RHI

DECEMBER 2018

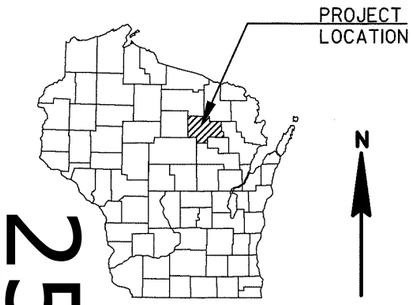
PROJECT ID: 9360-00-70

WITH: N/A

COUNTY: LANGLADE

ORDER OF SHEETS

TOTAL SHEETS = 62



25

DESIGN DESIGNATION

A.A.D.T.	2018	= 740
A.A.D.T.	2038	= 910
D.H.V.		= N/A
D.D.		= N/A
T.		= 7.3%
DESIGN SPEED		= 55 MPH
ESALS		= 130,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BOGUS ROAD - TAPPA ROAD

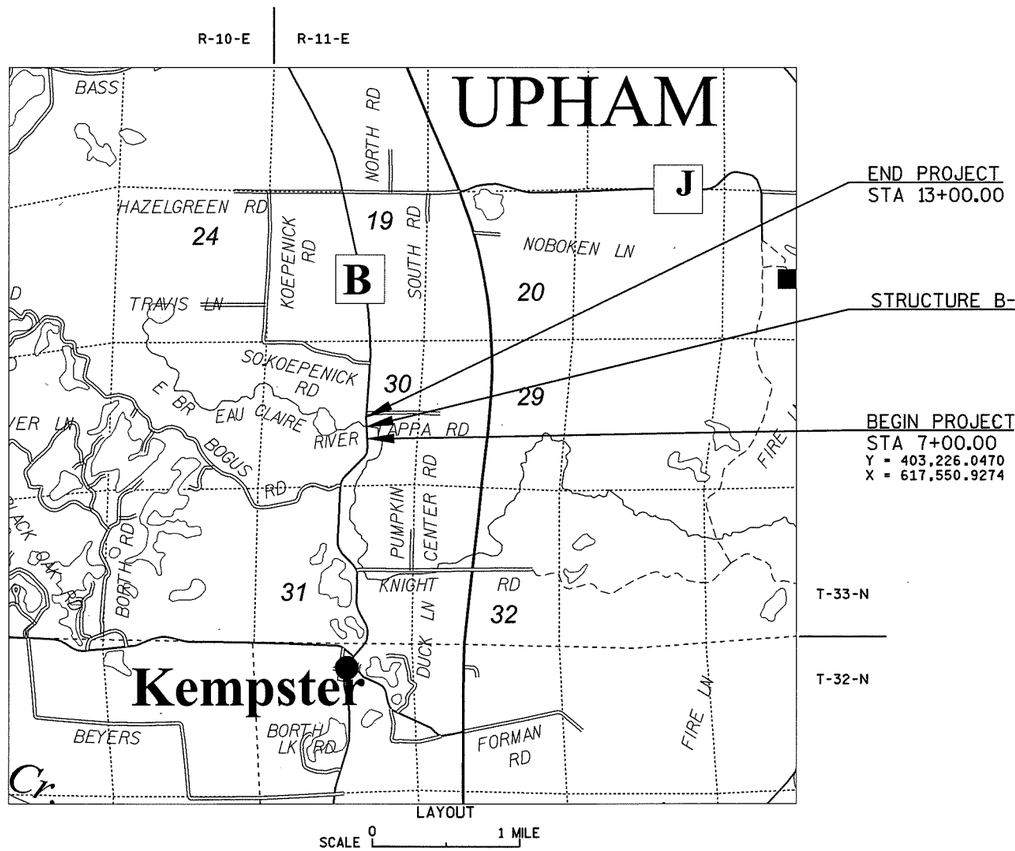
E BRANCH EAU CLAIRE RIVER B-34-0054

CTH B

LANGLADE COUNTY

STATE PROJECT NUMBER
9360-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9360-00-70	———	———



TOTAL NET LENGTH OF CENTERLINE = 0.114 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, LANGLADE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR LANGLADE COUNTY

DATE: 7-25-18 (Signature)

Highway Commissioner (Title of Offical)

ORIGINAL PLANS PREPARED BY

CORRE ENGINEERING

WISCONSIN

ERIC T. PRICE E-38027 MADISON WI

PROFESSIONAL ENGINEER

DATE: 7/18/18 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: CORRE, INC.

Designer: CORRE, INC.

Management Conultant: CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT

DATE: 7-30-2018

MANAGEMENT CONSULTANT SIGNATURE

E

2

GENERAL NOTES:

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAV 88.

BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND

CURVE DATA IS BASED ON THE ARC DEFINITION.

UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.

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

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

WETLANDS EXIST WITHIN THE PROJECT LIMITS. DO NOT OPERATE MACHINERY OUTSIDE OF THE SLOPE INTERCEPTS.

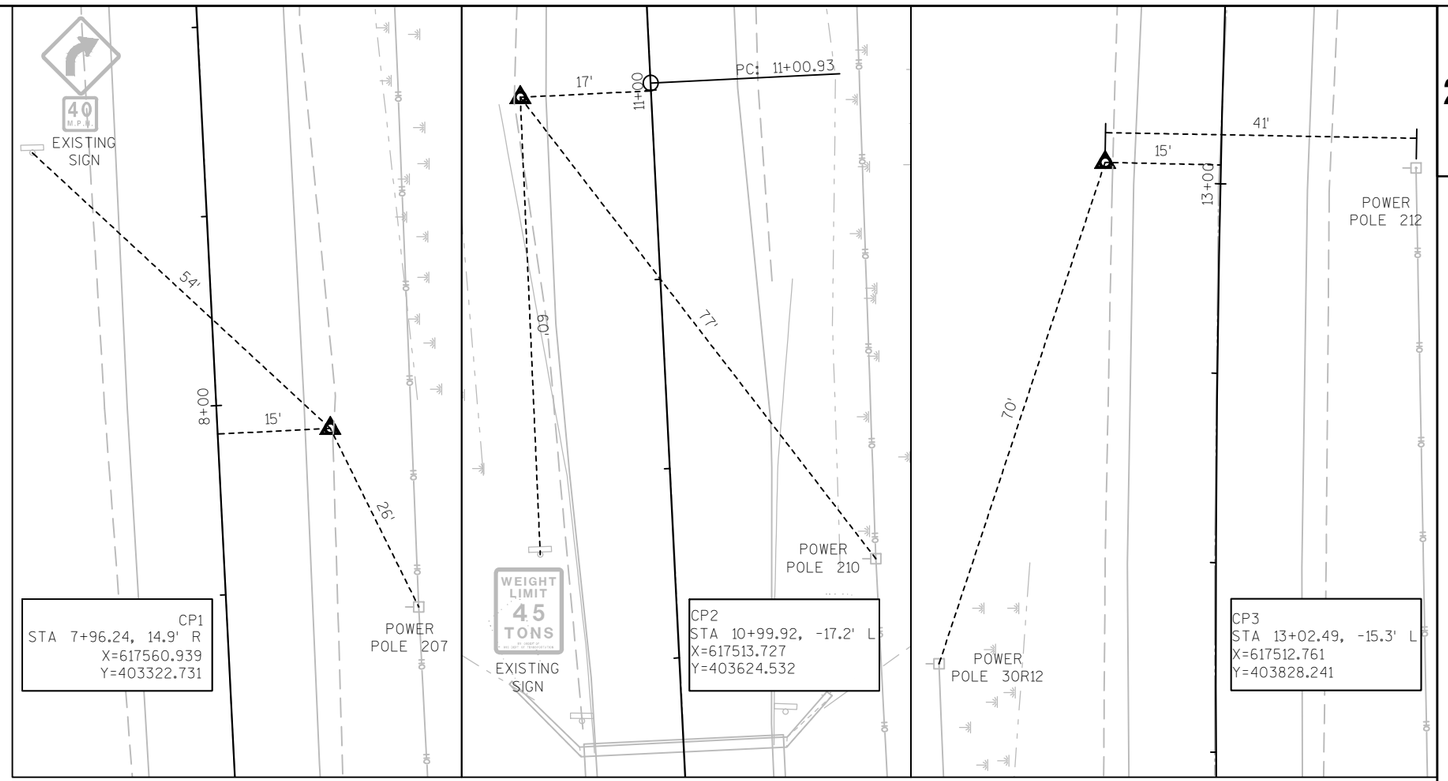
EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS, EXACT LOCATIONS WILL BE DETERMINED BY THE E.C.I.P AND APPROVED BY THE ENGINEER IN THE FIELD.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED, MULCHED OR EROSION MATTED.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.



CONSTRUCTION TIES FOR CTH B OVER E BRANCH EAU CLAIRE RIVER

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	.20 .34	.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	.22 .28	.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 = 0.909 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.741 ACRES

CONSULTANT CONTACT

CORRE, INC.
ERIC PRICE, P.E.
6510 GRAND TETON PLAZA
SUITE 314
MADISON, WI 53719
TELEPHONE: (608) 826-6146
E-MAIL: EPRICE@CORREINC.COM

UTILITY CONTACTS

WPS (ELECTRIC)
DON LUTZOW
1700 SHERMAN STREET
WAUSAU, WI 54402-1166
TELEPHONE: (715) 493-7802
EMAIL: DALUTZOW@WISCONSINPUBLICSERVICE.COM

FRONTIER COMMUNICATIONS
CAL KLADE
1851 N. 14TH STREET
WAUSAU, WI 54401
TELEPHONE: (715) 573-2110
EMAIL: CALVIN.KLADE@FTR.COM

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

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
NORTH CENTRAL DISTRICT
WENDY HENNIGES
107 SUTLIFF AVE.
RHINELANDER, WI 54501
TELEPHONE: (715) 365-8916
E-MAIL: WENDY.HENNIGES@WISCONSIN.GOV

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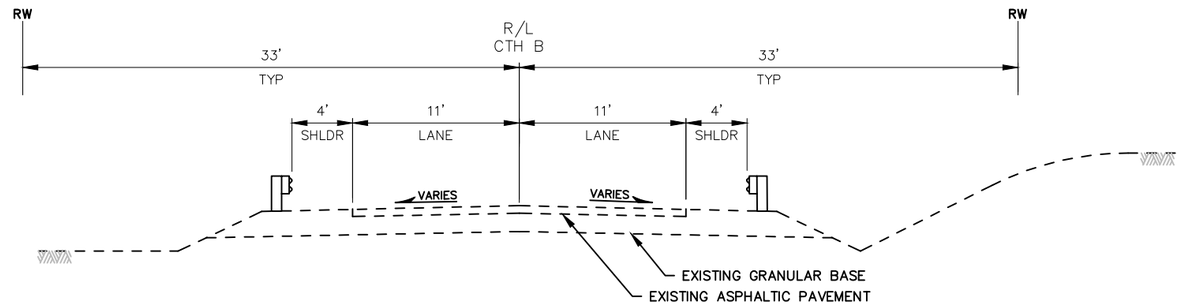
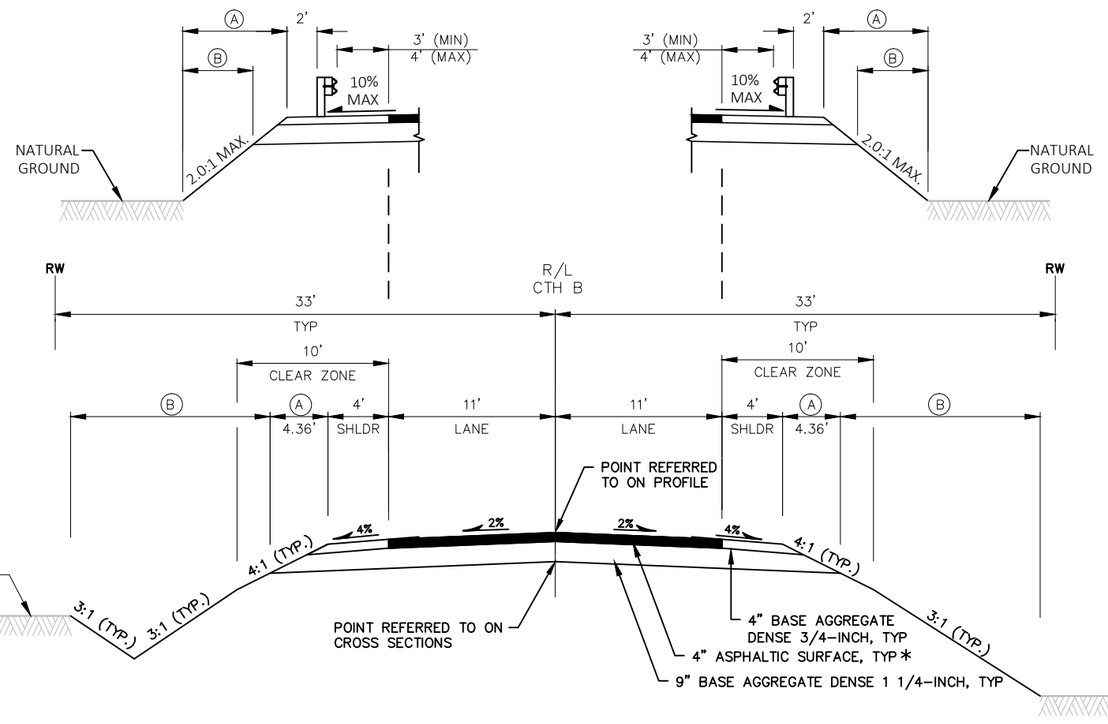


EXISTING TYPICAL SECTION
CTH B

STA 7+00 TO STA 9+86
STA 10+14 TO STA 13+00



IN CUT

IN FILL

TYPICAL FINISHED SECTION
CTH B

STA 7+00.00 TO STA 9+79.36
STA 10+20.64 TO STA 13+00.00

(SEE PLANS FOR BEAMGUARD LIMITS)

Ⓐ FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

Ⓑ SALVAGED TOPSOIL; MULCHING; FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

* 4.0-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH 2 EQUAL LIFTS (2.0-INCH). THE MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 12.5 MM.

PROJECT NO:9360-00-70	HWY:CTH B	COUNTY:LANGLADE	TYPICAL SECTIONS	SHEET 3 E

LEGEND

- ###### EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIPRAP HEAVY
- SLOPE INTERCEPT
- TURBIDITY BARRIER
- SURFACE WATER FLOW

N

E BRANCH EAU CLAIRE RIVER

Pi: 7+00.08

EXIST R/W

7+00 8+00 9+00 10+00 11+00 12+00 13+00

CTH B

CTH B

11+00.93 FND IP

GUY

EXIST R/W

T.L.E.

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	EROSION CONTROL	SHEET 4	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-EC

PLOT DATE : 9/27/2018 12:04 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

5
40 M.P.H.
MOVING SIGN TYPE II

W5-52L 12"X36"
1
REMOVE
1R
REMOVE
3R
E BRANCH EAU CLAIRE RIVER
WEIGHT LIMIT 45 TONS
REMOVE
6
W5-52R 12"X36"
3

EXIST R/W

7+00 8+00 9+00 10+00 11+00 12+00 13+00

CTH B

CTH B

EXIST R/W

T.L.E.

MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

BEGIN PROJECT
STA 7+00

END PROJECT
STA 13+00

2
W5-52R 12"X36"
2R
REMOVE
4R
REMOVE
4
W5-52L 12"X36"

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	PERMANENT SIGNING	SHEET 5	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023201-PS
PLOT DATE : 7/26/2018 2:22 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

Estimate Of Quantities

9360-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. STA 10+00	LS	1.000	1.000
0008	204.0165	Removing Guardrail	LF	270.000	270.000
0010	205.0100	Excavation Common	CY	173.000	173.000
0012	206.1000	Excavation for Structures Bridges (structure) 01. B-34-54	LS	1.000	1.000
0014	208.0100	Borrow	CY	756.000	756.000
0016	210.1500	Backfill Structure Type A	TON	270.000	270.000
0018	213.0100	Finishing Roadway (project) 01. 9360-00-70	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	74.000	74.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,022.000	1,022.000
0024	415.0060	Concrete Pavement 6-Inch	SY	27.000	27.000
0026	415.0410	Concrete Pavement Approach Slab	SY	100.000	100.000
0028	455.0605	Tack Coat	GAL	89.000	89.000
0030	465.0105	Asphaltic Surface	TON	280.000	280.000
0032	502.0100	Concrete Masonry Bridges	CY	179.000	179.000
0034	502.3200	Protective Surface Treatment	SY	134.000	134.000
0036	502.3210	Pigmented Surface Sealer	SY	66.000	66.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	4,160.000	4,160.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	25,030.000	25,030.000
0042	516.0500	Rubberized Membrane Waterproofing	SY	22.000	22.000
0044	550.0500	Pile Points	EACH	13.000	13.000
0046	550.2128	Piling CIP Concrete 12 3/4 X 0.50-Inch	LF	1,100.000	1,100.000
0048	606.0300	Riprap Heavy	CY	155.000	155.000
0050	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	220.000	220.000
0052	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0054	614.2300	MGS Guardrail 3	LF	425.000	425.000
0056	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0058	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0060	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9360-00-70	EACH	1.000	1.000
0062	619.1000	Mobilization	EACH	1.000	1.000
0064	624.0100	Water	MGAL	15.000	15.000
0066	625.0500	Salvaged Topsoil	SY	957.000	957.000
0068	627.0200	Mulching	SY	957.000	957.000
0070	628.1504	Silt Fence	LF	1,192.000	1,192.000
0072	628.1520	Silt Fence Maintenance	LF	1,192.000	1,192.000
0074	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000

9360-00-70

Line	Item	Item Description	Unit	Total	Qty
0076	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0078	628.2008	Erosion Mat Urban Class I Type B	SY	688.000	688.000
0080	628.6005	Turbidity Barriers	SY	109.000	109.000
0082	629.0210	Fertilizer Type B	CWT	0.900	0.900
0084	630.0120	Seeding Mixture No. 20	LB	36.000	36.000
0086	630.0200	Seeding Temporary	LB	18.000	18.000
0088	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0090	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0092	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0094	638.2102	Moving Signs Type II	EACH	2.000	2.000
0096	638.2602	Removing Signs Type II	EACH	5.000	5.000
0098	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0100	642.5001	Field Office Type B	EACH	1.000	1.000
0102	643.0420	Traffic Control Barricades Type III	DAY	2,556.000	2,556.000
0104	643.0705	Traffic Control Warning Lights Type A	DAY	3,976.000	3,976.000
0106	643.0900	Traffic Control Signs	DAY	1,988.000	1,988.000
0108	643.5000	Traffic Control 01. 9360-00-70	EACH	1.000	1.000
0110	645.0111	Geotextile Type DF Schedule A	SY	66.000	66.000
0112	645.0120	Geotextile Type HR	SY	215.000	215.000
0114	646.1020	Marking Line Epoxy 4-Inch	LF	1,200.000	1,200.000
0116	650.4500	Construction Staking Subgrade	LF	533.000	533.000
0118	650.5000	Construction Staking Base	LF	533.000	533.000
0120	650.6500	Construction Staking Structure Layout (structure) 01. B-34-54	LS	1.000	1.000
0122	650.9910	Construction Staking Supplemental Control (project) 01. 9360-00-70	LS	1.000	1.000
0124	650.9920	Construction Staking Slope Stakes	LF	533.000	533.000
0126	690.0150	Sawing Asphalt	LF	44.000	44.000
0128	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0130	715.0502	Incentive Strength Concrete Structures	DOL	1,074.000	1,074.000

CLEARING AND GRUBBING ITEMS

STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CATEGORY CODE 0010			
7+00 - 13+00	CTH B	6	6
	TOTALS	**6**	**6**

REMOVING GUARDRAIL

STATION	LOCATION	204.0165 LF
CATEGORY CODE 0010		
9+25 - 9+80	LT	55
9+00 - 9+80	RT	80
10+20 - 11+00	LT	80
10+20 - 10+75	RT	55
	TOTALS	**270**

FINISHING ROADWAY

	213.0100 EACH
CATEGORY CODE 0010	
ID 9360-00-70	1
TOTAL	**1**

BASE AGGREGATE DENSE

STATION	- STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
CATEGORY CODE 0010				
7+00	- 9+79	MAINLINE	37	510
10+21	- 13+00	MAINLINE	37	512
		TOTALS	**74**	**1,022**

CONCRETE PAVEMENT 6-INCH

LOCATION	415.0060 SY
CATEGORY CODE 0010	
9+59 - 9+85	13
10+15 - 10+40	13
TOTAL	**27**

EARTHWORK

Division	From/To Station	Location	205.0100 Common Excavation (1) Cut (2)	205.0100 Common Excavation (1) EBS Excavation (3)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6) Factor 1.25	Mass Ordinate +/- (7)	Waste	208.0100 Borrow	Comment:
Division 1												
South	7+00/09+73		116	0	74	41	186	232	-191	0	191	
North	10+27/13+00		58	0	74	-16	439	549	-565	0	565	
Division 1 Subtotal			173	0	148	25	625	781	-756	0	756	
Grand Total			173	0	148	25	625	781	-756	0	756	
Total Common Exc			173									

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.

(4) Salvaged/Unusable Pavement Material

5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(6) Expanded Fill Factor = 1.25

Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor

(7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

CONCRETE PAVEMENT APPROACH SLAB

STATION	-	STATION	LOCATION	415.0410 SY
CATEGORY CODE 0010				
9+59	-	9+85	MAINLINE	50
10+15	-	10+40	MAINLINE	50
			TOTAL	**100**

ASPHALTIC ITEMS

STATION	-	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
CATEGORY CODE 0010					
7+00	-	9+79	MAINLINE	44	140
10+21	-	13+00	MAINLINE	45	140
			TOTALS	**89**	**280**

MGS GUARDRAIL ITEMS

STATION	-	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 THRIE BEAM TRANSITION LF	614.2610 TERMINAL EAT EACH
CATEGORY CODE 0010						
7+95	-	9+75	LT	87.5	39	1
7+70	-	9+62	RT	100	39	1
10+37	-	12+29	LT	100	39	1
10+23	-	12+55	RT	137.5	39	1
			TOTALS	**425**	**156**	**4**

WATER

LOCATION	624.0100 MGAL
CATEGORY CODE 0010	
BASE COMPACTION	11
DUST CONTROL	4
TOTAL	**15**

LANDSCAPING ITEMS

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB
CATEGORY CODE 0010									
7+00	-	9+73	LT	163	163	134	0.2	7	4
7+00	-	9+60	RT	187	187	123	0.2	8	4
10+40	-	13+00	LT	332	332	190	0.3	11	6
10+27	-	13+00	RT	275	275	241	0.2	10	5
			TOTALS	**957**	**957**	**688**	**0.9**	**36**	**18**

FIELD OFFICE TYPE B

	642.5001 EACH
CATEGORY CODE 0010	
PROJECT	1
TOTAL	**1**

EROSION CONTROL

STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF	MOBILIZATIONS 628.1905 EROSION CONTROL EACH	MOBILIZATIONS 628.1910 EMERGENCY EROSION CONTROL EACH	628.6005 TURBIDITY BARRIERS SY
CATEGORY CODE 0010								
7+00	-	9+73	LT & RT	639	639	--	--	54
10+40	-	13+00	LT & RT	553	553	--	--	55
PROJECT			LT & RT	--	--	3	3	--
			TOTALS	**1,192**	**1,192**	**3**	**3**	**109**

REMOVING SIGN ITEMS

STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MESSAGE
CATEGORY CODE 0010					
8+34	LT	2	-	1	RIGHT CURVE WARNING / 40MPH WARNING
9+82	LT	-	1	1	BRIDGE HASH MARKS
9+82	RT	-	1	1	BRIDGE HASH MARKS
10+17	LT	-	1	1	BRIDGE HASH MARKS
10+17	RT	-	1	1	BRIDGE HASH MARKS
10+39	LT	-	1	1	45 TON BRIDGE
	TOTALS	**2**	**5**	**6**	

3

SIGNING ITEMS

STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIZE	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	SIGN MESSAGE
CATEGORY CODE 0010								
9+70	LT	1	W5-52L	12" X 36"	1	--	3.00	BRIDGE HASH MARKS
9+60	RT	2	W5-52R	12" X 36"	1	--	3.00	BRIDGE HASH MARKS
10+40	LT	3	W5-52R	12" X 36"	1	--	3.00	BRIDGE HASH MARKS
10+25	RT	4	W5-52L	12" X 36"	1	--	3.00	BRIDGE HASH MARKS
8+35	LT	5	--	--	--	1	--	EXISTING CURVE & SPEED (MOVED)
.								
				TOTALS	**4**	**1**	**12.00**	

TRAFFIC CONTROL ITEMS

LOCATION	643.5000 TRAFFIC CONTROL EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS DAYS
CATEGORY CODE 0010				
PROJECT	1	2,556	3,976	1,988
TOTALS	**1**	**2,556**	**3,976**	**1,988**

3

MARKING LINE EPOXY 4-INCH

STATION - STATION	LOCATION	646.1020 LF	REMARKS
CATEGORY CODE 0010			
7+00 - 13+00	CTH B	1,200	YELLOW
TOTAL		**1,200**	

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6500* STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY CODE 0010						
7+00 - 9+73	MAINLINE	273	273	-	.5	273
9+73 - 10+40	BRIDGE	-	-	1	-	-
10+40 - 13+00	MAINLINE	260	260	-	.5	260
	TOTALS	**533**	**533**	**1**	**1**	**533**

* PAID FOR UNDER CATEGORY 0020

SAWING PAVEMENT

STATION	LOCATION	690.0150 ASPHALT LF
CATEGORY CODE 0010		
7+00	MAINLINE	22
13+00	MAINLINE	22
TOTAL		**44**

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
CP1	7+96.24	3/4" REBAR, 14.870' RT	1627.832
BM1	9+86.94	CHISELED '□' TOP CONC RAIL S.E.	1630.226
CP2	10+99.92	3/4" REBAR, 17.249' LT	1626.760
CP3	13+02.49	PK NAIL, 15.290' LT	1629.452

PI STA = 13+00.35
Y = 403825.574
X = 617520.943
DELTA = 8°08'51"
D = 2°02'47"
T = 199.42'
L = 398.17'
R = 2800.00'
PC STA = 11+00.93
PT STA = 14+99.10
SE = 5.0%

TOWN

BRASS CAPPED MONUMENT
Y = 401208.190
X = 616559.870

BRASS CAPPED MONUMENT
Y = 406534.880
X = 616847.450

1/4 LINE = N03° 05' 25"E, 5334.45'
(1/4 CORNER TO 1/4 CORNER)
2781.36'

PI: 7+00.08
PC: 11+00.93
FND IP
CP1
CP2
CP3
BM1

CONCRETE PAVEMENT 6-INCH (TYP)
CONCRETE PAVEMENT APPROACH SLAB (TYP)
STRUCTURE P-34-4 TO BE REMOVED
STRUCTURE B-34-54
E BRANCH EAU CLAIRE RIVER
WPS
WILLIAM RAHFALDT
FRONTIER COMMUNICATIONS
SLOPE INTERCEPTS (TYP)
MGS EAT POST 1 STA 7+95.67, 15.00'
MGS EAT POST 1 STA 7+70.11, 15.00'
MGS EAT POST 1 STA 12+29.89, 15.00'
MGS EAT POST 1 STA 12+55.19, 15.00'
WETLANDS
MGS GUARDRAIL 3 K (TYP)
ASPHALTIC SURFACE (TYP)
MGS THRIE BEAM (TYP)
+45.63 -15.00'
+36.25 -14.00'
+76.81 -14.00'
+79.93 -15.00'
+23.19 14.00'
+20.07 15.00'
+63.75 14.00'
+04.92 15.00'
EXIST R/W
4:1
3.0'
3.941
3.94'
11'
66'
99'
ASPH
CTH B
N2° 51' 47"W
N3° 09' 55"W
7+00
8+00
9+00
10+00
11+00
12+00
13+00
TLE 10+00.00 32.58'
TLE 10+00.00 42.58'
TLE 11+00.93 32.42'
TLE 11+00.93 42.42'
TLE 13+00.00 31.20'
TLE 13+00.00 41.20'
TLE (0.07 AC.) FOR GRADING
10'
1/4 LINE
1/4 LINE = S88° 47' 58"W 2460.31'
1632.52'
STA 14+77.72
xxxxxxxxxxxx

BEGIN PROJECT
STA 7+00.00
SAWING ASPHALT REQ'D
MATCH EXISTING
Y = 403226.0470
X = 617550.9274

END PROJECT
STA 13+00.00
SAWING ASPHALT REQ'D
MATCH EXISTING
BURIED I.P.
Y = 404037.060
X = 619169.580

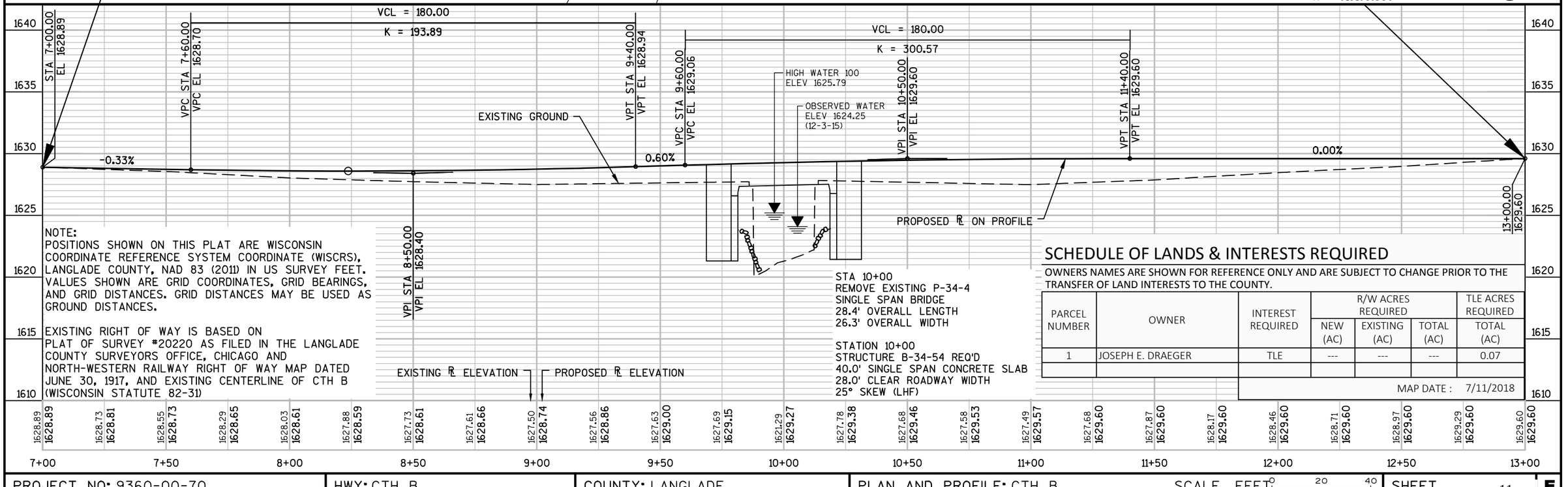
NW/SE

OF

UPHAM

1
JOSEPH E. DRAEGER

5



NOTE:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATE (WISCRS), LANGLADE 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.

EXISTING RIGHT OF WAY IS BASED ON PLAT OF SURVEY #20220 AS FILED IN THE LANGLADE COUNTY SURVEYORS OFFICE, CHICAGO AND NORTH-WESTERN RAILWAY RIGHT OF WAY MAP DATED JUNE 30, 1917, AND EXISTING CENTERLINE OF CTH B (WISCONSIN STATUTE 82-31)

STA 10+00
REMOVE EXISTING P-34-4
SINGLE SPAN BRIDGE
28.4' OVERALL LENGTH
26.3' OVERALL WIDTH

STATION 10+00
STRUCTURE B-34-54 REQ'D
40.0' SINGLE SPAN CONCRETE SLAB
28.0' CLEAR ROADWAY WIDTH
25° SKEW (LHF)

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE ACRES REQUIRED
			NEW (AC)	EXISTING (AC)	TOTAL (AC)	TOTAL (AC)
1	JOSEPH E. DRAEGER	TLE	---	---	---	0.07

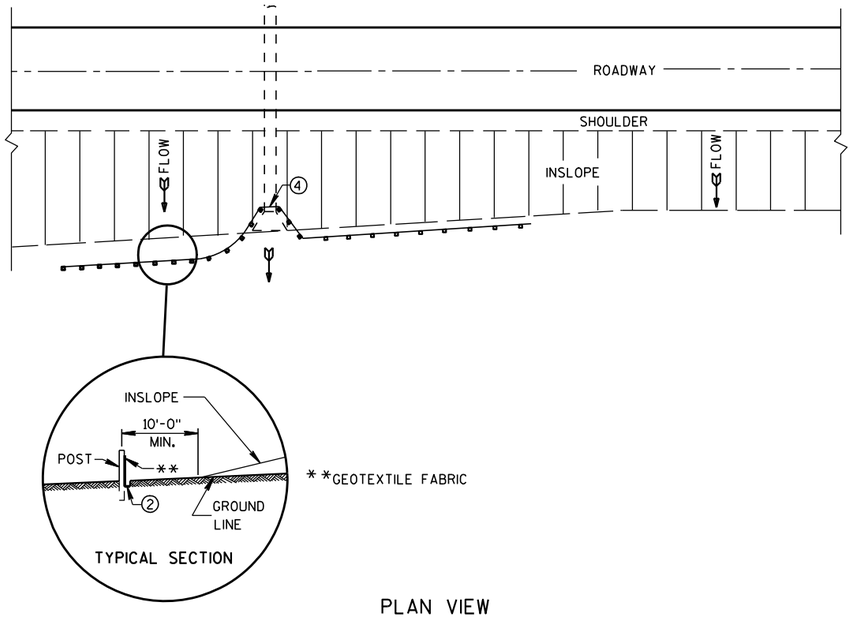
MAP DATE : 7/11/2018

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	PLAN AND PROFILE: CTH B	SCALE, FEET 0 20 40	SHEET 11 E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\SHEETSPLAN\050101-PP-600FT APPROACH.DWG
LAYOUT NAME - 050101-PP
PLOT DATE : 7/11/2018 1:52 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

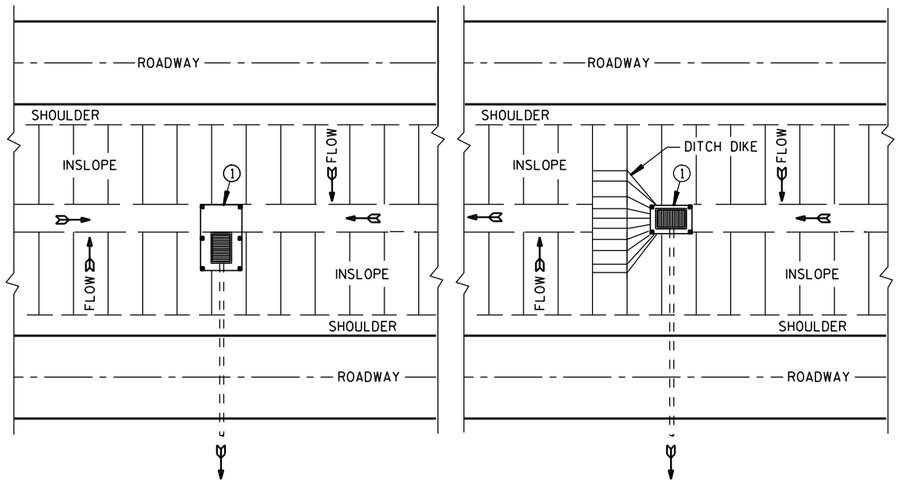
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13A03-06	CONCRETE PAVEMENT SHOULDERS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



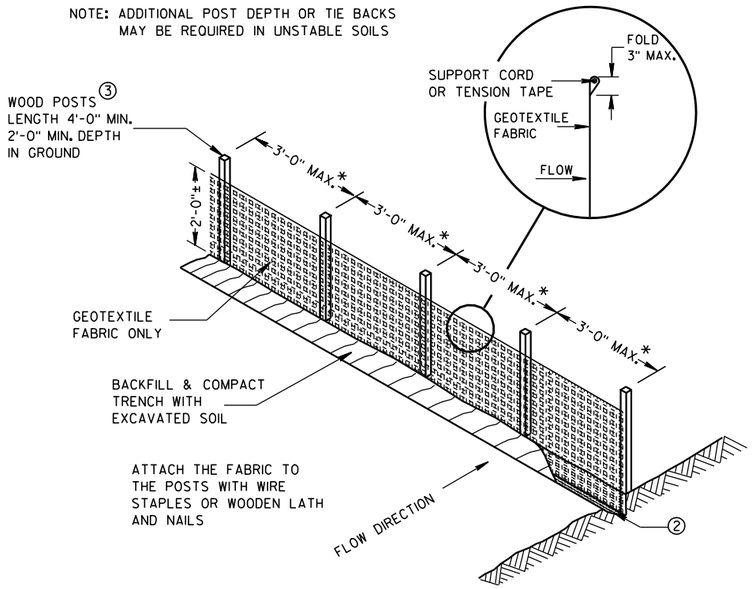
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



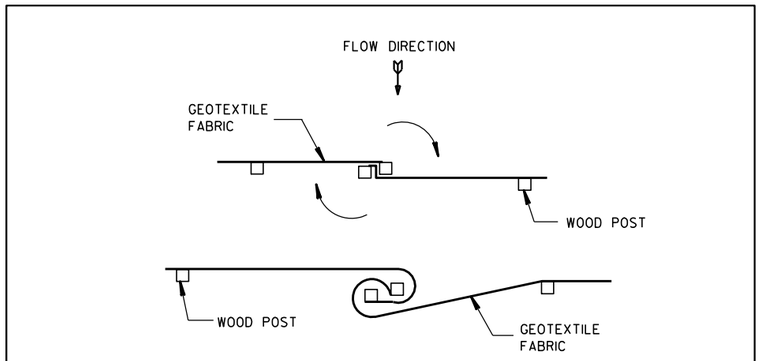
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

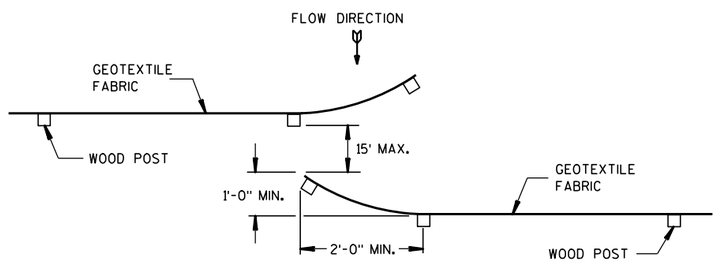


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



TWIST METHOD



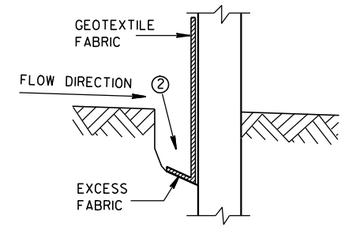
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5

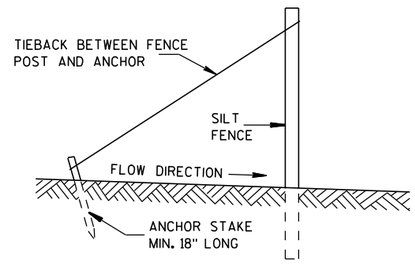
GENERAL NOTES

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)

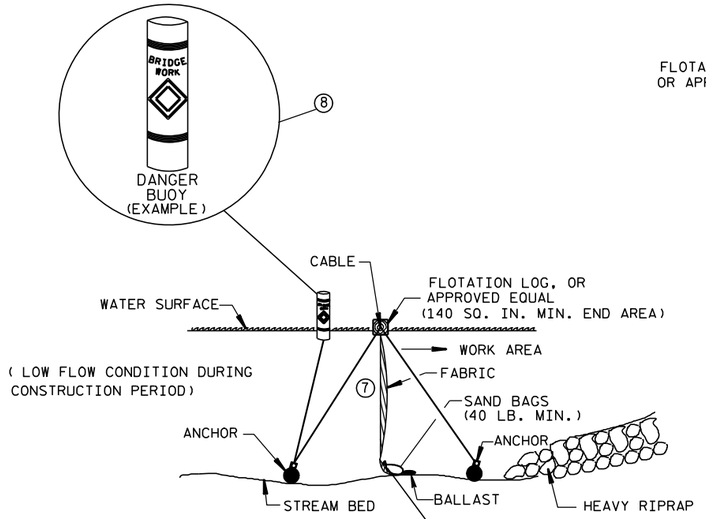
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

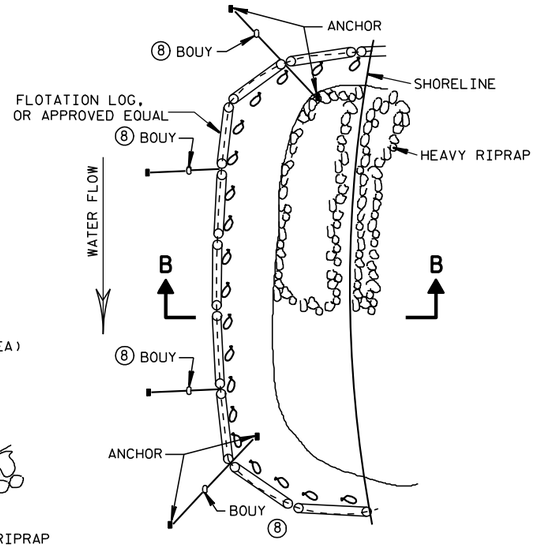
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

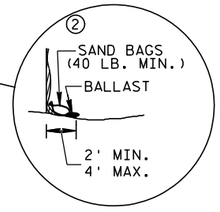
S.D.D. 8 E 9-6

S.D.D. 8 E 9-6

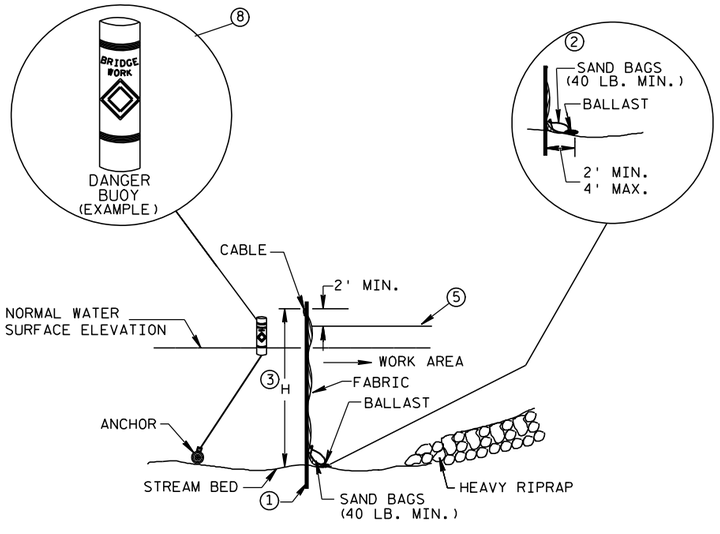


SECTION B-B

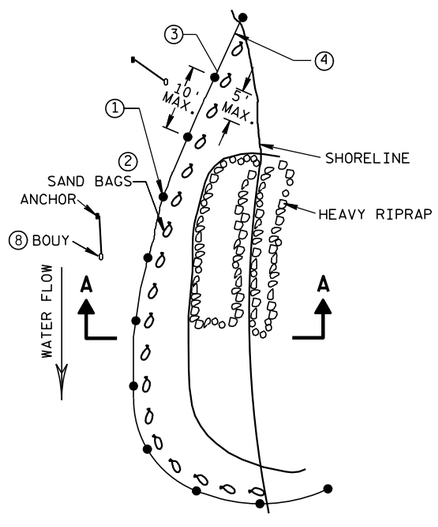




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

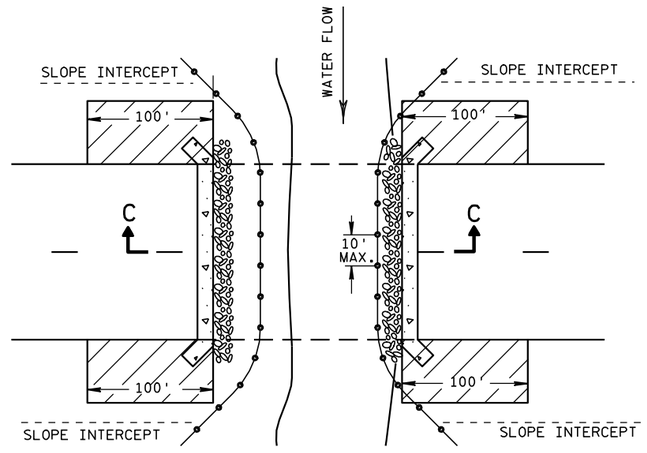
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

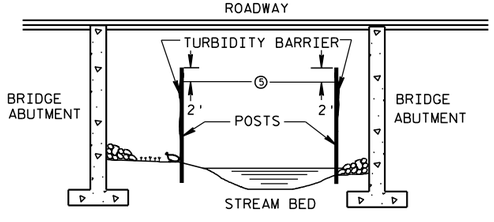
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

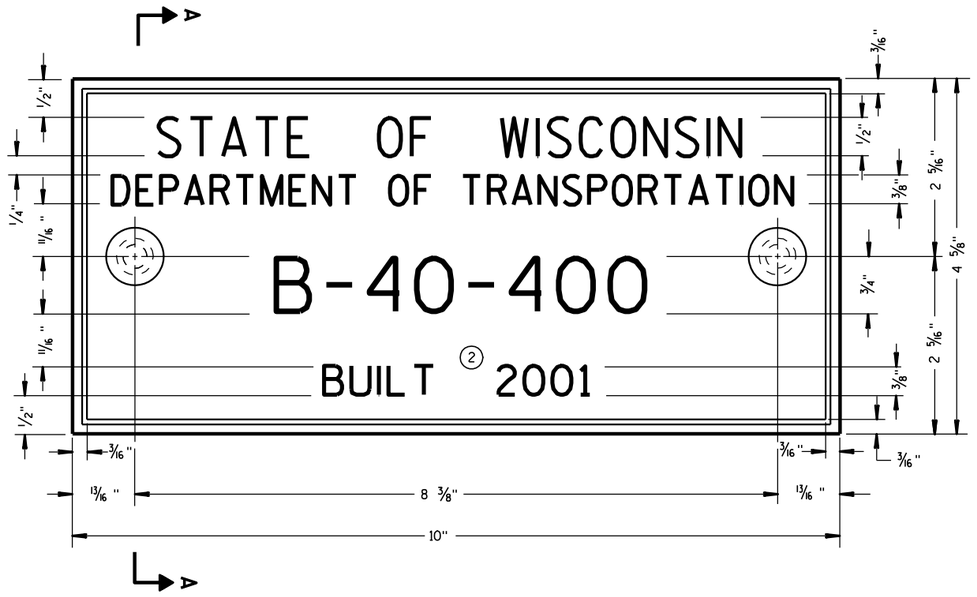
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 11-2

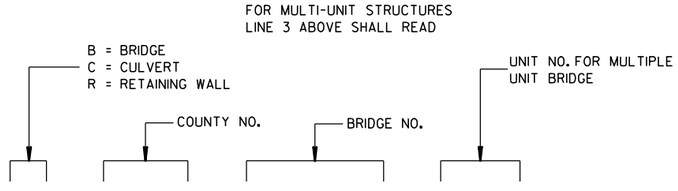
6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

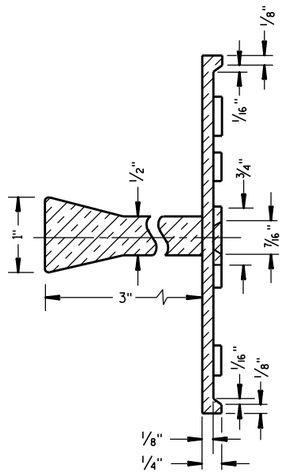
GENERAL NOTES

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.

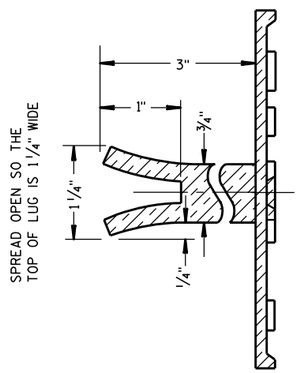
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

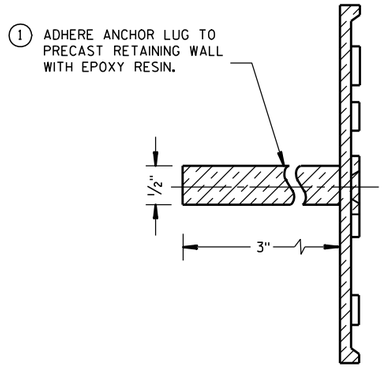
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

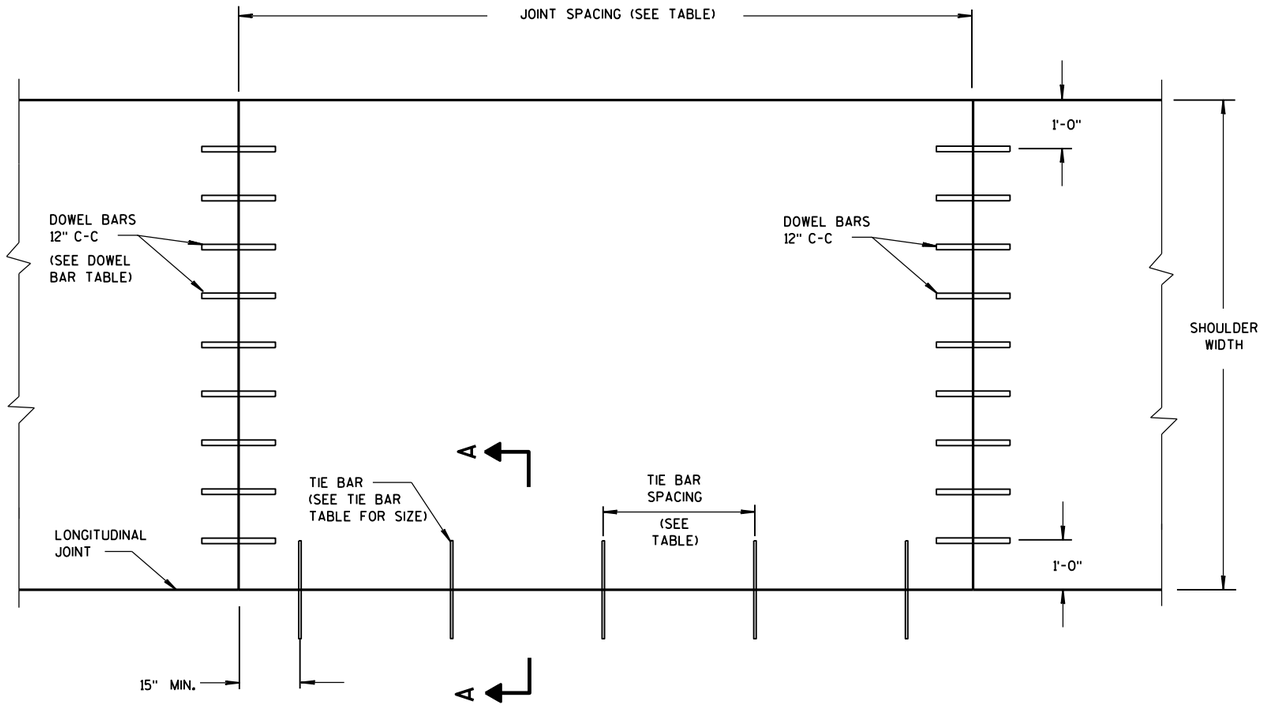
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

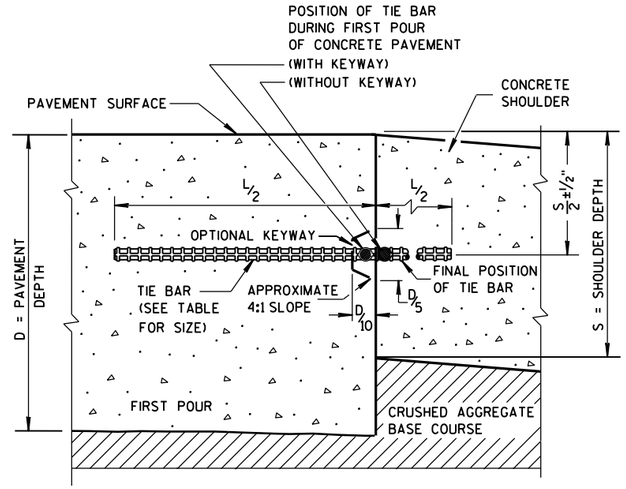
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

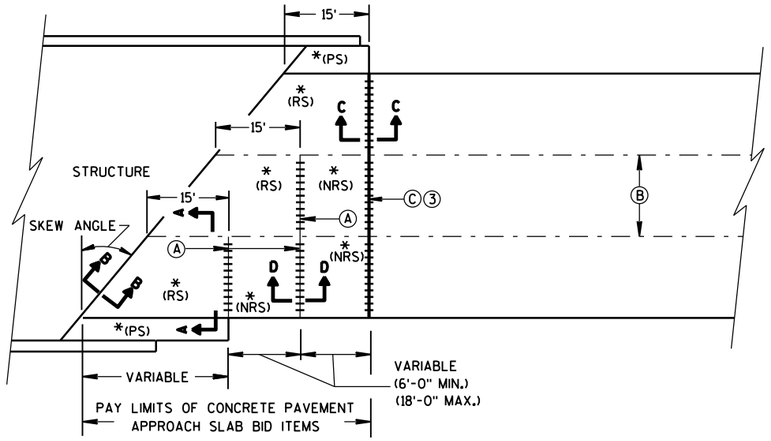
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEF
FHWA

6

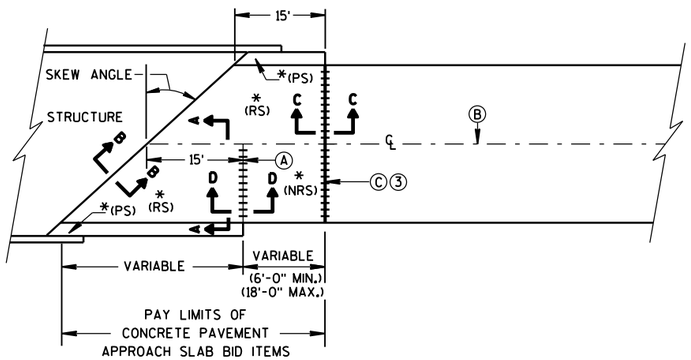
S.D.D. 13 A 3-6

6

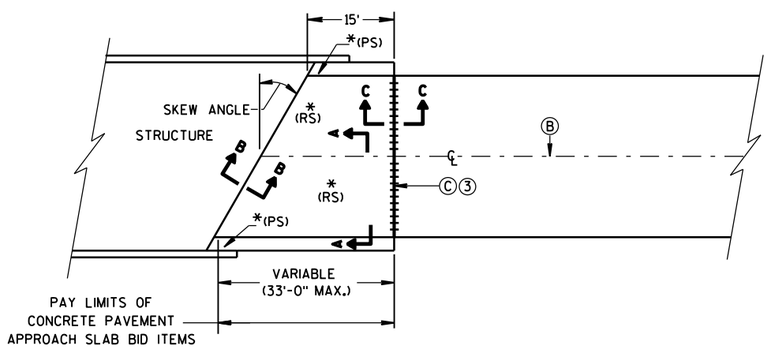
S.D.D. 13 A 3-6



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

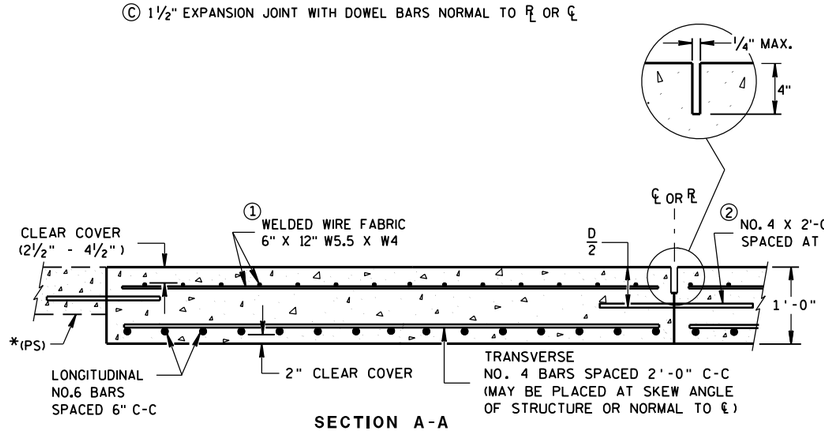
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

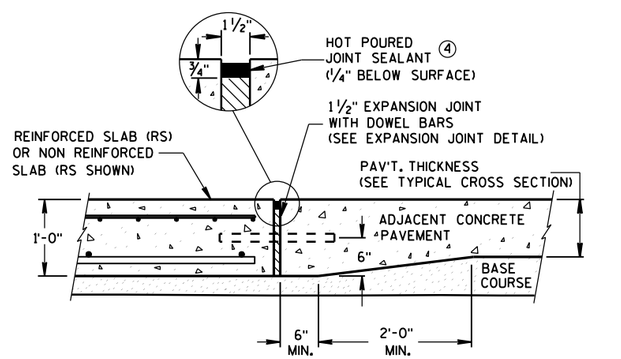
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

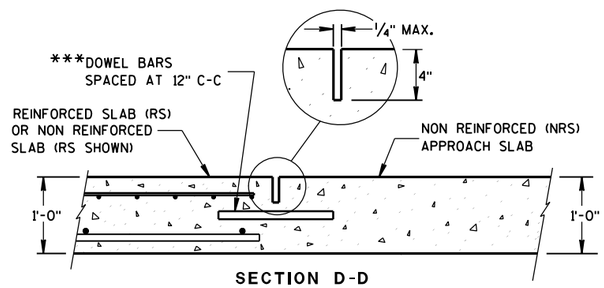
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

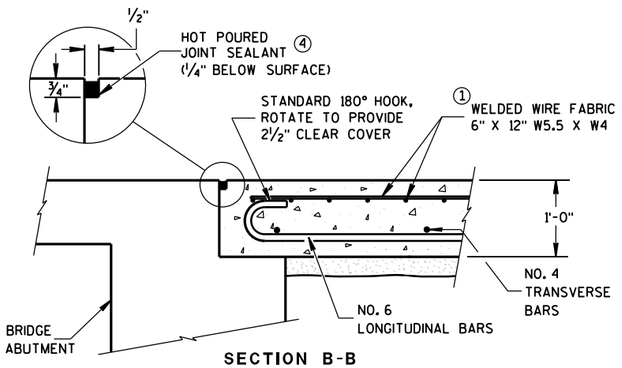
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

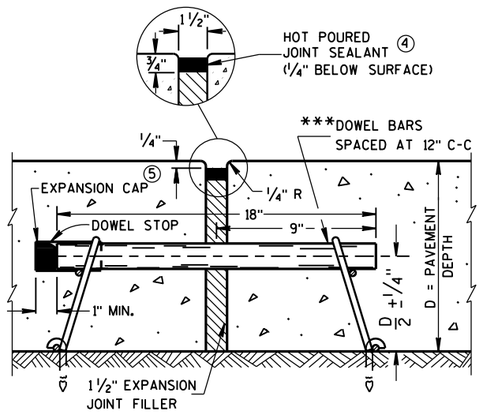
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

6

S.D.D. 13 B 2-8a

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

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

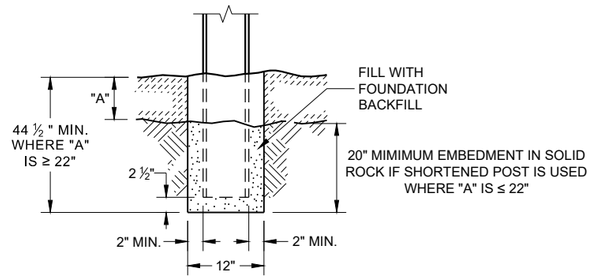
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

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

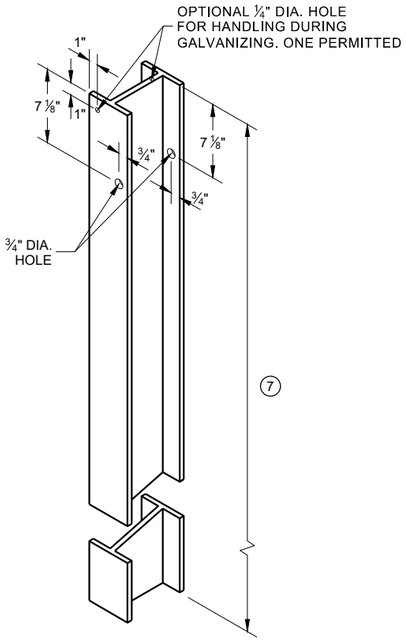
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

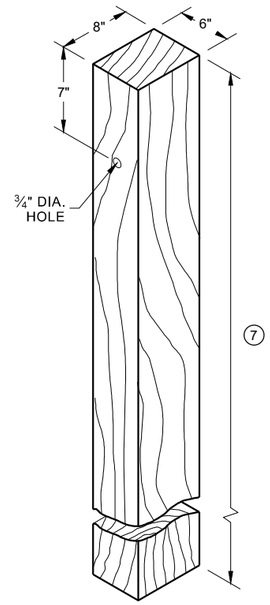
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



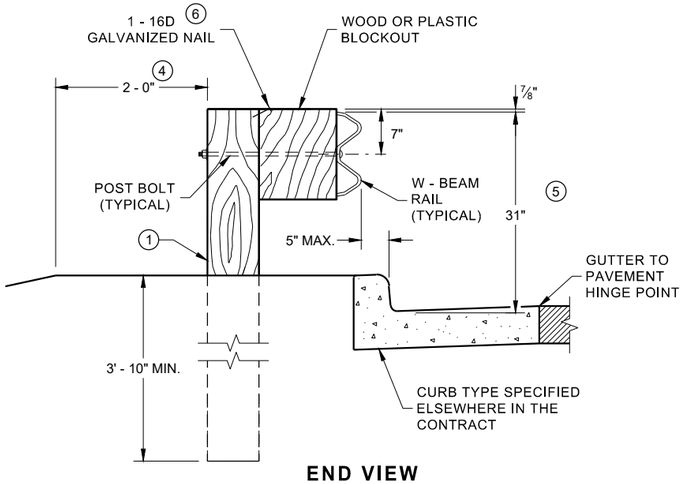
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



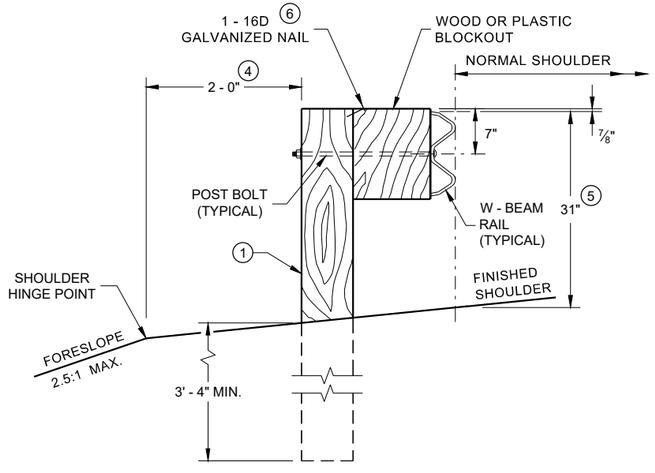
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



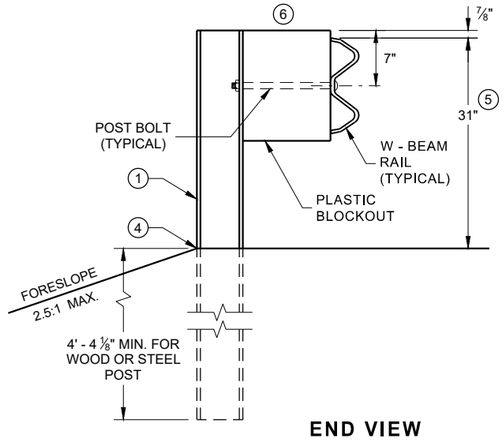
WOOD POST (6" X 8") NOMINAL (1)



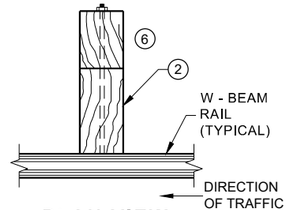
END VIEW
LOCATED ALONG A CURBED ROADWAY



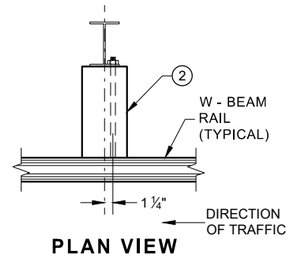
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



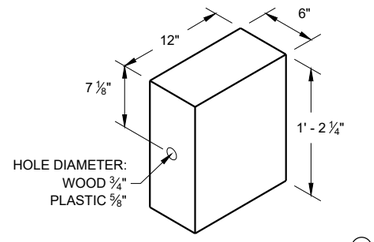
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 06a

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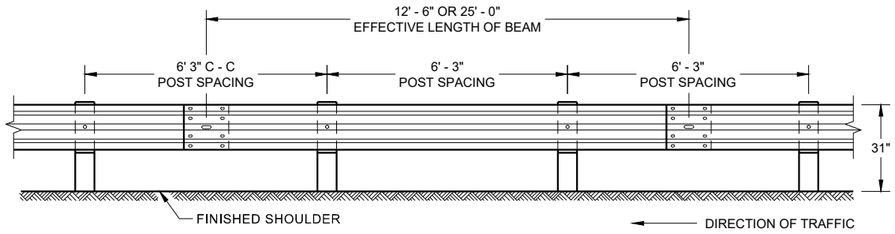
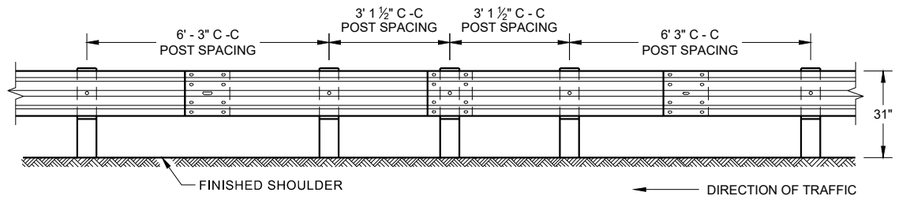
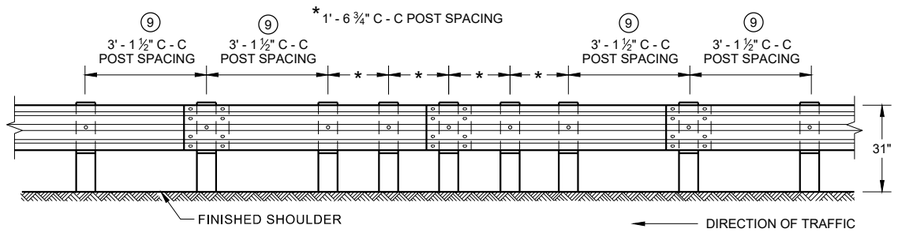
SDD 14B42 - 06a



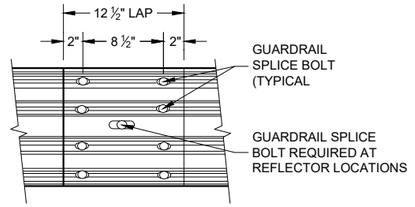
FRONT VIEW
POST SPACING STANDARD INSTALLATION



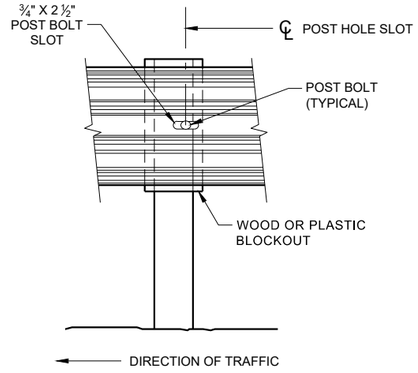
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



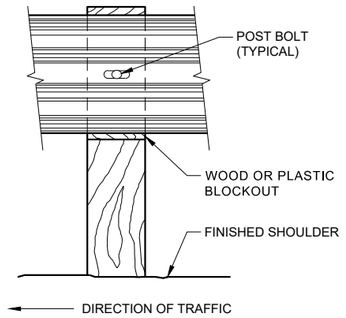
FRONT VIEW
QUARTER POST SPACING (QS)



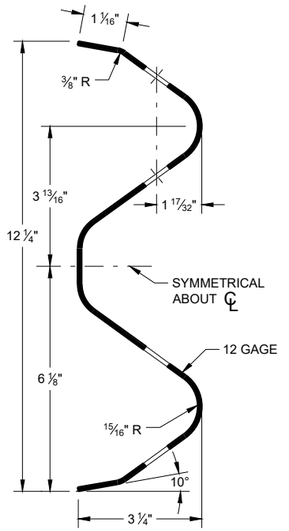
FRONT VIEW
MID-SPAN BEAM SPLICE



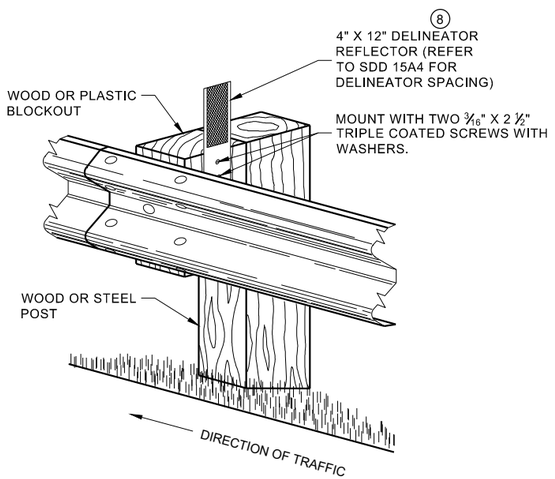
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

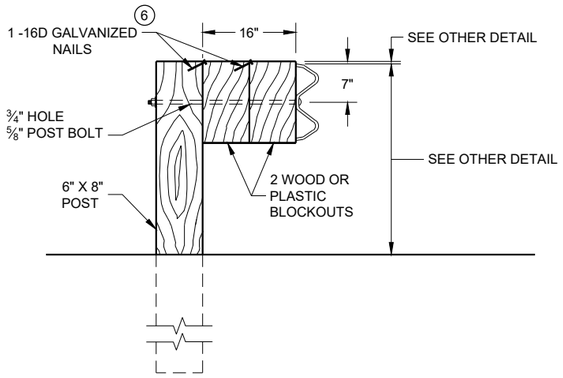
POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

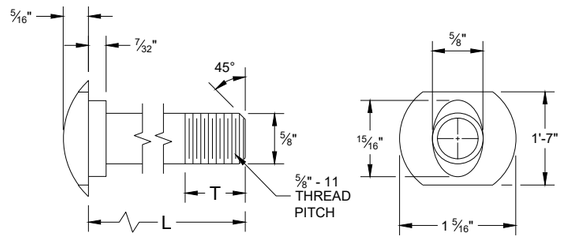


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

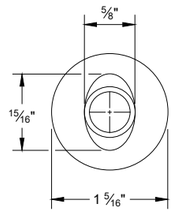
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

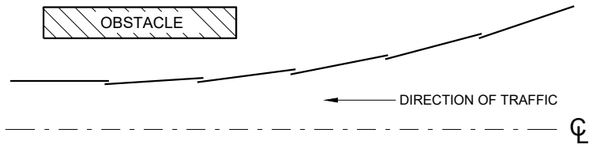


POST BOLT TABLE

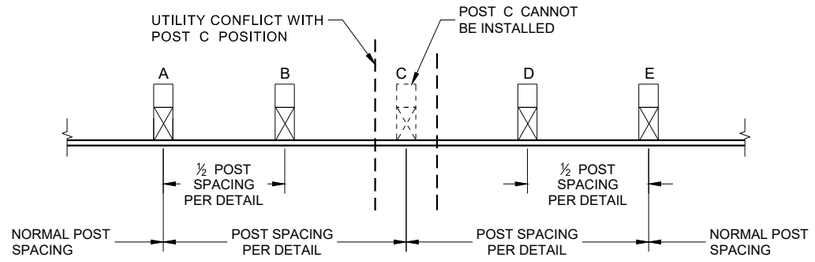
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



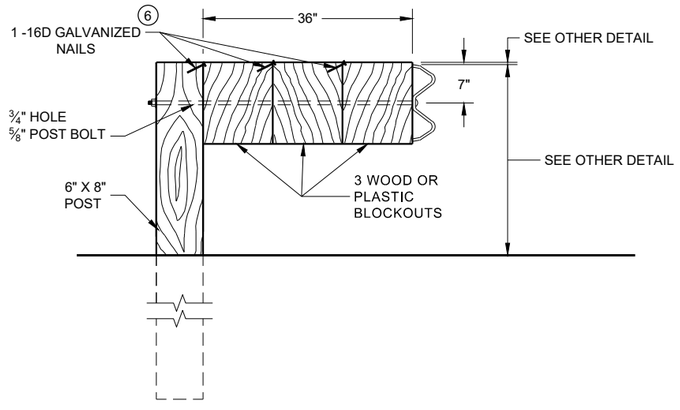
ALTERNATE BOLT HEAD



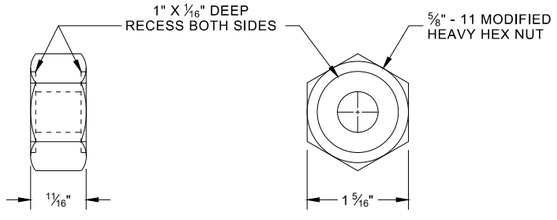
PLAN VIEW
BEAM LAPPING DETAIL



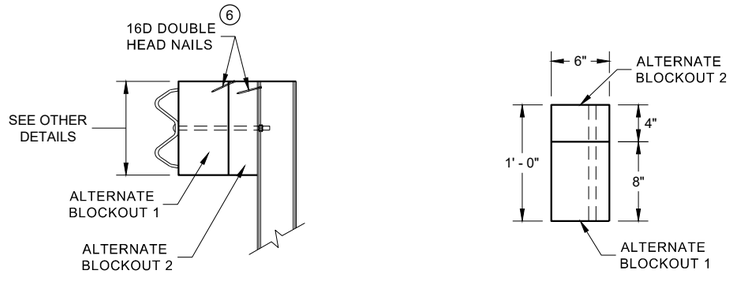
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

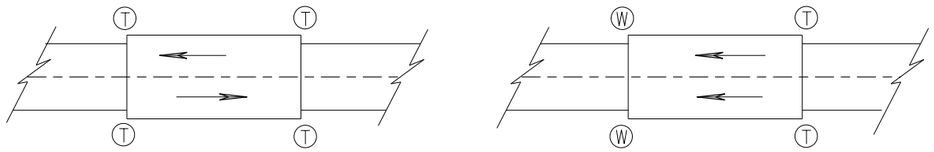
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

SDD 14B42 - 06c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

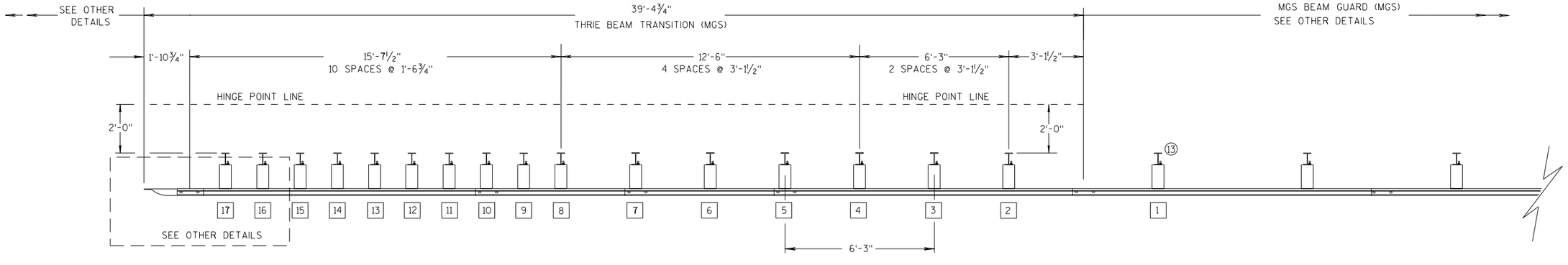
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

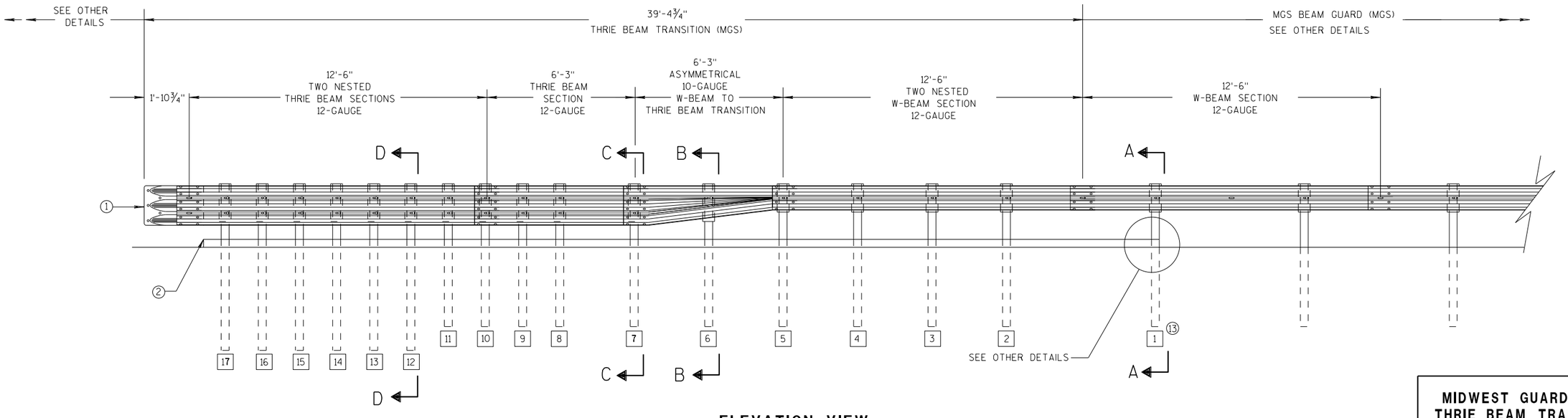
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

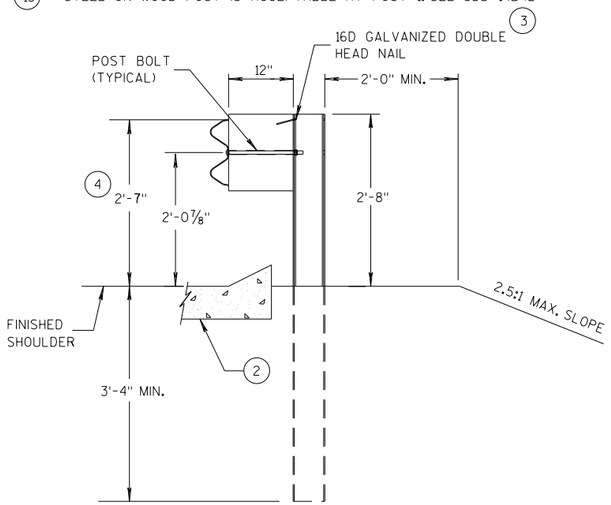
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

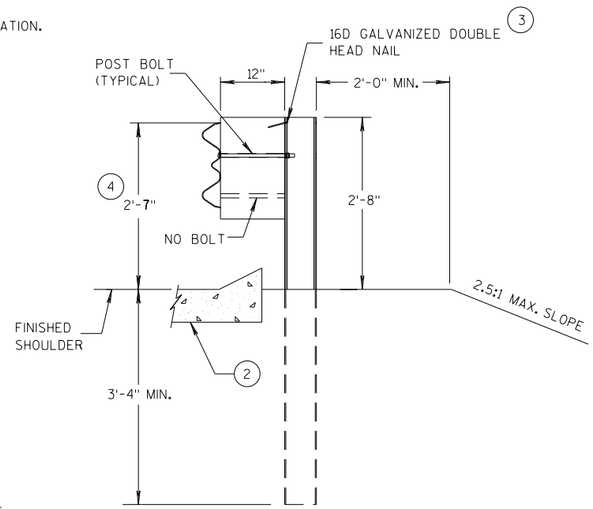
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



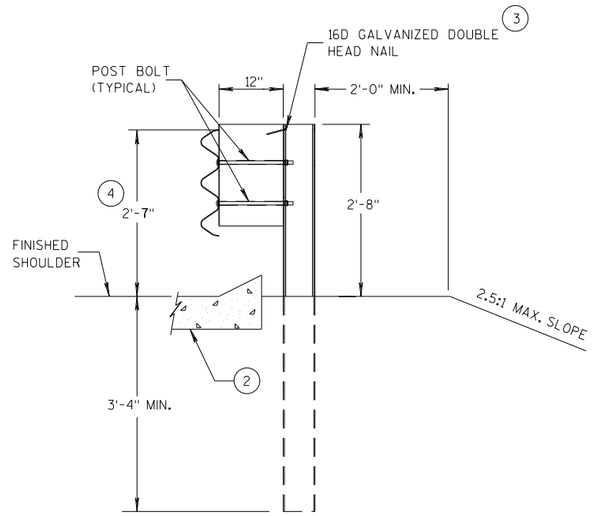
SECTION A-A (13)

POSTS 1-5



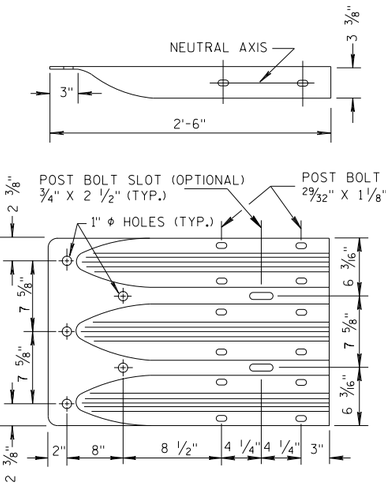
SECTION B-B

POST 6

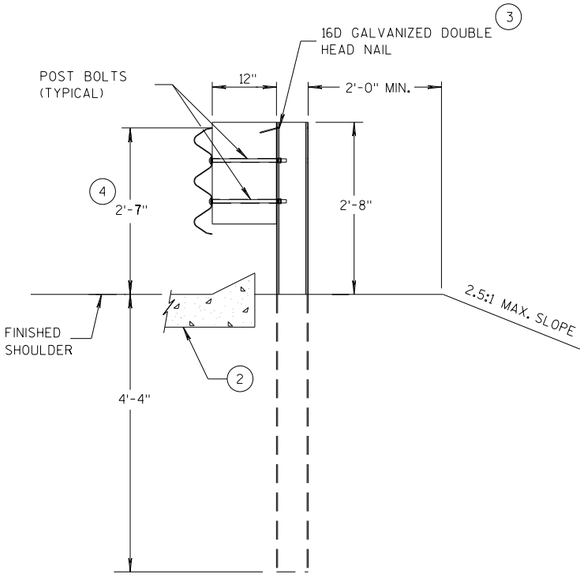


SECTION C-C

POSTS 7-11

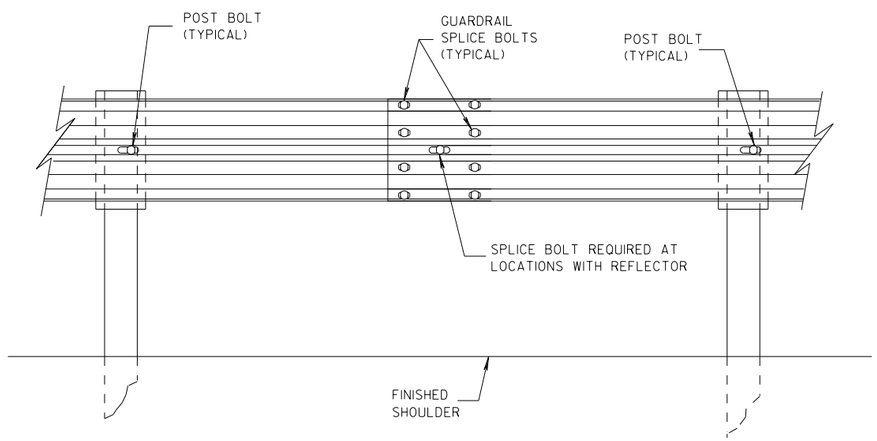


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

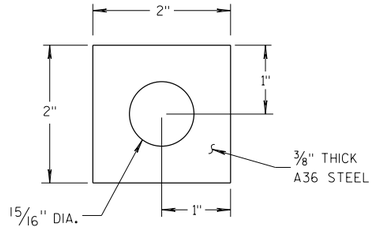
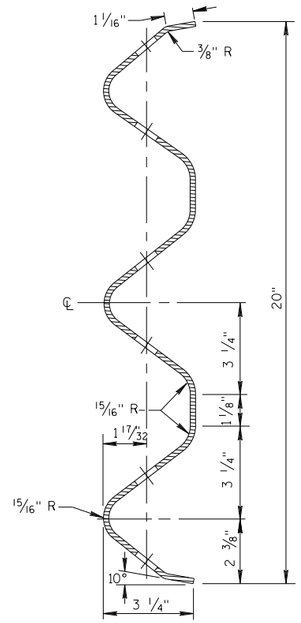


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 22

6

S.D.D. 14 B 45-5b

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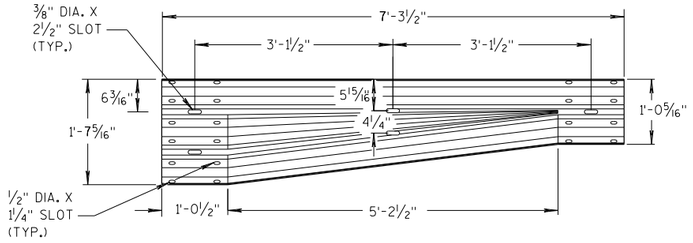
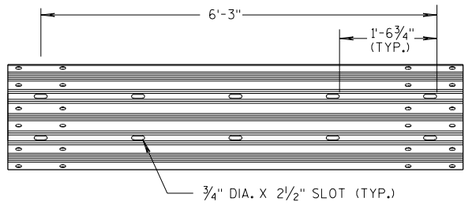
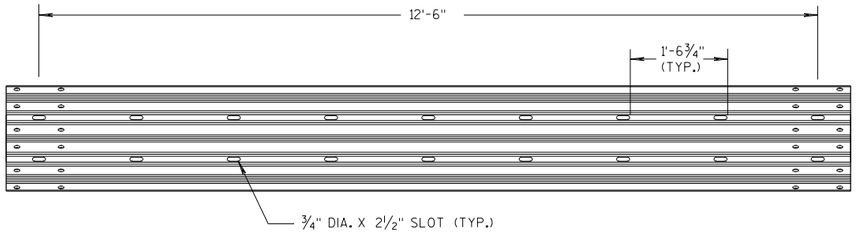
S.D.D. 14 B 45-5b



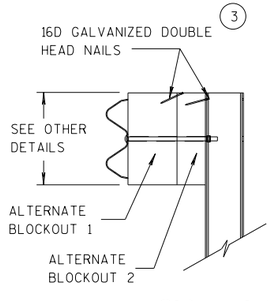
W-BEAM TO THRIE BEAM TRANSITION SECTION



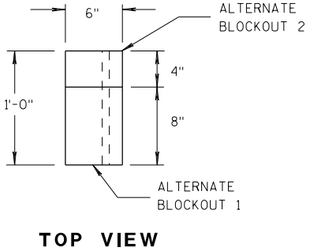
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

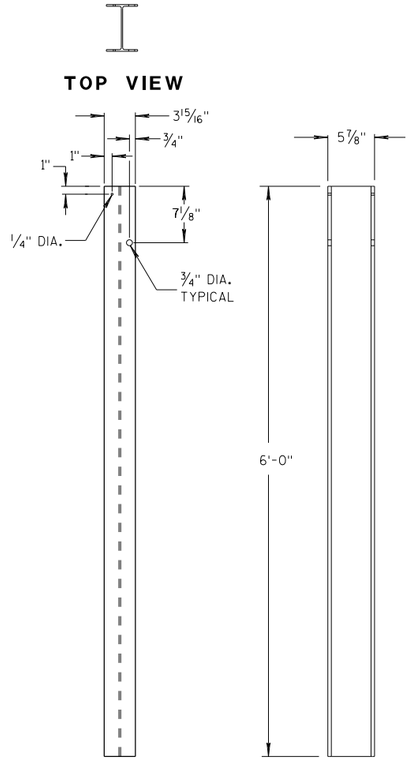


SIDE VIEW



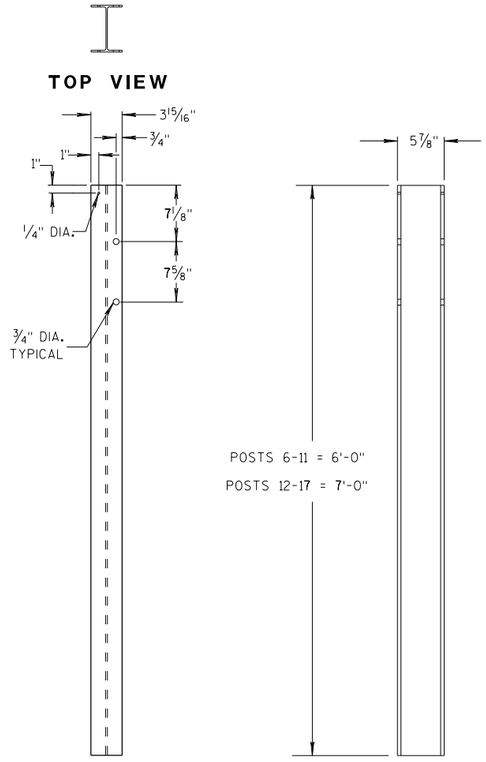
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



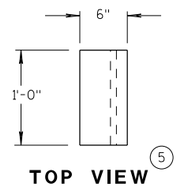
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

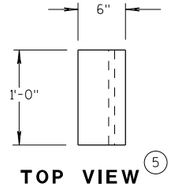


FRONT VIEW SIDE VIEW

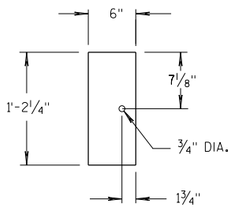
STEEL POSTS 6-17



TOP VIEW (5)

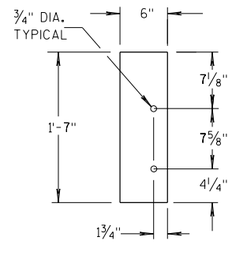


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

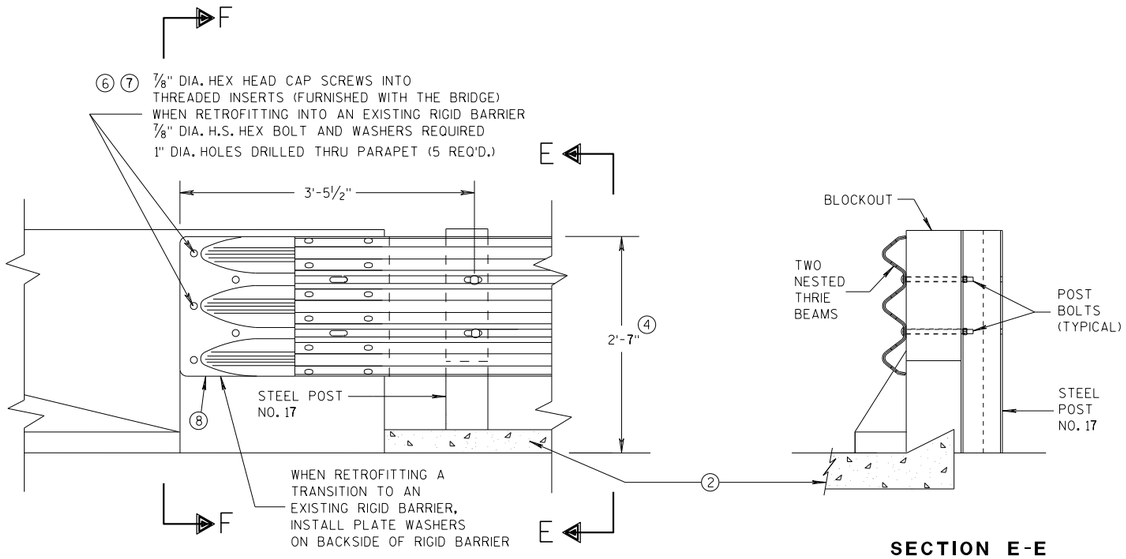
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 23

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

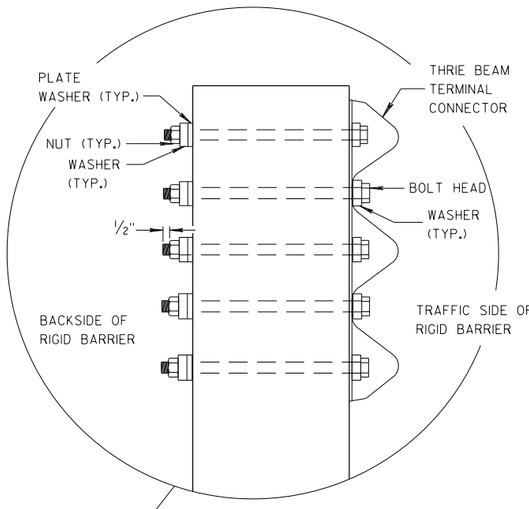
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

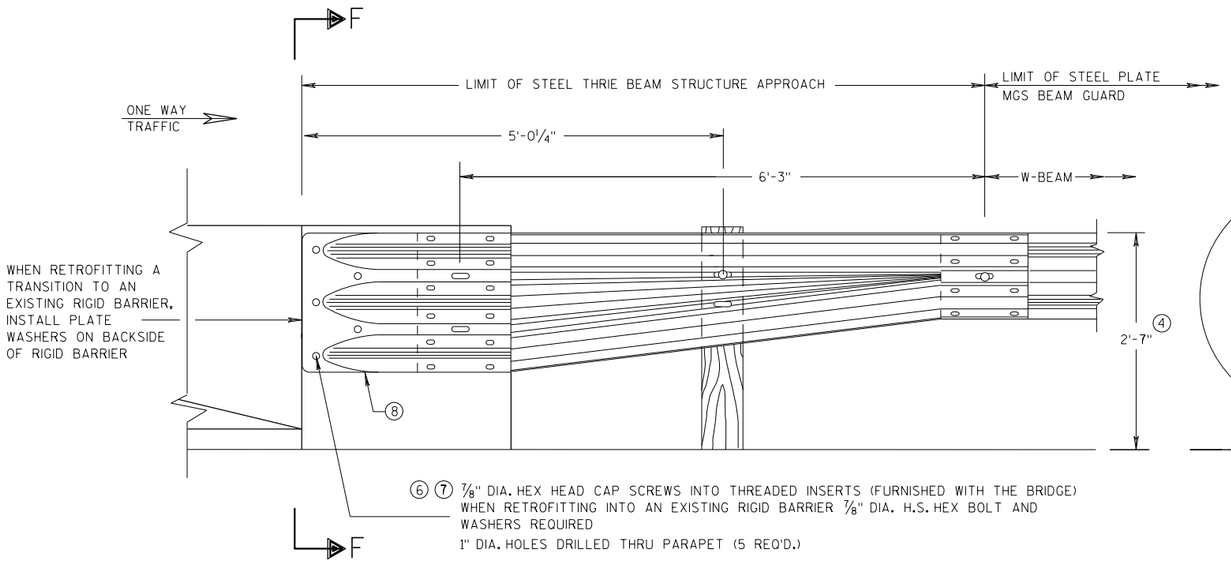
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

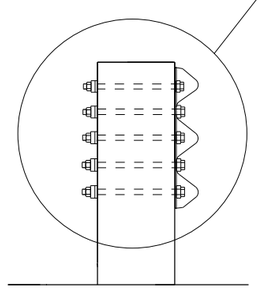
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

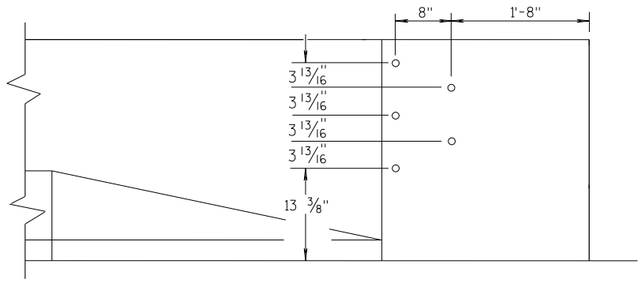




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[UNIT SUPERVIS
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FHWA

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S.D.D. 14 B 45-5d

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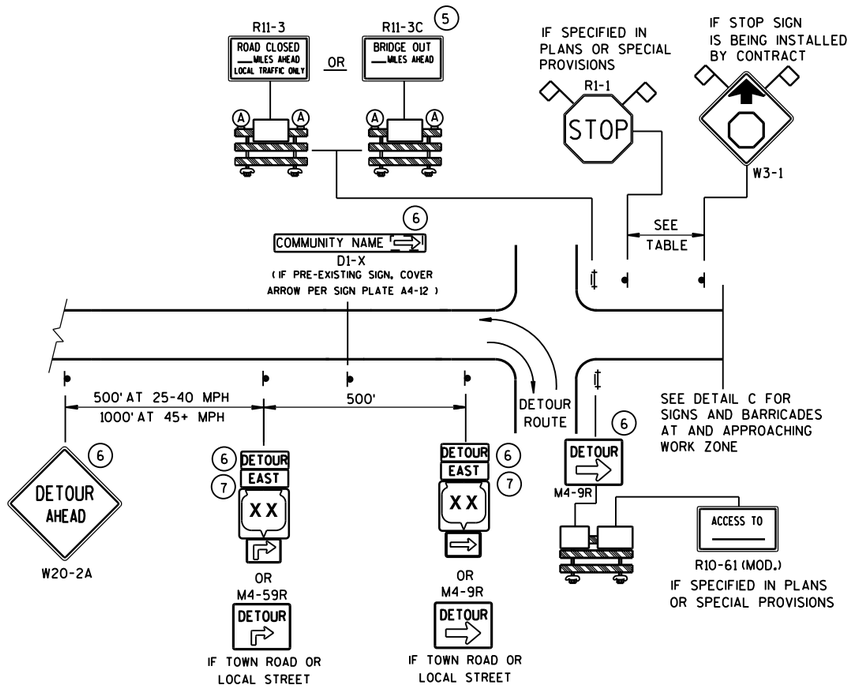
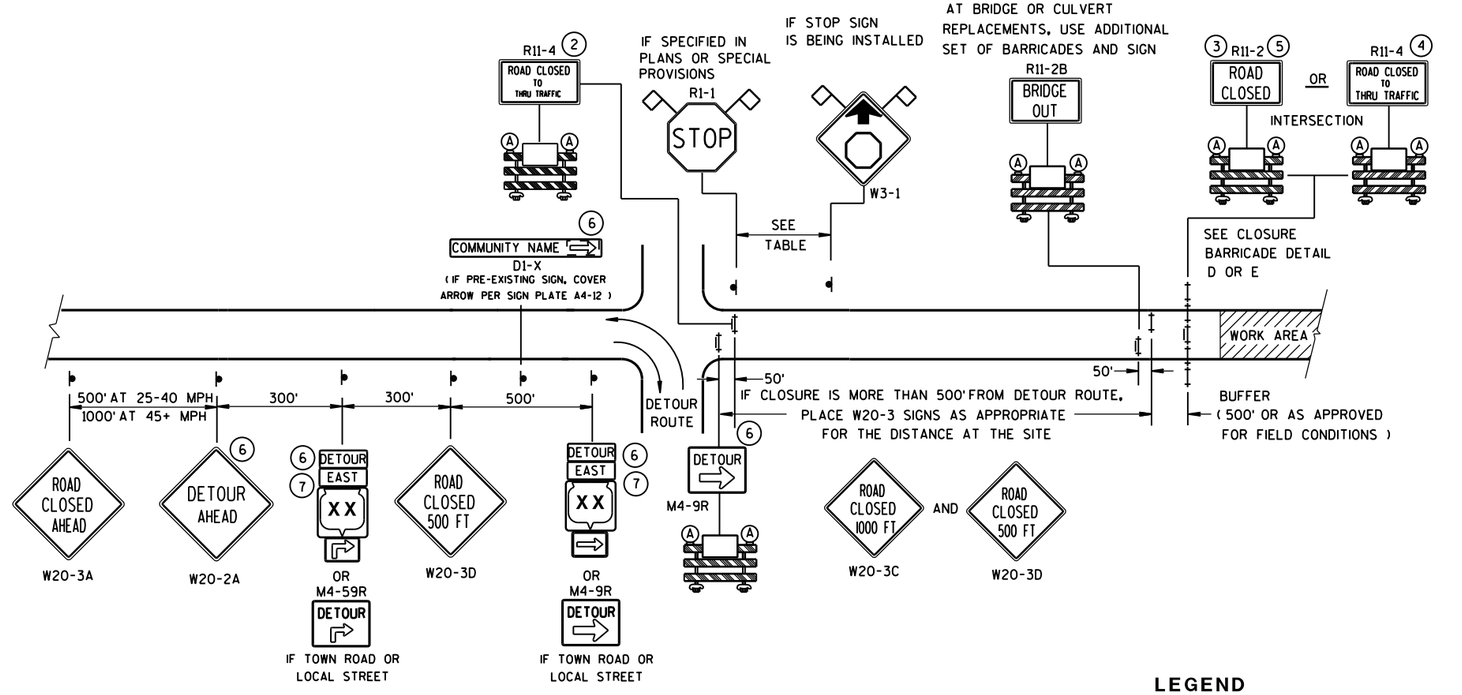
S.D.D. 14 B 45-5d



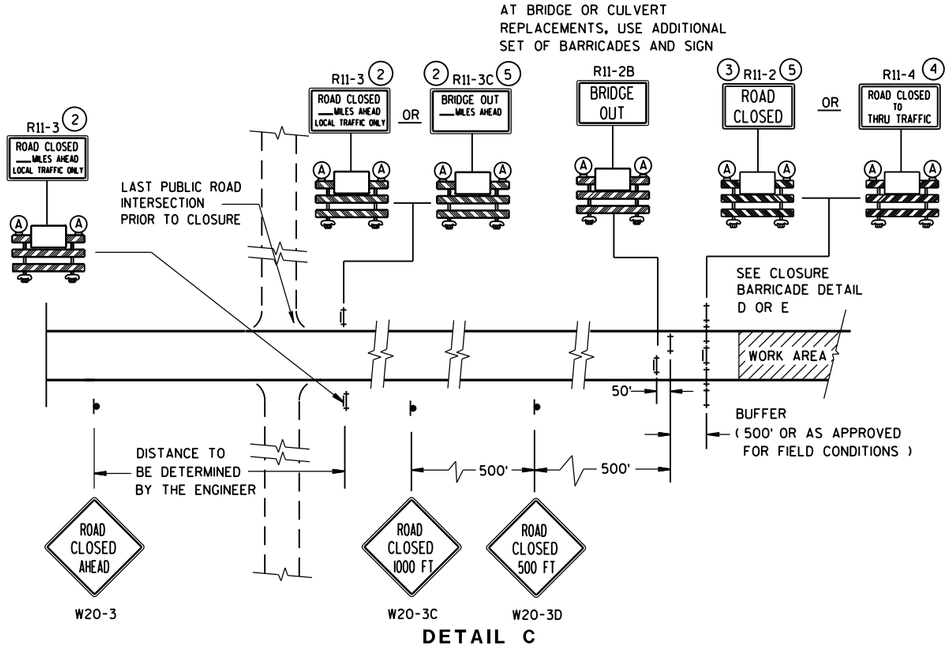
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 C 2-6a

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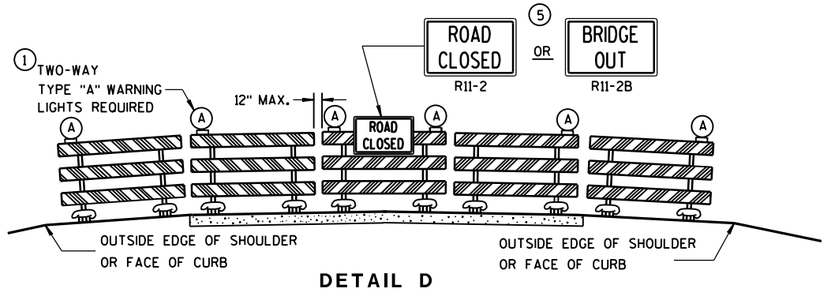
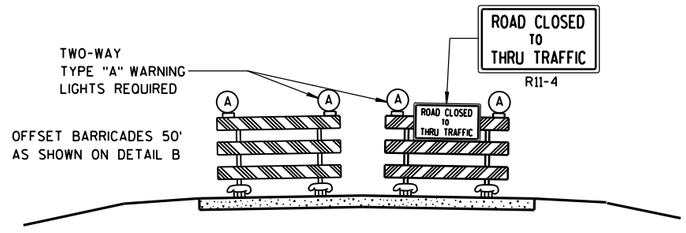
S.D.D. 15 C 2-6a



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

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

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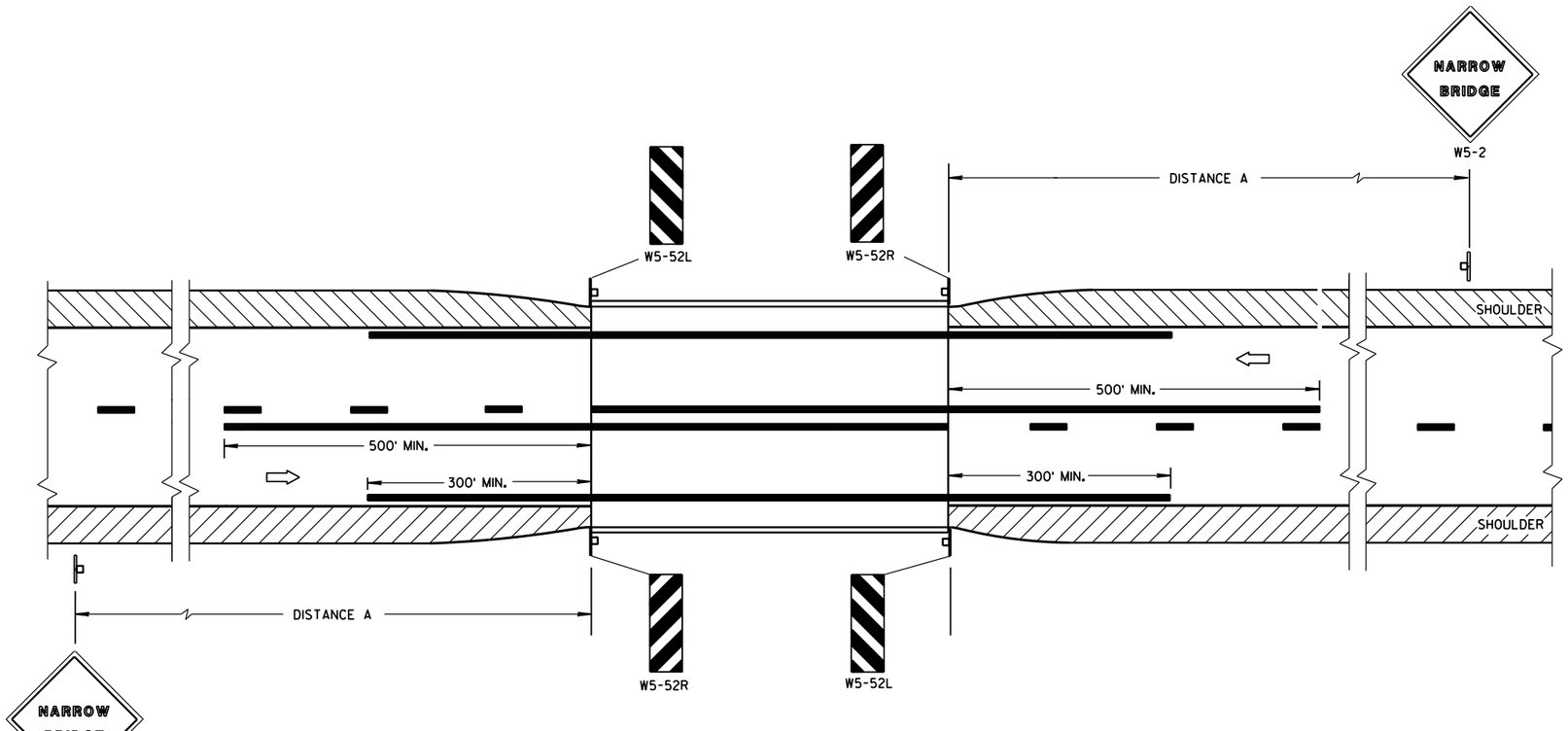
S.D.D. 15 C 2-6b



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

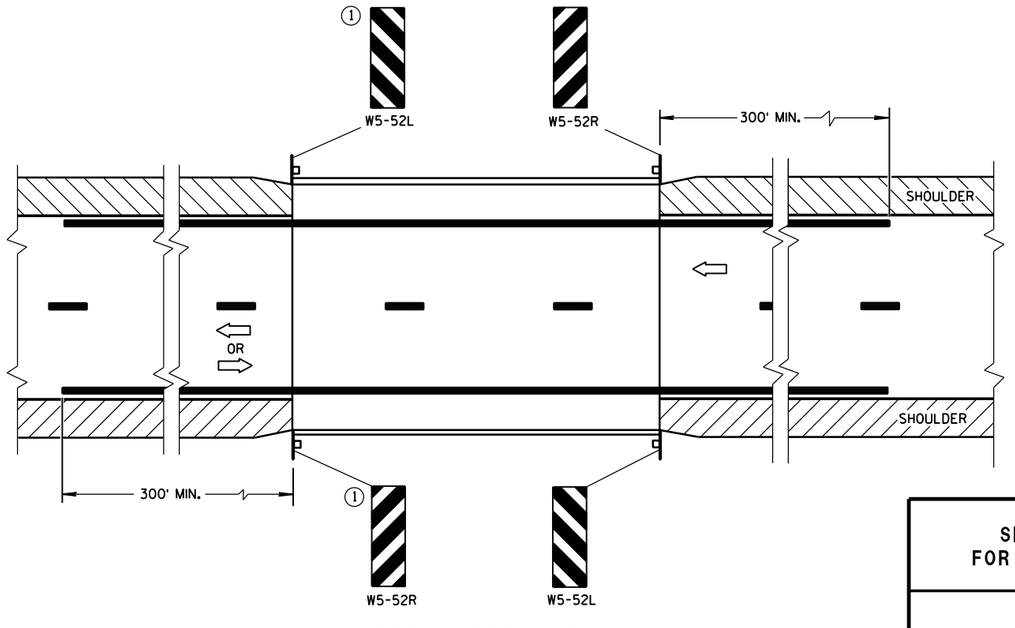
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]ENGINEER
FHWA

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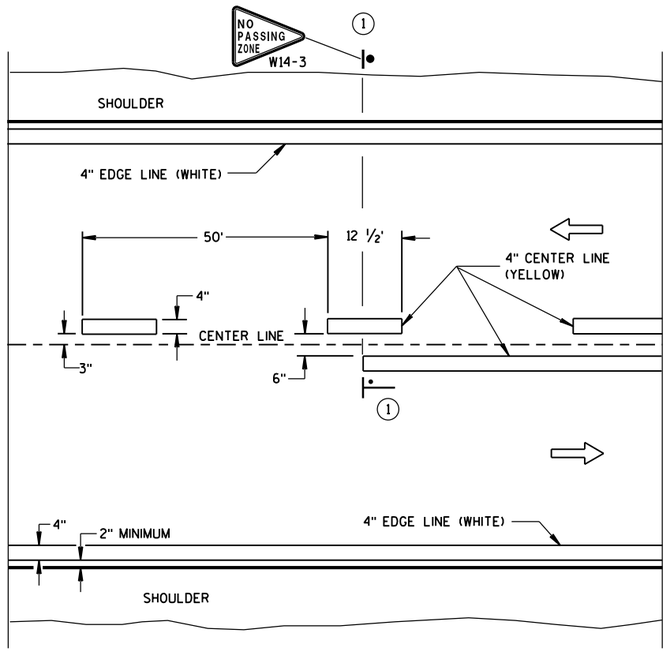
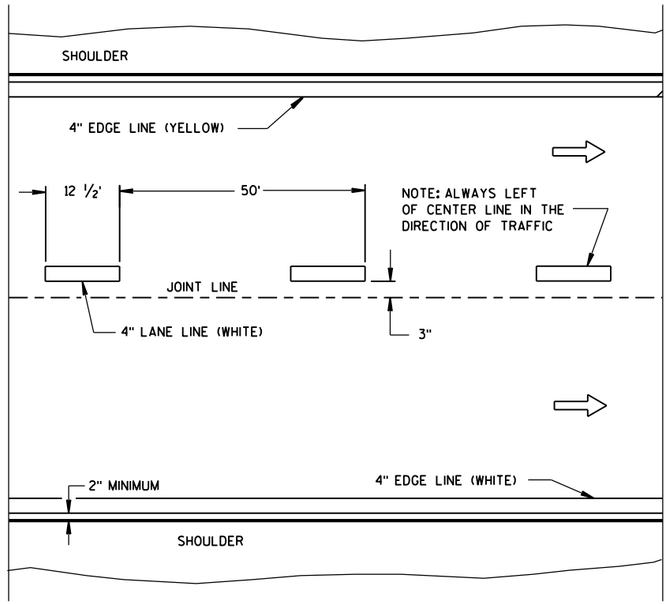
S.D.D. 15 C 6-9

6

S.D.D. 15 C 6-9



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

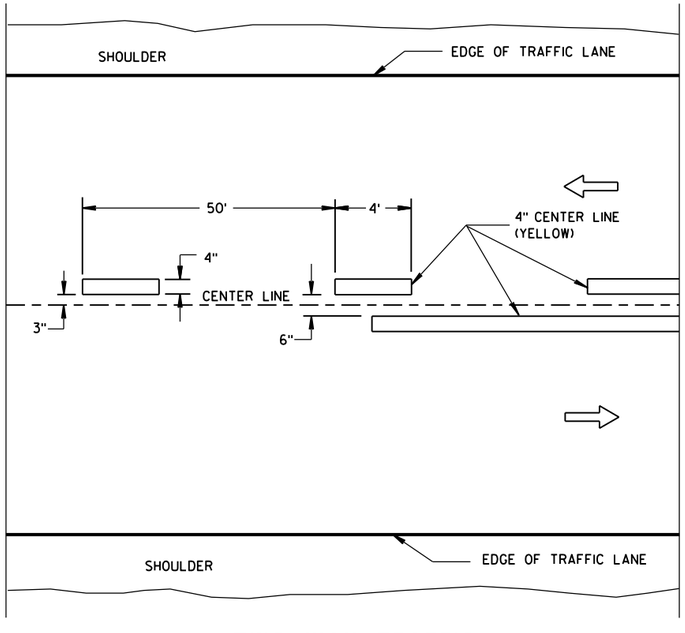
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

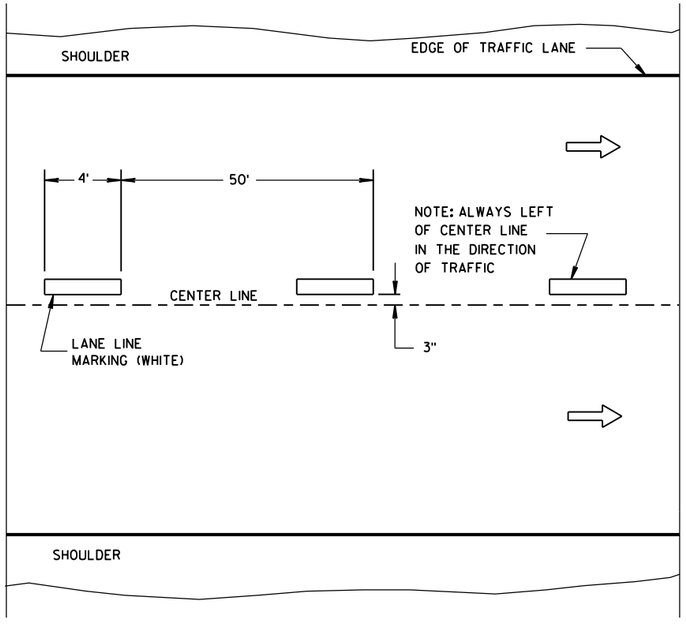
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June 2017 — DATE /S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]INEER FHWA

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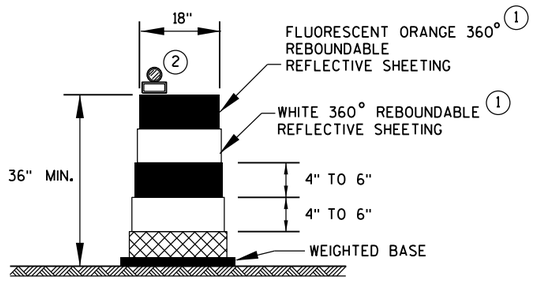
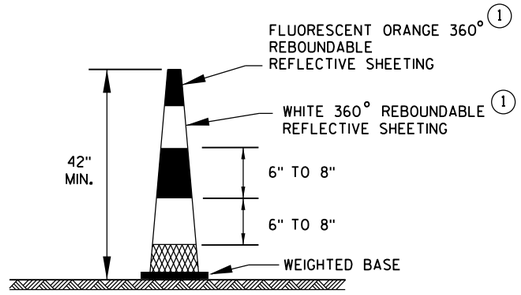
S.D.D. 15 C 8-18a



DRUM

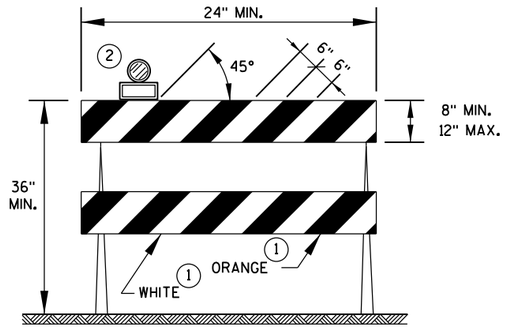


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

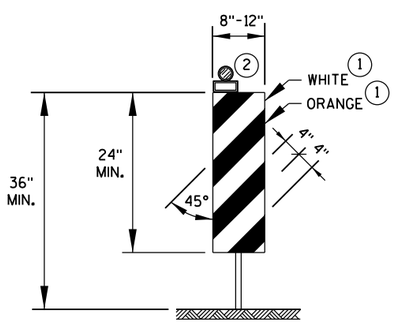
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



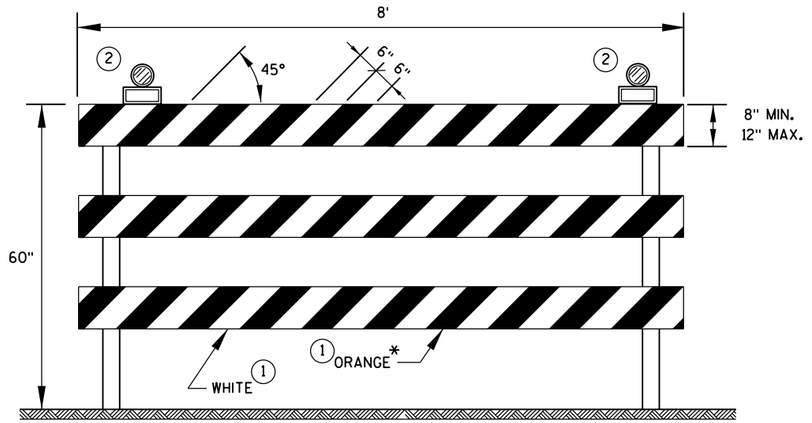
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

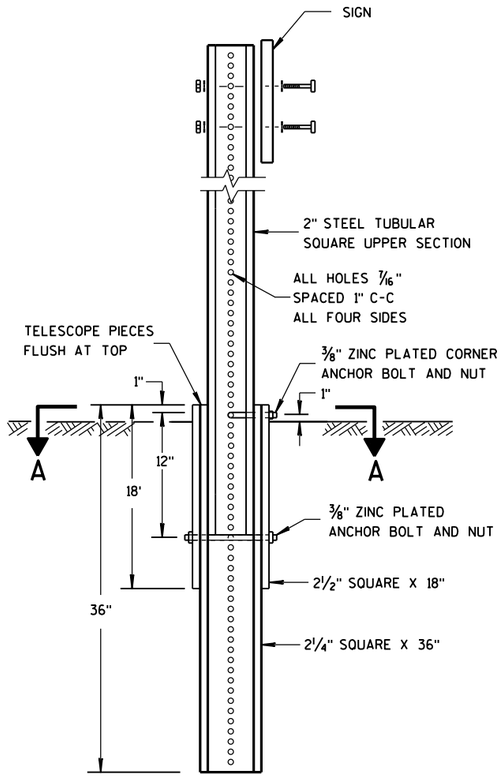
APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

6

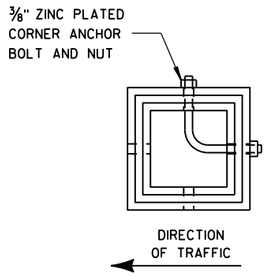
S.D.D. 15 C 11-7b

6

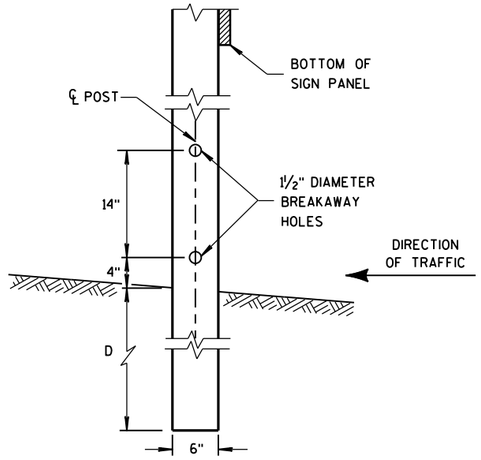
S.D.D. 15 C 11-7b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



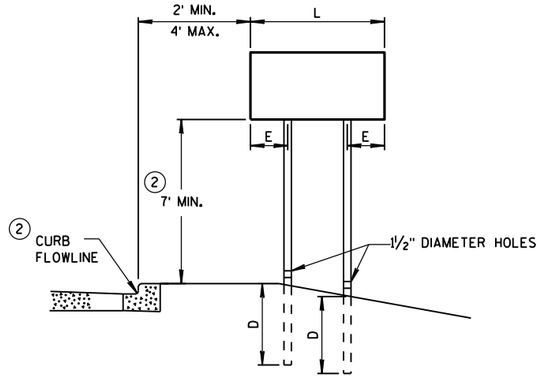
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

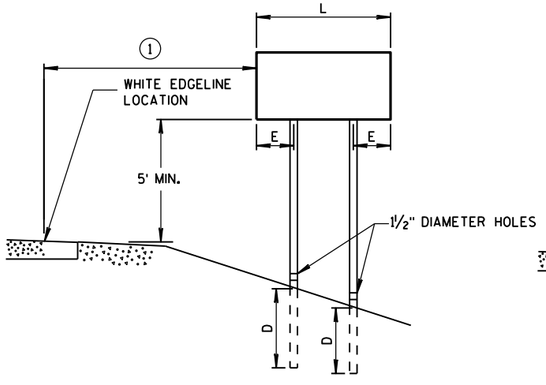
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

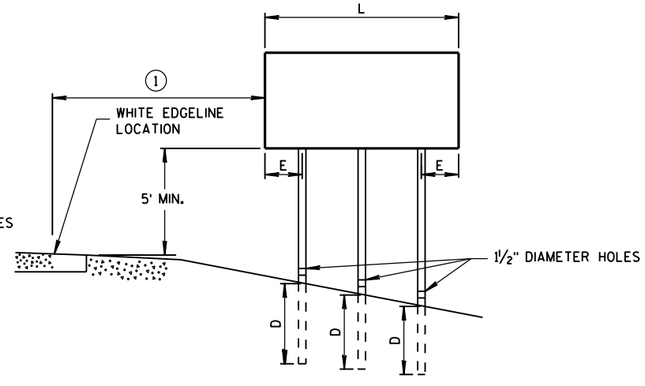
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

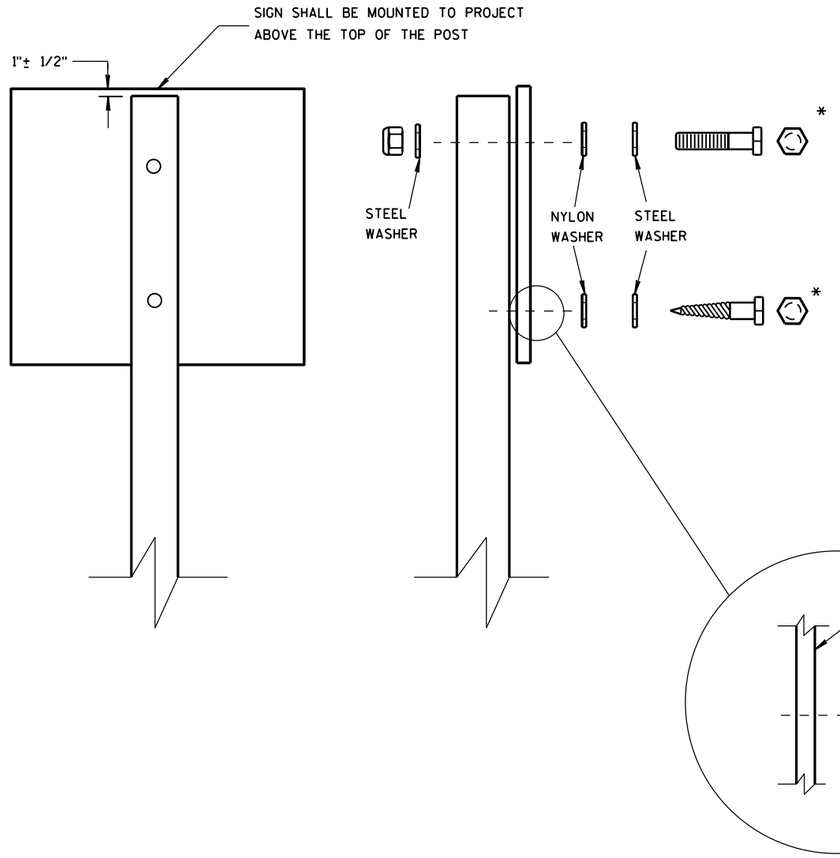
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

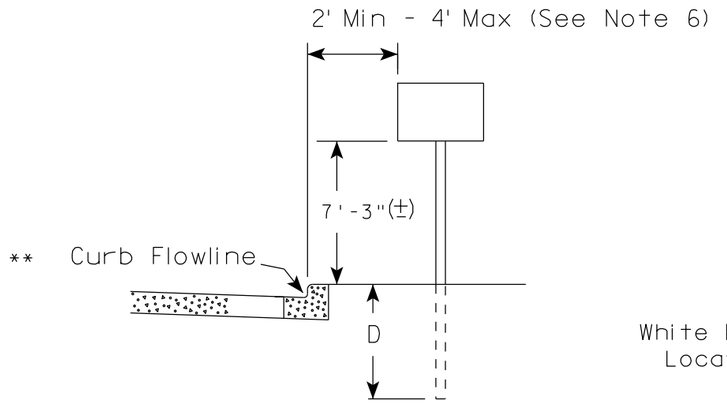
APPROVED

June 2017
DATE

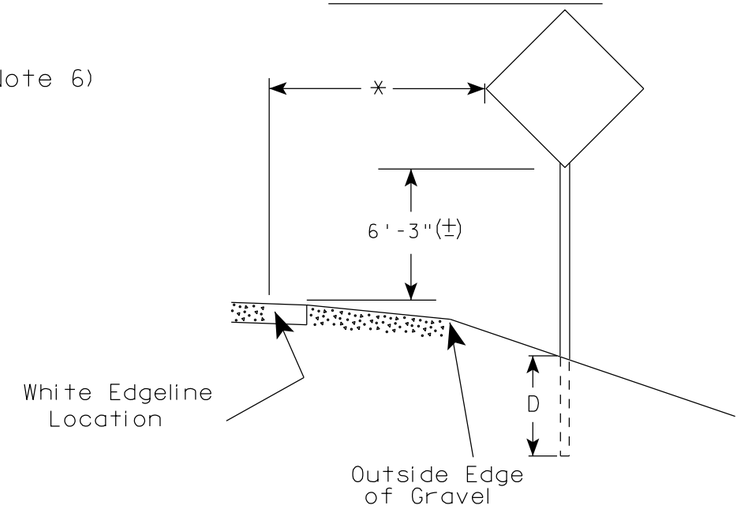
/S/ Andrew Heldtke
WORK ZONE ENG

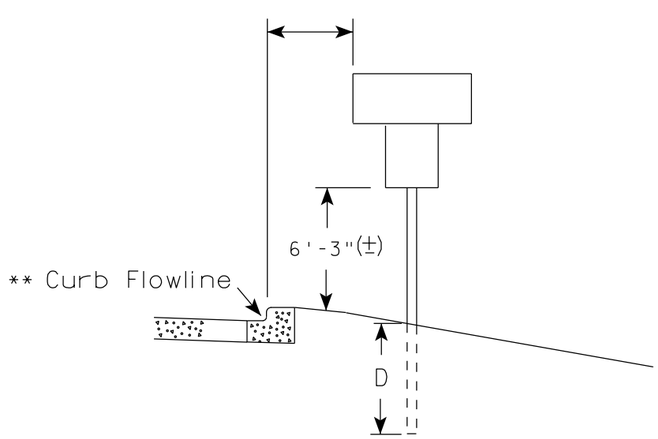
FHWA

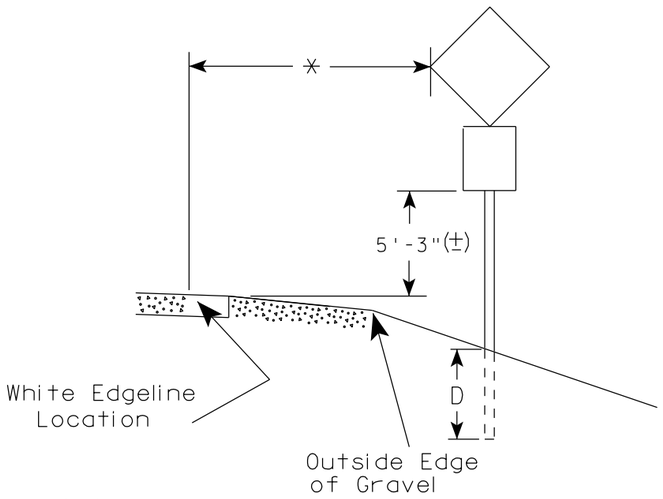
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 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 (A2-1S) 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 signs shall be mounted at a height of 5'-3" (±) or as directd 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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'

** 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.

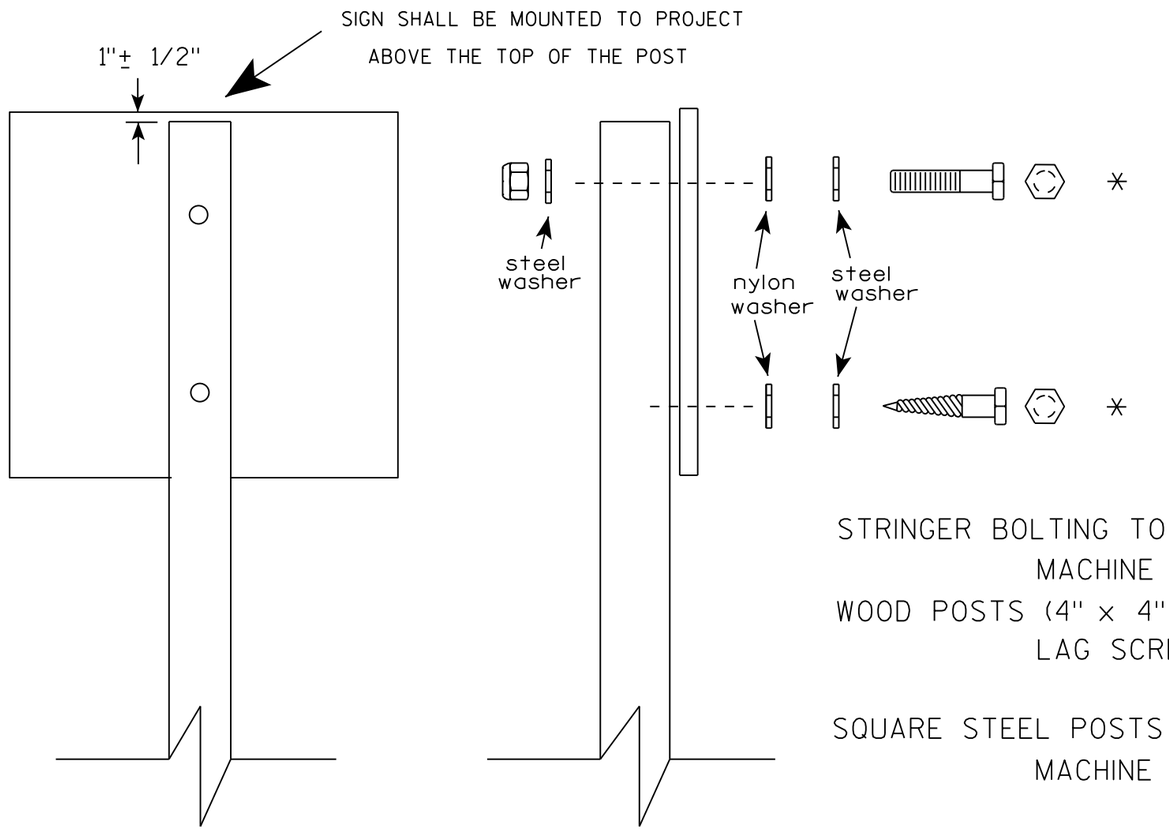
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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

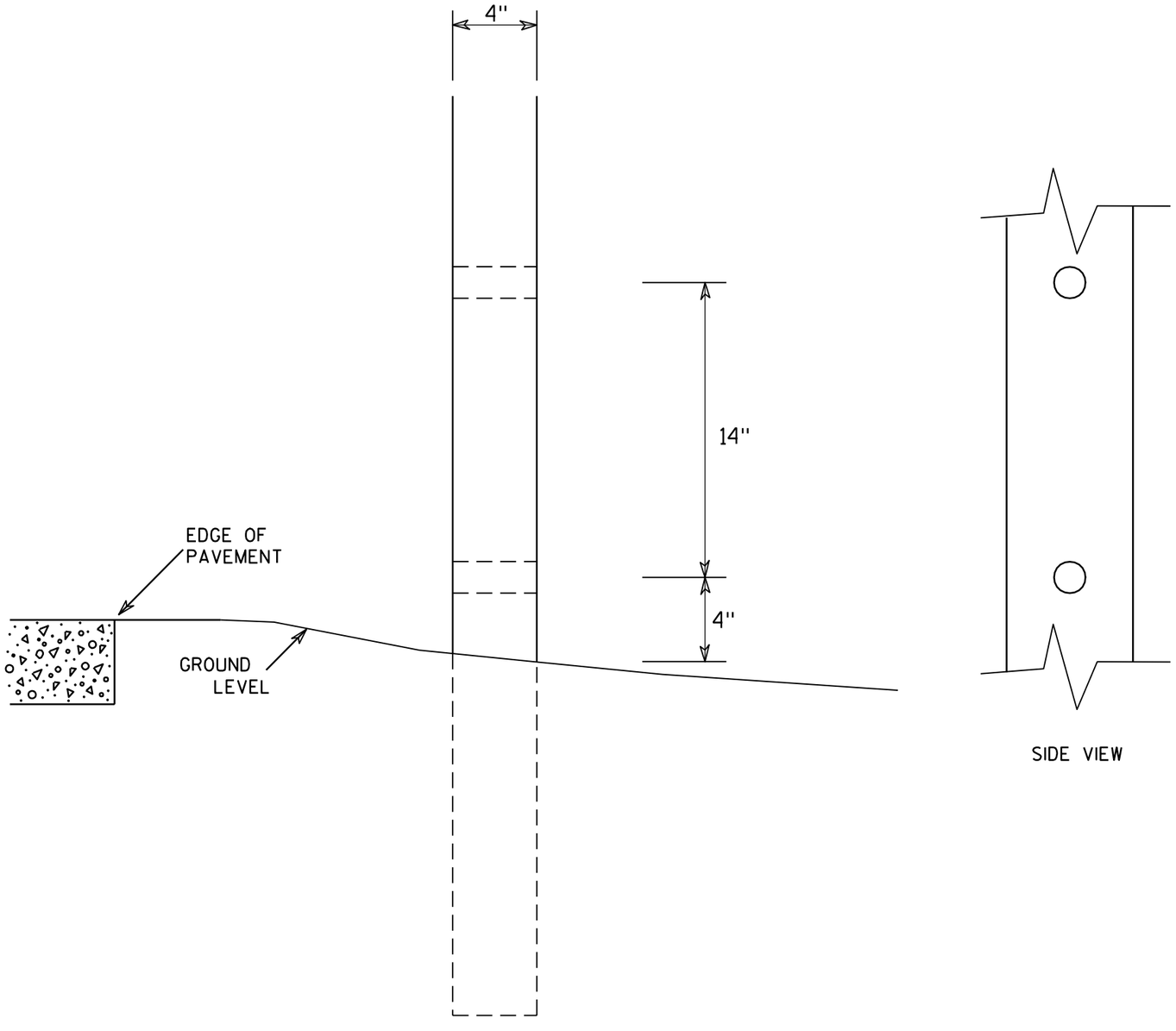
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



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

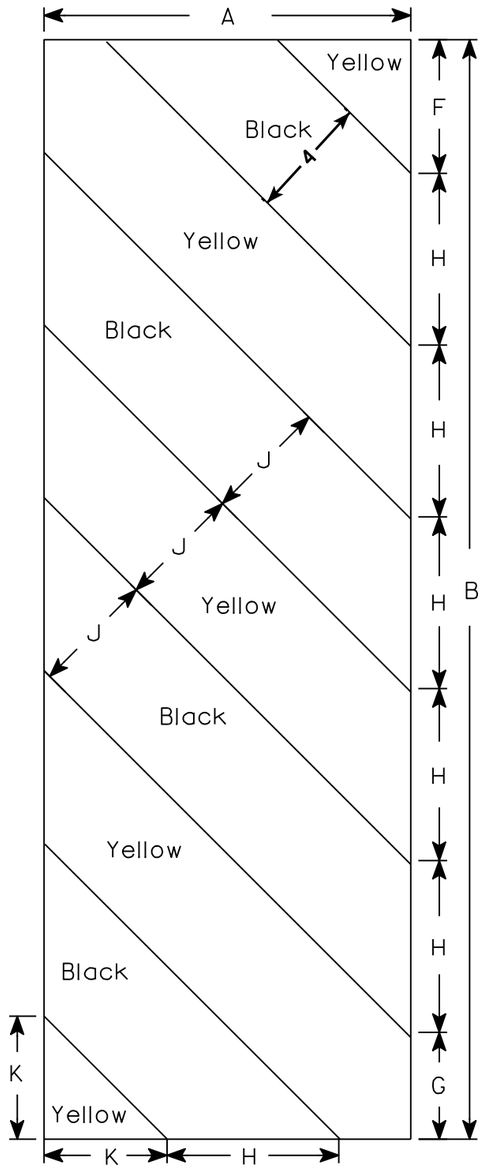
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

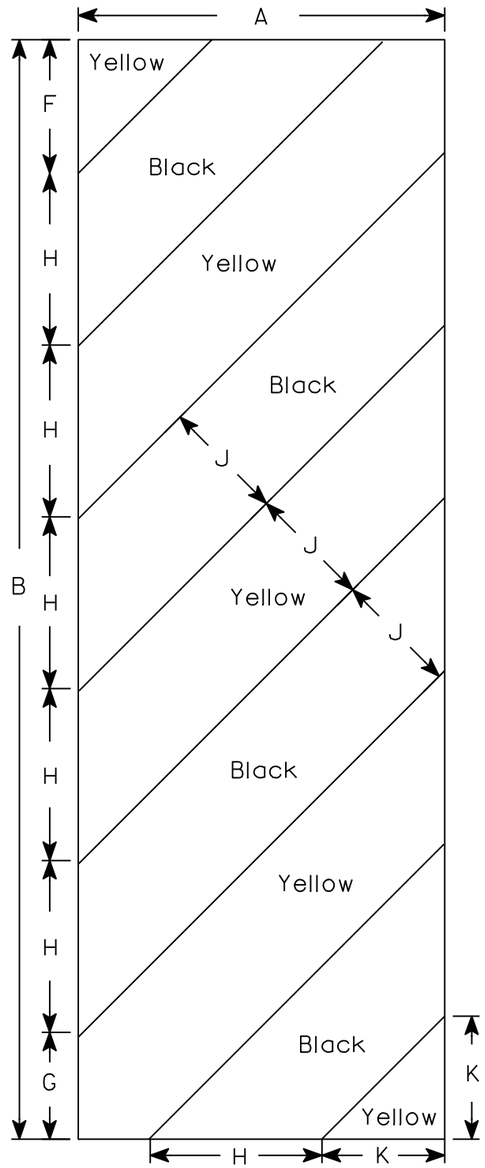
APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 34	E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

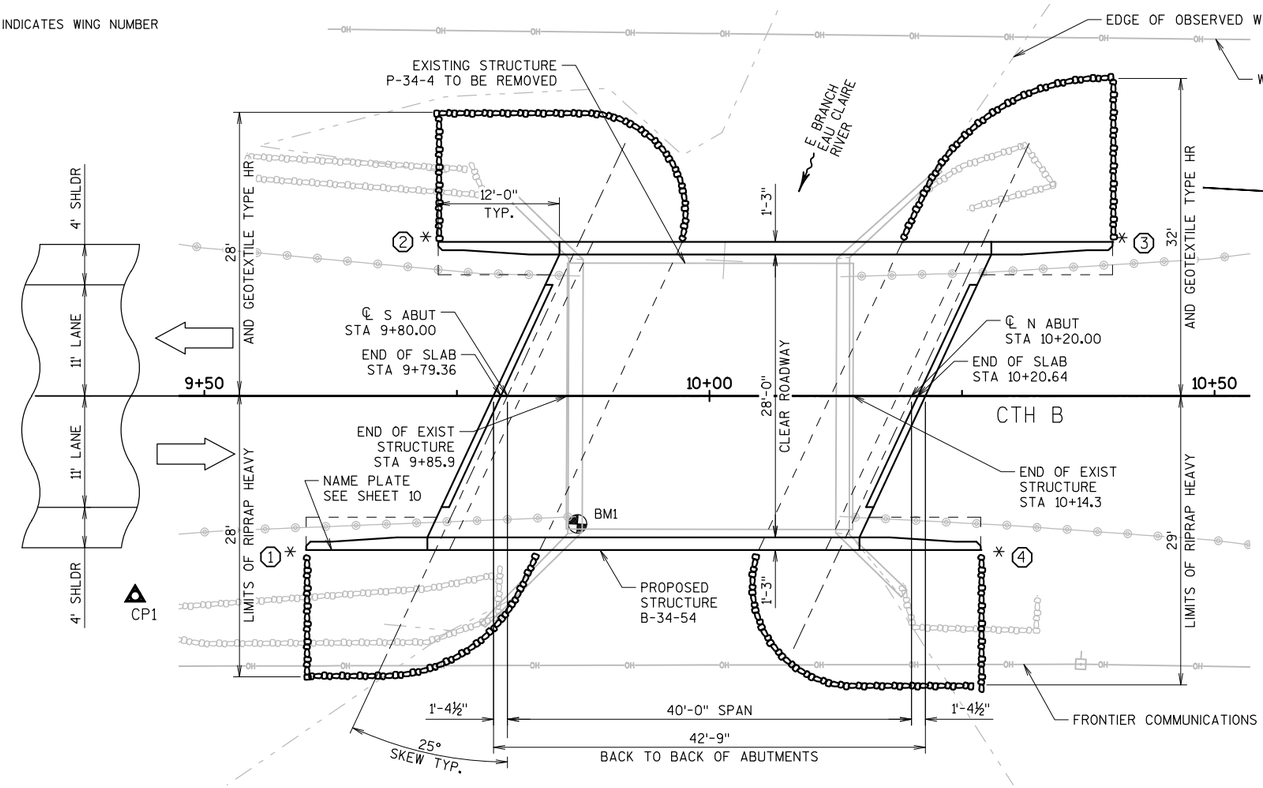
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 35 | E

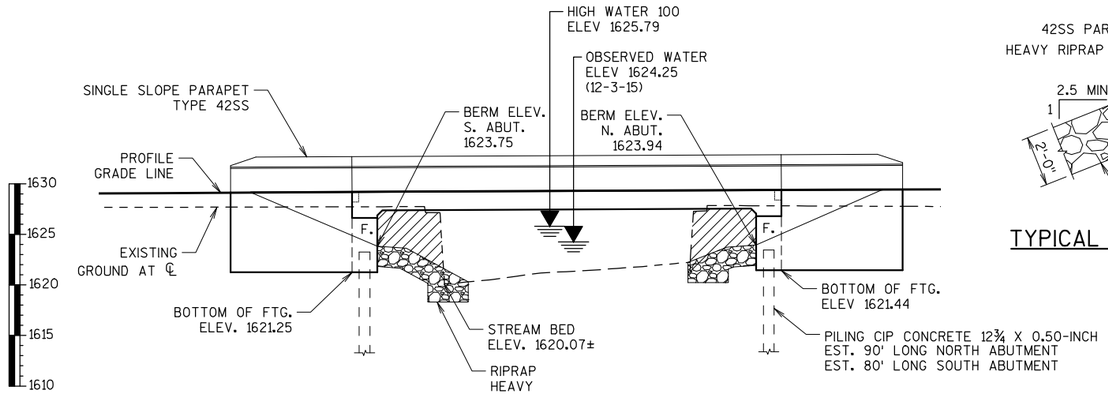
✳ ANCHOR ASSEMBLY FOR MGS THRIE BEAM GUARD

◯ INDICATES WING NUMBER



PLAN

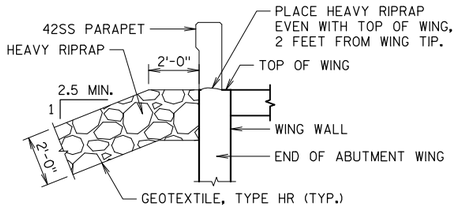
(SINGLE SPAN CONCRETE FLAT SLAB BRIDGE)



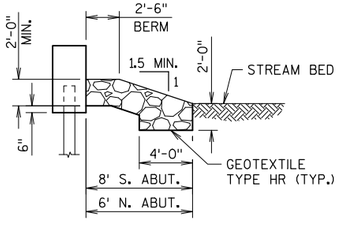
ELEVATION

(LOOKING WEST)

AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES B-34-54"



TYPICAL FILL SECTION AT WING TIPS



RIPRAP DETAIL

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP1	7+96.24	PK NAIL, 14.9' RT	1627.83
BM1	9+86.94	CHISELED SQUARE TOP CONC RAIL S.E.	1630.23
CP2	10+99.92	PK NAIL, 17.2' LT	1626.76

STATE PROJECT NUMBER

9360-00-70

DESIGN DATA

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — 1.07
OPERATIONAL RATING FACTOR — 1.39
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

MATERIAL PROPERTIES

CONCRETE MASONRY, SUPERSTRUCTURE — f'c = 4,000 PSI
ALL OTHER — f'c = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 PSI

TRAFFIC DATA

ADT (2018) = 740
ADT (2038) = 910
DESIGN SPEED = 55 MPH

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 12 ¾ X 0.50-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 135* TONS AND 115* TONS AT THE NORTH AND SOUTH ABUTMENTS, RESPECTIVELY, AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 90' LONG AT THE NORTH ABUTMENT AND 80' LONG AT THE SOUTH ABUTMENT.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q_{100} = 110 C.F.S.
VEL. = 1.0 F.P.S.
HW_{100} = EL. 1625.79
WATERWAY AREA = 115 SQ.FT.
DRAINAGE AREA = 4.2 SQ. MI.
SCOUR CRITICAL CODE = 5
OVERTOPPING FREQUENCY = N/A

2 YEAR FREQUENCY
Q_2 = 35 C.F.S.
VEL. = 0.6 F.P.S.
HW_2 = EL. 1624.06

WISCONSIN ERIC T. PRICE E-38027 MADISON WI PROFESSIONAL ENGINEER

June 1, 2018

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT
BILL DREHER, P.E.
TELEPHONE: (608) 266-8489

CONSULTANT CONTACT
ERIC PRICE, P.E.
TELEPHONE: (608) 826-6146

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/10/18
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-34-54

CTH B OVER E BRANCH EAU CLAIRE RIVER

COUNTY	TOWN ~~CITY/VILLAGE~~
LANGLADE	UPHAM

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ERA	ETP	PKF	ETP

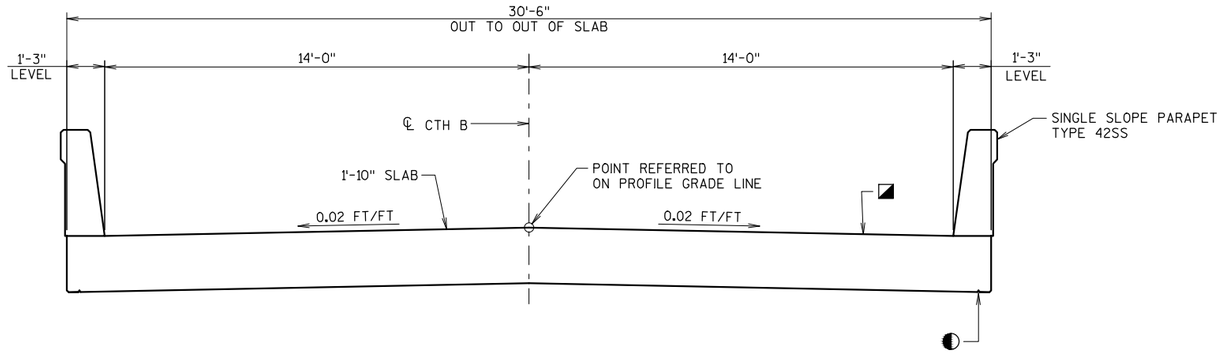
GENERAL PLAN

SHEET 1 OF 10

36

8

8



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

LEGEND

◐ 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.

◪ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0' OF THE FRONT FACE OF ABUTMENT.

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 NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-34-54" SHALL BE THE EXISTING GROUND LINE.

THE EXISTING STRUCTURE P-34-4, TO BE REMOVED, IS A SINGLE SPAN CONCRETE DECK GIRDER BRIDGE, 28.4 FT. LONG WITH A 23.0 FT. CLEAR ROADWAY WIDTH.

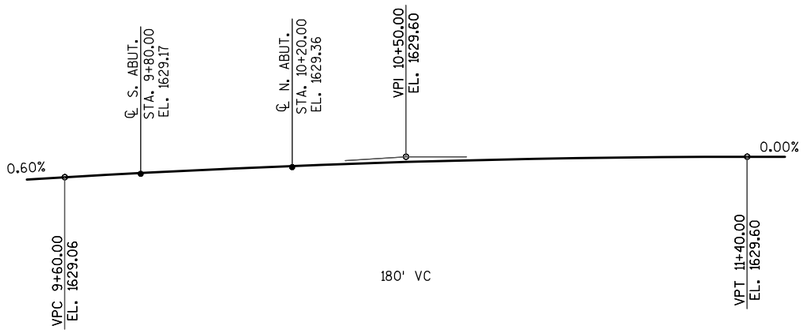
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

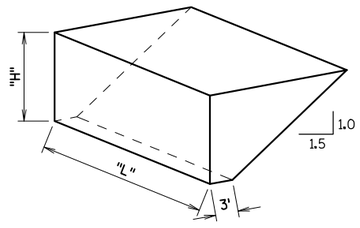
PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ENTIRE INSIDE FACE AND TOP SURFACE OF THE PARAPETS ON THE WINGS AND SUPERSTRUCTURE.

CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECS.



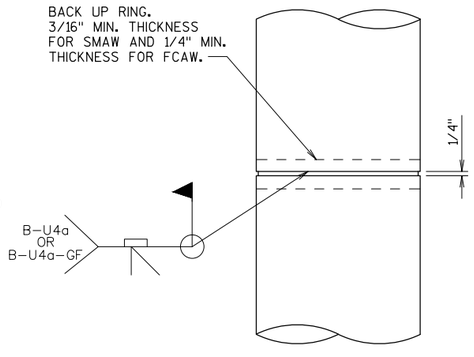
PROFILE GRADE LINE

(CTH B)

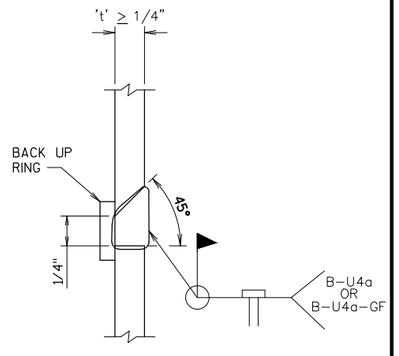


ABUTMENT BACKFILL QUANTITY DIAGRAM

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF} (EF)/27
V_{TON} = V_{CY} (2.0)



CAST-IN-PLACE 'PIPE PILE'

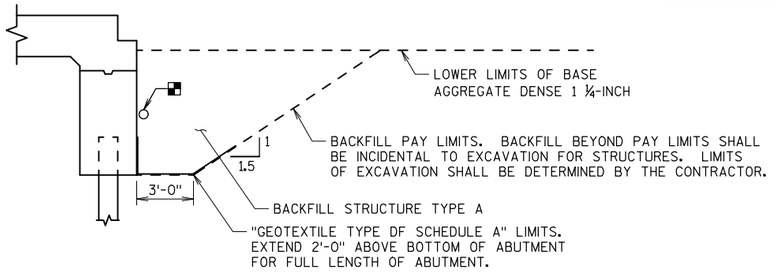


CIP PILE WELD DETAIL

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-34-54	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	135	135	-----	270
502.0100	CONCRETE MASONRY BRIDGES	CY	37	37	105	179
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	134	134
502.3210	PIGMENTED SURFACE SEALER	SY	12	12	42	66
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,090	2,070	-----	4,160
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,290	2,290	20,450	25,030
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	11	-----	22
550.0500	PILE POINTS	EACH	7	6	-----	13
550.2128	PILLING CIP CONCRETE 12 3/4 X 0.50-INCH	LF	560	540	-----	1,100
606.0300	RIPRAP HEAVY	CY	80	75	-----	155
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	110	110	-----	220
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	2	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	33	33	-----	66
645.0120	GEOTEXTILE TYPE HR	SY	110	105	-----	215
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

PILE SPLICE DETAILS



STRUCTURE BACKFILL LIMITS

◪ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-54

DRAWN BY PKF | PLANS CK'D. ETP

CROSS SECTION & QUANTITIES

SHEET 2 OF 10

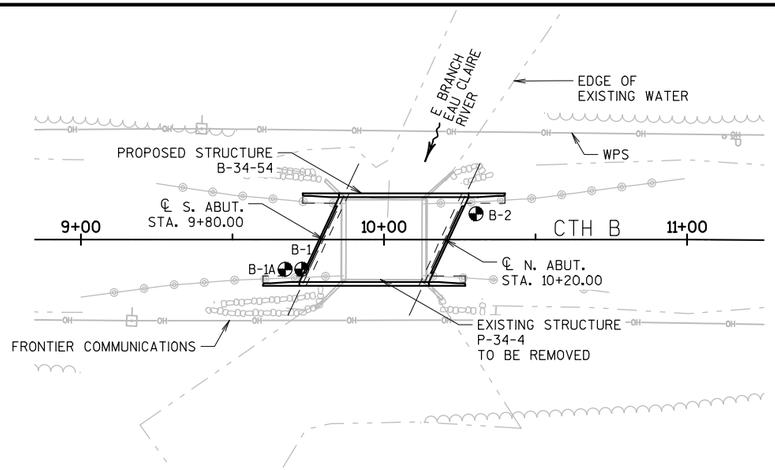
37

STATE PROJECT NUMBER

9360-00-70

8

8



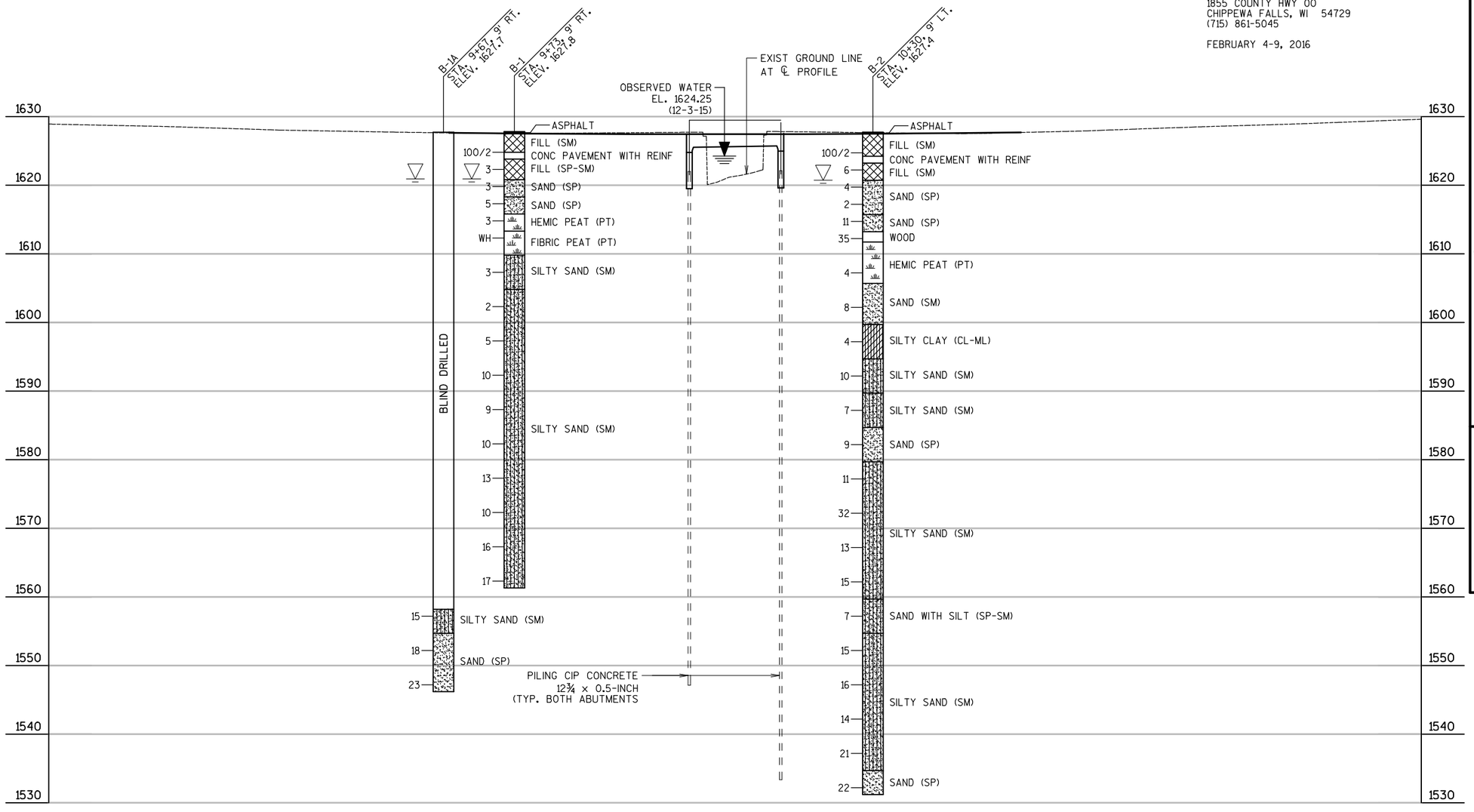
NOTE: SOIL BORING LOCATIONS ARE APPROXIMATE.

N

SOIL BORINGS COMPLETED BY:

AMERICAN ENGINEERING TESTING, INC.
1855 COUNTY HWY OO
CHIPPEWA FALLS, WI 54729
(715) 861-5045

FEBRUARY 4-9, 2016



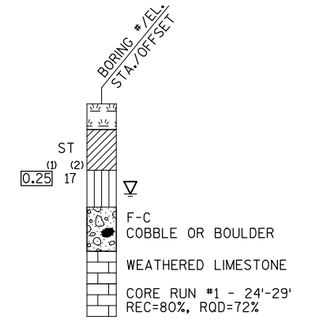
STATE PROJECT NUMBER

9360-00-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

ground water elevation

- at time of drilling
- end of drilling
- after drilling

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-54

DRAWN BY PKF | PLANS CK'D. ETP

SUBSURFACE EXPLORATION

SHEET 3 OF 10

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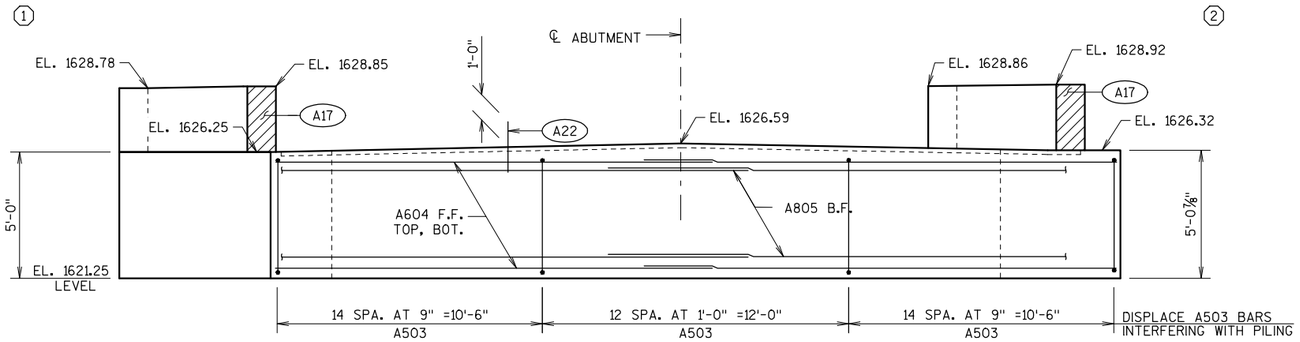
8

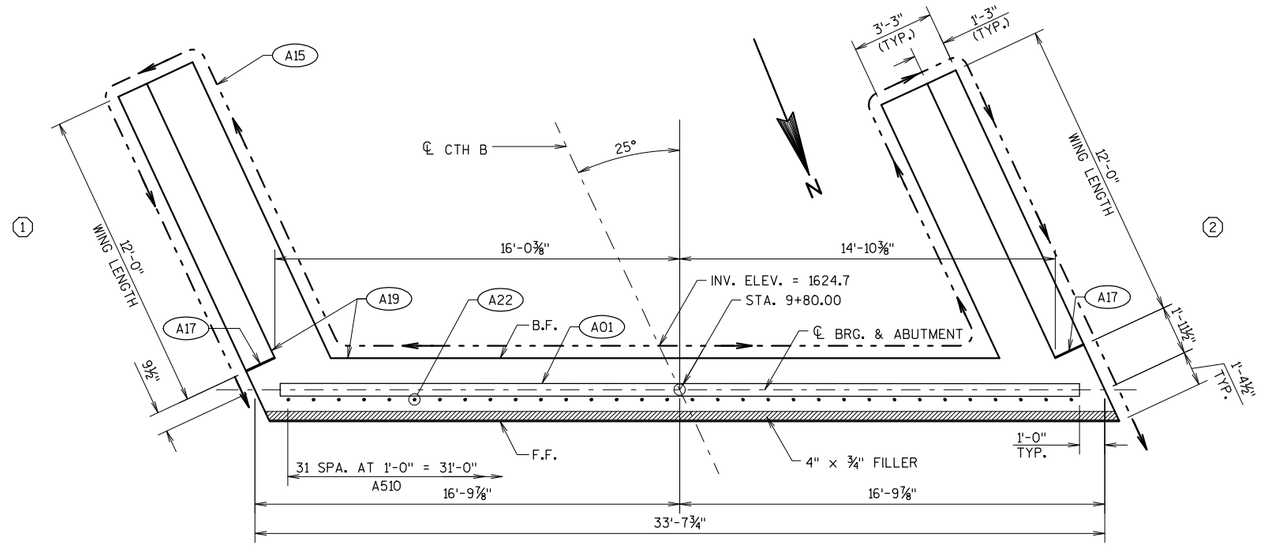
8

STATE PROJECT NUMBER

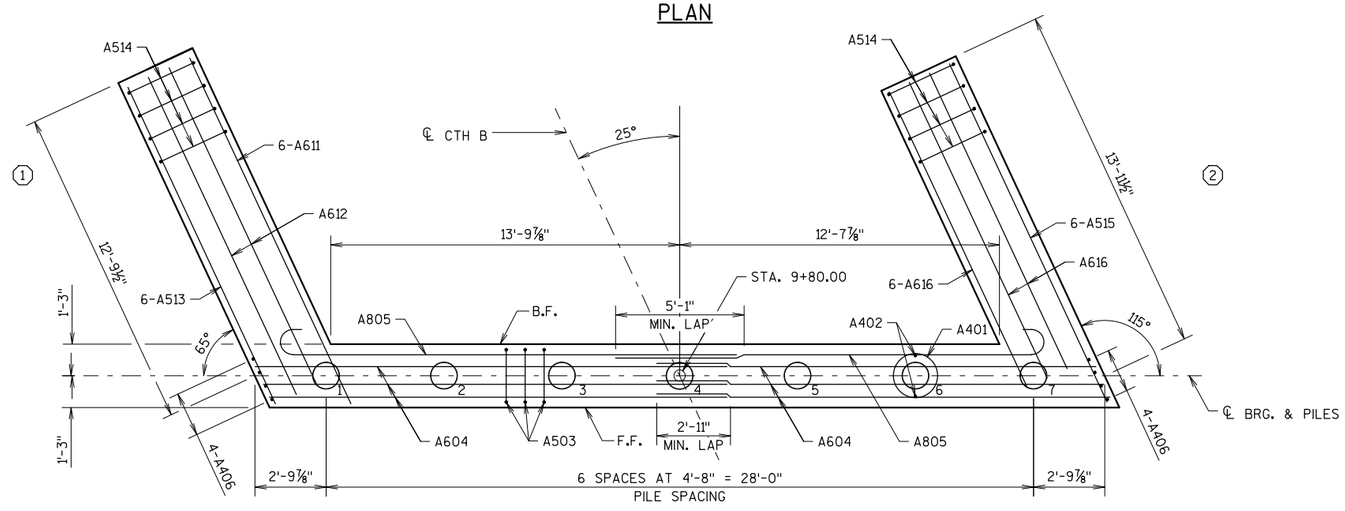
9360-00-70



ELEVATION
(LOOKING SOUTH)



PLAN



PILE PLAN

LEGEND

⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

(A09) SUPPORT ABUTMENT ON PILING PILING CIP CONCRETE 12¾ x 0.50-INCH, ESTIMATED 80 FEET LONG AND DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 115 TONS PER PILE. PILE POINTS REQ'D. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

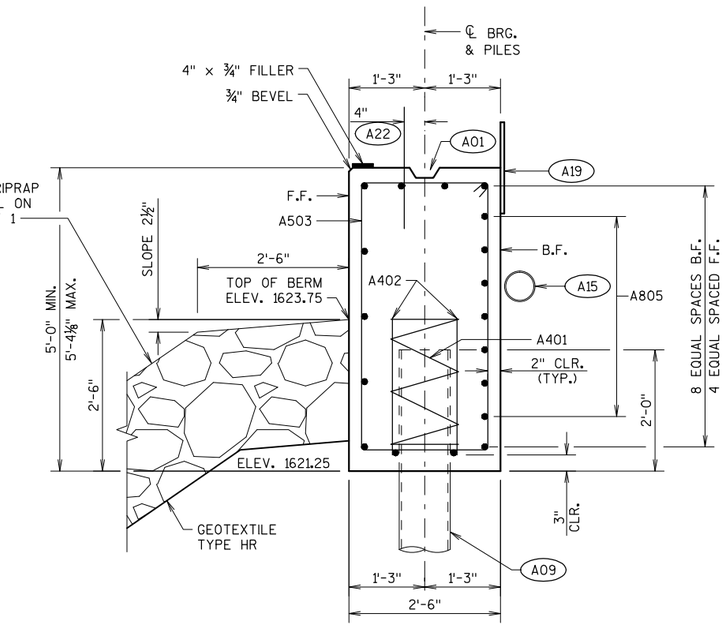
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

NOTES

ELEVATIONS AND DIMENSIONS ARE GIVEN AT THE ℄ OF ABUTMENT.



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-54

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

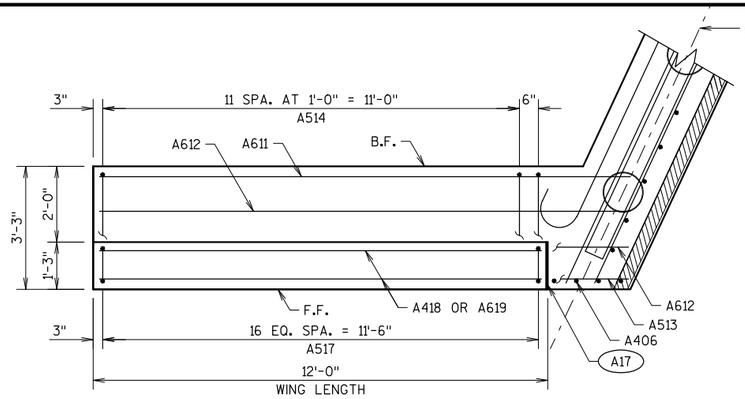
SOUTH ABUTMENT

SHEET 4 OF 10

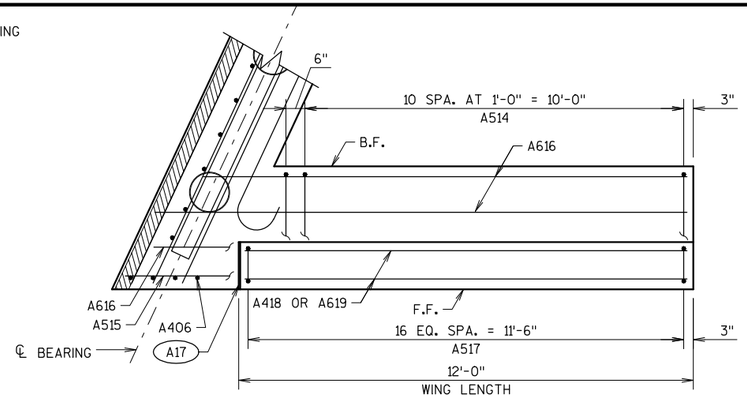
39

8

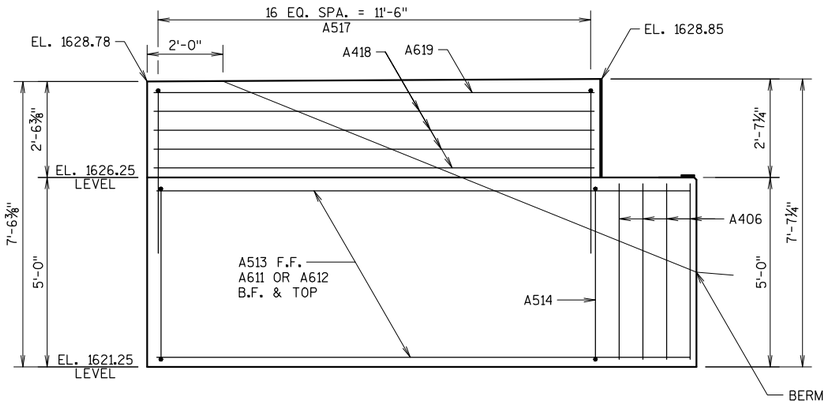
8



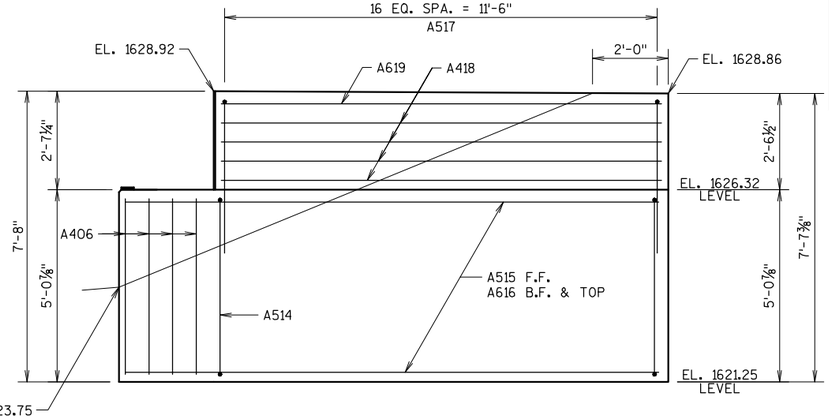
PLAN WING 1



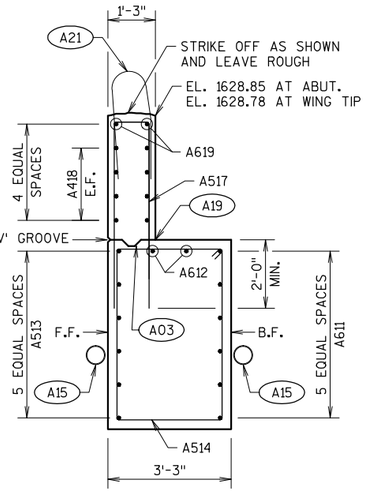
PLAN WING 2



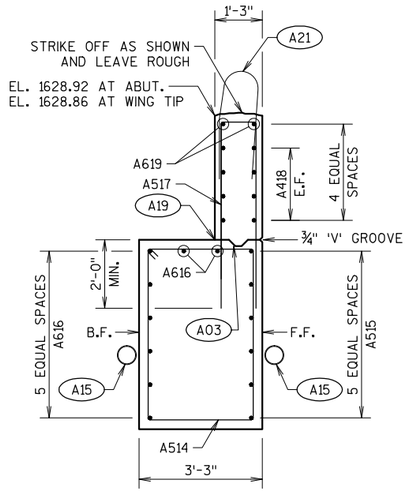
ELEVATION - WING 1



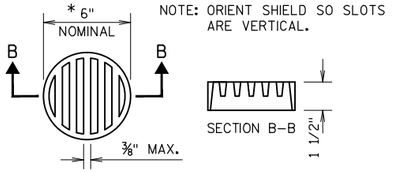
ELEVATION - WING 2



SECTION THRU WING 1



SECTION THRU WING 2

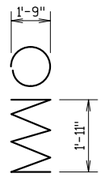


* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

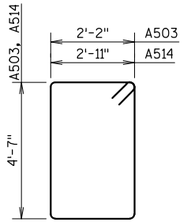
RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

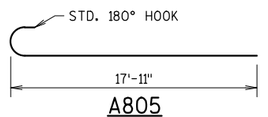
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



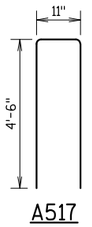
A401



A503, A514



A805



A517

STATE PROJECT NUMBER

9360-00-70

BILL OF BARS - SOUTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 2,090 LBS
A401	7	28'-0"	X		BODY - AT PILES - 1 PER PILE	VERT.
A402	14	2'-3"			BODY - AT PILES - 2 PER PILE	VERT.
A503	41	14'-2"	X		BODY - STIRRUPS	VERT.
A604	22	18'-2"			BODY - B.F. & F.F. & TOP & BOT.	HORIZ.
A805	14	18'-10"	X		BODY - B.F.	HORIZ.
A406	8	4'-7"			BODY - ENDS	VERT.
COATED BARS						TOTAL WEIGHT = 1,470 LBS
A510	32	2'-0"			BODY - TOP	VERT.
A611	6	14'-10"			WING 1 - B.F.	HORIZ.
A612	2	13'-10"			WING 1 - TOP	HORIZ.
A513	6	13'-10"			WING 1 - F.F.	HORIZ.
A514	25	15'-8"	X		WINGS 1 & 2 - STIRRUPS	VERT.
A515	6	15'-0"			WING 2 - F.F.	HORIZ.
A616	8	13'-3"			WING 2 - B.F. & TOP	HORIZ.
A517	28	9'-8"	X		WINGS 1 & 2 - TOP	VERT.
A418	16	11'-8"			WINGS 1 & 2 - TOP	HORIZ.
A619	4	11'-8"			WINGS 1 & 2 - TOP	HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". (18" RUBBERIZED MEMBRANE WATERPROOFING AT BF & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A21) FOR PPT BARS & DIMENSIONS SEE SHEET 10.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE
E.F. DENOTES EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-54

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SOUTH ABUTMENT DETAILS

SHEET 5 OF 10

40

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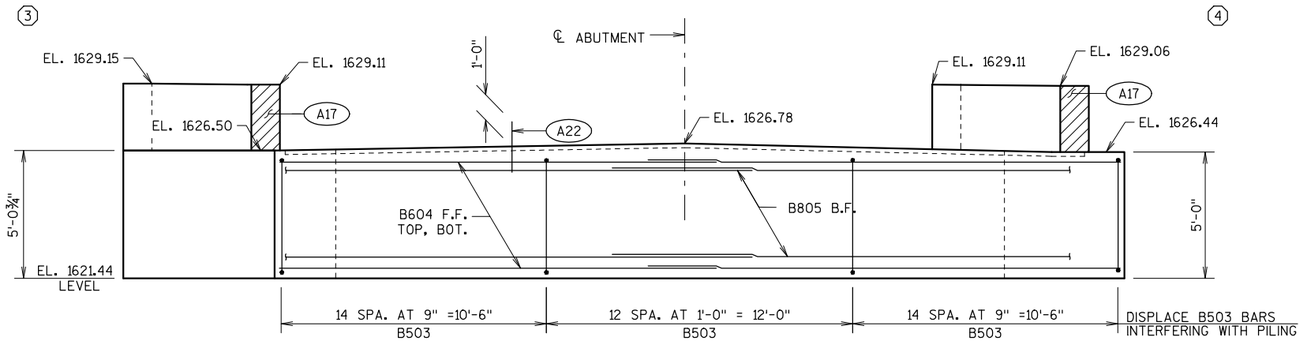
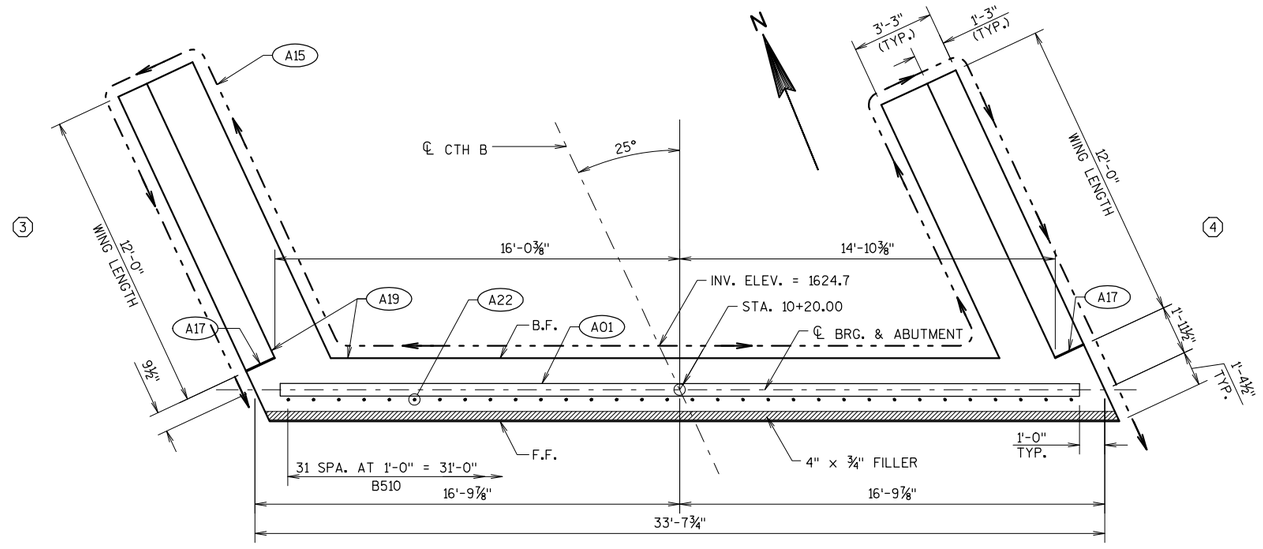
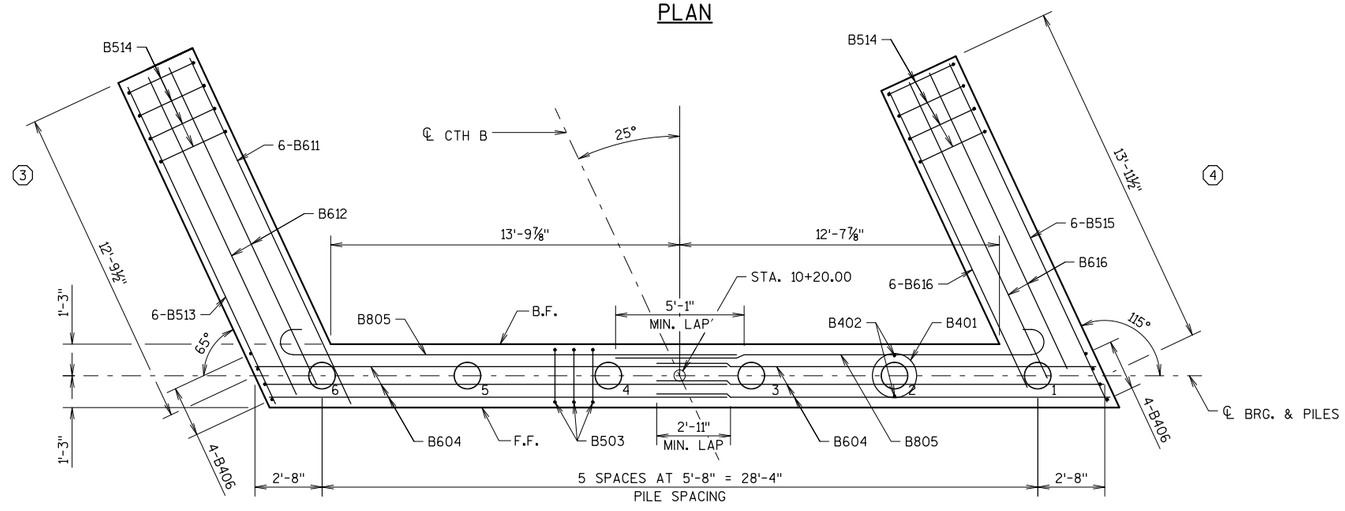


ELEVATION
(LOOKING NORTH)



PLAN



PILE PLAN

LEGEND

⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

(A09) SUPPORT ABUTMENT ON PILING PILING CIP CONCRETE 12¾ x 0.50-INCH, ESTIMATED 90 FEET LONG AND DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 135 TONS PER PILE. PILE POINTS REQ'D. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

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(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

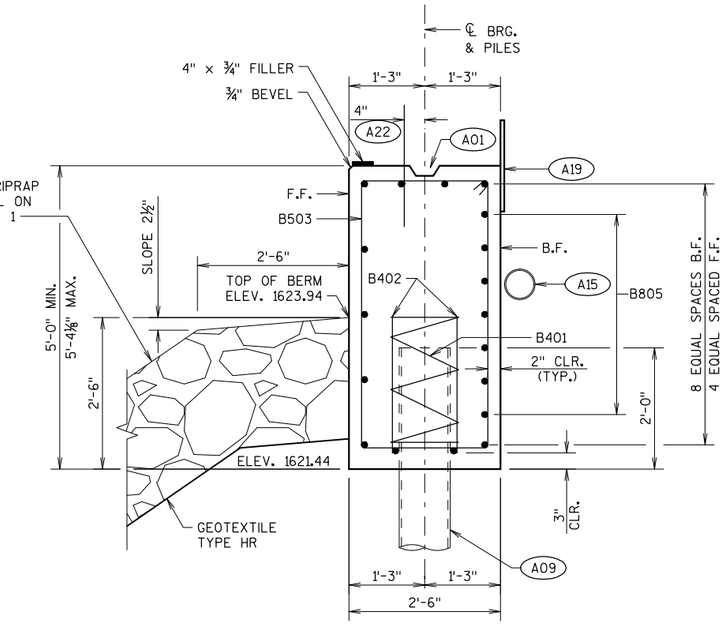
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) B510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

NOTES

ELEVATIONS AND DIMENSIONS ARE GIVEN AT THE ℄ OF ABUTMENT.



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE B604 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER
9360-00-70

STRUCTURE B-34-54

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

NORTH ABUTMENT

SHEET 6 OF 10

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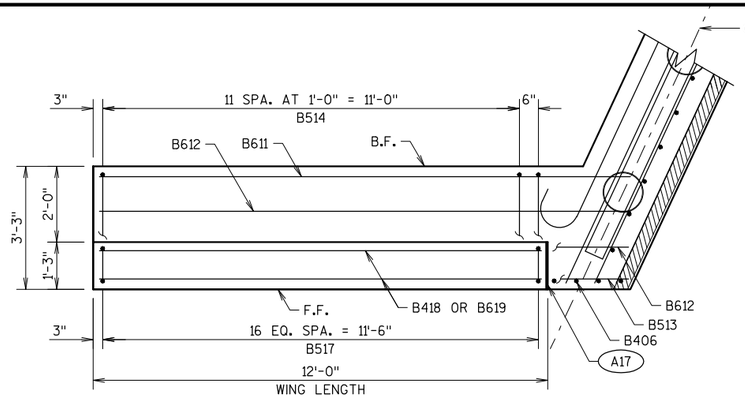
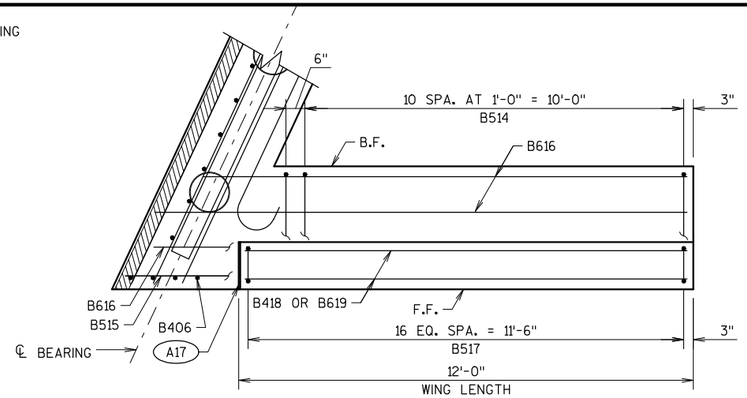
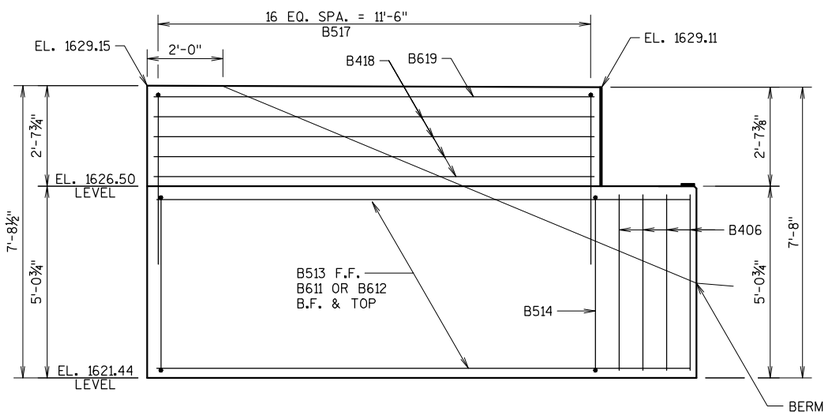


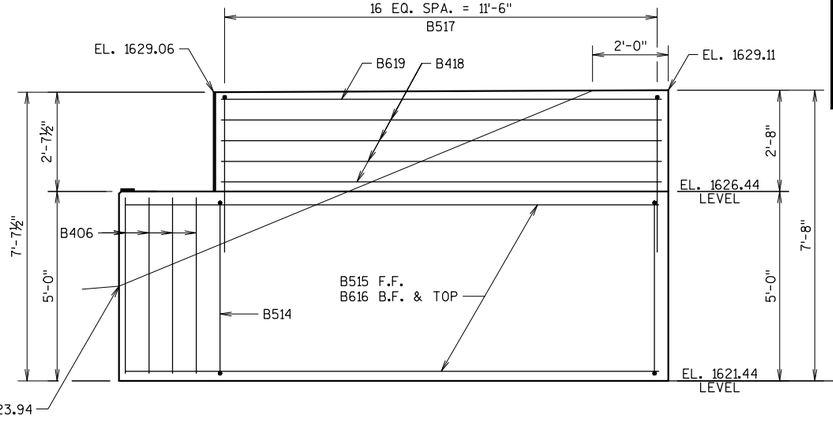
PLAN WING 3



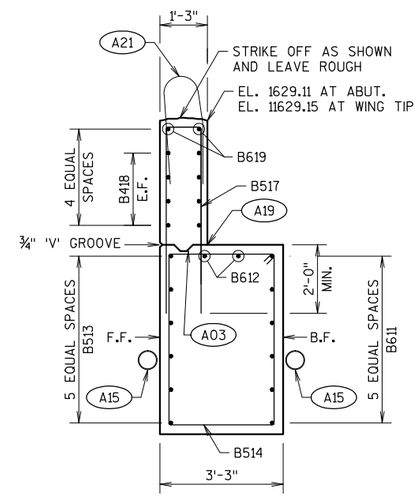
PLAN WING 4



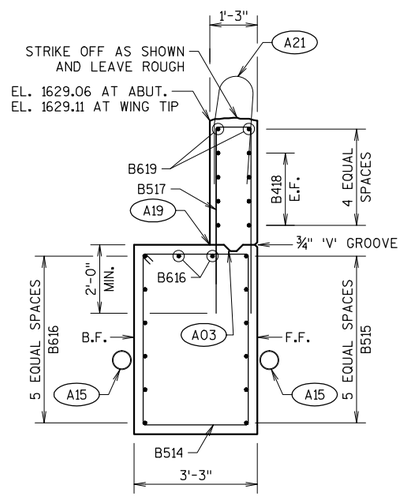
ELEVATION - WING 3



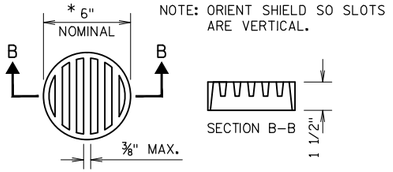
ELEVATION - WING 4



SECTION THRU WING 3



SECTION THRU WING 4

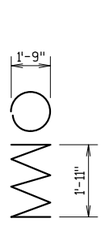


* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

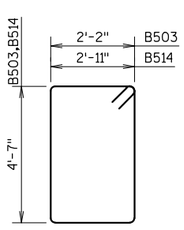
RODENT SHIELD DETAIL

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

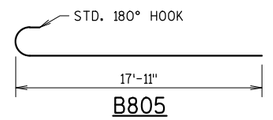
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



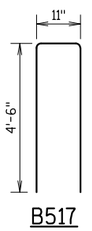
B401



B503, B514



B805



B517

STATE PROJECT NUMBER

9360-00-70

BILL OF BARS - NORTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 2,070 LBS	
B401	6	28'-0"	X		BODY - AT PILES - 1 PER PILE	VERT.
B402	12	2'-3"			BODY - AT PILES - 2 PER PILE	VERT.
B503	41	14'-2"	X		BODY - STIRRUPS	VERT.
B604	22	18'-2"			BODY - B.F. & F.F. & TOP & BOT.	HORIZ.
B805	14	18'-10"	X		BODY - B.F.	HORIZ.
B406	8	4'-7"			BODY - ENDS	VERT.
COATED BARS					TOTAL WEIGHT = 1,470 LBS	
B510	32	2'-0"			BODY - TOP	VERT.
B611	6	14'-10"			WING 3 - B.F.	HORIZ.
B612	2	13'-10"			WING 3 - TOP	HORIZ.
B513	6	13'-10"			WING 3 - F.F.	HORIZ.
B514	25	15'-8"	X		WINGS 3 & 4 - STIRRUPS	VERT.
B515	6	15'-0"			WING 4 - F.F.	HORIZ.
B616	8	12'-11"			WING 4 - B.F. & TOP	HORIZ.
B517	28	9'-8"	X		WINGS 3 & 4 - TOP	VERT.
B418	16	11'-8"			WINGS 3 & 4 - TOP	HORIZ.
B619	4	11'-8"			WINGS 3 & 4 - TOP	HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". (18" RUBBERIZED MEMBRANE WATERPROOFING AT BF & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A21) FOR PPT BARS & DIMENSIONS SEE SHEET 10.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE
E.F. DENOTES EACH FACE

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STATE OF WISCONSIN
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STRUCTURE B-34-54

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ORIGINAL PLAN PREPARED BY
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NORTH ABUTMENT DETAILS

SHEET 7 OF 10

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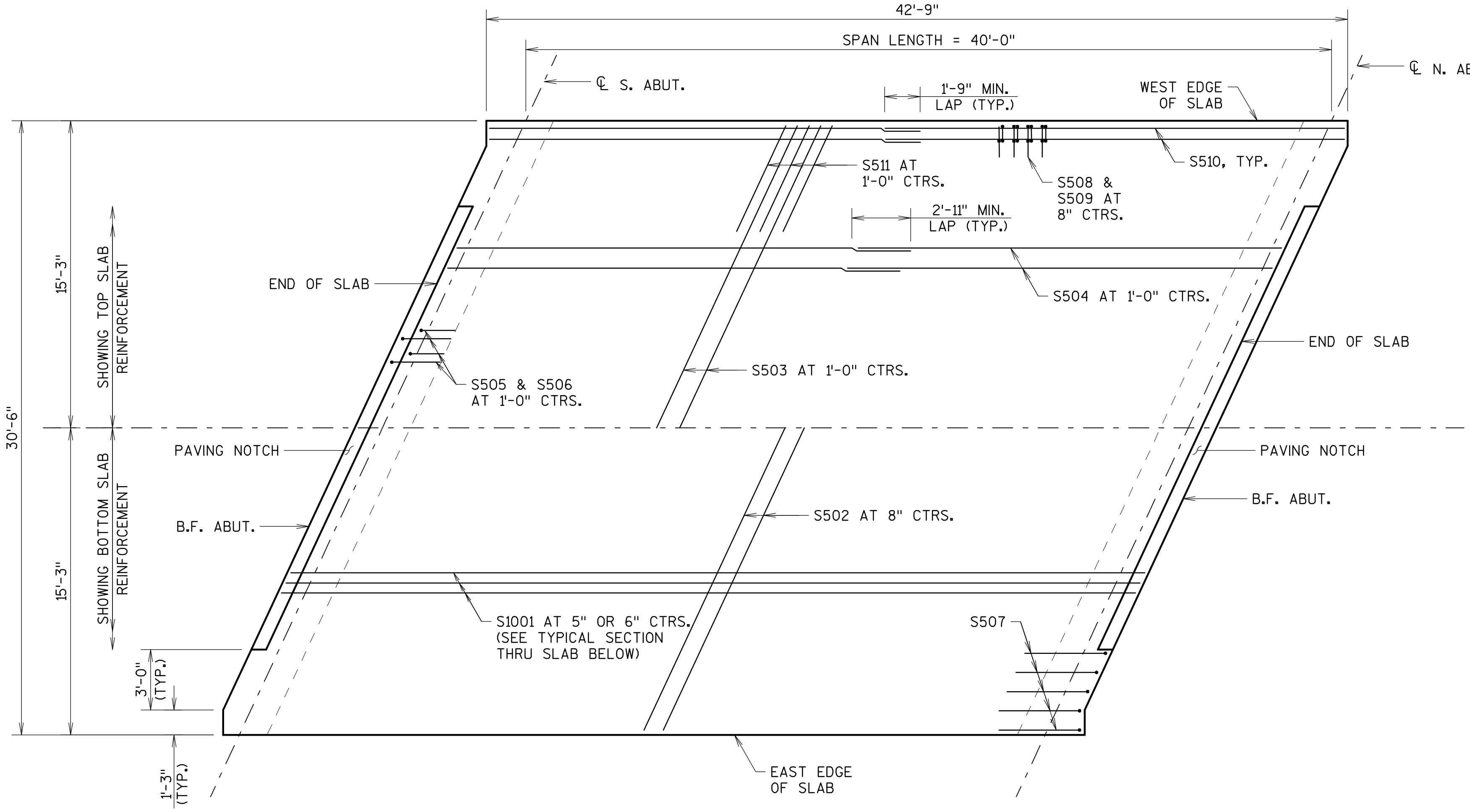
8

8



PLAN

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

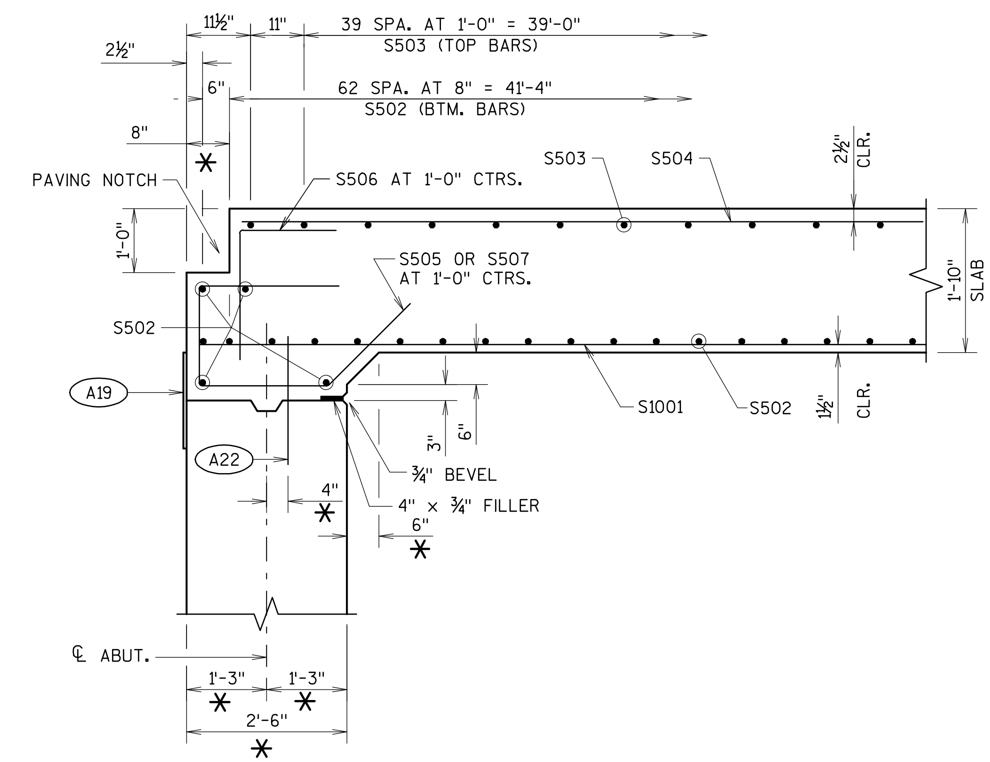
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

LEGEND

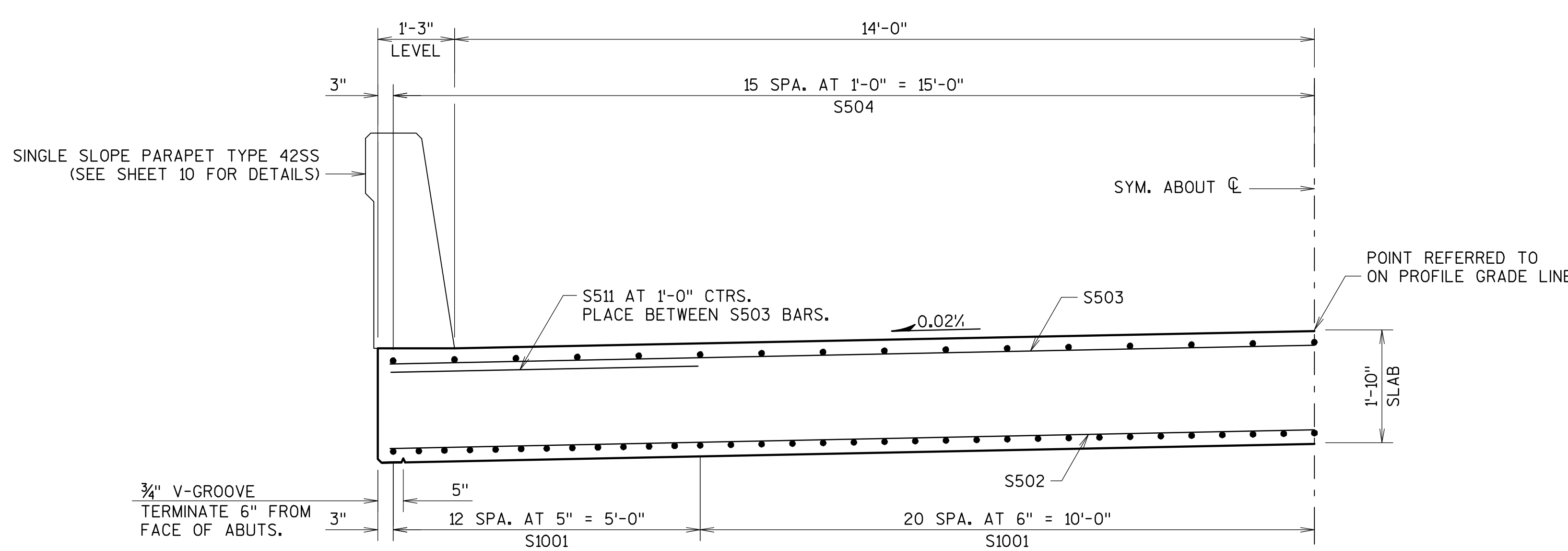
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A510 OR B510 BARS AT 1'-0" CTRS. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

* DIMENSION IS NORMAL TO ℄ SUBSTRUCTURE.



PARTIAL LONGITUDINAL SECTION



TYPICAL SECTION THRU SLAB

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SUPERSTRUCTURE

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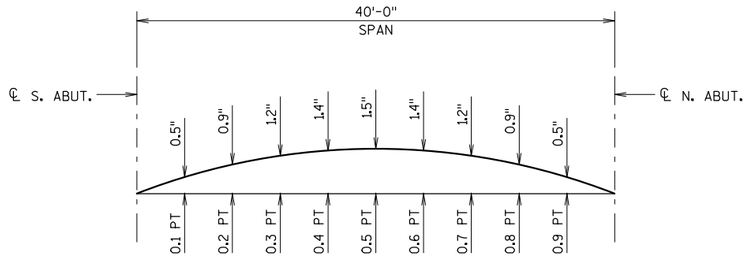


CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)

EQUALS TOP OF SLAB FALSEWORK ELEVATION.

BILL OF BARS - SUPERSTRUCTURE

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 20,450 LBS
S1001	65	42'-5"			SLAB - BTM	LONGIT.
S502	65	33'-3"			SLAB - BTM	TRANS.
S503	42	33'-3"			SLAB - TOP	TRANS.
S504	62	22'-8"			SLAB - TOP	LONGIT.
S505	46	7'-7"	X		SLAB - AT PAVING NOTCH	VERT.
S506	46	3'-5"	X		SLAB - AT PAVING NOTCH	VERT.
S507	20	8'-7"	X		SLAB - OUTSIDE PAVING NOTCH	VERT.
S508	130	4'-5"	X		PARAPETS	VERT.
S509	130	6'-8"	X		PARAPETS	VERT.
S510	32	22'-2"			PARAPETS	LONGIT.
S511	82	5'-0"			SLAB - TOP	TRANS.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

TOP OF DECK ELEVATIONS

LOCATION	℄ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF N. ABUT.
WEST EDGE OF SLAB	1628.93	1628.95	1628.97	1628.99	1629.01	1629.02	1629.04	1629.06	1629.07	1629.09	1629.11
℄ STRUCTURE	1629.17	1629.19	1629.21	1629.23	1629.25	1629.27	1629.29	1629.31	1629.33	1629.34	1629.36
EAST EDGE OF SLAB	1628.86	1628.88	1628.90	1628.92	1628.94	1628.96	1628.98	1629.00	1629.02	1629.04	1629.05

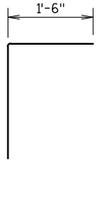
ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

ELEVATIONS ACCOUNT FOR 1'-3" LEVEL AREA UNDER PARAPETS.

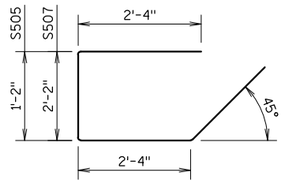
SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	S. ABUT.	0.5	N. ABUT.
WEST EDGE OF SLAB			
℄ STRUCTURE			
EAST EDGE OF SLAB			

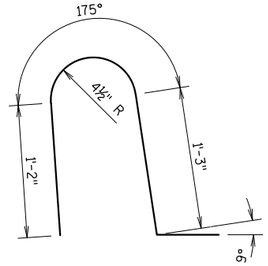
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



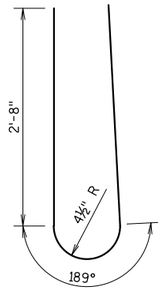
S506



S505, S507



S508



S509

ORIGINAL PLAN PREPARED BY

CORRE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-54

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SUPERSTRUCTURE DETAILS

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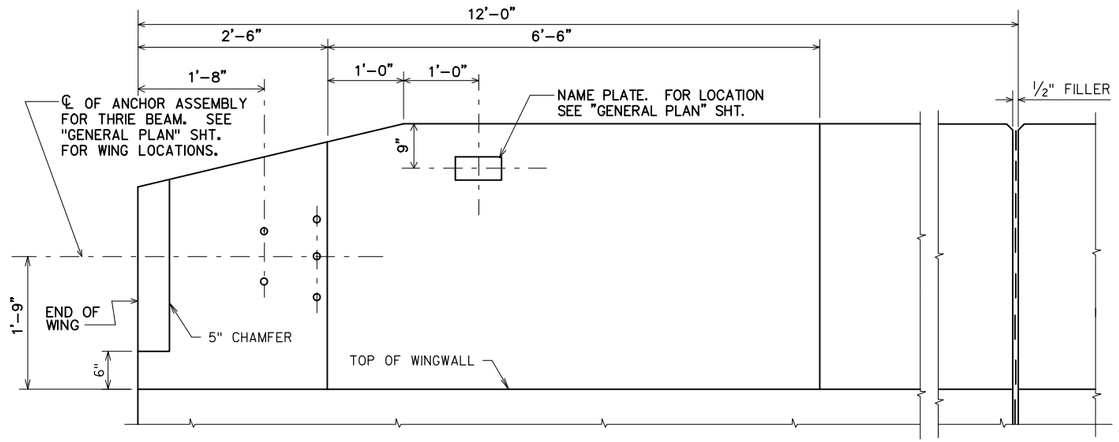
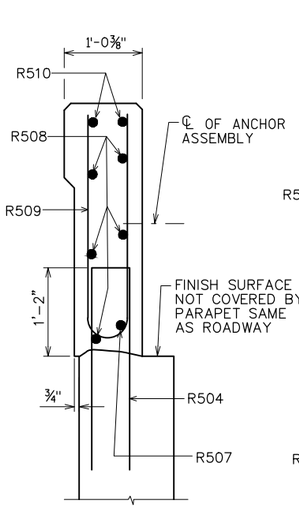
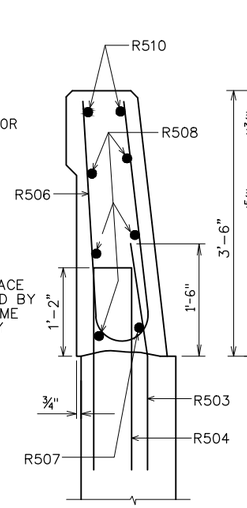


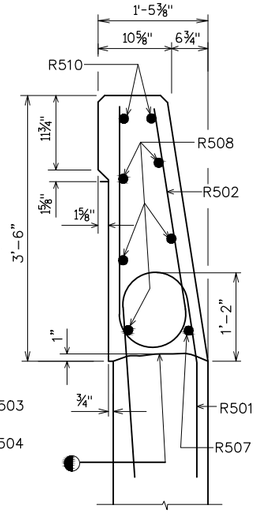
INSIDE ELEVATION



SECTION A



SECTION B



SECTION C

BILL OF BARS - PARAPET

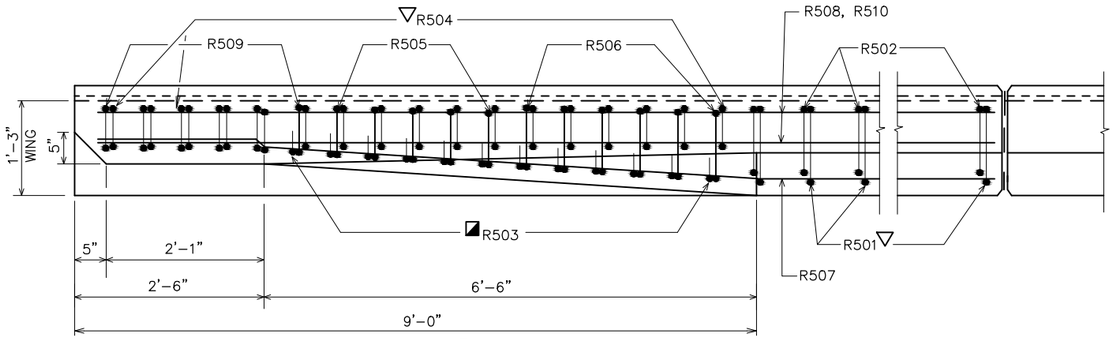
BARS SHOWN ARE FOR 1 WING ONLY

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
COATED BARS					TOTAL WEIGHT = 410 LBS
R501	5	5'-10"	X		PARAPET VERT.
R502	5	6'-8"	X		PARAPET VERT.
R503	11	3'-0"	X		PARAPET VERT.
R504	17	5'-7"	X		PARAPET VERT.
R505	5	6'-5"	X		PARAPET VERT.
R506	6	6'-6"	X		PARAPET VERT.
R507	1	11'-5"	X		PARAPET HORIZ.
R508	5	11'-8"			PARAPET HORIZ.
R509	6	5'-5"	X	X	PARAPET VERT.
R510	2	11'-8"	X		PARAPET HORIZ.

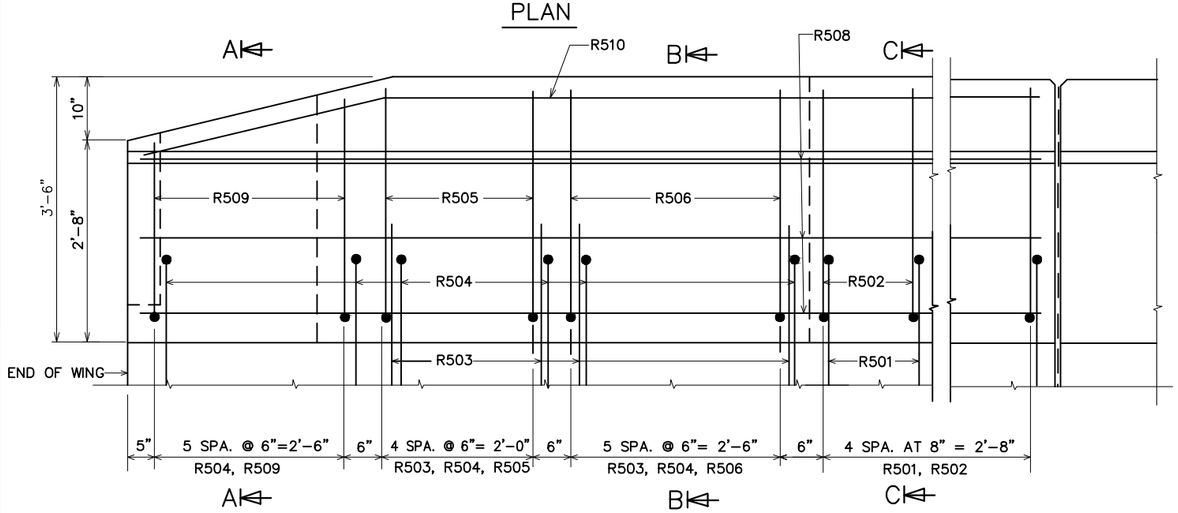
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR SERIES TABLE

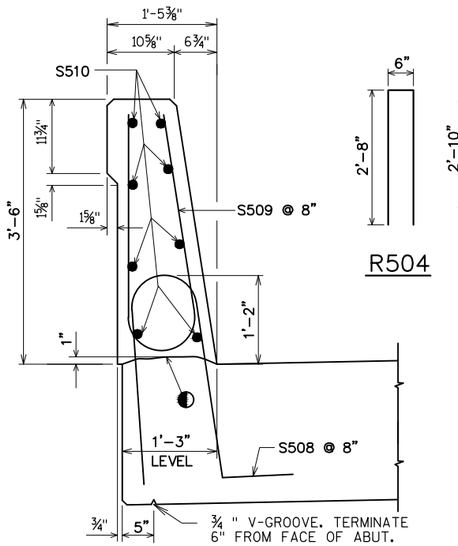
BAR MARK	NO. REQ'D	LENGTH
R509	1 SERIES OF 6	4'-9" TO 6'-1"



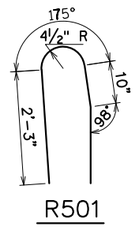
PLAN



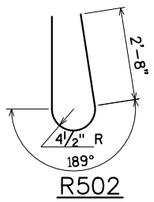
OUTSIDE ELEVATION



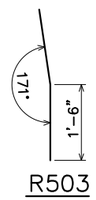
SECTION THRU PARAPET ON BRIDGE



R501

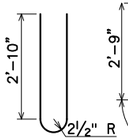


R502

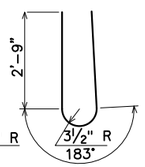


R503

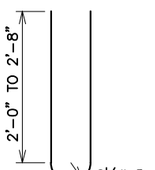
R504



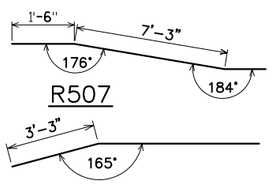
R505



R506



R509



R507

R510

◐ CONST. JOINT – STRIKE OFF AS SHOWN.

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-54

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SINGLE SLOPE PARAPET 42SS

SHEET 10 OF 10

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STATION	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
		Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
					Note 1				Note 2	Note 3
7+00.00	0.00	40.8	7.3	0.1	-	-	-	0	0	0
7+50.00	50.00	32.8	7.3	-	68.1	13.6	0.1	68	0	54
7+70.11	20.11	13.8	7.3	2.7	17.4	5.5	1.0	85	1	65
7+95.09	24.98	9.3	7.3	8.3	10.7	6.8	5.1	96	8	63
7+95.67	0.58	8.0	7.3	1.7	0.2	0.2	0.1	96	8	62
8+00.00	4.33	15.6	7.3	9.4	1.9	1.2	0.9	98	9	62
8+20.07	20.07	5.1	7.3	10.9	7.7	5.5	7.5	106	18	55
8+20.65	0.58	6.0	7.3	4.3	0.1	0.2	0.2	106	19	55
8+45.63	24.98	4.0	7.3	8.6	4.6	6.8	6.0	111	26	45
8+50.00	4.37	4.7	7.3	21.8	0.7	1.2	2.5	111	29	41
9+00.00	50.00	-	7.3	30.9	4.3	13.6	48.8	116	90	-29
9+50.00	50.00	-	7.3	51.3	-	13.6	76.1	116	185	-138
9+60.09	10.09	-	7.3	47.9	-	2.7	18.5	116	209	-164
9+73.15	13.06	-	7.3	30.7	-	3.5	19.0	116	232	-191
BRIDGE										
10+26.85	0.00	-	7.3	38.3	-	-	-	116	232	-191
10+39.91	13.06	-	7.3	86.3	-	3.5	30.1	116	270	-232
10+50.00	10.09	-	7.3	89.4	-	2.7	32.8	116	311	-276
11+00.00	50.00	-	7.3	71.4	-	13.6	148.8	116	497	-475
11+50.00	50.00	-	7.3	60.8	-	13.6	122.4	116	650	-642
11+79.93	29.93	-	7.3	13.8	-	8.1	41.4	116	702	-702
12+00.00	20.07	1.1	7.3	27.4	0.4	5.5	15.3	116	721	-726
12+04.91	4.91	1.9	7.3	8.4	0.3	1.3	3.2	116	725	-731
12+04.92	0.01	0.4	7.3	18.4	0.0	0.0	0.0	116	725	-731
12+29.89	24.97	6.4	7.3	11.6	3.1	6.8	13.8	120	742	-752
12+30.06	0.17	4.4	7.3	13.7	0.0	0.0	0.1	120	742	-752
12+50.00	19.94	18.2	7.3	22.2	8.4	5.4	13.3	128	759	-766
12+55.19	5.19	9.0	7.3	8.7	2.6	1.4	3.0	131	763	-768
13+00.00	44.81	42.6	7.3	9.1	42.8	12.2	14.8	173	781	-756

Totals =	173	148	625

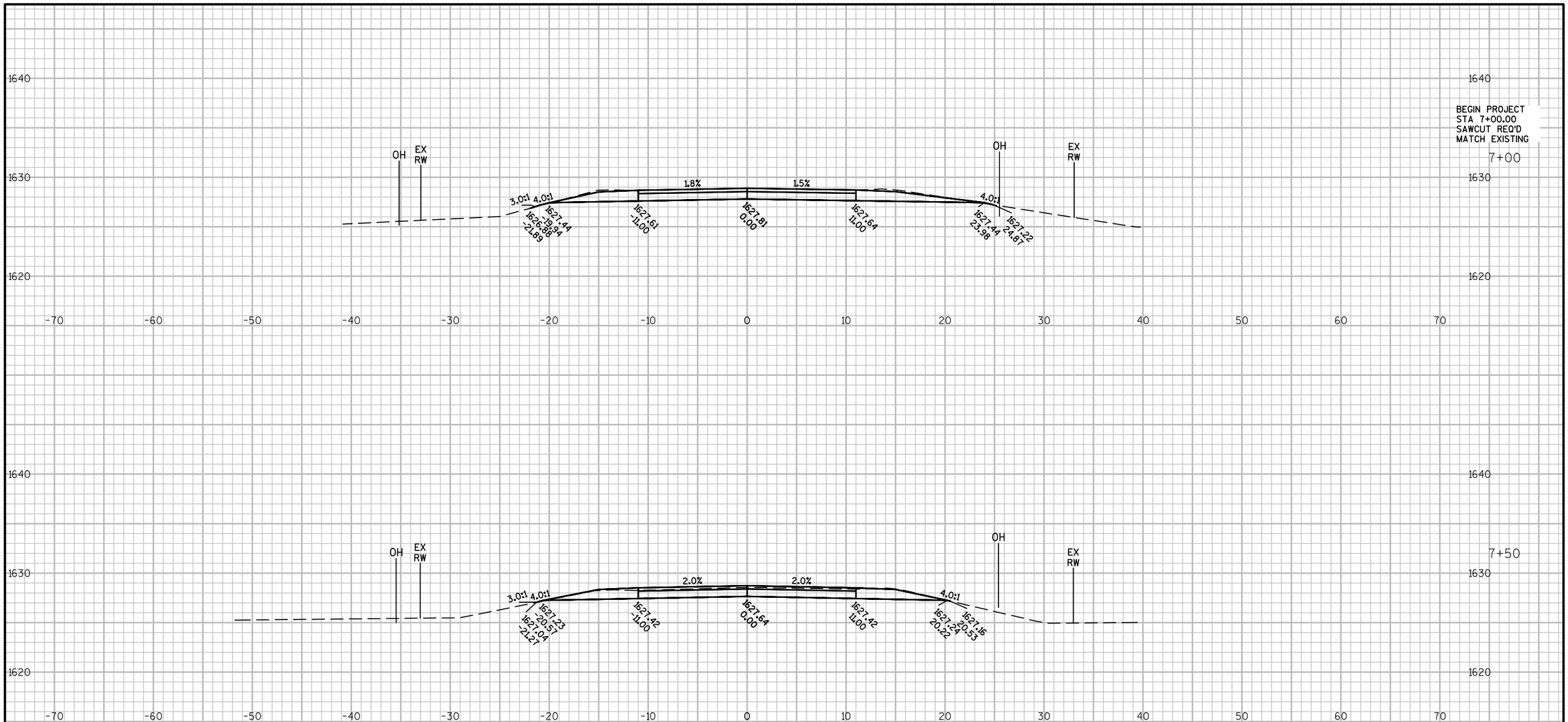
Notes:

(1) Common Excavation is Item Number 205.0100.

(2) Expanded Fill Factor = 1.25

Expanded Fill = (Unexpanded Fill) * Fill Factor

(3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

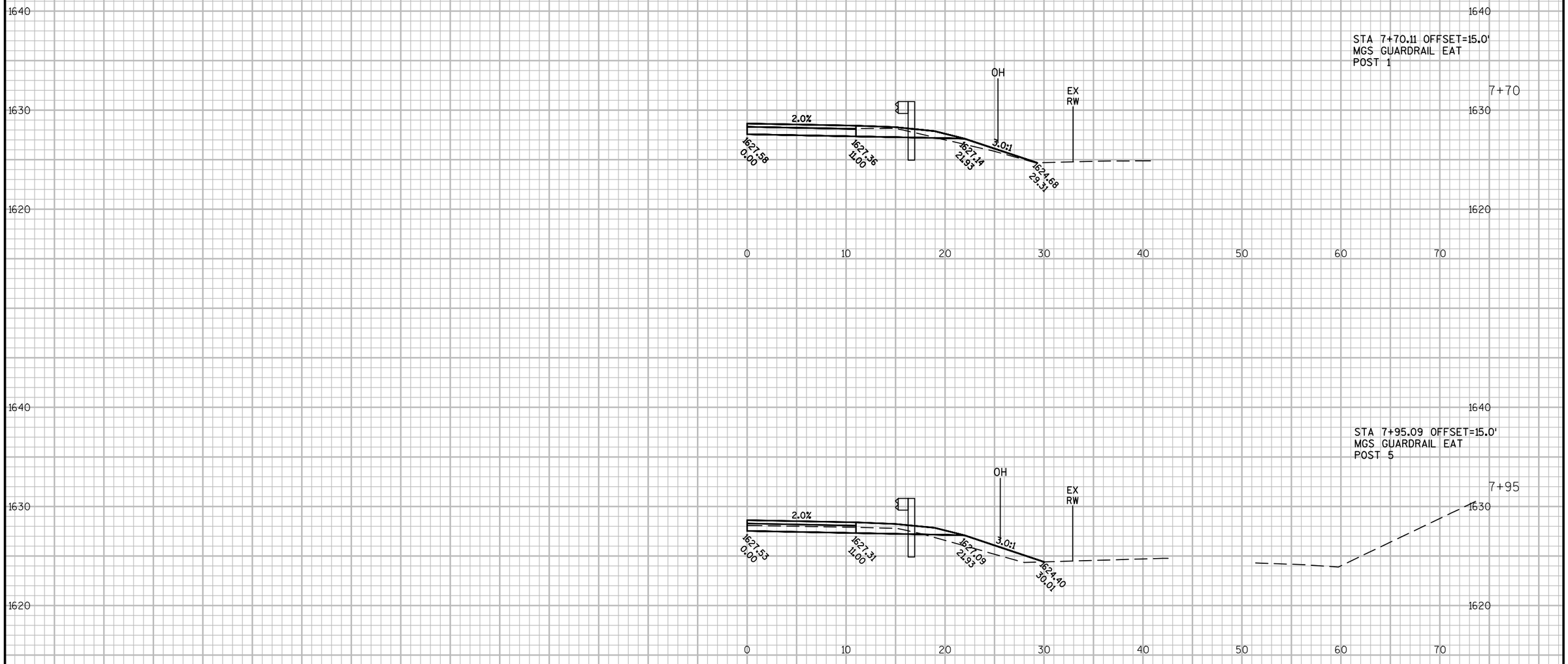


9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 47	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (1)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



9

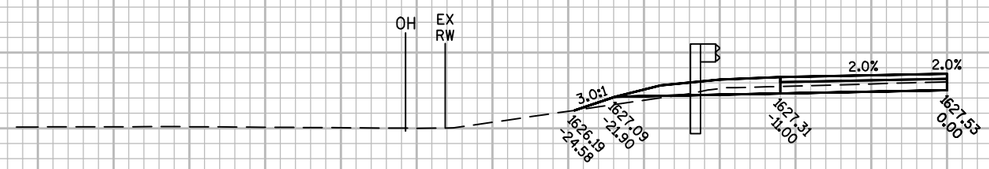
9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 48	E

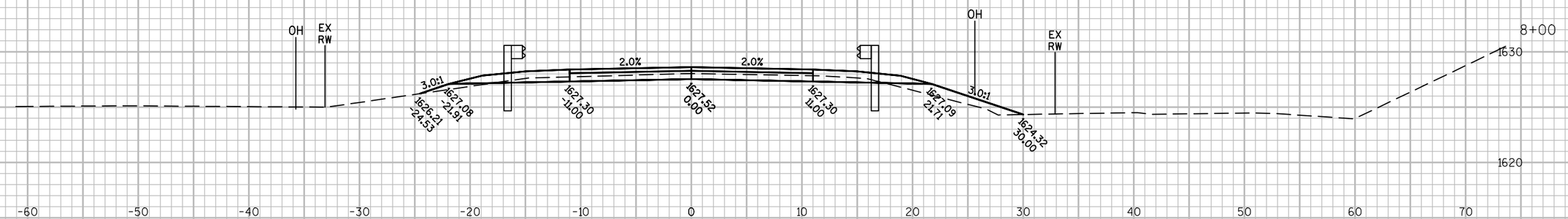
FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (2)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

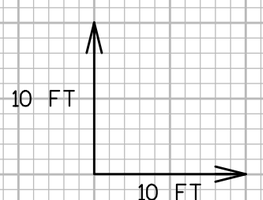
STA 7+95.67 OFFSET=-15.0'
MGS GUARDRAIL EAT
POST 1

7+96



8+00



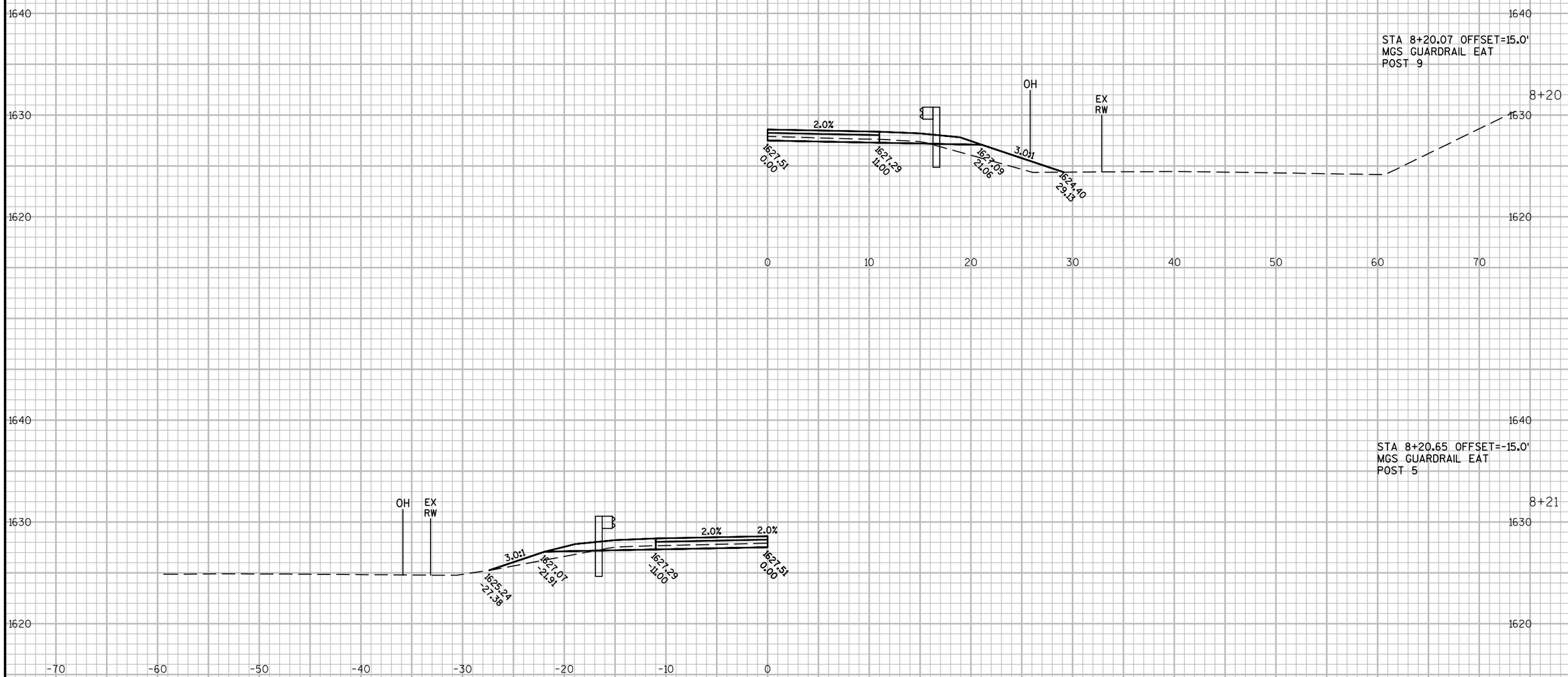


9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 49	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (3)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

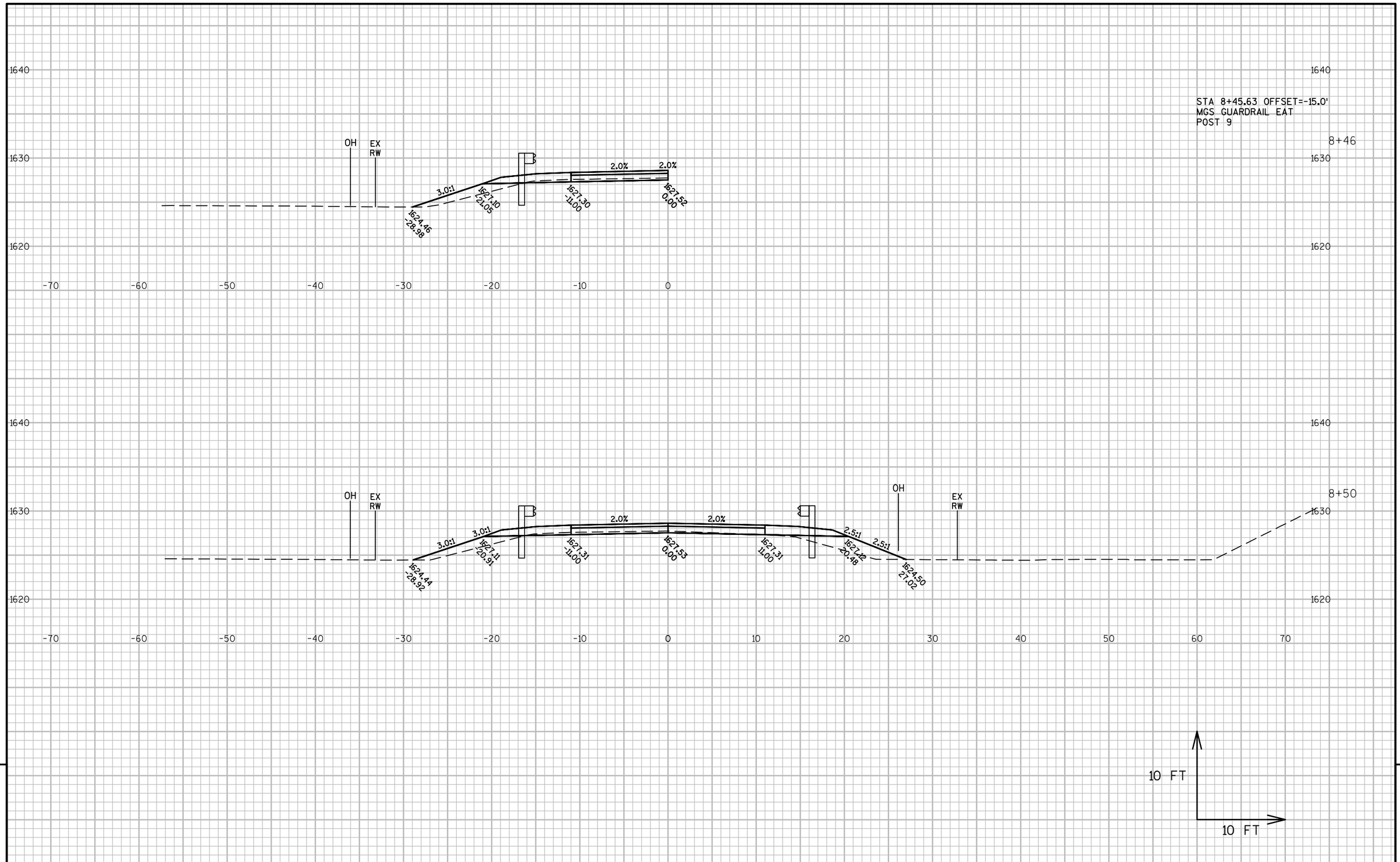


9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 50	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (4)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

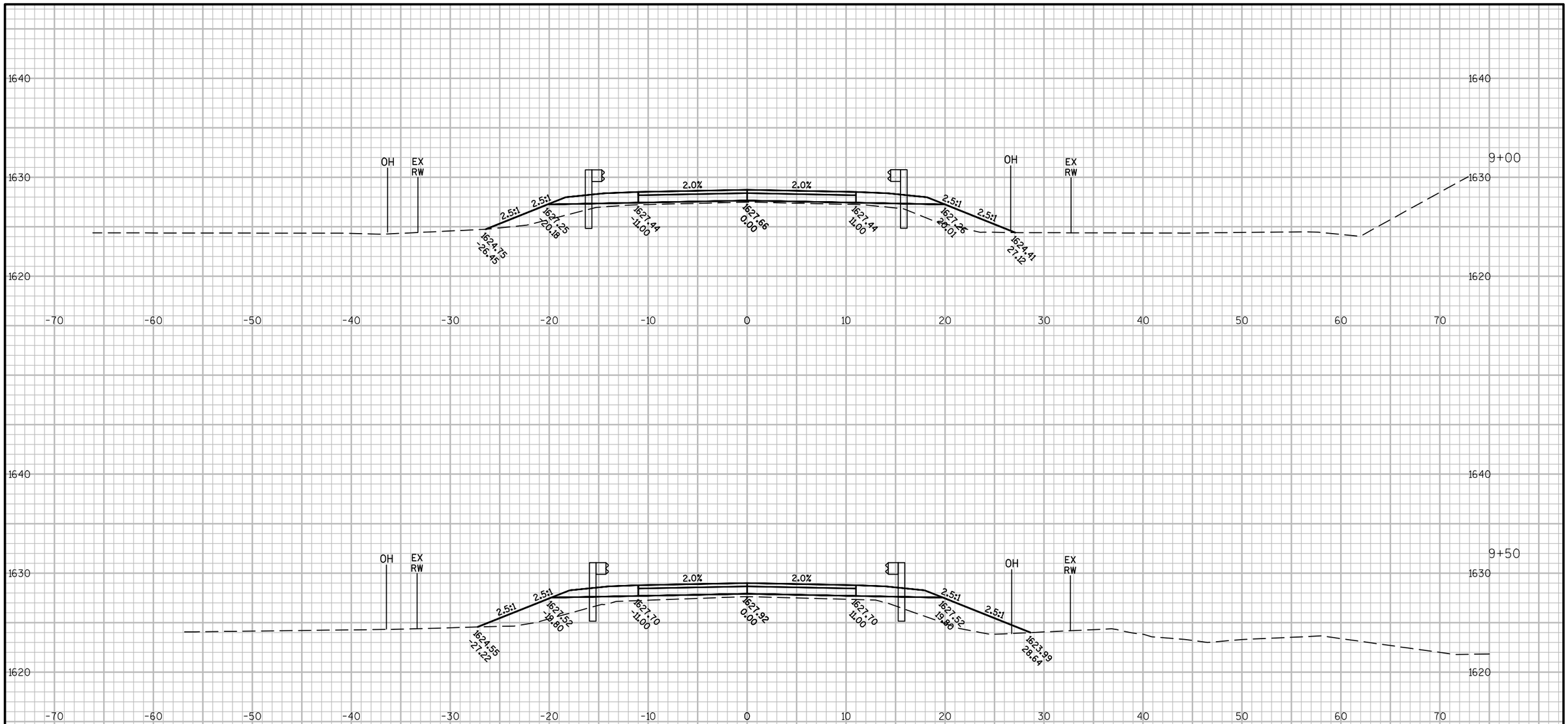


9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 51	E

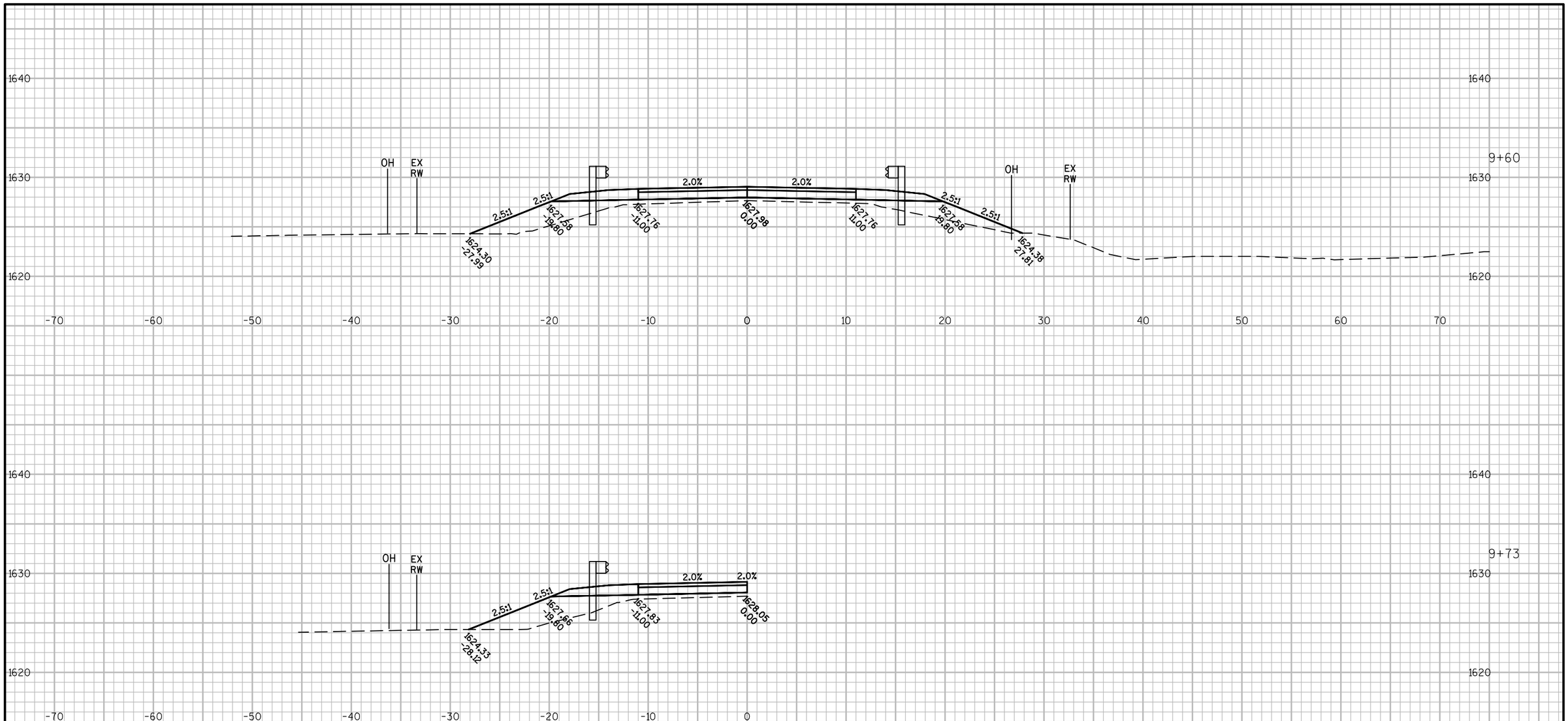
FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (5)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 52	E

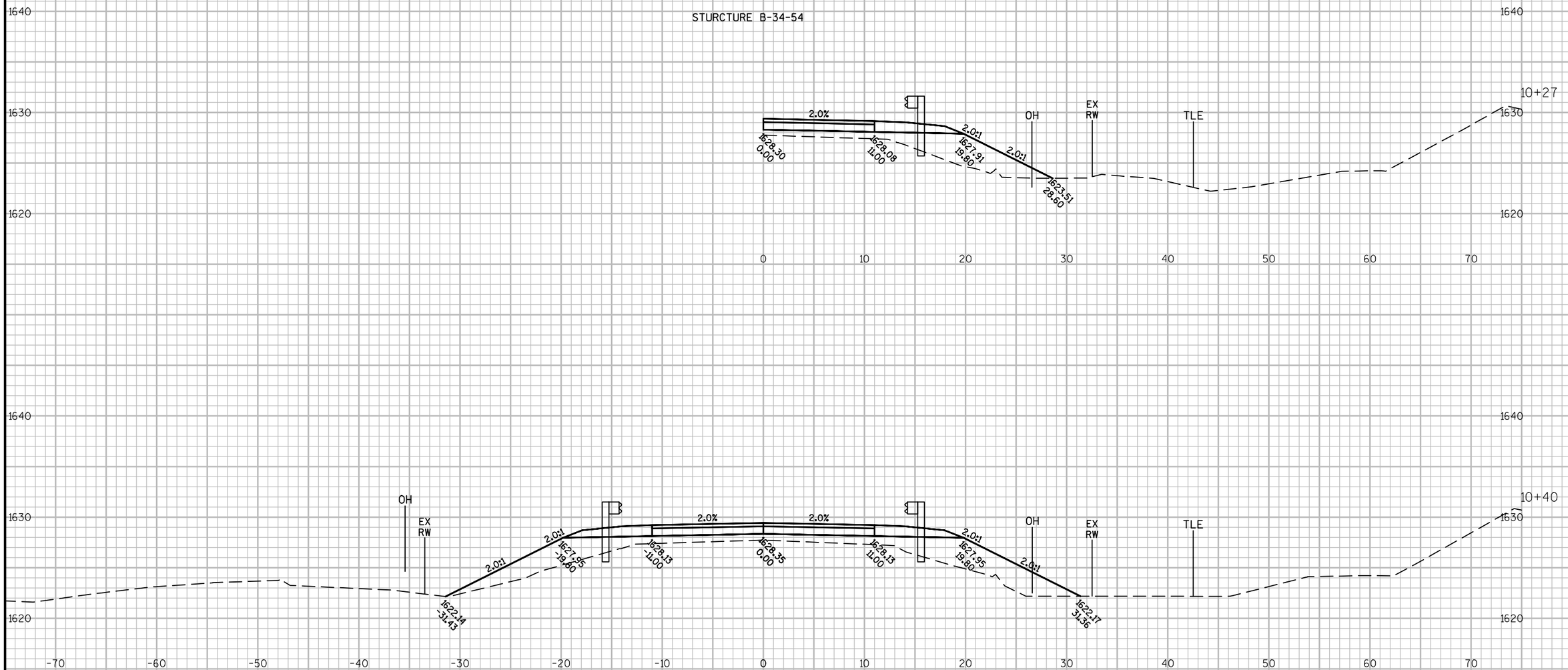


PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 53	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (7)

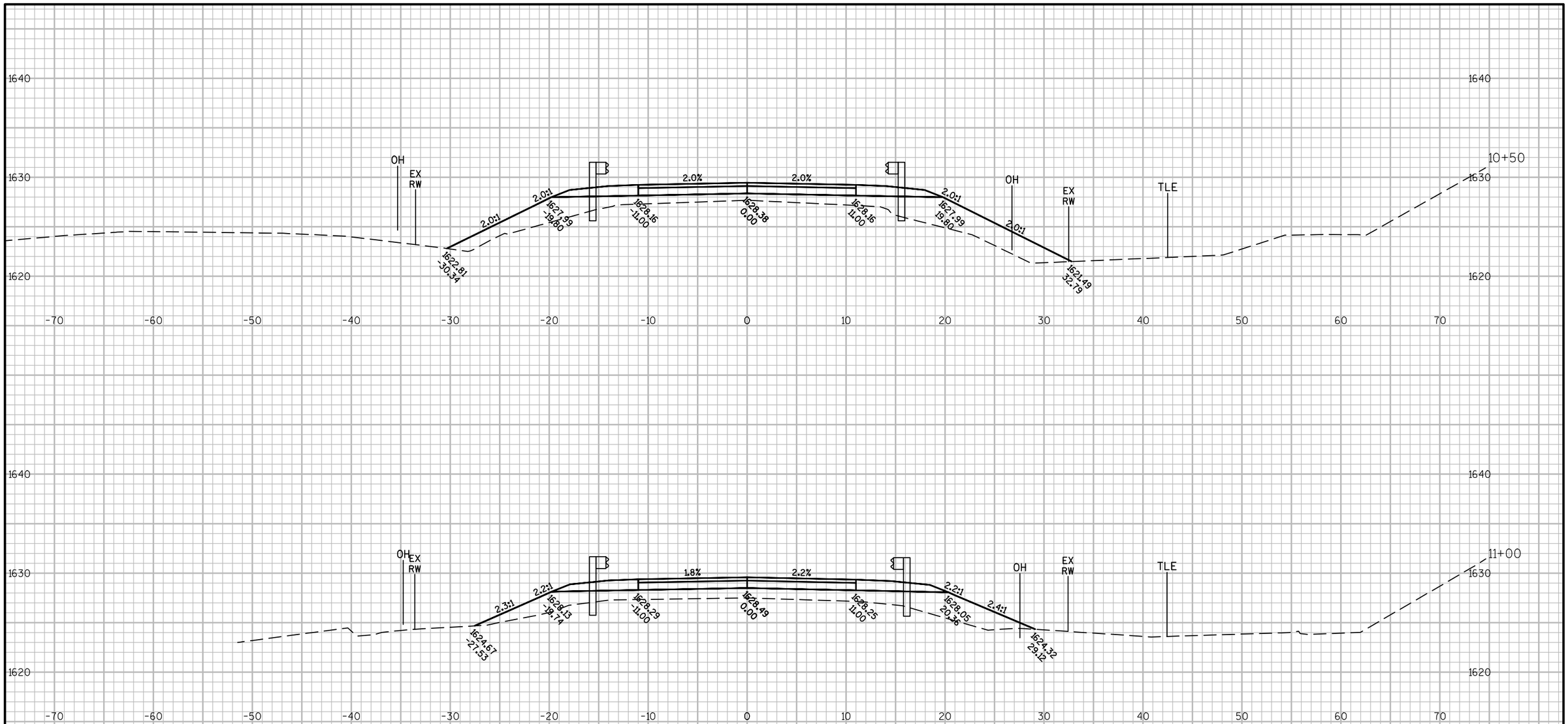
PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

STURCTURE B-34-54



PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 54	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (8)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

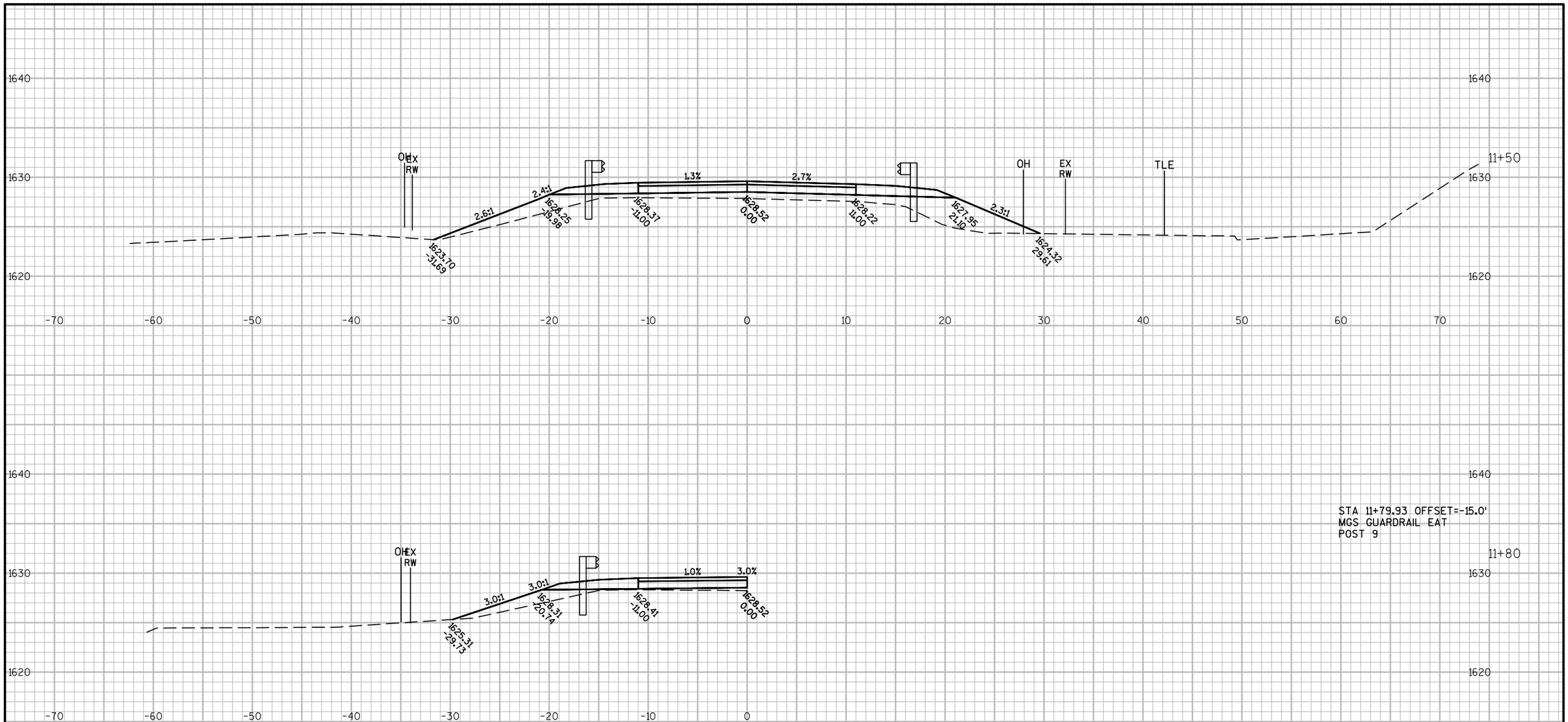


9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 55	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (9)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

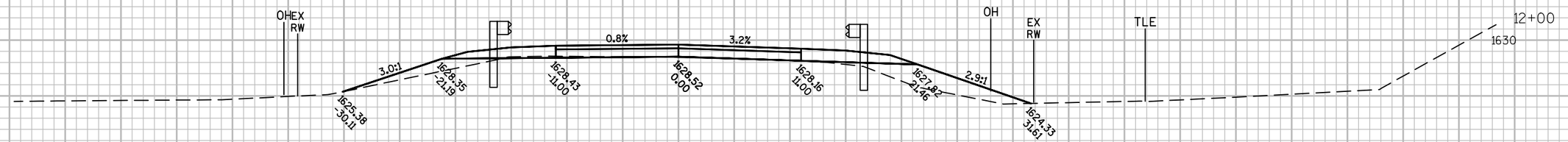


9

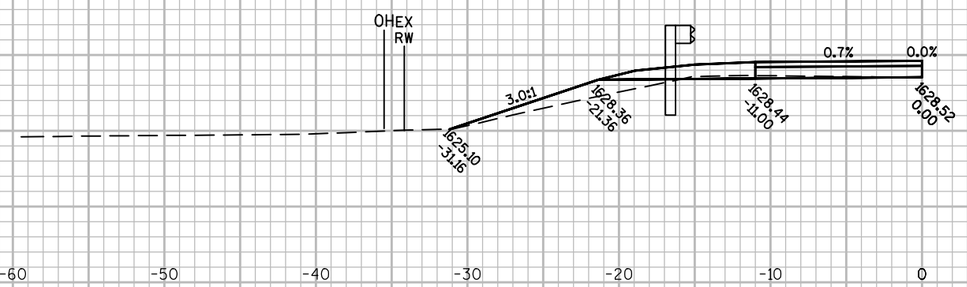
9

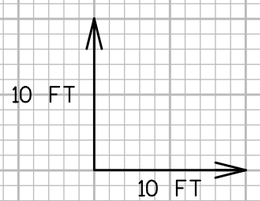
PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 56	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (10)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



STA 12+04.91 OFFSET=-15.0'
MGS GUARDRAIL EAT
POST 5



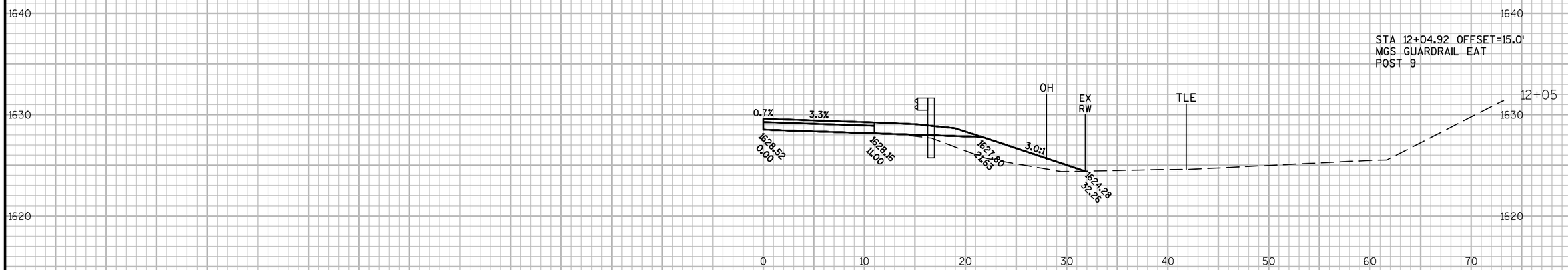


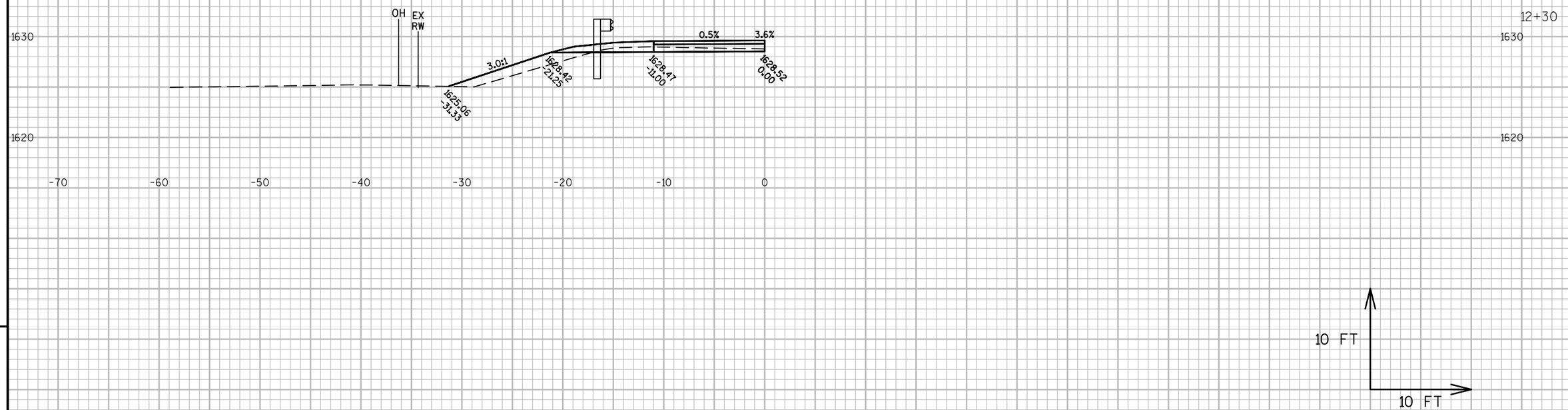
9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 57	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (11)
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT





9

9

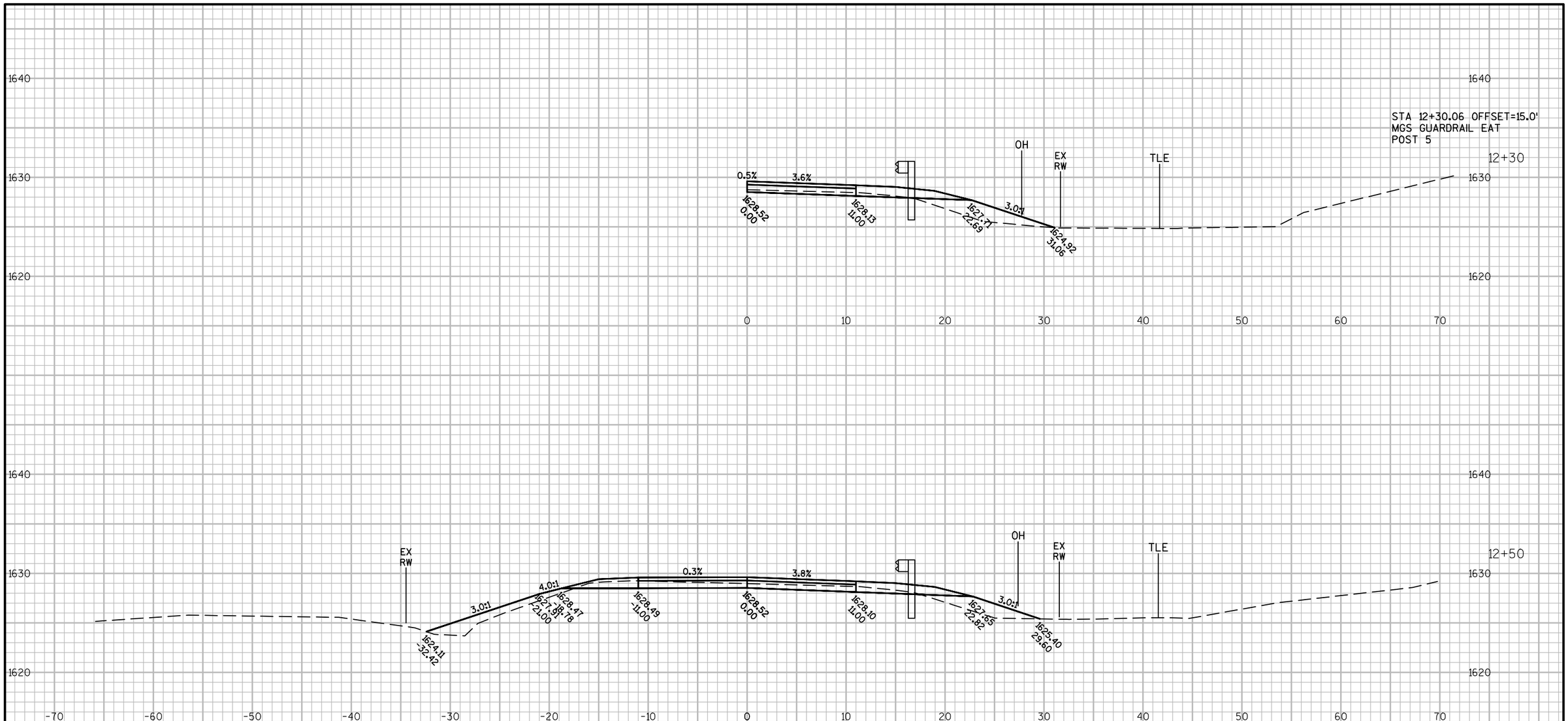
PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 58	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B-(600FT APROACH).DWG PLOT DATE : 6/18/2018 4:14 PM
LAYOUT NAME - XS - (12)

PLOT BY : BOBBY JONES

PLOT NAME :

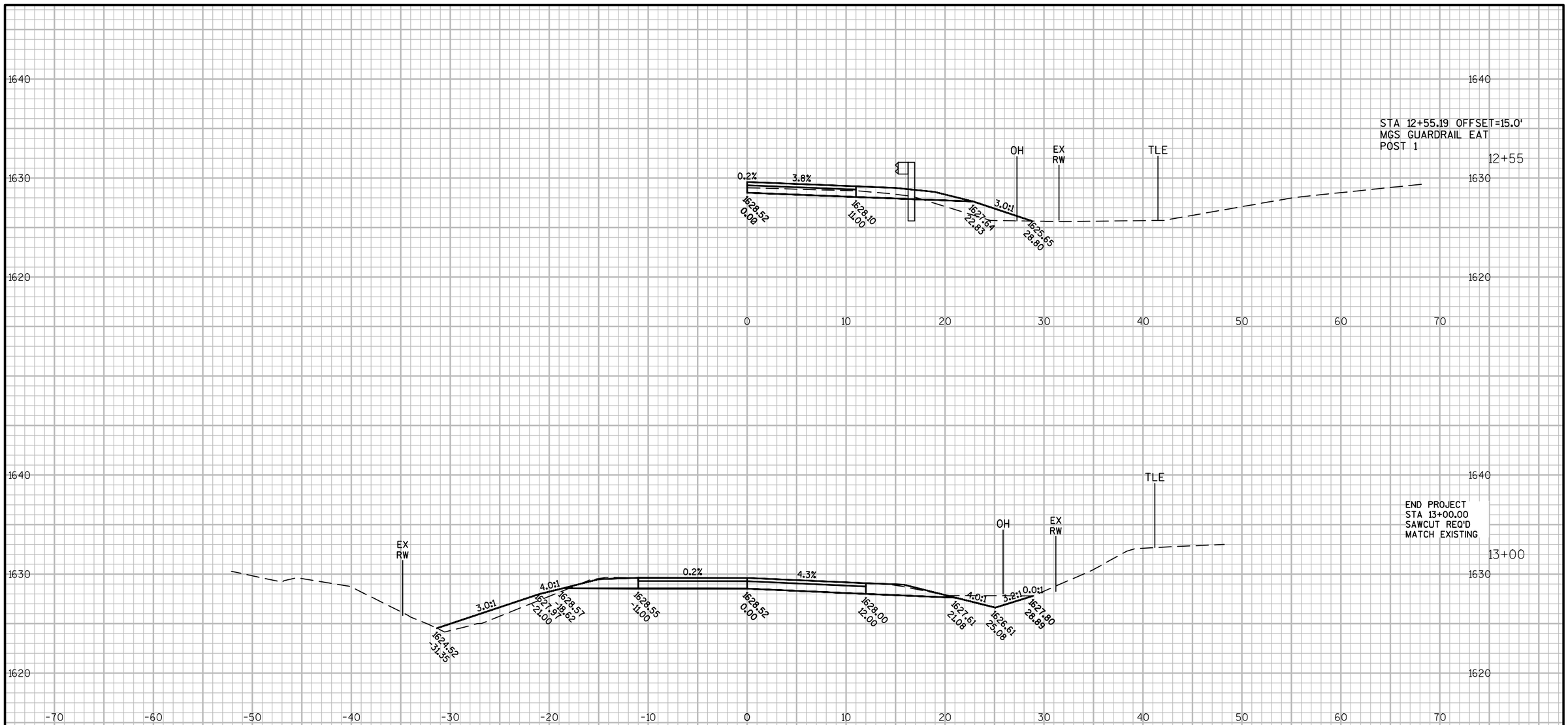
PLOT SCALE : 1 IN:10 FT



9

9

PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 59	E



PROJECT NO: 9360-00-70	HWY: CTH B	COUNTY: LANGLADE	CROSS SECTIONS: CTH B	SHEET 60	E

FILE NAME : P:\WI - NC REGION\9360-00-00_CTH B_LANGLADE CO\500_CADD\501_C3D\93600000\DESIGN\CORRIDORS\CRDR-CTH_B- (600FT APROACH).DWG PLOT DATE : 6/19/2018 9:15 AM
LAYOUT NAME - XS - (14)

PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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