SWL

PROJECT ID: 5289-00-70
WITH: N/A

COUNTY: VERNON

MAY 2014
ORDER OF SHEETS

TOTAL SHEETS = 42

60

N

DESIGN DESIGNATION

A.A.D.T. 2014	=	500
A.A.D.T. 2034	=	620
D.H.V. 2034	=	19
D.	=	60/40
T.	=	4.1%
DESIGN SPEED	=	40 mph
ESALS	=	51,100

CONVENTIONAL SYMBOLS

PLAN
- 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
- EDGE OF STREAM
- RAILROAD
- FENCE —X— X—

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 82 - CTH Y

(BRANCH WEST FORK KICKAPOO RIVER BRIDGE B-62-0041)

CTH S
VERNON COUNTY

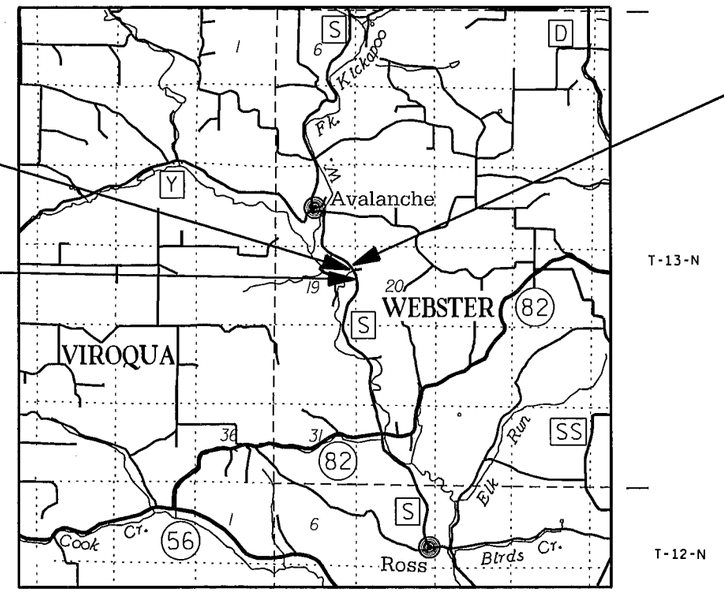
STATE PROJECT NUMBER
5289-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5289-00-70	WISC 2014183	1

STRUCTURE
B-62-0041

BEGIN PROJECT
STA. 8+50
Y = 161,965.55
X = 733,350.92

END PROJECT
STA. 11+00



LAYOUT
Scale 0 1 2 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.047 MI.

Positions shown on this plan and plot are Wisconsin County Coordinates, Vernon County, NAD 83 (2011) in US survey feet. Values shown are grid coordinates, grid bearings, and grid distances. Grid distances may be used as ground distances.

ACCEPTED FOR
VERNON COUNTY

1-21-14 Phil Hewitt
DATE HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY:

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4585 Fax 608-356-2770
© MSA PROFESSIONAL SERVICES

WISCONSIN
LEAH J. RHODES
E-41726
BARABOO
WI
PROFESSIONAL ENGINEER

1/17/2014 Leah J Rhodes
Date Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: MSA Professional Services, Inc.
Designer: MSA Professional Services, Inc.
Management Consultant: KJohnson Engineers, Inc.
C.O. Examiner:

APPROVED FOR THE DEPARTMENT
DATE: 1/21/14 Kindy A. Johnson
(Management Consultant Signature)

E

STANDARD ABBREVIATIONS

AC	ACRE
AGG	AGGREGATE
<	ANGLE
ASPH	ASPHALTIC
AC	ASPHALT CEMENT
ADT	AVERAGE DAILY TRAFFIC
B & B	BALLED AND BURLAPPED
BM	BENCH MARK
CB	CATCH BASIN
℄ OR C/L	CENTER LINE
C-C	CENTER TO CENTER
CONC	CONCRETE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
CULV	CULVERT
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA OR ϕ	DIAMETER
DIST	DISTRICT
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELEC	ELECTRIC
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
EXP	EXPANSION
F-F	FACE TO FACE
FERT	FERTILIZER
FE	FIELD ENTRANCE
F/L	FLOW LINE
FT	FOOT
GN	GRID NORTH
HR	HANDICAP RAMP
HT	HEIGHT
CWT	HUNDREDWEIGHT
HYD	HYDRANT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
IE	INVERT ELEVATION
IP	IRON PIPE OR PIN
JCT	JUNCTION
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LCB	LONG CHORD BEARING
LS	LUMP SUM
MH	MANHOLE
N	NORTH
Y	NORTH GRID COORDINATE
OE	OUTLET ELEVATION
OL	OUT LOT
OD	OUTSIDE DIAMETER
OH	OVERHEAD LINES
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PE	PRIVATE ENTRANCE
R OR RAD	RADIUS
RR	RAILROAD
R	RANGE
℄ OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
SALV	SALVAGED
SAN	SANITARY SEWER
SECT	SECTION
SHLDR	SHOULDER
SW	SIDEWALK
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SQ	SQUARE
SF OR SQ FT	SQUARE FEET
SY	SQUARE YARD
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T	TON
TC	TOP OF CURB
TN	TOWN
TRANS	TRANSITION
T	TRUCKS (percent of)
TYP	TYPICAL
UNCL	UNCLASSIFIED
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATER MAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 0.54 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.43 ACRES

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: LEAH J. RHODES, P.E.
1230 SOUTH BOULEVARD
BARABOO, WI 53913
PHONE: 608-355-8945
lrhodes@msa-ps.com

VERNON COUNTY
ATTN: PHIL HEWITT, COMMISSIONER
602 NORTH MAIN STREET
VIROQUA, WI 54665
PHONE 608-637-5452
phil.hewitt@vernoncounty.org

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: 608-785-9115
karen.kalvelage@wisconsin.gov

UTILITIES

BURIED TELEPHONE:
VERNON TELEPHONE COOP
ATTN: TODD TUNKS
103 NORTH MAIN STREET
P.O. BOX 20
WESTBY, WI 54667
PHONE: 608-634-3136
ttunks@vernontel.com

OVERHEAD ELECTRIC:
VERNON ELECTRIC COOP
ATTN: MONTE TEWALT
110 SAUGSTAD ROAD
WESTBY, WI 7472
PHONE:608-634-3121
mtewalt@vernonelectric.org

* - NOT A MEMBER OF DIGGERS HOTLINE.

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS SHALL BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 3 LBS. PER 1000 SQUARE FEET.

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

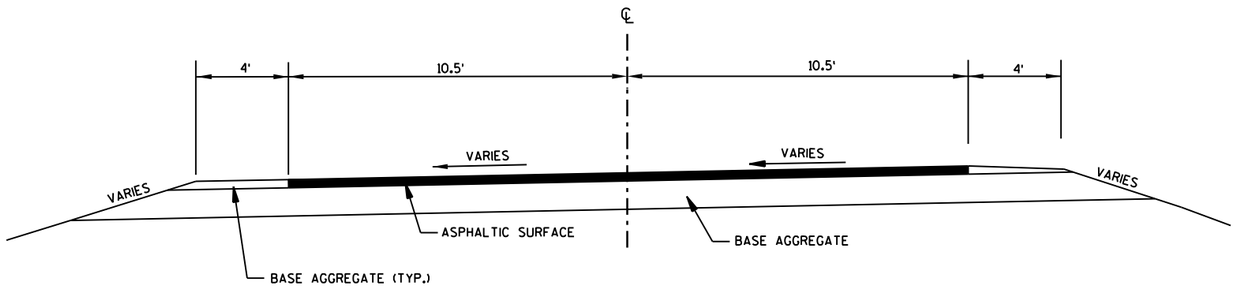
NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (96 ADJUSTED). BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

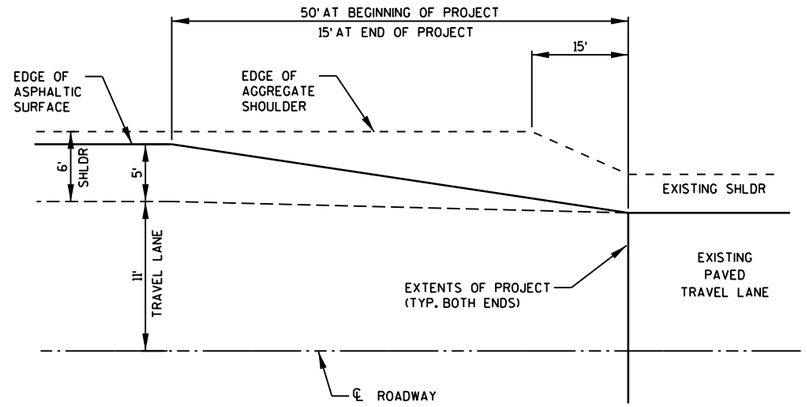
THE 4" ASPHALTIC SURFACE SHALL CONSIST OF A 1¾" UPPER LAYER WITH 12.5MM NOMINAL SIZE AGGREGATE AND A 2¼" LOWER LAYER WITH 19.0MM NOMINAL SIZE AGGREGATE.

SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION OR BRIDGE REMOVAL.

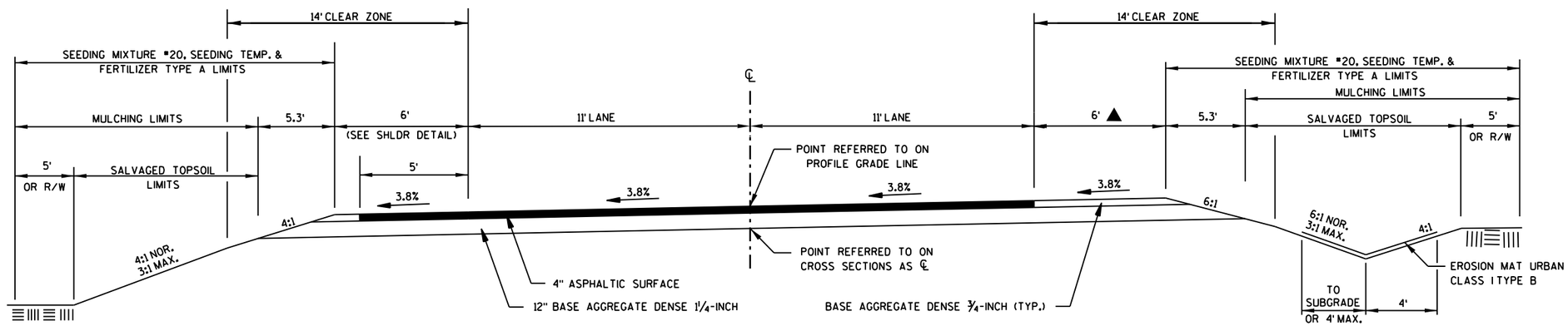
SLOPES STEEPER THAN 3:1 REQUIRE EROSION MAT.



TYPICAL EXISTING SECTION



LEFT SHOULDER DETAIL
AT PROJECT ENDS



▲ - PAVE 3' OF SHOULDER BETWEEN FIELD ENTRANCE AND PIETSCH ROAD.

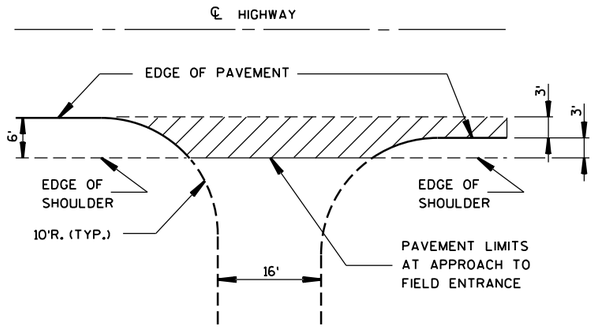
TYPICAL FINISHED SECTION

PROJECT NO: 5289-00-70	HWY: CTH S	COUNTY: VERNON	TYPICAL SECTIONS	SHEET 3	E

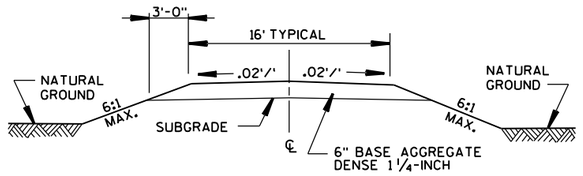
FILE NAME : P:\7300s\7330s\7339\07339005\caddWDOT\Plansht\s\7339005XC.dgn PLOT DATE : 12/13/2013 PLOT BY : lrhodes PLOT NAME : PLOT SCALE : 1:8

WISDOT/CADDS SHEET 42

7339005XC.dgn 12/13/2013 9:44:50 AM lrhodes

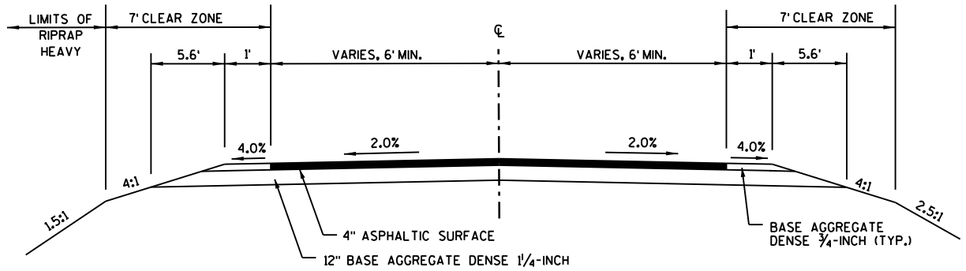


FIELD ENTRANCE PLAN



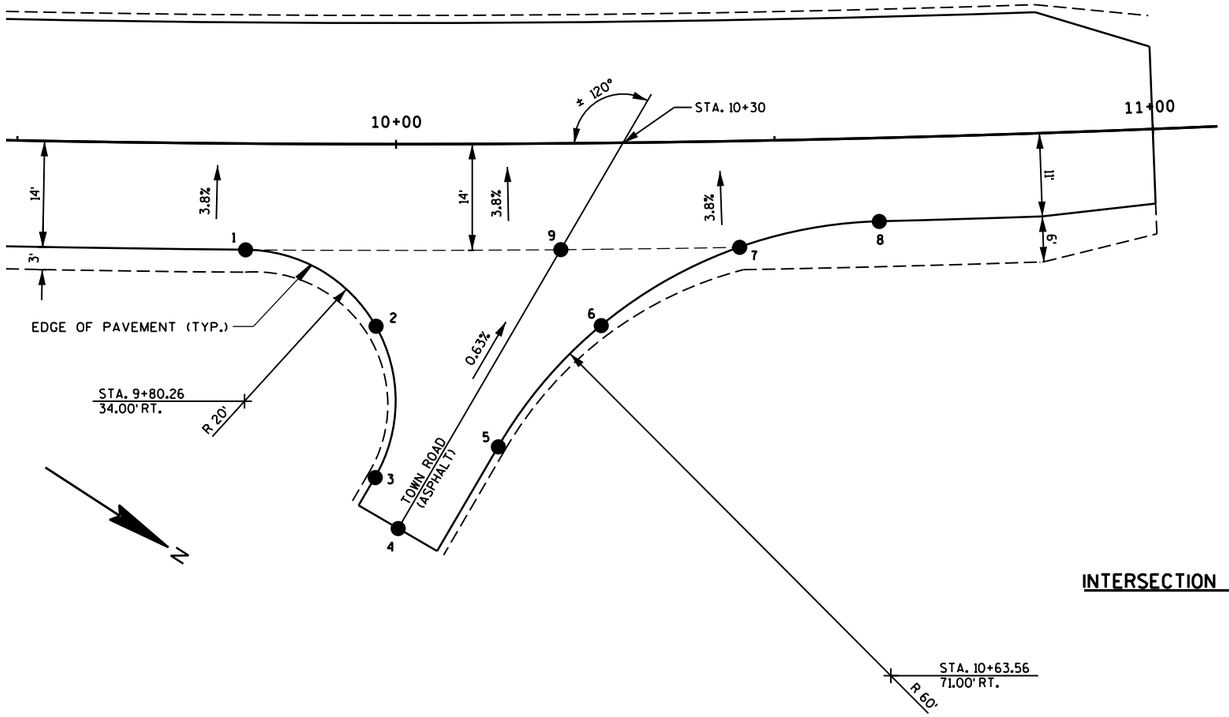
FIELD ENTRANCE TYPICAL SECTION

FIELD ENTRANCE DETAILS



TYPICAL FINISHED SECTION THRU TOWN ROAD

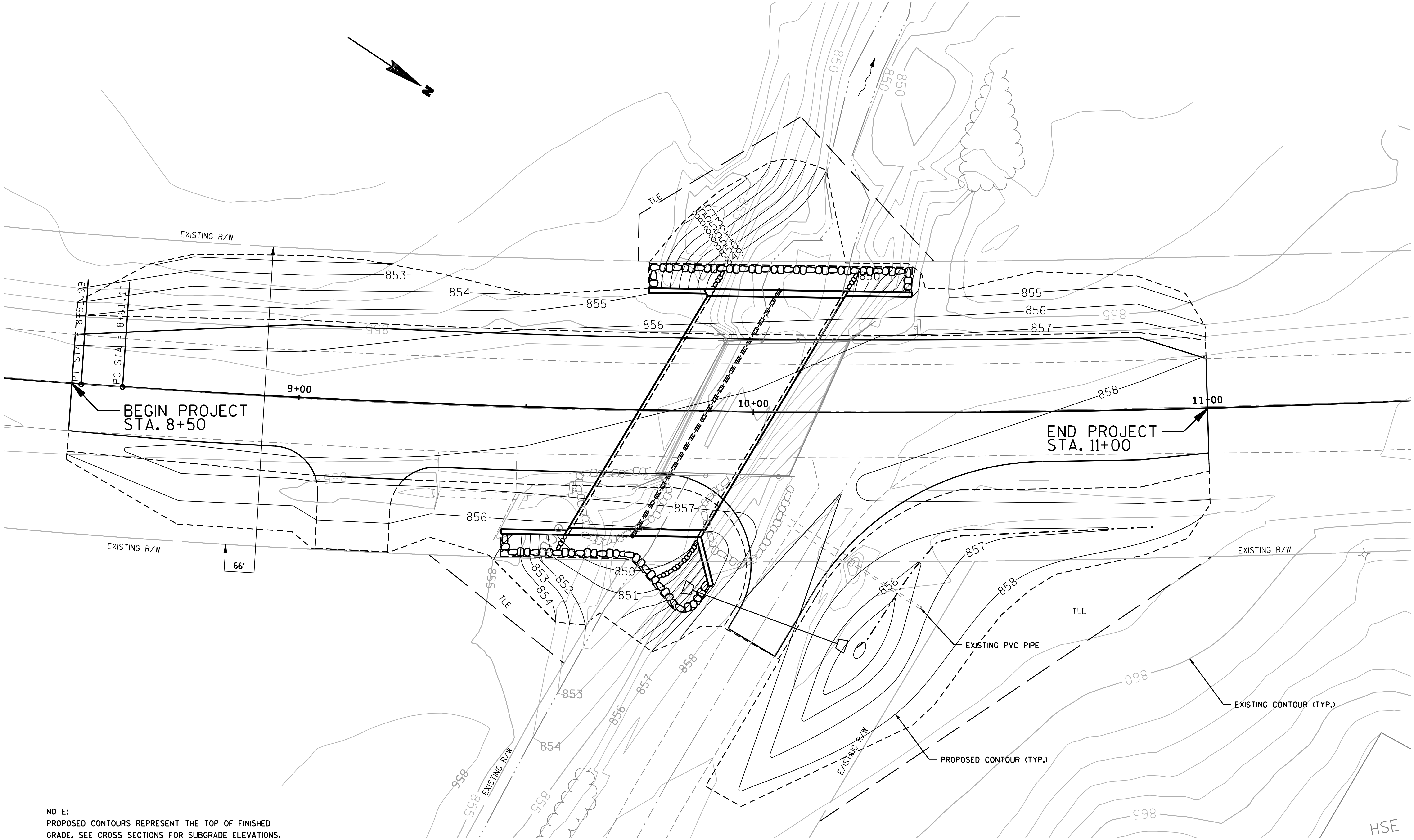
(LOOKING WEST)



INTERSECTION GRADING & LAYOUT DETAIL

LAYOUT TABLE

POINT	STATION	OFFSET	ELEVATION
1	9+80.26	14.00' RT.	857.48
2	9+97.40	24.03' RT.	857.79
3	9+97.32	44.00' RT.	858.10
4	10+00.28	50.73' RT.	858.25
5	10+13.31	39.99' RT.	858.03
6	10+26.85	24.08' RT.	858.15
7	10+45.14	14.00' RT.	858.27
8	10+63.56	11.00' RT.	858.39
9	10+21.64	14.00' RT.	857.98



NOTE:
PROPOSED CONTOURS REPRESENT THE TOP OF FINISHED GRADE. SEE CROSS SECTIONS FOR SUBGRADE ELEVATIONS.

SUPPLEMENTAL GRADING INFORMATION FOR ENDS OF BOX CULVERT AND CROSS DRAIN INLET

PROJECT NO:5289-00-70	HWY:CTH S	COUNTY:VERNON	GRADING DETAILS	SHEET 5	E

2

2

BM #3
DOUBLE POLE BARN SPIKE
IN 4"Φ DOUBLE TREE

PT STA = 11+53.89

EXISTING R/W

CP#2
¾" IRON ROD
STA. 9+58.63, 15.32' LT.
Y = 162,050.73
X = 733,282.31

63.6'

BM #1
CHISELED CROSS
TOP OF NW WINGWALL

17.9'

9+00

10+00

11+00

87.1'

PK NAIL ℄
±STA. 9+50

33.3'

96.6'

42.1'

NAIL IN 40 TON
WEIGHT LIMIT
SIGN POST

CP#3
¾" IRON ROD
STA. 10+50.38, 14.88' RT.
Y = 162,144.07
X = 733,257.53

113.3'

EXISTING R/W

BM #2
DOUBLE POLE BARN SPIKE
IN 12"Φ BOX ELDER TREE

HSE

ALL DISTANCES TO TIES ARE SLOPE DISTANCES.

PROJECT NO: 5289-00-70	HWY: CTH S	COUNTY: VERNON	CONTROL POINT TIES	SHEET	E

FILE NAME : P:\7300s\7330s\7339\07339005\caddWDOT\Planshts\7339005CP.dgn PLOT DATE : 1/22/2014 PLOT BY : lrhodes PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 42

7339005CP.dgn 1/22/2014 5:53:45 PM lrhodes

DATE 10MAR14 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	5289-00-70 QUANTITY
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	2.000	2.000
0020	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 10+00	LS	1.000	1.000
0030	205.0100	EXCAVATION COMMON **P**	CY	578.000	578.000
0040	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. B-62-0041	LS	1.000	1.000
0050	206.6000.S	TEMPORARY SHORING	SF	575.000	575.000
0060	210.0100	BACKFILL STRUCTURE	CY	465.000	465.000
0070	213.0100	FINISHING ROADWAY (PROJECT) 01. 5289-00-70	EACH	1.000	1.000
0080	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	53.000	53.000
0090	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	930.000	930.000
0100	311.0115	BREAKER RUN	CY	130.000	130.000
0110	455.0605	TACK COAT	GAL	22.000	22.000
0120	465.0105	ASPHALTIC SURFACE	TON	204.000	204.000
0130	504.0100	CONCRETE MASONRY CULVERTS	CY	218.000	218.000
0140	505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	38,310.000	38,310.000
0150	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13.000	13.000
0160	520.0118	CULVERT PIPE CLASS III 18-INCH	LF	38.000	38.000
0170	520.1018	APRON ENDWALLS FOR CULVERT PIPE 18-INCH	EACH	2.000	2.000
0180	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	75.000	75.000
0190	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	75.000	75.000
0200	606.0300	RIPRAP HEAVY	CY	55.000	55.000
0210	619.1000	MOBILIZATION	EACH	1.000	1.000
0220	625.0500	SALVAGED TOPSOIL **P**	SY	600.000	600.000
0230	627.0200	MULCHING **P**	SY	720.000	720.000
0240	628.1504	SILT FENCE	LF	500.000	500.000
0250	628.1520	SILT FENCE MAINTENANCE	LF	500.000	500.000
0260	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0270	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0280	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	215.000	215.000
0290	629.0205	FERTILIZER TYPE A **P**	CWT	1.000	1.000
0300	630.0120	SEEDING MIXTURE NO. 20 **P**	LB	40.000	40.000
0310	630.0200	SEEDING TEMPORARY **P**	LB	40.000	40.000
0320	633.5200	MARKERS CULVERT END	EACH	4.000	4.000
0330	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	1.000	1.000
0340	637.2210	SIGNS TYPE II REFLECTIVE H	SF	5.180	5.180
0350	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0360	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5289-00-70	EACH	1.000	1.000
0370	645.0105	GEOTEXTILE FABRIC TYPE C	SY	220.000	220.000
0380	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	135.000	135.000
0390	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	1,000.000	1,000.000
0400	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	300.000	300.000
0410	650.5000	CONSTRUCTION STAKING BASE	LF	300.000	300.000
0420	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-62-0041	LS	1.000	1.000
0430	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5289-00-70	LS	1.000	1.000
0440	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	300.000	300.000
0450	690.0150	SAWING ASPHALT	LF	54.000	54.000

3

205.0100 EXCAVATION COMMON **P**

LOCATION	EXC. COMMON CY	FILL CY (1)	EXPANDED FILL CY (2)	WASTE CY
STA 8+50 - STA 9+60	165	89	115	50
STA 10+20 - STA 11+00	180	16	22	158
PIETSCH RD & CROSS DRAIN INLET	163	0	0	163
B-62-0041 INLET	28	0	0	28
B-62-0041 OUTLET	42	12	16	26
TOTALS:	578	117	153	425

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%

305.0110 BASE AGGREGATE DENSE 3/4-INCH
305.0120 BASE AGGREGATE DENSE 1 1/4-INCH

STATION	-	STATION	BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON
8+50.00	-	11+00.00	45	800
PIETSCH ROAD			8	130
		TOTALS:	53	930

455.0605 TACK COAT
465.0105 ASPHALTIC SURFACE

STATION	-	STATION	TACK COAT GAL	ASPHALTIC SURFACE TON
8+50	-	11+00	19.5	181
PIETSCH ROAD			2.5	23
		TOTALS:	22	204

203.0100 REMOVING SMALL PIPE CULVERTS
520.0118 CULVERT PIPE CLASS III 18-INCH
520.1018 APRON ENDWALLS FOR CULVERT PIPE 18-INCH

STATION	LOCATION	REMOVING PIPE EACH	CULVERT PIPE CLASS III LF	APRON ENDWALLS EACH	MINIMUM THICKNESS STEEL IN.	MINIMUM THICKNESS ALUM. IN.
9+13	FIELD ENTRANCE, RT	1	-	-	-	-
10+03	45' RT	-	38	2	0.064	0.06
10+14	28' RT (1)	1	-	-	-	-
	TOTAL:	2	38	2	-	-

(1) - INCLUDES REMOVAL OF PVC PIPE FROM PIPE CULVERT INLET TO 5' SOUTH OF THE EXISTING NORTHERLY RIGHT OF WAY LINE ON PIETSCH ROAD.

603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED
603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED

STATION	-	STATION	LOCATION	CONCRETE BARRIER DELIVERED (1) LF	CONCRETE BARRIER INSTALLED (1) LF
9+86, 66' RT	-	10+25, 3' RT	SOUTH EDGE OF PIETSH ROAD	75	75
			TOTAL:	75	75

(1) - BARRIER TAPER SECTION REQUIRED ON EACH END OF CONCRETE BARRIER. INSTALL OBJECT MARKERS (W5-52) ON ENDS OF CONCRETE BARRIER (INCLUDED IN BID ITEM "TRAFFIC CONTROL").

625.0500 SALVAGED TOPSOIL **P**
627.0200 MULCHING **P**
629.0205 FERTILIZER TYPE A **P**
630.0120 SEEDING MIXTURE NO. 20 **P**
630.0200 SEEDING TEMPORARY **P**

STATION	-	STATION	LOCATION	SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER CWT	SEEDING #20 LB	SEEDING TEMPORARY LB
8+50	-	11+00	LT	180	240	0.30	13	13
8+50	-	11+00	RT	375	435	0.45	19	19
UNDISTRIBUTED				45	45	0.25	8	8
		TOTALS:		600	720	1	40	40

628.1504 SILT FENCE
628.1520 SILT FENCE MAINTENANCE

STATION	-	STATION	LOCATION	FENCE LF	MAINT. LF
8+50.00	-	11+00.00	LT	260	260
8+50.00	-	9+90.00	RT	140	140
UNDISTRIBUTED			-	100	100
			TOTALS:	500	500

P - PAY PLAN QUANTITY

628.2008 EROSION MAT URBAN CLASS I TYPE B

LOCATION	URBAN CLASS I TYPE B SY
STA 8+65 - STA 9+35, LT	41
B-62-0041 INLET	31
B-62-0041 OUTLET	46
STA 10+20 - STA 10+90, RT	69
UNDISTRIBUTED	28
TOTALS:	215

633.5200 MARKERS CULVERT END

STATION	LOCATION	EACH
9+45	27' RT	1
9+76	26' LT	1
9+91	27' RT	1
10+36	26' LT	1
	TOTAL:	4

634.0616 POSTS WOOD 4x6-INCH x 16-FT
637.2210 SIGNS TYPE II REFLECTIVE H

STATION	LOCATION	SIGN CODE	SIZE	SIGNS REFECTIVE SF	WOOD POSTS EACH	COMMENTS
9+75	RT	-	-	-	-	WEIGHT LIMIT POSTING (REMOVED BY COUNTY)
10+25	LT	-	-	-	-	WEIGHT LIMIT POSTING (REMOVED BY COUNTY)
10+23	40' RT	R1-1	2S	5.18	1	STOP SIGN
		TOTALS:		5.18	1	

646.0106 PAVEMENT MARKING EPOXY 4-INCH

STATION	-	STATION	LOCATION	PAVEMENT MARKING YELLOW LF	PAVEMENT MARKING WHITE LF
8+50	-	11+00	CENTERLINE - DOUBLE SOLID	500	-
8+50	-	11+00	EDGELINE LT & RT - SOLID	-	500
			TOTAL:	1000	

650.4500 CONSTRUCTION STAKING SUBGRADE
650.5000 CONSTRUCTION STAKING BASE
650.9920 CONSTRUCTION STAKING SLOPE STAKES
650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 5289-00-70

STATION	-	STATION	SUBGRADE LF	BASE LF	SLOPE STAKES LF	SUPPLEMENTAL CONTROL LS
8+50	-	11+00	250	250	250	-
PIETSCH ROAD			50	50	50	-
		TOTALS:	300	300	300	1

690.0150 SAWING ASPHALT

STATION	LF
8+50	21
11+00	21
PIETSCH RD	12
TOTAL:	54

PROJECT NO: 5289-00-70	HWY: CTH S	COUNTY: VERNON	MISCELLANEOUS QUANTITIES	SHEET 9 E

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO VERNON COUNTY.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	TLE S.F.
1	WIS. DEPT. OF NATURAL RESOURCES	TLE	1,220
2	BARBARA NELSON, ET. AL.	TLE	1,967

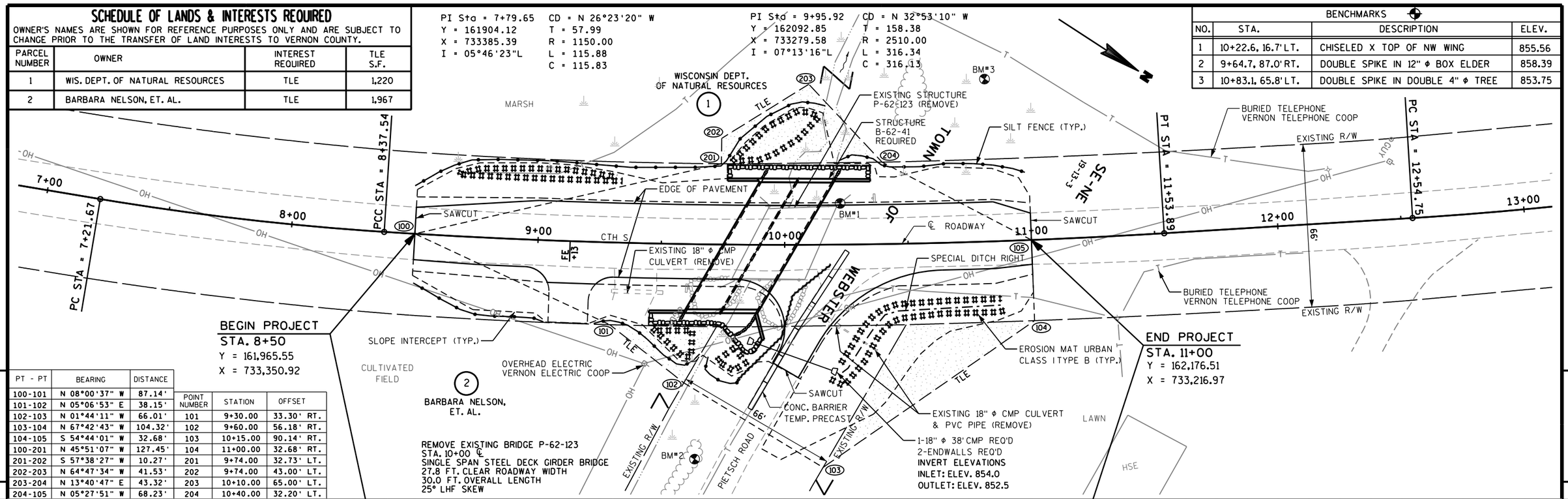
PI Sta = 7+79.65
Y = 161904.12
X = 733385.39
I = 05°46'23"L

CD = N 26°23'20" W
T = 57.99
R = 1150.00
L = 115.88
C = 115.83

PI Sta = 9+95.92
Y = 162092.85
X = 733279.58
I = 07°13'16"L

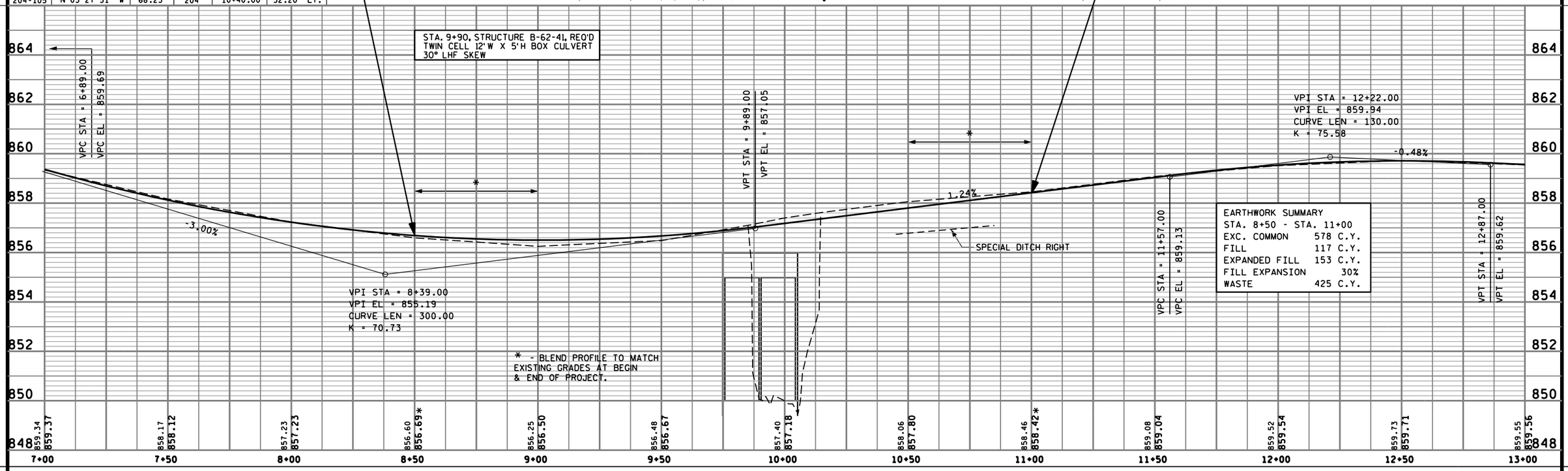
CD = N 32°53'10" W
T = 158.38
R = 2510.00
L = 316.34
C = 316.13

BENCHMARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	10+22.6, 16.7'LT.	CHISELED X TOP OF NW WING	855.56
2	9+64.7, 87.0'RT.	DOUBLE SPIKE IN 12" ϕ BOX ELDER	858.39
3	10+83.1, 65.8'LT.	DOUBLE SPIKE IN DOUBLE 4" ϕ TREE	853.75



PT - PT	BEARING	DISTANCE
100-101	N 08°00'37" W	87.14'
101-102	N 05°06'53" E	38.15'
102-103	N 01°44'11" W	66.01'
103-104	N 67°42'43" W	104.32'
104-105	S 54°44'01" W	32.68'
100-201	N 45°51'07" W	127.45'
201-202	S 57°38'27" W	10.27'
202-203	N 64°47'34" W	41.53'
203-204	N 13°40'47" E	43.32'
204-105	N 05°27'51" W	68.23'

POINT NUMBER	STATION	OFFSET
101	9+30.00	33.30' RT.
102	9+60.00	56.18' RT.
103	10+15.00	90.14' RT.
104	11+00.00	32.68' RT.
201	9+74.00	32.73' LT.
202	9+74.00	43.00' LT.
203	10+10.00	65.00' LT.
204	10+40.00	32.20' LT.



PROJECT NO: 5289-00-70	HWY: CTH S	COUNTY: VERNON	PLAN & PROFILE - CTH S	SHEET E

FILE NAME : P:\7300s\7330s\7339\07339005\caddWDOT\Planshts\panp01.dgn PLOT DATE : 12/18/2013 PLOT BY : lrhodes PLOT NAME : PLOT SCALE : 1:40

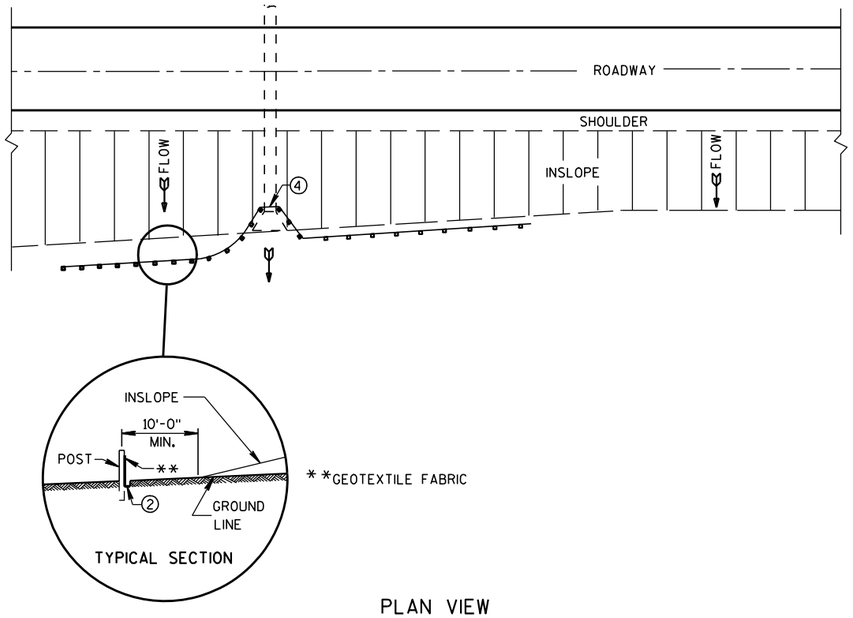
WISDOT/CADDS SHEET 30

panp01.dgn 12/18/2013 1:43:01 PM lrhodes

Standard Detail Drawing List

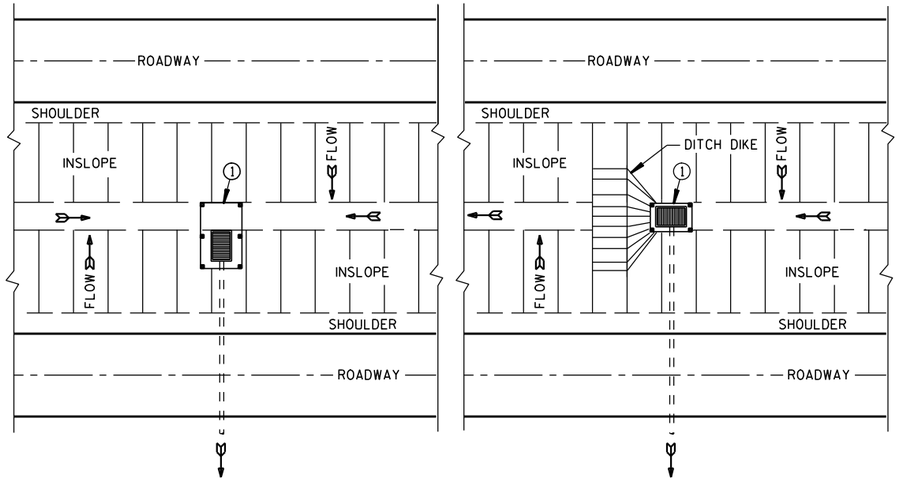
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)

6



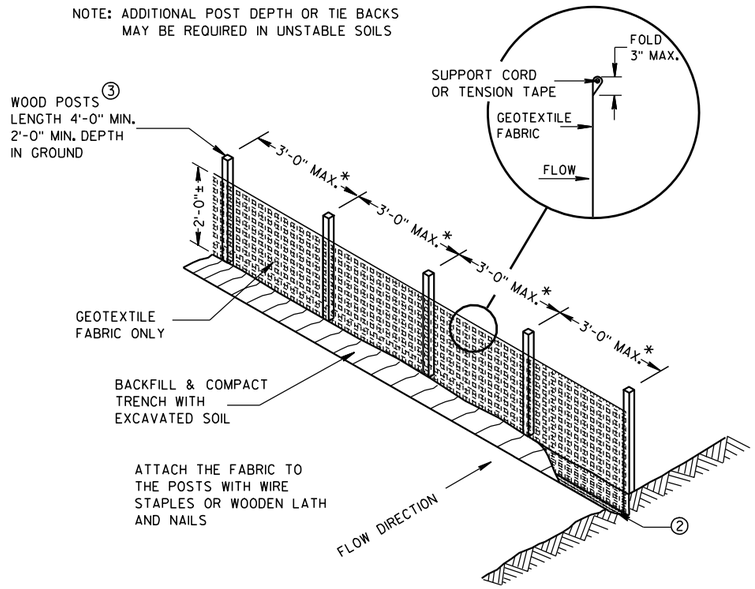
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



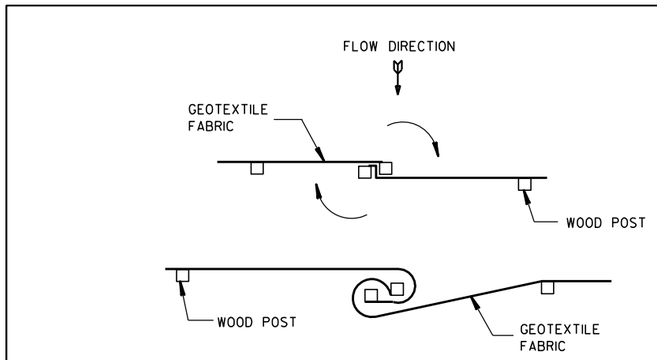
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



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

SILT FENCE

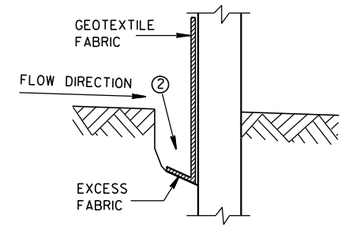


JOINING TWO LENGTHS OF SILT FENCE 5

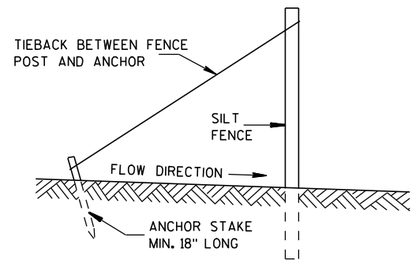
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE 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

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

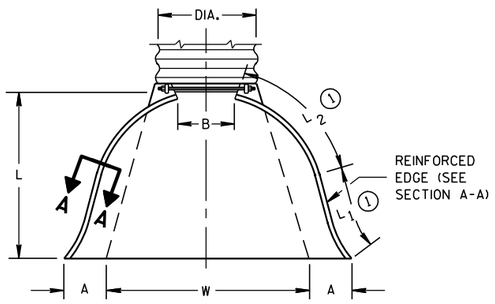
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

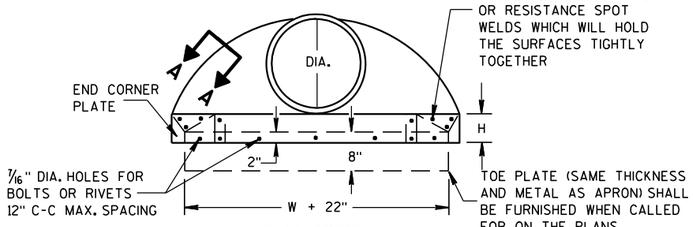
REINFORCED CONCRETE APRON ENDWALLS

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

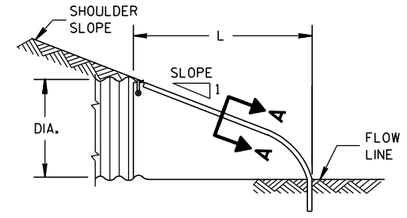
*MINIMUM
**MAXIMUM



PLAN VIEW

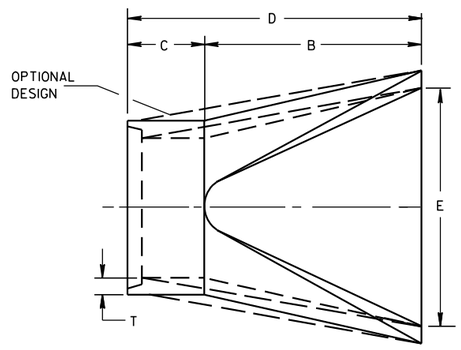


END VIEW

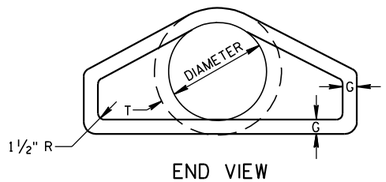


SIDE ELEVATION

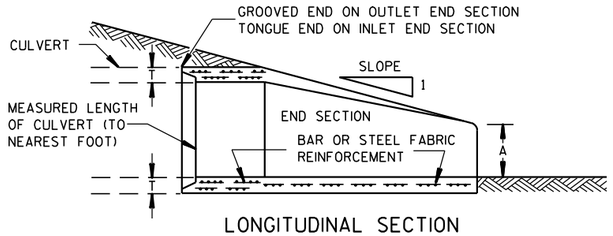
METAL ENDWALLS



PLAN

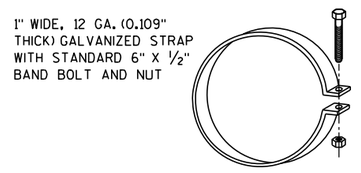


END VIEW



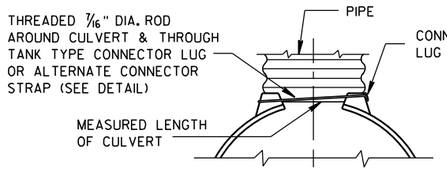
LONGITUDINAL SECTION

CONCRETE ENDWALLS

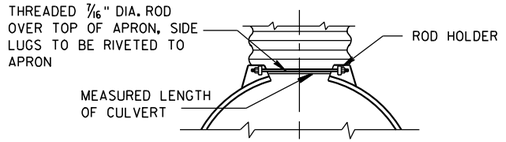


ALTERNATE FOR TYPE 1 CONNECTION

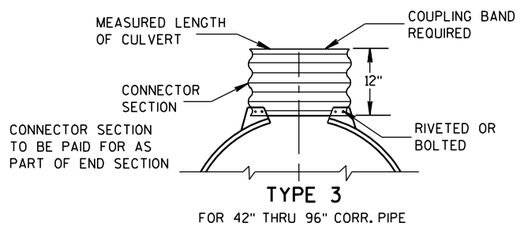
END SECTION CONNECTOR STRAP



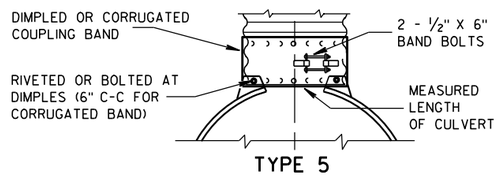
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

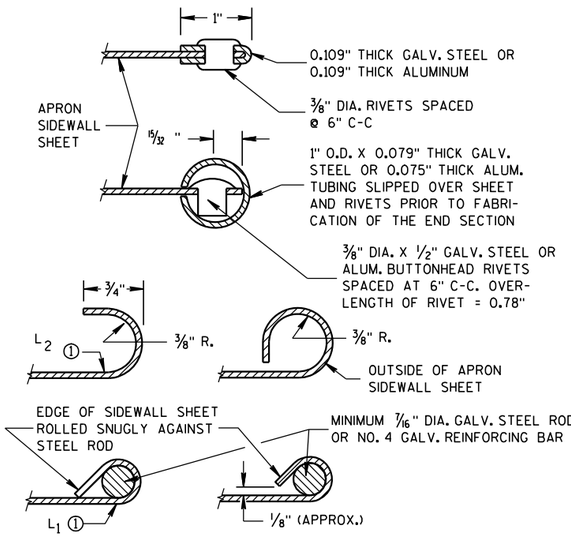
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

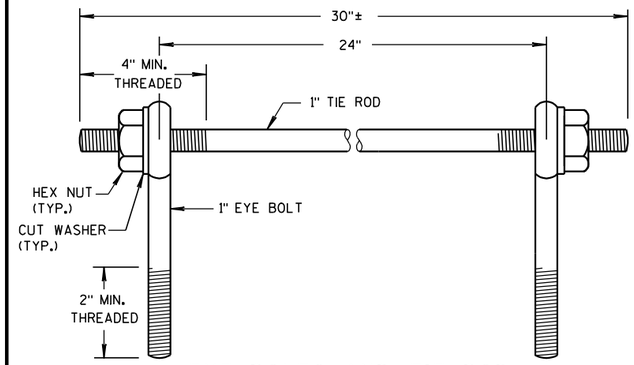
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

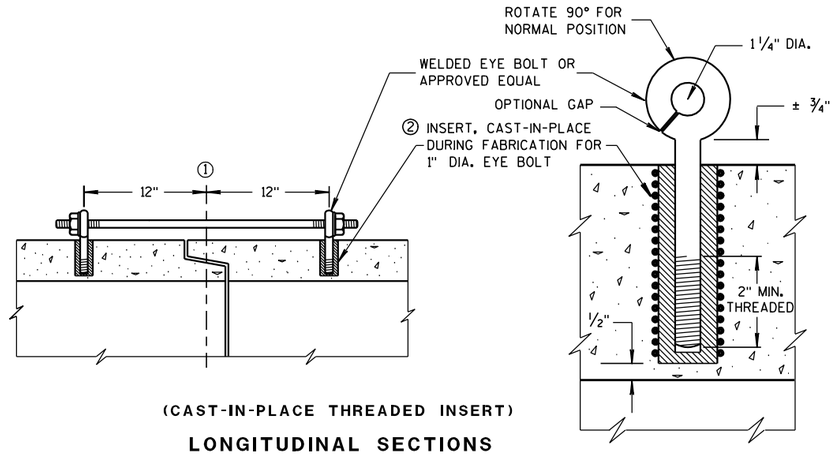
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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.

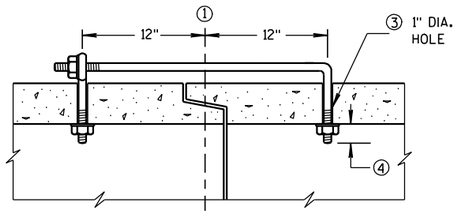
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

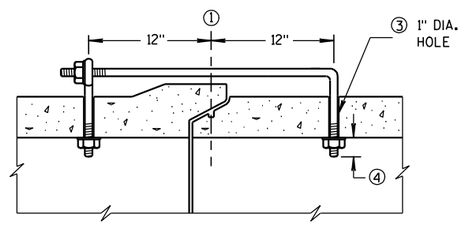
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

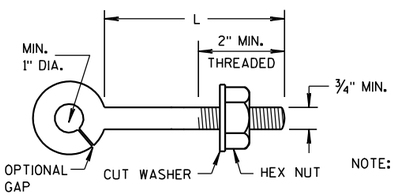


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

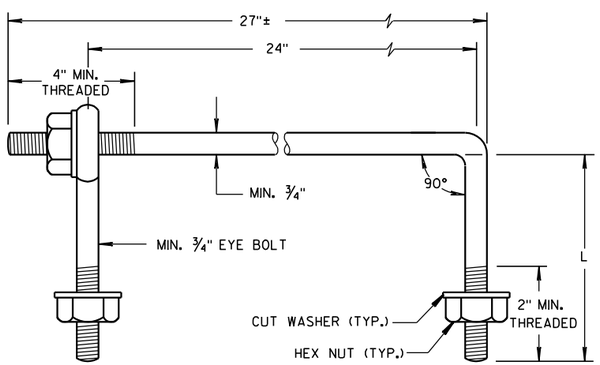
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

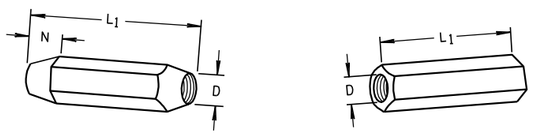
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

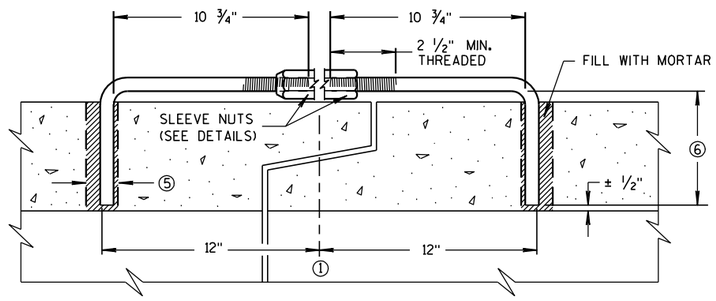
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

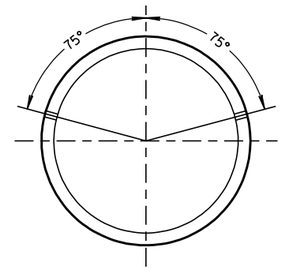
SLEEVE NUTS



LONGITUDINAL SECTION

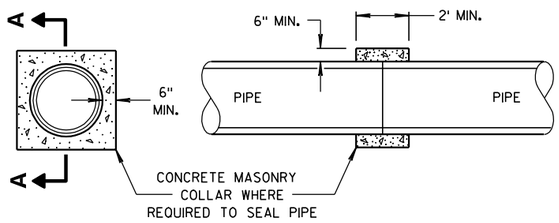
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

FHWA

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S.D.D. 8 F 4-7

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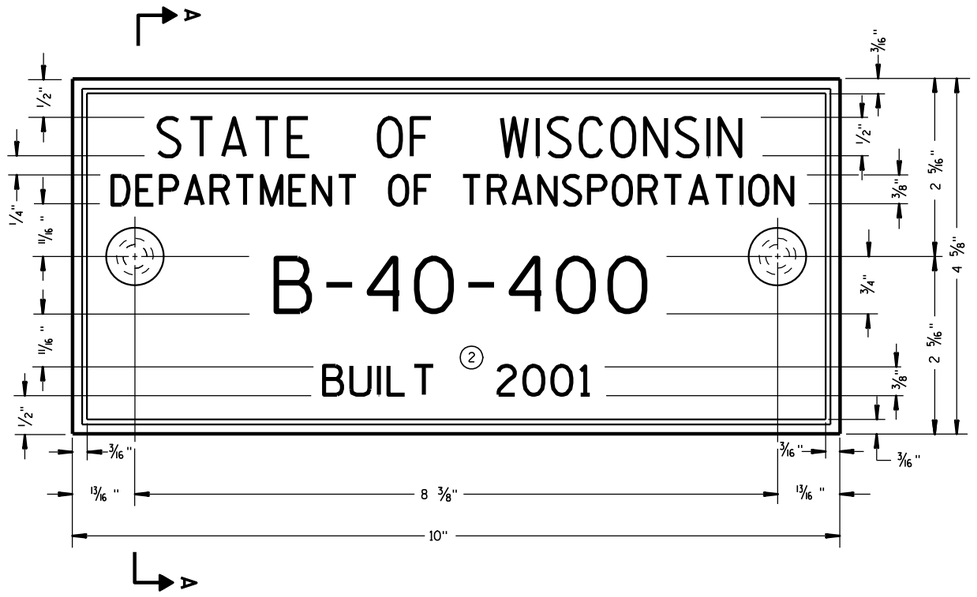
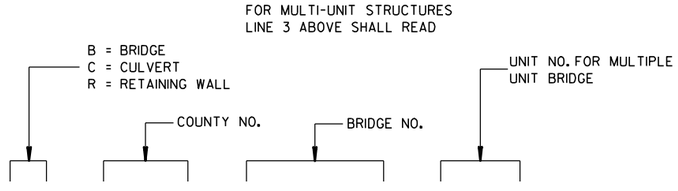
S.D.D. 8 F 4-7



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

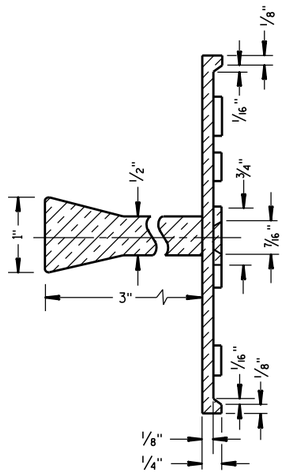
GENERAL NOTES

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.

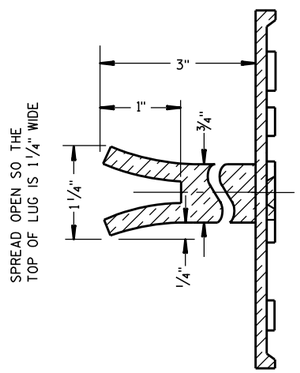
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

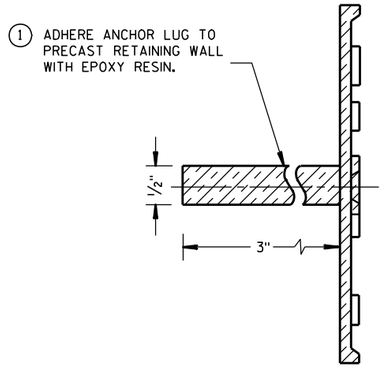
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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

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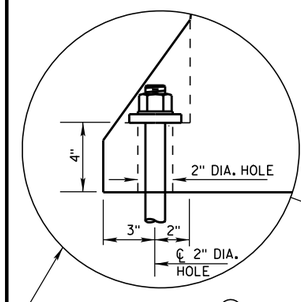
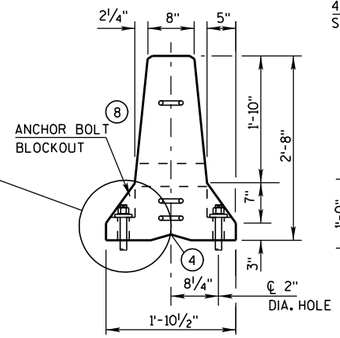
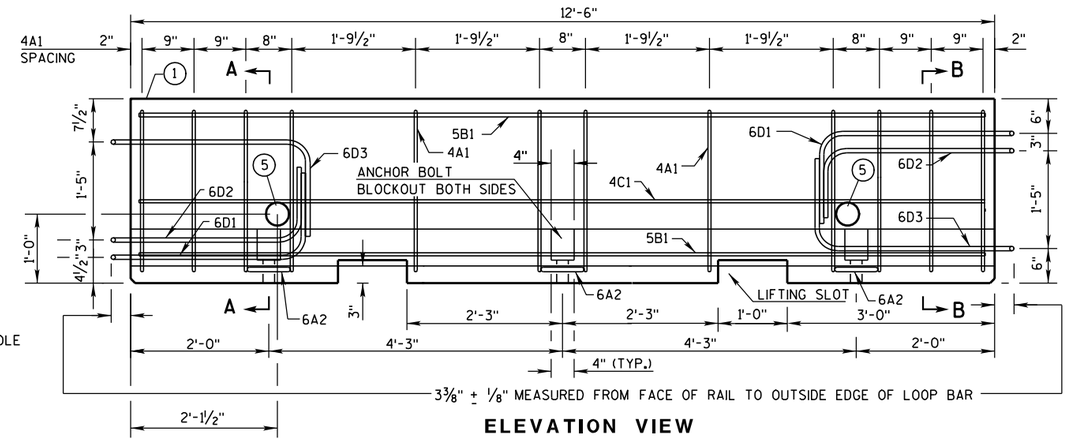
S.D.D. 12 A 3-10



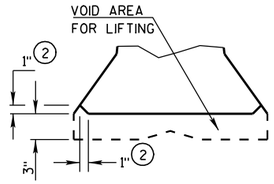
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



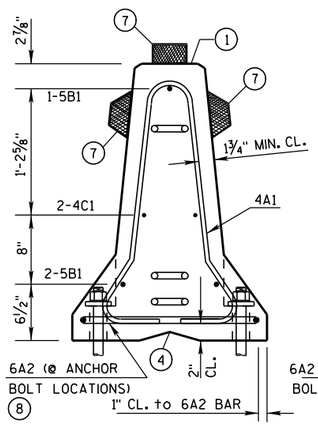
END VIEW



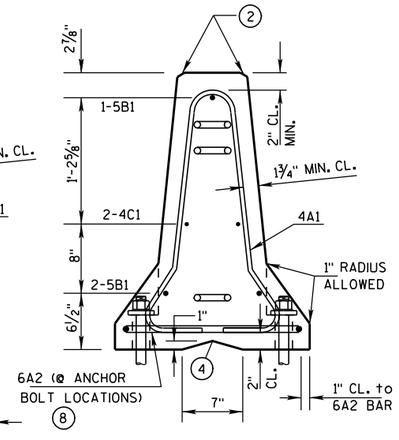
ELEVATION VIEW



DETAIL "B" LIFTING SLOT DETAIL



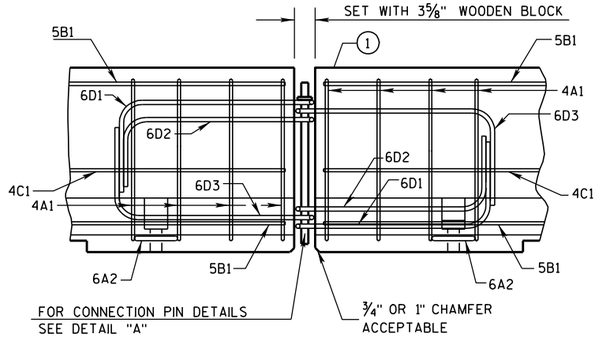
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION

1/2" TOP PLATE DETAIL

DETAIL "A" CONNECTION PIN
(A36 STEEL (10.9 LB EACH))

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

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

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

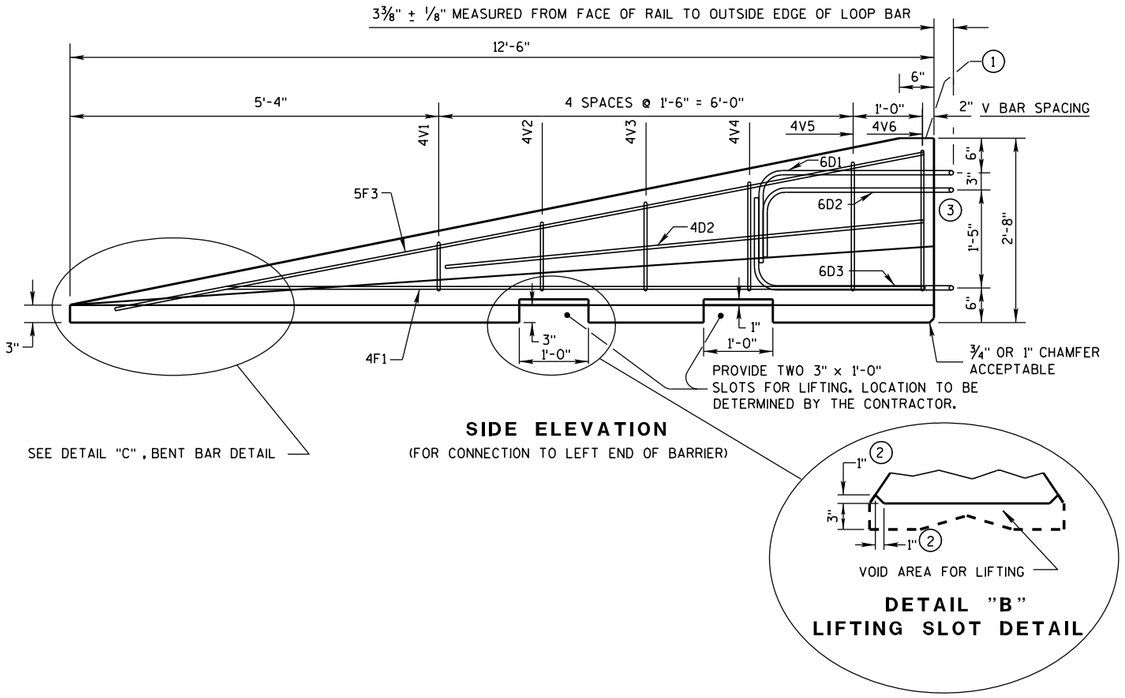
(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....

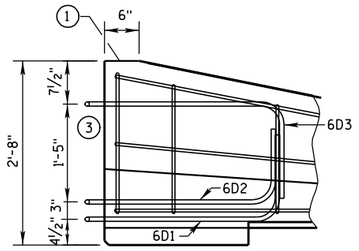
6
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

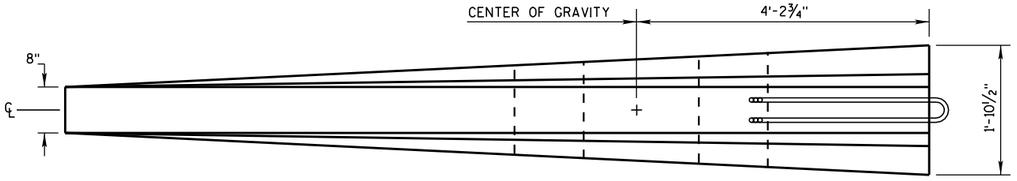


SIDE ELEVATION

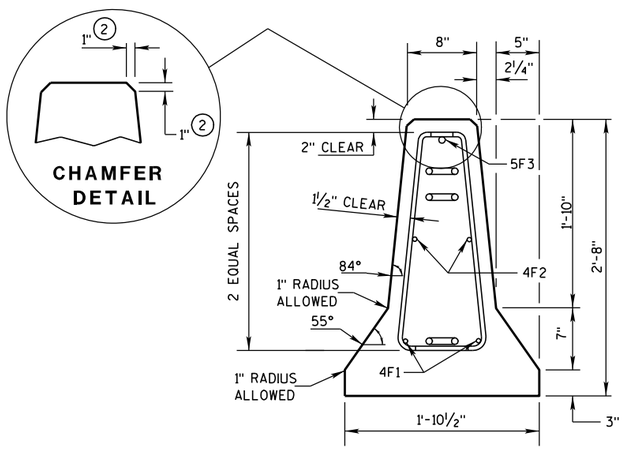
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

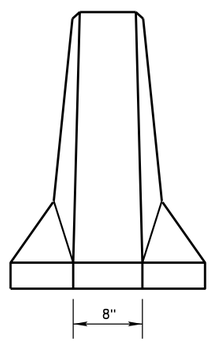
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



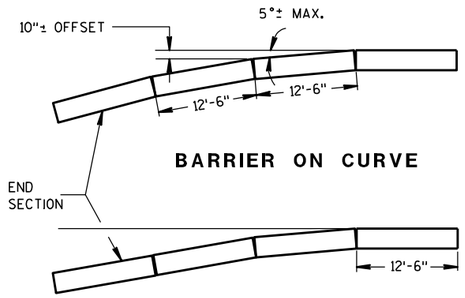
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

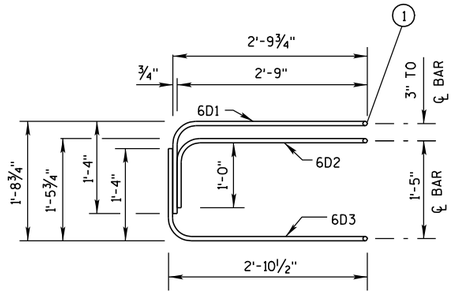
6

S.D.D. 14 B 7-13b

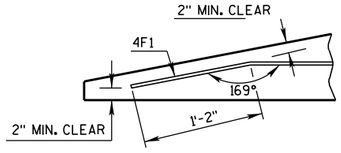
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

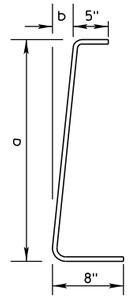
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



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

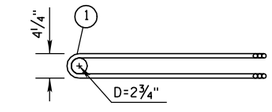
GENERAL NOTES

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

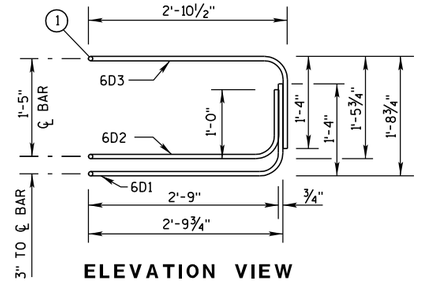
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

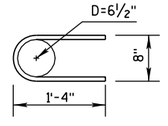
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



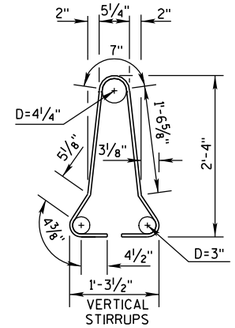
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

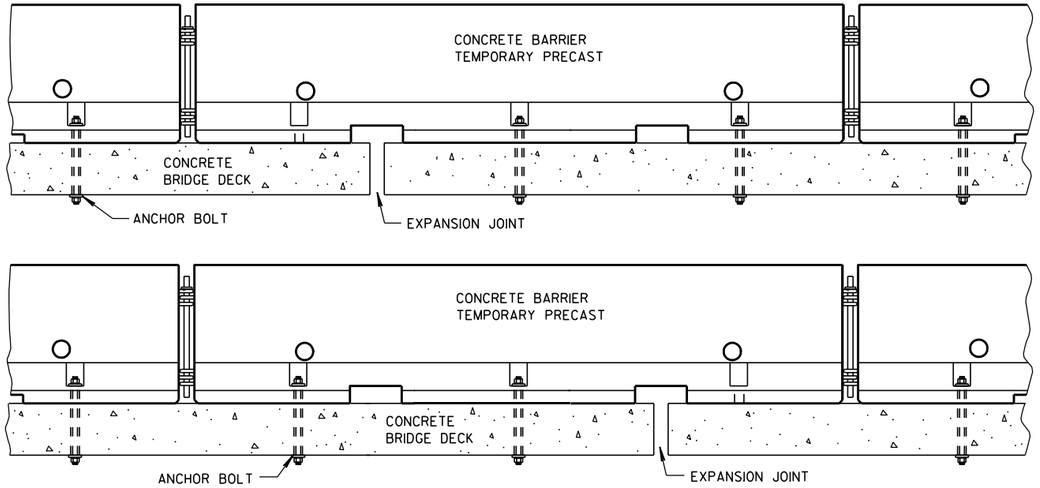
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

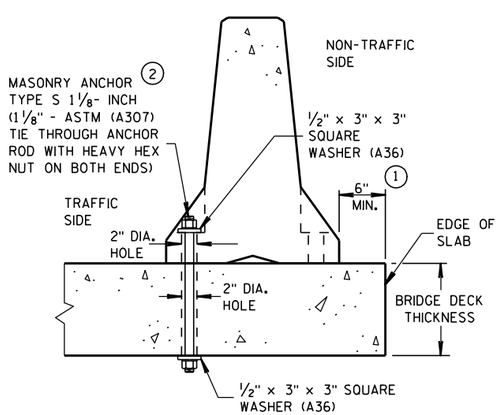
6

S.D.D. 14 B 7-13c



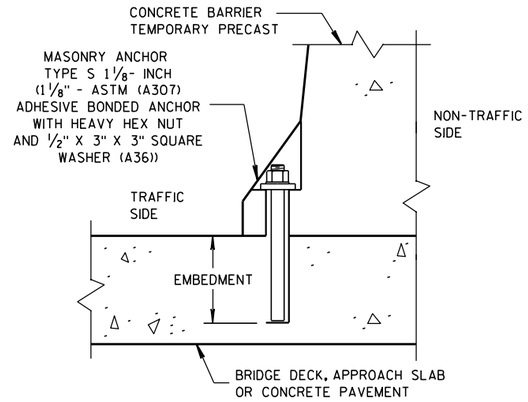
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

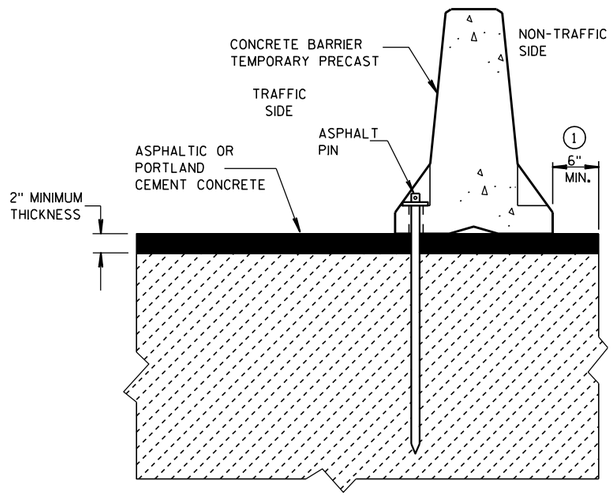
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

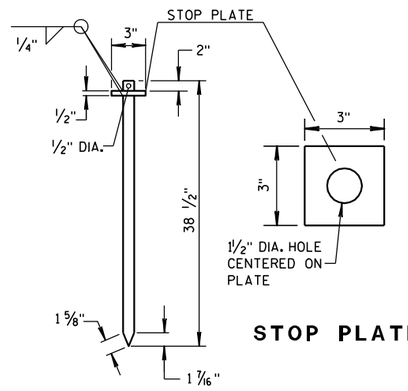
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE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

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

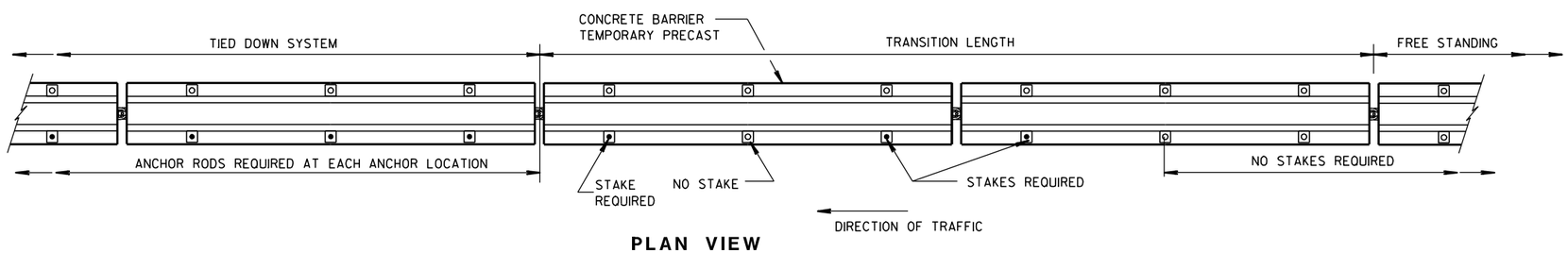
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



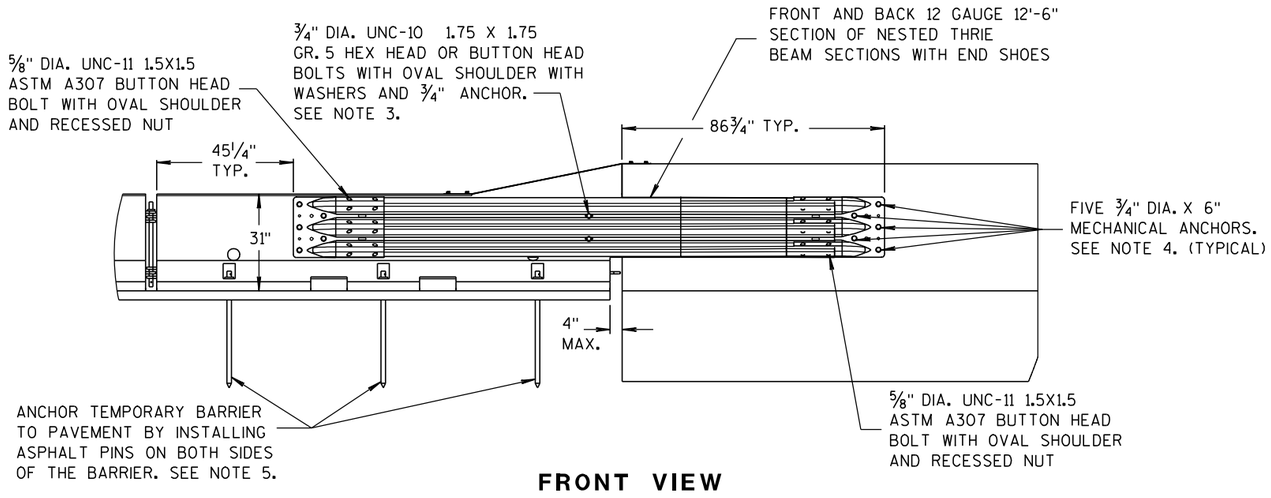
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

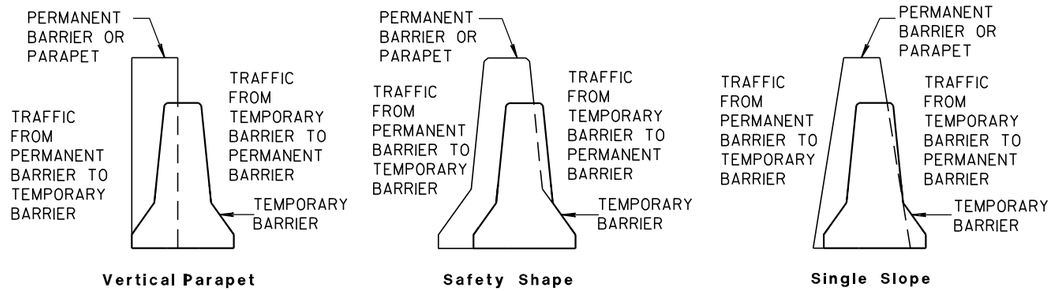
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

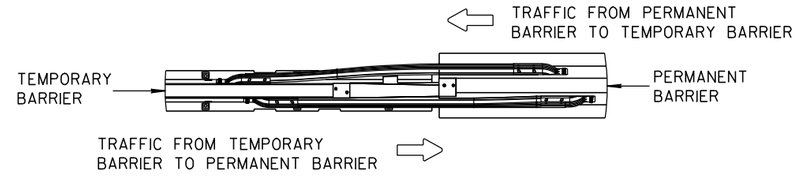


FRONT VIEW

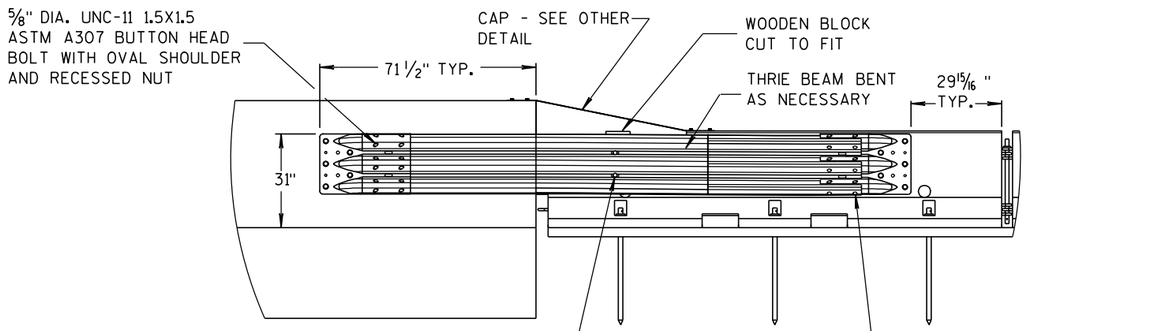
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

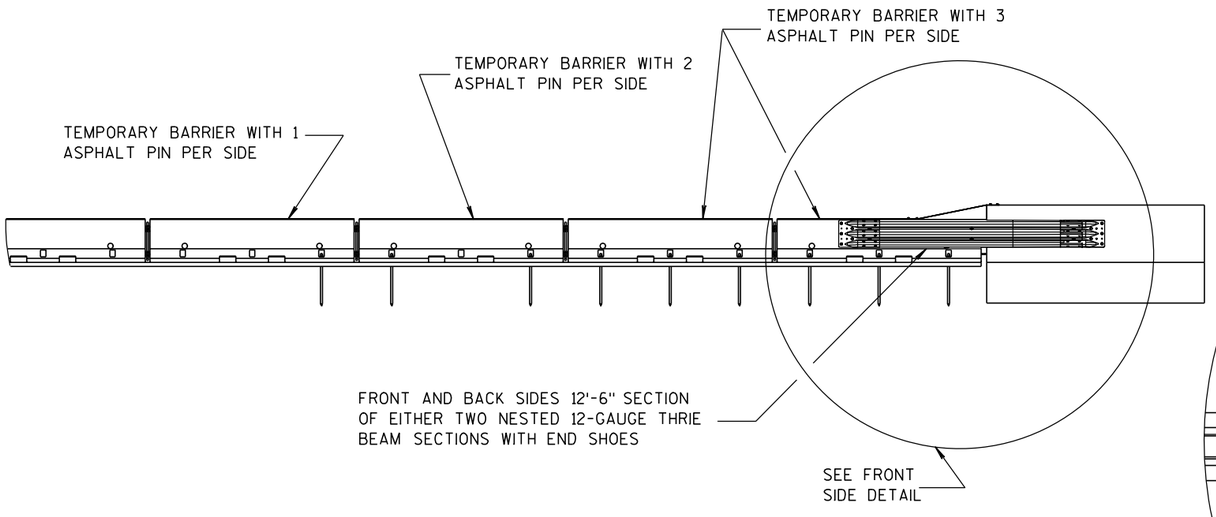




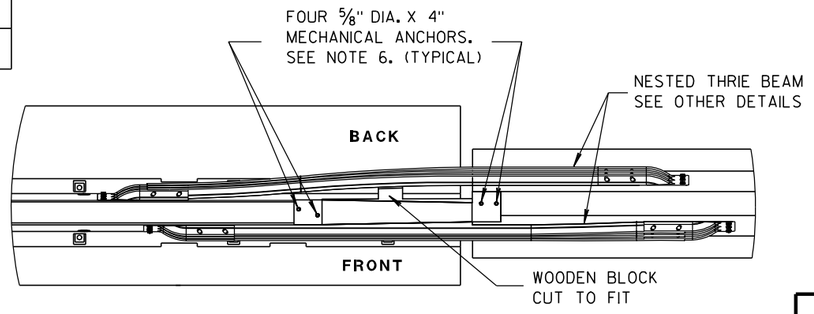
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



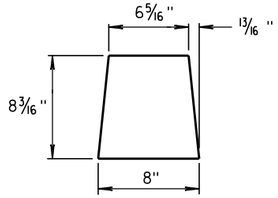
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

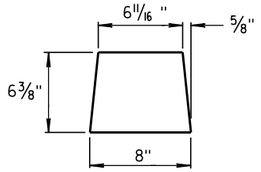
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

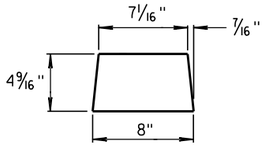
6
S.D.D. 14 B 7-13e



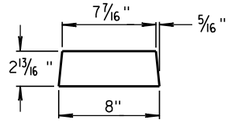
GUSSET 1



GUSSET 2

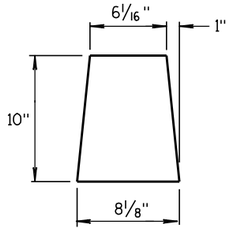


GUSSET 3

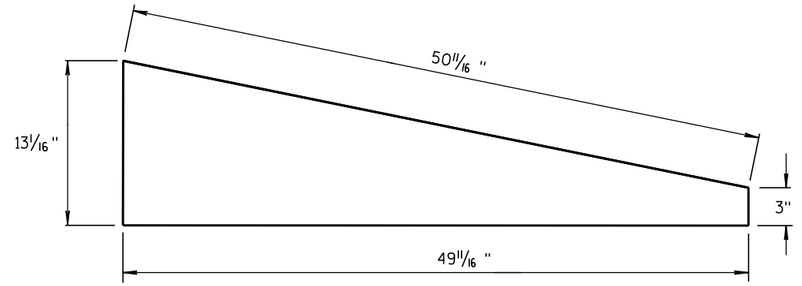


GUSSET 4

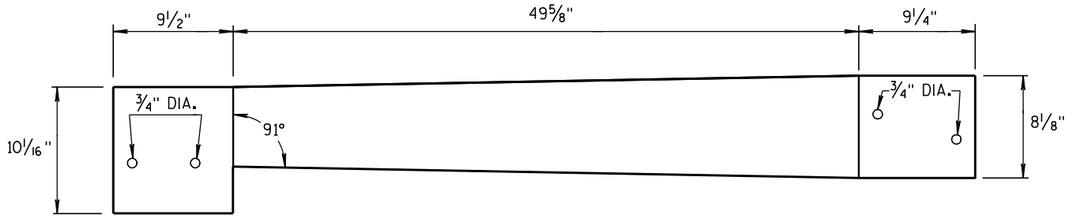
GUSSETS

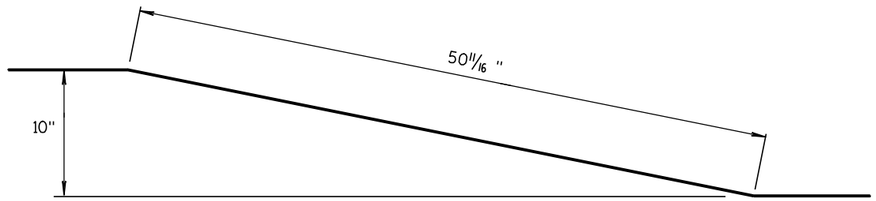


END PLATE

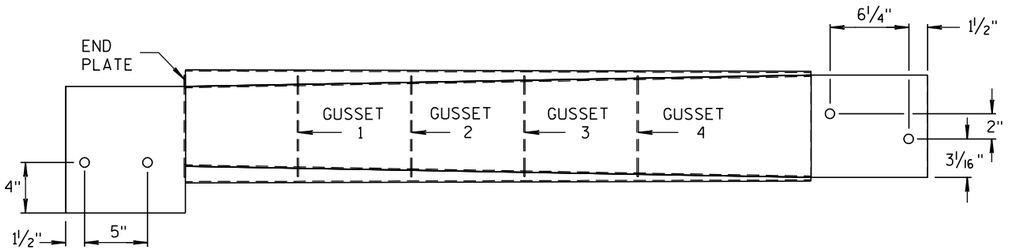


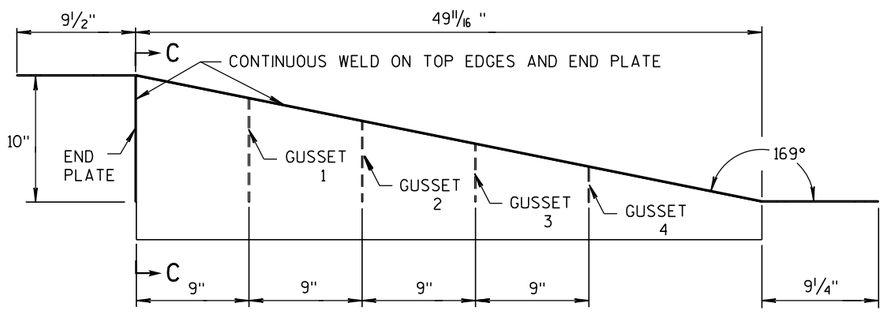
SIDE PLATE

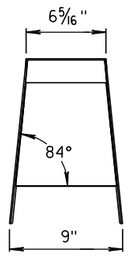




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

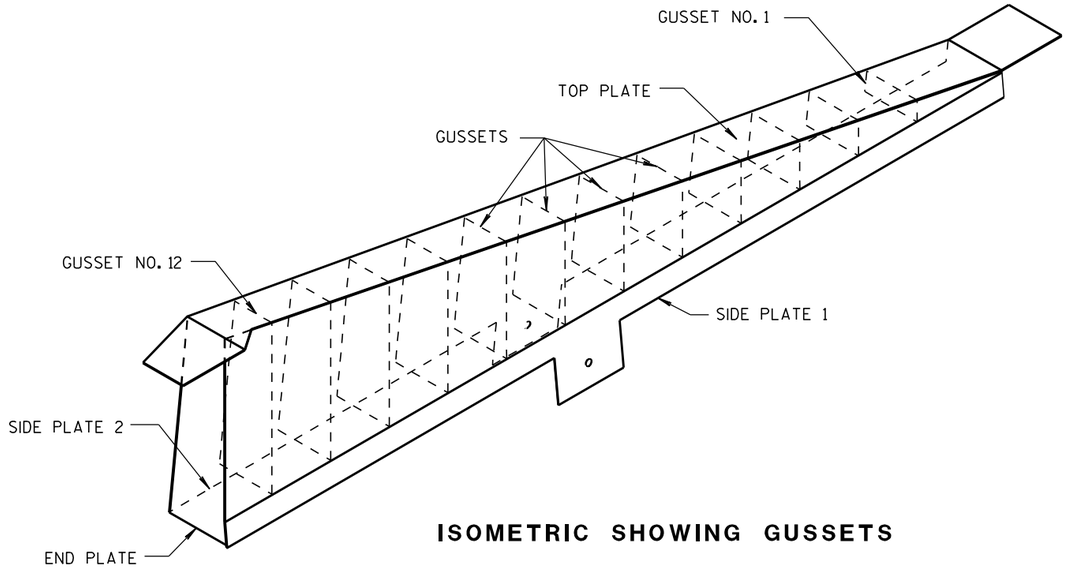
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

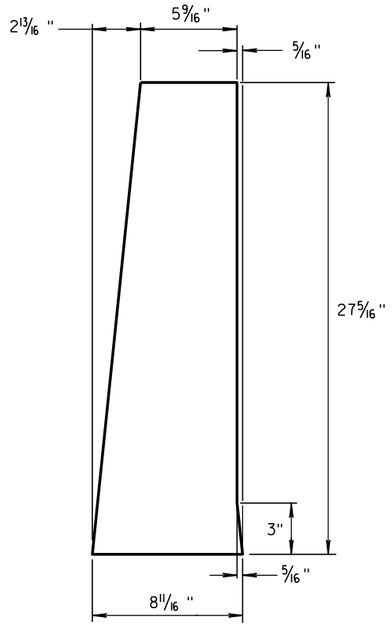
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

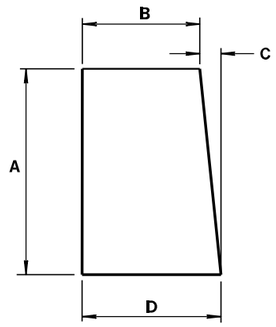


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

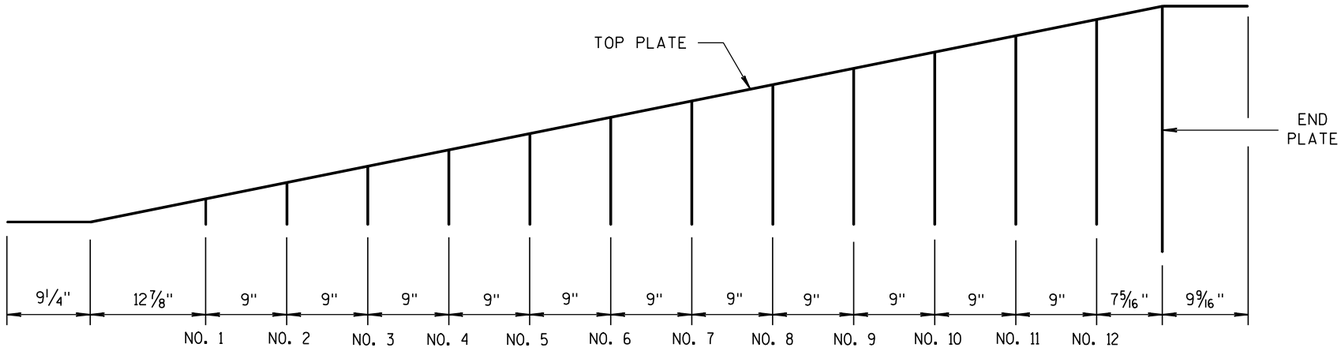
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 7-13g

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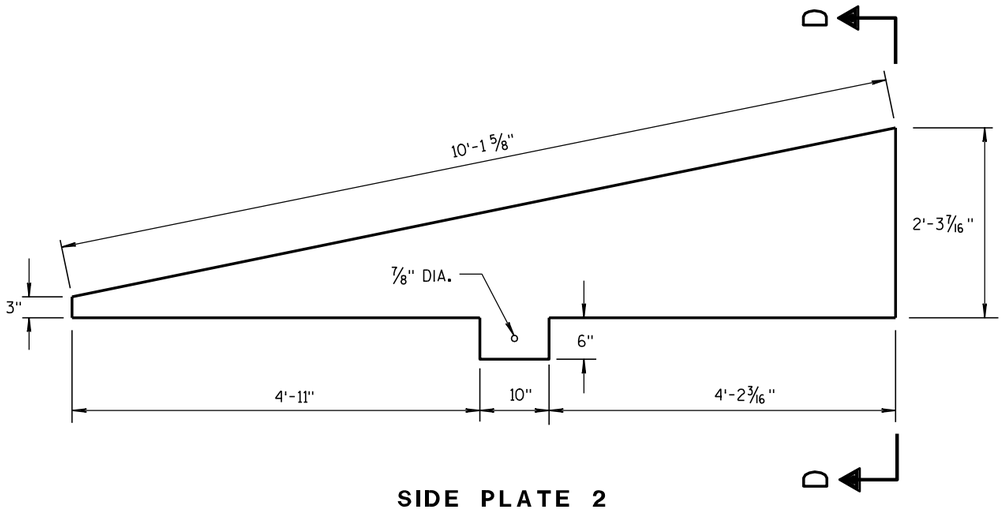
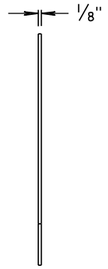
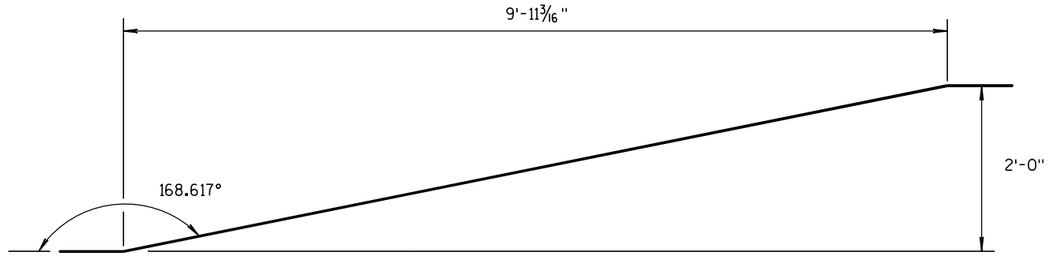
S.D.D. 14 B 7-13g



SIDE PLATE 2

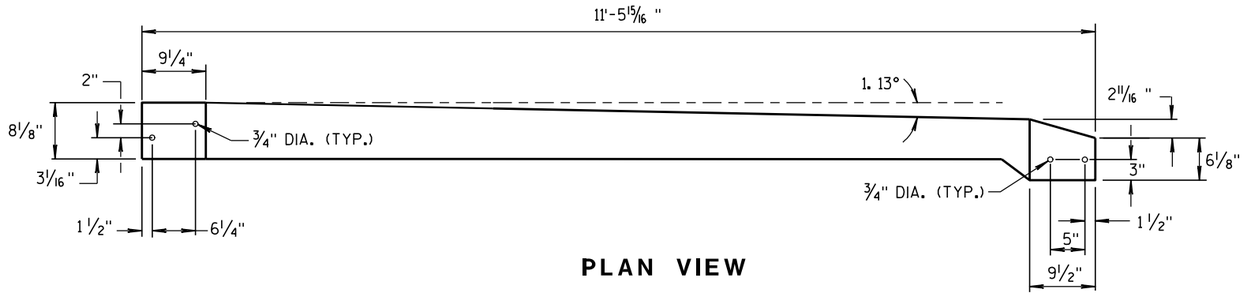


END VIEW



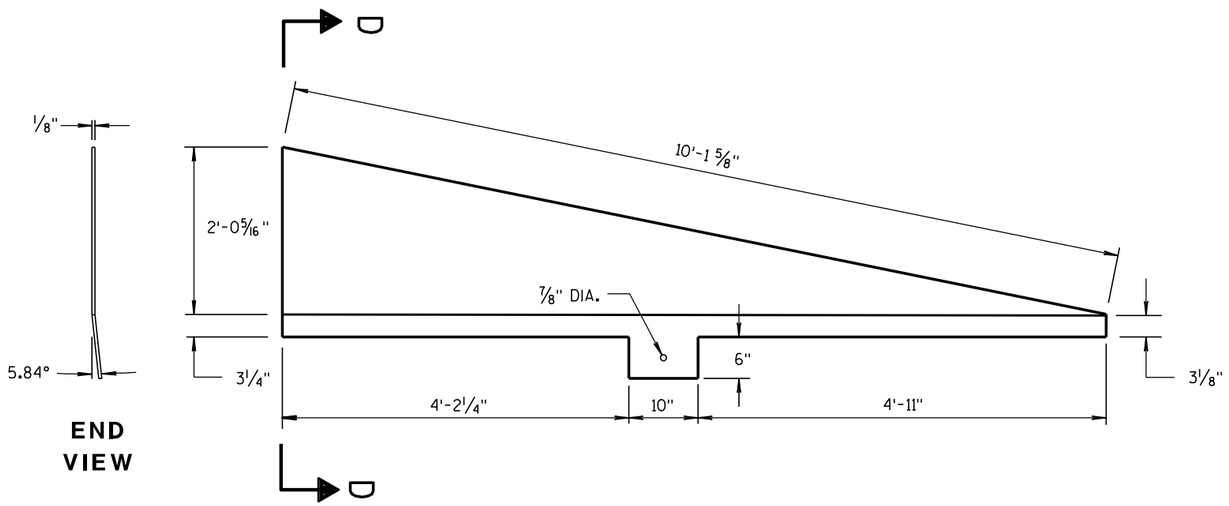
SIDE VIEW

TOP PLATE



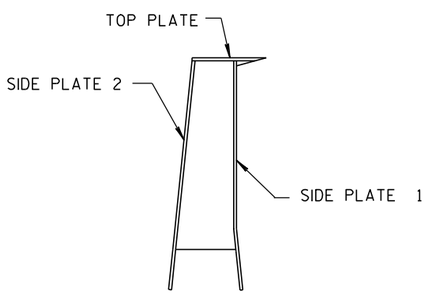
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

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

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FHWA

6

S.D.D. 14 B 7-13h

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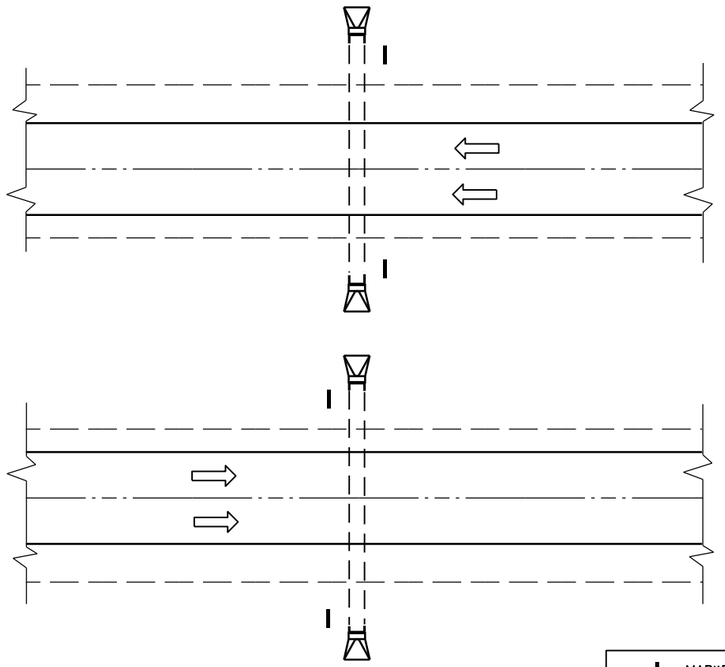
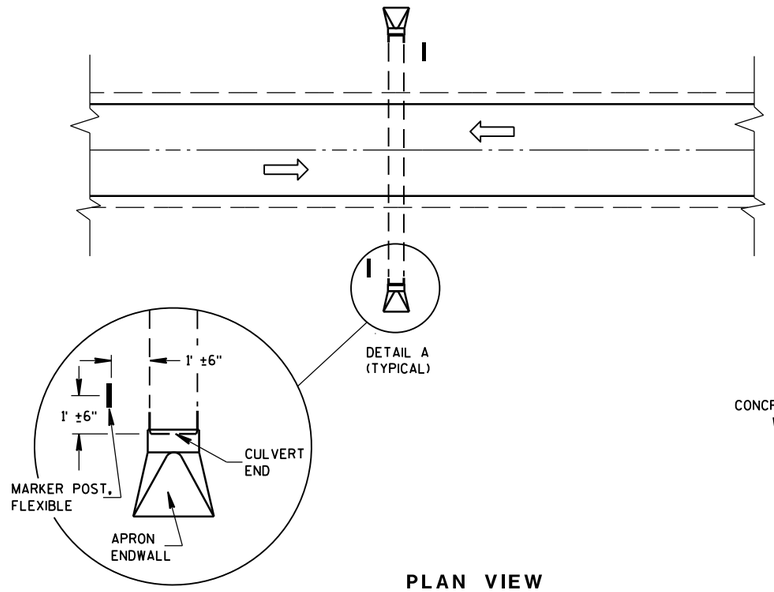
S.D.D. 14 B 7-13h



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

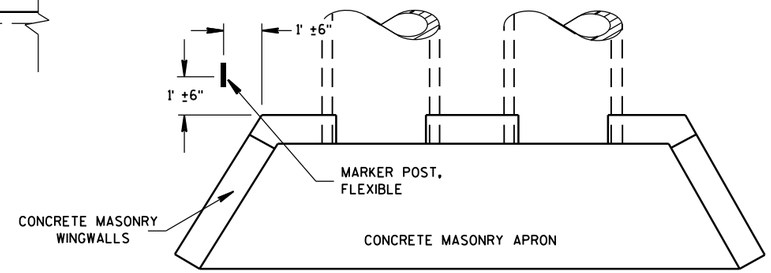
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

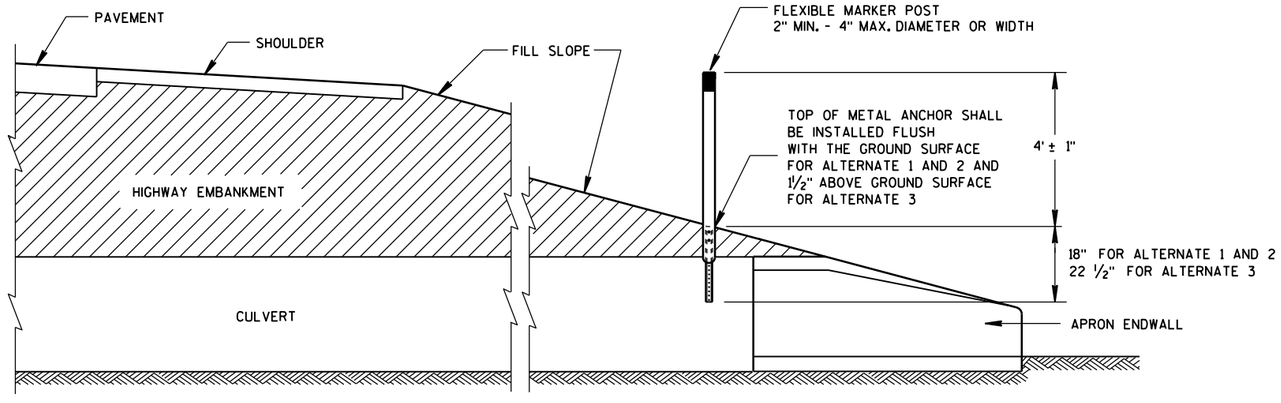
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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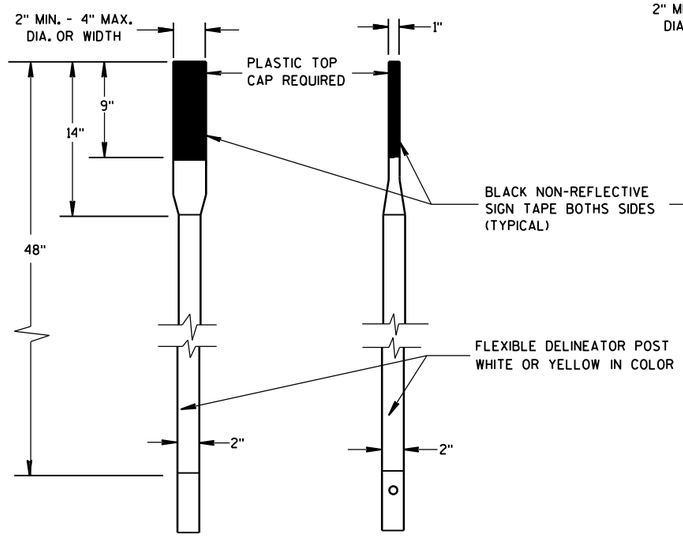
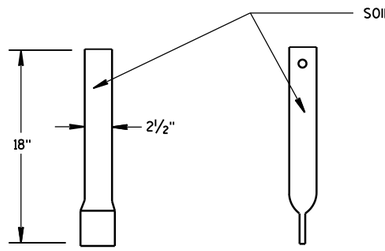
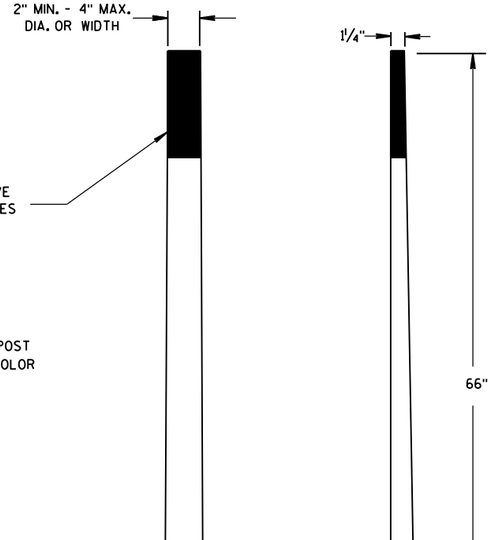
S.D.D. 15 A 3-2a





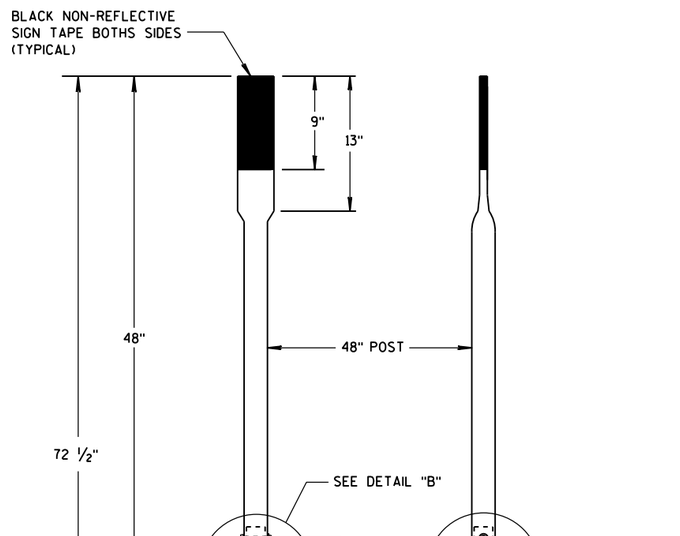
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

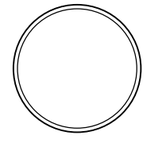
ALTERNATE 2



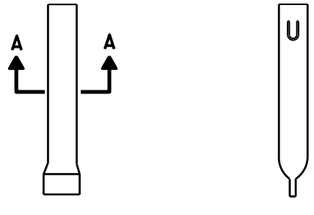
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

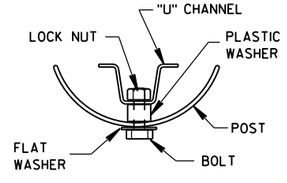


SECTION A-A

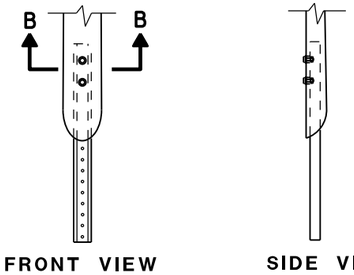


FRONT VIEW SIDE VIEW

ALTERNATE 1

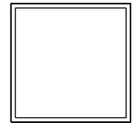


SECTION B-B

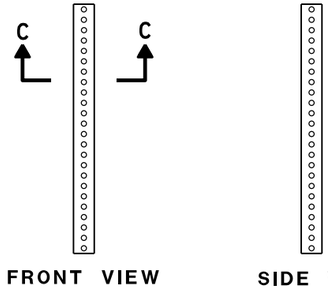


FRONT VIEW SIDE VIEW

ALTERNATE 2



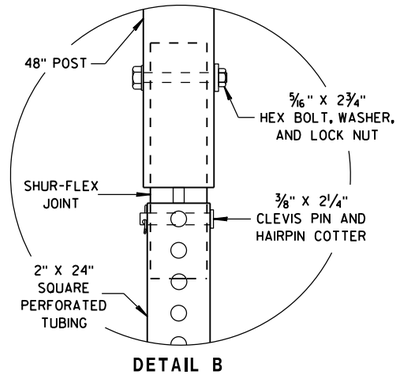
SECTION C-C



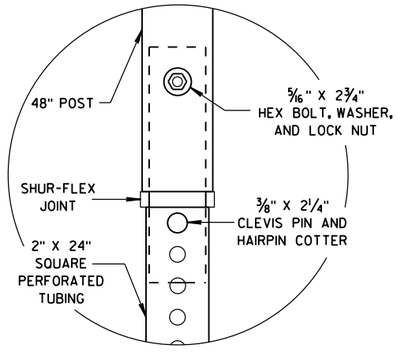
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

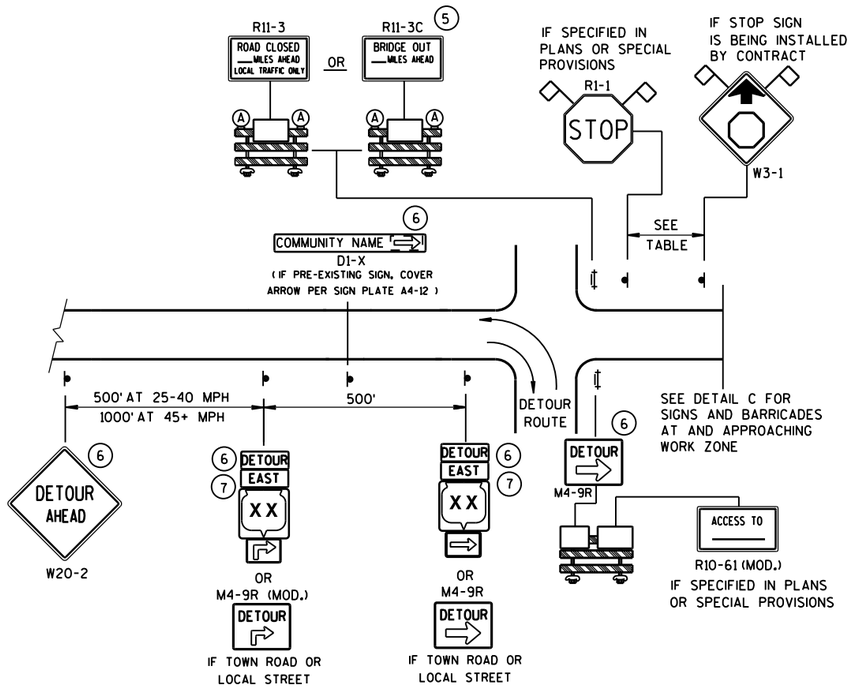
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

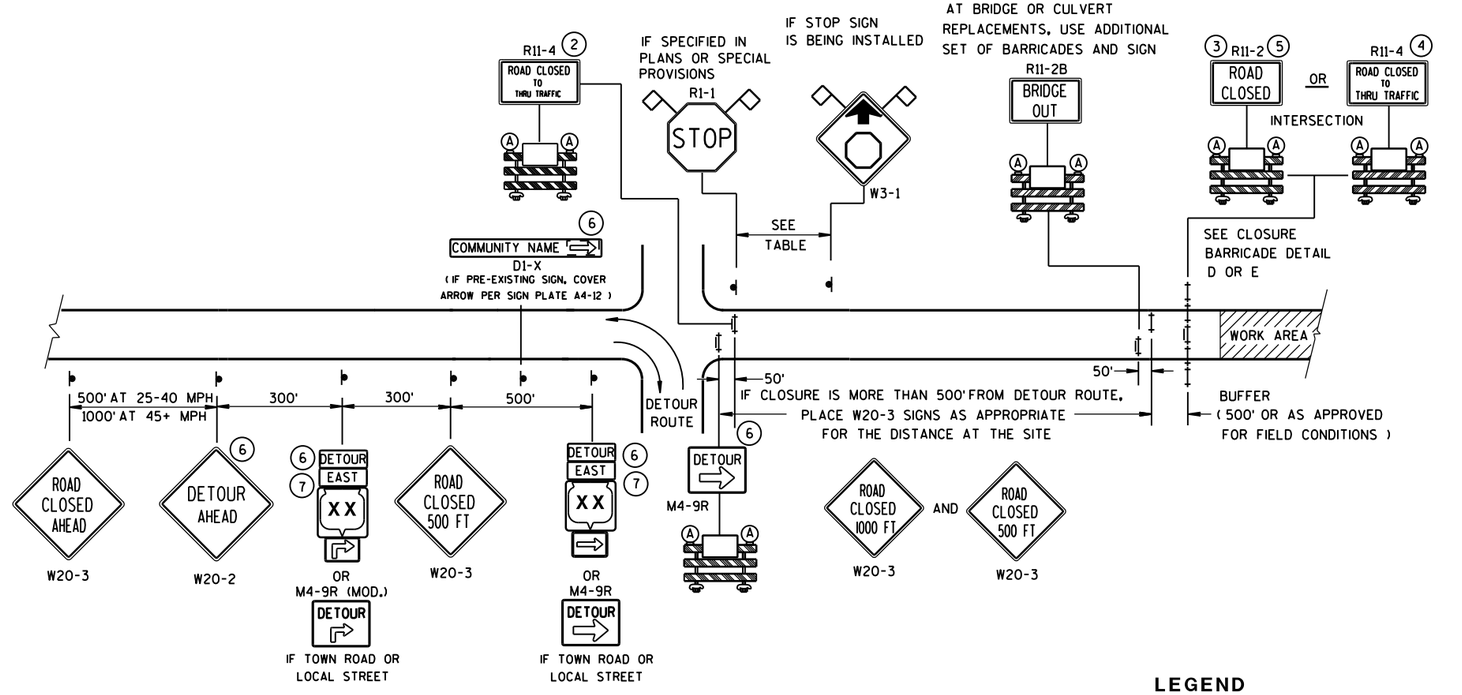
6

S.D.D. 15 A 3-2b



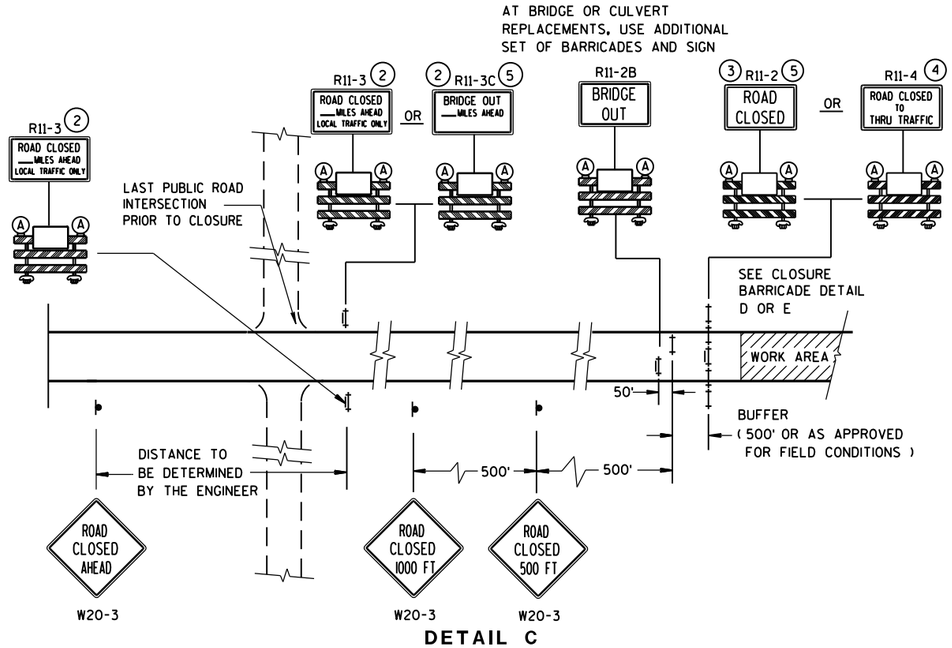
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS 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-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- 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

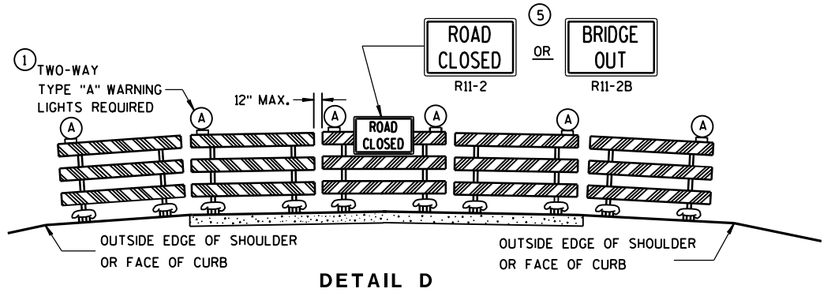
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

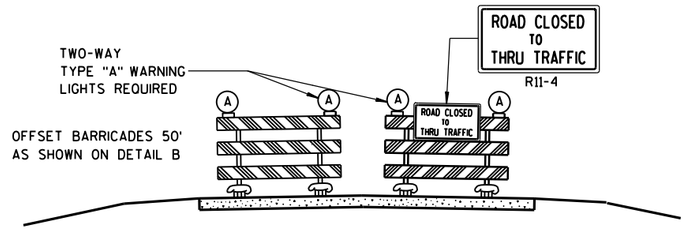
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" 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.

"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 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- 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.

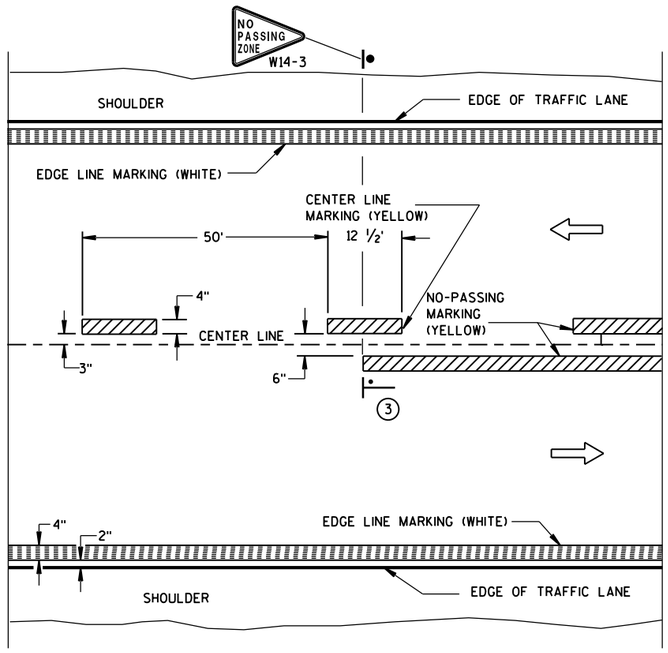
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

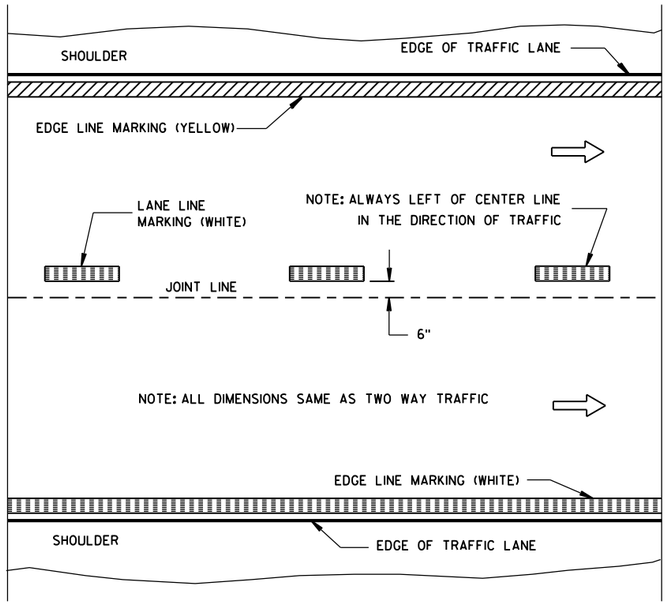
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 2-5b

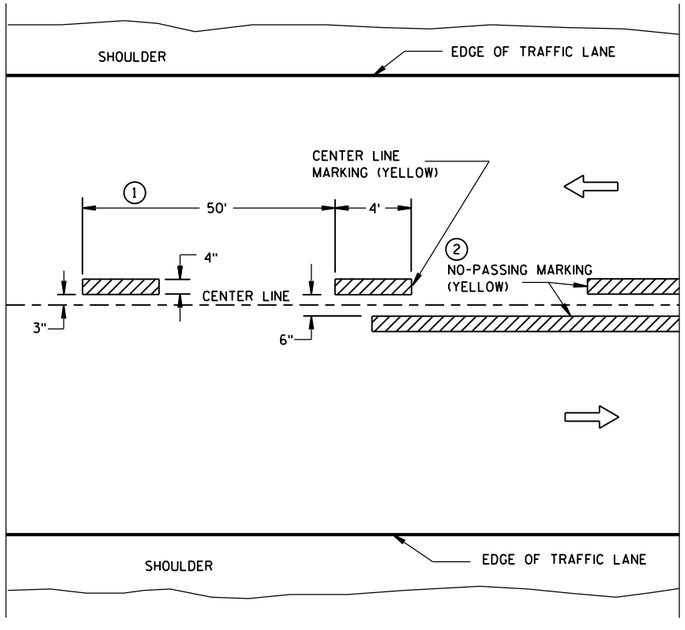


TWO WAY TRAFFIC

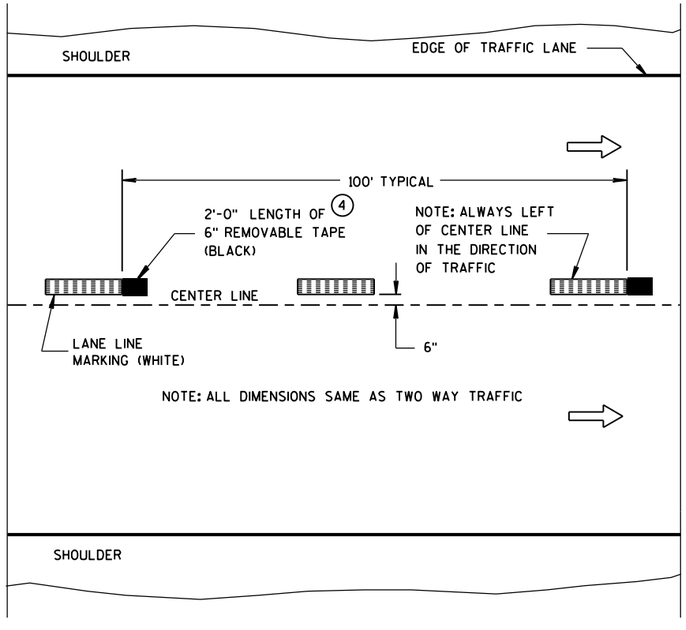


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

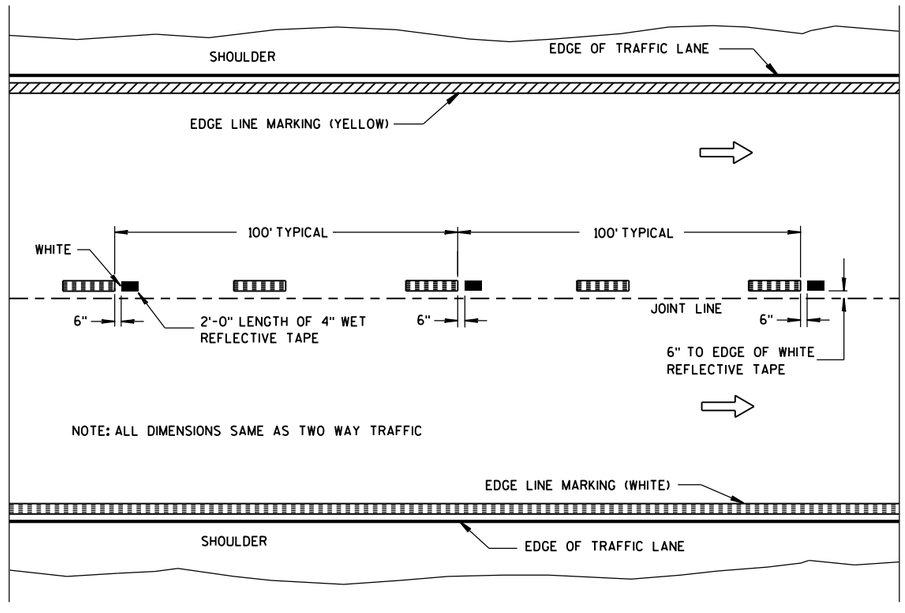
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

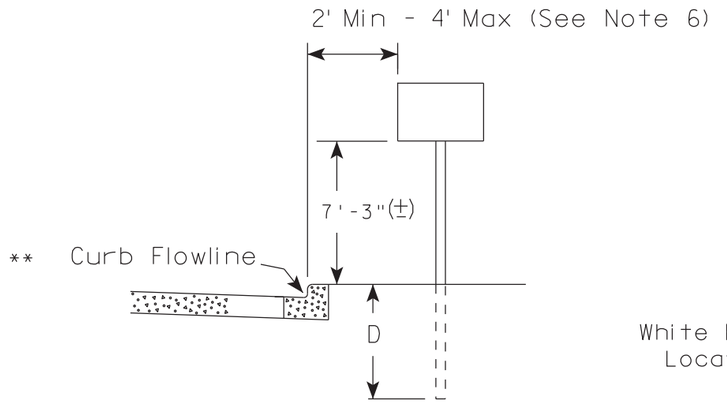
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

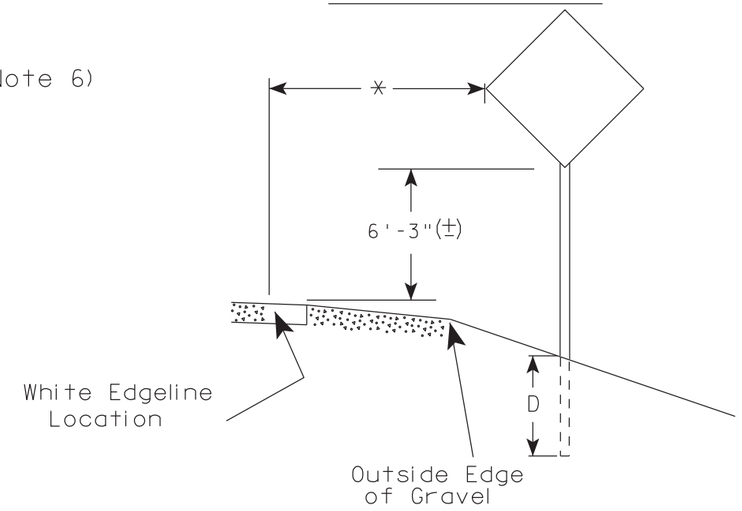
6

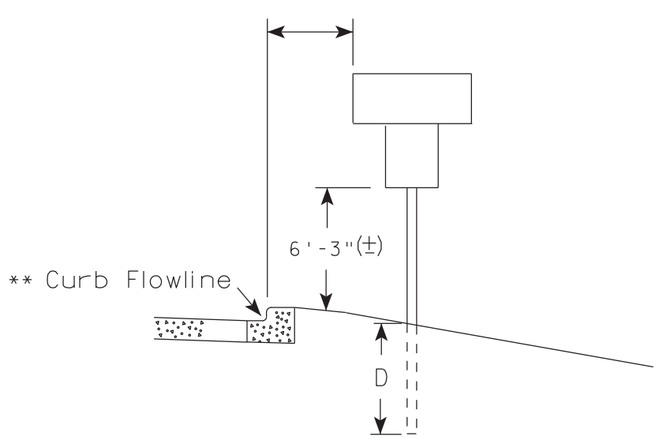
S.D.D. 15 C 8-16a

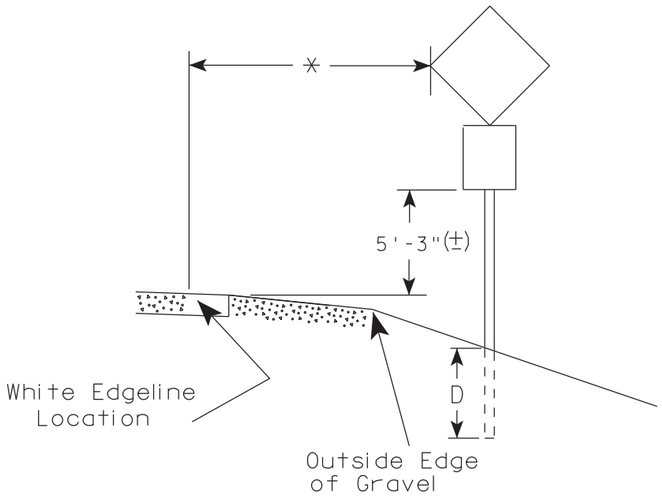
URBAN AREA



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, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

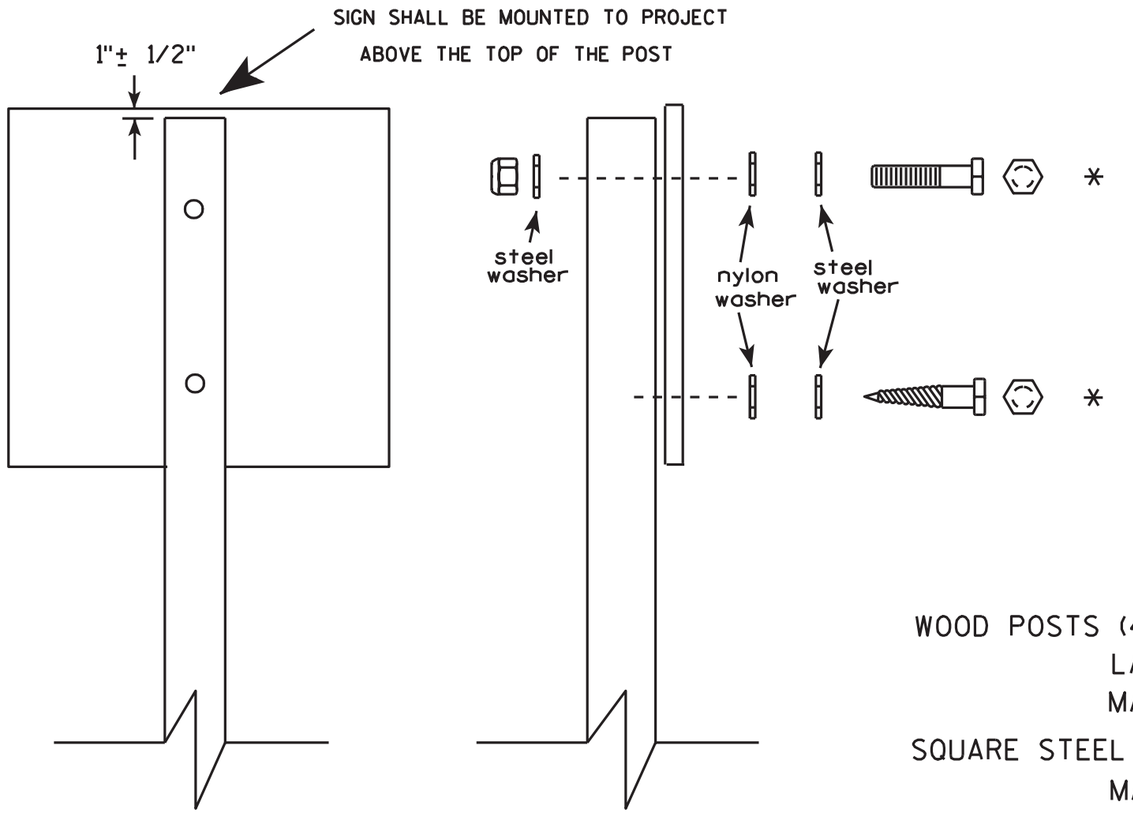
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

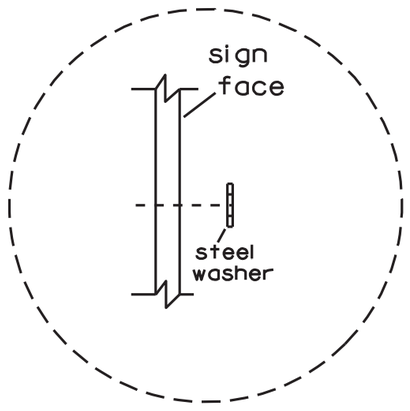
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

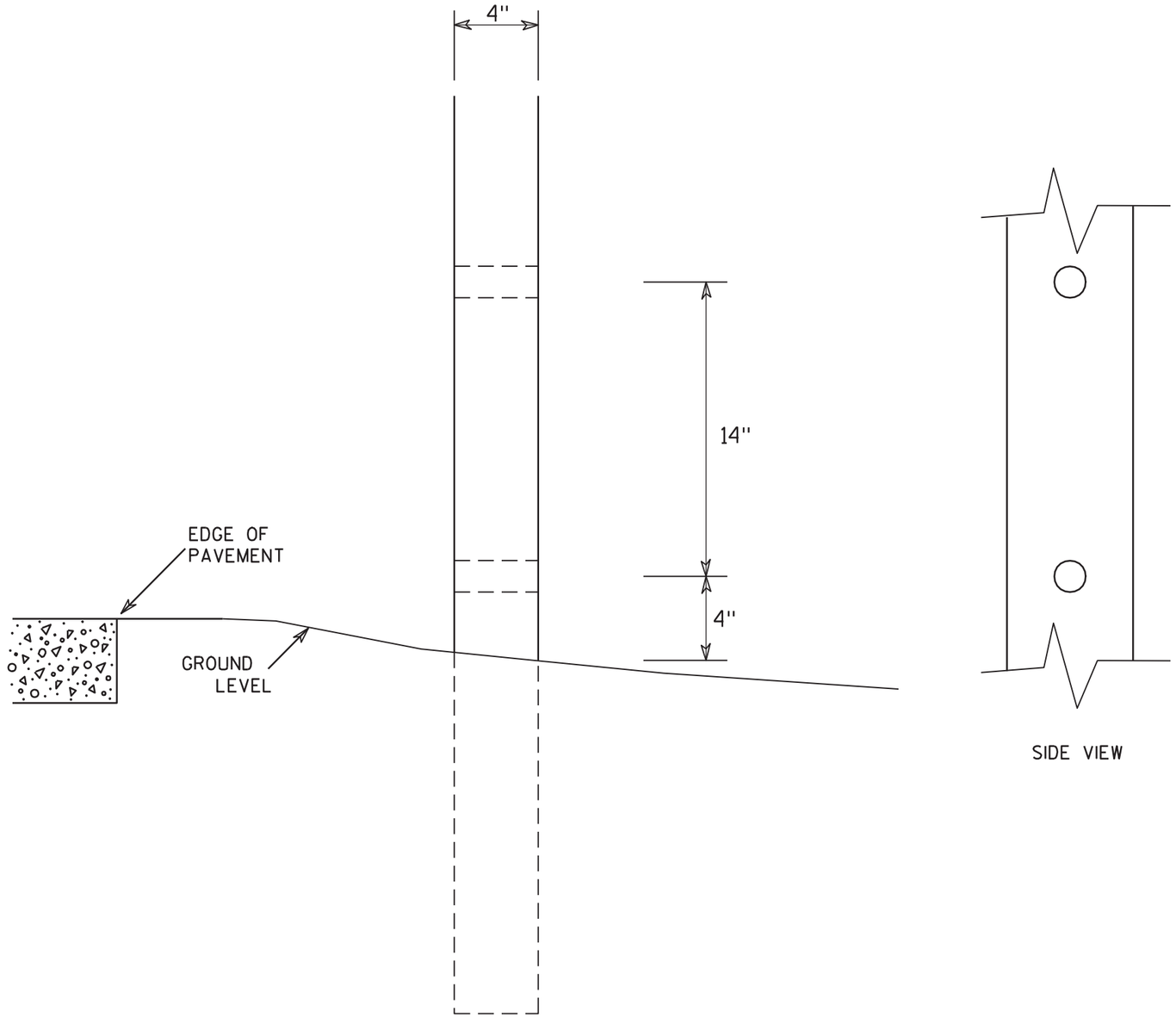
DATE 3/23/10 PLATE NO. A4-8.7

PROJECT NO:

SHEET NO: 30 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A48.DGN PLOT DATE : 23-MAR-2010 10:15 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



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.

7

7

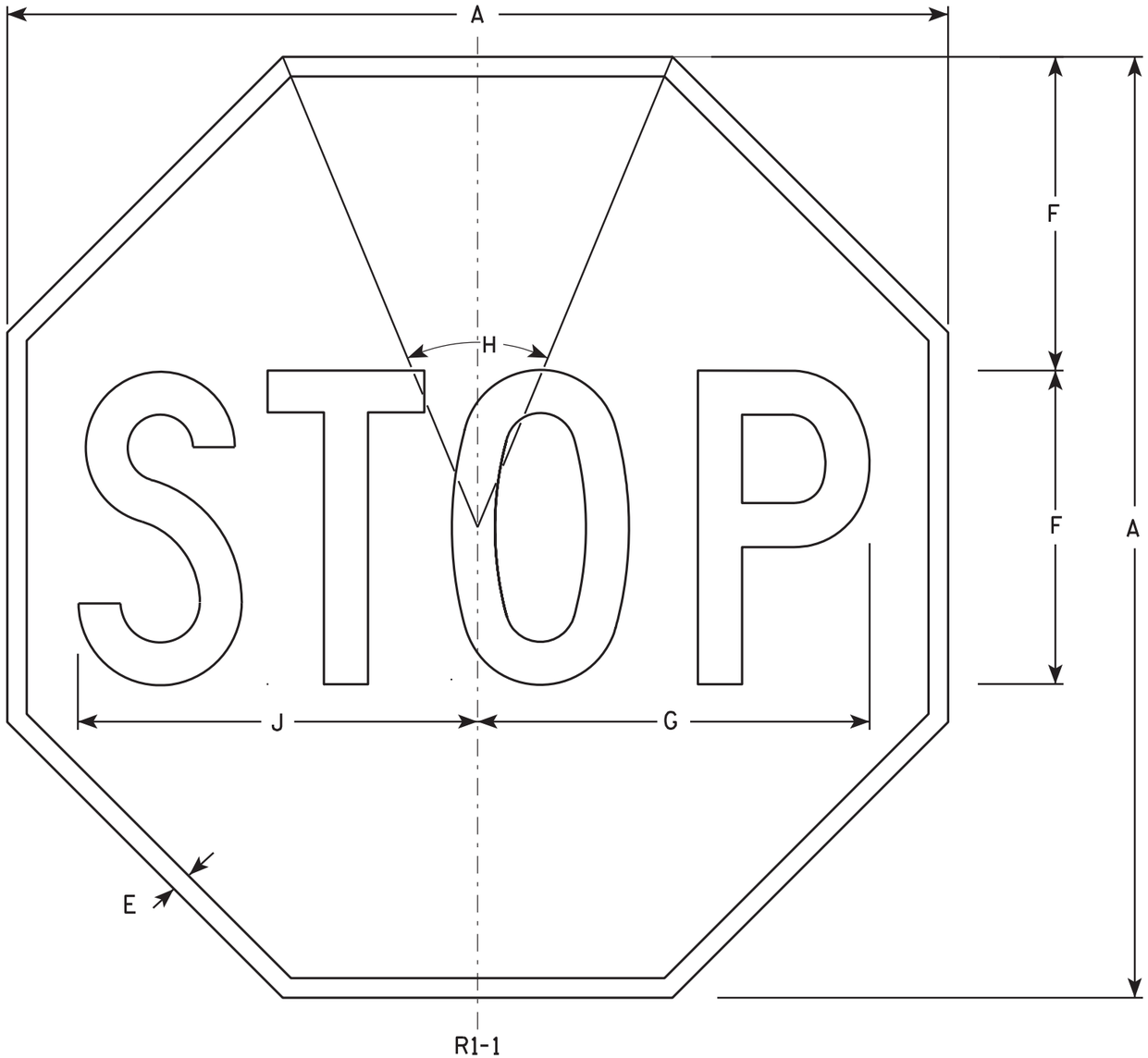
4 X 6 WOOD POST MODIFICATIONS

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: 31	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

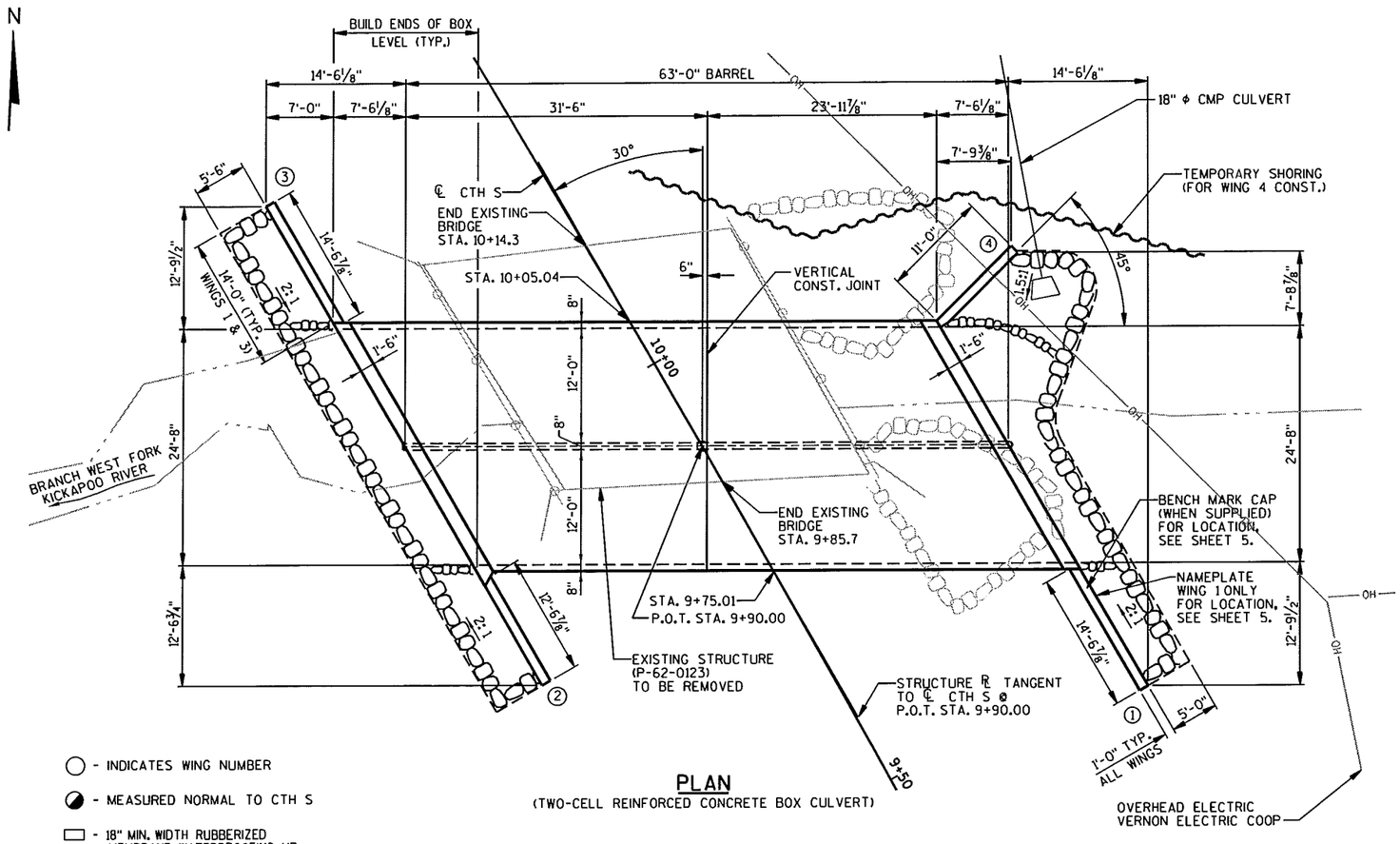
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 32	E

STATE PROJECT NUMBER
5289-00-70

BENCHMARKS ⊕ NAVD 88			
NO.	STA.	DESCRIPTION	ELEV.
1	10+22.6, 16.7' LT.	CHISELED X TOP OF NW WING	855.56
2	9+64.7, 87.0' RT.	DOUBLE SPIKE IN 12" ϕ BOX ELDER	858.39
3	10+83.1, 65.8' LT.	DOUBLE SPIKE IN DOUBLE 4" ϕ TREE	853.75

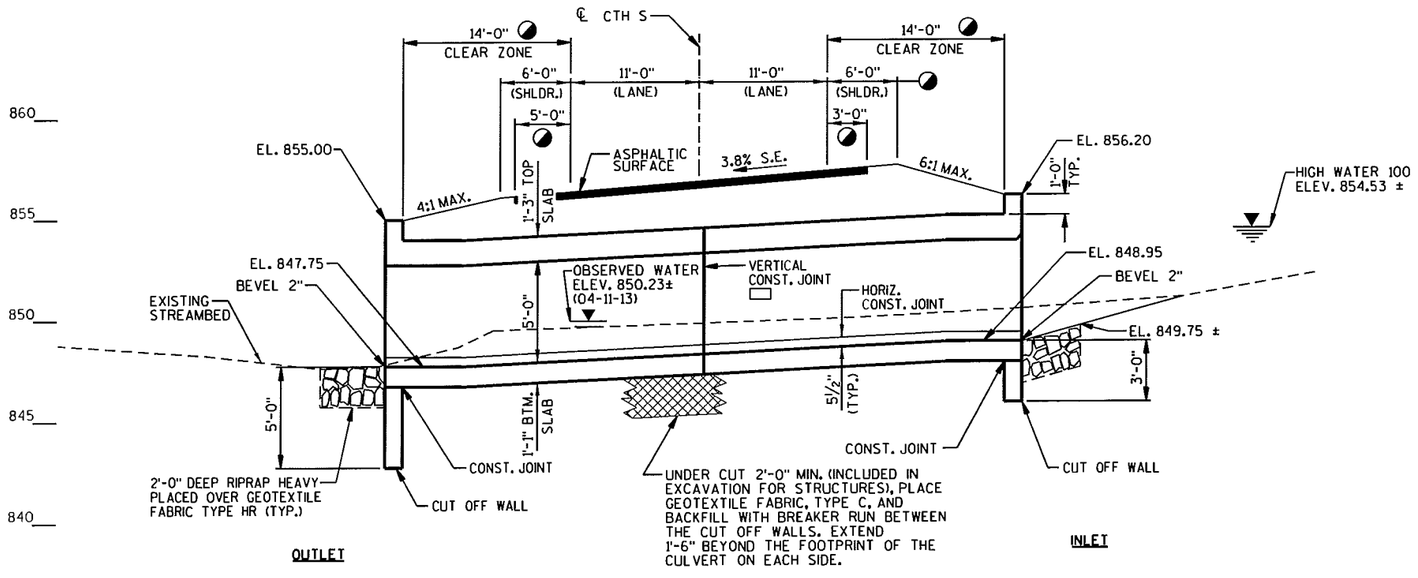


PLAN
(TWO-CELL REINFORCED CONCRETE BOX CULVERT)

○ - INDICATES WING NUMBER

◐ - MEASURED NORMAL TO CTH S

▭ - 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB



ELEVATION

℄ CURVE DATA
PI Sta = 9+95.92
Y = 162092.85
X = 733279.58
I = 07°13'16"L
CD = N 32°53'10" W
T = 158.38
R = 2510.00
L = 316.34
C = 316.13

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.05
OPERATIONAL RATING FACTOR: 1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 255 KIPS

EARTH LOAD: DESIGNED FOR 2.0 FEET OF FILL

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT HS CULVERTS — fy = 60,000 P.S.I.

FOUNDATION DATA:
ALLOWABLE SOIL BEARING CAPACITY — 3,000 P.S.F.

TRAFFIC DATA:
A.A.D.T. (2014) = 500
A.A.D.T. (2034) = 620
R.D.S. = 40 MPH

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & DETAILS
3. BOX CULVERT
4. BOX CULVERT AND WING 4 DETAILS
5. WING DETAILS
6. SUBSURFACE EXPLORATION

HYDRAULIC DATA:
100 YEAR FREQUENCY
DRAINAGE AREA — 0.5 SQ. MI.
Q_{100} — 380 C.F.S.
VELOCITY — 7.99 F.P.S.
WATERWAY AREA — 48 SQ. FT.
HIGH WATER $_{100}$ ELEVATION — 854.53 ±
ROADWAY OVERFLOW DESIGN FREQUENCY — N/A
SCOUR CRITICAL CODE — 8
Q_2 (50 C.F.S.) HIGH WATER ELEVATION — 851.93 ±

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE CONCRETE IN THE CUT OFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST IN PLACE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALLS.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TO THE ELEVATION OF THE ROADWAY SUBGRADE. THE BACKFILL STRUCTURE ESTIMATED QUANTITIES ASSUMED A 1½:1 EXCAVATION SLOPE.

THIS STRUCTURE WILL REPLACE THE EXISTING STRUCTURE, P-62-123, A 30.0' LONG, SINGLE SPAN, STEEL DECK GIRDER BRIDGE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS (B-62-41)" SHALL BE THE EXISTING GROUND LINE.

CONCRETE CUT-OFF WALLS AND WING WALL FOOTINGS MAY BE POURED CONTINUOUSLY.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (96 ADJUSTED). BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

WISCONSIN
LEAH J. RHODES
E-41726
BARABOO
WI
PROFESSIONAL ENGINEER

Leah J. Rhodes
1/23/2014

DESIGN CONTACT:
LEAH RHODES
(608) 355-8945

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 266-8489

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 02/19/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-62-0041
CTH S OVER BRANCH WEST FORK KICKAPOO RIVER

COUNTY	TOWN ~~CITY/VILLAGE~~
VERNON	WEBSTER

DESIGN SPEC. AASHTO LRFD DESIGN SPEC.

DESIGNED BY	MLH	DESIGN CK'D.	LJR	DRAWN BY	RLR	PLANS CK'D.	LJR

GENERAL PLAN

SHEET 1 OF 6
33

FILE= 7339005_01_GP.DGN
DATE= 1/22/2014

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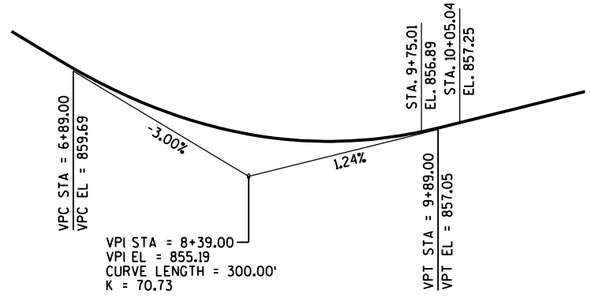
STATE PROJECT NUMBER

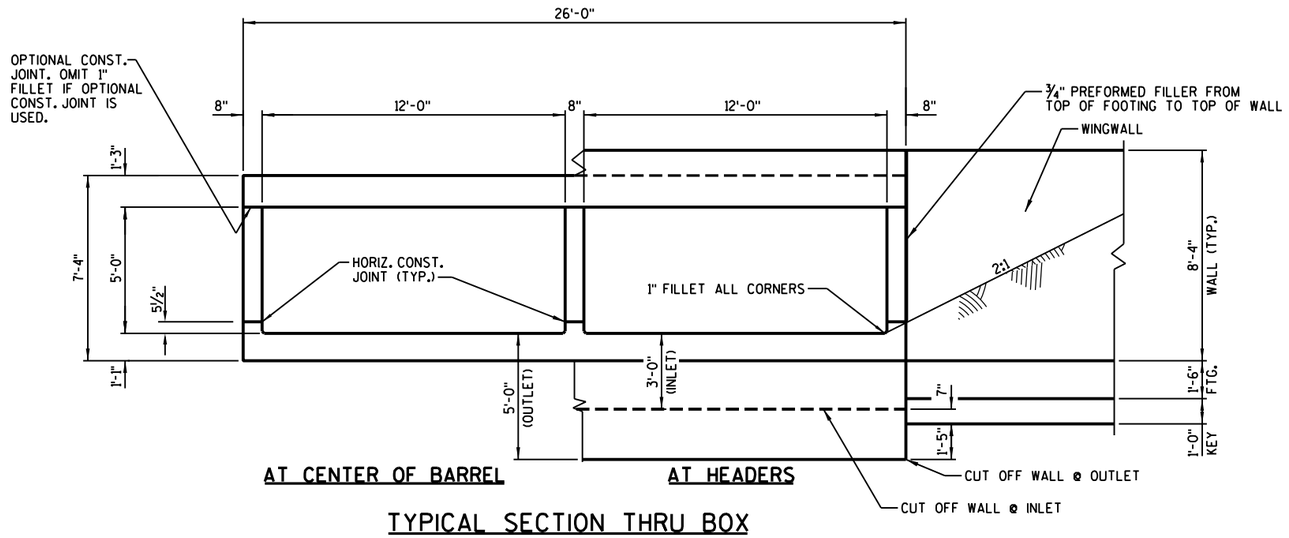
5289-00-70

STRUCTURE ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
203.0600.S.01	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	1
206.2000.01	EXCAVATION FOR STRUCTURES CULVERTS B-62-0041	LS	1
206.6000.S	TEMPORARY SHORING	SF	575
210.0100	BACKFILL STRUCTURE	CY	465
311.0115	BREAKER RUN	CY	130
504.0100	CONCRETE MASONRY CULVERTS	CY	218
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB	38,310
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13
606.0300	RIPRAP HEAVY	CY	55
645.0105	GEOTEXTILE FABRIC TYPE C	SY	220
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	135
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	¾"



PROFILE GRADE LINE - CTH S



TYPICAL SECTION THRU BOX

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0041

DRAWN BY RLR | PLANS CK'D. LJR

CROSS SECTION, QUANTITIES & DETAILS

SHEET 7 OF 6
34

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DATE= 2/19/2014

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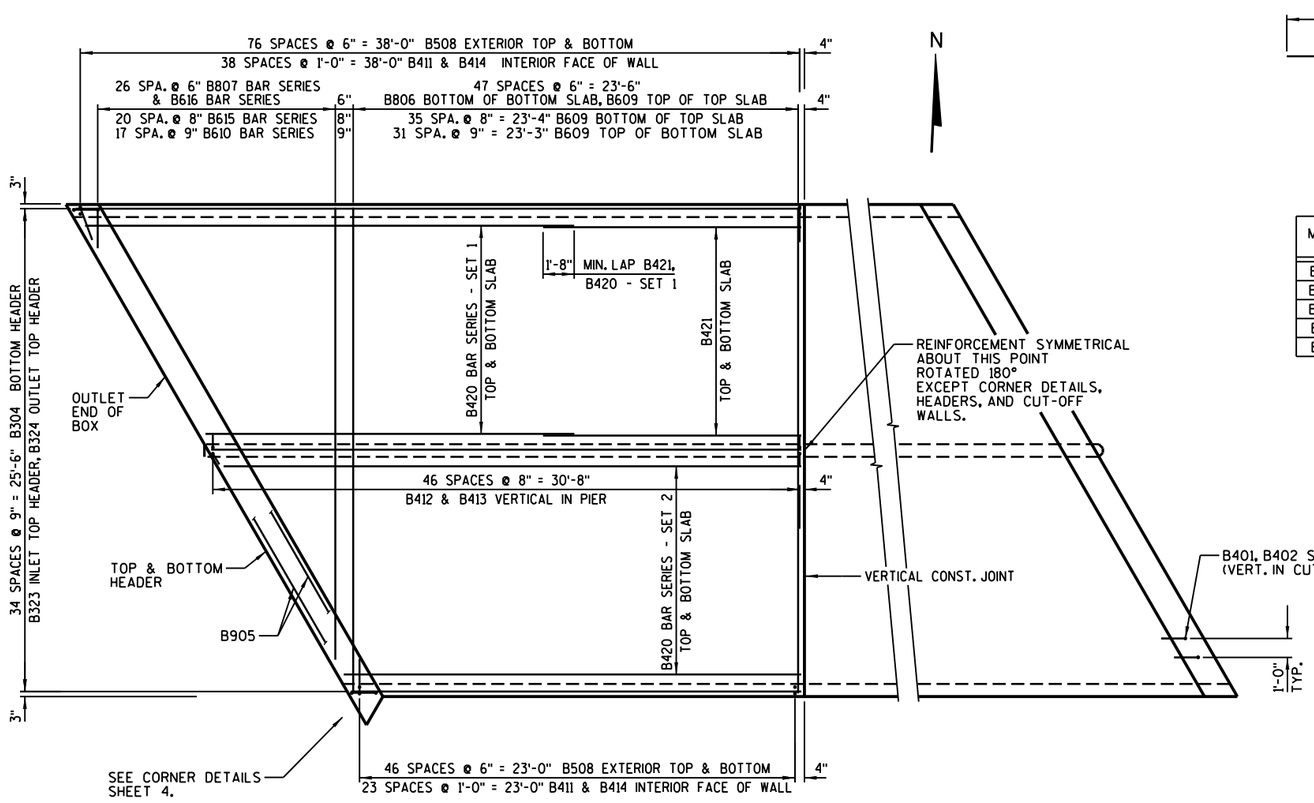
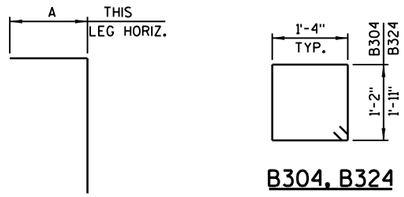
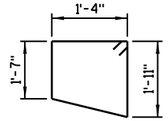


PLAN VIEW OF PANEL



MARK	A
B401	1'-0"
B402	
B508	1'-10"
B412	8"
B413	

B304, B324



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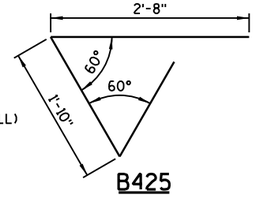
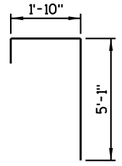


B425



B526

BILL OF BARS — UNCOATED 34,715 LBS.

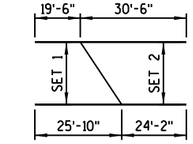
MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401	26	3'-6"	X		INLET CUT-OFF WALL - VERT.
B402	26	5'-6"	X		OUTLET CUT-OFF WALL - VERT.
B403	6	29'-7"			CUT-OFF WALL - HORIZ.
B304	70	5'-5"	X		BOTTOM HEADERS - STIRRUP - VERT.
B905	24	29'-7"			HEADERS - HORIZ.
B806	96	25'-8"			BOTTOM OF BOTTOM SLAB - TRANS.
B807	56	13'-7"		Ⓢ	BOTTOM OF BOTTOM SLAB - TRANS.
B508	496	6'-1"	X		BOX CORNERS - VERT.
B609	232	25'-8"			TOP & BOTTOM SLAB - TRANS.
B610	36	13'-9"		Ⓢ	TOP OF BOTTOM SLAB - TRANS.
B411	126	2'-5"			WALL DOWELS - BOTTOM - VERT.
B412	188	3'-4"	X		PIER DOWELS - BOTTOM - VERT.
B413	188	6'-2"	X		PIER - TOP - VERT.
B414	126	5'-7"			WALLS - TOP - VERT.
B615	42	13'-3"		Ⓢ	BOTTOM OF TOP SLAB - TRANS.
B616	54	13'-7"		Ⓢ	TOP OF TOP SLAB - TRANS.
B417	30	38'-4"			LONG WALL - LONGIT.
B418	30	23'-8"			SHORT WALL - LONGIT.
B419	36	31'-1"			PIER - LONGIT.
B420	192	25'-0"		Ⓢ	TOP & BOTTOM SLAB - LONGIT.
B421	96	13'-10"			TOP & BOTTOM SLAB - LONGIT.
B522	70	4'-0"			CONSTRUCTION JOINT DOWEL - LONGIT.
B323	35	6'-8"	X		INLET TOP HEADER - STIRRUP - VERT.
B324	35	6'-11"	X		OUTLET TOP HEADER - STIRRUP - VERT.
B425	10	5'-8"	X		CORNER @ WING 2 - STIRRUP - HORIZ.
B526	6	7'-4"	X		CORNER @ WING 2 - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

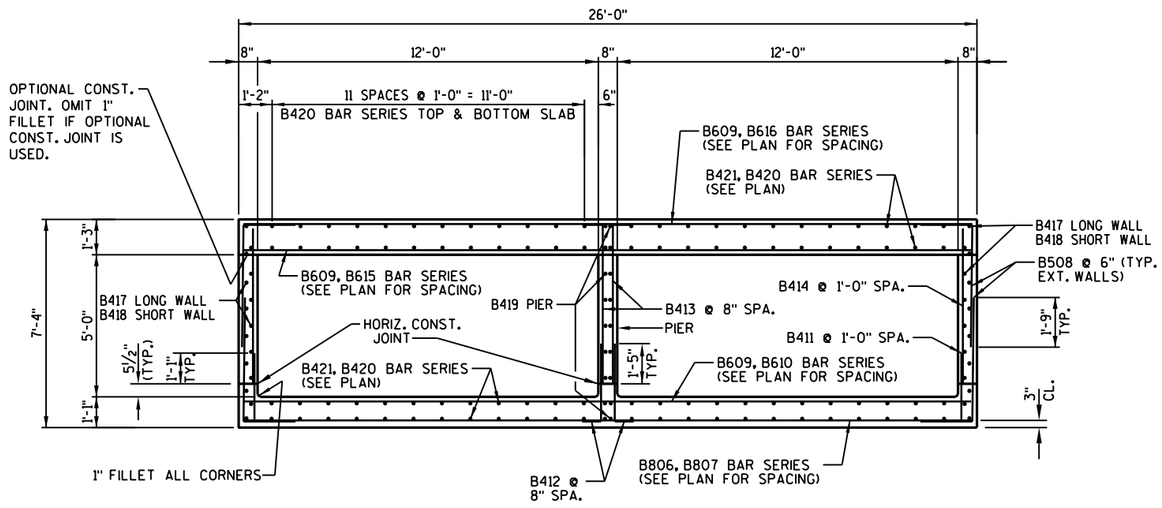
Ⓢ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR MARK		NO. REQ'D.	LENGTH
B807		2 SERIES OF 27	2'-4" TO 24'-10"
B610		2 SERIES OF 18	2'-8" TO 24'-10"
B615		2 SERIES OF 21	1'-8" TO 24'-10"
B616		2 SERIES OF 27	2'-4" TO 24'-10"
B420	SET 1	8 SERIES OF 12	19'-6" TO 25'-10"
	SET 2	8 SERIES OF 12	24'-2" TO 30'-6"

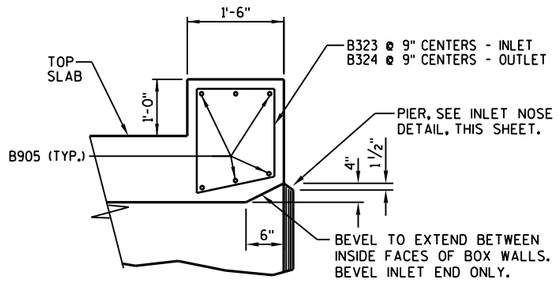
BAR SERIES TABLE



B420

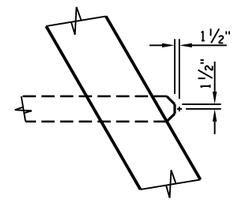


TYPICAL SECTION THRU BOX

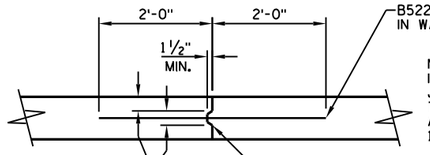


SECTION THRU TOP HEADER

INLET HEADER SHOWN, OUTLET HEADER SIMILAR



INLET NOSE DETAIL



VERTICAL CONSTRUCTION JOINT

STATE PROJECT NUMBER

5289-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0041

DRAWN BY RLR | PLANS CK'D. LJR

BOX CULVERT

SHEET 7 OF 6
35

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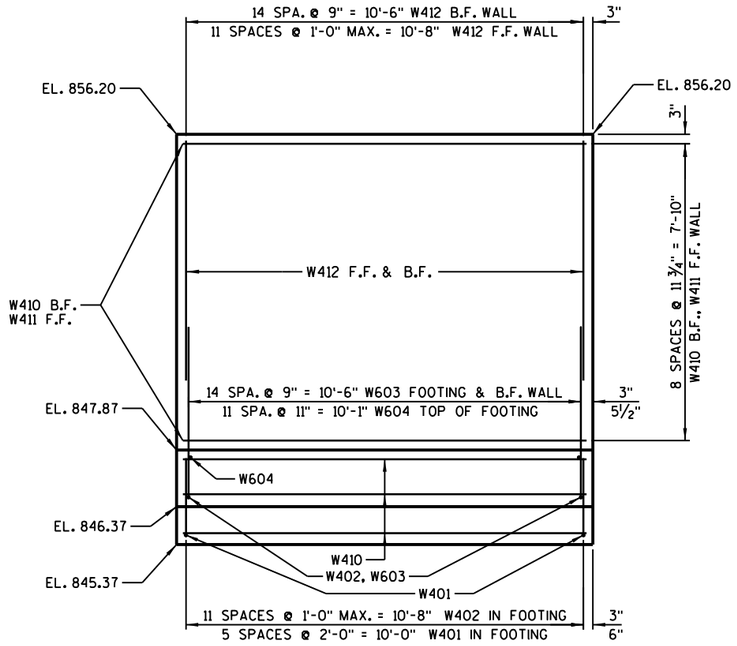
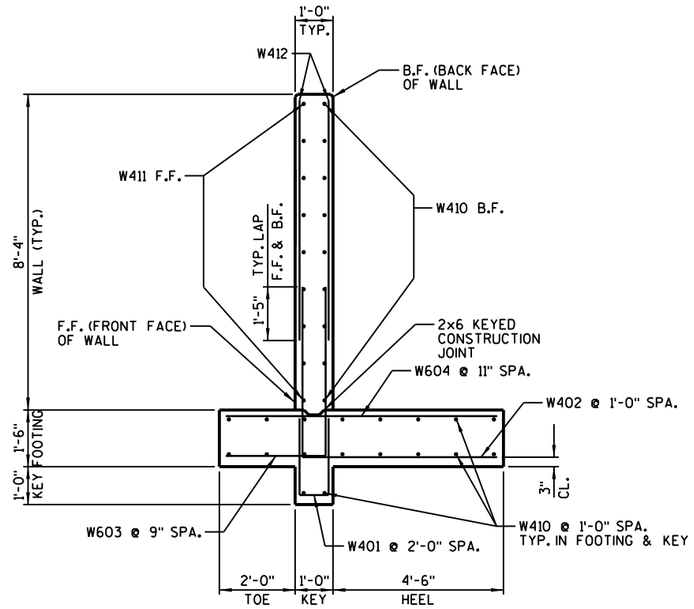
STATE PROJECT NUMBER

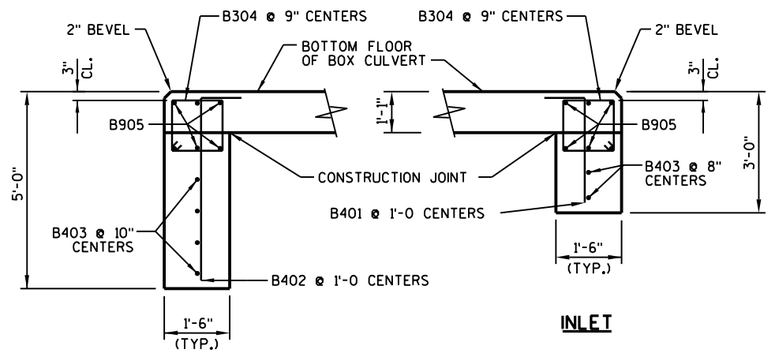
5289-00-70



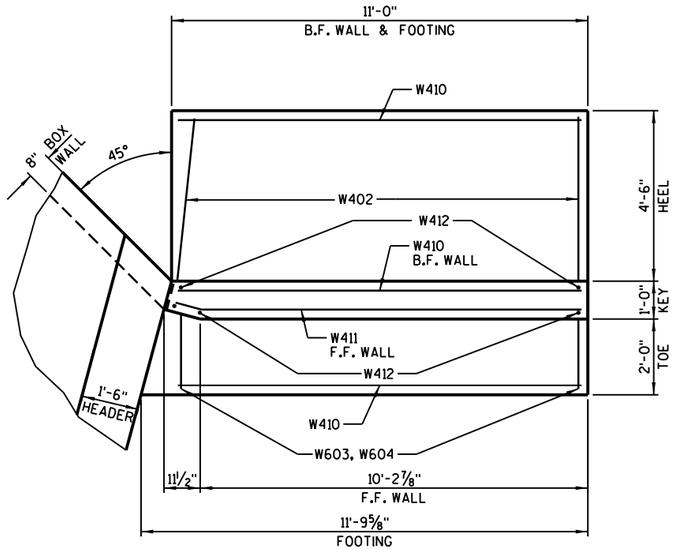
ELEVATION - WING 4



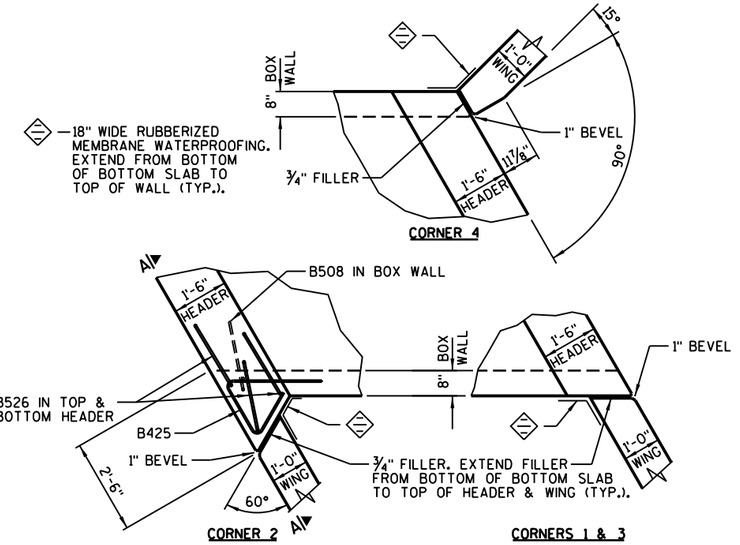
SECTION THRU WING 4



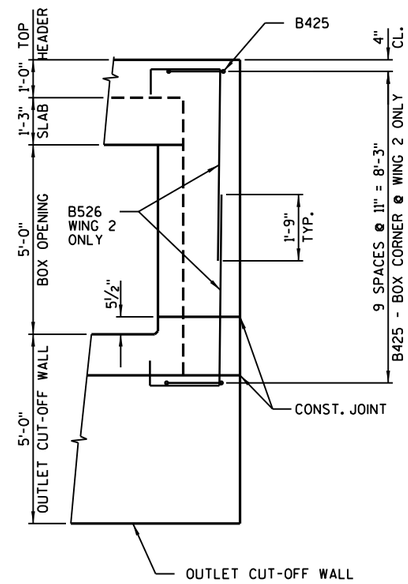
SECTION THRU CUT-OFF WALLS



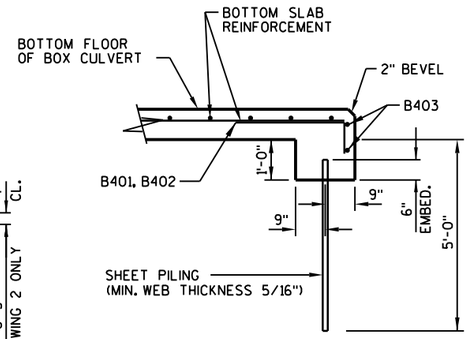
PLAN - WING 4



CORNER DETAILS



SECTION A-A @ WING 2



ALTERNATE CUT-OFF WALL

WHEN ALTERNATE CUT-OFF WALL IS USED RELOCATE B401, B402 & B403 BARS AS SHOWN. BOTTOM HEADER BARS B304 & B905 SHALL BE PLACED AS SHOWN IN DETAILS ABOVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0041

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BOX CULVERT AND WING 4 DETAILS

SHEET 4 OF 6

36

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DATE= 2/19/2014

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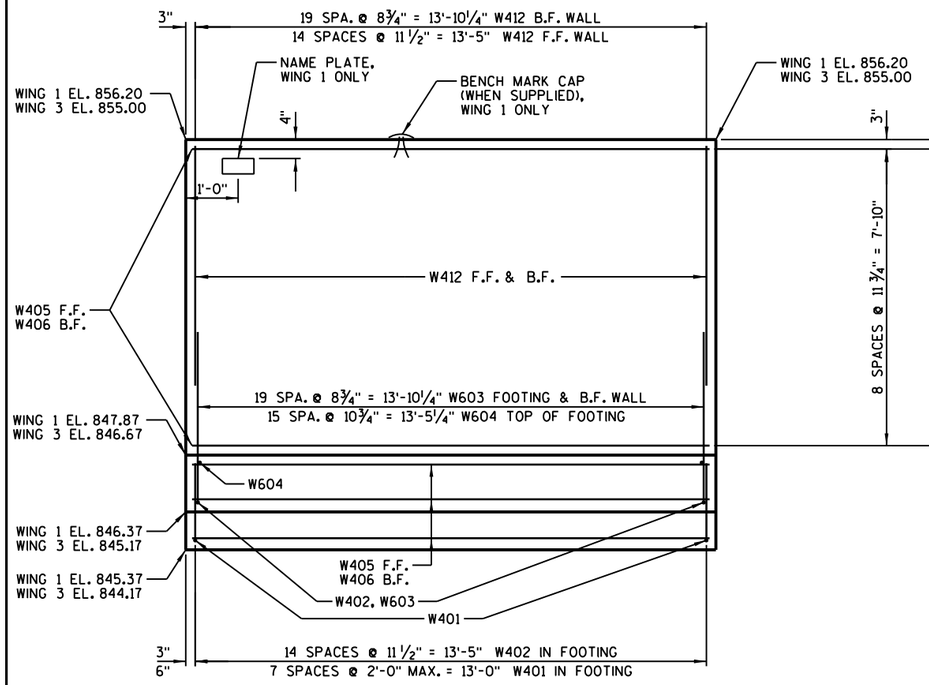
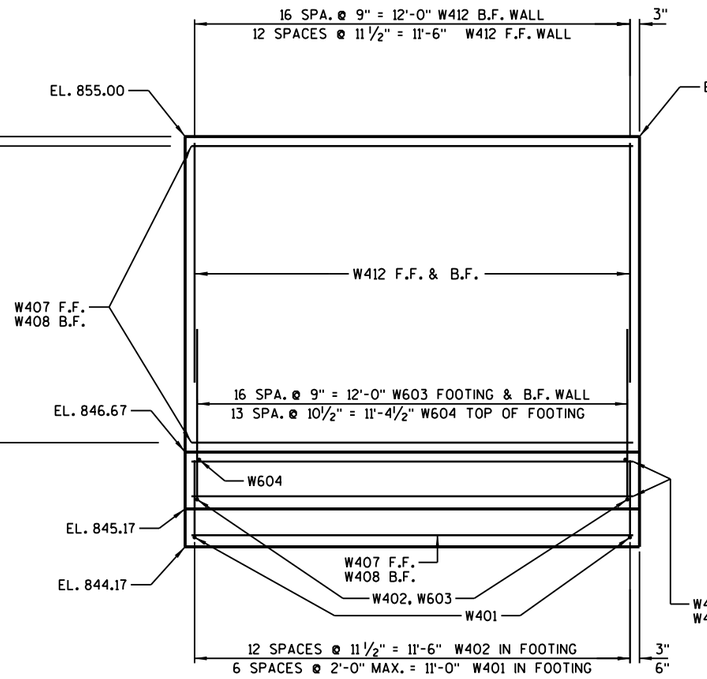
STATE PROJECT NUMBER

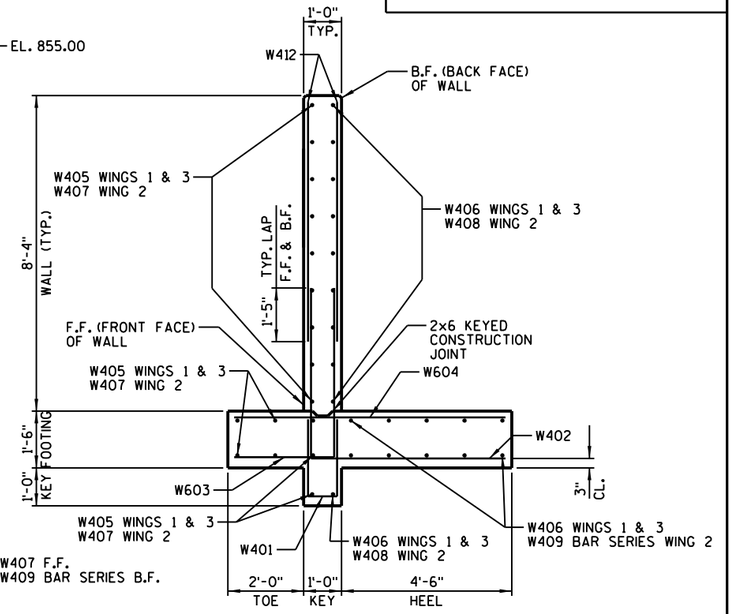
5289-00-70



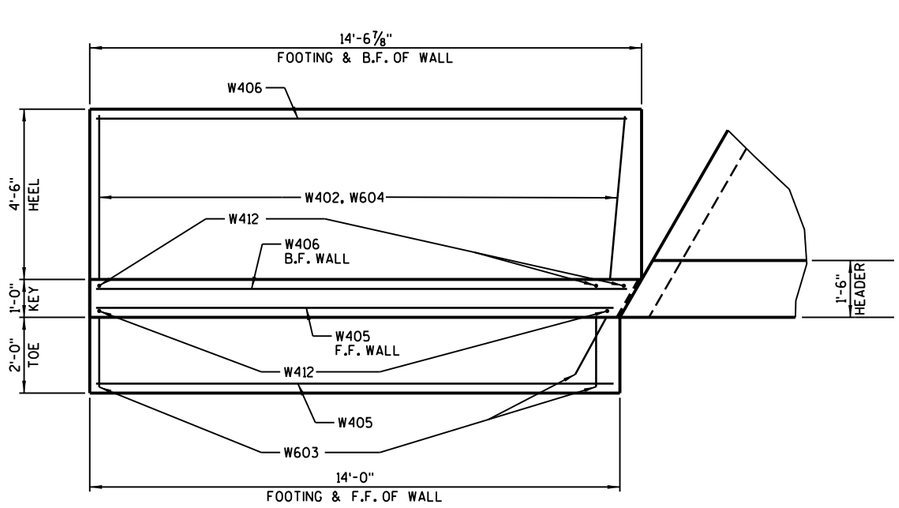
ELEVATION - WINGS 1 & 3



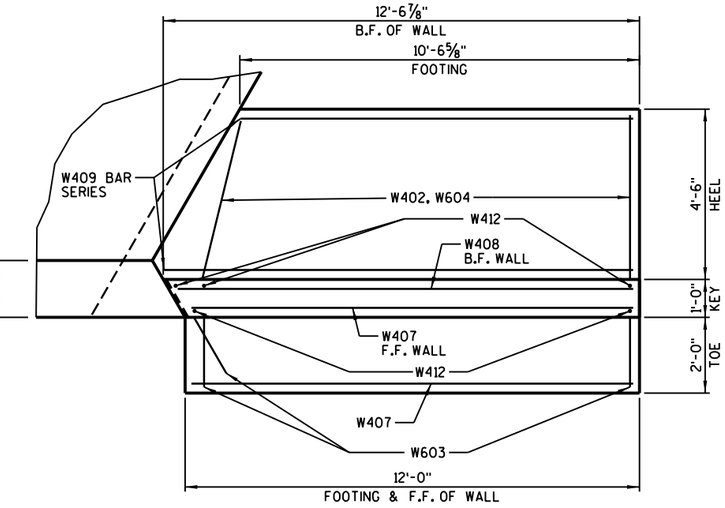
ELEVATION - WING 2



SECTION THRU WINGS 1, 2 & 3



PLAN - WINGS 1 & 3



PLAN - WING 2

BILL OF BARS

UNCOATED 3,595 LBS.

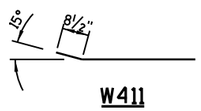
MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
W401	29	4'-6"	X		FOOTING BOTTOM KEY - STIRRUP - VERT.
W402	55	10'-2"	X		FOOTING BOTTOM & F.F. WALL - VERT.
W603	72	7'-7"	X		FOOTING BOTTOM & B.F. WALL - VERT.
W604	58	7'-2"			FOOTING TOP - TRANS.
W405	32	13'-7"			WINGS 1 & 3 - FOOTING TOE & F.F. WALL - LONGIT.
W406	40	14'-0"			WINGS 1 & 3 - FOOTING HEEL & B.F. WALL - LONGIT.
W407	16	11'-7"			WING 2 - FOOTING TOE & F.F. WALL - LONGIT.
W408	10	12'-0"			WING 2 - FOOTING KEY & B.F. WALL - LONGIT.
W409	10	11'-4"		Ⓢ	WING 2 - FOOTING HEEL - LONGIT.
W410	27	10'-7"			WING 4 - FOOTING & B.F. WALL - LONGIT.
W411	9	10'-9"	X		WING 4 - F.F. WALL - LONGIT.
W412	127	5'-9"			WINGS - F.F. & B.F. - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

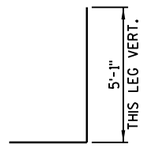
Ⓢ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR MARK	NO. REQ'D.	LENGTH
W409	2 SERIES OF 5	10'-4" TO 12'-4"

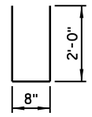
BAR SERIES TABLE



W411



W402, W603



W401

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-62-0041

DRAWN BY RLR | PLANS CK'D. LJR

WING DETAILS

SHEET 5 OF 6

37

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DATE= 2/19/2014

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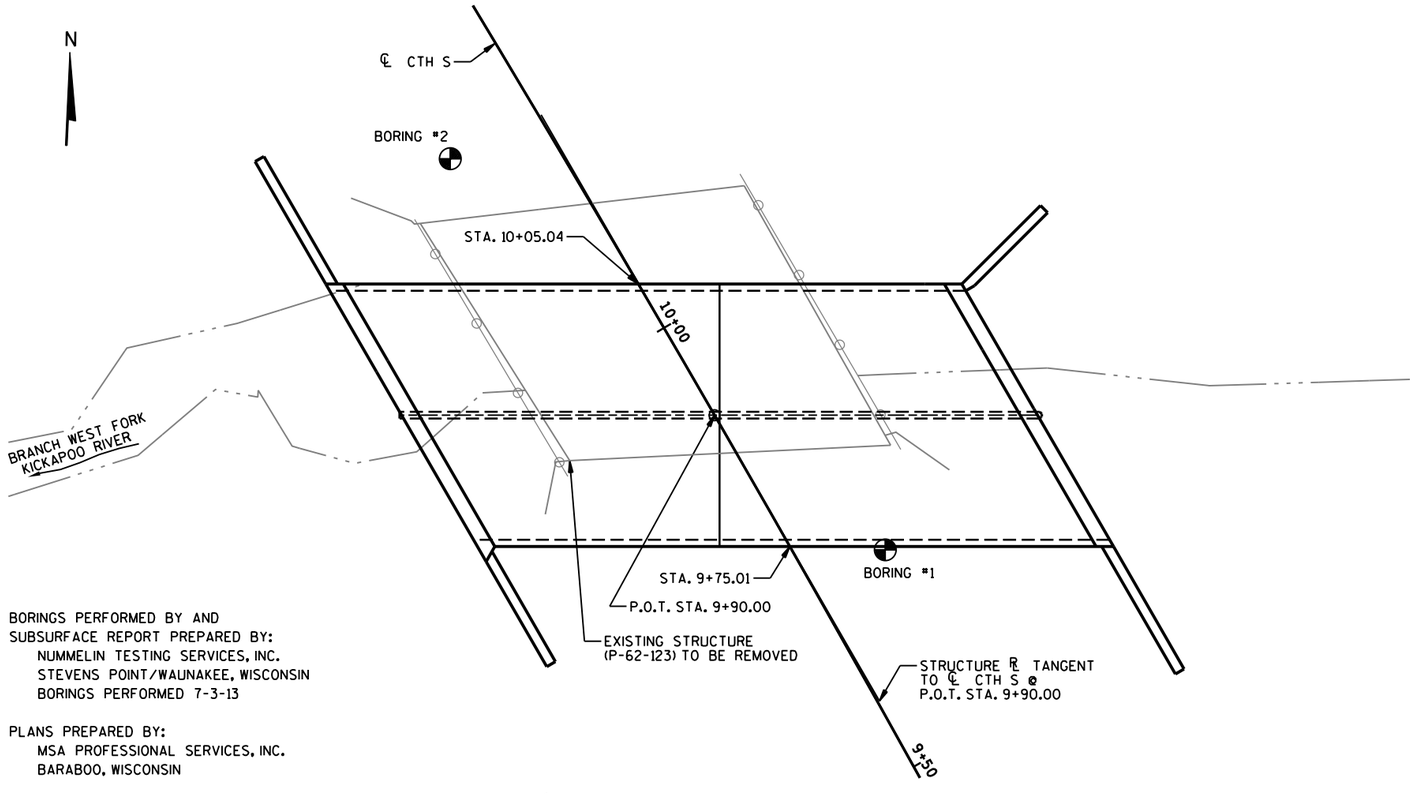
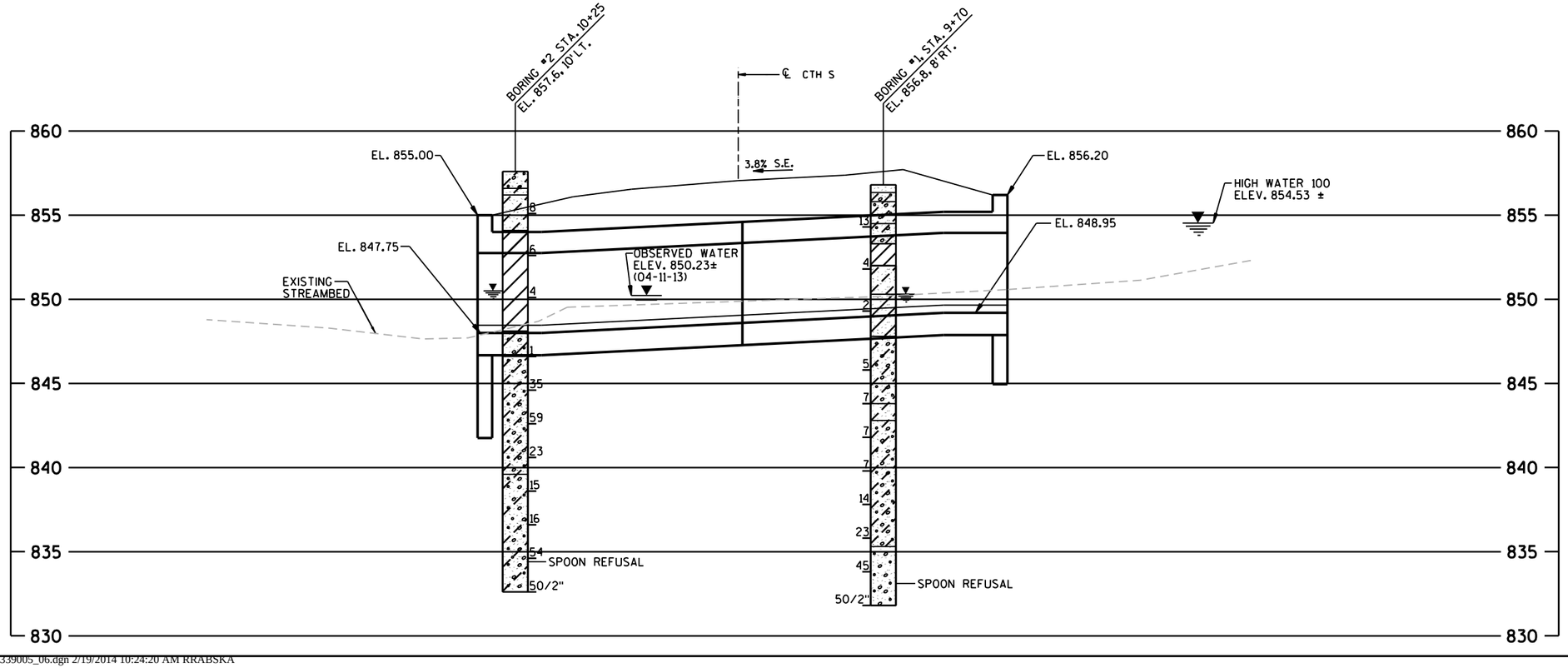


BORINGS PERFORMED BY AND
SUBSURFACE REPORT PREPARED BY:
NUMMELIN TESTING SERVICES, INC.
STEVENS POINT/WAUNAKEE, WISCONSIN
BORINGS PERFORMED 7-3-13

PLANS PREPARED BY:
MSA PROFESSIONAL SERVICES, INC.
BARABOO, WISCONSIN



STATE PROJECT NUMBER

5289-00-70

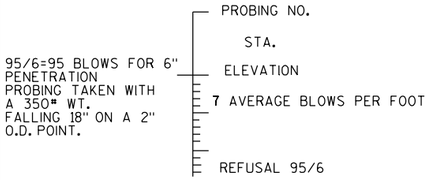
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

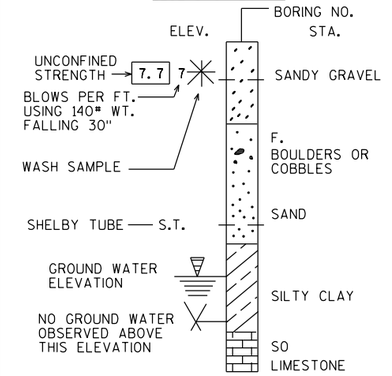
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



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

STRUCTURE B-62-0041

DRAWN BY RLR | PLANS CK'D. JRS

SUBSURFACE EXPLORATION

SHEET 6 OF 6
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FILE=7339005_SOILEXP_06.dgn
DATE=2/19/2014

PROJECT I.D. 5289-00-70 EARTHWORK SUMMARY

STA	EXCAVATION COMMON CY	EXCAVATION ROCK CY	FILL (1) CY	EXPANDED FILL (2) CY	WASTE CY
8+50.00					
	33	0	8	10	23
8+75.00					
	29	0	19	25	4
9+00.00					
	14	0	11	14	0
9+13.00					
	20	0	13	17	3
9+30.00					
	24	0	14	18	6
9+50.00					
	45	0	24	31	14
9+86.00					
STRUCTURE B-62-0041					
10+14.00					
	68	0	5	7	61
10+45.00					
	84	0	9	12	72
10+85.00					
	28	0	2	3	25
11+00.00					
SUBTOTALS					
WEST APPROACH	165	0	89	115	50
EAST APPROACH	180	0	16	22	158
PIETSCH RD & CROSS DRAIN INLET	163	0	0	0	163
B-62-0041 INLET	28	0	0	0	28
B-62-0041 OUTLET	42	0	12	16	26
TOTALS	**578**	**0**	**117**	**153**	**425**

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%

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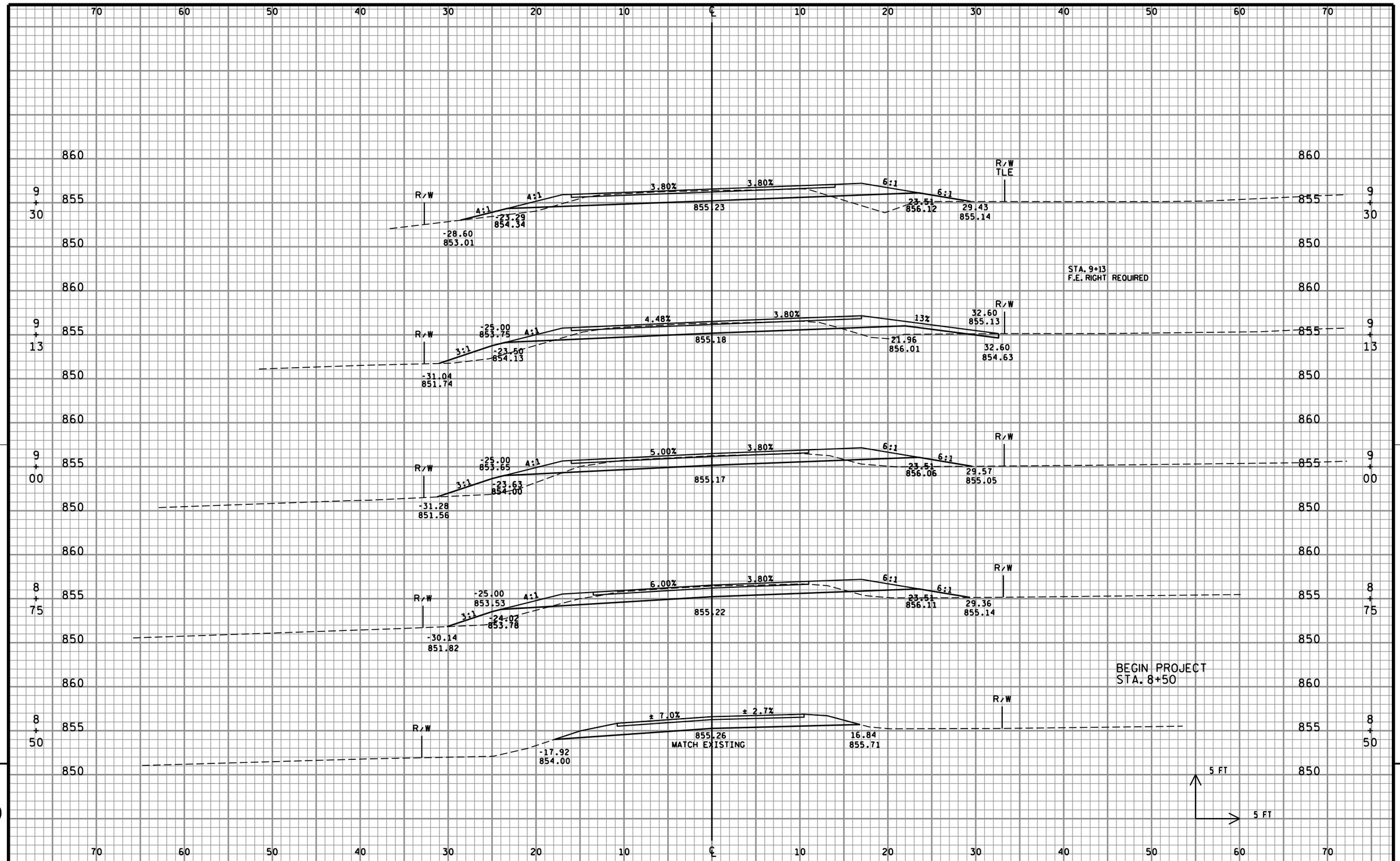
PROJECT NO: 5289-00-70 | HWY: CTH S | COUNTY: VERNON | EARTHWORK | SHEET E

FILE NAME : P:\7300s\7330s\7339\07339005\Estimate\07339005_MiscQty & Earthwork Borders.dgn PLOT DATE : 12/12/2013 PLOT BY : jsweno PLOT NAME : PLOT SCALE : 1:20 WISDOT/CADDS SHEET 49

07339005_MiscQty & Earthwork Borders.dgn 12/12/2013 4:14:42 PM jsweno



PROJECT NO: 5289-00-70	HWY: CTH S	COUNTY: VERNON	CROSS SECTIONS: CTH S	SHEET	E

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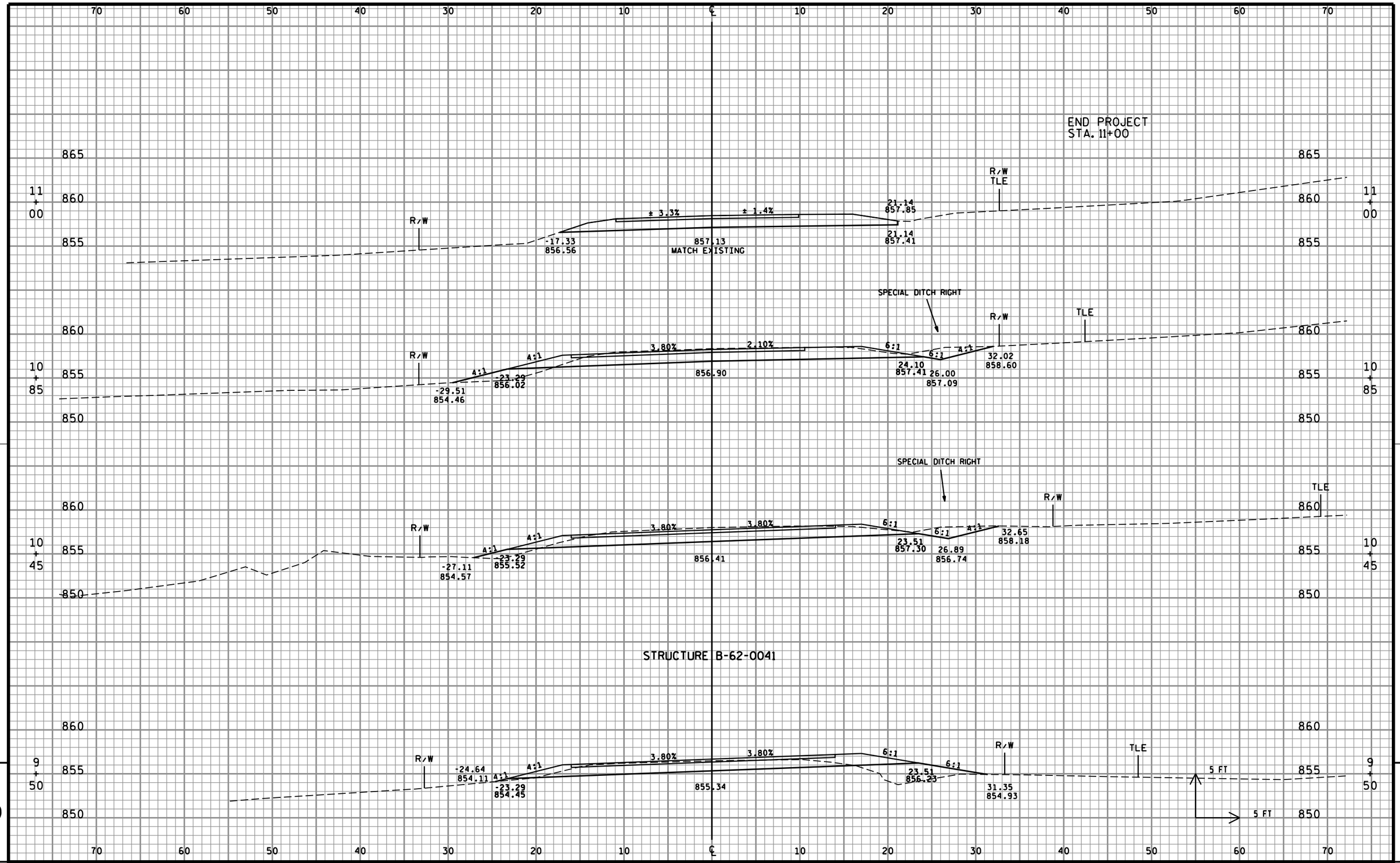
WISDOT/CADDS SHEET 21

Xsec01.DGN 12/13/2013 10:18:23 AM lrhodes



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WISDOT/CADDS SHEET 21

Xsec02.DGN 12/13/2013 10:19:23 AM lrhodes

Wisconsin Department of Transportation

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