RHI

DECEMBER 2026

PROJECT ID: **6652-01-70**

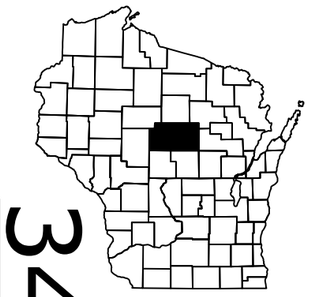
WITH: N/A

COUNTY: **MARATHON**

ORDER OF SHEETS

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

TOTAL SHEETS = 96



34

N

DESIGN DESIGNATION 6652-01-00

A.A.D.T.	2026	=	360
A.A.D.T.	2046	=	400
D.H.V.		=	60 VPH
D.D.		=	60/40
T.		=	4.5%
DESIGN SPEED		=	50 MPH
ESALS		=	59,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH F - CTH E

BIG EAU PLEINE RVR BRIDGE B-37-0481

CTH P
MARATHON COUNTY

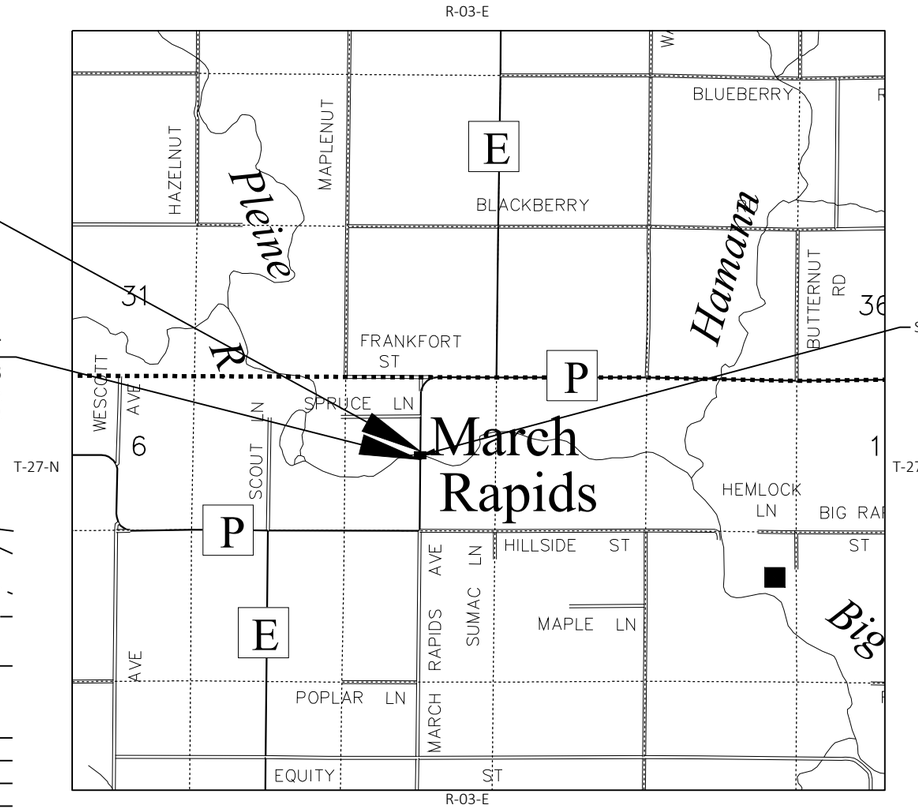
STATE PROJECT NUMBER
6652-01-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6652-01-70		

END PROJECT
STA 13+66
X = 146,480.107
Y = 163,106.153

BEGIN PROJECT
STA 6+38
X = 146,472.712
Y = 162,378.192

STRUCTURE B-37-481



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.138 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MARATHON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

ACCEPTED FOR

MARATHON COUNTY

Date 7/31/26 Kevin Lang
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

AECOM

WISCONSIN
JAMES A. RHOAD-DROGALIS
E-47302
MADISON
WI
PROFESSIONAL ENGINEER

DATE: 7/31/2026 James Rhoad-Drogalis
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	MICHAEL GRAGE
Regional Examiner	N/A
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT

DATE: 7/31/2026 (Signature)

E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\010101-TI-CTH P.DWG PLOT DATE : 7/14/2026 9:58 AM PLOT BY : VAN SICKLE, ETHAN PLOT NAME :

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS IN THE AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE THE SLOPE INTERCEPTS.

FERTILIZER SHOULD NOT BE PLACED WITHIN 20 FEET OF THE WATERWAY.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
DETOUR PLAN

COUNTY HIGHWAY COMMISSIONER

KEVIN LANG
MARATHON COUNTY
1430 WEST ST
WAUSAU, WI 54401
PHONE: 715-261-1801
EMAIL: KEVIN.LANG@MARATHONCOUNTY.GOV

WISCONSIN DNR LIAISON

JAY SCHIEFELBEIN
NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: 920-360-3784
EMAIL: JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

DESIGN PROJECT MANAGER

MICHAEL GRAGE
NORTH CENTRAL REGION
510 HANSEN LAKE RD
RHINELANDER, WI 54501
PHONE: 715-365-5705
EMAIL: MICHAEL.GRAGE@DOT.WI.GOV

DESIGN CONTACT

JAMES RHOAD-DROGALIS
AECOM
1350 DEMING WAY
MIDDLETON, WI 53562
PHONE: 608-828-8166
EMAIL: JAMES.DROGALIS@AECOM.COM

UTILITIES CONTACTS

SPECTRUM
COMMUNICATIONS
JUSTIN SORENSON
853 MCINTOSH ST
WAUSAU, WI 54403
PHONE: 715-301-4083
EMAIL: JUSTIN.SORENSON@SPECTRUM.COM

FRONTIER COMMUNICATIONS
COMMUNICATIONS
CHRIS POLLACK
421 4TH STREET
WAUSAU, WI 54403
PHONE: 715-847-1240
EMAIL: CHRISTOPHER.POLLACK@FTR.COM

WPS ELECTRIC
ELECTRIC
JESSE PATTEN
P.O. BOX 166
WAUSAU, WI 54402
PHONE: 715-848-7405
EMAIL: UTILITIESRELOCATION@WISCONSINPUBLICSERVICE.COM

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

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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIPTURF:	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPETURF:			.25			.27			.28			.30
			.32			.34			.36			.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 = 1.69 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.80 ACRES

2

N

BEAUVILLE LN (SPRUCE LN)

CTH P / CTH E

END PROJECT
STA 13+66

MARCH RAPIDS PARK

B-37-481

BEGIN PROJECT
STA 6+38

BIG EAU PLEINE RIVER

TOWN OF EAU PLEINE
T-27-N, R-3-E
SECTION 5

TOWN OF EAU PLEINE
T-27-N, R-3-E
SECTION 4

TOWN OF EAU PLEINE
T-27-N, R-3-E
SECTION 3

MARCH RAPIDS

CTH P / CTH E

HILLSIDE ST

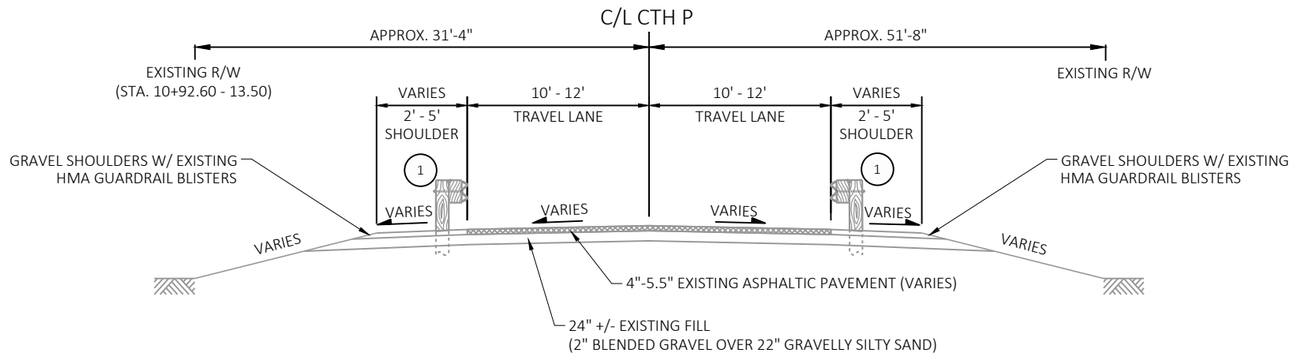
2

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01
PLOT DATE : 7/15/2026 11:42 AM PLOT BY : VAN SICKLE, ETHAN PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2

(1) EXISTING GUARDRAIL
STA 8+56.54 TO STA 9+07.53 LT
STA 8+56.64 TO STA 9+07.56 RT
STA 10+92.65 TO STA 11+43.31 LT
STA 10+92.54 TO STA 11+43.52 RT



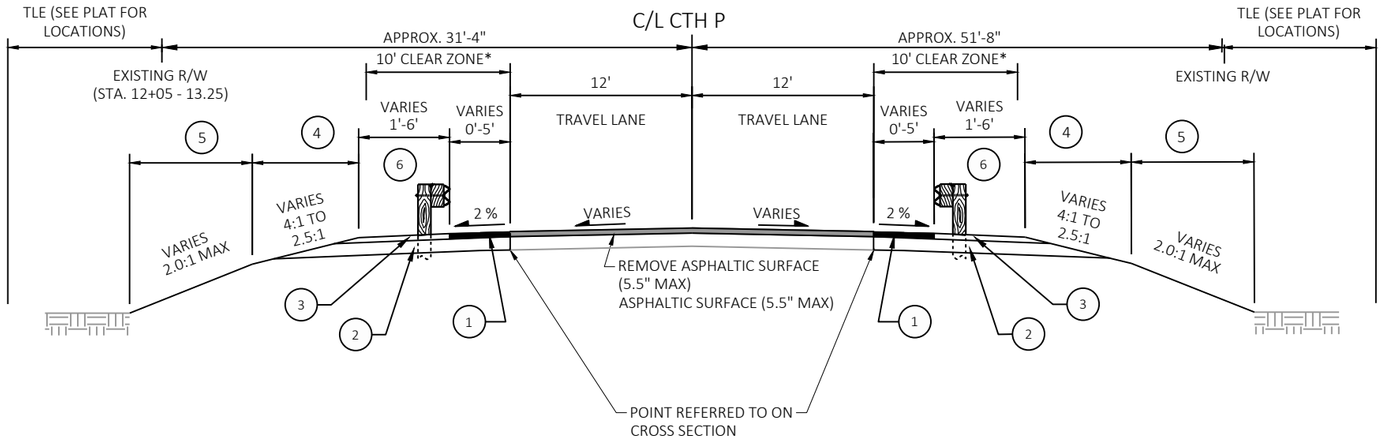
EXISTING TYPICAL SECTION

STA 6+38.30 - STA 9+07.55
STA 10+92.60 - STA 13+66.30

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 4	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\020301-TS_CTH P.DWG PLOT DATE : 7/15/2026 11:42 AM PLOT BY : VAN SICKLE, ETHAN PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 01-10ft
WISDOT/CADDS SHEET 42

2

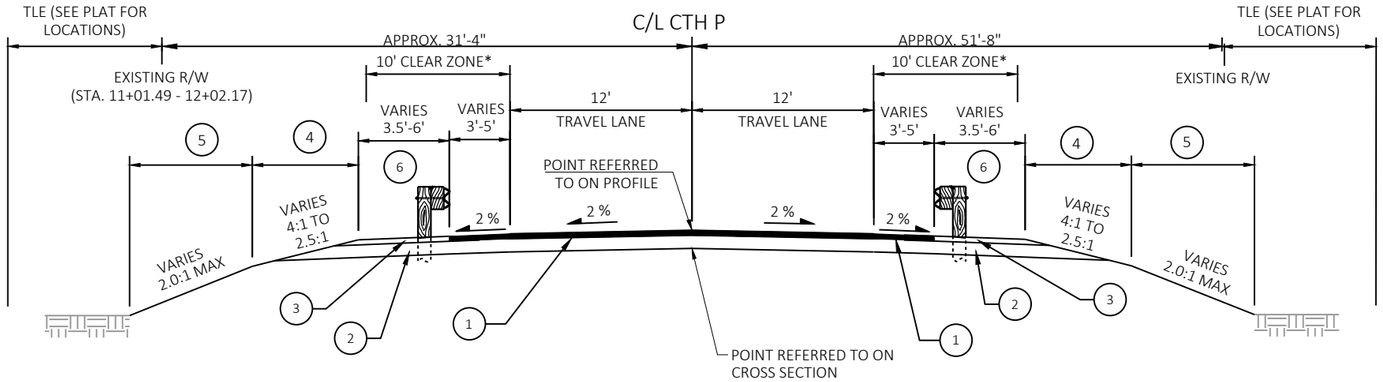


PROPOSED TYPICAL SECTION

STA 6+38.30 - STA 7+95.00
STA 12+05.00 - STA 13+66.30

LEGEND

1. 4" ASPHALTIC SURFACE, SINGLE LIFT
2. 9" BASE AGGREGATE DENSE 1 1/4-INCH
3. 4" BASE AGGREGATE DENSE 3/4-INCH
4. FERTILIZE AND SEED
5. TOPSOIL, FERTILIZE, SEED & EROSION MAT
   LENGTH MAY EXTEND PAST R/W INTO TLE
6. PROPOSED GUARDRAIL
   STA 7+18.60 TO STA 8+96.26 RT
   STA 8+11.61 TO STA 9+01.62 LT
   STA 10+98.82 TO STA 11+88.83 RT
   STA 11+04.16 TO STA 12+81.84 LT



PROPOSED TYPICAL SECTION

STA 7+95.00 - STA 8+98.85
STA 11+01.49 TO STA 12+05

*AREAS WITHIN CLEAR ZONE PROTECTED BY GUARDRAIL WHERE PRESENT

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 5	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\020301-TS_CTH P.DWG PLOT DATE : 7/15/2026 11:43 AM PLOT BY : VAN SICKLE, ETHAN PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 02-10ft
WISDOT/CADDS SHEET 42

2

N

MGS THRIE BEAM TRANSITION

MGS EAT TERMINAL
POST #1: STA. 8+12
POST #5: STA. 8+37
POST #9: STA. 8+62

BEGIN PROJECT
STA 6+38

EX ROW

P.L.

EXISTING STRUCTURE B-37-44
PROPOSED STRUCTURE B-37-481

MGS THRIE BEAM TRANSITION

TLE

MGS GUARDRAIL 3

MGS EAT TERMINAL
POST #1: STA. 12+82
POST #5: STA. 12+57
POST #9: STA. 12+32

SLOPE INTERCEPTS (TYP)

EX ROW

EX ROW

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

C/L CTH P

CTH P

INSTALL SIGN TYPE II
REFLECTIVE F (W5-52)

EX ROW

SLOPE INTERCEPTS (TYP)

MGS EAT TERMINAL
POST #1: STA. 7+19
POST #5: STA. 7+44
POST #9: STA. 7+69

EX ROW

MGS GUARDRAIL 3

MGS THRIE BEAM TRANSITION

TLE

INSTALL SIGN TYPE II
REFLECTIVE F (W5-52)

WETLAND
BOUNDARY

BIG EAU PLEINE RIVER

WATER EDGE
(TYP)

MGS THRIE BEAM TRANSITION

WETLAND
BOUNDARY

END PROJECT
STA 13+66

MGS EAT TERMINAL
POST #1: STA. 11+89
POST #5: STA. 11+64
POST #9: STA. 11+39

BEAMGUARD				
ITEM	SW	SE	NW	NE
MGS THRIE BEAM TRANSITION	8+64.73, 15' LT - 9+04.33, 15' LT	8+59.24, 15' RT - 8+98.84, 15' RT	11+01.62, 15' RT - 11+41.22, 15' RT	10+95.96, 15' RT - 11+35.56, 15' RT
MGS GUARDRAIL 3	--	7+71.74, 15' RT - 8+59.24, 15' RT	11+41.22, 15' RT - 12+28.72, 15' RT	--
MGS GUARDRAIL TERMINAL EAT	8+11.61, 17' LT - 8+64.73, 15' LT	7+18.62, 17' RT - 7+71.74, 15' RT	12+28.72, 15' RT - 12+81.84, 17' RT	11+35.56, 17' RT - 11+88.68, 15' RT

2

2

N

EX ROW

SPECTRUM
FIBER OPTIC
(OVERHEAD)

FRONTIER TELEPHONE
(OVERHEAD)

TLE

P.L.

C/L CTH P

EXISTING STRUCTURE B-37-44
PROPOSED STRUCTURE B-37-481

P.L.

SLOPE INTERCEPTS (TYP)

EX ROW

EX ROW

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

CTH P

CP 908
X=146540.00
Y=162841.25

EX ROW

EX ROW

END PROJECT
STA 13+66

BEGIN PROJECT
STA 6+38

SLOPE INTERCEPTS (TYP)

TLE

WETLAND
BOUNDARY

BIG EAU PLEINE RIVER

CP 915
X=146583.61
Y=162802.09

WATER EDGE
(TYP)

WETLAND
BOUNDARY

WPS ELECTRIC
(OVERHEAD)

LEGEND

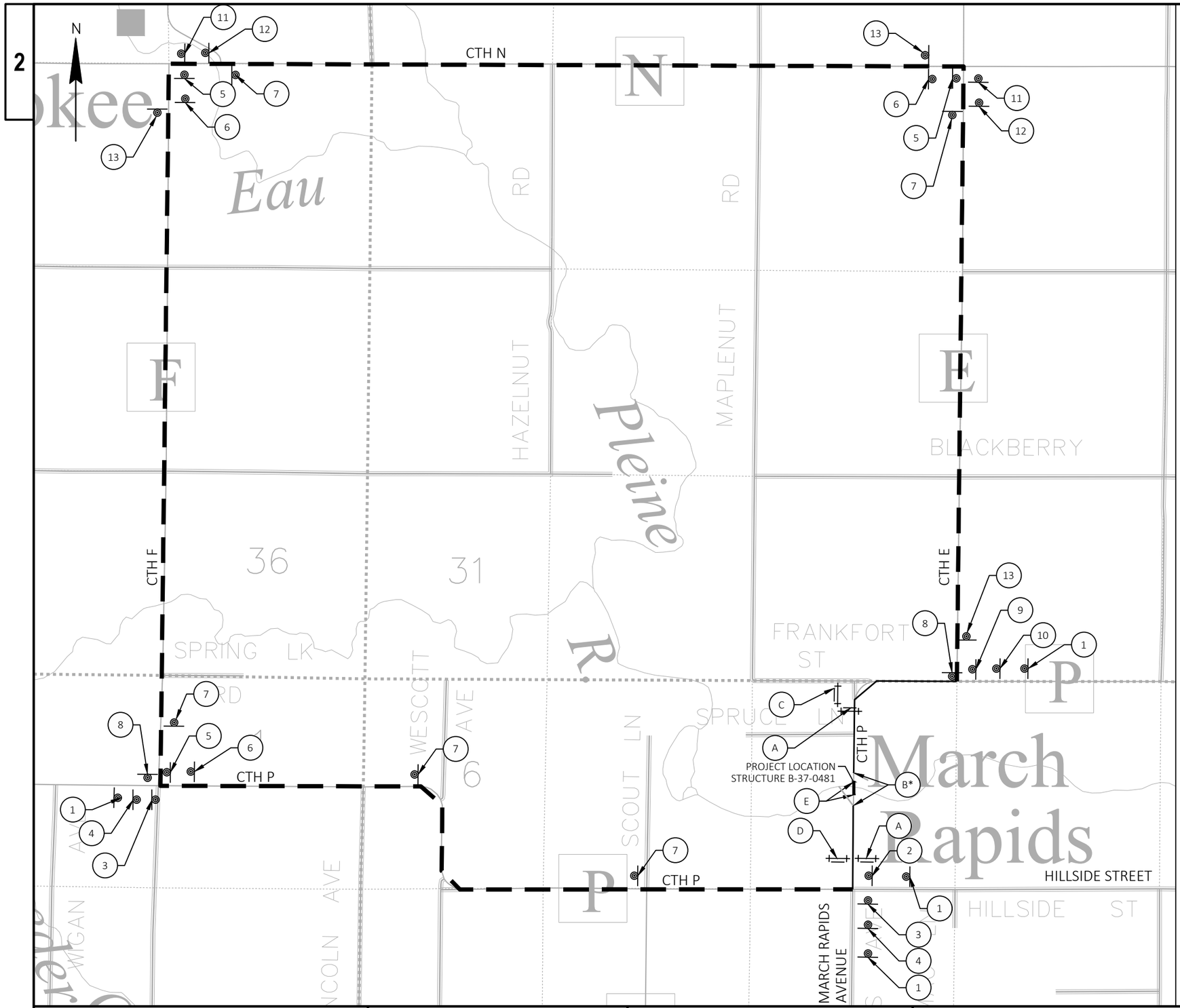
- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- RIP RAP HEAVY
- TURBIDITY BARRIER
- TEMPORARY DITCH CHECKS

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	EROSION CONTROL	SHEET 7	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 7/15/2026 11:58 AM PLOT BY : VAN SICKLE, ETHAN PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42



GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE..

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

USE SIZE (2) SIGNS FOR ALL SIGNING.

* G20-57C SIGNS ARE TO BE PLACED 7 DAYS PRIOR TO CONSTRUCTION AND REMOVED WHEN CONSTRUCTION BEGINS.

(E) REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL C.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- DETOUR ROUTE
- (#) SIGN DETAIL # - SEE DETOUR SIGNING DETAILS
- CTH P TO REMAIN OPEN TO LOCAL TRAFFIC

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	DETOUR PLAN	SHEET 8	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027001-01
PLOT DATE : 10/21/2026 2:48 PM
PLOT BY : VAN SICKLE, ETHAN
PLOT NAME :
PLOT SCALE : 1 IN:0.5 MI
WISDOT/CADDS SHEET 42

2

1



2



3



4



5



6



7



8



ADD TO EXISTING ASSEMBLY

9



10



11



12



13



A

R11-3B
R11-3B-SIZE



TYPE III BARRICADE

B*

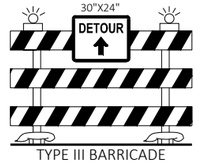
G20-57C SIGNS ARE TO BE PLACED 7 DAYS PRIOR TO CONSTRUCTION AND REMOVED WHEN CONSTRUCTION BEGINS.



G20-57C
96"X48"

C

M4-9RA
30"X24"



TYPE III BARRICADE

DETOUR SIGN LEGEND



W20-2A
24"X24"

M4-8A
24"X18"



M4-8
24"X12"



M3-4
24"X12"

M3-2
24"X12"



MO6-1
21"X21"



M1-5A
24"X24"



MO6-4
21"X21"



MO5-1L
21"X21"



MO5-1R
21"X21"



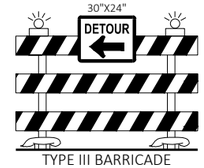
MO5-2L
21"X21"



MO6-2
21"X21"

D

M4-9L
30"X24"



TYPE III BARRICADE

E

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL C.

2

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	DETOUR PLAN	SHEET 9	E

Estimate Of Quantities

6652-01-70

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	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-37-0044	EACH	1.000	1.000
0008	204.0110	Removing Asphaltic Surface	SY	1,354.000	1,354.000
0010	204.0165	Removing Guardrail	LF	208.000	208.000
0012	205.0100	Excavation Common	CY	486.000	486.000
0014	206.1001	Excavation for Structures Bridges (structure) 01. B-37-0481	EACH	1.000	1.000
0016	206.5001	Cofferdams (structure) 01. B-37-0481	EACH	1.000	1.000
0018	208.0100	Borrow	CY	783.000	783.000
0020	210.1500	Backfill Structure Type A	TON	530.000	530.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6652-01-70	EACH	1.000	1.000
0024	213.0100	Finishing Roadway (project) 01. 6652-01-70	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	121.000	121.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	593.000	593.000
0030	455.0605	Tack Coat	GAL	108.000	108.000
0032	465.0105	Asphaltic Surface	TON	386.000	386.000
0034	502.0100	Concrete Masonry Bridges	CY	489.000	489.000
0036	502.1100	Concrete Masonry Seal	CY	59.000	59.000
0038	502.3200	Protective Surface Treatment	SY	676.000	676.000
0040	502.3210	Pigmented Surface Sealer	SY	200.000	200.000
0042	503.0146	Prestressed Girder Type I 45W-Inch	LF	803.000	803.000
0044	505.0400	Bar Steel Reinforcement HS Structures	LB	21,750.000	21,750.000
0046	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	68,380.000	68,380.000
0048	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	16.000	16.000
0050	506.4000	Steel Diaphragms (structure) 01. B-37-0481	EACH	12.000	12.000
0052	514.0445	Floor Drains Type GC	EACH	4.000	4.000
0054	514.2625	Downspout 6-Inch	LF	18.000	18.000
0056	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0058	550.0020	Pre-Boring Rock or Consolidated Materials	LF	405.000	405.000
0060	550.0500	Pile Points	EACH	8.000	8.000
0062	550.1100	Piling Steel HP 10-Inch x 42 Lb	LF	870.000	870.000
0064	606.0300	Riprap Heavy	CY	455.000	455.000
0066	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0068	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0070	614.2300	MGS Guardrail 3	LF	175.000	175.000
0072	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0074	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0076	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6652-01-70	EACH	1.000	1.000
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	624.0100	Water	MGAL	16.000	16.000
0082	625.0100	Topsoil	SY	2,410.000	2,410.000
0084	628.1504	Silt Fence	LF	1,315.000	1,315.000
0086	628.1520	Silt Fence Maintenance	LF	1,315.000	1,315.000
0088	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0090	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0092	628.2008	Erosion Mat Urban Class I Type B	SY	1,712.000	1,712.000
0094	628.2027	Erosion Mat Class II Type C	SY	699.000	699.000
0096	628.6005	Turbidity Barriers	SY	142.000	142.000
0098	628.7504	Temporary Ditch Checks	LF	30.000	30.000

6652-01-70

Line	Item	Item Description	Unit	Total	Qty
0100	629.0210	Fertilizer Type B	CWT	1.800	1.800
0102	630.0130	Seeding Mixture No. 30	LB	49.000	49.000
0104	630.0200	Seeding Temporary	LB	49.000	49.000
0106	630.0500	Seed Water	MGAL	87.000	87.000
0108	634.0612	Posts Wood 4x6-Inch x 12-FT	EACH	4.000	4.000
0110	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0112	638.2602	Removing Signs Type II	EACH	4.000	4.000
0114	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0116	642.5001	Field Office Type B	EACH	1.000	1.000
0118	643.0420	Traffic Control Barricades Type III	DAY	960.000	960.000
0120	643.0705	Traffic Control Warning Lights Type A	DAY	1,920.000	1,920.000
0122	643.0900	Traffic Control Signs	DAY	13,680.000	13,680.000
0124	643.1000	Traffic Control Signs Fixed Message	SF	64.000	64.000
0126	643.5000	Traffic Control	EACH	1.000	1.000
0128	645.0111	Geotextile Type DF Schedule A	SY	92.000	92.000
0130	645.0120	Geotextile Type HR	SY	780.000	780.000
0132	646.2020	Marking Line Epoxy 6-Inch	LF	2,366.000	2,366.000
0134	650.5000	Construction Staking Base	LF	532.000	532.000
0136	650.6501	Construction Staking Structure Layout (structure) 01. B-37-0481	EACH	1.000	1.000
0138	650.9911	Construction Staking Supplemental Control (project) 01. 6652-01-70	EACH	1.000	1.000
0140	650.9920	Construction Staking Slope Stakes	LF	597.000	597.000
0142	690.0150	Sawing Asphalt	LF	100.000	100.000
0144	715.0502	Incentive Strength Concrete Structures	DOL	3,288.000	3,288.000
0146	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	REMARKS
0010	6+38	-	9+30	SOUTH APPROACH - CTH P	3	3	
0010	10+60	-	13+66	NORTH APPROACH - CTH P	3	3	
				PROJECT TOTAL	.	6	

REMOVALS

CATEGOR	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE S	204.015 REMOVING GUARDRAIL LF	0.0150 SAWING ASPHALT LF	REMARKS
0010	+8	-	+5	CTH P MAINLINE SHOULDER	351	-	25	
0010	+5	-	+0	CTH P MAINLINE SHOULDER	330	-	25	
0010	10+4	-	12+05	CTH P MAINLINE SHOULDER	325	-	25	
0010	12+05	-	13+31	CTH P MAINLINE SHOULDER	348	-	25	
0010	8+5	-	+08	B-3-44 (EXISTING) SW UADRANT	-	52	-	
0010	8+5	-	+08	B-3-44 (EXISTING) SE UADRANT	-	52	-	
0010	10+1	-	11+43	B-3-44 (EXISTING) NW UADRANT	-	52	-	
0010	10+1	-	11+43	B-3-44 (EXISTING) NE UADRANT	-	52	-	
				PROECT TOTAL	1354	208	100	

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
CTH P	+38.40 - 8+88.3	SOUTH APPROACH	24	88	11	50	813	-52	88	52	
CTH P	11+12.13 - 13+.2	NORTH APPROACH	23	2	15	23	2	-131	2	131	
GRAND TOTAL			48	10	32	88	110	-83	10	83	ALL VALUES IN C

NOTES
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25
DEPENDING ON SELECTIONS
EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR
OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR
OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR
OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR
(14) THE MASS ORDINATE + OR - T CALCULATED FOR THE DIVISION. PLUS UANTIT INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONL.

BASE AGGREGATE DENSE

CATEGOR	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	24.0100 WATER MGAL	REMARKS
0010	+0	-	+02	SOUTH LT SHOULDER AGGREGATE	28	52	2	
0010	+1	-	+02	SOUTH LT SHOULDER PAVED		23	1	
0010	+38	-	8+	SOUTH RT SHOULDER AGGREGATE	34	4	2	
0010	+8	-	8+	SOUTH RT SHOULDER PAVED		3	1	
0010	+5	-	+02	SOUTH MAINLINE		124	2	
0010	11+04	-	13+	NORTH LT SHOULDER AGGREGATE	34	4	2	
0010	11+04	-	13+31	NORTH LT SHOULDER PAVED		3	1	
0010	10+	-	12+8	NORTH RT SHOULDER AGGREGATE	25	4	2	
0010	10+	-	12+40	NORTH RT SHOULDER PAVED		24	1	
0010	10+	-	12+05	NORTH MAINLINE		123	2	
				PROECT TOTAL	121	53	1	

ASPHALT ITEMS

CATEGOR	STATION	TO	STATION	LOCATION	455.005 TACK COAT GAL	45.0105 ASPHALTIC SURFACE TON	REMARKS
0010	+38	-	+5	SOUTH MAINLINE SURF. REPLACEMENT	24	10	
0010	+5	-	+02	SOUTH MAINLINE	20	5	
0010	+8	-	8+	SOUTH RT SHOULDER	6	20	
0010	+1	-	+02	SOUTH LT SHOULDER	4	13	
0010	10+	-	12+05	NORTH MAINLINE	20	66	
0010	10+	-	12+40	NORTH RT SHOULDER	4	13	
0010	11+04	-	13+31	NORTH LT SHOULDER	6	1	
0010	12+05	-	13+	NORTH MAINLINE SURF. REPLACEMENT	24	81	
				PROECT TOTAL	108	38	

GUARDRAIL

CATEGOR	STATION	TO	STATION	LOCATION	14.2300 MGS GUARDRAIL 3 LF	14.2500 MGS THRIE BEAM TRANSITION LF	14.210 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	+1	-	8+	B-3-0481 SE UADRANT	8.5	3.4	1	
0010	8+12	-	+04	B-3-0481 SW UADRANT		3.4	1	
0010	10+	-	11+8	B-3-0481 NE UADRANT		3.4	1	
0010	11+02	-	12+82	B-3-0481 NW UADRANT	8.5	3.4	1	
				PROECT TOTAL	15.0	15.	4	

LANDSCAPING

CATEGOR	STATION	TO	STATION	LOCATION	25.0100 TOPSOIL S	28.2008 EROSION MAT URBAN CLASS I TPE B S	28.202 EROSION MAT CLASS II TPE C S	2.0210 FERTILIER TPE B CWT	30.0130 SEEDING MIXTURE NO. 30 LB	30.0200 SEEDING TEMPORAR LB	30.0500 SEED WATER MGAL	REMARKS
0010	+38	-	8+50	CTH P - RT	43	43		0.3	9	9	1	
0010	+0	-	8+2	CTH P - LT	43	43		0.3	8	8	15	
0010	8+50	-	+1	CTH P - RT	128		128	0.1	3	3	5	
0010	8+2	-	+1	CTH P - LT	10		10	0.1	2	2	4	
0010	10+2	-	11+2	CTH P - LT	14		14	0.1	4	4	7	
0010	10+8	-	11+3	CTH P - RT	130		130	0.1	3	3	5	
0010	11+3	-	12+8	CTH P - RT	22	22		0.2	5	5	8	
0010	11+2	-	13+	CTH P - LT	241	241		0.2	5	5	9	
0010		21-01-0		UNDISTRIBUTED (+25)	482	343	140	0.4	10	10	18	
				TOTAL 0010	2410	112	699	1.8	4	4	8	

EROSION CONTROL

CATEGOR	STATION	TO	STATION	LOCATION	28.1504 SILT FENCE LF	28.1520 SILT FENCE MAINTENANCE LF	28.005 TURBIDIT BARRIERS S	28.504 TEMPORAR DITCH CHECKS LF	REMARKS
0010	+25	-	+25	CTH P - RT	300	300			
0010	+00	-	+25	CTH P - LT	225	225			
0010	+00	-	+50	SOUTH ABUTMENT			4		
0010	10+25	-	10+5	NORTH ABUTMENT			8		
0010	10+50	-	13+5	CTH P - LT	325	325		30	
0010	10+5	-	12+5	CTH P - RT	200	200			
0010		21-01-0		UNDISTRIBUTED (+25)	25	25			
				PROECT TOTAL	1315	1315	142	30	

PERMANENT SIGNING ITEMS

CATEGOR	STATION	TO	STATION	LOCATION	34.012 POSTS WOOD 4X-INCH X 12-FT EACH	3.2230 SIGNS TPE II REFLECTIVE F SF	38.202 REMOVING SIGNS TPE II EACH	38.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	8+4	-	11+0	EACH CORNER OF EX. B-3-44			4	4	
0010	8+4	-	11+0	EACH CORNER OF PROP. B-3-481	4	12			
				PROECT TOTAL	4	12	4	4	

TRAFFIC CONTROL

CATEGOR	LOCATION	DAS IN SERVICE	43.0420 TRAFFIC CONTROL BARRICADES TPE III NO.	43.0420 TRAFFIC CONTROL BARRICADES TPE III DA	43.005 TRAFFIC CONTROL WARNING LIGHTS TPE A NO.	43.005 TRAFFIC CONTROL WARNING LIGHTS TPE A DA	43.000 TRAFFIC CONTROL SIGNS NO.	43.000 TRAFFIC CONTROL SIGNS DA	43.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE NO.	43.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	REMARKS
0010	PROECT ADVANCE WARNING	7							2	4	
0010	DETOUR	120	8	0	1	120	114	1380			
0010	OVERALL PROECT										
	PROECT TOTAL			0		120		1380		4	

PAVEMENT MARKINGS

CATEGOR	STATION	TO	STATION	LOCATION	4.2020 MARKING LINE EPOX -INCH LF	REMARKS
0010	+38	-	13+	LT/RT EDGELINES	145	SOLID WHITE
0010	+38	-	13+	CENTERLINE	10	NO-PASSING ONE ELLOW
				PROECT TOTAL	23	

CONSTRUCTION STAKING

CATEGOR	STATION	TO	STATION	LOCATION	50.5000 CONSTRUCTION STAKING BASE LF	50.20 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	+38	-	+30	BOTH SIDES	24	22	
0010	10+1	-	13+	BOTH SIDES	28	305	
				PROECT TOTAL	532	5	

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MARATHON COUNTY
CLERKS OFFICE

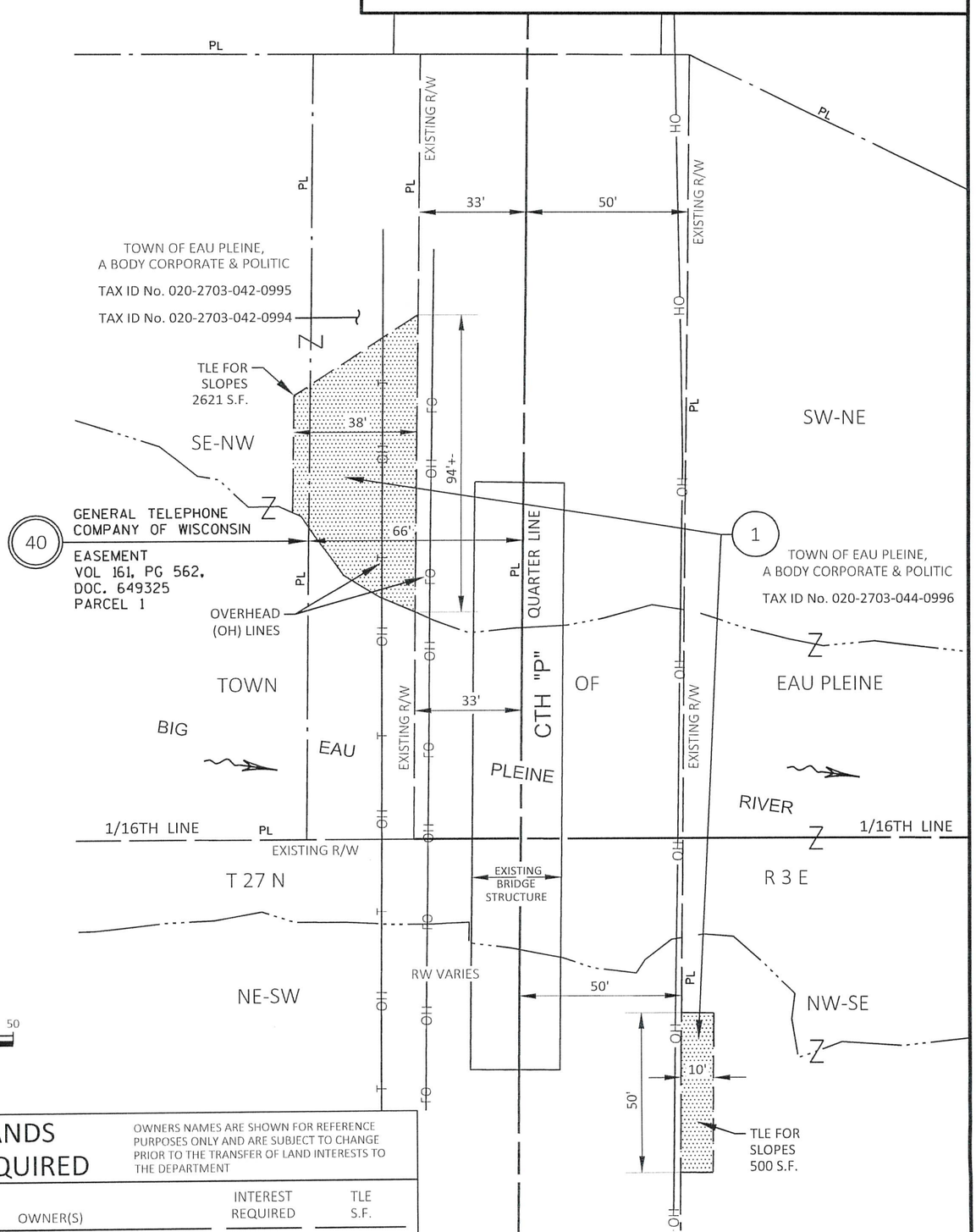
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NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

R/W PROJECT NUMBER: 6652-01-00	EXHIBIT NUMBER: 1

TLE ACQUISITION EXHIBIT
CTH F - CTH E
BIG EAU PLEINE RIVER BRIDGE, B-37-0044
CTH P — MARATHON COUNTY

PART OF THE SE-NW AND THE NW-SE OF SECTION 4, T27N, R3E,
TOWN OF EAU PLEINE, MARATHON COUNTY, WISCONSIN



SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
1	TOWN OF EAU PLEINE, A BODY CORPORATE POLITIC	TLE	3121

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
40	GENERAL TELEPHONE COMPANY OF WISCONSIN	RELEASE OF RIGHTS

THIS MAP PREPARED BY AECOM FOR MARATHON COUNTY.

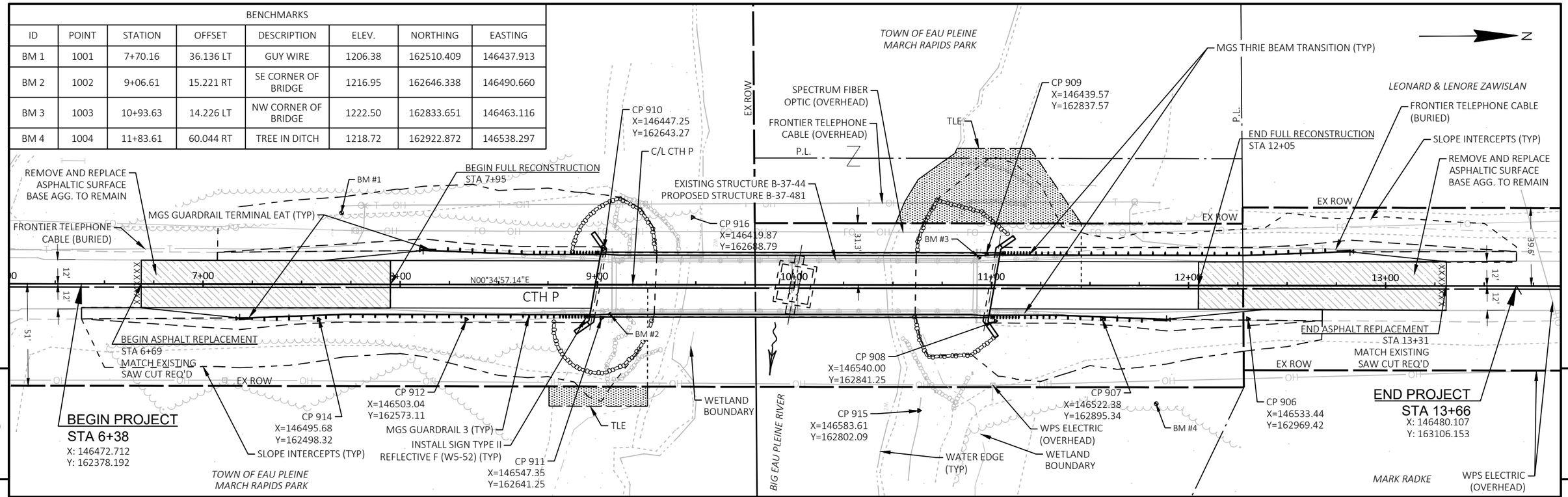
THIS MAP IS APPROVED FOR MARATHON COUNTY.

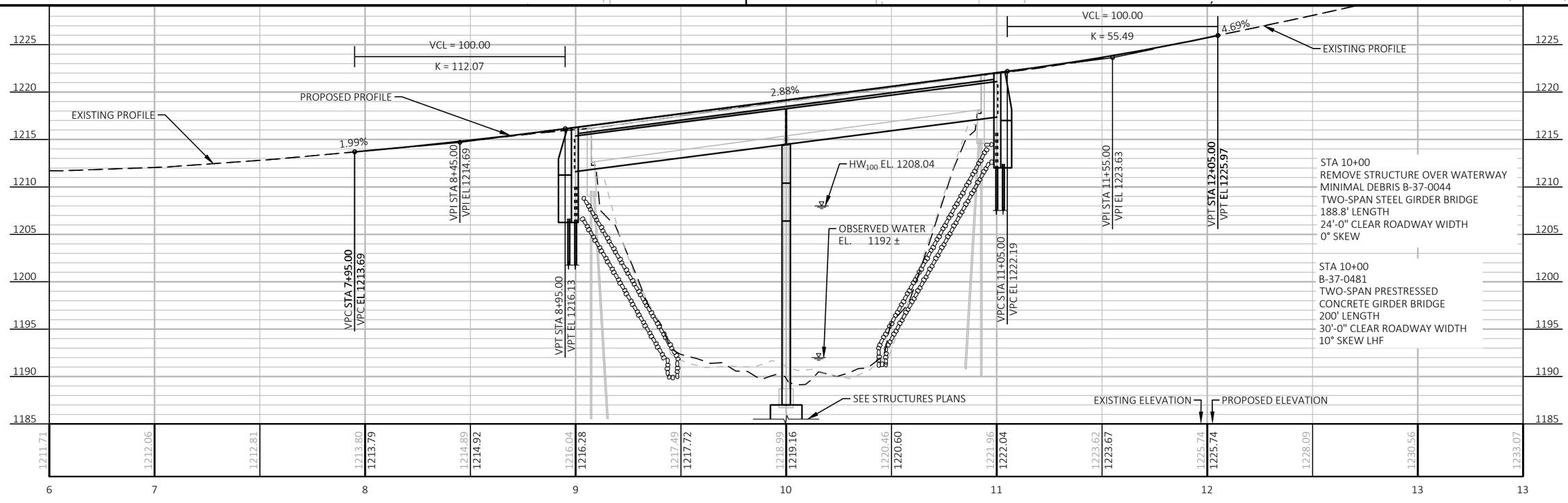
SIGNATURE: _____ DATE: 5-1-25

PRINT NAME: JAMES GRIESBACH, MARATHON COUNTY HIGHWAY COMMISSIONER

FILE NAME : 040101-TLE.DWG PLOT DATE : 4/28/2025 3:40 PM R/W PROJECT: R/W PROJ NO. 6652-01-00

BENCHMARKS							
ID	POINT	STATION	OFFSET	DESCRIPTION	ELEV.	NORTHING	EASTING
BM 1	1001	7+70.16	36.136 LT	GUY WIRE	1206.38	162510.409	146437.913
BM 2	1002	9+06.61	15.221 RT	SE CORNER OF BRIDGE	1216.95	162646.338	146490.660
BM 3	1003	10+93.63	14.226 LT	NW CORNER OF BRIDGE	1222.50	162833.651	146463.116
BM 4	1004	11+83.61	60.044 RT	TREE IN DITCH	1218.72	162922.872	146538.297





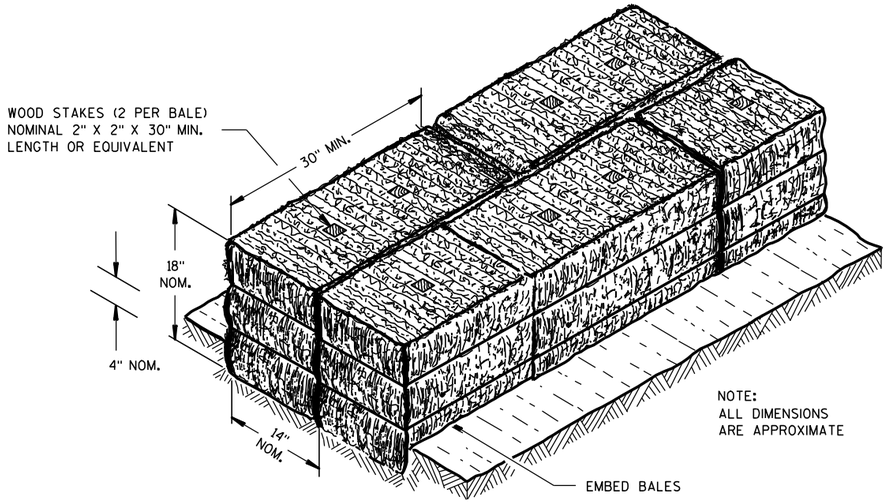
PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	PLAN AND PROFILE: CTH P	SHEET 16	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - PlanProf 1 IN 50 FT
PLOT DATE : 7/15/2026 3:23 PM
PLOT BY : VAN SICKLE, ETHAN
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

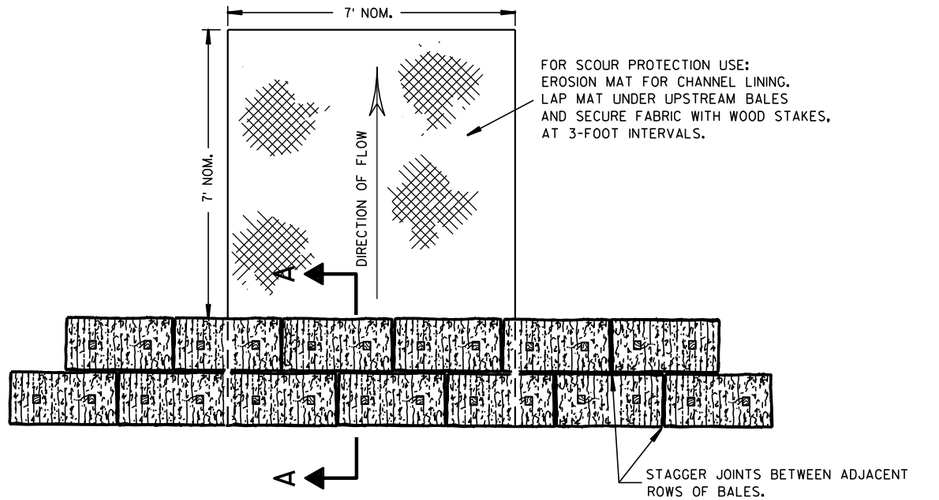
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
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)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-10C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-12	SIGNING AND MARKING FOR TWO LANE BRIDGES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-11B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

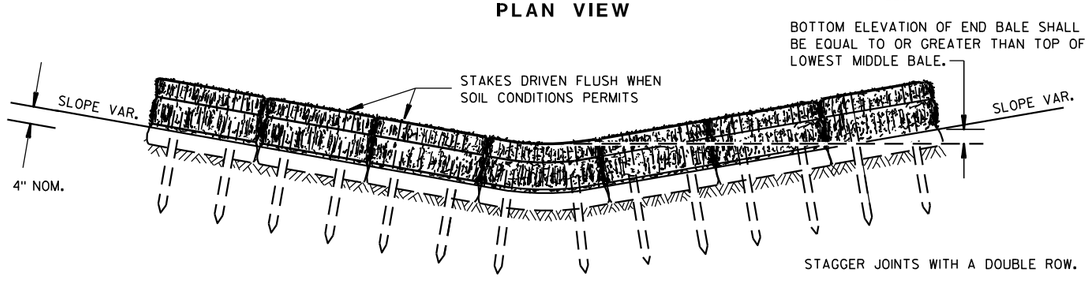
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SECTION A-A



PLAN VIEW



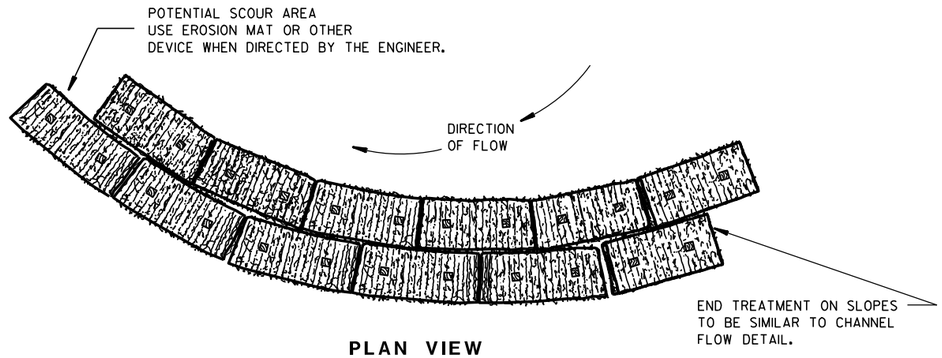
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

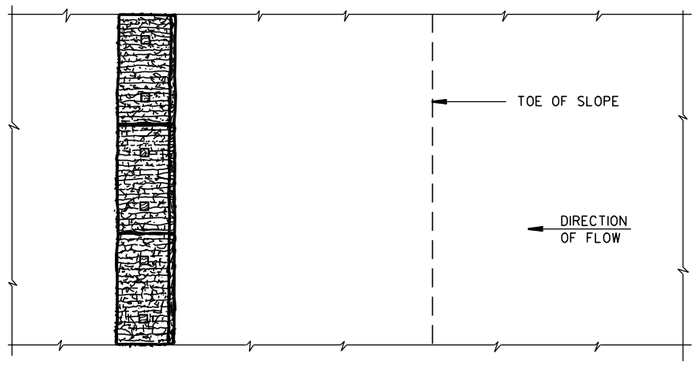
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

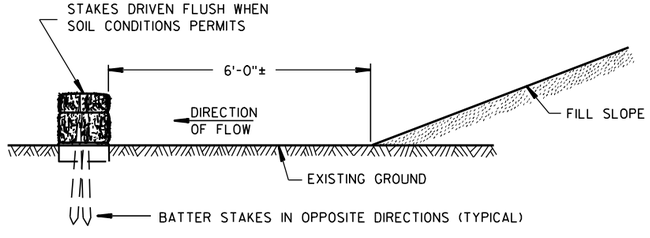


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

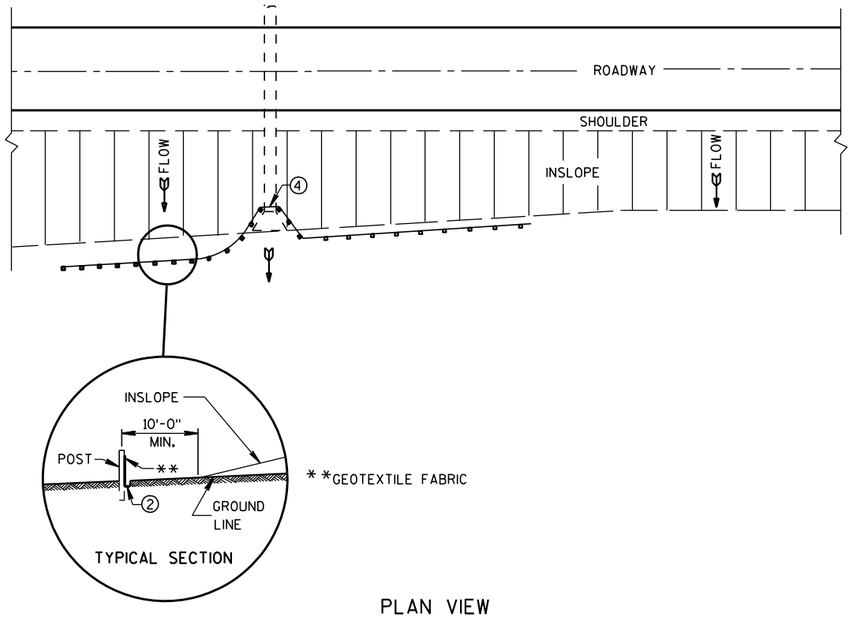
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

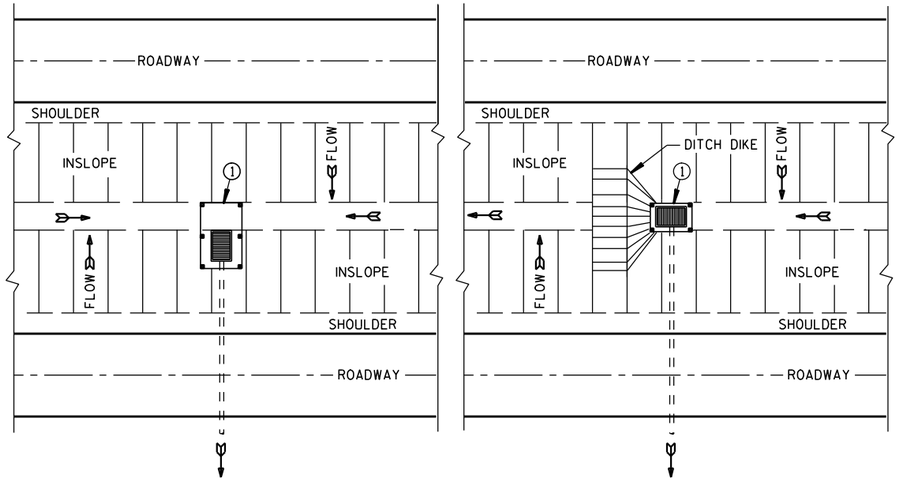
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



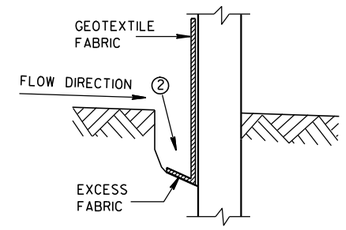
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

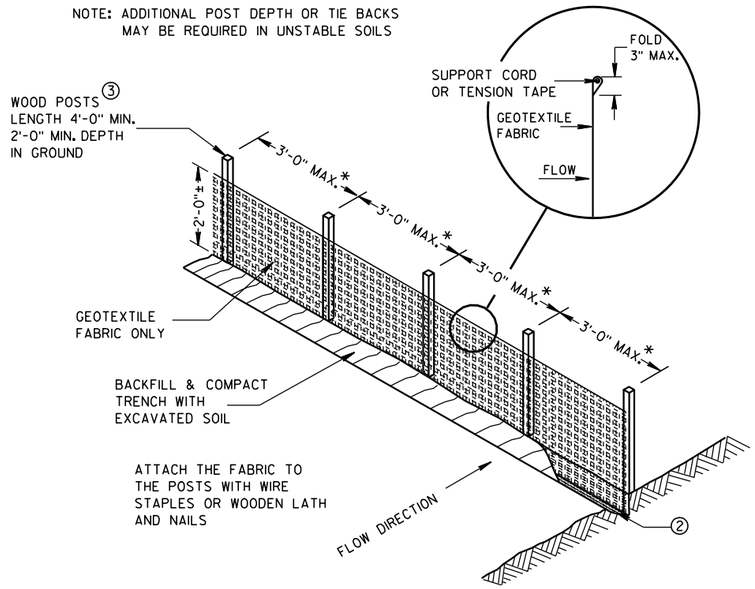
GENERAL NOTES

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

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

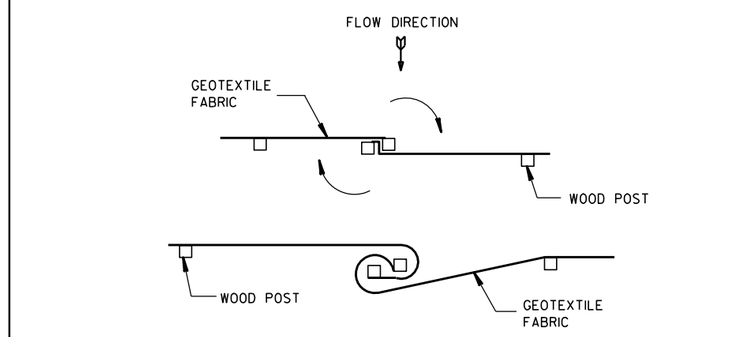


TRENCH DETAIL

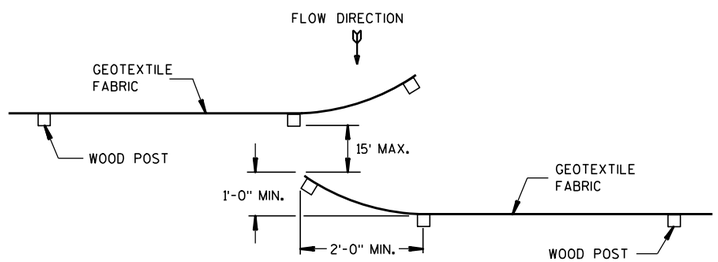


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

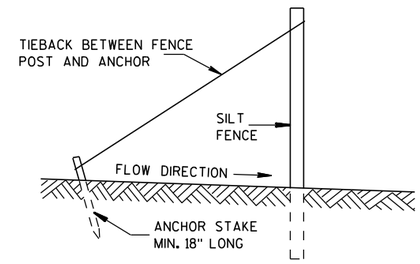


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

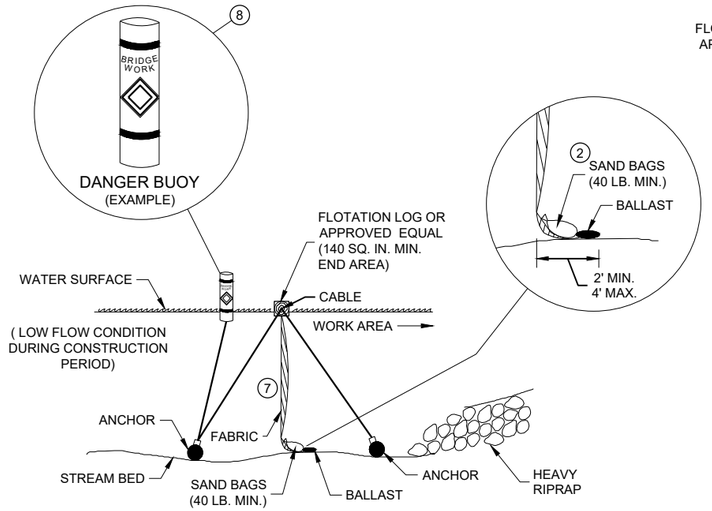
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

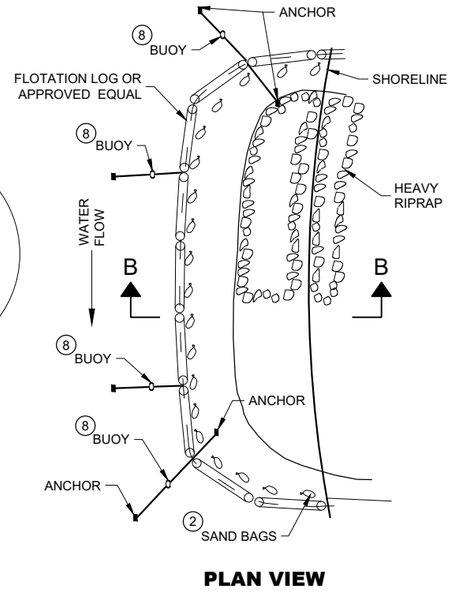
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

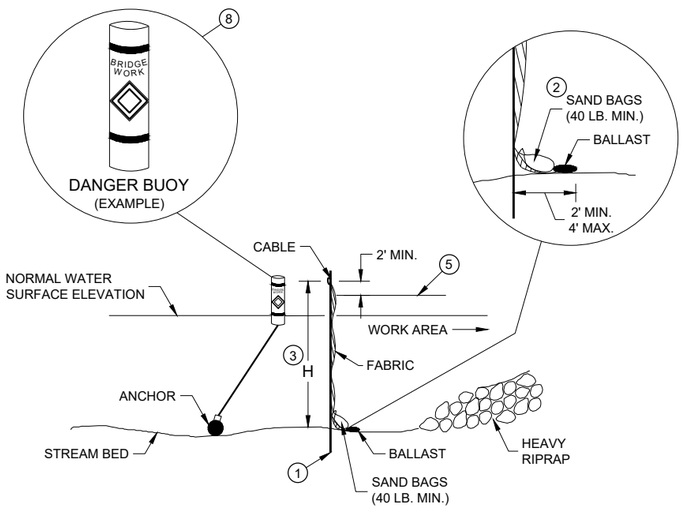


SECTION B - B

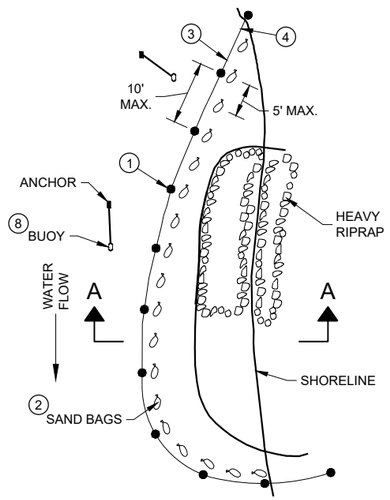


PLAN VIEW

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) SAND BAGS 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 FEET, POST SPACING MAY NEED TO BE DECREASED.

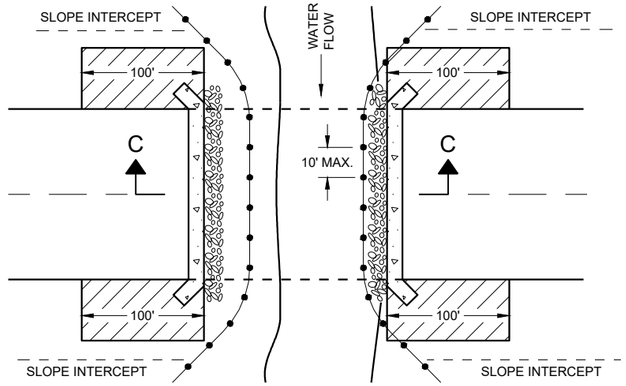
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

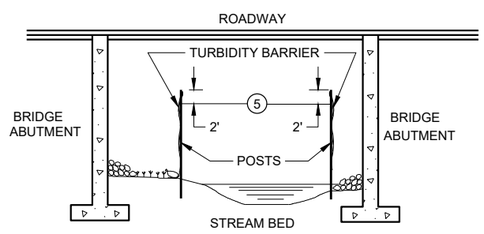
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(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

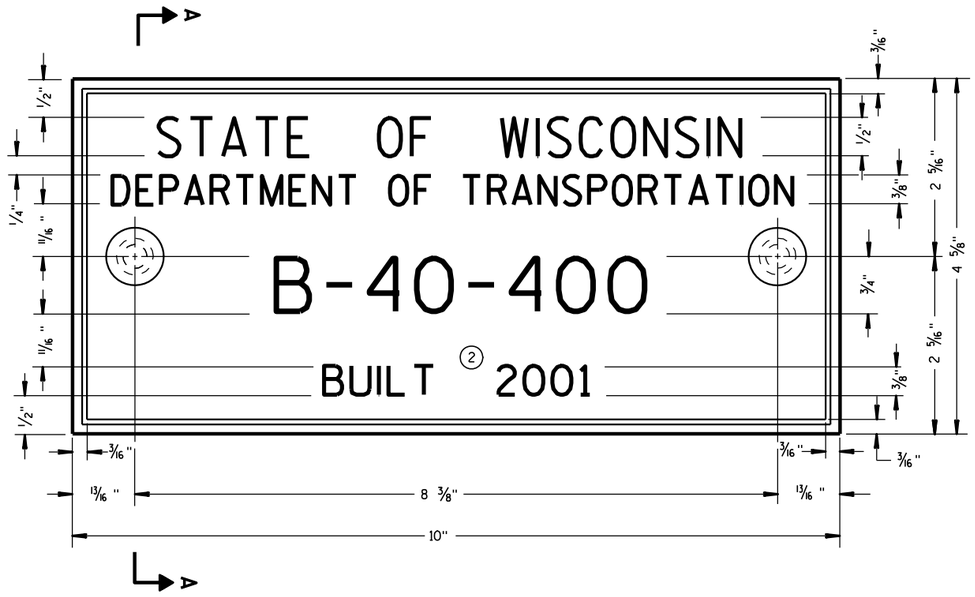
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

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SDD 08E11 - 02



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

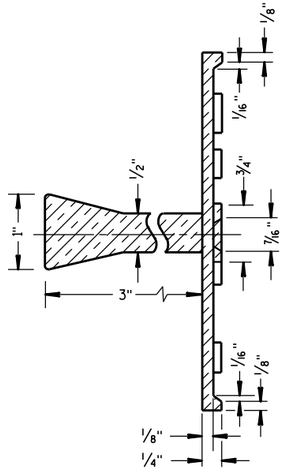
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

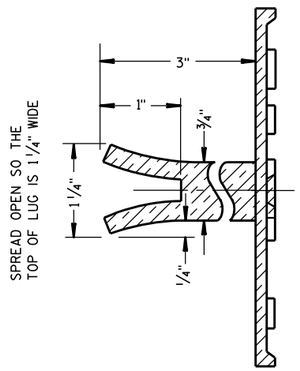
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

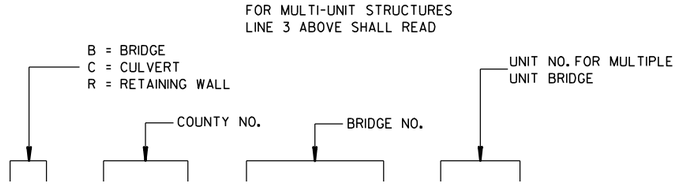
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



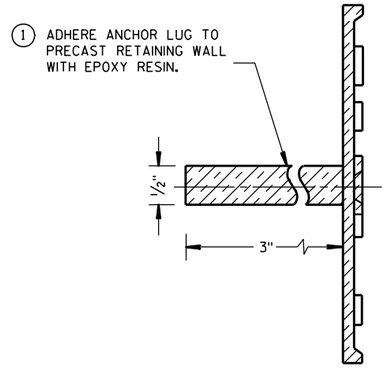
SECTION A-A



ALTERNATE LUG



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

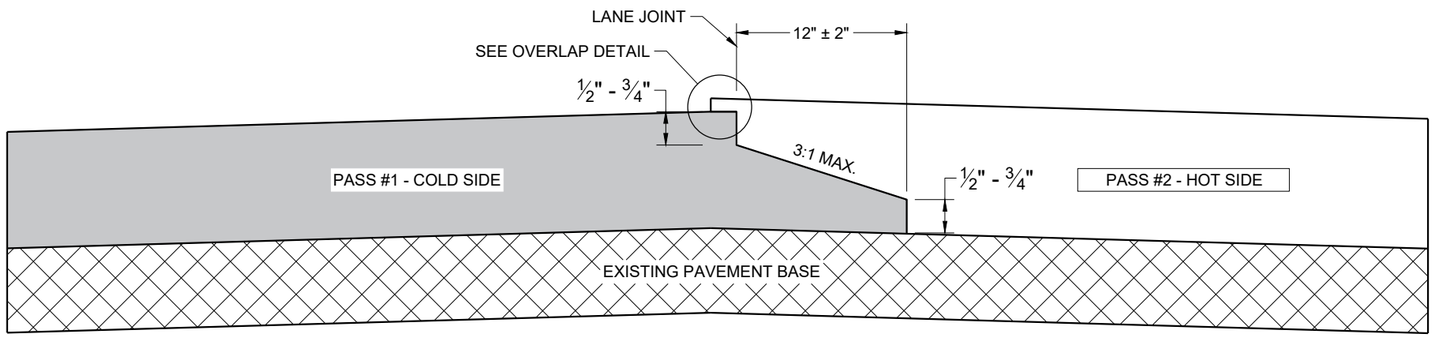
FHWA

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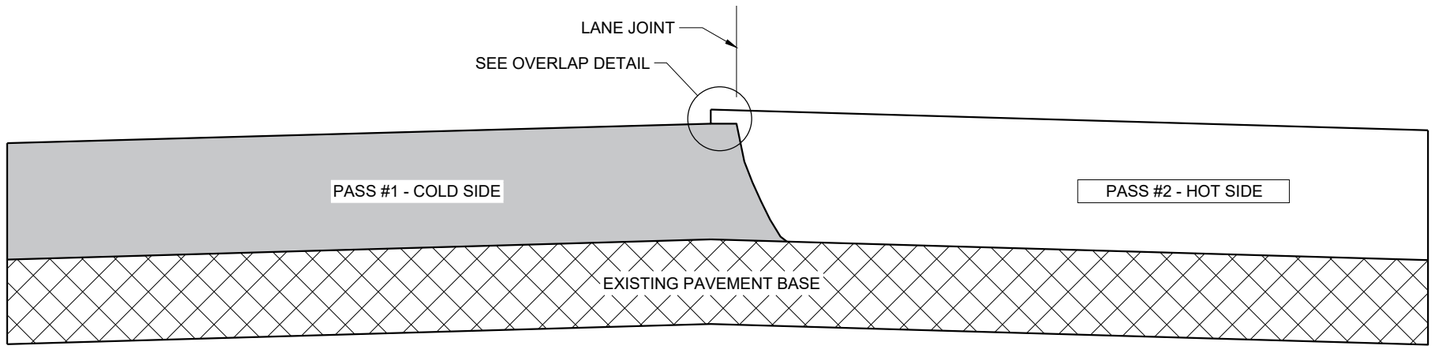
S.D.D. 12 A 3-10

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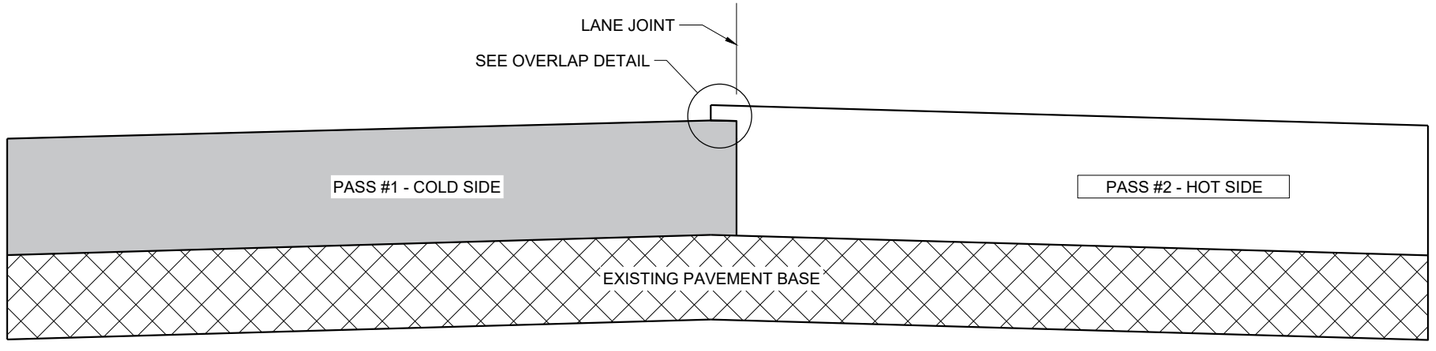
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

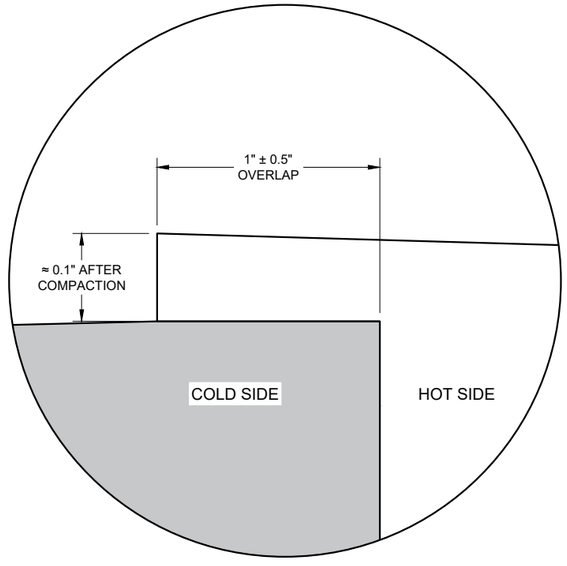
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

(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.

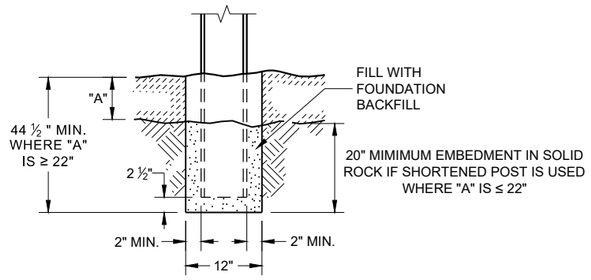
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

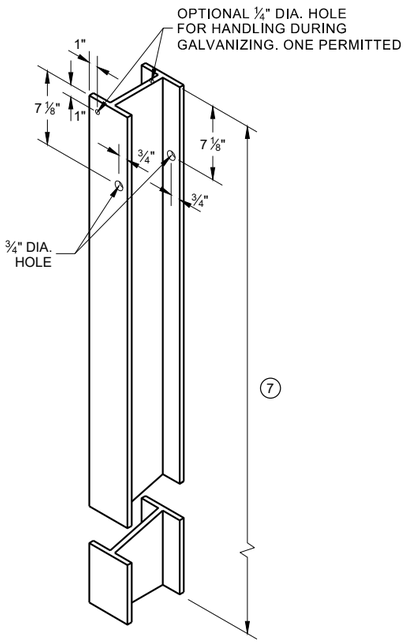
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

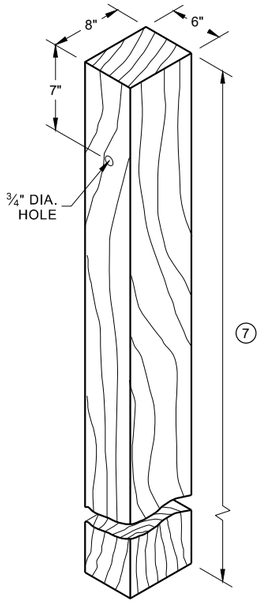
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



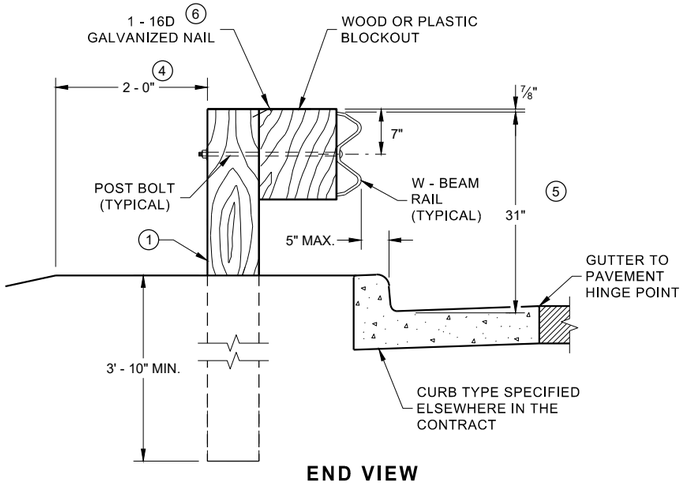
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



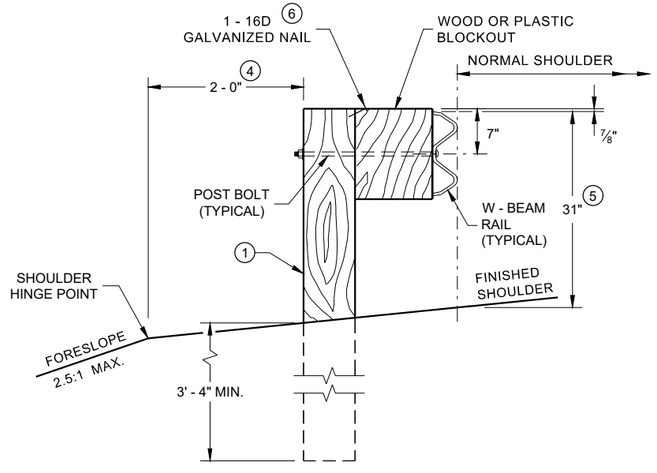
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



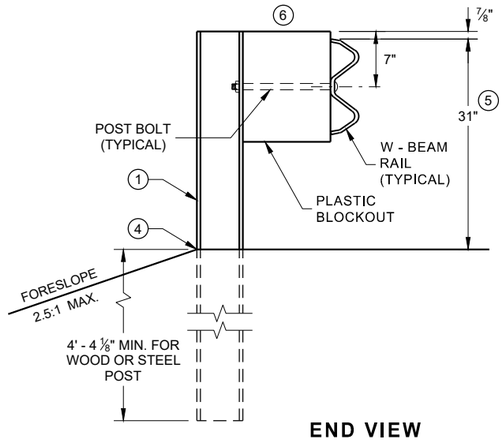
WOOD POST (6" X 8") NOMINAL (1)



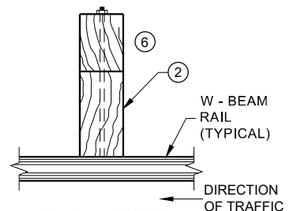
END VIEW
LOCATED ALONG A CURBED ROADWAY



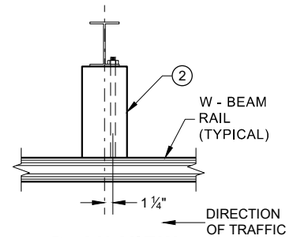
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



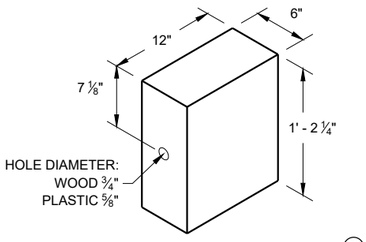
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

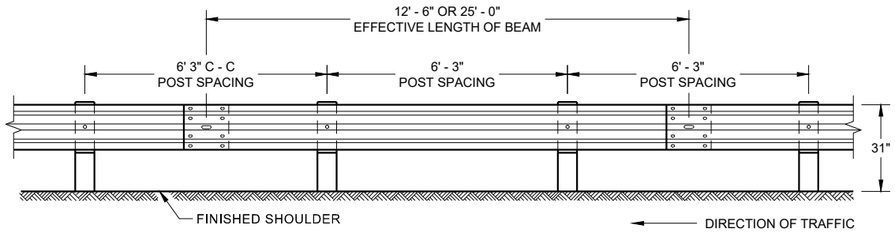


WOOD OR PLASTIC BLOCKOUT (2)

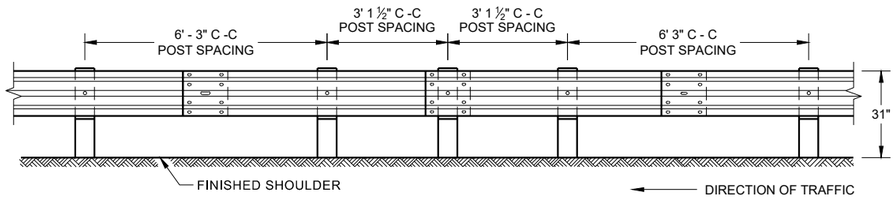
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

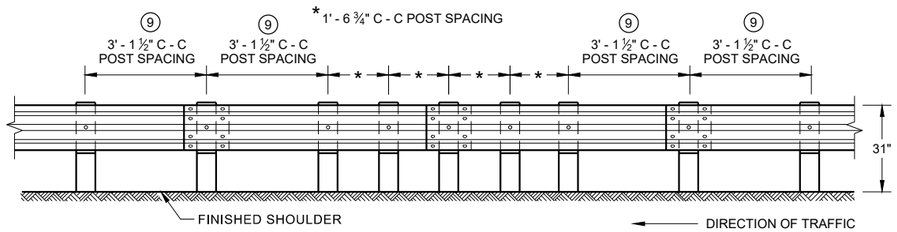
6
SDD 14B42 - 07a



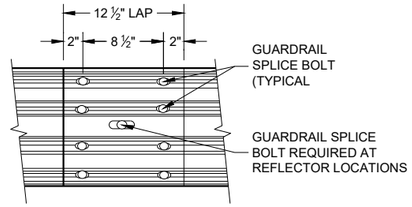
FRONT VIEW
POST SPACING STANDARD INSTALLATION



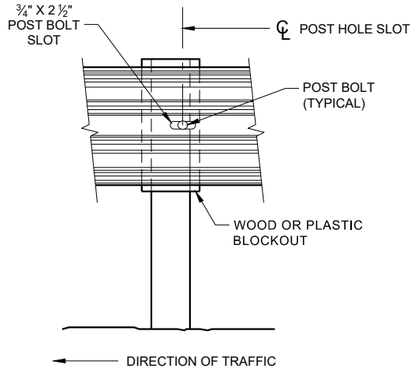
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



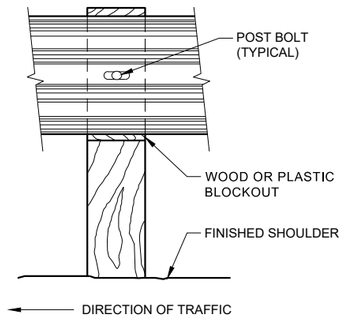
FRONT VIEW
QUARTER POST SPACING (QS)



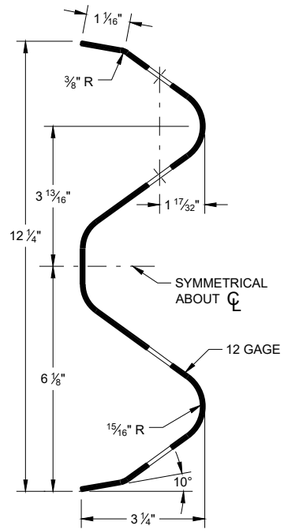
FRONT VIEW
MID-SPAN BEAM SPLICE



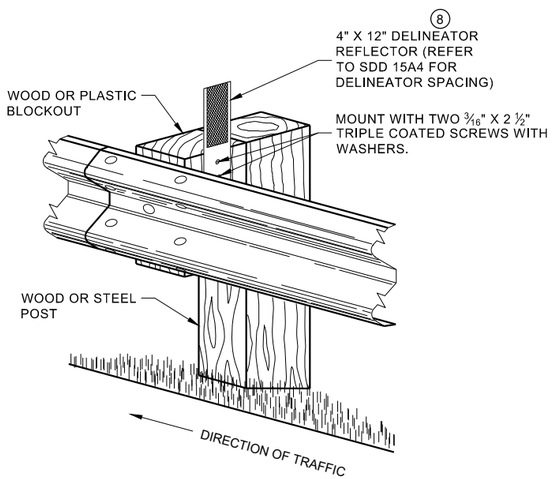
FRONT VIEW AT STEEL POST



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.

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

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

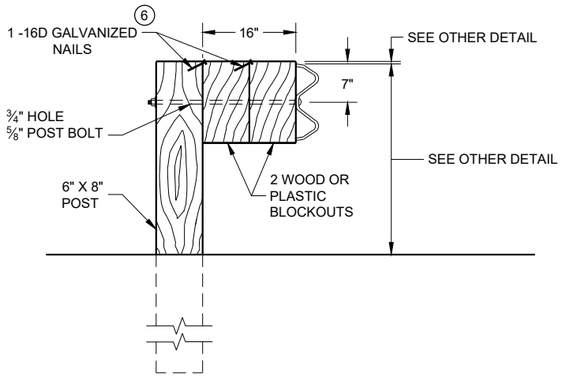
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B42 - 07b
SDD 14B42 - 07b

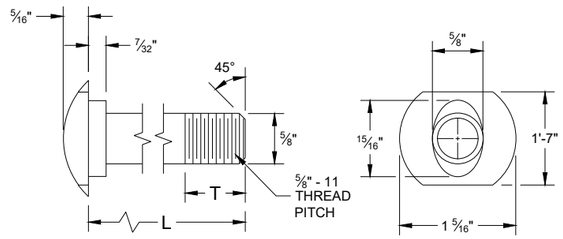


DETAIL FOR 16" BLOCKOUT DEPTH

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.

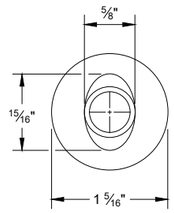
NOTE:

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.

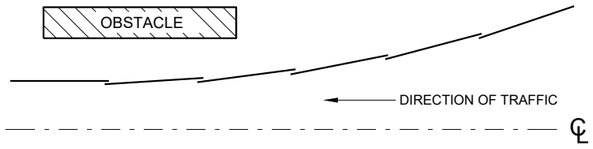


POST BOLT TABLE

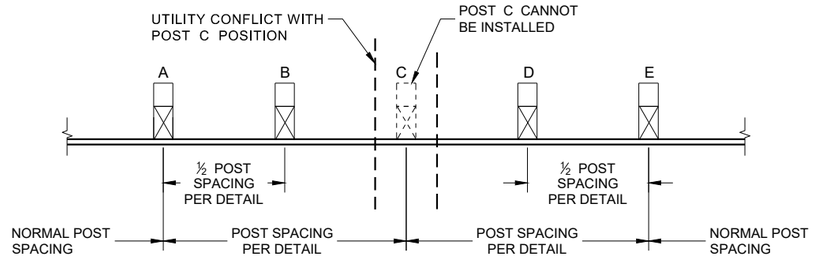
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



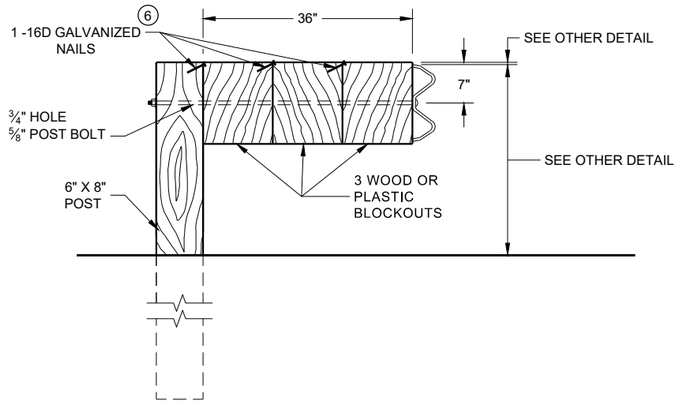
ALTERNATE BOLT HEAD



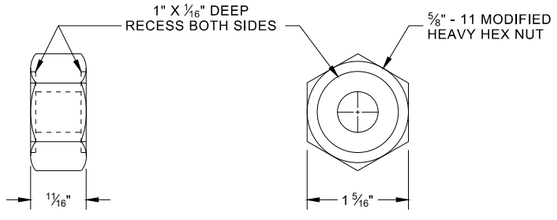
PLAN VIEW
BEAM LAPPING DETAIL



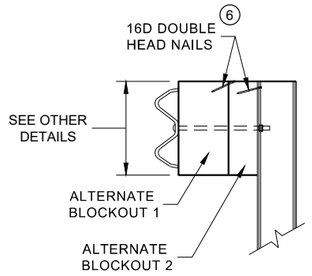
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



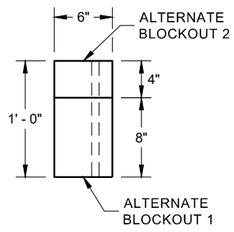
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

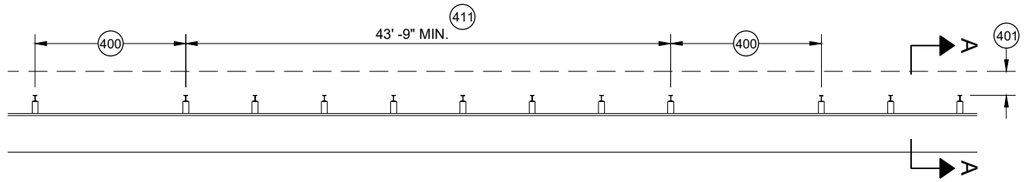
ALTERNATE WOOD BLOCKOUT DETAIL

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.

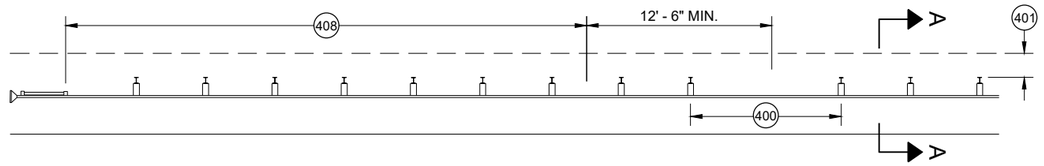
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

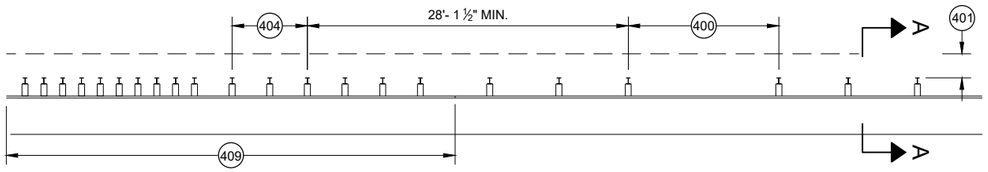
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



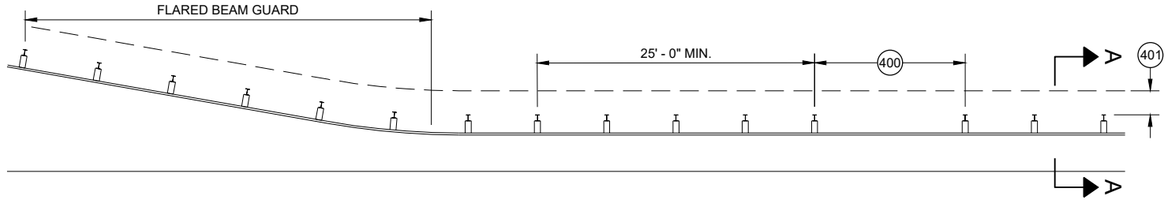
MISSING POST IN MGS GUARDRAIL



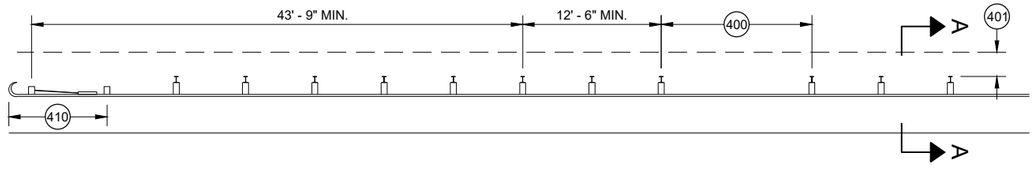
MISSING POST IN MGS GUARDRAIL NEAR EAT



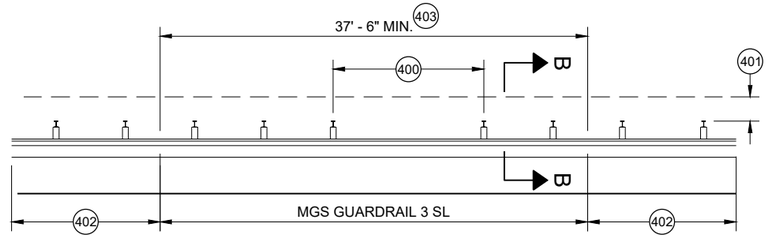
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

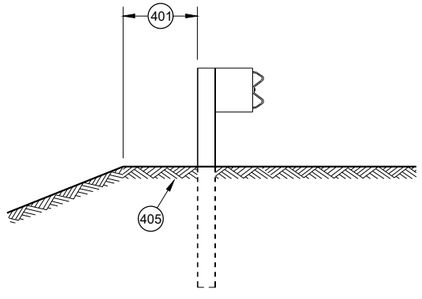


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

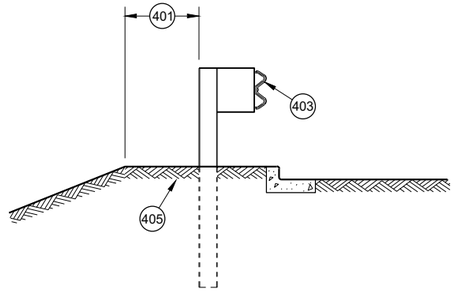


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

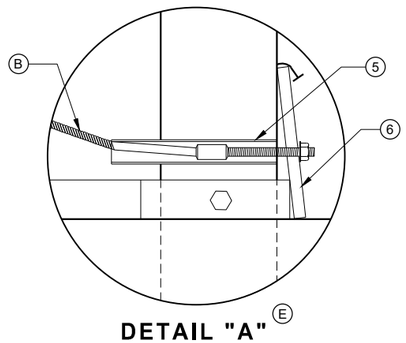
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

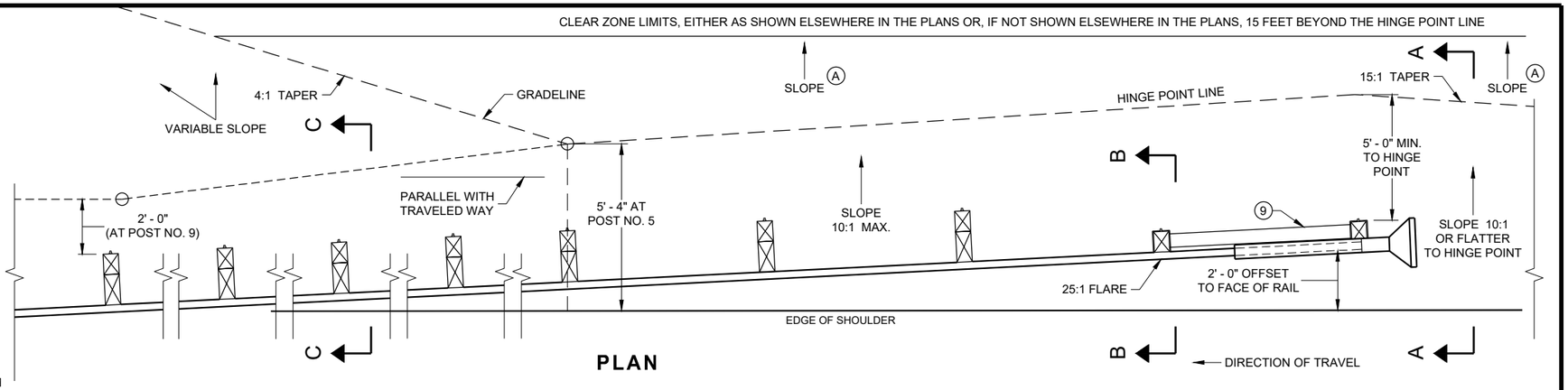
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

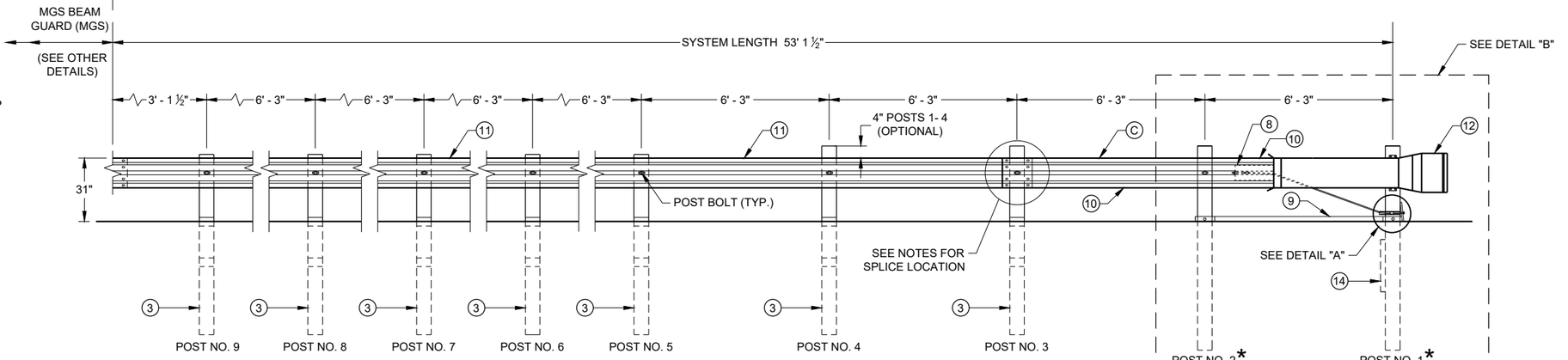
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



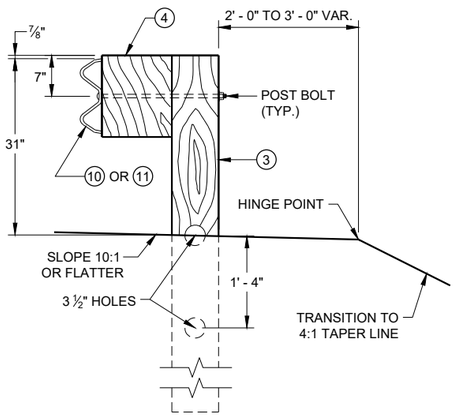
DETAIL "A" (E)



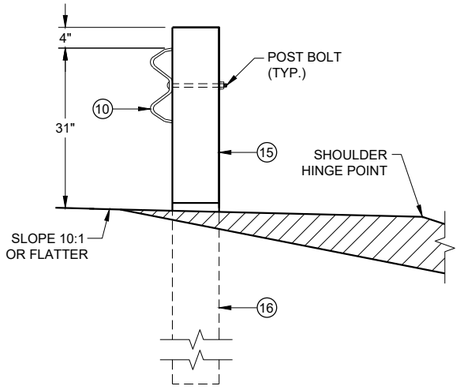
PLAN



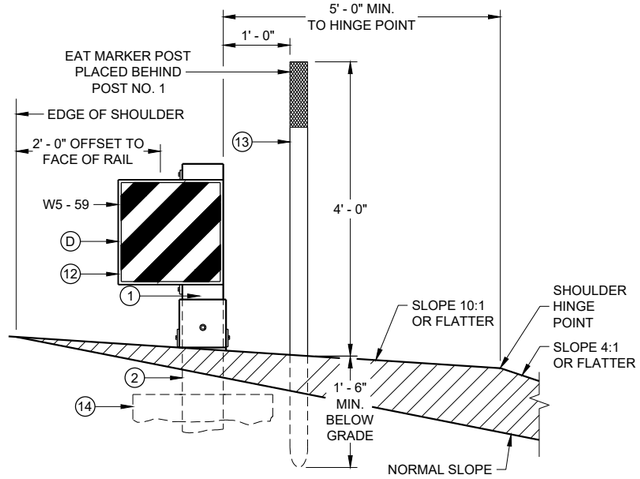
ELEVATION



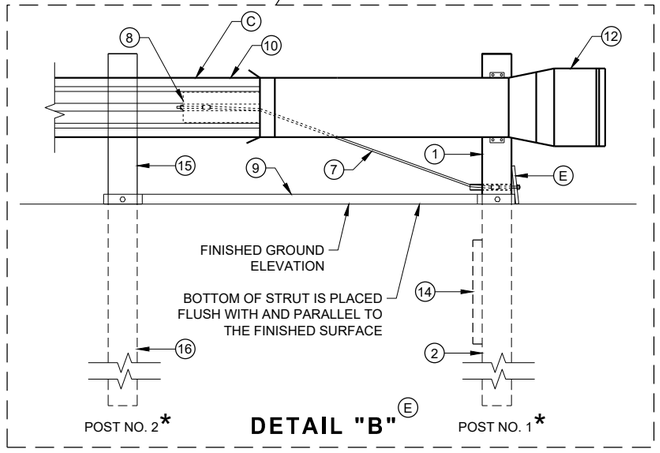
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



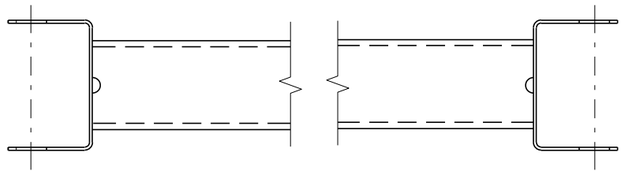
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

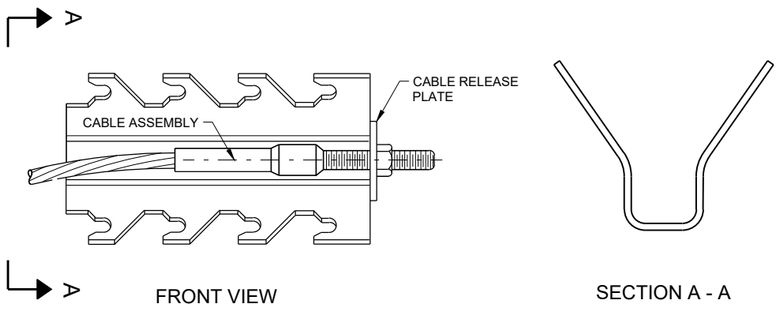
SDD 14B44 - 04a



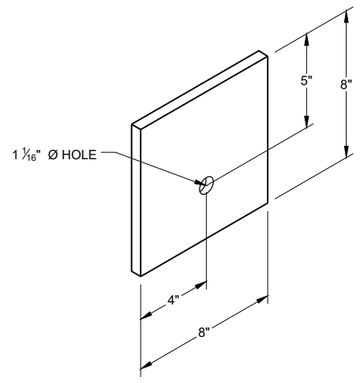
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

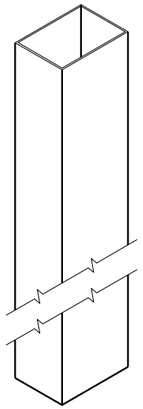
6

SDD 14B44 - 04b

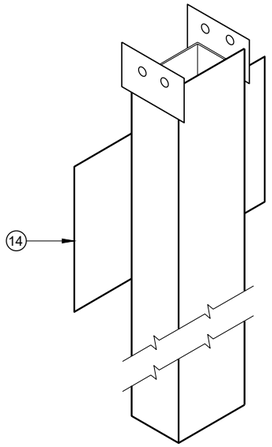
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

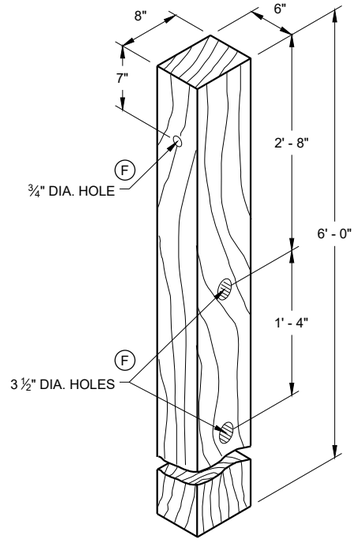
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



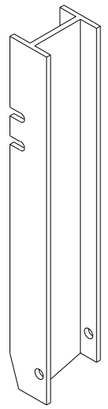
UPPER POST NO. 1 (1) (E)



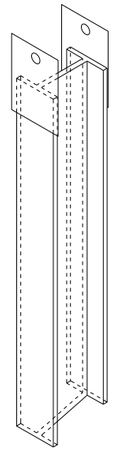
LOWER POST NO. 1 (2) (E)



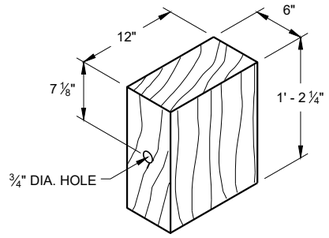
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



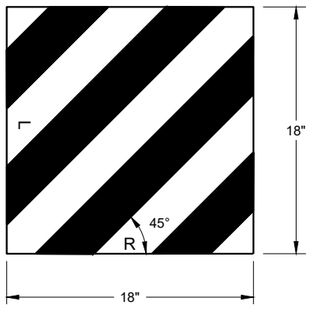
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

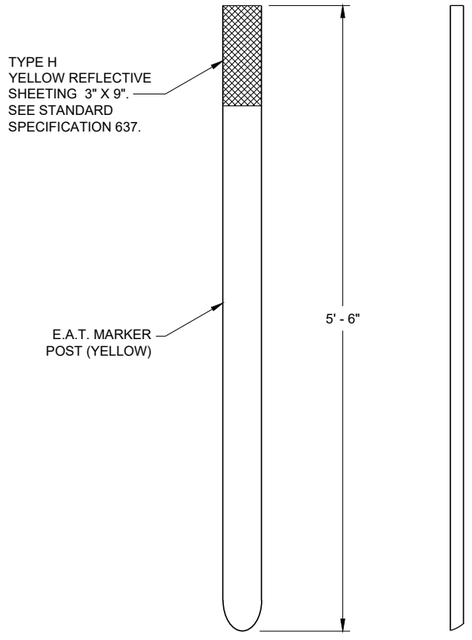


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

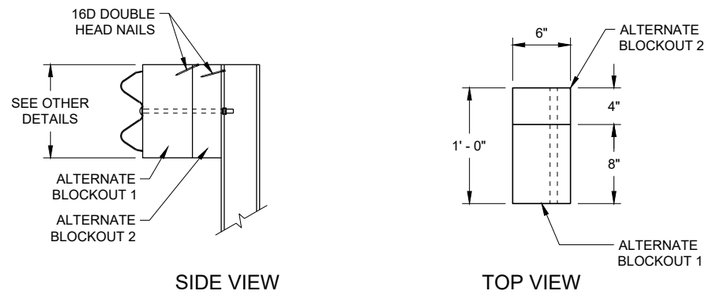


W5 - 59

REFLECTIVE SHEETING DETAIL (E)



E.A.T. MARKER POST (13)



ALTERNATE WOOD BLOCKOUT DETAIL

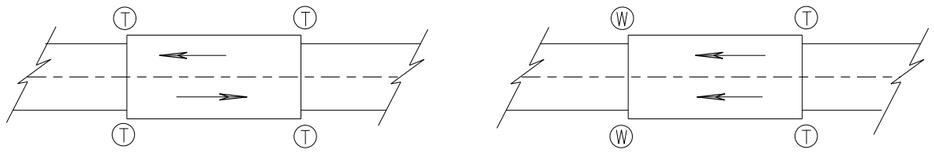
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B44 - 04c
SDD 14B44 - 04c



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.

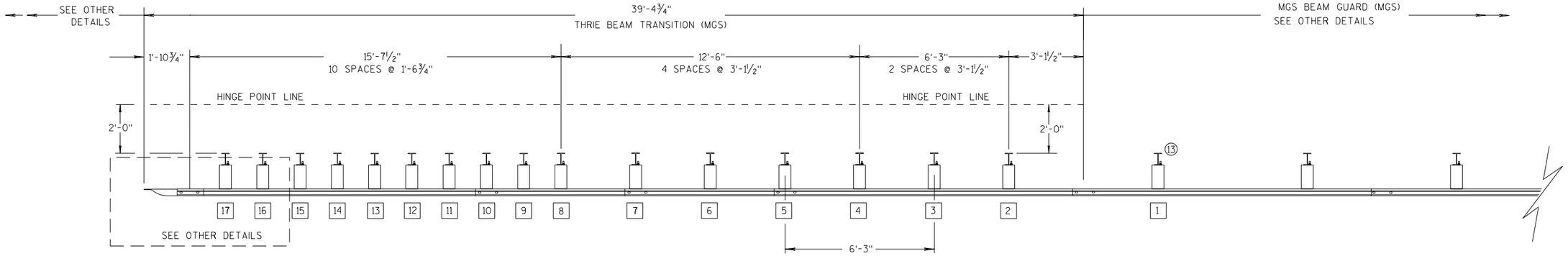
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

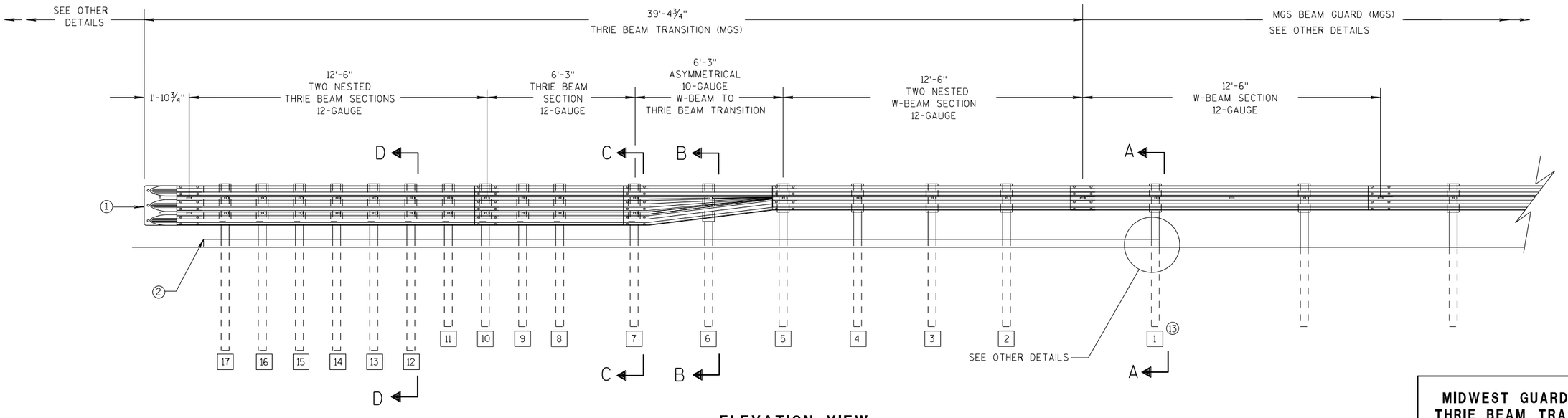
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

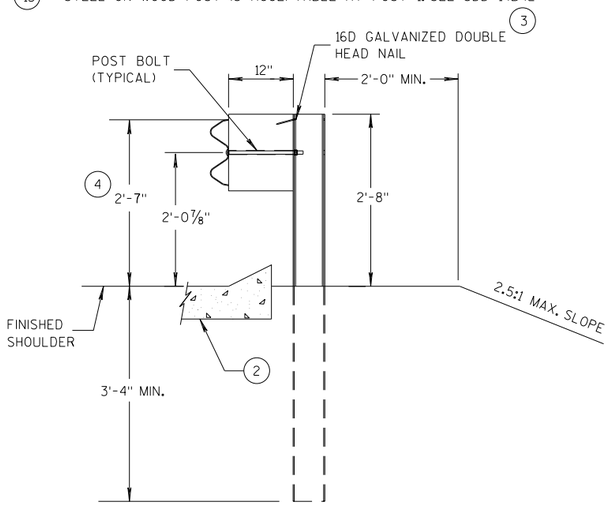
GENERAL NOTES

(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.

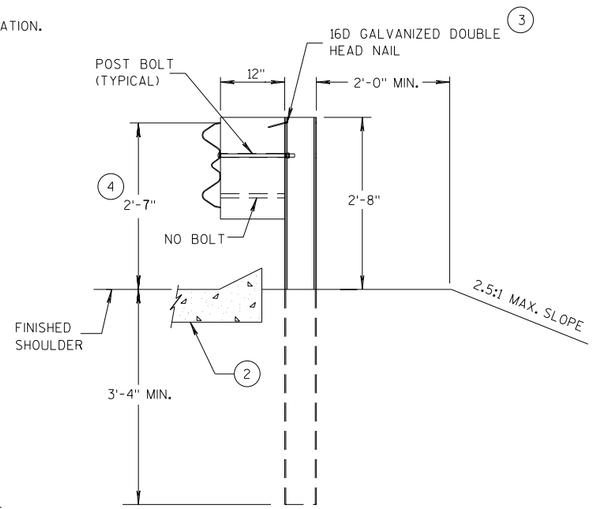
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



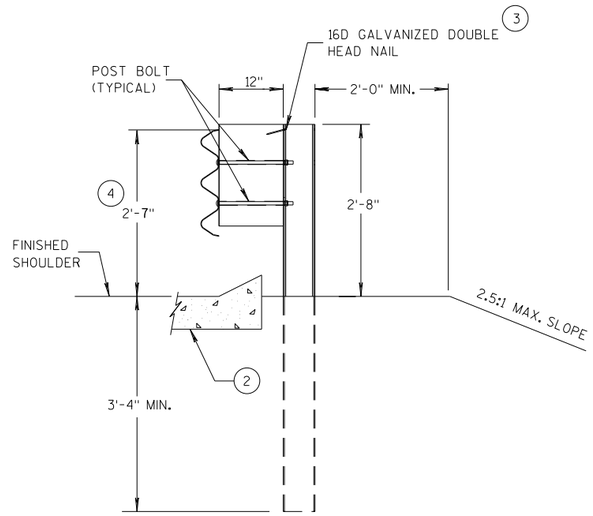
SECTION A-A (13)

POSTS 1-5



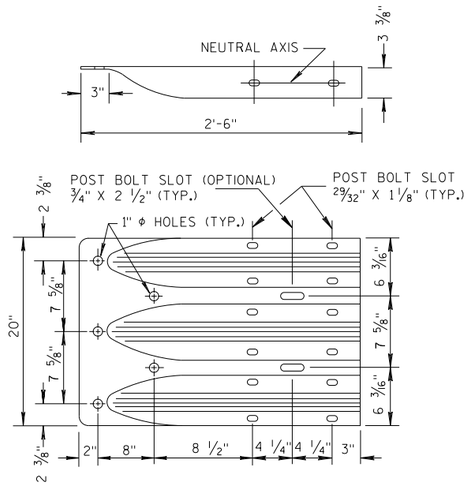
SECTION B-B

POST 6

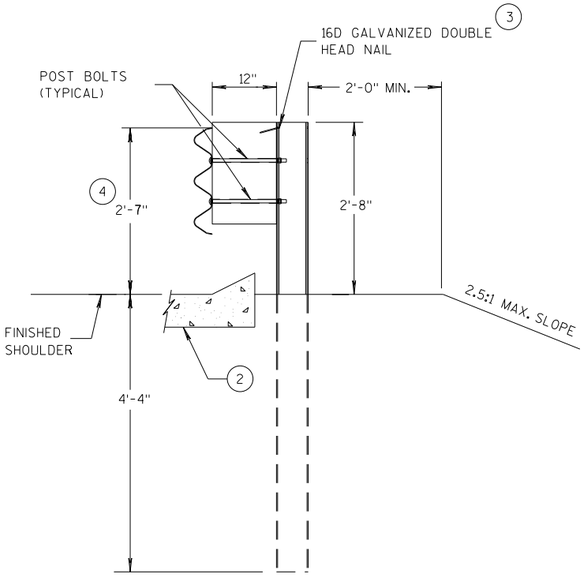


SECTION C-C

POSTS 7-11

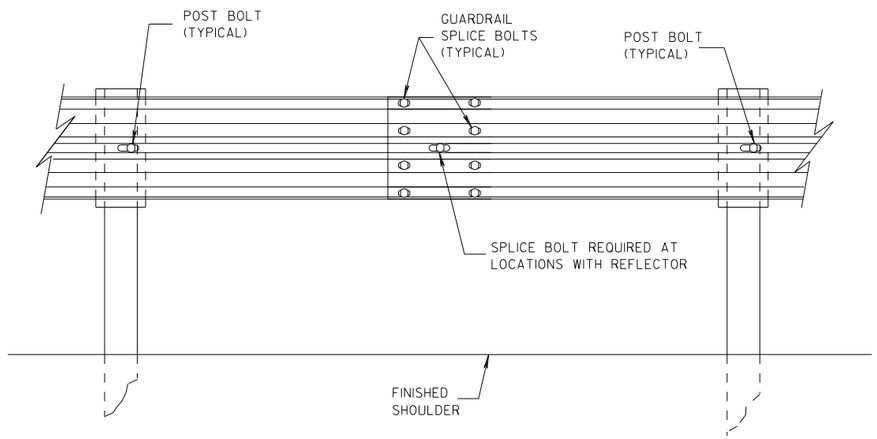


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

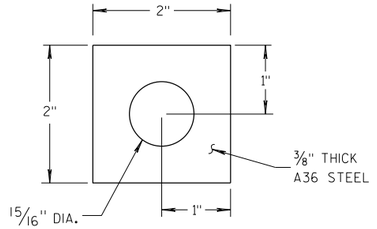
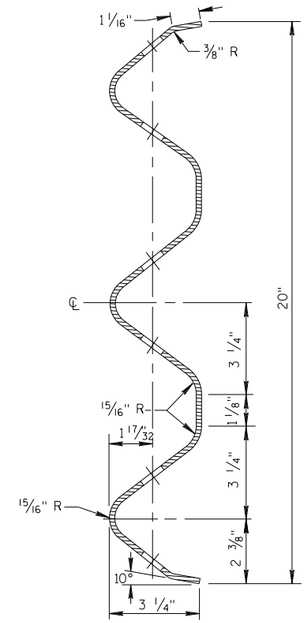


PLATE WASHER DETAIL



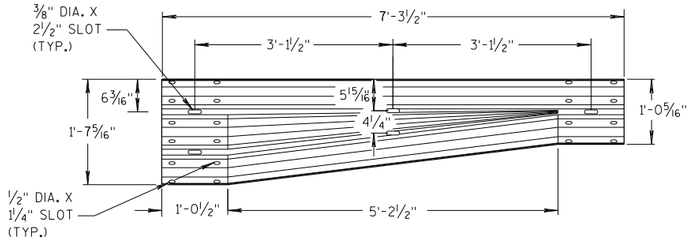
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

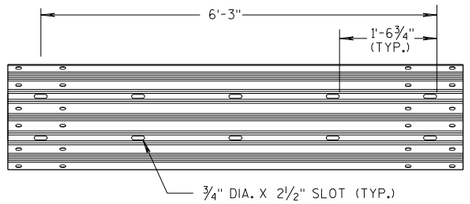
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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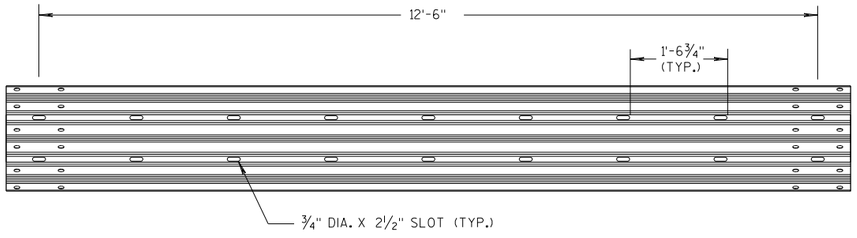
S.D.D. 14 B 45-5b



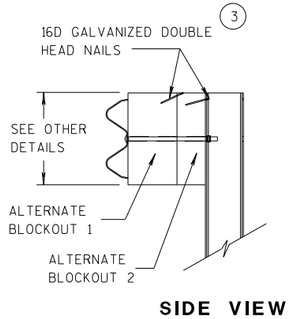
W-BEAM TO THRIE BEAM TRANSITION SECTION



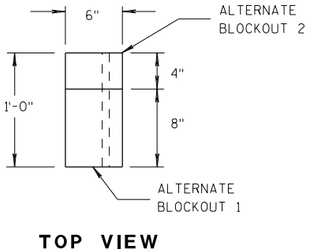
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

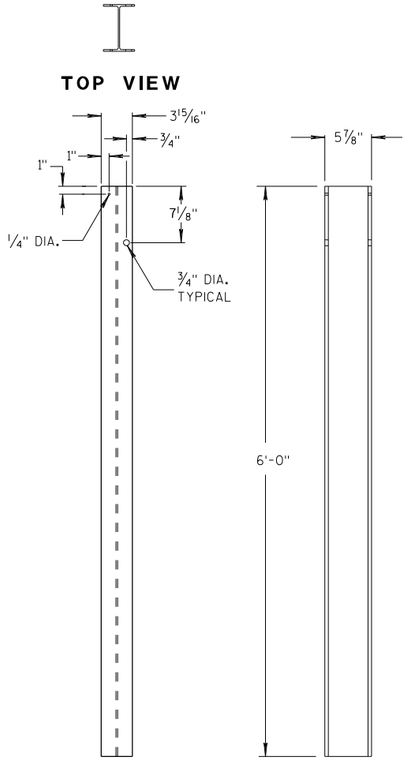


SIDE VIEW



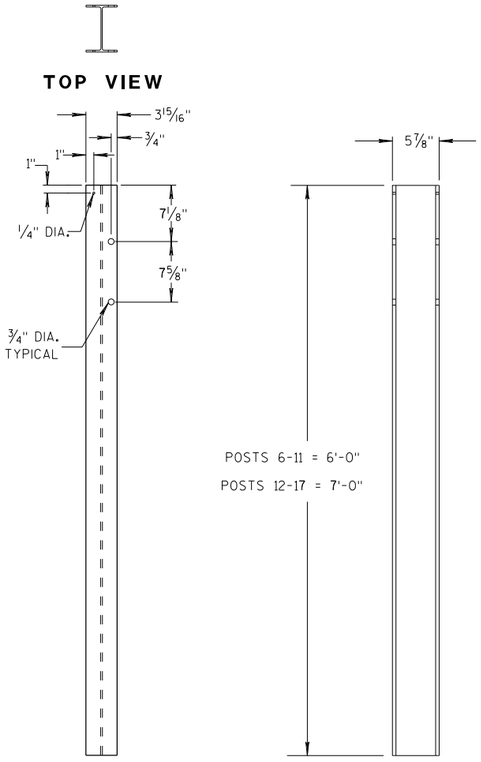
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



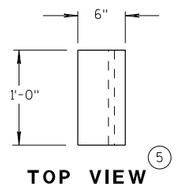
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

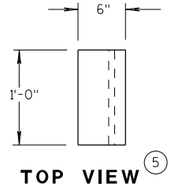


FRONT VIEW SIDE VIEW

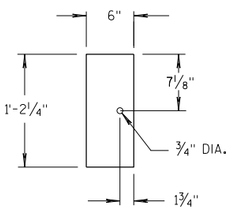
STEEL POSTS 6-17



TOP VIEW (5)

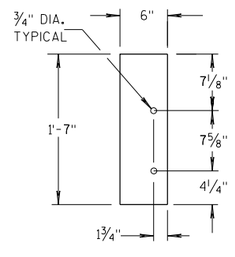


TOP VIEW (5)



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.

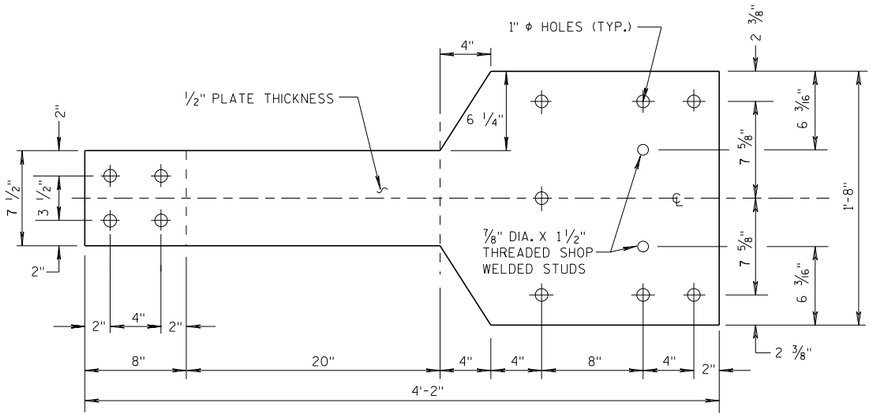
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

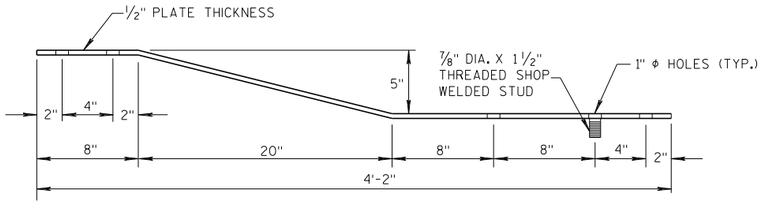
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S.D.D. 14 B 45-5c

GENERAL NOTES

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

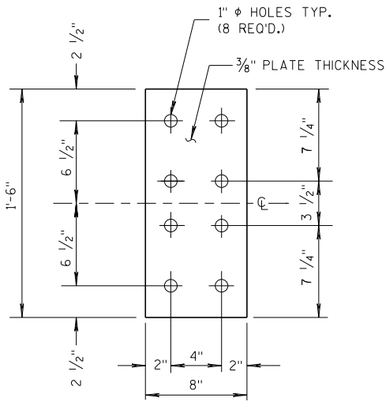


FRONT VIEW



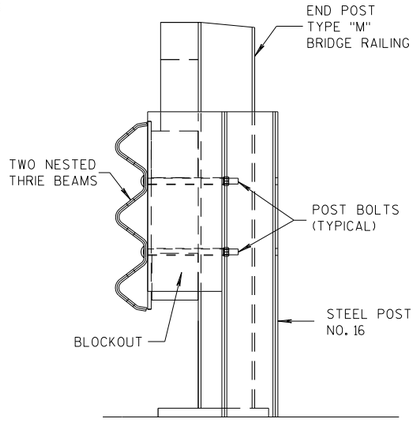
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

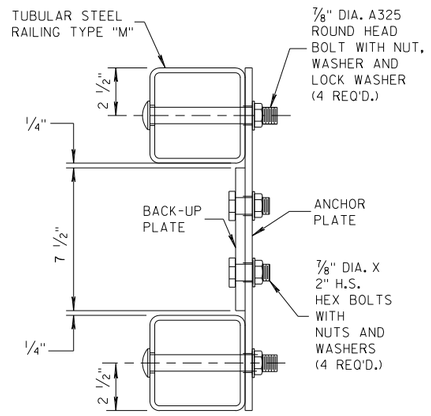


FRONT VIEW

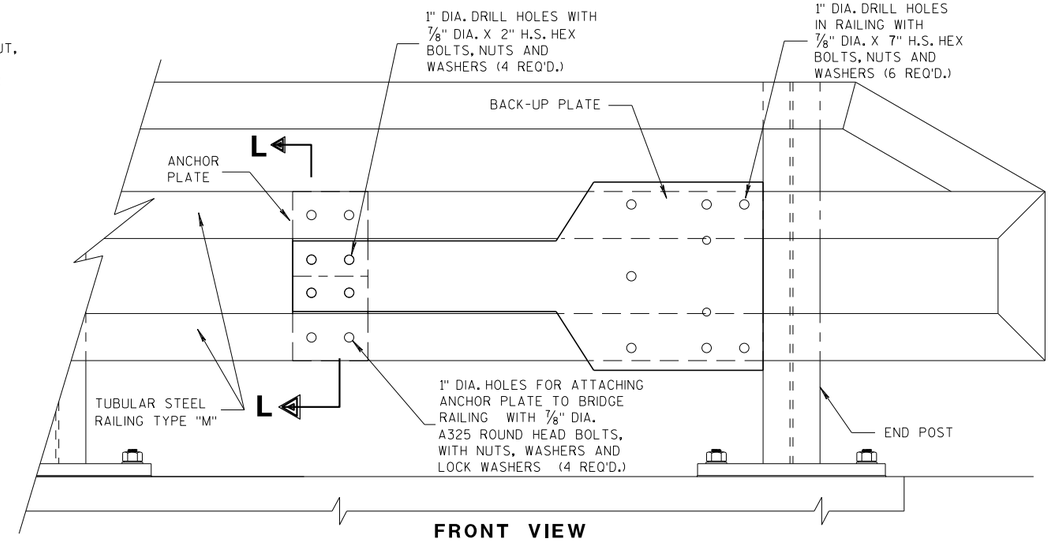
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

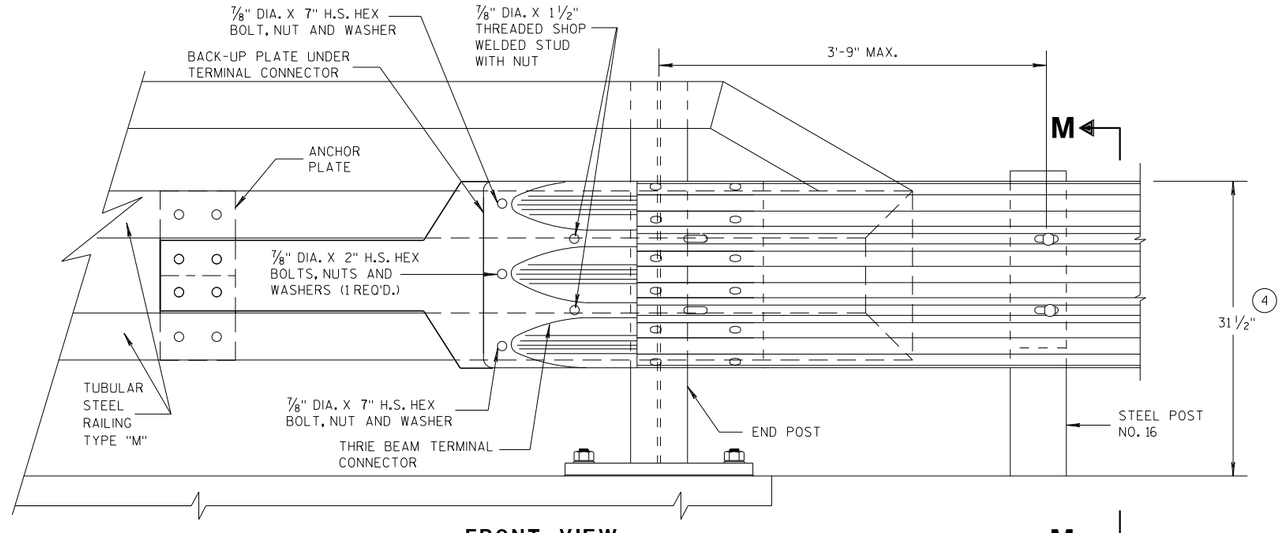


SECTION L-L

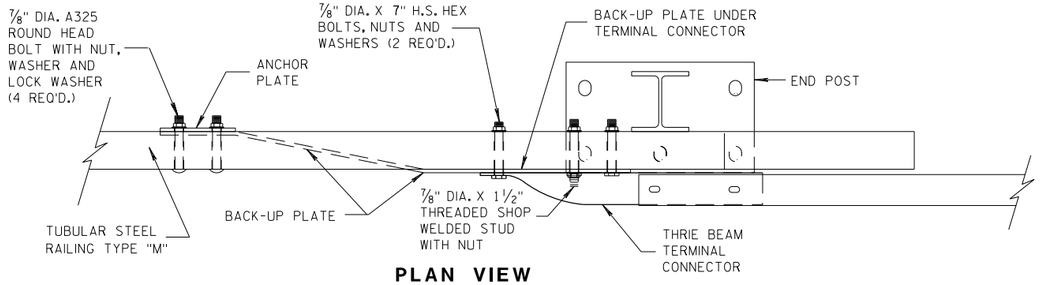


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

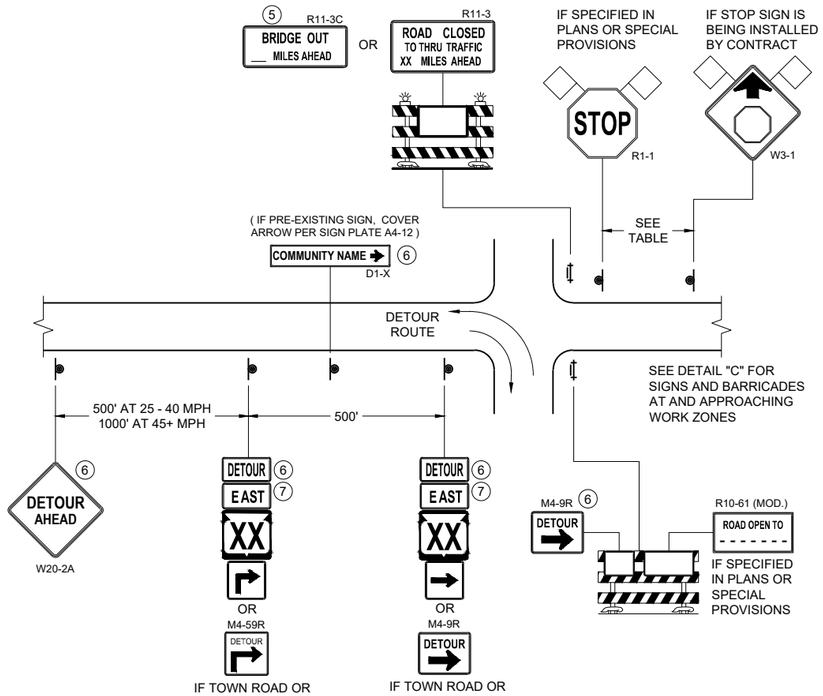
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

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

6

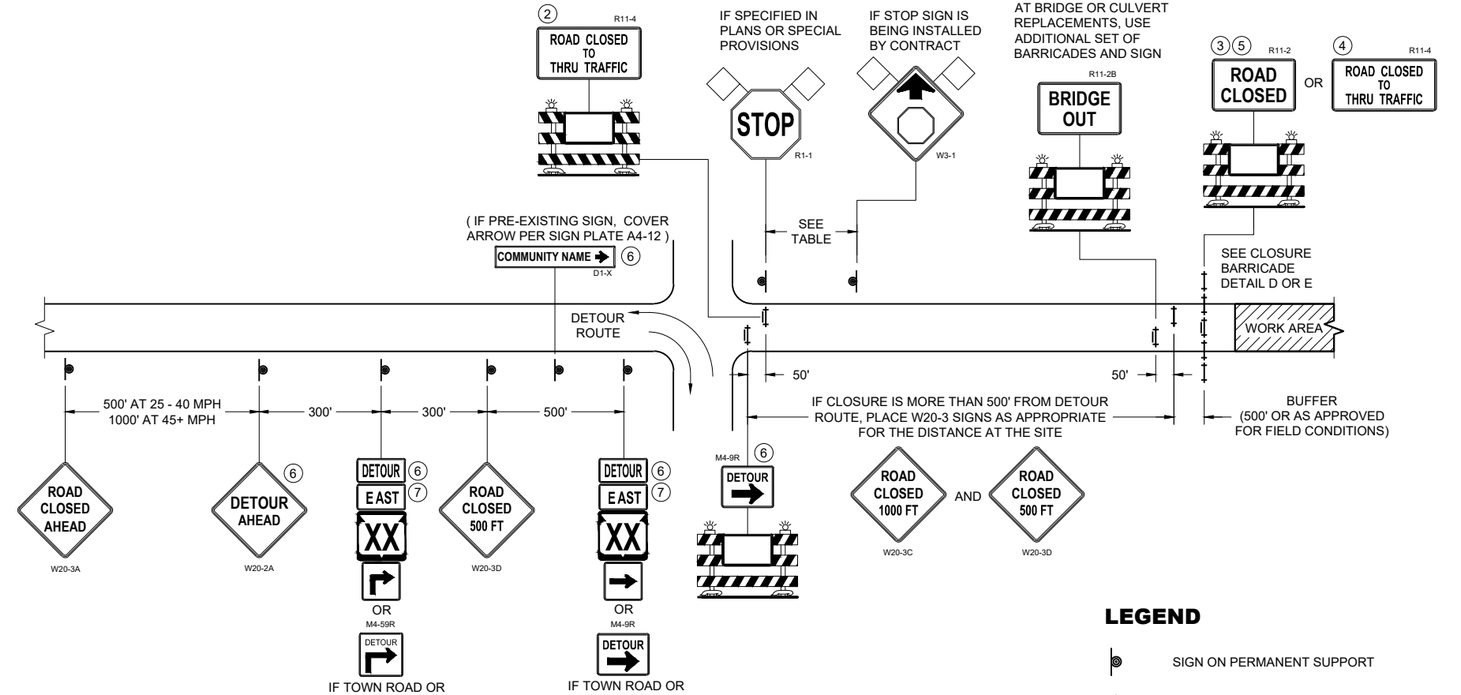
S.D.D. 14 B 45-5h



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

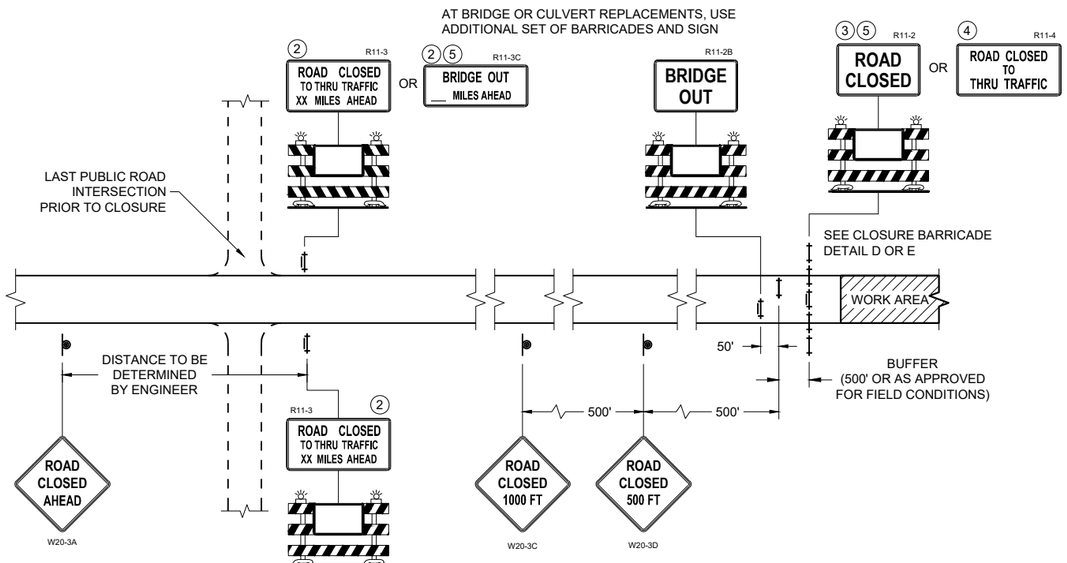
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



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
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8

EAST M3 - X

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M06 - 1

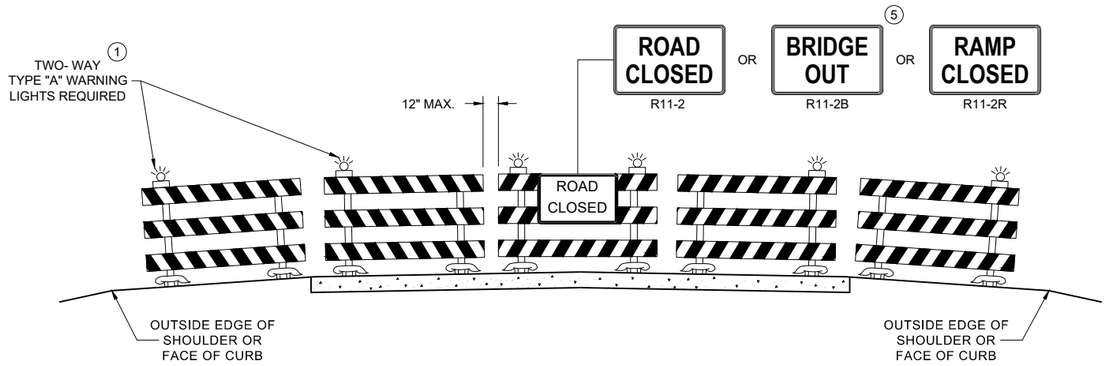
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

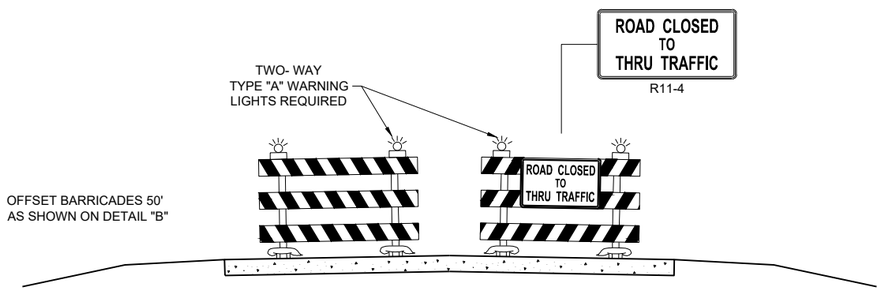
6
SDD 15C02-10a



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.

PARTIAL NUMBERS ON SIGNS SHALL BE DISPLAYED AS A WHOLE NUMBER(AS NEEDED) FOLLOWED BY A FRACTION. SIGNS SHALL NOT DISPLAY NUMBERS IN DECIMAL FORM.

"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 SHALL, 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" (36" X 18" 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)
- MO5 - 1 AND MO6 - 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"

SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

(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 AN 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 ROAD 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 VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

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SDD 15C02-10b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

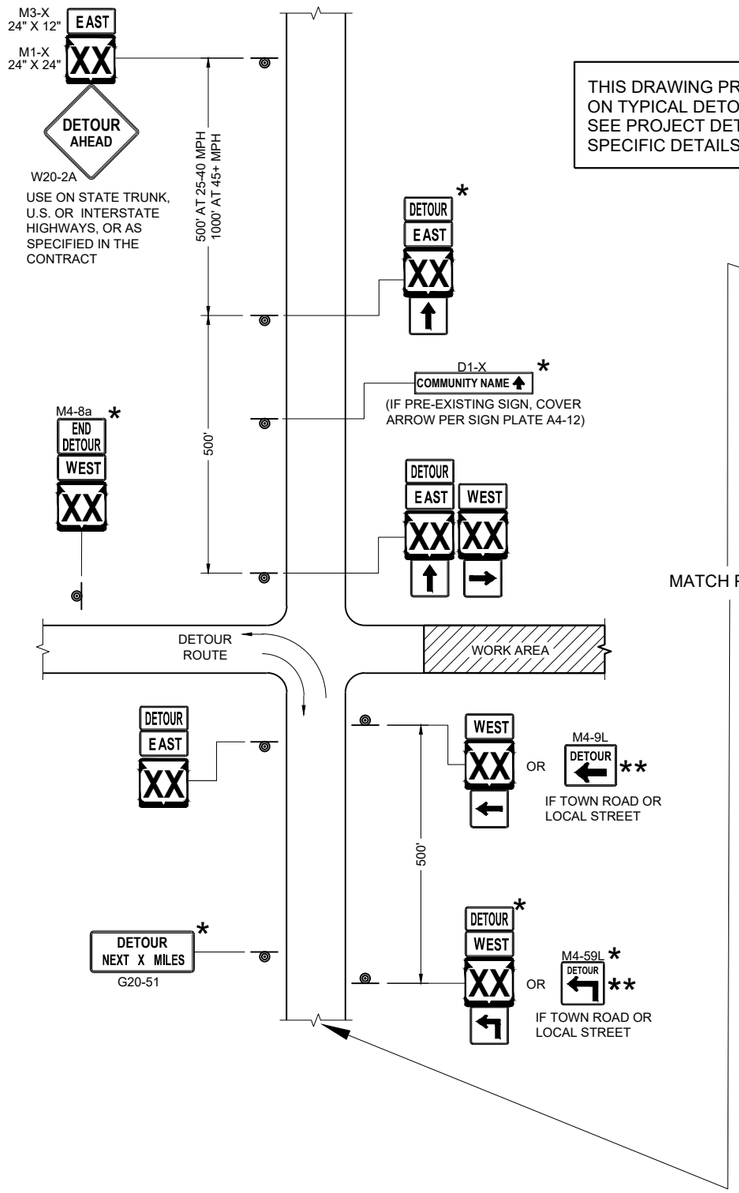
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

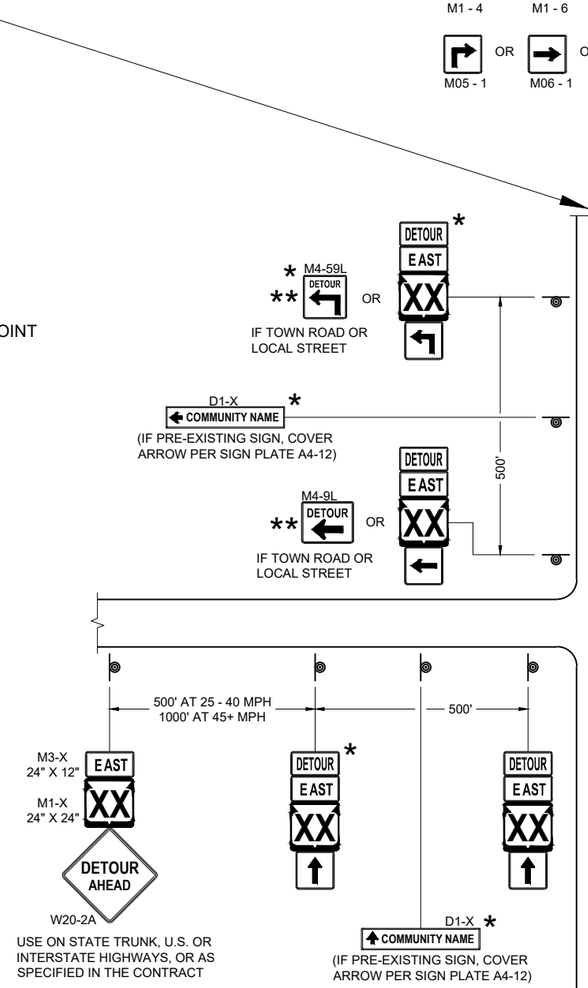
SIGN SIZES SHALL BE AS FOLLOWS:

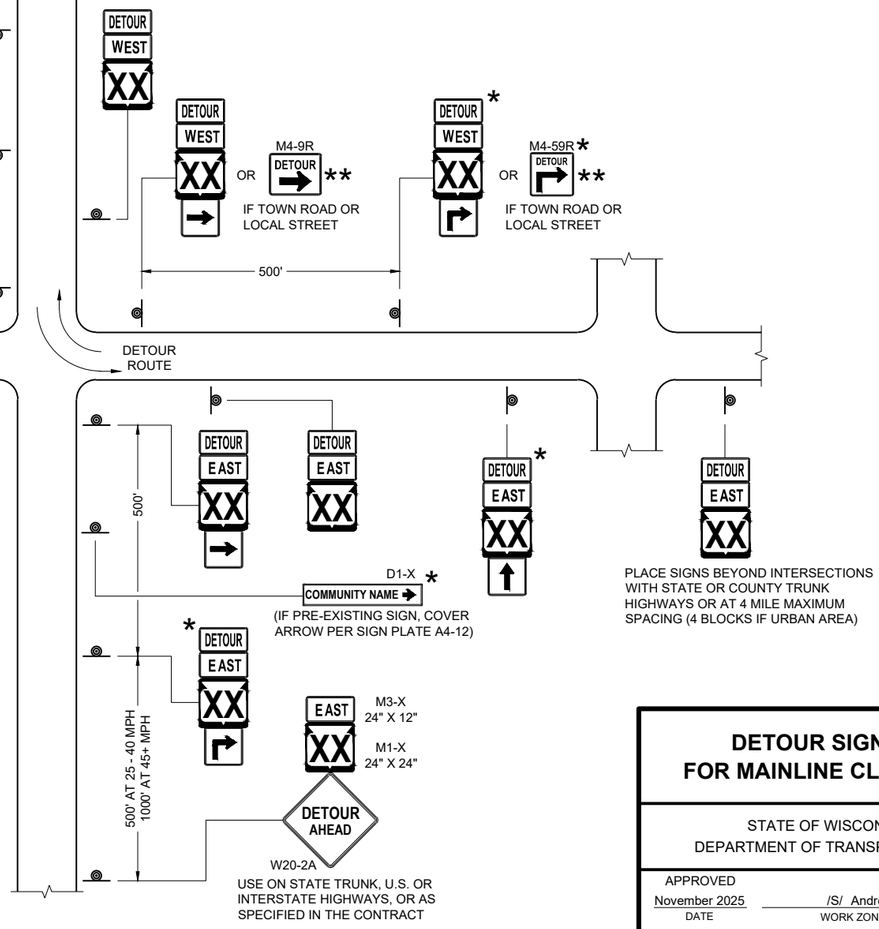
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.







SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

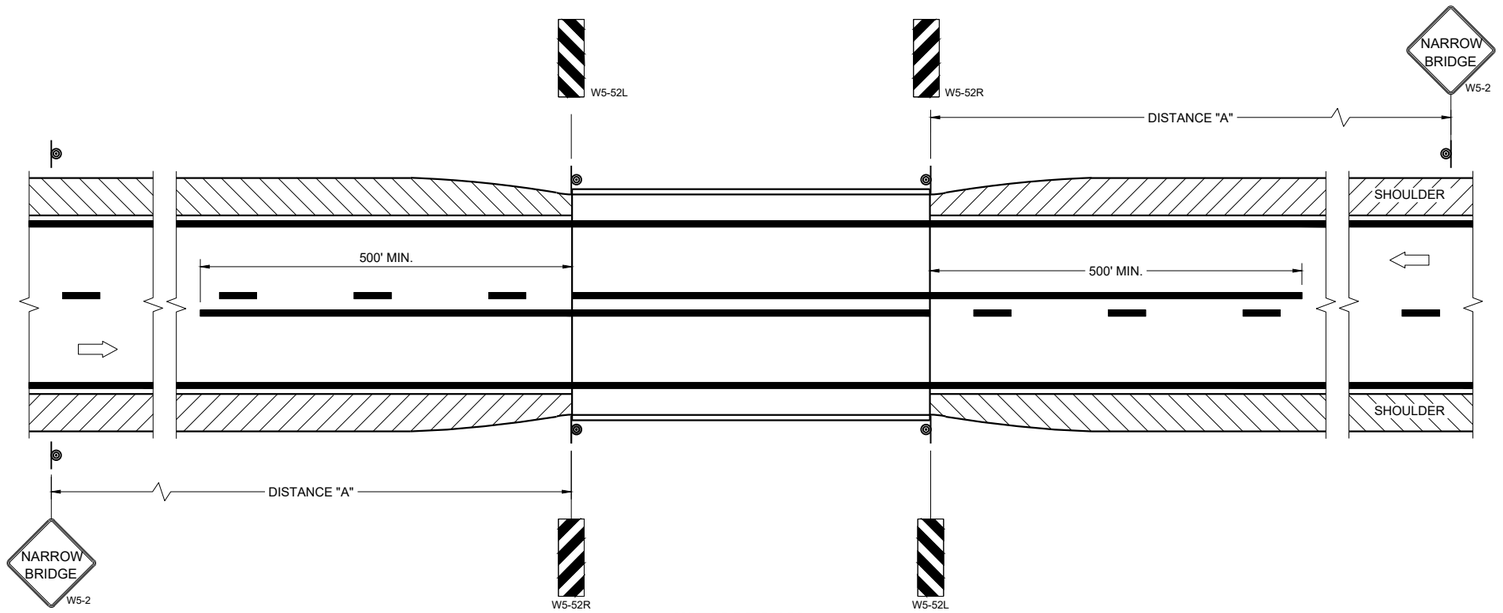
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

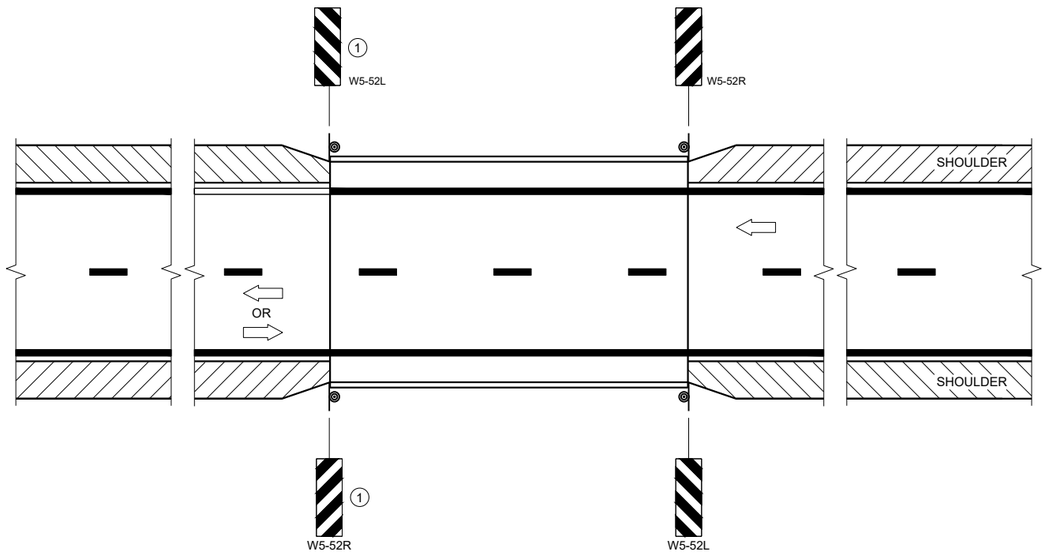
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SDD 15C02-10c



SITUATION 1

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



SITUATION 2

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

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE 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.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

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SDD 15C06-12

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

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

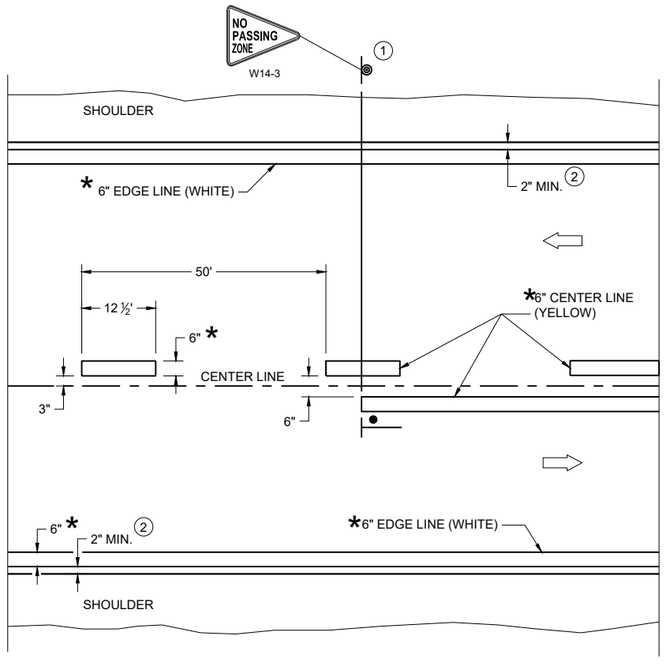
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

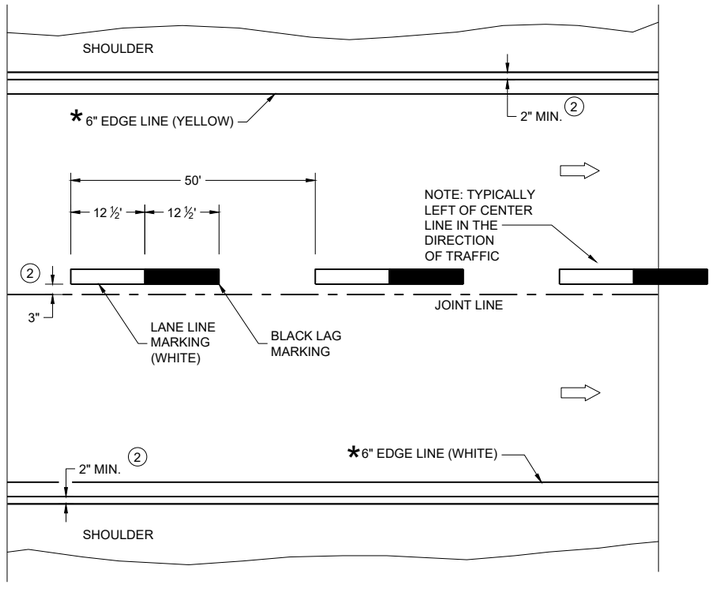
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

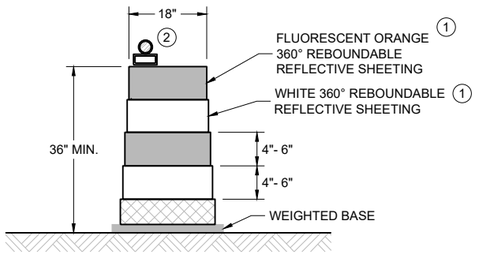
SDD 15C08-24a

SDD 15C08-24a

GENERAL NOTES

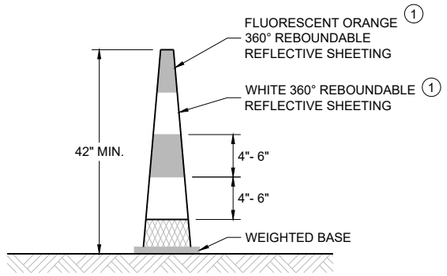
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

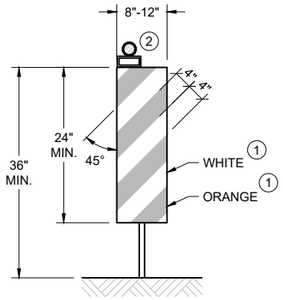
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

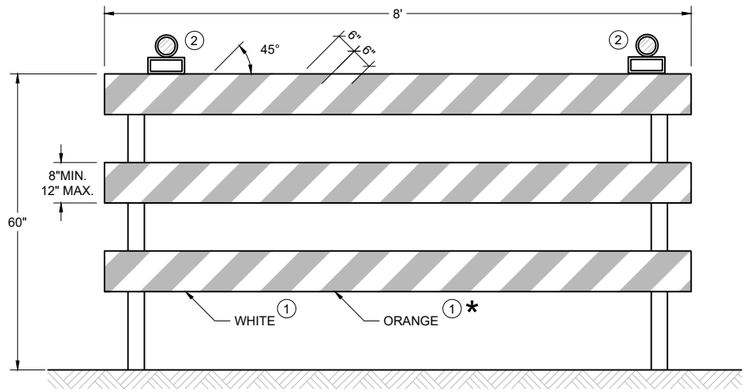
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



VERTICAL PANEL

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



TYPE III 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

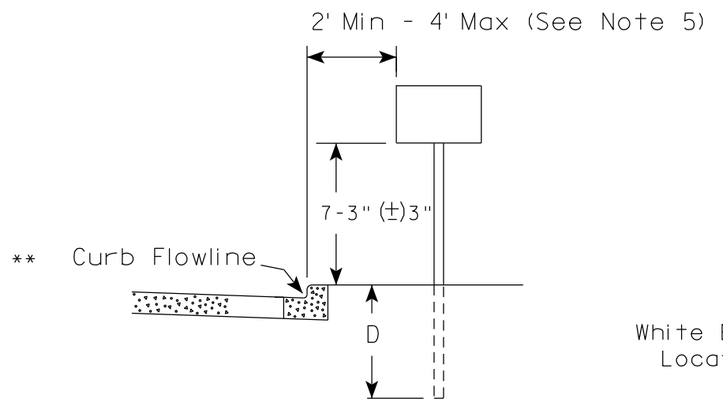
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2026 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

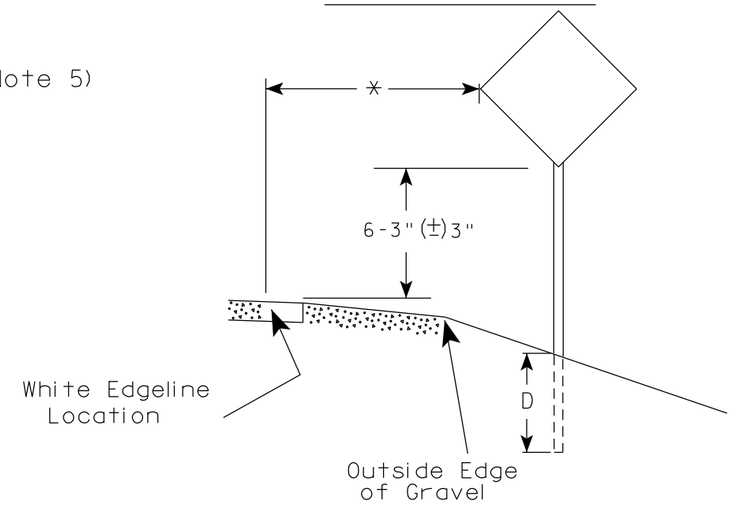
FHWA

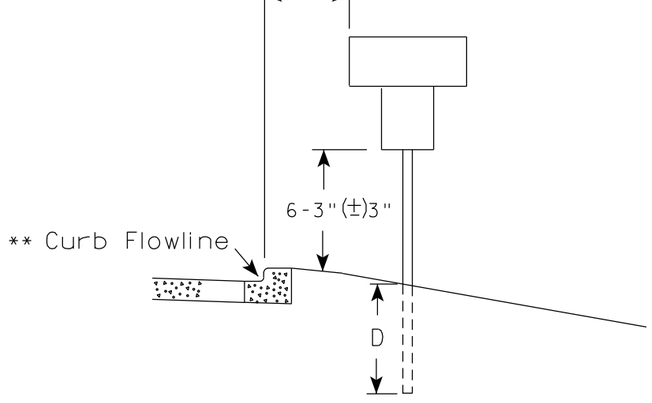
6
SDD 15C11-11b

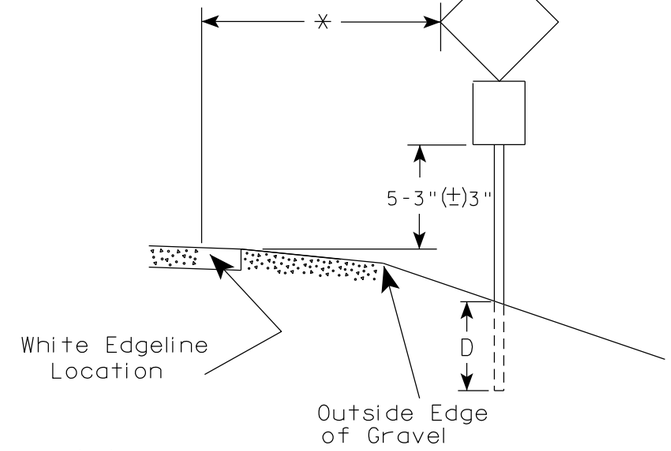
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

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

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 or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

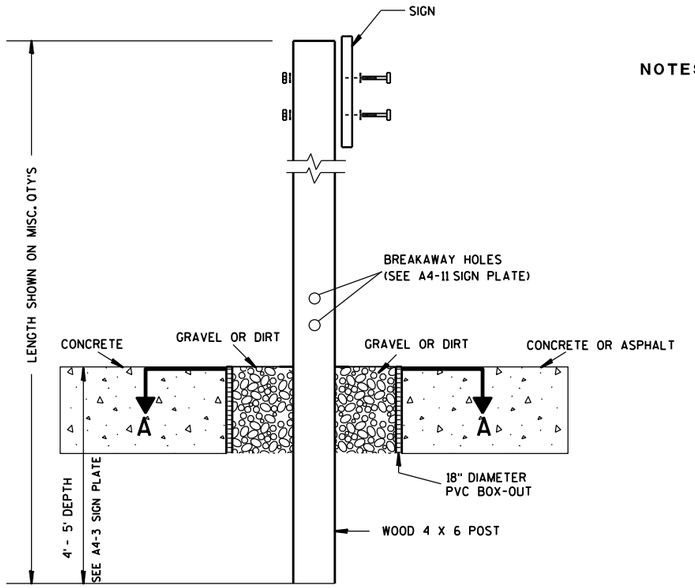
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

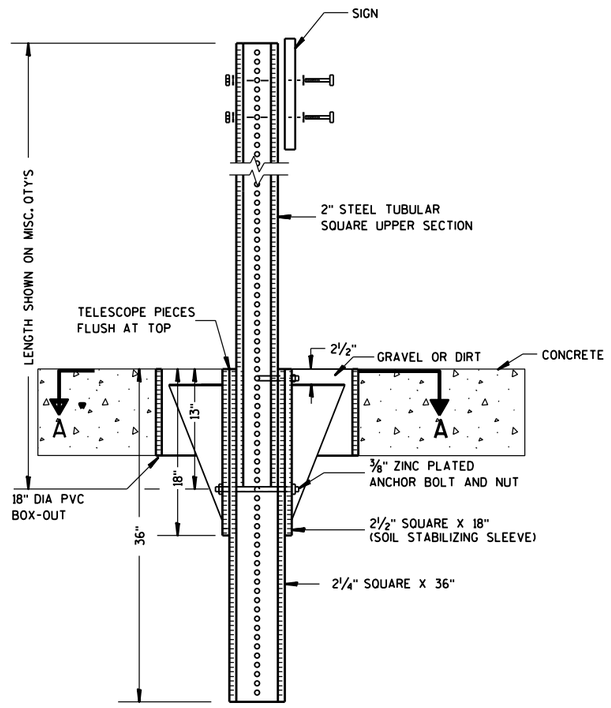
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 40	E



ELEVATION VIEW

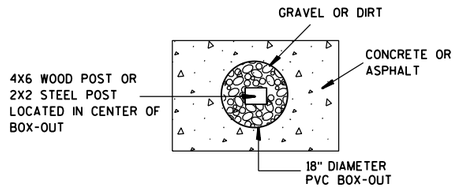
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

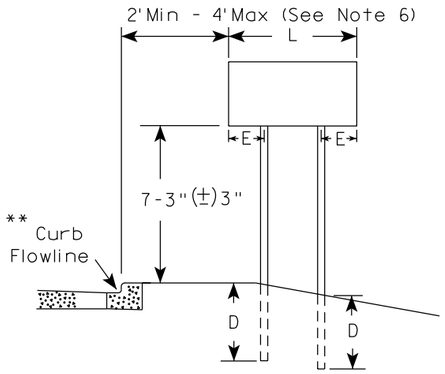
APPROVED Matthew R Rauch
for State Traffic Engineer

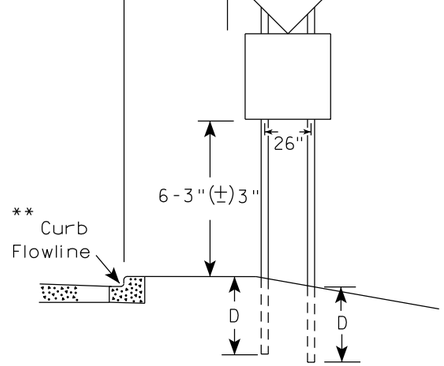
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

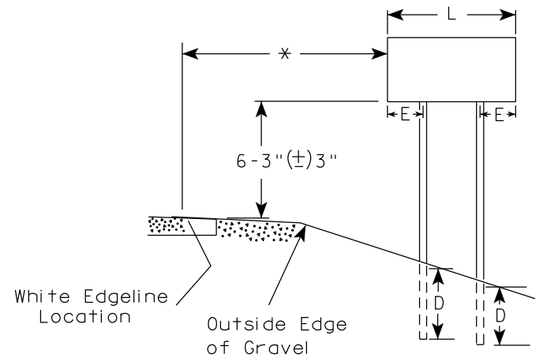
URBAN AREA

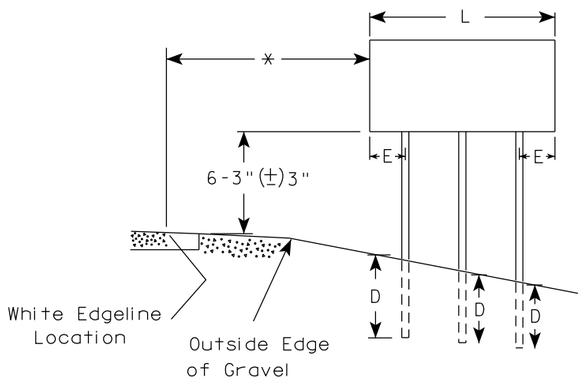


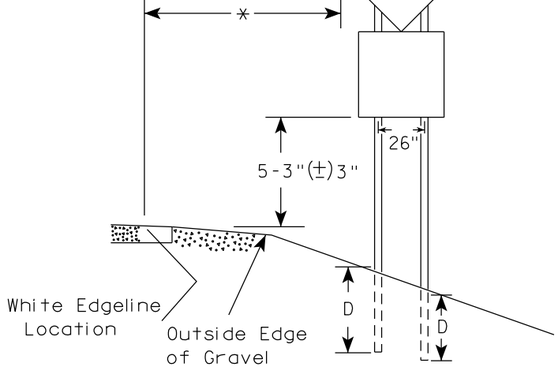


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), 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" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

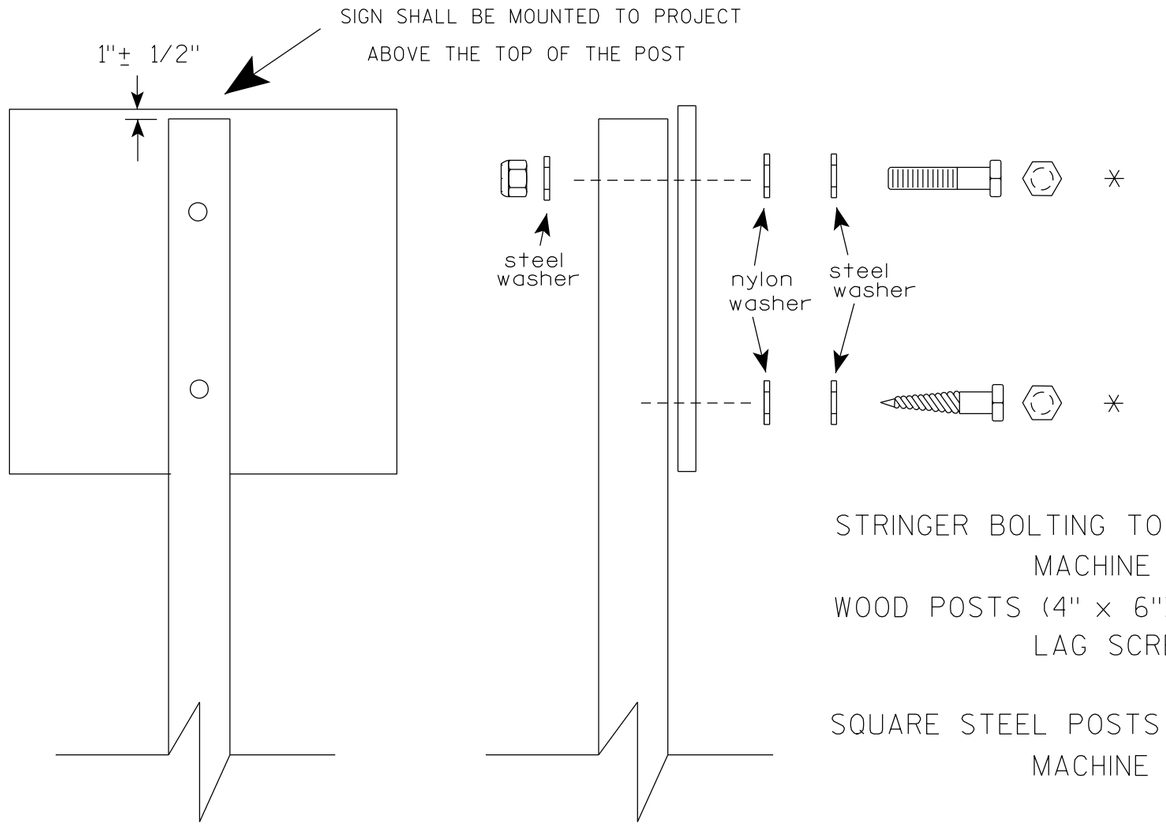
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 42	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 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

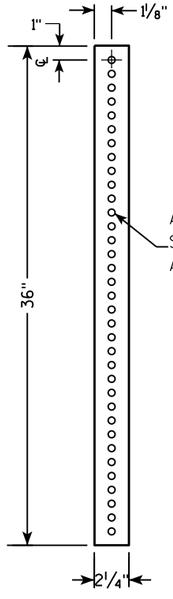
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

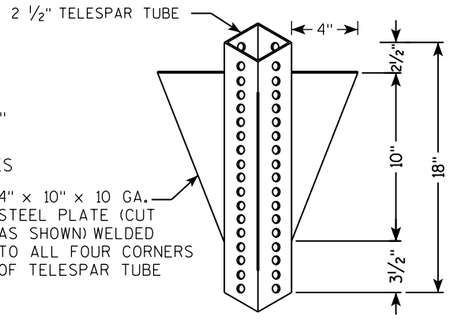
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

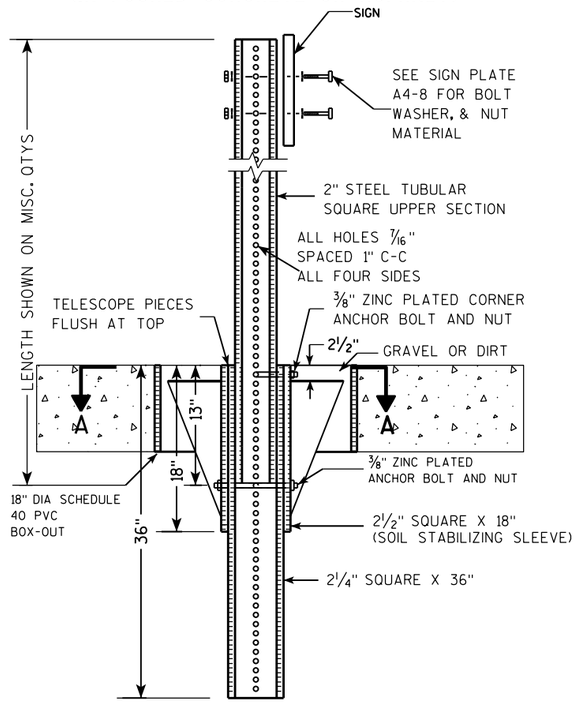
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



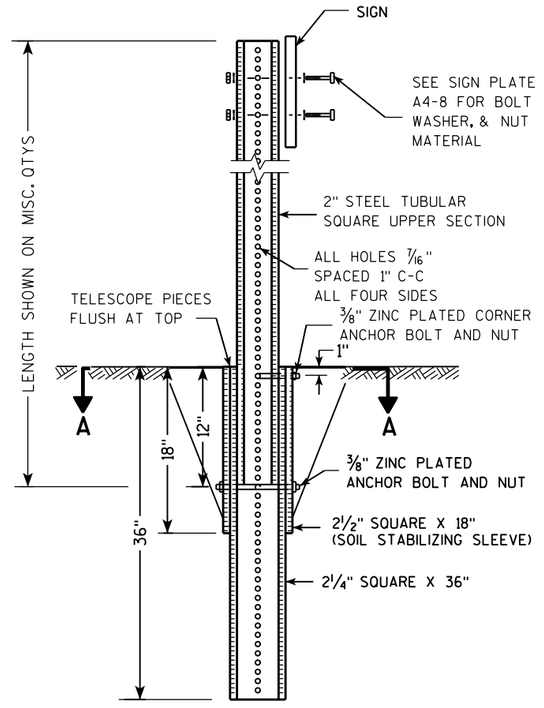
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

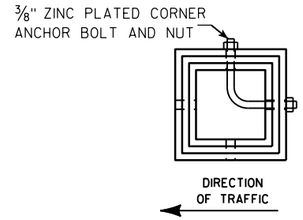


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

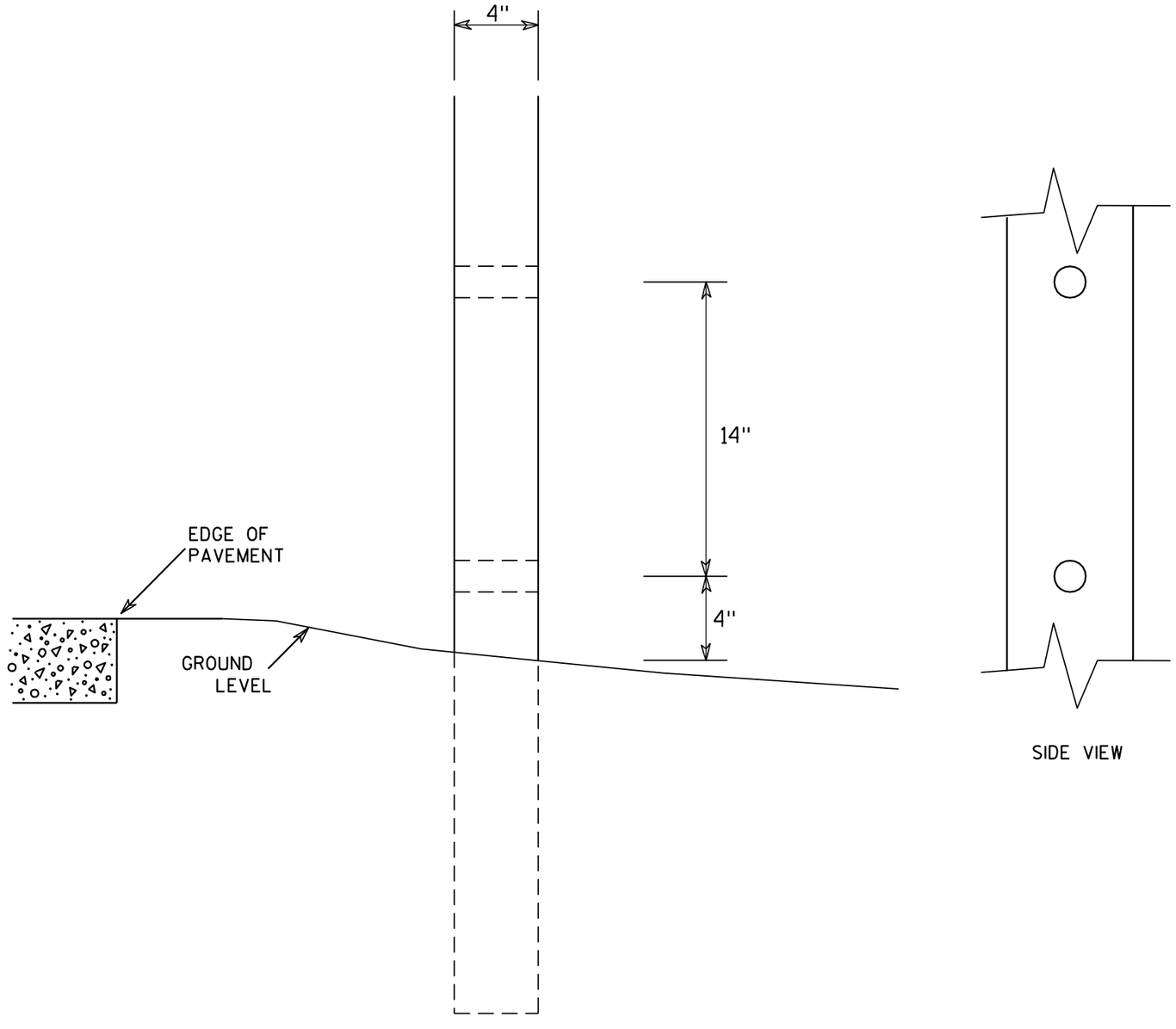
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 44 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

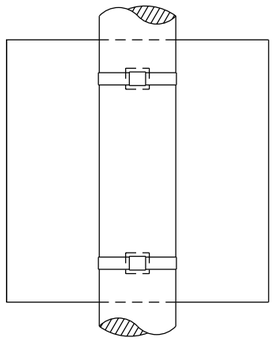
APPROVED Chester J Spang for State Traffic Engineer

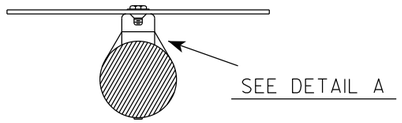
DATE 3/27/97 PLATE NO. A4-11.2

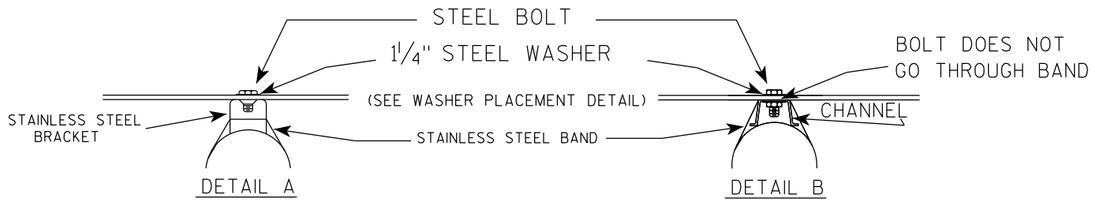
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 45	E

BANDING

SINGLE SIGN



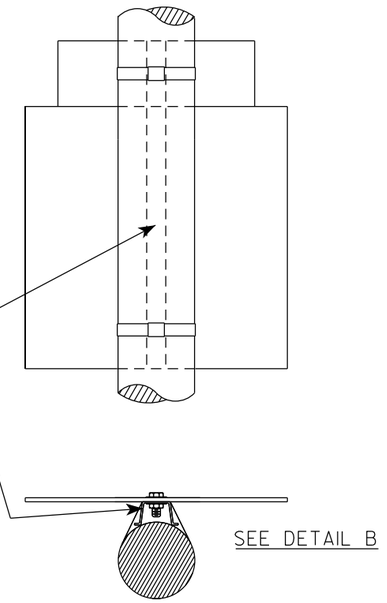




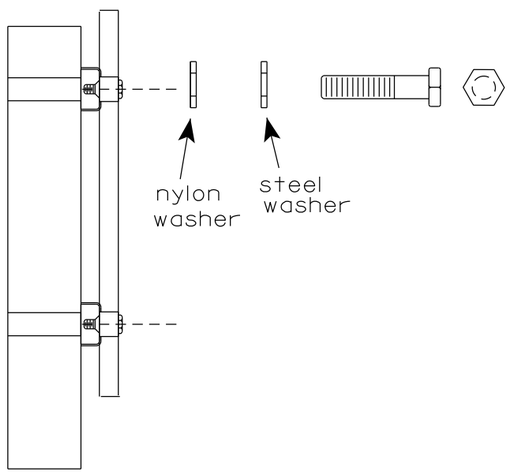
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

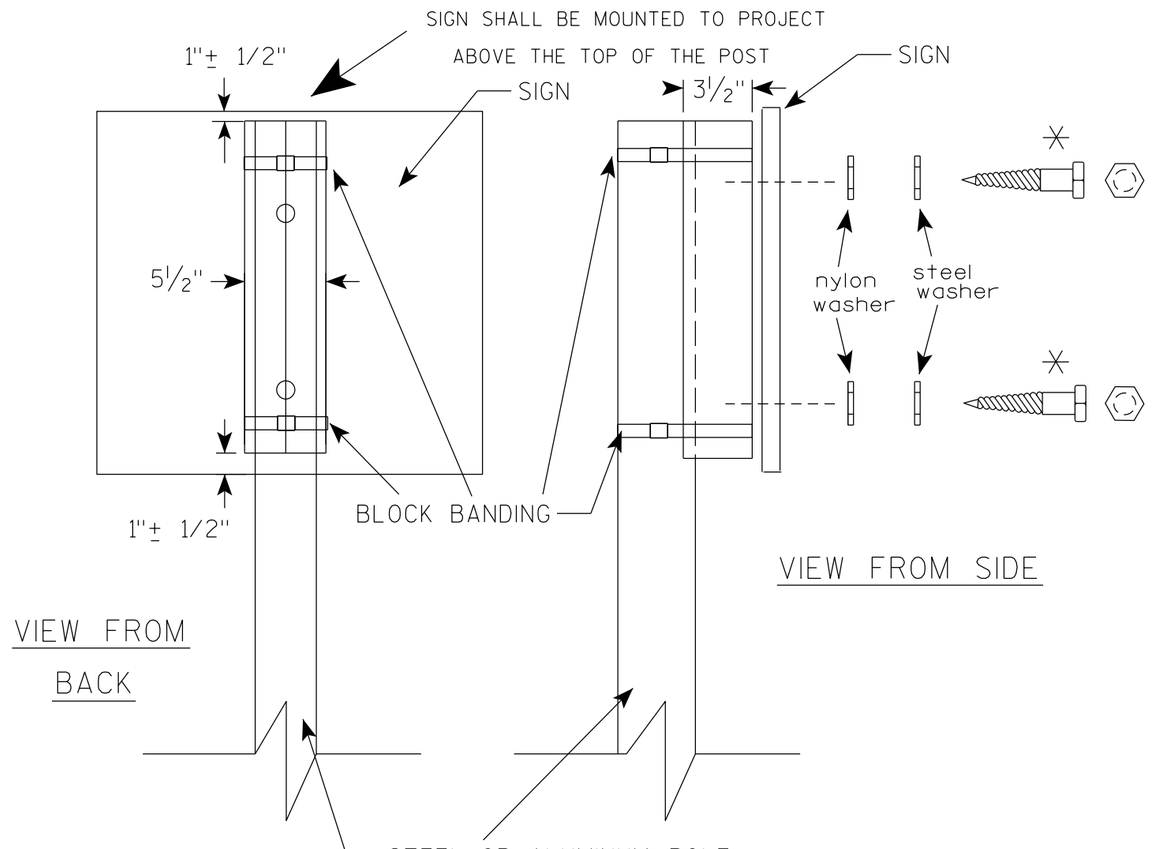
WISCONSIN DEPT OF TRANSPORTATION

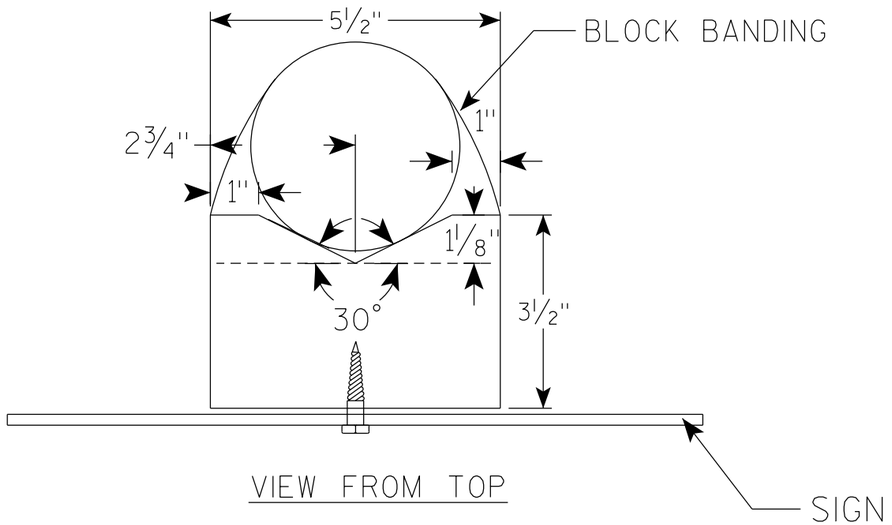
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 46	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

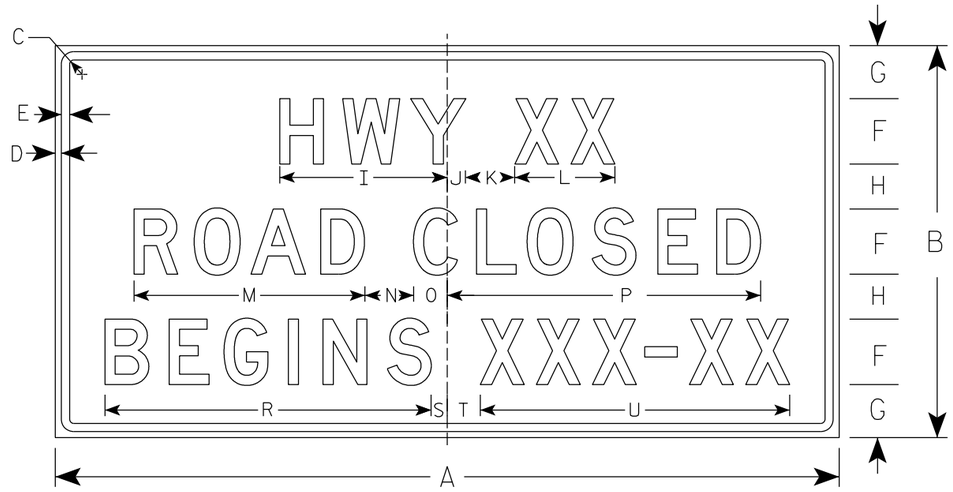
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

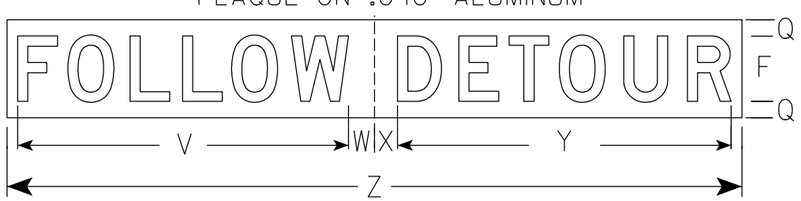
PROJECT NO:

SHEET NO: 47 E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

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																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

STANDARD SIGN

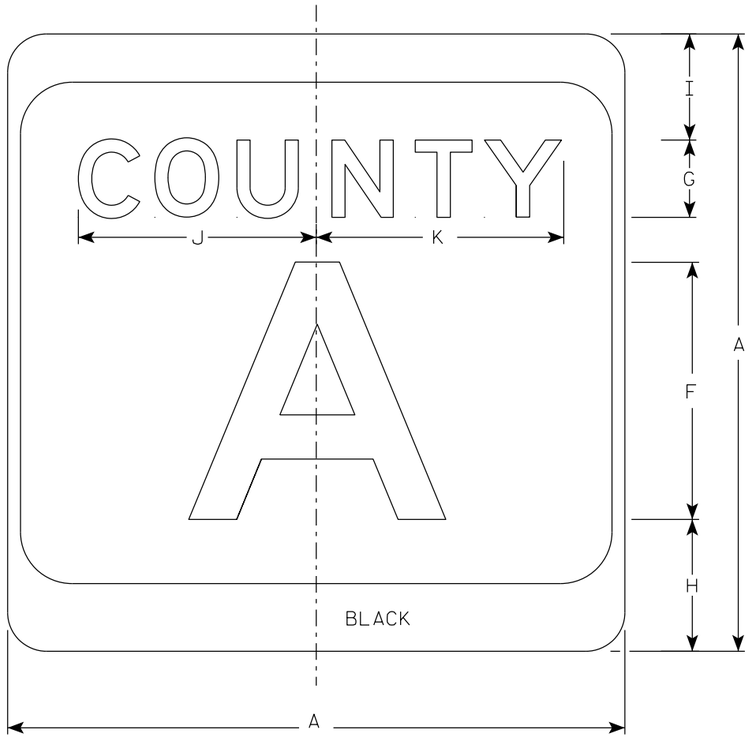
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

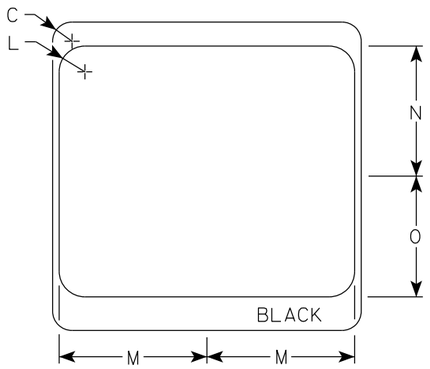
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/25/19 PLATE NO. G20-57C.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 48 | E

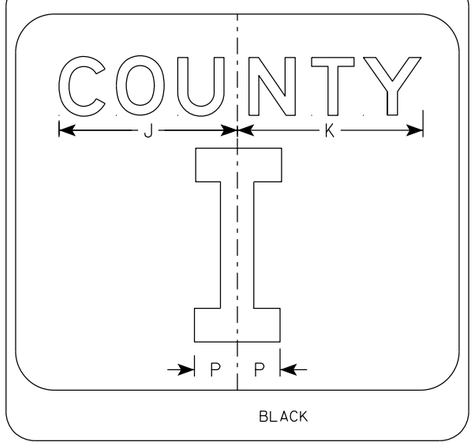


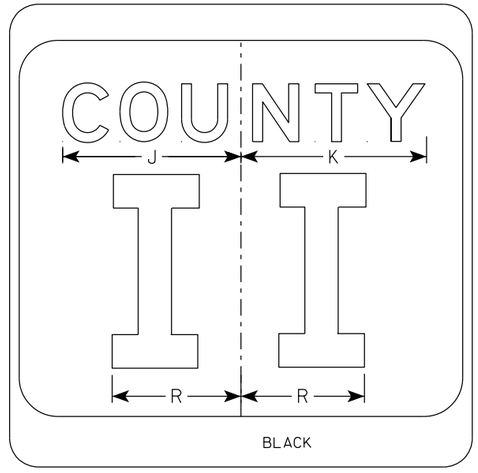
M1-5A



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White & Black
   Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center to achieve proper balance.





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																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

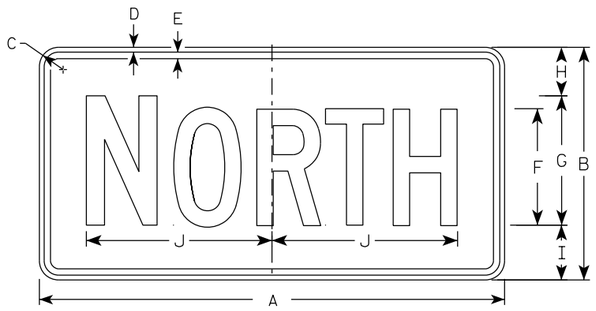
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

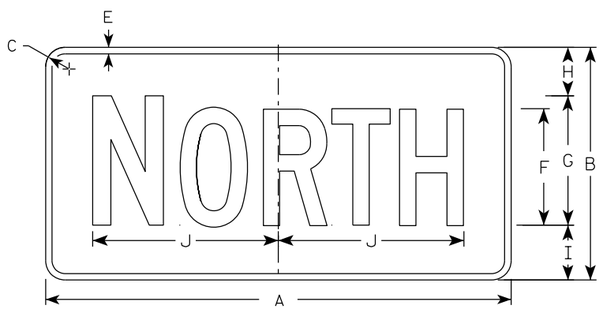
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M15A.dgn PLOT DATE : 8-NOV 2022 8:26 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

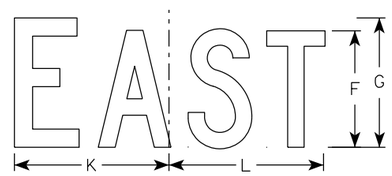
7



M3-1
MM3-1
MP3-1



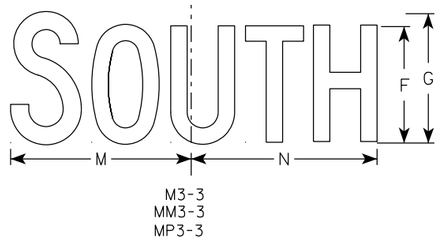
MB3-1
MK3-1
MN3-1



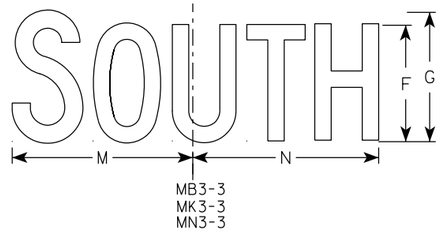
M3-2
MM3-2
MP3-2



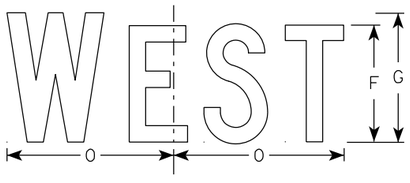
MB3-2
MK3-2
MN3-2



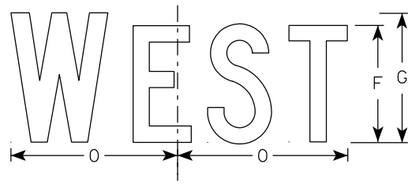
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

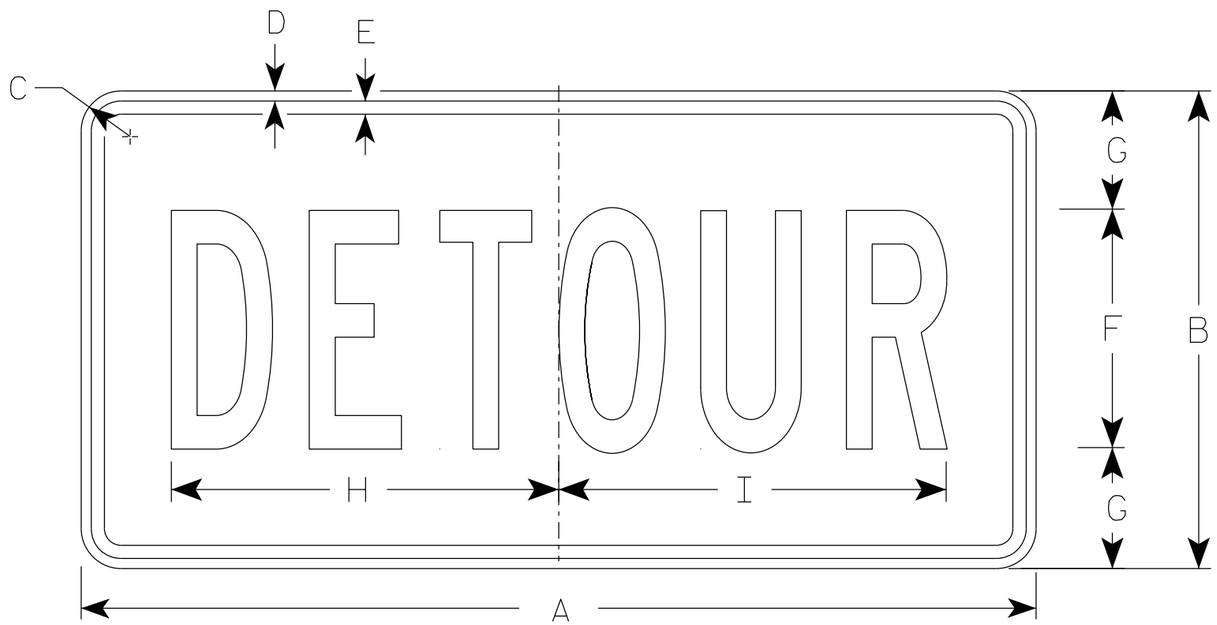
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 50 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4-8

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																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN
M4-8

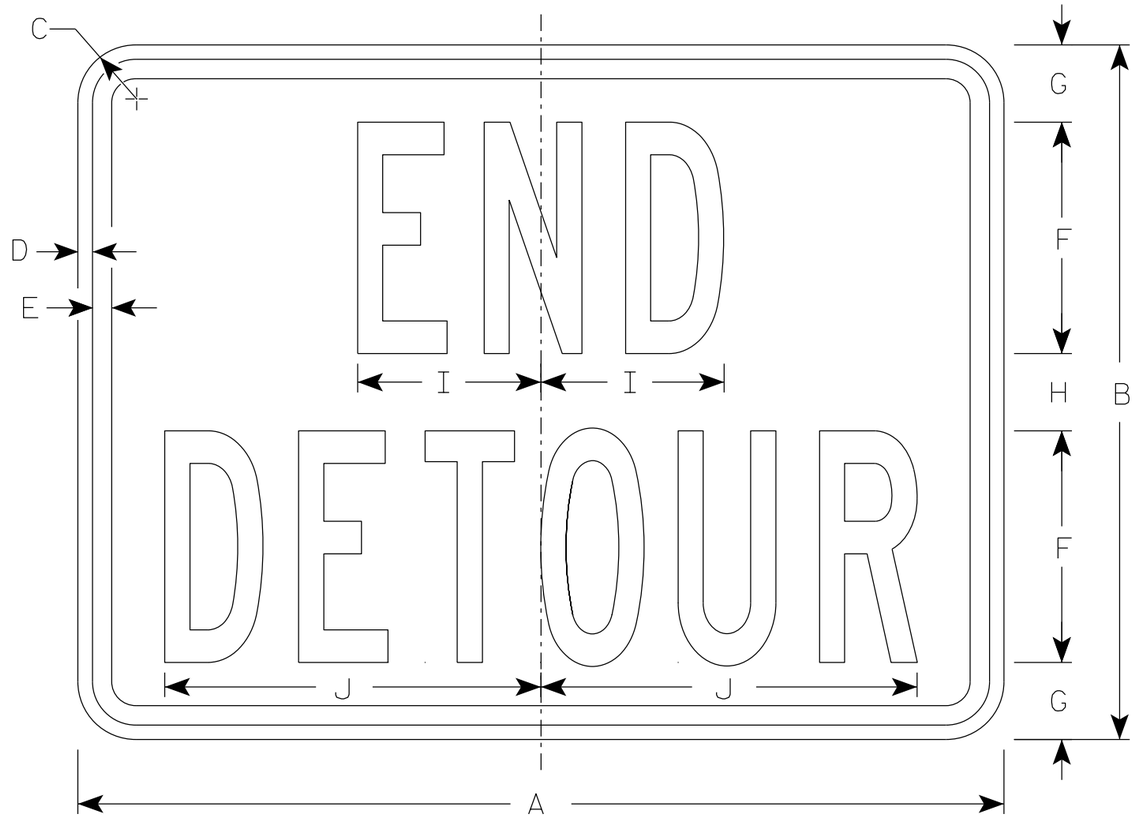
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M48.dgn PLOT DATE : 9-FEB 2023 7:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

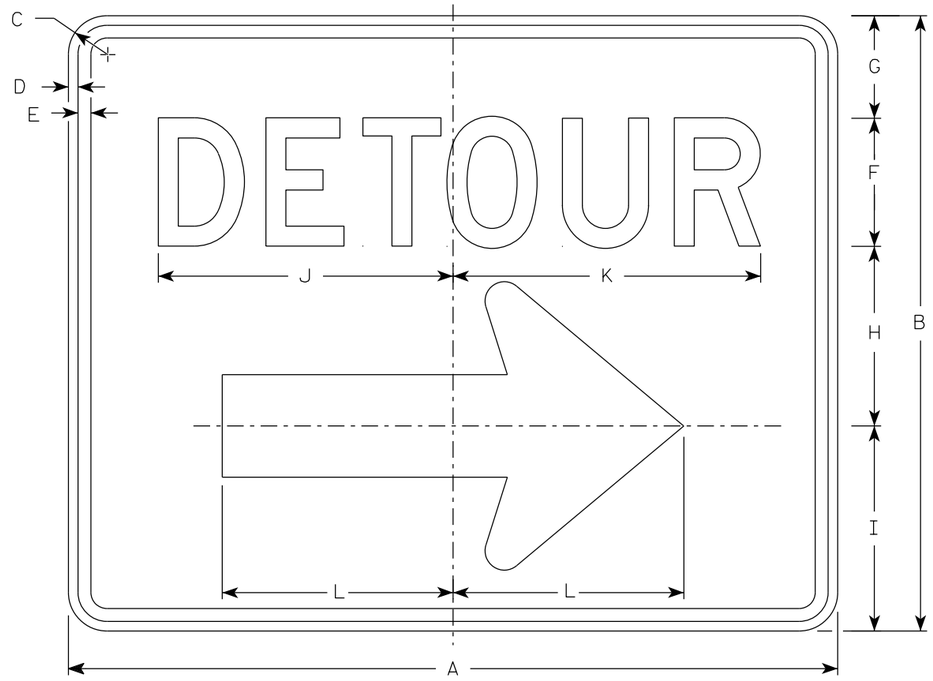
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

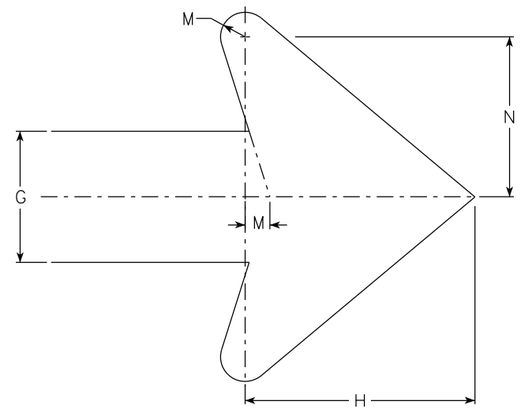
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 52 | E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

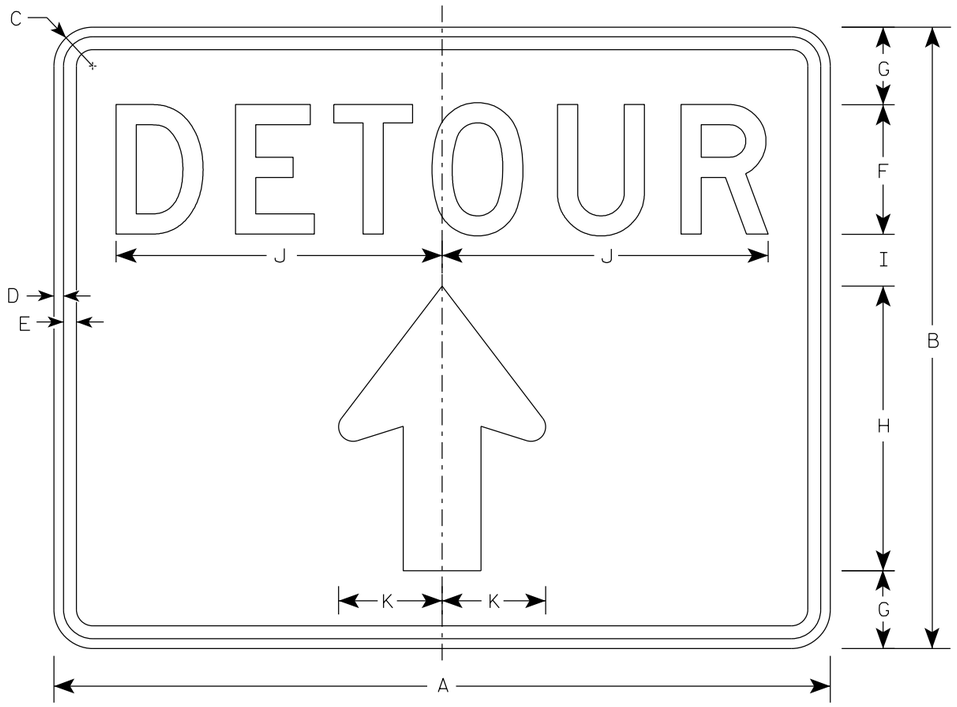
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

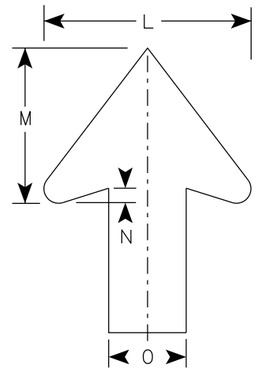
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



M4-9RA



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
2M	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
3																											
4																											
5																											

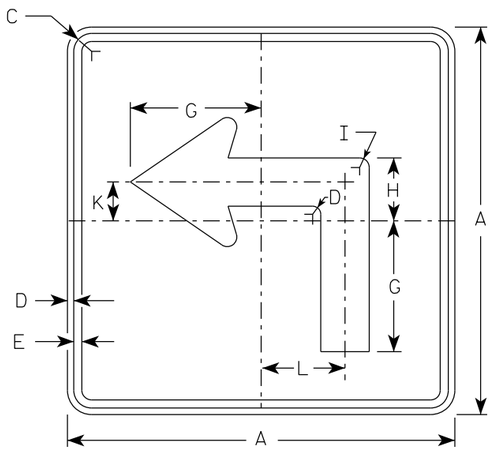
STANDARD SIGN
M4-9RA

WISCONSIN DEPT OF TRANSPORTATION

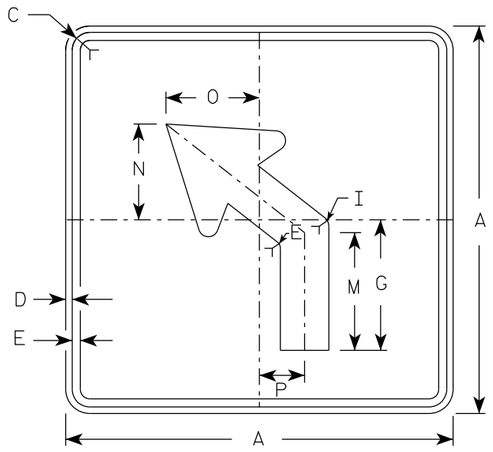
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9RA.3

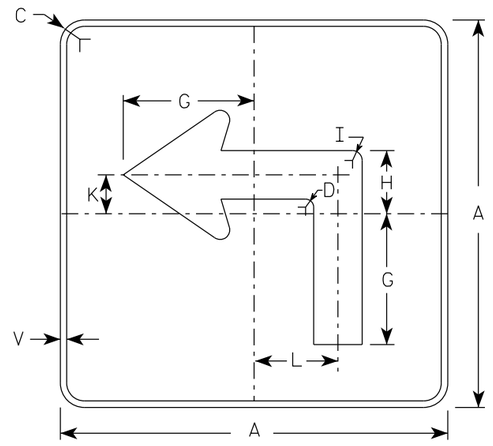
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 54	E



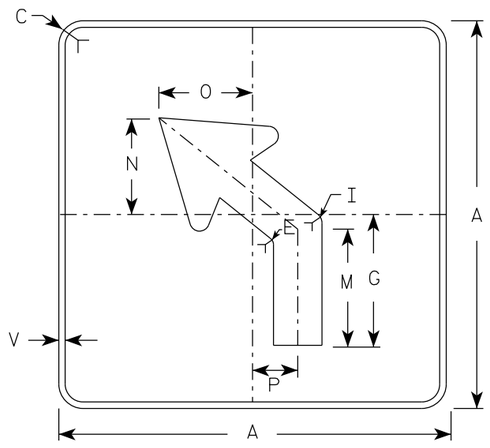
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

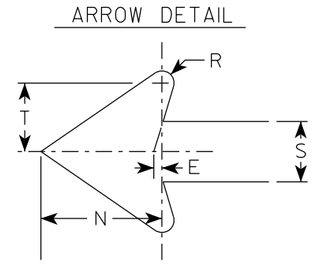


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

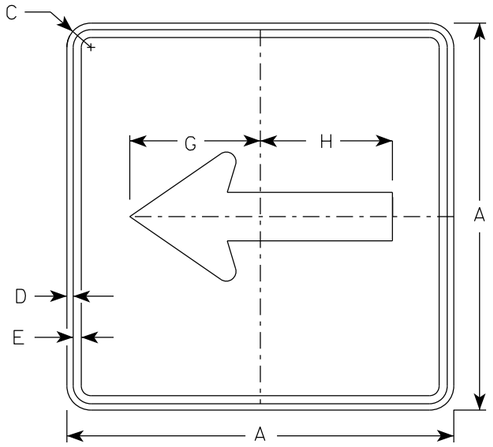
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

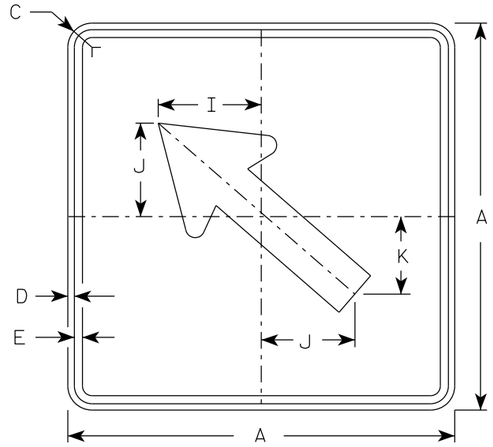
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

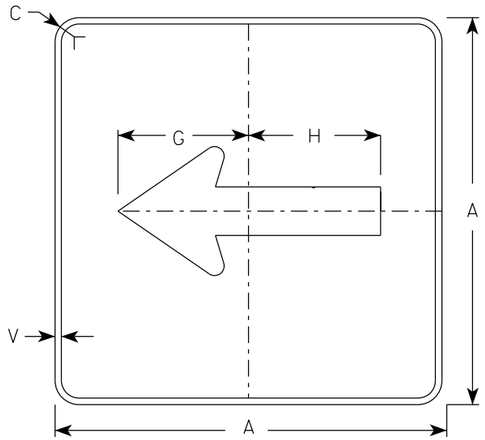
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 55 | E



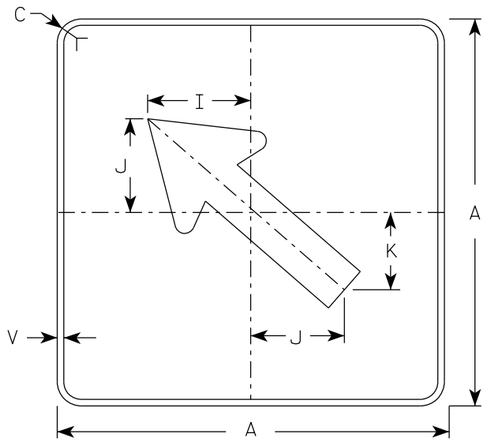
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

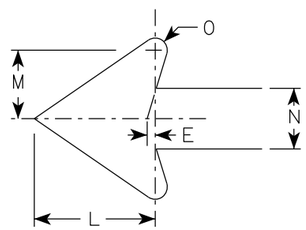


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

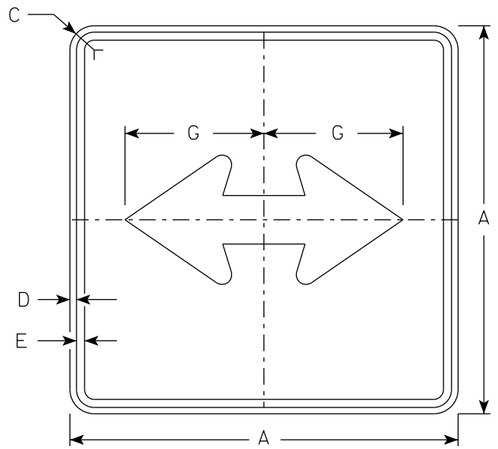
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

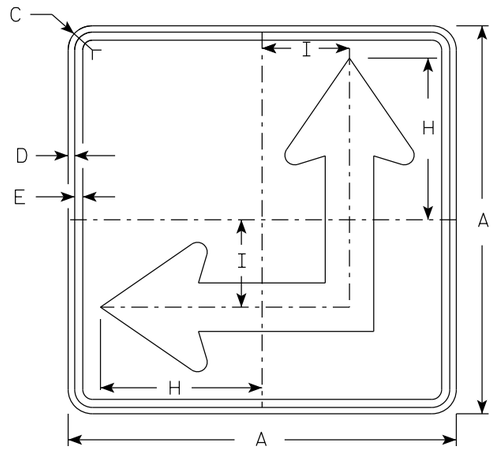
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

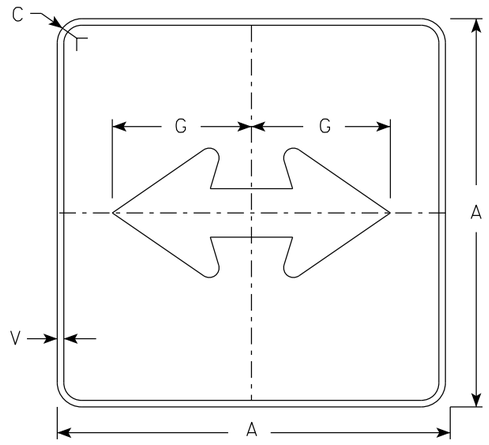
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 56 | E



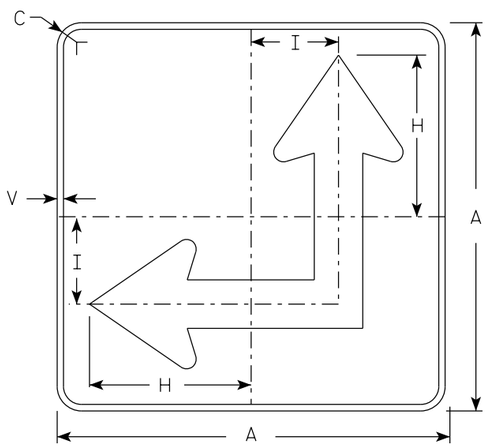
M6-4
MM6-4
MO6-4
MP6-4



M6-6
MM6-6
MO6-6
MP6-6



MB6-4
MK6-4
MN6-4
MR6-4

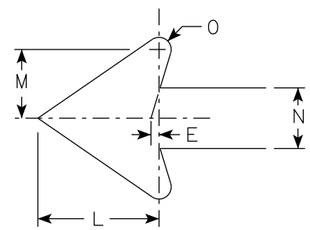


MB6-6
MK6-6
MN6-6
MR6-6

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

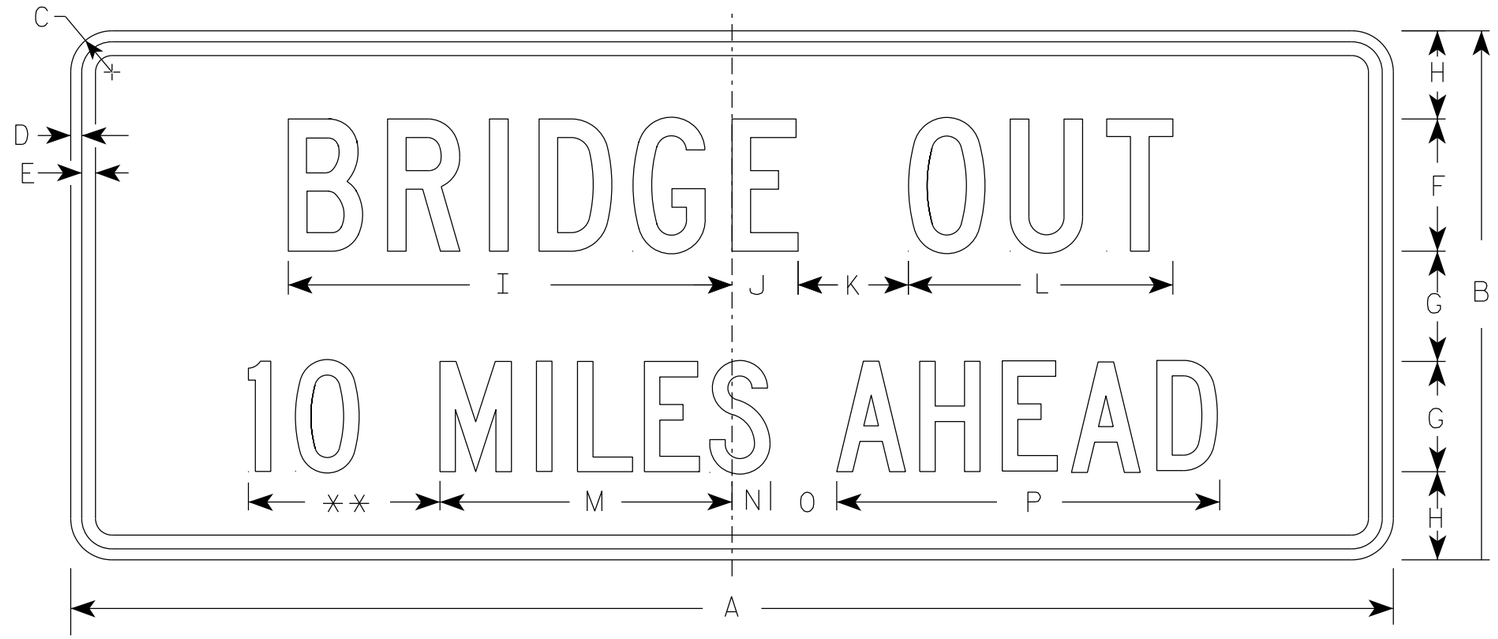
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 57 | E

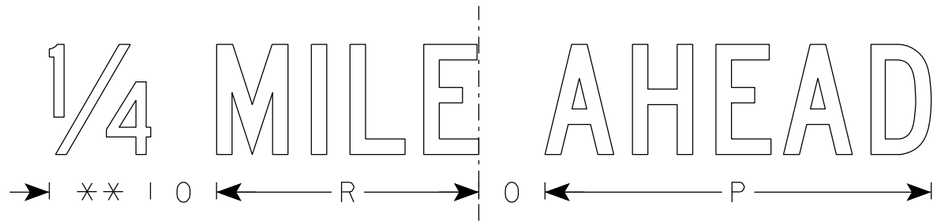
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 1/2	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

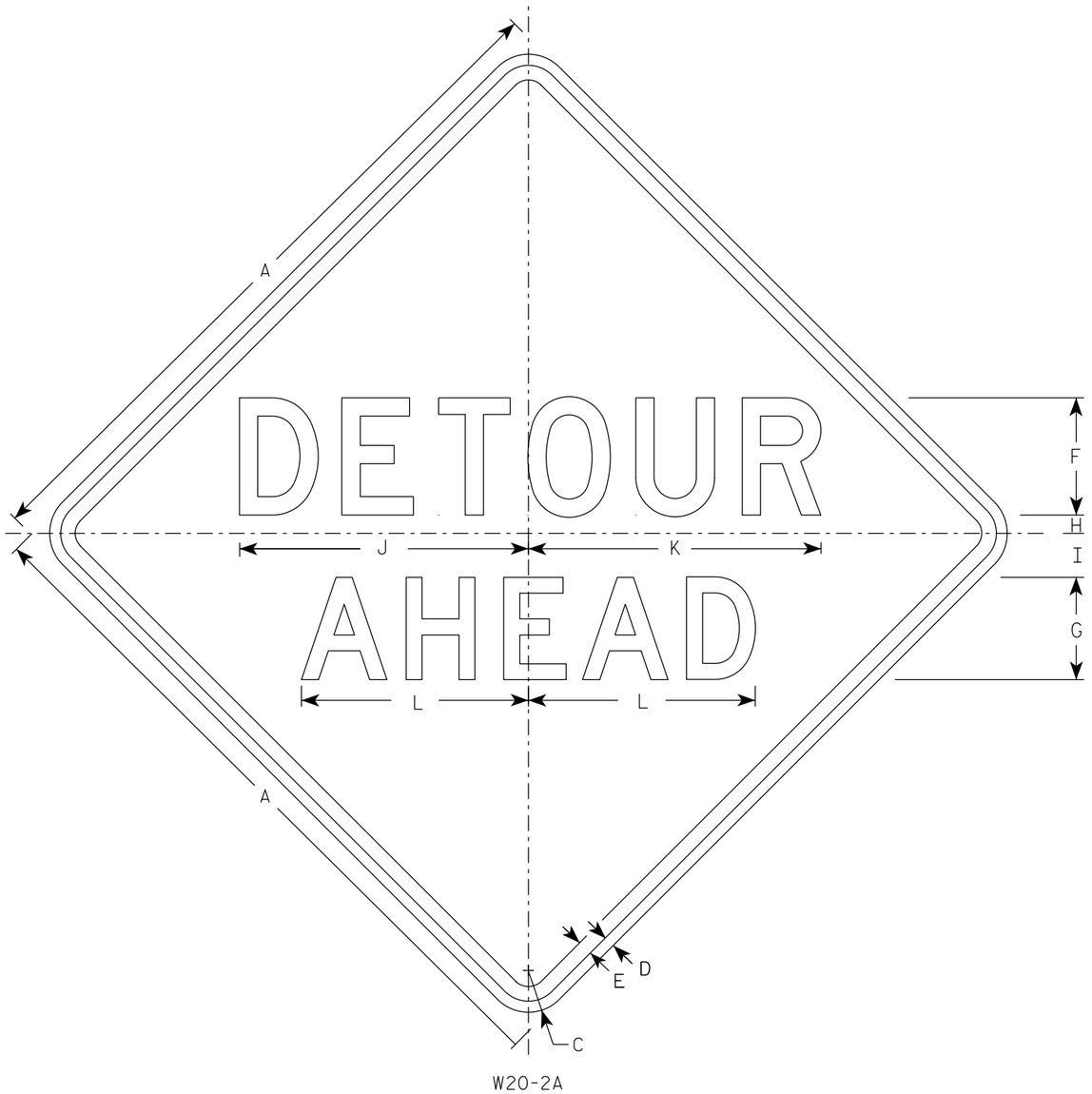
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

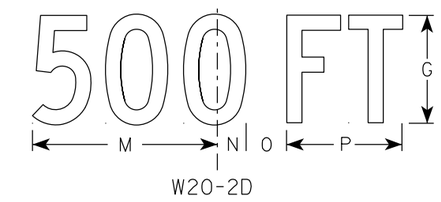
DATE 2/5/24 PLATE NO. R11-3C.4

PROJECT NO:

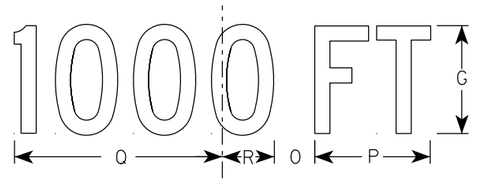
SHEET NO: 58 E



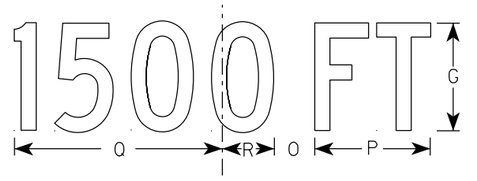
W20-2A



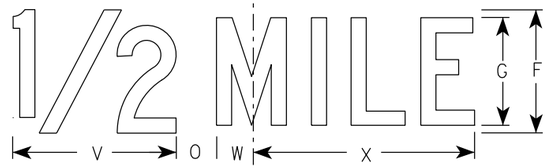
W20-2D



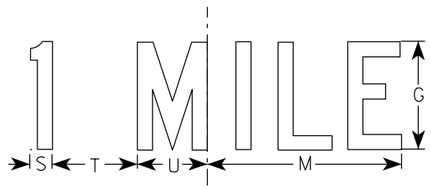
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

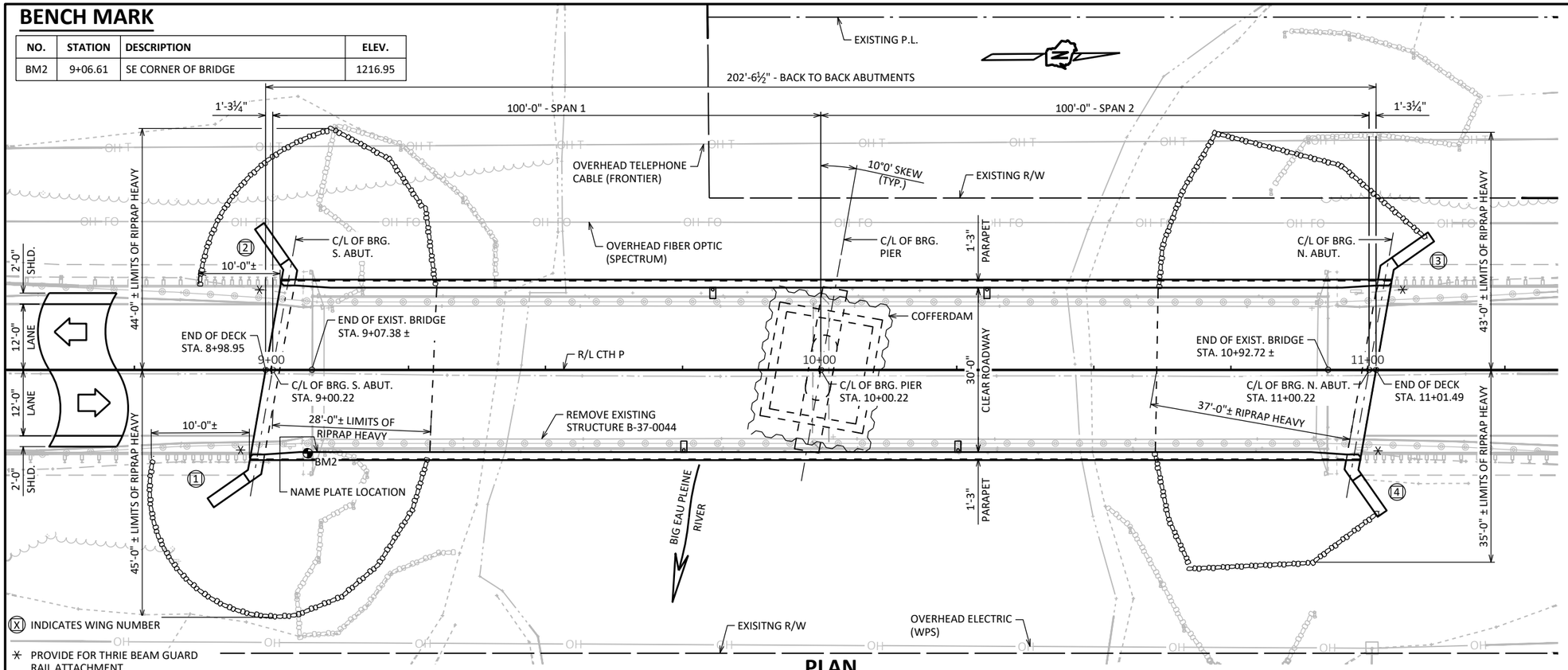
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W202.DGN PLOT DATE : 10-JAN 2024 11:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

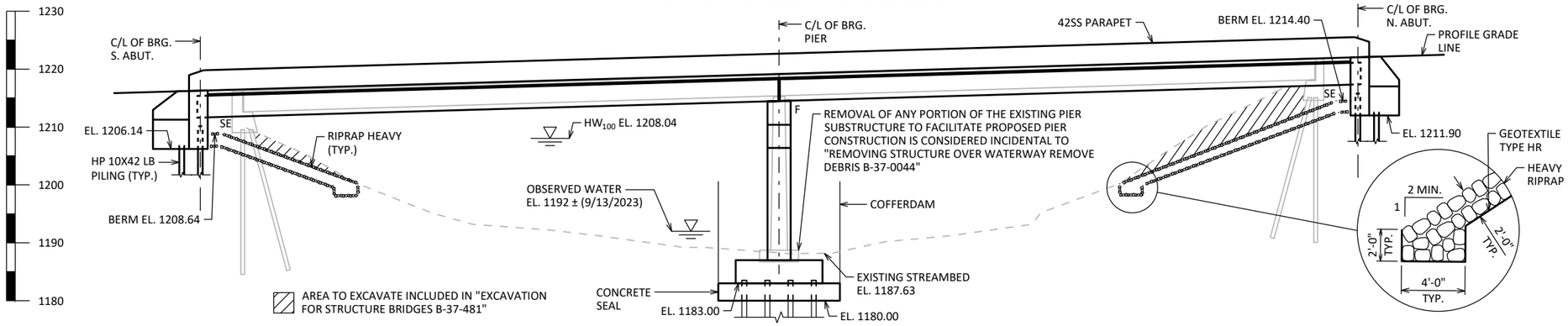
BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
BM2	9+06.61	SE CORNER OF BRIDGE	1216.95



PLAN

TWO SPAN - 45W" PRESTRESSED CONCRETE GIRDER BRIDGE



ELEVATION

NORMAL TO WATERWAY - LOOKING UPSTREAM

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.18
OPERATING RATING: RF = 1.91
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE — f'_c = 4,000 PSI
ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
GRADE 60 — f_y = 60,000 PSI

45W" PRESTRESSED GIRDERS:
CONCRETE MASONRY — f'_c = 8,000 PSI
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

SOUTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40-'0" LONG. PILE POINTS ARE REQUIRED.

NORTH ABUTMENT TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. PLACED IN PRE-BORED HOLES CORED 3'-0" INTO COMPETENT ROCK AND DO NOT REQUIRE DRIVING. PILING SHALL BE FIRMLY SEATED AFTER PLACEMENT. ESTIMATED 25'-0" LONG.

PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. PILING SHALL BE PLACED IN PRE-BORED HOLES. PRE-BORED HOLES SHALL EXTEND A MINIMUM OF 10 FEET BELOW THE BOTTOM OF PIER ELEVATION AND BE EMBEDDED A MINIMUM OF 3'-0" INTO COMPETENT ROCK. PILING SHALL BE FIRMLY SEATED AFTER PLACEMENT. ESTIMATED 10'-0" LONG.

** 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 PILE CAPACITY.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 23,510 C.F.S.
V_{100}= 14.4 F.P.S.
HW_{100}= EL. 1208.04
WATERWAY AREA = 1628 SQ. FT.
DRAINAGE AREA = 170 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

Q_2= 5950 C.F.S.
V_2= 9.2 F.P.S.
HW_2= EL. 1198.69

TRAFFIC DATA

FEATURE ON:

ADT = 360 (2027)
ADT = 400 (2047)
R.D.S. = 60 MPH

STRUCTURE DESIGN CONTACTS:

BUREAU OF STRUCTURES:
AARON BONK (608) 261-0261

CONSULTANT
JAMES RHOAD-DROGALIS (608) 828-8166

STATE PROJECT NUMBER

6652-01-70

LIST OF DRAWINGS:

1. GENERAL PLAN
2. CROSS SECTION & NOTES
3. QUANTITIES
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. WINGS 1 & 2
7. SOUTH ABUTMENT DETAILS
8. NORTH ABUTMENT
9. WINGS 3 & 4
10. NORTH ABUTMENT DETAILS
11. PIER
12. PIER DETAILS
13. 45W" PRESTRESSED GIRDER DETAILS 1
14. 45W" PRESTRESSED GIRDER DETAILS 2
15. STEEL DIAPHRAGM
16. SUPERSTRUCTURE PLAN
17. SUPERSTRUCTURE CROSS SECTION & DETAILS
18. SUPERSTRUCTURE DETAILS
19. SINGLE SLOPE PARAPET 42SS
20. FLOOR DRAIN TYPE 'GC'

WISCONSIN
JAMES A. RHOAD-DROGALIS
E-47302
MADISON
WI
6/2/2026
PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED JLR 08/13/26
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-37-481

CTH P OVER BIG EAU PLEINE RIVER

COUNTY	TOWN
MARATHON	EAU PLEINE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
UD	JRD	DCH	JRD

GENERAL PLAN

SHEET 1 OF 20

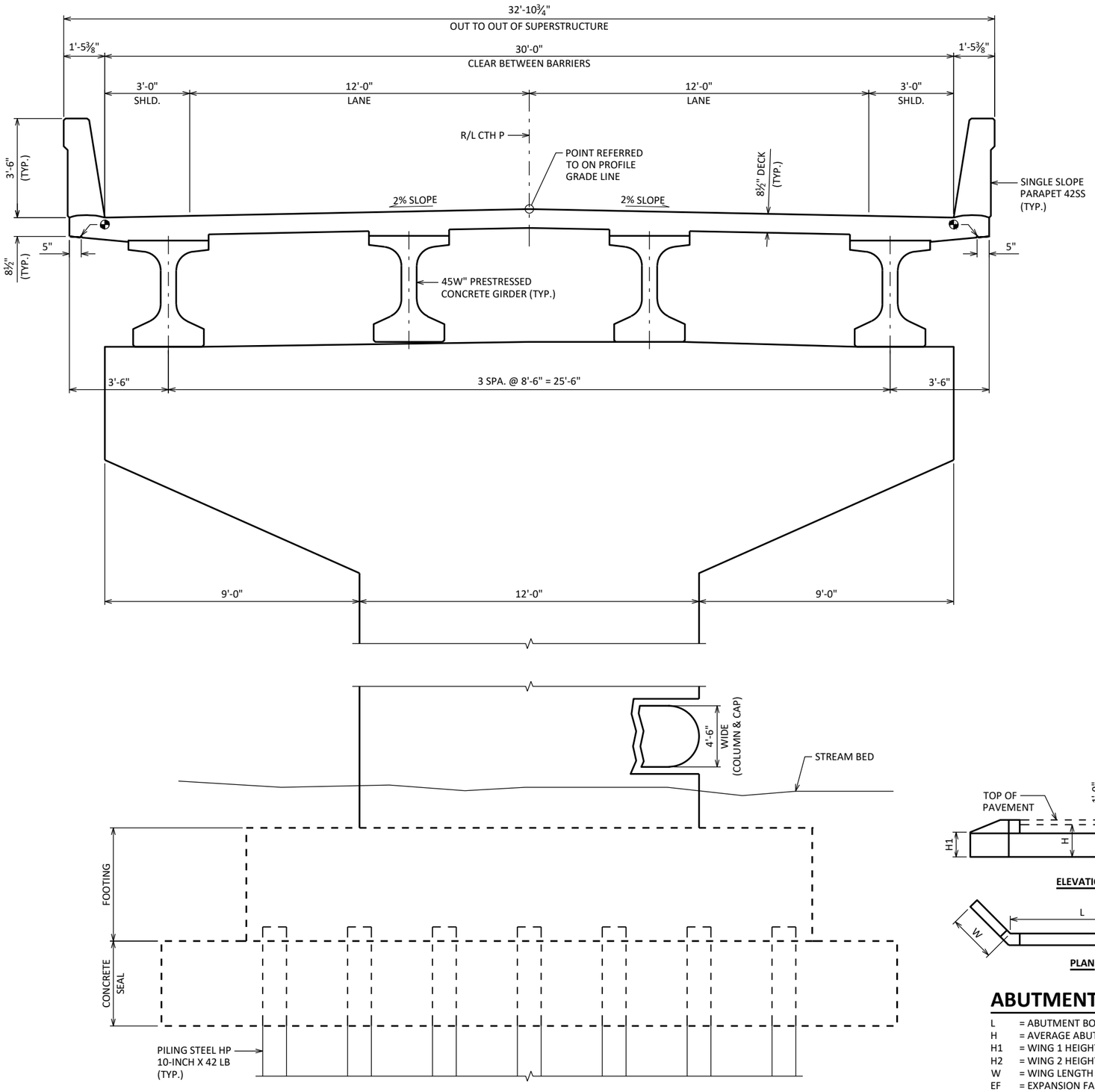
SCALE = 60

I.D. 6652-01-70 DATE: OCT. 2024

8 8

STATE PROJECT NUMBER

6652-01-70



TYPICAL SECTION ON BRIDGE

(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

THE EXISTING STRUCTURE (B-37-0044) IS A TWO-SPAN STEEL GIRDER BRIDGE, 188.8' LONG X 28' WIDE, TO BE REMOVED.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURE B-37-0481" SHALL BE THE EXISTING GROUNDLINE.

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.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK.

PIGMENTED SURFACE SEALER TO BE APPLIED TO INSIDE AND TOP FACES OF PARAPETS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1.

THE EXISTING STREAM BED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

ALL REQUIRED REMOVAL OF THE EXISTING SUBSTRUCTURES IS INCLUDED IN THE BID ITEM "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-37-0044".

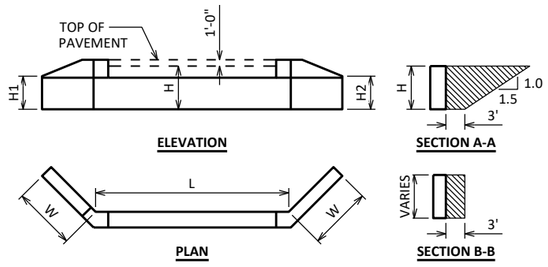
AT PIER, COFFERDAMS REQUIRED.

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.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

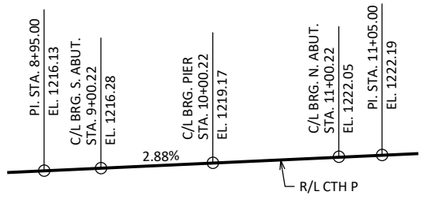
A HIGH WATER ELEVATION OF EL. 1198.69 WAS USED FOR THE DESIGN OF THE CONCRETE SEAL.

⊕ ¾" V-GROOVE, EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT.



ABUTMENT BACKFILL DIAGRAM

L = ABUTMENT BODY LENGTH AT BACKFACE (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
H1 = WING 1 HEIGHT AT TIP (FT)
H2 = WING 2 HEIGHT AT TIP (FT)
W = WING LENGTH (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) + (3')(0.5)(H1+H2+H+H)(W)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY DCH | PLANS CK'D JRD

CROSS SECTION & NOTES

SHEET 2 OF 20

61

SCALE =

8

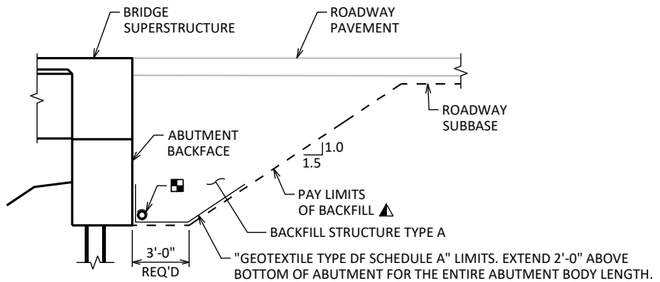
8

STATE PROJECT NUMBER

6652-01-70

TOTAL ESTIMATED QUANTITIES

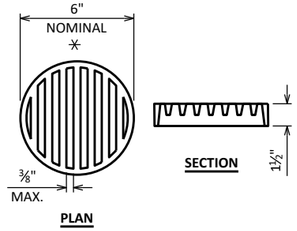
BID ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUTMENT	PIER	NORTH ABUTMENT	SUPER.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS B-37-0044	EACH	——	——	——	——	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-37-0481	EACH	——	——	——	——	1
206.5001	COFFERDAMS B-37-0481	EACH	——	——	——	——	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	265	——	265	——	530
502.0100	CONCRETE MASONRY BRIDGES	CY	33.0	118.3	34.0	303.0	489
502.1100	CONCRETE MASONRY SEAL	CY	——	59	——	——	59
502.3200	PROTECTIVE SURFACE TREATMENT	SY	——	——	——	676	676
502.3210	PIGMENTED SURFACE SEALER	SY	——	——	——	200	200
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	——	——	——	803	803
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,600	16,550	2,600	——	21,750
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,570	——	1,560	65,250	68,380
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	——	——	——	16	16
506.4000	STEEL DIAPHRAGMS B-37-0481	EACH	——	——	——	12	12
514.0445	FLOOR DRAIN TYPE 'GC'	EACH	——	——	——	4	4
514.2625	DOWNSPOUT 6-INCH	LF	——	——	——	18	18
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	——	8	——	16
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	——	245	160	——	405
550.0500	PILE POINTS	EACH	8	——	——	——	8
550.1100	PILING STEEL HP 10-INCH X42 LB	LF	320	350	200	——	870
606.0300	RIPRAP HEAVY	CY	235	——	220	——	455
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	——	75	——	150
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	——	——	——	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	46	——	46	——	92
645.0120	GEOTEXTILE TYPE HR	SY	400	——	380	——	780
	NON-BID ITEMS						
	FILLER	SIZE	——				1/2" & 3/4"



TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

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

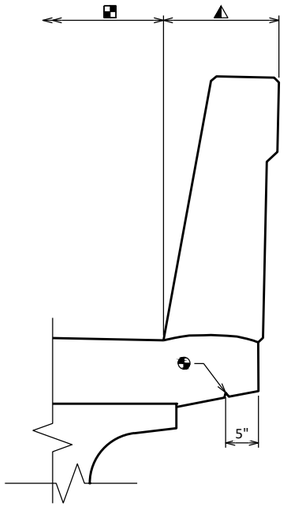


RODENT SHIELD DETAIL

⚹ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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 EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



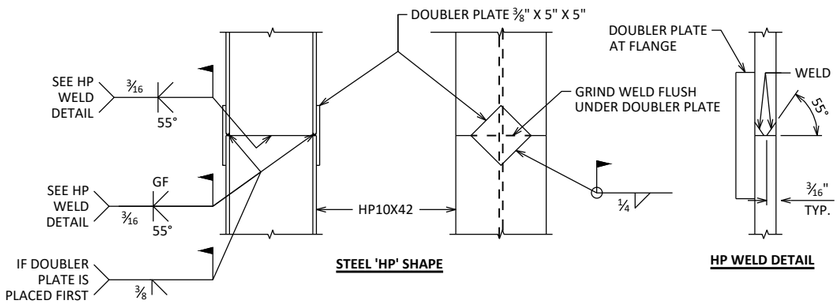
CROSS SECTION THRU EDGE OF DECK

(SHOWING DRIP GROOVE AND CONCRETE SEALING)

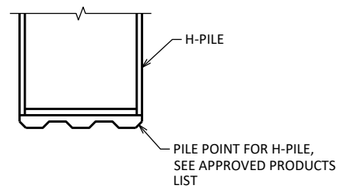
◓ ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. ABUT. DIAPH.

▪ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER STANDARD SPECIFICATIONS.

⚠ APPLY "PIGMENTED SURFACE SEALER" AS PER STANDARD SPECIFICATIONS.



'HP' PILE DETAILS



PILE POINT FOR H-PILING

PILE POINT SHALL BE INSTALLED ACCORDING TO THE PILE POINT MANUFACTURE'S INSTRUCTIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

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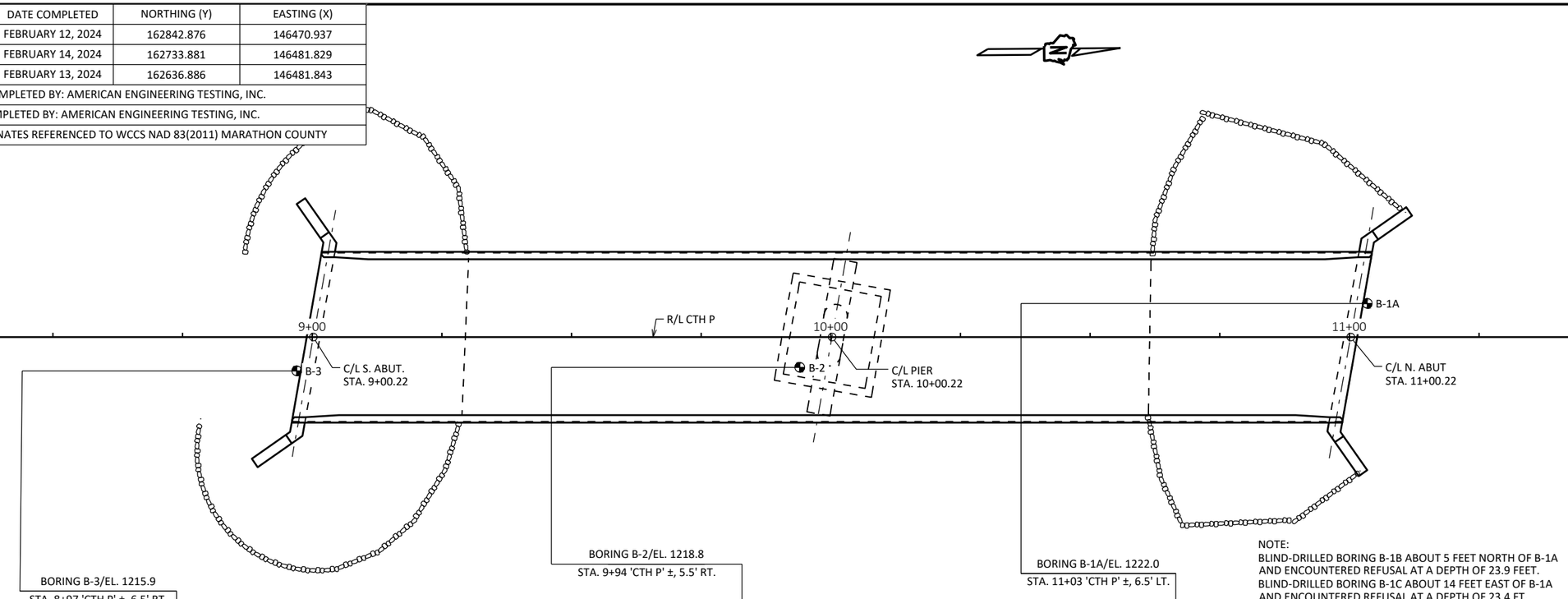
QUANTITIES

SHEET 3 OF 20

62

SCALE =

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1A	FEBRUARY 12, 2024	162842.876	146470.937
B-2	FEBRUARY 14, 2024	162733.881	146481.829
B-3	FEBRUARY 13, 2024	162636.886	146481.843
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) MARATHON COUNTY			

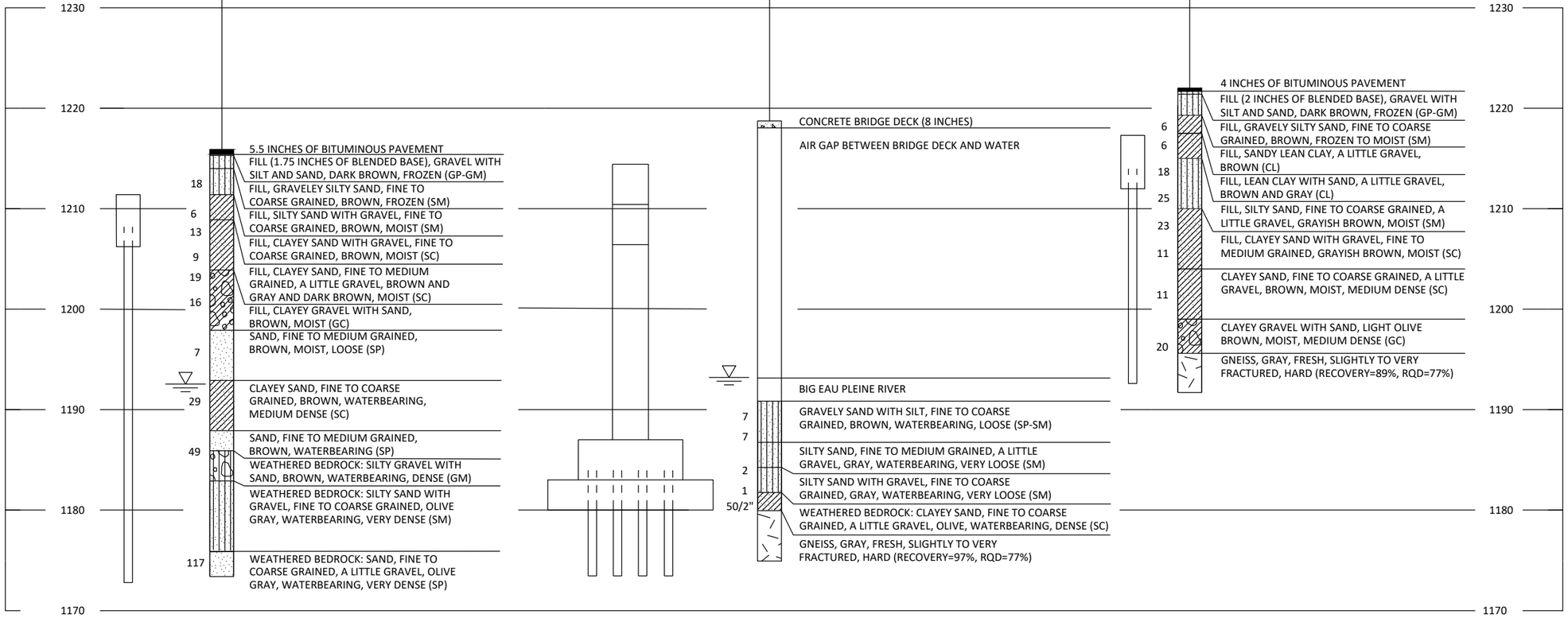


NOTE:
BLIND-DRILLED BORING B-1B ABOUT 5 FEET NORTH OF B-1A AND ENCOUNTERED REFUSAL AT A DEPTH OF 23.9 FEET.
BLIND-DRILLED BORING B-1C ABOUT 14 FEET EAST OF B-1A AND ENCOUNTERED REFUSAL AT A DEPTH OF 23.4 FT.

BORING B-3/EL. 1215.9
STA. 8+97 'CTH P' ±, 6.5' RT.

BORING B-2/EL. 1218.8
STA. 9+94 'CTH P' ±, 5.5' RT.

BORING B-1A/EL. 1222.0
STA. 11+03 'CTH P' ±, 6.5' LT.



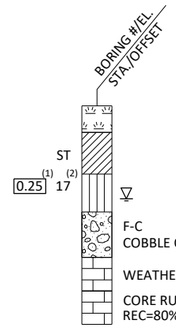
STATE PROJECT NUMBER

6652-01-70

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-37-481

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SUBSURFACE EXPLORATION

SHEET 4 OF 20

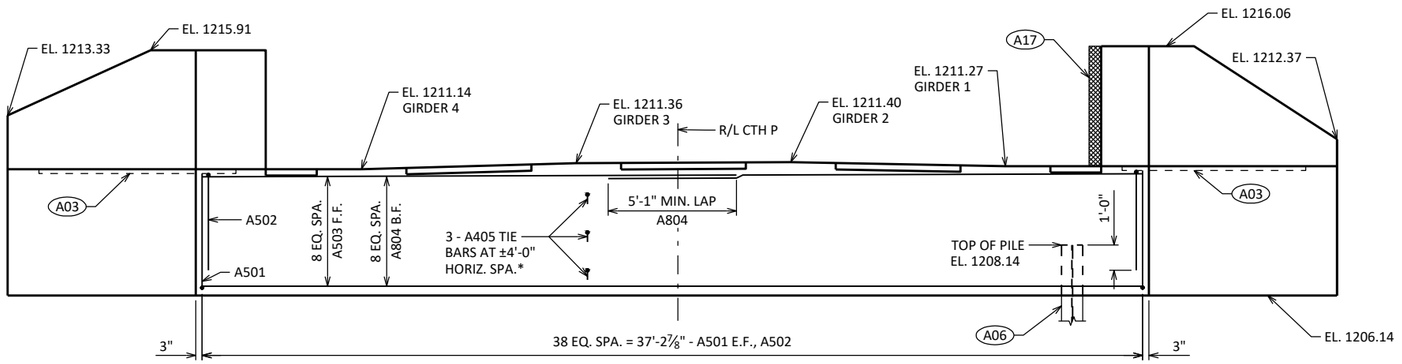
63

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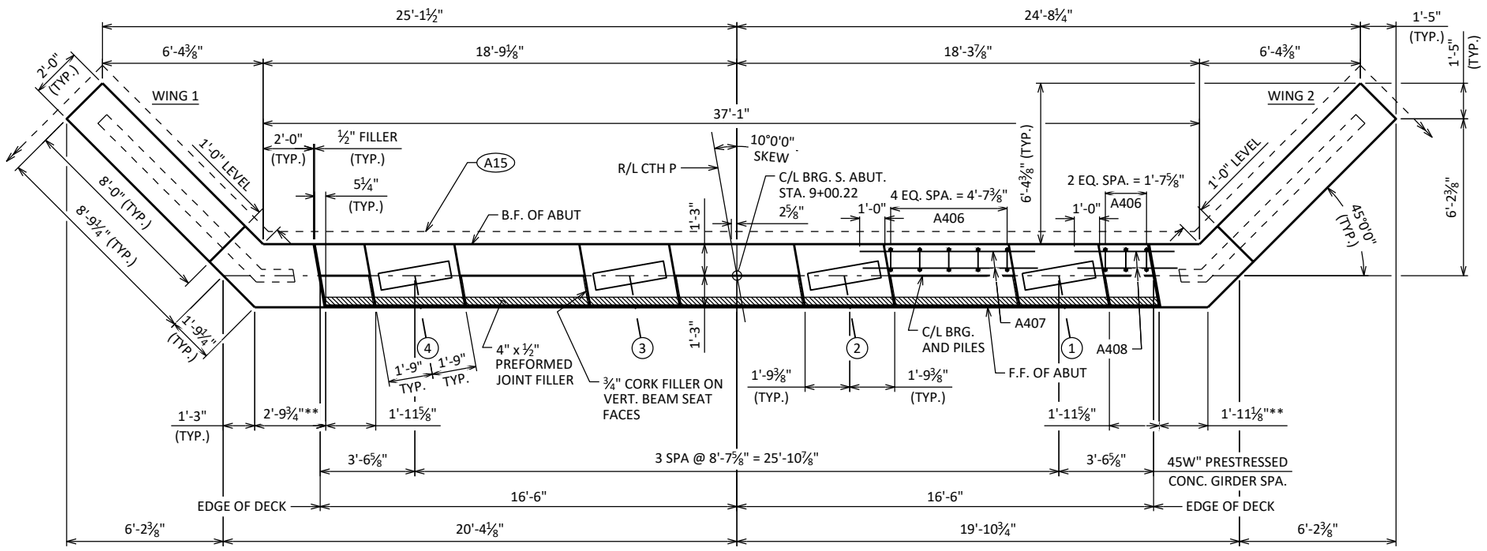
STATE PROJECT NUMBER

6652-01-70

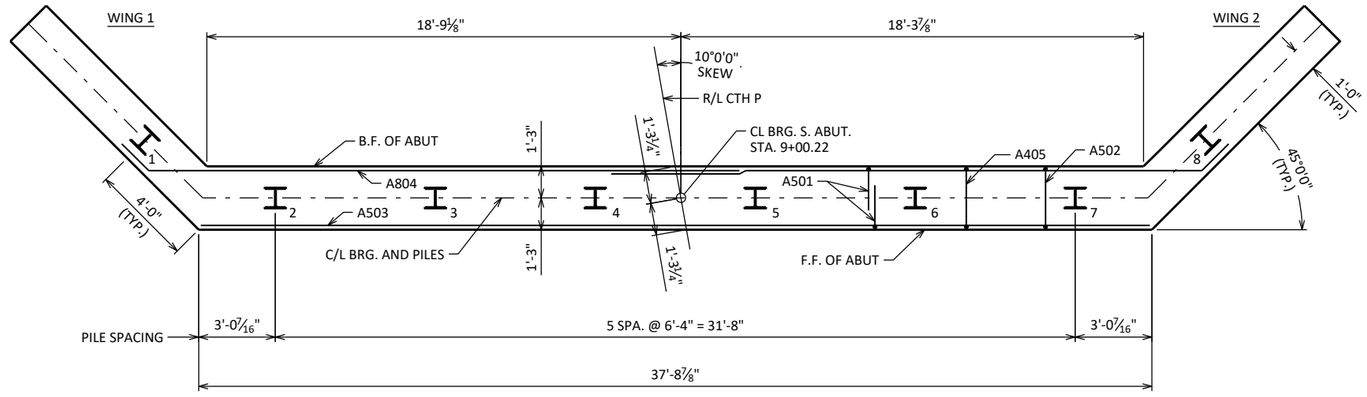


ELEVATION

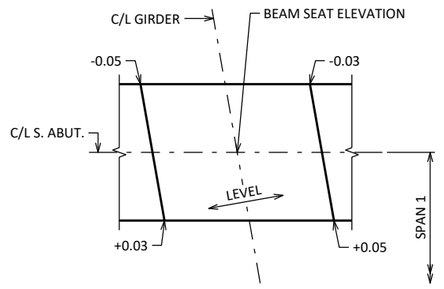
(LOOKING SOUTH AT SOUTH ABUTMENT)



PLAN



PILE PLAN



SLOPING BEAM SEAT DETAIL

LEGEND

✳	ALTERNATE THE POSITION OF 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.
✳✳	INCLUDES ½" FILLER, MEASURED TO EDGE OF DECK.
(X)	INDICATES GIRDER NUMBER.
(A03)	OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6 (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
(A06)	SUPPORT ABUTMENTS ON PILING STEEL 10-INCH x 42 LB. SEE PILE NOTE ON SHEET 1 AND PILE SPLICE DETAIL ON SHEET 3.
(A15)	PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.
(A17)	½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
(A19)	18" RUBBERIZED MEMBRANE WATERPROOFING (RMW). SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NOTES

FOR WING DETAILS SEE SHEET 6.

ADJUST A501 AND A502 BARS TO MISS PILING.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

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STATE OF WISCONSIN
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STRUCTURE B-37-481

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SOUTH ABUTMENT

SHEET 5 OF 20

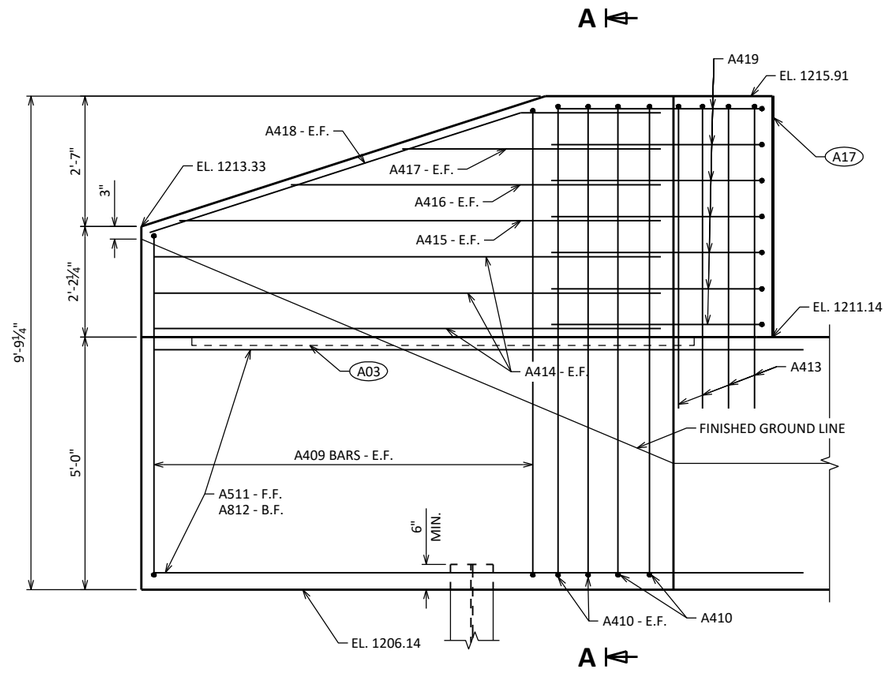
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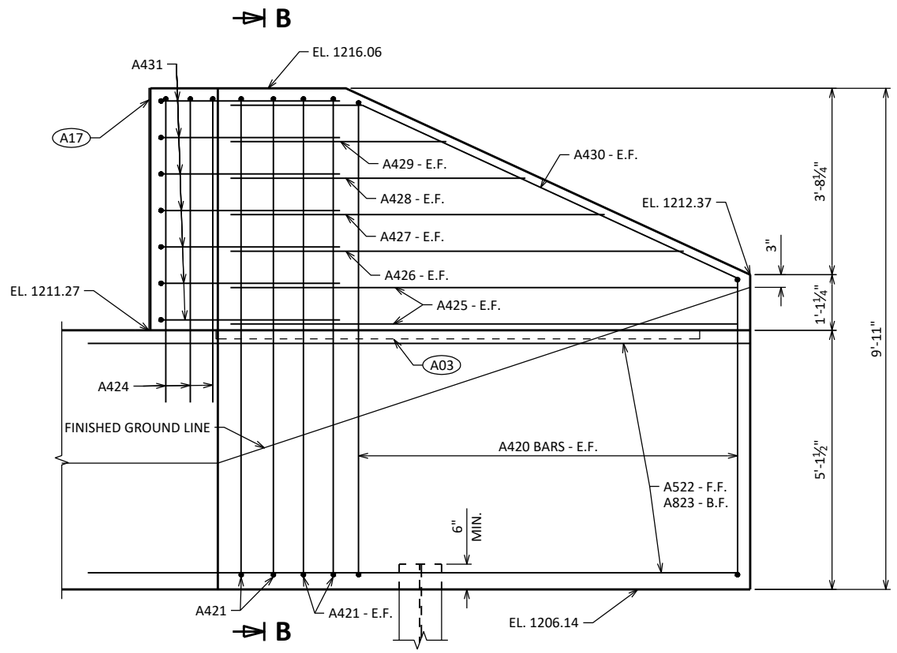
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STATE PROJECT NUMBER

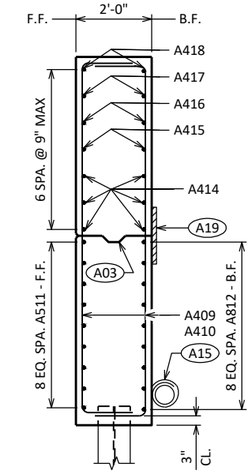
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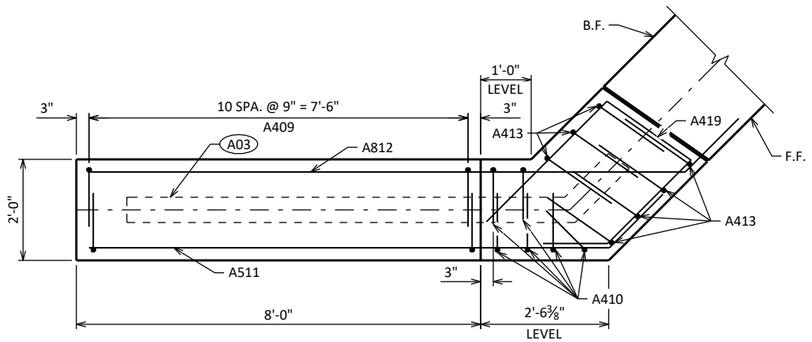
ELEVATION - WING 1



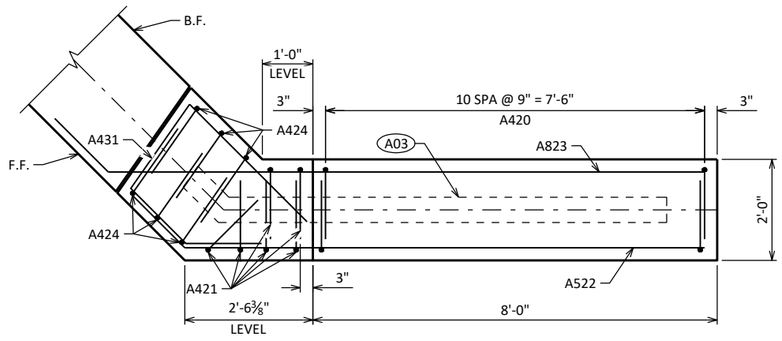
ELEVATION - WING 2



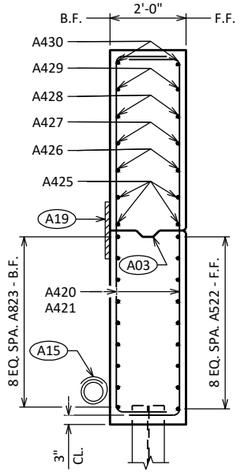
SECTION A-A



PLAN - WING 1



PLAN - WING 2



SECTION B-B

NOTES

18" RUBBERIZED MEMBRANE WATERPROOFING REQUIRED IF OPTIONAL CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES").

ADJUST A409 AND A420 BARS TO MISS PILING.

LEGEND

(A23) ¾" "V" GROOVE ON F.F. OF WINGWALL - NOT REQUIRED IF CONST. JOINT IS NOT USED.

FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 5.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

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WINGS 1 & 2

SHEET 6 OF 20

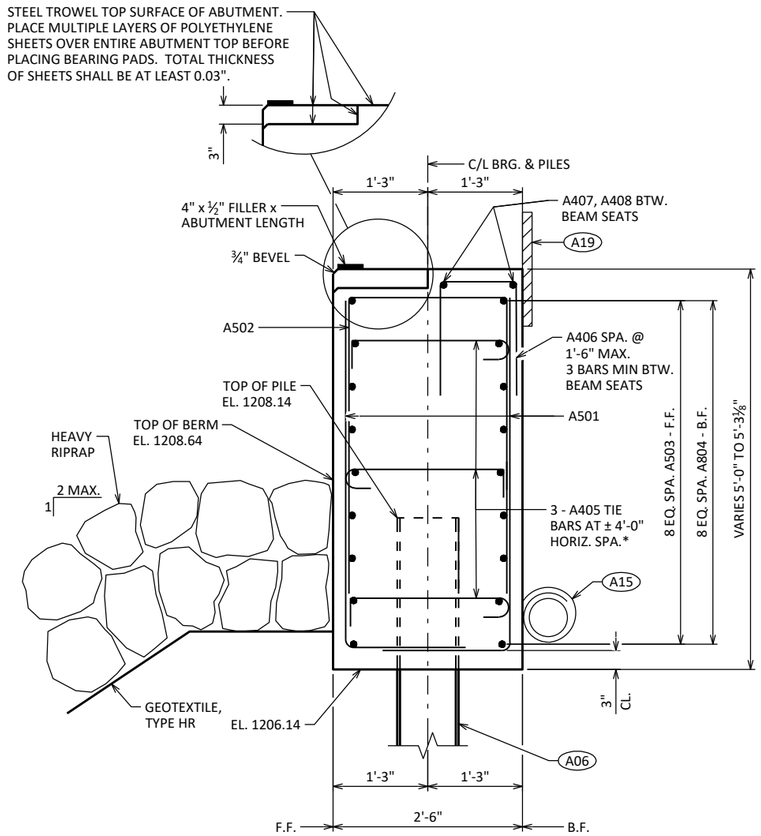
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8

STATE PROJECT NUMBER

6652-01-70



SECTION THRU BODY

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

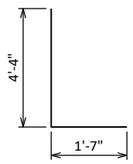
MARK	NO. REQ'D	LENGTH
A409	2 SETS OF 11	9'-3" TO 11'-9"
A420	2 SETS OF 11	8'-4" TO 11'-11"

⚹ ALTERNATE THE POSITION OF THE 90°AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

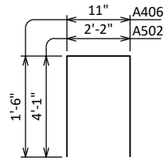
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

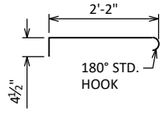
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES		LOCATION	
NON-COATED BARS						TOTAL WEIGHT =	2600 LBS
A501	78	5 - 10	X			ABUT. BODY STIRRUPS	VERT.
A502	39	10 - 1	X			ABUT. BODY STIRRUPS - TOP U-BAR	VERT.
A503	9	37 - 9				ABUT. BODY - F.F.	HORIZ.
A804	18	24 - 10	X			ABUT. BODY - B.F.	HORIZ.
A405	33	3 - 0	X			ABUT. BODY TIE BARS	HORIZ.
A406	21	3 - 9	X			ABUT. BODY - TOP	VERT.
A407	6	7 - 0				ABUT. BODY - TOP	HORIZ.
A408	4	4 - 0				ABUT. BODY - TOP	HORIZ.
COATED BARS						TOTAL WEIGHT =	1570 LBS
A409	22	10 - 6	X		⚠	WING 1 STIRRUPS	VERT.
A410	6	11 - 10	X			WING 1 STIRRUPS	VERT.
A511	9	11 - 8	X			WING 1 - F.F.	HORIZ.
A812	9	13 - 3	X			WING 1 - B.F.	HORIZ.
A413	7	7 - 9	X			WING 1 - E.F.	VERT.
A414	6	10 - 1				WING 1 - E.F.	HORIZ.
A415	2	9 - 6				WING 1 - E.F.	HORIZ.
A416	2	7 - 3				WING 1 - E.F.	HORIZ.
A417	2	5 - 1				WING 1 - E.F.	HORIZ.
A418	2	10 - 5	X			WING 1 - E.F.	HORIZ.
A419	7	9 - 4	X			WING 1	HORIZ.
A420	22	10 - 2	X		⚠	WING 2 STIRRUPS	VERT.
A421	6	12 - 0	X			WING 2 STIRRUPS	VERT.
A522	9	11 - 8	X			WING 2 - F.F.	HORIZ.
A823	9	13 - 3	X			WING 2 - B.F.	HORIZ.
A424	6	7 - 10	X			WING 2 - E.F.	VERT.
A425	4	10 - 1				WING 2 - E.F.	HORIZ.
A426	2	8 - 11				WING 2 - E.F.	HORIZ.
A427	2	7 - 4				WING 2 - E.F.	HORIZ.
A428	2	5 - 10				WING 2 - E.F.	HORIZ.
A429	2	4 - 4				WING 2 - E.F.	HORIZ.
A430	2	10 - 10	X			WING 2 - E.F.	HORIZ.
A431	7	8 - 6	X			WING 2	HORIZ.



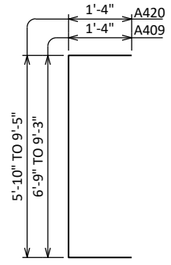
A501



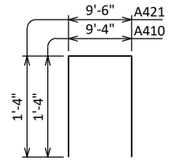
A502/A406



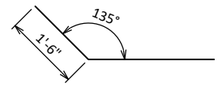
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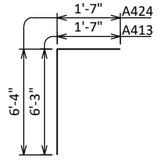
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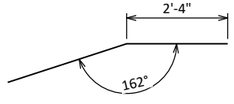
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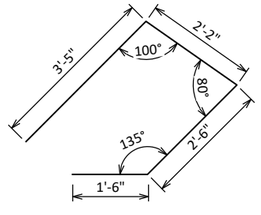
A804/A511/A812/A522/A823



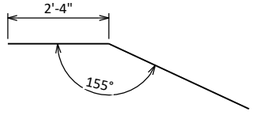
A413/A424



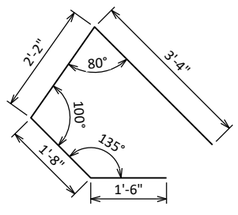
A418



A419



A430



A431

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY EHS | PLANS CK'D JRD

SOUTH ABUTMENT DETAILS

SHEET 7 OF 20

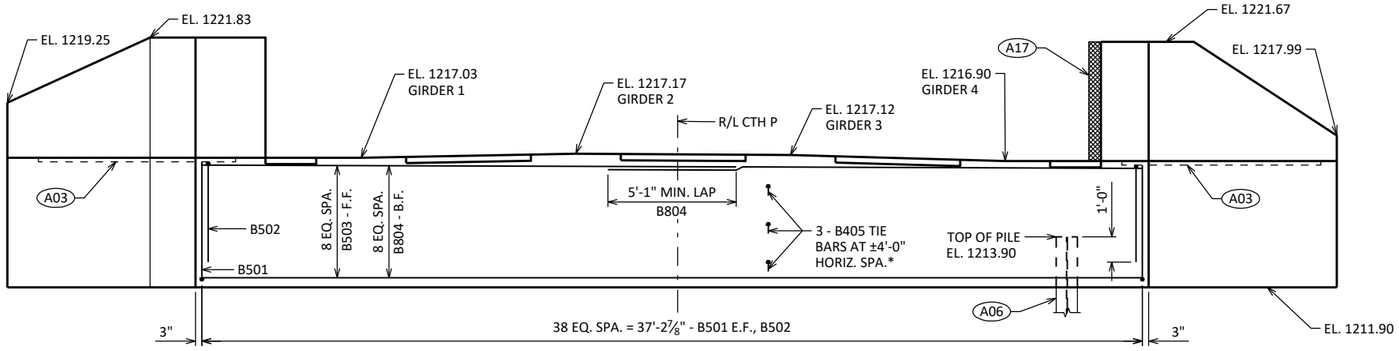
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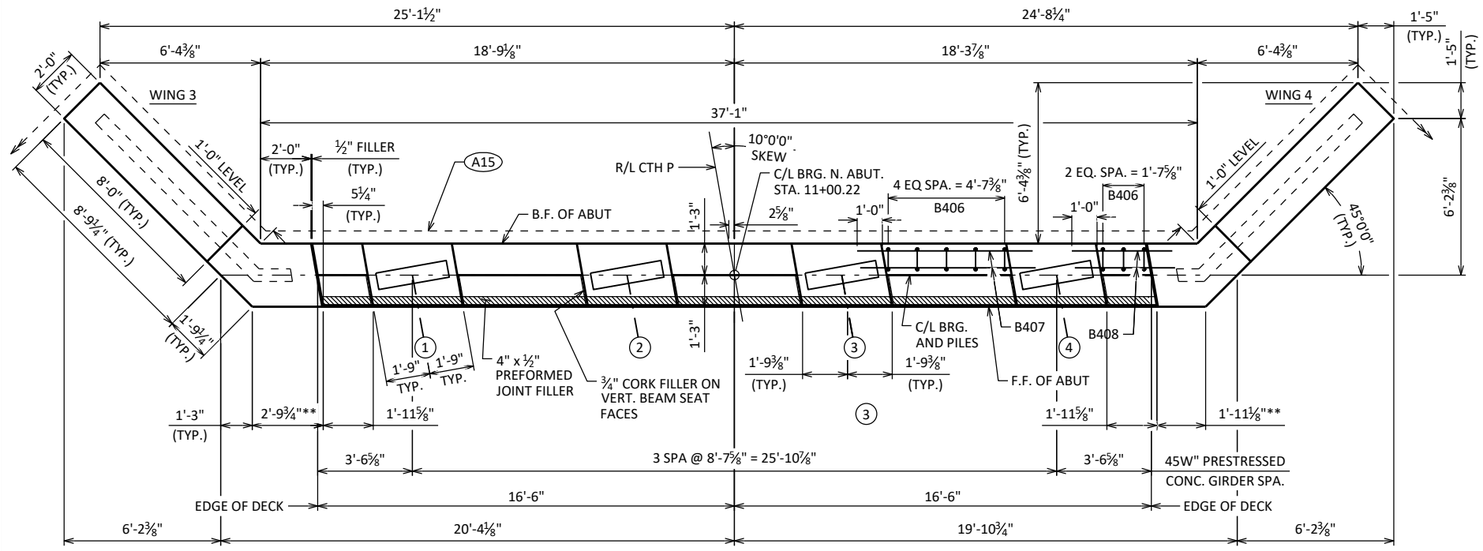
STATE PROJECT NUMBER

6652-01-70

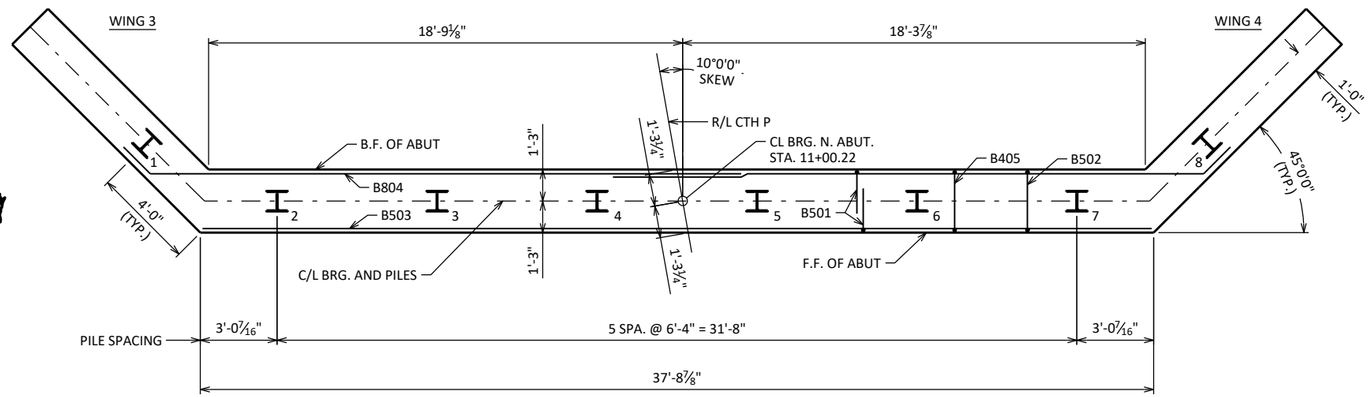


ELEVATION

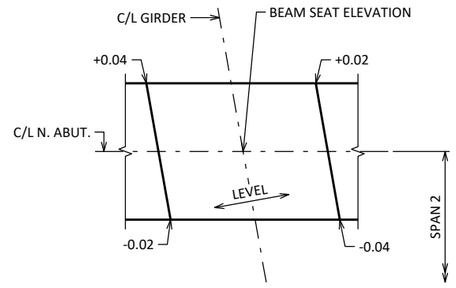
(LOOKING NORTH AT NORTH ABUTMENT)



PLAN



PILE PLAN



SLOPING BEAM SEAT DETAIL

LEGEND

✳	ALTERNATE THE POSITION OF 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.
✳✳	INCLUDES ½" FILLER, MEASURED TO EDGE OF DECK.
(X)	INDICATES GIRDER NUMBER.
(A03)	OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6 (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
(A06)	SUPPORT ABUTMENTS ON PILING STEEL 10-INCH x 42 LB. SEE PILE NOTE ON SHEET 1 AND PILE SPLICE DETAIL ON SHEET 3.
(A15)	PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.
(A17)	½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
(A19)	18" RUBBERIZED MEMBRANE WATERPROOFING (RMW). SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NOTES

FOR WING DETAILS SEE SHEET 9.

ADJUST B501 AND B502 BARS TO MISS PILING.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY EHS | PLANS CK'D JRD

NORTH ABUTMENT

SHEET 8 OF 20

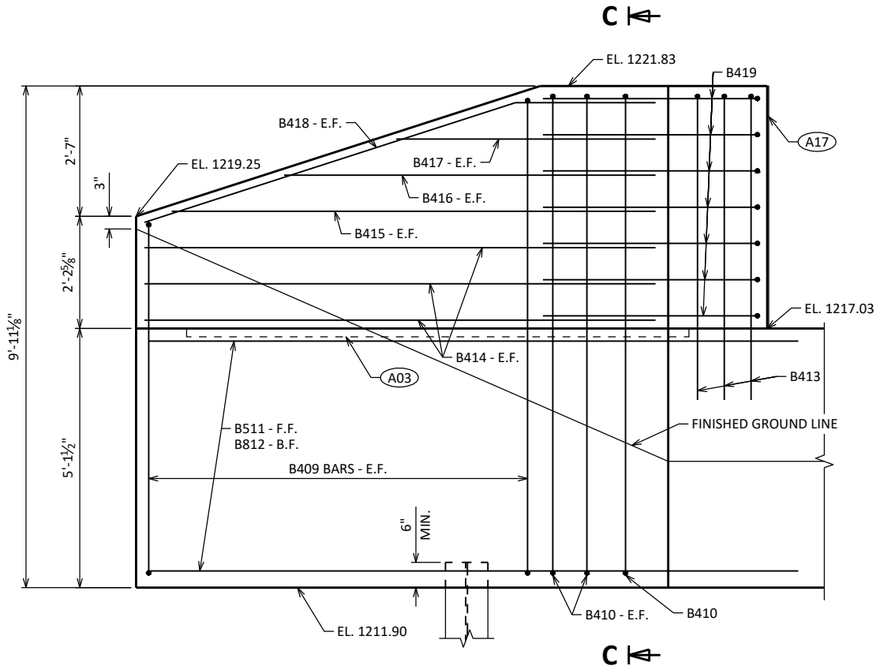
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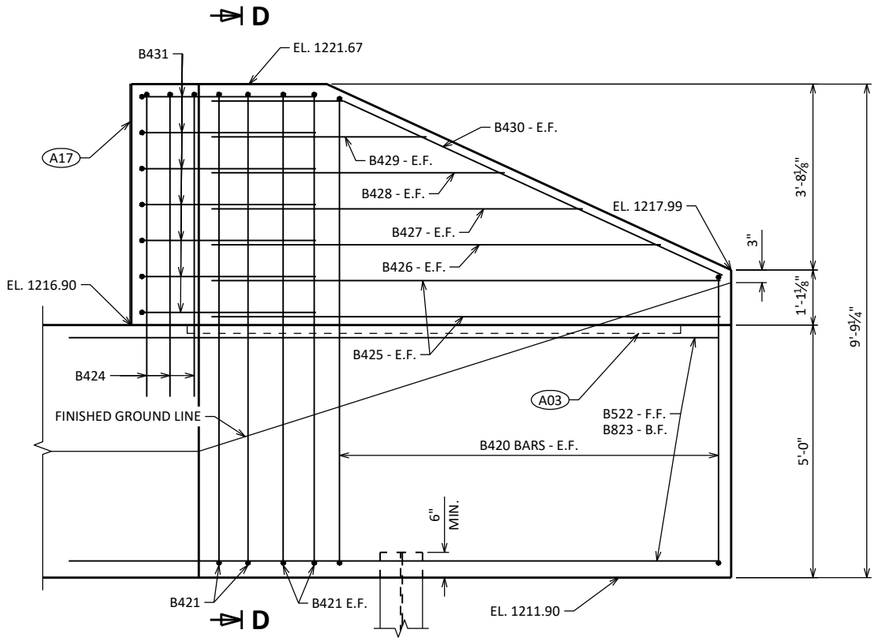
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STATE PROJECT NUMBER

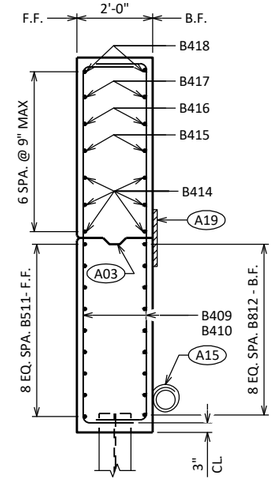
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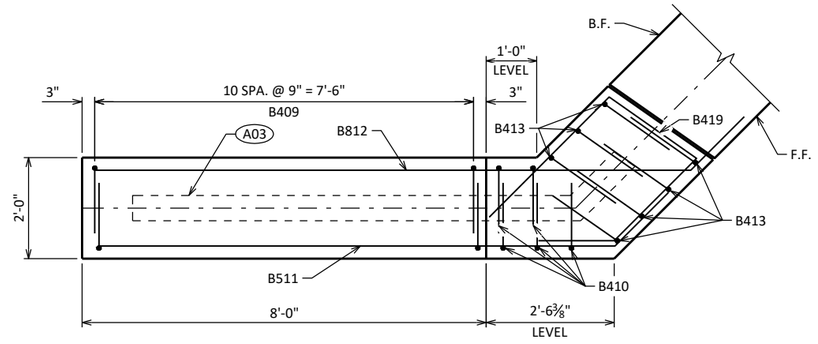
ELEVATION - WING 3



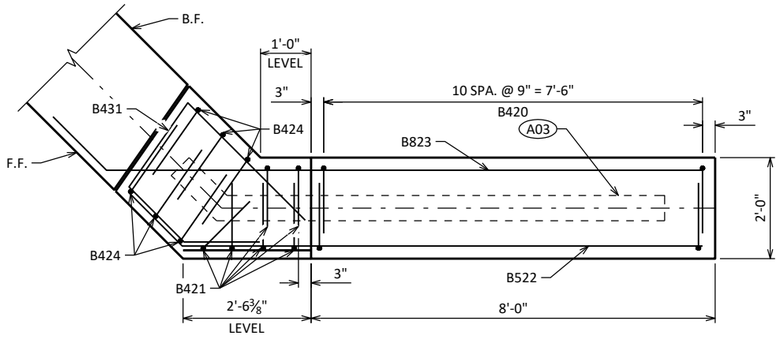
ELEVATION - WING 4



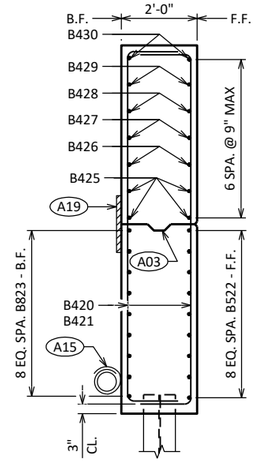
SECTION C-C



PLAN - WING 3



PLAN - WING 4



SECTION D-D

NOTES

18" RUBBERIZED MEMBRANE WATERPROOFING REQUIRED IF OPTIONAL CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES").

ADJUST B409 AND B420 BARS TO MISS PILING.

LEGEND

(A23) ¾" "V" GROOVE ON F.F. OF WINGWALL - NOT REQUIRED IF CONST. JOINT IS NOT USED.

FOR ADDITIONAL SYMBOL DESCRIPTIONS SEE SHEET 8.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY EHS | PLANS CK'D JRD

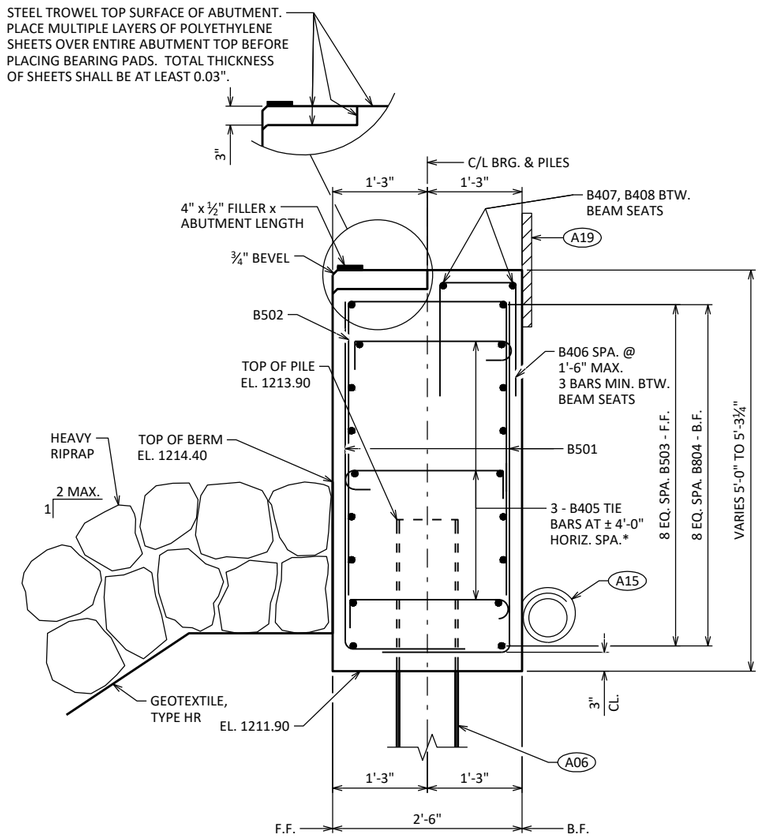
WINGS 3 & 4

8

8

STATE PROJECT NUMBER

6652-01-70



SECTION THRU BODY

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

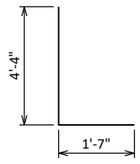
MARK	NO. REQ'D	LENGTH
B409	2 SETS OF 11	9'-5" TO 11'-11"
B420	2 SETS OF 11	8'-2" TO 11'-9"

✳ ALTERNATE THE POSITION OF THE 90°AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

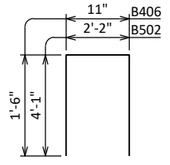
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

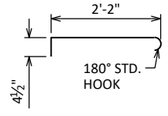
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT =	2600 LBS
B501	78	5 - 10	X		ABUT. BODY STIRRUPS	VERT.
B502	39	10 - 1	X		ABUT. BODY STIRRUPS - TOP U-BAR	VERT.
B503	9	37 - 9			ABUT. BODY - F.F.	HORIZ.
B804	18	24 - 10	X		ABUT. BODY - B.F.	HORIZ.
B405	33	3 - 0	X		ABUT. BODY TIE BARS	HORIZ.
B406	21	3 - 9	X		ABUT. BODY - TOP	VERT.
B407	6	7 - 0			ABUT. BODY - TOP	HORIZ.
B408	4	4 - 0			ABUT. BODY - TOP	HORIZ.
COATED BARS					TOTAL WEIGHT =	1560 LBS
B409	22	10 - 8	X	⚠	WING 3 STIRRUPS	VERT.
B410	5	12 - 0	X		WING 3 STIRRUPS	VERT.
B511	9	11 - 8	X		WING 3 - F.F.	HORIZ.
B812	9	13 - 3	X		WING 3 - B.F.	HORIZ.
B413	7	7 - 10	X		WING 3 - E.F.	VERT.
B414	6	10 - 1			WING 3 - E.F.	HORIZ.
B415	2	9 - 6			WING 3 - E.F.	HORIZ.
B416	2	7 - 4			WING 3 - E.F.	HORIZ.
B417	2	5 - 1			WING 3 - E.F.	HORIZ.
B418	2	10 - 5	X		WING 3 - E.F.	HORIZ.
B419	7	9 - 4	X		WING 3	HORIZ.
B420	22	10 - 0	X	⚠	WING 4 STIRRUPS	VERT.
B421	6	11 - 10	X		WING 4 STIRRUPS	VERT.
B522	9	11 - 8	X		WING 4 - F.F.	HORIZ.
B823	9	13 - 3	X		WING 4 - B.F.	HORIZ.
B424	6	7 - 10	X		WING 4 - E.F.	VERT.
B425	4	10 - 1			WING 4 - E.F.	HORIZ.
B426	2	8 - 10			WING 4 - E.F.	HORIZ.
B427	2	7 - 4			WING 4 - E.F.	HORIZ.
B428	2	5 - 9			WING 4 - E.F.	HORIZ.
B429	2	4 - 3			WING 4 - E.F.	HORIZ.
B430	2	10 - 10	X		WING 4 - E.F.	HORIZ.
B431	7	8 - 6	X		WING 4	HORIZ.



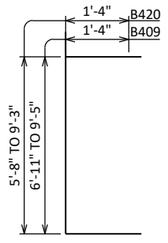
B501



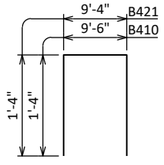
B502/B406



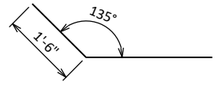
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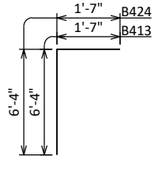
B409/B420



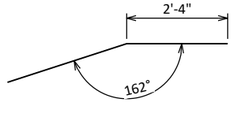
B410/B421



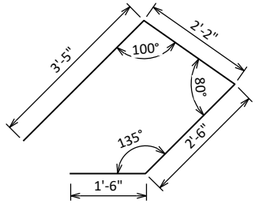
B804/B511/B812/B522/B823



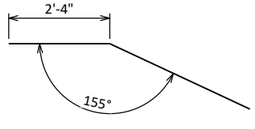
B413/B424



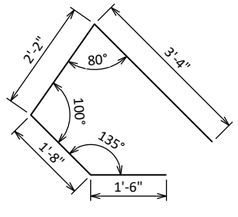
B418



B419



B430



B431

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY EHS | PLANS CK'D JRD

NORTH ABUTMENT DETAILS

SHEET 10 OF 20

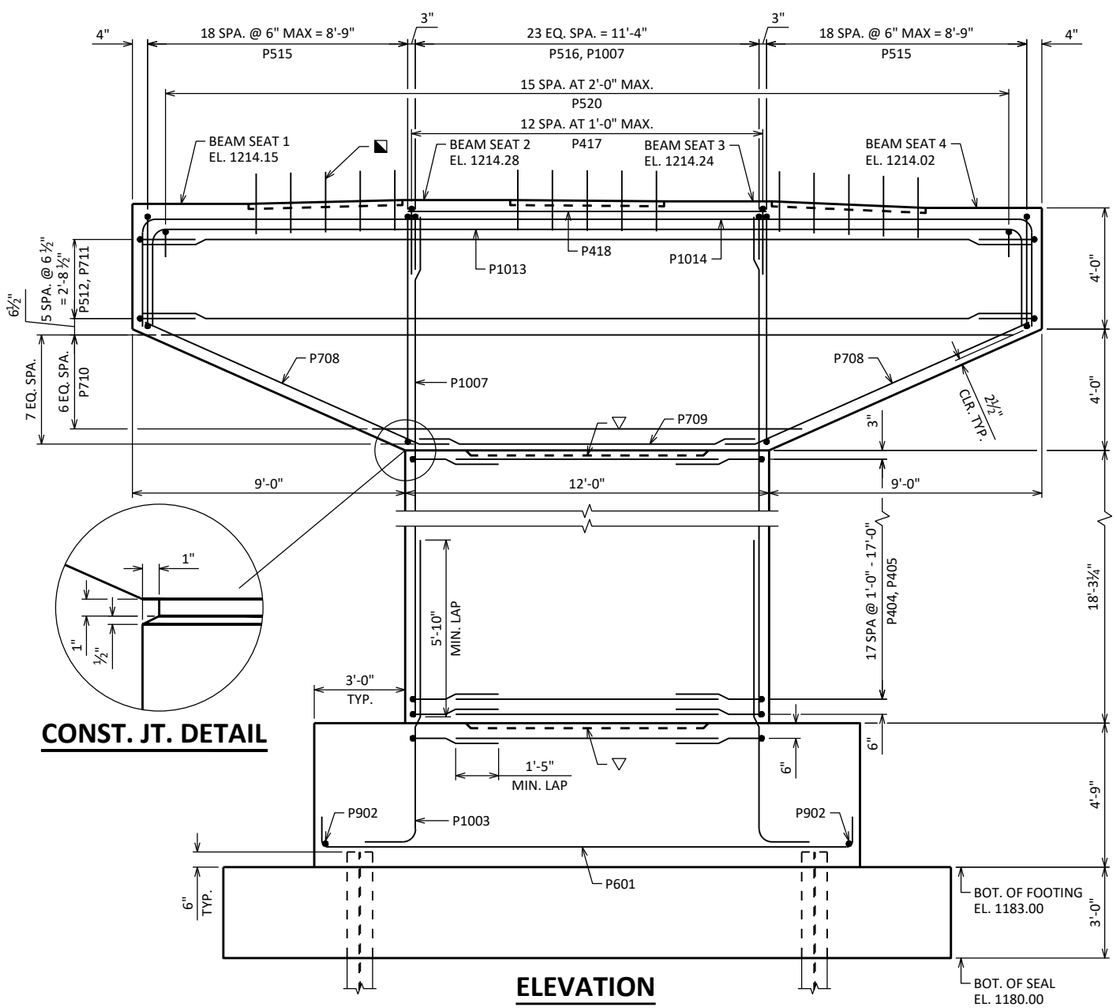
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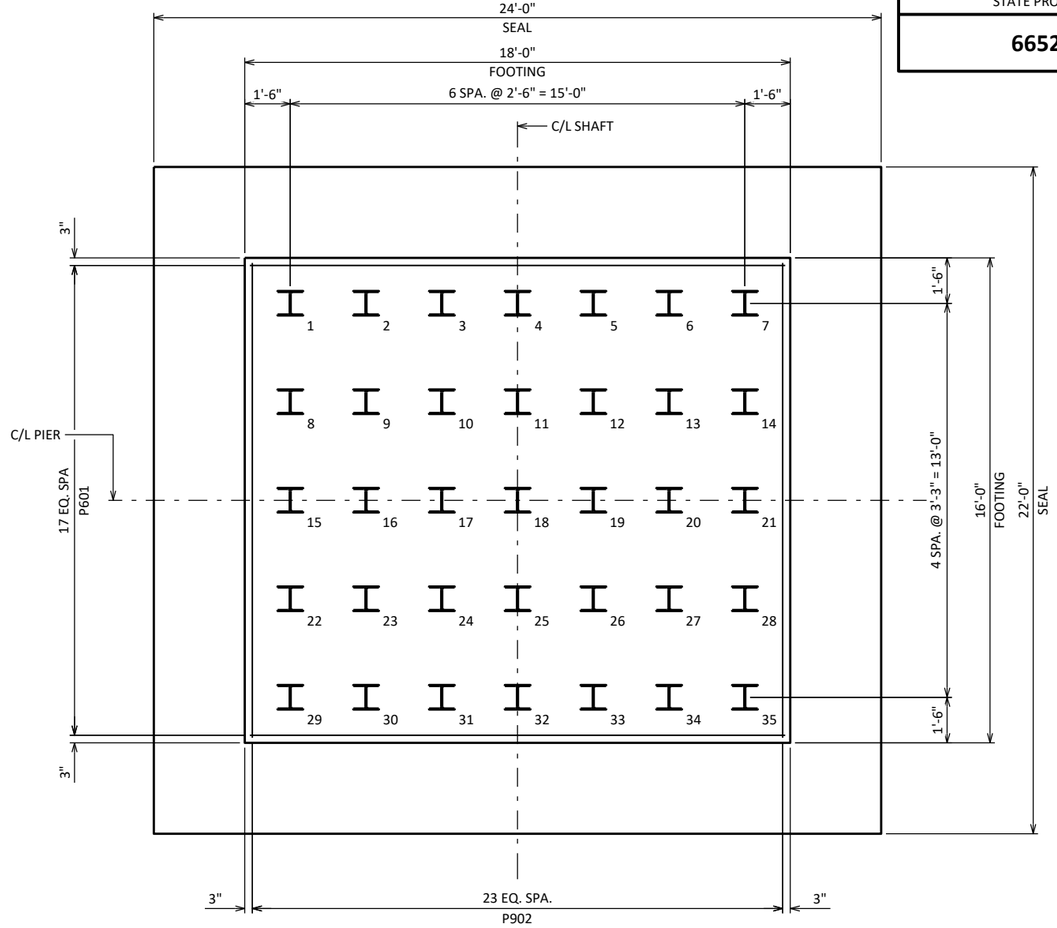
STATE PROJECT NUMBER

6652-01-70

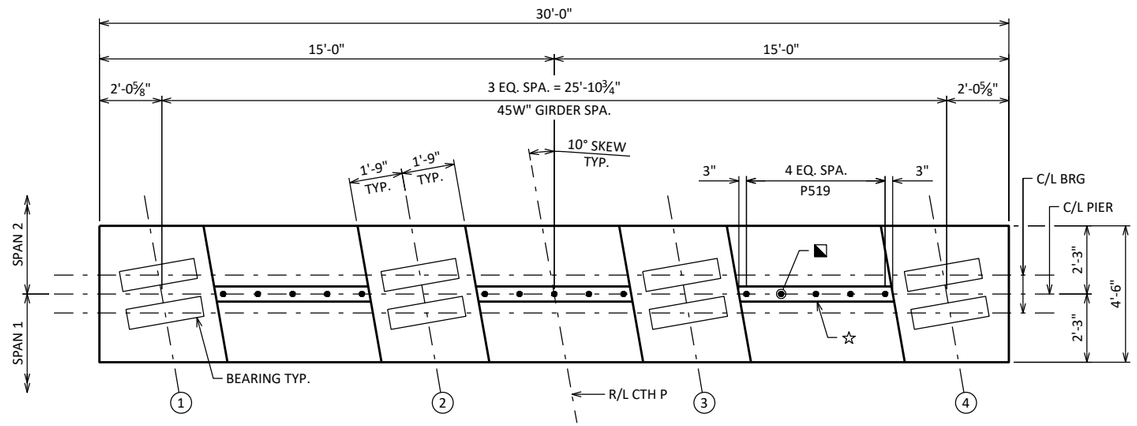


ELEVATION

LOOKING NORTH



FOOTING



PLAN

LEGEND

- ▽ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 4" DEEP X 1'-6" WIDE X 8'-0" LONG.
- ◪ P519 BARS BETWEEN BEAM SEATS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE.)
- ☆ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 2" X 6" BETWEEN BEAM SEATS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

PIER

SHEET 11 OF 20

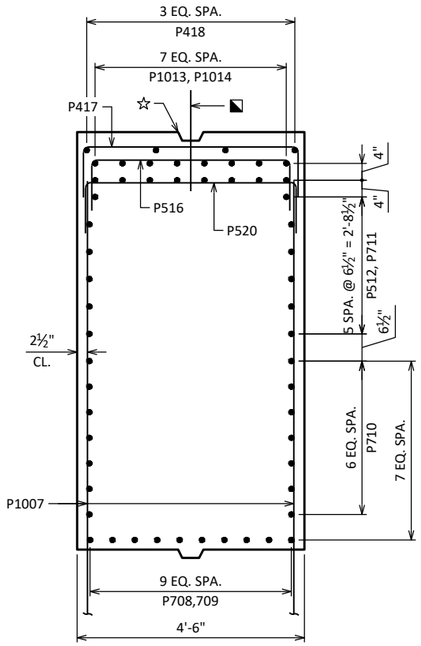
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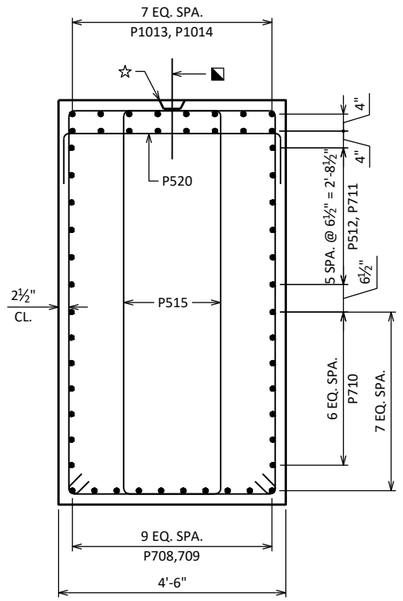
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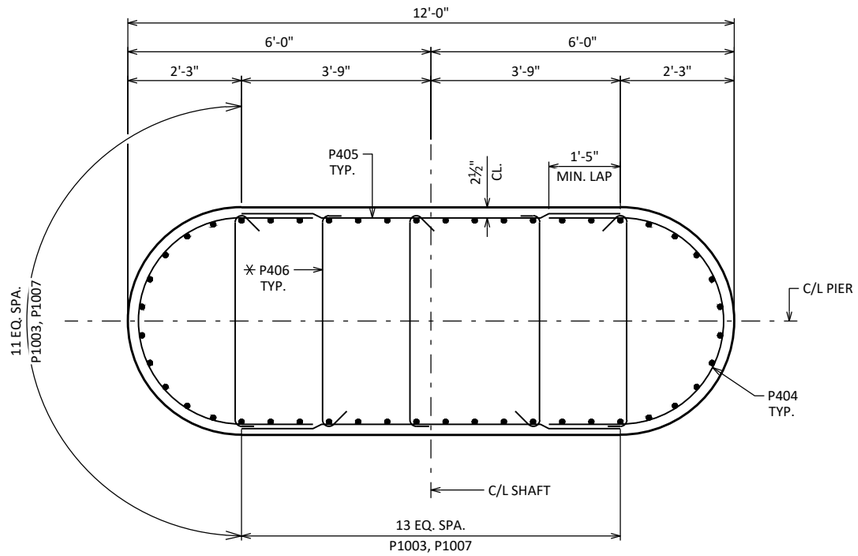
6652-01-70



SECTION THRU MIDDLE OF PIER CAP

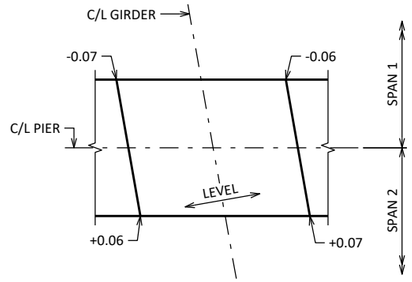


SECTION THRU PIER CAP



SECTION THRU SHAFT

✳ ALTERNATE THE POSITION OF THE 90° AND THE 135° HOOKS AT EACH VERTICAL LAYER OF TIES. TIES ARE SPACED @ 1'-0" VERTICAL CTRS.



SLOPING BEAM SEAT DETAIL

BILL OF BARS

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT =	16550 LBS
P601	18	19 - 2	X		PIER - FOOTING - BOT.	HORIZ.
P902	24	15 - 6			PIER - FOOTING - BOT.	HORIZ.
P1003	48	11 - 9	X		PIER - FOOTING - DOWEL	VERT.
P404	40	9 - 3	X		PIER - SHAFT - ENDS	HORIZ.
P405	40	7 - 6			PIER - SHAFT - BOTH FACES	HORIZ.
P406	95	4 - 9	X		PIER - SHAFT - TIE	HORIZ.
P1007	48	25 - 5			PIER - SHAFT - ALL FACES	VERT.
P708	20	10 - 8	X		PIER - CAP - BOTTOM	HORIZ.
P709	10	11 - 8			PIER - CAP - BOTTOM	HORIZ.
P710	14	21 - 1		◭	PIER - CAP - BOTH FACES	HORIZ.
P711	12	29 - 7			PIER - CAP - BOTH FACES	HORIZ.
P512	12	6 - 8	X		PIER - CAP - ENDS	HORIZ.
P1013	8	34 - 10	X		PIER - CAP - TOP	HORIZ.
P1014	8	36 - 0	X		PIER - CAP - TOP	HORIZ.
P515	76	17 - 11	X	◭	PIER - CAP - STIRRUP	VERT.
P516	24	7 - 2	X		PIER - CAP - TOP	VERT.
P417	13	6 - 11	X		PIER - CAP - TOP ADDITIONAL	VERT.
P418	4	11 - 10			PIER - CAP - TOP ADDITIONAL	HORIZ.
P519	15	2 - 0			PIER - CAP - DOWEL	VERT.
P520	16	5 - 6	X		PIER - CAP - TOP	VERT.

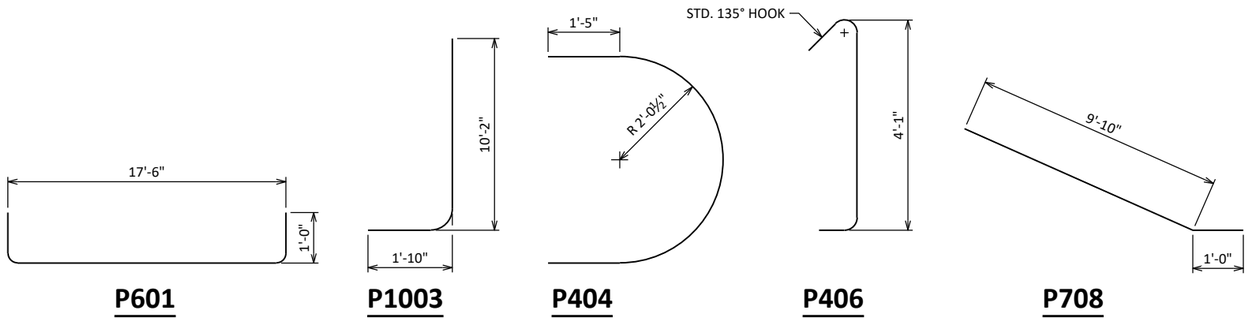
BAR SERIES TABLE

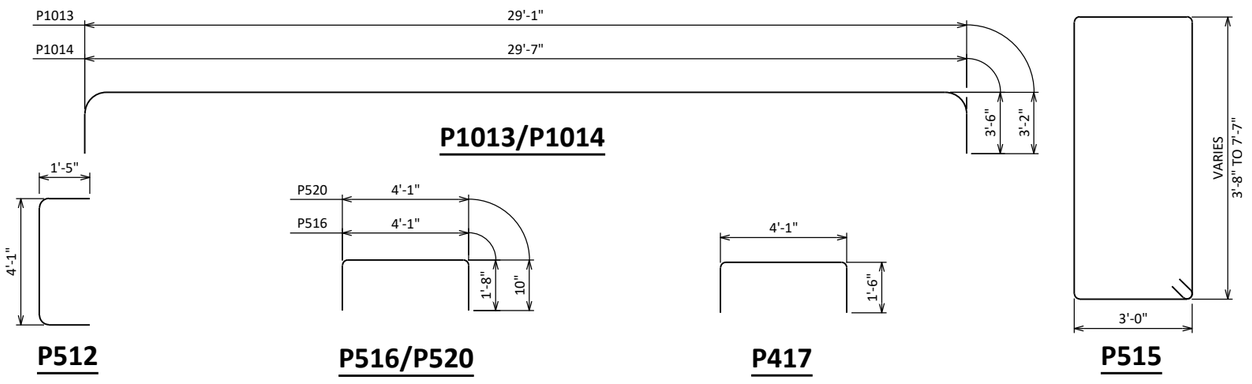
MARK	NO. REQ'D	LENGTH
P710	2 SETS OF 7	14'-2" TO 28'-1"
P515	4 SETS OF 19	14'-0" TO 21'-10"

LEGEND

◪ P519 BARS BETWEEN BEAM SEATS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE.)

☆ KEYED CONSTRUCTION JOINT FORMED BY A BEVELED KEYWAY 2" X 6" BETWEEN BEAM SEATS.





NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

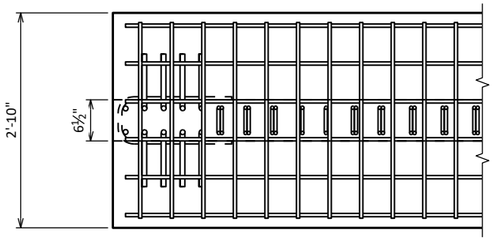
PIER DETAILS

SHEET 12 OF 20

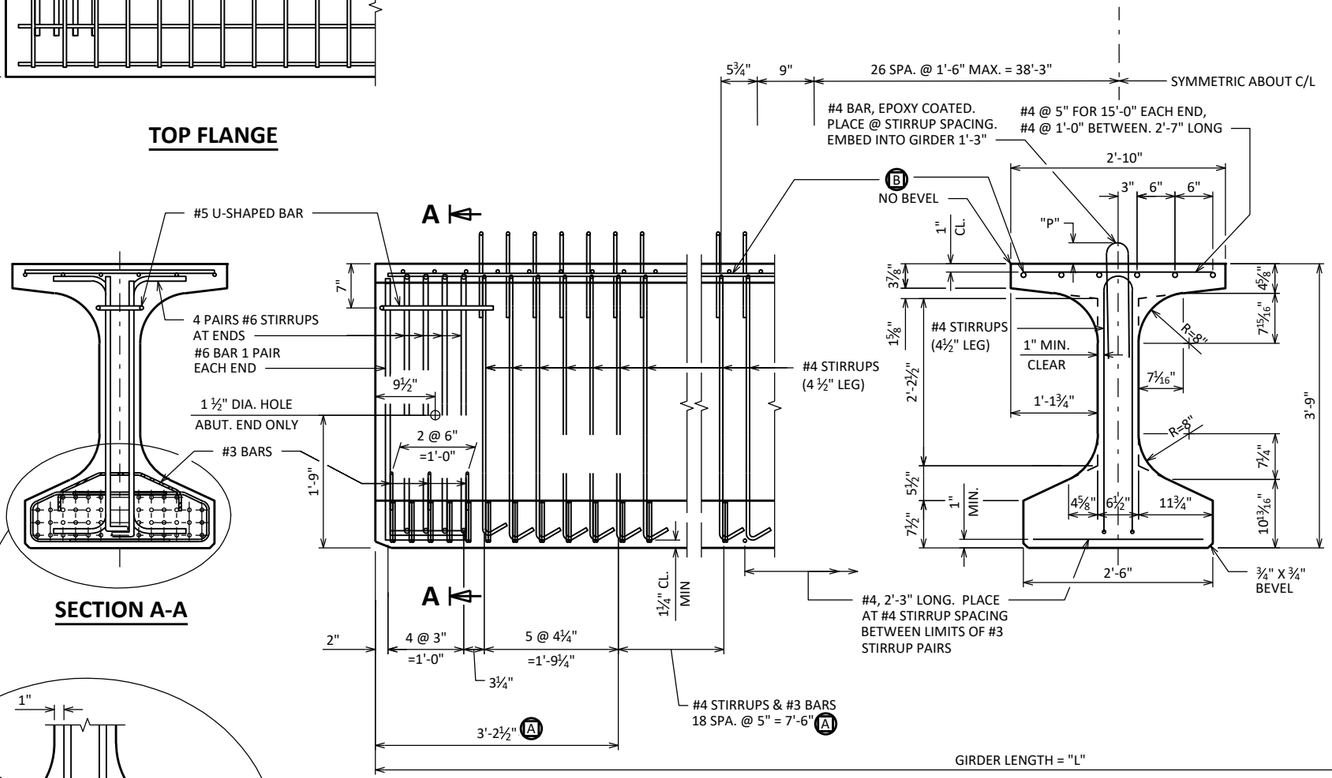
71

STATE PROJECT NUMBER

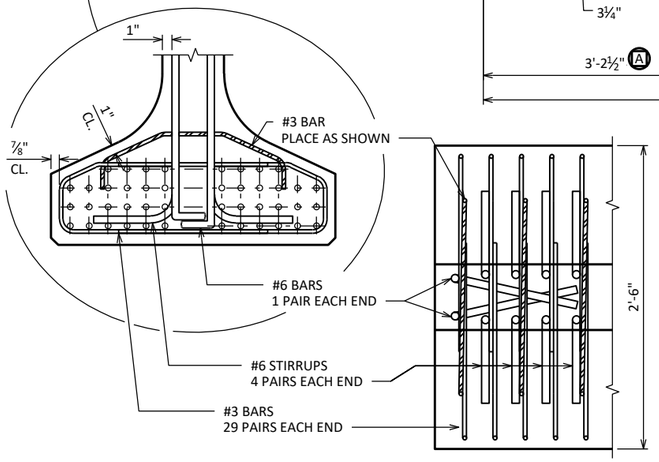
6652-01-70



TOP FLANGE



SECTION A-A

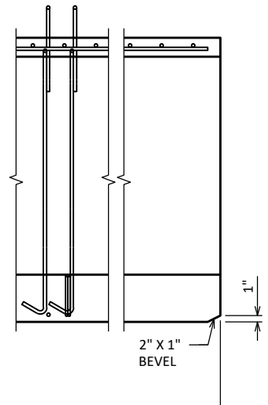


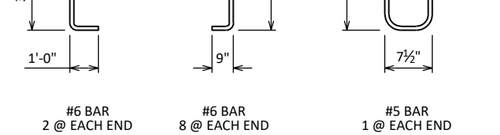
BOTTOM FLANGE

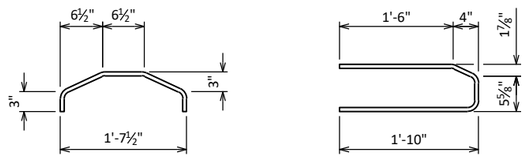
SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"







NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.4 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DESIGN SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

⚹ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'_c (P.S.I.)	"P" (IN.)			DIA. OF STRAND (IN.)	DRAPED PATTERN					
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10		1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 OF GIRDER		TOTAL NO. OF STRANDS	f'_{ci} (P.S.I.) ⚹	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1 & 2	1 & 4	100'-4 1/2"	0.6	1.2	1.6	1.9	2.0	1.9	1.6	1.1	0.6	8,000	7	7	7	0.6	34	6,800	40	13.75	16.75	5
1 & 2	2 & 3	100'-4 1/2"	0.6	1.2	1.7	2.0	2.0	1.9	1.6	1.2	0.6	8,000	7	7	7	0.6	34	6,800	40	13.75	16.75	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

45W" PRESTRESSED GIRDER DETAILS 1

SHEET 13 OF 20

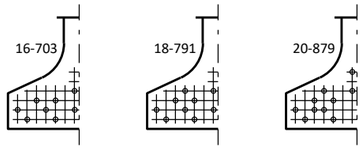
72

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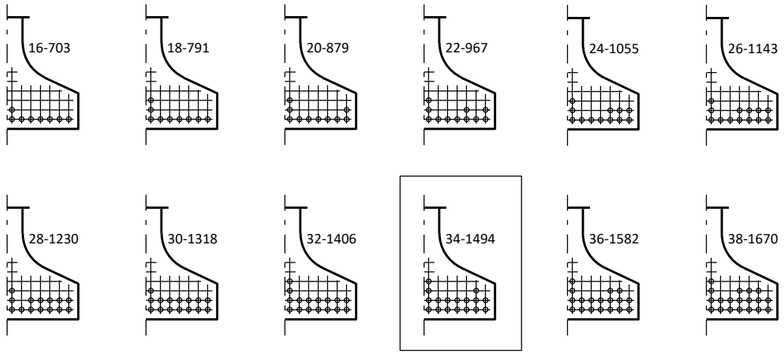
STATE PROJECT NUMBER

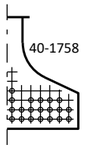
6652-01-70



STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

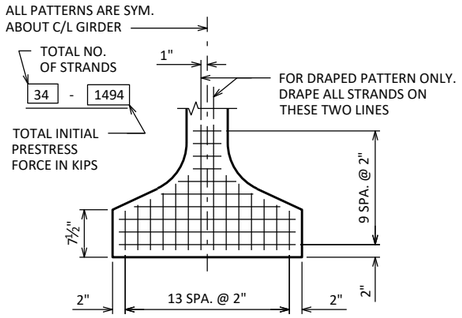
0.6" DIA. STRANDS



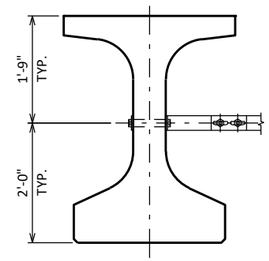


ARRANGEMENT AT C/L SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" DIA. STRANDS

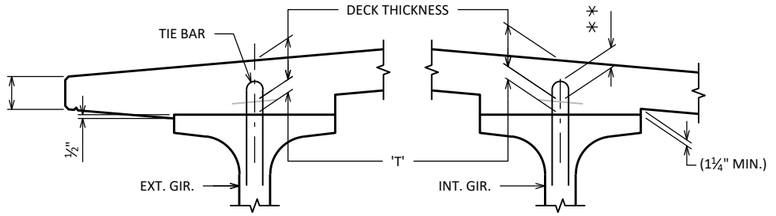


TYP. STRAND PATTERN



GIRDER 1 & 4

FLOOR DRAIN ATTACHMENT INSERT LOCATION



DECK HAUNCH DETAIL

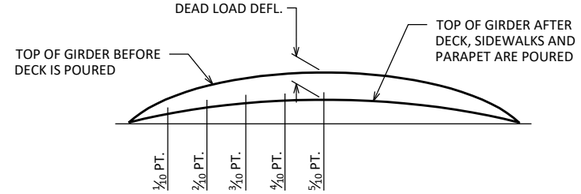
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

⁂⁂ IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

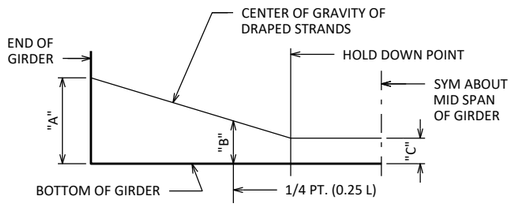
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT C/L OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

	TOP OF DECK ELEV. AT FINAL GRADE
-	TOP OF GIRDER ELEVATION
+	DEAD LOAD DEFLECTION
-	DECK THICKNESS
=	HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



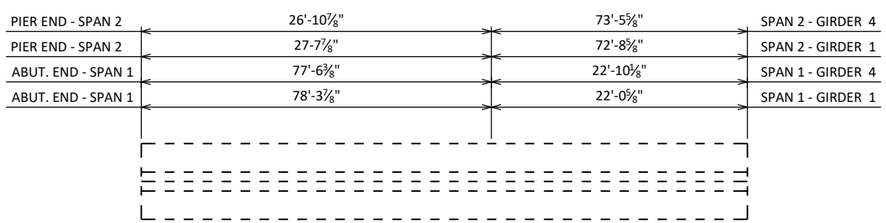
DRAPED STRAND PROFILE

⁂ THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) ⁂
1-2	3.543

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



FLOOR DRAIN ATTACHMENT INSERT LOCATION

(PLACE INSERT ON SOUTH FACE OF GIRDER)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

45W" PRESTRESSED GIRDER DETAILS 2

SHEET 14 OF 20

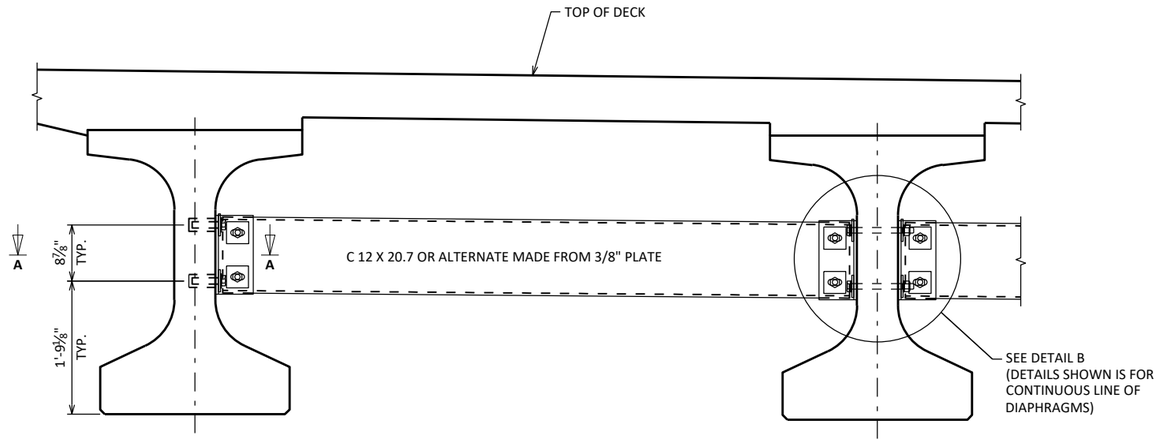
73

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8

STATE PROJECT NUMBER

6652-01-70



EXTERIOR GIRDER **INTERIOR GIRDER**

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-37-0481", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

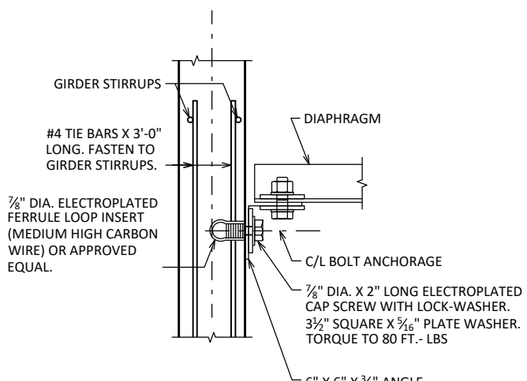
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

PART TRANSVERSE SECTION AT DIAPHRAGM

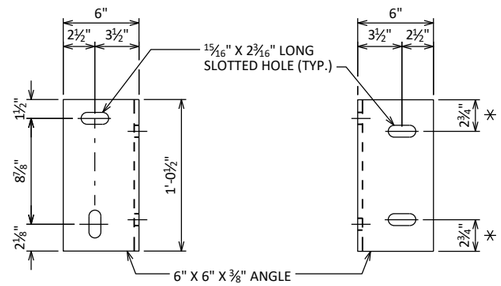
GIRDER LENGTH "L" - TYP. - SEE SHEET 13

GIRDER 1	31'-7"	33'-4"	35'-5½"
SPAN 1 GIRDER 2	33'-1"	33'-4"	33'-11½"
SPAN 1 GIRDER 3	34'-7"	33'-4"	32'-5½"
SPAN 1 GIRDER 4	36'-1"	33'-4"	30'-11½"
SPAN 1 GIRDER 1	30'-11½"	33'-4"	36'-1"
SPAN 2 GIRDER 2	32'-5½"	33'-4"	34'-7"
SPAN 2 GIRDER 3	33'-11½"	33'-4"	33'-1"
SPAN 2 GIRDER 4	35'-5½"	33'-4"	31'-7"
SPAN 2			



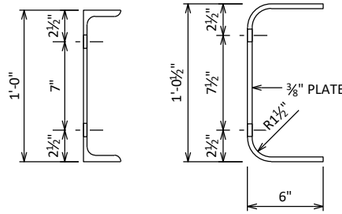
SECTION A-A

(FOR EXTERIOR ATTACHMENT)



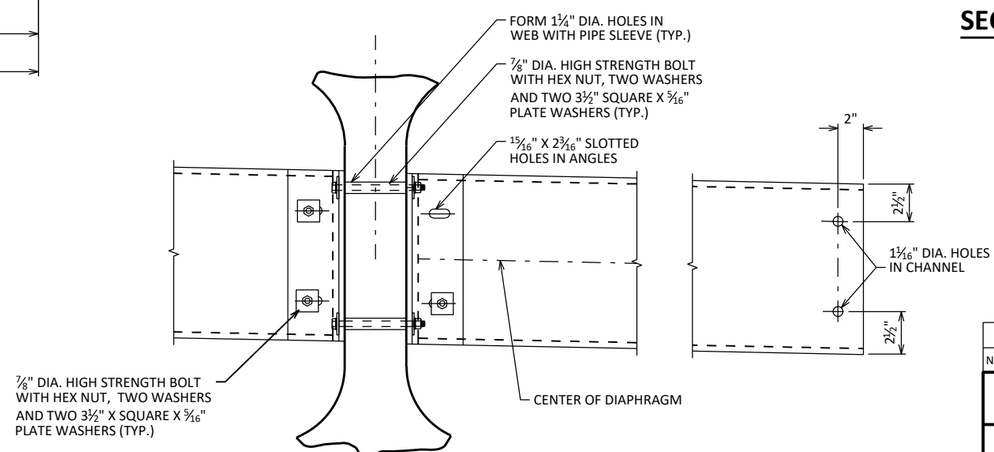
DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



C12X20.7 **ALTERNATE DIAPHRAGM**

SECTION THRU DIAPHRAGM



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

STEEL DIAPHRAGM

SHEET 15 OF 20

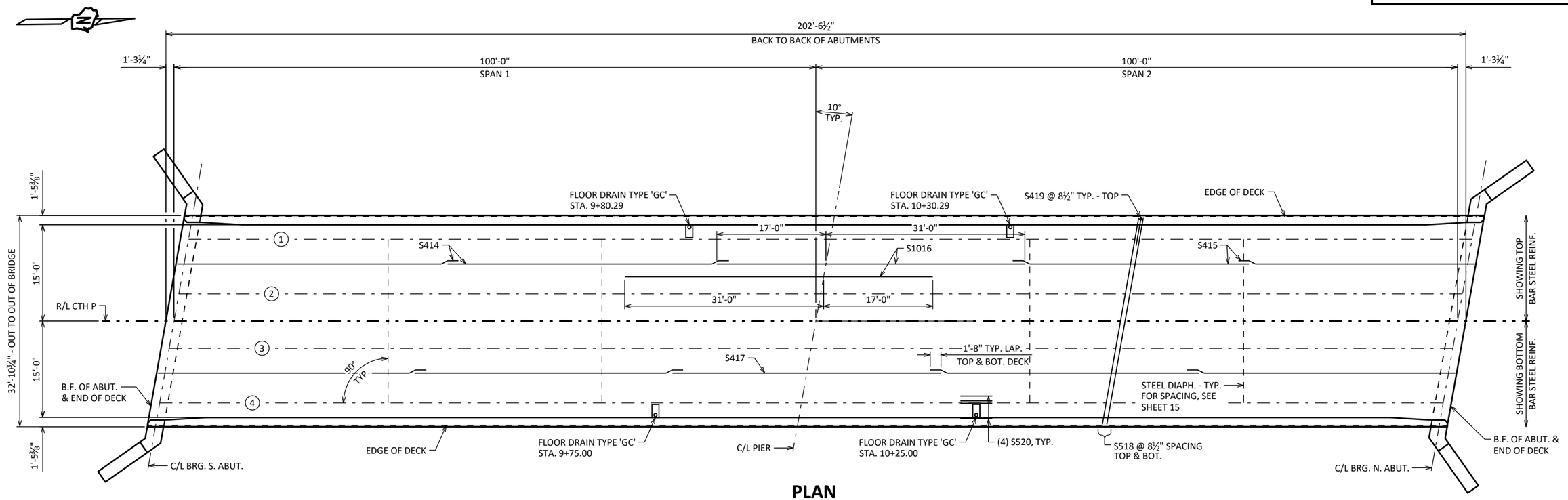
74

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8

STATE PROJECT NUMBER

6652-01-70



PLAN

TOP OF DECK ELEVATIONS

LOCATION	C/L BRG. S. ABUT.	0.10 PT.	0.20 PT.	0.30 PT.	0.40 PT.	0.50 PT.	0.60 PT.	0.70 PT.	0.80 PT.	0.90 PT.	C/L PIER	0.10 PT.	0.20 PT.	0.30 PT.	0.40 PT.	0.50 PT.	0.60 PT.	0.70 PT.	0.80 PT.	0.90 PT.	C/L BRG. N. ABUT.
W. EOD	1216.06	1216.35	1216.64	1216.92	1217.21	1217.50	1217.79	1218.08	1218.37	1218.65	1218.94	1219.23	1219.52	1219.81	1220.10	1220.38	1220.67	1220.96	1221.25	1221.54	1221.83
GIRDER 1	1216.09	1216.38	1216.67	1216.96	1217.25	1217.53	1217.82	1218.11	1218.40	1218.69	1218.98	1219.26	1219.55	1219.84	1220.13	1220.42	1220.71	1221.00	1221.28	1221.57	1221.86
GIRDER 2	1216.22	1216.51	1216.80	1217.08	1217.37	1217.66	1217.95	1218.24	1218.53	1218.81	1219.10	1219.39	1219.68	1219.97	1220.26	1220.55	1220.83	1221.12	1221.41	1221.70	1221.99
GIRDER 3	1216.18	1216.46	1216.75	1217.04	1217.33	1217.62	1217.91	1218.19	1218.48	1218.77	1219.06	1219.35	1219.64	1219.93	1220.21	1220.50	1220.79	1221.08	1221.37	1221.66	1221.94
GIRDER 4	1215.96	1216.25	1216.54	1216.83	1217.12	1217.40	1217.69	1217.98	1218.27	1218.56	1218.85	1219.14	1219.42	1219.71	1220.00	1220.29	1220.58	1220.87	1221.15	1221.44	1221.73
E. EOD.	1215.91	1216.19	1216.48	1216.77	1217.06	1217.35	1217.64	1217.93	1218.21	1218.50	1218.79	1219.08	1219.37	1219.66	1219.94	1220.23	1220.52	1220.81	1221.10	1221.39	1221.67

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

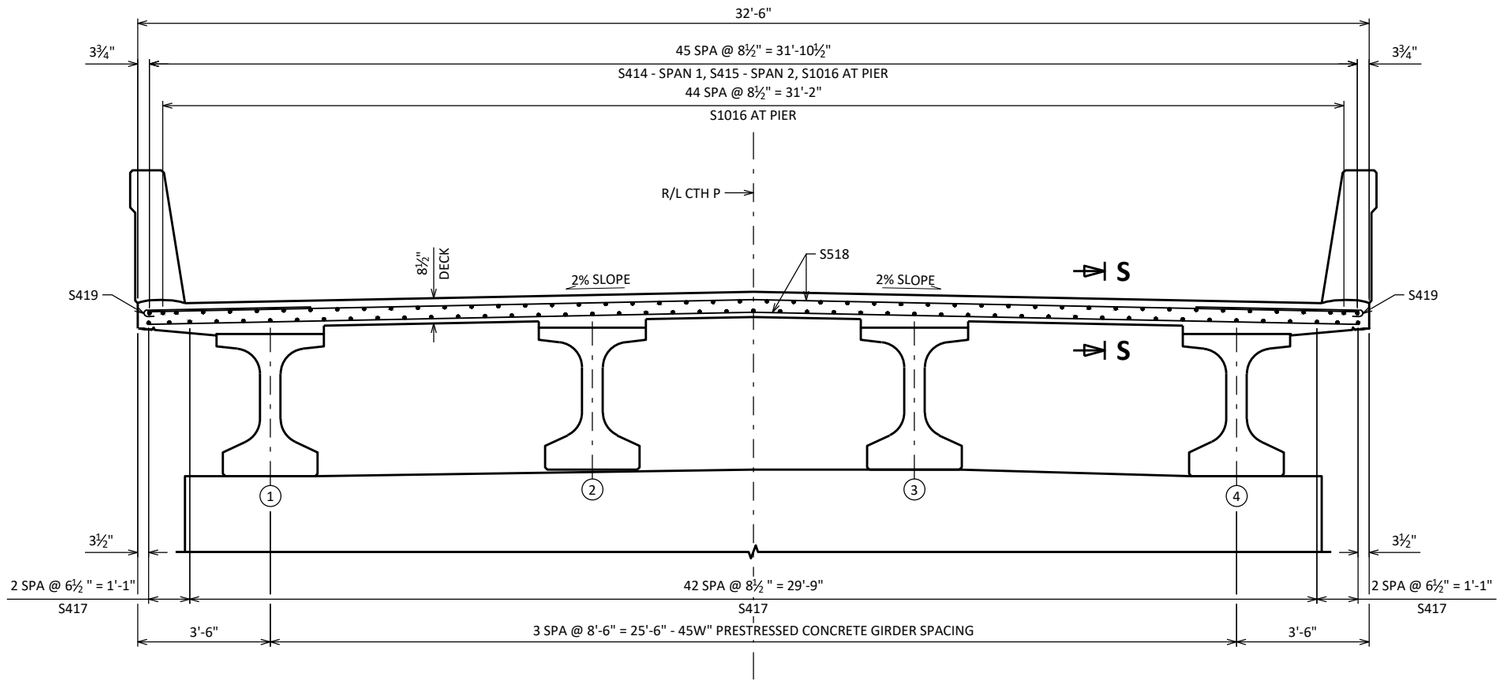
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SUPERSTRUCTURE PLAN

SHEET 16 OF 20

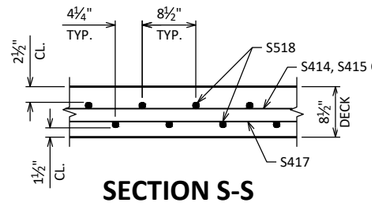
STATE PROJECT NUMBER

6652-01-70

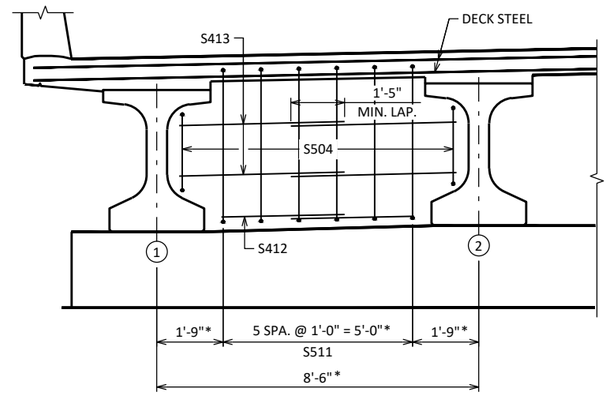


SECTION THRU SUPERSTRUCTURE

LOOKING NORTH



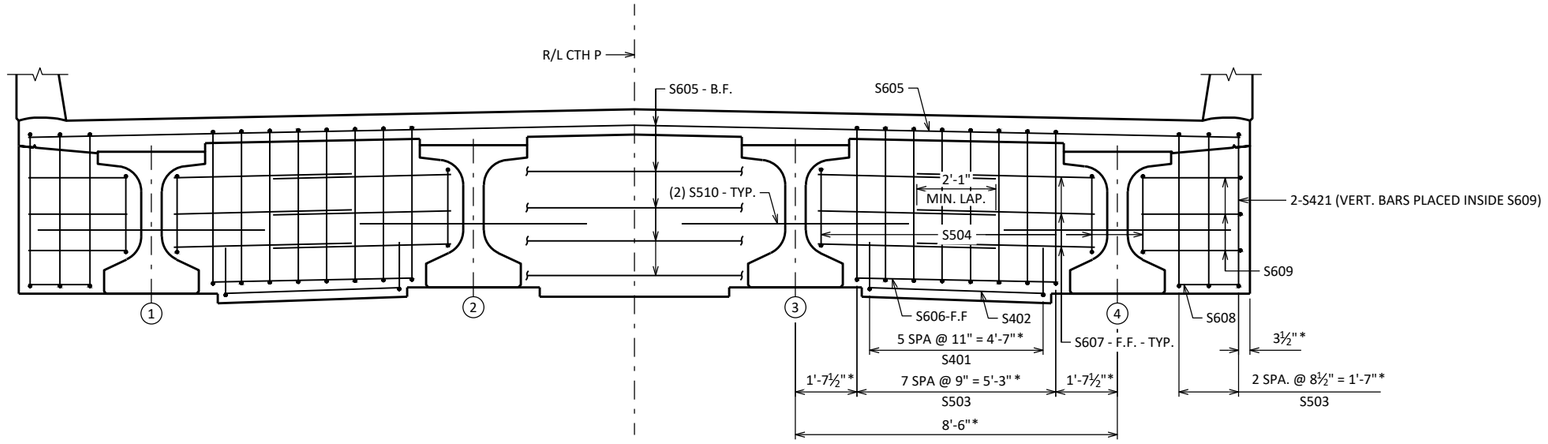
SECTION S-S



SECTION THRU PIER DIAPHRAGM

LOOKING NORTH

*DIMENSIONS TAKEN
NORMAL TO C/L GIRDERS



SECTION THRU ABUT DIAPHRAGM

LOOKING NORTH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

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SUPERSTRUCTURE CROSS SECTION & DETAILS

SHEET 17 OF 20

76

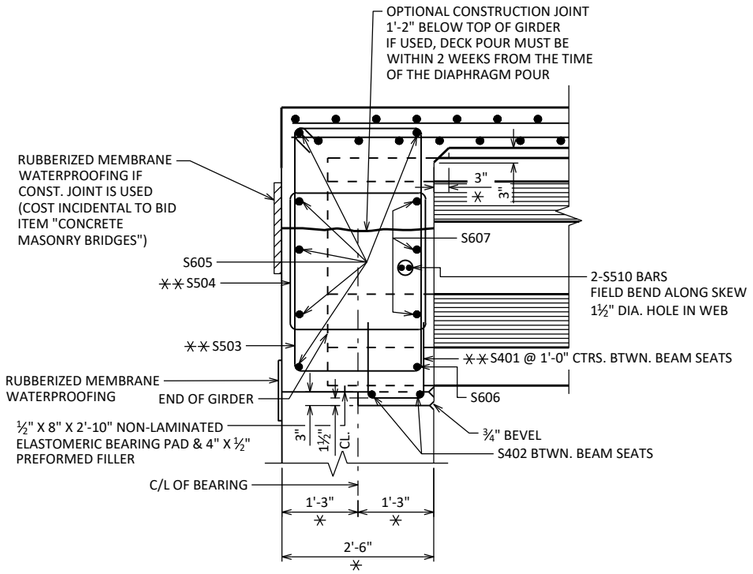
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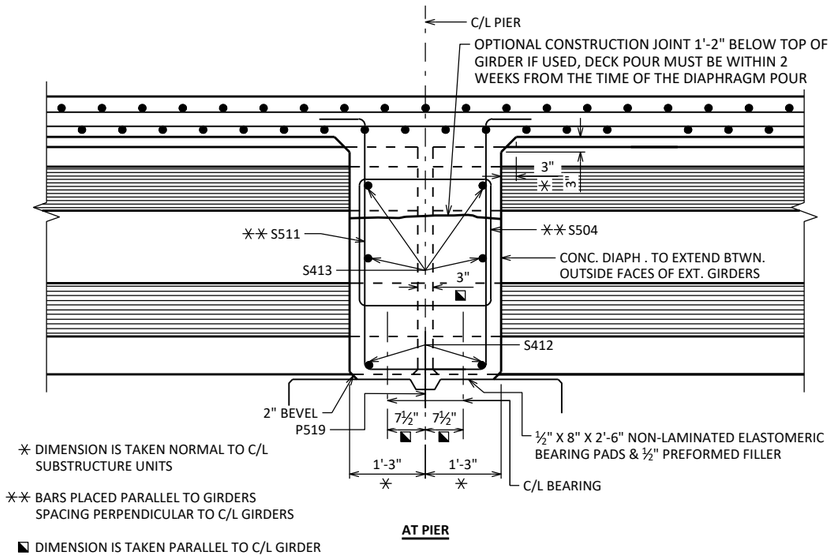
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STATE PROJECT NUMBER

6652-01-70



AT ABUTMENTS



✳ DIMENSION IS TAKEN NORMAL TO C/L SUBSTRUCTURE UNITS

✳✳ BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO C/L GIRDERS

◪ DIMENSION IS TAKEN PARALLEL TO C/L GIRDER

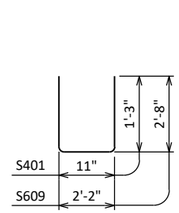
AT PIER

PART. LONGIT. SECTION

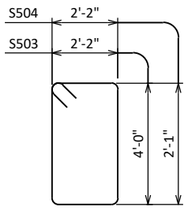
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR

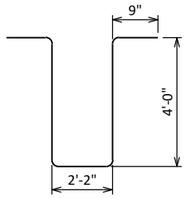
MARK	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 54400 LBS	
S401	36	3 - 3	X		ABUT. DIAPH. - BOT.	VERT.
S402	12	4 - 8			ABUT. DIAPH. - BOT.	HORIZ.
S503	60	13 - -0	X		ABUT. DIAPH. - STIRRUPS	VERT.
S504	22	9 - 2	X		ABUT. & PIER DIAPH. - STIRRUPS	VERT.
S605	12	32 - 8			ABUT. DIAPH. - B.F.	HORIZ.
S606	6	5 - 4			ABUT. DIAPH. - BTW. GIRDERS	HORIZ.
S607	36	4 - 9			ABUT. DIAPH. - BTW. GIRDERS	HORIZ.
S608	4	1 - 8			ABUT. DIAPH. - ENDS	HORIZ.
S609	12	7 - 2	X		ABUT. DIAPH. - ENDS	HORIZ.
S510	16	6 - 0			ABUT. DIAPH. - THRU GIRDER WEB	HORIZ.
S511	18	11 - 2	X		PIER DIAPH. - STIRRUPS	VERT.
S412	12	3 - 3			PIER DIAPH. - BOT.	HORIZ.
S413	24	4 - 4			PIER DIAPH.	HORIZ.
S414	92	43 - 10			DECK - TOP - SPAN 1	LONGIT.
S415	92	36 - 10			DECK - TOP - SPAN 2	LONGIT.
S1016	91	48 - 0			DECK - TOP - PIER	LONGIT.
S417	235	41 - 10			DECK - BOT	LONGIT.
S518	573	32 - 8			DECK - TOP & BOT.	TRANS.
S419	572	4 - 11	X		DECK - OVERHANG	TRANS.
S520	16	5 - 0			FLOOR DRAIN	LONGIT.
S421	8	3 - 0			ABUT DIAPH. - ENDS	VERT.



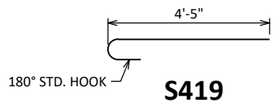
S401, S609



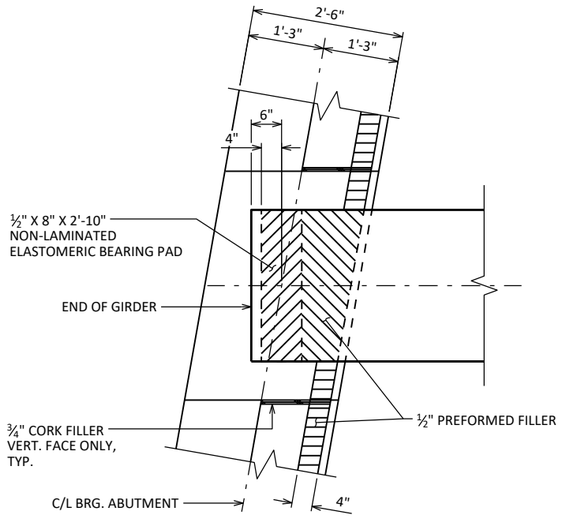
S503 / S504



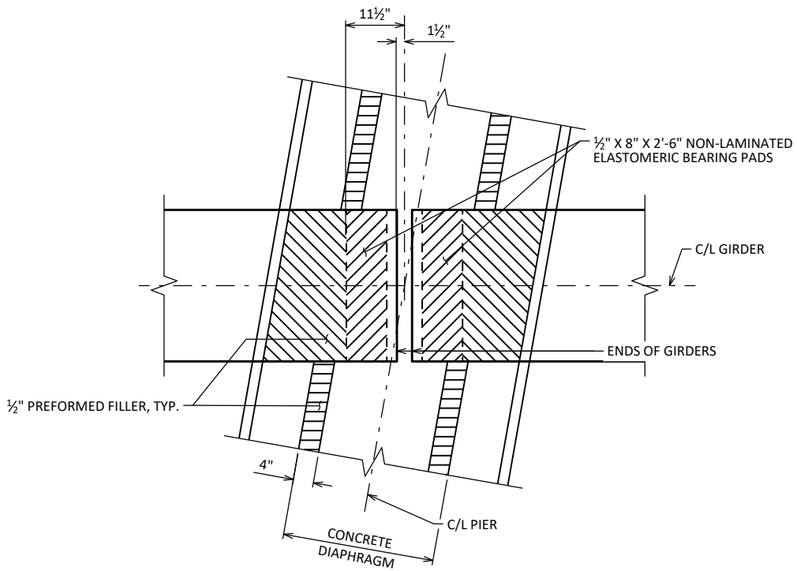
S511



S419



AT ABUTMENTS



AT PIER

BEARING PAD DETAIL

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

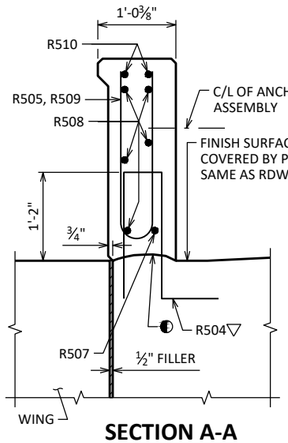
STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

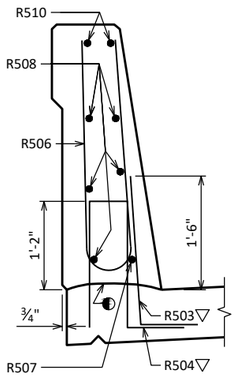
SUPERSTRUCTURE DETAILS

SHEET 18 OF 20

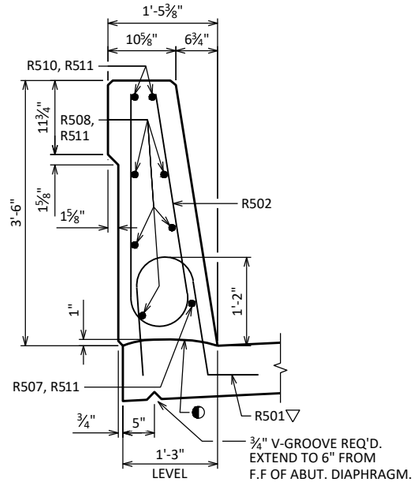
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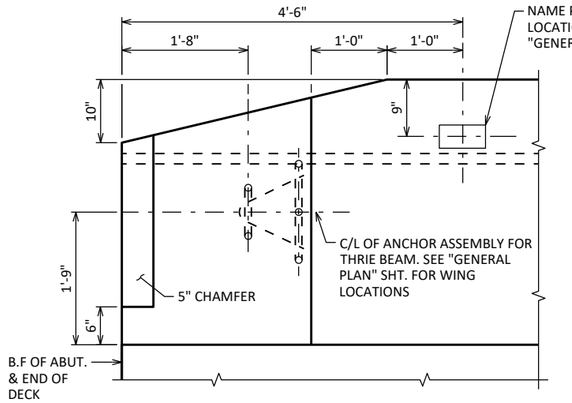
SECTION A-A



SECTION B-B



SECTION C-C



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

STATE PROJECT NUMBER

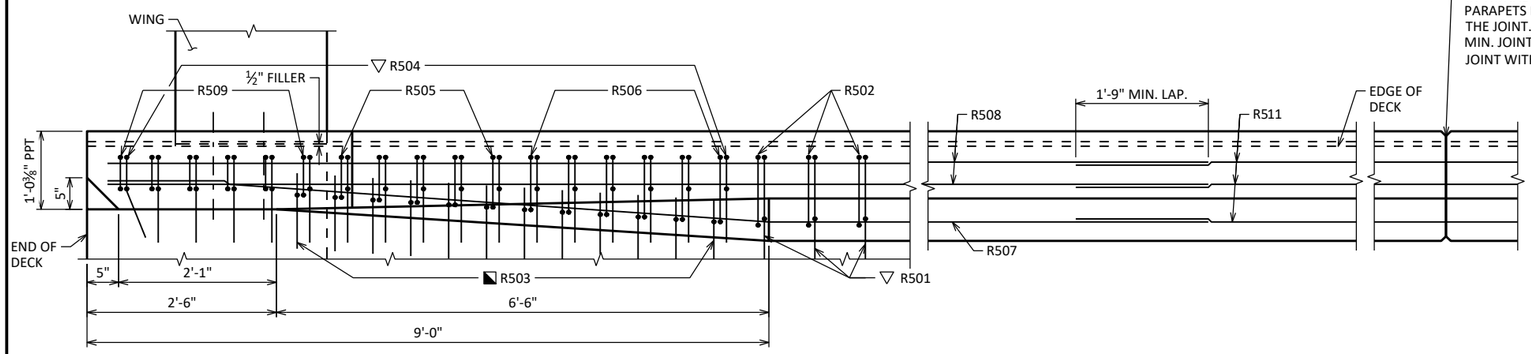
6652-01-70

BILL OF BARS

FOR DECK PARAPETS

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 10850 LBS	
R501	558	4 - 5	X		PARAPET	VERT.
R502	558	6 - 8	X		PARAPET	VERT.
R503	48	2 - 9	X		PARAPET	VERT.
R504	68	4 - 4	X		PARAPET	VERT.
R505	20	6 - 5	X		PARAPET	VERT.
R506	24	6 - 6	X		PARAPET	VERT.
R507	4	11 - 6	X		PARAPET	HORIZ.
R508	20	11 - 6			PARAPET	HORIZ.
R509	24	5 - 5	X	⚠	PARAPET	VERT.
R510	8	11 - 6	X		PARAPET	HORIZ.
R511	64	47 - 0			PARAPET	HORIZ.

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



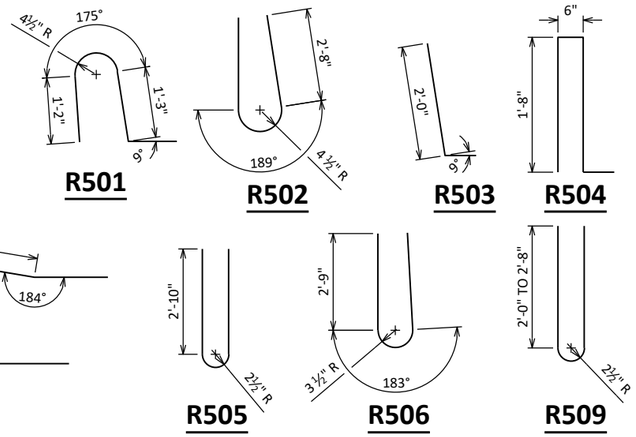
PLAN

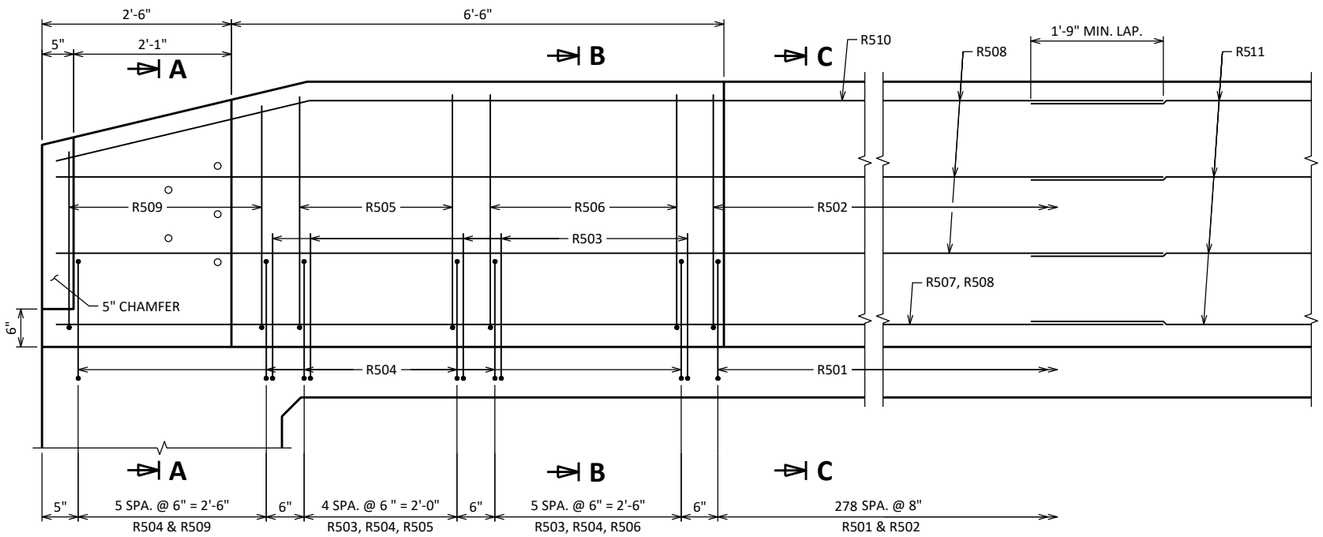
SW CORNER SHOWN, OTHERS SIMILAR

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

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

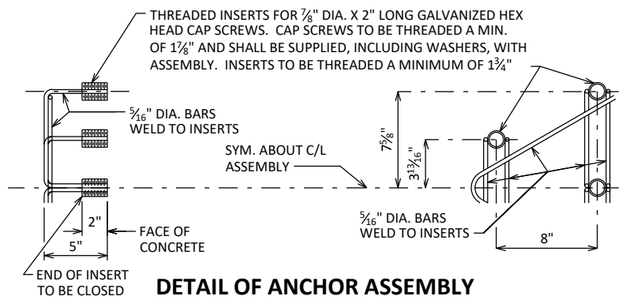




INSIDE ELEVATION

SW CORNER SHOWN, OTHERS SIMILAR

- ◐ CONST. JOINT - STRIKE OFF AS SHOWN
- ◪ USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501, R503, AND R504 BARS TO BE TIED TO SUPERSTRUCTURE STEEL BEFORE SUPERSTRUCTURE IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

SINGLE SLOPE PARAPET 42SS

SHEET 19 OF 20

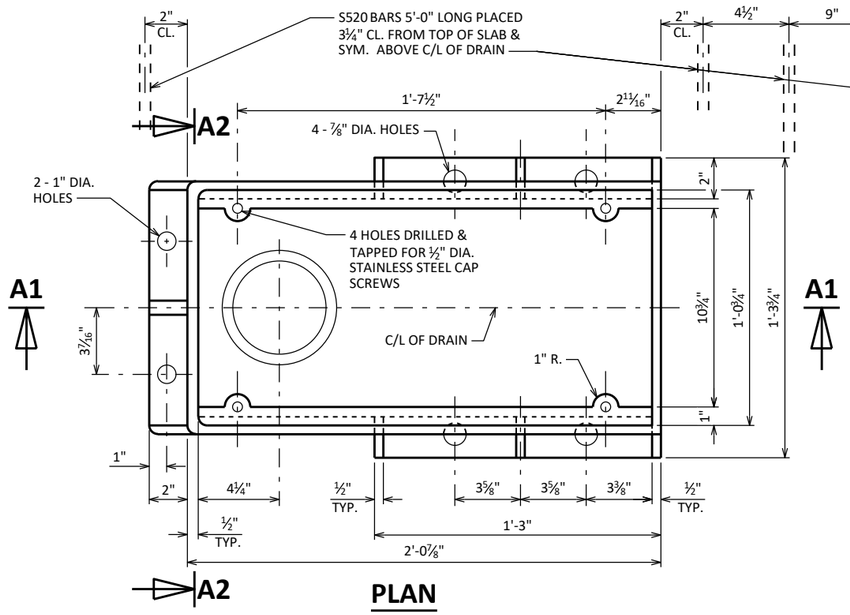
78

8

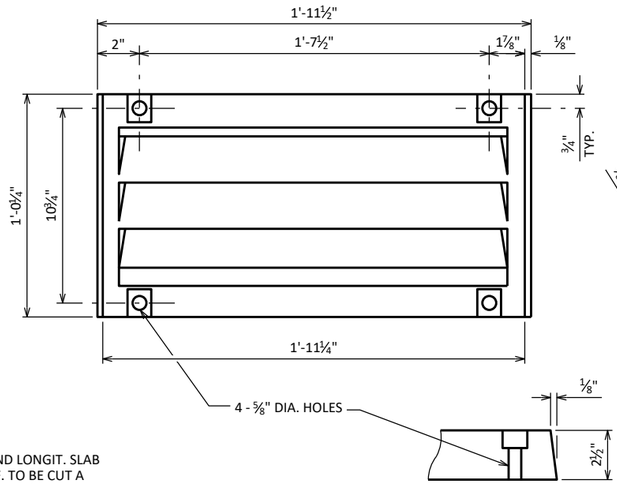
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STATE PROJECT NUMBER

6652-01-70



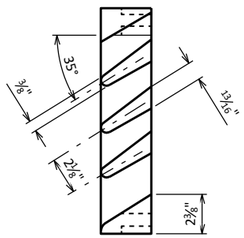
PLAN



TRANS. AND LONGIT. SLAB BAR REINF. TO BE CUT A MAX. 1" CL. FROM DRAIN FRAME DISPLACE BARS WHERE POSSIBLE

GRATE CASTING DETAIL

ATTACH GRATE TO FRAME FOR SHIPMENT



NOTES

ALL MATERIAL FOR TYPE "GC" CASTING, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30. (APPROXIMATE WEIGHT = 225#)

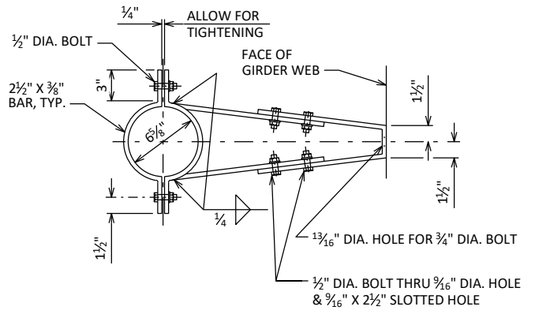
MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

ALL MATERIAL FOR FLOOR DRAINS TO BE INCLUDED IN THE BID ITEM "FLOOR DRAINS TYPE GC".

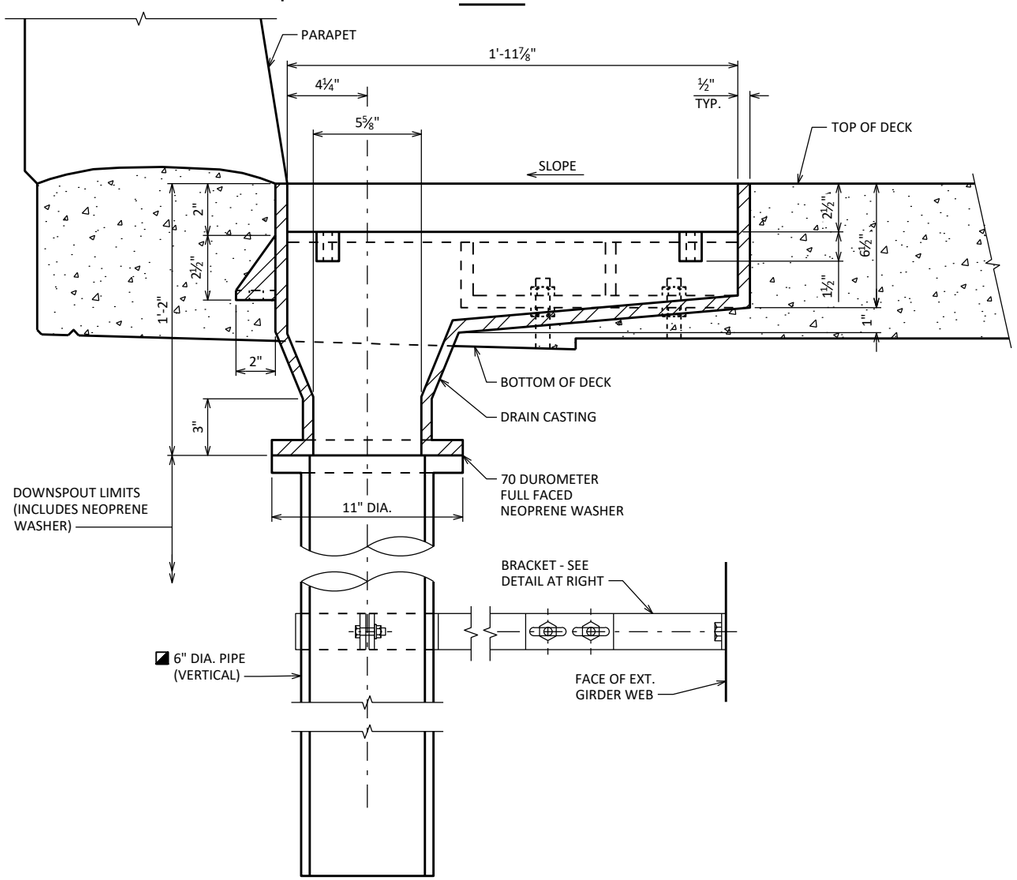
ALL MATERIAL FOR DOWNSPOUTS, DOWNSPOUT CONNECTIONS, AND BRACKETS TO BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

ALTERNATE BRACKETS ARE NOT ALLOWED.

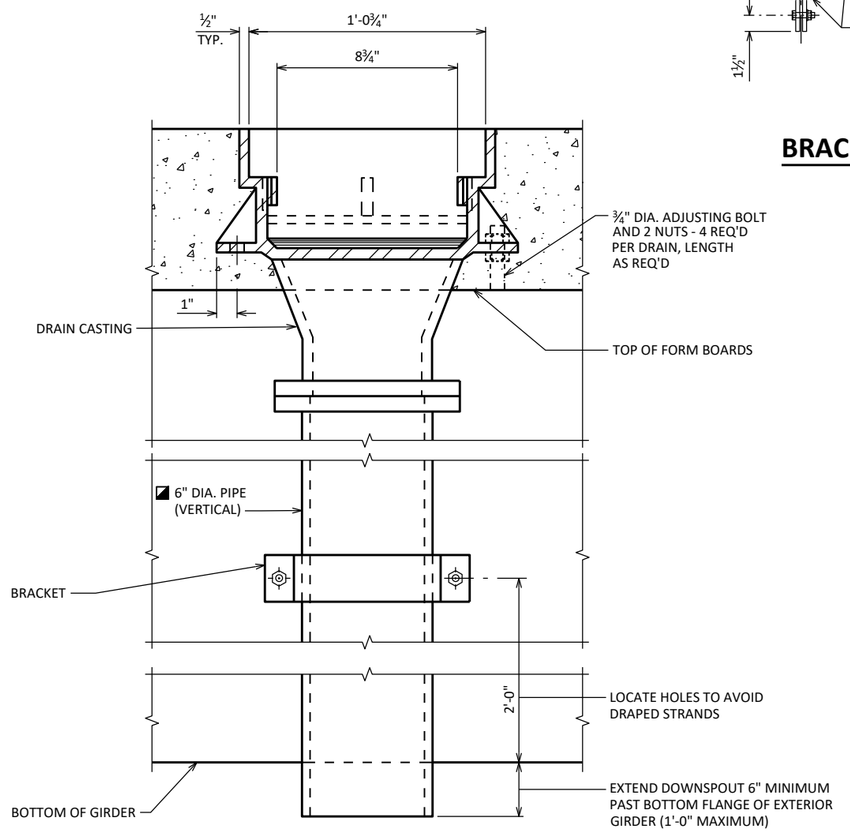
◪ FLANGED 6" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE (RTRP) OR GALVANIZED STANDARD PIPE CONFORMING TO ASTM A53.



BRACKET DETAIL



SECTION A1



SECTION A2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-481

DRAWN BY MEO | PLANS CK'D JRD

FLOOR DRAIN TYPE 'GC'

SHEET 20 OF 20

79

8

8

DIVISION - CTH P SOUTH APPROACH

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00	1.25	NOTE 8
6+38.40	638.40	0.00	6.44	0.00	5.62	0	0	0	0	0	0
6+50.00	650.00	11.60	6.41	0.00	37.14	3	0	9	3	11	-8
6+68.60	668.60	18.60	17.33	11.04	37.90	8	4	26	11	44	-37
7+00.00	700.00	31.40	16.85	11.03	40.23	20	13	45	31	100	-86
7+07.20	707.20	7.20	20.86	11.03	56.40	5	3	13	36	116	-100
7+18.61	718.61	11.41	21.29	11.02	73.34	9	5	27	45	150	-130
7+43.58	743.58	24.97	22.35	11.01	76.34	20	10	69	65	236	-206
7+50.00	750.00	6.42	22.56	11.01	76.32	5	3	18	70	259	-227
7+61.61	761.61	11.61	22.84	11.01	75.13	10	5	33	80	300	-263
7+68.57	768.57	6.96	22.98	11.00	74.43	6	3	19	86	324	-284
7+95.05	795.05	26.48	38.77	8.38	82.38	30	10	77	116	420	-360
8+00.00	800.00	4.95	41.71	8.47	81.79	7	2	15	123	439	-374
8+11.61	811.61	11.61	41.88	8.67	94.65	18	4	38	141	486	-407
8+36.59	836.59	24.98	40.90	9.13	109.59	38	8	94	179	604	-495
8+50.00	850.00	13.41	39.35	9.34	102.23	20	5	53	199	670	-546
8+61.58	861.58	11.58	36.62	9.33	101.97	16	4	44	215	725	-589
8+88.36	888.36	26.78	32.93	8.63	39.30	34	9	70	249	813	-652

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	MASS ORDINATE: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

9

9

PROJECT NO: 6652-01-70 | HWY: CTH P | COUNTY: MARATHON | EARTHWORK DATA | SHEET 80 | E

DIVISION - CTH P NORTH APPROACH

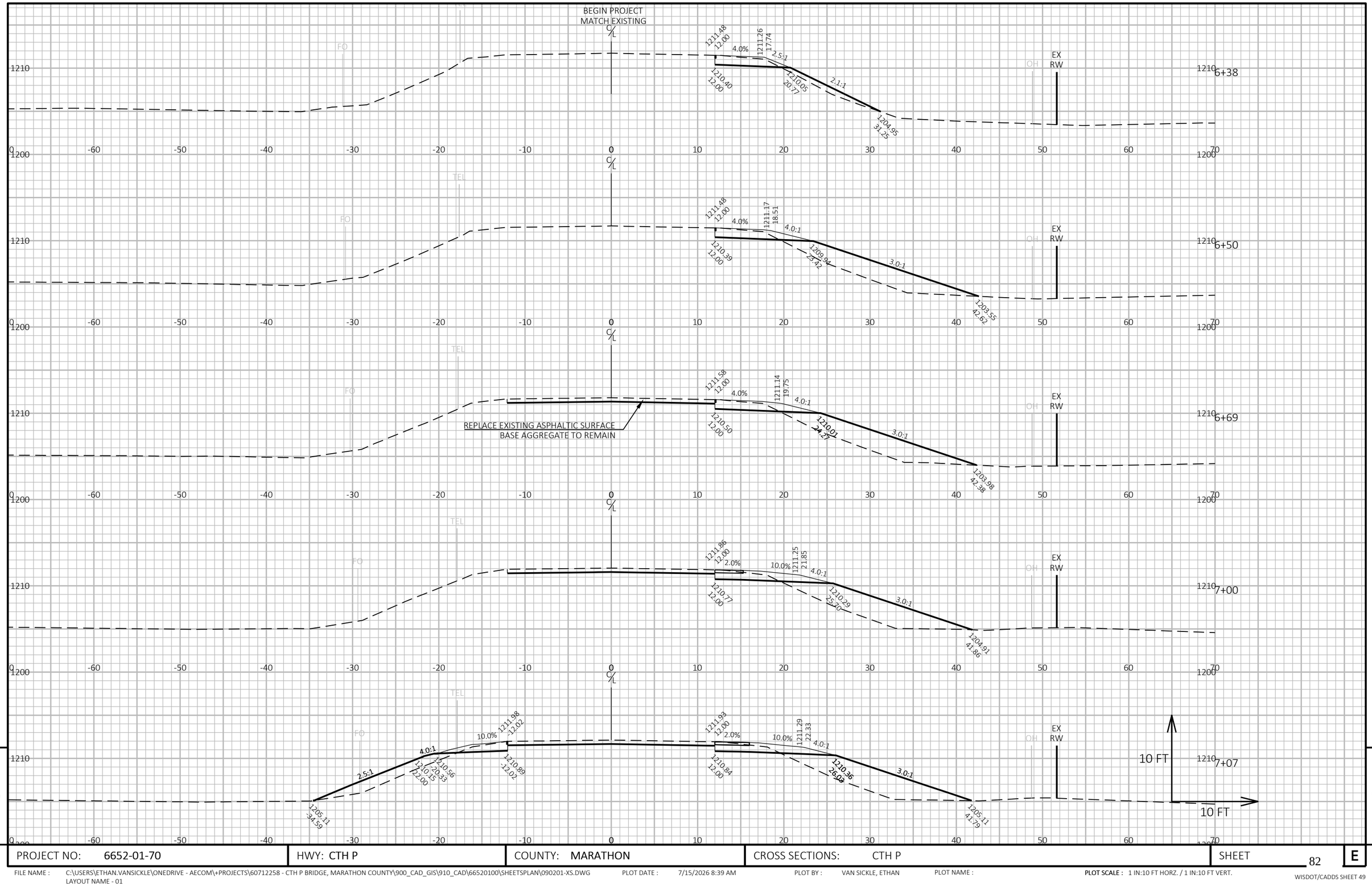
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00	1.25	NOTE 8
11+12.13	1112.13	0.00	35.31	8.37	94.28	0	0	0	0	0	0
11+38.86	1138.86	26.73	37.20	9.15	33.08	36	9	63	36	79	-52
11+50.00	1150.00	11.14	38.84	9.25	24.73	16	4	12	52	94	-55
11+63.85	1163.85	13.85	40.67	9.18	31.21	20	5	14	72	111	-57
11+88.83	1188.83	24.98	42.09	8.82	25.17	38	8	26	110	144	-60
12+00.00	1200.00	11.17	42.27	8.62	18.51	17	4	9	127	155	-58
12+04.95	1204.95	4.95	42.21	8.52	17.54	8	2	3	135	159	-56
12+31.87	1231.87	26.92	22.25	8.00	12.81	32	8	15	167	178	-51
12+38.83	1238.83	6.96	22.16	8.00	12.77	6	2	3	173	181	-50
12+50.00	1250.00	11.17	21.81	8.00	16.50	9	3	6	182	189	-52
12+56.86	1256.86	6.86	21.61	8.01	16.60	6	2	4	188	194	-53
12+67.86	1267.86	11	14.42	8.02	15.66	7	3	7	195	203	-58
12+81.84	1281.84	13.98	13.97	8.04	23.67	7	4	10	202	215	-67
13+00.00	1300.00	18.16	13.48	8.07	29.78	9	5	18	211	238	-86
13+31.84	1331.84	31.84	13.89	8.16	19.75	16	10	29	227	274	-116
13+50.00	1350.00	18.16	5.67	0.00	14.70	7	3	12	234	289	-127
13+66.29	1366.29	16.29	5.58	0.00	4.16	3	0	6	237	296	-131

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	MASS ORDINATE: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

9

9

PROJECT NO: 6652-01-70 | HWY: CTH P | COUNTY: MARATHON | EARTHWORK DATA | SHEET 81 | E



9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 82	E

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LAYOUT NAME - 01

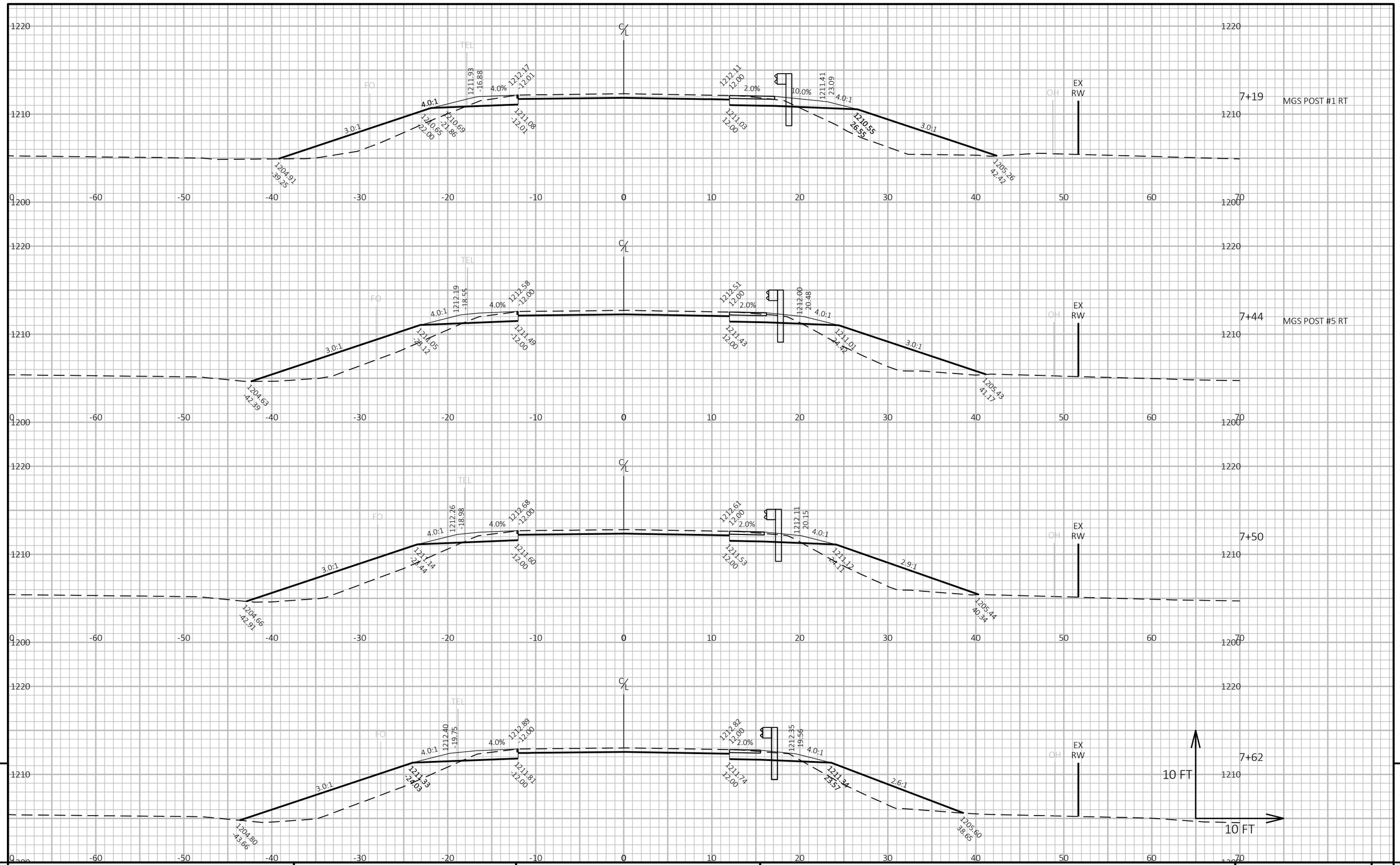
PLOT DATE : 7/15/2026 8:39 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 83	E

9

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

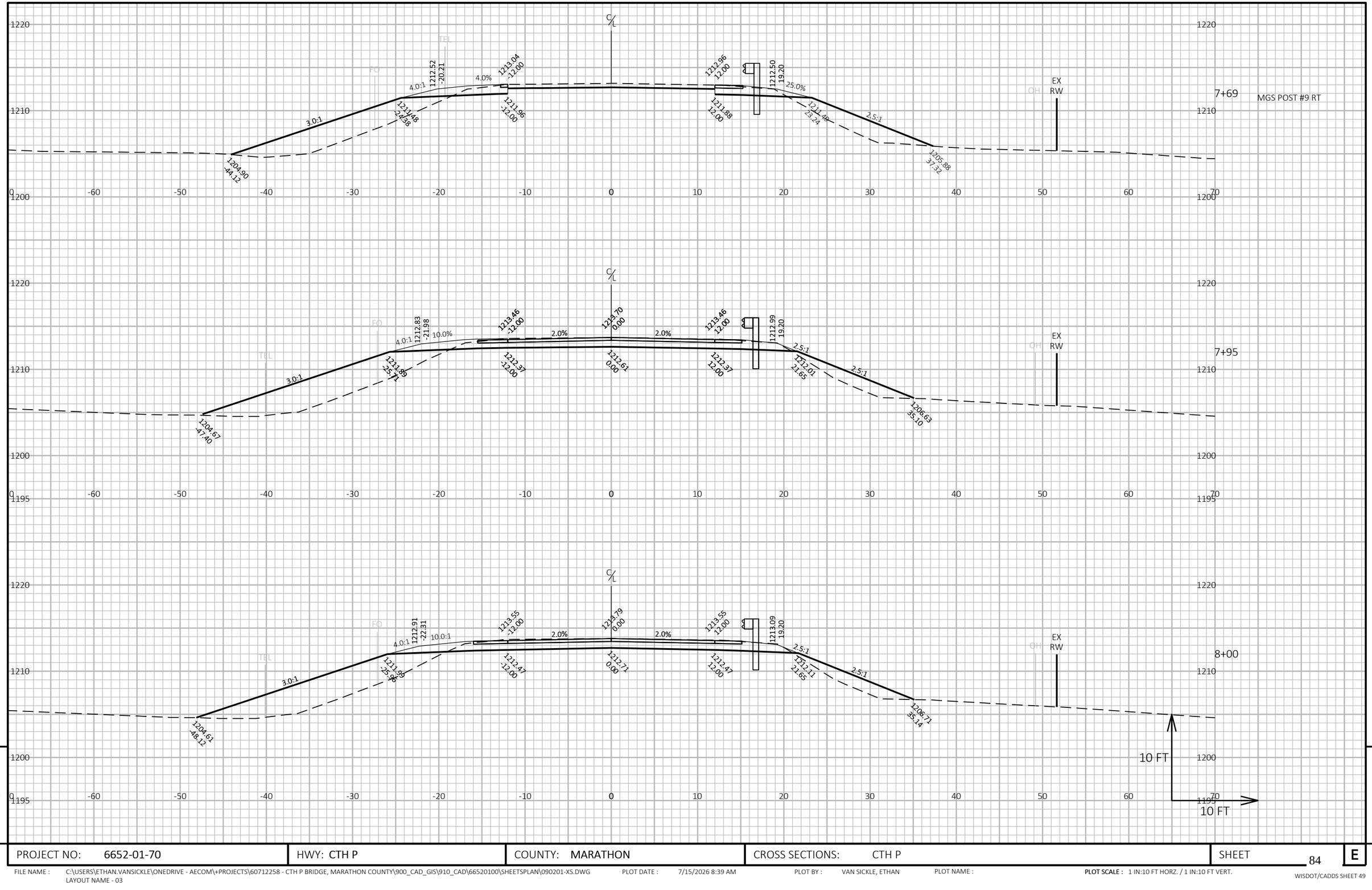
PLOT DATE : 7/15/2026 8:39 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 84	E

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LAYOUT NAME - 03

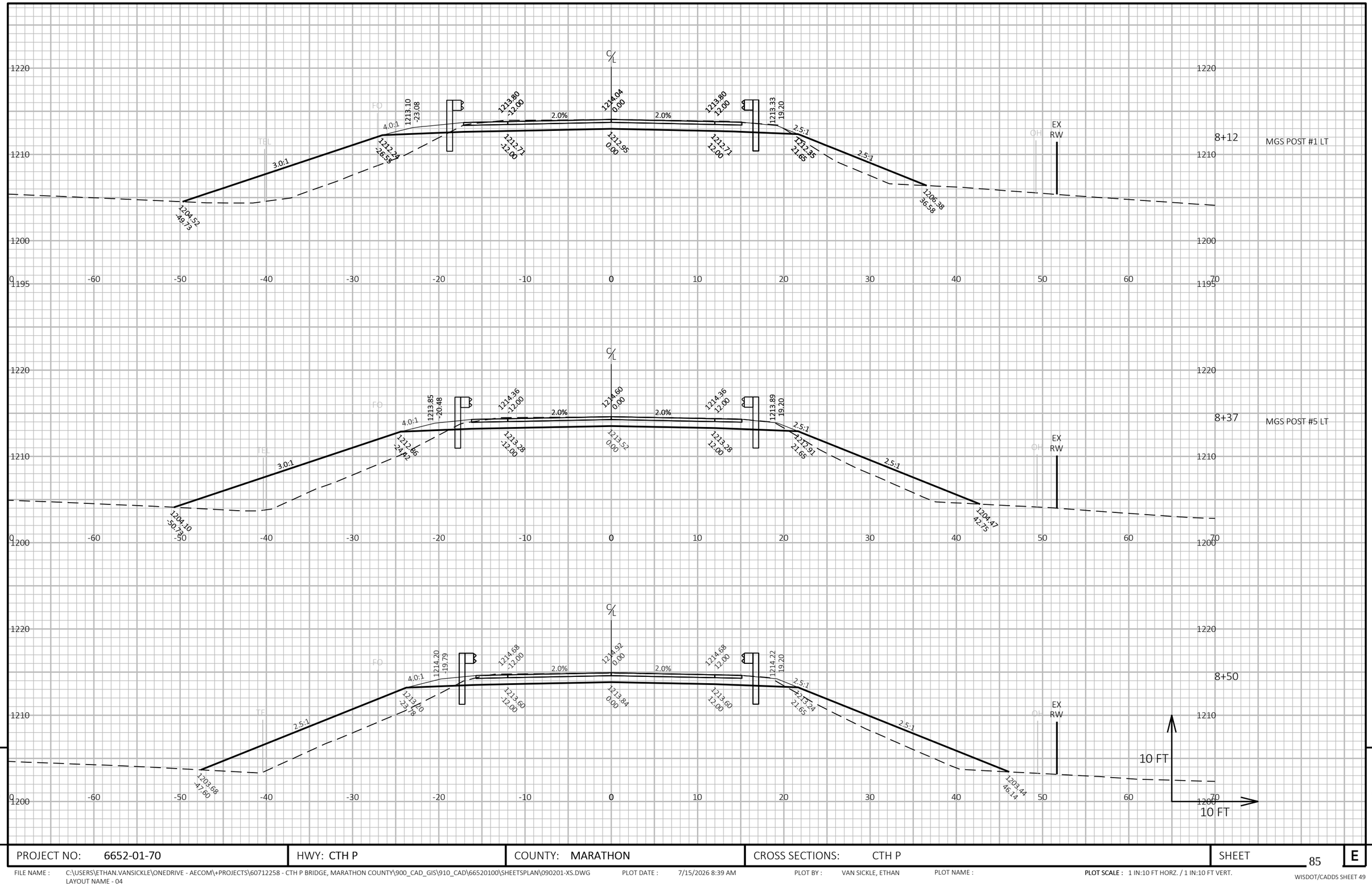
PLOT DATE : 7/15/2026 8:39 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 85	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

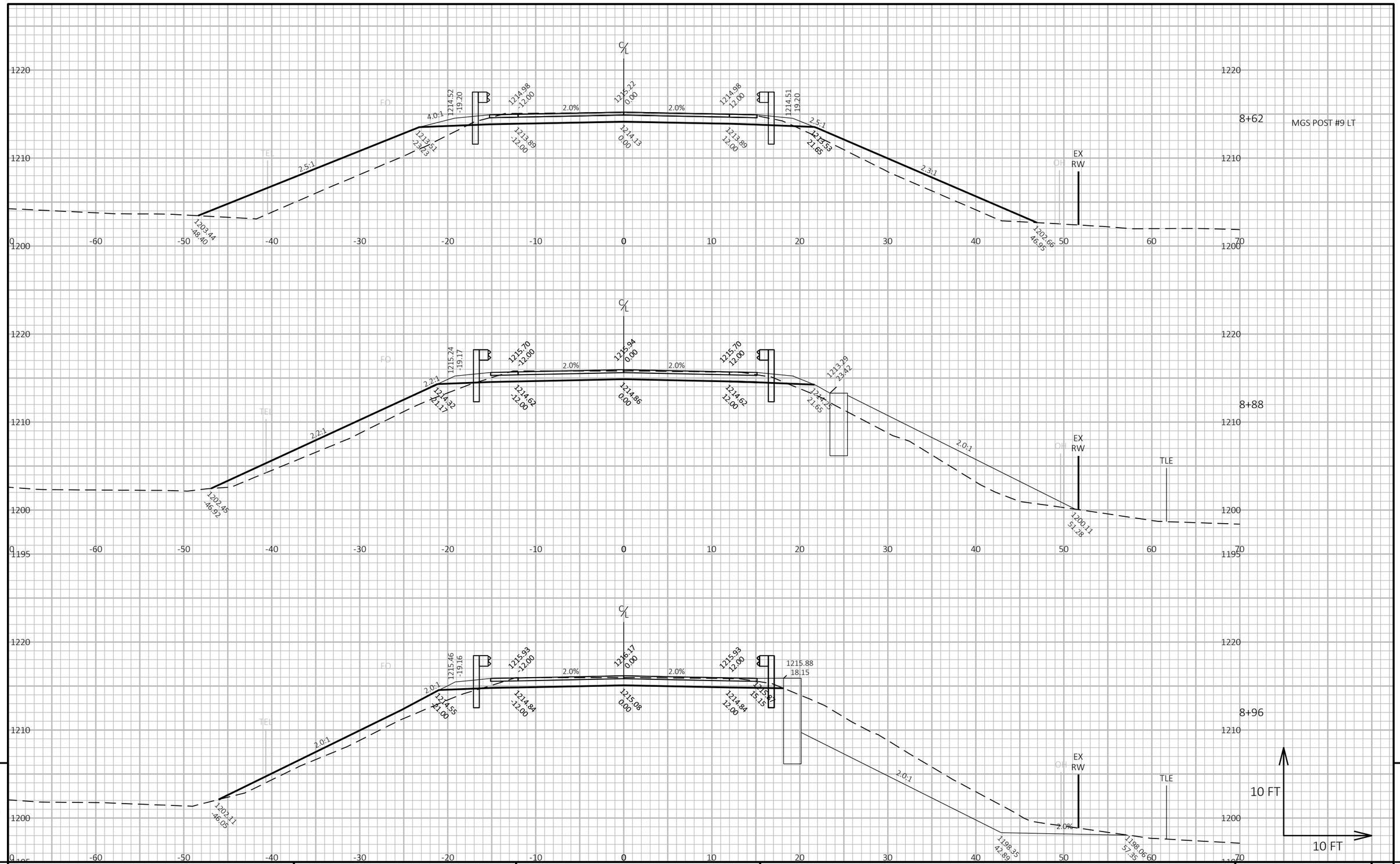
PLOT DATE : 7/15/2026 8:39 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 86	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/15/2026 8:39 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

PROPOSED STRUCTURE B-37-481
STA 8+98.95 TO STA 11+01.49

9+96

11+04

EX RW

EX RW

TLE

P.L.

2.0%

2.0%

2.0%

2.0:1

2.0:1

2.5:1

1198.87
-64.30

1199.09
-52.42

1221.86
-16.15

1221.92
-12.00

1220.84
-12.00

1222.16
0.00

1221.08
0.00

1221.92
12.00

1220.84
12.00

1221.46
19.20

1220.48
21.65

1208.32
46.20

10 FT

10 FT

9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 87	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

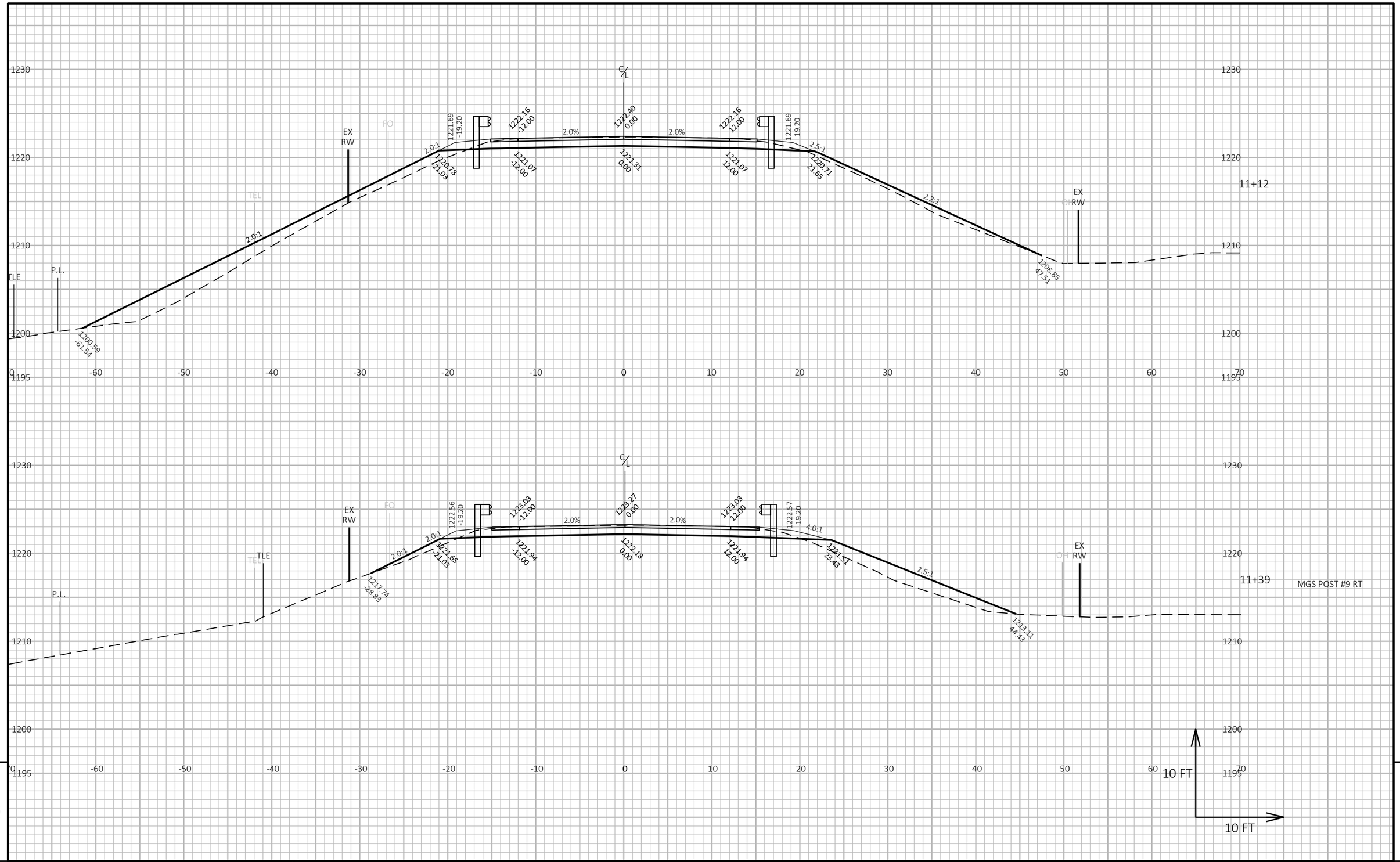
PLOT DATE : 7/15/2026 8:39 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

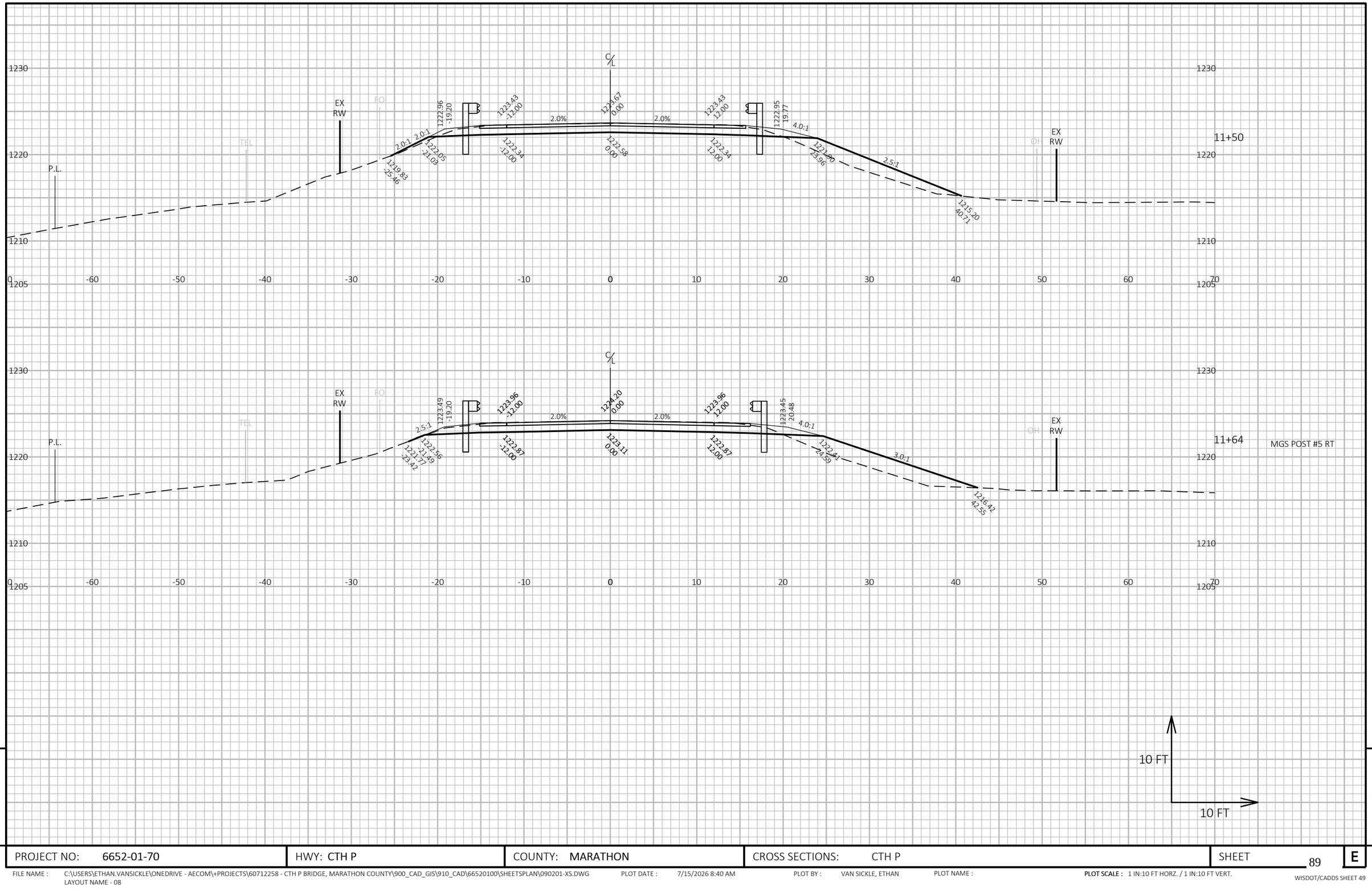
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 88	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07
PLOT DATE : 7/15/2026 8:39 AM
PLOT BY : VAN SICKLE, ETHAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 89	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

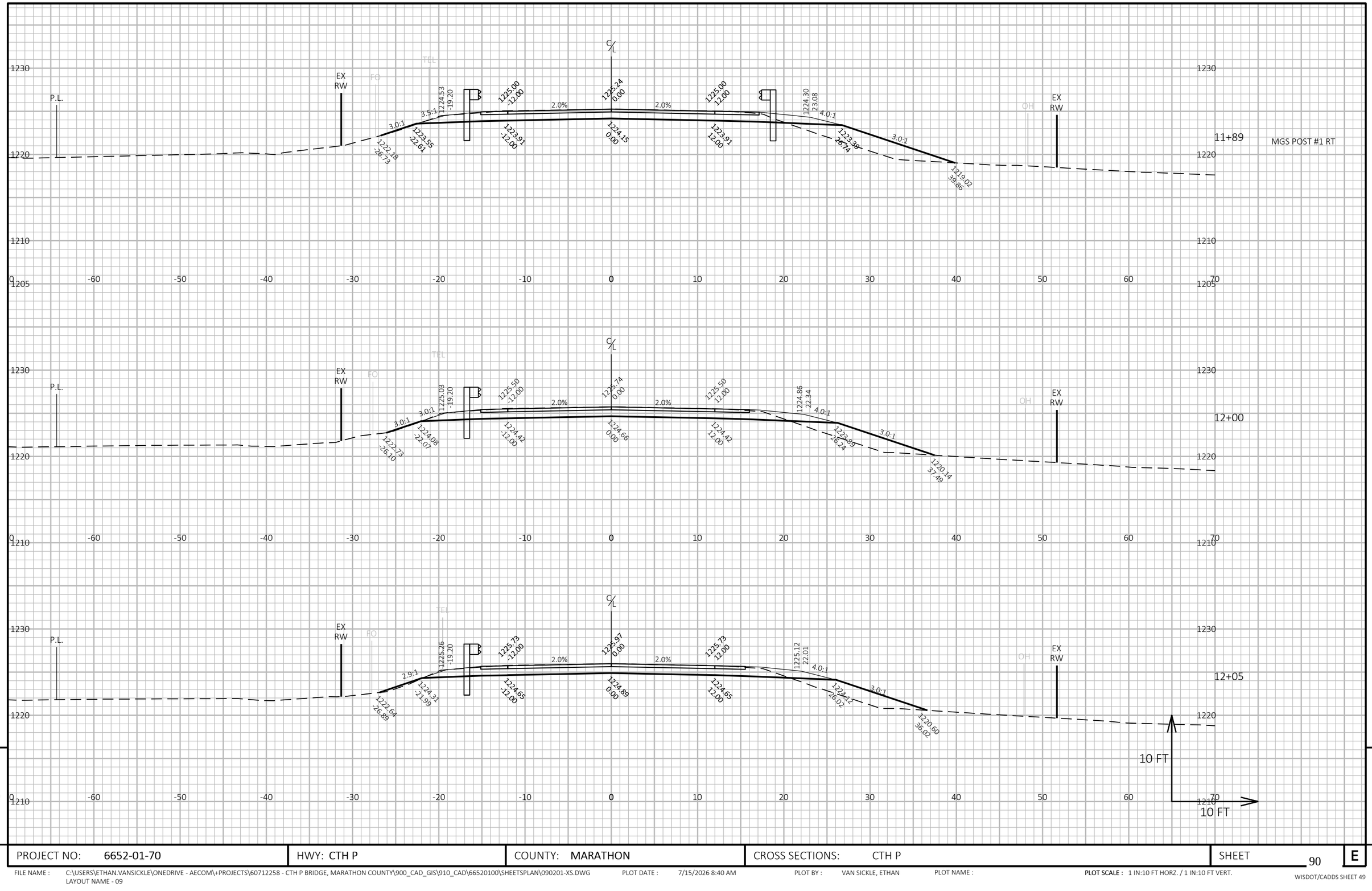
PLOT DATE : 7/15/2026 8:40 AM

PLOT BY : VAN SICKLE, ETHAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

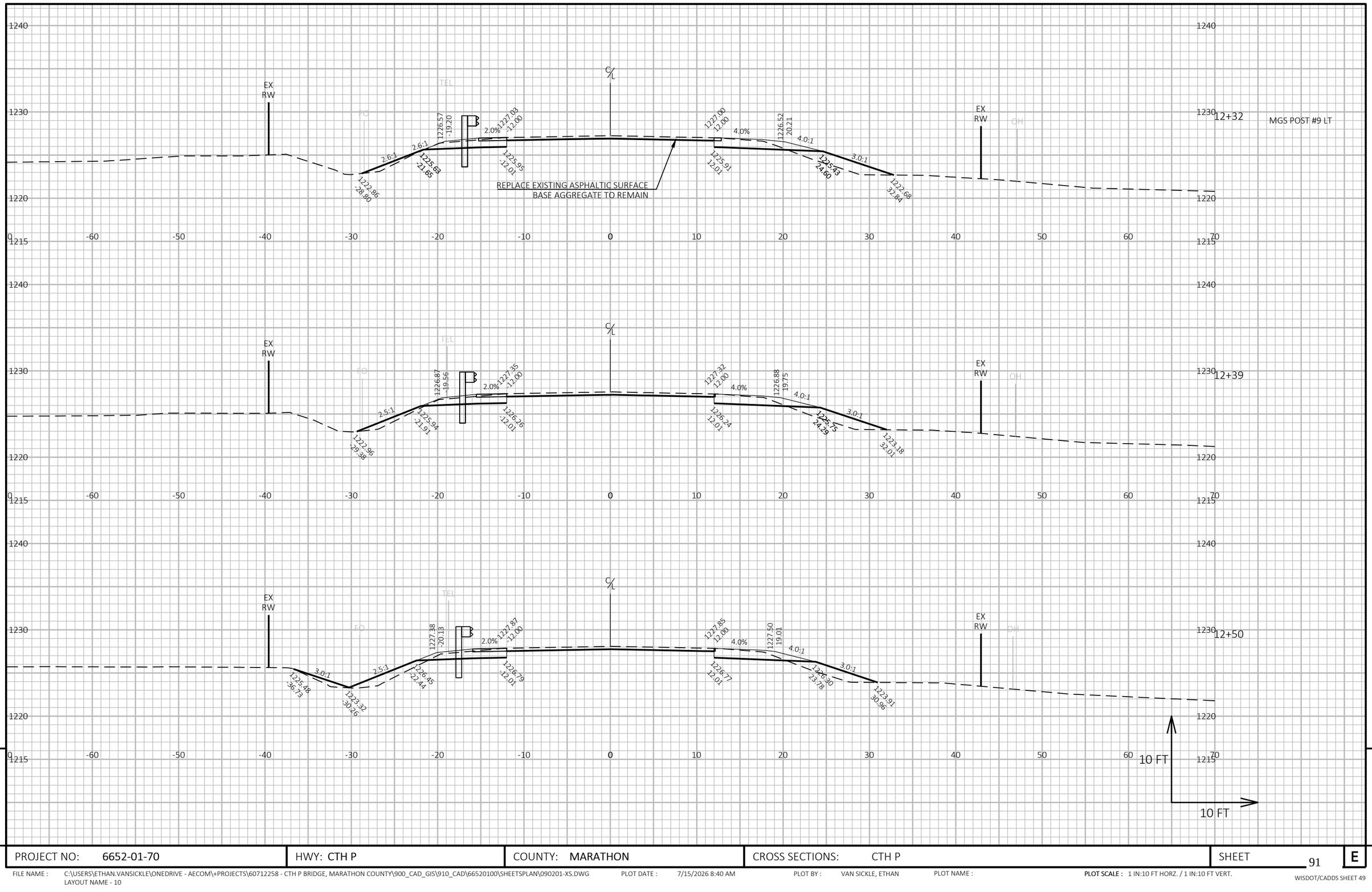


9

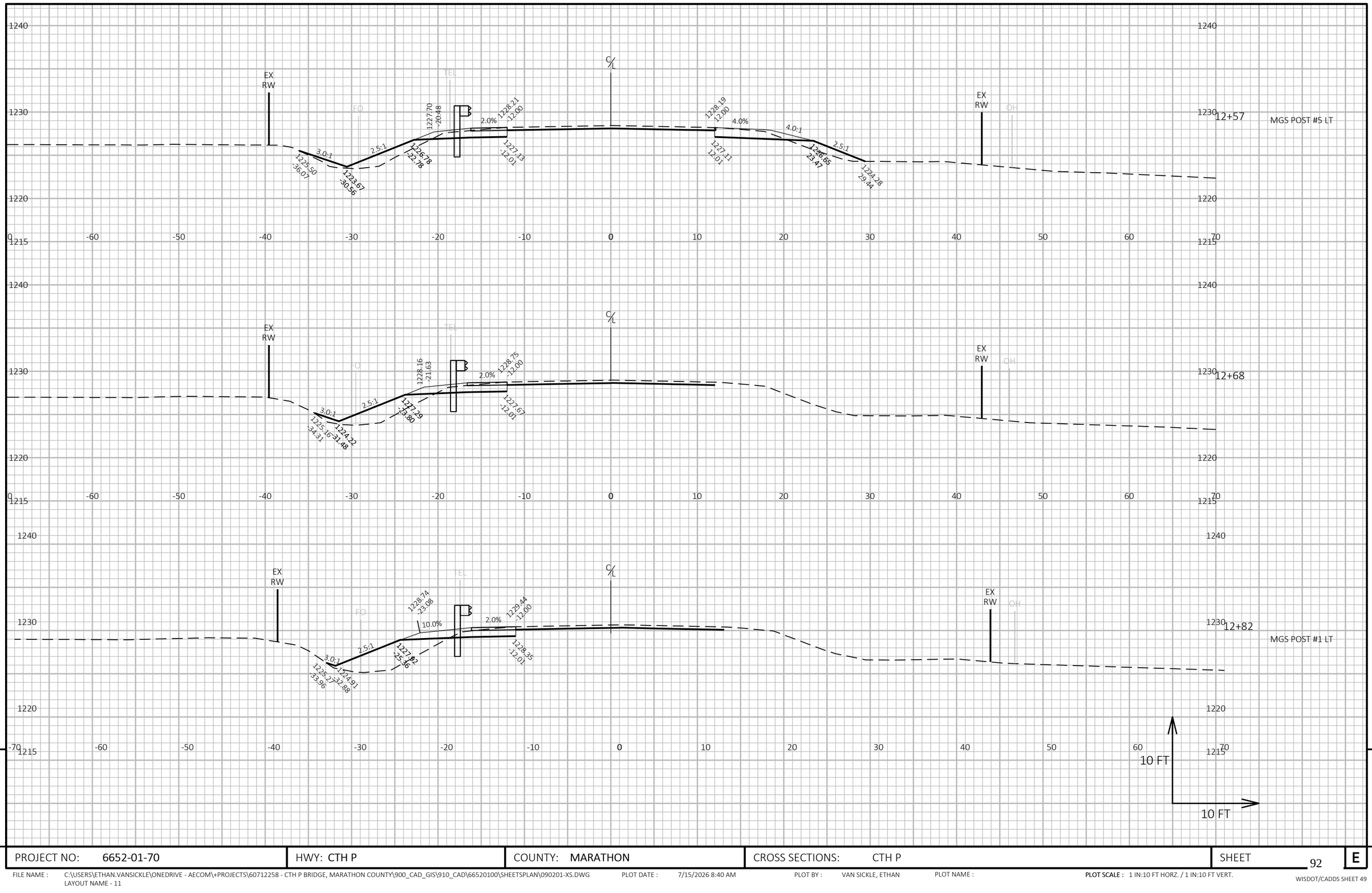
9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 90	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09
PLOT DATE : 7/15/2026 8:40 AM
PLOT BY : VAN SICKLE, ETHAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

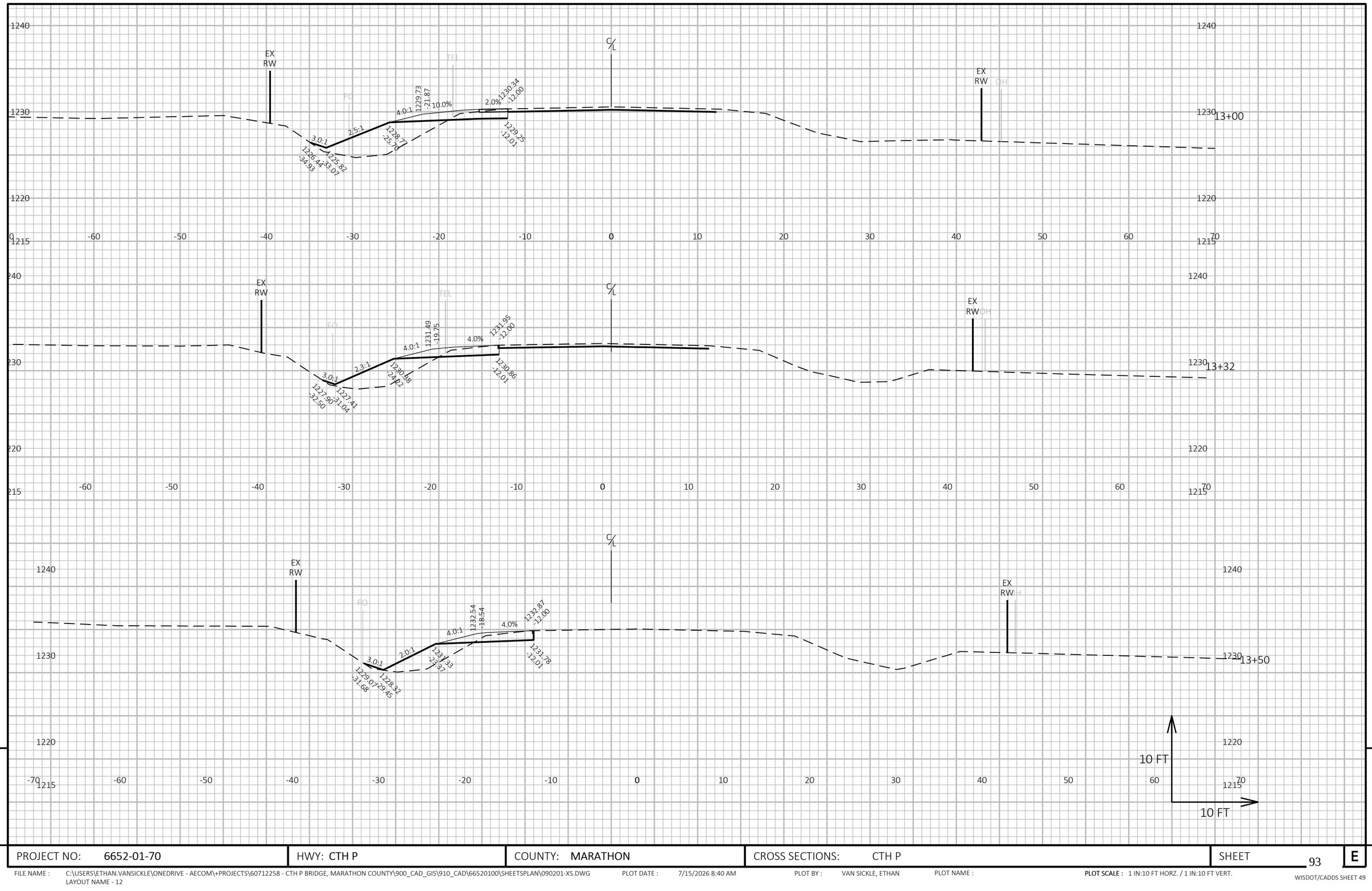


PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 91 E



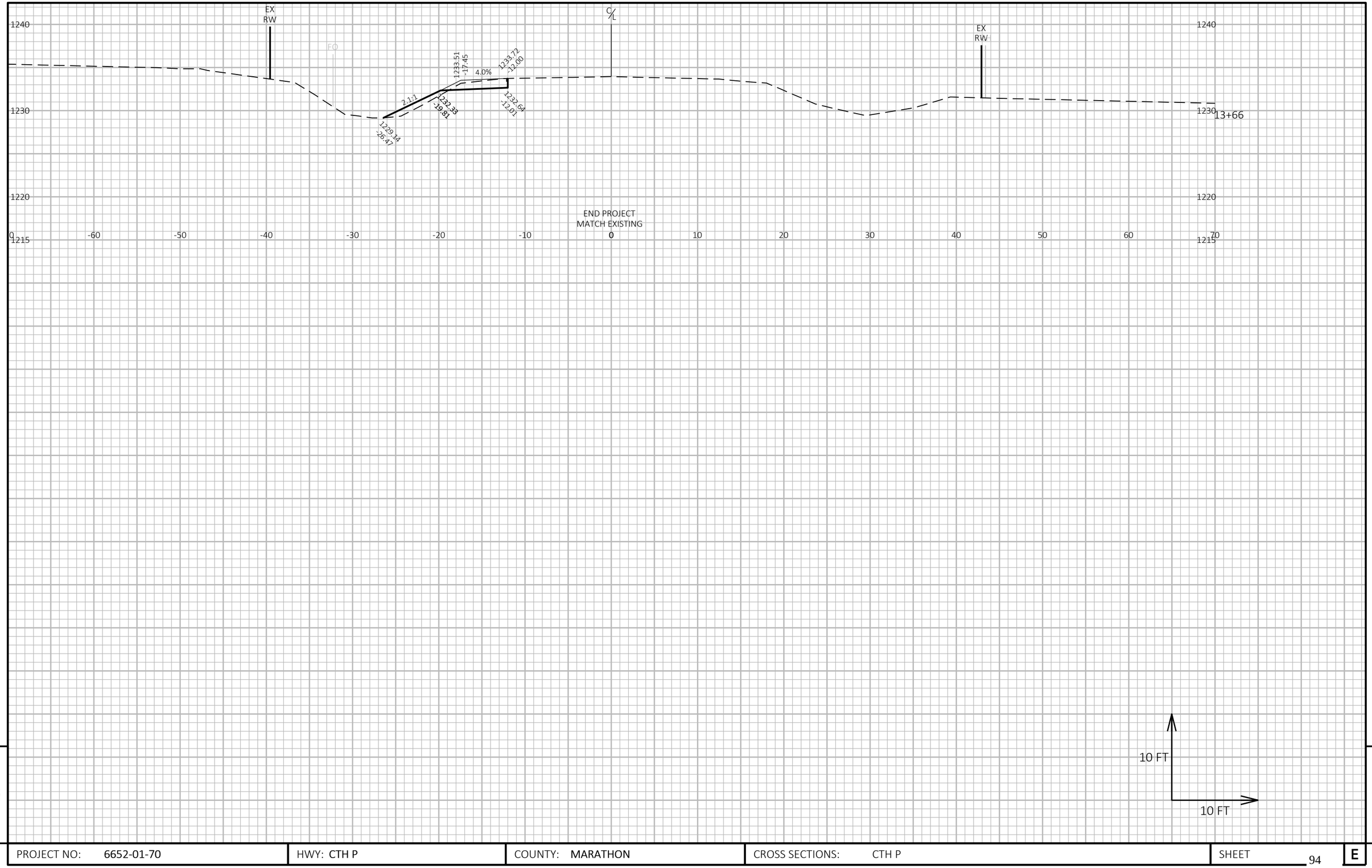
PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 92	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11
PLOT DATE : 7/15/2026 8:40 AM
PLOT BY : VAN SICKLE, ETHAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 93 E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12
PLOT DATE : 7/15/2026 8:40 AM
PLOT BY : VAN SICKLE, ETHAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6652-01-70	HWY: CTH P	COUNTY: MARATHON	CROSS SECTIONS: CTH P	SHEET 94	E

FILE NAME : C:\USERS\ETHAN.VANSICKLE\ONEDRIVE - AECOM\+PROJECTS\60712258 - CTH P BRIDGE, MARATHON COUNTY\900_CAD_GIS\910_CAD\66520100\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 7/15/2026 8:40 AM PLOT BY : VAN SICKLE, ETHAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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