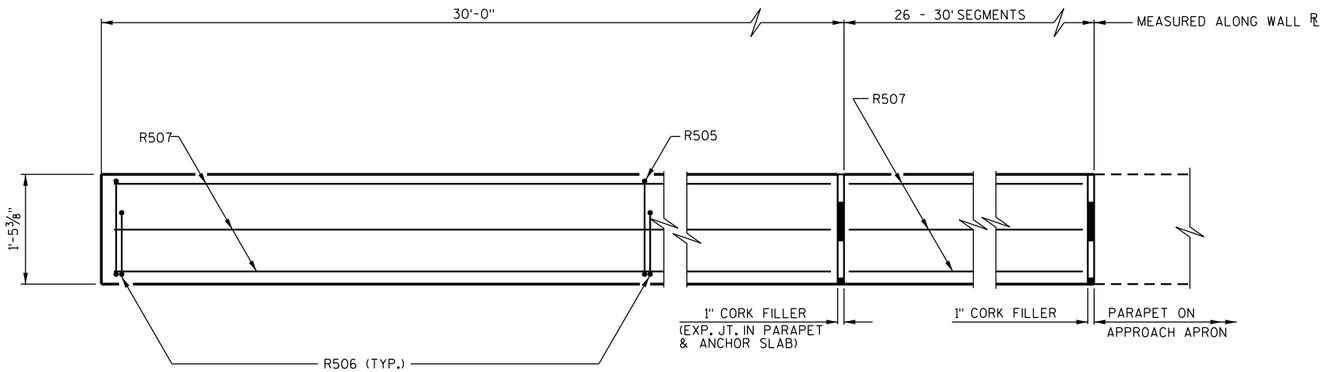
1133-11-74



INSIDE ELEVATION - END OF WALL

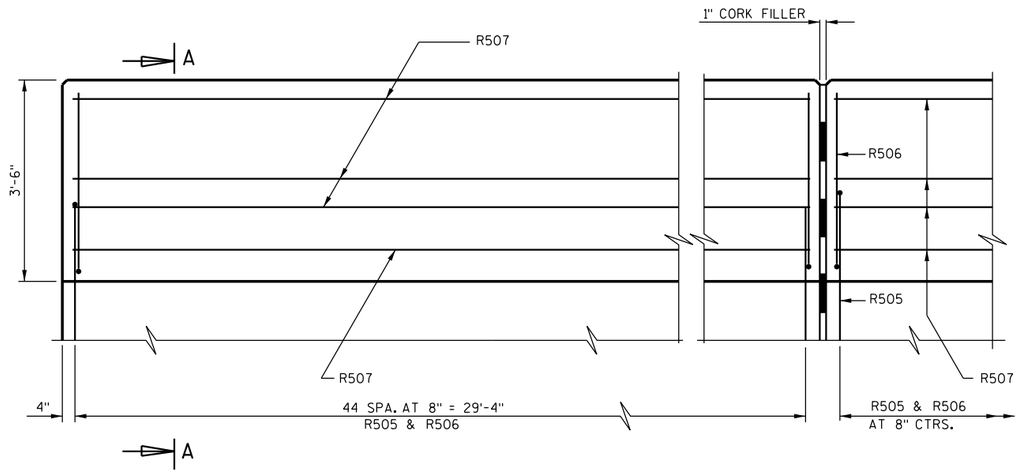


SECTION THRU PARAPET ON WALL



PLAN - END OF WALL

NOTES: LAP R507 BARS 1'-9" MIN.
PLACE R507 BARS CONCENTRIC TO RAMP ℄ IN CURVED PORTIONS.



OUTSIDE ELEVATION - END OF WALL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

DRAWN BY TAW | PLANS CK'D. TR

42" SINGLE SLOPE PARAPET

SHEET 9 OF 11
1220

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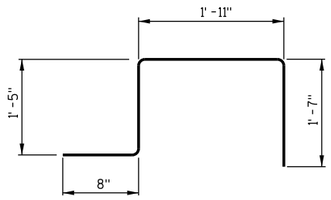
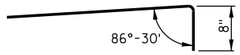
FILE NAME : P:\153 (DSH 41 1133-10-00 URS\Structures\R-5-256\T209_parapet_42SS_r-5-256.dgn
PLOT DATE : 4/15/2013

STATE PROJECT NUMBER

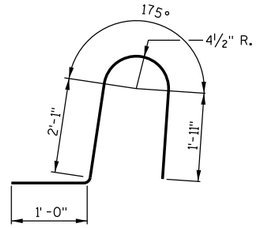
1133-11-74



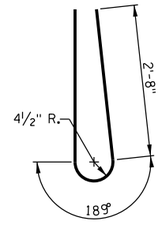
R403



R504



R505



R506

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL REINFORCEMENT BARS IN THIS BILL SHALL BE EPOXY COATED.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION	TOTAL WEIGHT = 49,000 LBS.
R401	648	6-1			ANCHOR SLAB - BOTTOM	TRANS.
R402	810	16-1			ANCHOR SLAB	LONGIT.
R403	648	5-4	X		ANCHOR SLAB	VERT.
R504	1,215	6-7	X		ANCHOR SLAB	TRANS.
R505	1,215	6-1			ANCHOR SLAB & PARAPET	VERT.
R506	1,215	6-8			PARAPET	VERT.
R507	432	15-10	X		PARAPET	LONGIT.

FILE NAME : P:\153 USH 41 1133-10-00 LRSS\Structures\R-5-256\12\10.bill.bars.r-5-256.dgn
PLOT DATE : 4/15/2013

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

DRAWN BY TAW | PLANS CK'D. TR

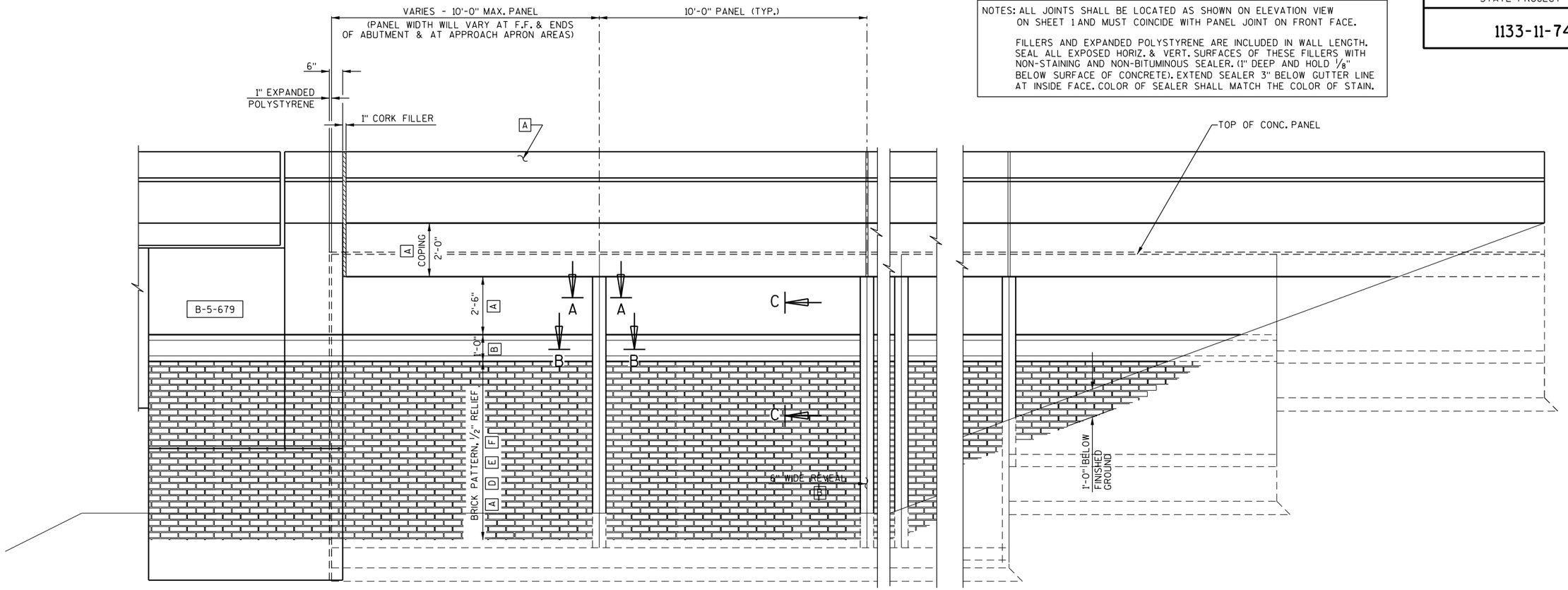
BILL OF BARS

STATE PROJECT NUMBER

1133-11-74

NOTES: ALL JOINTS SHALL BE LOCATED AS SHOWN ON ELEVATION VIEW ON SHEET 1 AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

FILLERS AND EXPANDED POLYSTYRENE ARE INCLUDED IN WALL LENGTH. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF THESE FILLERS WITH NON-STAINING AND NON-BITUMINOUS SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE. COLOR OF SEALER SHALL MATCH THE COLOR OF STAIN.



FOOTING STEPS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

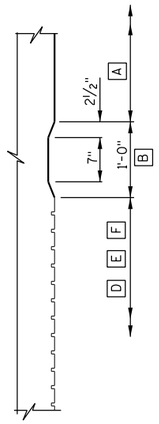
PART ELEVATION - R-5-256

(LOOKING NORTH AT PORTION OF WALL)

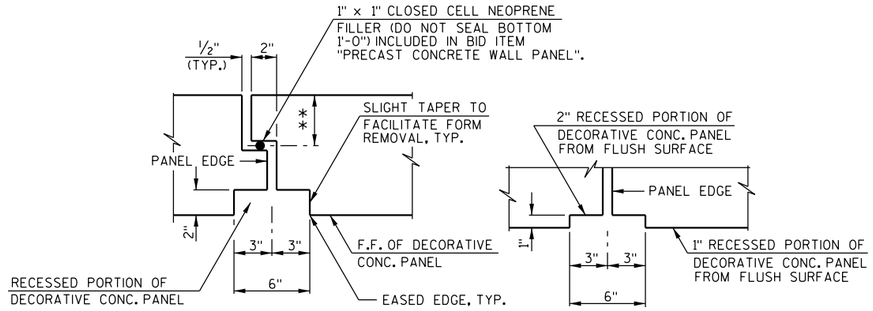
CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, OUTSIDE OF CONC. GIRDER, STEEL BOX GIRDERS
C	ACCENT COLOR #2	VERTICAL PILASTER CENTER ELEMENT
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)
G	ACCENT COLOR #6	LETTERING AT ROADWAY NAME

NOTE: 1. FINISH ON COLORS IS FLAT (LUSTERLESS).



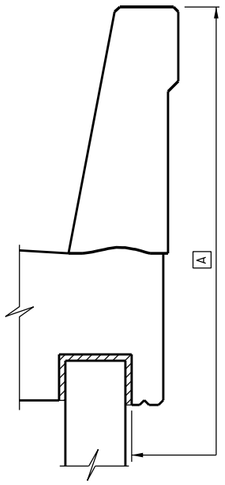
SECTION C-C



SECTION A-A

** 4" FOR 9 1/2" PANEL
3" FOR 7 1/2" PANEL

SECTION B-B



42" SINGLE SLOPE PARAPET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-256

DRAWN BY TAW | PLANS CK'D. TR

AESTHETIC DETAILS

SHEET 11 OF 11

1222

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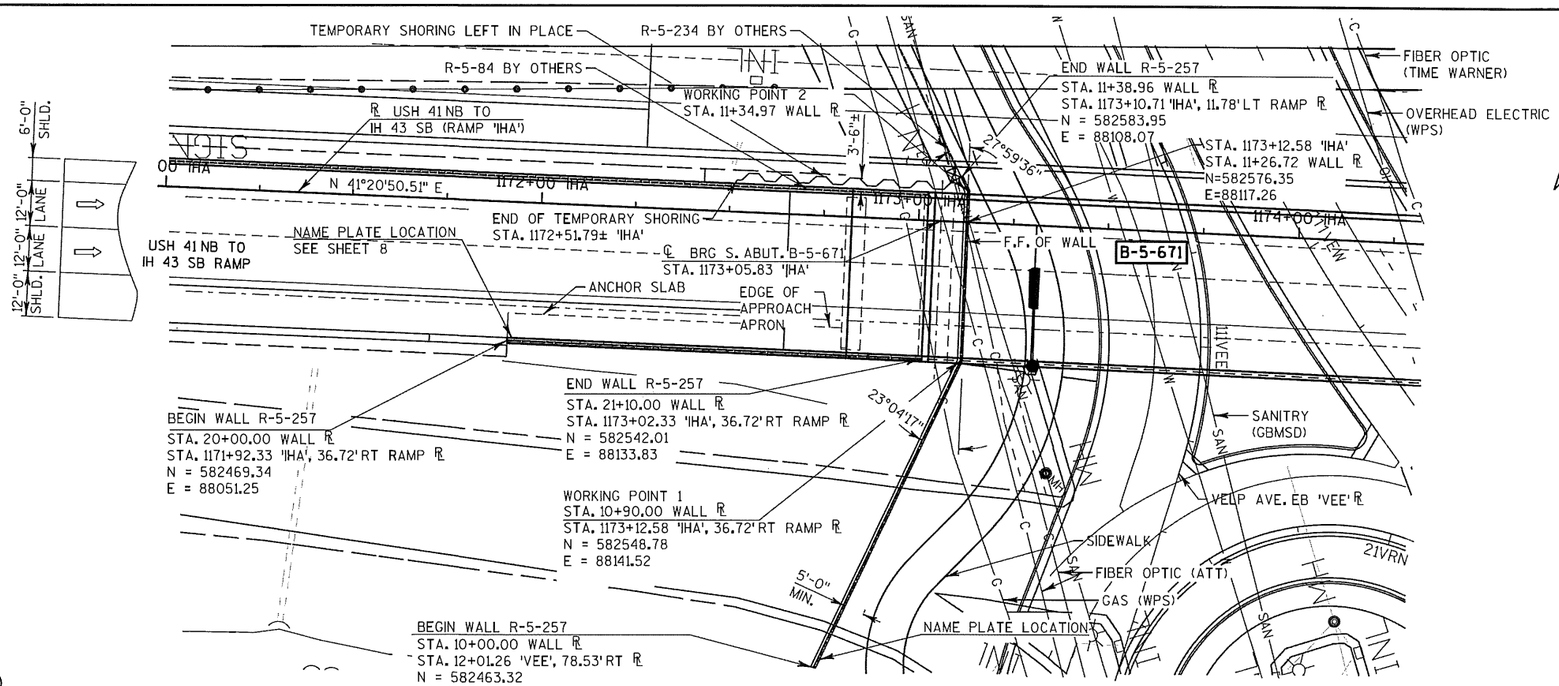
FILE NAME : P:\153 (DSH 41 1133-10-00 UFS\Structures\R-5-256ST211.oesthetic.dgn01,r-5-256.dgn
PLOT DATE : 4/15/2013

STATE PROJECT NUMBER
1133-11-74



PLAN - STRUCTURE R-5-257

(MSE RETAINING WALL WITH TILT-UP PANELS)

LEGEND

(EJ) EXPANSION JOINT LOCATION IN COPING OR ANCHOR SLAB

F.F. FRONT FACE

CURVE DATA - RAMP 'IHA' ℄

PI STA. 1193+68.84
N = 583934.76
E = 89660.93
PC STA. 1179+64.06
PT STA. 1202+21.95
Δ = 86° 14'42"
D = 3° 49'11"
T = 1404.78
R = 1500.00
L = 2257.89

DESIGN DATA

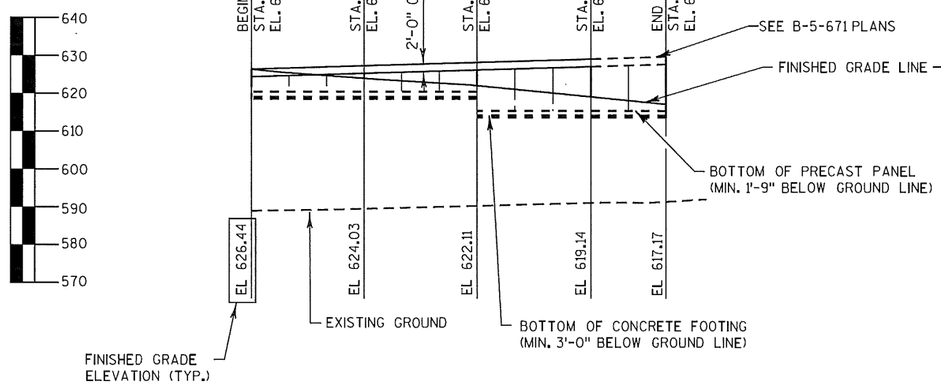
LIVE LOAD SURCHARGE (ROADWAY) = 240 P.S.F.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY - BARRIER & COPING-----f'c= 4,000 P.S.I.
PRECAST CONCRETE WALL PANEL----------f'c= 5,000 P.S.I.
HIGH-STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60----------fy = 60,000 P.S.I.
STRUCTURAL STEEL CARBON----------fy = 36,000 P.S.I.
(ASTM A709 GRADE 36)

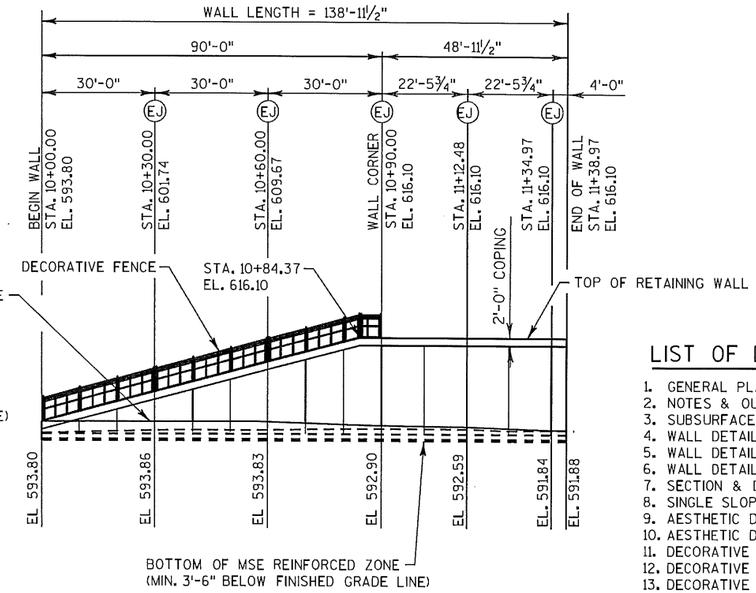
FOUNDATION DATA:

ULTIMATE SOIL BEARING CAPACITY -
MSE WALL PANEL---------- SEE TABLE ON SHEET 2.



ELEVATION - STRUCTURE R-5-257

(UNFOLDED ELEVATION LOOKING AT F.F. OF WALL ALONG 'IHA')



ELEVATION - STRUCTURE R-5-257

(UNFOLDED ELEVATION LOOKING AT F.F. OF WALL ALONG 'VEE')

LIST OF DRAWINGS

1. GENERAL PLAN
2. NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WALL DETAILS
5. WALL DETAILS 2
6. WALL DETAILS 3
7. SECTION & DETAILS
8. SINGLE SLOPE PARAPET 32SS
9. AESTHETIC DETAILS 1
10. AESTHETIC DETAILS 2
11. DECORATIVE FENCE DETAILS 1
12. DECORATIVE FENCE DETAILS 2
13. DECORATIVE FENCE DETAILS 3

STRUCTURES DESIGN CONTACTS

NE REGION CONTACT:
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BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT:
MAHMOUD MALAS (262) 821-1171

WISCONSIN
MAHMOUD N. MALAS
E-27922
MILWAUKEE, WI
PROFESSIONAL ENGINEER

5/11/2013

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Management Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 05/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-5-257

RETAINING WALL AT SOUTH ABUT. OF B-5-671

COUNTY	BROWN	~~TOWN/CITY~~/VILLAGE	HOWARD

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DRJ	DESIGN CK'D.	MNM	DRAWN BY	DRJ	PLANS CK'D.	MNM

GENERAL PLAN

SHEET 1 OF 13
1223

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FILE NAME : P:\8356 USH 41 Retaining Walls\Structural\Submittal-Final\R-05-257\01-257-GP.DGN

PLOT DATE : 4/30/2013

PLOT SCALE : 480.0150 ' / ft.

STATE PROJECT NUMBER
1133-11-74

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	45
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	41
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	4,890
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	26
532.0700.S	WALL WIRE FACED MECHANICALY STABILIZED EARTH (LRFD)	SF	2,940
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	30
612.0406	PIPE UNDERDRAIN 6-INCH WRAPPED	LF	250
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	95
653.0222	JUNCTION BOXES 18X12X6-INCH	EA	1
SPV.0090.850	FENCE DECORATIVE WALL	LF	93
SPV.0165.700	ARCHITECTURAL SURFACE TREATMENT	SF	3,190
SPV.0165.701	STAINING CONCRETE	SF	1,490
SPV.0165.702	STAINING CONCRETE BRICK	SF	1,950
SPV.0165.850	PRESTRESSED PRECAST CONCRETE WALL PANEL	SF	2,940
SPV.0165.851	TEMPORARY SHORING LEFT IN PLACE	SF	1,890
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4", 1"
	CORK FILLER	SIZE	1/2"
	EXPANDED POLYSTYRENE	SIZE	1"

GEOMETRY TABLE

WALL STATION	RAMP 'IHA'/'VEE' STATION	OFFSET TO F.F. WALL	TOP OF WALL	FINISHED GRADE	EXISTING GRADE
10+00.00	11+01.26 'VEE'	78.53' RT	593.80	593.80	590.81
10+30.00	11+81.83 'VEE'	72.73' RT	601.74	593.86	591.53
10+60.00	11+52.16 'VEE'	68.21' RT	609.67	593.83	591.72
10+84.37	11+23.68 'VEE'	64.44' RT	616.10	593.03	591.97
10+90.00	1173+12.58 'IHA'	36.72' RT	616.10	592.90	591.99
11+12.48	1173+12.58 'IHA'	14.24' RT	616.10	592.59	591.97
11+34.97	1173+12.58 'IHA'	8.25' LT	616.10	591.84	591.71
11+38.97	1173+10.71 'IHA'	11.78' LT	616.10	591.88	591.72
20+00.00	1171+92.33 'IHA'	36.72' RT	626.44	626.44	589.00
20+30.00	1172+22.33 'IHA'	36.72' RT	627.34	624.03	589.51
20+60.00	1172+52.33 'IHA'	36.72' RT	628.24	622.17	590.29
20+90.00	1172+82.33 'IHA'	36.72' RT	629.14	619.14	591.08
21+10.00	1173+02.33 'IHA'	36.72' RT	629.74	617.17	591.41

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH."

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

COORDINATE THE CONSTRUCTION OF WALL R-5-257 WITH SOUTH ABUTMENT CONSTRUCTION FOR BRIDGE B-5-671 AND RETAINING WALL R-5-84.

THE COST OF FURNISHING AND PLACING THE FOOTING UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS."

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON SHEETS 1 AND 2.

ALL STATIONS ARE ALONG THE REFERENCE LINE FOR R-5-257 ALONG THE FRONT FACE OF WALL UNLESS SHOWN OTHERWISE.

DO NOT ALLOW CONCRETE OR FILL TO DROP OR ACCUMULATE INTO WALL PANEL CAVITY.

HOT DIP GALVANIZE ALL STRUCTURAL STEEL CARBON IN ACCORDANCE WITH ASTM A123 WHERE SHOWN.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE

PROVIDE A RUBBED SURFACE TREATMENT IN ACCORDANCE WITH SECTION 502.3.7.3 TO ALL PERMANENTLY EXPOSED SURFACES OF CONCRETE MASONRY RETAINING WALLS.

AT THE END AND BEGINNING OF WALL, CLOSE GAP BETWEEN WIRE-FACED WALL AND PRECAST CONCRETE PANEL WITH 1'-6" WIDE COLUMN OF CONCRETE.

CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE PROPER CONSOLIDATION. WICK DRAINS SHALL BE INSTALLED WHEN REQUIRED. SEE R-5-257 GEOTECHNICAL REPORT AND ROADWAY PLANS FOR FURTHER DETAILS. JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II OR III OR AASHTO DESIGNATION M213.

OPTIONAL TRANSVERSE CONSTRUCTION JOINTS ARE PERMITTED IN THE FOOTING WITH A MINIMUM SPACING OF TWO PANEL LENGTHS. FOOTING JOINTS SHOULD BE OFFSET A MINIMUM OF 1'-0" FROM WALL JOINTS. BAR STEEL SHALL BE RUN THRU FOOTING JOINTS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

DESIGN THE RETAINING WALL FOR HORIZONTAL FINISHED GRADE BEHIND THE WALL AND A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN MSE WALL FOR A SUCTION LOAD OF 20 PSF ACTING ON THE PRECAST WALL PANELS.

SEE SPECIAL PROVISIONS FOR AESTHETIC TREATMENT TO WALL.

IN ACCORDANCE WITH THE SPECIAL PROVISIONS BID ITEM "STAINING CONCRETE" IS REQUIRED FOR BRICK SURFACES PRIOR TO BID ITEM "STAINING CONCRETE BRICK".

APPLY PROTECTIVE SURFACE TREATMENT TO THE EXPOSED SURFACE OF THE ANCHOR SLAB AND THE ROADWAY FACE AND TOP OF THE PARAPETS.

DESIGN FOR RETAINING WALL TO PROVIDE FOR A FINISHED GRADE. SLOPE BEHIND THE WALL AS SHOWN IN THESE PLANS AND THE ROADWAY CROSS SECTIONS.

AN ALTERNATE WALL PANEL ANCHOR AND PANEL CONSTRUCTION SYSTEM MAY BE SUBMITTED FOR REVIEW AND POSSIBLE ACCEPTANCE BY THE ENGINEER.

TILT UP PANEL ANCHOR SYSTEM MAY BE TRENCHED IN IF THE GEOMETRY OF THE ANCHOR SYSTEM LOCATION ALLOWS.

BASED ON CONTRACTOR MEANS AND METHODS, ANY GAPS BETWEEN THE PRESTRESSED PRECAST CONCRETE WALL PANEL AND THE PRESTRESSED PRECAST CONCRETE PANEL FOOTING THAT EXPOSE THE MSE WALL SHALL BE FILLED WITH MASONRY MATERIAL OR AS APPROVED BY THE ENGINEER. ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THIS WORK ARE CONSIDERED INCIDENTAL TO THE WALL CONSTRUCTION.

"TEMPORARY SHORING LEFT IN PLACE" SHALL BE INSTALLED FOR WALL R-5-234 CONSTRUCTION AS A PART OF FUTURE WORK. COORDINATE WITH CONTRACTOR FOR R-5-84 TO DETERMINE EXPOSED TEMPORARY SHORING REQUIRED. UPON COMPLETION OF FUTURE WORK, ENSURE NO SHORING IS EXPOSED IN FINAL CONDITION.

PROPOSED STRUCTURE B-5-671 IS A 11-SPAN - STEEL TUB GIRDER BRIDGE. OVERALL WIDTH = 44'-10 3/4". OVERALL LENGTH = 2343'-8".

CAPACITY TO DEMAND RATIOS & DIMENSIONS

DIMENSION			
BEGIN STA. (WALL STATION)	10+00.00[4]	10+90.00[4]	20+00.00
END STA. (WALL STATION)	10+90.00[4]	11+38.96[4]	21+10.00
WALL HEIGHT[1] (FEET)	27.9	28.5	17.7
FILL BELOW WALL (FEET)	0	0	VARIES
REINFORCEMENT LENGTH[2] (FEET)	28.0	34.0	11.0[3]
LENGTH OF REIN./WALL HEIGHT	1.0	1.2	0.6[3]
CAPACITY TO DEMAND RATIO			
SLIDING	1.54	2.52	1.48
OVERTURNING	3.89	3.65	1.24
GLOBAL STABILITY	1.01	1.07	1.08
BEARING CAPACITY	1.10	1.07	1.59
ULT. BEARING CAPACITY (psf)	8,800[5]	8,800[5]	8,800[5]

Notes

1. WALL HEIGHT SHOWS ONLY THE MAXIMUM HEIGHT IN THE SECTION AND INCLUDES 3.5 FEET OF EMBEDMENT PER US 41 BROWN COUNTY CORRIDOR MANUAL.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH FOR THE MAXIMUM WALL HEIGHT AT THE EVALUATED SECTION.
3. REINFORCEMENT LENGTH INCLUDES OVERLAPPING REINFORCEMENT FOR BACK TO BACK PORTIONS OF WALLS R-5-84 AND R-5-257.
4. WALL ANALYSIS INCLUDES GEOTEXTILE AT EL. 585.5' WITH MACHINE DIRECTION PARALLEL TO THE 'IHA' REFERENCE LINE (PERPENDICULAR TO THE ABUTMENT WALL FACE).
5. REQUIRES STAGED CONSTRUCTION AND WICK DRAINS

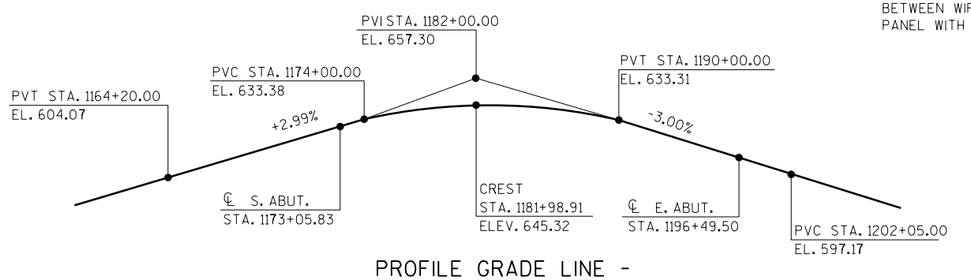
FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

SOIL PARAMETERS

			UNDRAINED		DRAINED	
SOIL UNIT	BOTTOM ELEVATION (FEET)	SOIL UNIT WEIGHT (PSF)	COHESION (PSF)	FRICTION ANGLE (DEGREE)	COHESION (PSF)	FRICTION ANGLE (DEGREE)
EXISTING EMBANKMENT	578.00	120	--	--	0	32
SOFT TO MEDIUM CLAY	553.0	125	500-1,000	0	50	26
DENSE SILTY SAND	548.0	125	--	--	0	32
VERY DENSE SILTY GRAVEL	543.0	135	--	--	0	36
HARD CLAY/HARDPAN	522.0	135	3,000	0	50	28

BENCH MARK TABLE

NO.	STATION	OFFSET	DESCRIPTION	ELEVATION
1301	1189IHA+73.60	564.89' LT	DISK ON PARAPET WALL	612.17'



PROFILE GRADE LINE -
USH41 NB TO IH43 SB (RAMP 'IHA')

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY DRJ | PLANS CK'D. MNM

NOTES & QUANTITIES

SHEET 2 OF 13
1224

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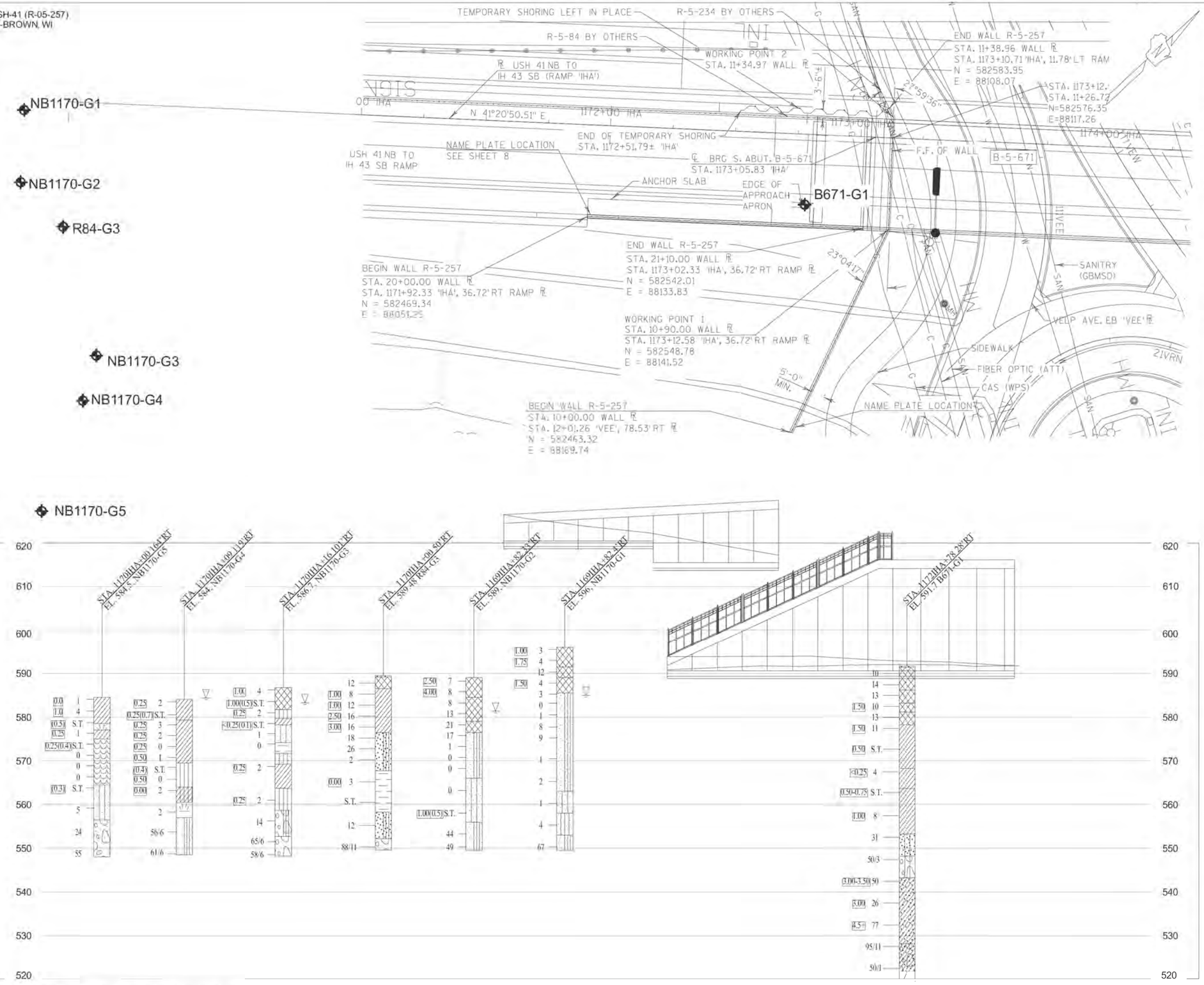
USH-41 (R-05-257)
05-BROWN, WI



NOTE: ▽ -WATER LEVEL DURING DRILLING

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SD — SOUND

MATERIAL SYMBOLS

PEAT, SILT, FAT CLAY
SAND, ORGANIC SILT, DOLOMITE
GRAVEL, CLAY, FILL

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/E=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING

BORING NO.
ELEV.
STA.
UNCONFINED STRENGTH — 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-5-257

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SUBSURFACE EXPLORATION

SHEET 3 OF 13
1225

SCALE 1"=40'

8

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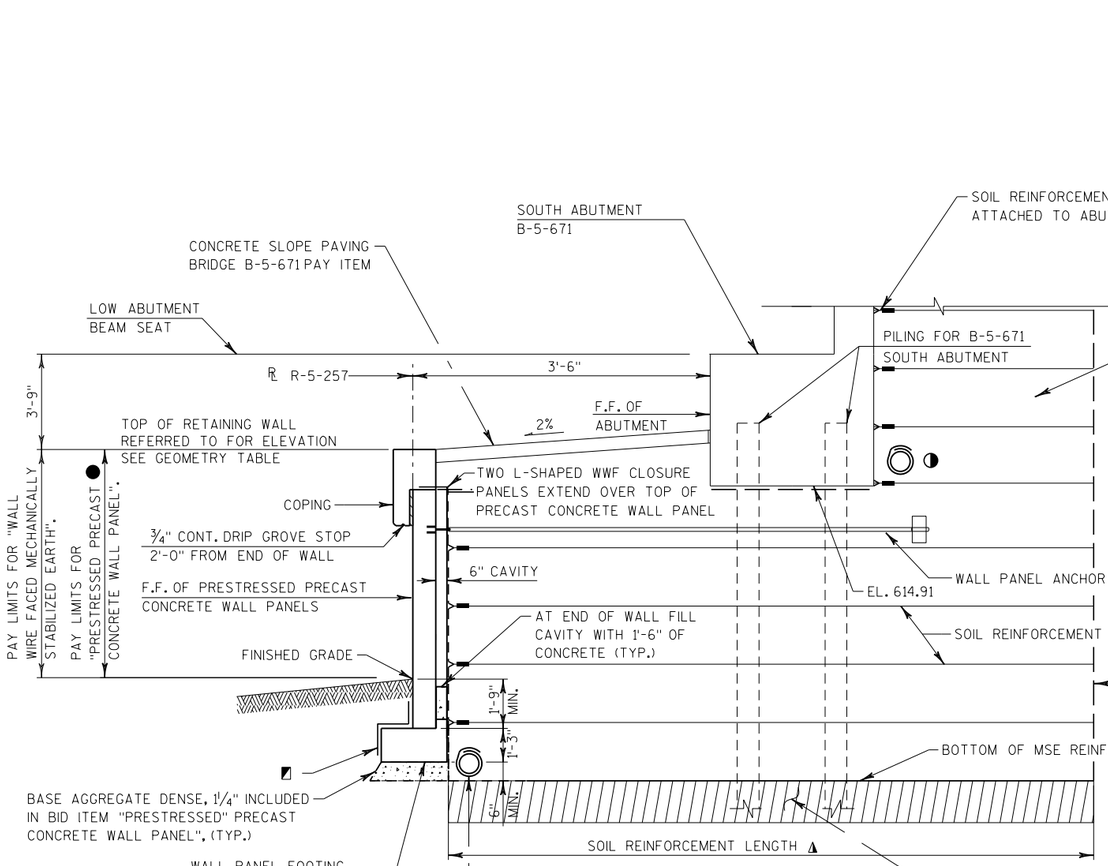


SECTION THRU RETAINING WALL AT SOUTH ABUTMENT

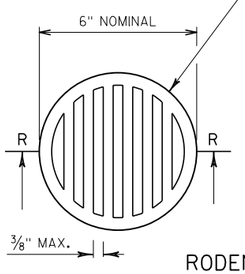
LOOKING SOUTH EAST THRU WALL

SECTION THRU RETAINING WALL

LOOKING NORTH EAST THRU WALL

NOTES

1. INSTALL BRIDGE PILING BEFORE MSE WALL. PLACE REINFORCING MAT AROUND PILING FOR BRIDGE ABUTMENT.
2. INSTALLATION OF BRIDGE PILING IS NOT A RETAINING WALL ITEM.
3. UNFACTORED HORIZONTAL DESIGN LOAD FROM SUPERSTRUCTURE IS 3.0 KIPS PER LINEAR FOOT OF ABUTMENT LENGTH.



THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. COST OF RODENT SHIELD AND ALL FITTINGS TO BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

SECTION R-R

NOTE:
ORIENT RODENT SHIELD SO SLOTS ARE VERTICAL.

RODENT SHIELD

LEGEND

● THE PLAN QUANTITY FOR THE BID ITEMS "PRESTRESSED PRECAST CONCRETE WALL PANEL" IS BASED ON A WALL HEIGHT MEASURED FROM THE FINISHED GRADE AT THE FRONT FACE OF THE WALL TO THE TOP OF THE WALL AS SHOWN. THE TOP OF THE FOOTING IS ASSUMED TO BE A CONSTANT 1'-9" BELOW FINISHED GRADE. COPING CONCRETE AND COPING REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL."

◭ PER WISDOT, MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

◩ GEOTEXTILE FABRIC TYPE DF, 2'-0" WIDE, LENGTH OF FOOTING.

◑ PROVIDE VERTICAL PIPE UNDERDRAIN UNPERFORATED 6-INCH TO CONNECT R-5-257 WALL UNDERDRAIN TO B-5-671 ABUTMENT UNDERDRAIN. COORDINATE LOCATION OF VERTICAL PIPE CONNECTION TO ABUTMENT UNDERDRAIN WITH BRIDGE CONTRACTOR. CAP THE UNPERFORATED UNDERDRAIN AT ELEVATION 615.98 FOR CONNECTION TO THE ABUTMENT UNDERDRAIN.

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STRUCTURE R-5-257

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WALL DETAILS

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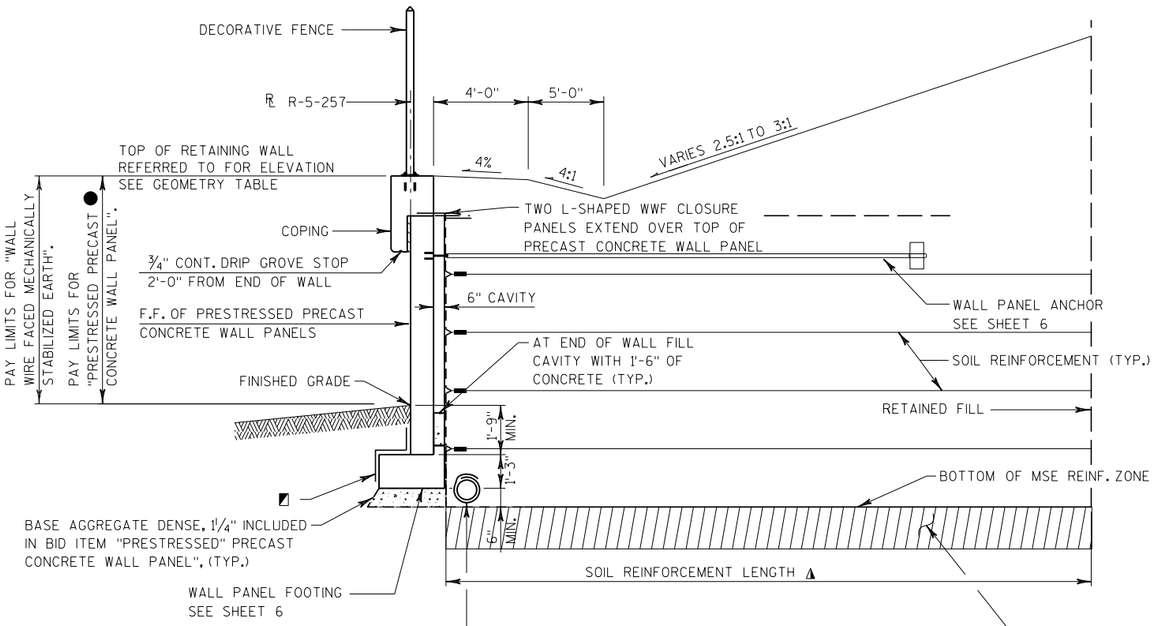
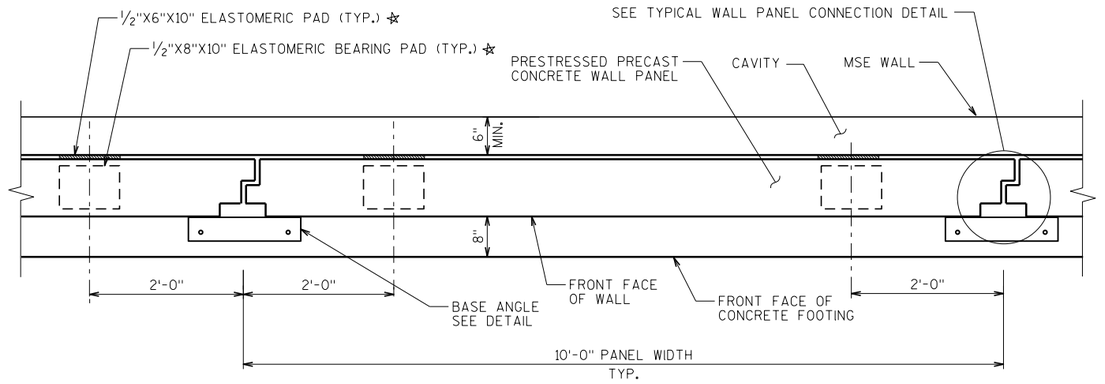


SECTION THRU LOWER RETAINING WALL

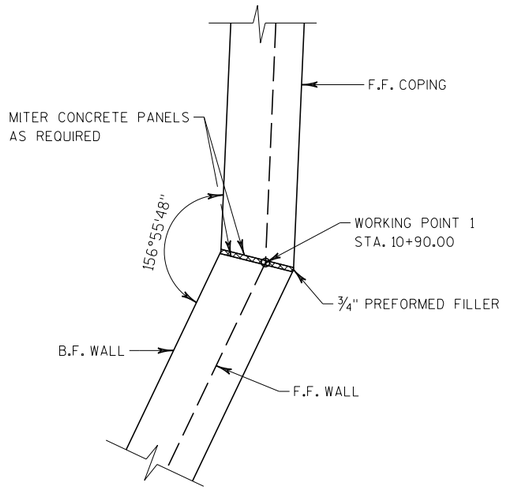
LOOKING SOUTH THRU WALL ALONG VELP AVE.



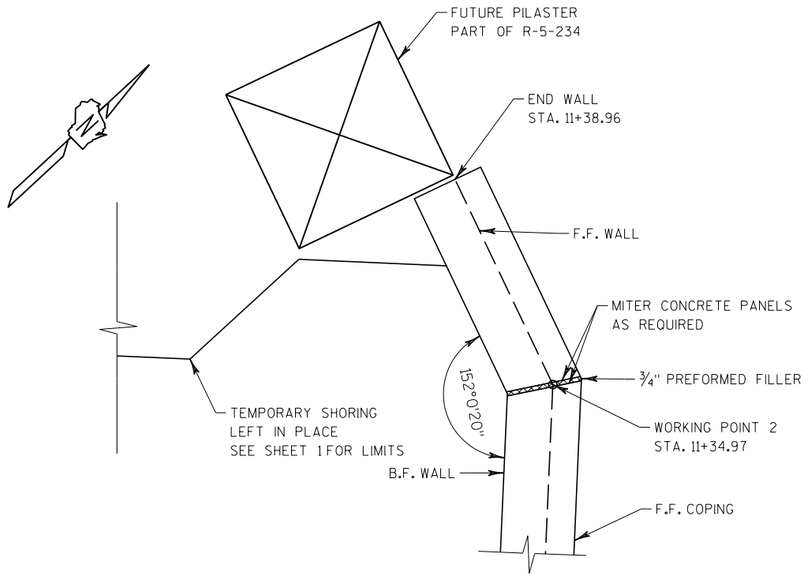
TYPICAL WALL PANEL CONNECTION

NOTES

1. INSTALL BRIDGE PILING BEFORE MSE WALL. PLACE REINFORCING MAT AROUND PILING FOR BRIDGE ABUTMENT.
2. INSTALLATION OF BRIDGE PILING IS NOT A RETAINING WALL ITEM.



PARTIAL PLAN- WORKING POINT 1



PARTIAL PLAN- WORKING POINT 2

LEGEND

- ● THE PLAN QUANTITY FOR THE BID ITEMS "PRESTRESSED PRECAST CONCRETE WALL PANEL IS BASED ON A WALL HEIGHT MEASURED FROM THE FINISHED GRADE AT THE FRONT FACE OF THE WALL TO THE TOP OF THE WALL AS SHOWN. THE TOP OF THE FOOTING IS ASSUMED TO BE A CONSTANT 1'-9" BELOW FINISHED GRADE. COPING CONCRETE AND COPING REINFORCEMENT ARE TO BE INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL."
- ◭ PER WISDOT, MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.
- ✲ INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"
- ◩ GEOTEXTILE FABRIC TYPE DF, 2'-0" WIDE, LENGTH OF FOOTING.

NOTES

TEMPORARY SHORING SHALL RUN PARALLEL TO WALL R-5-84.

TOP OF SHORING SHALL BE AT ELEVATION 616.10'.

SHORING SHALL BE USED UNDER CONSTRUCTION OF WALL R-5-84 AND FUTURE CONSTRUCTION OF WALL R-5-234 AND PILASTER.

CONTRACTOR SHALL PROVIDE ADEQUATE EMBEDEMENT OF SHORING DURING INSTALLATION OF SOIL IMPROVEMENT ITEMS. SEE ROADWAY PLANS FOR FURTHER DETAILS.

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STRUCTURE R-5-257

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WALL DETAILS 2

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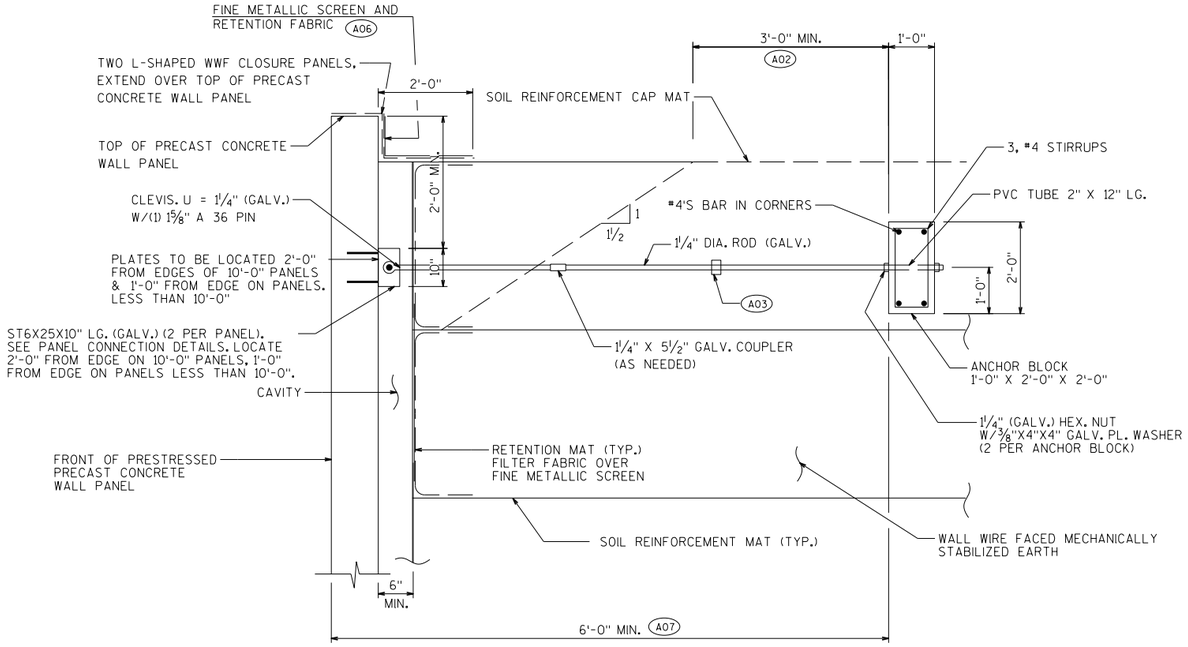


WALL PANEL ANCHOR DETAIL

(A01)

LEGEND

(A01) WALL PANEL ANCHOR SYSTEM INCLUDES ANCHOR BLOCK COUPLER, 1¼" DIA. ANCHOR ROD, CLEVIS, AND OTHER PANEL CONNECTION COMPONENTS. DESIGN, DETAILING, AND FURNISHING OF THESE ITEMS IS INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL." INSTALLATION OF THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL WIRE FACED MECHANICALLY STABILIZED EARTH."

(A02) DESIGN LENGTH TO PROVIDE REQUIRED HORIZONTAL CAPACITY ANCHOR ASSEMBLY. MINIMUM OF 3'-0" OF COMPACTED FILL IN FRONT OF ANCHOR BLOCK PRIOR TO WALL PANEL ERECTION. ROD MIN. 2'-0" BELOW FINISH GRADE.

(A03) OPTIONAL MULTIDIRECTIONAL CONNECTOR MAY BE USED TO FACILITATE ALIGNMENT AT THE CONNECTION (CONNECTOR TO BE CORROSION RESISTANT AND DEVELOP 100% OF THE ULTIMATE STRENGTH OF 1¼" DIAM. BAR)

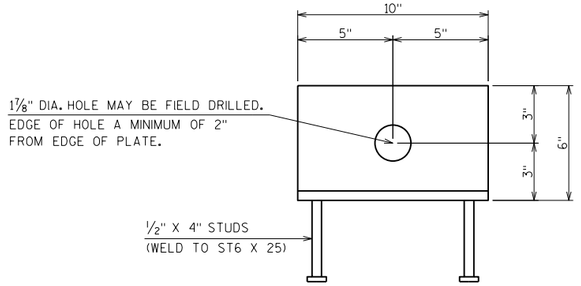
(A04) BASE AGGREGATE OPEN GRADED, 6" MIN. INCIDENTAL TO BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL".

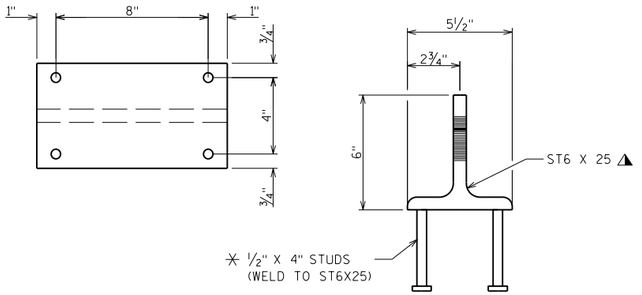
(A05) MINIMUM DIMENSION FROM FINISHED GRADE AT FRONT FACE OF WALL TO BOTTOM OF WALL PANEL FOOTING IS SHOWN. THE FOOTING MAY BE CONSTRUCTED ON A SLOPE PARALLEL TO THE PROPOSED GRADE, OR MAY BE STEPPED. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE WALL PANEL FOOTING WITH FABRICATION OF THE PRECAST PANELS.

(A06) ALTERNATE METHODS OF SEALING OFF THE 6" VOID IN FRONT OF THE MSE WALL MAY BE SUBMITTED TO WISDOT FOR CONSIDERATION.

(A07) LENGTH MAY BE INCREASED TO AVOID OBSTRUCTIONS, SUCH AS ABUTMENT PILES

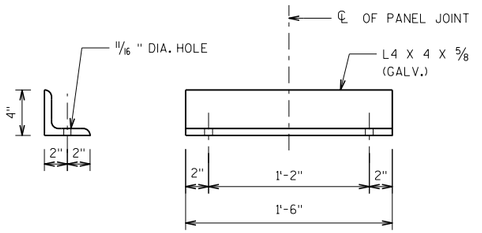
◪ INCLUDED IN THE BID ITEM "PRESTRESSED PRECAST CONCRETE WALL PANEL"





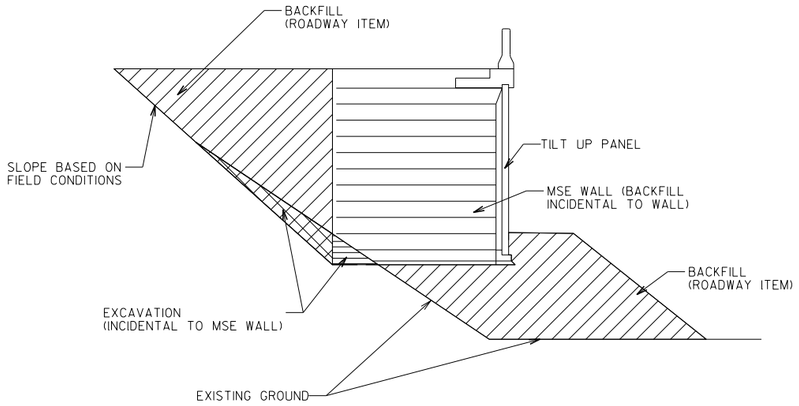
PANEL CONNECTION DETAILS

(2 PER PANEL)

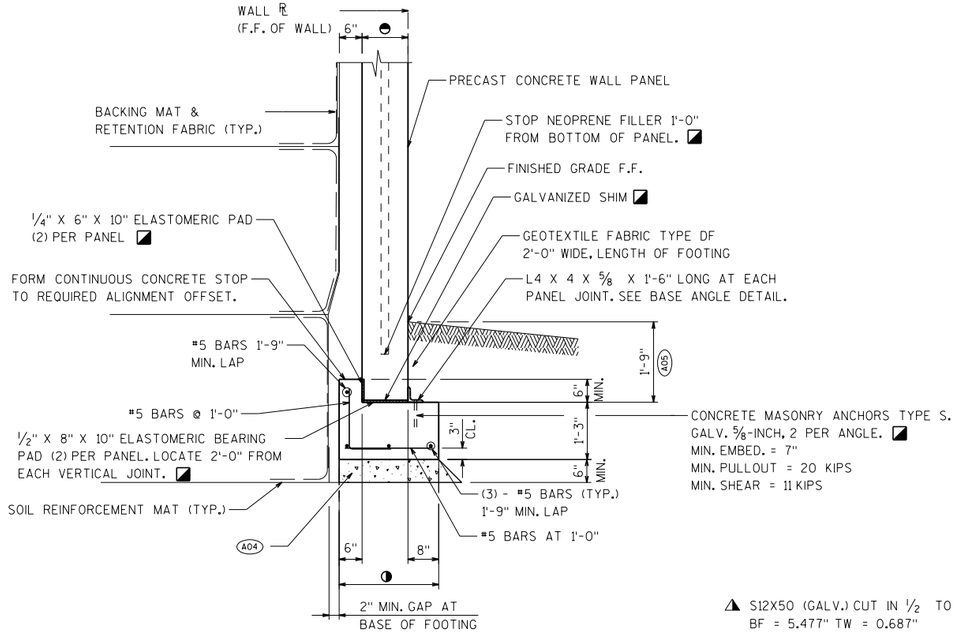


BASE ANGLE DETAIL

◪ ONE AT EACH PANEL JOINT



EXCAVATION/BACKFILL DETAIL



WALL PANEL FOOTING DETAIL

CONCRETE AND REINFORCEMENT INCLUDED IN THE BID ITEM "PRESRESSED PRECAST CONCRETE WALL PANEL"

◑ FOOTING DIMENSION EQUALS PANEL THICKNESS PLUS 1'-2"

◓ = 7½" OR 9½"

NOTE: LAP #5 BARS 2'-6" MIN. IN FOOTING.

◭ S12X50 (GALV.) CUT IN ½ TO FORM "T" SECTION. BF = 5.477" TW = 0.687"

✕ AS AN ALTERNATE, ½" TYPE "S" ANCHORS MAY BE USED IN PLACE OF THE 4" STUDS.

ST6 X 25 MAY BE WELDED TO ¾" THICK PLATE WITH (4) ½" X 4" STUDS ANCHORED IN PRECAST PANEL. RESTORE ZINC COATING AROUND ANY WELDED AREAS. SUBMIT DETAILS FOR APPROVAL BY ENGINEER. AS AN ALTERNATE, ½" TYPE "S" ANCHORS MAY BE USED IN PLACE OF THE 4" STUDS.

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WALL DETAILS 3

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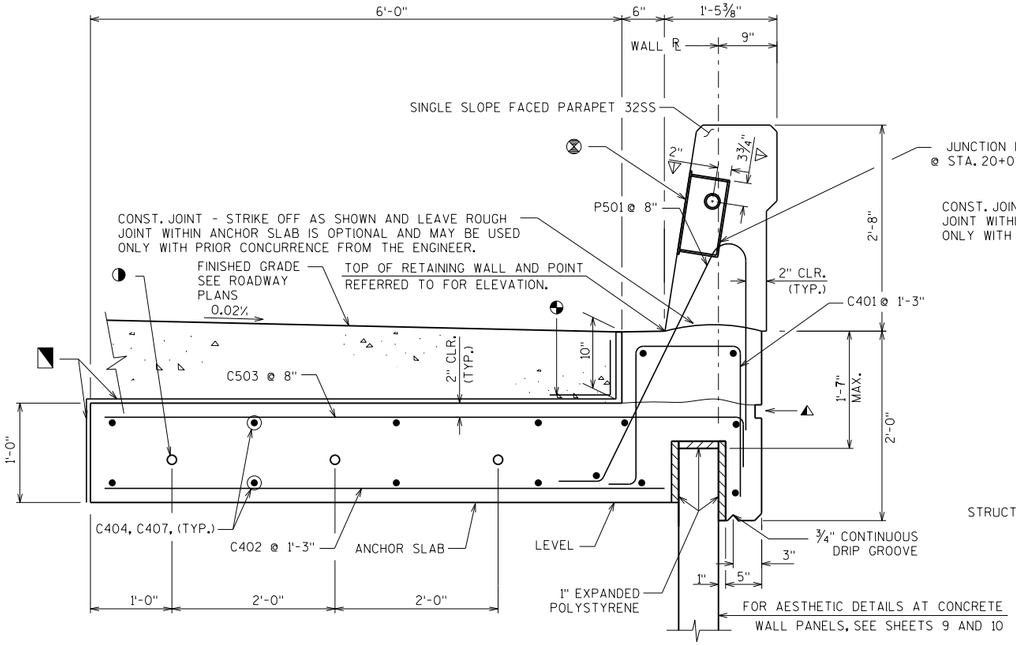
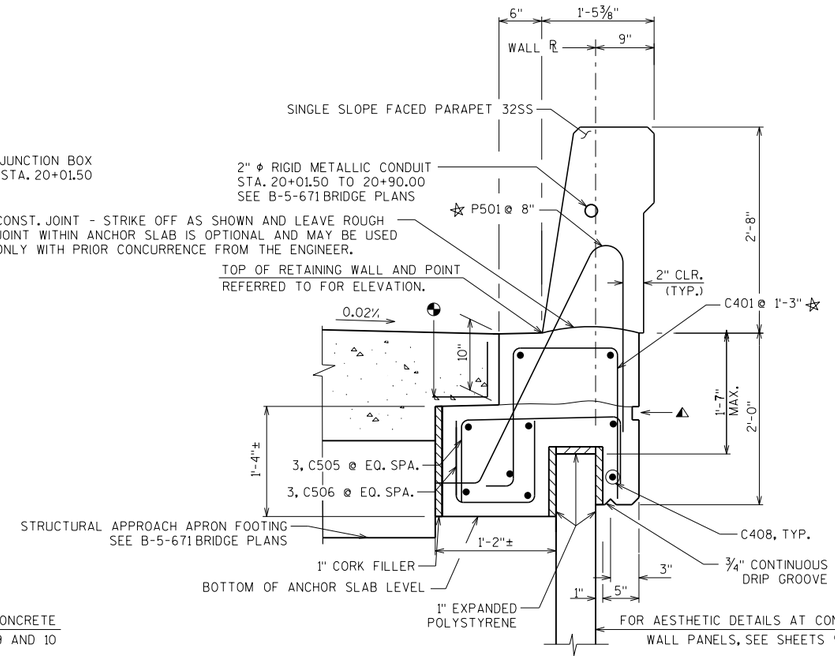


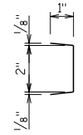
ANCHOR SLAB AND PARAPET DETAIL

(LOOKING NORTH EAST)
STA. 20+00.00 TO STA. 20+88.50 ℄, RT.



ANCHOR SLAB AND PARAPET DETAIL

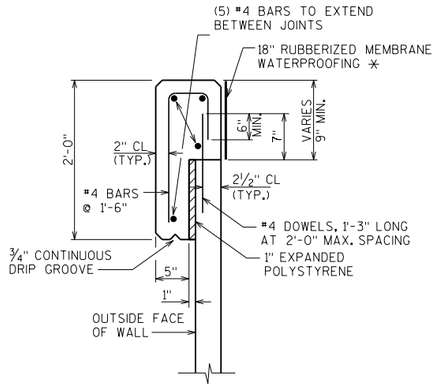
(LOOKING NORTH EAST)
STA. 20+88.50 TO STA. 20+90.00 ℄, RT.



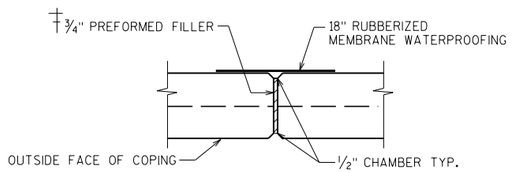
RUSTICATION DETAIL

LEGEND

- ◪ 18" RUBBERIZED MEMBRANE WATERPROOFING - SEAL ALL HORIZONTAL & VERTICAL JOINTS IN ANCHOR SLAB. TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.
- ⊛ EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.
- ◑ PLACE (3) - 3#4" ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".
- ◔ IF THE OPT. CONST. JOINT IS USED. PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPTIONAL CONST. JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.
- ┼ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)
- ✳ AT WALL COPING AND ABUTMENT INTERFACE. PLACE 18" RUBBERIZED MEMBRANE ON TOP AND ALONG BACK OF COPING
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ⊗ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ☆ CUT BARS AS REQUIRED TO MAINTAIN 2" CLEAR COVER. COAT ANY CUT ENDS WITH EPOXY IN ACCORDANCE WITH SUBSECTION 505.2.4.2 OF THE STANDARD SPECIFICATIONS. WORK SHALL BE CONSIDERED INCIDENTAL TO "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS".
- ▲ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED. SEE RUSTICATION DETAIL FOR DETAILS.

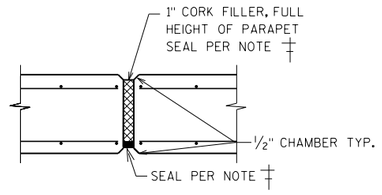


CAST-IN-PLACE CONCRETE COPING DETAIL

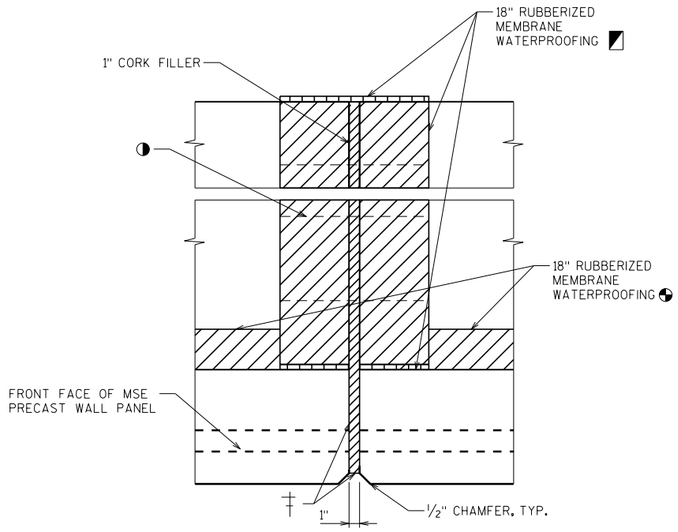


COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT. MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



⊛ PARAPET EXPANSION JOINT DETAIL



⊛ANCHOR SLAB EXPANSION JOINT DETAIL

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

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SECTION & DETAILS

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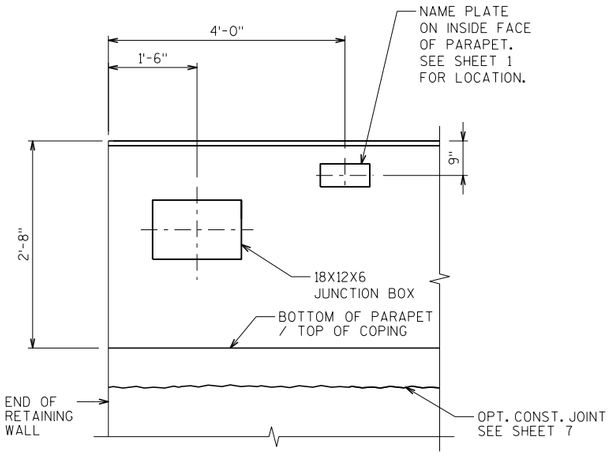
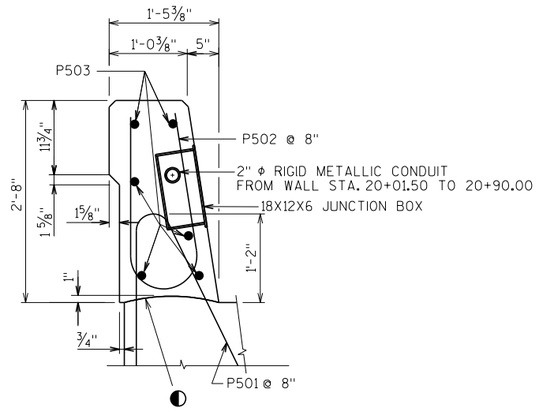
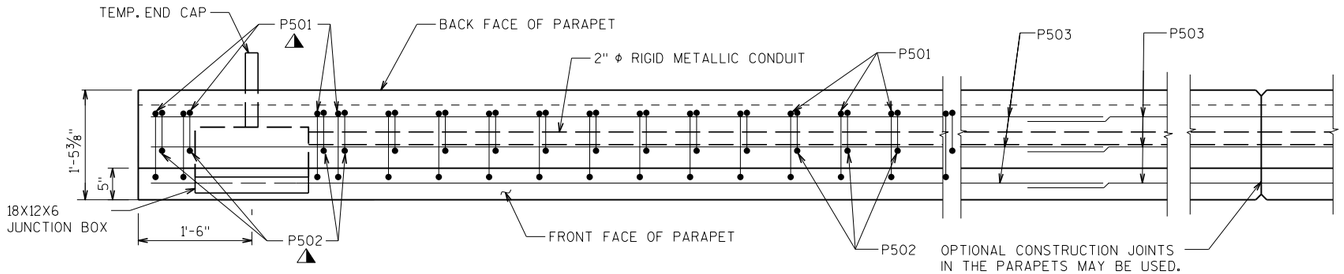


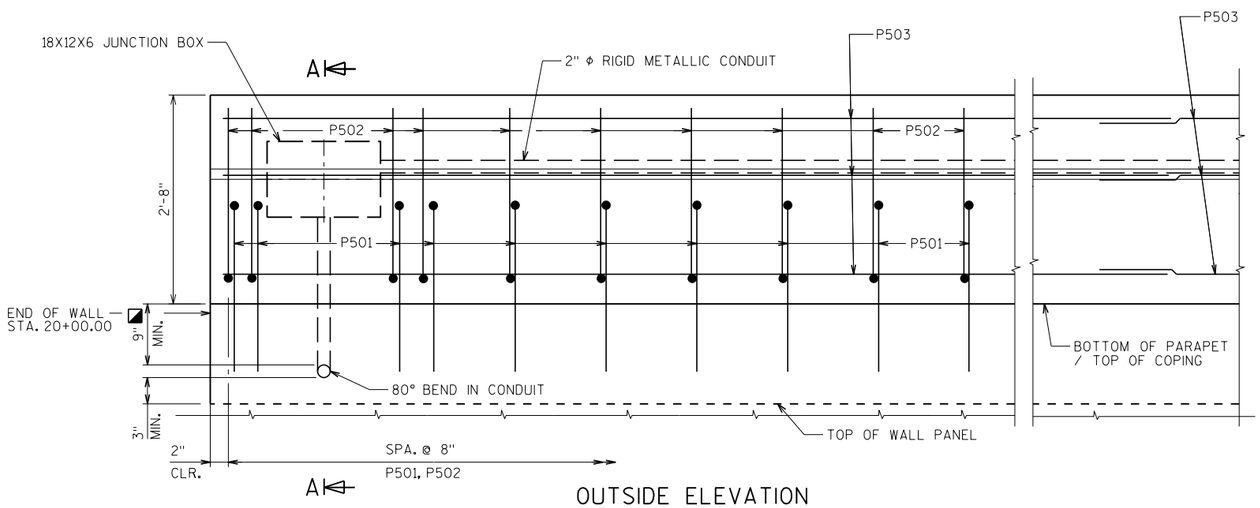
INSIDE ELEVATION



TYP. SECTION



PLAN



OUTSIDE ELEVATION

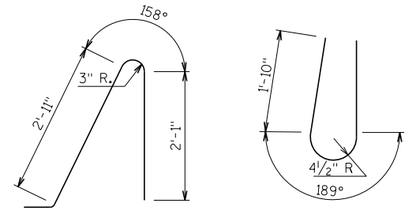
BILL OF BARS - ANCHOR SLAB

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
C401	X	75	4'-8"	X	-	COPING TIES - TRANSVERSE
C402	X	75	6'-2"	-	-	ANCHOR SLAB - TRANSVERSE (BOTTOM)
C503	X	138	8'-2"	X	-	ANCHOR SLAB - TRANSVERSE (TOP)
C404	X	30	29'-8"	-	-	ANCHOR SLAB - LONGITUDINAL TOP & BOTTOM
C505	X	3	3'-5"	X	-	ANCHOR SLAB - TRANSVERSE
C506	X	3	2'-5"	X	-	ANCHOR SLAB - TRANSVERSE
C407	X	15	28'-2"	-	-	ANCHOR SLAB - LONGITUDINAL TOP & BOTTOM
C408	X	9	4'-6"	-	-	ANCHOR SLAB - LONGITUDINAL TOP & BOTTOM

BILL OF BARS - PARAPETS

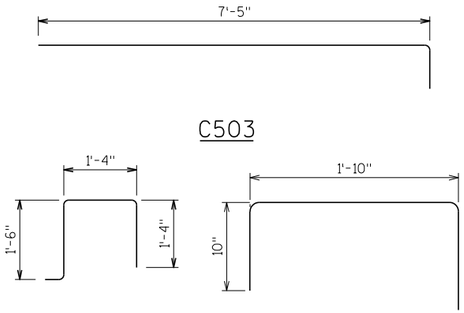
BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
P501	X	140	6'-7"	X	-	PARAPET TIE TO ANCHOR SLAB - VERTICAL
P502	X	140	5'-0"	X	-	32SS PARAPET - VERTICAL
P503	X	18	29'-8"	-	-	32SS PARAPET - HORIZONTAL

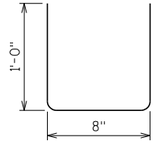
BENDING DIAGRAMS



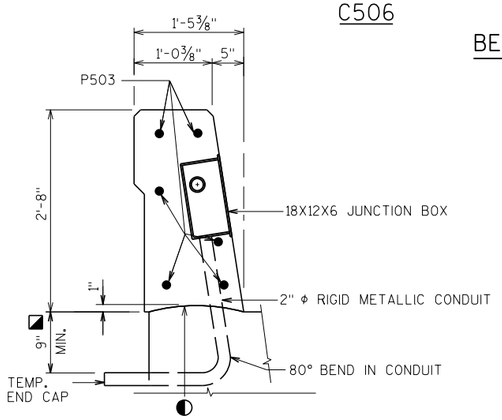
P501

P502





C506



SECTION A-A

LEGEND & NOTES

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◭ PLACE ADDITIONAL BARS TO EITHER SIDE OF JUNCTION BOX.

◪ CONTRACTOR SHALL MAINTAIN 6" MIN. FROM FINISHED GRADE WHEN CONDUIT EXTENDS OUTSIDE OF PARAPET/ANCHOR SLAB.

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY	DRJ	PLANS CK'D.	MNM

SINGLE SLOPE
PARAPET 32SS

SHEET 8 OF 13
1230

8

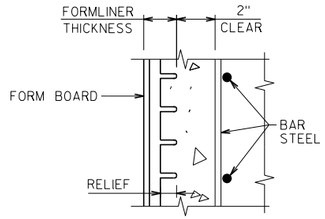
8

STATE PROJECT NUMBER
1133-11-74

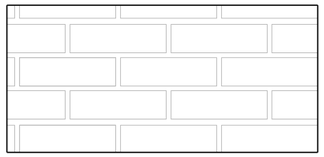
CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, BOTTOM AND OUTSIDE OF EXTERIOR CONCRETE GIRDER, STEEL BOX GIRDERS, PIER CAP
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

SEE SPECIAL PROVISIONS FOR STAIN COLORS.



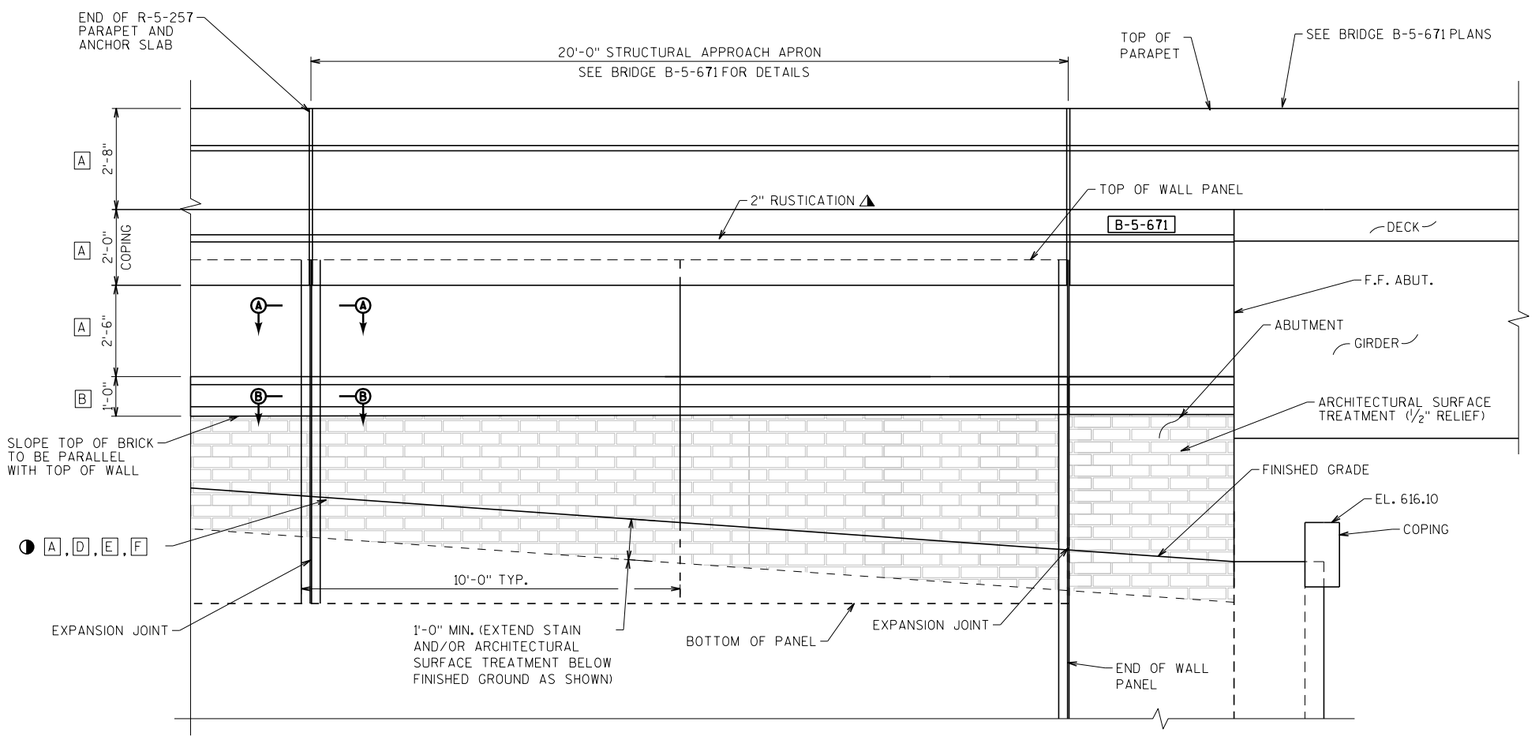
SECTION THRU FORMLINER



ARCHITECTURAL SURFACE TREATMENT

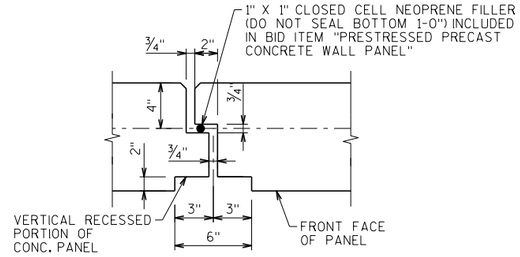
RECTANGULAR BRICK

SIZE = 2 1/4" TO 2 3/8" X 7 5/8" TO 8"
MAX. RELIEF = 1/2"



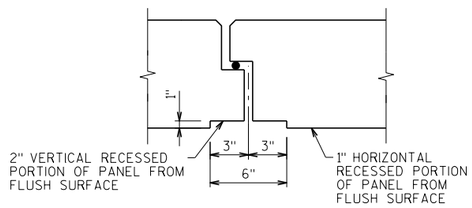
PARTIAL ELEVATION R-5-257

(LOOKING NORTH AT UPPER WALL)



SECTION A-A

CHAMFER REVEALS 1/16" PER INCH OF DEPTH



SECTION B-B

LEGEND & NOTES

◑ STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

⚠ PROVIDE 2" RUSTICATION IF OPT. CONST. JOINT IS USED. FOR DETAILS SEE SHEET 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY DRJ | PLANS CK'D. MNM

AESTHETIC DETAILS 1

SHEET 9 OF 13
1231

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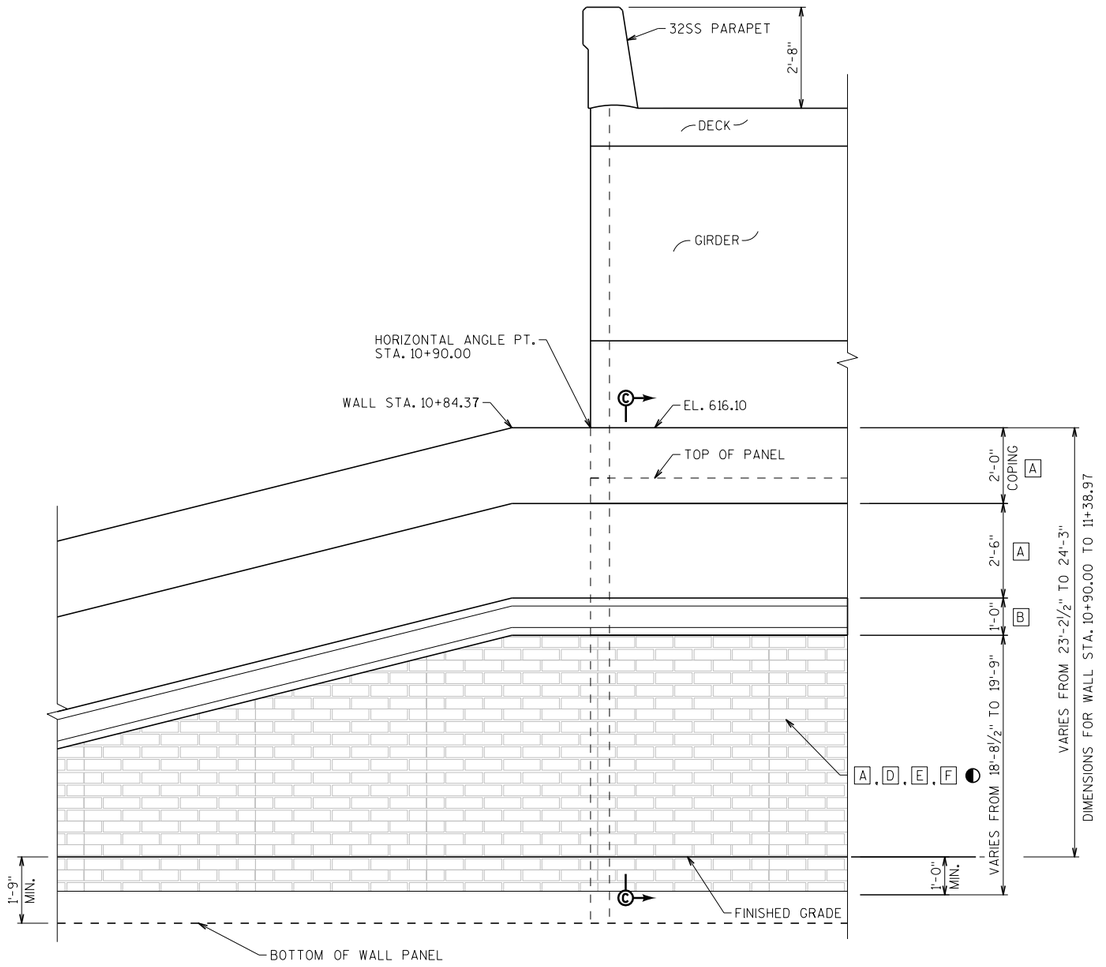
STATE PROJECT NUMBER
1133-11-74

CONCRETE STAINING SCHEDULE

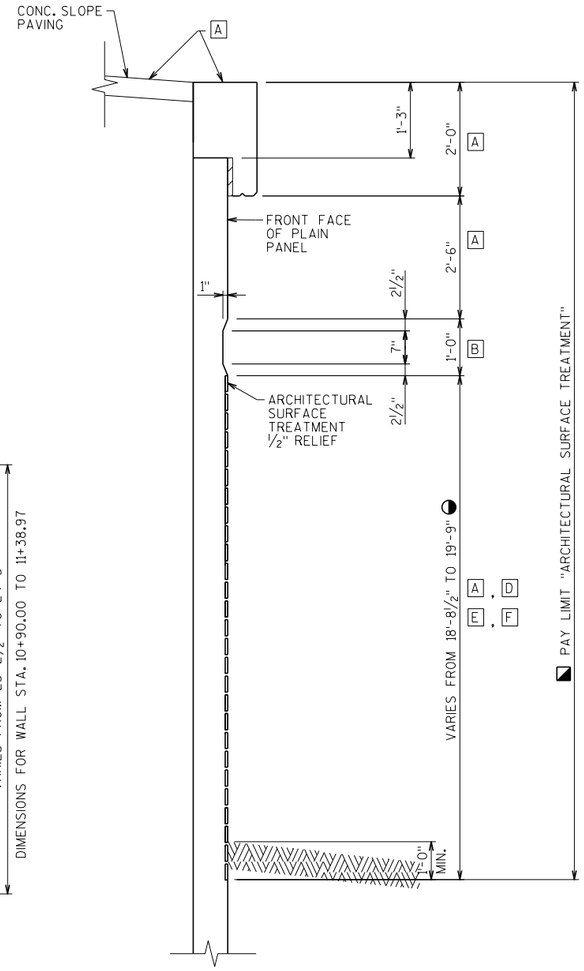
MARK	COLOR	LOCATION
A	BASE COLOR	BRIDGES, PARAPETS, WALLS
B	ACCENT COLOR #1	REVEALS, BOTTOM AND OUTSIDE OF EXTERIOR CONCRETE GIRDER, STEEL BOX GIRDERS, PIER CAP
D	ACCENT COLOR #3	BRICK COLOR (70% OF BRICK)
E	ACCENT COLOR #4	BRICK COLOR (15% OF BRICK)
F	ACCENT COLOR #5	BRICK COLOR (15% OF BRICK)

SEE SPECIAL PROVISIONS FOR STAIN COLORS.



PARTIAL ELEVATION R-5-257

(LOOKING SOUTH WEST)



SECTION C-C

LEGEND

◪ PAY LIMIT FOR "ARCHITECTURAL SURFACE TREATMENT" FOR THE WALL PANELS IS FROM TOP OF WALL TO 1'-0" BELOW GRADE. SEE SHEET 10 AND SPECIAL PROVISIONS FOR FORMLINER DETAILS.

◑ STAIN ALL BRICK PATTERN AREAS WITH BASE COLOR PRIOR TO STAINING WITH THE THREE BRICK ACCENT COLORS. APPLICATION OF ALL FOUR STAIN COLORS AT BRICK PATTERN AREAS PAID FOR AS "STAINING CONCRETE BRICK."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY	DRJ	PLANS CK'D.	MNM

AESTHETIC DETAILS 2

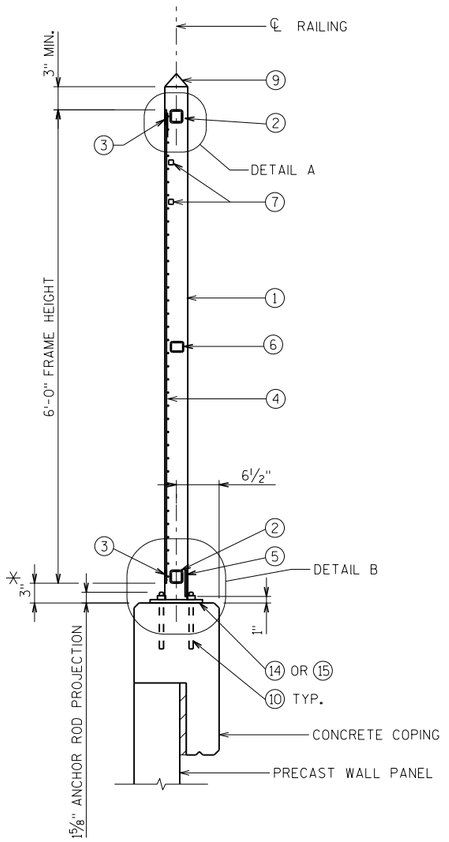
SHEET 10 OF 13

1232

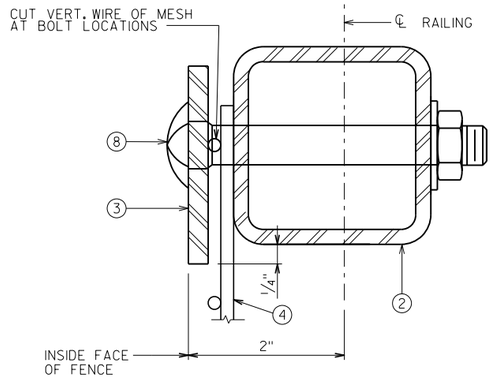
8

8

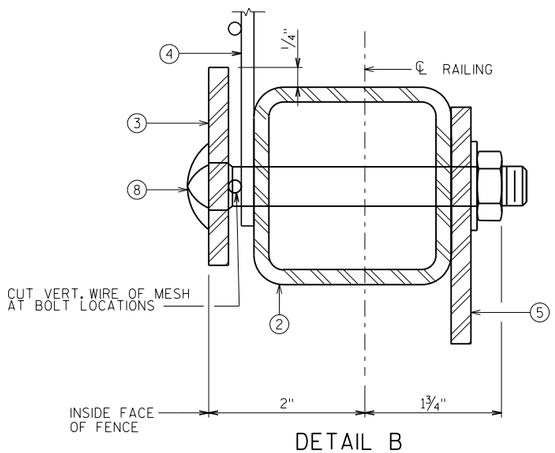
STATE PROJECT NUMBER
1133-11-74



TYPICAL SECTION
THRU FENCE/COPING



DETAIL A



DETAIL B

LEGEND

1. HSS 3½ X 3½ X 3/16 POST WITH ¼" DIA. VENT HOLES TOP & BOTTOM ON OUTSIDE FACE. RESIZE AS NECESSARYFOR GALVANIZING PROCESS. WELD TO NO.9 & BASE PLATE, TYP.
2. HSS 2½X 2½ X 3/16. WELD TO NO. 6 & 7.
3. PL 2¾" X ¼" WELDED FRAME. WELD TO NO. 4. BOLT TO NO. 2 WITH NO. 8 AFTER PAINTING.
4. STEEL MESH 2" X 2" X 0.162 (8 GA.). PLACE VERTICAL WIRES ON INSIDE FACE OF PARAPET. WELD TO NO. 3.
5. PL ¼" X WIDTH VARIES. PROVIDE SHORT SLOTTED VERT. HOLES FOR NO. 8.
6. HSS 2½" X 2½" X 3/16. WELD TO NO. 2, 6 & 7.
7. ¾" x ¾" BAR. WELD TO NO. 2, 6 & 7.
8. ½" DIA. CARRIAGE BOLT, WASHER AND NUT. PROVIDE ⅝" X ⅝" SQUARE HOLE IN NO. 3 & NO. 2 OF PANEL TYPE G ONLY FOR SQUARE PORTION OF THE BOLT HEAD.
9. 3½" X 3½" PYRAMIDAL CAP. WELD TO NO. 1.
10. ⅝" DIA. CONCRETE MASONRY ANCHOR TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS.
11. PL 5/16" X 4½" X 0'-6" CONNECTION WITH 2" DIA. HOLES FOR NO. 8. USE NO. 12 TO COVER 2" DIA. ADJUSTMENT HOLES. USE STANDARD HOLES ON CANTILEVERED FENCE PANEL AT ABUTMENTS.
12. PL ⅜" X 2½" X 4½".
13. PL WASHER ¼" X 3½" X 3½".
14. PL ½" X 8" X 10" BASE PLATE. WELD TO NO. 1.
15. PL ½" X 8" X 1'-0" BASE PLATE. WELD TO NO. 1.
16. ½" DIA. BOLT, WASHER & NUT. TACK WELD NUT TO NO. 2.

✳ THE DIMENSION BETWEEN THE BOTTOM OF THE WELDED FRAME AND THE TOP OF THE COPING SHALL BE HELD AT THE ENDS OF EACH PANEL.

NOTES

THE BID ITEM SHALL BE "FENCE DECORATIVE BRIDGE" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

FOR ELEVATIONS OF SPECIAL FENCE PANELS, SEE SHEETS 1 AND 2.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL BE A.S.T.M. A500, GRADE B. ROLLED SHAPES, PLATES, BARS AND SHIMS SHALL BE A.S.T.M. A709, GRADE 36.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE POST VERTICAL.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE A.S.T.M. A307 AND SHALL BE GALVANIZED.

STANDARD WASHERS SHALL BE USED TO SHIM BASE PLATES IF REQUIRED. ALL WASHERS SHALL BE GALVANIZED.

THE STEEL MESH SHALL BE TACK WELDED TO THE 2¼" X ¼" WELDED FRAME. THE MESH SHALL BE STRETCHED TO REMOVE SLACK.

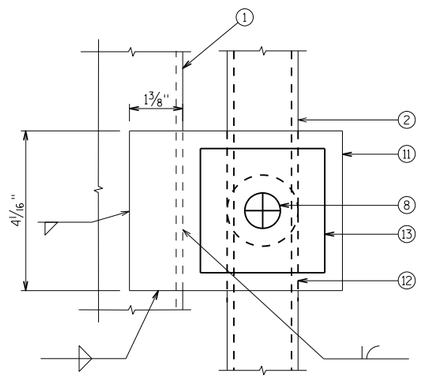
VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

PRIOR TO FABRICATION, STEEL SHALL BE BLAST CLEANED PER SSPC-SP 6 AND GALVANIZED ACCORDING TO ASTM A 123. REPAIR ZINC COATING DAMAGED DURING FABRICATION AS SPECIFIED IN 635.3.4.

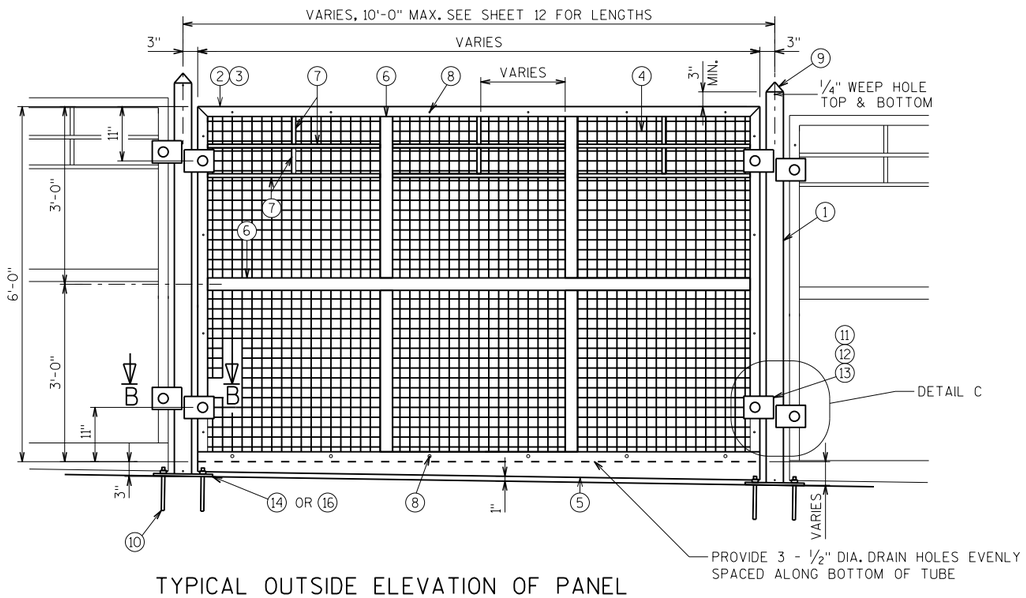
ALL WELDS SHALL BE PREQUALIFIED ACCORDING TO THE STRUCTURAL WELDING CODE STEEL (AWS D1.1). THE MINIMUM SIZE OF FILLET WELDS IS 3/16".

COAT THE RAILING WITH AN EPOXY PAINT SYSTEM. TOUCH UP DAMAGED PORTIONS OF PAINT AFTER PANEL ERECTION. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

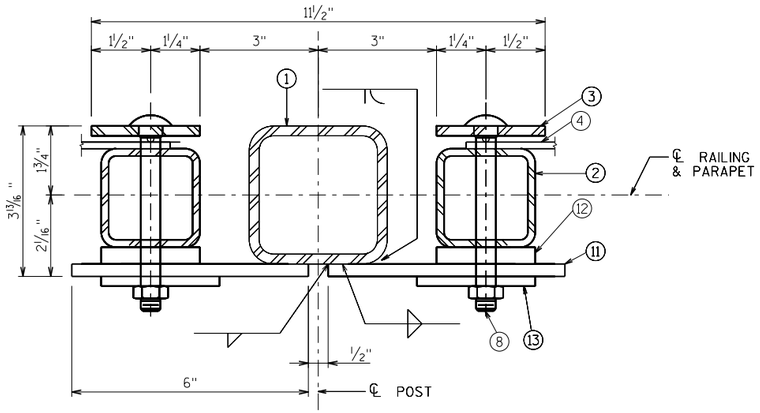
FOR ADDITIONAL DECORATIVE FENCING DETAILS, SEE SHEETS 12 AND 13.



DETAIL C



TYPICAL OUTSIDE ELEVATION OF PANEL



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY	DRJ	PLANS CK'D.	MNM

DECORATIVE
FENCE DETAILS 1

SHEET 11 OF 13
1233

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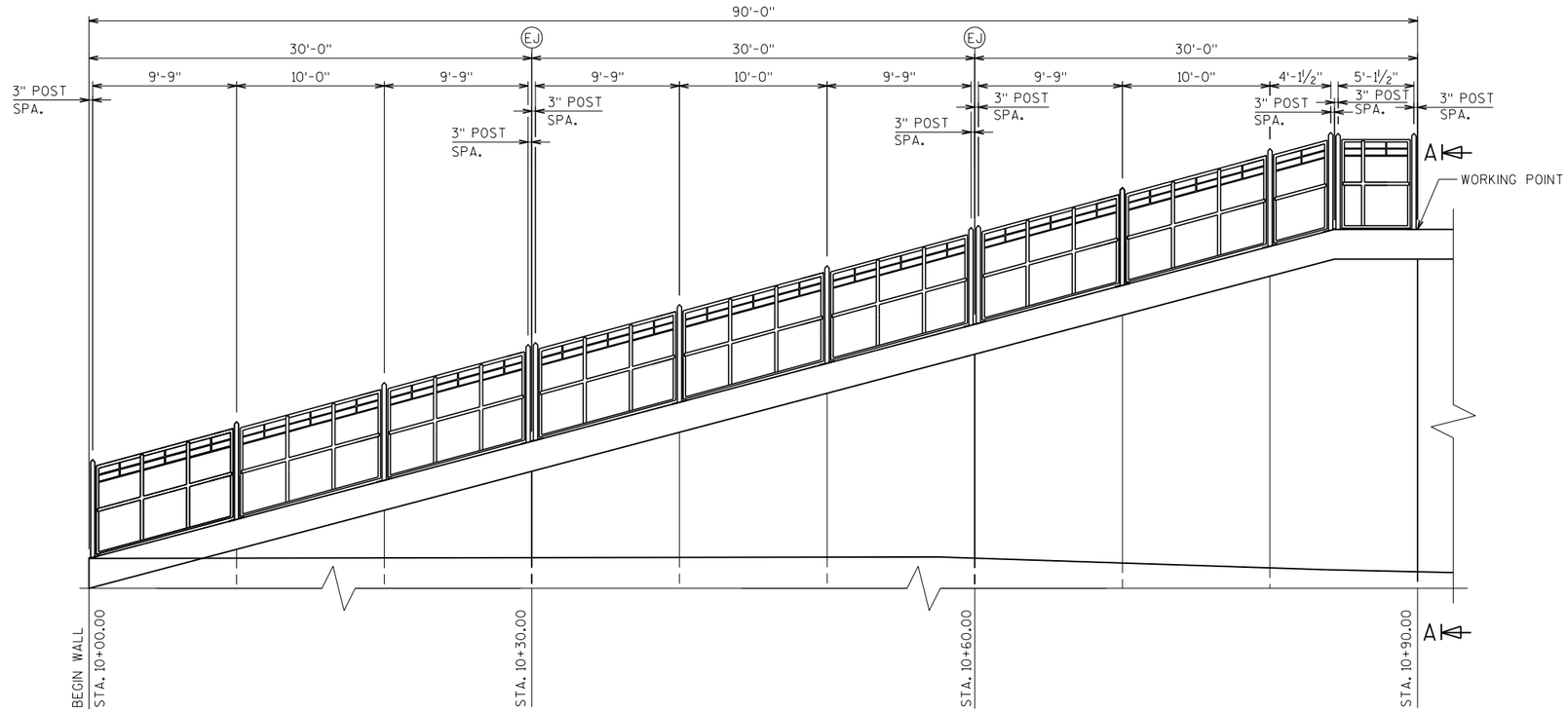
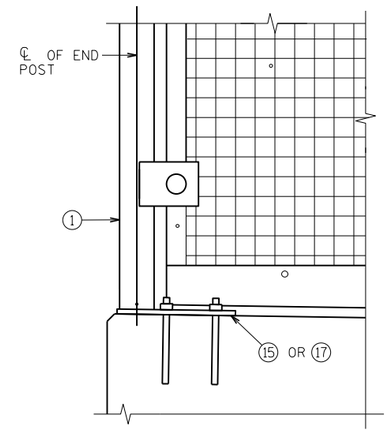
8

STATE PROJECT NUMBER
1133-11-74



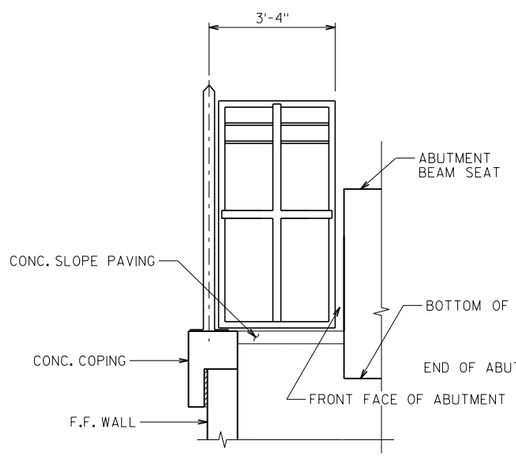
PART ELEVATION - FENCING

(LOOKING WEST)

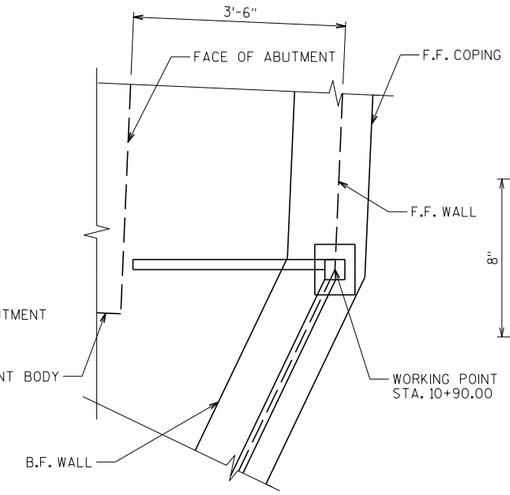


END POST DETAIL

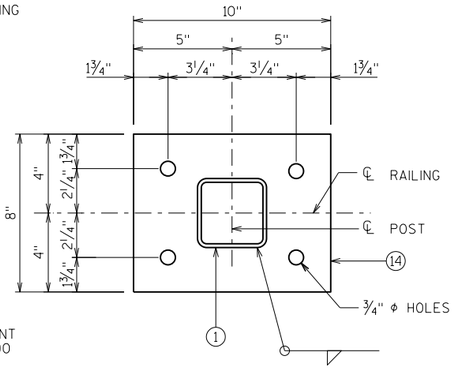
(SEE DECK PLAN FOR LOCATIONS)



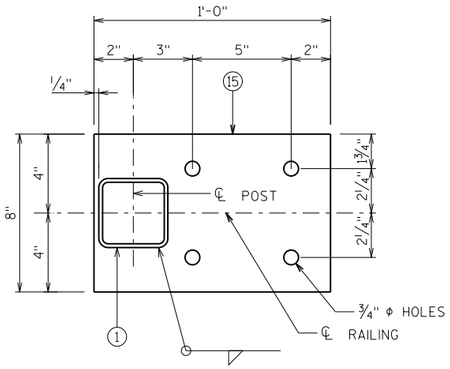
SECTION A-A



SECTION A-A PLAN VIEW



BASE PLATE



END BASE PLATE

COPING BASE PLATE DETAILS

NOTES

2" X 2" STEEL MESH NOT SHOWN FOR CLARITY.

REFER TO SHEET 11 FOR LEGEND AND NOTES.

SEE SHEET 13 FOR MORE FENCING DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY	DRJ	PLANS CK'D.	MNM

DECORATIVE FENCE DETAILS 2

SHEET 12 OF 13

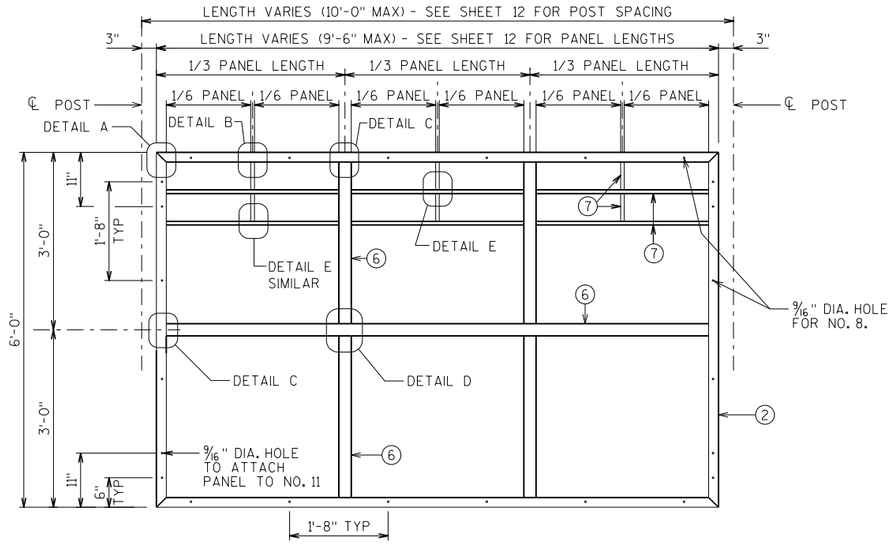
1234

8

8

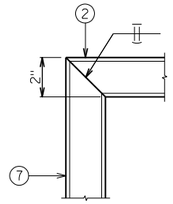
STATE PROJECT NUMBER

1133-11-74

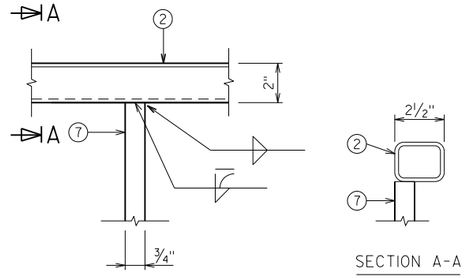


DECORATIVE FENCE PANEL

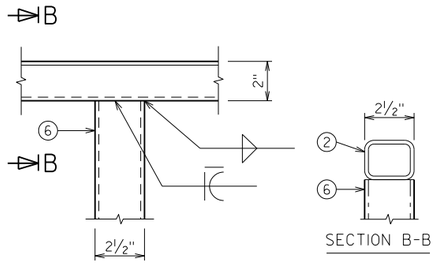
(ELEVATION VIEW SHOWING TYPICAL FENCE PANEL)



DETAIL A



DETAIL B



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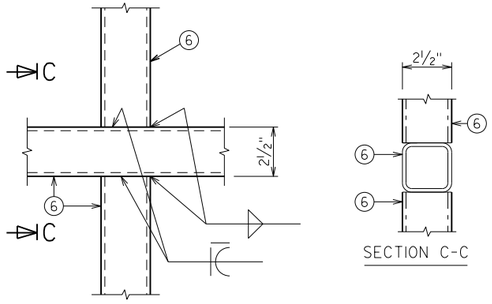
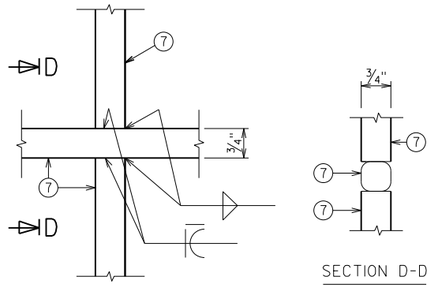
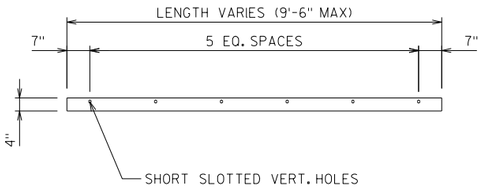


DETAIL D



DETAIL E



1/4" PLATE (NO. 5)

NOTES

2" X 2" STEEL MESH NOT SHOWN FOR CLARITY.

REFER TO SHEET 11 FOR LEGEND AND NOTES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-257

DRAWN BY DRJ | PLANS CK'D. MNM

DECORATIVE FENCE DETAILS 3

SHEET 13 OF 13

1235

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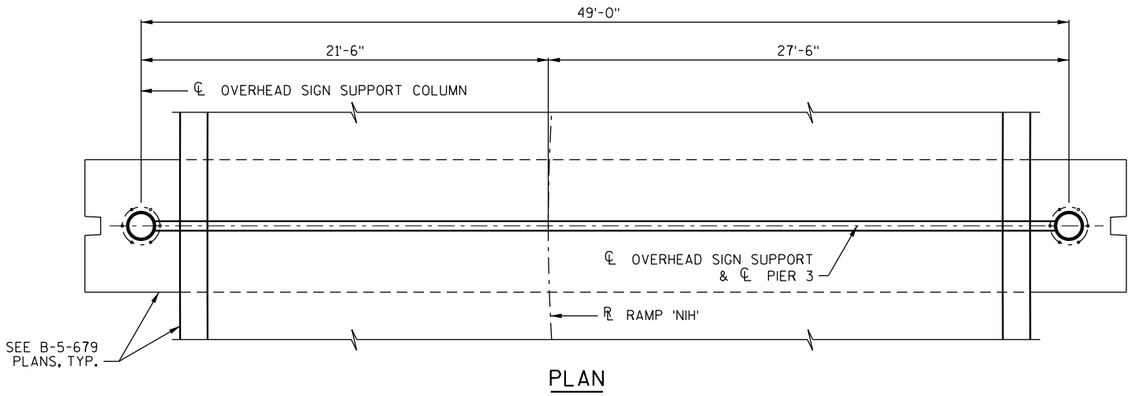
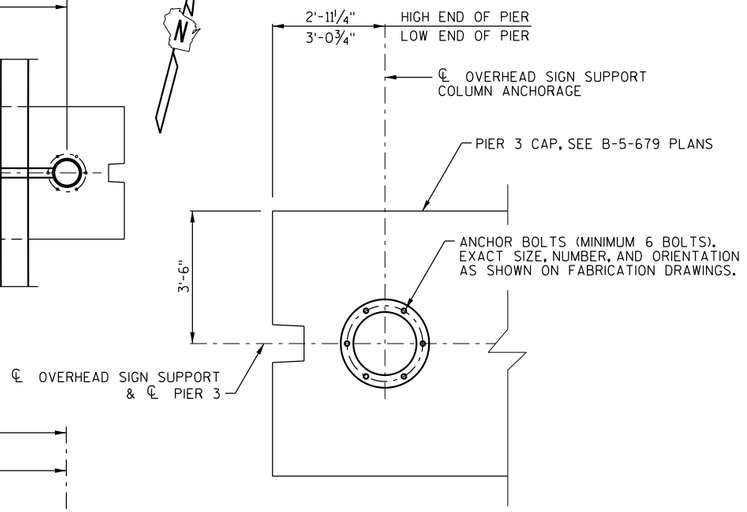
8

STATE PROJECT NUMBER

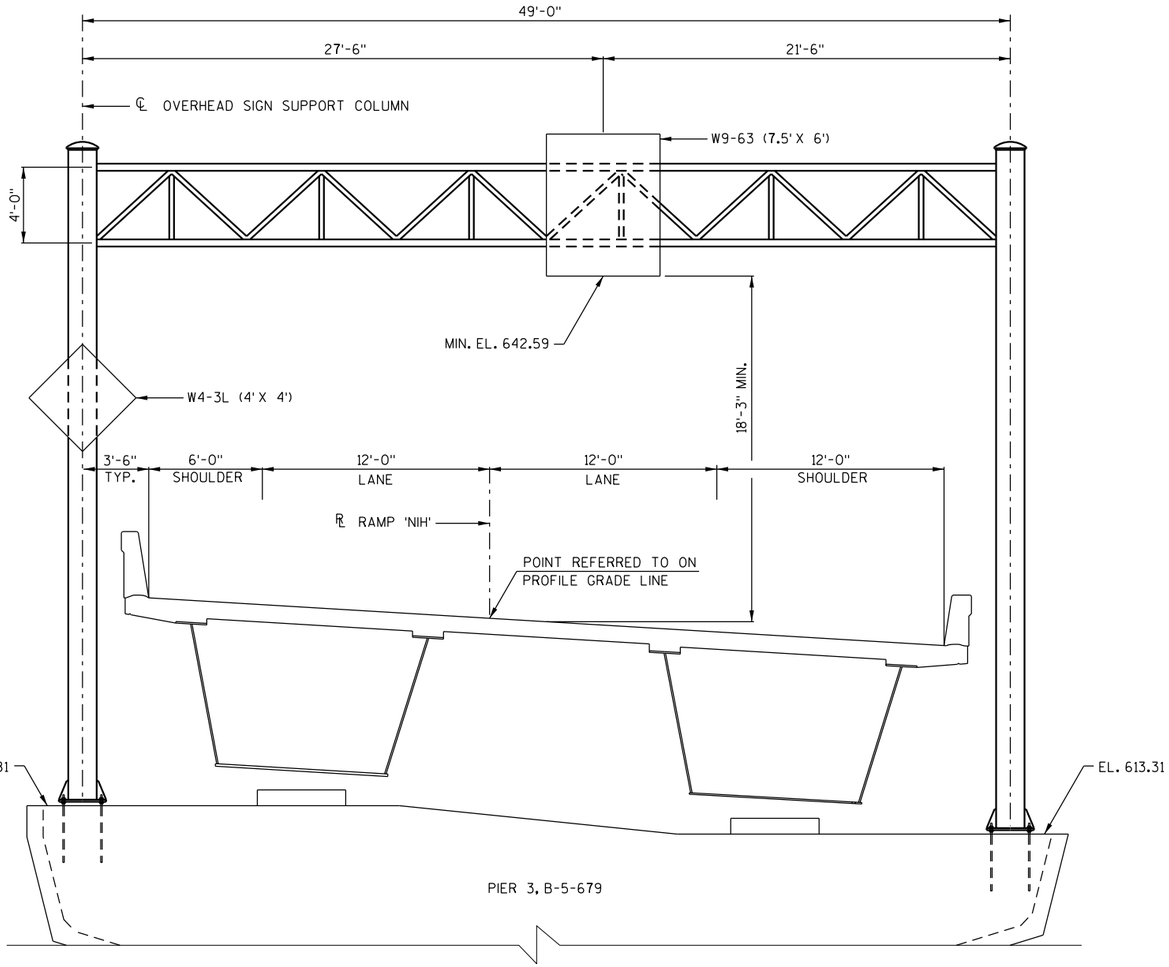
1133-11-74



PLAN

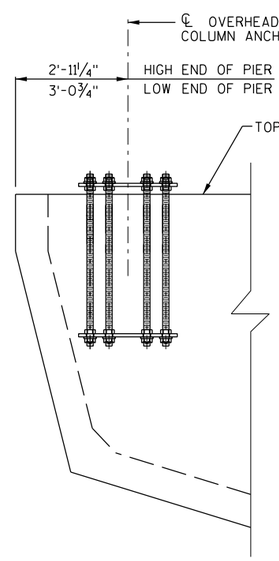


PLAN



ELEVATION

(STA. 1193'NIH'+98.25 LOOKING UPSTATION)



ELEVATION

OVERHEAD SIGN SUPPORT ANCHORAGE

(SEE B-5-679 PLANS FOR PIER CAP REINFORCEMENT)

DESIGN DATA

OVERHEAD SIGN SUPPORT	DESIGN SIGN AREA (S.F.)	MAX. SIGN DEPTH
S-5-284	45	7'-6"

WIND VELOCITY = 90 MPH (3-SECOND GUST SPEED)
DEADLOAD = WEIGHT OF SIGNAGE + WEIGHT OF SUPPORTED STRUCTURE
ICE LOAD = 3 P.S.F. TO ONE FACE OF SIGN AND AROUND SURFACE OF MEMBERS HEIGHT AND EXPOSURE FACTOR, Kz = 1.13

GENERAL NOTES

DO NOT SCALE DRAWINGS.

PROVIDE AN IDENTIFICATION PLAQUE FOR ALL OVERHEAD SIGN SUPPORTS. TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "OVERHEAD SIGN SUPPORT.

DESIGN NEW OVERHEAD SIGN SUPPORTS ACCORDING TO THE LATEST EDITION OF, AND SUPPLEMENTAL TO THE STATE OF WISCONSIN "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" AND AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS."

SIZE THE ANCHOR BOLT TEMPLATE ASSEMBLY TO FIT WITHIN THE BAR CAGE OF THE PIER CAP SHOWN IN THE CONTRACT PLANS IN ADDITION TO MEETING ALL APPLICABLE DESIGN REQUIREMENTS FOR THE DESIGN OF THE UPRIGHT BASE CONNECTION.

BLANKS SHALL BE INSTALLED ON THE OVERHEAD SIGN SUPPORT AT THE TIME OF ERECTION. BLANKS SHALL BE OF THE SAME SIZE AND LOCATION AS PERMANENT SIGNS. NO SIGN OR BLANK SHALL BE INSTALLED AT THE W4-3L LOCATION UNDER THIS CONTRACT. PERMANENT SIGNS WILL BE INSTALLED UNDER A FUTURE CONTRACT.

"ANCHOR BOLT ASSEMBLY OVERHEAD SIGN SUPPORTS" TO BE CONTRACTOR DESIGNED. DESIGN AND COORDINATION WITH BRIDGE CONTRACTOR SHALL BE INCIDENTAL TO BID ITEM 641.8100, "OVERHEAD SIGN SUPPORT (S-5-284)".

DESIGN THE STRUCTURE BASE PLATE CONNECTION TO ACCOMODATE A MINIMUM OF SIX (6) ANCHOR BOLTS.

HORIZONTAL DISTANCES ARE MEASURED ALONG ℄ OF PIER OR PERPENDICULAR TO ℄ PIER. ℄ PIER IS PERPENDICULAR TO ROADWAY CURVE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
641.8100	OVERHEAD SIGN SUPPORT (S-5-284)	LS	1

WISCONSIN
THOMAS J. ROMENESKO
E-26318
MADISON
WI
PROFESSIONAL ENGINEER
5/1/13

ROMENESKO ENGINEERING, INC.
CONTACT: TOM ROMENESKO, P.E.
7325 CEDAR CREST DRIVE
SAUK CITY, WI 53583
(608) 644-1502

BRIDGE OFFICE CONTACT:
WILLIAM DREHER, P.E.
(608) 266-8489

NE REGION CONTACT:
DANIELLE BLOCK
(920) 492-2212

NO.	DATE	REVISION	BY

Original Plans Prepared By
ROMENESKO ENGINEERING, INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 05/22/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-5-284

OVERHEAD SIGN SUPPORT AT PIER 3 ON B-5-679

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

DESIGN SPEC. AASHTO STD. SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
TR	VR	TAW	TR

OVERHEAD SIGN SUPPORT LAYOUT

SHEET 1 OF 1
1236

I.D. 1133-10-00 DATE : 4/30/2013

8

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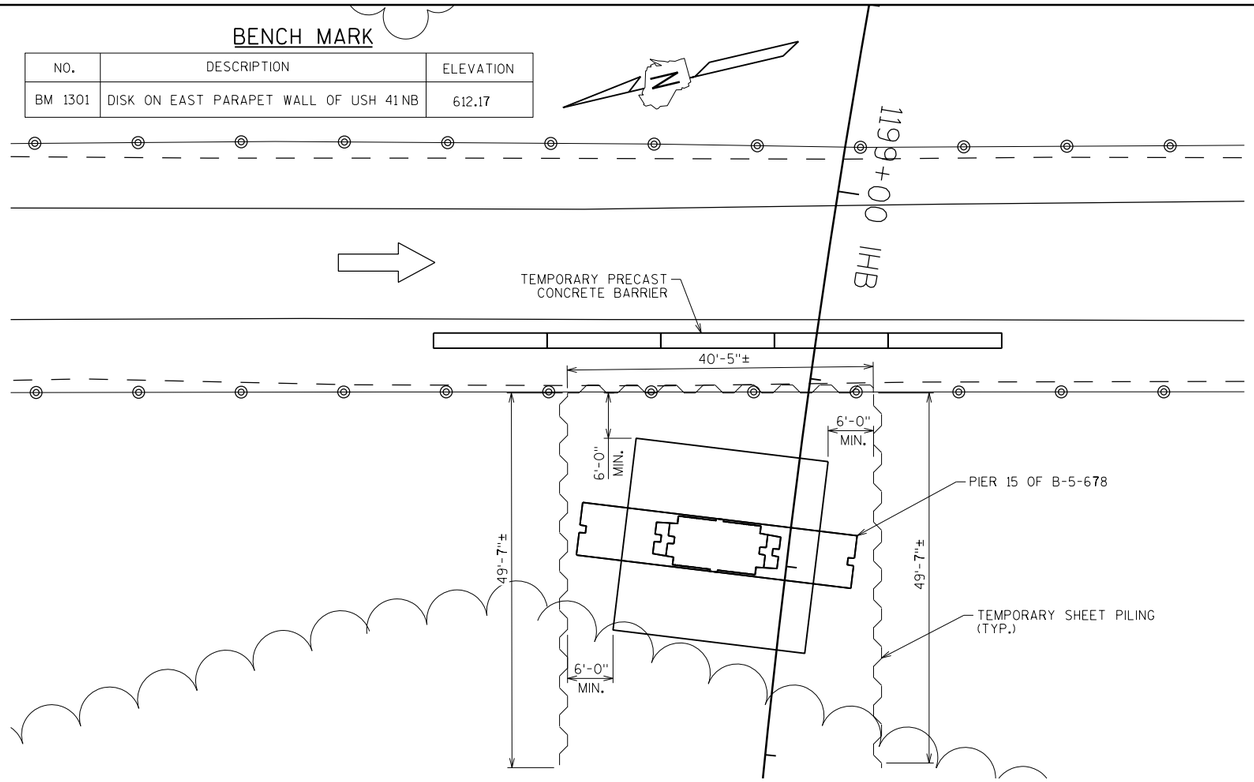
FILE NAME : P:\153 USH 41 1133-10-00 UFS\Structures\S-5-284\001.sign_gen_plan_v8_s-5-284.dgn
PLOT DATE : 4/30/2013

STATE PROJECT NUMBER
1133-11-74

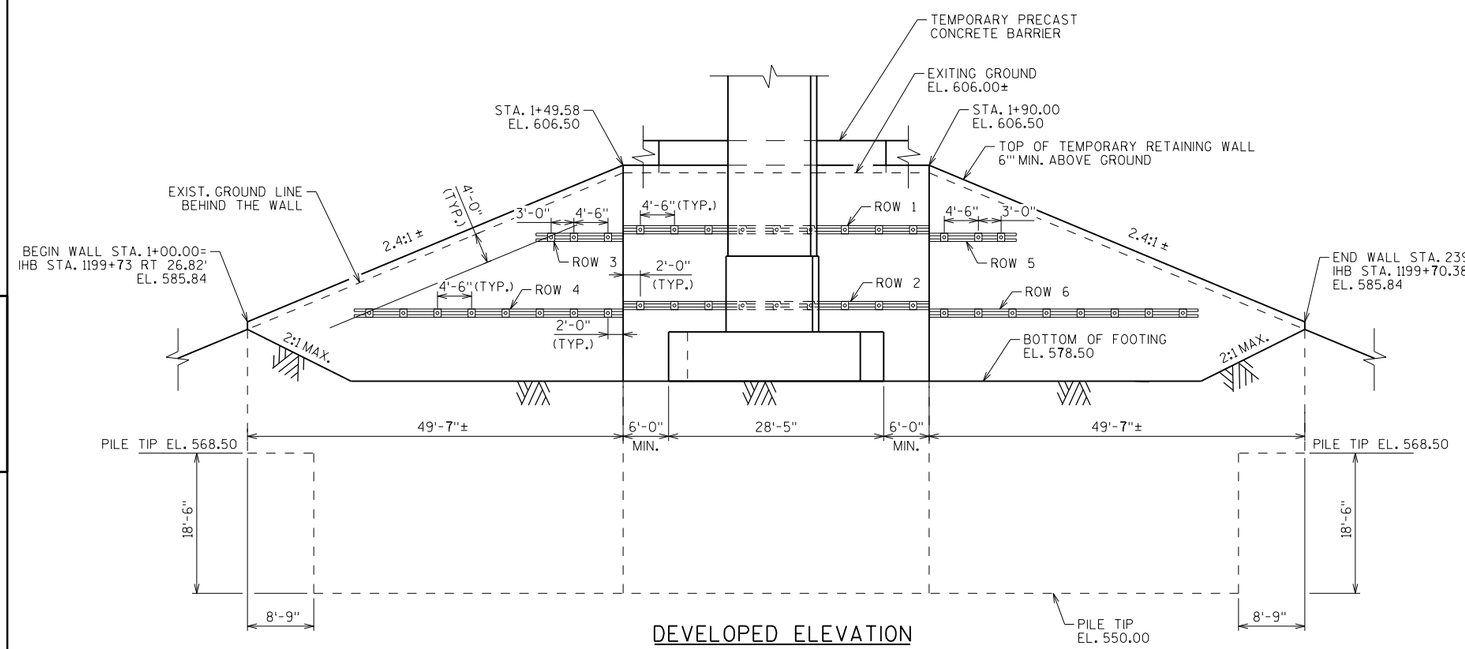
BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 1301	DISK ON EAST PARAPET WALL OF USH 41 NB	612.17



PLAN

(WALERS & ANCHORS NOT SHOWN FOR CLARITY)



DEVELOPED ELEVATION

INDEX OF DRAWING

1. GENERAL PLAN AND ELEVATION
2. HELICAL TIEBACK ANCHOR DETAILS
3. HELICAL TIEBACK ANCHOR SCHEDULE
4. SUBSRUFACE EXPLORATION

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

THESE PLANS ARE FOR TEMPORARY STEEL SHEET PILE RETAINING WALL TW-5-001. THE WALL WILL BE CONSTRUCTED AND REMOVED UNDER THIS CONTRACT.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

PAYMENT OF ROADWAY RELATED ITEMS ARE NOT PART OF TW-5-001.

SHEET PILE MINIMUM TIP ELEVATION = 550 FT, EXCEPT WHERE CANTILEVER WALL PERPENDICULAR TO HIGHWAY HAS EXPOSED HEIGHT LESS THAN 8 FEET. AT THOSE LOCATIONS, MINIMUM SHEET PILE TIP ELEVATION MUST EXTEND 12 FEET BELOW LOWEST EXCAVATION ELEVATION.

DESIGN DATA

LIVE LOAD SURCHAGE = 240 PSF

ALL SHEET PILING SHALL BE HOT ROLLED ASTM A572 GRADE 50 ((FY = 50 KSI)

MINIMUM SHEET PILE SECTION MODULUS S_x= 30 IN ^{3}/FT

ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 (FY = 50 KSI), UNLESS NOTED OTHERWISE.

ALL SHEET PILING SHALL BE INSTALLED TO THE TIP LOCATION SHOWN ON THE PLANS.

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
SPV.0060.850	HELICAL TIEBACK ANCHORS	EACH	40
SPV.0165.855	PILING STEEL SHEET TEMPORARY	SF	6538

NE REGION CONTACT - PAUL VRANEY (920) 492-2232
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL RADTKE 414-831-4174

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 05/28/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE TW-5-001

TEMPORARY RETAINING WALL FOR B-5-678 PIER 15

COUNTY	BROWN	~~TOWN/CITY~~/VILLAGE	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	KJZ	DESIGN CK'D.	NPP	DRAWN BY	KJZ	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
1237

DATE: 5/22/2013
I.D.

FILE= G:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\Temporary Retaining Wall\Control Copy\TW-05-001 - 01 - General Plan.dgn

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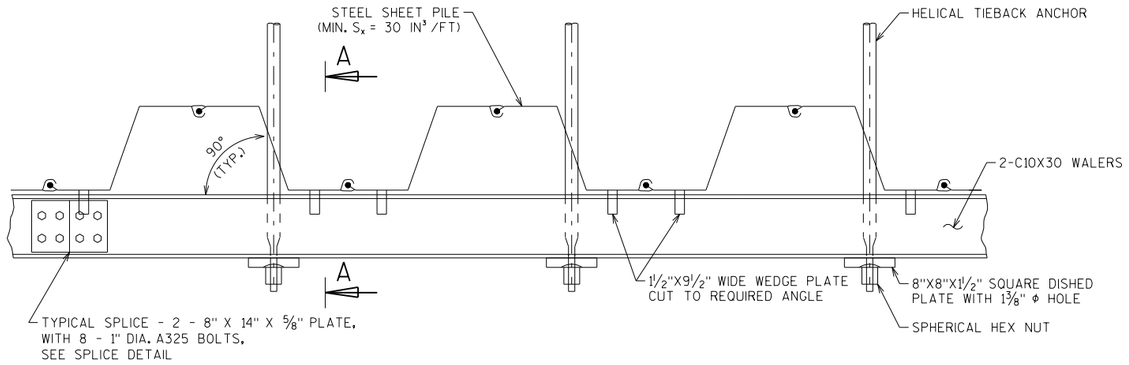
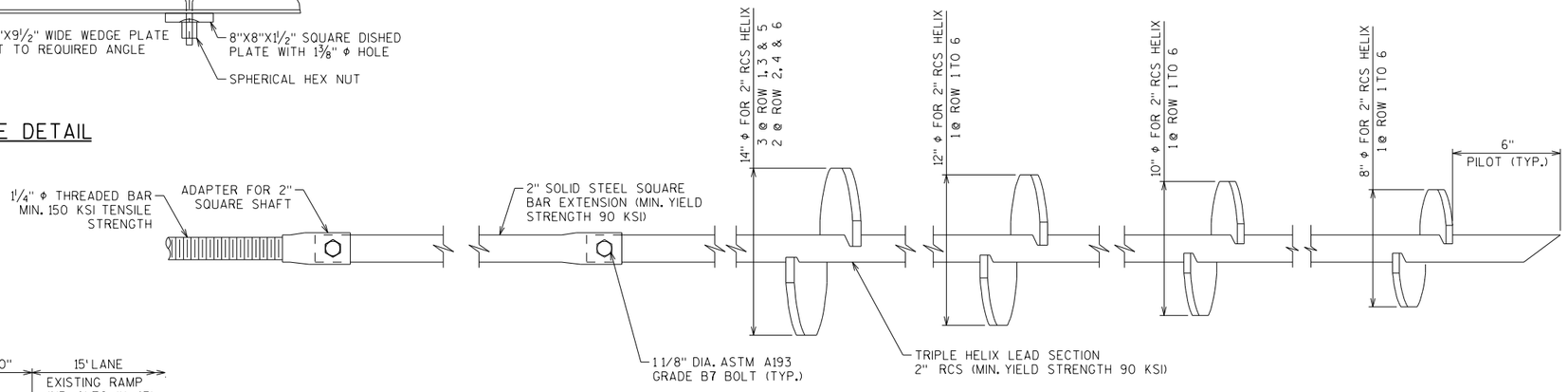
STATE PROJECT NUMBER

1133-11-74

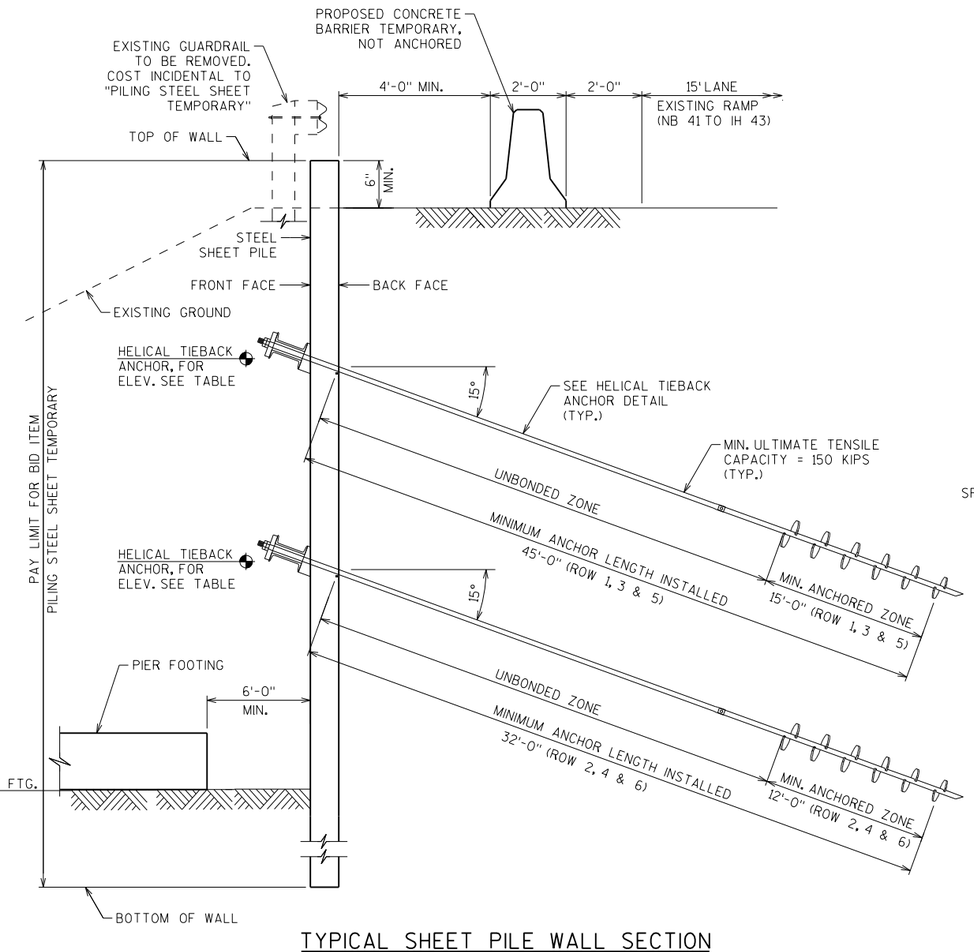


WALER CONNECTION TO SHEET PILE DETAIL

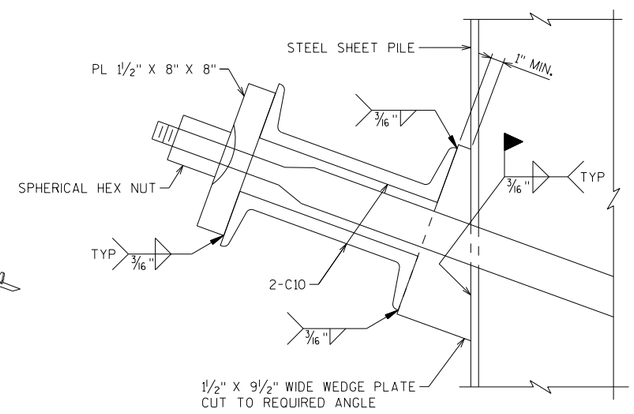


HELICAL TIEBACK ANCHOR DETAIL

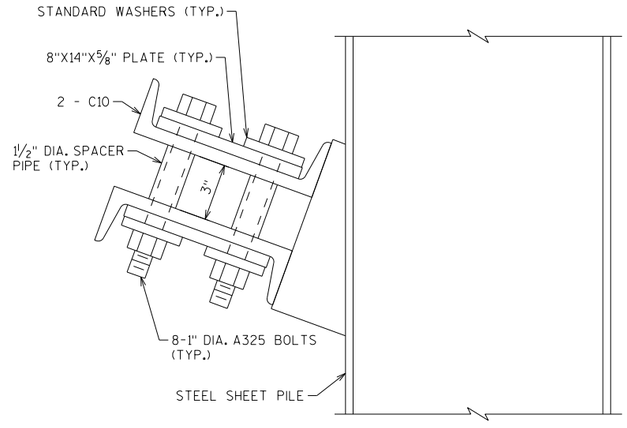
NOTE: EACH COUPLING CONNECTION AND ALL ASSOCIATED HARDWARE SHALL BE CAPABLE OF TRANSMITTING THE SPECIFIED 125 KIP PROOF TEST LOAD.



TYPICAL SHEET PILE WALL SECTION



SECTION A-A



WALER SPLICE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE TW-5-001

DRAWN BY KJZ | PLANS CK'D. NPP

HELICAL TIEBACK ANCHOR DETAILS

SHEET 7 OF 4
1238

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

8

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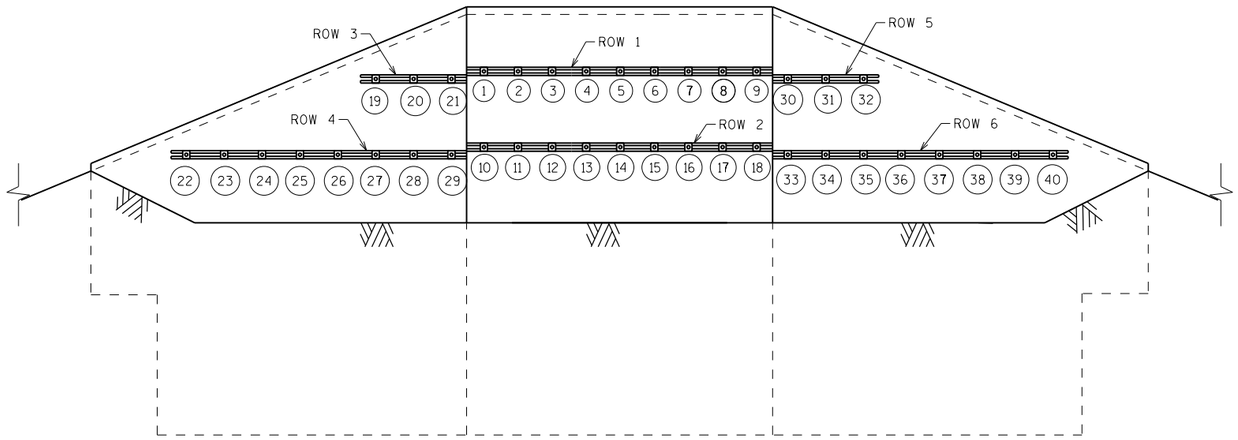
FILE= Q:\WisDot_12345678_US41Bridges_Plans\Site_Const._Contract\Temporary Retaining Wall\Control Copy\TW-05-001 - 02 - Helical Tieback Anchor

DATE: 5/22/2013
I.D.



TIEBACK ANCHOR LAYOUT

HELICAL TIEBACK ANCHOR SCHEDULE

TIEBACK NO.	ANCHOR ROW	TIEBACK ELEVATION (FT)	RECOMMENDED SHAFT DIAMETER	TIEBACK VERTICAL ELEVATION (DEGREES)	TIEBACK HORIZONTAL ORIENTATION (DEGREES)	MINIMUM ANCHORED LENGTH (FT)	MINIMUM TOTAL ANCHOR LENGTH INSTALLED (FT)	MINIMUM ANCHOR TENSILE CAPACITY (KIPS)	DESIGN LOAD (KIPS)	60% LOCK OFF LOAD (KIPS)	PROOF TEST LOAD (KIPS)	INSTALLATION TORQUE (FT-LBS)
1	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
2	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
3	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
4	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
5	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
6	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
7	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
8	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
9	1	598.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
10	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
11	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
12	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
13	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
14	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
15	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
16	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
17	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
18	2	588.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
19	3	597.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
20	3	597.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
21	3	597.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
22	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
23	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
24	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
25	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
26	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
27	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
28	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
29	4	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
30	5	597.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
31	5	597.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
32	5	597.5	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
33	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
34	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
35	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
36	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
37	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
38	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
39	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
40	6	587.5	2-INCH RCS	15	90	12	32	150	100	60	125	14,200

NOTES:

1. TO MATCH FIELD CONDITION, CONTRACTOR MAY SUBMIT AN ADJUSTMENT TO TIEBACK STATION, LOCATION, AND ELEVATION TO THE ENGINEER FOR CONSIDERATION.
2. ELEVATION GIVEN AT FRONT FACE OF SHEET PILE.
3. HORIZONTAL ORIENTATION IS MEASURED FROM FRONT OF SHEET PILE WALL R.L. IN CLOCKWISE DIRECTION.
4. MINIMUM ANCHORED LENGTH BASED ON 14" DIAMETER TRIPLE HELIX LEAD SECTION.
5. PROOF TEST LOAD EQUALS 1.25 X DESIGN LOAD.

CONSTRUCTION STAGING NOTES

1. MAXIMUM EXCAVATION DEPTH IN FRONT OF SHEETPILE WALL SHALL NOT BE GREATER THAN 10 FEET PRIOR TO INSTALLATION OF UPPER ROW OF HELICAL TIEBACK ANCHORS.
2. ELEVATION DIFFERENCE BETWEEN BACKFILL ELEVATION ON THE BACK SIDE OF THE SHEETPILE WALL AND THE FINISHED GROUND ELEVATION ON THE FRONT SIDE OF THE SHEETPILE WALL SHALL NOT BE GREATER THAN 10 FEET PRIOR TO INSTALLATION OF UPPER TOW OF HELICAL TIEBACK ANCHORS.
3. MAXIMUM CONSTRUCTION SURCHARGE PRESSURE BEHIND SHEETPILE WALL SHALL NOT EXCEED 240 PSF.
4. MAINTAIN HORIZONTAL BACKFILL SLOPE (BEHIND SHEETPILE WALL) PRIOR TO HELICAL TIEBACK ANCHOR INSTALLATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE TW-5-001

DRAWN BY KJZ | PLANS CK'D. NPP

HELICAL TIEBACK ANCHOR SCHEDULE

SHEET 3 OF 4
1239

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/22/2013
I.D.

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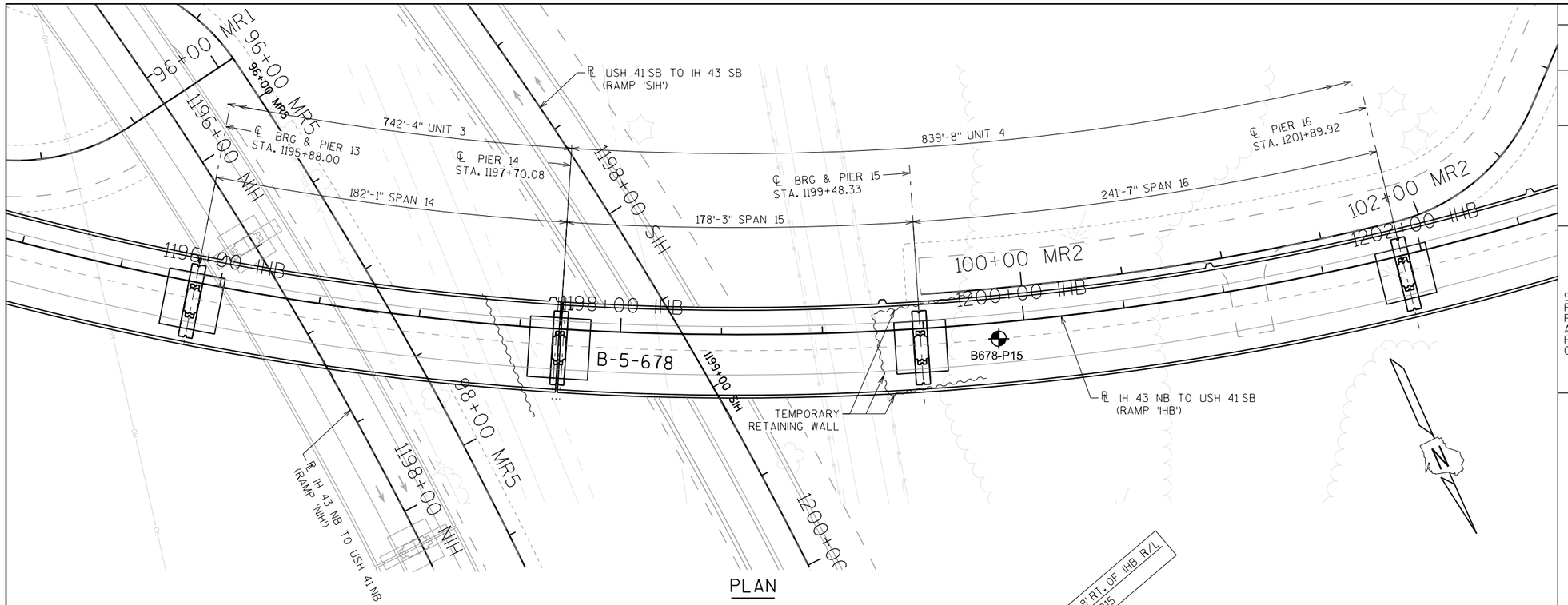
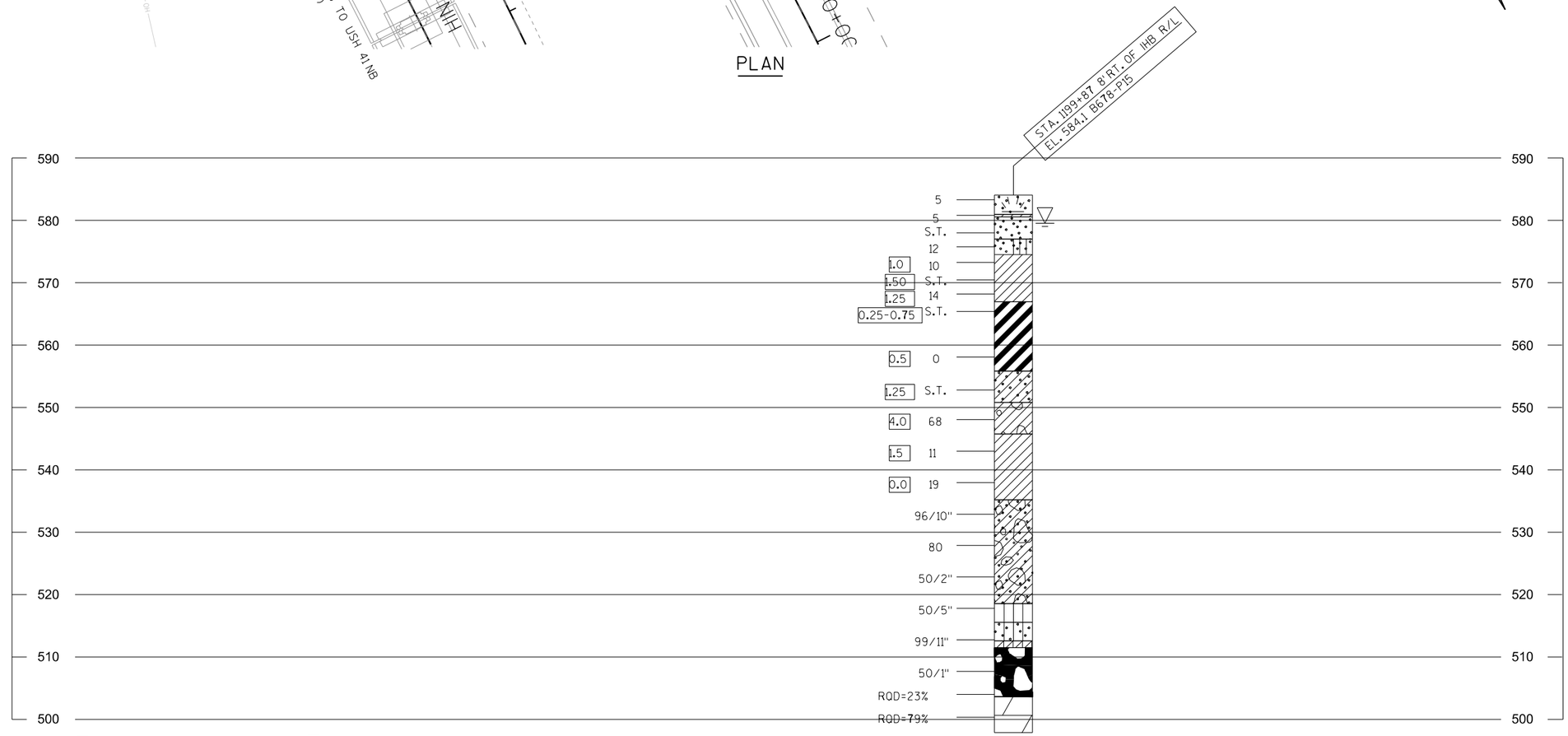


PLAN



NOTE: ▽ -WATER LEVELDURING DRILLING ▽* -WATER LEVELASSUMED FROM SAMPLE

STATE PROJECT NUMBER

1133-11-74

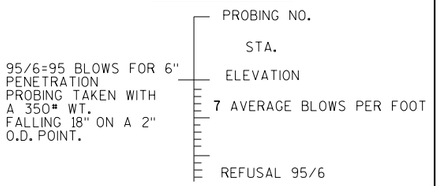
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

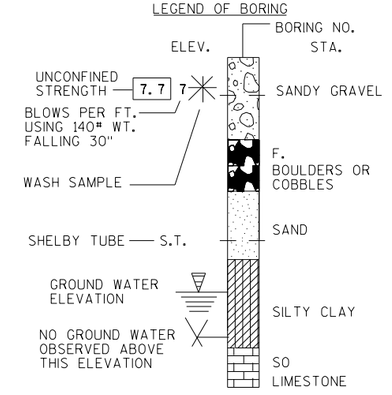
MATERIAL SYMBOLS

TOPSOIL, SILT, FATCLAY, SAND, PEAT, DOLOMITE, GRAVEL, CLAY, FILL

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE TW-5-001

DRAWN BY KJZ | PLANS CK'D. NPP

SUBSURFACE EXPLORATION

SHEET 4 OF 4
1240

8

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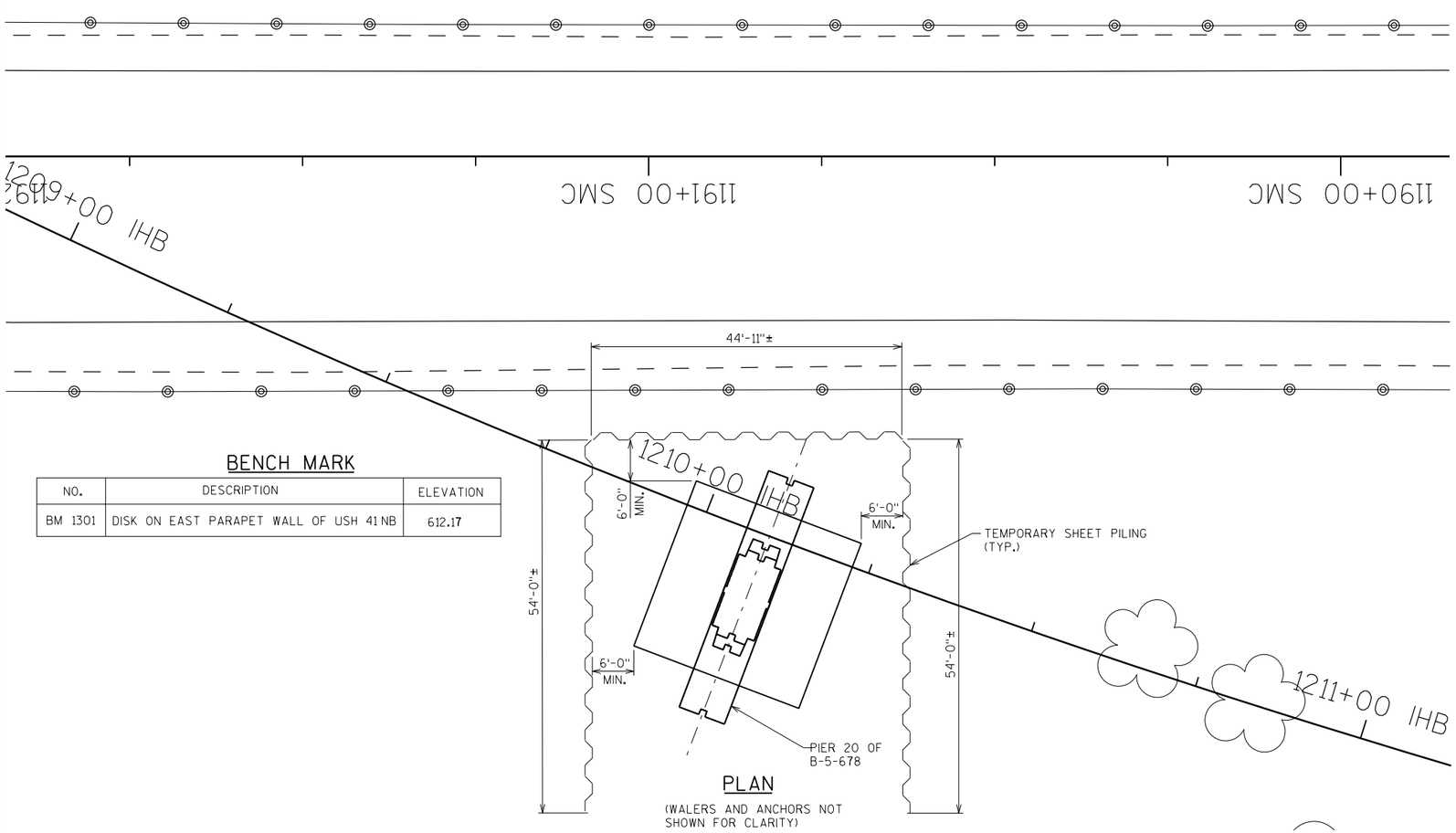
DATE: 5/22/2013

STATE PROJECT NUMBER
1133-11-74

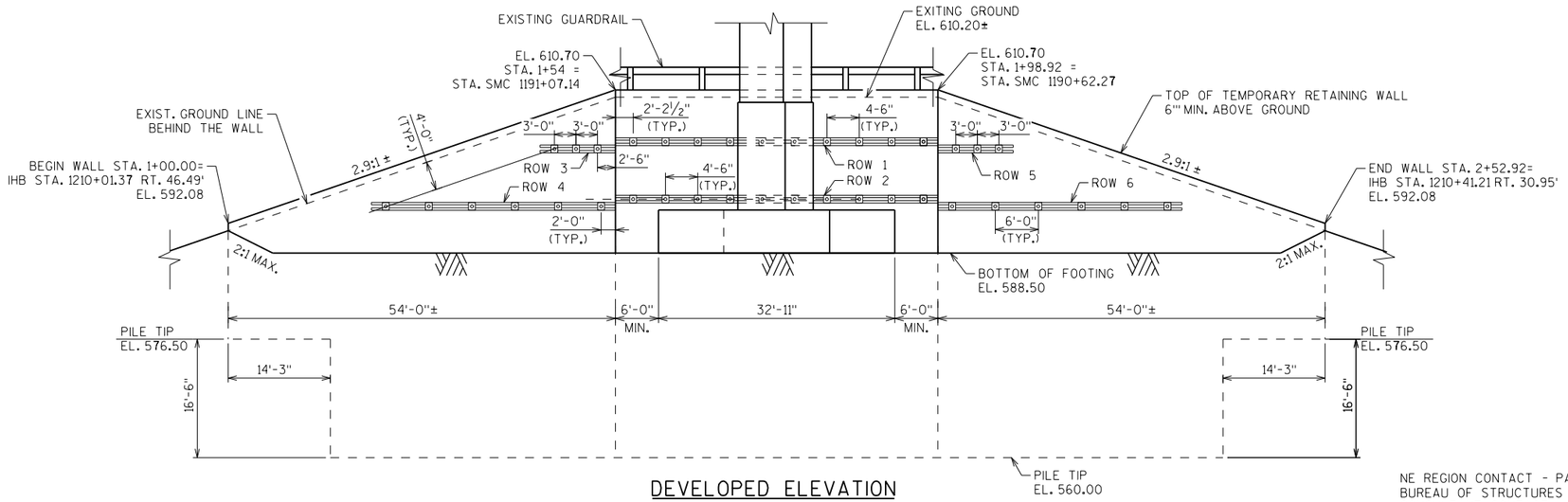


PLAN

(WALERS AND ANCHORS NOT SHOWN FOR CLARITY)

BENCH MARK

NO.	DESCRIPTION	ELEVATION
BM 1301	DISK ON EAST PARAPET WALL OF USH 41 NB	612.17



DEVELOPED ELEVATION

INDEX OF DRAWING

1. GENERAL PLAN AND ELEVATION
2. HELICAL TIEBACK ANCHOR DETAILS
3. HELICAL TIEBACK ANCHOR SCHEDULE
4. SUBSRUFACE EXPLORATION

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

THESE PLANS ARE FOR TEMPORARY STEEL SHEET PILE RETAINING WALL TW-5-002. THE WALL WILL BE CONSTRUCTED AND REMOVED UNDER THIS CONTRACT.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

PAYMENT OF ROADWAY RELATED ITEMS ARE NOT PART OF TW-5-002.

SHEET PILE MINIMUM TIP ELEVATION = 560 FT, EXCEPT WHERE CANTILEVER WALL PERPENDICULAR TO HIGHWAY HAS EXPOSED HEIGHT LESS THAN 8 FEET. AT THOSE LOCATIONS, MINIMUM SHEET PILE TIP ELEVATION MUST EXTEND 12 FEET BELOW LOWEST EXCAVATION ELEVATION.

DESIGN DATA

LIVE LOAD SURCHAGE = 240 PSF

ALL SHEET PILING SHALL BE HOT ROLLED ASTM A572 GRADE 50 ((FY = 50 KSI)

MINIMUM SHEET PILE SECTION MODULUS S_x = 30 IN^3/FT

ALL STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50 (FY = 50 KSI), UNLESS NOTED OTHERWISE.

ALL SHEET PILING SHALL BE INSTALLED TO THE TIP LOCATION SHOWN ON THE PLANS.

TOTAL ESTIMATED QUANTITIES

BID ITEM #	BID ITEM	UNIT	TOTAL
SPV.0060.850	HELICAL TIEBACK ANCHORS	EACH	38
SPV.0165.855	PILING STEEL SHEET TEMPORARY	SF	6,277

WISCONSIN
NARENDRA P. PATEL
38246-006
CHICAGO, IL
PROFESSIONAL ENGINEER

Narendra P. Patel
5-22-2013

NE REGION CONTACT - PAUL VRANEY (920) 492-2232
BUREAU OF STRUCTURES CONTACT - WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT - MICHAEL RADTKE 414-831-4174

STEEL ERECTION & SITE CONSTRUCTION CONTRACT

NO.	DATE	REVISION	BY

URS
342 North Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 05/28/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE TW-5-002

TEMPORARY RETAINING WALL FOR B-5-678 PIER 20

COUNTY	BROWN	~~TOWN/CITY~~/VILLAGE	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	KJZ	DESIGN CK'D.	NPP	DRAWN BY	KJZ	PLANS CK'D.	NPP

GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
1241

DATE: 5/22/2013
I.D.

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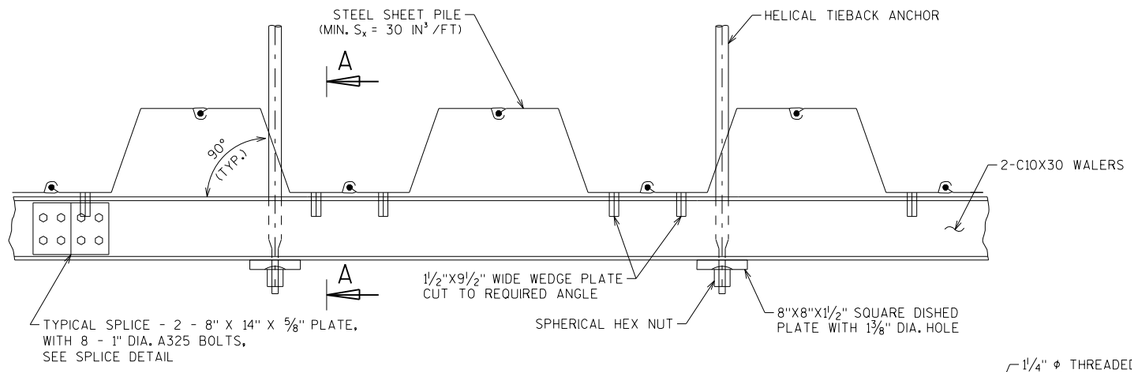
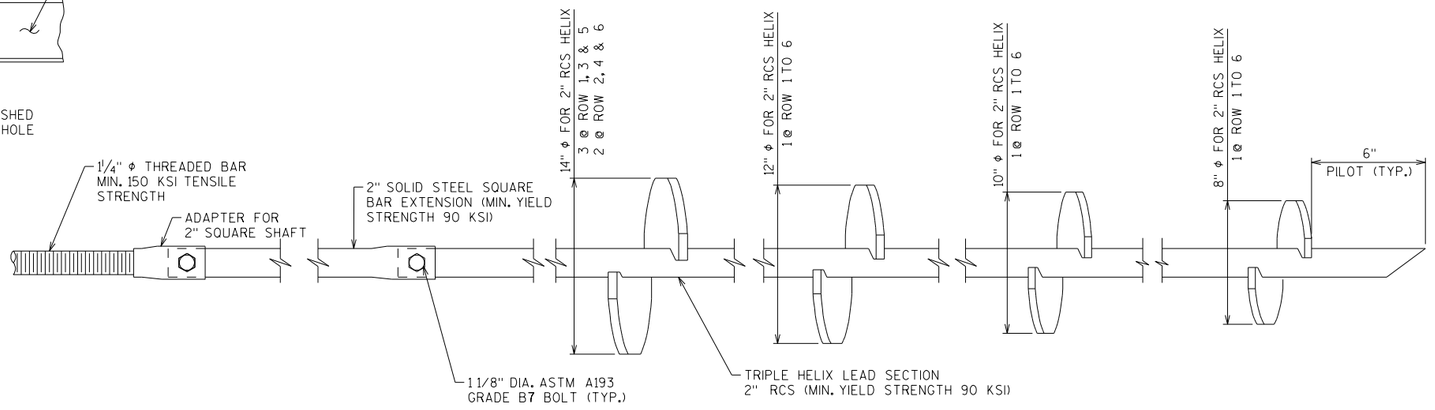
STATE PROJECT NUMBER
1133-11-74

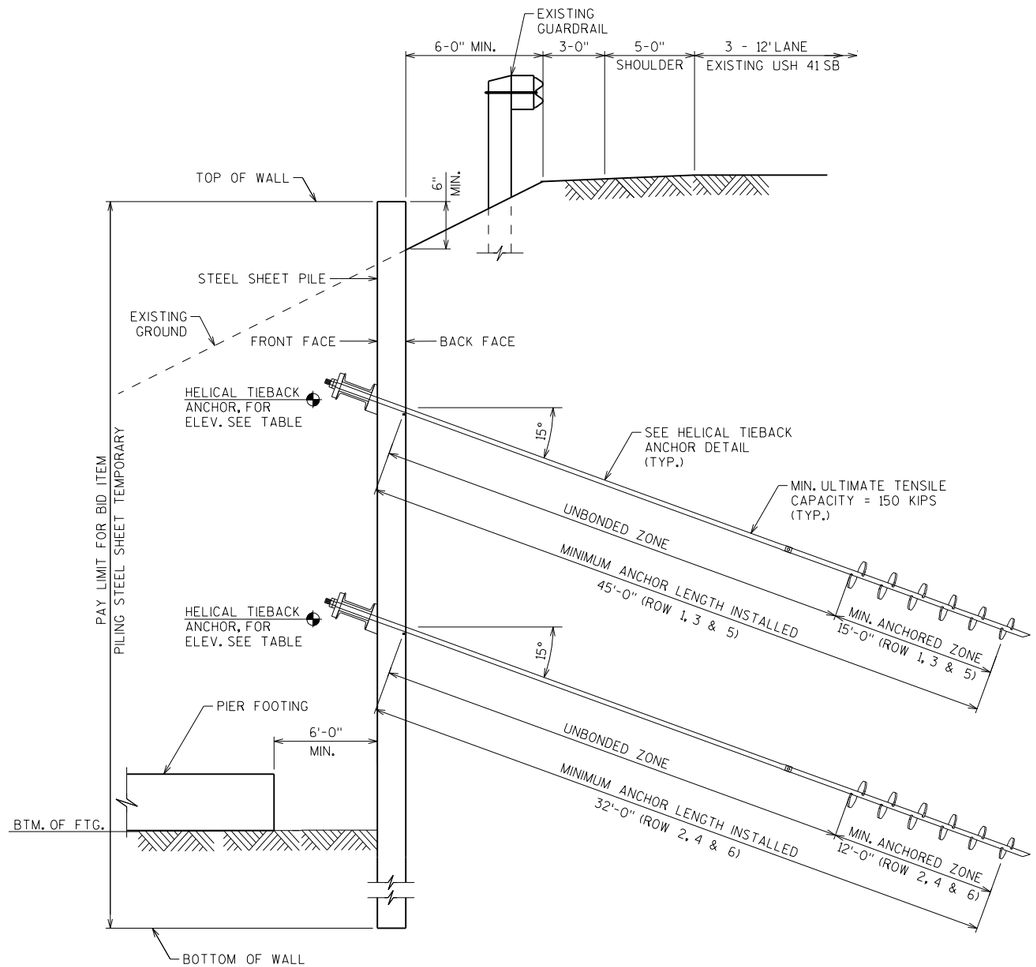


WALER CONNECTION TO SHEET PILE DETAIL

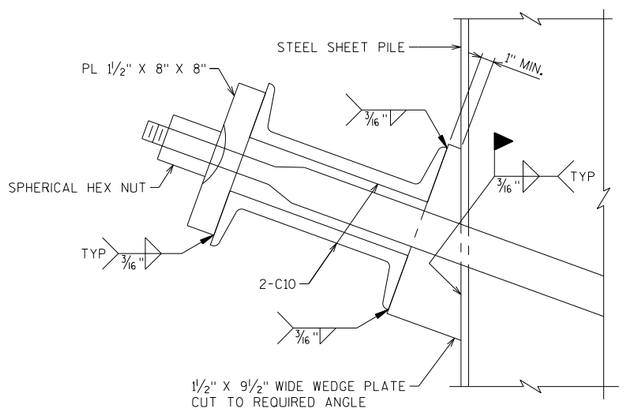


HELICAL TIEBACK ANCHOR DETAIL

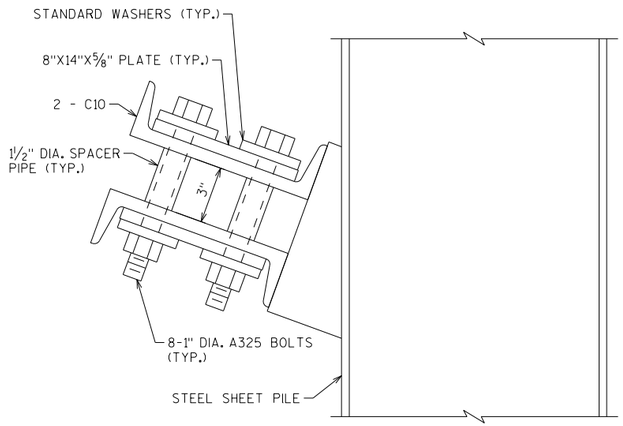
NOTE: EACH COUPLING CONNECTION AND ALL ASSOCIATED HARDWARE SHALL BE CAPABLE OF TRANSMITTING THE SPECIFIED 125 KIP PROOF TEST LOAD.



TYPICAL SHEET PILE WALL SECTION



SECTION A-A



WALER SPLICE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE TW-5-002

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HELICAL TIEBACK ANCHOR DETAILS

SHEET 7 OF 4
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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DATE: 5/22/2013
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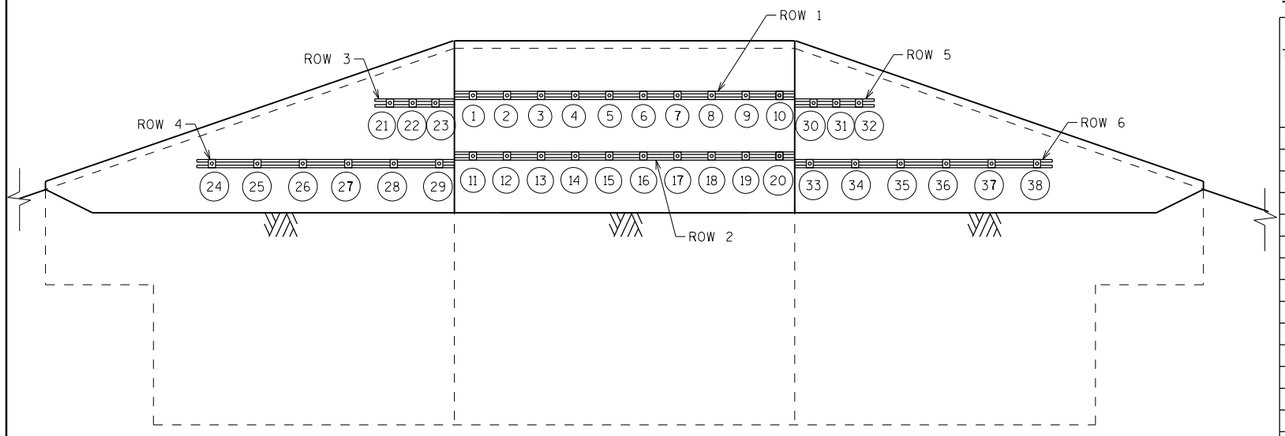

TIEBACK ANCHOR LAYOUT

HELICAL TIEBACK ANCHOR SCHEDULE

TIEBACK NO.	ANCHOR ROW	TIEBACK ELEVATION (FT)	RECOMMENDED SHAFT DIAMETER	TIEBACK VERTICAL ELEVATION (DEGREES)	TIEBACK HORIZONTAL ORIENTATION (DEGREES)	MINIMUM ANCHORED LENGTH (FT)	MINIMUM TOTAL ANCHOR LENGTH INSTALLED (FT)	MINIMUM ANCHOR TENSILE CAPACITY (KIPS)	DESIGN LOAD (KIPS)	60% LOCK OFF LOAD (KIPS)	PROOF TEST LOAD (KIPS)	INSTALLATION TORQUE (FT-LBS)
1	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
2	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
3	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
4	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
5	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
6	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
7	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
8	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
9	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
10	1	604	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
11	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
12	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
13	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
14	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
15	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
16	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
17	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
18	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
19	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
20	2	596	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
21	3	603	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
22	3	603	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
23	3	603	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
24	4	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
25	4	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
26	4	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
27	4	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
28	4	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
29	4	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
30	5	603	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
31	5	596	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
32	5	603	2-INCH RCS	15	90	15	45	150	100	60	125	13,200
33	6	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
34	6	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
35	6	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
36	6	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
37	6	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200
38	6	595	2-INCH RCS	15	90	12	32	150	100	60	125	14,200

NOTES:

1. TO MATCH FIELD CONDITION, CONTRACTOR MAY SUBMIT AN ADJUSTMENT TO TIEBACK STATION, LOCATION, AND ELEVATION TO THE ENGINEER FOR CONSIDERATION.
2. ELEVATION GIVEN AT FRONT FACE OF SHEET PILE.
3. HORIZONTAL ORIENTATION IS MEASURED FROM FRONT OF SHEET PILE WALL R.L. IN CLOCKWISE DIRECTION.
4. MINIMUM ANCHORED LENGTH BASED ON 14" DIAMETER TRIPLE HELIX LEAD SECTION.
5. PROOF TEST LOAD EQUALS 1.25 X DESIGN LOAD.

CONSTRUCTION STAGING NOTES

1. MAXIMUM EXCAVATION DEPTH IN FRONT OF SHEETPILE WALL SHALL NOT BE GREATER THAN 10 FEET PRIOR TO INSTALLATION OF UPPER ROW OF HELICAL TIEBACK ANCHORS.
2. ELEVATION DIFFERENCE BETWEEN BACKFILL ELEVATION ON THE BACK SIDE OF THE SHEETPILE WALL AND THE FINISHED GROUND ELEVATION ON THE FRONT SIDE OF THE SHEETPILE WALL SHALL NOT BE GREATER THAN 10 FEET PRIOR TO INSTALLATION OF UPPER TOW OF HELICAL TIEBACK ANCHORS.
3. MAXIMUM CONSTRUCTION SURCHARGE PRESSURE BEHIND SHEETPILE WALL SHALL NOT EXCEED 240 PSF.
4. MAINTAIN HORIZONTAL BACKFILL SLOPE (BEHIND SHEETPILE WALL) PRIOR TO HELICAL TIEBACK ANCHOR INSTALLATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE TW-5-002

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HELICAL TIEBACK ANCHOR SCHEDULE

SHEET 3 OF 4
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STEEL ERECTION & SITE CONSTRUCTION CONTRACT

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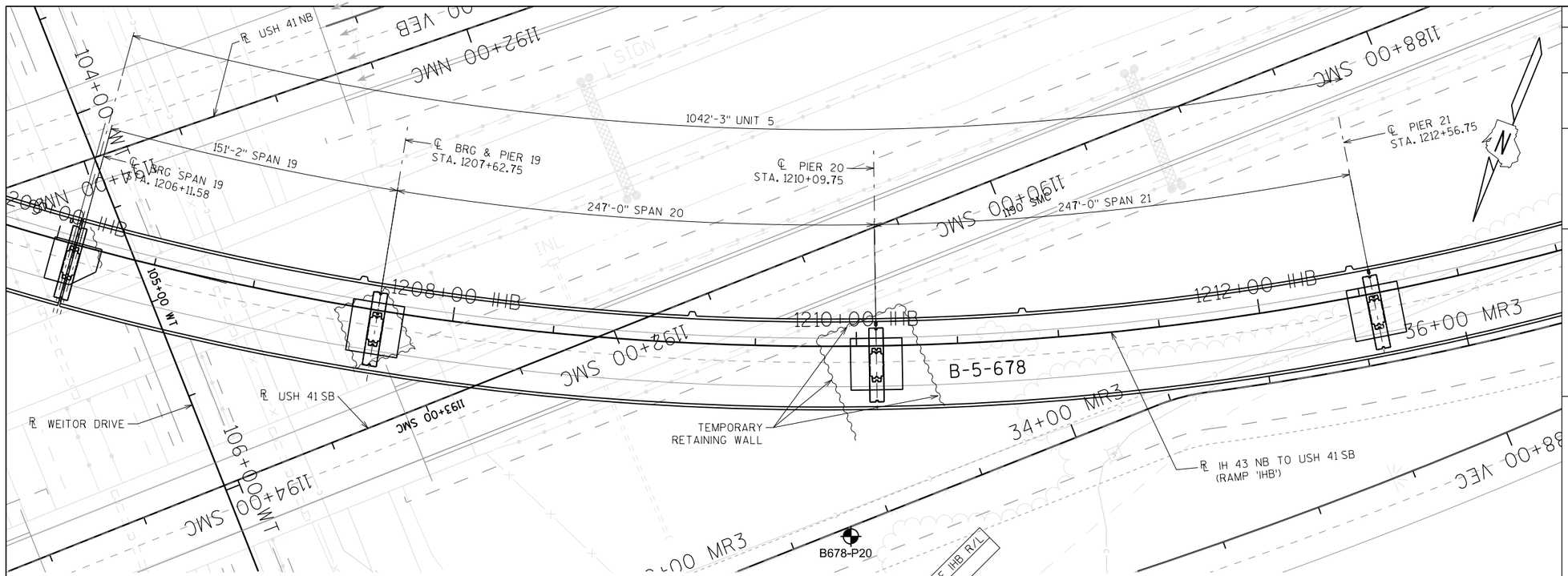

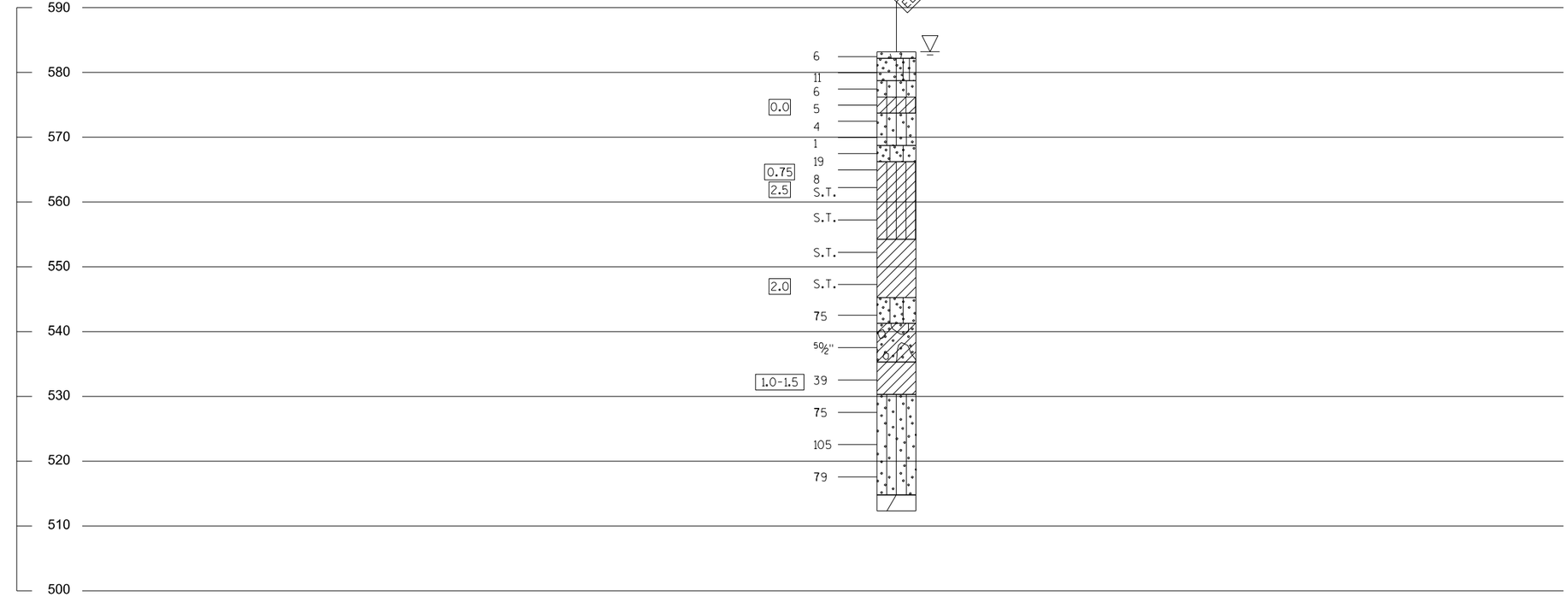

NOTE: ▽ -WATER LEVELDURING DRILLING ▽* -WATER LEVELASSUMED FROM SAMPLE

STATE PROJECT NUMBER

1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, FATCLAY, SAND, PEAT, DOLOMITE, GRAVEL, CLAY, FILL

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

BORING NO.
ELEV.
STA.
UNCONFINED STRENGTH 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE TW-5-002

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SUBSURFACE EXPLORATION

SHEET 4 OF 4
1244

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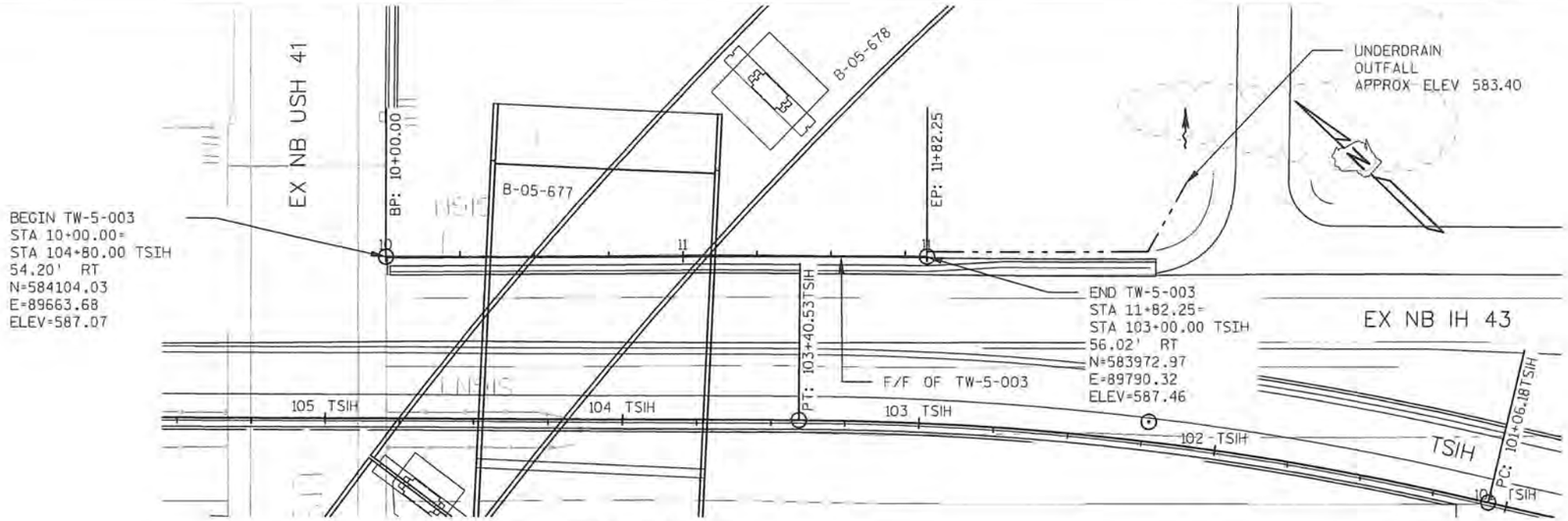
DATE: 5/22/2013

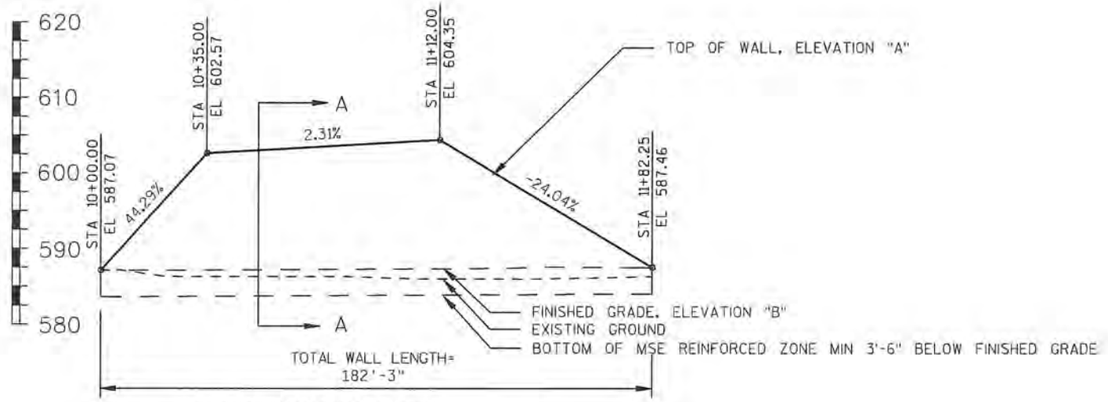
STATE PROJECT NUMBER

1133-11-74



PLAN - TW-5-003

(WIRE FACED MSE RETAINING WALL)



ELEVATION - TW-5-003

(LOOKING NORTHEAST AT FRONT FACE OF WALL)

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) 240 PSF

FOUNDATION DATA - ALLOWABLE SOIL BEARING CAPACITY
MSE WALL (SEE TABLE ON SHEET 2)

NOTE: THE WALL HAS BEEN DESIGNED FOR TRAFFIC LOADING ONLY. IF DURING CONSTRUCTION HEAVY EQUIPMENT IS OPERATING IN CLOSE PROXIMITY TO THE WALL OR IF MATERIAL IS STOCKPILED NEAR THE WALL, THE SAFETY FACTOR FOR THIS WALL WILL SIGNIFICANTLY DECREASE.

GEOMETRY TABLE

WALL STATION	TSIH STATION	OFFSET RT	TOP OF WALL ELEVATION "A"	FINISHED GRADE ELEVATION "B"
10+00.00	104+80.00	54.20	587.07	587.07
10+25.00	104+55.00	54.33	598.14	587.09
10+50.00	104+30.00	54.47	602.92	587.15
10+75.00	104+05.00	54.60	603.49	587.21
11+00.00	103+80.00	54.73	604.07	587.26
11+25.00	103+55.00	54.87	601.23	587.31
11+50.00	103+30.52	55.05	595.23	587.39
11+75.00	103+06.80	55.72	589.23	587.44
11+82.25	103+00.00	56.02	587.46	587.46

LIST OF DRAWINGS

1. GENERAL PLAN
2. DESIGN DATA & QUANTITIES
3. SUBSURFACE EXPLORATION
4. CROSS SECTIONS AND DETAILS

DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489

NE REGION CONTACT:
PAUL VRANEY (920) 492-2232

CONSULTANT CONTACT:
JIM WENDELS (715) 423-3525

WISCONSIN PROFESSIONAL ENGINEER
JAMES G WENDELS
E-35037
WISCONSIN RAPIDS WI

6/3/2013

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

QUEST

Civil Engineers, LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 06/03/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

TW-5-003

TEMPORARY MSE WALL AT NORTH ABUT B-05-677

COUNTY	TOWN/CITY/VILLAGE
BROWN	HOWARD

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AJO	JGW	AJO	JGW

GENERAL PLAN

SHEET 1 OF 4

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STATE PROJECT NUMBER
1133—11 —74

TSIH HORIZONTAL CURVE DATA

PI STA = 102+23.86 TSIH
Y = 583880.707
X = 89802.186
DELTA = 13°03'41"
D = 5°34'25"
T = 117.68'
L = 234.35
R = 1028.00
PC STA = 101+006.18 TSIH
PT STA = 103+40.53 TSIH

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEMS	UNIT	QUANTITY
SPV.0165.852	TEMPORARY WALL WIRE FACED MECHANICALLY STABILIZED EARTH	SF	2770
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	285

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

CONSTRUCT THIS WALL AFTER DRIVING PILING FOR THE NORTH ABUTMENT OF B-05-677

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "TEMPORARY WALL WIRE FACED MECHANICALLY STABILIZED EARTH".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

ALL REFERENCE LINE STATIONS FOR TW-5-003 ARE ALONG THE FRONT FACE OF WALL (UNLESS SHOWN OTHERWISE).

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 WITHOUT CERTIFIED TEST VALUES.

DESIGN RETAINING WALL TO PROVIDE FOR A FINISHED GRADE SLOPE BEHIND THE WALL AS SHOWN IN THESE PLANS AND THE ROADWAY CROSS SECTIONS.

PROPOSED STRUCTURE B-05-677 IS A 2-SPAN 72W PRESTRESSED GIRDER BRIDGE. OVERALL WIDTH = 76'-11⅛", OVERALL LENGTH = 233'-10"

BENCHMARKS

NO.	X	Y	DESCRIPTION	ELEVATION
1301	89496.17	583943.10	DISK ON PARAPET WALL	612.17

SOIL PARAMETERS

SOIL UNIT	BOTTOM ELEVATION (FEET)	SOIL UNIT WEIGHT (PCF)	UNDRAINED COHESION (PCF)	UNDRAINED FRICTION ANGLE (DEGREES)	DRAINED COHESION (PSF)	DRAINED FRICTION ANGLE (DEGREES)
NEW GRANULAR FILL	VARIES	120	---	---	0	31
EXISTING DENSE GRANULAR FILL	VARIES	120	---	---	0	31
MEDIUM DENSE SAND	576.5	110	---	---	0	30
LOOSE SILT	569	110	---	---	0	30
VERY SOFT LEAN CLAY	564	110	300	0	50	24
VERY SOFT LEAN CLAY (1)	564	110	775	0	50	26
VERY SOFT LEAN CLAY (2)	564	110	1030	0	50	26
VERY SOFT LEAN CLAY (3)	564	110	1230	0	50	28
VERY SOFT LEAN CLAY (4)	564	110	1430	0	50	28
VERY LOOSE SILT	560.4	110	---	---	0	24
SOFT TO MEDIUM STIFF CLAY	552	115	600	0	50	26
SOFT TO MEDIUM STIFF CLAY (1)	552	115	1075	0	50	26
SOFT TO MEDIUM STIFF CLAY (2)	552	115	1275	0	50	28
SOFT TO MEDIUM STIFF CLAY (3)	552	115	1475	0	50	28
SOFT TO MEDIUM STIFF CLAY (4)	552	115	1675	0	50	28
HARD CLAY WITH SAND	545.4	125	2500	0	50	28
HARD SILTY CLAY	534	125	2500	0	50	28
VERY DENSE SAND AND GRAVEL	520.6	130	---	---	0	36

NOTES:
1)ESTIMATED STRENGTH GAIN FROM PLACEMENT OF FIRST LIFT OF FILL TO EL 602 FEET
2) ESTIMATED STRENGTH GAIN FROM PLACEMENT OF SECOND LIFT OF FILL TO EL 612 FEET
3) ESTIMATED STRENGTH GAIN FROM PLACEMENT OF THIRD LIFT OF FILL TO EL 620 FEET
4) ESTIMATED STRENGTH GAIN FROM PLACEMENT OF FOURTH LIFT OF FILL TO EL 627 FEET

WALL EXTERNAL AND OVERALL STABILITY EVALUATION

DIMENSIONS	
WALL STATION	11+12
WALL HEIGHT (1) (FEET)	20.6
EXPOSED WALL HEIGHT (FEET)	17.1
MINIMUM LENGTH OF REINFORCEMENT (2) (FEET)	50
LENGTH OF REINFORCEMENT / WALL HEIGHT	2.43
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR>1.0)	1.03
ECCENTRICITY (CDR>1.0)	2.78
OVERALL STABILITY (CDR>1.0)	1.00
BEARING RESISTANCE (CDR>1.0)	2.69
FACTORED BEARING RESISTANCE (PSF)	8,000

NOTES:

1. WALL HEIGHT SHOWS ONLY THE MAXIMUM HEIGHT IN THE SECTION AND INCLUDES 3.5 FEET OF EMBEDMENT PER USH 41 BROWN COUNTY CORRIDOR MANUAL.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED FOR THE OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTOR'S RESPONSIBILITY

FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

TW-5-003

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DESIGN DATA AND QUANTITIES

SHEET 2 OF 4

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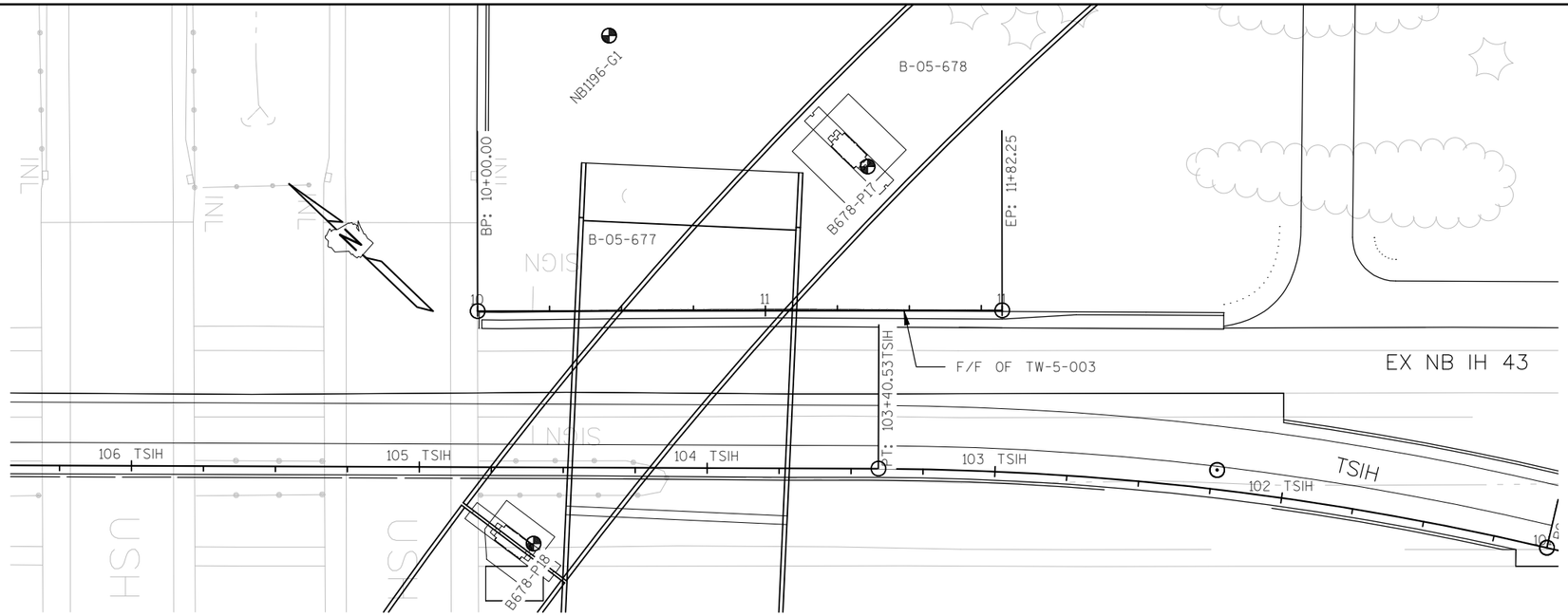

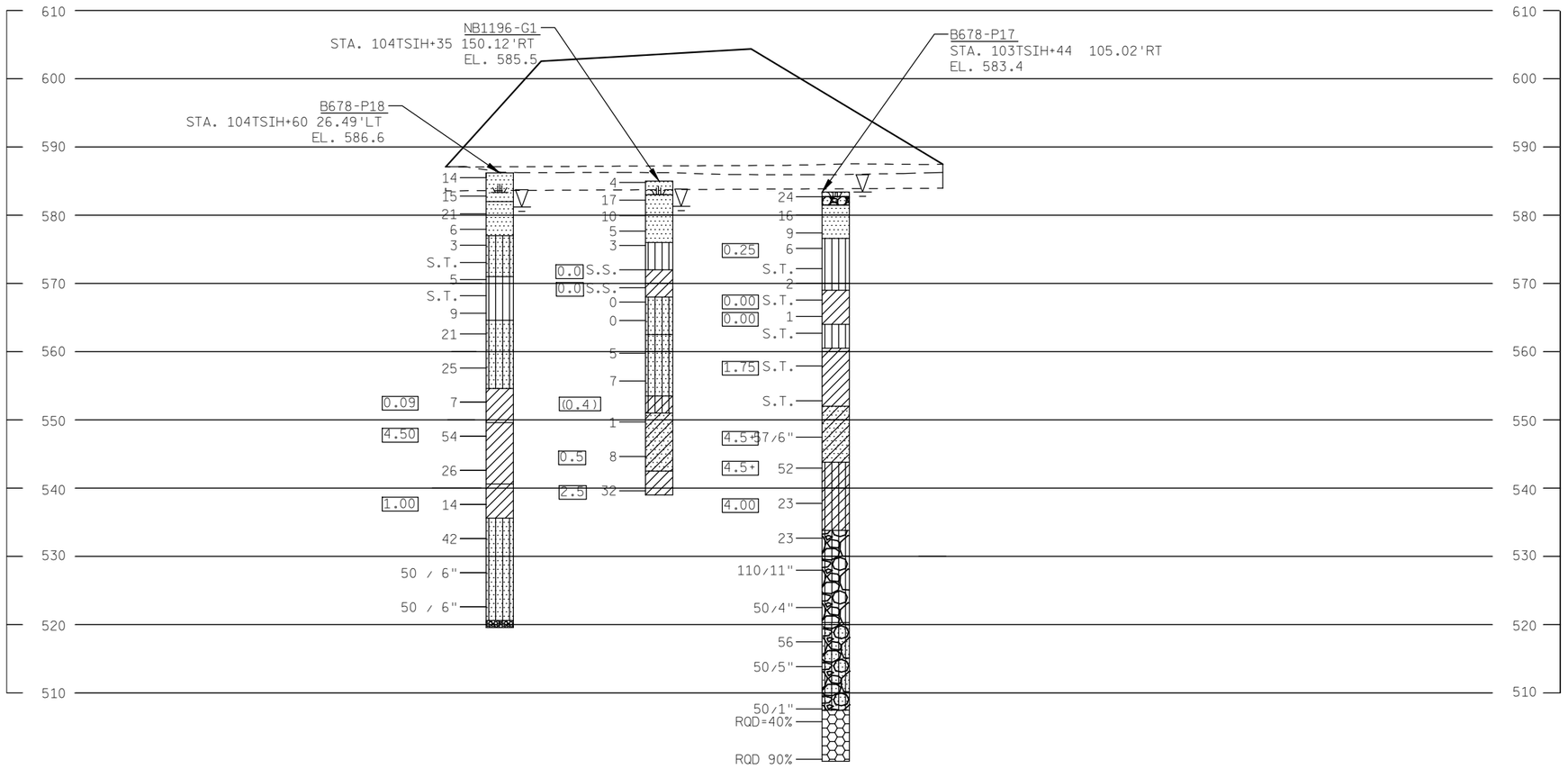

STATE PROJECT NUMBER
1133-11-74

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, BEDROCK/DOLIMITE, GRAVEL, CLAY, BOULDER

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D.POINT.

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

BORING NO.
STA.
ELEV.
UNCONFINED STRENGTH 7.7 7
BLOWS PER FT. USING 140# WT FALLING 30"
WASH SAMPLE
SANDY GRAVEL
F. BOULDERS OR COBBLE
SHELBY TUBE — S.T.
SAND
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTRIBUTED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRACTION ON THE DRIVE PIPES.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA. THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

TW-5-003

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SUBSURFACE EXPLORATION

SHEET 3 OF 4

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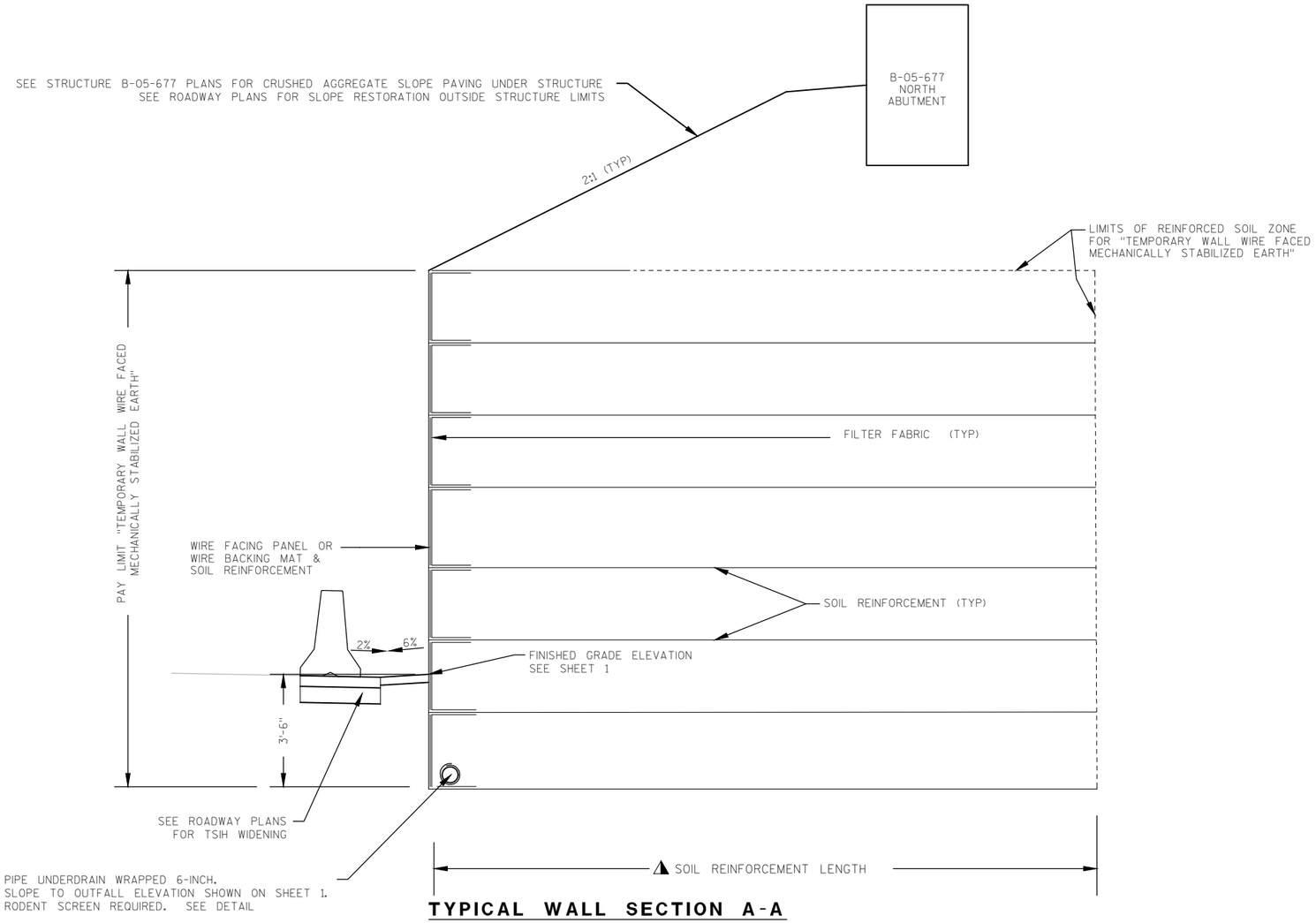
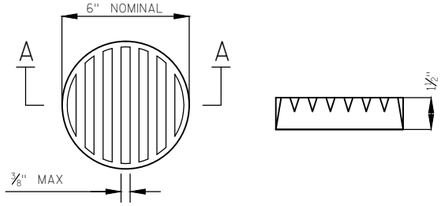
STATE PROJECT NUMBER
1133—11—74



TYPICAL WALL SECTION A-A



RODENT SCREEN DETAIL

DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING, AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH SHEET METAL SCREWS.

LEGEND

⚠ PER WISDOT, MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% OF THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH), OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS. ACTUAL CALCULATED LENGTHS OF REINFORCING STRIPS WILL NEED TO EXCEED THESE MINIMUMS IN ORDER TO SATISFY MINIMUM FACTORS OF SAFETY FOR VARIOUS MSE PARAMETERS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

TW-5-003

DRAWN BY AJO | PLANS CK'D. JGW

CROSS SECTIONS AND DETAILS

SHEET 4 OF 4

1248

8

8

Shared Use Path "BP1"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
14+50	236.1	0	0	0	0	0	0	0												
15+00	71.7	0	0	0	0	0	0	32.0	285	0	0	0	0	0	0	0	30	285	0	255
15+50	107.1	0	0	0	0	0	0	32.0	166	0	0	0	0	0	0	0	59	451	0	362
16+00	61.4	0	0	0	0	0	0	32.1	156	0	0	0	0	0	0	0	59	607	0	458
16+50	22.6	73.6	0	0	0	0	0	32.0	78	68	0	0	0	0	0	0	59	684	68	408
17+00	1.6	118.8	0	0	0	0	0	32.0	22	178	0	0	0	0	0	0	59	707	246	193
17+10	1.7	127.9	0	0	0	0	0	32.0	1	46	0	0	0	0	0	0	12	707	292	136
17+50	0.0	149.0	0	0	0	0	0	32.0	1	205	0	0	0	0	0	0	47	709	497	-115
18+00	24.6	190.9	0	0	0	0	0	32.0	23	315	0	0	0	0	0	0	59	731	812	-466
18+50	110.9	110.0	0	0	0	0	0	32.1	125	279	0	0	0	0	0	0	59	857	1091	-679
19+00	61.9	102.6	0	0	0	0	0	32.1	160	197	0	0	0	0	0	0	60	1017	1288	-775
19+50	52.1	153.2	0	0	0	0	0	0	106	237	0	0	0	0	0	0	30	1122	1524	-936
20+00	102.9	200.4	0	0	0	0	0	0	144	327	0	0	0	0	0	0	0	1266	1852	-1120
20+50	0	218.7	0	0	0	0	0	0	95	388	0	0	0	0	0	0	0	1361	2240	-1413
21+00	0	347.9	0	0	0	0	0	0	0	525	0	0	0	0	0	0	0	1361	2765	-1938
21+50	0	381.4	0	0	0	0	0	0	0	675	0	0	0	0	0	0	0	1361	3440	-2613
22+00	0	393.8	0	0	0	0	0	0	0	718	0	0	0	0	0	0	0	1361	4157	-3331
22+50	0	402.2	0	0	0	0	0	0	0	737	0	0	0	0	0	0	0	1361	4895	-4068
23+00	0	381.5	0	0	0	0	0	0	0	726	0	0	0	0	0	0	0	1361	5620	-4793
23+50	0	353.8	0	0	0	0	0	0	0	681	0	0	0	0	0	0	0	1361	6301	-5474
a24+00	0	343.5	0	0	0	0	0	0	0	634	0	0	0	0	0	0	0	1361	6935	-6108
a24+50	0	247.0	0	0	0	0	0	0	0	547	0	0	0	0	0	0	0	1361	7482	-6655
a25+00	0	211.4	0	0	0	0	0	0	0	424	0	0	0	0	0	0	0	1361	7906	-7079
a25+22	0	198.7	0	0	0	0	0	0	0	167	0	0	0	0	0	0	0	1361	8073	-7246
a25+50	0	180.5	0	0	0	0	0	0	0	197	0	0	0	0	0	0	0	1361	8270	-7443
a26+00	0	155.3	0	0	0	0	0	0	0	311	0	0	0	0	0	0	0	1361	8581	-7754
a26+50	0	138.8	0	0	0	0	0	0	0	272	0	0	0	0	0	0	0	1361	8853	-8026
a27+00	0	124.4	0	0	0	0	0	0	0	244	0	0	0	0	0	0	0	1361	9097	-8270
a27+50	0.8	117.2	0	0	0	0	0	0	1	224	0	0	0	0	0	0	0	1362	9320	-8493
a28+00	2.1	107.7	0	0	0	0	0	0	3	208	0	0	0	0	0	0	0	1365	9529	-8698
a28+21	2.1	107.7	0	0	0	0	0	0	2	84	0	0	0	0	0	0	0	1366	9612	-8780
Column Totals									1366	9612	0	0	0	0	0	0	534			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

East Deerfield Ave "EDR"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
28+18	0	0	0	0	0	0	0	0												
28+40	1.6	91.9	0	0	0	0	0	0	1	37	0	0	0	0	0	0	0	1	37	-37
28+50	10.9	50.7	0	0	0	0	0	0	2	26	0	0	0	0	0	0	0	3	64	-61
28+65	34.9	42.3	0	0	0	0	0	0	13	26	0	0	0	0	0	0	0	16	90	-74
29+00	57.0	12.1	0	0	0	0	0	0	60	35	0	0	0	0	0	0	0	75	125	-50
29+50	78.7	0	0	0	0	0	0	0	126	11	0	0	0	0	0	0	0	201	136	65
30+00	73.2	0	0	0	0	0	0	0	141	0	0	0	0	0	0	0	0	341	136	205
30+50	7.9	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	417	136	280
							Column Totals		417	136	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

Short-Term Temporary NB USH 41 Off-Ramp to Velp Ave "EVEA"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1166+00	0	0	0	0	0	0	0	0												
1166+50	20.9	96.9	0	0	0	0	0	0	19	90	0	0	0	0	0	0	0	19	90	-70
1167+00	28.3	120.0	0	0	0	0	0	0	46	201	0	0	0	0	0	0	0	65	291	-226
1167+50	28.1	149.4	0	0	0	0	0	0	52	249	0	0	0	0	0	0	0	117	540	-423
1168+00	28.5	171.9	0	0	0	0	0	0	52	297	0	0	0	0	0	0	0	170	838	-668
1168+50	127.1	246.7	372.7	448.5	0	0	0	0	144	388	345	415	0	0	0	0	0	314	1225	-1257
1169+00	157.5	271.9	468.7	469.2	0	0	0	0	263	480	779	850	0	0	0	0	0	577	1705	-2252
1169+50	159.0	301.6	511.3	465.9	0	0	0	0	293	531	907	866	0	0	0	0	0	870	2236	-3398
1170+00	161.1	319.1	583.3	467.7	0	0	0	0	296	575	1013	864	0	0	0	0	0	1166	2811	-4690
1170+50	0	359.9	649.0	487.4	0	0	0	0	149	629	1141	884	0	0	0	0	0	1316	3440	-6310
1171+00	0.9	309.9	759.5	511.8	0	0	0	0	1	620	1304	925	0	0	0	0	0	1317	4060	-8234
1171+50	10.1	232.9	897.6	542.8	0	0	0	0	10	503	1534	977	0	0	0	0	0	1327	4563	-10260
1172+00	90.3	102.3	1124.6	570.0	0	0	0	0	93	310	1872	1030	0	0	0	0	0	1420	4873	-12350
1172+50	236.5	55.5	1325.2	589.3	0	0	0	0	303	146	2268	1073	0	0	0	0	0	1722	5019	-14462
1173+00	282.3	13.8	0	0	0	0	0	0	480	64	1227	546	0	0	0	0	0	2203	5083	-15273
1173+50	274.4	0	0	0	0	0	0	0	515	13	0	0	0	0	0	0	0	2718	5096	-14770
1173+75	238.9	4.3	0	0	0	0	0	0	238	2	0	0	0	0	0	0	0	2956	5098	-14534
1173+92	0	0	0	0	0	0	0	0	75	1	0	0	0	0	0	0	0	3031	5099	-14460
						Column Totals			3031	5099	12392	8431	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

Temporary NB USH 41 On-Ramp from Velp Ave "EVEB"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1175+00	145.0	78.3	0	0	0	0	0	0												
1175+50	430.2	35.6	0	0	0	0	0	0	533	105	0	0	0	0	0	0	0	533	105	427
1176+00	611.3	0	0	0	0	0	0	0	964	33	0	0	0	0	0	0	0	1497	138	1358
1176+50	637.2	6.9	0	0	0	0	0	0	1156	6	0	0	0	0	0	0	0	2653	145	2508
1177+00	588.9	33.4	0	0	0	0	0	0	1135	37	0	0	0	0	0	0	0	3788	182	3606
1177+50	309.8	132.7	0	0	0	0	0	0	832	154	0	0	0	0	0	0	0	4620	336	4284
1178+00	239.8	251.0	0	0	0	0	0	0	509	355	0	0	0	0	0	0	0	5129	691	4438
1178+50	194.5	356.4	0	0	0	0	0	0	402	562	0	0	0	0	0	0	0	5531	1254	4278
1179+00	236.7	607.6	0	0	0	0	0	0	399	893	0	0	0	0	0	0	0	5931	2146	3784
1179+50	175.5	1001.7	0	0	0	0	0	0	382	1490	0	0	0	0	0	0	0	6312	3637	2676
1180+00	123.2	1139.0	0	0	0	0	0	0	277	1982	0	0	0	0	0	0	0	6589	5619	970
1180+50	76.2	1439.8	0	0	0	0	0	0	185	2388	0	0	0	0	0	0	0	6774	8006	-1233
1180+80	70.8	1633.8	0	0	0	0	0	0	82	1708	0	0	0	0	0	0	0	6855	9714	-2859
1181+00	70.8	1705.5	0	0	256.8	292.7	5.2	0	52	1237	0	0	95	108	2	0	0	6908	10951	-4056
1181+15	68.4	1632.0	0	0	260.5	295.3	6.4	0	39	927	0	0	144	163	3	0	0	6946	11878	-4964
1181+50	55.7	1799.2	0	0	269.2	301.5	9.3	0	80	2224	0	0	343	387	10	0	0	7027	14102	-7151
1182+00	55.4	1911.2	0	0	268.2	302.4	18.7	0	103	3435	0	0	498	559	26	0	0	7130	17537	-10546
1182+50	130.9	1879.2	0	0	313.6	488.2	9.8	0	172	3510	0	0	539	732	26	0	0	7302	21047	-14076
1183+00	96.4	2100.3	0	0	320.6	427.9	20.8	0	210	3685	0	0	587	848	28	0	0	7513	24732	-17811
1183+50	74.6	2457.2	0	0	324.3	245.6	110.2	0	158	4220	0	0	597	624	121	0	0	7671	28952	-21899
1184+00	79.0	2556.4	0	0	325.7	267.1	91.0	0	142	4642	0	0	602	475	186	0	0	7813	33594	-26272
1184+50	34.0	2061.6	0	0	301.7	159.5	78.2	0	105	4276	0	0	581	395	157	0	0	7918	37870	-30258
1184+60	29.9	1602.8	0	0	0	0	0	0	12	679	0	0	56	30	14	0	0	7930	38548	-30898
1184+86	0	0	0	0	0	0	0	0	14	772	0	0	0	0	0	0	0	7944	39320	-31656
								Column Totals	7944	39320	0	0	4041	4321	575	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

WB Velp Ave "EVEW"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
200+15	0	0	0	0	0	0	0	0												
200+25	13.2	37.3	0	0	0	0	0	0	2	7	0	0	0	0	0	0	0	2	7	-4
200+50	368.7	5.0	0	0	0	0	0	0	177	20	0	0	0	0	0	0	0	179	26	153
201+00	286.7	78.0	0	0	0	0	0	0	607	77	0	0	0	0	0	0	0	786	103	683
201+50	413.1	74.6	0	0	0	0	0	0	648	141	0	0	0	0	0	0	0	1434	245	1190
202+00	387.7	17.8	0	0	0	0	0	0	742	86	0	0	0	0	0	0	0	2176	330	1845
202+50	199.7	3.4	0	0	0	0	0	0	544	20	0	0	0	0	0	0	0	2720	350	2370
203+00	92.4	5.0	0	0	0	0	0	0	270	8	0	0	0	0	0	0	0	2990	358	2632
203+50	58.6	8.0	0	0	0	0	0	0	140	12	0	0	0	0	0	0	0	3130	370	2760
203+75	55.9	1.2	0	0	0	0	0	0	53	4	0	0	0	0	0	0	0	3183	374	2809
203+92	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	3200	374	2826
							Column Totals		3200	374	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

Hurlbut St "HB"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
68+00	75.4	6.7	0	0	0	0	0	0												
68+25	74.4	7.4	0	0	0	0	0	0	69	7	0	0	0	0	0	0	0	69	7	63
68+50	80.6	37.1	0	0	0	0	0	0	72	21	0	0	0	0	0	0	0	141	27	114
68+75	82.8	53.9	0	0	0	0	0	0	76	42	0	0	0	0	0	0	0	217	69	148
69+00	77.7	54.0	0	0	0	0	0	0	74	50	0	0	0	0	0	0	0	291	119	172
69+17	60.0	89.5	0	0	0	0	0	0	43	45	0	0	0	0	0	0	0	334	164	170
69+25	43.7	65.9	0	0	0	0	0	0	15	23	0	0	0	0	0	0	0	350	187	162
69+50	2.2	125.3	0	0	0	0	0	0	21	89	0	0	0	0	0	0	0	371	276	95
69+80	0	0	0	0	0	0	0	0	1	70	0	0	0	0	0	0	0	372	346	27
							Column Totals		372	346	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

NB USH 41 - SB IH 43 flyover ramp "IHA"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1162+45	0	0	0	0	0	0	0	0												
1162+50	17.3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
1163+00	7.6	133.4	0	0	0	0	0	0	23	123	0	0	0	0	0	0	0	25	123	-99
1163+50	8.1	173.8	0	0	0	0	0	0	14	284	0	0	0	0	0	0	0	39	408	-369
1164+00	8.1	217.6	0	0	0	0	0	0	15	362	0	0	0	0	0	0	0	54	770	-716
1164+50	8.3	257.9	0	0	0	0	0	0	15	440	0	0	0	0	0	0	0	69	1211	-1141
1165+00	10.6	304.7	0	0	0	0	0	0	18	521	0	0	0	0	0	0	0	87	1732	-1645
1165+50	8.1	358.8	0	0	0	0	0	0	17	614	0	0	0	0	0	0	0	104	2346	-2242
1166+00	8.7	407.9	0	0	0	0	0	0	16	710	0	0	0	0	0	0	0	120	3056	-2936
1166+50	8.9	433.4	0	0	0	0	0	0	16	779	0	0	0	0	0	0	0	136	3835	-3699
1167+00	9.3	480.3	0	0	0	0	0	0	17	846	0	0	0	0	0	0	0	153	4681	-4528
1167+50	10.7	609.9	0	0	0	0	0	0	18	1009	0	0	0	0	0	0	0	171	5690	-5519
1168+00	11.7	835.5	0	0	0	0	0	0	21	1338	0	0	0	0	0	0	0	192	7028	-6836
1168+50	23.2	1042.4	0	0	0	0	0	0	32	1739	0	0	0	0	0	0	0	224	8767	-8543
1169+00	15.4	1404.5	0	0	0	0	0	0	36	2266	0	0	0	0	0	0	0	260	11033	-10773
1169+50	9.8	1843.6	0	0	0	0	0	0	23	3007	0	0	0	0	0	0	0	283	14040	-13757
1170+00	5.0	2120.1	0	0	0	0	0	0	14	3670	0	0	0	0	0	0	0	297	17710	-17413
1170+50	4.2	2473.1	0	0	0	0	0	0	8	4253	0	0	0	0	0	0	0	306	21963	-21658
1171+00	3.1	2840.6	0	0	0	0	0	0	7	4920	0	0	0	0	0	0	0	312	26883	-26571
1171+50	4.5	3167.4	0	0	0	0	0	0	7	5563	0	0	0	0	0	0	0	319	32446	-32127
1172+00	8.5	3279.1	0	0	192.3	779.9	0	0	12	5969	0	0	178	722	0	0	0	331	38415	-38628
1172+50	11.8	3000.6	0	0	205.1	891.4	0	0	19	5815	0	0	368	1547	0	0	0	350	44230	-45603
1172+75	0	2765.9	0	0	211.3	907.4	0	0	5	2670	0	0	193	833	0	0	0	356	46900	-48907
1173+00	0	0	0	0	175.0	0	0	0	0	1281	0	0	179	420	0	0	0	356	48180	-50429
1173+02	0	0	0	0	175.0	0	0	0	0	0	0	0	13	0	0	0	0	356	48180	-50416
B-05-671																				
1196+60	0	1009.5	601.1	0	138.0	0	0	0												
1196+75	0	830.5	923.7	0	149.0	0	0	0	0	511	424	0	80	0	0	0	0	0	48691	-51271
1197+00	0	493.7	1064.0	0	124.2	0	0	0	0	613	920	0	127	0	0	0	0	0	49304	-52678
1197+08	0	377.1	1043.8	0	84.5	0	0	0	0	129	312	0	31	0	0	0	0	0	49433	-53088
1197+25	0	208.0	0	0	0	0	0	0	0	184	329	0	27	0	0	0	0	0	49617	-53574
1197+50	0	0	0	0	0	0	0	0	0	96	0	0	0	0	0	0	0	0	49714	-53671
R-05-084	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4025	0	0	49714	-49646
R-05-255	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1261	0	0	49714	-48385
R-05-257	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2403	0	0	49714	-45982
							Column Totals		356	49714	1985	0	1194	3522	0	7689	0			

NB USH 41 - SB IH 43 flyover ramp "IHA" - median widening

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1168+00	0	0	0	0	0	0	0	0												
1168+50	37.3	1.3	0	0	0	0	0	0	35	1	0	0	0	0	0	0	0	35	1	33
1169+00	49.8	0	0	0	0	0	0	0	81	1	0	0	0	0	0	0	0	115	2	113
1169+50	42.9	0	0	0	0	0	0	0	86	0	0	0	0	0	0	0	0	201	2	199
1170+00	37.0	2.5	0	0	0	0	0	0	74	2	0	0	0	0	0	0	0	275	5	270
1170+50	31.3	2.9	0	0	0	0	0	0	63	5	0	0	0	0	0	0	0	338	10	328
1171+00	27.5	2.5	0	0	0	0	0	0	55	5	0	0	0	0	0	0	0	393	15	378
1171+50	25.2	0	0	0	0	0	0	0	49	2	0	0	0	0	0	0	0	441	17	424
1172+00	27.4	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	490	17	473
1172+50	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	516	17	498
							Column Totals		516	17	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

NB IH 43 - SB USH 41 flyover ramp "IHB"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1169+50	0	0	0	0	0	0	0	0												
1170+00	0	63.0	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	58	-58
1170+50	0	80.4	0	0	0	0	0	0	0	133	0	0	0	0	0	0	0	0	191	-191
1171+00	0.8	91.3	0	0	0	0	0	0	1	159	0	0	0	0	0	0	0	1	350	-349
1171+50	0	98.9	0	0	0	0	0	0	1	176	0	0	0	0	0	0	0	2	526	-524
1172+00	0	196.1	376.3	0	209.1	0	0	0	0	273	348	0	194	0	0	0	0	2	799	-952
1172+50	0	235.0	429.6	0	236.1	0	0	0	0	399	746	0	412	0	0	0	0	2	1198	-1686
1173+00	0	312.8	426.6	0	252.8	0	0	0	0	507	793	0	453	0	0	0	0	2	1706	-2533
1173+50	0	372.3	344.5	0	247.1	0	0	0	0	634	714	0	463	0	0	0	0	2	2340	-3418
1174+00	0	450.7	301.5	0	247.2	0	0	0	0	762	598	0	458	0	0	0	0	2	3102	-4321
1174+50	2.4	553.5	267.8	0	247.3	0	0	0	2	930	527	0	458	0	0	0	0	4	4032	-5317
1175+00	7.0	526.7	364.6	0	244.4	0	0	0	9	1000	586	0	455	0	0	0	0	13	5032	-6439
1175+50	7.6	500.6	419.3	0	252.7	0	0	0	14	951	726	0	460	0	0	0	0	26	5983	-7642
1176+00	4.7	635.7	384.3	0	263.2	0	0	0	11	1052	744	0	478	0	0	0	0	38	7035	-8950
1176+50	8.1	765.8	331.8	0	272.2	0	0	0	12	1298	663	0	496	0	0	0	0	49	8333	-10403
1177+00	8.1	765.8	331.8	0	272.2	0	0	0	15	1418	614	0	504	0	0	0	0	64	9751	-11916
1177+33	8.1	765.8	331.8	0	272.2	0	0	0	10	936	406	0	333	0	0	0	0	74	10687	-12915
B-678 E. berm	0	0	0	0	0	0	0	0	0	224	0	0	300	0	0	0	0	74	10911	-12840
Column Totals									74	10911	7465	0	5463	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

NB USH 41 Widening and Cross Over "NBC" & "NBF"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
79+50	0	0	0	0	0	0	0	0												
80+00	31.4	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	29	0	29
80+50	29.8	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	86	0	86
81+00	30.0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	141	0	141
81+50	32.6	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	199	0	199
82+00	35.2	0	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	262	0	262
82+50	17.4	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	311	0	311
83+00	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	327	0	327
Railroad																				
85+90	34.8	0	0	0	0	0	0	0												
86+10	34.8	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	353	0	353
86+50	27.7	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	399	0	399
87+00	28.3	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	451	0	451
87+50	28.0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	503	0	503
88+00	27.0	0	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	554	0	554
88+50	26.9	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	604	0	604
89+00	26.4	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	653	0	653
89+50	30.8	0	0	0	0	0	0	0	53	0	0	0	0	0	0	0	0	706	0	706
90+00	30.4	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	763	0	763
90+50	30.4	0	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	819	0	819
91+00	28.7	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	874	0	874
91+50	27.3	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	925	0	925
92+00	28.2	0	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	977	0	977
92+50	29.3	0	0	0	0	0	0	0	53	0	0	0	0	0	0	0	0	1030	0	1030
92+73	29.3	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	1055	0	1055
Wietor Dr																				
95+35	22.3	26.1	0	0	0	0	0	0												
95+50	22.3	26.1	0	0	0	0	0	0	12	14	0	0	0	0	0	0	0	1067	14	1053
96+00	28.4	0	0	0	0	0	0	0	47	24	0	0	0	0	0	0	0	1114	39	1075
96+50	25.7	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	1164	39	1125
97+00	25.2	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	1212	40	1172
97+50	18.5	3.1	0	0	0	0	0	0	40	3	0	0	0	0	0	0	0	1252	43	1209
98+00	23.2	5.3	0	0	0	0	0	0	39	8	0	0	0	0	0	0	0	1291	51	1240
98+50	46.0	6.0	0	0	0	0	0	0	64	10	0	0	0	0	0	0	0	1355	61	1294
99+00	91.4	0	0	0	0	0	0	0	127	6	0	0	0	0	0	0	0	1482	67	1415
99+50	87.8	0	0	0	0	0	0	0	166	0	0	0	0	0	0	0	0	1648	67	1581
100+00	64.5	8.9	0	0	0	0	0	0	141	9	0	0	0	0	0	0	0	1789	75	1713
								Column Totals	1789	75	0	0	0	0	0	0	0			

NB IH 43 - NB USH 41 ramp "NIH"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1178+40	0	0	0	0	0	0	0	0												
1178+50	152.5	125.1	328.8	0	0	0	0	0	28	23	61	0	0	0	0	0	0	28	23	-56
1179+00	86.3	148.9	334.7	0	0	0	0	0	221	254	614	0	0	0	0	0	0	249	277	-703
1179+50	81.6	193.3	335.1	0	133.7	0	0	0	155	317	620	0	124	0	0	0	0	405	594	-1361
1180+00	69.0	251.6	329.9	0	143.3	0	0	0	139	412	616	0	256	0	0	0	0	544	1006	-1992
1180+50	70.3	278.7	304.9	0	117.6	0	0	0	129	491	588	0	242	0	0	0	0	673	1497	-2701
1181+00	84.8	371.3	253.7	0	119.2	0	0	0	144	602	517	0	219	0	0	0	0	817	2099	-3457
1181+50	98.0	415.3	266.2	0	124.0	0	0	0	169	728	481	0	225	0	0	0	0	986	2827	-4272
1182+00	122.0	476.9	267.9	0	130.7	0	0	0	204	826	495	0	236	0	0	0	0	1190	3653	-5153
1182+50	111.4	534.0	284.8	0	134.5	0	0	0	216	936	512	0	246	0	0	0	0	1406	4589	-6139
1183+00	81.1	586.2	337.0	0	138.4	0	0	0	178	1037	576	0	253	0	0	0	0	1584	5626	-7321
1183+50	16.6	699.8	324.3	0	146.9	0	0	0	90	1191	612	0	264	0	0	0	0	1675	6817	-8770
1184+00	18.5	796.4	324.4	0	151.6	0	0	0	32	1385	601	0	276	0	0	0	0	1707	8202	-10447
1184+50	19.8	908.4	332.3	0	159.9	0	0	0	36	1579	608	0	288	0	0	0	0	1743	9781	-12309
1185+00	22.0	1040.7	352.1	0	171.3	0	0	0	39	1805	634	0	307	0	0	0	0	1781	11586	-14402
1185+50	21.5	1203.8	381.3	0	185.8	0	0	0	40	2078	679	0	331	0	0	0	0	1822	13664	-16789
1186+00	22.4	1386.2	387.4	0	202.2	0	0	0	41	2398	712	0	359	0	0	0	0	1862	16062	-19499
1186+50	25.8	1574.8	403.4	0	220.4	0	0	0	45	2742	732	0	391	0	0	0	0	1907	18804	-22537
1187+00	25.4	1809.9	411.5	0	242.1	0	0	0	47	3134	755	0	428	0	0	0	0	1954	21938	-25950
1187+25	21.6	1413.9	370.0	0	207.0	0	0	0	22	1493	362	0	208	0	0	0	0	1976	23430	-27574
1187+40	21.6	1413.9	370.0	0	186.0	0	0	0	12	785	206	0	109	0	0	0	0	1988	24216	-28444
1187+88	10.8	706.9	185.0	0	93.0	0	0	0	29	1885	493	0	248	0	0	0	0	2017	26101	-30546
B-679 E. berm	0	0	0	0	0	0	0	0	0	1026	0	0	350	0	0	0	0	2017	27127	-31222
R-05-256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3120	0	2017	27127	-28102
								Column Totals	2017	27127	11473	0	5361	0	0	3120	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

NB USH 41 "NMC"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1185+65	0	0	0	0	0	0	0	0												
1186+00	0	1666.8	0	0	283.4	188.4	4.4	0	0	1080	0	0	184	122	3	0	0	0	1080	-1022
1186+50	0	2228.2	0	0	304.9	233.3	11.2	0	0	3607	0	0	545	390	14	0	0	0	4687	-4488
1187+00	0	2222.0	0	0	303.9	225.9	4.4	0	0	4121	0	0	564	425	14	0	0	0	8807	-8485
1187+50	0	2208.5	0	0	0	0	0	0	0	4102	0	0	281	209	4	0	0	0	12910	-12519
1188+00	0	2250.5	0	0	0	0	0	0	0	4129	0	0	0	0	0	0	0	0	17038	-16648
1188+50	0	2310.8	0	0	0	0	0	0	0	4223	0	0	0	0	0	0	0	0	21262	-20871
1189+00	0	2399.7	0	0	0	0	0	0	0	4362	0	0	0	0	0	0	0	0	25623	-25232
1189+50	0	2510.8	0	0	0	0	0	0	0	4547	0	0	0	0	0	0	0	0	30170	-29779
1190+00	0	2661.1	0	0	0	0	0	0	0	4789	0	0	0	0	0	0	0	0	34959	-34568
1190+50	0	3168.1	0	0	0	0	0	0	0	5397	0	0	0	0	0	0	0	0	40356	-39965
1191+00	0	3493.4	0	0	0	0	0	0	0	6168	0	0	0	0	0	0	0	0	46524	-46133
1191+50	0	3854.0	0	0	0	0	0	0	0	6803	0	0	0	0	0	0	0	0	53327	-52937
1192+00	0	4174.4	0	0	0	0	0	0	0	7434	0	0	0	0	0	0	0	0	60761	-60370
1192+50	0	4567.3	0	0	0	0	0	0	0	8094	0	0	0	0	0	0	0	0	68855	-68464
1192+83 B-05-677	0	4567.3	0	0	0	0	0	0	0	5582	0	0	0	0	0	0	0	0	74438	-74047
1195+35	0	6959.6	1315.2	0	489.0	0	0	0												
1195+60	0	6959.6	1315.2	0	489.0	0	0	0	0	6444	1218	0	453	0	0	0	0	0	80882	-81256
1196+00	0	6728.4	1617.2	0	494.6	0	0	0	0	10139	2172	0	729	0	0	0	0	0	91021	-92839
1196+50	0	6864.7	1748.3	0	504.9	0	0	0	0	12586	3116	0	925	0	0	0	0	0	103607	-107616
1197+00	0	7069.3	1789.1	0	518.1	0	0	0	0	12902	3275	0	947	0	0	0	0	0	116509	-122846
1197+50	0	7268.4	1782.2	0	531.1	0	0	0	0	13276	3307	0	972	0	0	0	0	0	129785	-138457
1198+00	0	7252.0	1751.6	0	534.3	0	0	0	0	13445	3272	0	987	0	0	0	0	0	143229	-154187
1198+50	0	7072.0	1756.6	0	528.5	0	0	0	0	13263	3248	0	984	0	0	0	0	0	156492	-169714
1199+00	0	6646.5	1823.6	0	508.8	0	0	0	0	12702	3315	0	960	0	0	0	0	0	169195	-184771
1199+50	0	5650.5	1758.1	0	475.9	0	0	0	0	11386	3316	0	912	0	0	0	0	0	180581	-198562
1200+00	0	3174.5	1811.6	0	425.3	0	0	0	0	8171	3305	0	834	0	0	0	0	0	188752	-209204
1200+50	0	1125.9	1829.3	0	338.2	0	0	0	0	3982	3371	0	707	0	0	0	0	0	192734	-215850
1200+85	0	0	0	0	0	0	0	0	0	730	1186	0	219	0	0	0	0	0	193464	-217546
Loop Ramp 1200+00	0	0	0	0	0	0	0	0												
1200+25	54.7	87.4	552.6	0	58.4	0	0	0	25	40	256	0	27	0	0	0	0	25	193504	-217790
1200+50	14.4	300.1	859.4	0	97.9	0	0	0	32	179	654	0	72	0	0	0	0	57	193683	-218519
1201+00	27.2	1431.6	1647.1	0	208.1	0	0	0	38	1603	2321	0	283	0	0	0	0	96	195287	-222121
1201+50	11.1	4649.7	3238.8	0	452.0	0	0	0	35	5631	4524	0	611	0	0	0	0	131	200918	-231629
1202+00	4.5	8208.0	3016.6	0	597.1	0	0	0	14	11905	5792	0	971	0	0	0	0	146	212823	-248341
1202+50	5.5	7036.7	2746.8	0	545.9	0	0	0	9	14116	5337	0	1058	0	0	0	0	155	226938	-266725
1203+00 B-05-681	6.9	4471.3	2160.9	0	403.4	0	0	0	12	10656	4544	0	879	0	0	0	0	166	237594	-281035

NB USH 41 "NMC" CONTINUED

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1220+42	0	0	0	0	0	0	0	0												
1220+50	0	2179.0	650.9	0	444.3	0	0	0	0	323	96	0	66	0	0	0	0	166	237917	-281388
1221+00	0	1769.4	560.9	0	421.5	0	0	0	0	3656	1122	0	802	0	0	0	0	166	241573	-285364
1221+50	0	1585.7	613.0	0	399.5	0	0	0	0	3107	1087	0	760	0	0	0	0	166	244679	-288798
1222+00	0	1301.3	0	0	382.7	199.4	30.7	0	0	2673	568	0	724	185	28	0	0	166	247352	-291527
1222+50	0	1042.9	0	0	363.5	202.8	13.1	0	0	2171	0	0	691	372	41	0	0	166	249523	-293420
1223+00	0	792.3	0	0	348.1	171.1	34.6	0	0	1699	0	0	659	346	44	0	0	166	251222	-294851
1223+50	0	606.9	0	0	332.8	159.2	27.8	0	0	1296	0	0	631	306	58	0	0	166	252518	-295879
1224+00	0	508.5	0	0	272.5	191.9	6.1	0	0	1033	0	0	560	325	31	0	0	166	253551	-296708
1224+50	0	421.8	0	0	0	0	0	0	0	861	0	0	252	178	6	0	0	166	254412	-297500
1225+00	0	330.4	0	0	0	0	0	0	0	696	0	0	0	0	0	0	0	166	255109	-298197
1225+22	0	301.0	0	0	0	0	0	0	0	257	0	0	0	0	0	0	0	166	255366	-298454
1225+50	0	262.8	0	0	0	0	0	0	0	292	0	0	0	0	0	0	0	166	255658	-298746
1226+00	0	215.3	0	0	0	0	0	0	0	443	0	0	0	0	0	0	0	166	256101	-299189
1226+50	0	178.0	0	0	0	0	0	0	0	364	0	0	0	0	0	0	0	166	256465	-299553
1227+00	2.1	146.2	0	0	0	0	0	0	2	300	0	0	0	0	0	0	0	168	256765	-299851
1227+50	14.4	126.3	0	0	0	0	0	0	15	252	0	0	0	0	0	0	0	184	257017	-300088
1227+95	33.8	114.5	0	0	0	0	0	0	40	201	0	0	0	0	0	0	0	224	257218	-300249
1228+00	36.6	112.9	0	0	0	0	0	0	7	21	0	0	0	0	0	0	0	230	257239	-300263
1228+50	0	157.5	0	0	0	0	0	0	34	250	0	0	0	0	0	0	0	264	257489	-300480
1229+00	0	160.0	0	0	0	0	0	0	0	294	0	0	0	0	0	0	0	264	257783	-300774
1229+50	3.1	145.9	0	0	0	0	0	0	3	283	0	0	0	0	0	0	0	267	258067	-301054
1230+00	4.3	141.6	0	0	0	0	0	0	7	266	0	0	0	0	0	0	0	274	258333	-301314
1230+50	4.7	126.6	0	0	0	0	0	0	8	248	0	0	0	0	0	0	0	282	258581	-301554
1231+00	7.0	112.0	0	0	0	0	0	0	11	221	0	0	0	0	0	0	0	293	258802	-301764
1231+50	10.7	88.1	0	0	0	0	0	0	16	185	0	0	0	0	0	0	0	310	258987	-301933
1232+00	14.0	77.3	0	0	0	0	0	0	23	153	0	0	0	0	0	0	0	333	259141	-302063
1232+50	16.2	61.9	0	0	0	0	0	0	28	129	0	0	0	0	0	0	0	361	259269	-302164
1233+00	17.9	41.4	0	0	0	0	0	0	32	96	0	0	0	0	0	0	0	392	259365	-302228
1233+50	19.1	34.4	0	0	0	0	0	0	34	70	0	0	0	0	0	0	0	426	259435	-302264
1234+00	19.1	31.7	0	0	0	0	0	0	35	61	0	0	0	0	0	0	0	462	259496	-302289
1234+50	21.2	39.2	0	0	0	0	0	0	37	66	0	0	0	0	0	0	0	499	259562	-302318
1235+00	0	0	0	0	0	0	0	0	20	36	0	0	0	0	0	0	0	519	259598	-302334
B-681 S. bern	0	0	0	0	0	0	0	0	0	1658	0	0	800	0	0	0	0	519	261256	-303192
B-681 N. bern	0	0	0	0	0	0	0	0	0	289	0	0	0	0	0	0	0	519	261545	-303481
							Column Totals		519	261545	60402	0	21050	2859	244	0	0			

Rosewood St "ROS"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
10+20	65.3	0	0	0	0	0	0	0												
10+50	64.1	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	72	0	72
11+00	64.5	1.7	0	0	0	0	0	0	119	2	0	0	0	0	0	0	0	191	2	189
11+50	57.4	31.5	0	0	0	0	0	0	113	31	0	0	0	0	0	0	0	304	32	272
12+00	51.9	29.7	0	0	0	0	0	0	101	57	0	0	0	0	0	0	0	405	89	316
12+50	47.1	16.6	0	0	0	0	0	0	92	43	0	0	0	0	0	0	0	497	132	365
13+00	91.2	9.9	0	0	0	0	0	0	128	25	0	0	0	0	0	0	0	625	156	468
13+50	91.7	8.8	0	0	0	0	0	0	169	17	0	0	0	0	0	0	0	794	174	620
14+00	204.0	5.2	0	0	0	0	0	0	274	13	0	0	0	0	0	0	0	1068	187	881
14+45	0	0	0	0	0	0	0	0	170	4	0	0	0	0	0	0	0	1238	191	1047
						Column Totals			1238	191	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

Long-Term Temporary NB USH 41 Off-Ramp to Velp "RVEA"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
1161+25	9.5	1.0	0	0	0	0	0	0												
1161+50	12.7	7.7	0	0	0	0	0	0	10	4	0	0	0	0	0	0	0	10	4	6
1162+00	13.8	27.2	0	0	0	0	0	0	25	32	0	0	0	0	0	0	0	35	36	-1
1162+50	13.8	49.2	0	0	0	0	0	0	26	71	0	0	0	0	0	0	0	60	107	-47
1163+00	13.8	70.1	0	0	0	0	0	0	26	110	0	0	0	0	0	0	0	86	218	-132
1163+50	13.7	93.2	0	0	0	0	0	0	25	151	0	0	0	0	0	0	0	111	369	-257
1164+00	3.9	122.4	0	0	0	0	0	0	16	200	0	0	0	0	0	0	0	128	568	-441
1164+50	13.6	152.5	0	0	0	0	0	0	16	255	0	0	0	0	0	0	0	144	823	-679
1165+00	13.6	208.4	0	0	0	0	0	0	25	334	0	0	0	0	0	0	0	169	1157	-988
1165+50	13.8	193.6	0	0	0	0	0	0	25	372	0	0	0	0	0	0	0	194	1529	-1335
1166+00	13.8	162.7	0	0	0	0	0	0	26	330	0	0	0	0	0	0	0	220	1859	-1639
1166+50	20.3	72.1	0	0	0	0	0	0	32	217	0	0	0	0	0	0	0	251	2077	-1825
1167+00	20.2	57.4	0	0	0	0	0	0	37	120	0	0	0	0	0	0	0	289	2197	-1908
1167+50	20.0	33.2	0	0	0	0	0	0	37	84	0	0	0	0	0	0	0	326	2281	-1955
1168+00	20.3	15.8	0	0	0	0	0	0	37	45	0	0	0	0	0	0	0	363	2326	-1963
1168+50	18.7	8.0	0	0	0	0	0	0	36	22	0	0	0	0	0	0	0	400	2348	-1948
1169+00	14.2	0	0	0	0	0	0	0	30	8	0	0	0	0	0	0	0	430	2356	-1926
1169+10	13.3	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	435	2356	-1921
						Column Totals			435	2356	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

SB USH 41 Widening and Cross Over "SBC"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
75+50	24.7	0	0	0	0	0	0	0												
76+00	26.7	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0	48	0	48
76+50	29.9	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	100	0	99
77+00	36.1	4.1	0	0	0	0	0	0	61	4	0	0	0	0	0	0	0	161	5	156
77+50	38.7	6.1	0	0	0	0	0	0	69	9	0	0	0	0	0	0	0	230	14	216
78+00	54.9	3.1	0	0	0	0	0	0	87	9	0	0	0	0	0	0	0	317	23	294
78+50	58.5	0.7	0	0	0	0	0	0	105	4	0	0	0	0	0	0	0	422	26	396
79+00	71.0	0	0	0	0	0	0	0	120	1	0	0	0	0	0	0	0	542	27	515
79+50	80.3	0	0	0	0	0	0	0	140	0	0	0	0	0	0	0	0	682	27	655
80+00	91.6	0	0	0	0	0	0	0	159	0	0	0	0	0	0	0	0	841	27	814
80+50	57.8	0	0	0	0	0	0	0	138	0	0	0	0	0	0	0	0	980	28	952
81+00	52.6	5.7	0	0	0	0	0	0	102	6	0	0	0	0	0	0	0	1082	33	1049
81+50	39.7	4.3	0	0	0	0	0	0	85	9	0	0	0	0	0	0	0	1167	42	1125
82+00	38.4	1.3	0	0	0	0	0	0	72	5	0	0	0	0	0	0	0	1240	48	1192
82+50	30.9	1.5	0	0	0	0	0	0	64	3	0	0	0	0	0	0	0	1304	50	1254
83+00	26.9	1.2	0	0	0	0	0	0	54	3	0	0	0	0	0	0	0	1357	53	1305
83+50	26.1	0	0	0	0	0	0	0	49	1	0	0	0	0	0	0	0	1406	54	1352
84+00	25.8	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0	1454	54	1401
84+50	24.1	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	1501	54	1447
84+63	24.1	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	1512	54	1458
Railroad																				
85+90	1.6	1.0	0	0	0	0	0	0												
86+00	1.6	1.0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1513	54	1459
86+50	25.6	0	0	0	0	0	0	0	25	1	0	0	0	0	0	0	0	1538	55	1483
87+00	21.3	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	1581	55	1526
87+50	21.5	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	1621	55	1566
88+00	21.3	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	1660	55	1605
88+50	22.0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	1701	55	1646
89+00	20.4	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	1740	55	1685
89+50	22.2	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	1779	55	1724
90+00	21.7	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	1820	55	1765
90+50	21.5	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	1860	55	1805
91+00	20.3	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	1899	55	1844
91+50	22.1	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	1938	55	1883
92+00	21.4	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	1978	55	1923
92+50	18.1	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	2015	55	1960
92+73	18.1	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	2030	55	1975
Wietor Dr																				
95+35	13.7	0	0	0	0	0	0	0												
95+50	13.7	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	2038	55	1982

SB USH 41 Widening and Cross Over "SBC" Continued

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
96+00	25.6	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	2074	56	2019
96+50	27.8	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	2124	56	2068
97+00	28.7	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	2176	56	2120
97+50	29.3	1.1	0	0	0	0	0	0	54	1	0	0	0	0	0	0	0	2230	57	2173
98+00	38.7	0	0	0	0	0	0	0	63	1	0	0	0	0	0	0	0	2293	58	2234
98+50	43.7	3.3	0	0	0	0	0	0	76	3	0	0	0	0	0	0	0	2369	62	2307
99+00	51.1	5.6	0	0	0	0	0	0	88	8	0	0	0	0	0	0	0	2457	70	2387
99+50	66.1	0.8	0	0	0	0	0	0	109	6	0	0	0	0	0	0	0	2565	76	2490
100+00	80.0	0	0	0	0	0	0	0	135	1	0	0	0	0	0	0	0	2701	76	2624
100+50	81.4	0	0	0	0	0	0	0	149	0	0	0	0	0	0	0	0	2850	76	2774
101+00	80.6	0	0	0	0	0	0	0	150	0	0	0	0	0	0	0	0	3000	76	2924
101+50	60.3	11.4	0	0	0	0	0	0	130	11	0	0	0	0	0	0	0	3131	87	3044
102+00	45.2	8.4	0	0	0	0	0	0	98	18	0	0	0	0	0	0	0	3228	105	3123
102+50	42.3	5.2	0	0	0	0	0	0	81	13	0	0	0	0	0	0	0	3309	118	3192
103+00	36.3	0	0	0	0	0	0	0	73	5	0	0	0	0	0	0	0	3382	123	3259
103+50	31.1	0	0	0	0	0	0	0	62	0	0	0	0	0	0	0	0	3444	123	3321
104+00	28.1	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	3499	123	3376
104+50	27.7	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	3551	123	3428
105+00	26.5	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	3601	123	3478
105+47	26.5	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	3647	123	3524
Column Totals									3647	123	0	0	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

NB IH 43 widening "TIHB"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
172+54	24.7	0	0	0	0	0	0	0												
172+75	24.7	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	19	0	19
173+00	26.1	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	43	0	43
173+50	28.8	0	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	93	0	93
174+00	34.3	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	152	0	152
174+50	36.0	0	0	0	0	0	0	0	65	0	0	0	0	0	0	0	0	217	0	217
175+00	37.1	0	0	0	0	0	0	0	68	0	0	0	0	0	0	0	0	285	0	285
175+50	38.9	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	355	0	355
176+00	42.1	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	430	0	430
176+50	44.7	0	0	0	0	0	0	0	80	0	0	0	0	0	0	0	0	511	1	510
177+00	44.3	0.7	0	0	0	0	0	0	82	1	0	0	0	0	0	0	0	593	2	591
177+50	45.2	1.7	0	0	0	0	0	0	83	2	0	0	0	0	0	0	0	676	4	672
178+00	40.1	4.3	0	0	0	0	0	0	79	6	0	0	0	0	0	0	0	755	9	745
178+50	38.4	7.2	0	0	0	0	0	0	73	11	0	0	0	0	0	0	0	827	20	807
179+00	32.1	12.5	0	0	0	0	0	0	65	18	0	0	0	0	0	0	0	893	38	854
179+50	32.5	15.8	0	0	0	0	0	0	60	26	0	0	0	0	0	0	0	952	65	888
180+00	30.9	15.5	0	0	0	0	0	0	59	29	0	0	0	0	0	0	0	1011	93	918
180+50	30.6	31.8	0	0	0	0	0	0	57	44	0	0	0	0	0	0	0	1068	137	931
181+00	32.1	13.8	0	0	0	0	0	0	58	42	0	0	0	0	0	0	0	1126	179	947
181+50	33.0	11.0	0	0	0	0	0	0	60	23	0	0	0	0	0	0	0	1186	202	984
182+00	31.3	10.9	0	0	0	0	0	0	60	20	0	0	0	0	0	0	0	1246	223	1023
182+50	35.7	8.3	0	0	0	0	0	0	62	18	0	0	0	0	0	0	0	1308	240	1068
183+00	37.1	7.0	0	0	0	0	0	0	67	14	0	0	0	0	0	0	0	1375	255	1121
183+50	38.1	6.2	0	0	0	0	0	0	70	12	0	0	0	0	0	0	0	1445	267	1178
184+00	37.0	6.8	0	0	0	0	0	0	70	12	0	0	0	0	0	0	0	1515	279	1236
184+50	36.8	7.5	0	0	0	0	0	0	68	13	0	0	0	0	0	0	0	1583	292	1291
185+00	37.6	6.4	0	0	0	0	0	0	69	13	0	0	0	0	0	0	0	1652	305	1347
185+50	35.2	4.8	0	0	0	0	0	0	67	10	0	0	0	0	0	0	0	1719	315	1404
186+00	31.2	2.3	0	0	0	0	0	0	61	7	0	0	0	0	0	0	0	1781	322	1459
186+50	30.1	0	0	0	0	0	0	0	57	2	0	0	0	0	0	0	0	1837	324	1513
187+00	27.7	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	1891	324	1567
187+50	24.6	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0	1939	324	1615
188+00	22.3	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	1983	324	1659
188+50	2.3	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	2006	324	1681
188+58	2.3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2006	325	1682
								Column Totals	1987	325	0	0	0	0	0	0	0			

Temporary NB IH 43 - NB USH 41 ramp "TNIH"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
106+20	65.9	1.9	0	0	0	0	0	0												
106+25	65.9	1.9	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12	0	12
106+50	65.3	1.3	0	0	0	0	0	0	61	1	0	0	0	0	0	0	0	73	2	71
107+00	65.6	0.7	0	0	0	0	0	0	121	2	0	0	0	0	0	0	0	194	4	190
107+50	65.4	0.6	0	0	0	0	0	0	121	1	0	0	0	0	0	0	0	315	5	311
108+00	37.9	3.2	0	0	0	0	0	0	96	4	0	0	0	0	0	0	0	411	8	403
108+50	37.8	7.0	0	0	0	0	0	0	70	9	0	0	0	0	0	0	0	481	18	463
109+00	35.9	5.8	0	0	0	0	0	0	68	12	0	0	0	0	0	0	0	549	30	520
109+50	34.9	4.8	0	0	0	0	0	0	66	10	0	0	0	0	0	0	0	615	40	575
110+00	58.9	39.5	0	0	0	0	0	0	87	41	0	0	0	0	0	0	0	702	81	621
110+50	59.6	50.8	0	0	0	0	0	0	110	84	0	0	0	0	0	0	0	811	164	647
111+00	29.9	65.2	0	0	0	0	0	0	83	107	0	0	0	0	0	0	0	894	271	623
111+50	31.7	75.9	0	0	0	0	0	0	57	131	0	0	0	0	0	0	0	951	402	549
112+00	32.9	98.0	0	0	0	0	0	0	60	161	0	0	0	0	0	0	0	1011	563	448
112+50	30.4	139.9	0	0	0	0	0	0	59	220	0	0	0	0	0	0	0	1070	783	286
113+00	32.9	178.4	0	0	0	0	0	0	59	295	0	0	0	0	0	0	0	1128	1078	50
113+50	15.3	239.7	0	0	0	0	0	0	45	387	0	0	0	0	0	0	0	1173	1465	-292
114+00	8.2	270.5	0	0	0	0	0	0	22	472	0	0	0	0	0	0	0	1195	1938	-743
114+50	5.7	252.6	0	0	0	0	0	0	13	484	0	0	0	0	0	0	0	1207	2422	-1214
115+00	6.9	228.4	0	0	0	0	0	0	12	445	0	0	0	0	0	0	0	1219	2867	-1648
115+50	11.1	217.8	0	0	0	0	0	0	17	413	0	0	0	0	0	0	0	1236	3280	-2044
116+00	21.2	198.9	0	0	0	0	0	0	30	386	0	0	0	0	0	0	0	1266	3666	-2400
116+50	32.4	178.9	0	0	0	0	0	0	50	350	0	0	0	0	0	0	0	1315	4016	-2700
117+00	35.3	139.6	0	0	0	0	0	0	63	295	0	0	0	0	0	0	0	1378	4311	-2933
117+50	37.0	98.0	0	0	0	0	0	0	67	220	0	0	0	0	0	0	0	1445	4531	-3086
118+00	36.6	66.4	0	0	0	0	0	0	68	152	0	0	0	0	0	0	0	1513	4683	-3170
118+50	38.5	41.2	0	0	0	0	0	0	70	100	0	0	0	0	0	0	0	1583	4783	-3200
119+00	42.9	13.8	0	0	0	0	0	0	75	51	0	0	0	0	0	0	0	1658	4834	-3175
119+50	44.0	1.4	0	0	0	0	0	0	80	14	0	0	0	0	0	0	0	1739	4848	-3109
120+00	39.3	0.9	0	0	0	0	0	0	77	2	0	0	0	0	0	0	0	1816	4850	-3034
120+50	36.4	0	0	0	0	0	0	0	70	1	0	0	0	0	0	0	0	1886	4851	-2965
121+00	29.6	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0	0	1947	4851	-2904
121+50	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	1974	4851	-2876
Column Totals									1962	4850	0	0	0	0	0	0	0			

Temporary SB USH 41 - SB IH 43 ramp "TSIH"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
98+60	42.3	35.2	0	0	0	0	0	0												
98+70	42.3	35.2	0	0	0	0	0	0	16	13	0	0	0	0	0	0	0	16	13	3
99+00	42.1	33.1	0	0	0	0	0	0	47	38	0	0	0	0	0	0	0	63	51	12
99+50	43.1	30.1	0	0	0	0	0	0	79	58	0	0	0	0	0	0	0	142	109	32
100+00	44.2	29.3	0	0	0	0	0	0	81	55	0	0	0	0	0	0	0	222	164	58
100+50	50.2	36.2	0	0	0	0	0	0	87	61	0	0	0	0	0	0	0	310	225	85
101+00	66.4	34.7	0	0	0	0	0	0	108	66	0	0	0	0	0	0	0	418	291	127
101+50	30.5	33.2	0	0	0	0	0	0	90	63	0	0	0	0	0	0	0	508	354	154
102+00	34.7	68.7	0	0	0	0	0	0	60	94	0	0	0	0	0	0	0	568	448	120
102+50	70.1	7.0	0	0	0	0	0	0	97	70	0	0	0	0	0	0	0	665	518	147
103+00	82.6	5.0	0	0	0	0	0	0	141	11	0	0	0	0	0	0	0	806	529	277
103+50	77.4	6.6	0	0	0	0	0	0	148	11	0	0	0	0	0	0	0	955	540	415
104+00	81.0	4.0	0	0	0	0	0	0	147	10	0	0	0	0	0	0	0	1101	550	552
104+50	91.5	1.5	0	0	0	0	0	0	160	5	0	0	0	0	0	0	0	1261	555	706
105+00	68.5	0	0	0	0	0	0	0	148	1	0	0	0	0	0	0	0	1409	556	853
105+50	70.6	0	0	0	0	0	0	0	129	0	0	0	0	0	0	0	0	1538	556	981
106+00	61.4	3.3	0	0	0	0	0	0	122	3	0	0	0	0	0	0	0	1660	560	1100
106+50	48.1	5.0	0	0	0	0	0	0	101	8	0	0	0	0	0	0	0	1761	567	1194
107+00	38.2	14.1	0	0	0	0	0	0	80	18	0	0	0	0	0	0	0	1841	585	1257
107+50	40.8	22.3	0	0	0	0	0	0	73	34	0	0	0	0	0	0	0	1915	619	1296
108+00	45.1	16.7	0	0	0	0	0	0	80	36	0	0	0	0	0	0	0	1994	655	1339
108+50	13.7	6.1	0	0	0	0	0	0	54	21	0	0	0	0	0	0	0	2048	676	1373
109+00	43.4	1.7	0	0	0	0	0	0	53	7	0	0	0	0	0	0	0	2101	683	1418
109+50	45.9	3.5	0	0	0	0	0	0	83	5	0	0	0	0	0	0	0	2184	688	1496
110+00	37.4	1.9	0	0	0	0	0	0	77	5	0	0	0	0	0	0	0	2261	693	1568
110+50	31.3	0	0	0	0	0	0	0	64	2	0	0	0	0	0	0	0	2325	694	1630
111+00	27.7	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	2379	694	1685
111+27	27.7	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	2407	694	1713
TW-5-003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3735	0	0	0	5448
								Column Totals	2392	681	0	0	0	0	0	3735	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

Temporary Wietor Drive "TWT"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
100+10	21.8	1.2	0	0	0	0	0	0												
100+50	17.7	0	0	0	0	0	0	0	29	1	0	0	0	0	0	0	0	29	1	28
101+00	19.6	0	0	0	0	0	0	0	35	1	0	0	0	0	0	0	0	64	2	62
101+50	89.1	6.7	0	0	0	0	0	0	101	6	0	0	0	0	0	0	0	164	8	156
102+00	40.6	4.5	0	0	0	0	0	0	120	10	0	0	0	0	0	0	0	285	19	266
102+50	26.8	1.4	0	0	0	0	0	0	62	6	0	0	0	0	0	0	0	347	24	323
103+00	29.2	0	0	0	0	0	0	0	52	1	0	0	0	0	0	0	0	399	26	373
103+50	24.7	27.2	0	187.9	0	0	0	0	50	25	0	174	0	0	0	0	0	449	51	398
104+00	0	0	0	189.4	0	0	0	0	23	25	0	349	0	0	0	0	0	472	76	396
104+50	0	0	0	192.5	0	0	0	0	0	0	0	354	0	0	0	0	0	472	76	396
105+00	0	0	0	0	0	0	0	0	0	0	0	178	0	0	0	0	0	472	76	396
105+50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	472	76	396
106+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	472	76	396
106+50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	472	76	396
107+00	91.3	0	0	0	0	0	0	0	85	0	0	0	0	0	0	0	0	556	76	480
107+50	111.9	0.9	0	0	0	0	0	0	188	1	0	0	0	0	0	0	0	744	77	667
108+00	149.8	0	0	0	0	0	0	0	242	1	0	0	0	0	0	0	0	987	78	908
108+50	203.0	0	0	0	0	0	0	0	327	0	0	0	0	0	0	0	0	1313	79	1235
109+00	381.3	5.6	0	0	0	0	0	0	541	5	0	0	0	0	0	0	0	1854	84	1770
109+50	379.3	1.0	0	0	0	0	0	0	704	6	0	0	0	0	0	0	0	2558	90	2469
110+00	149.2	6.4	0	0	0	0	0	0	489	7	0	0	0	0	0	0	0	3048	97	2951
110+50	53.0	0	0	0	0	0	0	0	187	6	0	0	0	0	0	0	0	3235	103	3132
111+00	47.5	0	0	0	0	0	0	0	93	0	0	0	0	0	0	0	0	3328	103	3225
111+50	47.9	0	0	0	0	0	0	0	88	0	0	0	0	0	0	0	0	3416	103	3314
111+75	26.1	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	3451	103	3348
Column Totals									3451	103	0	1055	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
(3) - Marsh Excavation	All marsh excavation planned to be wasted offsite. Marsh excavation not associated with toe trenches is to be backfilled with roadway embankment.
(4) - Toe Trench Marsh Excavation	All marsh excavation planned to be wasted offsite. Toe trench marsh excavation is to be backfilled with Breaker Run.
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

Temporary Wietor Drive "TWT"

STA	AREA (SF)								Incremental Vol (CY) (Unadjusted)									Cumulative Vol (CY)		
	Cut	Fill	Marsh Exc.	Toe Trench Marsh Exc.	Drainage Blanket	Blanket Cut	Blanket Fill	EBS	Cut (1)	Fill (2)	Marsh Exc. (3)	Toe Trench Marsh Exc. (4)	Drainage Blanket (5)	Blanket Cut (6)	Blanket Fill (7)	Structural Backfill (8)	EBS (9)	Cut 1.00	Fill 1.00	Mass Ordinate (10)
100+10	21.8	1.2	0	0	0	0	0	0												
100+50	17.7	0	0	0	0	0	0	0	29	1	0	0	0	0	0	0	0	29	1	28
101+00	19.6	0	0	0	0	0	0	0	35	1	0	0	0	0	0	0	0	64	2	62
101+50	89.1	6.7	0	0	0	0	0	0	101	6	0	0	0	0	0	0	0	164	8	156
102+00	40.6	4.5	0	0	0	0	0	0	120	10	0	0	0	0	0	0	0	285	19	266
102+50	26.8	1.4	0	0	0	0	0	0	62	6	0	0	0	0	0	0	0	347	24	323
103+00	29.2	0	0	0	0	0	0	0	52	1	0	0	0	0	0	0	0	399	26	373
103+50	24.7	27.2	0	187.9	0	0	0	0	50	25	0	174	0	0	0	0	0	449	51	398
104+00	0	0	0	189.4	0	0	0	0	23	25	0	349	0	0	0	0	0	472	76	396
104+50	0	0	0	192.5	0	0	0	0	0	0	0	354	0	0	0	0	0	472	76	396
105+00	0	0	0	0	0	0	0	0	0	0	0	178	0	0	0	0	0	472	76	396
105+50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	472	76	396
106+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	472	76	396
106+50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	472	76	396
107+00	91.3	0	0	0	0	0	0	0	85	0	0	0	0	0	0	0	0	556	76	480
107+50	111.9	0.9	0	0	0	0	0	0	188	1	0	0	0	0	0	0	0	744	77	667
108+00	149.8	0	0	0	0	0	0	0	242	1	0	0	0	0	0	0	0	987	78	908
108+50	203.0	0	0	0	0	0	0	0	327	0	0	0	0	0	0	0	0	1313	79	1235
109+00	381.3	5.6	0	0	0	0	0	0	541	5	0	0	0	0	0	0	0	1854	84	1770
109+50	379.3	1.0	0	0	0	0	0	0	704	6	0	0	0	0	0	0	0	2558	90	2469
110+00	149.2	6.4	0	0	0	0	0	0	489	7	0	0	0	0	0	0	0	3048	97	2951
110+50	53.0	0	0	0	0	0	0	0	187	6	0	0	0	0	0	0	0	3235	103	3132
111+00	47.5	0	0	0	0	0	0	0	93	0	0	0	0	0	0	0	0	3328	103	3225
111+50	47.9	0	0	0	0	0	0	0	88	0	0	0	0	0	0	0	0	3416	103	3314
111+75	26.1	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	3451	103	3348
Column Totals									3451	103	0	1055	0	0	0	0	0			

Notes:	
(1) - Cut	Measured from existing ground down to bottom of drainage blanket (where blanket below existing ground). Otherwise measured from existing ground to top of proposed cut. Cut includes pavement material.
(2) - Fill	Measured from bottom of drainage blanket to top of proposed fill (where blanket above existing ground). Otherwise measured from existing ground to top of proposed fill.
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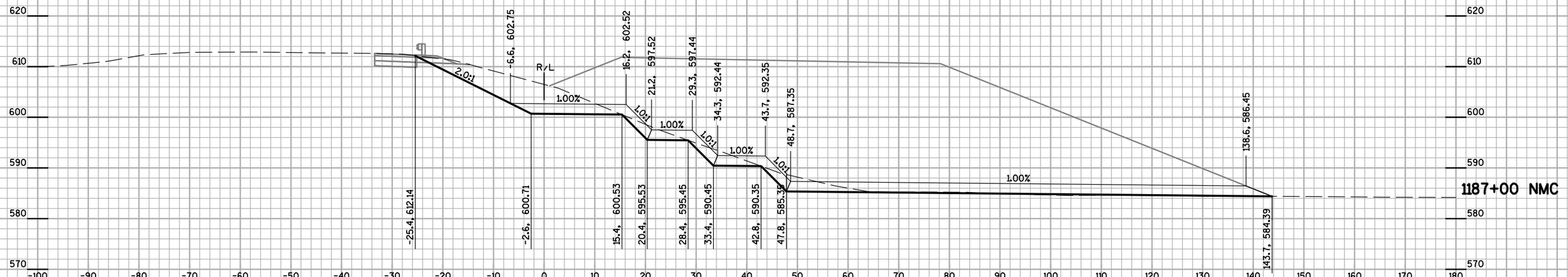
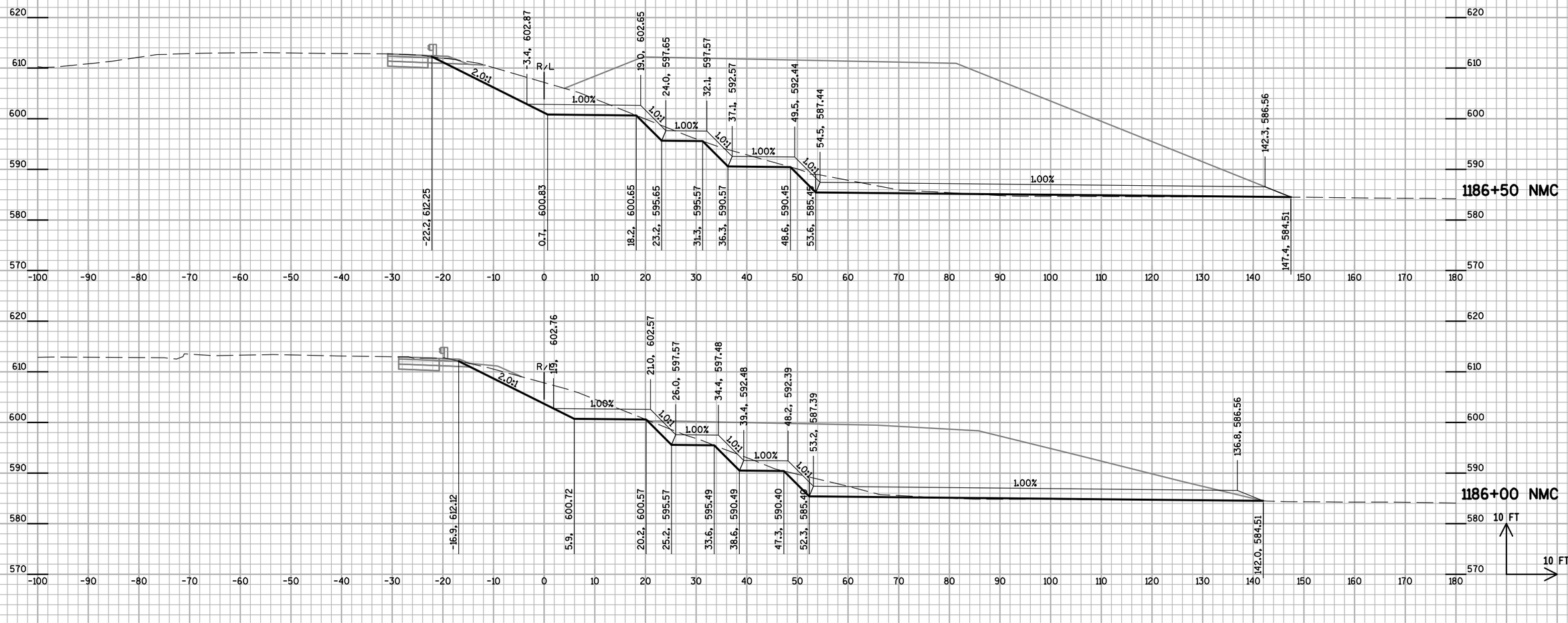
(5) - Drainage Blanket	Drainage blanket volume accounted for in Cut and Fill. Blanket volume is removed from Roadway Embankment quantity on Earthwork Summary Sheet.
(6) - Blanket Cut	Where bottom of drainage blanket is below existing ground, this is the additional excavation necessary to install the drainage blanket.
(7) - Blanket Fill	Where bottom of drainage blanket is above existing ground, this is the additional fill necessary to install the drainage blanket.
(8) - Structural Backfill	Backfill volumes for structures. Volumes removed from Roadway Embankment quantity on Earthwork Summary Sheet. See structure plans for further details.
(9) - EBS	All EBS material assumed to be wasted offsite. All EBS is to be backfilled with Roadway Embankment. EBS Excavation for Maintenance Roads to be backfilled with SPV.0195.002 Breaker Run Special.
(10) - Mass Ordinate	Cut - [(EBS + Blanket Cut + General Marsh Ex + Fill + Blanket Fill) - Drainage Blanket - Structural Backfill]

STA. 1186+00 NMC TO 1187+00 NMC





9

9

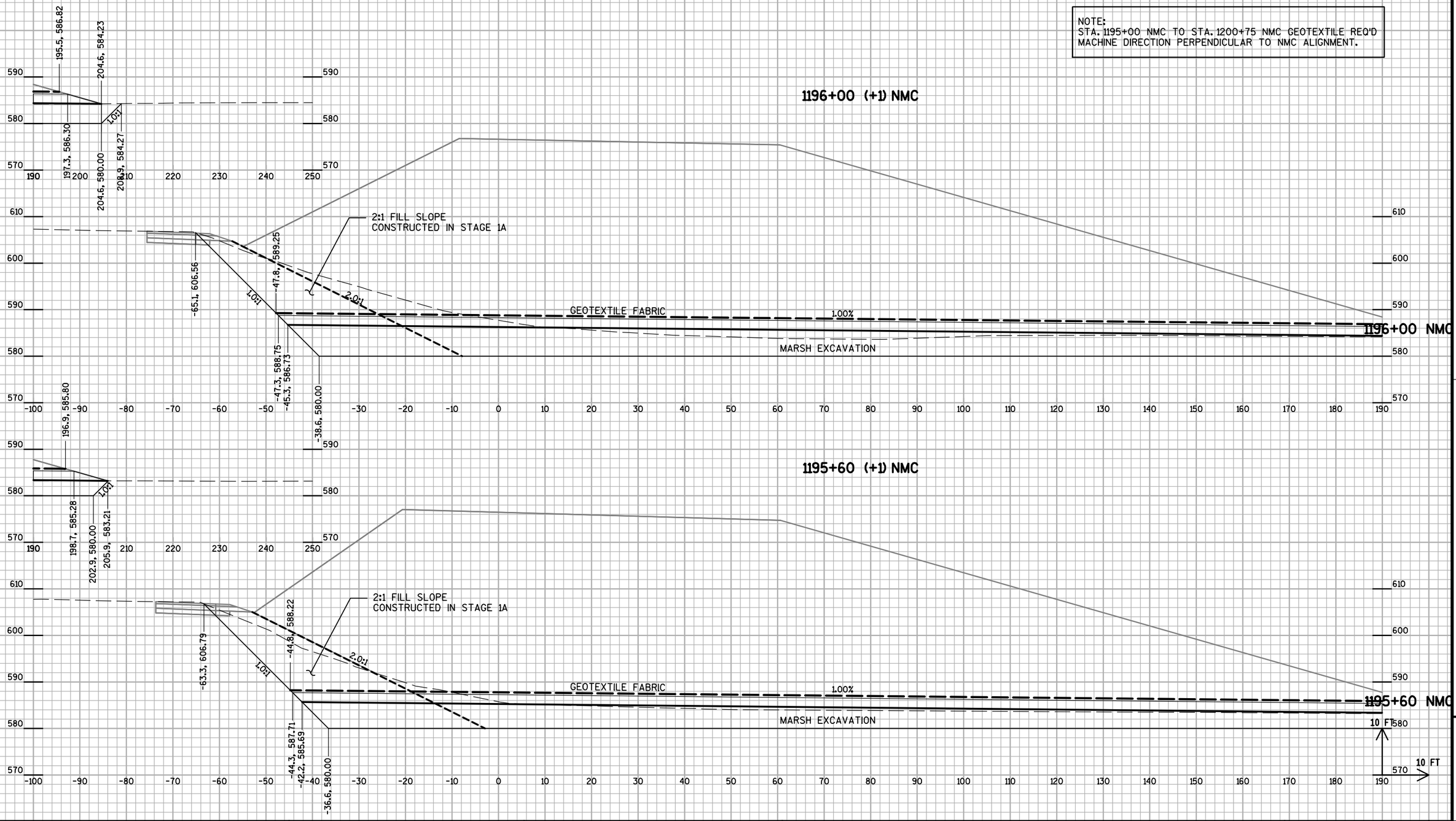
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1271	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn PLOT DATE : 5/14/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1195+60 NMC TO 1196+00 NMC

NOTE:
STA. 1195+00 NMC TO STA. 1200+75 NMC GEOTEXTILE REQ'D MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



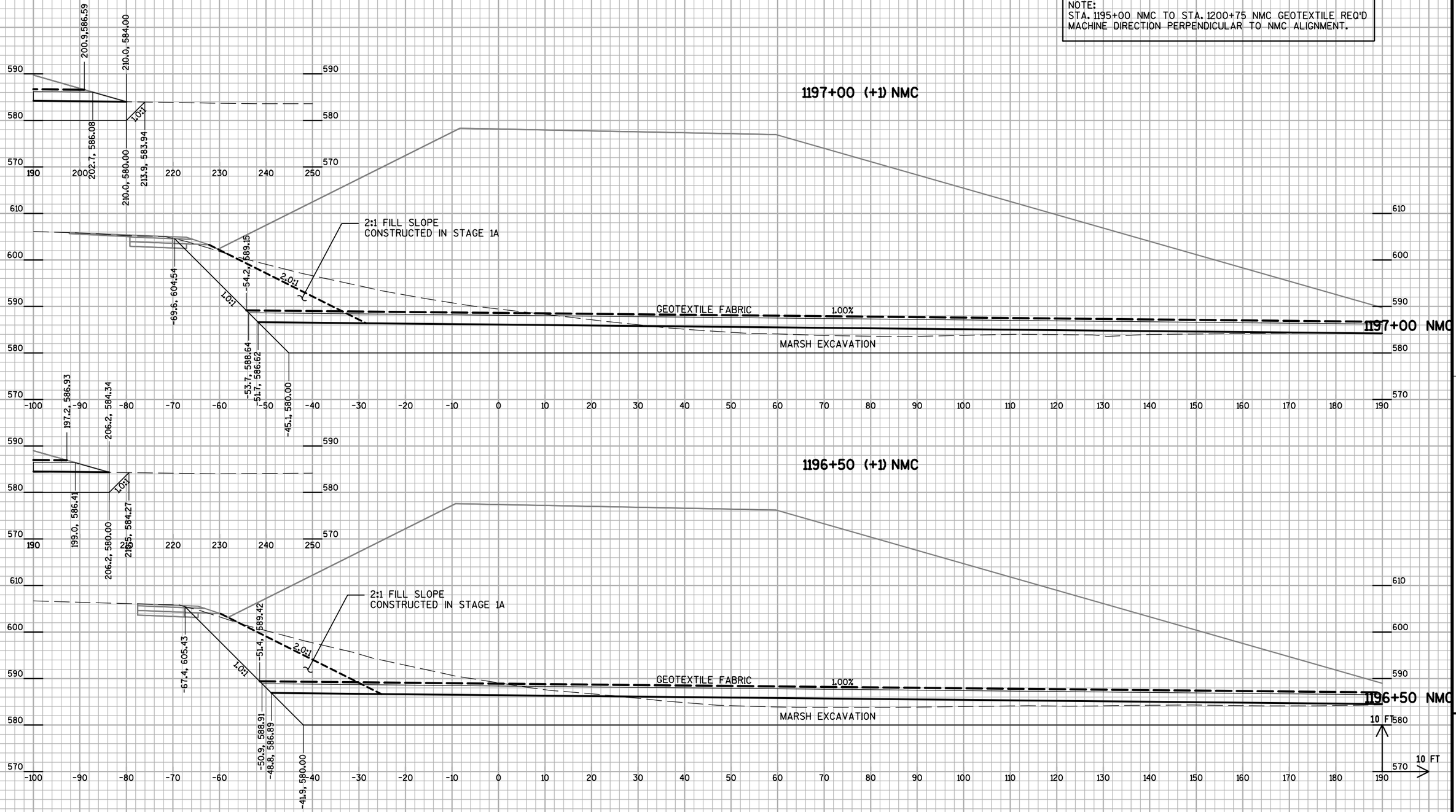
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1272	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn | PLOT DATE : 5/14/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1196+50 NMC TO 1197+00 NMC

NOTE:
STA. 1195+00 NMC TO STA. 1200+75 NMC GEOTEXTILE REQ'D MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



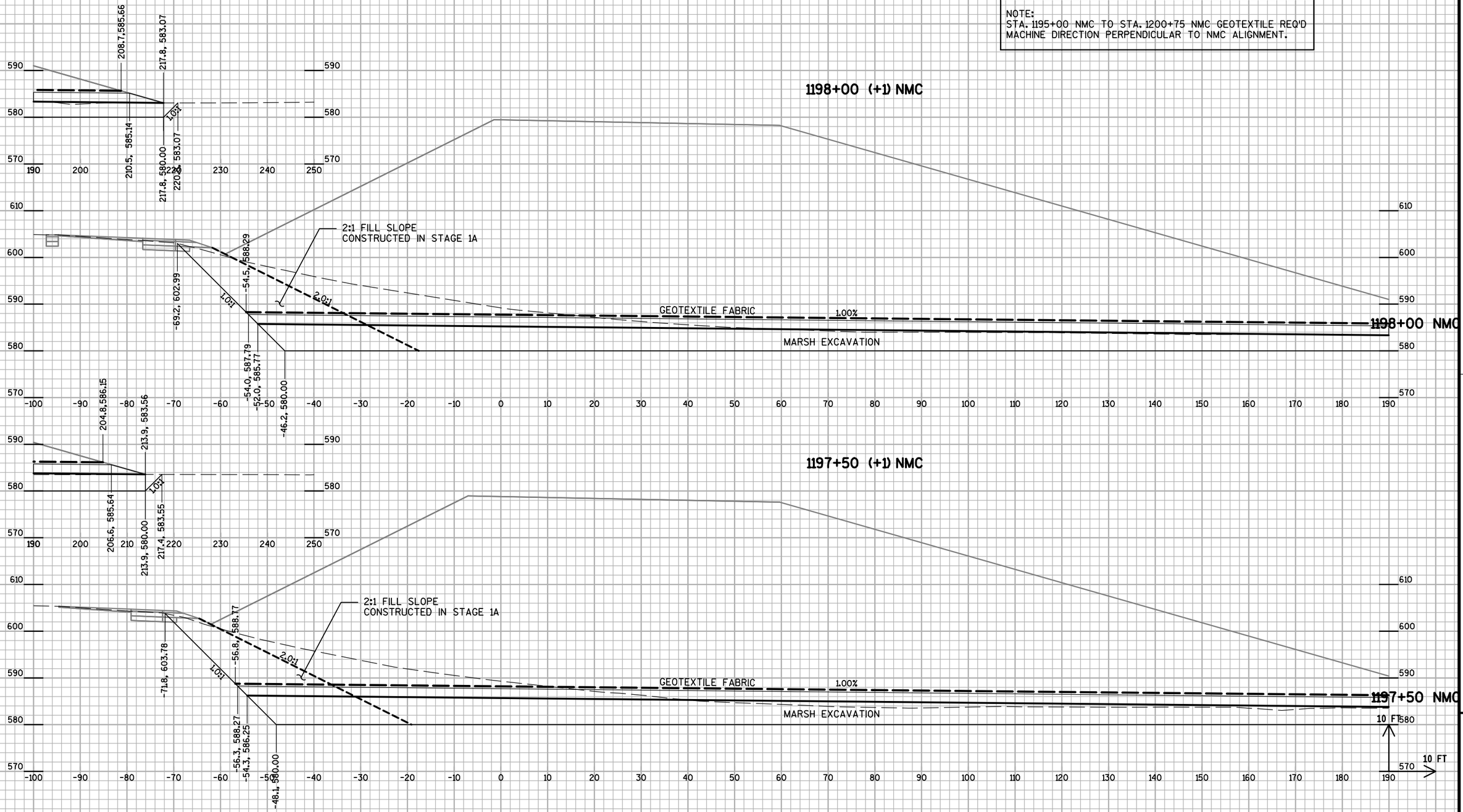
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1273	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn PLOT DATE : 5/14/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1197+50 NMC TO 1198+00 NMC

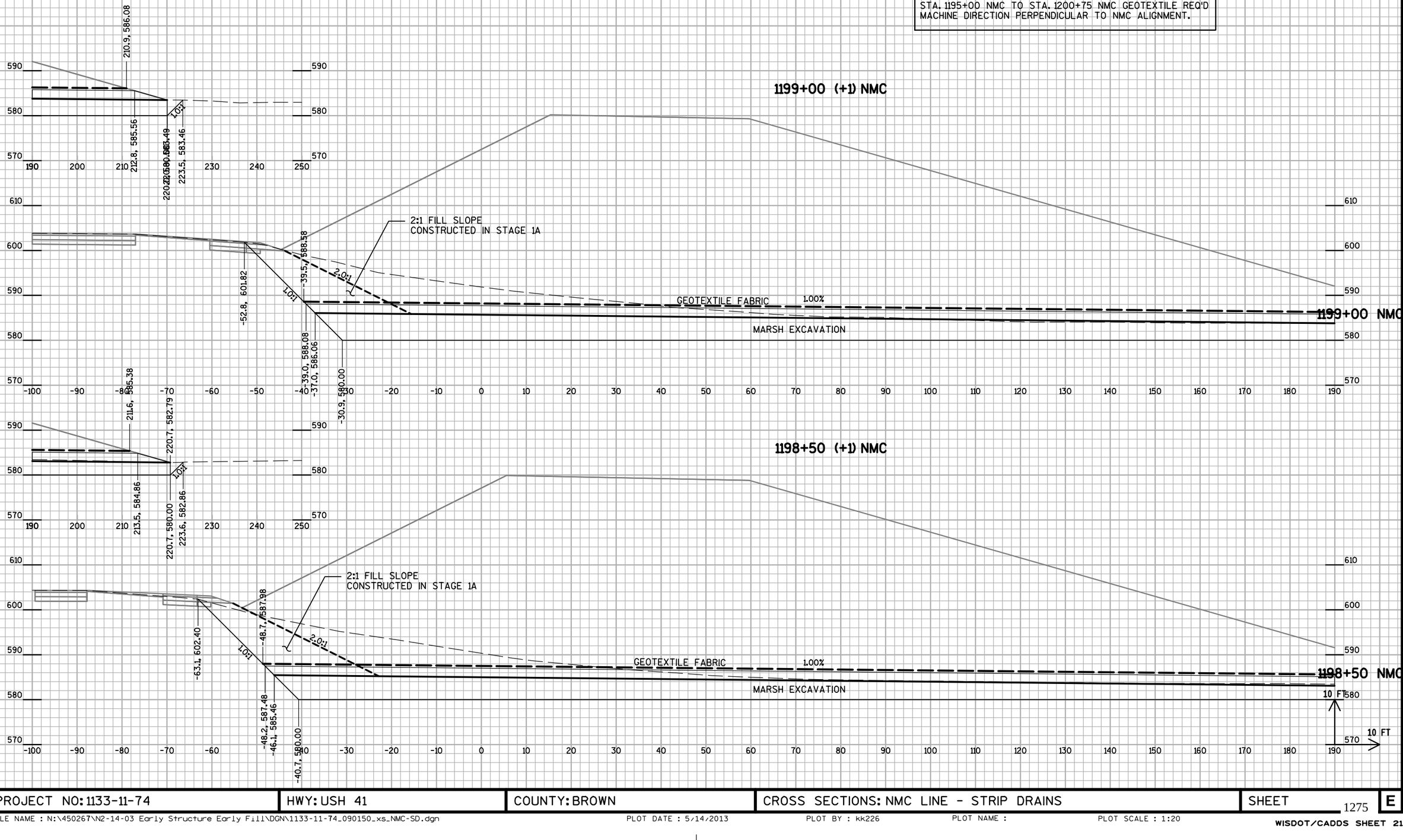
NOTE:
STA. 1195+00 NMC TO STA. 1200+75 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1274	E

STA. 1198+50 NMC TO 1199+00 NMC

NOTE:
STA. 1195+00 NMC TO STA. 1200+75 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



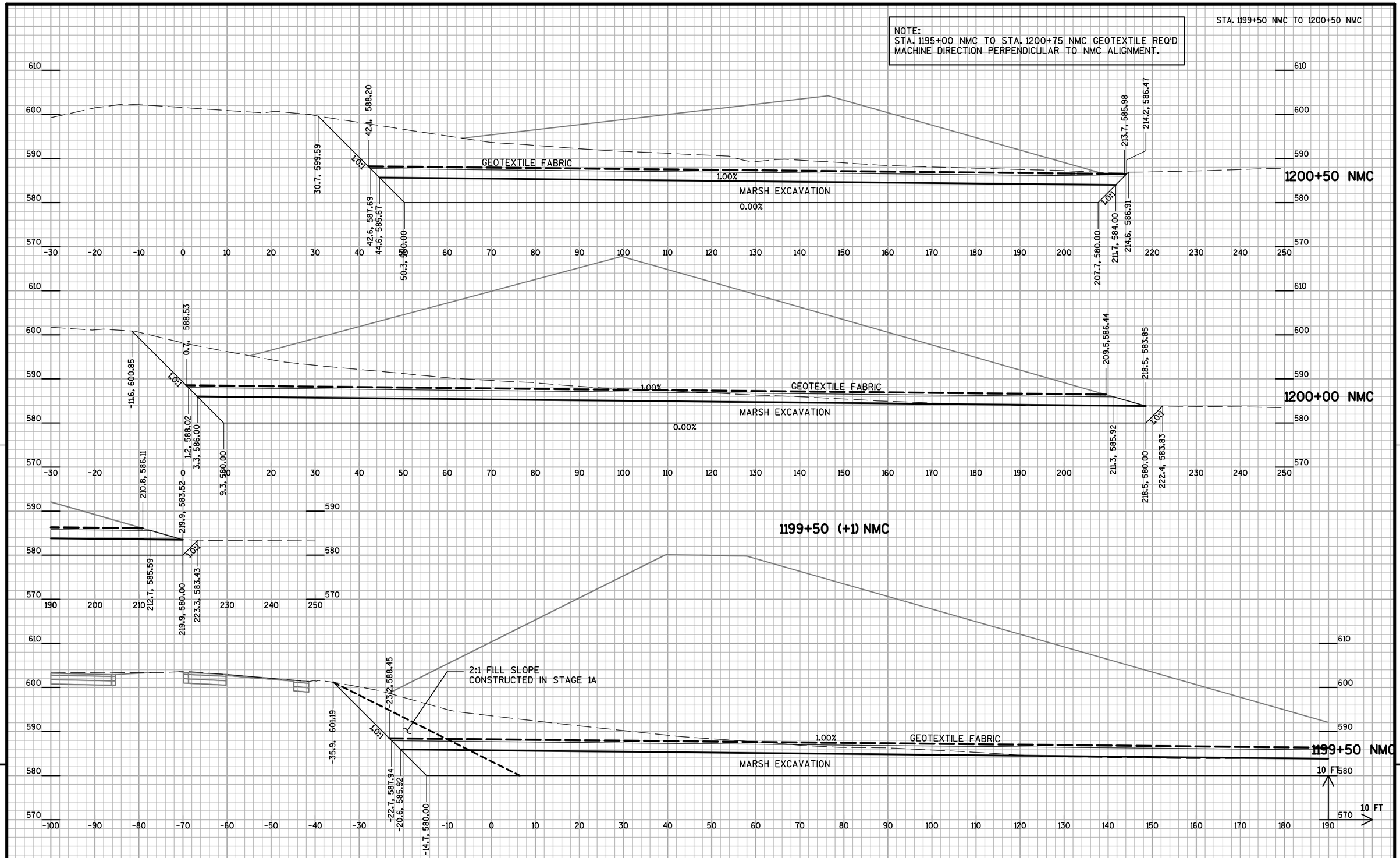
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1275	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn | PLOT DATE : 5/14/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1199+50 NMC TO 1200+50 NMC

NOTE:
STA. 1195+00 NMC TO STA. 1200+75 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1276	E

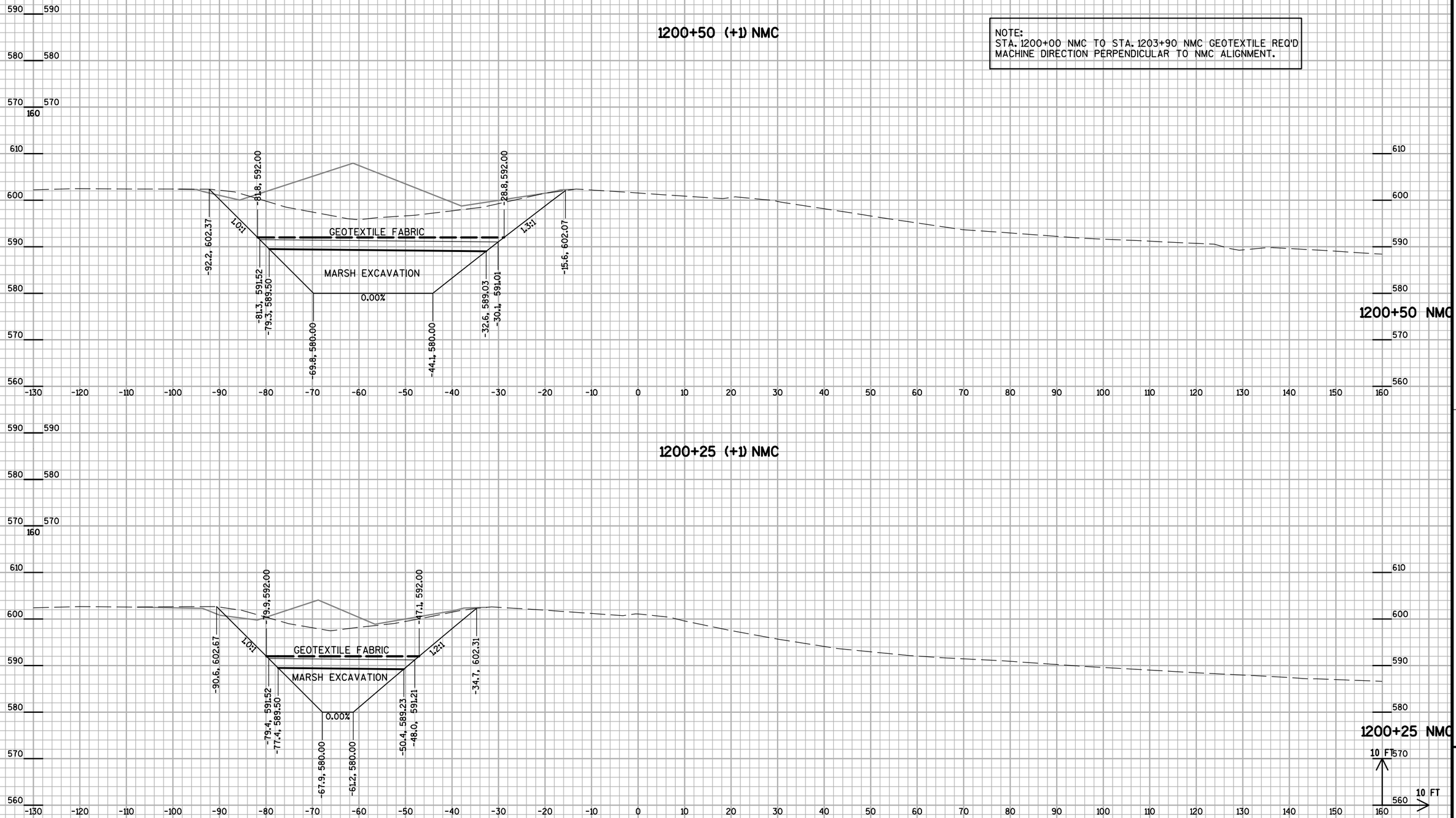
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn | PLOT DATE : 5/14/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1200+25 NMC TO 1200+50 NMC

1200+50 (+1) NMC

NOTE:
STA. 1200+00 NMC TO STA. 1203+90 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1277	E

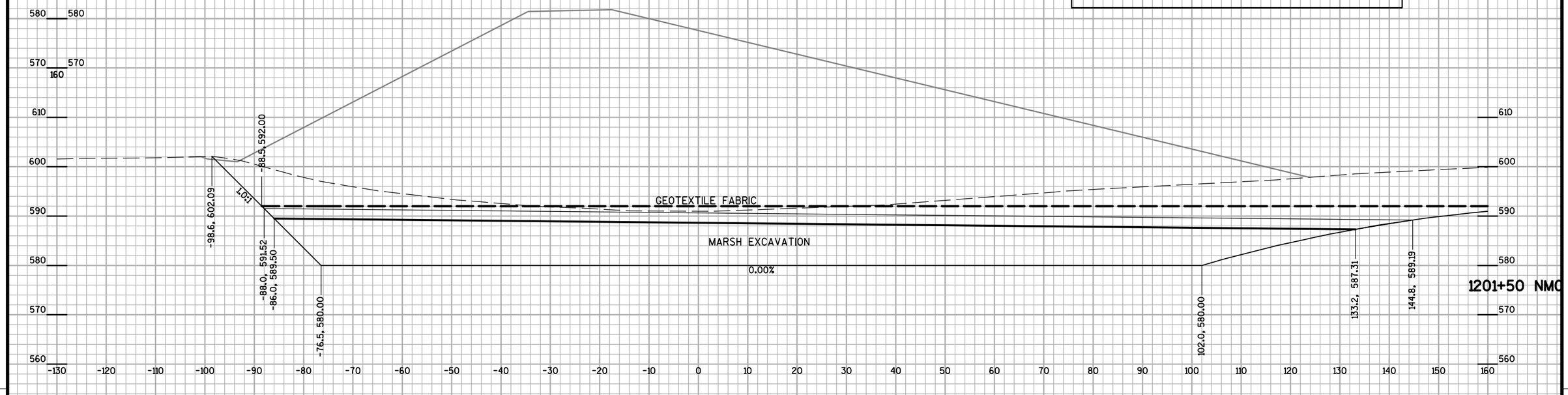
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn | PLOT DATE : 5/14/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

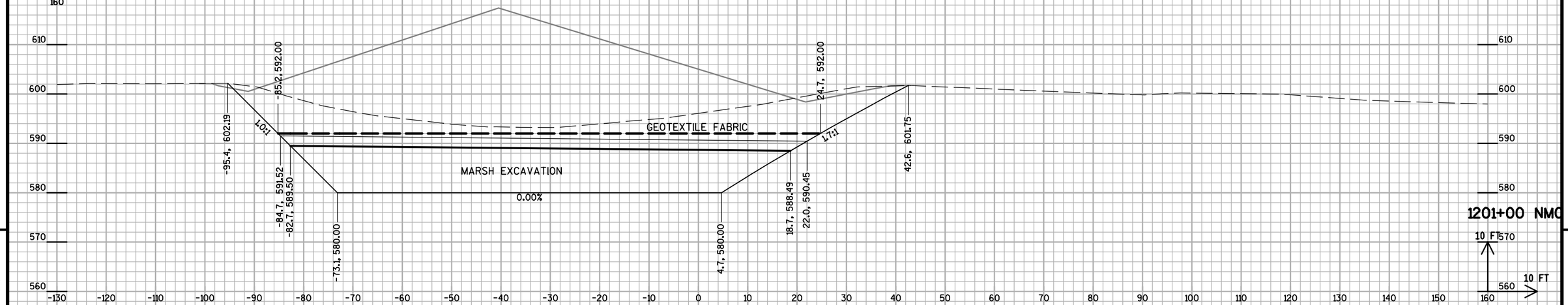
STA. 1201+00 NMC TO 1201+50 NMC

NOTE:
STA. 1200+00 NMC TO STA. 1203+90 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.

1201+50 (+1) NMC



1201+00 (+1) NMC



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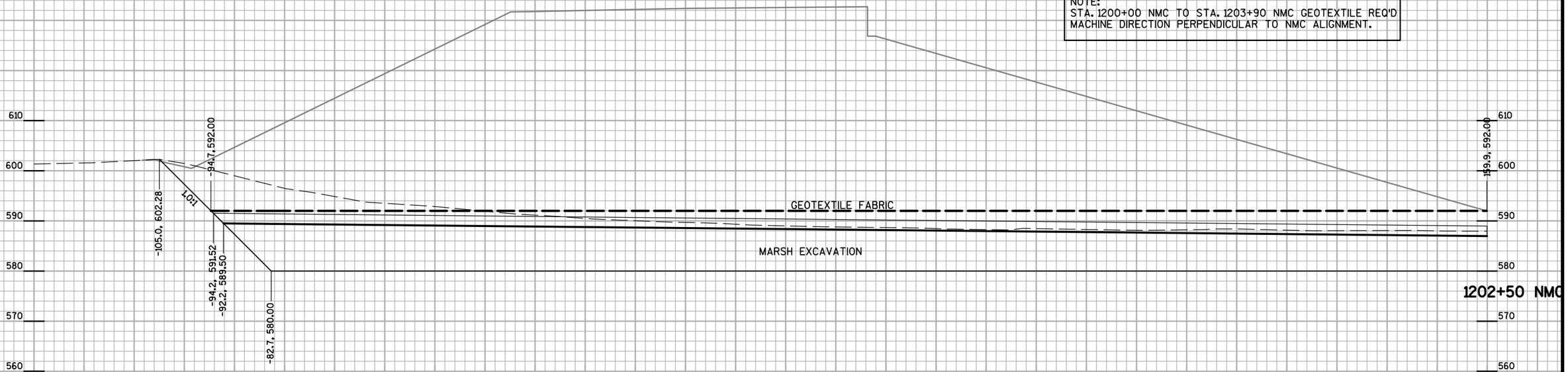
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1278	E

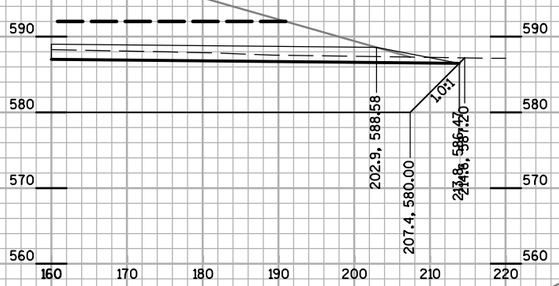
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn | PLOT DATE : 5/14/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

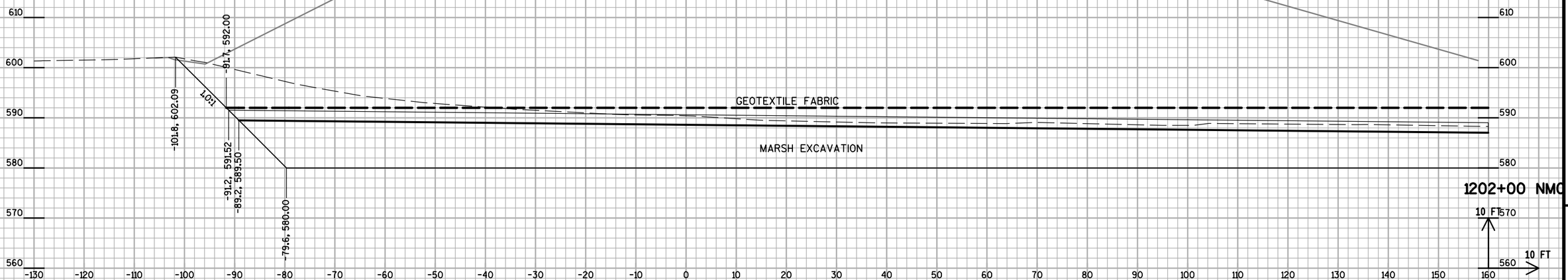
STA. 1202+00 NMC TO 1202+50 NMC

NOTE:
STA. 1200+00 NMC TO STA. 1203+90 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.





1202+00 (+1) NMC



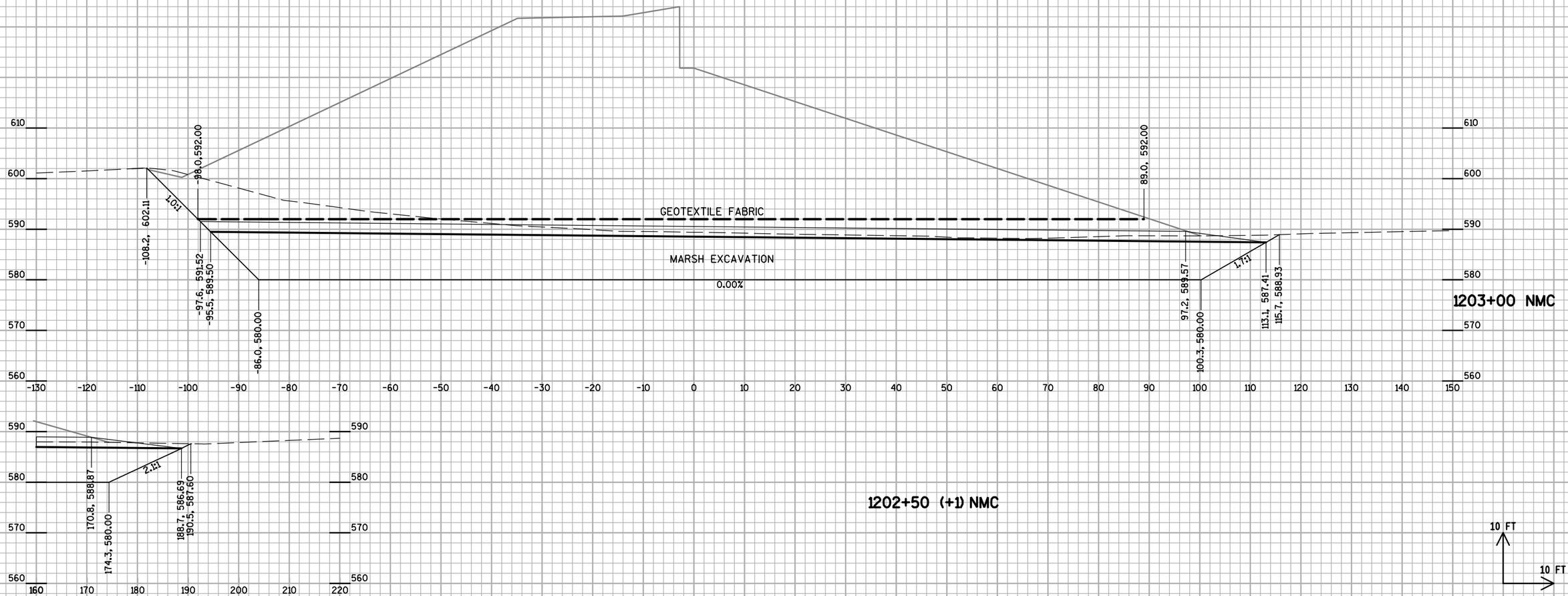
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1279	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn PLOT DATE : 5/14/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1202+50 NMC TO 1203+00 NMC

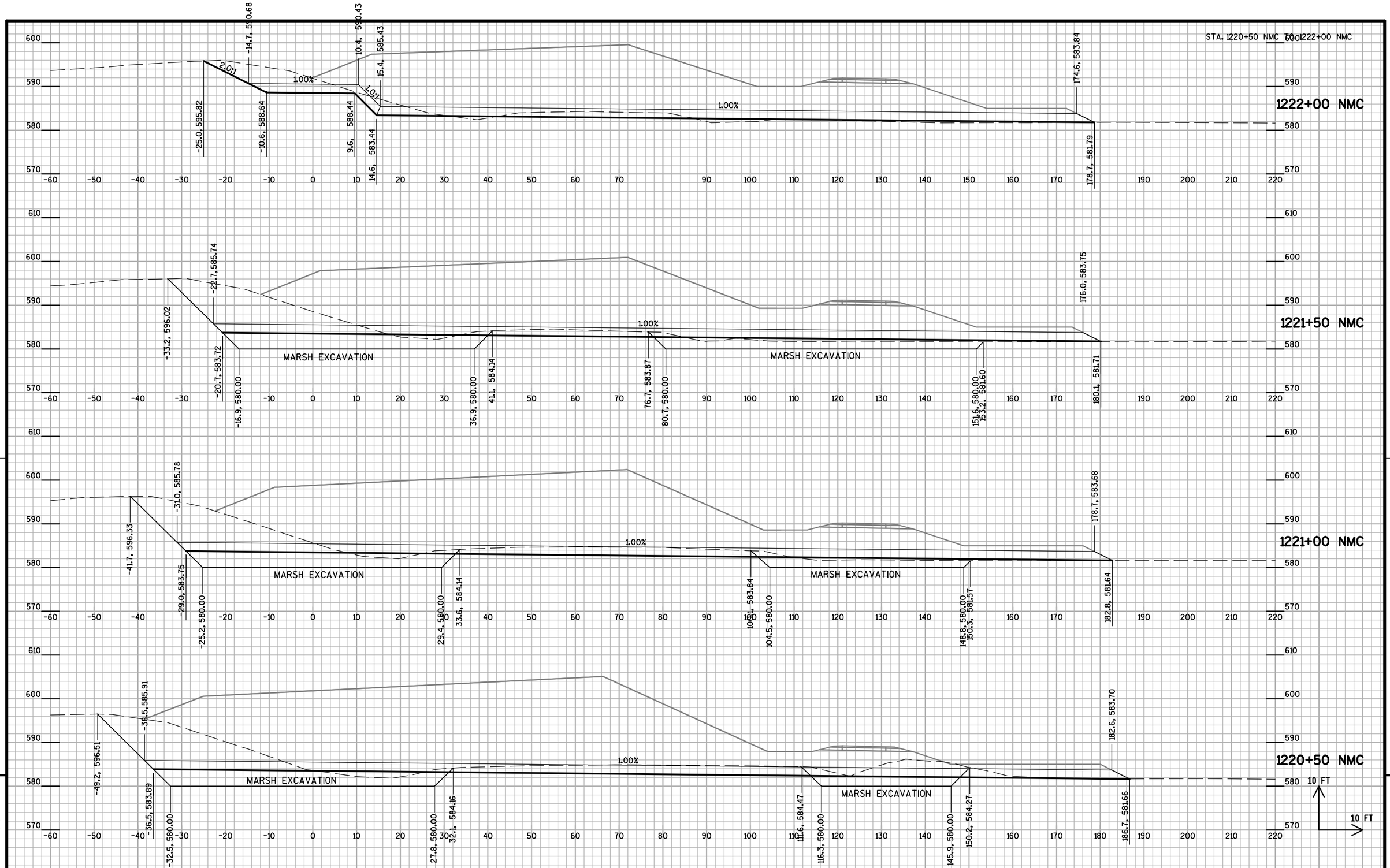
NOTE:
STA. 1200+00 NMC TO STA. 1203+90 NMC GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO NMC ALIGNMENT.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1280	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn PLOT DATE : 5/14/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1281	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn PLOT DATE : 5/14/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

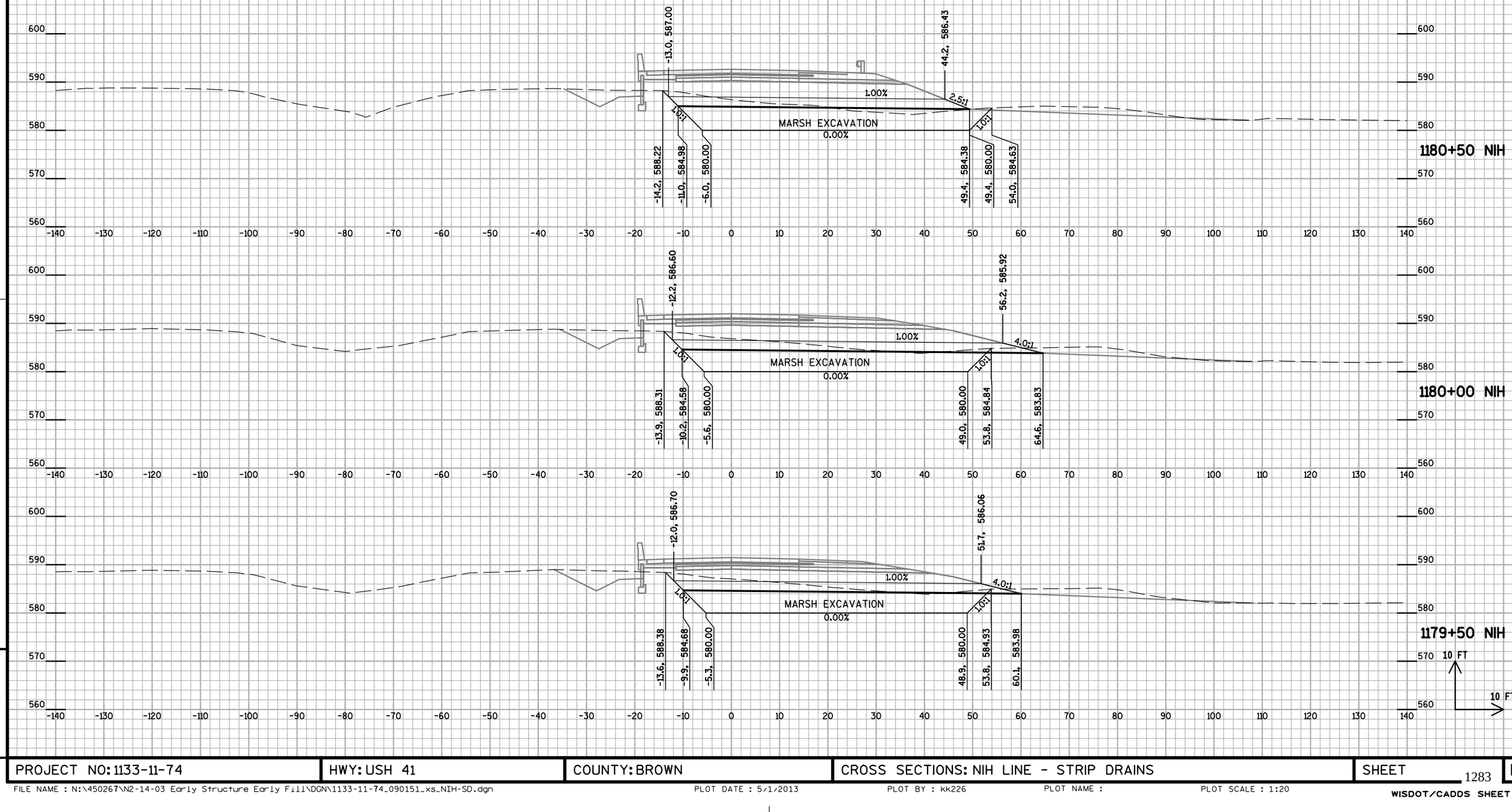
STA. 1222+50 NMC TO 1224+00 NMC

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE - STRIP DRAINS	SHEET 1282	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090150_xs_NMC-SD.dgn PLOT DATE : 5/14/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1179+50 NIH TO 1180+50 NIH



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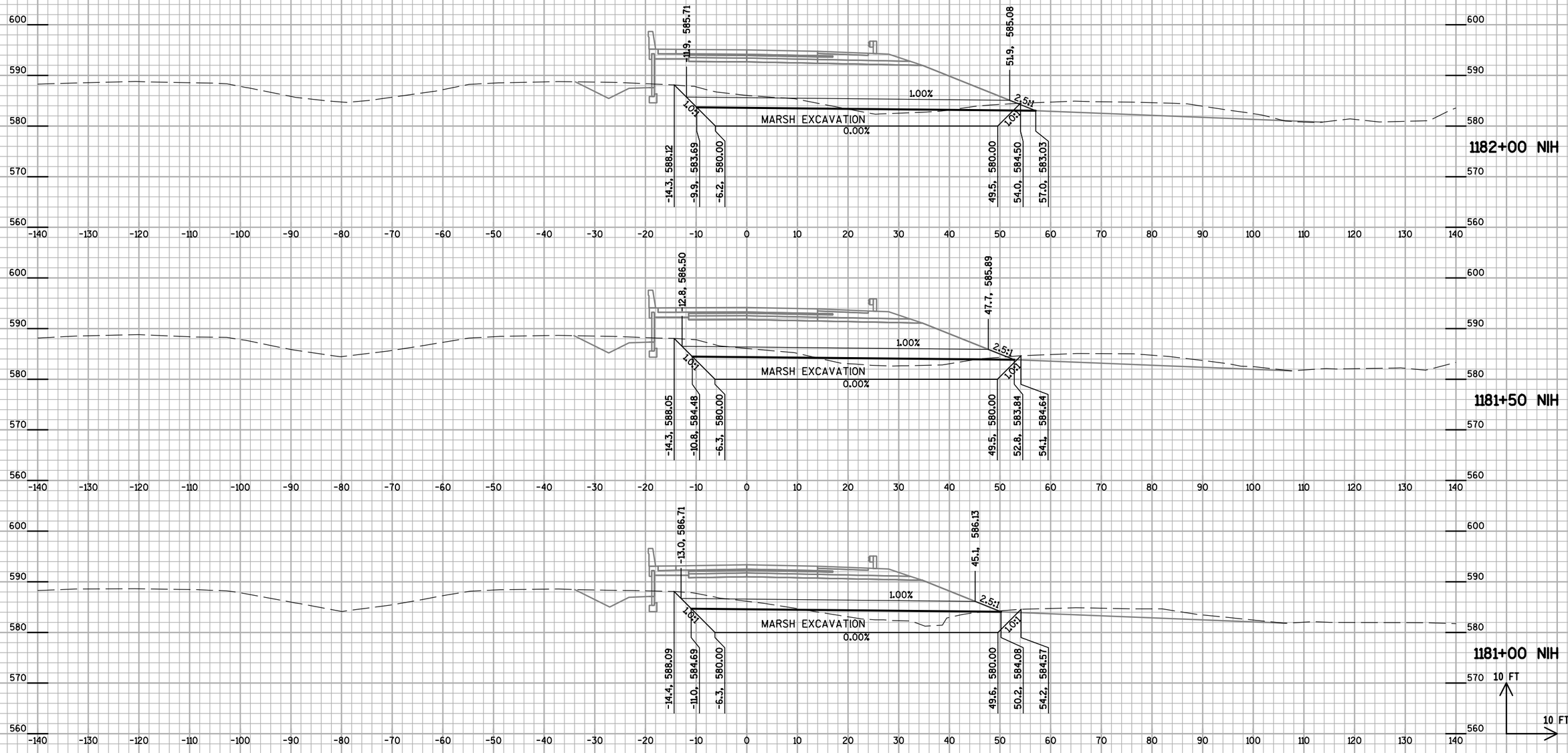
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE - STRIP DRAINS	SHEET 1283	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090151_xs_NIH-SD.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1181+00 NIH TO 1182+00 NIH



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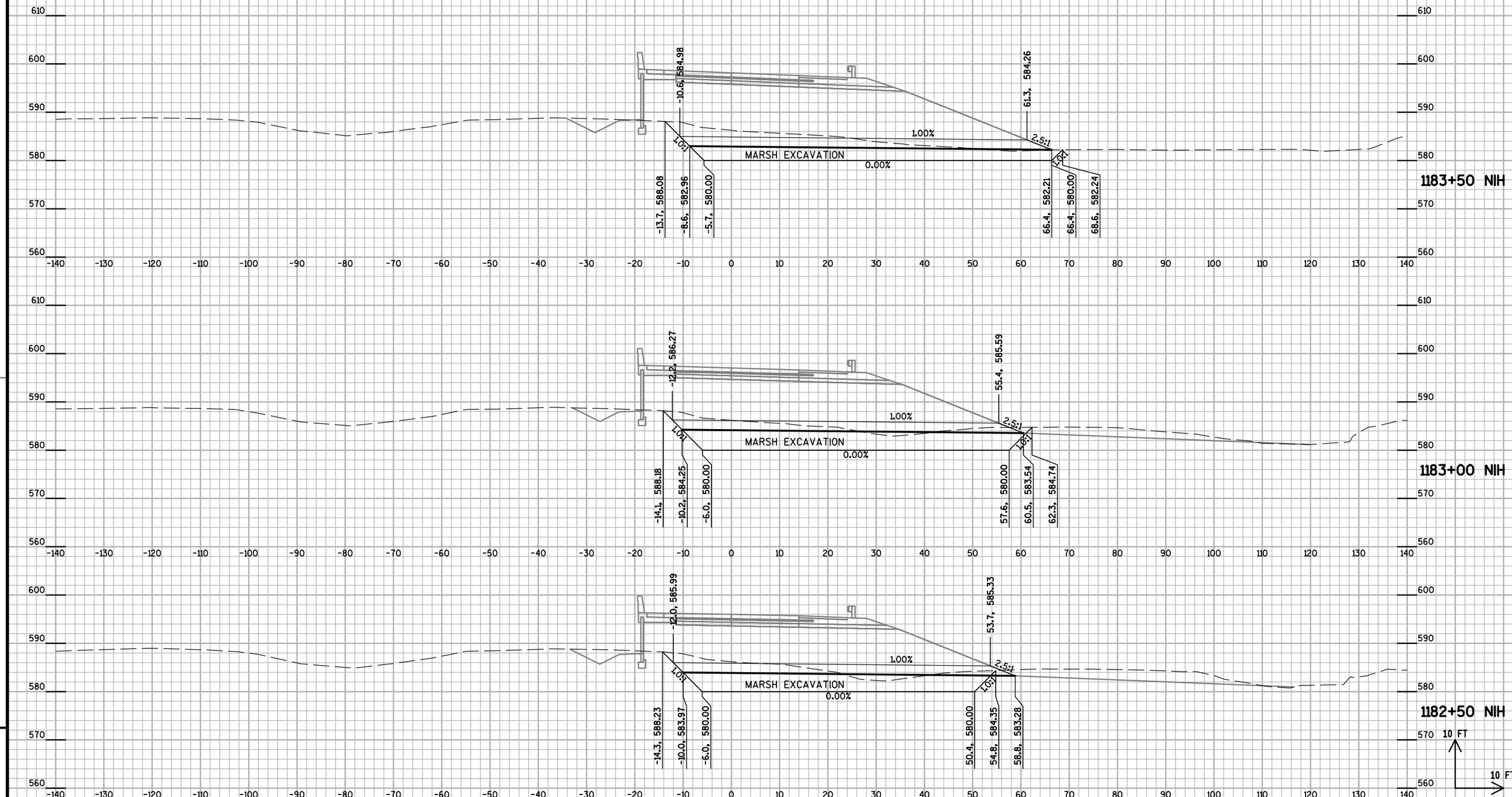
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE - STRIP DRAINS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090151_xs_NIH-SD.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1182+50 NIH TO 1183+50 NIH

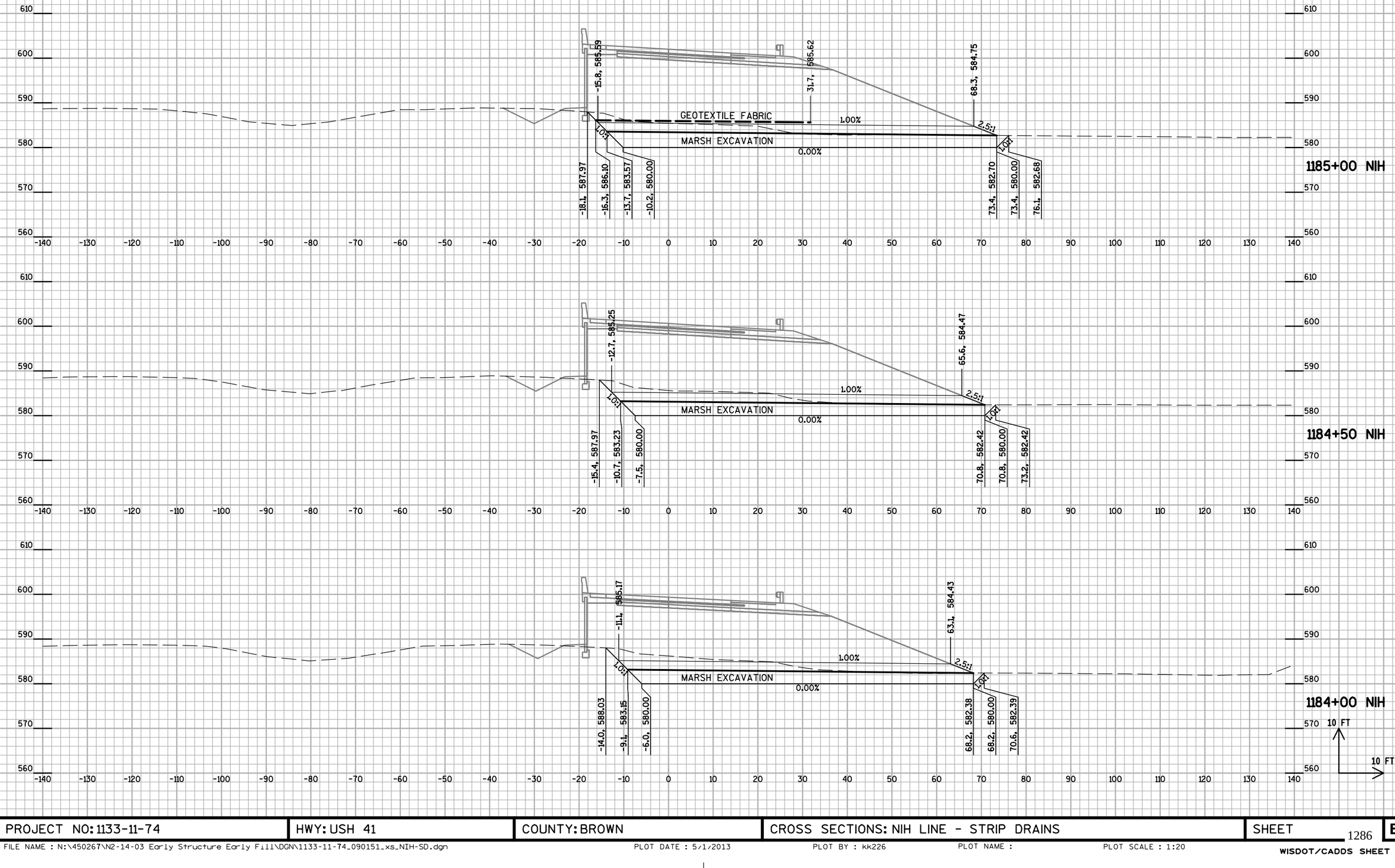


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE - STRIP DRAINS	SHEET 1285	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090151_xs_NIH-SD.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1184+00 NIH TO 1185+00 NIH



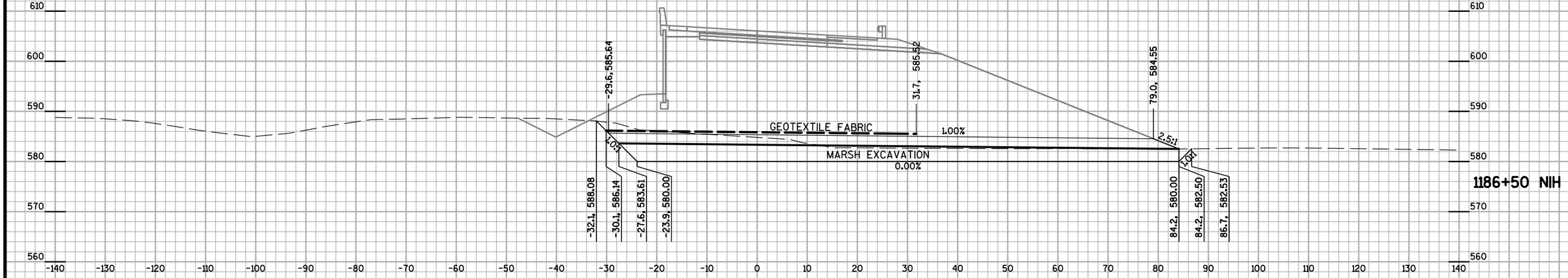
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE - STRIP DRAINS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090151_xs_NIH-SD.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

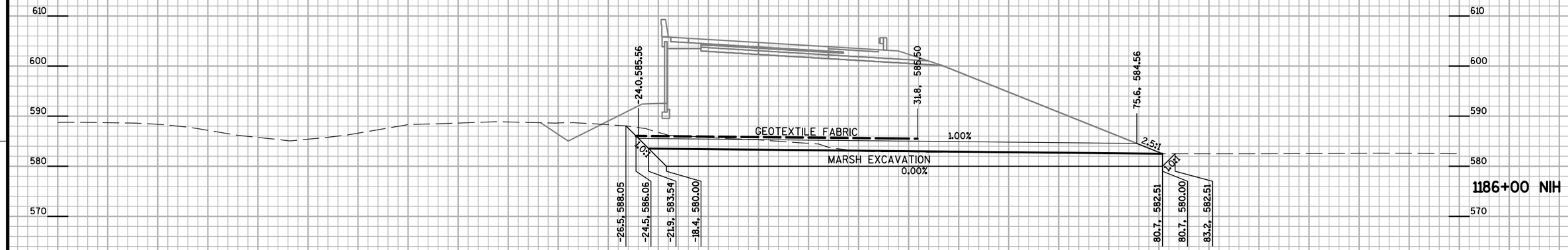
STA. 1185+50 NIH

STA. 1186+50 NIH



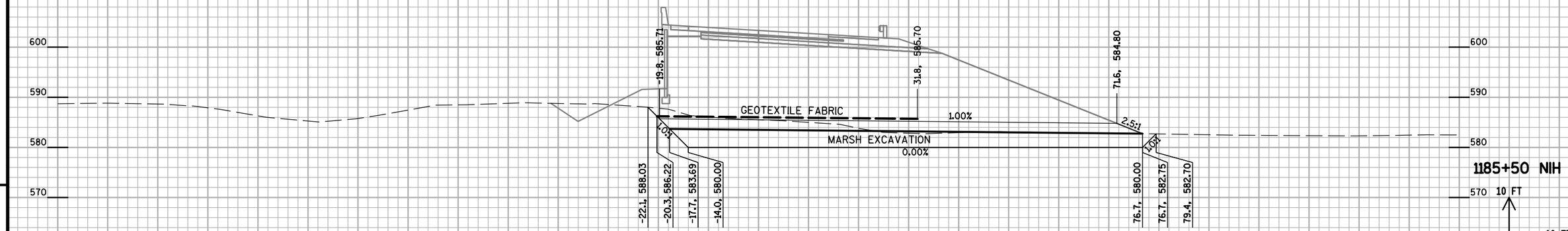
1186+50 NIH

STA. 1186+00 NIH



1186+00 NIH

STA. 1185+50 NIH



1185+50 NIH

10 FT

10 FT

9

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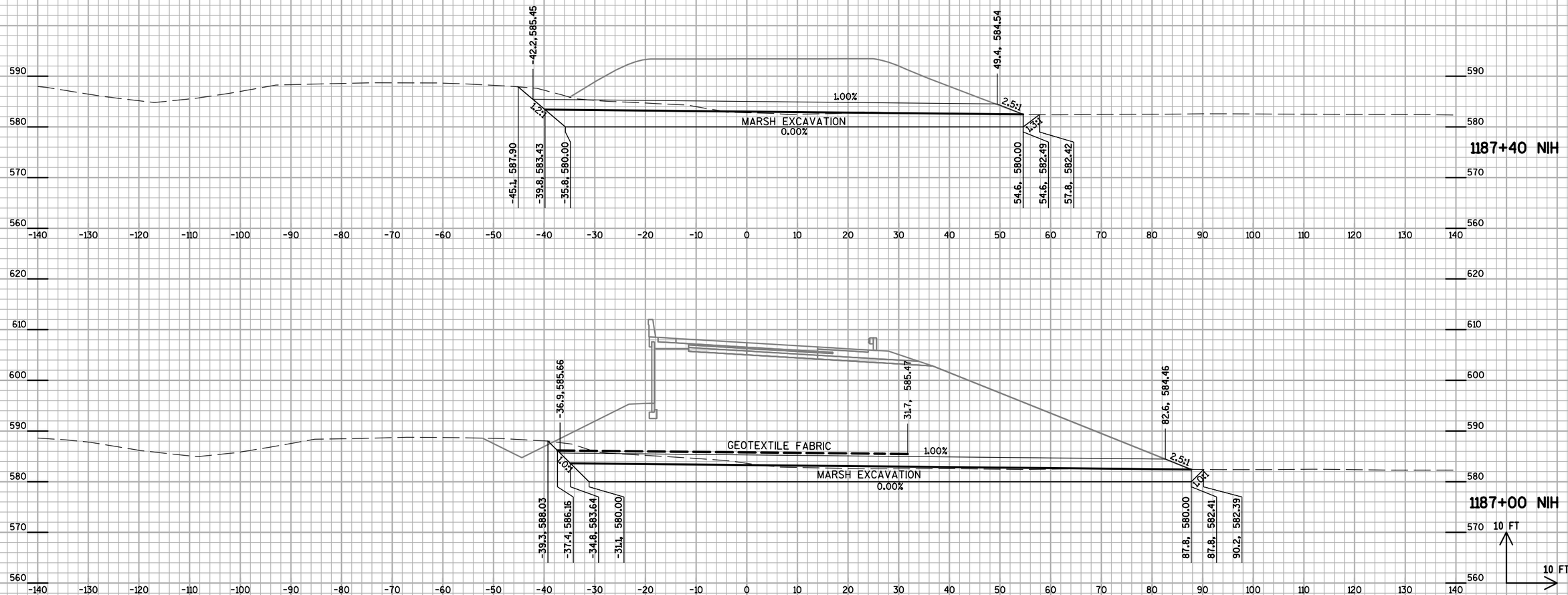
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE - STRIP DRAINS	SHEET 1287	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090151_xs_NIH-SD.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1187+00 NIH TO 1187+40 NIH

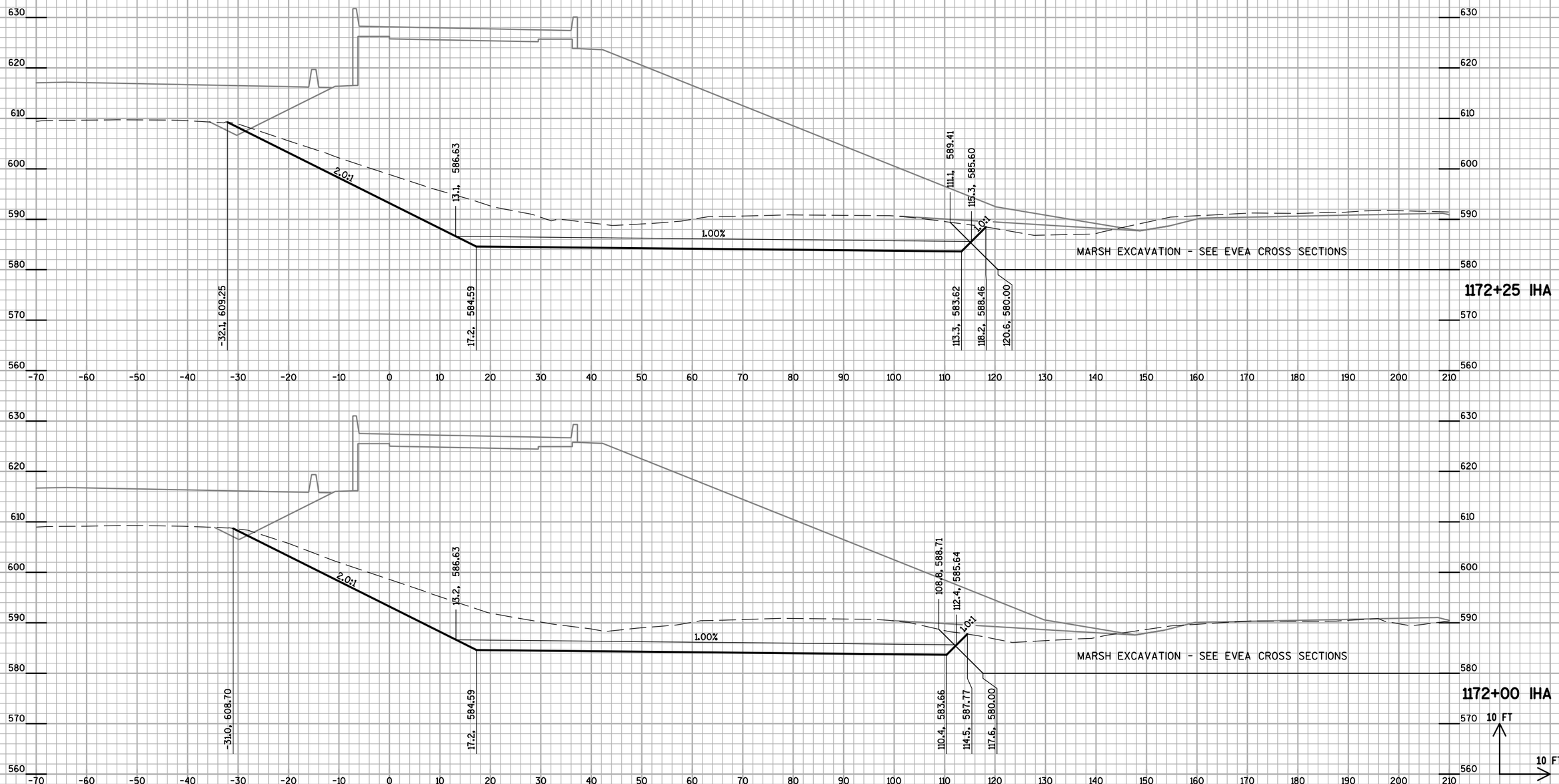


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE - STRIP DRAINS	SHEET 1288	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090151_xs_NIH-SD.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1172+00 IHA TO 1172+25 IHA



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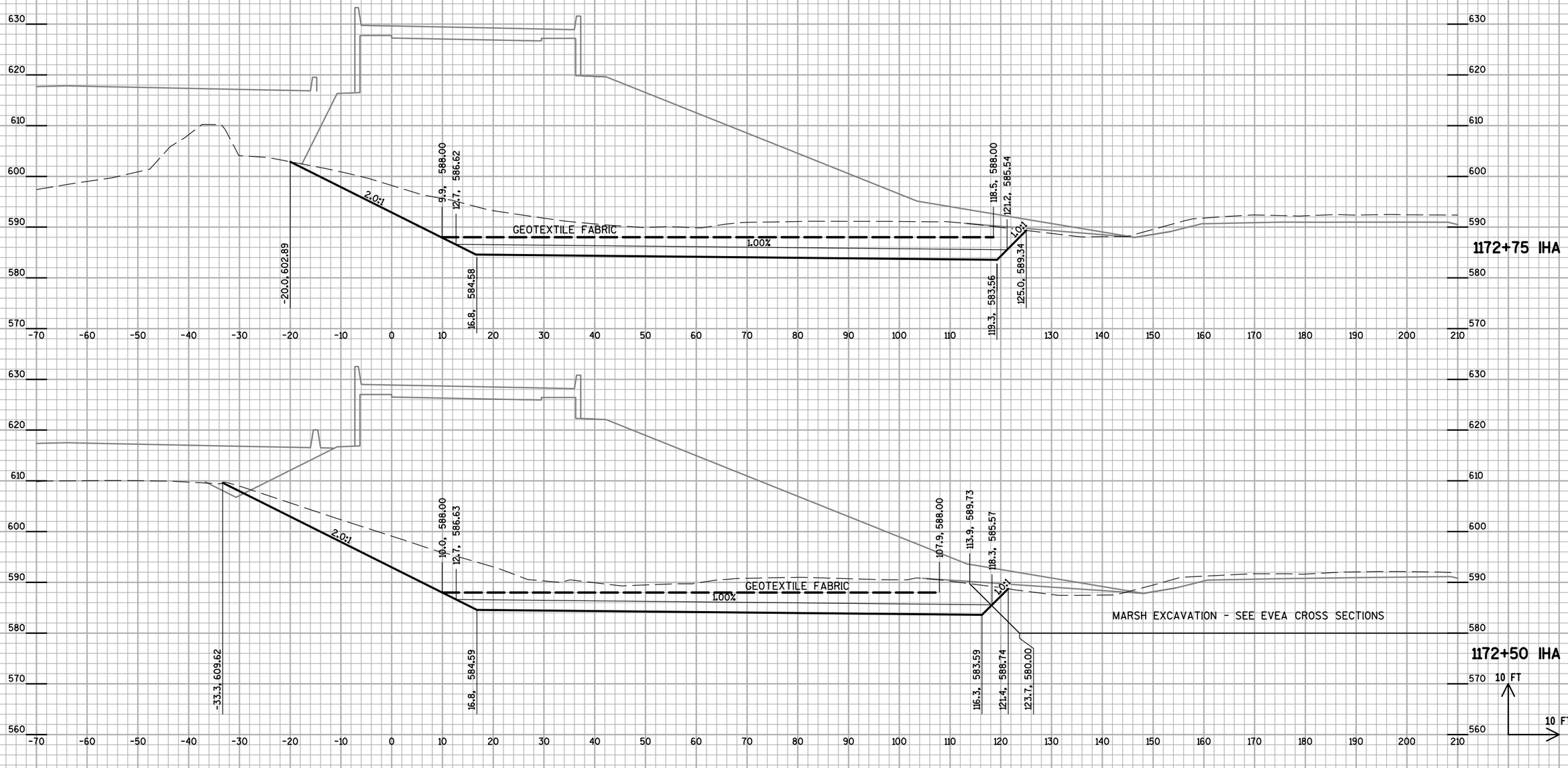
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE - STRIP DRAINS	SHEET 1289	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090152_xs_IHA-SD.dgn PLOT DATE : 5/28/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1172+50 IHA TO 1172+75 IHA

NOTE:
GEOTEXTILE REQ'D
MACHINE DIRECTION PERPENDICULAR TO WALL R-05-257

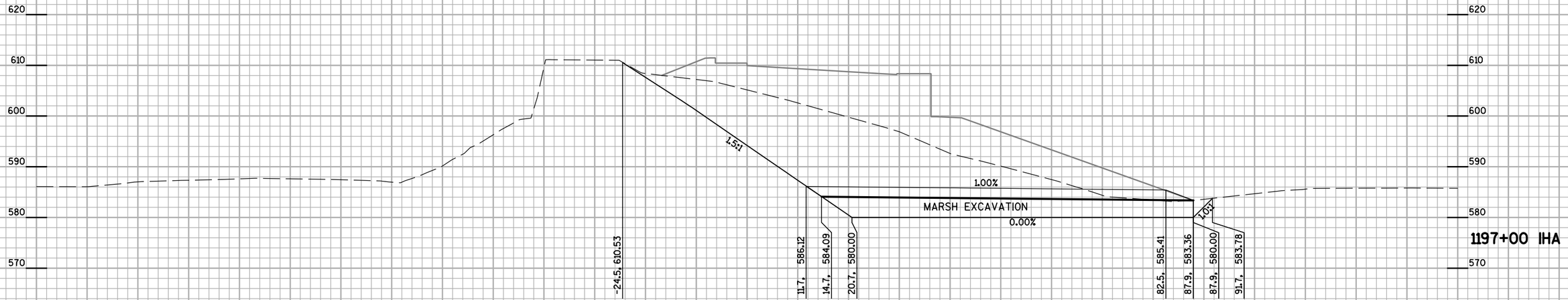


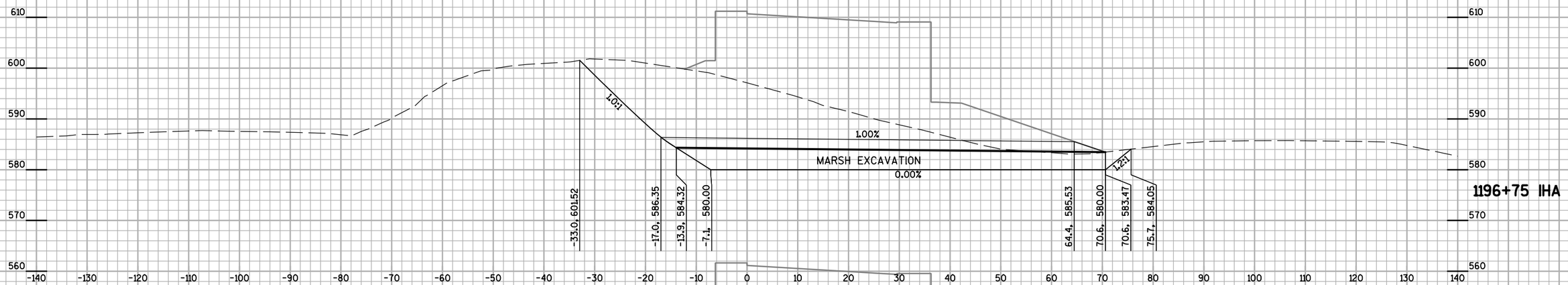
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE - STRIP DRAINS	SHEET 1290	E

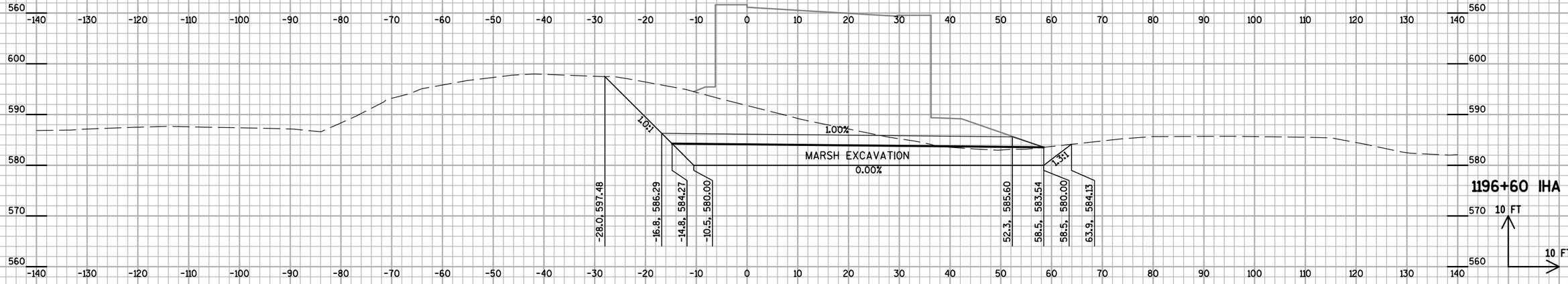
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090152_xs_IHA-SD.dgn PLOT DATE : 5/28/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1196+60 IHA TO 1197+00 IHA





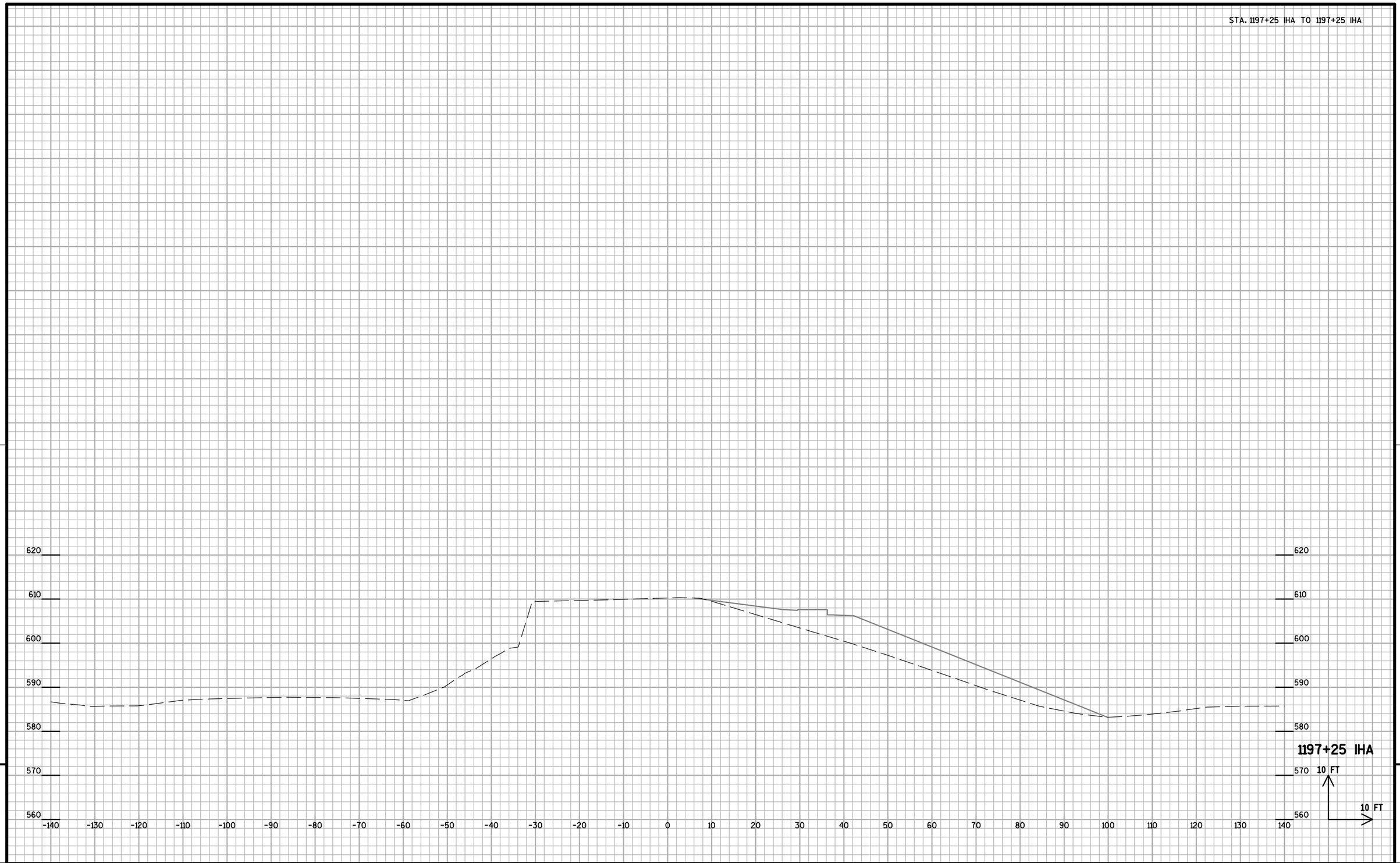


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE - STRIP DRAINS	SHEET 1291	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090152_xs_IHA-SD.dgn | PLOT DATE : 5/28/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1197+25 IHA TO 1197+25 IHA



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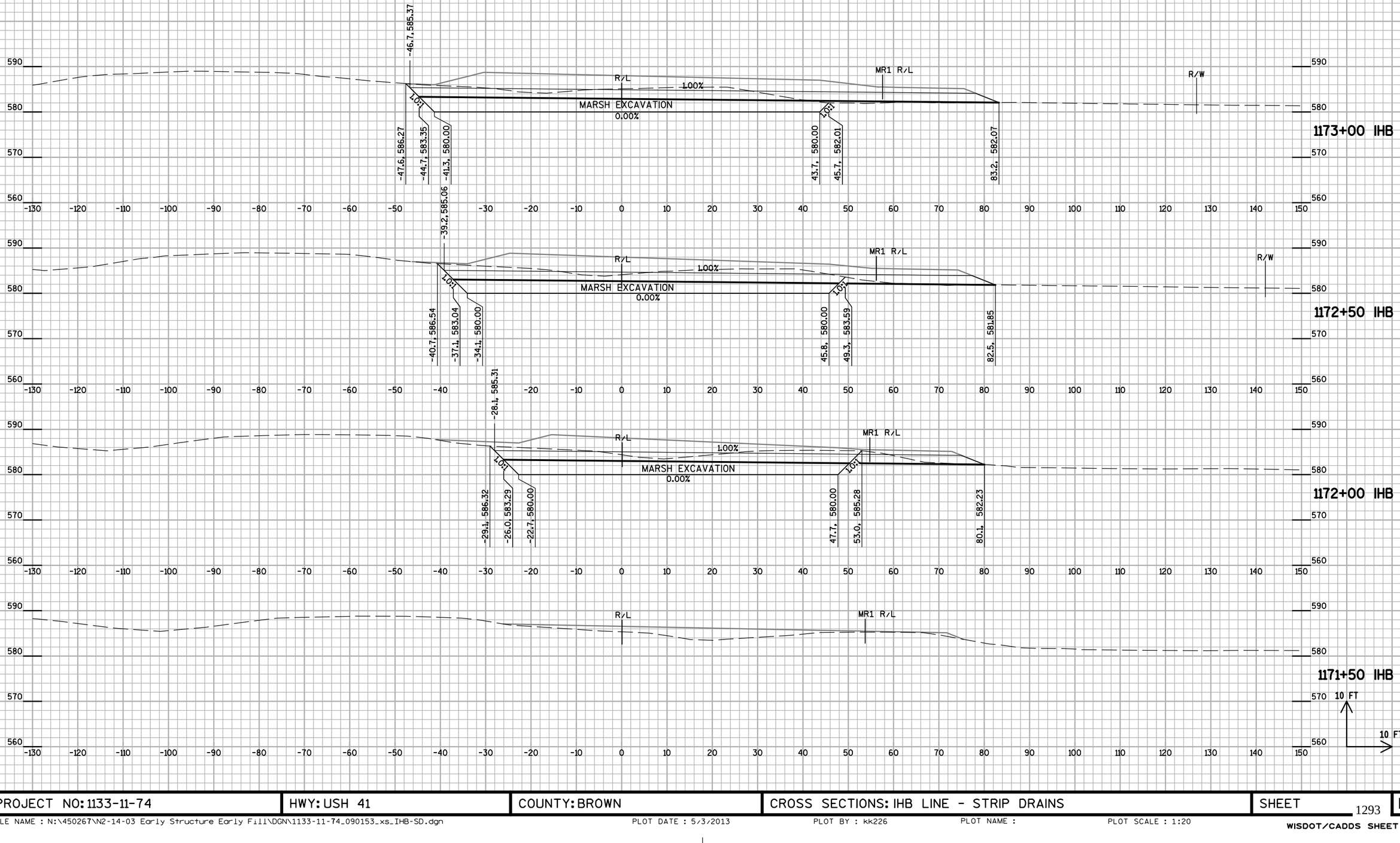
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE - STRIP DRAINS	SHEET 1292	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090152_xs_IHA-SD.dgn PLOT DATE : 5/28/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1171+50 IHB TO 1173+00 IHB

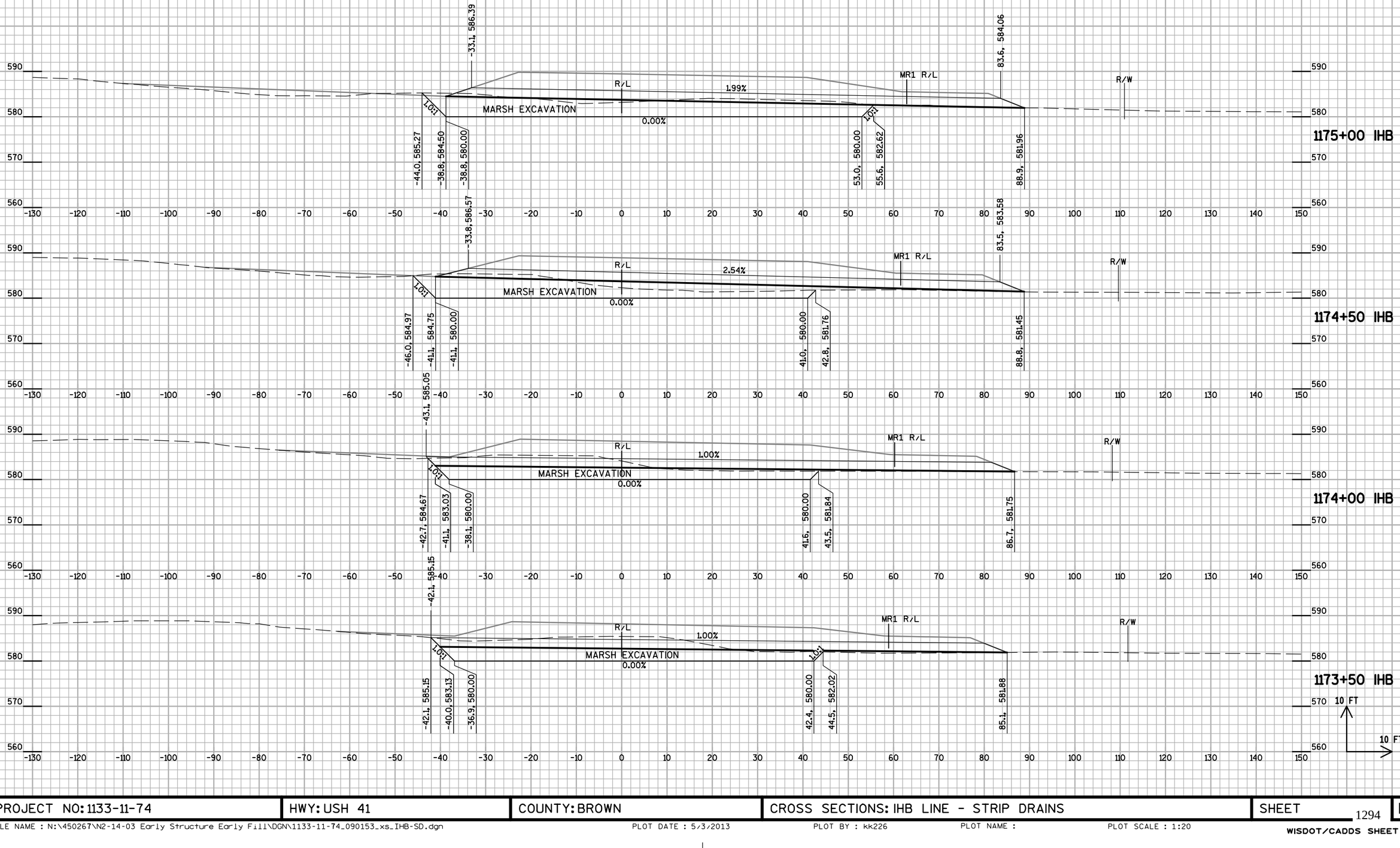


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE - STRIP DRAINS	SHEET 1293	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090153_xs_IHB-SD.dgn | PLOT DATE : 5/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1173+50 IHB TO 1175+00 IHB



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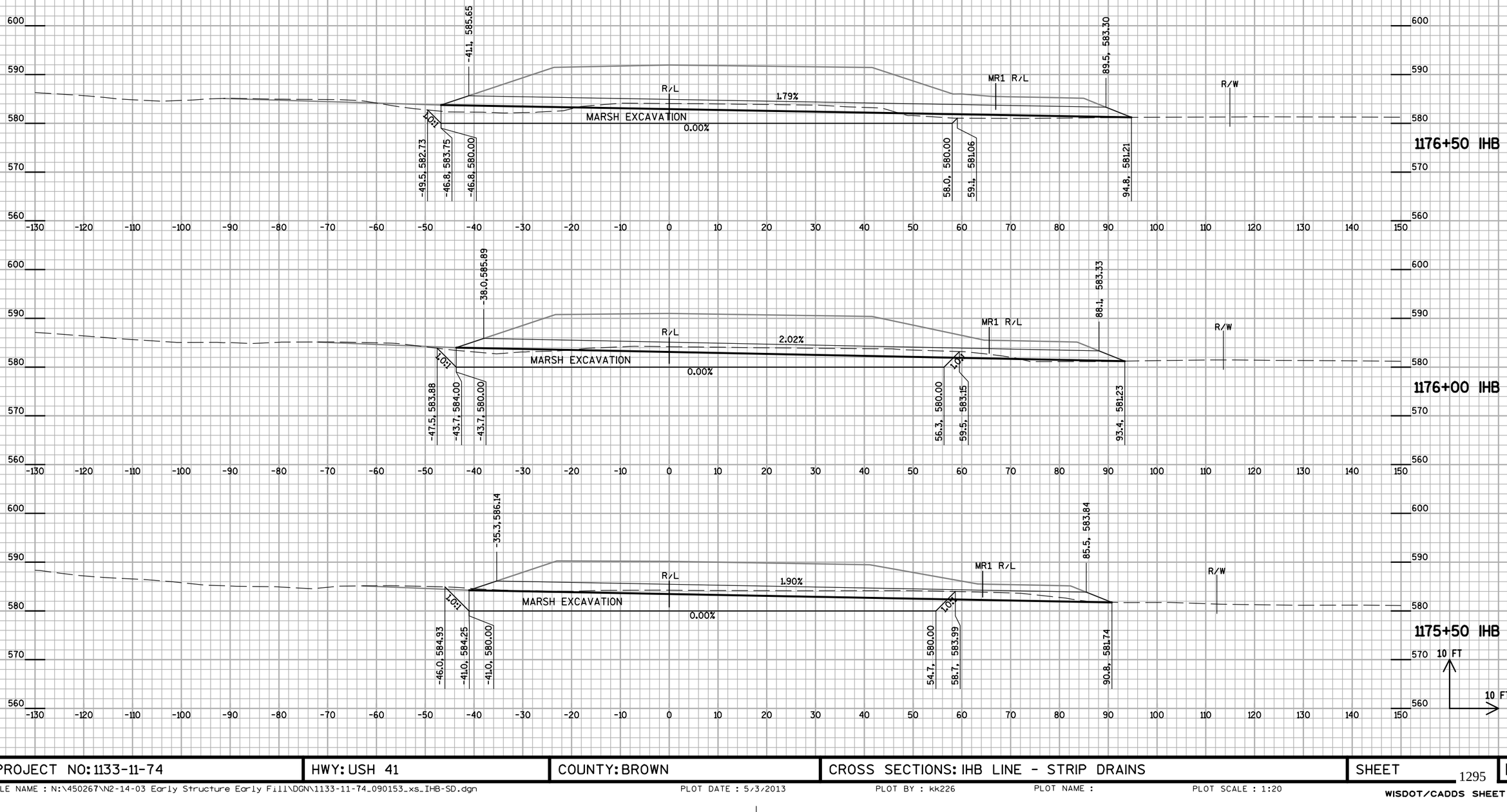
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE - STRIP DRAINS	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090153_xs_IHB-SD.dgn PLOT DATE : 5/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1175+50 IHB TO 1176+50 IHB

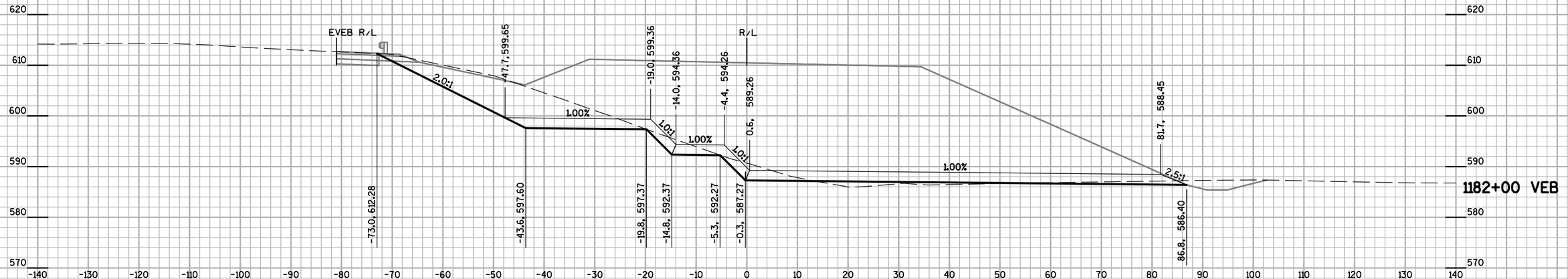


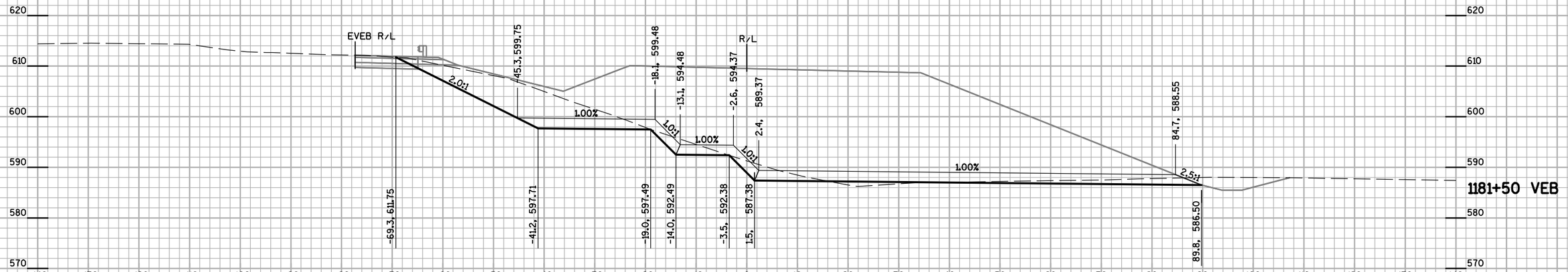
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE - STRIP DRAINS	SHEET 1295	E

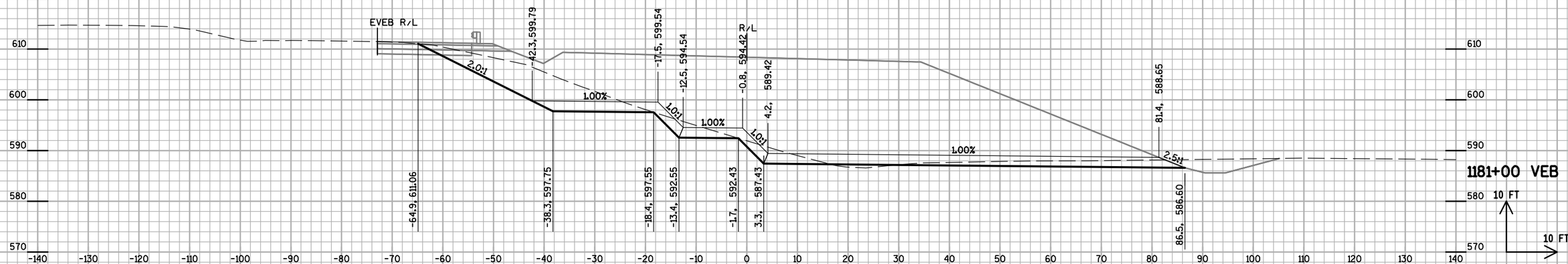
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090153_xs_IHB-SD.dgn PLOT DATE : 5/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1181+00 VEB TO 1182+00 VEB







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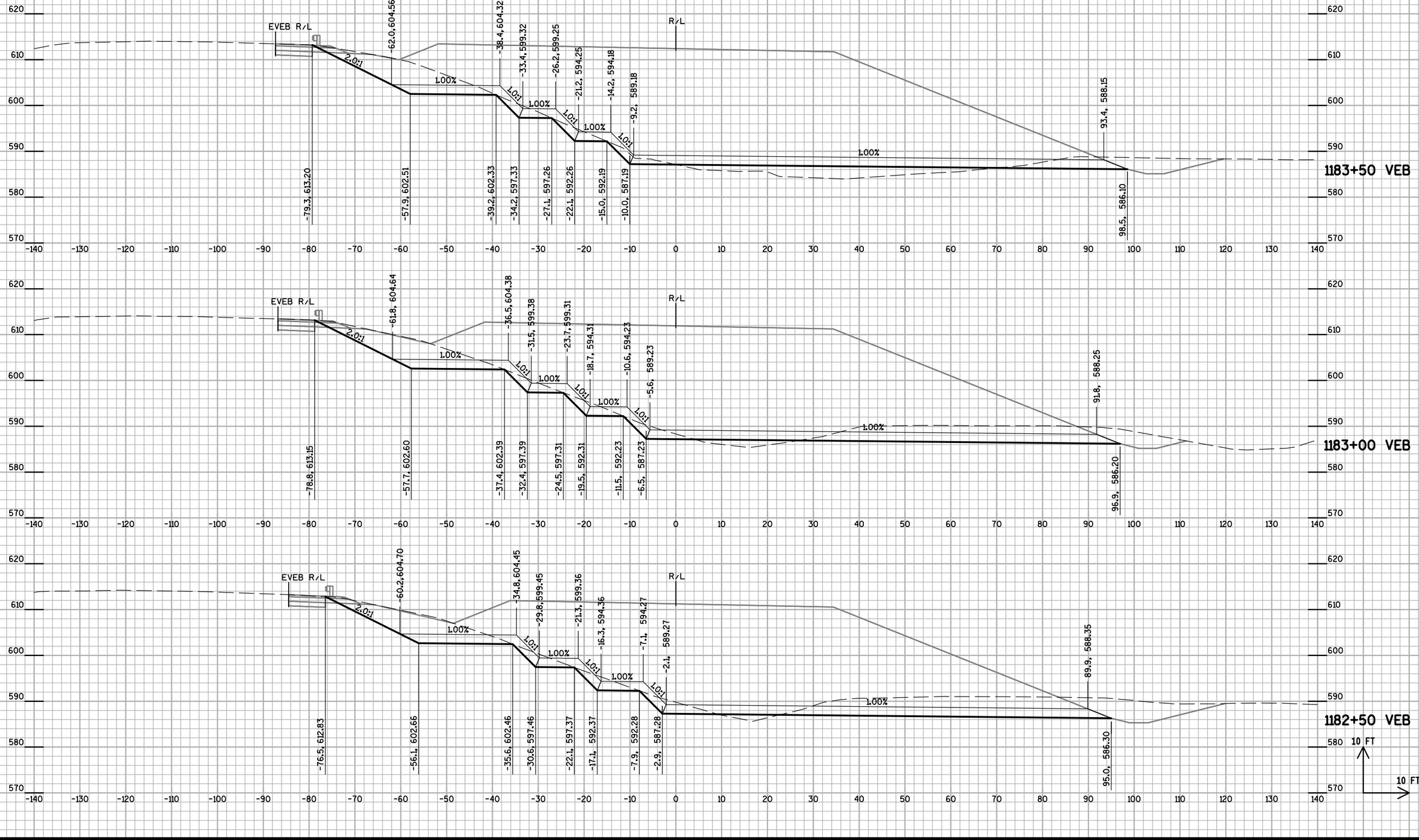
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE - STRIP DRAINS	SHEET 1296	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090153_xs_VEB-SD.dgn | PLOT DATE : 5/2/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

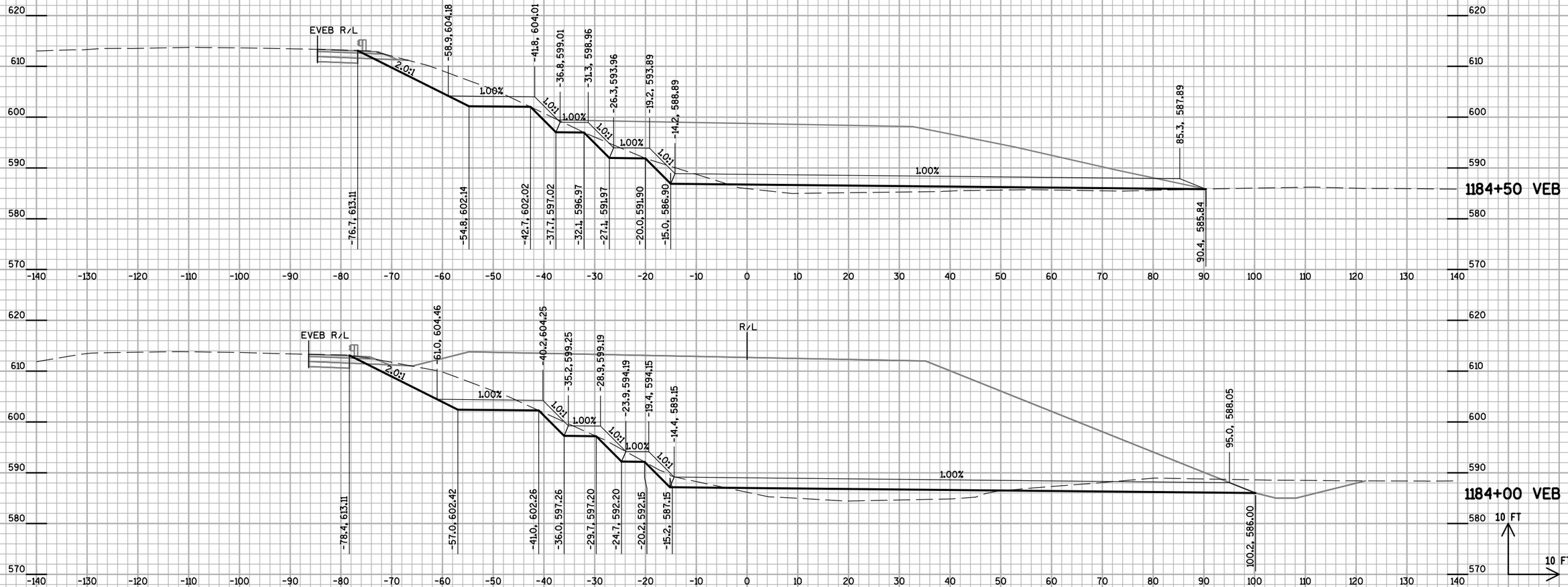
WISDOT/CADDS SHEET 21

STA. 1182+50 VEB TO 1183+50 VEB



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE - STRIP DRAINS	SHEET 1297	E

STA. 1184+00 VEB TO 1184+50 VEB



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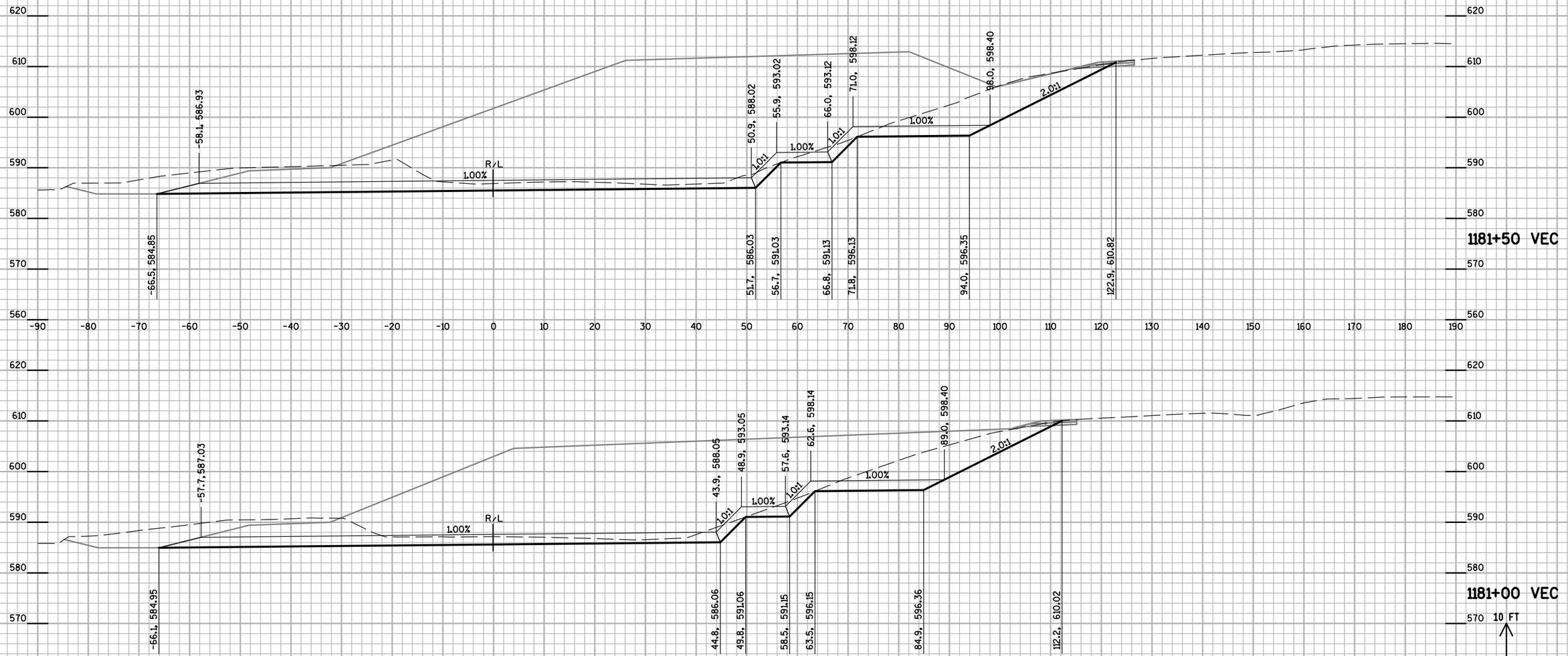
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE - STRIP DRAINS	SHEET 1298	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090153_xs_VEB-SD.dgn PLOT DATE : 5/2/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1181+00 VEC TO 1181+50 VEC



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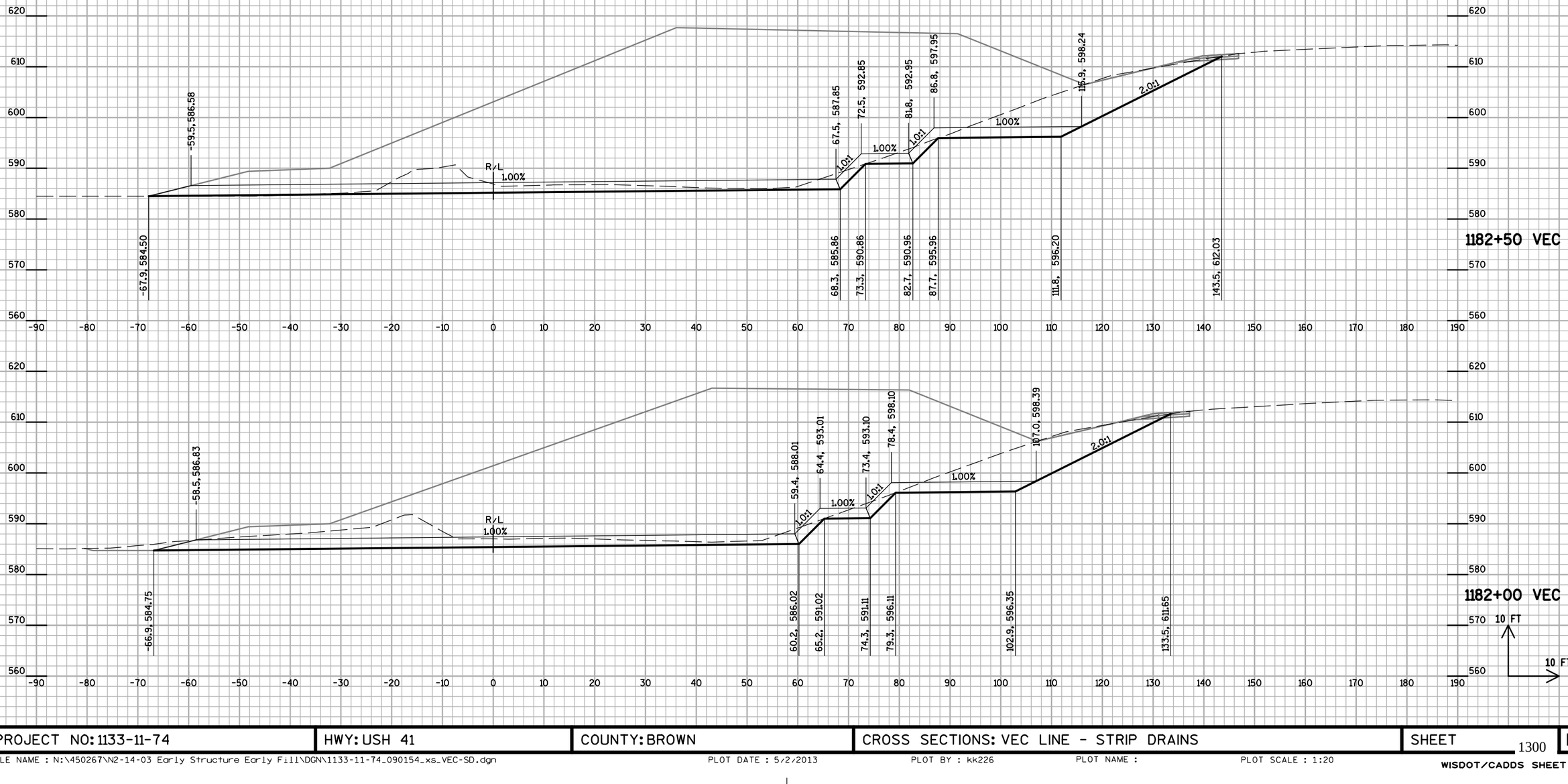
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE - STRIP DRAINS	SHEET 1299	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090154_xs_VEC-SD.dgn PLOT DATE : 5/2/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1182+00 VEC TO 1182+50 VEC



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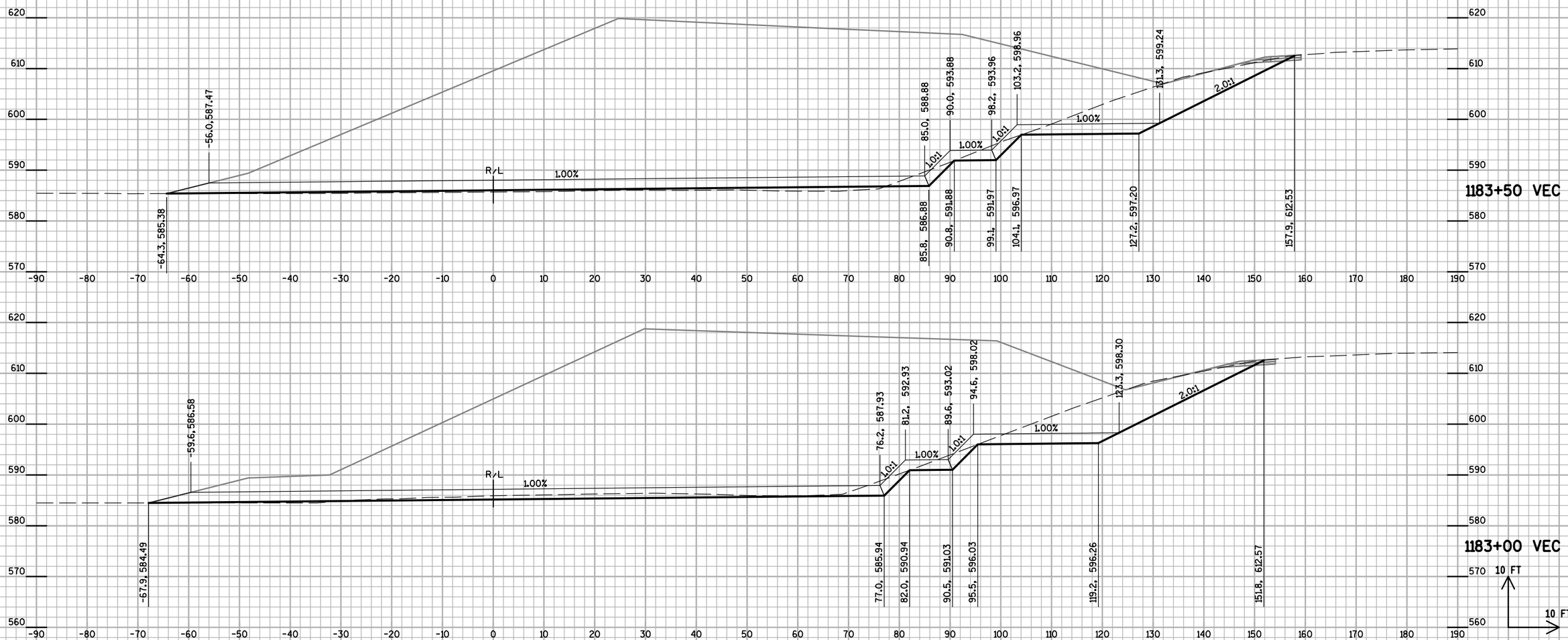
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE - STRIP DRAINS	SHEET 1300	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090154_xs_VEC-SD.dgn PLOT DATE : 5/2/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1183+00 VEC TO 1183+50 VEC



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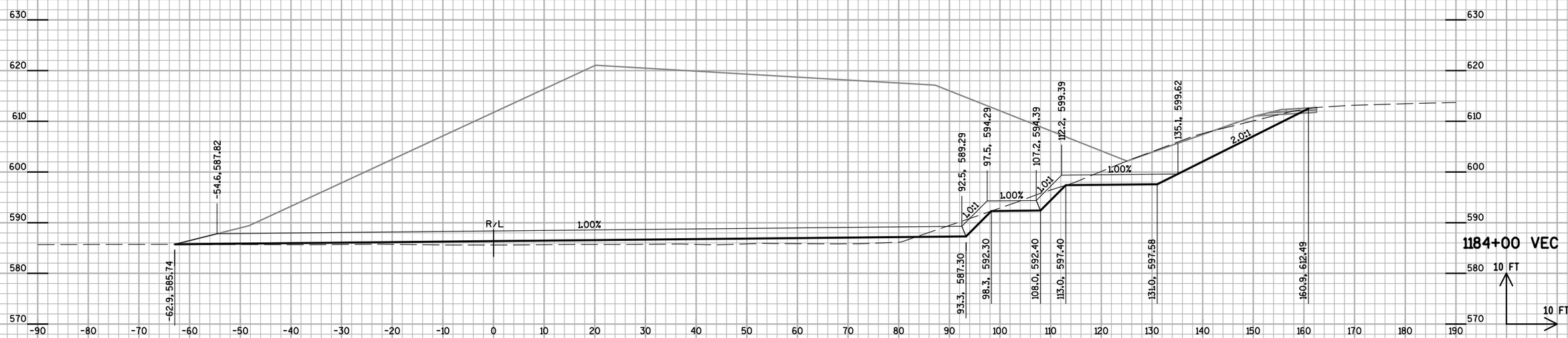
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE - STRIP DRAINS	SHEET 1301	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090154_xs_VEC-SD.dgn | PLOT DATE : 5/2/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1184+00 VEC TO 1184+00 VEC



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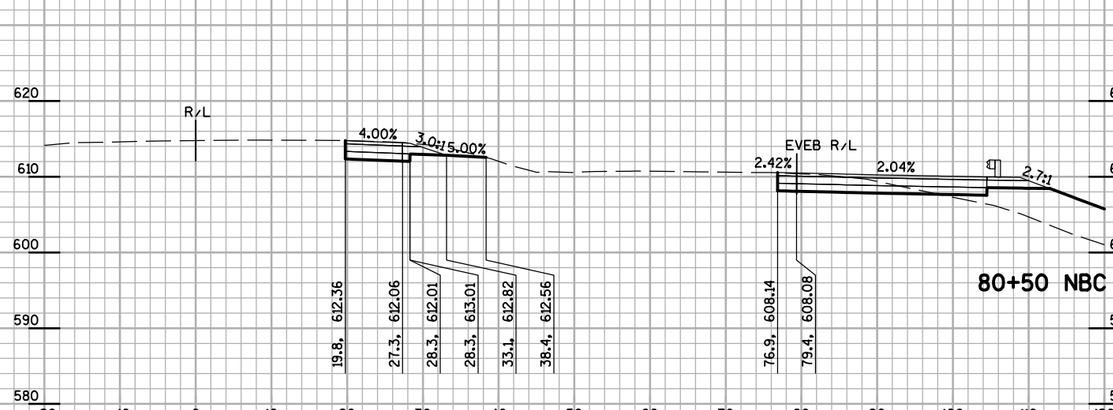
9

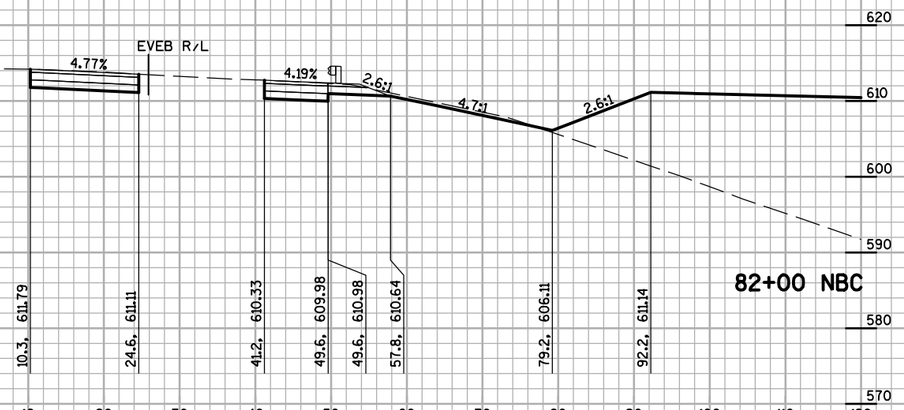
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE - STRIP DRAINS	SHEET 1302	E

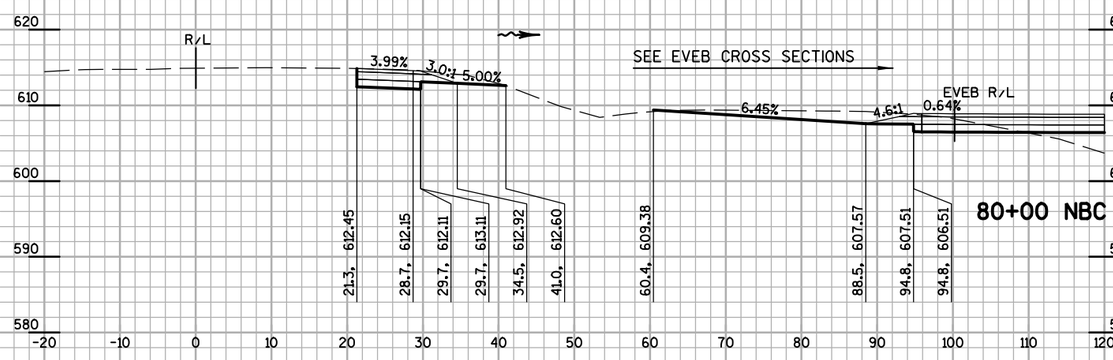
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090154_xs_VEC-SD.dgn PLOT DATE : 5/2/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

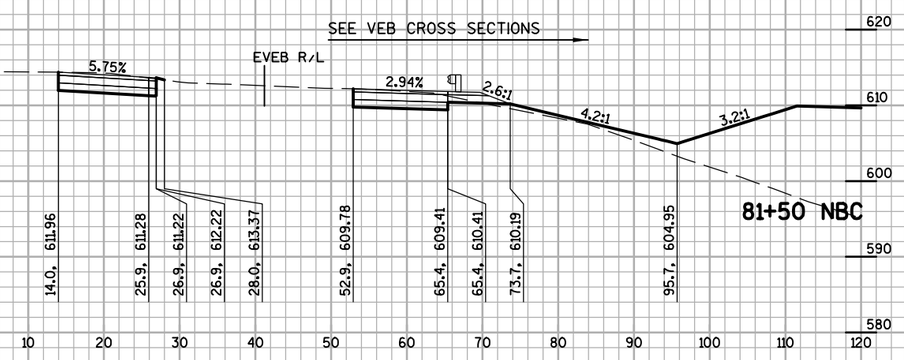
WISDOT/CADDS SHEET 21

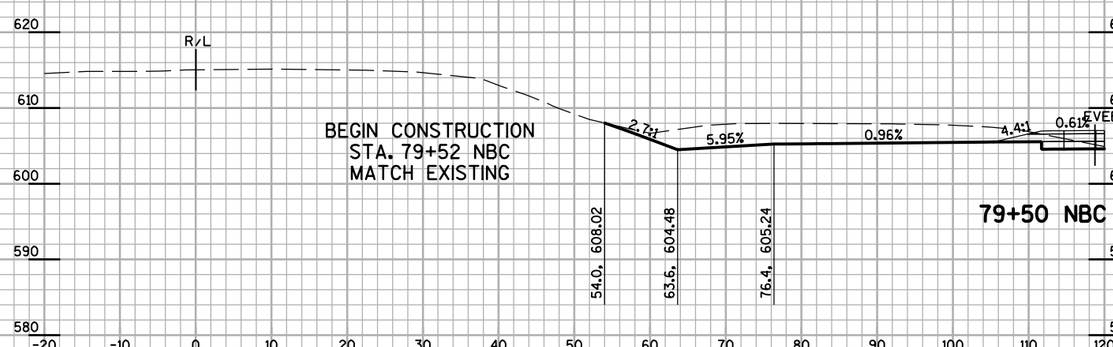
STA. 79+50 NBC TO 82+00 NBC

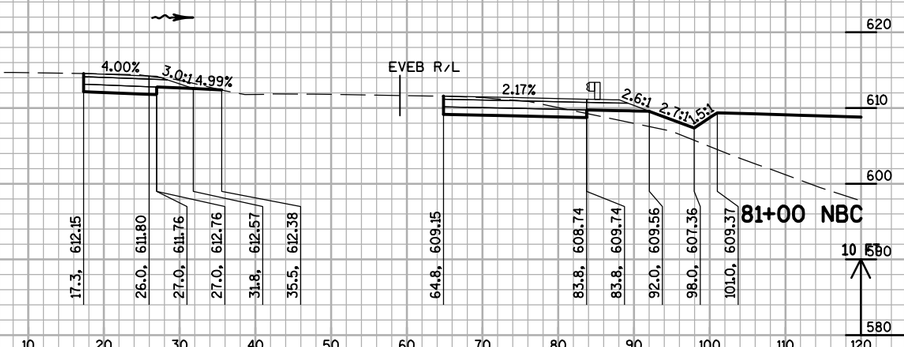












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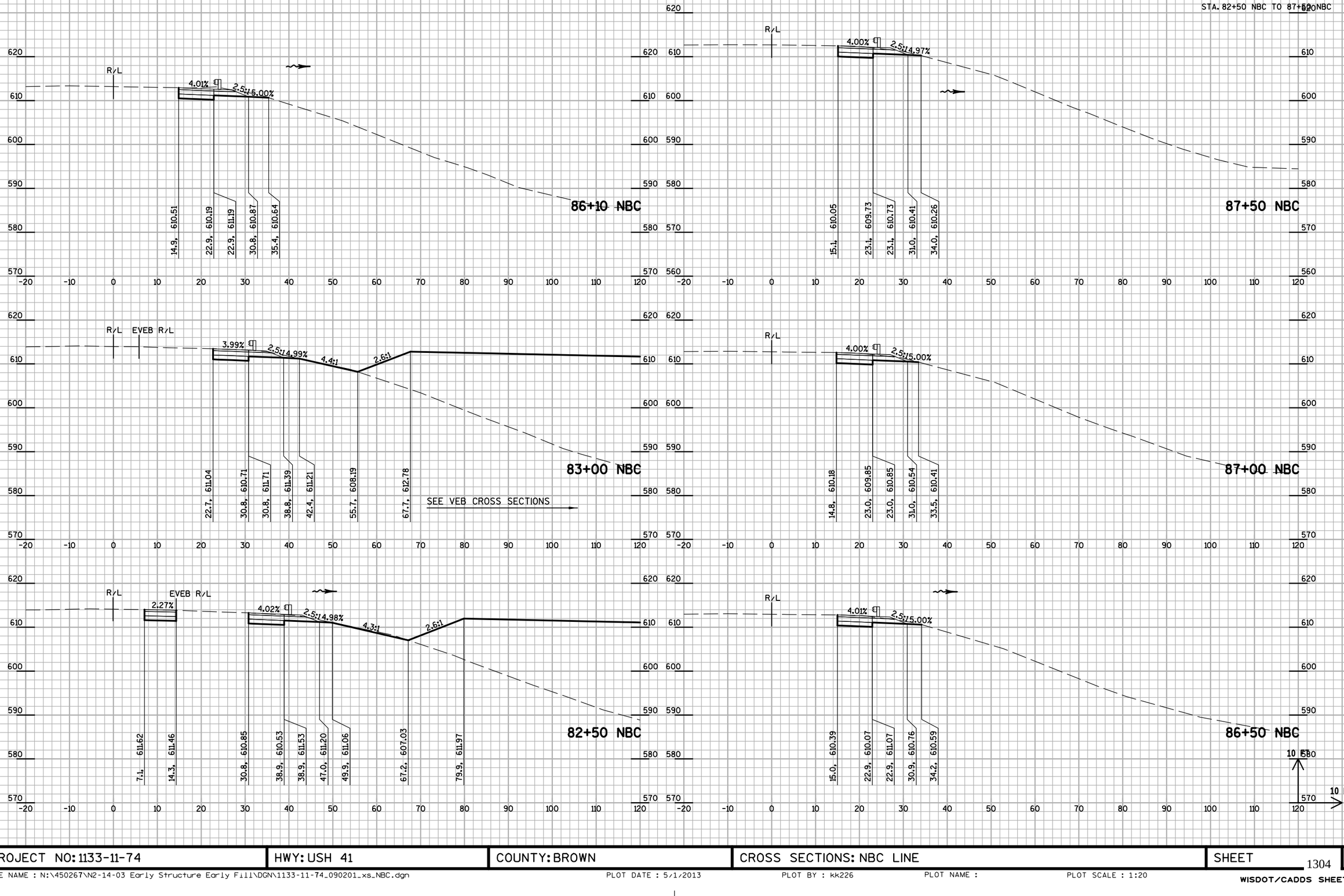
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET 1303	E

STA. 82+50 NBC TO 87+50 NBC



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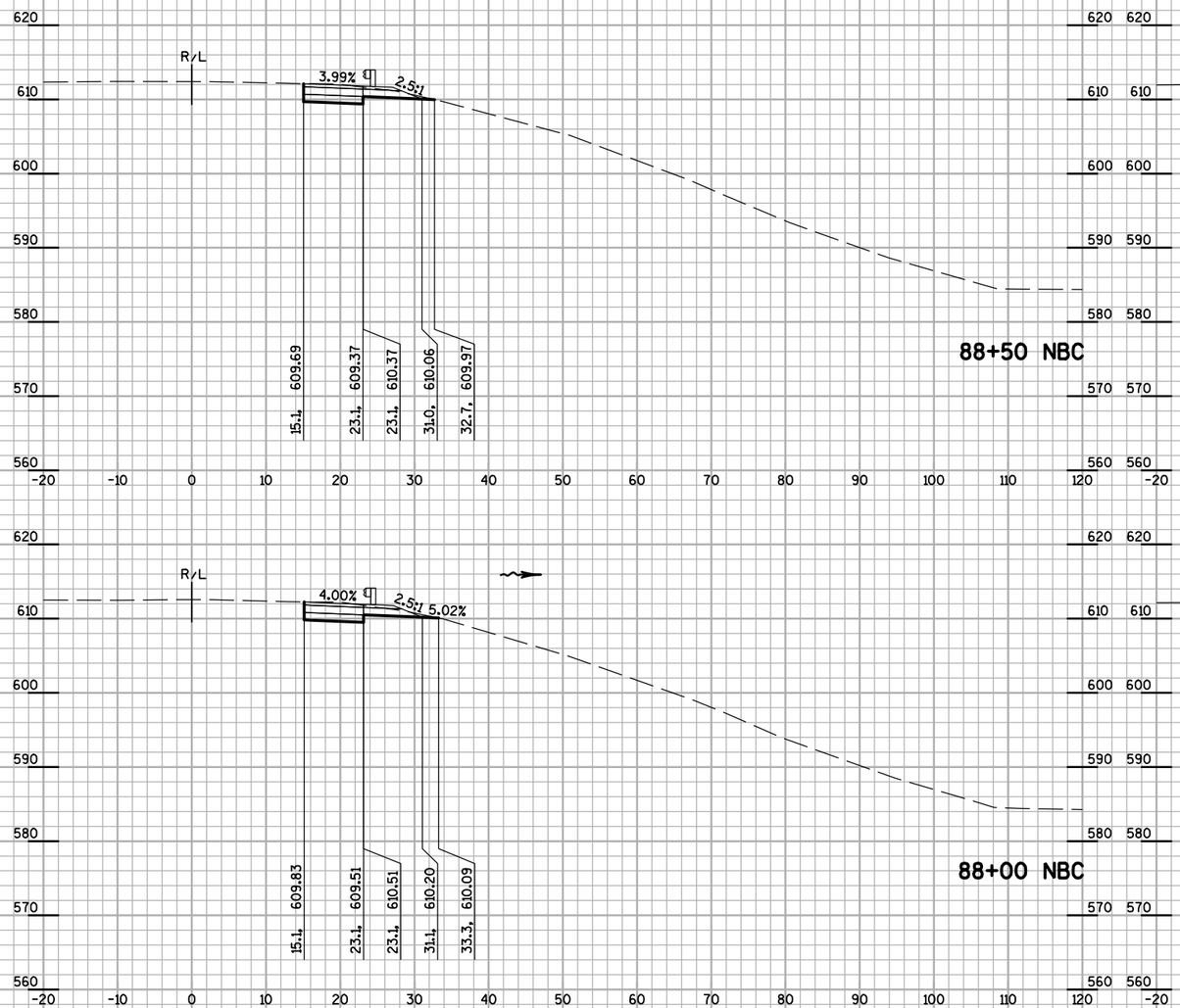
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET 1304	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090201_xs_NBC.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 88+00 NBC TO 89+50 NBC



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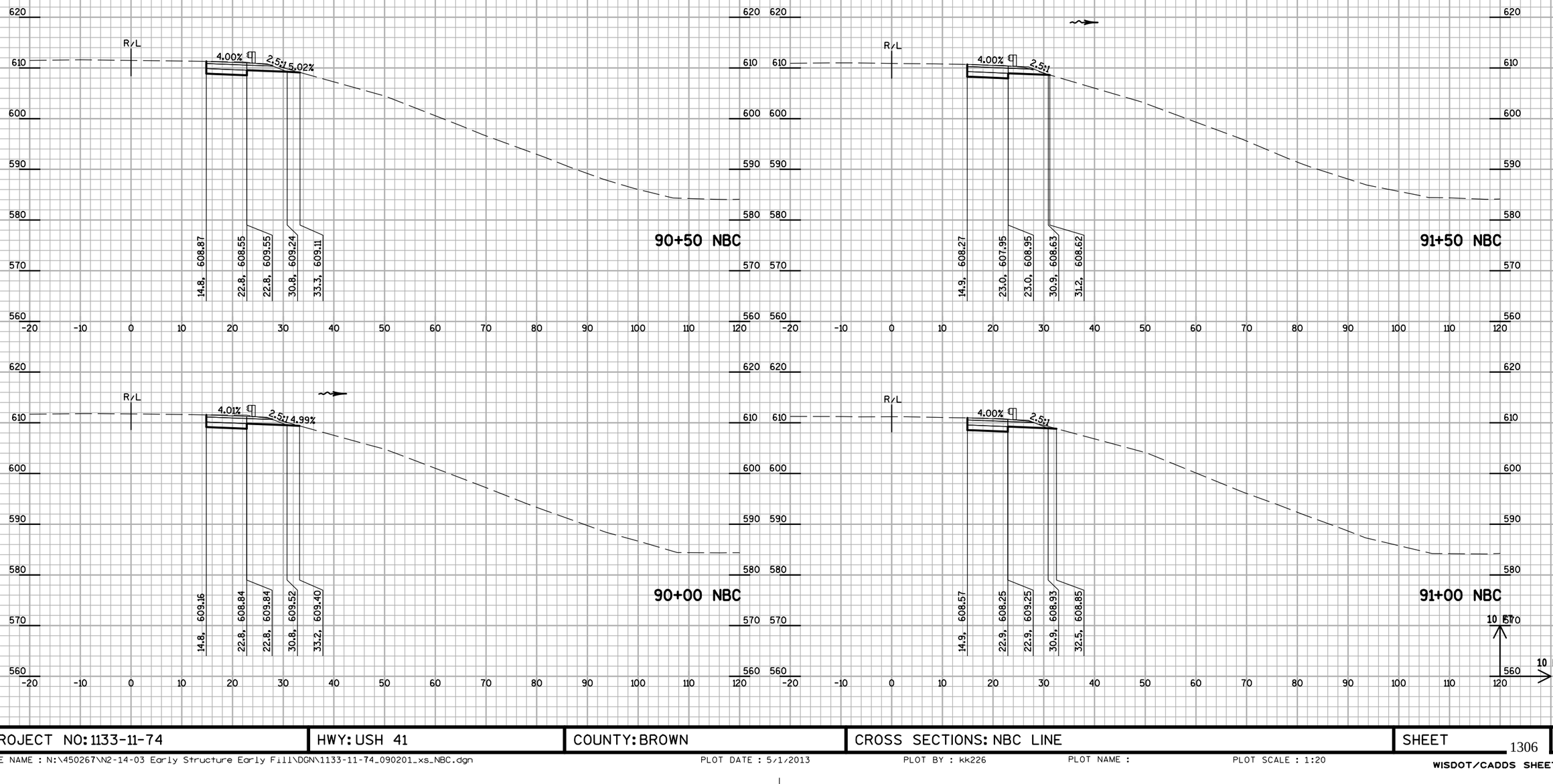
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET 1305	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090201_xs_NBC.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 90+00 NBC TO 91+50 NBC



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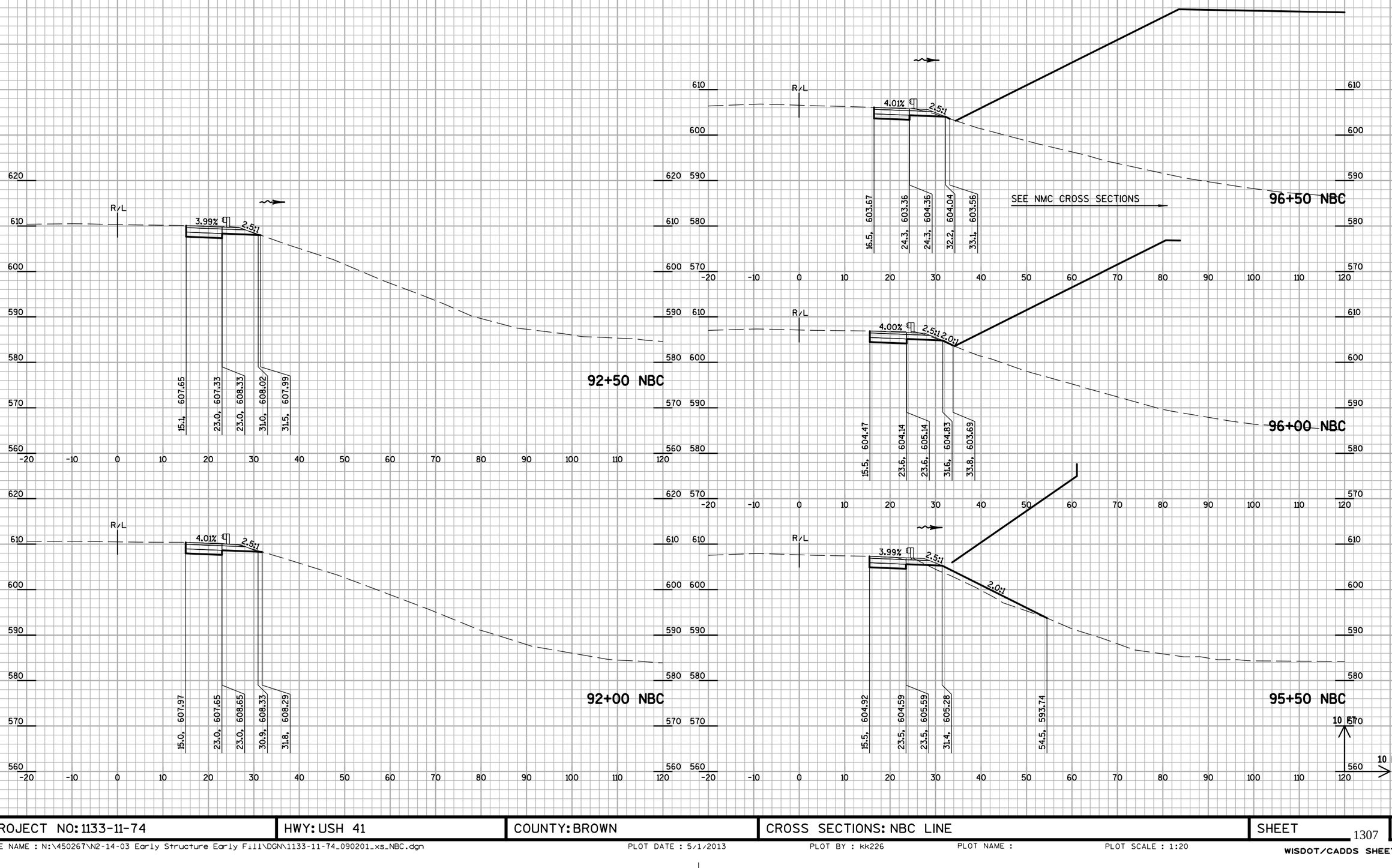
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET 1306	E

STA. 92+00 NBC TO 96+50 NBC



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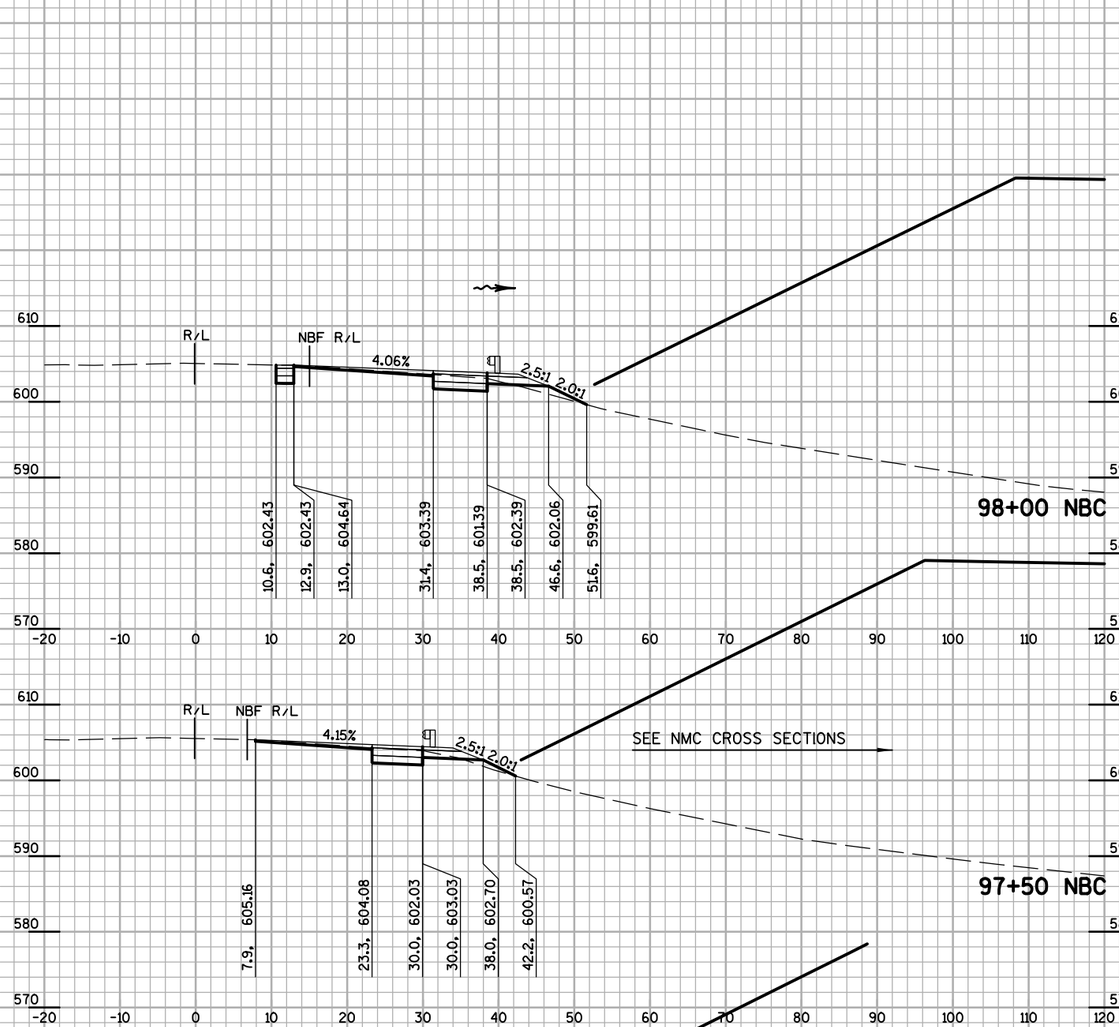
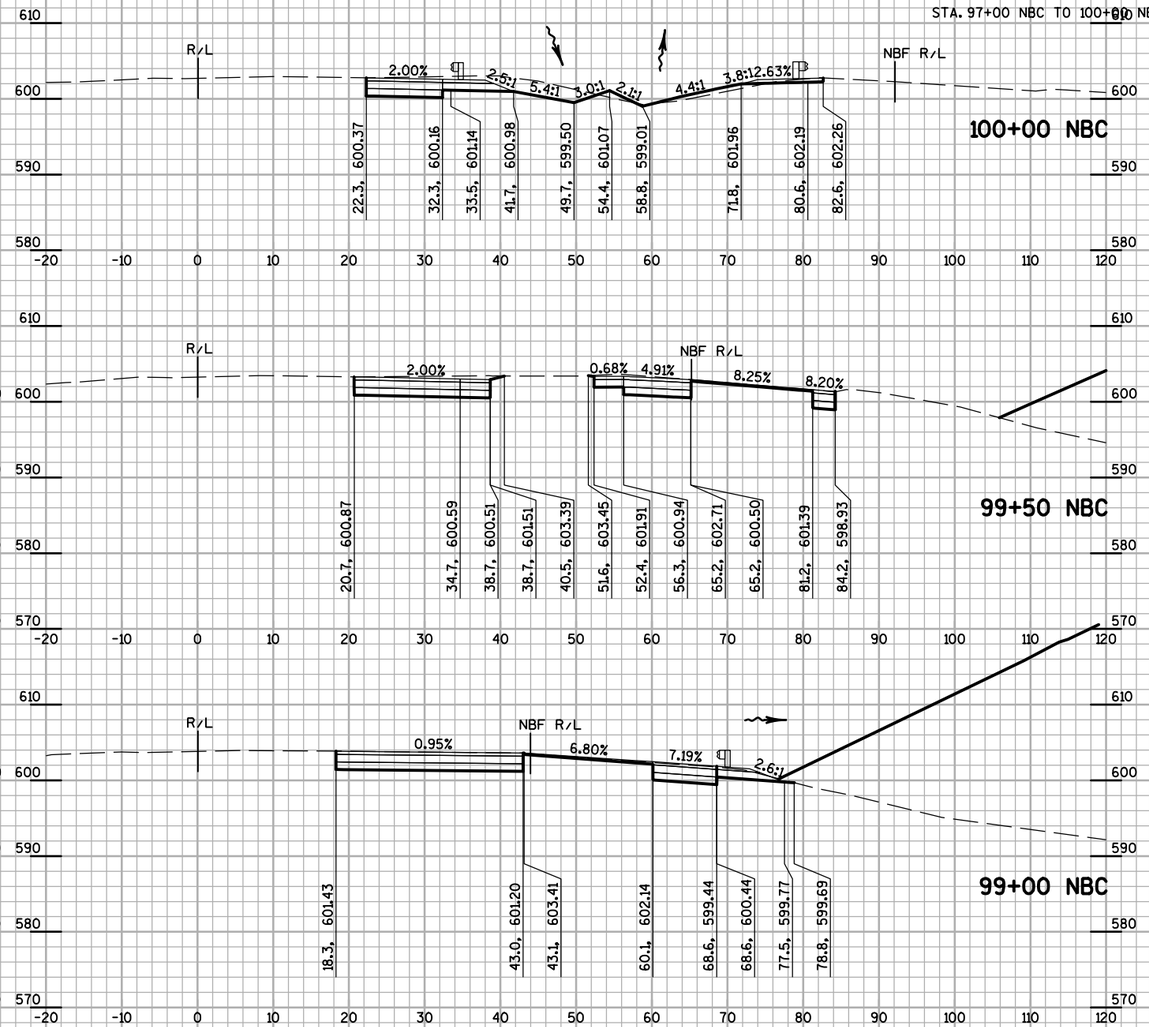
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090201_xs_NBC.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 97+00 NBC TO 100+00 NBC





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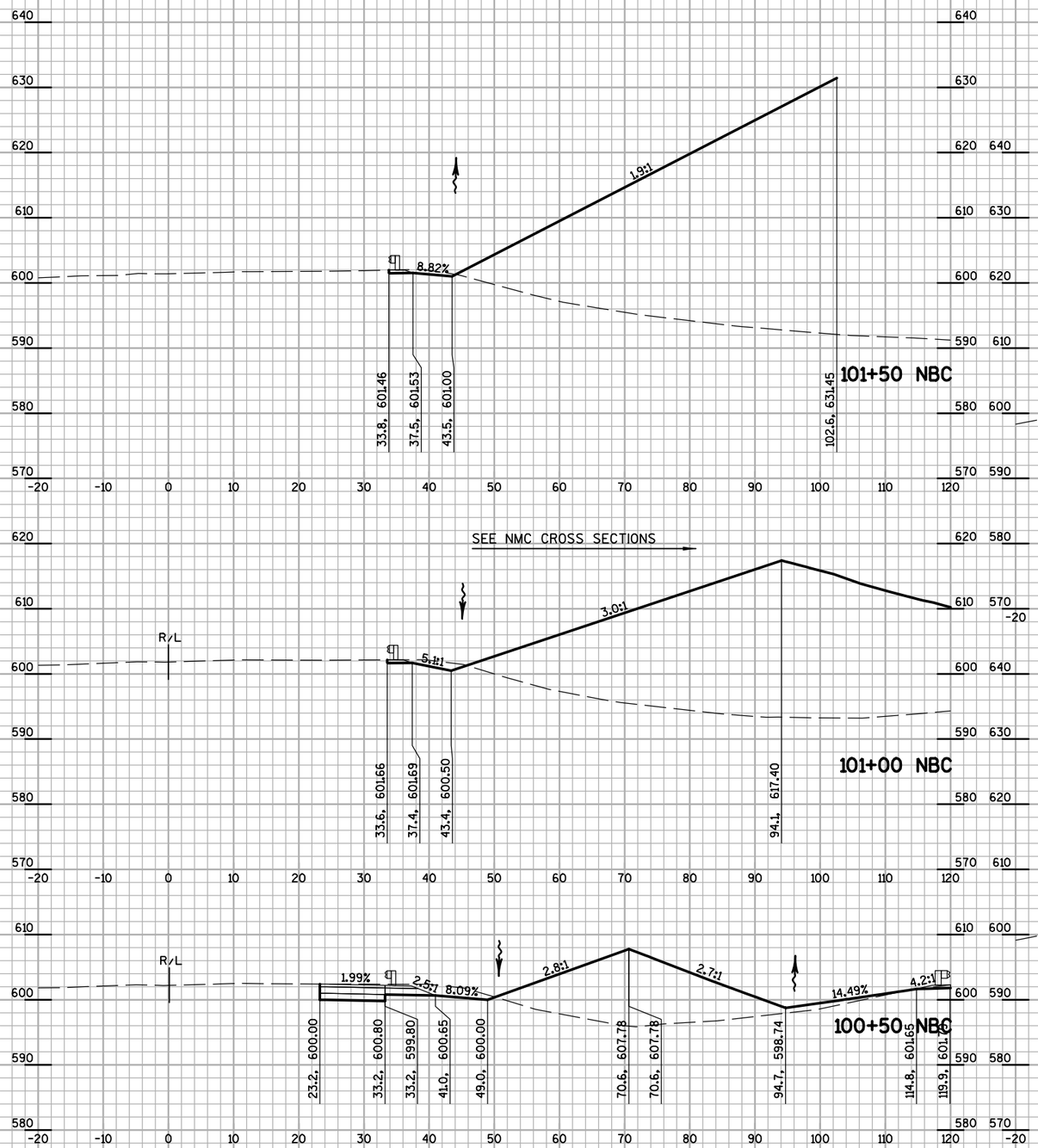
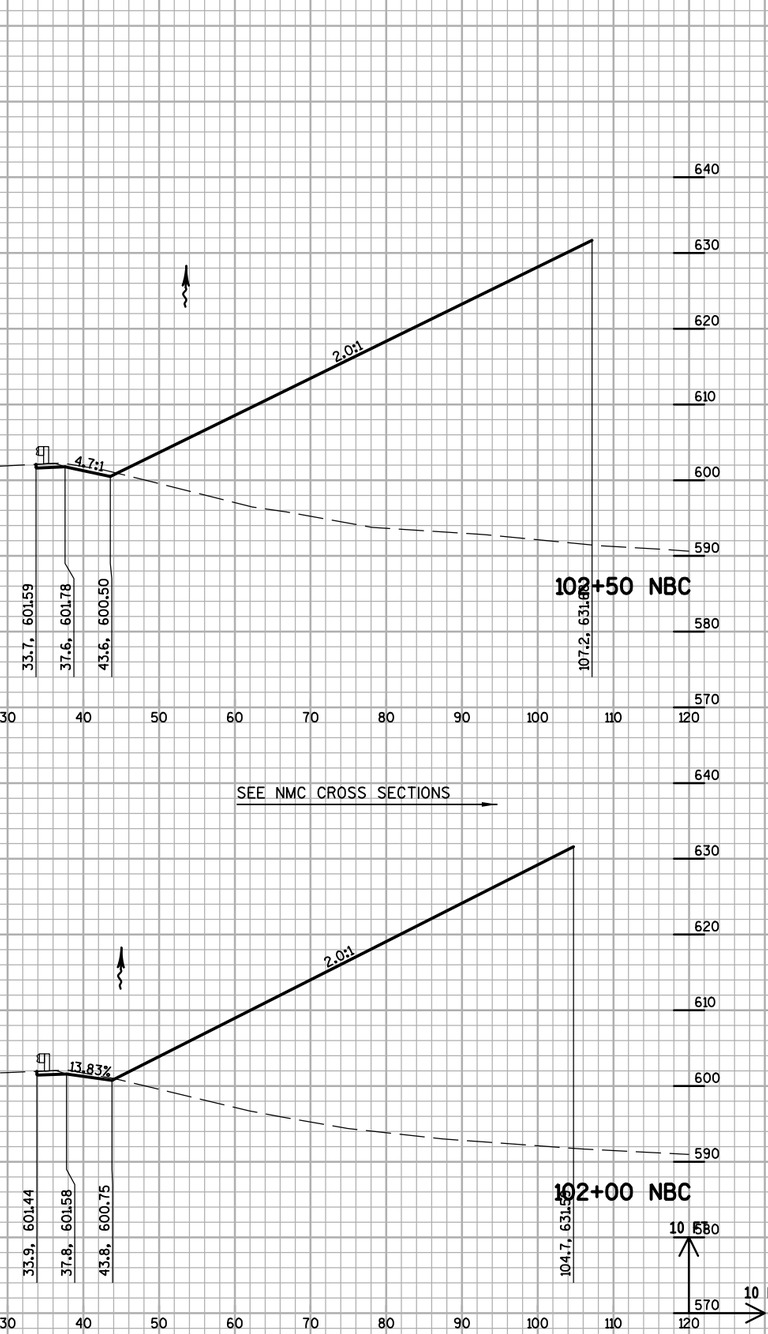
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090201_xs_NBC.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 100+50 NBC TO 102+50 NBC





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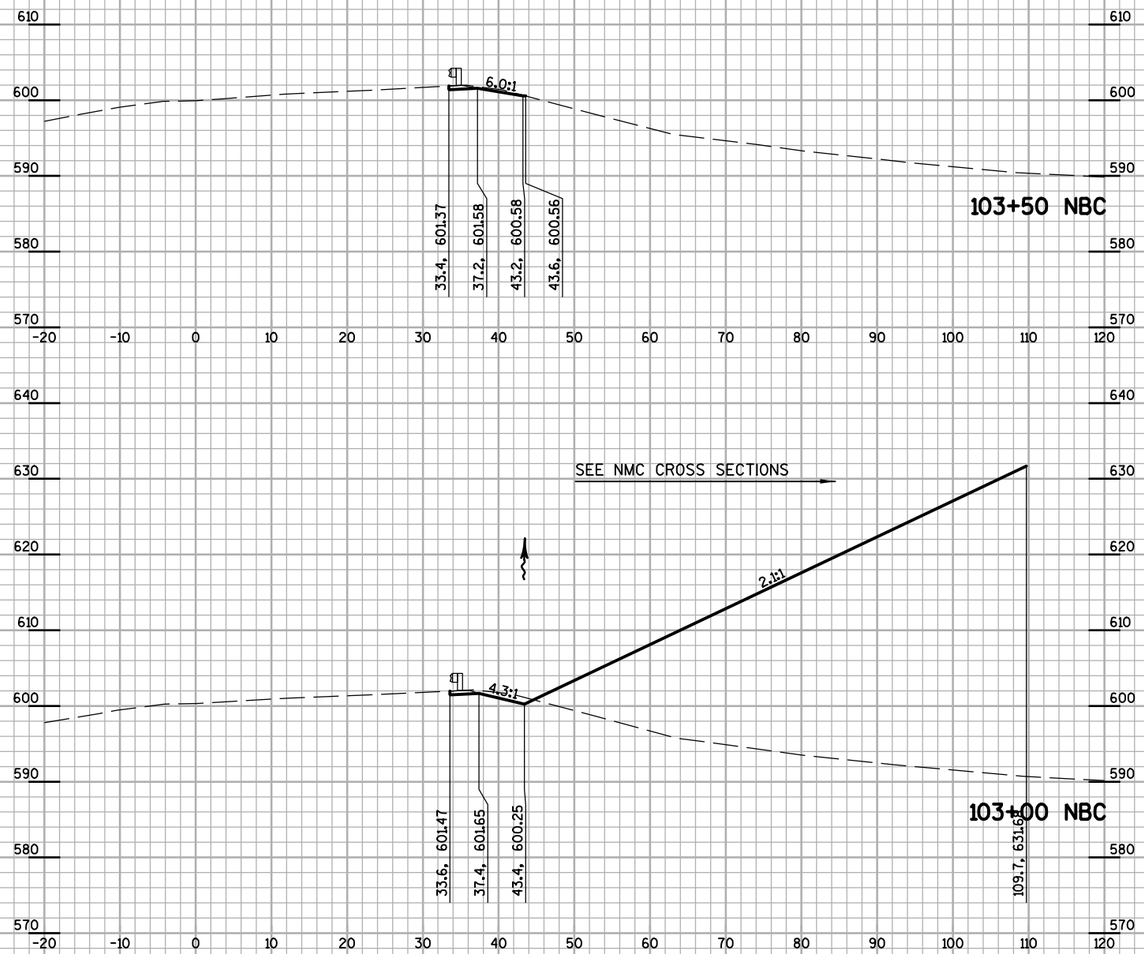
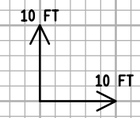
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090201_xs_NBC.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 103+00 NBC TO 103+50 NBC





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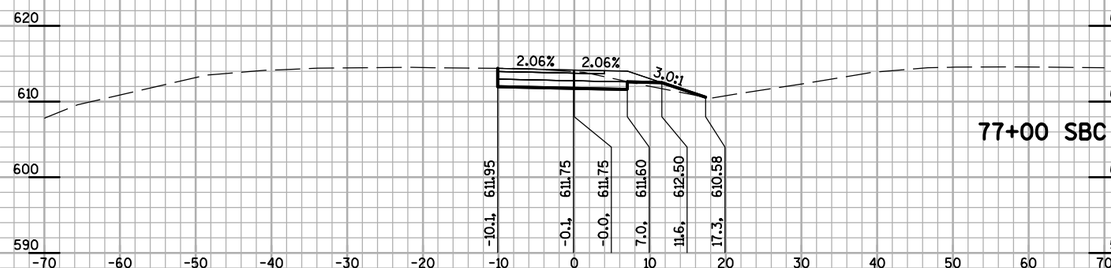
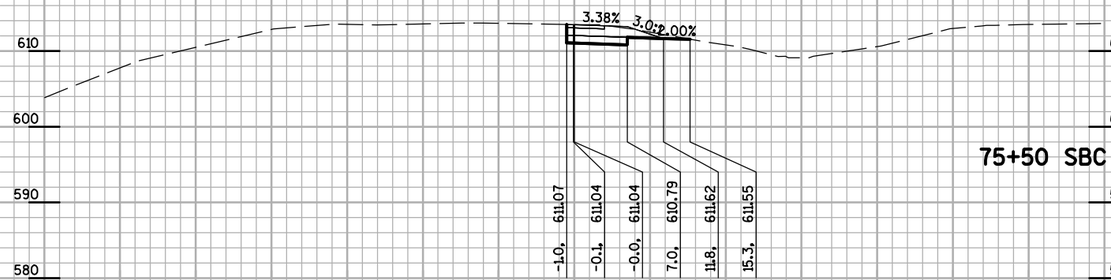
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBC LINE	SHEET	E

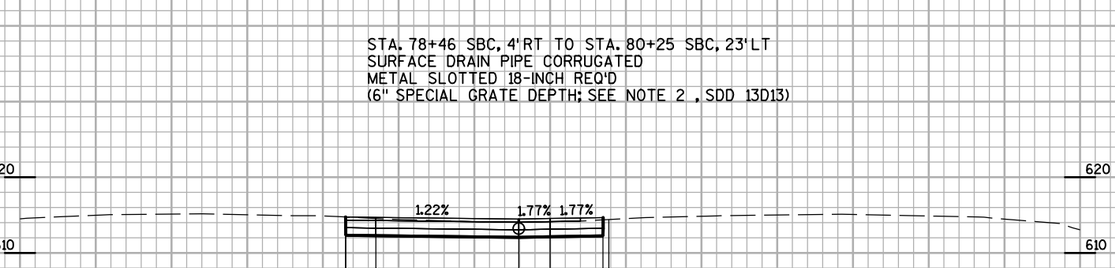
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090201_xs_NBC.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

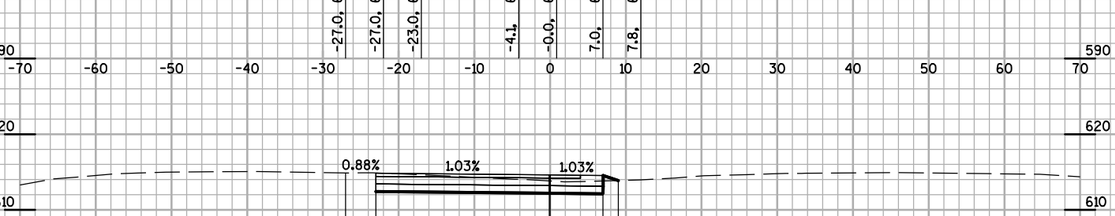
WISDOT/CADDS SHEET 21

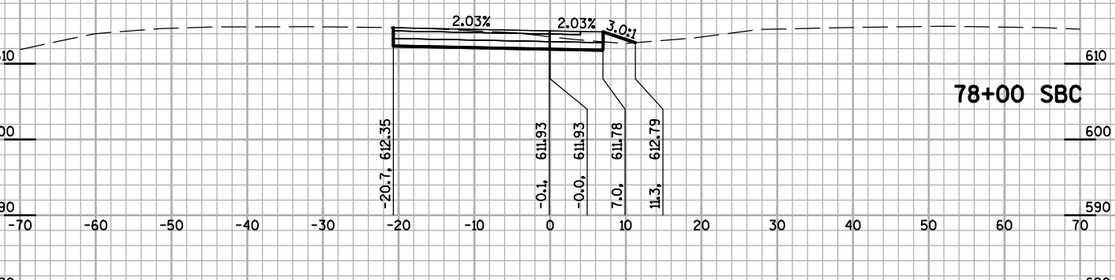
STA. 78+46 SBC, 4'RT TO STA. 80+25 SBC, 23'LT
SURFACE DRAIN PIPE CORRUGATED
METAL SLOTTED 18-INCH REQ'D
(6" SPECIAL GRATE DEPTH; SEE NOTE 2 , SDD 13D13)

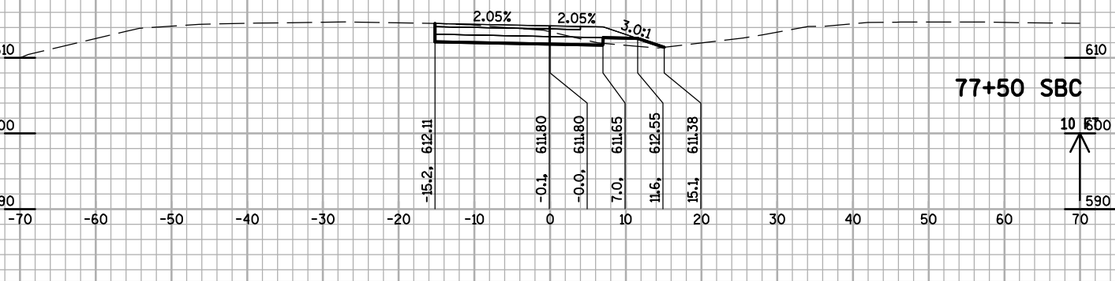










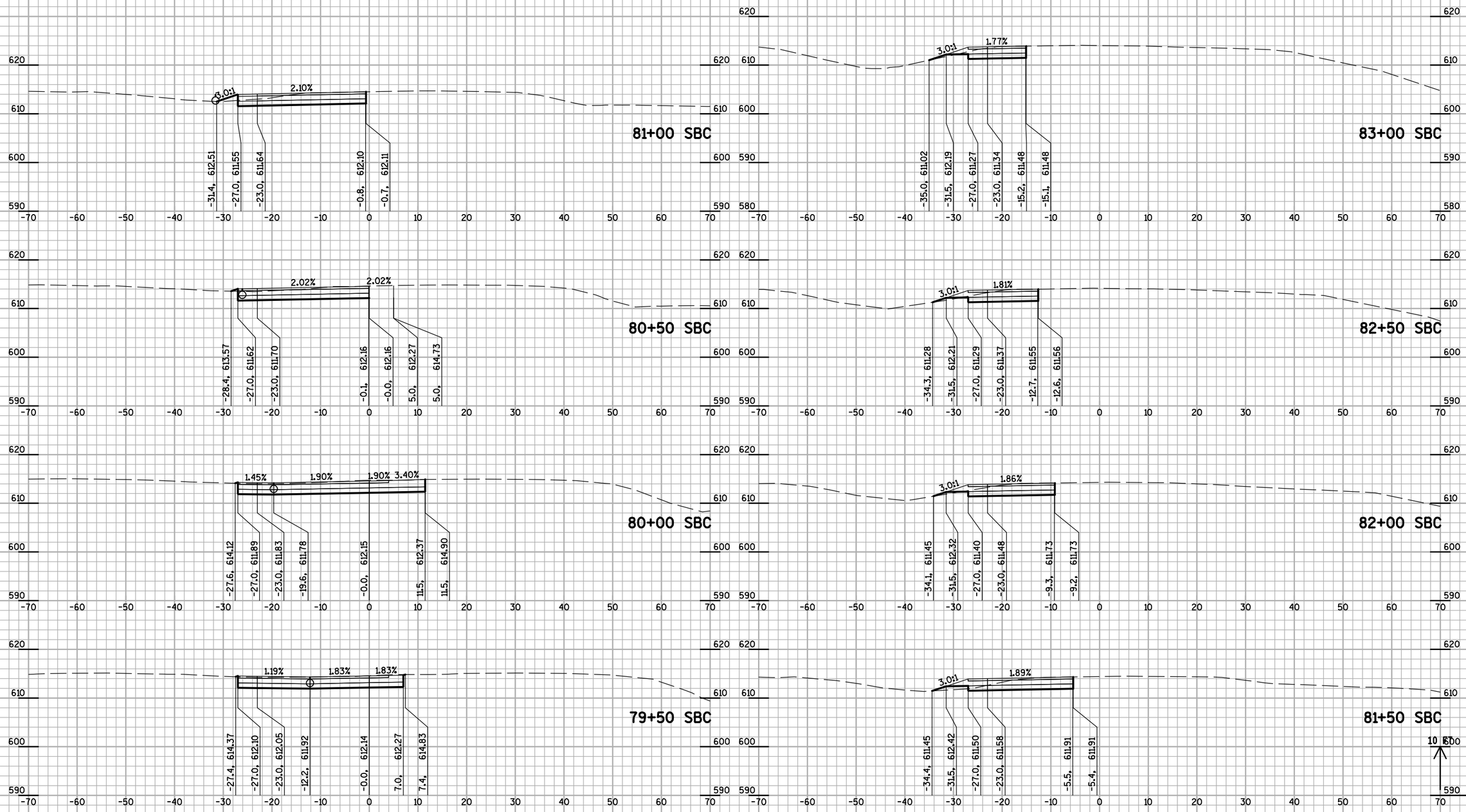


9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1311	E

STA. 80+25 SBC, 23'LT TO STA. 81+39 SBC, 35'LT
CULVERT PIPE CORRUGATED STEEL 18-INCH REQ'D

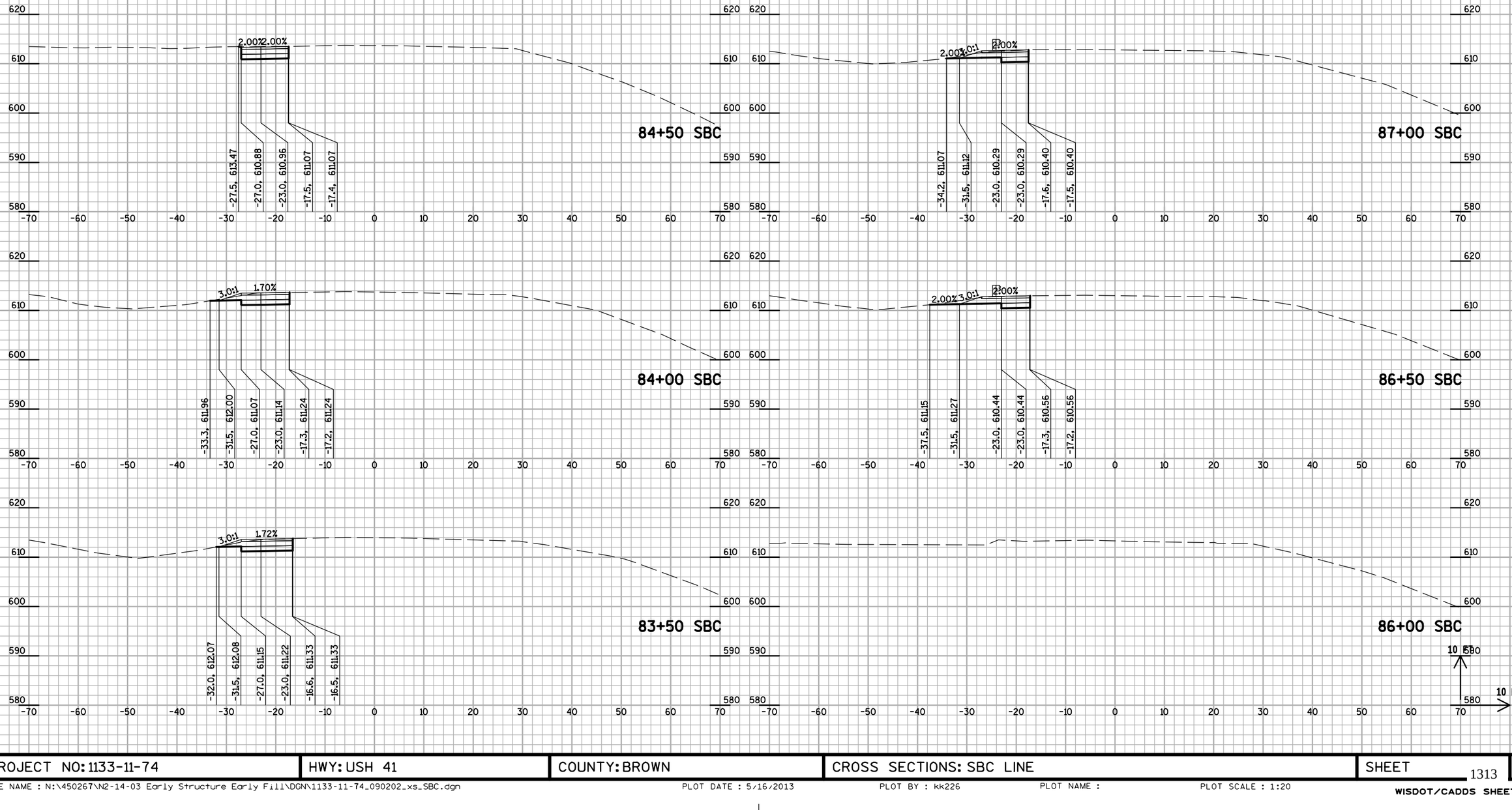


9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1312	E

STA. 83+50 SBC TO 87+00 SBC



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1313	E

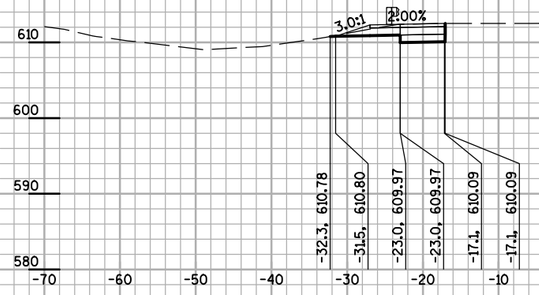
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090202_xs_SBC.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

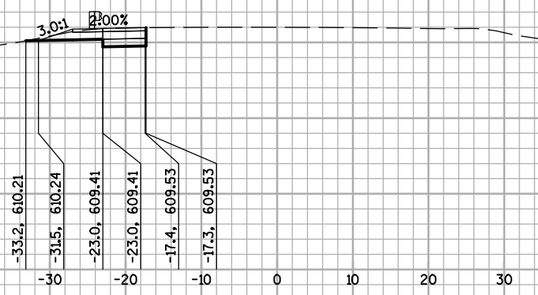
STA. 87+50 SBC TO 90+00 SBC

88+50 SBC

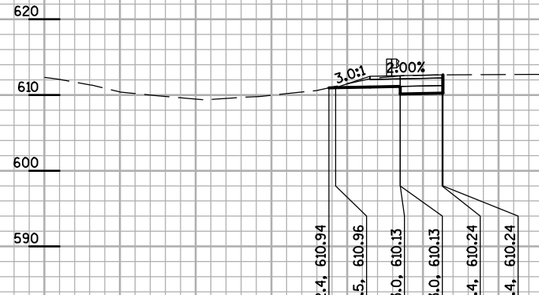
90+00 SBC



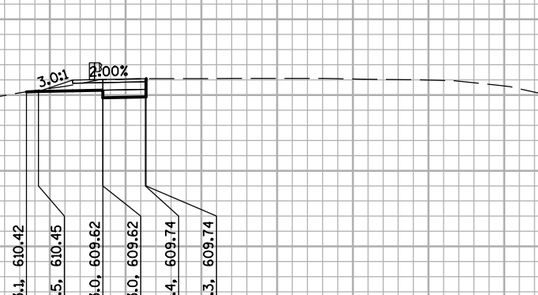
88+00 SBC



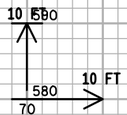
89+50 SBC



87+50 SBC



89+00 SBC



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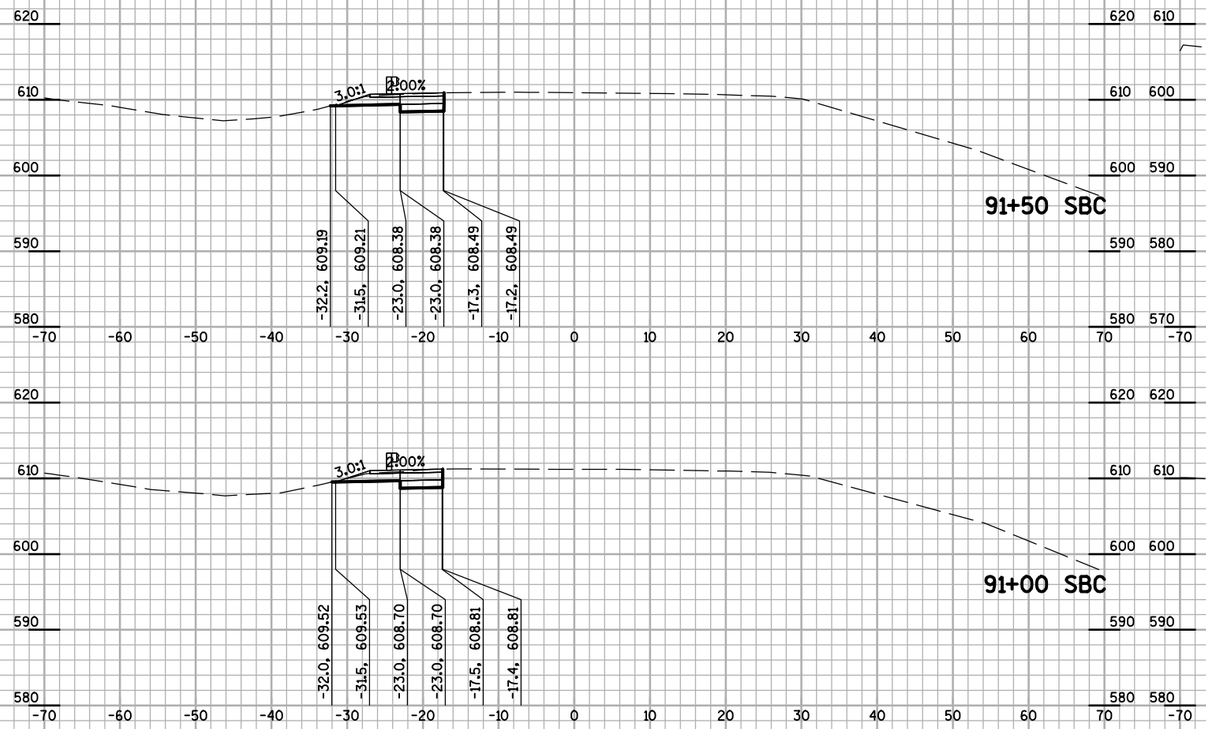
9

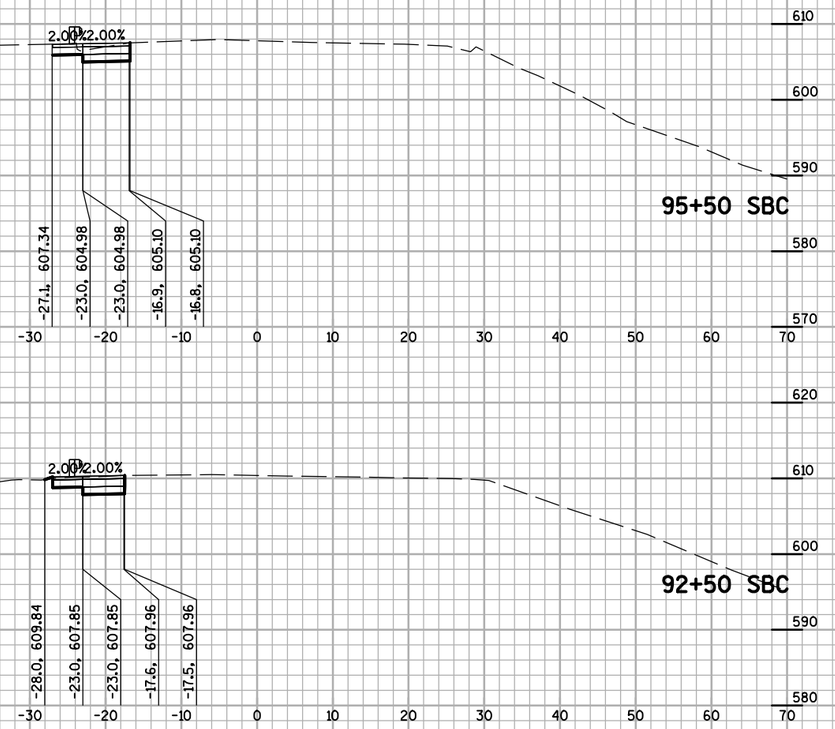
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1314	E

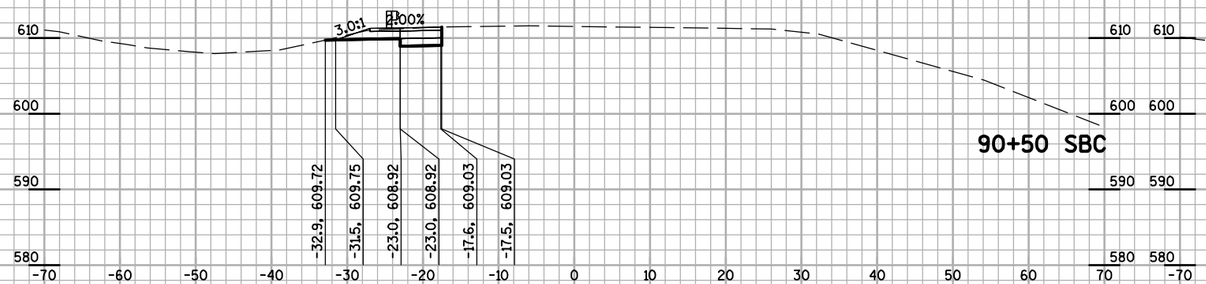
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090202_xs_SBC.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 90+50 SBC TO 95+50 SBC







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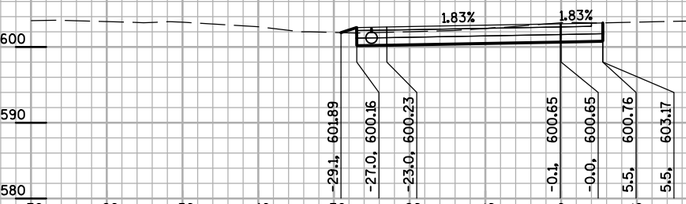
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1315	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090202_xs_SBC.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

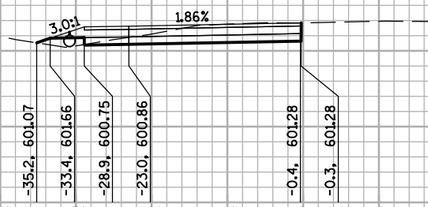
STA. 96+00 SBC TO 99+50 SBC

97+50 SBC

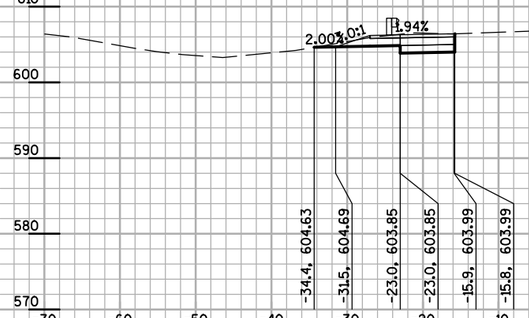


99+50 SBC

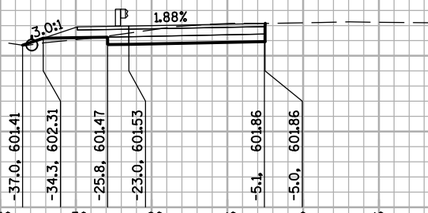
97+00 SBC



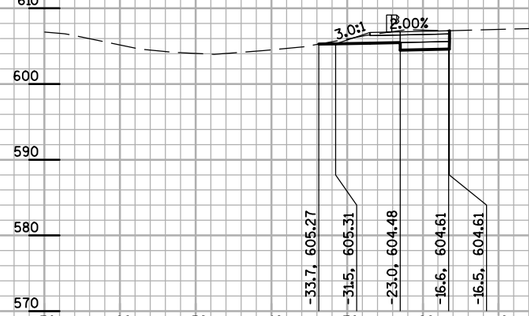
99+00 SBC



96+50 SBC

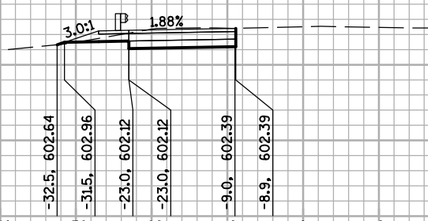


98+50 SBC

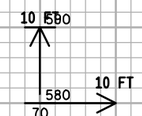


96+00 SBC

STA. 98+43 SBC, 37' LT TO STA. 99+69 SBC, 23' LT
CULVERT PIPE CORRUGATED STEEL 18-INCH REQ'D



98+00 SBC



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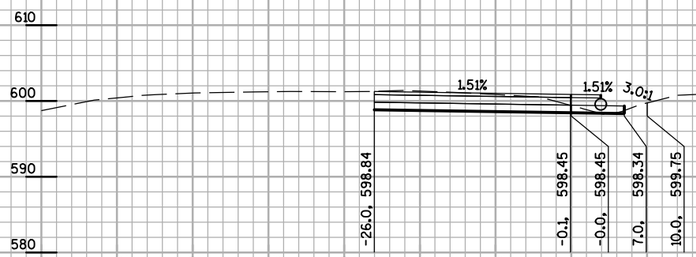
9

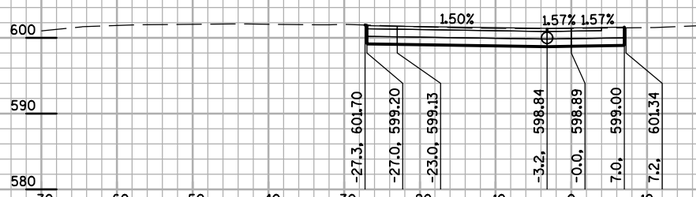
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1316	E

STA. 100+00 SBC TO 103+60 SBC

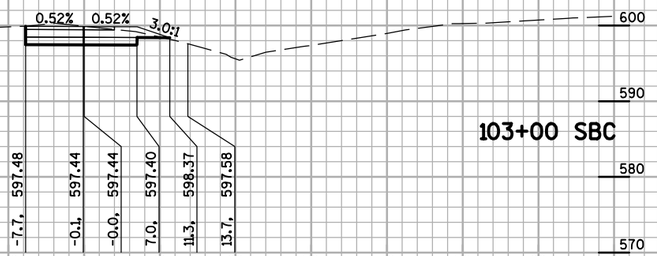


101+50 SBC

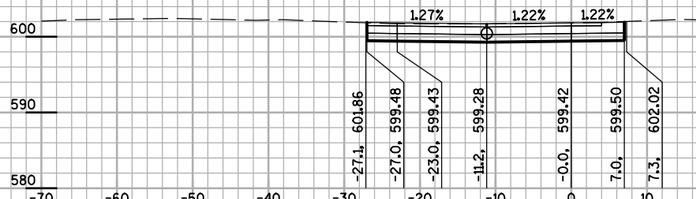
103+50 SBC



101+00 SBC



103+00 SBC

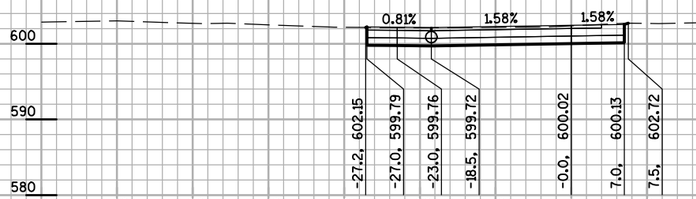


100+50 SBC

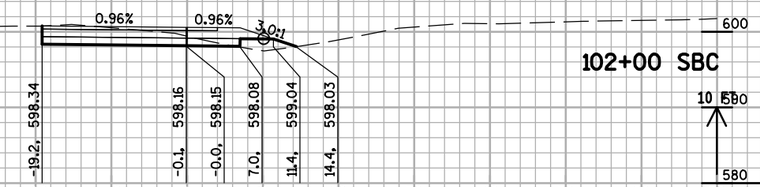
102+50 SBC

STA. 99+69 SBC, 23' LT TO STA. 101+48 SBC, 3.5' RT
METAL SLOTTED 18-INCH REQ'D
(6" SPECIAL GRATE DEPTH; SEE NOTE 2 , SDD 13D13)

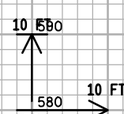
STA. 101+48 SBC, 3.5' RT TO STA. 102+81 SBC, 19' RT
CULVERT PIPE CORRUGATED STEEL 18-INCH REQ'D



100+00 SBC



102+00 SBC



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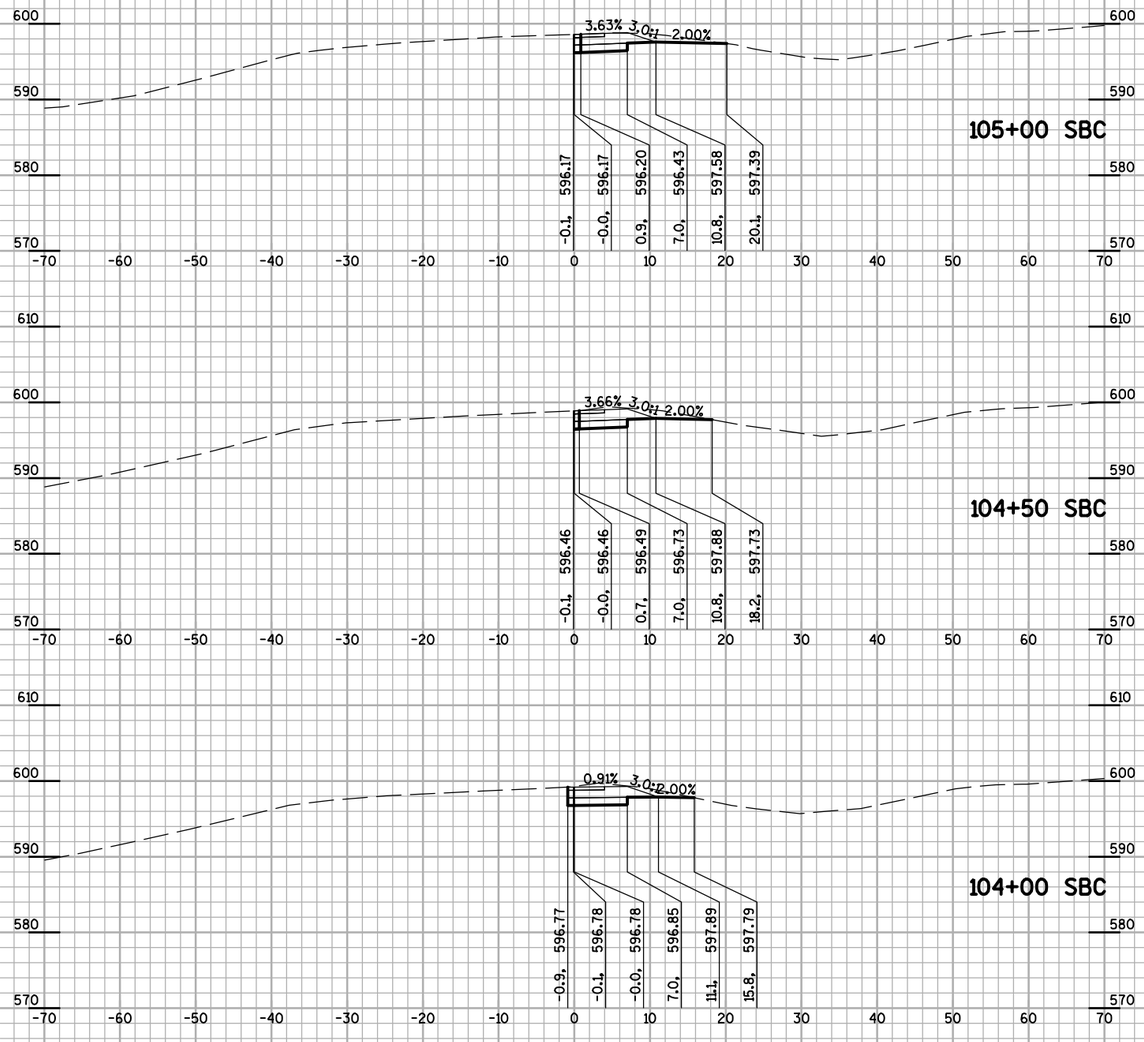
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1317	E



10 FT
10 FT

9

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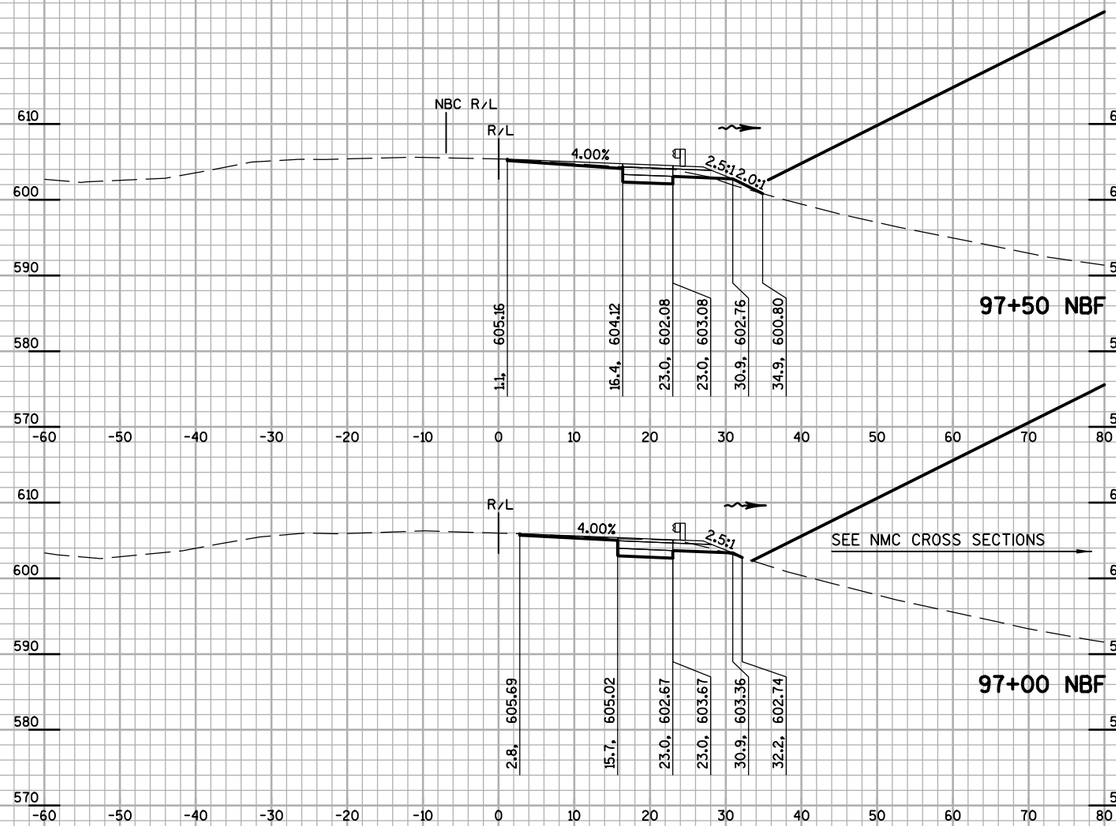
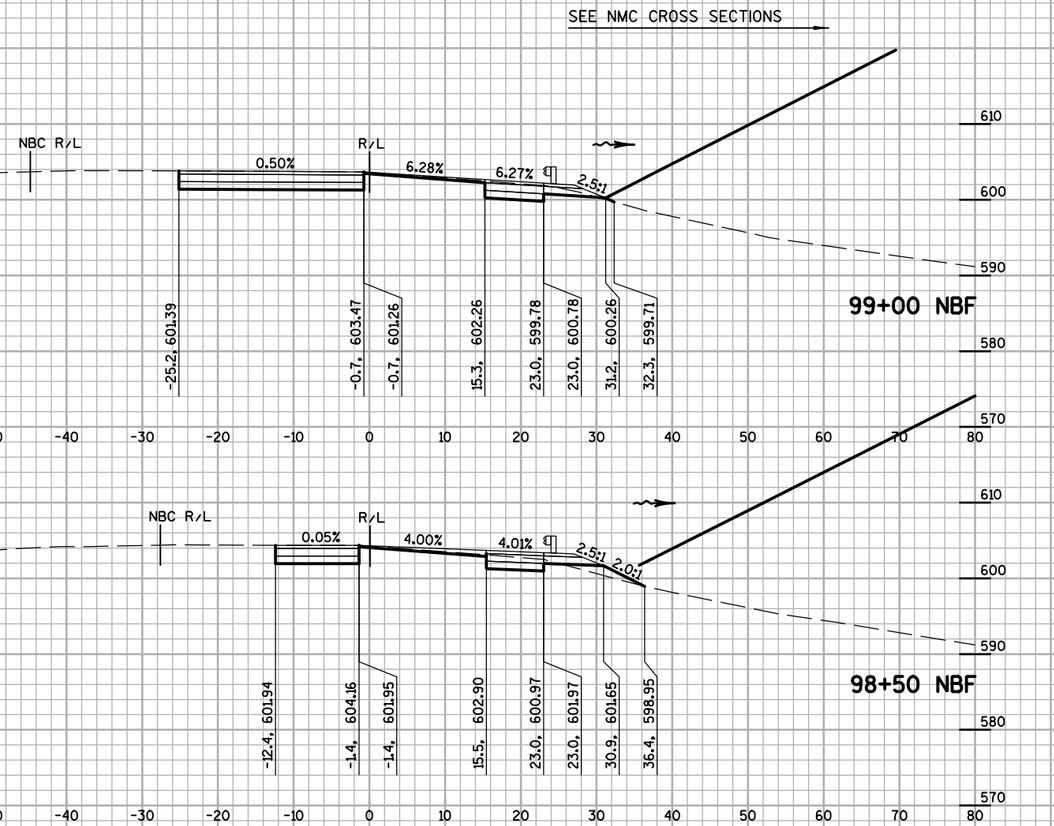
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: SBC LINE	SHEET 1318	E

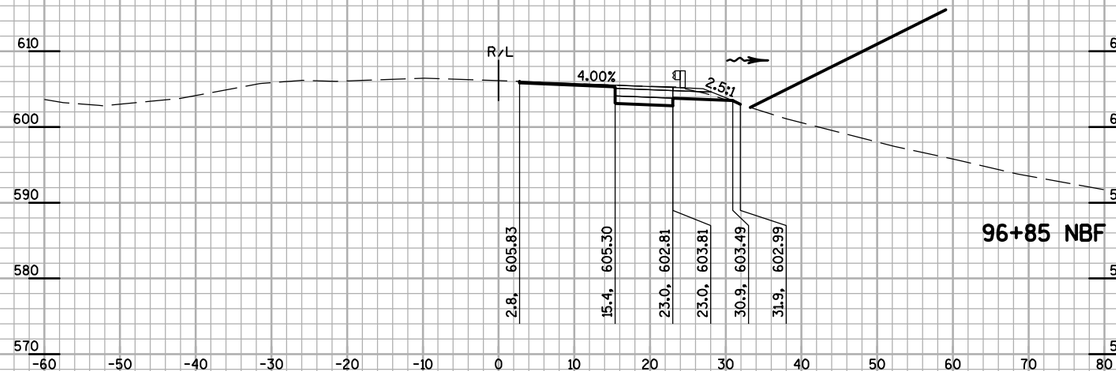
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090202_xs_SBC.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

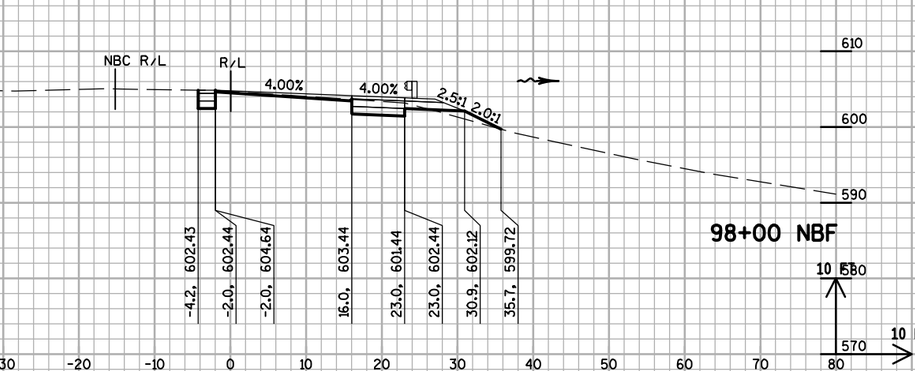
WISDOT/CADDS SHEET 21

STA. 96+85 NBF TO 99+00 NBF









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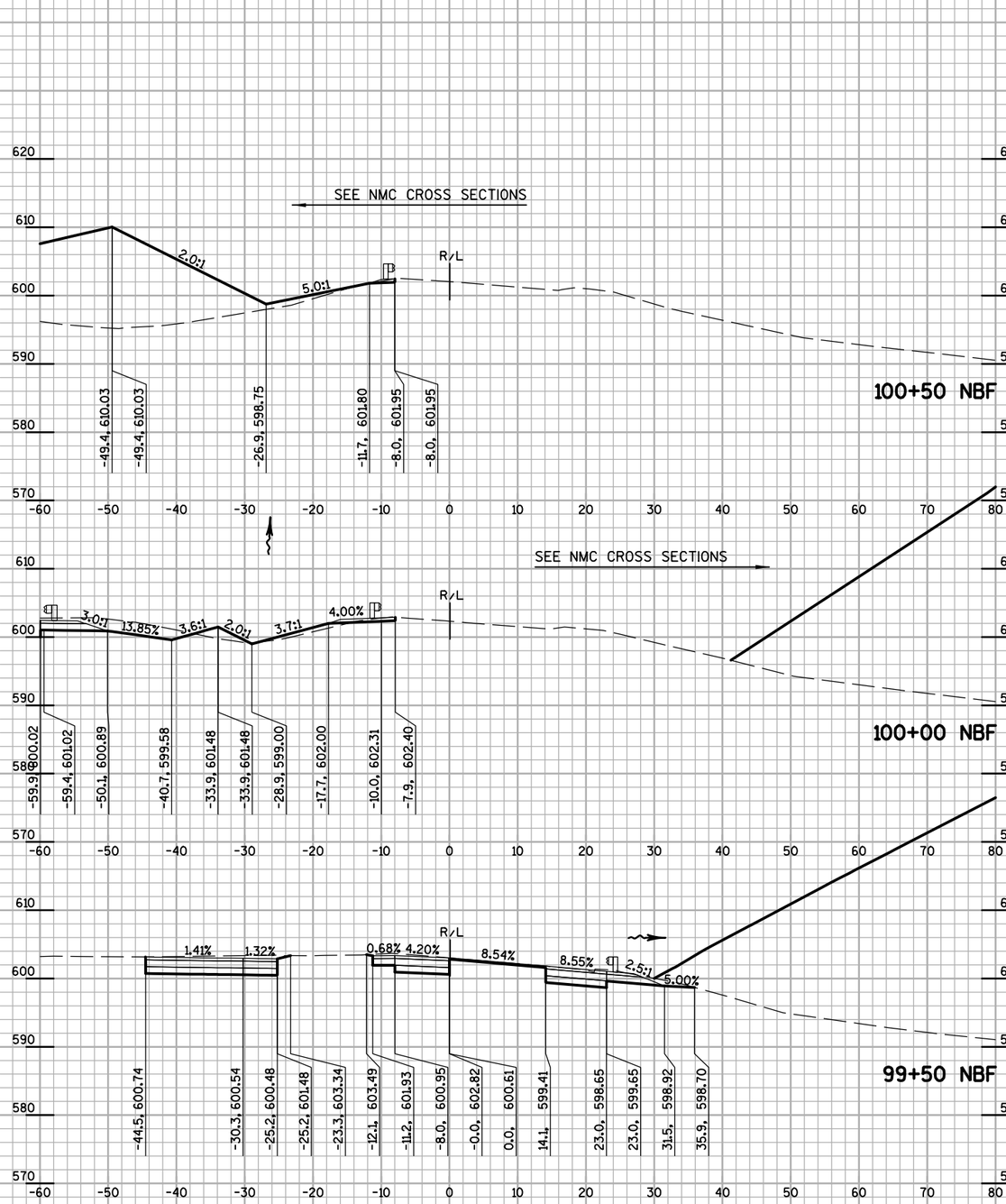
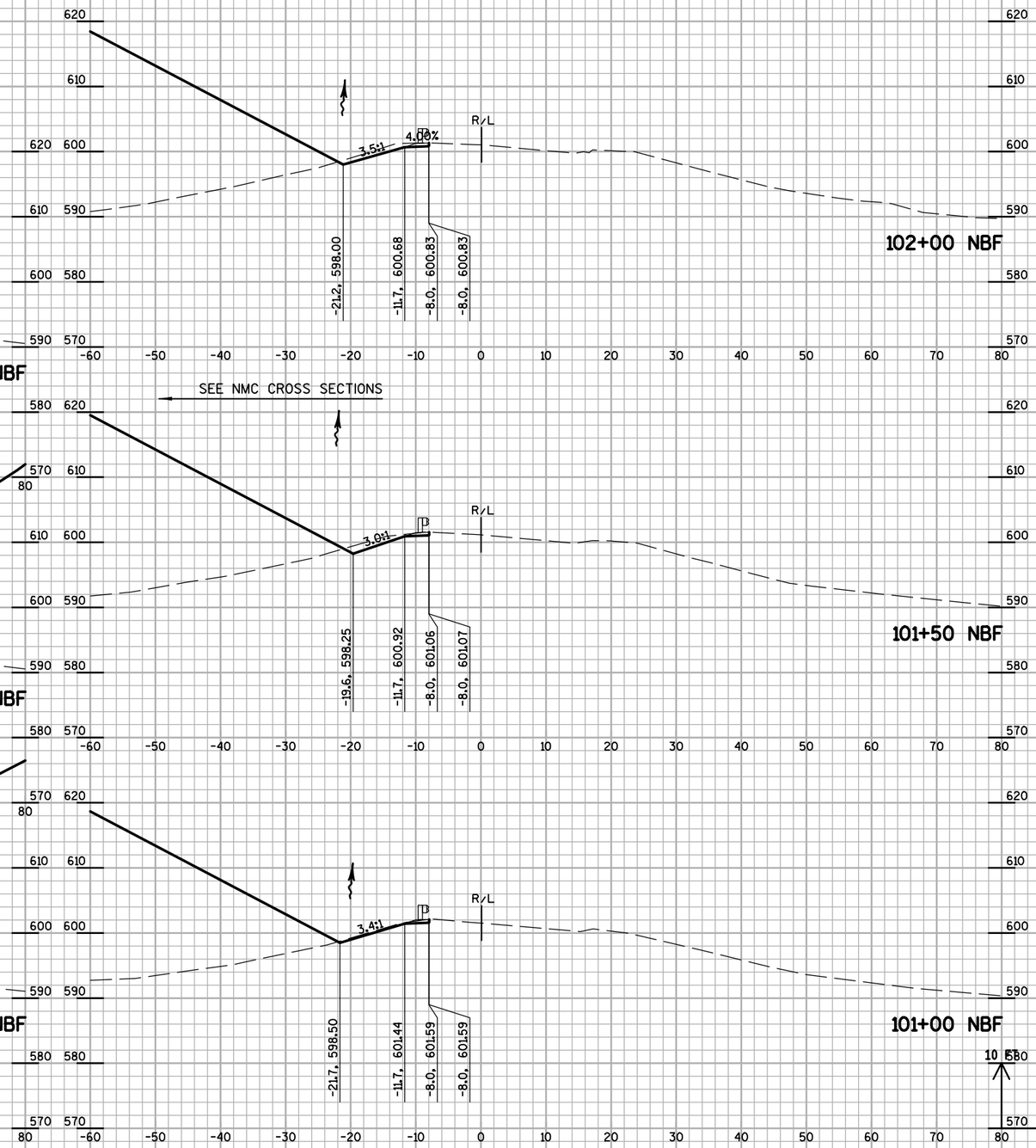
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBF LINE	SHEET 1319	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090203_xs_NBF.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21





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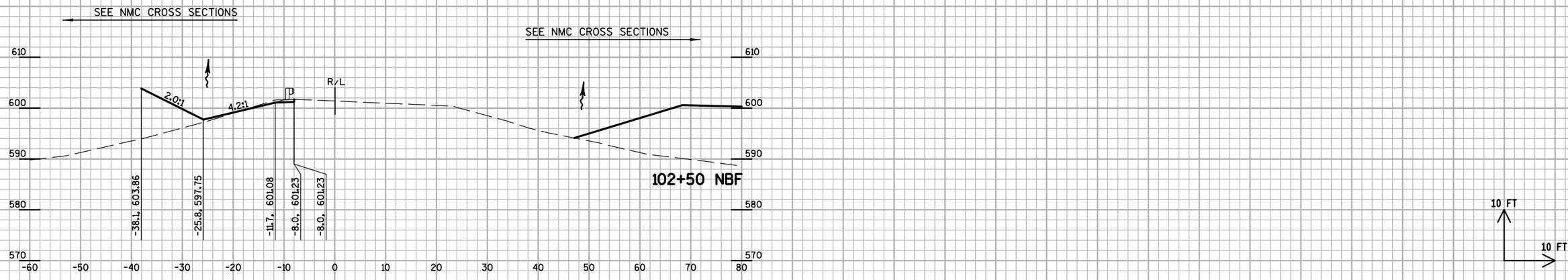
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBF LINE	SHEET 1320	E

STA. 102+50 NBF TO 102+50 NBF

END CONSTRUCTION
STA. 102+75 NBF
MATCH EXISTING



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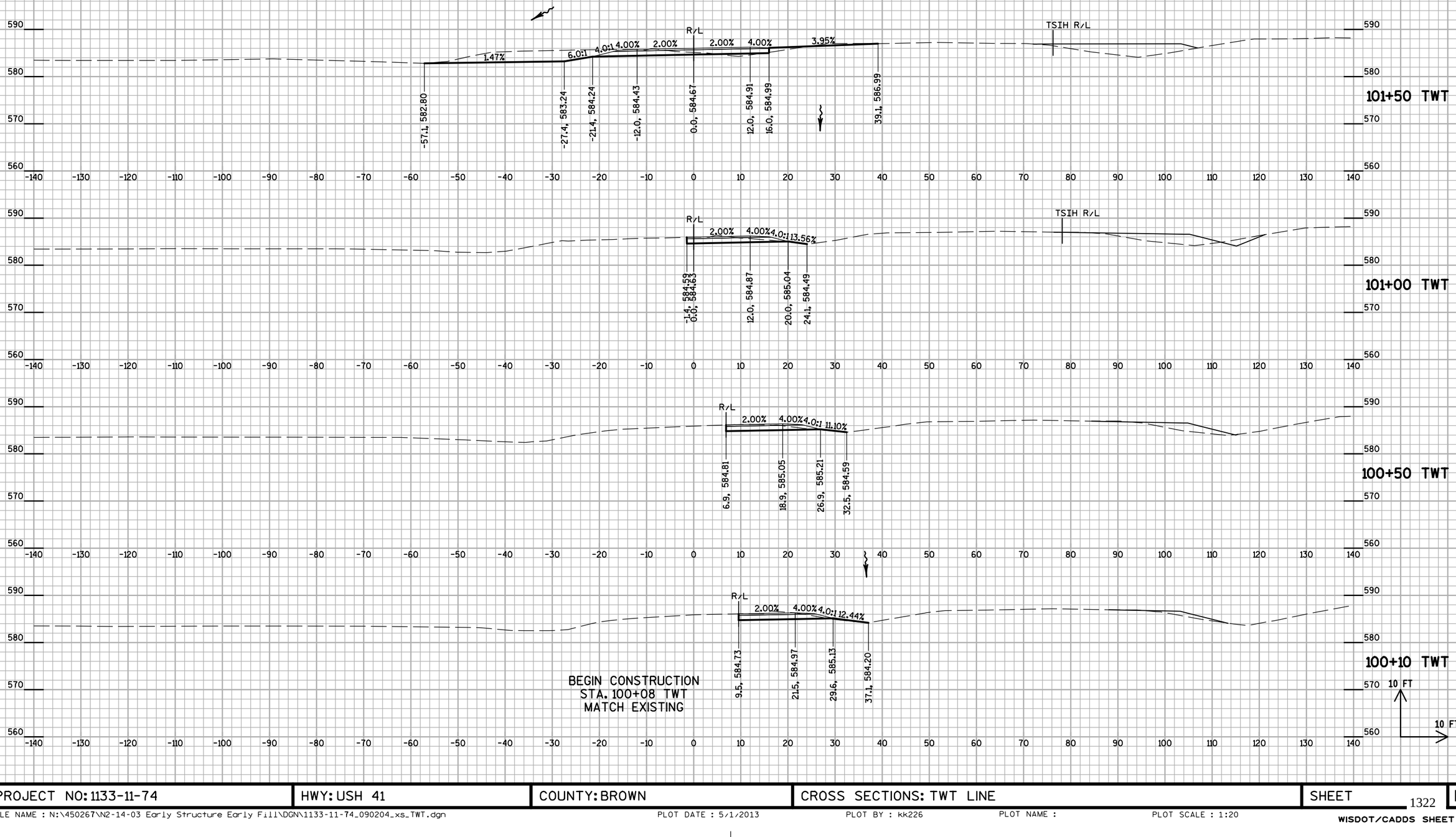
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NBF LINE	SHEET 1321	E

STA. 100+10 TWT TO 101+50 TWT



BEGIN CONSTRUCTION
STA. 100+08 TWT
MATCH EXISTING

9

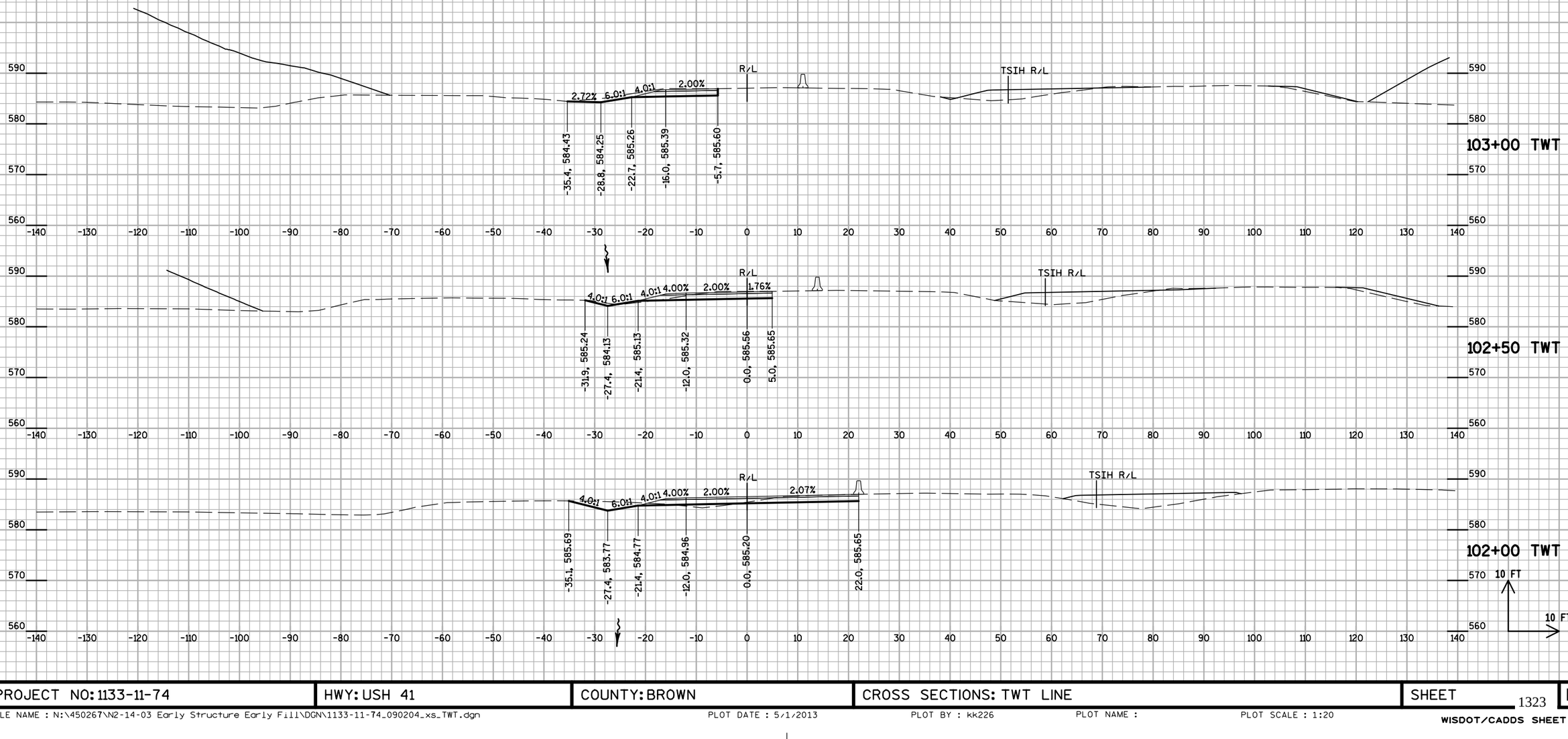
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET 1322	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 102+00 TWT TO 103+00 TWT



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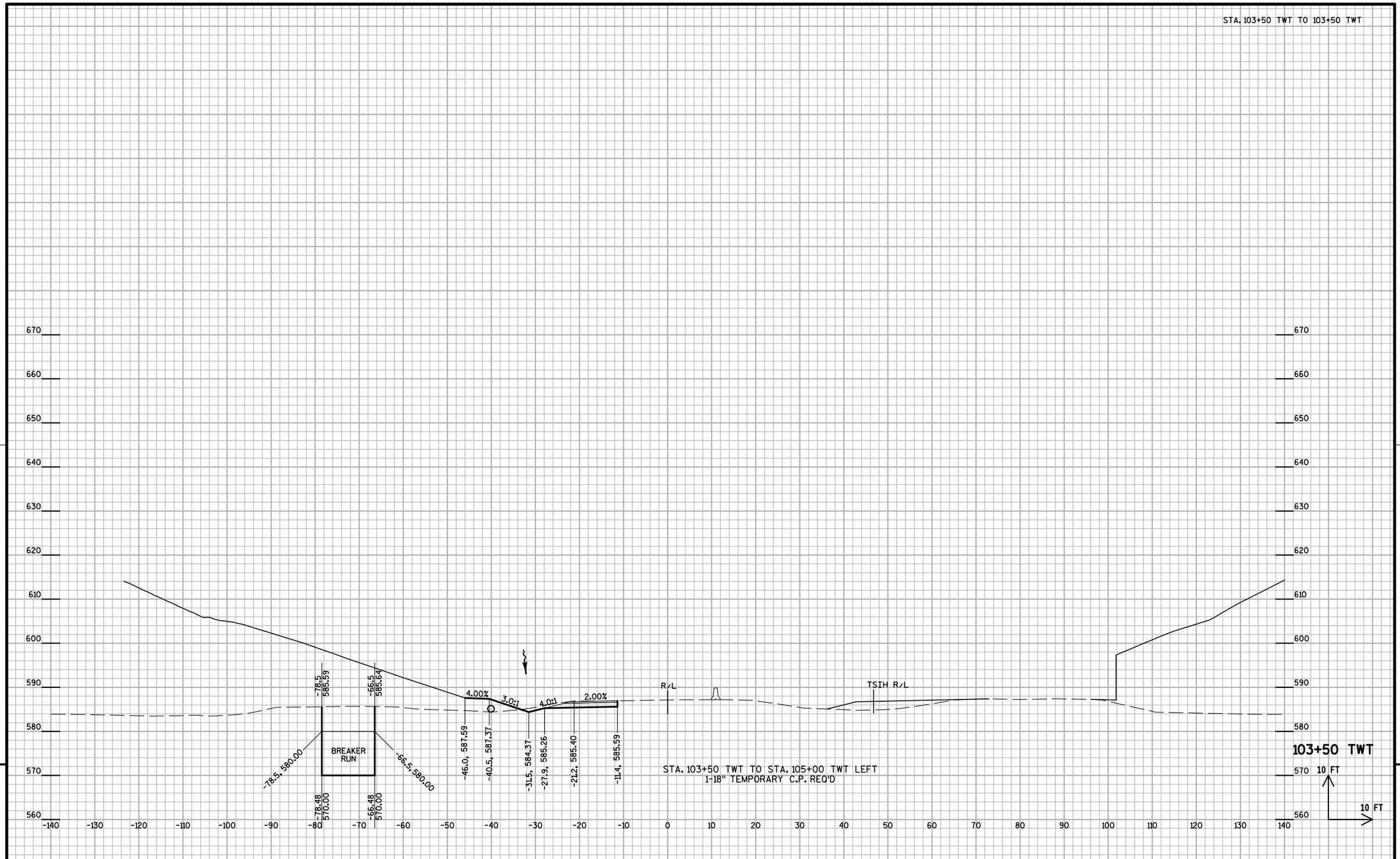
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET 1323	E

STA. 103+50 TWT TO 103+50 TWT



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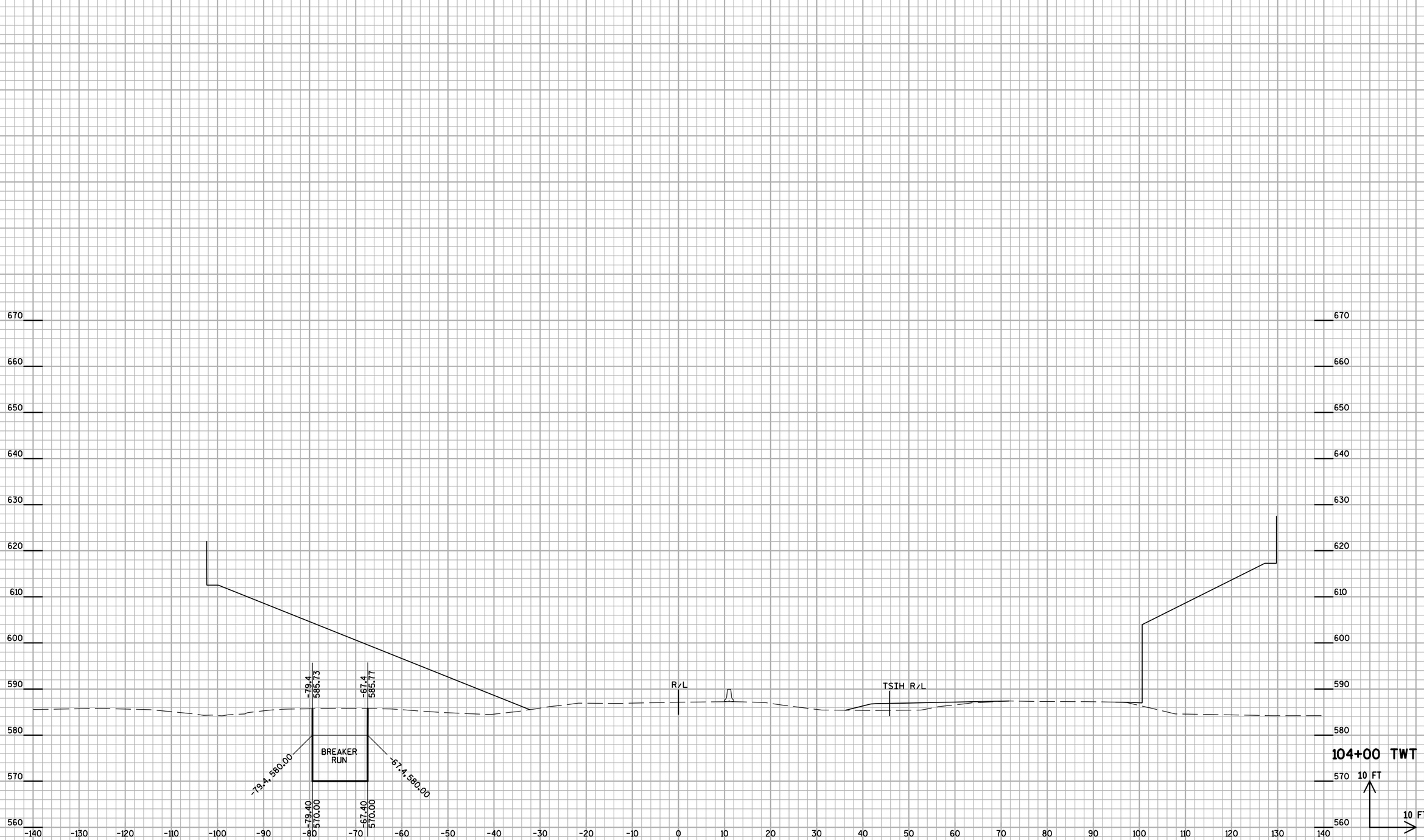
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 104+00 TWT TO 104+00 TWT

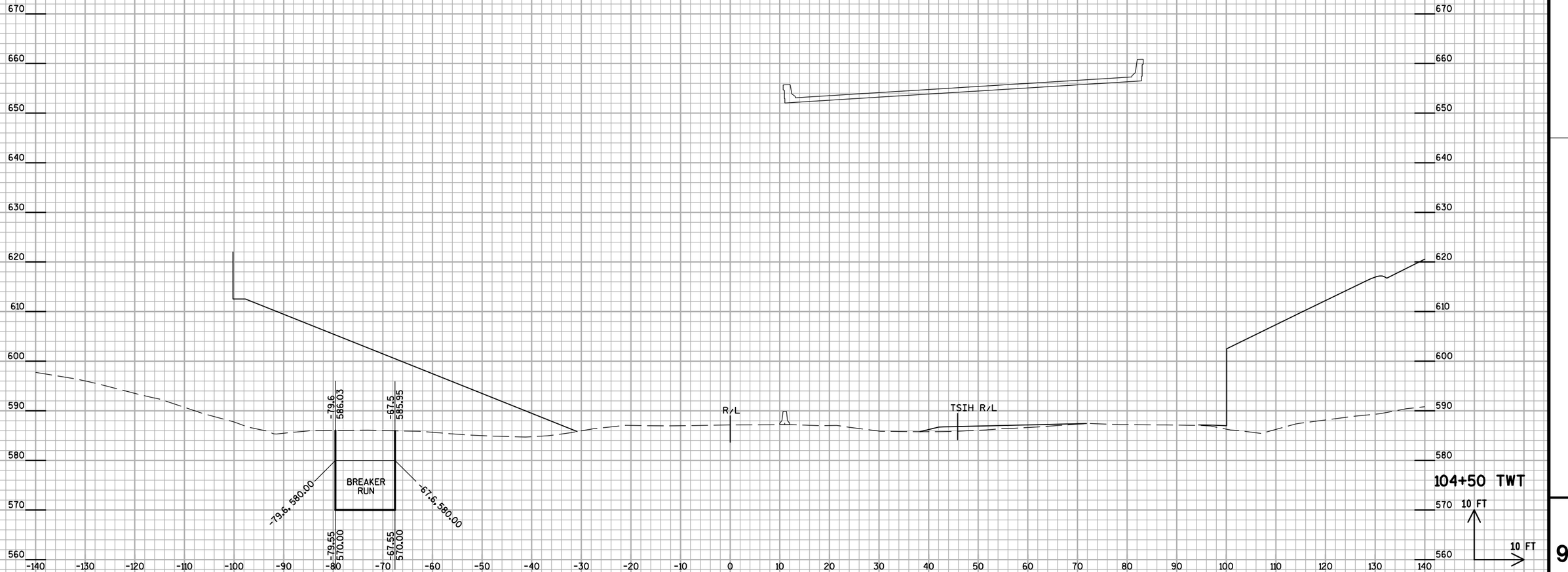


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 104+50 TWT TO 104+50 TWT



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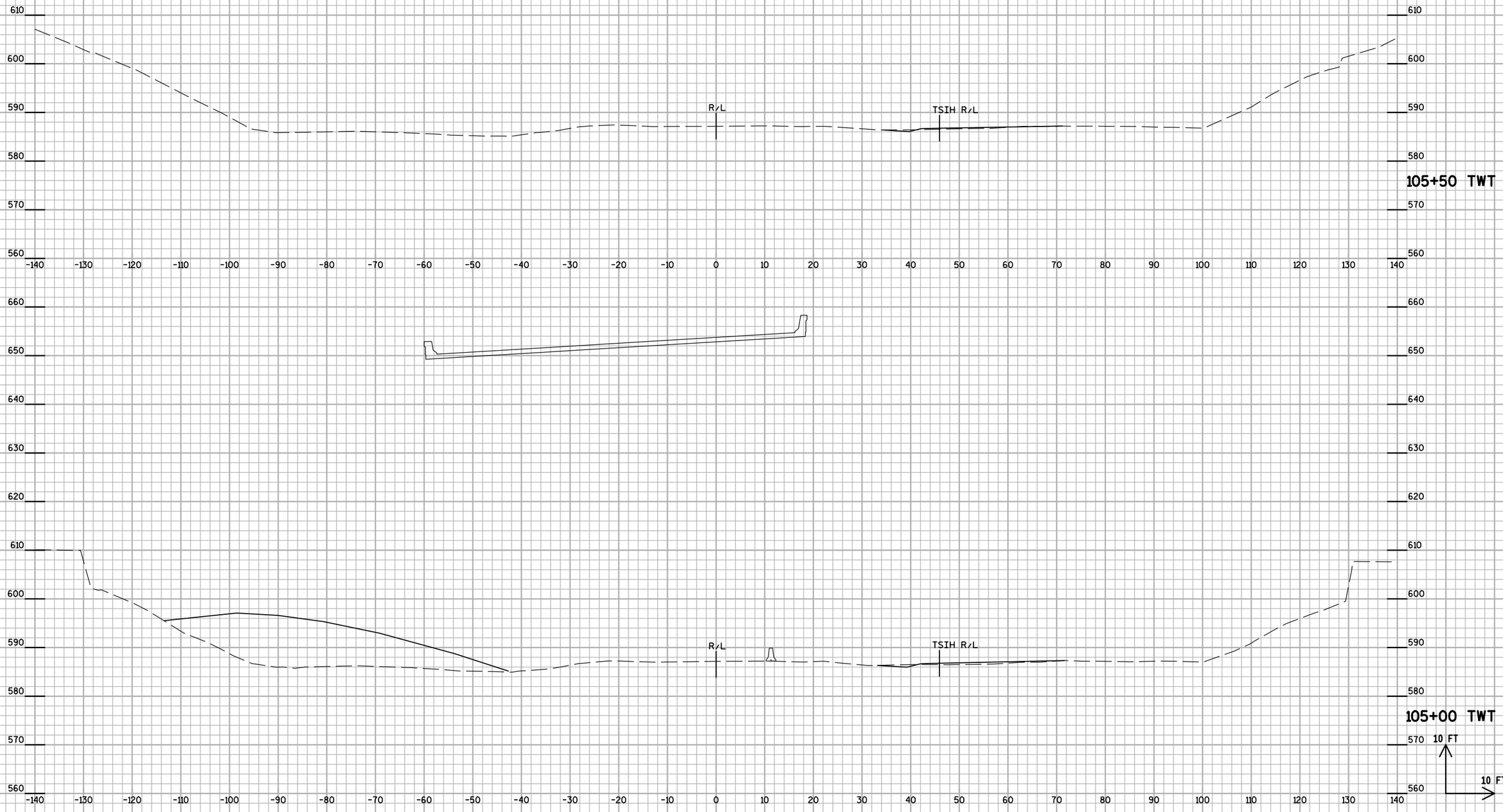
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 105+00 TWT TO 105+50 TWT



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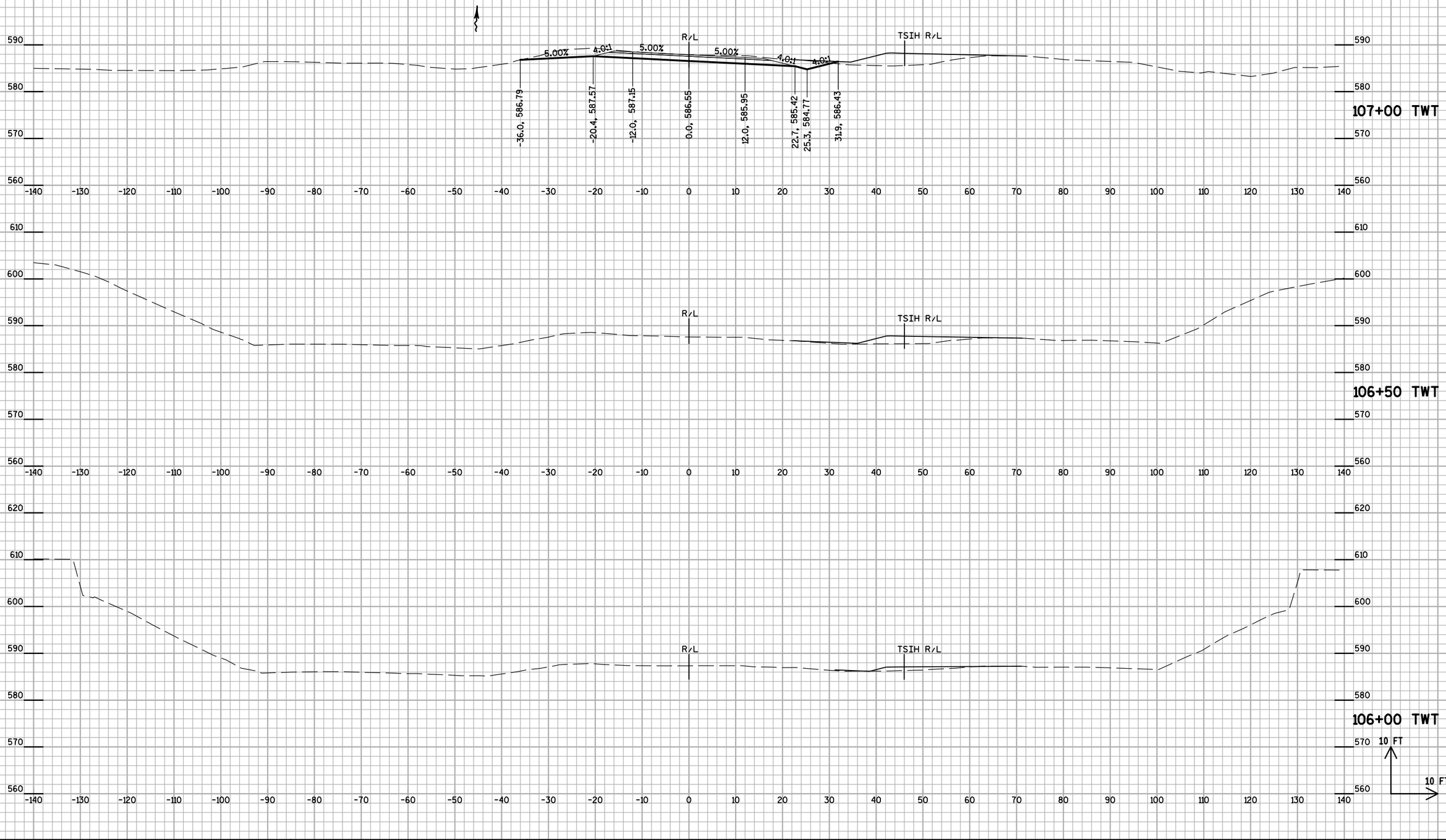
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 106+00 TWT TO 107+00 TWT



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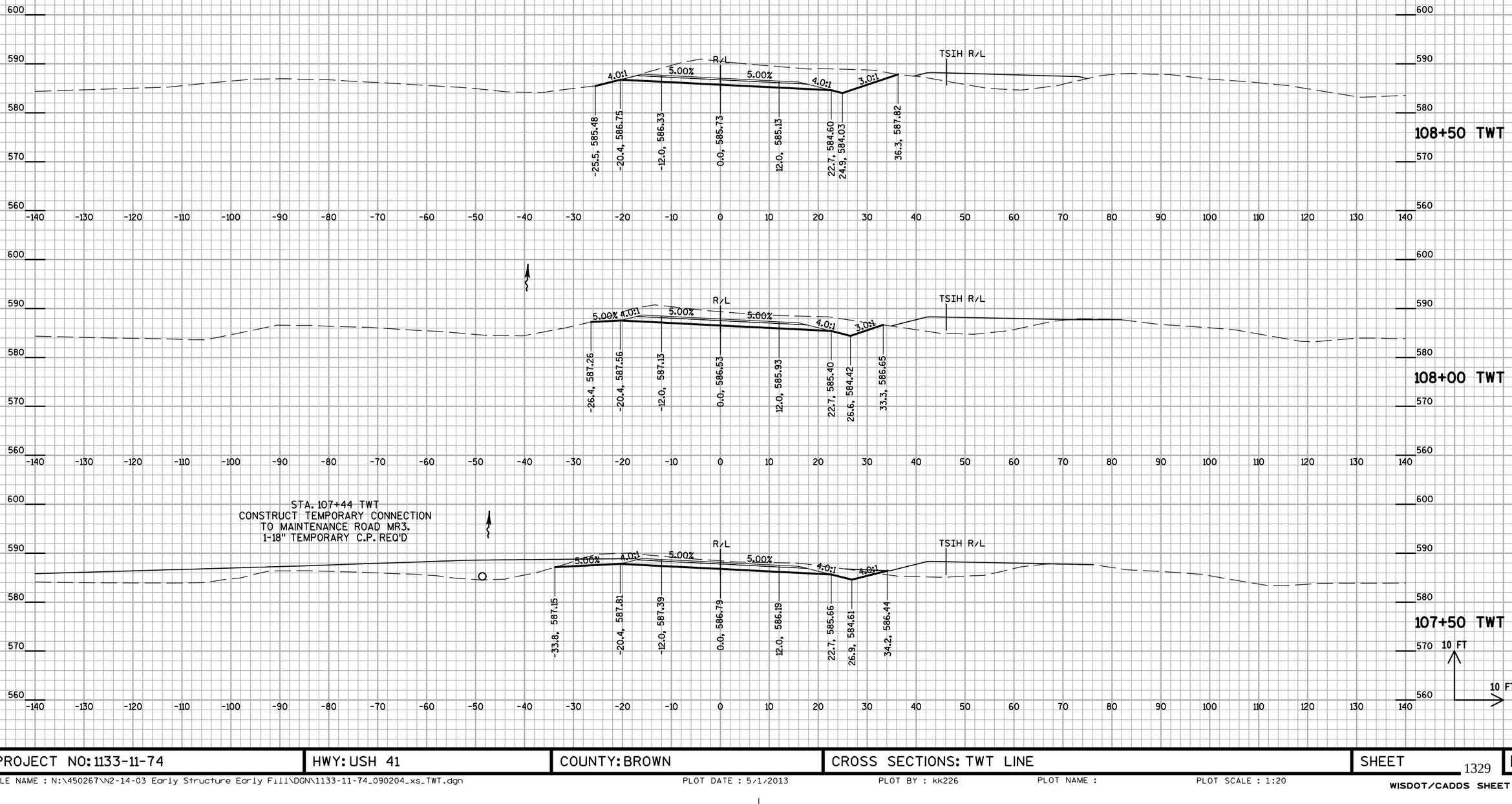
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 107+50 TWT TO 108+50 TWT



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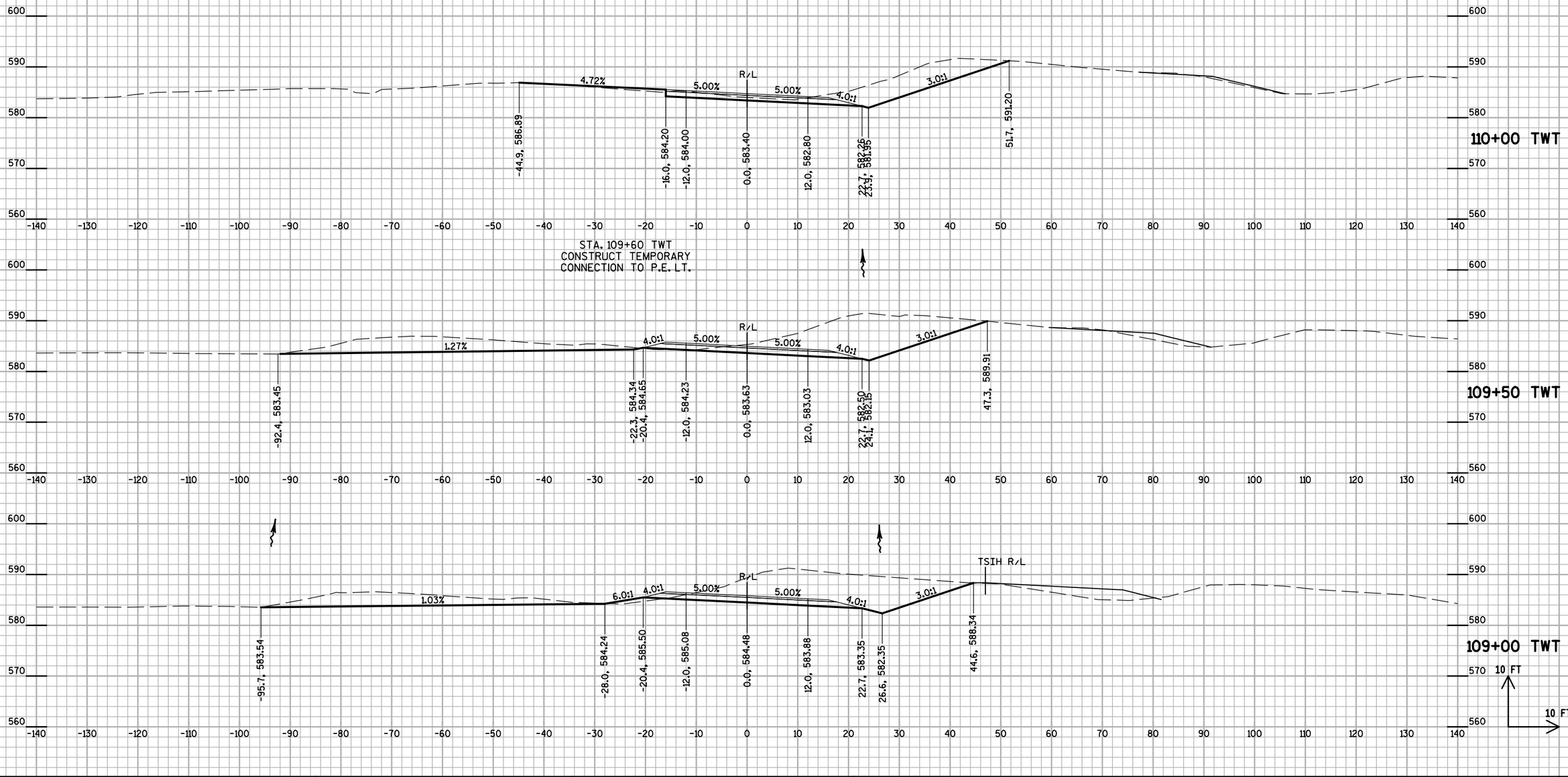
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET 1329	E

STA. 109+00 TWT TO 110+00 TWT

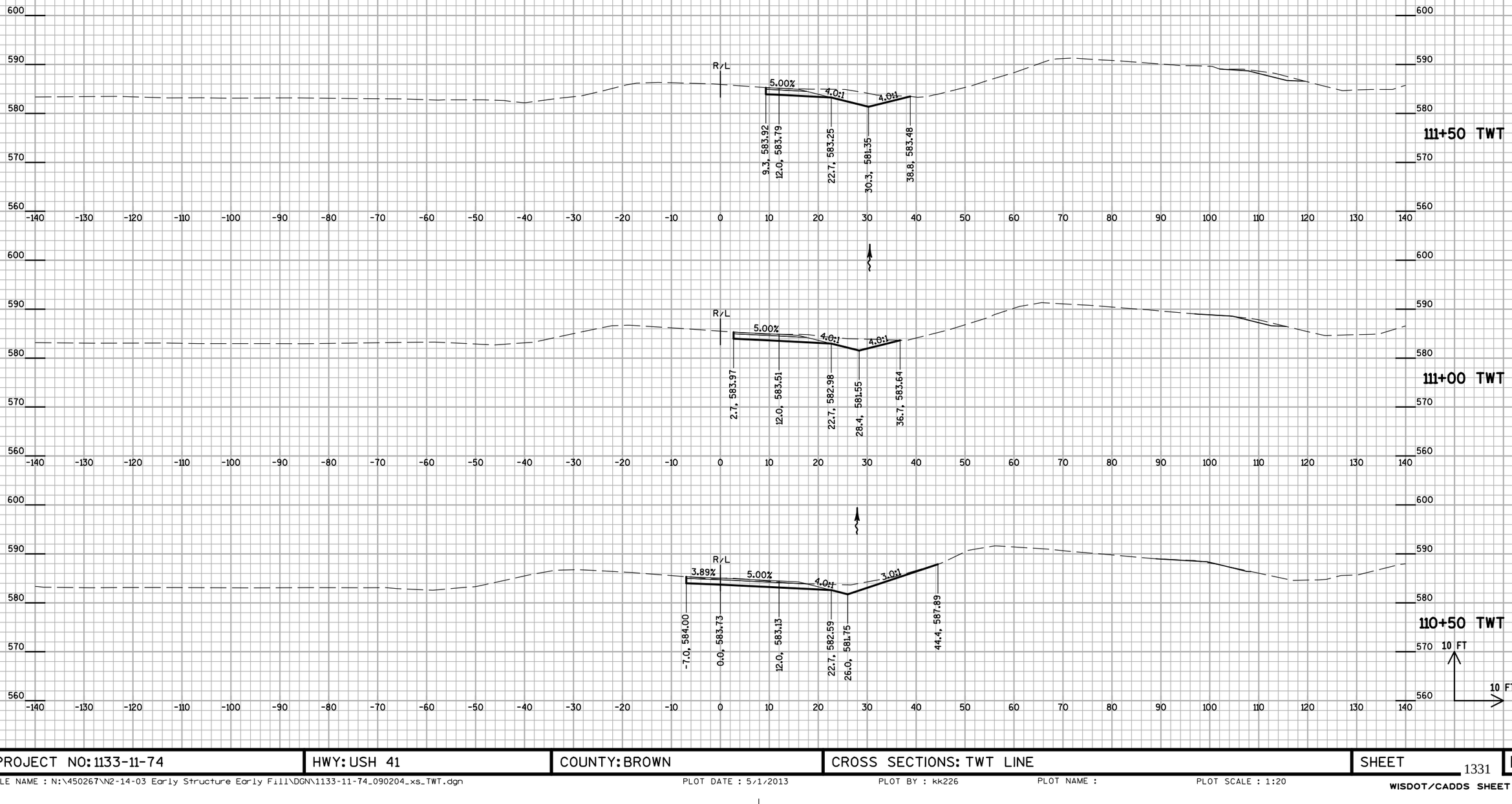


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET 1330	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 110+50 TWT TO 111+50 TWT

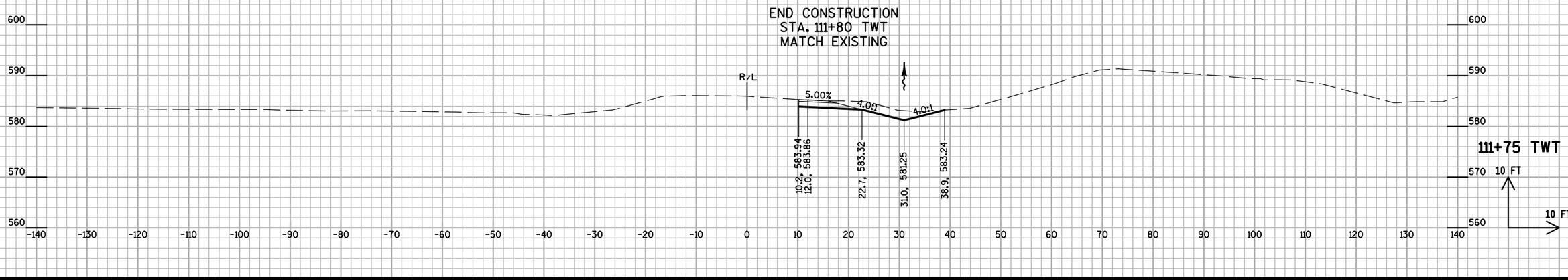


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET 1331	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 111+75 TWT TO 111+75 TWT



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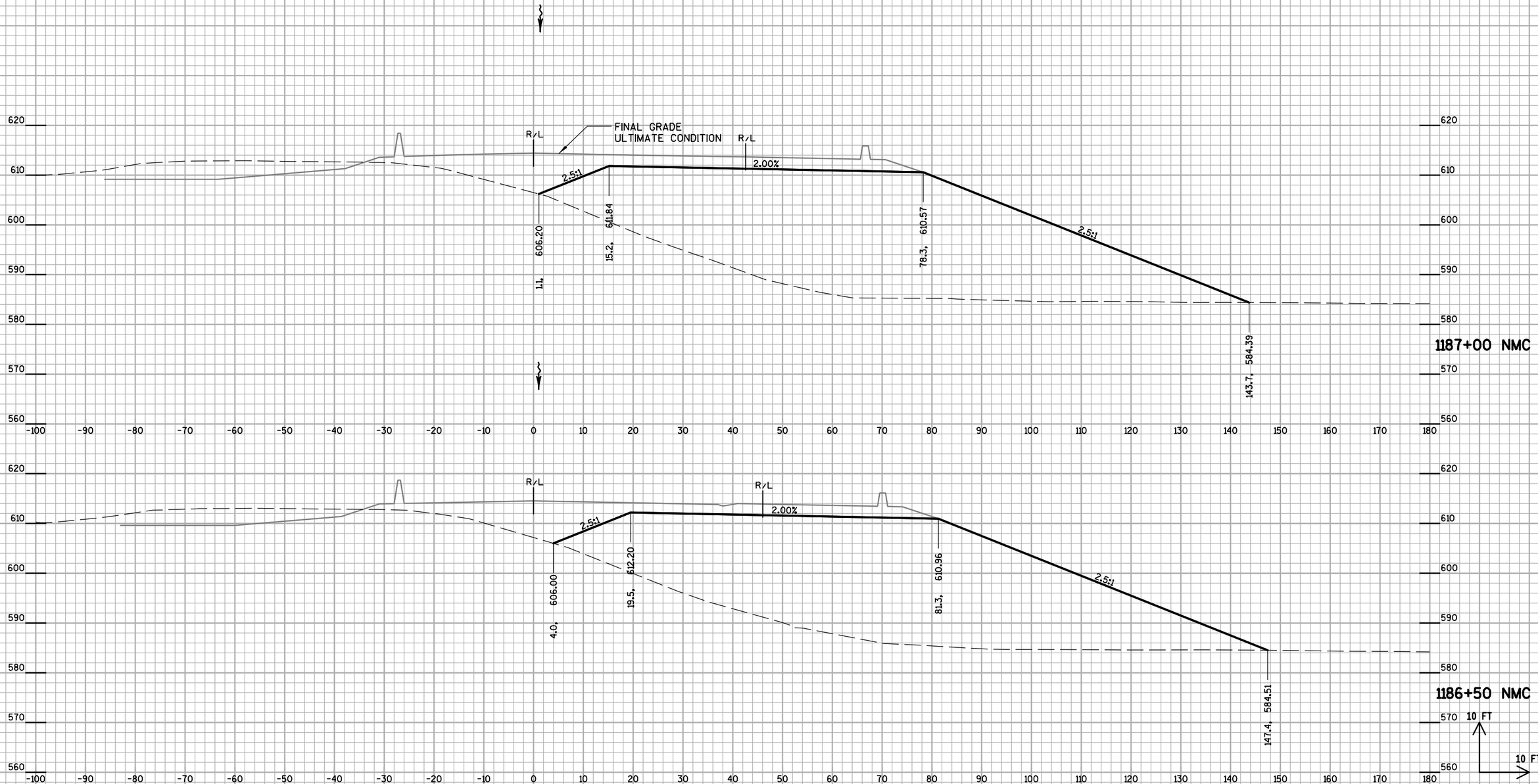
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TWT LINE	SHEET 1332	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090204_xs_TWT.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1186+50 NMC TO 1187+00 NMC



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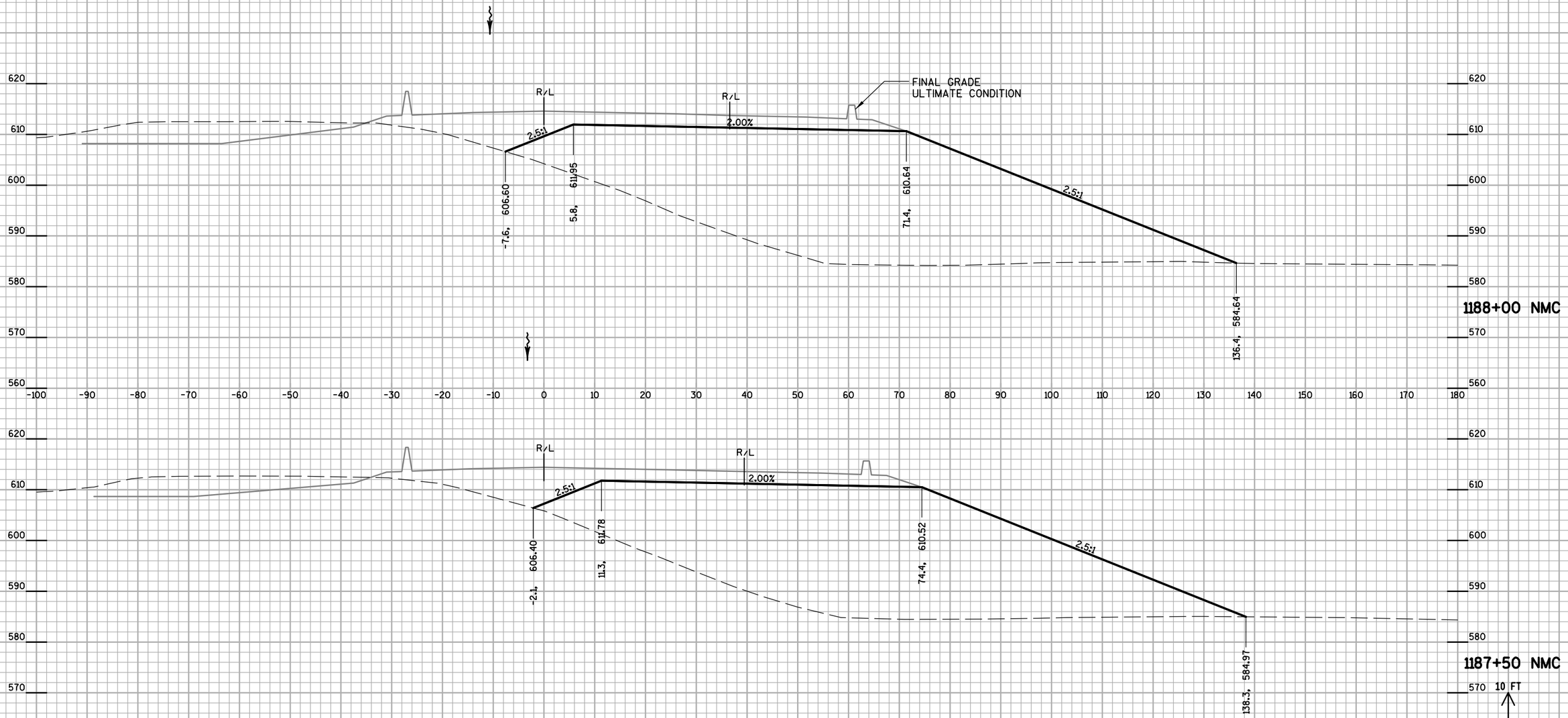
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1333	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1187+50 NMC TO 1188+00 NMC



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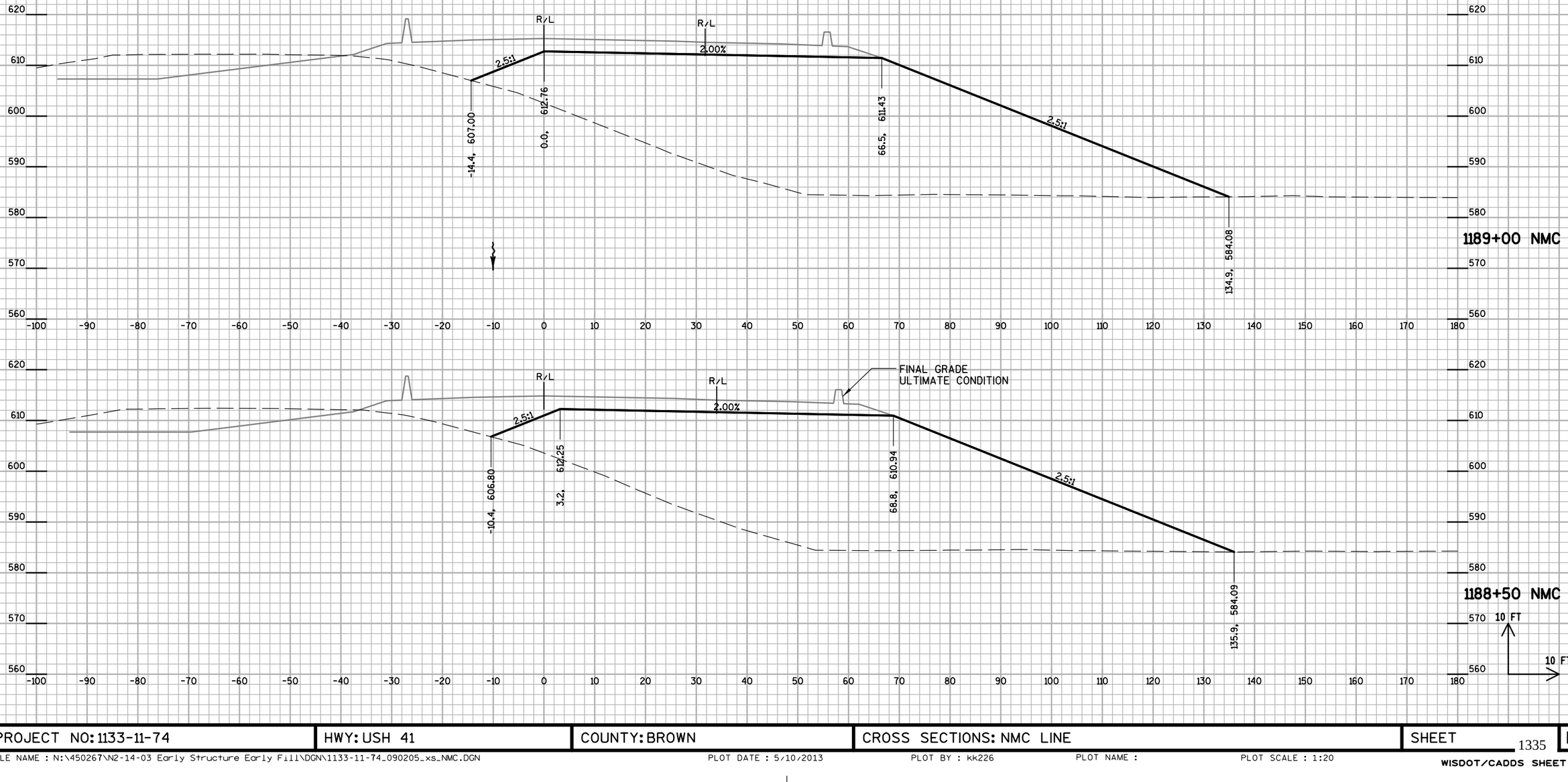
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1334	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1188+50 NMC TO 1189+00 NMC



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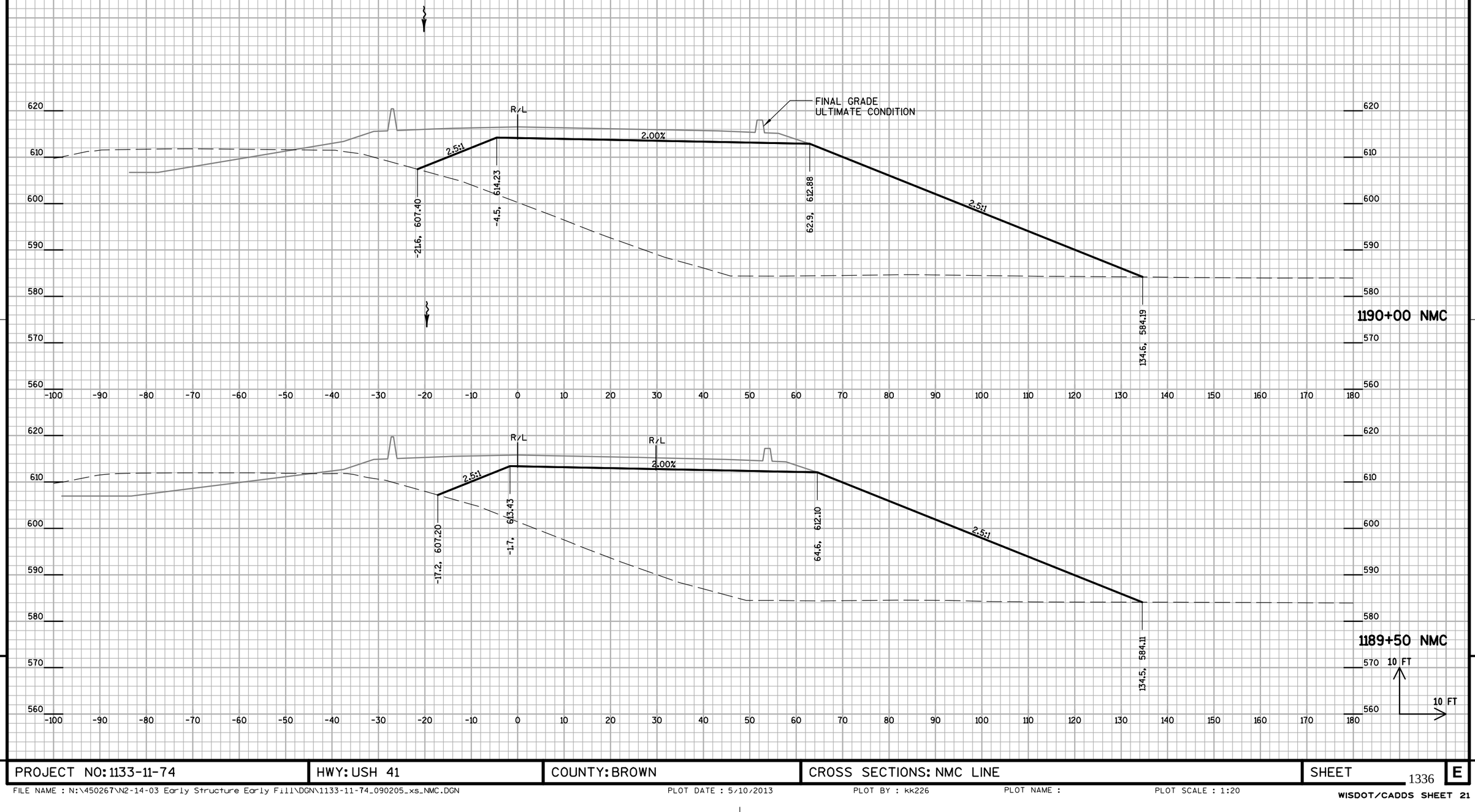
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1189+50 NMC TO 1190+00 NMC



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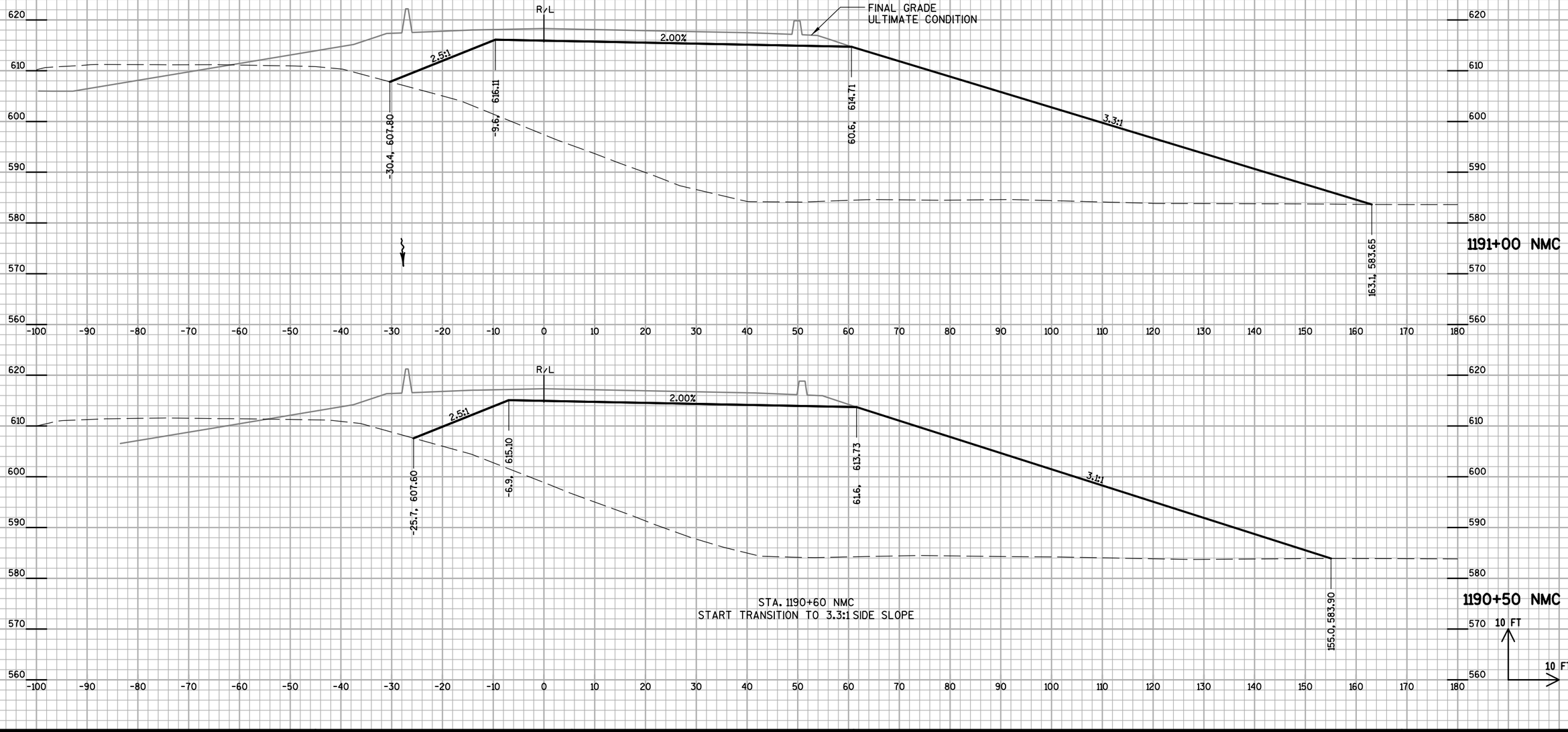
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1190+50 NMC TO 1191+00 NMC



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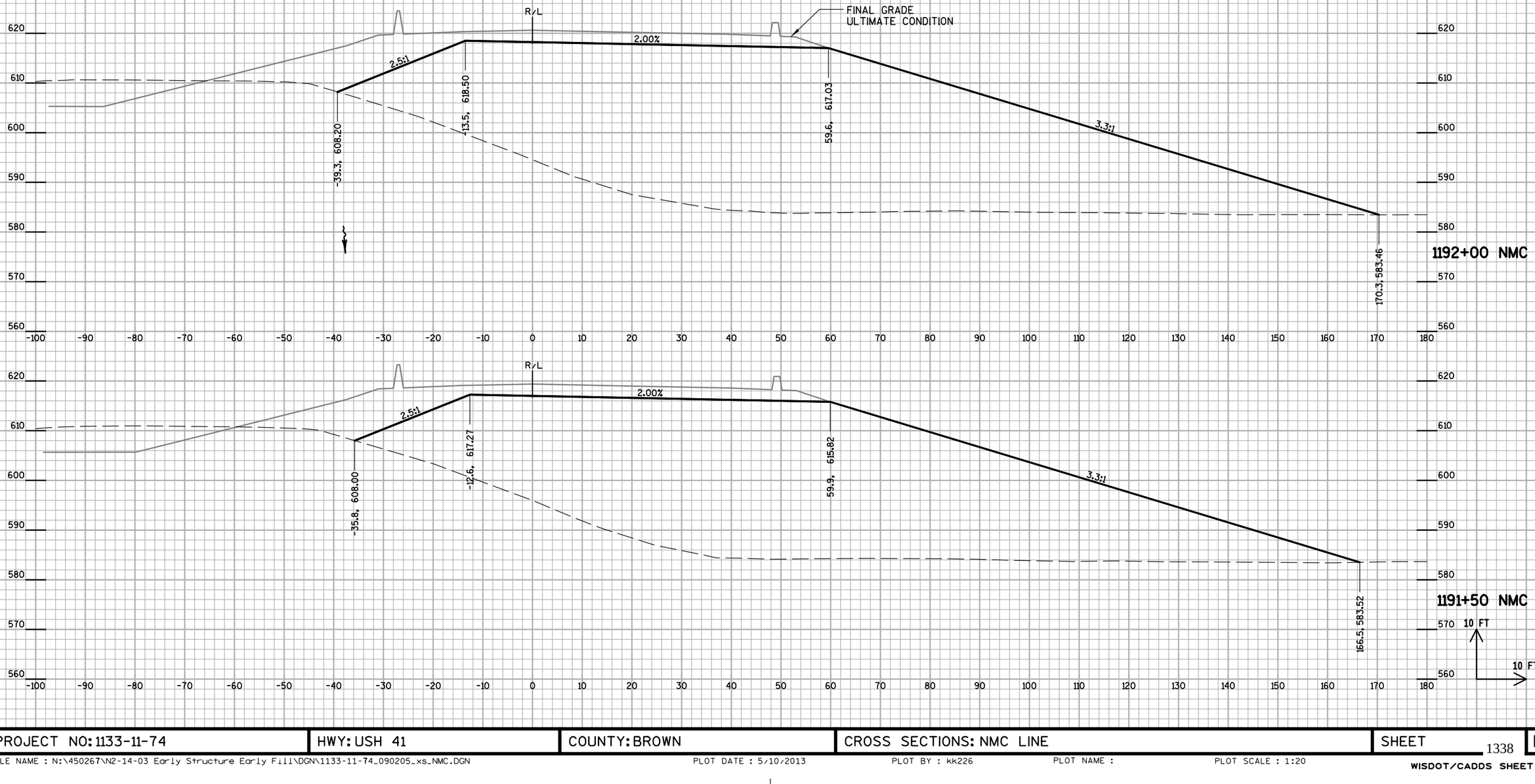
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1337	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1191+50 NMC TO 1192+00 NMC



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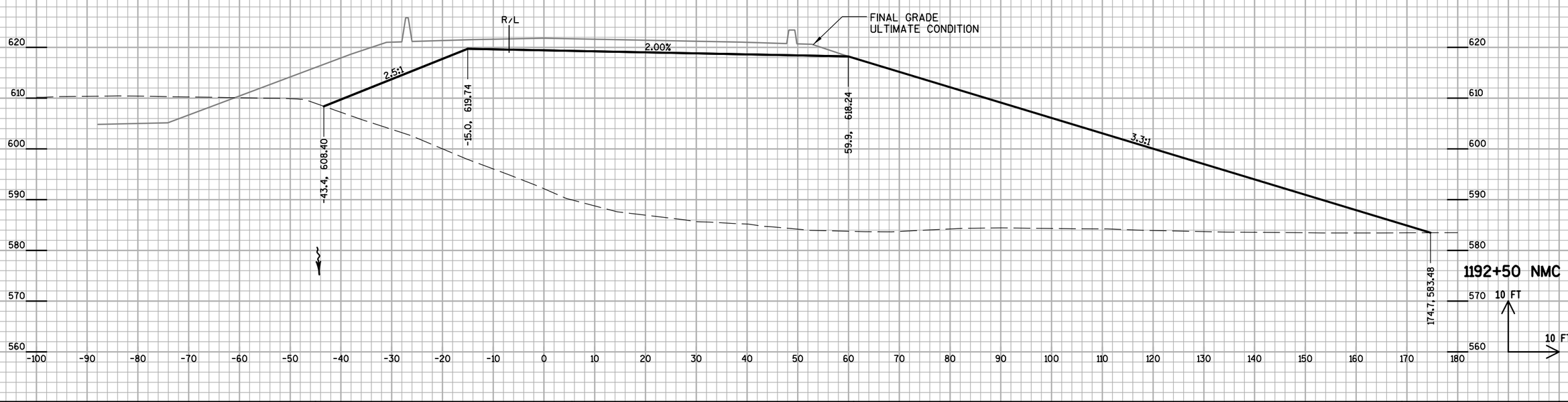
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1338	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1192+50 NMC TO 1192+50 NMC



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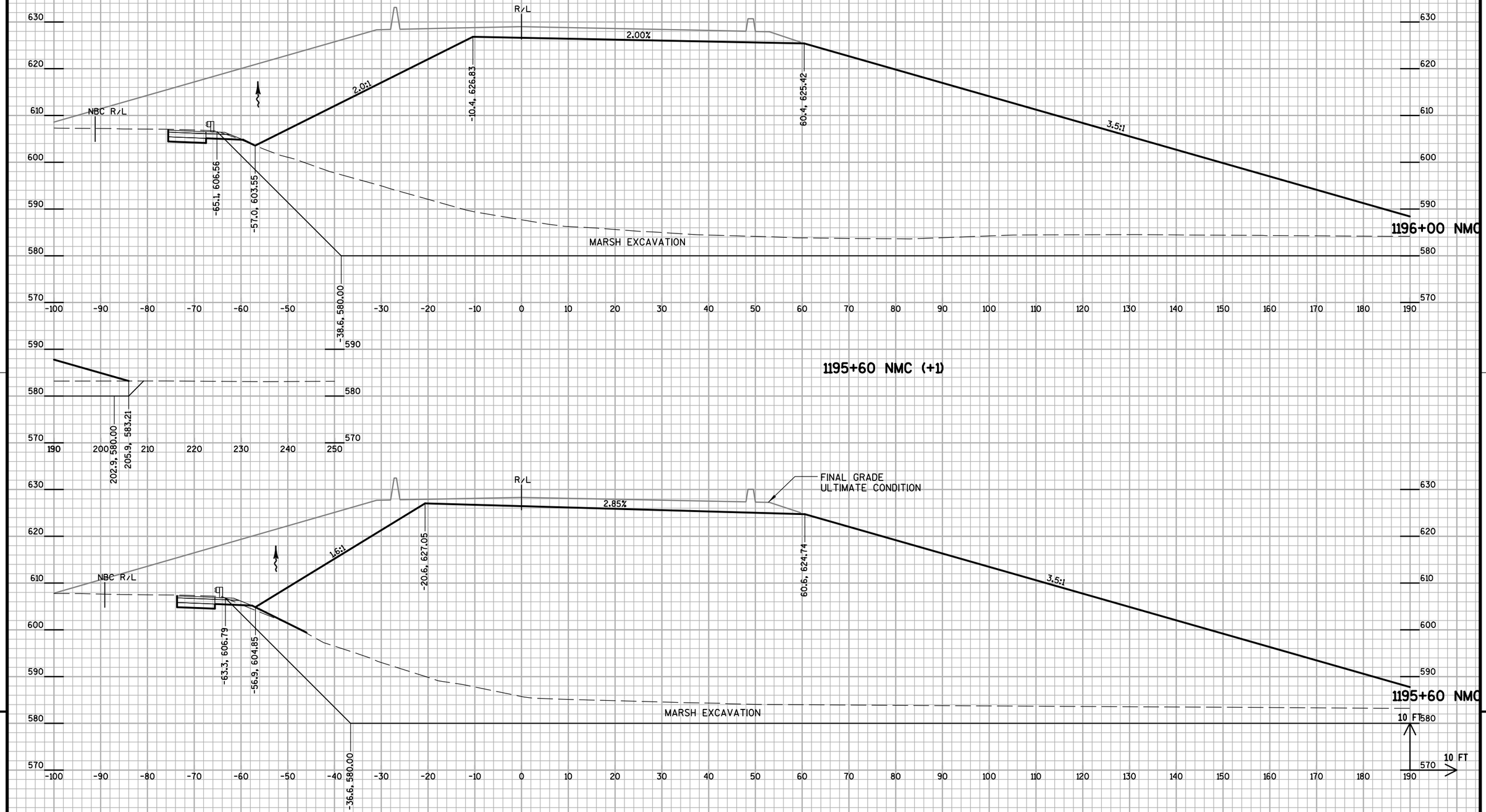
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1339	E

STA. 1195+60 NMC TO 1196+00 NMC

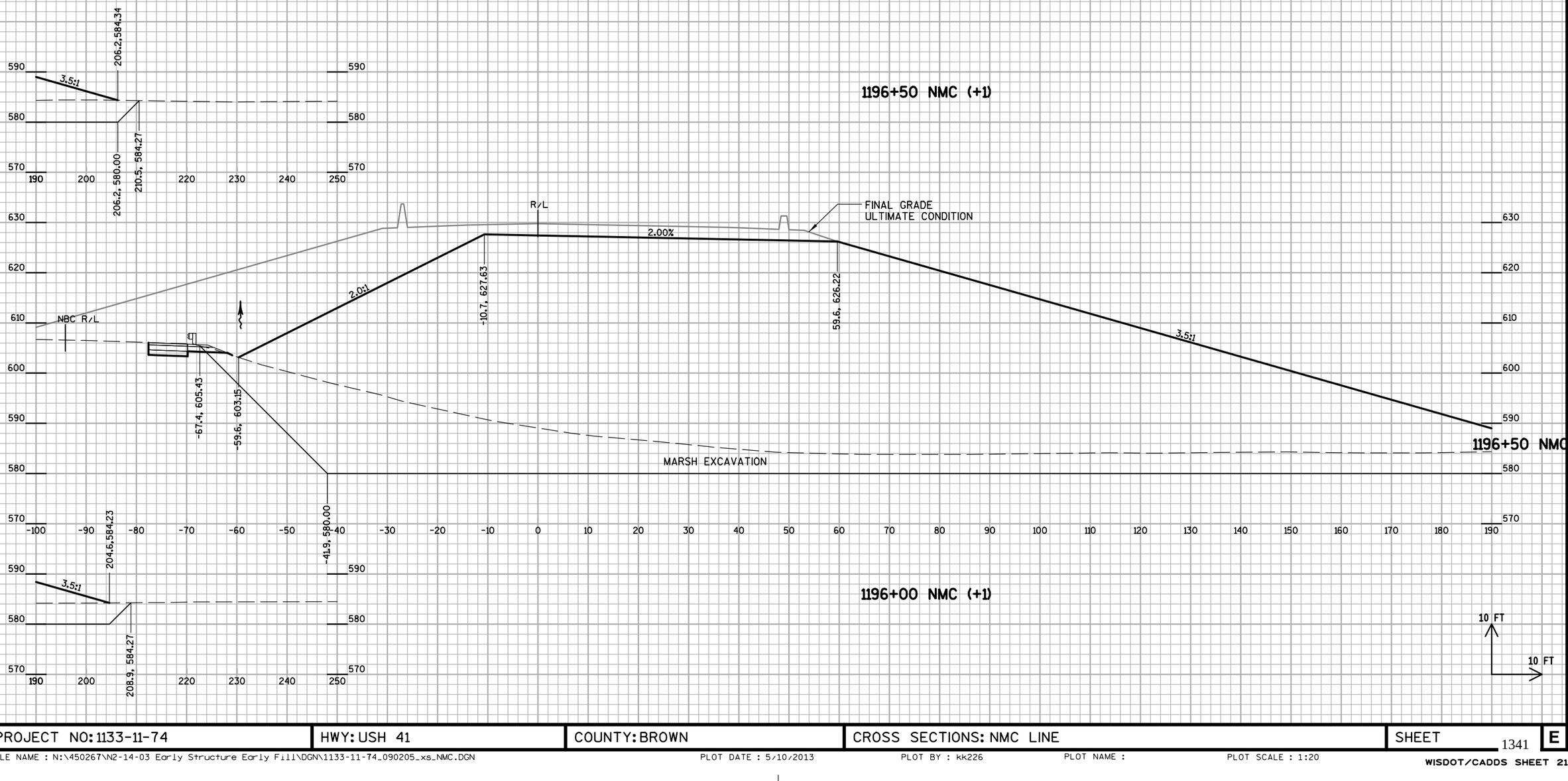


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1340	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1196+00 NMC TO 1196+50 NMC



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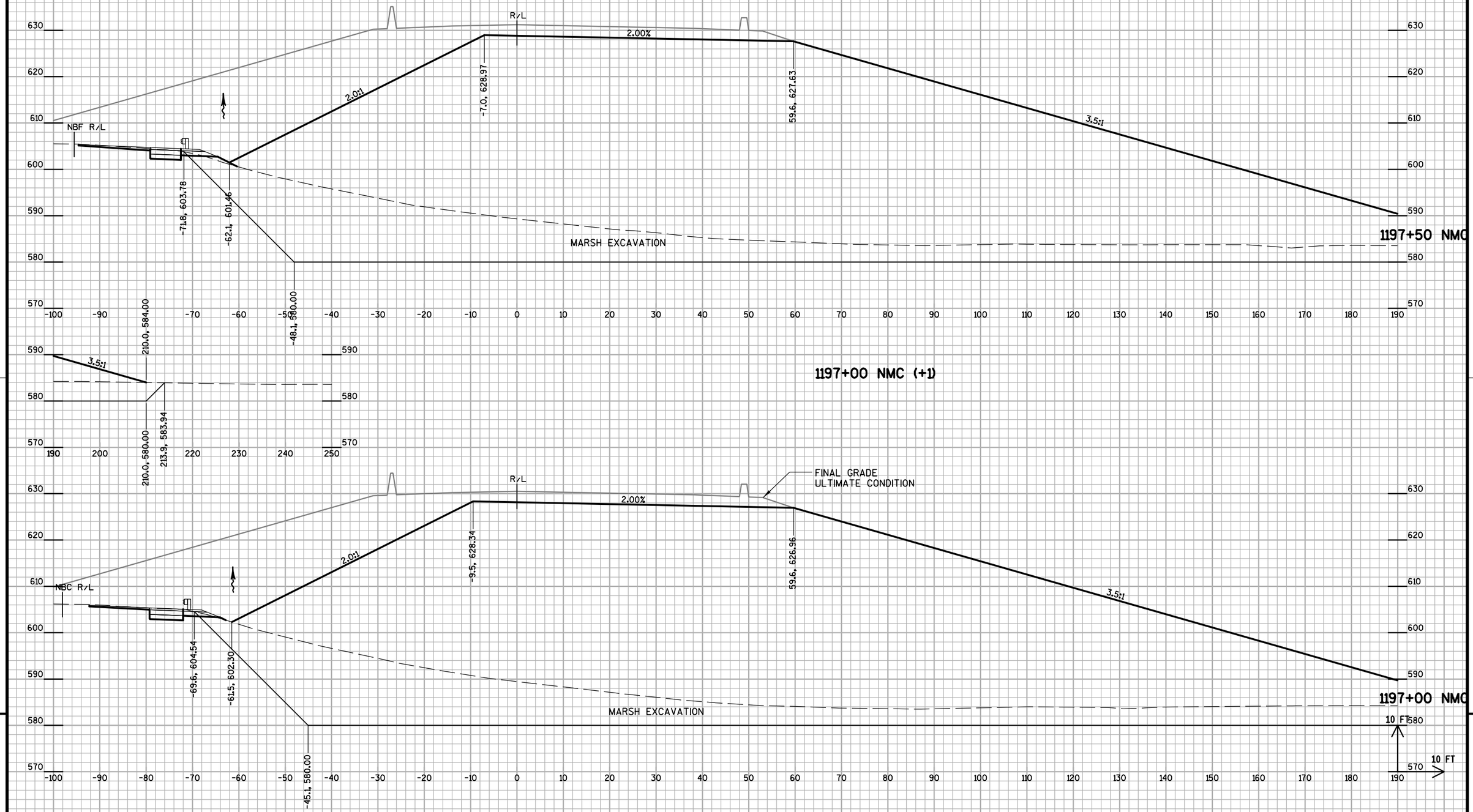
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1341	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1197+00 NMC TO 1197+50 NMC

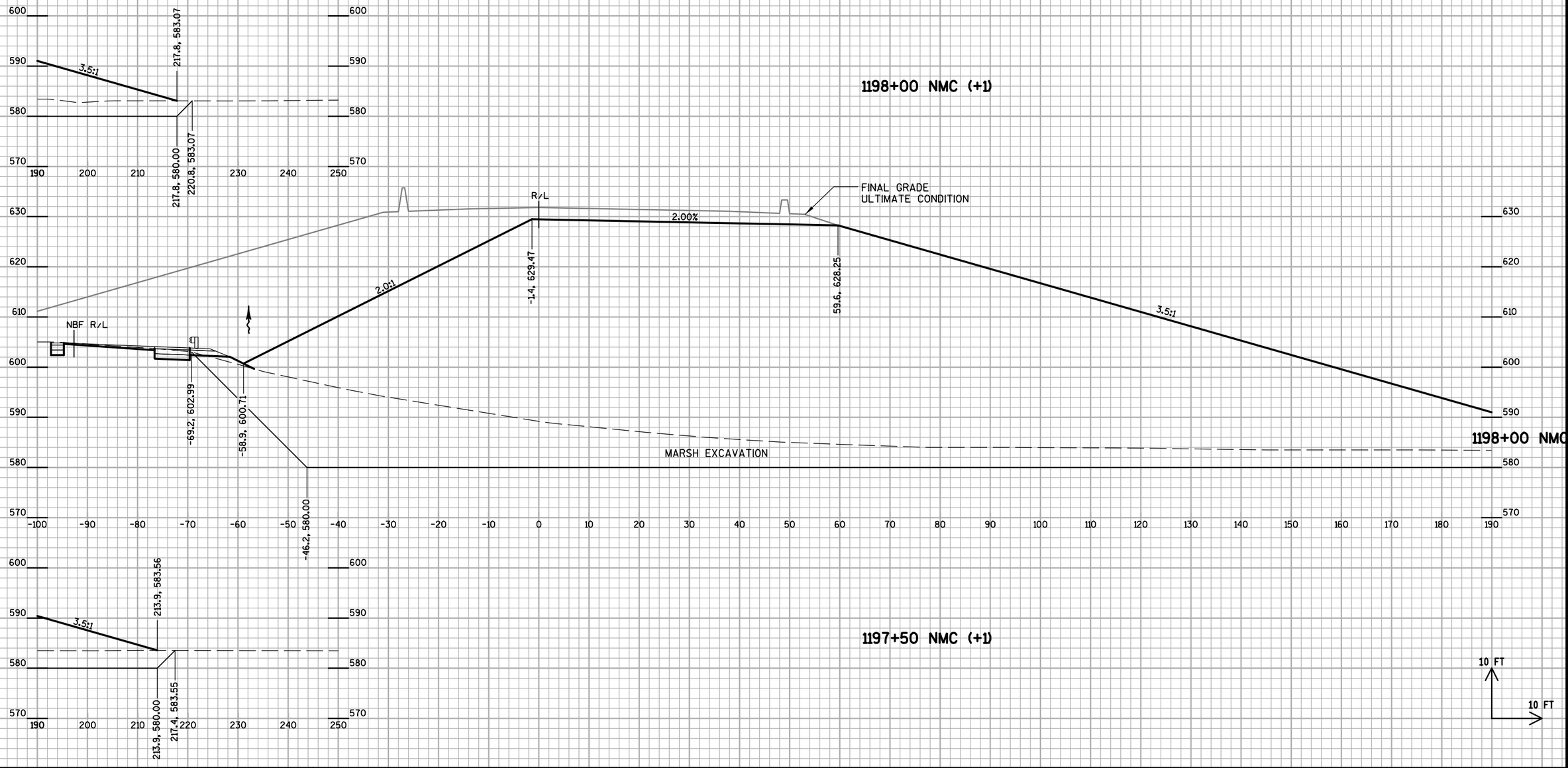


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1342	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1197+50 NMC TO 1198+00 NMC

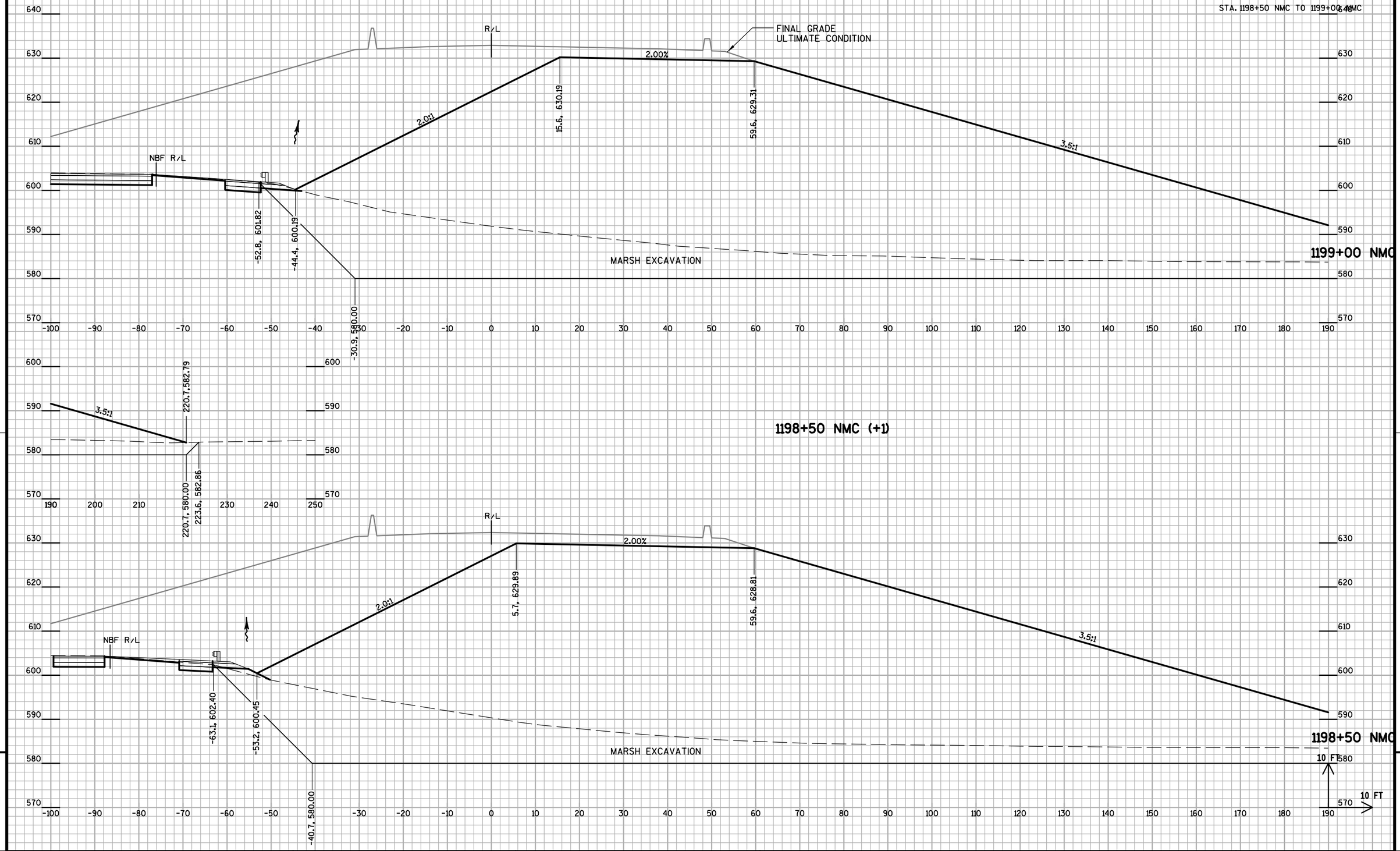


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1343	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1198+50 NMC TO 1199+00 NMC



1198+50 NMC (+1)

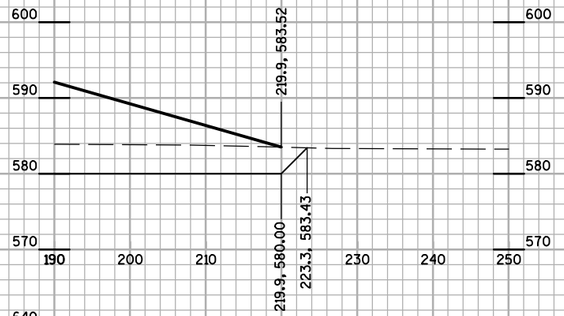
9 9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1344	E

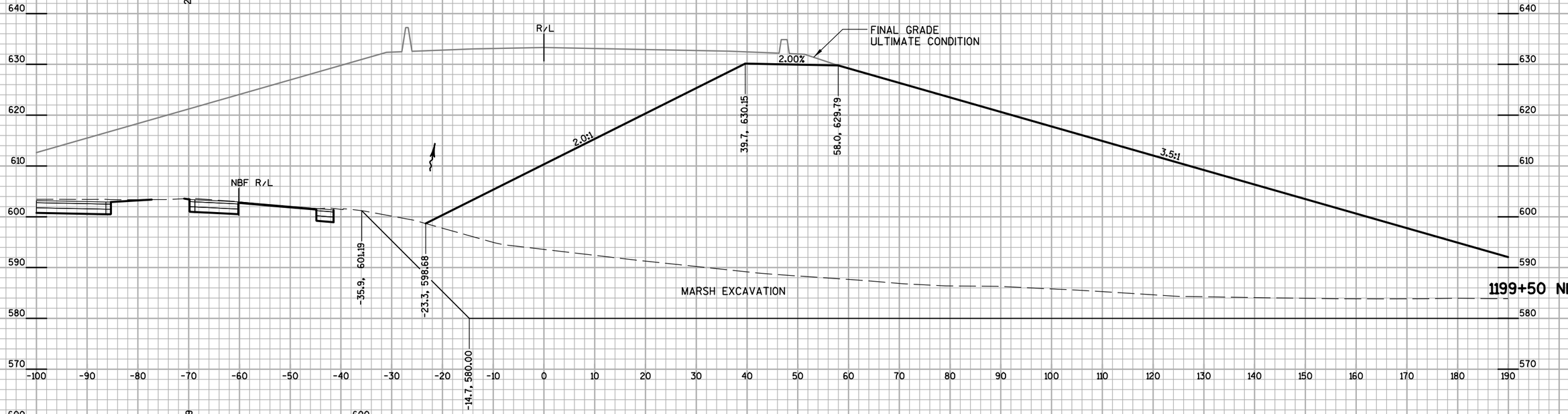
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

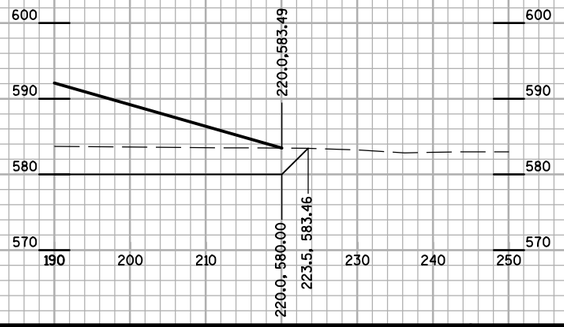
WISDOT/CADDS SHEET 21

STA. 1199+00 NMC TO 1199+50 NMC

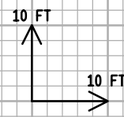


1199+50 NMC (+1)





1199+00 NMC (+1)



9

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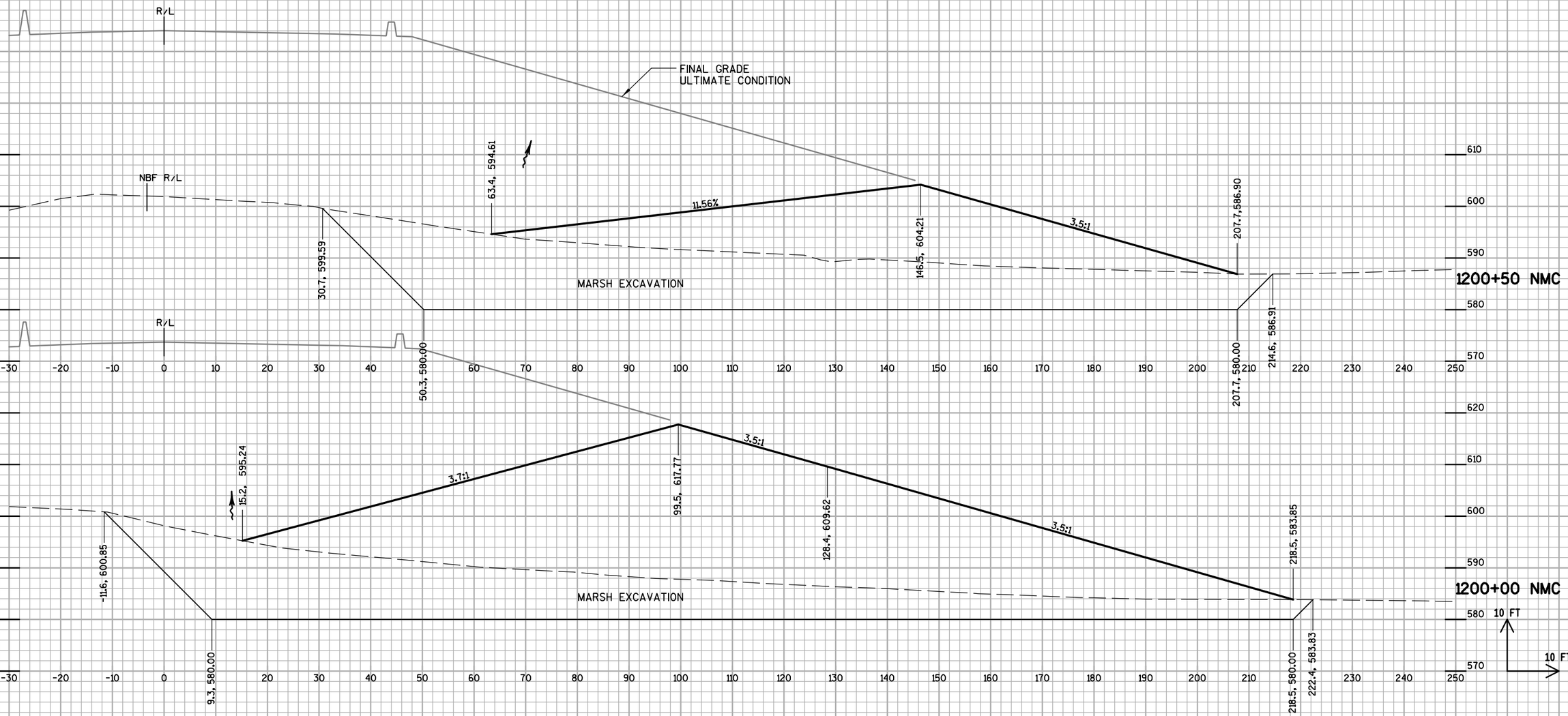
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1345	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1200+00 NMC TO 1200+50 NMC

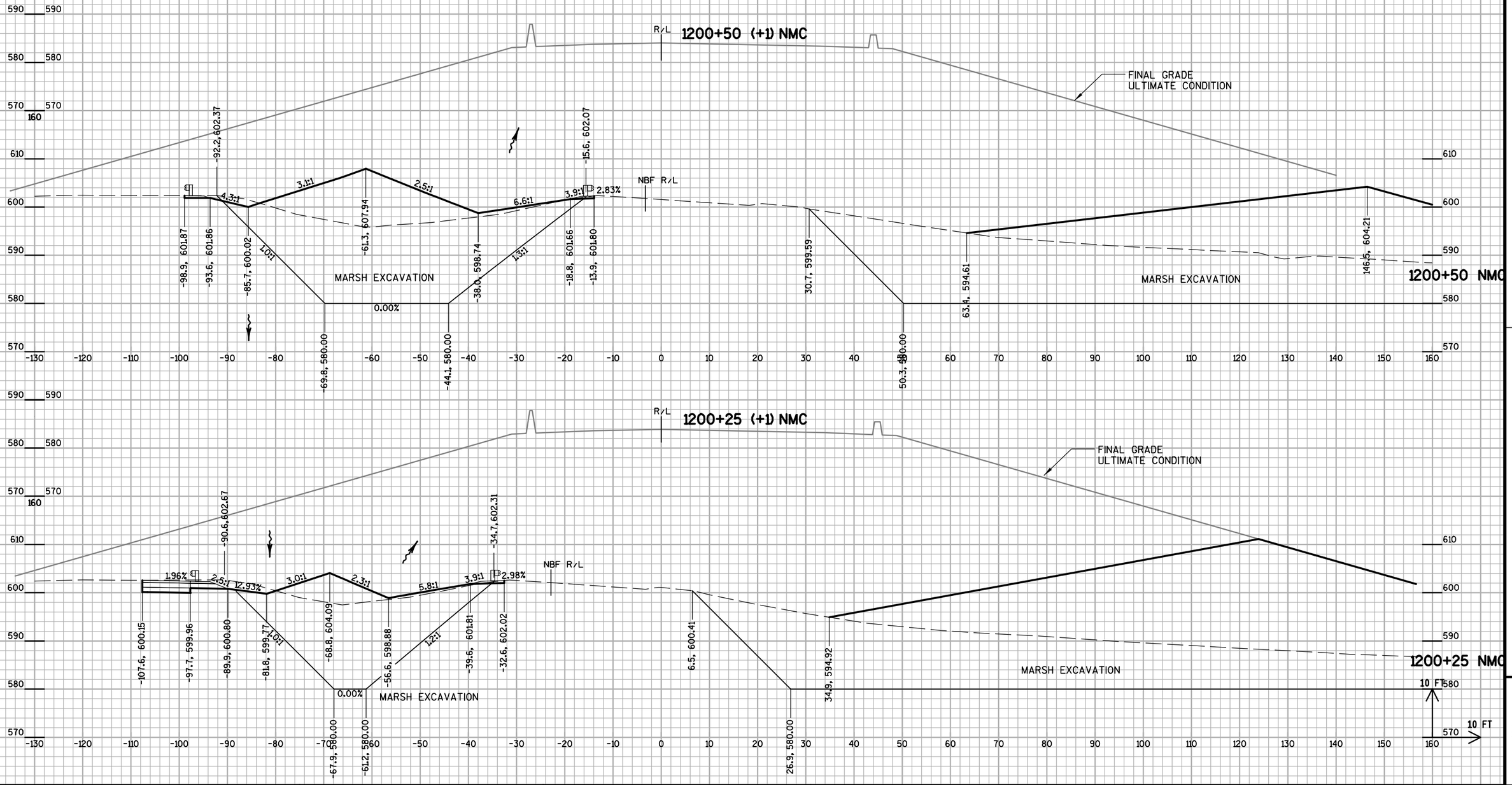


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1346	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1200+25 NMC TO 1200+50 NMC

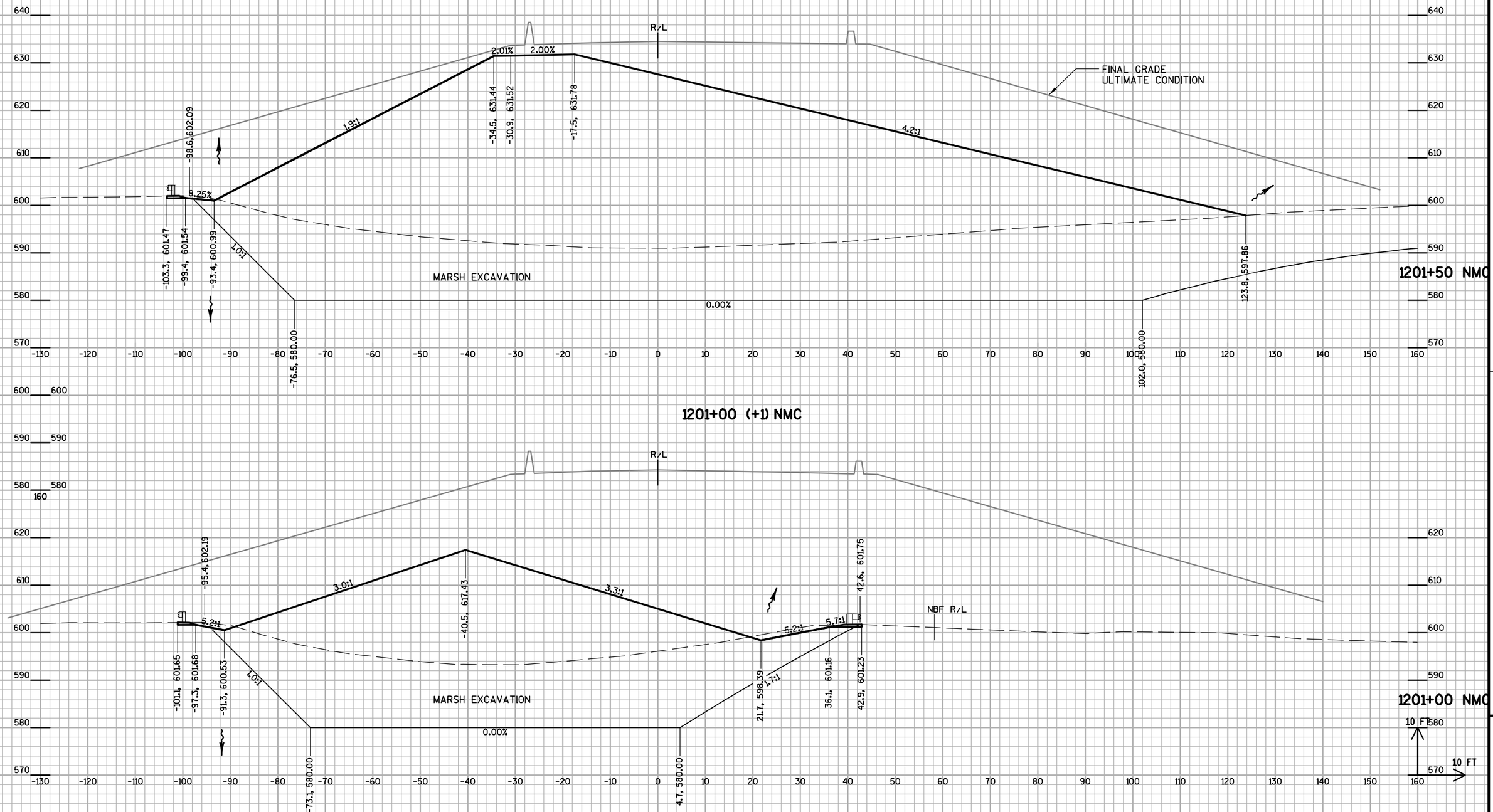


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1347	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1201+00 NMC TO 1201+50 NMC

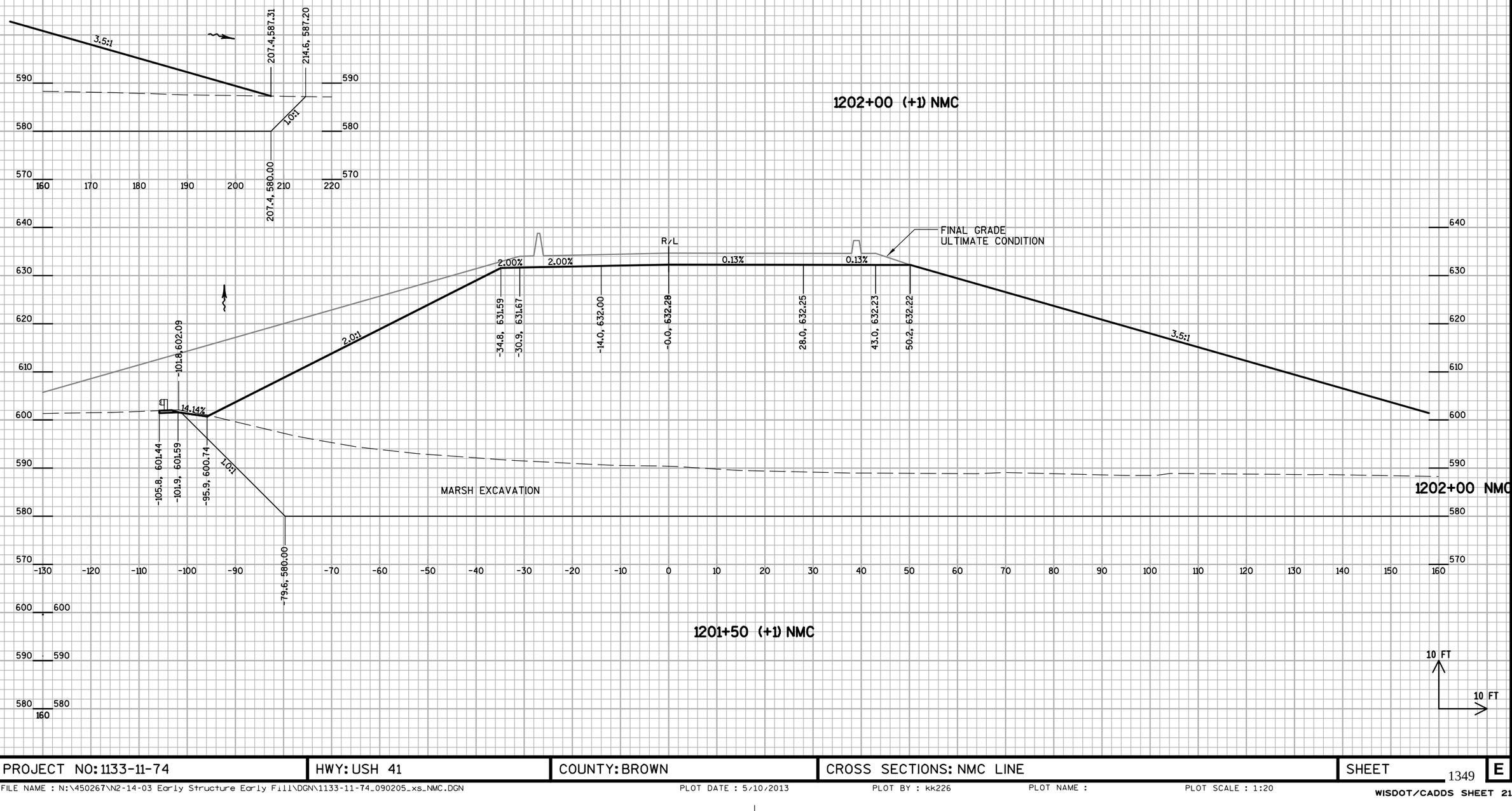


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1348	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1201+50 NMC TO 1202+00 NMC



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1349	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1202+50 NMC

STA. 1203+00 NMC

R/L

2.08%

2.09%

-34.9, 631.68

-30.9, 631.77

-14.0, 632.12

-2.8, 621.83

0.0, 621.86

2.1:1

3.0:1

-108.2, 602.11

4.3:1

-111.1, 601.46

-107.2, 601.65

-101.2, 600.24

1.0:1

MARSH EXCAVATION

0.00%

-86.0, 580.00

100.3, 588.67

115.7, 588.93

1.7:1

100.3, 580.00

1203+00 NMC

1202+50 (+1) NMC

174.3, 587.87

190.5, 587.60

2.1:1

174.3, 580.00

FINAL GRADE
ULTIMATE CONDITION

R/L

2.01%

2.00%

2.00%

0.98%

0.98%

-34.9, 631.68

-30.9, 631.76

-14.0, 632.10

0.0, 632.38

26.3, 632.63

36.3, 626.85

31.9, 626.84

2.0:1

3.5:1

-105.0, 602.28

4.5:1

-108.4, 601.61

-104.6, 601.81

-98.6, 600.49

1.0:1

MARSH EXCAVATION

-82.7, 580.00

1202+50 NMC

10 FT

10 FT

9

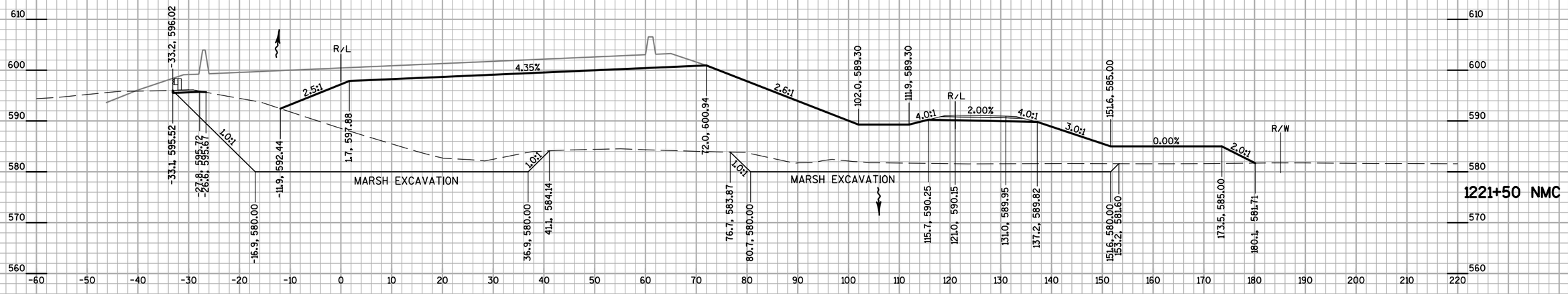
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1350	E

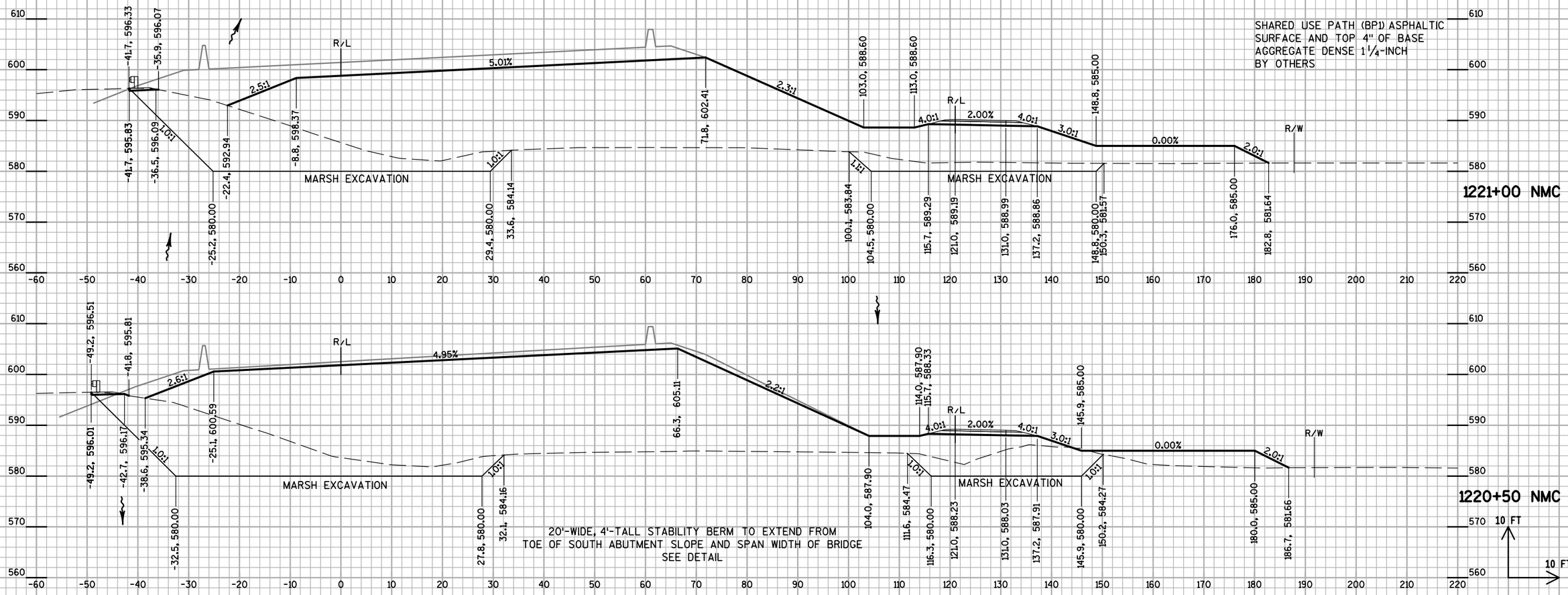
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1220+50 NMC TO 1221+50 NMC



SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS



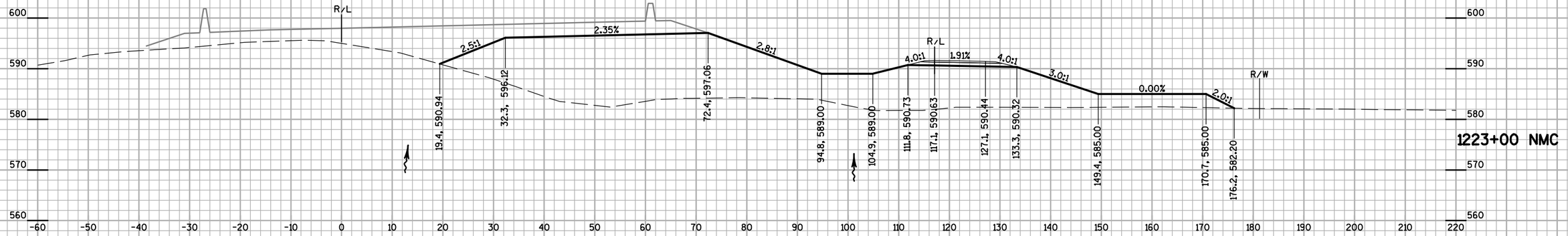
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1351	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

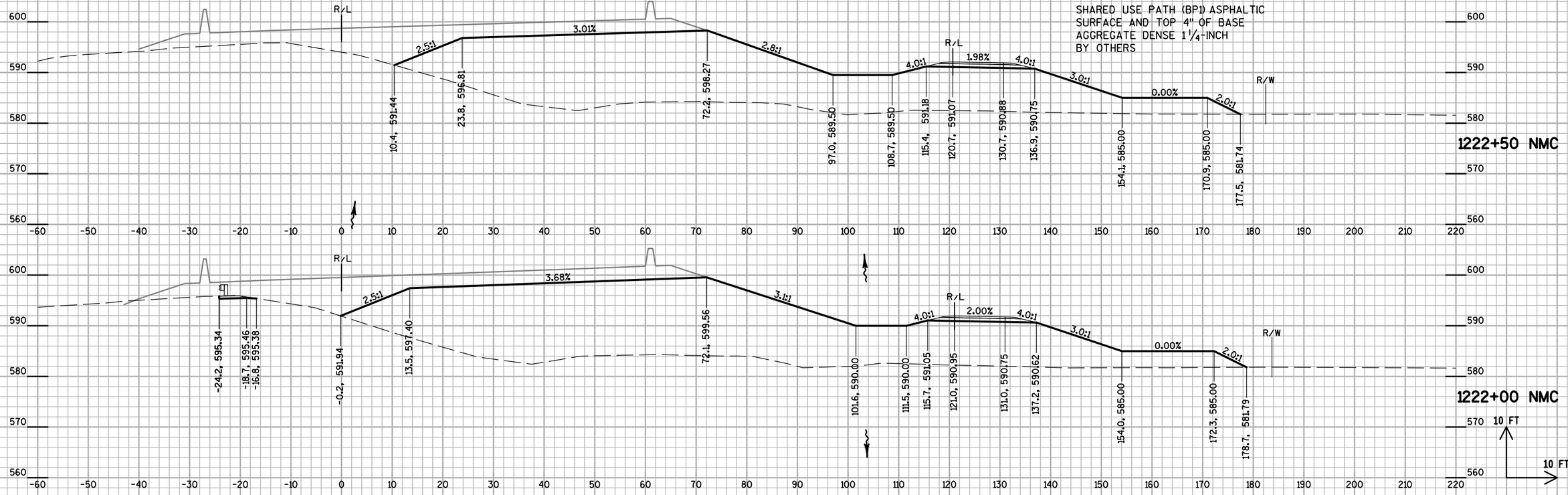
WISDOT/CADDS SHEET 21

9 9

STA. 1222+00 NMC TO 1223+00 NMC



SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1¼-INCH BY OTHERS

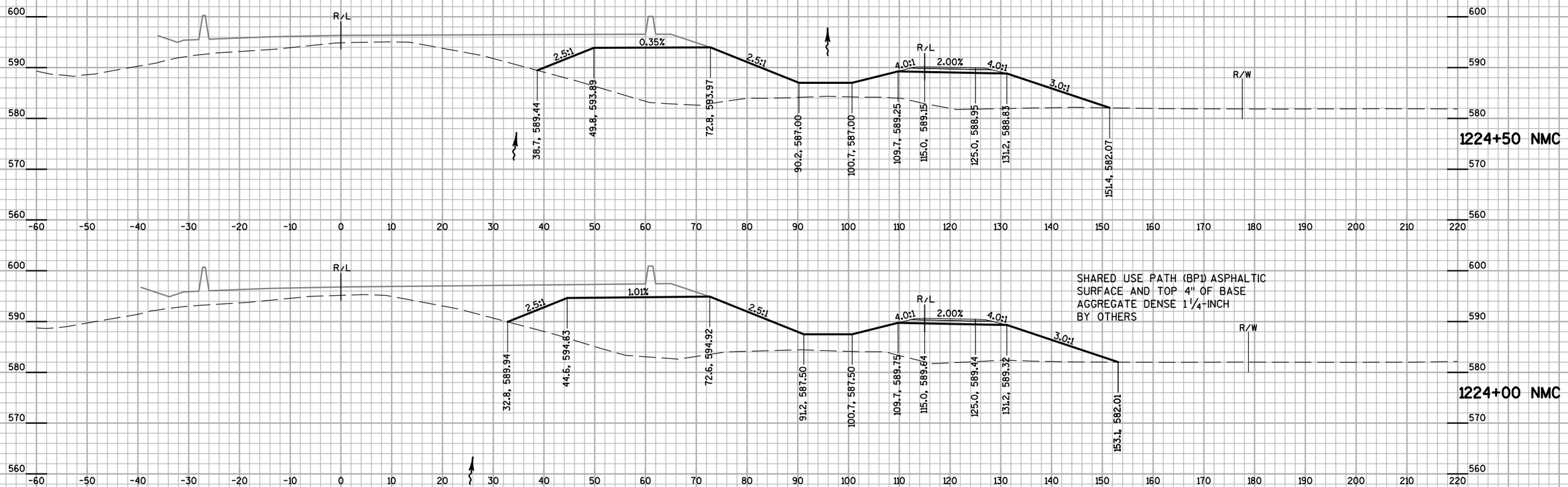


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1352	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1223+50 NMC TO 1224+50 NMC



9

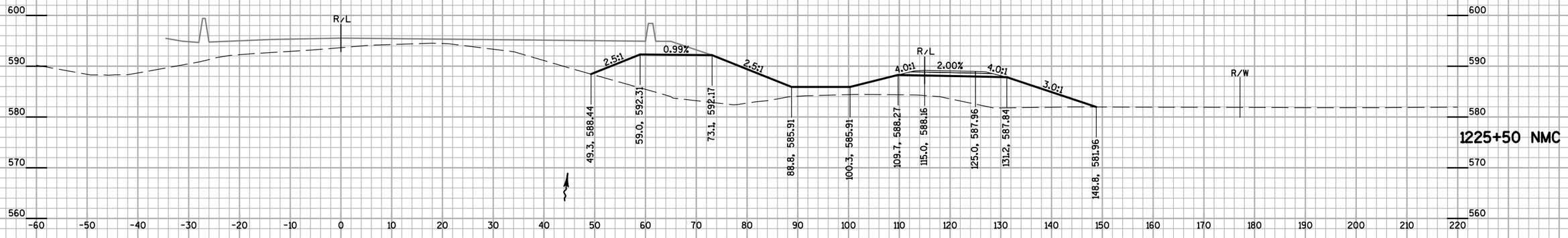
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1353	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1225+00 NMC TO 1225+50 NMC

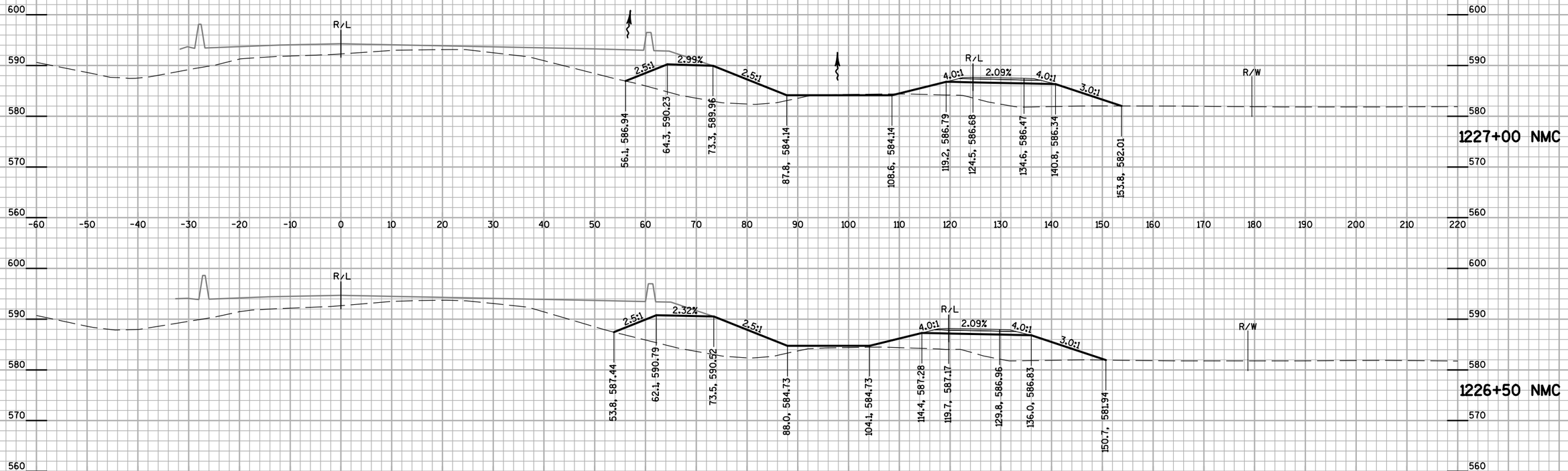


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1354	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1226+00 NMC TO 1227+00 NMC



SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1¼-INCH BY OTHERS

10 FT
10 FT

9

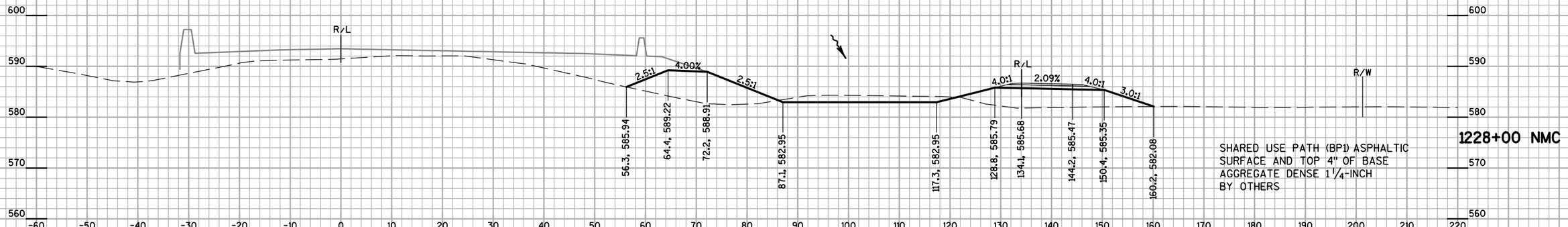
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1355	E

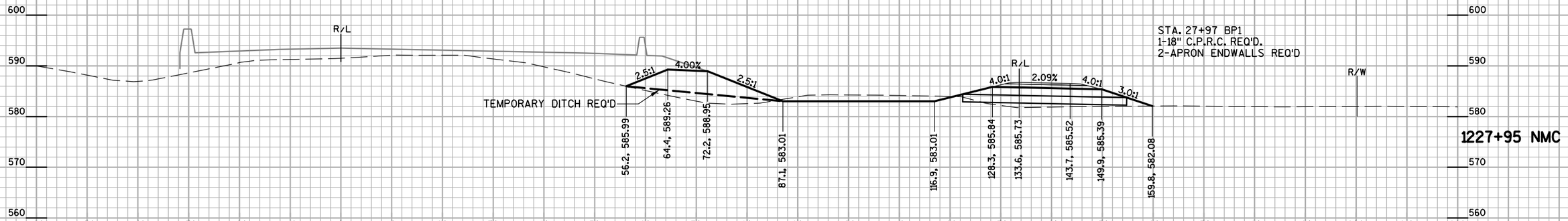
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

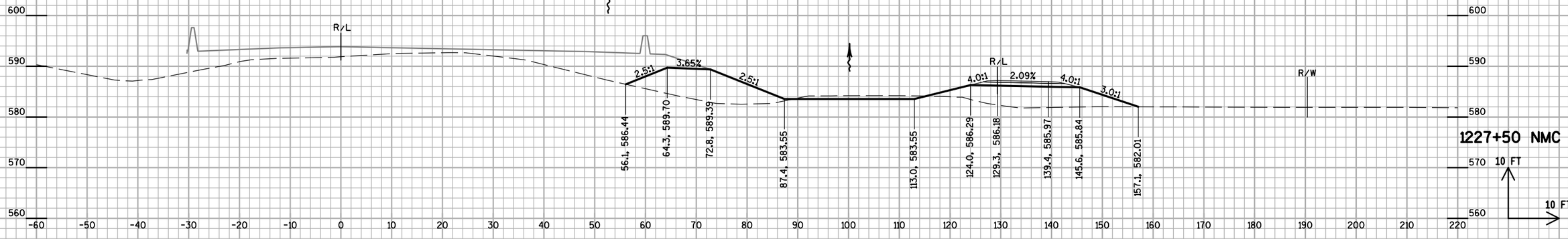
WISDOT/CADDS SHEET 21

STA. 1227+50 NMC TO 1228+00 NMC



STA. 27+97 BP1
1-18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D





9

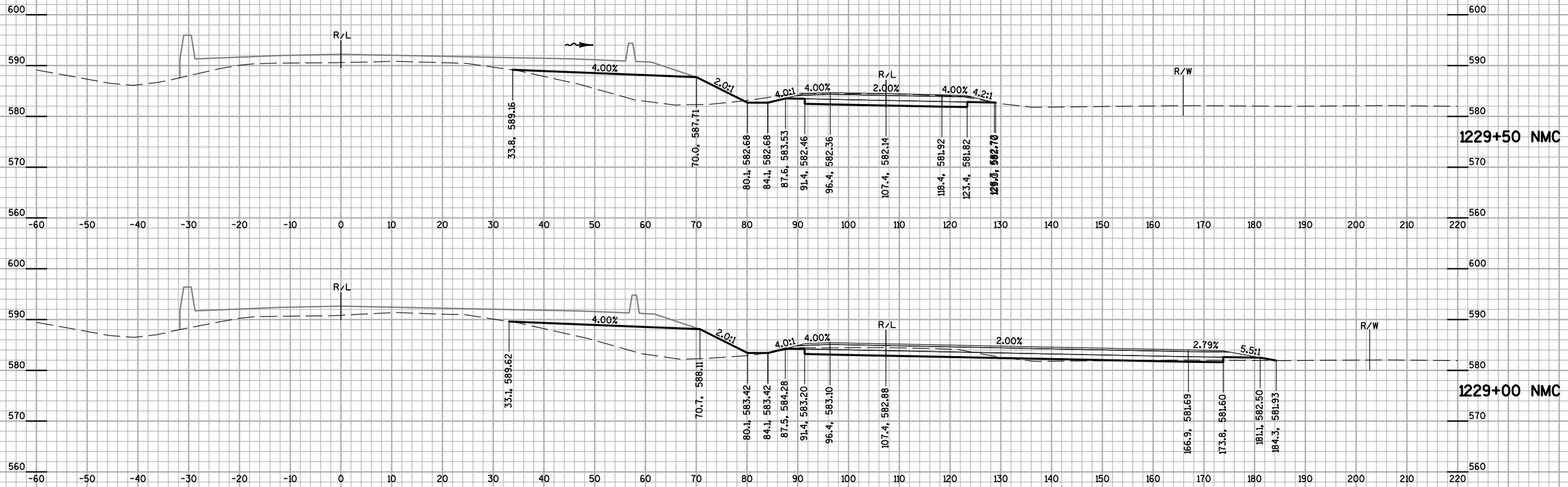
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1356	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1228+50 NMC TO 1229+50 NMC



9

9

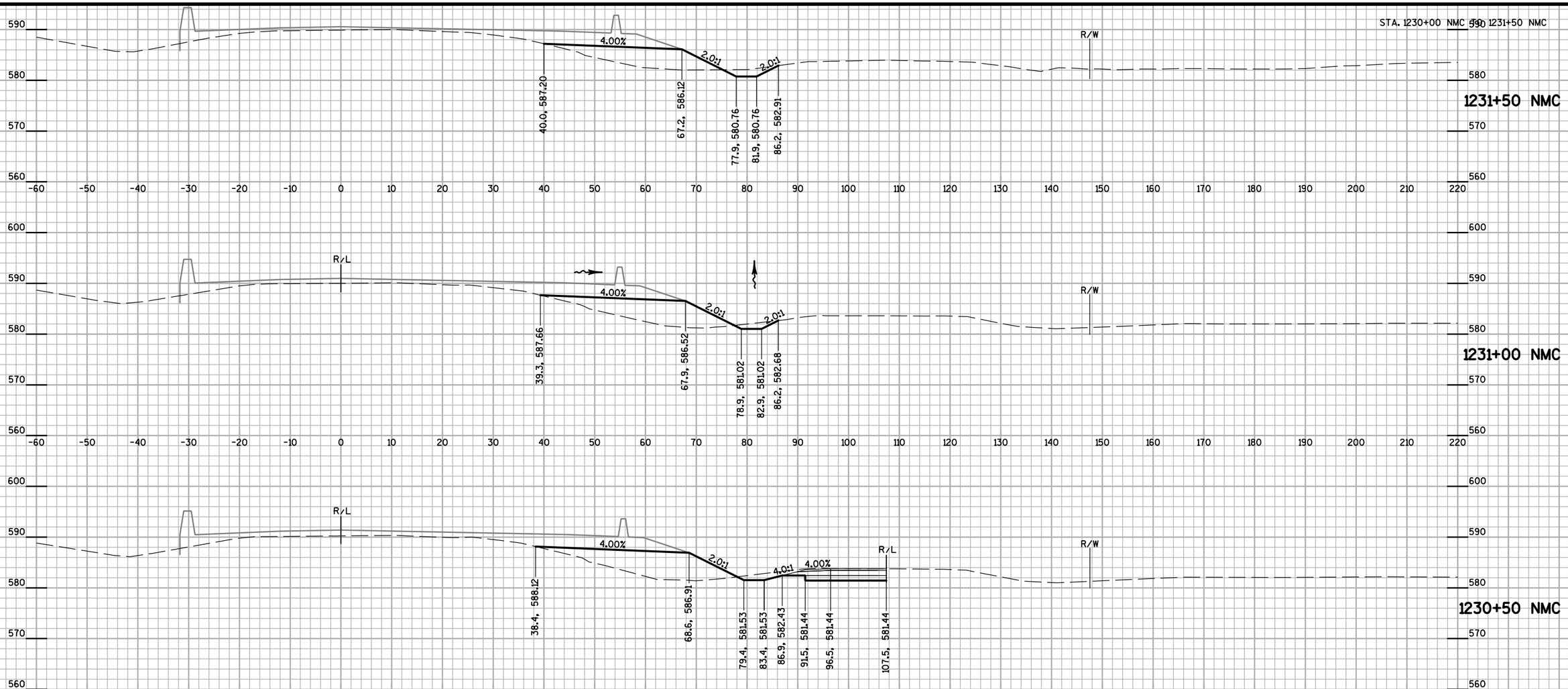
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1357	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1230+00 NMC

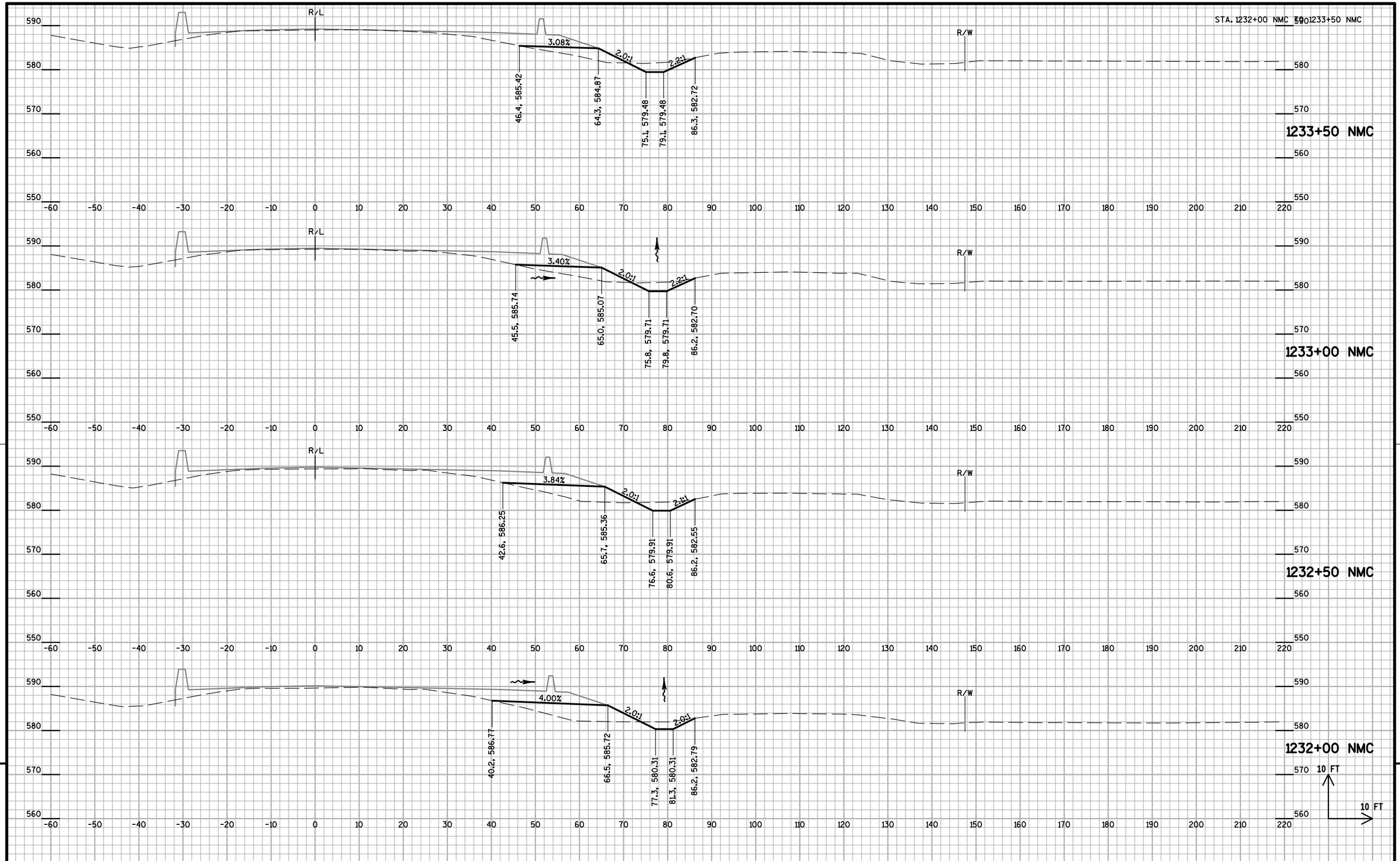
STA. 1231+50 NMC



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1358	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

9

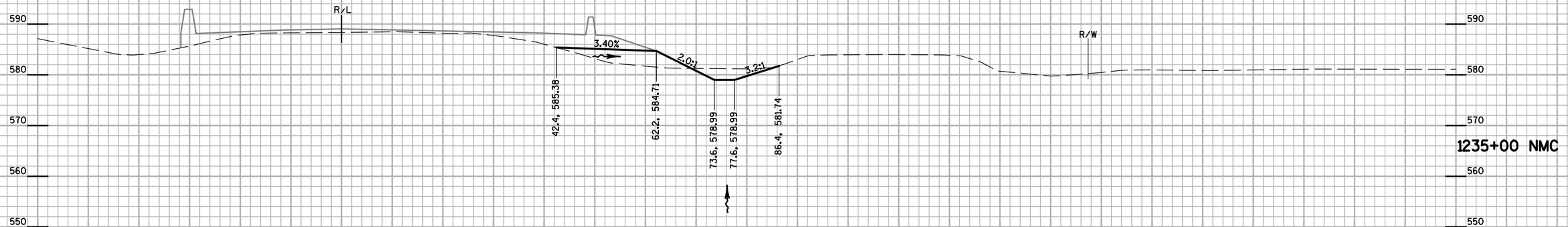
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1359	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

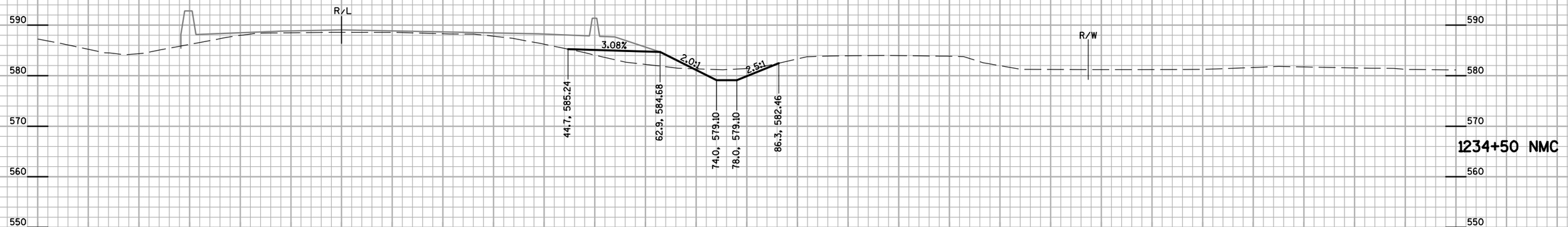
WISDOT/CADDS SHEET 21

STA. 1234+00 NMC TO 1235+00 NMC

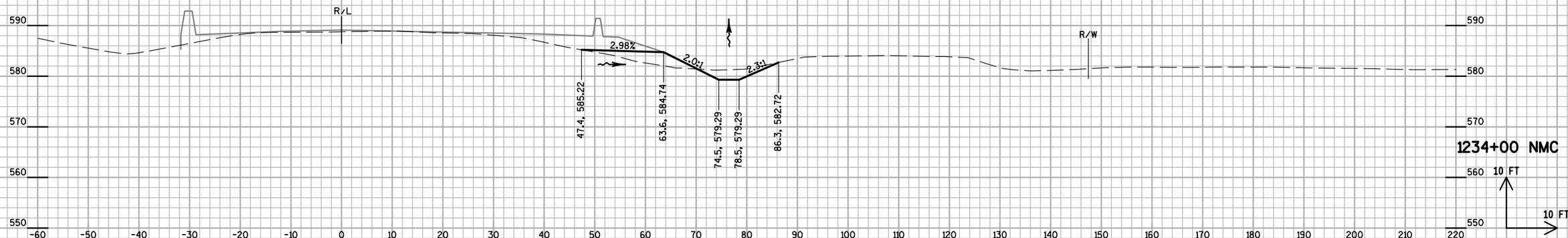
MATCH EXISTING
STA. 1235+00 NMC



1235+00 NMC



1234+50 NMC



1234+00 NMC

9

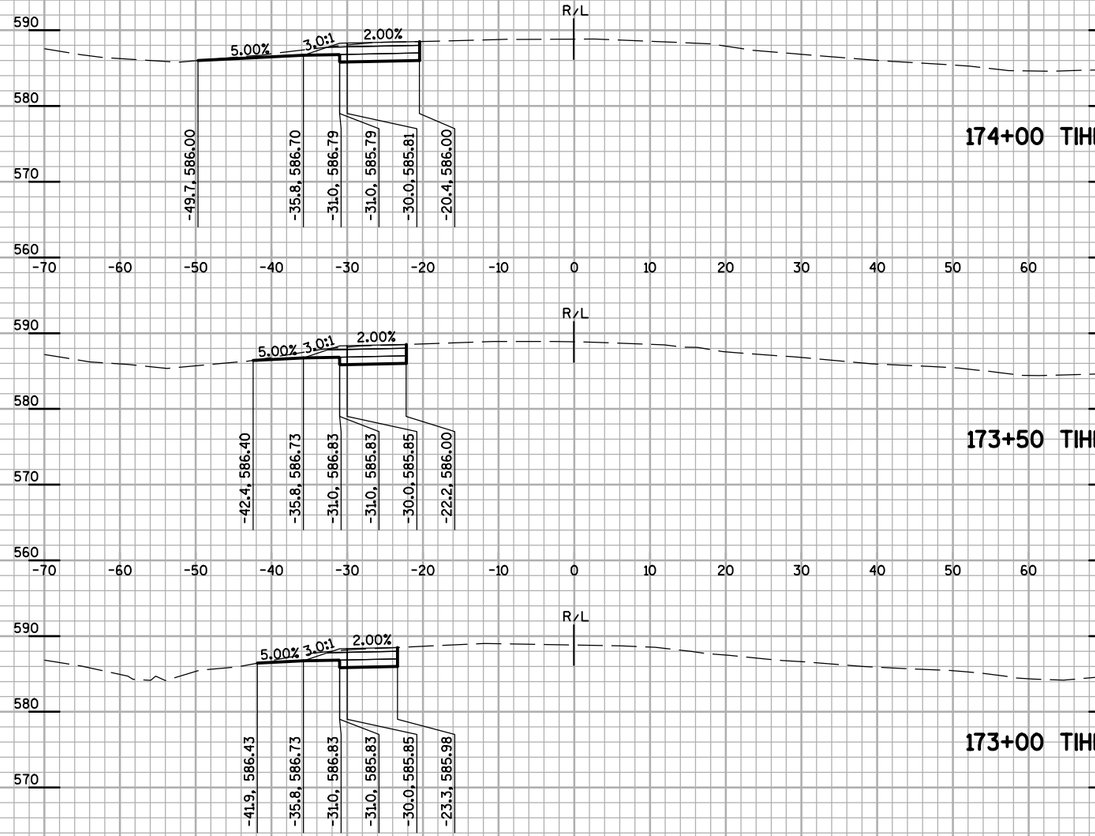
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NMC LINE	SHEET 1360	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090205_xs_NMC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 172+75 TIHB TO 176+50 TIHB

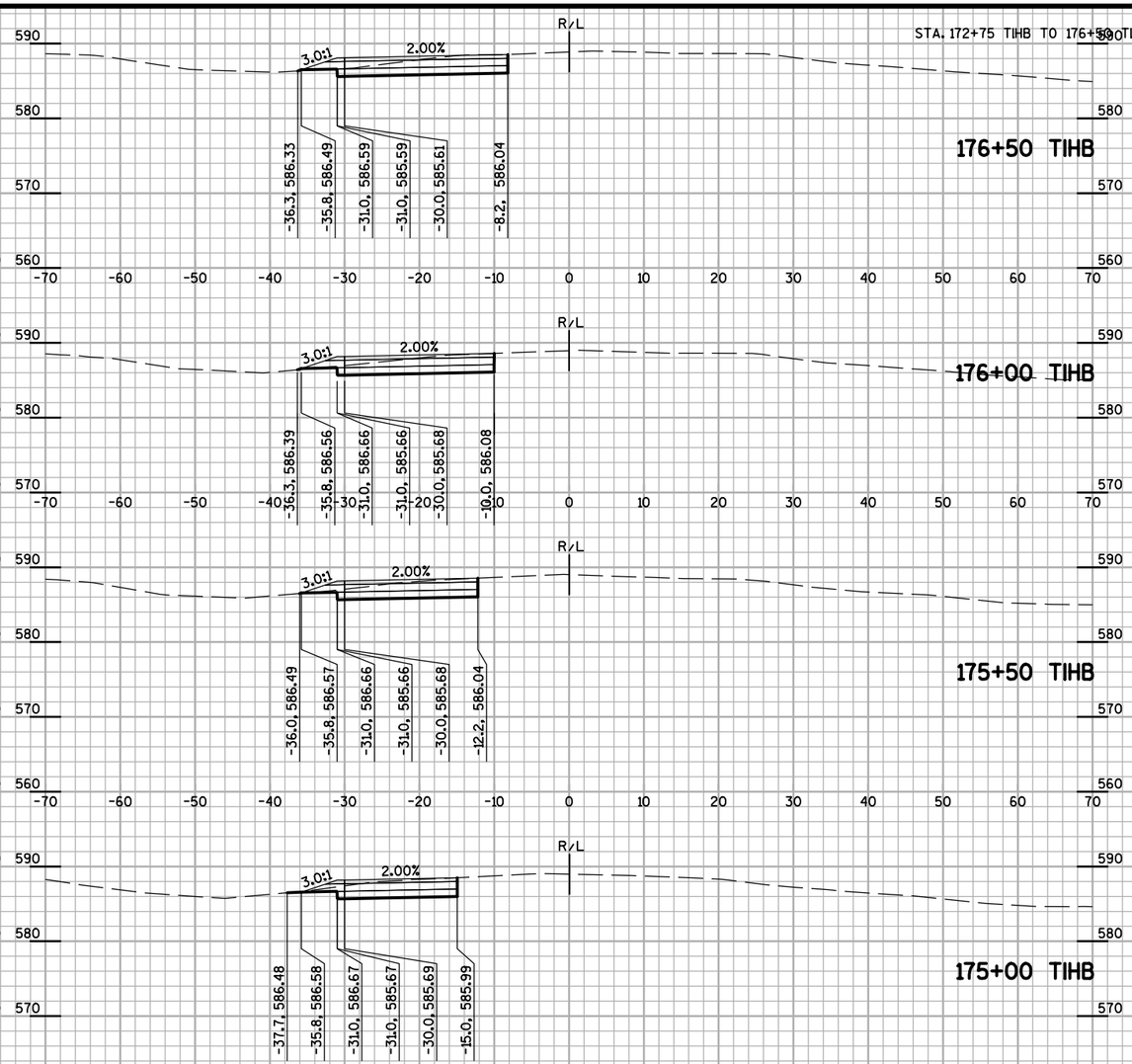


174+00 TIHB

173+50 TIHB

173+00 TIHB

172+75 TIHB



176+50 TIHB

176+00 TIHB

175+50 TIHB

175+00 TIHB

174+50 TIHB

9

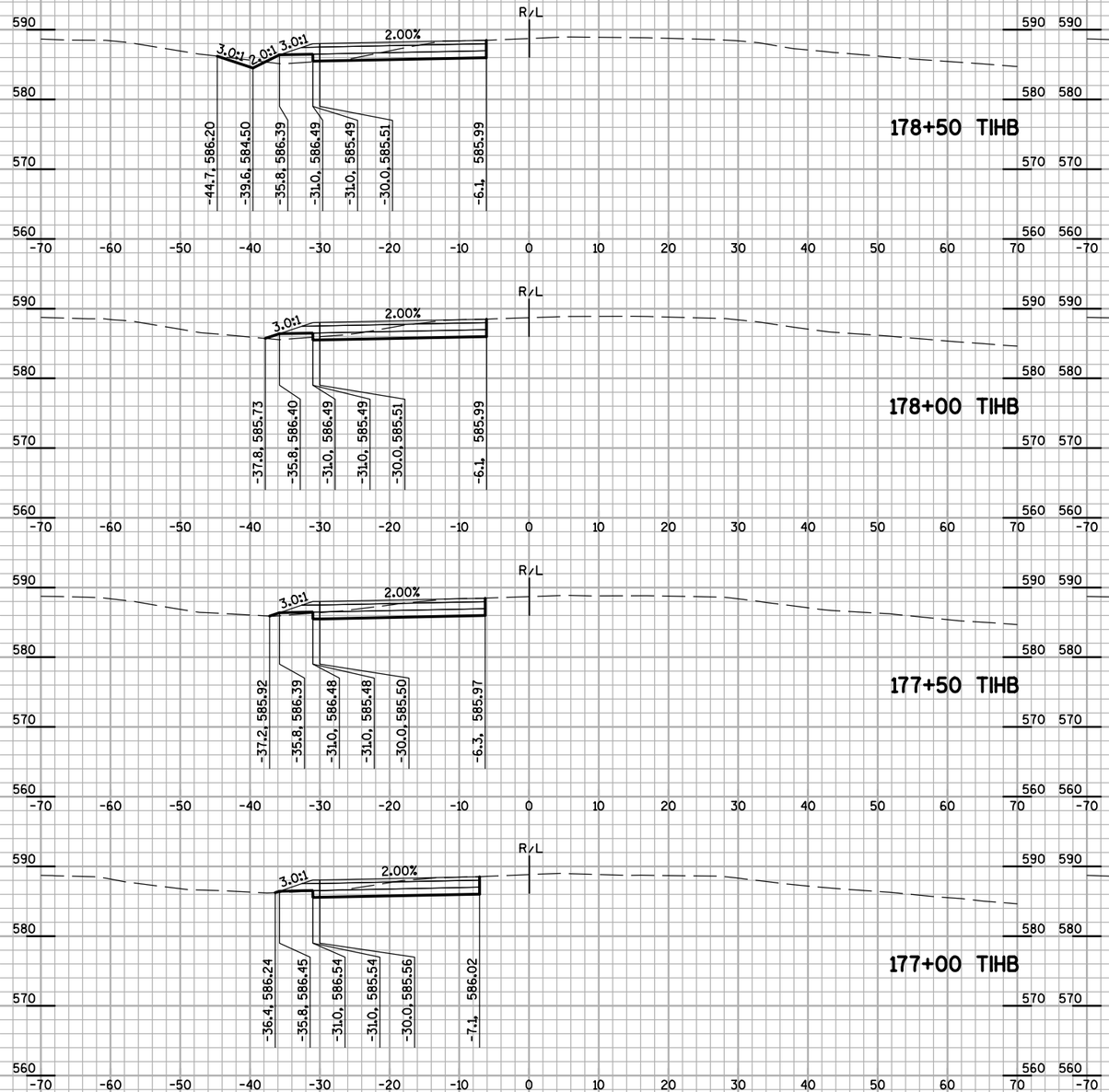
9

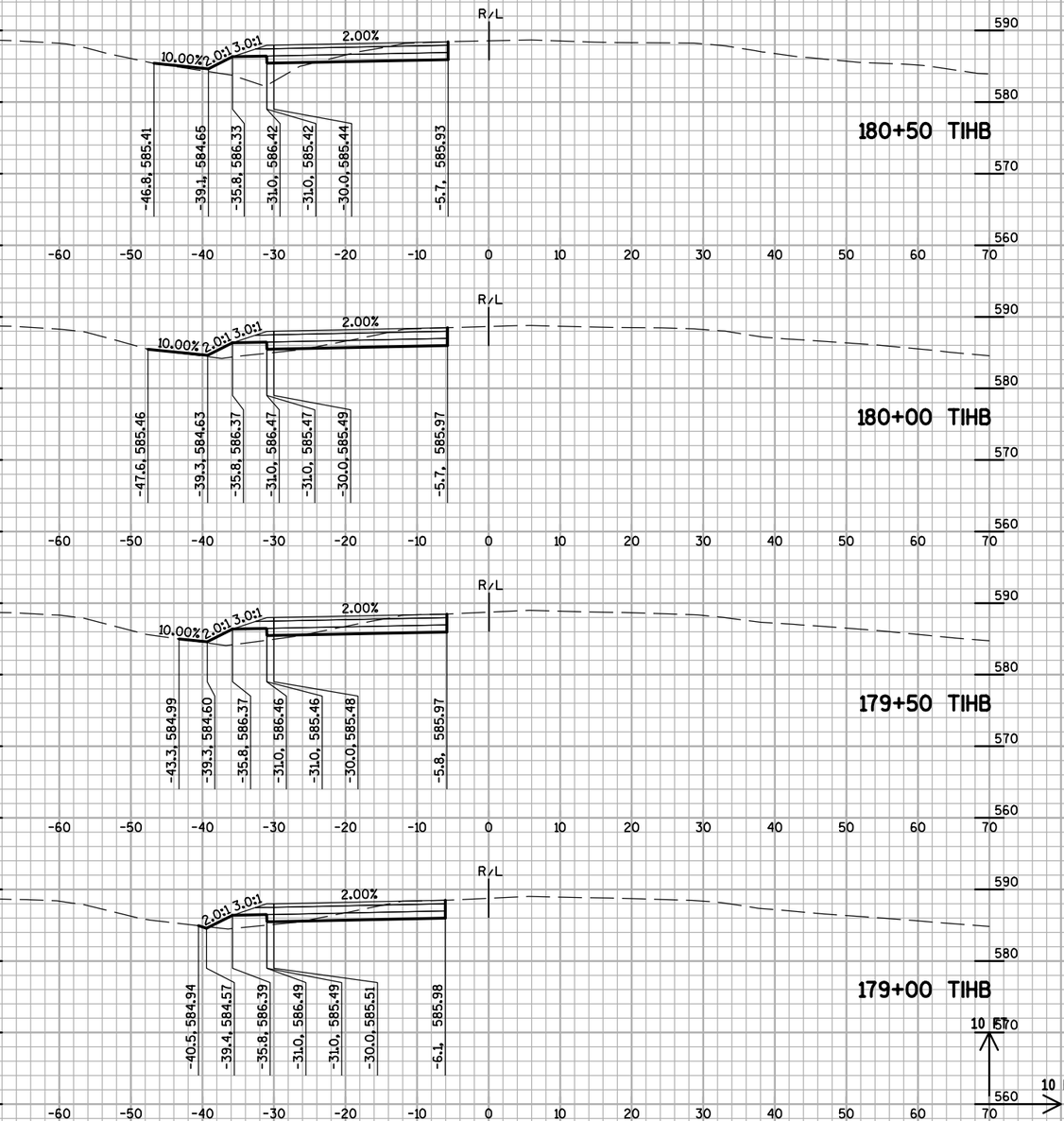
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TIHB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090206_xs_TIHB.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 177+00 TIHB TO 180+50 TIHB





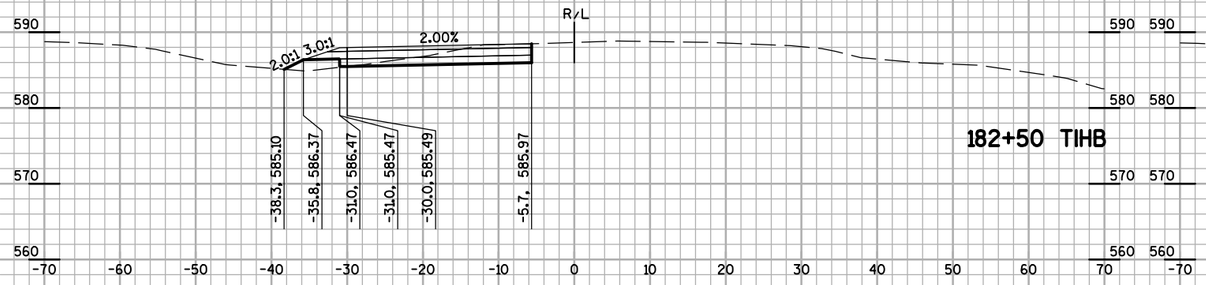
9

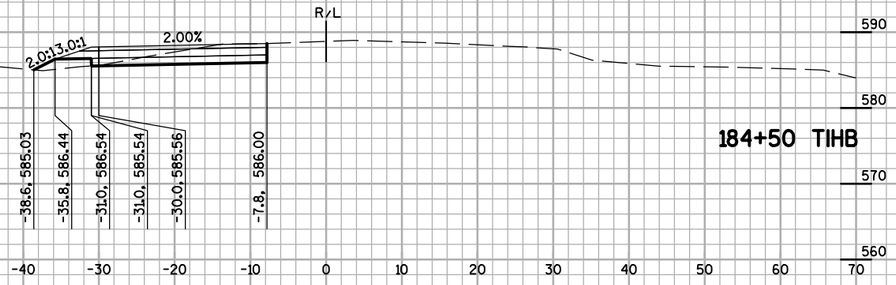
9

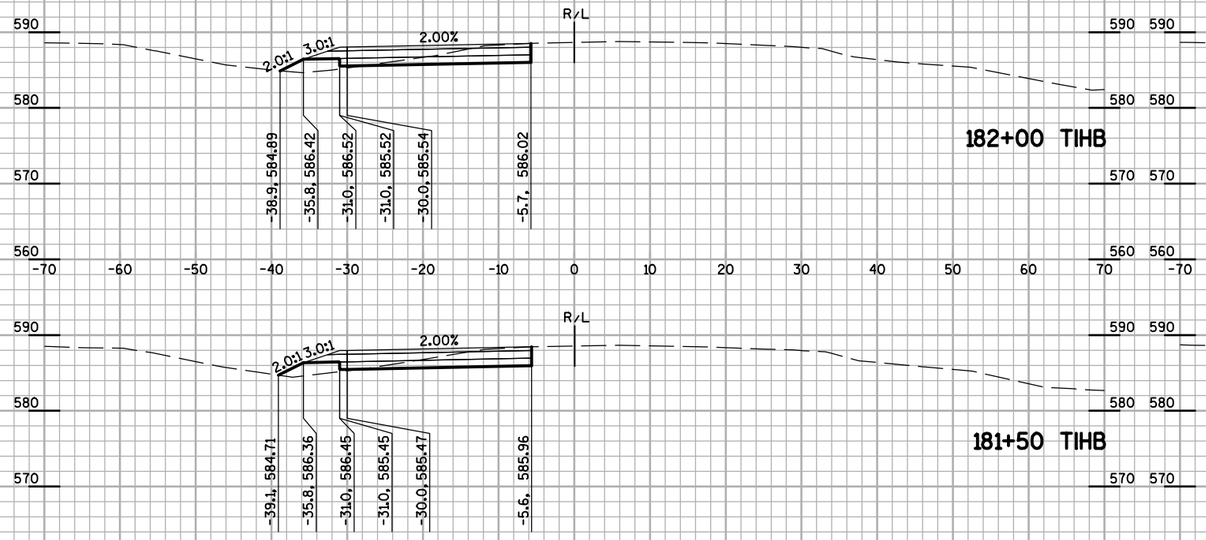
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TIHB LINE	SHEET	E

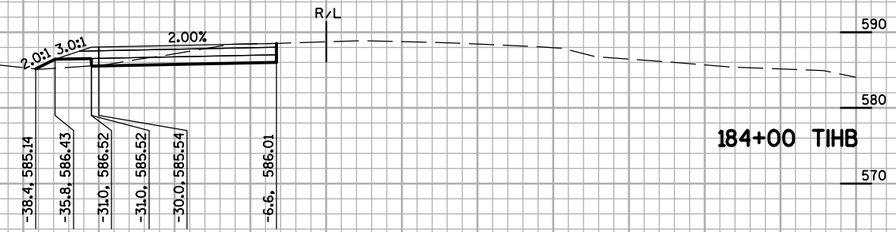
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090206_xs_TIHB.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

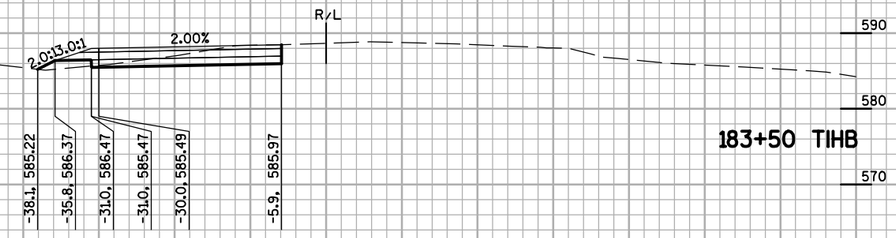
WISDOT/CADDS SHEET 21

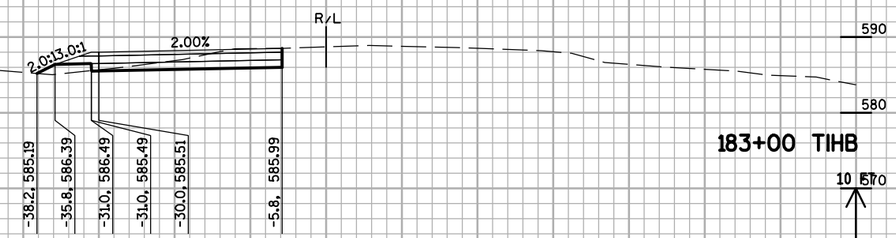












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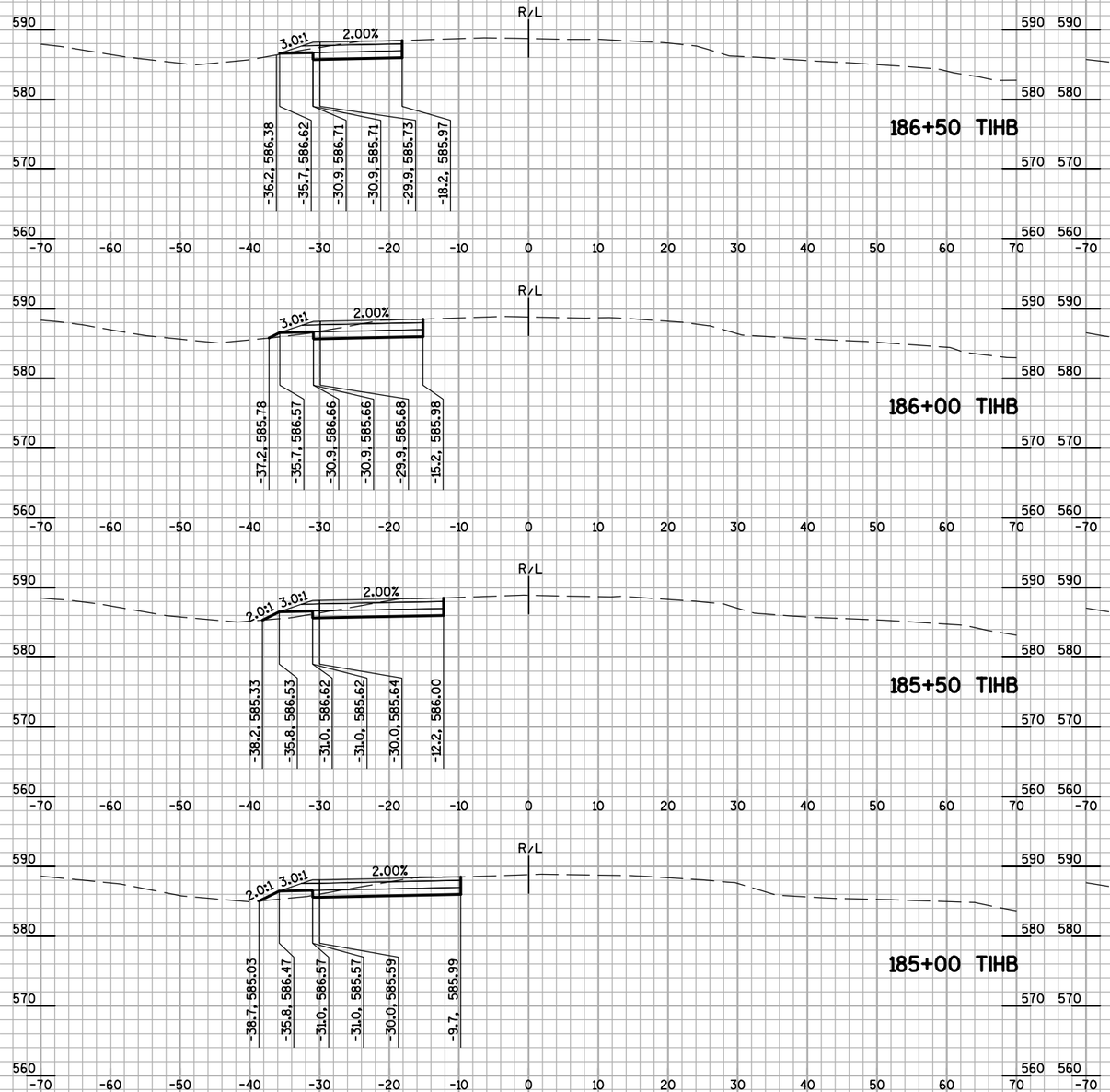
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TIHB LINE	SHEET 1363	E

STA. 185+00 TIHB TO 188+50 TIHB

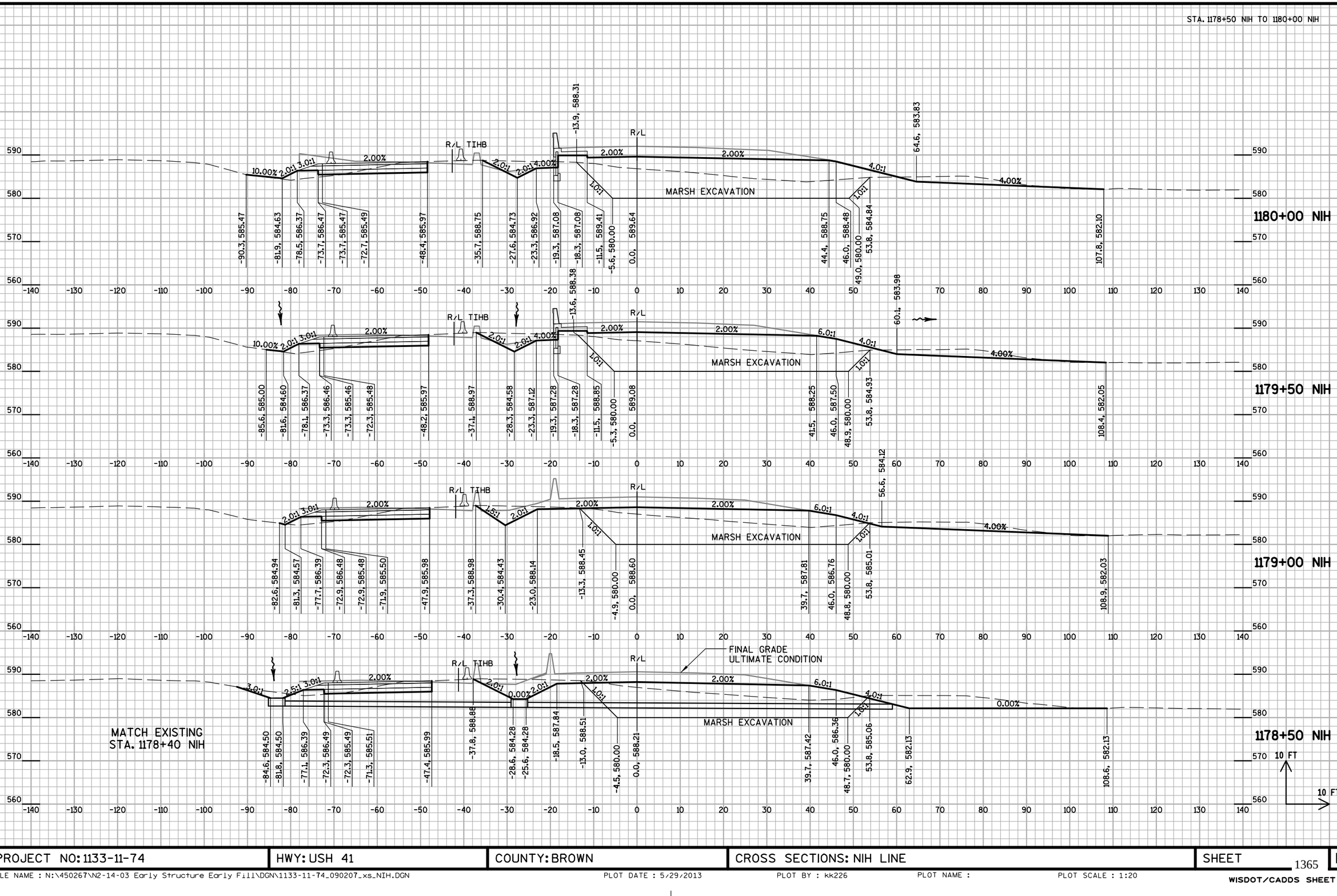


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TIHB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090206_xs_TIHB.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1178+50 NIH TO 1180+00 NIH

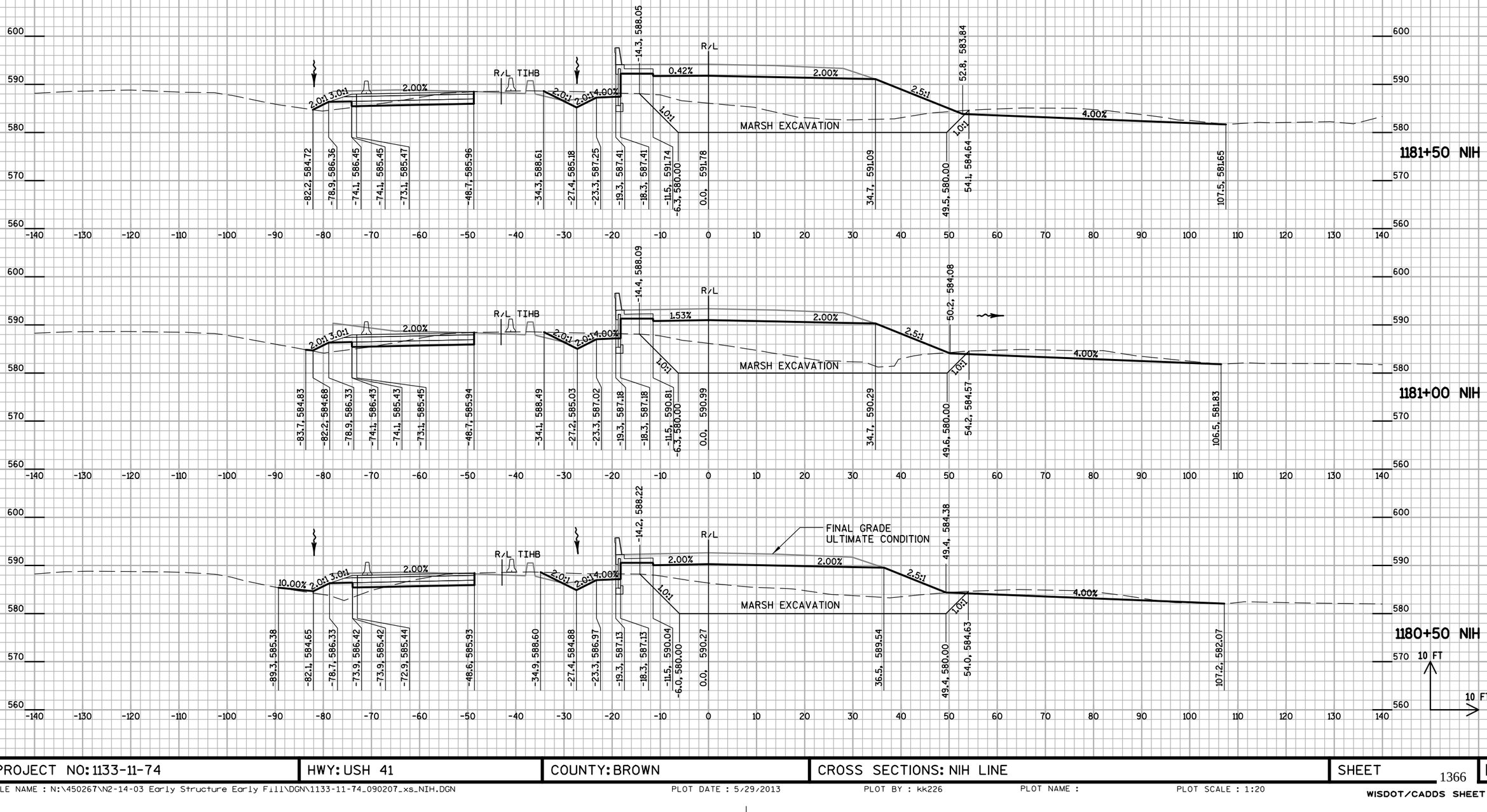


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090207_xs_NIH.DGN PLOT DATE : 5/29/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1180+50 NIH TO 1181+50 NIH

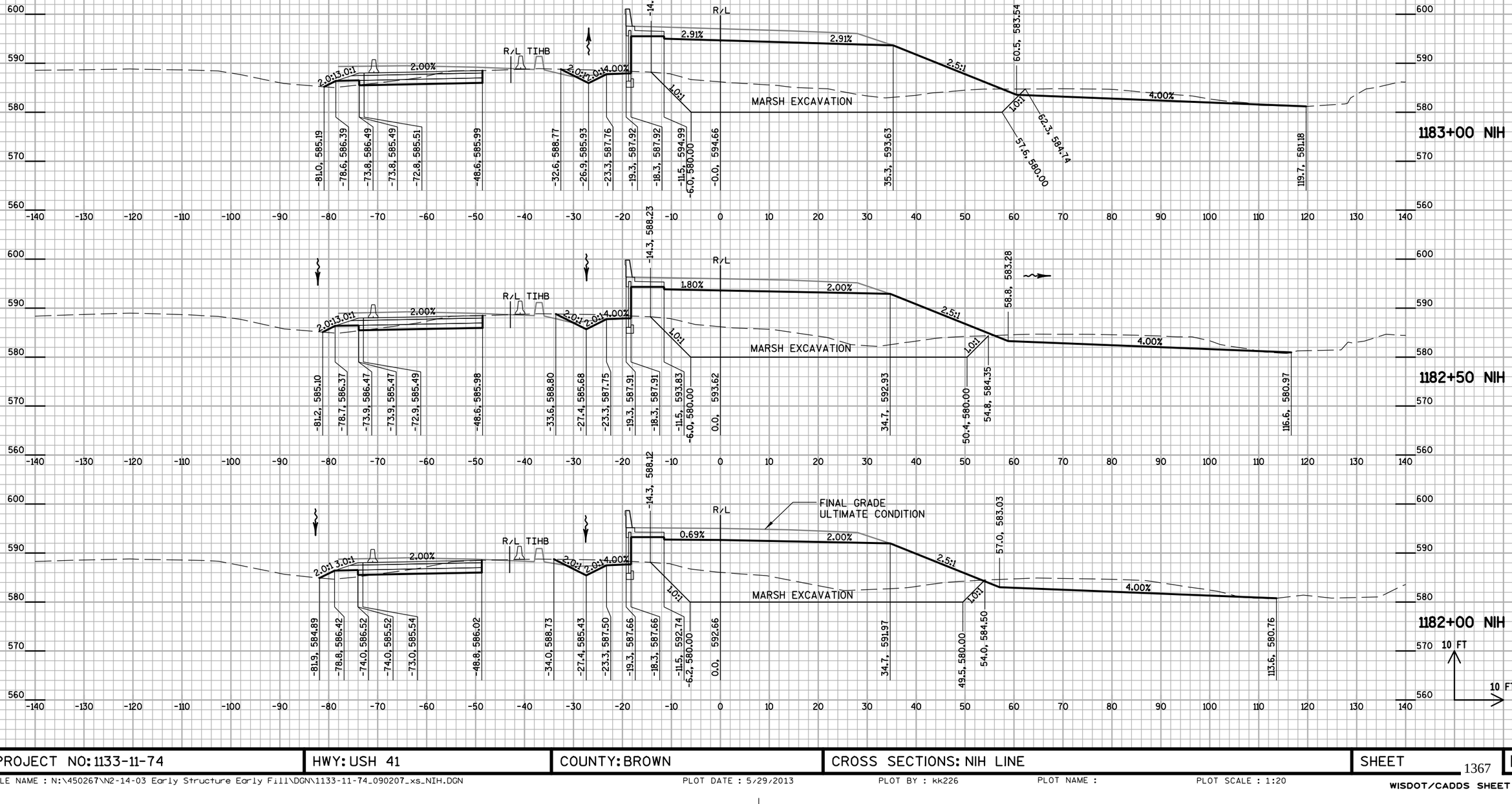


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE	SHEET 1366	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090207_xs_NIH.DGN | PLOT DATE : 5/29/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1182+00 NIH TO 1183+00 NIH

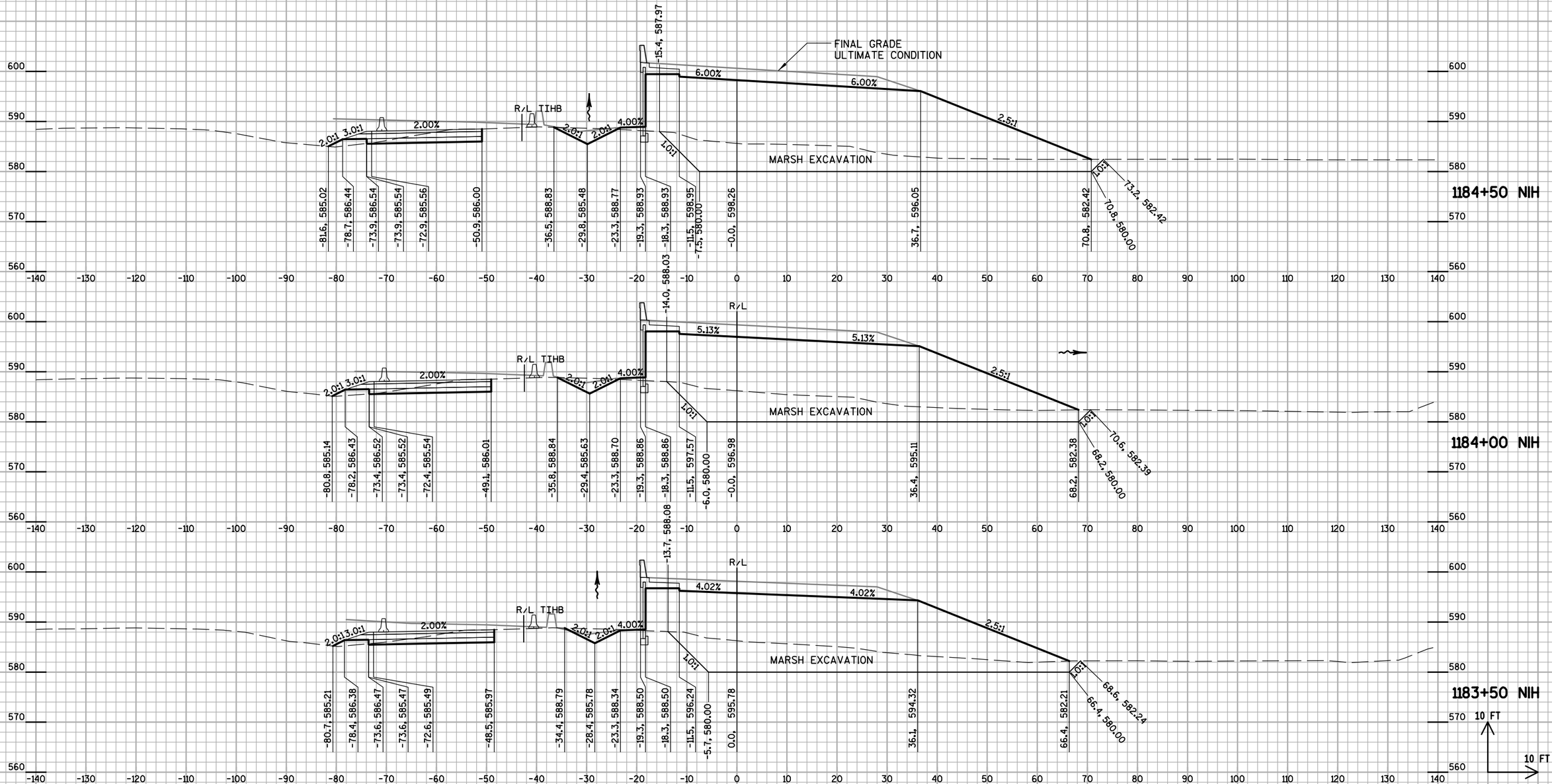


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE	SHEET 1367	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090207_xs_NIH.DGN | PLOT DATE : 5/29/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1183+50 NIH TO 1184+50 NIH

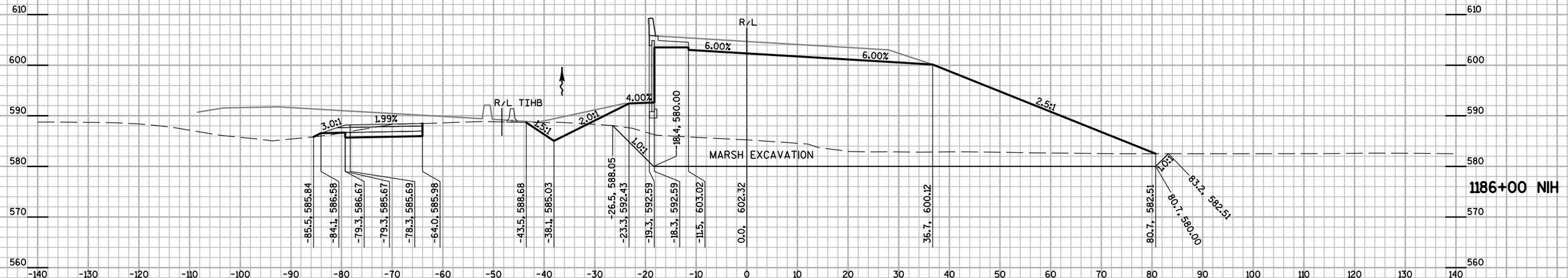


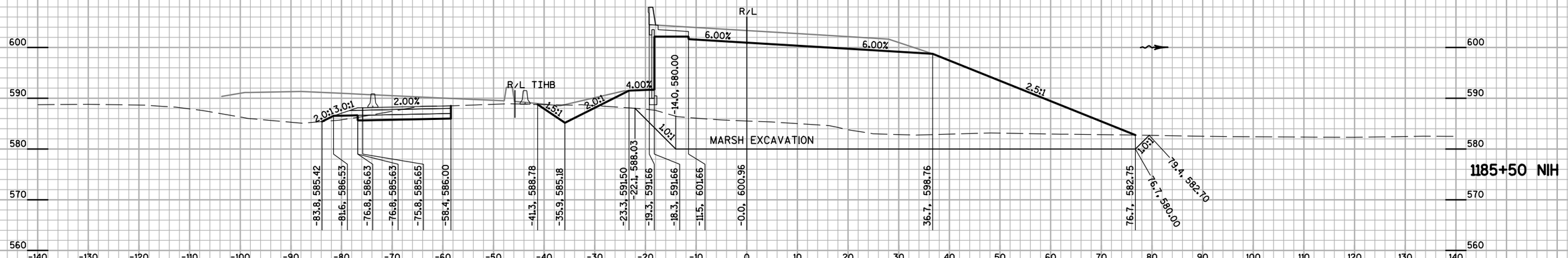
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE	SHEET	E

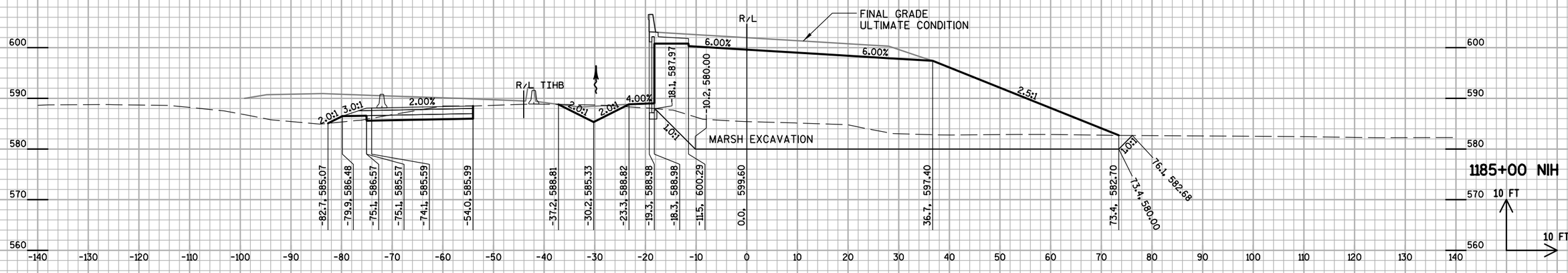
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090207_xs_NIH.DGN | PLOT DATE : 5/29/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1185+00 NIH TO 1186+00 NIH







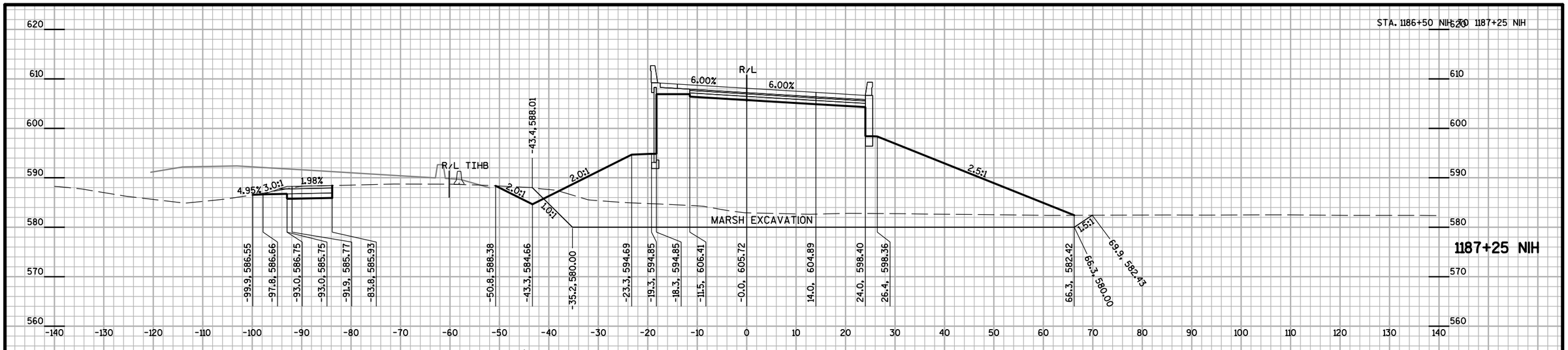
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE	SHEET 1369	E

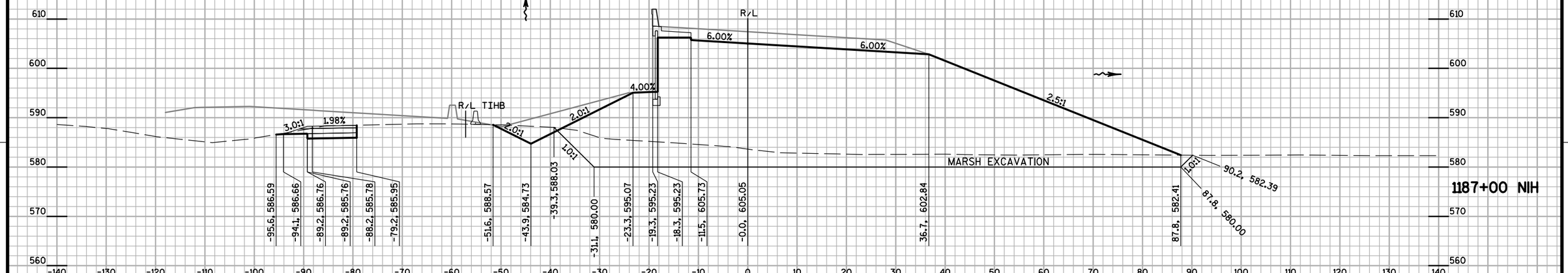
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090207_xs_NIH.DGN | PLOT DATE : 5/29/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

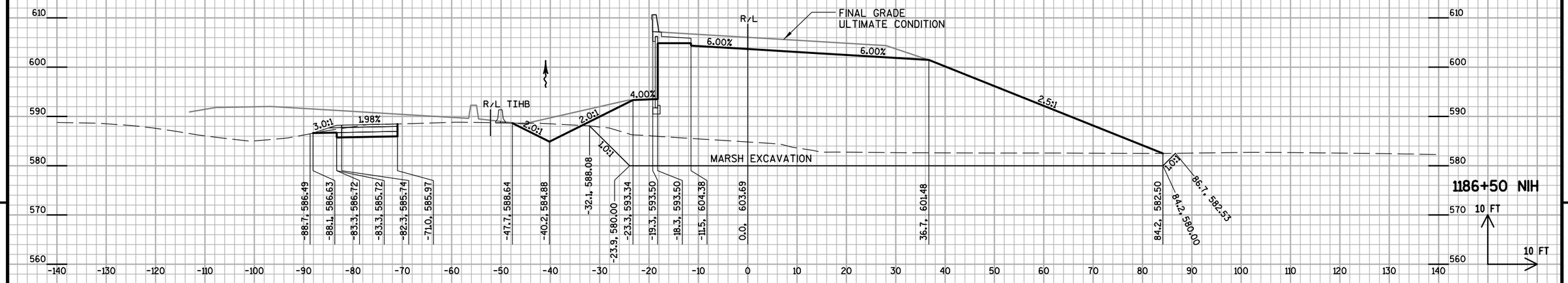
WISDOT/CADDS SHEET 21

STA. 1186+50 NIH

STA. 1187+25 NIH







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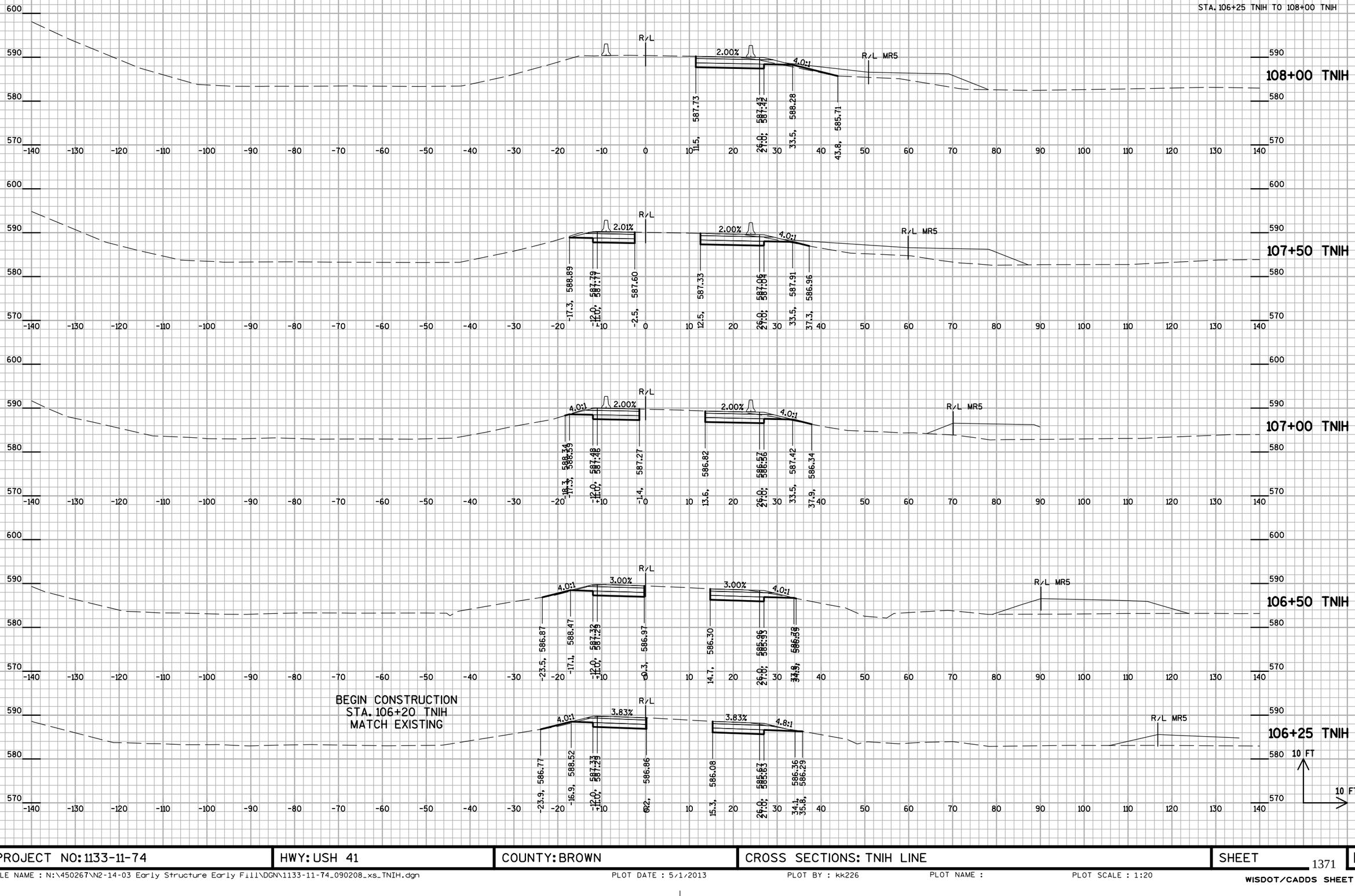
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: NIH LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090207_xs_NIH.DGN | PLOT DATE : 5/29/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 106+25 TNIH TO 108+00 TNIH



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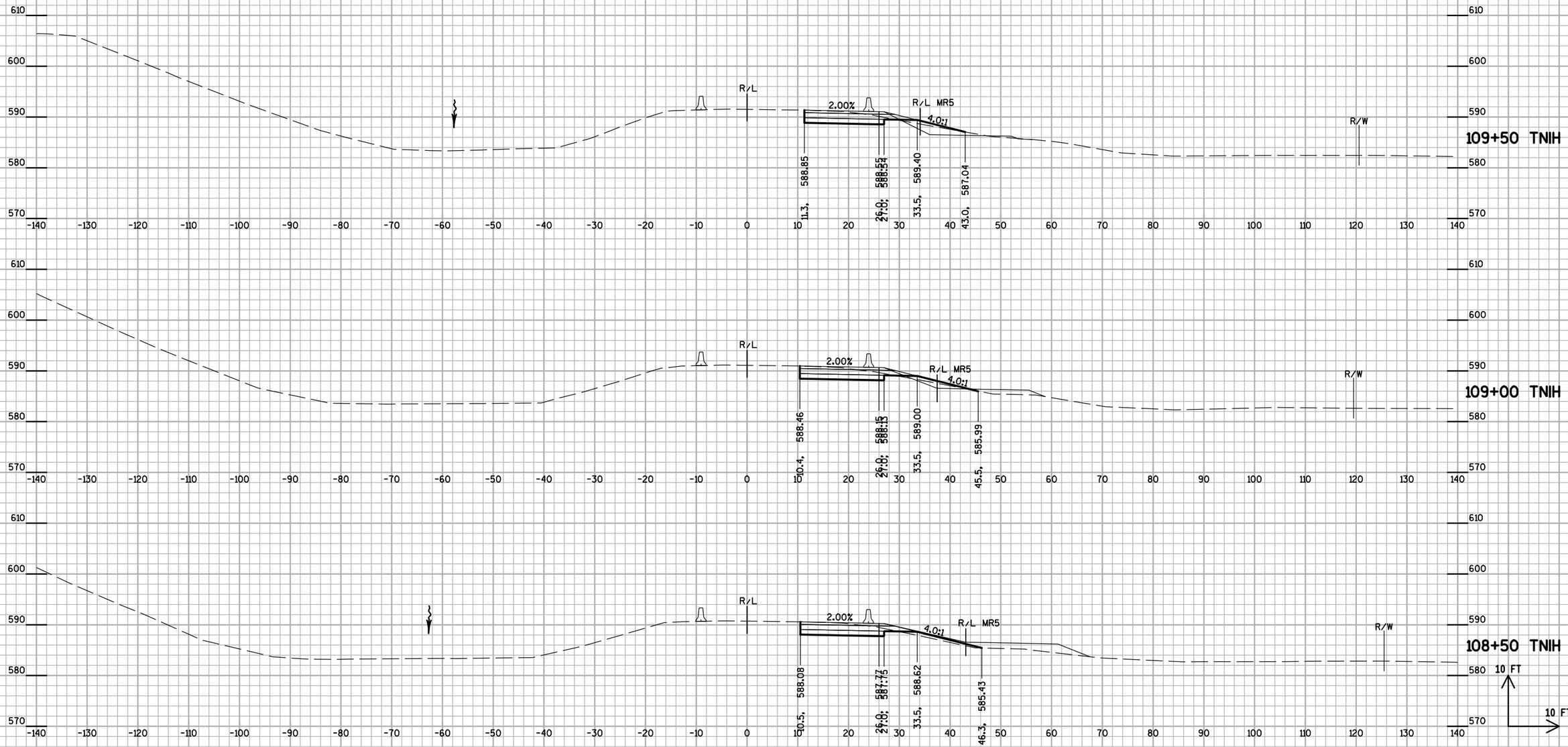
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 108+50 TNIH TO 109+50 TNIH

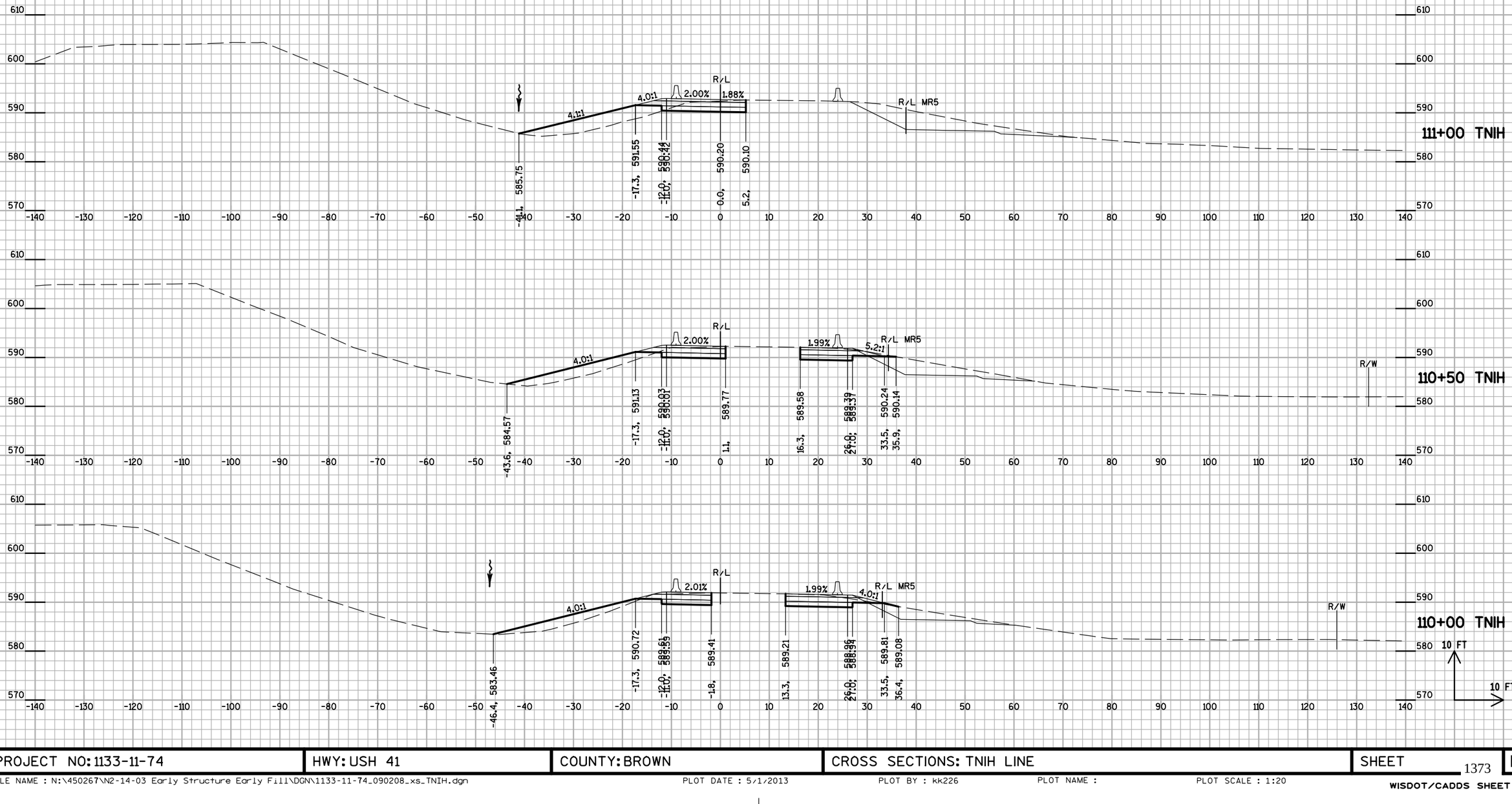


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1372	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 110+00 TNIH TO 111+00 TNIH



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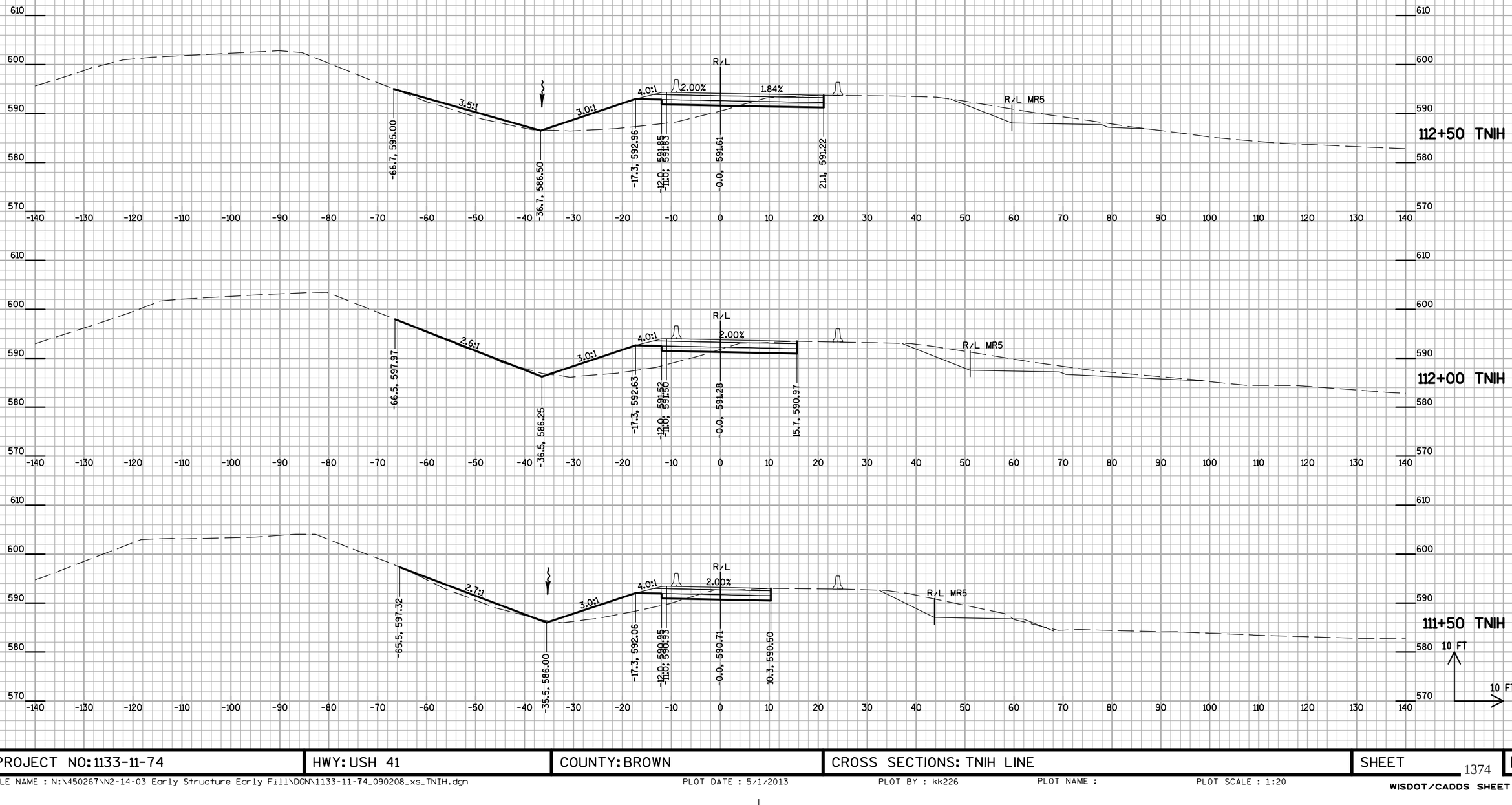
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1373	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 111+50 TNIH TO 112+50 TNIH

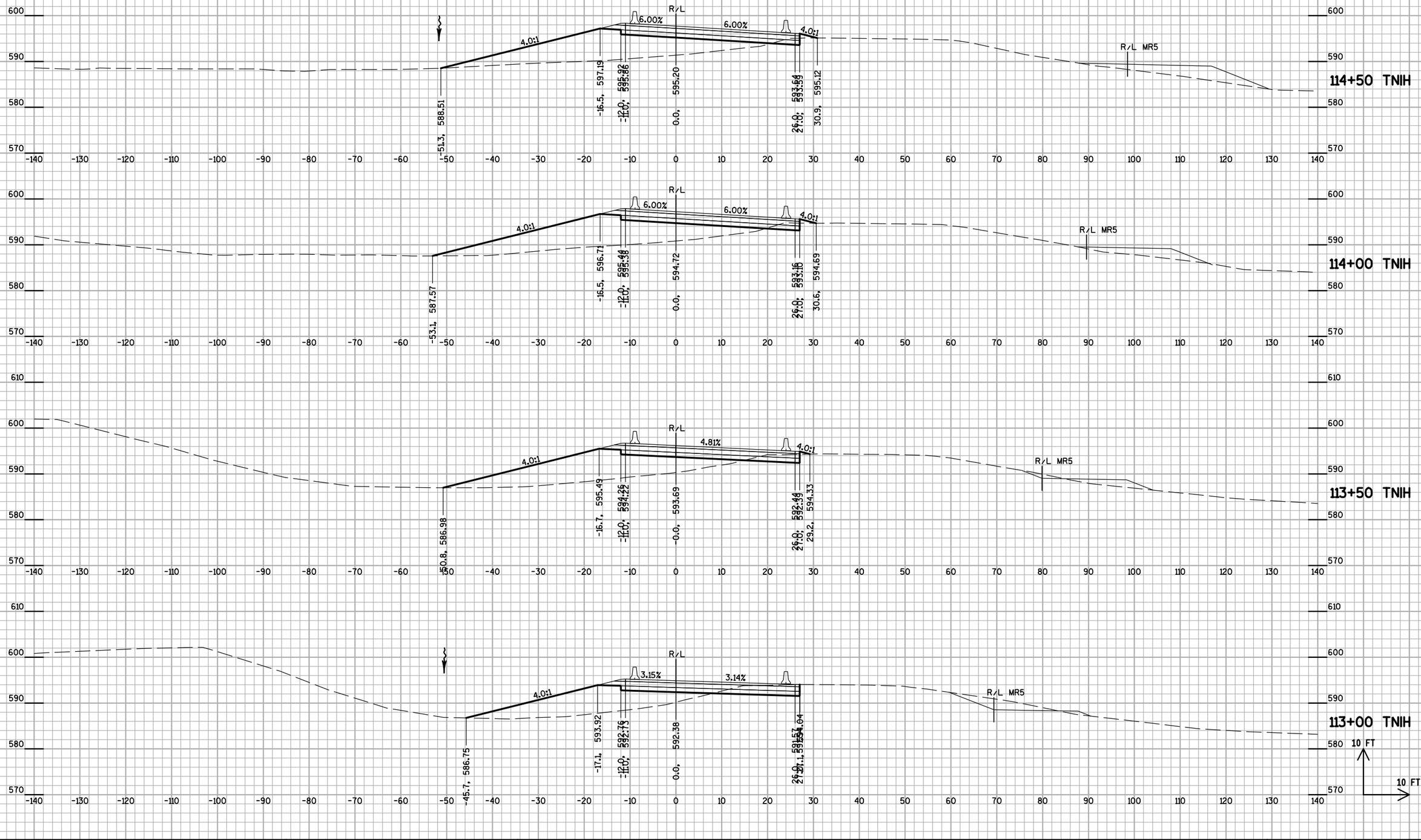


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1374	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 113+00 TNIH TO 114+50 TNIH



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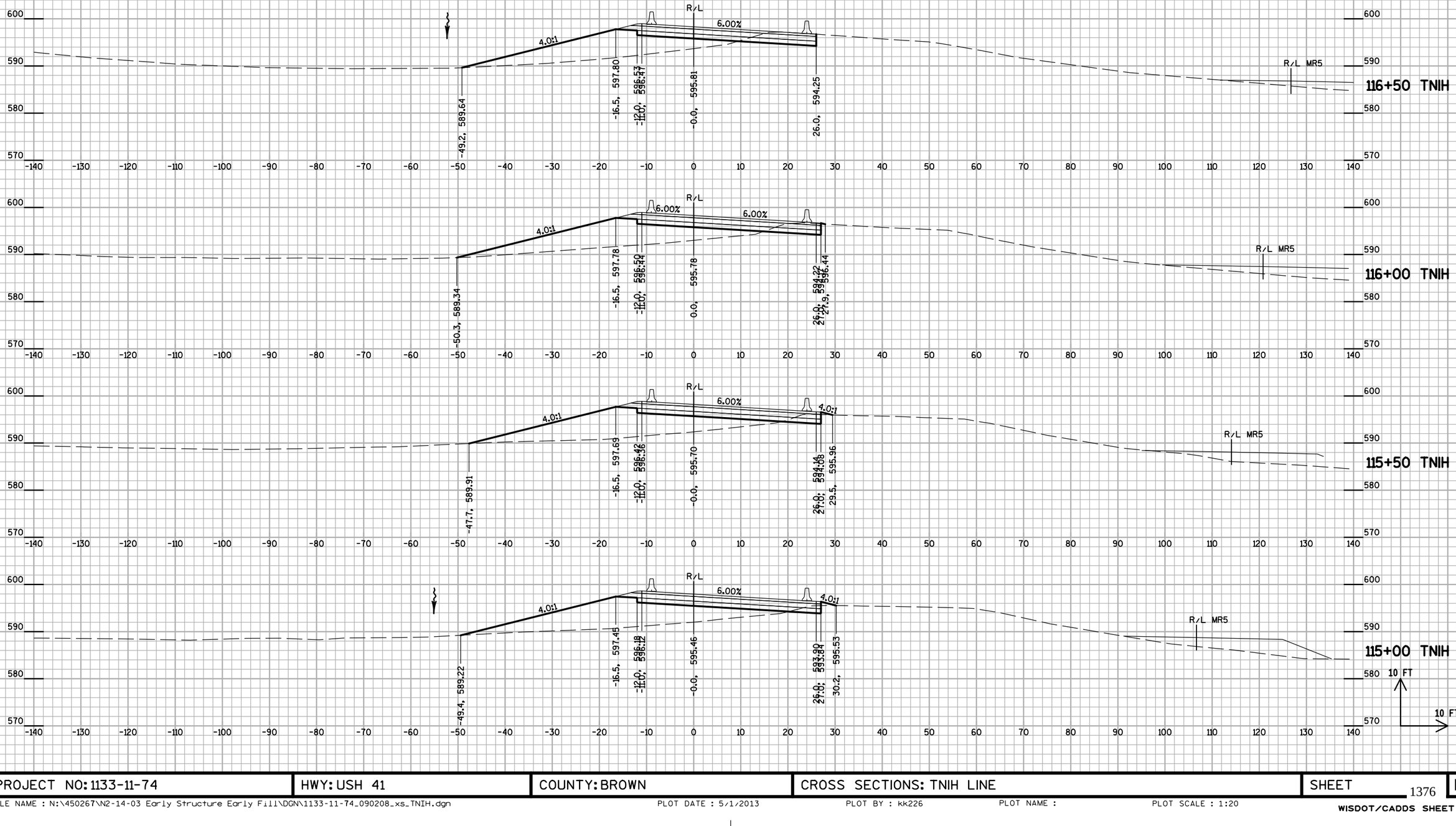
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1375	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 115+00 TNIH TO 116+50 TNIH

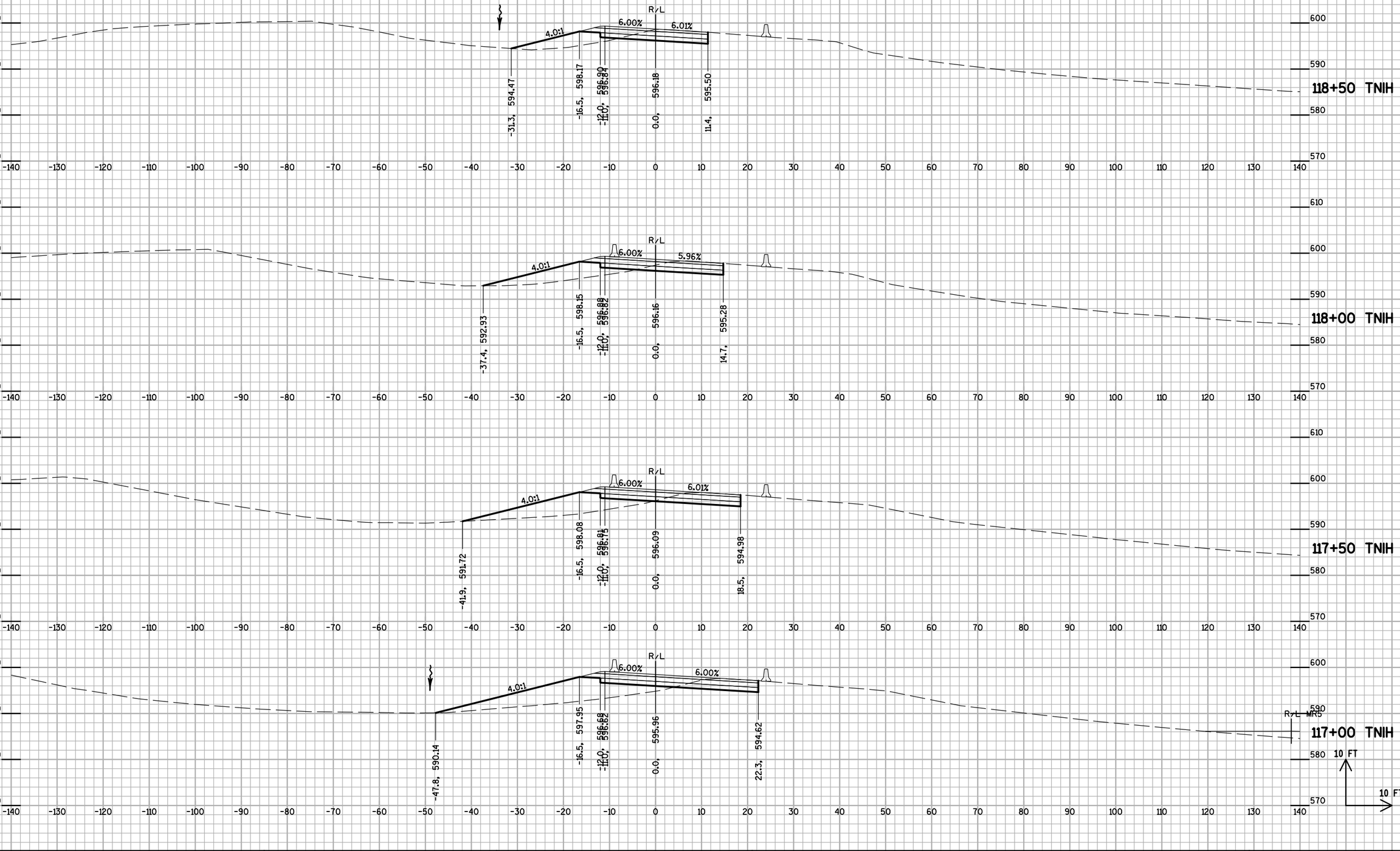


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 117+00 TNIH 118+50 TNIH



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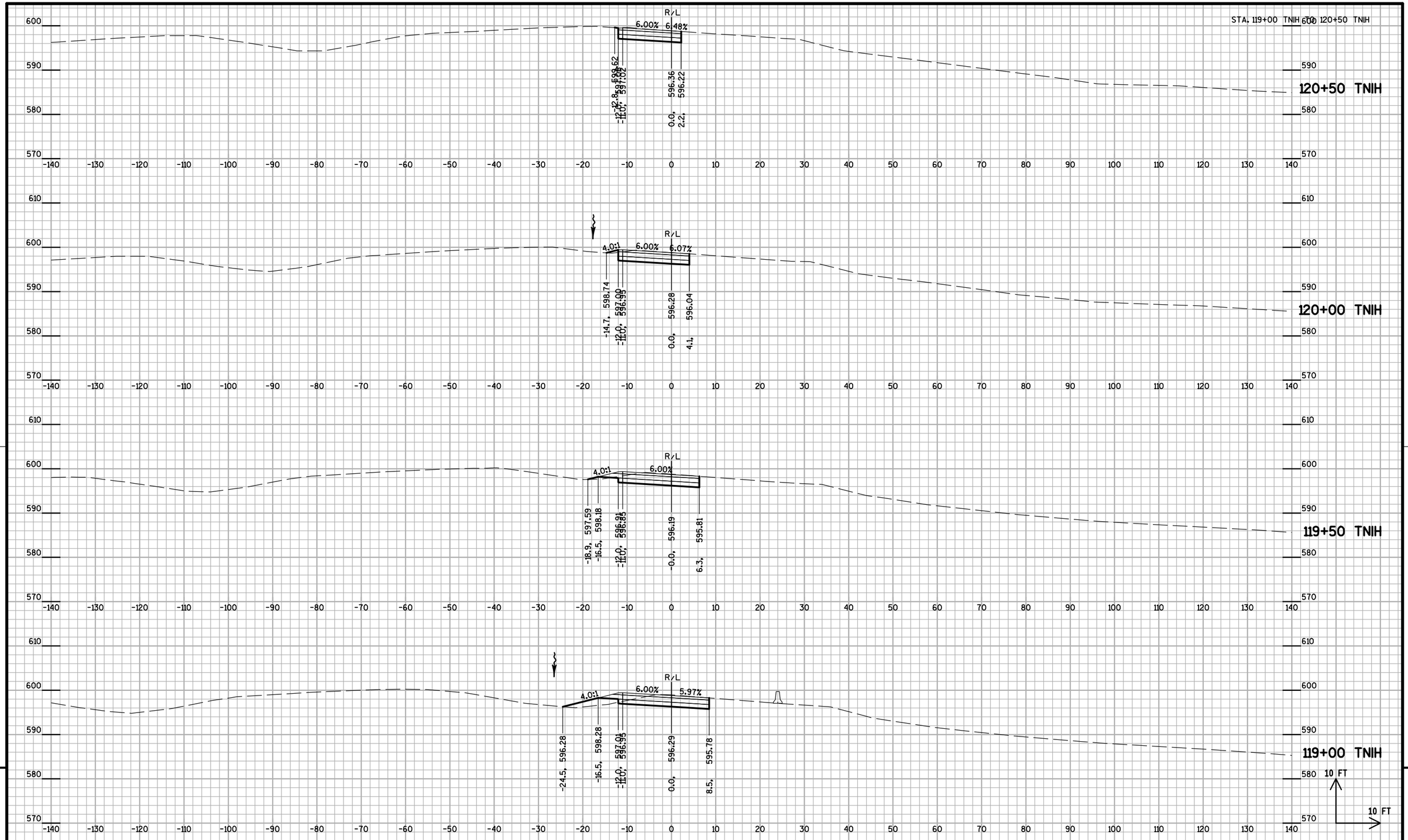
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1377 E



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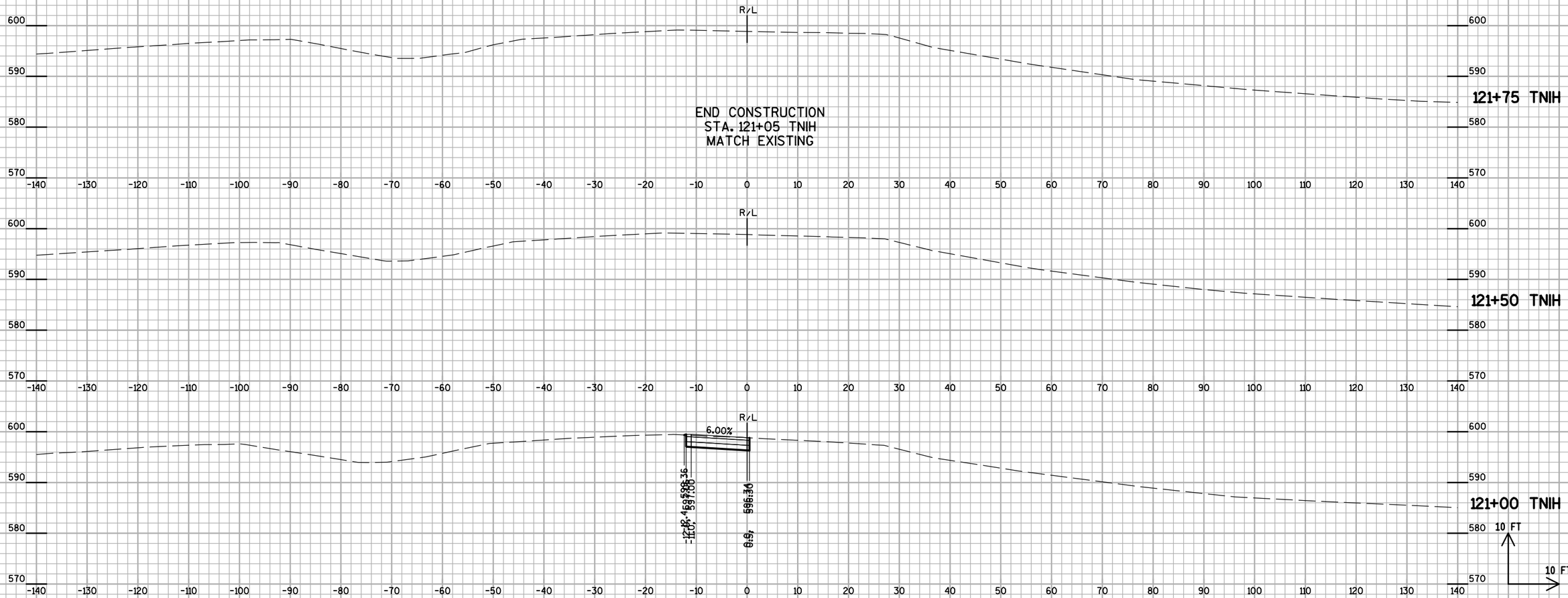
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1378	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 121+00 TNIH TO 121+75 TNIH



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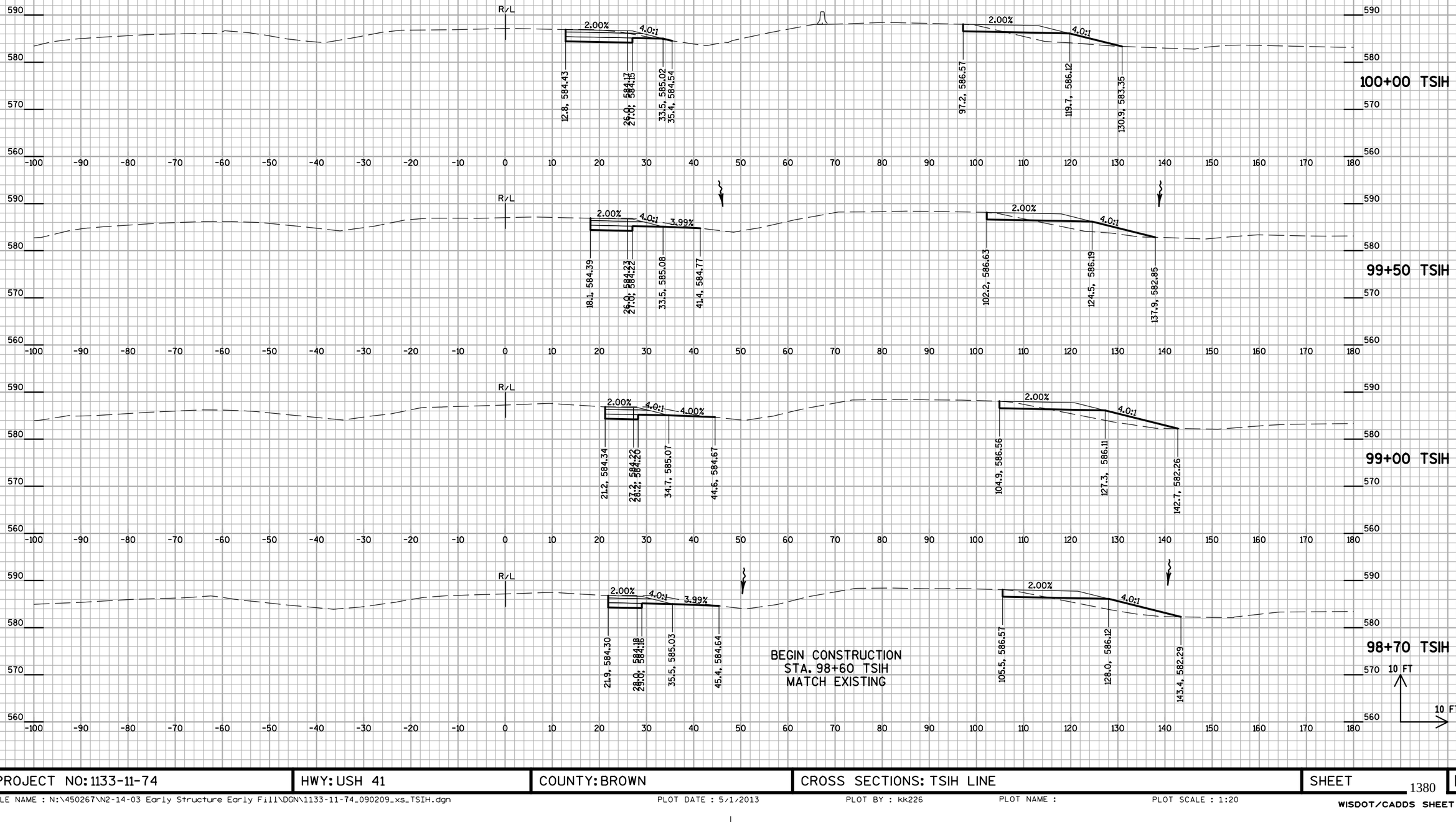
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TNIH LINE	SHEET 1379	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090208_xs_TNIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 98+70 TSIH TO 100+00 TSIH

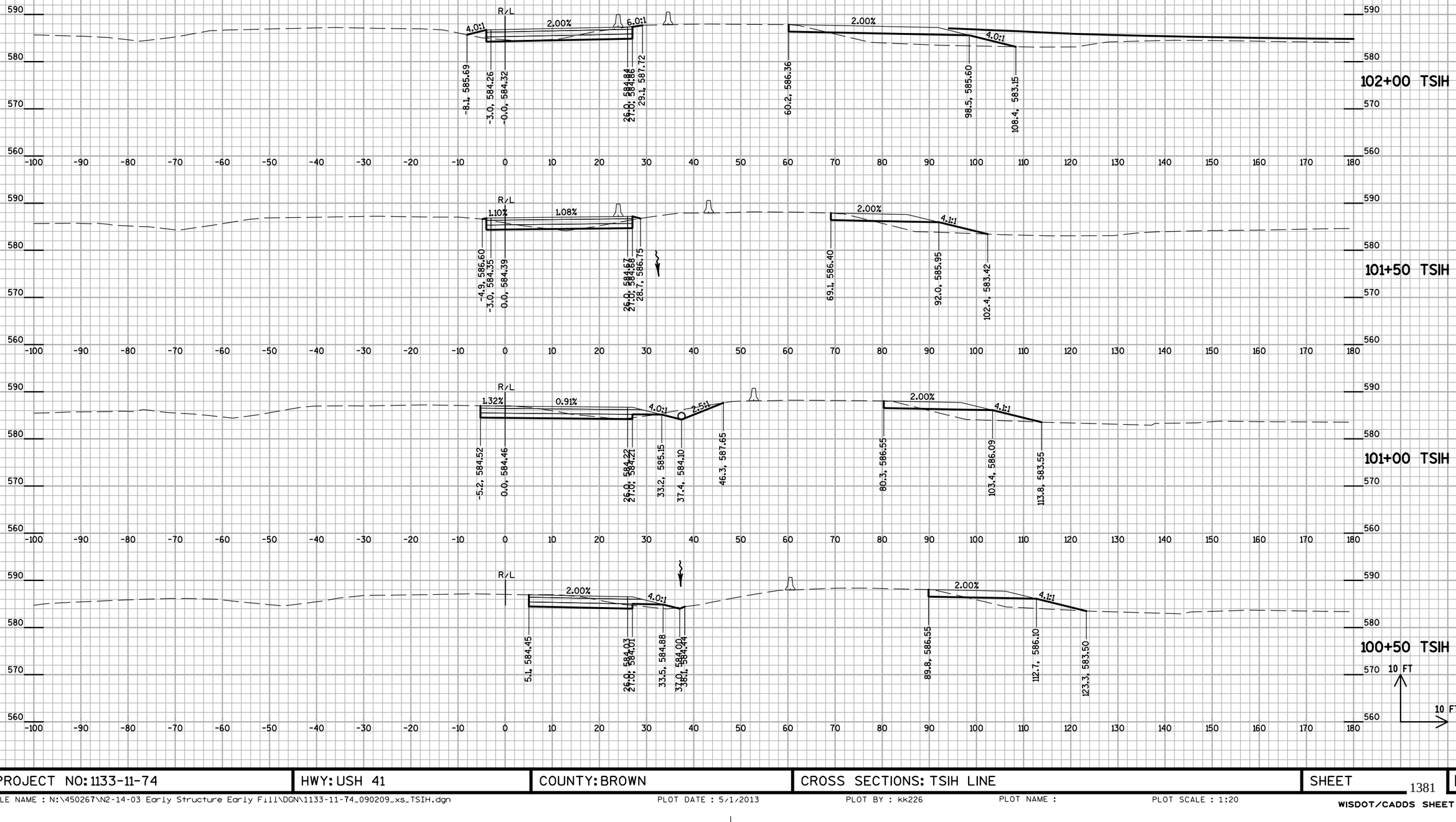


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

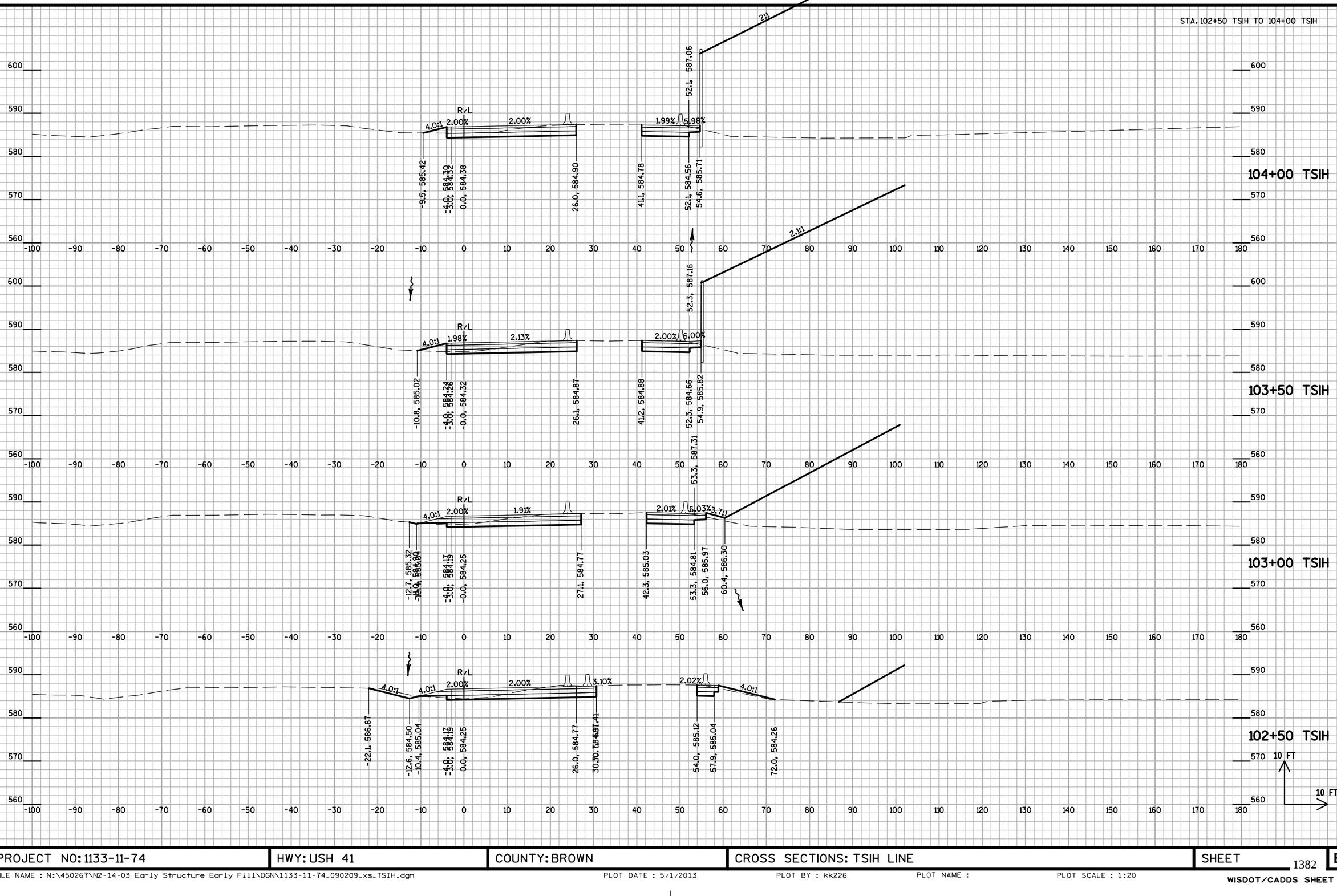
STA. 102+04 TSIH
1-48" x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
SKEW 73° LHF

MAINTENANCE ROAD MR2



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1381	E

STA. 102+50 TSIH TO 104+00 TSIH



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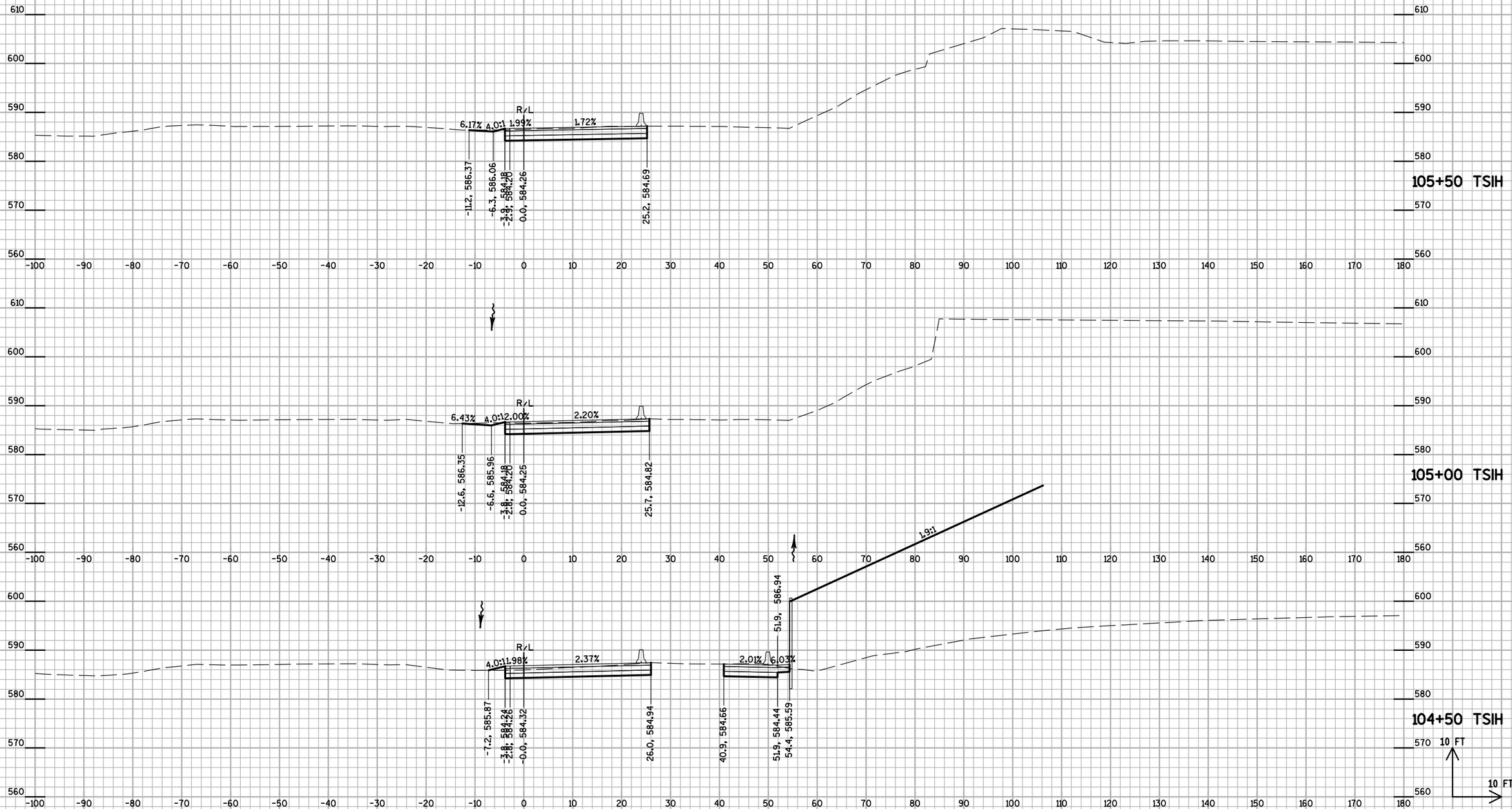
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1382	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 104+50 TSIH TO 105+50 TSIH



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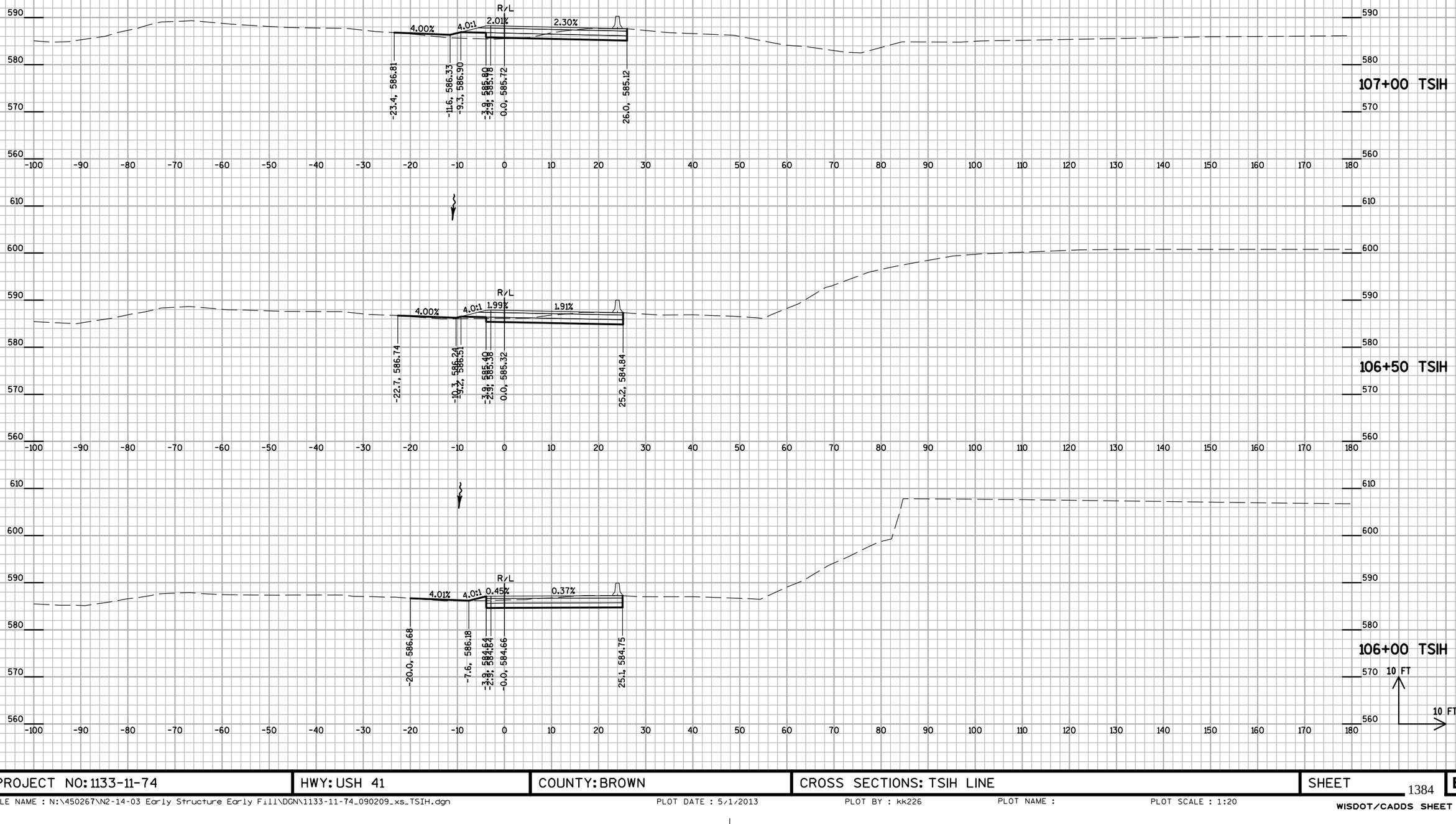
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1383	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 106+00 TSIH TO 107+00 TSIH

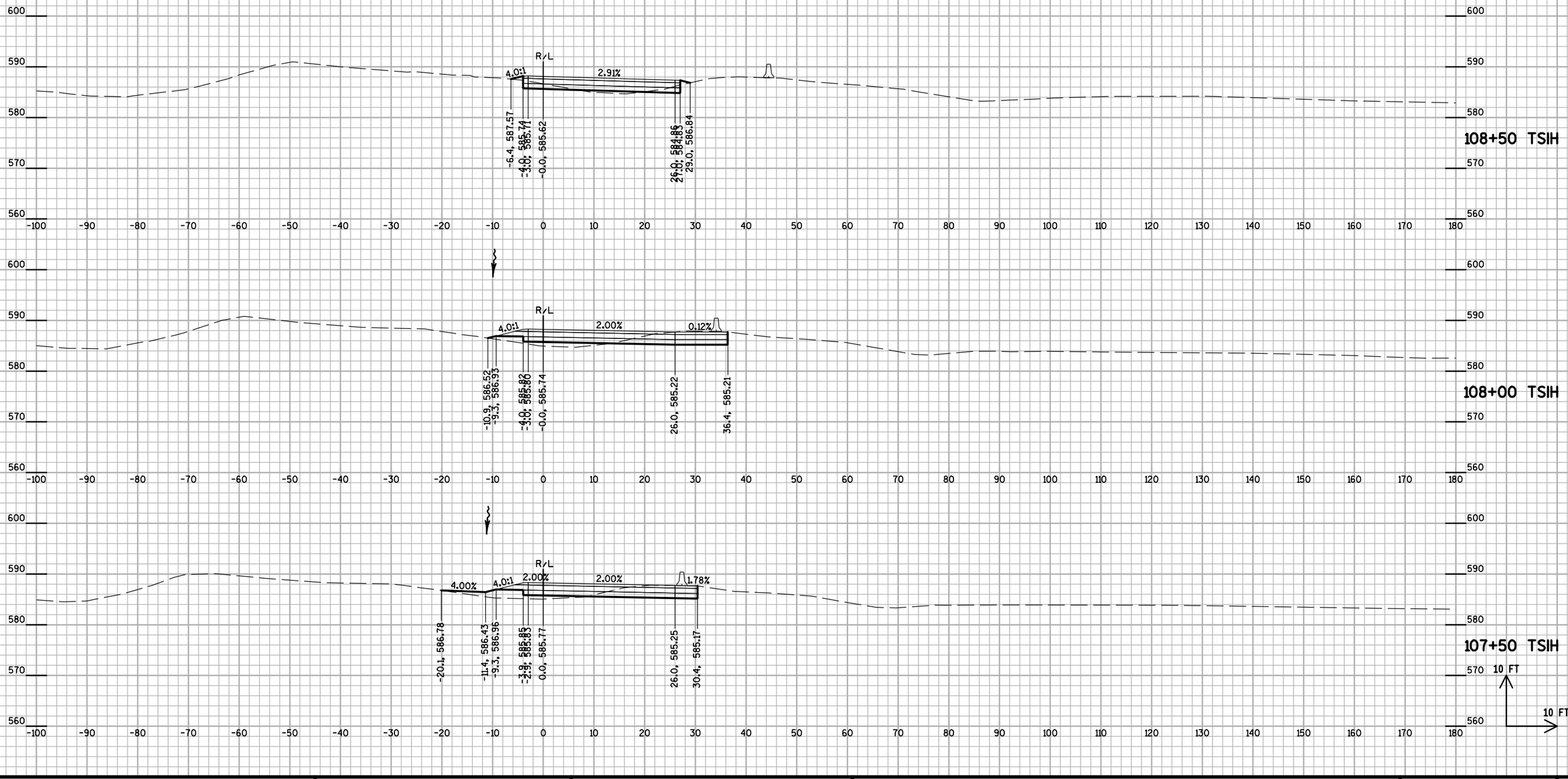


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1384	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 107+50 TSIH TO 108+50 TSIH

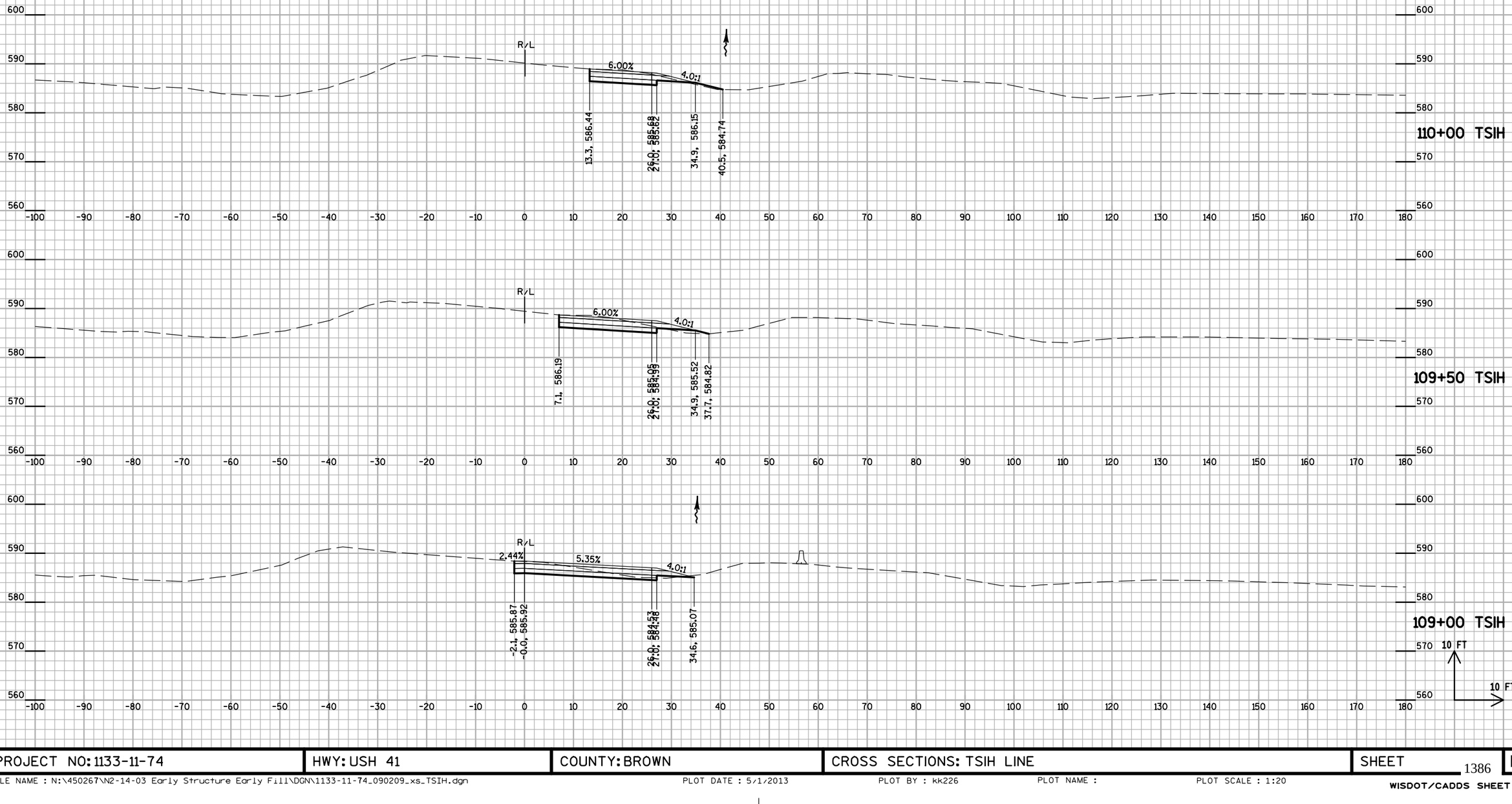


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1385	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 109+00 TSIH TO 110+00 TSIH



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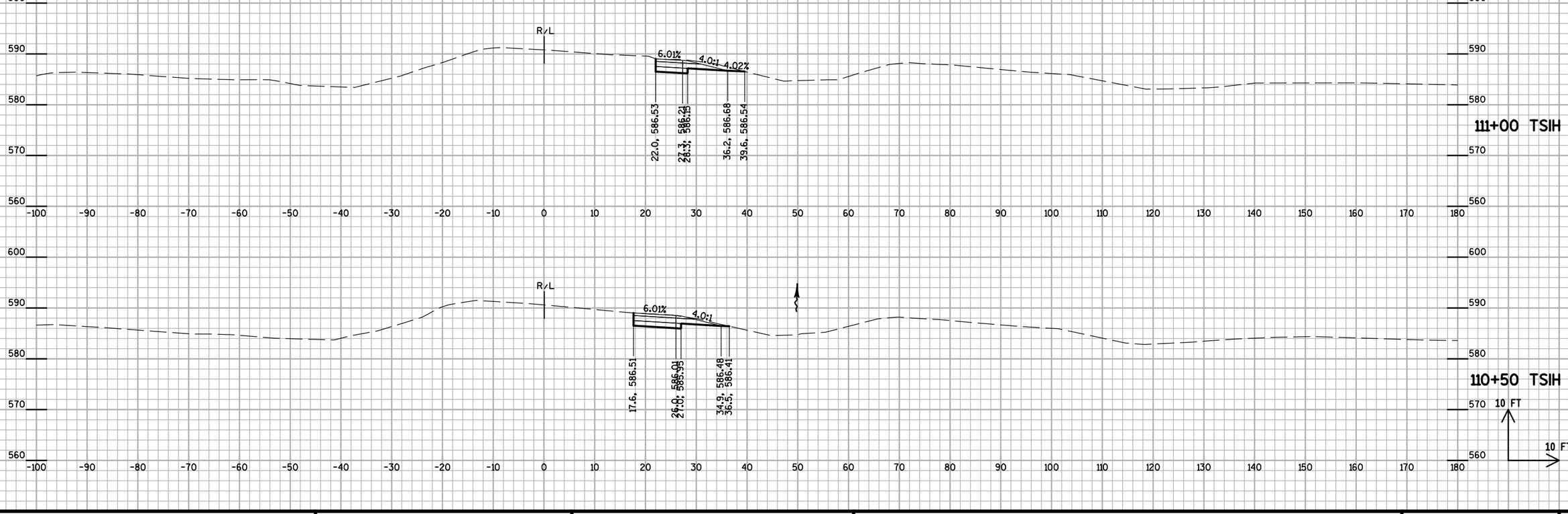
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1386	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 110+50 TSIH TO 111+00 TSIH

END CONSTRUCTION
STA. 111+26 TSIH
MATCH EXISTING

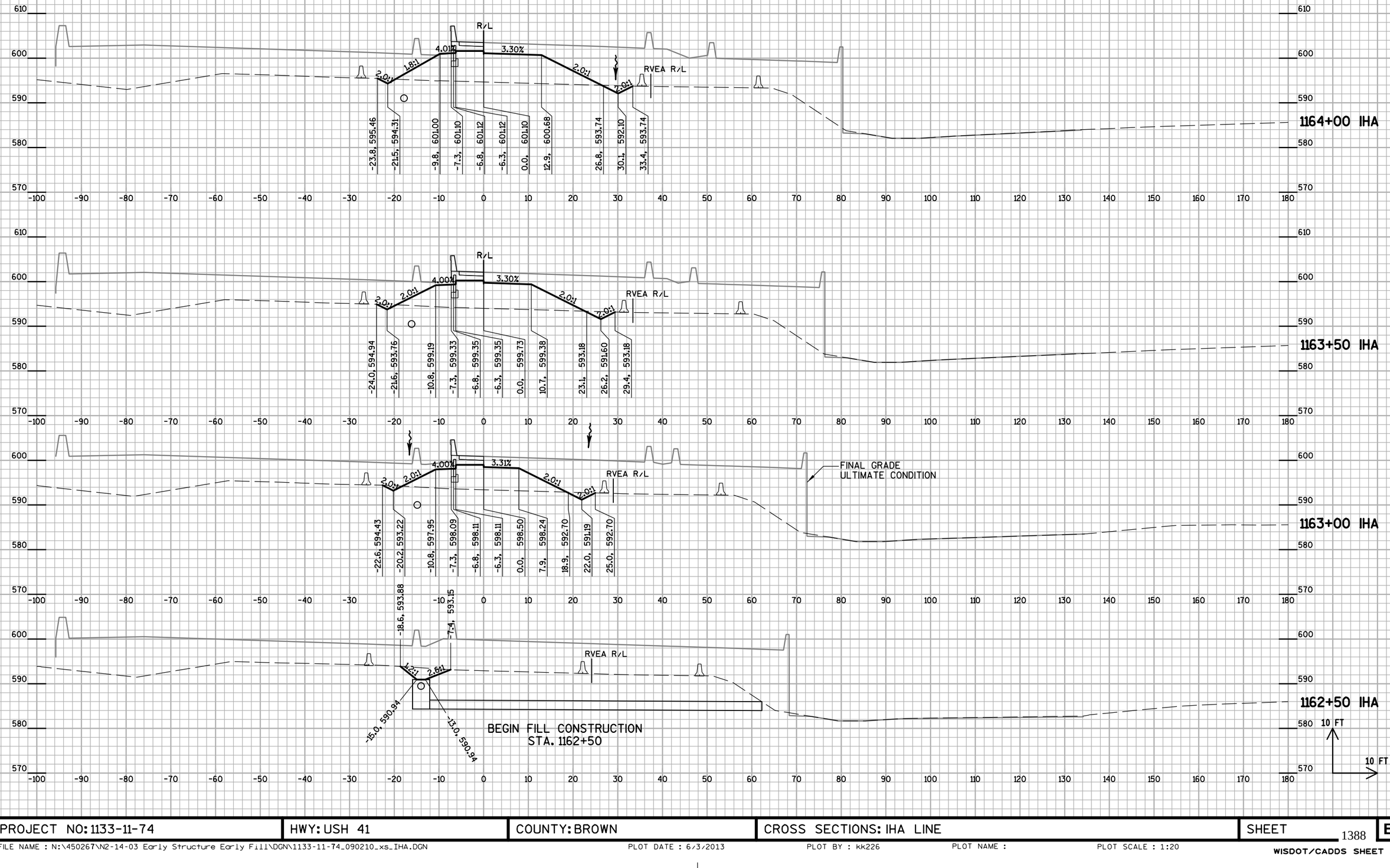


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TSIH LINE	SHEET 1387	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090209_xs_TSIH.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

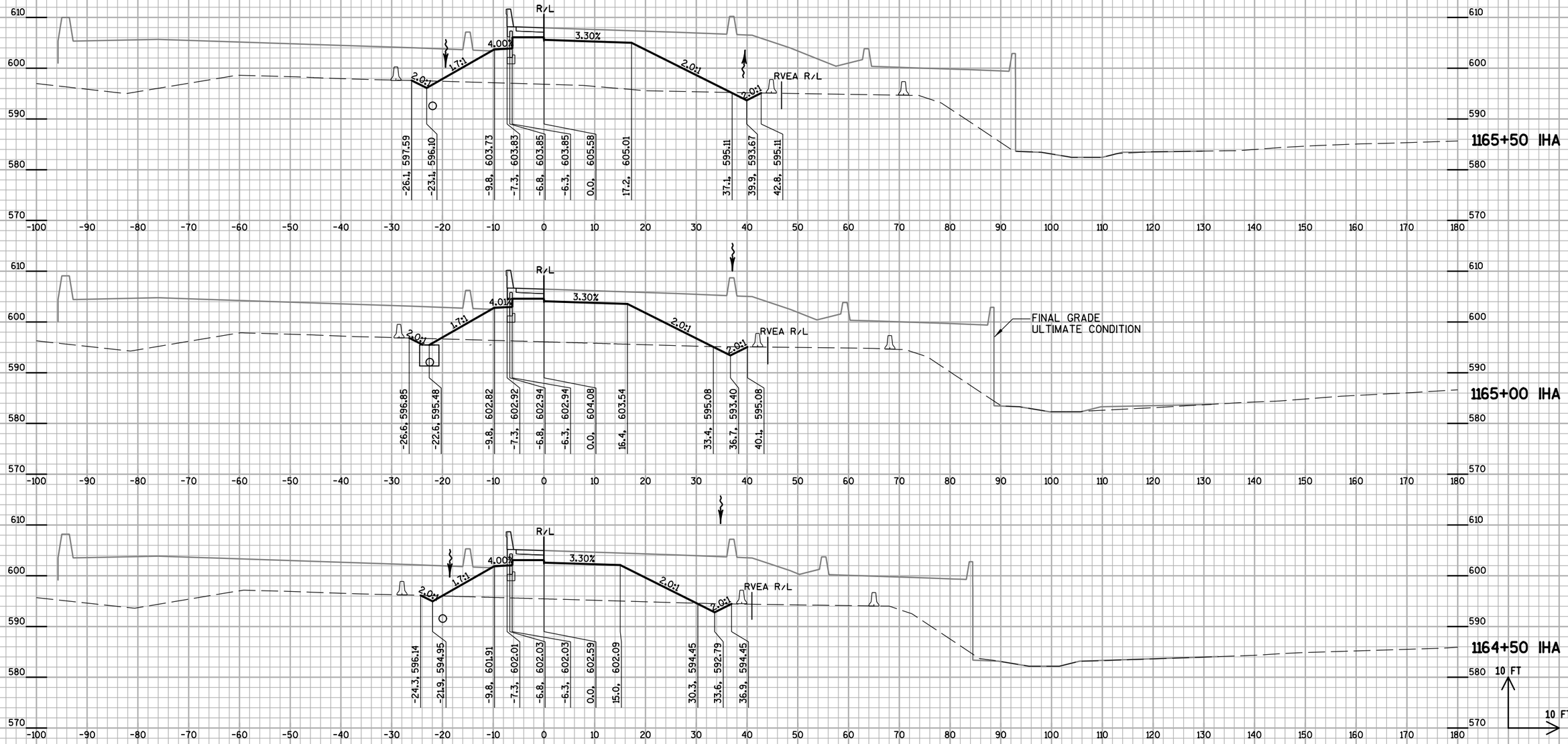
STA. 1162+50 IHA TO 1164+00 IHA



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21

STA. 1164+50 IHA TO 1165+50 IHA

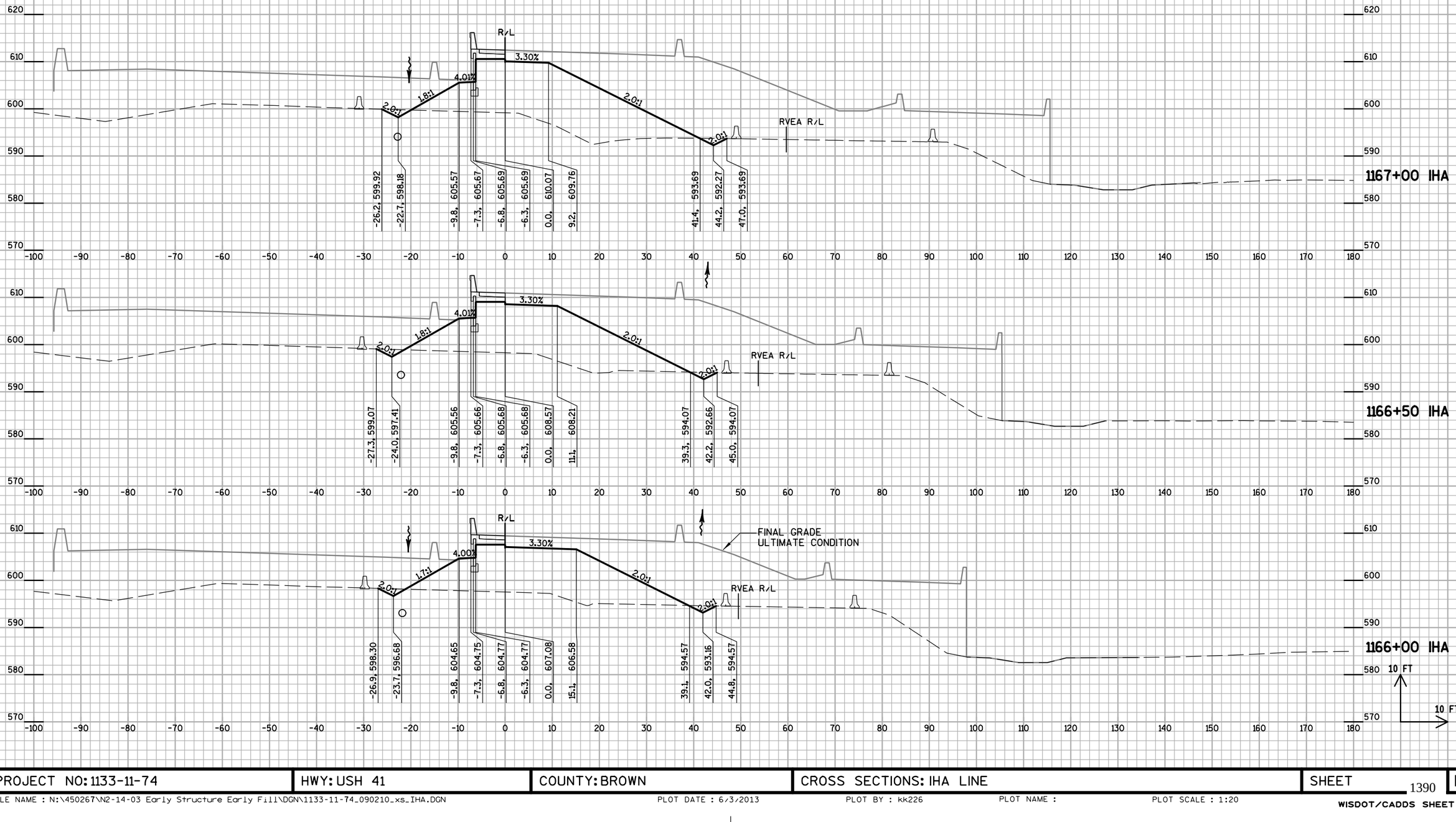


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET 1389	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN | PLOT DATE : 6/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1166+00 IHA TO 1167+00 IHA

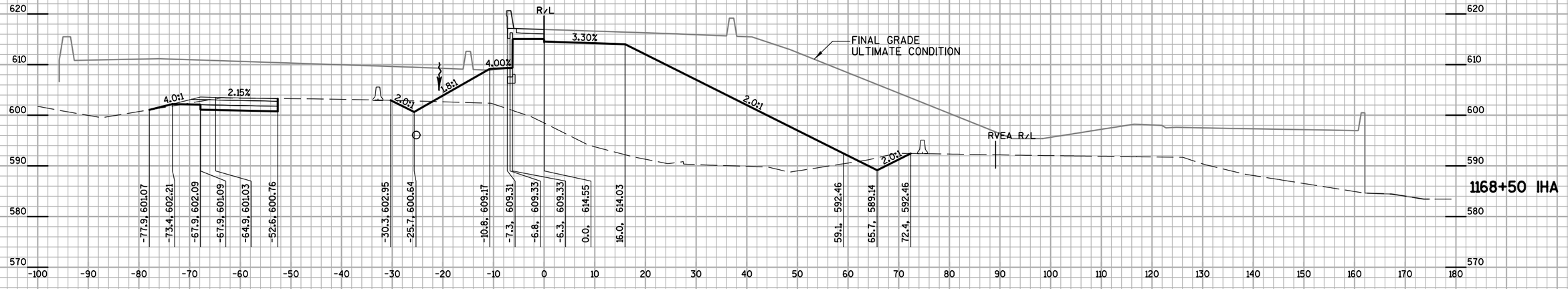


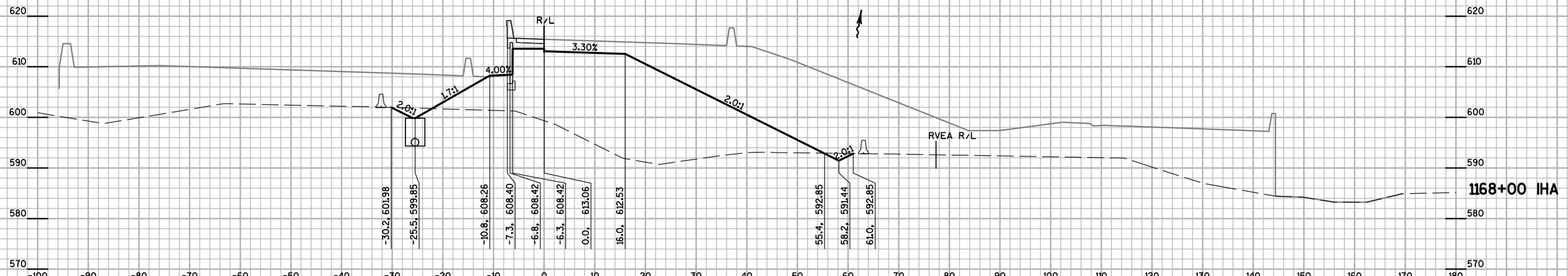
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET 1390	E

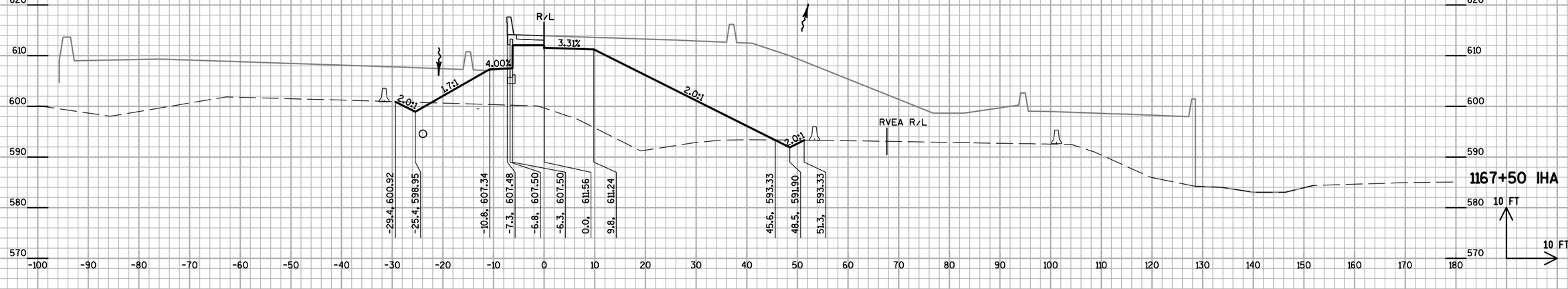
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN | PLOT DATE : 6/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+50 IHA TO 1168+50 IHA



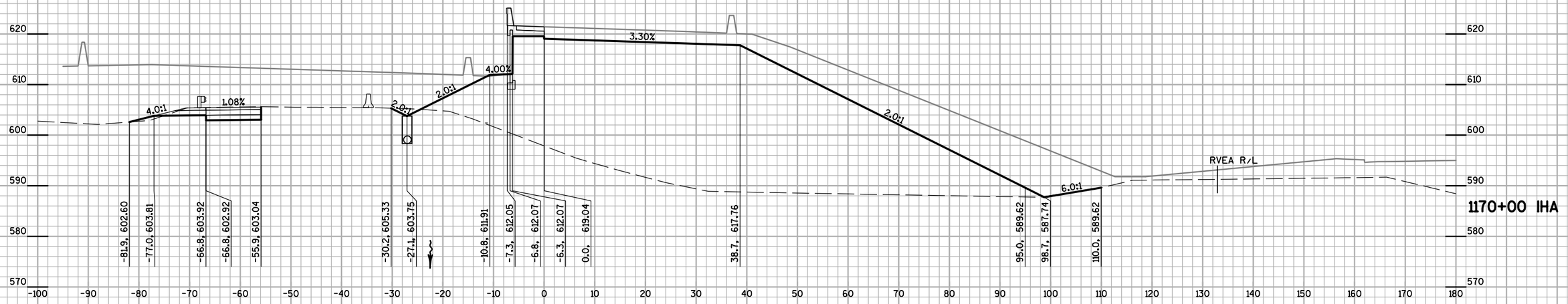


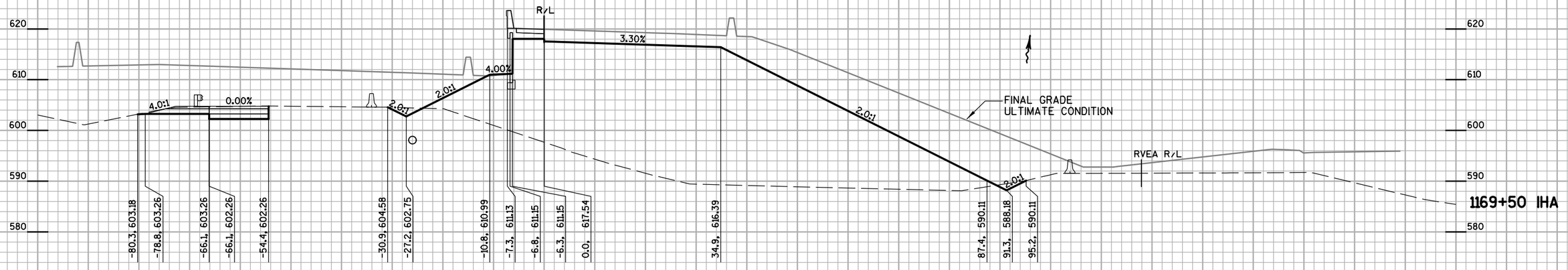


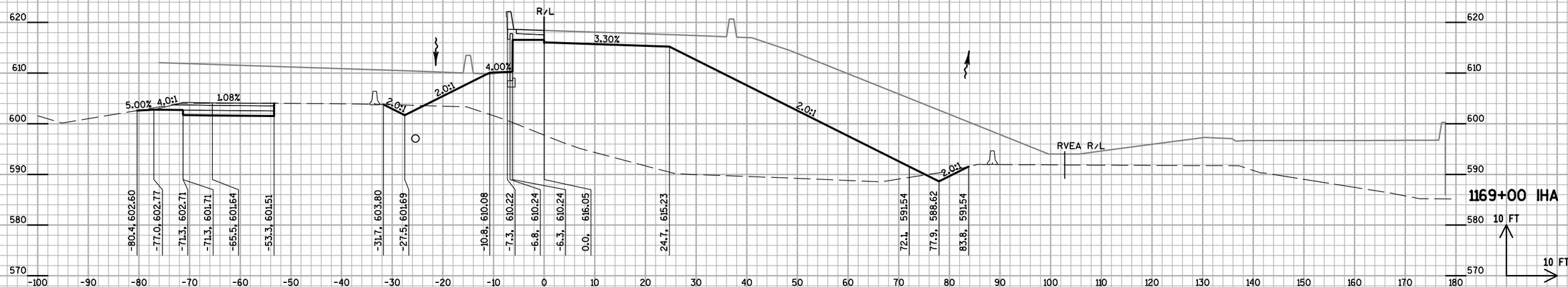
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

STA. 1169+00 IHA TO 1170+00 IHA





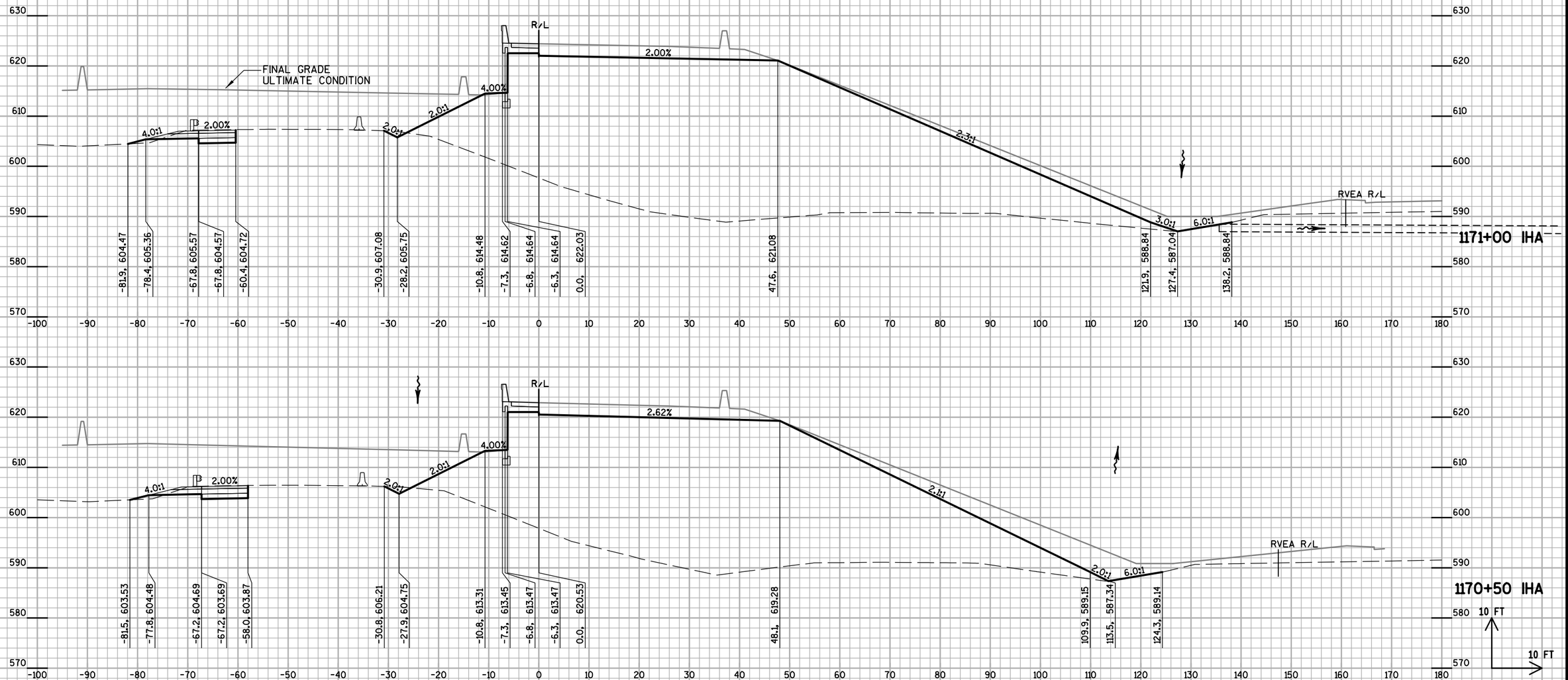


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1170+50 IHA TO 1171+00 IHA



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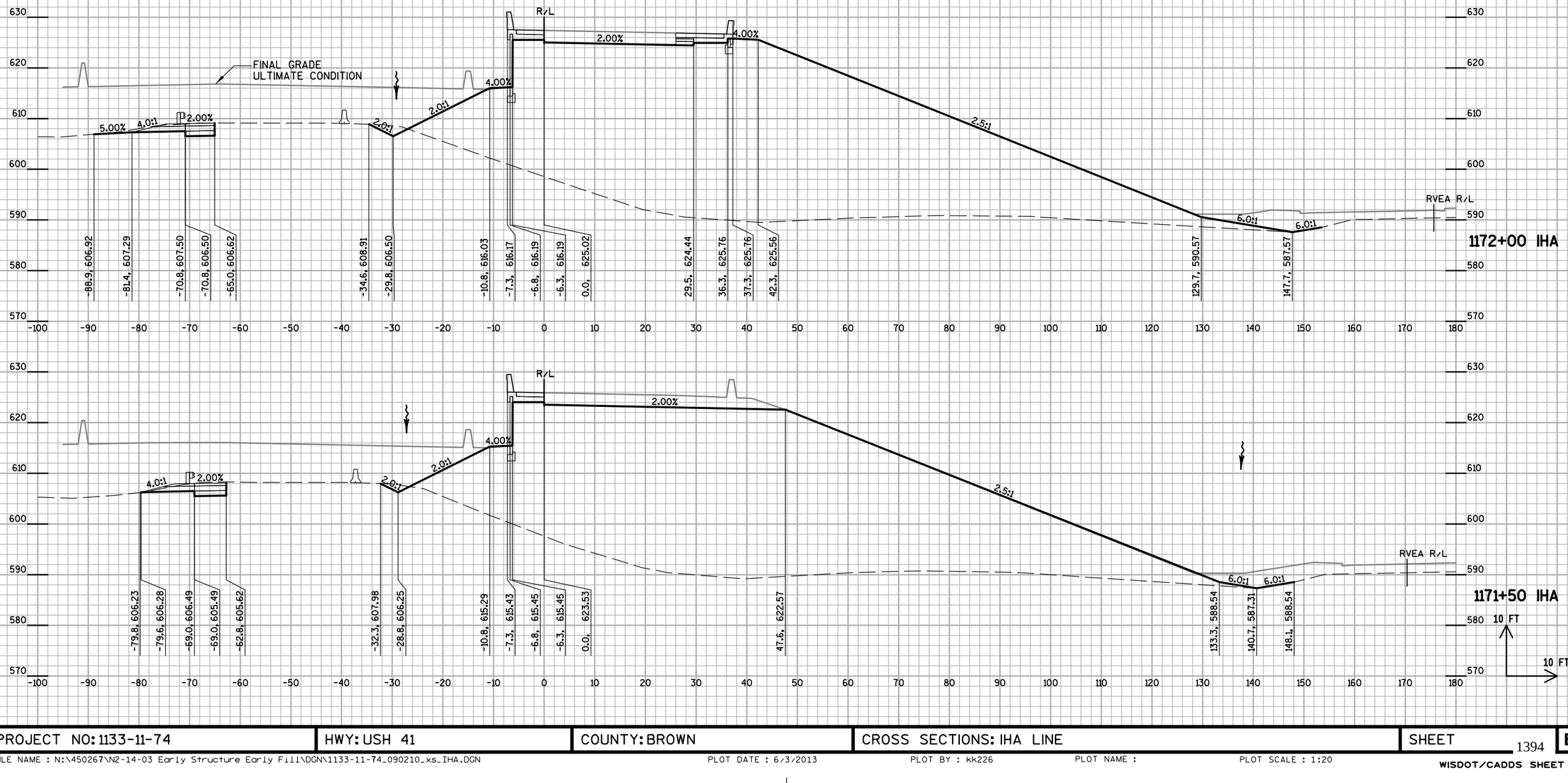
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

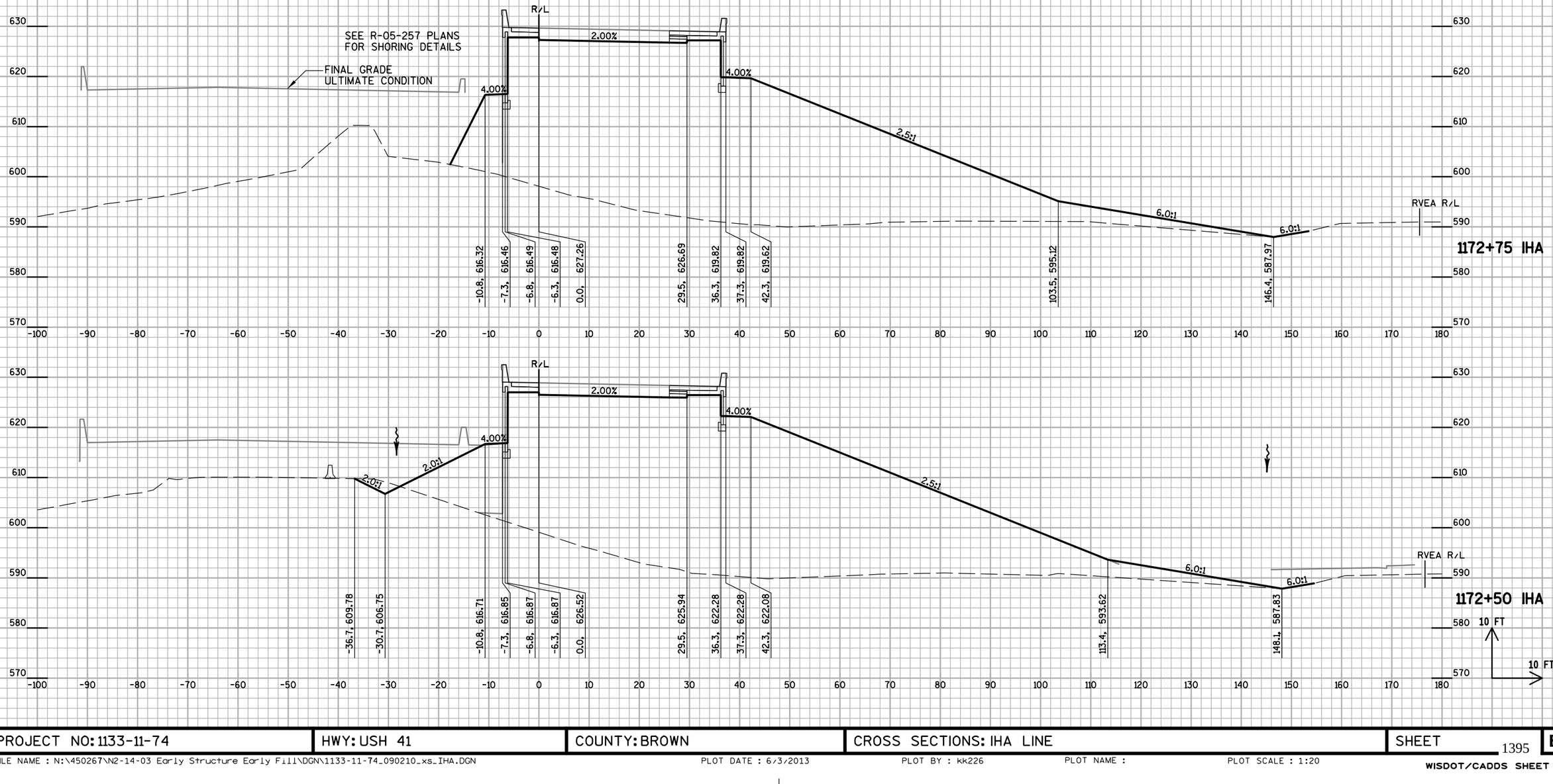
STA. 1171+50 IHA TO 1172+00 IHA



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

STA. 1172+50 IHA TO 1172+75 IHA

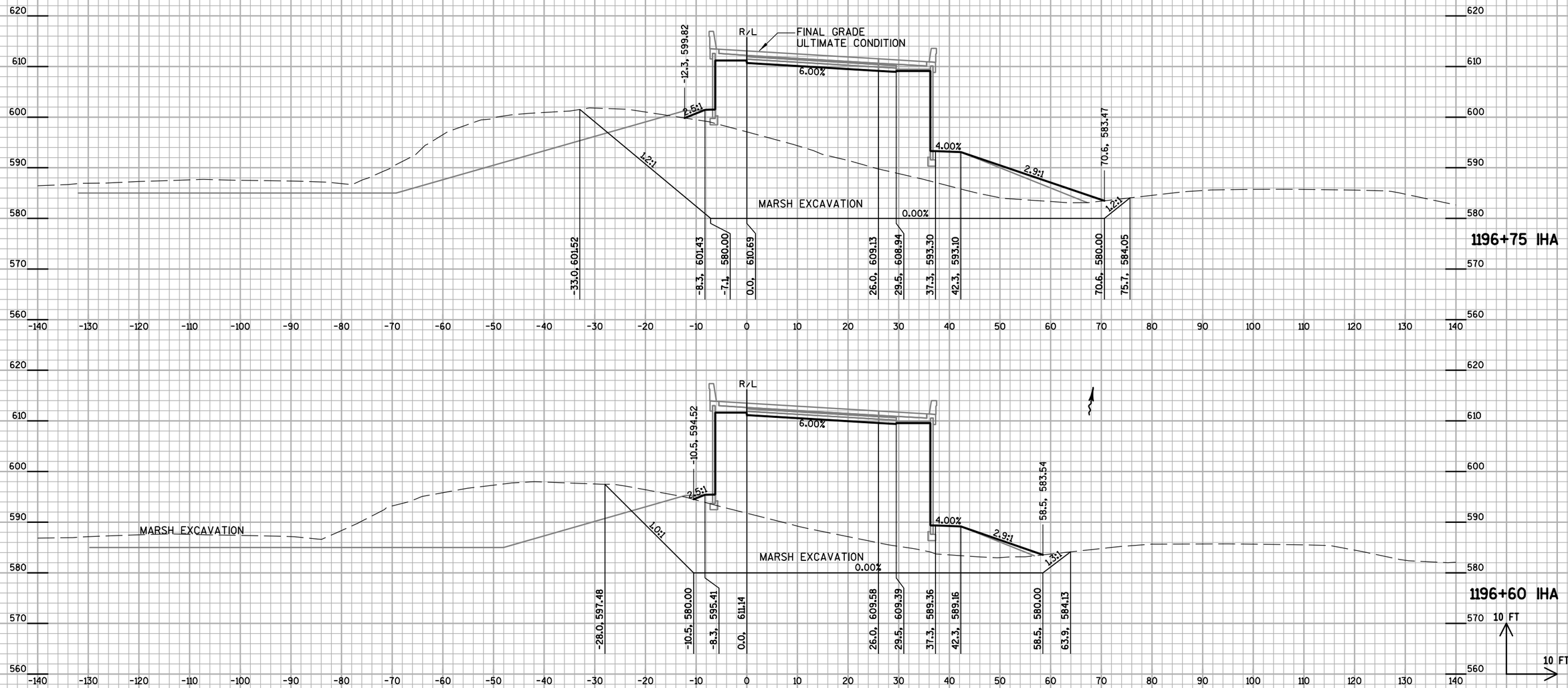


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET 1395	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1196+60 IHA TO 1196+75 IHA



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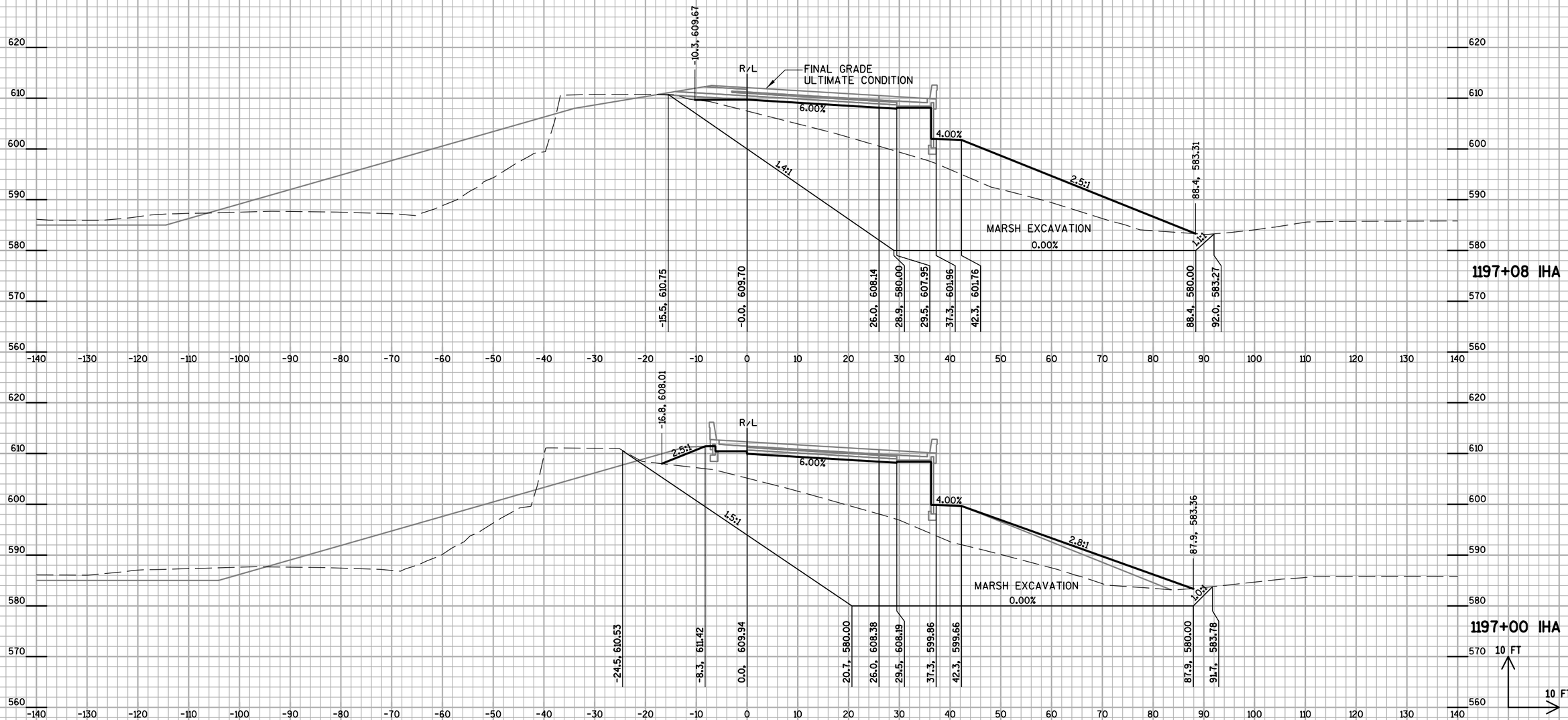
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1197+00 IHA TO 1197+08 IHA

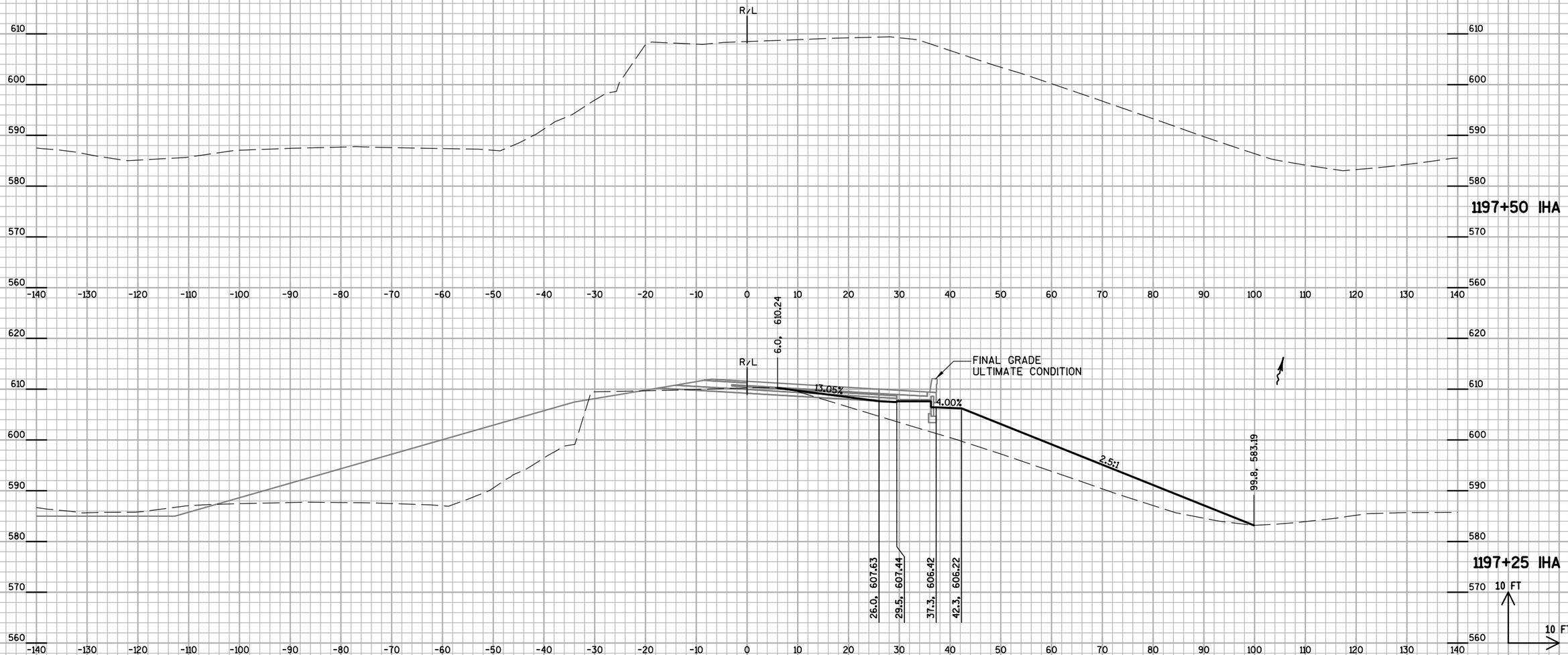


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN | PLOT DATE : 6/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1197+25 IHA TO 1197+50 IHA



9

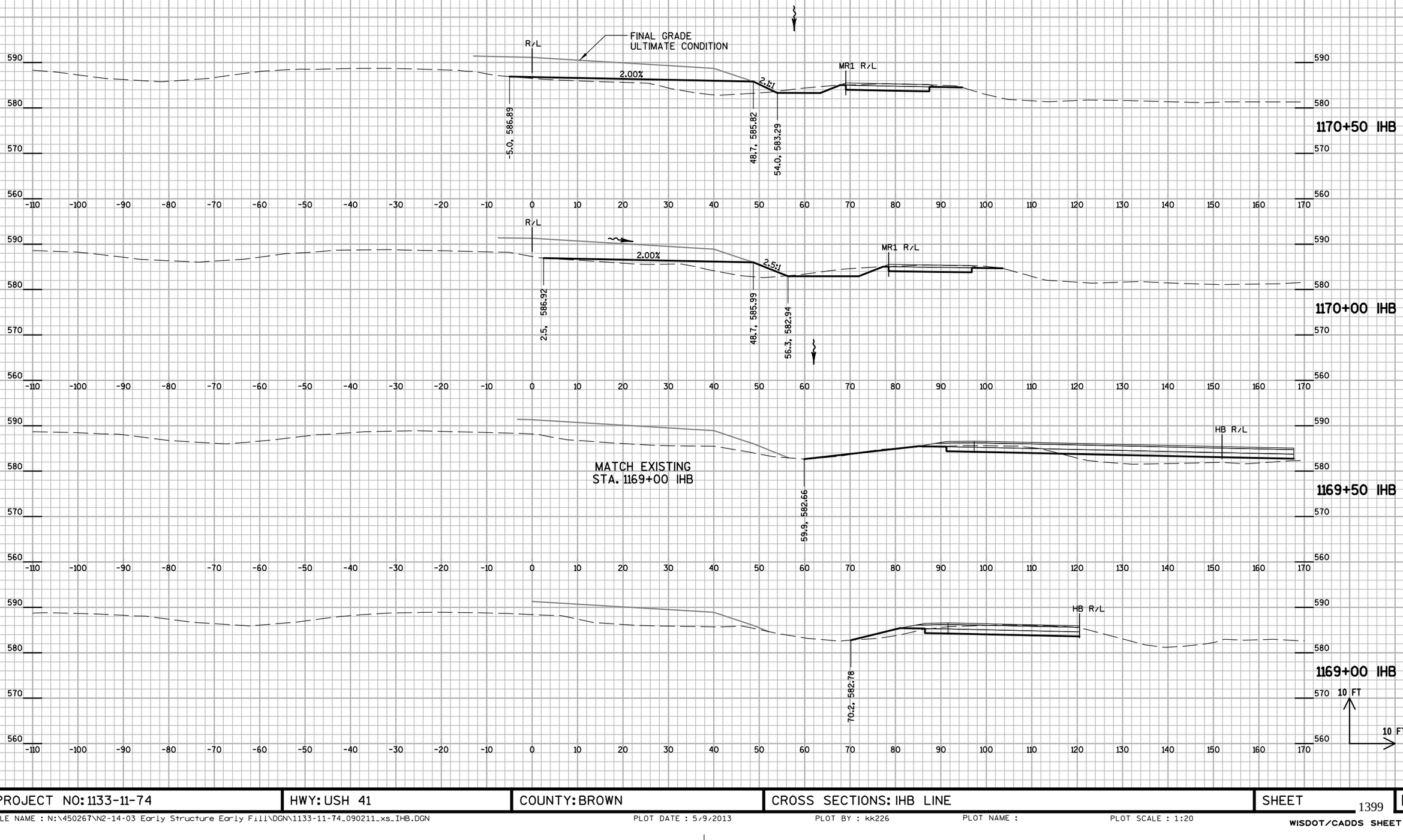
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHA LINE	SHEET 1398	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090210_xs_IHA.DGN PLOT DATE : 6/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1169+00 IHB TO 1170+50 IHB



9

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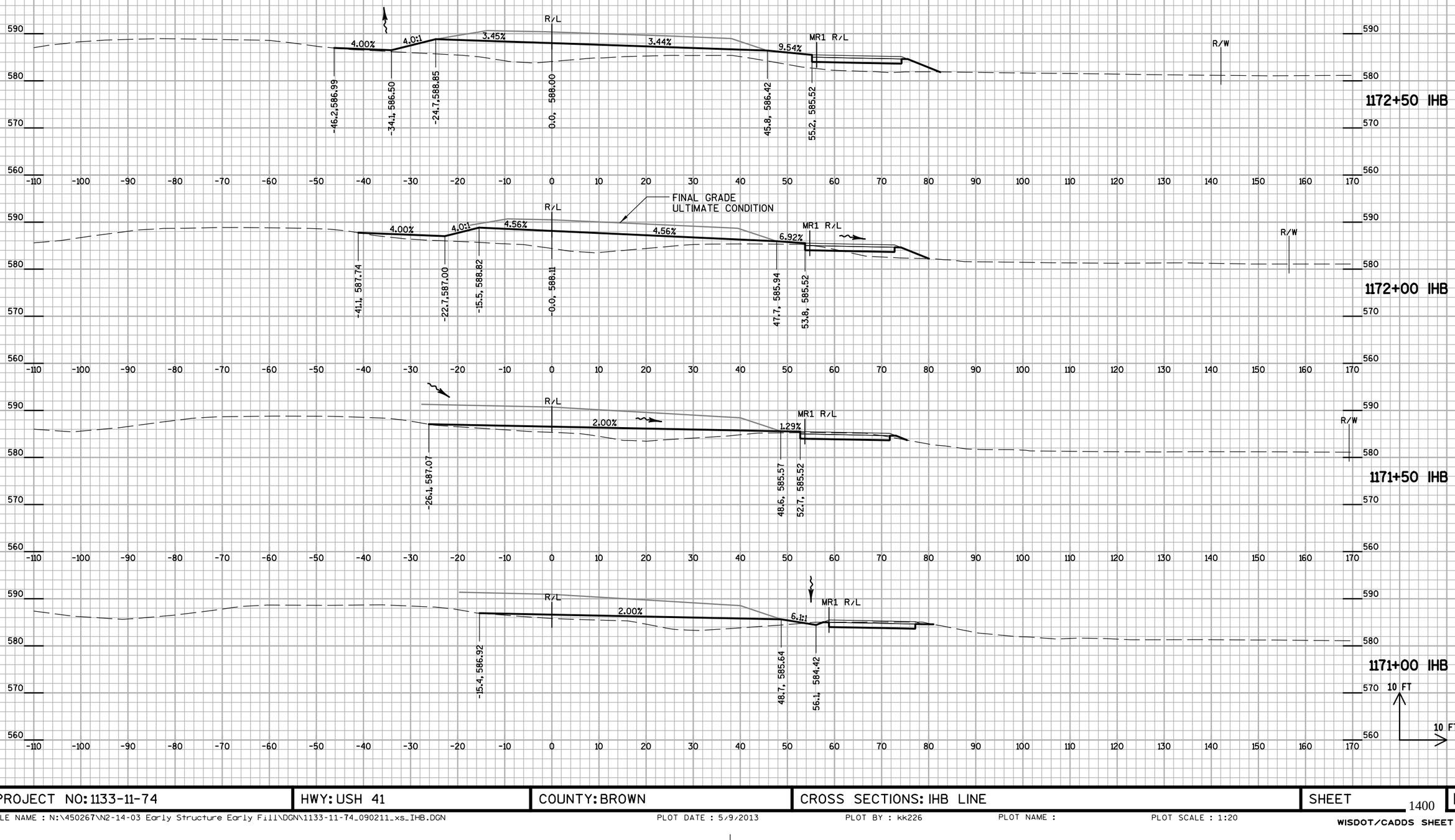
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090211_xs_IHB.DGN PLOT DATE : 5/9/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1171+00 IHB TO 1172+50 IHB



9

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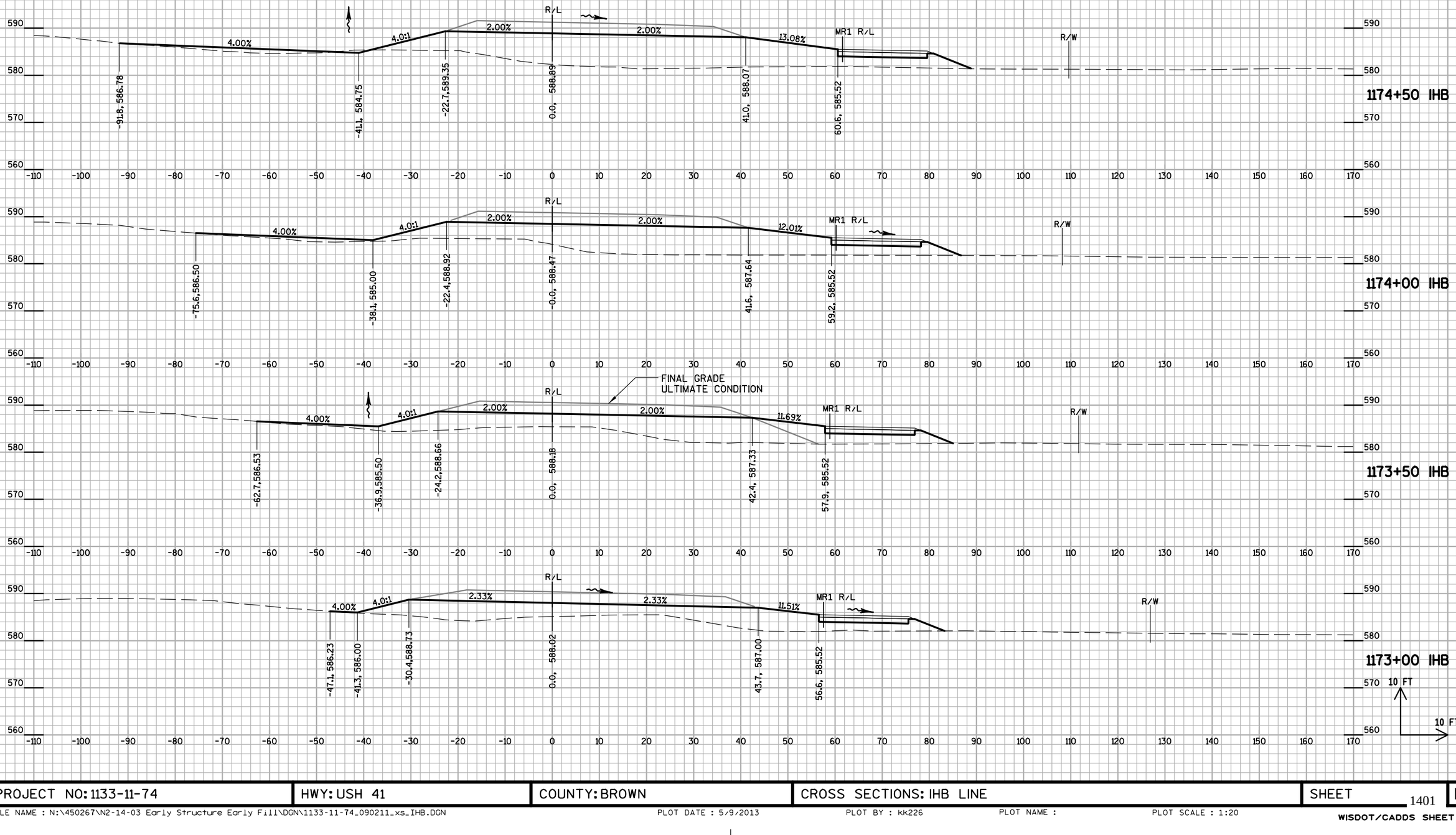
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE	SHEET 1400	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090211_xs_IHB.DGN | PLOT DATE : 5/9/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

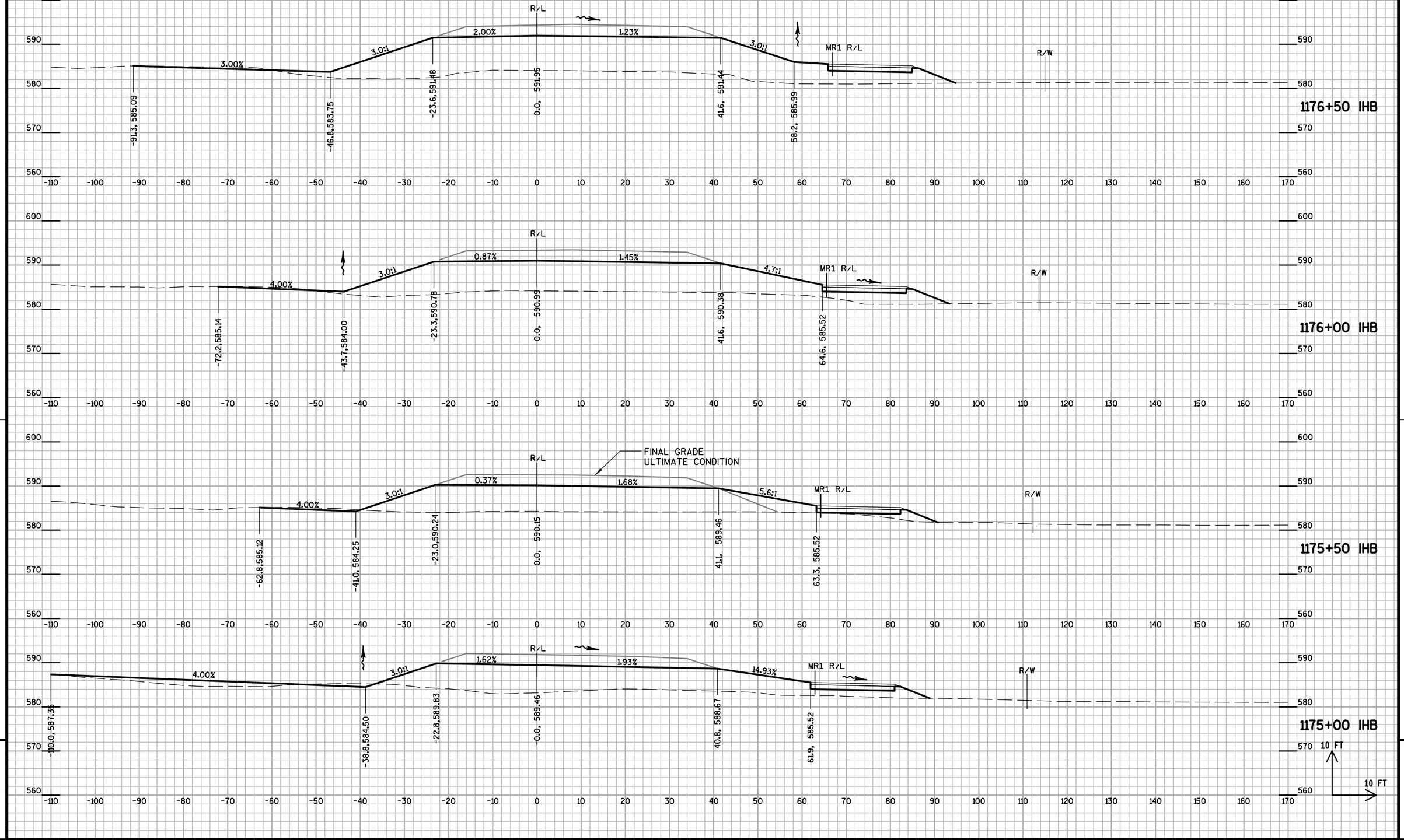
STA. 1173+00 IHB TO 1174+50 IHB



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090211_xs_IHB.DGN PLOT DATE : 5/9/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21

STA. 1175+00 IHB STA. 1176+50 IHB



9

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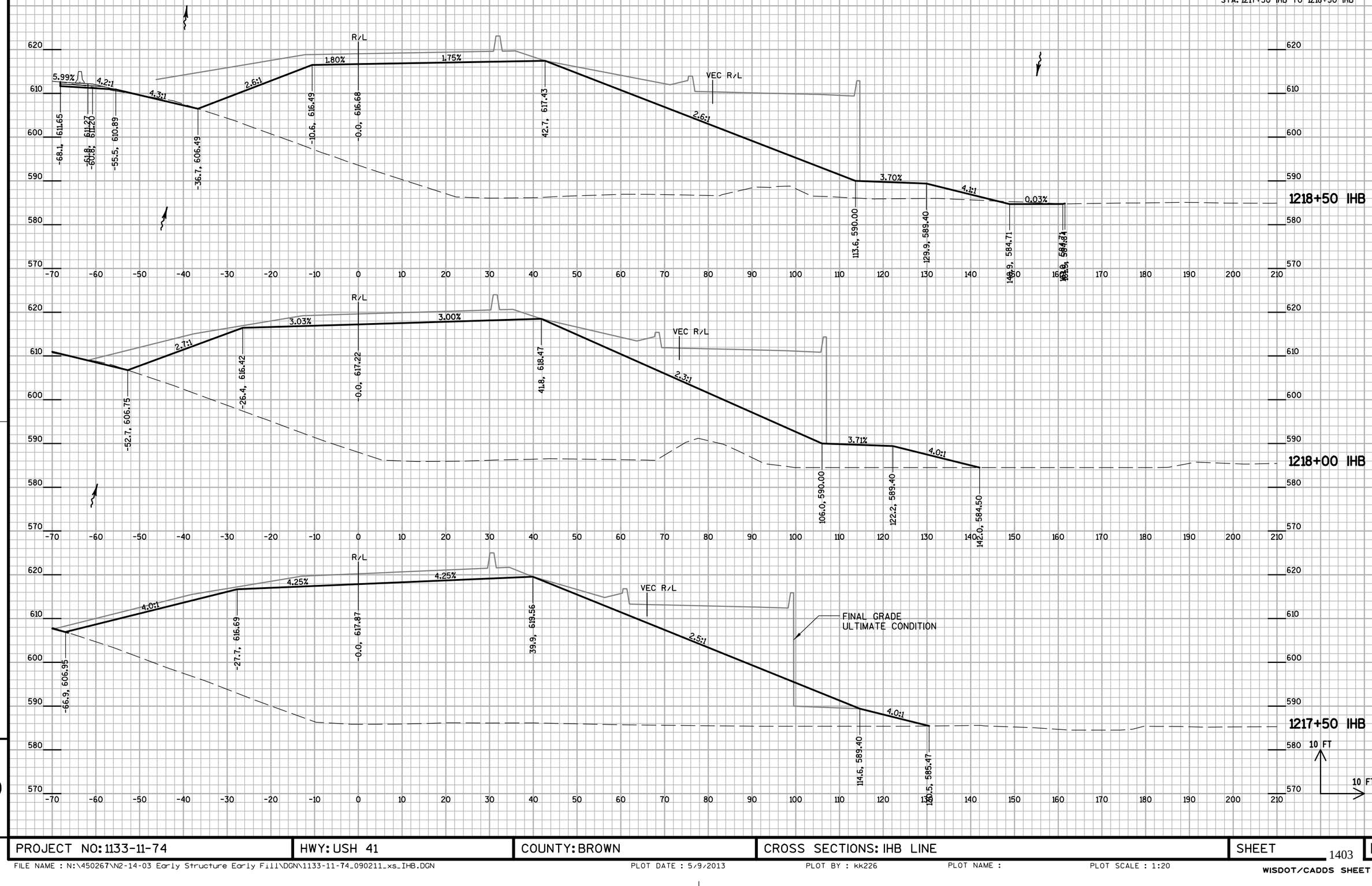
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE	SHEET 1402	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090211_xs_IHB.DGN PLOT DATE : 5/9/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1217+50 IHB TO 1218+50 IHB

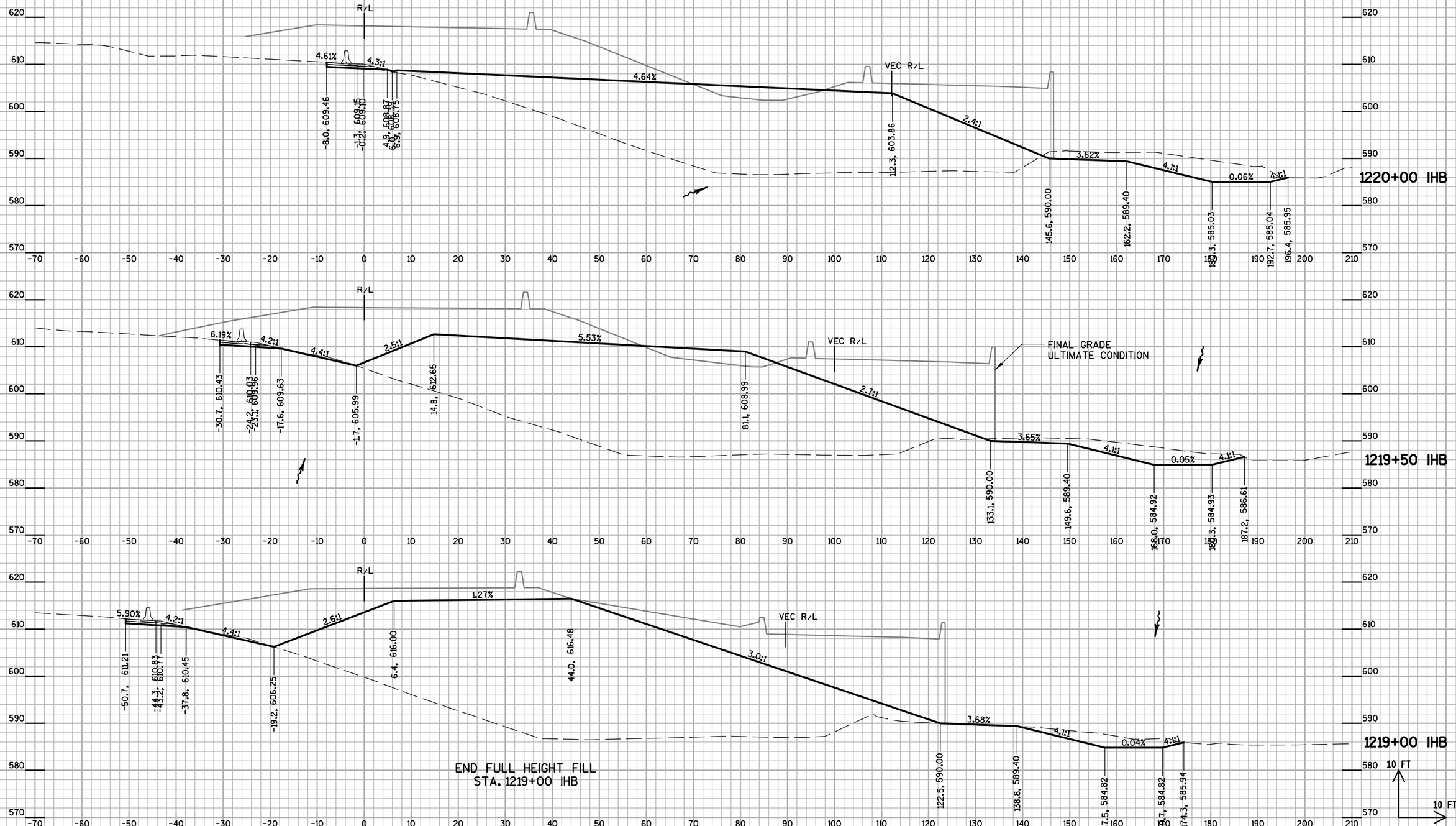


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE	SHEET 1403	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090211_xs_IHB.DGN | PLOT DATE : 5/9/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1219+00 IHB TO 1220+00 IHB



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: IHB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090211_xs_IHB.DGN PLOT DATE : 5/9/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1166+00 EVEA TO STA. 1168+25 EVEA
EXISTING DITCH RT. CONSTRUCTED
UNDER PROJECT 1133-11-75

STA. 1166+00 EVEA TO STA. 1168+25 EVEA
MARSH EXCAVATION & TOE TRENCH
CONSTRUCTED UNDER PROJECT 1133-11-75

STA. 1166+00 EVEA TO STA. 1167+50 EVEA

1167+50 EVEA

R/L
1.50%
4.0:1
4.6:1
4.03%
6.0:1
0.02%
4.0:1
2.0, 590.92
29.0, 590.51
32.0, 590.47
38.0, 591.38
71.2, 584.12
76.2, 583.91
82.2, 582.91
88.2, 582.91
93.1, 584.13

1167+00 EVEA

R/L
1.50%
1.57%
4.0:1
4.7:1
4.01%
6.0:1
0.02%
4.0:1
9.0, 591.29
26.1, 591.03
29.2, 590.99
35.2, 591.89
72.5, 583.95
77.5, 583.75
83.5, 582.75
89.5, 582.75
93.4, 583.73

FINAL GRADE
ULTIMATE CONDITION

1166+50 EVEA

R/L
1.50%
1.59%
4.0:1
4.9:1
4.01%
6.0:1
0.02%
13.8, 591.74
23.1, 591.60
26.2, 591.55
32.2, 592.45
74.4, 583.83
79.4, 583.63
85.4, 582.63
92.4, 582.63

1166+00 EVEA

BEGIN CONSTRUCTION
STA. 1166+07 EVEA

10 FT
10 FT

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEA LINE	SHEET 1405	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090212_xs_EVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

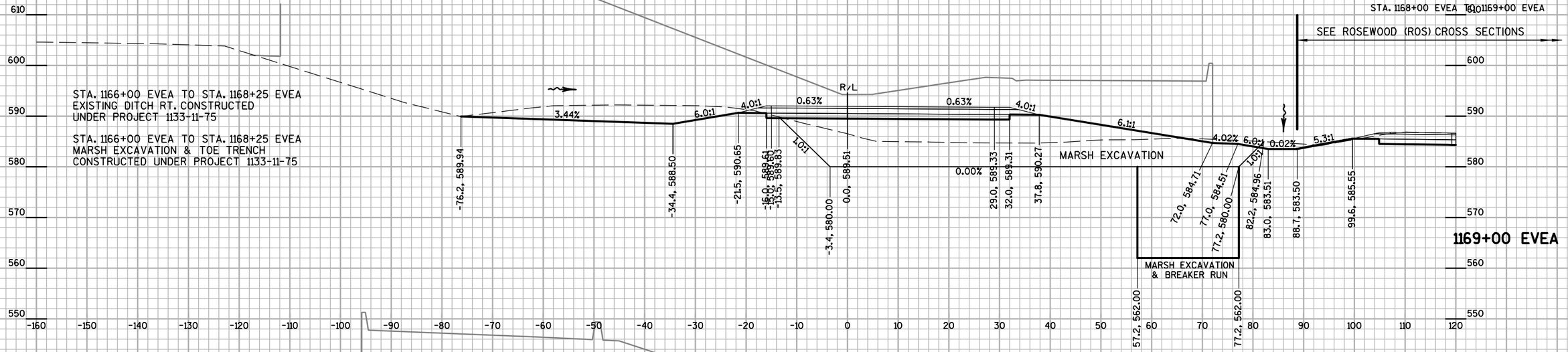
WISDOT/CADDS SHEET 21

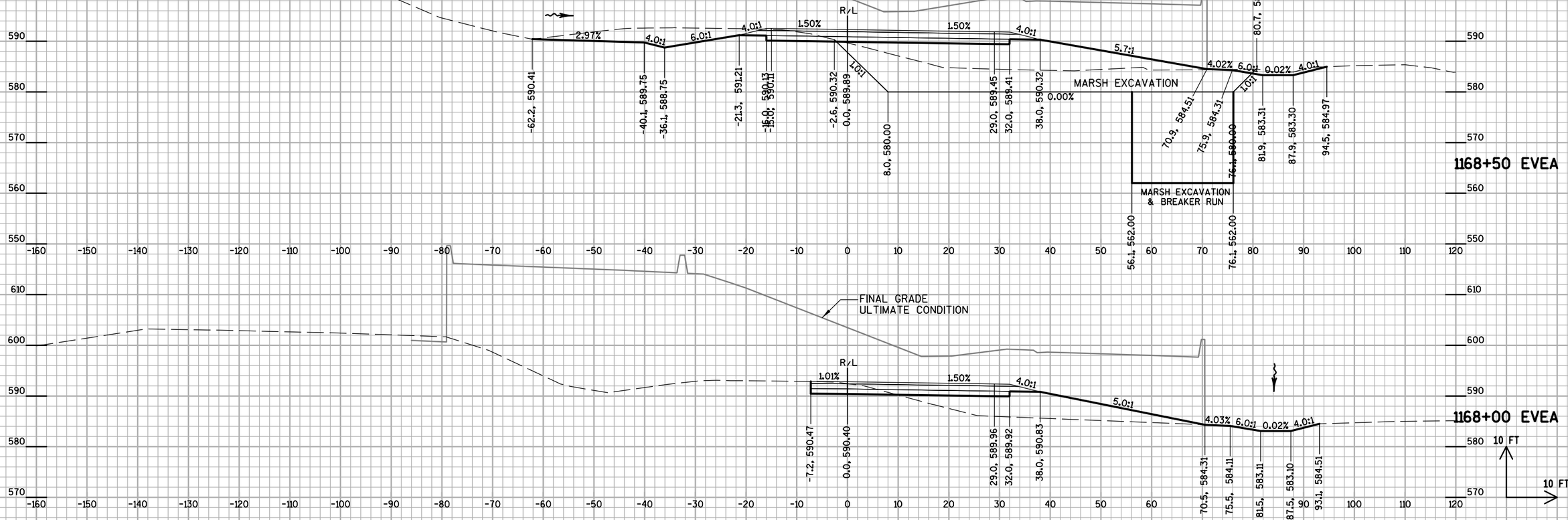
STA. 1166+00 EVEA TO STA. 1168+25 EVEA
EXISTING DITCH RT. CONSTRUCTED
UNDER PROJECT 1133-11-75

STA. 1166+00 EVEA TO STA. 1168+25 EVEA
MARSH EXCAVATION & TOE TRENCH
CONSTRUCTED UNDER PROJECT 1133-11-75

STA. 1168+00 EVEA TO 1169+00 EVEA

SEE ROSEWOOD (ROS) CROSS SECTIONS



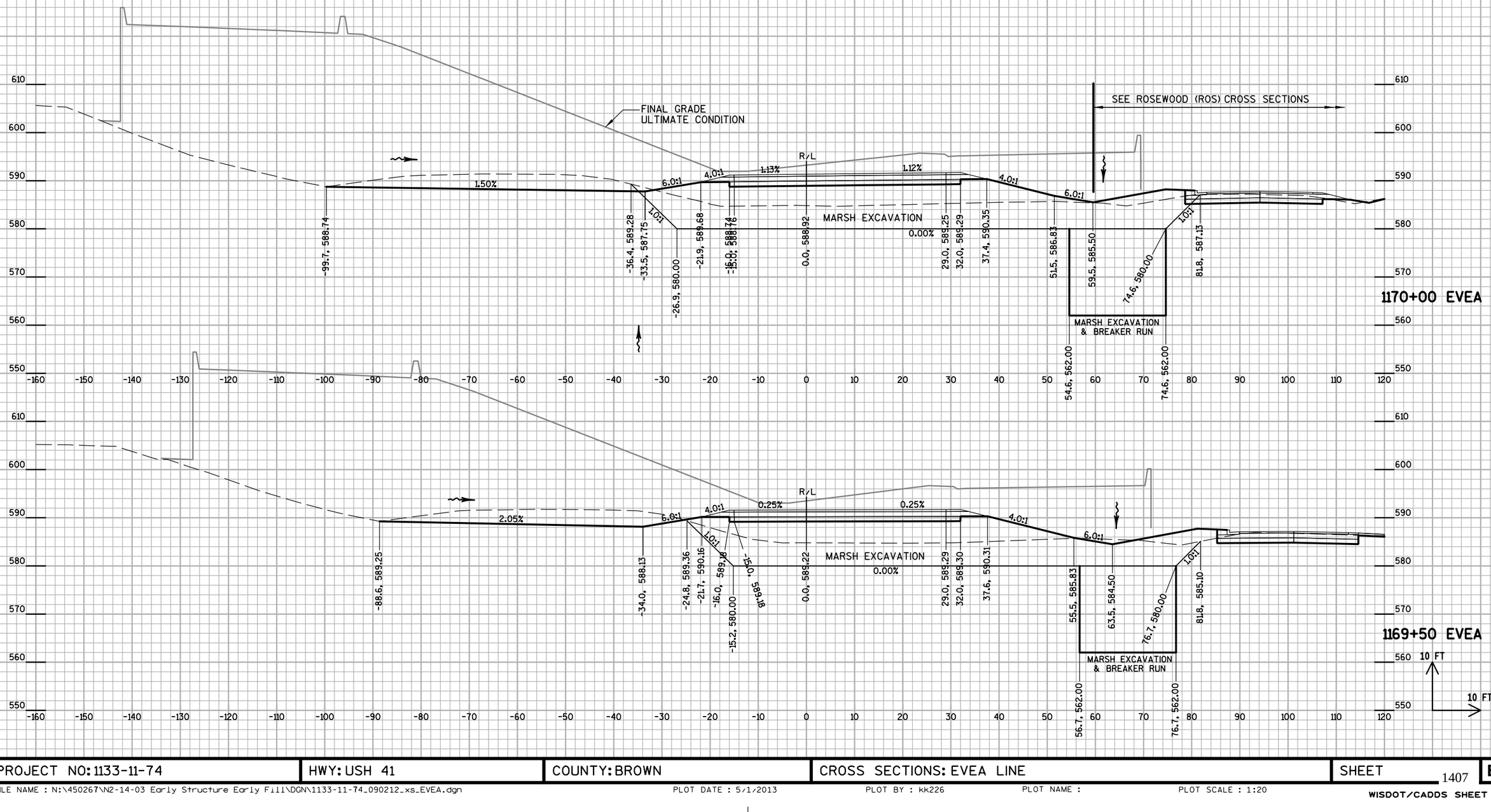


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEA LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090212_xs_EVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1169+50 EVEA TO 1170+00 EVEA



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEA LINE	SHEET 1407	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090212_xs_EVEA.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1170+50 EVEA

STA. 1171+50 EVEA

1171+50 EVEA

MARSH EXCAVATION & BREAKER RUN

STA. 1170+25 EVEA TO STA. 1173+00 EVEA
GRADE EXISTING DITCH LEFT TO DRAIN

FINAL GRADE
ULTIMATE CONDITION

STA. 1171+00 EVEA
1-66' x 18" x 30" HE CL. IV RCCP REQ'D
2-APRON ENDWALLS REQ'D

1171+00 EVEA

MARSH EXCAVATION & BREAKER RUN

SEE ROSEWOOD (ROS) CROSS SECTIONS

1170+50 EVEA

MARSH EXCAVATION & BREAKER RUN

10 FT

10 FT

9

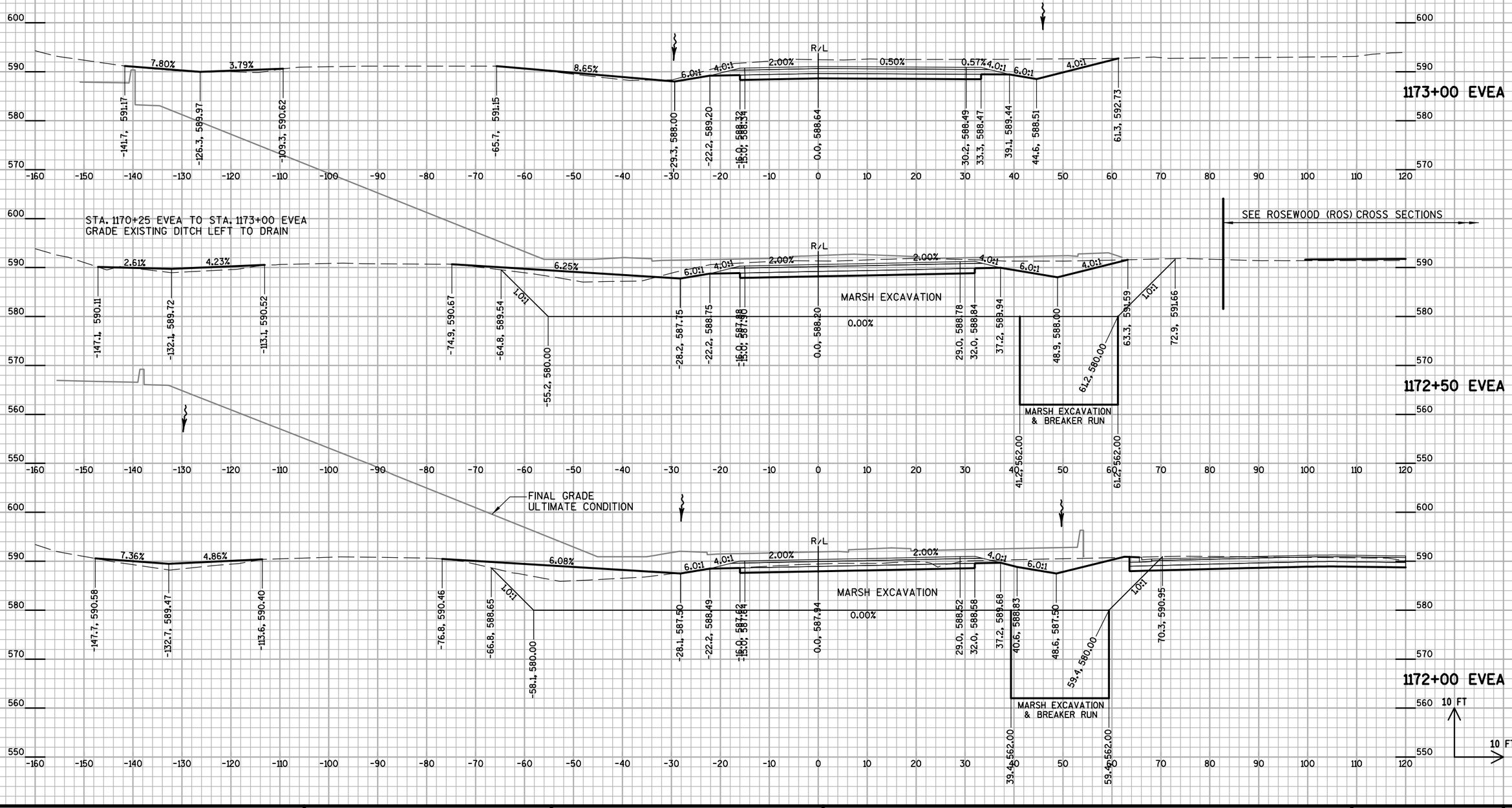
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEA LINE	SHEET 1408	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090212_xs_EVEA.dgn | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

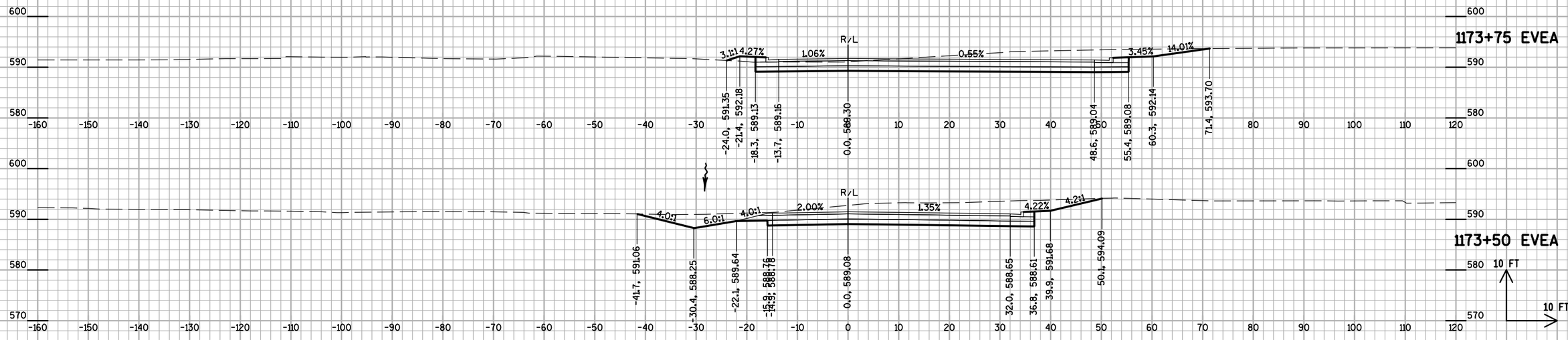
WISDOT/CADDS SHEET 21

STA. 1172+00 EVEA TO 1173+00 EVEA



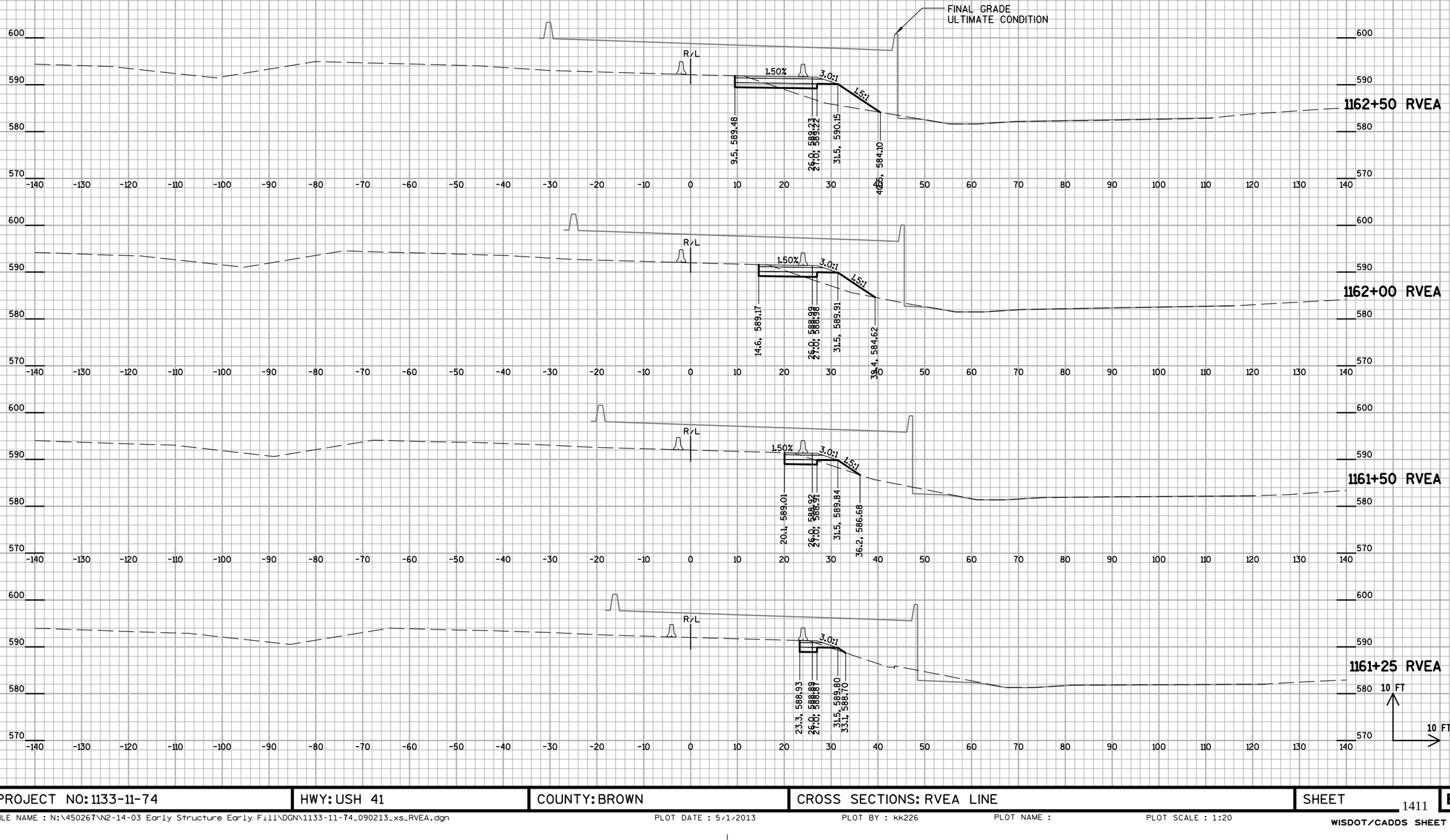
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEA LINE	SHEET 1409	E

STA. 1173+50 EVEA TO 1173+75 EVEA



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEA LINE	SHEET 1410	E

STA. 1161+25 RVEA TO 1162+50 RVEA

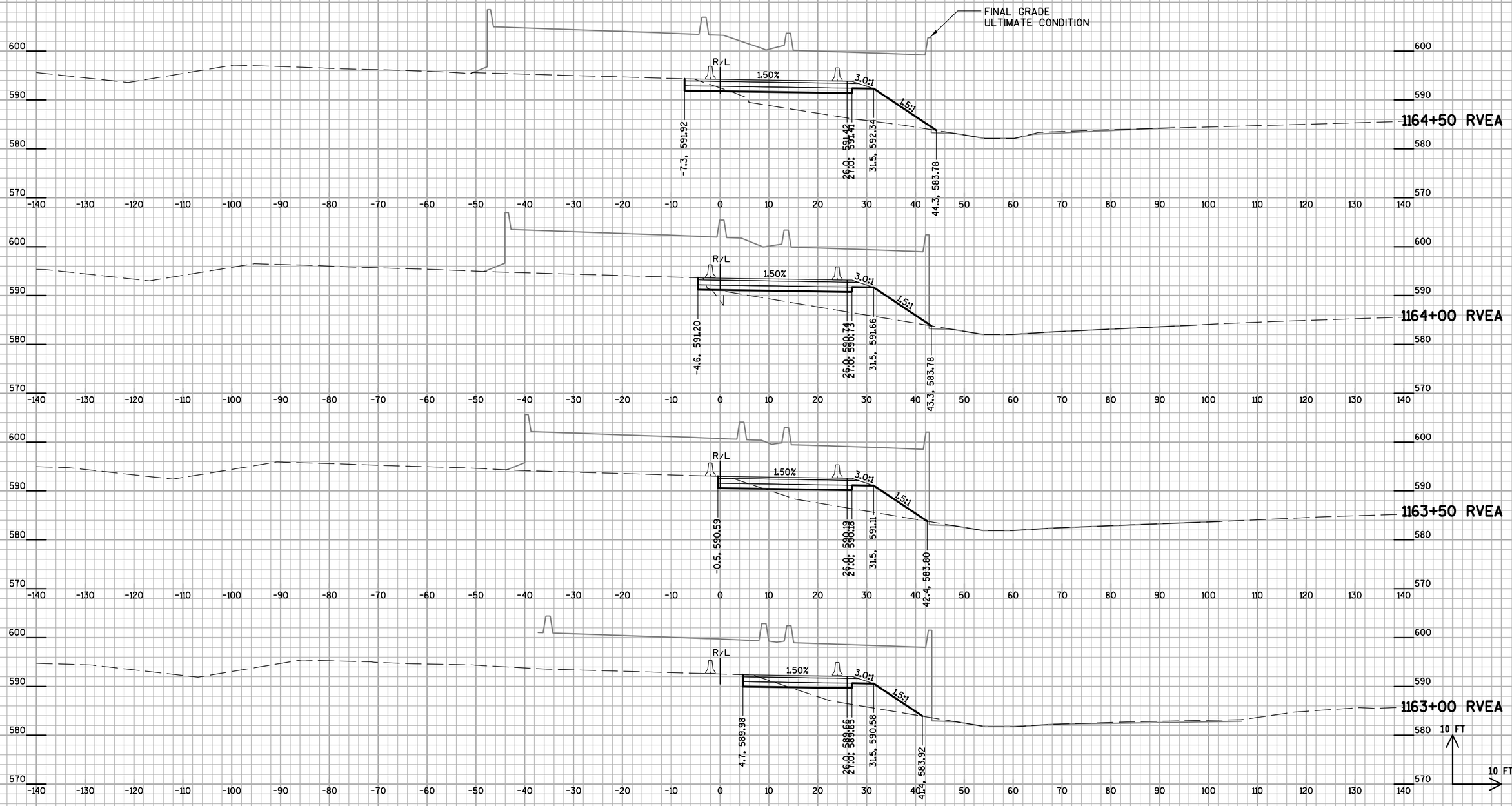


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: RVEA LINE	SHEET 1411	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090213_xs_RVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1163+00 RVEA TO 1164+50 RVEA

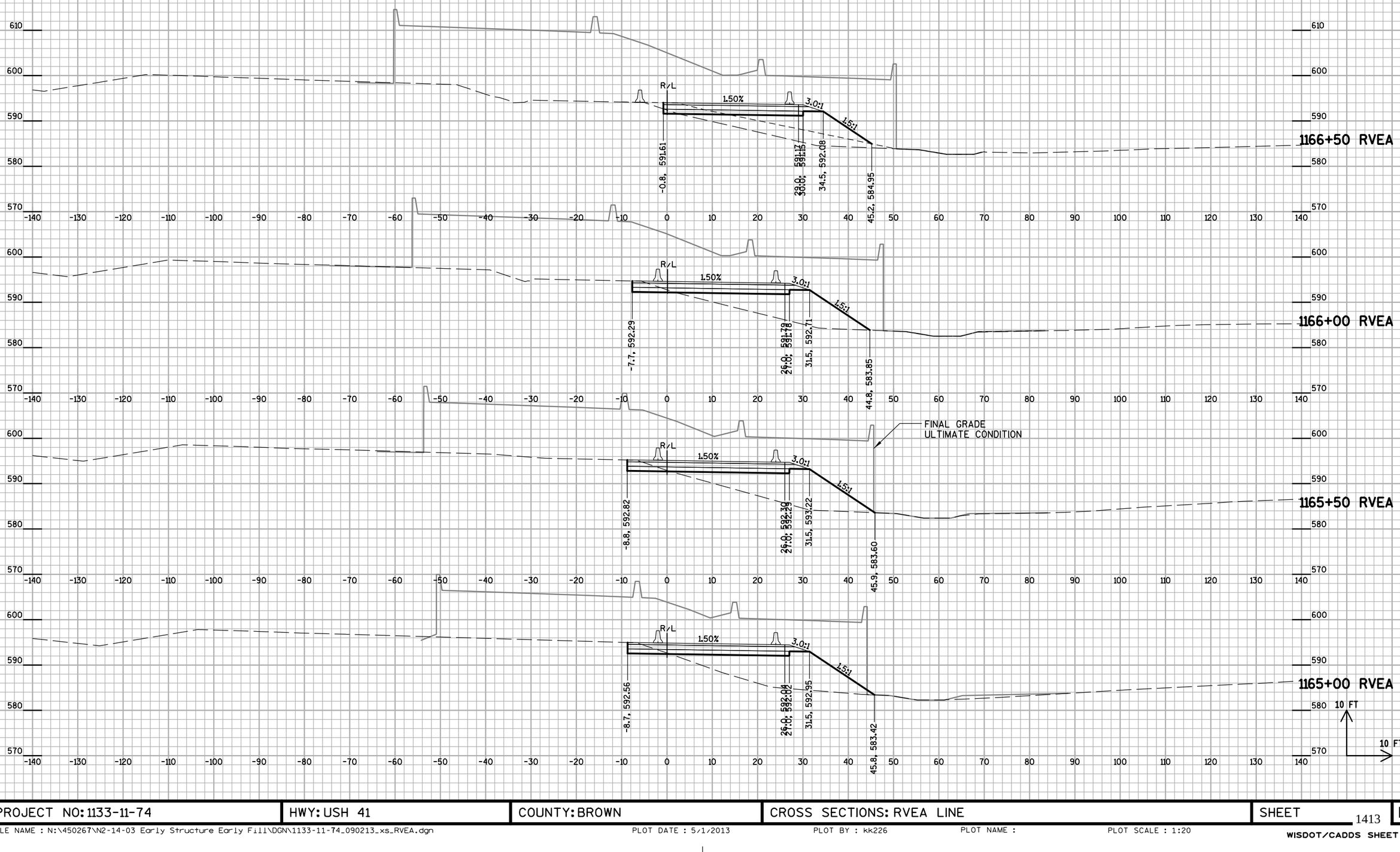


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: RVEA LINE	SHEET 1412	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090213_xs_RVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1165+00 RVEA TO 1166+50 RVEA

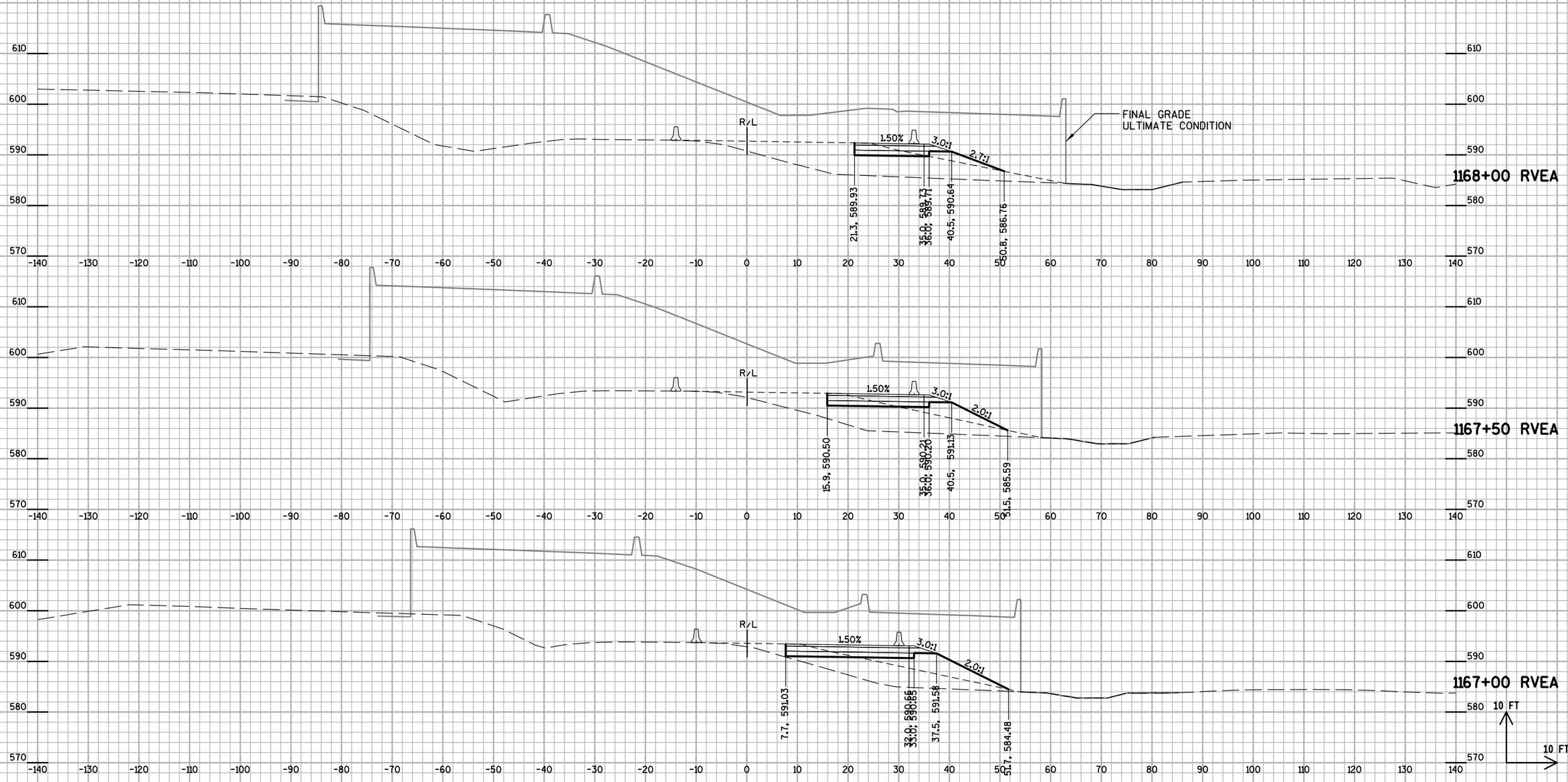


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: RVEA LINE	SHEET 1413	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090213_xs_RVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+00 RVEA TO 1168+00 RVEA



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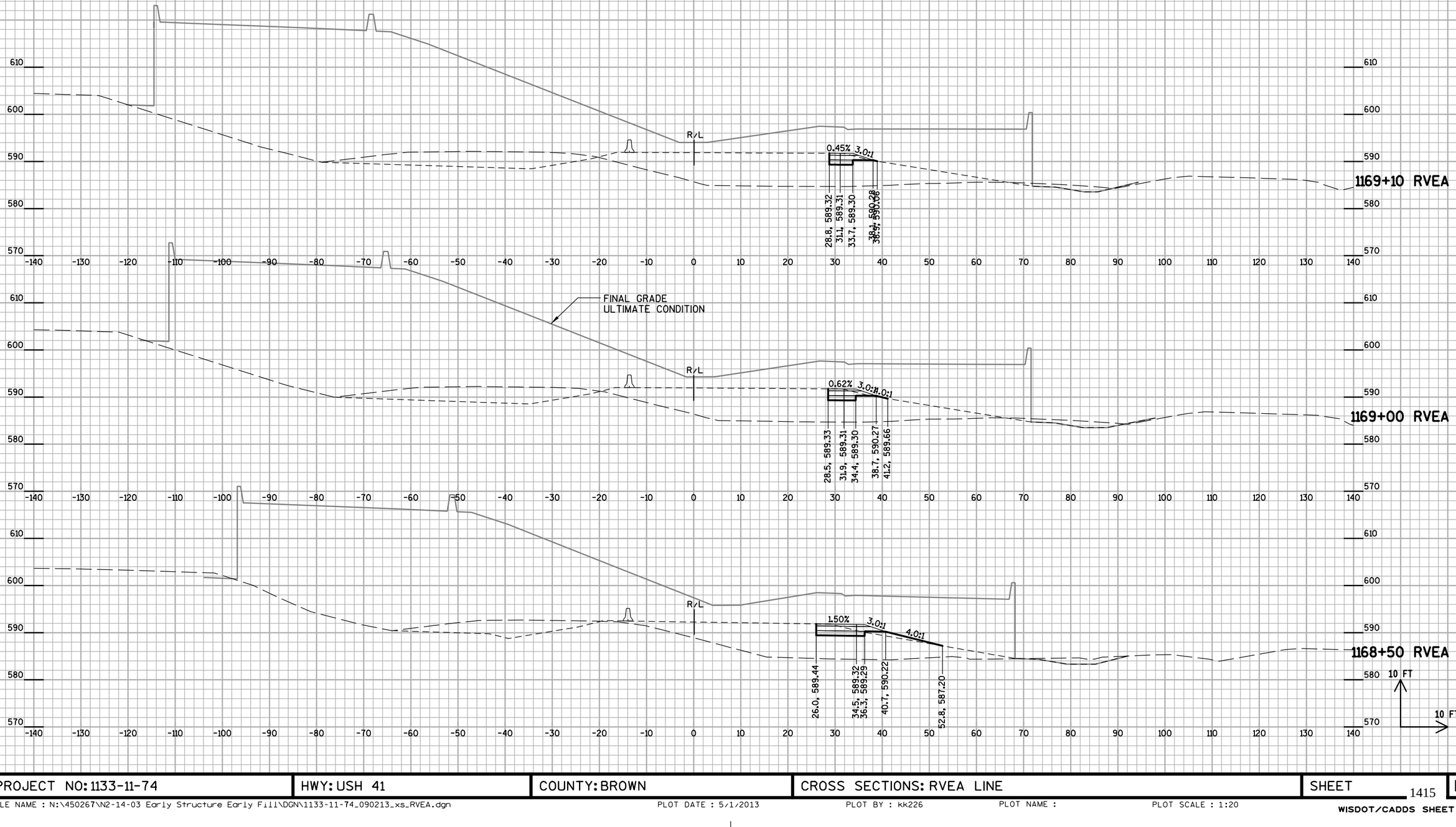
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: RVEA LINE	SHEET 1414	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090213_xs_RVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1168+50 RVEA TO 1169+10 RVEA



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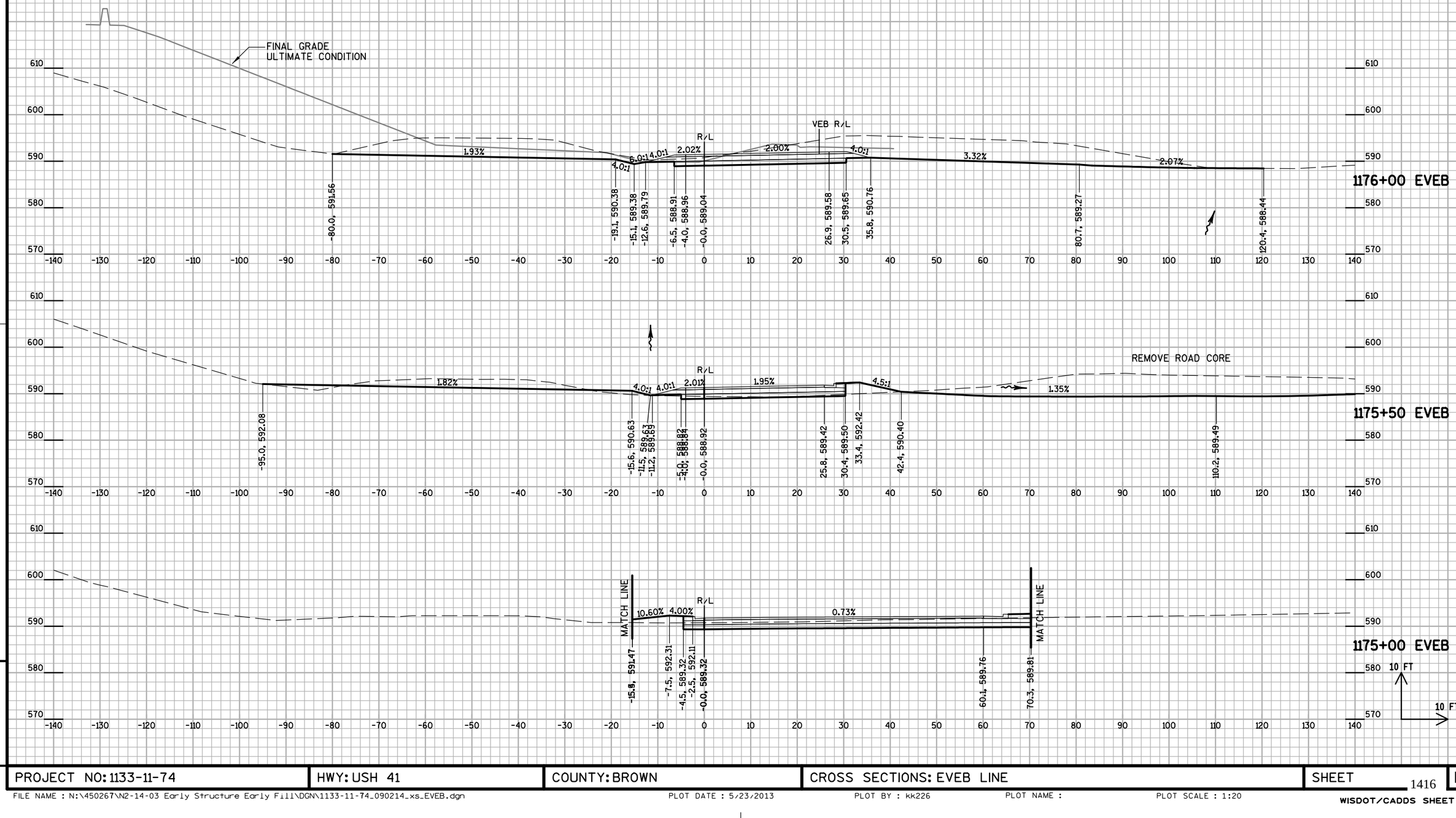
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: RVEA LINE	SHEET 1415	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090213_xs_RVEA.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1175+00 EVEB TO 1176+00 EVEB

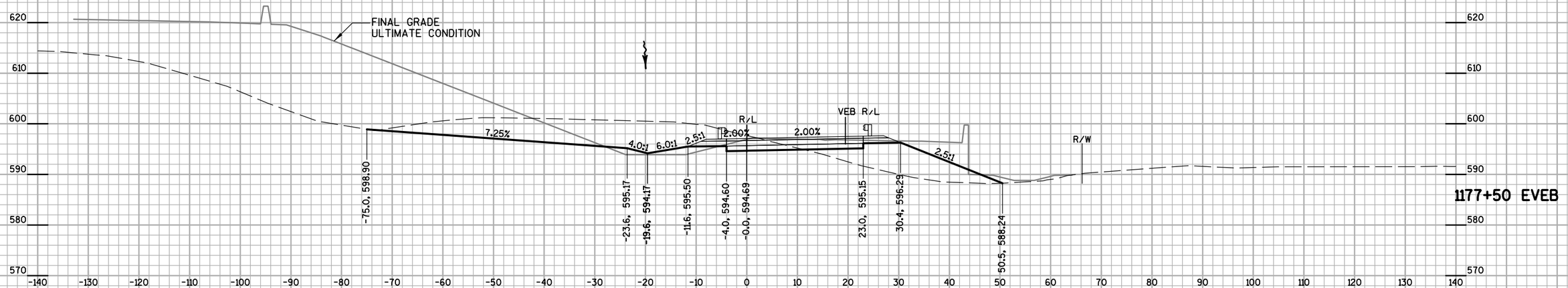


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1416	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn | PLOT DATE : 5/23/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

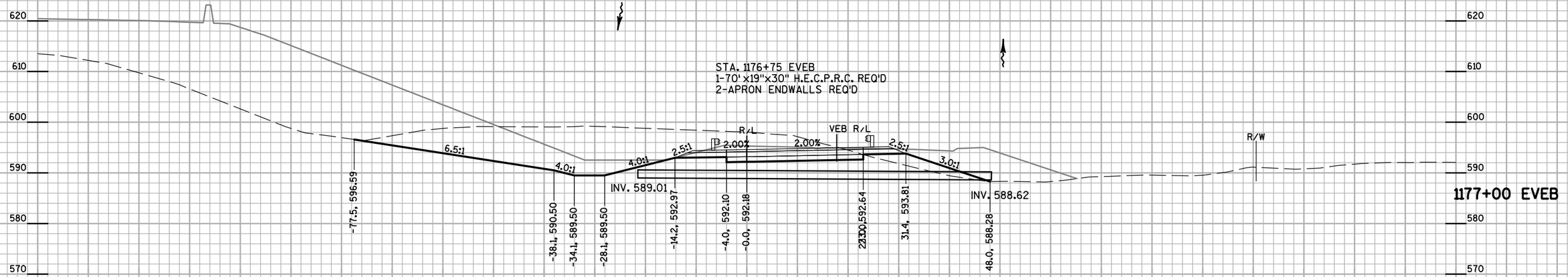
WISDOT/CADDS SHEET 21

STA. 1176+50 EVEB TO 1177+50 EVEB

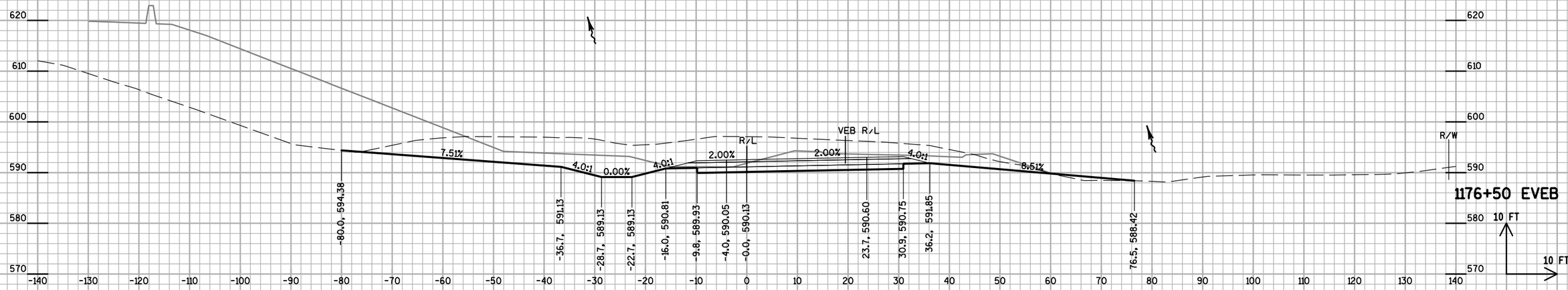


1177+50 EVEB

STA. 1176+75 EVEB
1-70' x19"x30" H.E.C.P.R.C. REQ'D
2-APRON ENDWALLS REQ'D



1177+00 EVEB



1176+50 EVEB

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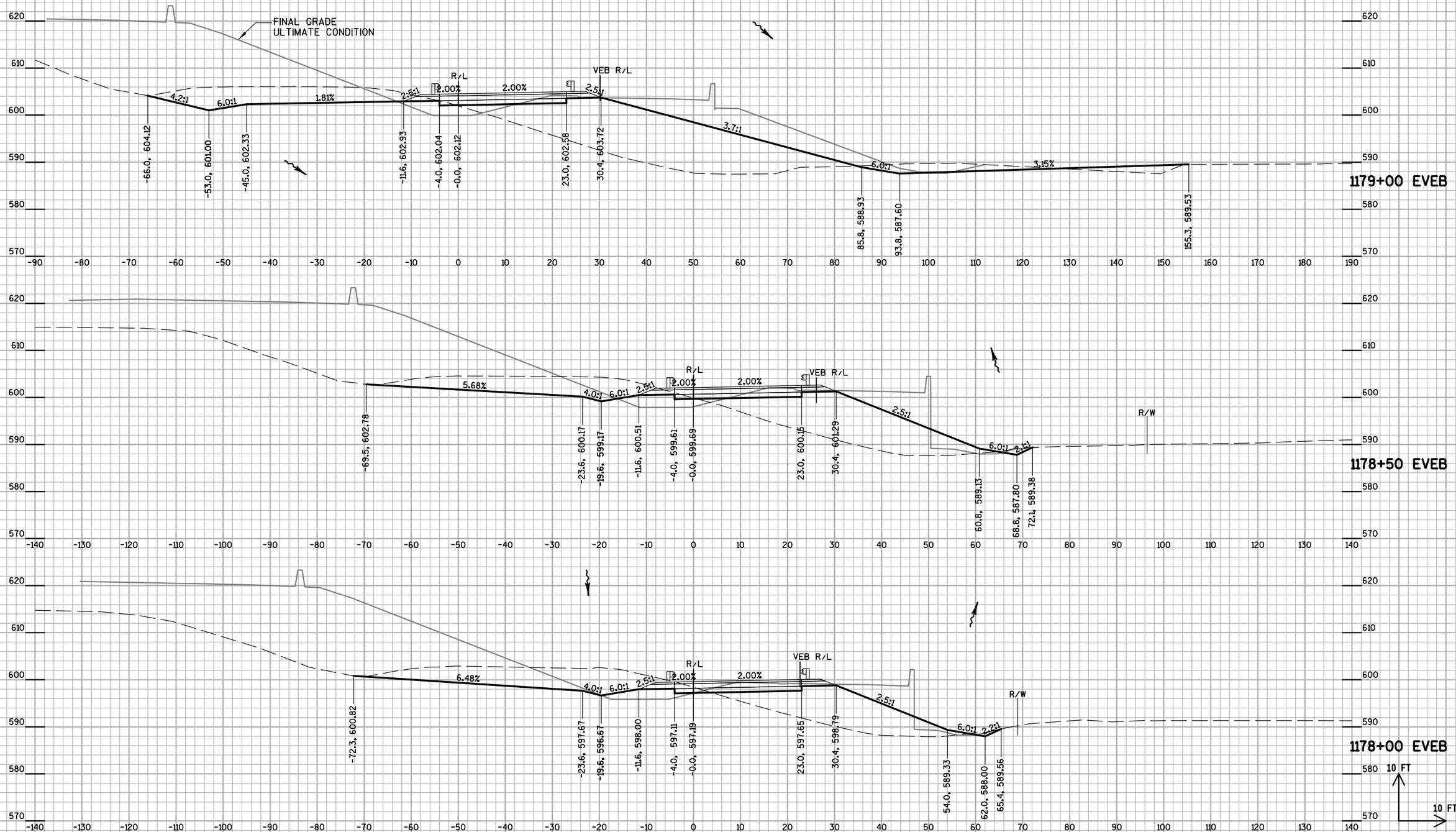
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1417	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn | PLOT DATE : 5/23/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1178+00 EVEB TO 1179+00 EVEB

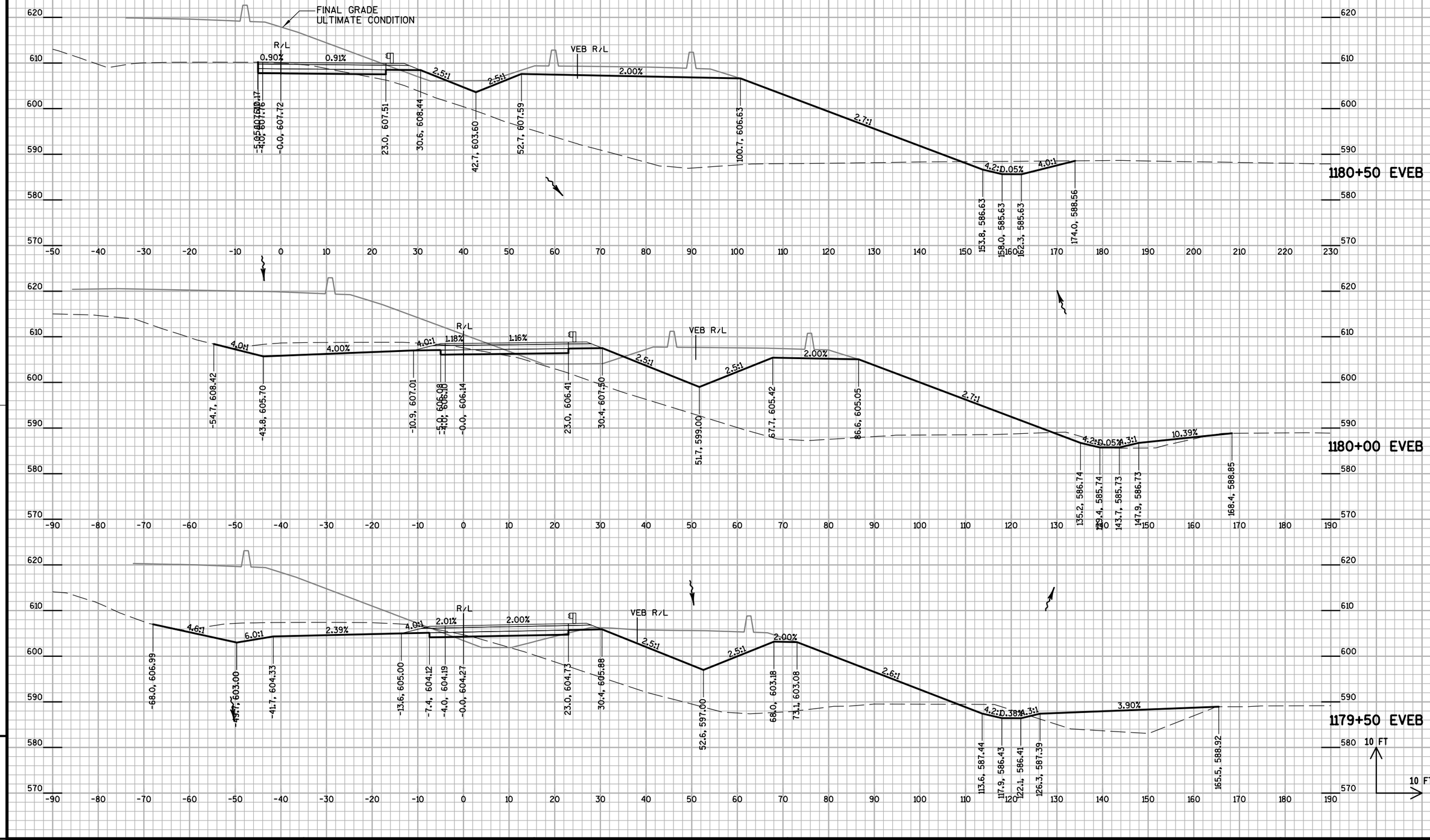


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1418	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn PLOT DATE : 5/23/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1179+50 EVEB TO 1180+50 EVEB

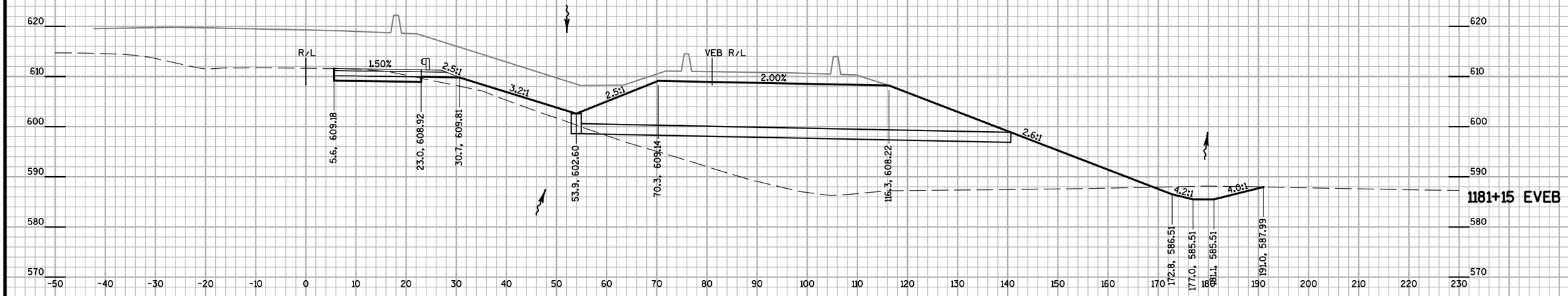


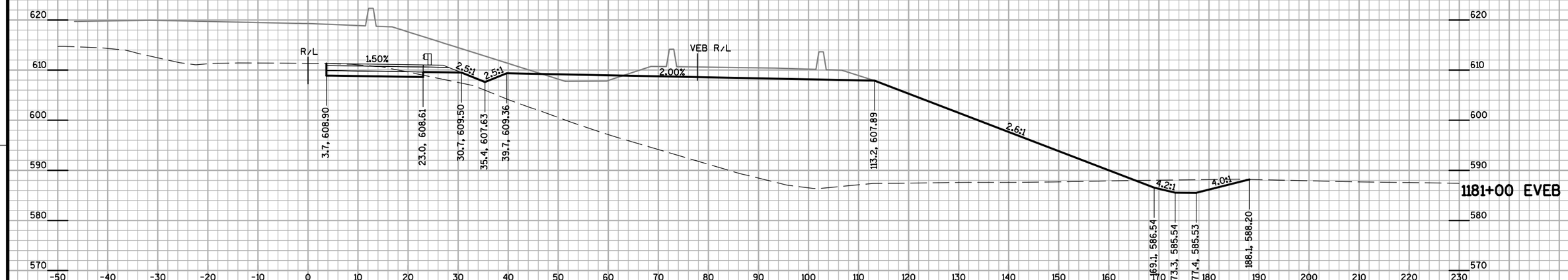
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1419	E

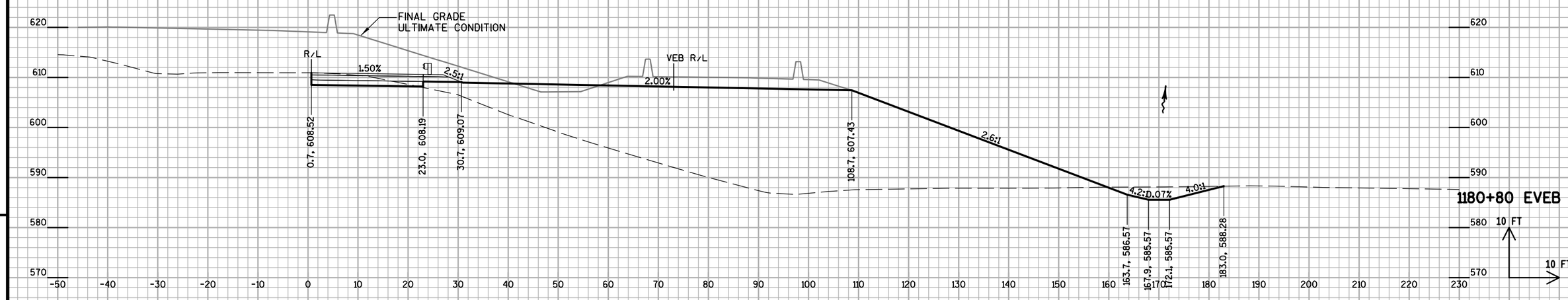
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn | PLOT DATE : 5/23/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1180+80 TO 1181+15 EVEB





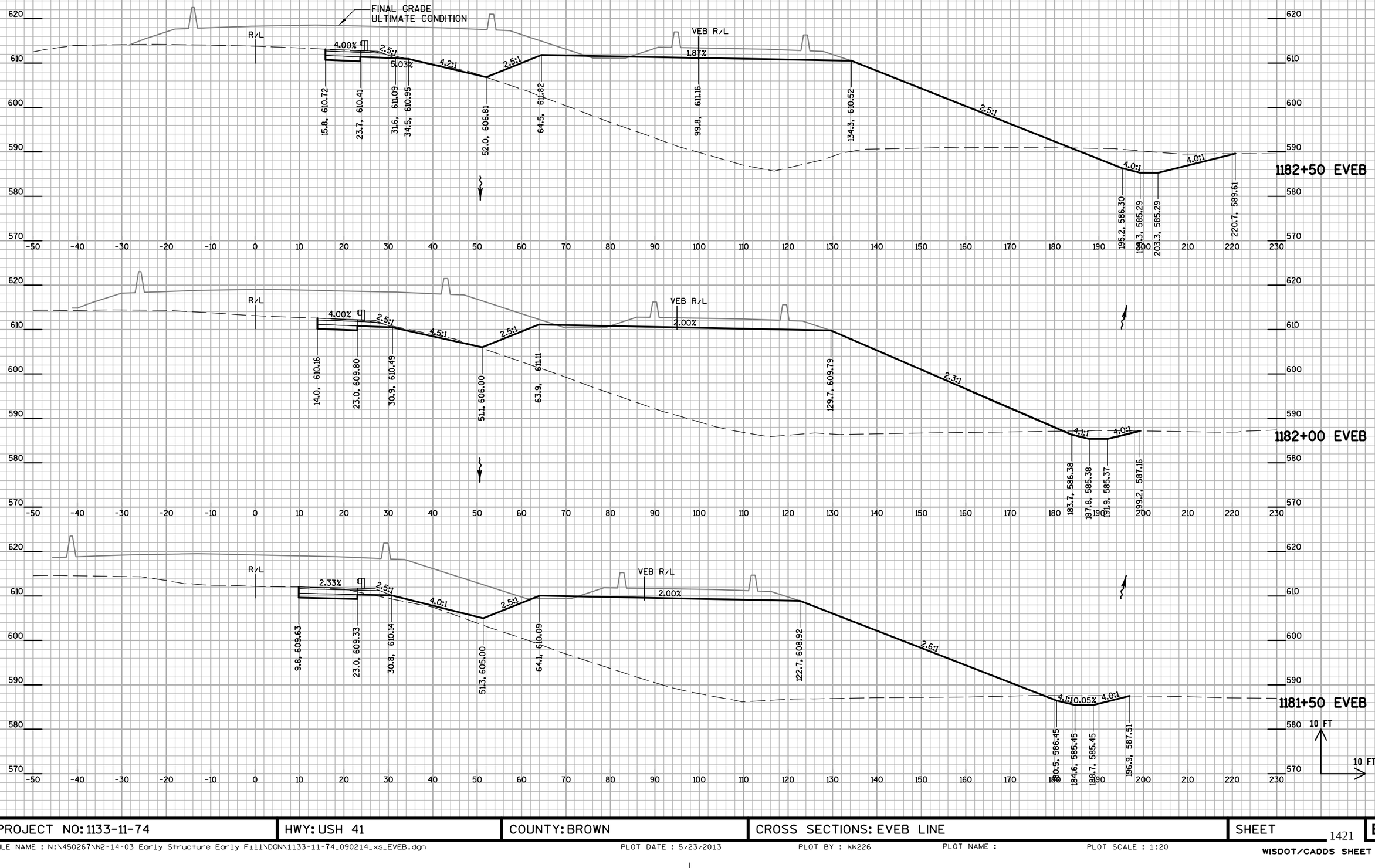


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1420	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn PLOT DATE : 5/23/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1181+50 EVEB TO 1182+50 EVEB

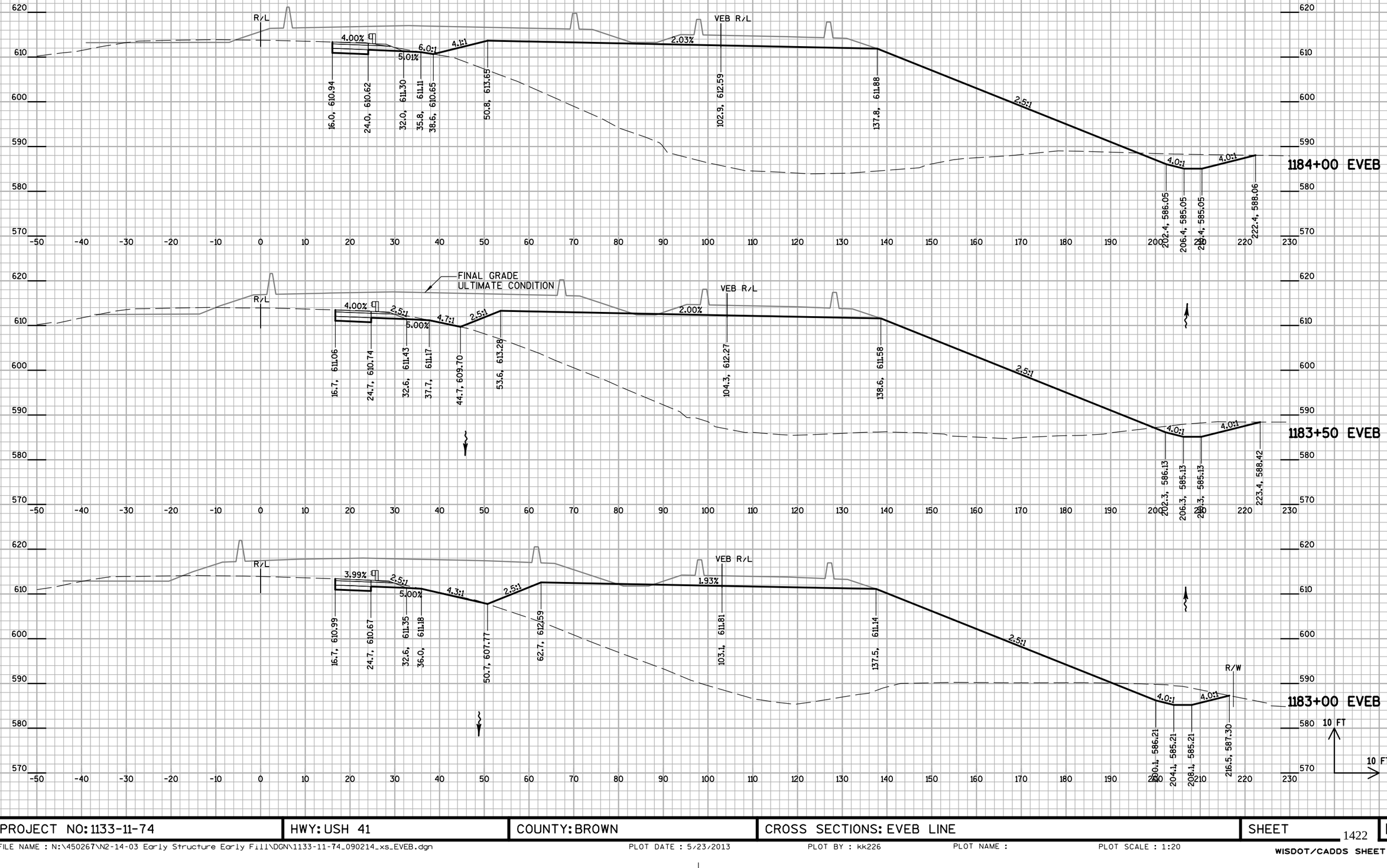


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1421	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn PLOT DATE : 5/23/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1183+00 EVEB TO 1184+00 EVEB



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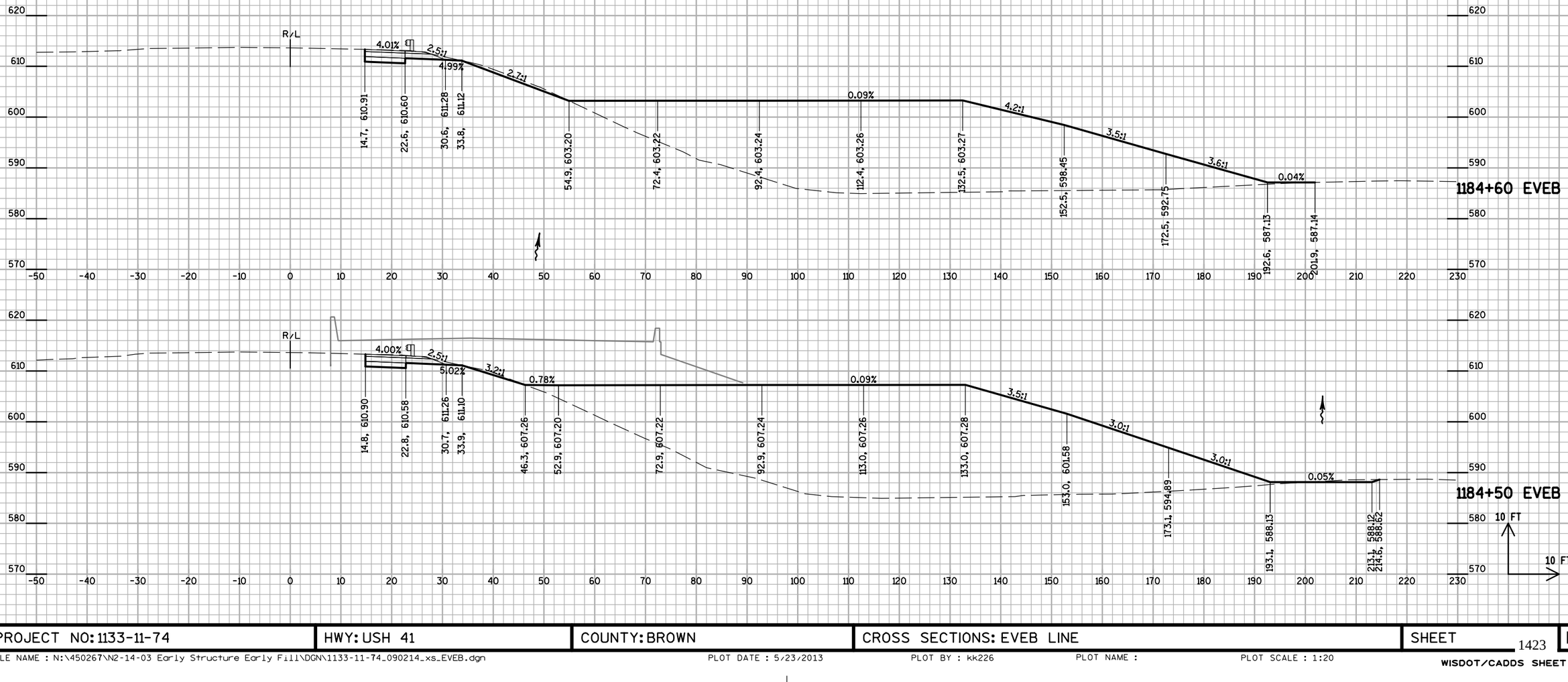
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET 1422	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn PLOT DATE : 5/23/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1184+50 EVEB TO 1184+60 EVEB

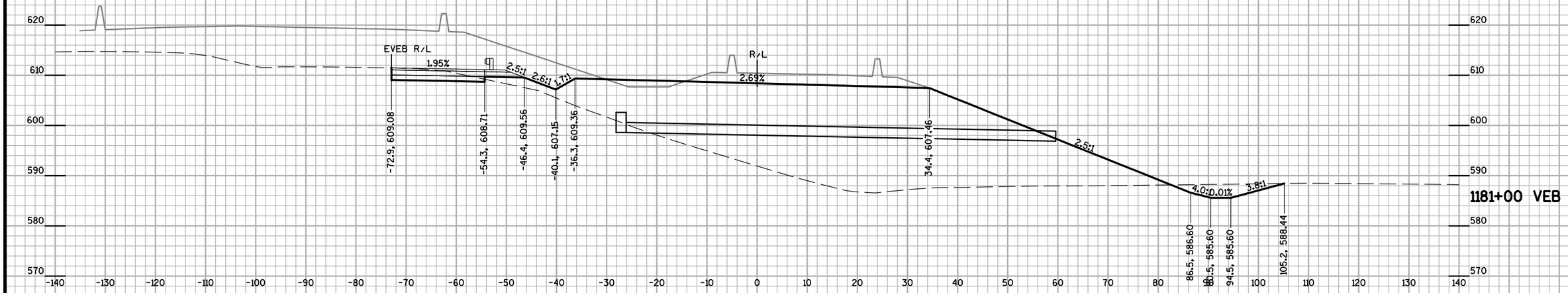


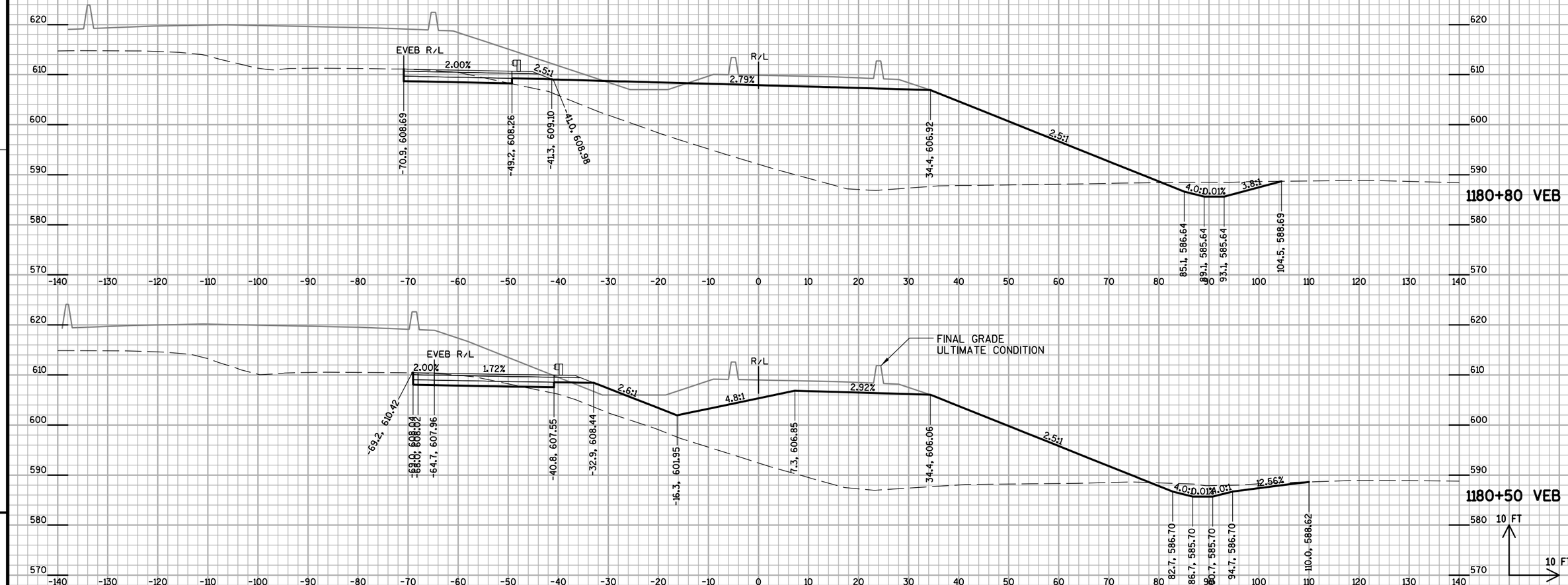
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090214_xs_EVEB.dgn PLOT DATE : 5/23/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1180+50 VEB TO 1181+00 VEB





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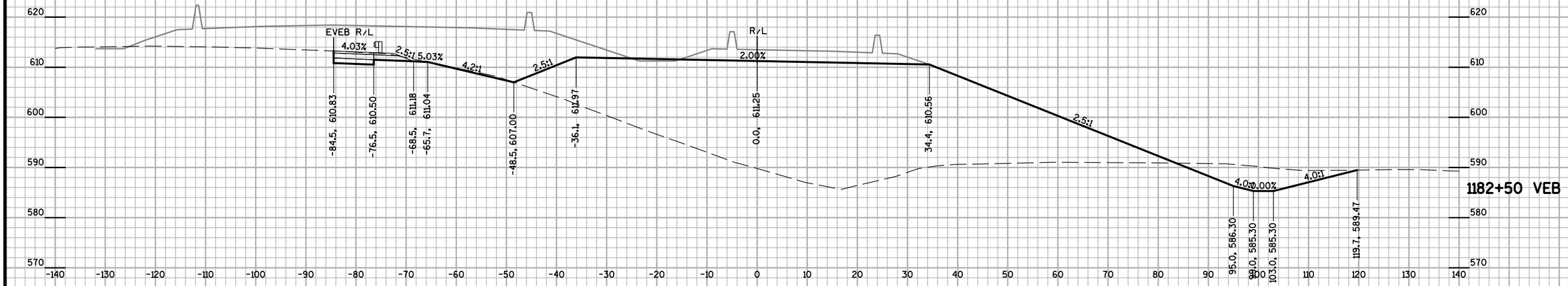
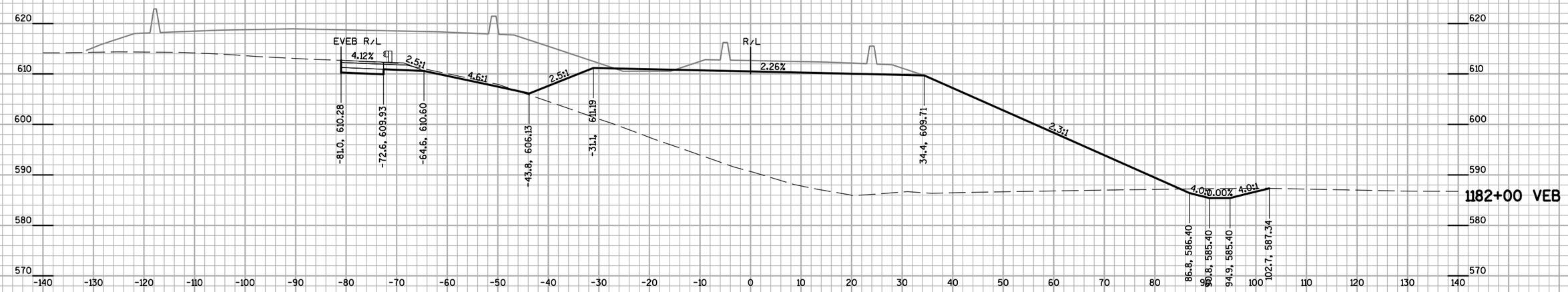
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE	SHEET 1424	E

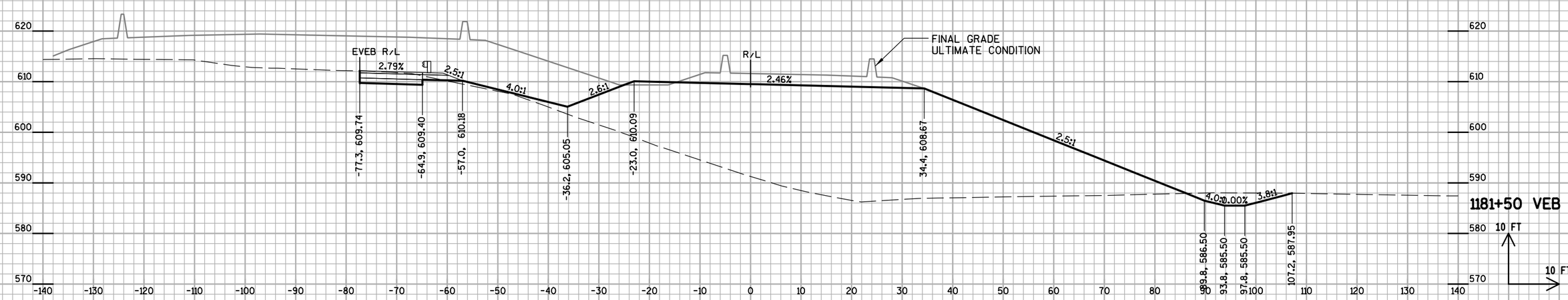
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090215_xs_VEB.dgn | PLOT DATE : 5/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1181+50 VEB TO 1182+50 VEB







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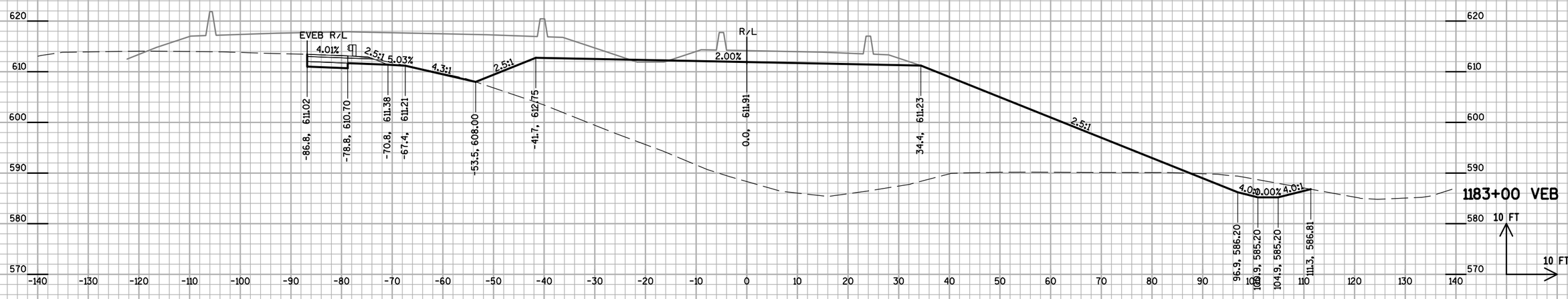
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE	SHEET 1425	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090215_xs_VEB.dgn | PLOT DATE : 5/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1183+00 VEB TO 1184+00 VEB



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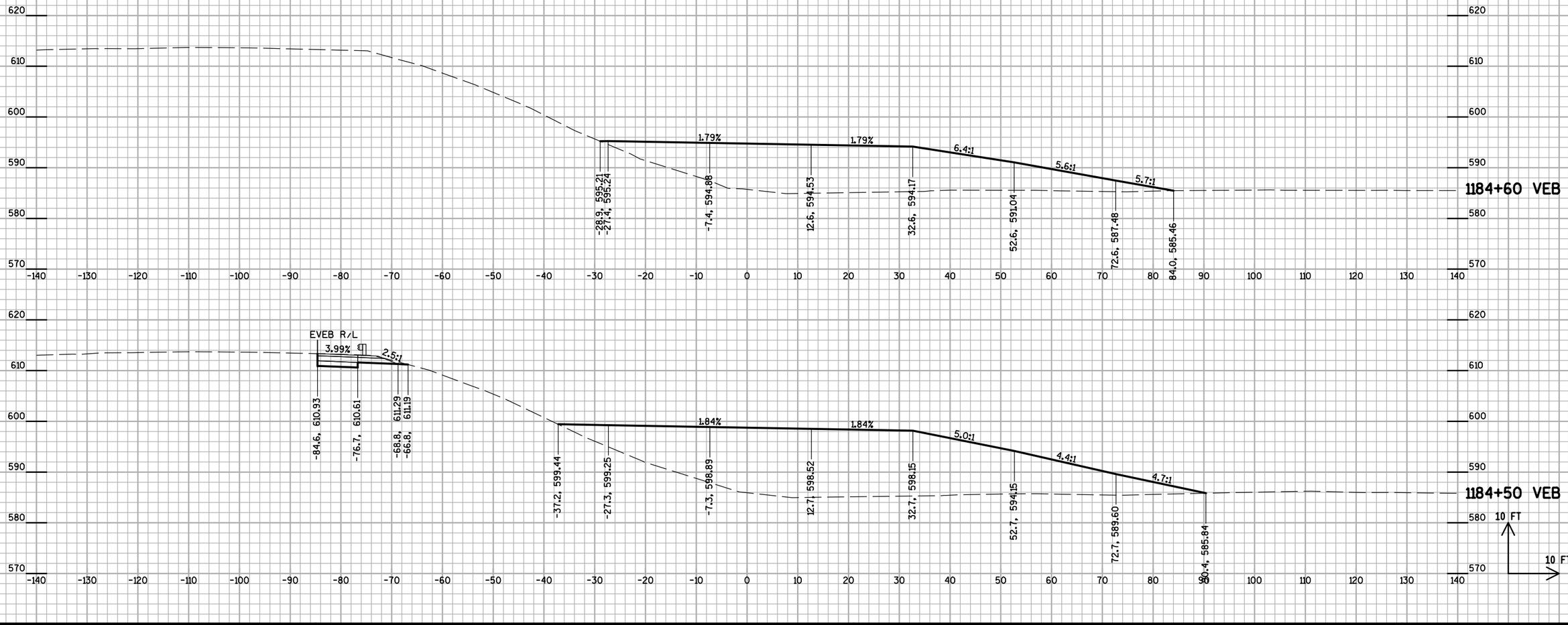
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE	SHEET 1426	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090215_xs_VEB.dgn | PLOT DATE : 5/3/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1184+50 VEB TO 1184+60



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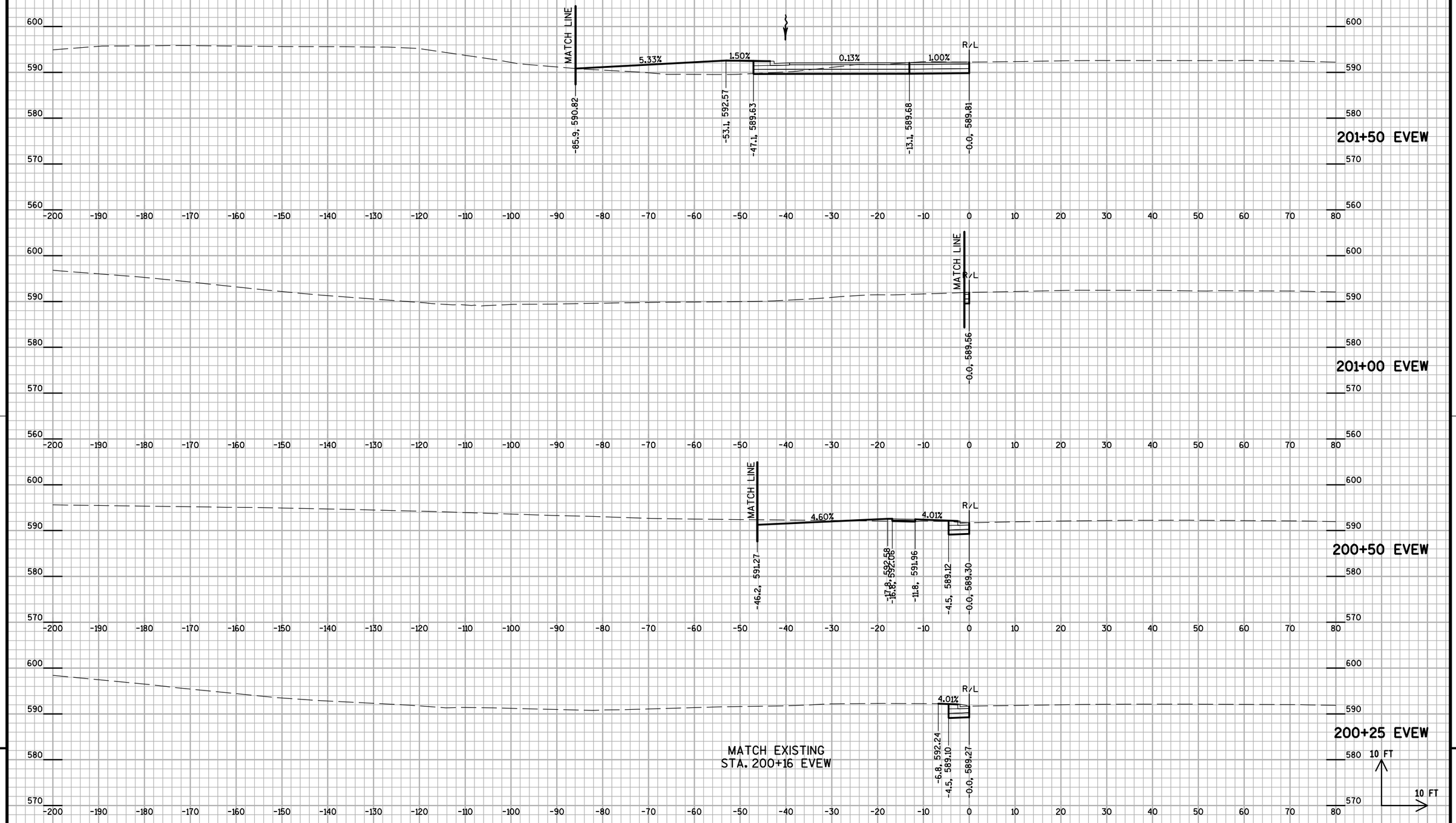
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEB LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090215_xs_VEB.dgn PLOT DATE : 5/3/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 200+25 EVEW TO 201+50 EVEW

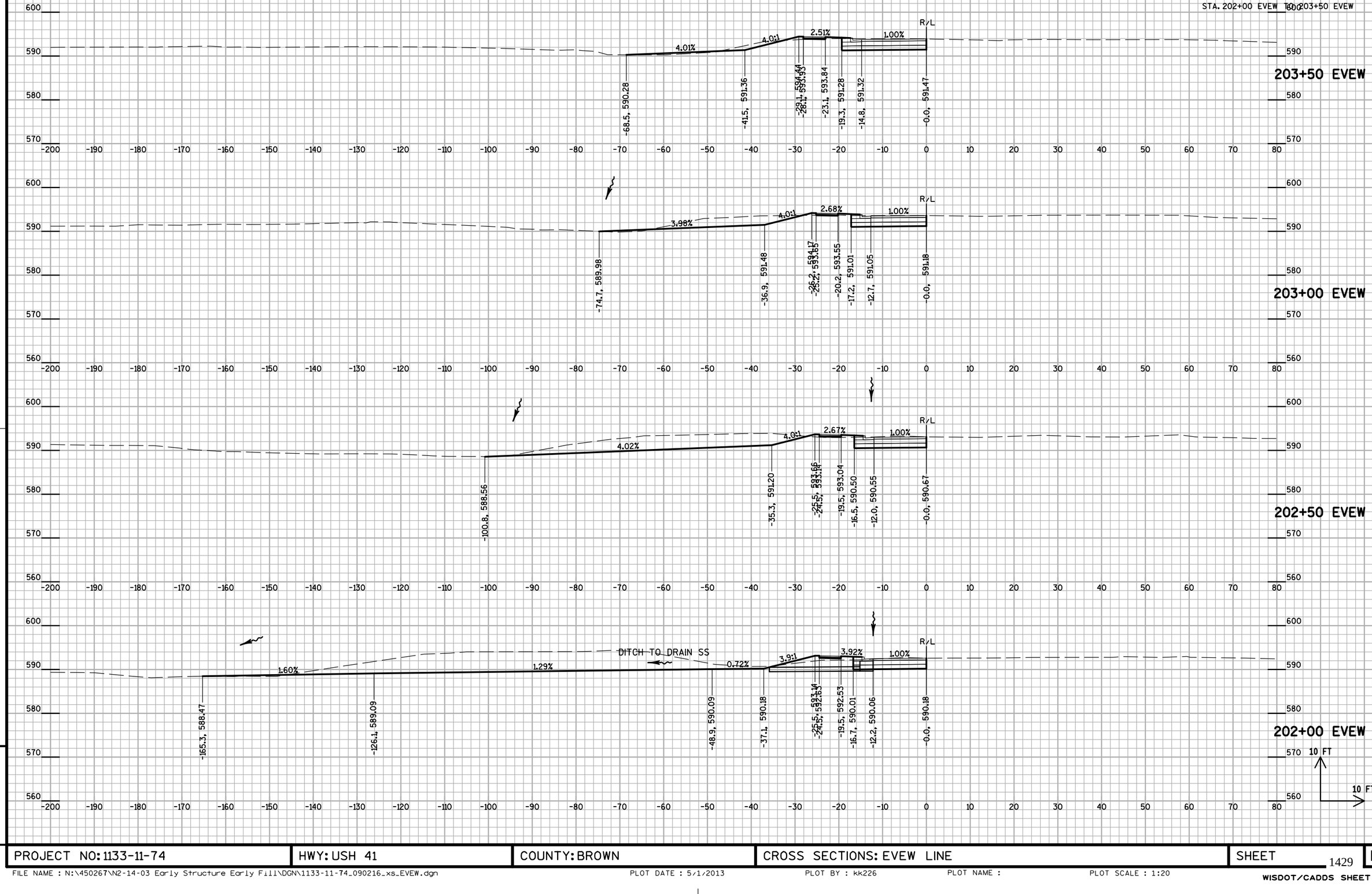


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEW LINE	SHEET 1428	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090216_xs_EVEW.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 202+00 EVEW TO 203+50 EVEW

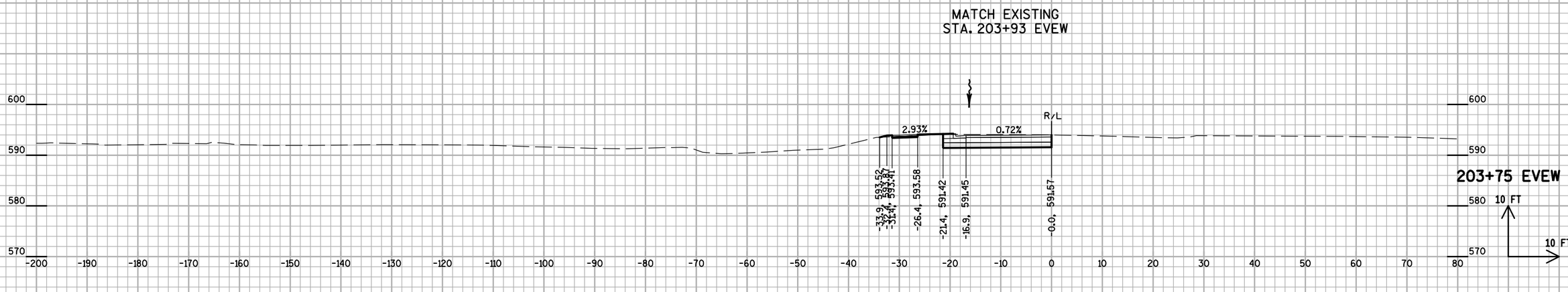


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEW LINE	SHEET 1429	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090216_xs_EVEW.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 203+75 EVEW TO 203+75 EVEW



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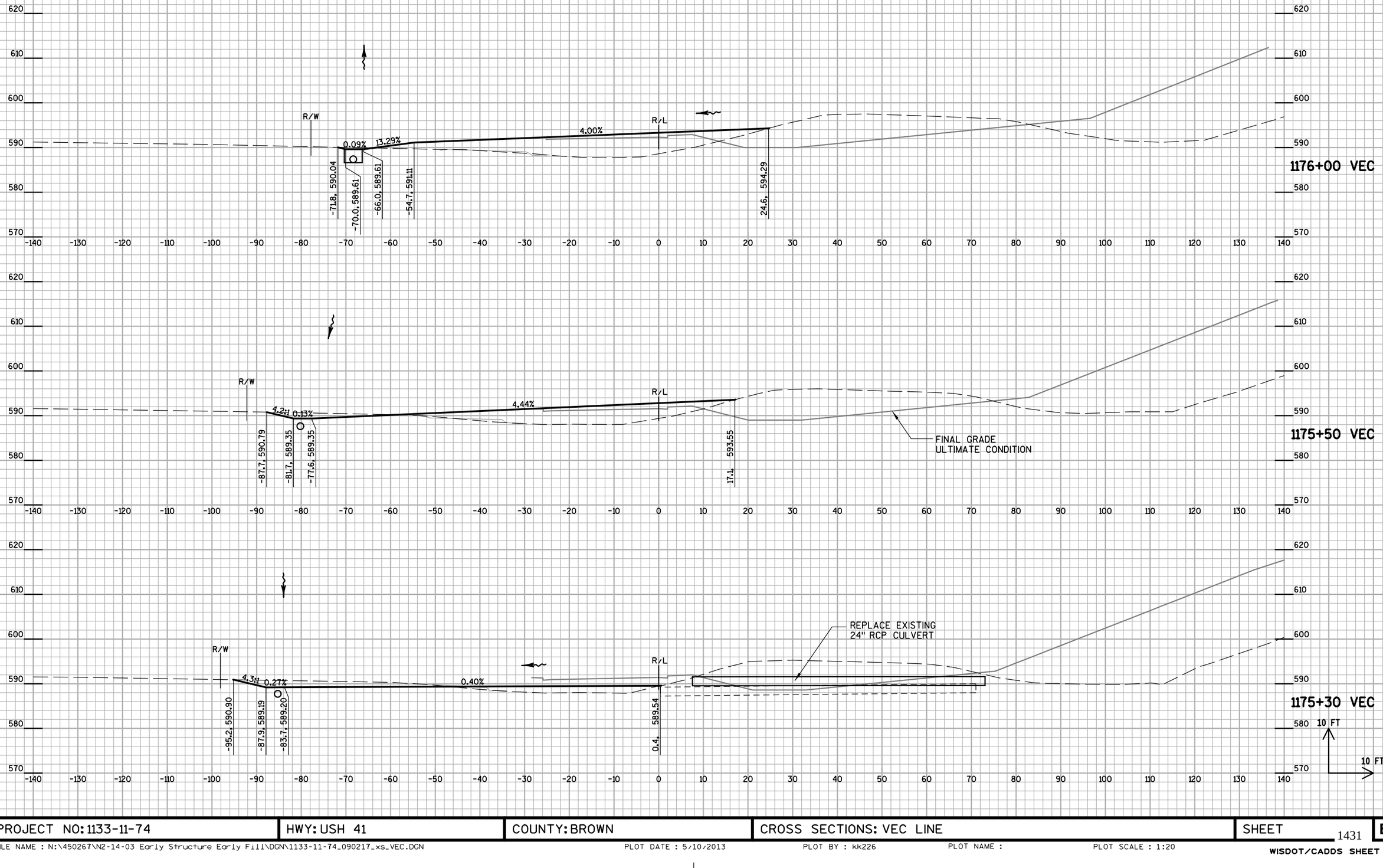
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EVEW LINE	SHEET 1430	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090216_xs_EVEW.dgn PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1175+30 VEC TO 1176+00 VEC

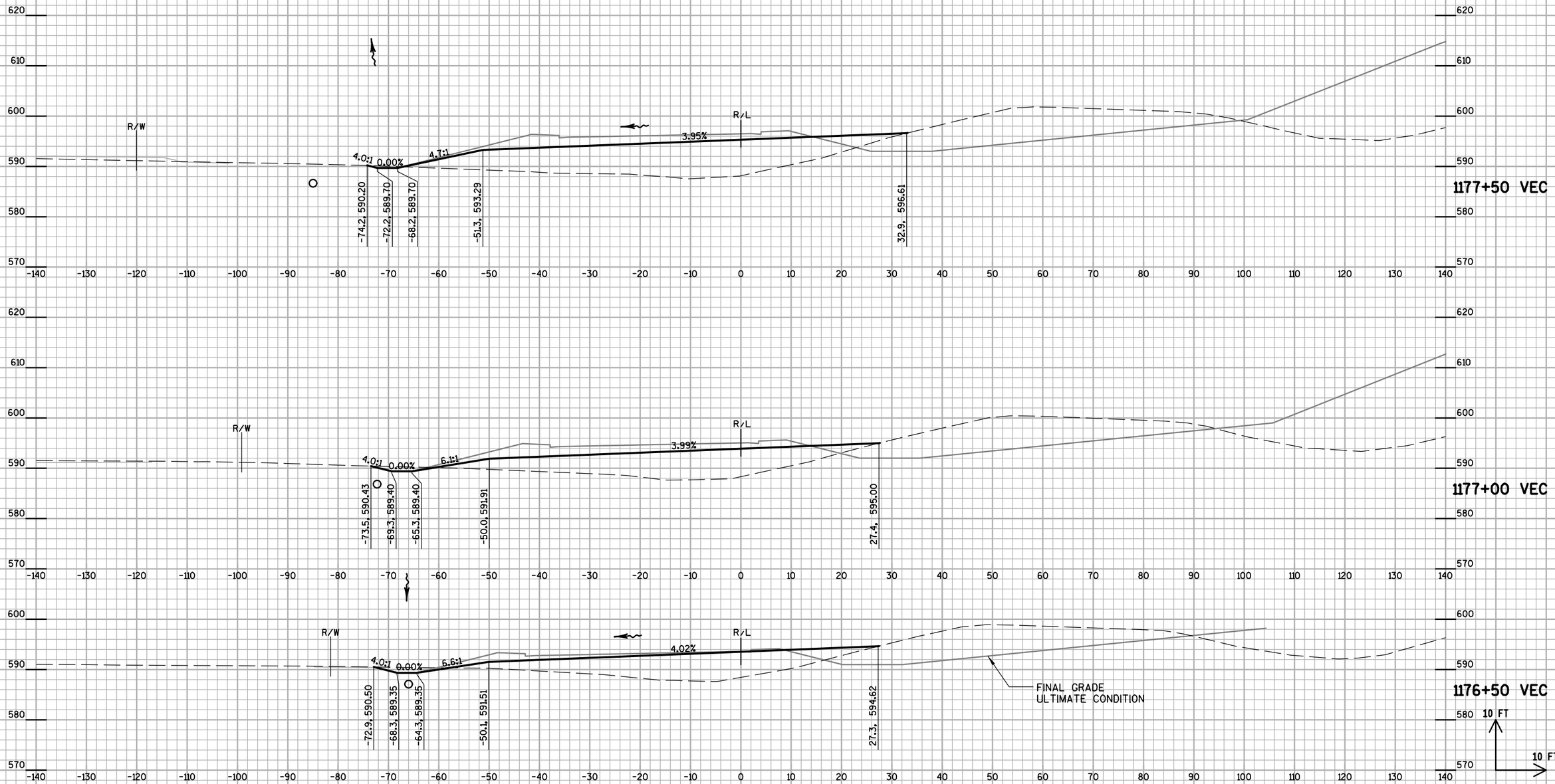


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1431	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1176+50 VEC TO 1177+50 VEC

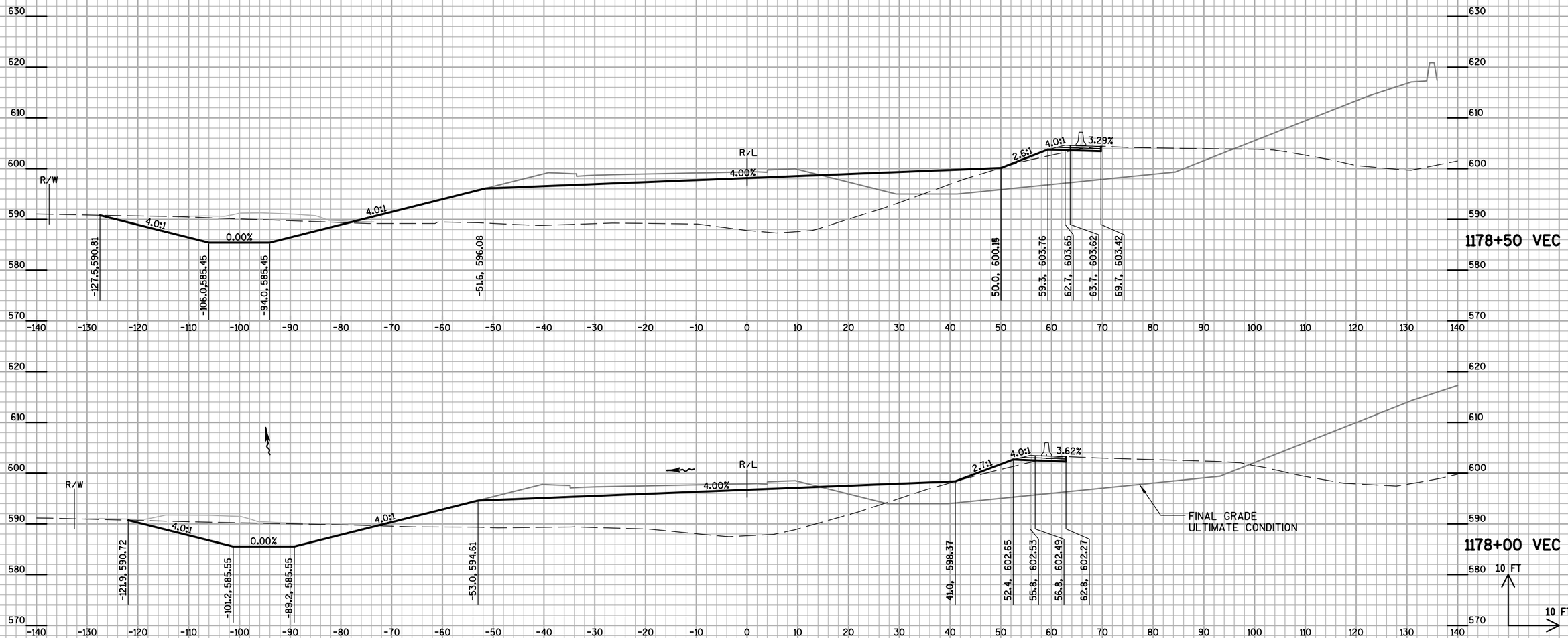


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1432	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1178+00 VEC TO 1178+50 VEC



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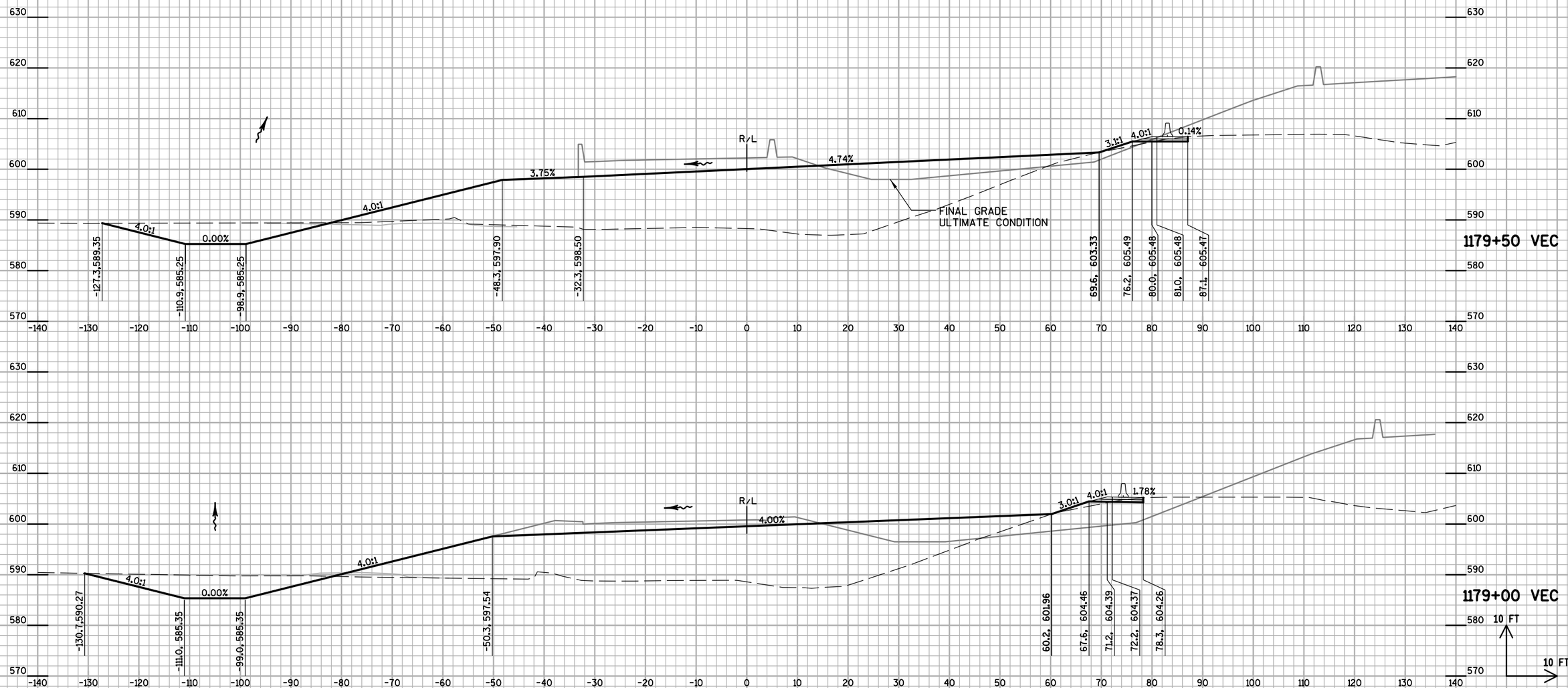
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1179+00 VEC TO 1179+50 VEC



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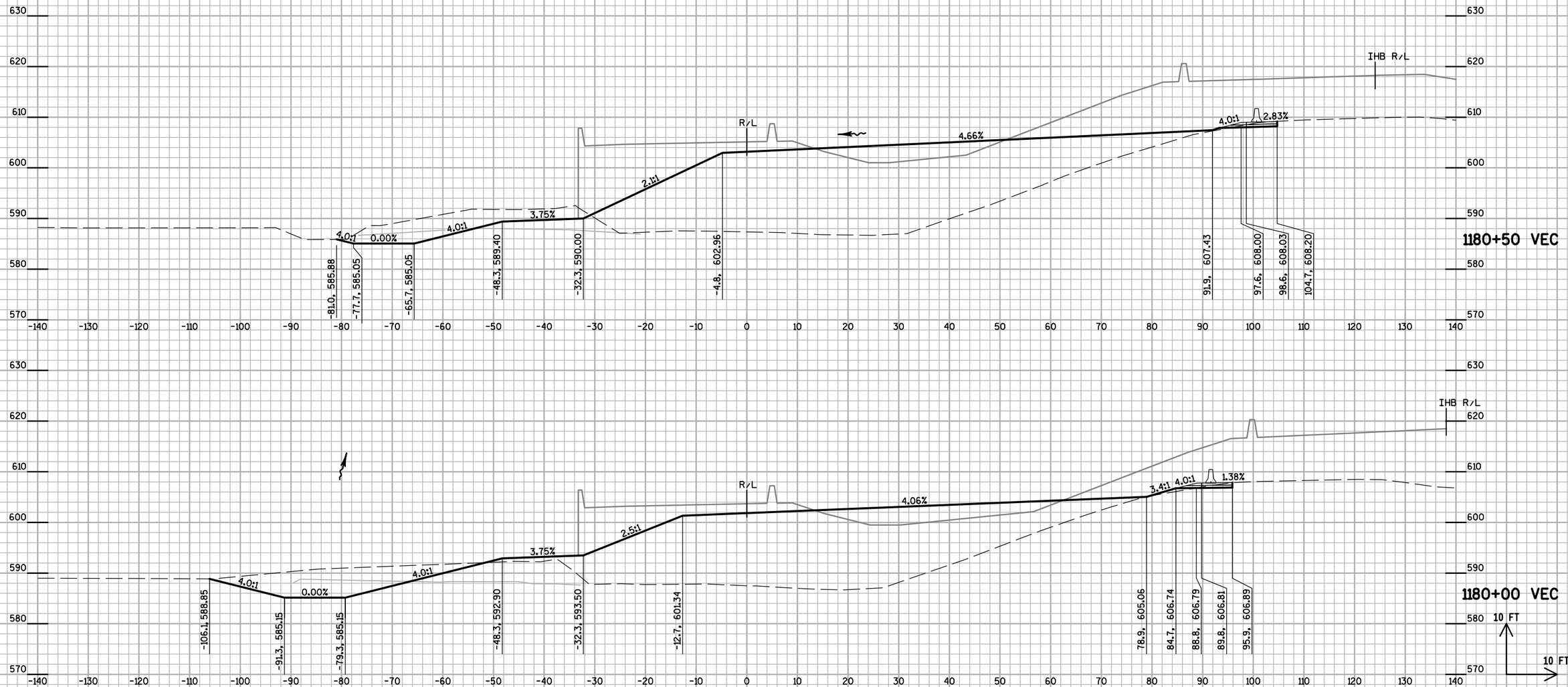
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1434	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1180+00 VEC TO 1180+50 VEC

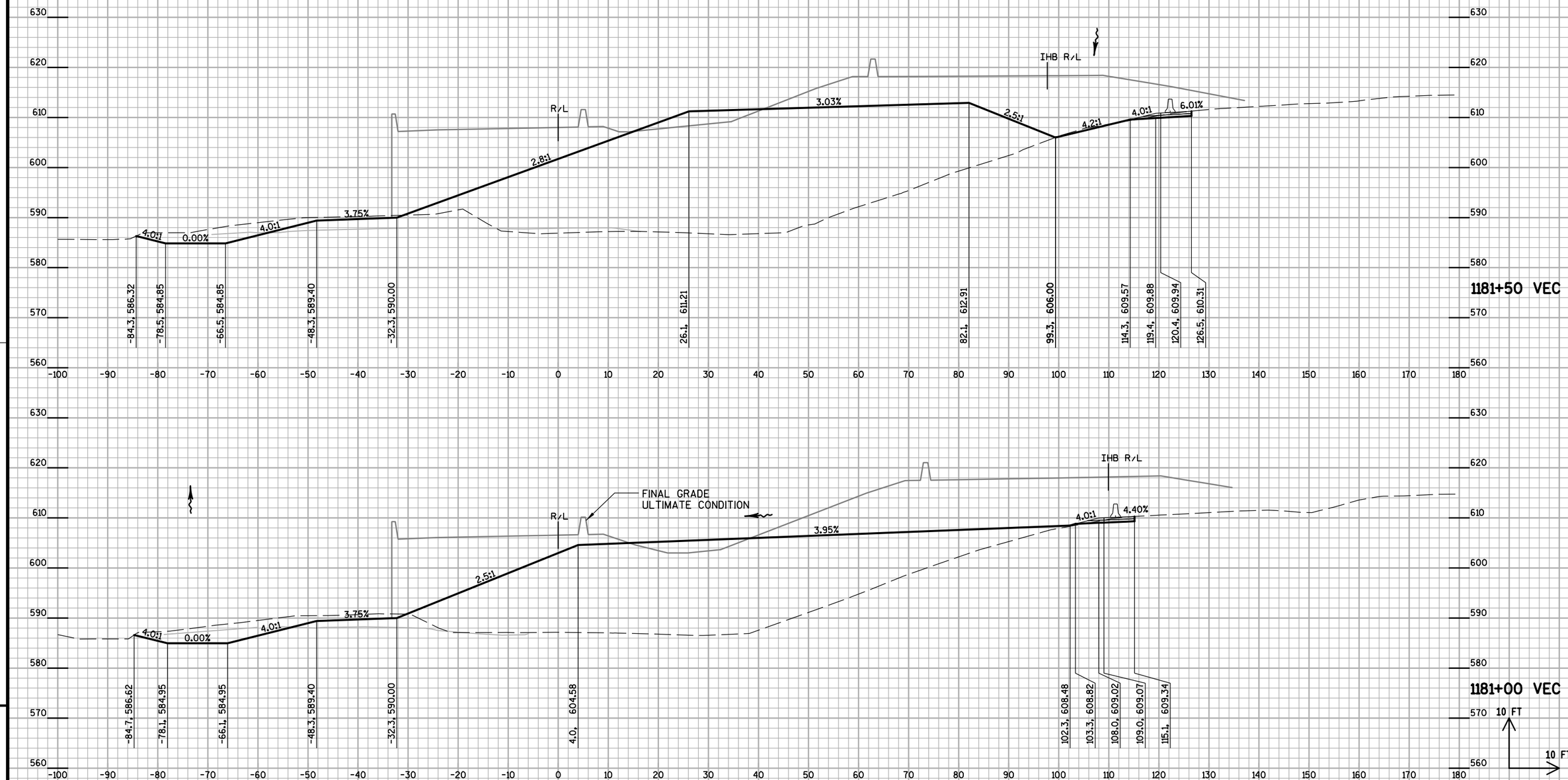


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1435	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1181+00 VEC TO 1181+50 VEC



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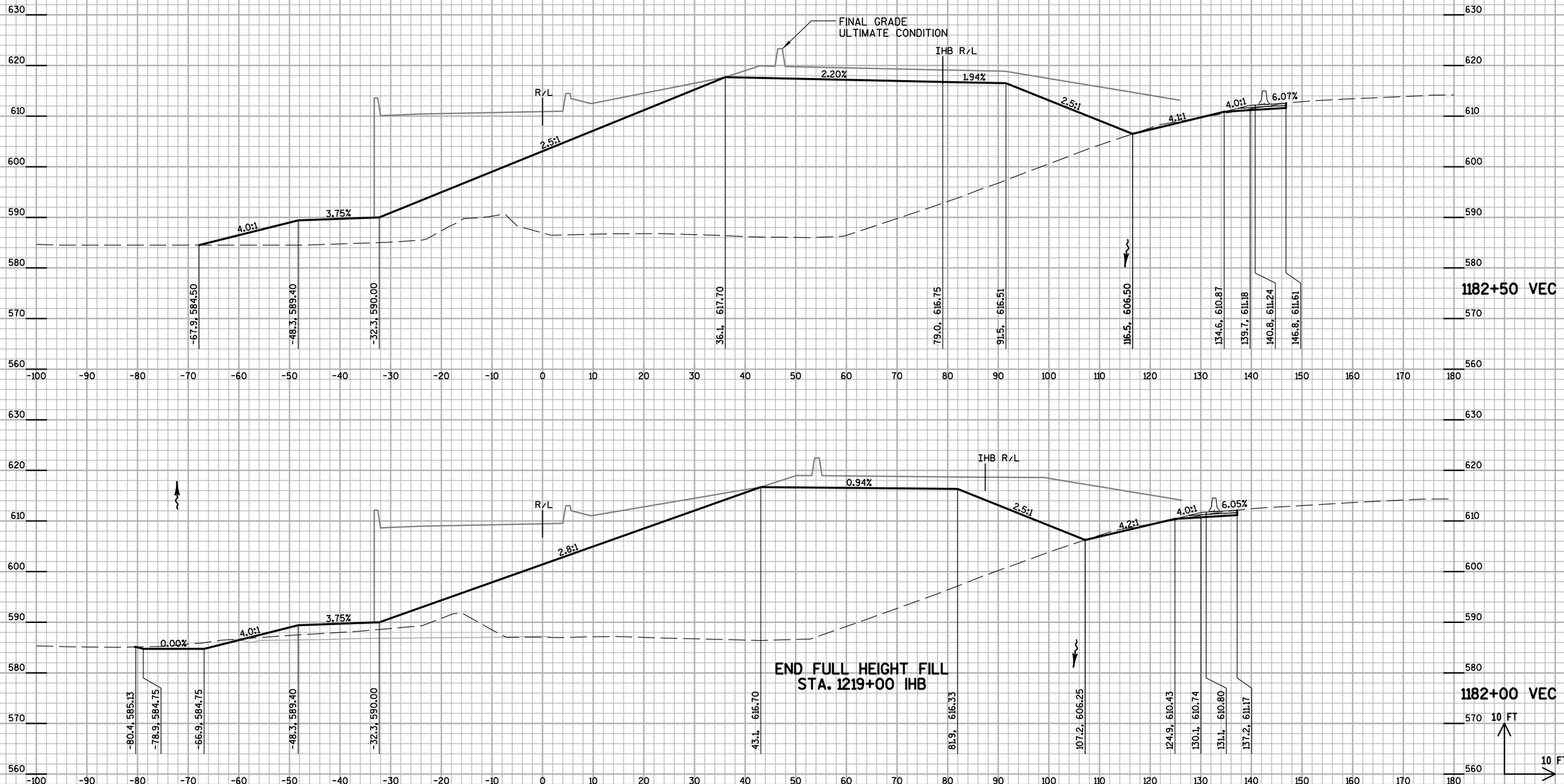
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1436	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1182+00 VEC TO 1182+50 VEC

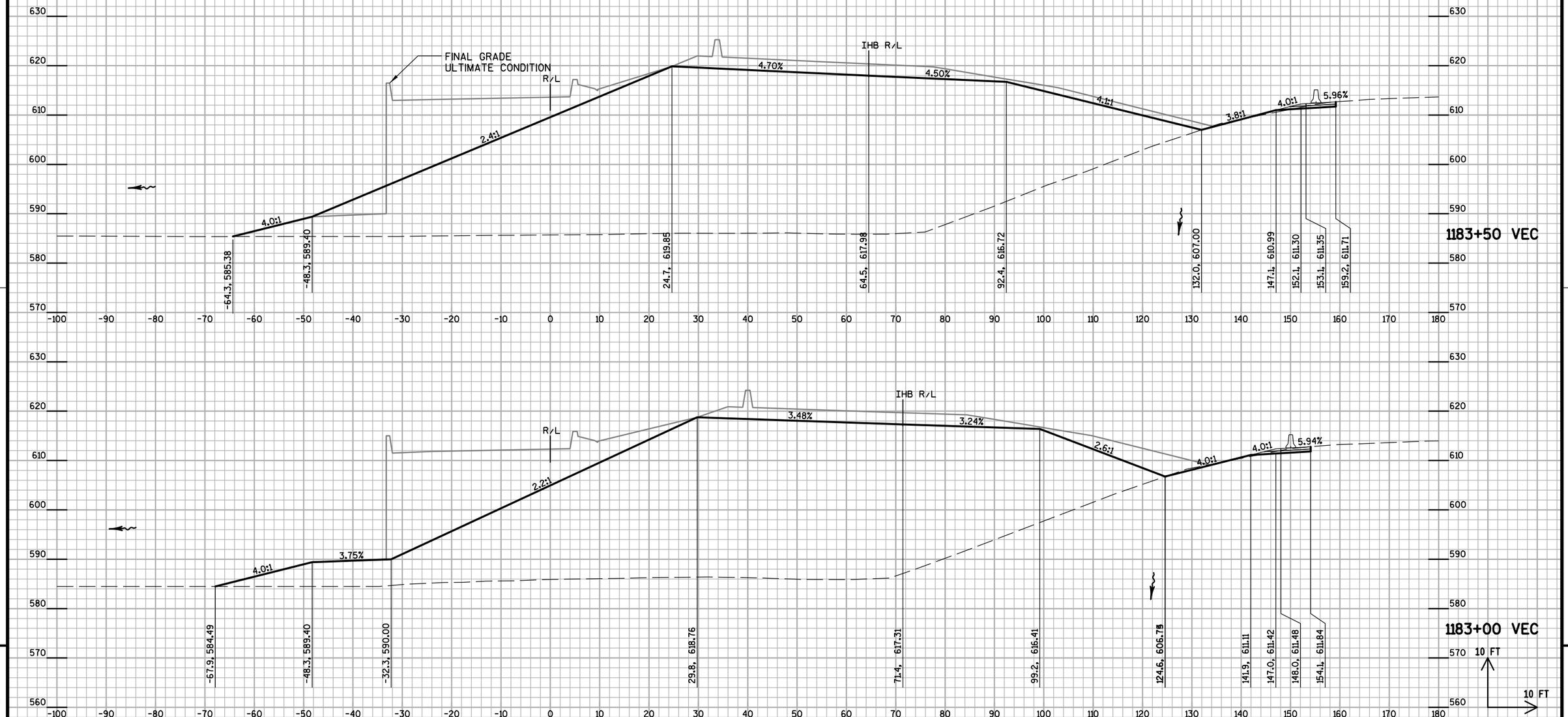


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1437	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1183+00 VEC TO 1183+50 VEC

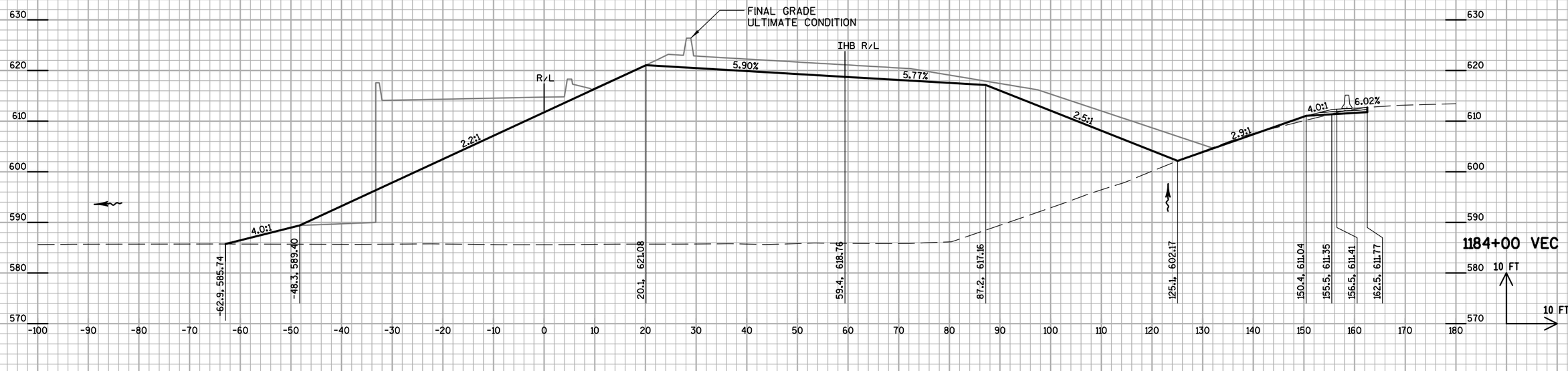


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1438	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN | PLOT DATE : 5/10/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1184+00 VEC TO 1184+00 VEC



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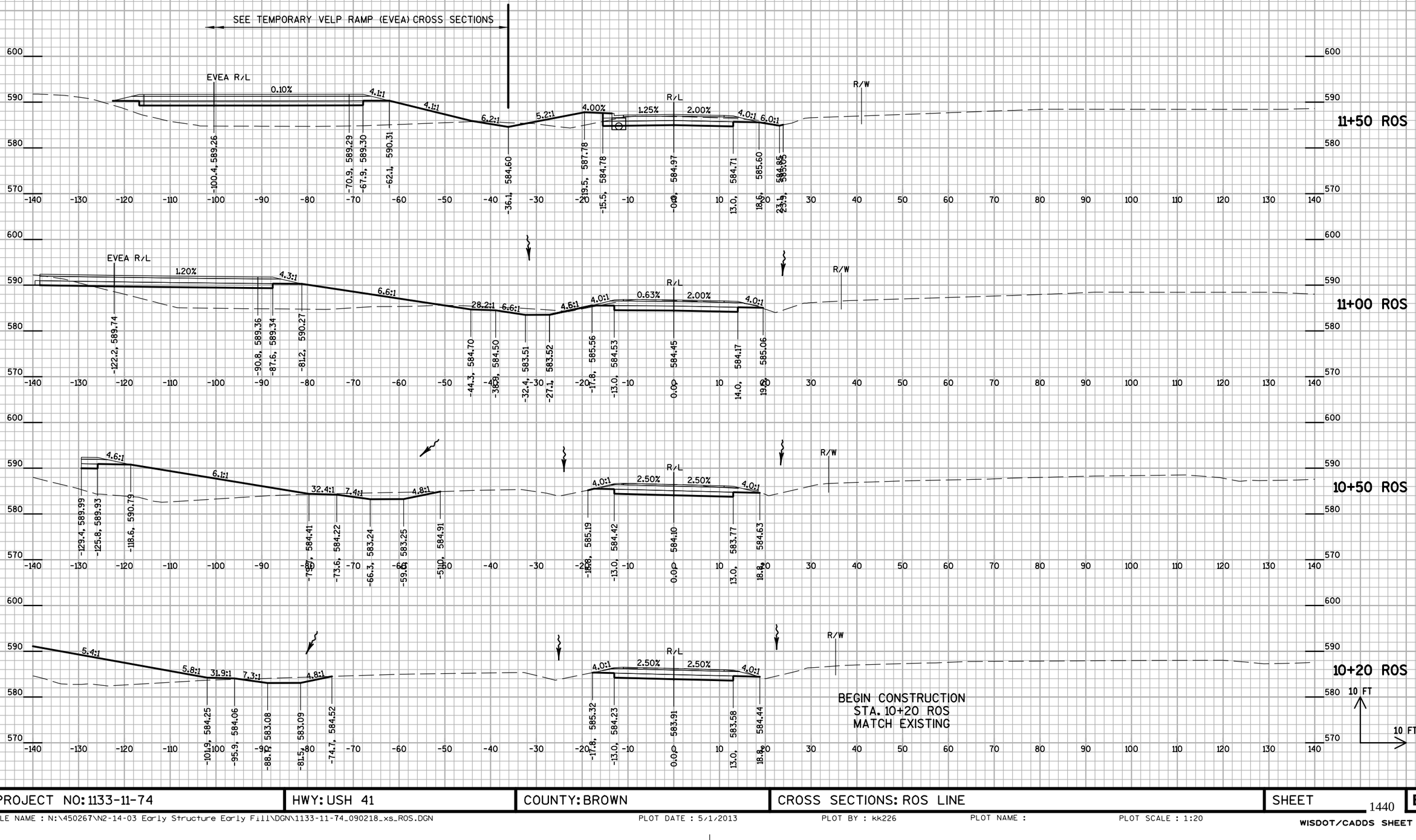
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: VEC LINE	SHEET 1439	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090217_xs_VEC.DGN PLOT DATE : 5/10/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 10+20 ROS TO 11+50 ROS

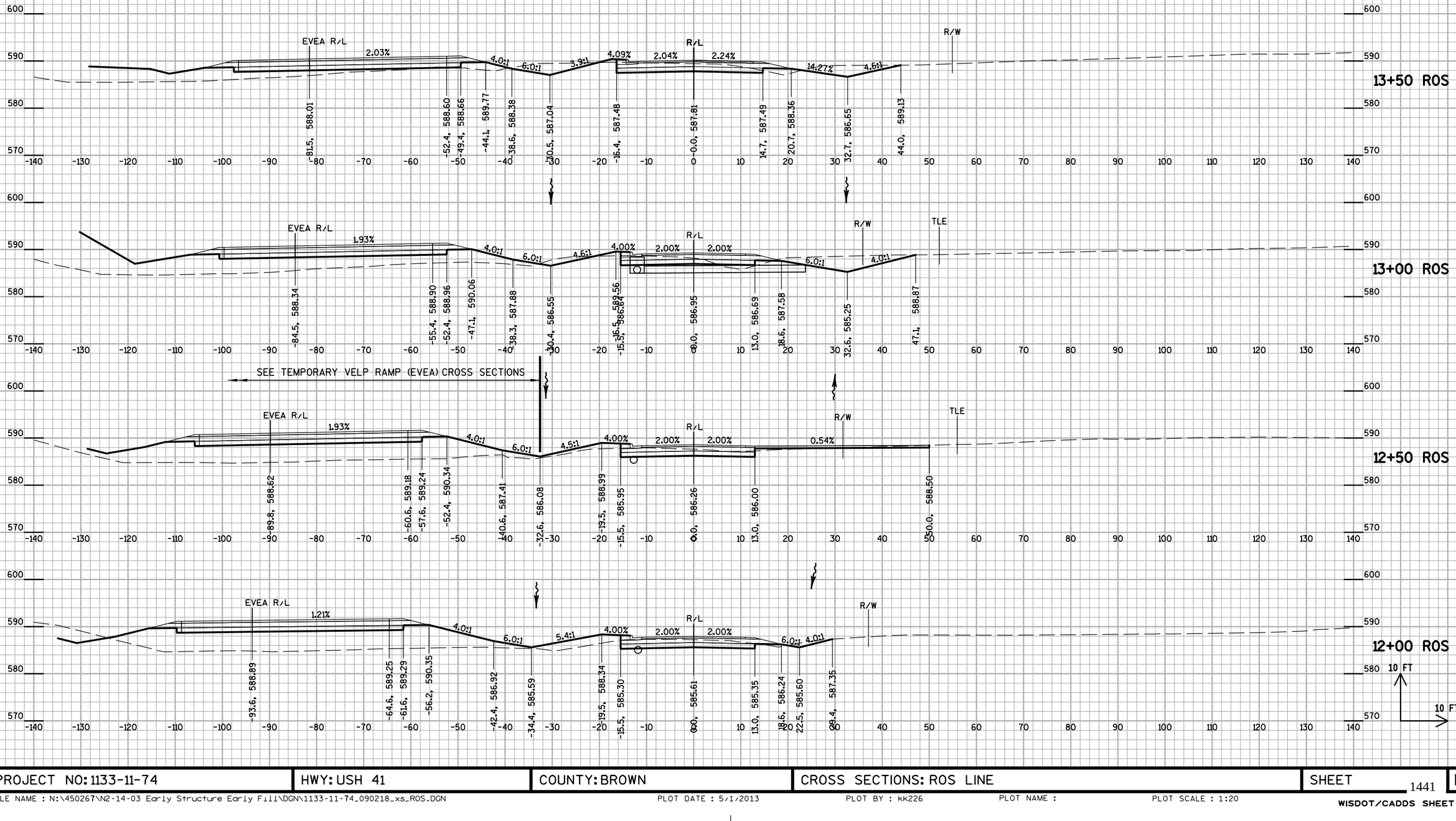


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ROS LINE	SHEET 1440	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090218_xs_ROS.DGN | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 12+00 ROS TO 13+50 ROS



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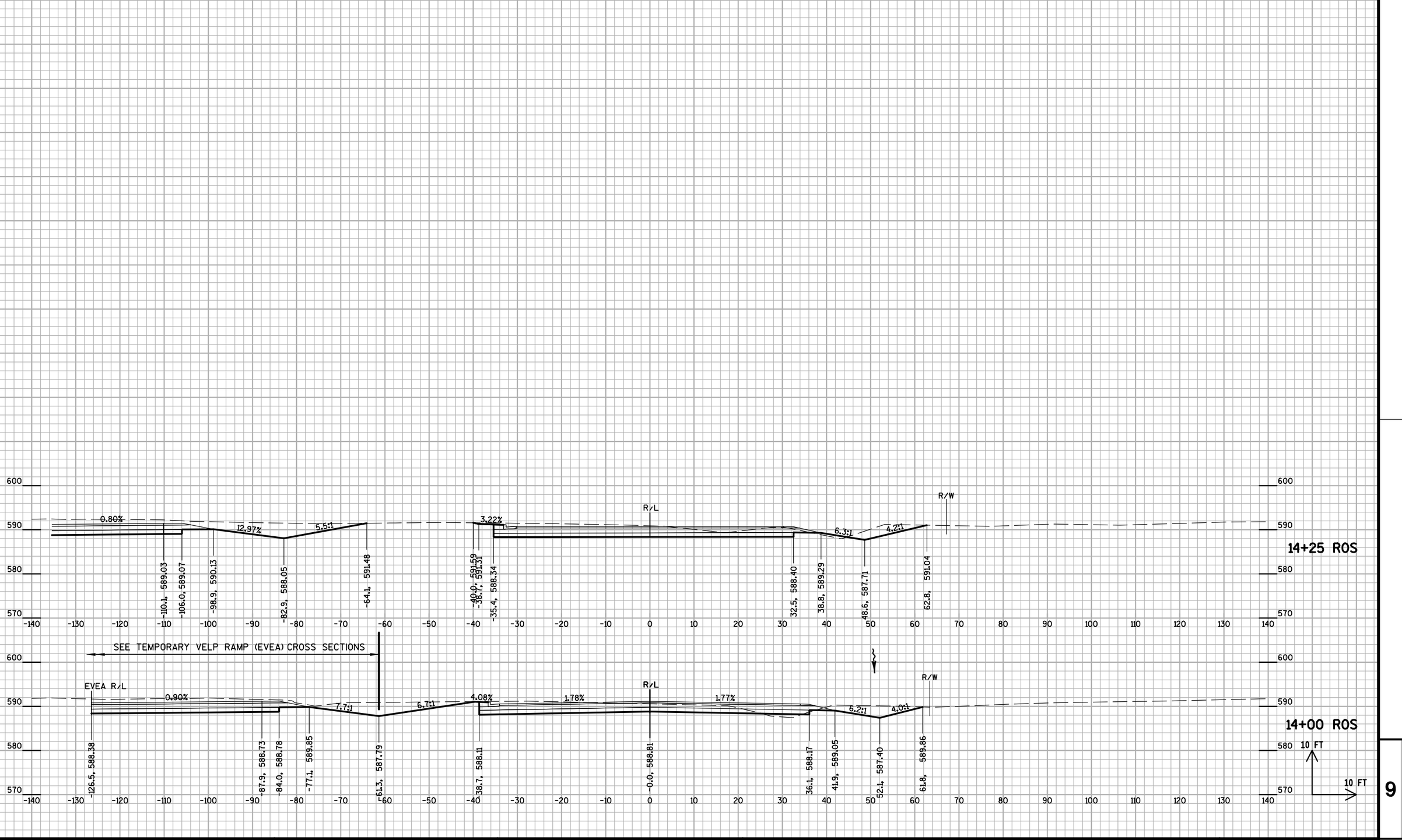
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ROS LINE	SHEET 1441	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090218_xs_ROS.DGN | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 14+00 ROS TO 14+25 ROS

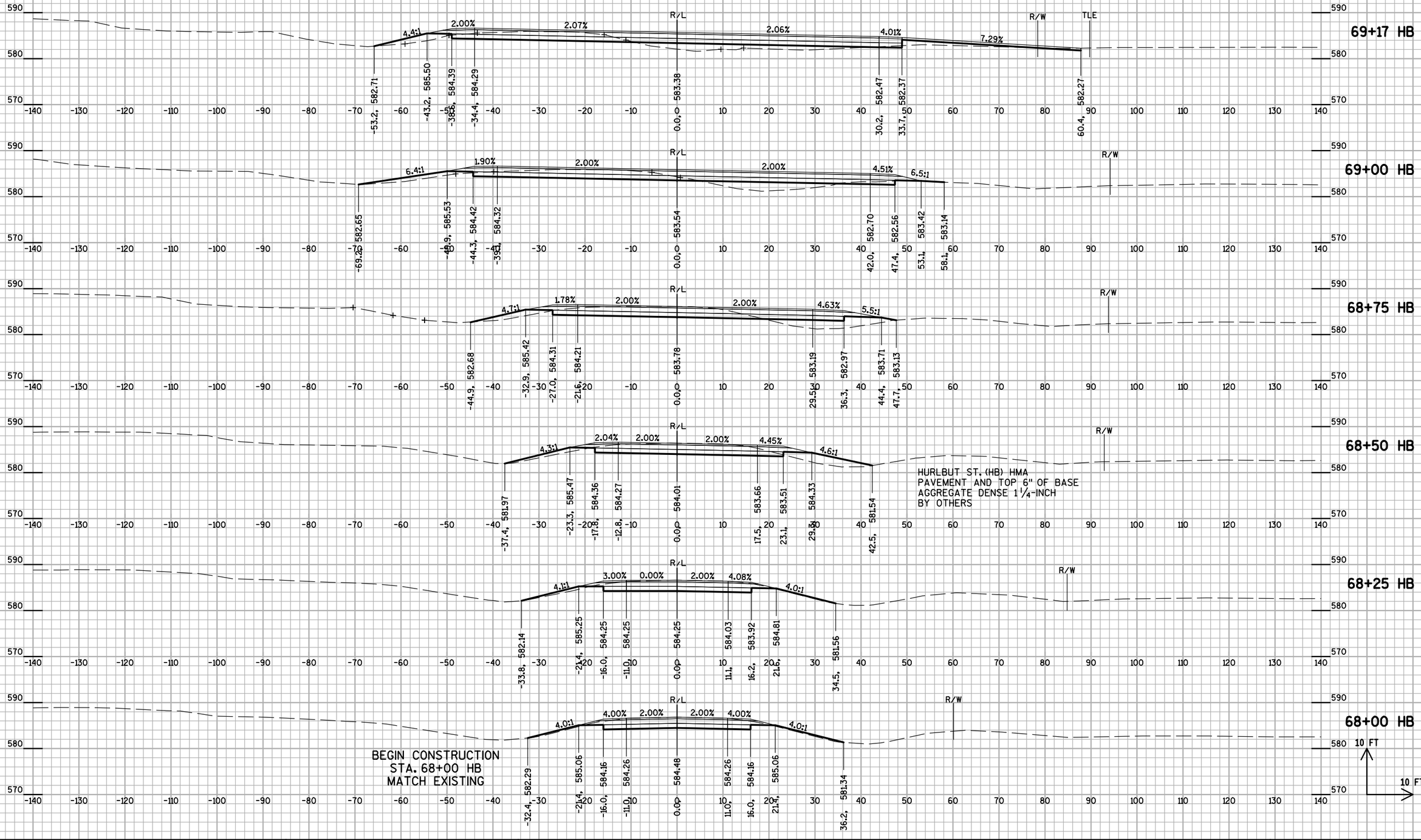


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ROS LINE	SHEET 1442	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090218_xs_ROS.DGN | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 68+00 HB TO 69+17 HB



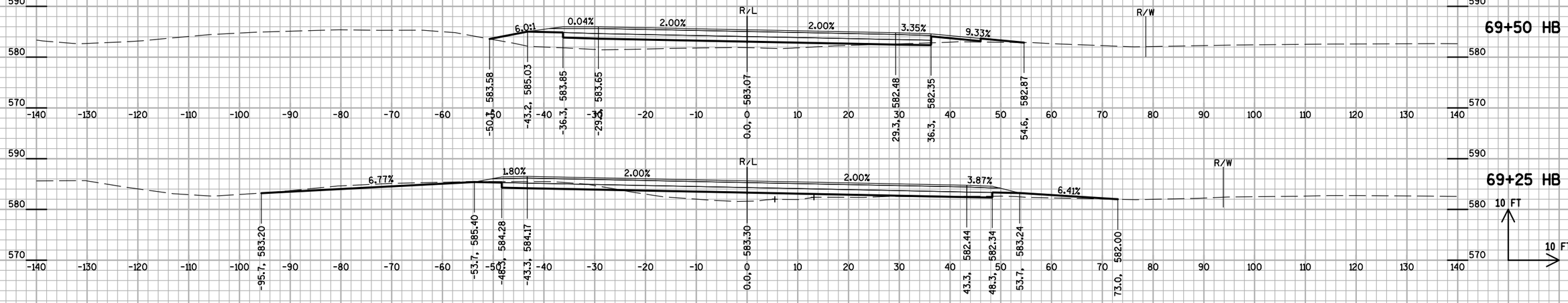
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: HB LINE	SHEET 1443	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090219_xs_HB.DGN | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

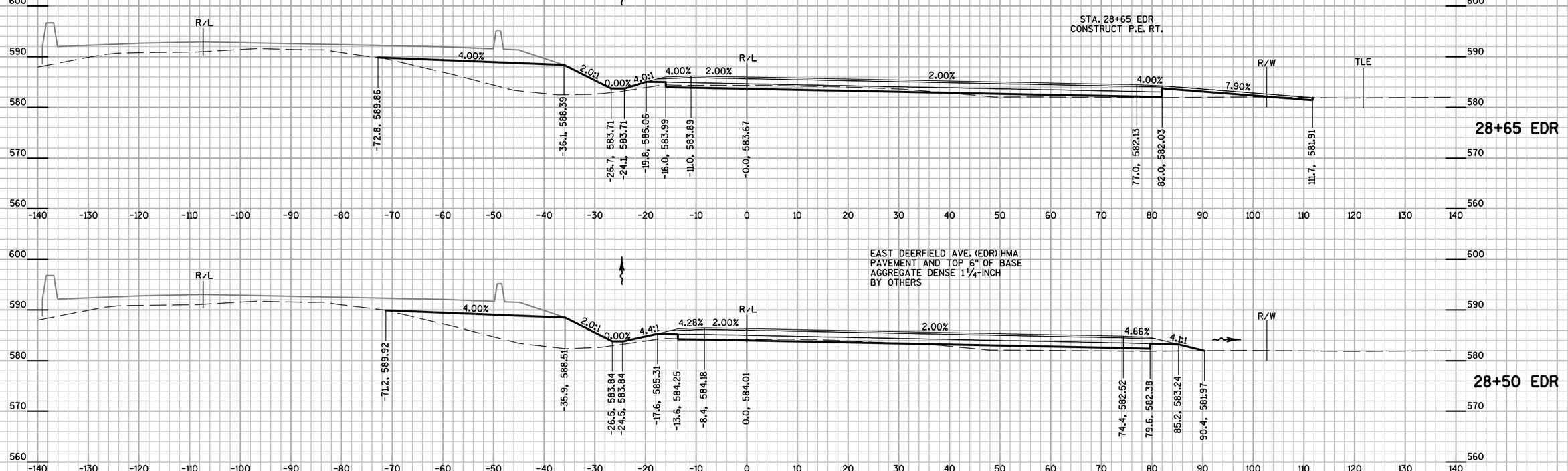
STA. 69+25 HB TO 69+50 HB

HURLBUT ST. (HB) HMA
PAVEMENT AND TOP 6" OF BASE
AGGREGATE DENSE 1 1/4-INCH
BY OTHERS

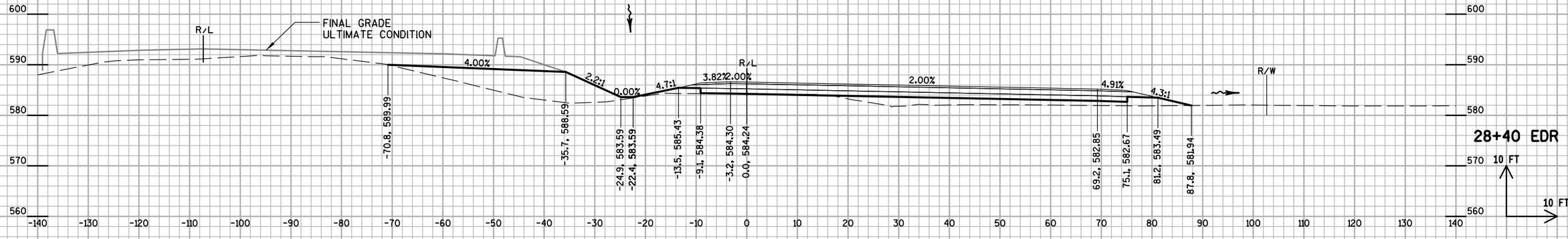


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: HB LINE	SHEET 1444	E

STA. 28+40 EDR TO 28+65 EDR



EAST DEERFIELD AVE. (EDR) HMA PAVEMENT AND TOP 6" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS



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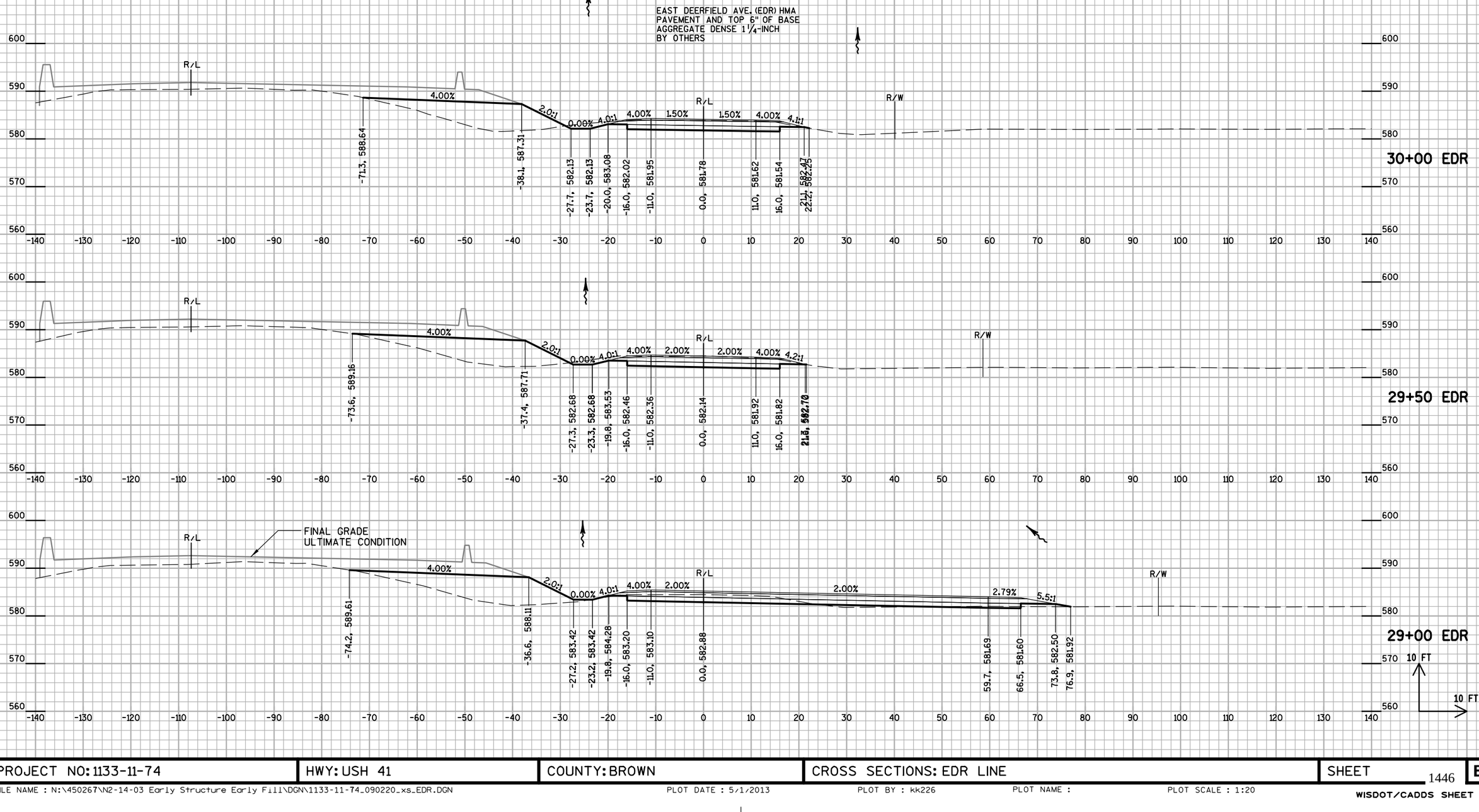
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EDR LINE	SHEET 1445	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090220_xs_EDR.DGN | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 29+00 EDR TO 30+00 EDR

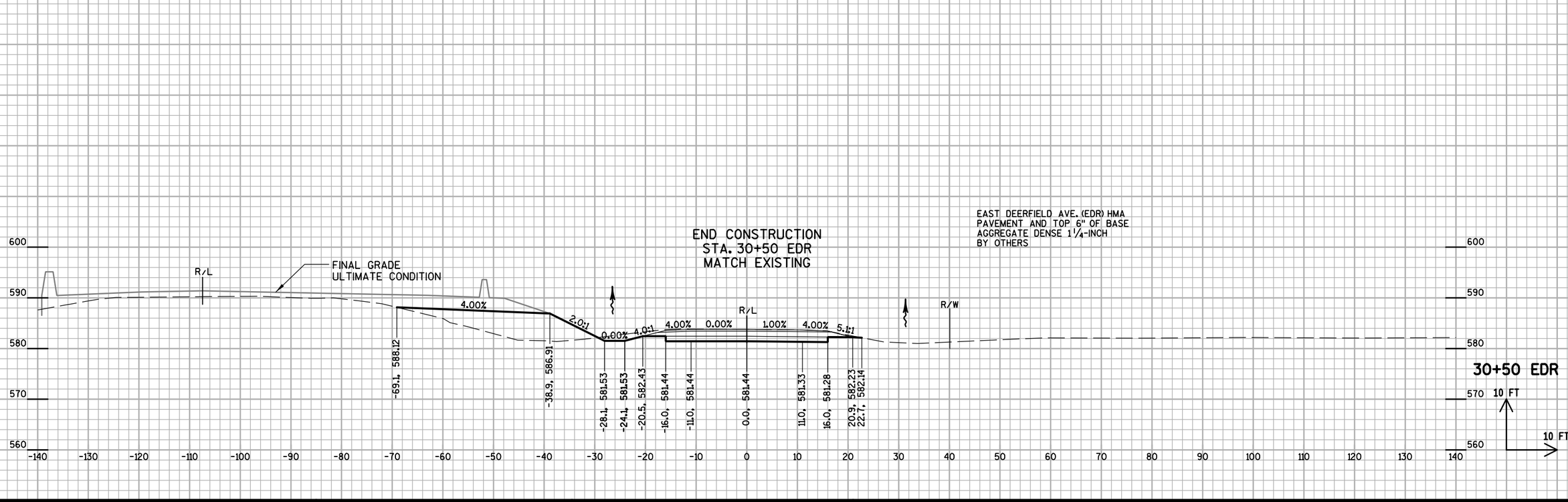


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EDR LINE	SHEET 1446	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090220_xs_EDR.DGN | PLOT DATE : 5/1/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 30+50 EDR TO 30+50 EDR



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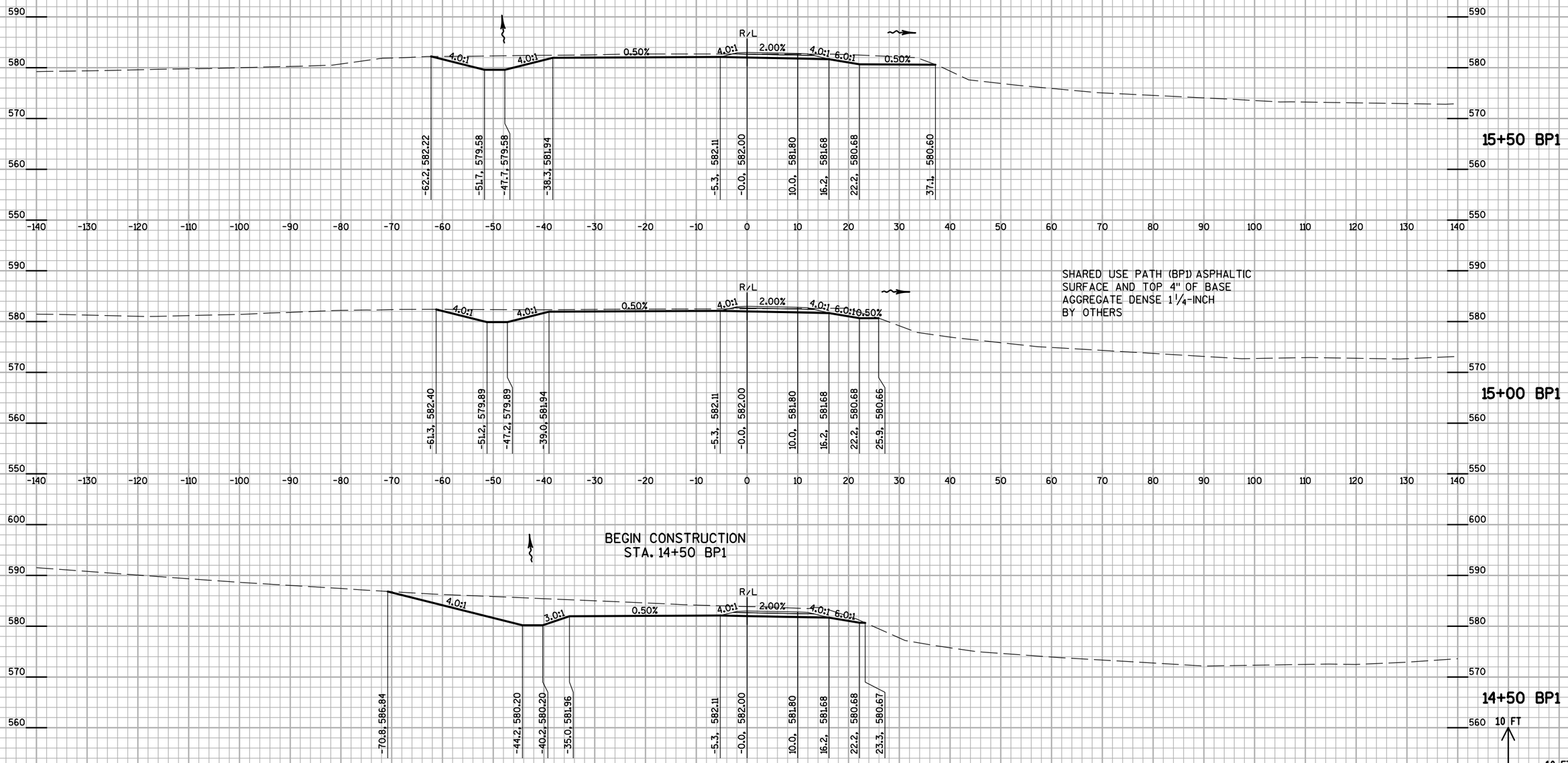
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: EDR LINE	SHEET 1447	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090220_xs_EDR.DGN PLOT DATE : 5/1/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 14+50 BP1 TO 15+50 BP1



SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1¼-INCH BY OTHERS

9

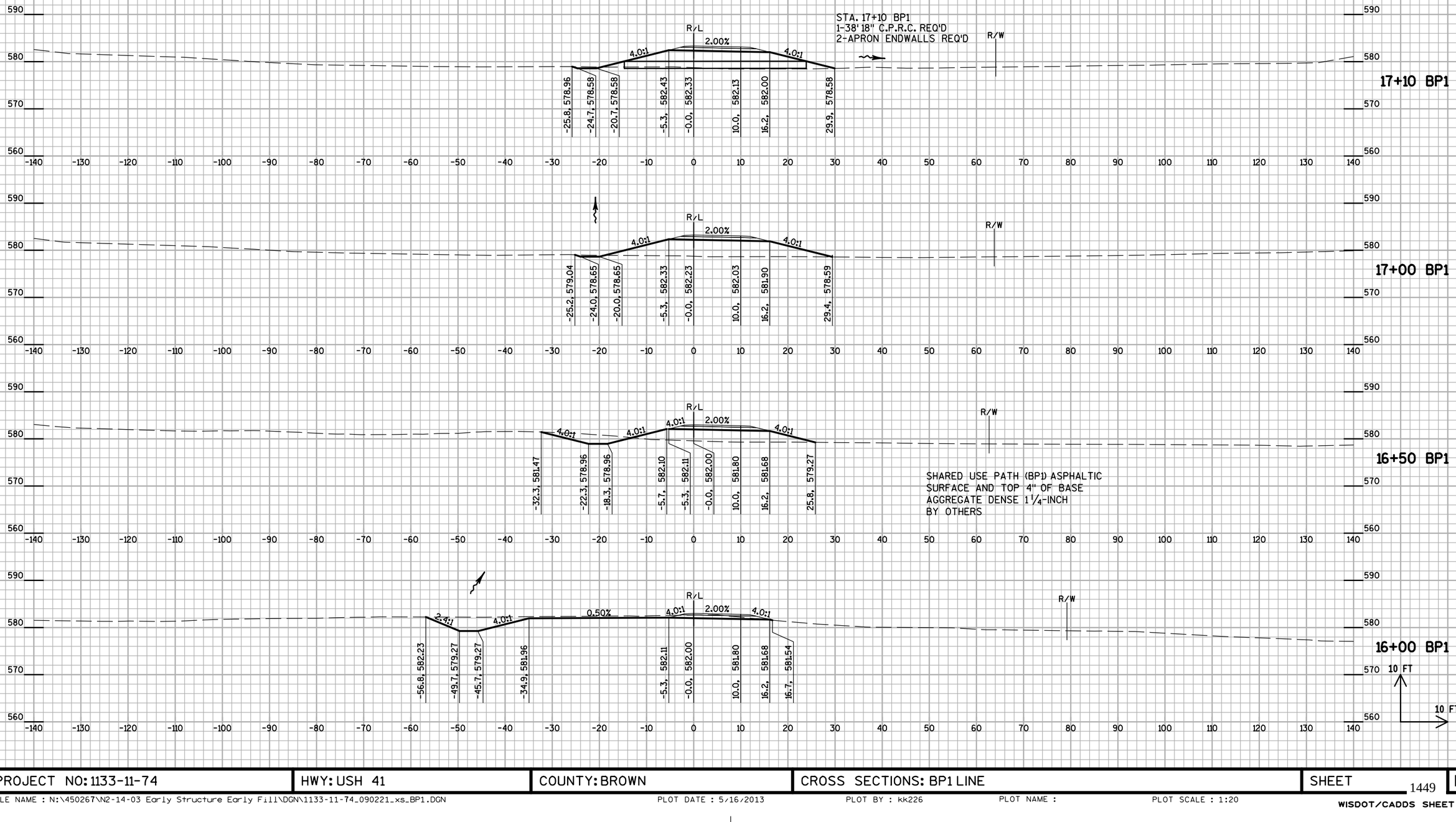
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1448	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 16+00 BP1 TO 17+10 BP1



9

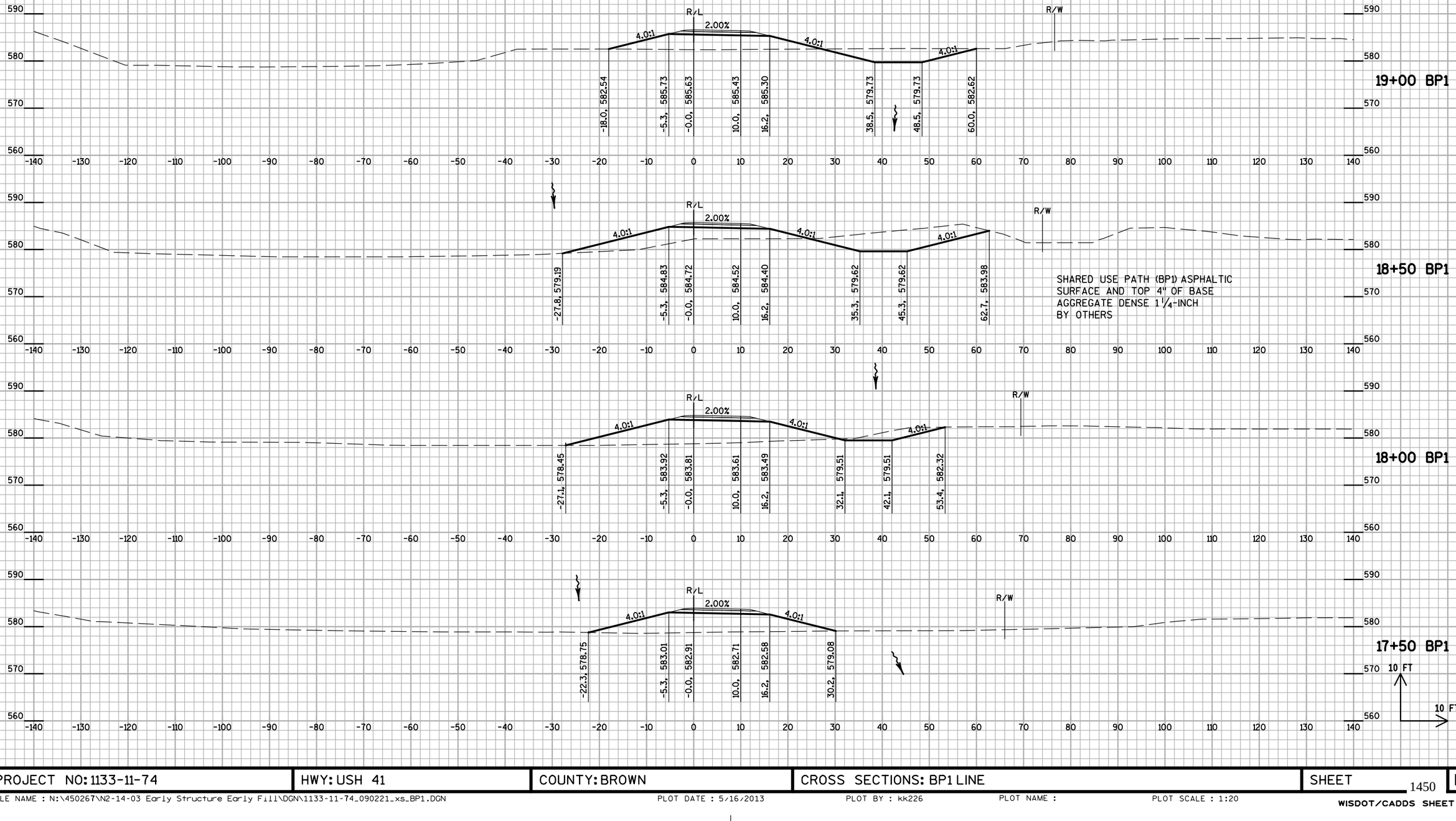
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1449	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 17+50 BP1 TO 19+00 BP1



SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS

9

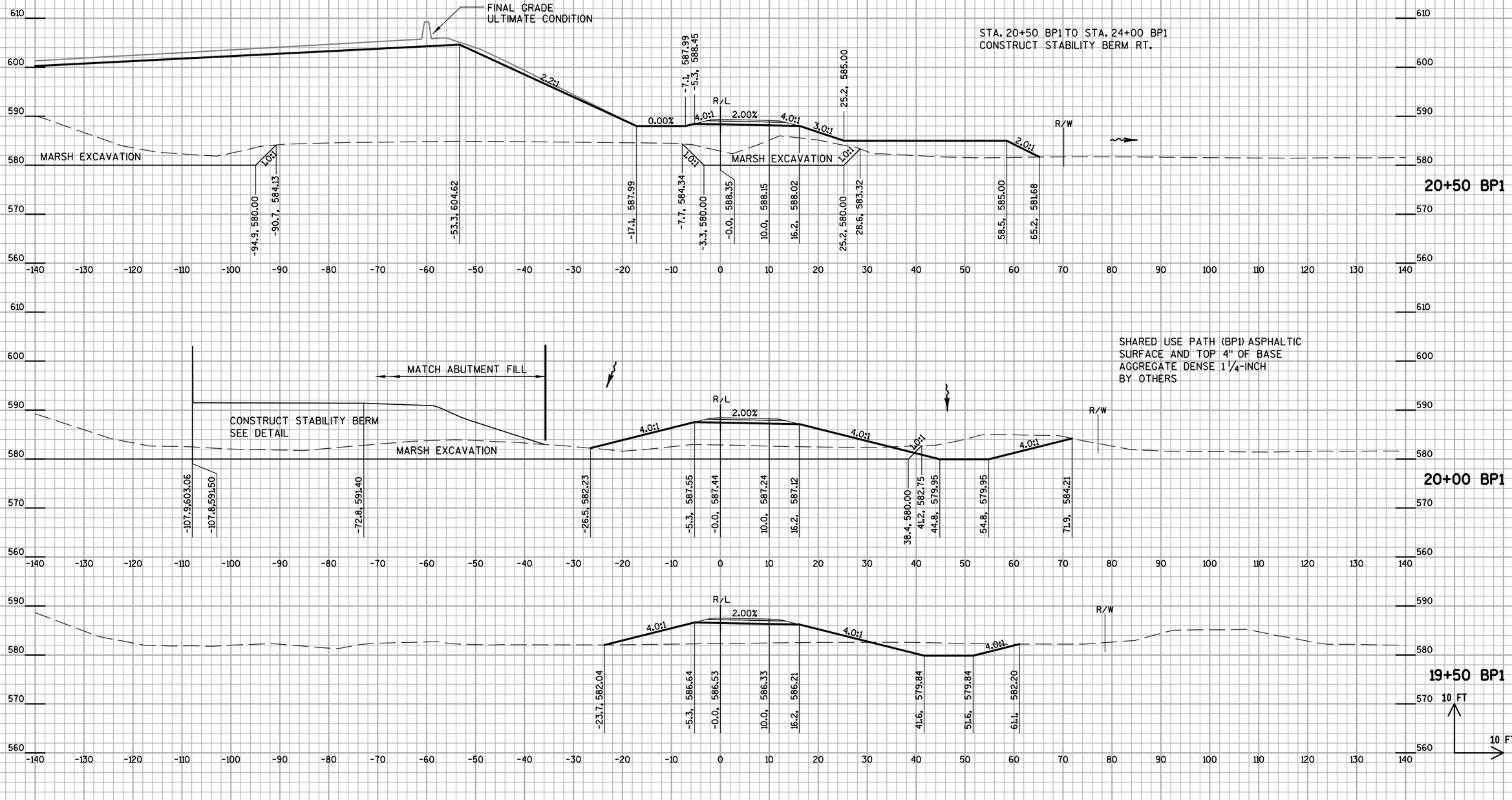
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1450	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 19+50 BP1 TO 20+50 BP1

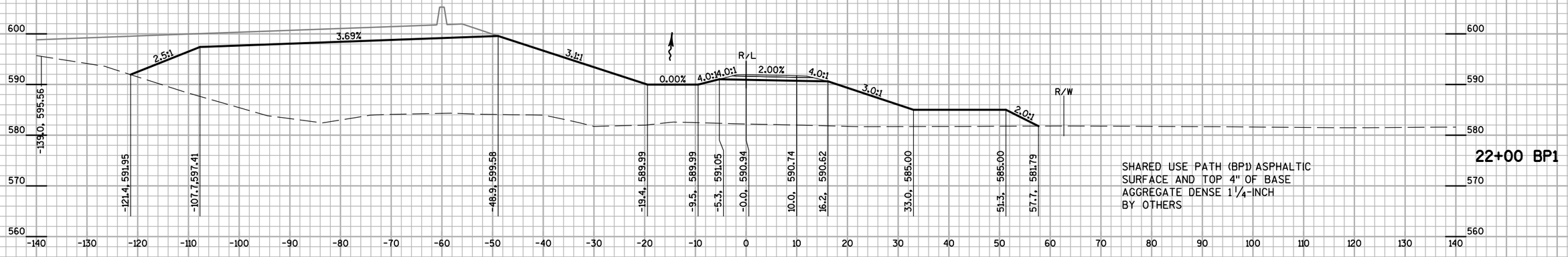


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1451	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

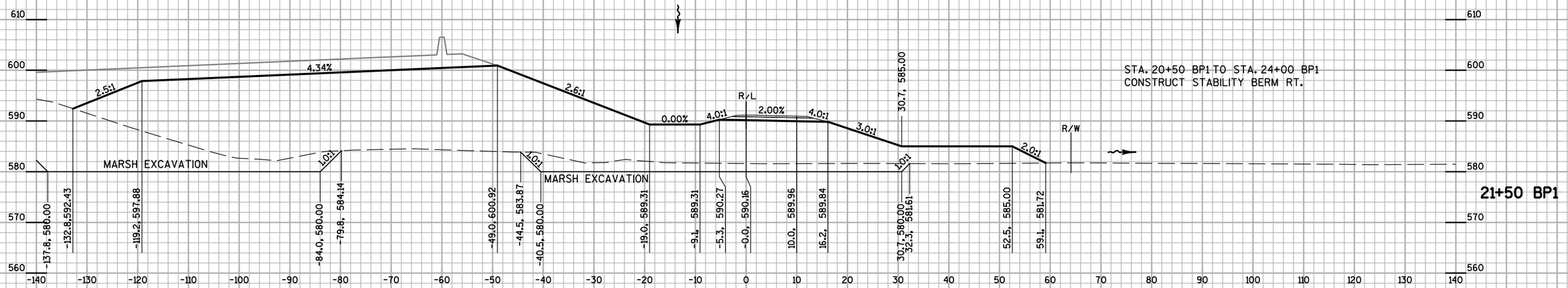
STA. 21+00 BP1 TO 22+00 BP1



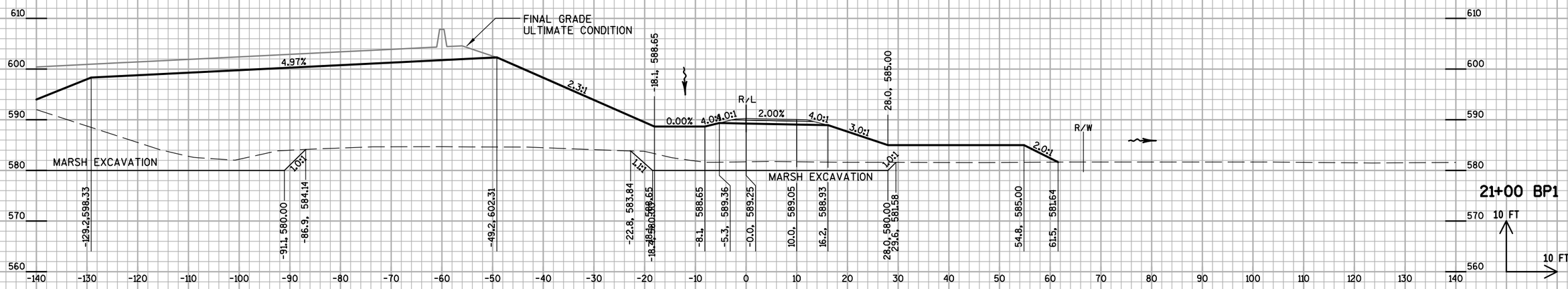
SHARED USE PATH (BP1) ASPHALTIC
SURFACE AND TOP 4" OF BASE
AGGREGATE DENSE 1 1/4-INCH
BY OTHERS

22+00 BP1

STA. 20+50 BP1 TO STA. 24+00 BP1
CONSTRUCT STABILITY BERM RT.



21+50 BP1



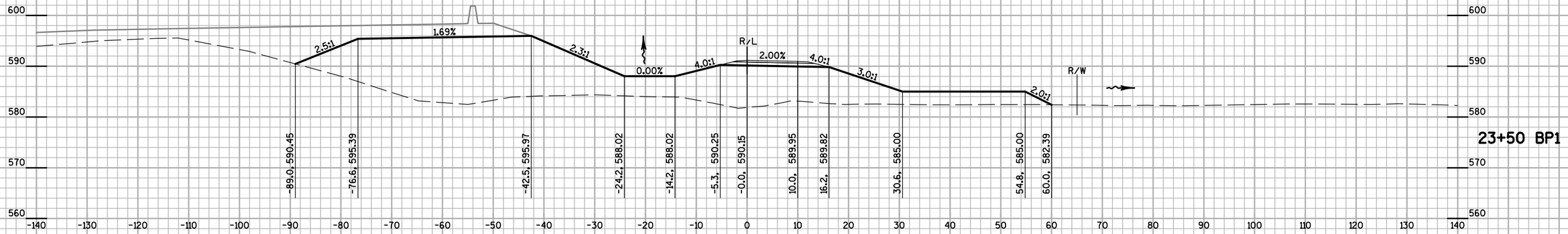
21+00 BP1

10 FT
10 FT

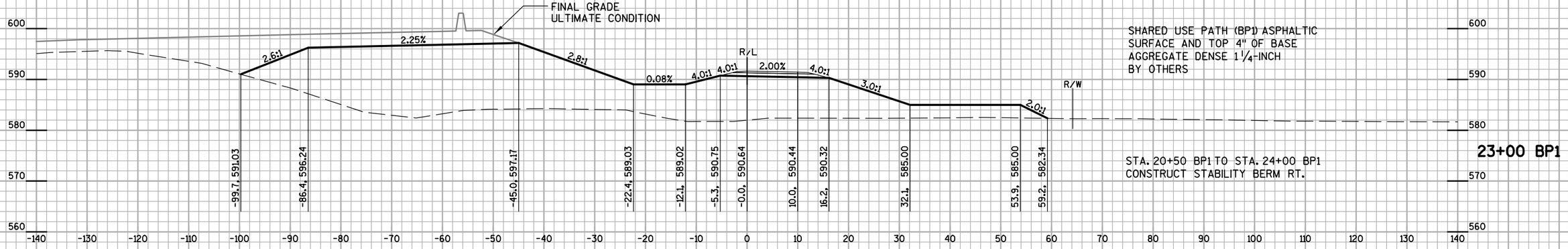
9 9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1452	E

STA. 22+50 BP1 TO 23+50 BP1



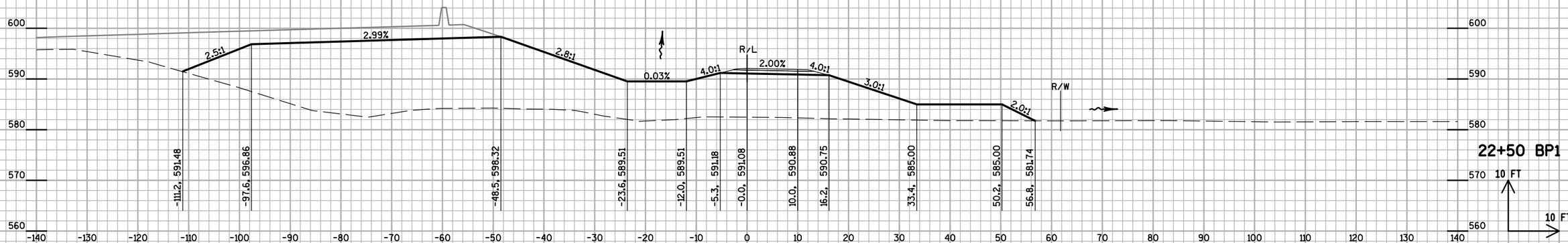
23+50 BP1



SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS

STA. 20+50 BP1 TO STA. 24+00 BP1
CONSTRUCT STABILITY BERM RT.

23+00 BP1



22+50 BP1

10 FT
10 FT

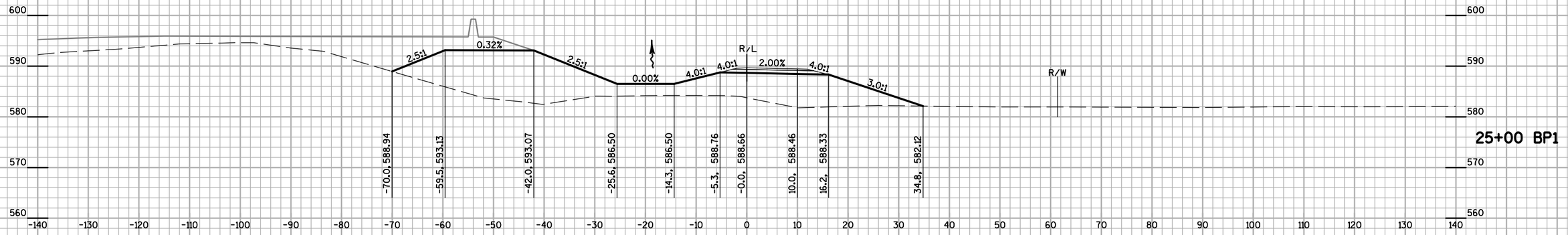
9

9

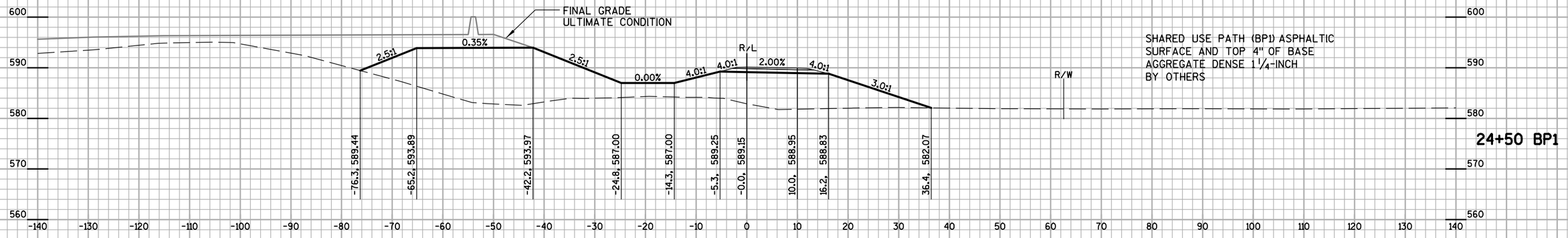
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1453	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

STA. 24+00 BP1 TO 25+00 BP1

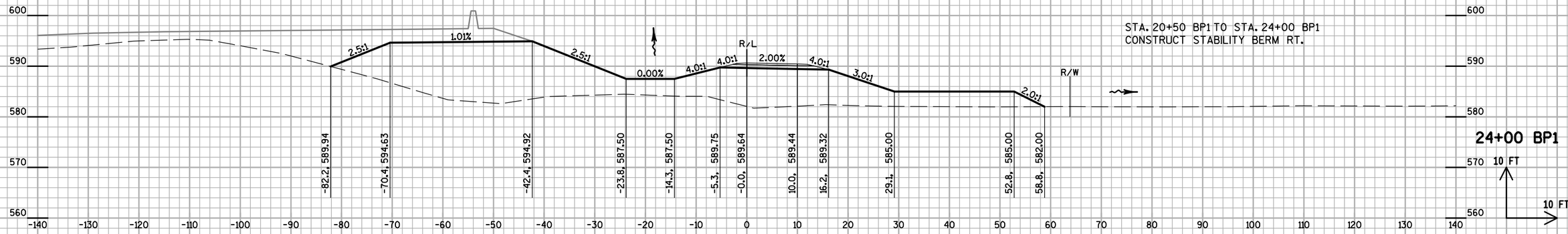


25+00 BP1



SHARED USE PATH (BP1) ASPHALTIC
SURFACE AND TOP 4" OF BASE
AGGREGATE DENSE 1 1/4-INCH
BY OTHERS

24+50 BP1



STA. 20+50 BP1 TO STA. 24+00 BP1
CONSTRUCT STABILITY BERM RT.

24+00 BP1

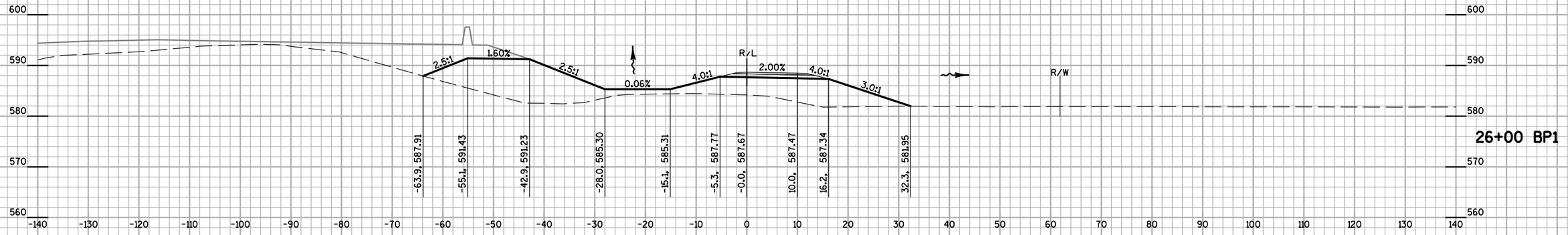
10 FT
10 FT

9

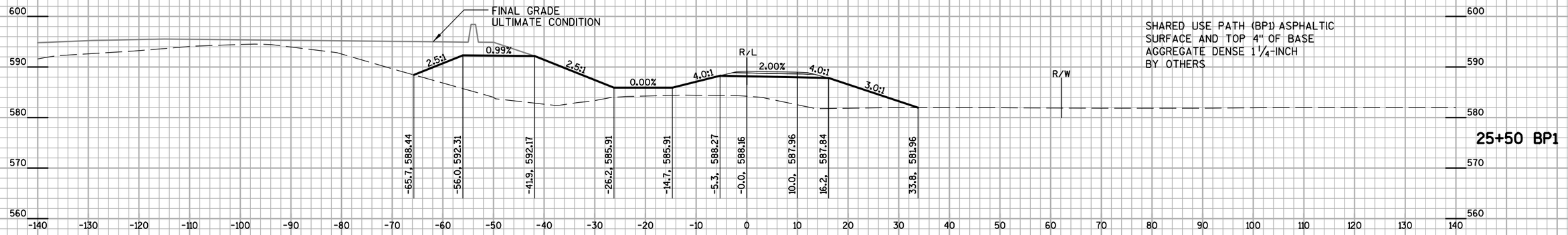
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1454	E

STA. 25+22 BP1 TO 26+00 BP1

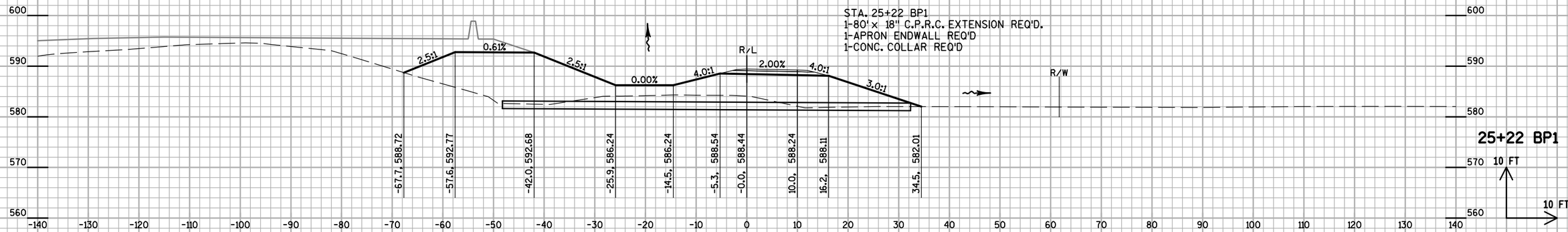


26+00 BP1



25+50 BP1

SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS



25+22 BP1

9

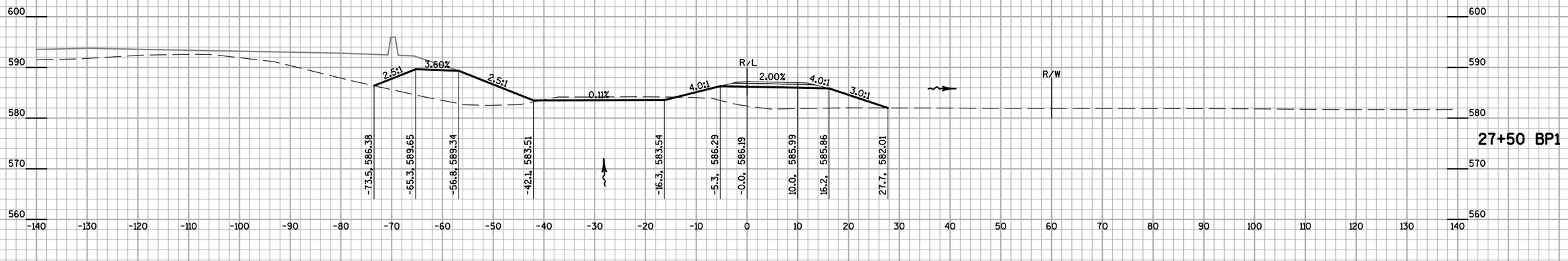
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1455	E

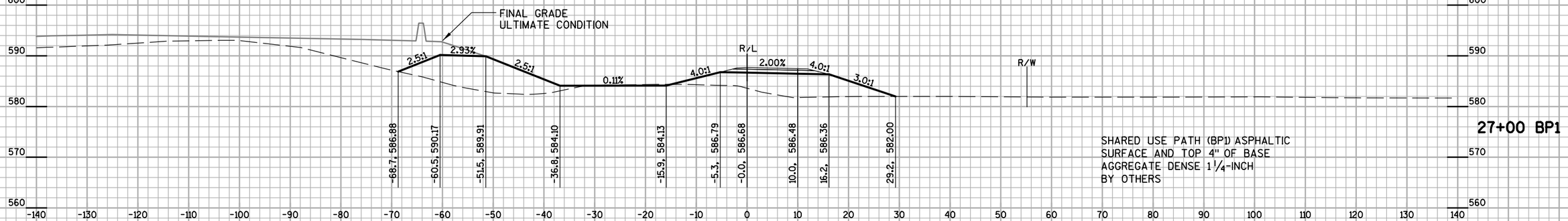
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 26+50 BP1 TO 27+50 BP1

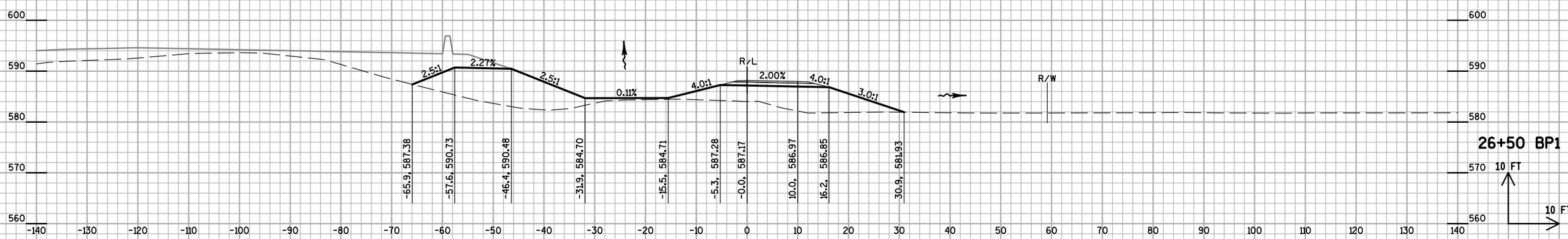


27+50 BP1



27+00 BP1

SHARED USE PATH (BP1) ASPHALTIC SURFACE AND TOP 4" OF BASE AGGREGATE DENSE 1 1/4-INCH BY OTHERS



26+50 BP1

10 FT

10 FT

9

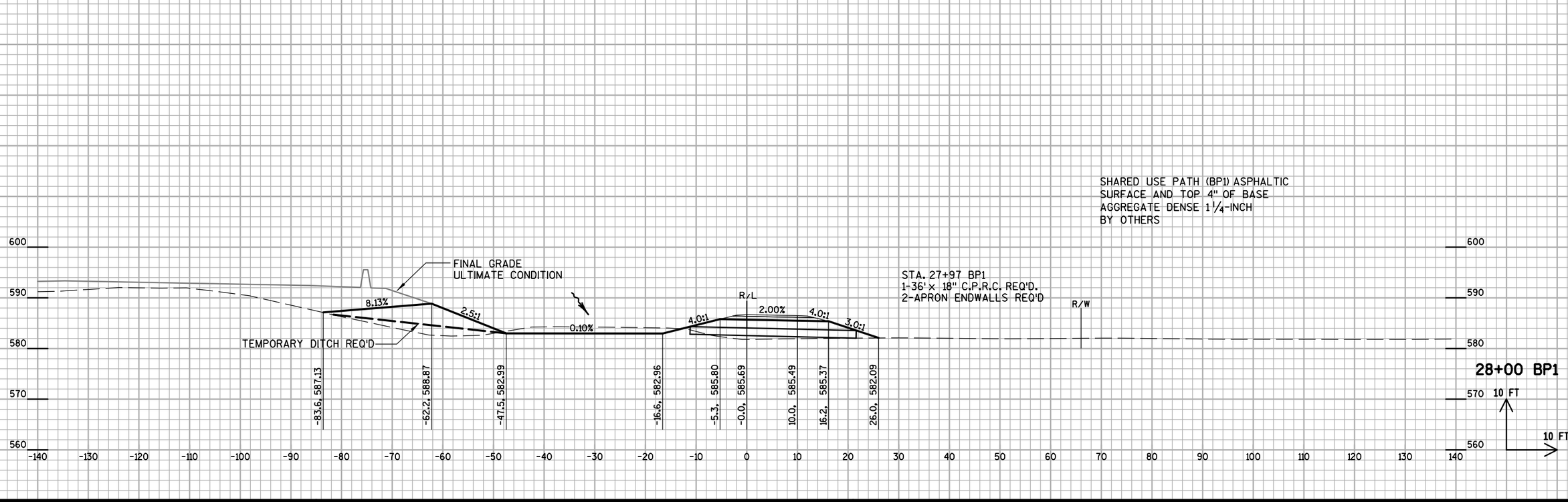
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1456	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 28+00 BP1 TO 28+00 BP1



9

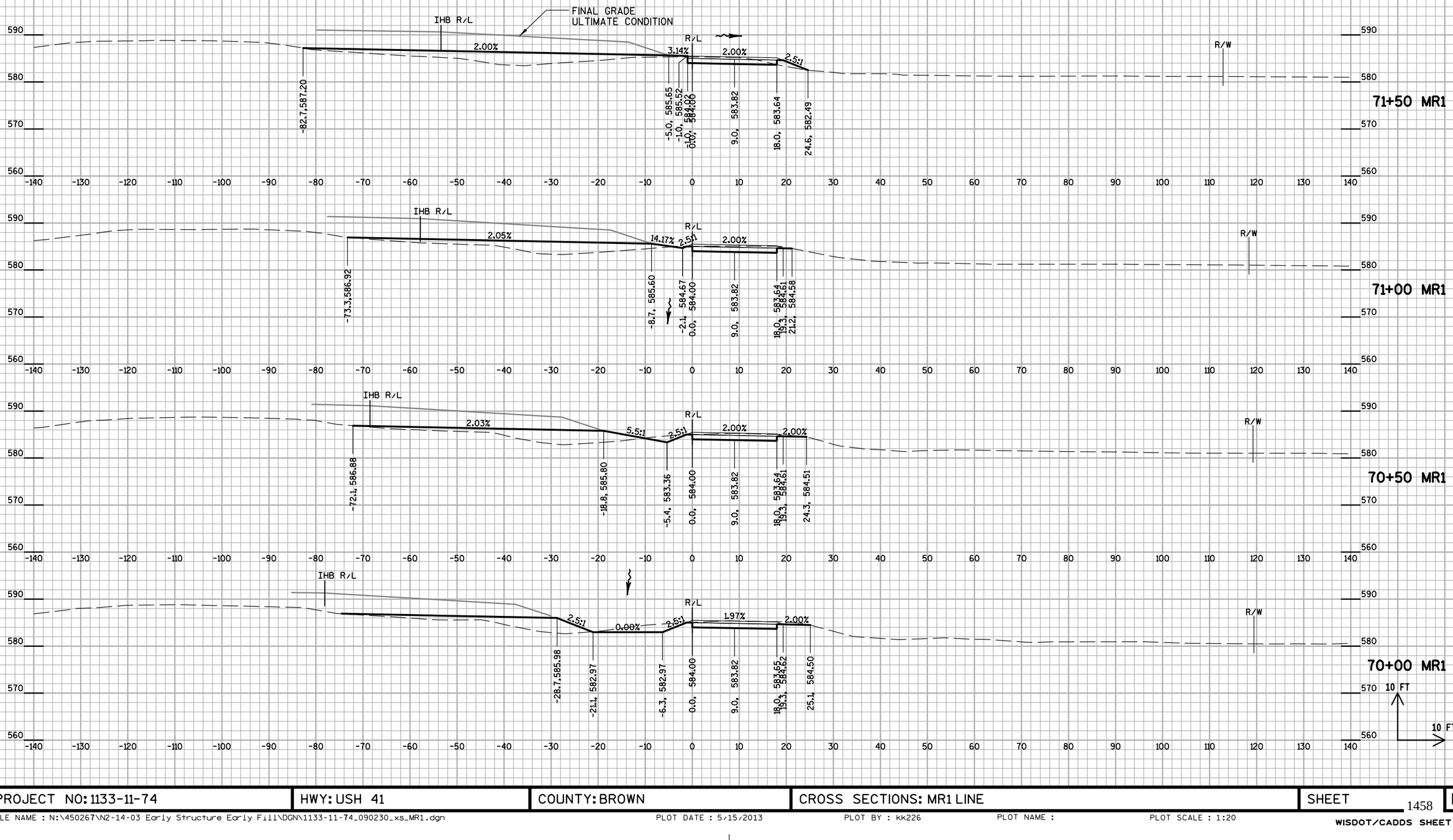
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BP1 LINE	SHEET 1457	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090221_xs_BP1.DGN | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 70+00 MR1 TO 71+50 MR1



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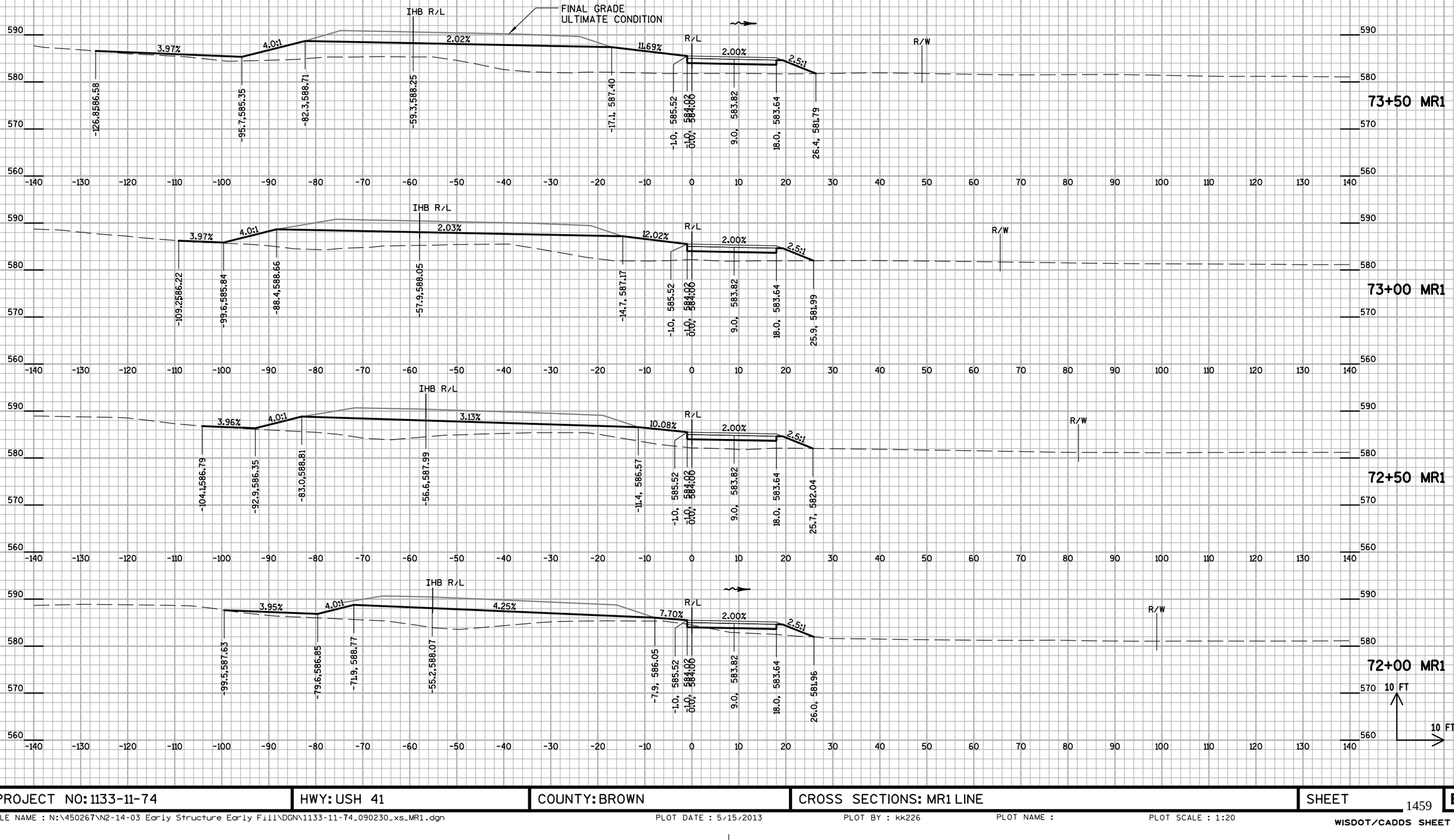
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1458	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn | PLOT DATE : 5/15/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 72+00 MR1 TO 73+50 MR1

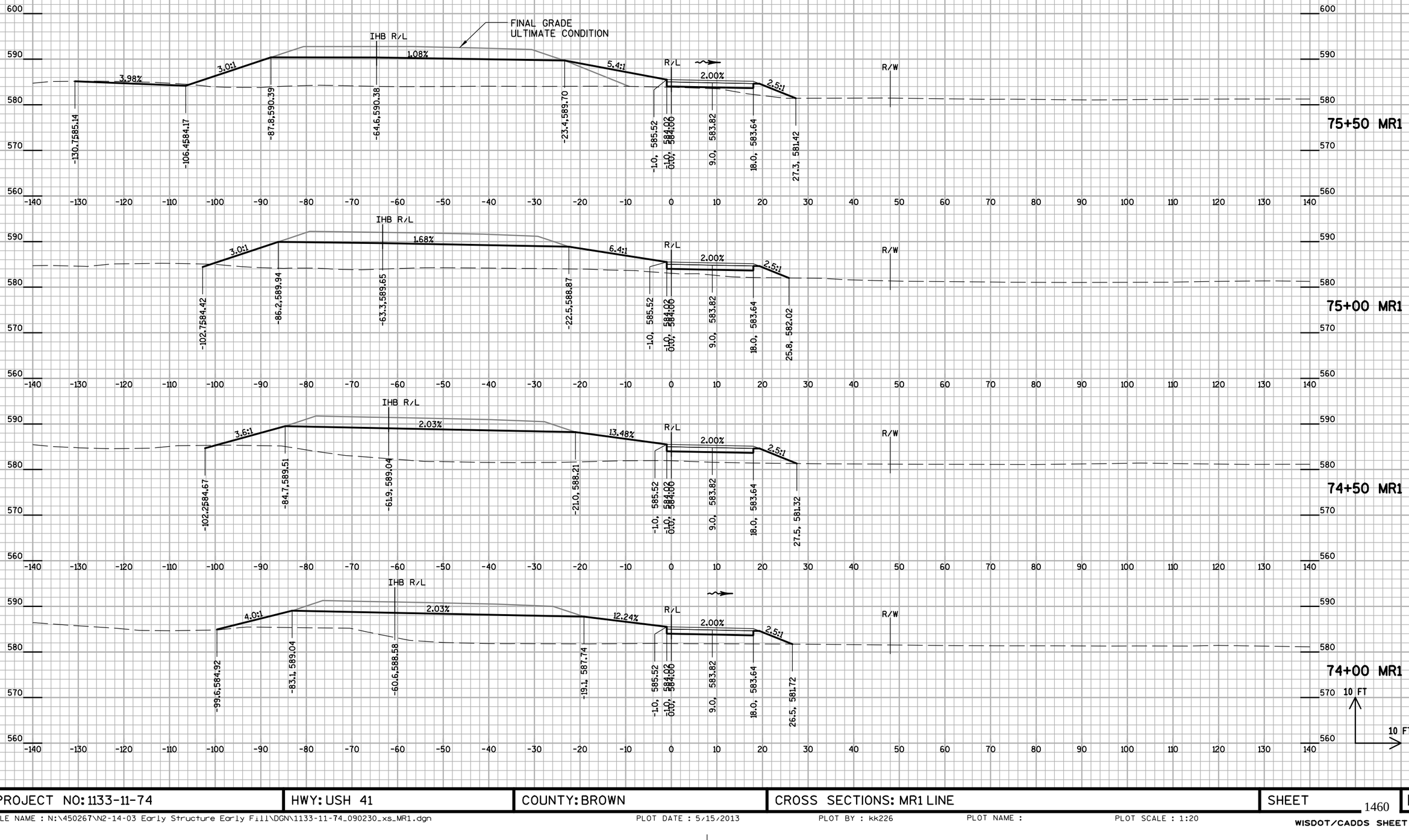


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1459	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn | PLOT DATE : 5/15/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 74+00 MR1 TO 75+50 MR1



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1460	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn | PLOT DATE : 5/15/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

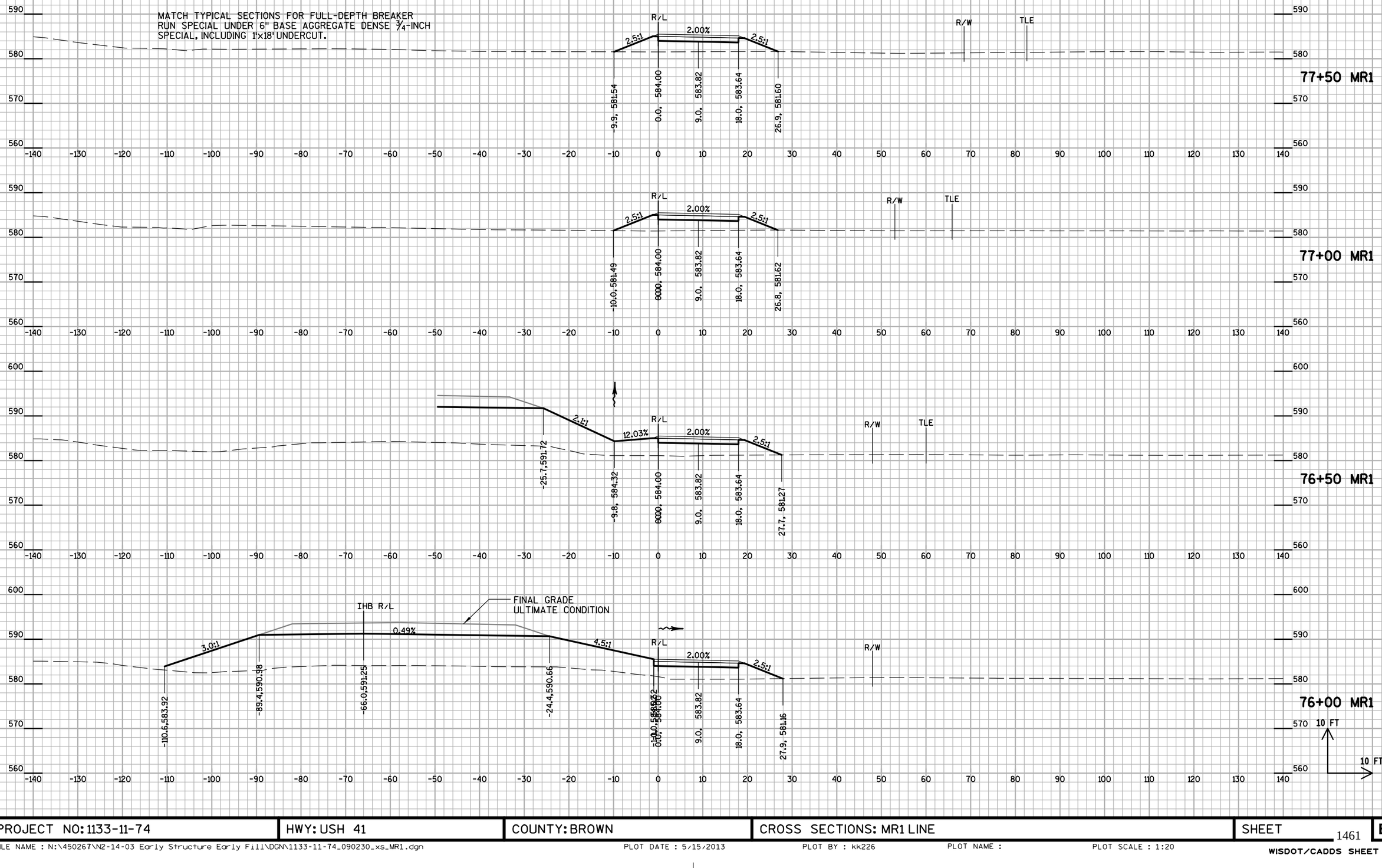
WISDOT/CADDS SHEET 21

NOTE:

STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

STA. 76+00 MR1 TO 77+50 MR1



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1461	E

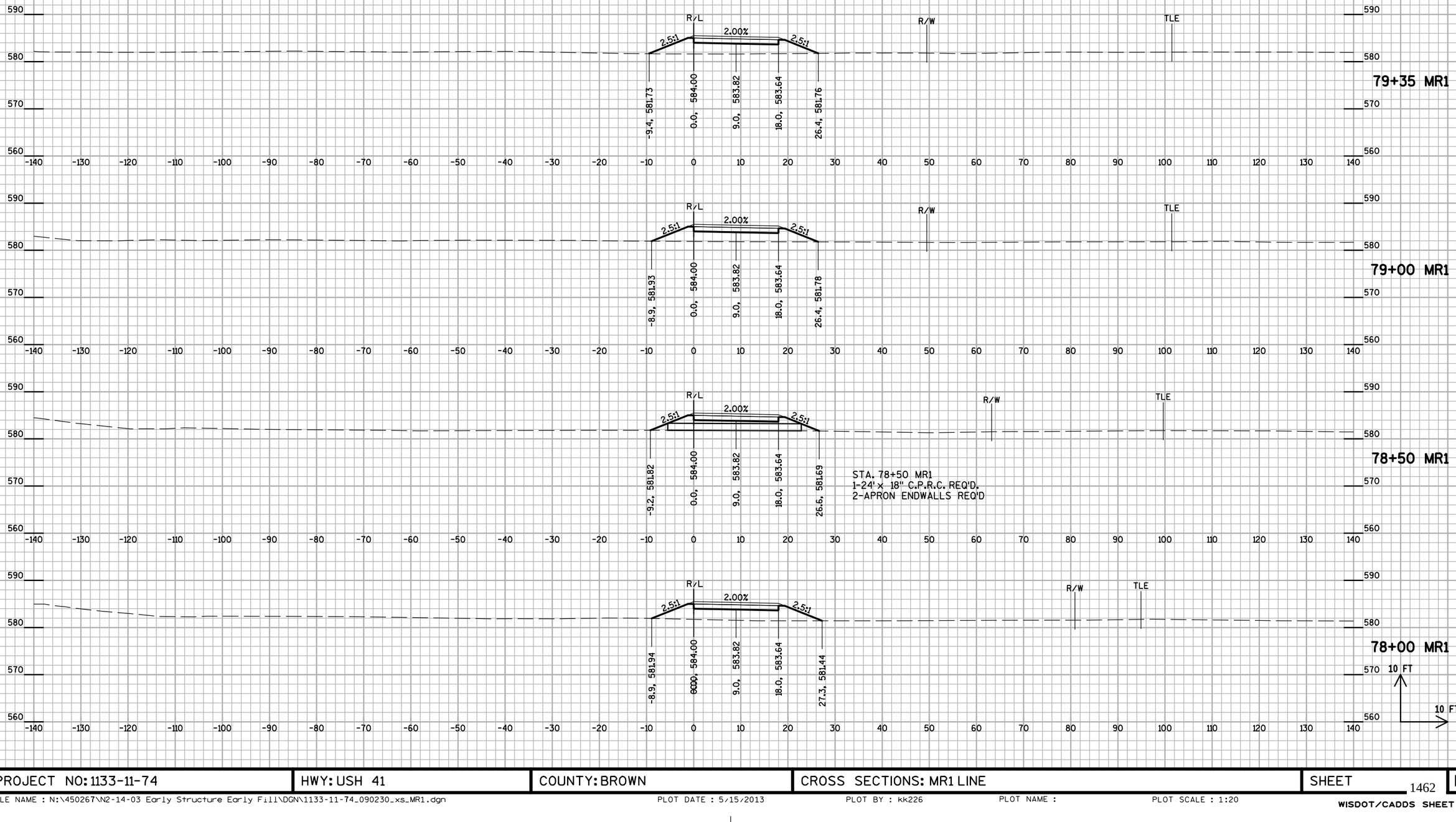
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn | PLOT DATE : 5/15/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE:

STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.



9

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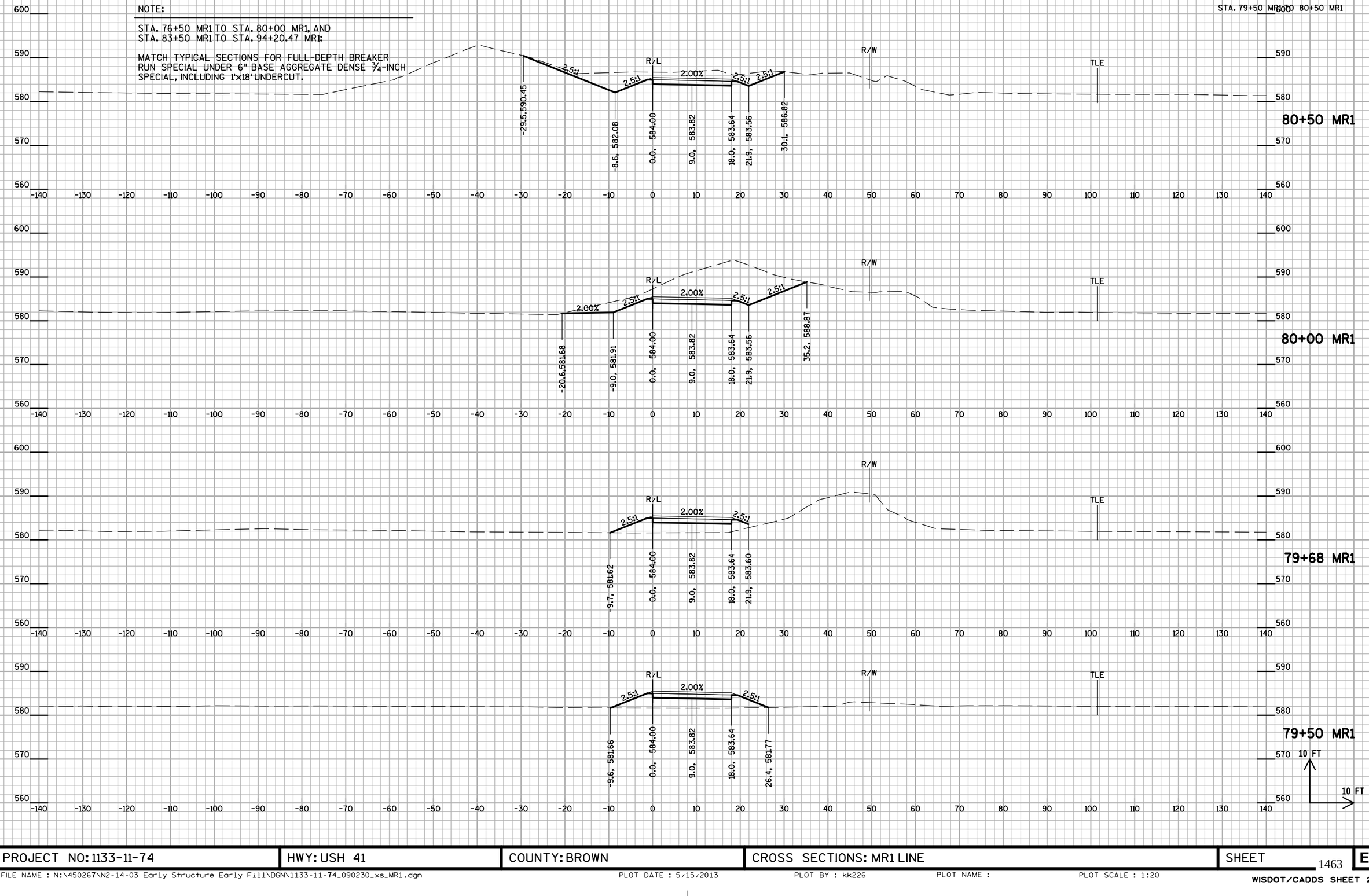
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1462	E

NOTE:

STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

STA. 79+50 MR1 TO 80+50 MR1

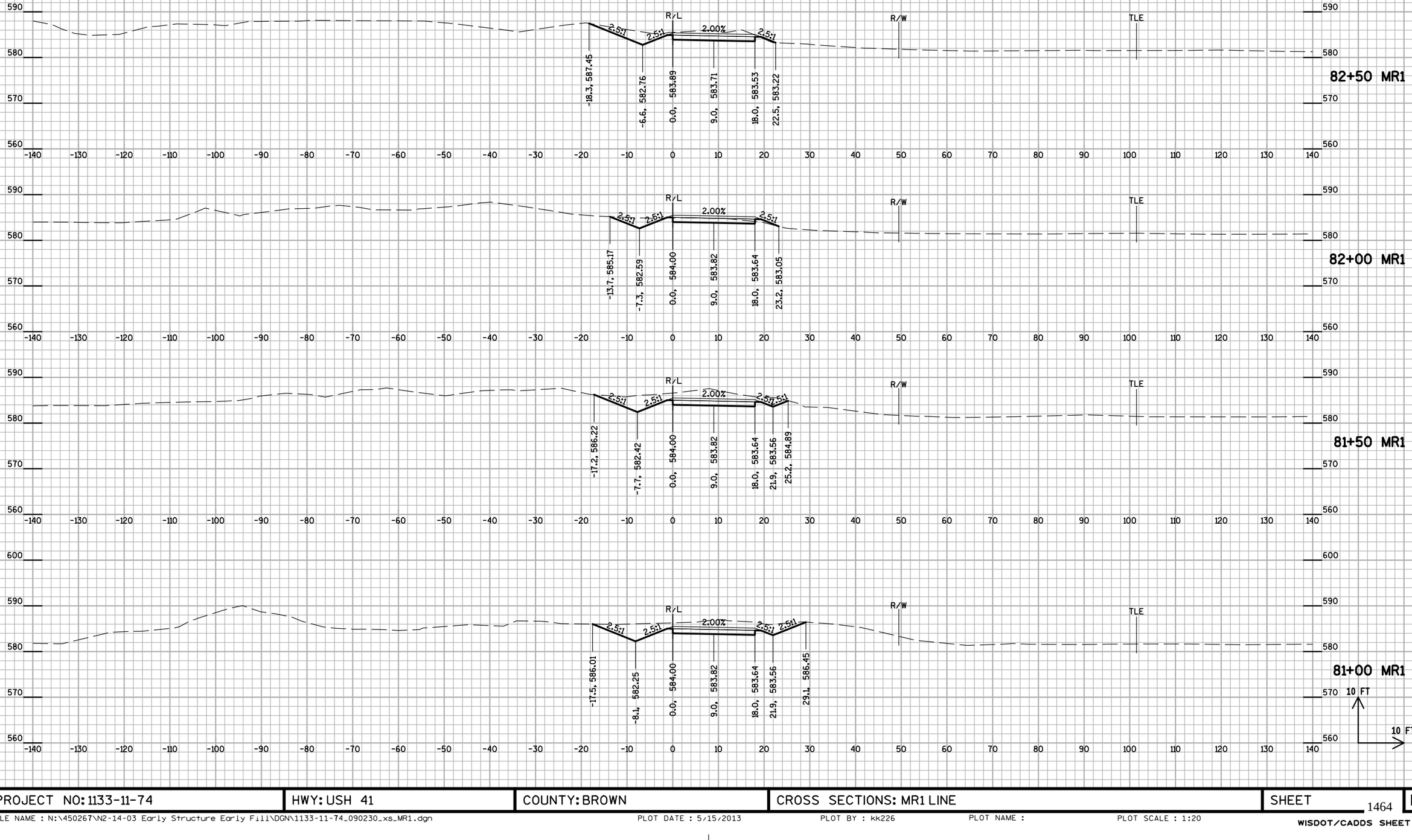


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1463	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn PLOT DATE : 5/15/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 81+00 MR1 TO 82+50 MR1



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1464	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn PLOT DATE : 5/15/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE:

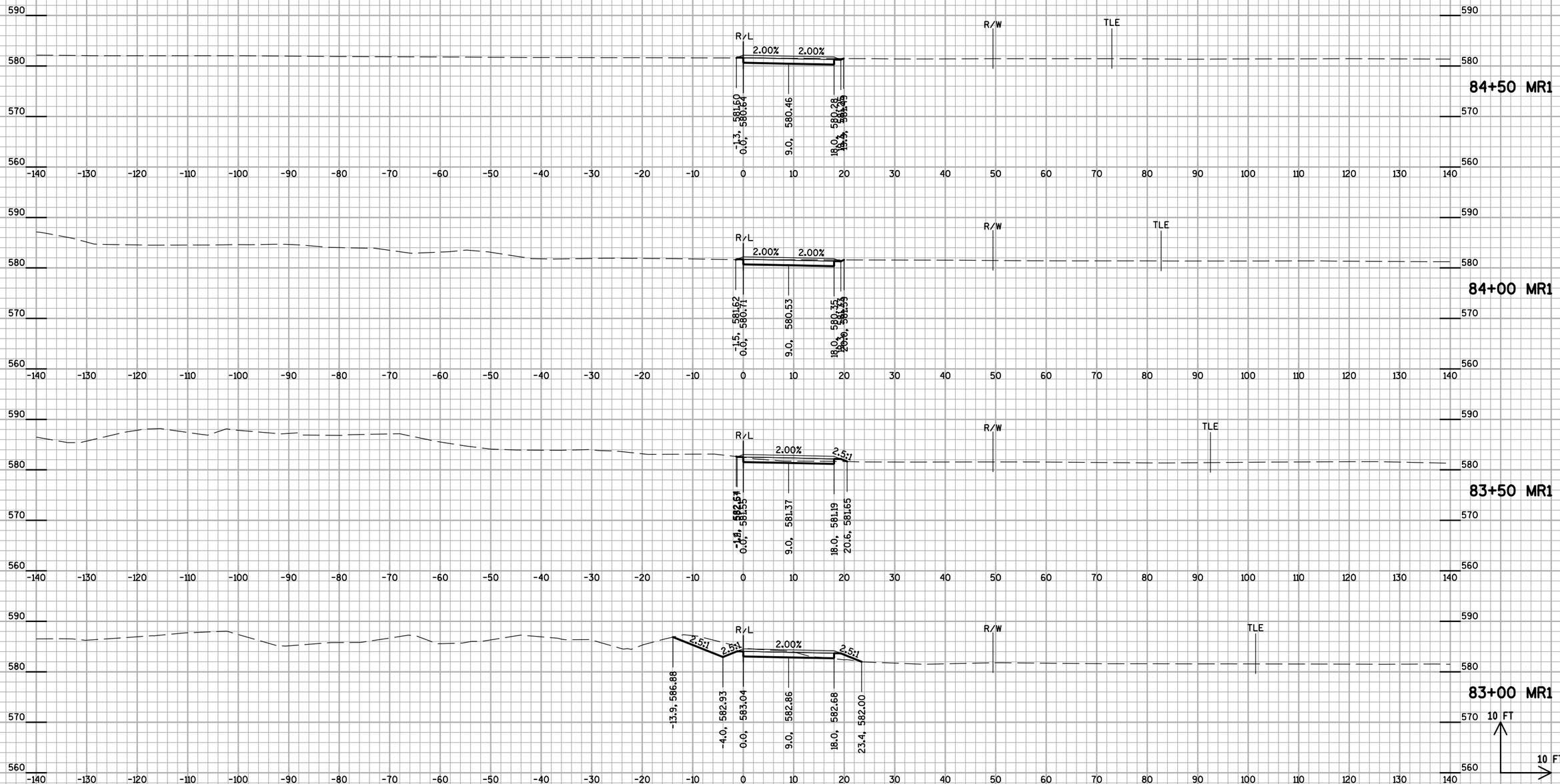
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1465	E

NOTE:

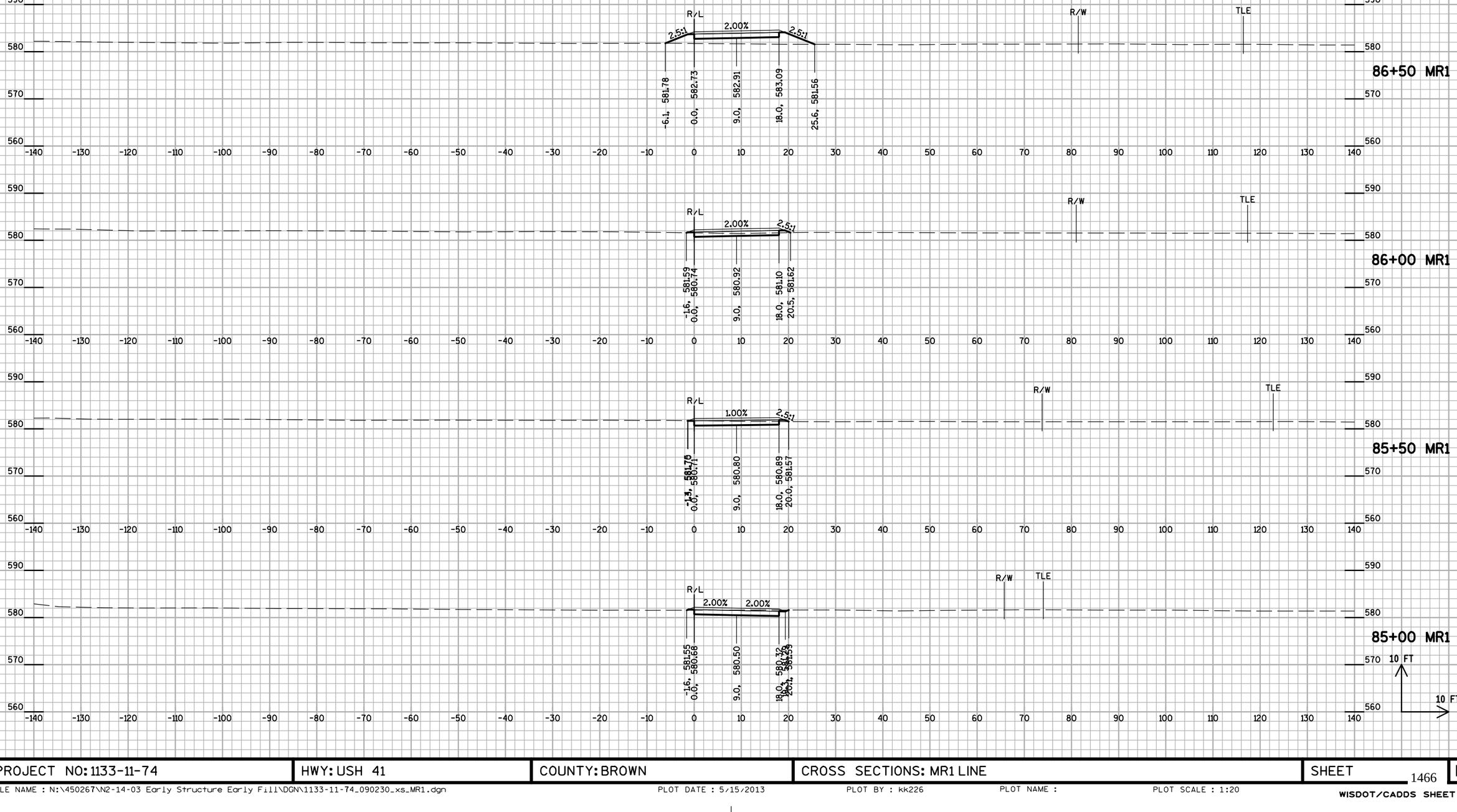
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1466	E

NOTE:

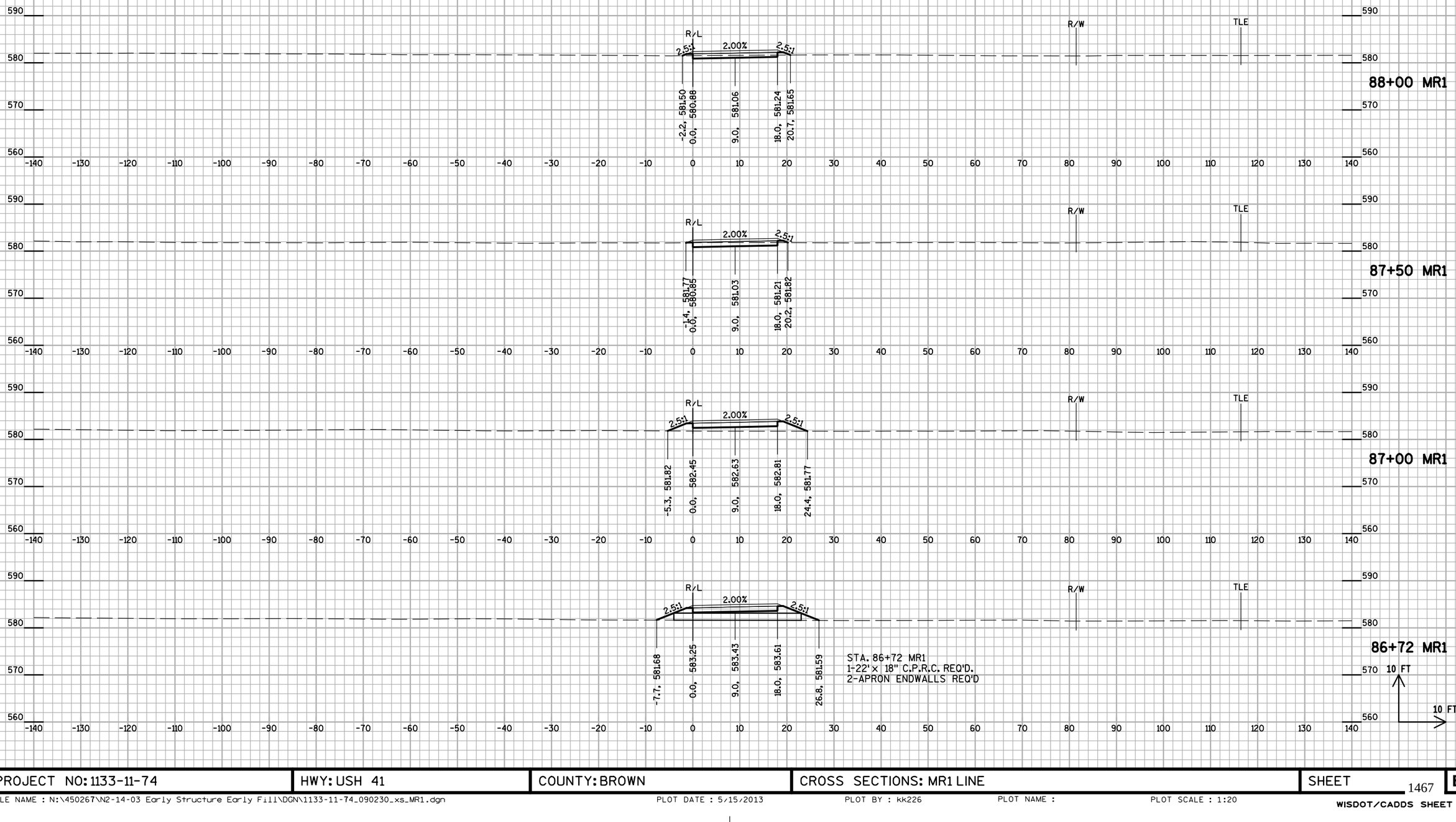
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



STA. 86+72 MR1
1-22' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1467	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090230_xs_MR1.dgn PLOT DATE : 5/15/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

NOTE:

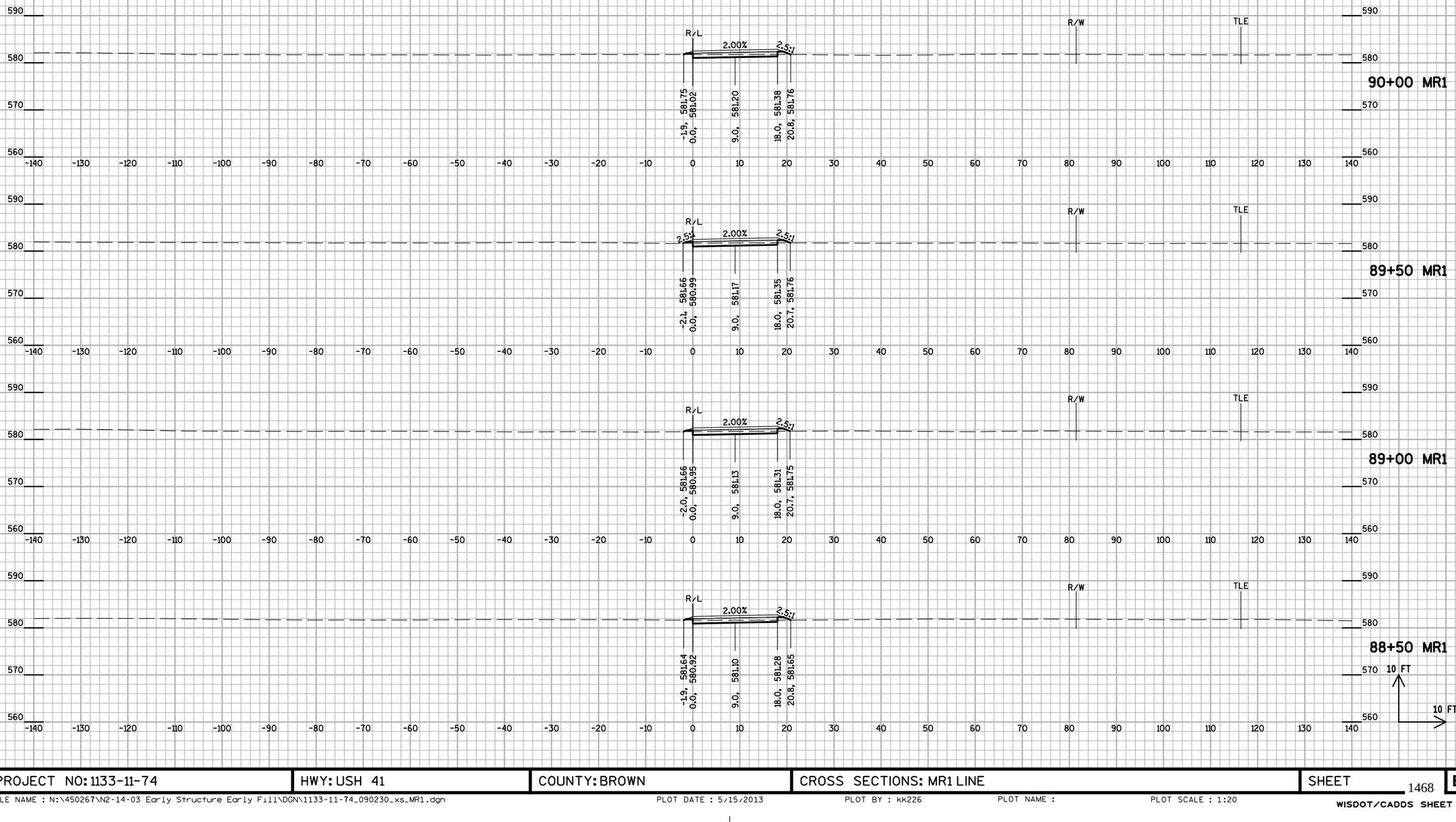
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1468	E

NOTE:

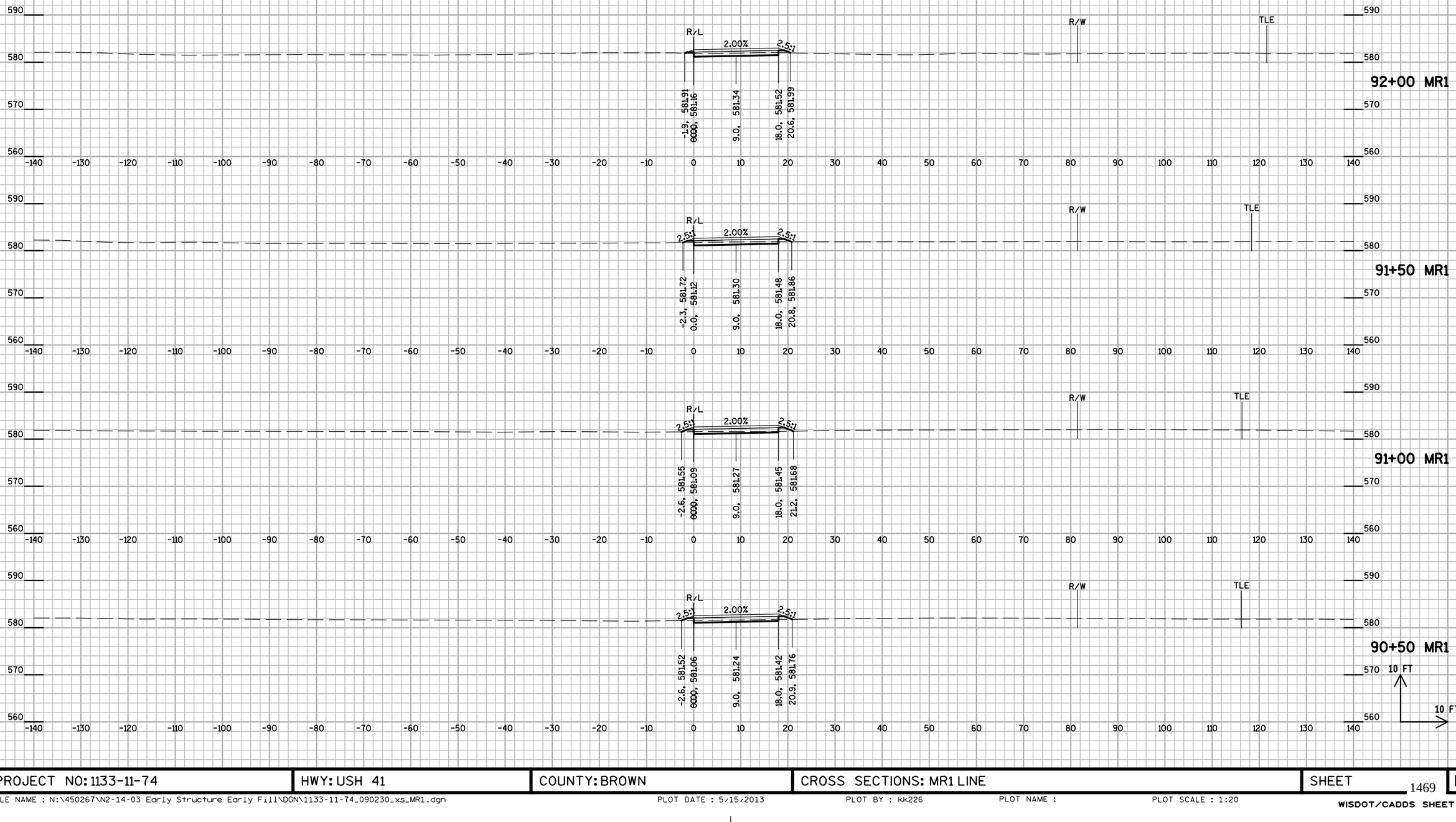
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1469	E

NOTE:

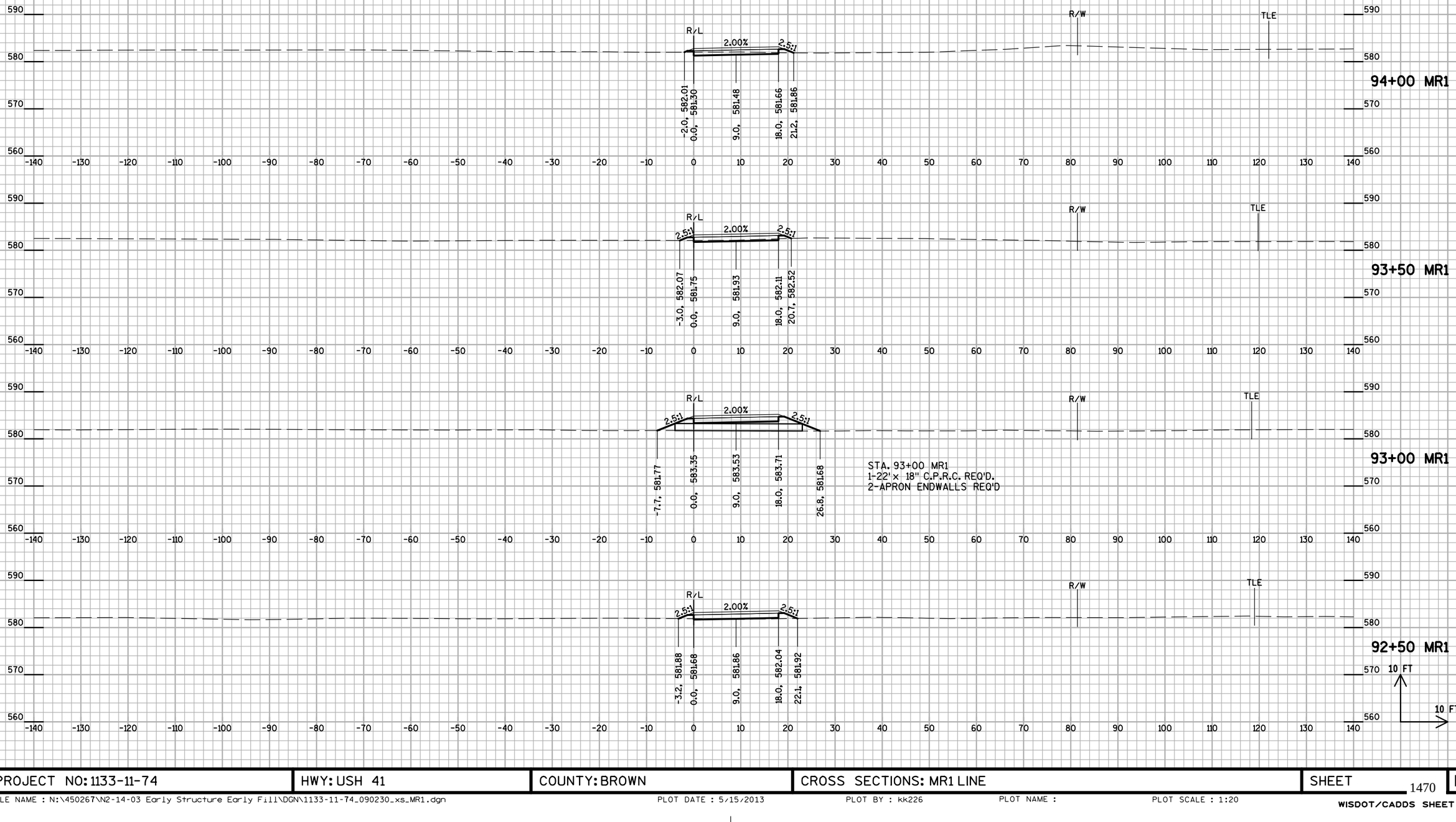
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



NOTE:

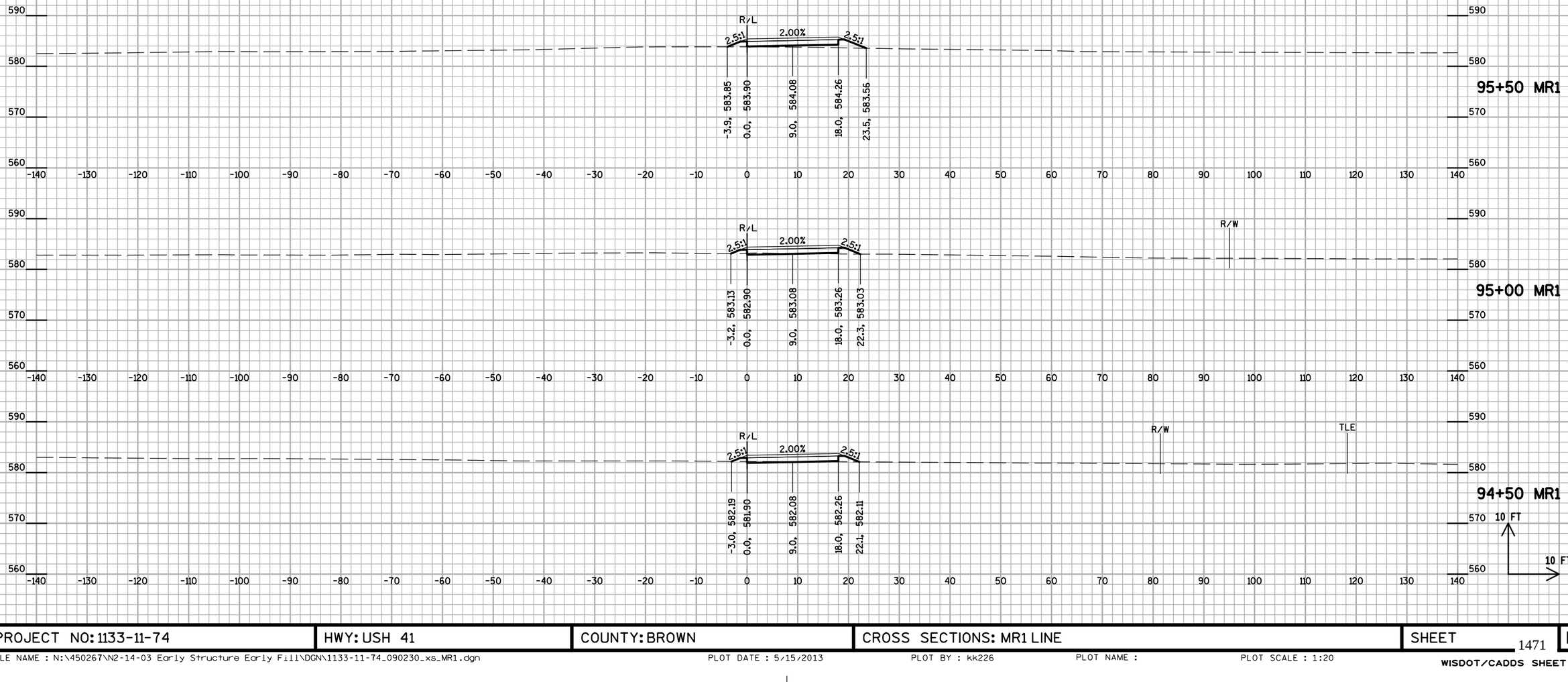
STA. 76+50 MR1 TO STA. 80+00 MR1, AND
STA. 83+50 MR1 TO STA. 94+20.47 MR1:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 83+50 MR1 TO STA. 86+10.5 MR1, AND
STA. 87+33.50 MR1 TO STA. 92+38.50 MR1, AND
STA. 93+61.50 MR1 TO STA. 94+20.47 MR1:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR1 LINE	SHEET 1471	E

NOTE:

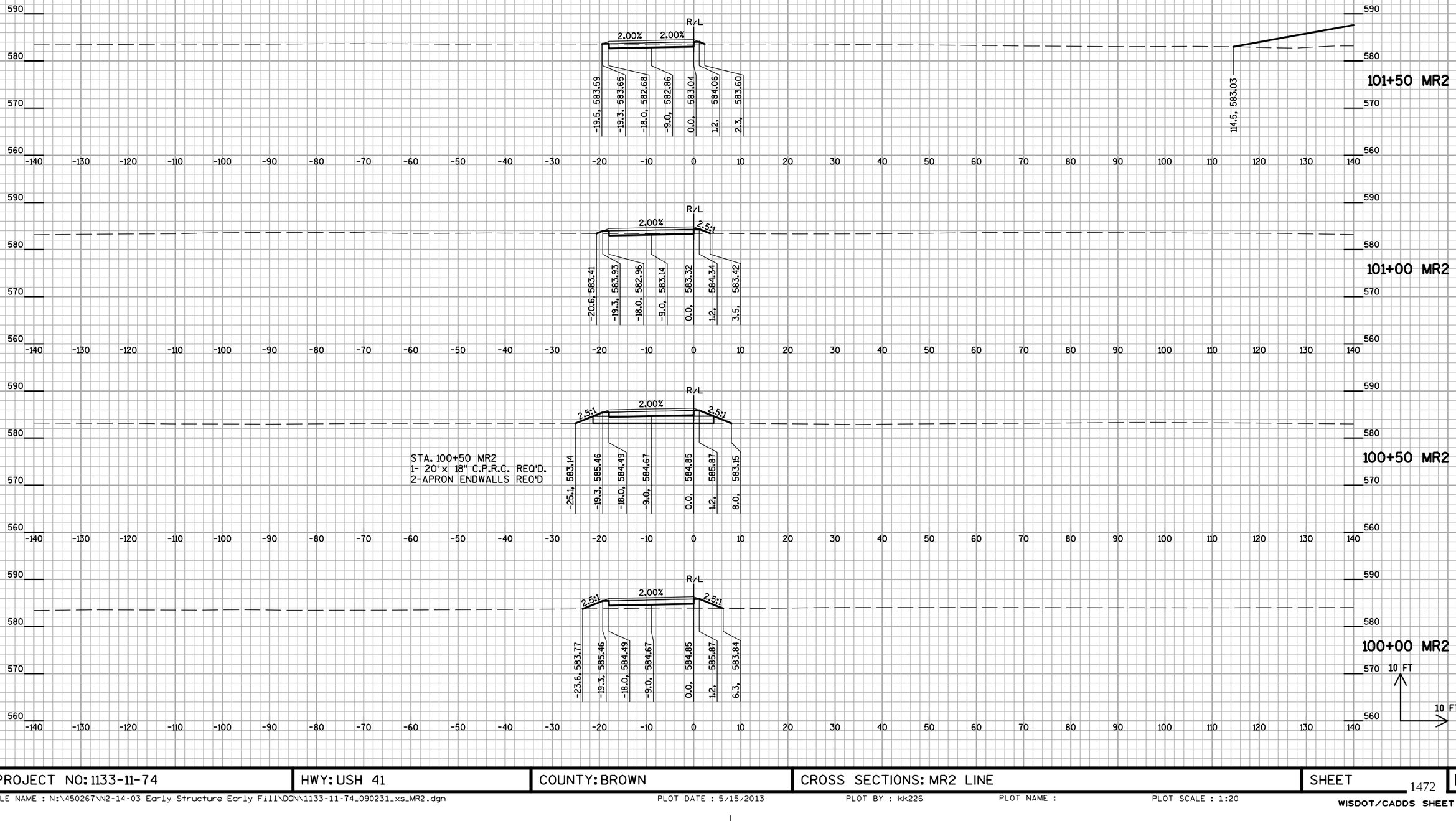
STA. 100+00 MR2 TO STA. 103+50 MR2:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 101+11.50 MR2 TO STA. 102+83.50 MR2

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE. ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR2 LINE	SHEET 1472	E

NOTE:

STA. 100+00 MR2 TO STA. 103+50 MR2:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

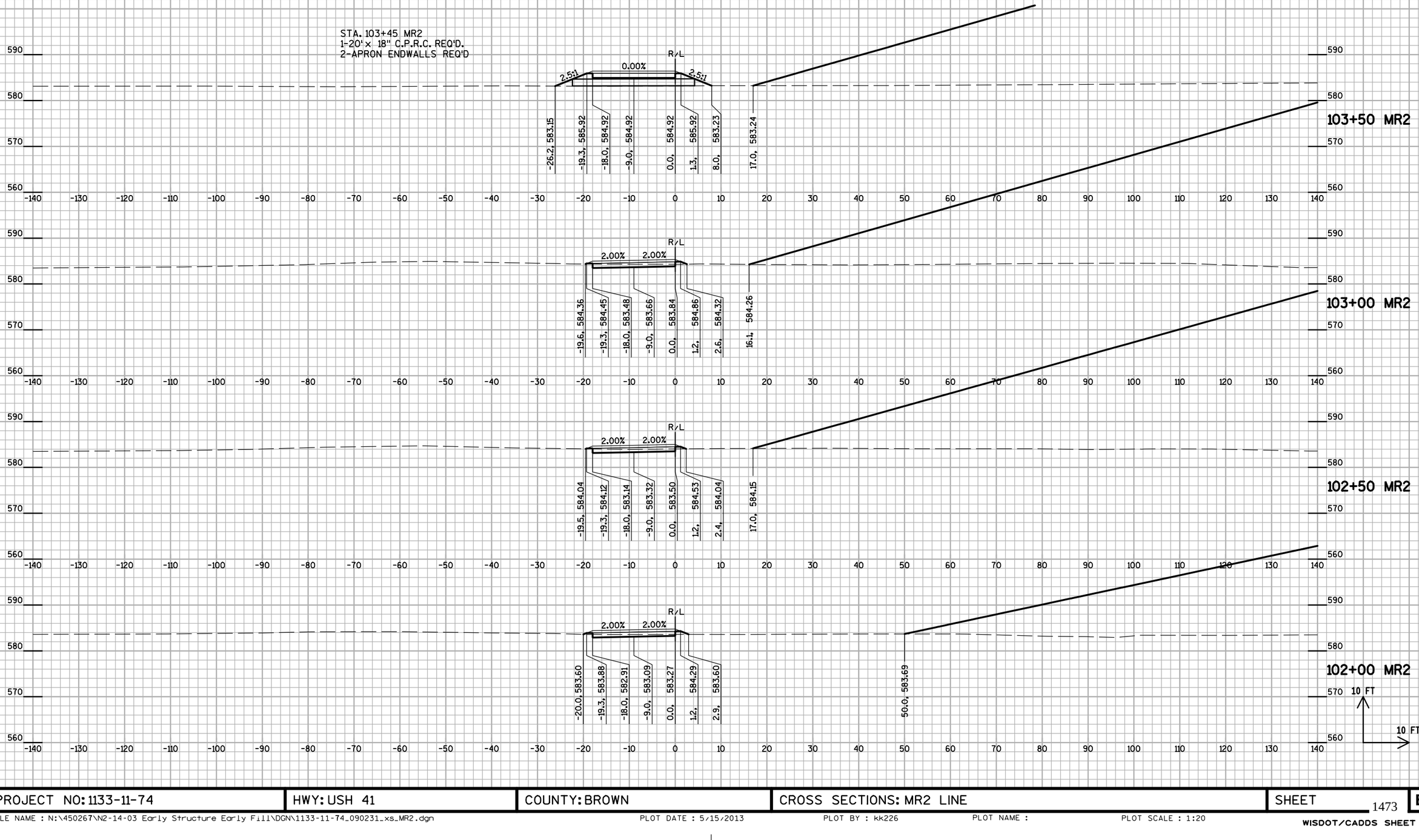
NOTE:

STA. 101+11.50 MR2 TO STA. 102+83.50 MR2

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

STA. 102+00 MR2 TO 103+50 MR2

STA. 103+45 MR2
1-20' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D



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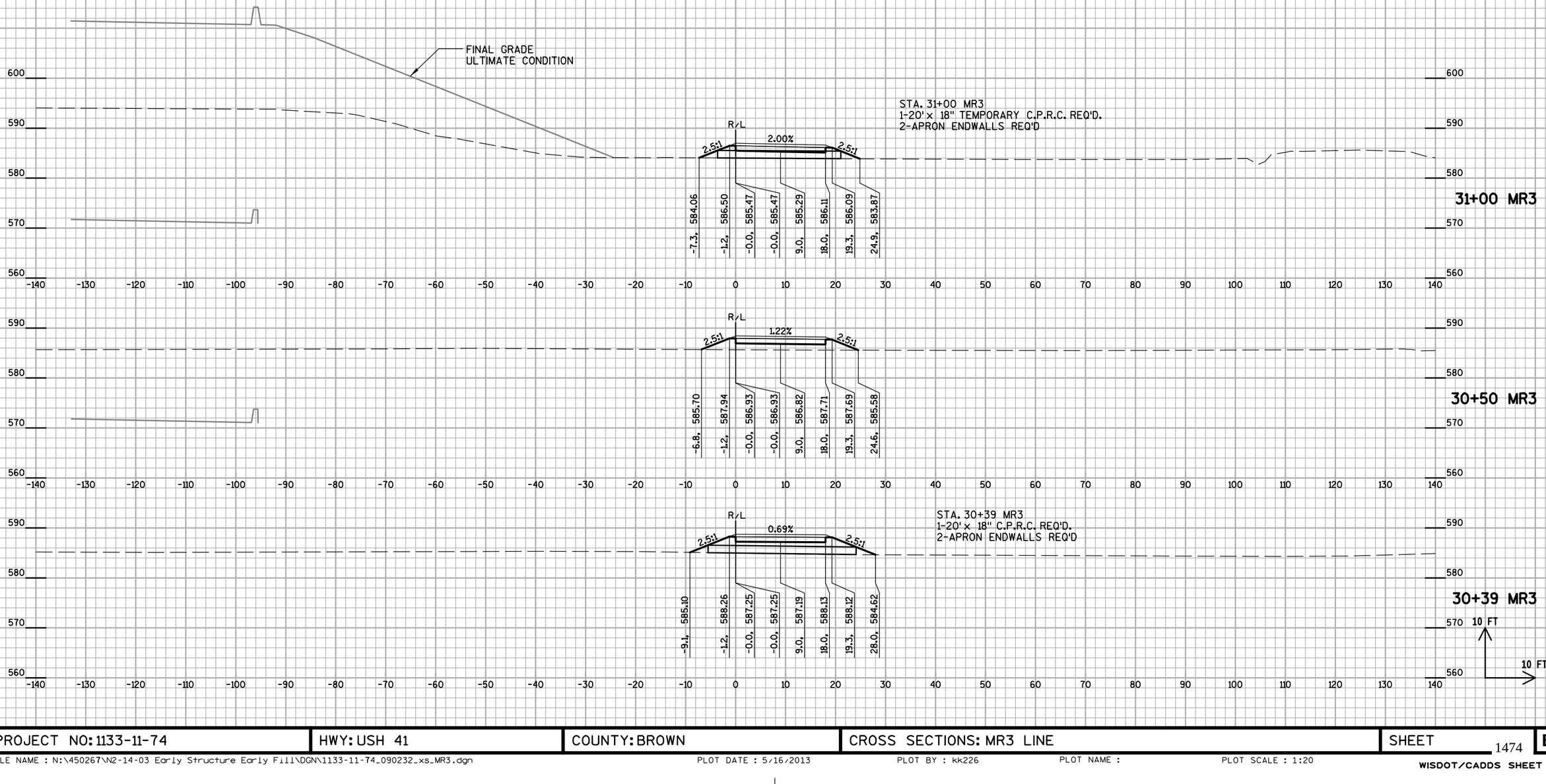
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR2 LINE	SHEET 1473	E

STA. 30+33 MR3 TO 31+00 MR3



9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1474	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090232_xs_MR3.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE:

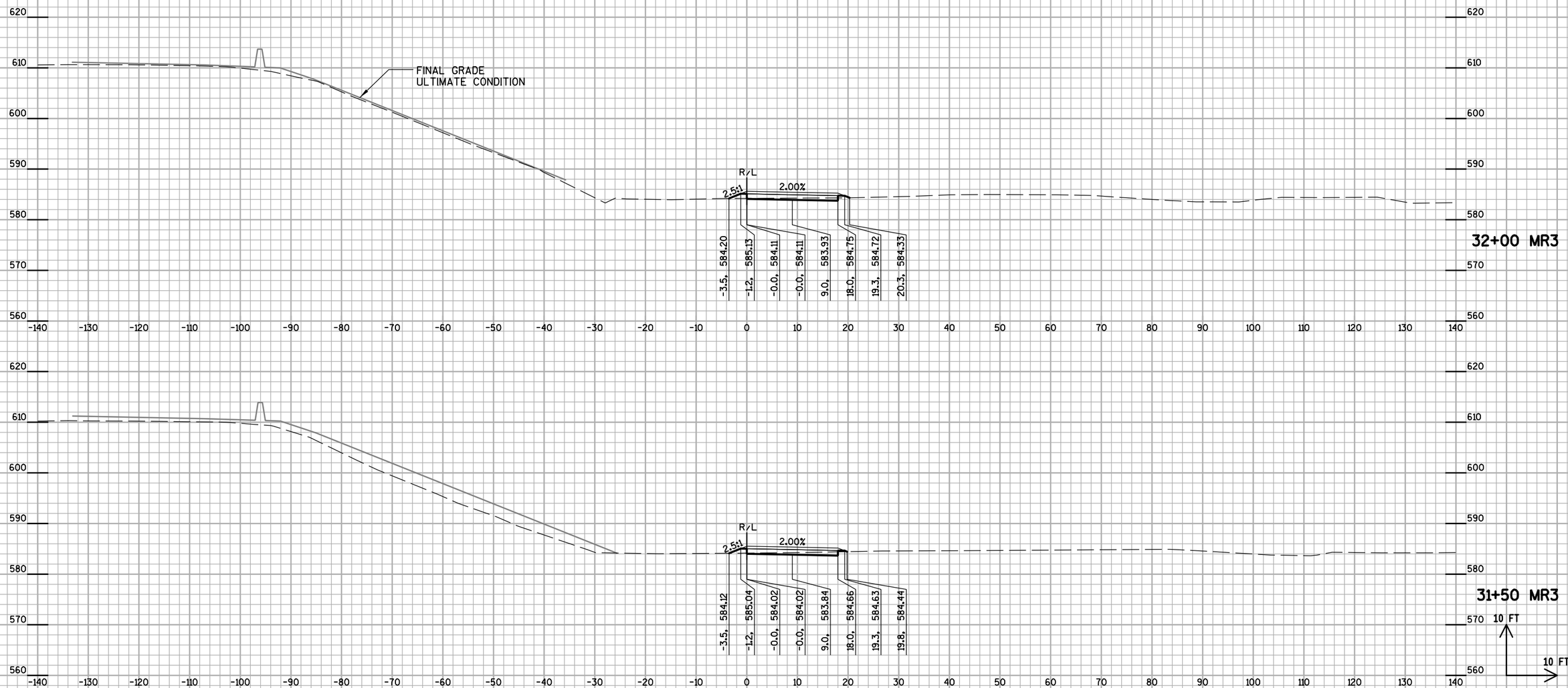
STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



9

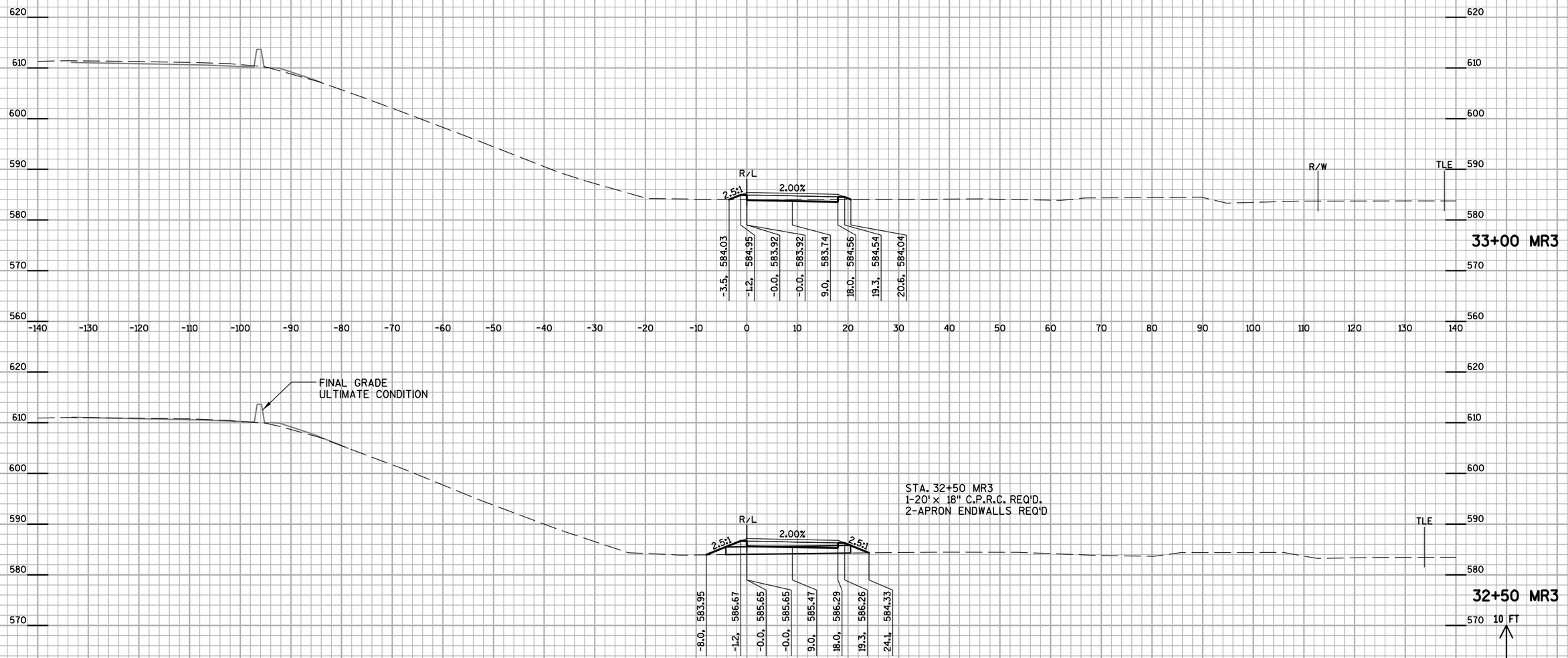
9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1475	E

NOTE:

STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.



9

9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1476	E

NOTE:

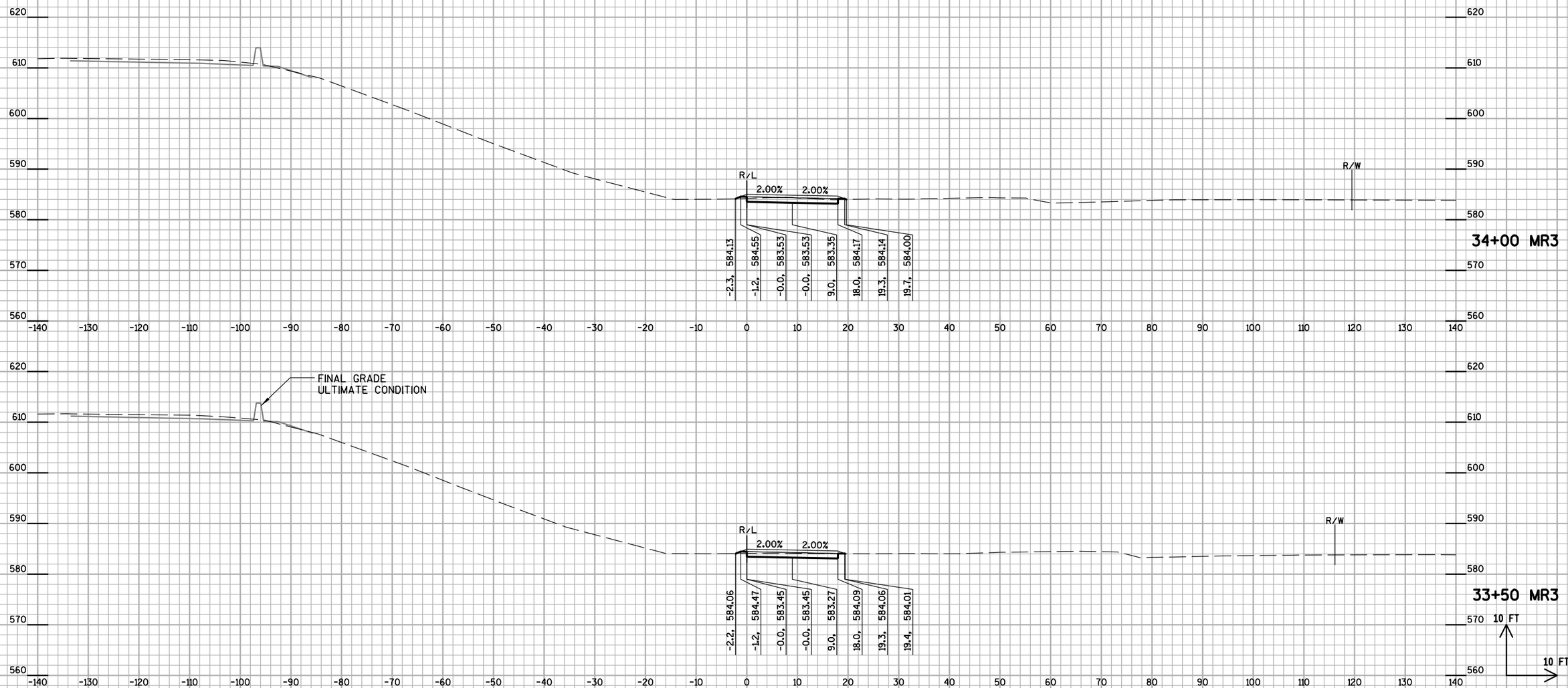
STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1477	E

NOTE:

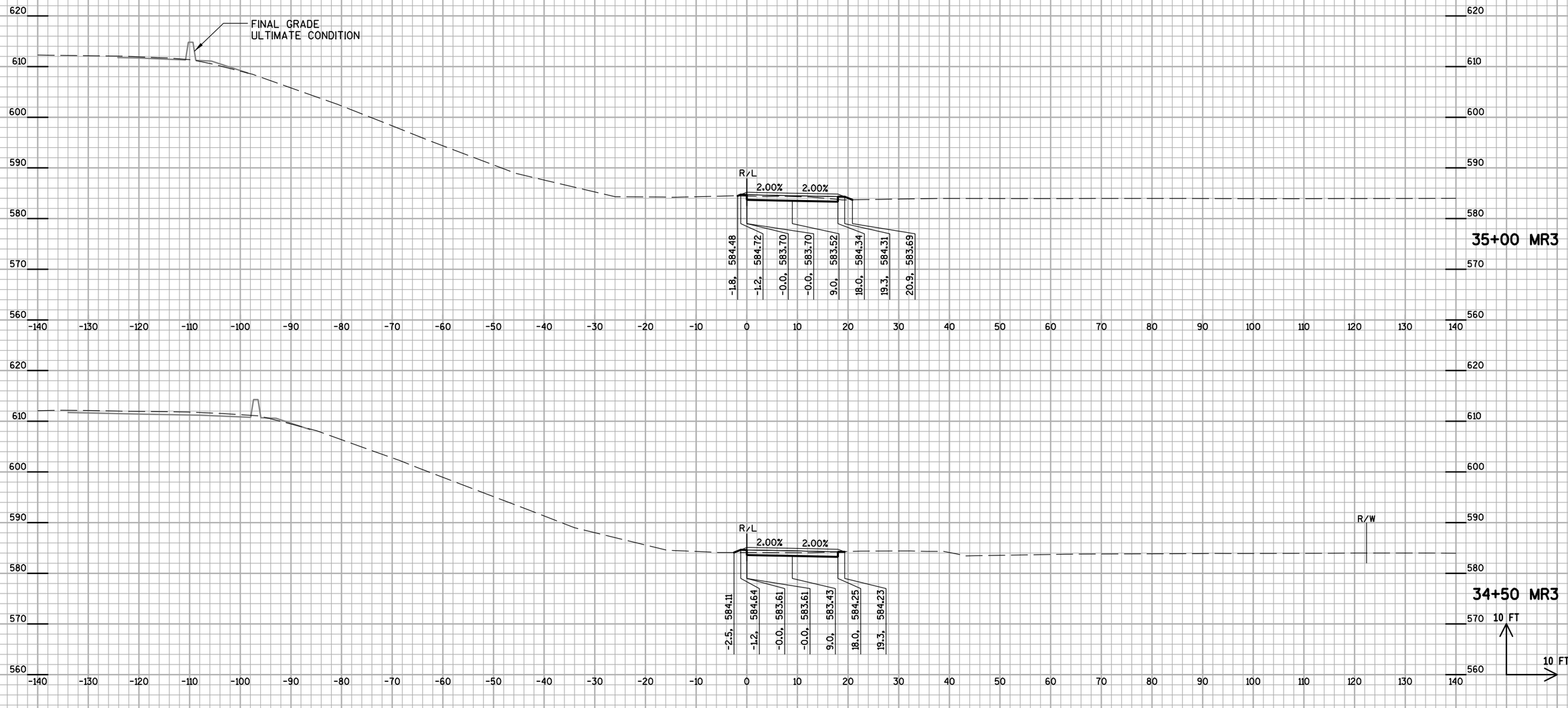
STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1478	E

NOTE:

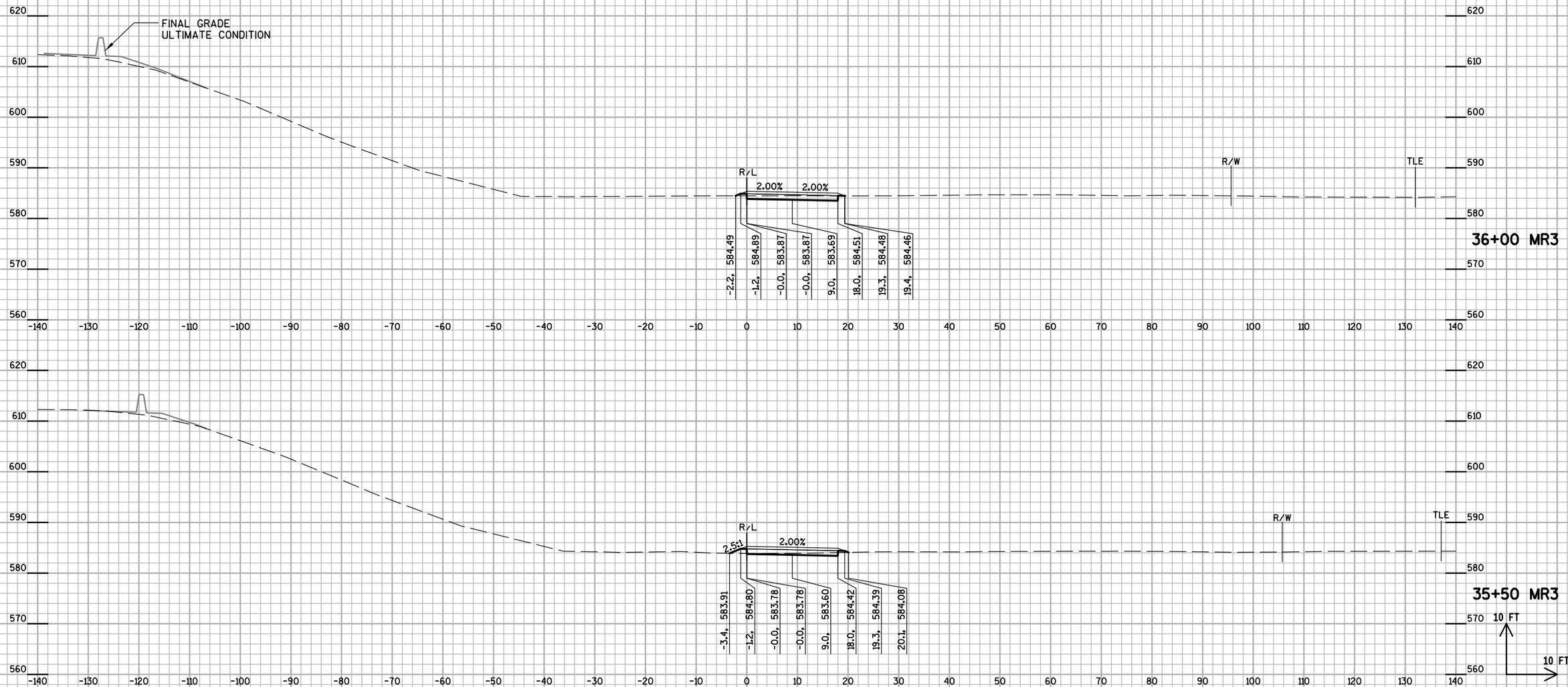
STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1479	E

NOTE:

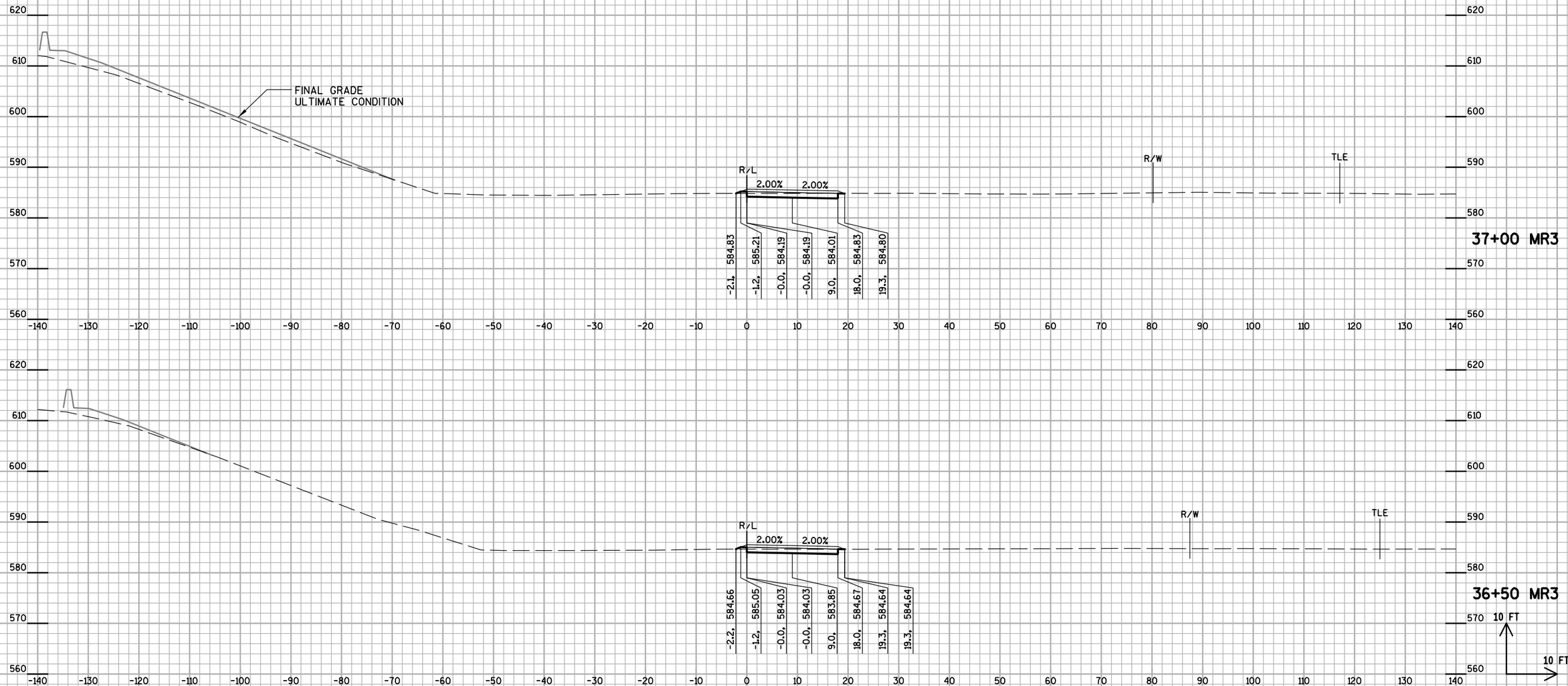
STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1480	E

NOTE:

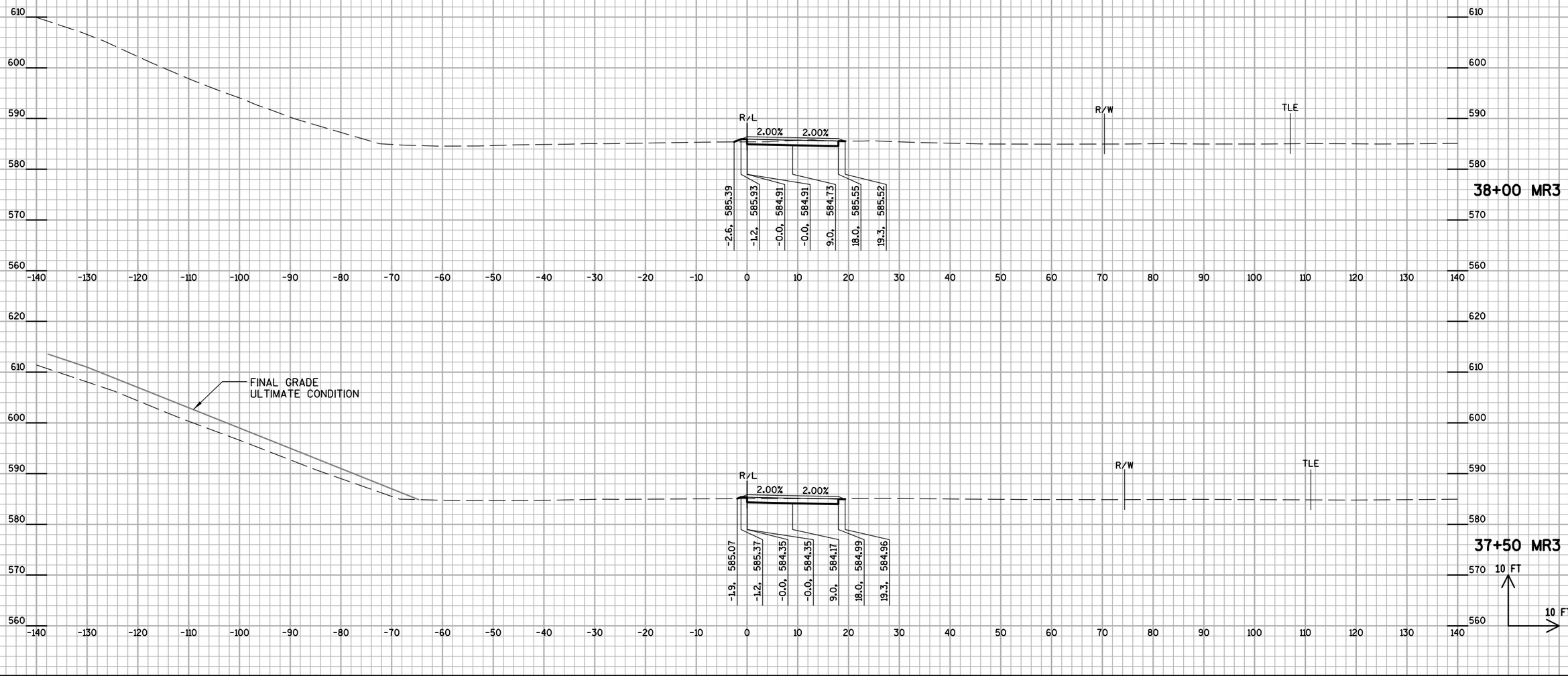
STA. 31+50 MR3 TO STA. 38+10 MR3:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 31+61.50 MR3 TO STA. 31+88 MR3, AND
STA. 33+12 MR3 TO STA. 38+10 MR3:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR3 LINE	SHEET 1481	E

NOTE:

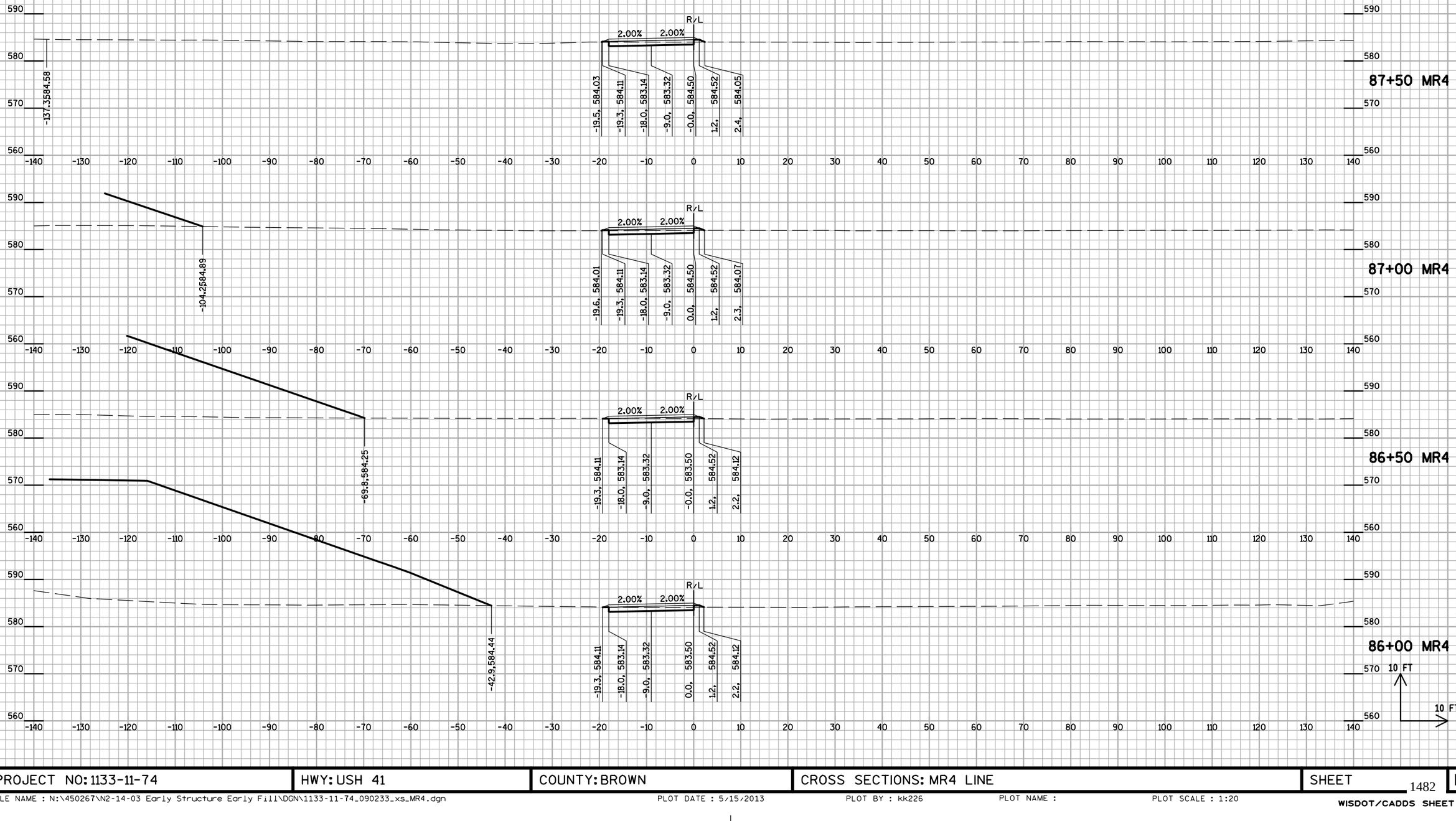
STA. 86+00 MR4 TO STA. 94+50 MR4:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 86+00 MR4 TO STA. 87+88.50 MR4, AND
STA. 89+11.50 MR4 TO STA. 92+55.50 MR4, AND
STA. 93+78.50 MR4 TO STA. 94+50 MR4:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR4 LINE	SHEET 1482	E

NOTE:

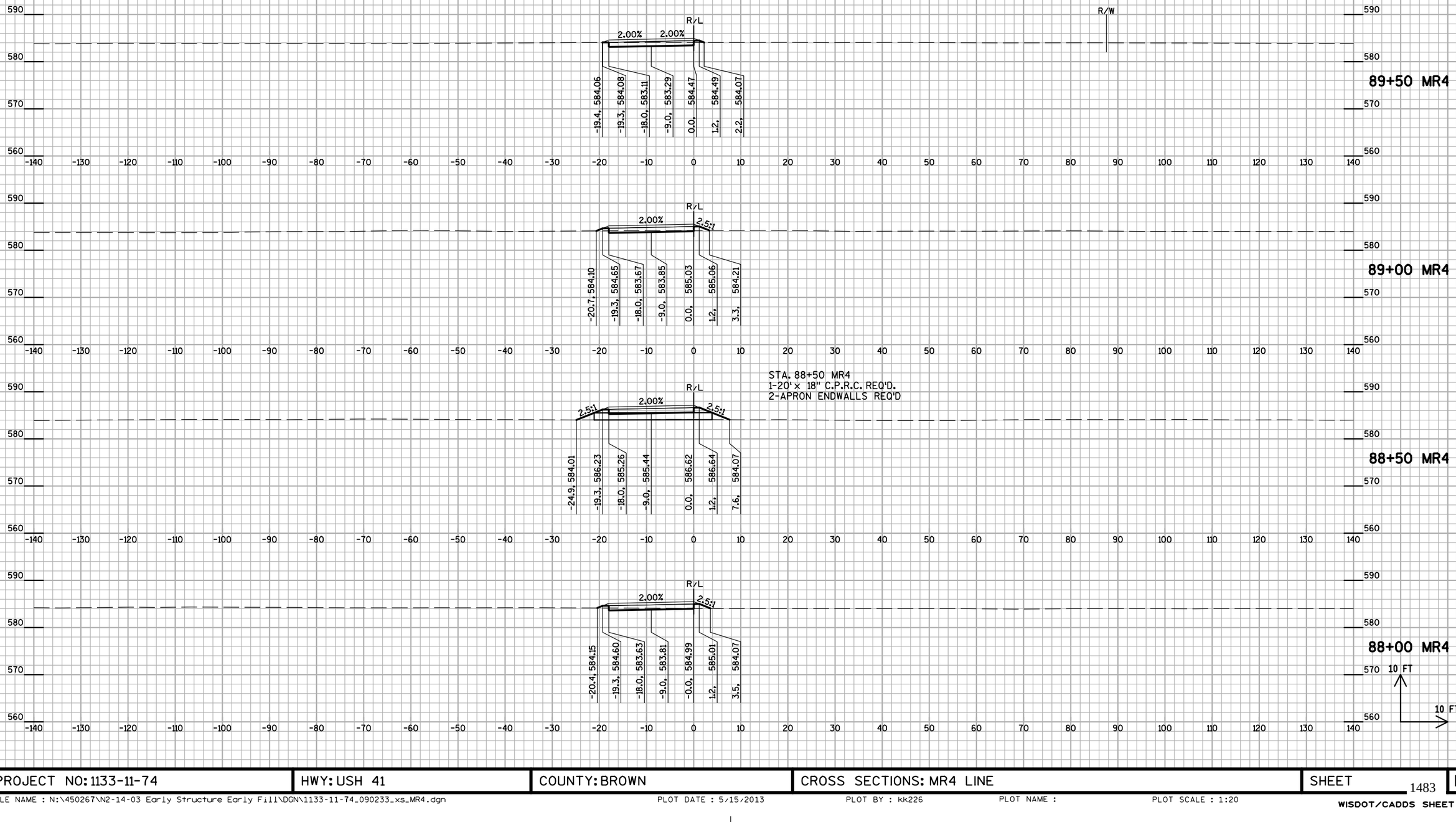
STA. 86+00 MR4 TO STA. 94+50 MR4:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 86+00 MR4 TO STA. 87+88.50 MR4, AND
STA. 89+11.50 MR4 TO STA. 92+55.50 MR4, AND
STA. 93+78.50 MR4 TO STA. 94+50 MR4:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR4 LINE	SHEET 1483	E

NOTE:

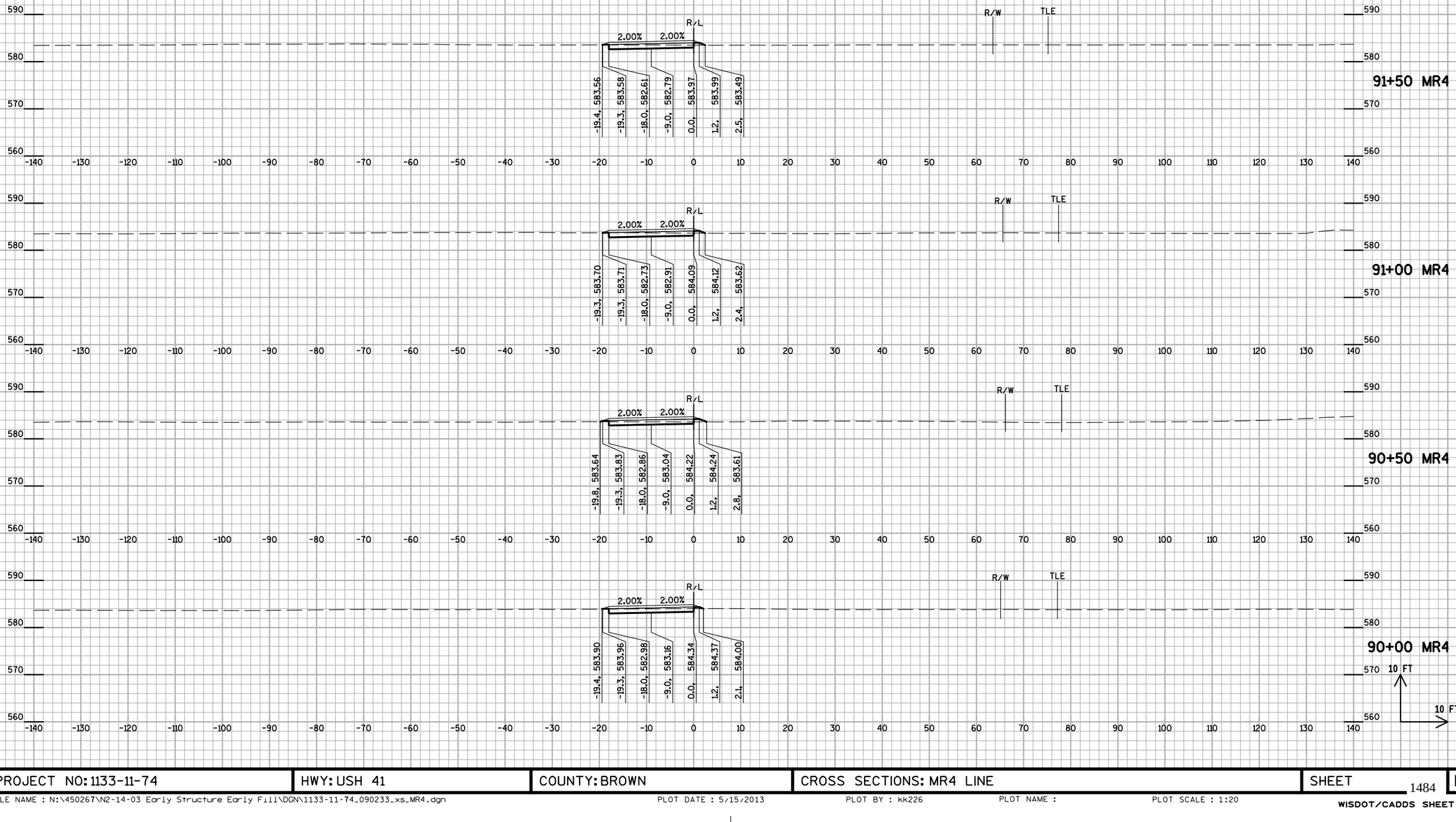
STA. 86+00 MR4 TO STA. 94+50 MR4:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 86+00 MR4 TO STA. 87+88.50 MR4, AND
STA. 89+11.50 MR4 TO STA. 92+55.50 MR4, AND
STA. 93+78.50 MR4 TO STA. 94+50 MR4:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR4 LINE	SHEET 1484	E

NOTE:

STA. 86+00 MR4 TO STA. 94+50 MR4:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

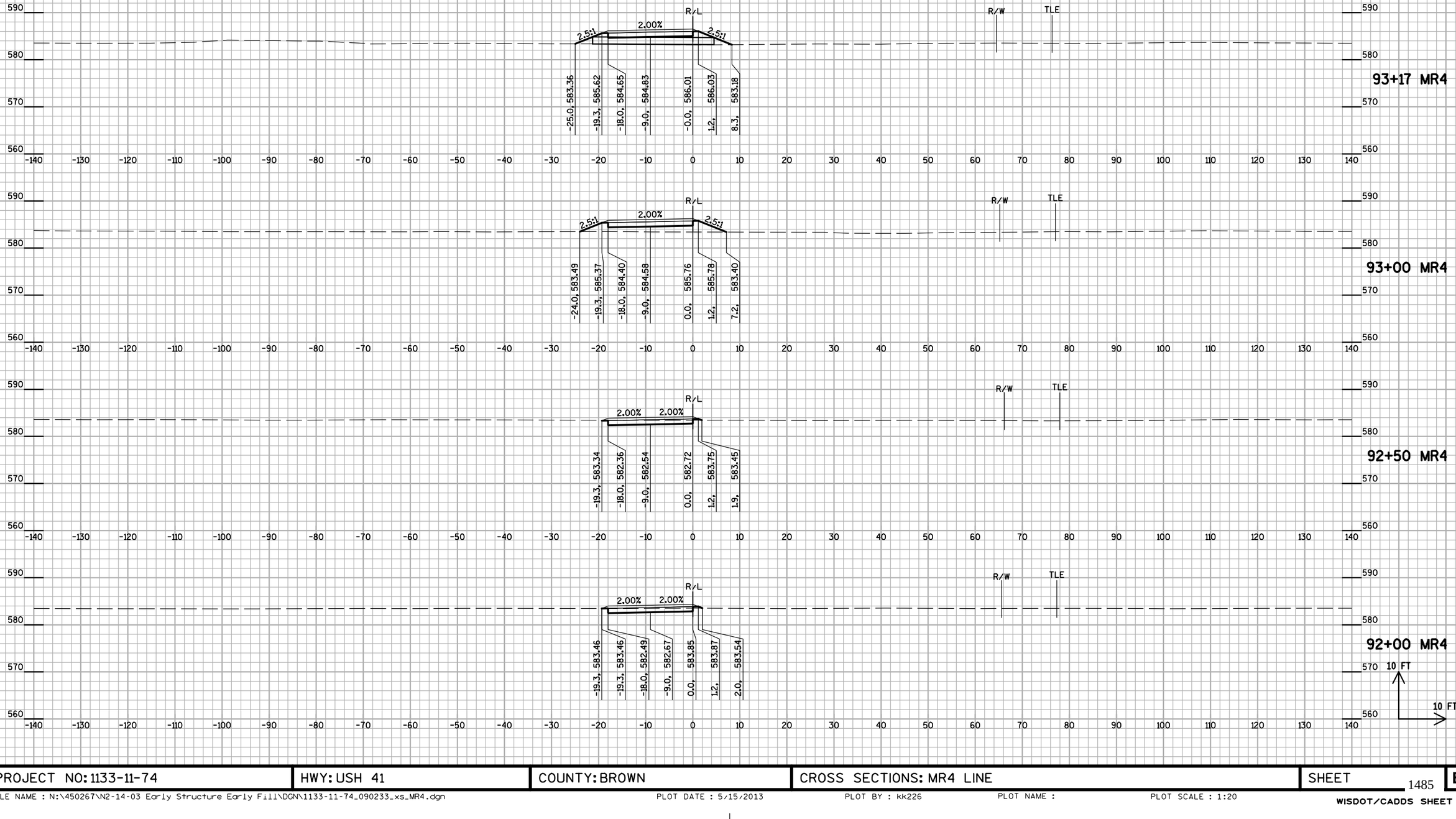
STA. 93+17 MR4
1-20' × 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

NOTE:

STA. 86+00 MR4 TO STA. 87+88.50 MR4, AND
STA. 89+11.50 MR4 TO STA. 92+55.50 MR4, AND
STA. 93+78.50 MR4 TO STA. 94+50 MR4:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

STA. 92+00 MR4 TO 93+17 MR4



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR4 LINE	SHEET 1485	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090233_xs_MR4.dgn | PLOT DATE : 5/15/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE:

STA. 86+00 MR4 TO STA. 94+50 MR4:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 86+00 MR4 TO STA. 87+88.50 MR4, AND
STA. 89+11.50 MR4 TO STA. 92+55.50 MR4, AND
STA. 93+78.50 MR4 TO STA. 94+50 MR4:

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

STA. 95+00 MR4
1-48' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D
SKEWED 44° RHF

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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR4 LINE	SHEET 1486	E

NOTE:

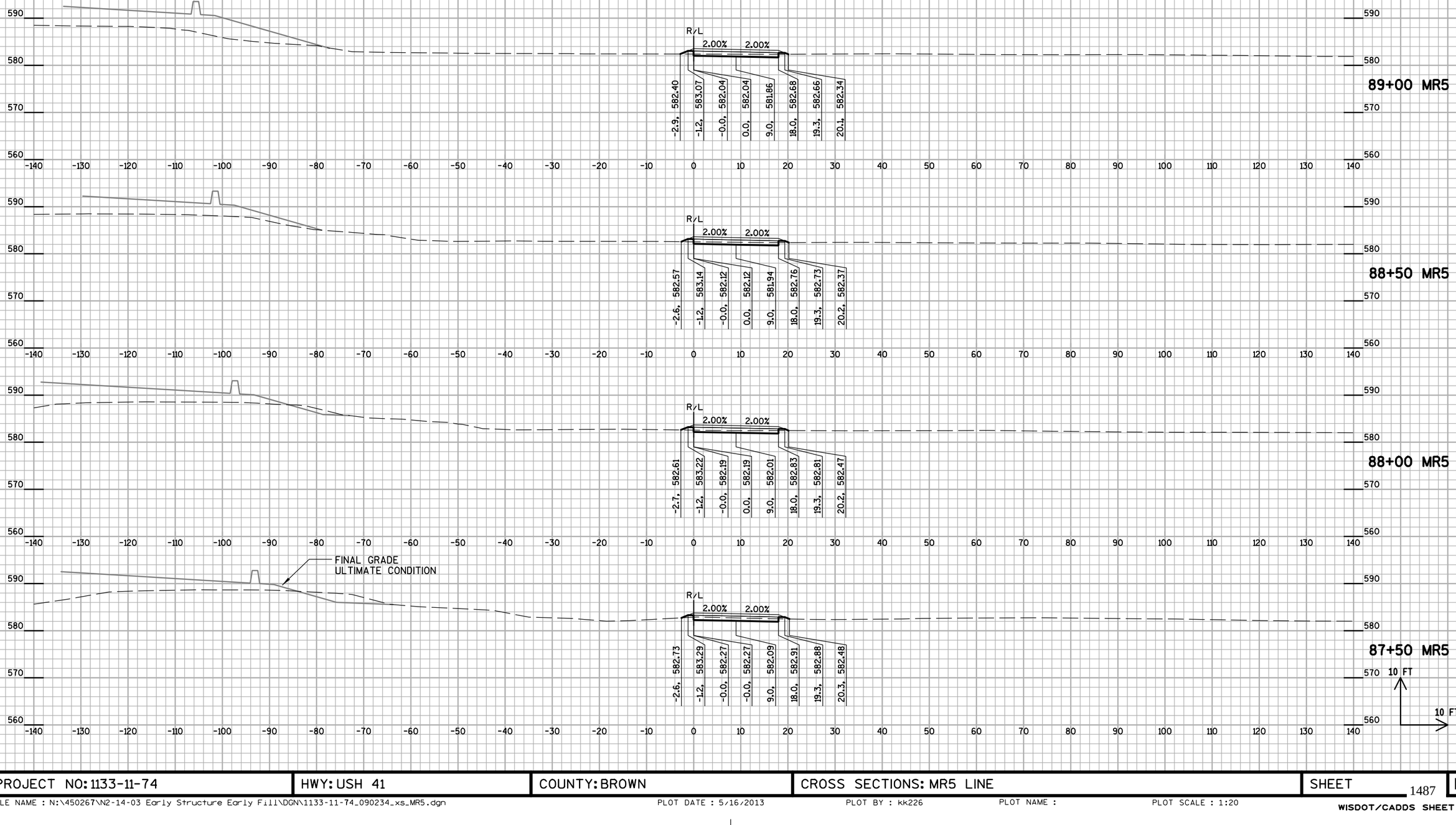
STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 87+00 MR5 TO STA. 94+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1487	E

NOTE:

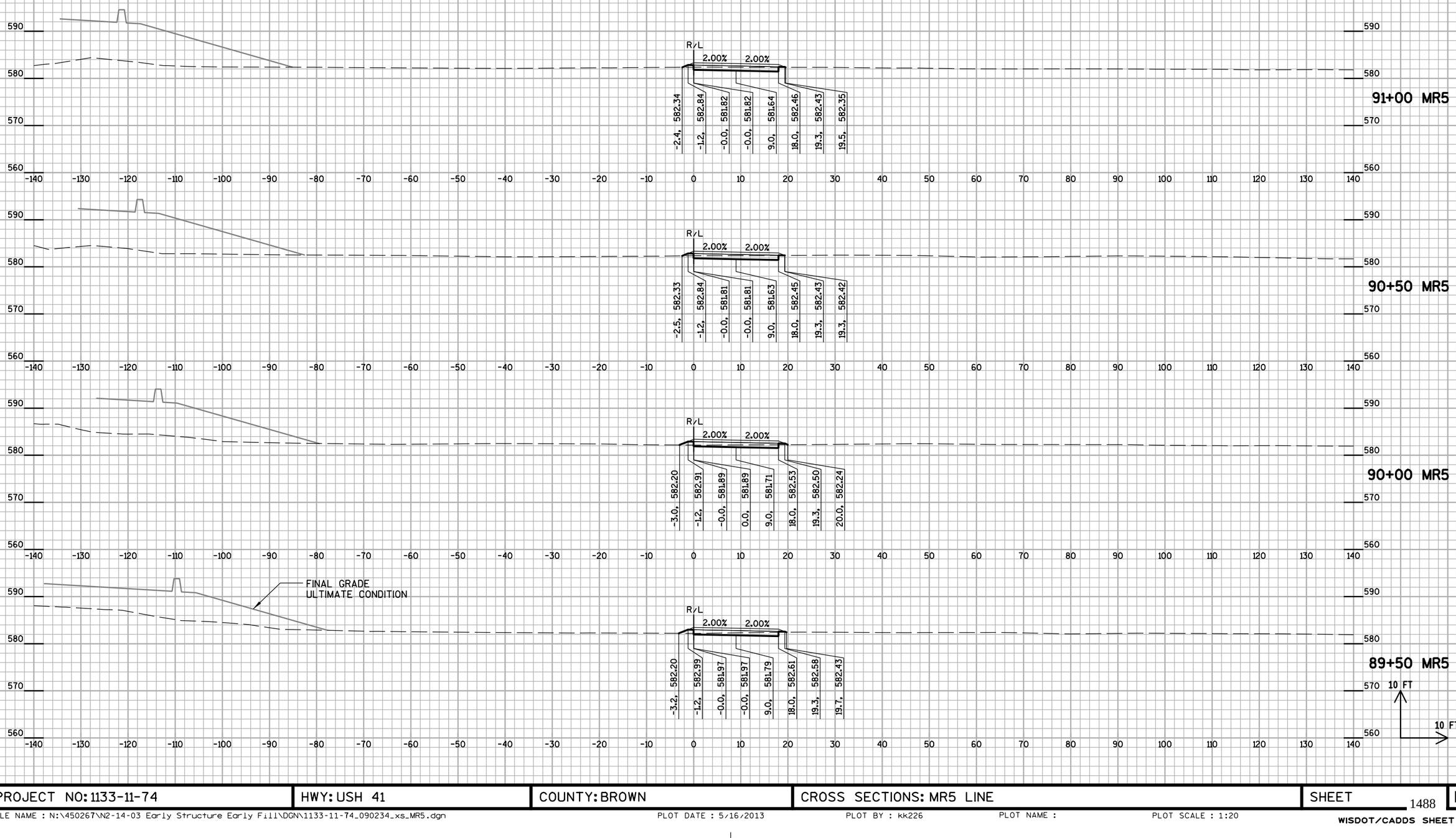
STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 87+00 MR5 TO STA. 94+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1488	E

NOTE:

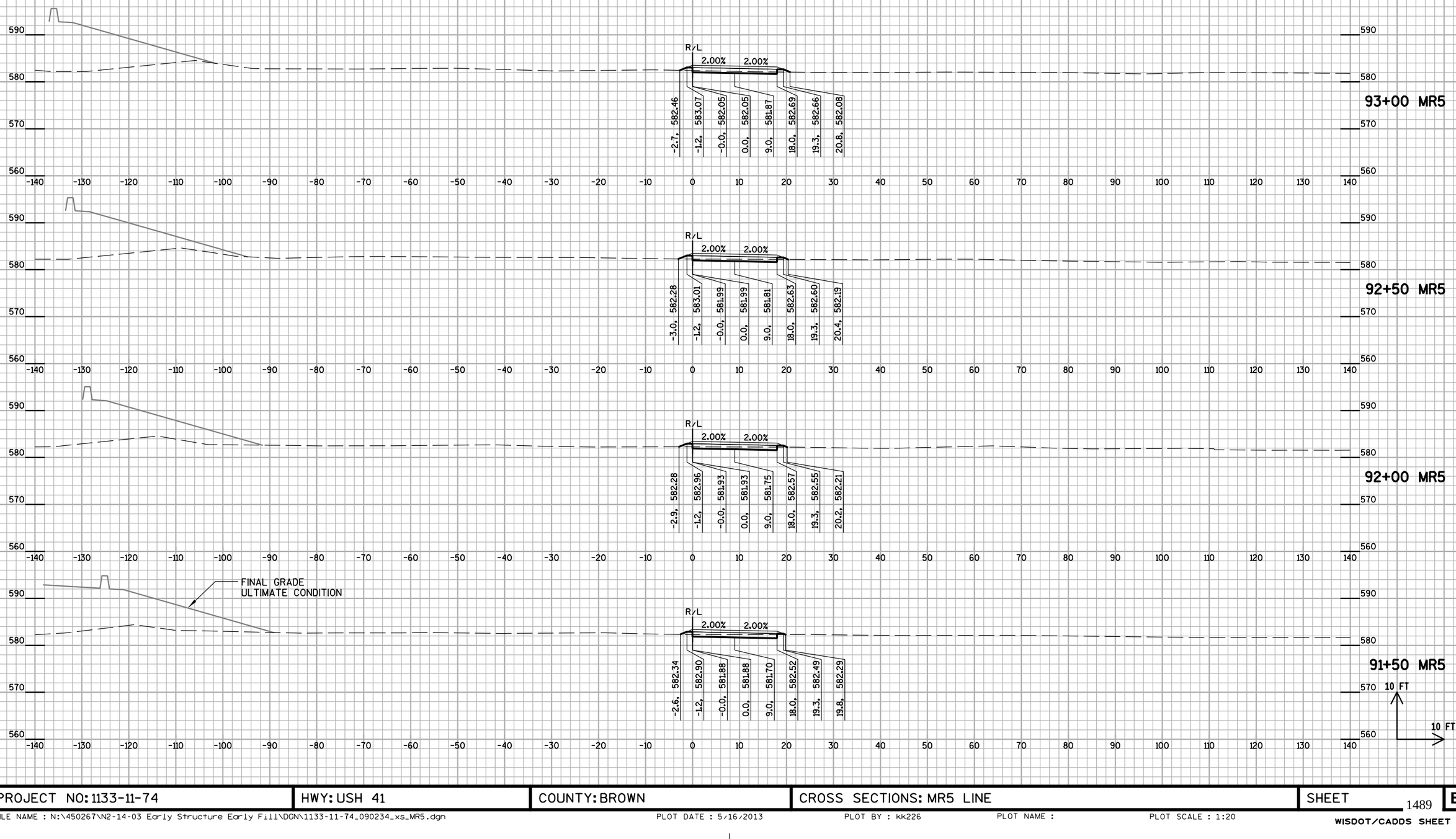
STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 87+00 MR5 TO STA. 94+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



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9

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1489	E

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

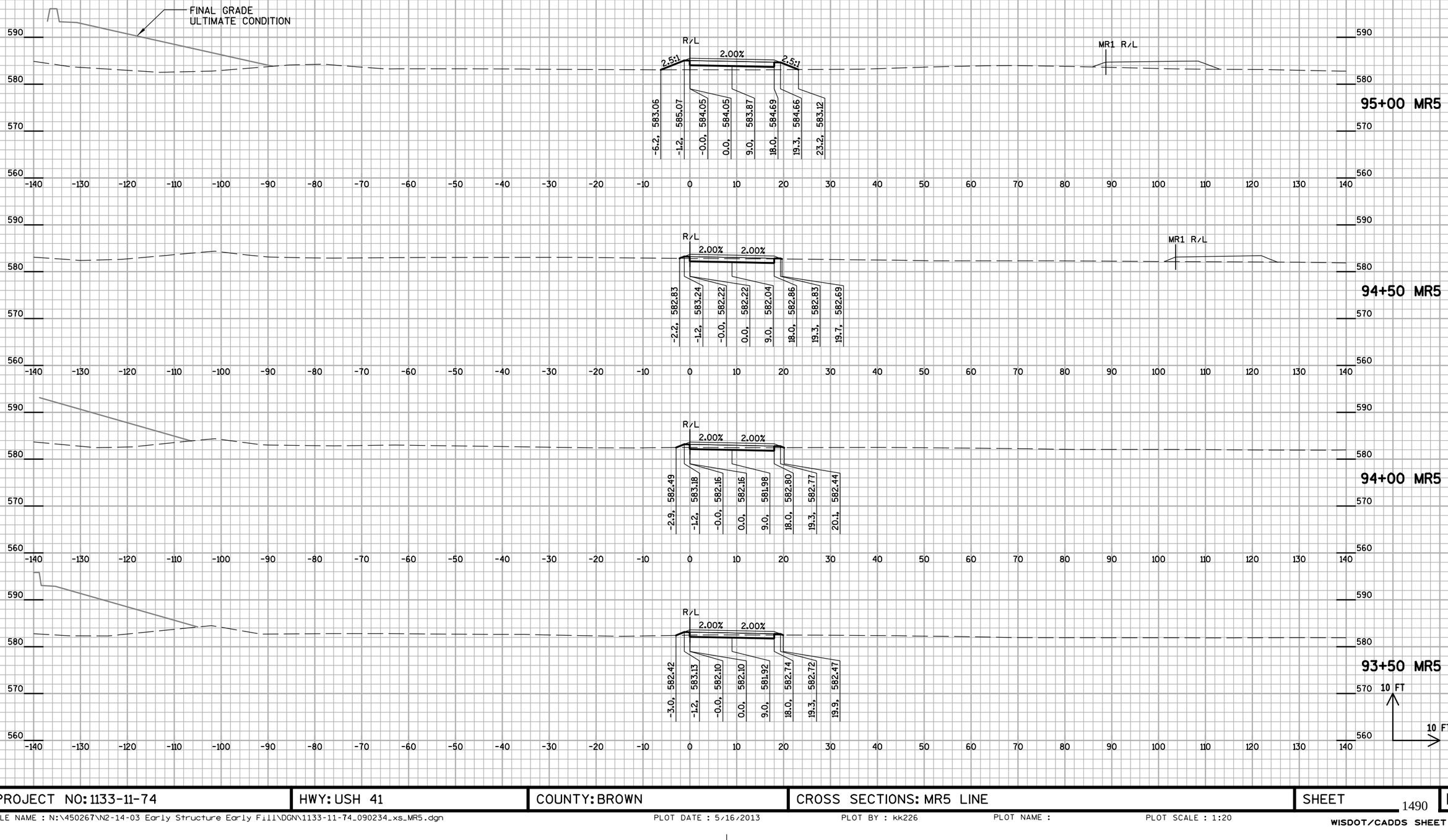
MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 87+00 MR5 TO STA. 94+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

STA. 93+50 MR5 TO 95+00 MR5



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1490	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

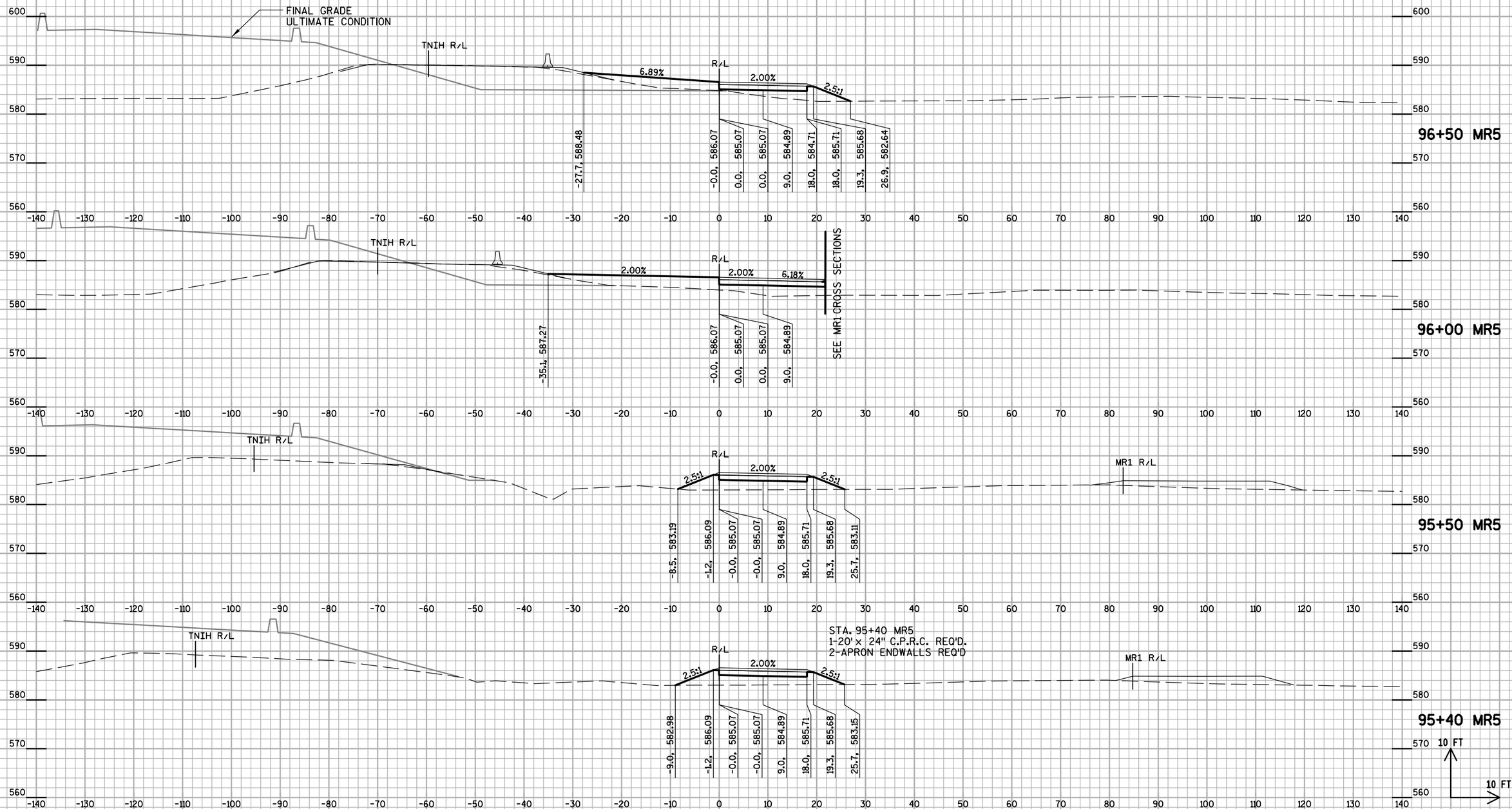
WISDOT/CADDS SHEET 21

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

STA. 95+40 MR5 TO 96+50 MR5



STA. 95+40 MR5
1-20' x 24" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D

9

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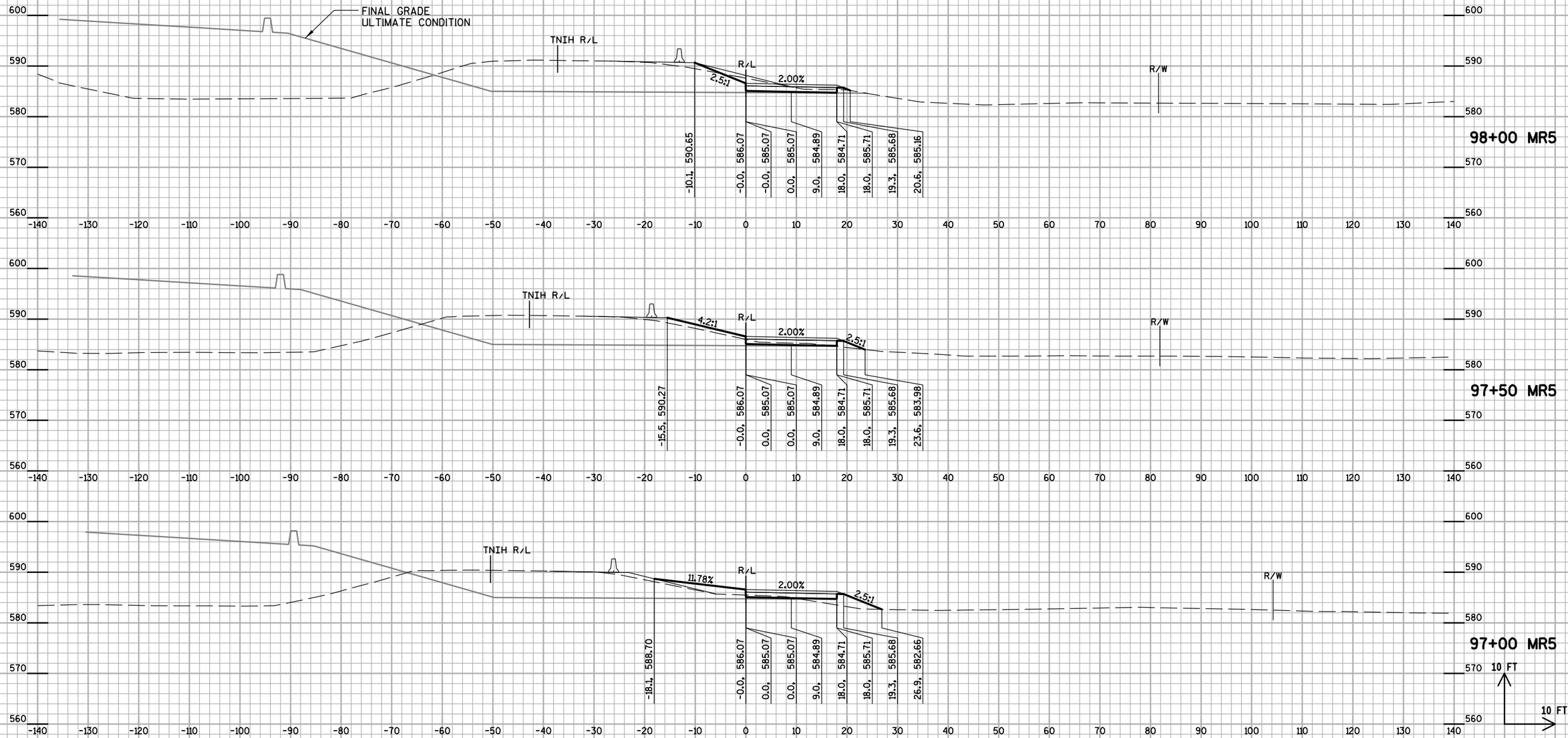
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1491	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

STA. 97+00 MR5 TO 98+00 MR5

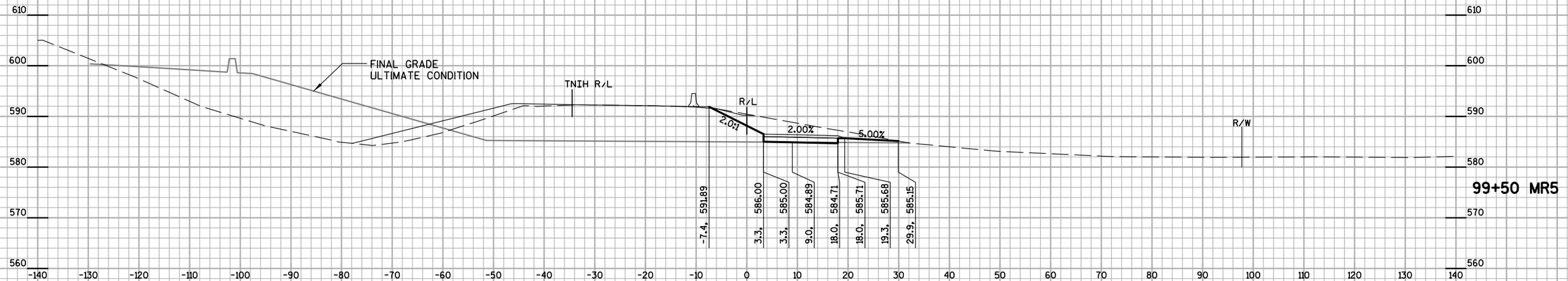


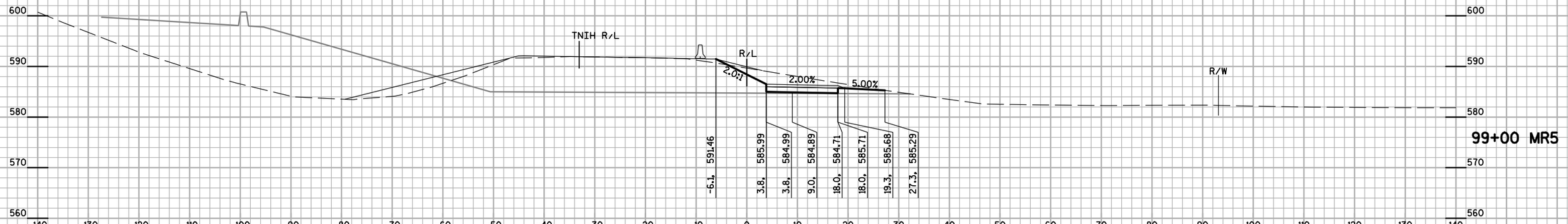
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1492	E

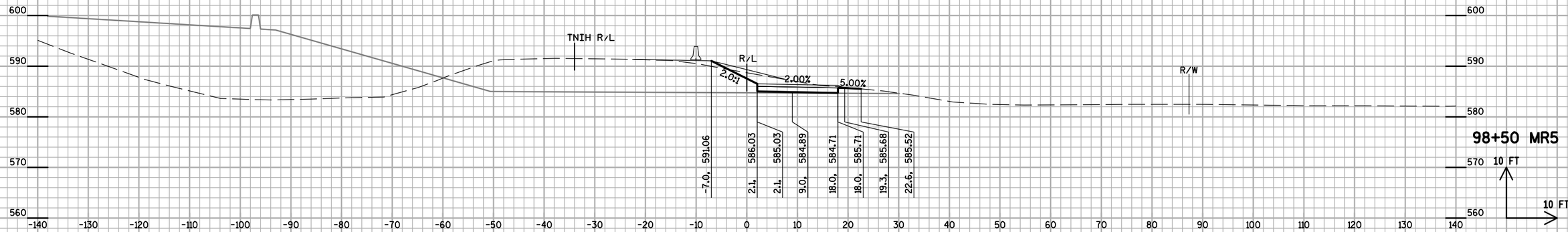
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 98+50 MR5 TO 99+50 MR5



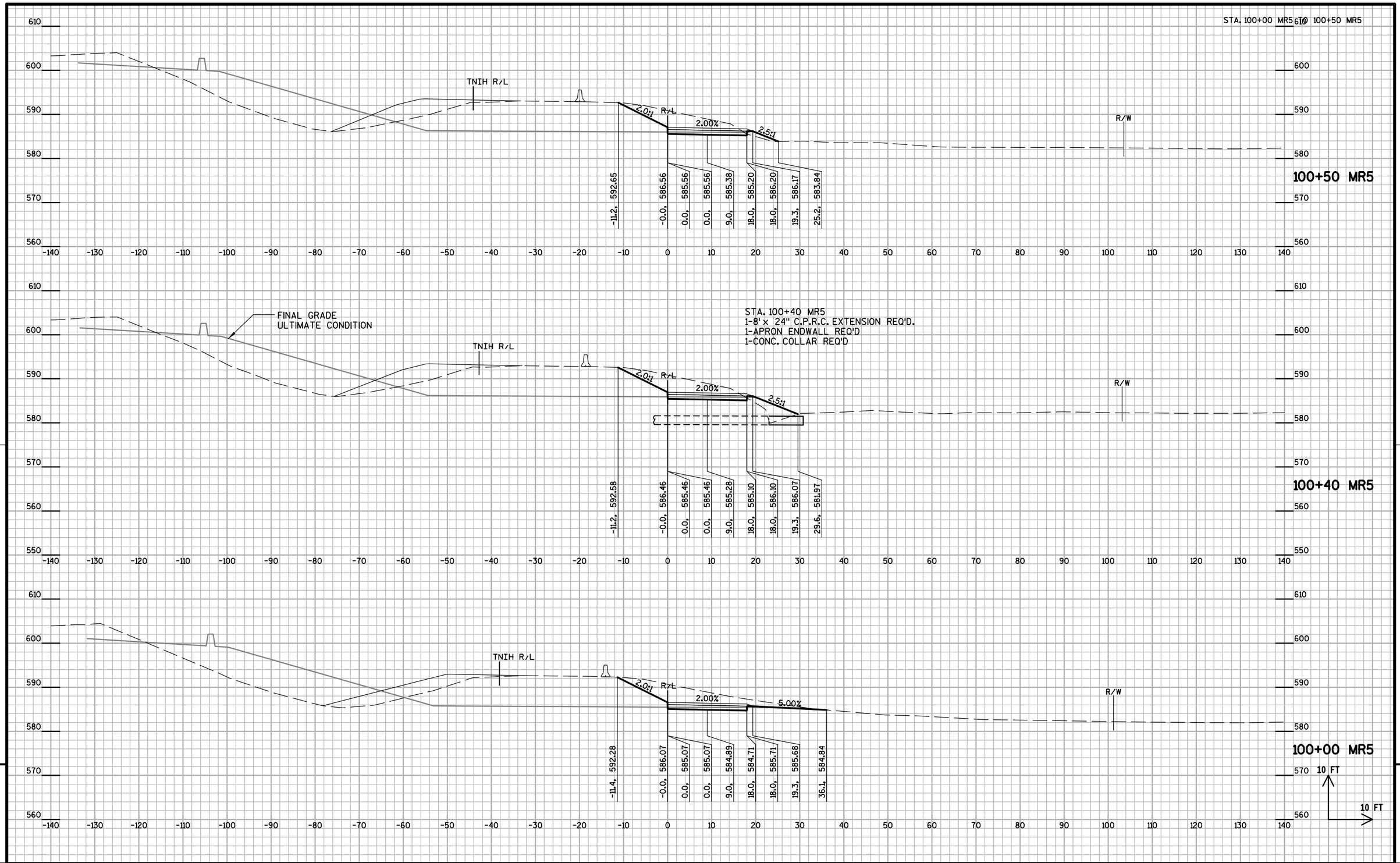




PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1493	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

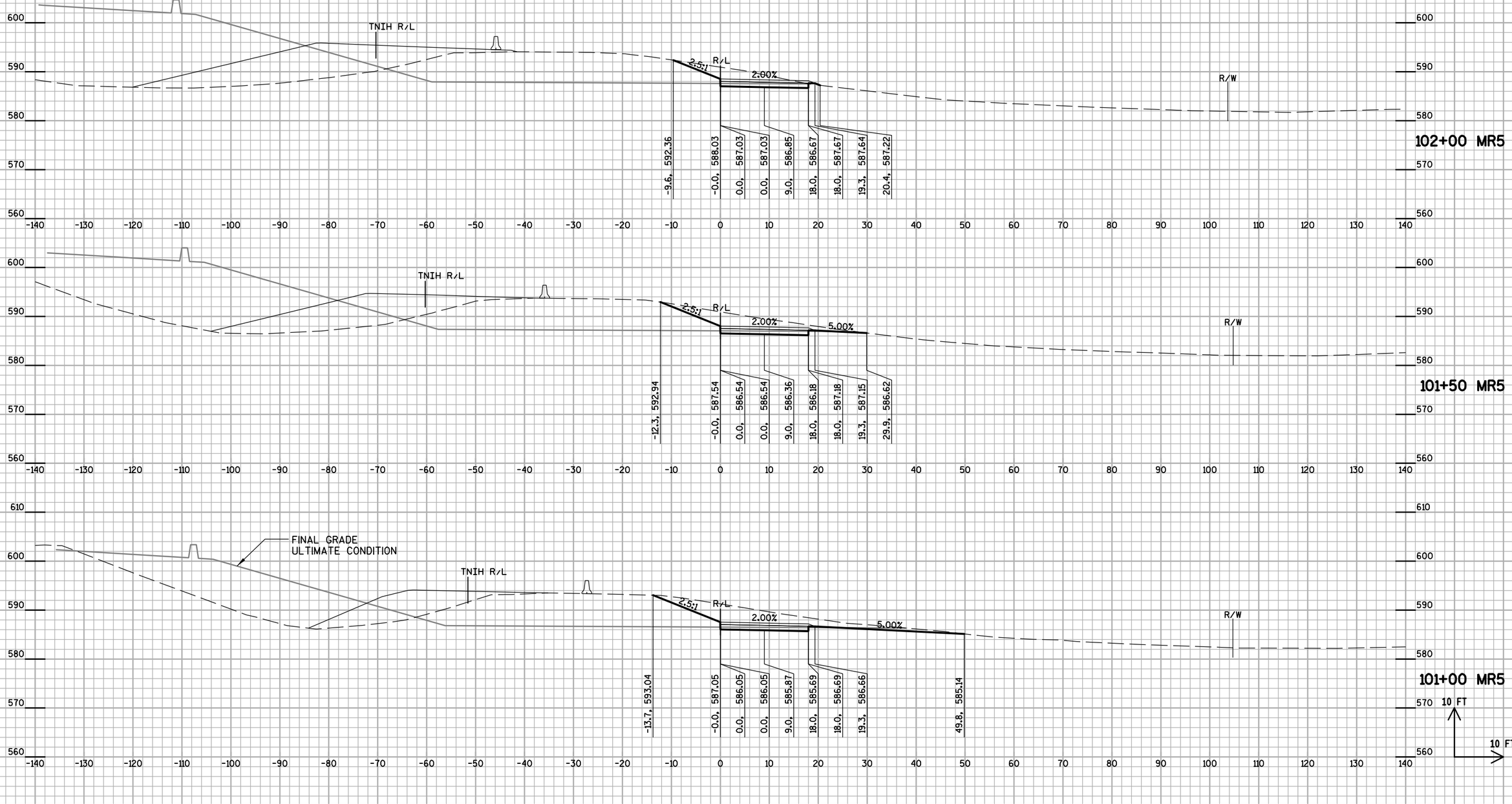


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1494	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn | PLOT DATE : 5/16/2013 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 101+00 MR5 TO 102+00 MR5

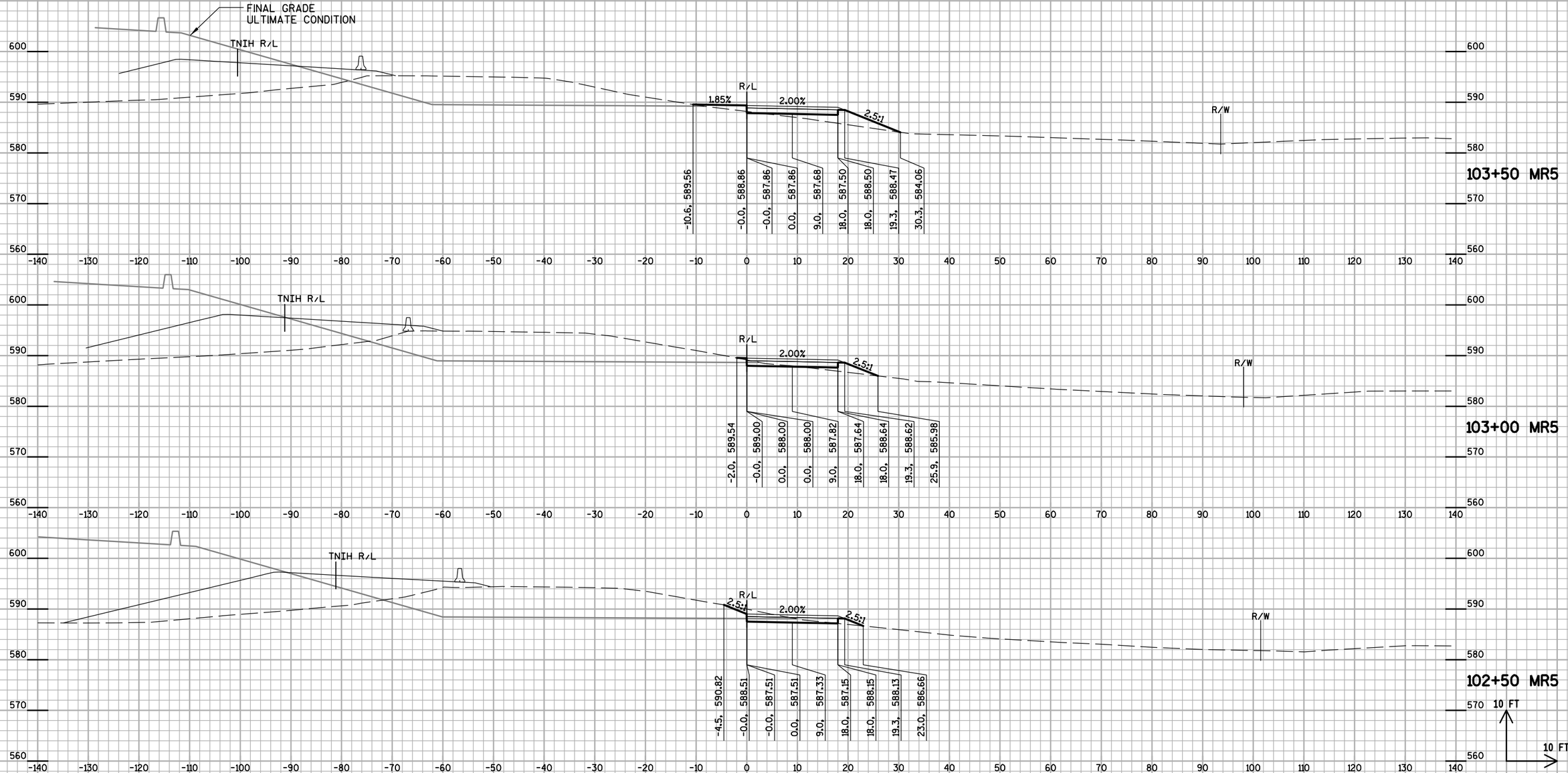


PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1495	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 102+50 MR5 TO 103+50 MR5



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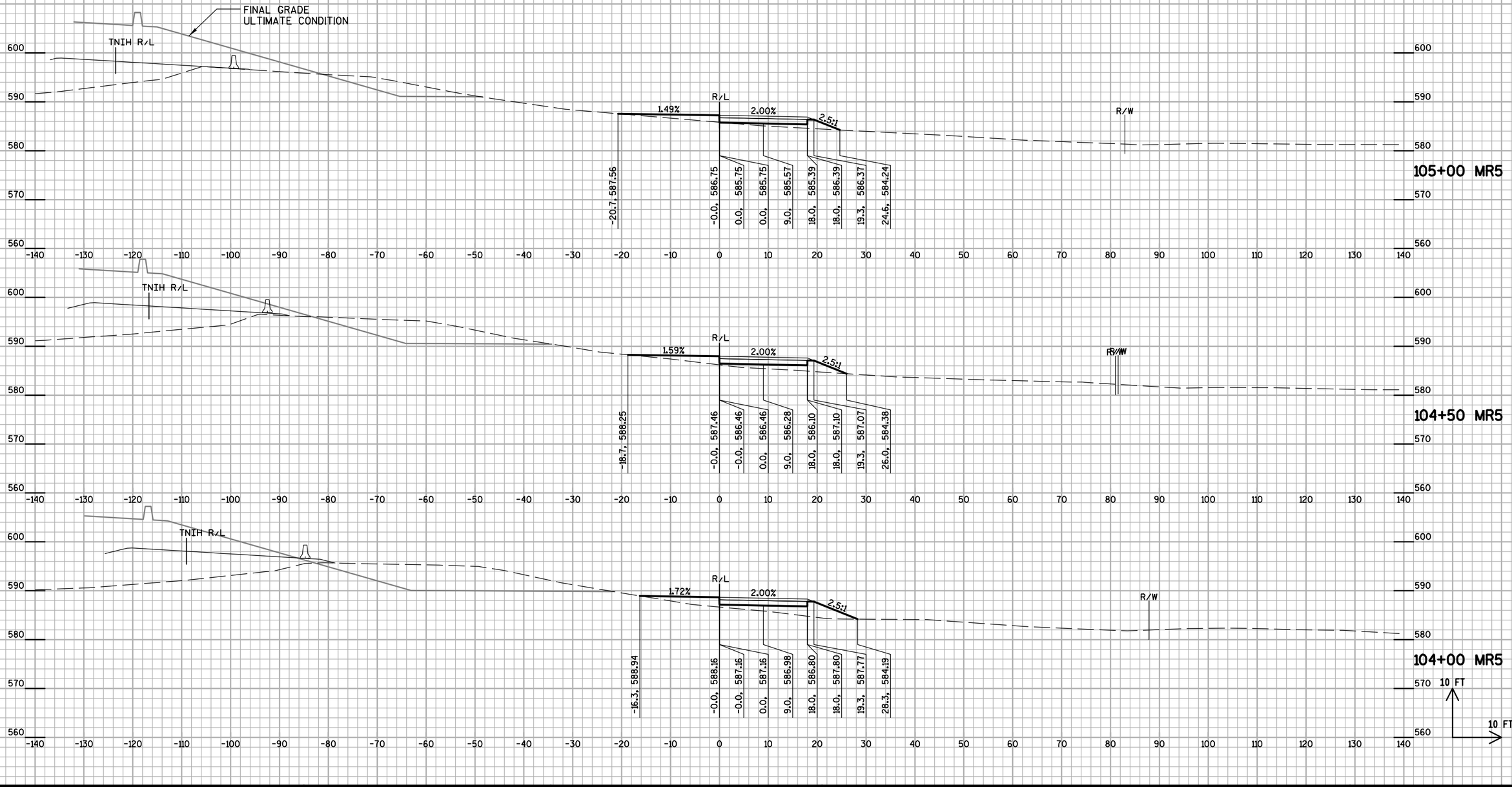
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1496	E

FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 104+00 MR5 TO 105+00 MR5



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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1497	E

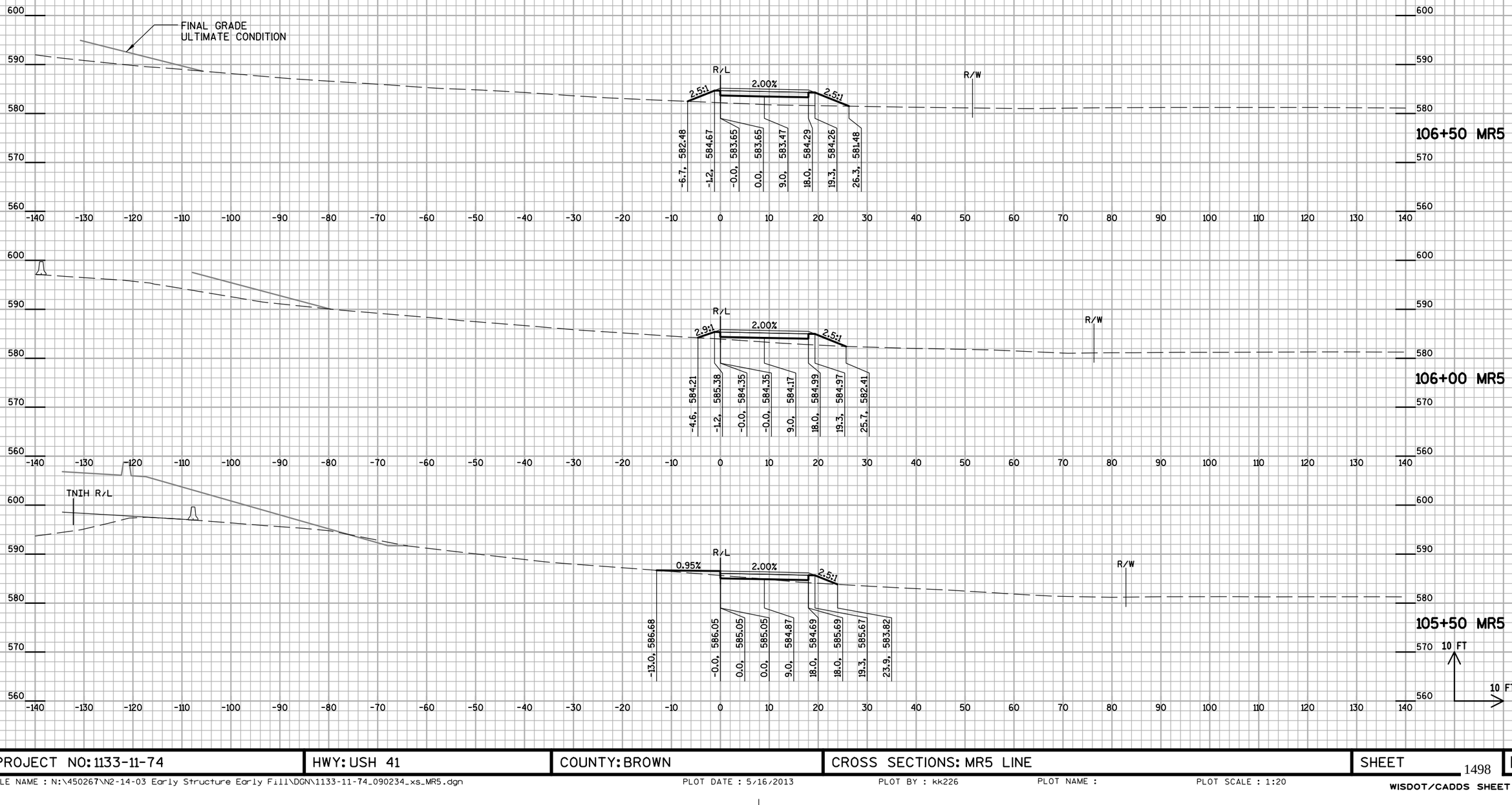
FILE NAME : N:\450267\N2-14-03 Early Structure Early Fill\DGN\1133-11-74_090234_xs_MR5.dgn PLOT DATE : 5/16/2013 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.



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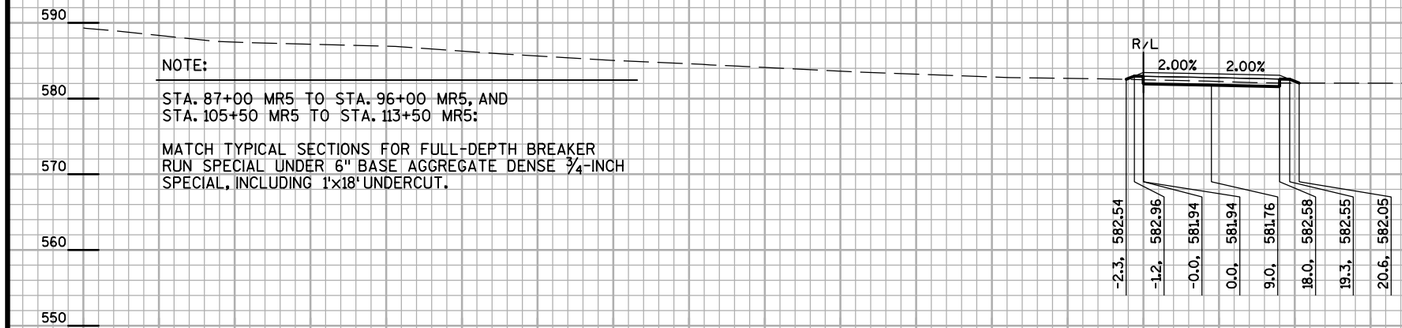
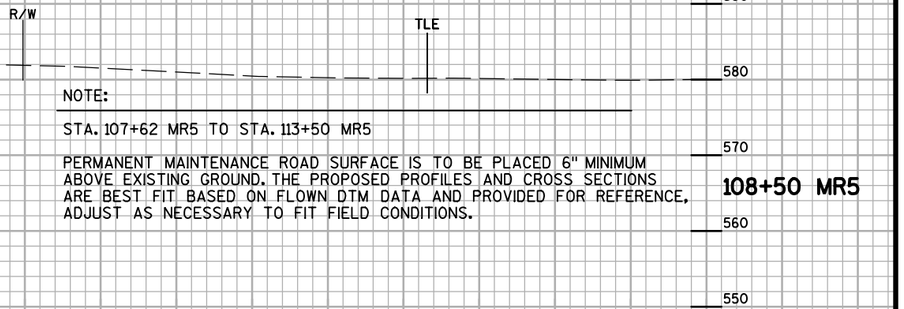
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1498	E

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

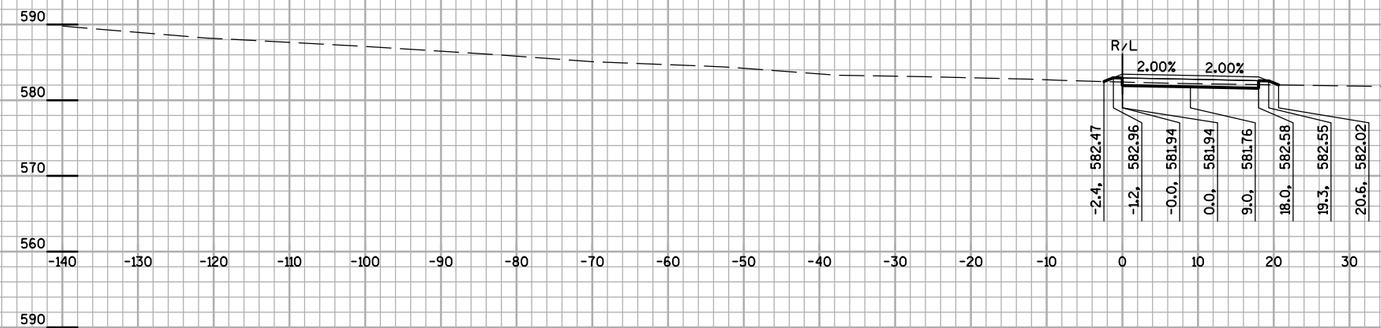


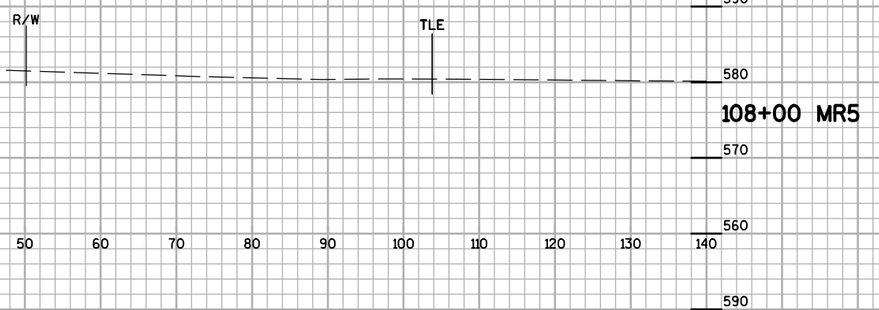


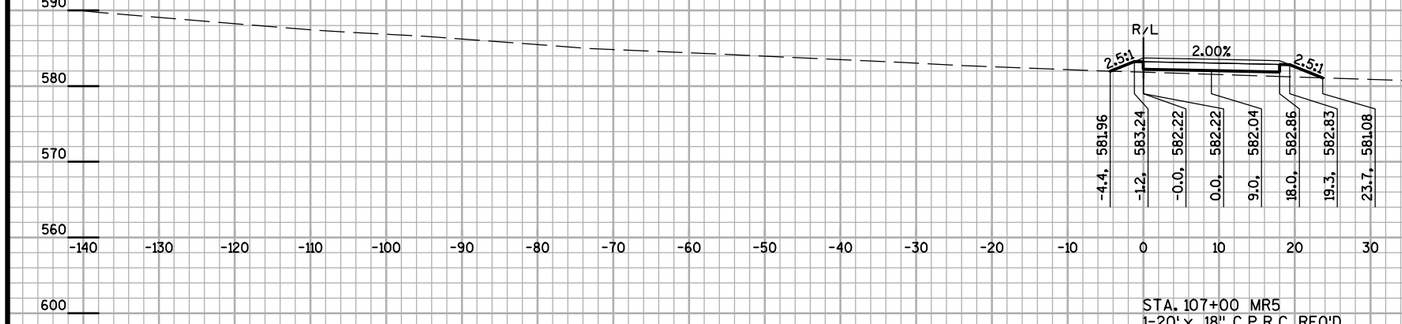
NOTE:

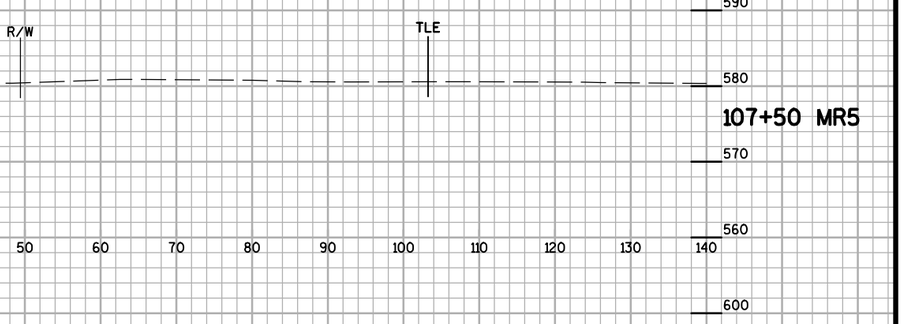
STA. 107+62 MR5 TO STA. 113+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

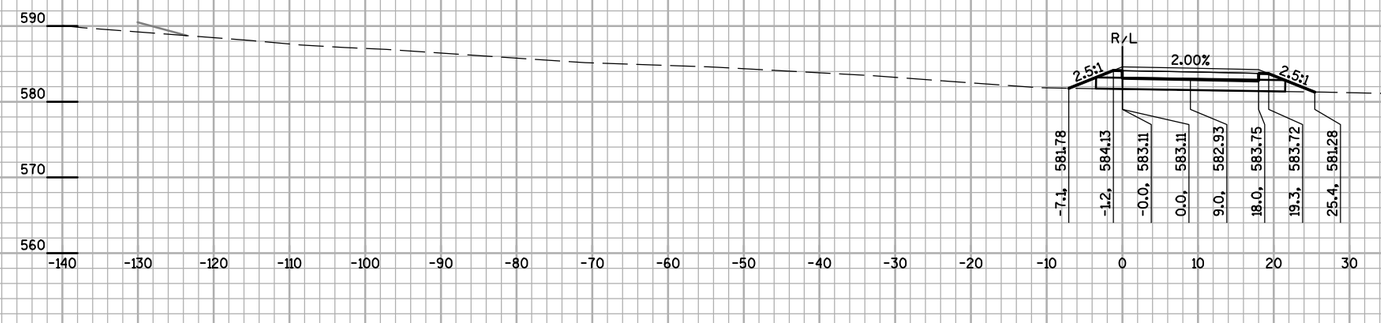


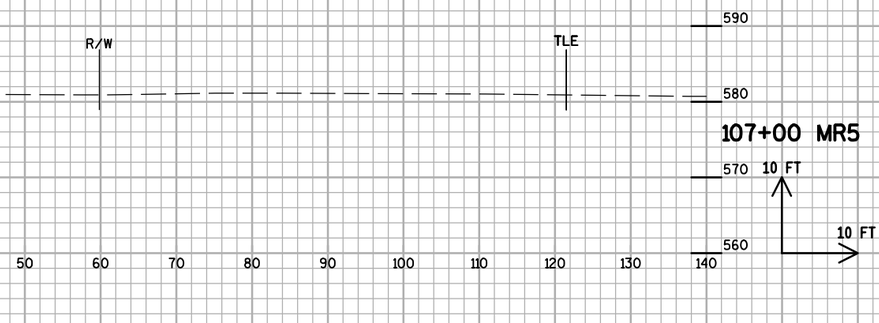






STA. 107+00 MR5
1-20' x 18" C.P.R.C. REQ'D.
2-APRON ENDWALLS REQ'D





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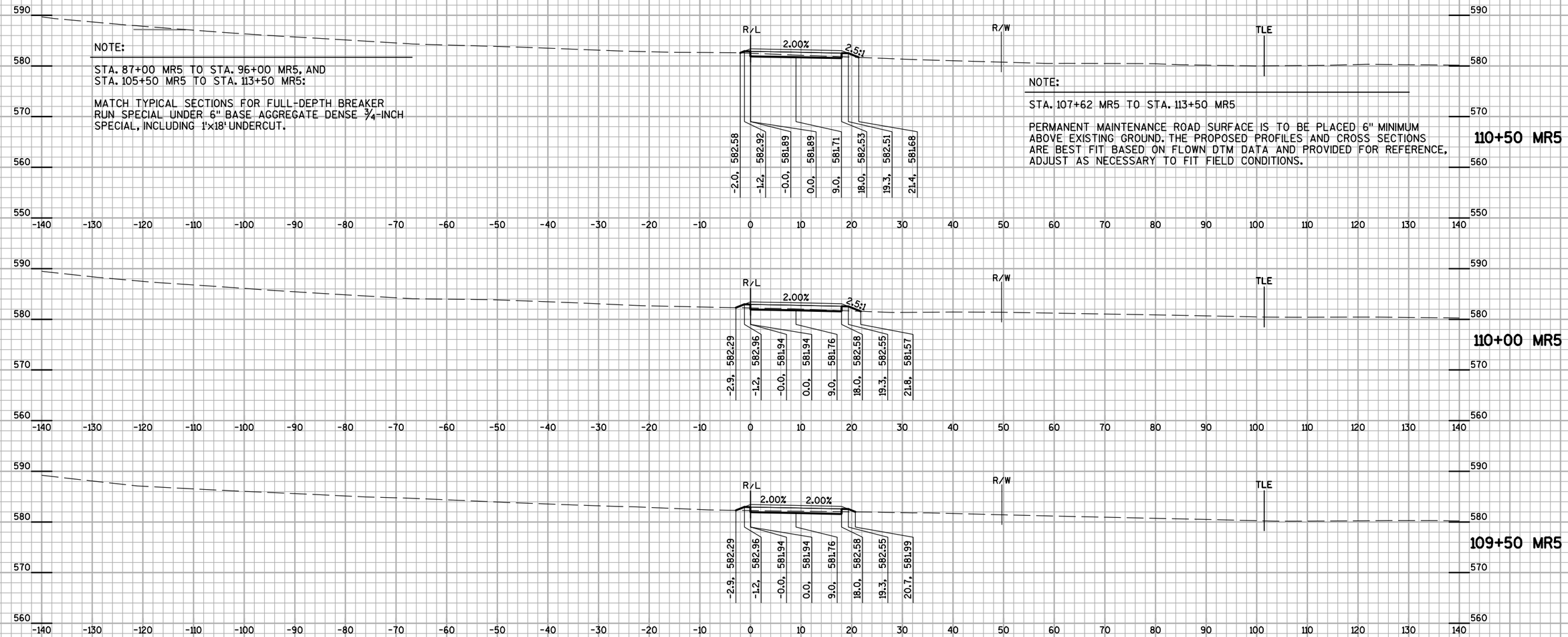
PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1499	E

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.



NOTE:

STA. 107+62 MR5 TO STA. 113+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

9

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PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1500	E

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE 3/4-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

NOTE:

STA. 107+62 MR5 TO STA. 113+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.

PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1501	E

NOTE:

STA. 87+00 MR5 TO STA. 96+00 MR5, AND
STA. 105+50 MR5 TO STA. 113+50 MR5:

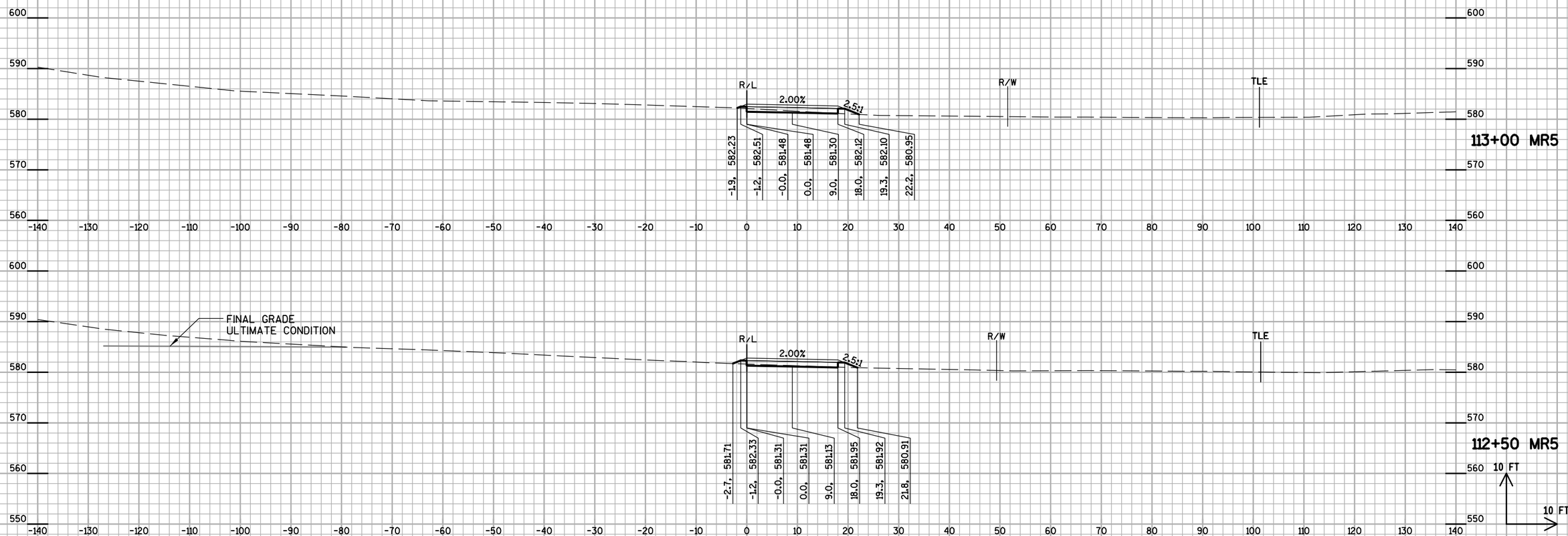
MATCH TYPICAL SECTIONS FOR FULL-DEPTH BREAKER RUN SPECIAL UNDER 6" BASE AGGREGATE DENSE ¾-INCH SPECIAL, INCLUDING 1'x18' UNDERCUT.

STA. 112+50 MR5 TO 113+00 MR5

NOTE:

STA. 107+62 MR5 TO STA. 113+50 MR5

PERMANENT MAINTENANCE ROAD SURFACE IS TO BE PLACED 6" MINIMUM ABOVE EXISTING GROUND. THE PROPOSED PROFILES AND CROSS SECTIONS ARE BEST FIT BASED ON FLOWN DTM DATA AND PROVIDED FOR REFERENCE, ADJUST AS NECESSARY TO FIT FIELD CONDITIONS.



PROJECT NO: 1133-11-74	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: MR5 LINE	SHEET 1502	E

Notes

Wisconsin Department of Transportation

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