GRE FEB 13

PROJECT ID: 1133-10-80, 1133-11-75/86

COUNTY: BROWN

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 = 328



60

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

DE PERE - SUAMICO

(MEMORIAL DRIVE - CTH M)

USH 41

BROWN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1133-10-80		
1133-11-75	WISC 2013050	1
1133-11-86		

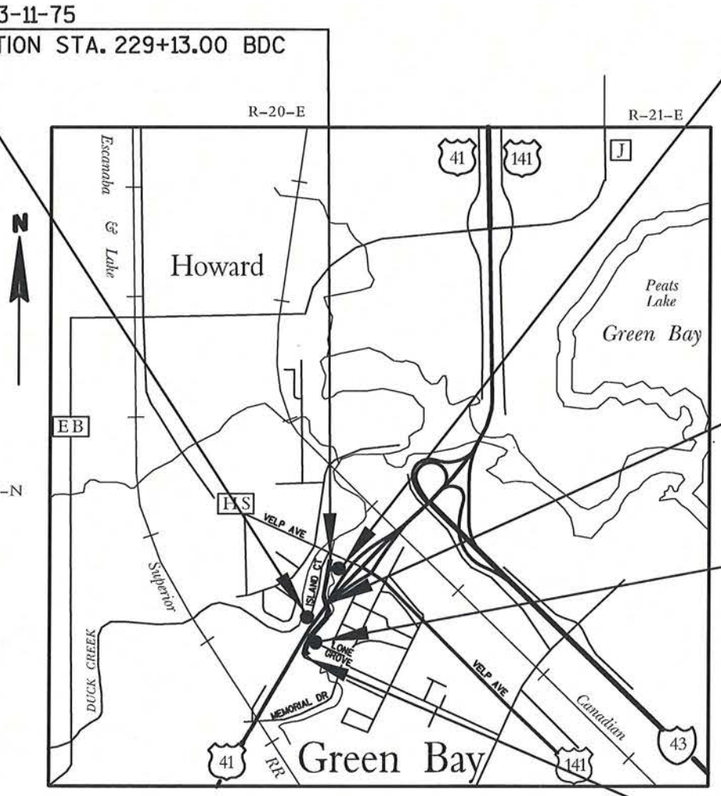
CONNECTING WISCONSIN

(ISLAND CT CUL DE SAC & LONE GROVE CUL DE SAC)	(BEAVER DAM CREEK BOX CULVERT & CREEK RE-ALIGNMENT)	(VELP AVE STORMWATER POND)
STATE PROJECT NUMBER	STATE PROJECT NUMBER	STATE PROJECT NUMBER
1133-10-80	1133-11-75	1133-11-86

PROJECT ID: 1133-11-75
END CONSTRUCTION STA. 229+13.00 BDC
Y=582825.502
X= 87388.246

PROJECT ID: 1133-10-80
BEGIN CONSTRUCTION STA. 57+32.24 IS
Y=581648.535
X= 86768.948
END CONSTRUCTION STA. 60+75.00 IS
Y=581872.723
X= 86979.310

PROJECT ID: 1133-11-86
VELP AVE STORMWATER POND



T-24-N

PROJECT ID: 1133-11-75
STRUCTURE B-05-0693
BEAVER DAM CREEK
BOX CULVERT

PROJECT ID: 1133-10-80
BEGIN CONSTRUCTION STA. 10+81.82 LG
Y=581046.030
X= 87009.785
END CONSTRUCTION STA. 11+87.36 LG
Y=581000.022
X= 87104.769

PROJECT ID: 1133-11-75
BEGIN CONSTRUCTION STA. 207+50.41 BDC
Y=580853.938
X= 86889.196

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).

DESIGN DESIGNATION USH 41 (1133-11-75)		DESIGN DESIGNATION LONE GROVE AVE (1133-10-80)		DESIGN DESIGNATION ISLAND CT (1133-10-80)	
A.A.D.T. (2015)	= 73,400	A.A.D.T. (2015)	= < 50	A.A.D.T. (2015)	= < 50
A.A.D.T. (2035)	= 97,700	A.A.D.T. (2035)	= < 50	A.A.D.T. (2035)	= < 50
D.H.V.	= 8,720	D.H.V.	= N/A	D.H.V.	= N/A
D.D.	= 50/50	D.D.	= 50/50	D.D.	= 50/50
T.	= 9.9%	T.	= 3.5%	T.	= 3.5%
DESIGN SPEED	= 70 MPH	DESIGN SPEED	= 30 MPH	DESIGN SPEED	= 30 MPH
ESALS	= 15,293,500	ESALS	= N/A	ESALS	= N/A

CONVENTIONAL SYMBOLS

PLAN
- SAW CUT
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI. PROJECT ID 1133-10-80
TOTAL NET LENGTH OF CENTERLINE = 0.000 MI. PROJECT ID 1133-11-75
TOTAL NET LENGTH OF CENTERLINE = 0.000 MI. PROJECT ID 1133-11-86

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

WISCONSIN
WILLIAM C. ROTH
E-20838
BLACK EARTH
WI
PROFESSIONAL ENGINEER

7/10/12

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

APPROVED FOR THE DEPARTMENT
DATE: 07/11/12 Paul Vraney (Signature)

E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_010101_ti.dgn PLOT BY : dm253 PLOT DATE : 7/10/2012 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 10

2

GENERAL NOTES

ANY TRAFFIC CONTROL NECESSARY FOR DELIVERY OF ITEMS INCLUDED UNDER THIS CONTRACT IS CONSIDERED INCIDENTAL TO THE CONTRACT AND MUST CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE WISCONSIN SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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.

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.

SEED, FERTILIZE, AND MULCH OR PLACE EROSION MAT AT ANY AREAS WITHIN THE RIGHT-OF-WAY DISTURBED AS A RESULT OF WORK. ANY SUCH WORK IS CONSIDERED INCIDENTAL TO THE CONTRACT.

DO NOT USE FERTILIZER WITHIN 20 FEET OF NAVIGABLE WATERWAYS OR WETLANDS.

PLACE 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 TOPSOIL.

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

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF 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.

COVER ALL SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

RESHAPING 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[3]

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
SENIOR SURVEYING SPECIALIST
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

AT&T Legacy
c/o JMC Engineers & Associates, Inc.
William Koenig
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MOB: 608-628-0575
JMC140@frontier.com

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c/o Multimedia Communications & Engineering Inc.
Joel Mikulsky
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Green Bay, WI 54307
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jmikulsky@mcae.biz

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Jim Kostuch
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13935 Bishops Drive
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PH: 262-792-7938
James.Kostuch@windstream.com

Brown County Surveyor
Pat Ford
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Green Bay, WI 54305-3600
PH: 920-448-4493
ford_pj@co.brown.wi.us

GREEN BAY METROPOLITAN SEWERAGE DISTRICT
MICHAEL PIERNER
ENGINEERING SERVICES MANAGER
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PHONE: 920-438-1033
EMAIL: mpierner@gbmsd.org

NET-LEC / NSIGHT / CELLCOM
C/O MI-TECH SERVICES
DENNIS LAFAVE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
MOBILE: 920-619-9774
EMAIL: dlafave@mi-tech.us

QWEST COMMUNICATIONS
KEVIN HUFF
13057 S MONITOR AVE
PALOS HEIGHTS, IL 60463
PHONE: 708-837-7927
EMAIL: kevin.huff@qwest.com

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

VILLAGE OF HOWARD
MARTY FRISQUE
1336 CORNELL RD
GREEN BAY, WI 54313
PHONE: 920-434-4060
MOBILE: 920-819-6721
EMAIL: mfrisque@villageofhoward.com

WISCONSIN PUBLIC SERVICE CORPORATION
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ELECTRIC DESIGN ENGINEER
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
CHRIS STREBEL
REGIONAL GAS ENGINEER
2850 SOUTH ASHLAND AVENUE
PO BOX 19001
GREEN BAY, WI 54307
PHONE: 920-617-5092
MOBILE: 920-660-2021
EMAIL: cjstrebel@wisconsinpublicservice.com

DIGGERS HOTLINE
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or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

ORDER OF SECTION 2 SHEETS

GENERAL NOTES & CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS
PLAN DETAILS
EROSION CONTROL
STORM SEWER
PLANTING DETAIL
SIGNING AND MARKING
STAGE CONSTRUCTION
TRAFFIC CONTROL
FENCING
ALIGNMENT DIAGRAM

2

VILLAGE OF HOWARD

PROJECT ID: 1133-10-80
END CONSTRUCTION STA. 60+75.00 IS

PROJECT ID:1133-11-75
END CONSTRUCTION STA. 229+13 BDC

PROJECT ID: 1133-10-80
BEGIN CONSTRUCTION STA. 57+32.24 IS

DUCK CREEK

ISLAND CT.

65 IS

60 IS

225 BDC

CREEK

BEAVER DAM

USH 41

PROJECT ID: 1133-11-75
STRUCTURE NO. B-05-0693

PROJECT ID: 1133-11-86
VELP AVE STORMWATER POND

CTH HS (VELP AVE.)

210 BDC

215 BDC

PROJECT ID: 1133-11-75
BEGIN CONSTRUCTION STA. 207+50.41 BDC

PROJECT ID: 1133-10-80
BEGIN CONSTRUCTION STA. 10+81.82 LG

PROJECT ID: 1133-10-80
END CONSTRUCTION STA. 11+87.36 LG

12 LG

LONE GROVE CT.

ROSEWOOD ST.

DARWIN AVE

GLENVIEW AVE

PLAYGROUND

BASKETBALL COURT

BEAVER DAM CREEK

MEMORIAL DR.

USH 41

USH 141 (VELP AVE.)

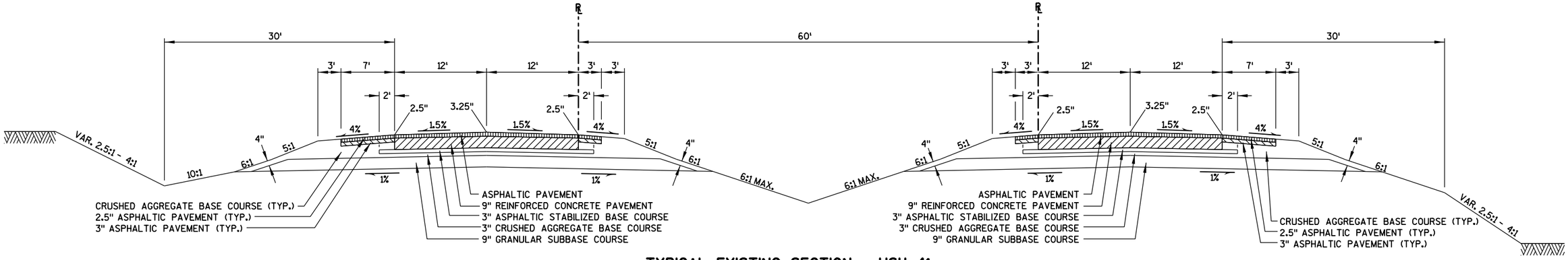
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PROJECT NO: 1133-10-80, 1133-11-75/86	HWY: USH 41	COUNTY: BROWN	PROJECT OVERVIEW	SCALE, FEET 0 100 200	SHEET 3	E

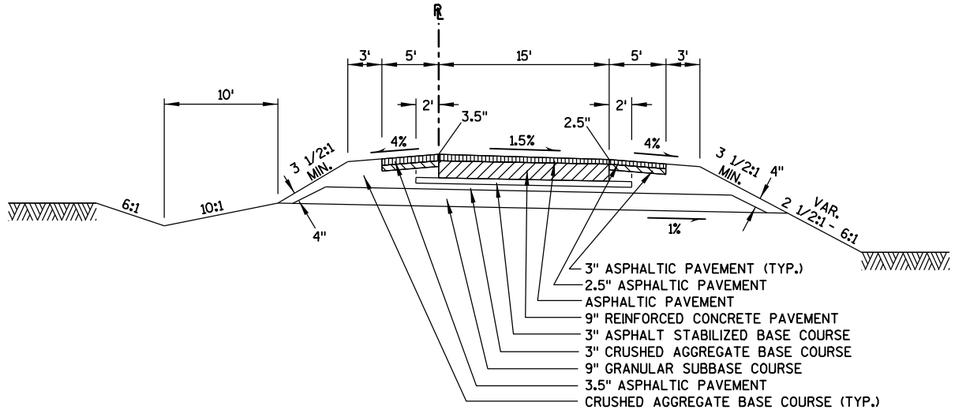
FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_020201_po.dgn

PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

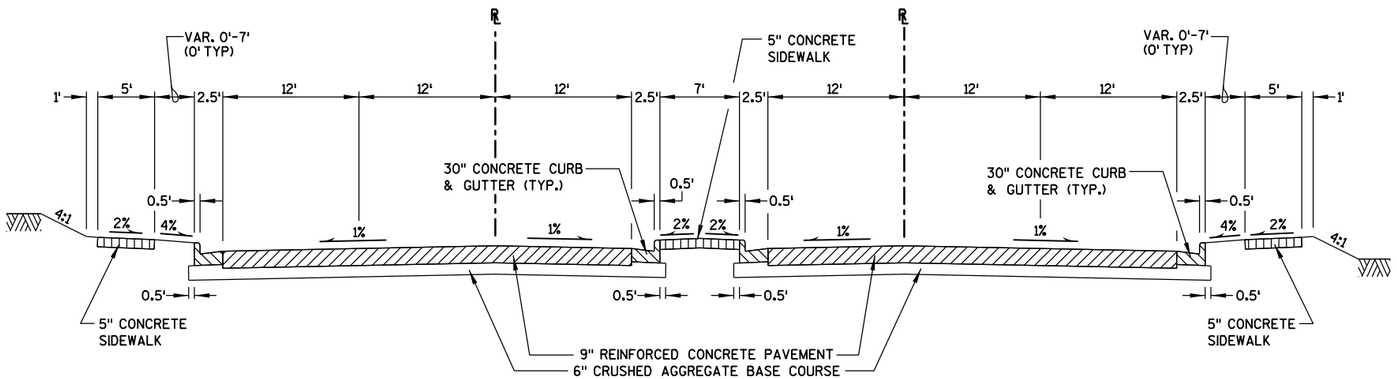
WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION - USH 41

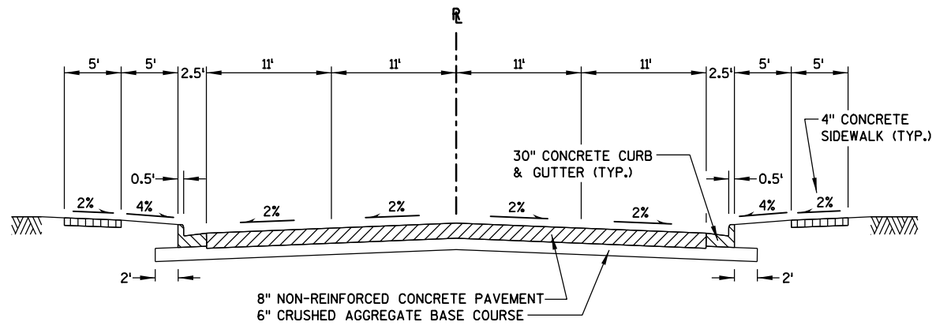


TYPICAL EXISTING SECTION - NB OFF-RAMP & SB ON-RAMP AT VELP AVE



TYPICAL EXISTING SECTION - USH 141 (VELP AVE)

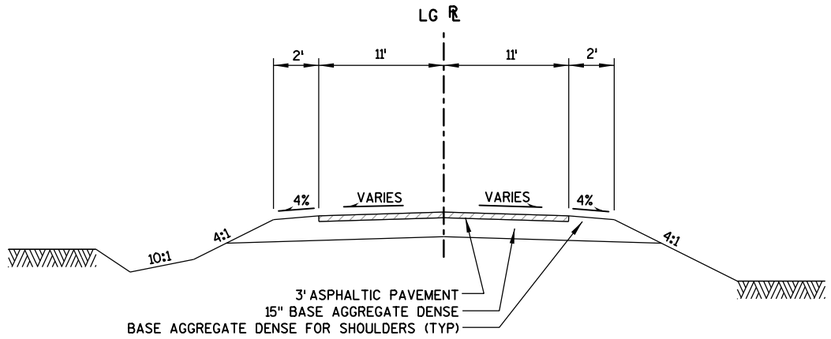
(USH 41 TO MEMORIAL DR)



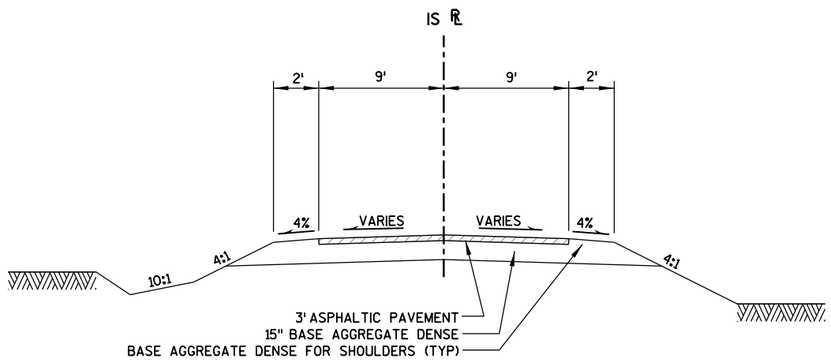
TYPICAL EXISTING SECTION - CTH HS (VELP AVE)

(WEST OF USH 41)

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 4	E



TYPICAL EXISTING SECTION FOR LONE GROVE AVE - LG

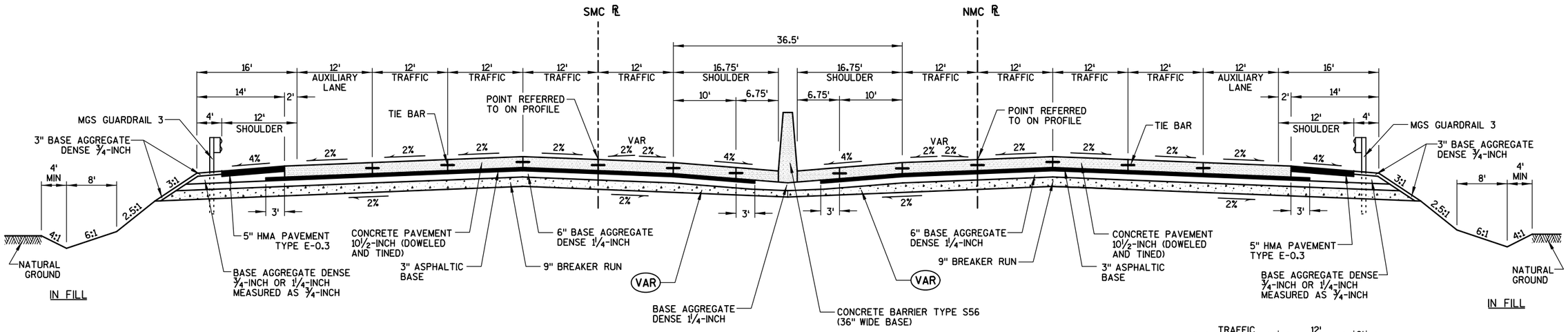


TYPICAL EXISTING SECTION FOR ISLAND CT - IS

PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_020301_ts.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

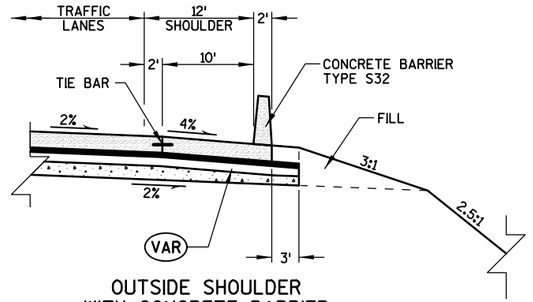
WISDOT/CADDS SHEET 42



TYPICAL FINISHED SECTION - USH 41 (NMC & SMC)

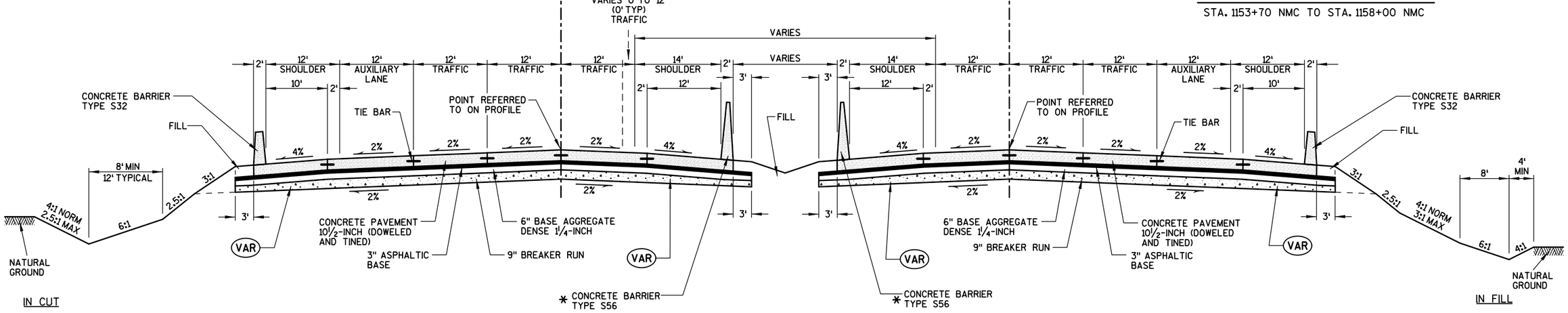
STA. 1138+00 NMC TO STA. 1158+00 NMC

(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL



OUTSIDE SHOULDER WITH CONCRETE BARRIER

STA. 1153+70 NMC TO STA. 1158+00 NMC



TYPICAL FINISHED SECTION - USH 41 (NMC & SMC)

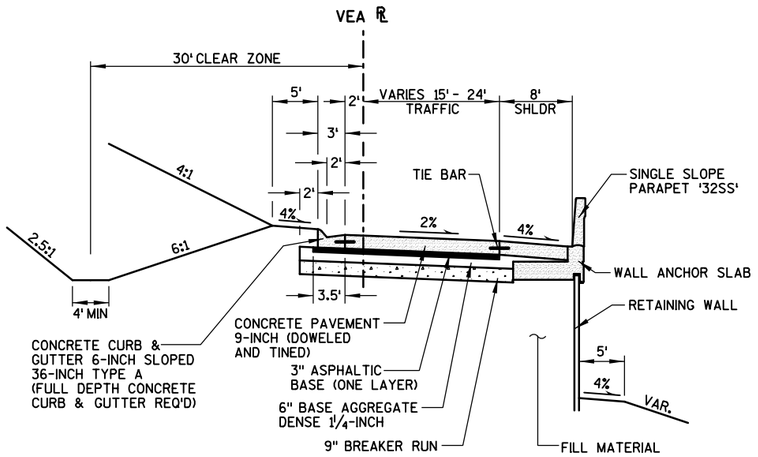
STA. 1158+00 NMC TO STA. 1227+71 NMC

* SINGLE RUN OF CONCRETE BARRIER TYPE 56 - 36" WIDE BASE (STA. 1158+00 NMC TO STA. 1169+50 NMC LT)

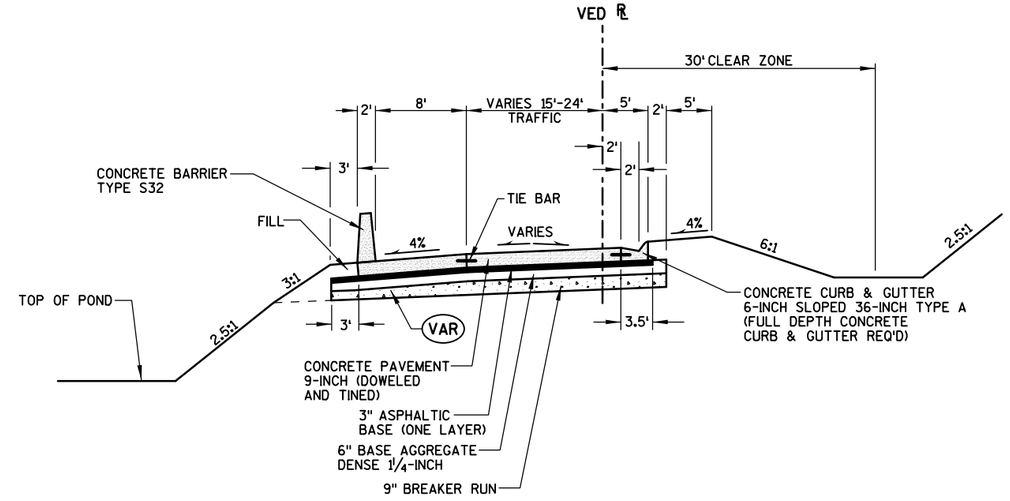
(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL

NOTE:
THIS SHEET SHOWS THE ULTIMATE RECONSTRUCTION AND EXPANSION OF USH 41 BY OTHERS UNDER A SEPARATE FUTURE PROJECT.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 6	E



NB OFF-RAMP (VEA LINE)

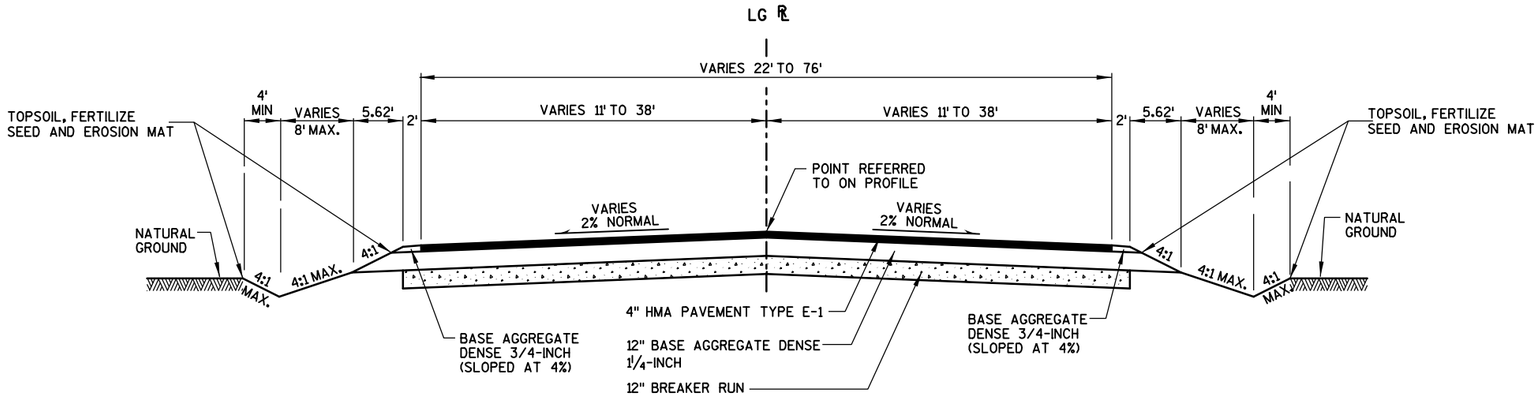


SB ON-RAMP (VED LINE)

NOTE:
THIS SHEET SHOWS THE ULTIMATE RECONSTRUCTION AND EXPANSION OF USH 41 BY OTHERS UNDER A SEPARATE FUTURE PROJECT.

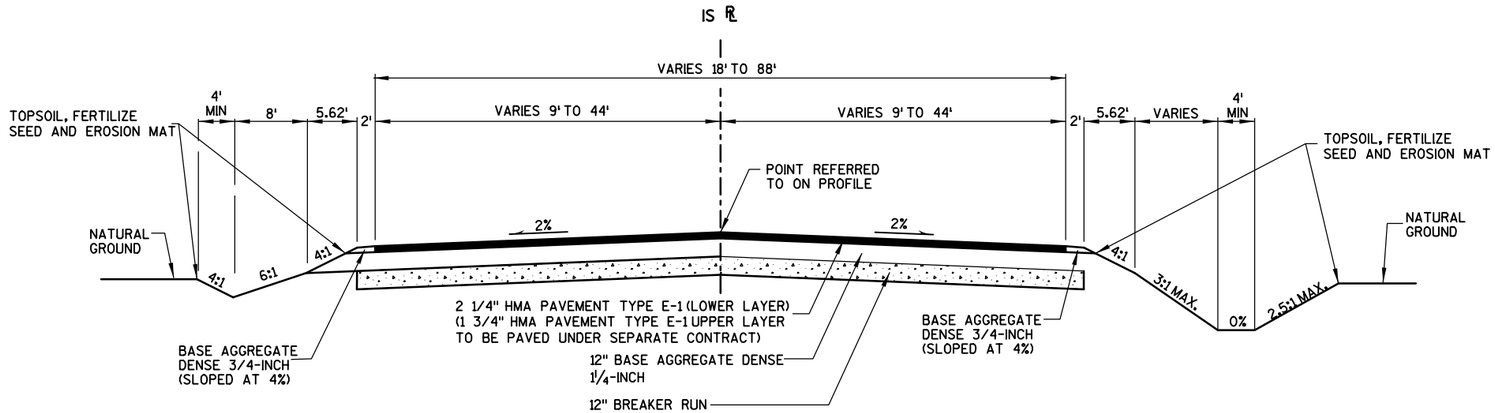
TYPICAL FINISHED SECTIONS - VELP AVENUE RAMPS

(VAR) - SEE VARIABLE THICKNESS SUBGRADE DETAIL



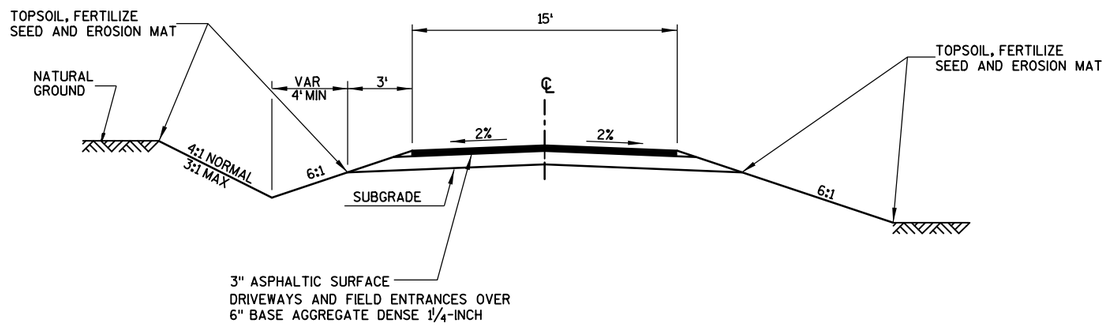
TYPICAL FINISHED SECTION - LONE GROVE AVE CUL DE SAC - LG

STA. 10+81.82 - STA. 11+87.36



TYPICAL FINISHED SECTION - ISLAND COURT CUL DE SAC - IS

STA. 57+32.24 - STA. 60+75



TYPICAL CROSS SECTION FOR PRIVATE DRIVE

STA. 59+66.5 ISLAND COURT

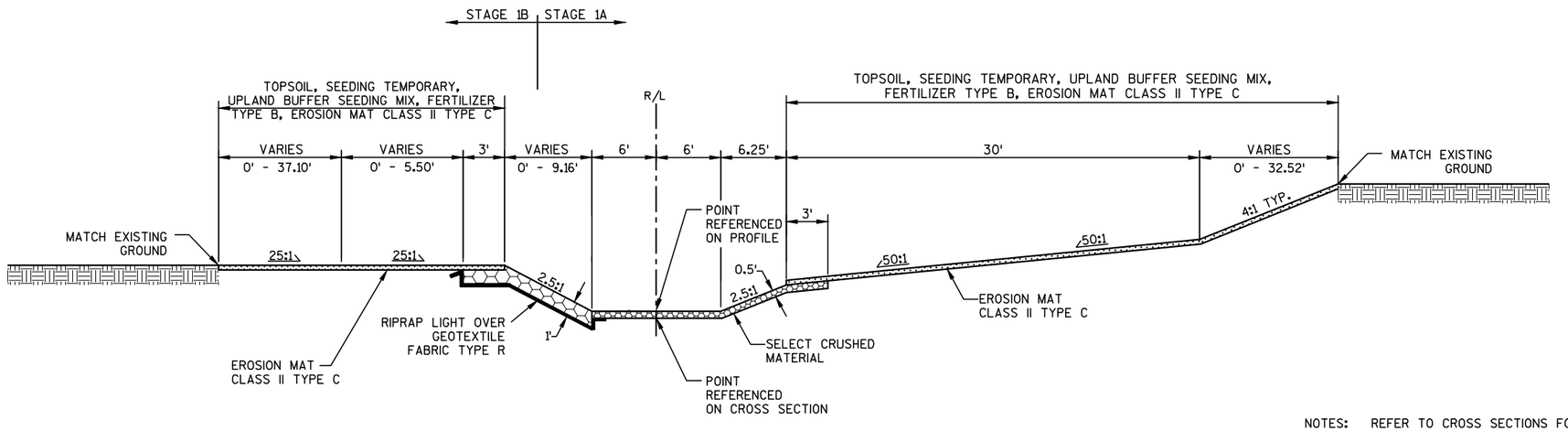
PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	ASPHALTIC MATERIAL
E-1	4"	1 3/4" UPPER LAYER 2 1/4" LOWER LAYER	PG-58-28
ASPHALTIC SURFACE	3"	3" LAYER	NONE

PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_020302_ts.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2



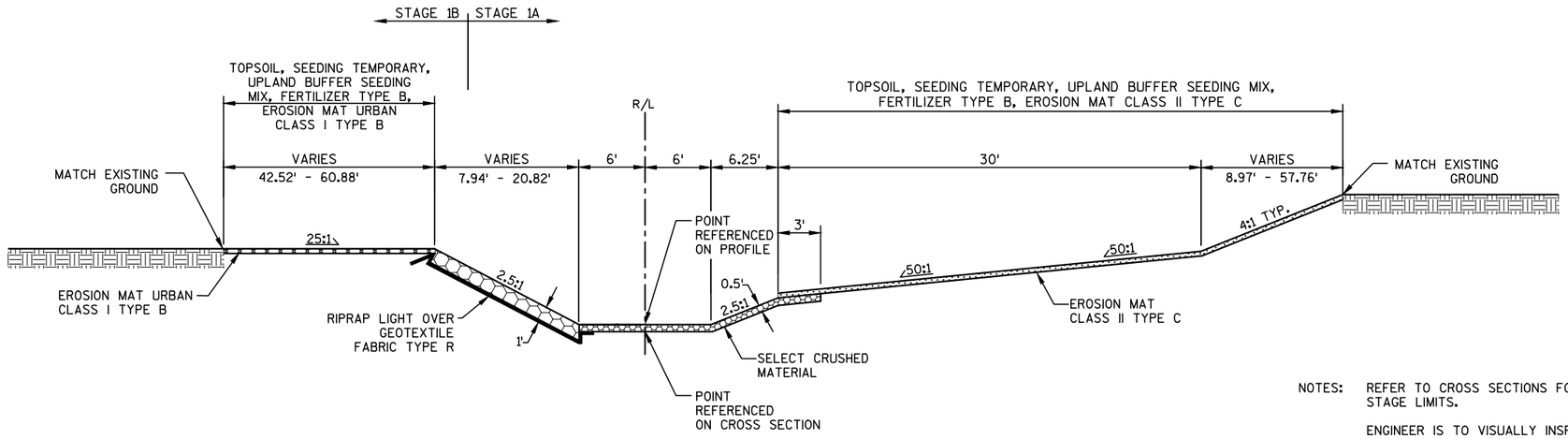
PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

STA 207 BDC +50 - STA 208 BDC +50

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA AND STAGE LIMITS.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.



PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

STA 208 BDC + 50 - STA 215 BDC + 25

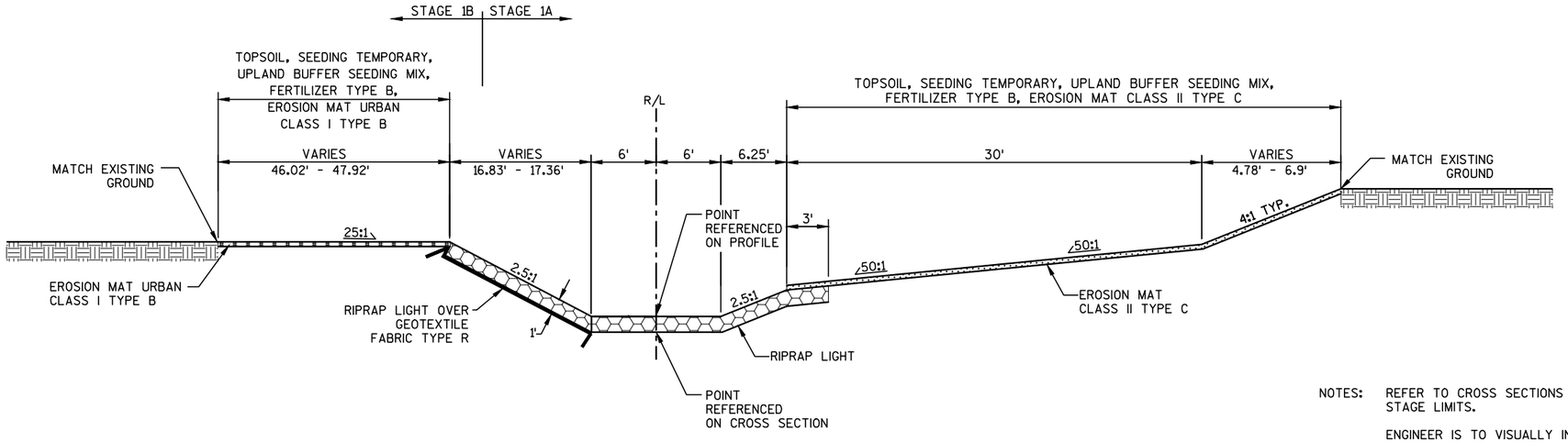
NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA AND STAGE LIMITS.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 9	E

2



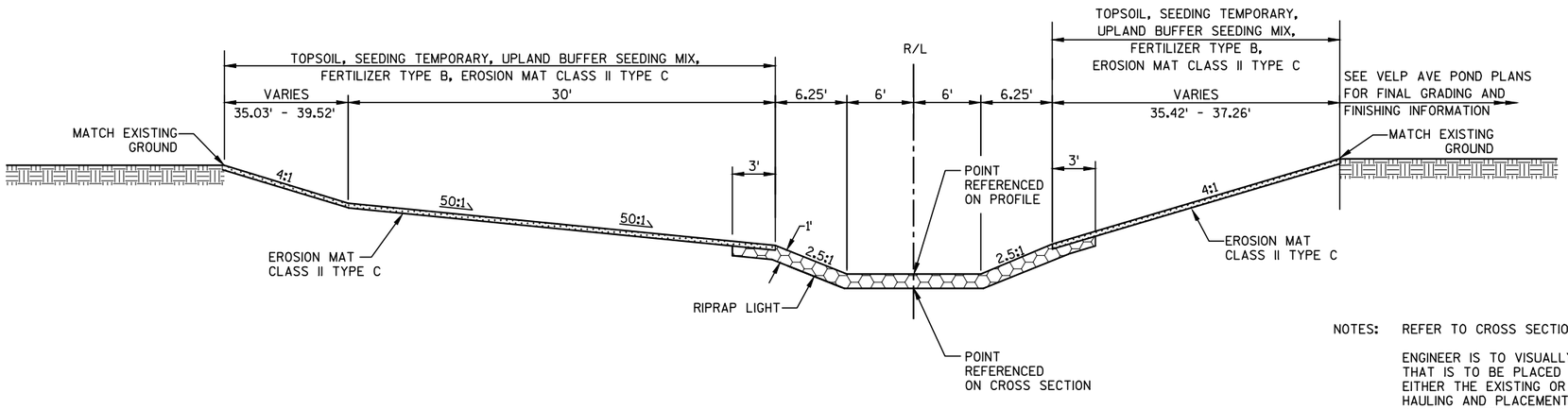
PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

STA 215 BDC + 25 - STA 216 BDC + 02

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA AND STAGE LIMITS.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.



PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

STA 220 BDC + 15.5 - STA 221 BDC + 00

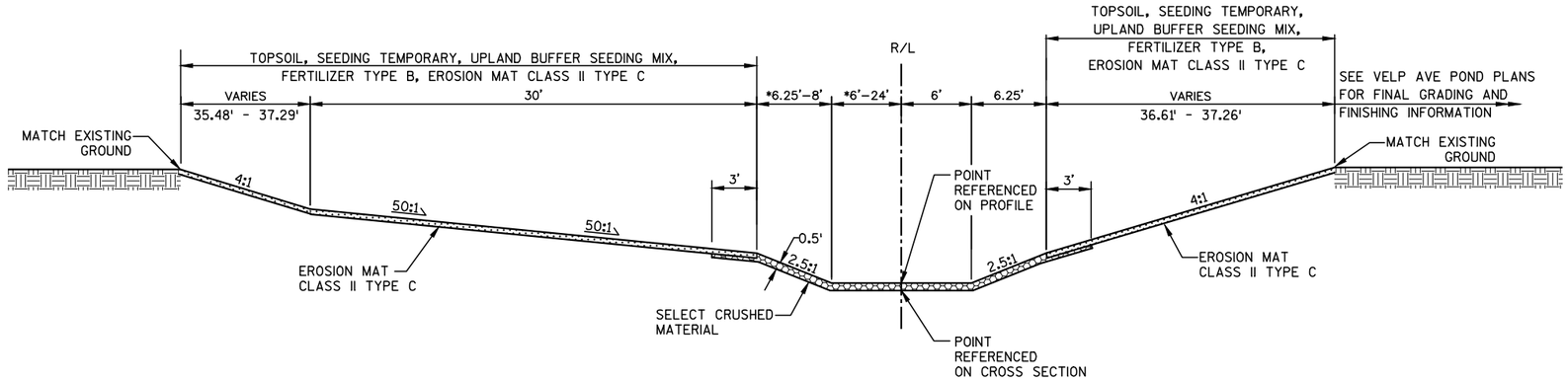
NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 10	E

2



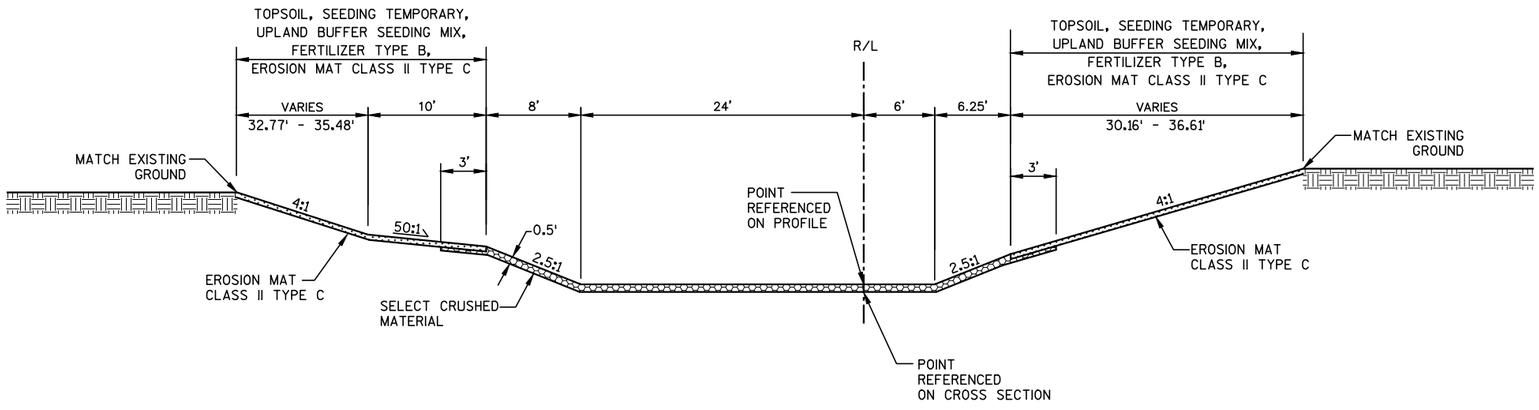
PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

WEST SIDE OF USH 41 AT VELP AVENUE STORMWATER POND
STA 221 BDC + 00 - STA 221 BDC + 50

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.



PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

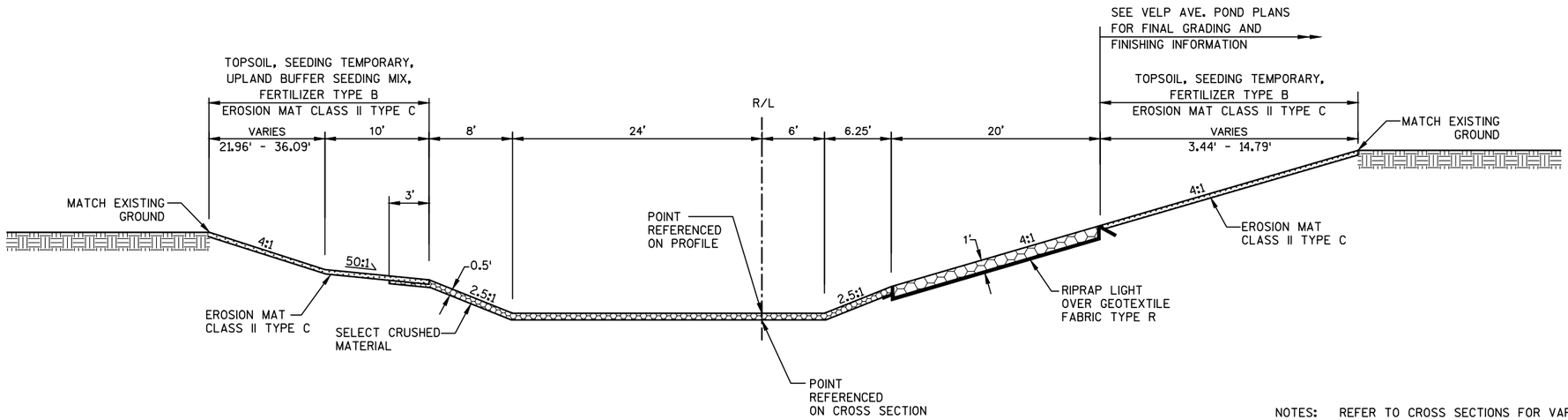
WEST SIDE OF USH 41 AT VELP AVENUE STORMWATER POND
STA 221 BDC + 50 - STA 222 BDC + 50

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.

2



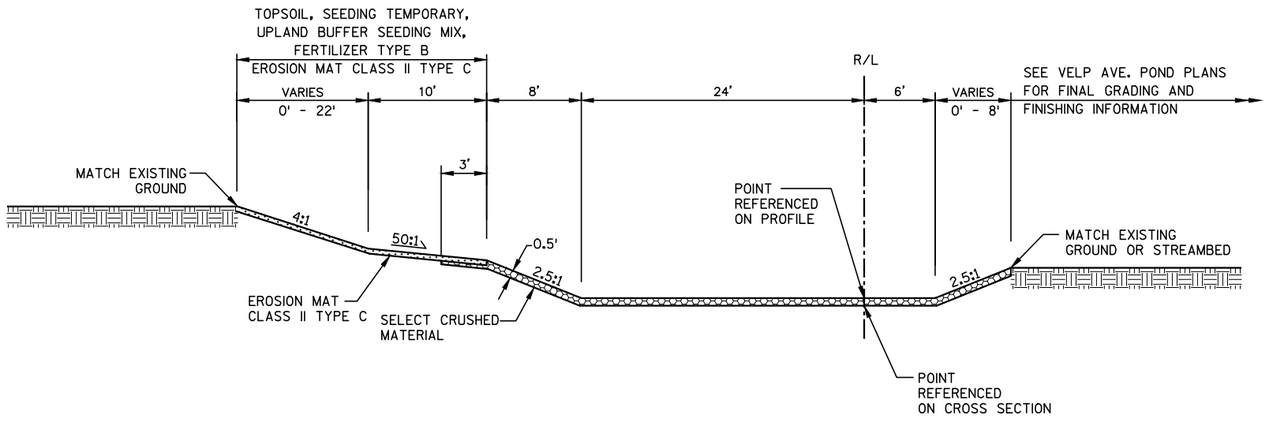
PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

WEST SIDE OF USH 41 AT VELP AVENUE STORMWATER POND
STA 222 BDC + 50 - STA 228 BDC + 35

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.



PROPOSED TYPICAL BEAVER DAM CREEK REALIGNMENT SECTION

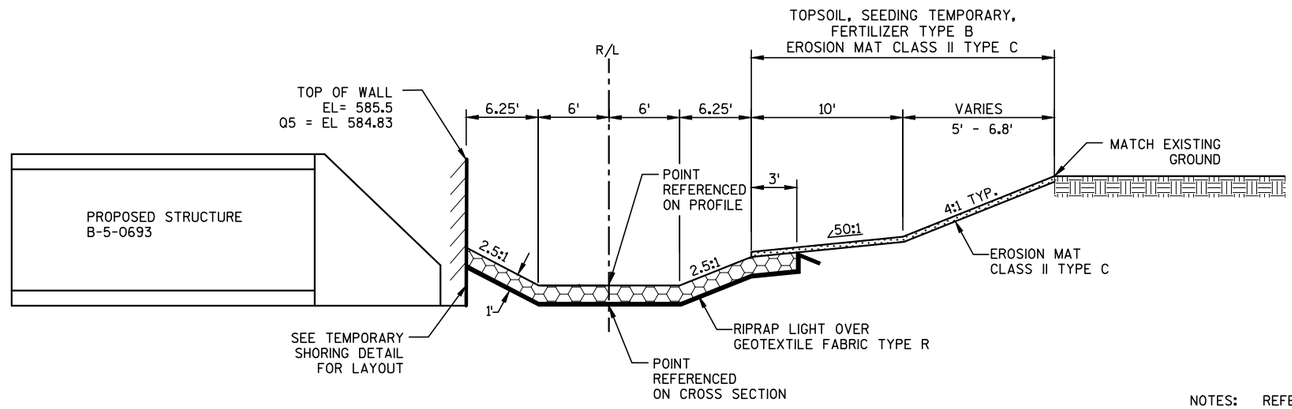
WEST SIDE OF USH 41 AT VELP AVENUE STORMWATER POND
STA 228 BDC + 35 - STA 229 BDC + 13

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.

2



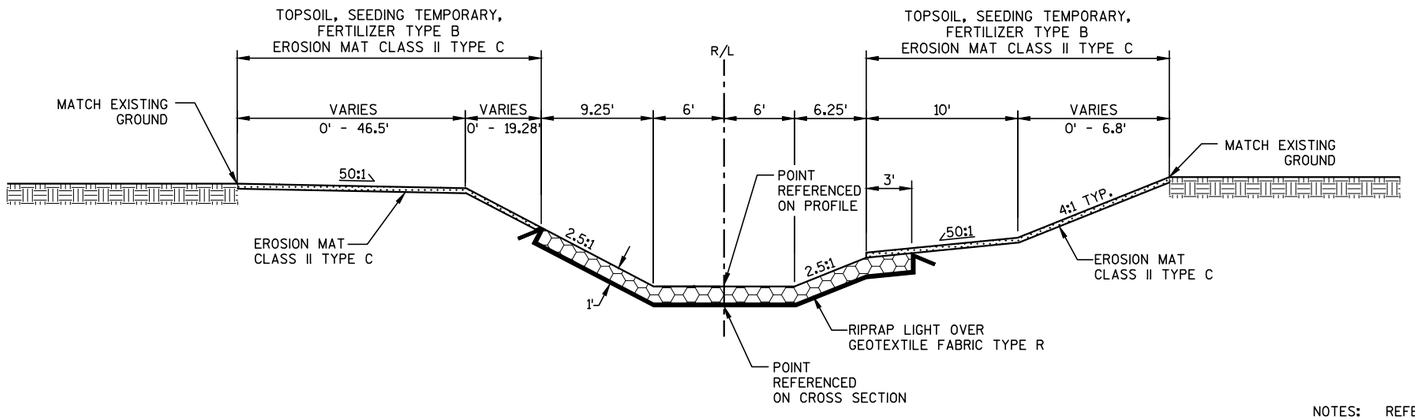
PROPOSED TYPICAL BEAVER DAM CREEK TEMPORARY CHANNEL SECTION

STA 215 TBDC + 39.31 - STA 216 TBDC + 61

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.



PROPOSED TYPICAL BEAVER DAM CREEK TEMPORARY CHANNEL SECTION

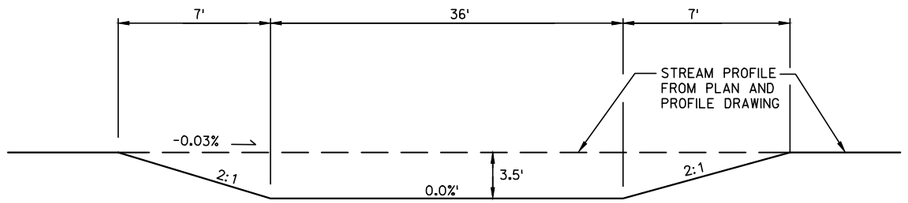
STA 216 TBDC + 61 - STA 217 TBDC + 22.35

NOTES: REFER TO CROSS SECTIONS FOR VARIABLE OFFSET DATA.

ENGINEER IS TO VISUALLY INSPECT RIPRAP AT THE SOURCE THAT IS TO BE PLACED IN AND ALONG BEAVER DAM CREEK, EITHER THE EXISTING OR REALIGNED STREAM, PRIOR TO HAULING AND PLACEMENT. PROVIDE RIPRAP FREE OF SOILS, ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL.

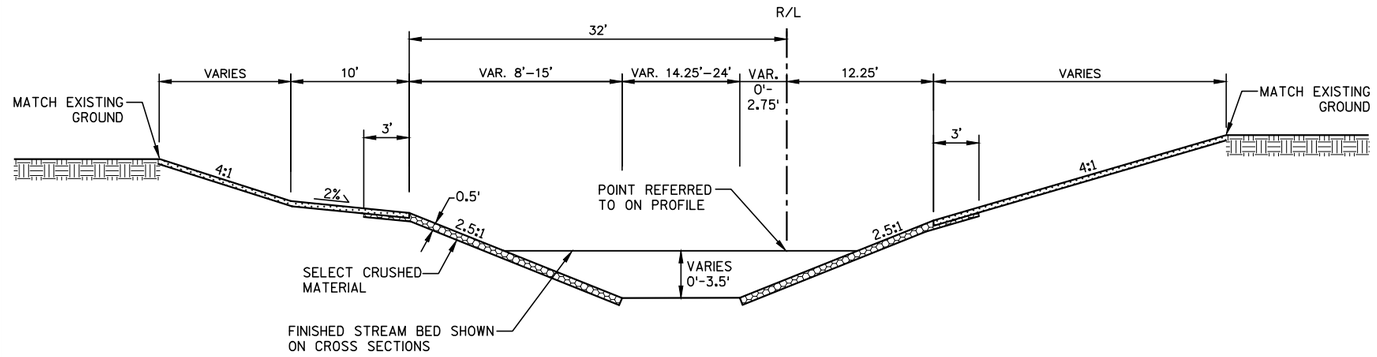
A SECOND APPLICATION OF FERTILIZER MAY BE REQUIRED AS DIRECTED BY ENGINEER.

2



PROFILE VIEW OF STREAM SEDIMENT TRAP

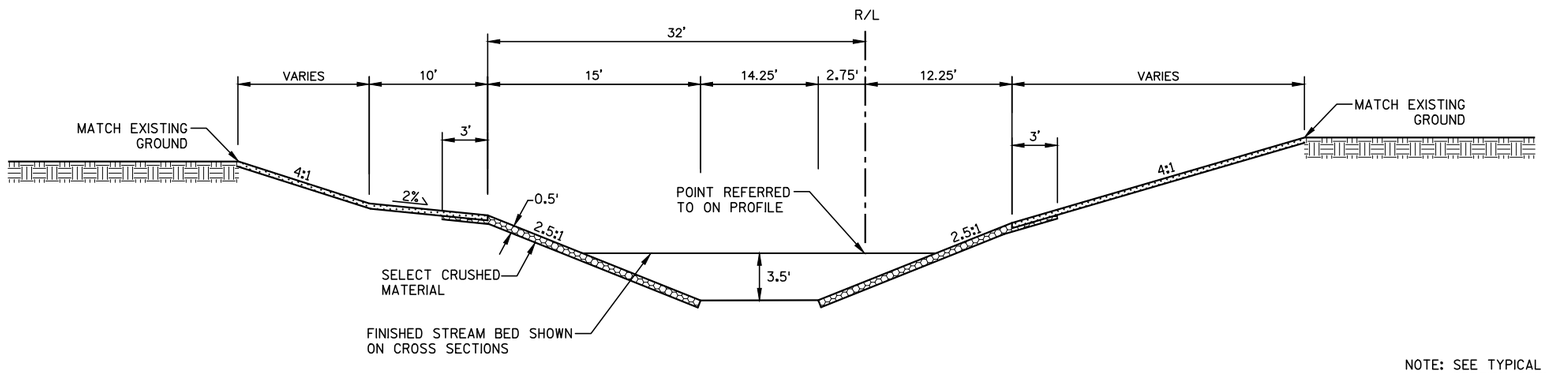
STA 221 BDC+50 - STA 222 BDC+00
STA 223 BDC+00 - STA 223 BDC+50
STA 226 BDC+00 - STA 226 BDC+50



SECTION VIEW - STREAM SEDIMENT TRAP

STA 221 BDC+50 - STA 221 BDC+57
STA 221 BDC+93 - STA 222 BDC+00
STA 223 BDC+00 - STA 223 BDC+07
STA 223 BDC+43 - STA 223 BDC+50
STA 226 BDC+00 - STA 226 BDC+07
STA 226 BDC+43 - STA 226 BDC+50

2

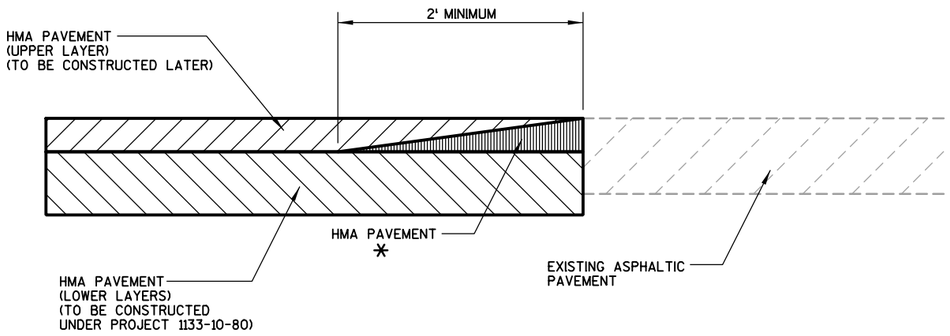


NOTE: SEE TYPICAL SECTIONS AND EROSION CONTROL PLAN FOR FINISHING DETAILS.

SECTION VIEW - STREAM SEDIMENT TRAP

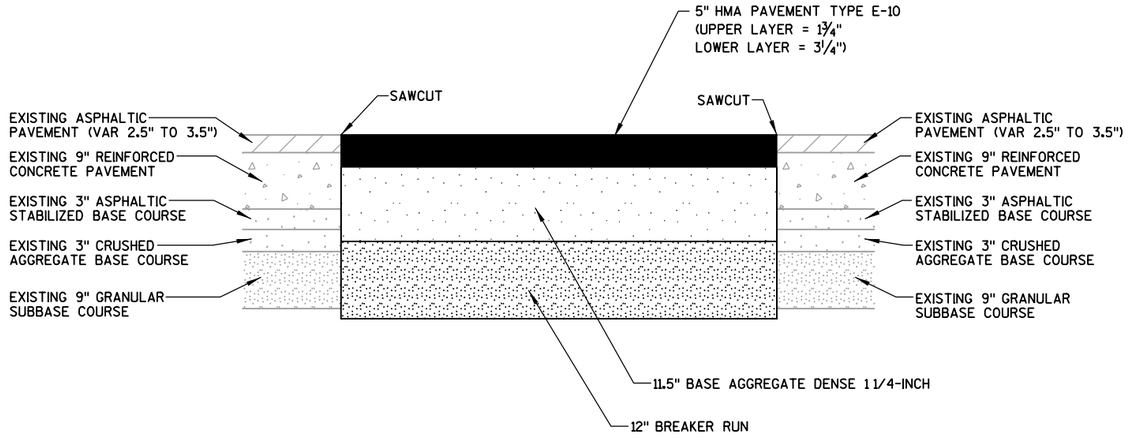
STA 221 BDC+57 - STA 221 BDC+93
STA 223 BDC+07 - STA 223 BDC+43
STA 226 BDC+07 - STA 226 BDC+43

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 14	E

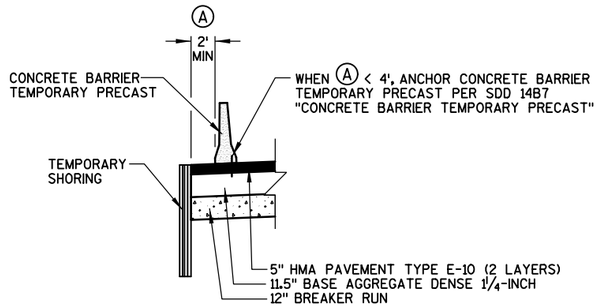


DETAIL FOR TEMPORARY BUTT JOINT

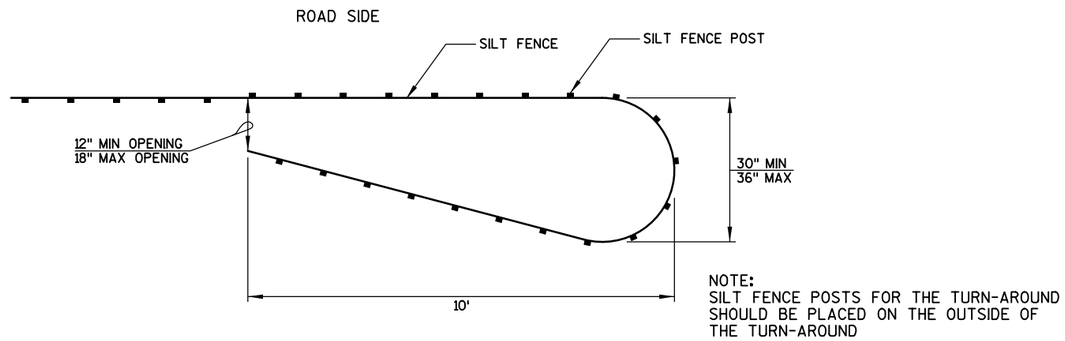
* REMOVAL WHEN PLACING THE SURFACE LAYER OF HMA PAVEMENT WILL NOT BE PAID FOR SEPARATELY, BUT IS INCLUDED IN OTHER ITEMS OF WORK.



PAVEMENT REPLACEMENT OVER STRUCTURE B-05-0693

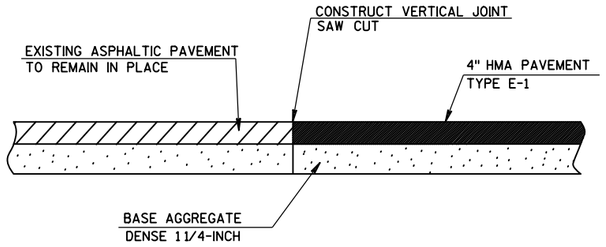


CONCRETE BARRIER TEMPORARY PRECAST AT TEMPORARY SHORING



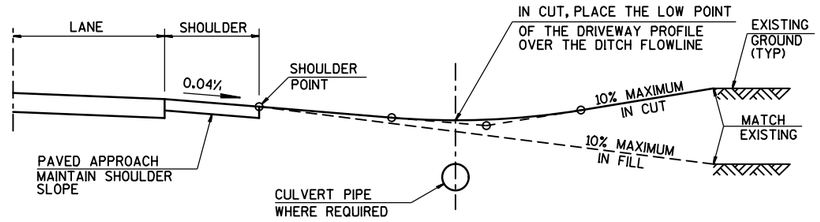
SILT FENCE TURN-AROUND DETAIL

TO BE PLACED AT ALL ENDS OF SILT FENCE

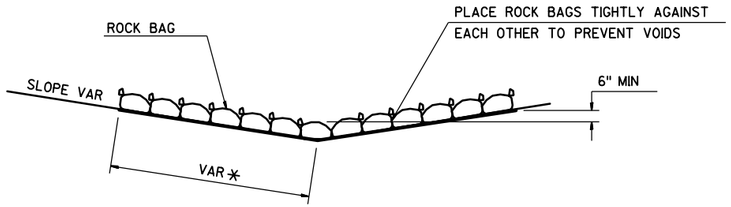


BUTT JOINT DETAIL

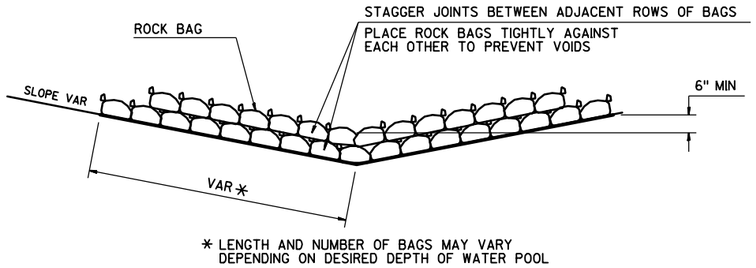
STA. 11+87.36 LONE GROVE AVE (LG)



TYPICAL DRIVEWAY PROFILES



SIDE VIEW (SINGLE LAYER)

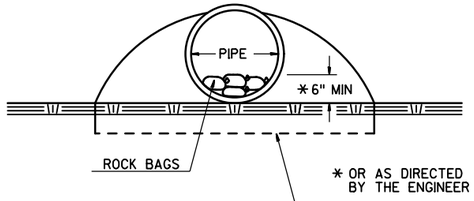


* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL

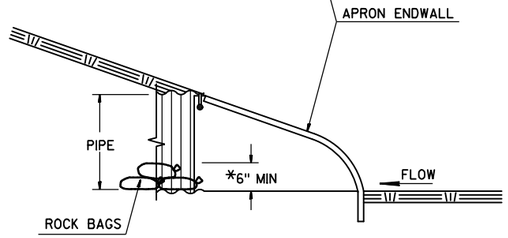
SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS



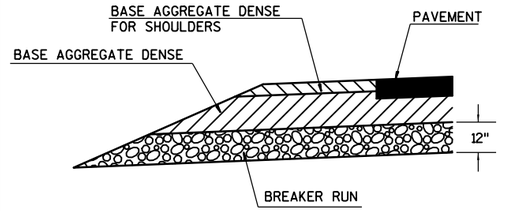
END VIEW



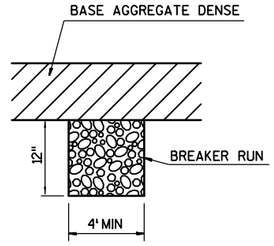
SIDE VIEW

CULVERT PIPE CHECKS

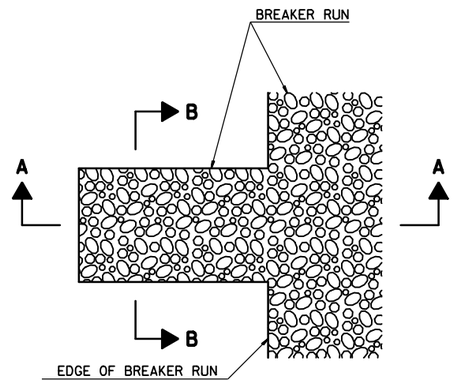
STA. 58+60 ISLAND CT (IS)



SECTION A-A

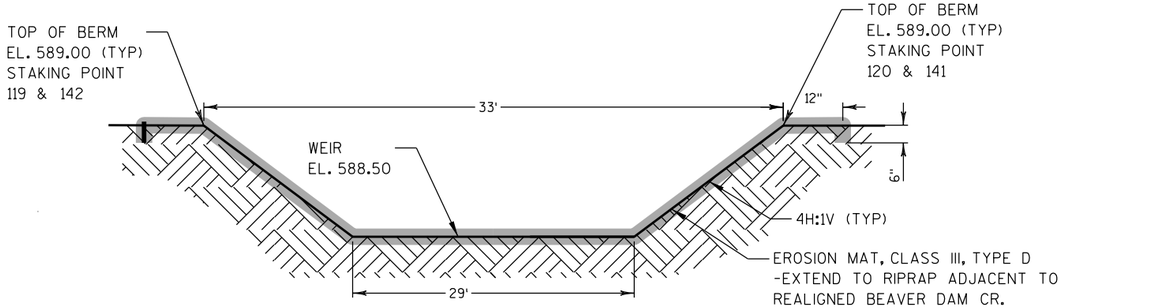


SECTION B-B



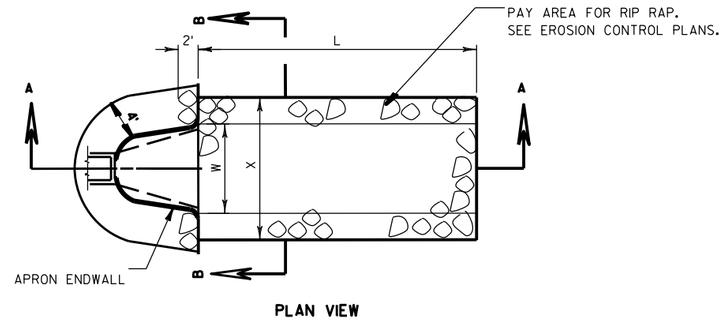
DETAIL FOR FRENCH DRAINS

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

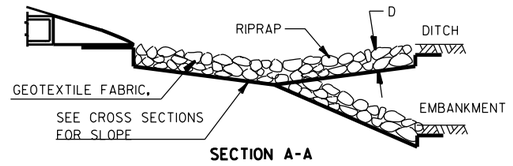


TYPICAL OVERFLOW WEIR SECTION
VELP AVENUE WET DETENTION POND

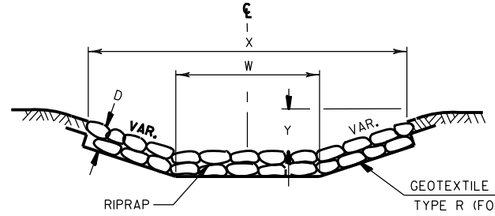
N. T. S.



PLAN VIEW



SECTION A-A



SECTION B-B

L = 3 x W (NOR.) OR 10' MIN. OR
AS INDICATED IN THE PLANS OR AS
DIRECTED BY THE ENGINEER.

D = 12" FOR RIPRAP LIGHT
18" FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

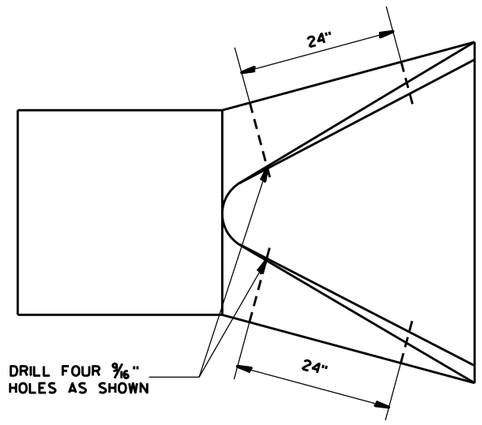
X = W+2' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+5' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

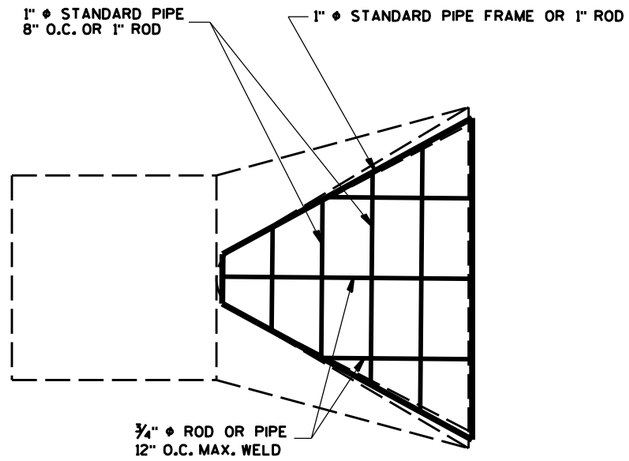
Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
12" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS

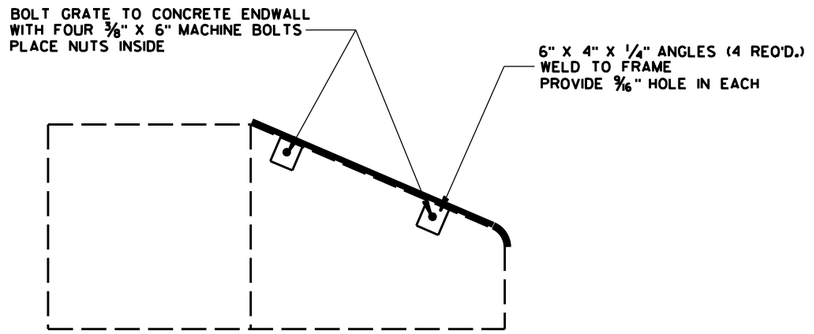
SEE EROSION CONTROL PLAN FOR LOCATIONS

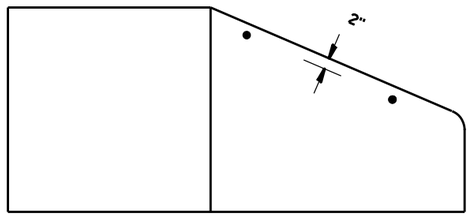
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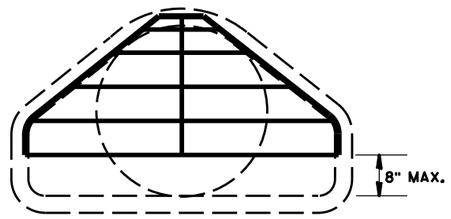




AT EACH PIPE

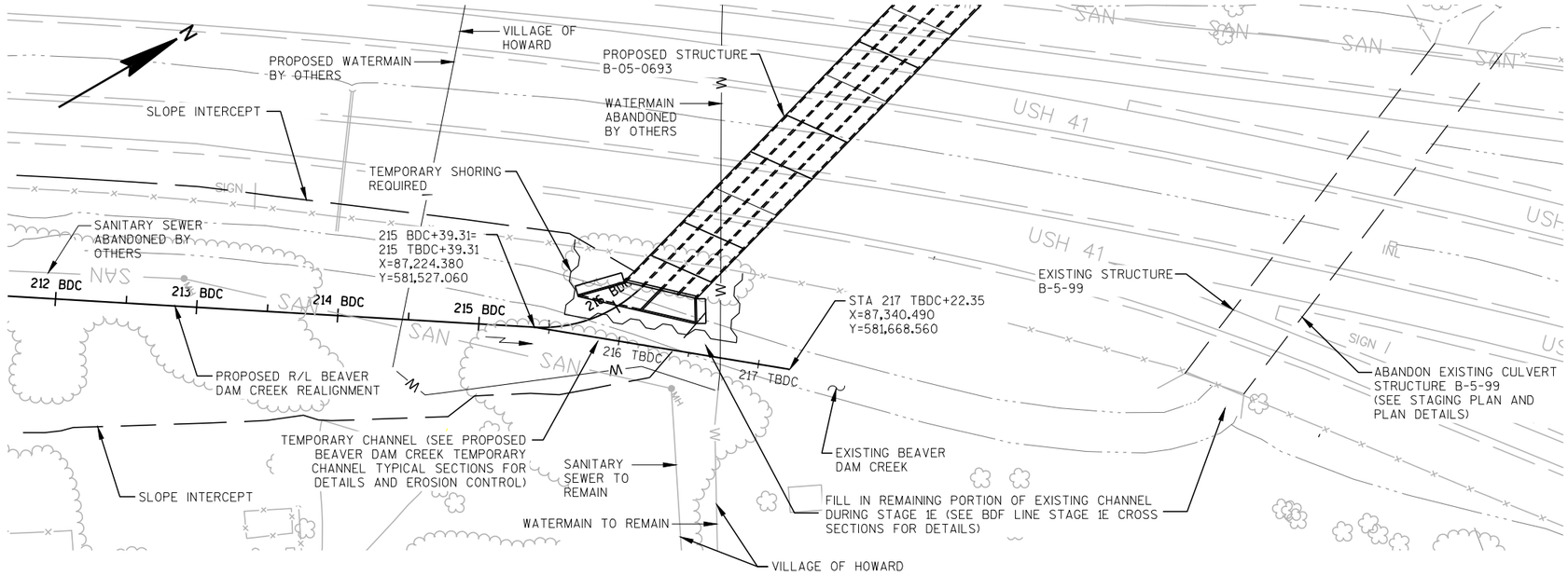






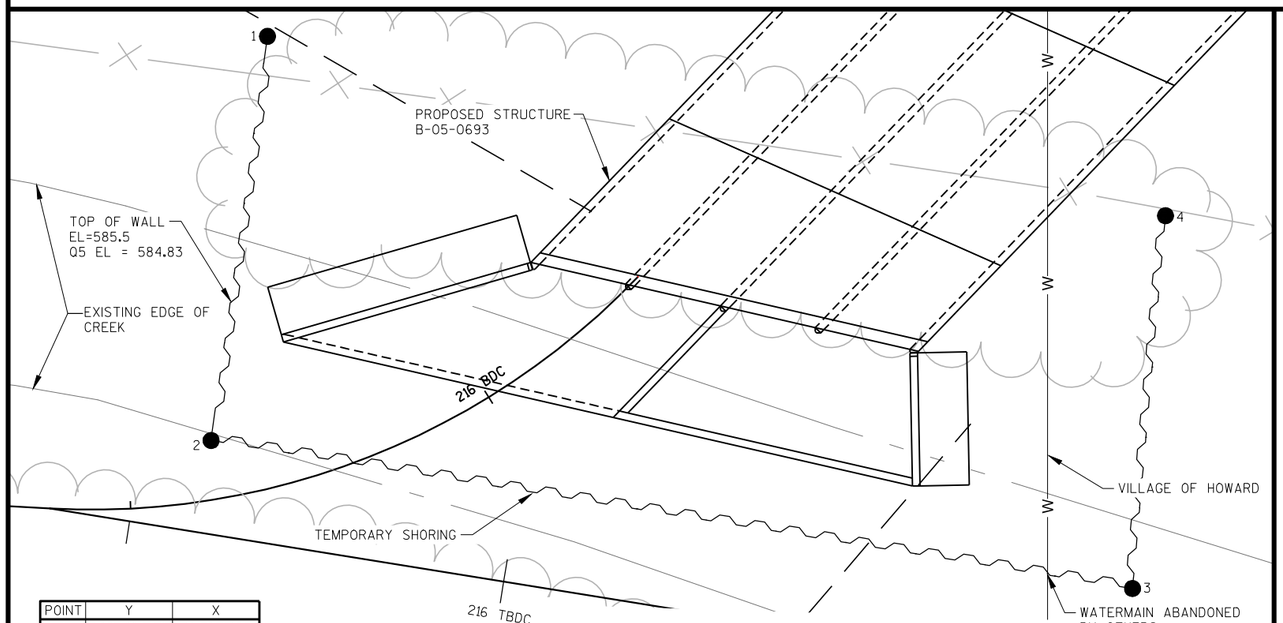
PIPE GRATE DETAIL

PROJECT NO: 1133-11-86	HWY: US 41	COUNTY: BROWN	VELP AVENUE POND - CONSTRUCTION DETAILS	SHEET 18	E



BEAVER DAM CREEK TEMPORARY CHANNEL DETAIL

AT STRUCTURE B-05-0693

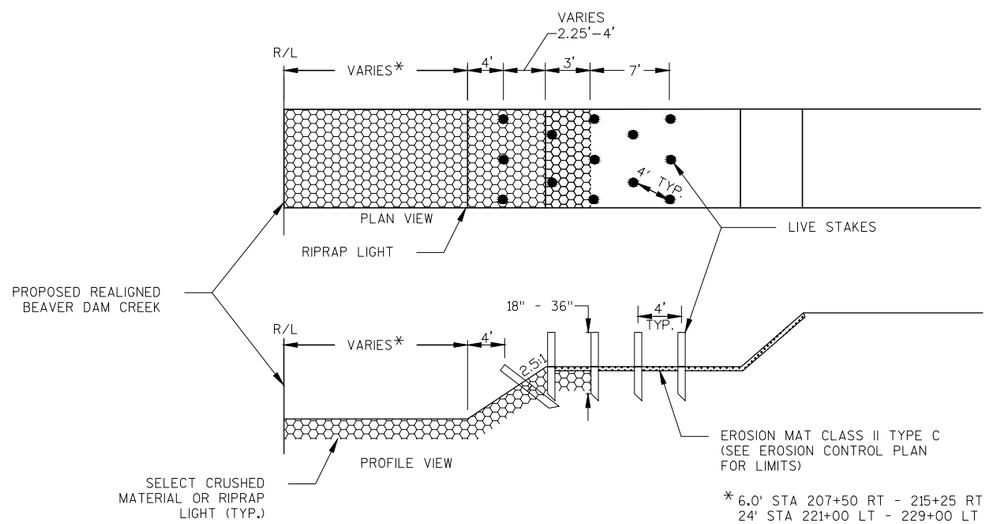


POINT	Y	X
1	581,583.24	87,184.98
2	581,549.96	87,227.33
3	581,645.24	87,305.41
4	581,673.76	87,265.08

TEMPORARY SHORING DETAIL

B-05-0693

NOTE: TEMPORARY SHORING INSTALLED DURING STAGE 1B CONSTRUCTION



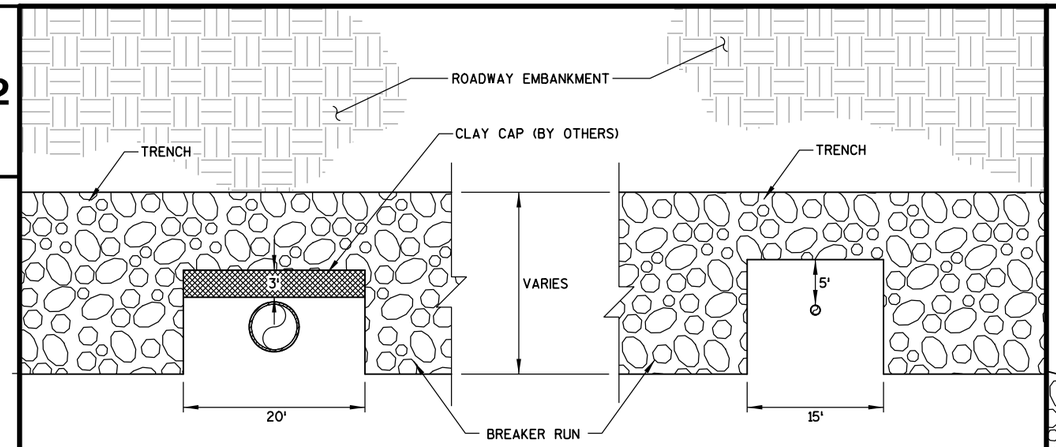
LIVE STAKE PLANTING DETAIL

STA 207+50 RT - 215+25 RT
STA 221+00 LT - 229+00 LT

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 19	E

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\CREEK\CREEK ABANDON DETAIL.DWG
LAYOUT : LAYOUT
PLOT DATE : 7/12/2012
PLOT TIME : 2:31:55 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

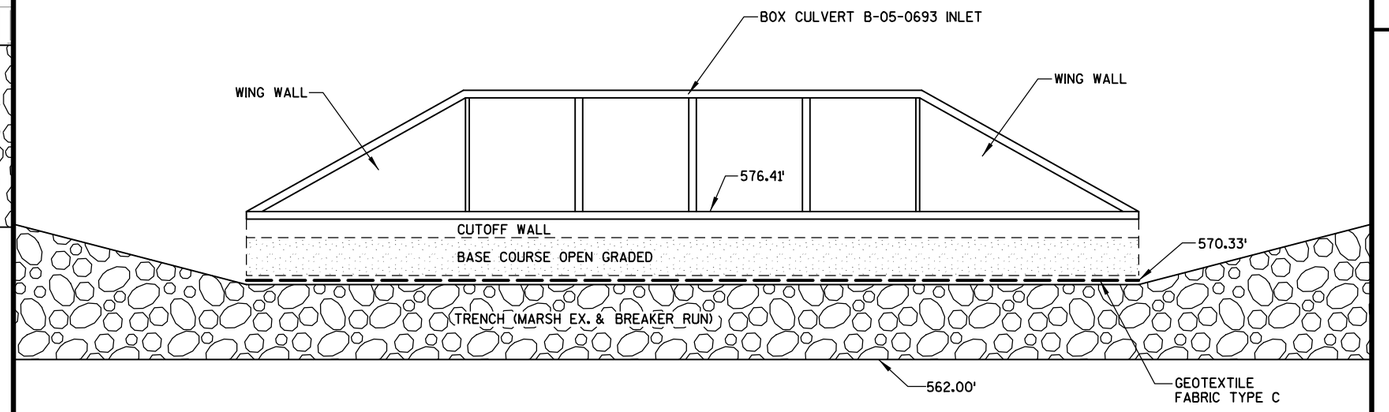
2



GBMSD SANITARY SEWER
(STA 209+87± BDC LT)

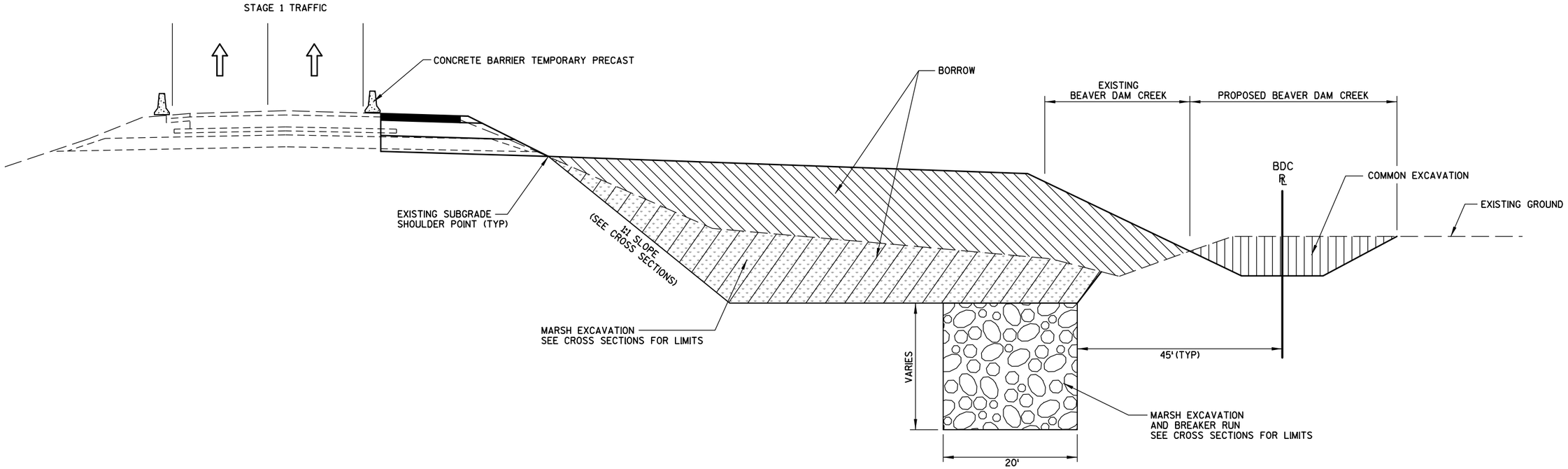
VILLAGE OF HOWARD WATER
(STA 214+52± BDC LT)

DETAIL FOR TRENCH OVER EXSITING UTILITIES (SECTION)



DETAIL FOR TRENCH AT END OF PROPOSED BOX CULVERT INLET

2



DETAIL FOR MARSH EXCAVATION AND TRENCH
NTS

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 20	E

2

2

USH 41

FUTURE RECONSTRUCTION AND EXPANSION BY OTHERS

USH 41

SAN

SIGN

MATCH INTO TERMINUS OF TRENCH FROM PROJECT 1133-03-71

20'

20'

20'

+80

+95

SEE DETAIL FOR TRENCH OVER EXISTING UTILITY (PROPOSED GBMSD SANITARY SEWER)

45' (TYP)

209+00 BDC

210+00 BDC

211+00 BDC

PROPOSED BEAVER DAM CREEK ALIGNMENT

BUILD NEW CHANNEL (STAGE 1A)

208+00 BDC

BEAVER DAM CREEK

LONE GROVE AVE

STAGE 1B CONSTRUCT TRENCH

LEGEND	
	TRENCH BOTTOM EL. = 562.00 TOP EL. = 580.00
	TEMPORARY SHORING (LOCATIONS SHOWN ARE APPROXIMATE)

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL - TRENCH	SCALE, FEET 0 20 40	SHEET 21	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_021006_cd.dgn

PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

2

USH 41

FUTURE RECONSTRUCTION AND EXPANSION BY OTHERS

USH 41

B-5-693

SIGN

SOUTH END OF PROPOSED RETAINING WALL (R-05-81)

BUILD EASTERNMOST SECTION OF CULVERT DURING STAGE 1D

FUTURE RETAINING WALL BY OTHERS (R-05-0081)

USH 41 OFF-RAMP TO VELP AVE

20'

5'(TYP)

45'(TYP)

+44

+59

SEE DETAIL FOR TRENCH OVER EXISTING UTILITY (PROPOSED VILLAGE OF HOWARD WATER MAIN)

216+00 BDC

MH

SAN

212+00 BDC

213+00 BDC

214+00 BDC

215+00 BDC

216+00 TBDC

217+00 TBDC

PROPOSED BEAVER DAM CREEK ALIGNMENT

BUILD NEW CHANNEL (STAGE 1A)

BEAVER DAM CREEK

TEMPORARY SHORING LEFT IN PLACE (BETWEEN POINTS 1-2-3-4) TOP OF WALL EL. = 585.5 Q5 EL. = 584.95

TEMPORARY CHANNEL CONNECTION BETWEEN PROPOSED BEAVER DAM CREEK AND EXISTING BEAVER DAM CREEK TO FACILITATE CONSTRUCTION OF PROPOSED STRUCTURE B-5-693 (STAGE 1D)

STAGE 1B CONSTRUCT TRENCH

STAGE 1E CONSTRUCT TRENCH (AFTER CHANNEL FLOW MOVED TO NEW CULVERT)

LEGEND

TRENCH
BOTTOM EL. = 562.00
TOP EL. = 580.00

TEMPORARY SHORING
(LOCATIONS SHOWN ARE APPROXIMATE)

POINT	Y	X
1	581,583.24	87,184.98
2	581,549.96	87,227.33
3	581,645.24	87,305.41
4	581,673.76	87,265.08

N

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL - TRENCH	SCALE, FEET 0 20 40	SHEET 22	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_021007_cd.dgn

PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

2

USH 41

USH 41

EXISTING STRUCTURE B-05-99

EXISTING STRUCTURE B-05-99 TO BE REMOVED, OR CEILING REMOVED AND REMAINDER OF STRUCTURE FILLED (BY OTHERS IN FUTURE)

FUTURE RECONSTRUCTION AND EXPANSION BY OTHERS

1162+00 CNR

1164+00 CNR

1166+00 CNR

USH 41 OFF-RAMP TO VELP AVE

20'

5' (TYP)

20'

5' (TYP)

BEAVER DAM CREEK

FUTURE RETAINING WALL BY OTHERS (R-05-0081)

CHANNEL FLOW MOVED PRIOR TO CONSTRUCTION OF TRENCH

FILL AND VACATE OPENING OF EXISTING STRUCTURE FOLLOWING RELOCATION OF BEAVER DAM CREEK

STAGE 1E
CONSTRUCT TRENCH

(AFTER CHANNEL FLOW MOVED TO NEW CULVERT)

STAGE 1B
CONSTRUCT TRENCH

BASKETBALL COURT

PLAYGROUND

MH

ROSEWOOD ST

N

LEGEND

TRENCH
BOTTOM EL. = 562.00
TOP EL. = 580.00

TEMPORARY SHORING
(LOCATIONS SHOWN
ARE APPROXIMATE)

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL - TRENCH	SCALE, FEET 0 20 40	SHEET 23	E

2

2

USH 41

USH 41

SIGN

1168+00 CNR

SIGN

FUTURE RECONSTRUCTION AND
EXPANSION BY OTHERS

SIGN

20'

5" (TYP)

CONTINUATION OF TRENCH CONSTRUCTED BY OTHERS UNDER PROJECT 1133-11-74

USH 41 OFF-RAMP TO VELP AVE

STAGE 1B
CONSTRUCT
TRENCH

ROSEWOOD ST

SIGN

XXXXX

N

LEGEND

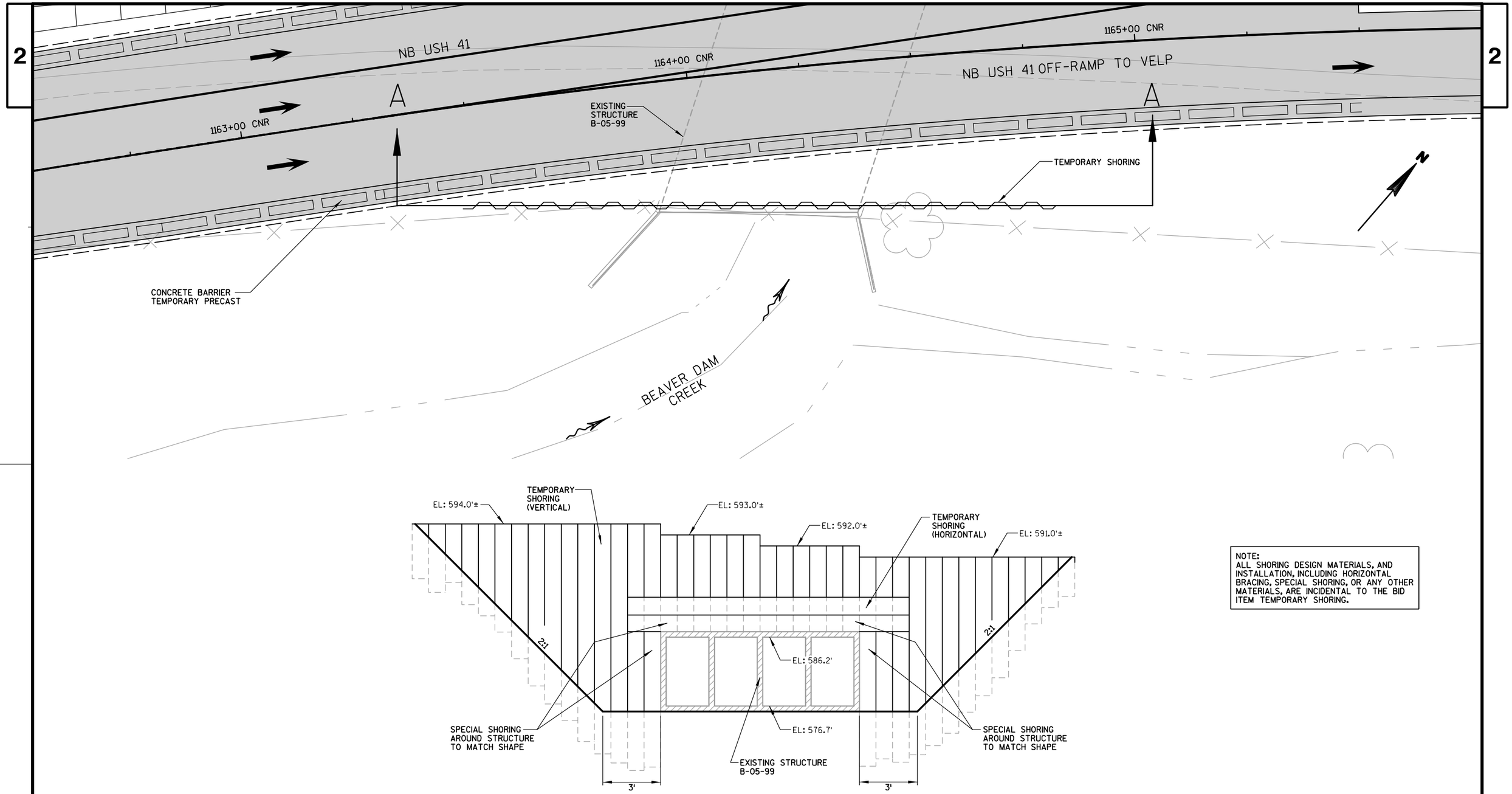
TRENCH
BOTTOM EL. = 562.00
TOP EL. = 580.00

TEMPORARY SHORING
(LOCATIONS SHOWN
ARE APPROXIMATE)

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL - TRENCH SCALE, FEET 0 20 40	SHEET 24	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_021009_cd.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:40

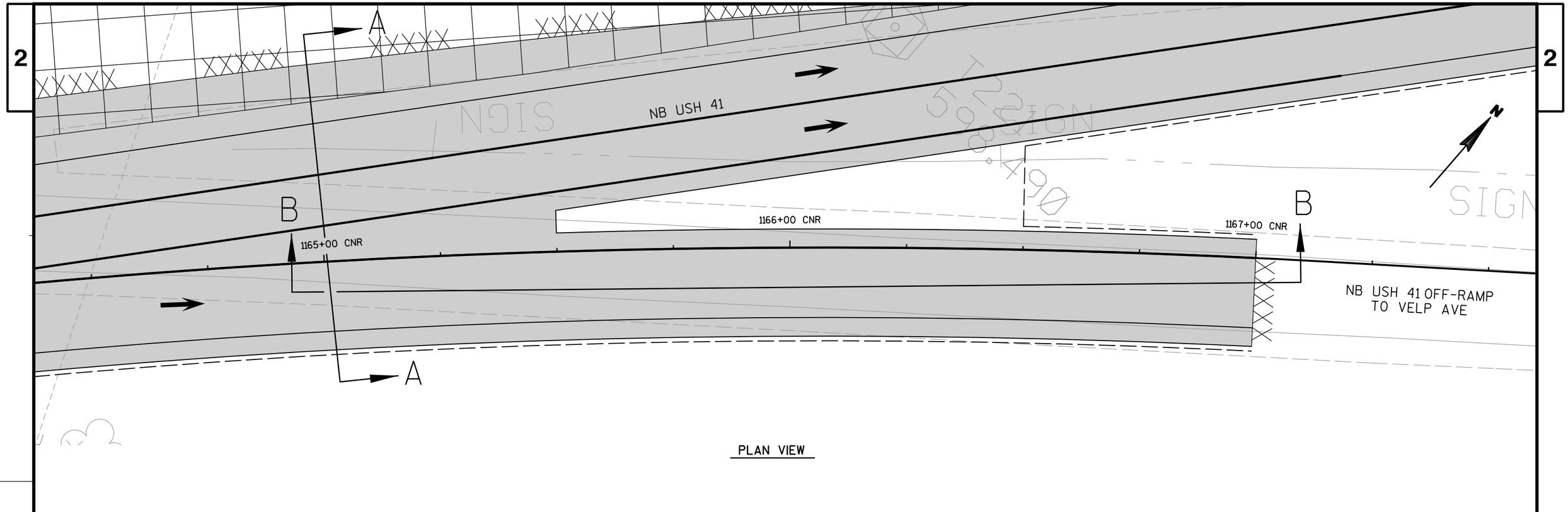
WISDOT/CADDS SHEET 42



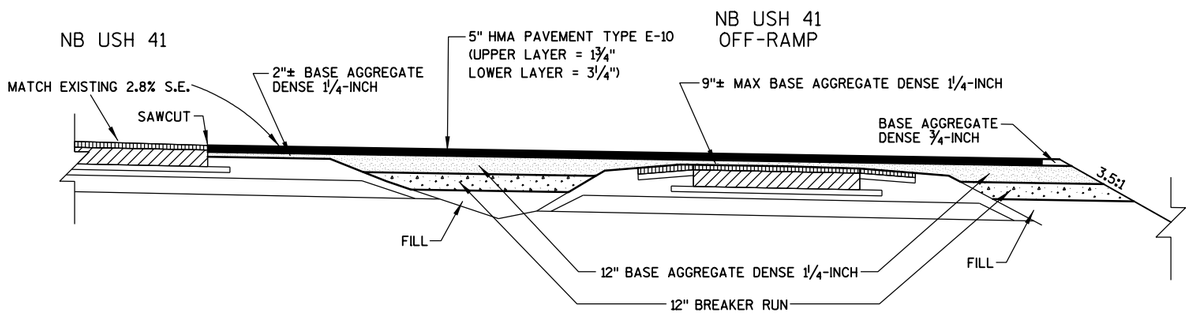
SECTION A-A

NOTE:
ALL SHORING DESIGN MATERIALS, AND INSTALLATION, INCLUDING HORIZONTAL BRACING, SPECIAL SHORING, OR ANY OTHER MATERIALS, ARE INCIDENTAL TO THE BID ITEM TEMPORARY SHORING.

DETAIL FOR TEMPORARY SHORING AT EAST END OF EXISTING STRUCTURE B-05-99 (STAGE 1C)

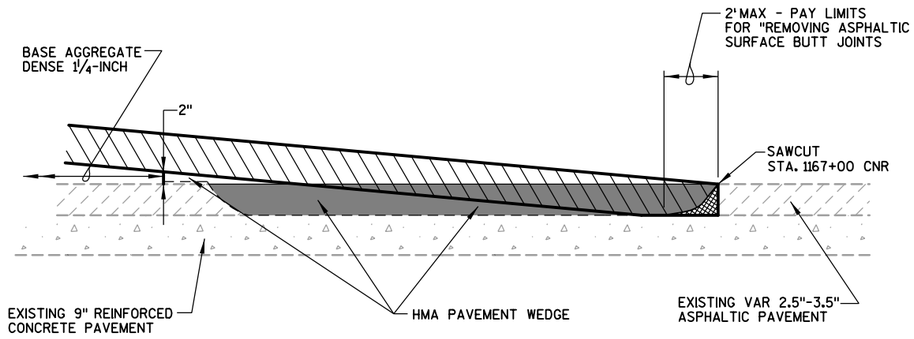


PLAN VIEW



SECTION A-A

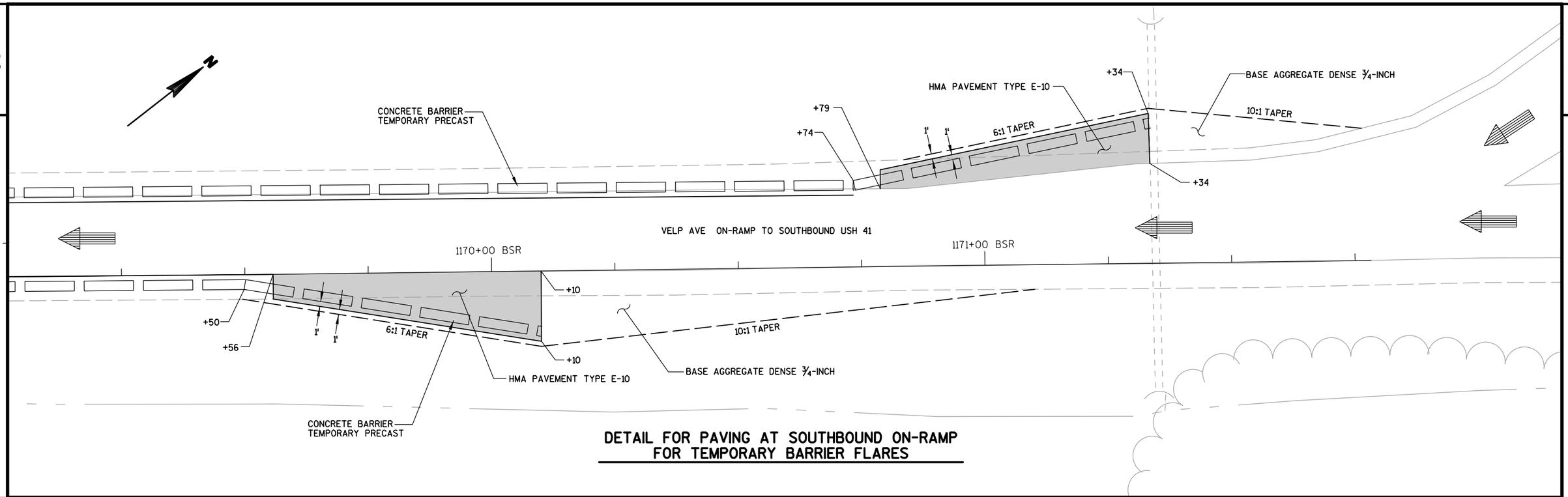
NOTE:
SEE EXISTING TYPICAL SECTIONS FOR EXISTING PAVEMENT STRUCTURE OF USH 41 AND VELP AVENUE RAMPS.



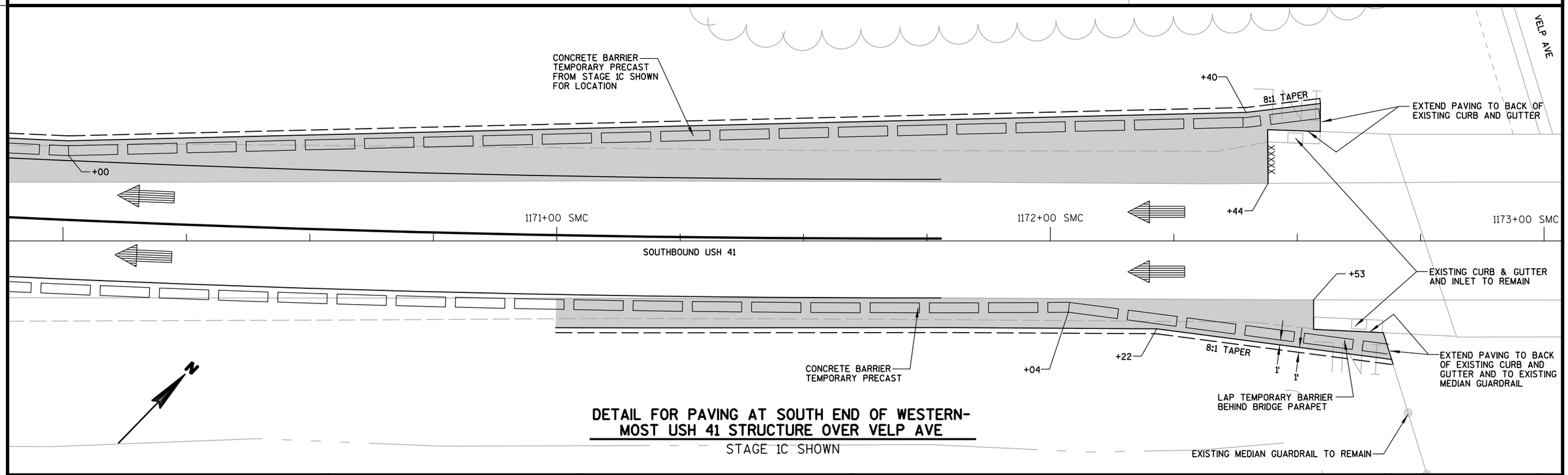
SECTION B-B

DETAIL FOR PAVING AT NB USH 41 OFF-RAMP GORE AREA

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 26	E



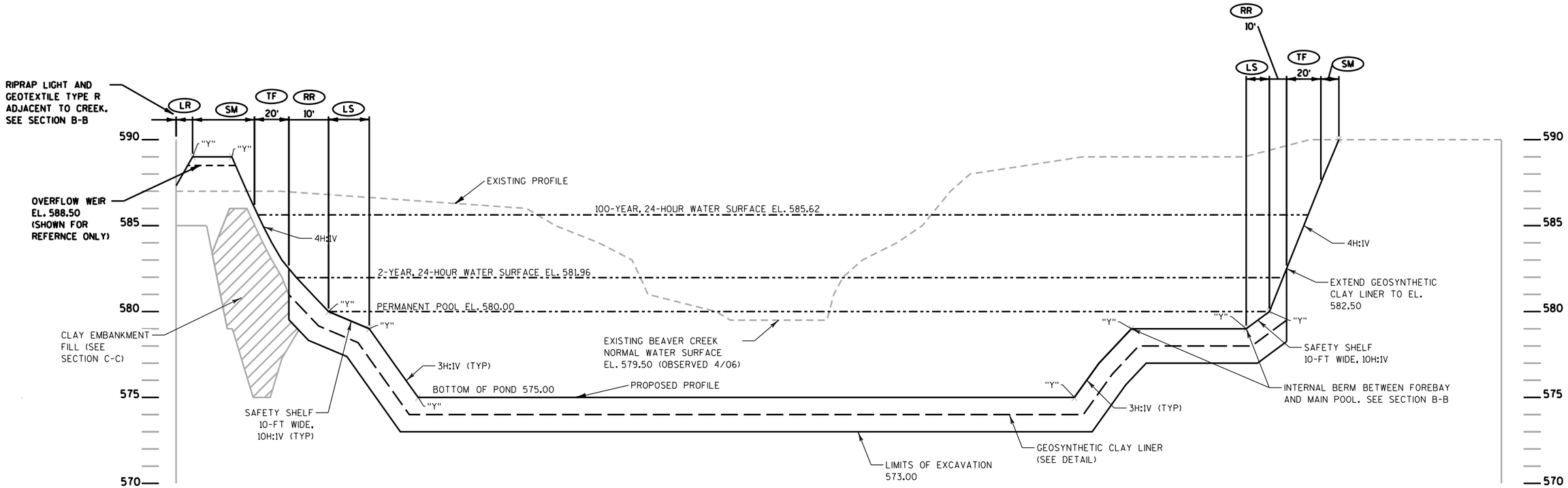
DETAIL FOR PAVING AT SOUTHBOUND ON-RAMP FOR TEMPORARY BARRIER FLARES



DETAIL FOR PAVING AT SOUTH END OF WESTERN-MOST USH 41 STRUCTURE OVER VELP AVE

STAGE 1C SHOWN

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAILS	SHEET 27	E



SECTION A-A
PROPOSED NORTH-SOUTH TYPICAL SECTION
VELP AVENUE WET DETENTION POND

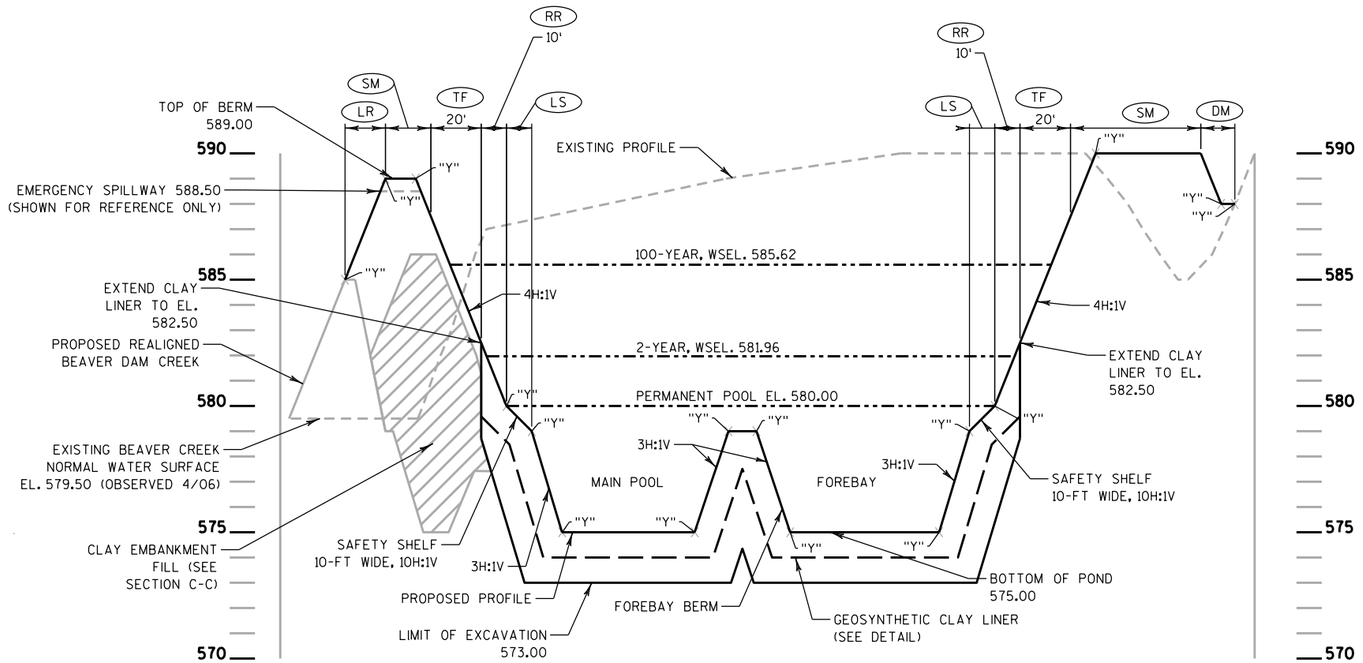
(LOOKING WEST)
COMMENCING AT STA 222+87
BEAVER DAM CREEK

LEGEND

- (TF) -ENDOPHYTE-INNOCULATED FESCUE, FERTILIZER, 4" TOPSOIL, & EROSION MAT, URBAN, CLASS I, TYPE B
- (SM) -SEED MIX 20, TEMPORARY SEED, FERTILIZER, 4" TOPSOIL, & EROSION MAT, URBAN, CLASS I, TYPE B
- (LR) -RIPRAP LIGHT, GEOTEXTILE FABRIC TYPE R
- (RR) -RIPRAP HEAVY (MIN 10' WIDTH)
- (LS) -LIMESTONE SLAB
- "Y" - POINTS REFERENCED ON POND STAKING TABLES

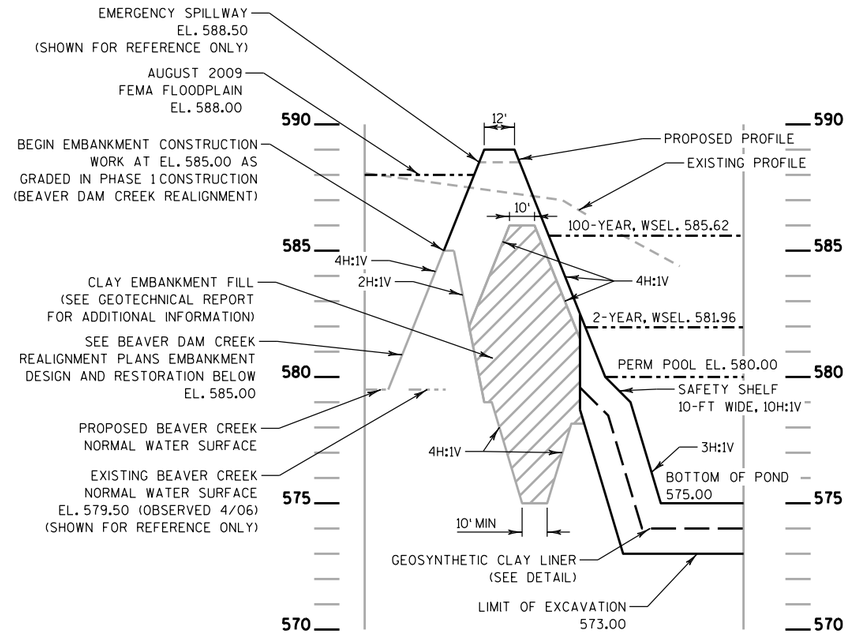
GENERAL NOTES

1. SEE GEOTECHNICAL INVESTIGATION FOR ANTICIPATED SUBSURFACE CONDITIONS INCLUDING GROUNDWATER CONSIDERATIONS.



SECTION B-B
PROPOSED EAST-WEST TYPICAL SECTION
VELP AVENUE WET DETENTION POND

(LOOKING NORTH)
COMMENCING AT STA 228+20
BEAVER DAM CREEK



SECTION C-C
PROPOSED EAST-WEST TYPICAL SECTION
BETWEEN POND AND BEAVER DAM CREEK

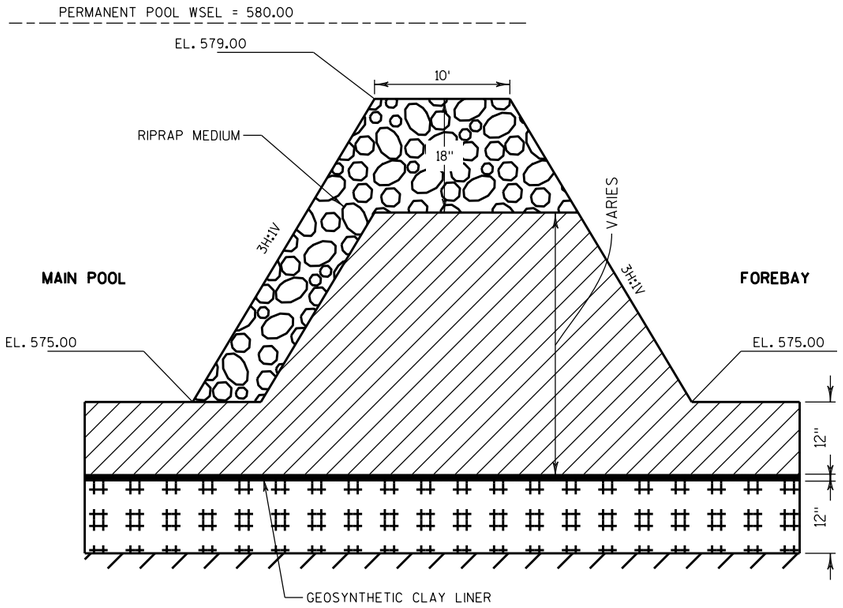
(LOOKING NORTH)
COMMENCING AT STA 225+98
BEAVER DAM CREEK

LEGEND

- (TF) -ENDOPHYTE-INNOCULATED FESCUE, FERTILIZER, 4" TOPSOIL, & EROSION MAT, URBAN, CLASS I, TYPE B
- (SM) -SEED MIX 20, TEMPORARY SEED, FERTILIZER, 4" TOPSOIL, & EROSION MAT, URBAN, CLASS I, TYPE B
- (RR) -RIPRAP HEAVY (MIN 10' WIDTH), GEOTEXTILE FABRIC TYPE HR
- (DM) -SEED MIX 20, TEMPORARY SEED, FERTILIZER, 4" TOPSOIL, & EROSION MAT, URBAN, CLASS II, TYPE B
- (LR) -RIPRAP LIGHT, GEOTEXTILE FABRIC TYPE R
- (LS) -QUARRIED LIMESTONE SLAB
- "Y" - POINTS REFERENCED ON POND STAKING TABLES

GENERAL NOTES

1. SEE GEOTECHNICAL INVESTIGATION FOR ANTICIPATED SUBSURFACE CONDITIONS INCLUDING GROUNDWATER CONSIDERATIONS.



MEDIUM RIP RAP

COVER MATERIAL PER SPECIFICATIONS

GEOSYNTHETIC CLAY LINER (GCL)

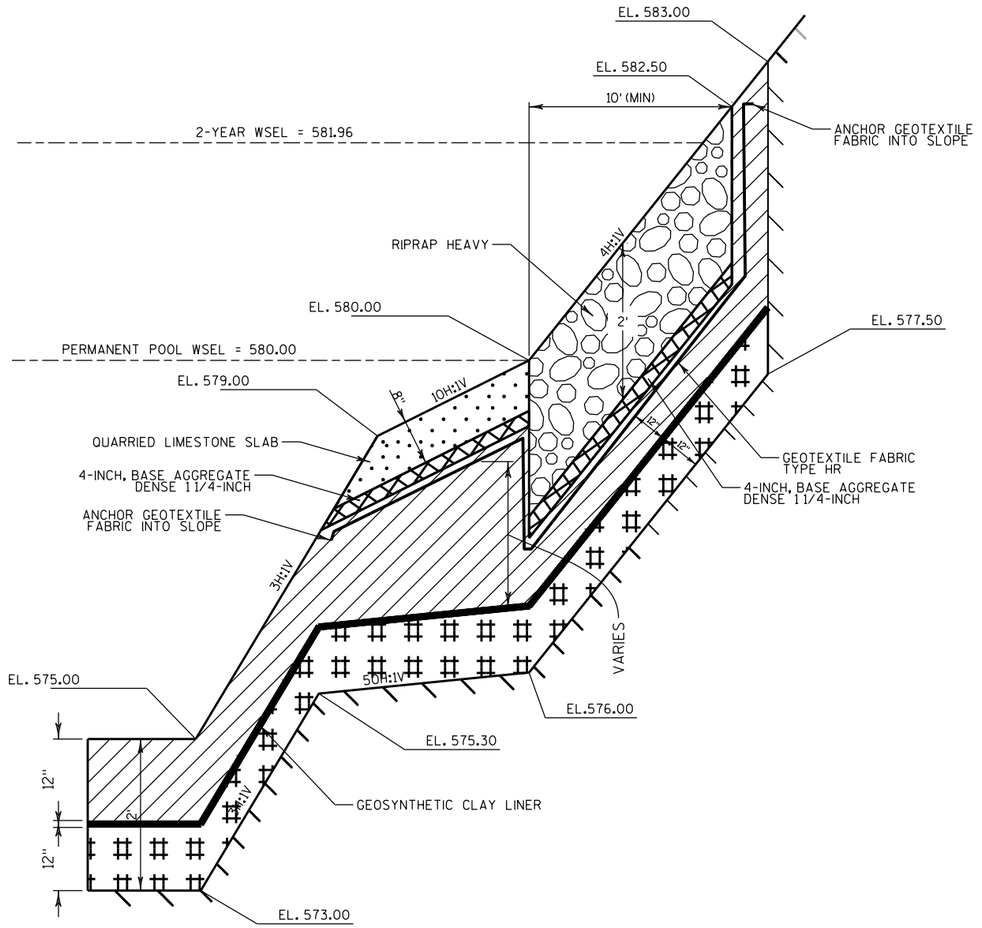
SUBGRADE PREPARATION PER SPECIFICATIONS

GEOSYNTHETIC CLAY LINER DETAIL AT FOREBAY BERM

N. T. S.

GENERAL NOTES

1. SEE GEOTECHNICAL INVESTIGATION FOR ANTICIPATED SUBSURFACE CONDITIONS INCLUDING GROUNDWATER CONSIDERATIONS.
2. SEE MANUFACTURERS INSTALLING RECOMMENDATIONS FOR GEOSYNTHTIC CLAY LINER



MEDIUM RIP RAP

COVER MATERIAL PER SPECIFICATIONS

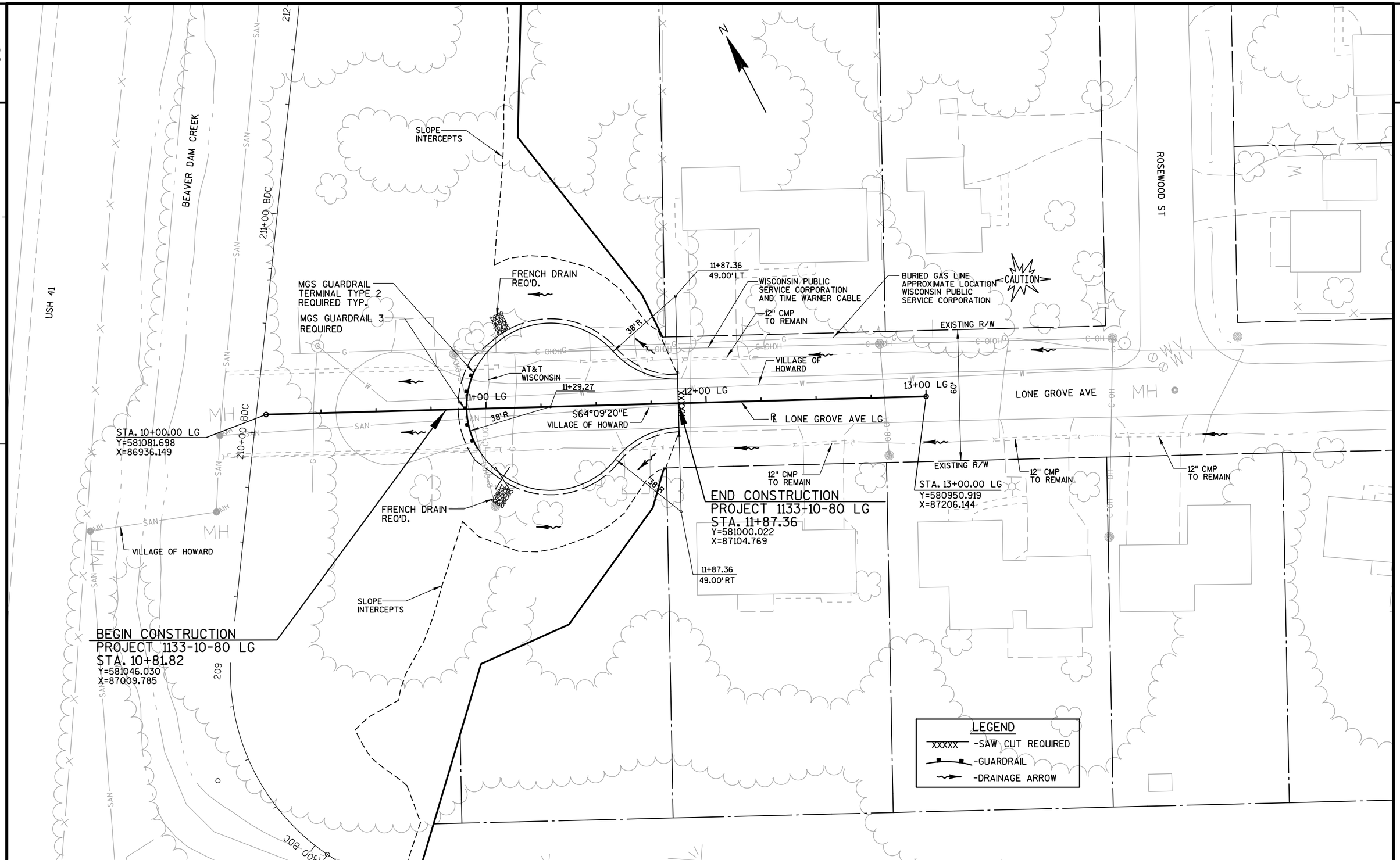
GEOSYNTHETIC CLAY LINER (GCL)

SUBGRADE PREPARATION PER SPECIFICATIONS

GEOSYNTHETIC CLAY LINER DETAIL

N. T. S.

2



PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	PLAN DETAIL LONE GROVE AVE. - LG LINE	SHEET 31	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_021201_pd.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:40

DUCK CREEK

CURVE DATA	CURVE DATA
PI STA. 58+50.99	PI STA. 59+44.23
Y = 581667.094	Y = 581745.799
X = 86886.241	X = 86945.083
DELTA = 44°13'32" LT	DELTA = 21°41'31" LT
T = 50.18'	T = 28.74'
L = 95.33'	L = 56.79'
R = 123.50'	R = 150.00'
PC STA. 58+00.81	PC STA. 59+15.49
Y = 581659.252	Y = 581722.782
X = 86836.377	X = 86927.875
PT STA. 58+96.14	PT STA. 59+72.28
Y = 581707.284	Y = 581773.546
X = 86916.288	X = 86952.566

BEGIN CONSTRUCTION
PROJECT 1133-10-80
STA. 57+32.24 IS
Y=581648.535
X=86768.948

LEGEND
XXXXX -SAW CUT REQUIRED
-GUARDRAIL
-DRAINAGE ARROW

N

R/W LINE

57+00 IS
N81°00'31"E

FRENCH DRAIN REQ'D.

MGS GUARDRAIL 3 REQUIRED

MGS GUARDRAIL TERMINAL TYPE 2 REQUIRED TYP.

FRENCH DRAIN REQ'D.

SLOPE INTERCEPTS

25°

PC58+00.81

58+00 IS

44' R

58+00.8

58+96.1
53' LT

44' R

PT58+96.14

PC59+15.49

PT59+72.28

CAUTION
BURIED GAS LINE
APPROXIMATE LOCATION
WISCONSIN PUBLIC
SERVICE CORPORATION

WISCONSIN PUBLIC SERVICE CORPORATION AND TIME WARNER CABLE

FRENCH DRAIN REQ'D.

SLOPE INTERCEPTS

EXISTING R/W

62+00 IS

ISLAND CT

61+00 IS
N15°05'28"E

℄ ISLAND COURT IS
PI58+50.99

59+00 IS
N 36°46'59" E

60+00 IS

STA. 58+60
1-18" CPCS
2-APRON ENDWALLS

VILLAGE OF HOWARD

END ROADWAY CONSTRUCTION
PROJECT 1133-10-80
STA. 60+75.00 IS
Y=581872.725
X=86979.310

END PROPOSED DITCHING
WITH PROJECT 1133-10-80
STA. 61+80 IS

QUEST

PI59+44.23

VILLAGE OF HOWARD

FRENCH DRAIN REQ'D.

PROPOSED DITCHING

℄ BEAVER DAM CREEK (BDC)

STRUCTURE B-05-0693

VILLAGE OF HOWARD

GBMSD

SMC

1158+00 SMC

1159+00 SMC

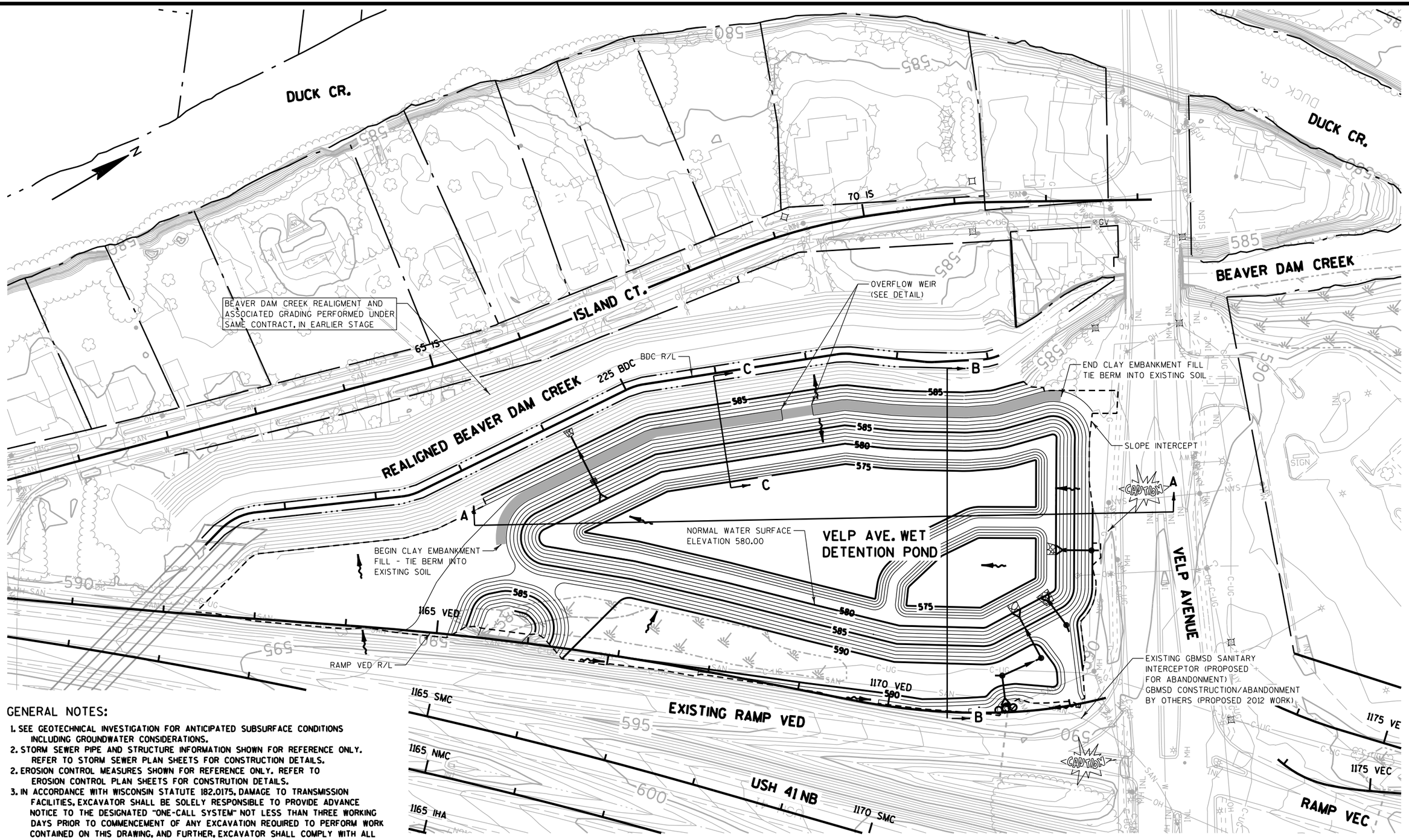
USH 41

1160+00 SMC

PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	PLAN DETAIL ISLAND COURT - IS LINE	SHEET 32	E

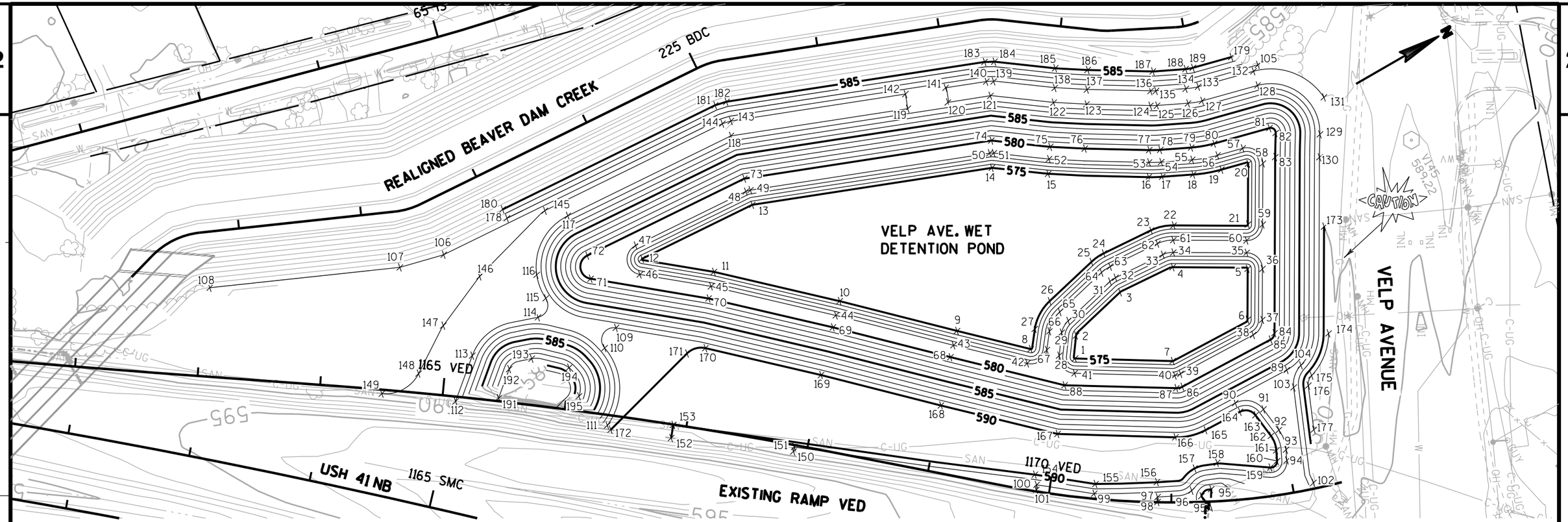
FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_021202_pd.dgn | PLOT DATE : 10/18/2012 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:40

2



GENERAL NOTES:

1. SEE GEOTECHNICAL INVESTIGATION FOR ANTICIPATED SUBSURFACE CONDITIONS INCLUDING GROUNDWATER CONSIDERATIONS.
2. STORM SEWER PIPE AND STRUCTURE INFORMATION SHOWN FOR REFERENCE ONLY. REFER TO STORM SEWER PLAN SHEETS FOR CONSTRUCTION DETAILS.
2. EROSION CONTROL MEASURES SHOWN FOR REFERENCE ONLY. REFER TO EROSION CONTROL PLAN SHEETS FOR CONSTRUTION DETAILS.
3. IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE-CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THIS DRAWING, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.
4. ALL UNDERGROUND STRUCTURES AND UTILITIES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND DEPTH.



POINT	NORTHING	EASTING	EL
1	582,601.655	87,575.292	575
2	582,611.704	87,559.583	575
3	582,660.323	87,546.922	575
4	582,707.577	87,550.681	575
5	582,759.839	87,582.280	575
6	582,738.944	87,618.158	575
7	582,669.498	87,616.792	575
8	582,574.230	87,550.655	575
9	582,529.656	87,507.914	575
10	582,459.031	87,439.210	575
11	582,382.270	87,367.495	575
12	582,337.011	87,329.086	575
13	582,436.578	87,335.831	575
14	582,620.487	87,407.137	575
15	582,657.765	87,434.247	575
16	582,727.240	87,477.426	575
17	582,736.968	87,482.715	575
18	582,759.709	87,493.709	575
19	582,781.547	87,501.690	575
20	582,802.854	87,508.421	575
21	582,777.955	87,551.170	575
22	582,725.186	87,521.596	575
23	582,707.236	87,515.879	575
24	582,664.528	87,512.860	575
25	582,652.475	87,513.840	575
26	582,606.970	87,524.634	575
27	582,585.354	87,538.090	575

POINT	NORTHING	EASTING	EL
28	582,591.649	87,566.813	579
29	582,602.709	87,551.640	579
30	582,612.047	87,546.040	579

POINT	NORTHING	EASTING	EL
31	582,657.553	87,535.246	579
32	582,662.977	87,534.805	579
33	582,705.684	87,537.825	579
34	582,713.970	87,540.523	579
35	582,765.516	87,570.542	579
36	582,770.208	87,588.318	579
37	582,749.314	87,624.197	579
38	582,736.753	87,631.144	579
39	582,669.780	87,628.929	579
40	582,665.029	87,627.929	579
41	582,595.393	87,585.529	579
42	582,565.924	87,559.317	579
43	582,521.350	87,516.575	579
44	582,450.607	87,447.753	579
45	582,374.355	87,376.522	579
46	582,329.036	87,339.237	579
47	582,337.823	87,317.113	579
48	582,437.389	87,323.858	579
49	582,441.212	87,324.709	579
50	582,624.828	87,395.950	579
51	582,627.789	87,397.568	579
52	582,664.291	87,424.176	579
53	582,733.468	87,467.169	579
54	582,742.190	87,471.911	579
55	582,764.937	87,482.907	579
56	582,784.516	87,490.063	579
57	582,805.194	87,495.343	579
58	582,813.368	87,514.205	579
59	582,788.326	87,557.211	579
60	582,770.550	87,561.902	579
61	582,718.955	87,531.851	579
62	582,706.389	87,527.849	579

POINT	NORTHING	EASTING	EL
63	582,663.682	87,524.830	579
64	582,655.245	87,525.516	579
65	582,609.739	87,536.310	579
66	582,594.609	87,545.730	579
67	582,585.210	87,557.881	579

POINT	NORTHING	EASTING	EL
68	582,514.372	87,523.738	580
69	582,443.618	87,454.908	580
70	582,367.758	87,384.045	580
71	582,292.589	87,322.201	580
72	582,299.619	87,304.502	580
73	582,441.562	87,314.118	580
74	582,631.252	87,387.716	580
75	582,670.167	87,416.068	580
76	582,693.808	87,431.387	580
77	582,738.659	87,458.621	580

POINT	NORTHING	EASTING	EL
78	582,746.541	87,462.907	580
79	582,769.293	87,473.906	580
80	582,786.990	87,480.374	580
81	582,832.330	87,491.951	580
82	582,834.739	87,497.936	580
83	582,824.606	87,514.786	580
84	582,752.547	87,638.517	580
85	582,747.163	87,641.494	580
86	582,665.813	87,638.803	580
87	582,660.990	87,637.378	580
88	582,583.362	87,589.892	580

POINT	NORTHING	EASTING	EL
190	0.000	0.000	--
191	582,179.169	87,368.969	581
192	582,198.454	87,352.807	581
193	582,218.565	87,354.550	581
194	582,241.207	87,376.094	581
195	582,236.598	87,400.256	581

POINT	NORTHING	EASTING	EL
95	582,644.537	87,722.764	585
95A	582,634.767	87,723.654	585
179	582,834.351	87,426.414	585
180	582,258.703	87,237.583	585
181	582,450.760	87,250.595	585
182	582,460.214	87,252.707	585
183	582,658.357	87,329.584	585
184	582,665.422	87,333.422	585
185	582,705.601	87,362.722	585
186	582,727.825	87,377.168	585
187	582,773.118	87,404.631	585
188	582,797.176	87,416.299	585
189	582,802.824	87,418.364	585

POINT	NORTHING	EASTING	EL
89	582,746.238	87,669.479	587
96	582,630.195	87,715.770	587
97	582,603.519	87,706.473	587
98	582,601.584	87,709.964	587

POINT	NORTHING	EASTING	EL
90	582,696.527	87,671.836	588
91	582,713.804	87,687.683	588
92	582,716.304	87,708.533	588
93	582,713.417	87,725.387	588
94	582,709.560	87,733.195	588
99	582,560.231	87,678.393	588
100	582,523.188	87,648.651	588
101	582,520.997	87,652.045	588
103	582,744.023	87,684.551	588
104	582,758.098	87,671.949	588
105	582,849.868	87,442.761	588
106	582,198.796	87,245.552	588
107	582,162.731	87,236.664	588
108	582,020.446	87,173.718	588

POINT	NORTHING	EASTING	EL
102	582,719.191	87,759.833	589
109	582,290.479	87,367.083	589
110	582,274.311	87,376.720	589
111	582,244.767	87,432.323	589
112	582,147.548	87,353.718	589
113	582,177.899	87,328.281	589
114	582,239.878	87,327.985	589
115	582,253.061	87,317.793	589
116	582,256.191	87,297.500	589
117	582,302.052	87,268.584	589
118	582,449.469	87,278.571	589
119	582,585.228	87,331.244	589
120	582,615.986	87,343.178	589

POINT	NORTHING	EASTING	EL
121	582,648.668	87,355.858	589
122	582,690.461	87,386.321	589
123	582,712.943	87,400.889	589
124	582,757.344	87,427.850	589
125	582,762.208	87,430.495	589
126	582,784.977	87,441.502	589
127	582,795.896	87,445.493	589
128	582,841.237	87,457.071	589
129	582,865.326	87,516.922	589
130	582,855.715	87,532.903	589
131	582,883.230	87,492.438	589
132	582,844.204	87,445.454	589
133	582,798.865	87,433.866	589
134	582,789.321	87,430.273	589
135	582,767.430	87,419.690	589
136	582,763.572	87,417.593	589
137	582,719.321	87,390.723	589
138	582,697.226	87,376.405	589
139	582,656.849	87,346.973	589
140	582,651.622	87,342.133	589
141	582,620.322	87,331.989	589
142	582,589.556	87,320.052	589
143	582,455.548	87,268.059	589
144	582,448.468	87,266.476	589
145	582,287.956	87,255.673	589
146	582,215.344	87,275.421	589
147	582,169.700	87,295.344	589
148	582,132.776	87,319.119	589
149	582,098.768	87,318.287	589
150	582,365.393	87,526.394	589
151	582,367.766	87,523.512	589

POINT	NORTHING	EASTING	EL
152	582,284.659	87,467.126	590
153	582,291.531	87,458.795	590
154	582,526.191	87,640.804	590
155	582,565.108	87,672.050	590
156	582,609.160	87,695.647	590
157	582,641.155	87,701.369	590
158	582,659.395	87,706.534	590
159	582,695.057	87,731.551	590
160	582,702.387	87,729.654	590
161	582,706.244	87,721.845	590
162	582,708.361	87,709.486	590
163	582,705.860	87,688.636	590
164	582,696.262	87,679.832	590
165	582,664.491	87,678.781	590
166	582,640.373	87,671.656	590
167	582,558.648	87,621.344	590
168	582,488.097	87,553.891	590
169	582,415.881	87,483.736	590
170	582,345.267	87,417.772	590
171	582,330.195	87,414.013	590
172	582,245.428	87,436.785	590
173	582,830.789	87,583.651	590

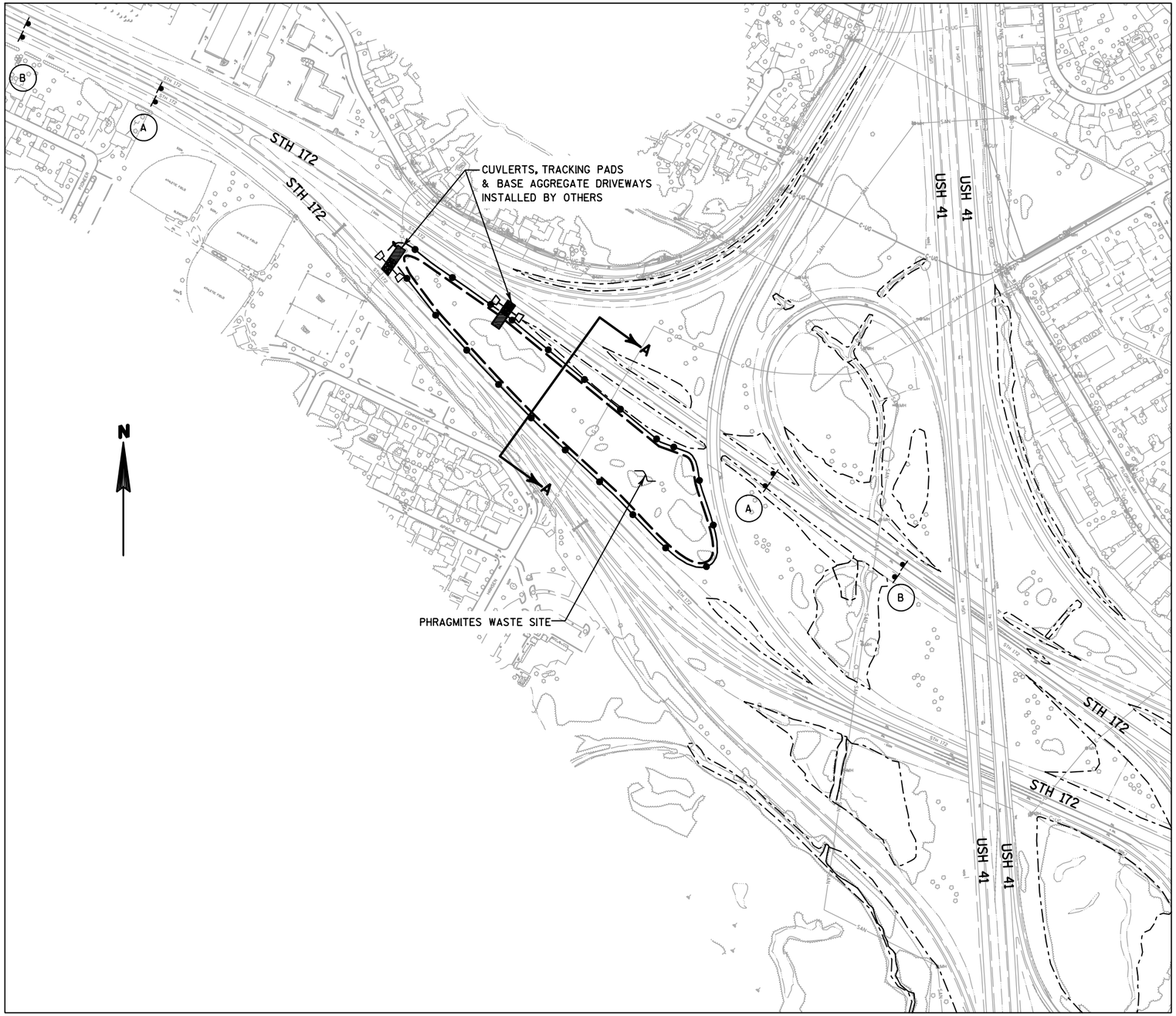
POINT	NORTHING	EASTING	EL
174	582,790.568	87,660.660	591
175	582,761.489	87,683.460	591
176	582,755.091	87,689.188	591
177	582,741.121	87,722.526	591

VELP AVENUE WET DETENTION POND

PROJECT NO: 1133-11-86	HWY: USH 41	COUNTY: BROWN	LAYOUT DETAIL - VELP AVENUE WET DETENTION POND	SHEET 34 E

FILE NAME : S:\2011\WisDOT\Velp Pond\CADD files\CDS\022902sw_velp.dgn PLOT DATE : 7/18/2012 PLOT BY : harlan PLOT NAME : PLOT SCALE : 1:80

WISDOT/CADDS SHEET 42



NOTE: PHRAGMITES WASTE SITE HAS BEEN CLEARED AND GRUBBED BY OTHERS

LEGEND

DELINEATED WETLAND BOUNDARY

SILT FENCE INSTALLED BY OTHERS/MAINTAINED BY CONTRACTOR **

SIGN SUPPORT

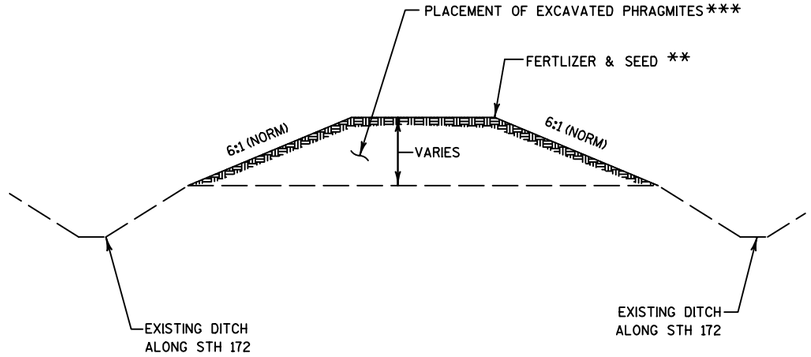
A — TRUCKS ENTERING & LEAVING W08-6A

B — ROAD WORK AHEAD W20-1

NOTES:
REMOVE SIGNS WHEN NOT IN USE

CONFORM TO THE TRAFFIC REQUIREMENTS IN THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER WHEN ACCESSING THE SITE

*** BURY ANY PHRAGMITES MATERIAL AT LEAST 18-INCHES BELOW THE FINISHED SURFACE



SECTION A-A

** PAID FOR UNDER THE PERTINENT ITEMS PROVIDED IN THE CONTRACT

BROWN COUNTY PHRAGMITES WASTE SITE DETAIL

PROJECT NO: 1133-11-75, 86	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION DETAIL	SHEET 35	E

2

REMOVAL LEGEND

- REMOVING EXISTING WOVEN WIRE FENCE 4-FOOT
- PHRAGMITES SOIL
- CLEARING AND GRUBBING (ACRE)
- WETLANDS
- REMOVING ASPHALT PAVEMENT
- REMOVING CONCRETE PAVEMENT
- SLOPE INTERCEPTS
- REMOVING SMALL CULVERT PIPE
- XXXX SAW CUTTING PAVEMENT

N

USH 41

1130 SMC
1130 NMC
1135 SMC
1135 NMC
1140 SMC
1140 NMC
1145 SMC
1145 NMC
1145 IHA
1150 SMC
1150 NMC
1150 IHA
1155 SMC
1155 NMC
1155 IHA

EXISTING R/W

SUBSTATION

MINI GOLF COURSE

GOLF GREEN

CLEARING AND GRUBBING
0.73 ACRES FROM 1151+50 SMC
TO STA. 1156+00 SMC

BEGIN FENCE REMOVAL
STA. 1155+79.1 SMC
99.5' LT.

DUCK CREEK

R/W LINE

MATCH LINE STA. 1156+00 NMC

SLOPE INTERCEPTS

BEGIN FENCE REMOVAL
STA. 1151+00 NMC
92.5' RT.

CLEARING AND GRUBBING
1.78 ACRES FROM STA.
1151+00 NMC TO STA.
1156+00 NMC

REMOVING SMALL CULVERT PIPE

REMOVING SMALL CULVERT PIPE
SAW CUT

REMOVING SMALL CULVERT PIPE

REMOVING SMALL CULVERT PIPE

10 LF

BEAVER DAM CREEK

ROSEWOOD ST

LONE GROVE AVE

EXISTING R/W

2

PROJECT NO: 1133-10-80, 1133-11-75/86	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET 36 E

2

REMOVAL LEGEND

- REMOVING EXISTING WOVEN WIRE FENCE 4-FOOT
- PHRAGMITES SOIL
- CLEARING AND GRUBBING (ACRE)
- WETLANDS
- REMOVING ASPHALT PAVEMENT
- REMOVING CONCRETE PAVEMENT
- SLOPE INTERCEPTS
- REMOVING SMALL CULVERT PIPE
- xxxx SAW CUTTING PAVEMENT

N

DUCK CREEK

CLEARING AND GRUBBING
6.4 ACRES FROM STA.
1156+00 SMC

CTH HS

VELP AVE

70' IS

SAW CUT

REMOVING SMALL
CULVERT PIPE

SAW CUT

EXISTING R/W 65' IS

R/W LINE

ISLAND CT

60' IS

BEAVER DAM CREEK

R/W LINE

END FENCE REMOVAL
STA. 1170+54.4 SMC
595.8' LT

REMOVE FOOTBRIDGE

CLEARING AND GRUBBING
2.1 ACRES

CLEARING AND GRUBBING
0.2 ACRES

EXISTING R/W

DUCK CREEK

MATCH LINE STA. 1156+00 NMC

USH 41

1160 SMC

SAW CUT

1160 NMC

USH 41 SAW CUT

SAW CUT

1165 SMC

1165 NMC

1170 SMC

1170 NMC

1175 SMC

1175 NMC

1180 SMC

1180 NMC

1185 SMC

1185 NMC

R/W LINE

EXISTING R/W

CLEARING AND GRUBBING
1.2 ACRES

SLOPE INTERCEPTS

PLAYGROUND

BASKETBALL COURT

CLEARING AND GRUBBING
0.1 ACRES

EXISTING R/W

ROSEWOOD ST

EXISTING R/W

END FENCE REMOVAL
STA. 1168+72.3 NMC
234' RT.

VELP AVE

PROJECT NO: 1133-10-80, 1133-11-75/86	HWY: USH 41	COUNTY: BROWN	REMOVAL PLAN	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_021202_rm.dgn

PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2

LEGEND

- TRACKING PAD
- SILT FENCE
- ##### EROSION MAT CLASS I TYPE B (DITCH)-8' UNLESS OTHERWISE NOTED
- EROSION MAT CLASS II TYPE B (DITCH)-8' UNLESS OTHERWISE NOTED
- EROSION MAT CLASS II TYPE B (SLOPES)-LENGTH AND WIDTH NOTED
- EROSION MAT URBAN CLASS I TYPE B
- CULVERT PIPE DITCH CHECKS
- TEMPORARY DITCH CHECKS
- RIPRAP MEDIUM
- DRAINAGE
- R ROCK BAGS
- XX SUBSTAGE ITEMS ARE USED IN
- WETLANDS

DUCK CREEK
SLOPE INTERCEPTS
R/W
MATCH WITH PROJECT 1133-03-71
ALL EROSION CONTROL SOUTH OF STA 1151+00 NMC COVERED BY OTHERS IN PROJECT 1133-03-71
SB USH 41
NB USH 41
EXISTING R/W
ISLAND CT
222+00 BDC
INLET PROTECTION TYPE A PLACED FOR SUBSTAGES 1B, 1C AND 1D, AND INLET PROTECTION TYPE B PLACED FOR SUBSTAGE 1E
1164+00 SMC
1162+00 SMC
1160+00 SMC
1160+00 NMC
1158+00 SMC
1158+00 NMC
1156+00 SMC
1156+00 NMC
1154+00 SMC
1154+00 NMC
1152+00 SMC
1152+00 NMC
1150+00 SMC
1150+00 NMC
1148+00 SMC
1148+00 NMC
ALL MEDIAN EROSION CONTROL ITEMS SHOWN ARE PLACED THREE SEPARATE TIMES AS THE STAGING CONFIGURATION CHANGES: SUBSTAGES 1A, 1C, AND 1E
214+00 BDC
212+00 BDC
210+00 BDC
208+00 BDC
BEAVER DAM CREEK
SEE BEAVER DAM CREEK DETAILS FOR FINAL CREEK EROSION CONTROL
LONE GROVE AVE
1A-D DRAINAGE PRIOR TO 1E
1E DRAINAGE
1A
1A-2B
1B
1E
SIGN
MH

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL	SCALE, FEET 0 50 100	SHEET 38	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_022001_ec.dgn
PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:100

2

LEGEND

- TRACKING PAD
- SILT FENCE
- ##### EROSION MAT CLASS I TYPE B (DITCH)-8' UNLESS OTHERWISE NOTED
- EROSION MAT CLASS II TYPE B (DITCH)-8' UNLESS OTHERWISE NOTED
- EROSION MAT CLASS II TYPE B (SLOPES)-LENGTH AND WIDTH NOTED
- EROSION MAT URBAN CLASS I TYPE B
- CULVERT PIPE DITCH CHECKS
- TEMPORARY DITCH CHECKS
- RIPRAP MEDIUM
- DRAINAGE
- R ROCK BAGS
- XX SUBSTAGE ITEMS ARE USED IN
- WETLANDS

1 A

228+00 BDC

226+00 BDC

224+00 BDC

EXISTING R/W

ISLAND CT

BEAVER DAM CREEK

SEE BEAVER DAM CREEK DETAILS FOR FINAL CREEK EROSION CONTROL

SLOPE INTERCEPTS

1 B

1A-2B

1 C

VELP AVE

1166+00 SMC

1168+00 SMC

1170+00 SMC

1172+00 SMC

1174+00 SMC

1176+00 SMC

1178+00 SMC

1180

SB USH 41

1164+00 NMC

1166+00 NMC

1168+00 NMC

1170+00 NMC

1172+00 NMC

1174+00 NMC

1176+00 NMC

1178+00 NMC

NB USH 41

ALL MEDIAN EROSION CONTROL ITEMS SHOWN ARE PLACED THREE SEPARATE TIMES AS THE STAGING CONFIGURATION CHANGES: SUBSTAGES 1A, 1C, AND 1E

1 E

1A-D DRAINAGE

DRAINAGE PRIOR TO 1E

ROSEWOOD ST

R/W

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL	SCALE, FEET 0 50 100	SHEET 39	E

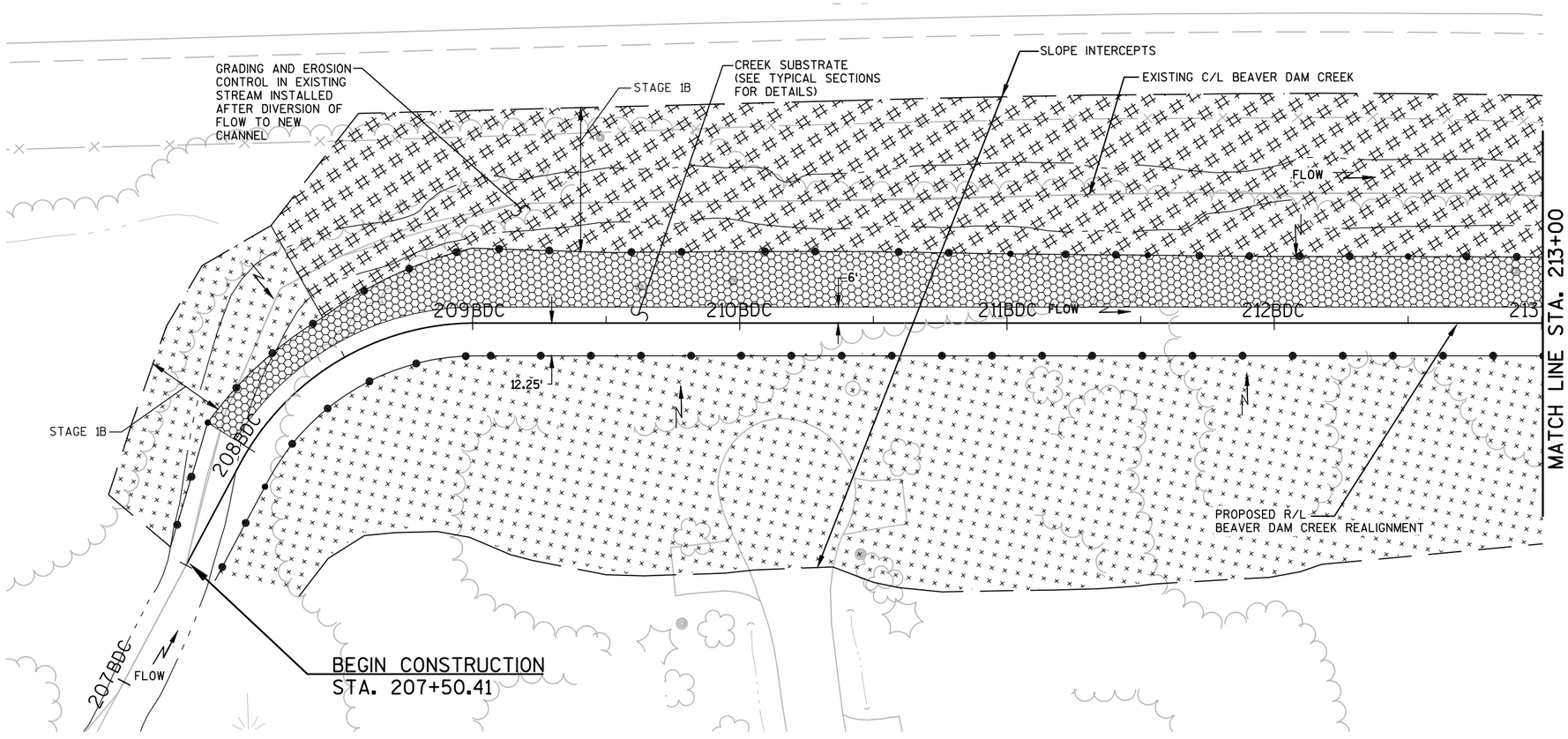
FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_022002_ec.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:100

2

N

LEGEND

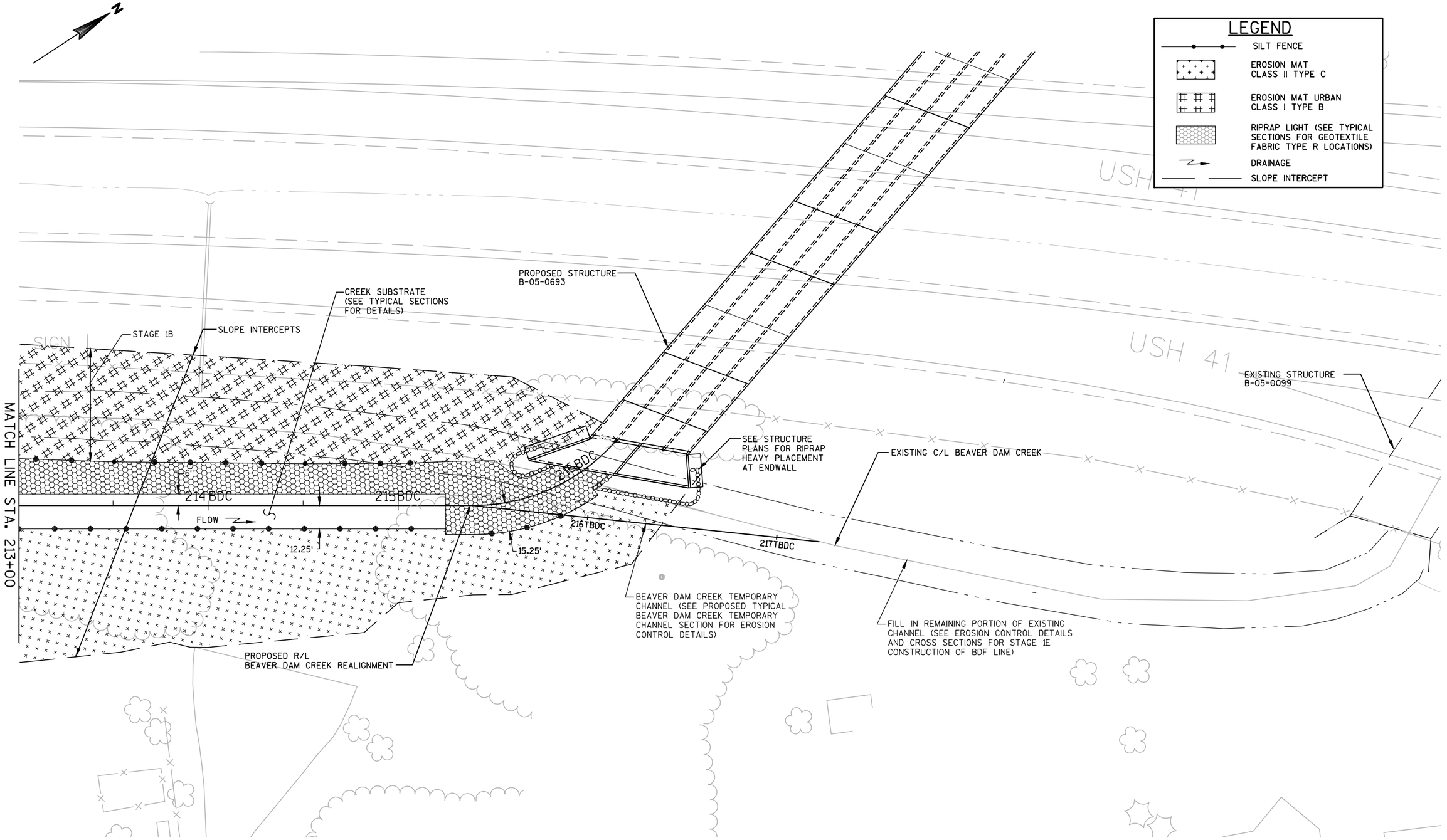
- SILT FENCE
- EROSION MAT CLASS II TYPE C
- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP LIGHT (SEE TYPICAL SECTIONS FOR GEOTEXTILE FABRIC TYPE R LOCATIONS)
- DRAINAGE
- SLOPE INTERCEPT



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL DETAILS - BEAVER DAM CREEK	SHEET 40	E

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\CREEK\EROSION CONTROL SHEETS.DWG
LAYOUT : EROSION CONTROL 1
PLOT DATE : 7/12/2012
PLOT TIME : 2:24:12 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

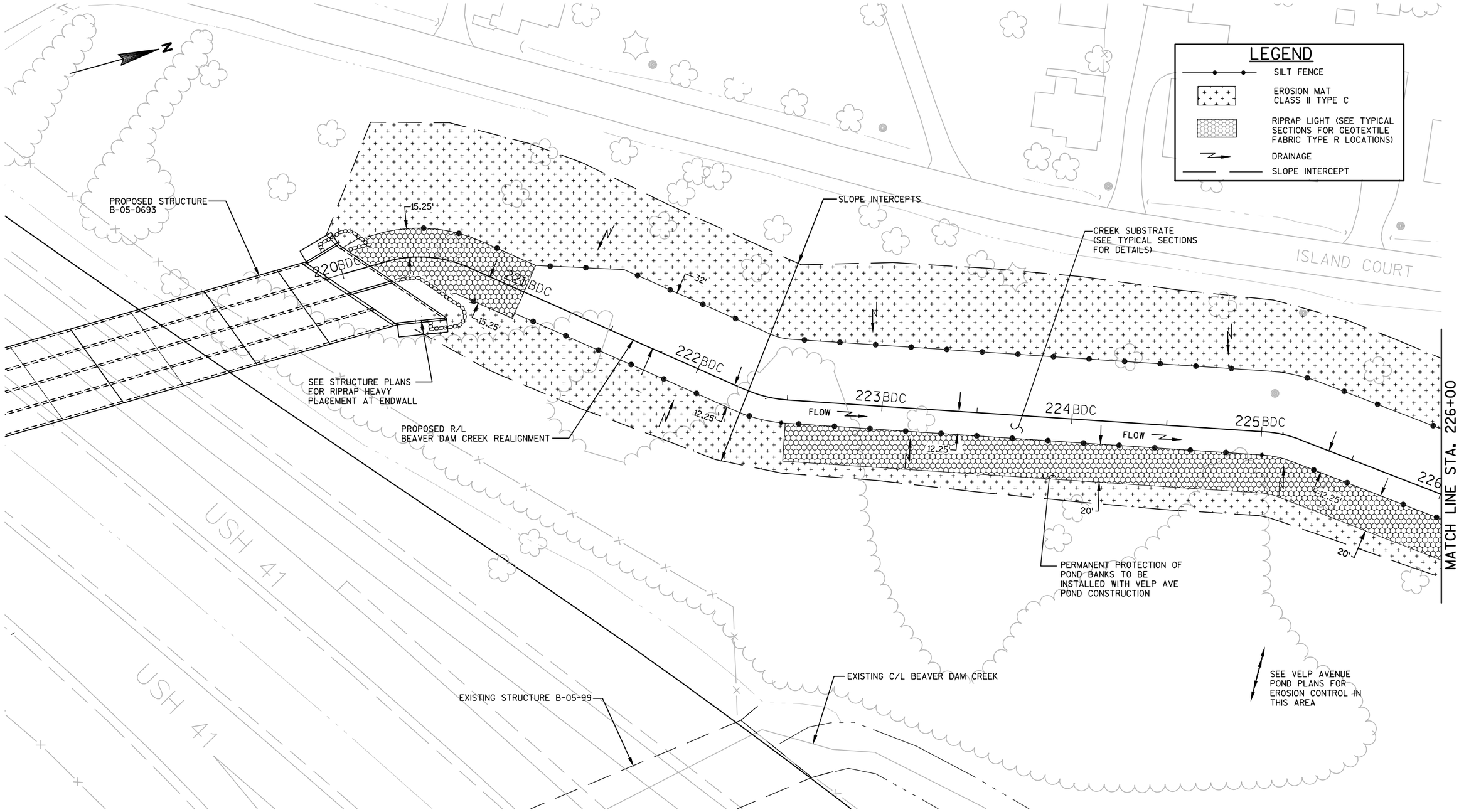
2



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL DETAILS - BEAVER DAM CREEK	SHEET 41	E

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\CREEK\EROSION CONTROL SHEETS.DWG
LAYOUT : EROSION CONTROL 2
PLOT DATE : 7/12/2012
PLOT TIME : 2:24:58 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

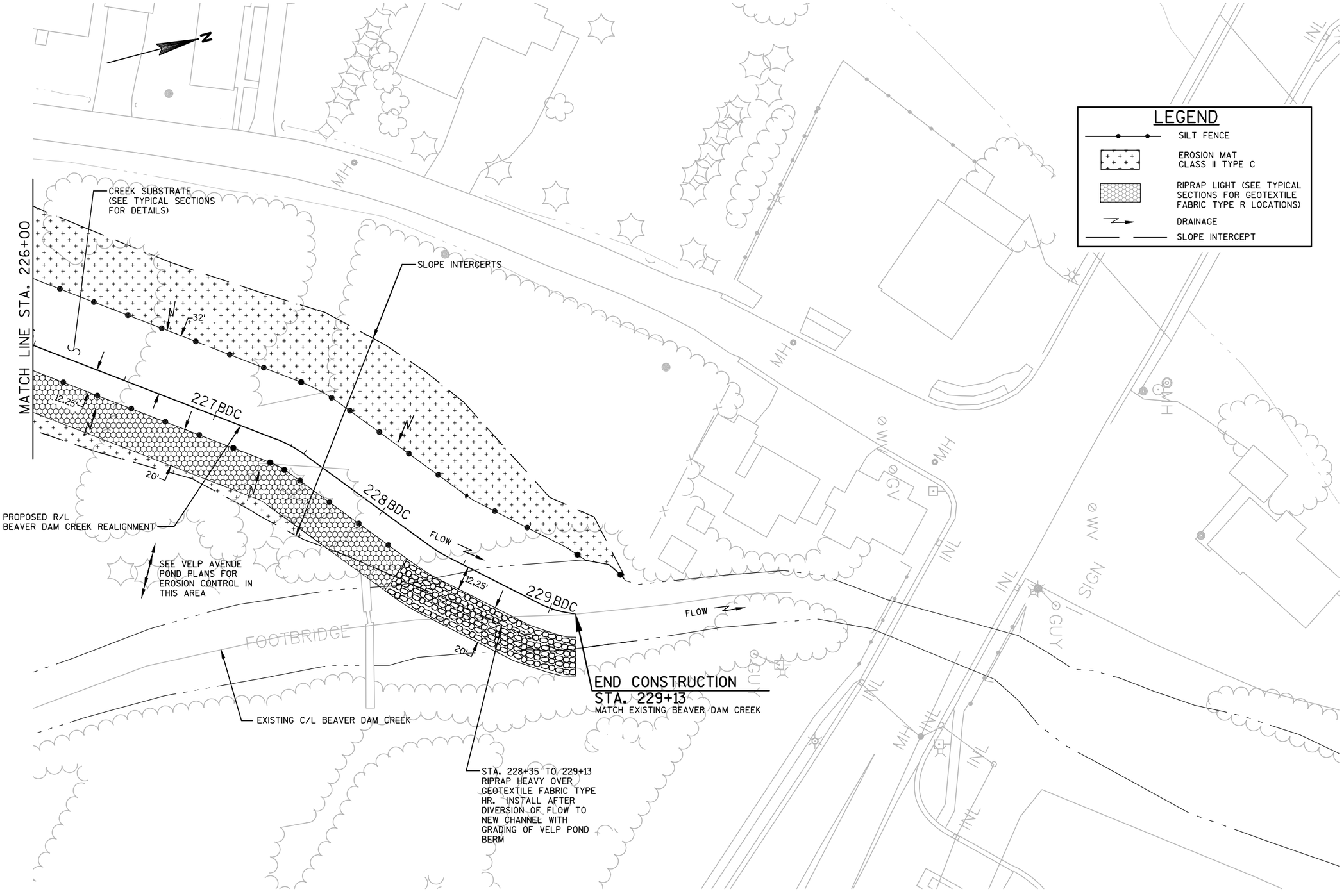
2



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL DETAILS - BEAVER DAM CREEK	SHEET 42	E

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\CREEK\EROSION CONTROL SHEETS.DWG
LAYOUT : EROSION CONTROL 3
PLOT DATE : 7/12/2012
PLOT TIME : 2:25:57 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

2



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL DETAILS - BEAVER DAM CREEK	SHEET 43	E

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\CREEK\EROSION CONTROL SHEETS.DWG
LAYOUT : EROSION CONTROL 4

PLOT DATE : 7/12/2012
PLOT TIME : 2:27:10 PM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

2

2

DUCK CR.

N

70 IS

GV

ISLAND CT.

65 IS

BDC R/L

REALIGNED BEAVER DAM CREEK 225 BDC

SEE POND CONSTRUCTION DETAILS FOR LANDSCAPE TREATMENT ADJACENT TO NORMAL POND WATER SURFACE

LIMITS OF TALL FESCUE SEEDING

VELP AVE. WET DETENTION POND

DUCK CR.

BEAVER DAM CREEK

VELP AVENUE

IS

VED

MC

1165 VED

RAMP VED R/L

1170 VED

EXISTING RAMP VED

RIPRAP AT EXISTING STORM SEWER OUTFALL

RIPRAP AT EXISTING CULVERT ENDWALL

1175 VE

1175 VEC

RAMP VEC

1165 SMC

1165 NMC

1165 IHA

1165 VEA

USH 41 NB

1170 SMC

1170 NMC

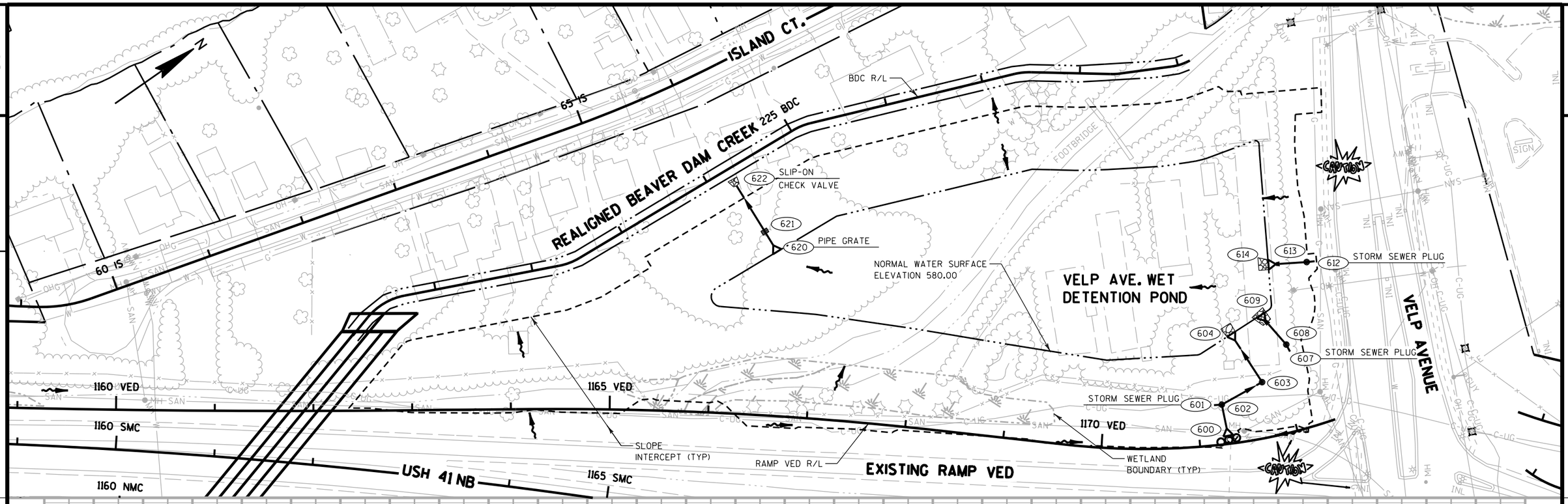
USH 41 NB

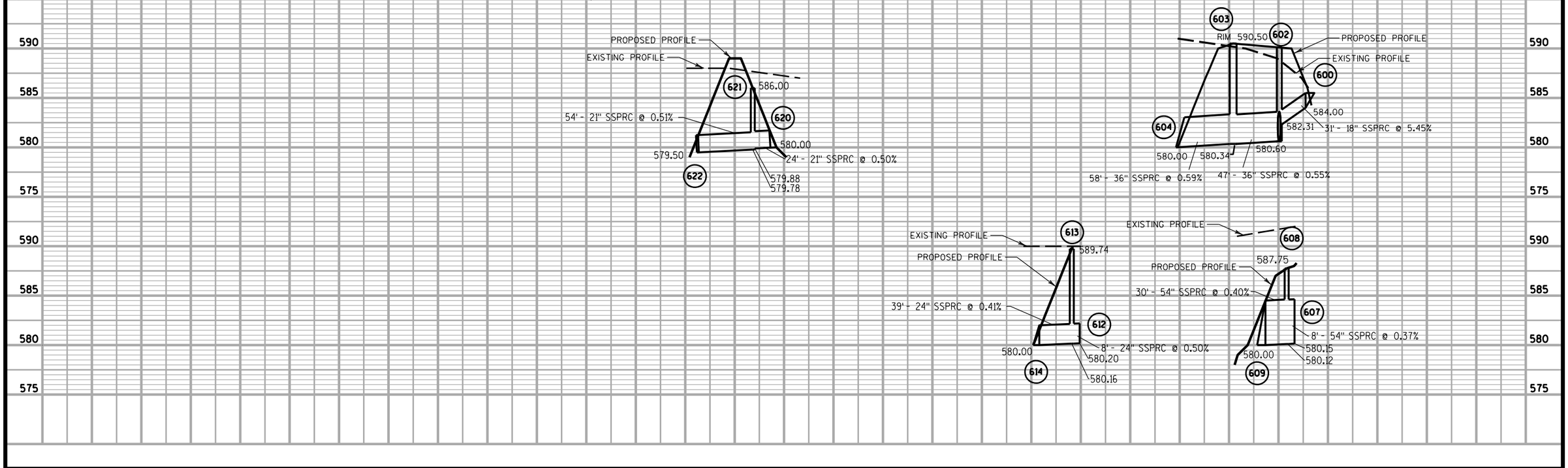
EROSION CONTROL LEGEND

- TOPSOIL, VARIOUS SEED MIXES (SEE CONSTRUCTION DETAILS), FERTILIZER, EROSION URBAN MAT CLASS I TYPE B
- TOPSOIL, VARIOUS SEED MIXES (SEE CONSTRUCTION DETAILS), TEMPORARY SEEDING, FERTILIZER, EROSION URBAN MAT CLASS II TYPE B
- TOPSOIL, VARIOUS SEED MIXES (SEE CONSTRUCTION DETAILS), TEMPORARY SEEDING, FERTILIZER, EROSION MAT, CLASS III, TYPE D
- TRACKING PAD (FINAL LOCATION TO BE DETERMINED PER E.C.I.P.
- RIPRAP LIGHT, GEOTEXTILE FABRIC TYPE HR
- RIPRAP AT ENDWALLS, GEOTEXTILE FABRIC TYPE HR
- TEMPORARY DITCH CHECKS
- CULVERT PIPE DITCH CHECKS
- SILT FENCE
- INLET PROTECTION TYPE A
- SURFACE FLOW

PROJECT NO: 1133-11-86	HWY: USH 41	COUNTY: BROWN	EROSION CONTROL - VELP AVENUE POND	SHEET 44	E

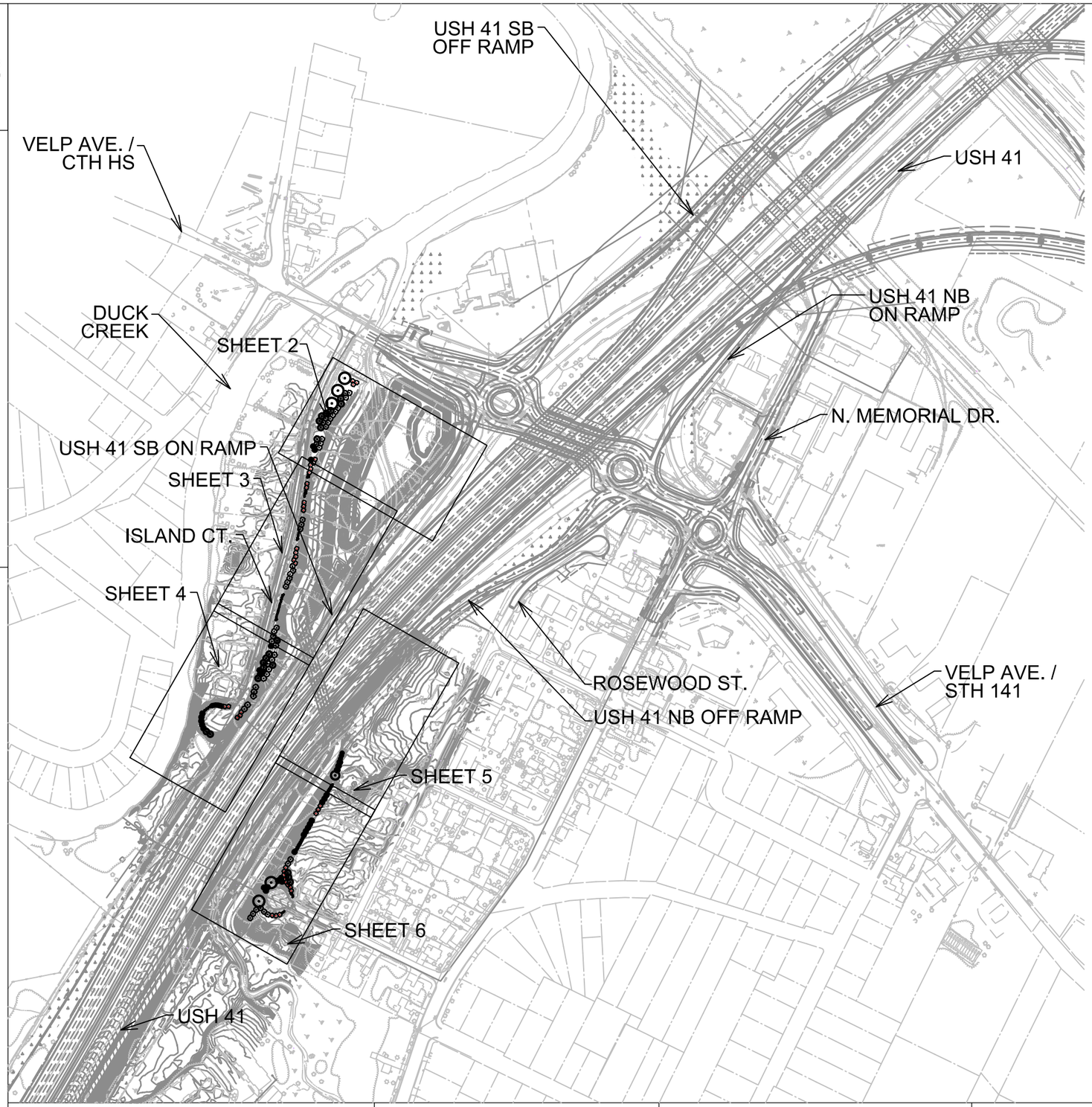
FILE NAME : S:\2011\WisDOT\Velp Pond\CADD files\CDS\022001ec_velp.dgn PLOT DATE : 12/3/2012 PLOT BY : harlan PLOT NAME : PLOT SCALE : 1:100





PROJECT NO: 1133-11-86	HWY: USH 41	COUNTY: BROWN	STORM SEWER	SHEET 45	E

FILE NAME : S:\2011\WisDOT\Velp Pond\CADD files\CDS\022501ss_velp.dgn PLOT DATE : 7/18/2012 PLOT BY : harlan PLOT NAME : PLOT SCALE : 1:100



NOTES:

CONTRACTOR WILL BE FULLY RESPONSIBLE FOR REPAIRING ANY AND ALL AREAS IN INFIELDS, OUTFIELDS, AND RIGHT-OF-WAYS DISTURBED BY PLANTING OPERATIONS WITH WISDOT APPROVED SEED MIX AND APPROPRIATE EROSION CONTROL MATERIAL AND/OR MULCH ACCORDING TO SECTION 630 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURES CONSTRUCTION, CURRENT EDITION AND THE EROSION CONTROL TEMPORARY AND PERMANENT PLANS INCLUDED IN THIS CONTRACT.

THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING AND PROPOSED UTILITIES AND SHALL ADJUST PLANT LOCATIONS AS NECESSARY TO AVOID CONFLICTS AND ACCOMMODATE UTILITY REQUIREMENTS.

CONTRACTOR SHALL VERIFY THAT A MINIMUM OF 24-INCHES OF TOPSOIL HAS BEEN PROVIDED FOR TREES PLANTED IN LAWN AREAS FOR THE WIDTHS INDICATED IN THE TREE PLANTING DETAIL, THIS PACKAGE.

PLANS PREPARED BY KEN SAIKI DESIGN, MADISON, WI
(608) 251-3600

LEGEND

- abc / xx — PLANT SYMBOL / QUANTITY
- XXX — STATIONING POINT
- DECIDUOUS PLANT MATERIAL LOCATION
- EVERGREEN PLANT MATERIAL LOCATION

N

0' 200' 400' 800'

SCALE 1" = 400'-0"

1 OF 8

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLAN LAYOUT - OVERVIEW	SHEET 46	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn PLOT DATE : 12-July-2012 PLOT BY : rdeboer PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

LOCATION: ISLAND COURT, NORTH

2

2

PLV 3 100
101
102
SB 3 103
HW1 2 104
105
HT 3 106
HW1 2 107
MT 2 108
109
110
111
HW1 2 112
SH8 12 113
114
DC1 3 115
116
PLV 3 117

ISLAND CT
SLOPE INTERCEPT
REALIGNED BEAVER DAM CREEK
WET POND
SB USH 41 ONRAMP
MATCHLINE SHEET 2
MATCHLINE SHEET 3

PLANT KEY

SYM	COMMON NAME
DC1	Dogwood, Cornelian Cherry 'Golden Glory' (Shrub Form Tree)
HW1	Hawthorn, 'Winter King' (Shrub Form Tree)
HT	Honeylocust, Thornless 'Imperial'
MT	Maple, Tatarian
PLV	Pine, Limber 'Vanderwolf's Pyramid'
SH8	Spruce, Black Hills, 8' Ht.
SB	Spruce, Blue Colorado

0' 20' 40' 80'
SCALE 1" = 40'-0"

2 OF 8

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLANT LAYOUT - ISLAND COURT, NORTH	SHEET 47	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn PLOT DATE : 12-July-2012 PLOT BY : rdeboer PLOT NAME : PLOT SCALE :

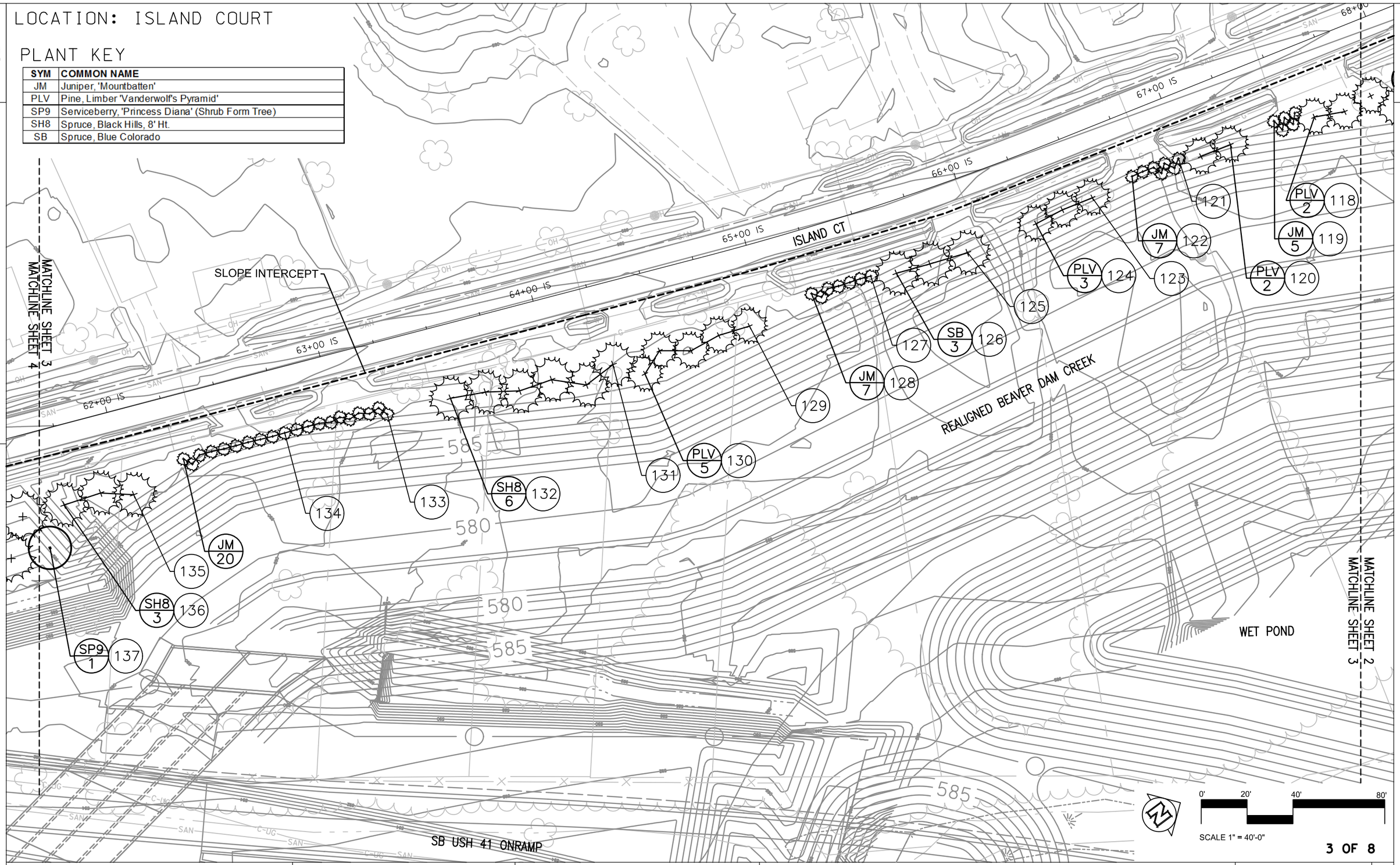
WISDOT/CADDS SHEET 42

2

LOCATION: ISLAND COURT

PLANT KEY

SYM	COMMON NAME
JM	Juniper, 'Mountbatten'
PLV	Pine, Limber 'Vanderwolf's Pyramid'
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree)
SH8	Spruce, Black Hills, 8' Ht.
SB	Spruce, Blue Colorado



3 OF 8

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLANT LAYOUT - ISLAND COURT	SHEET 48	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn PLOT DATE : 12-July-2012 PLOT BY : rdeboer PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

LOCATION: ISLAND COURT CUL-DE-SAC

PLANT KEY

SYM	COMMON NAME
CD1	Crabapple, 'Donald Wyman' (Shrub Form Tree)
CP	Crabapple, 'Prairiefire'
DC1	Dogwood, Cornelian Cherry 'Golden Glory' (Shrub Form Tree)
JM	Juniper, 'Mountbatten'
MT	Maple, Tatarian
PLV	Pine, Limber 'Vanderwolf's Pyramid'
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree)
SH8	Spruce, Black Hills, 8' Ht.
SB	Spruce, Blue Colorado
Va	Viburnum, Arrowwood, Autumn Jazz

DUCK CREEK

SLOPE INTERCEPT

MATCHLINE SHEET 3
MATCHLINE SHEET 4

ISLAND CT
CUL-DE-SAC

ISLAND CT

SB USH 41

58+00 IS
59+00 IS
60+00 IS
61+00 IS

151
Va 5 150
CP 5 152
153
CD1 2 154
JM 17 149
PLV 2 148
147 PLV 3
SH8 5 146
145
144 SP9 1
SB 8 143
DC1 3 142
SP9 1 141
MT 4 140
139
DC1 1 138

0' 20' 40' 80'

SCALE 1" = 40'-0"

4 OF 8

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLANT LAYOUT - ISLAND COURT CUL-DE-SAC	SHEET 49	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn
PLOT DATE : 12-July-2012
PLOT BY : rdeboer
PLOT NAME :
PLOT SCALE :

LOCATION: BEAVER DAM CREEK, NORTH

PLANT KEY

SYM	COMMON NAME
BRL	Birch, River 'Fox Valley' (Shrub Form Tree)
BR	Birch, River 'Heritage' (Shrub Form Tree)
JM	Juniper, 'Mountbatten'
WA	Wayfaring Ash (Shrub Form Tree)

NB USH 41

US 41 NB OFFRAMP

US 41 NB OFFRAMP TO IH-43

US 41 NB OFFRAMP TO VELP AVE

216+00 BDC

215+00 BDC

JM 5 158

156 WA 3

155 BRL 3

157 BR 1

SLOPE INTERCEPT

LEHNER PARK

LEHNER PARK

PLAYGROU

MATCHLINE SHEET 5

MATCHLINE SHEET 6

0' 20' 40' 80'

SCALE 1" = 40'-0"

5 OF 8

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLANT LAYOUT - BEAVER DAM CREEK, NORTH	SHEET 50	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn

PLOT DATE : 12-July-2012 PLOT BY : rdeboer PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

LOCATION: LONE GROVE CUL-DE-SAC

US 41 NB OFFRAMP

209+00 BDC
210+00 BDC
211+00 BDC
212+00 BDC
213+00 BDC
214+00 BDC

585
580
580
585
590

SLOPE INTERCEPT

174 HS 1
173 DC1 3
172 HS 1
179
178
177 SH8 6
176 PLV 3
JM 3 175
169
DC1 3 168
PLV 8 170
JM 5 171
166 SH6 2
CP1 3 167
165 DC1 1
164 JM 15
163
162 CD1 5
161 PLV 3
160 DC1 3
159 JM 5

LONE GROVE CUL-DE-SAC

11+00 LT
12+00 LT

MATCHLINE SHEET 5
MATCHLINE SHEET 6

PLANT KEY

SYM	COMMON NAME
CD1	Crabapple, 'Donald Wyman' (Shrub Form Tree)
CP1	Crabapple, 'Prairiefire' (Shrub Form Tree)
DC1	Dogwood, Cornelian Cherry 'Golden Glory' (Shrub Form Tree)
HS	Honeylocust, Thornless 'Skyline'
JM	Juniper, 'Mountbatten'
PLV	Pine, Limber 'Vanderwolf's Pyramid'
SH6	Spruce, Black Hills, 6' Ht.
SH8	Spruce, Black Hills, 8' Ht.

0' 20' 40' 80'

SCALE 1" = 40'-0"

6 OF 8

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLANT LAYOUT - LONE GROVE CUL-DE-SAC	SHEET 51	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn PLOT DATE : 12-July-2012 PLOT BY : rdeboer PLOT NAME : PLOT SCALE :

PLANT DATA TABLE

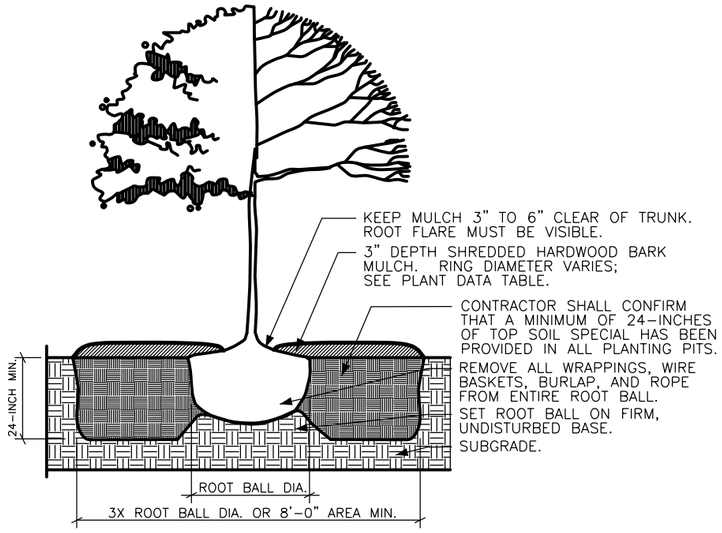
Symbol	Common Name	Scientific Name	Type	Average Mature Height	Size When Planted	Root Zone Mode	Minimum Size					Brace Or Guy	Fertilizer Units Required	Rodent Protection Required	Mulch Ring Required	Plant Bed Detail
							Ball/Pot		Root	Plant Hole						
							Diameter	Depth	Spread	Diameter	Depth					
	Canopy Trees															
BR	Birch, River 'Heritage' (Shrub Form Tree)	*Betula nigra 'Cully' (Shrub Form Tree)*	1T	40-50' Ht.	6' Ht.	B&B	18"	12"		42"	12"	See SPV	4	Yes	54"	———
HT	Honeylocust, Thornless 'Imperial'	*Gleditsia triacanthos var. inermis 'Impcole'*	1T	30-35' Ht.	2.5" Cal.	B&B	28"	17"	———	52"	17"	See SPV	6	Yes	64"	———
HS	Honeylocust, Thornless 'Skyline'	*Gleditsia triacanthos var. inermis 'Skycole'*	1T	50-60' Ht.	2.5" Cal.	B&B	28"	17"	———	52"	17"	See SPV	6	Yes	64"	———
	Deciduous Ornamental Trees															
BRL	Birch, River 'Fox Valley' (Shrub Form Tree)	*Betula nigra 'Little King' (Shrub Form Tree)*	3T	8-10' Ht.	4' Ht.	B&B	16"	10"		40"	10"	See SPV	4	Yes	48"	———
CD1	Crabapple, 'Donald Wyman' (Shrub Form Tree)	*Malus 'Donald Wyman' (Shrub Form Tree)*	3T	20' Ht.	8' Ht.	B&B	26"	15"	———	50"	15"	See SPV	4	Yes	58"	———
CP1	Crabapple, 'Prairiefire' (Shrub Form Tree)	*Malus 'Prairiefire' (Shrub Form Tree)*	3T	20' Ht.	10' Ht.	B&B	26"	15"	———	50"	15"	See SPV	4	Yes	58"	———
CP	Crabapple, 'Prairifire'	*Malus 'Prairifire'*	3T	20' Ht.	2" Cal.	B&B	28"	17"	———	52"	17"	See SPV	4	Yes	64"	———
DC1	Dogwood, Cornelian Cherry 'Golden Glory' (Shrub Form Tree)	*Cornus mas 'Golden Glory' (Shrub Form Tree)*	3T	20-25' Ht.	6' Ht.	B&B	24"	14"	———	48"	14"	See SPV	4	No	60"	———
HW1	Hawthorn, 'Winter King' (Shrub Form Tree)	*Crataegus viridis 'Winter King' (Shrub Form Tree)*	3T	20-25' Ht.	8' Ht.	B&B	22"	12"	———	46"	12"	See SPV	4	Yes	60"	———
MT	Maple, Tatarian	*Acer tataricum*	3T	15-20' Ht.	2" Cal.	B&B	26"	15"	———	50"	15"	See SPV	4	Yes	58"	———
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree)	*Amelanchier x grandiflora 'Princess Diana'*	3T	20-25' Ht.	9' Ht.	B&B	24"	17"	———	52"	17"	See SPV	4	Yes	64"	———
WA	Wayfaring Ash (Shrub Form Tree)	*Ptelea trifoliata (Shrub Form Tree)*	4T	15-20' Ht.	5' Ht.	B&B	16"	10"	———	40"	10"	See SPV	4	Yes	52"	———
	Evergreens															
JM	Juniper, 'Mountbatten'	*Juniperus chinensis 'Mountbatten'*	5E	12-14' Ht.	5' Ht.	B&B	20"	12"	———	44"	12"	See SPV	4	No	54"	———
PLV	Pine, Limber 'Vanderwolf's Pyramid'	*Pinus flexilis 'Vanderwolf's Pyramid'*	4E	20-30' Ht.	7' Ht.	B&B	27"	16"	———	51"	16"	See SPV	4	No	60"	———
SH6	Spruce, Black Hills, 6' Ht.	*Picea glauca var. densata*	4E	40' Ht.	6' Ht.	B&B	22"	13"	———	46"	13"	See SPV	4	No	58"	———
SH8	Spruce, Black Hills, 8' Ht.	*Picea glauca var. densata*	4E	40' Ht.	8' Ht.	B&B	27"	16"	———	51"	16"	See SPV	4	No	62"	———
SB	Spruce, Blue Colorado	*Picea pungens f. glauca*	4E	40-60' Ht.	6' Ht.	B&B	22"	13"	———	46"	13"	See SPV	4	No	58"	———
	Deciduous Ornamental Shrubs															
Va	Viburnum, Arrowwood, Autumn Jazz	*Viburnum dentatum 'Ralph Senior'*	3S	10' Ht.	4' Ht.	CONT/B&B	14"	9"	———	38"	9"	———	4	No	BED	———

PLANT QUANTITIES TABLE

Symbol	Common Name	Scientific Name	Size When Planted	Root Zone Mode	Sheet 2	Sheet 3	Sheet 4	Sheet 5	Sheet 6	Totals
	Canopy Trees									
BR	Birch, River 'Heritage' (Shrub Form Tree)	*Betula nigra 'Cully' (Shrub Form Tree)*	6' Ht.	B&B				1		1
HT	Honeylocust, Thornless 'Imperial'	*Gleditsia triacanthos var. inermis 'Impcole'*	2.5" Cal.	B&B	3					3
HS	Honeylocust, Thornless 'Skyline'	*Gleditsia triacanthos var. inermis 'Skycole'*	2.5" Cal.	B&B					2	2
	Deciduous Ornamental Trees									
BRL	Birch, River 'Fox Valley' (Shrub Form Tree)	*Betula nigra 'Little King' (Shrub Form Tree)*	4' Ht.	B&B				3		3
CD1	Crabapple, 'Donald Wyman' (Shrub Form Tree)	*Malus 'Donald Wyman' (Shrub Form Tree)*	8' Ht.	B&B			2		5	7
CP1	Crabapple, 'Prairiefire' (Shrub Form Tree)	*Malus 'Prairiefire' (Shrub Form Tree)*	10' Ht.	B&B					3	3
CP	Crabapple, 'Prairifire'	*Malus 'Prairifire'*	2" Cal.	B&B			5			5
DC1	Dogwood, Cornelian Cherry 'Golden Glory' (Shrub Form Tree)	*Cornus mas 'Golden Glory' (Shrub Form Tree)*	6' Ht.	B&B	3		4		10	17
HW1	Hawthorn, 'Winter King' (Shrub Form Tree)	*Crataegus viridis 'Winter King' (Shrub Form Tree)*	8' Ht.	B&B	6					6
MT	Maple, Tatarian	*Acer tataricum*	2" Cal.	B&B	2		4			6
SP9	Serviceberry, 'Princess Diana' (Shrub Form Tree)	*Amelanchier x grandiflora 'Princess Diana' (Shrub Form Tree)*	9' Ht.	B&B		1	2			3
WA	Wayfaring Ash (Shrub Form Tree)	*Ptelea trifoliata (Shrub Form Tree)*	5' Ht.	B&B				3		3
	Evergreens									
JM	Juniper, 'Mountbatten'	*Juniperus chinensis 'Mountbatten'*	5' Ht.	B&B		39	17	5	28	89
PLV	Pine, Limber 'Vanderwolf's Pyramid'	*Pinus flexilis 'Vanderwolf's Pyramid'*	7' Ht.	B&B	6	12	5		14	37
SH6	Spruce, Black Hills, 6' Ht.	*Picea glauca var. densata*	6' Ht.	B&B					2	2
SH8	Spruce, Black Hills, 8' Ht.	*Picea glauca var. densata*	8' Ht.	B&B	12	9	5		6	32
SB	Spruce, Blue Colorado	*Picea pungens f. glauca*	6' Ht.	B&B	3	3	8			14
	Deciduous Ornamental Shrubs									
Va	Viburnum, Arrowwood, Autumn Jazz	*Viburnum dentatum 'Ralph Senior'*	4' Ht.	CONT/B&B			5			5

PROJECT NO: 1133-11-75	HWY: USH 41 / BDC CULVERT	COUNTY: BROWN	PLANT DATA & QUANTITIES	SHEET 52	E

FILE NAME : Q:2010-009 Brown County DOT \ Velp Ave \ CAD \ 1 - Working Drawings \ 1133-10-75 ksd base.dgn PLOT DATE : 12-July-2012 PLOT BY : rdeboer PLOT NAME : PLOT SCALE :



1 NON-BED TREE PLANTING DETAIL — NOT TO SCALE

	SHEET 2	
POINT	STATION	OFFSET
100	71+46.25'IS'	107.1
101	71+39.49'IS'	62.3
102	70+81.53'IS'	59.6
103	228+70.96'BDC'	-71.1
104	70+59.64'IS'	80.1
105	227+92.09'BDC'	-77.2
106	70+31.43'IS'	56.6
107	69+89.47'IS'	51.7
108	69+74.32'IS'	38.7
109	69+40.15'IS'	63.5
110	69+31.70'IS'	48.0
111	68+88.98'IS'	60.6
112	68+85.24'IS'	44.3
113	68+54.58'IS'	55.8
114	68+44.03'IS'	41.8
115	68+07.48'IS'	33.5
116	68+10.95'IS'	47.3
117	67+88.77'IS'	34.3

	SHEET 3	
POINT	STATION	OFFSET
118	67+61.48'IS'	33.7
119	67+43.71'IS'	28.6
120	67+21.41'IS'	31.2
121	66+97.11'IS'	28.3
122	66+74.60'IS'	27.9
123	66+54.20'IS'	30.2
124	66+26.62'IS'	31.9
125	65+93.59'IS'	33.5
126	65+60.89'IS'	31.9
127	65+49.73'IS'	29.6
128	65+22.24'IS'	29.3
129	64+91.83'IS'	35.8
130	64+40.76'IS'	44.8
131	64+27.79'IS'	37.0
132	63+52.52'IS'	33.2
133	63+22.95'IS'	32.9
134	62+75.76'IS'	29.3
135	62+02.33'IS'	39.2
136	61+70.59'IS'	35.7
137	61+59.46'IS'	53.0

	SHEET 4	
POINT	STATION	OFFSET
138	61+35.46'IS'	37.5
139	61+07.53'IS'	57.4
140	61+05.96'IS'	38.5
141	60+71.05'IS'	60.5
142	60+28.81'IS'	25.7
143	60+17.06'IS'	42.1
144	60+12.61'IS'	23.5
145	59+79.38'IS'	22.9
146	59+00.11'IS'	22.1
147	58+86.36'IS'	20.3
148	58+53.39'IS'	-33.3
149	58+48.08'IS'	-43.4
150	57+94.38'IS'	-50.3
151	57+62.64'IS'	-35.3
152	57+55.61'IS'	-29.3
153	57+51.13'IS'	23.0
154	57+71.79'IS'	47.2

	SHEET 5	
POINT	STATION	OFFSET
155	215+69.55'BDC'	48.4
156	215+47.42'BDC'	53.1
157	215+03.84'BDC'	64.7
158	214+72.03'BDC'	74.9

	SHEET 6	
POINT	STATION	OFFSET
159	214+52.30'BDC'	72.9
160	213+99.66'BDC'	78.6
161	213+53.47'BDC'	82.2
162	213+24.22'BDC'	83.7
163	212+66.52'BDC'	87.8
164	212+57.16'BDC'	92.6
165	211+98.18'BDC'	93.7
166	211+68.32'BDC'	96.0
167	11+24.51'LG'	-98.5
168	11+19.14'LG'	-61.5
169	11+45.93'LG'	-72.4
170	11+62.72'LG'	-46.4
171	11+76.74'LG'	-29.5
172	10+85.73'LG'	-41.7
173	10+81.71'LG'	-7.5
174	10+75.38'LG'	37.1
175	11+72.26'LG'	30.4
176	11+62.88'LG'	47.8
177	11+23.82'LG'	65.8
178	10+91.30'LG'	56.8
179	209+15.30'BDC'	91.0

LEGEND	
(1)	SINGLE WHITE DELINEATOR ON GROUND-MOUNTED STEEL POST (PER SDD 15A2 & 15A6)
(2)	DOUBLE WHITE DELINEATOR ON GROUND-MOUNTED STEEL POST (PER SDD 15A2 & 15A6)
➡	TRAFFIC FLOW DIRECTION

STANDARD DETAIL DRAWINGS:
SDD 15C8 - "PAVEMENT MARKING (MAINLINE)"
SDD 15C26 - "END OF ROADWAY SIGNING"
SDD 15C31 - "PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP"

DASHED LINES INDICATE PROJECT 1133-03-71 UNDER CONSTRUCTION (APPROX. STAGE 3)

SB USH 41

NB USH 41

1132+00 SMC
1132+00 NMC
1134+00 SMC
1134+00 NMC
1136+00 SMC
1136+00 NMC
1138+00 SMC
1138+00 NMC
1140+00 SMC
1140+00 NMC
1142+00 SMC
1142+00 NMC
1144+00 SMC
1144+00 NMC
1146+00 SMC
1146+00 NMC
1148+00

SPEED LIMIT 55
R2-1
MOVED PRIOR TO SUBSTAGE 1A (BY OTHERS)

SPEED LIMIT 65
R2-1
MOVED PRIOR TO SUBSTAGE 1A (BY OTHERS)

SOUTH 41
J4-1
MOVED FROM 1154+60 SMC LT (SUBSTAGE 1A)

(1)
(2)

Port of Green Bay
Exit 170

SUBSTATION
GOLF GREEN
SIGN
GUY
MH
INL
24"SS
MEMORIAL DR

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING, & DELINEATORS	SCALE, FEET 0 50 100	SHEET 54	E

2

LEGEND	
1	SINGLE WHITE DELINEATOR ON GROUND-MOUNTED STEEL POST (PER SDD 15A2 & 15A6)
2	DOUBLE WHITE DELINEATOR ON GROUND-MOUNTED STEEL POST (PER SDD 15A2 & 15A6)
➡	TRAFFIC FLOW DIRECTION

STANDARD DETAIL DRAWINGS:
SDD 15C8 - "PAVEMENT MARKING (MAINLINE)"
SDD 15C26 - "END OF ROADWAY SIGNING"
SDD 15C31 - "PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP"

EXIT 169
NORTH
29 32
Shawano Ave
Dousman St
3/4 MILE

E1-1A
SIGN TO BE MOVED DURING PROJECT 1133-03-71

DASHED LINES INDICATE PROJECT 1133-03-71 UNDER CONSTRUCTION (APPROX. STAGE 3)

BEGIN PAVEMENT-MARKING STATION 1151+50

W4-2R
48" X 48"

W5-56
18" X 18"
(SEE SDD 15C26)

DUCK CREEK

NON-TRAVERSABLE DITCH

SLOWER TRAFFIC KEEP RIGHT
R4-3
REMOVE TYPE II SIGN

ISLAND CT

WHITE 8-INCH EPOXY (15C31)

YELLOW 4-INCH EPOXY (15C8)

WHITE 4-INCH EPOXY (15C8)

SOUTH 41
J4-1
MOVED TO 1146+00 SMC LT (SUBSTAGE 1A)

REMOVE DURING SUBSTAGE 1C, REINSTALL IN SUBSTAGE 1E

WHITE 4-INCH EPOXY (15C8)

R3-4
R3-4A

YELLOW 4-INCH EPOXY (15C8)

1164+00 SMC
1162+00 SMC
1160+00 SMC
1158+00 SMC
1156+00 SMC
1154+00 SMC
1152+00 SMC
1150+00 SMC
1148+00 SMC
1162+00 NMC
1160+00 NMC
1158+00 NMC
1156+00 NMC
1154+00 NMC
1152+00 NMC
1148+00 NMC
+78
+46
+15
+18

WHITE 8-INCH EPOXY (15C31)

WHITE 4-INCH EPOXY (15C8)

WHITE DIAGONAL 24-INCH EPOXY (25' SPACING) (15C31)

NB USH 41
SB USH 41

WHITE 4-INCH EPOXY (15C8)

SALVAGE 2-SIDED YELLOW DELINEATORS (5' SPACING)

BEAVER DAM CREEK

EXSITING TUBULAR MARKERS TO REMAIN

TUBULAR MARKERS LEFT IN PLACE (WHITE WITH YELLOW SHEETING, 5' SPACING)

BEGIN WHITE 4-INCH EPOXY STA 1153+01 NMC (15C31) (3' LINE - 9' GAP)

W5-56
18" X 18"
(SEE SDD 15C26)

EXISTING DELINEATORS NORTH AND SOUTH OF TEMP X-OVER TO REMAIN. SALVAGE 2-SIDED YELLOW DELINEATORS WITHIN THE TEMP X-OVER (5' SPACING)

R3-4
R3-4A
TO REMAIN. COVER.

BLUE SIS SIGN

MOVE TYPE I SIGN (SUBSTAGE 1B)

EXIT 170
E1-5
141 SOUTH
Velp Ave
E4-1A

LONE GROVE AVE

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING, & DELINEATORS SCALE, FEET 0 50 100	SHEET 55	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_023202_ps.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:100

2

ISLAND CT

BEAVER DAM CREEK

FOOTBRIDGE

VELP AVE

NON-TRAVERSABLE DITCH

WHITE
4-INCH EPOXY
(15C8)

YELLOW
4-INCH EPOXY
(15C8)

W4-1
MOVE TYPE II SIGN
(SUBSTAGE 1C)

1172+00 SMC

1170+00 SMC

1168+00 SMC

1166+00 SMC

1164+00 SMC

1174+00 SMC

1176+00 SMC

1178+00 SMC

SB USH 41

END SB PAVEMENT
MARKING
STA 1177+70 SMC

1172+00 NMC

1170+00 NMC

1168+00 NMC

1166+00 NMC

1164+00 NMC

1174+00 NMC

1176+00 NMC

1178+00 NMC

NB USH 41

END NB PAVEMENT
MARKING
STA 1177+90 NMC

SEE DETAIL FOR PAVING AT SOUTH
END OF WESTERN-MOST USH 41
STRUCTURE OVER VELP AVE.

MATCH
EXISTING

WHITE
4-INCH EPOXY
(15C8)

+06 NMC

WHITE DIAGONAL
24-INCH EPOXY
(25' SPACING)
(15C31)

WHITE
8-INCH EPOXY
(15C31)

EXIT
170

E5-1A

TYPE II SIGN REMOVED IN SUBSTAGE
1A AND REINSTALLED IN EXISTING
LOCATION IN SUBSTAGE 1E.
PLACE ON TEMPORARY SUPPORTS
DURING CONSTRUCTION.
(REMOVE HMA PAVEMENT FOR POSTS)

REMOVED AND
REINSTALLED BY
OTHERS (SEE
SPECIAL PROVISIONS)

BLUE
SIS
SIGN

EXIT 171

INTERSTATE 43 SOUTH

Milwaukee

1/2 MILE

ROSEWOOD ST

PLAYGROUND

COURT

VELP AVE

LEGEND

1	SINGLE WHITE DELINEATOR ON GROUND-MOUNTED STEEL POST (PER SDD 15A2 & 15A6)
2	DOUBLE WHITE DELINEATOR ON GROUND-MOUNTED STEEL POST (PER SDD 15A2 & 15A6)
⇒	TRAFFIC FLOW DIRECTION

STANDARD DETAIL DRAWINGS:
SDD 15C8 - "PAVEMENT MARKING (MAINLINE)"
SDD 15C26 - "END OF ROADWAY SIGNING"
SDD 15C31 - "PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP"

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	PERMANENT SIGNING, PAVEMENT MARKING, & DELINEATORS	SCALE, FEET 0 50 100	SHEET 56	E

2

N

PI= 1166+18.16 BSR
Y= 582198.627
X= 87455.916
R= 1900.00'
Delta= 08°39'25" LT
T= 143.81'
L= 287.07'

PI= 1163+04.43 BSR
Y= 581980.559
X= 87229.092
R= 1900.00'
Delta= 10°16'33" RT
T= 170.84'
L= 340.76'

PI= 1169+55.61 BSR
Y= 582466.882
X= 87661.537
Delta= 00°12'46" LT

ISLAND CT

225 BDC

PI1163+04.43 BSR

PRC1164+74.35 BSR

PI1166+18.16 BSR

PT1167+61.43 BSR

PI1169+55.61 BSR

1170 BSR

N37°15'29"E

N 45°59'46" E

1165 BSR

N37°28'14"E

N46°07'39"E

1170 BSM

USH 41

PI= 1158+03.10 BSR
Y= 581573.666
X= 86935.072
R= 4000.00'
Delta= 07°14'01" RT
T= 252.84'
L= 505.00'

PC1161+33.60 BSR

PI= 1154+05.95 BSR
Y= 581225.035
X= 86744.849
R= 2500.00'
Delta= 01°40'28" RT
T= 36.53'
L= 73.06'

PI= 1152+27.11 BSR
Y= 581065.325
X= 86663.670
R= 2500.00'
Delta= 06°31'49" LT
T= 142.62'
L= 284.94'

PI1158+03.10 BSR

PT1160+55.26 BSR

160 BSR

N35°51'06"E

1165 BSM

N40°17'16"E

PC1166+90.18 BSM

PI1168+89.61 BSM

PT1170+88.71 BSM

PT1154+42.48 BSR

PRC1153+69.42 BSR

PI1154+05.95 BSR

PC1155+50.26 BSR

PI1152+27.11 BSR

PC1150+84.48 BSR

1155 BSR

N28°37'05"E

N26°56'37"E

1155 BSM

N37°20'36"E

160 BSM

PT1162+93.48 BSM

PI1161+44.75 BSM

PC1159+95.95 BSM

215 BDC

N39°22'20"E

PI= 1161+44.75 BSM
Y= 581792.402
X= 87224.104
R= 5790.03'
Delta= 02°56'39" RT
T= 148.80'
L= 297.54'

PI= 1168+89.61 BSM
Y= 582360.637
X= 87705.793
R= 4000.00'
Delta= 05°42'30" RT
T= 199.43'
L= 398.52'

PI1215+39.31 TBDC
PI1215+39.31 BDC
Y=581521.062
X=87224.377

POE217+22.35 TBDC
Y=581668.556
X=87340.486

ROSEWOOD ST

PT1156+01.77 BSM

1150 BSR

N33°28'26"E

N32°00'44"E

PI1154+15.81 BSM

210 BDC

PI= 1139+54.82 BSR
Y= 580004.062
X= 85961.929
Delta= 01°40'12" RT

PI1139+54.82 BSR

1145 BSR

N33°28'26"E

1140 BSR

USH 41

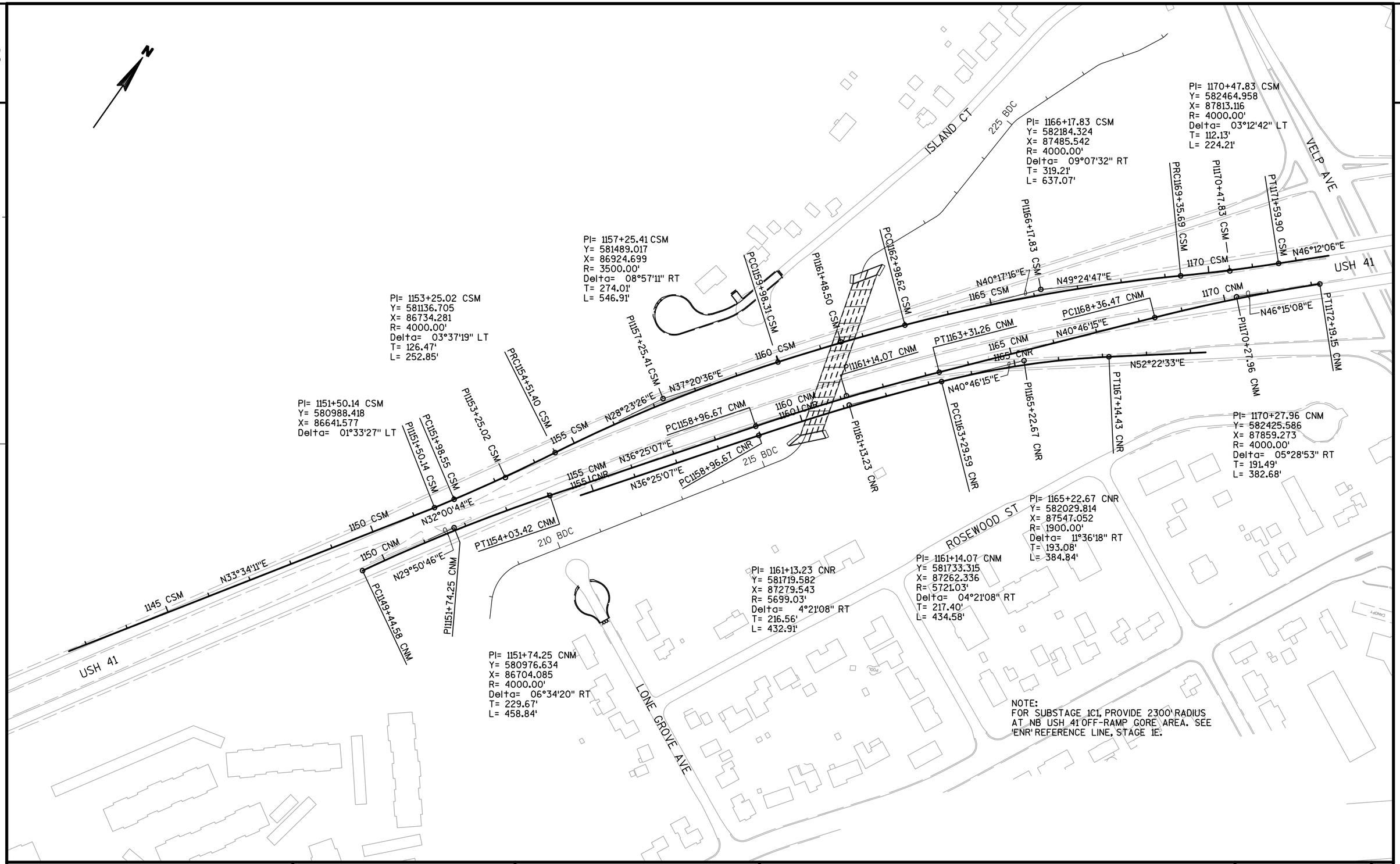
N31°48'14"E

PI= 1154+15.81 BSM
Y= 581212.671
X= 86781.772
R= 4000.00'
Delta= 05°19'52" RT
T= 186.23'
L= 372.19'

LONE GROVE AVE

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - STAGE 1B & TEMPORARY STREAM CONNECTION	SCALE, FEET 0 100 200	SHEET 57	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025001_tc_ad.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:200



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - STAGE 1C	SCALE, FEET 0 100 200	SHEET 58	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025002_tc_ad.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2

2

PI= 1148+96.43 DNM
Y= 580737.109
X= 86566.651
R= 4000.00'
Delta= 04°10'27" LT
T= 145.77'
L= 291.42'

PI= 1152+96.59 DNM
Y= 581097.884
X= 86740.063
R= 4000.00'
Delta= 07°16'53" RT
T= 254.51'
L= 508.34'

PI= 1159+01.27 DNM
Y= 581605.851
X= 87069.354
R= 5790.03'
Delta= 06°56'07" RT
T= 350.85'
L= 700.84'

PI= 1166+06.94 DNM
Y= 582147.966
X= 87522.450
R= 4000.00'
Delta= 10°09'46" RT
T= 355.68'
L= 709.50'

PI= 1170+93.42 DNM
Y= 582461.533
X= 87896.826
R= 4000.00'
Delta= 03°47'57" LT
T= 132.66'
L= 265.23'

PI= 1158+36.20 DNR
Y= 581539.130
X= 87052.320
R= 5768.03'
Delta= 5°40'09" RT
T= 285.60'
L= 570.72'

PI= 1161+92.70 DNR
Y= 581818.013
X= 87275.129
R= 600.00'
Delta= 13°33'57" RT
T= 71.36'
L= 142.06'

PC1147+50.66 DNM
PC1150+42.08 DNM
PI1148+96.43 DNM
PRC1150+42.08 DNM
PI1152+96.59 DNM
PC1155+50.42 DNM
PC1155+50.61 DNR
PI1158+36.20 DNR
PC1161+21.33 DNR
PI1161+92.70 DNR
PT1162+63.39 DNR
PC1162+51.26 DNM
PI1159+01.27 DNM
PI1166+06.94 DNM
PRC1169+60.76 DNM
PI1170+93.42 DNM
PT1172+25.99 DNM

1150 DNM
1155 DNM
1160 DNM
1160 DNR
1165 DNM
1165 DNR
1170 DNM

N25°40'19"E
N29°50'46"E
N32°57'12"E
N32°57'12"E
N38°37'21"E
N39°53'19"E
N50°03'05"E
N52°11'18"E
N46°15'08"E

210 BDC
215 BDC
225 BDC

ISLAND CT
USH 41
USH 41
VELP AVE
ROSEWOOD ST
LONE GROVE AVE

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - STAGE 1D SCALE, FEET 0 100 200	SHEET 59	E

2

2

N

PI= 1163+07.34 ENR
Y= 581894.358
X= 87371.653
R= 2300.00'
Delta= 14°48'55" RT
T= 299.03'
L= 594.73'

PI= 1166+84.22 BDF
Y= 582072.027
X= 87740.060
R= 797.95'
Delta= 17°44'31" RT
T= 124.54'
L= 247.09'

PI= 1162+52.58 BDF
Y= 581781.297
X= 87421.070
R= 5873.74'
Delta= 02°00'17" RT
T= 102.76'
L= 205.51'

PI= 1164+57.51 BDF
Y= 581922.602
X= 87569.528
R= 4961.74'
Delta= 02°21'35" RT
T= 102.19'
L= 204.36'

ISLAND CT
VELP AVE
ROSEWOOD ST
LONE GROVE AVE
USH 41
225 BDC
215 BDC
210 BDC
1175 SMC
1170 SMC
1170 NMC
1165 SMC
1165 NMC
1155 SMC
1155 NMC
1150 SMC
1150 NMC
1145 SMC
1145 NMC
PC1160+08.30 ENR
PI1163+07.34 ENR
PT1166+03.03 ENR
PI1166+84.22 BDF
PT1168+06.77 BDF
N32°43'19"E
N37°32'08"E
N52°21'04"E 1165 ENR
PC1161+49.81 BDF
1165 BDF
N44°24'35"E
N46°24'51"E
N48°46'27"E
N66°30'58"E
PI1162+52.58 BDF
PC1163+55.32 BDF
PI1164+57.51 BDF
PC1165+59.68 BDF
ALIGNMENT FOR FILLING
EXISTING BEAVER DAM CREEK

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - STAGE 1E SCALE, FEET 0 100 200	SHEET 60	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025004_tc_ad.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

2

N

Pl= 1159+88.39 SMC
Y= 581729.364
X= 87035.794
R= 6060.50'
Delta= 15°53'33" RT
T= 845.95'
L= 1681.03'

Pl= 1149+93.25 SMC
Y= 580868.364
X= 86536.803
R= 14100.00'
Delta= 1°12'45" RT
T= 149.20'
L= 298.39'

Pl= 1144+84.58 SMC
Y= 580422.822
X= 86291.035
R= 14100.00'
Delta= 2°55'20" LT
T= 359.63'
L= 719.11'

VELP AVE

ISLAND CT

PT1168+23.47 SMC

USH 41

1180 SMC

N45°59'12"E

1180 NMC

N48°39'09"E

1170 SMC

1170 NMC

PI1159+88.39 SMC

1160 SMC

1160 NMC

N30°05'40"E

PT1170+87.66 NMC

PI1161+24.31 NMC

N30°05'23"E

PCC1151+42.44 SMC

PRC1148+44.05 SMC

PI1149+93.25 SMC

PI1144+84.58 SMC

1150 SMC

1150 NMC

N28°52'55"E

PCC1151+43.77 NMC

PI1149+94.91 NMC

PRC1148+46.05 NMC

N28°52'48"E

PC1141+24.94 SMC

ROSEWOOD ST

LONE GROVE AVE

Pl= 1161+24.31 NMC
Y= 581815.106
X= 87155.321
R= 6000.00'
Delta= 18°33'46" RT
T= 980.54'
L= 1943.90'

MEMORIAL DR

1140 SMC

1140 NMC

PC1141+26.49 NMC

PI1144+86.35 NMC

Pl= 1149+94.91 NMC
Y= 580837.900
X= 86589.087
R= 14100.00'
Delta= 01°12'35" RT
T= 148.86'
L= 297.72'

MEMORIAL DR

USH 41

1130 SMC

1130 NMC

N31°48'14"E

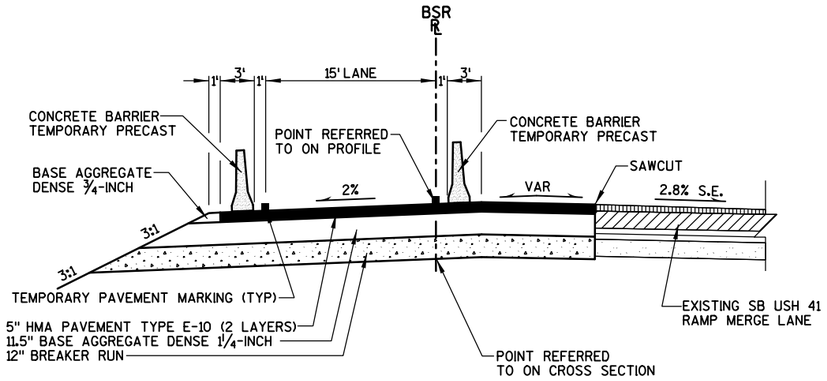
Pl= 1144+86.35 NMC
Y= 580392.447
X= 86343.387
R= 14100.00'
Delta= 02°55'26" LT
T= 359.86'
L= 719.56'

VELP AVE

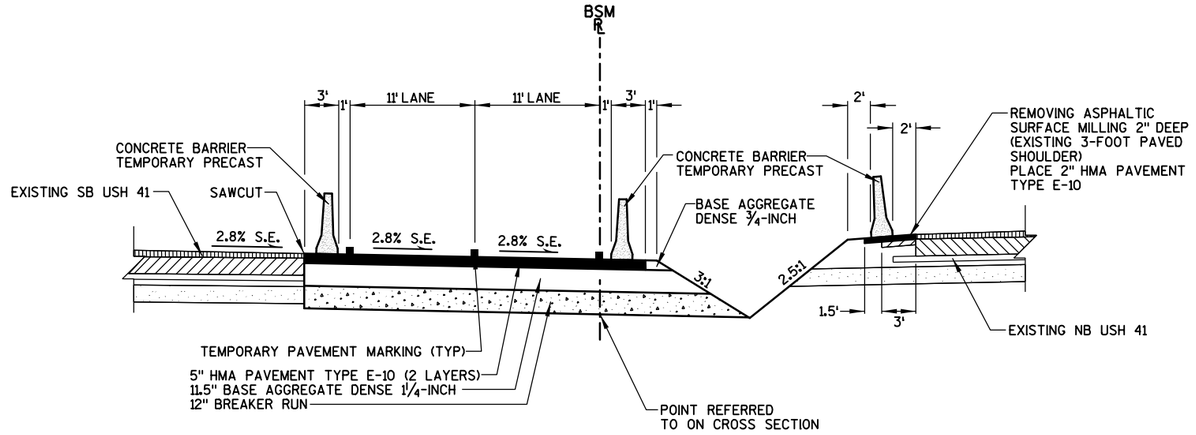
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ALIGNMENT DIAGRAM - NMC & SMC	SCALE, FEET 0 200 400	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025005_tc_ad.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:400

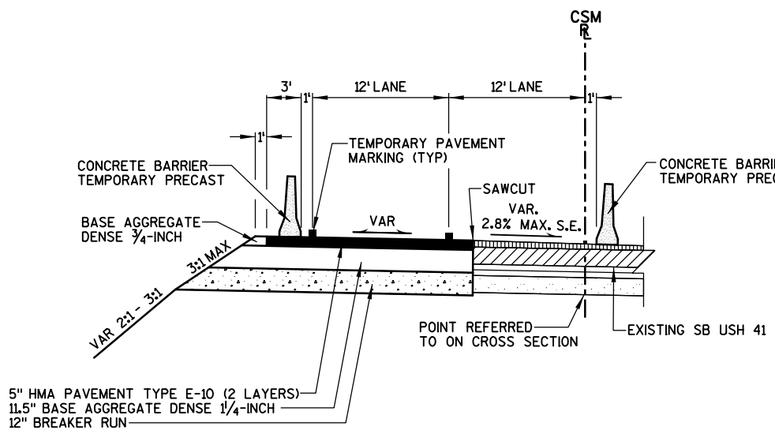
WISDOT/CADDS SHEET 42



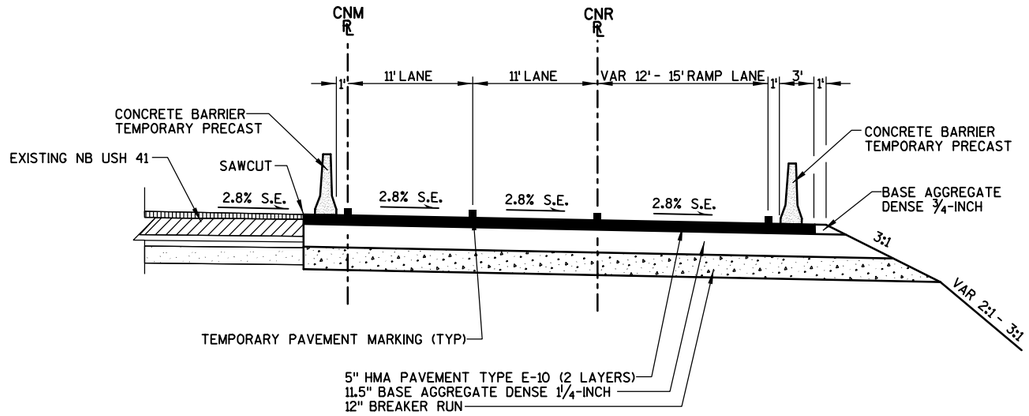
SB USH 41 ON-RAMP (SUBSTAGE 1B)
(CONSTRUCTED IN STAGE 1A)



SB USH 41 WIDENING IN MEDIAN (SUBSTAGE 1B)
(CONSTRUCTED IN STAGE 1A)



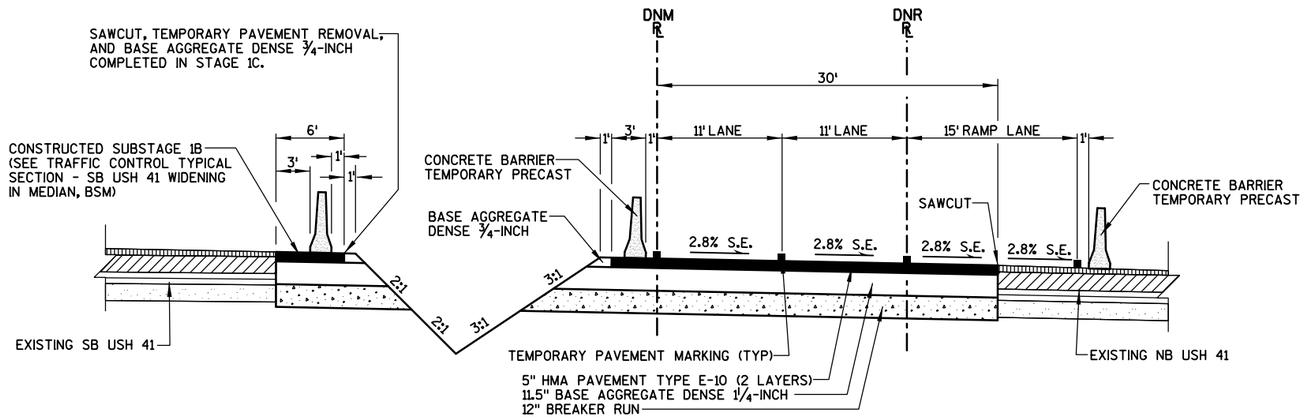
SB USH 41 WIDENING ON OUTSIDE (SUBSTAGE 1C)
(CONSTRUCTED IN STAGE 1B)



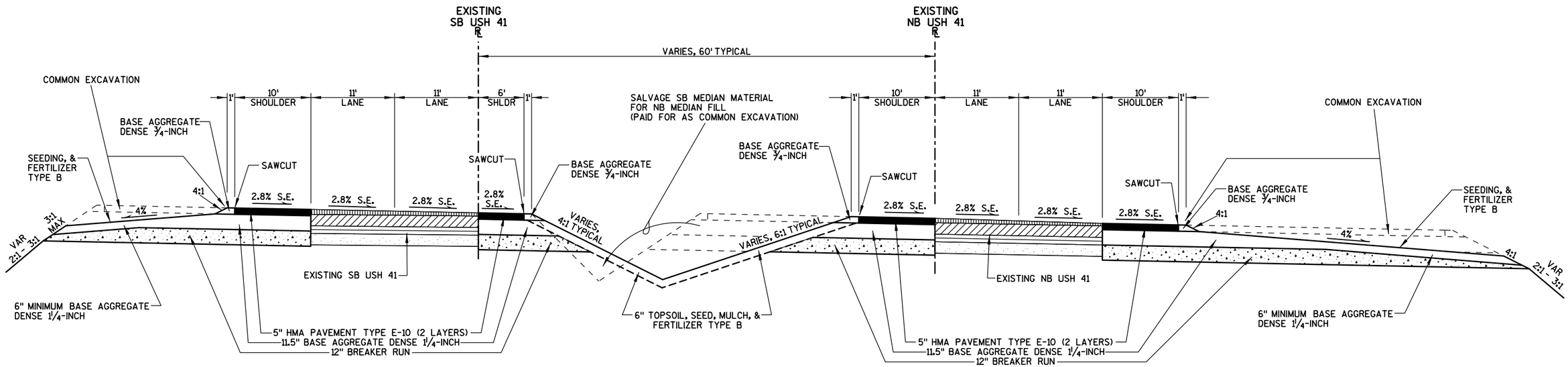
NB USH 41 WIDENING ON OUTSIDE (SUBSTAGE 1C)
(CONSTRUCTED IN STAGE 1B)

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-10	5"	1¾" UPPER LAYER 3¼" LOWER LAYER	12.5 MM 19.0 MM	PG-58-28

NOTES:
- SEE EXISTING TYPICAL SECTIONS FOR EXISTING PAVEMENT STRUCTURE OF USH 41 AND VELP RAMPS.
- TRAFFIC CONTROL TYPICAL SECTIONS INDICATE DRIVING CONDITION IN EACH STAGE, NOT TIME OF WIDENING CONSTRUCTION.



NB USH 41 WIDENING IN MEDIAN (SUBSTAGE 1D)
(CONSTRUCTED IN STAGE 1C - NB USH 41)



USH 41 - FINAL CONDITION (SUBSTAGE 1E)

USE BASE AGGREGATE DENSE 1¼-INCH AND BREAKER RUN CUT MATERIAL FROM NB USH 41 MEDIAN AREA, FOR REQUIRED FILL IN THE SB USH 41 MEDIAN AREA.

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
E-10	5"	1¾" UPPER LAYER 3¼" LOWER LAYER	12.5 MM 19.0 MM	PG-58-28

NOTES:
- SEE EXISTING TYPICAL SECTIONS FOR EXISTING PAVEMENT STRUCTURE OF USH 41 AND VELP RAMPS.
- TRAFFIC CONTROL TYPICAL SECTIONS INDICATE DRIVING CONDITION IN EACH STAGE, NOT TIME OF WIDENING CONSTRUCTION.

LEGEND

- TYPE III BARRICADE
- 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

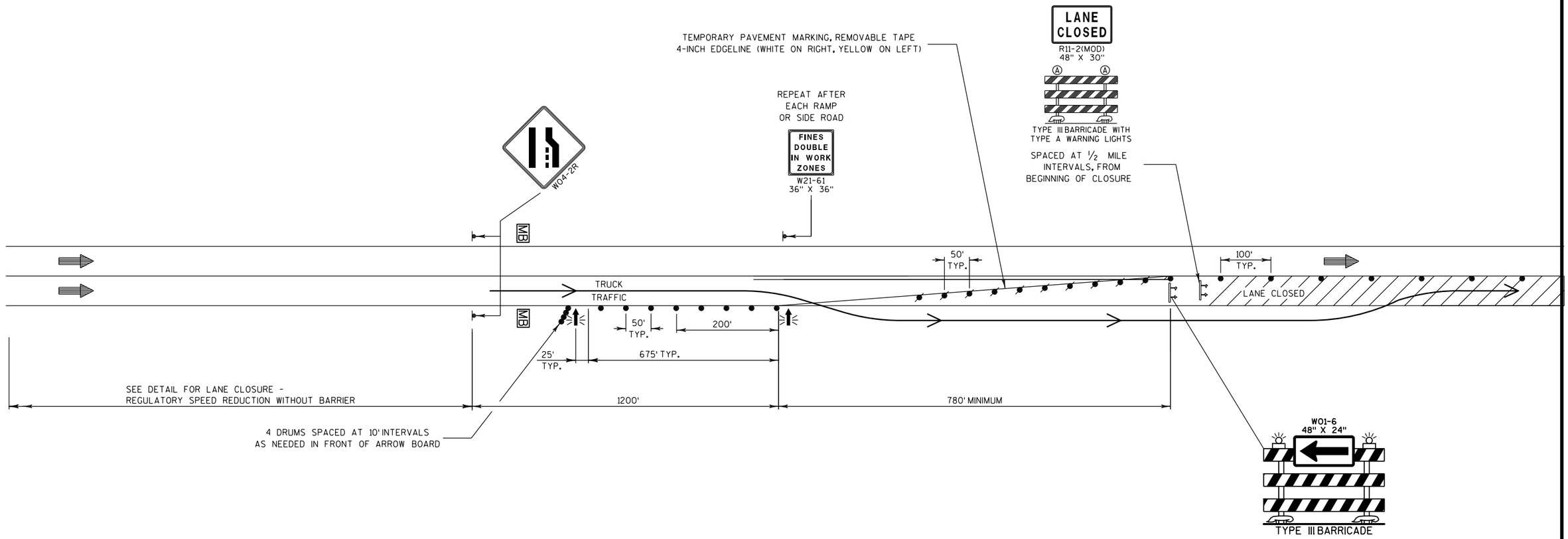
NOTES:

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:

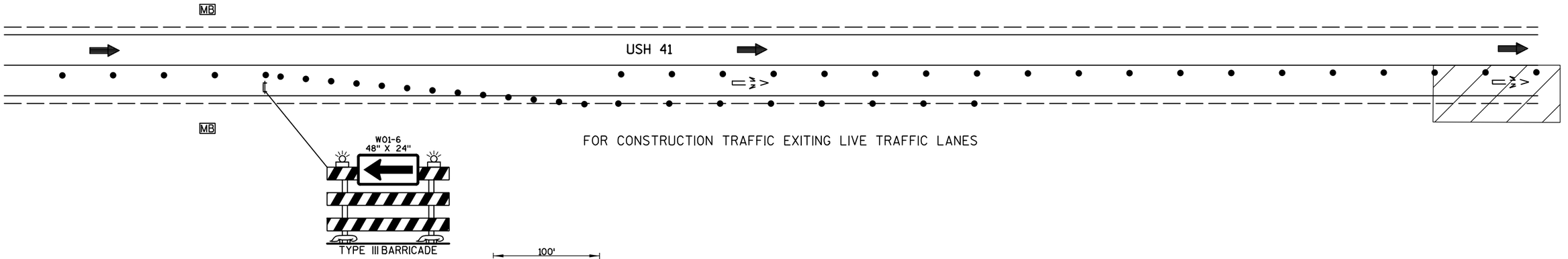
FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT



TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 64	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

TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN
- USH 41 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 65	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025008_tc_cd.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- 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.

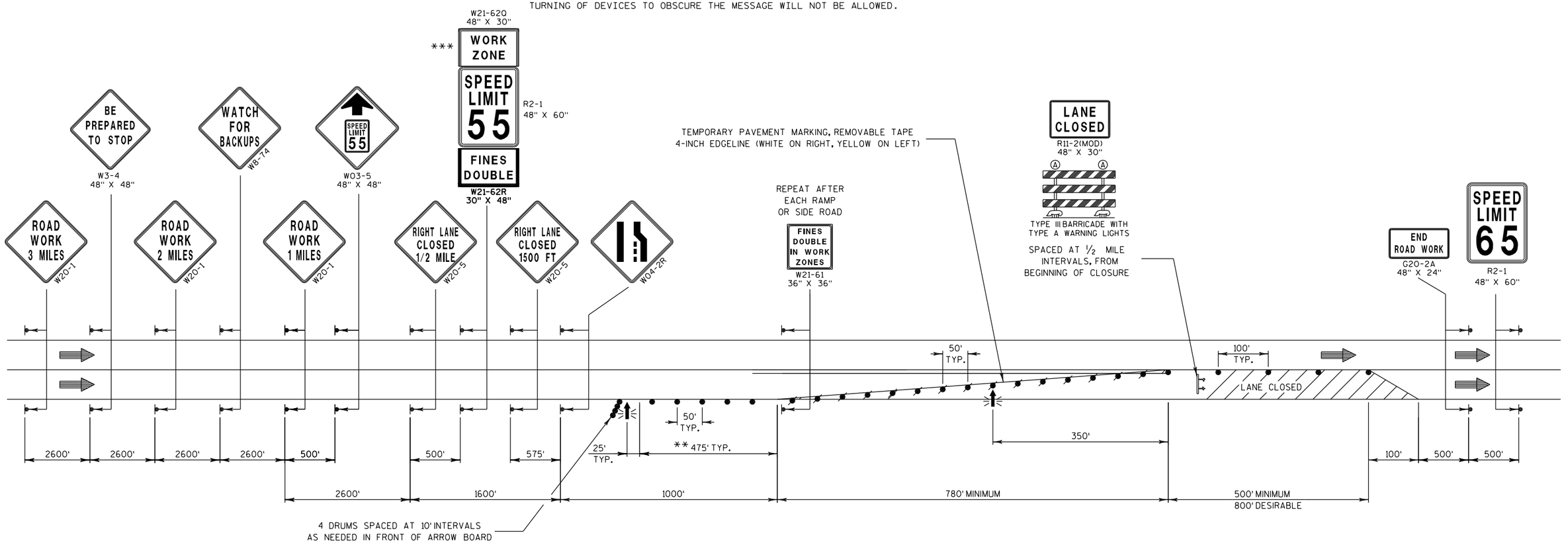
IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY ½ MILE ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

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

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 66	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025009_tc_cd.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : LN CLOS NO BAR PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- 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 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, 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 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.

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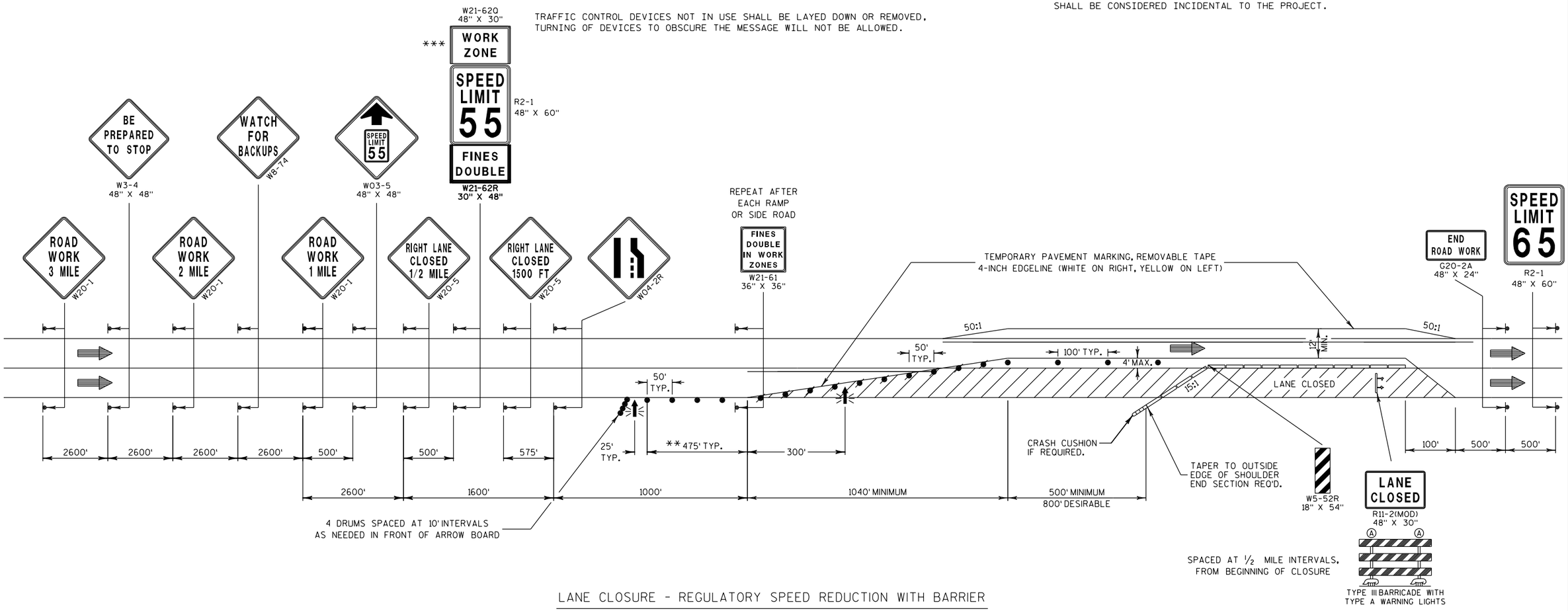
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** CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

*** 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 WITH BARRIER

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 67	E

2

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.

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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.

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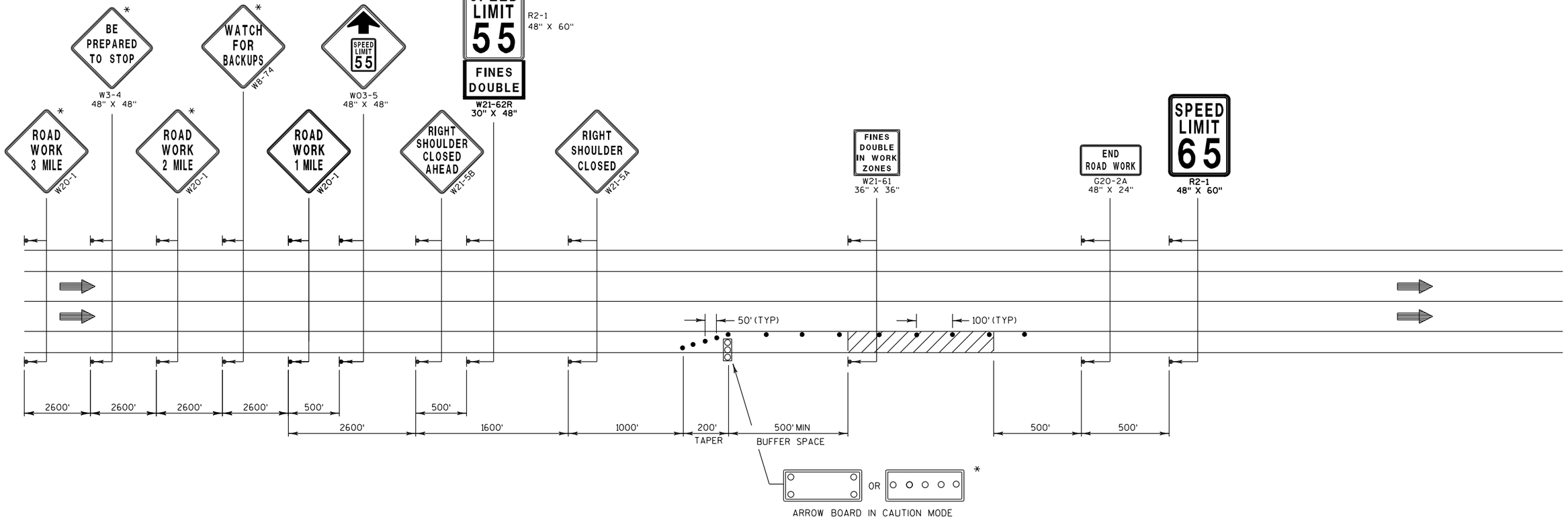
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* PROVIDE ITEM WHEN SPECIFIED IN MISCELLANEOUS QUANTITIES OR SPECIAL PROVISIONS.

** 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

PROJECT NO: 1133-10-80 & 1133-11-75	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAILS	SHEET 68	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025011_tc_cd.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : SH CLOS NO BAR PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

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.

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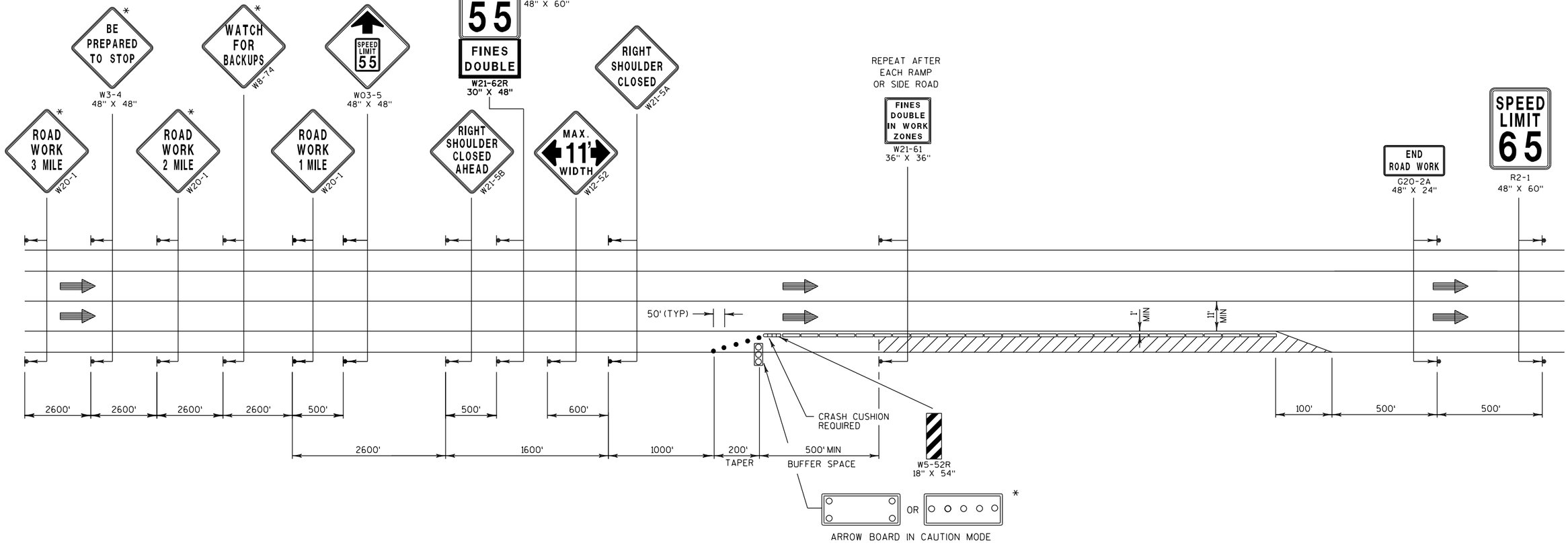
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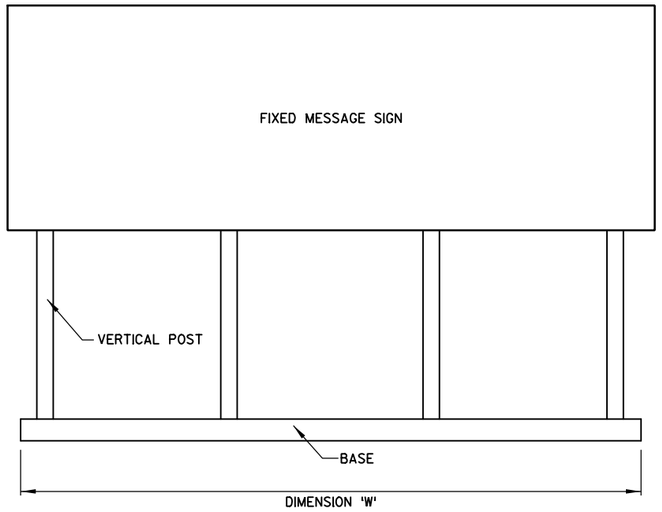
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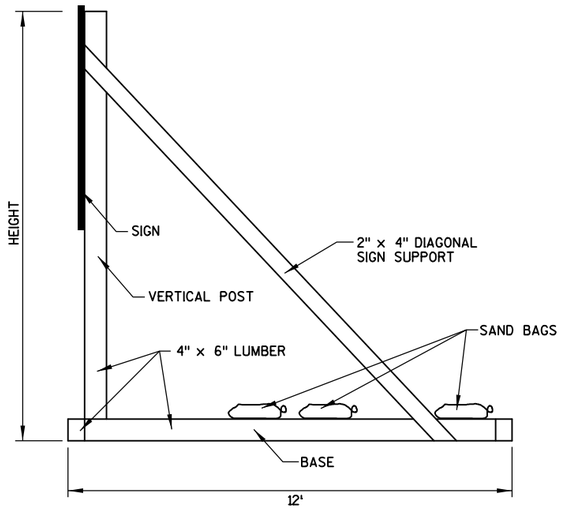
TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.



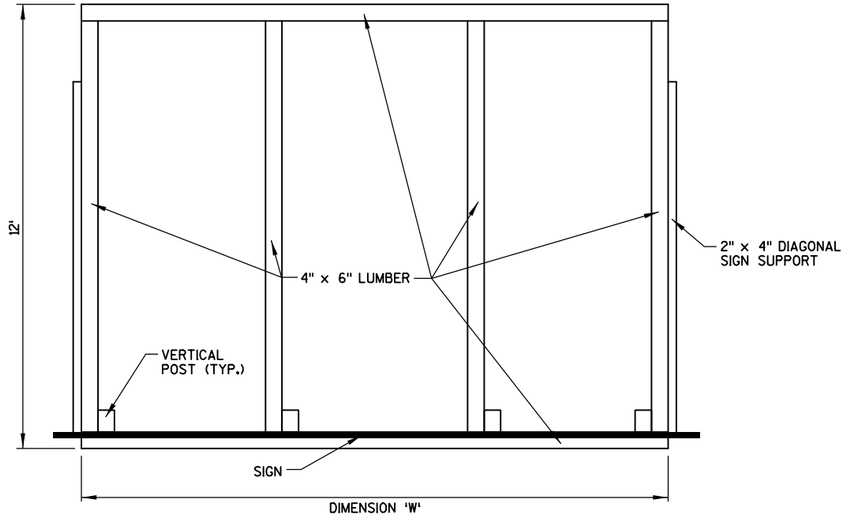
SHOULDER CLOSURE - REGULATORY SPEED REDUCTION WITH BARRIER



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)

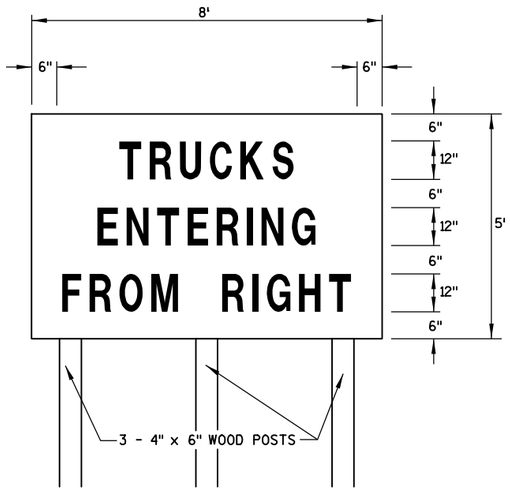
NOTES:
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.

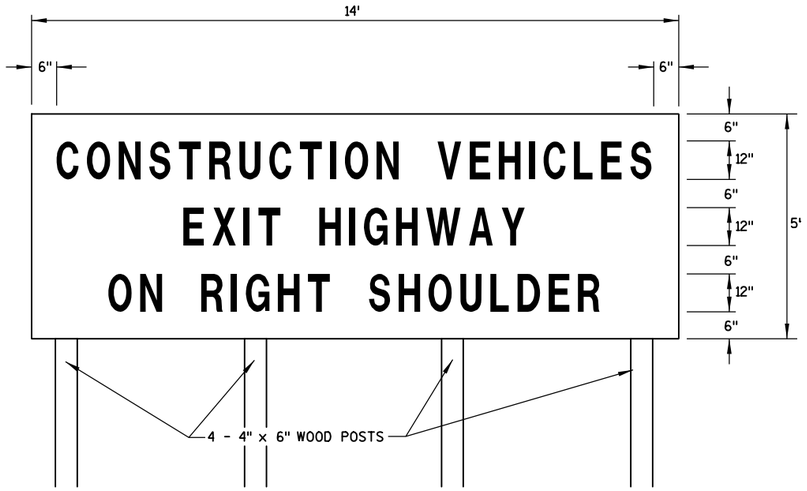
2. TWO DIAGONAL SUPPORTS SHALL BE INCLUDED AND AFFIXED TO THE OUTSIDE SUPPORTS.

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. 12"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.

2

ROAD WORK AHEAD
W20-1

RAMP CLOSED AHEAD
W20-3(MOD)

SOUTH 41
M3-3 24" X 12"
M1-4 24" X 24"

RAMP CLOSED 500 FT
W20-3(MOD)

SOUTH 41
M3-3 24" X 12"
M1-4 24" X 24"

VELP AVE

RIVERVIEW DR

350'

350'

500'

50' (TYP)

DUCK CREEK

ISLAND CT

BEAVER DAM CREEK

TRAFFIC CONTROL DRUMS (50' SPACING)

TRAFFIC CONTROL DRUMS (50' SPACING)

SB USH 41

NB USH 41

INSTALL PORTABLE CHANGEABLE MESSAGE SIGN A MINIMUM OF 5 DAYS PRIOR TO RAMP CLOSURE

RAMP CLOSED
R11-2(MOD)
48" X 30"

RAMP CLOSED
R11-2(MOD)
48" X 30"

RAMP CLOSED 500 FT
W20-3(MOD)

SOUTH 41
M3-3 24" X 12"
M1-4 24" X 24"

RAMP CLOSED AHEAD
W20-3(MOD)

SOUTH 41
M3-3 24" X 12"
M1-4 24" X 24"

500'

350'

350'

ROAD WORK AHEAD
W20-1

SB USH 41

NB USH 41

ROSEWOOD ST

MEMORIAL DR

VELP AVE

N

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	TRAFFIC CONTROL DETAIL - SHORT TERM RAMP CLOSURE SCALE, FEET 0 75 150	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_025014_tc_cd.dgn PLOT DATE : 12/3/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:150

WISDOT/CADDS SHEET 42

BLACK DASHED LINES DENOTE SEPARATE PROJECT UNDER CONSTRUCTION (1133-03-71, APPROX. STAGE 2)

SB USH 41

NB USH 41

1140 SMC

1140 NMC

1145 SMC

1145 NMC

1150 SMC

1150 NMC

1155 SMC

1155 NMC

1160 SMC

1160 NMC

1165 SMC

1165 NMC

1170 SMC

1170 NMC

1175 SMC

1175

ISLAND CT

RIVERVIEW DR

VELP AVE

BEAVER DAM CREEK REALIGNMENT CONSTRUCTION

B-05-0693

(B-5-99)

LONE GROVE AVE

MEMORIAL DR

ROSEWOOD ST

DARWIN AVE

GLENVIEW AVE

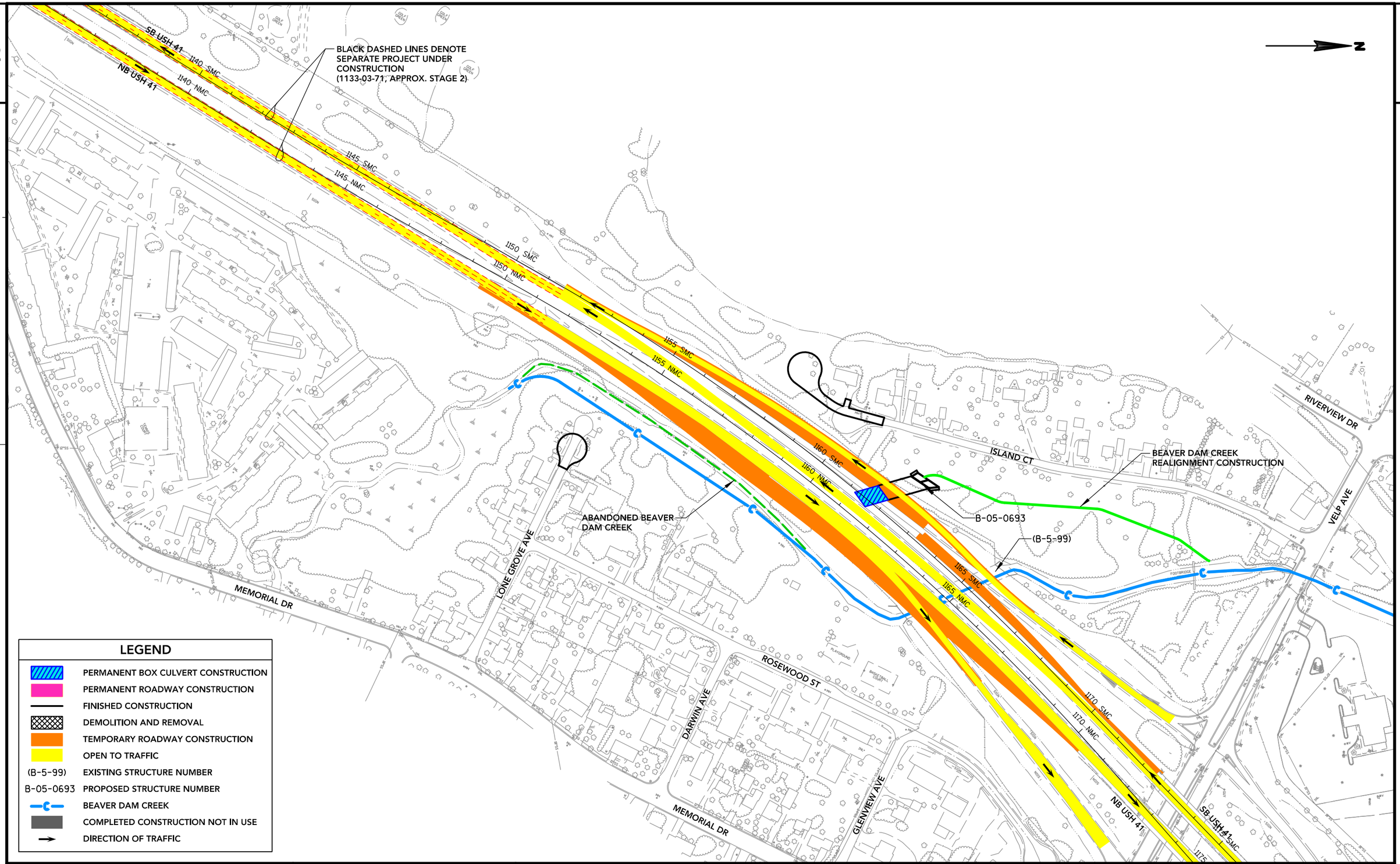
LEGEND

	PERMANENT BOX CULVERT CONSTRUCTION
	PERMANENT ROADWAY CONSTRUCTION
	FINISHED CONSTRUCTION
	DEMOLITION AND REMOVAL
	TEMPORARY ROADWAY CONSTRUCTION
	OPEN TO TRAFFIC
(B-5-99)	EXISTING STRUCTURE NUMBER
B-05-0693	PROPOSED STRUCTURE NUMBER
	BEAVER DAM CREEK
	COMPLETED CONSTRUCTION NOT IN USE
	DIRECTION OF TRAFFIC

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 1A	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026001_s1A.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:240

WISDOT/CADDS SHEET 42



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026002_s1B.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:240

WISDOT/CADDS SHEET 42

2

2

BLACK DASHED LINES DENOTE SEPARATE PROJECT UNDER CONSTRUCTION (1133-03-71, APPROX. STAGE 3)

N

SB USH 41

NB USH 41

1140 SMC

1140 NMC

1145 SMC

1145 NMC

1150 SMC

1150 NMC

1155 SMC

1155 NMC

1160 SMC

1160 NMC

1165 SMC

1165 NMC

1170 SMC

1170 NMC

1175 SMC

ABANDONED BEAVER DAM CREEK

BEAVER DAM CREEK REALIGNMENT CONSTRUCTION

B-05-0693

(B-5-99)

ISLAND CT

RIVERVIEW DR

VELP AVE

LONE GROVE AVE

MEMORIAL DR

ROSEWOOD ST

DARWIN AVE

GLENVIEW AVE

FOOTBRIDGE

PLAYGROUND

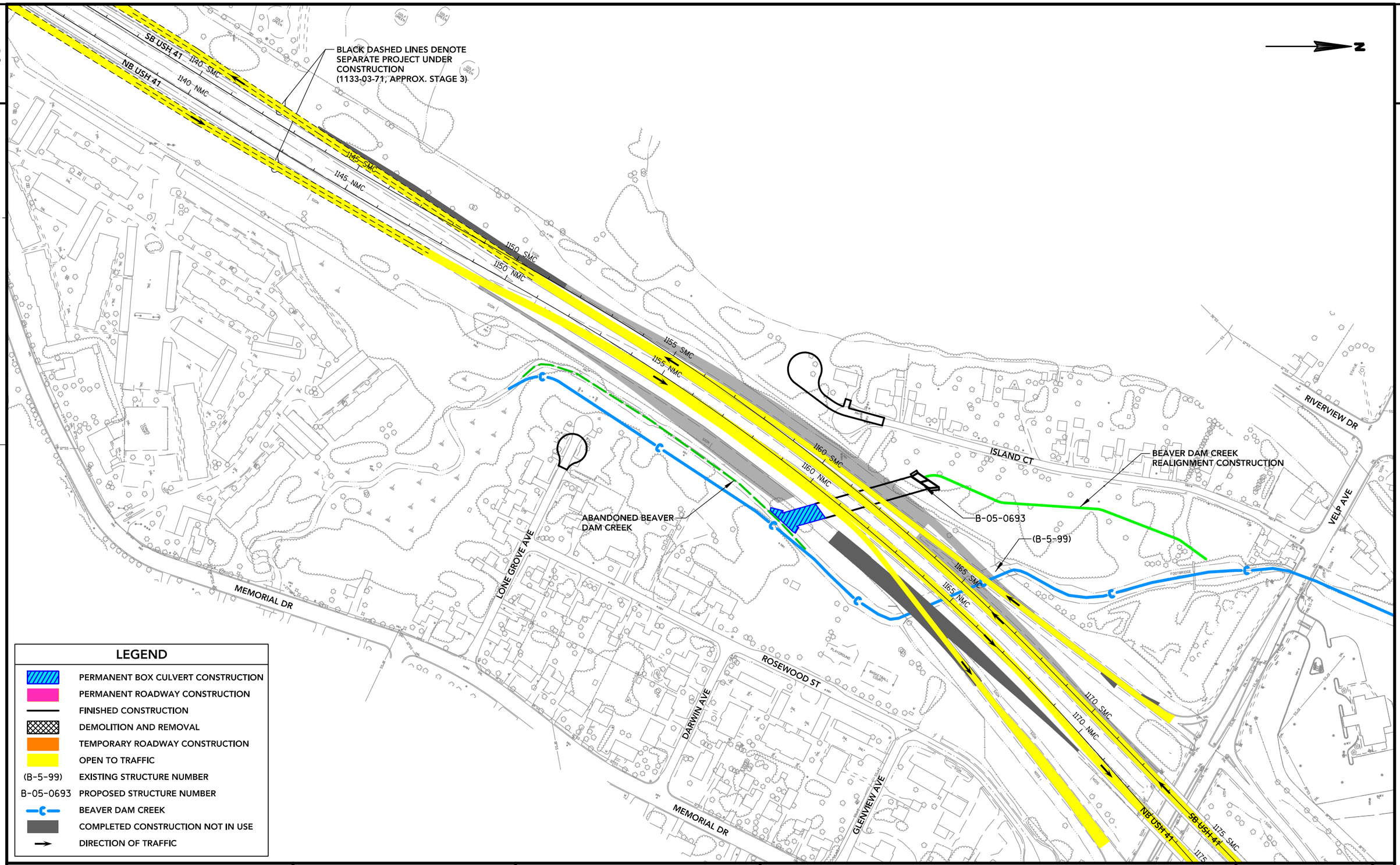
LEGEND

	PERMANENT BOX CULVERT CONSTRUCTION
	PERMANENT ROADWAY CONSTRUCTION
	FINISHED CONSTRUCTION
	DEMOLITION AND REMOVAL
	TEMPORARY ROADWAY CONSTRUCTION
	OPEN TO TRAFFIC
(B-5-99)	EXISTING STRUCTURE NUMBER
B-05-0693	PROPOSED STRUCTURE NUMBER
	BEAVER DAM CREEK
	COMPLETED CONSTRUCTION NOT IN USE
	DIRECTION OF TRAFFIC

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 1C	SHEET 74	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026003_s1C.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:240

WISDOT/CADDS SHEET 42



LEGEND

	PERMANENT BOX CULVERT CONSTRUCTION
	PERMANENT ROADWAY CONSTRUCTION
	FINISHED CONSTRUCTION
	DEMOLITION AND REMOVAL
	TEMPORARY ROADWAY CONSTRUCTION
	OPEN TO TRAFFIC
(B-5-99)	EXISTING STRUCTURE NUMBER
B-05-0693	PROPOSED STRUCTURE NUMBER
	BEAVER DAM CREEK
	COMPLETED CONSTRUCTION NOT IN USE
	DIRECTION OF TRAFFIC

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 1D	SHEET 75	E

2

2

BLACK DASHED LINES DENOTE SEPARATE PROJECT UNDER CONSTRUCTION (1133-03-71, APPROX. STAGE 3)

SB USH 41

NB USH 41

1140 SMC

1140 NMC

1145 SMC

1145 NMC

1150 SMC

1150 NMC

1155 SMC

1155 NMC

1160 SMC

1160 NMC

1165 SMC

1165 NMC

1170 SMC

1170 NMC

1175 SMC

ABANDONED BEAVER DAM CREEK

B-05-0693

(B-5-99)

BEAVER DAM CREEK REALIGNMENT

ABANDONED BEAVER DAM CREEK

ISLAND CT

RIVERVIEW DR

VELP AVE

LONE GROVE AVE

MEMORIAL DR

ROSEWOOD ST

DARWIN AVE

GLENVIEW AVE

MEMORIAL DR

LEGEND

	PERMANENT BOX CULVERT CONSTRUCTION
	PERMANENT ROADWAY CONSTRUCTION
	FINISHED CONSTRUCTION
	DEMOLITION AND REMOVAL
	TEMPORARY ROADWAY CONSTRUCTION
	OPEN TO TRAFFIC
(B-5-99)	EXISTING STRUCTURE NUMBER
B-05-0693	PROPOSED STRUCTURE NUMBER
	BEAVER DAM CREEK
	COMPLETED CONSTRUCTION NOT IN USE
	DIRECTION OF TRAFFIC

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 1E	SHEET 76	E

2

2

BLACK DASHED LINES DENOTE SEPARATE PROJECT UNDER CONSTRUCTION (1133-03-71, APPROX. STAGE 3)

N

SB USH 41
1130 SMC
1140 NMC
NB USH 41
1145 SMC
1145 NMC
1150 SMC
1150 NMC
1155 SMC
1155 NMC
1160 SMC
1160 NMC
1165 SMC
1165 NMC
1170 SMC
1170 NMC
NB USH 41
SB USH 41
1175 SMC

RIVERVIEW DR
ISLAND CT
VELP AVE
B-05-0693
(B-5-99)
FOOTBRIDGE
STORM WATER POND

MEMORIAL DR
LONE GROVE AVE
ROSEWOOD ST
DARWIN AVE
GLENVIEW AVE
MEMORIAL DR

LEGEND

	PERMANENT BOX CULVERT CONSTRUCTION
	PERMANENT ROADWAY CONSTRUCTION
	FINISHED CONSTRUCTION
	DEMOLITION AND REMOVAL
	TEMPORARY ROADWAY CONSTRUCTION
	OPEN TO TRAFFIC
(B-5-99)	EXISTING STRUCTURE NUMBER
B-05-0693	PROPOSED STRUCTURE NUMBER
	BEAVER DAM CREEK
	COMPLETED CONSTRUCTION NOT IN USE
	DIRECTION OF TRAFFIC

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 2A	SHEET 77	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026006_s2A.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:240

WISDOT/CADDS SHEET 42

2

2

BLACK DASHED LINES DENOTE SEPARATE PROJECT UNDER CONSTRUCTION (1133-03-71, APPROX. STAGE 3)

N

SB USH 41
NB USH 41

1140 SMC
1140 NMC
1145 SMC
1145 NMC
1150 SMC
1150 NMC
1155 SMC
1155 NMC
1160 SMC
1160 NMC
1165 SMC
1165 NMC
1170 SMC
1170 NMC
1175 SMC

B-05-0693
(B-5-99)
STORM WATER POND

MEMORIAL DR
LONE GROVE AVE
ROSEWOOD ST
DARWIN AVE
GLENVIEW AVE
ISLAND CT
RIVERVIEW DR
VELP AVE

LEGEND

	PERMANENT BOX CULVERT CONSTRUCTION
	PERMANENT ROADWAY CONSTRUCTION
	FINISHED CONSTRUCTION
	DEMOLITION AND REMOVAL
	TEMPORARY ROADWAY CONSTRUCTION
	OPEN TO TRAFFIC
(B-5-99)	EXISTING STRUCTURE NUMBER
B-05-0693	PROPOSED STRUCTURE NUMBER
	BEAVER DAM CREEK
	COMPLETED CONSTRUCTION NOT IN USE
	DIRECTION OF TRAFFIC

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CONSTRUCTION STAGING OVERVIEW - STAGE 2B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026007_s2B.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:240

WISDOT/CADDS SHEET 42

CONSTRUCTION SUBSTAGE 1A
- AT BEGINNING OF SUBSTAGE, INSTALL CONCRETE BARRIER TEMPORARY PRECAST (CBTP) ALONG OUTSIDE EDGE OF SB USH 41, AND ALONG OUTSIDE EDGE OF SB USH 41 ON-RAMP FROM VELP AVE.
- CONSTRUCT FIRST SEGMENT OF PROPOSED BOX CULVERT (WEST END).
- MILL AND PAVE EXISTING NB USH 41 MEDIAN SHOULDER.
- INSTALL CBTP ALONG MEDIAN SHOULDER OF NB USH 41.
- CONSTRUCT TEMPORARY WIDENING IN MEDIAN FOR SB USH 41. REMOVE EXISTING INLET AND EXTEND CULVERT PIPE.
- CONSTRUCT 18-INCH STORM SEWER PIPE AND INLET NORTH OF NEW BOX CULVERT.
- CONSTRUCT TEMPORARY SB USH 41 ON-RAMP FROM VELP AVE, INCLUDING MARSH EXCAVATION.
- CONSTRUCT CUL-DE-SAC AT ISLAND CT.
- CONSTRUCT PROPOSED BEAVER DAM CREEK CHANNEL ALONG EAST SIDE OF USH 41.
- CONSTRUCT CUL-DE-SAC AT LONE GROVE AVE.
- REMOVE EXISTING END TERMINAL AND GUARDRAIL ON NB USH 41 MEDIAN AT VELP AVE, TO BE REINSTALLED IN STAGE 1E.

TRAFFIC IMPACTS SUBSTAGE 1A
- NB USH 41 - INTERMITTENT LANE CLOSURES TO COMPLETE MEDIAN WORK AND INSTALL CBTP.
- SB USH 41 - INTERMITTENT LANE CLOSURES TO COMPLETE MEDIAN WORK AND INSTALL CBTP.
- USH 41 MAINTENANCE CROSSOVER - CLOSED.
- SB USH 41 ON-RAMP FROM VELP AVE - INTERMITTENT RAMP CLOSURES TO INSTALL CBTP. PROVIDE YIELD CONDITION AT GORE AREA FOR CLOSURE OF LANE ON SB USH 41.
- LONE GROVE AVE - CLOSE EAST END OF ROADWAY.
- ISLAND CT - MAINTAIN LOCAL TRAFFIC; FLAG AS NECESSARY FOR CONSTRUCTION ACCESS.

BEAVER DAM CREEK DRAINAGE STAGE 1A
- EAST SIDE OF USH 41 - FLOW REMAINS IN EXISTING CHANNEL THROUGHOUT.
- BOX CULVERT & WEST SIDE OF USH 41 - FLOW REMAINS THROUGH EXISTING BOX CULVERT, AND IN EXISTING CHANNEL.

TRAFFIC CONTROL NOTES:
FOR INSTALLATION OF TEMPORARY CONCRETE BARRIER DURING STAGE 1, REFER TO CONSTRUCTION DETAILS: LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER AND TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET, 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W", EXCEPT THE BACKGROUND IS ORANGE.

SDD 15C2-4B REFERS TO BARRICADES AND SIGNS FOR MAINLINE CLOSURES

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.

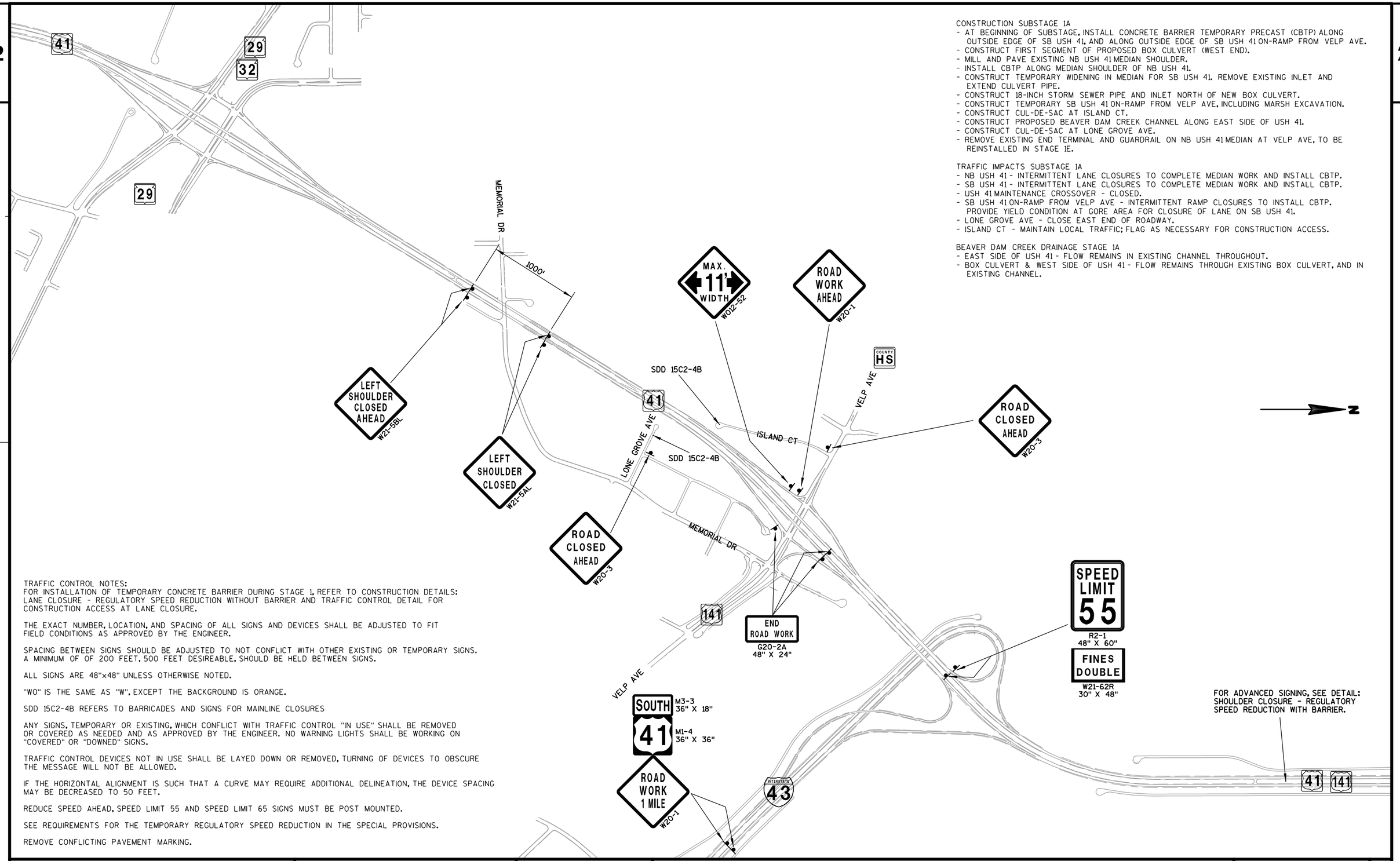
TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REDUCE SPEED AHEAD, SPEED LIMIT 55 AND SPEED LIMIT 65 SIGNS MUST BE POST MOUNTED.

SEE REQUIREMENTS FOR THE TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

REMOVE CONFLICTING PAVEMENT MARKING.



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 1A SCALE, FEET 0 500 1000	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026110_s1A.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:1000

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

N

ROAD CLOSED TO THRU TRAFFIC
R11-4
60" X 30"

ISLAND CT

ANCHOR CONCRETE BARRIER TEMPORARY PRECAST IN VICINITY OF TEMPORARY SHORING

SSRC 18-INCH REQ'D

1164+00 SMC

1162+00 SMC

24' (EXSITING)

1160+00 SMC

1162+00 NMC

24' (EXSITING)

1158+00 SMC

1160+00 NMC

1156+00 SMC

1158+00 NMC

INLET MEDIAN 1 GRATE
SEE MISCELLANEOUS QUANTITIES
FOR LOCATION AND ELEVATIONS.

REMOVE PORTION OF EXSITING 18" CMP REMAINING LENGTH LEFT IN PLACE FOR MEDIAN DRAINAGE

BEAVER DAM CREEK

MATCH INTO TEMPORARY BARRIER OF PROJECT FROM SOUTH (1133-03-71)

12'

1154+00 SMC

SB USH 41

1154+00 NMC

1152+00 SMC

+00 NMC

NB USH 41

ANCHOR CONCRETE BARRIER TEMPORARY PRECAST IN VICINITY OF CULVERT PIPE

DASHED LINES INDICATE PROJECT 1133-03-71 UNDER CONSTRUCTION BY OTHERS (APPROX. STAGE 2)

1150+00 SMC

22'

500'

1152+00 NMC

+25

100' (TYP)

24'

W5-52L
12" X 36"

1148+00 SMC

200' TAPER

1148+00 NMC

22'

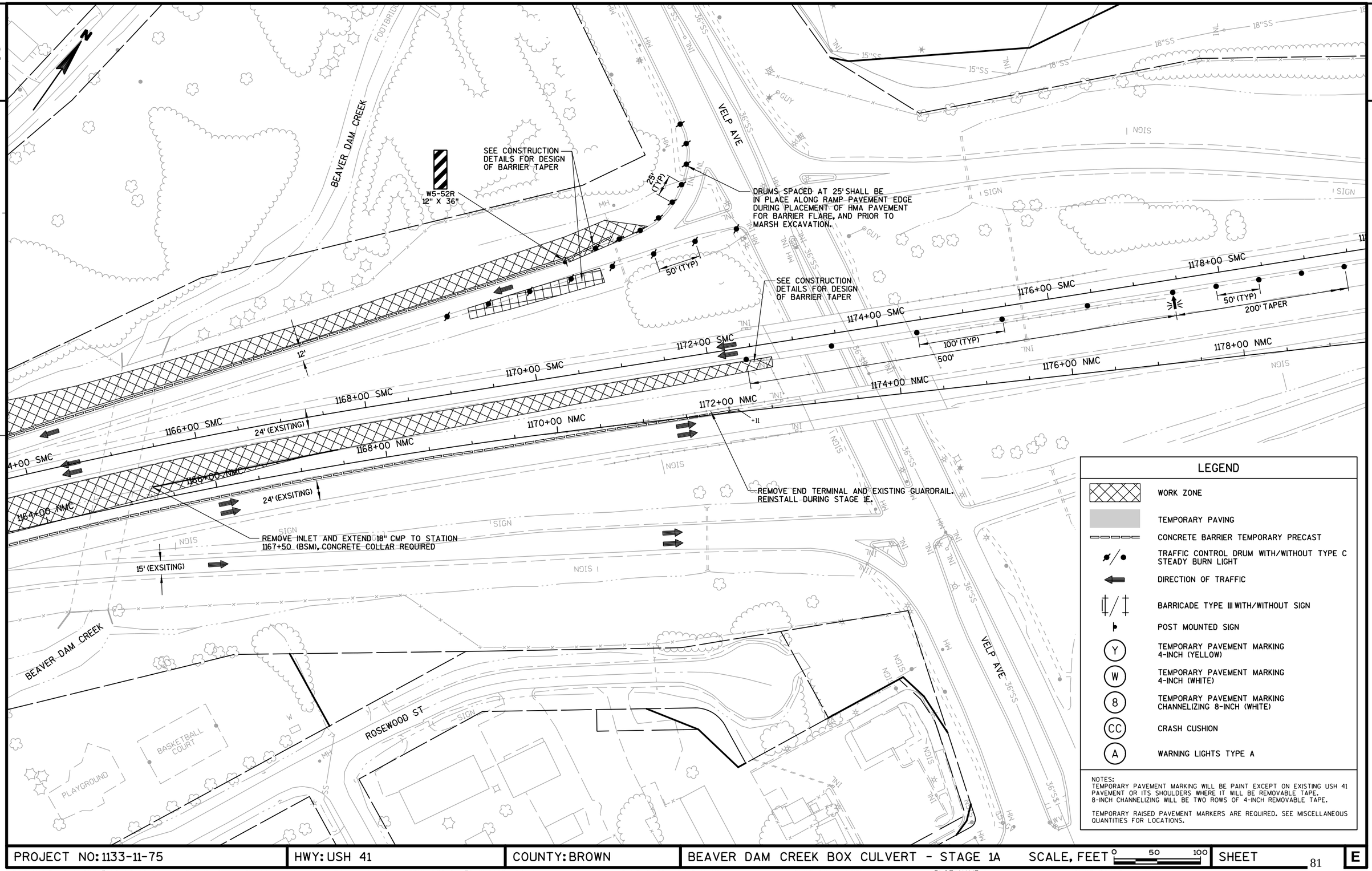
50' (TYP)

ROAD CLOSED TO THRU TRAFFIC
R11-4
60" X 30"

STONE GROVE AVE

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1A SCALE, FEET 0 50 100	SHEET 80	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026112_s1A.dgn PLOT DATE : 12/3/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:100



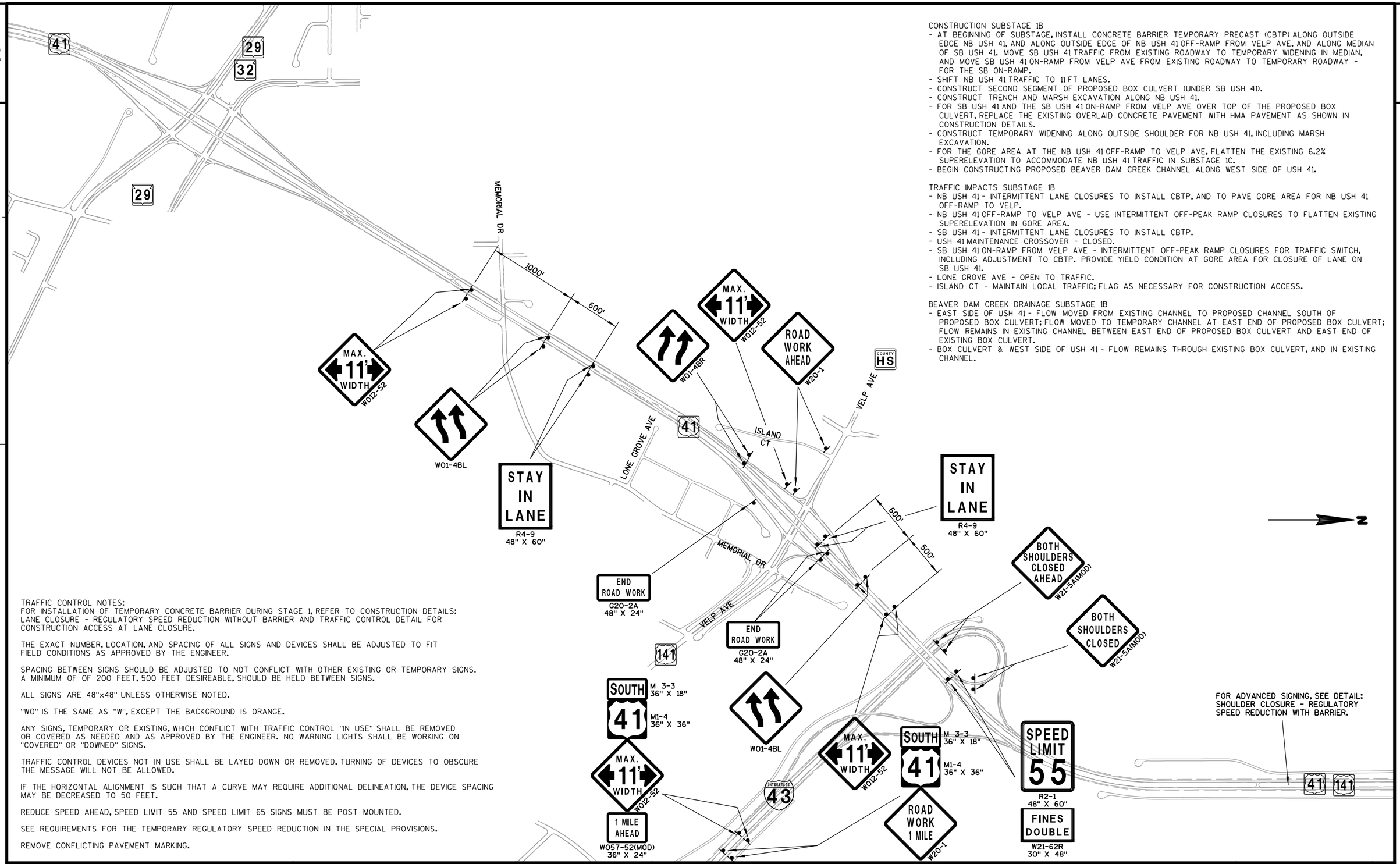
LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1A SCALE, FEET 0 50 100	SHEET 81	E



CONSTRUCTION SUBSTAGE 1B
- AT BEGINNING OF SUBSTAGE, INSTALL CONCRETE BARRIER TEMPORARY PRECAST (CBTP) ALONG OUTSIDE EDGE NB USH 41, AND ALONG OUTSIDE EDGE OF NB USH 41 OFF-RAMP FROM VELP AVE, AND ALONG MEDIAN OF SB USH 41. MOVE SB USH 41 TRAFFIC FROM EXISTING ROADWAY TO TEMPORARY WIDENING IN MEDIAN, AND MOVE SB USH 41 ON-RAMP FROM VELP AVE FROM EXISTING ROADWAY TO TEMPORARY ROADWAY - FOR THE SB ON-RAMP.
- SHIFT NB USH 41 TRAFFIC TO 11 FT LANES.
- CONSTRUCT SECOND SEGMENT OF PROPOSED BOX CULVERT (UNDER SB USH 41).
- CONSTRUCT TRENCH AND MARSH EXCAVATION ALONG NB USH 41.
- FOR SB USH 41 AND THE SB USH 41 ON-RAMP FROM VELP AVE OVER TOP OF THE PROPOSED BOX CULVERT, REPLACE THE EXISTING OVERLAID CONCRETE PAVEMENT WITH HMA PAVEMENT AS SHOWN IN CONSTRUCTION DETAILS.
- CONSTRUCT TEMPORARY WIDENING ALONG OUTSIDE SHOULDER FOR NB USH 41, INCLUDING MARSH EXCAVATION.
- FOR THE GORE AREA AT THE NB USH 41 OFF-RAMP TO VELP AVE, FLATTEN THE EXISTING 6.2% SUPERELEVATION TO ACCOMMODATE NB USH 41 TRAFFIC IN SUBSTAGE 1C.
- BEGIN CONSTRUCTING PROPOSED BEAVER DAM CREEK CHANNEL ALONG WEST SIDE OF USH 41.

TRAFFIC IMPACTS SUBSTAGE 1B
- NB USH 41 - INTERMITTENT LANE CLOSURES TO INSTALL CBTP, AND TO PAVE GORE AREA FOR NB USH 41 OFF-RAMP TO VELP.
- NB USH 41 OFF-RAMP TO VELP AVE - USE INTERMITTENT OFF-PEAK RAMP CLOSURES TO FLATTEN EXISTING SUPERELEVATION IN GORE AREA.
- SB USH 41 - INTERMITTENT LANE CLOSURES TO INSTALL CBTP.
- USH 41 MAINTENANCE CROSSOVER - CLOSED.
- SB USH 41 ON-RAMP FROM VELP AVE - INTERMITTENT OFF-PEAK RAMP CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP. PROVIDE YIELD CONDITION AT GORE AREA FOR CLOSURE OF LANE ON SB USH 41.
- LONE GROVE AVE - OPEN TO TRAFFIC.
- ISLAND CT - MAINTAIN LOCAL TRAFFIC; FLAG AS NECESSARY FOR CONSTRUCTION ACCESS.

BEAVER DAM CREEK DRAINAGE SUBSTAGE 1B
- EAST SIDE OF USH 41 - FLOW MOVED FROM EXISTING CHANNEL TO PROPOSED CHANNEL SOUTH OF PROPOSED BOX CULVERT; FLOW MOVED TO TEMPORARY CHANNEL AT EAST END OF PROPOSED BOX CULVERT; FLOW REMAINS IN EXISTING CHANNEL BETWEEN EAST END OF PROPOSED BOX CULVERT AND EAST END OF EXISTING BOX CULVERT.
- BOX CULVERT & WEST SIDE OF USH 41 - FLOW REMAINS THROUGH EXISTING BOX CULVERT, AND IN EXISTING CHANNEL.

TRAFFIC CONTROL NOTES:
FOR INSTALLATION OF TEMPORARY CONCRETE BARRIER DURING STAGE 1, REFER TO CONSTRUCTION DETAILS: LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER AND TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET, 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

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.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REDUCE SPEED AHEAD, SPEED LIMIT 55 AND SPEED LIMIT 65 SIGNS MUST BE POST MOUNTED.

SEE REQUIREMENTS FOR THE TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 1B SCALE, FEET 0 500 1000	SHEET E

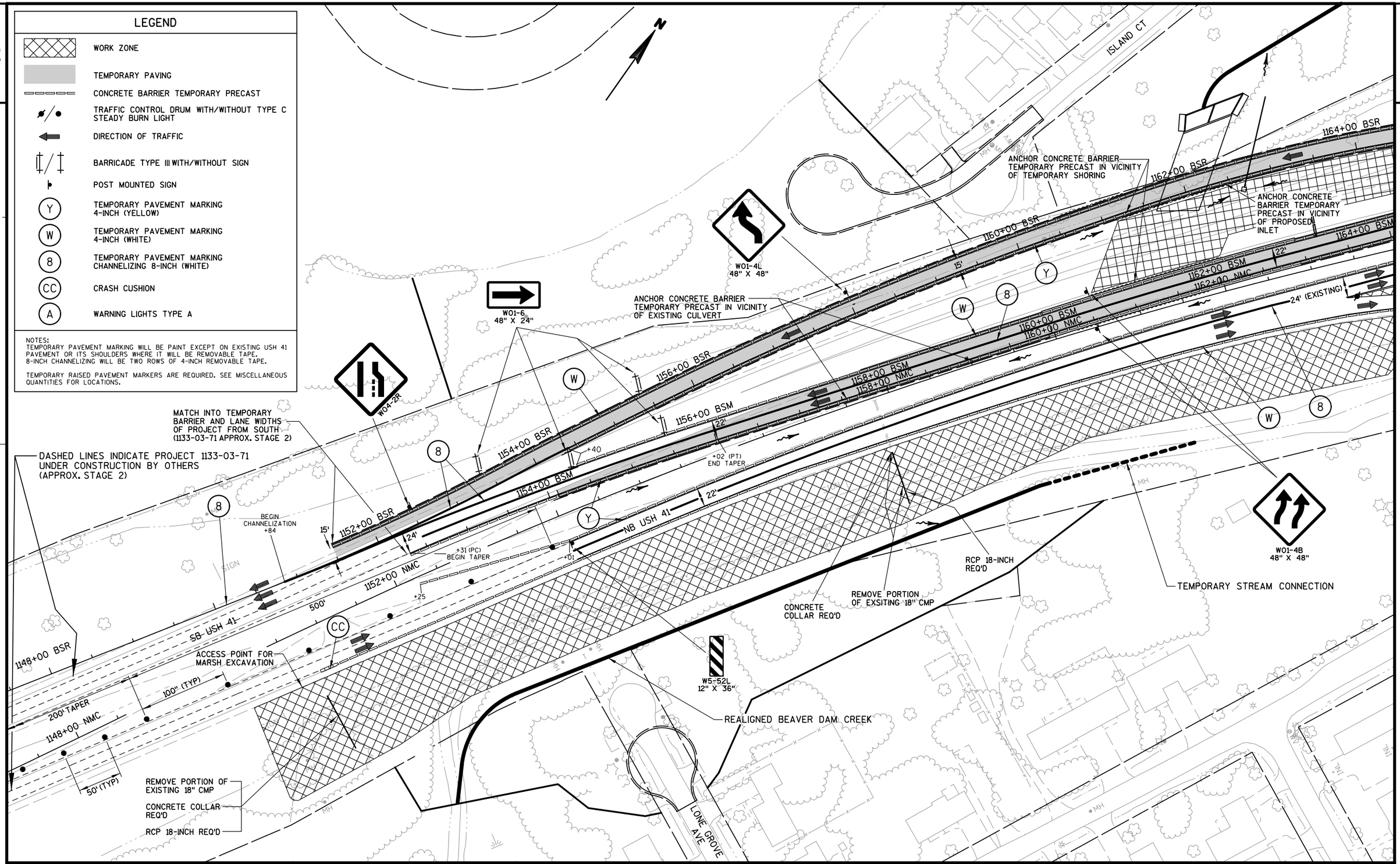
FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026120_s1B.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:1000
WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1B SCALE, FEET 0 50 100	SHEET 83	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026122_s1B.dgn PLOT DATE : 12/3/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:100

2

REALIGNED BEAVER DAM CREEK

BEAVER DAM CREEK

FOOTBRIDGE

W01-6
48" X 24"

W01-6
48" X 24"

W01-4R
48" X 48"

SEE CONSTRUCTION DETAILS FOR BARRIER TAPER DESIGN.

1170+00 BSR

1168+00 BSR

1166+00 BSR

200'

50' (TYP)

+74

+50

+12

+89

+46

+39

+11

1172+00 BSM

1170+00 BSM

1168+00 BSM

1166+00 BSM

1166+00 NMC

1168+00 NMC

1170+00 NMC

1172+00 NMC

22'

SB USH 41

NB USH 41

24' (EXISTING)

15' (EXSITING)

+50 NMC

W

Y

8

W5-52L
12" X 36"

SEE CONSTRUCTION DETAILS FOR BARRIER TAPER DESIGN.

150' TAPER (22' TO 24')

24'

100' (TYP)

500'

1174+00 NMC

1176+00 NMC

1176+00 BSM

1178+00 NMC

SB USH 41

NB USH 41

CC

+50

200' TAPER

50' (TYP)

VELP AVE

36"SS

18"SS

15"SS

INL

MH

HW

GUY

SIGN

BEAVER DAM CREEK

ROSEWOOD ST

BASKETBALL COURT

PLAYGROUND

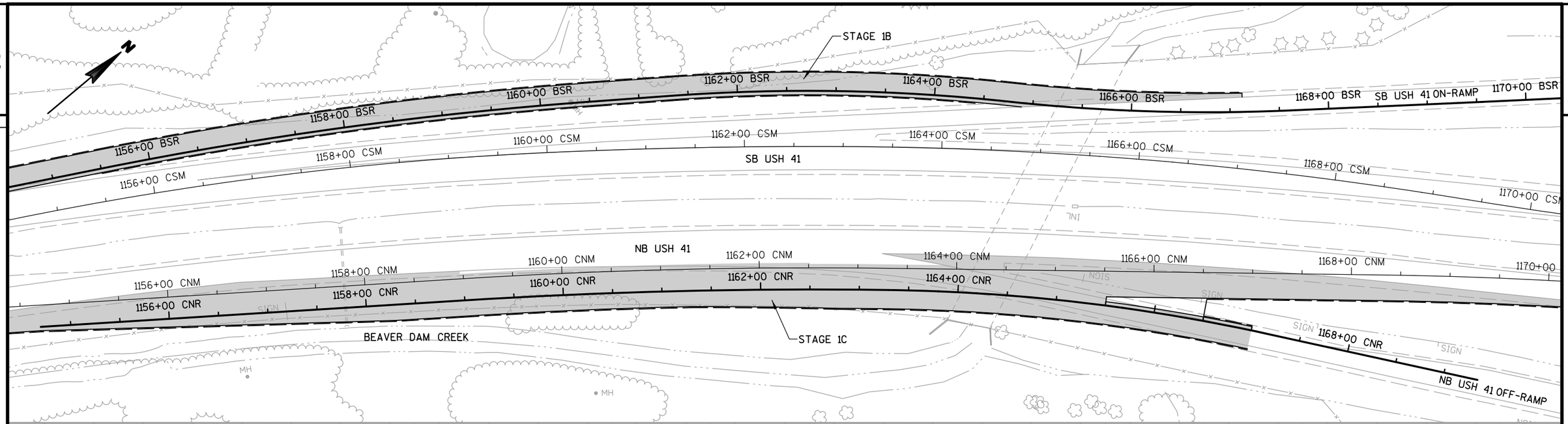
LEGEND

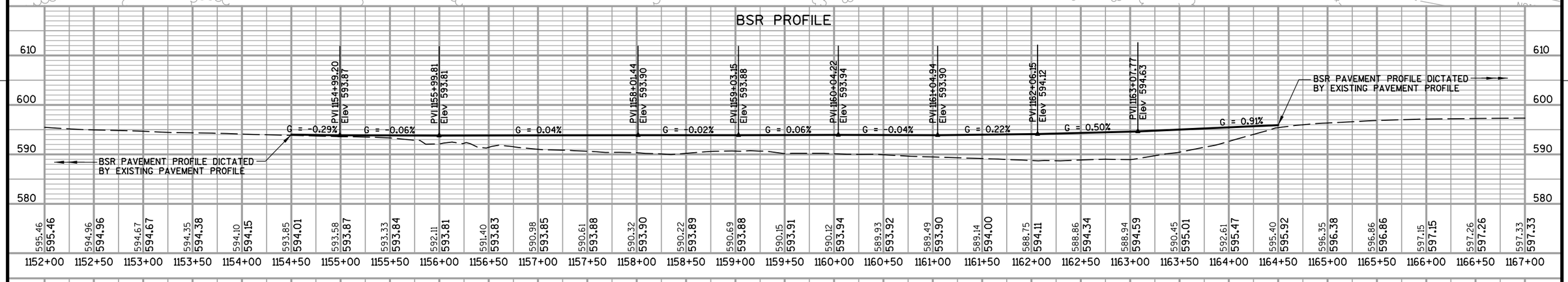
- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

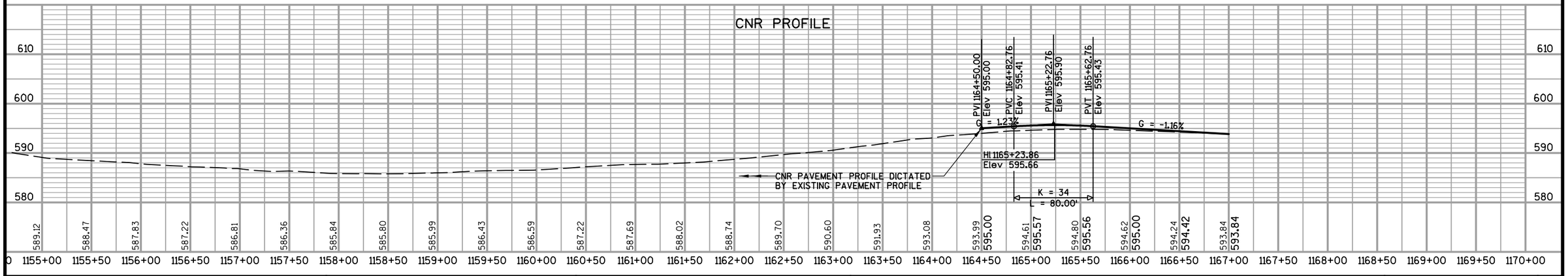
NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1B SCALE, FEET 0 50 100	SHEET 84	E







PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BSR & CNR PROFILES	SCALE, FEET 0 50 100	SHEET 85	E

CONSTRUCTION SUBSTAGE 1C
- AT BEGINNING OF SUBSTAGE, MOVE NB USH 41 AND NB USH 41 OFF-RAMP TO VELP AVE TRAFFIC FROM EXISTING ROADWAY TO TEMPORARY WIDENING ON OUTSIDE AND MOVE TRAFFIC ON SB USH 41 FROM TEMPORARY WIDENING IN MEDIAN TO TEMPORARY WIDENING ON OUTSIDE.
- REMOVE SB USH 41 MEDIAN TEMPORARY WIDENING UP TO LIMITS REQUIRED FOR MEDIAN SHOULDER IN STAGE 1D.
- RELOCATE INLET AND STORM SEWER TO MEDIAN.
- CONSTRUCT THIRD SEGMENT OF PROPOSED BOX CULVERT (UNDER NB USH 41).
- FOR SB USH 41 AND NB USH 41 OVER TOP OF THE PROPOSED BOX CULVERT, REPLACE THE EXISTING OVERLAID CONCRETE PAVEMENT WITH HMA PAVEMENT.
- CONSTRUCT TEMPORARY WIDENING ALONG MEDIAN SHOULDER FOR NB USH 41.
- CONTINUE CONSTRUCTING PROPOSED BEAVER DAM CREEK CHANNEL ALONG WEST SIDE OF USH 41.
- REMOVE CULVERT IN MEDIAN NORTH OF EXISTING BOX CULVERT. SEAL OFF DRAINAGE TO EXISTING BOX CULVERT.

TRAFFIC IMPACTS SUBSTAGE 1C
- NB USH 41 - INTERMITTENT LANE CLOSURES TO ADJUST CBTP, FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- SB USH 41 - INTERMITTENT LANE CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- USH 41 MAINTENANCE CROSSOVER - CLOSED.
- NB USH 41 OFF-RAMP TO VELP AVE - INTERMITTENT RAMP CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- SB USH 41 ON-RAMP FROM VELP AVE - INTERMITTENT RAMP CLOSURES FOR SB USH 41 TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP. PROVIDE YIELD CONDITION AT GORE AREA FOR CLOSURE OF LANE ON SB USH 41.
- LONE GROVE AVE - OPEN TO TRAFFIC.
- ISLAND CT - MAINTAIN LOCAL TRAFFIC; FLAG AS NECESSARY FOR CONSTRUCTION ACCESS.

BEAVER DAM CREEK DRAINAGE SUBSTAGE 1C
- EAST SIDE OF USH 41 - SAME AS SUBSTAGE 1B.
- BOX CULVERT & WEST SIDE OF USH 41 - SAME AS SUBSTAGE 1B.

TRAFFIC CONTROL NOTES:
FOR INSTALLATION OF TEMPORARY CONCRETE BARRIER DURING STAGE 1, REFER TO CONSTRUCTION DETAILS: LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER AND TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET, 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

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.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REDUCE SPEED AHEAD, SPEED LIMIT 55 AND SPEED LIMIT 65 SIGNS MUST BE POST MOUNTED.

SEE REQUIREMENTS FOR THE TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

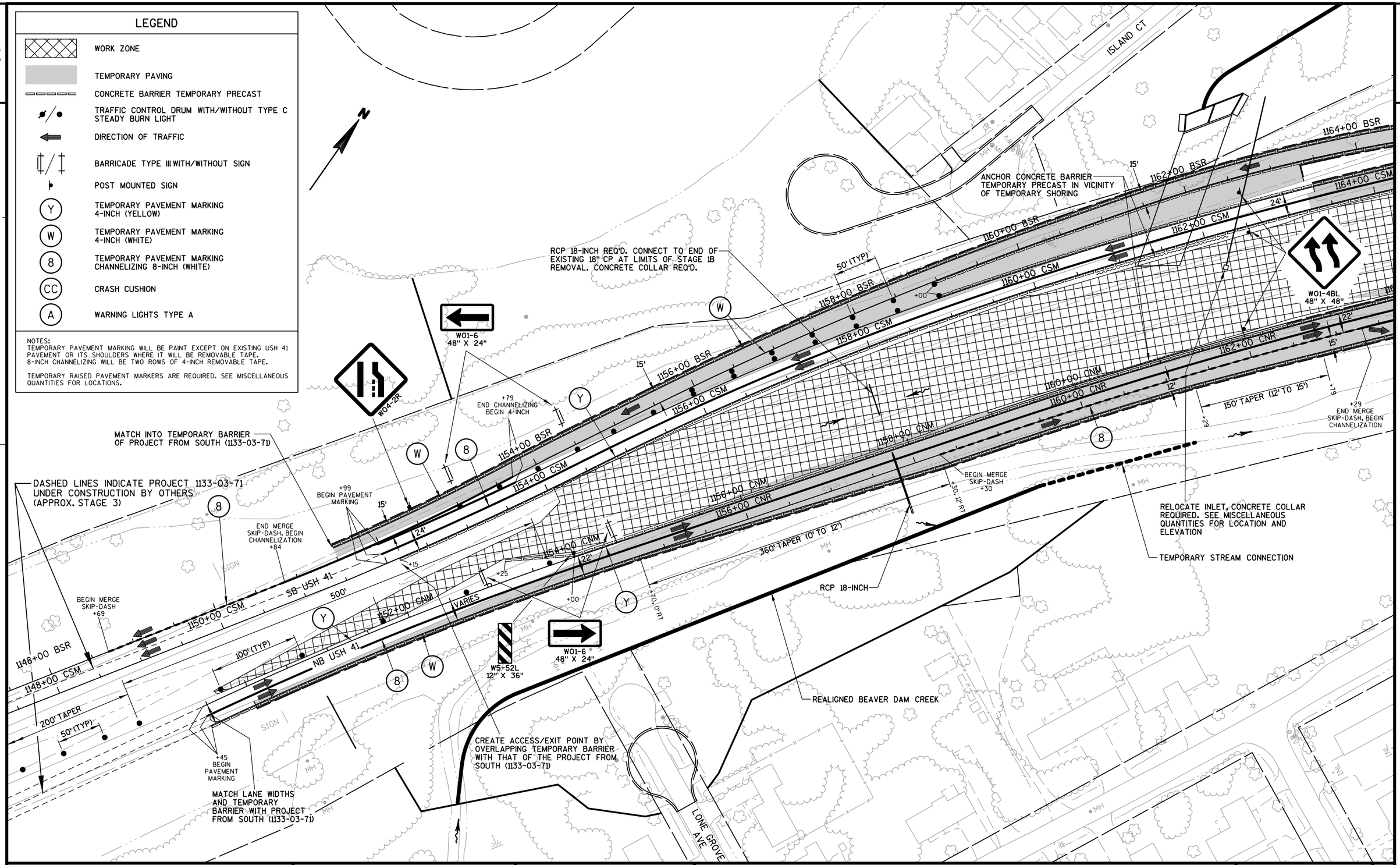
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 1C SCALE, FEET 0 500 1000	SHEET 86	E

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE. 8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1C SCALE, FEET 0 50 100	SHEET 87	E

2

2

N

VELP AVE

SB USH 41

NB USH 41

ROSEWOOD ST

BASKETBALL COURT

PLAYGROUND

W01-6
48" X 24"

1168+00 BSR

1166+00 BSR

1164+00 CSM

1166+00 CSM

1168+00 CSM

1170+00 CSM

1172+00 CSM

1164+00 CNM

1166+00 CNM

1168+00 CNM

1172+00 CNM

1164+00 CNR

1168+00 CNR

W5-52R
12" X 36"

W5-52L
12" X 36"

+74

+50

+12

+00

+78
END TEMP
PAVEMENT
MARKING

+04

+19
END TEMP
PAVEMENT
MARKING

50' (TYP)

100' (TYP)

500'

200' TAPER

SEE CONSTRUCTION
DETAILS FOR BARRIER
TAPER DESIGN

REMOVE 18" CMP TO EXISTING
BOX CULVERT. SEAL TO PREVENT
DRAINAGE TO BOX CULVERT.

EXIT

E5-1
72" X 60"
(SEE FIXED MESSAGE SIGN PORTABLE
SUPPORT FOR MOUNTING DETAILS.
SUPPORT IS INCIDENTAL TO COST OF
MOVING SIGN.)

15'

22'

24'

W

Y

8

CC

A

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

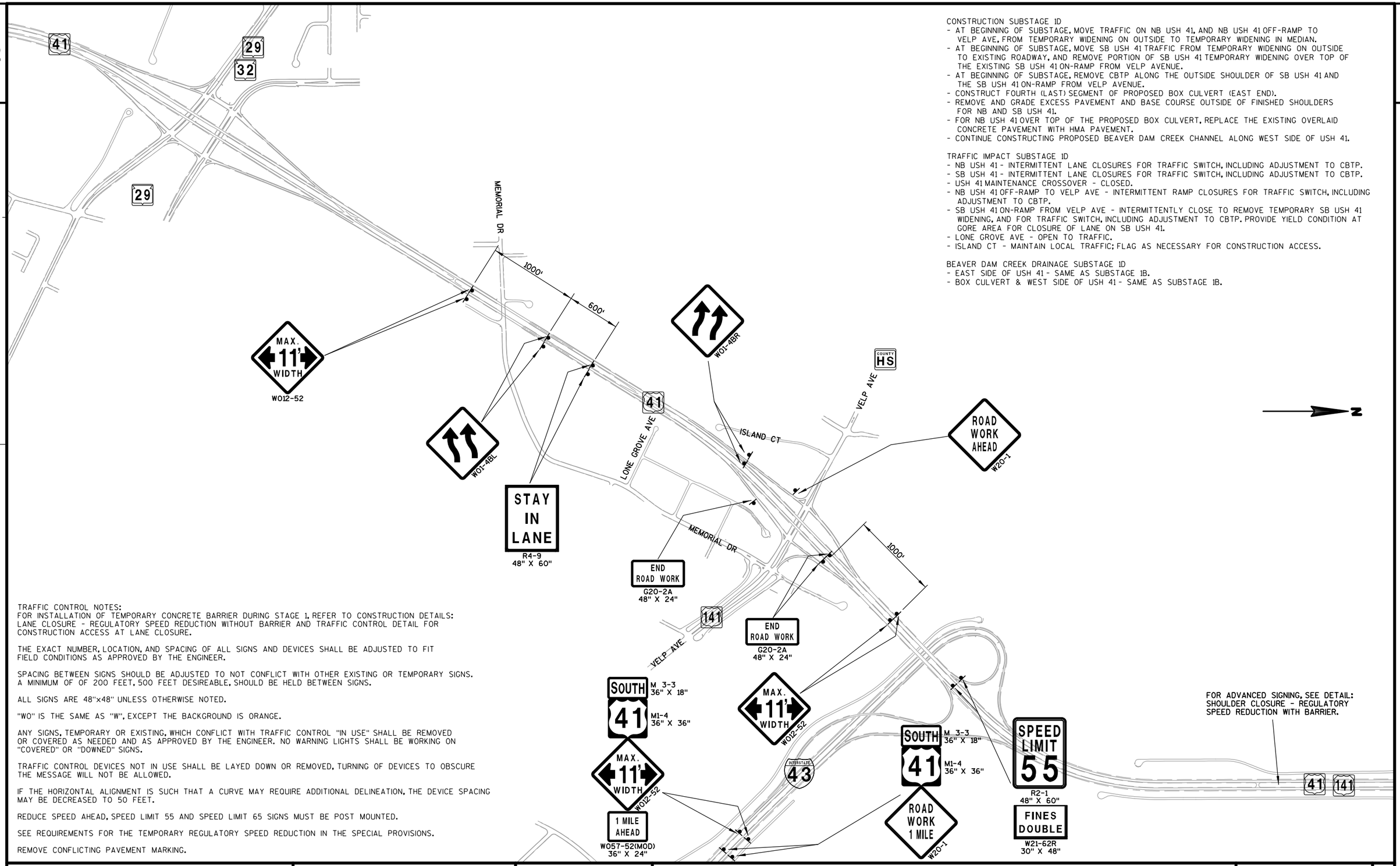
TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1C SCALE, FEET 0 50 100	SHEET 88	E

CONSTRUCTION SUBSTAGE 1D
- AT BEGINNING OF SUBSTAGE, MOVE TRAFFIC ON NB USH 41, AND NB USH 41 OFF-RAMP TO VELP AVE, FROM TEMPORARY WIDENING ON OUTSIDE TO TEMPORARY WIDENING IN MEDIAN.
- AT BEGINNING OF SUBSTAGE, MOVE SB USH 41 TRAFFIC FROM TEMPORARY WIDENING ON OUTSIDE TO EXISTING ROADWAY, AND REMOVE PORTION OF SB USH 41 TEMPORARY WIDENING OVER TOP OF THE EXISTING SB USH 41 ON-RAMP FROM VELP AVENUE.
- AT BEGINNING OF SUBSTAGE, REMOVE CBTP ALONG THE OUTSIDE SHOULDER OF SB USH 41 AND THE SB USH 41 ON-RAMP FROM VELP AVENUE.
- CONSTRUCT FOURTH (LAST) SEGMENT OF PROPOSED BOX CULVERT (EAST END).
- REMOVE AND GRADE EXCESS PAVEMENT AND BASE COURSE OUTSIDE OF FINISHED SHOULDERS FOR NB AND SB USH 41.
- FOR NB USH 41 OVER TOP OF THE PROPOSED BOX CULVERT, REPLACE THE EXISTING OVERLAID CONCRETE PAVEMENT WITH HMA PAVEMENT.
- CONTINUE CONSTRUCTING PROPOSED BEAVER DAM CREEK CHANNEL ALONG WEST SIDE OF USH 41.

TRAFFIC IMPACT SUBSTAGE 1D
- NB USH 41 - INTERMITTENT LANE CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- SB USH 41 - INTERMITTENT LANE CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- USH 41 MAINTENANCE CROSSOVER - CLOSED.
- NB USH 41 OFF-RAMP TO VELP AVE - INTERMITTENT RAMP CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- SB USH 41 ON-RAMP FROM VELP AVE - INTERMITTENTLY CLOSE TO REMOVE TEMPORARY SB USH 41 WIDENING, AND FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP. PROVIDE YIELD CONDITION AT GORE AREA FOR CLOSURE OF LANE ON SB USH 41.
- LONE GROVE AVE - OPEN TO TRAFFIC.
- ISLAND CT - MAINTAIN LOCAL TRAFFIC; FLAG AS NECESSARY FOR CONSTRUCTION ACCESS.

BEAVER DAM CREEK DRAINAGE SUBSTAGE 1D
- EAST SIDE OF USH 41 - SAME AS SUBSTAGE 1B.
- BOX CULVERT & WEST SIDE OF USH 41 - SAME AS SUBSTAGE 1B.



TRAFFIC CONTROL NOTES:
FOR INSTALLATION OF TEMPORARY CONCRETE BARRIER DURING STAGE 1, REFER TO CONSTRUCTION DETAILS: LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER AND TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET, 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

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.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REDUCE SPEED AHEAD, SPEED LIMIT 55 AND SPEED LIMIT 65 SIGNS MUST BE POST MOUNTED.

SEE REQUIREMENTS FOR THE TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 1D SCALE, FEET 0 500 1000	SHEET E

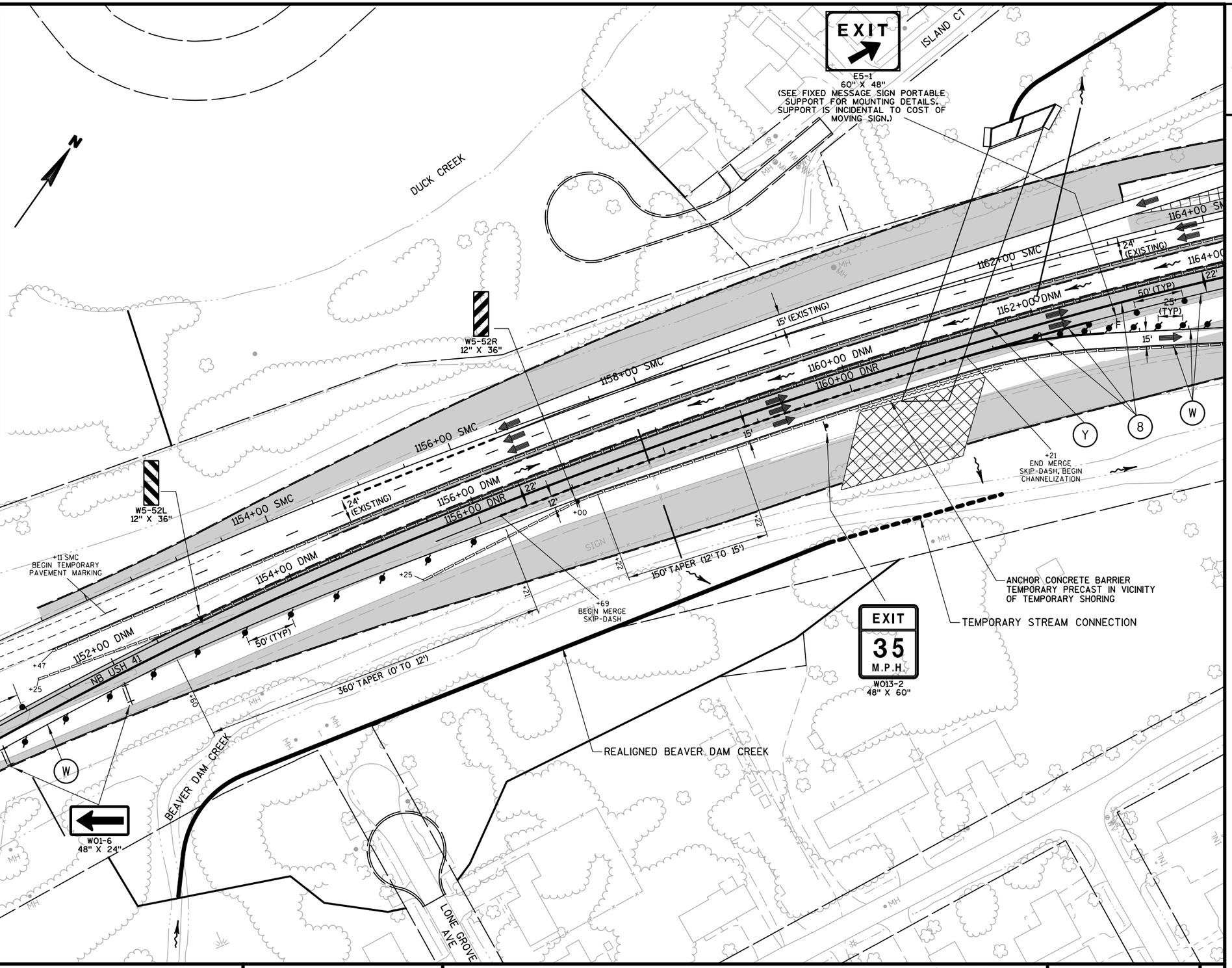
FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026140_s1D.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:1000
WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1D SCALE, FEET 0 50 100	SHEET 90	E

2

2

REALIGNED BEAVER DAM CREEK

BEAVER DAM CREEK

FOOTBRIDGE

VELP AVE

WORK ZONE TO REMOVE TEMPORARY PAVEMENT

15'

1168+00 SMC

1166+00 SMC

24'
(EXISTING)

4+00 SMC

SB USH 41

1164+00 DNM

22'

NB USH 41

1166+00 DNR

15'

+39

50' TYP

+50

1166+00 DNM

1168+00 DNM

1170+00 DNM

1172+00 DNM

22'

+00

+26
END TEMPORARY
PAVEMENT MARKING

INSTALL BEAM GUARD

1170+00 SMC

1172+00 SMC

+04

1174+00 SMC

1176+00 SMC

+70
END TEMPORARY
PAVEMENT MARKING

SB USH 41

50' TYP

200'

100' TYP

500'

NB USH 41

ROAD CLOSED
R11-2
48" X 30"
(ON TYPE III BARRICADE)

ROSEWOOD ST

BASKETBALL COURT

PLAYGROUND

36"SS

18"SS

15"SS

INL

MH

GUY

SIGN

N

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

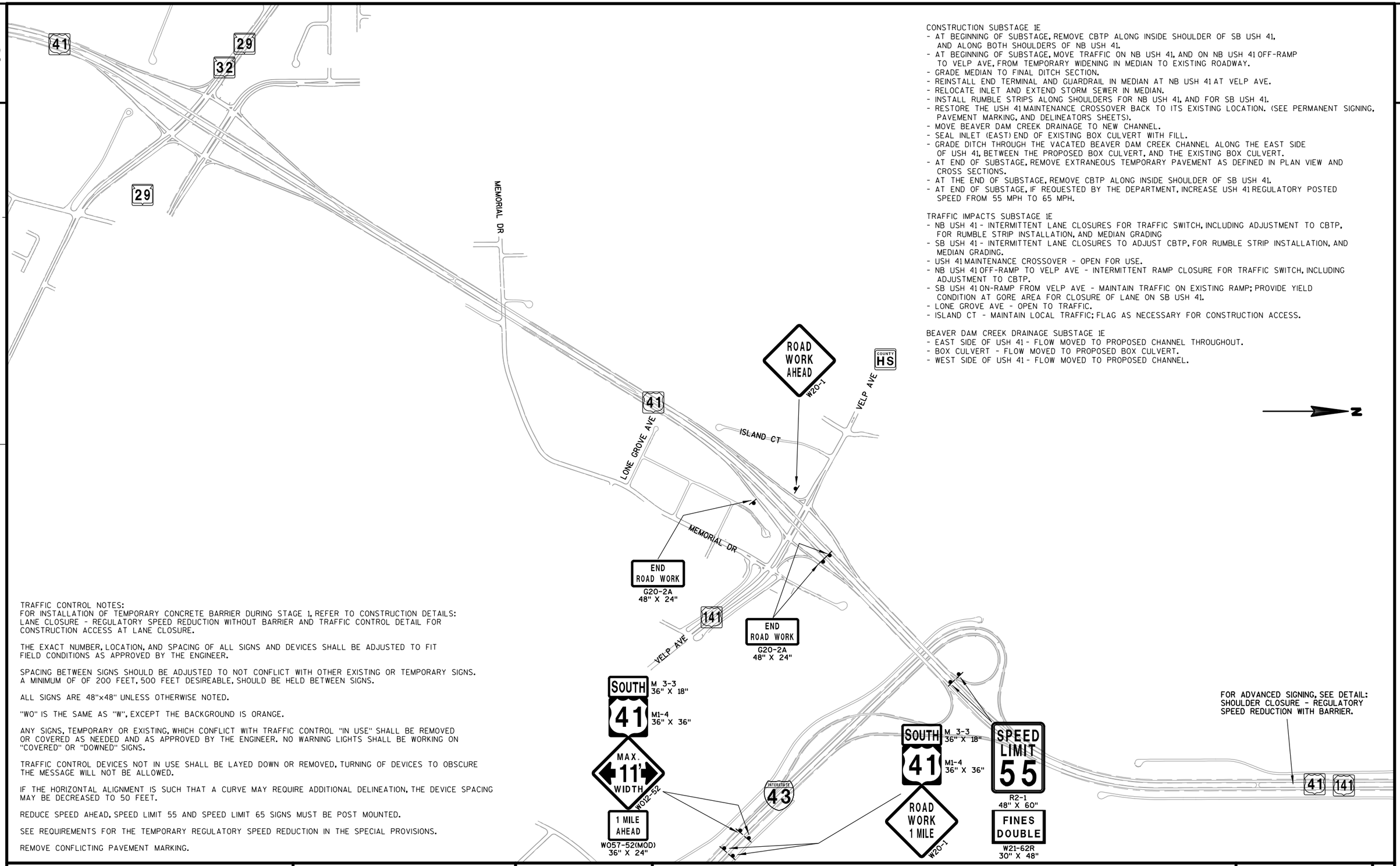
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1D	SCALE, FEET 0 50 100	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026143_s1D.dgn PLOT DATE : 12/3/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:100

CONSTRUCTION SUBSTAGE 1E
- AT BEGINNING OF SUBSTAGE, REMOVE CBTP ALONG INSIDE SHOULDER OF SB USH 41, AND ALONG BOTH SHOULDERS OF NB USH 41.
- AT BEGINNING OF SUBSTAGE, MOVE TRAFFIC ON NB USH 41, AND ON NB USH 41 OFF-RAMP TO VELP AVE, FROM TEMPORARY WIDENING IN MEDIAN TO EXISTING ROADWAY.
- GRADE MEDIAN TO FINAL DITCH SECTION.
- REINSTALL END TERMINAL AND GUARDRAIL IN MEDIAN AT NB USH 41 AT VELP AVE.
- RELOCATE INLET AND EXTEND STORM SEWER IN MEDIAN.
- INSTALL RUMBLE STRIPS ALONG SHOULDERS FOR NB USH 41, AND FOR SB USH 41.
- RESTORE THE USH 41 MAINTENANCE CROSSOVER BACK TO ITS EXISTING LOCATION. (SEE PERMANENT SIGNING, PAVEMENT MARKING, AND DELINEATORS SHEETS).
- MOVE BEAVER DAM CREEK DRAINAGE TO NEW CHANNEL.
- SEAL INLET (EAST) END OF EXISTING BOX CULVERT WITH FILL.
- GRADE DITCH THROUGH THE VACATED BEAVER DAM CREEK CHANNEL ALONG THE EAST SIDE OF USH 41, BETWEEN THE PROPOSED BOX CULVERT, AND THE EXISTING BOX CULVERT.
- AT END OF SUBSTAGE, REMOVE EXTRANEOUS TEMPORARY PAVEMENT AS DEFINED IN PLAN VIEW AND CROSS SECTIONS.
- AT THE END OF SUBSTAGE, REMOVE CBTP ALONG INSIDE SHOULDER OF SB USH 41.
- AT END OF SUBSTAGE, IF REQUESTED BY THE DEPARTMENT, INCREASE USH 41 REGULATORY POSTED SPEED FROM 55 MPH TO 65 MPH.

TRAFFIC IMPACTS SUBSTAGE 1E
- NB USH 41 - INTERMITTENT LANE CLOSURES FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP, FOR RUMBLE STRIP INSTALLATION, AND MEDIAN GRADING
- SB USH 41 - INTERMITTENT LANE CLOSURES TO ADJUST CBTP, FOR RUMBLE STRIP INSTALLATION, AND MEDIAN GRADING.
- USH 41 MAINTENANCE CROSSOVER - OPEN FOR USE.
- NB USH 41 OFF-RAMP TO VELP AVE - INTERMITTENT RAMP CLOSURE FOR TRAFFIC SWITCH, INCLUDING ADJUSTMENT TO CBTP.
- SB USH 41 ON-RAMP FROM VELP AVE - MAINTAIN TRAFFIC ON EXISTING RAMP; PROVIDE YIELD CONDITION AT GORE AREA FOR CLOSURE OF LANE ON SB USH 41.
- LONE GROVE AVE - OPEN TO TRAFFIC.
- ISLAND CT - MAINTAIN LOCAL TRAFFIC; FLAG AS NECESSARY FOR CONSTRUCTION ACCESS.

BEAVER DAM CREEK DRAINAGE SUBSTAGE 1E
- EAST SIDE OF USH 41 - FLOW MOVED TO PROPOSED CHANNEL THROUGHOUT.
- BOX CULVERT - FLOW MOVED TO PROPOSED BOX CULVERT.
- WEST SIDE OF USH 41 - FLOW MOVED TO PROPOSED CHANNEL.



TRAFFIC CONTROL NOTES:
FOR INSTALLATION OF TEMPORARY CONCRETE BARRIER DURING STAGE 1, REFER TO CONSTRUCTION DETAILS: LANE CLOSURE - REGULATORY SPEED REDUCTION WITHOUT BARRIER AND TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET, 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

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.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REDUCE SPEED AHEAD, SPEED LIMIT 55 AND SPEED LIMIT 65 SIGNS MUST BE POST MOUNTED.

SEE REQUIREMENTS FOR THE TEMPORARY REGULATORY SPEED REDUCTION IN THE SPECIAL PROVISIONS.

REMOVE CONFLICTING PAVEMENT MARKING.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 1E SCALE, FEET 0 500 1000	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026150_s1E.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:1000
WISDOT/CADDS SHEET 42

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

DASHED LINES INDICATE PROJECT 1133-03-71 UNDER CONSTRUCTION BY OTHERS (APPROX. STAGE 3)

DUCK CREEK

ISLAND CT

1148+00 SMC
1148+00 NMC
1150+00 SMC
1150+00 NMC
1152+00 SMC
1152+00 NMC
1154+00 SMC
1154+00 NMC
1156+00 SMC
1156+00 NMC
1158+00 SMC
1158+00 NMC
1160+00 SMC
1160+00 NMC
1162+00 SMC
1162+00 NMC
1162+00 ENR
1162+00 BDF
1164+00 SMC

SB USH 41
NB USH 41

24' (EXISTING)
15' (EXISTING)

SHOULDER
MERGE LANE

RELOCATE INLET.
CONCRETE COLLAR REQUIRED.
(SEE MISCELLANEOUS QUANTITIES FOR LOCATION AND ELEVATION.)

REALIGNED BEAVER DAM CREEK

LONE GROVE AVE

NOTE:
ALL PAVEMENT MARKING PLACED IN STAGE 1E WILL BE PERMANENT (SEE PERMANENT SIGNING, PAVEMENT MARKING, AND DELINEATORS SHEETS)

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1E	SCALE, FEET 0 50 100	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026152_s1E.dgn
PLOT DATE : 12/3/2012
PLOT BY : kk226
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

2

REALIGNED BEAVER DAM CREEK

VELP AVE

1164+00 SMC
1166+00 SMC
1168+00 SMC
1170+00 SMC
1172+00 SMC
1174+00 SMC
1176+00 SMC
1178+00 SMC
SB USH 41

1164+00 NMC
1166+00 NMC
1168+00 NMC
1170+00 NMC
1172+00 NMC
1174+00 NMC
1176+00 NMC
1178+00 NMC
NB USH 41

1164+00 ENR
1166+00 ENR

15'
24'
(EXISTING)
15'

1164+00 BDF
1166+00 BDF
1168+00 BDF

SEAL END OF BOX CULVERT WITH FILL MATERIAL (SEE SPV ITEM SPV.0105.800 - VACATE EXISTING STRUCTURE B-05-99)

ROSEWOOD ST

BASKETBALL COURT

PLAYGROUND

NOTE:
ALL PAVEMENT MARKING PLACED IN STAGE 1E WILL BE PERMANENT (SEE PERMANENT SIGNING, PAVEMENT MARKING, AND DELINEATORS SHEETS)

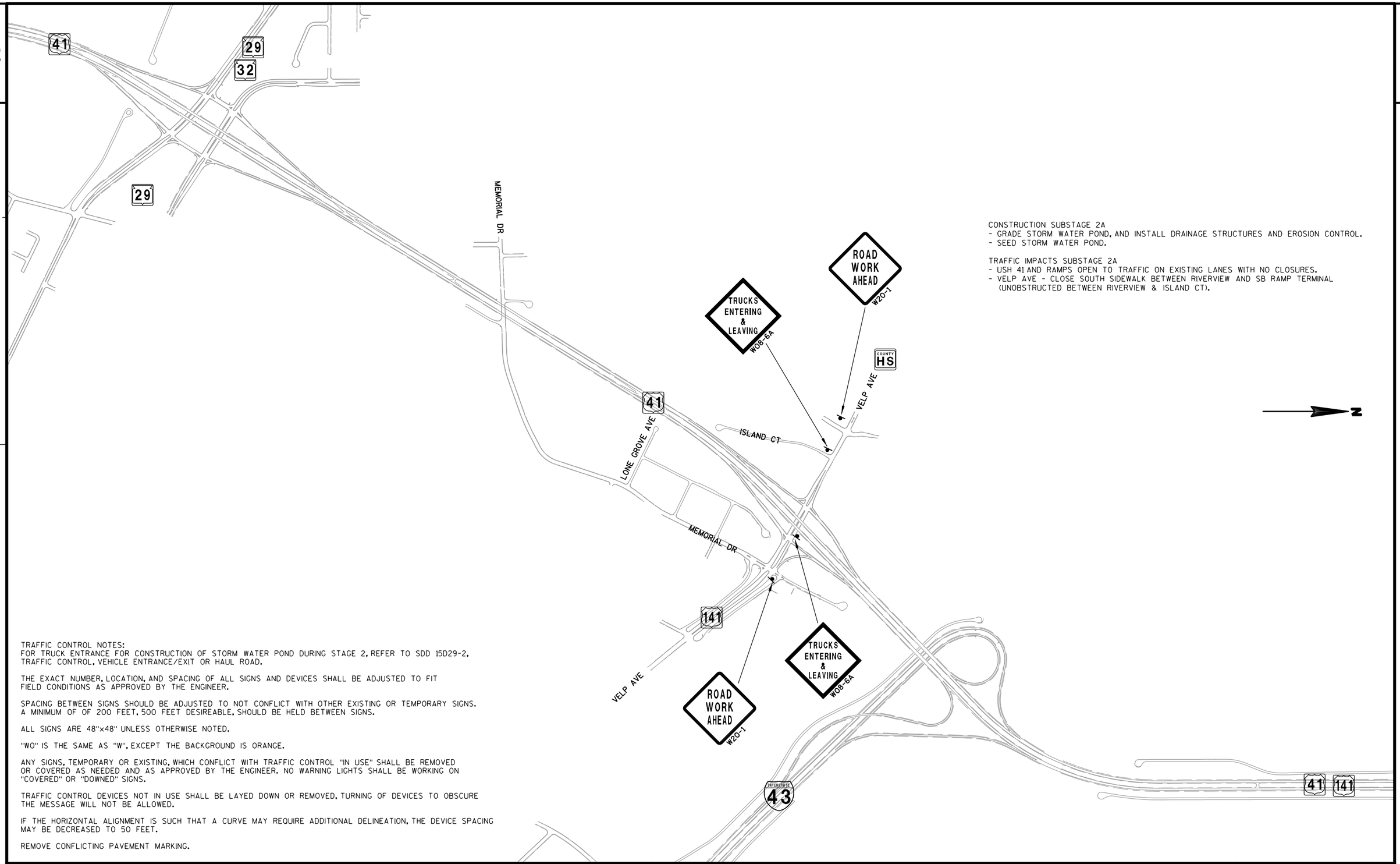
LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	BEAVER DAM CREEK BOX CULVERT - STAGE 1E	SCALE, FEET 0 50 100	SHEET 94	E



CONSTRUCTION SUBSTAGE 2A
- GRADE STORM WATER POND, AND INSTALL DRAINAGE STRUCTURES AND EROSION CONTROL.
- SEED STORM WATER POND.

TRAFFIC IMPACTS SUBSTAGE 2A
- USH 41 AND RAMPS OPEN TO TRAFFIC ON EXISTING LANES WITH NO CLOSURES.
- VELP AVE - CLOSE SOUTH SIDEWALK BETWEEN RIVERVIEW AND SB RAMP TERMINAL (UNOBSTRUCTED BETWEEN RIVERVIEW & ISLAND CT).

TRAFFIC CONTROL NOTES:
FOR TRUCK ENTRANCE FOR CONSTRUCTION OF STORM WATER POND DURING STAGE 2, REFER TO SDD 15D29-2, TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET. 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

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.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REMOVE CONFLICTING PAVEMENT MARKING.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 2A SCALE, FEET 0 500 1000	SHEET 95	E

SIDEWALK CLOSED
USE OTHER SIDE
R9-10
24" X 12"
(ON TEMPORARY
SIGN SUPPORT)

SIDEWALK
CLOSED
R9-9
24" X 12"
(ON TEMPORARY
SIGN SUPPORT)

SIDEWALK
CLOSED
R9-9
24" X 12"
(ON TEMPORARY
SIGN SUPPORT)

SIDEWALK CLOSED
USE OTHER SIDE
R9-10
24" X 12"
(ON TEMPORARY
SIGN SUPPORT)

TRUCK ENTRANCE

STAGE 2A WORK ACTIVITES:
- GRADE STORM WATER POND, AND INSTALL DRAINAGE STRUCTURES AND EROSION CONTROL

VELP AVE
RIVERVIEW DR
DUCK CREEK
ISLAND CT
BEAVER DAM CREEK
SB USH 41
NB USH 41
ROSEWOOD ST
MEMORIAL DR

LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

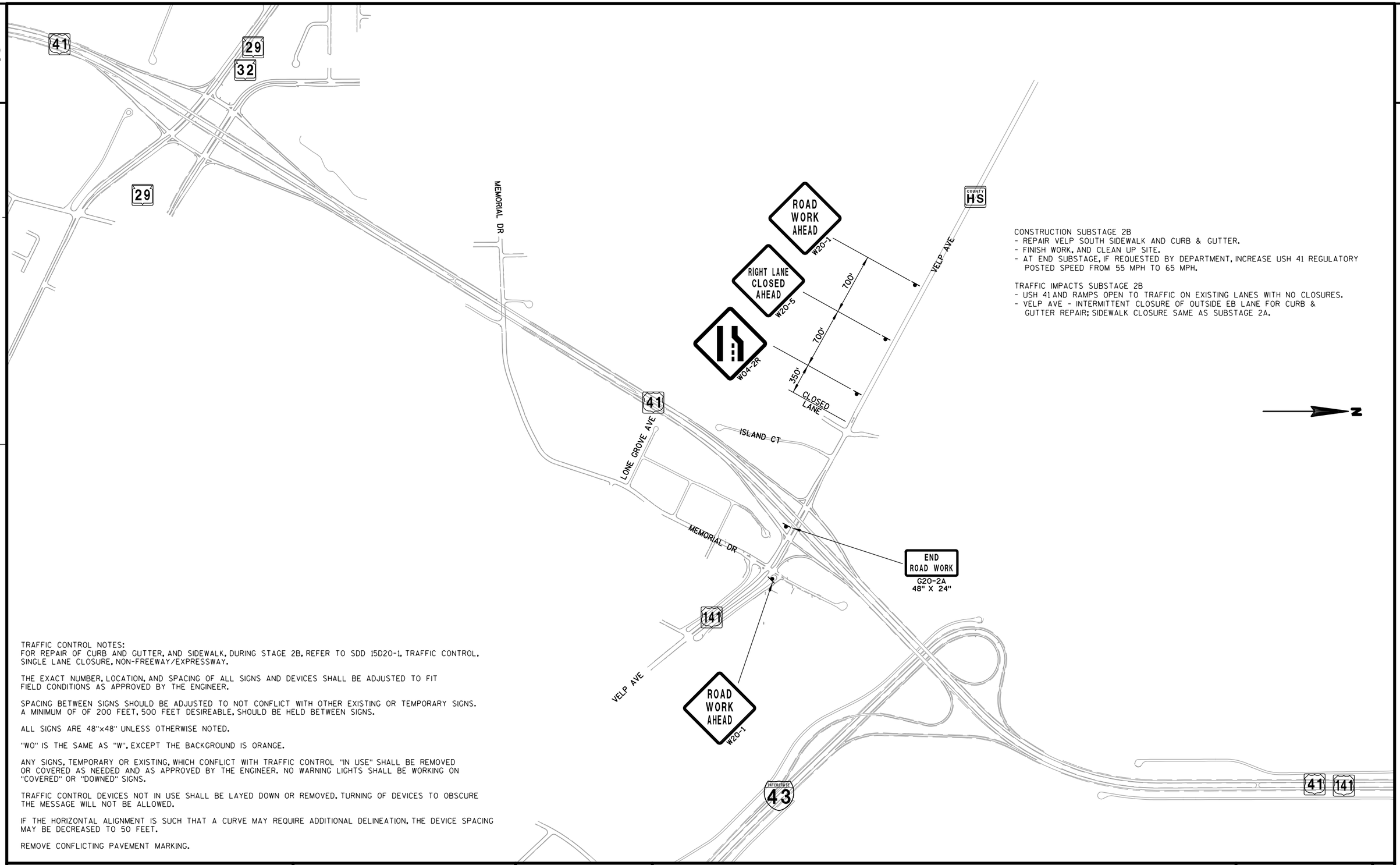
TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	STORM WATER POND CONSTRUCTION - STAGE 2A SCALE, FEET 0 75 150	SHEET 96	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026211_s2A.dgn PLOT DATE : 12/3/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:150

WISDOT/CADDS SHEET 42

2



CONSTRUCTION SUBSTAGE 2B
- REPAIR VELP SOUTH SIDEWALK AND CURB & GUTTER.
- FINISH WORK, AND CLEAN UP SITE.
- AT END SUBSTAGE, IF REQUESTED BY DEPARTMENT, INCREASE USH 41 REGULATORY POSTED SPEED FROM 55 MPH TO 65 MPH.

TRAFFIC IMPACTS SUBSTAGE 2B
- USH 41 AND RAMPS OPEN TO TRAFFIC ON EXISTING LANES WITH NO CLOSURES.
- VELP AVE - INTERMITTENT CLOSURE OF OUTSIDE EB LANE FOR CURB & GUTTER REPAIR; SIDEWALK CLOSURE SAME AS SUBSTAGE 2A.

TRAFFIC CONTROL NOTES:
FOR REPAIR OF CURB AND GUTTER, AND SIDEWALK, DURING STAGE 2B, REFER TO SDD 15D20-1, TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH OTHER EXISTING OR TEMPORARY SIGNS. A MINIMUM OF OF 200 FEET. 500 FEET DESIREABLE, SHOULD BE HELD BETWEEN SIGNS.

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.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

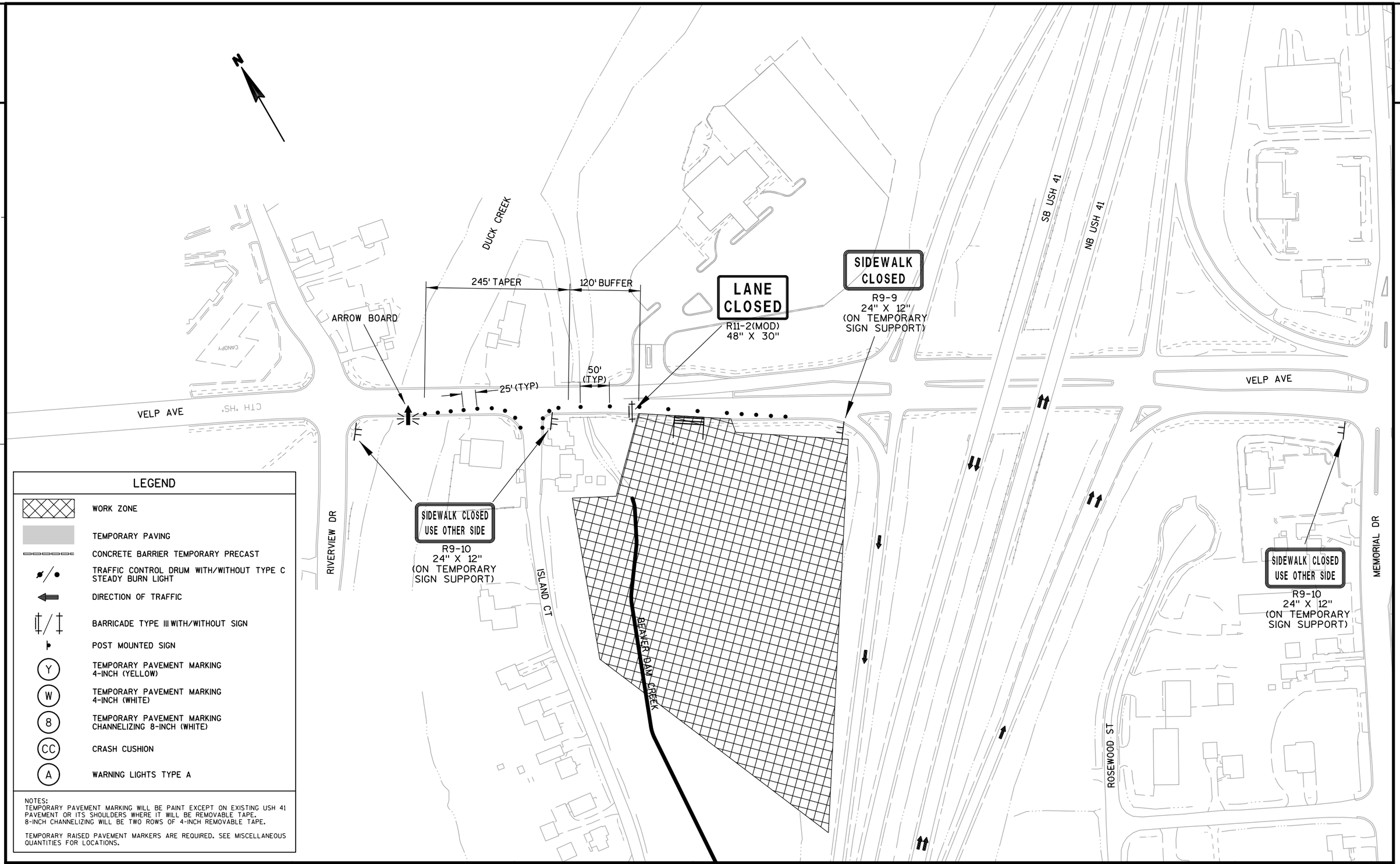
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

REMOVE CONFLICTING PAVEMENT MARKING.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ADVANCED SIGNING & STAGING OVERVIEW - STAGE 2B SCALE, FEET 0 500 1000	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_026220_s2B.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:1000
WISDOT/CADDS SHEET 42

2



LEGEND

- WORK ZONE
- TEMPORARY PAVING
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- DIRECTION OF TRAFFIC
- BARRICADE TYPE III WITH/WITHOUT SIGN
- POST MOUNTED SIGN
- (Y) TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- (8) TEMPORARY PAVEMENT MARKING CHANNELIZING 8-INCH (WHITE)
- (CC) CRASH CUSHION
- (A) WARNING LIGHTS TYPE A

NOTES:
TEMPORARY PAVEMENT MARKING WILL BE PAINT EXCEPT ON EXISTING USH 41 PAVEMENT OR ITS SHOULDERS WHERE IT WILL BE REMOVABLE TAPE.
8-INCH CHANNELIZING WILL BE TWO ROWS OF 4-INCH REMOVABLE TAPE.

TEMPORARY RAISED PAVEMENT MARKERS ARE REQUIRED. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	SHORT TERM LANE CLOSURE - STAGE 2B	SCALE, FEET 0 75 150	SHEET 98	E

2

2

LEGEND

FENCE CHAIN LINK 6-FT

FENCE WOVEN WIRE 4-FT

N

STA 1155+79.1 SMC
99.5' LT
BEGIN WOVEN WIRE

STA 1163+02.5 NMC
119.6' LT

STA 1162+65.0 SMC
131.1' LT

STA 1162+07.9 SMC
125.0' LT

STA 1161+57.9 SMC
108.5' LT

STA 1165+11.9 SMC
175.0' LT

STA 1169+76.1 SMC
184.2' LT

STA 1170+82.7 SMC
212.9' LT

STA 1171+72.5 SMC
300.0' LT
END WOVEN WIRE
BEGIN CHAIN LINK

STA 1171+12.1 SMC
625.0' LT
END CHAIN LINK

STA 1170+75.9 SMC
606.5' LT

DUCK CREEK

R/W LINE

EXISTING R/W

ISLAND CT

REALIGNED

BEAVER DAM CREEK

GATE REQUIRED

VELP AVE

CTH HS

1145 SMC
1145 NMC
USH 41
1150 SMC
1150 NMC
1155 SMC
1155 NMC
1160 SMC
1160 NMC
1165 SMC
1165 NMC
1170 SMC
1170 NMC
1175 SMC
1175 NMC

STA 1148+14.4 NMC
184.4' RT
BEGIN WOVEN WIRE

STA 1149+74.8 NMC
192.0' RT

STA 1151+13.5 NMC
183.0' RT

STA 1151+19.6 NMC
241.1' RT
END WOVEN WIRE

STA 1152+27.4 NMC
265.6' RT
BEGIN CHAIN LINK

STA 1152+62.3 NMC
239.0' RT

STA 1157+95.1 NMC
236.2' RT

STA 1158+65.0 NMC
226.8' RT

STA 1159+78.3 NMC
187.4' RT
END CHAIN LINK
BEGIN WOVEN WIRE

STA 1165+82.6 NMC
191.4' RT

FENCING BY OTHERS UNDER
PROJECT 1133-11-74

STA 1166+81.7 NMC
294.9' RT
END WOVEN WIRE

LONE GROVE AVE

ROSEWOOD ST

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	FENCING	SCALE, FEET 0 100 200	SHEET 99	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_027101_fn.dgn PLOT DATE : 12/3/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42

DATE 10DEC12 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	1133-10-80 QUANTITY	1133-11-75 QUANTITY	1133-11-86 QUANTITY
0010	201.0115	CLEARING	ACRE	12.500	2.000	5.800	4.700
0020	201.0215	GRUBBING	ACRE	12.500	2.000	5.800	4.700
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	9.000	5.000	4.000	
0040	204.0100	REMOVING PAVEMENT **P**	SY	1,780.000		1,780.000	
0050	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS **P**	SY	6.000		6.000	
0060	204.0120	REMOVING ASPHALTIC SURFACE MILLING **P**	SY	1,000.000		1,000.000	
0070	204.0150	REMOVING CURB & GUTTER **P**	LF	50.000		50.000	
0080	204.0155	REMOVING CONCRETE SIDEWALK **P**	SY	30.000		30.000	
0090	204.0170	REMOVING FENCE **P**	LF	3,730.000		3,730.000	
0100	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	14.000		14.000	
0110	204.0220	REMOVING INLETS	EACH	1.000		1.000	
0120	204.0280	SEALING PIPES	EACH	1.000		1.000	
0130	204.9105.S	REMOVING (ITEM DESCRIPTION) 01. FOOTBRIDGE	LS	1.000			1.000
0140	205.0100	EXCAVATION COMMON	CY	123,158.000	6,408.000	68,126.000	48,624.000
0150	205.0400	EXCAVATION MARSH	CY	67,289.000		67,289.000	
0160	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. B-05-0693	LS	1.000		1.000	
0170	206.6000.S	TEMPORARY SHORING	SF	7,500.000		7,500.000	
0180	208.0100	BORROW	CY	82,717.000	625.000	82,092.000	
0190	210.0100	BACKFILL STRUCTURE	CY	4,250.000		4,250.000	
0200	213.0100	FINISHING ROADWAY (PROJECT) 01. 1133-10-80	EACH	1.000	1.000		
0210	213.0100	FINISHING ROADWAY (PROJECT) 02. 1133-11-75	EACH	1.000		1.000	
0220	213.0100	FINISHING ROADWAY (PROJECT) 03. 1133-11-86	EACH	1.000			1.000
0230	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	795.000	130.000	665.000	
0240	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	18,650.000	1,610.000	16,870.000	170.000
0250	310.0115	BASE AGGREGATE OPEN GRADED	CY	3,100.000		3,100.000	
0260	311.0110	BREAKER RUN	TON	55,500.000	1,390.000	54,110.000	
0270	312.0115	SELECT CRUSHED MATERIAL	CY	1,896.000		1,820.000	76.000
0280	455.0105	ASPHALTIC MATERIAL PG58-28	TON	480.000	17.000	463.000	
0290	455.0605	TACK COAT	GAL	725.000	44.000	681.000	
0300	460.1101	HMA PAVEMENT TYPE E-1	TON	285.000	285.000		
0310	460.1110	HMA PAVEMENT TYPE E-10	TON	7,750.000		7,750.000	
0320	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	5,142.000	182.000	4,960.000	
0330	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	16.000	11.000	5.000	
0340	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP	LF	6,015.000		6,015.000	
0350	504.0100	CONCRETE MASONRY CULVERTS **P**	CY	2,071.000		2,071.000	
0360	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	120,000.000		120,000.000	
0370	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	136,380.000		136,380.000	
0380	505.0905	BAR COUPLERS NO. 5	EACH	405.000		405.000	
0390	516.0500	RUBBERIZED MEMBRANE WATERPROOFING **P**	SY	270.000		270.000	
0400	520.7000	CLEANING CULVERT PIPES	EACH	1.000		1.000	
0410	520.8000	CONCRETE COLLARS FOR PIPE	EACH	4.000		4.000	
0420	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	294.000	74.000	220.000	
0430	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	3.000	2.000	1.000	
0440	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	168.000		168.000	
0450	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	6.000		4.000	2.000

3

DATE 10DEC12 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	1133-10-80 QUANTITY	1133-11-75 QUANTITY	1133-11-86 QUANTITY
0460	522.1021	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21-INCH	EACH	1.000			1.000
0470	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	1.000			1.000
0480	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	1.000			1.000
0490	522.1054	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH	EACH	1.000			1.000
0500	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A **P**	LF	50.000		50.000	
0510	602.0410	CONCRETE SIDEWALK 5-INCH **P**	SF	250.000		250.000	
0520	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	12,736.000		12,736.000	
0530	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	25,932.000		25,932.000	
0540	606.0100	RIPRAP LIGHT	CY	1,567.000		1,200.000	367.000
0550	606.0200	RIPRAP MEDIUM	CY	325.000		10.000	315.000
0560	606.0300	RIPRAP HEAVY	CY	1,294.000		245.000	1,049.000
0570	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	246.000		215.000	31.000
0580	608.0421	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	LF	78.000			78.000
0590	608.0424	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	49.000			49.000
0600	608.0436	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH	LF	112.000			112.000
0610	608.0454	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 54-INCH	LF	40.000			40.000
0620	611.0535	MANHOLE COVERS TYPE J-SPECIAL	EACH	4.000			4.000
0630	611.0642	INLET COVERS TYPE MS	EACH	3.000		1.000	2.000
0640	611.2006	MANHOLES 6-FT DIAMETER	EACH	2.000			2.000
0650	611.2007	MANHOLES 7-FT DIAMETER	EACH	1.000			1.000
0660	611.2008	MANHOLES 8-FT DIAMETER	EACH	1.000			1.000
0670	611.3901	INLETS MEDIAN 1 GRATE	EACH	1.000		1.000	
0680	611.3902	INLETS MEDIAN 2 GRATE	EACH	1.000			1.000
0690	611.9800.S	PIPE GRATES	EACH	2.000			2.000
0700	614.0905	CRASH CUSHIONS TEMPORARY	EACH	2.000		2.000	
0710	614.2300	MGS GUARDRAIL 3	LF	75.000	75.000		
0720	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	4.000	4.000		
0730	616.0100	FENCE WOVEN WIRE (HEIGHT) 01. 4-FOOT	LF	2,770.000		2,770.000	
0740	616.0206	FENCE CHAIN LINK 6-FT	LF	1,100.000		1,100.000	
0750	616.0329	GATES CHAIN LINK (WIDTH) 01. 10 FT	EACH	1.000		1.000	
0760	616.0700.S	FENCE SAFETY	LF	1,435.000	535.000	500.000	400.000
0770	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1133-10-80	EACH	1.000	1.000		
0780	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 1133-11-75	EACH	1.000		1.000	
0790	619.1000	MOBILIZATION	EACH	1.000	0.020	0.950	0.030
0800	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	4.000		4.000	
0810	623.0200	DUST CONTROL SURFACE TREATMENT	SY	33,700.000	1,800.000	31,900.000	
0820	624.0100	WATER	MGAL	19.000	1.600	17.400	
0830	625.0100	TOPSOIL	SY	68,950.000	3,000.000	52,500.000	13,450.000
0840	627.0200	MULCHING	SY	18,300.000	3,000.000	15,300.000	
0850	628.1104	EROSION BALES	EACH	1,300.000	70.000	1,100.000	130.000
0860	628.1504	SILT FENCE	LF	12,000.000	690.000	9,800.000	1,510.000

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DATE 10DEC12 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	1133-10-80 QUANTITY	1133-11-75 QUANTITY	1133-11-86 QUANTITY
0870	628.1520	SILT FENCE MAINTENANCE	LF	24,000.000	1,380.000	19,600.000	3,020.000
0880	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	10.000	1.000	8.000	1.000
0890	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	7.000	1.000	5.000	1.000
0900	628.2004	EROSION MAT CLASS I TYPE B	SY	13,000.000		13,000.000	
0910	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	30,100.000	3,000.000	11,700.000	15,400.000
0920	628.2023	EROSION MAT CLASS II TYPE B	SY	7,700.000		6,500.000	1,200.000
0930	628.2027	EROSION MAT CLASS II TYPE C	SY	17,900.000		17,900.000	
0940	628.2039	EROSION MAT CLASS III TYPE D	SY	160.000			160.000
0950	628.7005	INLET PROTECTION TYPE A	EACH	4.000		2.000	2.000
0960	628.7010	INLET PROTECTION TYPE B	EACH	1.000		1.000	
0970	628.7504	TEMPORARY DITCH CHECKS	LF	285.000		215.000	70.000
0980	628.7555	CULVERT PIPE CHECKS	EACH	18.000	3.000	15.000	
0990	628.7560	TRACKING PADS	EACH	8.000	2.000	5.000	1.000
1000	628.7570	ROCK BAGS	EACH	110.000	40.000	70.000	
1010	629.0210	FERTILIZER TYPE B	CWT	54.000	3.000	47.000	4.000
1020	630.0120	SEEDING MIXTURE NO. 20	LB	2,276.000		2,000.000	276.000
1030	630.0140	SEEDING MIXTURE NO. 40	LB	55.000	55.000		
1040	630.0200	SEEDING TEMPORARY	LB	2,496.000	90.000	2,100.000	306.000
1050	632.0101	TREES (SPECIES, ROOT, SIZE) 01. BIRCH, RIVER 'HERITAGE' (SHRUB FORM TREE), B&B, 6-FOOT HT.	EACH	1.000		1.000	
1060	632.0101	TREES (SPECIES, ROOT, SIZE) 02. HONEYLOCUST, THORNLESS 'IMPERIAL', B&B, 2.5-INCH CAL.	EACH	3.000		3.000	
1070	632.0101	TREES (SPECIES, ROOT, SIZE) 03. HONEYLOCUST, THORNLESS 'SKYLINE', B&B, 2.5-INCH CAL	EACH	2.000		2.000	
1080	632.0101	TREES (SPECIES, ROOT, SIZE) 04. BIRCH, RIVER 'FOX VALLEY' (SHRUB FORM TREE), B&B, 4-FOOT HT.	EACH	3.000		3.000	
1090	632.0101	TREES (SPECIES, ROOT, SIZE) 05. CRABAPPLE, 'DONALD WYMANN' (SHRUB FORM TREE), B&B, 8-FOOT HT.	EACH	7.000		7.000	
1100	632.0101	TREES (SPECIES, ROOT, SIZE) 06. CRABAPPLE, 'PRAIRIEFIRE' (SHRUB FORM TREE), B&B, 10-FOOT HT.	EACH	3.000		3.000	
1110	632.0101	TREES (SPECIES, ROOT, SIZE) 07. CRABAPPLE, 'PRAIRIEFIRE', B&B, 2-INCH CAL.	EACH	5.000		5.000	
1120	632.0101	TREES (SPECIES, ROOT, SIZE) 08. DOGWOOD, CORNELIAN CHERRY 'GOLDEN GLORY' (SHRUB FORM TREE), B&B, 6-FOOT HT	EACH	17.000		17.000	
1130	632.0101	TREES (SPECIES, ROOT, SIZE) 09. HAWTHORN, 'WINTER KING' (SHRUB FORM TREE), B&B, 8-FOOT HT.	EACH	6.000		6.000	
1140	632.0101	TREES (SPECIES, ROOT, SIZE) 10. MAPLE, TATARIAN, B&B, 2-INCH CAL.	EACH	6.000		6.000	
1150	632.0101	TREES (SPECIES, ROOT, SIZE) 11. SERVICEBERRY, 'PRINCESS DIANA' (SHRUB FORM TREE), B&B, 9-FOOT HT.	EACH	3.000		3.000	
1160	632.0101	TREES (SPECIES, ROOT, SIZE) 12. WAYFARING ASH (SHRUB FORM TREE), B&B , 5-FOOT HT.	EACH	3.000		3.000	
1170	632.0101	TREES (SPECIES, ROOT, SIZE) 13. JUNIPER, 'MOUNTBATTEN', B&B, 5-FOOT HT.	EACH	89.000		89.000	
1180	632.0101	TREES (SPECIES, ROOT, SIZE) 14. PINE, LIMBER 'VANDERWORLF'S PYRAMID' , B&B, 7-FOOT HT.	EACH	37.000		37.000	

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DATE 10DEC12 — 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	1133-10-80 QUANTITY	1133-11-75 QUANTITY	1133-11-86 QUANTITY
1190	632.0101	TREES (SPECIES, ROOT, SIZE) 15. SPRUCE, BLACK HILLS, 6' HT, B&B, 6-FOOT HT.	EACH	2.000		2.000	
1200	632.0101	TREES (SPECIES, ROOT, SIZE) 16. SPRUCE, BLACK HILLS, 8' HT, B&B, 8-FOOT HT.	EACH	32.000		32.000	
1210	632.0101	TREES (SPECIES, ROOT, SIZE) 17. SPRUCE, BLUE COLORADO, B&B, 6-FOOT HT.	EACH	14.000		14.000	
1220	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 01. VIBURNUM, ARROWWOOD, AUTUMN JAZZ, CONTAINER, 4-FOOT HT.	EACH	5.000		5.000	
1230	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	26.000		26.000	
1240	633.0100	DELINEATOR POSTS STEEL	EACH	50.000		50.000	
1250	633.0500	DELINEATOR REFLECTORS	EACH	50.000		50.000	
1260	633.5200	MARKERS CULVERT END	EACH	12.000	2.000	4.000	6.000
1270	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	6.000	6.000		
1280	634.0622	POSTS WOOD 4X6-INCH X 22-FT	EACH	2.000		2.000	
1290	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	1.600		1.600	
1300	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	98.000		98.000	
1310	637.0202	SIGNS REFLECTIVE TYPE II	SF	29.500	13.500	16.000	
1320	638.2101	MOVING SIGNS TYPE I	EACH	1.000		1.000	
1330	638.2102	MOVING SIGNS TYPE II	EACH	6.000		6.000	
1340	638.2602	REMOVING SIGNS TYPE II	EACH	1.000		1.000	
1350	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	1.000		1.000	
1360	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	6.000		6.000	
1370	638.4100	MOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	2.000		2.000	
1380	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1133-10-80	EACH	1.000	1.000		
1390	643.0100	TRAFFIC CONTROL (PROJECT) 02. 1133-11-86	EACH	1.000			1.000
1400	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1133-11-75	DAY	266.000		266.000	
1410	643.0300	TRAFFIC CONTROL DRUMS	DAY	23,000.000		23,000.000	
1420	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	1,400.000	416.000	984.000	
1430	643.0453	TRAFFIC CONTROL BARRICADES PERMANENT TYPE III	EACH	4.000		4.000	
1440	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	2,600.000	832.000	1,768.000	
1450	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	5,200.000		5,200.000	
1460	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	770.000		770.000	
1470	643.0900	TRAFFIC CONTROL SIGNS	DAY	16,500.000	208.000	16,292.000	
1480	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	1.000		1.000	
1490	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	220.000		220.000	
1500	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	330.000		330.000	
1510	645.0105	GEOTEXTILE FABRIC TYPE C **P**	SY	2,440.000		2,440.000	
1520	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	4,859.000		495.000	4,364.000
1530	645.0130	GEOTEXTILE FABRIC TYPE R	SY	4,652.000		3,400.000	1,252.000
1540	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	13,750.000		13,750.000	
1550	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	2,560.000		2,560.000	
1560	646.0600	REMOVING PAVEMENT MARKINGS	LF	11,650.000		11,650.000	
1570	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	LF	275.000		275.000	
1580	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	11,800.000		11,800.000	
1590	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	27,600.000		27,600.000	
1600	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	5,370.000		5,370.000	
1610	649.2100	TEMPORARY RAISED PAVEMENT MARKERS	EACH	726.000		726.000	
1620	690.0150	SAWING ASPHALT	LF	18,050.000	60.000	17,990.000	
1630	690.0250	SAWING CONCRETE	LF	175.000		175.000	

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DATE 10DEC12 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	1133-10-80 QUANTITY	1133-11-75 QUANTITY	1133-11-86 QUANTITY
1640	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	HRS	2,400.000		2,400.000	
1650	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	2,100.000		2,100.000	
1660	SPV.0035	SPECIAL 001. EXCAVATION FOR PHRAGMITES SOIL	CY	1,850.000		1,850.000	
1670	SPV.0035	SPECIAL 002. TOPSOIL SPECIAL	CY	900.000		900.000	
1680	SPV.0035	SPECIAL 100. CLAY EMBANKMENT FILL	CY	7,000.000			7,000.000
1690	SPV.0060	SPECIAL 001. SLIP - ON CHECK VALVE 21-INCH I.D.	EACH	1.000			1.000
1700	SPV.0060	SPECIAL 002. TRACKING PAD MAINTENANCE	EACH	1.000		1.000	
1710	SPV.0060	SPECIAL 003. MAINTAINING AND REMOVING EXISTING TRACKING PADS	EACH	1.000			1.000
1720	SPV.0060	SPECIAL 004. REMOVE AND REPLACE STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	1.000		1.000	
1730	SPV.0060	SPECIAL 005. REMOVE AND REPLACE DELINEATORS	EACH	27.000		27.000	
1740	SPV.0060	SPECIAL 100. STORM SEWER PLUG	EACH	3.000			3.000
1750	SPV.0060	SPECIAL 101. MOVING INLETS MEDIAN 1 GRATE	EACH	2.000		2.000	
1760	SPV.0060	SPECIAL 150. SEDIMENTATION BASIN	EACH	4.000		3.000	1.000
1770	SPV.0060	SPECIAL 151. LIVE STAKES	EACH	1,600.000		1,600.000	
1780	SPV.0060	SPECIAL 200. TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS LEFT IN PLACE	EACH	131.000		131.000	
1790	SPV.0060	SPECIAL 201. TRAFFIC CONTROL MARKER BASES LEFT IN PLACE	EACH	131.000		131.000	
1800	SPV.0060	SPECIAL 202. TEMPORARILY MOUNT AND LOCATE TYPE I SIGNS	EACH	1.000		1.000	
1810	SPV.0075	SPECIAL 150. STREET SWEEPING	HRS	50.000		50.000	
1820	SPV.0085	SPECIAL 150. TALL FESCUE SEED	LB	202.000			202.000
1830	SPV.0085	SPECIAL 151. UPLAND BUFFER SEEDING MIX	LB	50.000		50.000	
1840	SPV.0090	SPECIAL 001. REMOVE AND REPLACE STEEL PLATE BEAM GUARD CLASS A	LF	112.500		112.500	
1850	SPV.0090	SPECIAL 200. CONCRETE BARRIER TEMPORARY PRECAST ANCHORING	LF	3,230.000		3,230.000	
1860	SPV.0105	SPECIAL 001. SURVEY PROJECT 1133-10-80	LS	1.000	1.000		
1870	SPV.0105	SPECIAL 002. SURVEY PROJECT 1133-11-75	LS	1.000		1.000	
1880	SPV.0105	SPECIAL 003. SURVEY PROJECT 1133-11-86	LS	1.000			1.000
1890	SPV.0105	SPECIAL 800. VACATE EXISTING STRUCTURE B-05-99	LS	1.000		1.000	
1900	SPV.0120	SPECIAL 001. WATER FOR SEEDED AREAS	MGAL	980.000	70.000	600.000	310.000
1910	SPV.0165	SPECIAL 800. STAINING CONCRETE	SF	390.000		390.000	
1920	SPV.0165	SPECIAL 801. ARCHITECTURAL SURFACE TREATMENT DRYSTACK STONE	SF	250.000		250.000	
1930	SPV.0165	SPECIAL 802. TEMPORARY SHORING B-05-693	SF	10,500.000		10,500.000	
1940	SPV.0180	SPECIAL 100. QUARRIED LIMESTONE SLABS	SY	1,506.000			1,506.000
1950	SPV.0180	SPECIAL 101. GEOSYNTHETIC CLAY LINER	SY	9,890.000			9,890.000

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VACATE STRUCTURE

STATION	TO	STATION	LOCATION	SPV.0105.800 VACATE EXISTING STRUCTURE B-05-99 LUMP	** SEALING PIPES* EACH	** FILL CY	** CUT CY
PROJECT 1133-11-75							
1165+56 RT			SB USH 41 SHOULDER	1	1	2,130	250
TOTALS				1	1	2,130	250

**** NON BID ITEMS, ARE FOR ESTIMATING ONLY AND INCIDENTAL TO SPV.0105.800**

PAVEMENT REMOVALS

STATION	TO	STATION	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB AND GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY
PROJECT 1133-11-75								
1151+50 NMC	-	1172+86 NMC	NB USH 41, MEDIAN	-	-	710	-	-
1159+83 DNR	-	1161+61 DNR	NB USH 41 PAVEMENT REPLACEMENT	680	-	-	-	-
1160+58 CSM	-	1162+48 CSM	SB USH 41 PAVEMENT REPLACEMENT	1,100	-	-	-	-
1166+00 CNR	-	1167+00 CNR	NB USH 41 OFF RAMP	-	-	290	-	-
1166+98 CNR	-	1167+00 CNR	NB USH 41 OFF RAMP	-	6	-	-	-
VELP AVE TRUCK ENTRANCE			VELP AVE	-	-	-	50	30
TOTALS				1,780	6	1,000	50	30

STORM REMOVALS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0220 REMOVING INLETS EACH	204.0280 SEALING PIPES EACH	NOTES
PROJECT 1133-11-75					
1150+75 CNM	NB USH 41 SHOULDER	1	-	-	52' OF 18" CMP
1157+79 CNM	NB USH 41 MEDIAN	1	-	-	10' OF 18" CMP
1157+79 CNM	NB USH 41 SHOULDER	1	-	-	35' OF 18" CMP
1165+30 BSM	SB USH 41 MEDIAN	-	1	-	STAGE 1A
1165+30 BSR	SB USH 41 MEDIAN	1	-	1	220' OF 18" CPCS - STAGE 1C
PROJECT TOTALS		4	1	1	
PROJECT 1133-10-80					
10+50 LG	LONE GROVE AVE, LT	1	-	-	125' OF 15" CMP
10+50 LG	LONE GROVE AVE, RT	1	-	-	125' OF 18" CMP
11+50 LG	LONE GROVE AVE, LT	1	-	-	33' OF 12" CMP
11+70 LG	LONE GROVE AVE, RT	1	-	-	24' OF 15" CMP
59+70 IS	ISLAND CT, LT	1	-	-	20' OF 12" CMP
PROJECT TOTALS		5	0	0	
TOTALS		9	1	1	

CLEARING AND GRUBBING

STATION	TO	STATION	LOCATION	201.0115 CLEARING ACRE	201.0215 GRUBBING ACRE
PROJECT 1133-11-75					
1151+00 NMC	-	1156+00 NMC	USH 41 (NB), RT	0.8	0.8
1151+50 SMC	-	1156+00 SMC	USH 41 (SB), LT	0.7	0.7
1156+00 NMC	-	1161+20 NMC	USH 41 (NB), RT	1.2	1.2
1156+00 SMC	-	1171+72 SMC	USH 41 (SB), LT	2.8	2.8
1164+80 NMC	-	1166+70 NMC	USH 41 (NB), RT	0.1	0.1
1171+19 SMC	-	1172+77 SMC	USH 41 (SB), LT	0.2	0.2
PROJECT TOTALS				5.8	5.8
PROJECT 1133-10-80					
1151+64 NMC	-	1156+00 NMC	LONE GROVE AVE	1.0	1.0
1157+22 SMC	-	1160+73 SMC	ISLAND CT	1.0	1.0
PROJECT TOTALS				2.0	2.0
PROJECT 1133-11-86					
1161+96 SMC	-	1169+28 SMC	DETENTION POND	2.6	2.6
1166+22 SMC	-	1171+87 SMC	DETENTION POND	2.1	2.1
PROJECT TOTALS				4.7	4.7
TOTALS				12.5	12.5

REMOVING FOOTBRIDGE

PROJECT ID	204.9105.S.01 LS
PROJECT 1133-11-86	1
PROJECT TOTAL	1
TOTAL	1

REMOVING FENCE

STATION	TO	STATION	LOCATION	204.0170 LF
PROJECT 1133-11-75				
1151+00 NMC	-	1168+75 NMC	USH 41(NB), RT	1,780
1155+80 SMC	-	72+27 IS	USH 41(SB), LT	1,950
TOTAL				3,730

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (1) Cut (2)	(item# 205.0100) EBS Ex. (3)	Available Material (4)	Marsh Ex. (5) General	(item# 205.0400) Toe Trench	Expanded Marsh Backfill (6) Factor 1.25	Expanded EBS Backfill (7) Factor 1.25	Unexpanded Fill	Expanded Fill (8) Factor 1.25	Mass Ordinate +/- (9)	Waste	Borrow (item # 208.0100)	Comment:
1133-11-86 Velp Avenue Stormwater Pond															
Velp Avenue Storm Water Pond			48,624	0	48,624	0	0	0	0	12,713	15,891	32,733	32,733		
1133-11-86 Total (CY)			**48,624**	**0**	**48,624**	**0**	**0**	**0**	**0**	**12,713**	**15,891**		**32,733**		Cut material used to fill pond, then rest wasted
1133-10-80 Island Court & Lone Grove Cul-de-Sacs															
Island Court	57+32 to 62+00	IS	4,775	0	4,775	0	0	0	0	1	2	4,773	4,773		
Lone Grove Ave	10+82 to 12+00	LG	1,133	0	1,133	0	0	0	0	0	0	1,133	1,133		
Undistributed			0	500	0	0	0	0	625	0	0	0	500	625	
1133-10-80 Total (CY)			**5,908**	**500**	**5,908**	**0**	**0**	**0**	**625**	**1**	**2**		**6,406**	**625**	
1133-11-75 Beaver Dam Creek Box Culvert & Creek Re-Alignment															
Stage 1A	207+50 to 217+00	BDC (cut)	19,601	0	19,601	0	0	0	0	0	0	19,601	19,601		
	1154+50 to 1170+50	BSM	2,853	0	2,853	0	0	0	0	231	289	2,564	2,564		
	1151+75 to 1167+00	BSR	2,949	0	2,949	27,001	0	33,751	0	7,732	9,666	-40,468		40,468	
Stage 1A Subtotal			25,403	0	25,403	27,001	0	33,751	0	7,963	9,954		22,165	40,468	
Stage 1B	207+50 to 217+00	BDC (fill)	0	0	0	8,772	10,812	10,965	0	8,669	10,836	-21,800		21,800	
	1151+00 to 1170+00	CNM	3,545	0	3,545	8,910	6,804	11,137	0	6,620	8,275	-15,867		15,867	
	1156+00 to 1172+25	CSM	2,286	0	2,286	0	0	0	0	490	613	1,673	1,673		
Stage 1B Subtotal			5,832	0	5,832	17,682	17,616	22,102	0	15,779	19,724	-35,994	1,673	37,668	
Stage 1C	1150+00 to 1172+00	DNM	3,150	0	3,150	0	0	0	0	1,381	1,726	1,424	1,424		
Stage 1C Subtotal			3,150	0	3,150	0	0	0	0	1,381	1,726		1,424	0	
Stage 1D	220+00 to 229+50	BDC (west side)	28,083	0	28,083	0	0	0	0	41	51	28,032	28,032		Cut material used to fill creek, then rest wasted
Stage 1D Subtotal			28,083	0	28,083	0	0	0	0	41	51		28,032	0	
Stage 1E	1154+00 to 1170+00	DNM median	3,698	0	3,698	0	0	0	0	442	552	3,147	3,147		Median cut used to fill new median, then rest wasted
	1150+50 to 1170+50	NMC	733	0	733	0	0	0	0	0	0	733	733		Removing temporary pavement as common excavation
	1151+50 to 1172+50	SMC	799	0	799	0	0	0	0	0	0	799	799		Removing temporary pavement as common excavation
	1160+50 to 1164+50	BDF	428	0	428	0	4,990	0	0	3,508	4,385	-3,957		3,957	Use cut material to restore slopes after Toe Trench Ex.
Stage 1E Subtotal			5,658	0	5,658	0	4,990	0	0	3,949	4,937		4,678	3,957	
1133-11-75 Total (CY)			**68,126**	**0**	**68,126**	**44,682**	**22,606**	**55,853**	**0**	**29,114**	**36,392**		**57,973**	**82,092**	
			123,157			**67,289**			**625**						
			Total Common Ex.			**Total Marsh Ex.**			**Total EBS Backfill**						

Total Excavation Waste	**97,112**	**CY**
Total Marsh Waste	**67,289**	**CY**
Total Borrow	**82,717**	**CY**

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Cut includes existing asphalt pavement
3) EBS Excavation to be backfilled with Borrow material.
4) Available Material = Cut
5) Marsh Excavation - to be backfilled with Borrow.
   The material designated as marsh excavation is to be wasted off site. If the contractor's operations allow for the marsh excvation to be used as fill on site, its excavation will be paid as marsh excavation.
   Toe trench to be filled with Breaker Run.
6) Expanded Marsh Backfill - This is to be filled with Borrow. Marsh Backfill Factor = 1.25. Item number 208.0100
7) Expanded EBS Backfill - to be backfilled with Borrow.
8) Expanded Fill Factor = 1.25
9) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
   Mass Ordinate = Available Material - Expanded Marsh Backfill - Expanded Fill

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

EXCAVATION OF PHRAGMITES SOIL

STATION	TO	STATION	LOCATION	SPV.0035.001 CY
PROJECT 1133-11-75				
1153+90 NMC	-	1159+25 NMC	USH 41 (NB), RT	595
1154+60 NMC	-	1156+85 NMC	USH 41 (NB), RT	125
1160+70 NMC	-	1167+10 NMC	USH 41 (NB), RT	510
1166+00 NMC	-	1168+25 NMC	USH 41 (SB), LT	155
66+00 IS	-	71+50 IS	ISLAND COURT, RT	260
			UNDISTRIBUTED	205
			TOTAL	1,850

TEMPORARY SHORING

STATION	LOCATION	206.6000.S SF	NOTES
PROJECT 1133-11-75			
1159+46 - 1160+67	CNR	5,750	SHORING LEFT IN PLACE AROUND INLET ENDWALL
1164+25 CNR	B-05-99 (SOUTH)	1,750	
TOTAL		7,500	

AGGREGATES

STATION	TO	STATION	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	REMARKS
PROJECT 1133-11-75							
1151+50 BSR	-	1167+12 BSR	SB USH 41	90	2,150	1,920	ON-RAMP
1154+10 BSM	-	1172+61 BSM	SB USH 41	105	2,885	2,465	WIDENING IN MEDIAN
1169+56 BSR	-	1171+78 BSR	SB USH 41	80	155	130	TEMP. BARRIER FLARES
208+08 BDC	-	215+39 BDC	TOE TRENCH BACKFILL	-	-	15,925	
215+39 TBDC	-	217+22 TBDC	TOE TRENCH BACKFILL	-	-	3,000	
1150+00 CNM	-	1170+25 CNM	NB USH 41	165	4,400	3,780	WIDENING ON OUTSIDE
1154+00 CSM	-	1172+44 CSM	SB USH 41	45	1,530	1,315	WIDENING ON OUTSIDE
1149+95 CNM	-	1151+50 CNM	TOE TRENCH BACKFILL	-	-	3,500	
1164+50 CNM	-	1167+85 CNM	TOE TRENCH BACKFILL	-	-	8,400	
1149+66 DNM	-	1172+26 DNM	NB USH 41	120	4,420	3,805	WIDENING IN MEDIAN
1160+58 CSM	-	1162+48 CSM	SB USH 41	-	710	625	PAVEMENT REPLACEMENT
1160+58 CSM	-	1162+48 CSM	SB USH 41	15	80	65	MEDIAN SHOULDER
1159+83 DNM	-	1161+61 DNM	NB USH 41	-	455	395	PAVEMENT REPLACEMENT
1148+68 BSR	-	1149+27 BSR	USH 41	35	-	-	TEMP. MAINTENANCE CROSSOVER (6")
1159+97 DNM	-	1161+63 DNM	NB USH 41	10	82	85	OUTSIDE SHOULDER
1161+00 BDF	-	1164+50 BDF	TOE TRENCH BACKFILL	-	-	8,700	
TEMPORARY SIDEWALK			VELP AVE TRUCK ENTRANCE	-	3	-	
PROJECT TOTALS				665	16,870	54,110	
PROJECT 1133-10-80							
10+88 LG	-	11+87 LG	LONE GROVE AVE, ML	15	480	440	
57+53 IS	-	60+75 IS	ISLAND CT	115	1,110	950	
59+70 IS			ISLAND CT, PE, LT	-	20	-	
PROJECT TOTALS				130	1,610	1,390	
PROJECT 1133-11-86							
219+41 BDC	-	229+89 BDC		-	170	-	
PROJECT TOTALS				0	170	0	
TOTALS				795	18,650	55,500	

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

SELECT CRUSHED MATERIAL

STATION	TO	STATION	LOCATION	312.0115 CY
PROJECT 1133-11-75				
207+50 BDC	-	215+25 BDC	BEAVER DAM CREEK REALIGNMENT	534
221+00 BDC	-	221+50 BDC	BEAVER DAM CREEK REALIGNMENT	65
221+50 BDC	-	222+50 BDC	BEAVER DAM CREEK REALIGNMENT	163
222+50 BDC	-	228+35 BDC	BEAVER DAM CREEK REALIGNMENT	896
228+35 BDC	-	229+13 BDC	BEAVER DAM CREEK REALIGNMENT	117
			UNDISTRIBUTED	45
PROJECT TOTAL				1,820
PROJECT 1133-11-86				
219+41 -		229+89	VELP AVE DETENTION POND	76
PROJECT TOTAL				76
TOTAL				1,896

WATER

STATION	TO	STATION	LOCATION	624.0100 MGAL
PROJECT 1133-11-75				
1151+50 BSR	-	1167+12 BSR	SB USH 41 ON-RAMP	2.2
1154+10 BSM	-	1172+61 BSM	SB USH 41 WIDENING IN MEDIAN	3.0
1150+00 CNM	-	1170+25 CNM	NB USH 41 WIDENING ON OUTSIDE	4.5
1154+00 CSM	-	1172+44 CSM	SB USH 41 WIDENING ON OUTSIDE	1.5
1149+66 DNM	-	1172+26 DNM	NB USH 41 WIDENING IN MEDIAN	4.5
1160+70 CSM	-	1162+48 CSM	SB USH 41 PAVEMENT REPLACEMENT	0.5
1160+69 CSM	-	1162+49 CSM	SB USH 41 MEDIAN SHOULDER	0.1
1159+98 DNM	-	1161+62 DNM	NB USH 41 PAVEMENT REPLACEMENT	1.0
1159+97 DNM		1161+63 DNM	NB USH 41 OUTSIDE SHOULDER	0.1
PROJECT TOTAL				17.4
PROJECT 1133-10-80				
10+88 LG	-	11+87 LG	LONE GROVE AVE	0.5
57+53 IS	-	60+75 IS	ISLAND CT	1.1
PROJECT TOTAL				1.6
TOTAL				19

ASPHALTIC PAVEMENT

STATION	TO	STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG 58-28 (6%) TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
PROJECT 1133-11-75									
1151+50 BSR	-	1167+12 BSR	SB USH 41	60	90	-	1,010	-	ON-RAMP
1154+10 BSM	-	1172+61 BSM	SB USH 41	75	110	-	1,260	-	WIDENING IN MEDIAN
1169+56 BSR	-	1171+78 BSR	SB USH 41	2	3	-	30	-	TEMP. BARRIER FLARES
1150+00 CNM	-	1170+25 CNM	NB USH 41	131	192	-	2,190	-	WIDENING ON OUTSIDE
1154+00 CSM	-	1172+44 CSM	SB USH 41	45	66	-	760	-	WIDENING ON OUTSIDE
1149+66 DNM	-	1172+26 DNM	NB USH 41	115	170	-	1,910	-	WIDENING IN MEDIAN
1160+58 CSM	-	1162+48 CSM	SB USH 41	18	25	-	305	-	PAVEMENT OVERLAY
1160+58 CSM	-	1162+48 CSM	SB USH 41	2	3	-	35	-	MEDIAN SHOULDER
1159+83 DNR	-	1161+61 DNR	NB USH 41	12	17	-	195	-	PAVEMENT OVERLAY
1159+97 DNM		1161+63 DNM	NB USH 41	3	5	-	55	-	OUTSIDE SHOULDER
TEMPORARY SIDEWALK			VELP AVE TRUCK ENTRANCE	-	-	-	-	5	
PROJECT TOTALS				463	681	0	7,750	5	
PROJECT 1133-10-80									
10+88 LG	-	11+87 LG	LONE GROVE AVE	8	14	130	-	-	
57+53 IS	-	60+75 IS	ISLAND CT	9	30	155	-	11	
PROJECT TOTALS				17	44	285	0	11	
TOTALS				480	725	285	7,750	16	

ASPHALTIC SHOULDER RUMBLE STRIP

STATION	TO	STATION	LOCATION	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP LF	REMARKS
PROJECT 1133-11-75					
1149+66 NMC	-	1172+23 NMC	USH 41 NB	2,260	MEDIAN SHOULDER
1150+00 NMC	-	1153+05 NMC	USH 41 NB	305	OUTSIDE SHOULDER
1154+55 SMC	-	1172+61 SMC	USH 41 SB	1,850	MEDIAN SHOULDER
1163+34 SMC	-	1172+44 SMC	USH 41 SB	915	OUTSIDE SHOULDER
1163+52 NMC	-	1170+37 NMC	USH 41 NB	685	OUTSIDE SHOULDER
TOTAL				6,015	

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

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CULVERT PIPES AND PIPE ENDWALLS

STATION	LOCATION	520.7000 CLEANING CULVERT PIPE EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.1018 APRON ENDWALL FOR CULVERT PIPE STEEL 18-INCH EACH	522.0118 REINFORCED CONCRETE CLASS III 18-INCH LF	522.1018 APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	633.5200 MARKERS CULVERT END EACH	THICKNESS STEEL INCH	REMARKS
PROJECT 1133-11-75										
1150+75 CNM	USH 41 NB	-	1	-	-	70	1	1		SHOULDER
1157+80 CNM	USH 41 NB	1	1	-	-	70	1	1		SHOULDER
1157+80 CNM	USH 41 NB	-	1	-	-	28	1	1		MEDIAN
1165+30 BSR	USH 41 SB	-	1	220	1	-	-	-	0.064	MEDIAN
PROJECT TOTALS		1	4	220	1	168	3	3		
PROJECT 1133-10-80										
58+60 IS	ISLAND CT	-	-	74	2	-	-	2	0.064	
PROJECT TOTALS		0	0	74	2	0	0	2		
TOTALS		1	4	294	3	168	3 *	5 *		

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CURB AND GUTTER

STATION TO STATION	LOCATION	601.0409 CONCRETE CURB AND GUTTER 30-INCH TYPE A LF
PROJECT 1133-11-75		
VELP AVE TRUCK ENTRANCE	VELP AVE	50
TOTAL		50

CONCRETE SIDEWALK

STATION TO STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF
PROJECT 1133-11-75		
VELP AVE TRUCK ENTRANCE	VELP AVE	250
TOTAL		250

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

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STORM SEWER MANHOLES, INLETS & COVERS

STR. NO.	STAGE	STATION	OFFSET		611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	SPV.0060.101 MOVING INLETS MEDIAN 1 GRATE EACH	RIM OR FLANGE ELEV	STR DEPTH FT
PROJECET 1133-11-75														
	1A	1162+65 BSR	13.0	RT	--	--	--	1	--	--	1	--	591.65	4.12
	1A	1163+14 BSR	81.0	LT	--	--	--	--	--	--	--	--	--	--
	1C	1162+08.6 DNM	17.6	LT	--	--	--	--	--	--	--	1	591.00	3.01
	1E	1162+00 DNM	2.0	LT	--	--	--	--	--	--	--	1	590.94	2.86
		PROJECT TOTALS			--	--	--	1	--	--	1	2		
PROJECET 1133-11-86														
600	2	228+94 BDC	377.0	RT	--	--	--	--	--	--	--	--	--	--
601	2	228+90 BDC	345.8	RT	--	--	--	--	--	--	--	--	--	--
602	2	228+94 BDC	346.5	RT	1	--	--	--	--	1	--	--	590.50	8.65
603	2	229+00 BDC	332.4	RT	--	1	--	--	--	1	--	--	590.50	8.91
604	2	228+97 BDC	277.8	RT	--	--	--	--	--	--	--	--	--	--
607	2	229+05 BDC	311.3	RT	--	--	--	--	--	--	--	--	--	--
608	2	229+05 BDC	303.3	RT	--	--	1	--	--	1	--	--	587.75	6.38
609	2	229+02 BDC	266.9	RT	--	--	--	--	--	--	--	--	--	--
612	2	229+13 BDC	239.6	RT	--	--	--	--	--	--	--	--	--	--
613	2	229+14 BDC	236.2	RT	1	--	--	--	--	1	--	--	589.74	8.33
614	2	229+07 BDC	221.4	RT	--	--	--	--	--	--	--	--	--	--
620	2	224+25 BDC	97.4	RT	--	--	--	--	--	--	--	--	--	--
621	2	224+25 BDC	73.4	RT	--	--	--	--	1	--	2	--	586.00	6.22
622	2	224+24 BDC	18.9	RT	--	--	--	--	--	--	--	--	--	--
		PROJECT TOTALS			2	1	1	--	1	4	2	--		
		TOTALS			2	1	1	1	1	4	3	2		

NOTES

- STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS UNLESS OTHERWISE NOTED.
- PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS.
- RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES UNLESS OTHERWISE NOTED.
- STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT ADJUSTMENT
- CASTING HEIGHT = 0.50 FT FOR TYPE J COVERS; 0.83 FT FOR TYPE V COVERS; 0 FT FOR MS COVERS
- ADJUSTMENT (RINGS) = 0.75 FT FOR ALL COVERS EXCEPT TYPE MS COVERS
- INLETS MEDIAN 2 GRATE TO BE SINGLE SLOPED TO MATCH INTO PROPOSED GRADE

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

STORM SEWER ITEMS

FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.0421 21-INCH LF	608.0424 24-INCH LF	608.0436 36-INCH LF	608.0454 54-INCH LF	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1021 21-INCH EACH	522.1024 24-INCH EACH	522.1036 36-INCH EACH	522.1054 54-INCH EACH	611.9800.S PIPE GRATES EACH	633.5200 MARKERS CULVERT END EACH	SPV.0060.001 SLIP-ON CHECK VALVE 21-INCH EACH	SPV.0060.100 STORM SEWER PLUG EACH	REMARKS
PROJECET 1133-11-75																			
101	100	587.53	587.00	0.50%	106	--	--	--	--	--	--	--	--	--	--	--	--	--	
100	OUTFALL	587.00	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	
102	100	587.99	587.00	0.50%	91	--	--	--	--	--	--	--	--	--	--	--	--	--	
103	100	588.08	587.00	0.50%	18	--	--	--	--	--	--	--	--	--	--	--	--	--	
					215	0	0	0	0	1	0	0	0	0	0	1	0	0	
PROJECET 1133-11-86																			
600	602	584.00	582.31	5.45%	31	--	--	--	--	1	--	--	--	--	1	1	--	--	
601	602	580.65	580.60	0.62%	--	--	--	8	--	--	--	--	--	--	--	--	--	1	
602	603	580.60	580.34	0.55%	--	--	--	47	--	--	--	--	--	--	--	--	--	--	
603	604	580.34	580.00	0.60%	--	--	--	57	--	--	--	--	--	--	--	--	--	--	
604	OUTFALL	580.00	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	
607	608	580.15	580.12	0.30%	--	--	--	--	10	--	--	--	--	--	--	--	--	1	
608	609	580.12	580.00	0.40%	--	--	--	--	30	--	--	--	--	--	--	--	--	--	
609	OUTFALL	580.00	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	--	
612	613	582.26	582.22	0.40%	--	--	10	--	--	--	--	--	--	--	--	--	--	1	
613	614	580.16	580.00	0.41%	--	--	39	--	--	--	--	--	--	--	--	--	--	--	
614	OUTFALL	580.00	--	--	--	--	--	--	--	--	--	1	--	--	--	1	--	--	
620	621	580.00	579.88	0.50%	--	24	--	--	--	1	1	--	--	--	1	1	--	--	
621	622	579.78	579.50	0.51%	--	54	--	--	--	--	--	--	--	--	--	--	--	--	
622	OUTFALL	579.50	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	SLIP-ON CHELCK VALVE ON PIPE END, NO END WALL
					31	78	49	112	40	2	1	1	1	1	2	6	1	3	
					246	78	49	112	40	3 *	1	1	1	1	2	7 *	1	3	

NOTES

- JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS AND END OF PIPE LOCATIONS WITHOUT ENDWALLS PIPE JOINTS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS.
  THE COST OF THE JOINT TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

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GUARDRAIL

STATION	TO	STATION	LOCATION	SPV.0060.004 REMOVE AND REPLACE STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	SPV.0090.001 REMOVE AND REPLACE STEEL PLATE BEAM GUARD CLASS A LF	614.2300 MGS GUARDRAIL 3 LF	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
PROJECT 1133-11-75							
1169+80 DNM	-	1171+43 DNM	USH 41(NB), LT	1	112.5	-	-
PROJECT TOTALS				1	112.5	0	0
PROJECT 1133-10-80							
10+91 LG			LONE GROVE AVE	-	-	37.5	2
57+57 IS			ISLAND CT	-	-	37.5	2
PROJECT TOTALS				0	0	75	4
TOTALS				1	112.5	75	4

LANDMARK REFERENCE MONUMENTS

STATION	OFFSET	LOCATION	621.0100 LANDMARK REFERENCE MONUMENT EACH
PROJECT 1133-11-75			
1151+91 NMC	164' RT	NB USH 41 SHOULDER	4
TOTAL			4

STATION AND OFFSET ARE GIVEN FOR INFORMATION ONLY AND SHOULD NOT BE USED TO SET THE MONUMENT

3

FENCE

STATION	TO	STATION	LOCATION	616.0100 WOVEN WIRE 4-FT LF	616.0206 CHAIN LINK 6-FT LF	616.0329 GATES CHAIN LINK (10 FT) EACH	616.0700.S SAFETY LF
PROJECT 1133-11-75							
1148+14 NMC	-	1166+82 NMC	USH 41 (NB), RT	1,100	738	-	-
1165+88 SMC	-	1171+53 SMC	USH 41 (SB), LT	1,670	362	1	-
			UNDISTRIBUTED	-	-	-	500
PROJECT TOTALS				2,770	1,100	1	500
PROJECT 1133-10-80							
LONE GROVE AVE				-	-	-	235
ISLAND CT				-	-	-	300
PROJECT TOTALS				0	0	0	535
PROJECT 1133-11-86							
VELP AVE				-	-	-	400
PROJECT TOTALS				0	0	0	400
TOTALS				2,770	1,100	1	1,435

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

RIPRAP & GEOTEXTILE FABRIC

STATION	TO	STATION	LOCATION	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY	645.0130 GEOTEXTILE FABRIC TYPE R SY
PROJECT 1133-11-75								
1150+75 CNM			USH 41 NB, RT	-	2	-	4	-
1157+80 CNM			USH 41 NB, RT	-	2	-	4	-
1163+25 BSR			USH 41 SB, LT	-	4	-	8	-
207+50 BDC	-	216+02 BDC	BEAVER DAM CREEK REALIGNMENT	597	-	-	-	1,782
220+15.5 BDC	-	221+00 BDC	BEAVER DAM CREEK REALIGNMENT	96	-	-	-	-
222+50 BDC	-	228+35 BDC	BEAVER DAM CREEK REALIGNMENT	434	-	-	-	1,430
228+35 BDC	-	229+13 BDC	BEAVER DAM CREEK REALIGNMENT	-	-	116	208	-
			UNDISTRIBUTED	73	2	19	46	188
PROJECT TOTALS				1,200	10	135	270	3,400
PROJECT 1133-11-86								
219+41	-	229+89	VELP AVE DETENTION POND	367	-	-	-	1,101
219+41	-	229+89	VELP AVE DETENTION POND	-	290	1,023	4,224	151
228+97, 277.8' RT			DETENTION POND ENDWALL	-	11	-	33	-
229+03, 275.6' RT			DETENTION POND ENDWALL	-	-	26	53	-
229+07, 221.4' RT			DETENTION POND ENDWALL	-	6	-	20	-
224+24, 18.9' RT			DETENTION POND ENDWALL	-	2	-	9	-
229+04, 392.9' RT			DETENTION POND ENDWALL	-	2	-	10	-
228+95, 386.3' RT			DETENTION POND ENDWALL	-	4	-	15	-
PROJECT TOTALS				367	315	1,049	4,364	1,252
TOTALS				1,567	325	1,184 *	4,634 *	4,652

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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RESTORATION ITEMS

PROJECT	STAGE	STATION	TO	STATION	LOCATION	625.0100 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	630.0200 SEEDING TEMPORARY LB	SPV.0085.151 UPLAND BUFFER SEEDING MIXTURE LB	SPV.0085.150 TALL FESCUE SEED LB	SPV.0120.001 WATER FOR SEEDED AREAS MGAL
1133-11-75														
	1A	1151+00 SMC	-	1162+00 SMC	USH 41 (SB), LT	10,200	7,300	6.4	275	-	275	-	-	-
		1152+00 NMC	-	1172+25 NMC	USH 41 (NB), MEDIAN	-	-	-	-	-	50	-	-	-
		1164+75 SMC	-	1166+50 SMC	USH 41 (SB), LT	735	-	0.5	20	-	20	-	-	-
		STAGE 1A SUBTOTALS				10,935	7,300	7	295	0	345	0	0	0
	1B	1150+00 CNM	-	1152+00 CNM	USH 41 (NB), RT	2,200	-	1.4	60	-	60	-	-	-
		1162+50 SMC	-	1163+96 SMC	USH 41 (SB), LT	150	-	0.1	4	-	4	-	-	-
		1164+50 CNM	-	1168+06 CNM	USH 41 (NB), RT	2,650	-	1.7	70	-	70	-	-	60
		1165+90 SMC	-	1172+44 SMC	USH 41 (SB), LT	2,650	-	1.1	45	-	45	-	-	-
		1167+00 NMC	-	1172+56 NMC	USH 41 (NB), RT	1,430	-	1.7	70	-	70	-	-	-
		207+50 BDC	-	216+02 BDC	BEAVER DAM CREEK REALIGNMENT	11,589	-	7.3	315	-	315	28	-	260
		215+39 TBDC	-	217+22 TBDC	TEMP. BEAVER DAM CREEK REALIGNMENT	1,952	-	1.2	55	-	55	-	-	45
		STAGE 1B SUBTOTALS				22,621	0	15	619	0	619	28	0	365
	1C	1152+00 NMC	-	1172+25 NMC	USH 41 (NB), MEDIAN	-	-	-	-	-	50	-	-	-
		STAGE 1C SUBTOTALS				0	0	0.0	0	0	50	0	0	0
	1E	1150+50 NMC	-	1170+50 NMC	USH 41 (NB), RT	-	-	2.1	90	-	90	-	-	-
		1151+50 SMC	-	1172+50 SMC	USH 41 (SB), LT	-	-	2.6	110	-	110	-	-	-
		1152+00 NMC	-	1172+25 NMC	USH 41 (NB), MEDIAN	8,900	7,100	5.6	240	-	240	-	-	-
		1161+08 BDF	-	1164+50 BDF	FILLING BEAVER DAM CREEK	2,650	-	1.7	70	-	70	-	-	60
		220+15.5 BDC	-	229+13 BDC	BEAVER DAM CREEK REALIGNMENT	5,884	-	3.7	160	-	160	13	-	130
		STAGE 1E SUBTOTALS				17,434	7,100	16	670	0	670	13	0	190
		UNDISTRIBUTED				1,510	900	9.9	416	-	416	9	-	45
		PROJECT TOTALS				52,500	15,300	47	2,000	0	2,100	50	0	600
1133-10-80														
	1A	10+82 LG	-	11+87 LG	LONE GROVE AVE	1,000	1,000	1.0	-	20	30	-	-	23
		57+32 IS	-	60+75 IS	ISLAND CT	1,400	1,400	1.0	-	25	40	-	-	32
					UNDISTRIBUTED	600	600	1.0	-	10	20	-	-	15
		PROJECT TOTALS				3,000	3,000	3	0	55	90	0	0	70
1133-11-86														
	2A	219+41	-	299+89	VELP AVE DETENTION POND	13,450	-	4.0	276	-	306	-	202	310
		PROJECT TOTALS				13,450	0	4	276	0	306	0	202	310
		TOTALS				**68,950**	**18,300**	**54**	**2,276**	**55**	**2,496**	**50**	**202**	**980**

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

EROSION CONTROL ITEMS

PROJECT	STAGE	STATION	TO	STATION	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY	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	628.2008 EROSION MAT URBAN CLASS I, TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.2039 EROSION MAT CLASS III TYPE D SY	628.7005 INLET PROTECTION TYPE A EA	629.7010 INLET PROTECTION TYPE B EA	628.7555 CULVERT PIPE DITCH CHECKS EA	628.7560 TRACKING PADS EA	628.7570 ROCK BAGS EA
1133-11-75																			
	1A	207+50 BDC	-	216+02 BDC	BEAVER DAM CREEK REALIGNMENT	-	-	850	1700	-	-	-	-	-	-	-	-	-	-
		220+15 BDC	-	229+13 BDC	BEAVER DAM CREEK REALIGNMENT, LT	-	-	1350	2700	-	-	-	-	-	-	-	-	-	-
		1151+00 SMC	-	1162+00 SMC	USH 41 (SB), LT	-	-	725	1450	2,900	-	-	-	-	-	-	-	-	-
		1152+00 NMC	-	1172+25 NMC	USH 41 (NB), MEDIAN	-	-	-	-	1,490	-	310	-	-	1	-	3	-	15
		1152+00 NMC	-	1169+00 NMC	USH 41 (NB), RT	-	-	1600	3200	-	-	-	-	-	-	-	-	-	-
		1162+50 SMC	-	1163+96 SMC	USH 41 (SB), LT	-	-	-	-	-	-	150	-	-	-	-	-	-	-
		1164+75 SMC	-	1166+50 SMC	USH 41 (SB), LT	-	-	-	-	-	-	735	-	-	-	-	-	-	-
		STAGE 1A SUBTOTALS				0	0	4,525	9,050	4,390	0	1,195	0	0	1	0	3	0	15
	1B	1150+00 CNM	-	1152+00 CNM	USH 41 (NB), RT	-	-	340	680	2200	-	-	-	-	-	-	-	-	15
		1160+55 CNM	-	1166+50 CNM	USH 41 (NB), RT	-	-	530	1,060	-	-	-	-	-	-	-	-	-	-
		1164+50 CNM	-	1168+06 CNM	USH 41 (NB), RT	-	-	-	-	-	2,650	-	-	-	-	-	-	-	-
		1165+90 SMC	-	1172+44 SMC	USH 41 (SB), LT	-	-	-	-	570	-	1,100	-	-	-	-	3	1	-
		1167+00 NMC	-	1172+56 NMC	USH 41 (NB), RT	-	-	-	-	-	-	2,300	-	-	-	-	-	1	-
		207+50 BDC	-	216+02 BDC	BEAVER DAM CREEK REALIGNMENT	-	-	850	1,700	-	5,105	-	6,484	-	-	-	-	-	-
		215+39 TBDC	-	217+22 TBDC	TEMP. CREEK REALIGNMENT	-	-	-	-	-	-	-	1,952	-	-	-	-	-	-
		STAGE 1B SUBTOTALS				0	0	1,720	3,440	2,770	7,755	3,400	8,436	0	0	0	3	2	15
	1C	1152+00 NMC	-	1172+25 NMC	USH 41 (NB), MEDIAN	-	-	-	-	1,490	-	310	-	-	1	-	3	-	15
		1167+00 NMC	-	1170+50 NMC	USH 41 (NB), RT	-	-	-	-	330	-	-		-	-	-	-	-	-
		STAGE 1C SUBTOTALS				0	0	0	0	1820	0	310	0	0	1	0	3	0	15
	1E	1152+00 NMC	-	1172+25 NMC	USH 41 (NB), MEDIAN	-	-	-	-	1,490	-	310	-	-	-	1	3	-	15
		1161+08 BDF	-	1164+50 BDF	FILLING BEAVER DAM CREEK	-	-	-	-	-	2,650	-	-	-	-	-	-	1	-
		220+15 BDC	-	229+13 BDC	BEAVER DAM CREEK REALIGNMENT	-	-	1,683	3,366	-	-	-	5,884	-	-	-	-	-	-
		STAGE 1E SUBTOTALS				0	0	1,683	3,366	1,490	2,650	310	5,884	0	0	1	3	1	15
		UNDISTRIBUTED				31,900	1,100	1,872	3,744	2,530	1,295	1,285	3,580	-	-	-	3	2	10
		PROJECT TOTALS				31,900	1,100	9,800	19,600	13,000	11,700	6,500	17,900	0	2	1	15	5	70

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EROSION CONTROL ITEMS (CONTINUED)

PROJECT	STAGE	STATION TO STATION	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY	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	628.2008 EROSION MAT URBAN CLASS I, TYPE B SY	628.2023 EROSION MAT CLASS II TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.2039 EROSION MAT CLASS III TYPE D SY	628.7005 INLET PROTECTION TYPE A EA	629.7010 INLET PROTECTION TYPE B EA	628.7555 CULVERT PIPE DITCH CHECKS EA	628.7560 TRACKING PADS EA	628.7570 ROCK BAGS EA
1133-10-80																	
	1A	10+82 LG - 11+87 LG	LONE GROVE AVE	-	-	150	300	-	1,000	-	-	-	-	-	-	1	30
		57+32 IS - 60+75 IS	ISLAND CT	-	-	422	844	-	1,400	-	-	-	-	-	3	1	-
			UNDISTRIBUTED	1,800	75	118	236	0	600	0	-	-	-	-	-	-	10
		PROJECT TOTALS		1,800	70	690	1,380	0	3,000	0	0	0	0	0	3	2	40
1133-11-86																	
	1A	219+41 - 299+89	VELP AVE DETENTION POND	-	110	1,286	2,572	-	-	-	-	-	-	-	-	1	-
		STAGE 1A SUBTOTALS		0	110	1,286	2,572	0	0	0	0	0	0	0	0	1	0
	2A	219+41 - 299+89	VELP AVE DETENTION POND	-	-	-	-	-	12,336	965	-	140	2	-	-	-	-
		STAGE 2A SUBTOTALS		0	0	0	0	0	12,336	965	0	140	2	0	0	0	0
		UNDISTRIBUTED		-	20	224	448	-	3,064	235	-	20	-	-	-	-	-
		PROJECT TOTALS		0	130	1,510	3,020	0	15,400	1,200	0	160	2	0	0	1	0
		TOTALS		**33,700**	**1,300**	**12,000**	**24,000**	**13,000**	**30,100**	**7,700**	**17,900**	**160**	**4**	**1**	**18**	**8**	**110**

TRACKING PAD MAINTENANCE

LOCATION	SPV.0060.002 EACH
PROJECT 1133-11-75	
PHRAGMITES DISPOSAL SITE	1
	1

MAINTAINING AND REMOVING EXISTING TRACKING PAD

LOCATION	SPV.0060.003 EACH
PROJECT 1133-11-86	
VELP AVE DETENTION POND	1
TOTAL	1

STREET SWEEPING

LOCATION	SPV.0075.001 HRS
PROJECT 1133-11-75	
ENTIRE PROJECT	50
	50

SEDIMENTATION BASIN

LOCATION	SPV.0060.150 EACH
PROJECT 1133-11-75	
221+50 BDC - 222+00 BDC	1
223+00 BDC - 223+50 BDC	1
226+00 BDC - 226+50 BDC	1
PROJECT TOTAL	3
PROJECT 1133-11-86	
STORMWATER POND	1
PROJECT TOTAL	1
TOTAL	4

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TEMPORARY DITCH CHECKS

PROJECT	STAGE	STATION	LOCATION	628.7504 LF
1133-11-75	1A	1153+00 SMC	USH 41 (SB), LT	30
		1156+00 SMC	USH 41 (SB), LT	30
		1159+00 SMC	USH 41 (SB), LT	30
		1162+00 SMC	USH 41 (SB), LT	30
			UNDISTRIBUTED	15
		STAGE 1A SUBTOTAL		135
	1B	1170+50 NMC	USH 41 (NB), RT	30
			UNDISTRIBUTED	10
		STAGE 1B SUBTOTAL		40
	1E	1161+00 NMC	USH 41 (NB), RT	30
			UNDISTRIBUTED	10
		STAGE 1E SUBTOTAL		40
		PROJECT TOTAL		215
1133-11-86	1E		VELP AVE DETENTION POND	64
			UNDISTRIBUTED	6
		PROJECT TOTAL		70
		TOTAL		285

LANDSCAPING

CATEGORY	PROJECT	LOCATION	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH	SPV.0035.002 TOPSOIL SPECIAL CY
1400				
	1133-11-75	UNDISTRIBUTED	26	900
TOTAL			26	900

NOTE: ADDITIONAL LANDSCAPING ITEMS FOUND ON THE PLANT DATA AND QUANTITIES SHEET

DELINEATORS

STATION	TO	STATION	LOCATION	204.0180 REMOVING DELINEATORS AND MARKERS EACH	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS EACH	SPV.0060.005 REMOVE AND REPLACE DELINEATORS EACH
PROJECT 1133-11-75							
1148+85 NMC	-	1149+16 NMC	USH 41 MEDIAN	-	-	-	7
1152+10 NMC	-	1152+95 NMC	USH 41 MEDIAN	-	-	-	18
1142+00 SMC	-	1150+00 SMC	SB USH 41 SHOULDER	-	31	31	-
			NB USH 41	-	18	18	-
1160+00 BSR	-	1167+00 BSR	SB USH 41 VELP AVE ONRAMP	6	-	-	-
1156+00 NMC	-	1160+00 NMC	NB USH 41 SHOULDER	4	-	-	-
			UNDISTRIBUTED	4	1	1	2
TOTALS				14	50	50	27

PAVEMENT MARKING

STATION	TO	STATION	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 (WHITE) LF	647.0746 PAVEMENT MARKINGS DIAGONAL EPOXY 24-INCH (WHITE) LF	REMARKS
PROJECT 1133-11-75								
1146+17 SMC	-	1156+45 SMC	SB USH 41 RAMP GORE	-	-	1,370	-	
1151+50 NMC	-	1177+90 NMC	NB USH 41 & VELP OFFRAMP	3,136	3,136	-	-	EDGELINES
1151+50 NMC	-	1177+90 NMC	NB USH 41 DASH	660	-	-	-	CENTERLINE
1151+50 SMC	-	1177+70 SMC	SB USH 41 & VELP ONRAMP	2,992	2,992	-	-	EDGELINES
1151+50 SMC	-	1177+70 SMC	SB USH 41 DASH WHITE	655	-	-	-	CENTERLINE
1157+07 NMC		1160+15 NMC	NB USH 41 RAMP DASH	179	-	-	-	
1160+15 NMC	-	1166+13 NMC	VELP AVE OFFRAMP	-	-	1,190	-	CHANNELIZATION
1162+00 NMC	-	1165+00 NMC	NB USH 41 RAMP GORE	-	-	-	275	
TOTALS				7,622	6,128	2,560	275	

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SIGNING

LOCATION	SIGN CODE	SIZE (INCHES)	634.0612 POSTS WOOD 4X6-INCH X 12 FT EA	634.0622 POSTS WOOD 4X6-INCH X 22 FT EA	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2101 MOVING SIGNS TYPE I EACH	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	638.4100 MOVING STRUCTURAL STEEL SIGN SUPPORTS EACH	SPV.0060.202 TEMPORARILY MOUNT AND LOCATE TYPE I SIGNS EACH	NOTES
PROJECT 1133-11-75															
1146+00 SMC	J4-1		-	-	-	-	-	-	1	-	-	1	-	-	
1152+40 NMC	R3-4		-	-	-	-	-	-	2	-	-	1	-	-	
1156+40 SMC	W4-2R	48X48	-	2	-	-	16	-	-	-	-	-	-	-	
1158+25 SMC	R4-3		-	-	-	-	-	-	-	1	1	-	-	-	
1157+32 NMC	E4-1A		-	-	1.6	98	-	1	-	-	-	-	2	1	ASSUMED FOOTING TYPE B
1157+32 NMC	E1-5		-	-	-	-	-	-	1	-	-	-	-	-	
1165+40 NMC	E5-1A		-	-	-	-	-	-	1	-	-	2	-	-	SEE DETAIL: FIXED MESSAGE SIGN PORTABLE SUPPORT
1171+50 SMC	W4-1		-	-	-	-	-	-	1	-	-	2	-	-	
PROJECT TOTALS			0	2	1.6	98	16	1	6	1	1	6	2	1	
PROJECT 1133-10-80															
11+86 LG	W5-56	18X18	3	-	-	-	6.75	-	-	-	-	-	-	-	
57+55 IS	W5-56	18X18	3	-	-	-	6.75	-	-	-	-	-	-	-	
PROJECT TOTALS			6	0	0	0	13.50	0	0	0	0	0	0	0	
TOTALS			6	2	1.6	98	30	1	6	1	1	6	2	1	

REMOVING PAVEMENT MARKINGS

PROJECT	STAGE	STATION	TO	STATION	LOCATION	646.0600 LF	REMARKS
1133-11-75							
	1B	1148+69 BSR	-	1161+40 BSR	SB USH 41, ON RAMP	1,275	LT EDGELINE
		1152+31 BSM	-	1174+00 BSM	SB USH 41	545	CENTERLINE - SKIPS
		1152+31 BSM	-	1174+00 BSM	SB USH 41	2,170	RT EDGELINE
		1156+50 BSM	-	1174+00 BSM	SB USH 41	1,760	LT EDGELINE
		1156+50 BSR	-	1161+00 BSR	SB USH 41, ON RAMP	450	RT EDGELINE
		1165+00 BSR	-	1170+74 BSR	SB USH 41, OFF RAMP	575	LT EDGELINE
		1167+12 BSR	-	1169+50 BSR	SB USH 41, OFF RAMP	238	RT EDGELINE
		1149+45 CNR	-	1174+00 CNR	NB USH 41	2,277	LT EDGELINE
		1149+45 CNR	-	1174+00 CNR	NB USH 41	570	CENTERLINE - SKIPS
		1149+45 CNR	-	1174+00 CNR	NB USH 41	1,790	RT EDGELINE
		TOTAL				11,650	

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TEMPORARY PAVEMENT MARKINGS

PROJECT	STAGE	STATION TO STATION	LOCATION	TEMPORARY PAVEMENT MARKING, PAINT 649.0100 4-INCH (YELLOW) FT	TEMPORARY PAVEMENT MARKING, PAINT 649.0100 4-INCH (WHITE) FT	TEMPORARY PAVEMENT MARKING, PAINT 649.0701 8-INCH (WHITE) FT	TEMPORARY RAISED PAVEMENT MARKERS 649.2100 (WHITE) EACH	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE 649.0400 4-INCH (YELLOW) FT	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE 649.0400 4-INCH (WHITE) FT
1133-11-75									
	1B	1150+84 BSR - 1154+40 BSR	USH 41 SB, ON RAMP, GORE	---	---	---	---	---	1,530
		1151+50 BSR - 1170+74 BSR	USH 41 SB, ON RAMP, EDGELINE	---	1,465	---	---	---	460
		1151+00 BSM - 1155+00 BSM	USH 41 SB	---	---	---	51	---	---
		1150+00 NMC - 1172+00 NMC	USH 41 NB	---	---	---	---	2,200	3,450
		1152+00 NMC - 1157+00 NMC	USH 41 NB	---	---	---	63	---	---
		1152+31 BSM - 1172+39 BSM	USH 41 SB, CENTERLINE	---	---	1,145	---	---	1,730
		1152+31 BSM - 1172+39 BSM	USH 41 SB, EDGELINE	1,700	---	---	---	360	---
		1154+40 BSM - 1172+39 BSM	USH 41 SB, EDGELINE	---	730	---	---	---	1,070
		1154+40 BSR - 1169+50 BSR	USH 41 SB, ON RAMP, EDGELINE	---	1,050	---	---	460	---
		1166+00 BSM - 1171+00 BSM	USH 41 SB	---	---	---	63	---	---
		1168+00 NMC - 1172+00 NMC	USH 41 NB	---	---	---	51	---	---
		STAGE 1B SUBTOTALS		1,700	3,245	1,145	228	3,020	8,240
	1C	1148+69 CSM - 1154+00 CSM	USH 41 SB, ON RAMP, GORE	---	---	---	---	---	108
		1149+45 CNR - 1172+19 CNR	USH 41 NB, EDGELINE	---	---	---	---	2,275	---
		1149+45 CNR - 1172+19 CNR	USH 41 NB, CENTERLINE	---	---	300	---	---	3,945
		1149+45 CNR - 1172+19 CNR	USH 41 NB, EDGELINE	---	1,955	---	---	---	325
		1149+50 CNM - 1154+50 CNM	USH 41 NB	---	---	---	63	---	---
		1151+99 CSM - 1171+78 CSM	USH 41 SB, EDGELINE	870	---	---	---	1,110	---
		1151+99 CSM - 1171+78 CSM	USH 41 SB, CENTERLINE	---	---	150	---	---	3,657
		1152+00 CSM - 1157+00 CSM	USH 41 SB	---	---	---	63	---	---
		1153+79 CSM - 1171+78 CSM	USH 41 SB, EDGELINE	---	1,370	---	---	---	430
		1154+00 BSR - 1154+40 BSR	USH 41 SB, ON RAMP, EDGELINE	40	---	---	---	---	---
		1158+30 CNR - 1167+00 CNR	USH 41 NB, OFF RAMP, GORE	---	---	---	---	---	1,730
		1164+00 CSM - 1172+00 CSM	USH 41 SB	---	---	---	99	---	---
		1168+00 CNM - 1172+00 CNM	USH 41 NB	---	---	---	51	---	---
		STAGE 1C SUBTOTALS		910	3,325	450	276	3,385	10,195
	1D	1147+50 DNM - 1156+50 DNM	USH 41 NB	---	---	---	111	---	---
		1147+51 DNM - 1167+15 DNR	USH 41 NB, EDGELINE	---	---	1,235	---	---	730
		1147+51 DNM - 1172+26 DNM	USH 41 NB, EDGELINE	2,270	---	---	---	220	---
		1147+51 DNM - 1172+26 DNM	USH 41 NB, CENTERLINE	---	---	1,900	---	---	1,160
		1156+19 DNR - 1162+60 DNR	USH 41 NB, OFF RAMP GORE	---	---	150	---	---	80
		1162+60 DNR - 1167+00 DNR	USH 41 NB, OFF RAMP, EDGELINE	350	---	---	---	90	---
		1162+60 DNR - 1172+26 DNR	USH 41 NB, EDGELINE	---	---	490	---	---	480
		1163+00 DNM - 1172+00 DNM	USH 41 NB	---	---	---	111	---	---
		STAGE 1D SUBTOTALS		2,620	0	3,775	222	310	2,450
		SUBTOTALS		5,230	6,570	5,370	726	6,715	20,885
		TOTALS		11,800		5,370	726	27,600	

NOTES:
-REMOVABLE TAPE TO BE USED ON ALL PAVEMENT SURFACES TO REMAIN AFTER CONSTRUCTION.
-WHERE 8-INCH MARKINGS ARE REQUIRED ON EXISTING PAVEMENT, TWO 4-INCH PAVEMENT MARKINGS WILL BE UTILIZED INSTEAD.
-TEMPORARY RAISED PAVEMENT MARKERS TO BE INSTALLED ON LANE LINES, WITH APPROPRIATE COLORED REFLECTORS. REFLECTORS ARE TO BE LOCATED AT 25 FT SPACING.

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TRAFFIC CONTROL

STAGE	LOCATION	DAYS	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE DAYS	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0420 TYPE III BARRICADES EACH	643.0420 TYPE III BARRICADES DAYS	643.0705 TYPE A LIGHTS EACH	643.0705 TYPE A LIGHTS DAYS	643.0715 TYPE C LIGHTS EACH	643.0715 TYPE C LIGHTS DAYS	643.0800 ARROW BOARDS EACH	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	REMARKS
PROJECT 1133-11-75																		
1A	USH 41 SOUTH OF PROJECT	52	51	36	1,872	---	---	---	---	17	884	2	104	43	2,236	---	---	
1A	OFF PEAK SINGLE LANE CLOSURE ONE DIRECTION	30	-	75	2,250	3	90	6	180	16	480	2	60	10	300	2	60	SEE NOTE
1B	USH 41	56	53	39	2,184	2	112	4	224	15	840	3	168	63	3,528	---	---	
1B	OFF PEAK HOUR LANE CLOSURE ONE DIRECTION	30	-	75	2,250	3	90	6	180	16	480	2	60	10	300	2	60	SEE NOTE
1C	USH 41	48	48	55	2,640	6	288	8	384	5	240	3	144	65	3,120	---	---	
1C	OFF PEAK HOUR LANE CLOSURE ONE DIRECTION	30	-	75	2,250	3	90	6	180	16	480	2	60	10	300	2	60	SEE NOTE
1D	USH 41	42	42	62	2,604	2	84	4	168	19	798	1	42	65	2,730	---	---	
1D	OFF PEAK HOUR LANE CLOSURE ONE DIRECTION	20	-	75	1,500	3	60	6	120	16	320	2	40	10	200	2	40	SEE NOTE
1E	USH 41	23	23	---	---	---	---	---	---	---	---	---	---	17	391	---	---	
1E	OFF PEAK HOUR LANE CLOSURE ONE DIRECTION	20	-	75	1,500	3	60	6	120	16	320	2	40	10	200	2	40	SEE NOTE
2A	USH 41 SB ENTRANCE RAMP WITH VELP	31	31	---	---	---	---	---	---	---	---	---	---	8	248	1	7	
2B	USH 41 SB ENTRANCE RAMP WITH VELP	18	18	25	450	---	---	---	---	---	---	1	18	10	180	1	7	
	UNDISTRIBUTED		---		3,500		110		212		358		34		2,559	---	56	
	PROJECT TOTALS		266		23,000		984		1,768		5,200		770		16,292		330	
PROJECT 1133-10-80																		
1A	LONE GROVE AVE	52	---	---	---	4	208	8	416	---	---	---	---	2	104	---	---	
1A	ISLAND CT	52	---	---	---	4	208	8	416	---	---	---	---	2	104	---	---	
	PROJECT TOTALS		0		0		416		832		0		0		208		0	
	TOTALS		266		23,000		1,400		2,600		5,200		770		16,500		330	

NOTE:
SEE TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURE.

PERMANENT TRAFFIC CONTROL

STATION	TO	STATION	LOCATION	643.0453 TRAFFIC CONTROL BARRICADES PERMANENT TYPE III EACH	SPV.0060.200 FLEXIBLE TUBULAR POSTS LEFT IN PLACE EACH	SPV.0060.201 FLEXIBLE TUBULAR BASES LEFT IN PLACE EACH
PROJECT 1133-11-75						
1155+75 SMC	-	1164+00 SMC	SB USH 41 SHOULDER	1	34	34
1156+25 NMC	-	1167+00 NMC	NB USH 41 SHOULDER	2	39	39
1152+00 NMC	-	1166+25 NMC	NB USH 41 MEDIAN	1	58	58
TOTALS				4	131	131

COVERING SIGNS

STATION	LOCATION	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH
PROJECT 1133-11-75		
1150+00 NMC	NB USH 41 MEDIAN	1
TOTALS		1

FIXED MESSAGE SIGNS

LOCATION	643.1000 SF	REMARKS
PROJECT 1133-11-75		
SB USH 41	110	STABE 1A
NB USH 41	110	STAGE 1B
TOTALS	220	

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

3

SAWING ASPHALT

PROJECT	STAGE	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF
1133-11-75						
	1A	1147+76 DSM	-	1152+52 DNM	MAINTENANCE CROSSOVER	410
		1151+50 BSR	-	1155+32 BSR	SB USH 41 OUTSIDE SHOULDER	390
		1154+10 BSM	-	1172+44 BSM	SB USH 41 MEDIAN SHOULDER	1,850
		1164+89 BSR	-	1167+12 BSR	SB USH 41 ON-RAMP	225
		1169+56 BSR	-	1170+10 BSR	SB USH 41 ON-RAMP	55
		1170+79 BSR	-	1171+34 BSR	SB USH 41 ON-RAMP	55
		STAGE 1A SUBTOTALS				2,985
	1B	1150+00 CNM	-	1167+00 CNR	NB USH 41 OUTSIDE SHOULDER	1,710
		1155+32 BSR	-	1163+34 BSR	SB USH 41 ON-RAMP	800
		1163+23 CNM	-	1170+25 CNM	NB USH 41 OUTSIDE SHOULDER	710
		1163+25 CSM	-	1172+44 CSM	SB USH 41 OUTSIDE SHOULDER	920
		1167+00 CNR			NB USH 41 OFF RAMP	30
		STAGE 1B SUBTOTALS				4,170
	1C	1149+66 DNM	-	1172+26 DNM	NB USH 41 MEDIAN SHOULDER	2,450
		1154+55 BSM	-	1172+45 BSM	SB USH 41 MEDIAN SHOULDER	1,685
		STAGE 1C SUBTOTALS				4,135
	1D	1150+00 DNM	-	1165+60 DNR	NB USH 41 OUTSIDE SHOULDER	1,700
		1153+25 SMC	-	1166+04 BSR	SB USH 41 ON-RAMP	1,400
		1163+30 SMC	-	1172+44 SMC	SB USH 41 OUTSIDE SHOULDER	980
		1164+00 DNM	-	1169+75 DNM	NB USH 41 OUTSIDE SHOULDER	580
		STAGE 1D SUBTOTALS				4,660
	1E	1150+25 NMC	-	1170+10 NMC	NB USH 41 MEDIAN SHOULDER	2,040
		STAGE 1E SUBTOTALS				2,040
		PROJECT TOTAL				17,990
1133-10-80						
		60+75 IS			ISLAND CT, ML	20
		59+70 IS			ISLAND CT, LT	15
		11+87 LG			LONE GROVE AVE, ML	25
		PROJECT TOTAL				60
		TOTAL				**18,050**

SAWING CONCRETE

STATION	TO	STATION	LOCATION	690.0250 CONCRETE LF
PROJECT 1133-11-75				
1161+01 CSM	-	1162+06 CSM	SB USH 41 PAVEMENT REPLACEMENT	105
1160+25 DNM	-	1161+62 DNM	NB USH 41 PAVEMENT REPLACEMENT	70
TOTAL				175

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

3

POND ITEMS

STATION	TO	STATION	LOCATION	SPV.0035.100 CLAY EMBANKMENT FILL CY	SPV.0180.100 QUARRIED LIMESTONE SLAB SY	SPV.0180.101 GEOSYNTHETIC CLAY LINER SY
PROJECT 1133-11-86						
219+41 BDC	-	229+89 BDC	VELP AVE DETENTION POND	7,000	1,506	9,890
TOTALS				7,000	1,506	9,890

LIVE STAKES

STATION	TO	STATION	LOCATION	SPV.0060.151 EACH
PROJECT 1133-11-75				
207+50 BDC	-	215+25 BDC	BEAVER DAM CREEK REALIGNMENT, RT	725
221+00 BDC	-	229+00 BDC	BEAVER DAM CREEK REALIGNMENT, LT	850
			UNDISTRIBUTED	25
TOTAL				1,600

CONCRETE PRECAST BARRIER

PROJECT	STAGE	STATION	TO	STATION	LOCATION	614.0905 CRASH CUSHION TEMPORARY EACH	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	SPV.0090.200 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING LF	NOTES
1133-11-75										
	1A	1151+50 BSR	-	1171+34 BSR	SB USH 41 SHOULDER & ONRAMP	-	1,985	1,985	-	
		1152+25 CNM	-	1172+11 CNM	NB USH 41 MEDIAN	-	1,986	1,986	-	
		1157+50 BSM	-	1164+00 BSM	NB USH 41 MEDIAN	-	-	-	650	
		1161+35 BSR	-	1162+90 BSR	ONRAMP FROM VELP OUTSIDE EDGE	-	-	-	155	
		STAGE 1A SUBTOTALS				0	3971	3971	805	
	1B	1151+00 NMC	-	1165+50 NMC	NB USH 41 SHOULDER	1	1,480	1,480	-	
		1151+50 BSR	-	1171+34 BSR	SB USH 41 SHOULDER & ONRAMP	-	800	1,562	-	REINSTALLATION WITH & WITHOUT TRUCKING
		1152+31 BSM	-	1172+60 BSM	SB USH 41 MEDIAN	-	2,029	2,029	-	
		1154+40 BSM	-	1177+50 BSM	SB USH 41 SHOULDER	-	2,310	2,310	-	
		1154+40 BSR	-	1170+10 BSR	SB USH 41 RAMP, RT	-	1,570	1,570	-	
		1160+50 BSM	-	1162+05 BSM	SB USH 41, SHOULDER	-	-	-	205	
		1161+20 BSR	-	1163+25 BSR	ONRAMP FROM VELP INSIDE EDGE	-	-	-	205	
		1165+25 BSM	-	1167+30 BSM	SB USH 41, MEDIAN	-	-	-	205	
		STAGE 1B SUBTOTALS				1	8189	8951	615	
	1C	1151+00 CNR	-	1167+00 CNR	NB USH 41 SHOULDER	-	-	1,500	-	REINSTALLATION WITHOUT TRUCKING
		1152+15 CSM	-	1172+60 CSM	SB USH 41 MEDIAN	-	-	1,885	-	REINSTALLATION WITHOUT TRUCKING
		1153+25 CNM	-	1172+00 CNM	NB USH 41 MEDIAN	-	-	1,800	-	REINSTALLATION WITHOUT TRUCKING
		1159+00 CSM	-	1172+44 CSM	SB USH 41 SHOULDER	-	-	1,344	-	REINSTALLATION WITHOUT TRUCKING
		1159+80 CNM	-	1161+35 CNM	NB USH 41 MEDIAN	-	-	-	155	
		1160+75 CSM	-	1162+30 CSM	SB USH 41 MEDIAN	-	-	-	155	
		1166+50 CNM	-	1169+00 CNM	NB USH 41 GORE AREA	1	-	-	250	
		1166+50 CNM	-	1171+00 CNM	NB USH 41 SHOULDER	-	450	450	-	REINSTALLATION WITH TRUCKING
		STAGE 1C SUBTOTALS				1	450	6979	560	
	1D	1151+25 DNM	-	1172+26 DNM	NB USH 41 MEDIAN	-	126	2,101	-	REINSTALLATION WITH & WITHOUT TRUCKING
		1151+47 SMC	-	1172+60 SMC	SB USH 41 MEDIAN	-	-	1,885	-	REINSTALLATION WITHOUT TRUCKING
		1154+25 DMN	-	1164+25 DNM	SB USH 41 MEDIAN	-	-	-	1,000	
		1155+25 DNR	-	1164+90 DNR	NB USH 41 SHOULDER	-	-	2,045	-	REINSTALLATION WITHOUT TRUCKING
		1160+00 DNM	-	1161+60 DNM	NB USH 41 OUTSIDE EDGE	-	-	-	250	
		STAGE 1D SUBTOTALS				0	126	6031	1250	
		TOTALS				2	12,736	25,932	3,230	

*ALL ITEMS ARE CAT 1000 UNLESS OTHERWISE NOTED

9202-07-22

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
9202-07-22		
FEDERAL PROJECT NUMBER	4.0	18

PLAT OF RIGHT OF WAY REQUIRED FOR

CTH J - USH 41

CTH J - PACKERLAND DRIVE

STH 29 BROWN CO./OUTAGAMIE CO.

CONVENTIONAL SIGNS AND ABBREVIATIONS

AC.	ACRES	PED	PEDESTAL
AC. REM.	ACRES REMAINING	●	R/W MONUMENT
A.P.	ACCESS POINT	P.L.	PROPERTY LINE
B.	BARN	P.L.E.	PERMANENT LIMITED EASEMENT
BLDG.	BUILDING	R.	RANGE
CO.	COMPANY	RD.	ROAD
CORP.	CORPORATION	R/W	RIGHT OF WAY
C.T.H.	COUNTY TRUNK HIGHWAY	S.	SHED
D.	DEED	S.T.H.	STATE TRUNK HIGHWAY
E.	EAST	T.	TOWN
ET. AL.	AND OTHERS	TEMP.	TEMPORARY
G.	GARAGE	T.I.	TEMPORARY INTEREST
GN	GRID NORTH	VOL.	VOLUME
H.	HOUSE	W.	WEST
INC.	INCORPORATED	WIS.	WISCONSIN
L.C.	LAND CONTRACT		
N	NORTH		

	COMPENSABLE	NON-COMPENSABLE
POWER POLE		
TELEPHONE POLE		
SIGN		
TELEPHONE PEDESTAL		

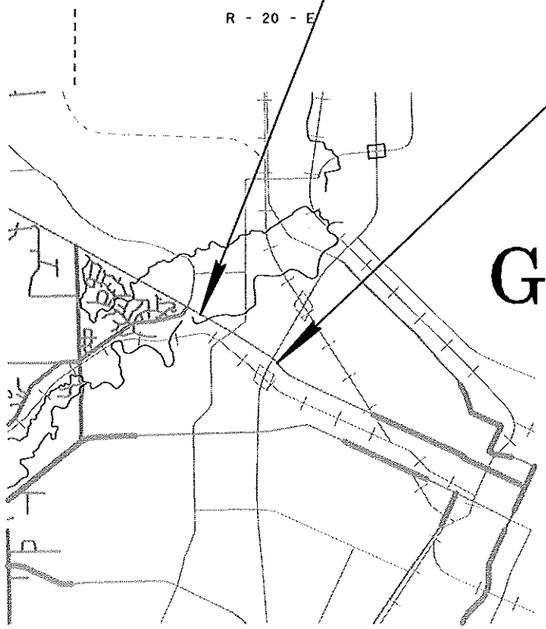
NO ACCESS (BY ACQUISITION)

NO ACCESS (BY STATUTORY AUTHORITY)

NO ACCESS (BY PREVIOUS PROJECT OR COVENANT)

BEGIN RELOCATION ORDER
PROJECT 9202-07-22

END RELOCATION ORDER
PROJECT 9202-07-22



LAYOUT

0 1 MI.

SCALE

TOTAL NET LENGTH OF CENTERLINE = MI.

NOTES

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

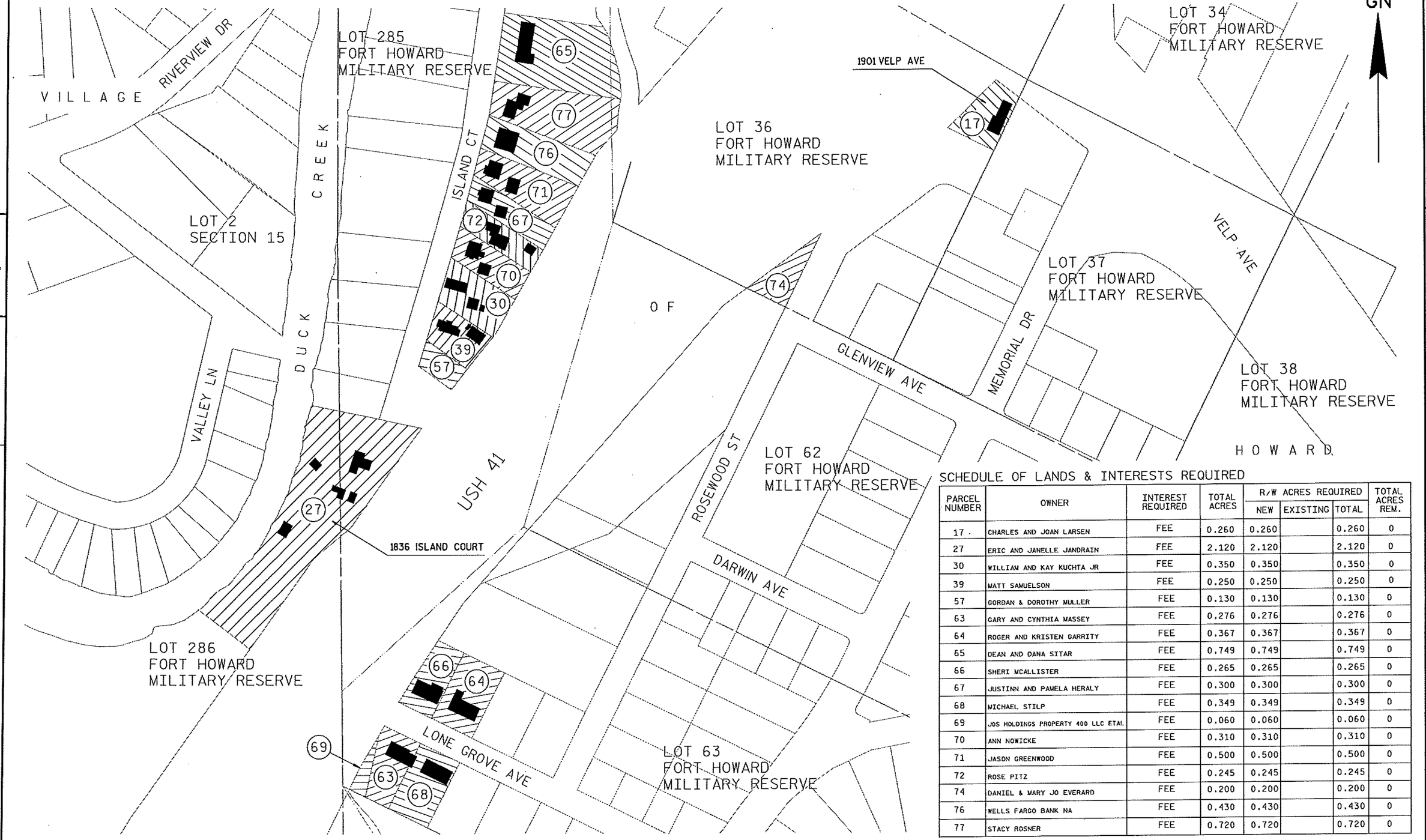
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

REVISION DATE
7-24-07
4-15-08
9-16-09

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED:

DATE 8-10-00 MICHAEL FLYNN
FOR DISTRICT 122



SCHEDULE OF LANDS & INTERESTS REQUIRED

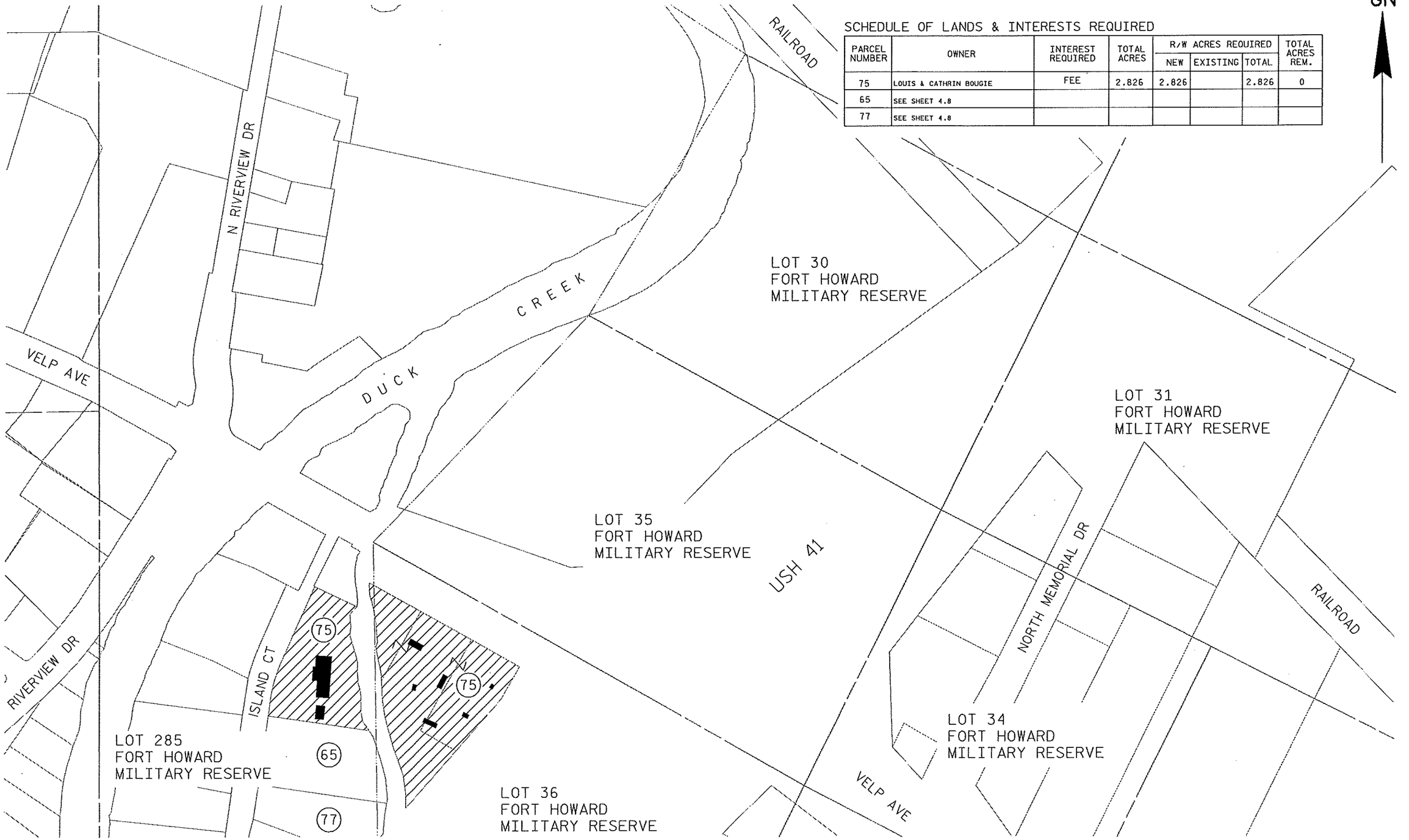
PARCEL NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES REQUIRED			TOTAL ACRES REM.
				NEW	EXISTING	TOTAL	
17	CHARLES AND JOAN LARSEN	FEE	0.260	0.260		0.260	0
27	ERIC AND JANELLE JANDRAIN	FEE	2.120	2.120		2.120	0
30	WILLIAM AND KAY KUCHTA JR	FEE	0.350	0.350		0.350	0
39	MATT SAMUELSON	FEE	0.250	0.250		0.250	0
57	GORDAN & DOROTHY MULLER	FEE	0.130	0.130		0.130	0
63	GARY AND CYNTHIA MASSEY	FEE	0.276	0.276		0.276	0
64	ROGER AND KRISTEN GARRITY	FEE	0.367	0.367		0.367	0
65	DEAN AND DANA SITAR	FEE	0.749	0.749		0.749	0
66	SHERI MCALLISTER	FEE	0.265	0.265		0.265	0
67	JUSTINN AND PAMELA HERALY	FEE	0.300	0.300		0.300	0
68	MICHAEL STILP	FEE	0.349	0.349		0.349	0
69	JOS HOLDINGS PROPERTY 400 LLC ETAL	FEE	0.060	0.060		0.060	0
70	ANN NOWICKE	FEE	0.310	0.310		0.310	0
71	JASON GREENWOOD	FEE	0.500	0.500		0.500	0
72	ROSE PITZ	FEE	0.245	0.245		0.245	0
74	DANIEL & MARY JO EVERARD	FEE	0.200	0.200		0.200	0
76	WELLS FARGO BANK NA	FEE	0.430	0.430		0.430	0
77	STACY ROSNER	FEE	0.720	0.720		0.720	0

REVISION DATE 4-15-2008 9-16-2009	DATE 8-10-2000 GRID FACTOR N/A	SCALE, FEET 0 100 200	HWY: STH 29 COUNTY: BROWN	STATE R/W PROJECT NUMBER 9202-07-22 CONSTRUCTION PROJECT NUMBER 9202-07-77	PLAT SHEET NO: 4.8 PS&E SHEET NO: 123 E

GN

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES REQUIRED			TOTAL ACRES REM.
				NEW	EXISTING	TOTAL	
75	LOUIS & CATHRIN BOUGIE	FEE	2.826	2.826		2.826	0
65	SEE SHEET 4.8						
77	SEE SHEET 4.8						

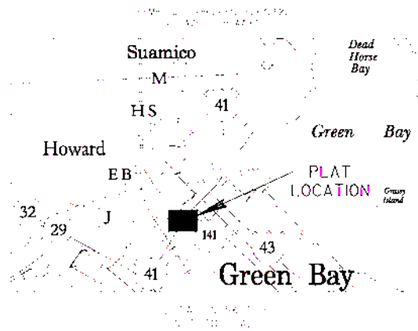


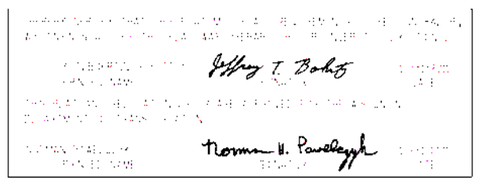
REVISION DATE	DATE 8-10-2000	SCALE, FEET 0 100 200	HWY: STH 29	STATE R/W PROJECT NUMBER 9202-07-22	PLAT SHEET NO: 4.17	
	GRID FACTOR N/A		COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 9202-07-77	PS&E SHEET NO:	E

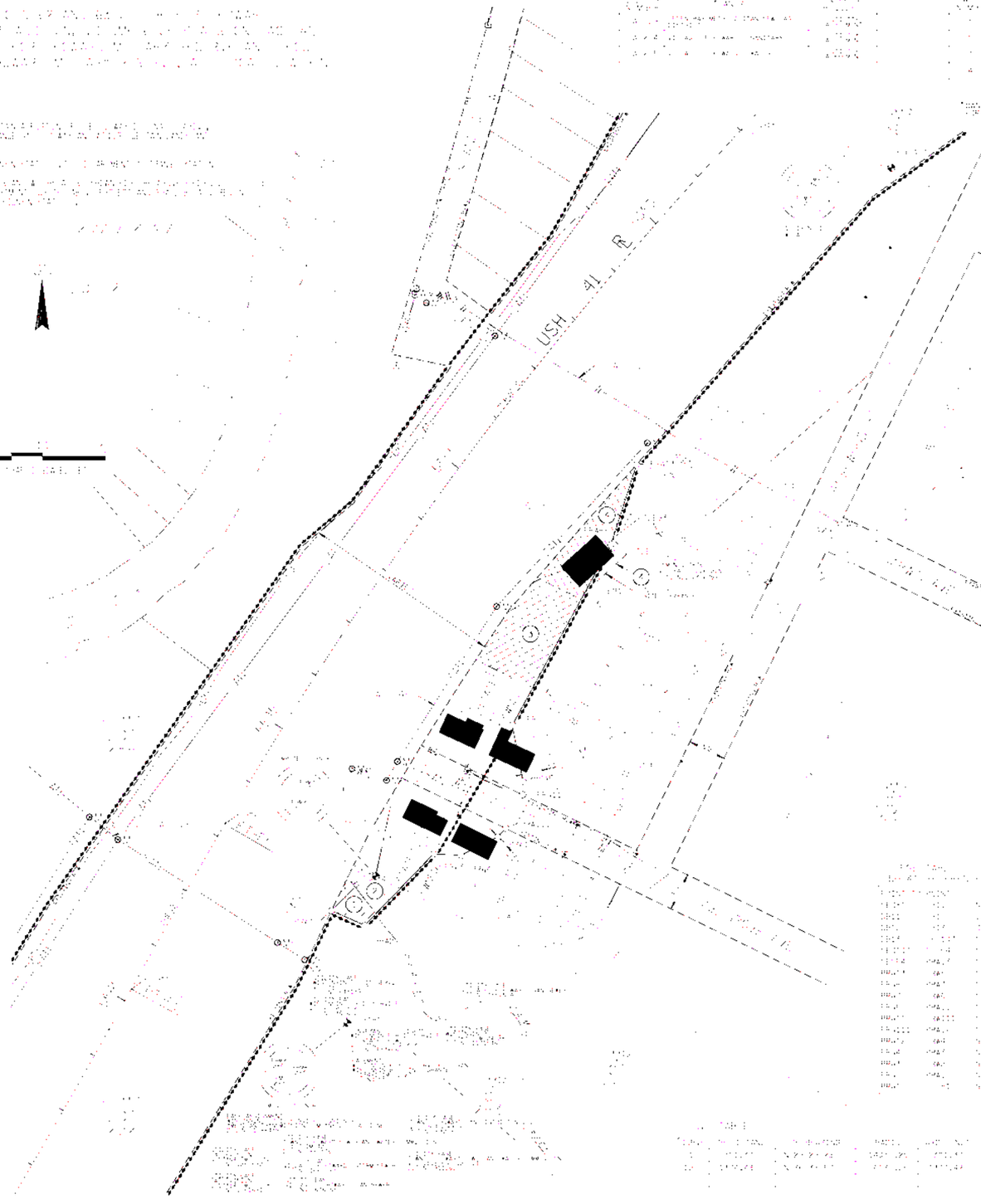
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2545460
CATHY WILLIQUETTE LINDSAY
BROWN COUNTY RECORDER
GREEN BAY, WI
RECORDED ON
11/02/2011 4:15 PM
REC FEE: 25.00
EXEMPT #
PAGES: 1

NOT OFFICIAL
A recorded copy of this plat can be obtained from the Register of Deeds Office.







TRANSPORTATION PROJECT PLAT NO: 1133-10-21-4.02

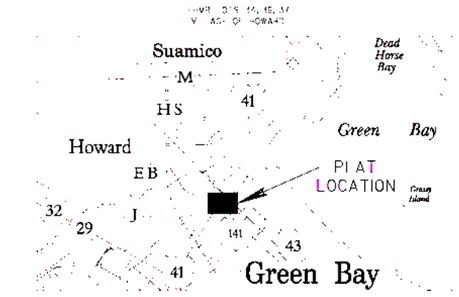
BEING PART OF LOT 1 OF CSM NO. 5989, PART OF PARCEL B OF CSM NO. 94, PART OF LOT 1 OF CSM NO. 5232 AND PART OF LOT 1, BLOCK 2, OF MICHAELS ADDITION, VOLUME 6 OF PLATS ON PAGE 41, AS DOCUMENT NO. 380449, LOCATED WITHIN LOT 37 OF THE FORT HOWARD MILITARY RESERVE, ALSO PART OF PARCEL A OF CSM NO. 580, LOCATED 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 MEANS OF APPROACH OR CONNECTION WITH HIGHWAY RESULTING FROM THE ESTABLISHMENT OF LIMITED ACCESS HIGHWAY AS SHOWN ON THIS PLAT IS ADOPTED AND THE DEPARTMENT OF TRANSPORTATION IS AUTHORIZED TO PROCEED WITH THE ACQUISITION OF RIGHT OF WAY AND ACCESS OF PLAN, LANDS AND INTERESTS IN LANDS AS SHOWN ON THIS PLAT.

THE DEPARTMENT OF TRANSPORTATION IS AUTHORIZED TO ACQUIRE SUCH ADDITIONAL LANDS AS MAY BE NECESSARY FOR THE PURPOSE OF PROVIDING ADEQUATE DRAINAGE FOR THE HIGHWAY AS SHOWN ON THIS PLAT AND ALSO FOR THE PURPOSE OF PROVIDING SUITABLE MATERIAL FOR THE CONSTRUCTION OF THE HIGHWAY AS SHOWN ON THIS PLAT AND ALSO FOR THE PURPOSE OF PROVIDING SUITABLE AREAS FOR THE DISPOSAL OF SURPLUS EXCAVATION AND SUCH OTHER LANDS AS MAY BE NECESSARY FOR THE CONSTRUCTION OF THE HIGHWAY AS SHOWN ON THIS PLAT AND THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09, WISCONSIN STATUTES.

VILLAGE OF HOWARD



LOCATION SKETCH
NOT TO SCALE

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

EXISTING		PROPOSED
SECTION CORNER		
MONUMENT		
PROPERTY CORNER		
PROPERTY LINE		
RIGHT OF WAY LINE		
CENTERLINE		
BENCH MARK	BM	
WATER LINE	W	
GAS LINE	G	
TELEPHONE LINE	T	
ELECTRIC LINE	E	
CABLE TV LINE	CTV	
FIBER OPTIC LINE	FO	
SANITARY SEWER	SAN	
STORM SEWER	STM	
CULVERT		
CATCH BASIN		
INLET		
MANHOLE		
FENCE		
BUILDING		
WATER SHED		
SOIL BORING		
TREE		
SIGN		
FLOOD LIGHT		
POWER POLE		
LIGHT POLE		
TRAFFIC SIGNAL		
MAIL BOX		
HYDRANT		
WATER VALVE		
GAS VALVE		
GUY WIRE		
HANDICAP RAMP		
BENCH		
TRAFFIC SIGN		
PARKING METER		
TELEPHONE BOOTH		
TELEPHONE PEDESTAL		
POST BOX		
FLAG POLE		
RAILROAD		
TRANSFORMER		
UTILITY POLE		
UTILITY MANHOLE		
UTILITY METER		
UTILITY VAULT		
UTILITY VALVE		
UTILITY BOX		
UTILITY GUY WIRE		
UTILITY FLOOD LIGHT		
UTILITY SIGN		
UTILITY BENCH MARK		
UTILITY MONUMENT		
UTILITY CABLE TV		
UTILITY FIBER OPTIC		
UTILITY TELEPHONE		
UTILITY ELECTRIC		
UTILITY GAS		
UTILITY WATER		
UTILITY SANITARY		
UTILITY STORM		
UTILITY CULVERT		
UTILITY CATCH BASIN		
UTILITY INLET		
UTILITY MANHOLE		
UTILITY FENCE		
UTILITY BUILDING		
UTILITY WATER SHED		
UTILITY SOIL BORING		
UTILITY TREE		
UTILITY SIGN		
UTILITY FLOOD LIGHT		
UTILITY POWER POLE		
UTILITY LIGHT POLE		
UTILITY TRAFFIC SIGNAL		
UTILITY MAIL BOX		
UTILITY HYDRANT		
UTILITY WATER VALVE		
UTILITY GAS VALVE		
UTILITY GUY WIRE		
UTILITY HANDICAP RAMP		
UTILITY BENCH		
UTILITY TRAFFIC SIGN		
UTILITY PARKING METER		
UTILITY TELEPHONE BOOTH		
UTILITY TELEPHONE PEDESTAL		
UTILITY POST BOX		
UTILITY FLAG POLE		
UTILITY RAILROAD		
UTILITY TRANSFORMER		
UTILITY UTILITY POLE		
UTILITY UTILITY MANHOLE		
UTILITY UTILITY METER		
UTILITY UTILITY VAULT		
UTILITY UTILITY VALVE		
UTILITY UTILITY BOX		
UTILITY UTILITY GUY WIRE		
UTILITY UTILITY FLOOD LIGHT		
UTILITY UTILITY SIGN		
UTILITY UTILITY BENCH MARK		
UTILITY UTILITY MONUMENT		

NOTES:

BEARINGS AND DIMENSIONS SHOWN ON THIS PLAT ARE GRID BEARINGS AND HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.

RIGHT OF WAY BOUNDARIES ARE SHOWN CONSISTENT WITH THE RIGHT OF WAY FOR HIGHWAY PURPOSES AND ARE REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

DIMENSIONS ON THE NEW RIGHT OF WAY BOUNDARIES ARE RADIAL AND PERPENDICULAR TO NEW CENTERLINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA OBTAINED FROM DEEDS AND TAX ROLLS OF RECORD AND MAPS AND RECORDS OF THE COUNTY. THEY MAY NOT BE ACTUAL BOUNDARIES AND DO NOT EXIST ON THE GROUND AS A SURVEYED LINE UNLESS OTHERWISE NOTED.

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 NO. 5566.

LIMITED ACCESS HIGHWAY WAS DESIGNATED AS A LIMITED ACCESS HIGHWAY 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 NECESSARILY AS REFERENCED SHOWN ON THE CONSTRUCTION PLANS.

A TEMPORARY LIMITED EASEMENT IS HEREBY GRANTED FOR CONSTRUCTION PURPOSES, SLOPES AND RESERVING THE RIGHT TO GRADE ANY NECESSARY SLOPES WITHIN AND THE RIGHT OF INGRESS AND EGRESS AS REQUIRED FOR SUCH PURPOSES, INCLUDING THE RIGHT TO TRIM, REMOVE, PROTECT, REMOVE OR PREVENT ANY VEGETATION THAT THE HIGHWAY AUTHORITY DEEMS NECESSARY TO REMOVE TO PREVENT INTERFERENCE WITH SAID USE. THIS EASEMENT SHALL TERMINATE WITH THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS EASEMENT IS GIVEN.

SCHEDULE OF LANDS & INTERESTS REQUIRED

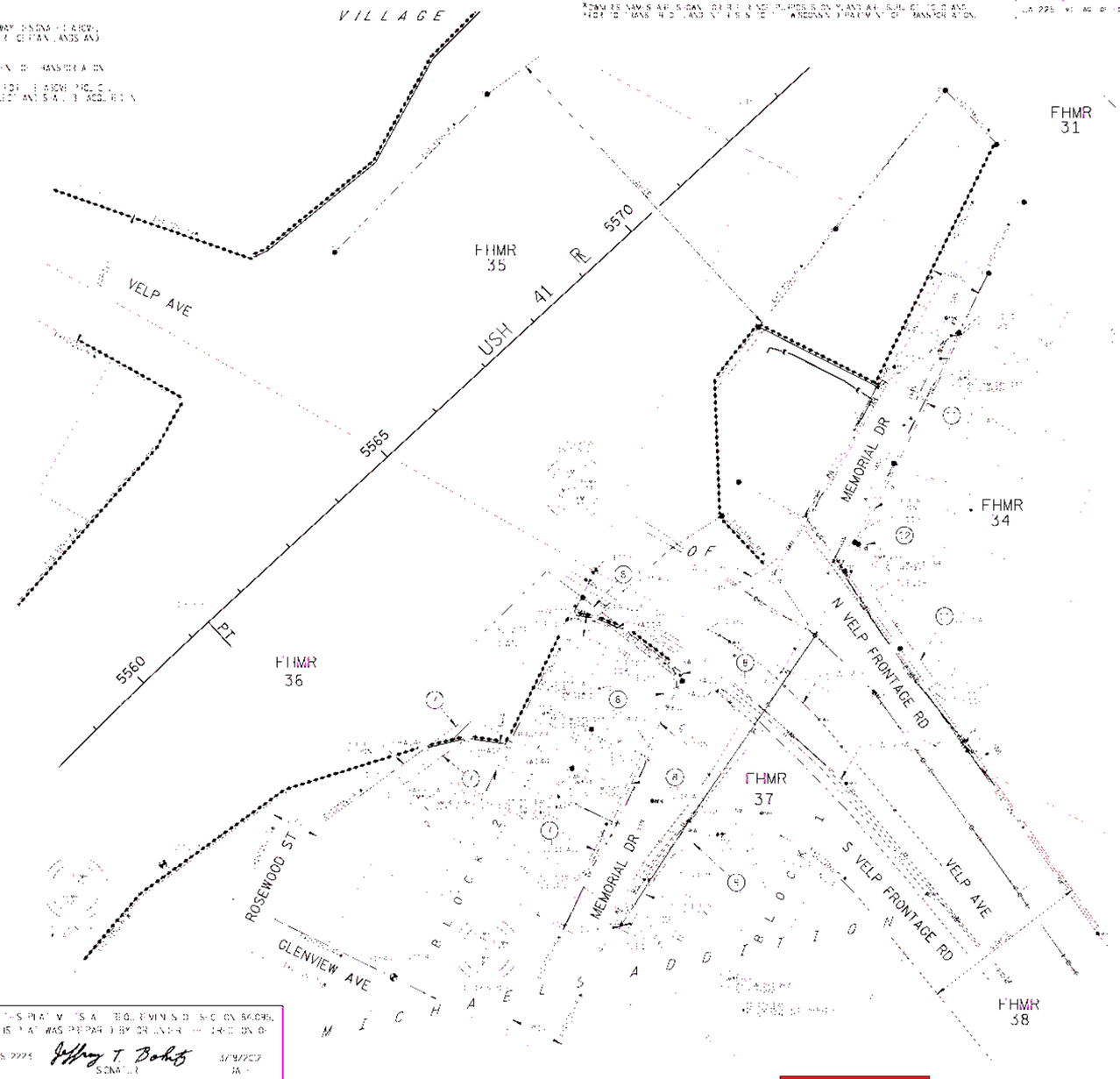
PARCEL NUMBER	OWNER	INTEREST REQUIRED	EXISTING R/W ACRES	NEW R/W ACRES	TOTAL ACRES
4	[illegible]	FEE	0.042		0.061
5	[illegible]	FEE	0.078		0.088
9	[illegible]	FEE			0.102
11	[illegible]	FEE			0.092
12	[illegible]				0.096

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
UT-00	WISCONSIN BELL INC D/B/A/ CENTURYLINK	RELEASE OF EASEMENT
UT-01	AT&T WISCONSIN	RELEASE OF EASEMENT
UT-08	TDS METROCOM, LLC	RELEASE OF EASEMENT
UT-16	WISCONSIN GAS LLC	RELEASE OF EASEMENT
UA-20S	BROWN COUNTY WASTEWATER TREATMENT PLANT	ADJUST MANHOLE
UA-22S	VILLAGE OF HOWARD SANITARY	ADJUST MANHOLE
UA-23S	VILLAGE OF HOWARD WATER	ADJUST MANHOLE

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

THIS SHEET FOR REGISTER OF DEEDS
TOTAL NUMBER OF SHEETS 2-4.02
AMENDMENT NO:



0 100 200
GRAPHIC SCALE

C1

BEGINNING AT THE SOUTHWEST CORNER OF LOT 1 OF CSM NO. 5989, VOLUME 36 OF CSMS ON PAGE 5989, AS DOCUMENT NO. 2564856, BROWN COUNTY REGISTER OF DEEDS; THENCE N 89°26'02" E ALONG THE SOUTH LINE OF SAID LOT 1 AND THE EASTERLY EXTENSION THEREOF, 1,322.04 FEET TO THE EAST LINE OF SAID LOT 1; THENCE S 00°33'58" E ALONG SAID EAST LINE, 1,322.04 FEET TO THE SOUTHEAST CORNER OF SAID LOT 1; THENCE S 89°26'02" W ALONG THE SOUTH LINE OF SAID LOT 1, 1,322.04 FEET TO THE SOUTHWEST CORNER OF SAID LOT 1; THENCE N 00°33'58" W ALONG THE WEST LINE OF SAID LOT 1, 1,322.04 FEET TO THE POINT OF BEGINNING.

CONTAINING 1,747,709 SQUARE FEET OR 40.12 ACRES.

BEING ALL OF LOT 1 OF CSM NO. 5989, VOLUME 36 OF CSMS ON PAGE 5989, AS DOCUMENT NO. 2564856, BROWN COUNTY REGISTER OF DEEDS.

SURVEYOR'S CERTIFICATE

I, JEFFREY T. BOHLER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT I HAVE SURVEYED, MAPPED AND DIVIDED THE LANDS DESCRIBED HEREON AND THAT THIS PLAT IS A CORRECT REPRESENTATION OF ALL EXTERIOR BOUNDARIES AND THE SUBDIVISION OF THE LANDS SURVEYED AND THAT I HAVE FULLY COMPLIED WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND THE SUBDIVISION REGULATIONS OF BROWN COUNTY IN SURVEYING, DIVIDING AND MAPPING THE SAME.

JEFFREY T. BOHLER — PROFESSIONAL LAND SURVEYOR — S-2222 — 5/9/2012
PRINTED NAME — SEAL — DATE

THIS PLAT AND RIGHT OF WAY DEDICATION ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

NORMAN H. POWELEYCHUK — NORMAN H. POWELEYCHUK — 5/9/2012
PRINTED NAME — SIGNATURE — DATE

COORDINATE LIST

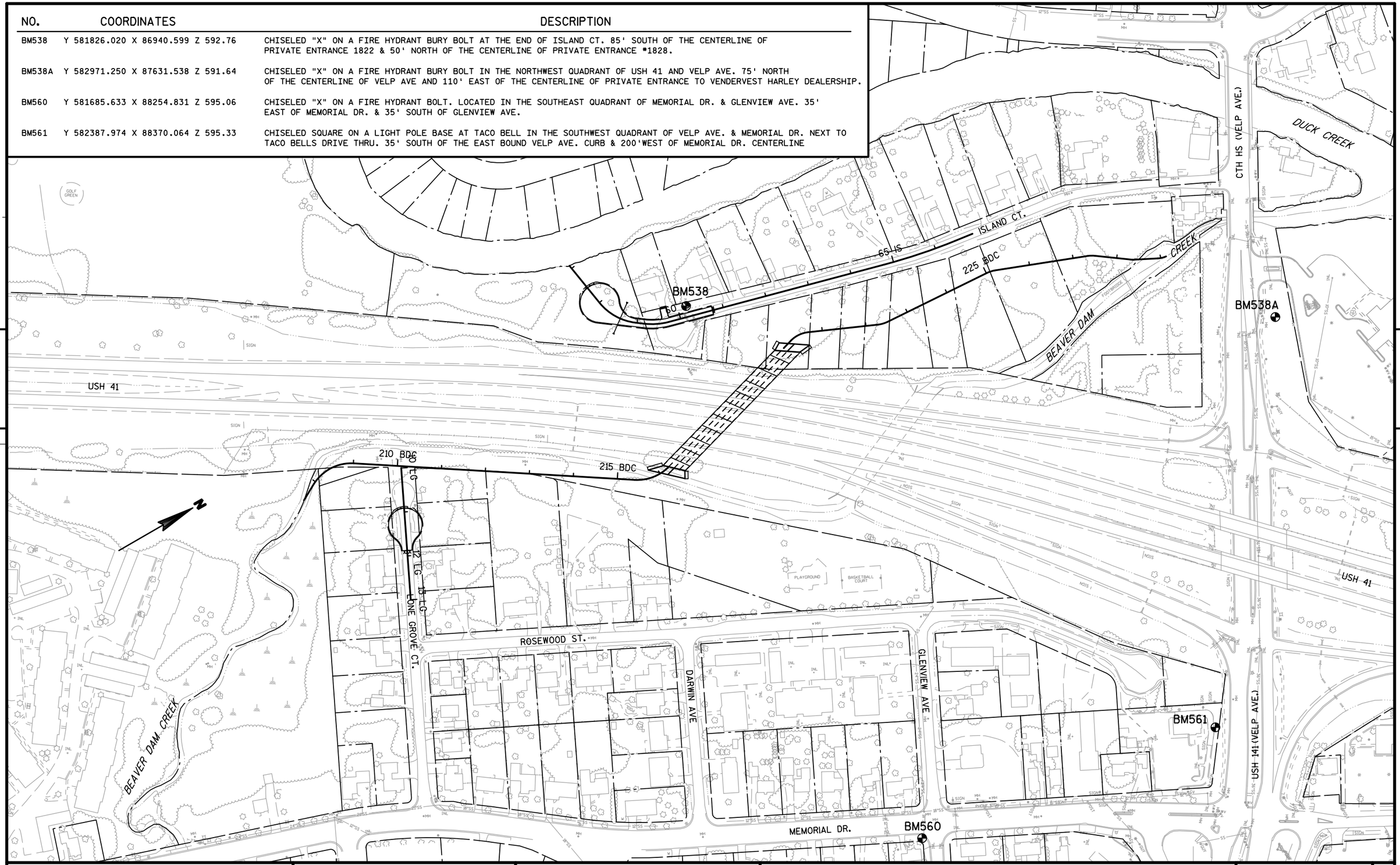
POINT NUMBER	POINT CODE	NORTHING	EASTING
S 2564	SECOR	N 25726.32	E 889.04
S 2567	SECOR	N 24752.73	E 181.15
3117	FHWA 12	N 24704.57	W 124.02
PARCEL 2	FHWA 12	N 25758.36	W 93.26
PARCEL 3	FHWA 13	N 25767.12	W 19.34
PARCEL 4	FHWA 14	N 24758.27	W 85.68
PARCEL 5	FHWA 15	N 24709.11	W 40.67
PARCEL 6	FHWA 16	N 24720.09	W 34.80
PARCEL 7	FHWA 17	N 25726.32	W 224.58
PARCEL 8	FHWA 18	N 25726.32	W 10.00
PARCEL 9	FHWA 19	N 25726.32	W 54.79
PARCEL 10	FHWA 20	N 24752.76	W 448.49
S 2567	SECOR	N 24752.76	W 485.58
3117	FHWA 12	N 24704.57	W 485.58
3118	FHWA 21	N 24704.57	E 1155.58
3119	SECOR	N 25726.32	W 485.58

STATION AND OFFSETS

POINT	STATION	OFFSET	X	Y
S 2564			889038.547	582226.497
S 2567			889048.388	581686.345
3118	5567+41.69	.00 R	889288.449	582497.294
"	5567+64.44	149.07 R	889267.303	582477.570
"	5567+81.66	164.04 R	889248.854	582461.962
PARCEL 5	5567+45.17	160.95 R	889281.628	582501.545
"	5567+74.28	147.45 R	889184.422	582430.624
" 36	5567+82.70	141.43 R	889187.380	582329.915
" 122	5567+97.78	660.09 R	889411.944	582214.229
" 123	5567+94.57	664.69 R	889415.104	582211.784
PARCEL 6	5563+01.49	197.74 R	889155.422	582216.374
" 124	5563+01.49	192.74 R	889155.422	582216.374
PARCEL 44	5563+47.28	442.24 R	889178.946	582266.812
PARCEL 43	5563+50.54	438.67 R	889224.582	582215.964
96	5563+58.30	429.14 R	889248.440	582205.152
" 95	5564+00.49	432.16 R	889285.512	582243.154
" 126	5564+14.64	418.54 R	889251.268	582192.758
" 103	5564+18.49	388.32 R	889213.260	582192.564
" 97	5564+18.49	368.32 R	889251.868	582247.388
" 128	5565+36.57	366.24 R	889311.424	582238.947
PARCEL 8	5565+44.44	364.35 R	889311.765	582287.812
" 100	5565+45.87	821.76 R	889273.872	582269.422
" 129	5565+51.14	497.32 R	889248.992	582302.774
PARCEL 9	5565+51.88	329.61 R	889248.776	582238.587
" 104	5565+54.11	410.54 R	889276.209	582387.492
PARCEL 7	5565+61.24	553.73 R	889411.904	582296.124
PARCEL 8	5565+61.17	445.26 R	889311.765	582345.778
" 130	5565+94.67	537.54 R	889425.568	582312.357
PARCEL 9	5565+98.77	549.08 R	889411.449	582387.982
PARCEL 10	5566+07.60	520.55 R	889454.413	582376.584
S 2567	5566+17.81	448.24 R	889448.245	582451.583
3117	5566+19.88	317.83 R	889478.534	582360.751
" 116	5566+57.86	808.90 R	889611.925	582297.109
" 117	5566+77.74	810.77 R	889611.429	582298.751
" 118	5566+98.66	644.97 R	889765.560	582435.884
" 119	5569+55.58	567.36 R	889765.084	582431.502
" 120	5570+57.47	446.10 R	889836.775	582626.663
" 120	5570+61.74	450.78 R	889821.744	582624.458
3118	5573+00.00	.00 R	889674.114	582182.284

NOT OFFICIAL
A recorded copy of this plat can be obtained from the Register of Deeds Office.

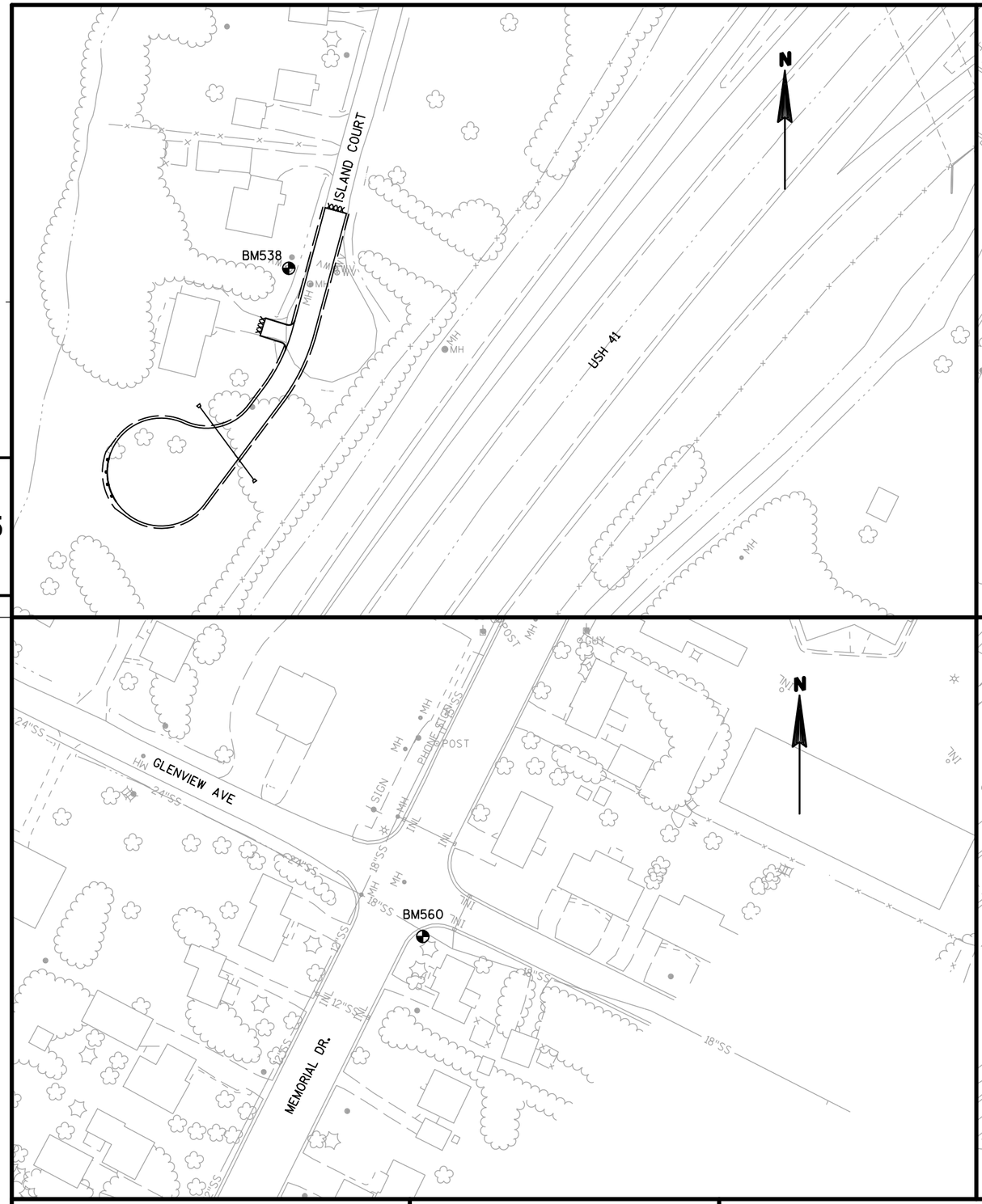
NO.	COORDINATES	DESCRIPTION
BM538	Y 581826.020 X 86940.599 Z 592.76	CHISELED "X" ON A FIRE HYDRANT BURY BOLT AT THE END OF ISLAND CT. 85' SOUTH OF THE CENTERLINE OF PRIVATE ENTRANCE 1822 & 50' NORTH OF THE CENTERLINE OF PRIVATE ENTRANCE #1828.
BM538A	Y 582971.250 X 87631.538 Z 591.64	CHISELED "X" ON 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

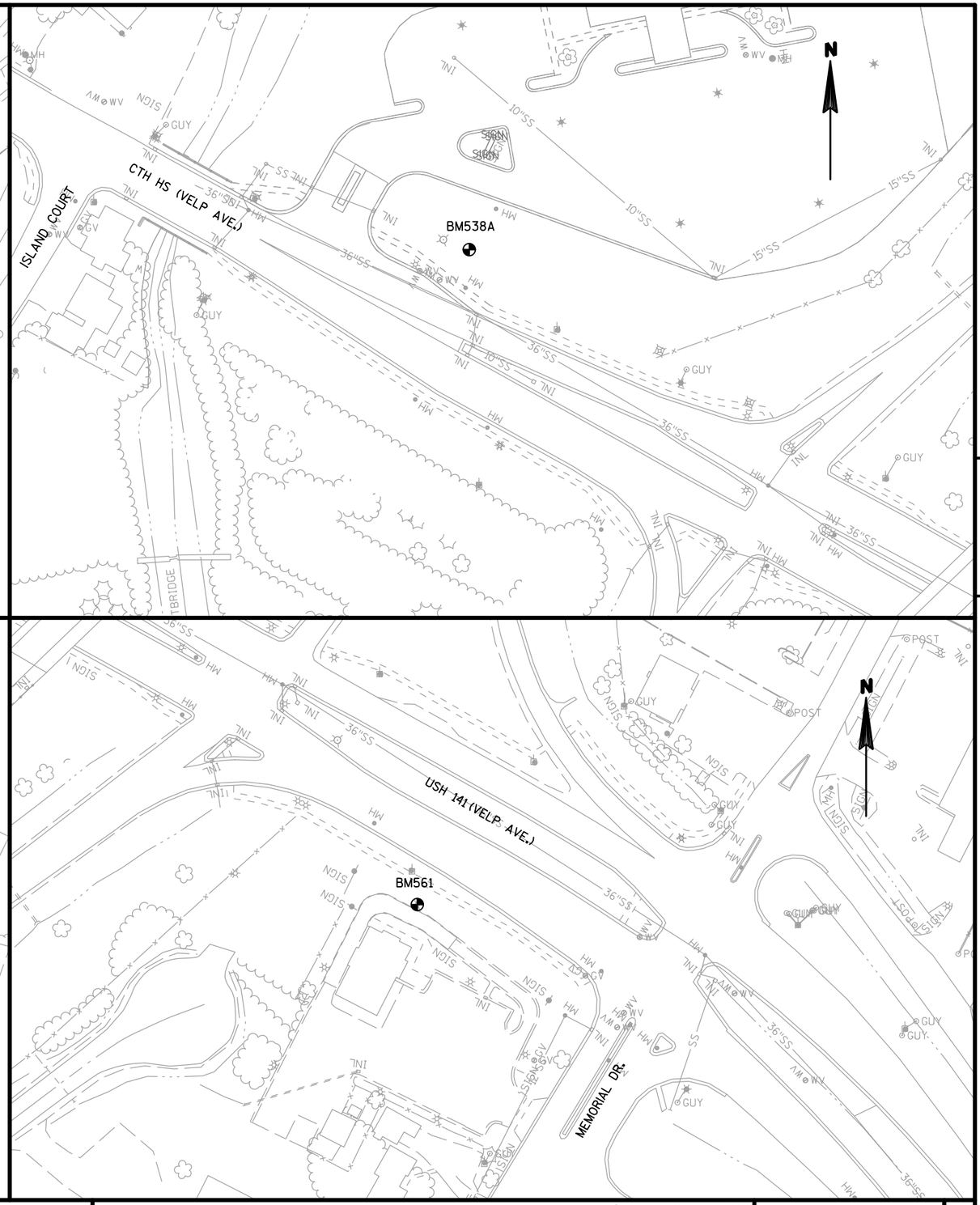


PROJECT NO: 1133-10-80, 1133-11-75/86	HWY: USH 41	COUNTY: BROWN	BENCH MARKS	SCALE, FEET 0 100 200	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_050000_bm.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

WISDOT/CADDS SHEET 44



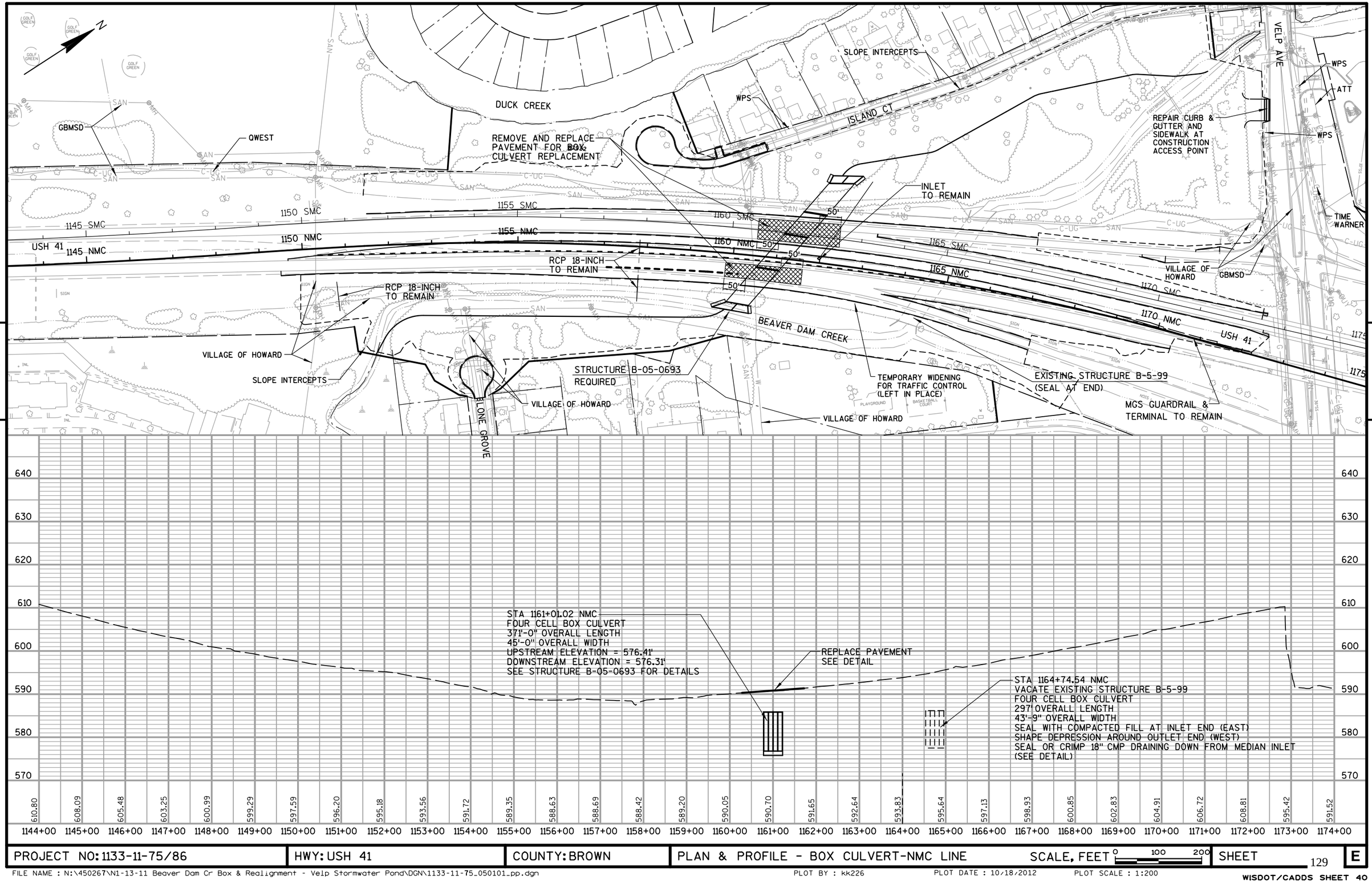


PROJECT NO: 1133-10-80, 1133-11-75/86	HWY: USH 41	COUNTY: BROWN	BENCH MARKS	SCALE, FEET 0 50 100	SHEET 128	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_050001_bm.dgn

PLOT BY : kk226 PLOT DATE : 12/3/2012 PLOT SCALE : 1:100

WISDOT/CADDS SHEET 44



PROJECT NO: 1133-11-75/86	HWY: USH 41	COUNTY: BROWN	PLAN & PROFILE - BOX CULVERT-NMC LINE	SCALE, FEET 0 100 200	SHEET 129	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_050101_pp.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

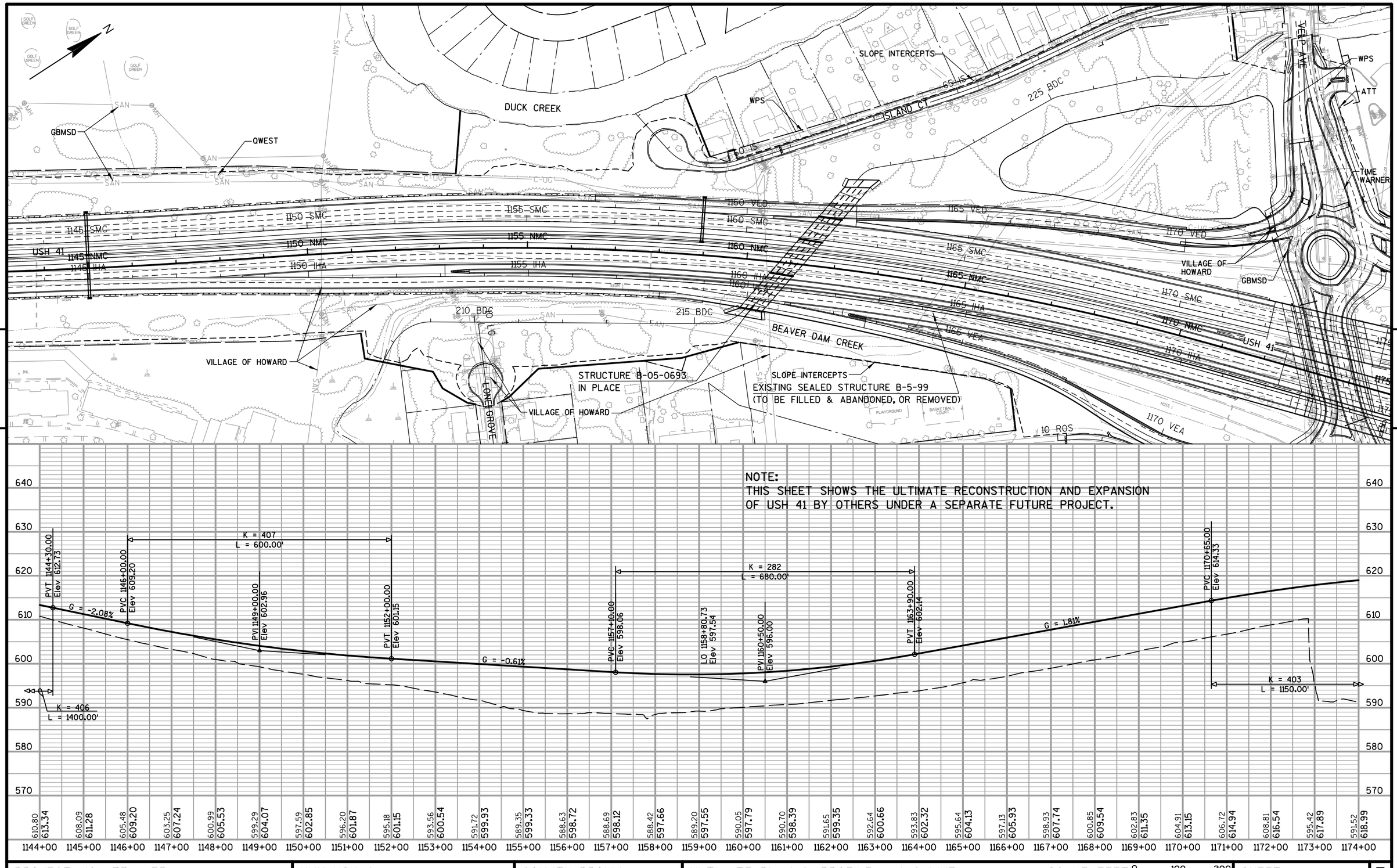
WISDOT/CADDS SHEET 40

NOTE:
THIS SHEET SHOWS THE ULTIMATE RECONSTRUCTION AND EXPANSION OF USH 41 BY OTHERS UNDER A SEPARATE FUTURE PROJECT.

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ULTIMATE PLAN & PROFILE - NMC LINE	SCALE, FEET 0 100 200	SHEET 130	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_050102_pp.dgn PLOT BY : kk226 PLOT DATE : 10/18/2012 PLOT SCALE : 1:200

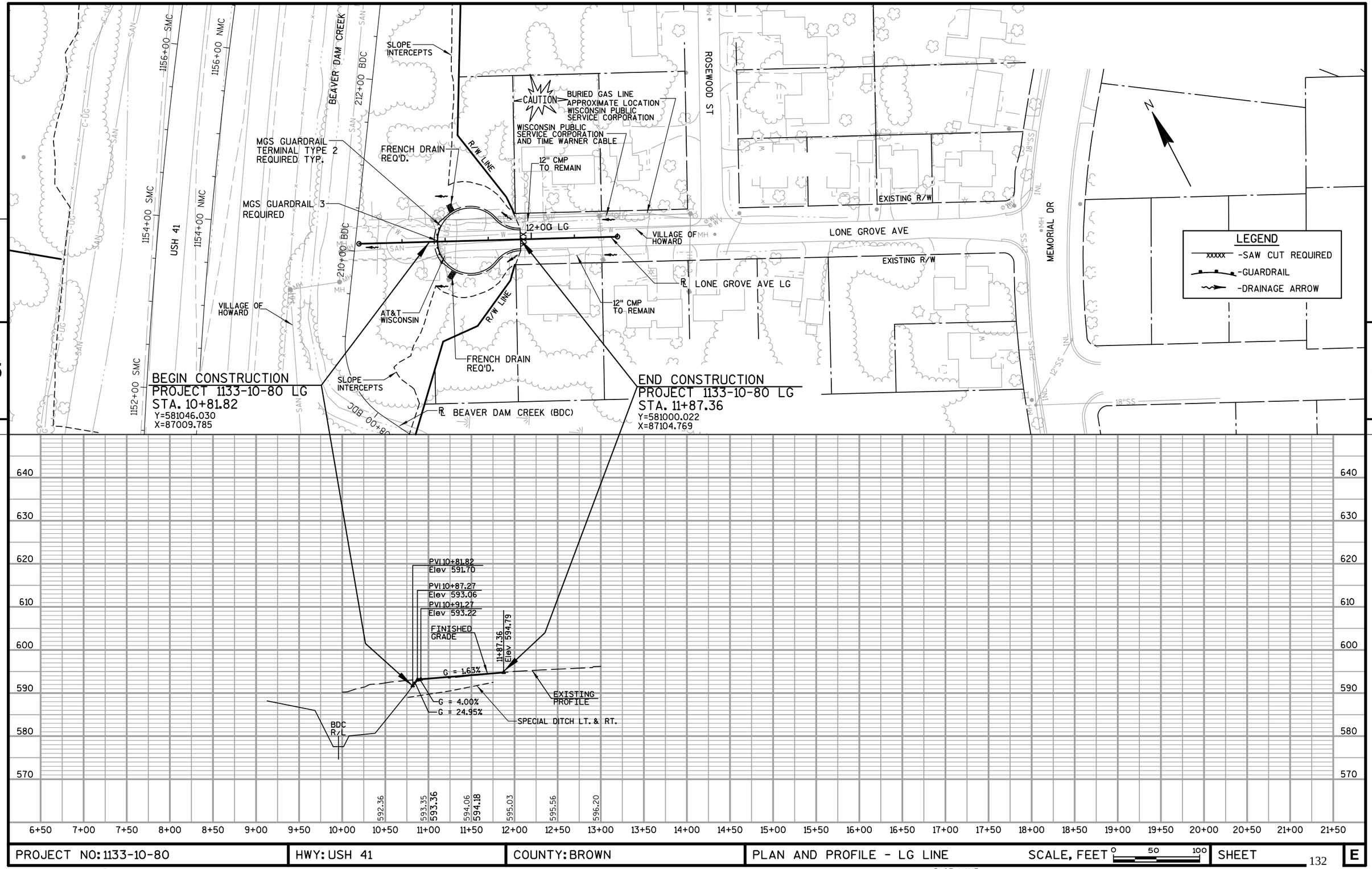
WISDOT/CADDS SHEET 40



5 5

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	ULTIMATE PLAN & PROFILE - NMC LINE	SCALE, FEET 0 100 200	SHEET 131	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_050103_pp.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:200



PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	PLAN AND PROFILE - LG LINE	SCALE, FEET 0 50 100	SHEET 132	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_050101_pp.dgn | PLOT DATE : 10/18/2012 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND
-SAW CUT REQUIRED
-GUARDRAIL
-DRAINAGE ARROW

DUCK CREEK

STA. 59+67 IS
PE LT

MGS GUARDRAIL TERMINAL TYPE 2 REQUIRED TYP.

MGS GUARDRAIL 3 REQUIRED

SLOPE INTERCEPTS

FRENCH DRAIN REQ'D.

FRENCH DRAIN REQ'D.

STA. 58+60
1-18" CPCS
2-APRON ENDWALLS

BURIED GAS LINE APPROXIMATE LOCATION WISCONSIN PUBLIC SERVICE CORPORATION

CAUTION

WISCONSIN PUBLIC SERVICE CORPORATION AND TIME WARNER CABLE

EXISTING R/W

ISLAND CT.

R/W LINE

58+00 IS

R/W LINE

EXISTING R/W

62+00 IS

60+00 IS

QUEST

FRENCH DRAIN REQ'D.

℄ ISLAND COURT IS

FRENCH DRAIN REQ'D.

℄ BEAVER DAM CREEK (BDC)

224+00 BDC

222+00 BDC

226+

1154+00 SMC

BEGIN CONSTRUCTION
PROJECT 1133-10-80 IS
STA. 57+32.24
Y=581648.535
X=86768.948

1154+00 NMC

1156+00 NMC

USH 41

1158+00 SMC

1160+00 SMC

USH 41

1158+00 NMC

VILLAGE OF HOWARD

PROPOSED DITCHING

VILLAGE OF HOWARD

STRUCTURE B-05-0693

END CONSTRUCTION
PROJECT 1133-10-80 IS
STA. 60+75
Y=581872.723
X=86979.310

BEAVER DAM CREEK

PVI 57+56.81
Elev 591.60

PVI 57+52.81
Elev 591.44

PVI 57+40.13
Elev 588.27

57+32.24
Elev 590.25

FINISHED GRADE

PVC 58+00.00
Elev 592.26

PVI 58+50.00
Elev 593.01

PVRC 59+00.00
Elev 592.03

PVI 59+50.00
Elev 591.04

PVT 60+00.00
Elev 590.81

K = 66
L = 100.00'

EXISTING PROFILE

G = 1.51%

G = -0.46%

G = -25.00%

G = 25.00%

G = 4.00%

HI 58+43.41
Elev 592.59

SPECIAL DITCH LT

SPECIAL DITCH RT

K = 29
L = 100.00'

STA. 58+60
1-18" CPCS REQ'D.

630 620 610 600 590 580 570 560

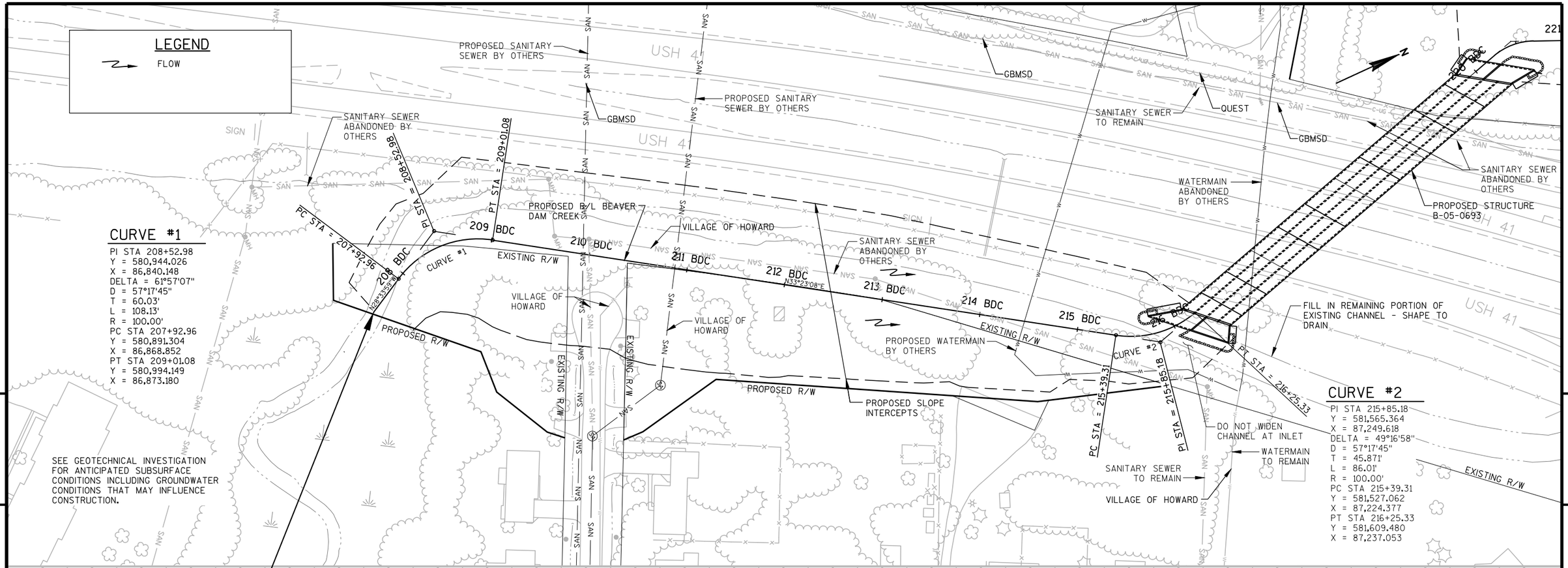
582.64 590.96 590.74 591.75 592.26 592.27 592.58 591.27 592.03 591.08 591.23 591.06 590.81 590.54 590.58 590.37 590.02 589.70 589.65 589.59 589.25 589.21 588.99 588.86 588.75 588.58 588.31 588.24

52+00 52+50 53+00 53+50 54+00 54+50 55+00 55+50 56+00 56+50 57+00 57+50 58+00 58+50 59+00 59+50 60+00 60+50 61+00 61+50 62+00 62+50 63+00 63+50 64+00 64+50 65+00 65+50 66+00 66+50 67+00

PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	PLAN AND PROFILE - IS LINE SCALE, FEET 0 50 100	SHEET 133	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_050102_pp.dgn
PLOT DATE : 10/18/2012
PLOT BY : kk226
PLOT NAME :
PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	PLAN AND PROFILE - BDC LINE SCALE, FEET 0 50 100	SHEET E

CURVE #3
PI STA 220+46.76
Y = 582,014.704
X = 87,121.566
DELTA = 39°47'32"
D = 89°54'14"
T = 23.07'
L = 44.26'
R = 63.73
PC STA 220+23.69
Y = 581,992.530
X = 87,127.920
PT STA 220+67.96
Y = 582,035.808
X = 87,130.874

CURVE #4
PI STA 222+38.80
Y = 582,192.118
X = 87,199.821
DELTA = 19°59'18"
D = 89°54'14"
T = 11.23'
L = 22.23'
R = 63.73'
PC STA 222+27.57
Y = 582,181.842
X = 87,195.289
PT STA 222+49.80
Y = 582,203.324
X = 87,200.568

CURVE #5
PI STA 225+11.21
Y = 582,464.154
X = 87,217.954
DELTA = 17°19'48"
D = 89°54'14"
T = 9.71'
L = 19.28'
R = 63.73'
PC STA 225+01.50
Y = 582,454.463
X = 87,217.308
PT STA 225+20.77
Y = 582,473.213
X = 87,221.458

CURVE #6
PI STA 227+42.21
Y = 582,679.739
X = 87,301.329
DELTA = 14°55'06"
D = 89°54'14"
T = 8.34'
L = 16.59'
R = 63.73'
PC STA 227+33.86
Y = 582,671.957
X = 87,298.319
PT STA 227+50.46
Y = 582,686.485
X = 87,306.241

CURVE #7
PI STA 228+36.07
Y = 582,755.691
X = 87,356.637
DELTA = 9°07'28"
D = 89°54'14"
T = 5.09'
L = 10.15'
R = 63.73'
PC STA 228+30.98
Y = 582,751.580
X = 87,353.643
PT STA 228+41.13
Y = 582,760.225
X = 87,358.941

CURVE #8
PI STA 229+01.03
Y = 582,813.628
X = 87,386.077
DELTA = 16°35'13"
D = 114°35'30"
T = 7.29'
L = 14.48'
R = 50.00'
PC STA 228+93.75
Y = 582,807.131
X = 87,382.775
PT STA 229+08.22
Y = 582,820.798
X = 87,387.387

LEGEND
FLOW

CAUTION
PROPOSED WATERMAIN BY OTHERS
WPS
ISLAND COURT
PROPOSED R/W
GBMSD
PC STA = 220+46.76
PI STA = 220+67.96
PT STA = 220+23.69
WATERMAIN ABANDONED BY OTHERS
QUEST
PROPOSED SANITARY SEWER TO REMAIN
VILLAGE OF HOWARD
WATERMAIN ABANDONED BY OTHERS
CURVE #3
WIDEN CHANNEL BOTTOM AT CULVERT TO MATCH ENDWALL (OUTLET SIDE ONLY)
N15°59'25"W
GBMSD
R/W EXISTING
SANITARY SEWER ABANDONED BY OTHERS
PROPOSED STRUCTURE B-05-0693
USH 41
221 BDC
N23°48'07"E
222 BDC
CURVE #4
223 BDC
224 BDC
N3°48'48"E
225 BDC
CURVE #5
226 BDC
N21°08'36"E
227 BDC
228 BDC
CURVE #6
N36°03'42"E
CURVE #7
229 BDC
N10°21'01"E
CURVE #8
N26°56'14"E
PC STA = 225+01.50
PI STA = 225+11.21
PT STA = 225+20.77
PC STA = 222+27.57
PI STA = 222+38.80
PT STA = 222+49.80
PC STA = 227+33.86
PI STA = 227+42.21
PT STA = 227+50.46
PC STA = 228+30.98
PI STA = 228+36.07
PT STA = 228+41.13
PC STA = 228+93.75
PI STA = 229+01.03
PT STA = 229+08.22
PROPOSED R/L BEAVER DAM CREEK
PROPOSED SLOPE INTERCEPTS
STAGE II VELP AVE. POND TOP OF BERM EL 589
VELP AVE. POND CONTOUR (FOR INFO ONLY)
FOOTBRIDGE
585
580
575
MATCH EXISTING BEAVER DAM CREEK
STRUCTURES TO REMAIN
EXISTING BEAVER DAM CREEK
VELP AVE
SIGN
WPS
R/W EXISTING
END CONSTRUCTION
STA. 229+13
Y = 582,825.502
X = 87,388.245

PROPOSED STRUCTURE B-05-0693
EXISTING GROUNDLINE AT PROPOSED CREEK ALIGNMENT
-0.03%
MATCH EXISTING STREAMBED STA. 229+13, ELEV. 577.06
PROPOSED R/L PROFILE BEAVER DAM CREEK REALIGNMENT
EXISTING R/L ELEVATION
PROPOSED R/L ELEVATION

589.99	589.76	589.58	589.24	588.42
577.31	577.30	577.28	577.27	577.26
588.04	588.59	588.58	588.59	588.57
577.24	577.23	577.21	577.20	577.19
589.29	588.62	587.97	587.30	587.30
577.17	577.16	577.15	577.13	577.12
589.66	587.16	581.24	577.69	577.07
577.11	577.09	577.08		577.06

577.06
229+13

610 600 590 580 570 560 550

217+50 218+00 218+50 219+00 219+50 220+00 220+50 221+00 221+50 222+00 222+50 223+00 223+50 224+00 224+50 225+00 225+50 226+00 226+50 227+00 227+50 228+00 228+50 229+00

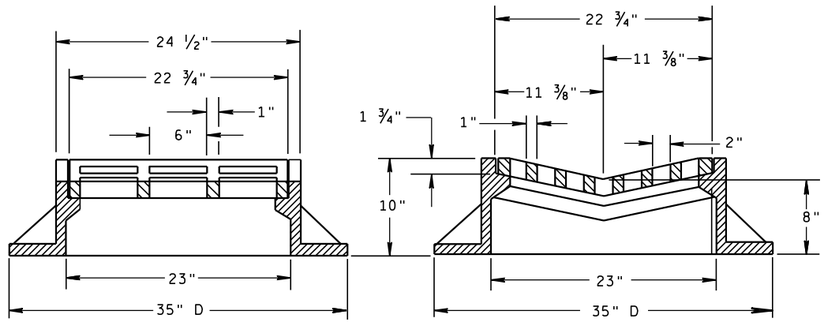
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	PLAN AND PROFILE - BDC LINE	SCALE, FEET 0 50 100

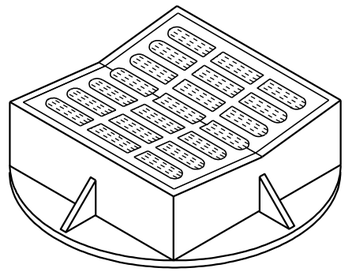
SHEET E

Standard Detail Drawing List

08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
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
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
11A01-04	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
13A05-04A	SHOULDER RUMBLE STRIP, MILLING
13A05-04B	SHOULDER RUMBLE STRIP, MILLING
14B07-12A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-12B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-12C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-12D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
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
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
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15A04-01	FLEXIBLE DELINEATOR POST
15A06-02	DELINEATOR LAYOUT
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15B03-12A	CHAIN LINK FENCE
15B03-12B	CHAIN LINK FENCE
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C08-14A	PAVEMENT MARKING (MAINLINE)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C19-01C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C26-02	END-OF-ROADWAY SIGNING
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
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
15D29-02	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6

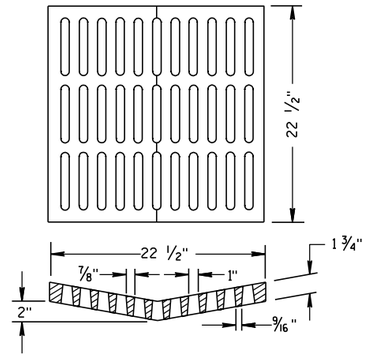




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

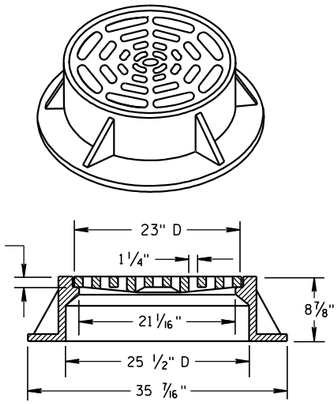


ALTERNATIVE GRATE FOR TYPE "B" COVER

(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.

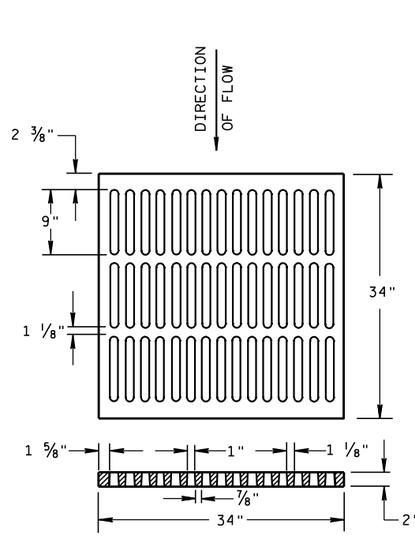
GENERAL NOTES

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.

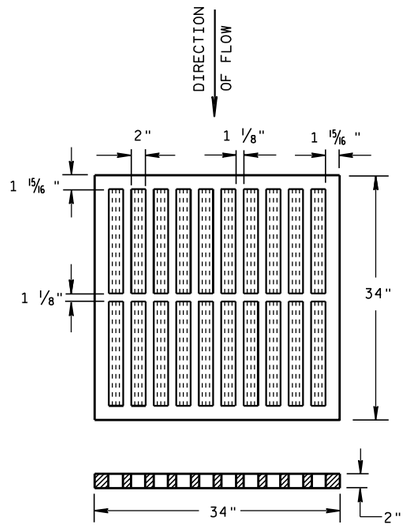


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

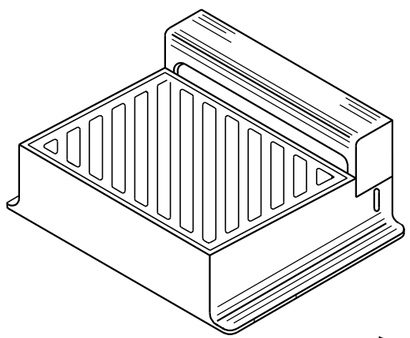


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

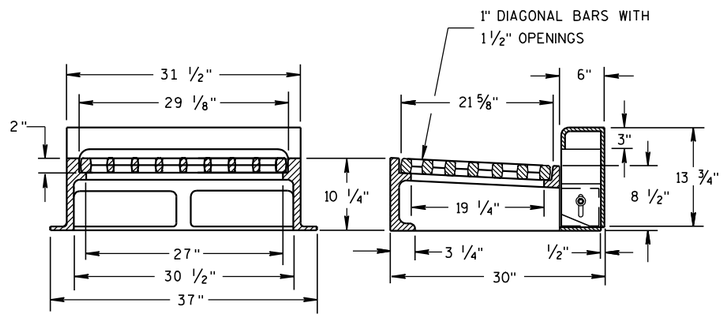
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

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

137

ENT

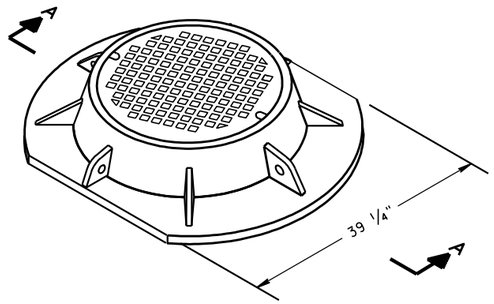
FHWA

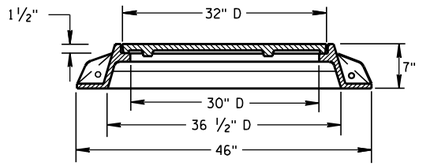
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S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



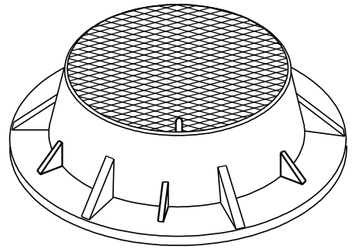


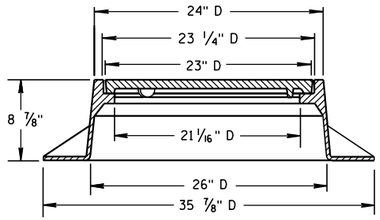
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

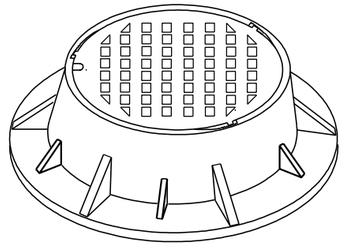


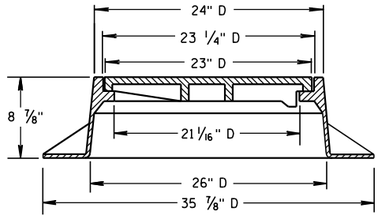


TYPE "J"

(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)

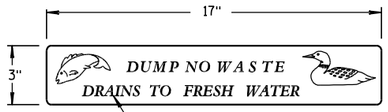
GENERAL NOTES

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.

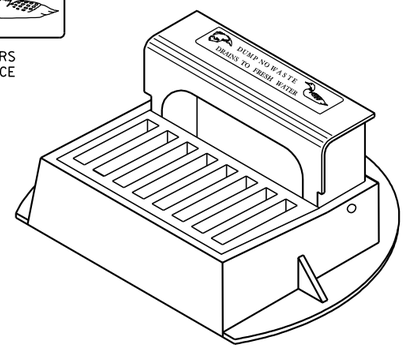
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

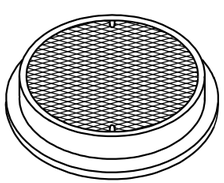
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

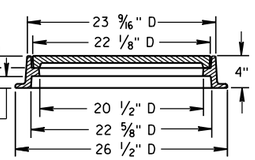
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



LOGO DETAIL



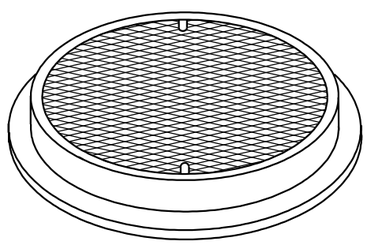


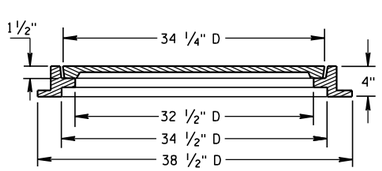


TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

FRAME.....81 LBS.
LID.....77 LBS.

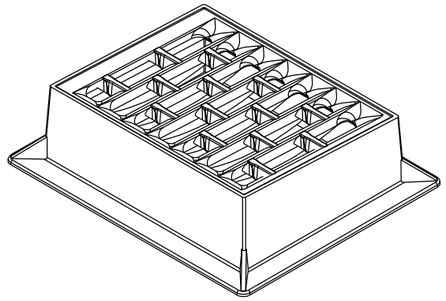


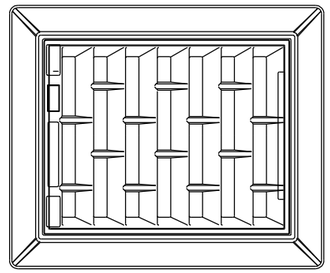


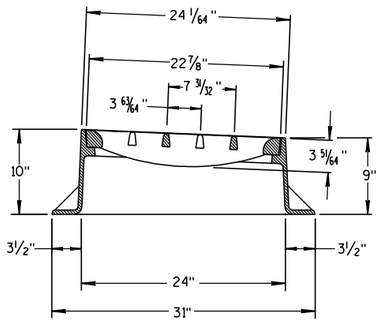
TYPE "M"

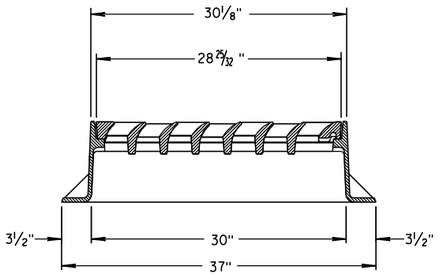
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

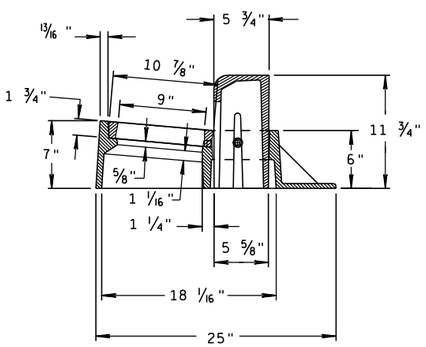


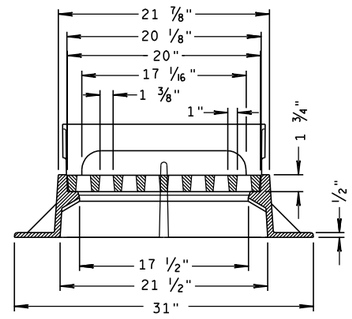






INLET COVER TYPE "BW"





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

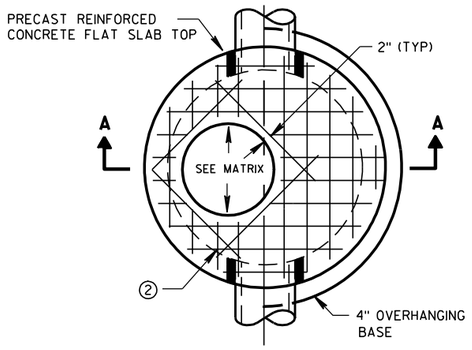
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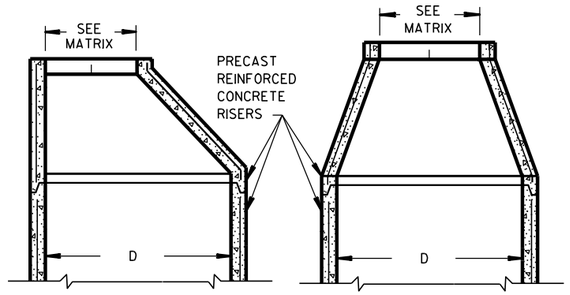
S.D.D. 8 A 5-18d

6

S.D.D. 8 A 5-18d

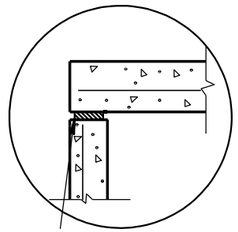


PLAN VIEW CIRCULAR OPENING

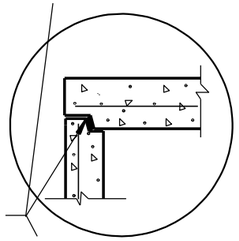


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

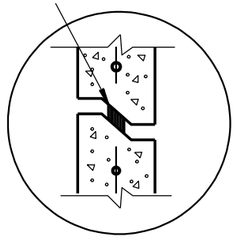


TOP WITH PLAIN END JOINT



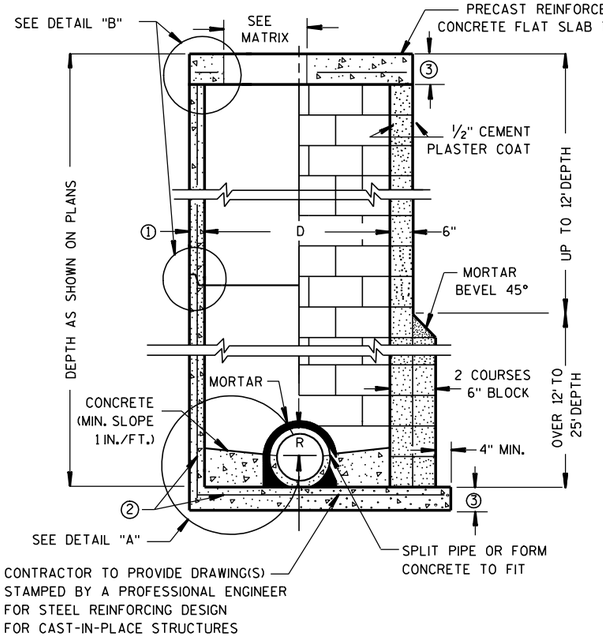
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



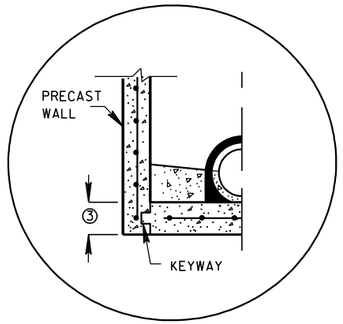
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

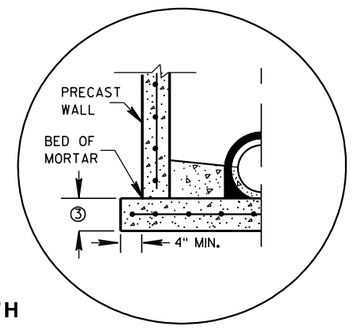


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

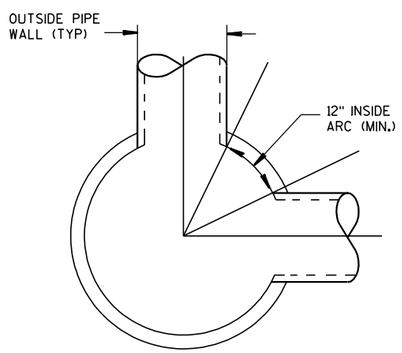


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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

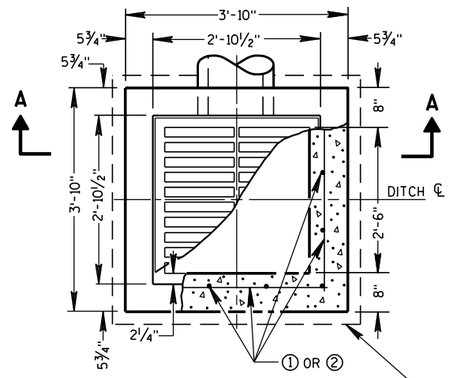
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

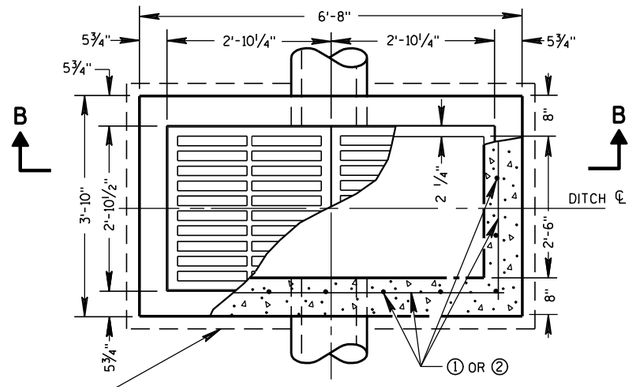
FHWA

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

6
S.D.D. 8 B 9-1

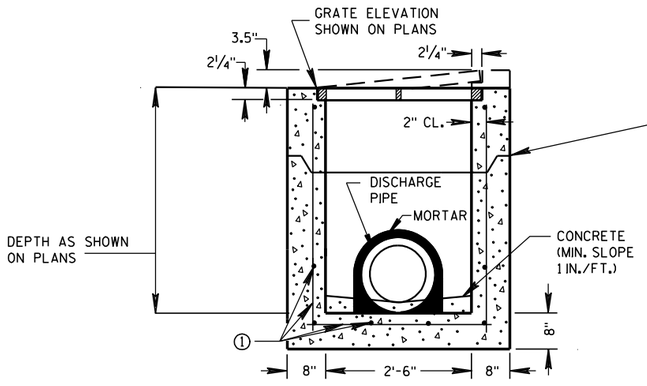


PLAN VIEW

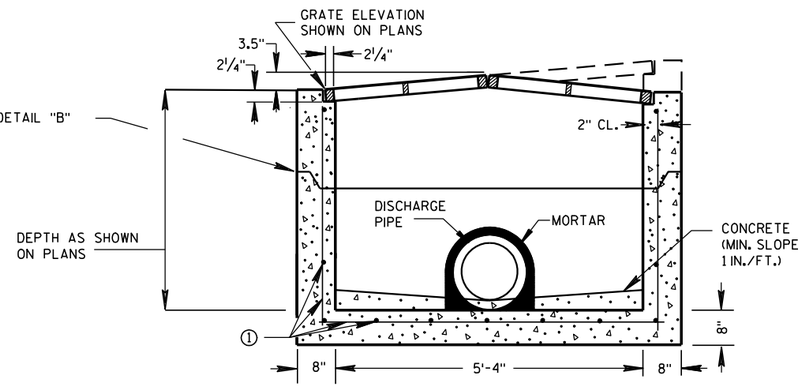


PLAN VIEW

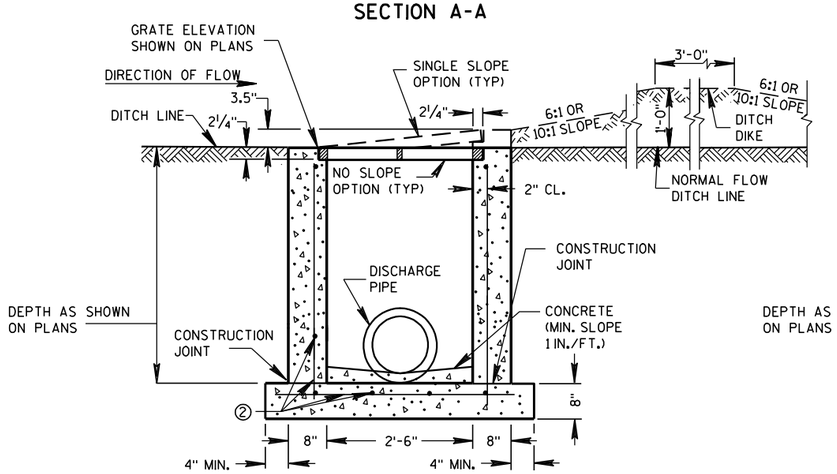
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



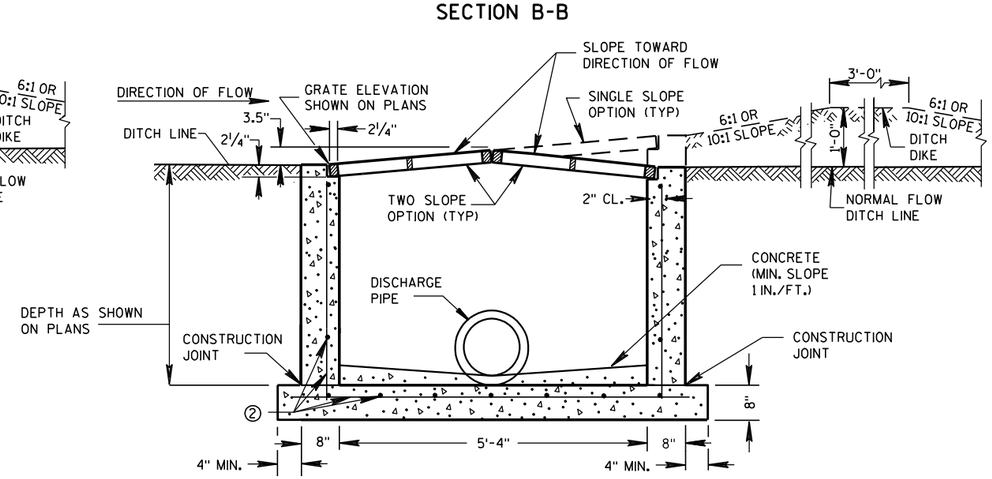
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

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.

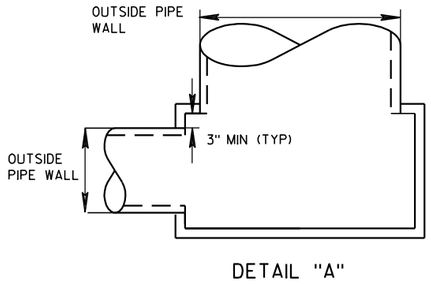
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

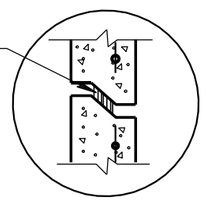
PIPE MATRIX

	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 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

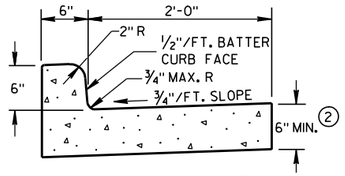
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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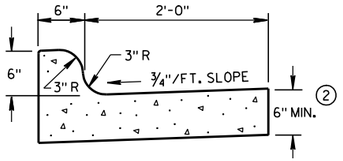
S.D.D. 8 C 8-1

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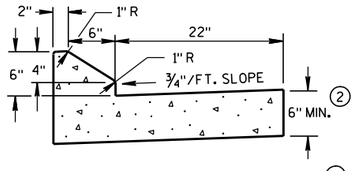
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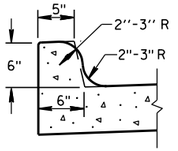
TYPES A & D (1)



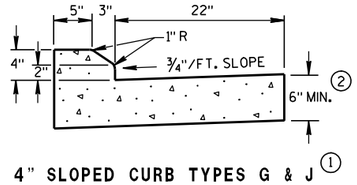
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

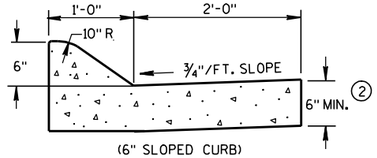


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

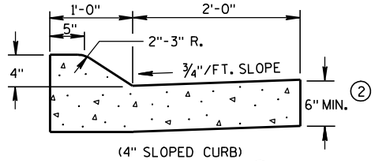


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

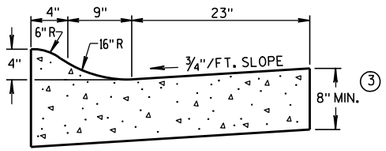


(6" SLOPED CURB)



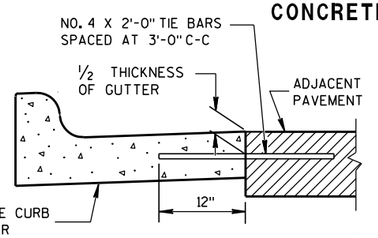
(4" SLOPED CURB)

TYPES A & D (1)

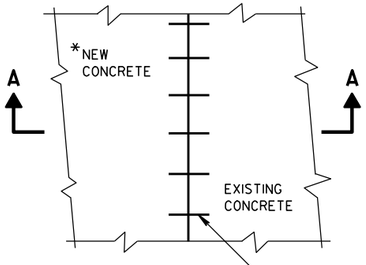


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

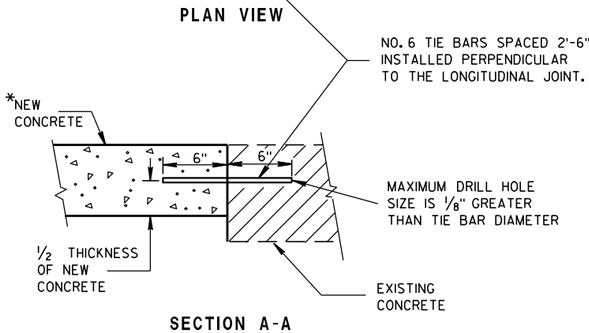


TYPICAL TIE BAR LOCATION (1)



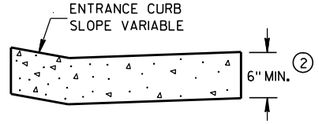
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW



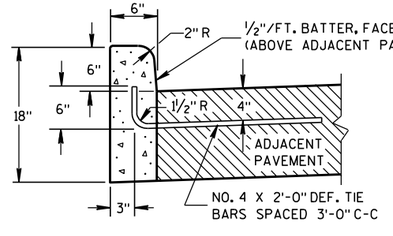
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



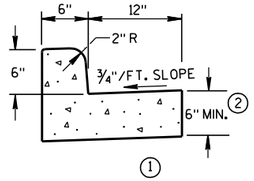
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

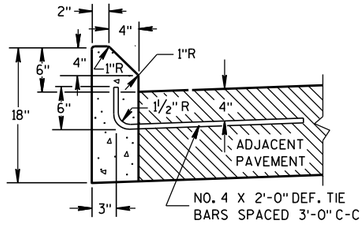
TYPES A & D



(1)

TYPES A & D

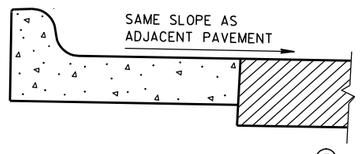
CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB



(5)

REVERSE SLOPE GUTTER

(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.

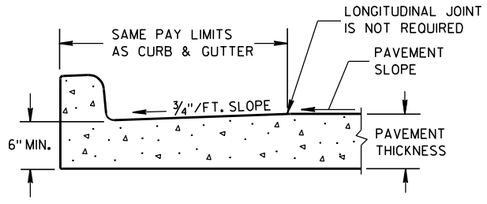
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

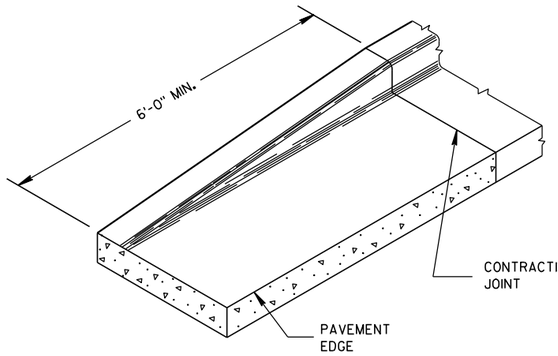
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08
DATE

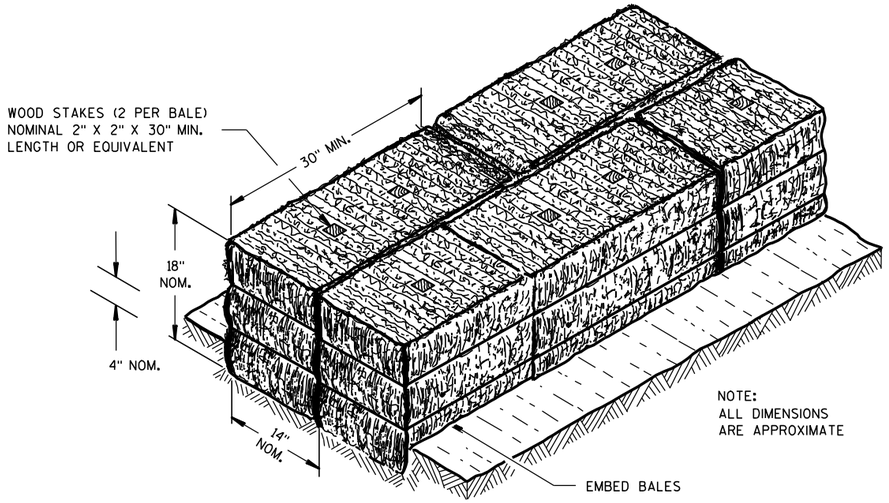
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

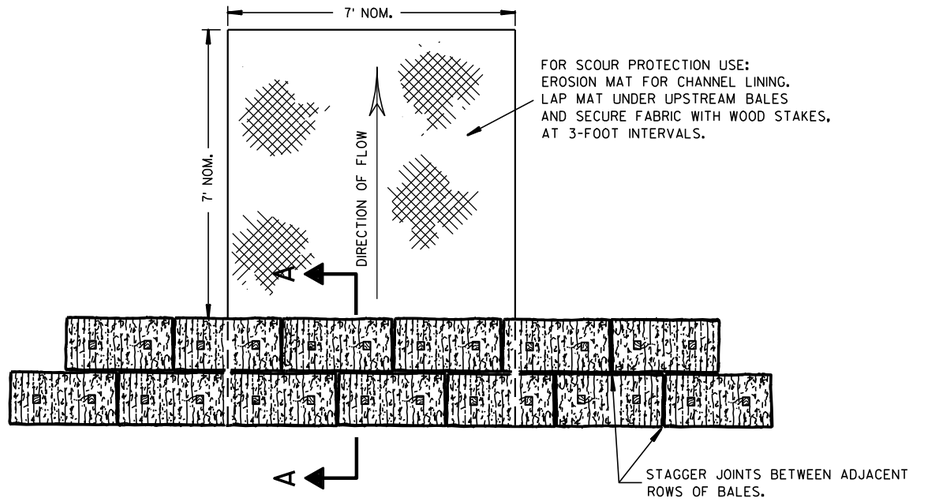
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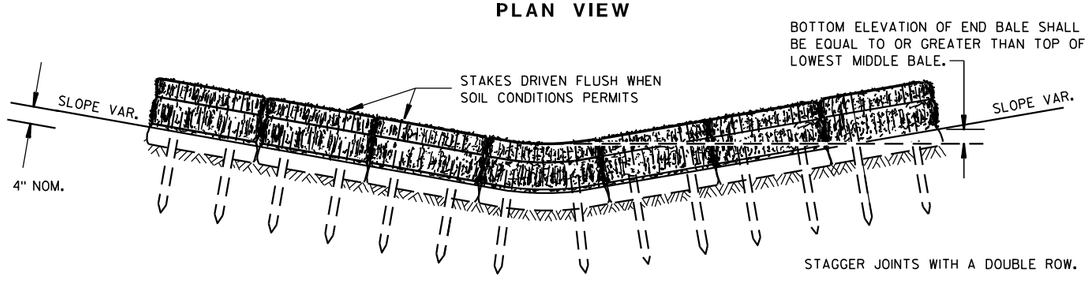
S.D.D. 8 D 1-17



SECTION A-A



PLAN VIEW



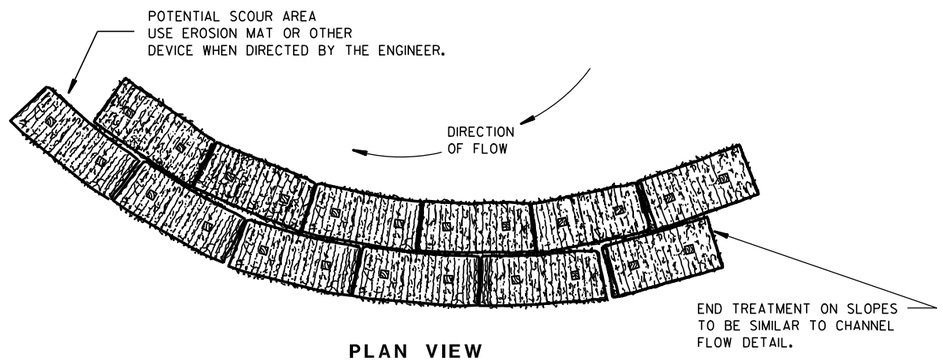
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

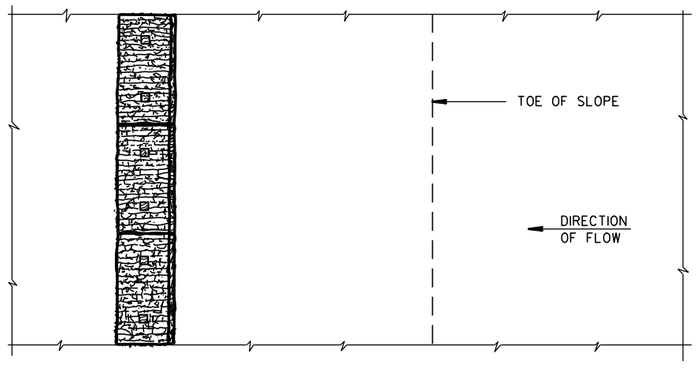
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

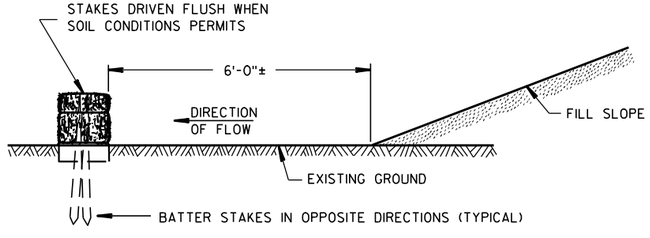


PLAN VIEW

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

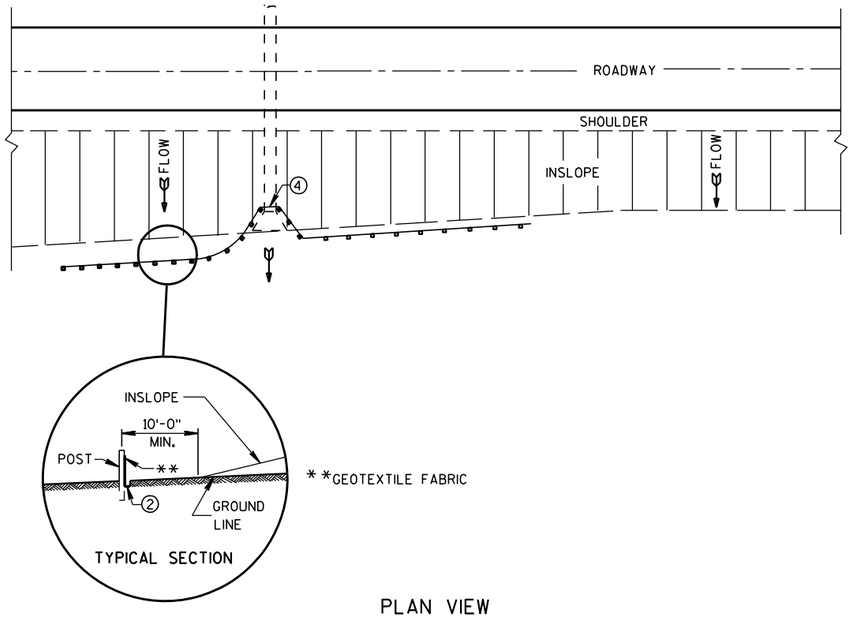
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

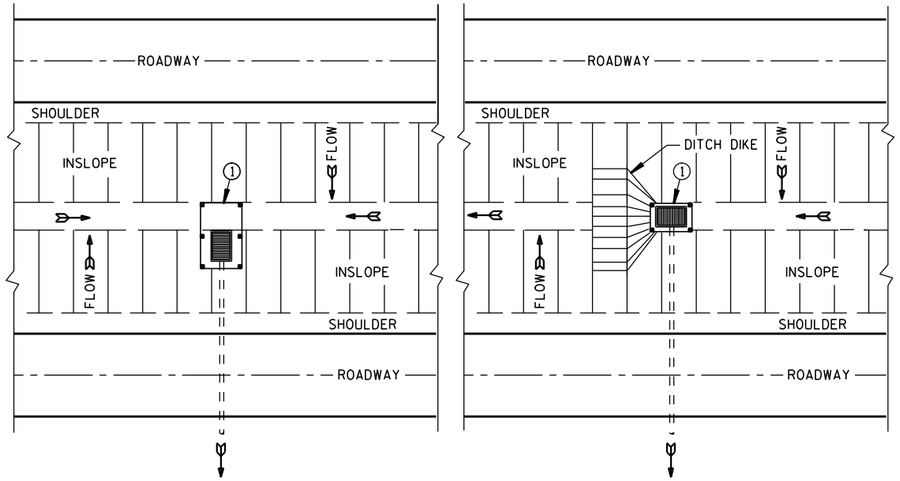
6

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.

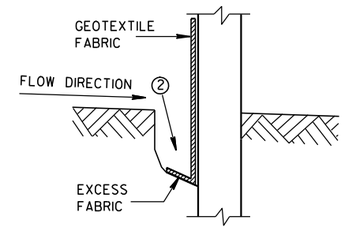
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

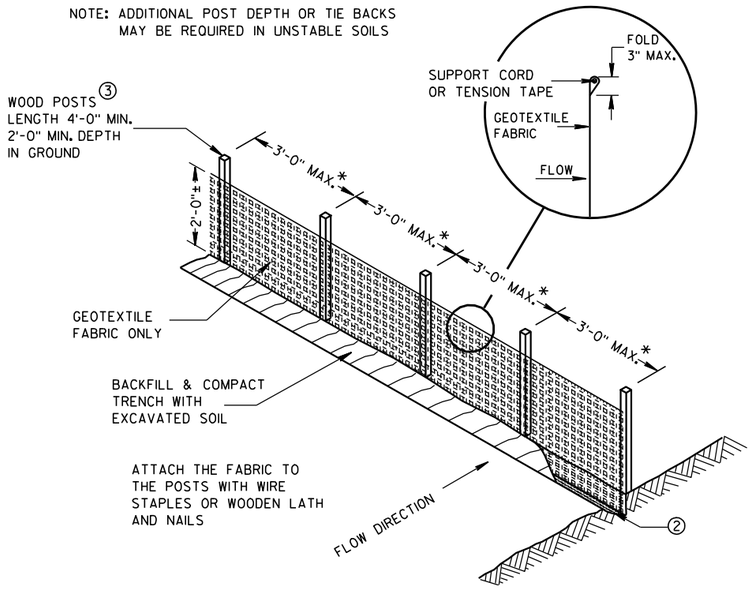
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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.

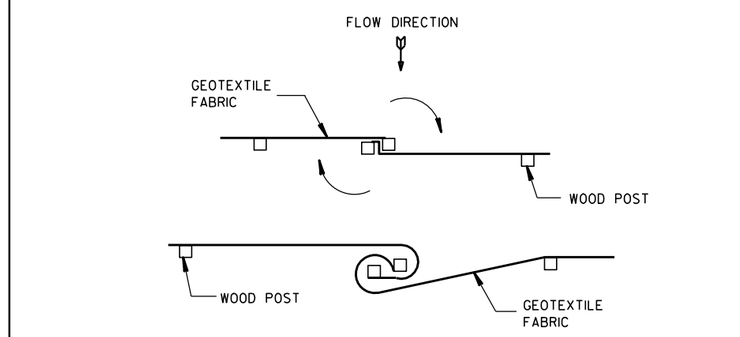


TRENCH DETAIL

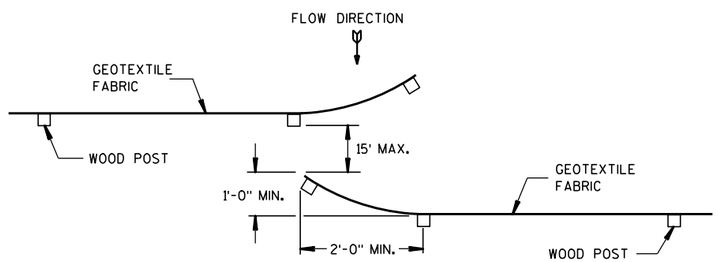


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

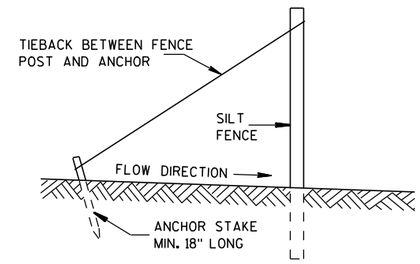


TWIST METHOD



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

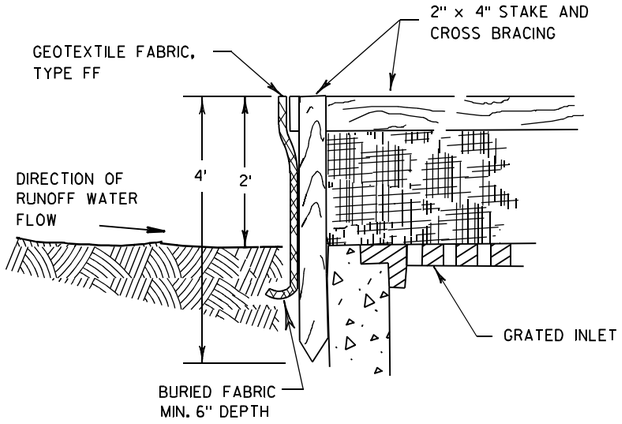
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

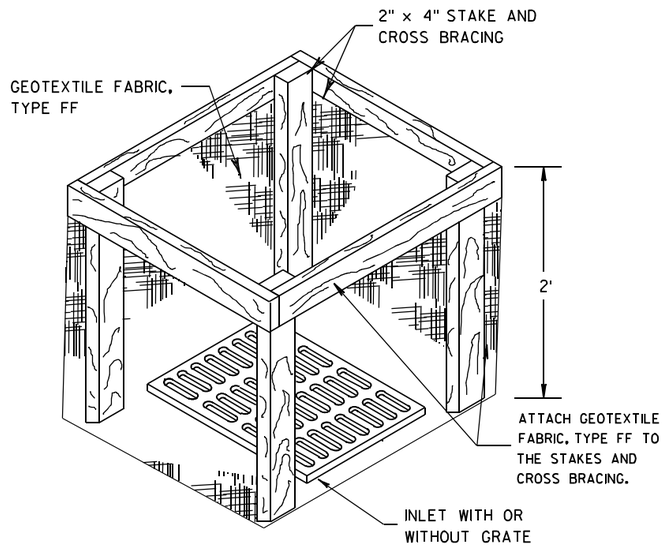
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S.D.D. 8 E 9-6

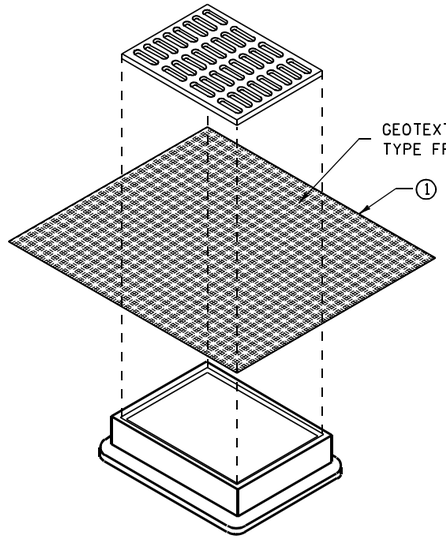
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S.D.D. 8 E 9-6



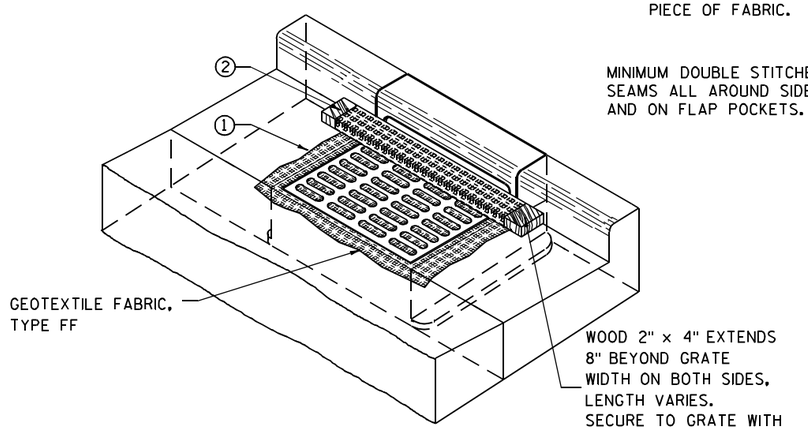


INLET PROTECTION, TYPE A

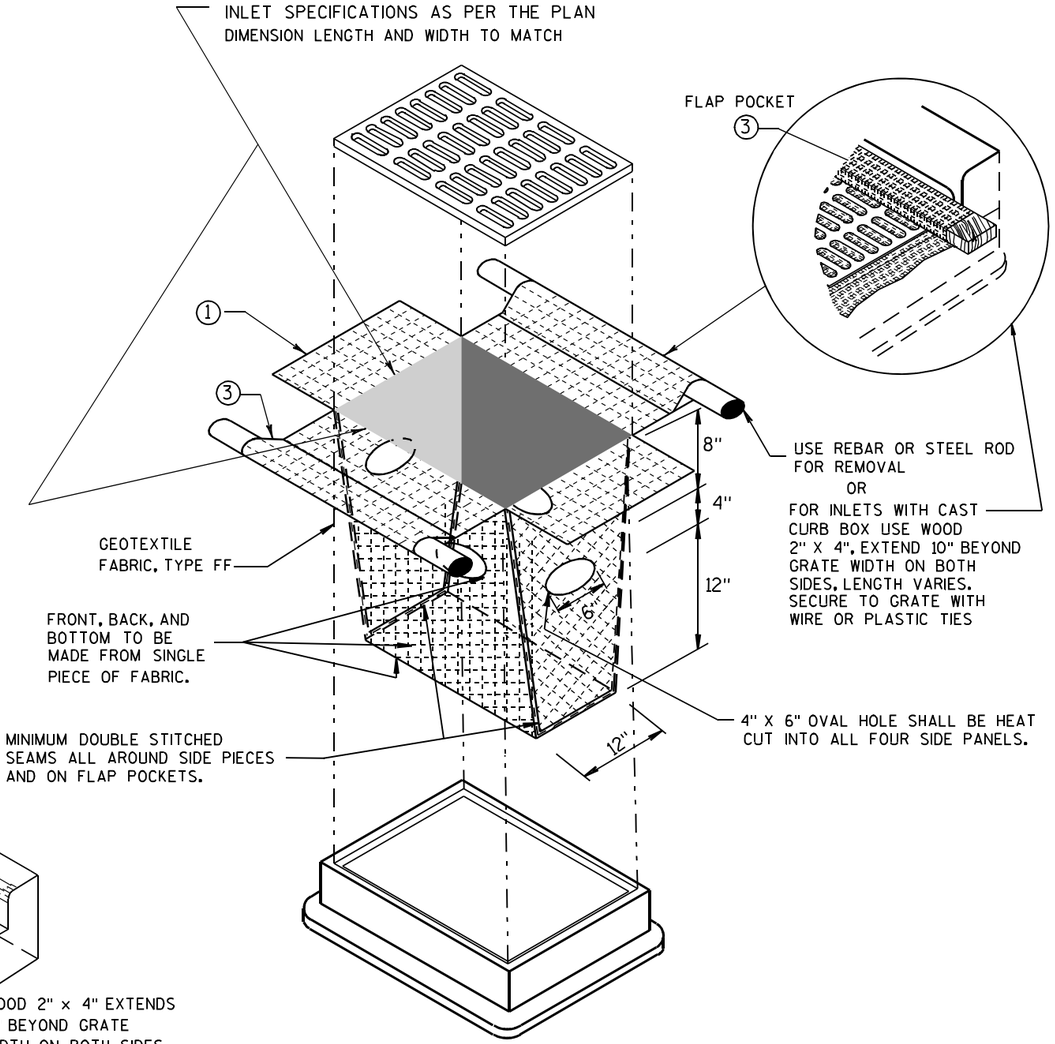


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

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.

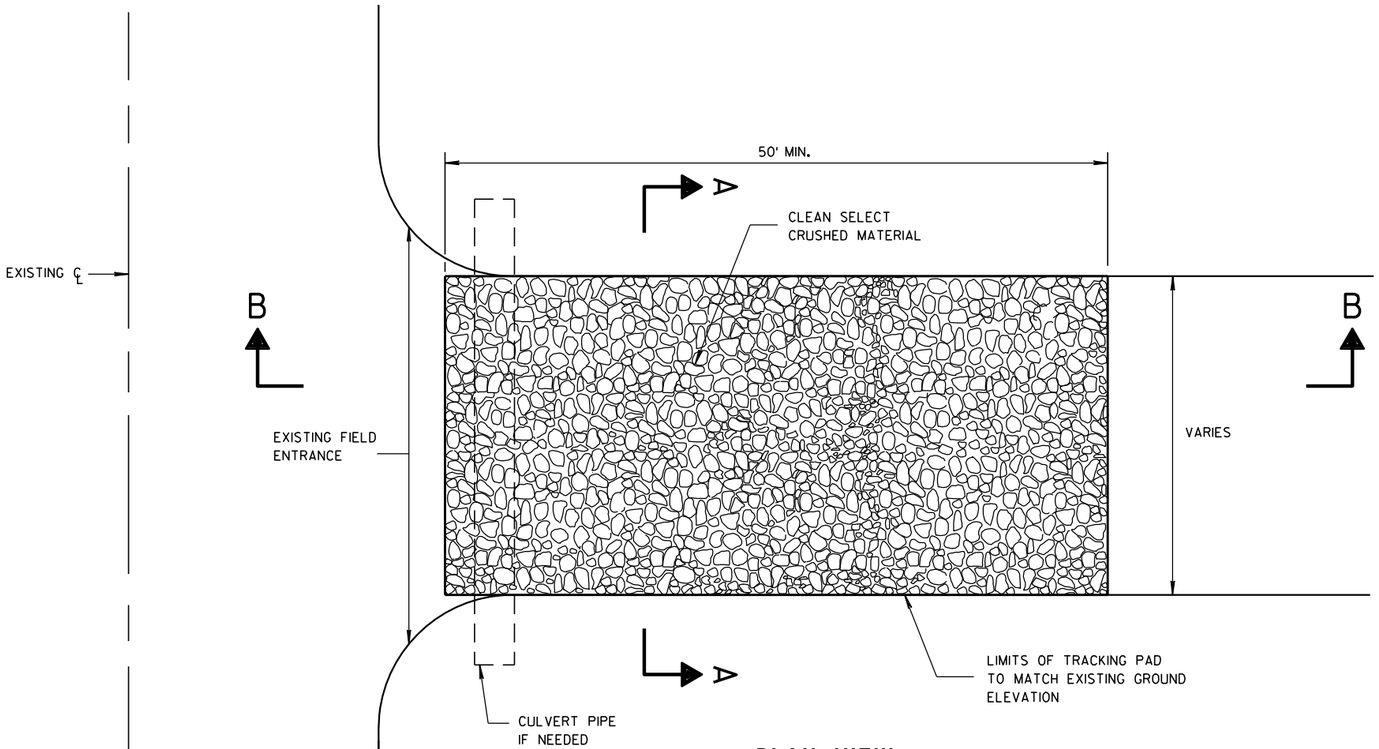
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

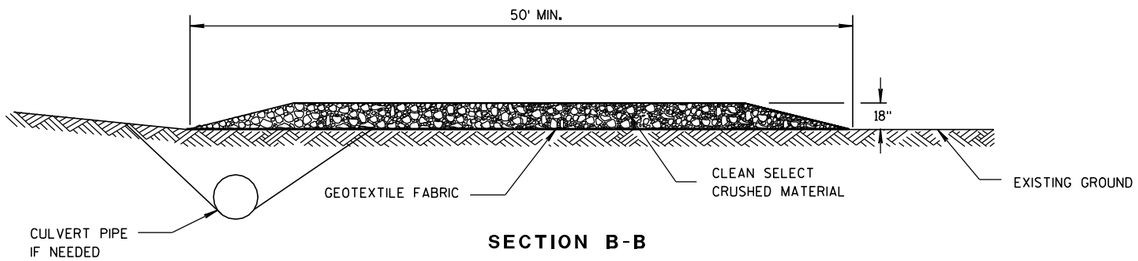
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



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.

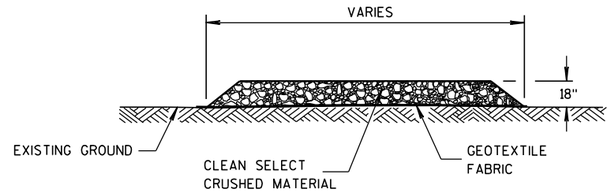
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

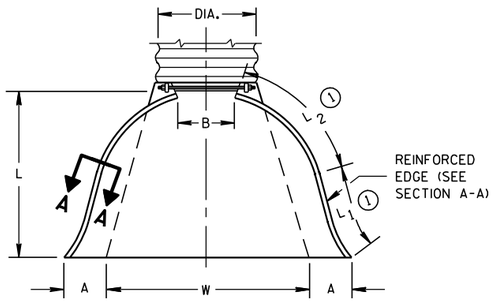
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

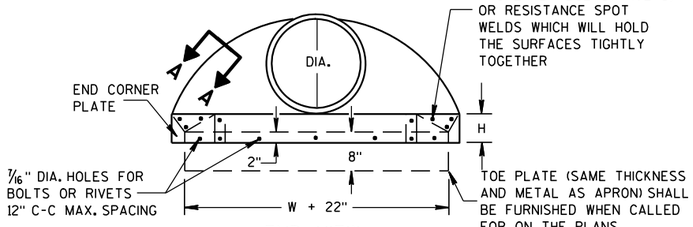
REINFORCED CONCRETE APRON ENDWALLS

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

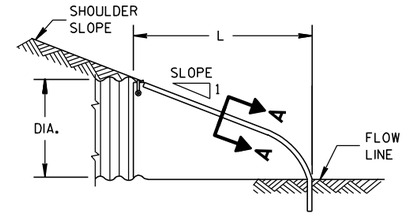
* MINIMUM
** MAXIMUM



PLAN VIEW

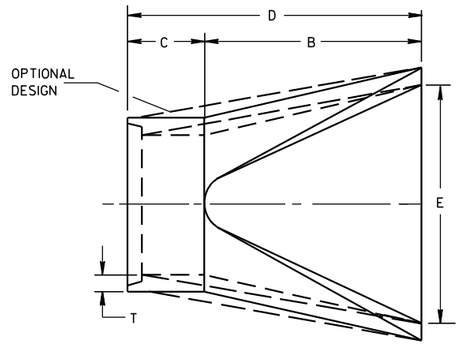


END VIEW

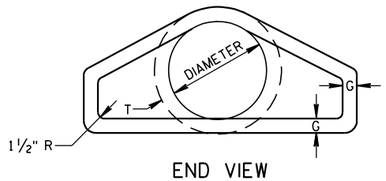


SIDE ELEVATION

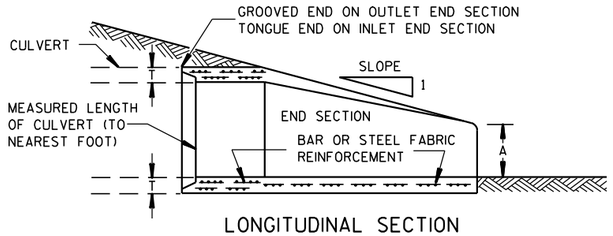
METAL ENDWALLS



PLAN

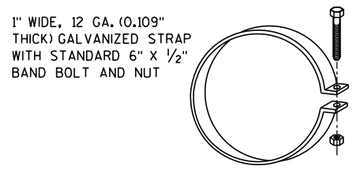


END VIEW



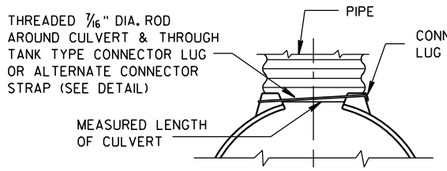
LONGITUDINAL SECTION

CONCRETE ENDWALLS

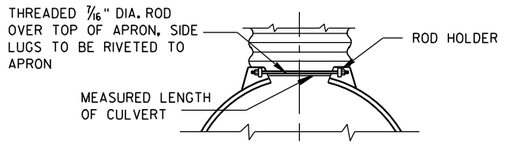


ALTERNATE FOR TYPE 1 CONNECTION

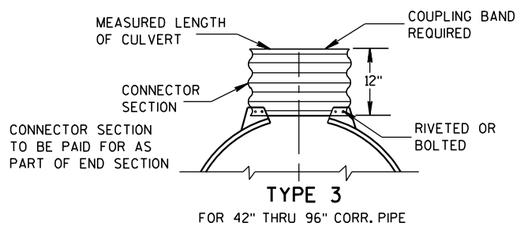
END SECTION CONNECTOR STRAP



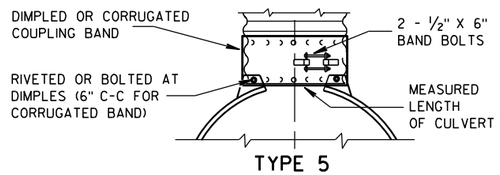
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

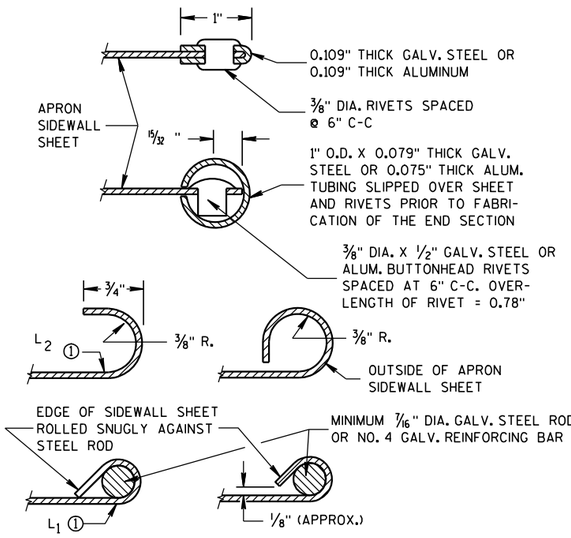
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

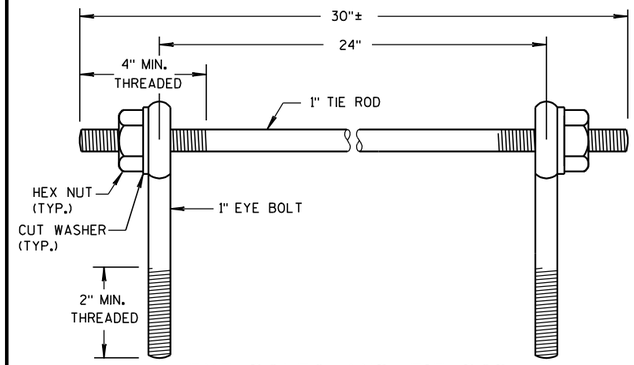
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

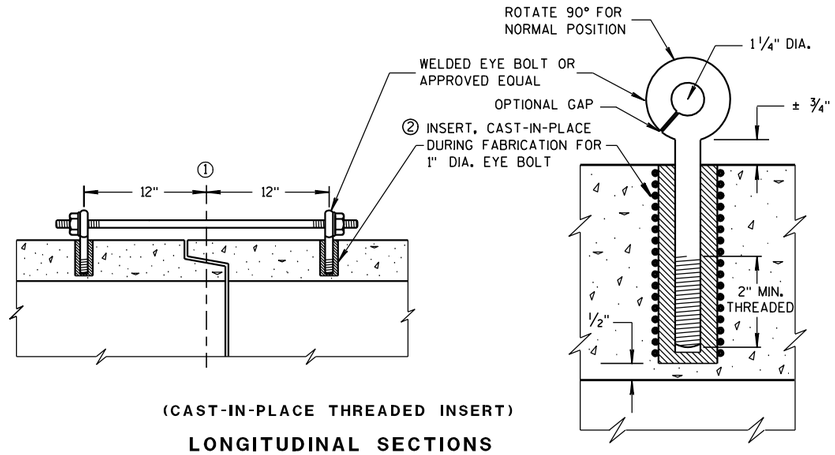
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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.

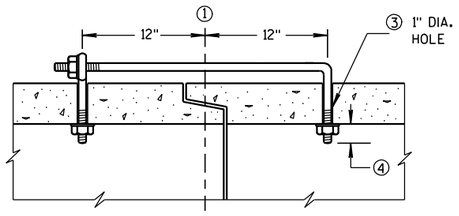
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

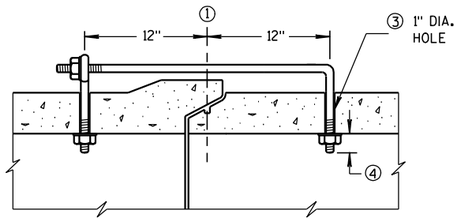
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

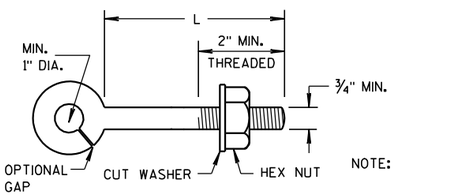


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

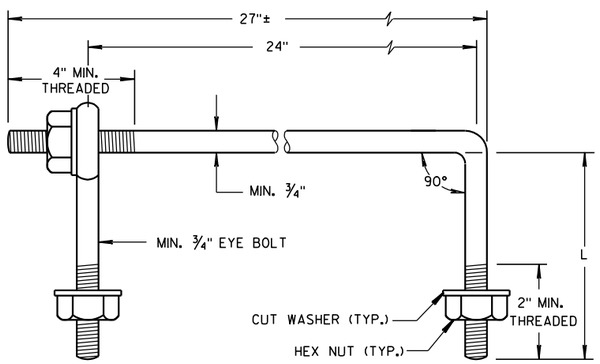
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

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

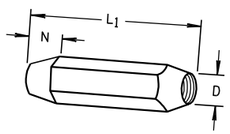
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

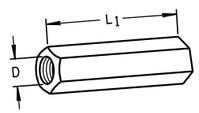
ADJUSTABLE TIE ROD TABLE

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



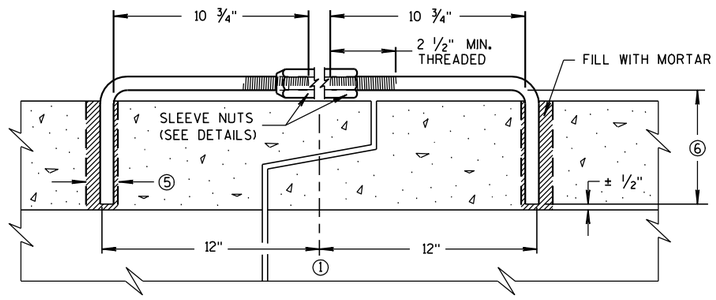
TAPERED



PLAIN

RIGHT AND LEFT THREADS

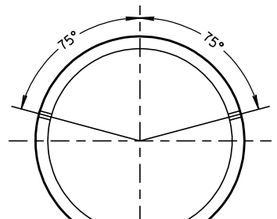
SLEEVE NUTS



LONGITUDINAL SECTION

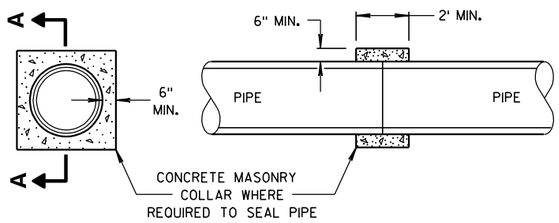
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

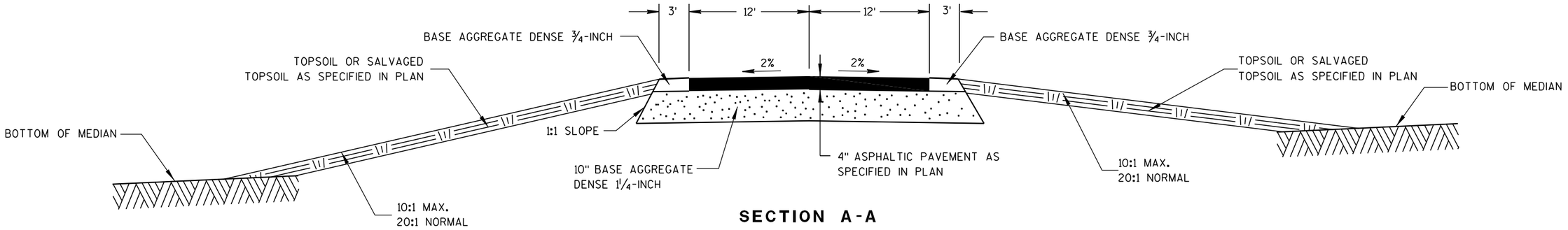
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
147
FHWA

6

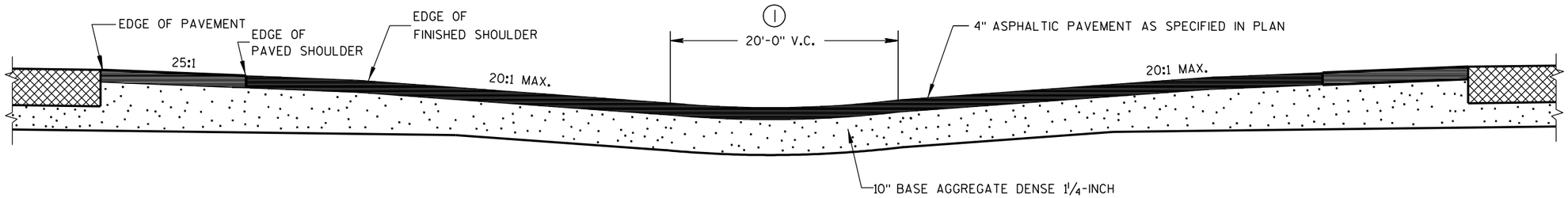
S.D.D. 8 F 4-7

6

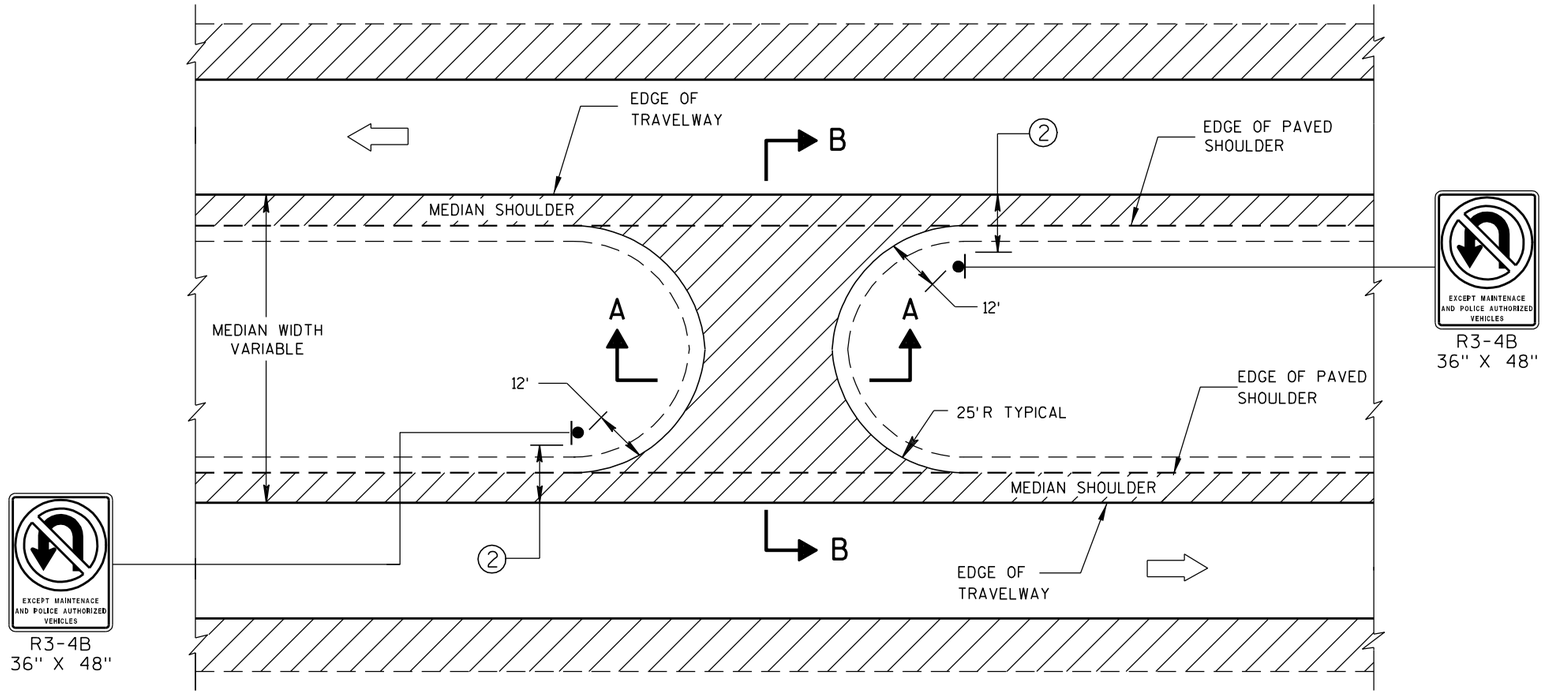
S.D.D. 8 F 4-7



SECTION A-A



SECTION B-B



PLAN 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.

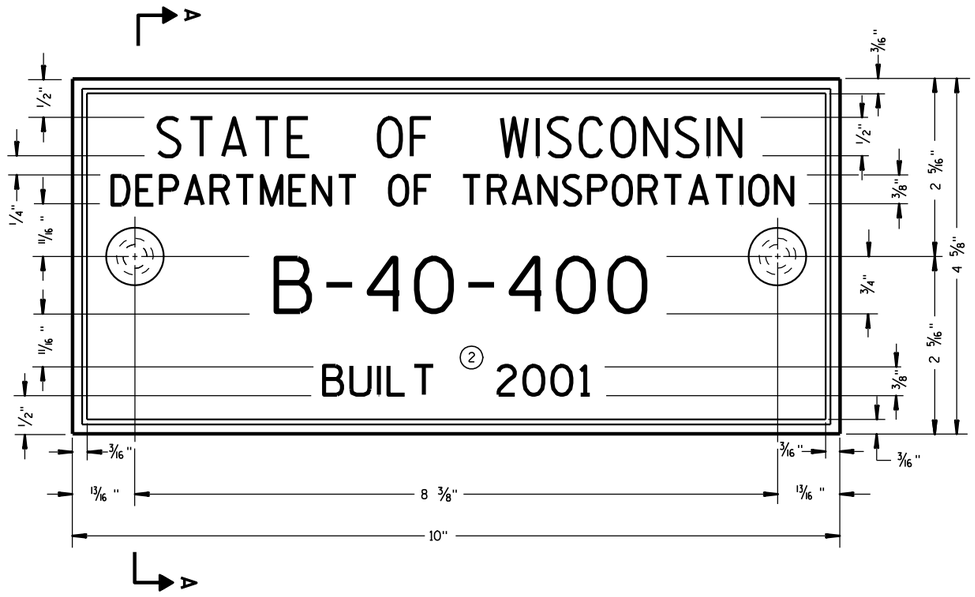
(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

MAINTENANCE CROSSOVER FOR FREEWAYS

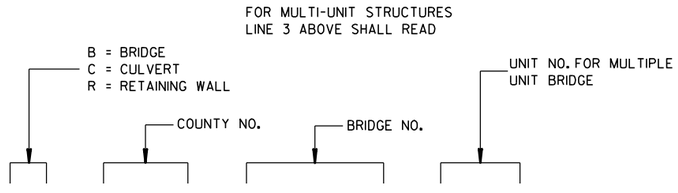
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/01/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

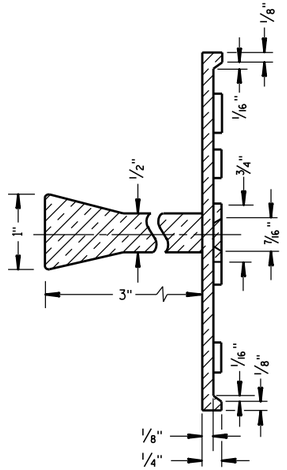
GENERAL NOTES

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.

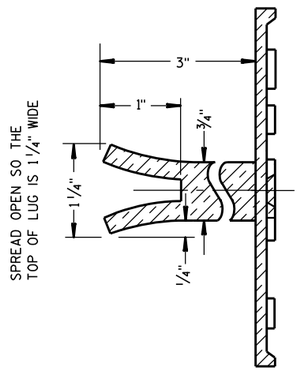
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

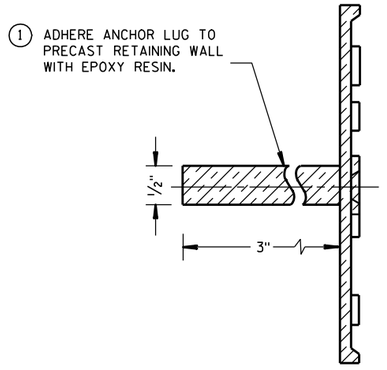
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

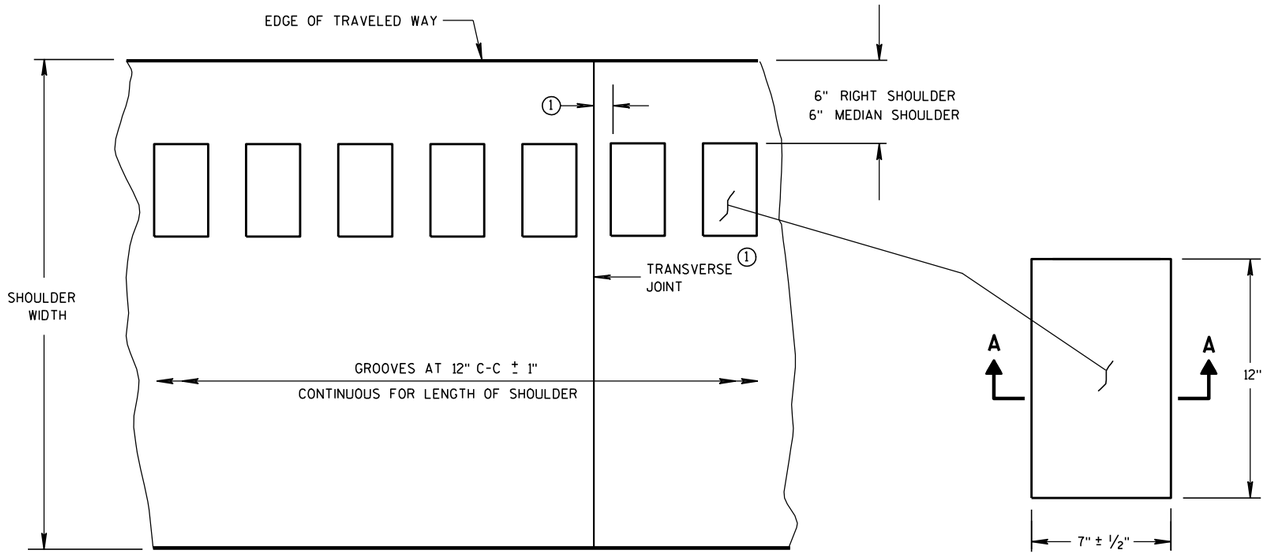
3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP 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

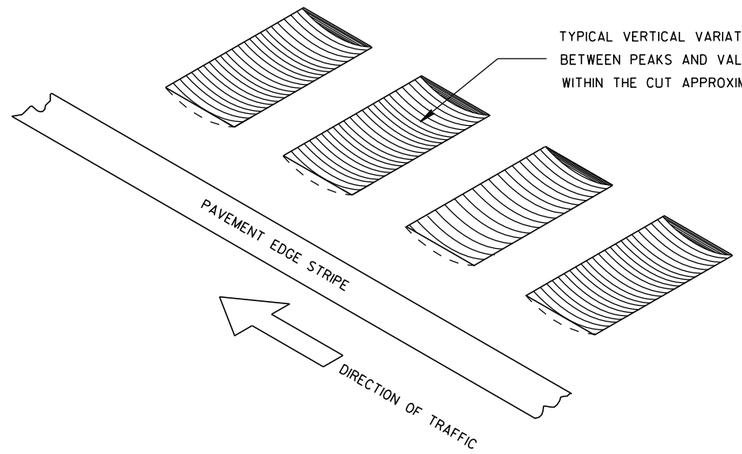
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

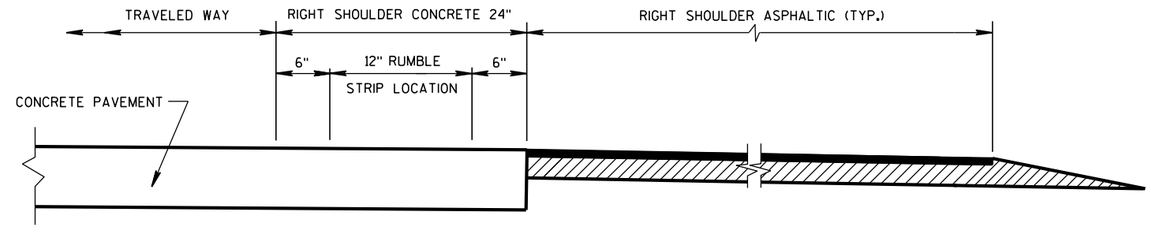
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES OR TURN LANE TAPERS. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

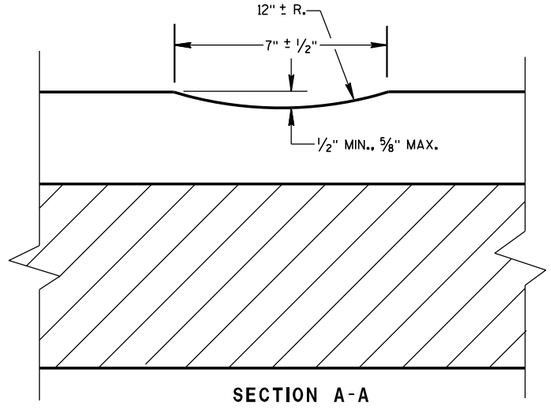
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



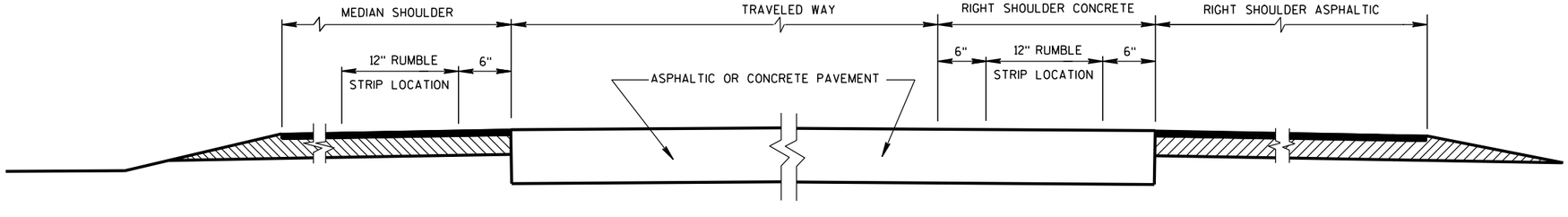
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

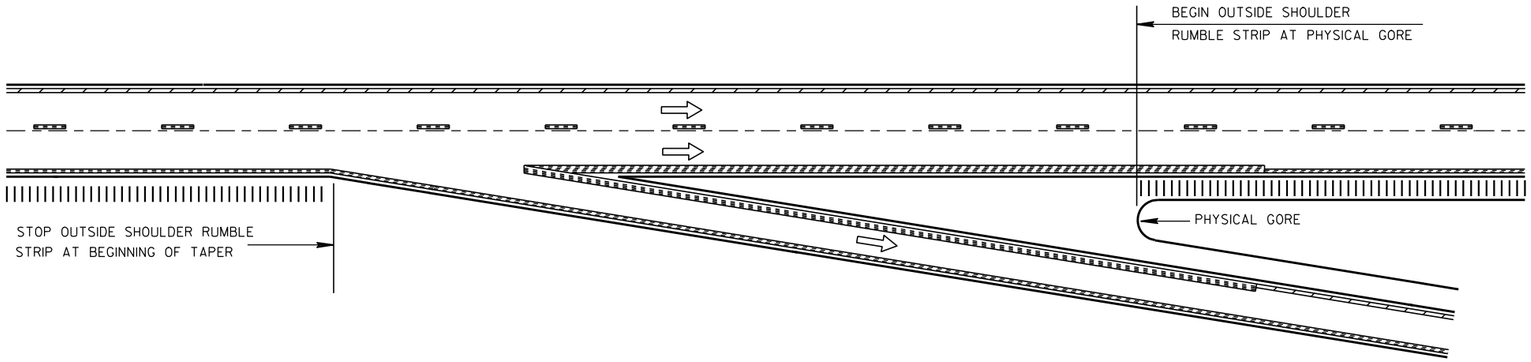
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 A 5-4a



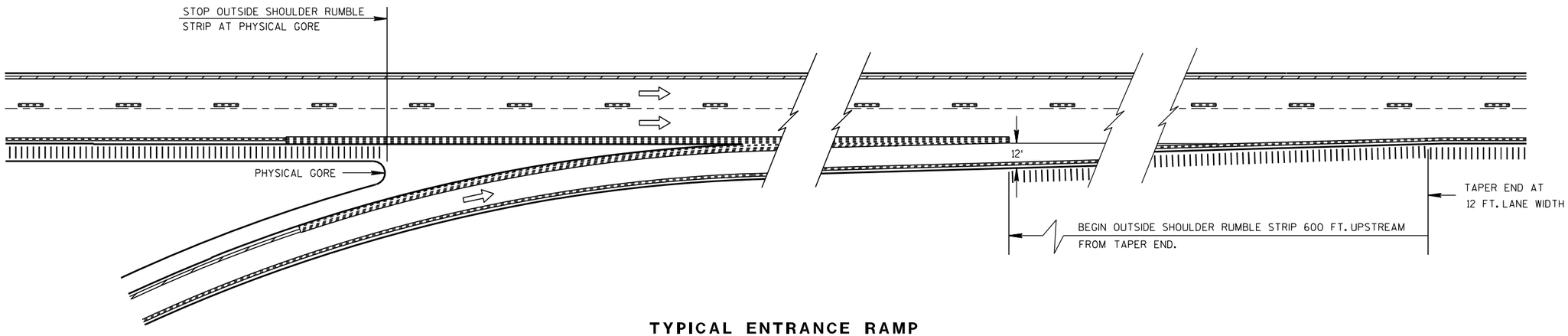
TYPICAL EXIT RAMP

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AS SHOWN.

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.



TYPICAL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

6

6

S.D.D. 13 A 5-4b

S.D.D. 13 A 5-4b

SHOULDER RUMBLE STRIP, MILLING

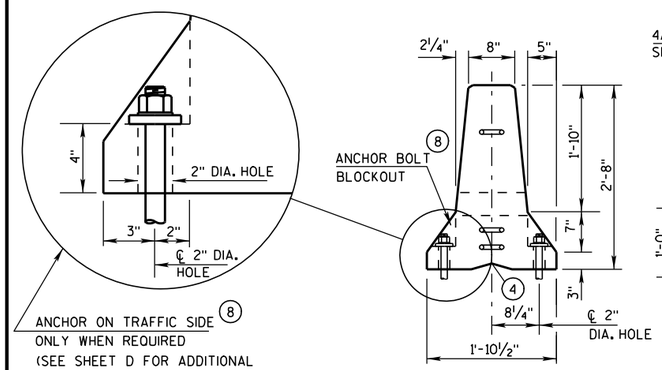
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

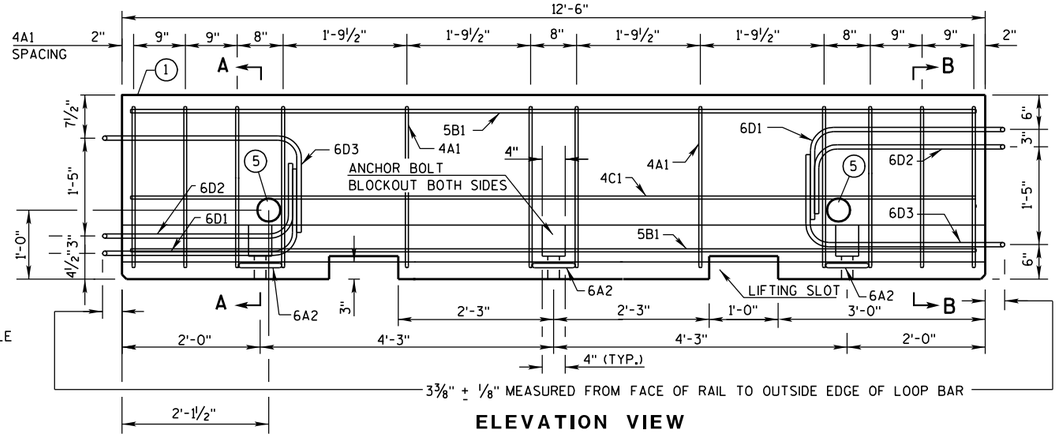
8/17/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

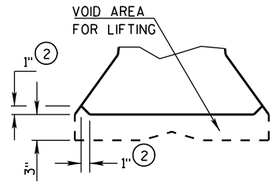
FHWA



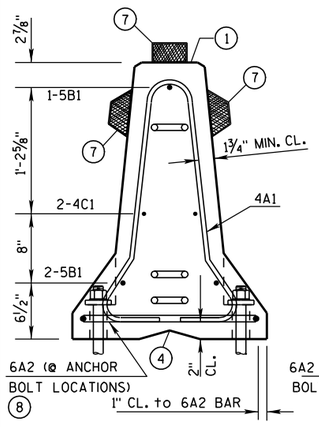
END VIEW



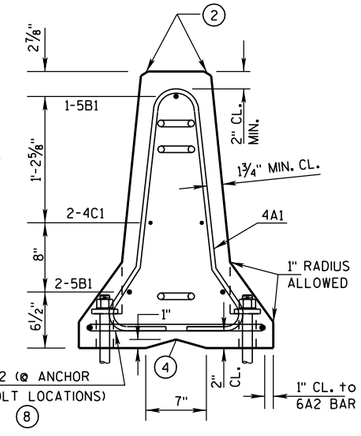
ELEVATION VIEW



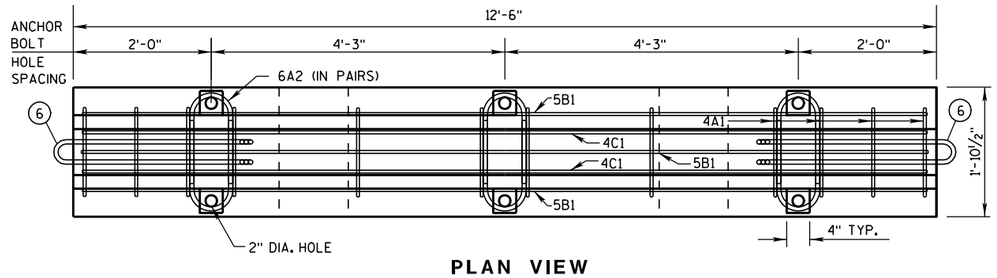
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

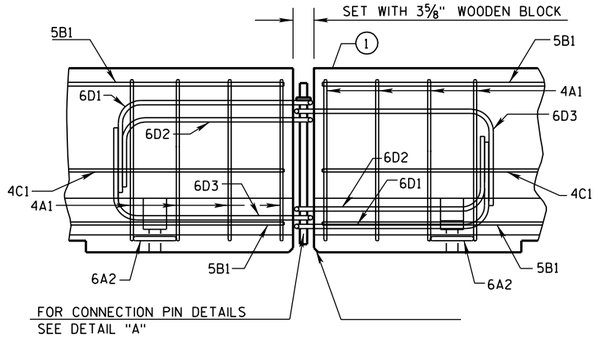


SECTION B-B
(STIRRUP PLACEMENT)

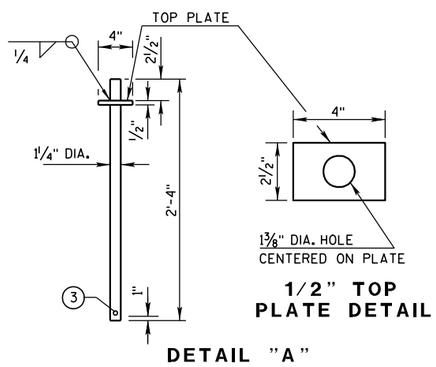


PLAN VIEW

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 14B7-12(a) THRU 14B7-12(d).

DETAILS AND REQUIREMENTS FOR THE FABRICATION AND INSTALLATION OF CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) ARE SHOWN ON 4 SHEETS, 14B7-12(a) THRU 14B7-12(d)

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.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- 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.

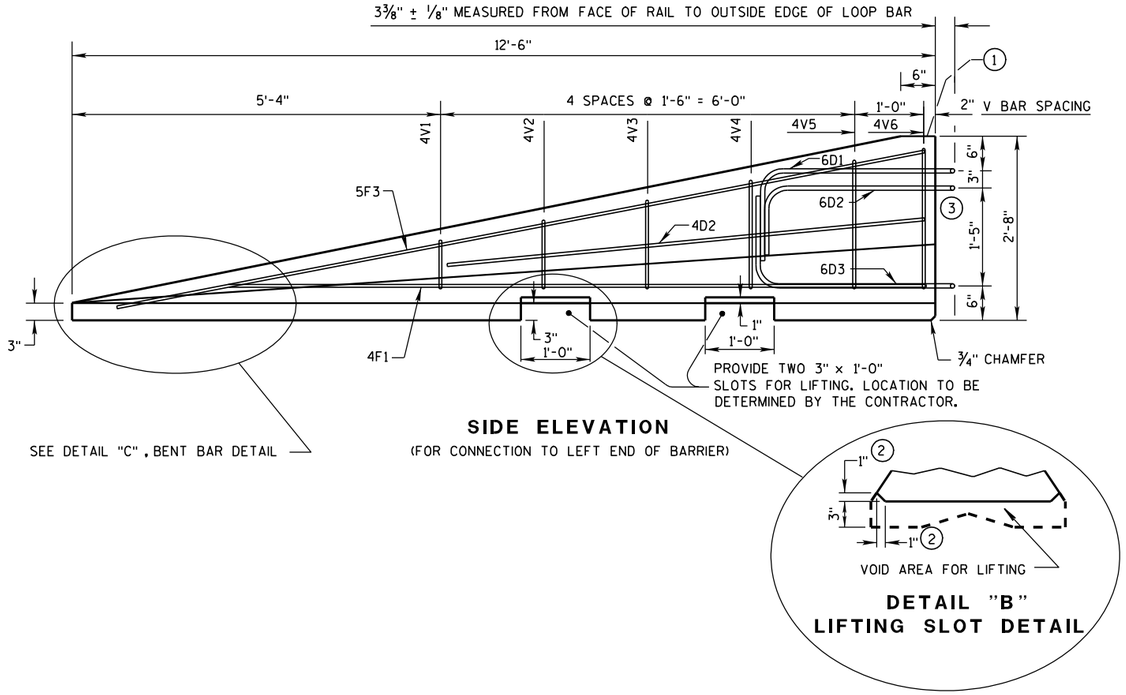
(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED 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.

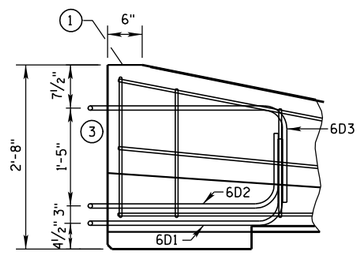
(8) SEE SHEET D FOR ANCHORING CRITERIA.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

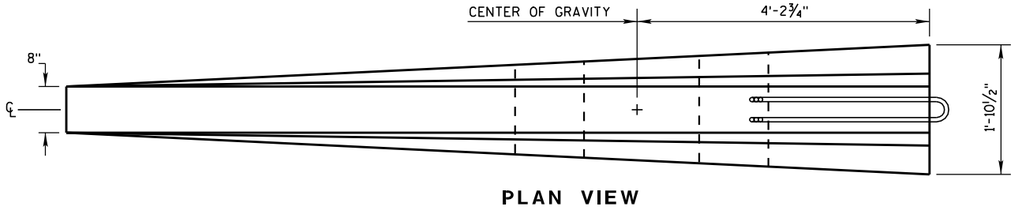
6
S.D.D. 14 B 7-12a

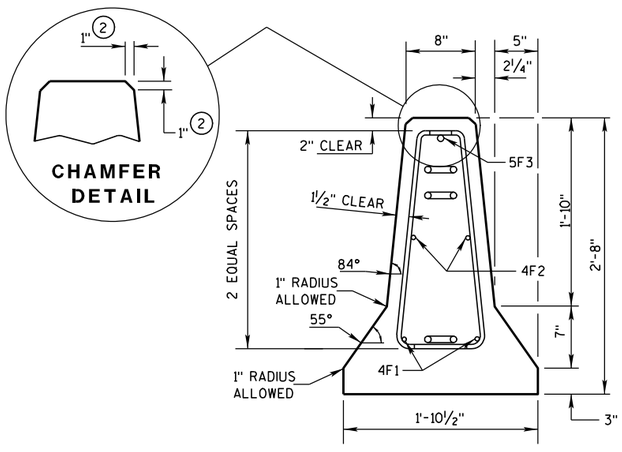


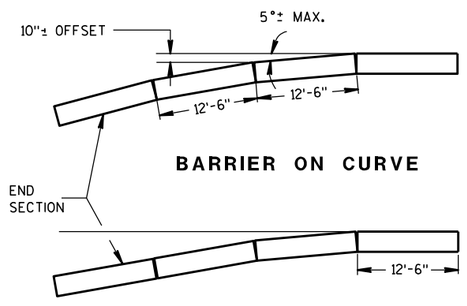


GENERAL NOTES

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.







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"

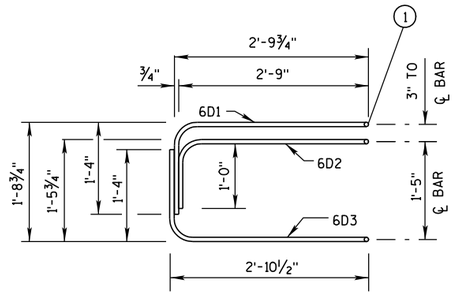
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-12b

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"



ELEVATION
LOOP BAR ASSEMBLY

DETAIL "C"
BENT BAR DETAIL

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

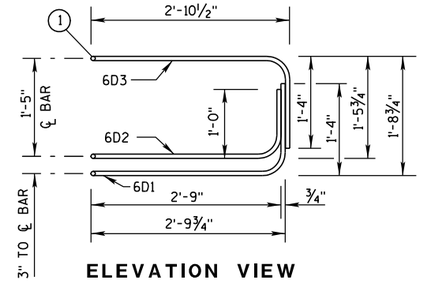
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

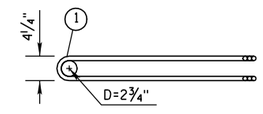
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

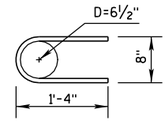
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



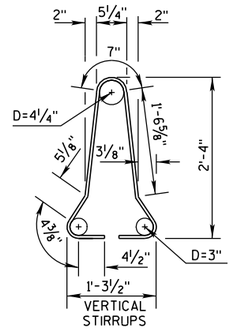
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



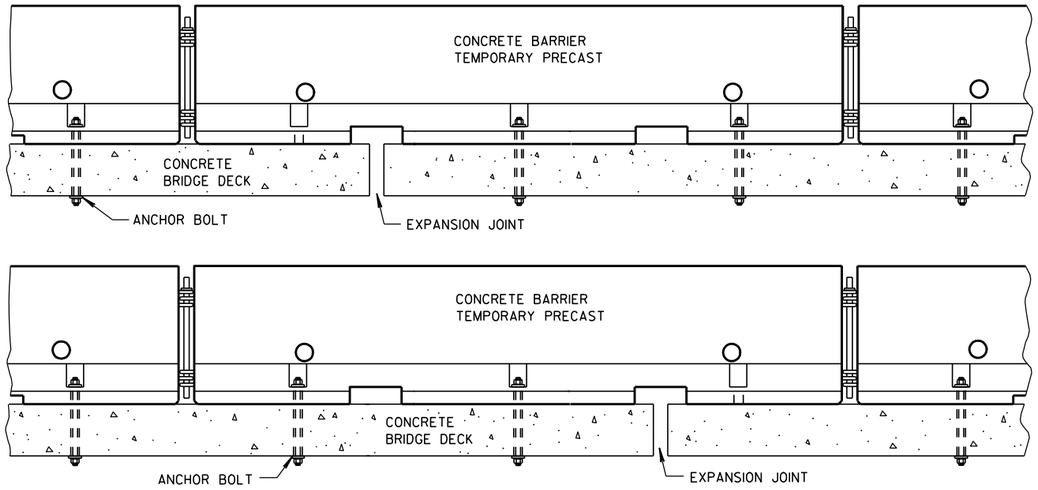
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

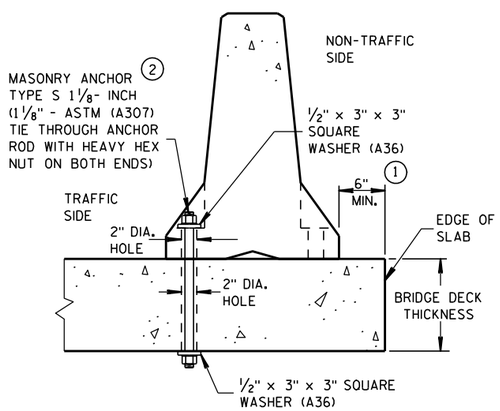
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-12c



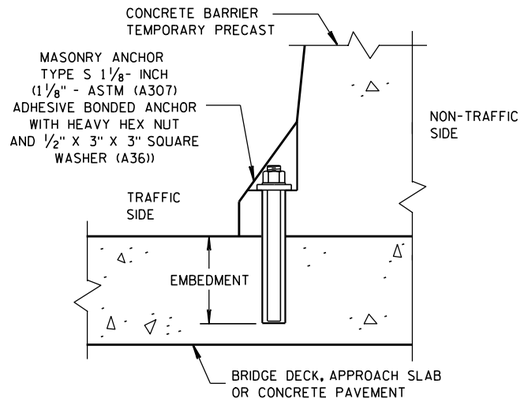
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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 2 INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

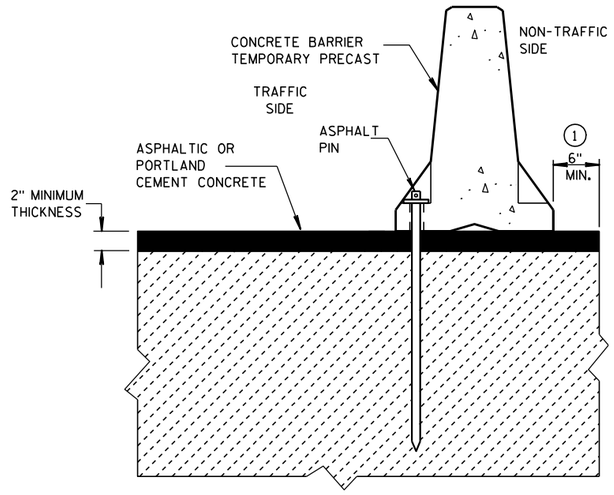
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE 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.

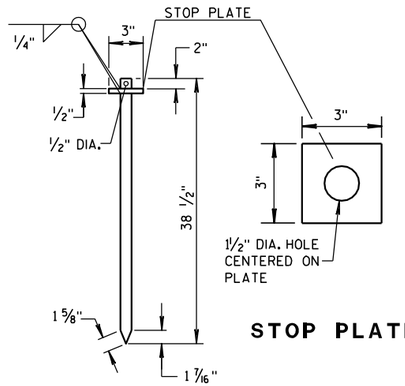
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE 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

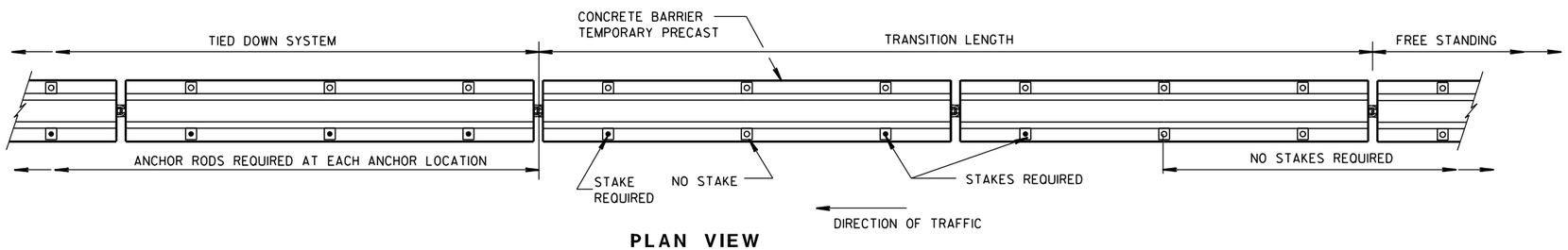
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



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 TRANSPORTATION

APPROVED

6-3-2010
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARD DEVELOPMENT ENGINEER

155

FHWA

NT

6

S.D.D. 14 B 7-12d

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.

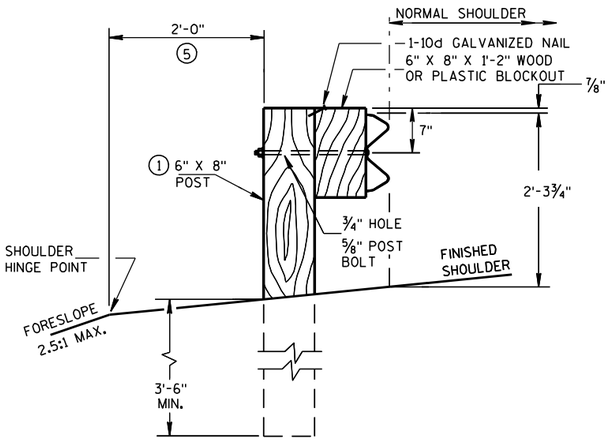
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(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).

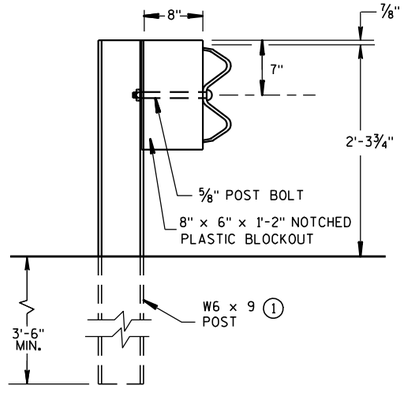
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED 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.

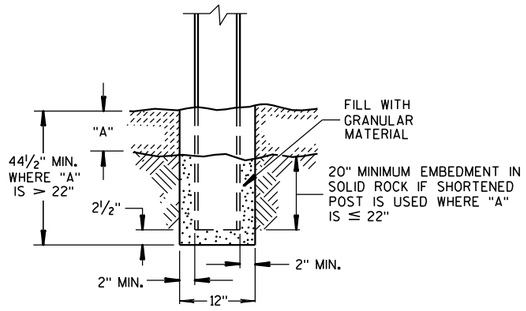
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



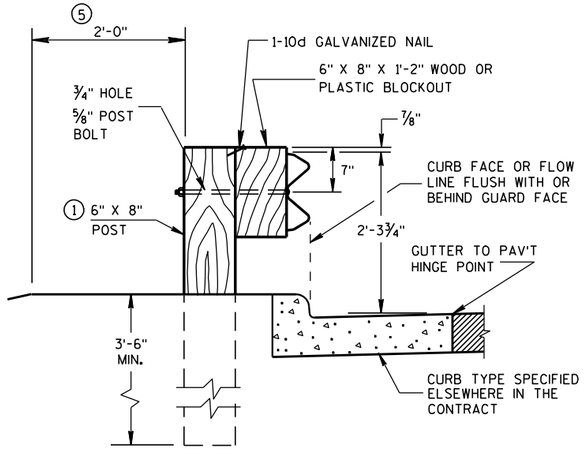
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



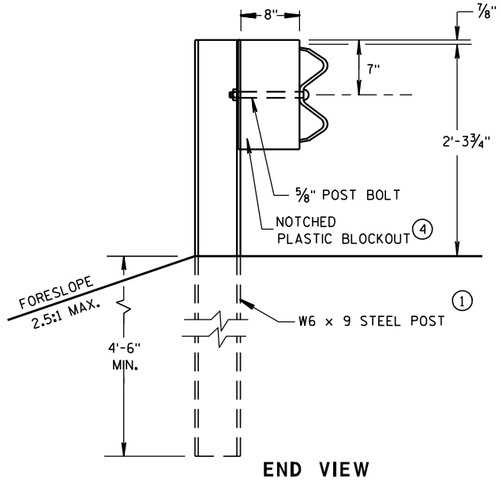
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



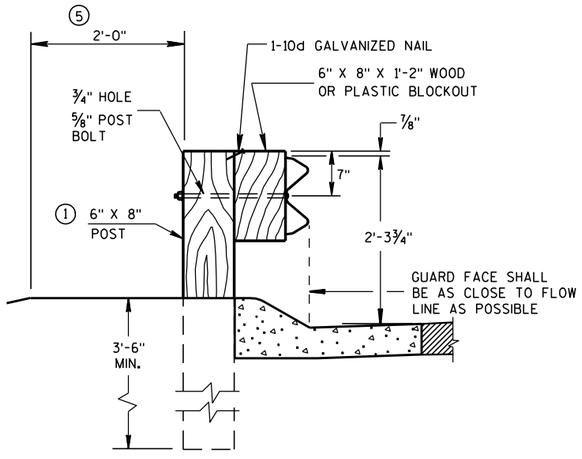
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



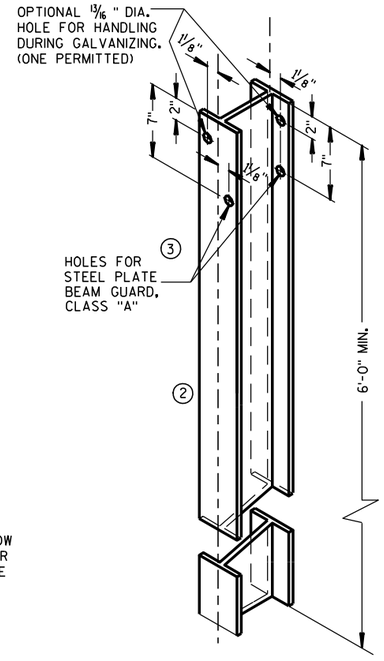
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

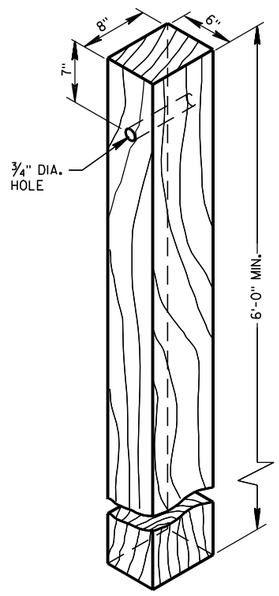


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

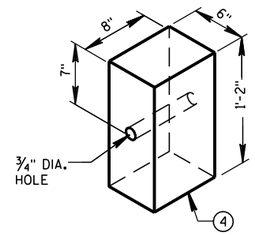


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

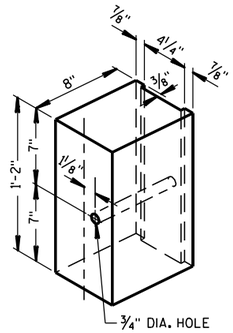
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



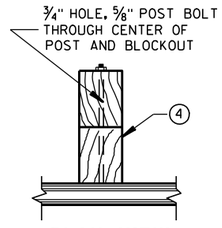
WOOD POST
(6"X8") NOMINAL



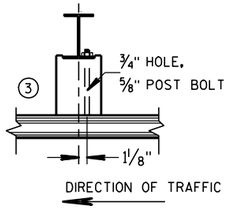
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



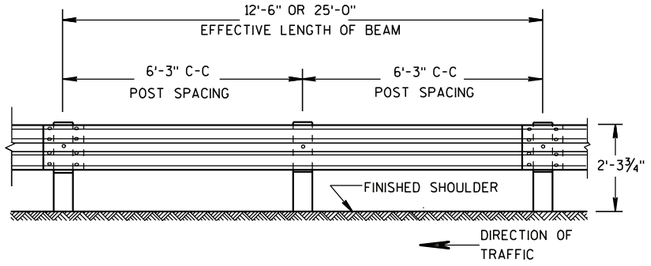
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

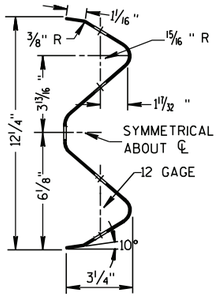
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

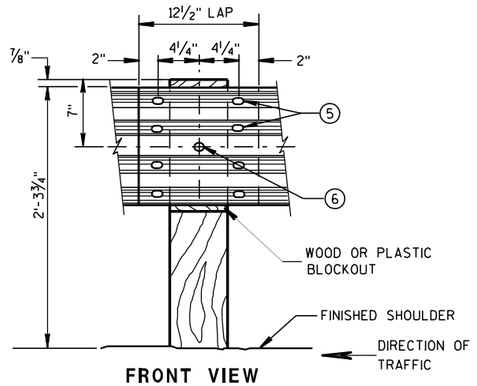


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

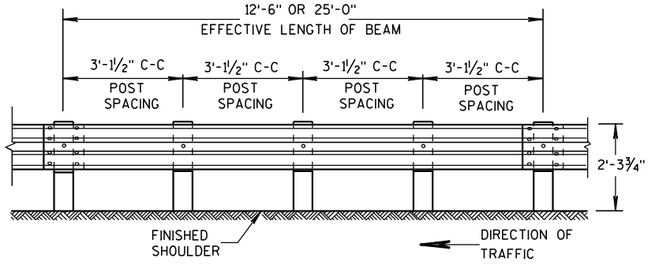


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

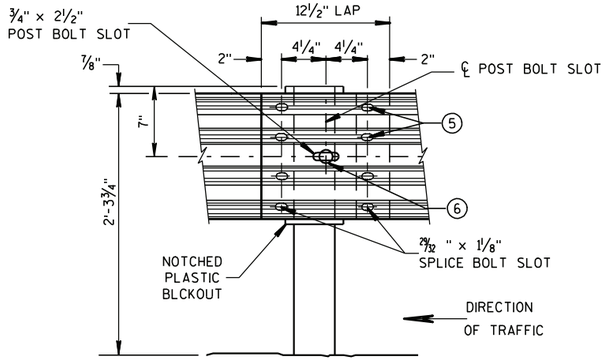
GENERAL NOTES

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

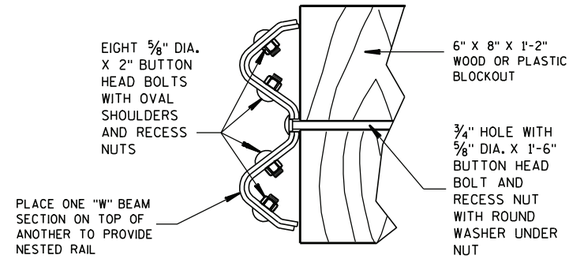
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

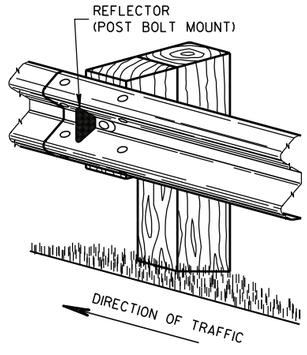


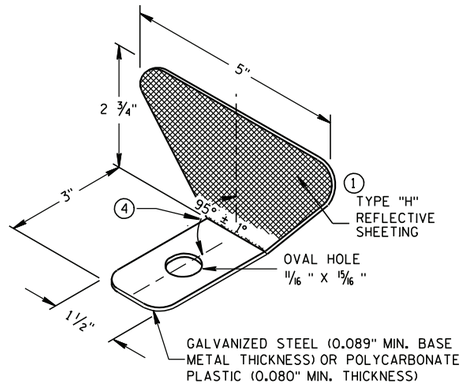
NESTED W BEAM (NW)

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)	



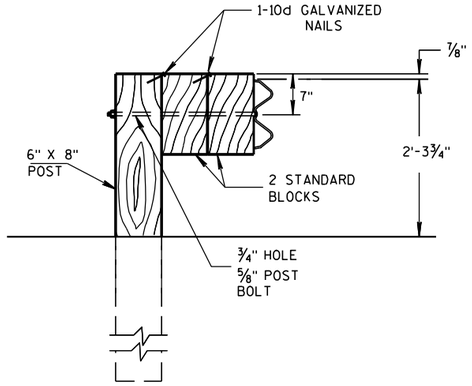


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

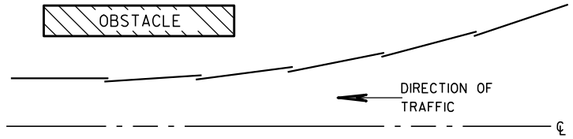
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-7b

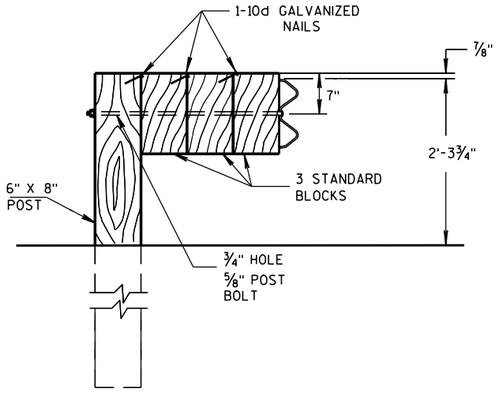


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

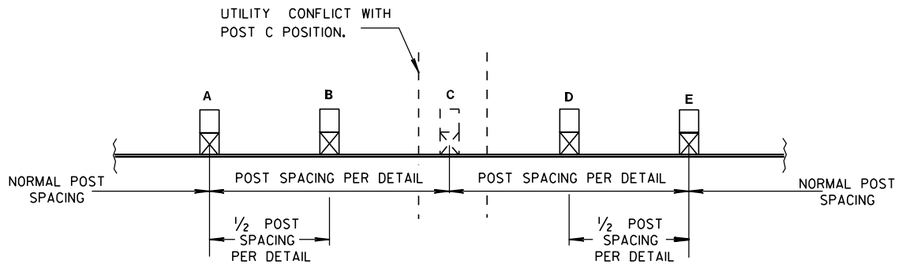


PLAN VIEW
BEAM LAPPING DETAIL



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	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	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.

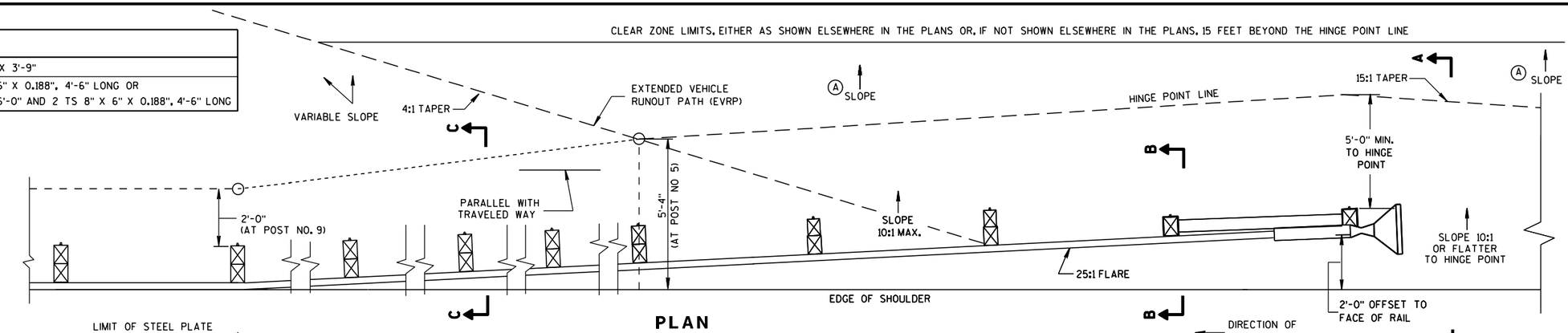
(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

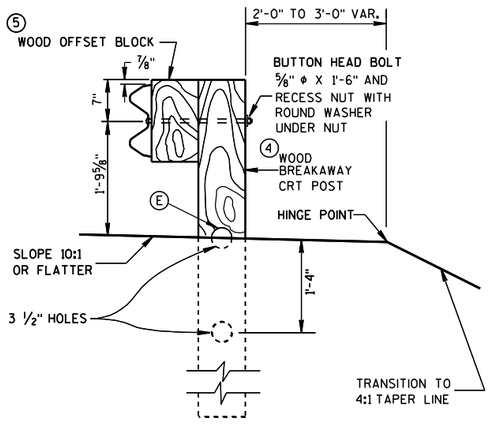
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

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.

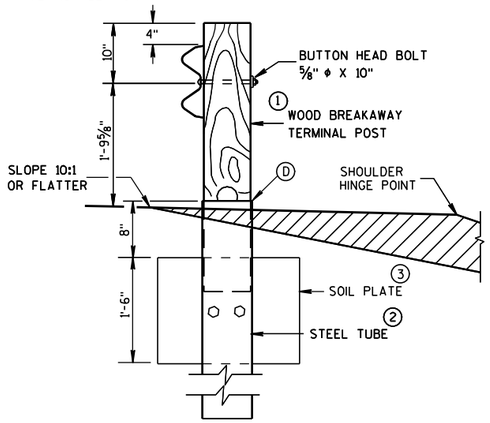
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.





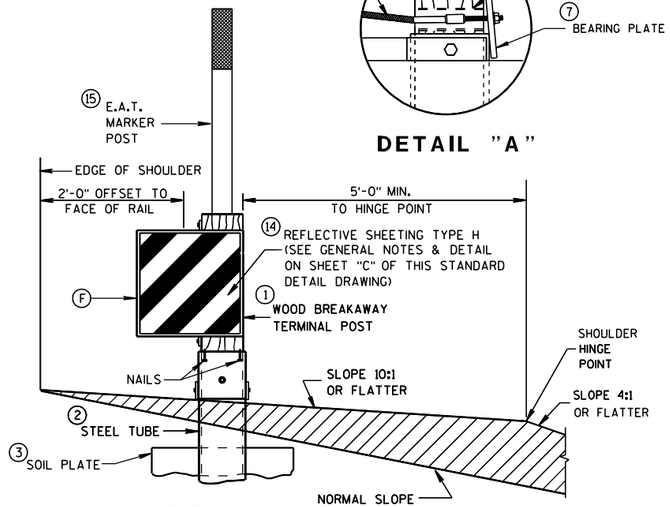
SECTION C-C

TYPICAL AT POST NOS. 6, 8



SECTION B-B

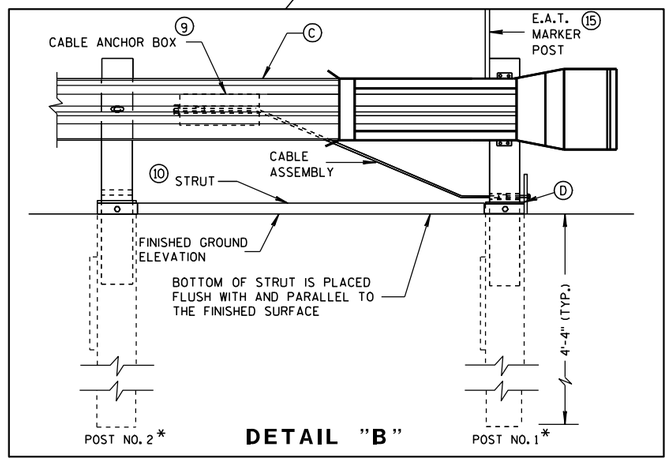
TYPICAL AT POST NO. 2*



DETAIL "A"

SECTION A-A

TYPICAL AT POST NO. 1*

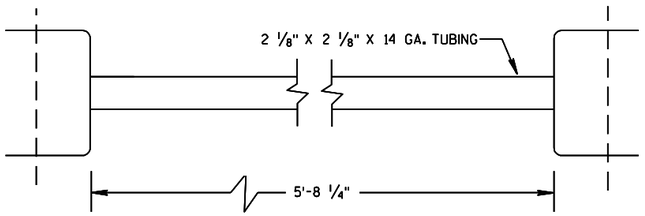


DETAIL "B"

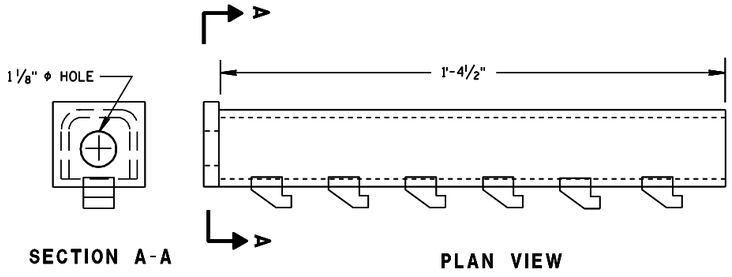
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

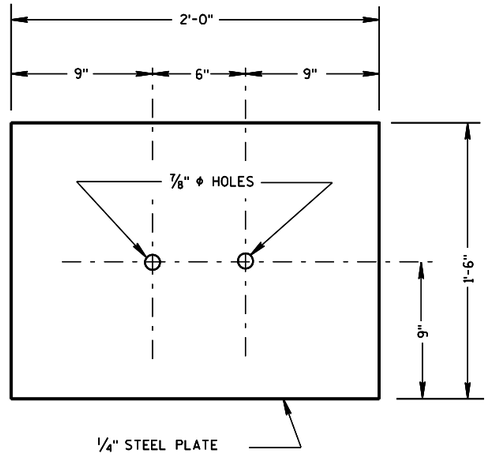
6
S.D.D. 14 B 24-7a



⑩ STRUT DETAIL (SKT-350)

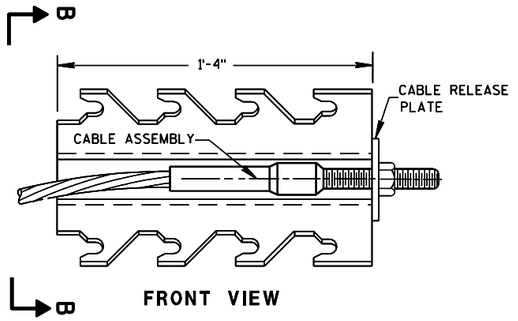


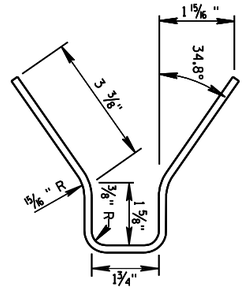
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

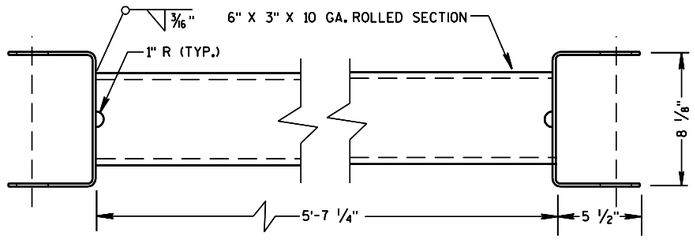
(SKT-350, ET-2000/ET-2000 PLUS)





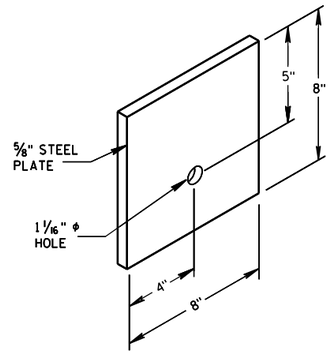
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



⑦ STEEL BEARING PLATE

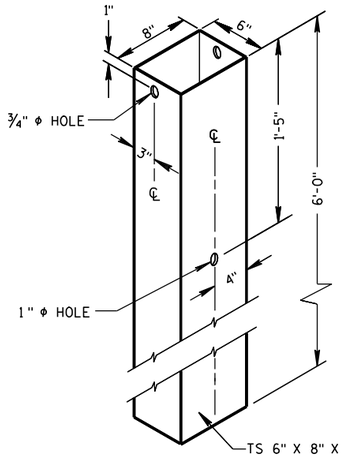
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

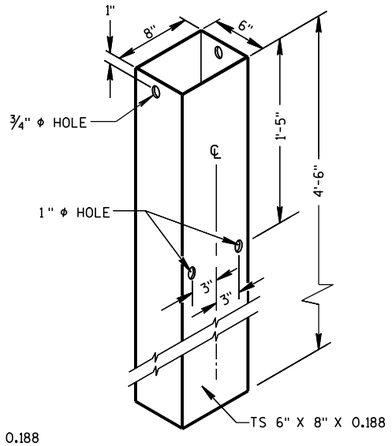
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

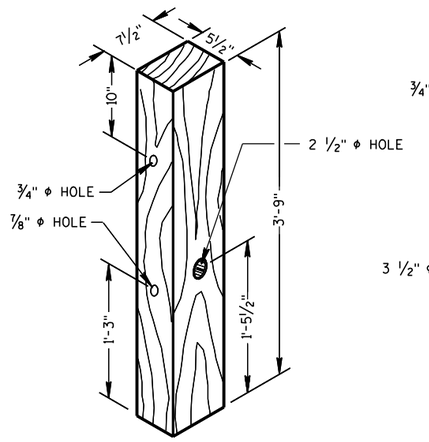
S.D.D. 14 B 24-7b



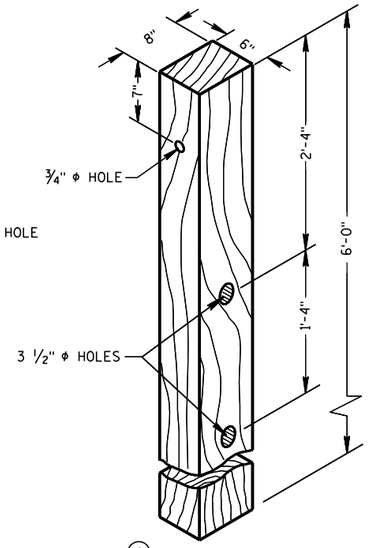
② 72" STEEL TUBE
(POSTS NO. 1-4



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

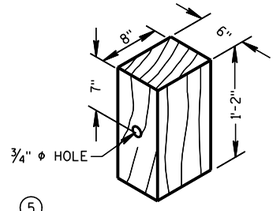
GENERAL NOTES

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.

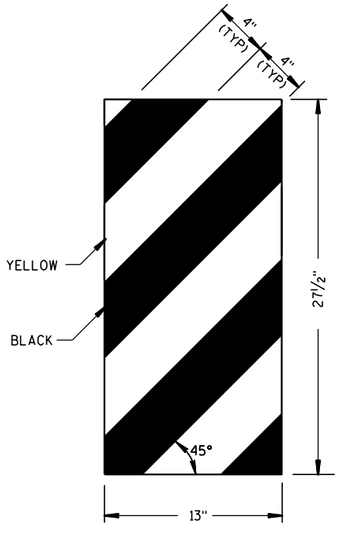
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, 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.

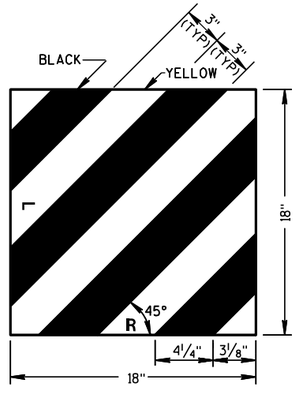
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

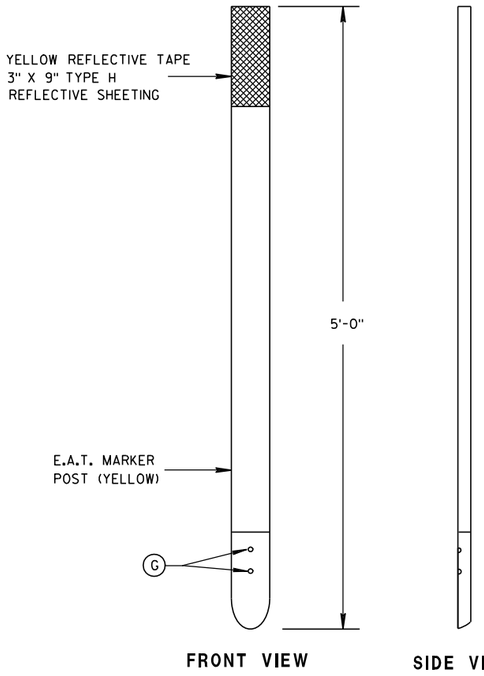


ET-2000 PLUS ONLY



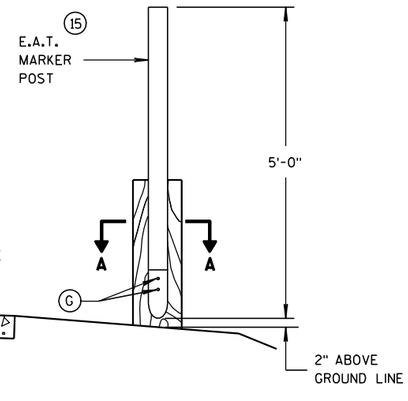
ET-2000 AND SKT-350

⑭ REFLECTIVE SHEETING DETAILS

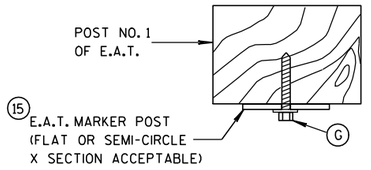


FRONT VIEW SIDE VIEW

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 DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 24-7c

GENERAL NOTES

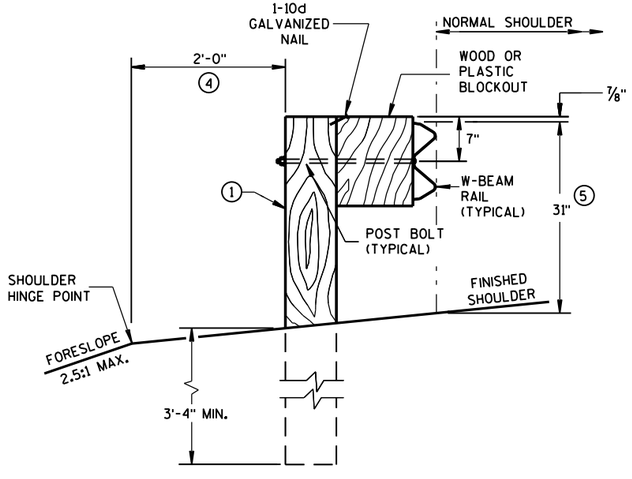
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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.

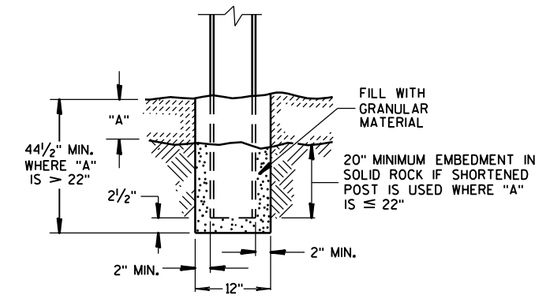
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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".



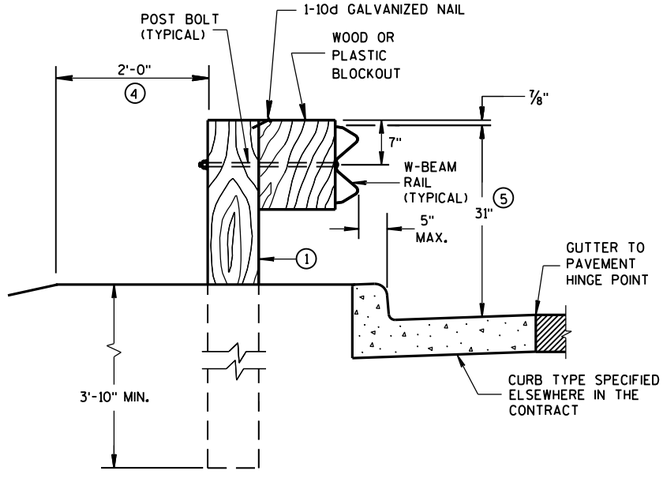
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



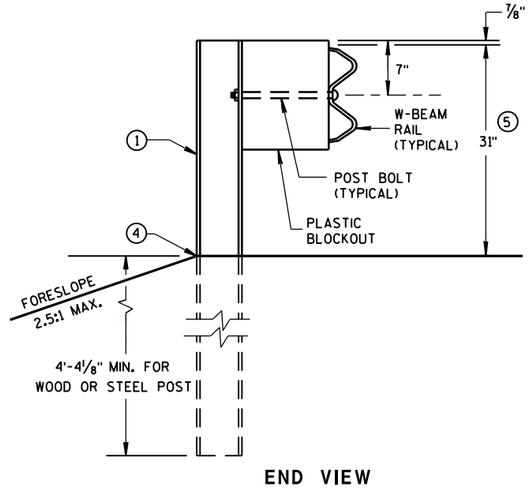
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



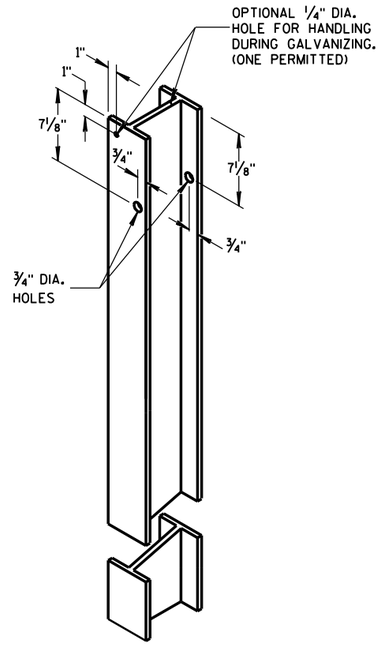
END VIEW

LOCATED ALONG A CURBED ROADWAY

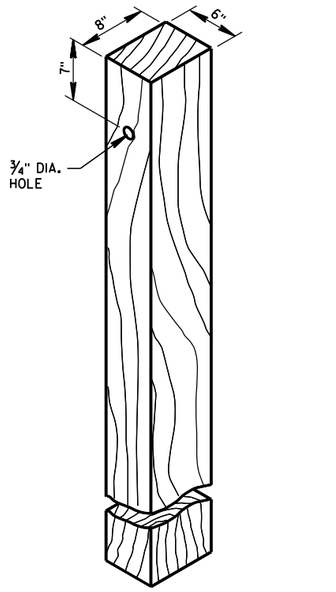


END VIEW

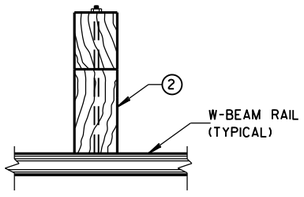
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



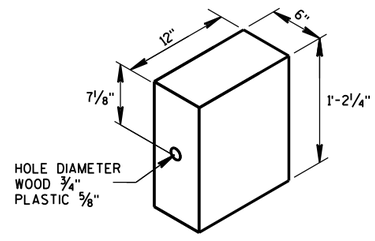
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



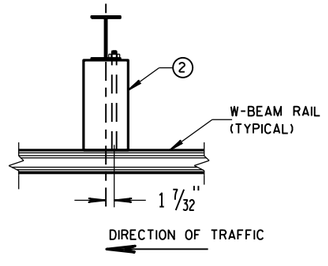
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

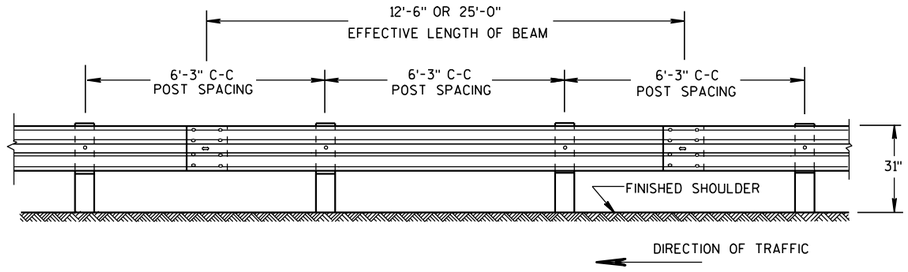


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

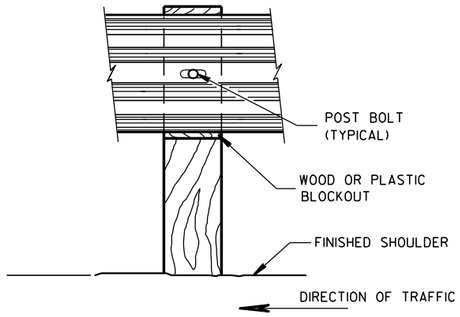
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



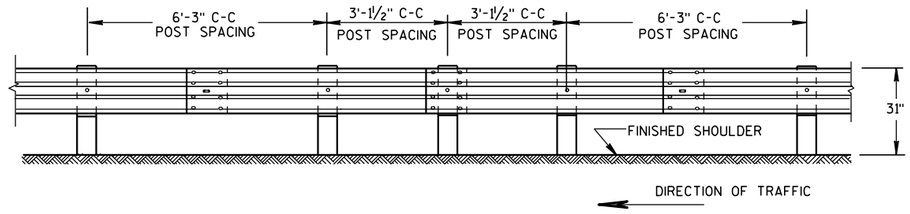
FRONT VIEW AT WOOD POST

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.

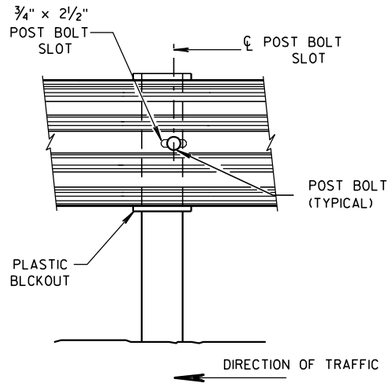
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

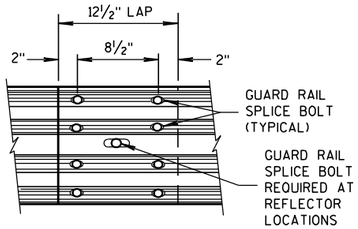


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

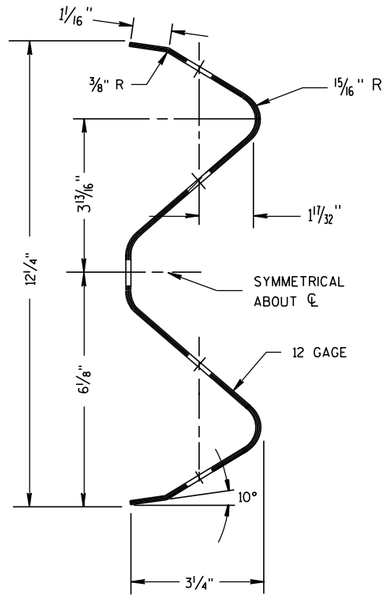


FRONT VIEW AT STEEL POST

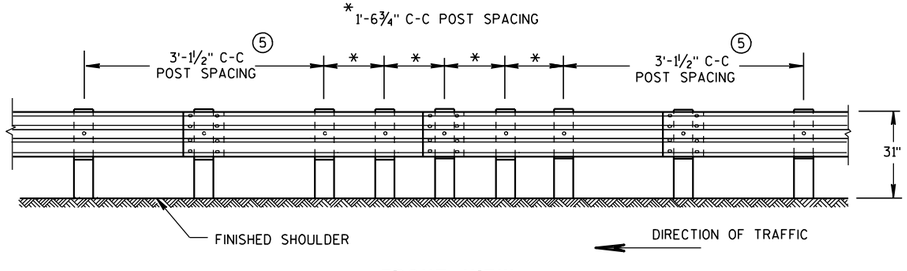


FRONT VIEW

MID-SPAN BEAM SPLICE

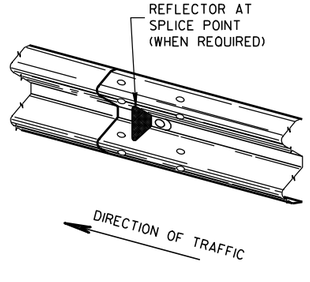


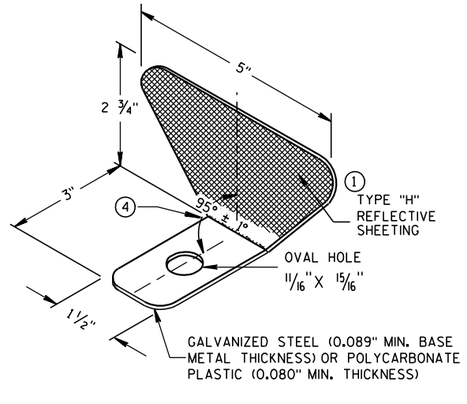
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

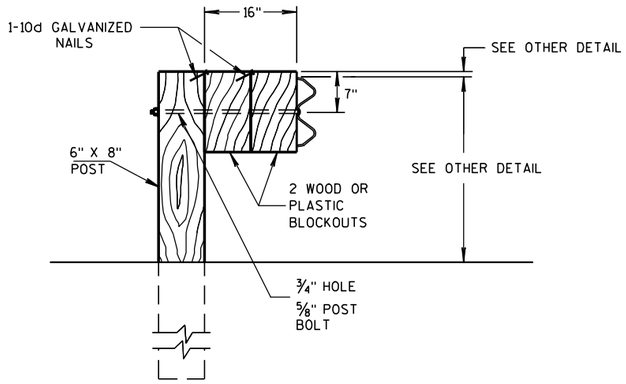
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ③	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ④	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

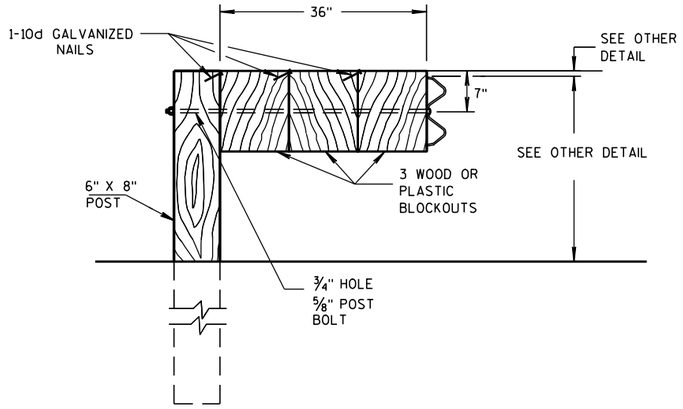
S.D.D. 14 B 42-2b

6



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.

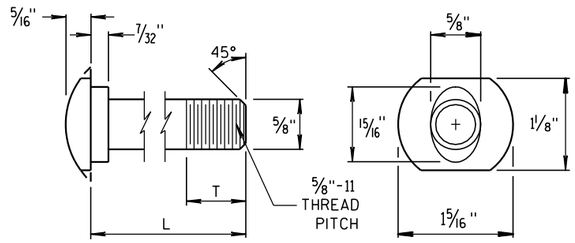


DETAIL FOR 36" BLOCKOUT DEPTH

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.

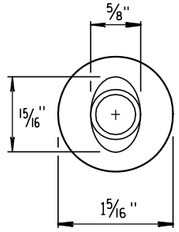
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

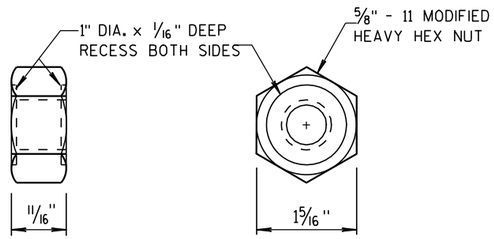


POST BOLT TABLE

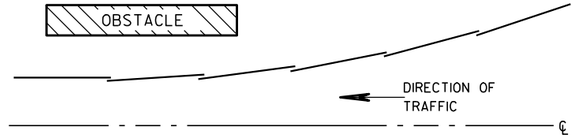
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

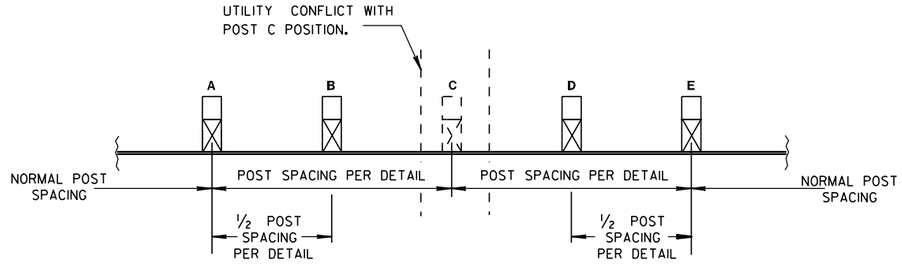


POST BOLT AND RECESS NUT

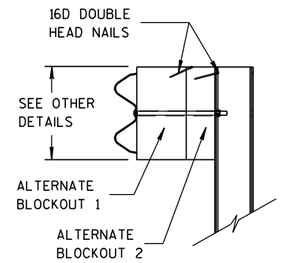


PLAN VIEW

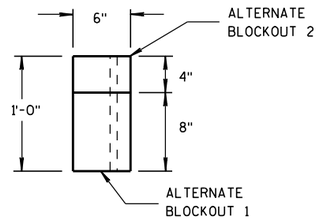
BEAM LAPPING DETAIL



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

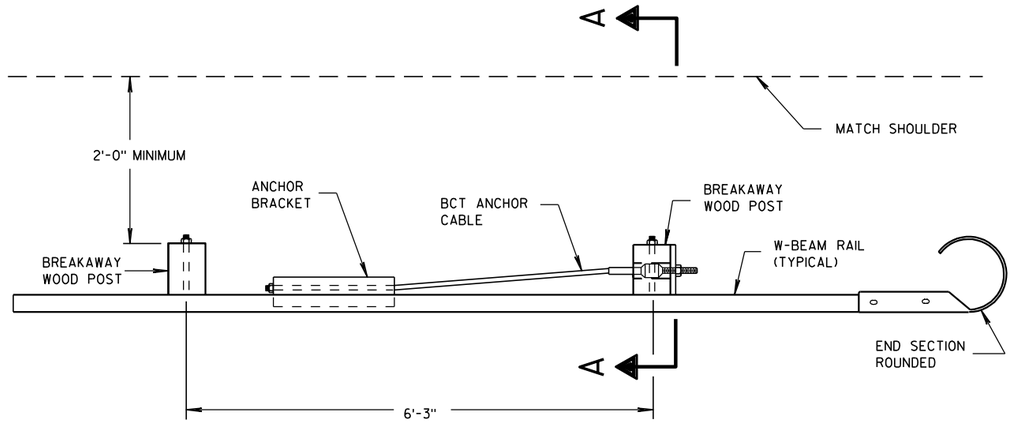
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

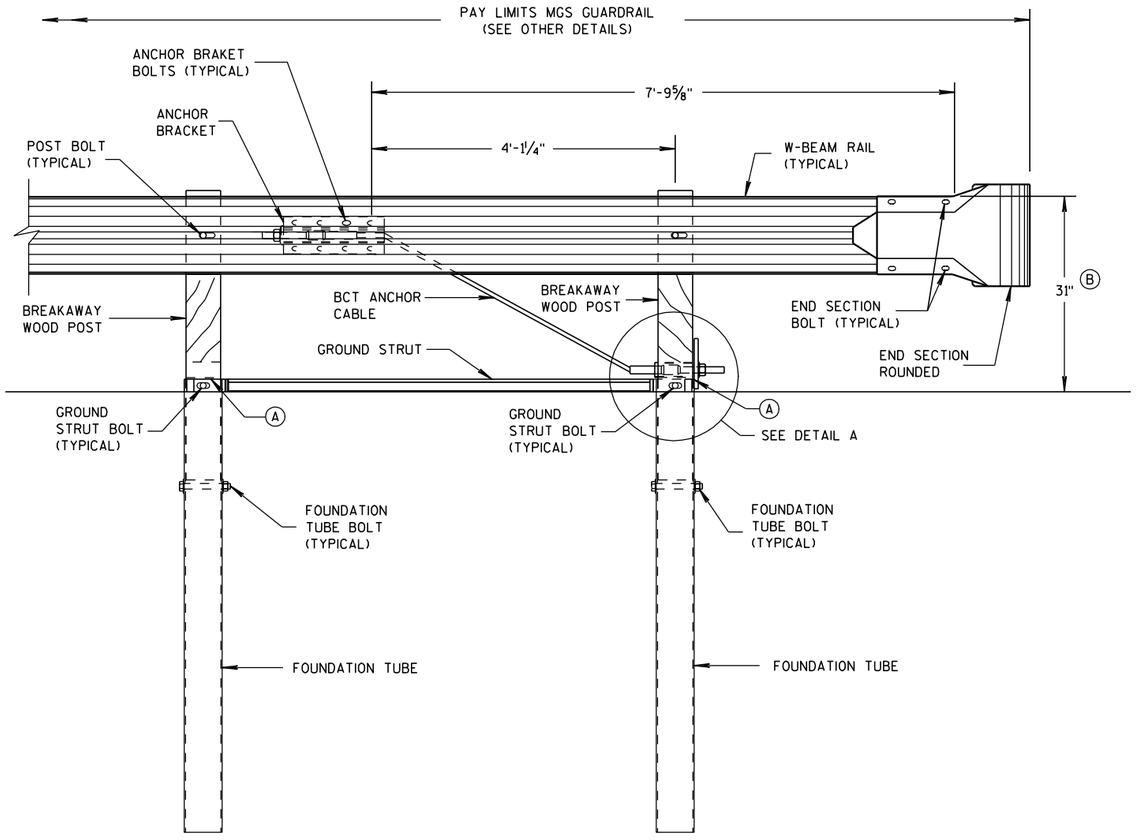
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S.D.D. 14 B 42-2c

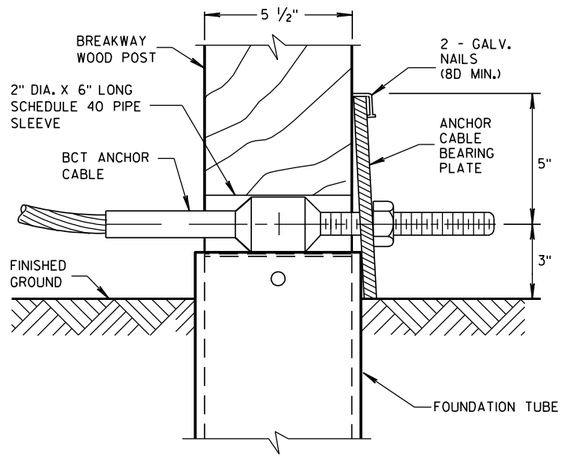


PLAN VIEW



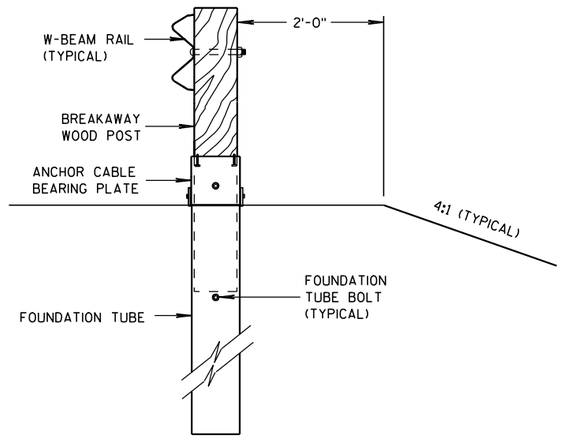
FRONT VIEW

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.

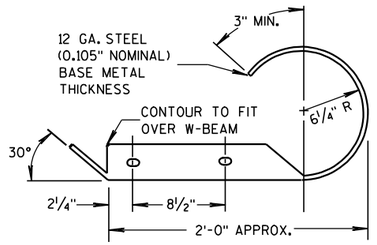
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

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.

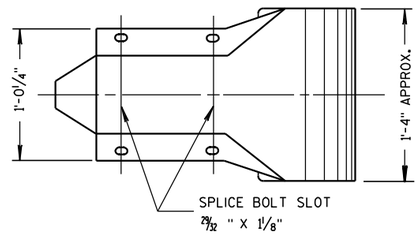
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(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

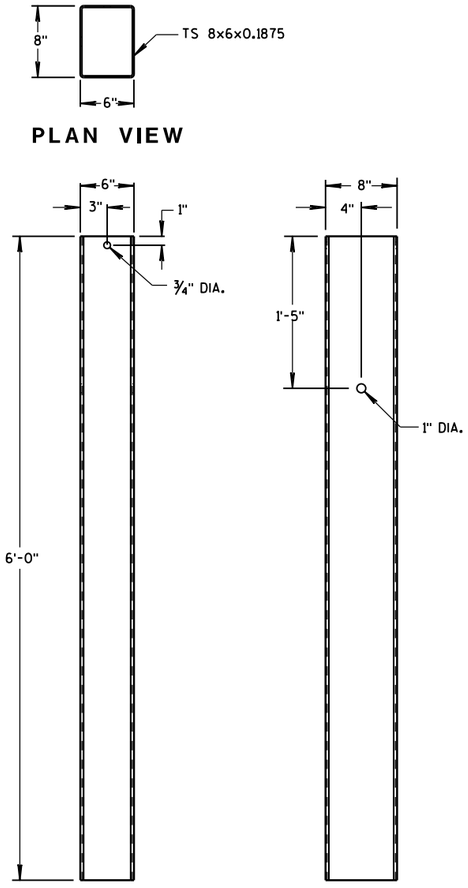
W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

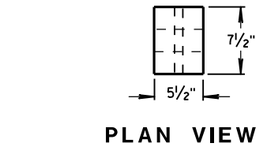
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

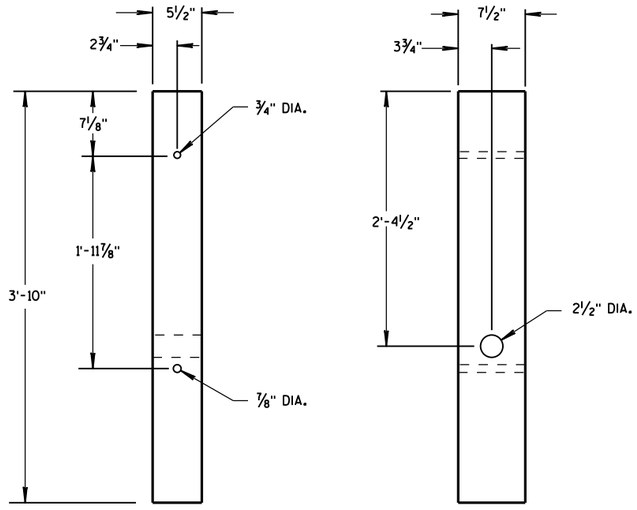
6

S.D.D. 14 B 47-1a



FOUNDATION TUBE

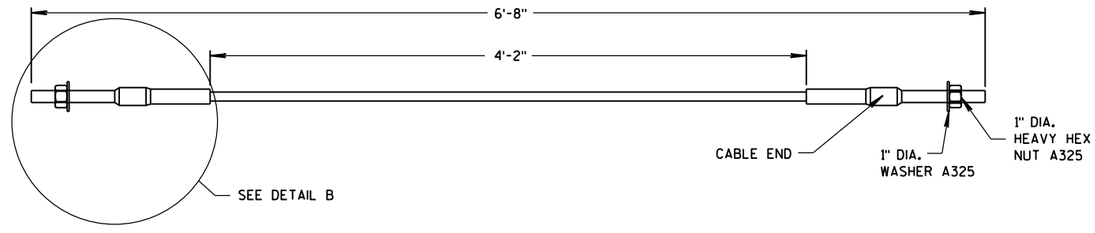




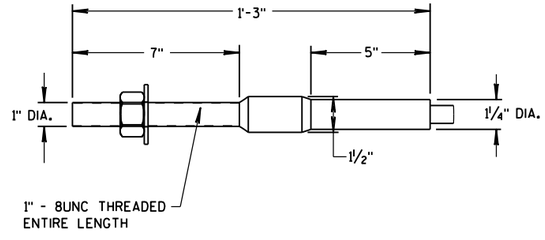
BREAKAWAY WOOD POST

GENERAL NOTES

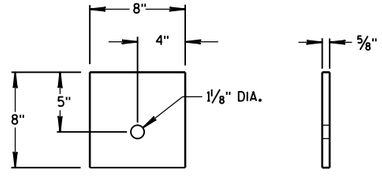
BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



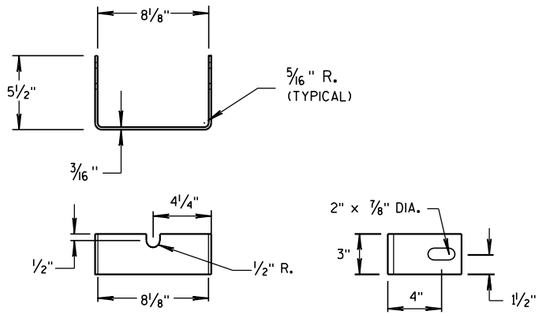
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

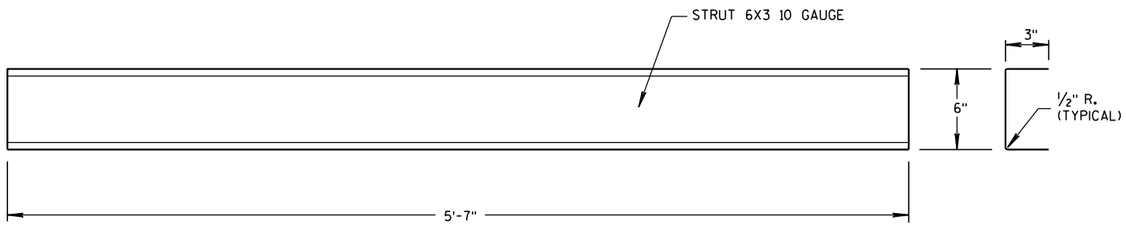
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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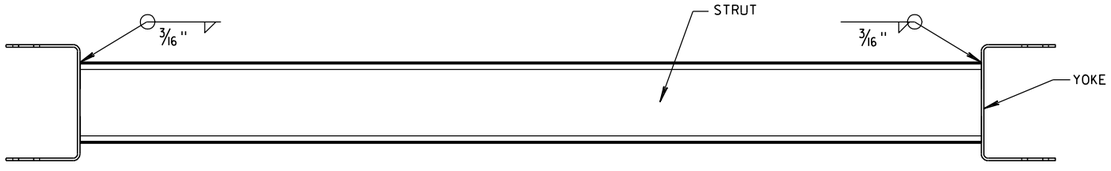
S.D.D. 14 B 47-1b



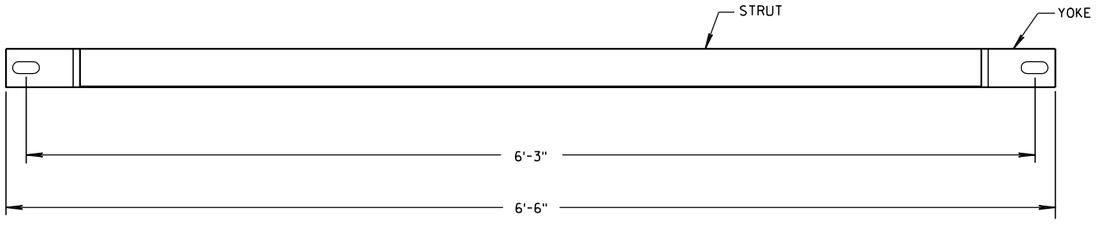
YOKE DETAIL



STRUT DETAIL

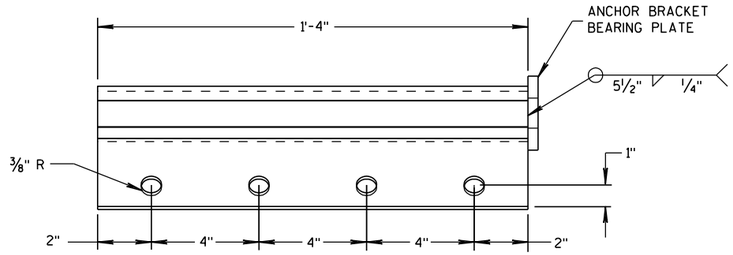


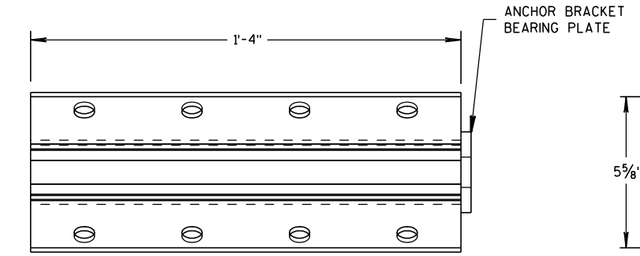
PLAN VIEW

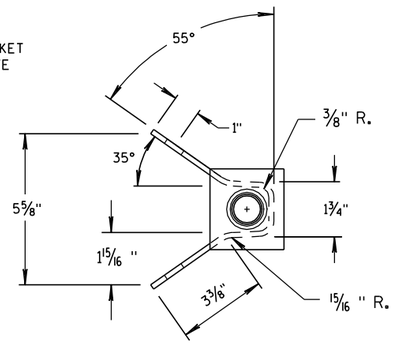


FRONT VIEW

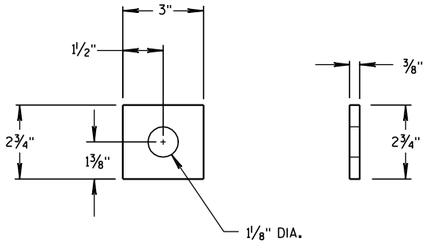
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

6

6

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

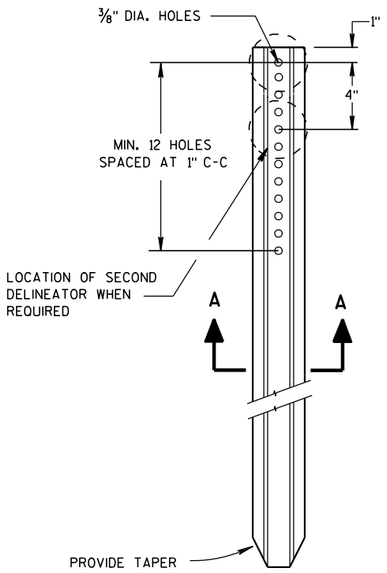
APPROVED

5/23/2011
DATE

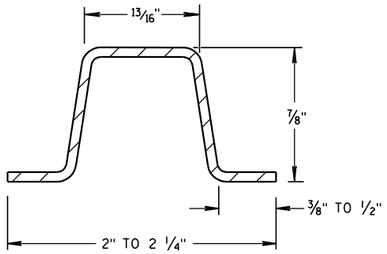
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

[illegible]

FHWA

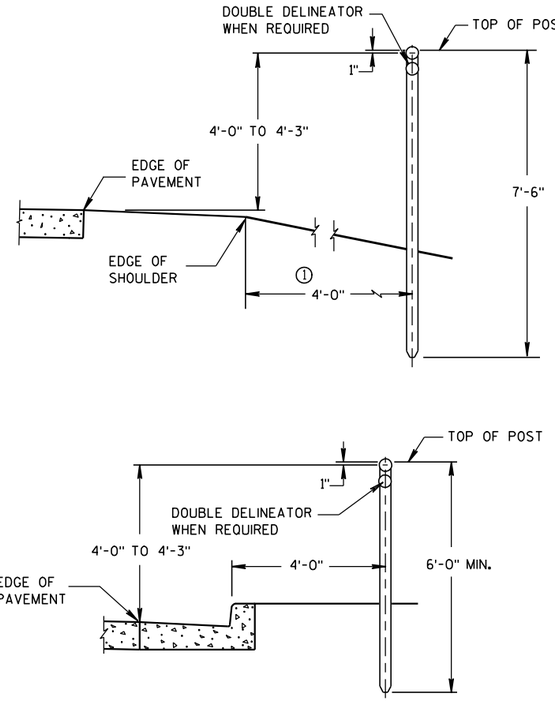


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

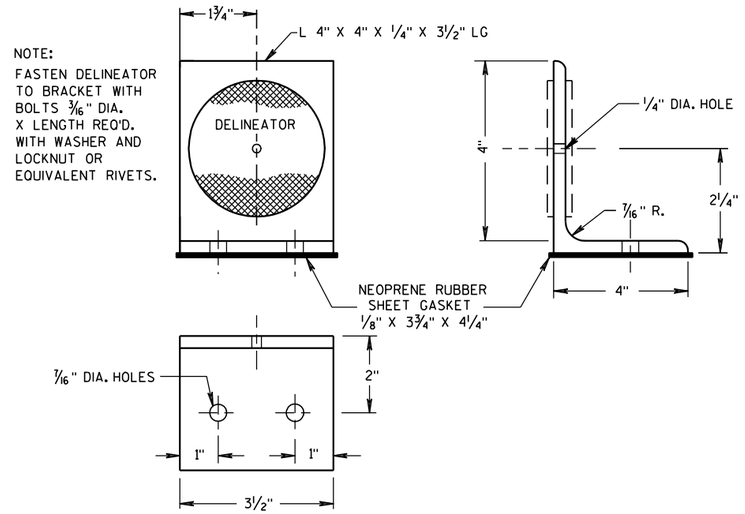


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

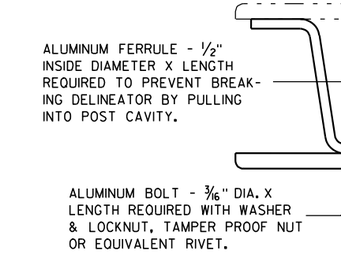
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

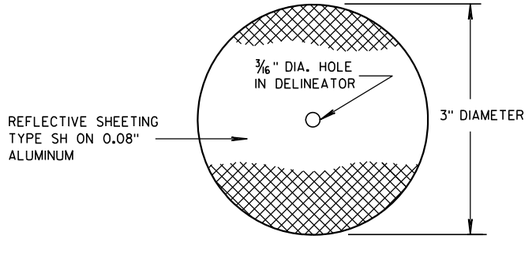
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



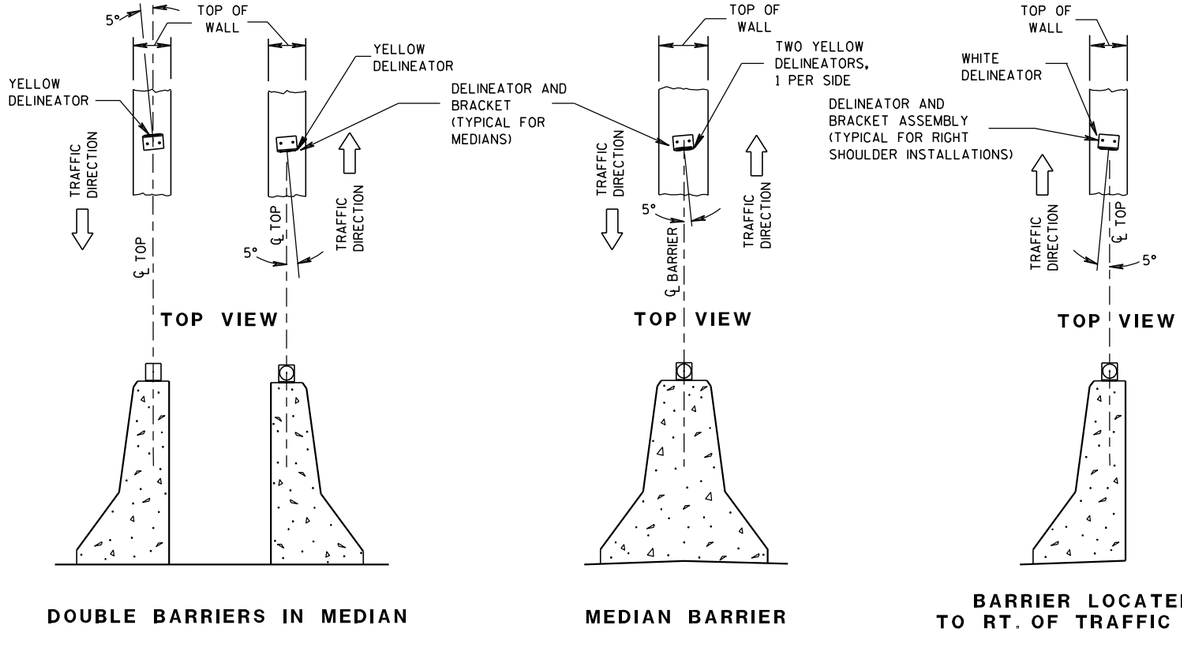
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

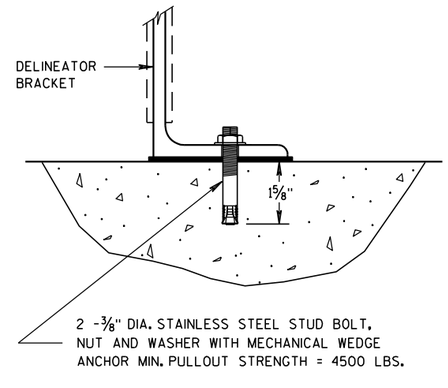


DOUBLE BARRIERS IN MEDIAN

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

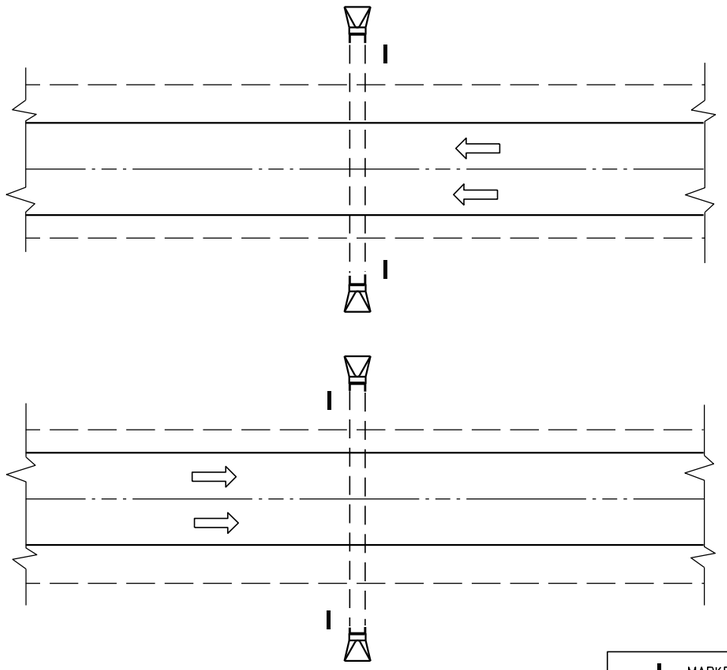
APPROVED
1/25/2011 — DATE
/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER — DESIGN
FHWA

6

S.D.D. 15 A 2-7

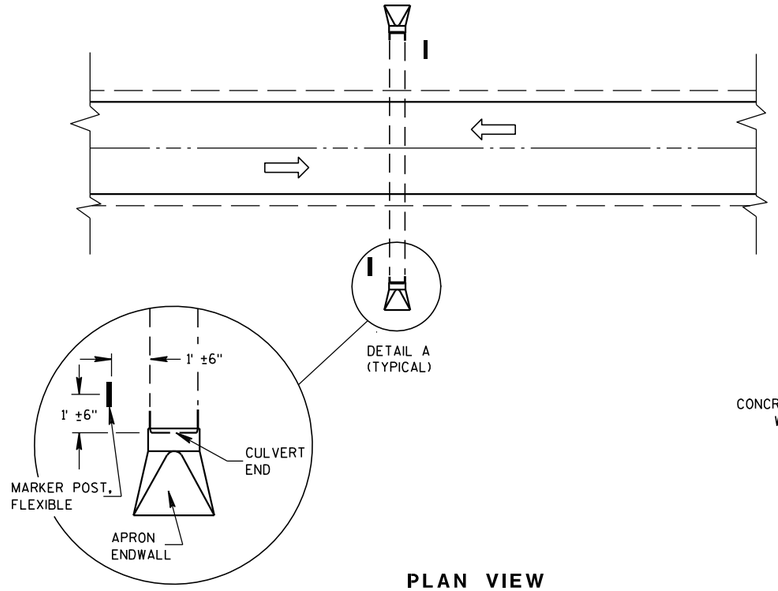
6

S.D.D. 15 A 2-7



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

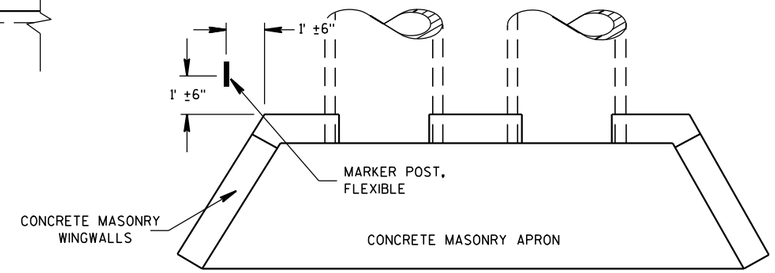
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

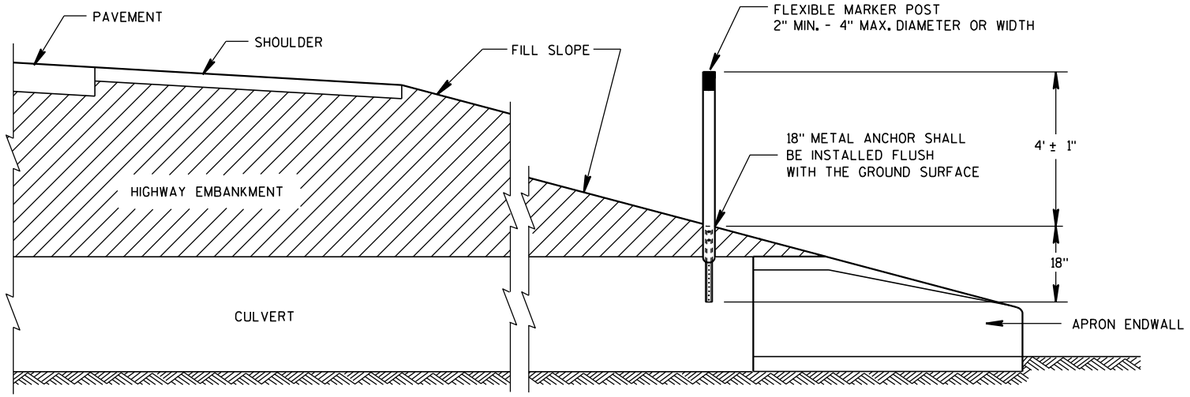
GENERAL NOTES

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

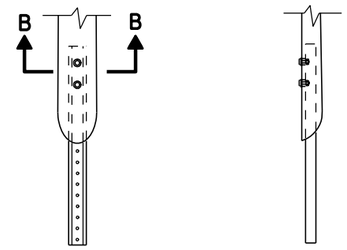
CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH



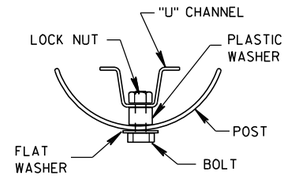
CROSS SECTION

FLEXIBLE MARKER POST

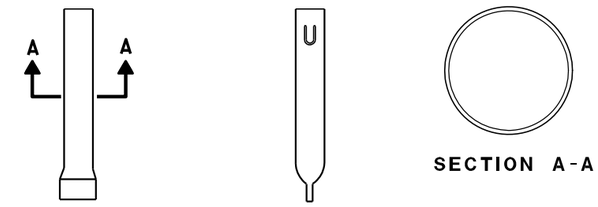
FLEXIBLE MARKER POST LOCATION



FRONT VIEW SIDE VIEW
CURVED MARKER



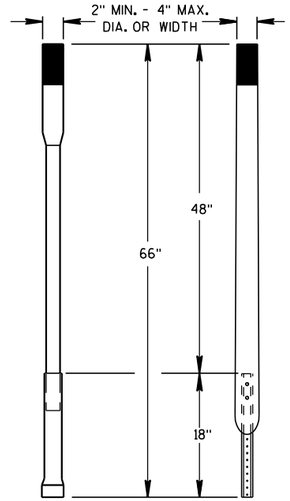
SECTION B-B



FRONT VIEW SIDE VIEW
ROUND MARKER

SECTION A-A

FLEXIBLE MARKER POST ANCHORS



ALTERNATE 1 ALTERNATE 2

FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE, FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98
DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOP ENGINEER

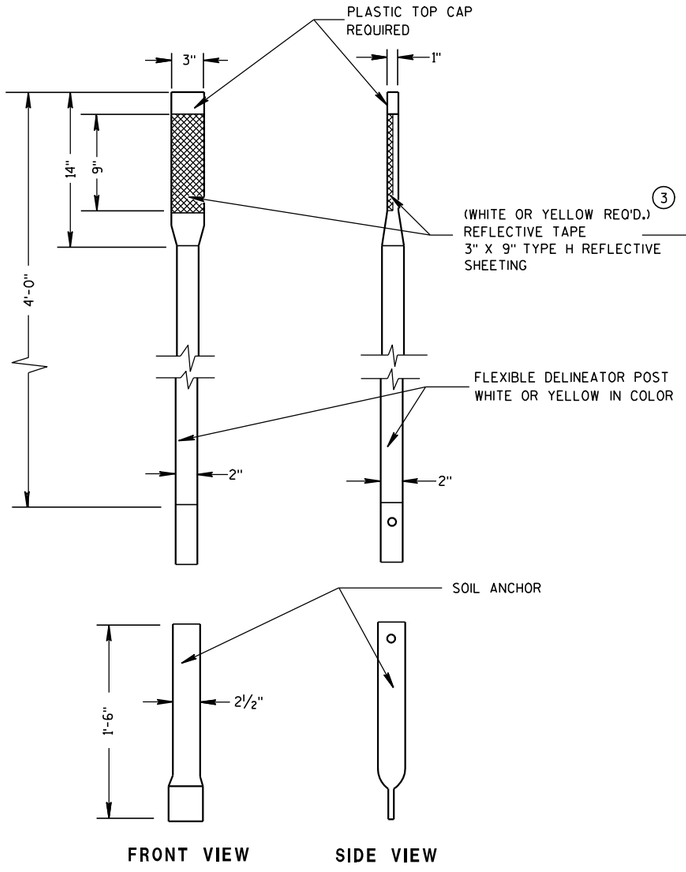
FHWA

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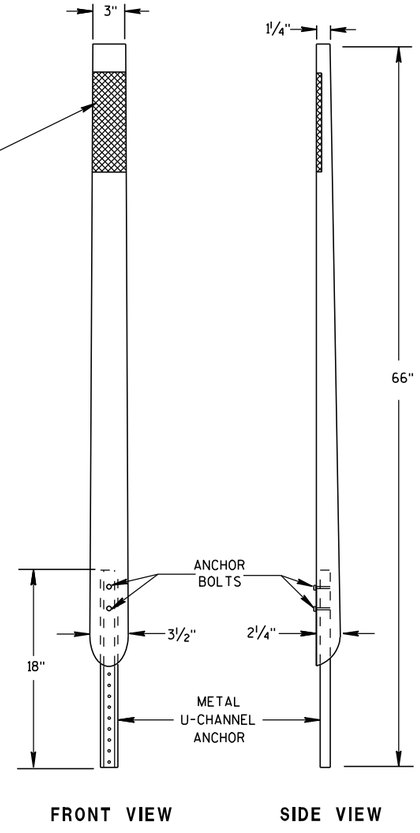
S.D.D. 15 A 3-1

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S.D.D. 15 A 3-1



ALTERNATE 1



ALTERNATE 2

FLEXIBLE DELINEATOR POST

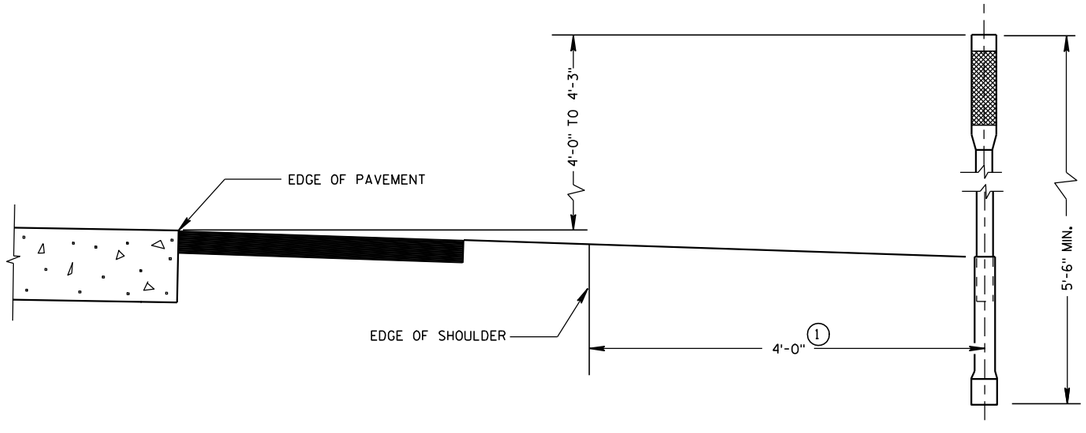
GENERAL NOTES

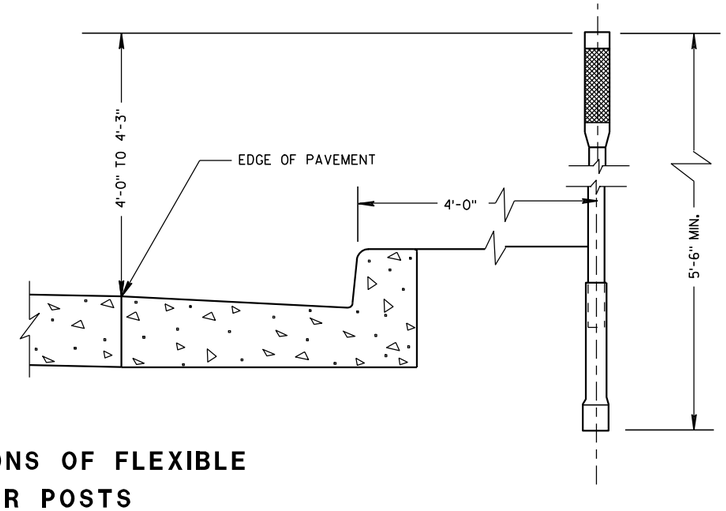
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDATRD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

(2) EITHER ALTERNATE NO. 1 OR NO. 2 MAY BE FURNISHED.

(3) AS PER SECTION 637.2.2.2. OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11-6-01 DATE

/S/ Chester J. [illegible] CHIEF SIGNS AND MARK[illegible]ER

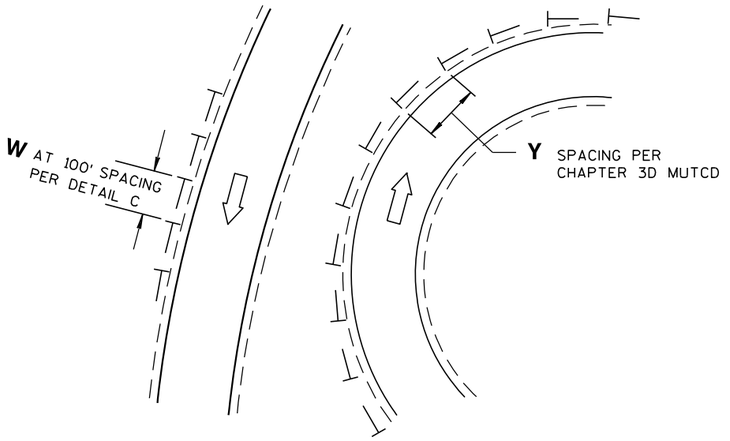
FHWA

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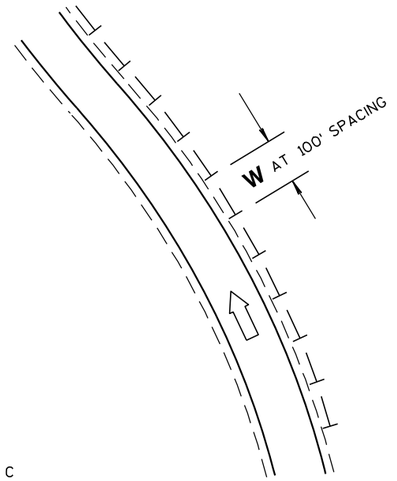
S.D.D. 15 A 4-1

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



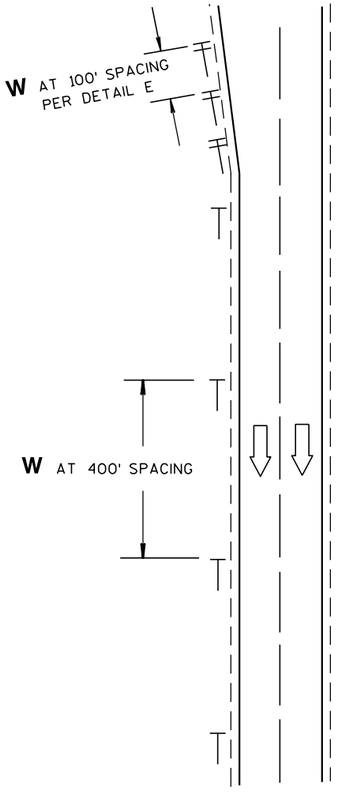
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



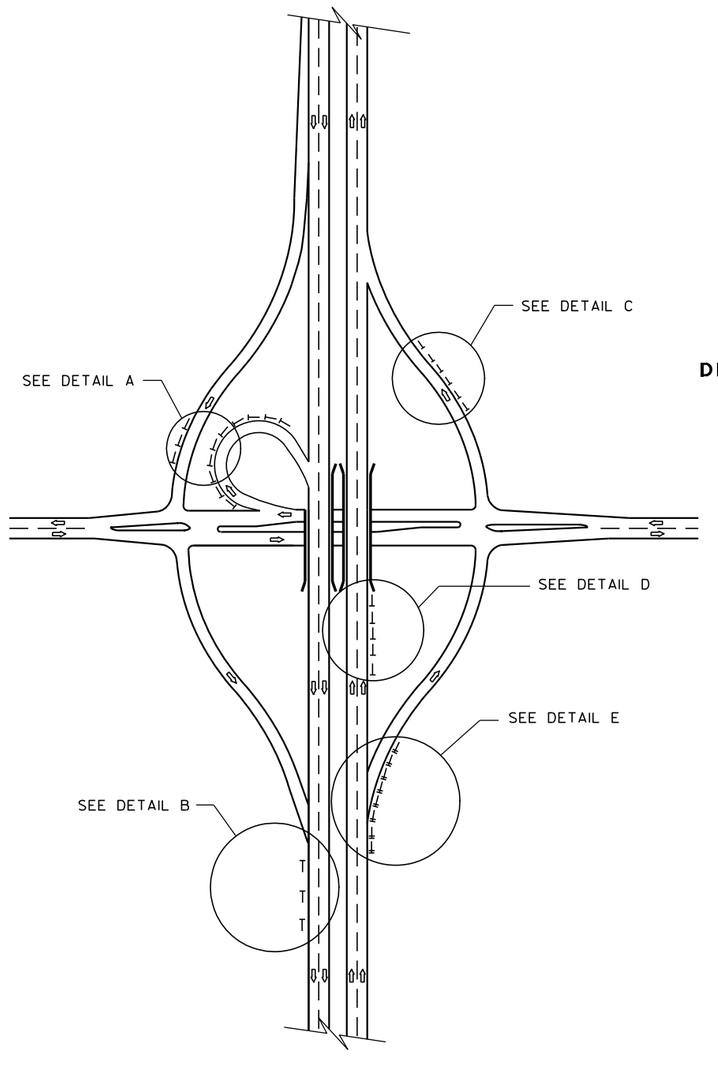
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

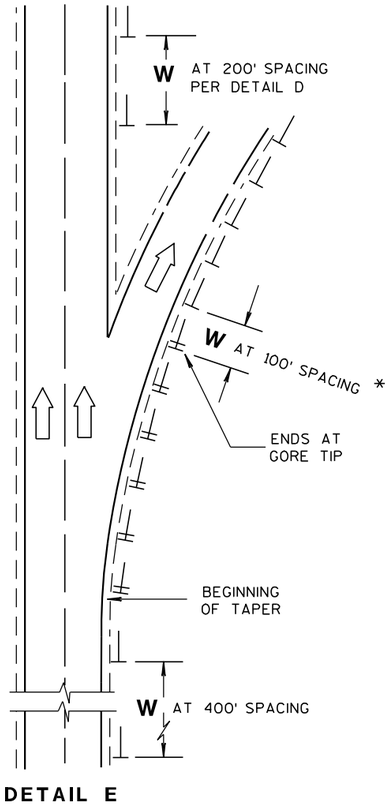
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



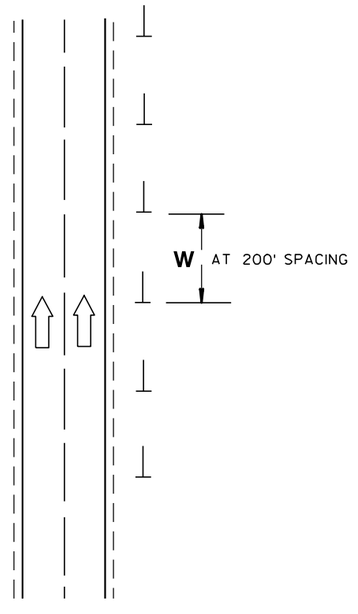
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



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

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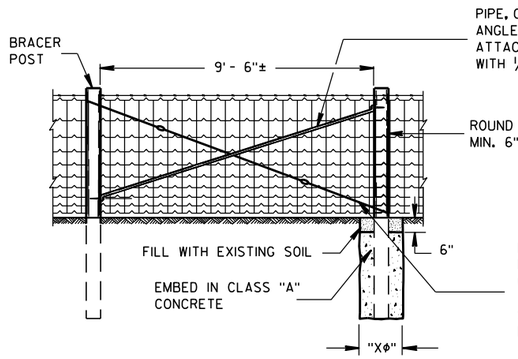
S.D.D. 15 A 6-2

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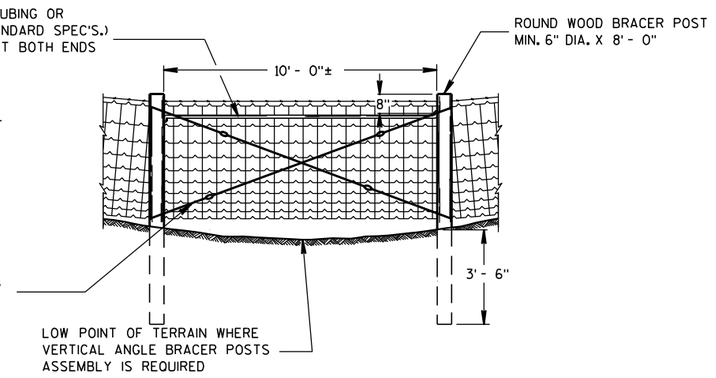
S.D.D. 15 A 6-2

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

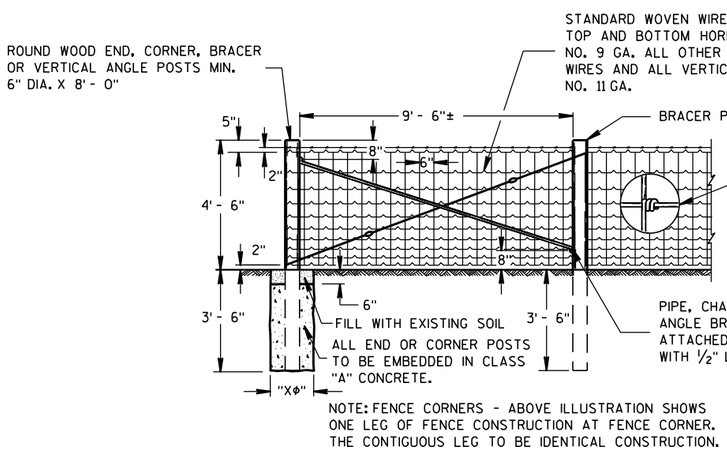
GENERAL NOTES

"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.

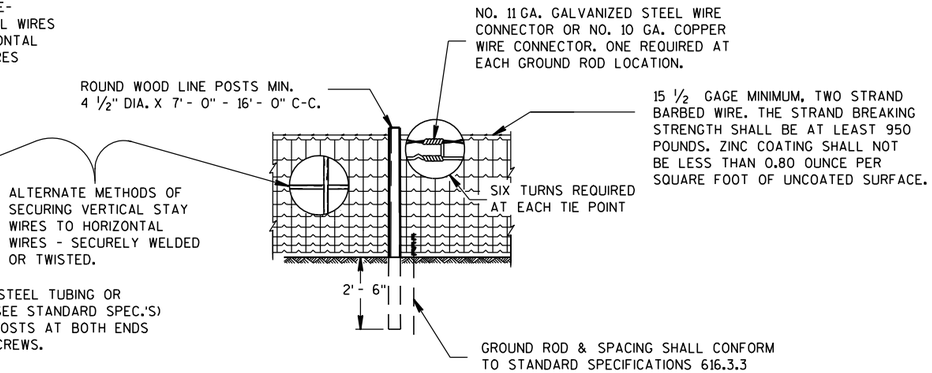
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED 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.



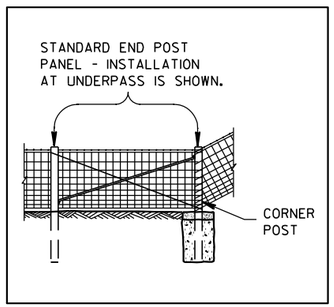
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

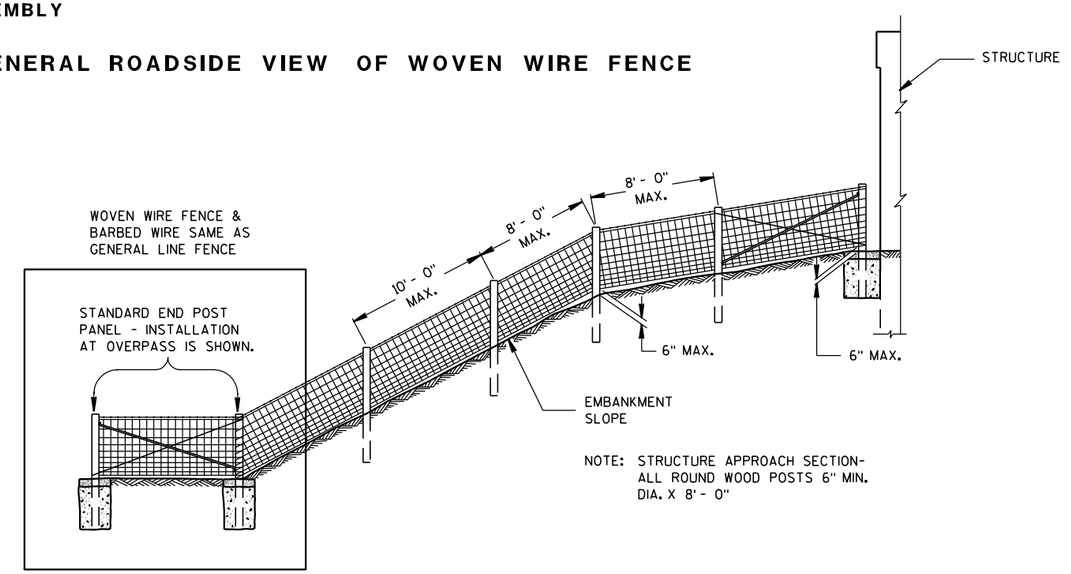


LINE FENCE CONSTRUCTION

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

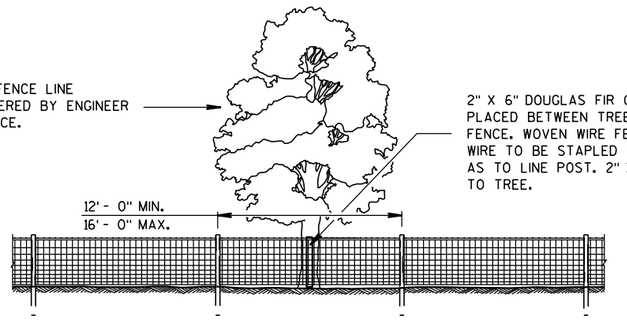
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

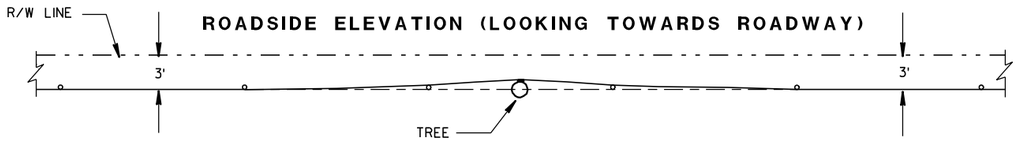
6
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

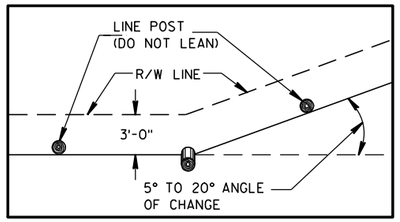


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

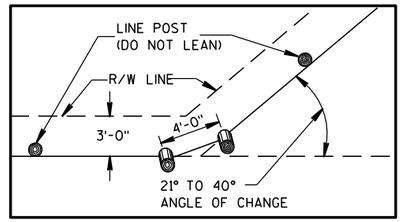


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

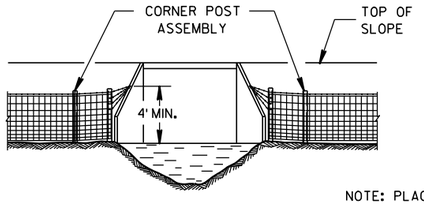


PLAN VIEW
DOUBLE POST CORNER

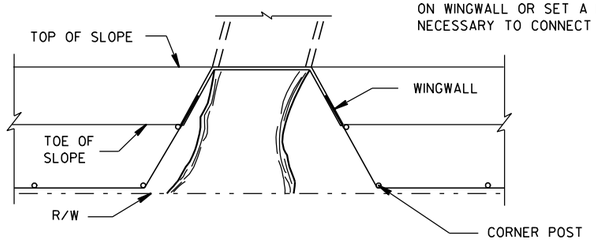
RIGHT OF WAY LINE CHANGE 40° AND LESS

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.

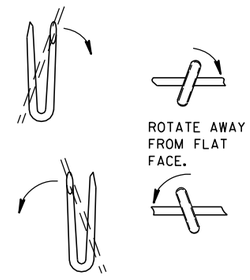
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



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.



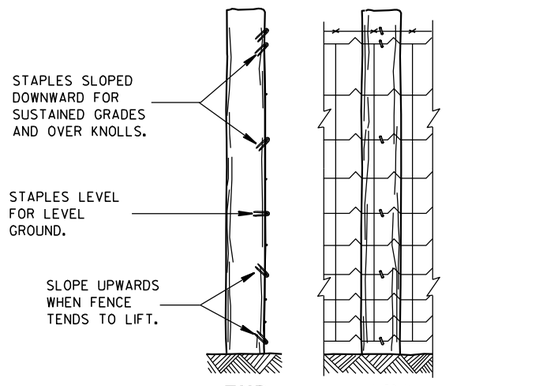
FENCE INSTALLATION TO WINGWALLS



LINE POST

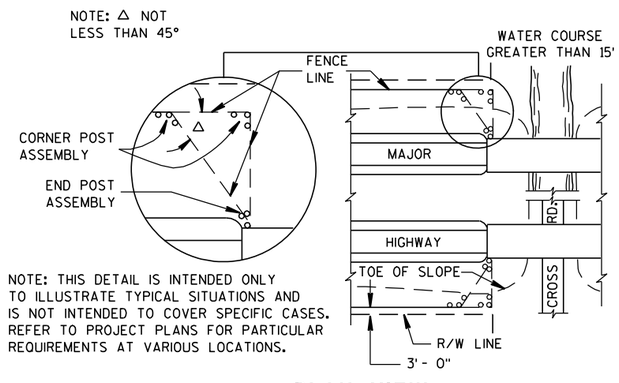
FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

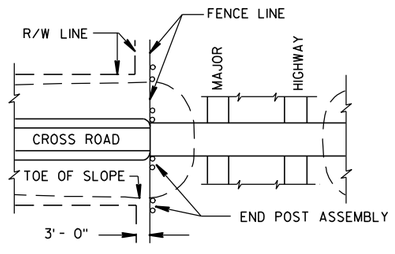


END ELEVATION — FARM SIDE ELEVATION

FENCE MOUNTING DETAIL



PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

FENCE LOCATION AT STRUCTURES

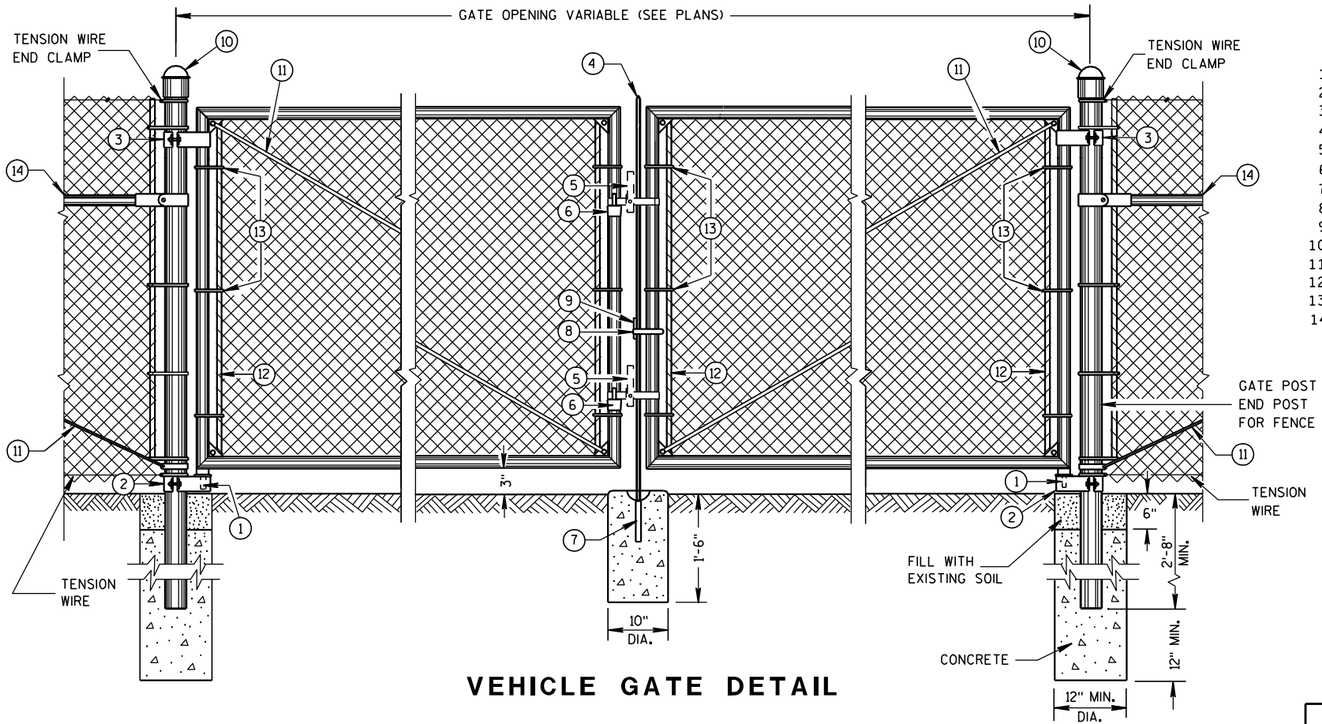
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

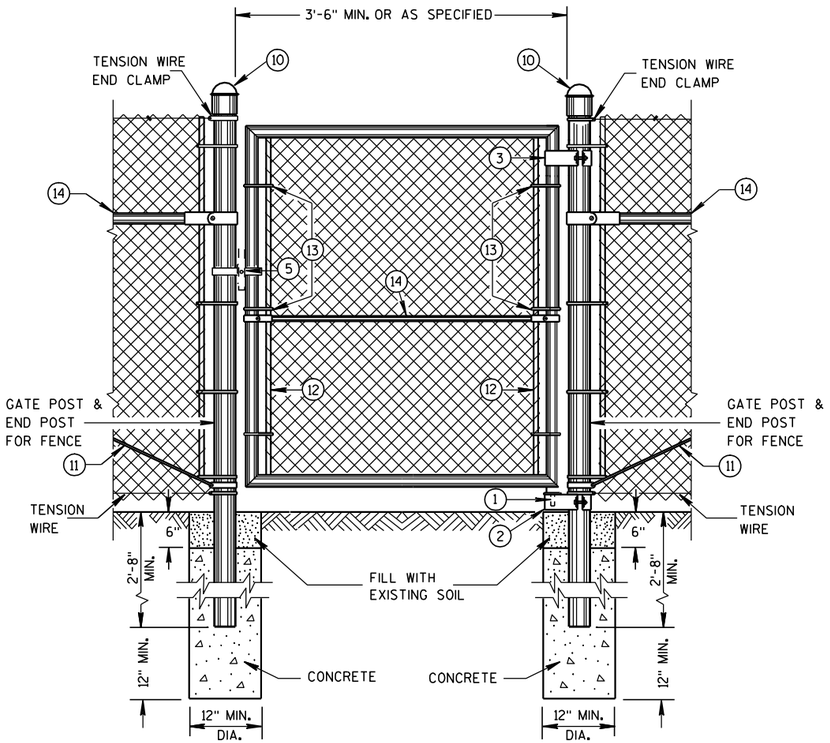
APPROVED
4/4/2008 — DATE
/S/ Jerry H. ---- — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 15 B 1-8b



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

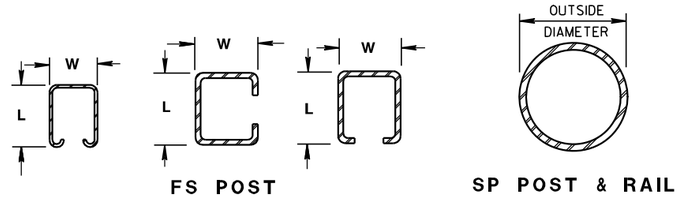
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

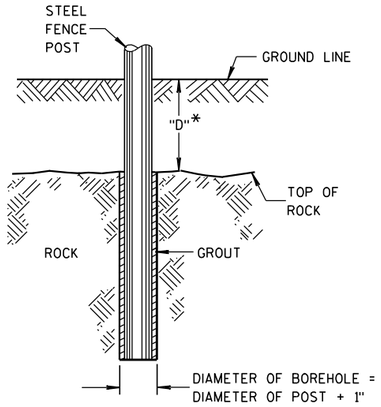
SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

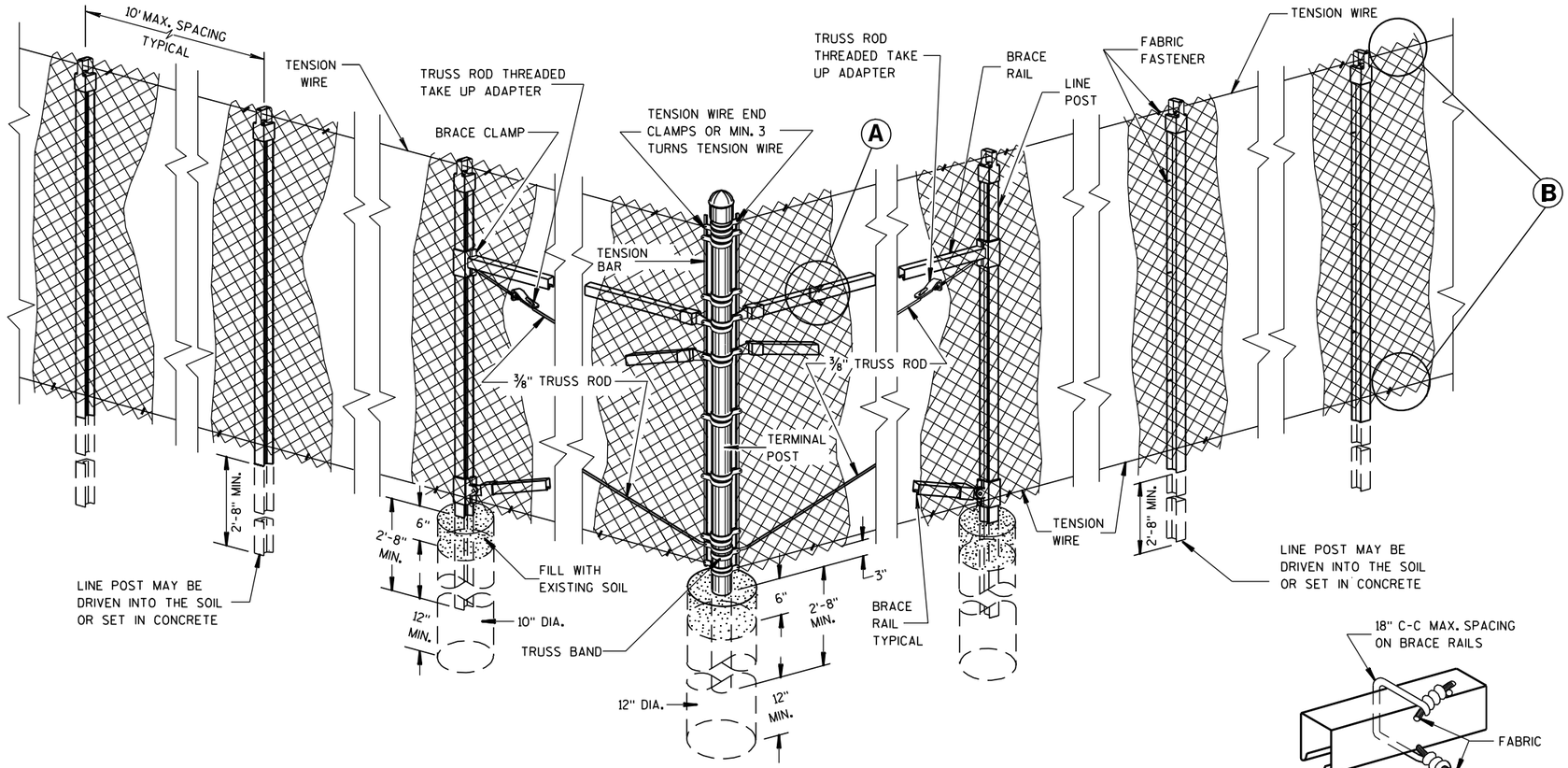
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 15 B 3-12a

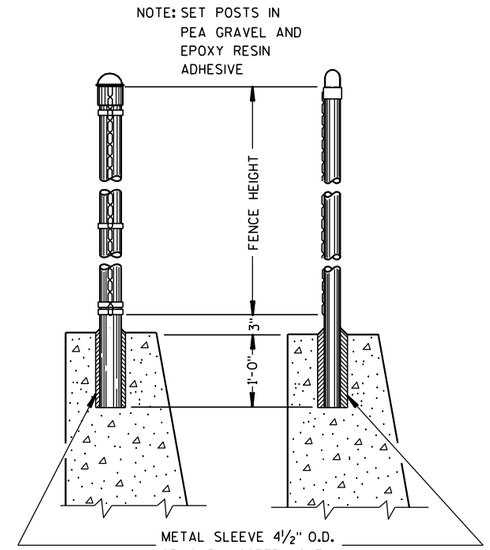


* IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

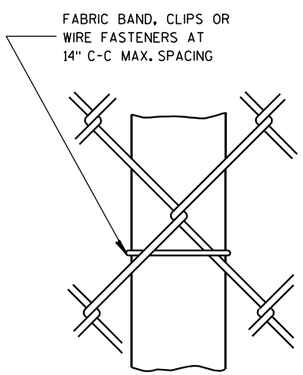


END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



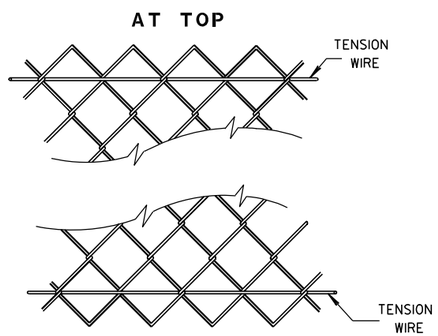
END POST & CORNER POST — LINE POST

DETAILS OF FENCE ON WALL



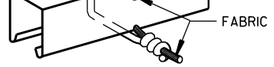
LINE POST

FABRIC FASTENER



SELVAGES

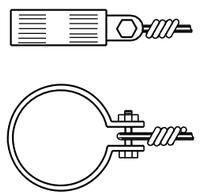
(B)



BRACE RAIL

FABRIC FASTENER

(A)



TENSION WIRE END CLAMP

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/19/2010 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

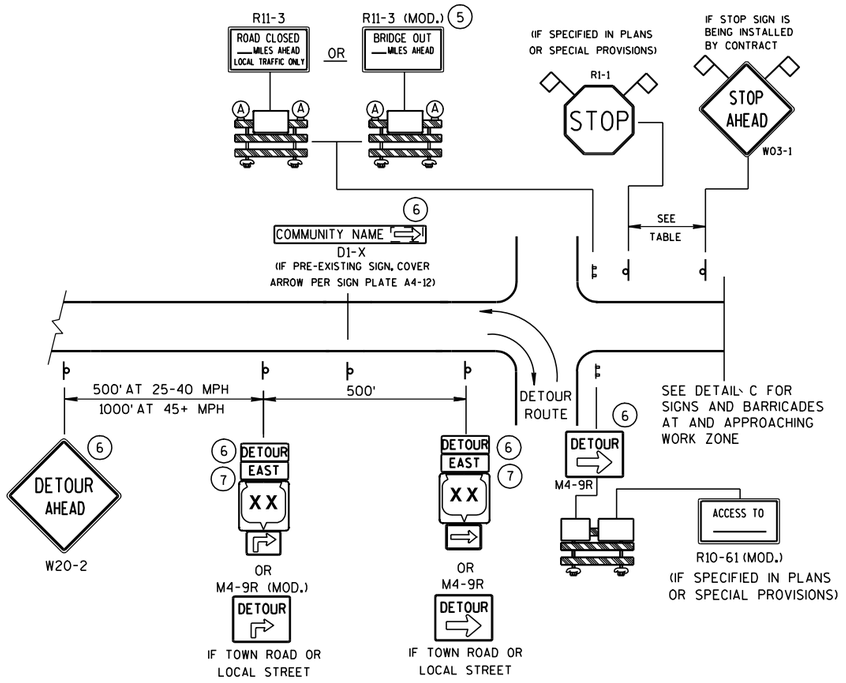
ENT

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S.D.D. 15 B 3-12b

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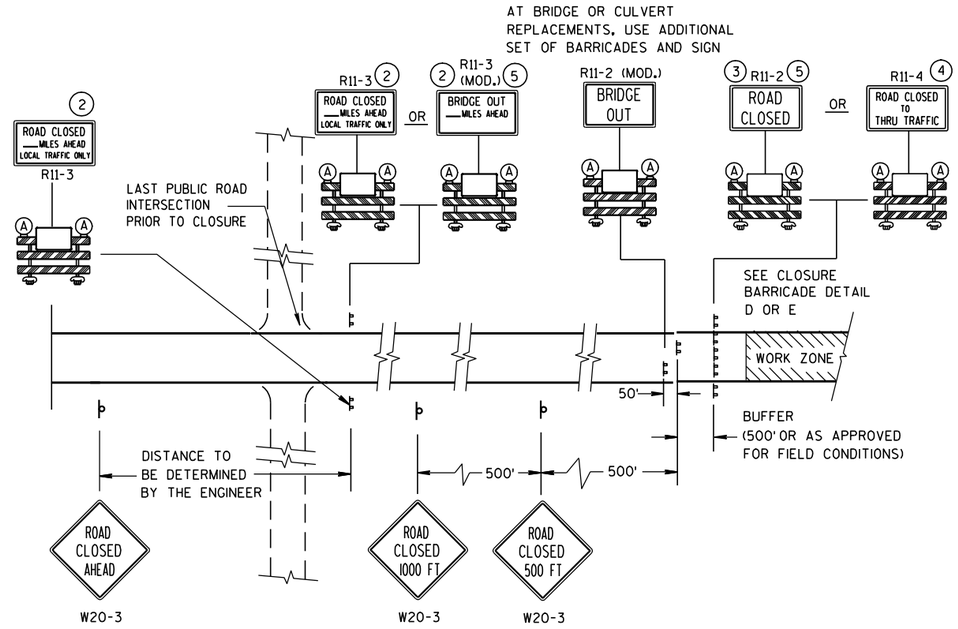
S.D.D. 15 B 3-12b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

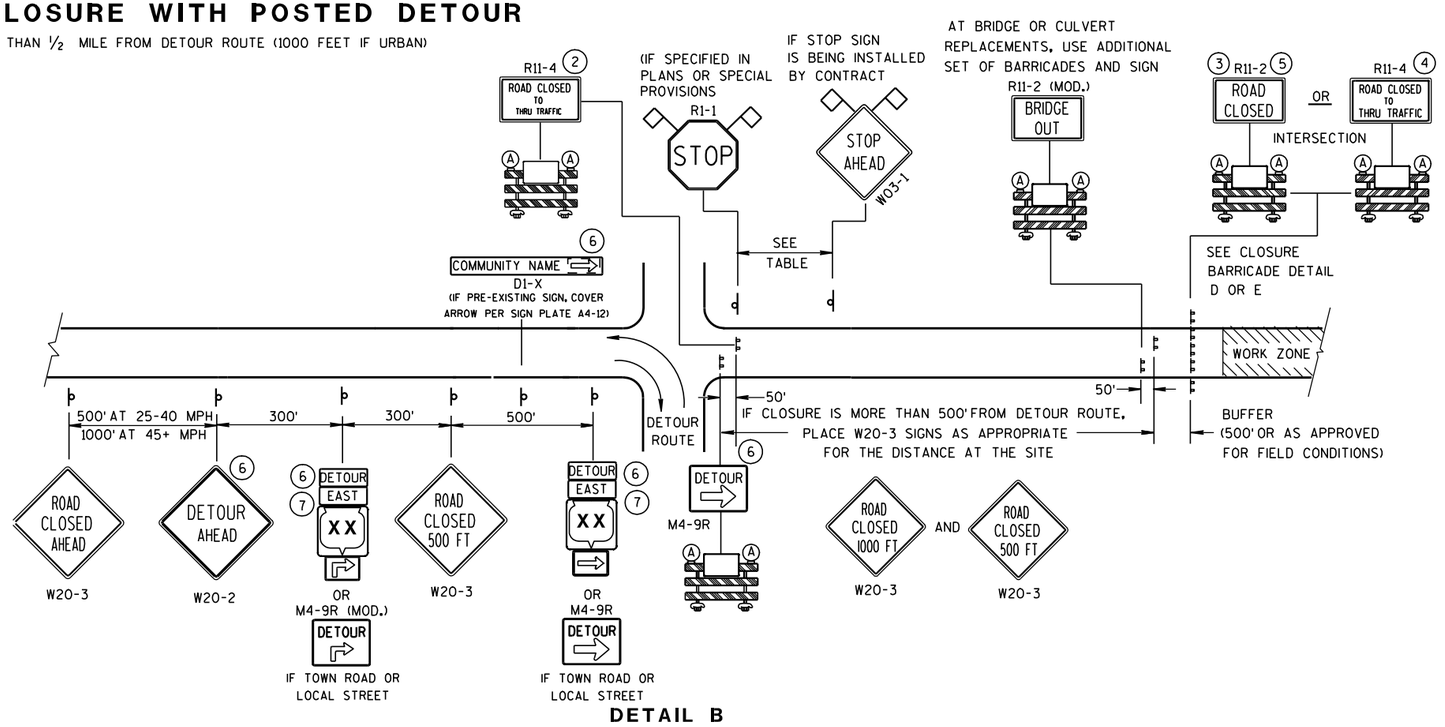


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

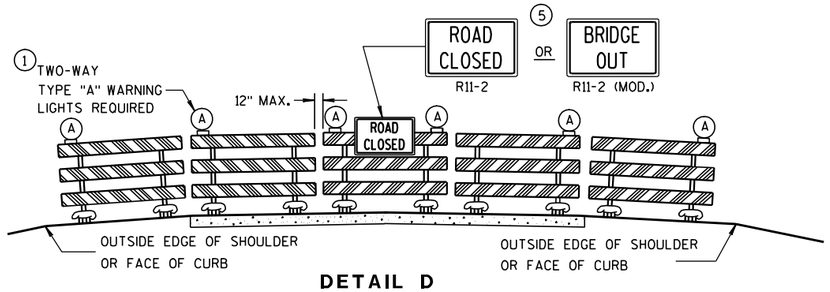
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

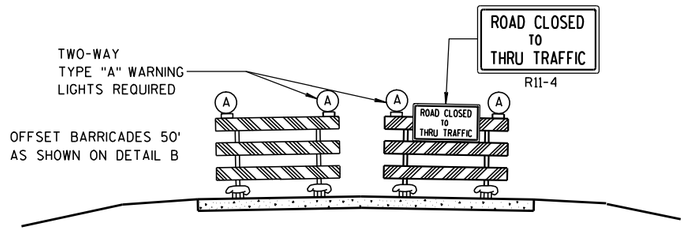
S.D.D. 15 C 2-4a



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

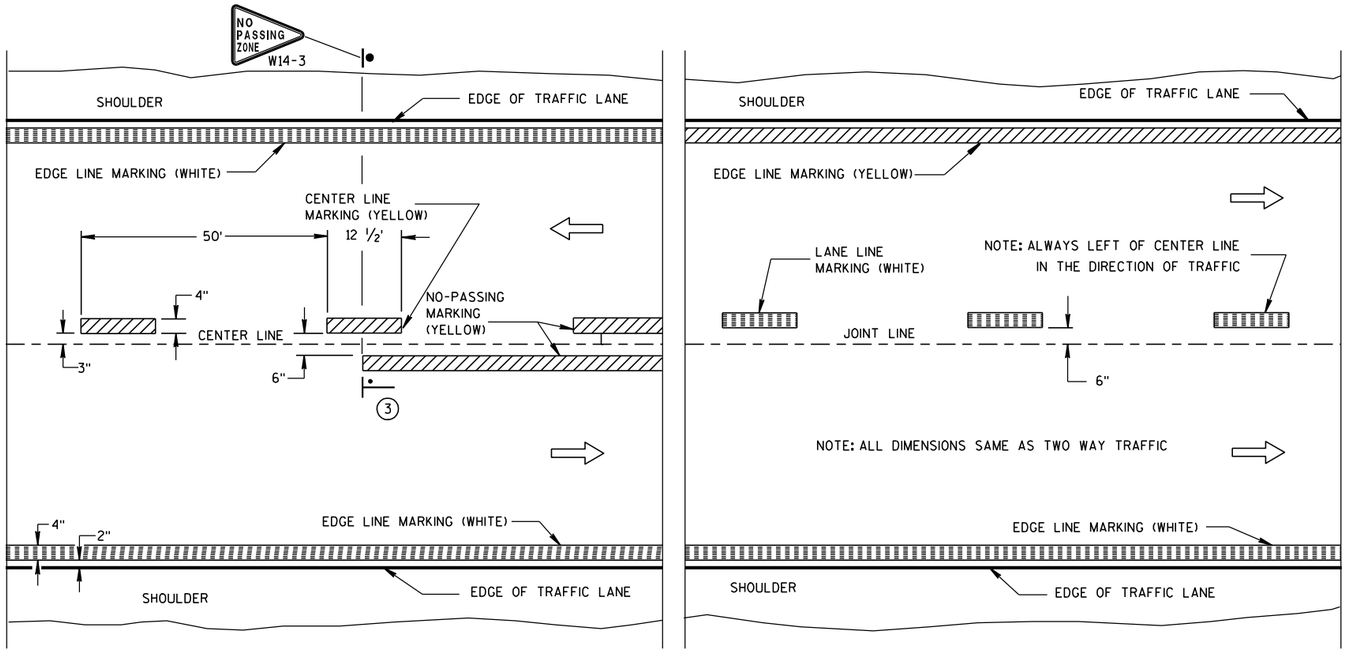
9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible]INEER

FHWA

6

S.D.D. 15 C 2-4b



TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

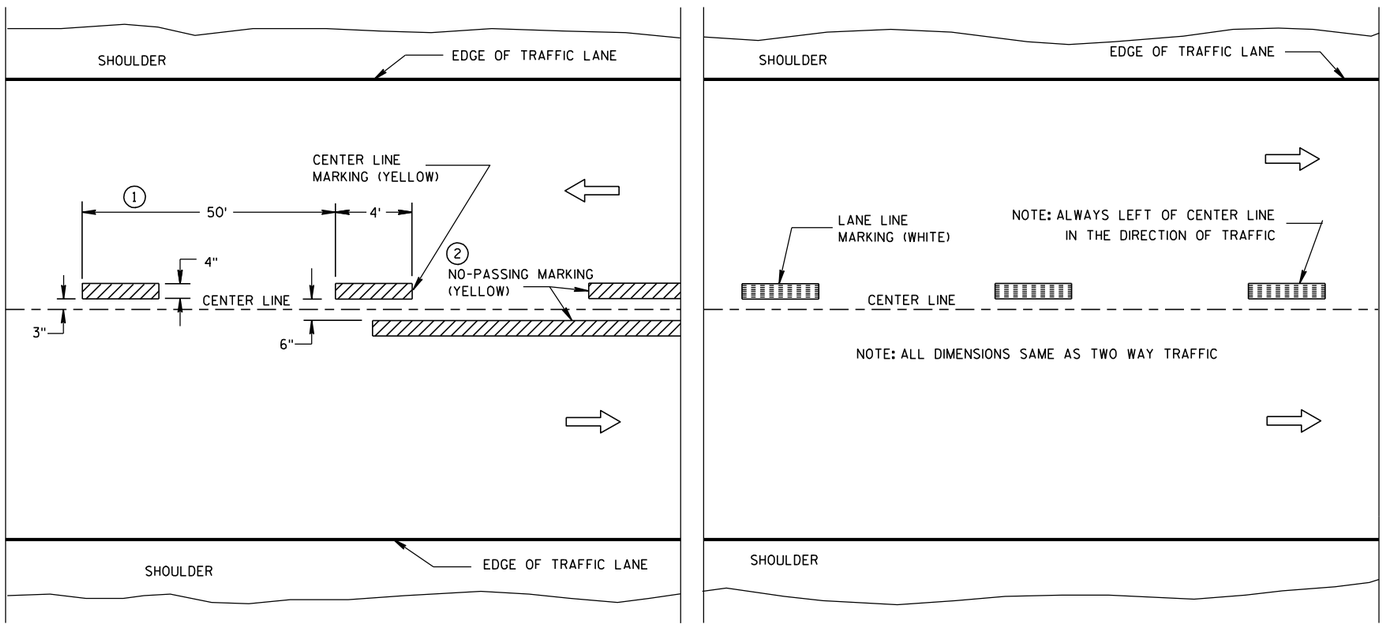
(1) HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.

(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.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

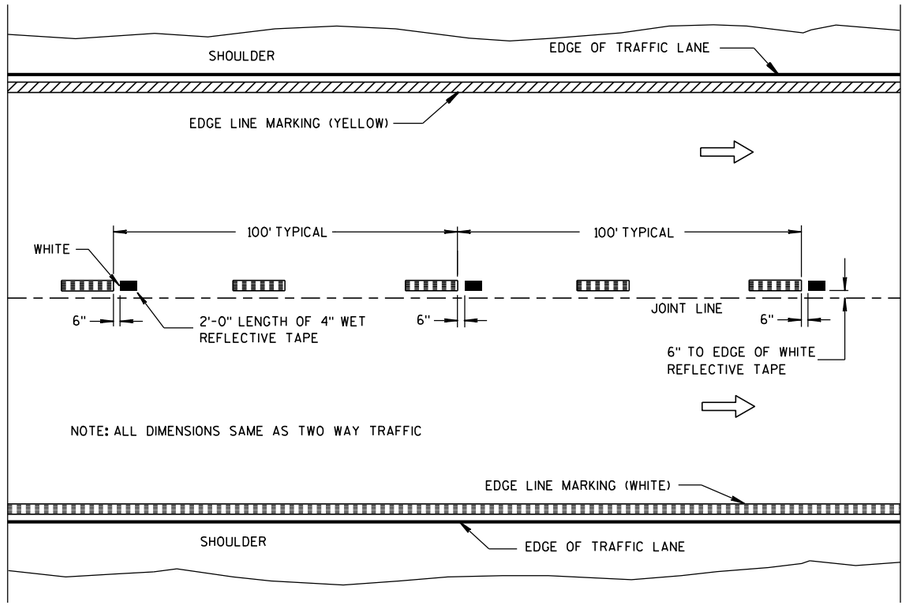


TWO WAY TRAFFIC

ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)



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
6-23-11 DATE
/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER

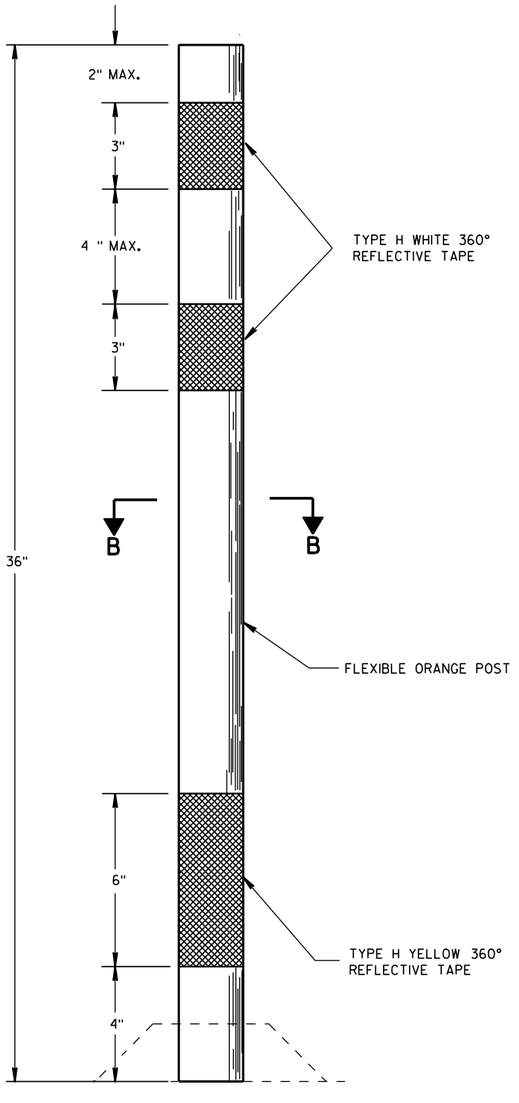
FHWA

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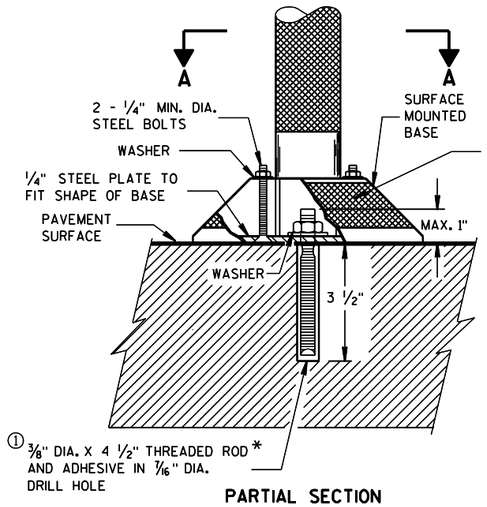
S.D.D. 15 C 8-14a

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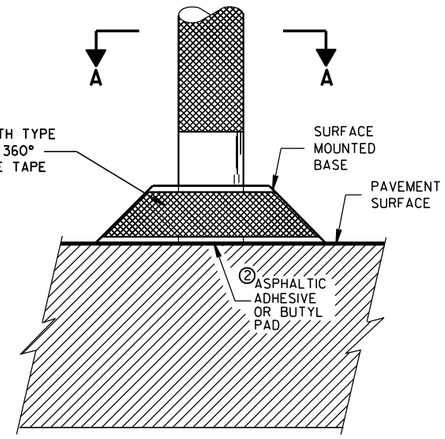
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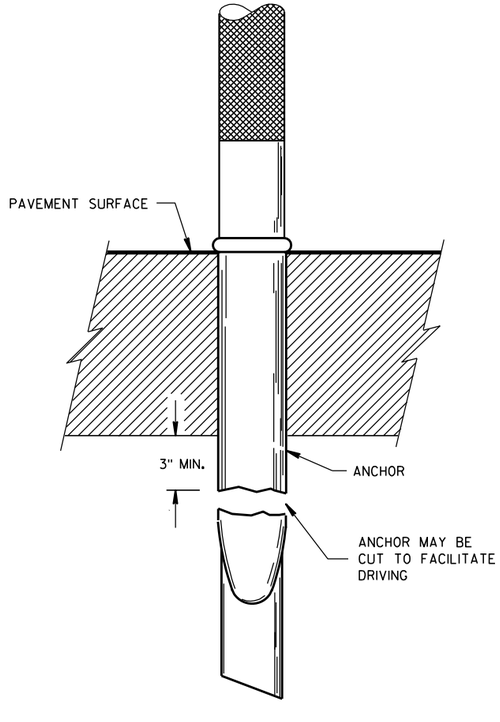
FLEXIBLE TUBULAR MARKER POST



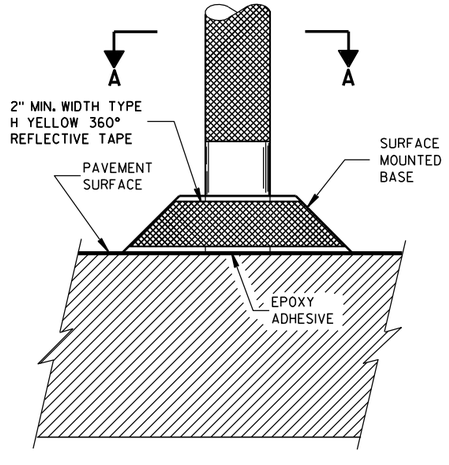
PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT



POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED



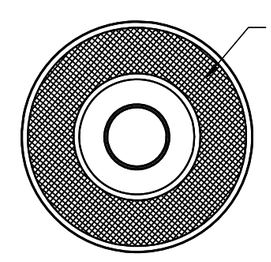
GENERAL NOTES

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.

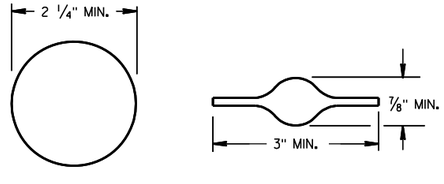
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



SECTION A-A

SURFACE MOUNTED BASE



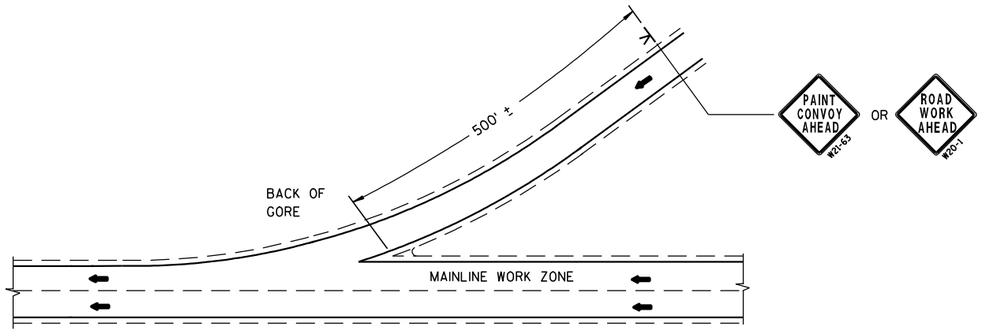
SECTION B-B

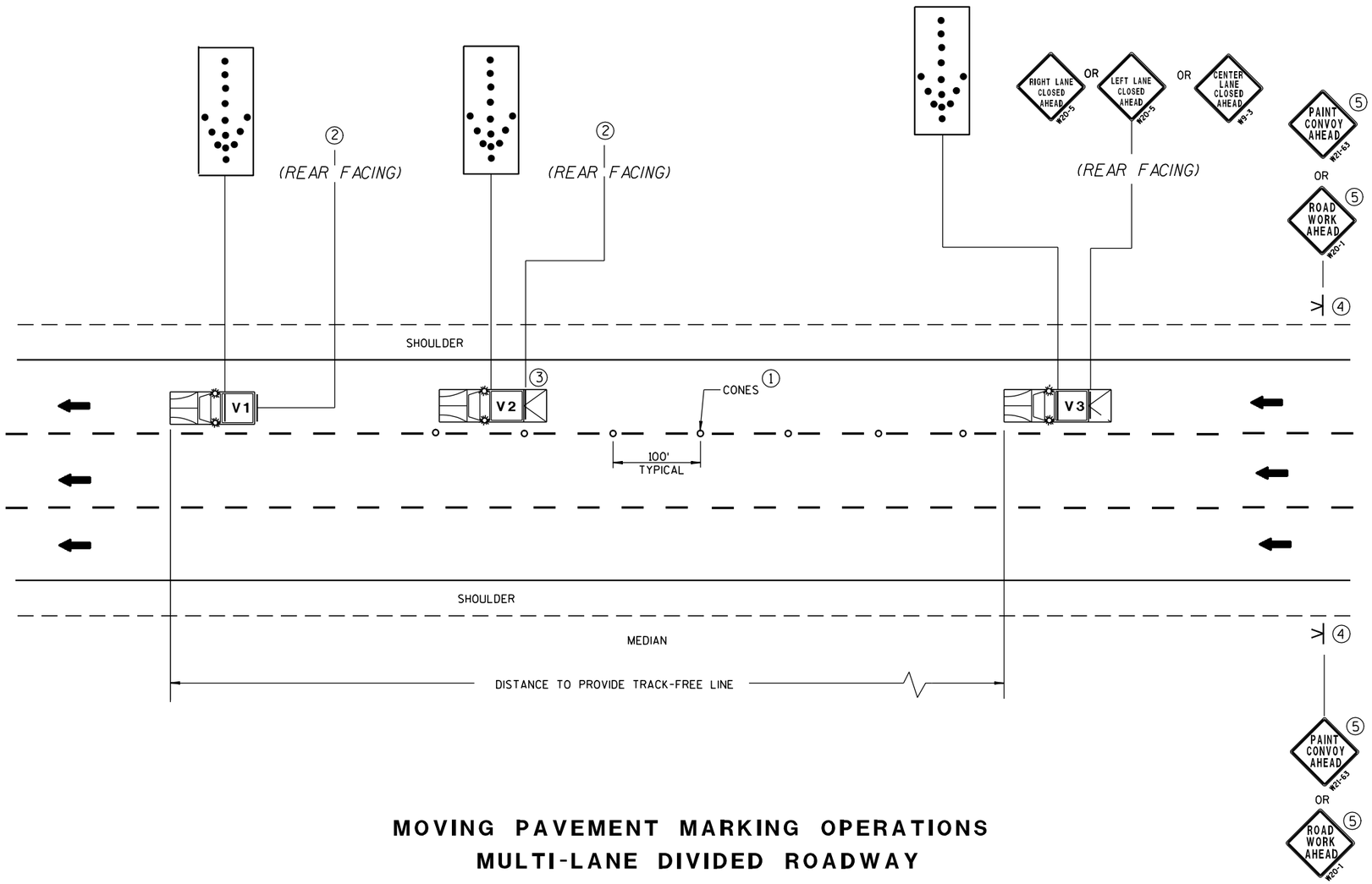
ALTERNATIVE SHAPES

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





MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON PORTABLE SUPPORT
	DIRECTION OF TRAVEL
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/6/2011 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 19-1c

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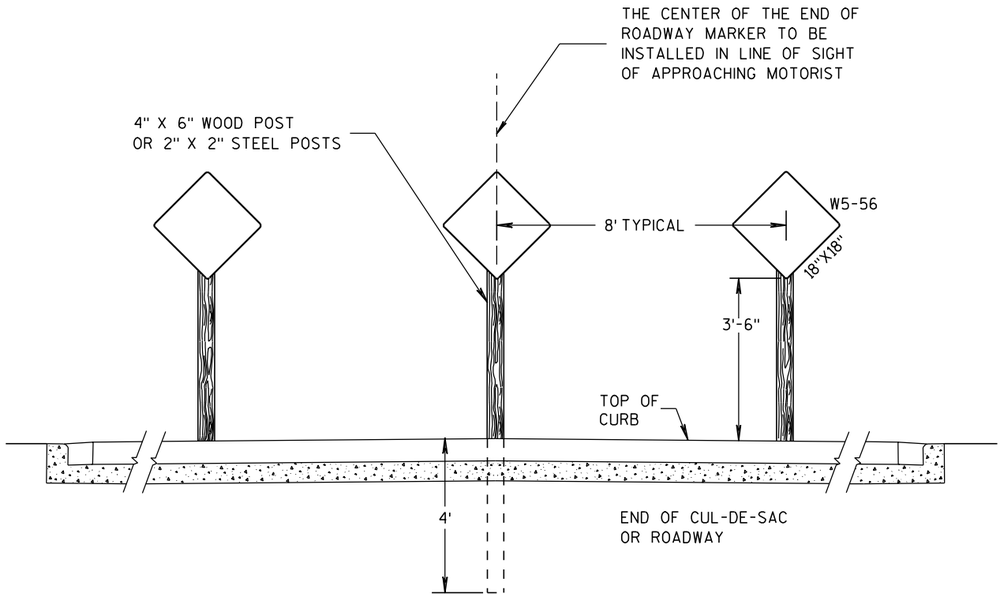
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GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

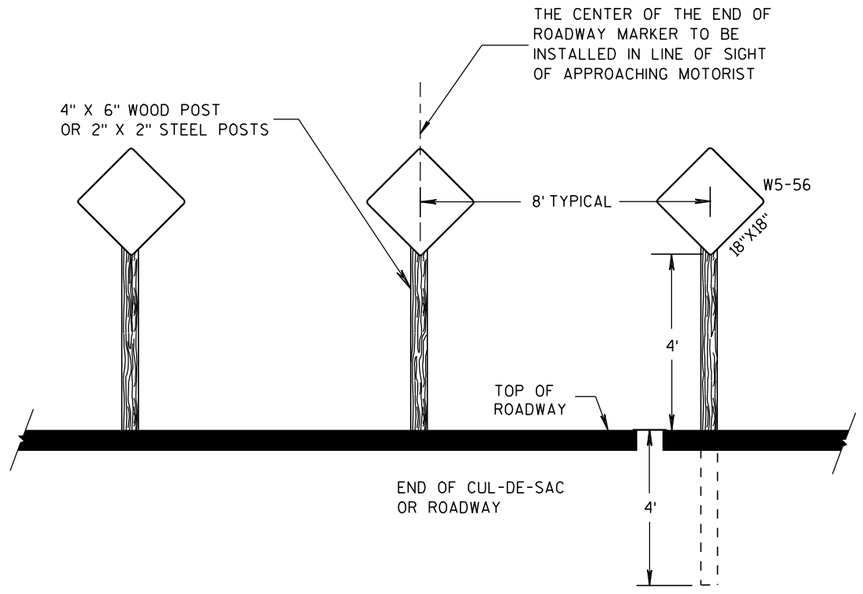
THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

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)

END-OF-ROADWAY SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/1/2011 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

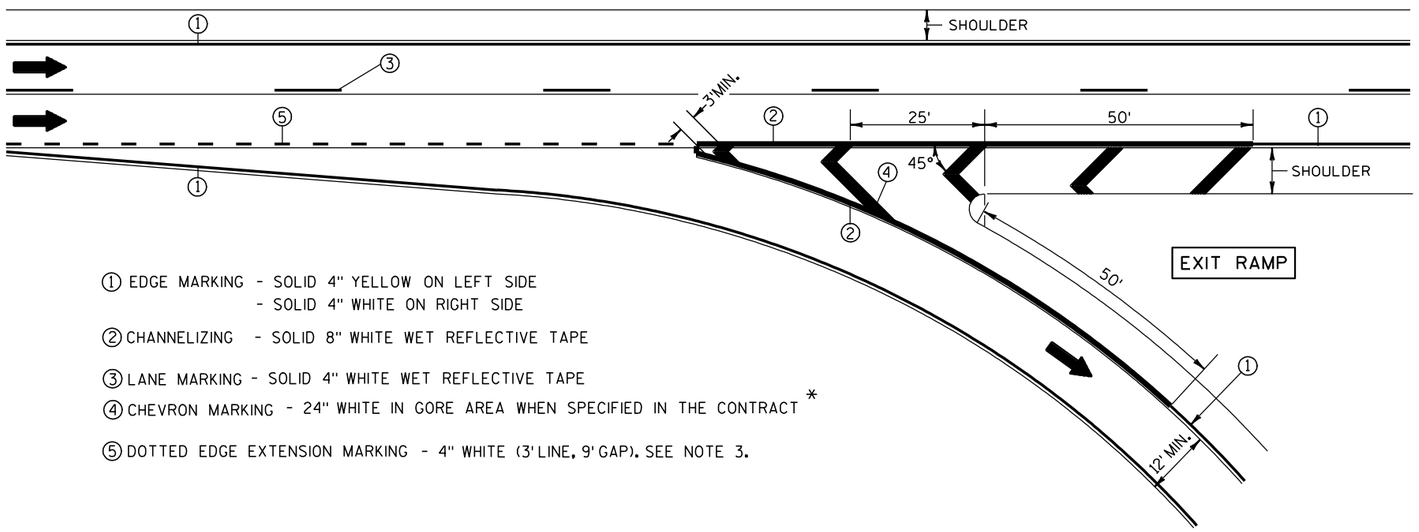
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S.D.D. 15 C 26-2



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:

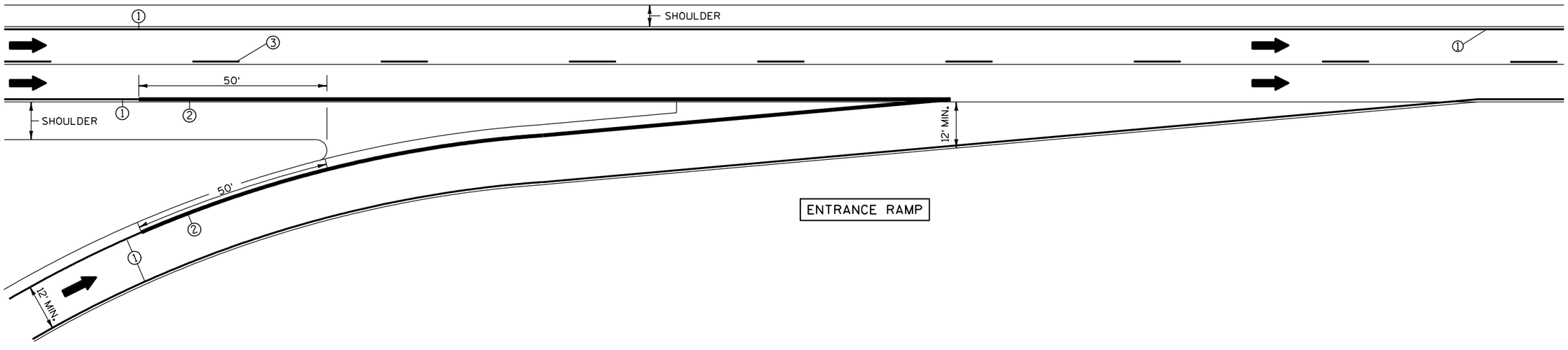
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

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.



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S.D.D. 15 C 31-1a

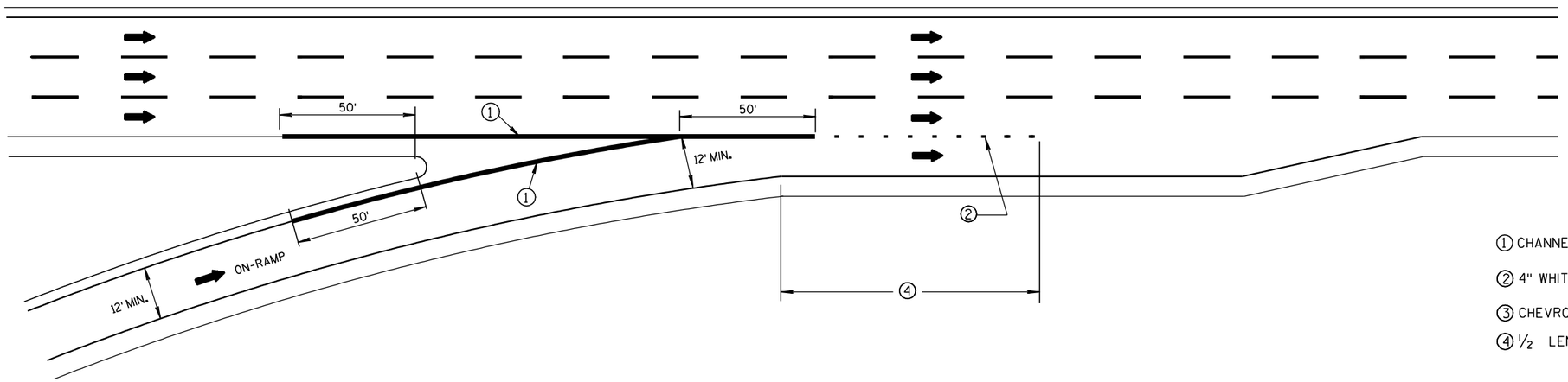
S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.



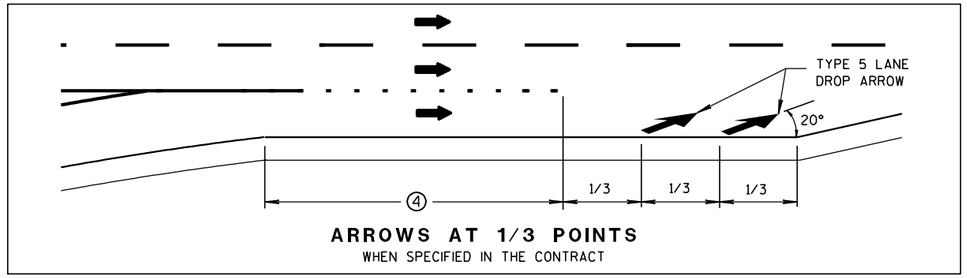
① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.

② 4" WHITE (3' LINE, 9' GAP).

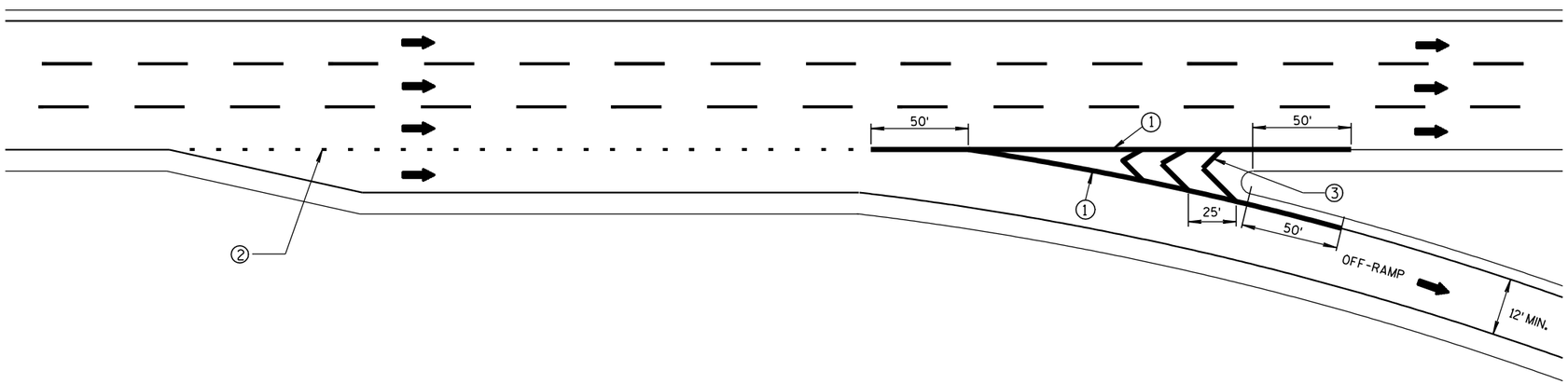
③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

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
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APPROVED
6/23/2011 DATE
/S/ Thomas N. Nothem STATE TRAFFIC ENGINE 183 SIGN
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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.

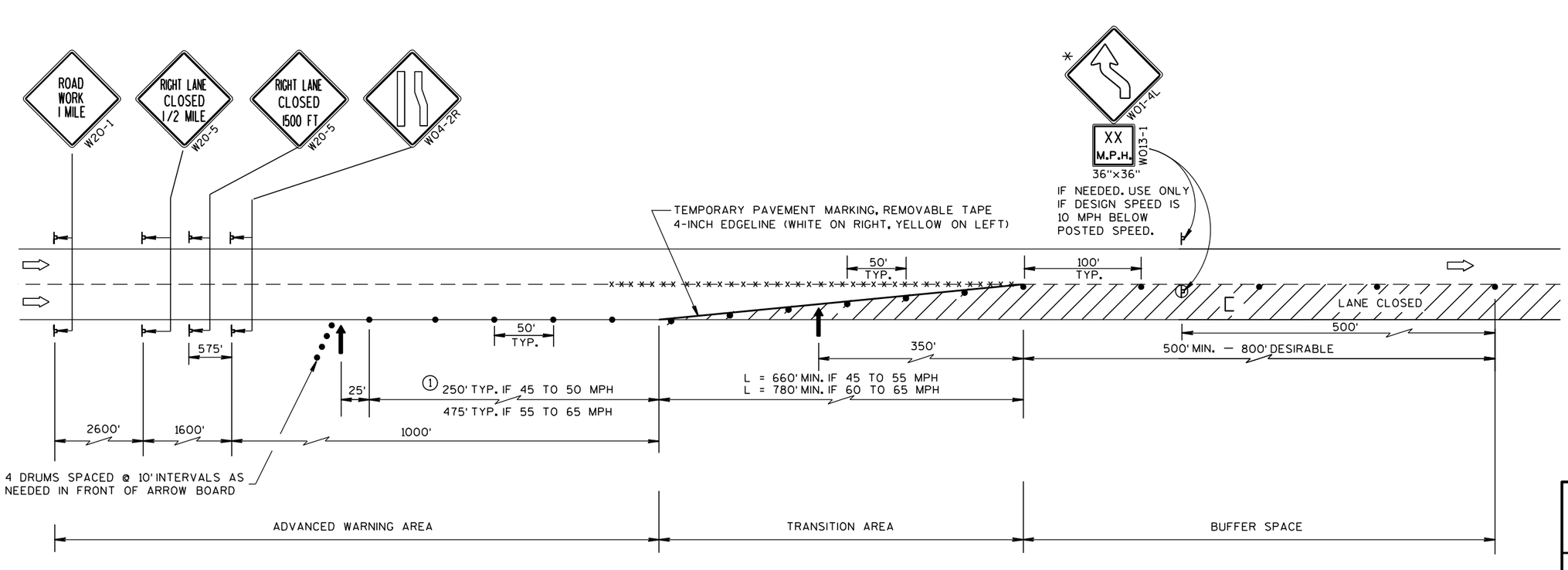
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

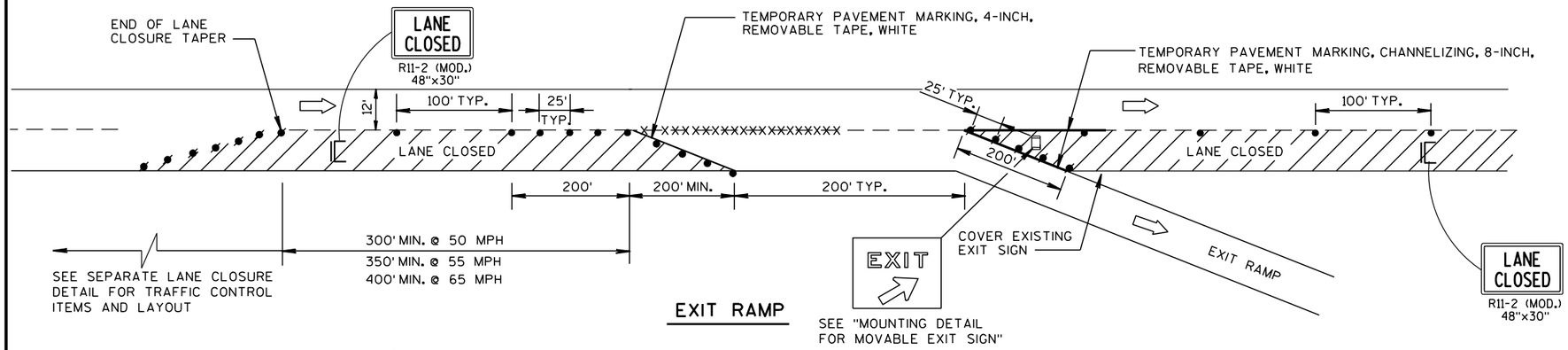
APPROVED
8-7-95 DATE
/S/ Chester J. [illegible]
DIRECTOR, OFFICE O
FHWA

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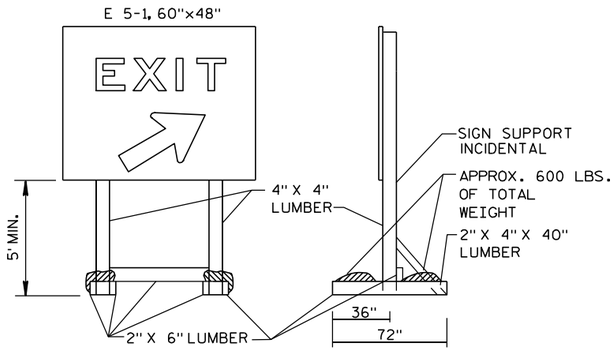
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S.D.D. 15 D 12-2

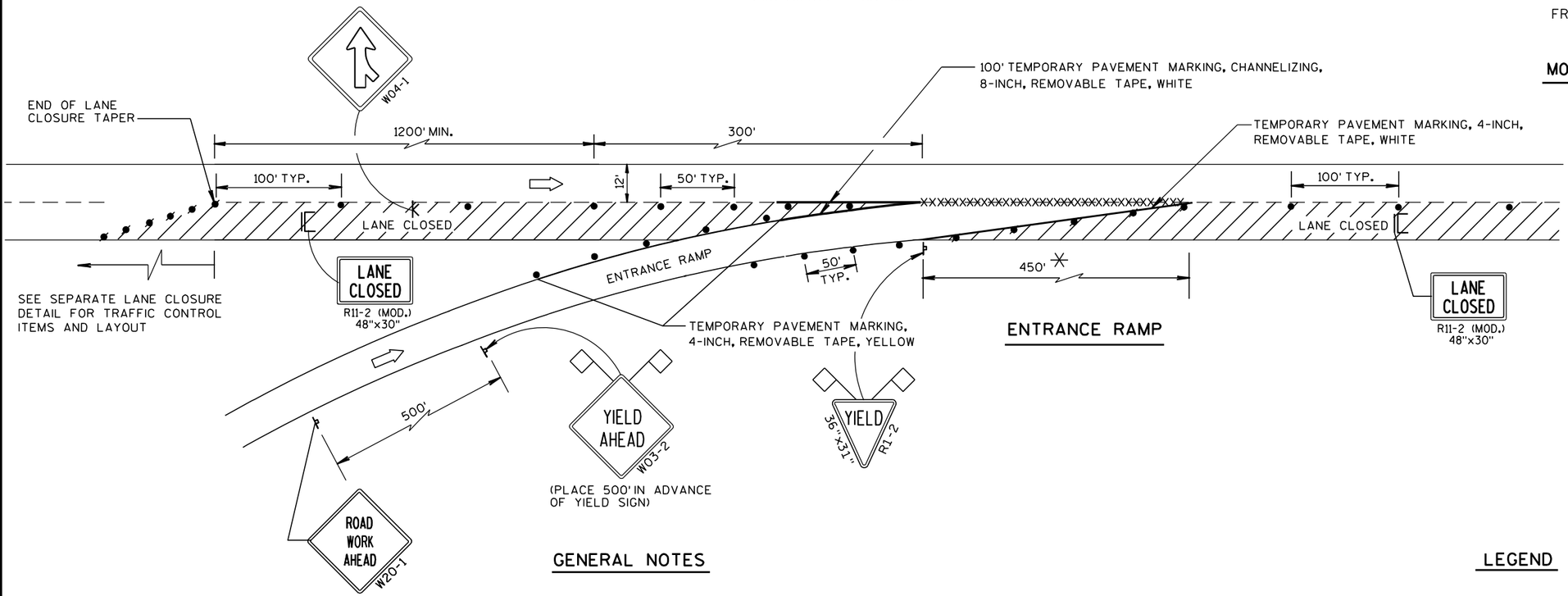


EXIT RAMP



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 MARKINGS ENGINEER
FHWA

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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.

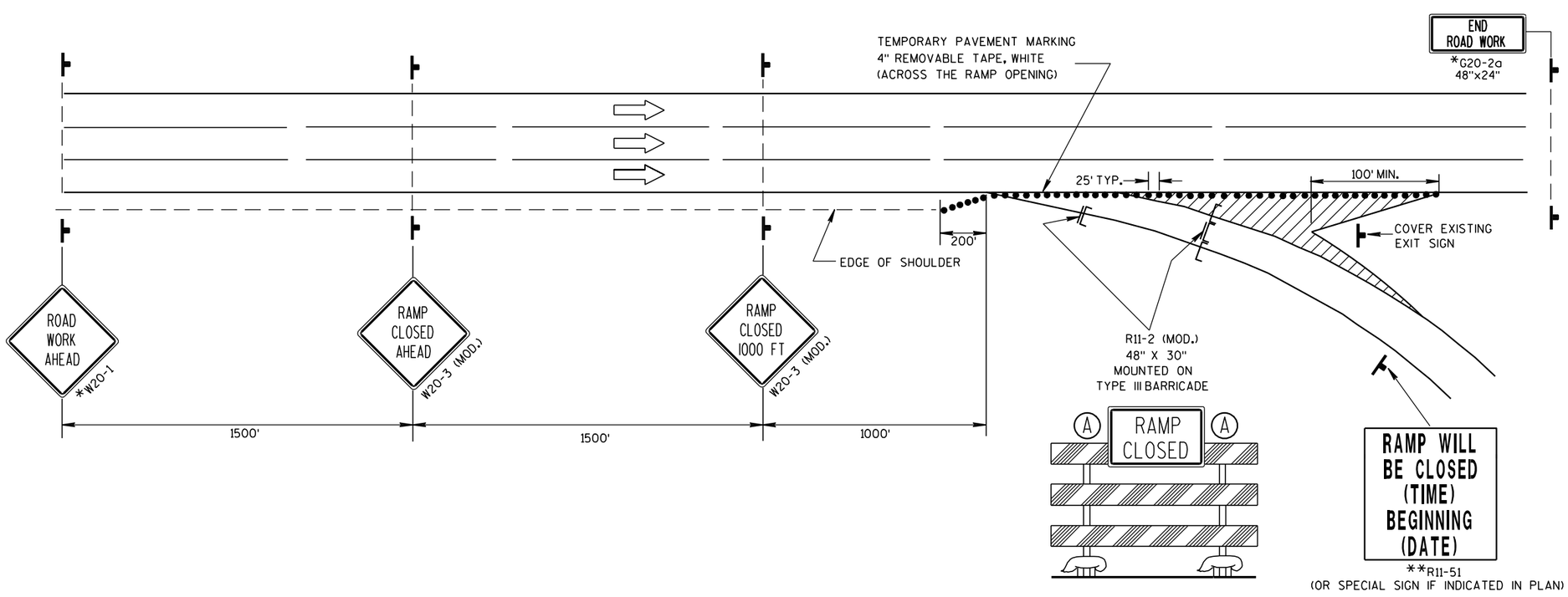
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

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.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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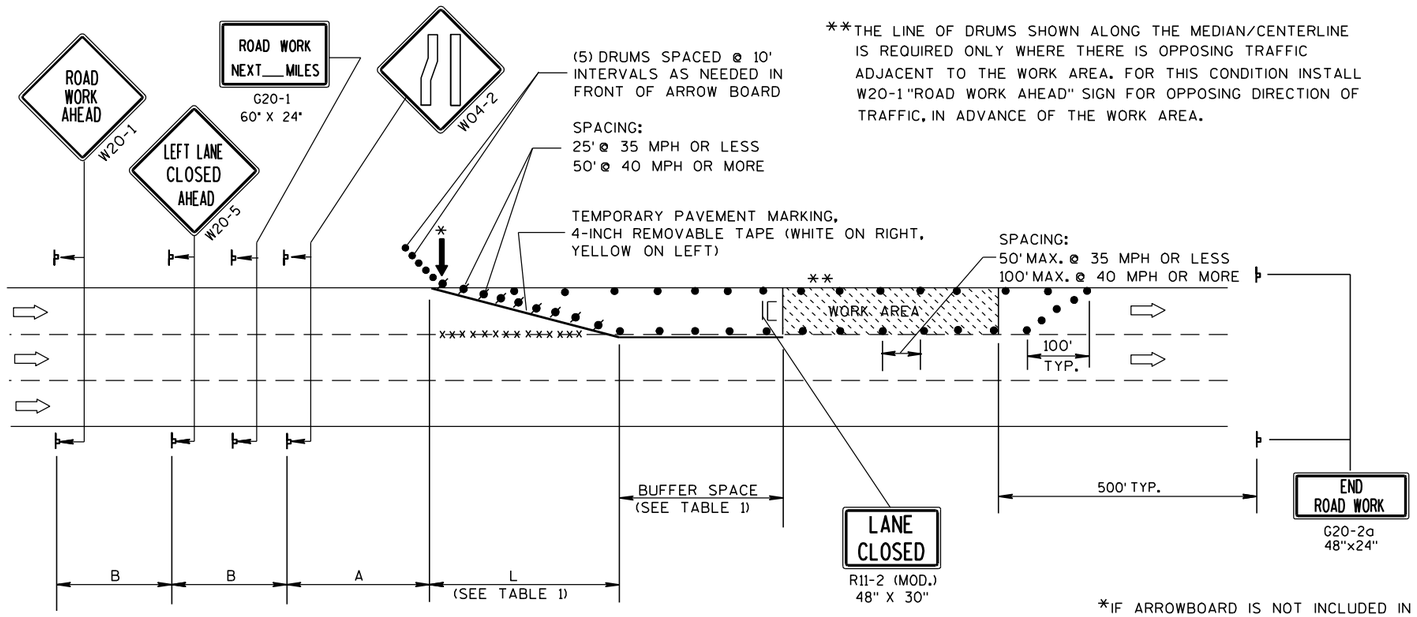
5/23/2000
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

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S.D.D. 15 D 16-1



**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"

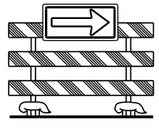


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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.

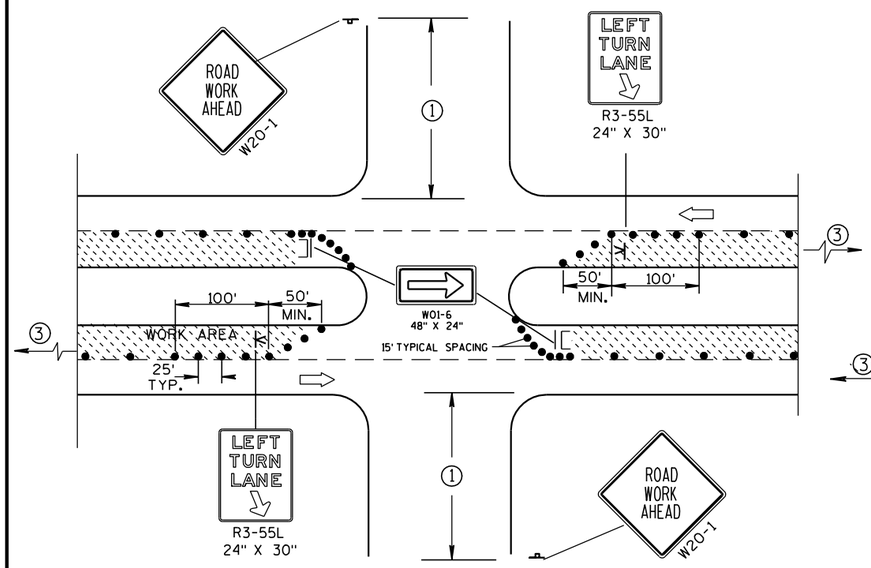
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

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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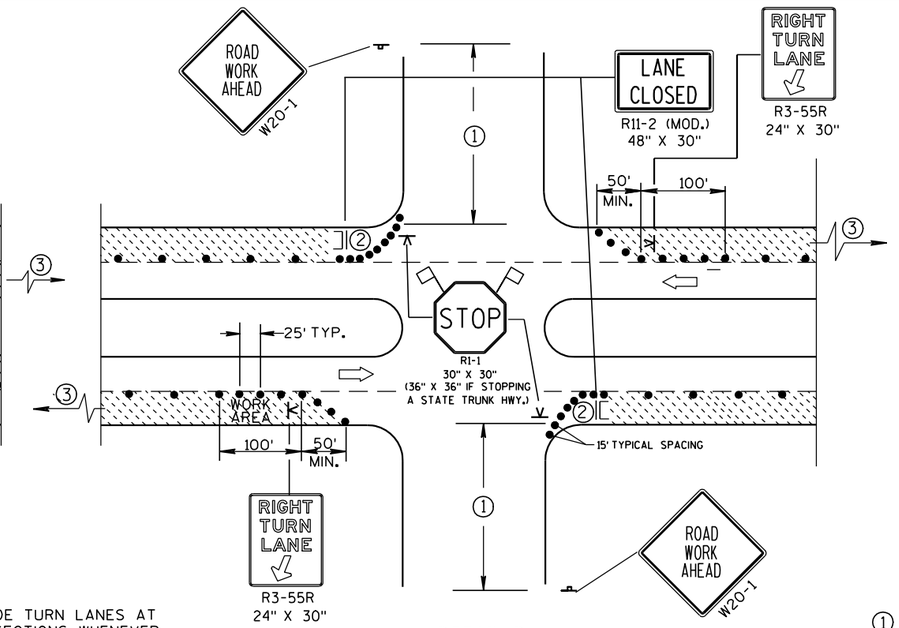
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DETAIL A

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.

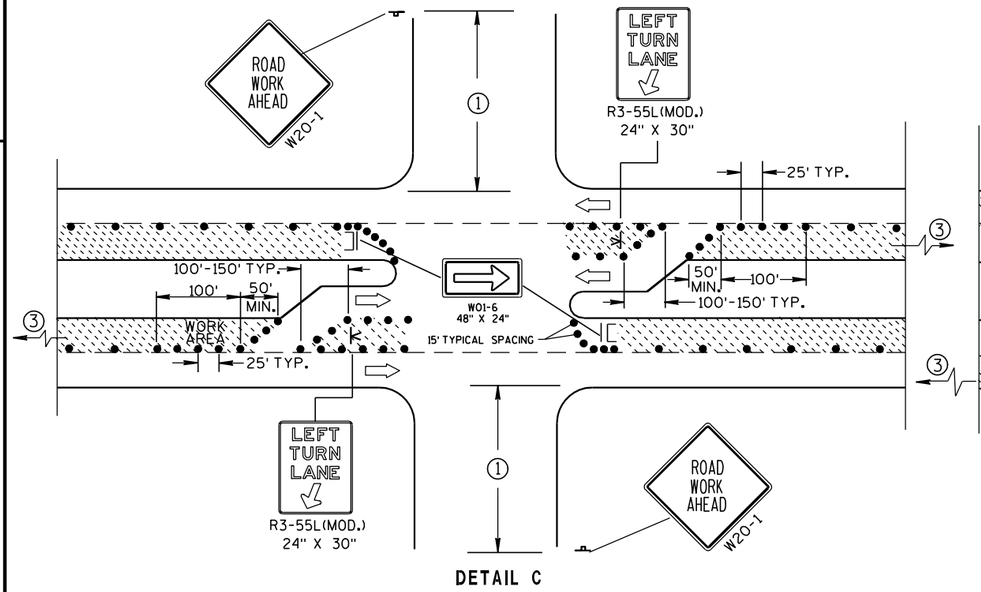
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

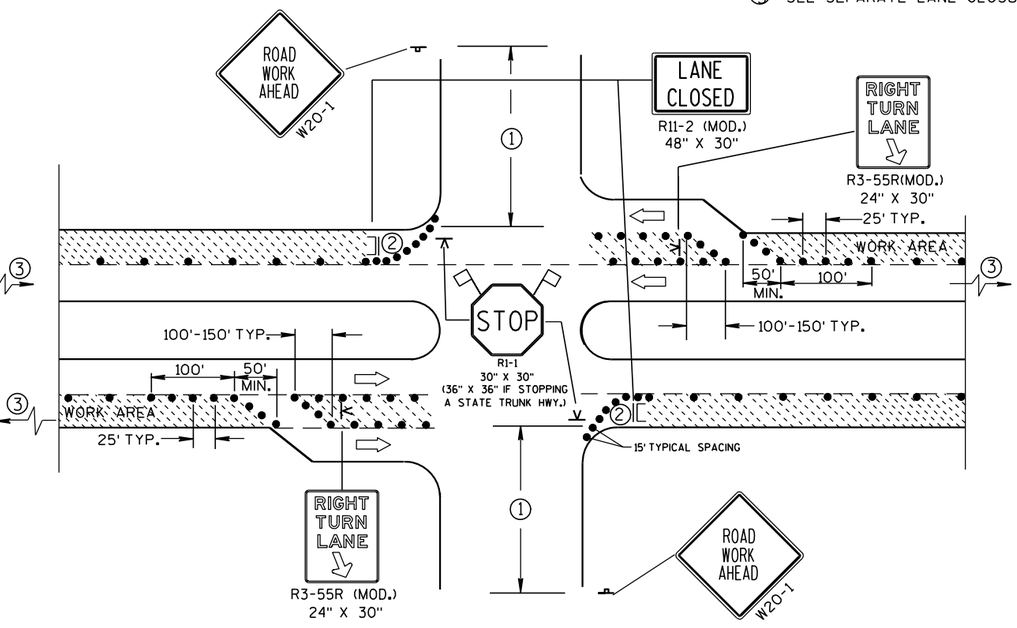
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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

6

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.

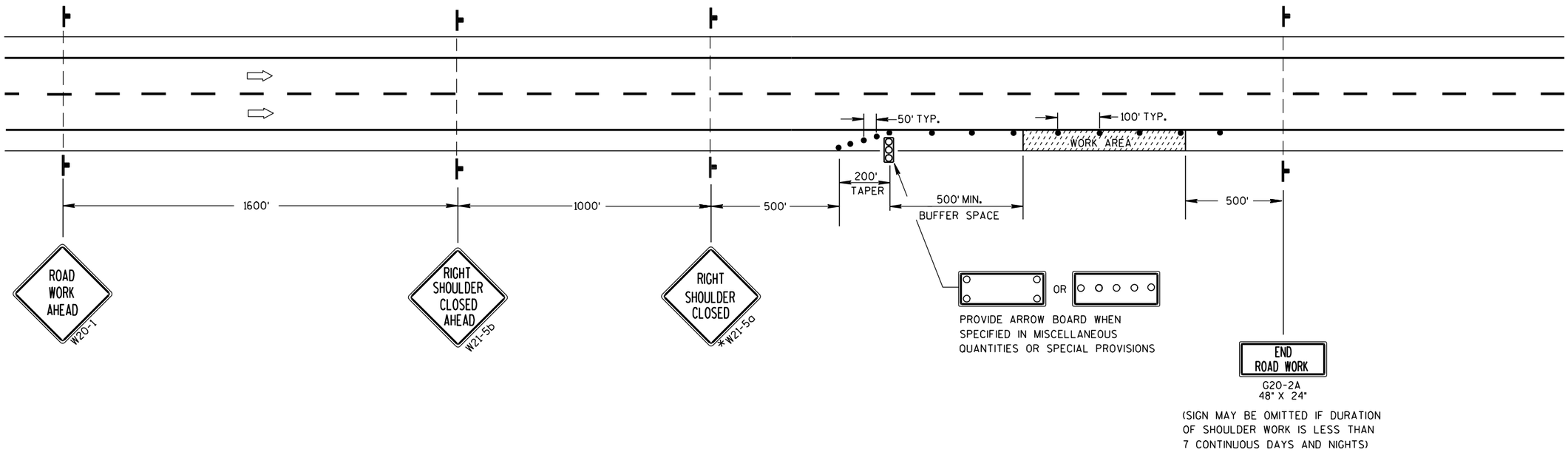
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 Spong
CHIEF SIGNS AND MARKING ENGINEER

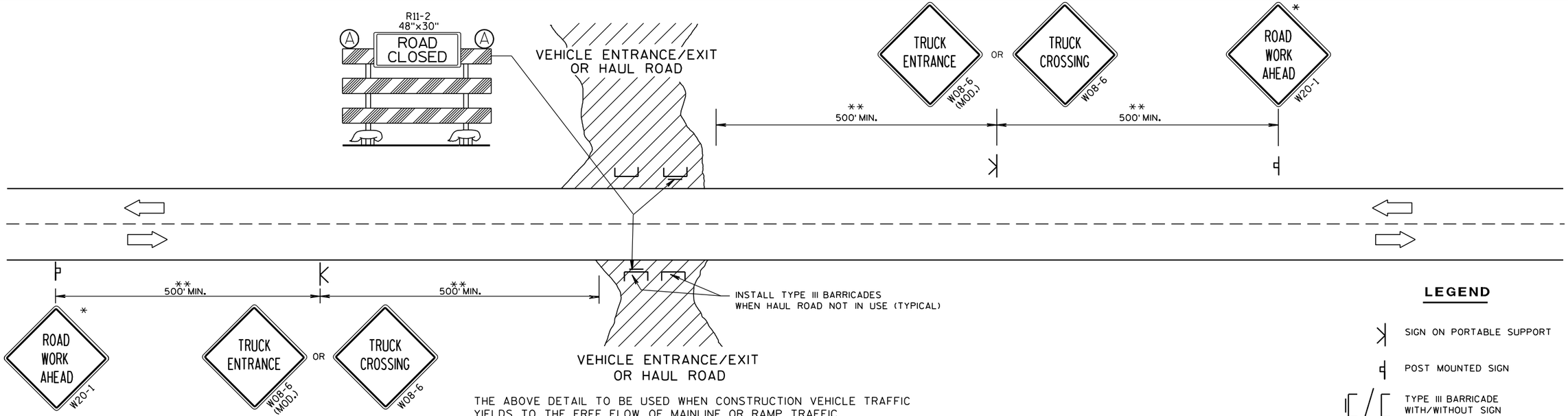
FHWA

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S.D.D. 15 D 27-1

6

S.D.D. 15 D 27-1



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.

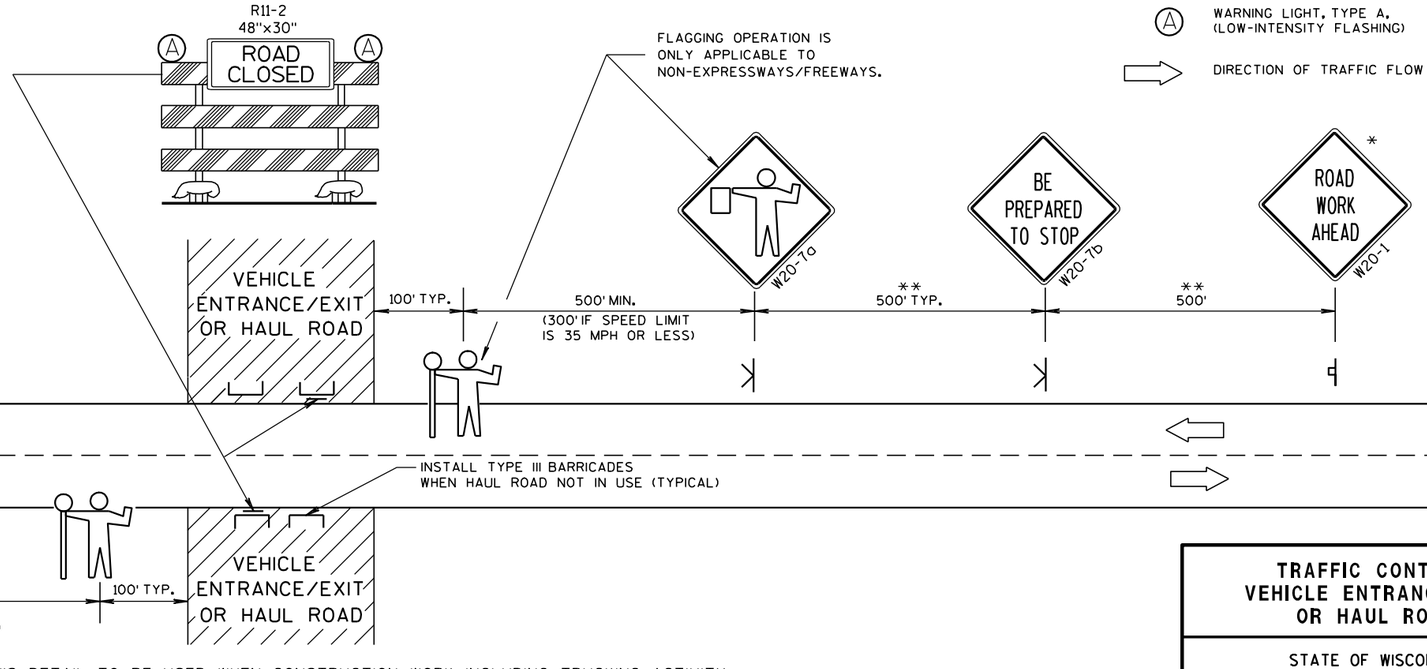
THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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 ENGINEER
190 SIGN
FHWA

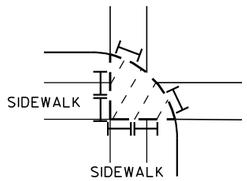
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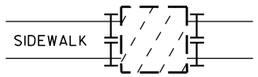
S.D.D. 15 D 29-2

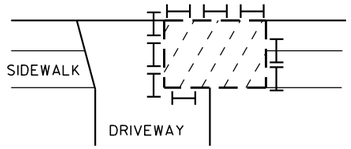
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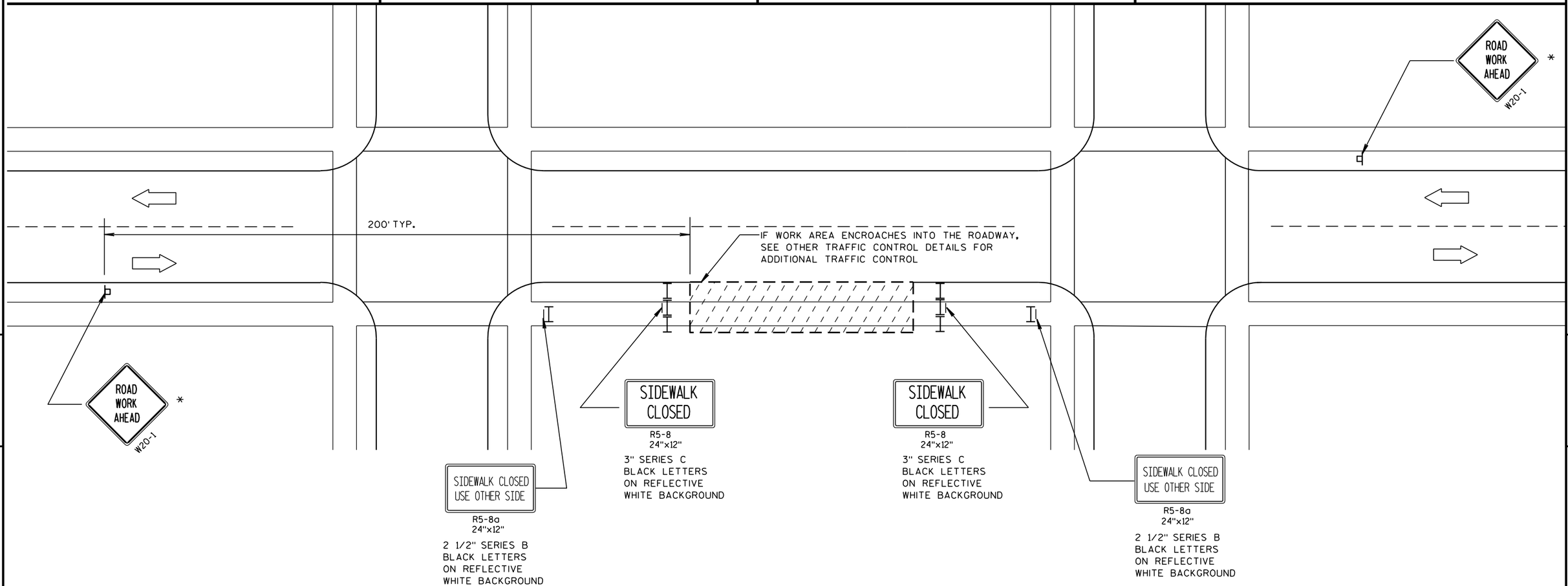
S.D.D. 15 D 29-2

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

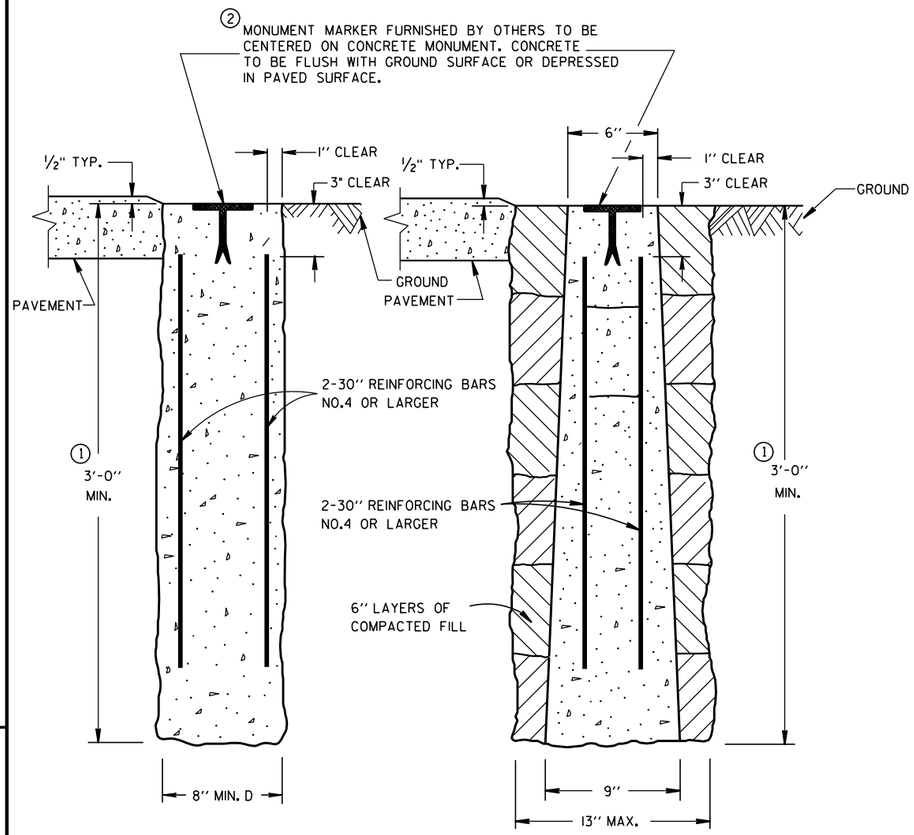
5/23/2000 DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER

FHWA

6

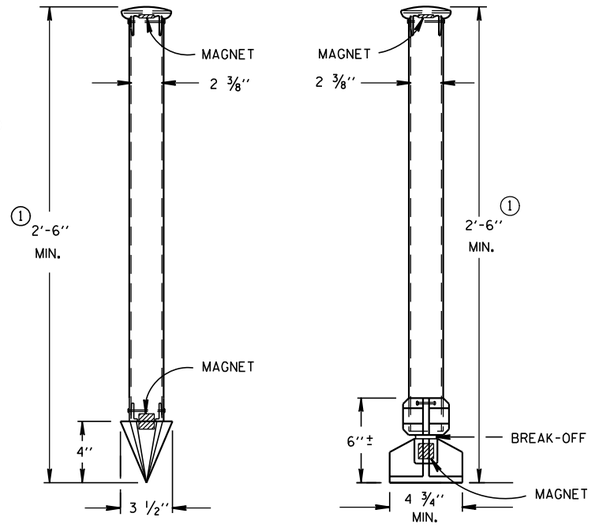
S.D.D. 15 D 30-1



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.

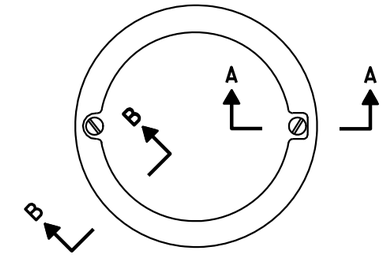
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

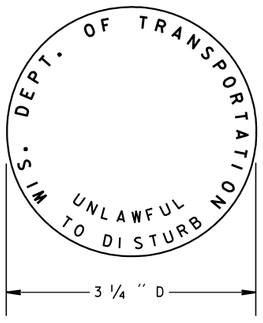
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

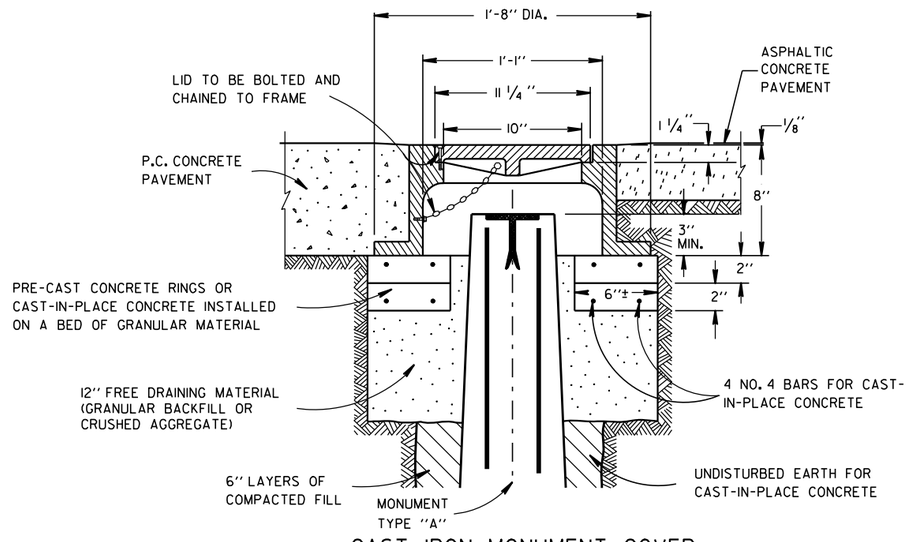
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

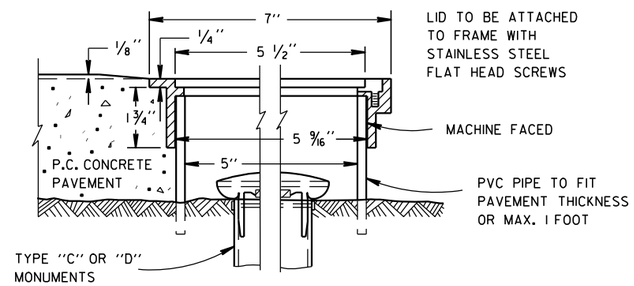


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



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

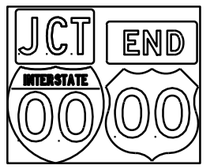
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S.D.D. 16 A 1-6

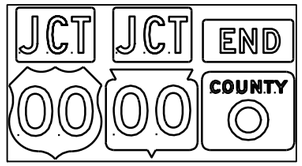
TYPICAL ASSEMBLIES



J1-1



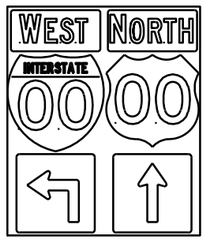
J1-2



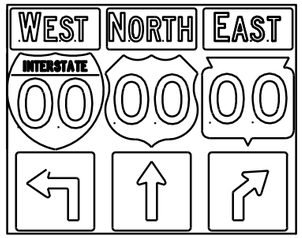
J1-3



J2-1



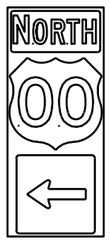
J2-2



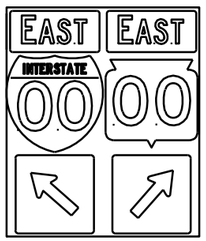
J2-3



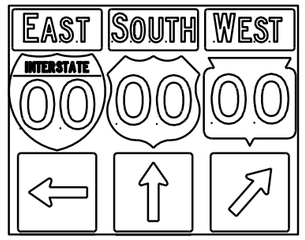
JV



J3-1



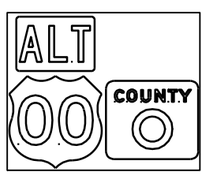
J3-2



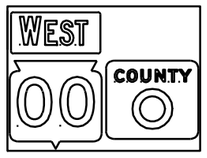
J3-3



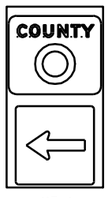
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



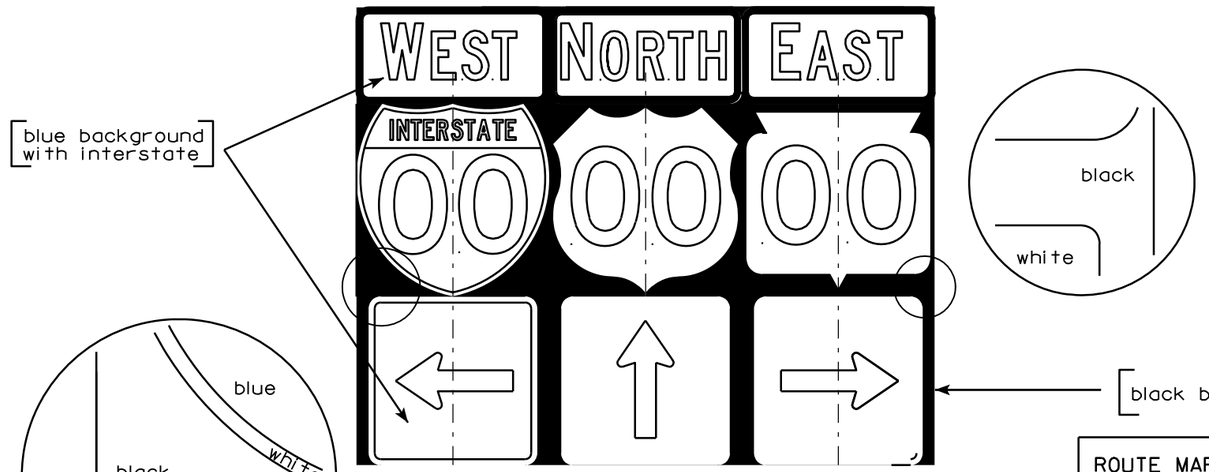
J23-1



J22-1

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 since base material is plywood.
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.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

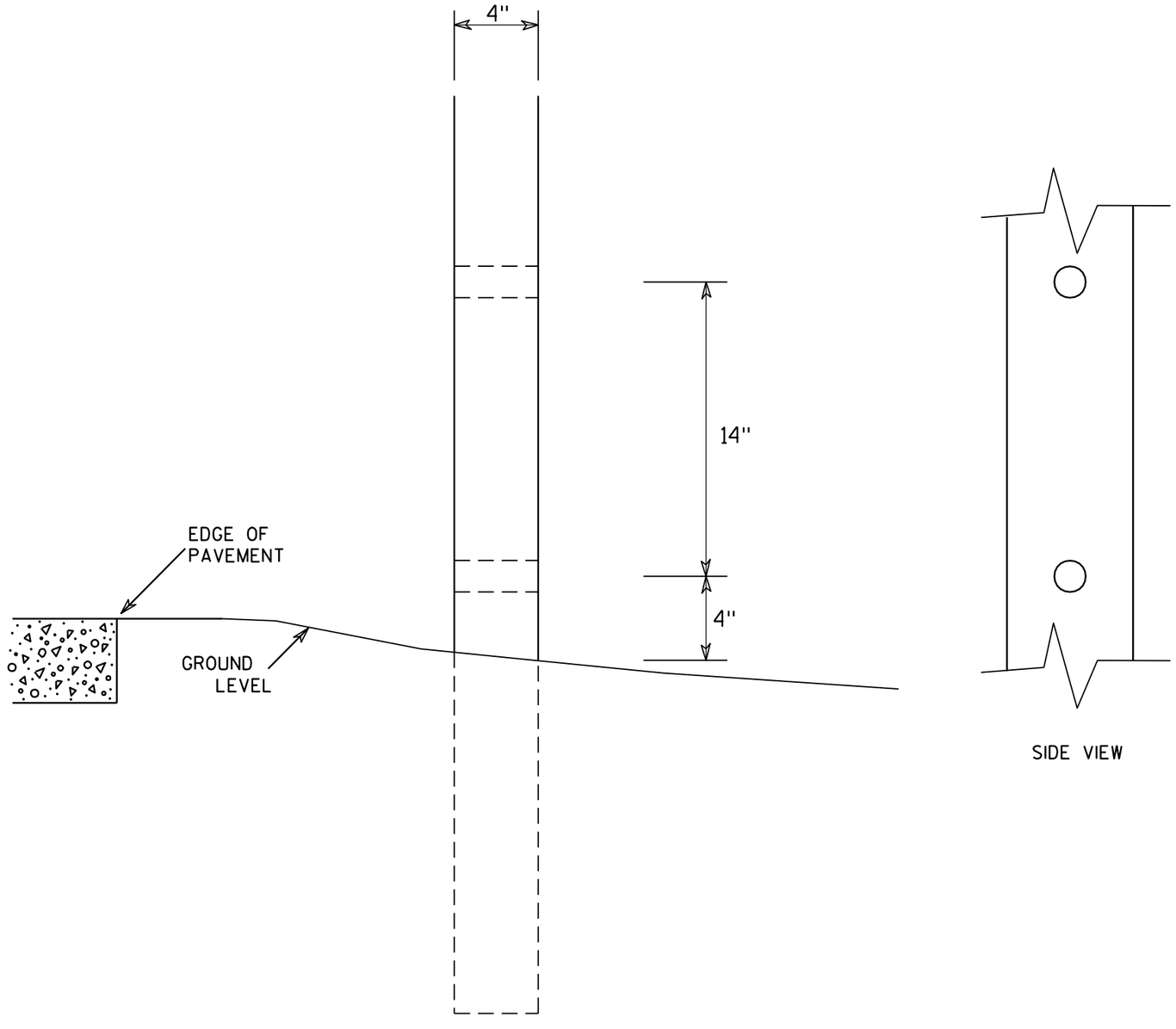
DATE 10/21/09 PLATE NO. A2-1S.6

7

7

PROJECT NO:

SHEET NO: 193 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.

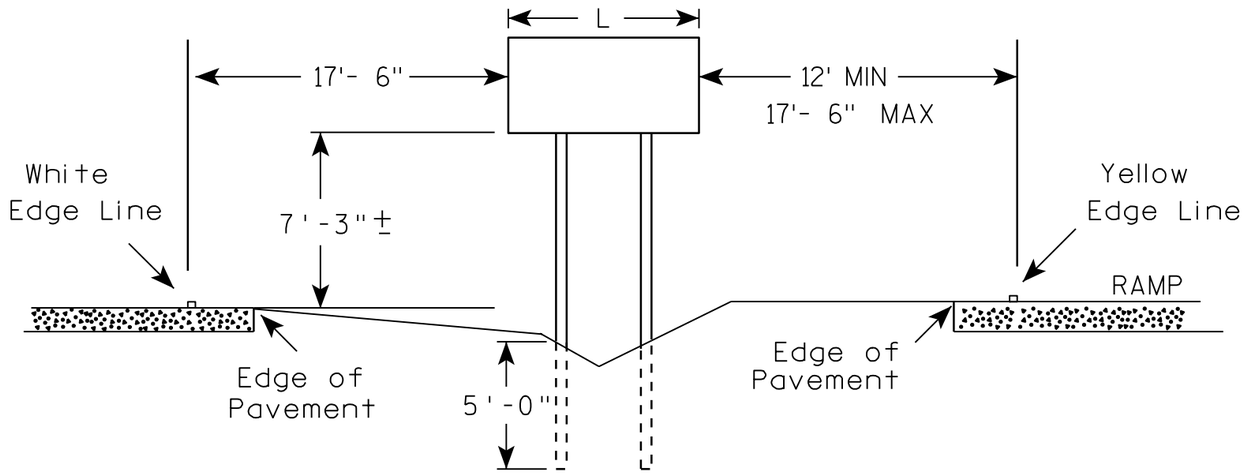
4 X 6 WOOD POST MODIFICATIONS

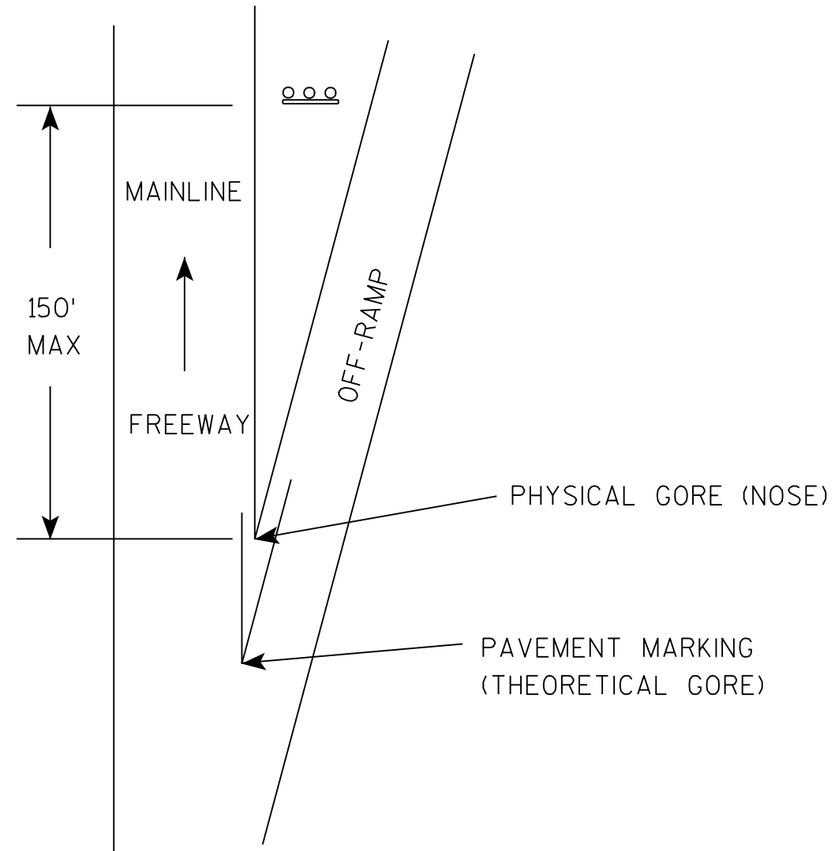
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 194	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 9 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

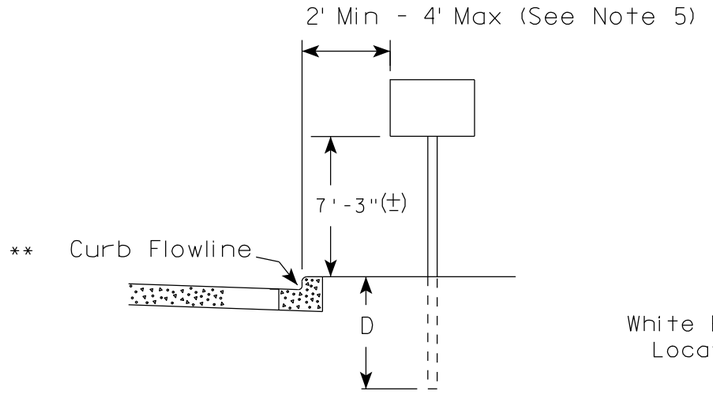
TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

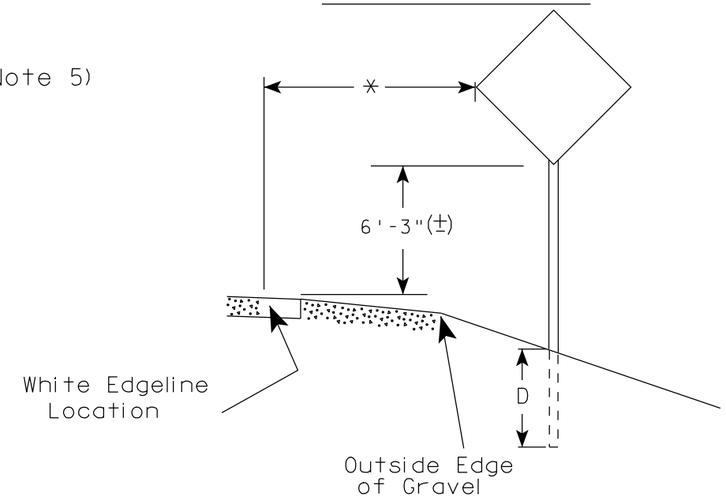
APPROVED Chester J Spang
for State Traffic Engineer

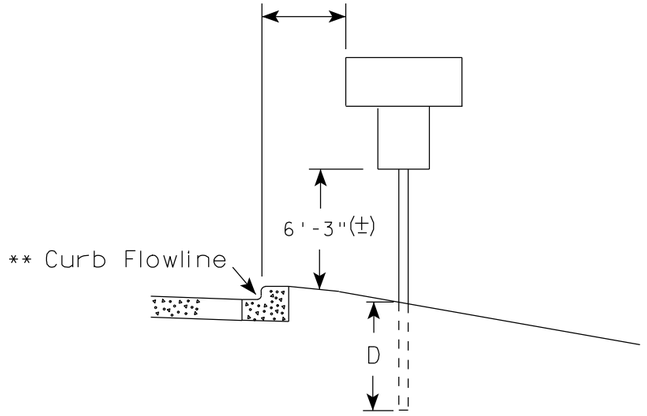
DATE 4/4/00 PLATE NO. A4-2.2

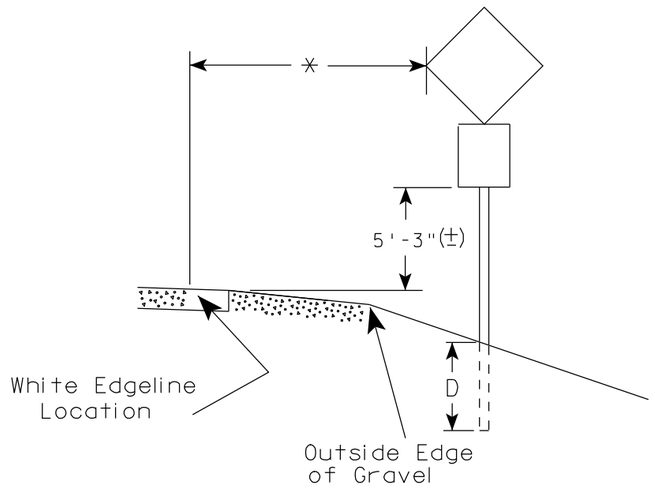
URBAN AREA



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), 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" (±).

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

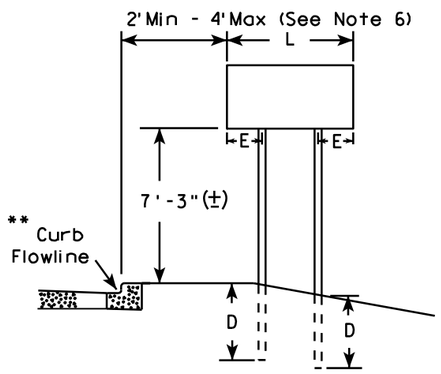
DATE 9/21/2011 PLATE NO. A4-3.16

7

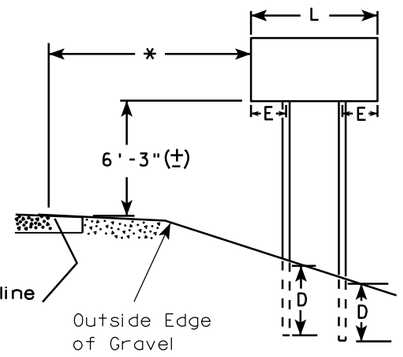
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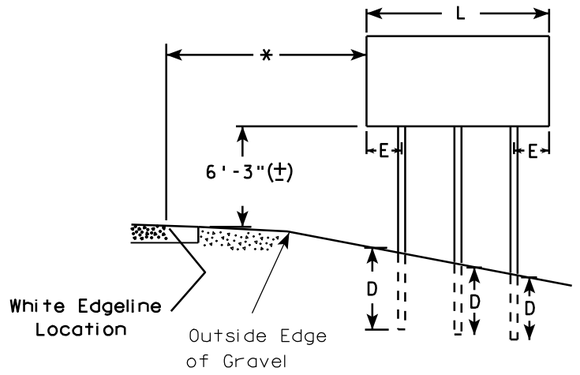
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 196 | E

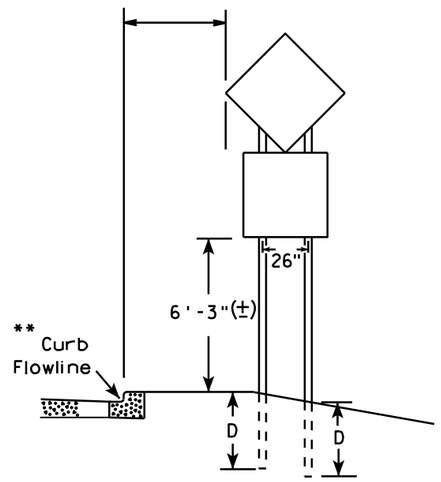
URBAN AREA



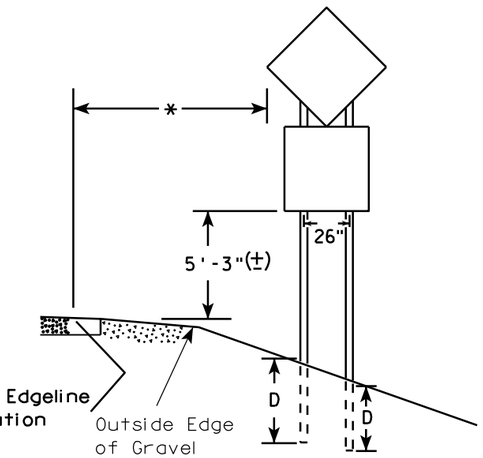
RURAL AREA (See Note 3)







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

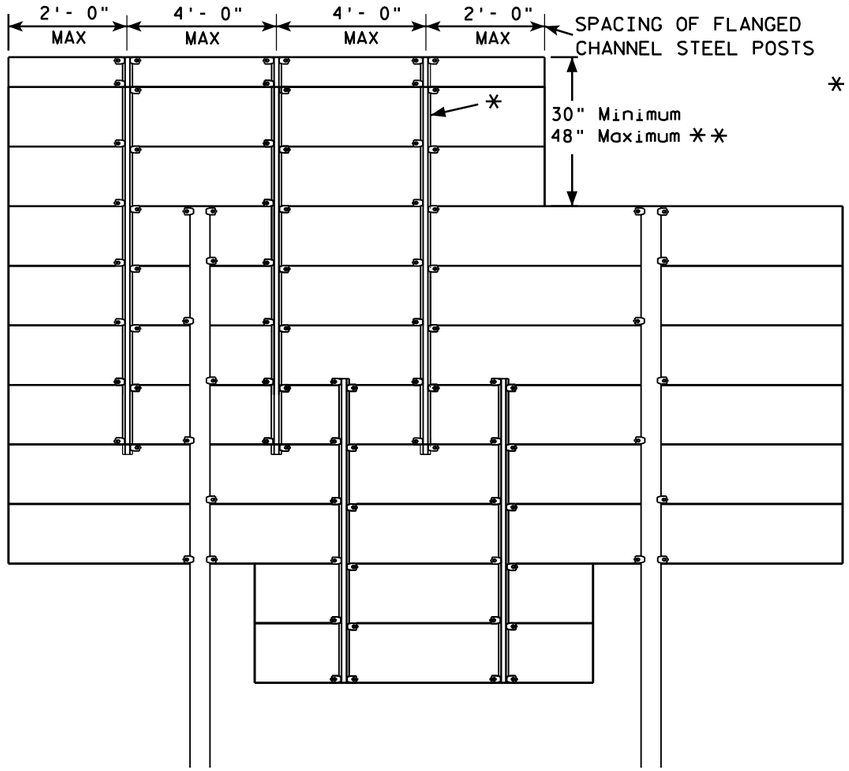
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 197	E

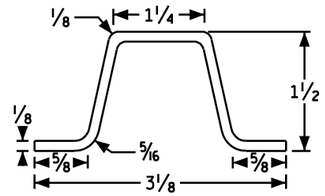
GROUND MOUNTED SIGN



*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

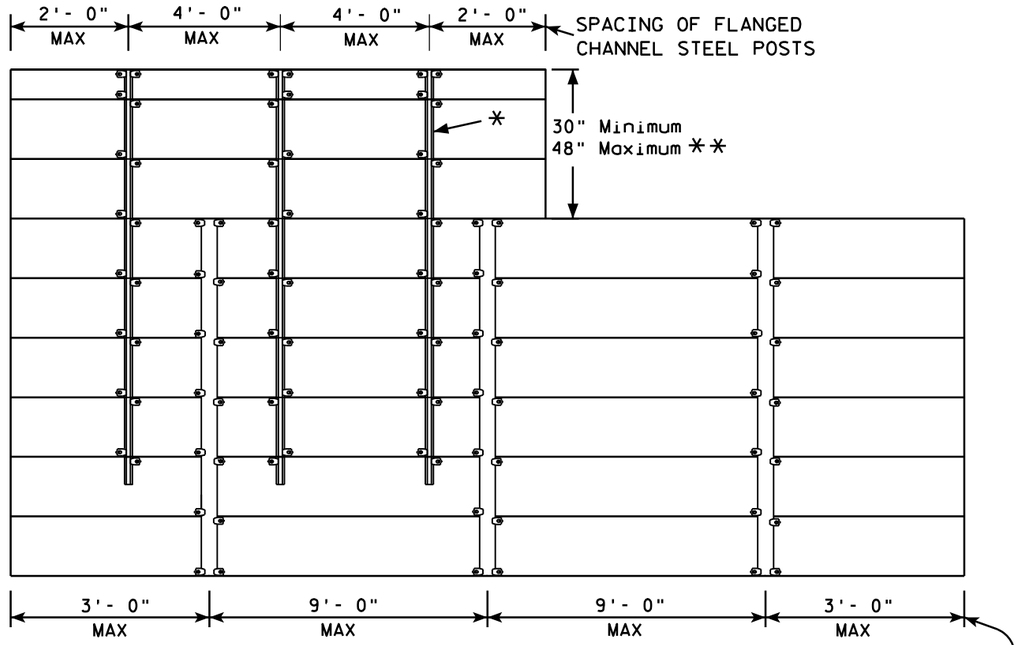
**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

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

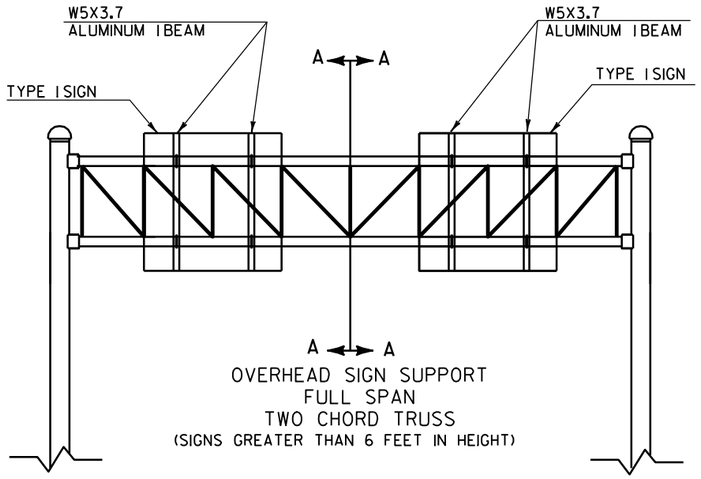
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

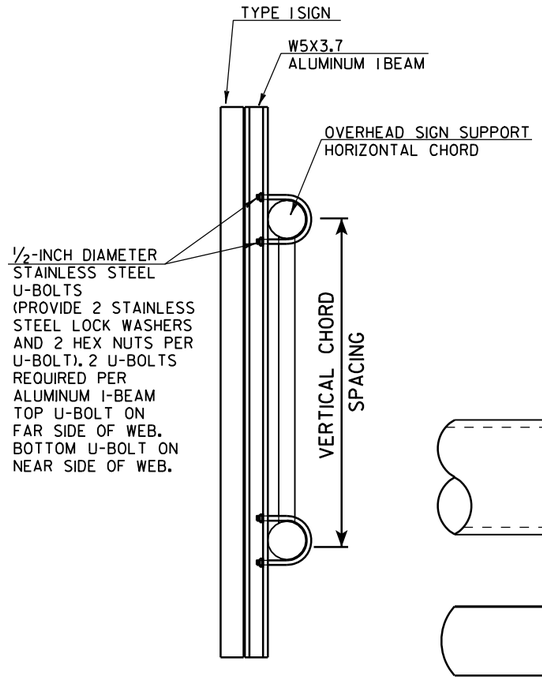
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. A4-6.11

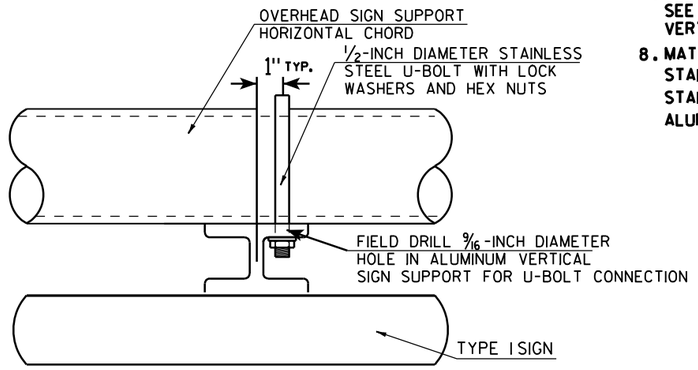
PROJECT NO:				SHEET NO: 198	E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



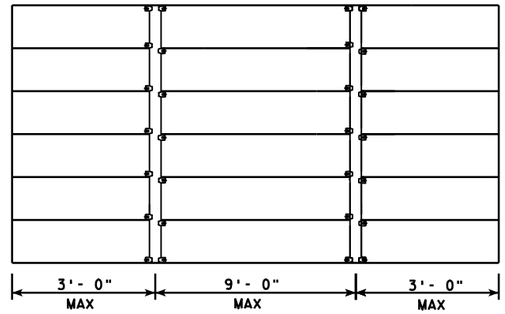
CUT SECTION A-A



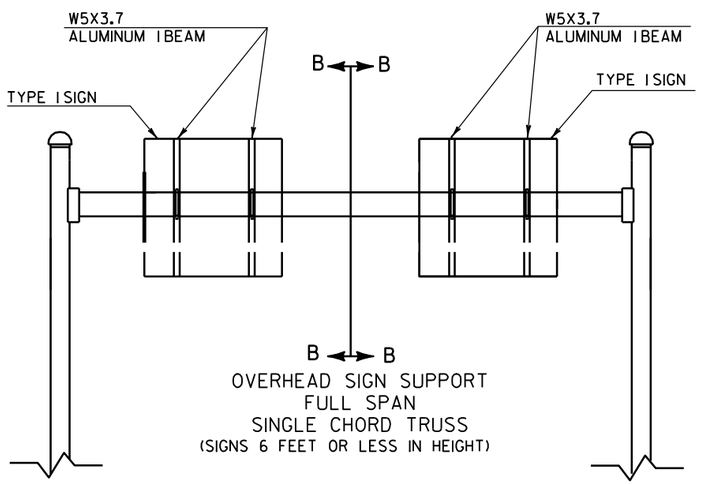
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

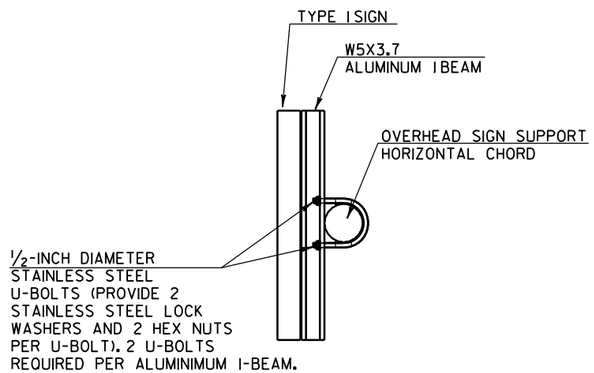
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



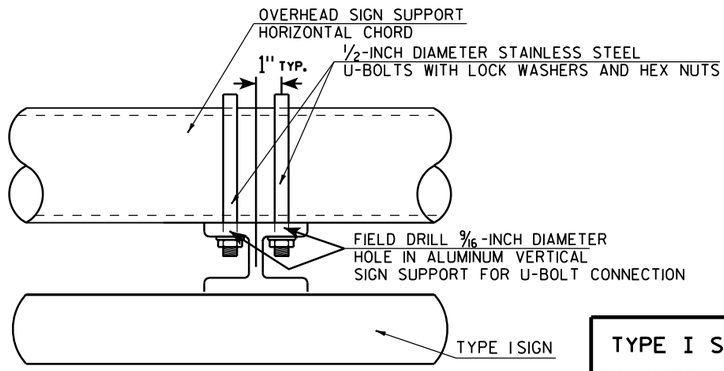
SPACING OF W5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

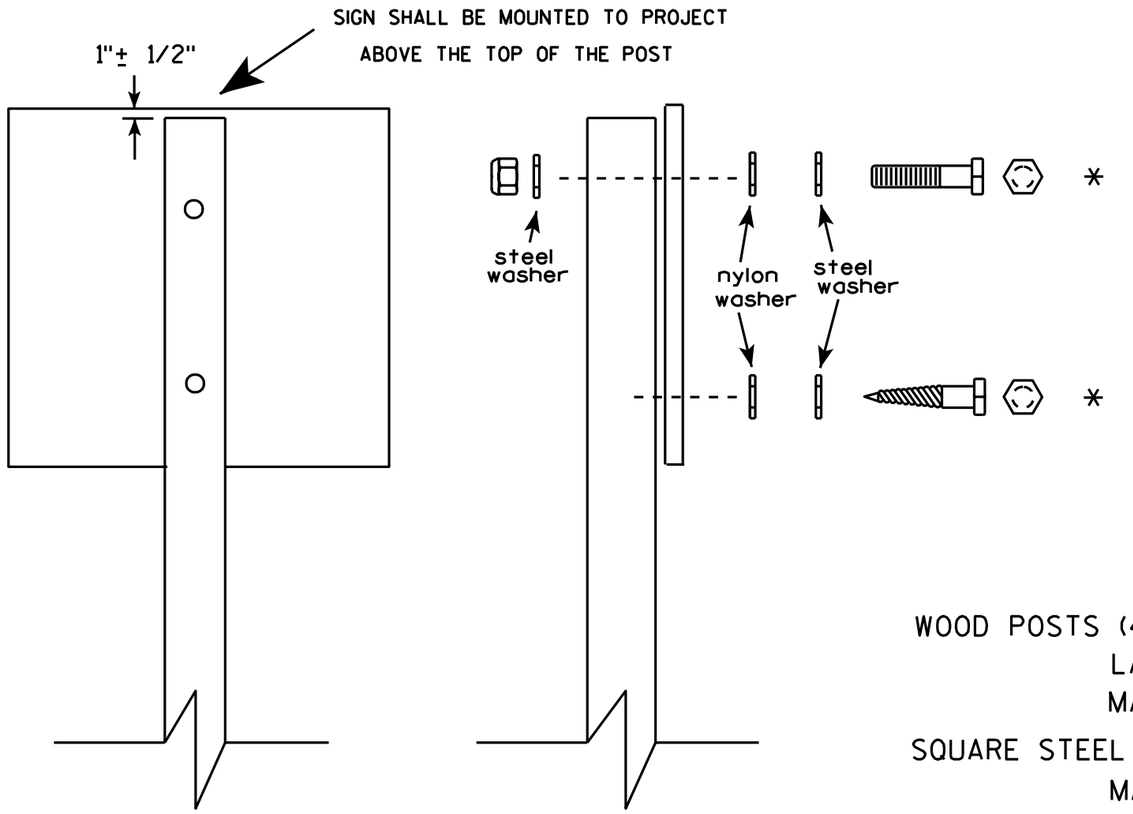
TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/12 PLATE NO. A4-7.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 199	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

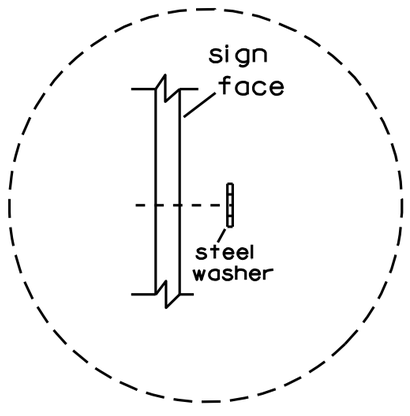
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

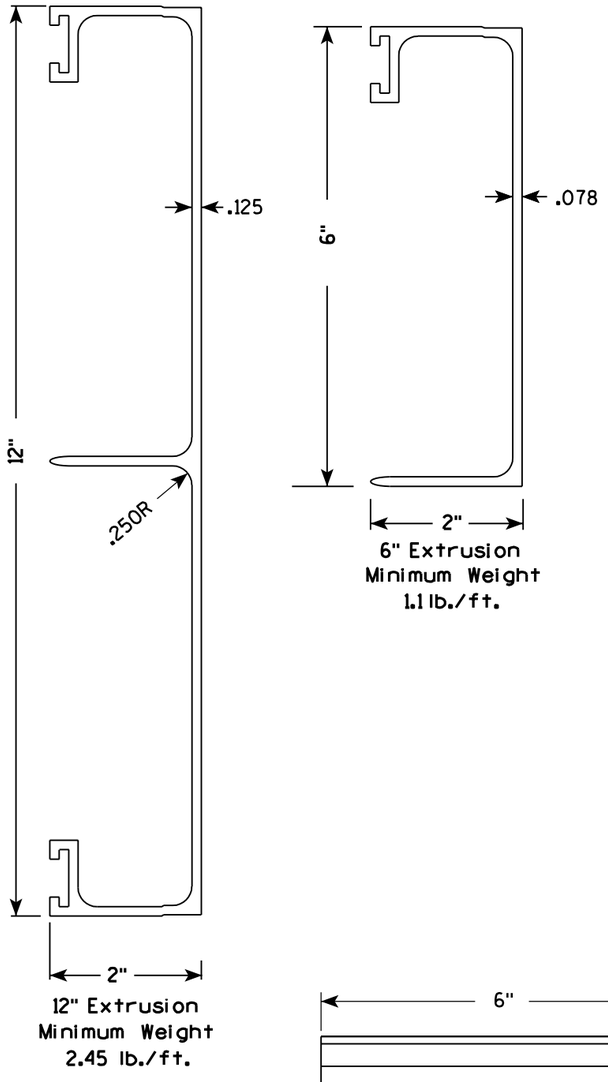
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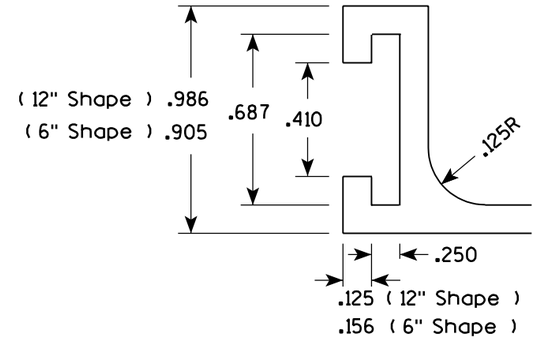
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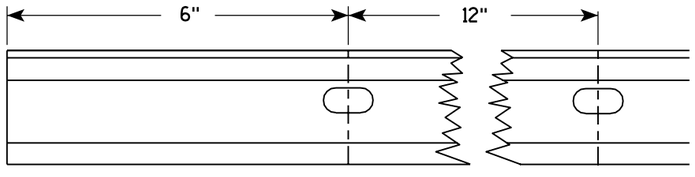
PROJECT NO:

SHEET NO: 200 E

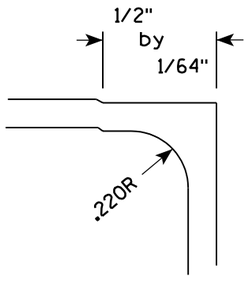
Extruded Shape







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.

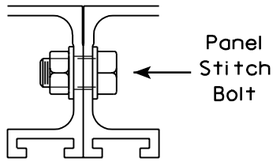


Hardware

STITCH BOLT, WASHER & NUT

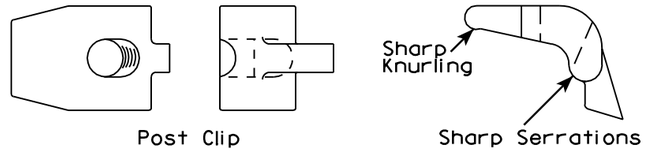
The hardware includes:

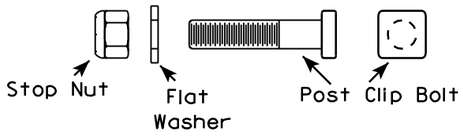
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



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.

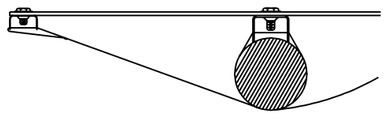
ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

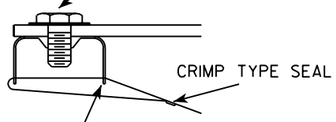
APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

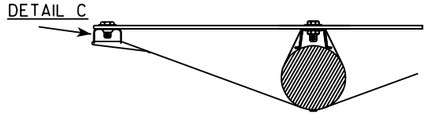
BRACE BANDING

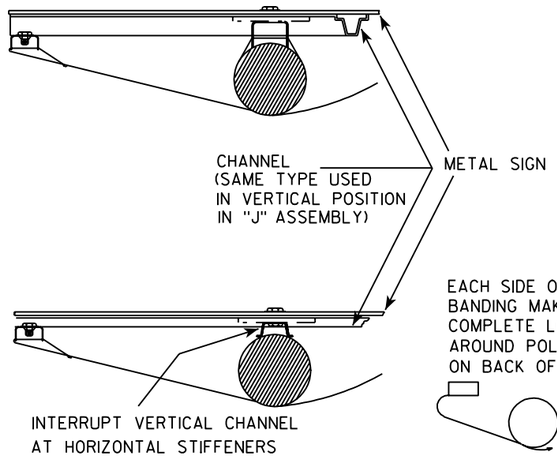


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

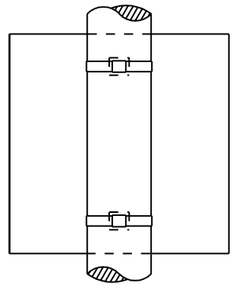


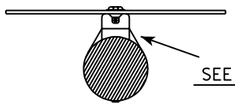


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

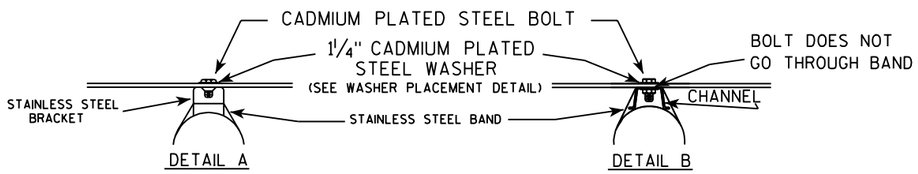
BRACKET BANDING

SINGLE SIGN





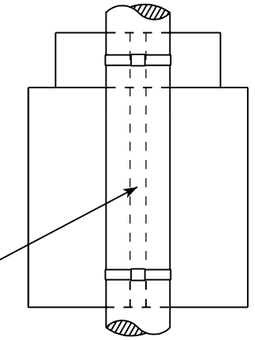
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

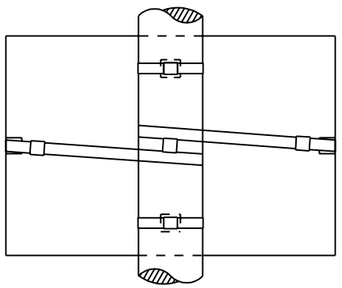


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

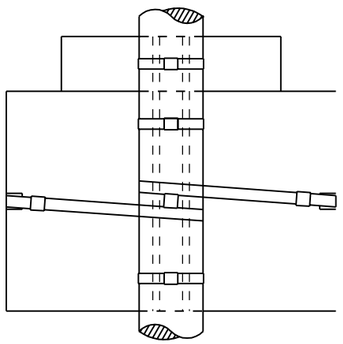
GENERAL NOTES

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.

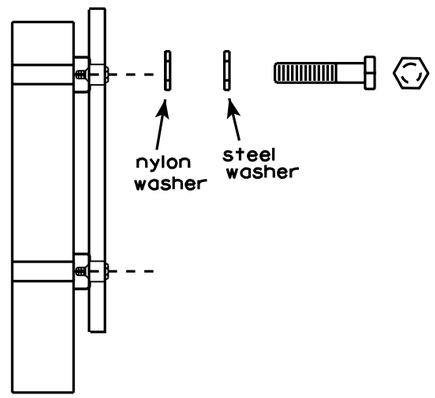


BRACE BANDING

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

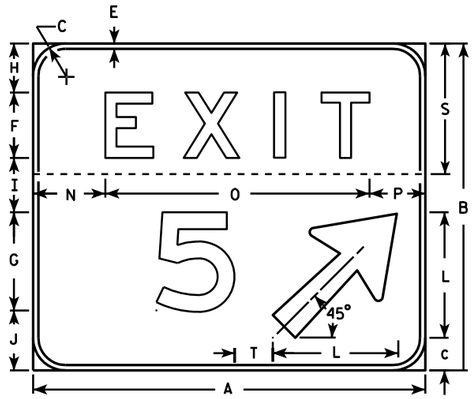
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

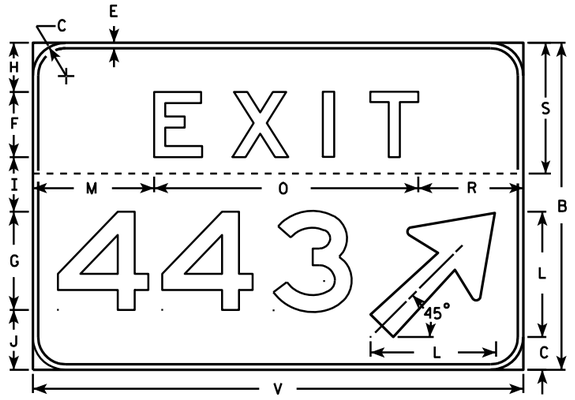
APPROVED *Matthew R Rauch*
for State Traffic Engineer

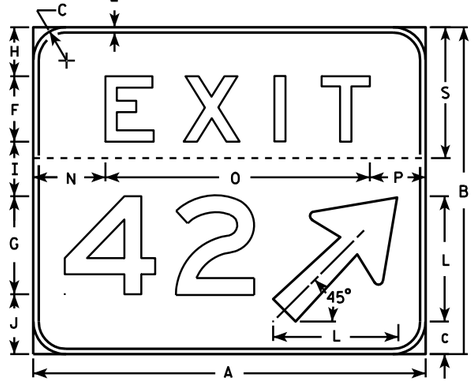
DATE 11/08/05 PLATE NO. A5-9.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 202	E

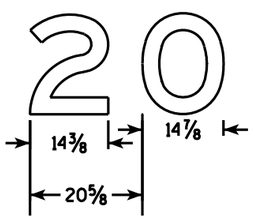


NOTE: T diminision shall be measured from the back of the number to the front of the arrow





EXAMPLE FOR USING SPACING CHART



NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

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
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bld Area	3 Digit Bld Area
Sq. Ft.	
30	37.5

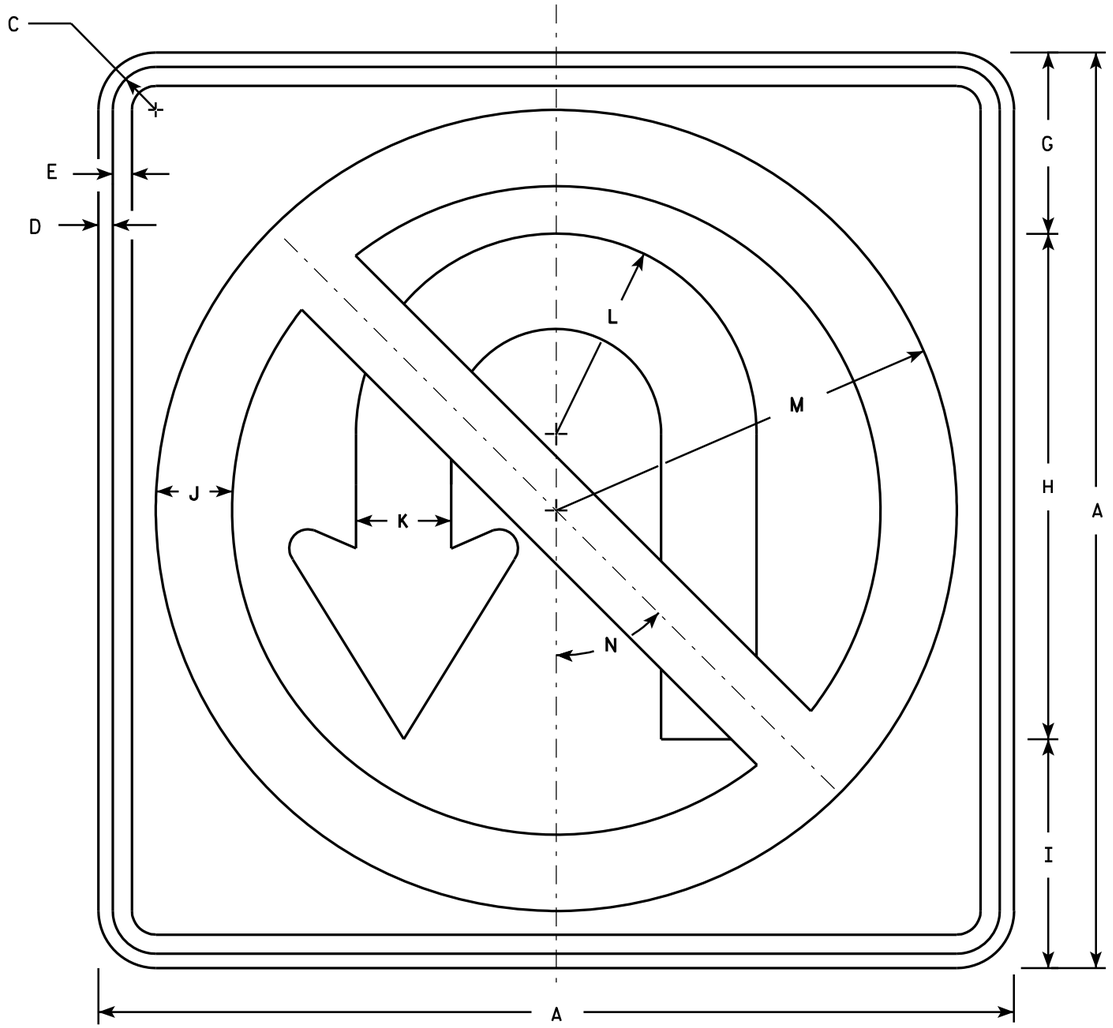
STANDARD SIGN E5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

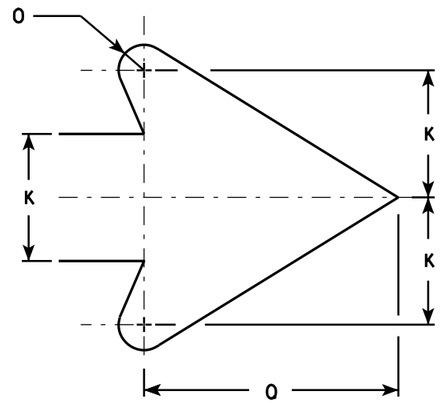
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 203 | E



R3-4

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 - 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

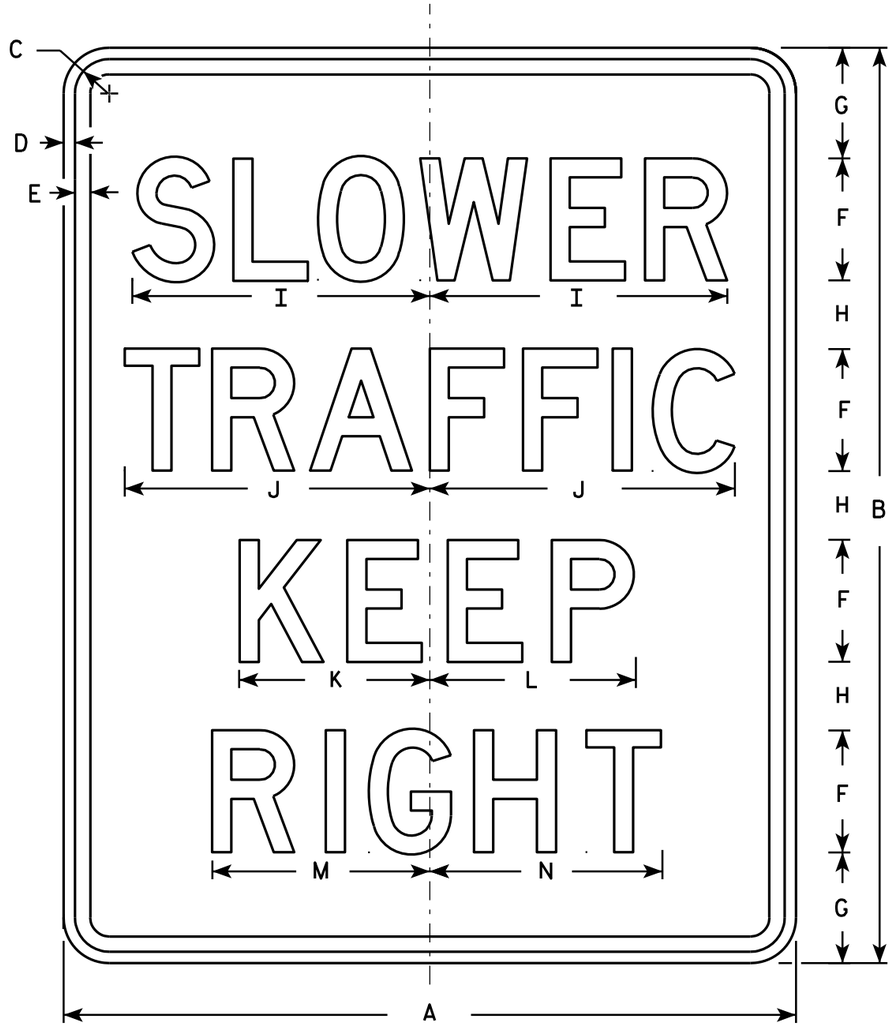
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E



R4-3

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.

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	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

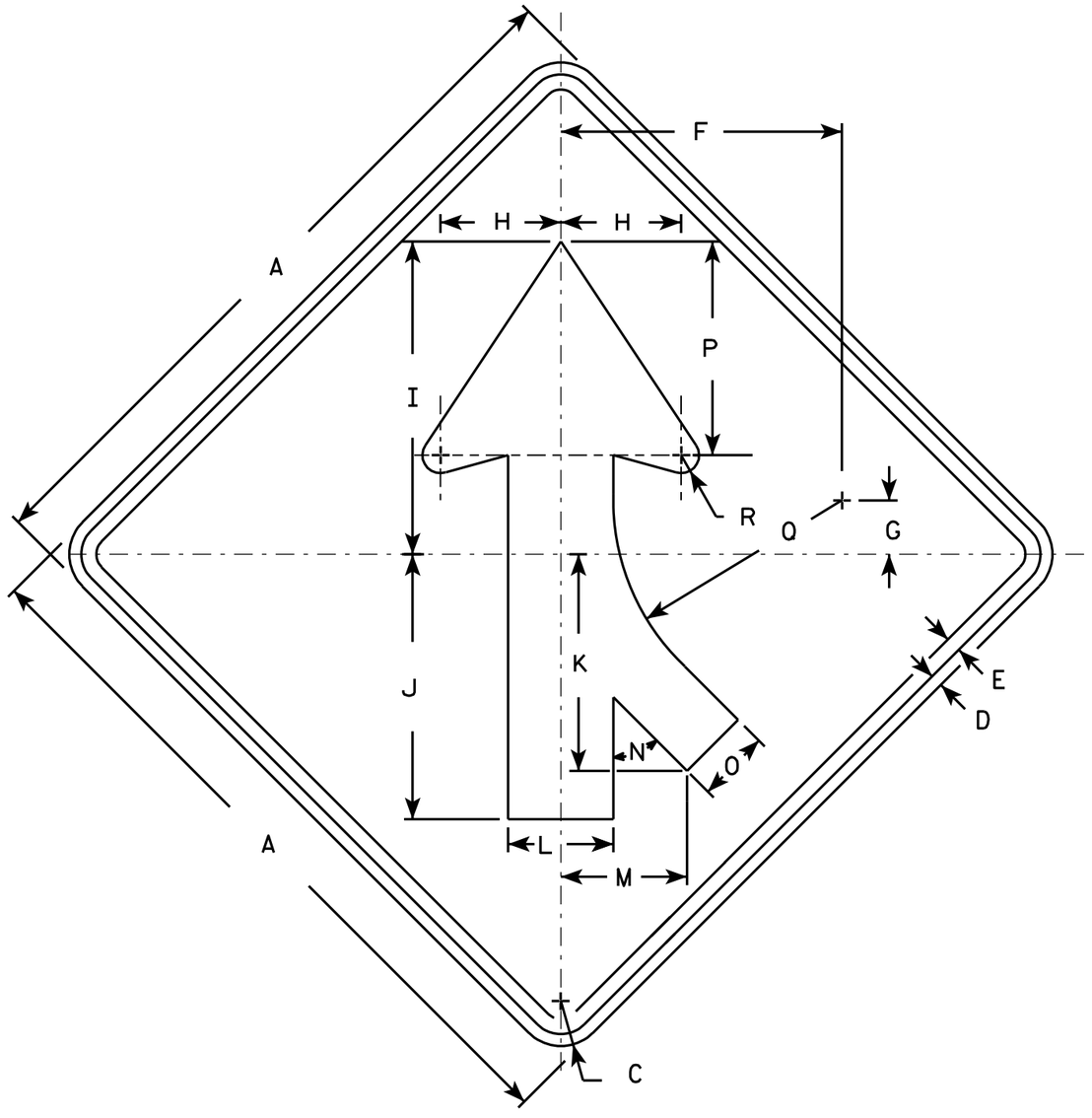
SHEET NO: 205 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7



W4-1 R

NOTES

1. Sign is Type II - Type H 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. W4-1L is the same as W4-1R 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	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

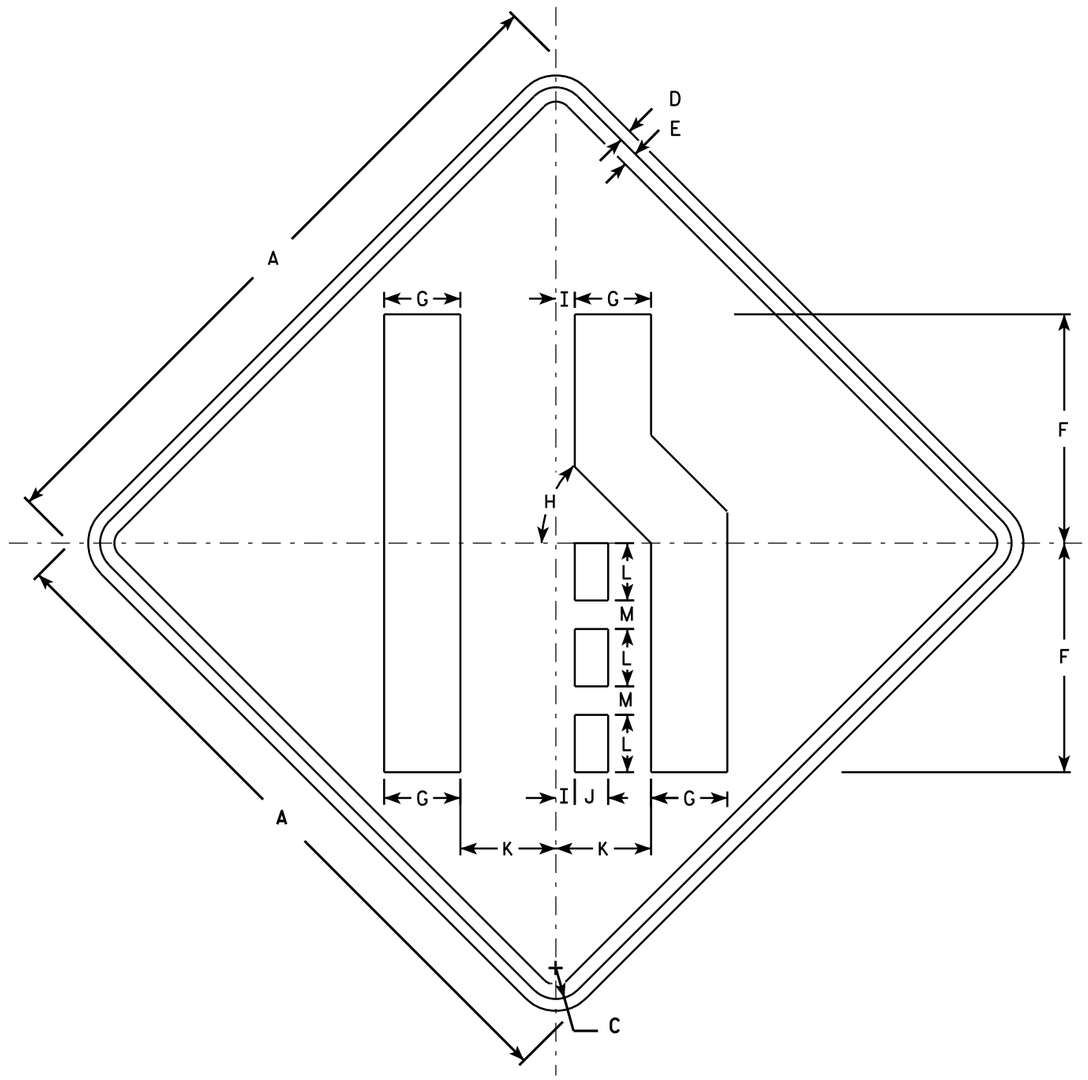
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/21/11 PLATE NO. W4-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 206 | E



W4-2R

NOTES

1. Sign is Type II - Type H 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. W4-2L is the same as W4-2R except the symbol 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

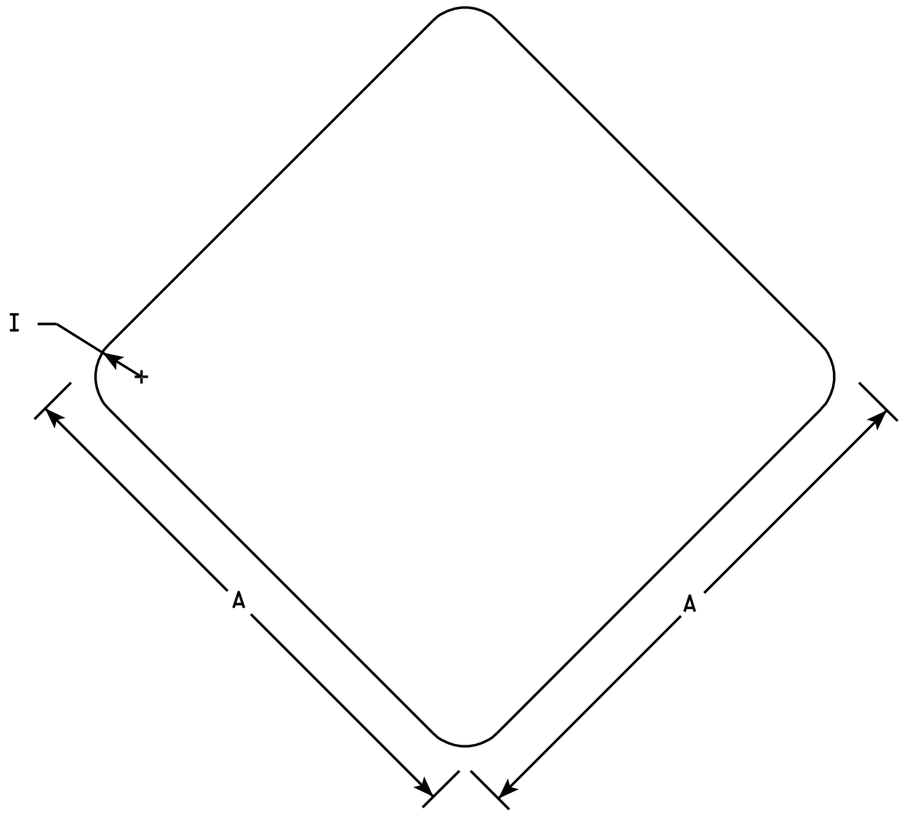
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. W4-2.13

PROJECT NO:

SHEET NO: 207 E



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

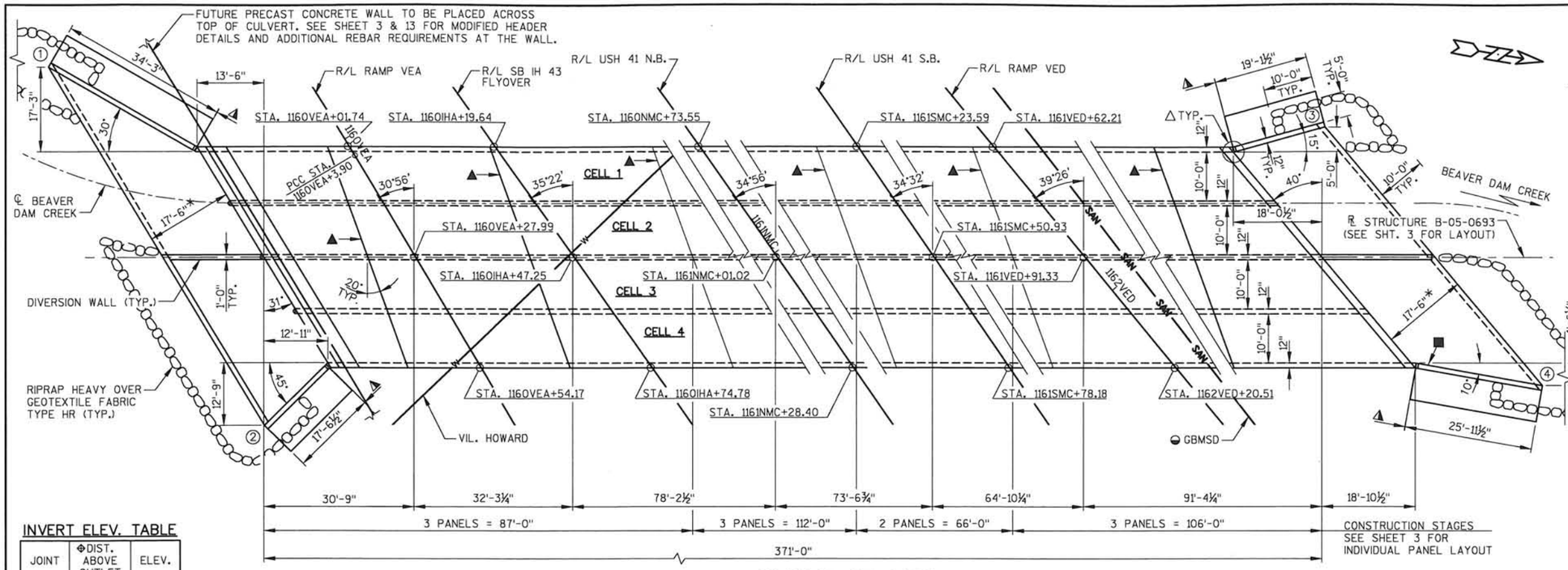
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 208	E

STATE PROJECT NUMBER
1133-11-75



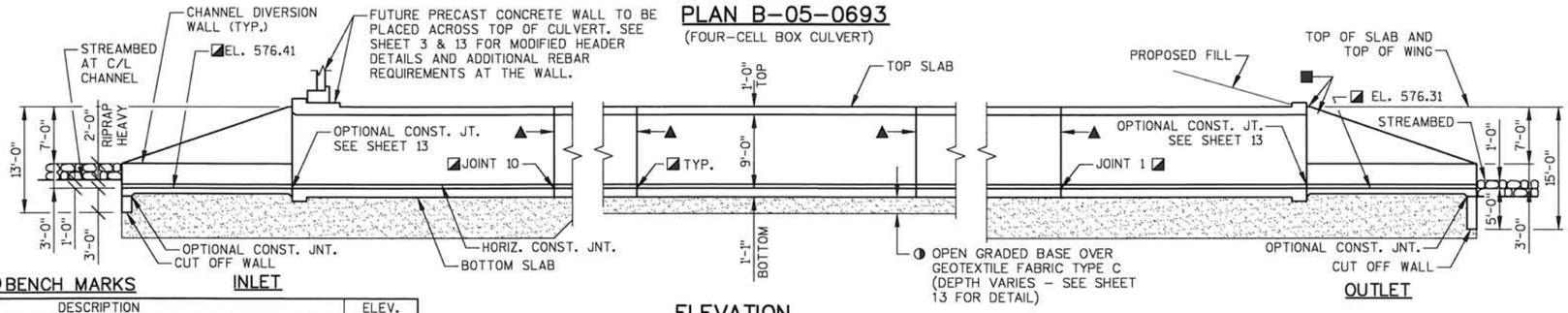
INVERT ELEV. TABLE

JOINT	⊕DIST. ABOVE OUTLET	ELEV.
OUTLET	0'	576.31
1	26'	576.32
2	66'	576.33
3	106'	576.34
4	139'	576.35
5	172'	576.36
6	212'	576.37
7	248'	576.38
8	284'	576.39
9	317'	576.40
10	350'	576.40
INLET	371'	576.41

⊕ ALL DISTANCES MEASURED ALONG C/L OF CULVERT

PLAN B-05-0693

(FOUR-CELL BOX CULVERT)



⊕BENCH MARKS

NO.	DESCRIPTION	ELEV.
823	CHISELED SQUARE ON SE CORNER OF CONCRETE SLAB WITH WHITE FUEL TANK ON TOP AT SEMFUELS, 100' W. OF DEAD END SHAWANO AVE. JUST WEST OF SOUTH BOUND 41; Y=575,432.24 X=82,722.04	607.39
824	RR SPIKE IN 24" TREE APPROX. 35' E. OF CL AND ANAMAX RD. APPROX. 600' NO. ANAMX RD. AND SHAWANO AVE. INTERSECTION; Y=575,907.33 X=81,596.90	610.02

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-05-0693	LS	1
210.0100	BACKFILL STRUCTURE	CY	4250
310.0115	BASE AGGREGATE OPEN GRADED	CY	3100
504.0100	CONCRETE MASONRY CULVERTS	CY	2071
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	120,000
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	136,380
505.0905	BAR COUPLERS NO. 5	EACH	405
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	270
606.0300	RIPRAP HEAVY	CY	110
645.0105	GEOTEXTILE FABRIC TYPE C	SY	2440
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	225
SPV.0165.800	STAINING CONCRETE	SF	390
SPV.0165.801	ARCHITECTURAL SURFACE TREATMENT DRYSTACK STONE	SF	250
SPV.0165.802	TEMPORARY SHORING B-05-0693	SF	10,500
	NON BID ITEMS		
	FILLER	¼" SIZE	

LEGEND

- △ SEE CORNER DETAILS (SEE SHEET 13)
- ■ NAME PLATE LOCATION (SEE SHEET 13) AND BENCHMARK CAP (WHEN SUPPLIED).
- ▲ VERT. CONST. JOINT (TYP.). 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING UP WALLS AND ACROSS TOP SLAB.
- ✳ BUILD APRON AND END OF BOX LEVEL
- ◯ INDICATES WING NUMBER
- ◪ SEE INVERT ELEVATION TABLE FOR FLOOR ELEVATIONS (THIS SHEET). CULVERT SET 1.0' BELOW PROPOSED FINISHED STREAMBED.
- ◑ SET CULVERT 1'-0" BELOW PROPOSED FINISHED STREAMBED. UNDER CUT STRUCTURE (TO BE PAID FOR UNDER "EXCAVATION FOR STRUCTURES"), PLACE GEOTEXTILE FABRIC TYPE C, AND BACKFILL WITH OPEN GRADED BASE THAT MEETS OR EXCEEDS THE REQUIREMENTS OF SECTION 310 OF THE STANDARD SPECIFICATIONS. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.
- ◮ ¾" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING WALL.
- ◒ GBMSD - GREEN BAY METROPOLITAN SEWER DISTRICT LINE MUST NOT BE DISTURBED DURING CONSTRUCTION. CONTRACTOR TO WORK WITH GBMSD TO LOCATE LINE PRIOR TO DRIVING TEMPORARY SHEETING OR EXCAVATION. GBMSD CONTACT MIKE PIERNER (920)438-1033

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE. ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TO THE ELEVATION OF THE TOP OF THE BOX WITHIN THE LENGTH OF THE CULVERT. SEE SHEET 13 FOR BACKFILL STRUCTURE DETAILS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH APPROVAL OF THE STRUCTURES DESIGN SECTION. MATERIALS, FABRICATION AND DESIGN OF PRECAST BOXES SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIALS, M259 OR M273, AND AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION 2, SECTION 27, EXCEPT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 565 POUNDS OF CEMENTITIOUS MATERIALS PER CUBIC YARD.

PLACE AN 18" (MIN.) WIDE SHEET OF 'RUBBERIZED MEMBRANE WATERPROOFING' ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

DESIGN DATA

LIVE LOAD:
DESIGN RATING — HL-93

EARTH LOAD:
DESIGNED FOR 14 FEET OF FILL

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY (GRADE A-FA) — f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 P.S.I.

TRAFFIC DATA

A.D.T. (2035) — 97,700
DESIGN SPEED — 70 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 5.4 SQ. MI.
Q_{100} TOTAL — 940 C.F.S.
THROUGH STRUCTURE — 940 C.F.S.
OVERTOPPING ROADWAY — N/A
VELOCITY - THROUGH STRUCTURE — 2.94 F.P.S.
WATERWAY AREA — 320.0 SQ. FT.
HIGH WATER$_{100}$ ELEVATION — 588.45
EROSION CONTROL
Q_2 — 280 C.F.S.
HIGH WATER$_2$ ELEVATION — 583.10

LIST OF DRAWINGS

GENERAL PLAN — 1.
SUBSURFACE INVESTIGATION — 2.
INDIVIDUAL PANEL LAYOUT & TYPICAL BARREL SECTION — 3.
BOTTOM SLAB OUTSIDE STEEL & INLET PANEL SEC. — 4.
BOTTOM SLAB INSIDE STEEL & 33-FT PANEL SEC. — 5.
WALL STEEL & 36-FT PANEL SEC. — 6.
TOP SLAB INSIDE STEEL & 40-FT PANEL SEC. — 7.
TOP SLAB OUTSIDE STEEL & OUTLET PANEL SEC. — 8.
APRON DETAILS 1 — 9.
APRON DETAILS 2 — 10.
WING WALL DETAILS — 11.
BAR STEEL DETAILS — 12.
DETAILS — 13.
STAGING DETAILS — 14.

WISCONSIN PROFESSIONAL ENGINEER
PATRICK T. BOLAND E-36303 SPRING GREEN WIS.
Patrick T. Boland 7-12-12

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Planners - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE: (608) 588-7484
FAX: (608) 588-9322

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR — 07/13/12
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-05-0693

USH 41 OVER BEAVER DAM CREEK

COUNTY	~~TOWN/CITY~~/VILLAGE
BROWN	HOWARD

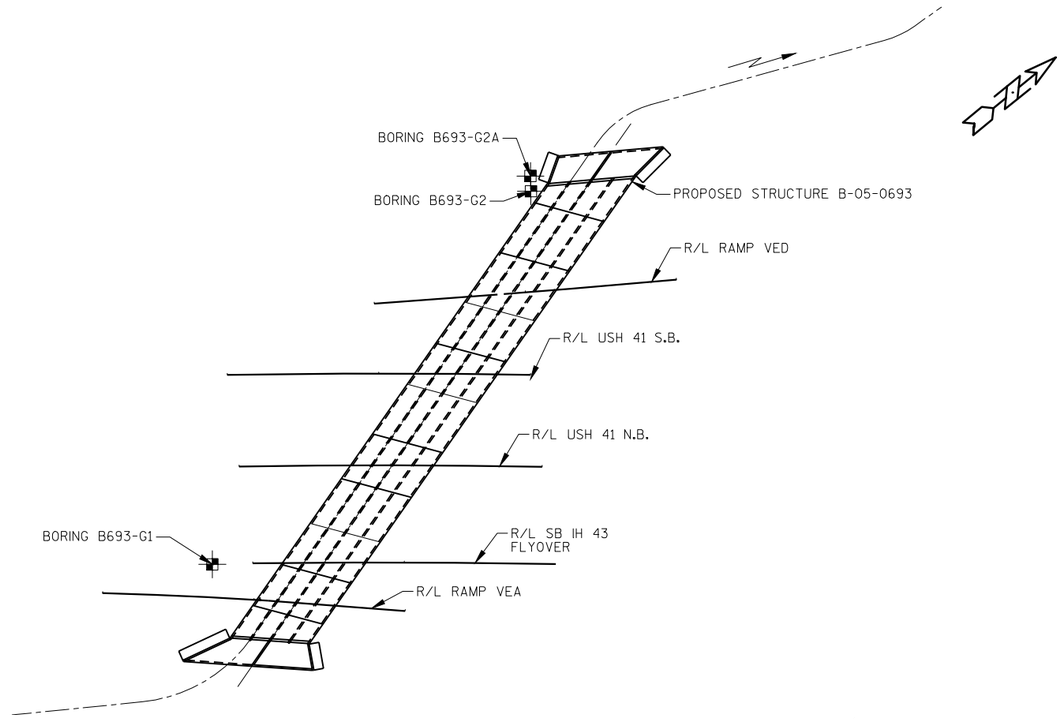
DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 5th EDITION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
PTB	MEM	PTB	MEM

GENERAL PLAN

SHEET 1 OF 14

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-0693_01_FSH.DWG
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PLOT DATE : 7/12/2012
PLOT TIME : 3:08:44 PM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

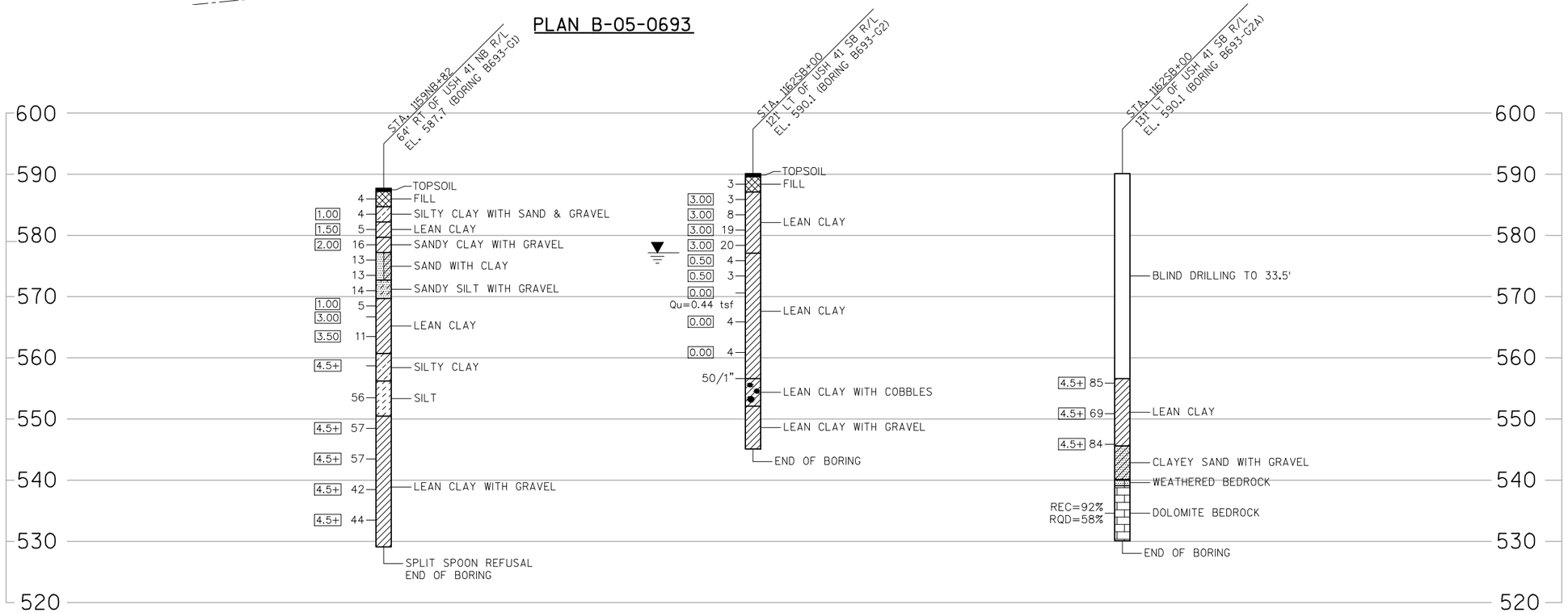


SOIL BORINGS

BY:
GESTRA ENGINEERING, INC.

ON:
AUGUST 1-9, 2011

PLAN B-05-0693



STATE PROJECT NUMBER

1133-11-75

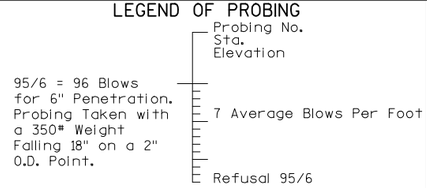
ABBREVIATIONS

F – Fine M – Medium C – Course
Ws – Weathered So – Sound

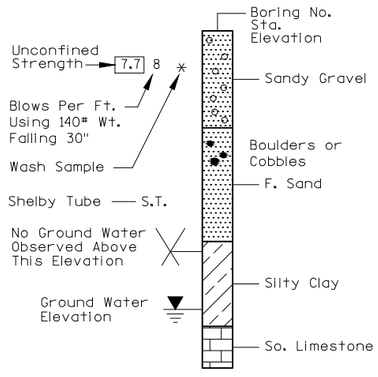
MATERIAL SYMBOLS

Asphalt, Silt, Sandstone
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-05-0693

Drawn By: PTB Plans Checked: MEM

SUBSURFACE INVESTIGATION

SHEET 2 OF 13

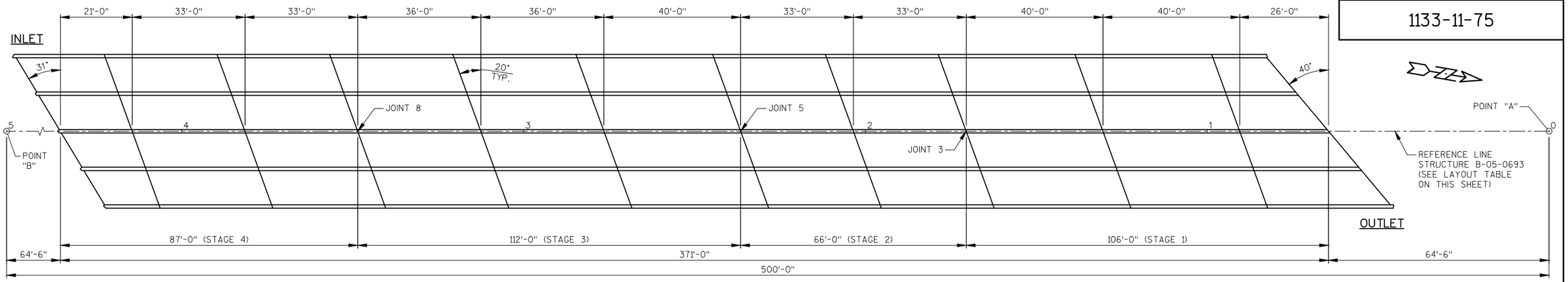
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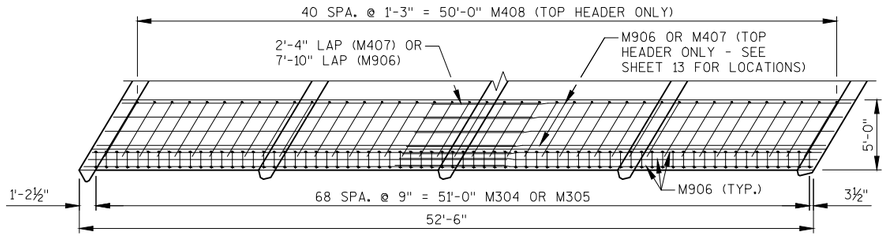
FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_02_BOR.DWG
LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:12:25 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

1133-11-75

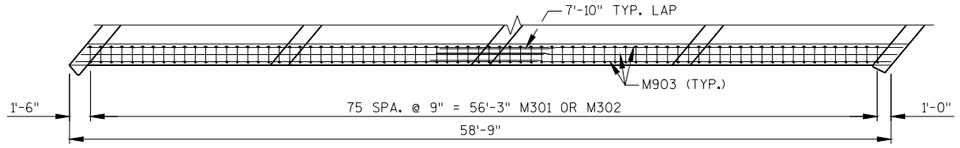


INDIVIDUAL PANEL LAYOUT



HEADER PLAN VIEW – INLET

(SEE SHEET 13 FOR ADDITIONAL DETAILS)

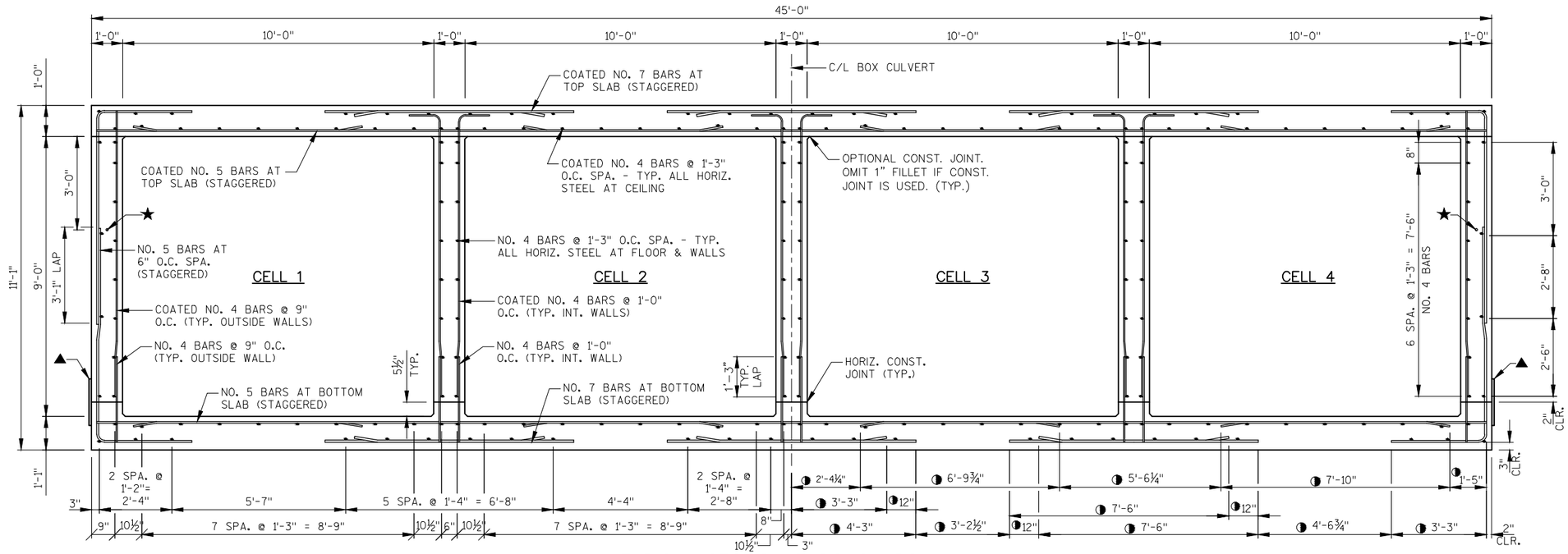


HEADER PLAN VIEW – OUTLET

(SEE SHEET 13 FOR ADDITIONAL DETAILS)

B–05–0693 LAYOUT TABLE

LOCATION	REFERENCE LINE STATION	Y	X
POINT A	0+00.0'	581,556.57	87,263.56
OUTLET	0+64.5'	581,617.43	87,246.23
JOINT 1	0+90.5'	581,637.63	87,240.47
JOINT 2	1+30.5'	581,669.37	87,231.43
JOINT 3	1+70.5'	581,701.10	87,222.40
JOINT 4	2+03.5'	581,735.73	87,212.53
JOINT 5	2+36.5'	581,770.35	87,202.67
JOINT 6	2+76.5'	581,808.82	87,191.72
JOINT 7	3+12.5'	581,840.56	87,182.68
JOINT 8	3+48.5'	581,872.30	87,173.64
JOINT 9	3+81.5'	581,910.77	87,162.68
JOINT 10	4+14.5'	581,949.24	87,151.73
INLET	4+35.5'	581,974.24	87,144.60
POINT B	5+00.0'	582,037.44	87,126.60



TYPICAL SECTION THROUGH BOX

(LOOKING DOWNSTREAM)

NOTES

UNLESS NOTED OTHERWISE, ALL BAR STEEL AND MEASUREMENTS SHOWN IN THE SECTION VIEW ARE SYMMETRICAL ABOUT THE C/L BOX CULVERT.

SEE SHEET 13 FOR VERT. CONSTRUCTION JNT. DETAILS.

SEE SHEET 12 FOR BILL OF BARS.

SEE SHEET 3 FOR LOCATION OF INDIVIDUAL PANELS.
SEE SHEET 4 FOR BOTTOM SLAB OUTSIDE STEEL.
SEE SHEET 5 FOR BOTTOM SLAB INSIDE STEEL.
SEE SHEET 6 FOR WALL STEEL.
SEE SHEET 7 FOR TOP SLAB INSIDE STEEL.
SEE SHEET 8 FOR TOP SLAB OUTSIDE STEEL.

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER–PROOFING

★ 1" DIAMETER SMOOTH ROUND BAR, 2'–6" LONG BETWEEN BARREL & WINGS. EMBED 1'–3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. ONE BAR FOR EACH WING WALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS".

◑ BAR LENGTH OR DISTANCE MEASURED ALONG SKEW, PARALLEL TO VERTICAL CONSTRUCTION JOINTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–05–0693

DRAWN BY PTB | PLANS CK'D. MEM

INDIVIDUAL PANEL LAYOUT & TYPICAL BARREL SECTION

SHEET 3 OF 14

211

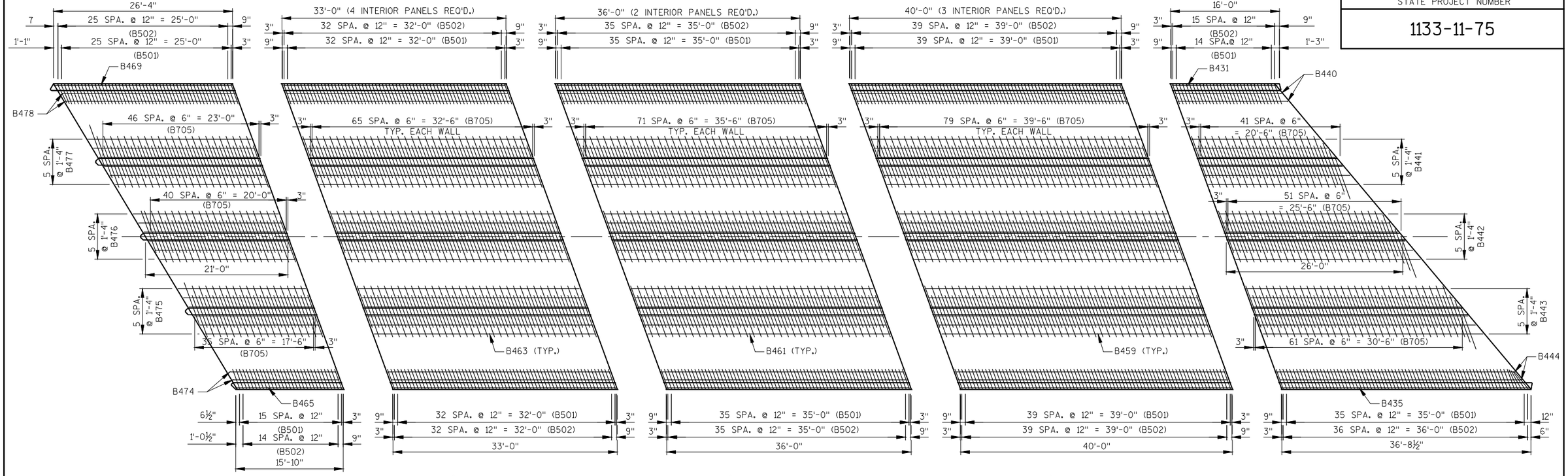
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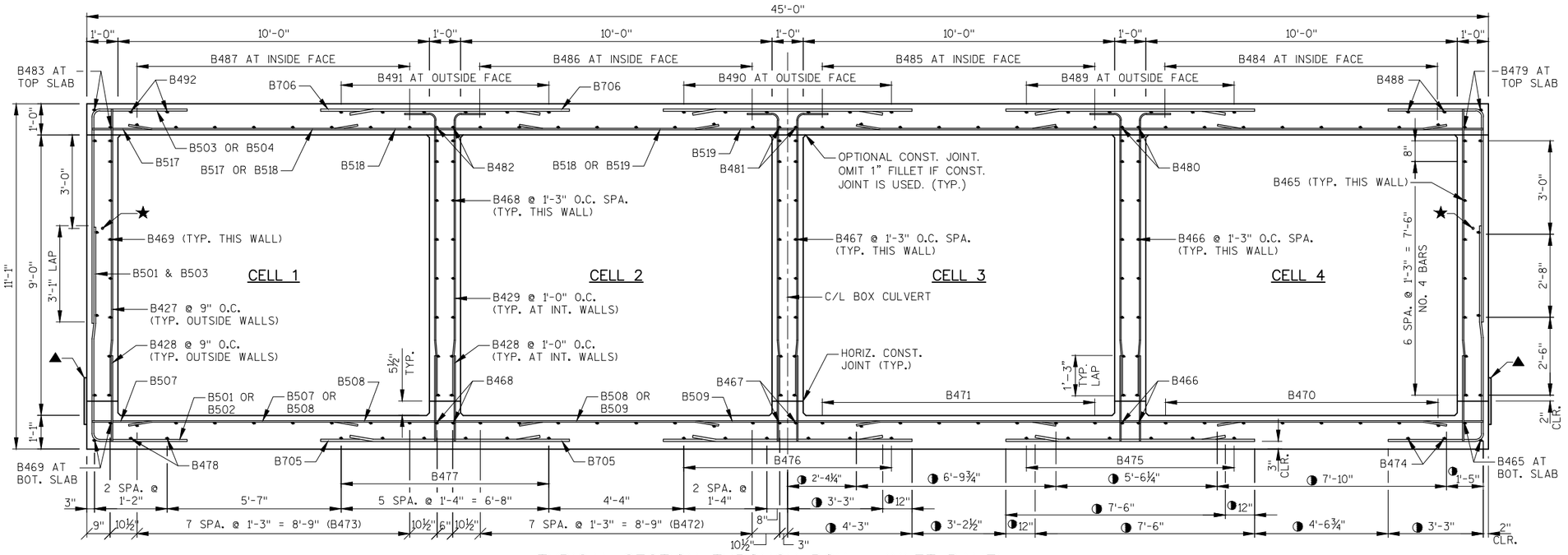
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LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:12:37 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

1133-11-75





NOTES

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SEE SHEET 5 FOR BOTTOM SLAB INSIDE STEEL.
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SEE SHEET 8 FOR TOP SLAB OUTSIDE STEEL.

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING

★ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. ONE BAR FOR EACH WING WALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS".

◑ BAR LENGTH OR DISTANCE MEASURED ALONG SKEW, PARALLEL TO VERTICAL CONSTRUCTION JOINTS.

TYPICAL SECTION THROUGH BOX - INLET PANEL
(LOOKING DOWNSTREAM)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

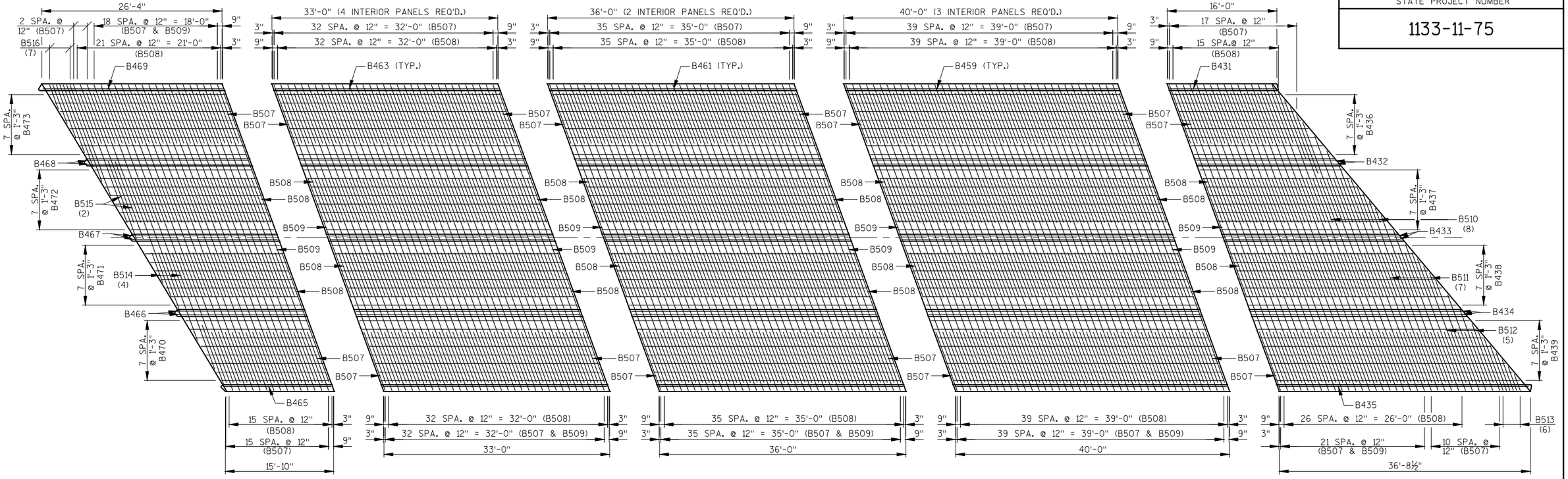
BOTTOM SLAB OUTSIDE STEEL & INLET PANEL SEC.

SHEET 4 OF 14

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_04_BOX DET.DWG
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PLOT TIME : 10:12:50 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

1133-11-75



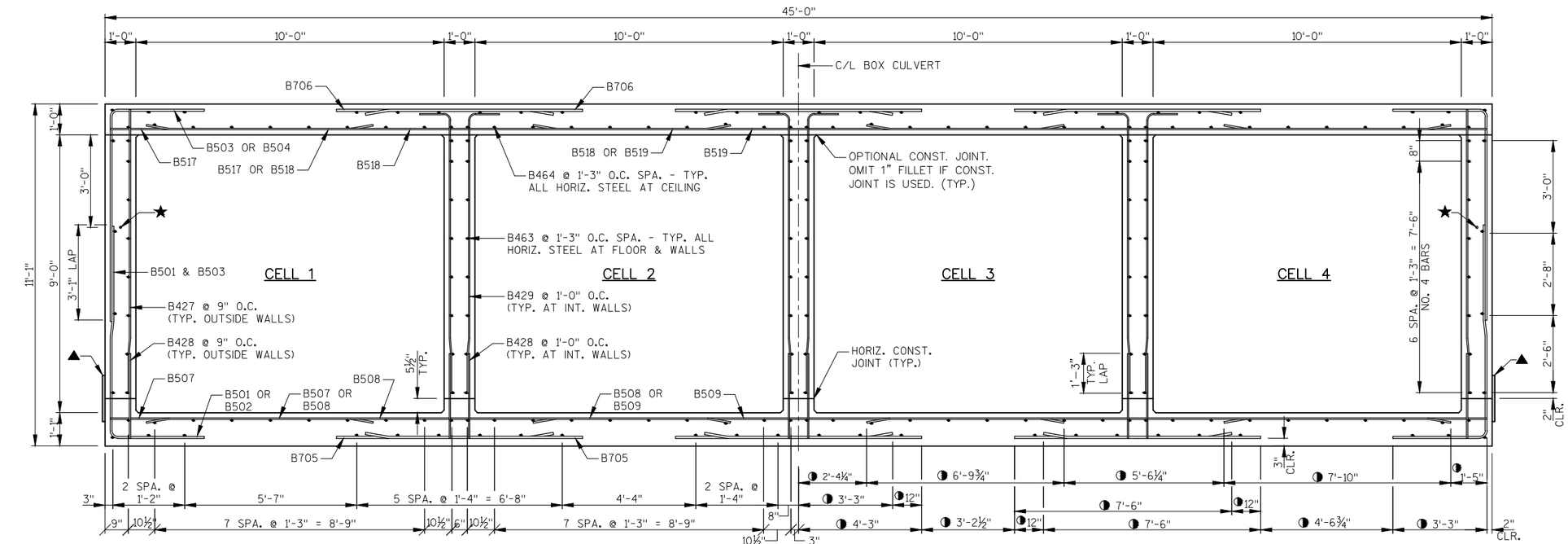
INLET PANEL
BOTTOM SLAB INSIDE STEEL

33' INTERIOR PANELS
BOTTOM SLAB INSIDE STEEL

36' INTERIOR PANELS
BOTTOM SLAB INSIDE STEEL

40' INTERIOR PANELS
BOTTOM SLAB INSIDE STEEL

OUTLET PANEL
BOTTOM SLAB INSIDE STEEL



TYPICAL SECTION THROUGH BOX – 33' INTERIOR PANEL
(LOOKING DOWNSTREAM)

NOTES

UNLESS NOTED OTHERWISE, ALL BAR STEEL AND MEASUREMENTS SHOWN IN THE SECTION VIEW ARE SYMMETRICAL ABOUT THE C/L BOX CULVERT.

SEE SHEET 13 FOR VERT. CONSTRUCTION JNT. DETAILS.

SEE SHEET 12 FOR BILL OF BARS.

SEE SHEET 3 FOR LOCATION OF INDIVIDUAL PANELS.
SEE SHEET 4 FOR BOTTOM SLAB OUTSIDE STEEL.
SEE SHEET 5 FOR BOTTOM SLAB INSIDE STEEL.
SEE SHEET 6 FOR WALL STEEL.
SEE SHEET 7 FOR TOP SLAB INSIDE STEEL.
SEE SHEET 8 FOR TOP SLAB OUTSIDE STEEL.

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING

★ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. ONE BAR FOR EACH WING WALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS".

◑ BAR LENGTH OR DISTANCE MEASURED ALONG SKEW, PARALLEL TO VERTICAL CONSTRUCTION JOINTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

BOTTOM SLAB INSIDE STEEL & 33-FT PANEL SEC.

SHEET 5 OF 14

213

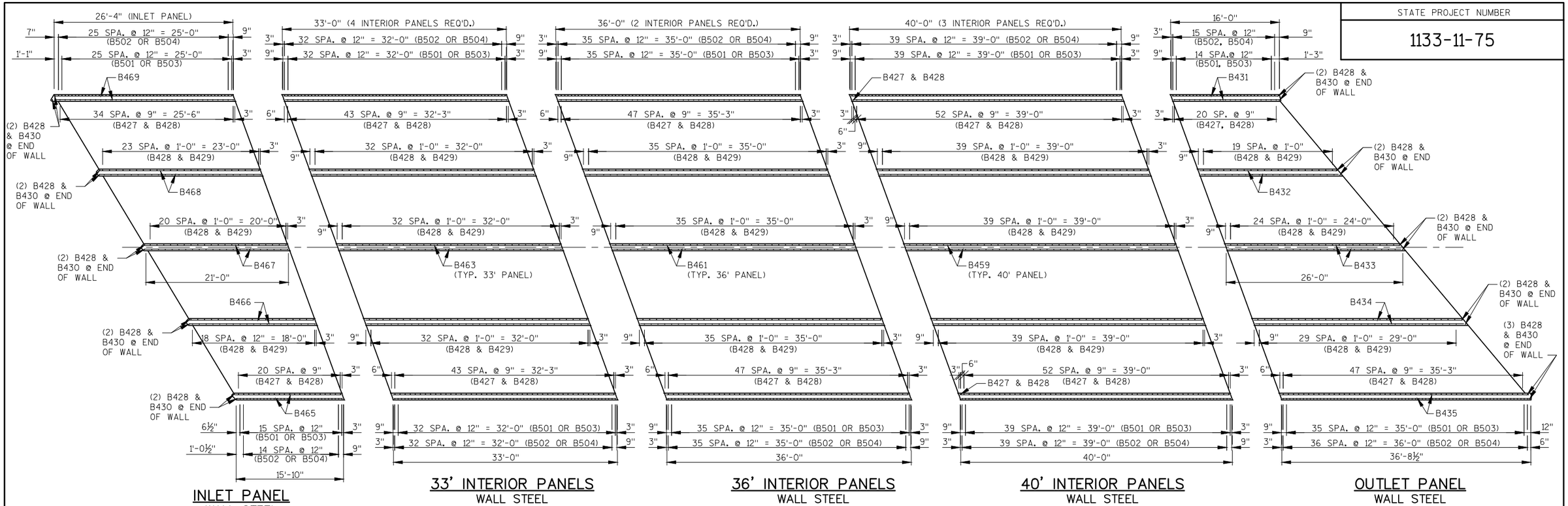
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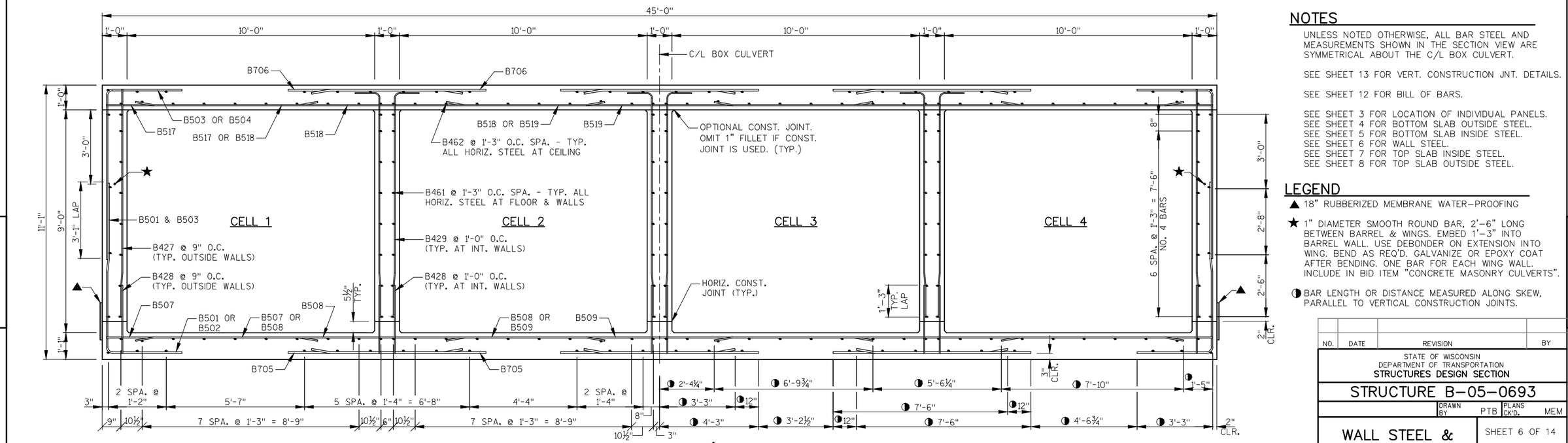
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LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:13:05 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

1133-11-75





NOTES

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SEE SHEET 8 FOR TOP SLAB OUTSIDE STEEL.

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING

★ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. ONE BAR FOR EACH WING WALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS".

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

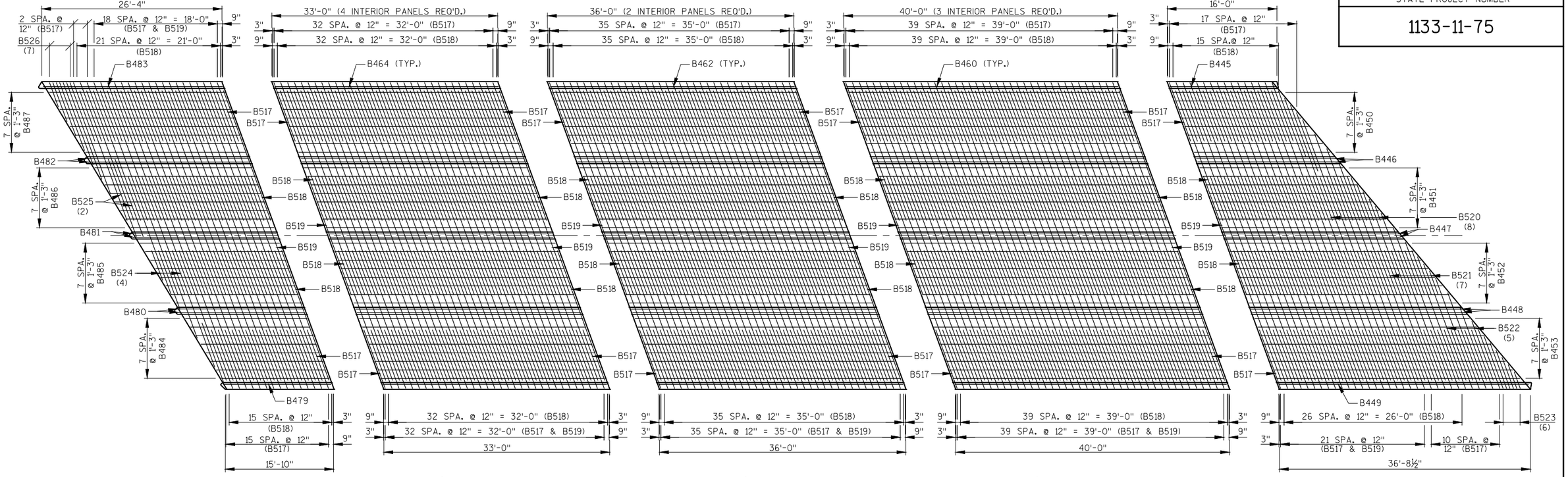
WALL STEEL & 36-FT PANEL SEC.

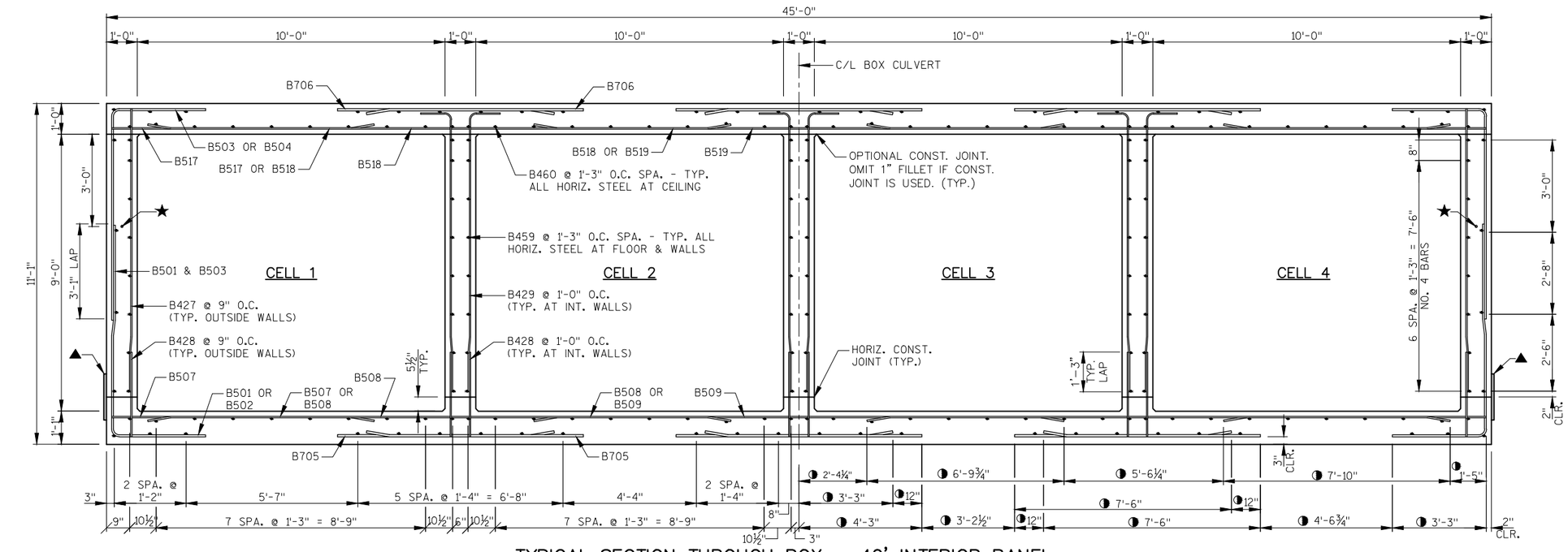
SHEET 6 OF 14

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LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:13:12 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

1133-11-75





TYPICAL SECTION THROUGH BOX – 40' INTERIOR PANEL

(LOOKING DOWNSTREAM)

NOTES

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LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING

★ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. ONE BAR FOR EACH WING WALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS".

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

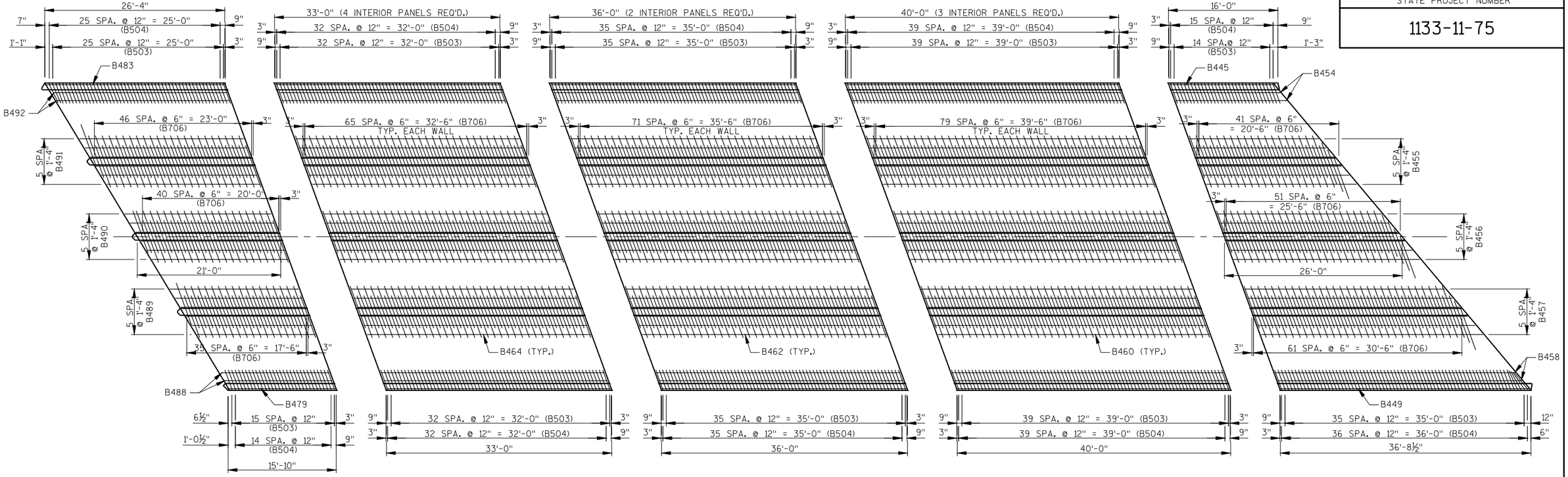
TOP SLAB INSIDE STEEL & 40-FT PANEL SEC.

SHEET 7 OF 14

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_07_BOX DET.DWG
LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:13:25 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

1133-11-75



TYPICAL SECTION THROUGH BOX – OUTLET PANEL
(LOOKING DOWNSTREAM)

NOTES

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SEE SHEET 7 FOR TOP SLAB INSIDE STEEL.
SEE SHEET 8 FOR TOP SLAB OUTSIDE STEEL.

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING

★ 1" DIAMETER SMOOTH ROUND BAR, 2'-6" LONG BETWEEN BARREL & WINGS. EMBED 1'-3" INTO BARREL WALL. USE DEBONDER ON EXTENSION INTO WING. BEND AS REQ'D. GALVANIZE OR EPOXY COAT AFTER BENDING. ONE BAR FOR EACH WING WALL. INCLUDE IN BID ITEM "CONCRETE MASONRY CULVERTS".

◑ BAR LENGTH OR DISTANCE MEASURED ALONG SKEW, PARALLEL TO VERTICAL CONSTRUCTION JOINTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

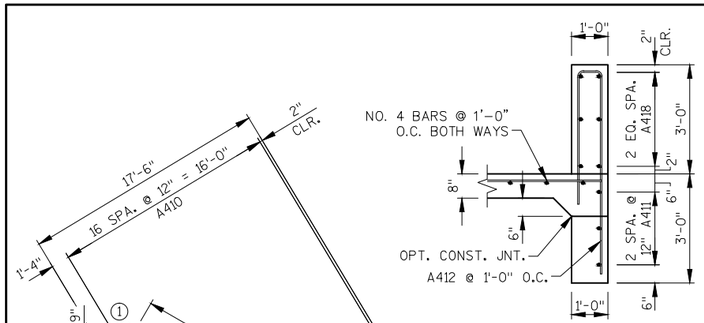
TOP SLAB OUTSIDE STEEL & OUTLET PANEL SEC.

SHEET 8 OF 14

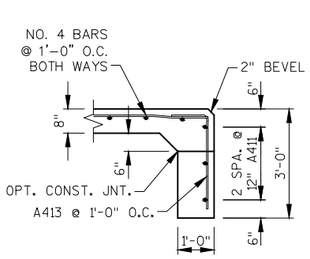
FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_08_BOX DET.DWG
LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:13:41 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMAER

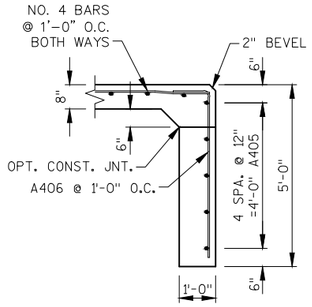
1133-11-75



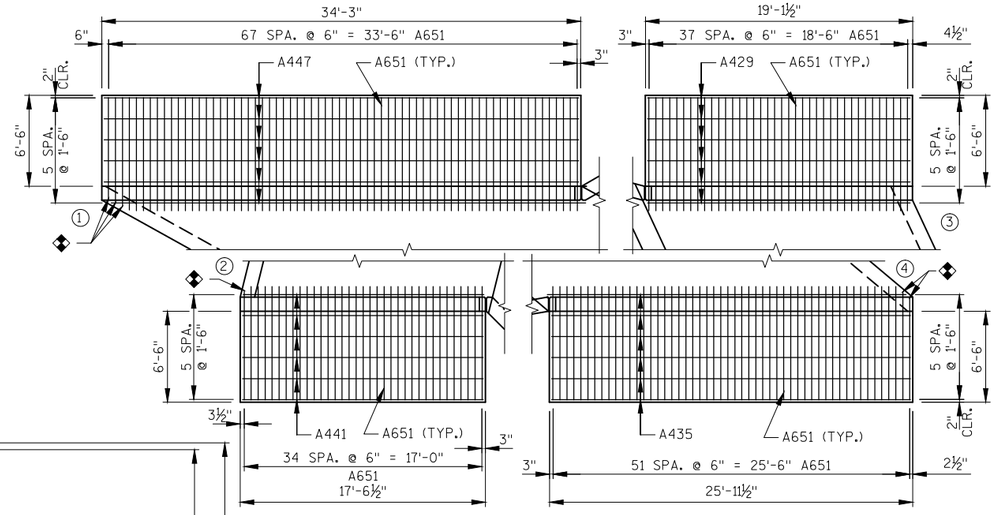
SECTION A–A
CUTOFF WALL AT DIVERSION WALL



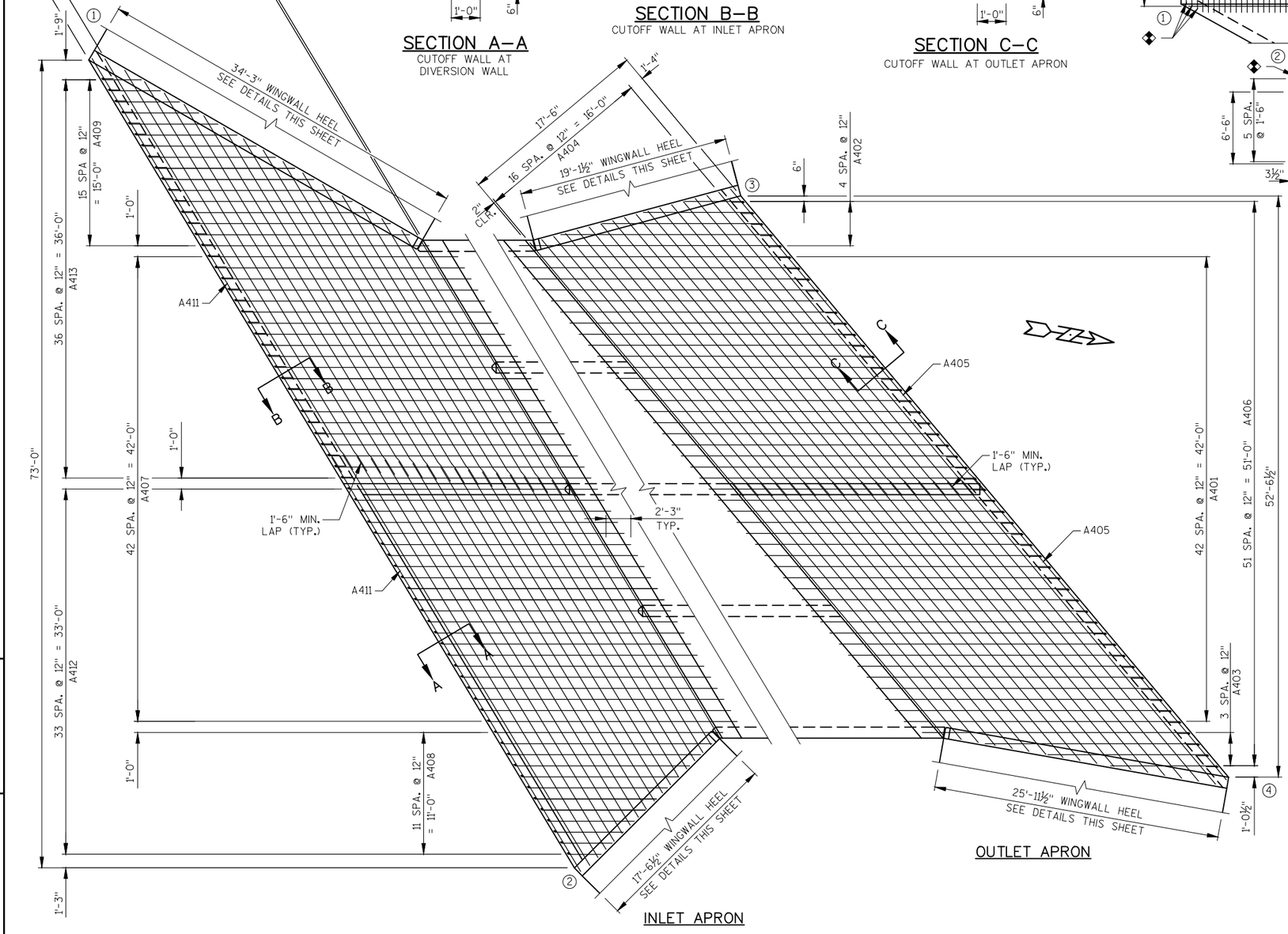
SECTION B–B
CUTOFF WALL AT INLET APRON



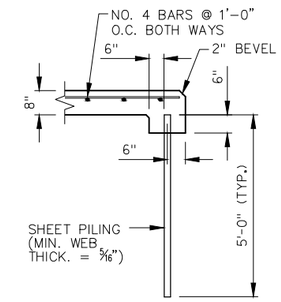
SECTION C–C
CUTOFF WALL AT OUTLET APRON



WINGWALL HEEL DETAILS



PLAN VIEW – APRON STEEL



ALTERNATE CUT–OFF WALL

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST–IN–PLACE CONC. CUT–OFF WALL. PAYMENT WILL BE BASED ON THE CONC. CUT–OFF WALL. (BEND A412 BARS TO CLEAR BOTTOM OF APRON BY 3")

NOTES:

SEE SHEET 12 FOR BILL OF BARS

① - INDICATES WING NUMBER

◆ - TRIM BAR IN FIELD TO CLEAR END OF WALL BY 2"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B–05–0693

DRAWN BY PTB | PLANS CK'D. MEM

APRON DETAILS 1

SHEET 9 OF 13

8

8

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133–10–00 (B–05–693)\CADD FILES\STRUCTURE\B–05–693_09_APR DET.DWG
LAYOUT : LAYOUT1

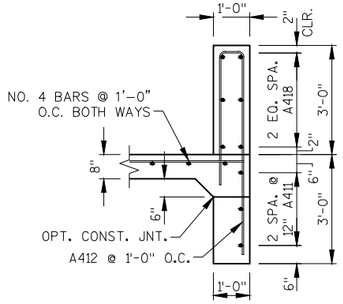
PLOT DATE : 2/17/2012
PLOT TIME : 10:13:46 AM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

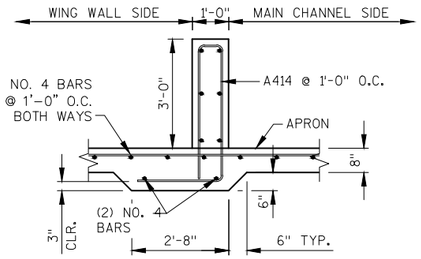
STATE PROJECT NUMBER

1133-11-75



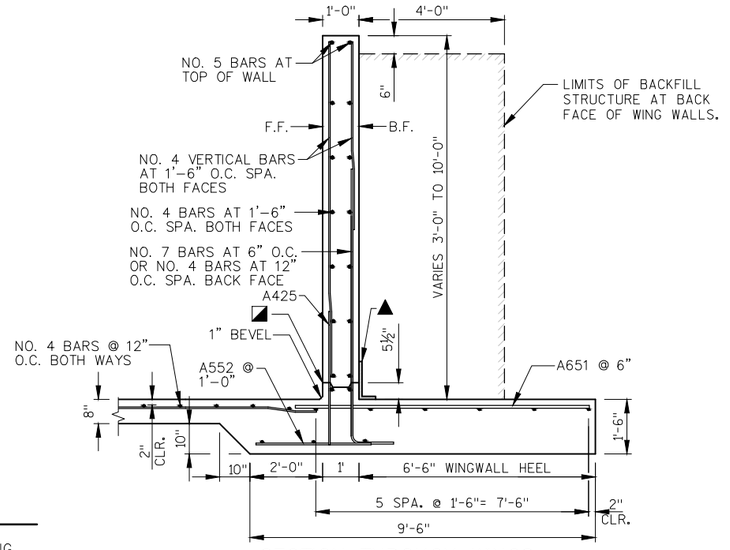
SECTION A–A

DIVERSION WALL AT END OF APRON



SECTION D–D

DIVERSION WALL AT APRON



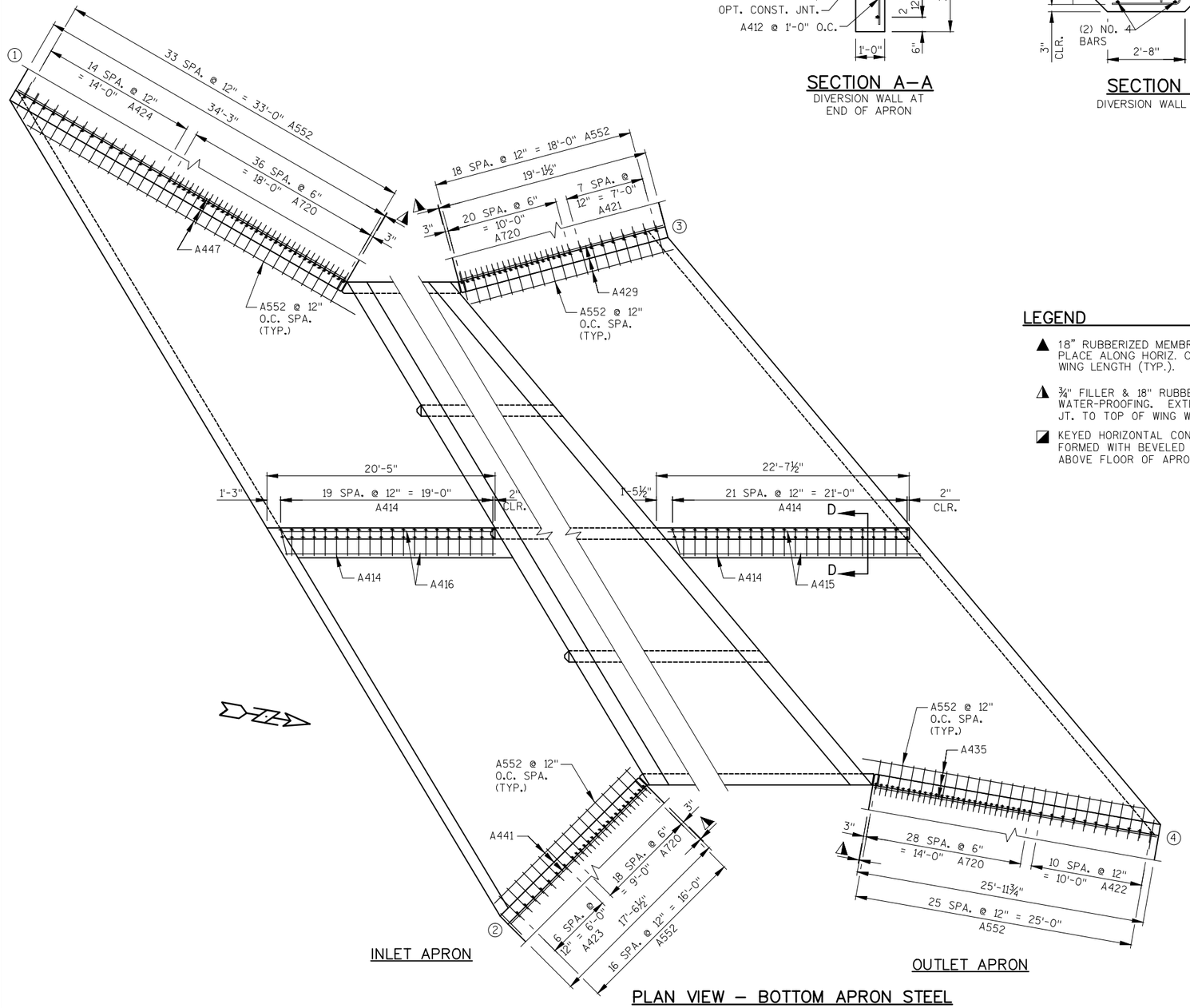
SECTION THROUGH WINGS

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.).

▲ ¾" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING WALL.

◪ KEYED HORIZONTAL CONSTRUCTION JOINT FORMED WITH BEVELED 2x6 (LOCATED 5-1/2" ABOVE FLOOR OF APRON).



INLET APRON

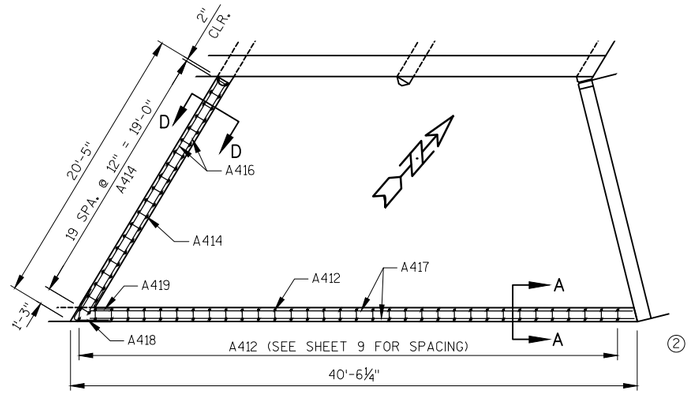
OUTLET APRON

PLAN VIEW – BOTTOM APRON STEEL

NOTES:

SEE SHEET 12 FOR BILL OF BARS

① - INDICATES WING NUMBER



INLET DIVERSION WALL DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

APRON DETAILS 2

SHEET 10 OF 14

8

8

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_10_APR DET.DWG
LAYOUT : LAYOUT1

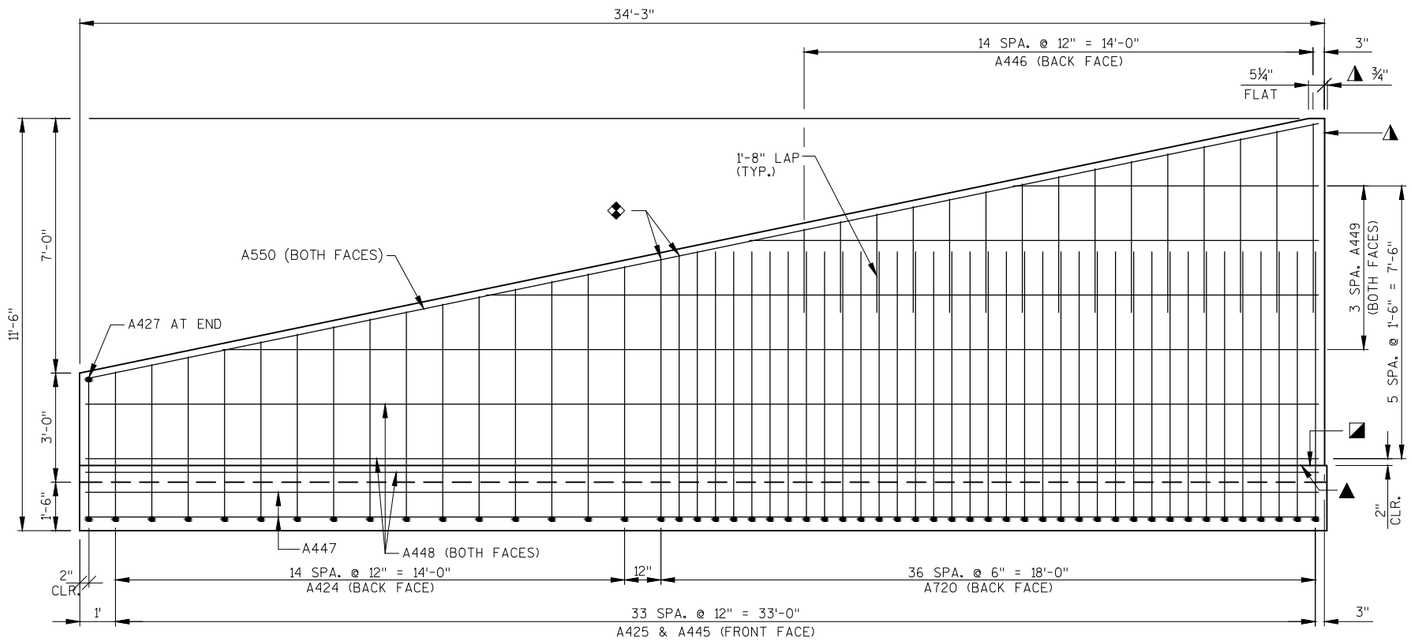
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PLOT TIME : 10:13:53 AM

PLOT BY : BOLAND, PATRICK

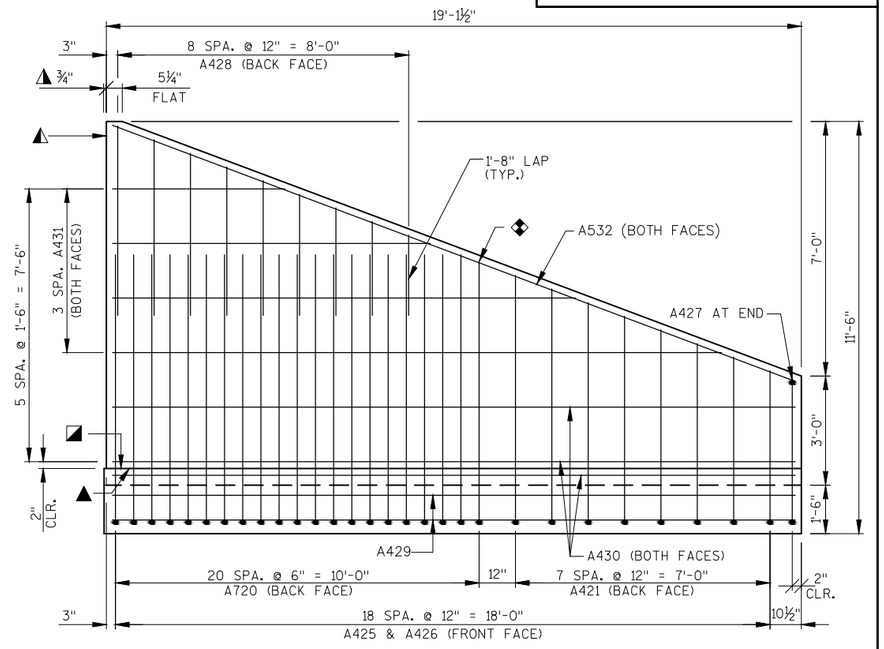
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

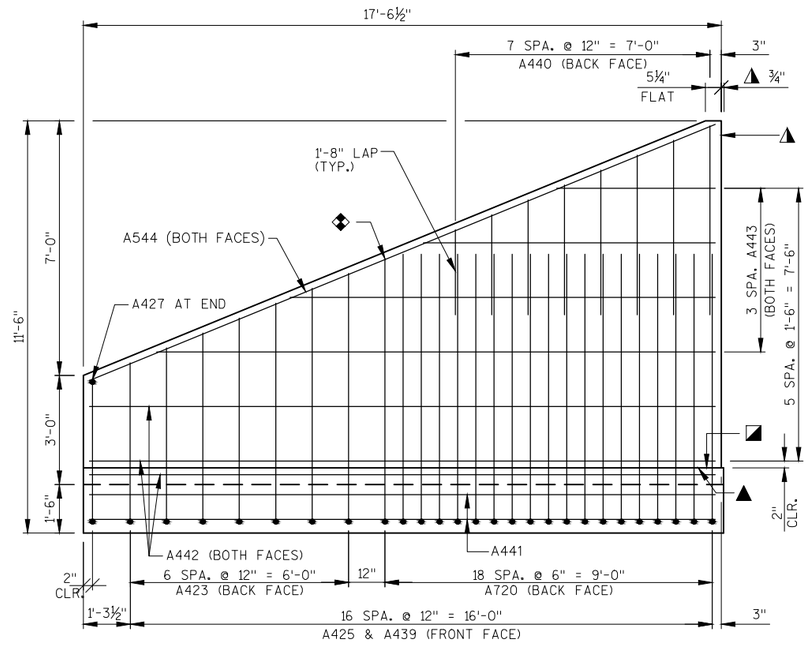
1133-11-75



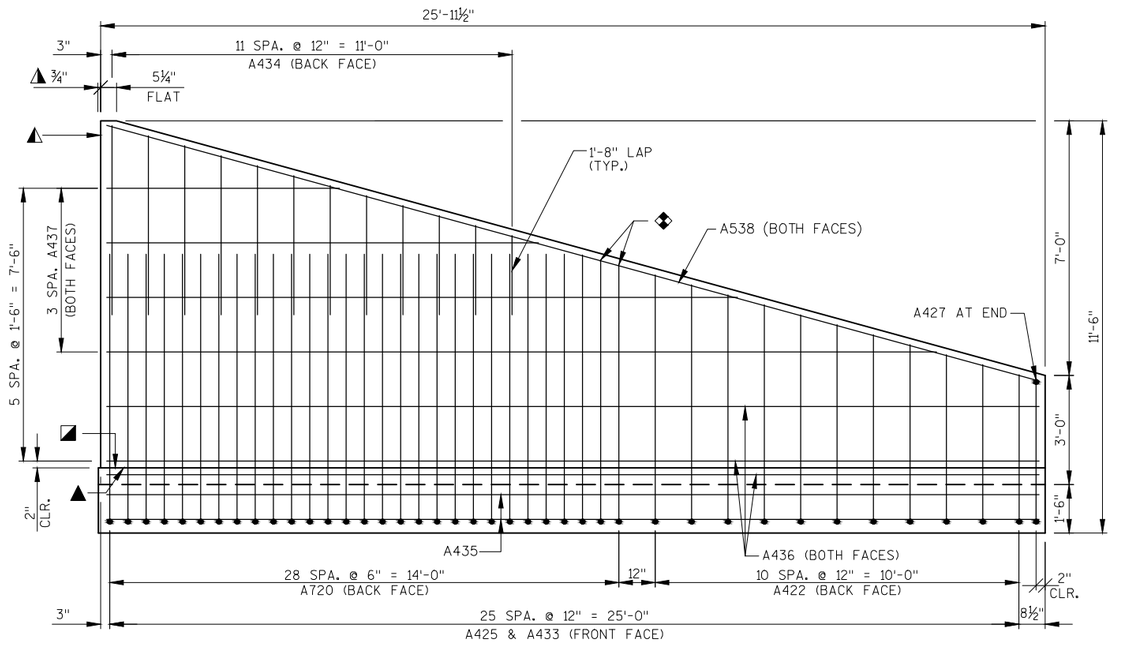
WING WALL 1



WING WALL 3



WING WALL 2



WING WALL 4

LEGEND

- ▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.).
- ◭ ¾" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING WALL.
- ◪ HORIZONTAL CONSTRUCTION JOINT (LOCATED 5½" ABOVE FLOOR OF APRON).
- ◈ TRIM BAR IN FIELD TO CLEAR END OF WALL BY 2"

NOTES

SEE SHEET 12 FOR BILL OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

WING WALL DETAILS

SHEET 11 OF 13

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_11_WING WALL.DWG
LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:14:02 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

BILL OF BARS — BARREL

120,870 LB (COATED)
111,090 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
B501	741	10-0	3-0			WALLS - EXT. - VERT. - BOT.
B502	742	8-2	3-0			" " " "
B503	741	10-0	3-0	X		WALLS - EXT. - VERT. - TOP
B504	742	8-2	3-0	X		" " " "
B705	2224	7-6				BOTTOM SLAB - OUTSIDE
B706	2224	7-6		X		TOP SLAB - OUTSIDE
B507	737	9-1				BOTTOM SLAB - INSIDE
B508	729	20-2				" " "
B509	365	18-4				" " "
B510	8	10-1			*	BOTTOM SLAB - INSIDE - OUTLET
B511	7	10-4			*	" " " "
B512	5	13-8			*	" " " "
B513	6	5-4			*	" " " "
B514	4	11-5			*	BOTTOM SLAB - INSIDE - INLET
B515	2	12-0				" " " "
B516	7	10-6			*	" " " "
B517	737	9-1		X		TOP SLAB - INSIDE
B518	729	20-2		X		" " "
B519	365	18-4		X		" " "
B520	8	10-1		X	*	TOP SLAB - INSIDE - OUTLET
B521	7	10-4		X	*	" " " "
B522	5	13-8		X	*	" " " "
B523	6	5-4		X	*	" " " "
B524	4	11-5		X	*	TOP SLAB - INSIDE - INLET
B525	2	12-0		X		" " " "
B526	7	10-6		X	*	" " " "
B427	987	9-4		X		WALLS - EXT. - VERT.
B428	3230	2-9		X		WALLS - VERT. - BOT.
B429	2218	10-3	1-0	X		WALLS - INT. - VERT.
B430	21	8-2		X		END OF WALLS - VERT.
B431	14	15-4				HORIZ. - EXT. WALL - OUTLET
B432	18	20-3				HORIZ. - INT. WALL - OUTLET
B433	18	25-5				" " " " "
B434	18	30-8				" " " " "
B435	14	36-5				HORIZ. BARS - EXT. WALL - OUTLET
B436	8	17-8			*	BOT. SLAB - INSIDE - OUTLET
B437	8	22-11			*	" " " " "
B438	8	28-2			*	" " " " "
B439	8	33-5			*	" " " " "
B440	2	15-6				BOT. SLAB - OUTSIDE - OUTLET
B441	6	20-5			*	" " " " "
B442	6	25-7			*	" " " " "
B443	6	30-9			*	" " " " "
B444	2	35-0				" " " " "
B445	2	15-4		X		HORIZ. - EXT. WALL - OUTLET - TOP
B446	2	20-3		X		HORIZ. - INT. WALL - OUTLET - TOP
B447	2	25-5		X		" " " " "
B448	2	30-8		X		" " " " "
B449	2	36-5		X		HORIZ. - EXT. WALL - OUTLET - TOP
B450	8	17-8		X	*	TOP SLAB - INSIDE - OUTLET
B451	8	22-11		X	*	" " " " "
B452	8	28-2		X	*	" " " " "
B453	8	33-5		X	*	" " " " "
B454	2	15-6		X		TOP SLAB - OUTSIDE - OUTLET
B455	6	20-5		X	*	" " " " "
B456	6	25-7		X	*	" " " " "
B457	6	30-9		X	*	" " " " "
B458	2	35-0		X		" " " " "
B459	408	39-6				HORIZ. - FLR. & WALLS - 40' PANEL
B460	192	39-6		X		HORIZ. - CEILING - 40' PANEL
B461	272	35-6				HORIZ. - FLR. & WALLS - 36' PANEL
B462	128	35-6		X		HORIZ. - CEILING - 36' PANEL
B463	544	32-6				HORIZ. - FLR. & WALLS - 33' PANEL
B464	256	32-6		X		HORIZ. - CEILING - 33' PANEL
B465	14	15-7				HORIZ. - EXT. WALL - INLET
B466	18	18-5				HORIZ. - INT. WALL - INLET
B467	18	21-0				" " " "
B468	18	23-7				" " " "
B469	14	26-2				HORIZ. - EXT. WALL - INLET
B470	8	16-8			*	BOT. SLAB - INSIDE - INLET
B471	8	19-4			*	" " " " "
B472	8	21-11			*	" " " " "
B473	8	24-6			*	" " " " "
B474	2	15-6				BOT. SLAB - OUTSIDE - INLET
B475	6	18-0			*	" " " " "
B476	6	20-7			*	" " " " "
B477	6	23-2			*	" " " " "
B478	2	25-4				" " " " "
B479	2	15-7		X		HORIZ. - EXT. WALL - INLET - TOP
B480	2	18-5		X		HORIZ. - INT. WALL - INLET - TOP
B481	2	21-0		X		" " " " "
B482	2	23-7		X		" " " " "
B483	2	26-2		X		HORIZ. - EXT. WALL - INLET - TOP
B484	8	16-8		X	*	TOP SLAB - INSIDE - INLET
B485	8	19-4		X	*	" " " " "
B486	8	21-11		X	*	" " " " "
B487	8	24-6		X	*	" " " " "
B488	2	15-6		X		TOP SLAB - OUTSIDE - INLET
B489	6	18-0		X	*	" " " " "
B490	6	20-7		X	*	" " " " "
B491	6	23-2		X	*	" " " " "
B492	2	25-4		X		" " " " "

BILL OF BARS — APRONS

2,800 LB (COATED)
8,910 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
A401	43	24-10				APRON - TOP - OUTLET
A402	5	14-5			*	" " "
A403	4	16-10			*	" " "
A404	34	32-9			*	" " "
A405	10	35-6				CUT OFF WALL - HORIZ. - OUTLET
A406	52	5-6	1-0			CUT OFF WALL - VERT. - OUTLET
A407	43	22-6				APRON - TOP - INLET
A408	12	11-9			*	" " "
A409	16	11-11			*	" " "
A410	34	35-1			*	" " "
A411	6	43-8				CUT OFF WALL - HORIZ. - INLET
A412	34	9-10	■	X		CUT OFF WALL @ DIVERSION WALL - INLET
A413	37	3-6	1-0			CUT OFF WALL - VERT. - INLET
A414	42	10-2	■	X		DIVERSION WALL - VERT - INLET & OUTLET
A415	8	21-7				DIVERSION WALL - HORIZ. - OUTLET
A416	8	18-10				DIVERSION WALL - HORIZ. - INLET
A417	6	38-9				" " " "
A418	3	5-0	■			" " " "
A419	3	2-9	■			" " " "
A720	106	8-7	1-2	X		WING WALLS - VERT. - B.F.
A421	8	6-7	1-0	X	*	WING WALL 3 - VERT. - B.F.
A422	11	6-6	1-0	X	*	WING WALL 4 - VERT. - B.F.
A423	7	6-9	1-0	X	*	WING WALL 2 - VERT. - B.F.
A424	15	6-7	1-0	X	*	WING WALL 1 - VERT. - B.F.
A425	96	3-6		X		WING WALLS - VERT. - F.F. - BOT.
A426	19	5-10			*	WING WALL 3 - VERT. - F.F.
A427	4	9-5	■	X		WING WALLS - VERT. - ENDS
A428	9	3-9			*	WING WALL 3 - VERT. - B.F. - TOP
A429	9	18-9				WING WALL 3 - HORIZ. - HEEL
A430	6	18-9				WING WALL 3 - HORIZ.
A431	8	10-9			*	WING WALL 3 - HORIZ.
A532	2	20-0				WING WALL 3 - HORIZ. - TOP
A433	26	5-9			*	WING WALL 4 - VERT. - F.F.
A434	12	3-9			*	WING WALL 4 - VERT. - F.F.
A435	9	25-7				WING WALL 4 - HORIZ. - HEEL
A436	6	25-7				WING WALL 4 - HORIZ.
A437	8	14-7			*	WING WALL 4 - HORIZ.
A538	2	26-7				WING WALL 4 - HORIZ. - TOP
A439	17	5-11			*	WING WALL 2 - VERT. - F.F.
A440	8	3-10			*	WING WALL 2 - VERT. - F.F.
A441	9	17-2				WING WALL 2 - HORIZ. - HEEL
A442	6	17-2				WING WALL 2 - HORIZ.
A443	8	9-10			*	WING WALL 2 - HORIZ.
A544	2	18-6			*	WING WALL 2 - HORIZ. - TOP
A445	34	5-9			*	WING WALL 1 - VERT. - F.F.
A446	15	3-10			*	WING WALL 1 - VERT. - F.F.
A447	9	33-10				WING WALL 1 - HORIZ. - HEEL
A448	6	33-10				WING WALL 1 - HORIZ.
A449	8	19-2			*	WING WALL 1 - HORIZ.
A550	2	34-7				WING WALL 1 - HORIZ. - TOP
A651	193	8-1				WING WALLS - HEEL - TOP
A552	96	3-4				WING WALLS - HEEL - BOT.

BILL OF BARS — MISCELLANEOUS

12,710 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
M301	76	4-10	■	X		HEADER - OUTLET - STIRRUPS - BOT.
M302	76	5-2	■	X		HEADER - OUTLET - STIRRUPS - TOP
M903	24	33-0		X		HEADER - OUTLET - HORIZ.
M304	69	4-10	■	X		HEADER - INLET - STIRRUPS - BOT.
M305	69	5-10	■	X		HEADER - INLET - STIRRUPS - TOP
M906	34	30-0		X		HEADER - INLET - HORIZ.
M407	10	27-3		X		HEADER - INLET - HORIZ. - TOP
M408	41	6-5	1-0	X		HEADER - INLET - TOP.
M509	945	4-0		X		CONSTR. JNT. - DOWEL
M510	810	2-0		X		CONSTR. JNT. - DOWEL - JNT. 3, 5 & 8

NOTES

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

THE DIMENSION IN THE BEND COLUMN ("D") IS THE OUT TO OUT HORIZONTAL LEG OF AN "L" – SHAPED BAR. (SEE TYP. BENDING DETAIL)

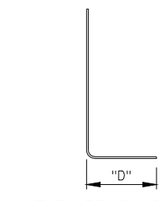
* LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

■ SEE BENDING DETAILS.

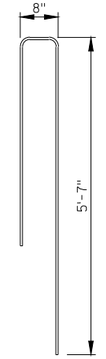
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
B510	1 SERIES OF 8	2-3 TO 17-11
B511	1 SERIES OF 7	3-7 TO 17-1
B512	1 SERIES OF 5	9-2 TO 18-2
B513	1 SERIES OF 6	2-6 TO 8-2
B514	1 SERIES OF 4	4-8 TO 18-2
B516	1 SERIES OF 7	3-9 TO 17-3
B520	1 SERIES OF 8	2-3 TO 17-11
B521	1 SERIES OF 7	3-7 TO 17-1
B522	1 SERIES OF 5	9-2 TO 18-2
B523	1 SERIES OF 6	2-6 TO 8-2
B524	1 SERIES OF 4	4-8 TO 18-2
B526	1 SERIES OF 7	3-9 TO 17-3
B436	1 SERIES OF 8	15-7 TO 19-9
B437	1 SERIES OF 8	20-10 TO 25-0
B438	1 SERIES OF 8	26-1 TO 30-3
B439	1 SERIES OF 8	31-4 TO 35-6
B441	1 SERIES OF 6	18-10 TO 22-0
B442	1 SERIES OF 6	24-0 TO 27-2
B443	1 SERIES OF 6	29-2 TO 32-4
B450	1 SERIES OF 8	15-7 TO 19-9
B451	1 SERIES OF 8	20-10 TO 25-0
B452	1 SERIES OF 8	26-1 TO 30-3
B453	1 SERIES OF 8	31-4 TO 35-6
B455	1 SERIES OF 6	18-10 TO 22-0
B456	1 SERIES OF 6	24-0 TO 27-2
B457	1 SERIES OF 6	29-2 TO 32-4
B470	1 SERIES OF 8	15-8 TO 17-8
B471	1 SERIES OF 8	18-4 TO 20-4
B472	1 SERIES OF 8	20-11 TO 22-11
B473	1 SERIES OF 8	23-6 TO 25-6
B475	1 SERIES OF 6	17-2 TO 18-10
B476	1 SERIES OF 6	19-10 TO 21-4
B477	1 SERIES OF 6	22-4 TO 24-0
B484	1 SERIES OF 8	15-8 TO 17-8
B485	1 SERIES OF 8	18-4 TO 20-4
B486	1 SERIES OF 8	20-11 TO 22-11
B487	1 SERIES OF 8	23-6 TO 25-6
B489	1 SERIES OF 6	17-2 TO 18-10
B490	1 SERIES OF 6	19-10 TO 21-4
B491	1 SERIES OF 6	22-4 TO 24-0
A402	1 SERIES OF 5	5-3 TO 23-7
A403	1 SERIES OF 4	9-7 TO 24-1
A404	2 SERIES OF 17	29-10 TO 35-8
A408	1 SERIES OF 12	2-11 TO 20-7
A409	1 SERIES OF 16	3-5 TO 20-5
A410	2 SERIES OF 17	26-10 TO 43-4
A421	1 SERIES OF 8	5-3 TO 7-11
A422	1 SERIES OF 11	5-2 TO 7-10
A423	1 SERIES OF 7	5-6 TO 8-0
A424	1 SERIES OF 15	5-2 TO 8-0
A426	1 SERIES OF 19	2-6 TO 9-2
A428	1 SERIES OF 9	2-3 TO 5-3
A431	2 SERIES OF 4	4-9 TO 16-9
A433	1 SERIES OF 26	2-4 TO 9-2
A434	1 SERIES OF 12	2-3 TO 5-3
A437	2 SERIES OF 4	6-5 TO 22-9
A439	1 SERIES OF 17	2-8 TO 9-2
A440	1 SERIES OF 8	2-5 TO 5-3
A443	2 SERIES OF 4	4-4 TO 15-4
A445	1 SERIES OF 34	2-4 TO 9-2
A446	1 SERIES OF 15	2-5 TO 5-3
A449	2 SERIES OF 4	8-4 TO 30-0

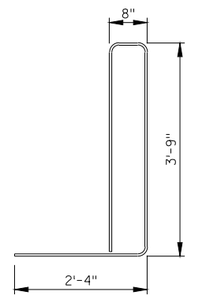
BUNDLE AND TAG EACH SERIES SEPARATELY.



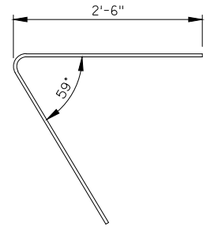
TYP. BENDING DETAIL



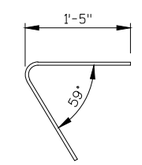
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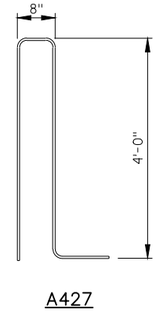
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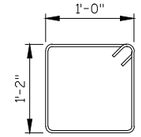
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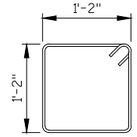
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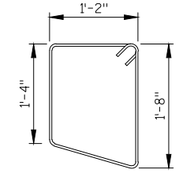
A427



M301 & M304



M302



M305

STATE PROJECT NUMBER

1133-11-75

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

BAR STEEL DETAILS

SHEET 12 OF 14

220

8

8

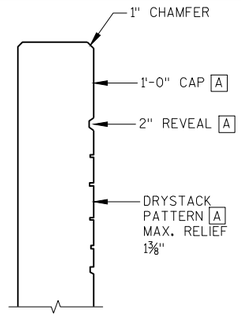
FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_12_DETAILS.DWG
LAYOUT : LAYOUT1

PLOT DATE : 2/17/2012
PLOT TIME : 10:14:05 AM

PLOT BY : BOLAND, PATRICK

PLOT SCALE : 1" = 1'

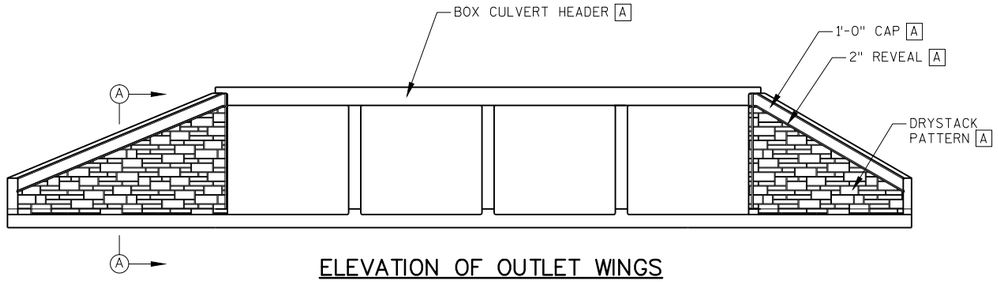
STATE PROJECT NUMBER
1133-11-75



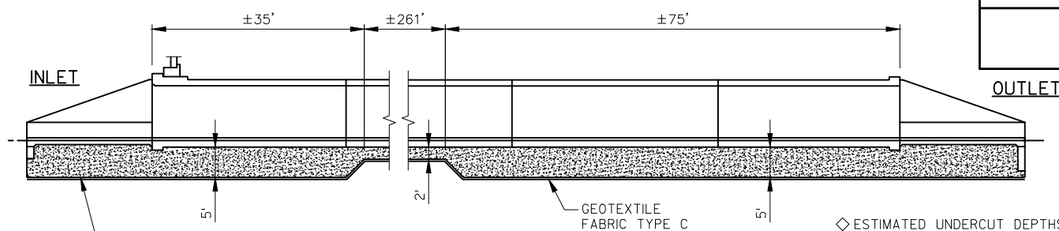
SECTION A - A

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

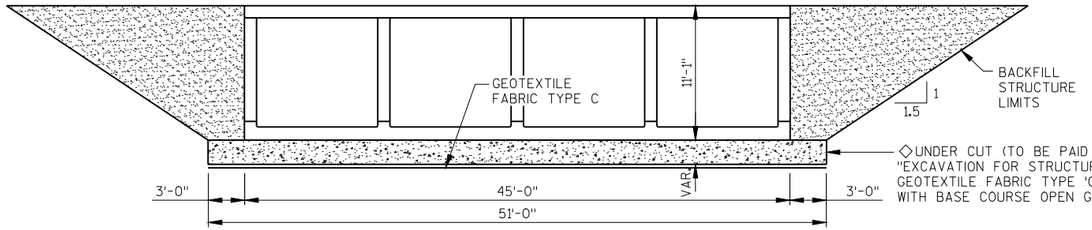


ELEVATION OF OUTLET WINGS
(OUTLET ONLY)

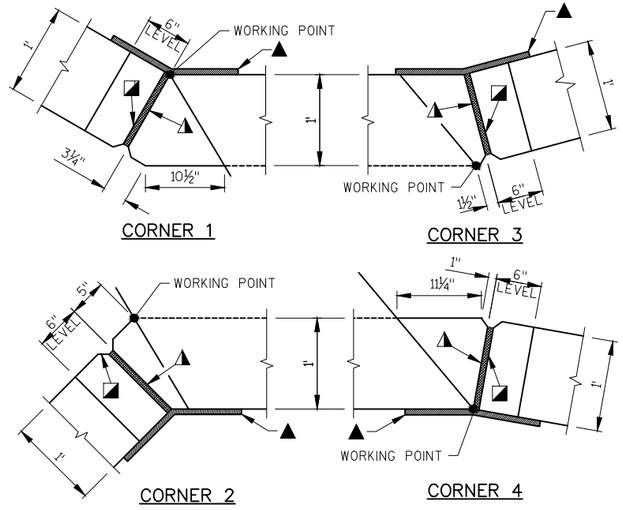


UNDERCUT DETAIL

◇ESTIMATED UNDERCUT DEPTHS VARY FROM 2' AT EXISTING ROADBED LOCATION TO 5' AT ENDS OF CULVERT AS SHOWN IN UNDERCUT DETAIL. UNDERCUT DEPTHS SHOWN ARE BASED ON SOILS REPORT RECOMMENDATIONS. ACTUAL REQ'D. DEPTHS MAY VARY AND SHOULD BE BASED ON FIELD CONDITIONS OBSERVED DURING EXCAVATION AND AS DIRECTED BY FIELD ENGINEER.



BACKFILL STRUCTURE DETAILS

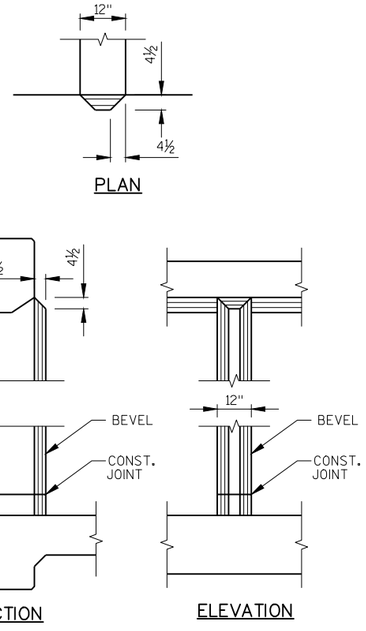


▲ ¾" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

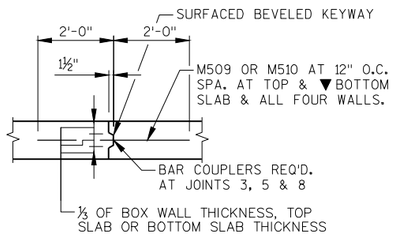
◪ 1" BEVEL TYPICAL

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

CORNER DETAILS



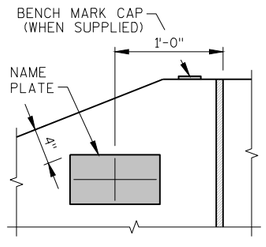
INLET NOSE CENTERWALL DETAILS



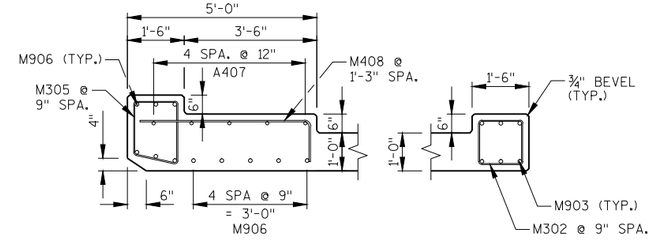
TYPICAL CONSTRUCTION JOINT

BAR COUPLERS REQ'D. FOR BARS CROSSING THROUGH CONSTRUCTION JOINTS 3, 5 & 8 AT THE BOUNDARY BETWEEN STAGED CONSTRUCTION. IN LIEU OF BAR COUPLERS, THE CONTRACTOR MAY ELECT TO SUBSTITUTE THE PAIR OF 2' BARS AND BAR COUPLERS WITH A 3'-3" BAR AND EPOXY ANCHOR WITH A 1'-3" MIN EMBEDMENT. PAYMENT TO BE BASED ON THE PLANS AS DETAILED.

▼ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAWCUTS WITHIN 12 HOURS AFTER POURING.



NAME PLATE LOCATION
WING 4



HEADER SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

DRAWN BY PTB | PLANS CK'D. MEM

DETAILS

SHEET 13 OF 14

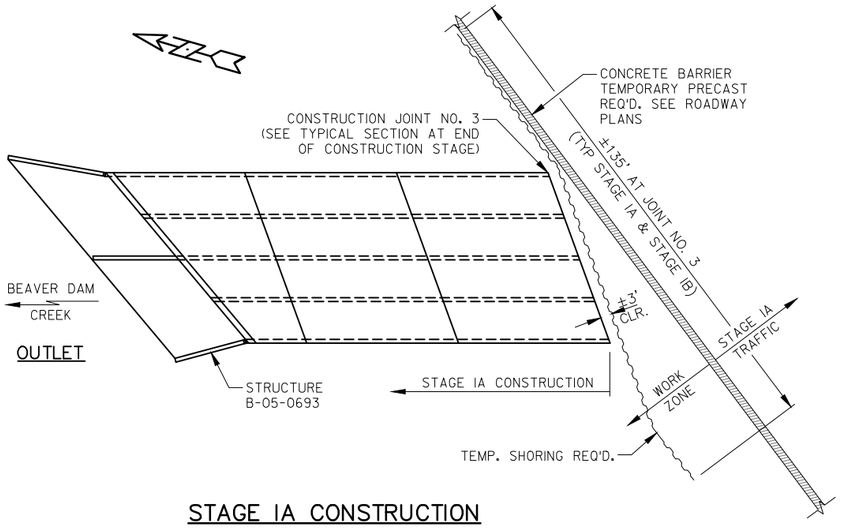
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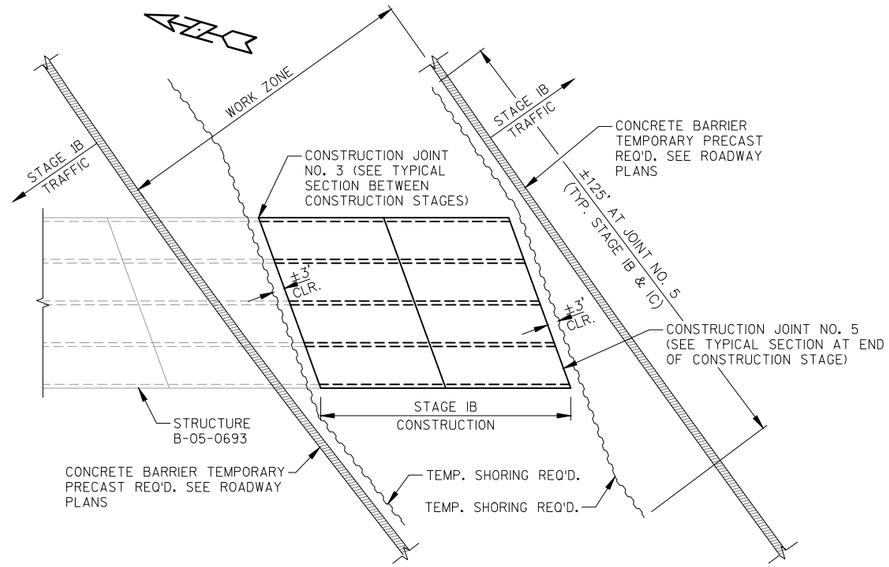
FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-693_13_ARCH SURF TREAT DETAILS.DWG
LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:14:10 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

STATE PROJECT NUMBER

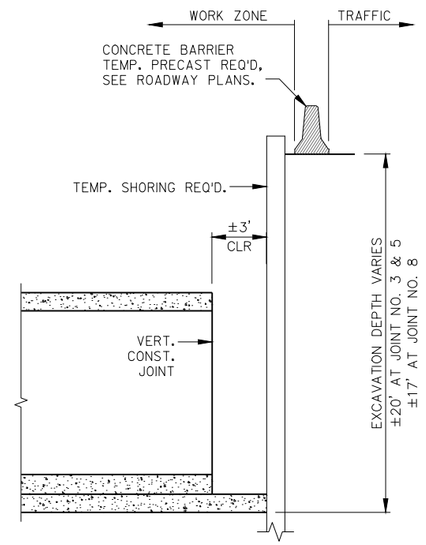
1133-11-75



STAGE IA CONSTRUCTION



STAGE IB CONSTRUCTION

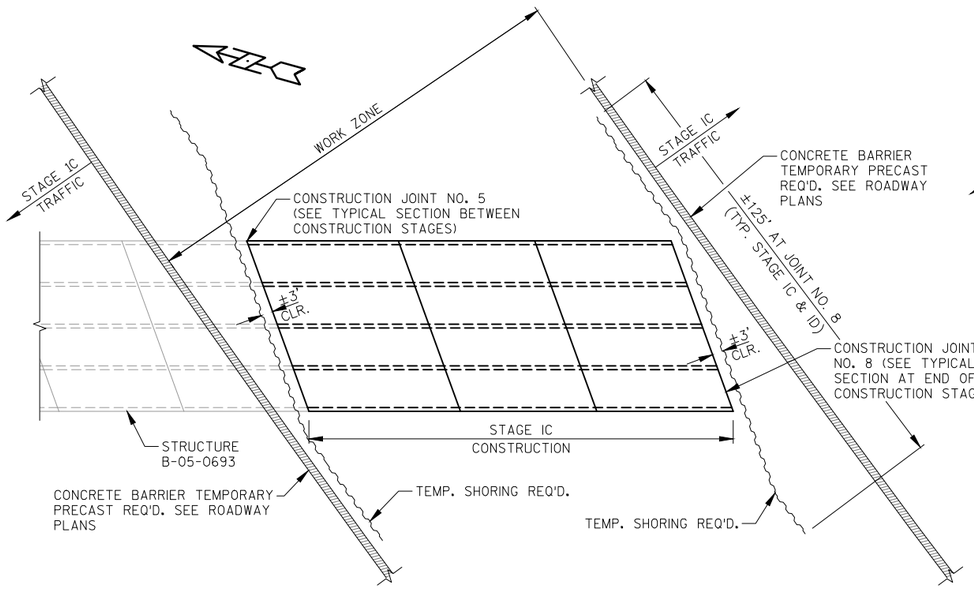


TYPICAL SECTION AT END OF CONSTRUCTION STAGE

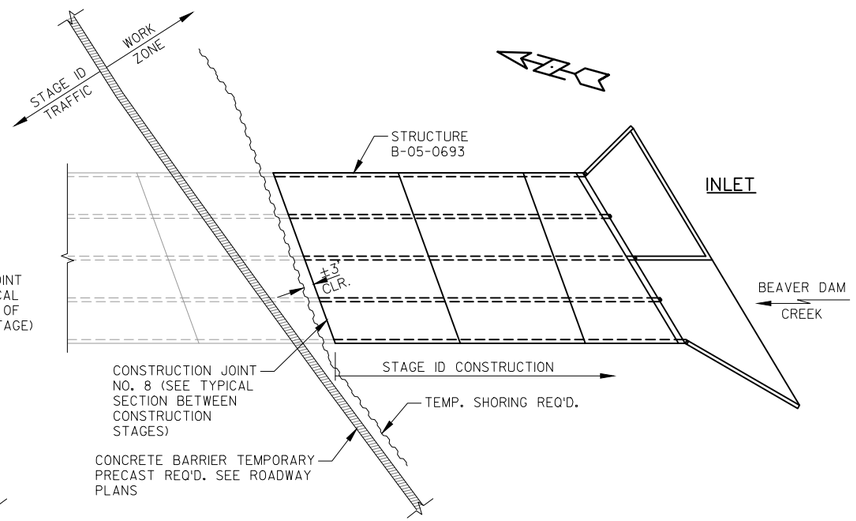
NOTES

SEE ROADWAY PLANS FOR TRAFFIC STAGING DETAILS INCLUDING LOCATION AND DIRECTION OF TRAFFIC LANES AND LOCATION OF CONCRETE BARRIER TEMPORARY PRECAST.

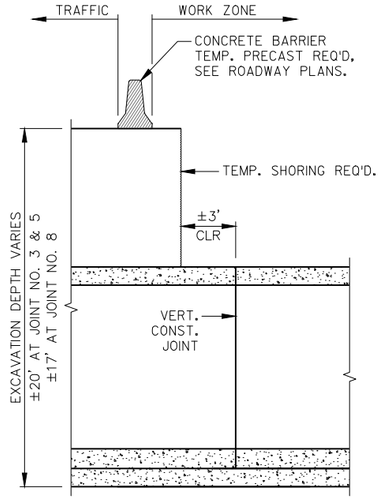
CONSTRUCTION DETAILS AND TEMPORARY SHORING LOCATIONS SHOWN ON THIS SHEET PRESENT ONE POSSIBLE CONSTRUCTION METHOD. ALTERNATE METHODS AND LOCATIONS MAY BE ACCEPTABLE PROVIDED THEY MEET THE APPROVAL OF THE FIELD ENGINEER.



STAGE IC CONSTRUCTION



STAGE ID CONSTRUCTION



TYPICAL SECTION BETWEEN CONSTRUCTION STAGES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-05-0693

Drawn By PTB | Plans Checked MEM

STAGING DETAILS

SHEET 14 OF 14

8

8

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS (ALL CULVERTS)\W11444 1133-10-00 (B-05-693)\CADD FILES\STRUCTURE\B-05-0693_14_STAGING DETAILS.DWG
LAYOUT : LAYOUT1
PLOT DATE : 2/17/2012
PLOT TIME : 10:14:17 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

Project ID 1133-11-86
Earthwork - Stormwater Pond

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
223+00.00	481.6	0	0	0	0	0	0	0				
224+00.00	1,338.2	955.0	0	0	3,370	1,769	0	0	3,370	2,211	0	1,159
225+00.00	2,009.9	841.7	0	0	6,200	3,327	0	0	9,570	6,370	0	3,200
226+00.00	1,688.0	627.0	0	0	6,848	2,720	0	0	16,418	9,769	0	6,648
227+00.00	2,048.1	424.5	0	0	6,919	1,947	0	0	23,337	12,203	0	11,133
228+00.00	2,397.4	390.0	0	0	8,232	1,508	0	0	31,569	14,089	0	17,480
229+00.00	3,406.1	194.2	0	0	10,747	1,082	0	0	42,316	15,441	0	26,875
230+00.00	0	0	0	0	6,308	360	0	0	48,624	15,891	0	32,733
					48,624	12,713	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-10-80
Earthwork - IS

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
57+32.24	251.4	0	0	0								
57+60.00	251.4	0	0	0	261	0	0	0	261	0	0	261
58+00.00	371.6	0	0	0	462	0	0	0	722	0	0	722
58+50.00	333.6	0	0	0	653	0	0	0	1,375	0	0	1,375
58+60.00	294.6	0	0	0	116	0	0	0	1,492	0	0	1,492
59+00.00	176.2	0	0	0	349	0	0	0	1,840	0	0	1,840
59+08.00	181.9	0	0	0	53	0	0	0	1,893	0	0	1,893
59+50.00	203.8	1	0	0	300	1	0	0	2,193	1	0	2,192
59+67.00	257.2	0	0	0	145	0	0	0	2,339	1	0	2,337
60+00.00	301.0	0	0	0	341	0	0	0	2,680	1	0	2,678
60+50.00	327.1	0	0	0	582	0	0	0	3,261	2	0	3,260
60+75.00	276.6	0	0	0	280	0	0	0	3,541	2	0	3,539
61+00.00	298.8	0	0	0	266	0	0	0	3,807	2	0	3,806
61+25.00	351.6	0	0	0	301	0	0	0	4,108	2	0	4,107
61+50.00	362.7	0	0	0	331	0	0	0	4,439	2	0	4,437
62+00.00	0	0	0	0	336	0	0	0	4,775	2	0	4,773
					4,775	1	0	0				

Project ID 1133-10-80
Earthwork - LG

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
10+81.82	343.8	0	0	0								
11+00.00	343.8	0	0	0	229	0	0	0	229	0	0	229
11+25.00	382.8	0	0	0	336	0	0	0	566	0	0	566
11+50.00	310.2	0	0	0	321	0	0	0	886	0	0	886
11+75.00	115.3	0	0	0	197	0	0	0	1,083	0	0	1,083
11+87.00	51.4	0	0	0	37	0	0	0	1,121	0	0	1,121
12+00.00	0	0	0	0	12	0	0	0	1,133	0	0	1,133
					1,133	0	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - BDC-TBDC (cut)

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
207+50.00	0	0	0	0								
208+00.00	57.4	0	0	0	53	0	0	0	53	0	0	53
208+50.00	169.9	0	0	0	211	0	0	0	264	0	0	264
209+00.00	691.5	0	0	0	798	0	0	0	1,061	0	0	1,061
209+50.00	1,061.2	0	0	0	1,623	0	0	0	2,684	0	0	2,684
210+00.00	983.8	0	0	0	1,894	0	0	0	4,578	0	0	4,578
210+50.00	1,113.2	0	0	0	1,942	0	0	0	6,519	0	0	6,519
211+00.00	1,124.0	0	0	0	2,071	0	0	0	8,591	0	0	8,591
211+50.00	959.7	0	0	0	1,929	0	0	0	10,520	0	0	10,520
212+00.00	960.9	0	0	0	1,778	0	0	0	12,298	0	0	12,298
212+50.00	846.3	0	0	0	1,673	0	0	0	13,972	0	0	13,972
213+00.00	709.2	0	0	0	1,440	0	0	0	15,412	0	0	15,412
213+50.00	585.5	0	0	0	1,199	0	0	0	16,611	0	0	16,611
214+00.00	506.7	0	0	0	1,011	0	0	0	17,622	0	0	17,622
214+50.00	331.7	0	0	0	776	0	0	0	18,399	0	0	18,399
215+00.00	188.4	0	0	0	482	0	0	0	18,880	0	0	18,880
215+50.00	149.9	0	0	0	313	0	0	0	19,193	0	0	19,193
216+00.00	80.8	0	0	0	214	0	0	0	19,407	0	0	19,407
216+50.00	49.6	0	0	0	121	0	0	0	19,528	0	0	19,528
217+00.00	15.7	0	0	0	61	0	0	0	19,588	0	0	19,588
217+22.00	15.7	0	0	0	13	0	0	0	19,601	0	0	19,601
					19,601	0	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

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Project ID 1133-11-75
Earthw ork - BSM

STATION	AREA (SF) Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Incremental Vol (CY) (Unadjusted) Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1154+10.00	24.7	0	0	0								
1154+50.00	24.7	0	0	0	37	0	0	0	37	0	0	37
1155+00.00	35.0	0	0	0	55	0	0	0	92	0	0	92
1155+50.00	38.0	0.0	0	0	68	0	0	0	160	0	0	160
1156+00.00	32.2	3.9	0	0	65	4	0	0	225	5	0	220
1156+50.00	39.5	1.9	0	0	66	5	0	0	291	11	0	280
1157+00.00	47.1	4.4	0	0	80	6	0	0	371	19	0	353
1157+50.00	60.0	5.7	0	0	99	9	0	0	470	30	0	440
1157+85.00	64.9	18.5	0	0	81	16	0	0	551	50	0	501
1158+00.00	48.0	10.5	0	0	31	8	0	0	583	60	0	523
1158+50.00	51.8	6.3	0	0	92	16	0	0	675	79	0	596
1159+00.00	48.4	4.7	0	0	93	10	0	0	768	92	0	676
1159+50.00	48.3	3.9	0	0	90	8	0	0	857	102	0	755
1160+00.00	55.0	1.4	0	0	96	5	0	0	953	108	0	845
1160+50.00	53.7	2.6	0	0	101	4	0	0	1,054	113	0	941
1161+00.00	52.7	5.3	0	0	99	7	0	0	1,152	122	0	1,030
1161+50.00	51.7	5.5	0	0	97	10	0	0	1,249	134	0	1,115
1162+00.00	54.2	4.3	0	0	98	9	0	0	1,347	146	0	1,201
1162+50.00	50.8	4.2	0	0	97	8	0	0	1,444	156	0	1,289
1163+00.00	46.8	7.6	0	0	90	11	0	0	1,534	169	0	1,365
1163+50.00	50.4	8.8	0	0	90	15	0	0	1,624	188	0	1,436
1164+00.00	50.7	7.0	0	0	94	15	0	0	1,718	207	0	1,511
1164+50.00	49.7	5.0	0	0	93	11	0	0	1,811	220	0	1,591
1165+00.00	54.2	0.1	0	0	96	5	0	0	1,907	226	0	1,681
1165+50.00	29.4	15.0	0	0	77	14	0	0	1,985	244	0	1,741
1166+00.00	34.6	7.0	0	0	59	20	0	0	2,044	269	0	1,775
1166+50.00	35.1	2.4	0	0	65	9	0	0	2,108	280	0	1,828
1167+00.00	31.5	0.9	0	0	62	3	0	0	2,170	284	0	1,886
1167+50.00	32.0	0.7	0	0	59	1	0	0	2,229	286	0	1,943
1168+00.00	30.9	0.9	0	0	58	1	0	0	2,287	288	0	2,000
1168+50.00	35.1	0	0	0	61	1	0	0	2,348	289	0	2,060
1169+00.00	35.4	0.1	0	0	65	0	0	0	2,414	289	0	2,125
1169+50.00	34.2	0.0	0	0	64	0	0	0	2,478	289	0	2,189
1170+00.00	35.1	0	0	0	64	0	0	0	2,542	289	0	2,254
1170+50.00	34.9	0	0	0	65	0	0	0	2,607	289	0	2,318
1171+00.00	38.6	0	0	0	68	0	0	0	2,675	289	0	2,386
1171+50.00	37.0	0	0	0	70	0	0	0	2,745	289	0	2,457
1172+00.00	40.2	0	0	0	71	0	0	0	2,817	289	0	2,528
1172+25.00	37.9	0	0	0	36	0	0	0	2,853	289	0	2,564
					2853	231	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - BSR

STATION	AREA (SF) Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Incremental Vol (CY) (Unadjusted) Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1151+75.00	43.7	277.4	459.1	0								
1152+00.00	47.5	254.3	468.3	0	42	246	429	0	42	308	537	-802
1152+50.00	50.0	222.3	465.0	0	90	441	864	0	132	859	1,617	-2,344
1153+00.00	47.1	212.7	447.5	0	90	403	845	0	222	1,363	2,673	-3,813
1153+50.00	46.8	194.5	439.3	0	87	377	821	0	309	1,834	3,699	-5,224
1154+00.00	40.8	198.4	409.6	0	81	364	786	0	390	2,289	4,682	-6,580
1154+50.00	114.9	188.6	401.2	0	144	358	751	0	535	2,737	5,620	-7,822
1155+00.00	122.8	210.3	403.7	0	220	369	745	0	755	3,198	6,552	-8,995
1155+50.00	126.9	199.7	395.421	0	231	380	740	0	986	3,673	7,477	-10,164
1156+00.00	108.9	157.2	422.512	0	218	330	757	0	1,204	4,086	8,423	-11,305
1156+50.00	141.9	95.2	483.138	0	232	234	839	0	1,436	4,378	9,471	-12,413
1157+00.00	90.2	85.5	479.191	0	215	167	891	0	1,651	4,587	10,585	-13,521
1157+50.00	111.6	58.3	499.827	0	187	133	906	0	1,838	4,754	11,718	-14,634
1158+00.00	163.1	38.9	514.142	0	254	90	939	0	2,093	4,866	12,892	-15,666
1158+50.00	6.1	43.0	503.037	0	157	76	942	0	2,249	4,961	14,069	-16,781
1159+00.00	3.7	30.8	508.268	0	9	68	936	0	2,258	5,047	15,240	-18,028
1159+50.00	0	53.9	473.735	0	3	78	909	0	2,262	5,145	16,376	-19,259
1160+00.00	4.5	48.6	490.173	0	4	95	893	0	2,266	5,263	17,492	-20,490
1160+50.00	1.8	52.1	506.173	0	6	93	923	0	2,272	5,380	18,645	-21,753
1161+00.00	0	80.5	547.554	0	2	123	976	0	2,273	5,533	19,865	-23,125
1161+50.00	0	88.8	723.908	0	0	157	1177	0	2,273	5,729	21,336	-24,793
1162+00.00	0	112.2	435.5	0	0	186	1073	0	2,273	5,962	22,678	-26,367
1162+50.00	0	164.2	434.1	0	0	256	805	0	2,273	6,282	23,685	-27,693
1163+00.00	13.6	230.1	428.2	0	13	365	798	0	2,286	6,738	24,683	-29,135
1163+50.00	111.0	276.9	589.972	0	115	469	943	0	2,401	7,325	25,861	-30,785
1164+00.00	57.1	366.7	542.249	0	156	596	1048	0	2,557	8,070	27,171	-32,685
1164+50.00	31.5	439.7	505.463	0	82	747	970	0	2,639	9,003	28,384	-34,748
1165+00.00	31.0	49.3	413.5	0	58	453	851	0	2,697	9,569	29,448	-36,320
1165+50.00	32.7	11.0	148.7	0	59	56	521	0	2,756	9,639	30,098	-36,982
1166+00.00	29.2	4.5	151.3	0	57	14	278	0	2,813	9,657	30,446	-37,289
1166+50.00	28.5	1.5	151.3	0	53	6	280	0	2,866	9,664	30,796	-37,593
1167+00.00	26.9	0	164.0	0	51	1	292	0	2,918	9,666	31,161	-37,908
1167+12.00	26.9	0	164.0	0	12	0	73	0	2,930	9,666	31,252	-37,988
1167+50.00	0	0	168.552	0	19	0	234	0	2,949	9,666	31,544	-38,261
1168+00.00	0	0	161.574	0	0	0	306	0	2,949	9,666	31,926	-38,643
1168+50.00	0	0	160.556	0	0	0	298	0	2,949	9,666	32,299	-39,016
1169+00.00	0	0	154.7	0	0	0	292	0	2,949	9,666	32,664	-39,381
1169+50.00	0	0	127.381	0	0	0	261	0	2,949	9,666	32,991	-39,707
1170+00.00	0	0	113.392	0	0	0	223	0	2,949	9,666	33,269	-39,986
1170+50.00	0	0	101.528	0	0	0	199	0	2,949	9,666	33,518	-40,235
1171+00.00	0	0	99.873	0	0	0	186	0	2,949	9,666	33,751	-40,468
					2,949	7,732	27,001	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - BDC-TBDC (fill)

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
207+50.00	0	0	0	0								
208+00.00	0	74.0	0	360.0	0	69	0	333	0	86	0	-86
208+50.00	0	91.8	401.1	360.0	0	154	371	667	0	278	464	-742
209+00.00	0	328.3	201.4	337.0	0	389	558	645	0	764	1,162	-1,926
209+50.00	0	295.9	187.7	331.1	0	578	360	619	0	1,486	1,612	-3,098
210+00.00	0	296.0	196.4	336.2	0	548	356	618	0	2,171	2,057	-4,228
210+50.00	0	299.1	201.1	338.5	0	551	368	625	0	2,860	2,517	-5,377
211+00.00	0	303.2	192.9	334.1	0	558	365	623	0	3,557	2,973	-6,530
211+50.00	0	296.1	201.1	335.4	0	555	365	620	0	4,251	3,429	-7,680
212+00.00	0	281.7	200.7	334.1	0	535	372	620	0	4,920	3,894	-8,813
212+50.00	0	309.8	190.8	327.3	0	548	362	612	0	5,604	4,347	-9,951
213+00.00	0	303.3	191.9	327.4	0	568	354	606	0	6,314	4,790	-11,104
213+50.00	0	284.8	162.3	324.8	0	545	328	604	0	6,995	5,199	-12,194
214+00.00	0	268.7	142.9	330.7	0	512	283	607	0	7,635	5,553	-13,188
214+50.00	0	256.3	139.5	344.0	0	486	261	625	0	8,243	5,880	-14,123
215+00.00	0	238.7	148.0	355.2	0	458	266	647	0	8,816	6,212	-15,028
215+50.00	0	229.1	464.0	166.6	0	433	567	483	0	9,357	6,920	-16,278
216+00.00	0	202.0	531.9	166.6	0	399	922	309	0	9,856	8,073	-17,929
216+50.00	0	174.5	600.3	166.6	0	349	1,048	309	0	10,292	9,384	-19,676
217+00.00	0	157.1	402.0	280.0	0	307	928	413	0	10,676	10,544	-21,219
217+22.00	0	157.1	424.6	280.0	0	128	337	228	0	10,836	10,965	-21,800
					0	8,669	8,772	10,812				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - CNM

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1150+00.00	52.3	319.0	454.6	360.1								
1150+50.00	61.8	317.9	437.6	360.0	106	590	826	667	106	737	1,033	-1,664
1151+00.00	74.2	304.7	431.3	360.0	126	576	805	667	232	1,458	2,038	-3,265
1151+50.00	76.0	291.2	416.4	360.0	139	552	785	667	371	2,147	3,020	-4,796
1152+00.00	33.6	0	0	0	101	270	386	0	472	2,484	3,501	-5,514
1152+50.00	33.6	0	0	0	62	0	0	0	534	2,484	3,501	-5,452
1153+00.00	33.7	9.4	0	0	62	9	0	0	597	2,495	3,501	-5,400
1153+50.00	33.6	17.3	0	0	62	25	0	0	659	2,526	3,501	-5,369
1154+00.00	33.4	21.5	0	0	62	36	0	0	721	2,571	3,501	-5,351
1154+50.00	33.8	24.3	0	0	62	42	0	0	783	2,624	3,501	-5,342
1155+00.00	33.0	33.9	0	0	62	54	0	0	845	2,691	3,501	-5,348
1155+50.00	34.4	33.5	0	0	62	62	0	0	907	2,769	3,501	-5,363
1156+00.00	36.2	31.9	0	0	65	61	0	0	973	2,845	3,501	-5,374
1156+50.00	34.0	43.8	0	0	65	70	0	0	1,038	2,933	3,501	-5,396
1157+00.00	30.4	54.9	0	0	60	91	0	0	1,098	3,047	3,501	-5,451
1157+50.00	26.5	76.7	0	0	53	122	0	0	1,150	3,199	3,501	-5,550
1157+80.00	91.4	91.9	0	0	65	94	0	0	1,216	3,316	3,501	-5,602
1158+00.00	81.4	101.1	0	0	64	72	0	0	1,280	3,405	3,501	-5,627
1158+50.00	26.2	107.5	0	0	100	193	0	0	1,379	3,647	3,501	-5,769
1159+00.00	26.8	105.7	0	0	49	197	0	0	1,428	3,894	3,501	-5,967
1159+50.00	27.9	93.5	0	0	51	184	0	0	1,479	4,124	3,501	-6,147
1160+00.00	27.2	94.4	0	0	51	174	0	0	1,530	4,342	3,501	-6,313
1160+50.00	27.1	81.0	0	0	50	162	0	0	1,581	4,545	3,501	-6,466
1161+00.00	26.4	76.8	0	0	50	146	0	0	1,630	4,728	3,501	-6,599
1161+50.00	27.7	145.4	252.2	0	50	206	234	0	1,680	4,985	3,793	-7,098
1162+00.00	26.7	133.8	265.7	0	50	259	480	0	1,731	5,308	4,393	-7,970
1162+50.00	32.2	134.4	263.2	0	55	248	490	0	1,785	5,618	5,005	-8,838
1163+00.00	38.6	148.5	244.2	0	66	262	470	0	1,851	5,946	5,592	-9,687
1163+50.00	43.8	167.1	205.5	0	76	292	416	0	1,927	6,311	6,113	-10,497
1164+00.00	48.7	20.3	123.1	0	86	174	304	0	2,013	6,528	6,493	-11,008
1164+50.00	88.8	76.7	192.1	375.4	127	90	292	0	2,140	6,640	6,858	-11,358
1165+00.00	90.3	106.9	238.4	265.9	166	170	399	594	2,306	6,853	7,356	-11,903
1165+50.00	85.3	59.0	266.4	363.3	163	154	467	583	2,469	7,045	7,940	-12,517
1166+00.00	100.4	56.2	250.4	364.9	172	107	478	674	2,640	7,178	8,538	-13,076
1166+50.00	127.7	66.7	250.4	369.9	211	114	464	680	2,852	7,320	9,118	-13,587
1167+00.00	43.0	102.6	242.0	378.1	158	157	456	693	3,010	7,516	9,688	-14,194
1167+50.00	47.8	127.3	271.8	387.7	84	213	476	709	3,094	7,782	10,283	-14,971
1167+85.00	55.5	120.7	322.6	393.6	67	161	385	506	3,161	7,983	10,764	-15,587
1168+00.00	35.7	42.7	0	0	84	151	299	364	3,245	8,172	11,137	-16,065
1168+50.00	35.0	18.6	0	0	65	57	0	0	3,310	8,243	11,137	-16,070
1169+00.00	34.2	4.5	0	0	64	21	0	0	3,375	8,270	11,137	-16,033
1169+50.00	37.0	0	0	0	66	4	0	0	3,440	8,275	11,137	-15,972
1170+00.00	38.2	0	0	0	70	0	0	0	3,510	8,275	11,137	-15,903
1170+25.00	38.2	0	0	0	35	0	0	0	3,545	8,275	11,137	-15,867
					3,545	6,620	8,910	6,804				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthw ork - CSM

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1156+00.00	18.8	0	0	0								
1156+50.00	24.4	0	0	0	40	0	0	0	40	0	0	40
1157+00.00	28.3	0	0	0	49	0	0	0	89	0	0	89
1157+50.00	33.3	0	0	0	57	0	0	0	146	0	0	146
1158+00.00	39.3	0	0	0	67	0	0	0	213	0	0	213
1158+50.00	42.9	0	0	0	76	0	0	0	289	0	0	289
1159+00.00	45.6	0	0	0	82	0	0	0	371	0	0	371
1159+50.00	43.3	0	0	0	82	0	0	0	454	0	0	454
1160+00.00	44.0	0	0	0	81	0	0	0	534	0	0	534
1160+50.00	43.5	0	0	0	81	0	0	0	615	0	0	615
1161+00.00	43.6	0	0	0	81	0	0	0	696	0	0	696
1161+50.00	41.7	0	0	0	79	0	0	0	775	0	0	775
1162+00.00	37.3	0	0	0	73	0	0	0	848	0	0	848
1162+50.00	31.4	1.0	0	0	64	1	0	0	912	1	0	911
1163+00.00	23.3	5.4	0	0	51	6	0	0	962	9	0	954
1163+50.00	66.1	12.9	0	0	83	17	0	0	1,045	30	0	1,015
1164+00.00	60.6	9.2	0	0	117	20	0	0	1,162	55	0	1,107
1164+50.00	54.8	10.0	0	0	107	18	0	0	1,269	78	0	1,192
1165+00.00	47.5	9.8	0	0	95	18	0	0	1,364	100	0	1,264
1165+50.00	35.1	11.6	0	0	76	20	0	0	1,440	125	0	1,315
1166+00.00	33.2	27.2	0	0	63	36	0	0	1,504	170	0	1,334
1166+50.00	32.9	26.6	0	0	61	50	0	0	1,565	232	0	1,332
1167+00.00	35.0	32.9	0	0	63	55	0	0	1,628	301	0	1,327
1167+50.00	34.3	39.4	0	0	64	67	0	0	1,692	385	0	1,307
1168+00.00	32.9	37.2	0	0	62	71	0	0	1,754	474	0	1,281
1168+50.00	32.6	25.5	0	0	61	58	0	0	1,815	546	0	1,269
1169+00.00	32.9	12.9	0	0	61	36	0	0	1,876	591	0	1,285
1169+50.00	33.0	1.0	0	0	61	13	0	0	1,937	607	0	1,330
1170+00.00	33.9	0.0	0	0	62	1	0	0	1,999	608	0	1,391
1170+50.00	35.1	0.0	0	0	64	0	0	0	2,063	608	0	1,455
1171+00.00	35.1	0.0	0	0	65	0	0	0	2,128	608	0	1,520
1171+50.00	34.1	0.3	0	0	64	0	0	0	2,192	608	0	1,583
1172+00.00	33.6	1.7	0	0	63	2	0	0	2,254	611	0	1,644
1172+25.00	35.4	2.5	0	0	32	2	0	0	2,286	613	0	1,673
					2,286	490	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - DNM

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1149+65.00	16.7	0	0	0								
1150+00.00	16.7	0	0	0	22	0	0	0	22	0	0	22
1150+50.00	28.6	0	0	0	42	0	0	0	64	0	0	64
1151+00.00	39.9	0	0	0	63	0	0	0	127	0	0	127
1151+50.00	50.3	0	0	0	84	0	0	0	210	0	0	210
1152+00.00	60.5	0	0	0	103	0	0	0	313	0	0	313
1152+50.00	67.0	0	0	0	118	0	0	0	431	0	0	431
1153+00.00	68.5	0	0	0	126	0	0	0	557	0	0	557
1153+50.00	75.6	0	0	0	133	0	0	0	690	0	0	690
1154+00.00	46.5	2.3	0	0	113	2	0	0	803	3	0	800
1154+50.00	44.2	24.8	0	0	84	25	0	0	887	34	0	853
1155+00.00	36.7	47.5	0	0	75	67	0	0	962	118	0	844
1155+50.00	33.4	49.1	0	0	65	89	0	0	1,027	230	0	797
1156+00.00	34.3	37.3	0	0	63	80	0	0	1,090	330	0	760
1156+50.00	38.9	27.8	0	0	68	60	0	0	1,157	405	0	752
1157+00.00	38.6	33.8	0	0	72	57	0	0	1,229	476	0	753
1157+50.00	34.5	36.5	0	0	68	65	0	0	1,297	558	0	739
1157+85.00	32.8	36.9	0	0	37	41	0	0	1,334	609	0	726
1158+00.00	38.5	25.1	0	0	26	23	0	0	1,361	637	0	723
1158+50.00	38.9	19.8	0	0	72	42	0	0	1,432	689	0	743
1159+00.00	39.8	14.5	0	0	73	32	0	0	1,505	729	0	776
1159+50.00	34.4	15.3	0	0	69	28	0	0	1,574	764	0	810
1160+00.00	36.6	14.8	0	0	66	28	0	0	1,639	799	0	841
1160+50.00	35.5	15.1	0	0	67	28	0	0	1,706	833	0	873
1161+00.00	33.8	15.8	0	0	64	29	0	0	1,770	869	0	901
1161+50.00	35.0	15.2	0	0	64	29	0	0	1,834	905	0	929
1162+00.00	34.6	15.4	0	0	64	28	0	0	1,899	940	0	958
1162+50.00	34.9	15.2	0	0	64	28	0	0	1,963	976	0	987
1163+00.00	36.7	14.7	0	0	66	28	0	0	2,029	1,010	0	1,019
1163+50.00	37.0	14.8	0	0	68	27	0	0	2,097	1,045	0	1,053
1164+00.00	34.6	17.8	0	0	66	30	0	0	2,164	1,082	0	1,081
1164+50.00	36.5	19.3	0	0	66	34	0	0	2,230	1,125	0	1,104
1165+00.00	39.2	19.4	0	0	70	36	0	0	2,300	1,170	0	1,130
1165+50.00	39.0	24.0	0	0	72	40	0	0	2,372	1,220	0	1,152
1166+00.00	42.7	25.2	0	0	76	46	0	0	2,448	1,277	0	1,171
1166+50.00	45.4	31.7	0	0	82	53	0	0	2,530	1,343	0	1,186
1167+00.00	42.6	40.5	0	0	81	67	0	0	2,611	1,427	0	1,184
1167+50.00	39.1	39.5	0	0	76	74	0	0	2,687	1,519	0	1,167
1168+00.00	31.6	32.9	0	0	65	67	0	0	2,752	1,603	0	1,149
1168+50.00	23.8	18.9	0	0	51	48	0	0	2,803	1,663	0	1,141
1169+00.00	25.7	10.9	0	0	46	28	0	0	2,849	1,697	0	1,152
1169+50.00	30.0	4.7	0	0	52	14	0	0	2,901	1,715	0	1,185
1170+00.00	37.4	1.8	0	0	62	6	0	0	2,963	1,723	0	1,240
1170+50.00	33.3	0.3	0	0	65	2	0	0	3,029	1,725	0	1,304
1171+00.00	33.3	0.3	0	0	62	0	0	0	3,090	1,726	0	1,365
1171+50.00	10.9	0	0	0	41	0	0	0	3,131	1,726	0	1,405
1172+00.00	9.7	0	0	0	19	0	0	0	3,150	1,726	0	1,424
					3,150	1,381	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - BDC (West Side)

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
220+00.00	0	0	0	0								
220+15.50	2060.0	0	0	0	610	0	0	0	610	0	0	610
220+50.00	1105.0	0	0	0	1,993	0	0	0	2,603	0	0	2,603
221+00.00	945.0	0	0	0	1,898	0	0	0	4,501	0	0	4,501
221+50.00	941.0	0	0	0	1,746	0	0	0	6,248	0	0	6,248
222+00.00	800.0	0	0	0	1,612	0	0	0	7,860	0	0	7,860
222+50.00	810.0	0	0	0	1,491	0	0	0	9,350	0	0	9,350
223+00.00	921.0	0	0	0	1,603	0	0	0	10,953	0	0	10,953
223+50.00	920.0	0	0	0	1,705	0	0	0	12,658	0	0	12,658
224+00.00	916.0	0	0	0	1,700	0	0	0	14,358	0	0	14,358
224+50.00	920.0	0	0	0	1,700	0	0	0	16,058	0	0	16,058
225+00.00	940.0	0	0	0	1,722	0	0	0	17,780	0	0	17,780
225+50.00	875.0	0	0	0	1,681	0	0	0	19,461	0	0	19,461
226+00.00	762.0	0	0	0	1,516	0	0	0	20,976	0	0	20,976
226+50.00	705.0	0	0	0	1,358	0	0	0	22,335	0	0	22,335
227+00.00	775.0	0	0	0	1,370	0	0	0	23,705	0	0	23,705
227+50.00	950.0	0	0	0	1,597	0	0	0	25,302	0	0	25,302
228+00.00	700.0	22.0	0	0	1,528	20	0	0	26,830	25	0	26,805
228+50.00	295.0	0	0	0	921	20	0	0	27,751	51	0	27,700
229+00.00	50.0	0	0	0	319	0	0	0	28,071	51	0	28,020
229+13.00	0	0	0	0	12	0	0	0	28,083	51	0	28,032
229+50.00	0	0	0	0	0	0	0	0	28,083	51	0	28,032
					28,083	41	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

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Project ID 1133-11-75
Earthwork - DNM Median

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1154+00.00	40.6	5.686	0	0								
1154+50.00	71.3	9.176	0	0	104	14	0	0	104	17	0	86
1155+00.00	72.5	8.559	0	0	133	16	0	0	237	38	0	199
1155+50.00	74.1	6.902	0	0	136	14	0	0	372	56	0	317
1156+00.00	72.9	8.549	0	0	136	14	0	0	508	74	0	435
1156+50.00	73.5	7.721	0	0	136	15	0	0	644	92	0	552
1157+00.00	78.4	8.364	0	0	141	15	0	0	785	111	0	674
1157+50.00	82.4	8.592	0	0	149	16	0	0	933	131	0	803
1157+85.00	84.7	8.392	0	0	108	11	0	0	1,042	144	0	897
1158+00.00	82.4	8.655	0	0	46	5	0	0	1,088	150	0	938
1158+50.00	78.3	8.898	0	0	149	16	0	0	1,237	171	0	1,067
1159+00.00	76.0	8.783	0	0	143	16	0	0	1,380	191	0	1,189
1159+50.00	73.5	8.113	0	0	138	16	0	0	1,518	211	0	1,308
1160+00.00	73.3	8.411	0	0	136	15	0	0	1,654	230	0	1,425
1160+50.00	73.4	8.313	0	0	136	15	0	0	1,790	249	0	1,541
1161+00.00	73.5	8.085	0	0	136	15	0	0	1,926	268	0	1,658
1161+50.00	73.3	8.301	0	0	136	15	0	0	2,062	287	0	1,775
1162+00.00	73.4	8.029	0	0	136	15	0	0	2,198	306	0	1,892
1162+50.00	73.4	8.01	0	0	136	15	0	0	2,334	324	0	2,009
1163+00.00	73.1	8.185	0	0	136	15	0	0	2,470	343	0	2,126
1163+50.00	72.2	8.316	0	0	135	15	0	0	2,604	362	0	2,242
1164+00.00	71.1	8.019	0	0	133	15	0	0	2,737	381	0	2,355
1164+50.00	69.2	7.632	0	0	130	14	0	0	2,867	399	0	2,467
1165+00.00	66.5	7.339	0	0	126	14	0	0	2,992	417	0	2,576
1165+50.00	63.2	7.43	0	0	120	14	0	0	3,112	434	0	2,679
1166+00.00	58.8	7.419	0	0	113	14	0	0	3,225	451	0	2,774
1166+50.00	53.7	6.703	0	0	104	13	0	0	3,329	467	0	2,862
1167+00.00	47.6	5.516	0	0	94	11	0	0	3,423	481	0	2,942
1167+50.00	40.4	4.028	0	0	81	9	0	0	3,505	492	0	3,012
1168+00.00	32.0	1.692	0	0	67	5	0	0	3,572	499	0	3,073
1168+50.00	27.4	0.2	0	0	55	2	0	0	3,627	501	0	3,125
1169+00.00	14.7	2.887	0	0	39	3	0	0	3,666	505	0	3,161
1169+50.00	8.5	13.251	0	0	21	15	0	0	3,687	524	0	3,164
1170+00.00	3.7	11.256	0	0	11	23	0	0	3,698	552	0	3,147
					3,698	442	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - Temporary Pavement Removal (NMC)

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1150+50.00	8.8	0	0	0								
1151+00.00	8.8	0	0	0	16	0	0	0	16	0	0	16
1151+50.00	8.8	0	0	0	16	0	0	0	33	0	0	33
1152+00.00	8.8	0	0	0	16	0	0	0	49	0	0	49
1152+50.00	8.8	0	0	0	16	0	0	0	65	0	0	65
1153+00.00	8.8	0	0	0	16	0	0	0	81	0	0	81
1153+50.00	8.8	0	0	0	16	0	0	0	98	0	0	98
1154+00.00	8.8	0	0	0	16	0	0	0	114	0	0	114
1154+50.00	8.8	0	0	0	16	0	0	0	130	0	0	130
1155+00.00	8.8	0	0	0	16	0	0	0	147	0	0	147
1155+50.00	8.8	0	0	0	16	0	0	0	163	0	0	163
1156+00.00	8.8	0	0	0	16	0	0	0	179	0	0	179
1156+50.00	8.8	0	0	0	16	0	0	0	196	0	0	196
1157+00.00	8.8	0	0	0	16	0	0	0	212	0	0	212
1157+50.00	8.8	0	0	0	16	0	0	0	228	0	0	228
1158+00.00	8.8	0	0	0	16	0	0	0	244	0	0	244
1158+50.00	8.8	0	0	0	16	0	0	0	261	0	0	261
1159+00.00	8.8	0	0	0	16	0	0	0	277	0	0	277
1159+50.00	8.8	0	0	0	16	0	0	0	293	0	0	293
1160+00.00	8.8	0	0	0	16	0	0	0	310	0	0	310
1160+50.00	8.8	0	0	0	16	0	0	0	326	0	0	326
1161+00.00	8.8	0	0	0	16	0	0	0	342	0	0	342
1161+50.00	8.8	0	0	0	16	0	0	0	359	0	0	359
1162+00.00	8.8	0	0	0	16	0	0	0	375	0	0	375
1162+50.00	8.8	0	0	0	16	0	0	0	391	0	0	391
1163+00.00	8.8	0	0	0	16	0	0	0	407	0	0	407
1163+50.00	8.8	0	0	0	16	0	0	0	424	0	0	424
1164+00.00	8.8	0	0	0	16	0	0	0	440	0	0	440
1164+50.00	8.8	0	0	0	16	0	0	0	456	0	0	456
1165+00.00	17.6	0	0	0	24	0	0	0	481	0	0	481
1165+50.00	17.6	0	0	0	33	0	0	0	513	0	0	513
1166+00.00	17.6	0	0	0	33	0	0	0	546	0	0	546
1166+50.00	17.6	0	0	0	33	0	0	0	579	0	0	579
1167+00.00	17.6	0	0	0	33	0	0	0	611	0	0	611
1167+50.00	8.8	0	0	0	24	0	0	0	636	0	0	636
1168+00.00	8.8	0	0	0	16	0	0	0	652	0	0	652
1168+50.00	8.8	0	0	0	16	0	0	0	668	0	0	668
1169+00.00	8.8	0	0	0	16	0	0	0	684	0	0	684
1169+50.00	8.8	0	0	0	16	0	0	0	701	0	0	701
1170+00.00	8.8	0	0	0	16	0	0	0	717	0	0	717
1170+50.00	8.8	0	0	0	16	0	0	0	733	0	0	733
					733	0	0	0				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthwork - Temporary Pavement Removal (SMC)

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1151+50.00	8.8	0	0	0								
1152+00.00	8.8	0	0	0	16	0	0	0	16	0	0	16
1152+50.00	8.8	0	0	0	16	0	0	0	33	0	0	33
1153+00.00	8.8	0	0	0	16	0	0	0	49	0	0	49
1153+50.00	8.8	0	0	0	16	0	0	0	65	0	0	65
1154+00.00	8.8	0	0	0	16	0	0	0	81	0	0	81
1154+50.00	8.8	0	0	0	16	0	0	0	98	0	0	98
1155+00.00	8.8	0	0	0	16	0	0	0	114	0	0	114
1155+50.00	8.8	0	0	0	16	0	0	0	130	0	0	130
1156+00.00	8.8	0	0	0	16	0	0	0	147	0	0	147
1156+50.00	8.8	0	0	0	16	0	0	0	163	0	0	163
1157+00.00	8.8	0	0	0	16	0	0	0	179	0	0	179
1157+50.00	8.8	0	0	0	16	0	0	0	196	0	0	196
1158+00.00	8.8	0	0	0	16	0	0	0	212	0	0	212
1158+50.00	8.8	0	0	0	16	0	0	0	228	0	0	228
1159+00.00	8.8	0	0	0	16	0	0	0	244	0	0	244
1159+50.00	8.8	0	0	0	16	0	0	0	261	0	0	261
1160+00.00	8.8	0	0	0	16	0	0	0	277	0	0	277
1160+50.00	8.8	0	0	0	16	0	0	0	293	0	0	293
1161+00.00	8.8	0	0	0	16	0	0	0	310	0	0	310
1161+50.00	8.8	0	0	0	16	0	0	0	326	0	0	326
1162+00.00	8.8	0	0	0	16	0	0	0	342	0	0	342
1162+50.00	8.8	0	0	0	16	0	0	0	359	0	0	359
1163+00.00	8.8	0	0	0	16	0	0	0	375	0	0	375
1163+50.00	8.8	0	0	0	16	0	0	0	391	0	0	391
1164+00.00	17.6	0	0	0	24	0	0	0	416	0	0	416
1164+50.00	17.6	0	0	0	33	0	0	0	448	0	0	448
1165+00.00	17.6	0	0	0	33	0	0	0	481	0	0	481
1165+50.00	17.6	0	0	0	33	0	0	0	513	0	0	513
1166+00.00	17.6	0	0	0	33	0	0	0	546	0	0	546
1166+50.00	17.6	0	0	0	33	0	0	0	579	0	0	579
1167+00.00	17.6	0	0	0	33	0	0	0	611	0	0	611
1167+50.00	8.8	0	0	0	24	0	0	0	636	0	0	636
1168+00.00	8.8	0	0	0	16	0	0	0	652	0	0	652
1168+50.00	8.8	0	0	0	16	0	0	0	668	0	0	668
1169+00.00	8.8	0	0	0	16	0	0	0	684	0	0	684
1169+50.00	8.8	0	0	0	16	0	0	0	701	0	0	701
1170+00.00	8.8	0	0	0	16	0	0	0	717	0	0	717
1170+50.00	8.8	0	0	0	16	0	0	0	733	0	0	733
1171+00.00	8.8	0	0	0	16	0	0	0	750	0	0	750
1171+50.00	8.8	0	0	0	16	0	0	0	766	0	0	766
1172+00.00	8.8	0	0	0	16	0	0	0	782	0	0	782
1172+50.00	8.8	0	0	0	16	0	0	0	799	0	0	799
					799	0	0	0				

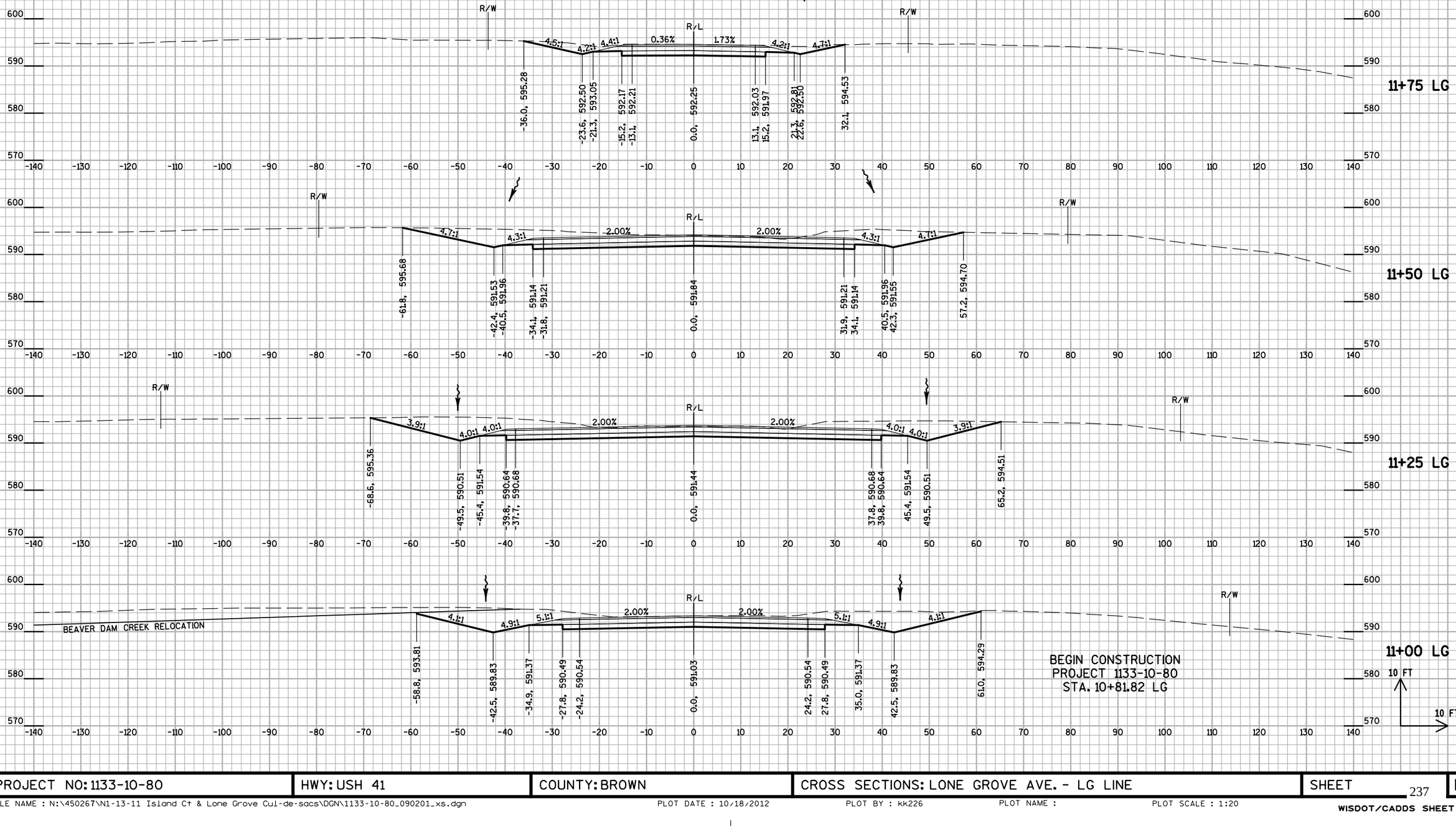
Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

Project ID 1133-11-75
Earthw ork - BDF

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Fill	Marsh Exc	Toe Trench Marsh Ex	Cut Note 1	Fill Note 3	Marsh Exc	Toe Trench Marsh Ex	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.25 Note 4	Mass Ordinate Note 8
1160+50.00	78	120.8	0	0								
1161+00.00	52	127.5	0	280.0	120	230	0	0	120	287	0	-167
1161+50.00	44	199.1	0	445.6	89	302	0	672	209	665	0	-456
1162+00.00	38	215.3	0	427.3	76	384	0	808	285	1,145	0	-860
1162+50.00	27	242.4	0	411.5	60	424	0	777	345	1,675	0	-1,329
1163+00.00	0	277.7	0	394.6	25	482	0	746	370	2,277	0	-1,906
1163+50.00	27.6	261.7	0	376.6	26	499	0	714	396	2,901	0	-2,505
1164+00.00	0	453.2	0	311.4	26	662	0	637	421	3,728	0	-3,307
1164+50.00	7.1	114.0	0	375.4	7	525	0	636	428	4,385	0	-3,957
					428	3,508	0	4,990				

Notes:	
1 - Cut	Cut includes existing asphalt pavement
3 - Fill	Unexpanded
4 - Expanded Marsh Backfill	Will be backfilled with Borrow
8 - Mass Ordinate	Mass Ordinate does not include Toe Trench Marsh Excavation
	Mass Ordinate = [Cut - (Fill*Fill Factor) - (Marsh Ex*Marsh Backfill Factor)]

STA. 11+00 LG TO 11+75 LG



BEGIN CONSTRUCTION
PROJECT 1133-10-80
STA. 10+81.82 LG

9

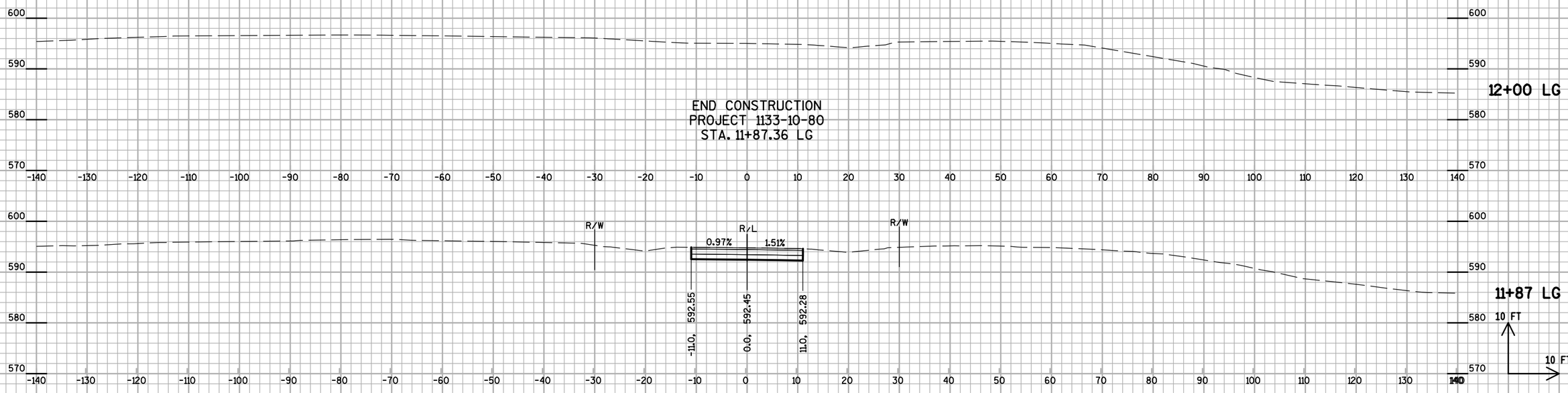
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PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: LONE GROVE AVE. - LG LINE	SHEET 237	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_090201_xs.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 11+87 LG TO 12+00 LG



9

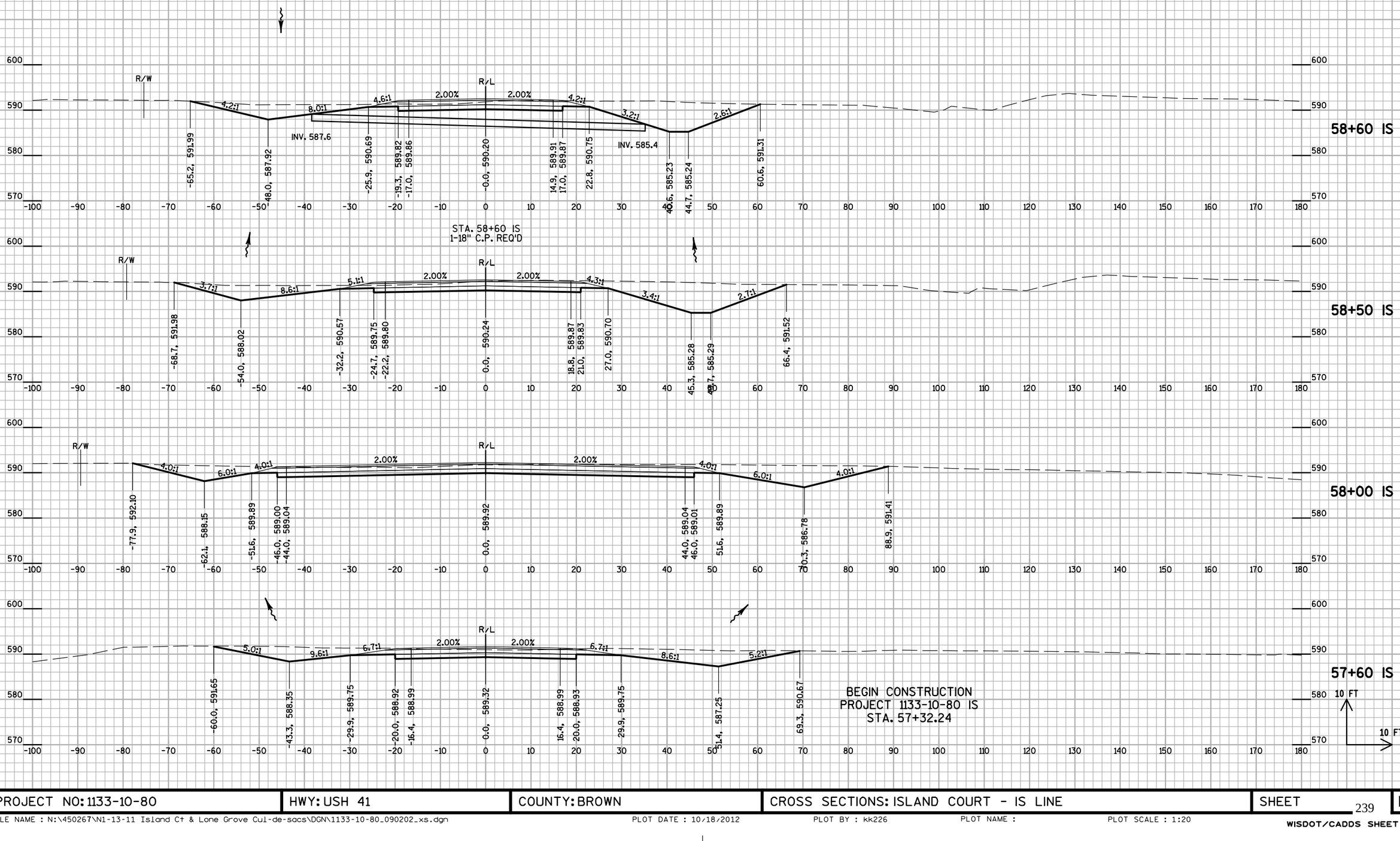
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PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: LONE GROVE AVE. - LG LINE	SHEET	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_090201_xs.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 57+60 IS TO 58+60 IS



9

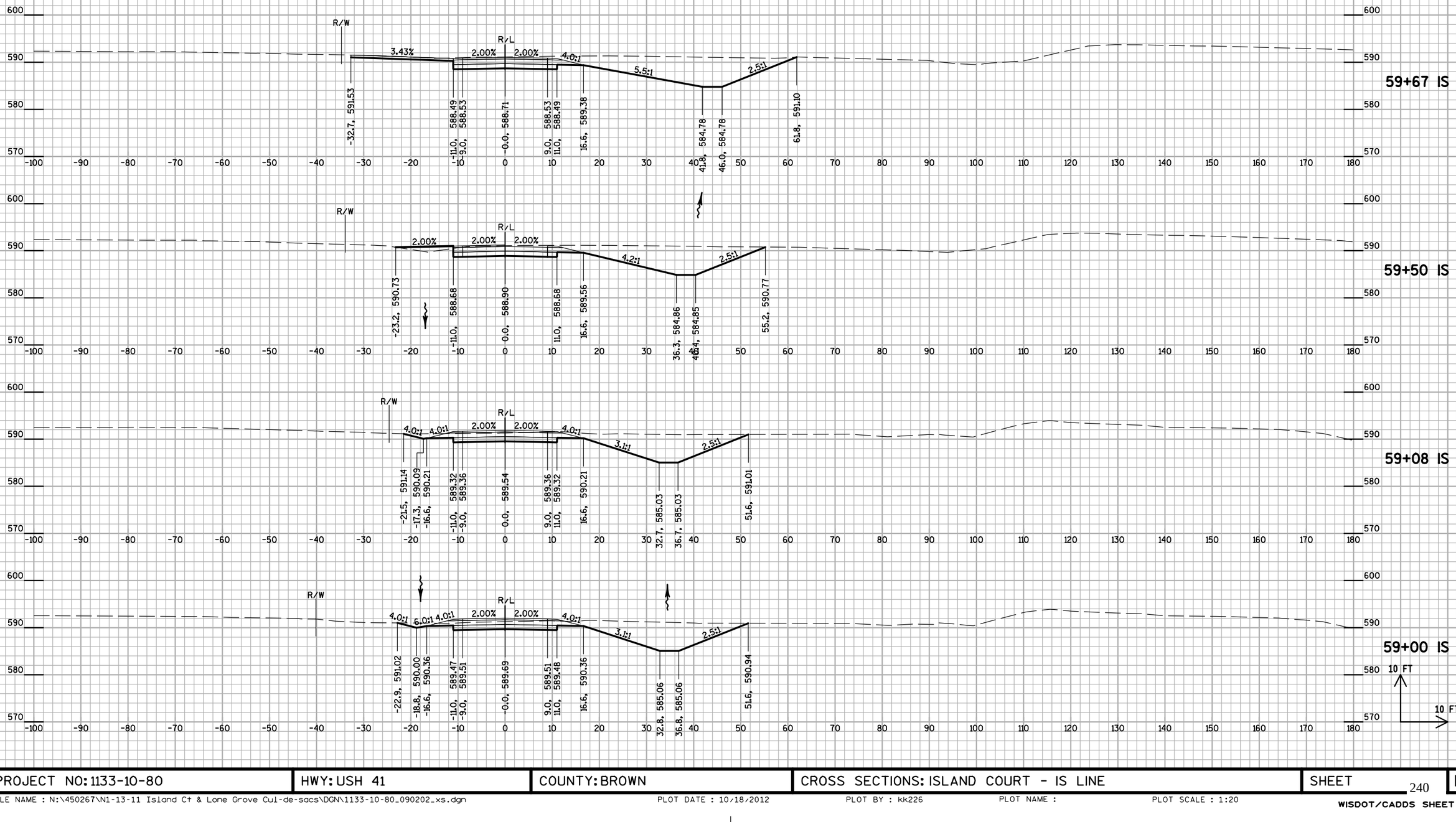
PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ISLAND COURT - IS LINE	SHEET	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_090202_xs.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

STA. 59+00 IS TO 59+67 IS



9

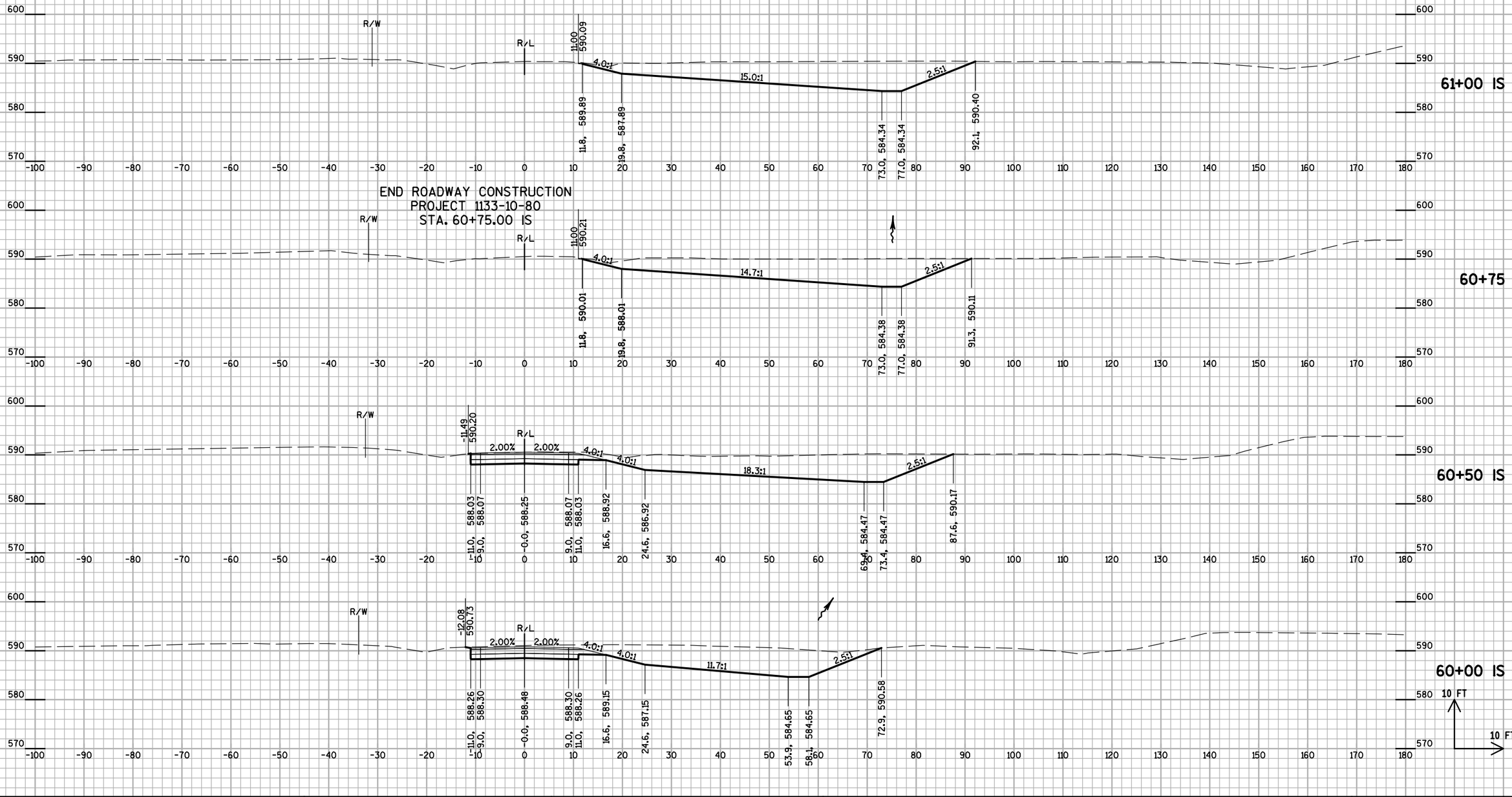
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PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ISLAND COURT - IS LINE	SHEET 240	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_090202_xs.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 60+00 IS TO 61+00 IS



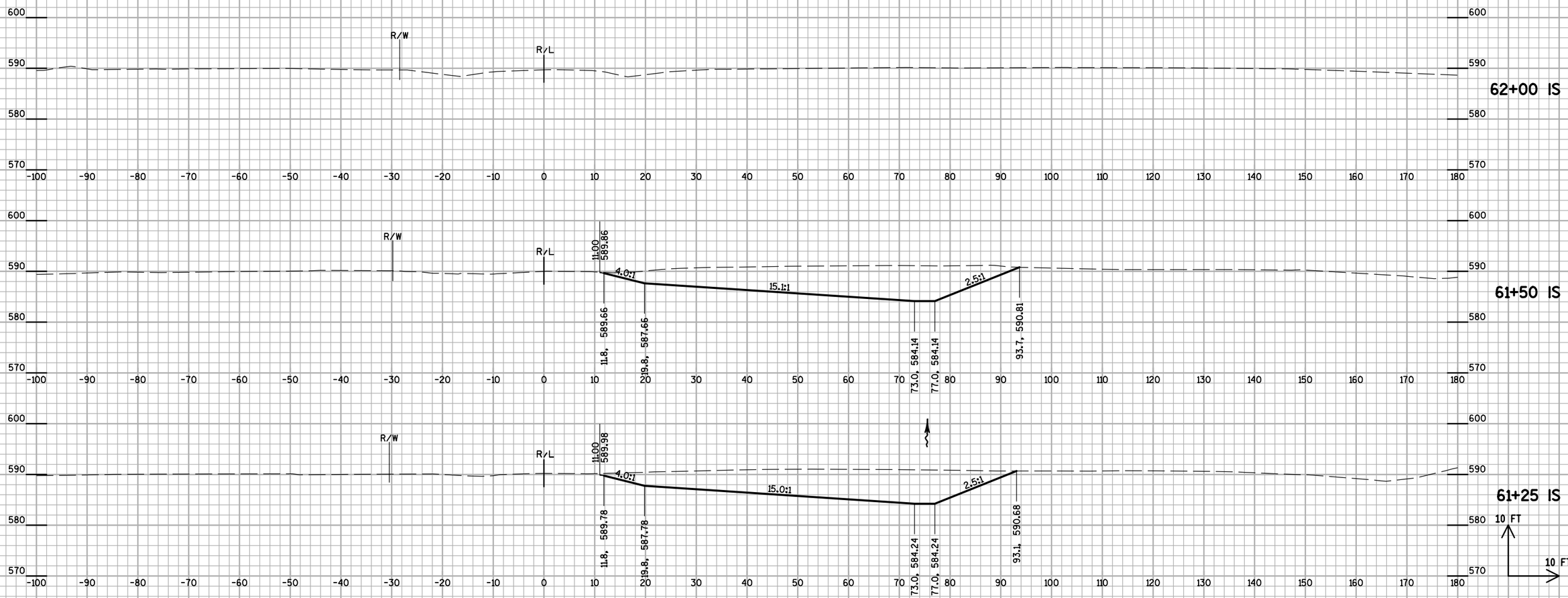
PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ISLAND COURT - IS LINE	SHEET 241	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_090202_xs.dgn | PLOT DATE : 10/18/2012 | PLOT BY : kk226 | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 61+25 IS TO 62+00 IS

END DITCHING
PROJECT 1133-10-80
STA. 61+80.00 IS

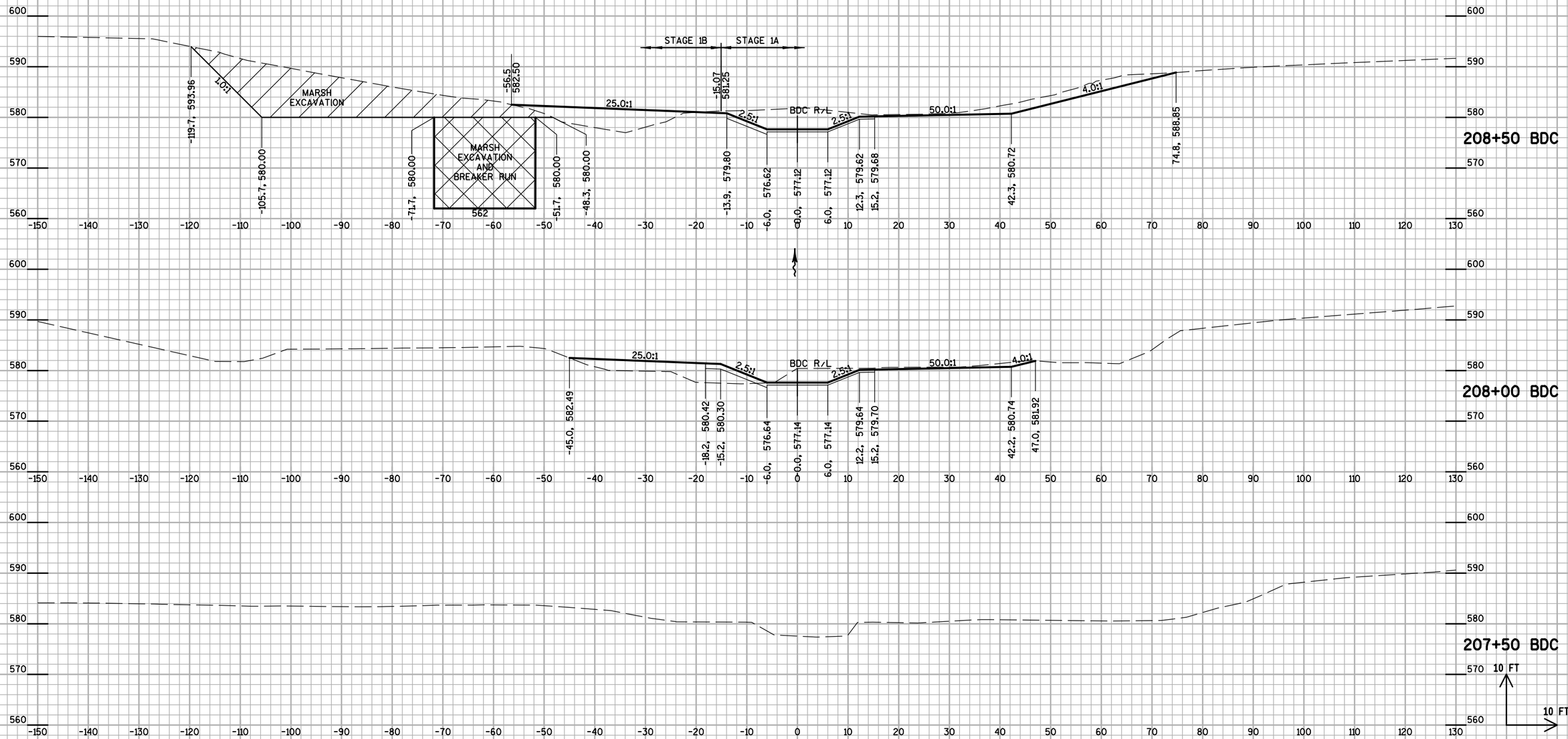


PROJECT NO: 1133-10-80	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: ISLAND COURT - IS LINE	SHEET	E

FILE NAME : N:\450267\N1-13-11 Island Ct & Lone Grove Cul-de-sacs\DGN\1133-10-80_090202_xs.dgn PLOT DATE : 10/18/2012 PLOT BY : kk226 PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 207+50 BDC TO 208+50 BDC

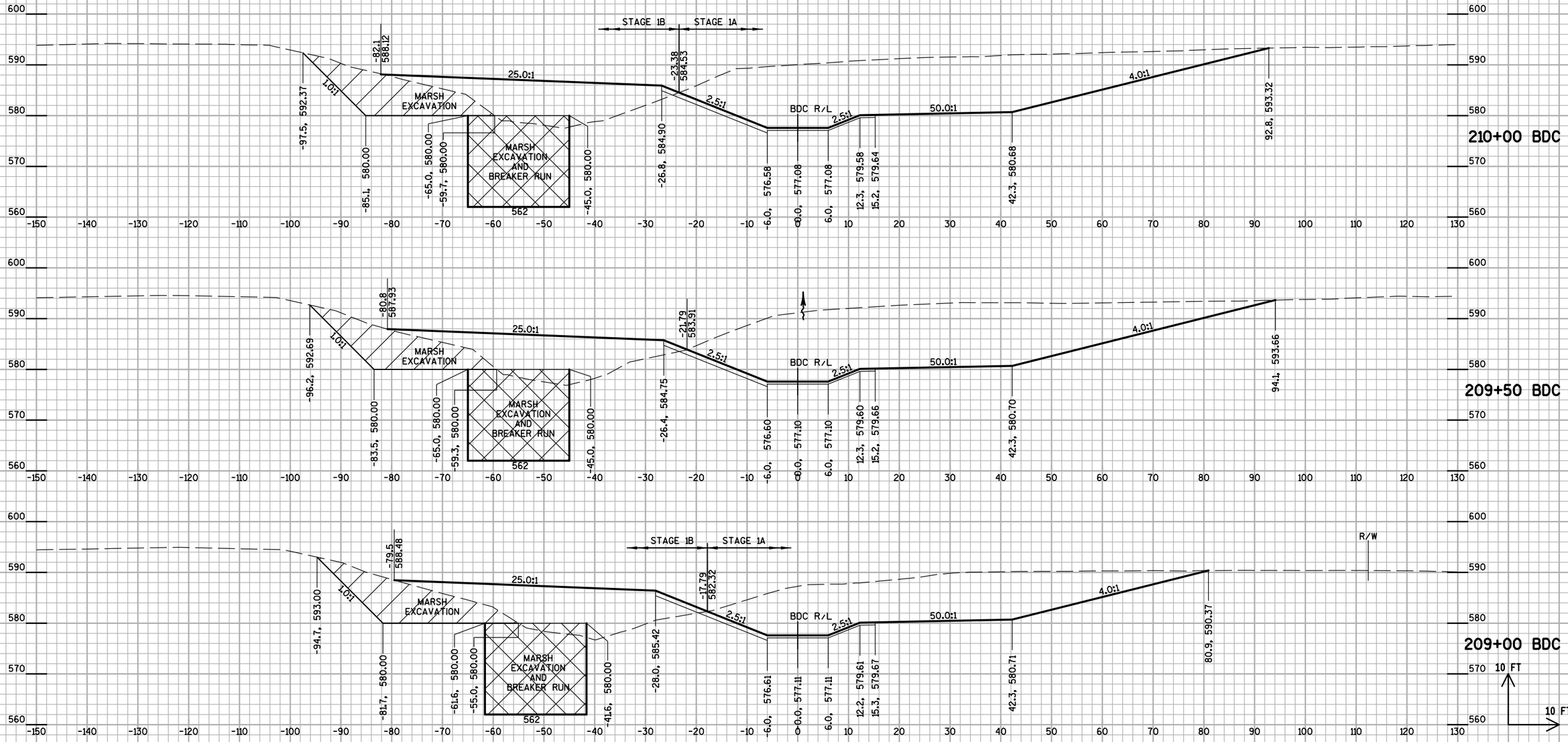


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE CONSTRUCTED IN STAGE 1A	SHEET 243	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A1 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 209+00 BDC TO 210+00 BDC

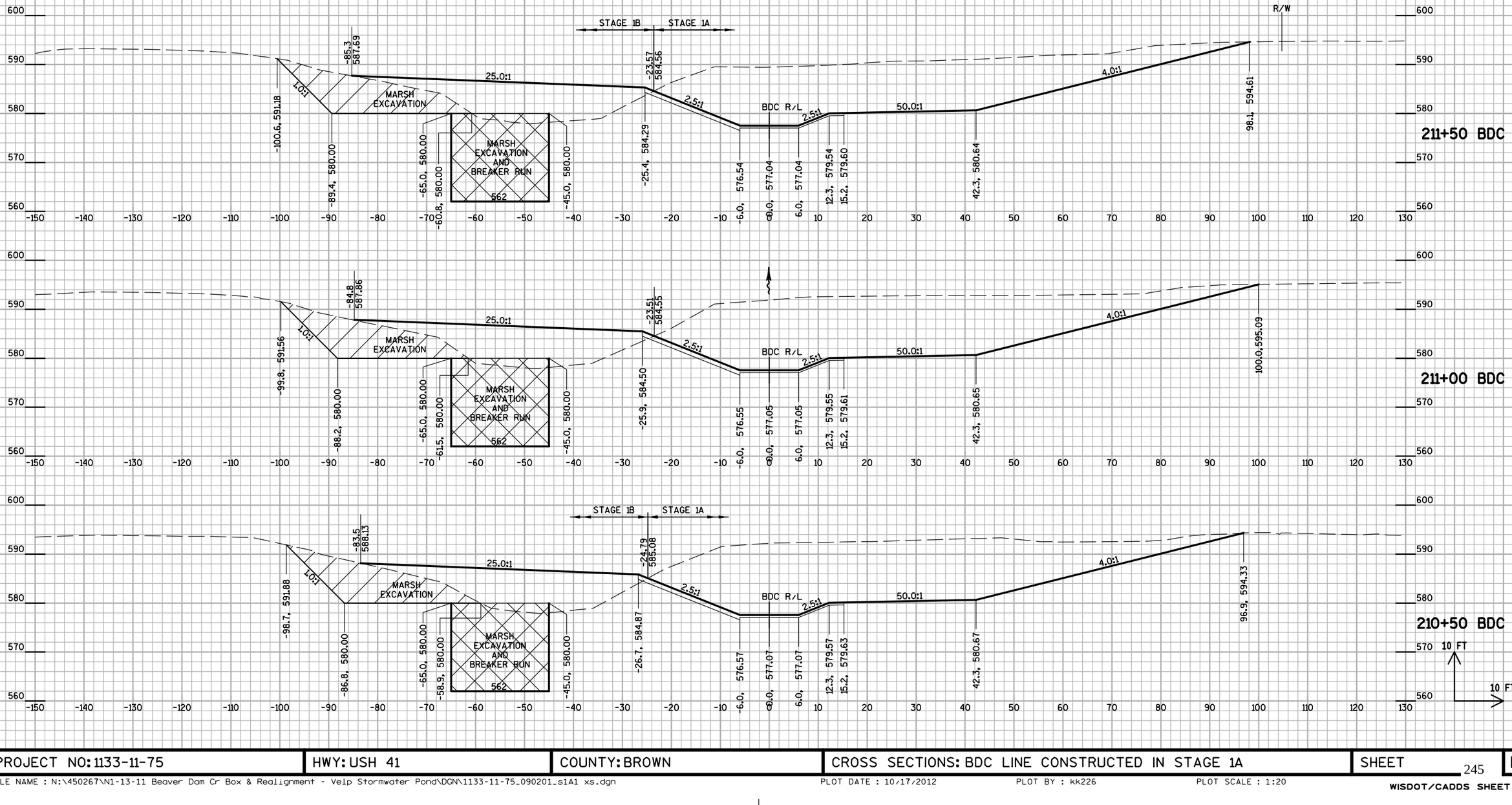


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE CONSTRUCTED IN STAGE 1A	SHEET 244	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A1 xs.dgn
PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 210+50 BDC TO 211+50 BDC



9

9

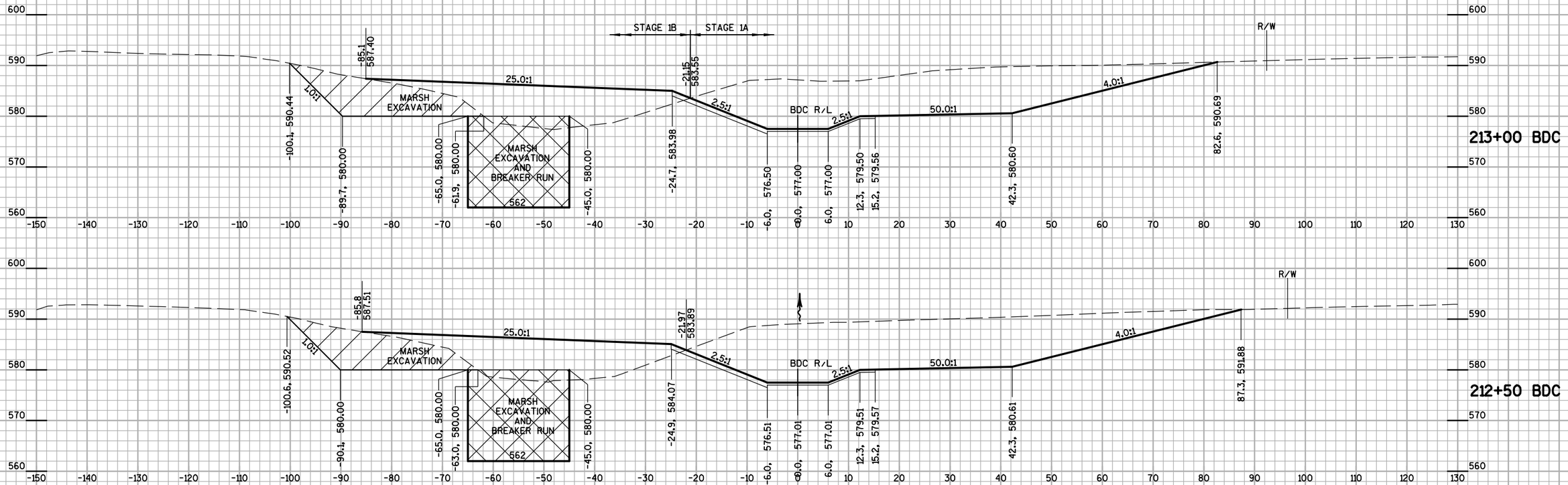
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE CONSTRUCTED IN STAGE 1A	SHEET 245	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A1 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

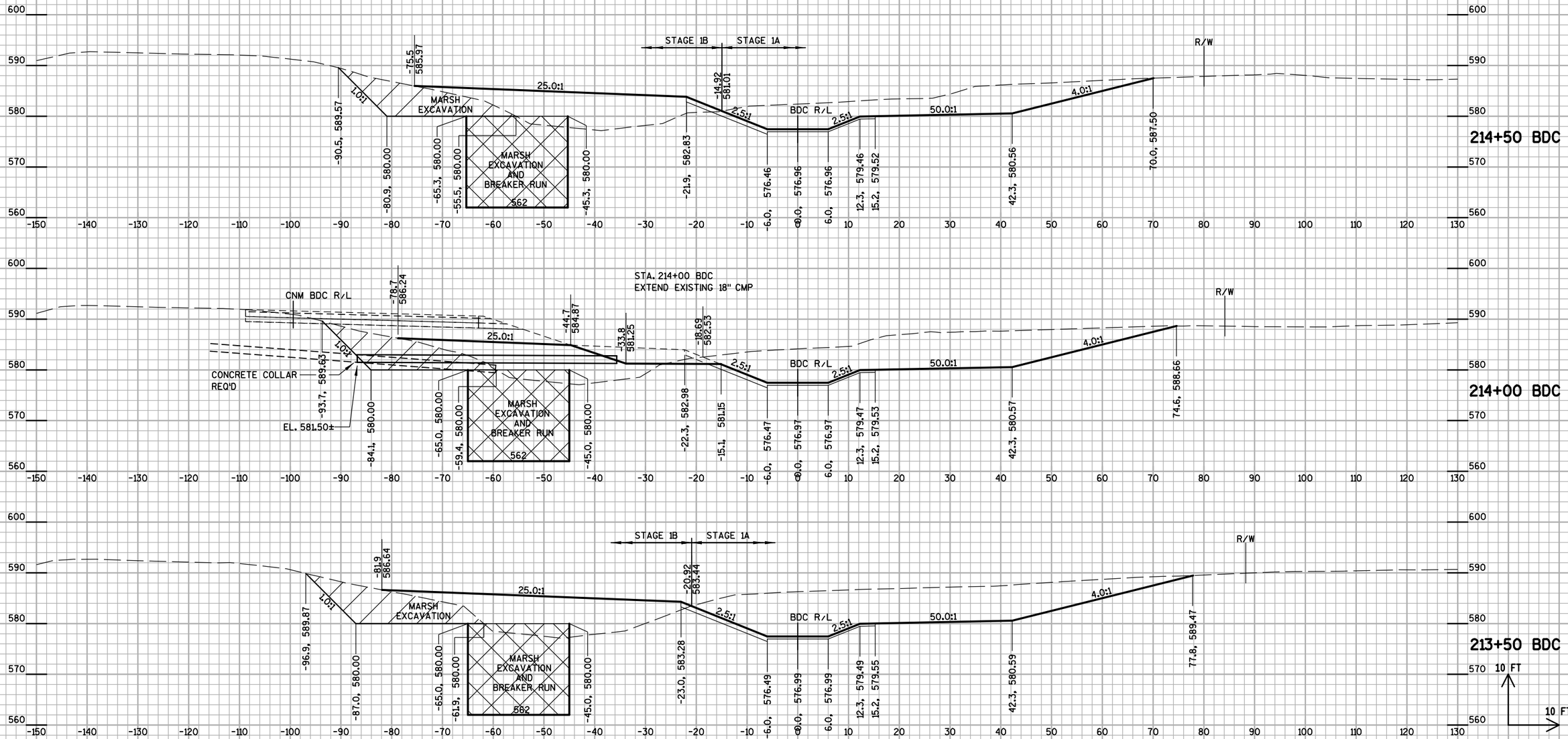
STA. 212+00 BDC TO 213+00 BDC



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE CONSTRUCTED IN STAGE 1A	SHEET 246 E

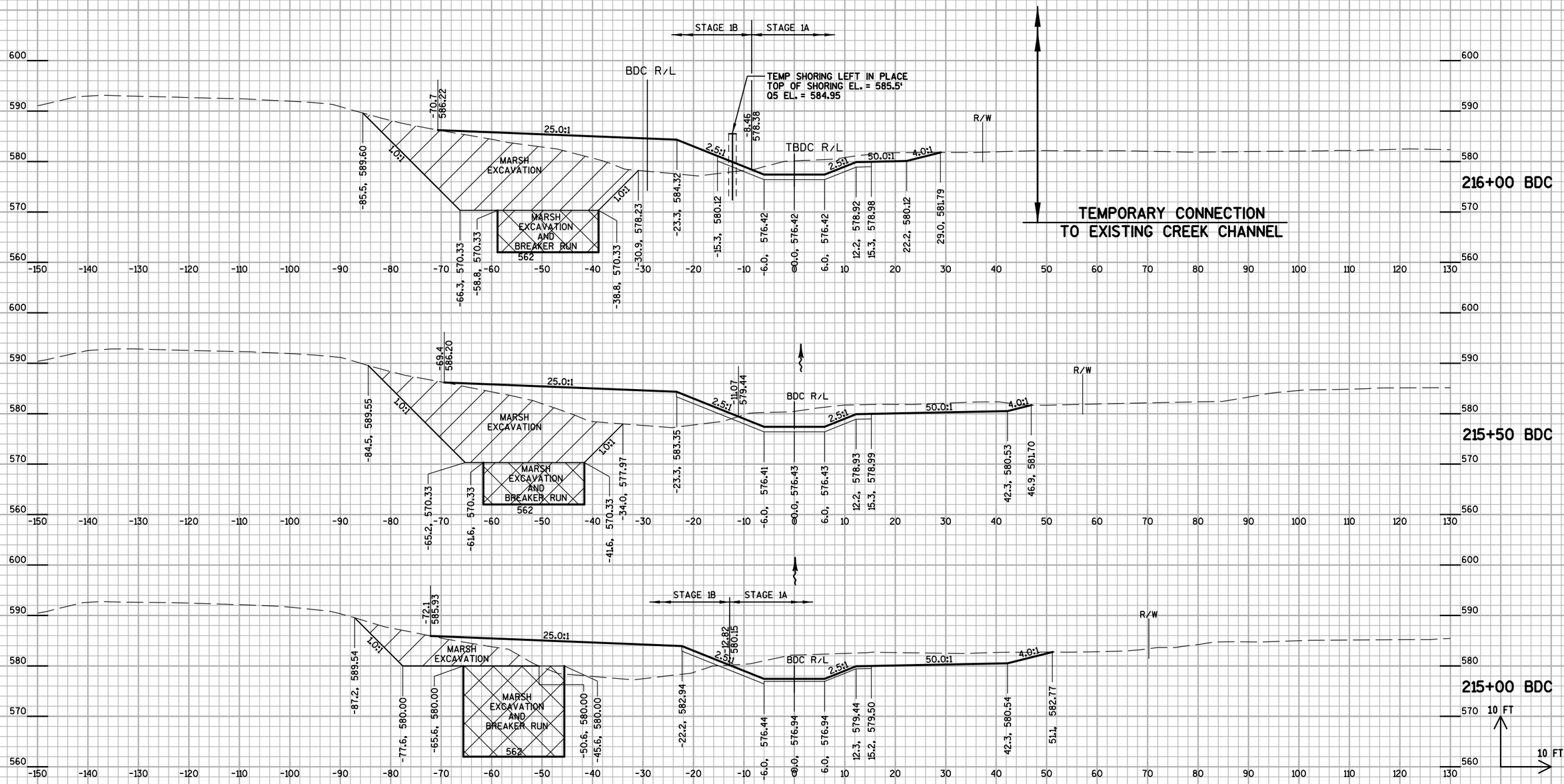
FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A1 xs.dgn
PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21

STA. 213+50 BDC TO 214+50 BDC



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE CONSTRUCTED IN STAGE 1A	SHEET 247	E

STA. 215+00 BDC TO 216+00 BDC



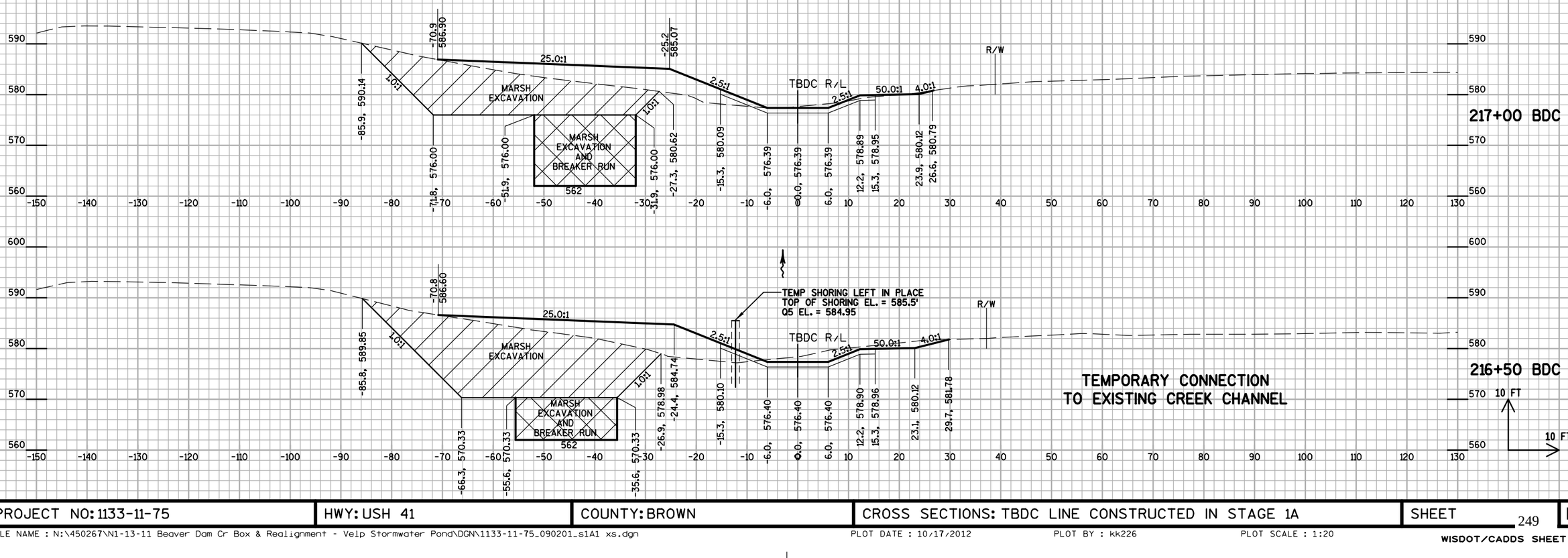
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE CONSTRUCTED IN STAGE 1A	SHEET 248	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A1 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 216+50 BDC TO 217+00 BDC



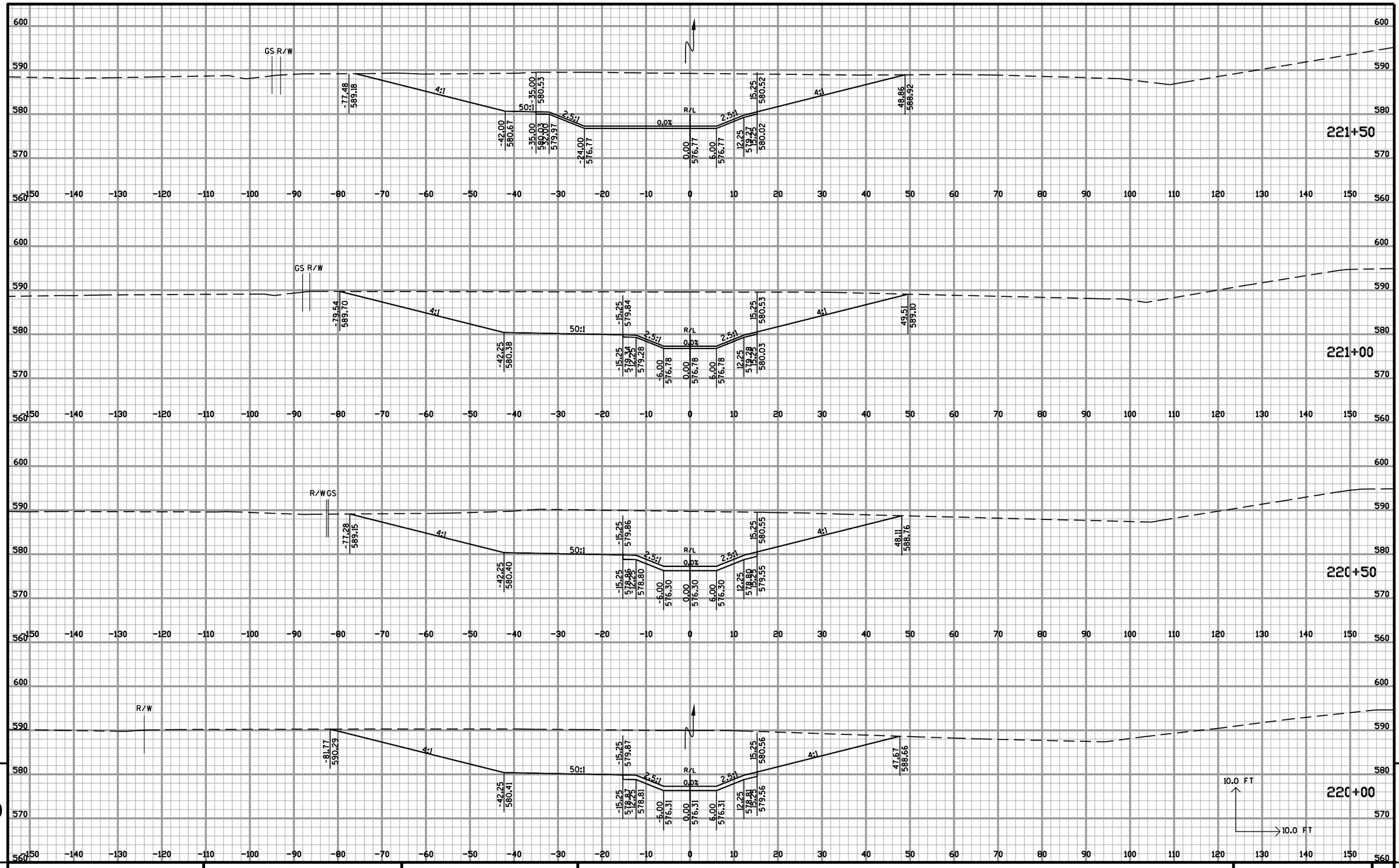
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: TBDC LINE CONSTRUCTED IN STAGE 1A	SHEET 249	E

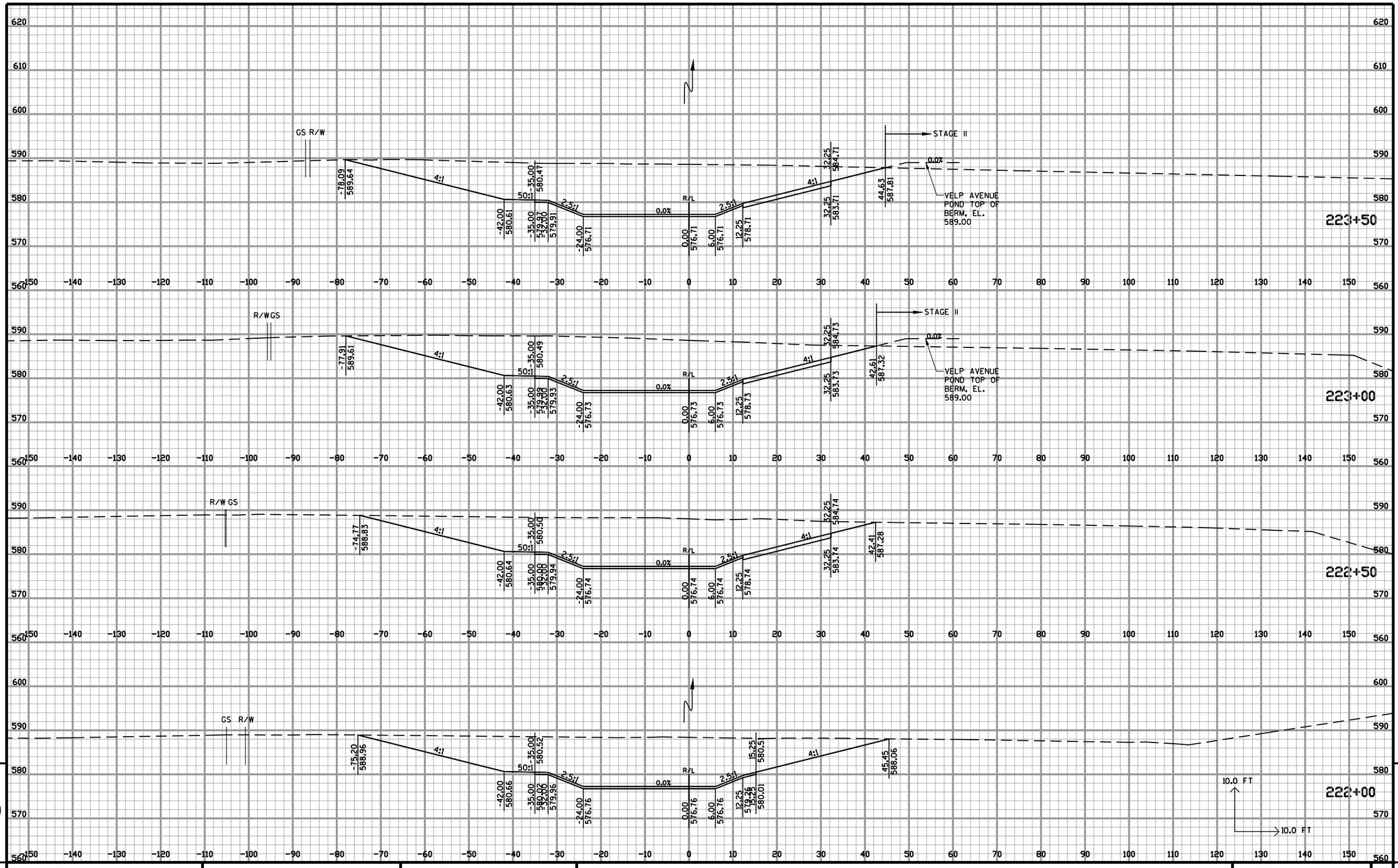
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WISDOT/CADDS SHEET 21



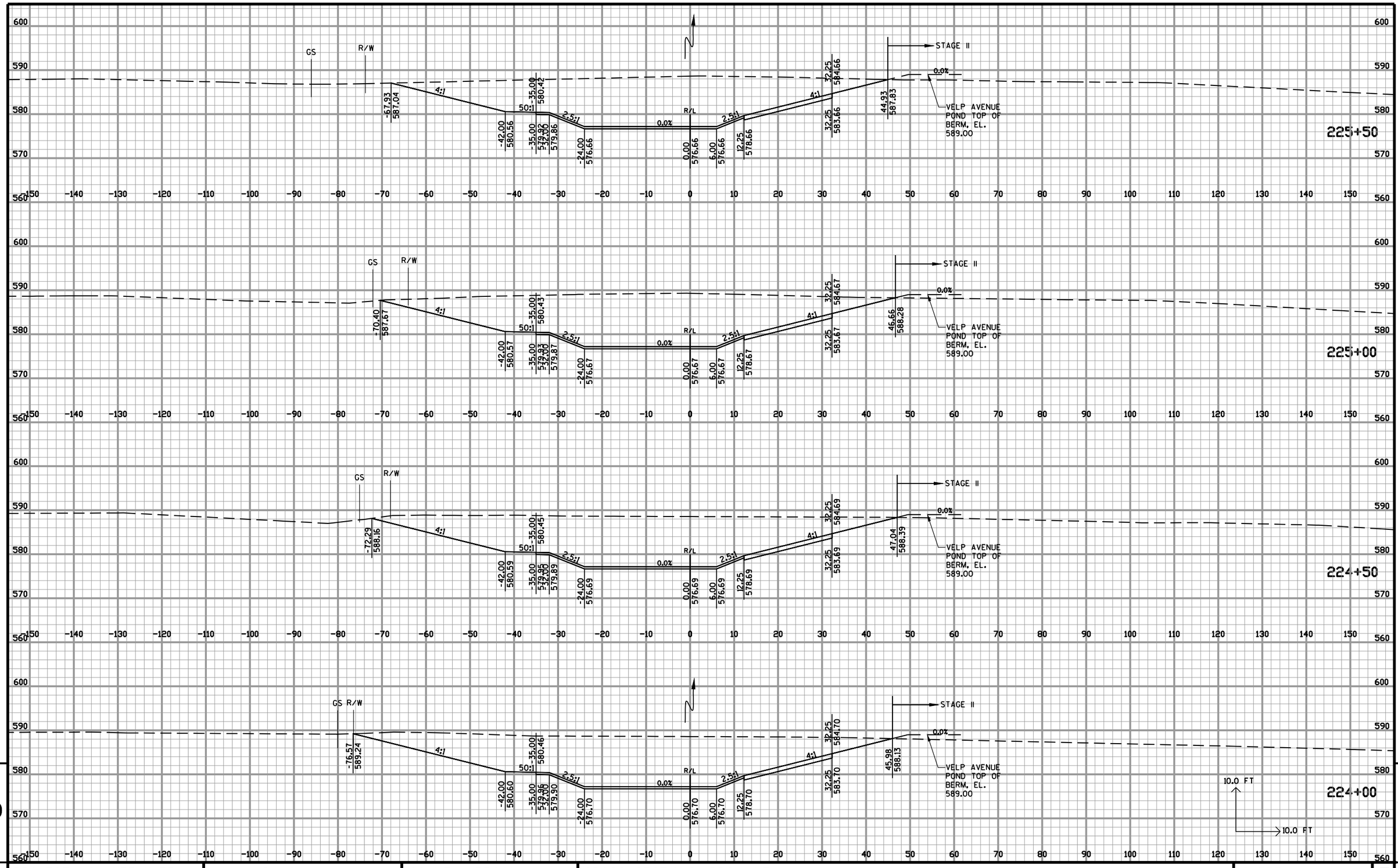
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE	SHEET E

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS [ALL CULVERTS]\W11444 1133-10-00 [B-05-693]\DESIGN FILES\B-05-0693 TOPO.DWG
LAYOUT : MODEL
PLOT DATE : 11/23/2011
PLOT TIME : 9:07:57 PM
PLOT BY : LILLA, ED
PLOT SCALE : 1:20



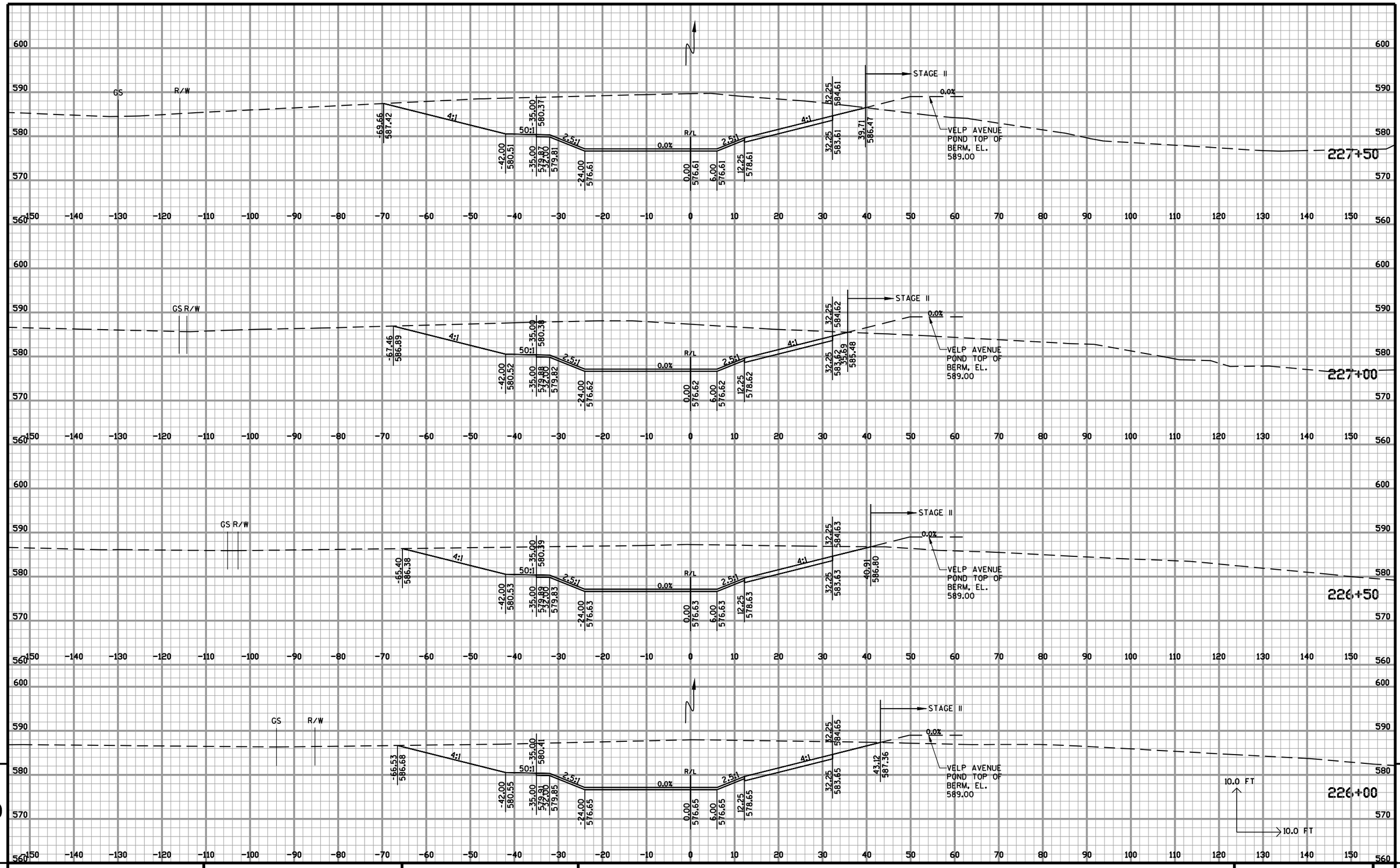
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE	SHEET

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PLOT TIME : 9:10:10 PM
PLOT BY : LILLA, ED
PLOT SCALE : 1:20



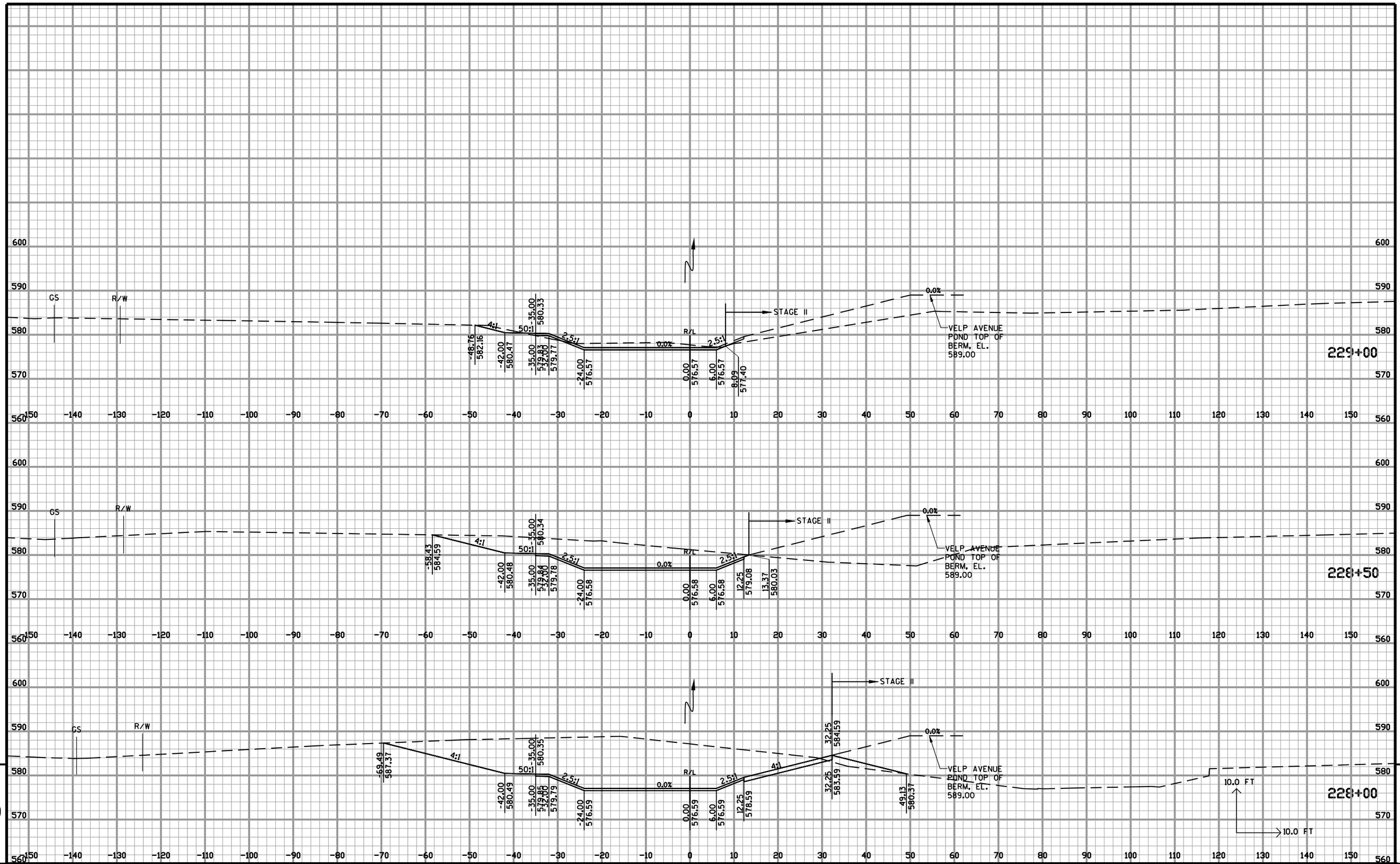
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE	SHEET

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS [ALL CULVERTS]\W11444 1133-10-00 [B-05-693]\DESIGN FILES\B-05-0693 TOPO.DWG
LAYOUT : MODEL
PLOT DATE : 11/23/2011
PLOT TIME : 9:12:02 PM
PLOT BY : LILLA, ED
PLOT SCALE : 1:20



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE	SHEET E

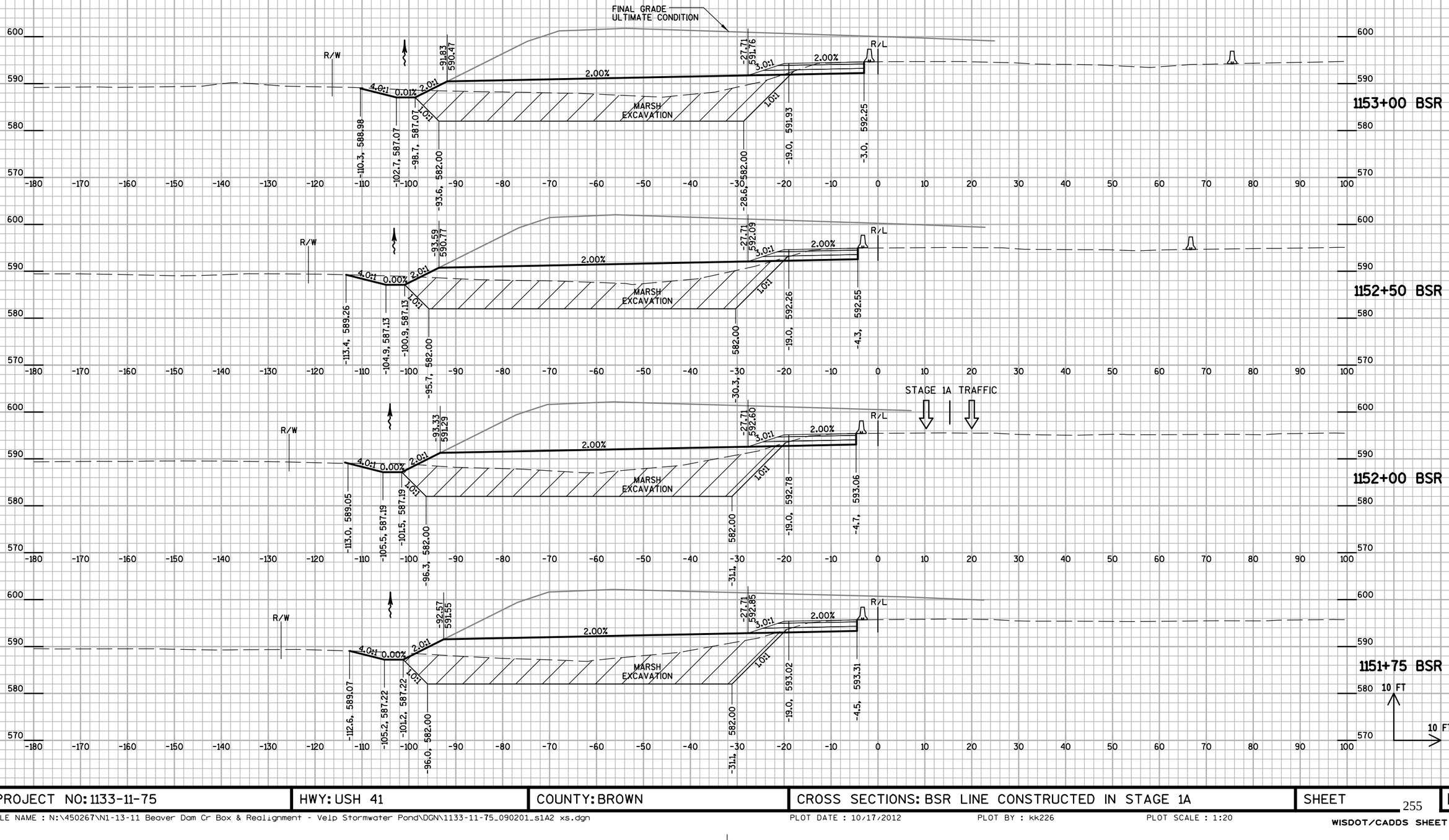
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LAYOUT : MODEL
PLOT DATE : 11/23/2011
PLOT TIME : 9:14:10 PM
PLOT BY : LILLA, ED
PLOT SCALE : 1:20



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDC LINE	SHEET

FILE NAME : R:\PROJECTS\W11440 USH 41 BOX CULVERTS [ALL CULVERTS]\W11444 1133-10-00 [B-05-693]\DESIGN FILES\B-05-0693 TOPO.DWG
LAYOUT : MODEL
PLOT DATE : 11/23/2011
PLOT TIME : 9:16:21 PM
PLOT BY : LILLA, ED
PLOT SCALE : 1:20

STA. 1151+75 BSR TO 1153+00 BSR

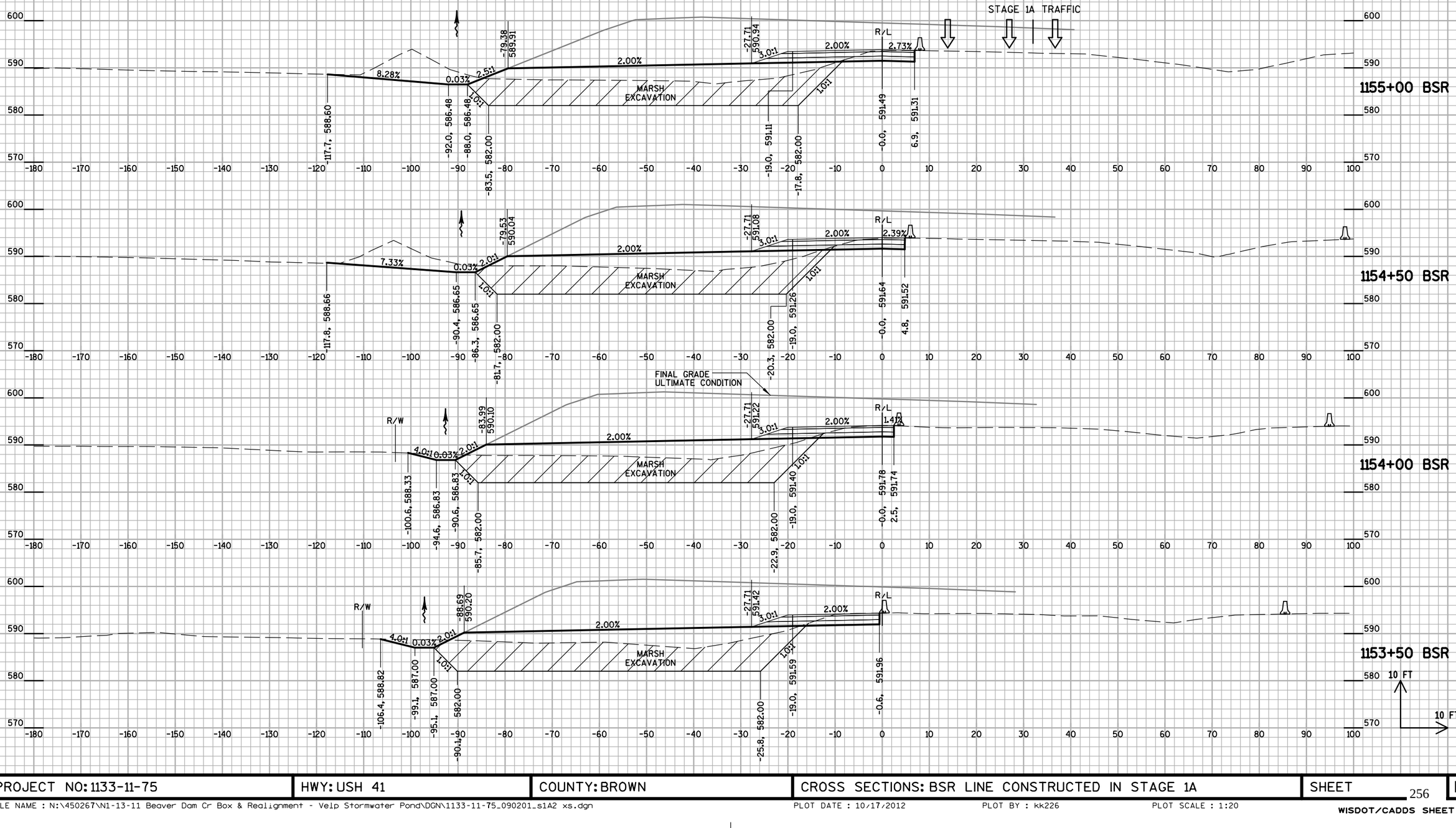


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 255	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1153+50 BSR TO 1155+00 BSR

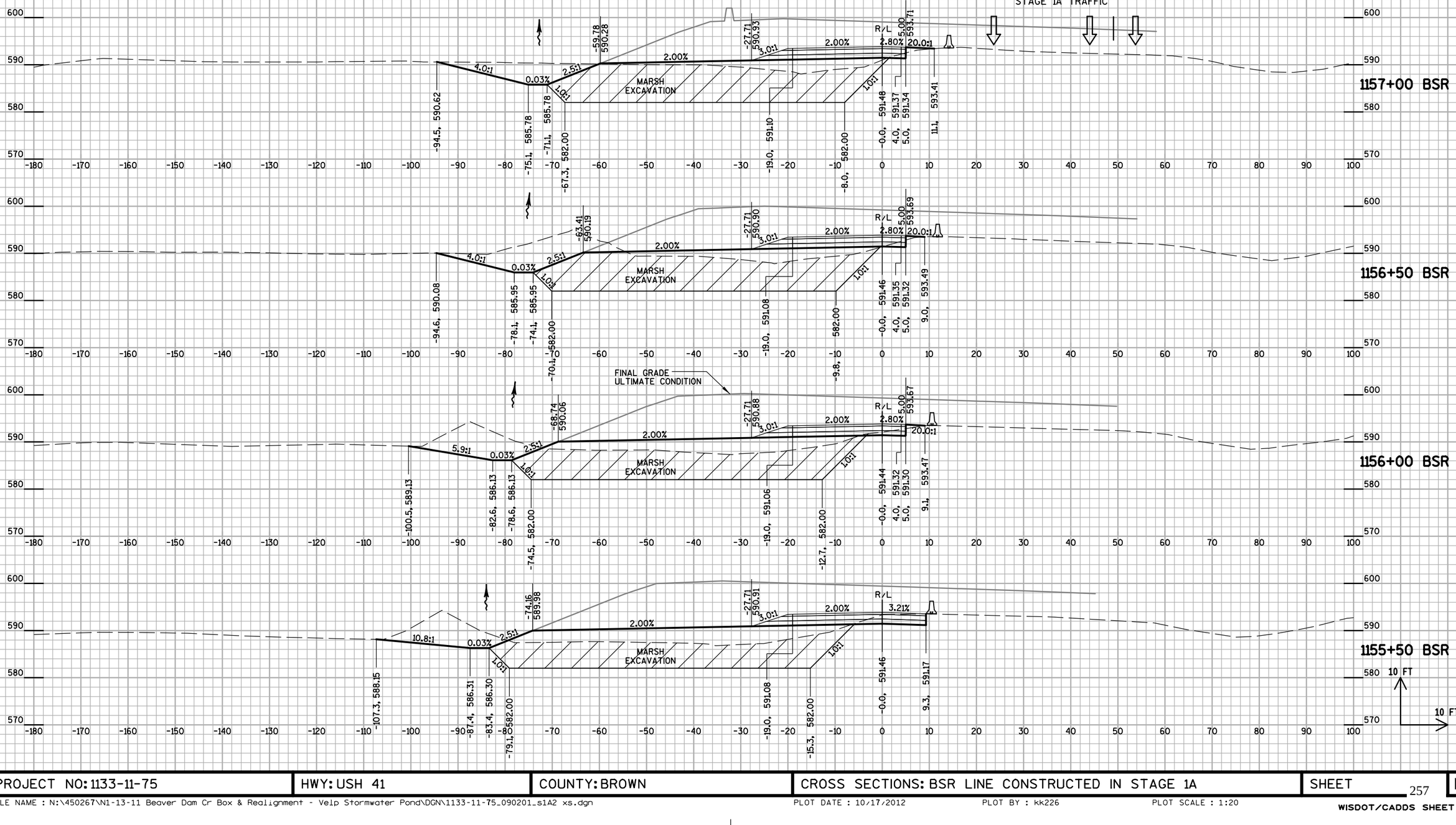


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 256	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1155+50 BSR TO 1157+00 BSR



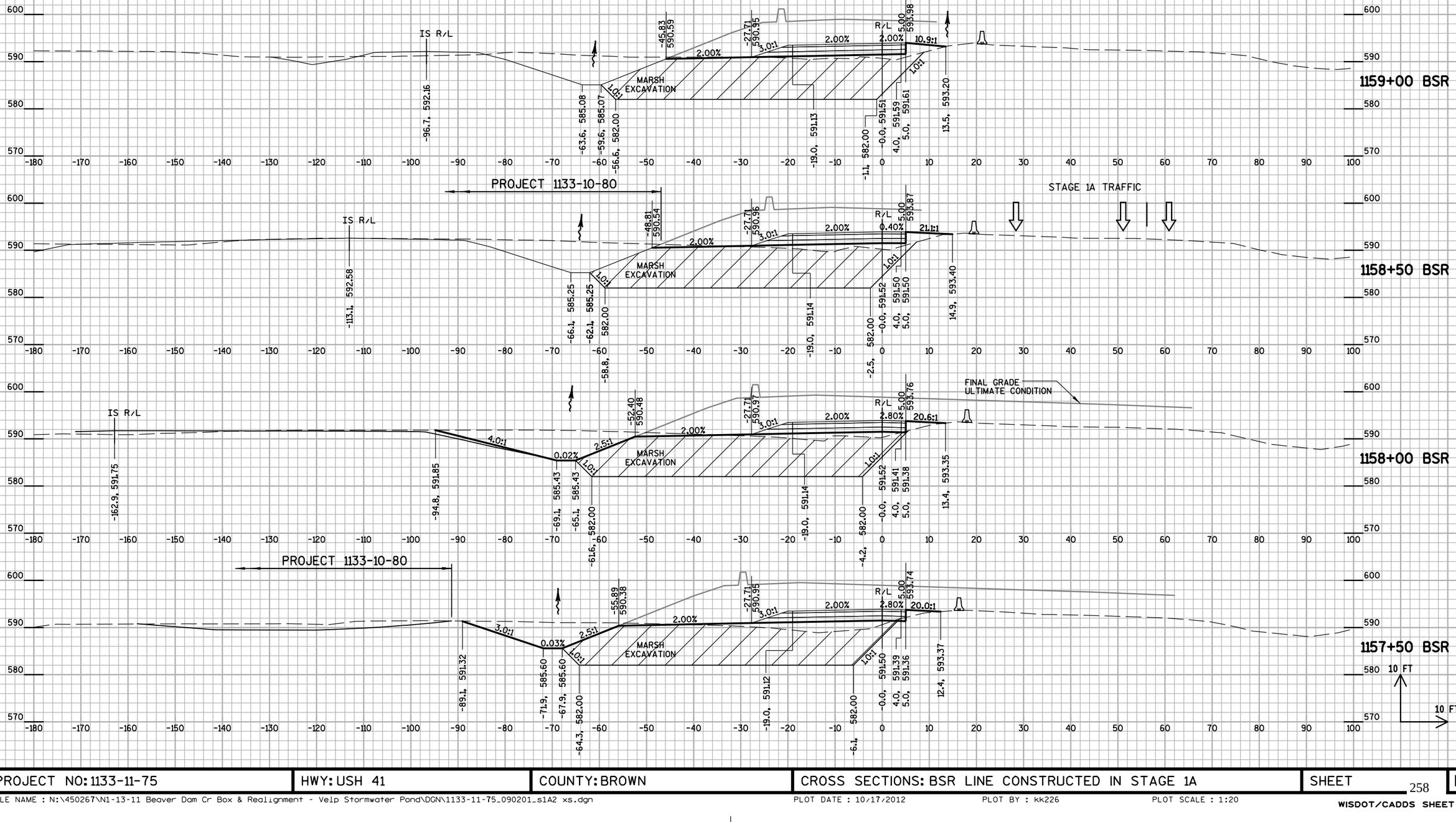
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 257	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1157+50 BSR TO 1159+00 BSR

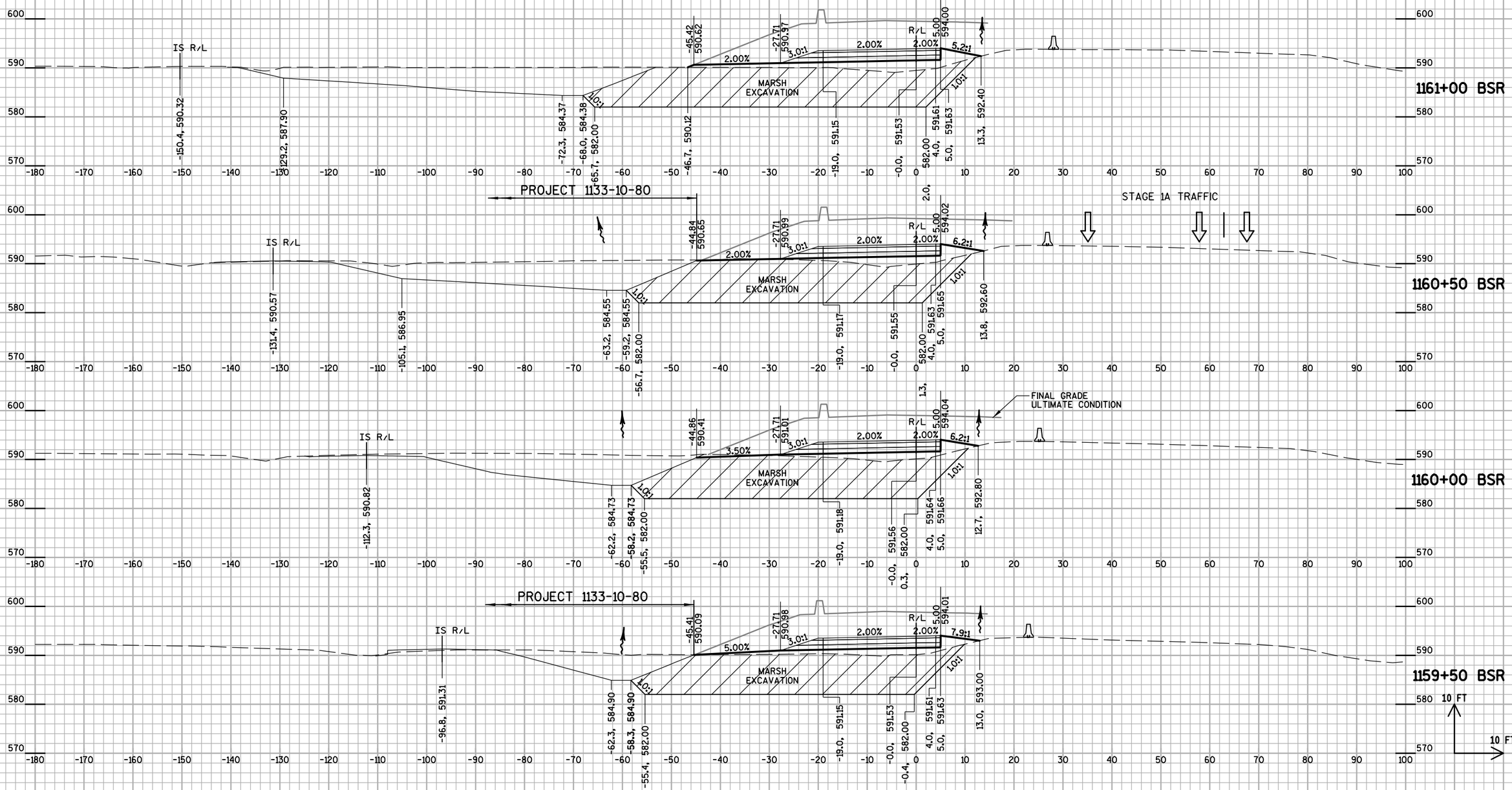


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 258	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn | PLOT DATE : 10/17/2012 | PLOT BY : kk226 | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1159+50 BSR TO 1161+00 BSR



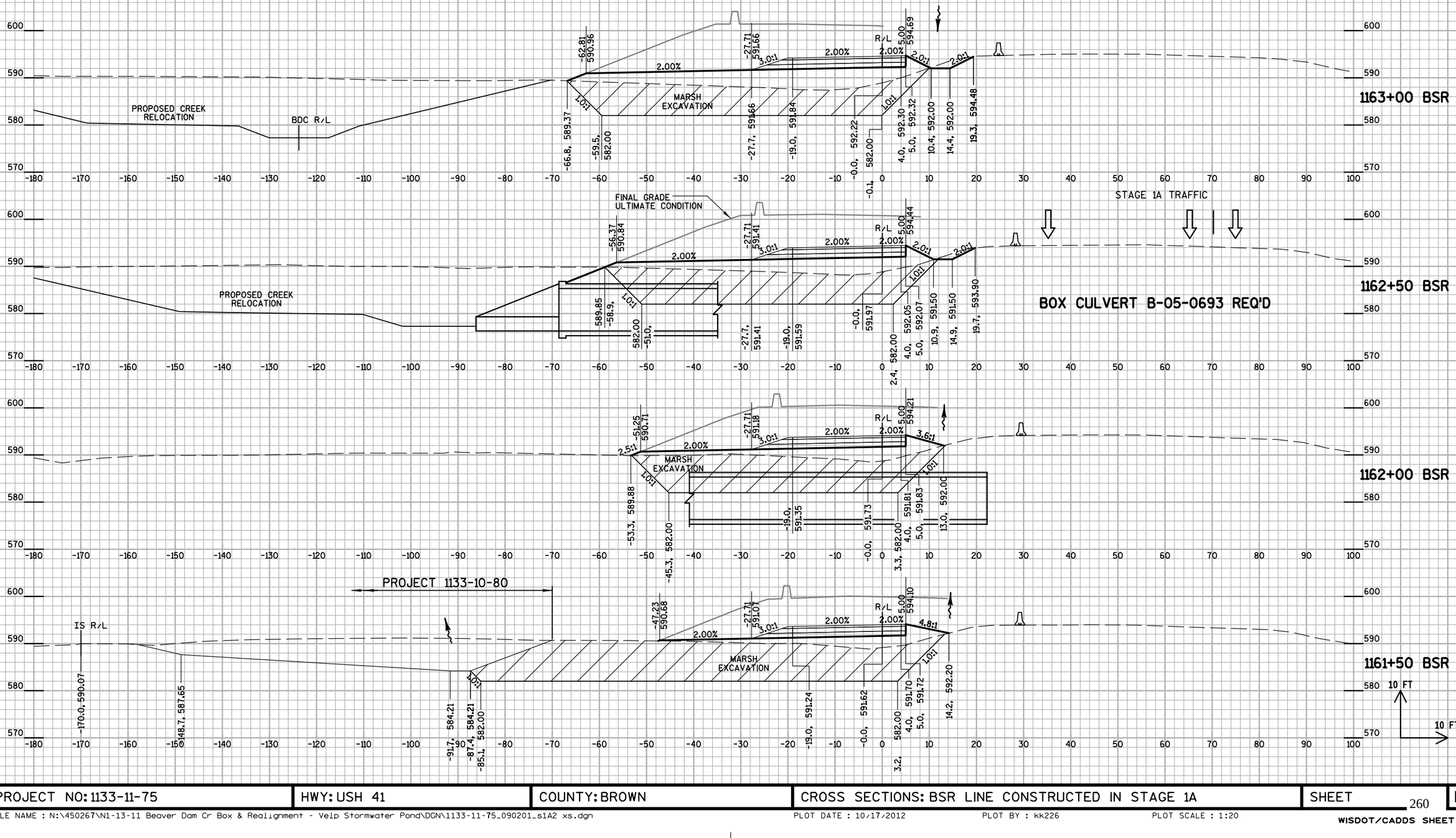
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 259	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1161+50 BSR TO 1163+00 BSR

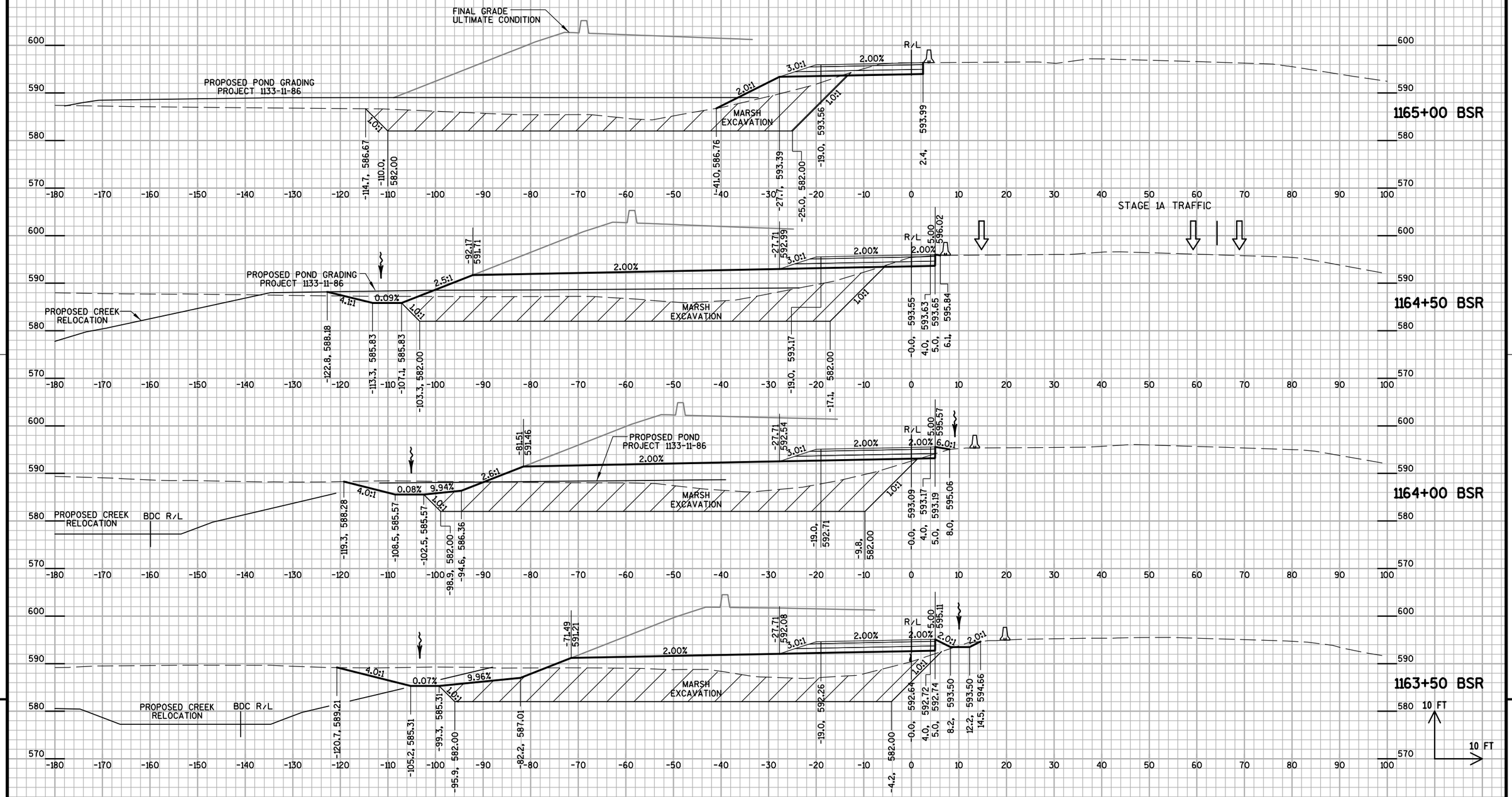


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 260 E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1163+50 BSR TO 1165+00 BSR

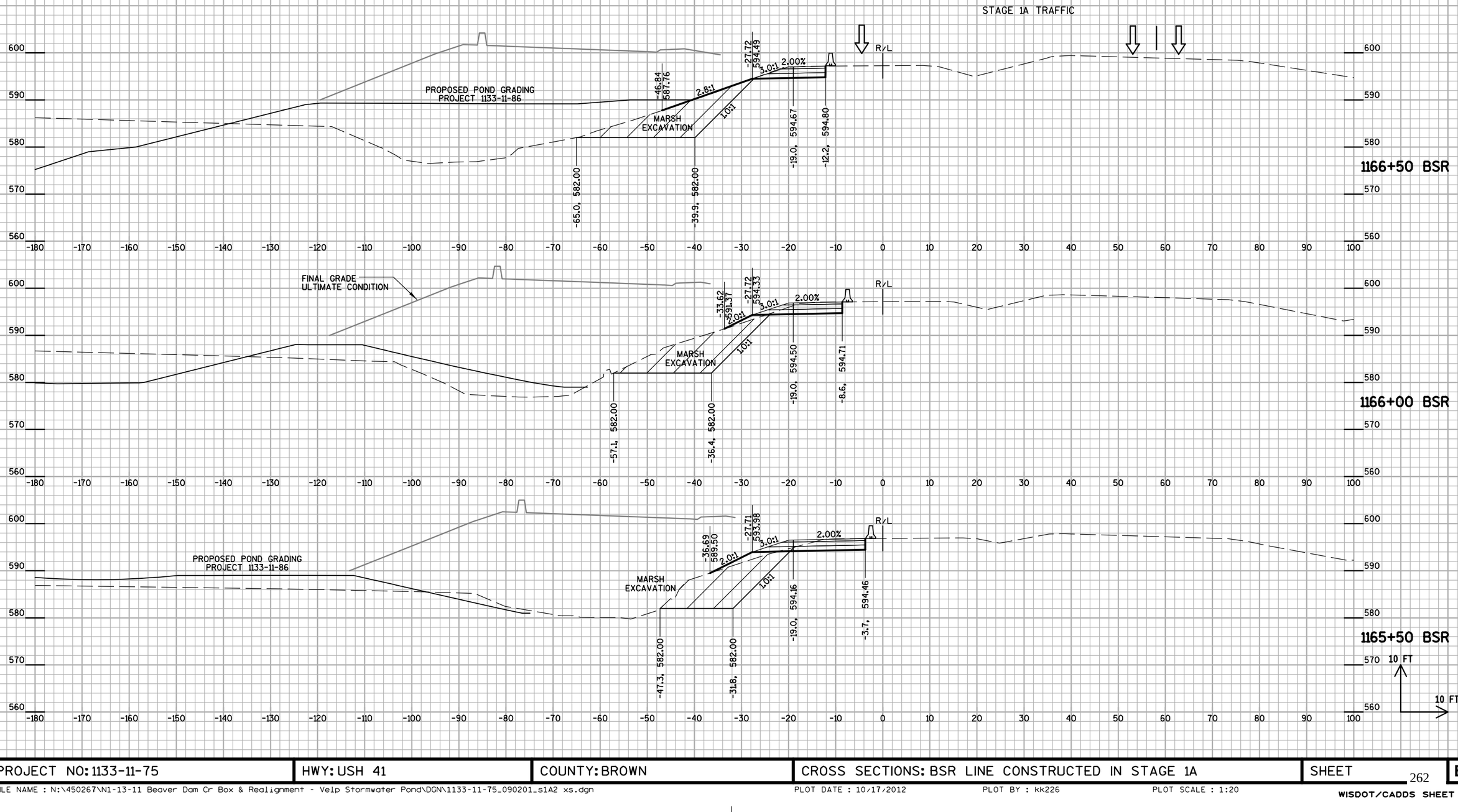


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

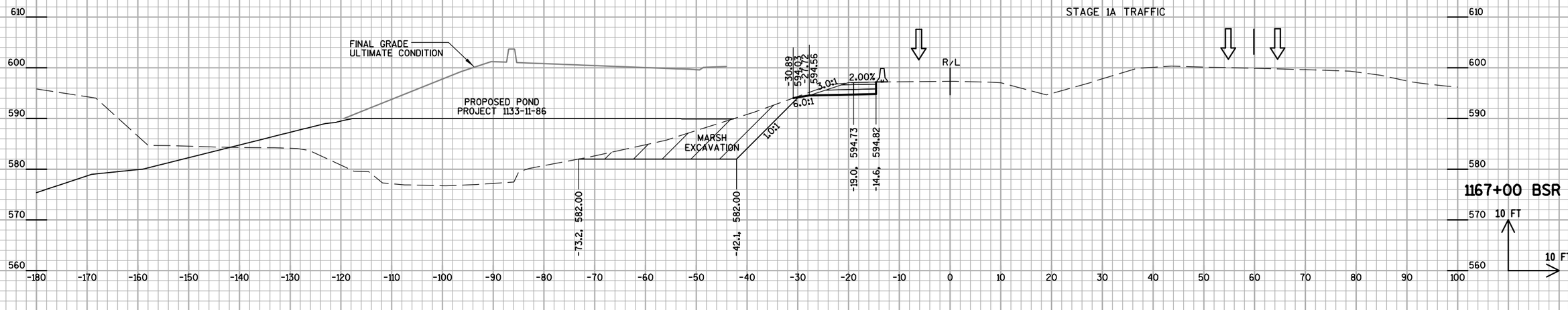
STA. 1165+50 BSR TO 1166+50 BSR



9

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 262	E

STA. 1167+00 BSR TO 1167+00 BSR



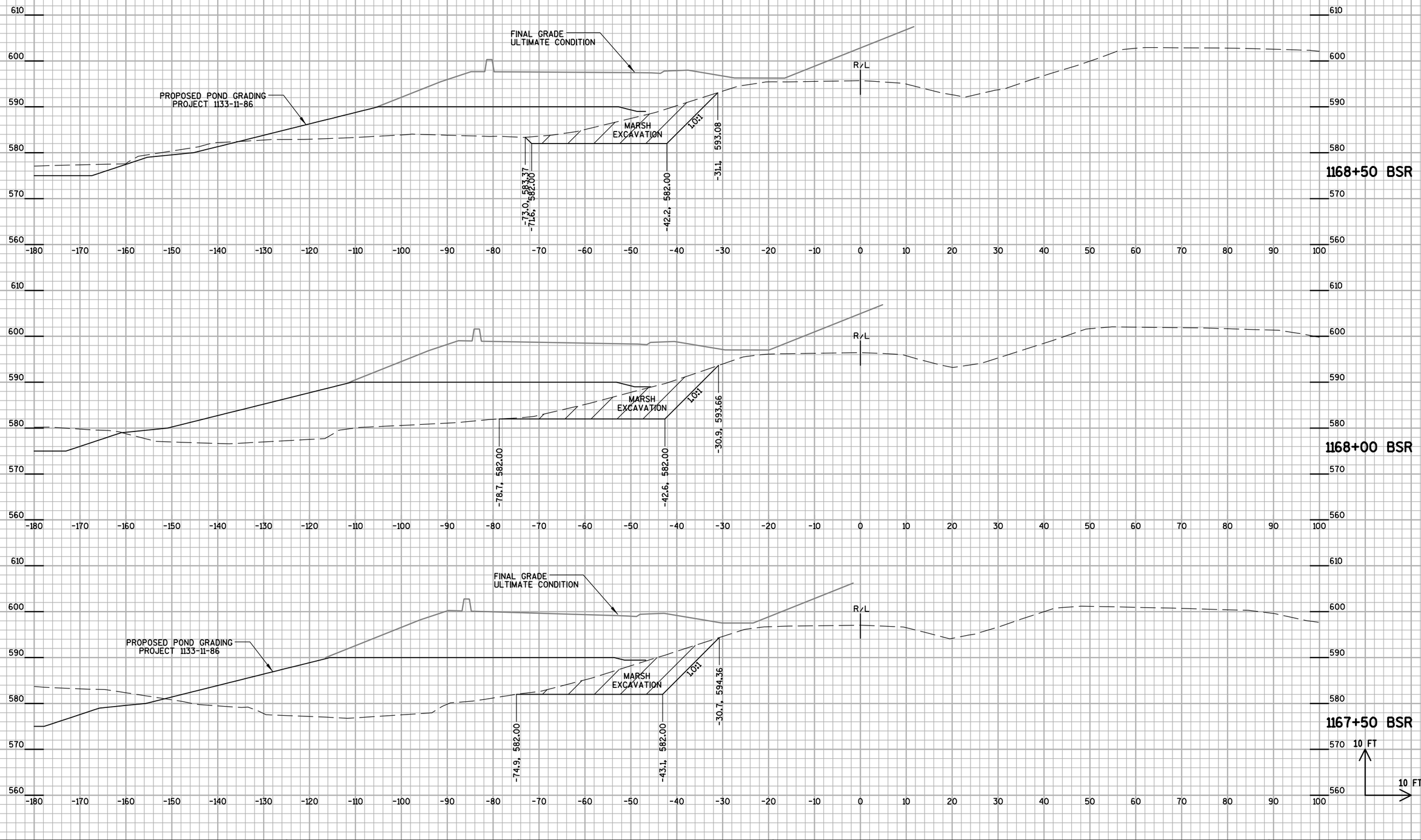
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 263	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+50 BSR TO 1168+50 BSR

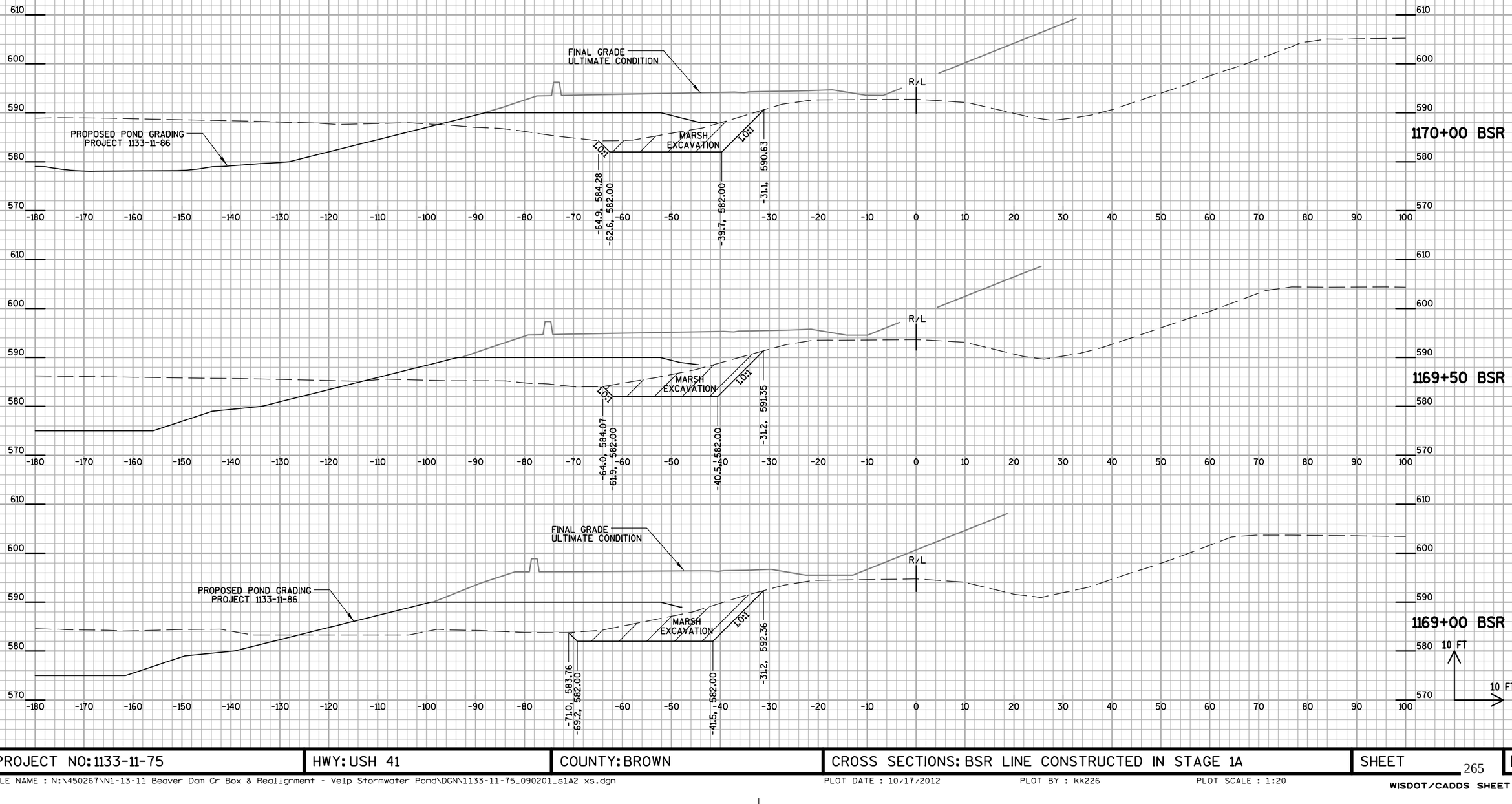


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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 264	E

STA. 1169+00 BSR TO 1170+00 BSR

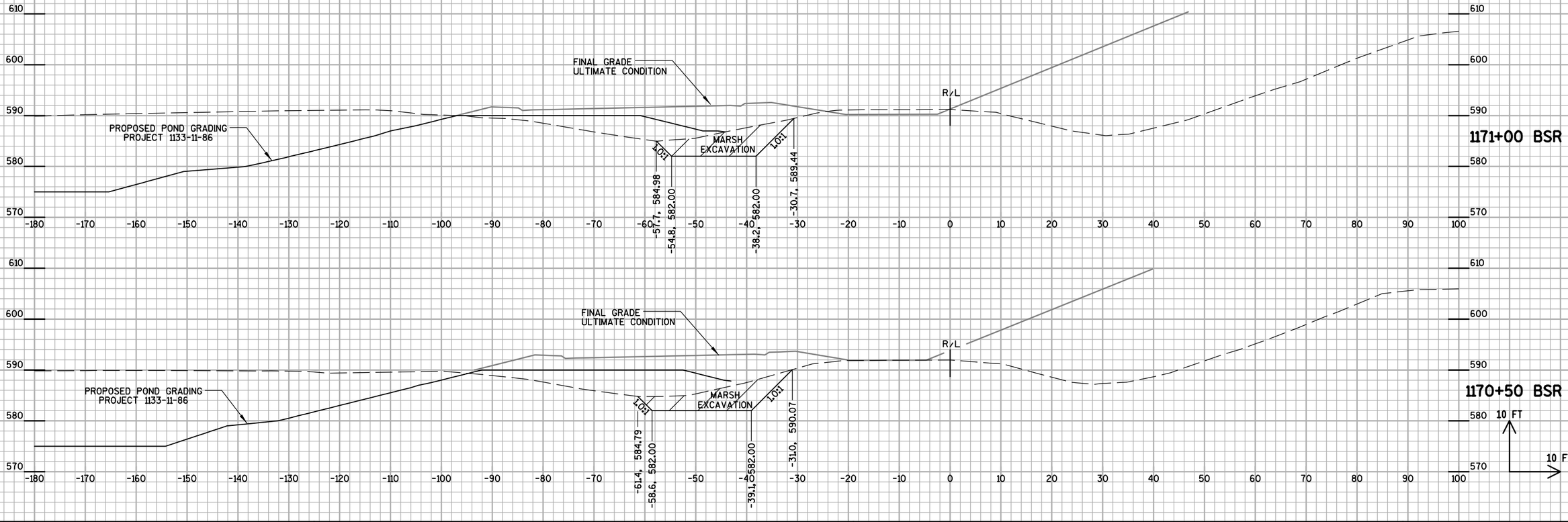


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSR LINE CONSTRUCTED IN STAGE 1A	SHEET 265	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1170+50 BSR TO 1171+00 BSR



9

9

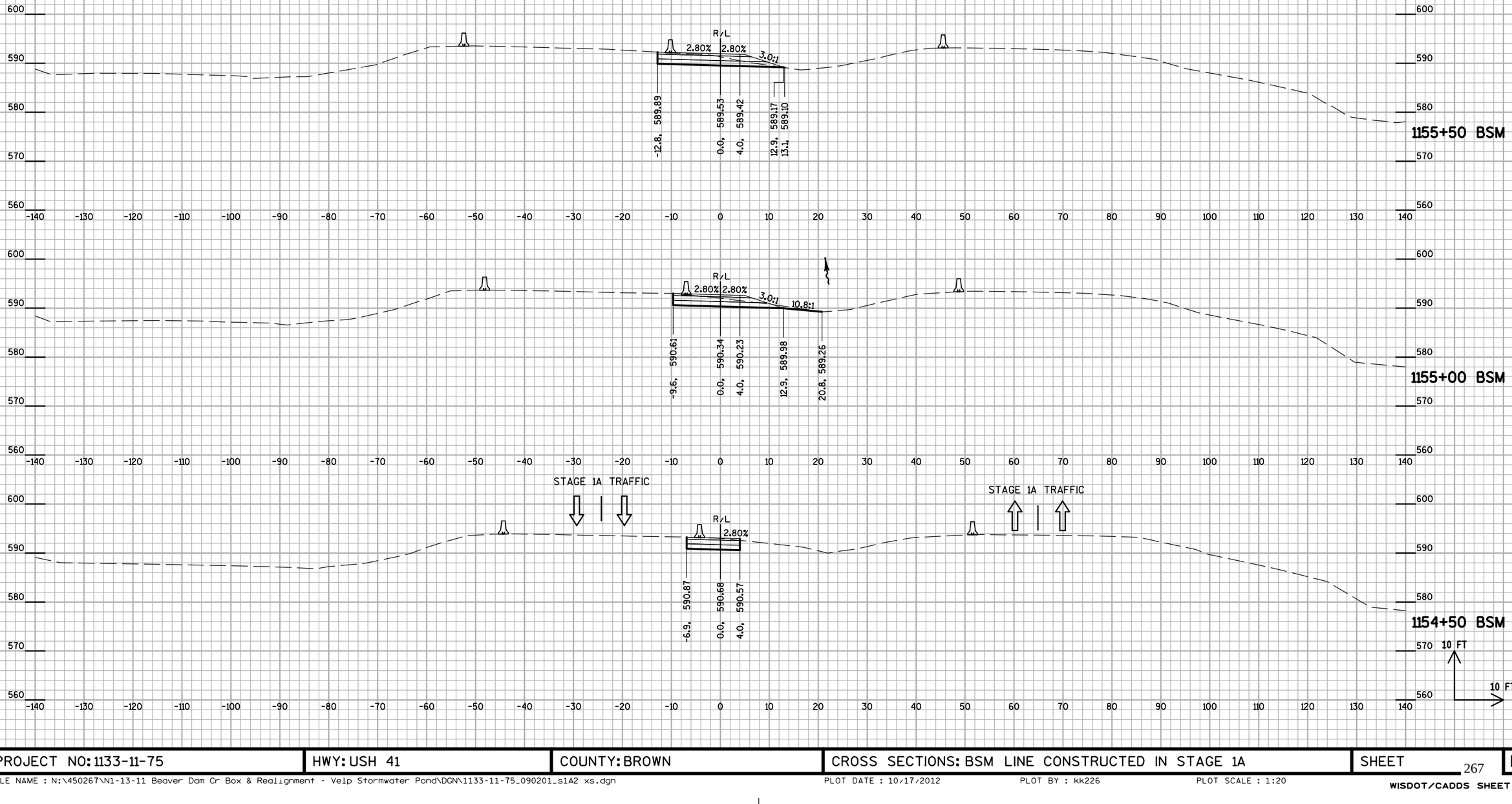
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1154+50 BSM TO 1155+50 BSM

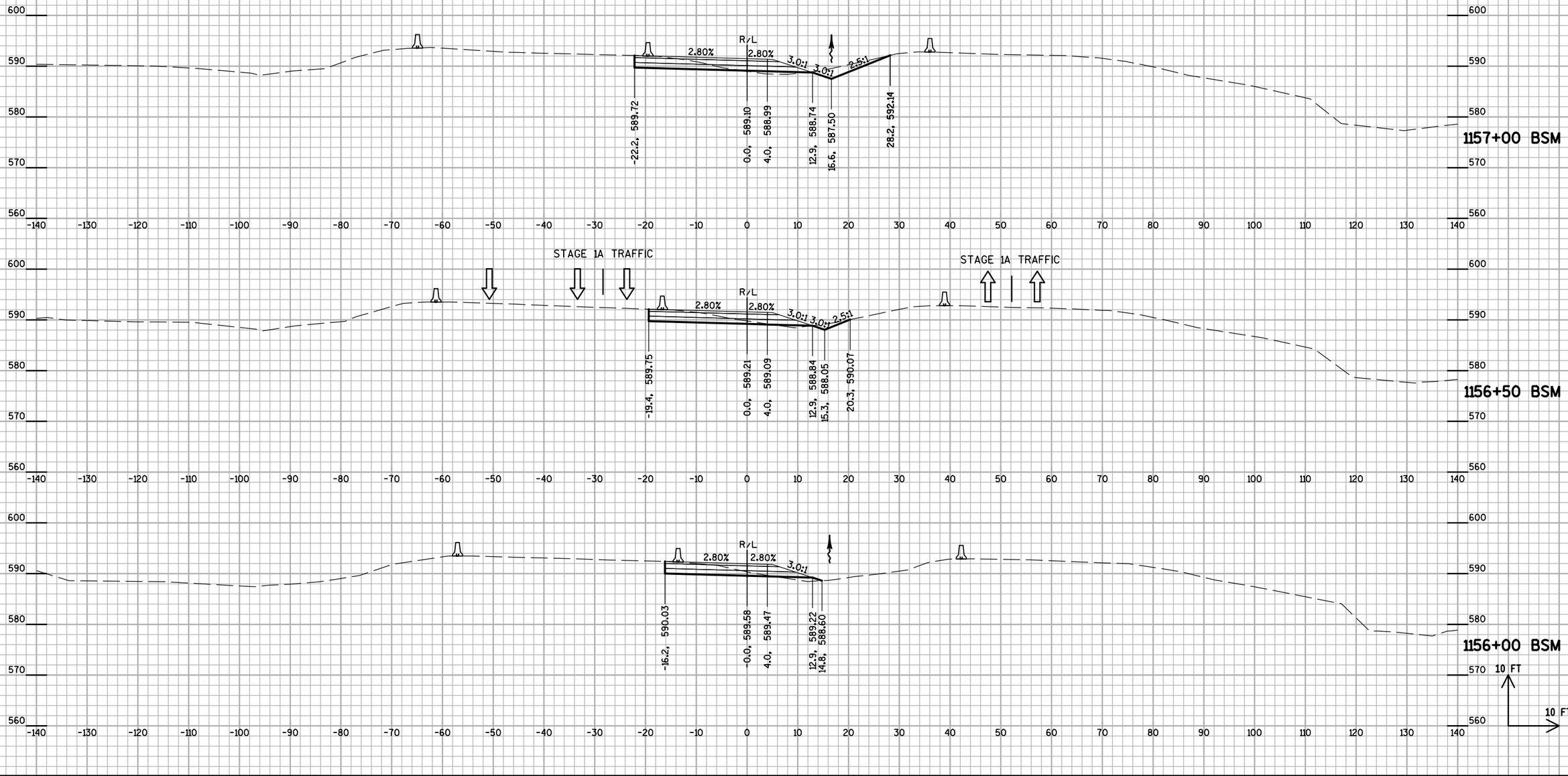


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1156+00 BSM TO 1157+00 BSM

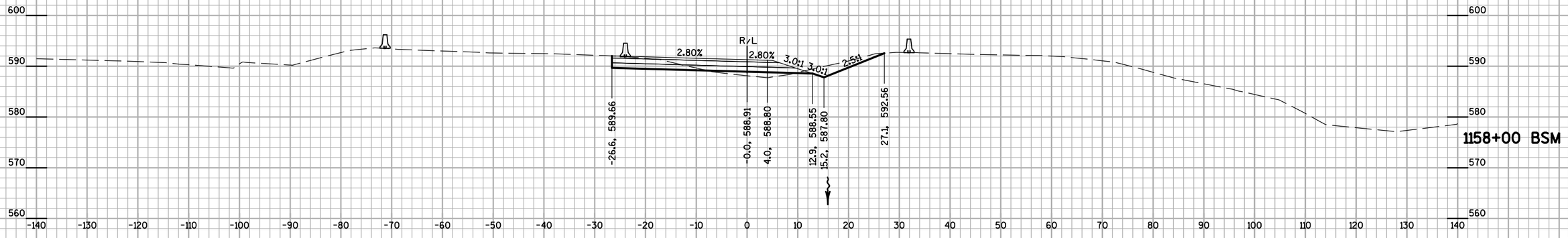


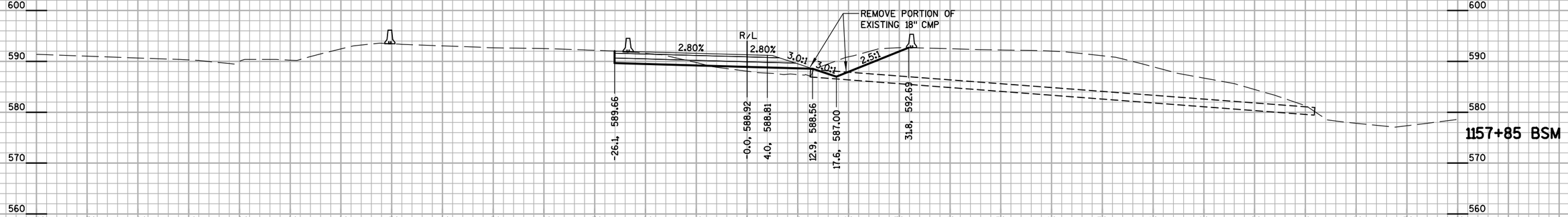
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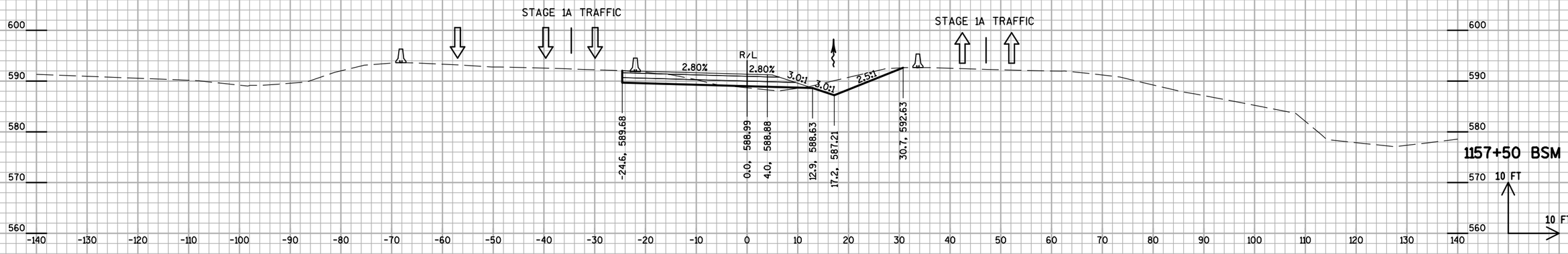
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WISDOT/CADDS SHEET 21

STA. 1157+50 BSM TO 1158+00 BSM







9

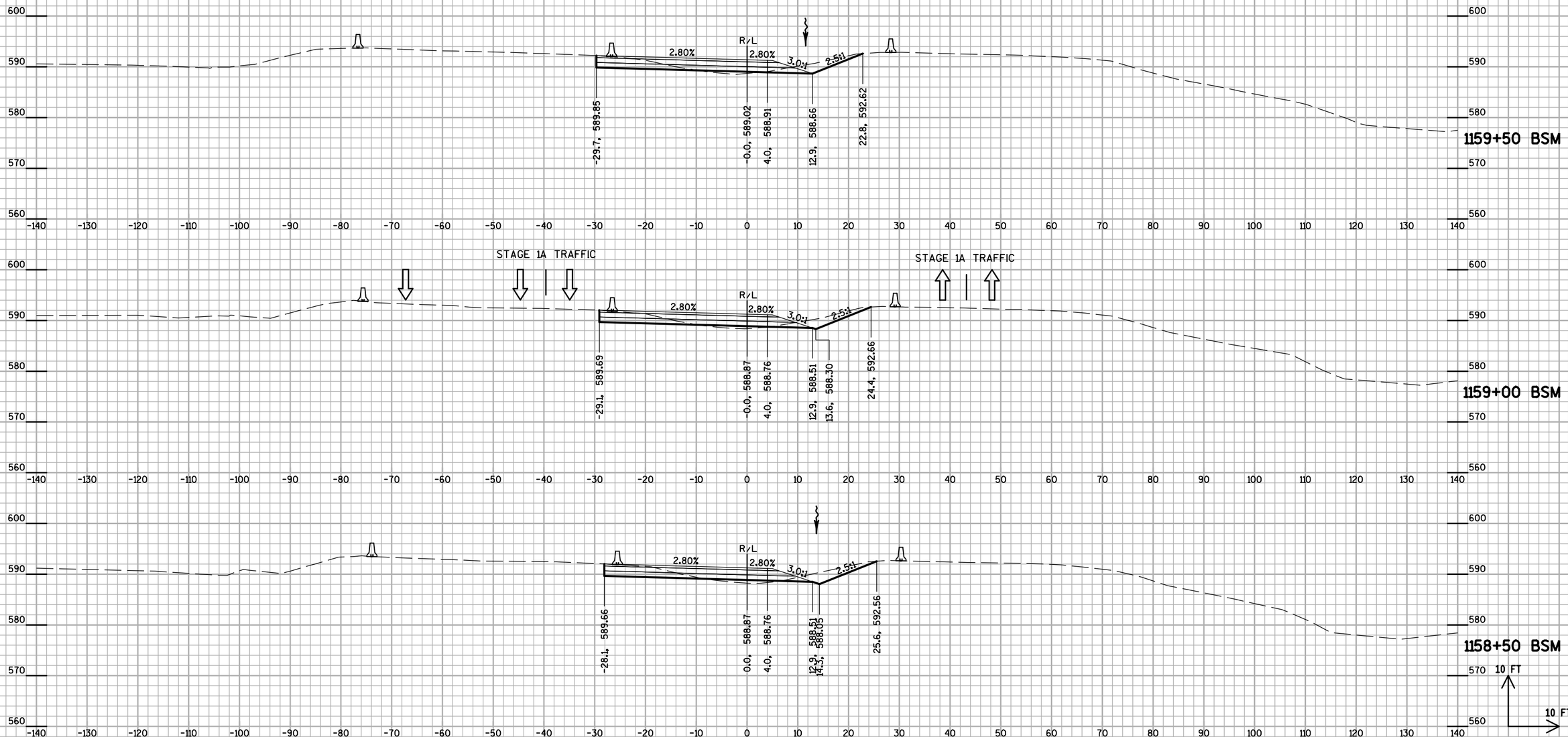
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1158+50 BSM TO 1159+50 BSM



9

9

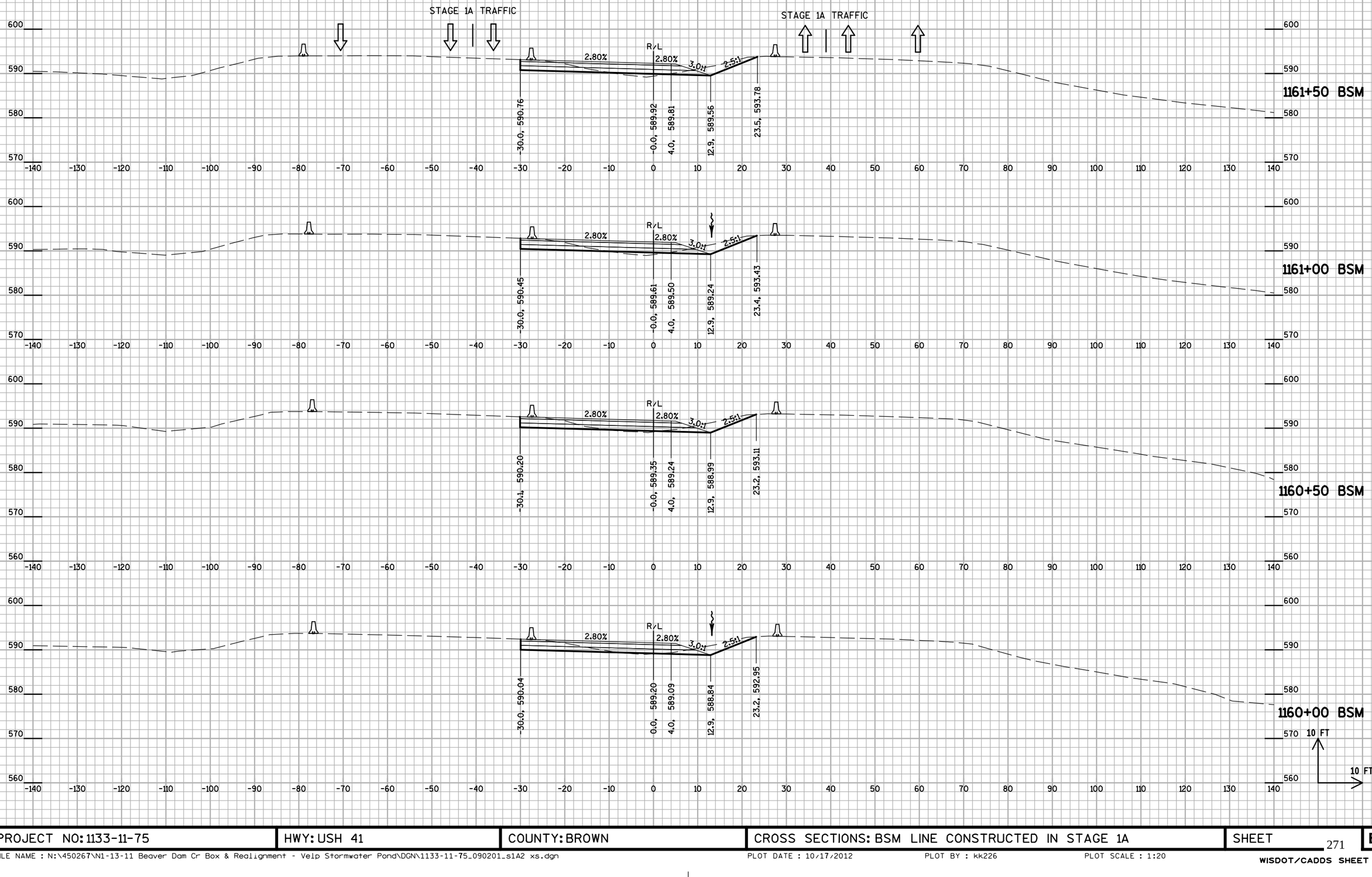
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1160+00 BSM TO 1161+50 BSM

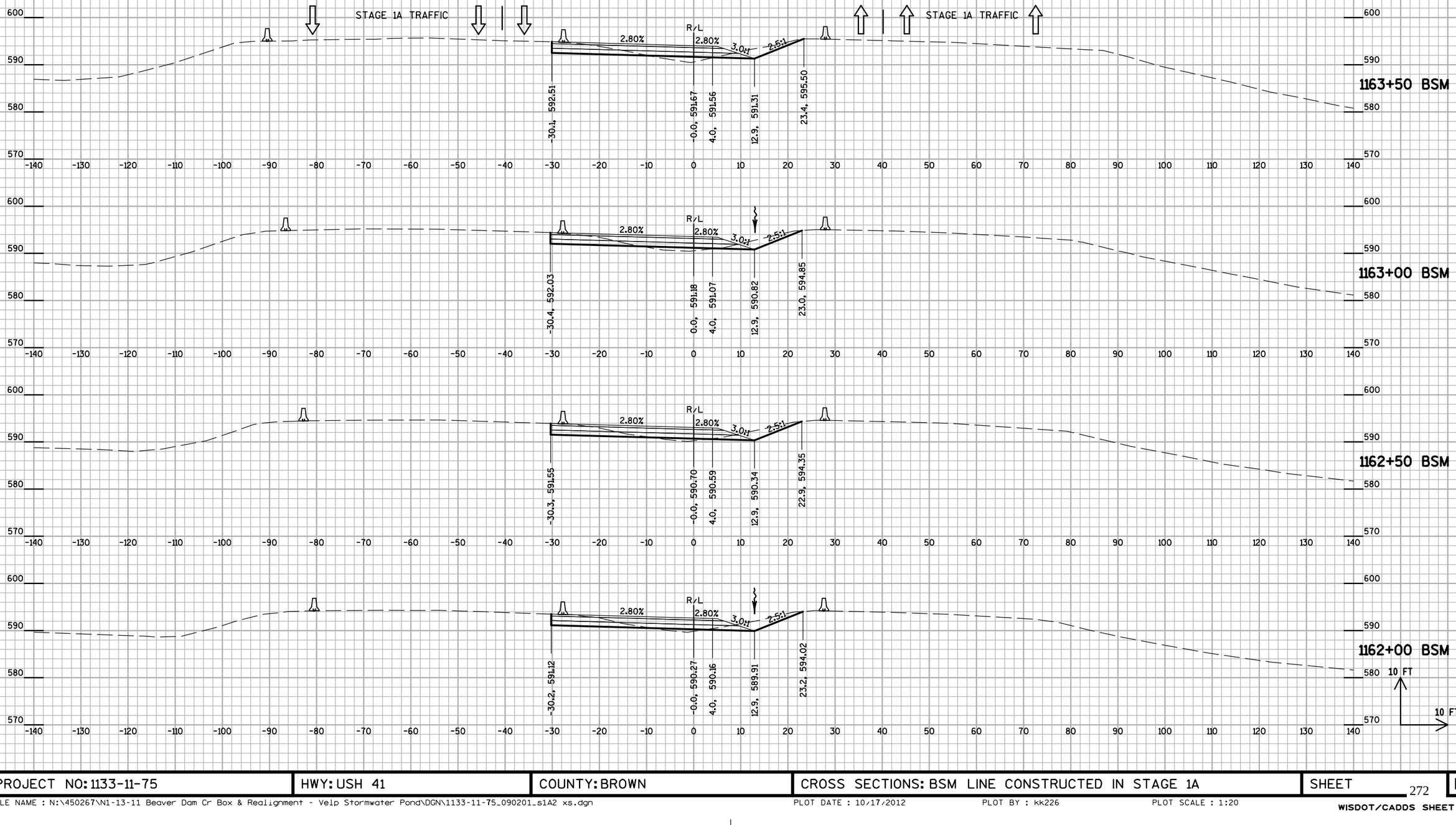


9

9

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET 271	E

STA. 1162+00 BSM TO 1163+50 BSM



9

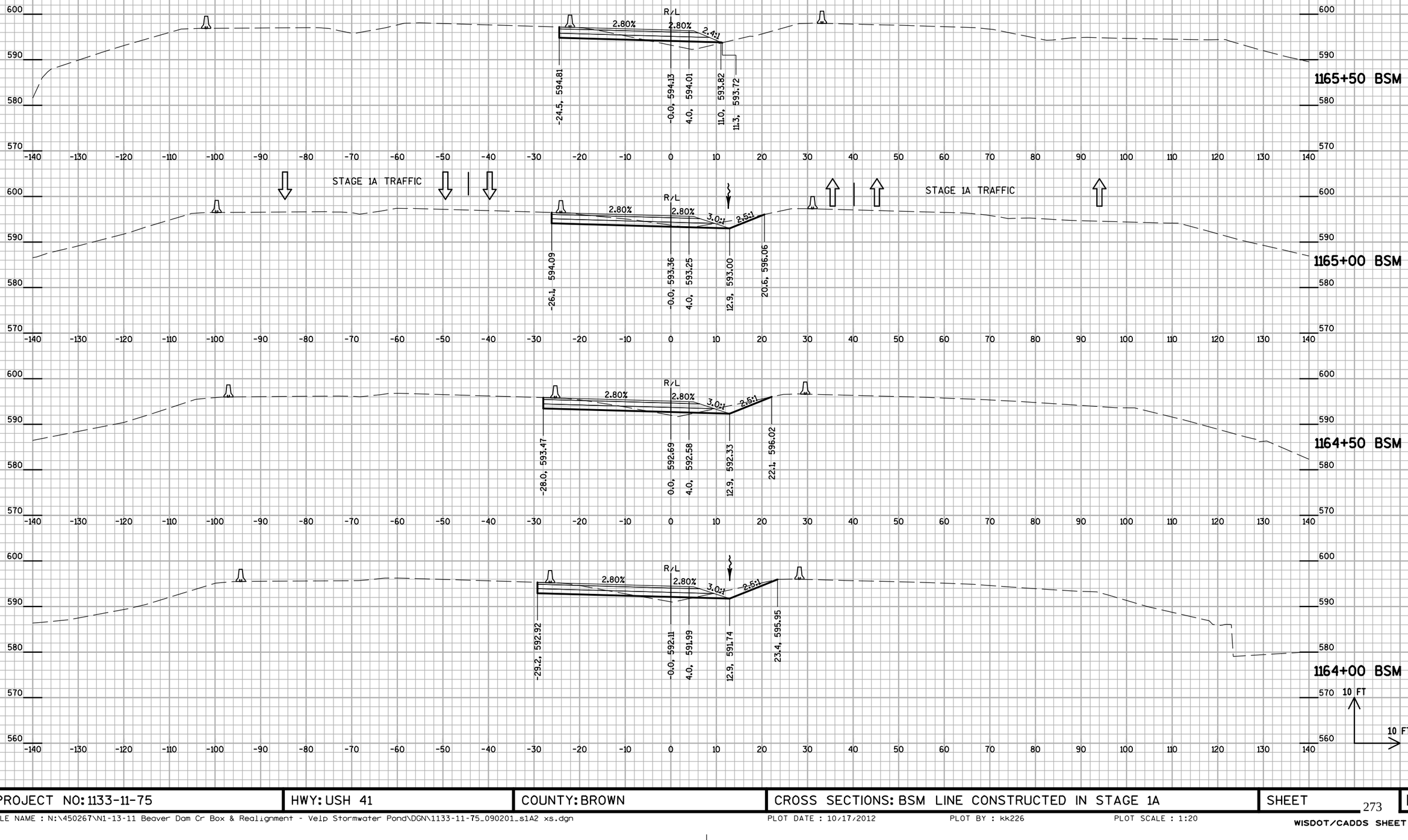
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1164+00 BSM TO 1165+50 BSM



9

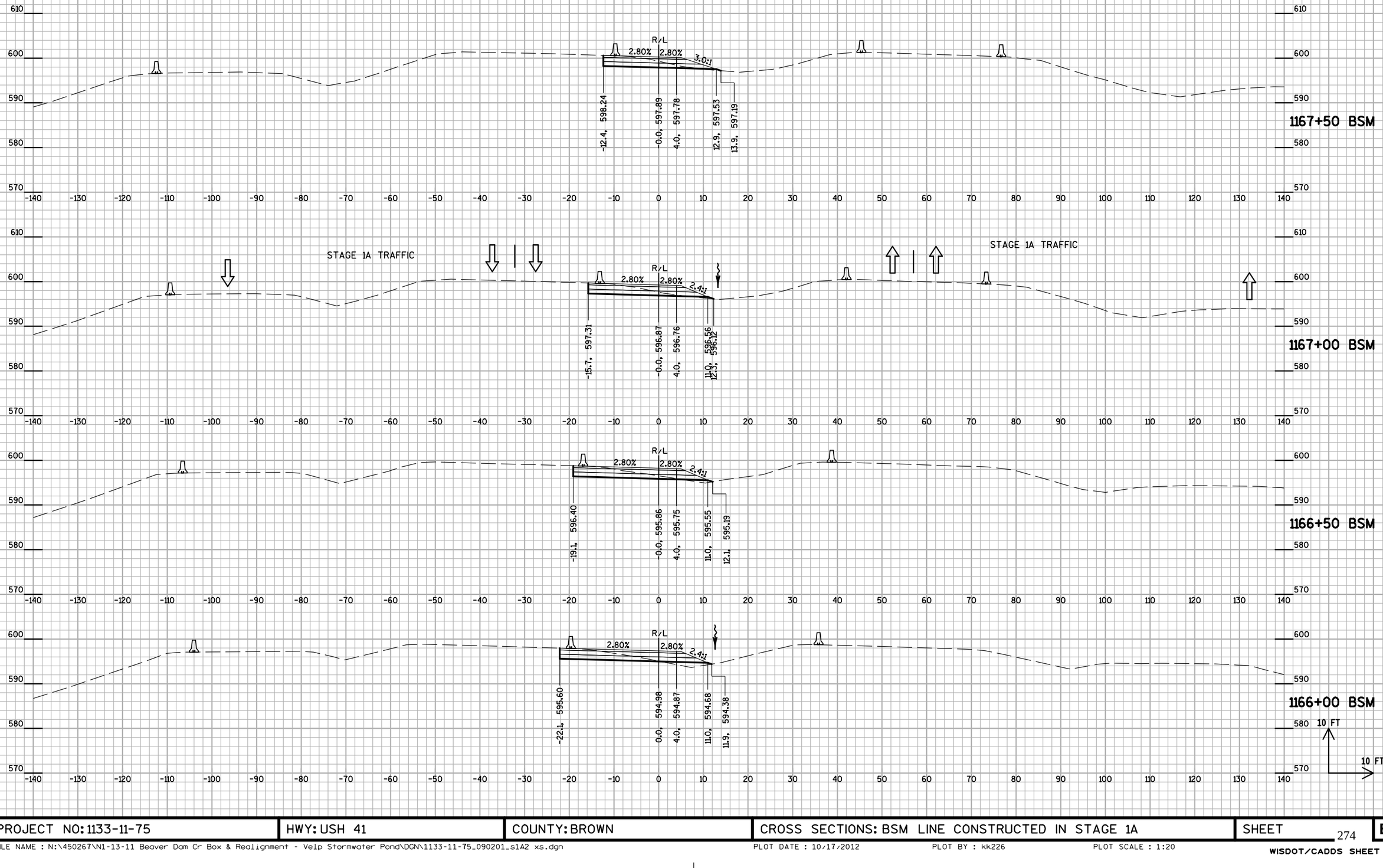
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

STA. 1166+00 BSM TO 1167+50 BSM

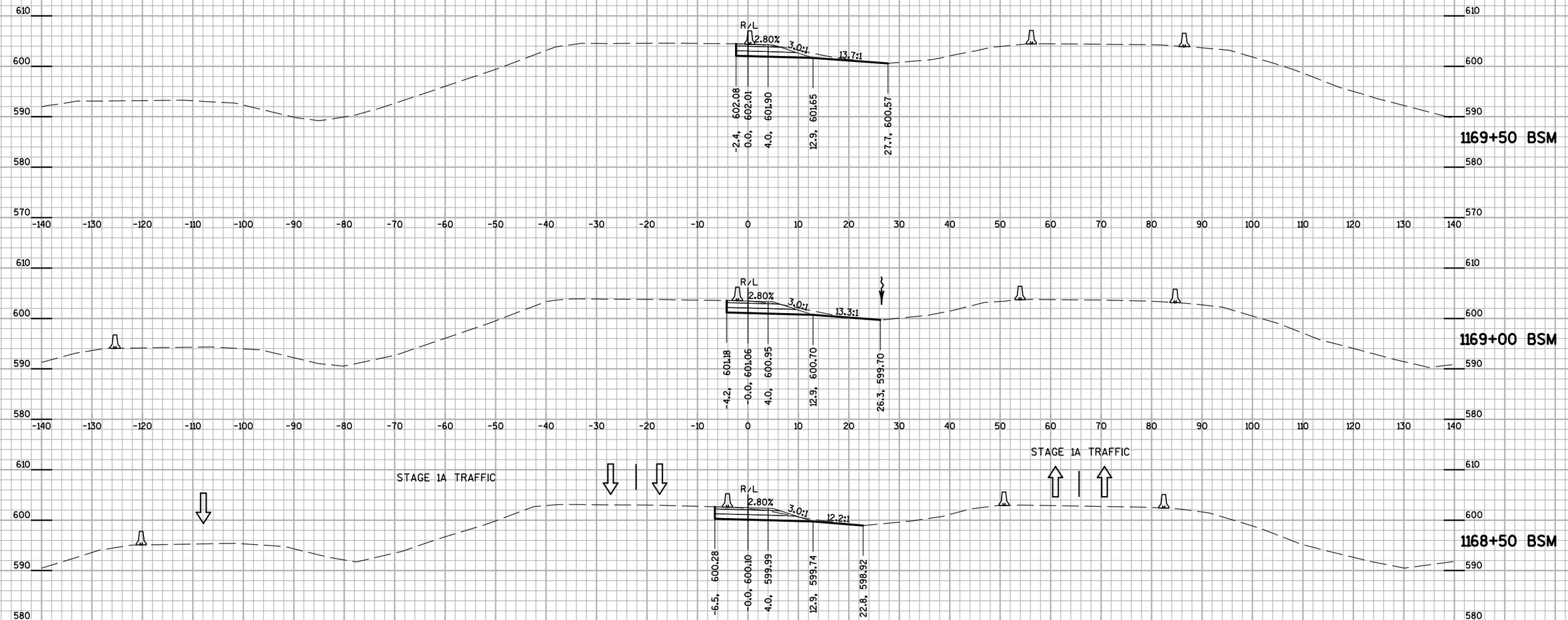


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET 274	E

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WISDOT/CADDS SHEET 21

STA. 1168+00 BSM TO 1169+50 BSM

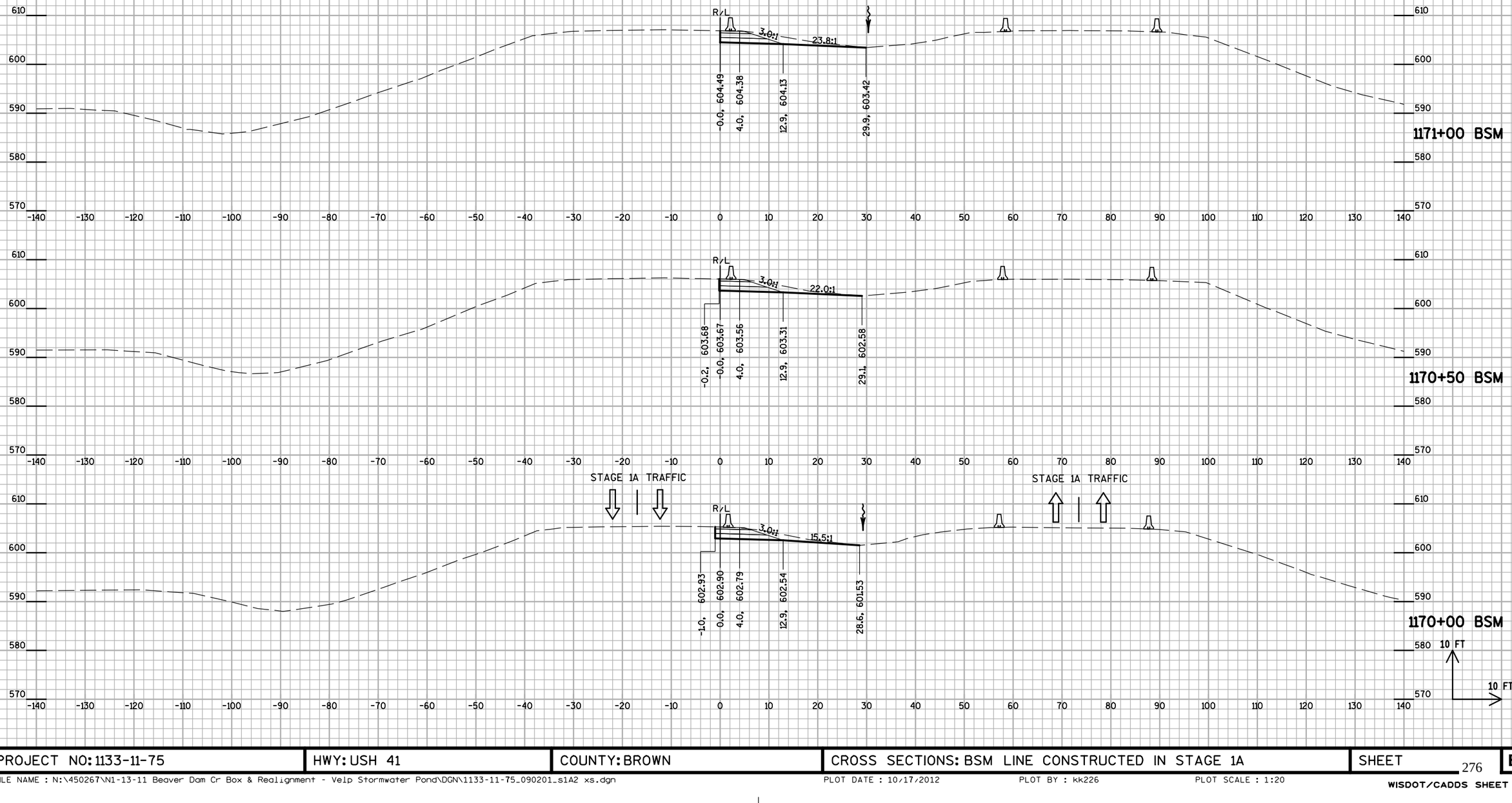


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET 275	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1170+00 BSM TO 1171+00 BSM



9

9

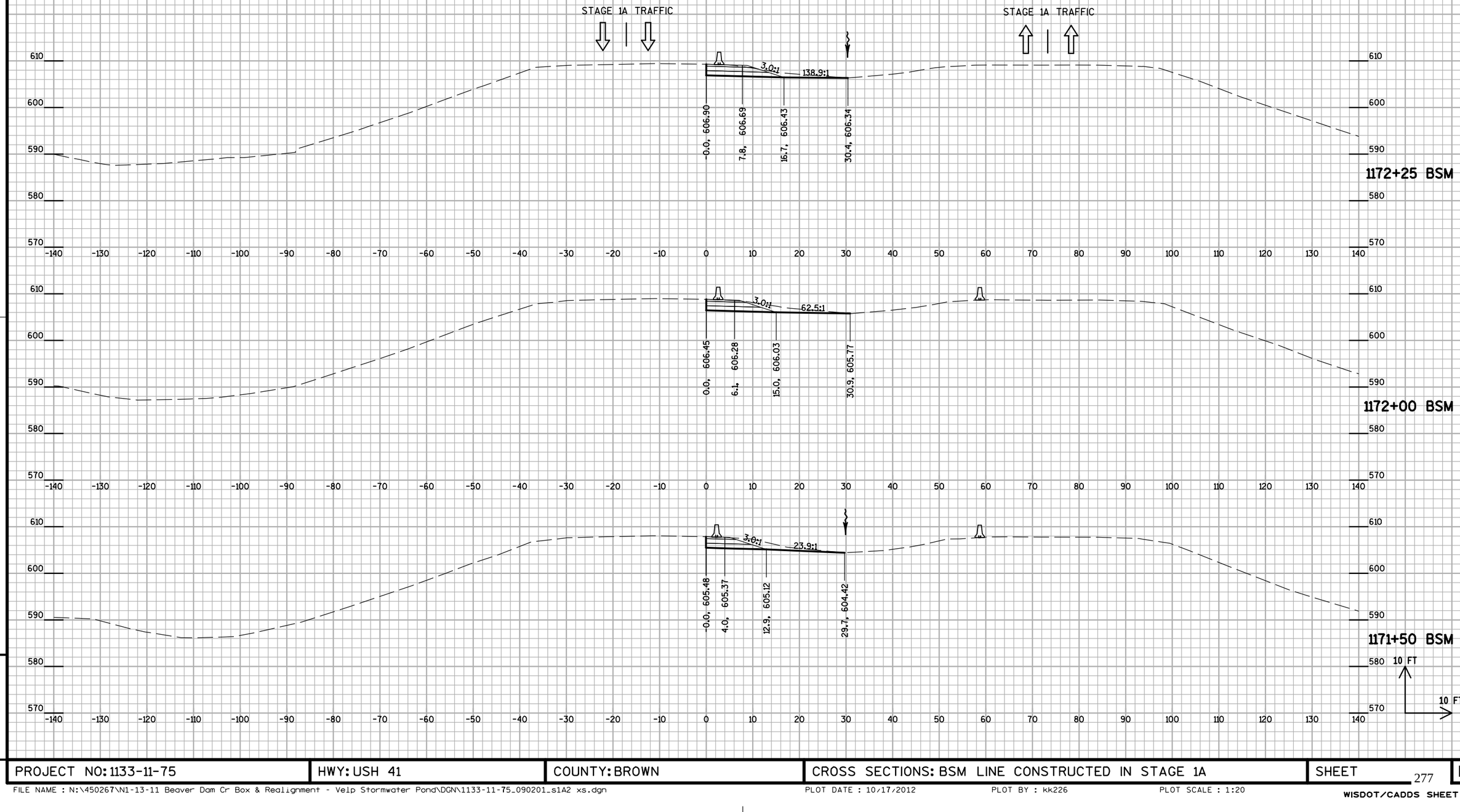
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1A2 xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1171+50 BSM TO 1172+25 BSM



9

9

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BSM LINE CONSTRUCTED IN STAGE 1A	SHEET 277	E

STA. 1149+50 CNM TO 1151+00 CNM

CONTRACTOR TO FIELD VERIFY
INVERT ELEVATION OF EXISTING PIPE
AMD PROVIDE PIPE COLLAR AT CONNECTION

REMOVE EXISTING 18" CMP AND
REPLACE WITH 18" RCP

APPROXIMATE EXISTING PIPE
LOCATION AT 1150+80 CMN

EXISTING 18" CMP
TO REMAIN

STAGE 1B TRAFFIC

FINAL GRADE
ULTIMATE CONDITION

MARSH EXCAVATION

MARSH EXCAVATION AND BREAKER RUN

1151+00 CNM

1150+50 CNM

1150+00 CNM

1149+50 CNM

10 FT

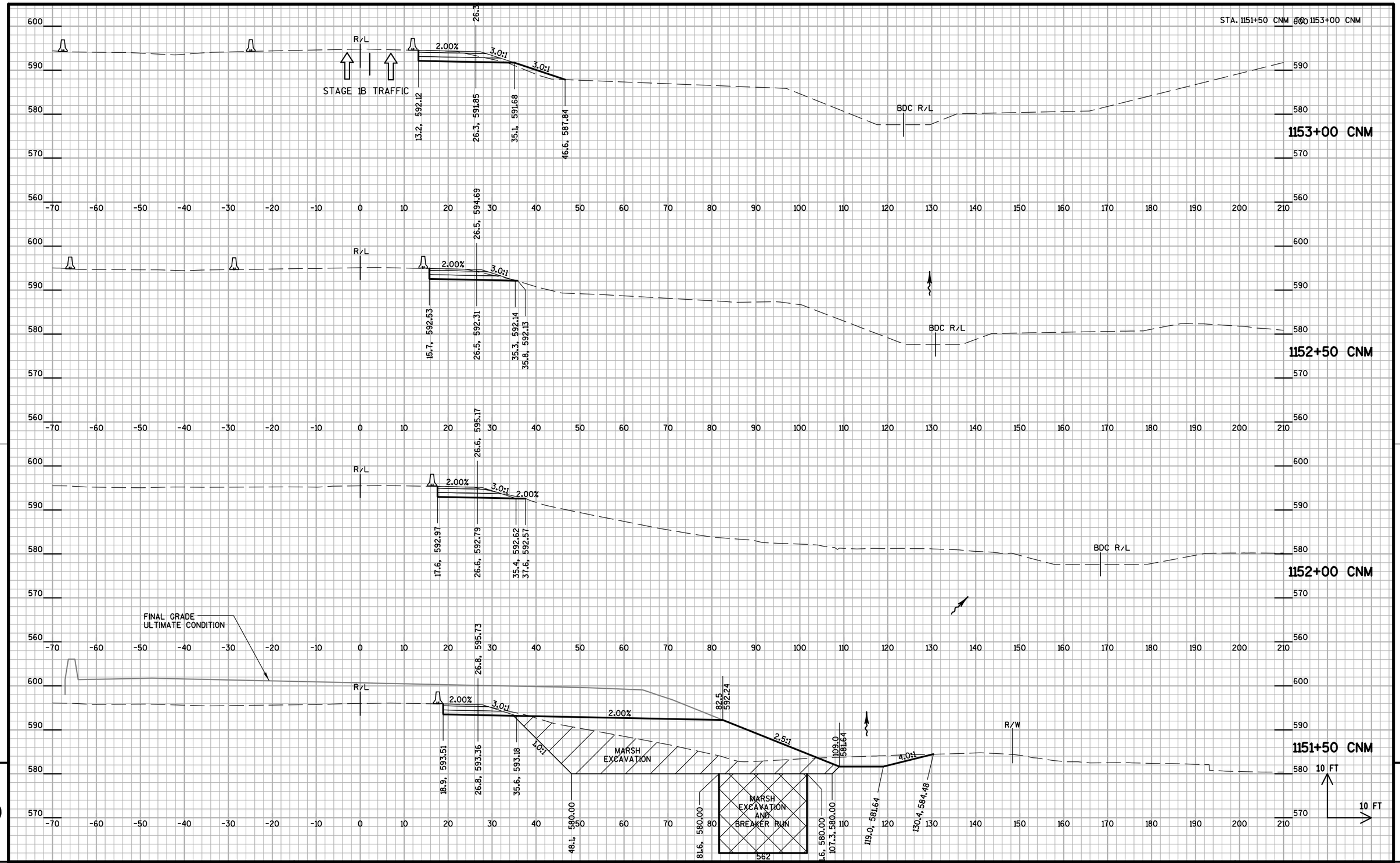
10 FT

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET 278	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

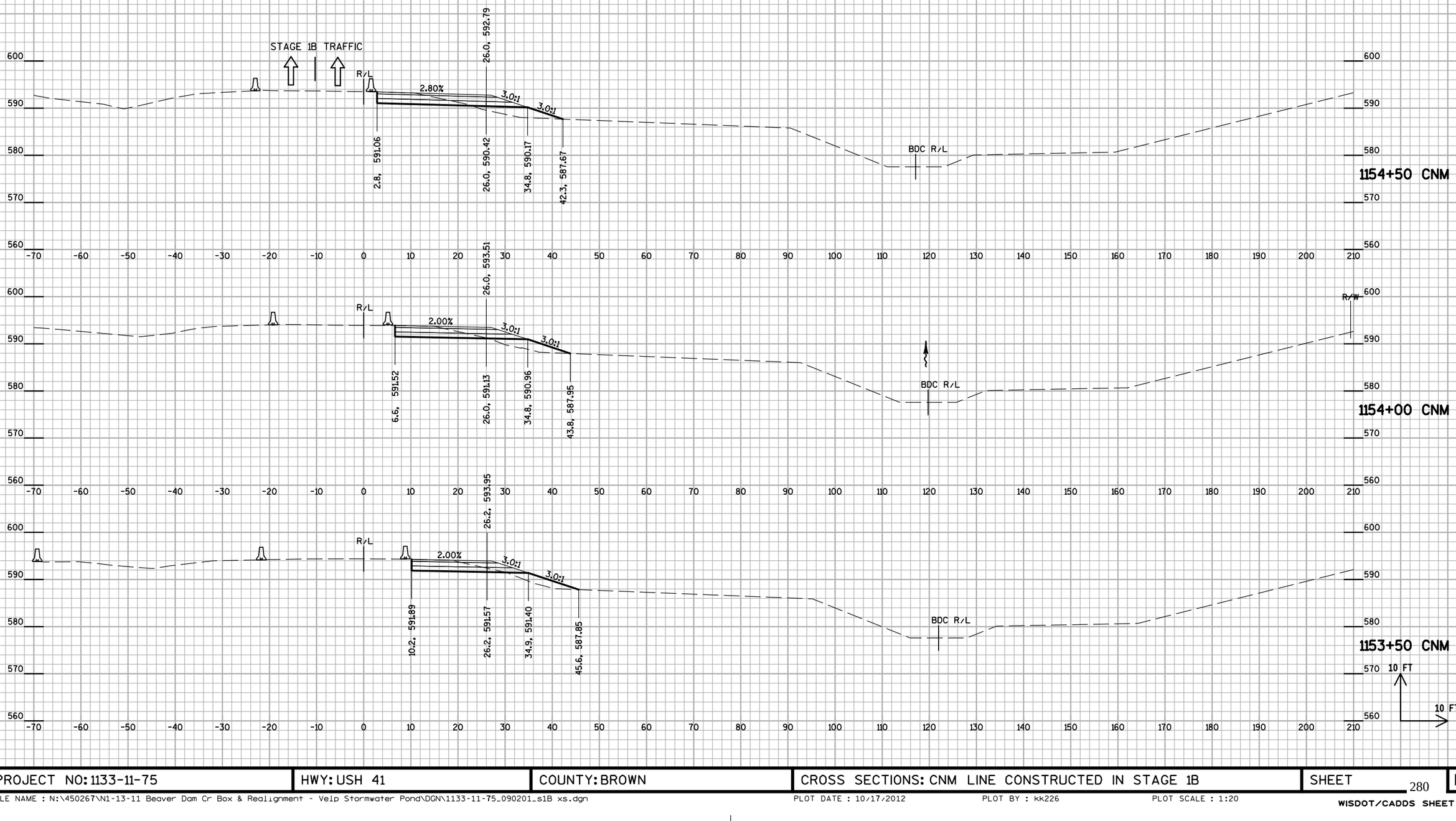


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1153+50 CNM TO 1154+50 CNM



9

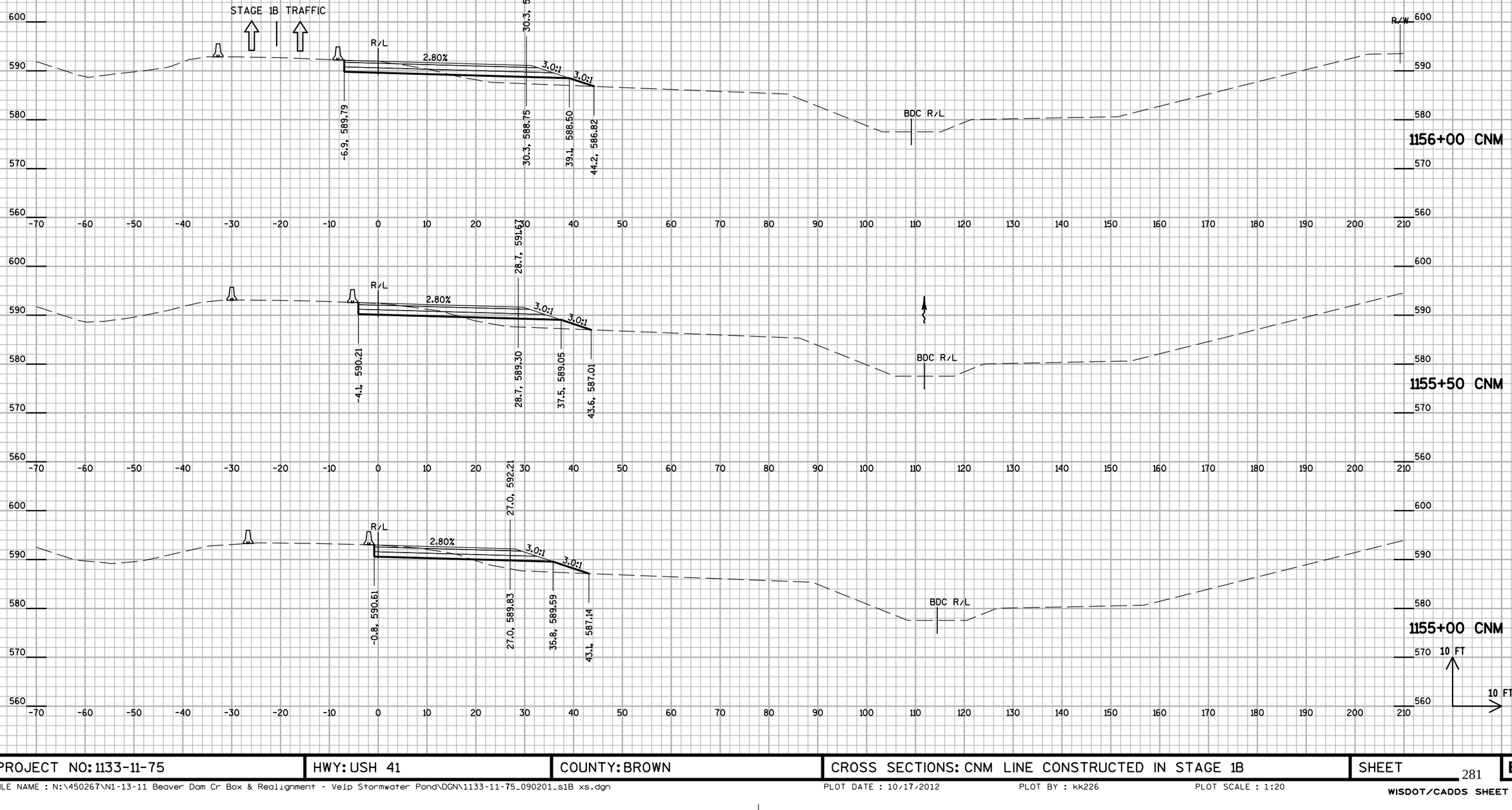
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1155+00 CNM TO 1156+00 CNM



9

9

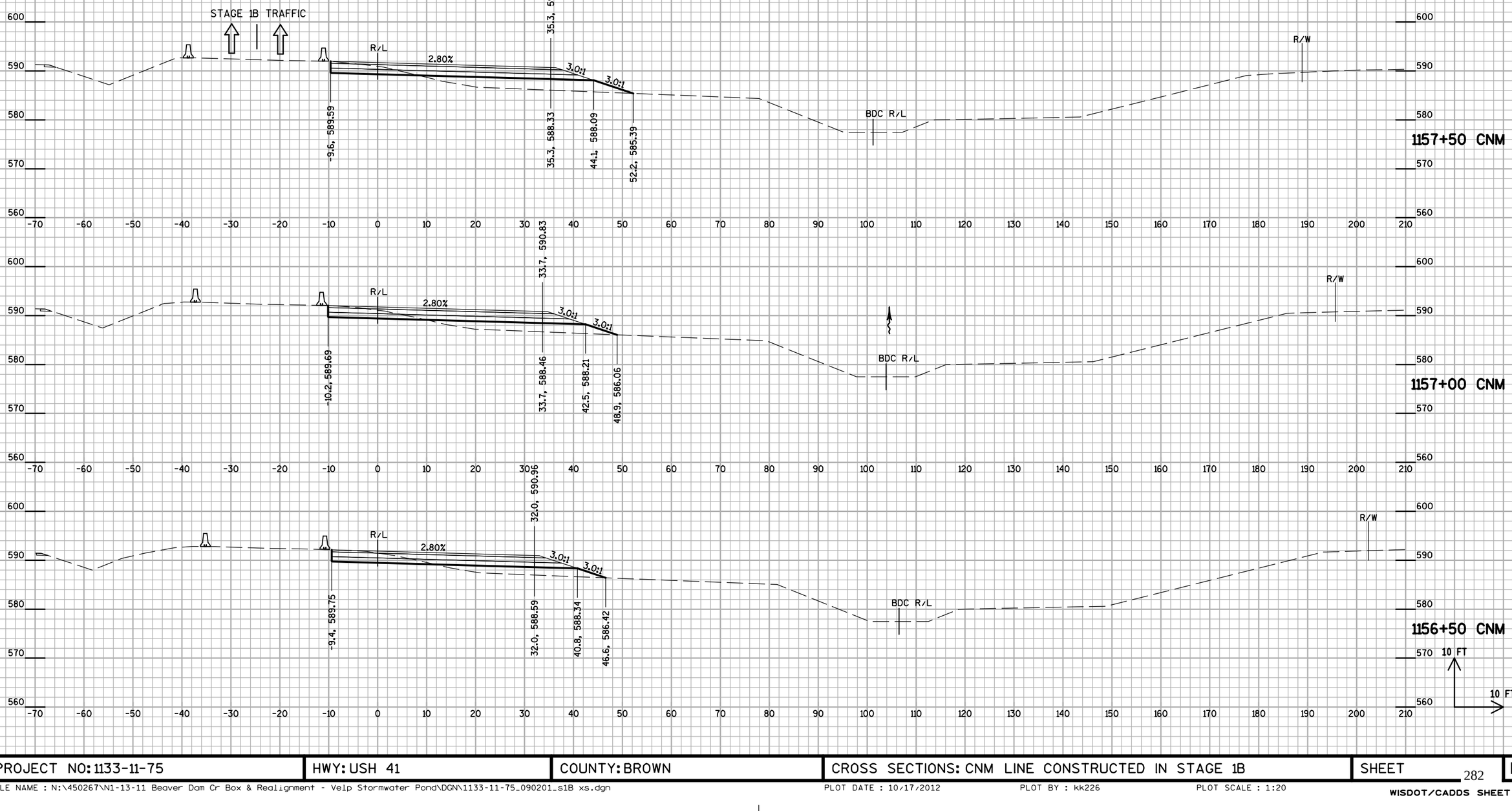
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1156+50 CNM TO 1157+50 CNM



9

9

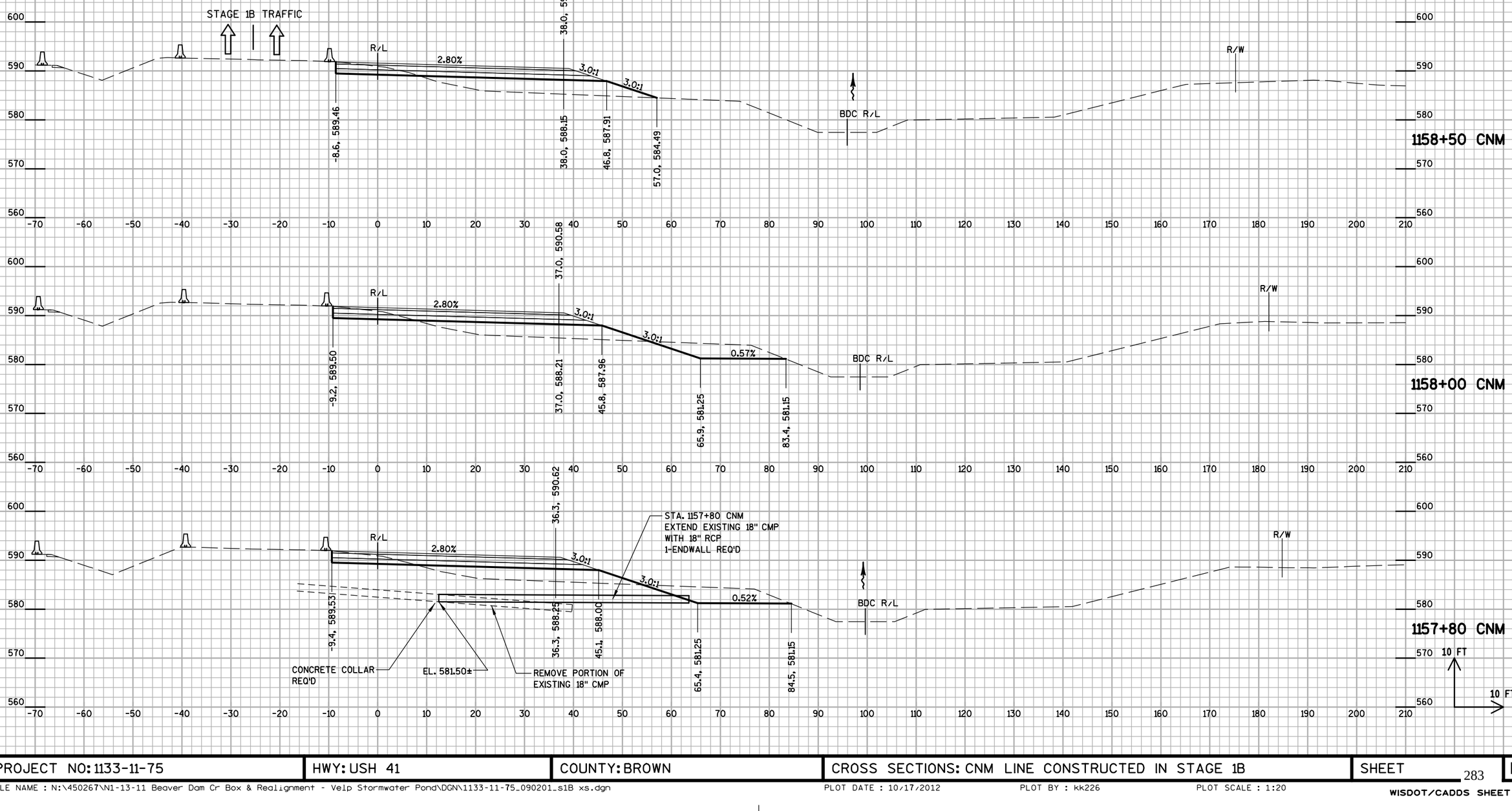
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PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1157+80 CNM TO 1158+50 CNM



9

9

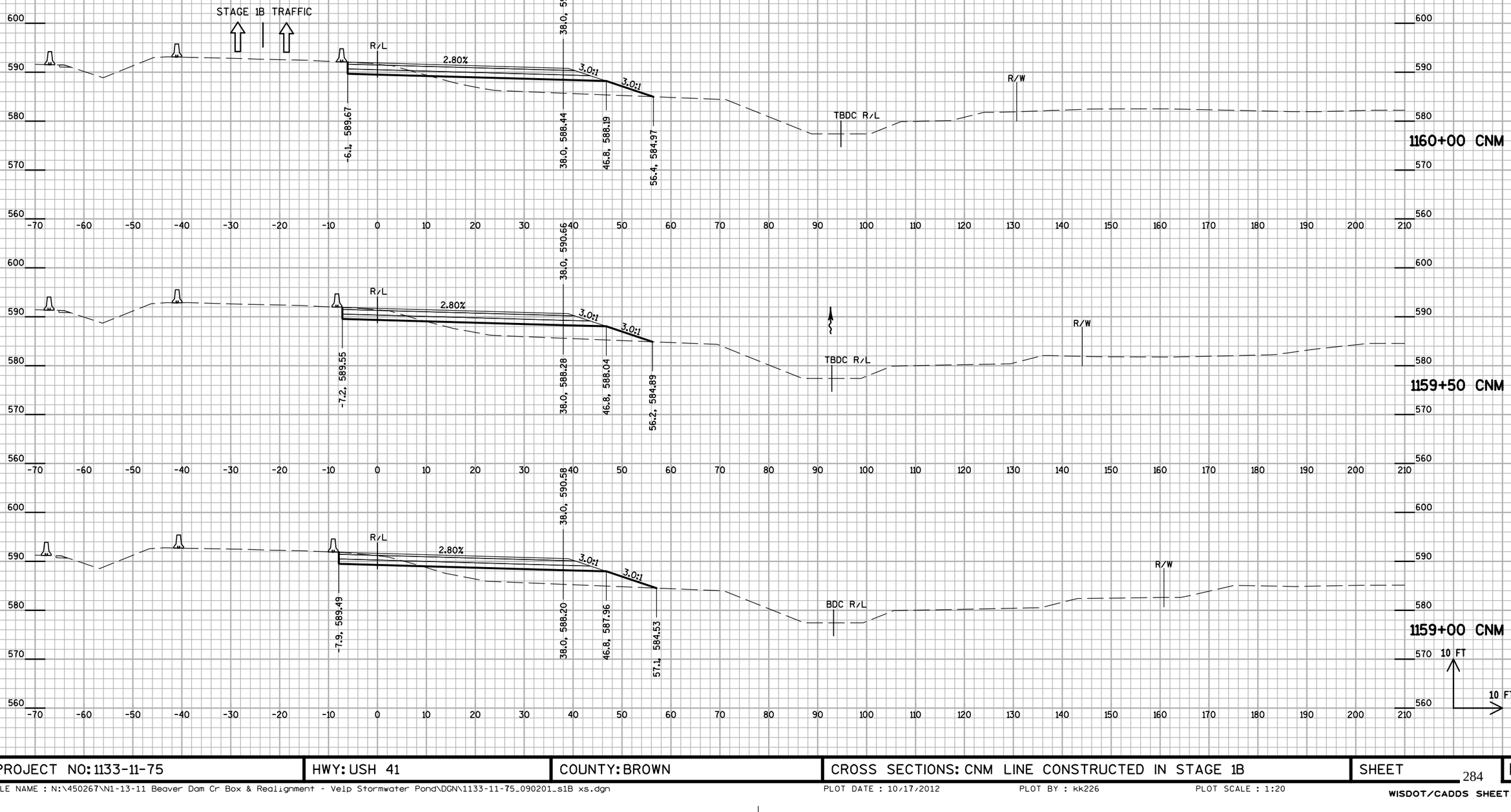
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PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1159+00 CNM TO 1160+00 CNM



9

9

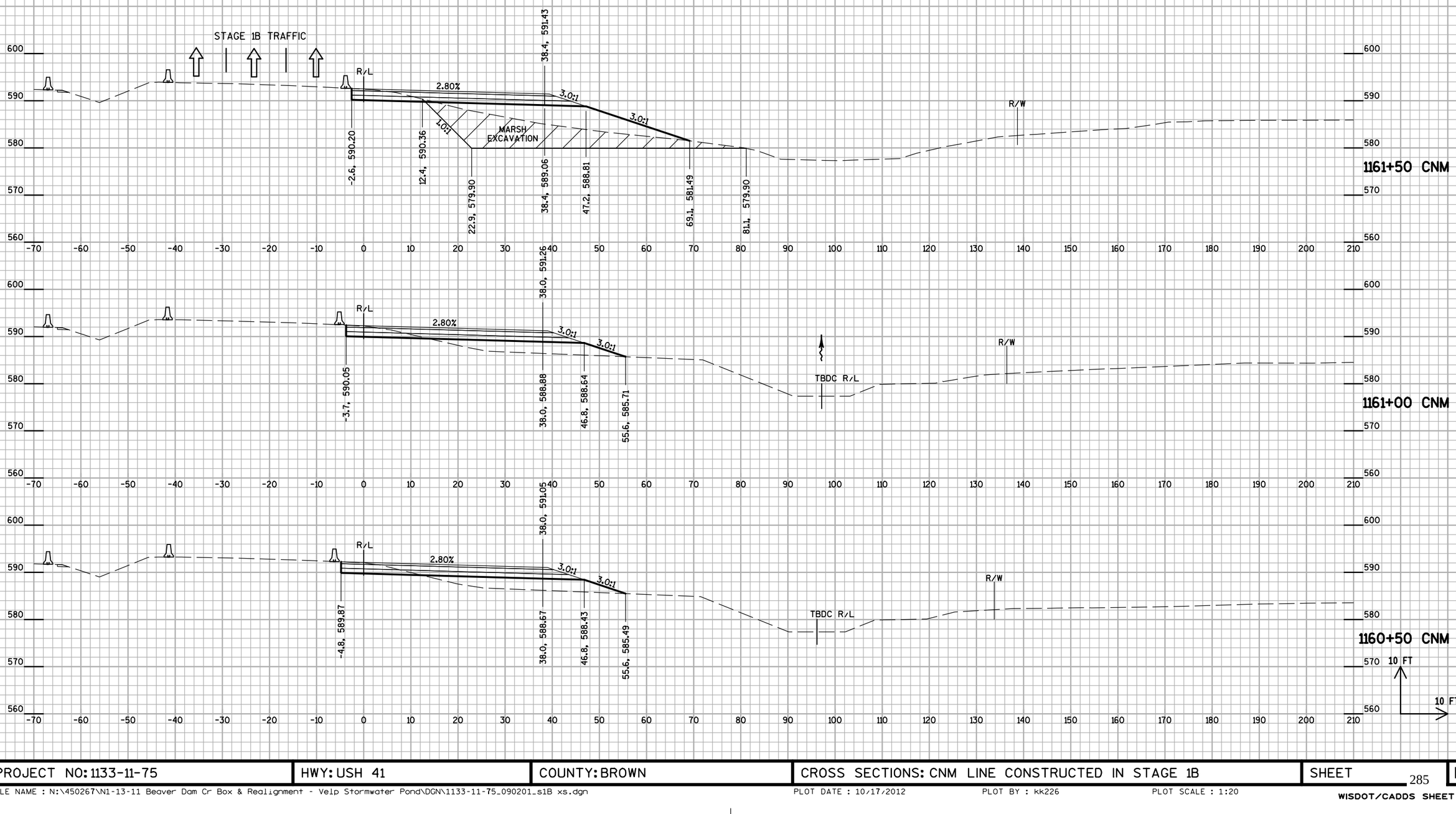
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1160+50 CNM TO 1161+50 CNM



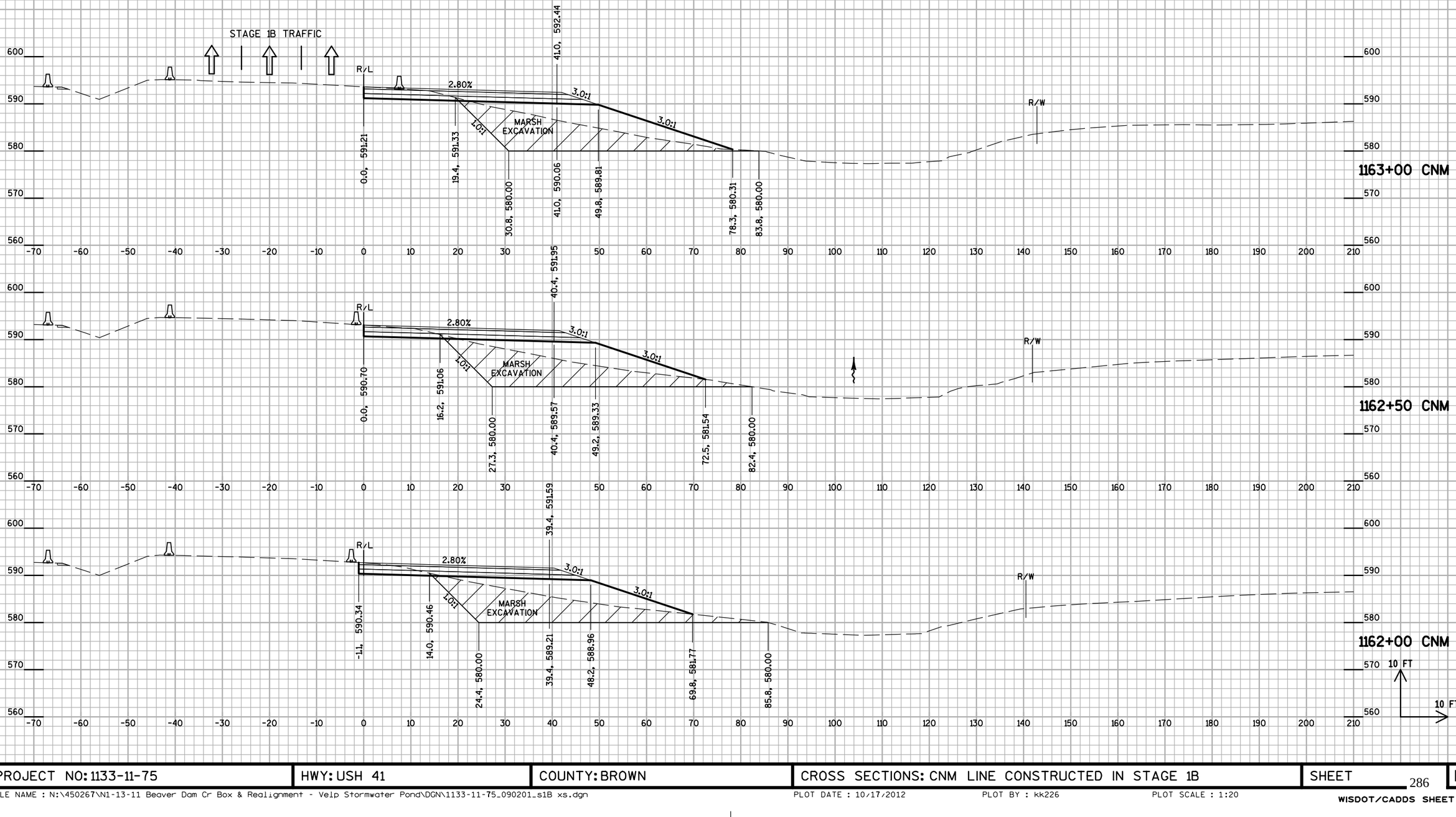
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1162+00 CNM TO 1163+00 CNM

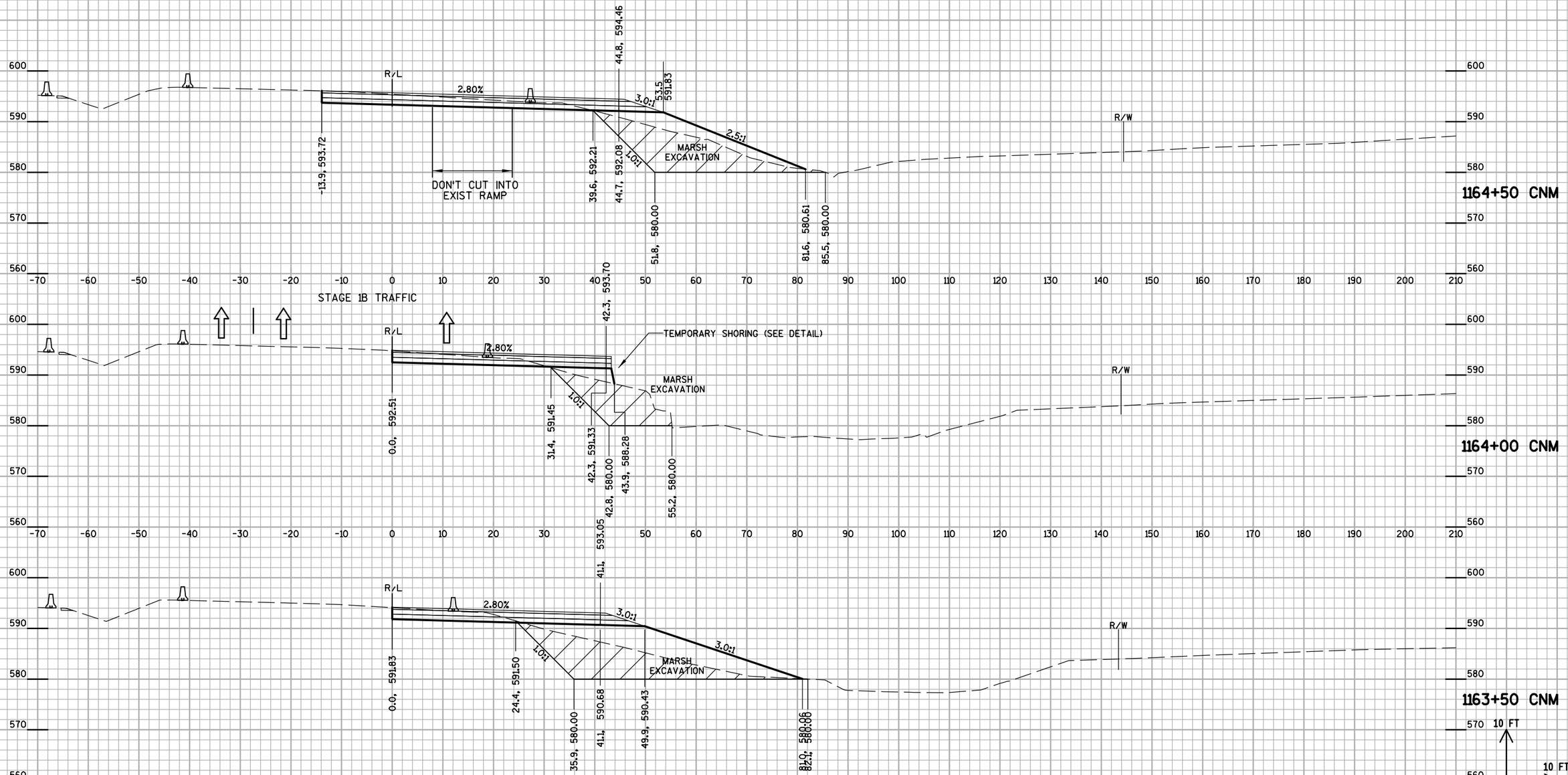


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1163+50 CNM TO 1164+50 CNM



9

PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET 287	E

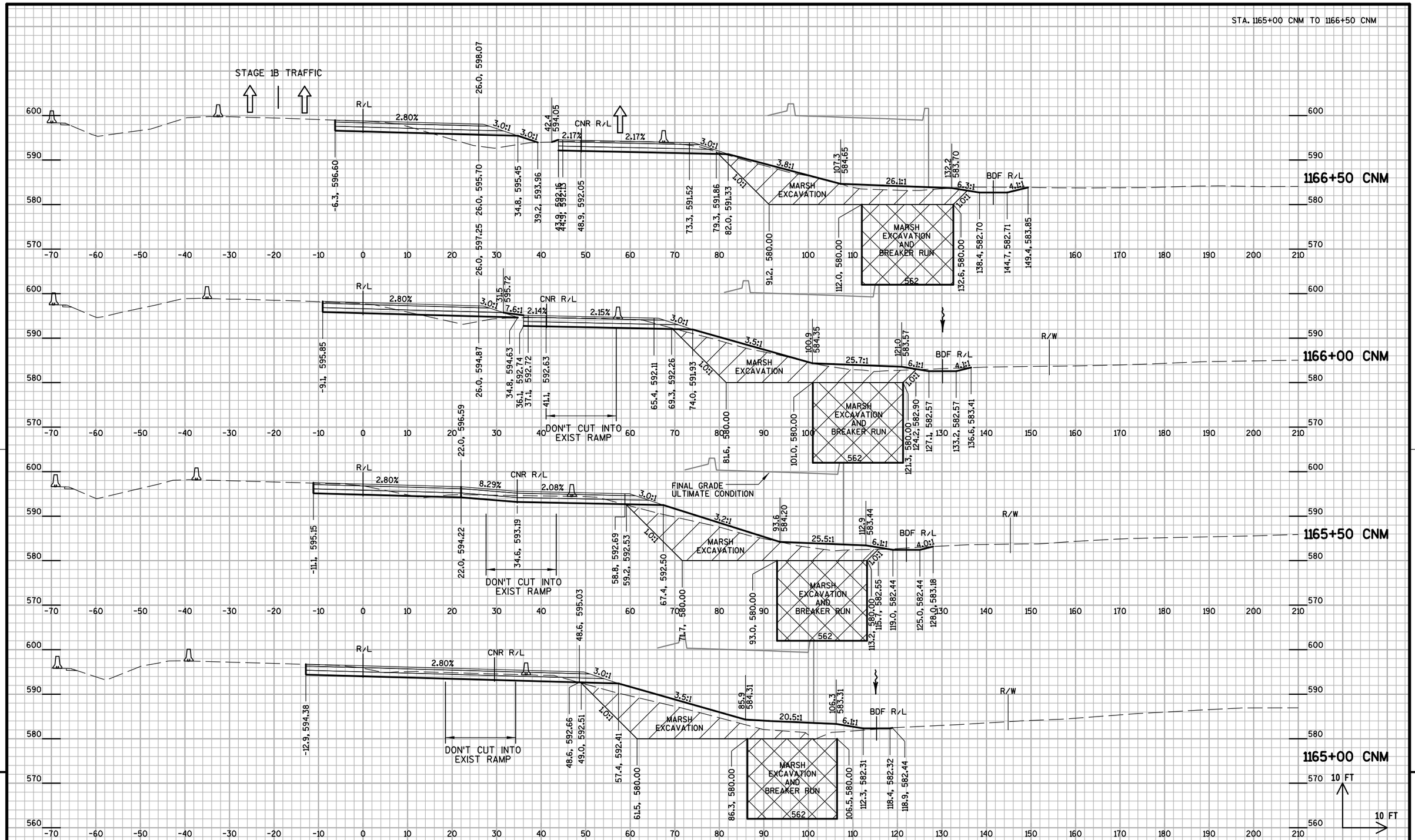
FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

STA. 1165+00 CNM TO 1166+50 CNM

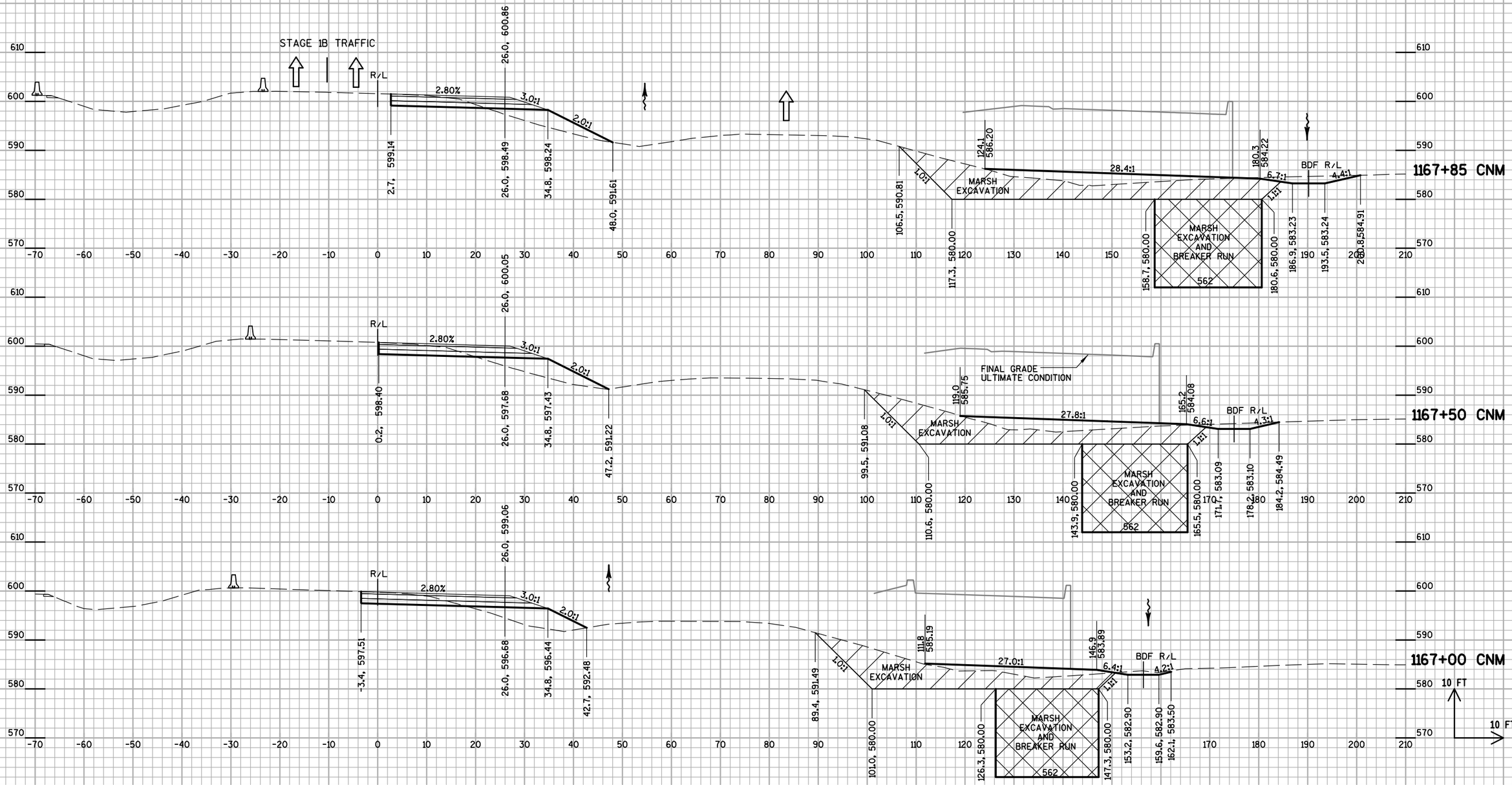


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET 288	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+00 CNM TO 1167+85 CNM



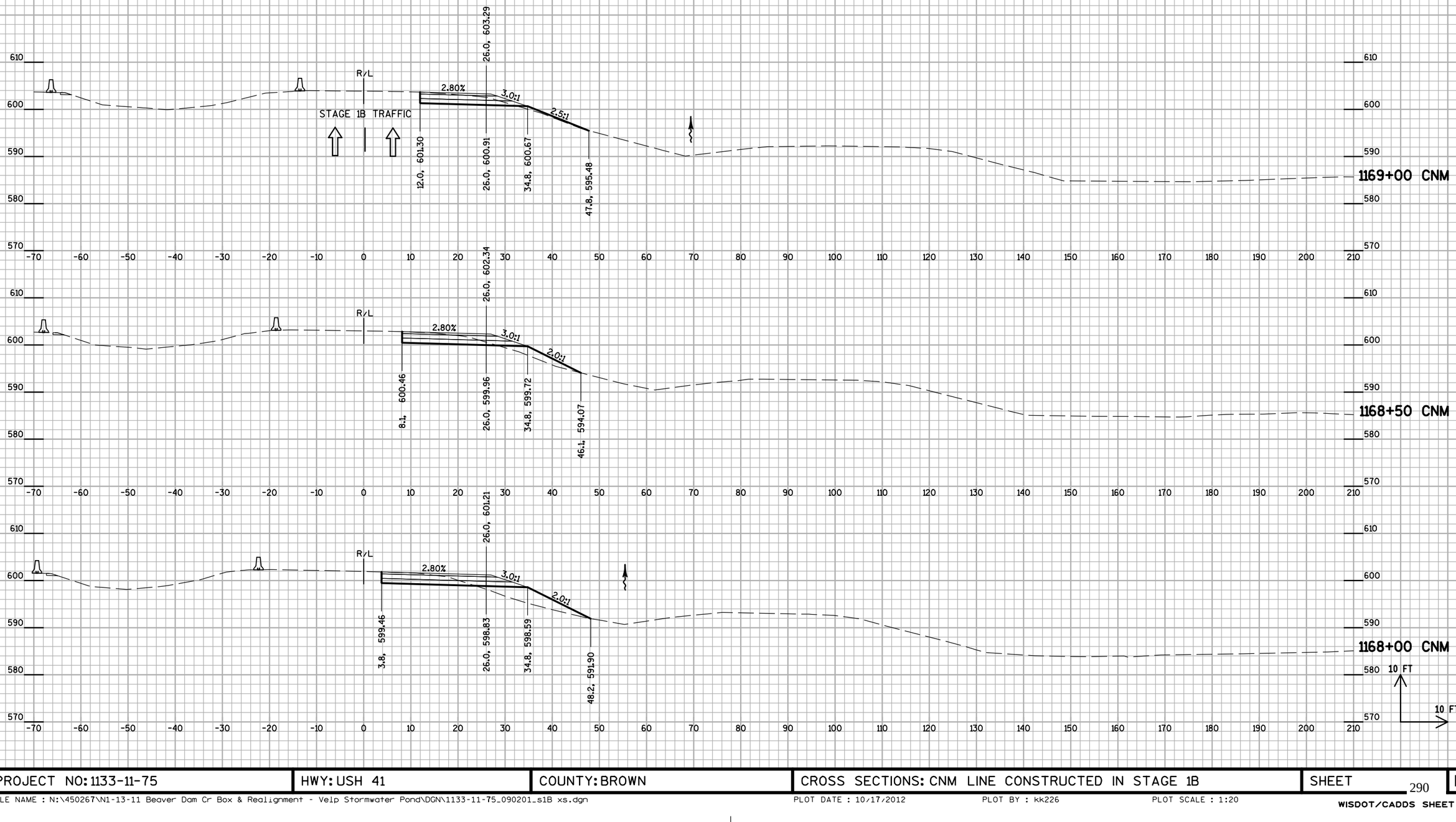
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1168+00 CNM TO 1169+00 CNM

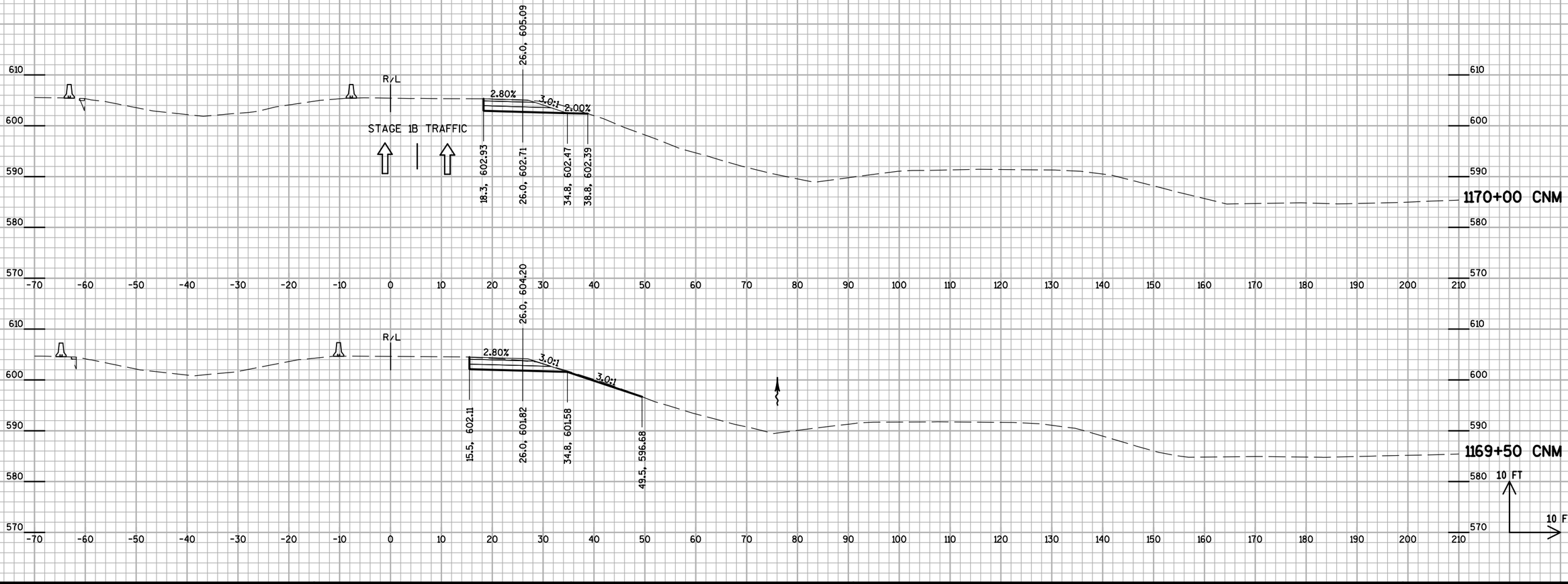


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET 290	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1169+50 CNM TO 1170+00 CNM

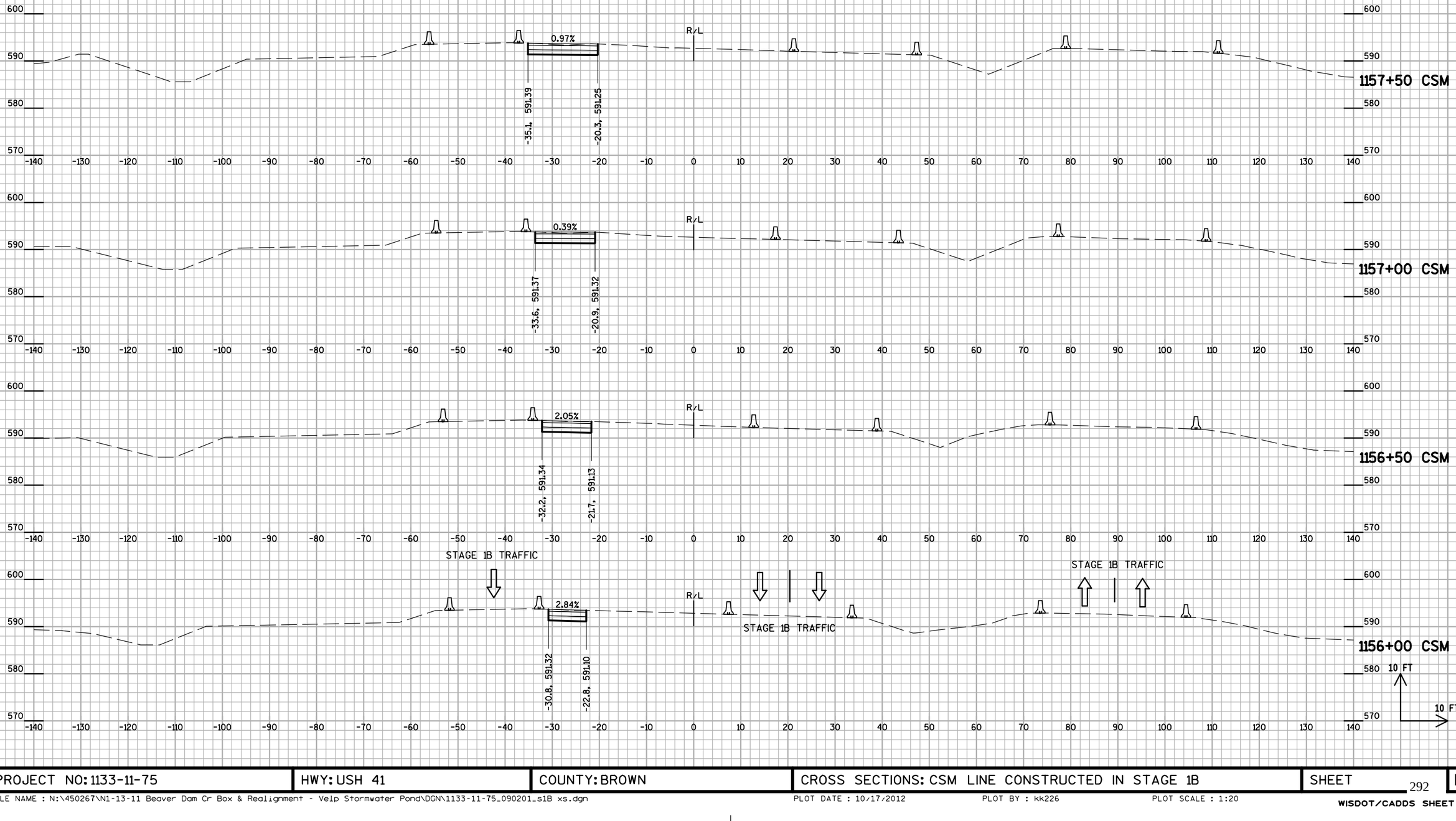


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CNM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1156+00 CSM TO 1157+50 CSM



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1158+00 CSM TO 1159+50 CSM



9

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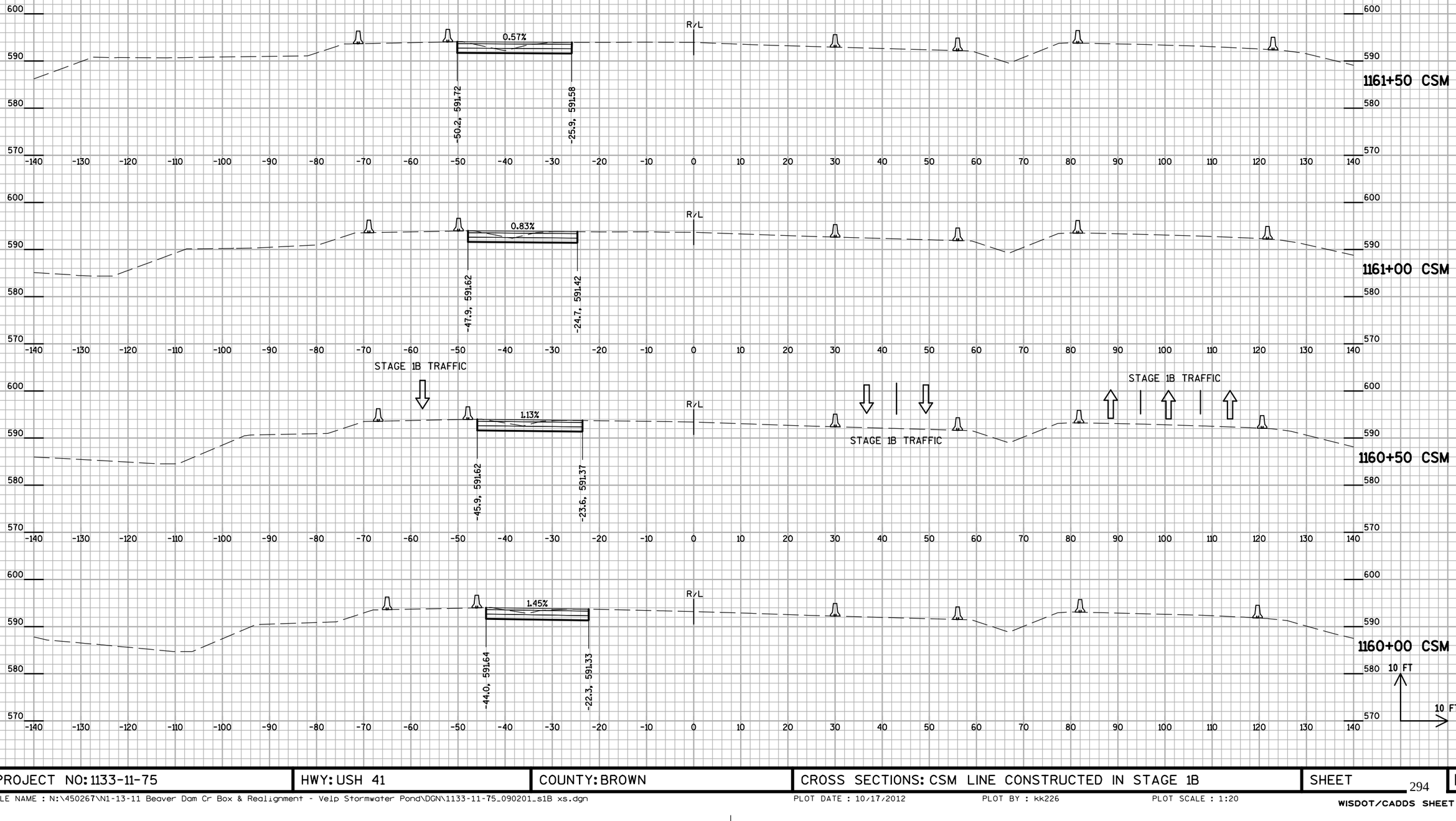
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1160+00 CSM TO 1161+50 CSM



9

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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET 294	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1162+00 CSM TO 1163+50 CSM



9

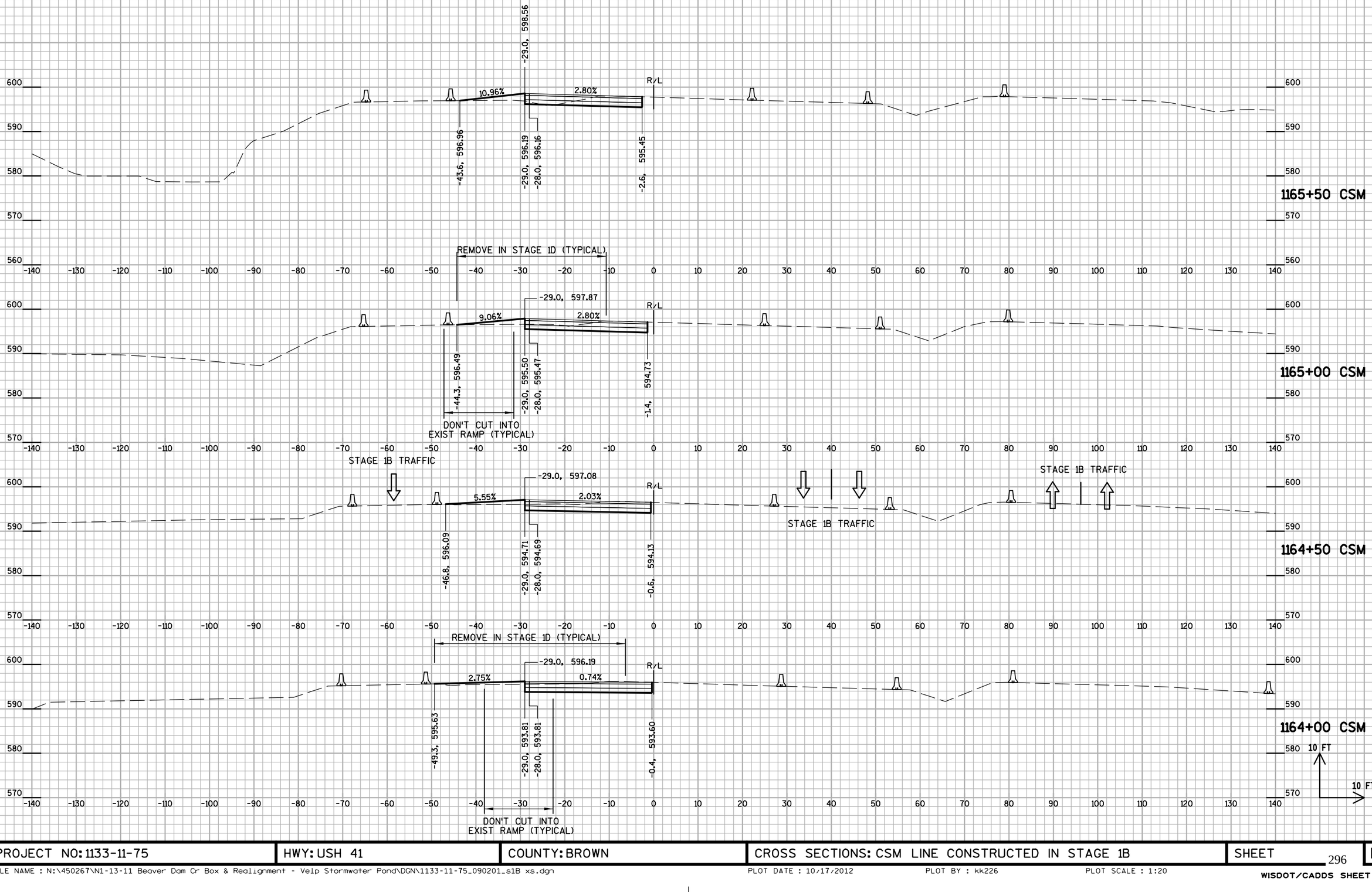
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1164+00 CSM TO 1165+50 CSM

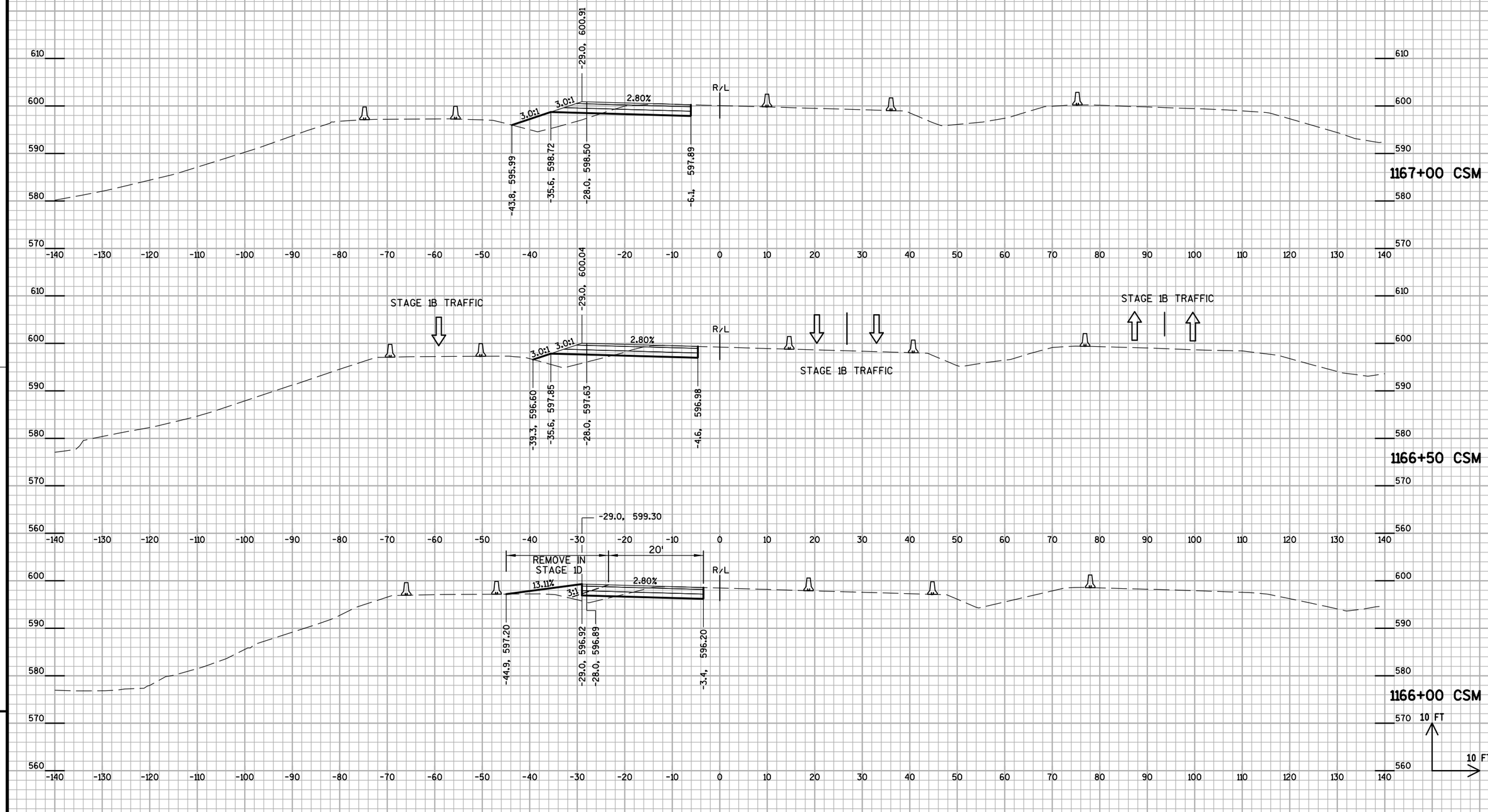


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET 296	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1166+00 CSM TO 1167+00 CSM

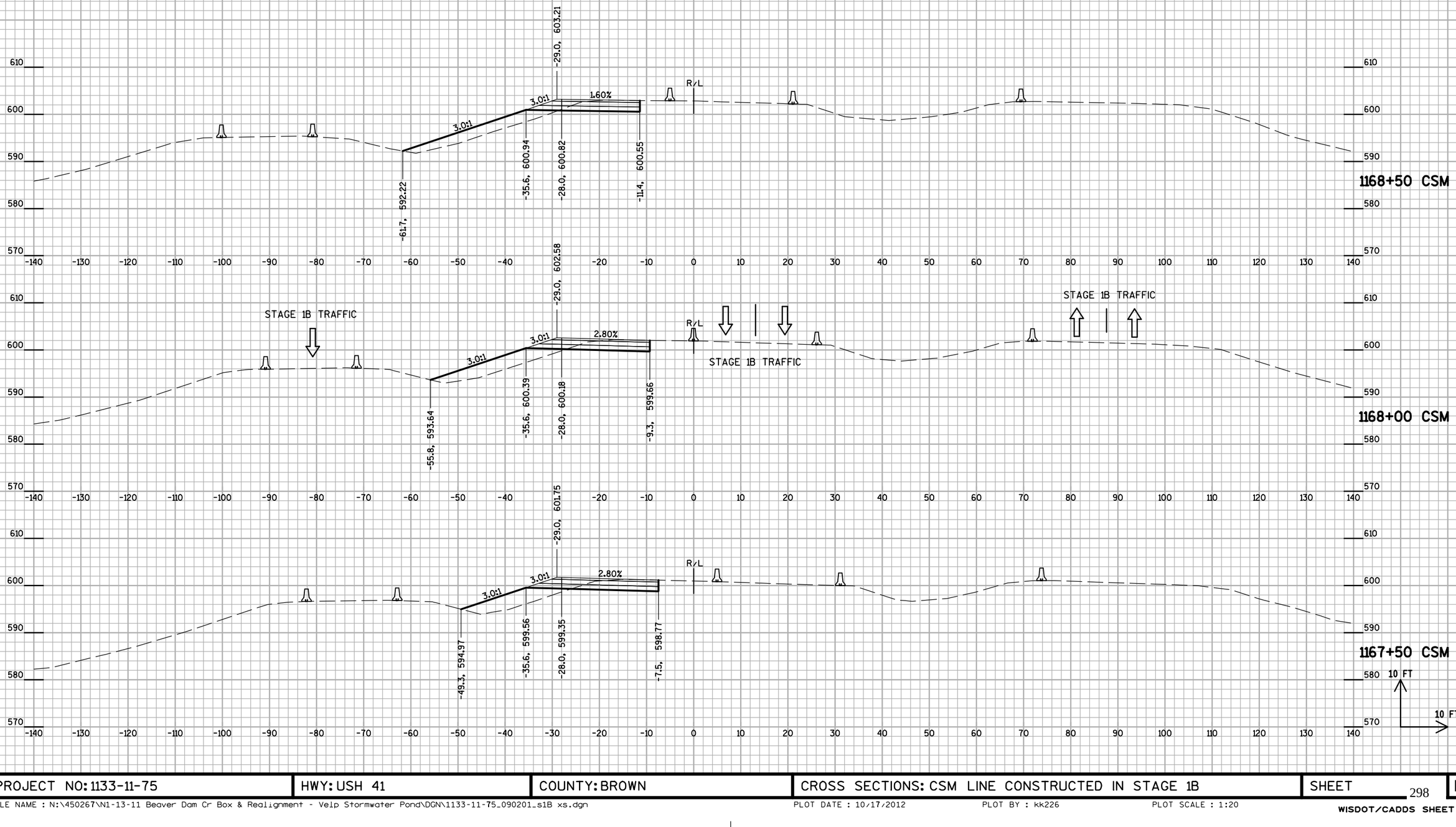


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET 297	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+50 CSM TO 1168+50 CSM

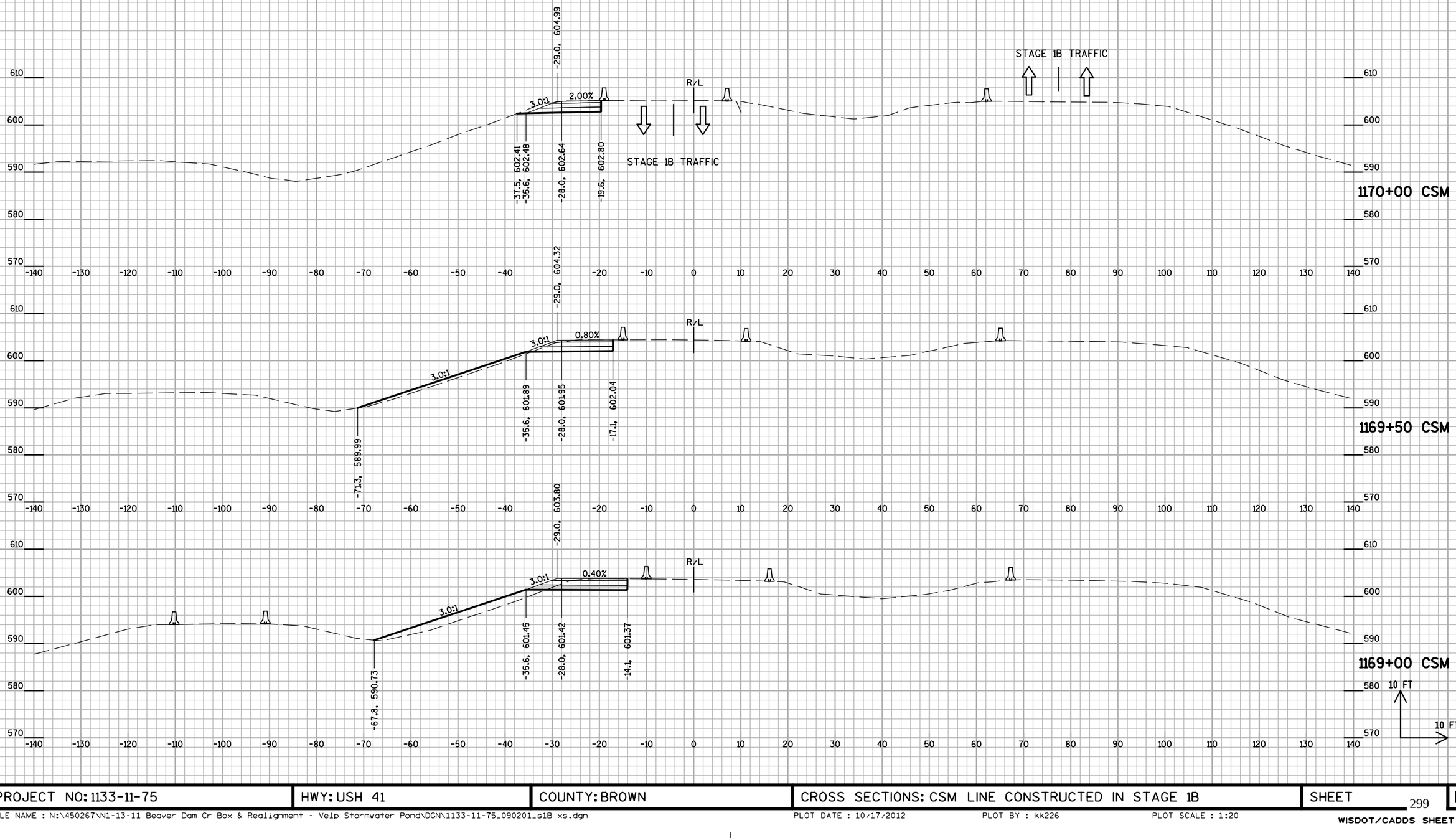


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET 298	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1169+00 CSM TO 1170+00 CSM



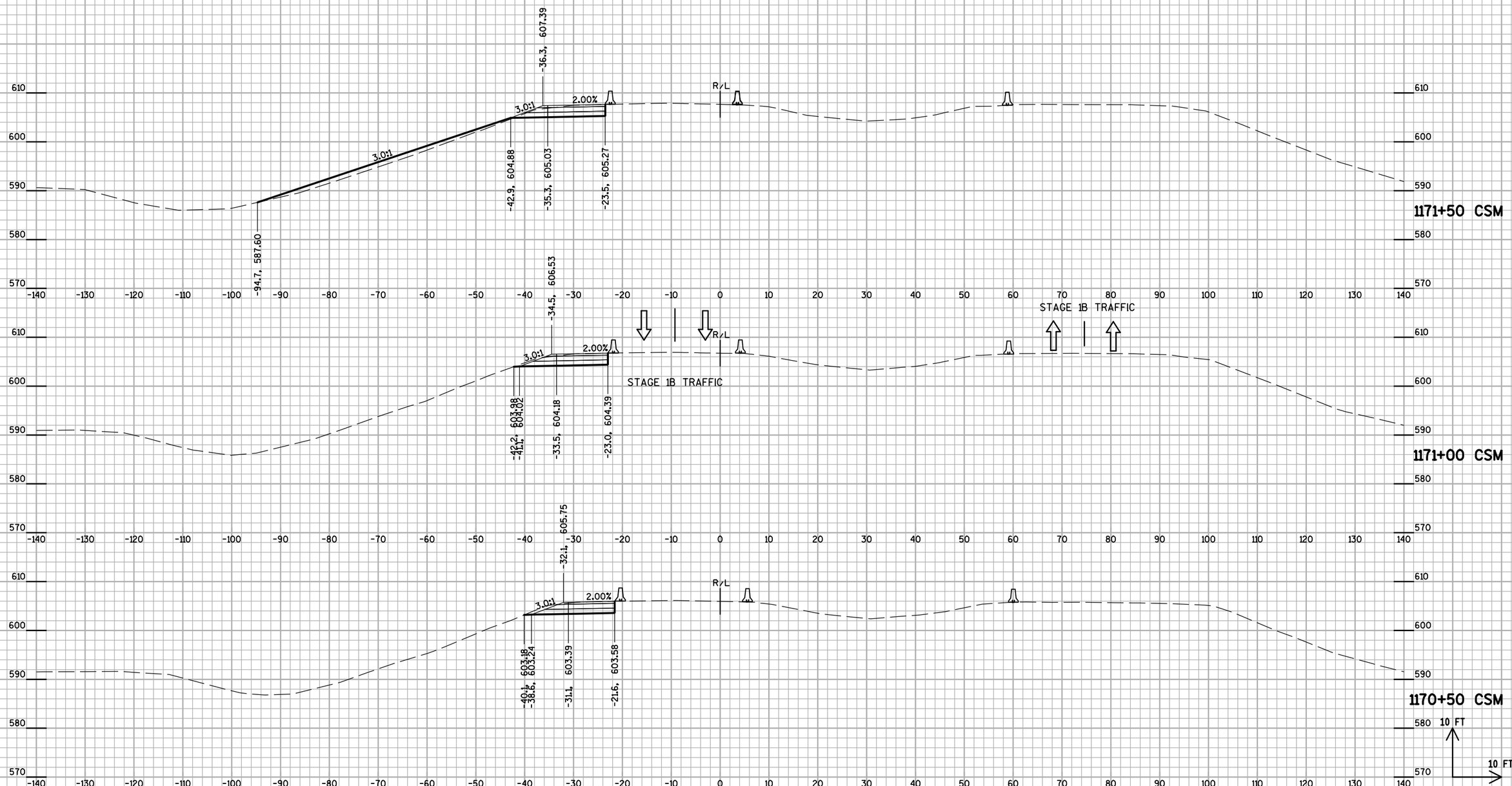
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1170+50 CSM TO 1171+50 CSM



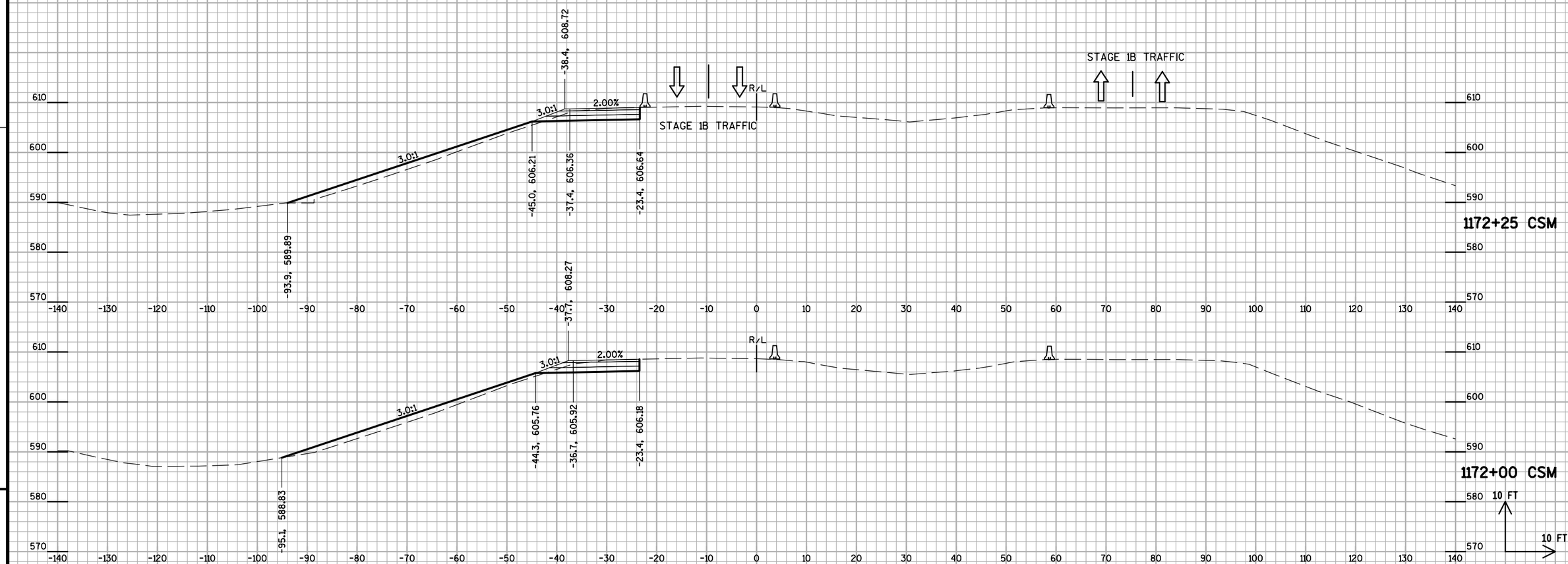
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1B xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1172+00 CSM TO 1172+25 CSM



9

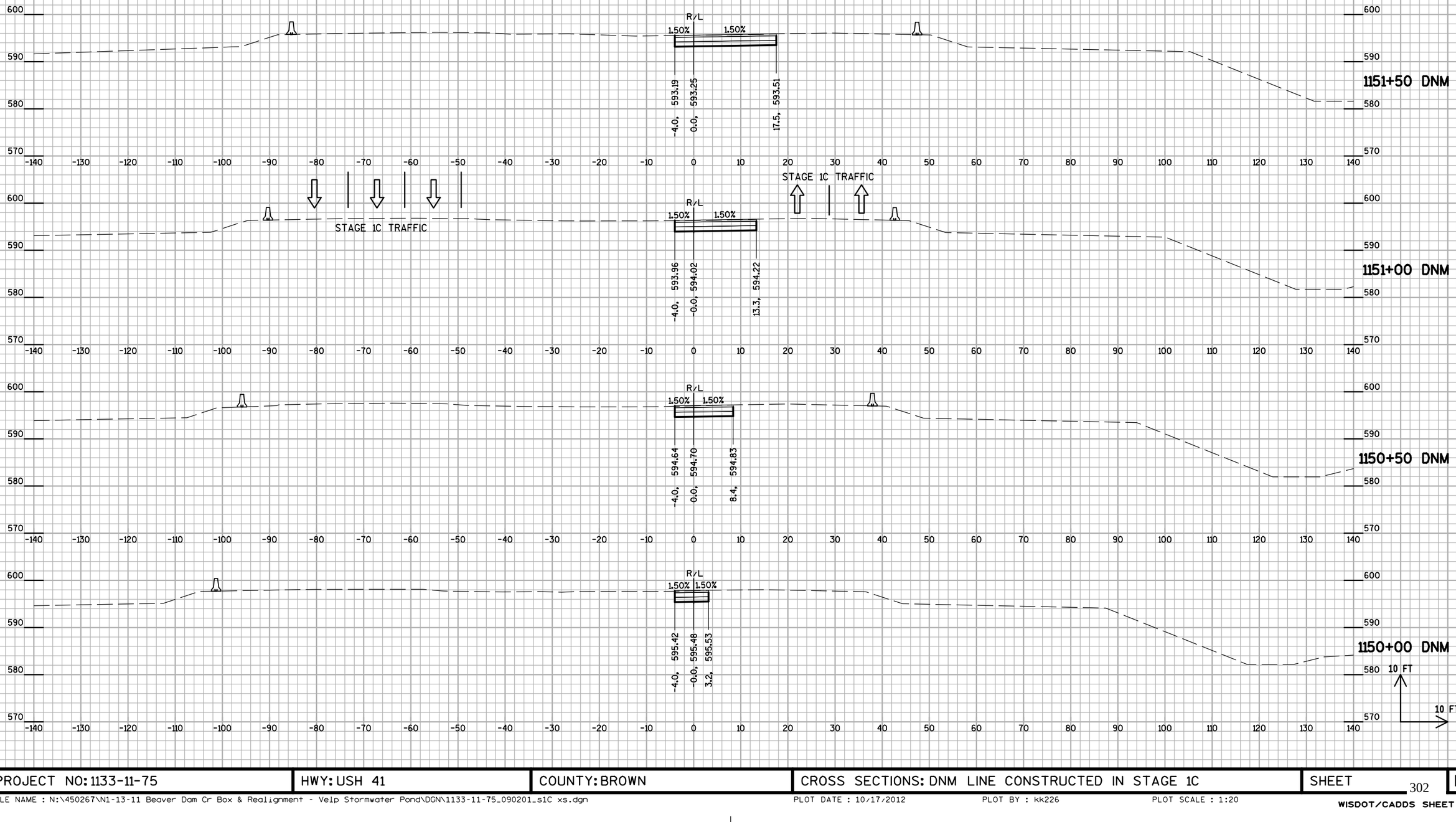
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: CSM LINE CONSTRUCTED IN STAGE 1B	SHEET	E

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WISDOT/CADDS SHEET 21

STA. 1150+00 DNM TO 1151+50 DNM



9

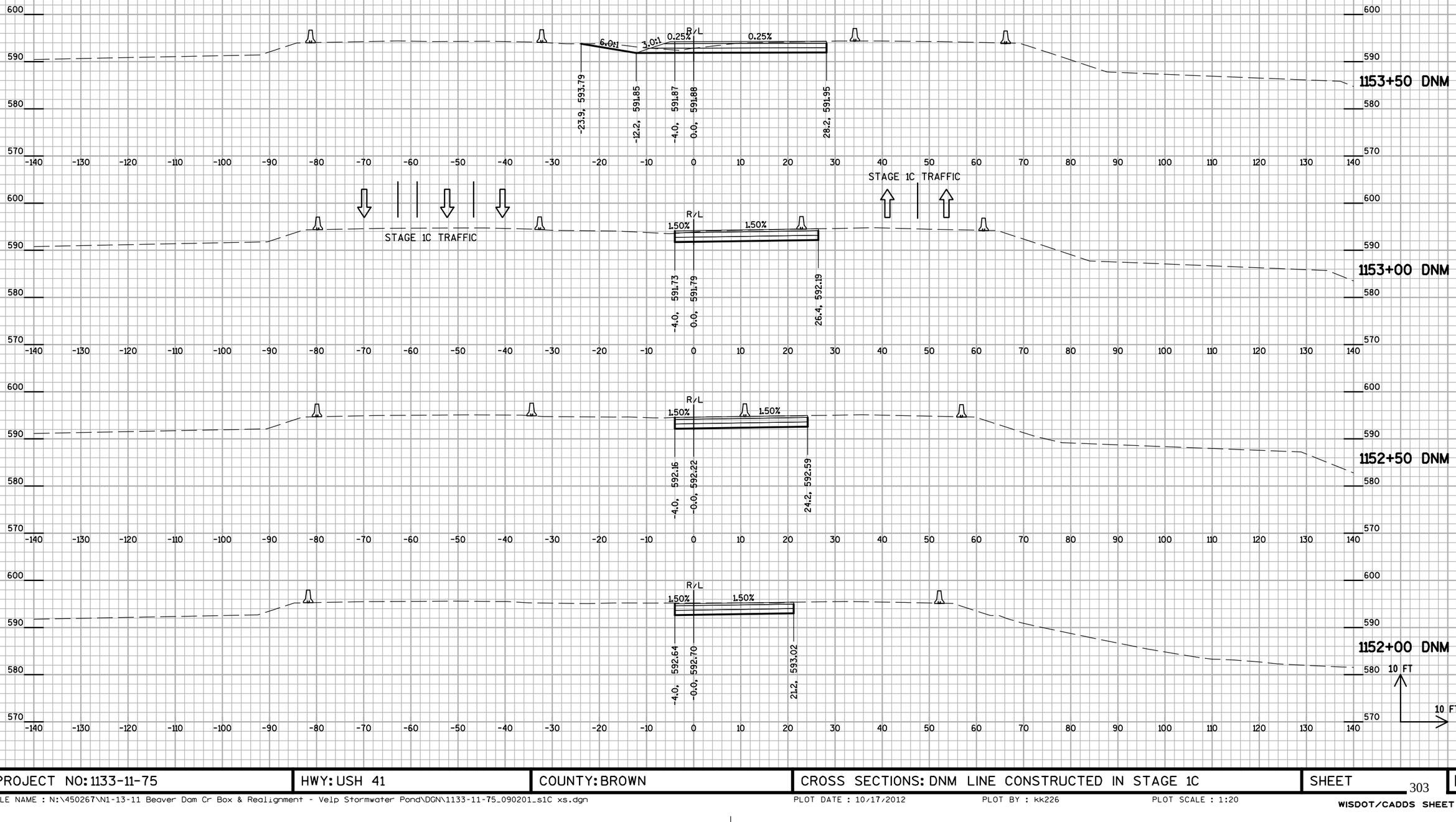
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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE CONSTRUCTED IN STAGE 1C	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1152+00 DNM TO 1153+50 DNM



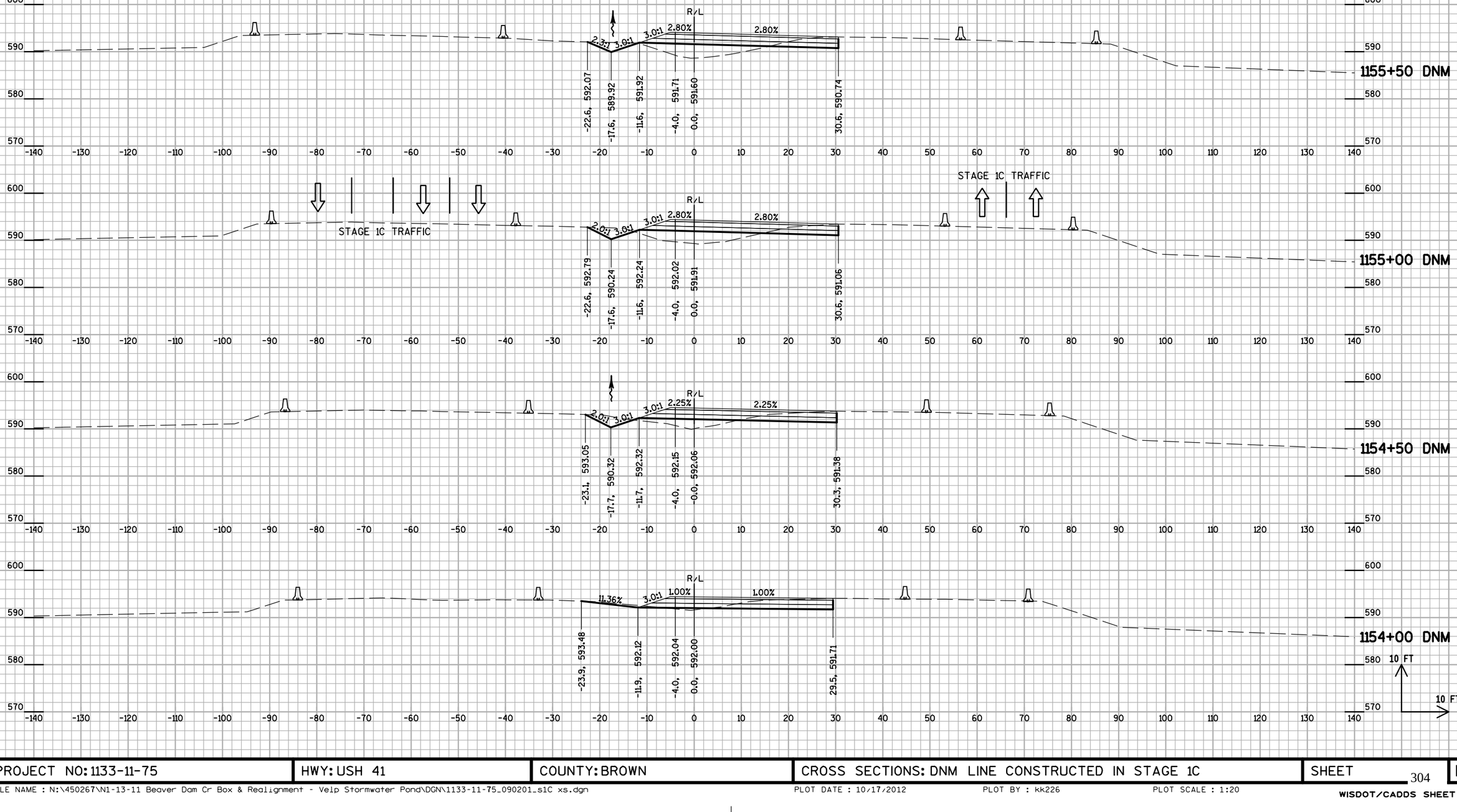
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1154+00 DNM TO 1155+50 DNM

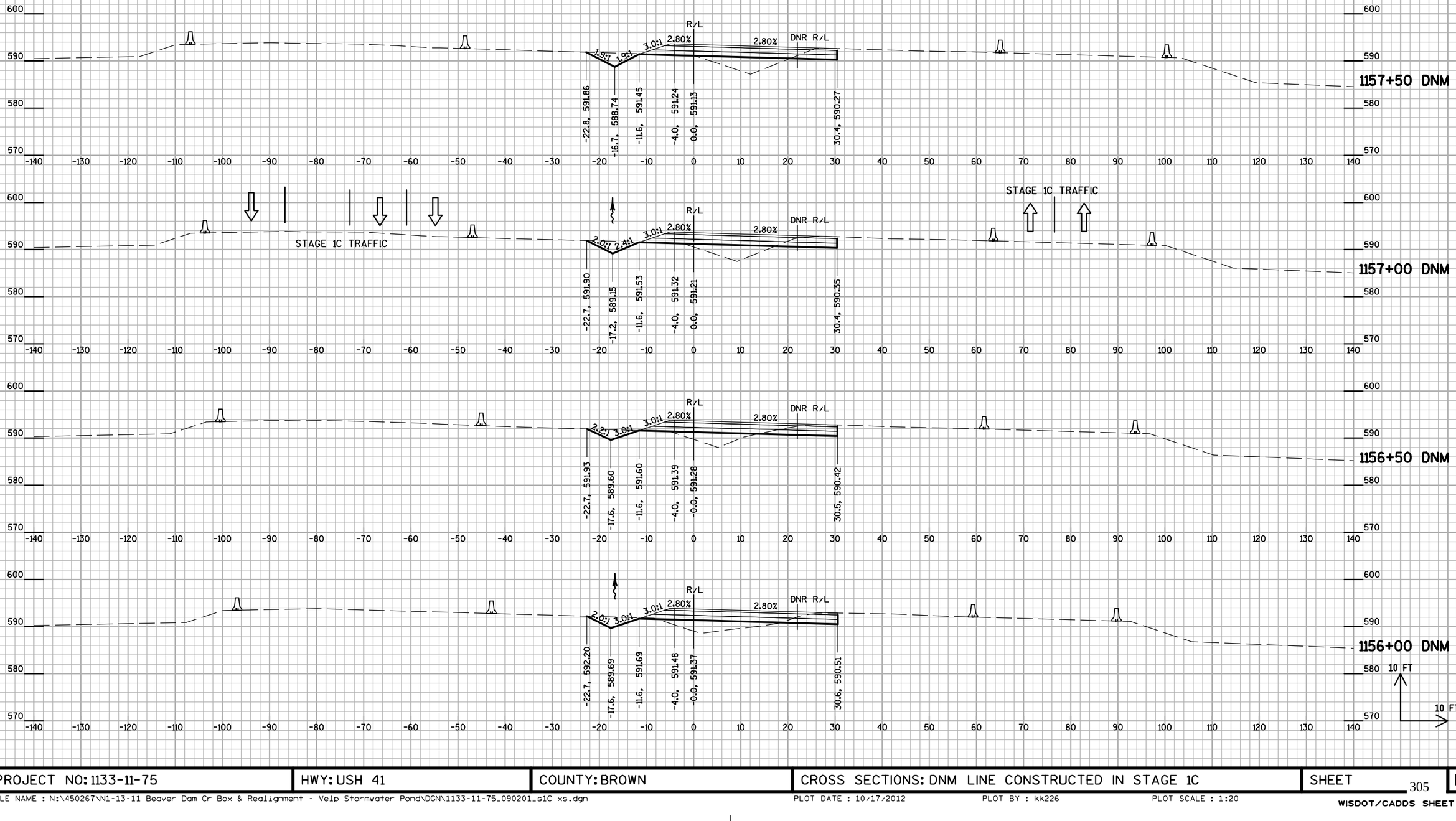


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE CONSTRUCTED IN STAGE 1C	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

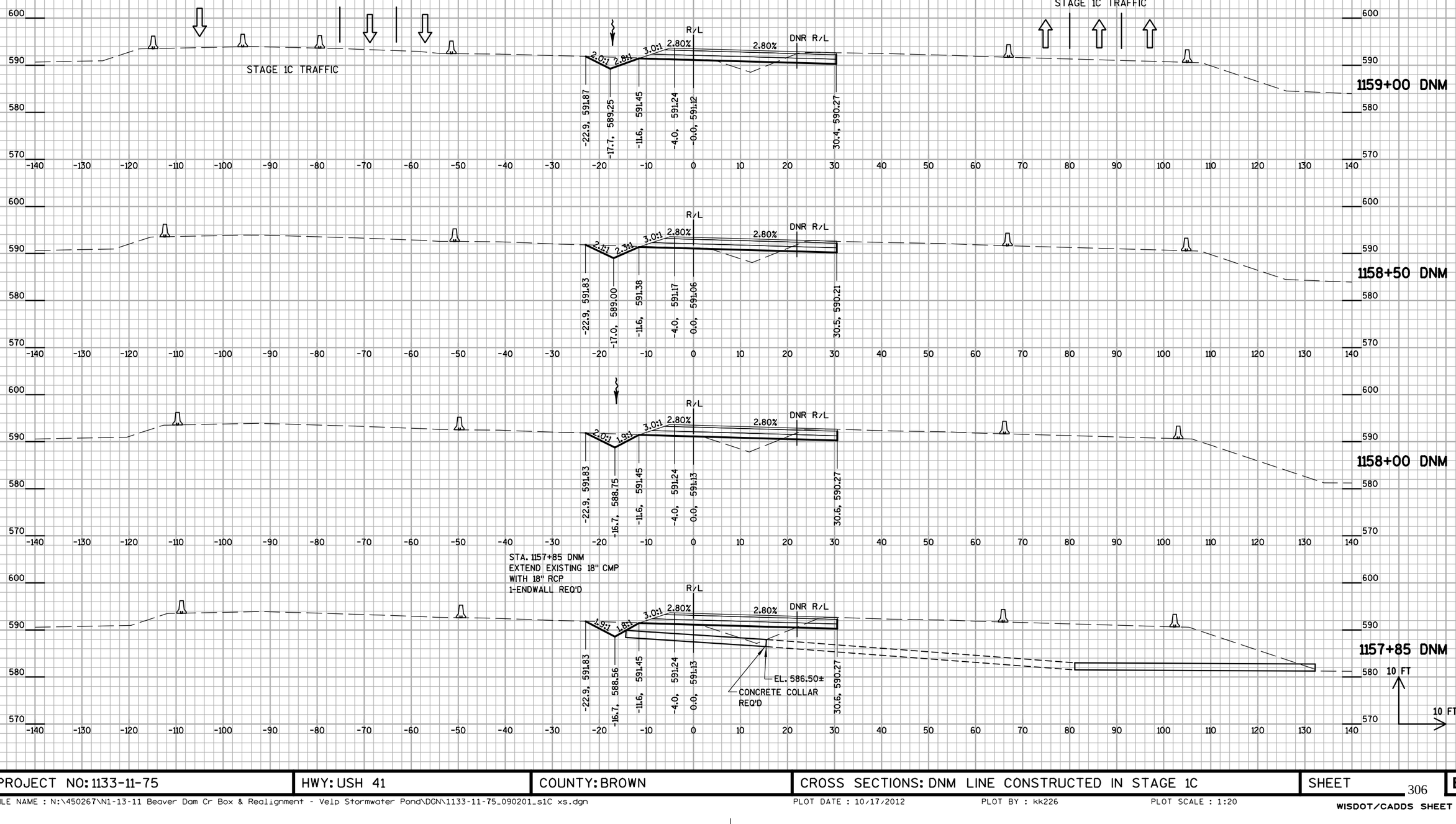
STA. 1156+00 DNM TO 1157+50 DNM



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE CONSTRUCTED IN STAGE 1C	SHEET 305	E

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WISDOT/CADDS SHEET 21

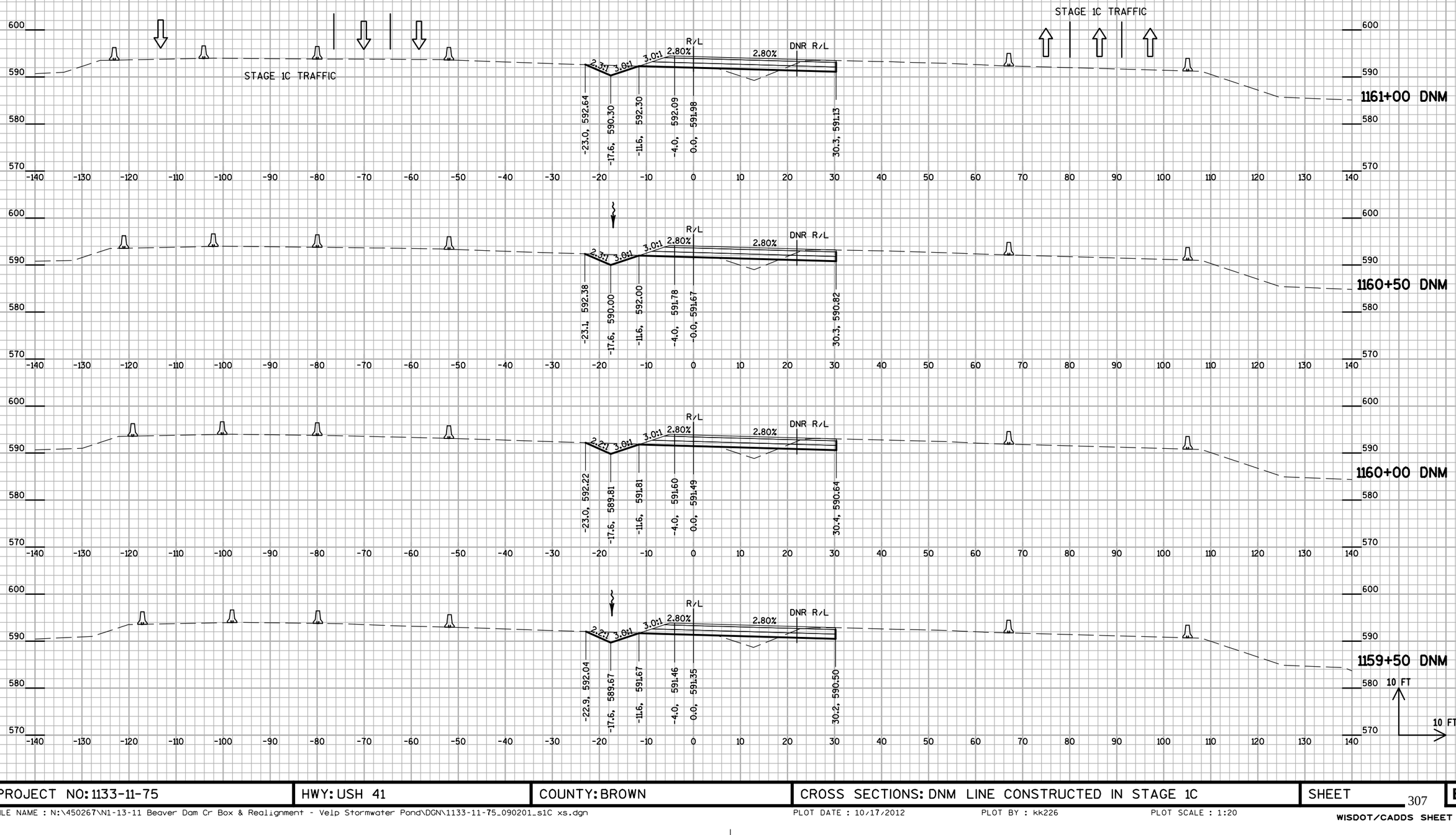
STA. 1157+85 DNM TO 1159+00 DNM



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE CONSTRUCTED IN STAGE 1C	SHEET 306	E

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PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21

STA. 1159+50 DNM TO 1161+00 DNM



9

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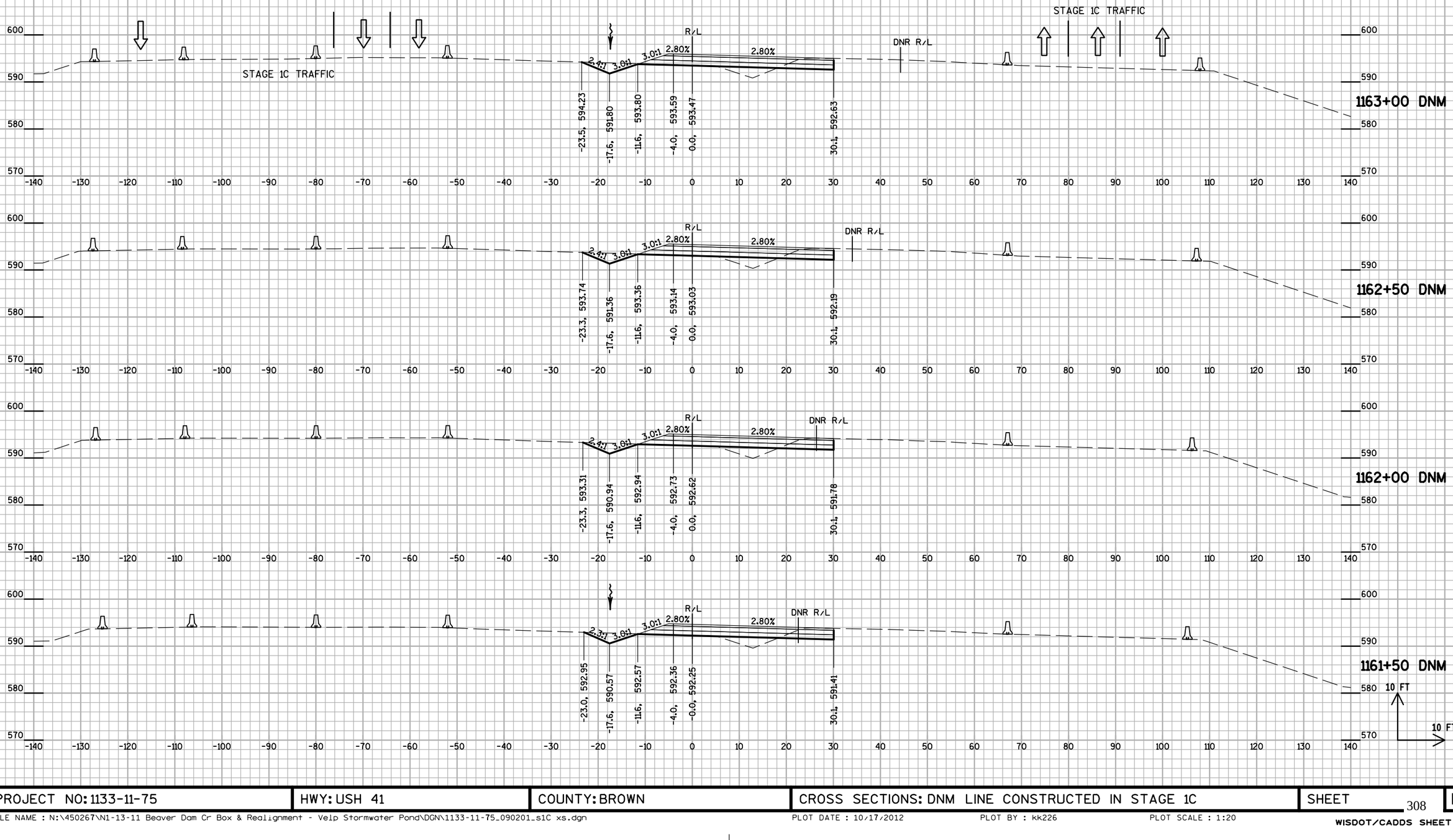
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1161+50 DNM TO 1163+00 DNM

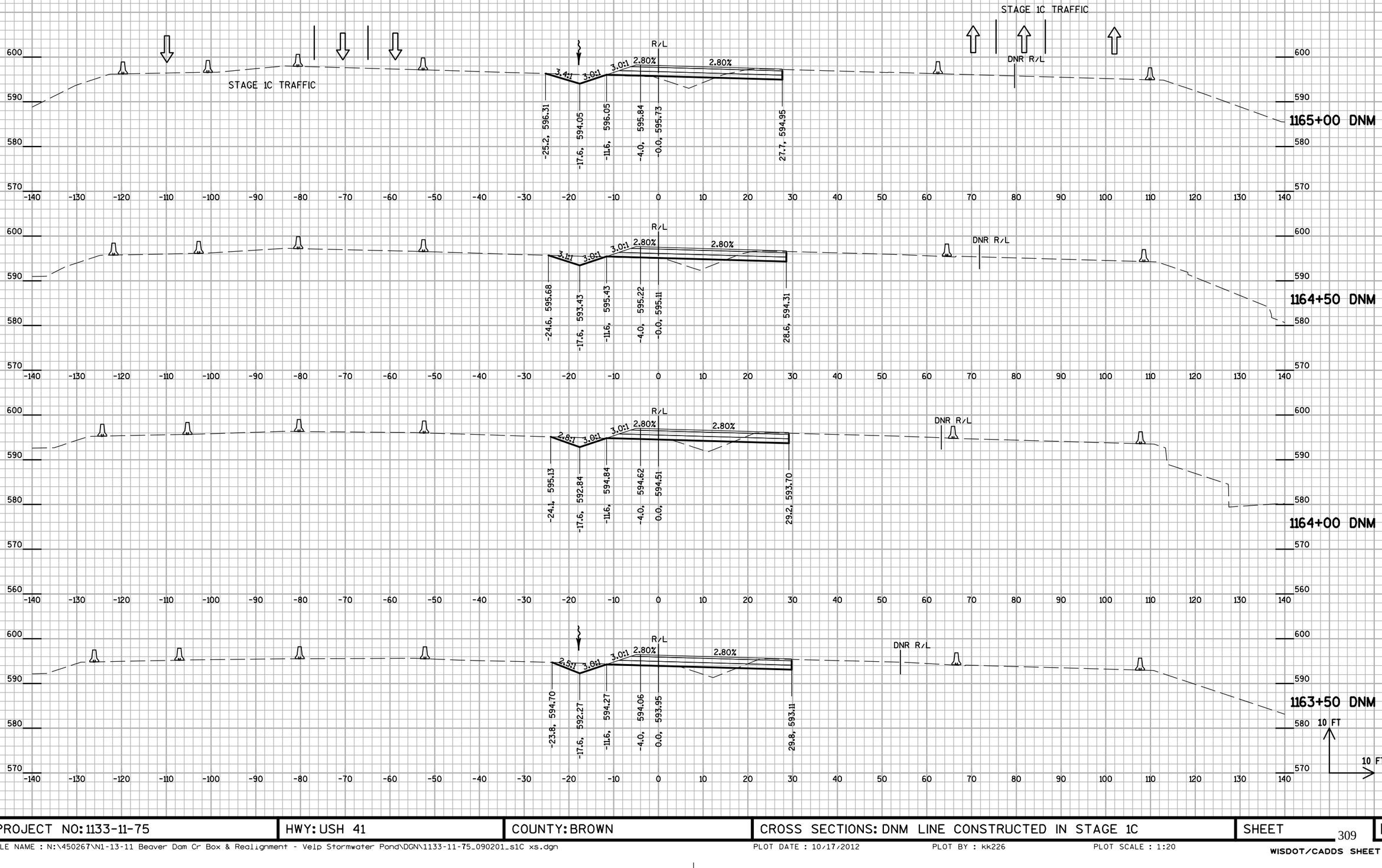


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE CONSTRUCTED IN STAGE 1C	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1163+50 DNM TO 1165+00 DNM

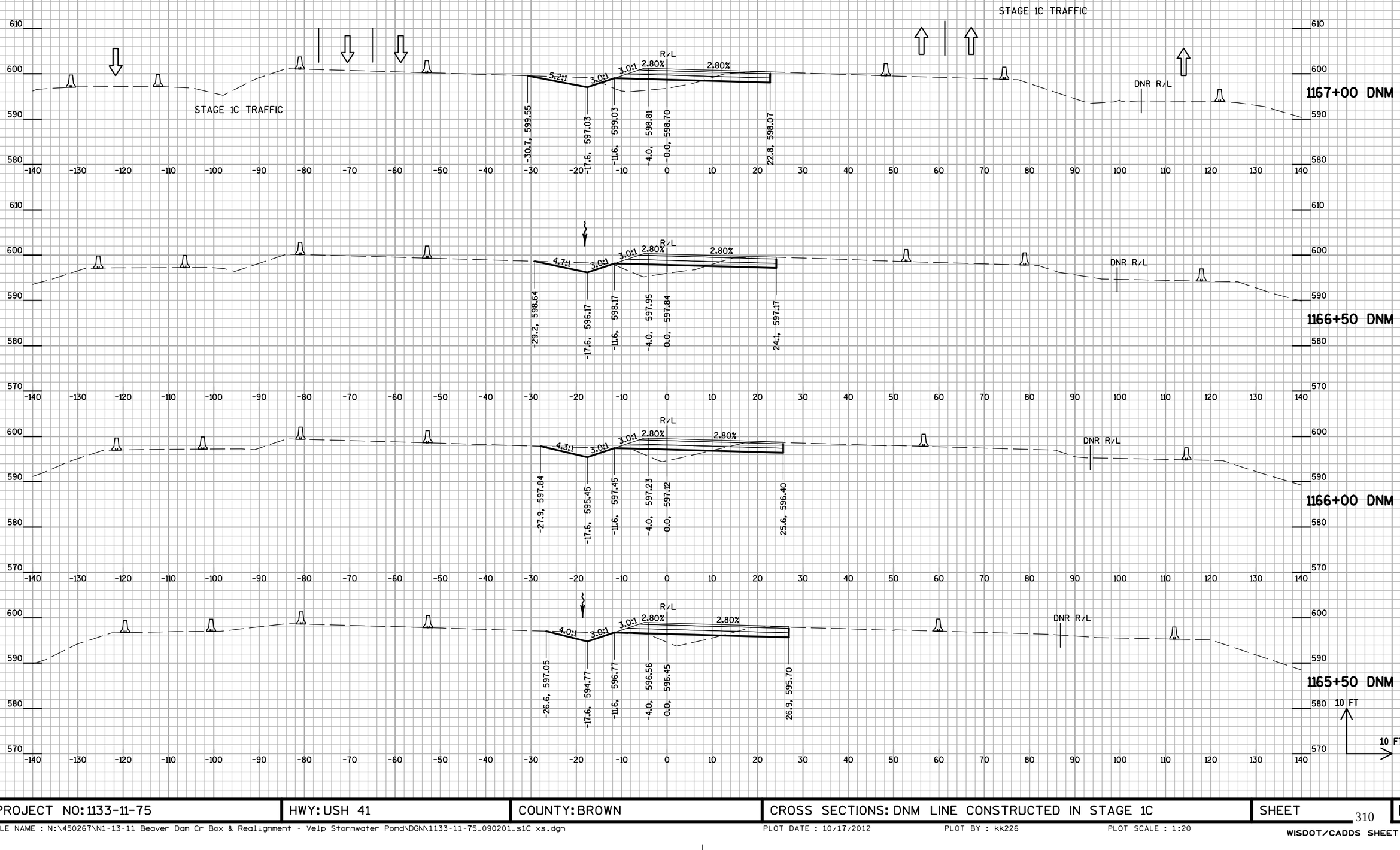


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE CONSTRUCTED IN STAGE 1C	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1165+50 DNM TO 1167+00 DNM



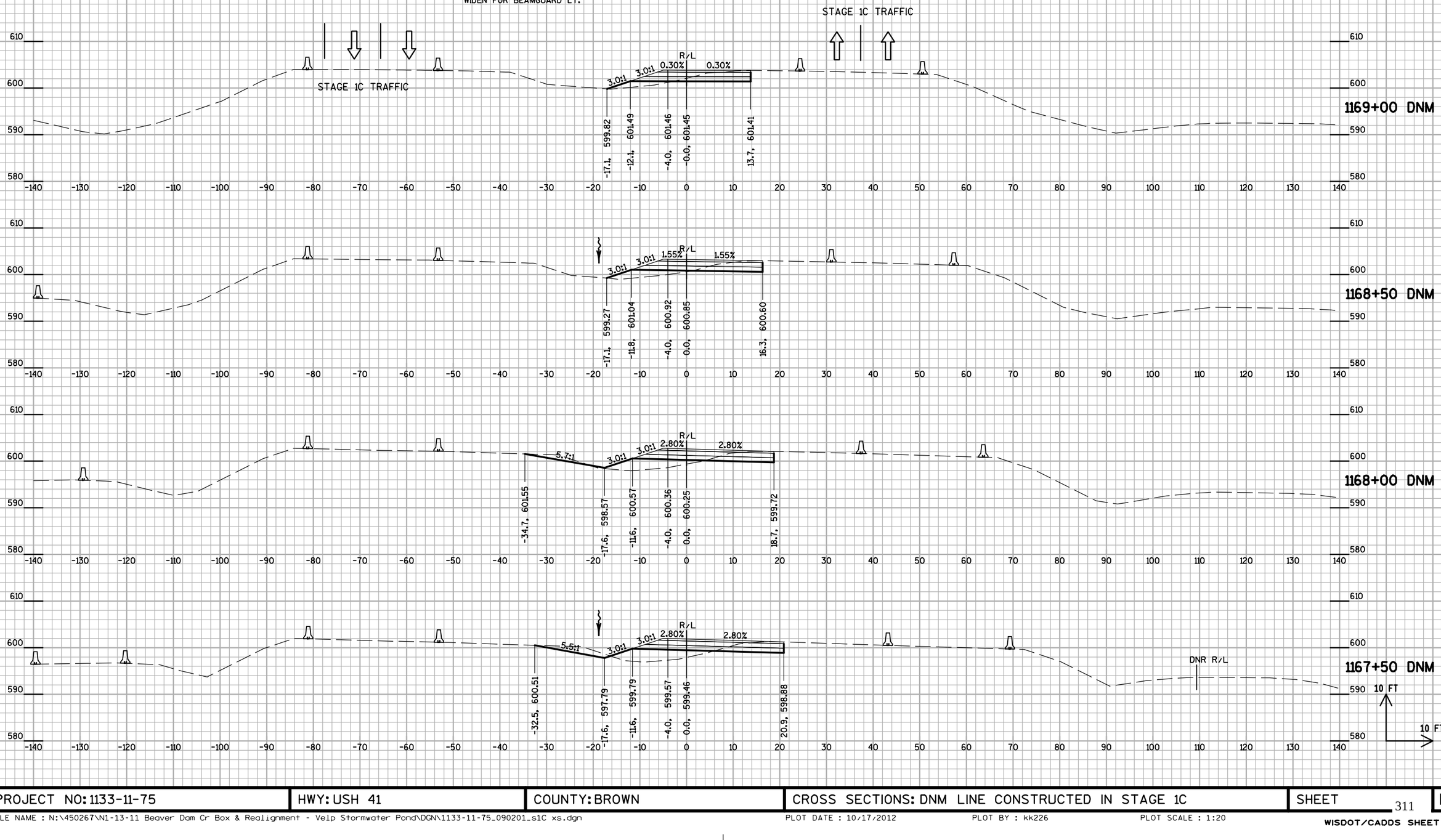
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+50 DNM TO 1169+00 DNM

STA. 1169+05 DMN TO STA. 1171+43 DMN
WIDEN FOR BEAMGUARD LT.

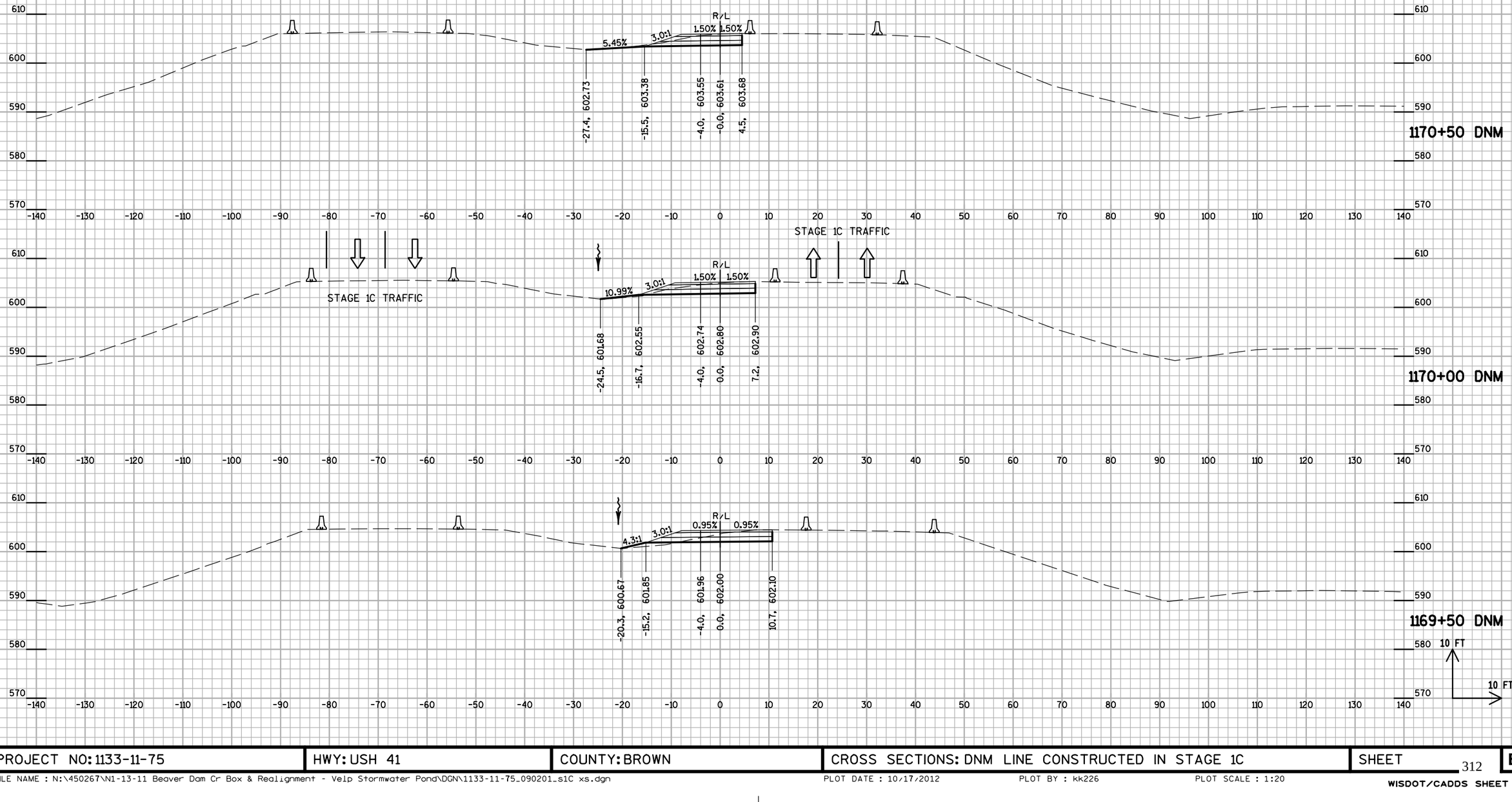


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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn
PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21

STA. 1169+50 DNM TO 1170+50 DNM

STA. 1169+05 DMN TO STA. 1171+43 DMN
WIDEN FOR BEAMGUARD LT.



9

9

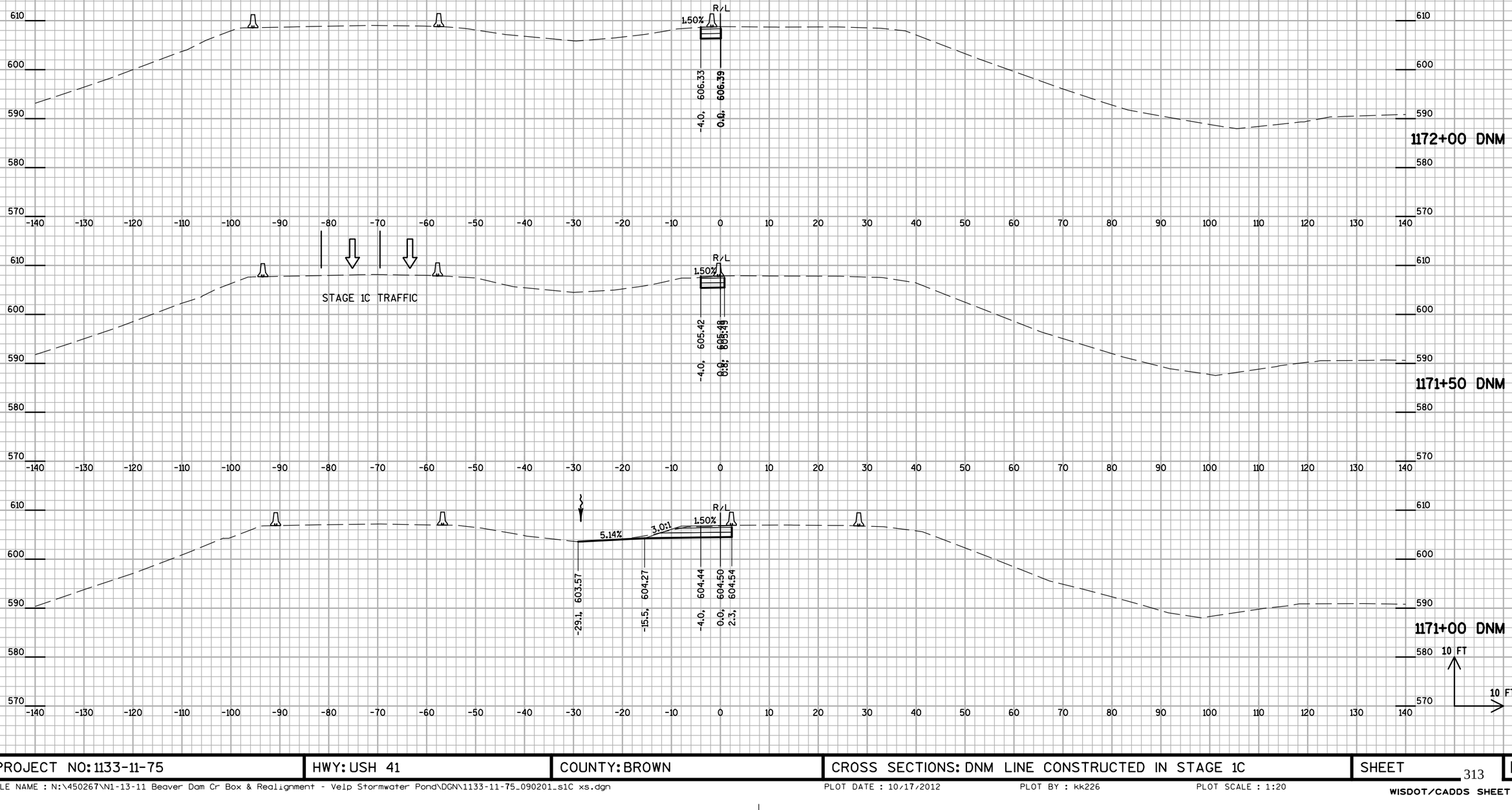
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1171+00 DNM TO 1172+00 DNM

STA. 1169+05 DMN TO STA. 1171+43 DMN
WIDEN FOR BEAMGUARD LT.



9

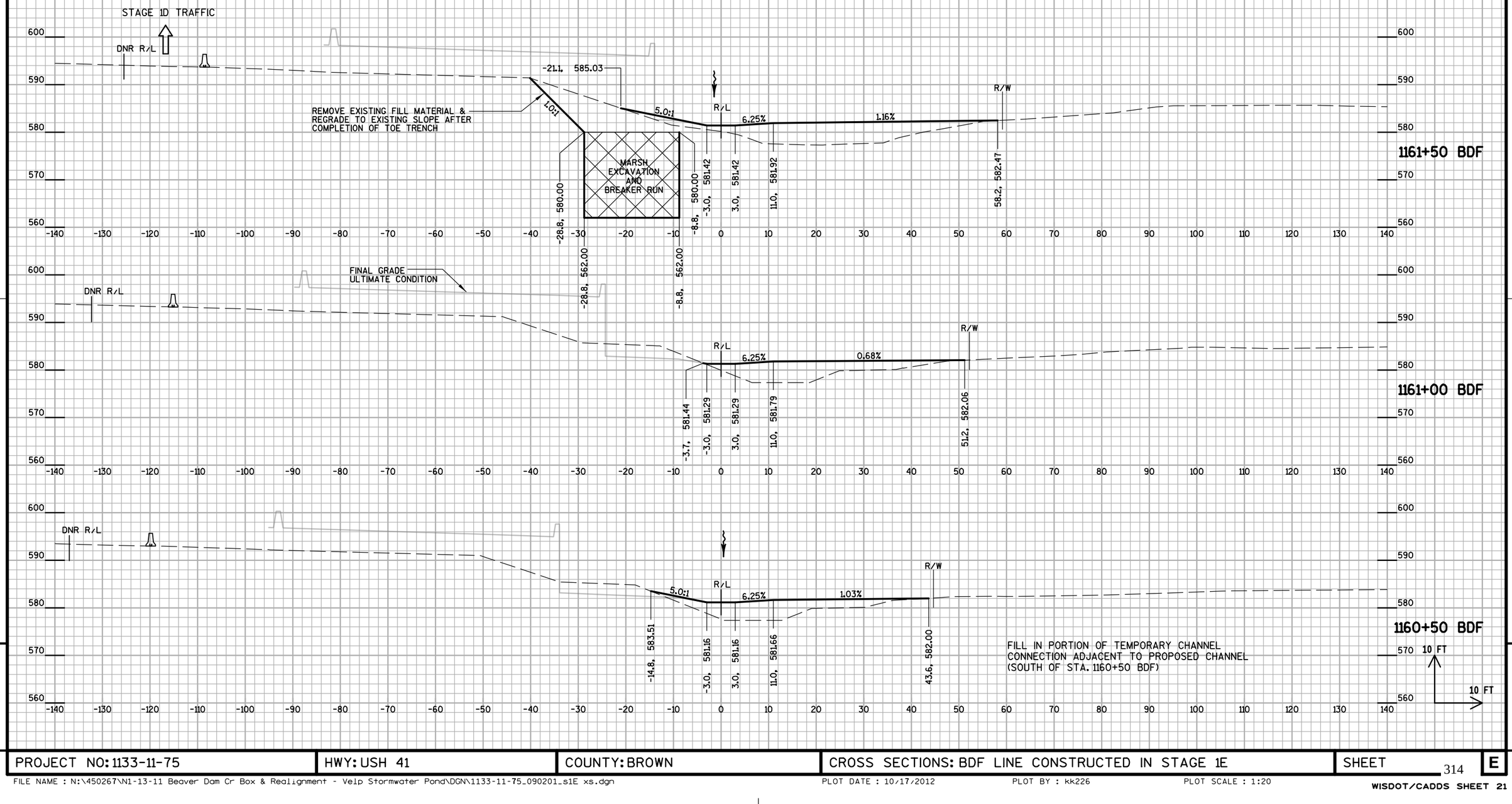
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1C xs.dgn
PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

STA. 1160+50 BDF TO 1161+50 BDF

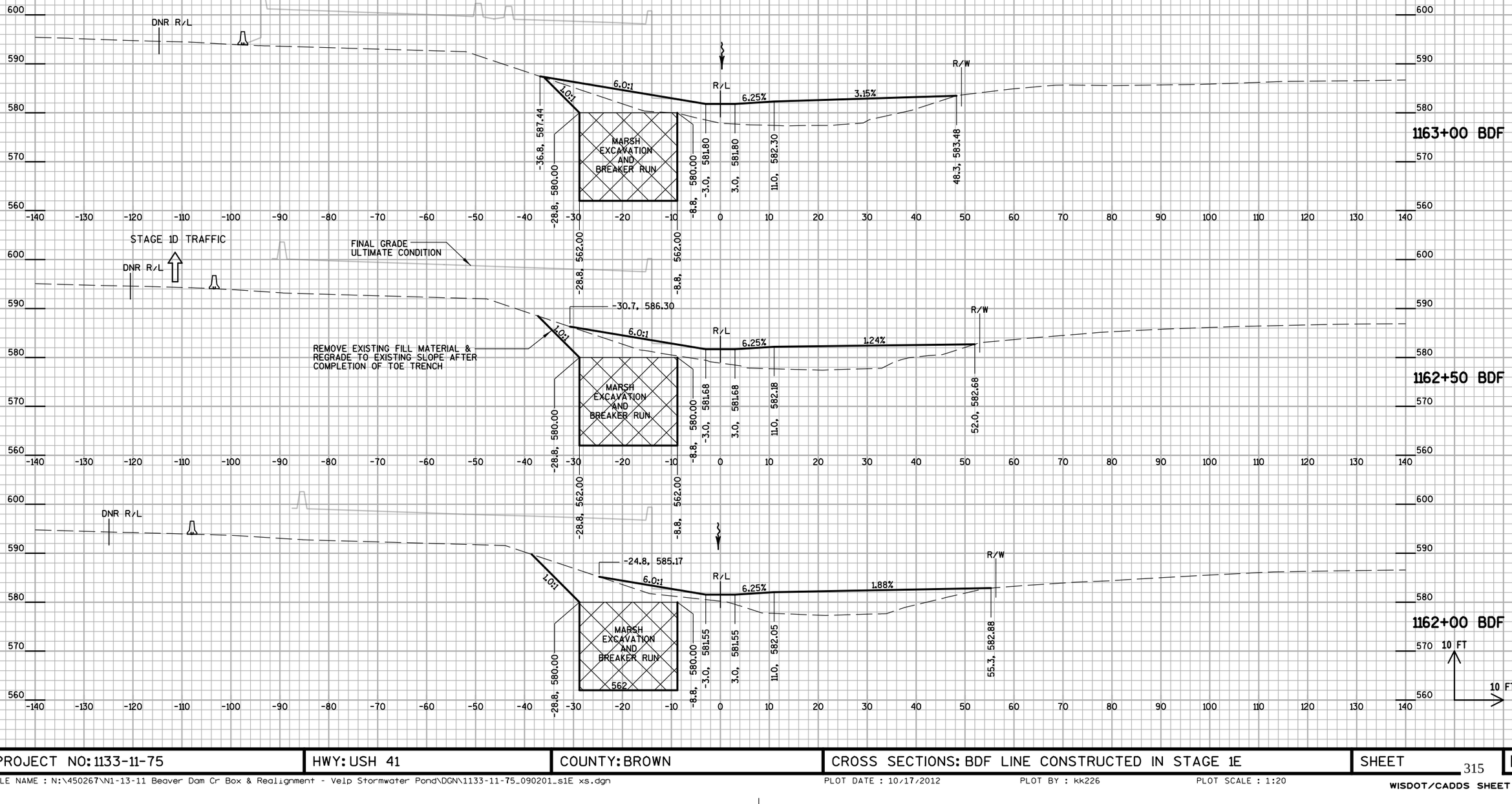


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDF LINE CONSTRUCTED IN STAGE 1E	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1162+00 BDF TO 1163+00 BDF



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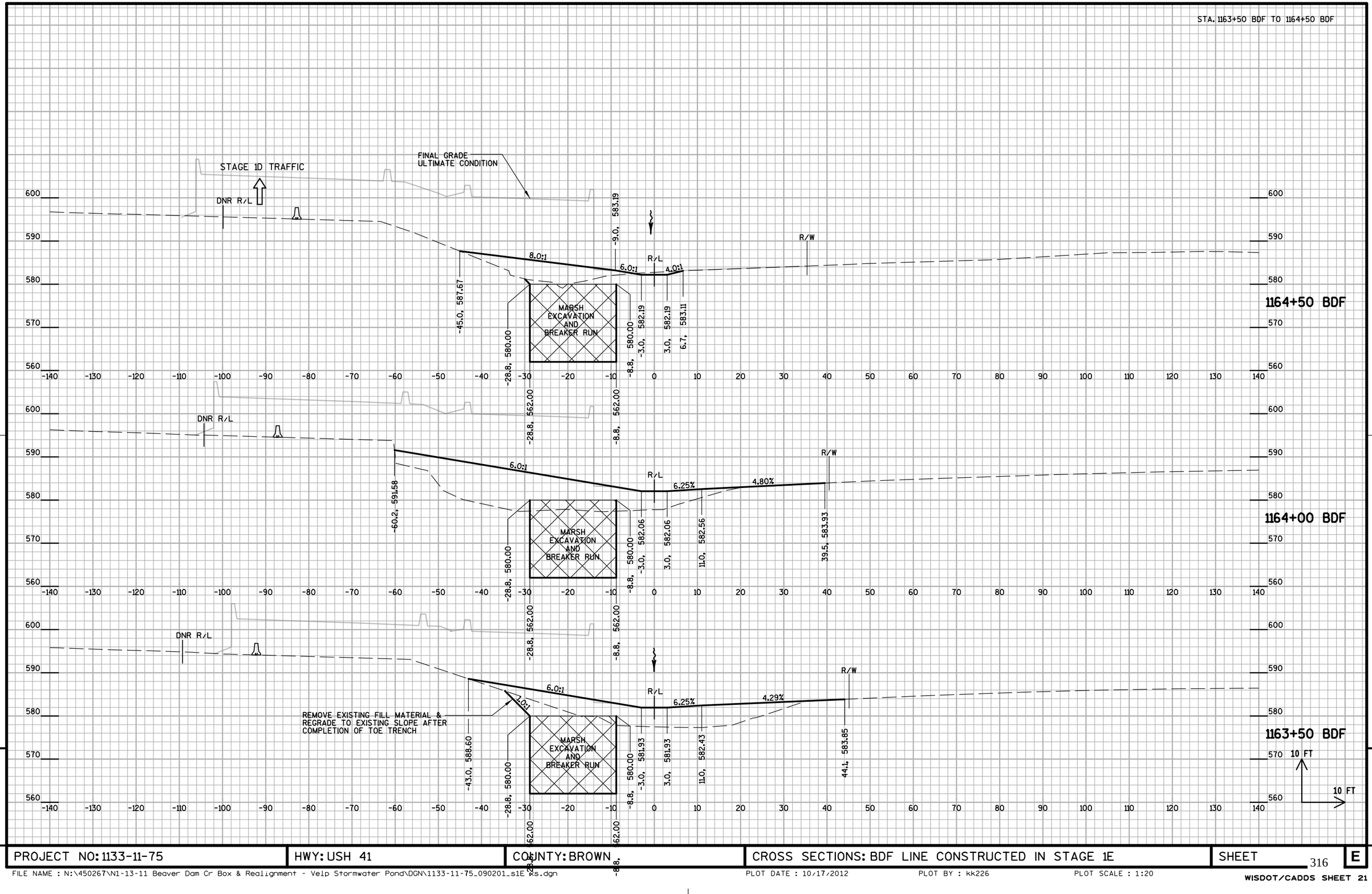
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDF LINE CONSTRUCTED IN STAGE 1E	SHEET 315	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1163+50 BDF TO 1164+50 BDF



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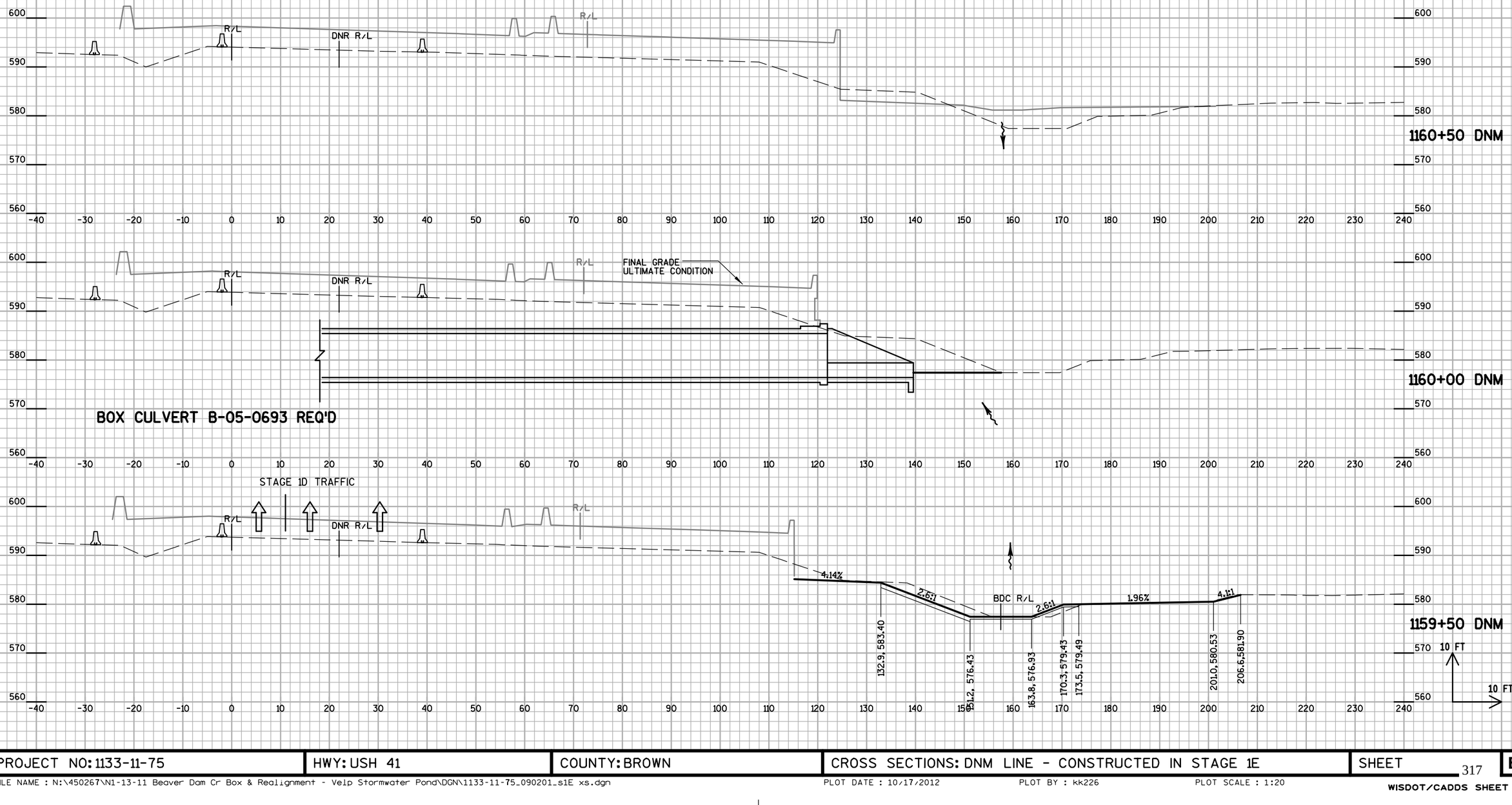
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: BDF LINE CONSTRUCTED IN STAGE 1E	SHEET 316	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E ks.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1159+50 DNM TO 1160+50 DNM

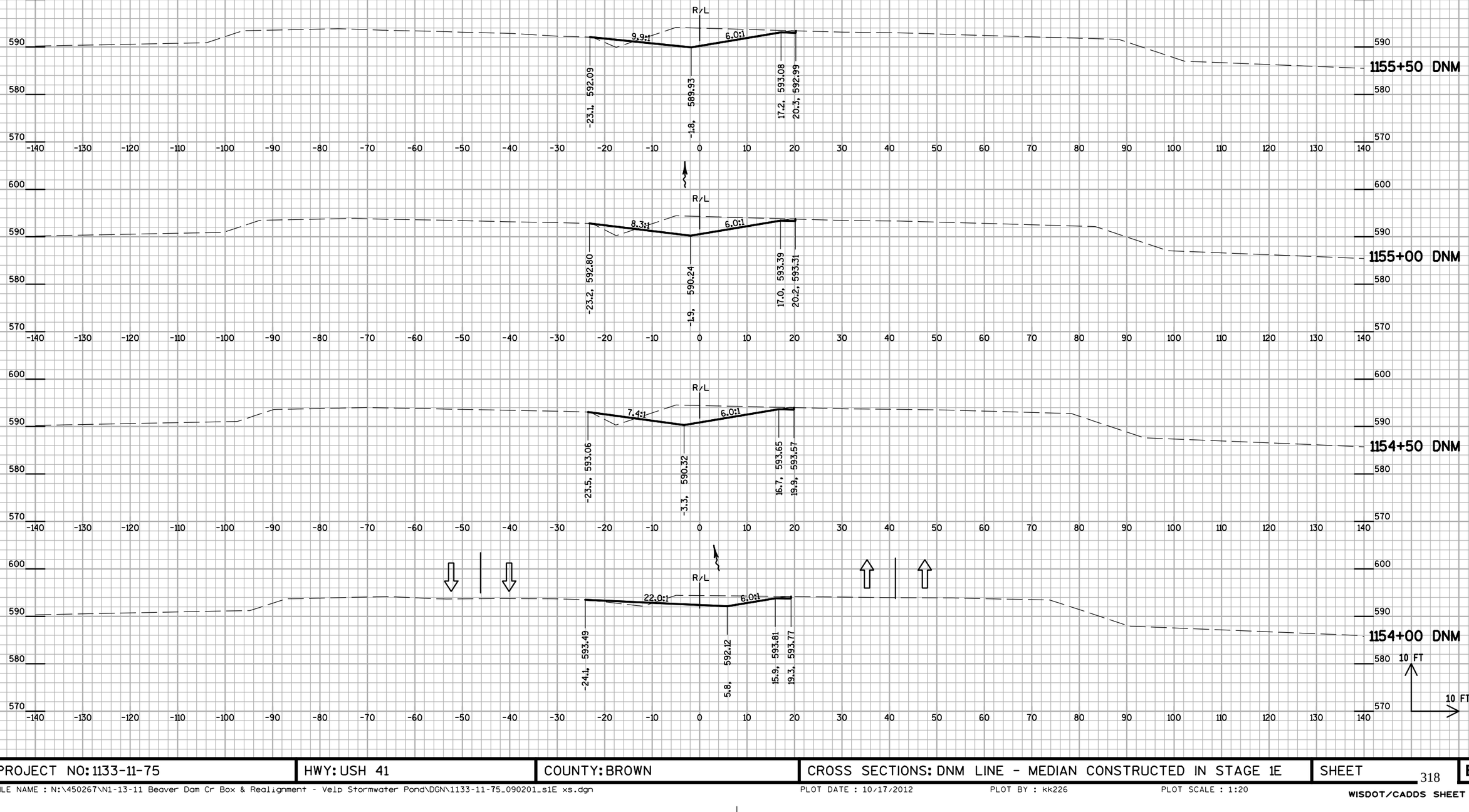


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - CONSTRUCTED IN STAGE 1E	SHEET 317	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn | PLOT DATE : 10/17/2012 | PLOT BY : kk226 | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1154+00 DNM TO 1155+50 DNM

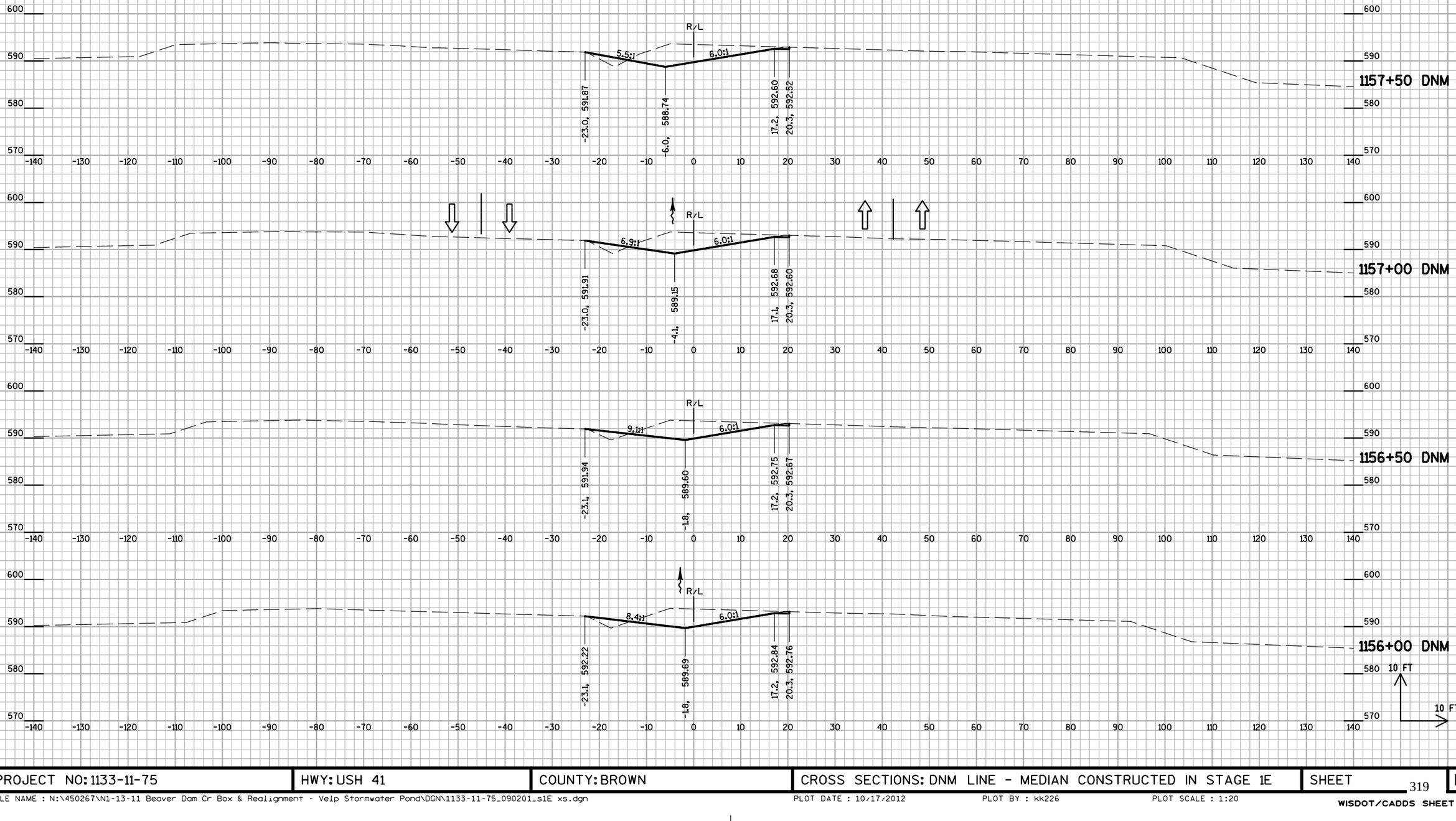


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - MEDIAN CONSTRUCTED IN STAGE 1E	SHEET 318	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1156+00 DNM TO 1157+50 DNM



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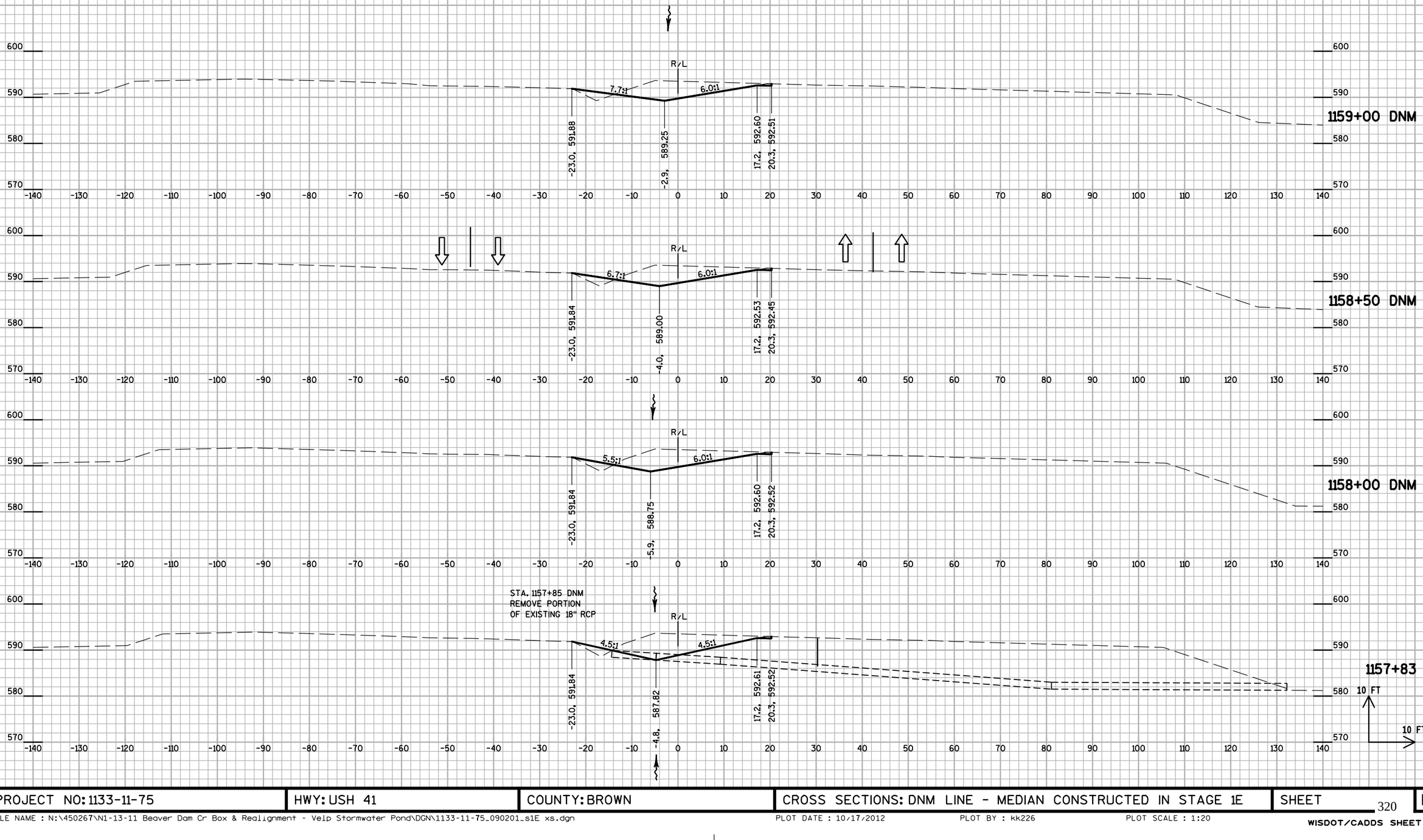
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1157+85 TO 1159+00 DNM

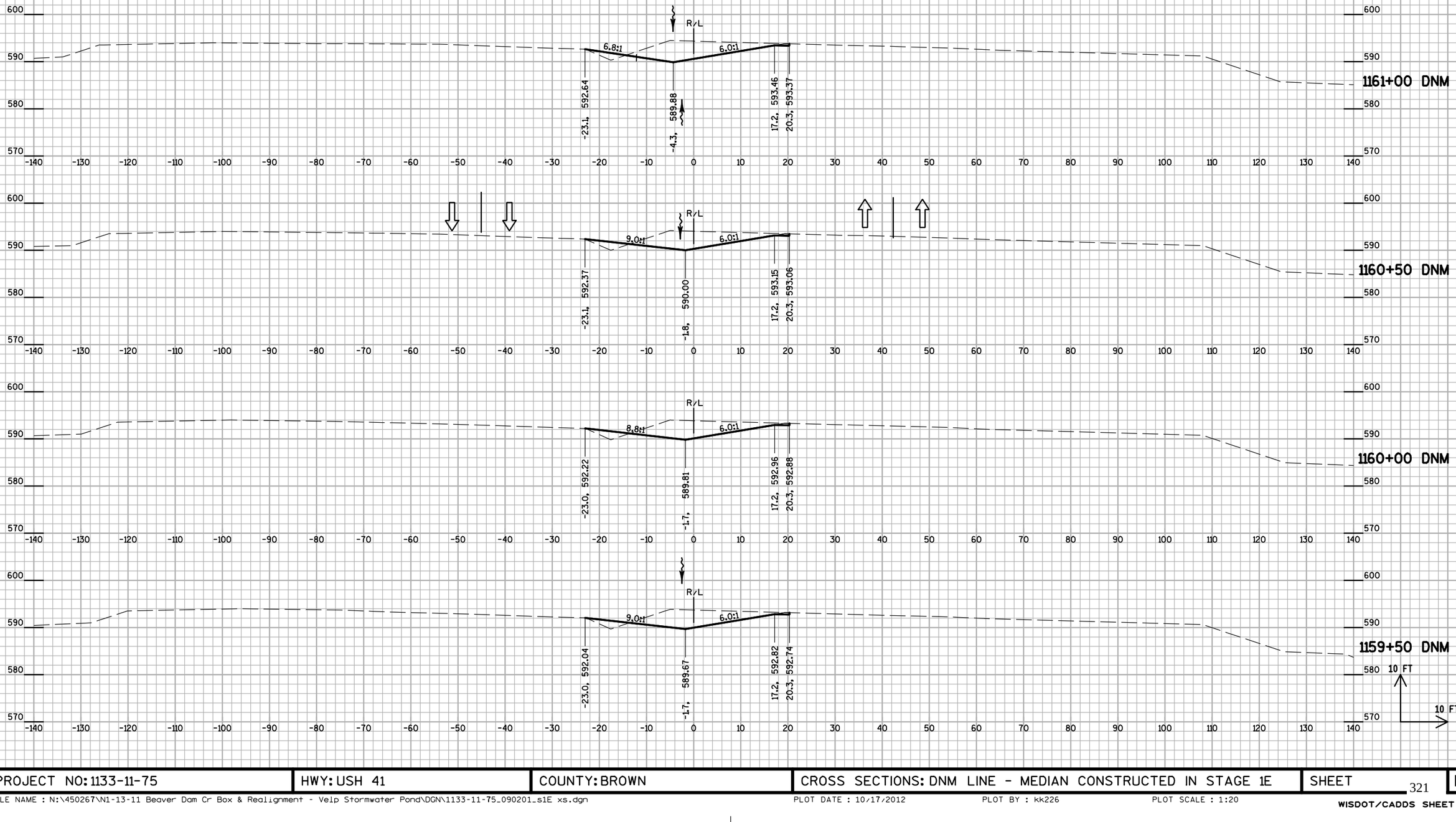


PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - MEDIAN CONSTRUCTED IN STAGE 1E	SHEET 320	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1159+50 DNM TO 1161+00 DNM



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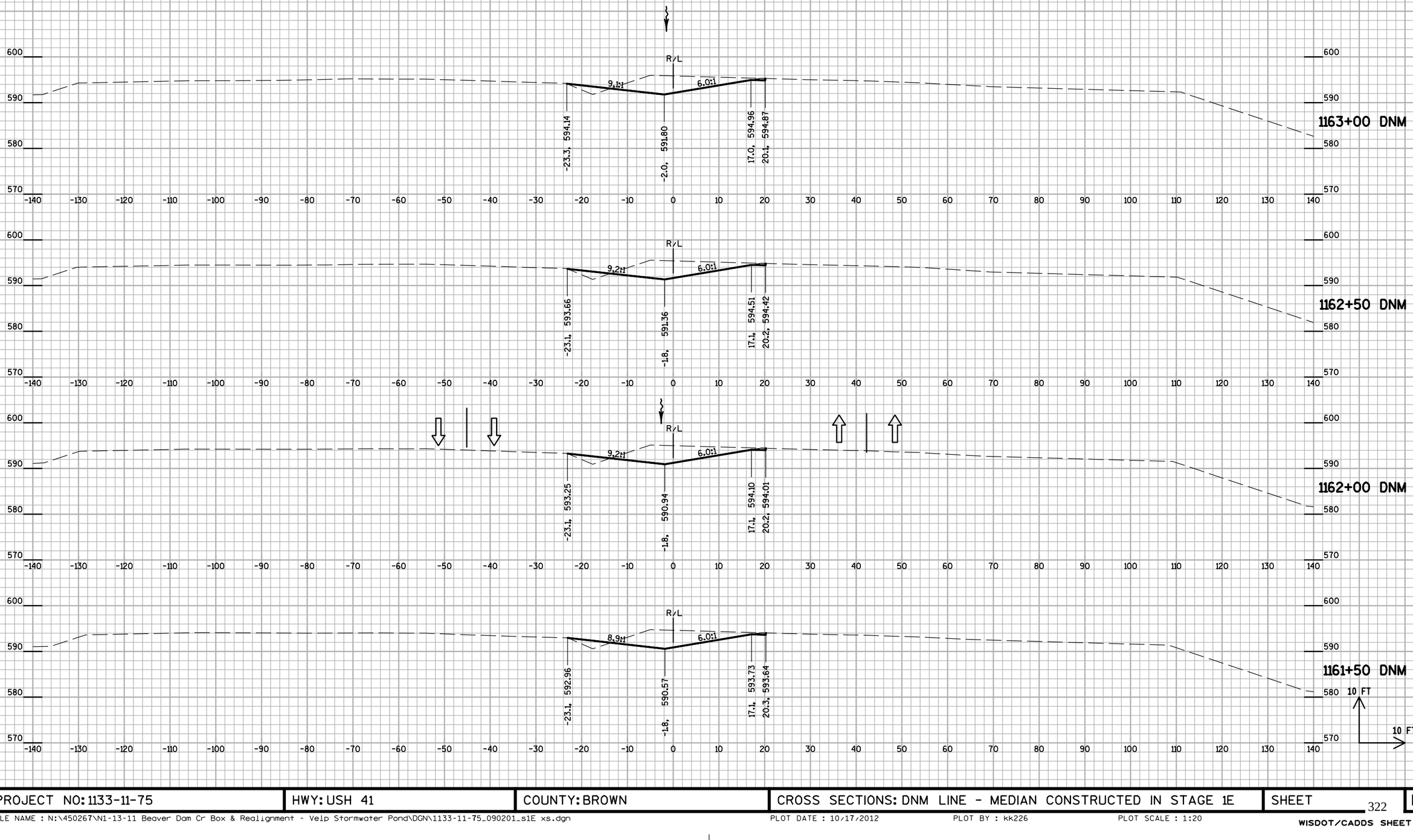
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

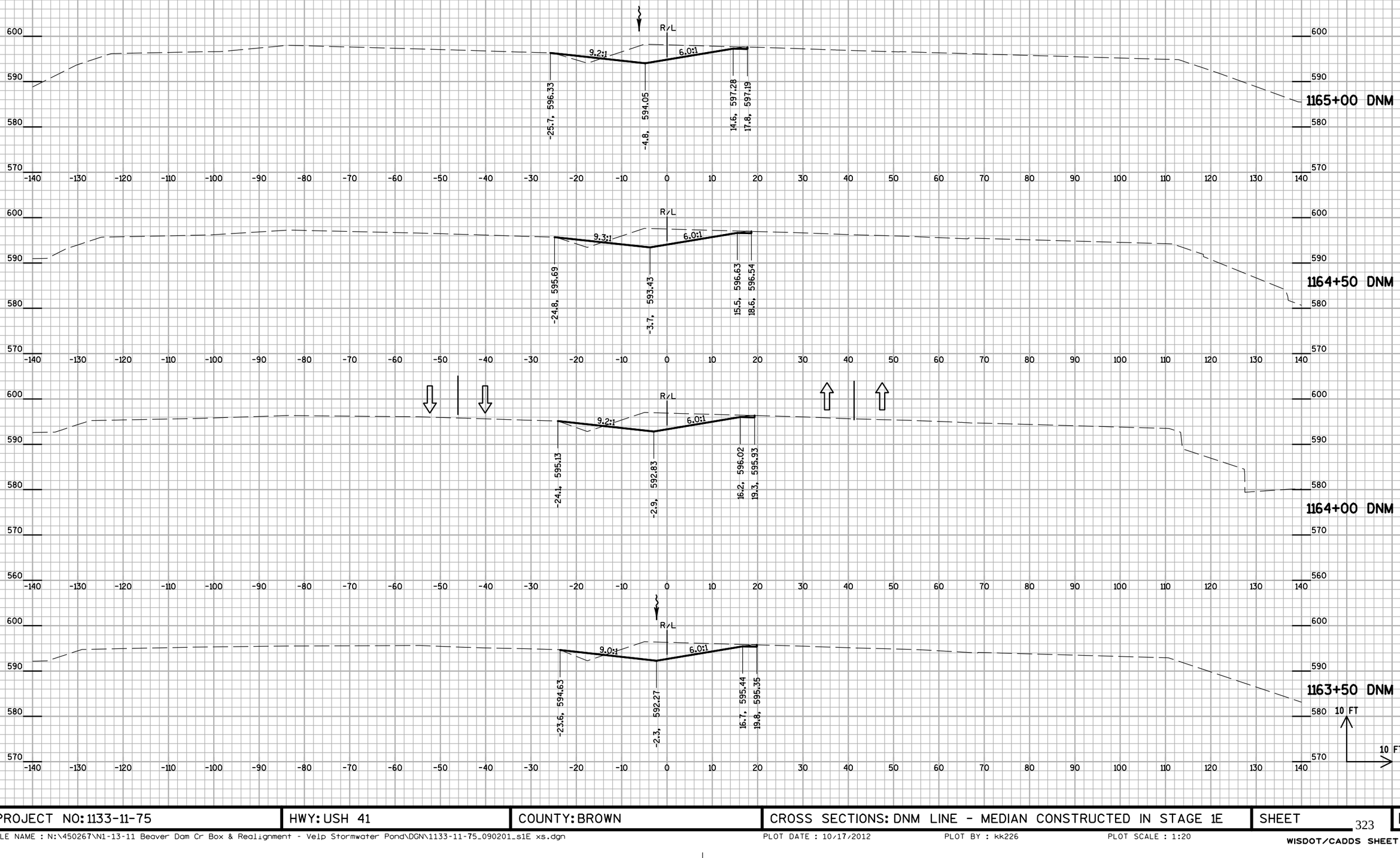
WISDOT/CADDS SHEET 21

STA. 1161+50 DNM TO 1163+00 DNM



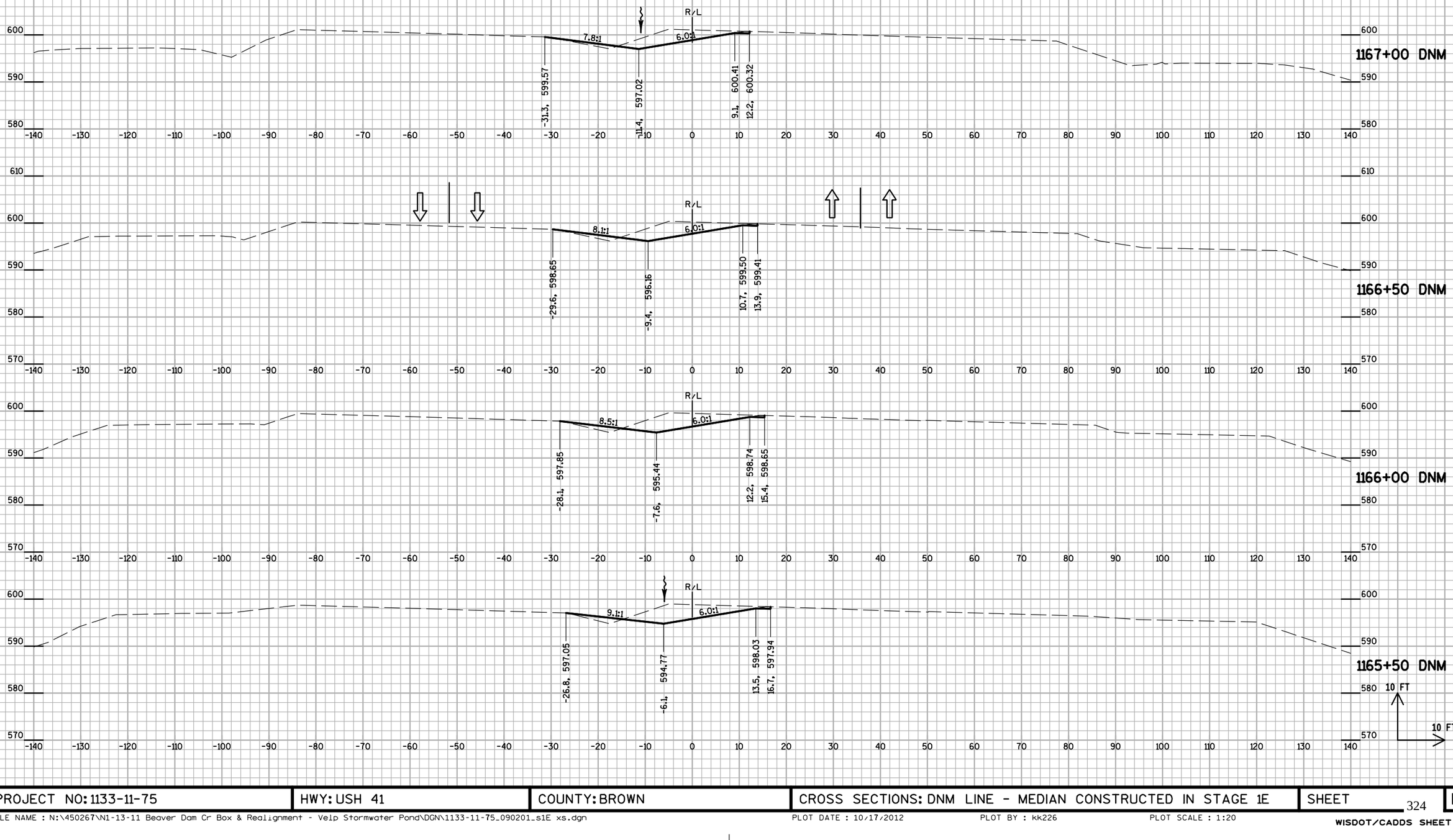
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - MEDIAN CONSTRUCTED IN STAGE 1E	SHEET 322	E

STA. 1163+50 DNM TO 1165+00 DNM



PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - MEDIAN CONSTRUCTED IN STAGE 1E	SHEET 323	E

STA. 1165+50 DNM TO 1167+00 DNM



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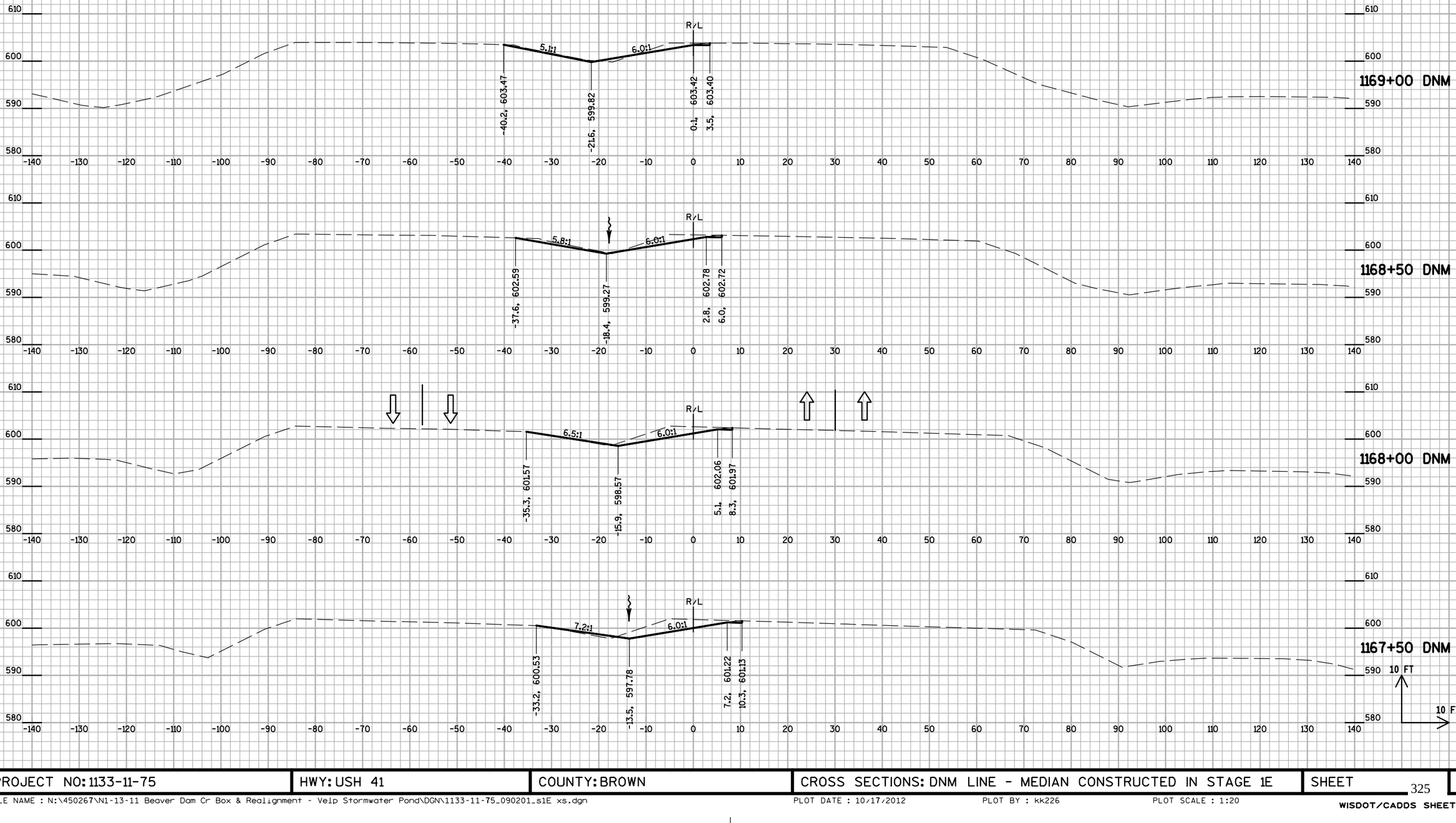
PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - MEDIAN CONSTRUCTED IN STAGE 1E	SHEET 324	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1167+50 DNM TO 1169+00 DNM



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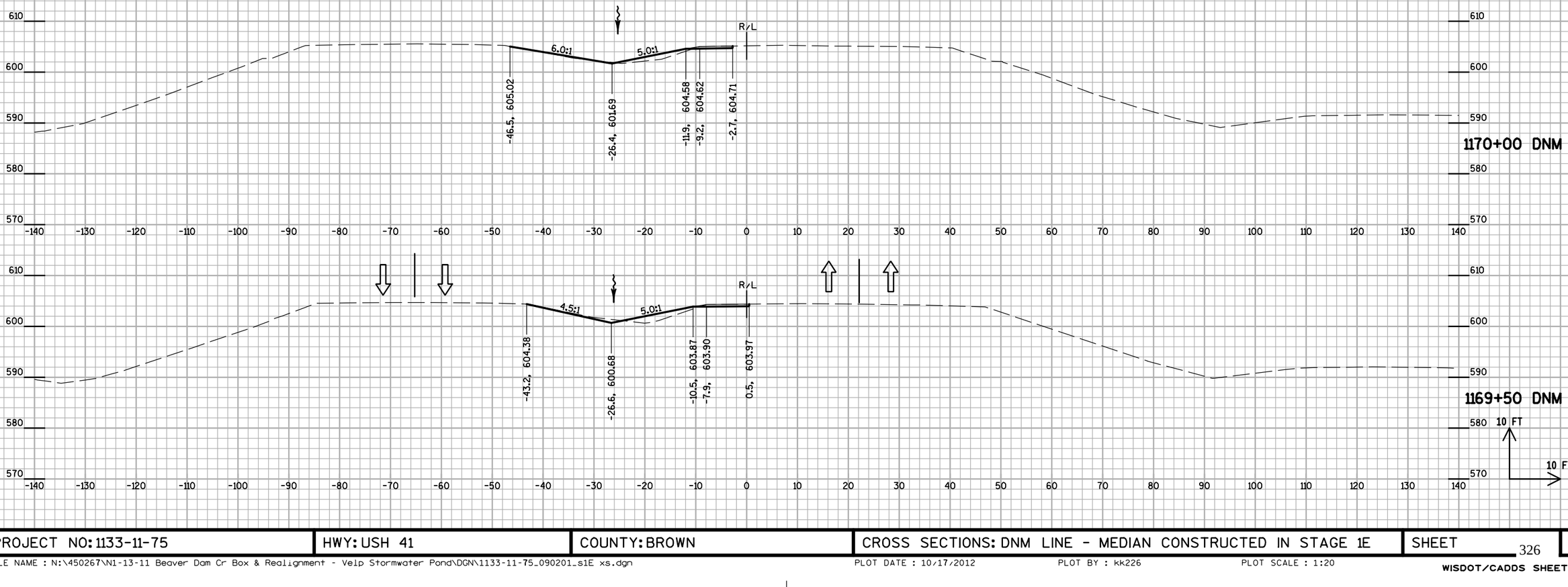
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FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn

PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

STA. 1169+50 DNM TO 1170+00 DNM



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PROJECT NO: 1133-11-75	HWY: USH 41	COUNTY: BROWN	CROSS SECTIONS: DNM LINE - MEDIAN CONSTRUCTED IN STAGE 1E	SHEET	E

FILE NAME : N:\450267\N1-13-11 Beaver Dam Cr Box & Realignment - Velp Stormwater Pond\DGN\1133-11-75_090201_s1E xs.dgn PLOT DATE : 10/17/2012 PLOT BY : kk226 PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

Notes

Wisconsin Department of Transportation

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