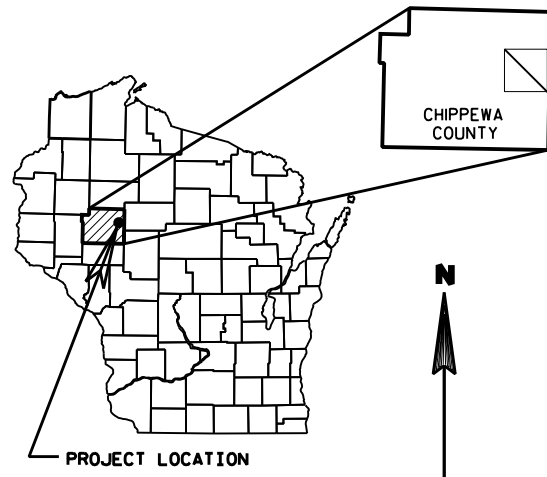


FEBRUARY 2025
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
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 = 90



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 29 - STH 64

YELLOW RIVER BRIDGE B-09-0394

CTH G CHIPPEWA COUNTY

STATE PROJECT NUMBER
8902-05-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8902-05-70	WISC 2025339	1

53

DESIGN DESIGNATION

A.A.D.T. (2025)	=	360
A.A.D.T. (2045)	=	485
D.H.V.	=	40
D.	=	50/50
T.	=	5%
DESIGN SPEED	=	40 MPH
ESALS	=	44,000

CONVENTIONAL SYMBOLS PLAN

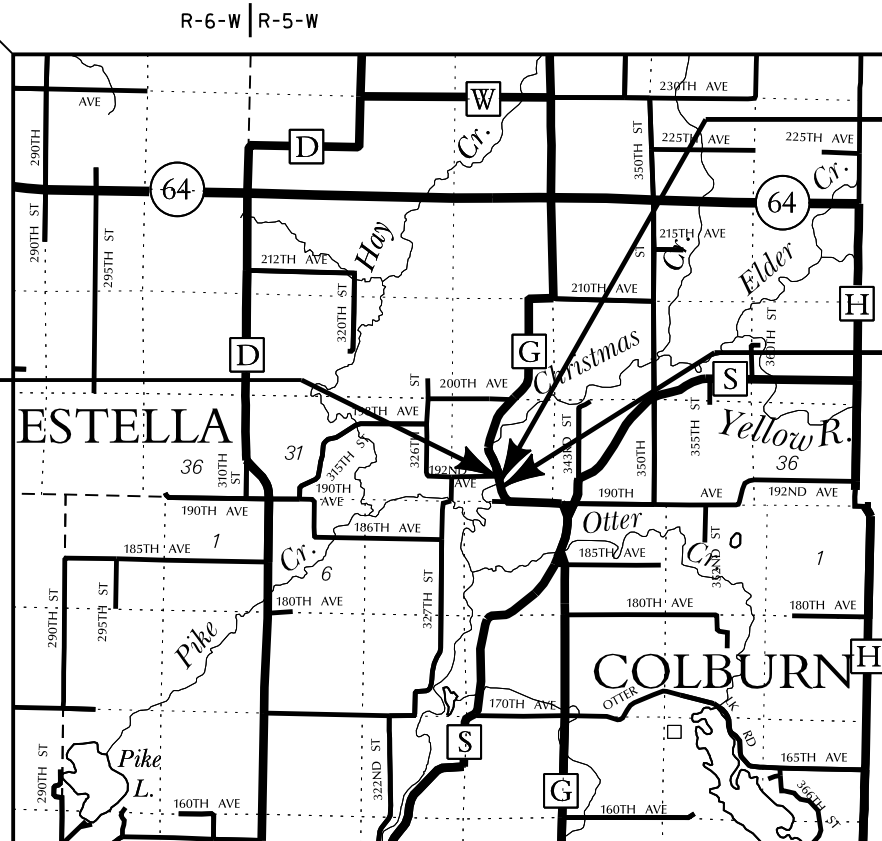
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
HIGH VOLTAGE	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
OVERHEAD	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

END PROJECT

STA. 11+34.29
Y = 197514.41
X = 273570.71



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.051 MI.

STRUCTURE B-09-0394

BEGIN PROJECT

STA. 8+65.71
Y = 197253.93
X = 273636.21

T-31-N
T-30-N

HORIZONTAL POSITIONS SHOWN ON THIS PLAN
ARE WISCONSIN COORDINATE REFERENCE
SYSTEM (WISCRS), CHIPPEWA 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 NAVD88 (2012). GPS DERIVED
ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR

County of Chippewa
Date 10-28-24
Highway Commissioner

ORIGINAL PLANS PREPARED BY

AYRES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com



10/28/2024

DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor AYRES ASSOCIATES INC
Designer AYRES ASSOCIATES INC
Project Manager TOU YANG, PE
Regional Examiner NW REGION
Regional Supervisor TOU YANG, PE

APPROVED FOR THE DEPARTMENT

DATE: 10/30/2024
Signature

E

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

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

ASPHALTIC REMOVAL WITHIN THE PROJECT LIMITS IS INCLUDED IN THE ITEM EXCAVATION COMMON.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

ASPHALT SURFACE SHALL USE 1/2" NOMINAL AGGREGATE SIZE.

WETLANDS EXIST IN THE PROJECT AREA. NO DISTURBANCE IS ALLOWED OUTSIDE THE SLOPE INTERCEPTS.

ABBREVIATIONS

AC ACRES
CHIS CHISELED
CL CENTERLINE
COR CORNER
CWT COUNT
CY CUBIC YARD
EL ELEVATION
GAL GALLON
H HOUSE
IP IRON PIPE
LB POUND
LF LINEAR FEET
LS LUMP SUM
LT LEFT
MAX MAXIMUM
MIN MINIMUM
MON MONUMENT
NORM NORMAL
OAL OVERALL LENGTH
PC POINT OF CURVATURE
PD PEDESTAL
PI POINT OF INTERSECTION
PK PARKER-KALON
PL PROPERTY LINE
PLE PERMANENT LIMITED EASEMENT
PP POWER POLE
PT POINT OF TANGENCY
R RADIUS
REQ'D REQUIRED
RT RIGHT
R/W RIGHT-OF-WAY
SF SQUARE FEET
SHLDR SHOULDER
STA STATION
SY SQUARE YARD
TLE TEMPORARY LIMITED EASEMENT
VAR VARIES
WL WELL

UTILITIES

CHIPPEWA VALLEY ELECTRIC COOPERATIVE
317 S 8TH STREET
P.O. BOX 575
CORNELL, WI 54732
ATTN: NIC ALBERSON
715-239-6800
nalberson@cve.coop

BRIGHTSPEED
425 ELLINGSON AVENUE
HAWKINS, WI 54530
ATTN: BRIAN HUHN
980-376-1559
715-563-8294 (CELL)
brian.huhn@brightspeed.com

* * DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS



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

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES CONTACT:

LEAH NICOL
1300 W CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
715-934-9014
leah.nicol@Wisconsin.gov

COUNTY CONTACT

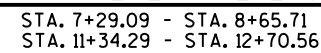
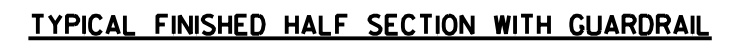
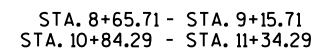
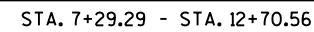
CHIPPEWA COUNTY HIGHWAY DEPT.
801 EAST GRAND AVENUE
CHIPPEWA FALLS, WI 54729
ATTN: FRED ANDERSON, PROJECT MANAGER
715-738-2610
fanderson@chippewacountywi.gov

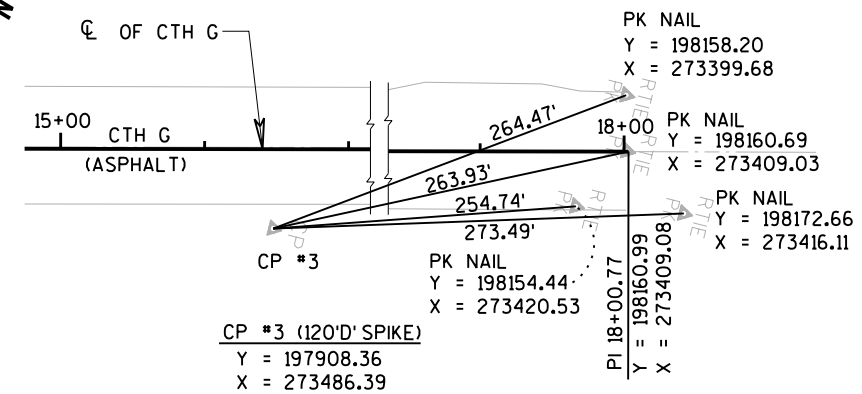
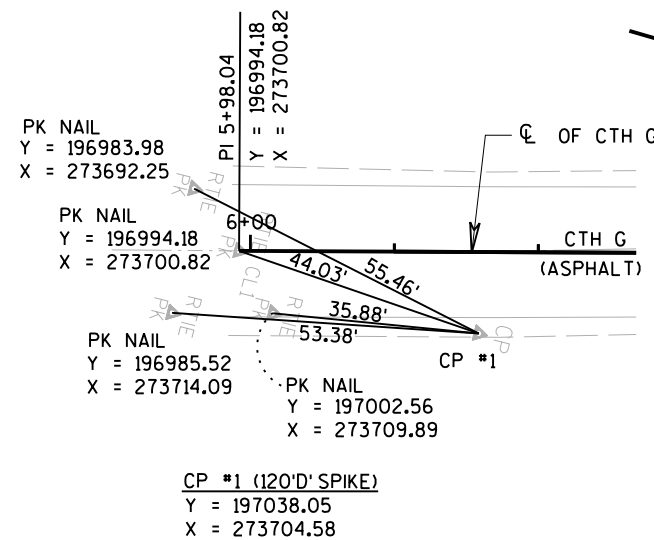
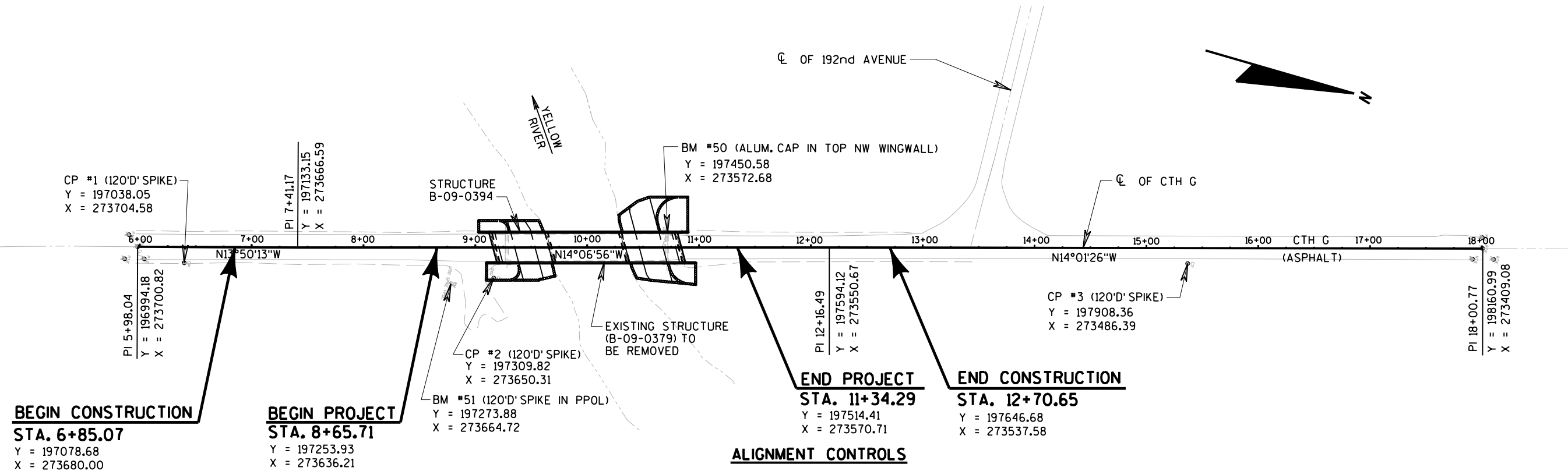
DESIGNER

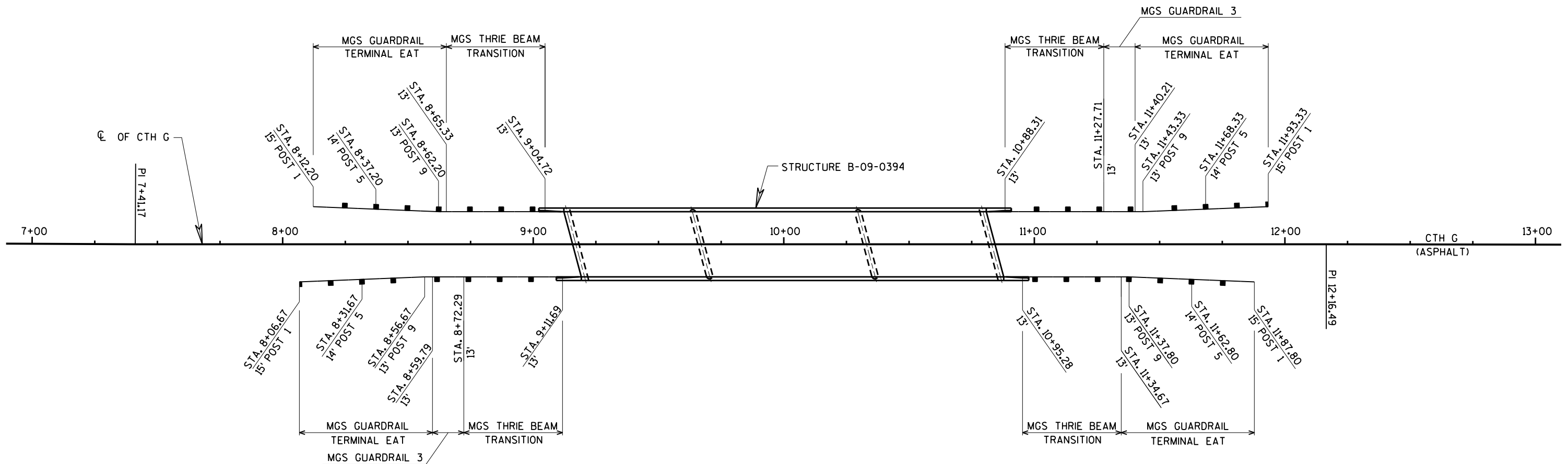
AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: DANIEL SYDOW, PE
715-834-3161
sydowd@ayresassociates.com

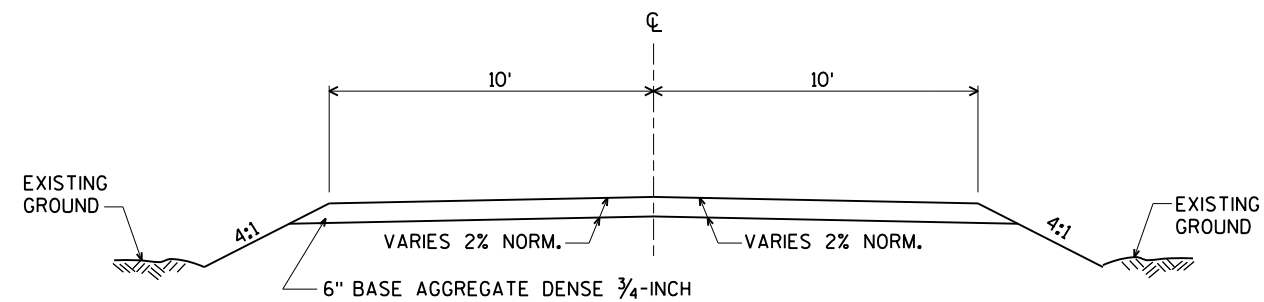
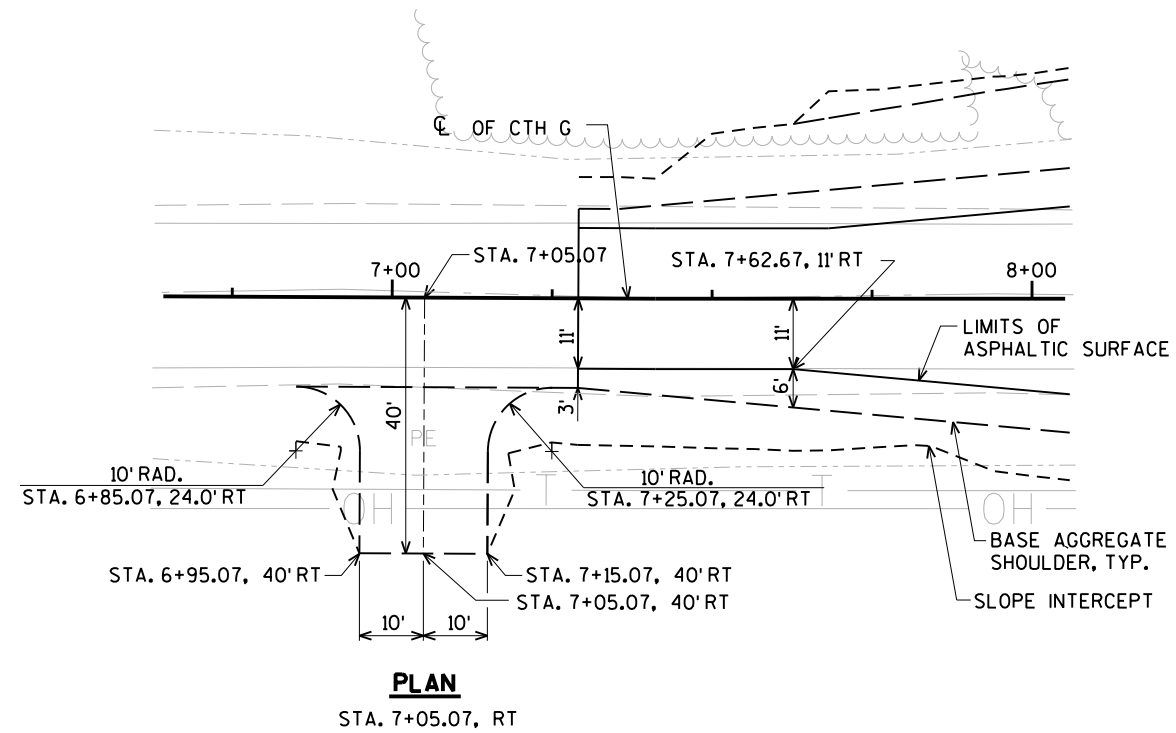
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 1.441 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.777 ACRES



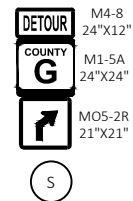
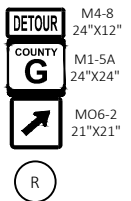
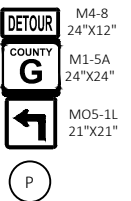
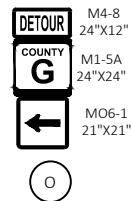
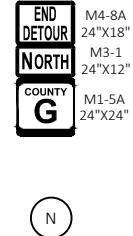
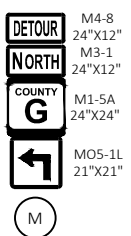
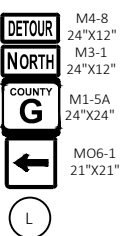
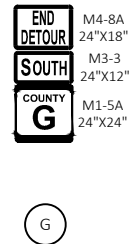
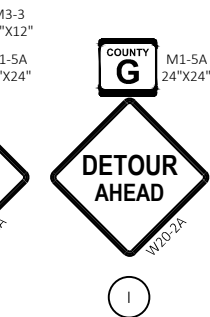
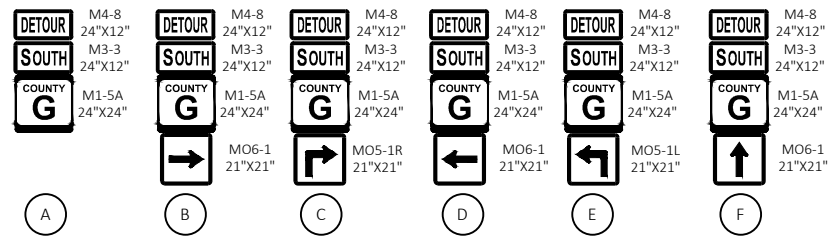
**ALIGNMENT TIES**





TYPICAL CROSS SECTION

PRIVATE ENTRANCE DETAILS



DETOUR NOTES:

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

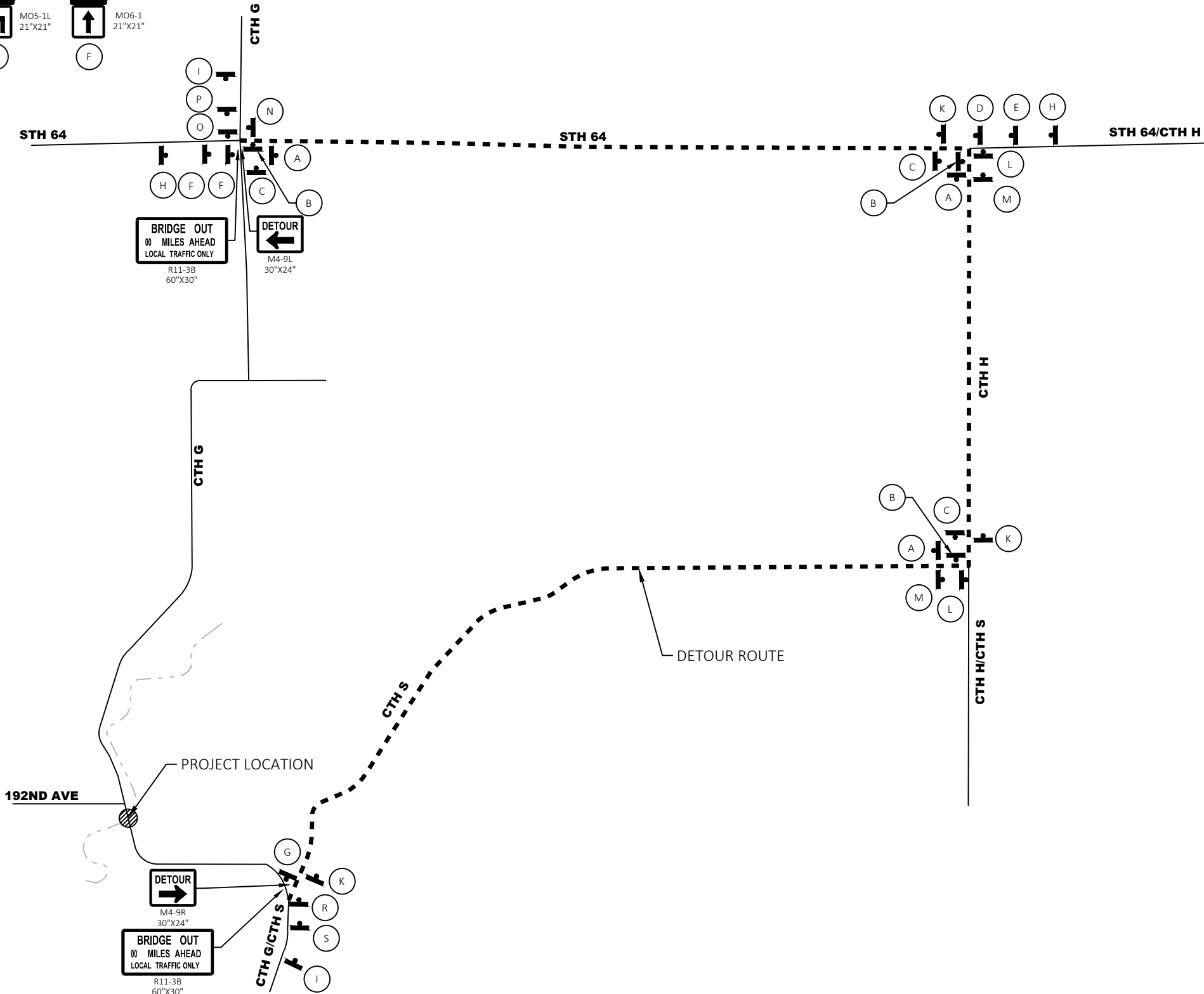
IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.

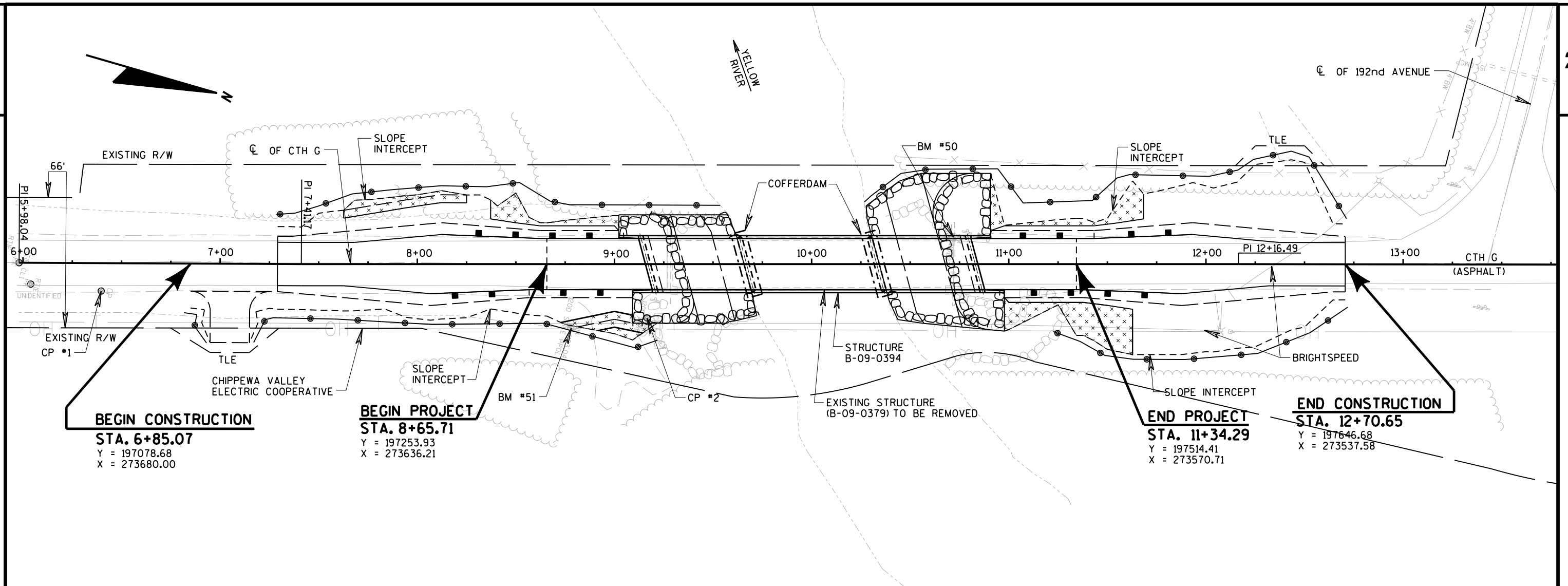
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. THERE IS AN UNDISTRIBUTED AMOUNT IN THE QUANTITIES FOR THESE SIGNS.

ALL SIGNS SHALL BE 48"X48" UNLESS NOTED BY THE ENGINEER.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND SHALL BE ORANGE.

FOR DETAILS NOT SHOWN SEE SDD "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION" SHEETS A AND C, FOR ADDITIONAL INFORMATION.





NOTE:
MULCH TO BE PLACED ON SIDE SLOPES
NOT PROTECTED BY EROSION MAT.

LEGEND

- x x x EROSION MAT CLASS II TYPE C
- SILT FENCE
- COFFERDAM
- o o o o RIPRAP HEAVY

HIGH WATER₂ EL. 1087.00

Estimate Of Quantities

8902-05-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	6.000	6.000
0004	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. B-09-0379	EACH	1.000	1.000
0006	204.0110	Removing Asphaltic Surface	SY	660.000	660.000
0008	205.0100	Excavation Common	CY	275.000	275.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-09-0394	EACH	1.000	1.000
0012	206.5001	Cofferdams (structure) 01. B-09-0394	EACH	1.000	1.000
0014	208.0100	Borrow	CY	200.000	200.000
0016	210.1500	Backfill Structure Type A	TON	250.000	250.000
0018	213.0100	Finishing Roadway (project) 01. 8902-05-70	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	115.000	115.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	415.000	415.000
0024	455.0605	Tack Coat	GAL	76.000	76.000
0026	465.0105	Asphaltic Surface	TON	240.000	240.000
0028	502.0100	Concrete Masonry Bridges	CY	630.000	630.000
0030	502.3200	Protective Surface Treatment	SY	490.000	490.000
0032	502.9000.S	Underwater Substructure Inspection (structure) 01. B-09-0394	EACH	2.000	2.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	9,680.000	9,680.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	75,700.000	75,700.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0040	550.0500	Pile Points	EACH	26.000	26.000
0042	550.1140	Piling Steel HP 14-Inch X 73 Lb	LF	1,250.000	1,250.000
0044	606.0300	Riprap Heavy	CY	605.000	605.000
0046	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0048	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0050	614.2300	MGS Guardrail 3	LF	25.000	25.000
0052	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0054	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0056	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8902-05-70	EACH	1.000	1.000
0058	619.1000	Mobilization	EACH	1.000	1.000
0060	624.0100	Water	MGAL	20.000	20.000
0062	625.0100	Topsoil	SY	1,015.000	1,015.000
0064	627.0200	Mulching	SY	1,280.000	1,280.000
0066	628.1504	Silt Fence	LF	1,145.000	1,145.000
0068	628.1520	Silt Fence Maintenance	LF	2,290.000	2,290.000
0070	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0074	628.2027	Erosion Mat Class II Type C	SY	325.000	325.000
0076	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0078	629.0210	Fertilizer Type B	CWT	1.000	1.000
0080	630.0120	Seeding Mixture No. 20	LB	71.000	71.000
0082	630.0200	Seeding Temporary	LB	43.000	43.000
0084	630.0500	Seed Water	MGAL	36.000	36.000
0086	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0088	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0090	638.2602	Removing Signs Type II	EACH	4.000	4.000
0092	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0094	642.5001	Field Office Type B	EACH	1.000	1.000
0096	643.0420	Traffic Control Barricades Type III	DAY	3,340.000	3,340.000
0098	643.0705	Traffic Control Warning Lights Type A	DAY	5,470.000	5,470.000

Estimate Of Quantities

8902-05-70

Line	Item	Item Description	Unit	Total	Qty
0100	643.0900	Traffic Control Signs	DAY	17,940.000	17,940.000
0102	643.5000	Traffic Control	EACH	1.000	1.000
0104	645.0111	Geotextile Type DF Schedule A	SY	60.000	60.000
0106	645.0120	Geotextile Type HR	SY	950.000	950.000
0108	646.1020	Marking Line Epoxy 4-Inch	LF	2,168.000	2,168.000
0110	650.4500	Construction Staking Subgrade	LF	373.000	373.000
0112	650.5000	Construction Staking Base	LF	373.000	373.000
0114	650.6501	Construction Staking Structure Layout (structure) 01. B-09-0394	EACH	1.000	1.000
0116	650.9911	Construction Staking Supplemental Control (project) 01. 8902-05-70	EACH	1.000	1.000
0118	650.9920	Construction Staking Slope Stakes	LF	373.000	373.000
0120	690.0150	Sawing Asphalt	LF	44.000	44.000
0122	715.0502	Incentive Strength Concrete Structures	DOL	3,780.000	3,780.000
0124	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0126	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0128	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0130	SPV.0060	Special 01. Mussel Relocation	EACH	1.000	1.000
0132	SPV.0195	Special 01. Select Crushed Material For Travel Corridor	TON	135.000	135.000

GRUBBING

				201.0205 GRUBBING STA
STATION	TO	STATION	LOCATION	
7+00	-	13+00	CTH G	6
TOTAL 0010				6

NOTE: CLEARING TREES TO BE DONE BY OTHERS PRIOR TO CONSTRUCTION.

REMOVING ASPHALTIC SURFACE

				204.0110 REMOVING ASPHALTIC SURFACE SY
STATION	TO	STATION	LOCATION	
7+29.09	-	8+65.71	CTH G	345
11+34.29	-	12+70.65	CTH G	315
TOTAL 0010				660

FINISHING ROADWAY

		213.0100.01 FINISHING ROADWAY (PROJECT) (01. TBD)
PROJECT	EACH	
8902-05-70	1	
TOTAL 0010	1	

CTH G EARTHWORK SUMMARY

From/To Station	Location	Excavation Common (1) 205.0100	Salvaged / Unuseable Pavement Material (5)	Unexpanded Fill	Expanded Fill (2)	Mass Ordinate +/- (3)	Waste	Borrow
		Cut			Factor 1.30			
6+85.07 - 9+15.71	CTH L	152	24	46	59	69	69	0
1084.29 - 12+70.65	CTH L	122	21	285	370	-269	0	200
TOTAL		275		331	430	-200		200

- 1) Excavation Common is the Cut. Item number 205.0100.
2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor
3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
4) All quantities shown in CY.
5) Salvaged/unuseable asphalt pavement.

BASE AGGREGATE DENSE

				305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
STATION	TO	STATION	LOCATION		
6+85.07	-	9+15.71	CTH G	45	200
10+84.29	-	12+70.65	CTH G	45	215
		7+05.07	PERT	25	--
TOTAL 0010				115	415

ASPHALTIC SURFACE

				455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
STATION	TO	STATION	LOCATION		
7+29.09	-	9+15.71	CTH G	38	120
10+84.29	-	12+70.65	CTH G	38	120
TOTAL 0010				76	240

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

MGS GUARDRAIL

				614.2300	614.2500	614.2610
				MGS	MGS THRIE BEAM	MGS GUARDRAIL
				GUARDRAIL 3	TRANSITION	TERMINAL EAT
STATION	TO	STATION	LOCATION	LF	LF	EACH
8+06.67	-	9+11.69	RT	12.5	40	1
8+12.2	-	9+04.72	LT	--	40	1
10+88.31	-	11+93.33	LT	12.5	40	1
10+95.28	-	11+87.8	RT	--	40	1
TOTAL 0010				25	160	4

MAINTENANCE AND REPAIR OF HAUL ROADS

		618.0100.01
		MAINTENANCE AND REPAIR OF HAUL
		ROADS (PROJECT) (01. 8902-05-70)
CATEGORY	LOCATION	EACH
0030	PROJECT LIMITS	1
TOTAL 0030		1

MOBILIZATION

		619.1000
		MOBILIZATION
		EACH
LOCATION		
PROJECT LIMITS		1
TOTAL 0010		1

WATER

		624.0100
		WATER
		MGAL
LOCATION		
COMPACTION		8
DUST CONTROL		12
TOTAL 0010		20

EROSION CONTROL ITEMS

				628.1504	628.1520	628.2027	628.7504
				SILT FENCE	SILT FENCE	EROSION MAT	TEMPORARY
				LF	MAINTENANCE	CLASS II TYPE C	DITCH CHECKS
STATION	TO	STATION	LOCATION	LF	LF	SY	LF
6+85.07	-	9+54	CTH G	470	940	110	-
10+26	-	12+70.65	CTH G	445	890	150	-
			UNDISTRIBUTED	230	460	65	50
TOTAL 0010				1,145	2,290	325	50

MOBILIZATIONS EROSION CONTROL

		628.1905	628.1910
		MOBILIZATIONS	MOBILIZATIONS
		EROSION	EMERGENCY
		CONTROL	EROSION
		EACH	CONTROL
LOCATION		EACH	EACH
PROJECT LIMITS		4	4
TOTAL 0010		4	4

RESTORATION ITEMS

				625.0100	627.0200	629.0210	630.0120	630.0200	630.0500
				TOPSOIL	MULCHING	FERTILIZER	SEEDING	SEEDING	
				SY	SY	TYPE B	MIXTURE NO. 20	TEMPORARY	SEED WATER
STATION	TO	STATION	LOCATION	SY	SY	CWT	LB	LB	MGAL
6+85.07	-	9+15.71	CTH G	260	390	0.3	22	13	11
10+84.29	-	12+70.65	CTH G	550	635	0.5	35	21	18
			UNDISTRIBUTED	205	255	0.2	14	9	7
TOTAL 0010				1,015	1,280	1	71	43	36

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

SIGNS TYPE II								
STATION	LOCATION	SIGN CODE	SIGN SIZE (INCHES)	634.0614	637.2230	638.2602	638.3000	REMARKS
				POSTS WOOD	SIGNS TYPE II	REMOVING	REMOVING	
				4X6-INCH	REFLECTIVE F	SIGNS TYPE II	SMALL SIGN	
				X 14-FT	SF	EACH	SUPPORTS	
				EACH			EACH	
9+01	LT	W5-52L	12x36	1	3	1	1	BRIDGE HASH MARKER SIGN
9+08	RT	W5-52R	12x36	1	3	1	1	BRIDGE HASH MARKER SIGN
10+92	LT	W5-52R	12x36	1	3	1	1	BRIDGE HASH MARKER SIGN
10+99	RT	W5-52R	12x36	1	3	1	1	BRIDGE HASH MARKER SIGN
TOTAL 0010				4	12	4	4	

FIELD OFFICE TYPE B	
	642.5001
	FIELD OFFICE
	TYPE B
LOCATION	EACH
PROJECT LIMITS	1
TOTAL 0010	1

TRAFFIC CONTROL									
LOCATION	DURATION DAYS	EACH	643.0420	643.0705	643.0900	643.5000	EACH	EACH	EACH
			TRAFFIC	TRAFFIC	TRAFFIC	TRAFFIC			
			CONTROL	CONTROL	CONTROL	CONTROL			
			BARRICADES	WARNING	SIGNS	SIGNS			
			TYPE III	LIGHTS TYPE A	DAY	DAY			
			DAY	DAY	EACH	EACH			
TRAFFIC CONTROL	130	18	2,340	28	3,640	12	1,560	1	
DETOUR	130	4	520	8	1,040	106	13,780	–	
UNDISTRIBUTED		–	480	–	790	–	2,600	–	
TOTAL 0010			3,340		5,470		17,940	1	

MARKING LINE EPOXY 4-INCH					
STATION	TO	STATION	LOCATION	COLOR/DESCRIPTION	646.1020 MARKING LINE EPOXY 4-INCH LF
7+29.09	-	12+70.65	CTH G	WHITE/EDGE LINE	1,084
7+29.09	-	12+70.65	CTH G	DBL YELLOW/CENTERLINE	1,084
TOTAL 0010					2,168

CONSTRUCTION STAKING						
STATION	TO	STATION	LOCATION	650.4500	650.5000	650.9920
				CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
				STAKING	STAKING BASE	STAKING SLOPE
				SUBGRADE	STAKING BASE	STAKES
				LF	LF	LF
7+29.09	-	9+15.71	CTH G	186	186	186
10+84.29	-	12+70.65	CTH G	187	187	187
TOTAL 0010				373	373	373

CONSTRUCTION STAKING STRUCTURE LAYOUT				
CATEGORY	STATION	LOCATION	650.6501.01	EACH
			CONSTRUCTION STAKING	
			STRUCTURE LAYOUT	
			(STRUCTURE) (01. B-09-0394)	
0020	10+00	CTH G		1
TOTAL 0020				1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

		650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8902-05-70)
PROJECT		EACH
8902-05-70		1
TOTAL 0010		1

SAWING ASPHALT

		690.0150 SAWING ASPHALT
STATION	LOCATION	LF
8+65.71	CTH G	22
11+34.29	CTH G	22
TOTAL 0010		44

INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM

		999.2000.S.01 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. 10+00)
STATION	LOCATION	EACH
10+00	CTH G	1
TOTAL 0010		1

ALL ITEMS ON THIS SHEET
ARE CATEGORY 0010
UNLESS OTHERWISE NOTED

NOTES:

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

THIS TILE IS FOR THE RIGHT TO CONSTRUCT, CUT, AND/OR FILL SLOPES, INCLUDING FOR SUCH PURPOSE THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES DEEM NECESSARY OR DESIRABLE.

R/W PROJECT NUMBER: 8902-05-00

SHEET NUMBER: 1

TILE ACQUISITION EXHIBIT

STH 29 - STH 64

CTH G

YELLOW RIVER BRIDGE B-09-0394

CHIPPEWA COUNTY

PART OF THE SOUTHWEST ¼ OF THE SOUTHEAST ¼ AND PART OF THE SOUTHEAST ¼ OF THE SOUTHWEST ¼ OF SECTION 33, T31N, R05W, TOWN OF COLBURN, CHIPPEWA COUNTY, WISCONSIN

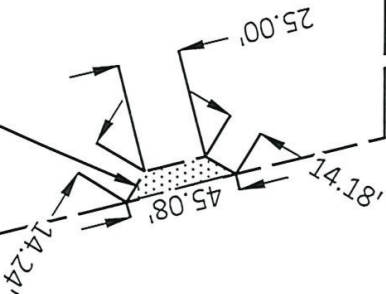
192ND AVE



SCALE, FEET



TILE
1
352 SF



23105-3334-00000000

SE-SW

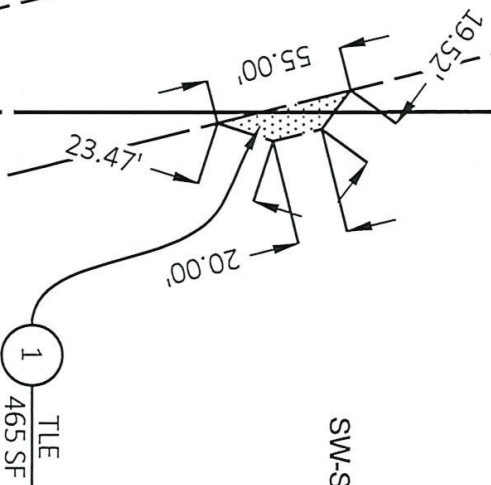
TILE ACQUISITION AREAS ARE LOCATED APPROXIMATELY 272 FEET WEST AND ALONG THE QUARTER LINE BETWEEN THE SW QUARTER AND THE SE QUARTER OF SEC 33-T31N-R05W

CTH G

EXISTING R/W
QUARTER LINE

23105-3343-02000000

SW-SE



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 CHIPPEWA COUNTY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TILE S.F.
1	ROBERT J. TICHANSKY II	TILE	817

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR CHIPPEWA COUNTY.

SIGNATURE:

Brian Kelley

DATE:

7-15-23

PRINT NAME:

FILE NAME : 89020500_TILE.DWG

PLOT DATE :

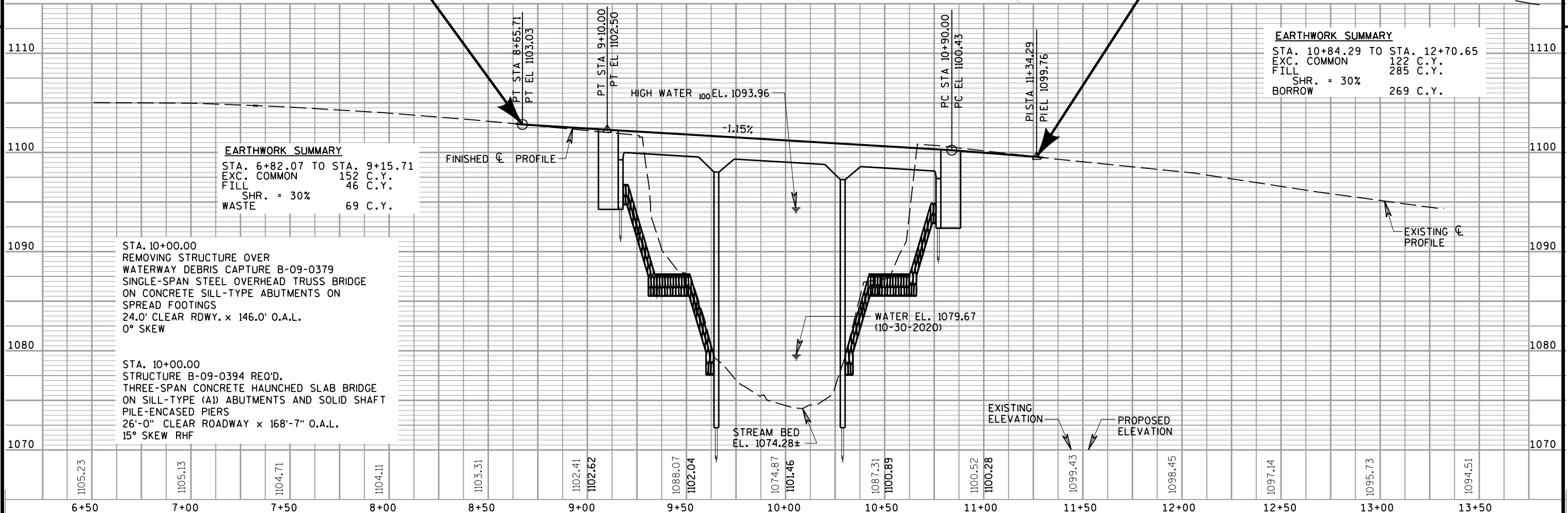
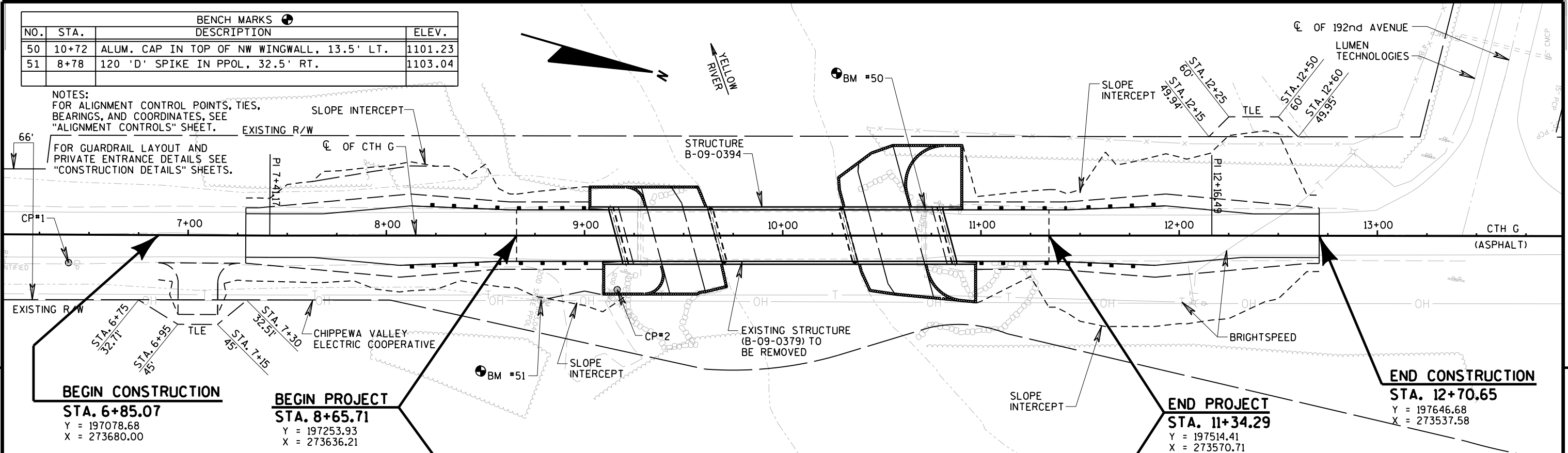
5/4/2023 9:11 AM

R/W PROJECT: 8902-05-00

BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
50	10+72	ALUM. CAP IN TOP OF NW WINGWALL, 13.5' LT.	1101.23
51	8+78	120 'D' SPIKE IN PPOL, 32.5' RT.	1103.04

NOTES:
FOR ALIGNMENT CONTROL POINTS, TIES,
BEARINGS, AND COORDINATES, SEE
"ALIGNMENT CONTROLS" SHEET.

FOR GUARDRAIL LAYOUT AND
PRIVATE ENTRANCE DETAILS SEE
"CONSTRUCTION DETAILS" SHEETS.



EARTHWORK SUMMARY	
STA. 6+82.07 TO STA. 9+15.71	
EXC. COMMON	152 C.Y.
FILL	46 C.Y.
SHR. = 30%	
WASTE	69 C.Y.

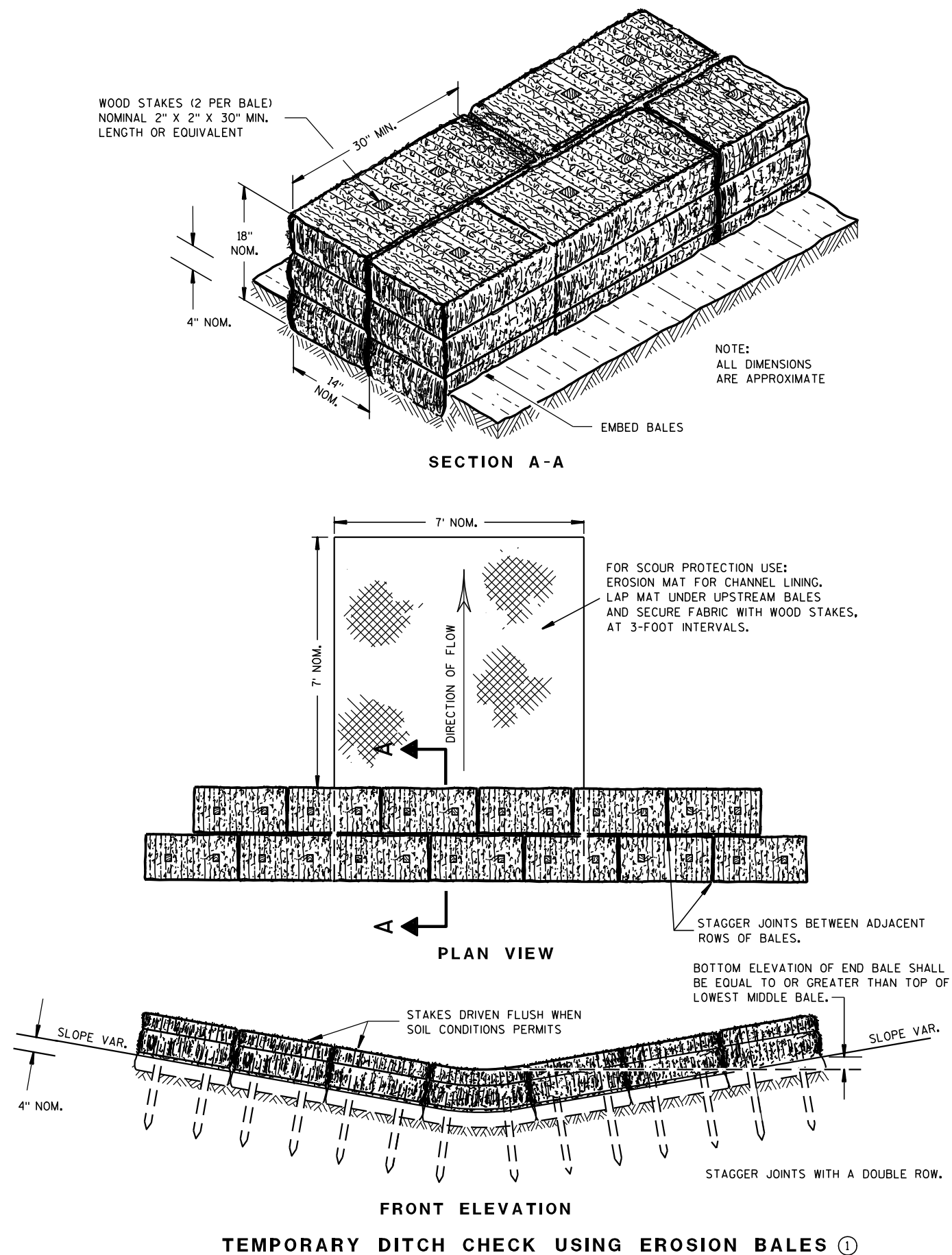
EARTHWORK SUMMARY	
STA. 10+84.29 TO STA. 12+70.65	
EXC. COMMON	122 C.Y.
FILL	285 C.Y.
SHR. = 30%	
BORROW	269 C.Y.

STA. 10+00.00
REMOVING STRUCTURE OVER
WATERWAY DEBRIS CAPTURE B-09-0379
SINGLE-SPAN STEEL OVERHEAD TRUSS BRIDGE
ON CONCRETE SILL-TYPE ABUTMENTS ON
SPREAD FOOTINGS
24'-0" CLEAR RDWY. x 146'-0" O.A.L.
0° SKEW

STA. 10+00.00
STRUCTURE B-09-0394 REQ'D.
THREE-SPAN CONCRETE HAUNCHED SLAB BRIDGE
ON SILL-TYPE (A) ABUTMENTS AND SOLID SHAFT
PILE-ENCASED PIERS
26'-0" CLEAR ROADWAY x 168'-7" O.A.L.
15° SKEW RHF

Standard Detail Drawing List

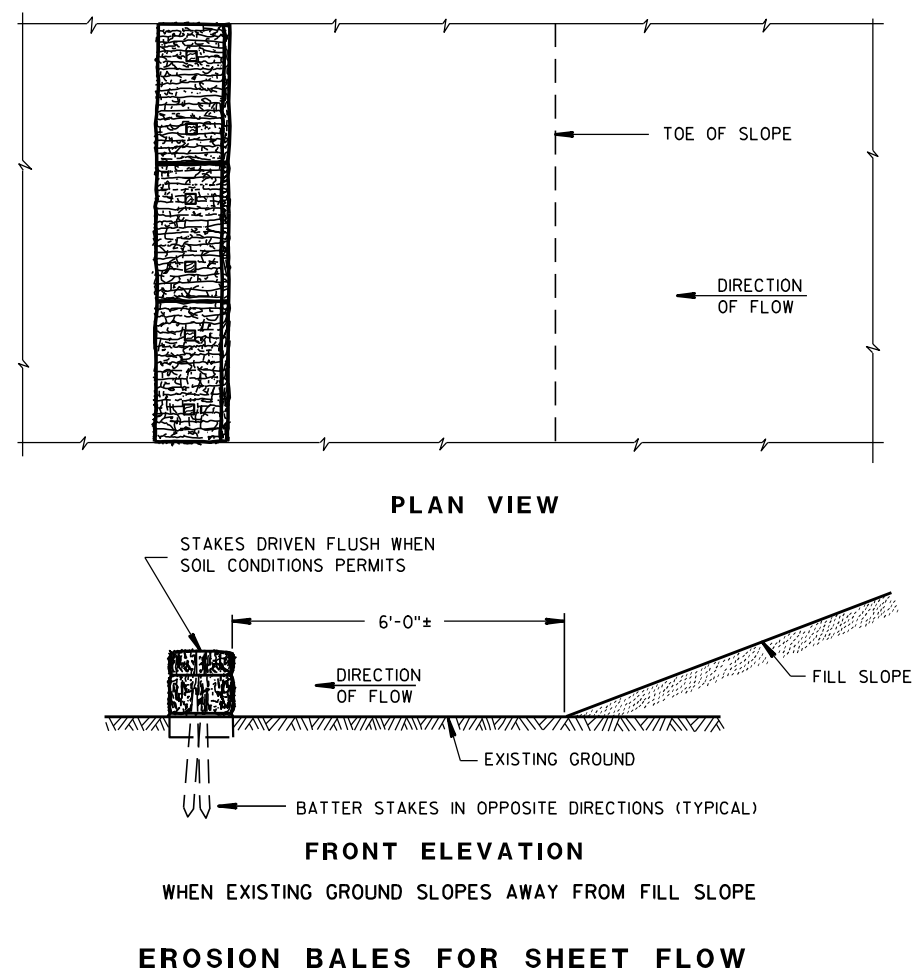
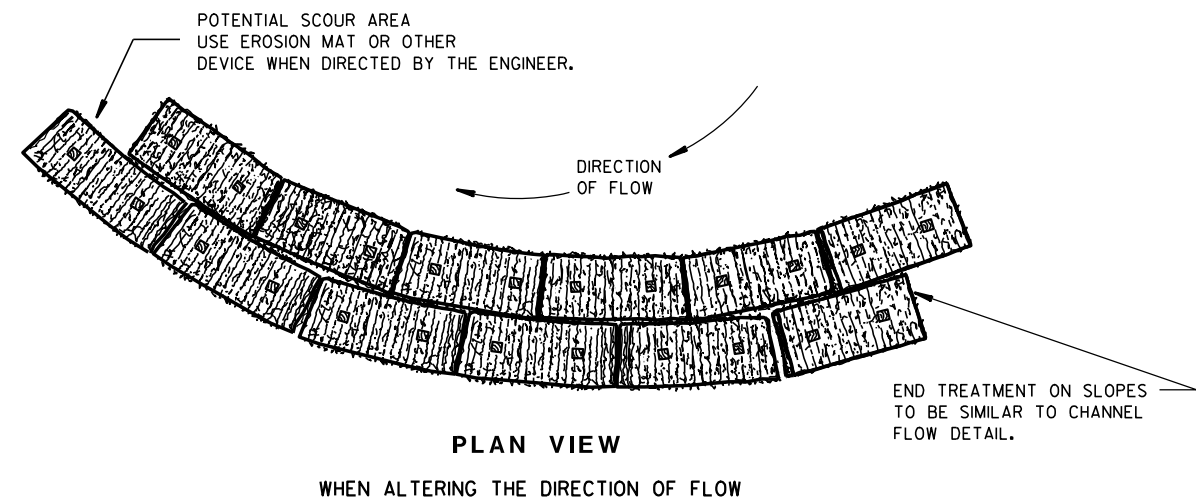
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) 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)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

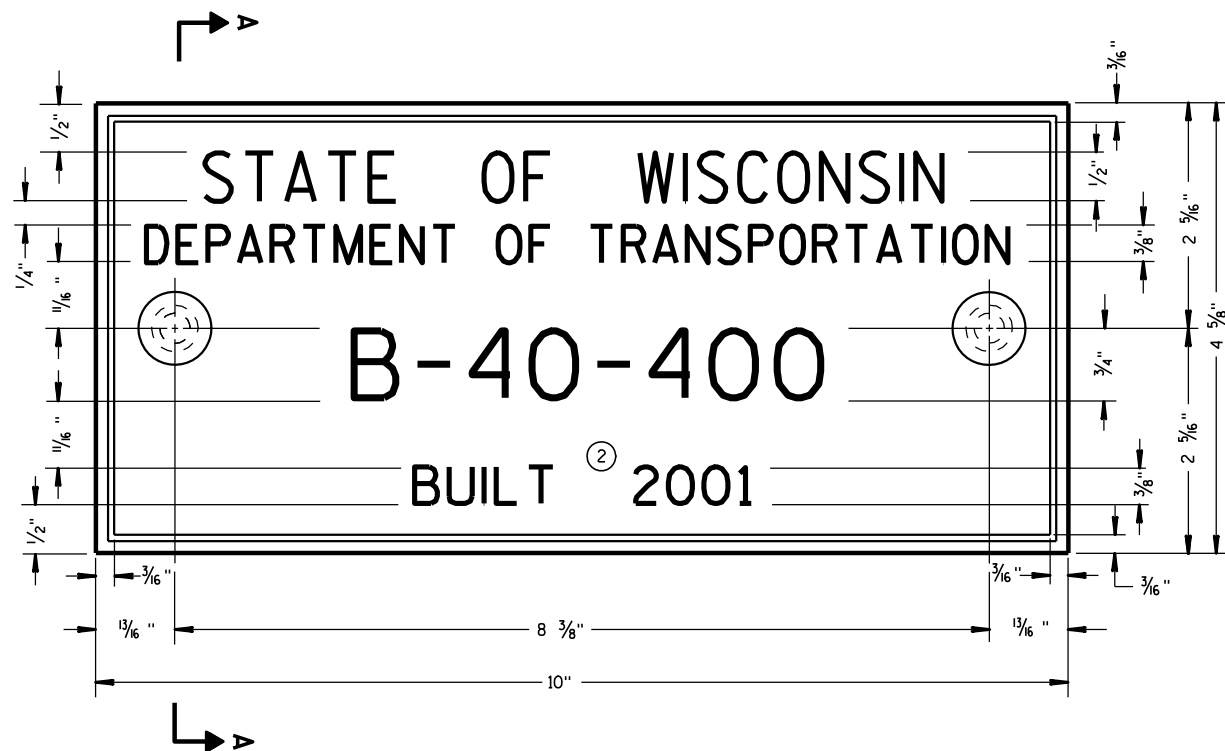
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



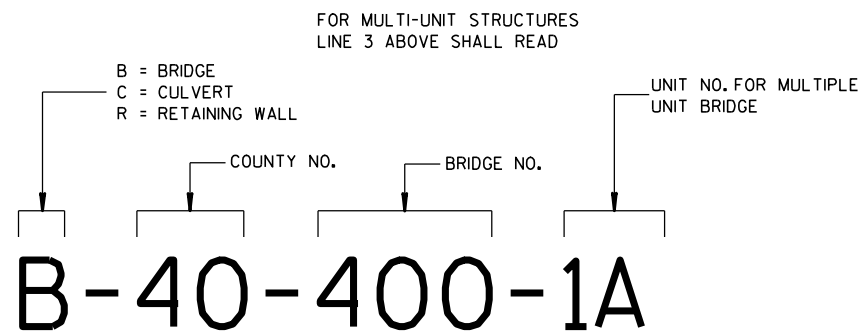
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/s/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER



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



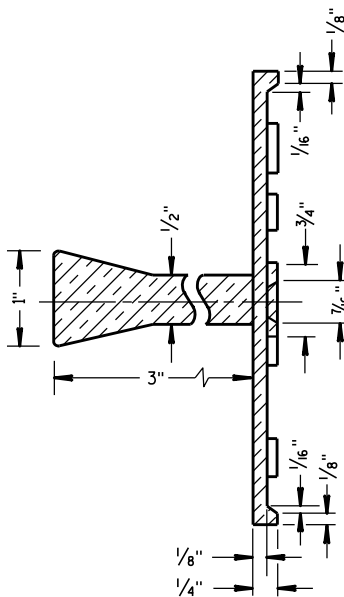
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

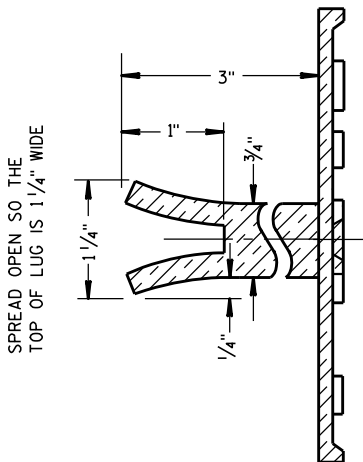
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

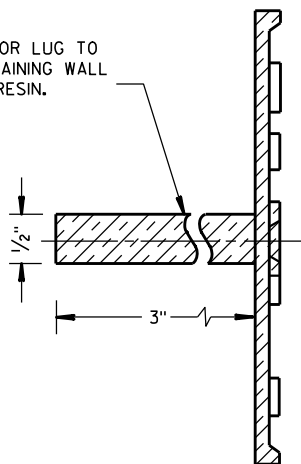


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

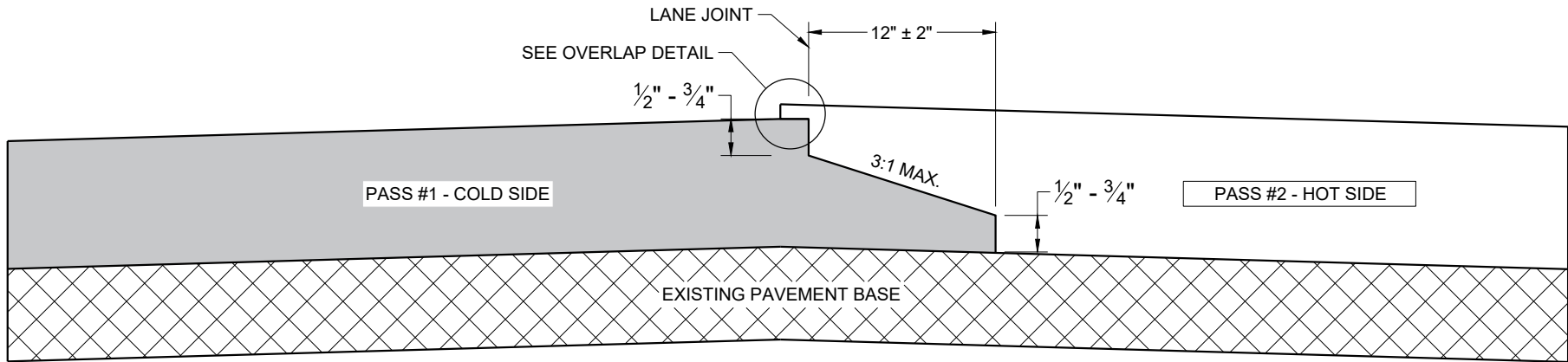


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

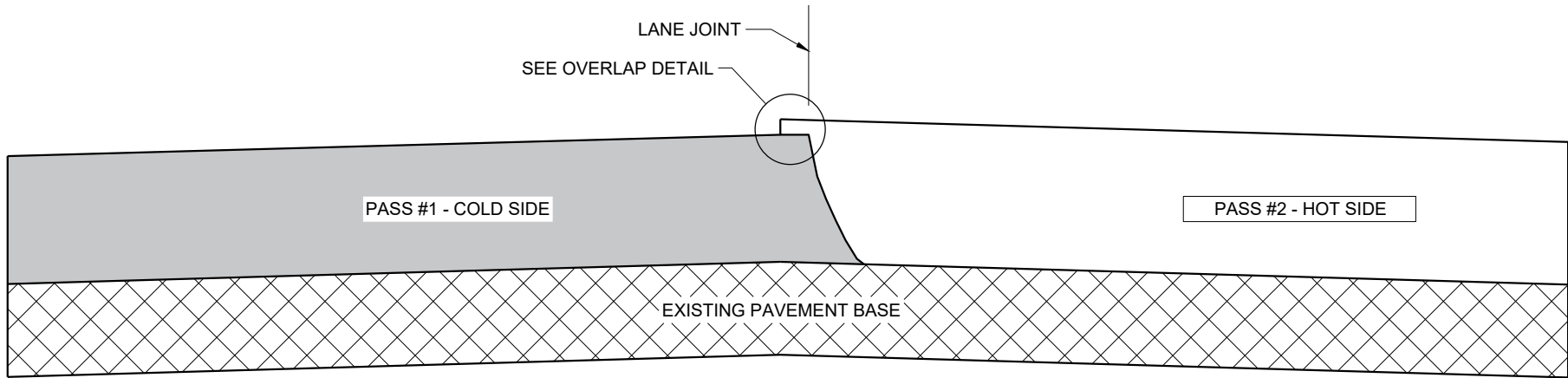
**NAME PLATE
(STRUCTURES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

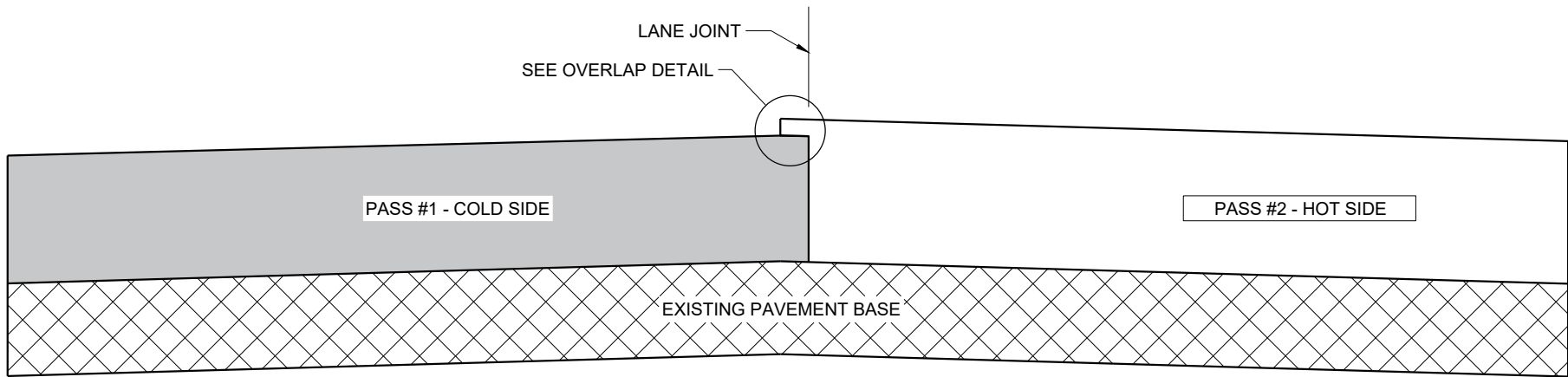
APPROVED
3/26/10
DATE
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

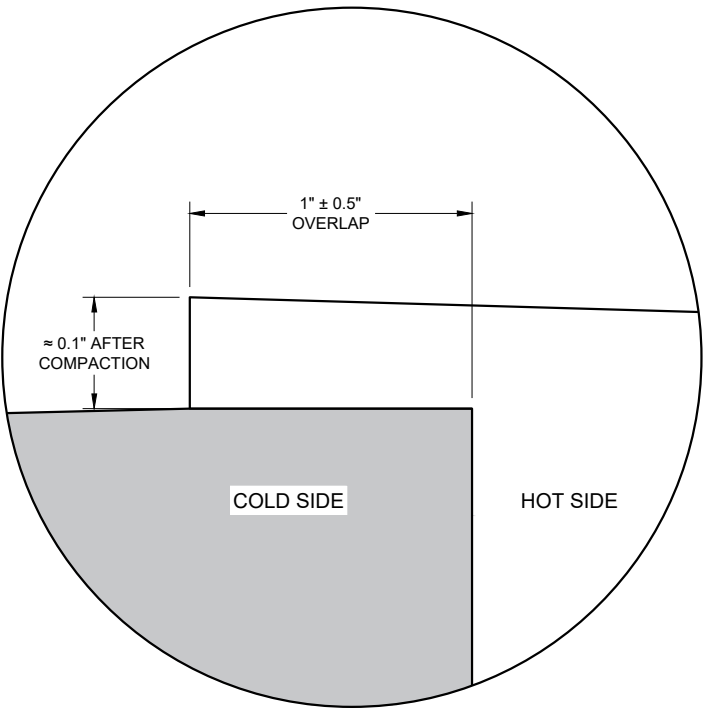
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ 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.



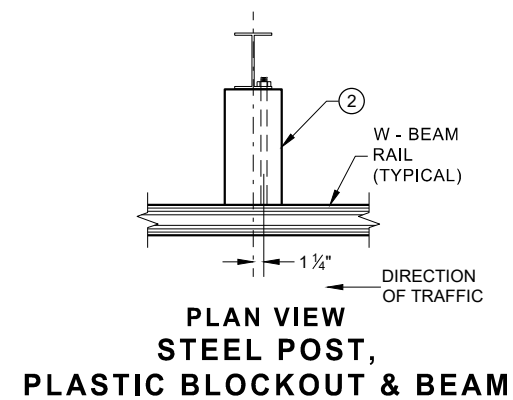
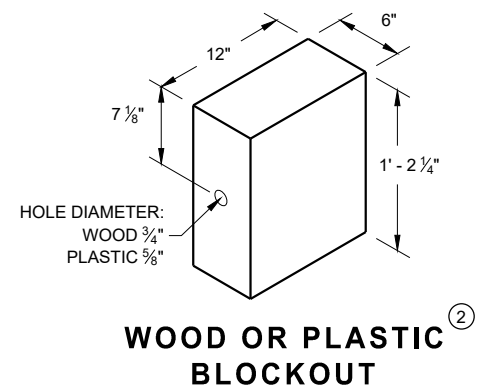
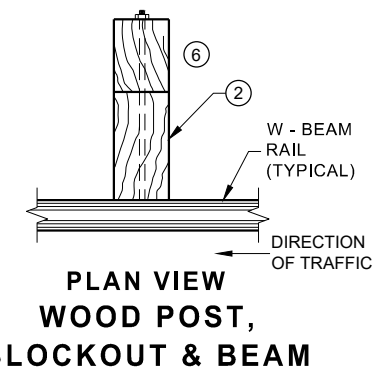
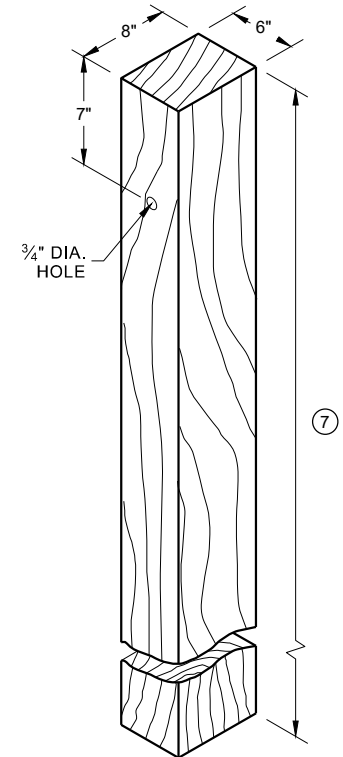
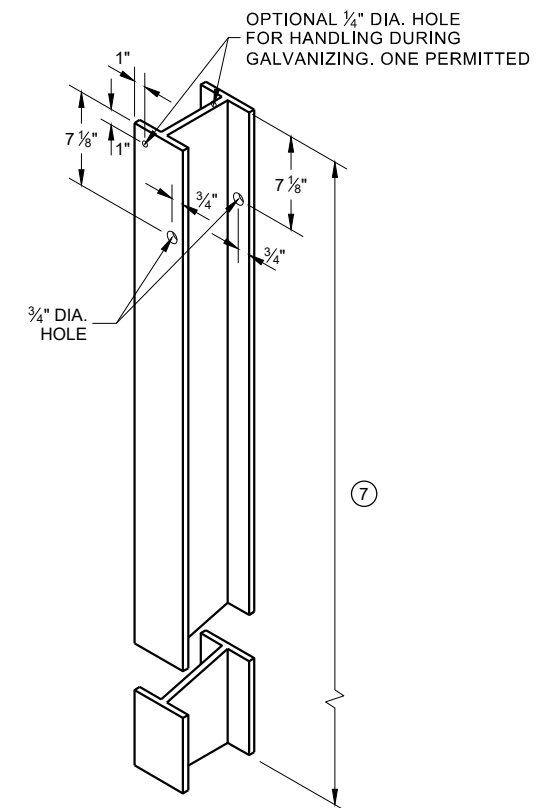
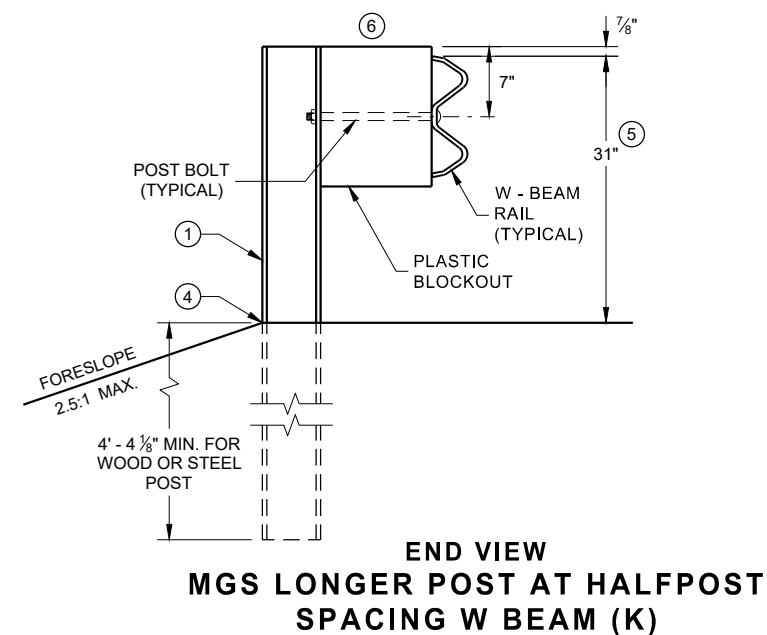
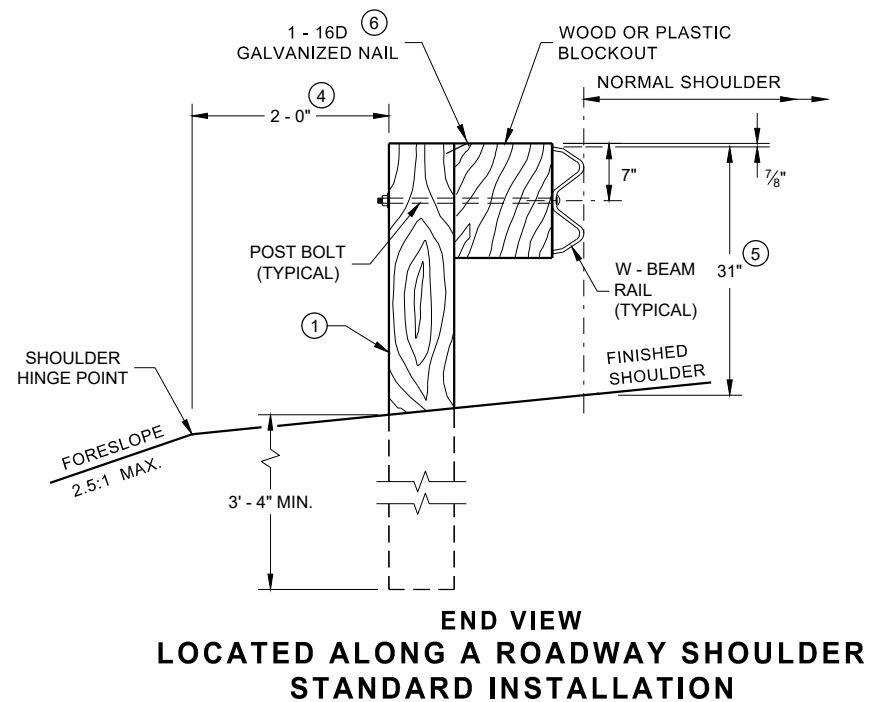
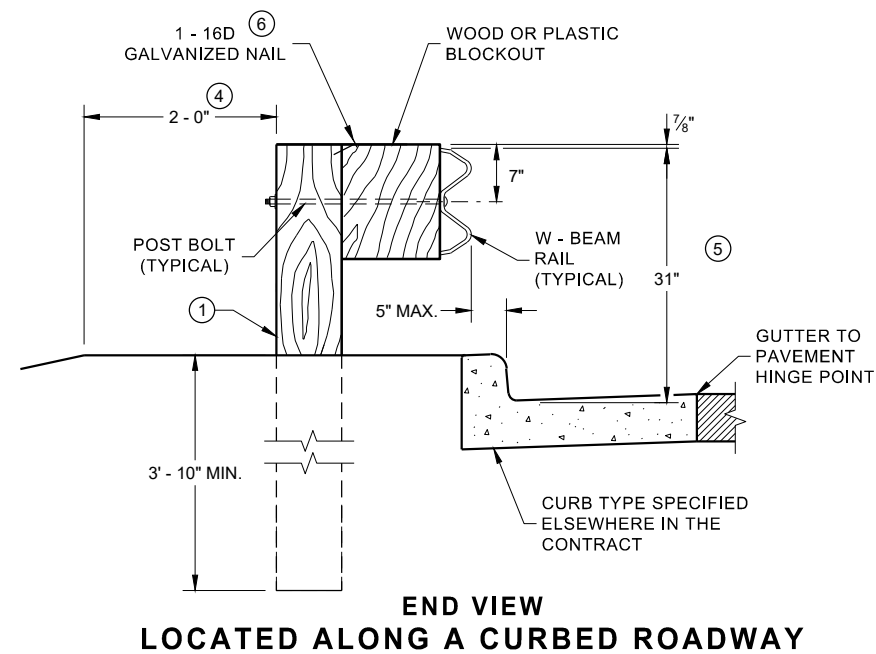
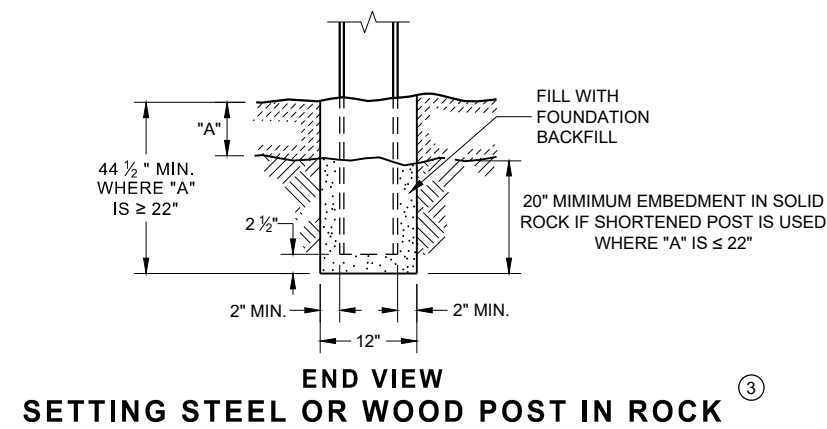
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

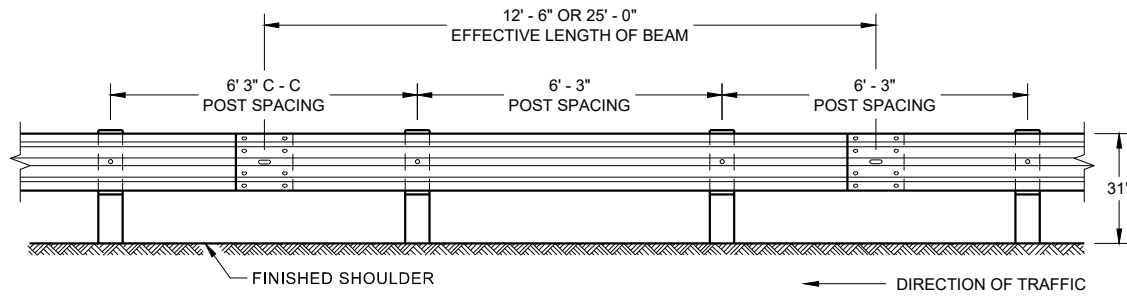
APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER
FHWA

- 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 TO LENGTH AND 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 $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" 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".

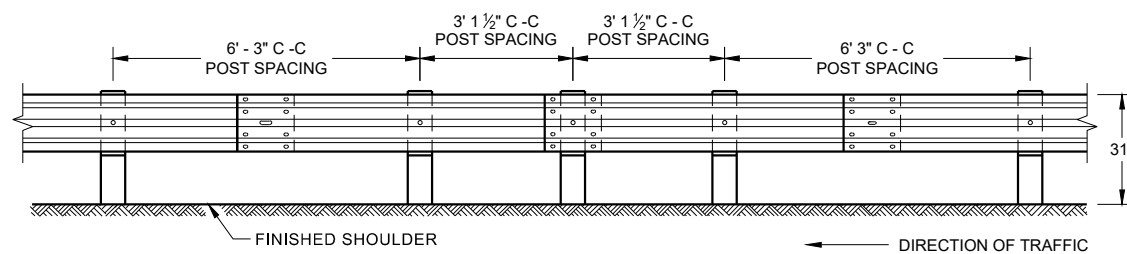


**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

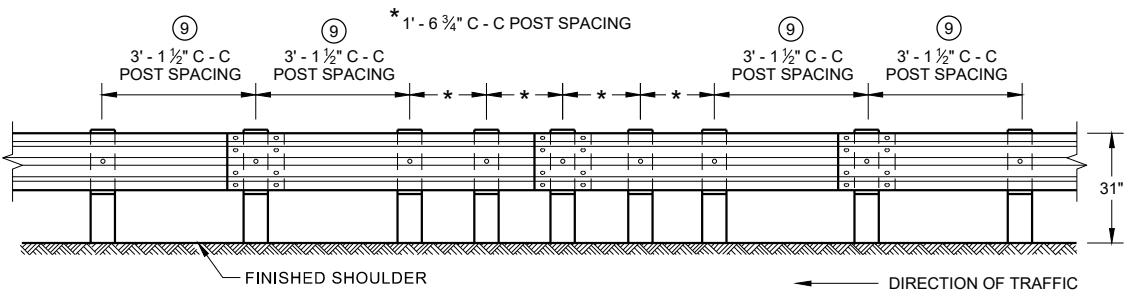
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



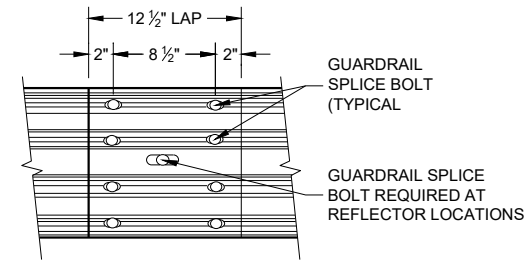
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



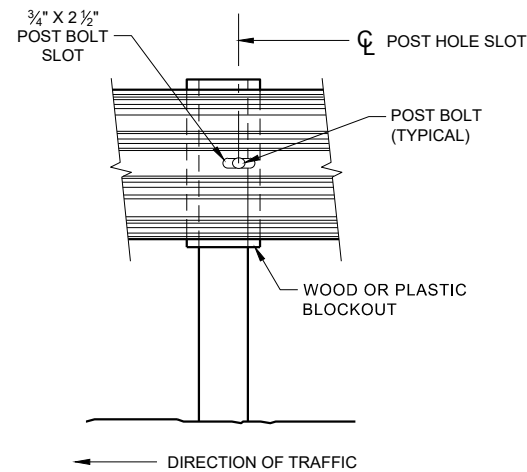
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



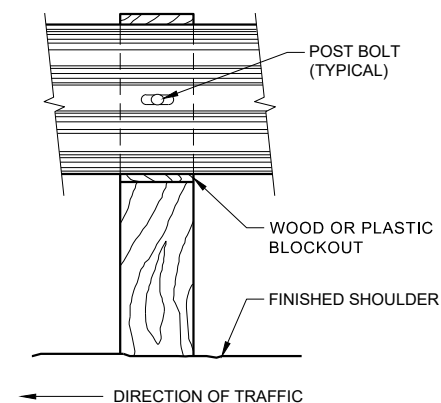
**FRONT VIEW
QUARTER POST SPACING (QS)**



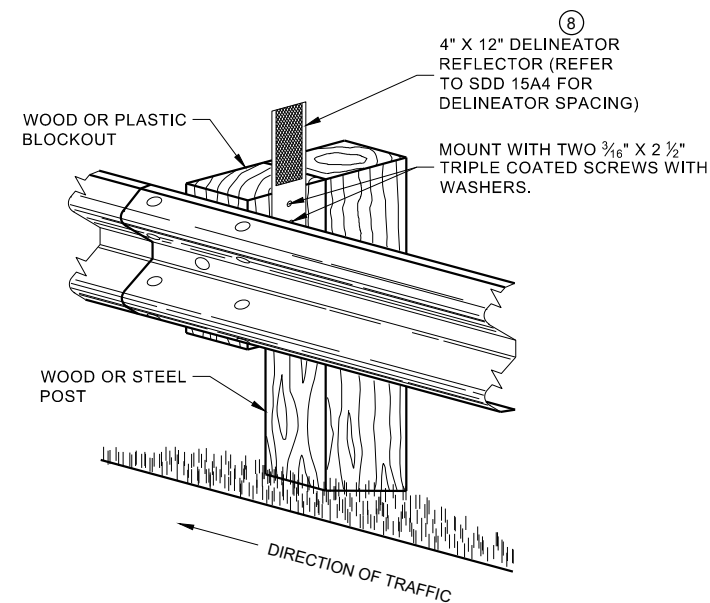
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



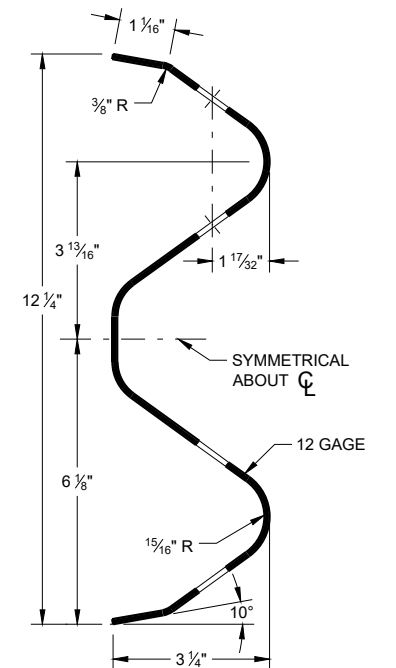
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

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 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

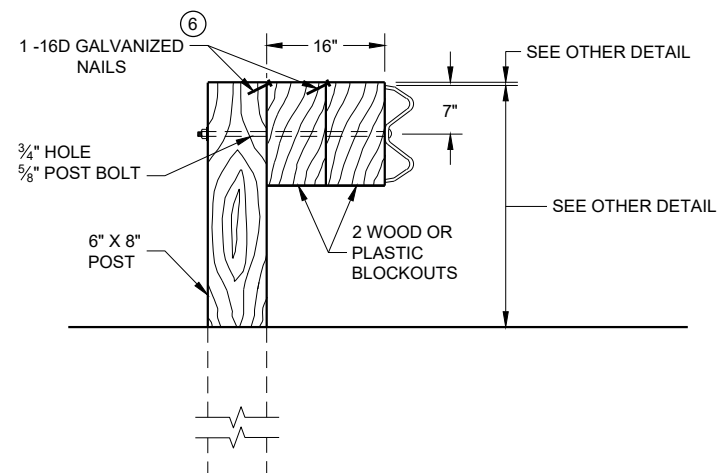
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

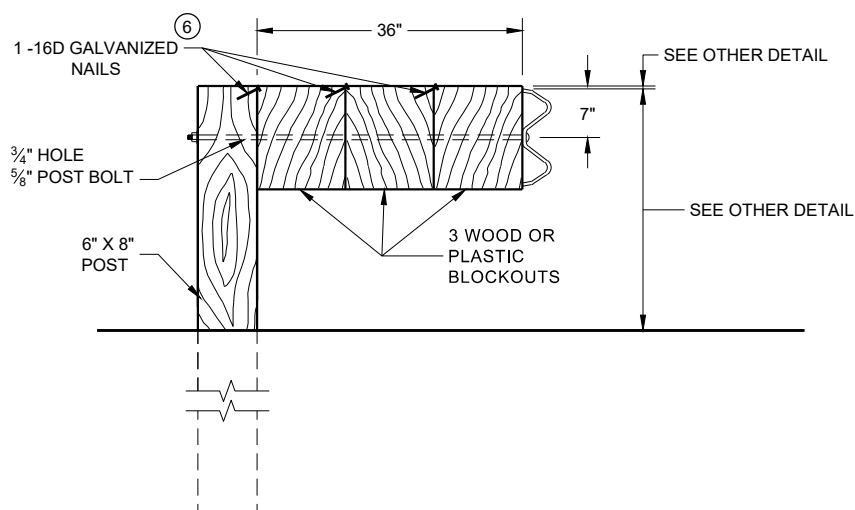
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

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



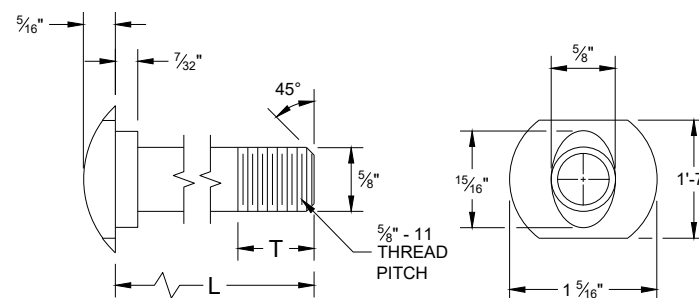
DETAIL FOR 36" BLOCKOUT DEPTH

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

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

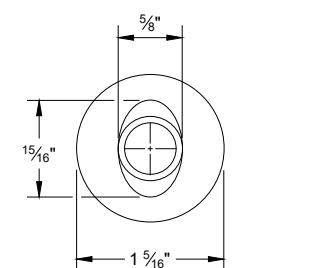
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
2. IF THE BOLT EXTENDS MORE THAN $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

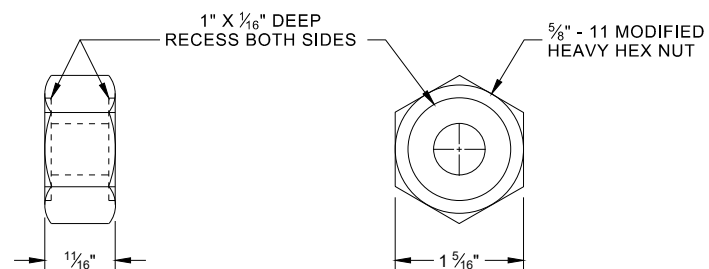


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ⅝"
2"	1 ¾"
10"	4"
14"	4 ⅙"
18"	4"
21"	4 ⅙"
25"	4"

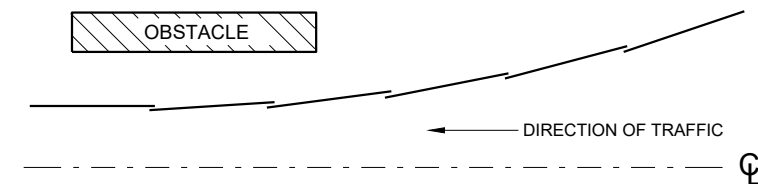


ALTERNATE BOLT HEAD

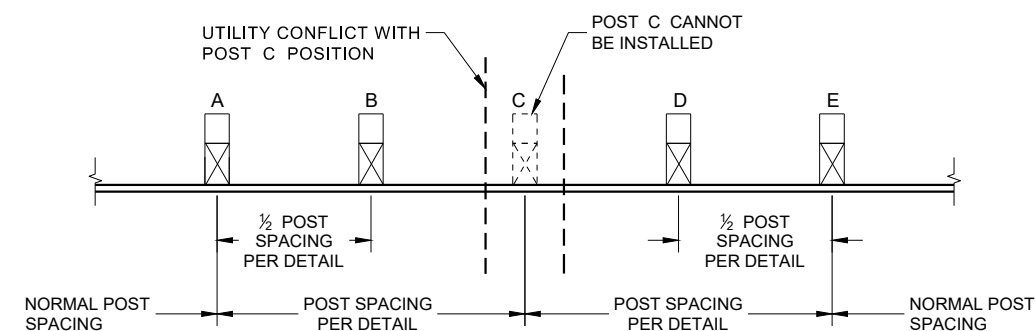


POST BOLT, SPLICE BOLT AND RECESS NUT

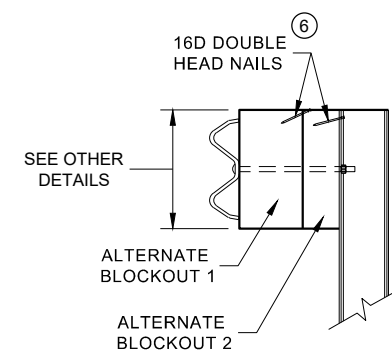
⑥ WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



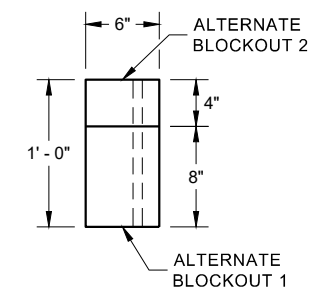
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

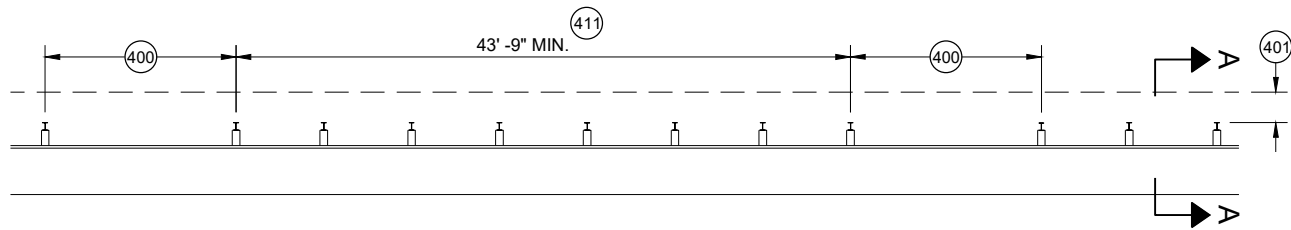


PLAN VIEW

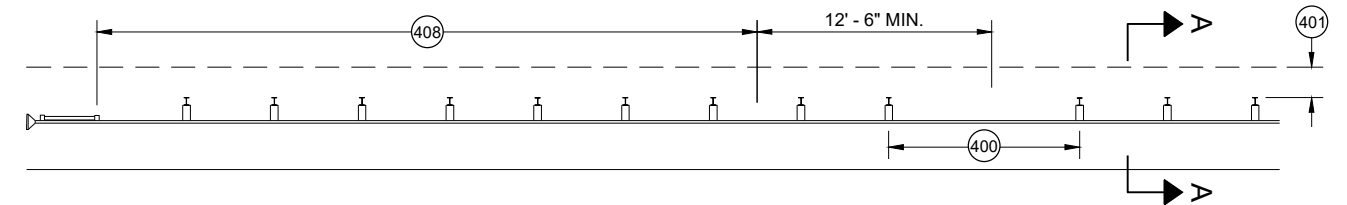
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

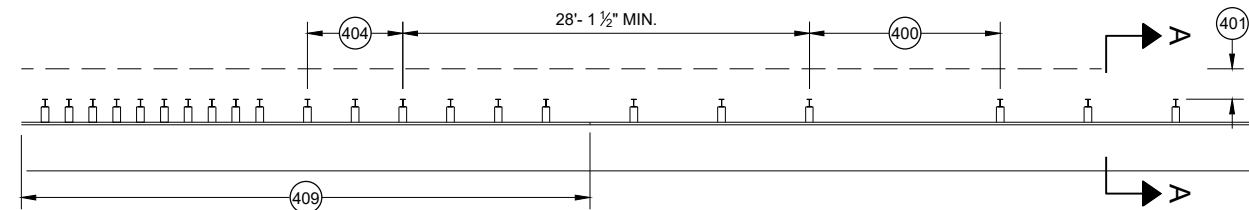
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



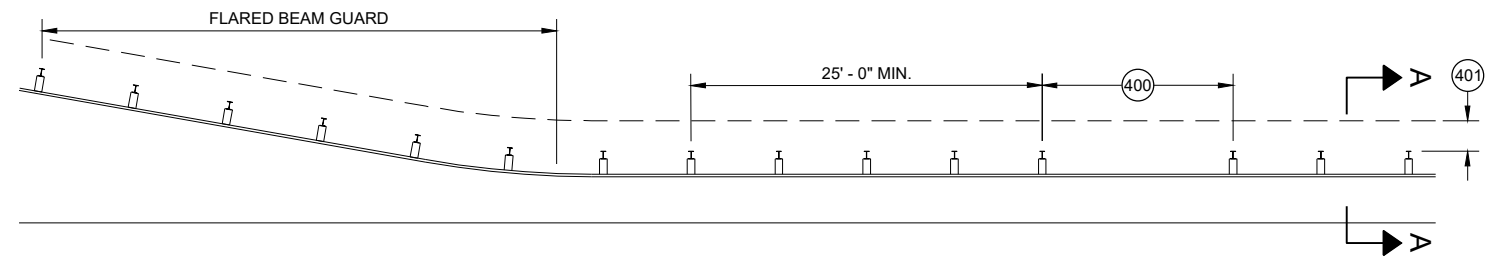
MISSING POST IN MGS GUARDRAIL



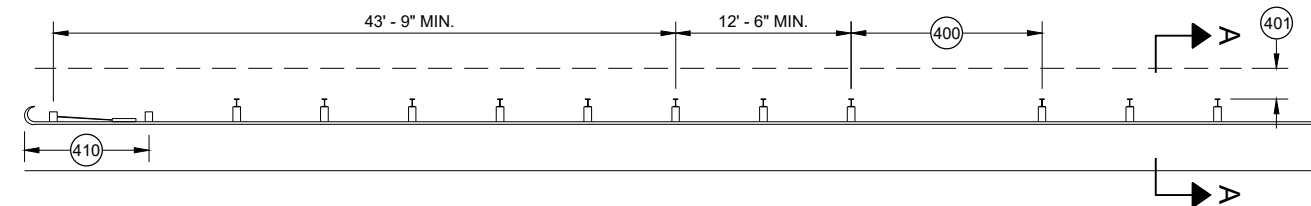
MISSING POST IN MGS GUARDRAIL NEAR EAT



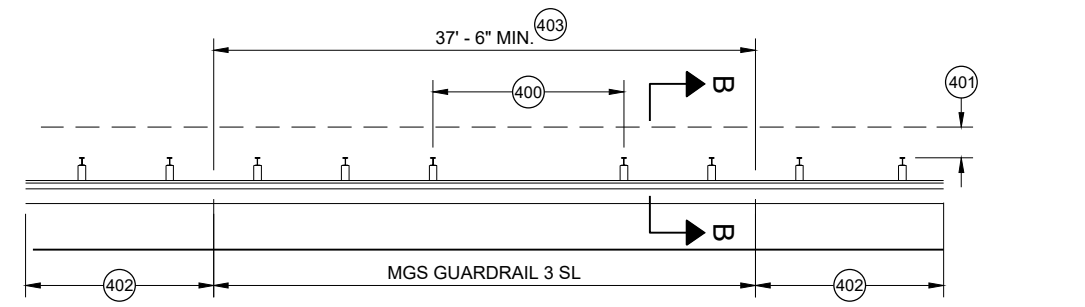
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

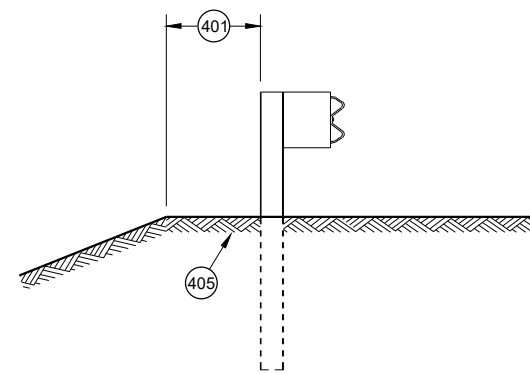


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

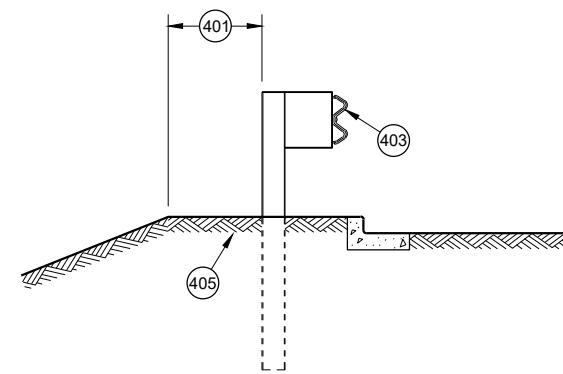


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- (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



SECTION B - B

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA

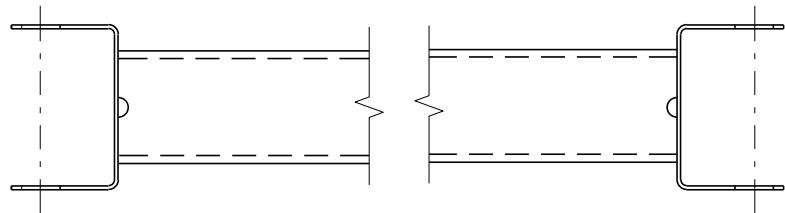
- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. 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.

THE CENTER OF THE UPPER 3½" 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.

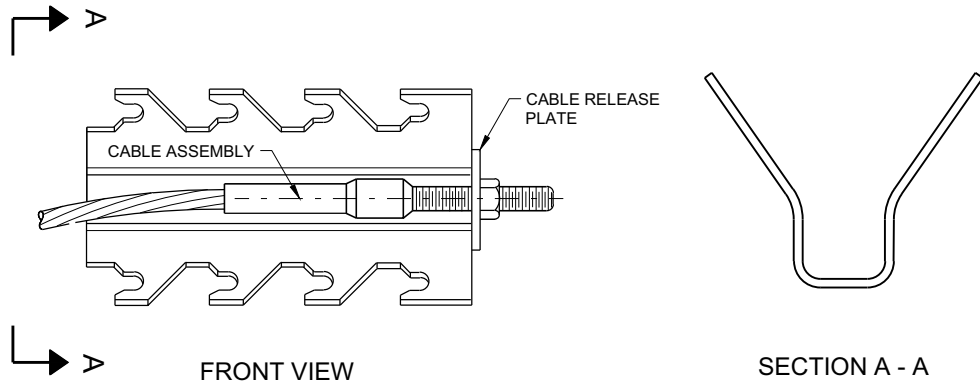


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

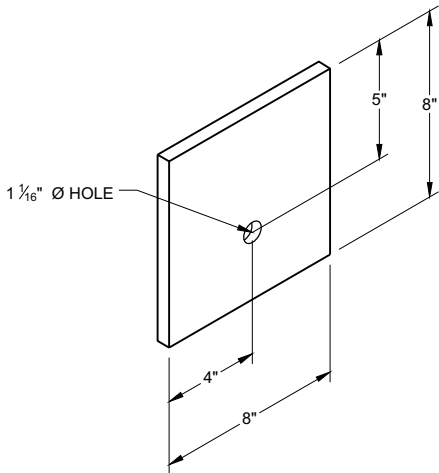


GENERIC GROUND STRUT 9 E

BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'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



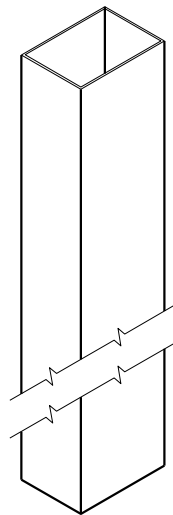
GENERIC ANCHOR CABLE BOX 9 E



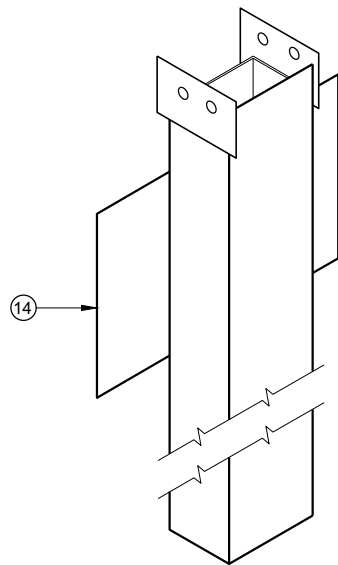
BEARING PLATE 6 E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

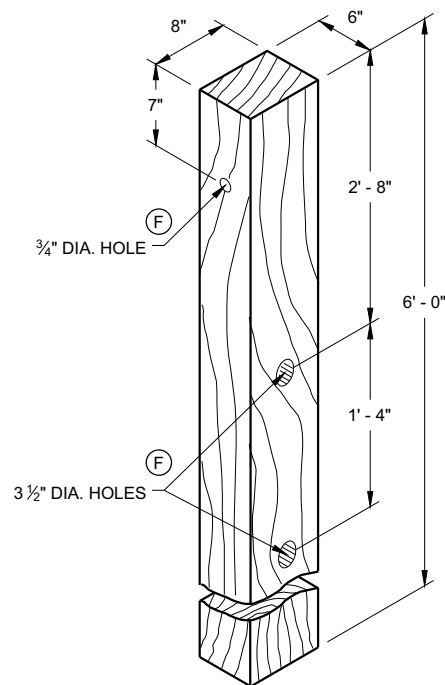
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



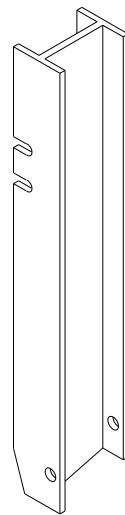
UPPER POST NO. 1 ⁽¹⁾ (E)



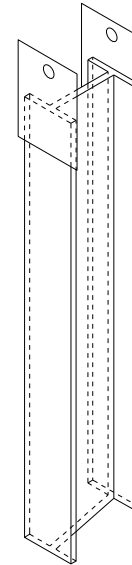
LOWER POST NO. 1 ⁽²⁾ (E)



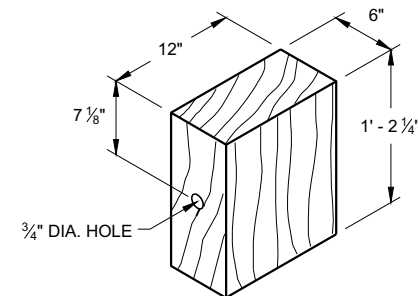
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



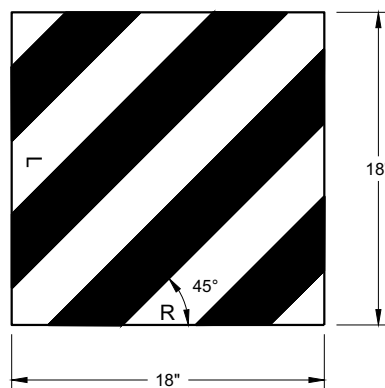
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



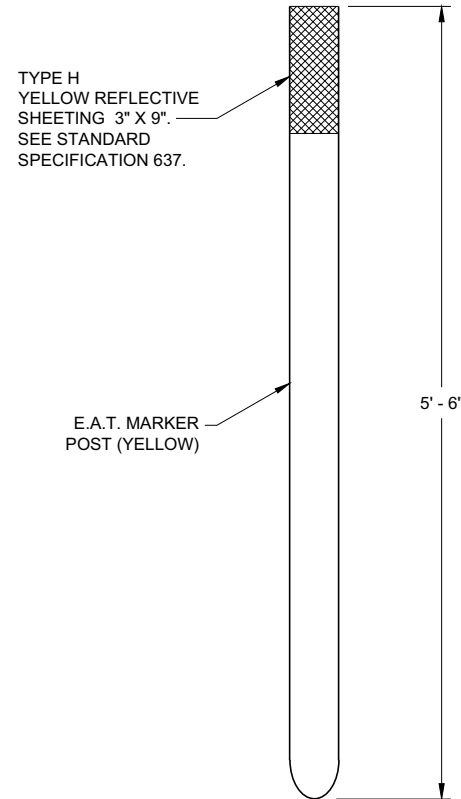
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



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



REFLECTIVE SHEETING DETAIL ^(E)

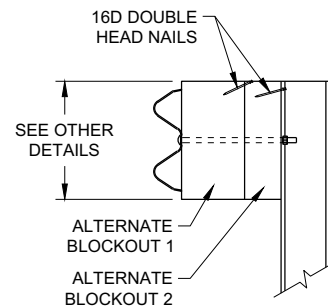


FRONT VIEW

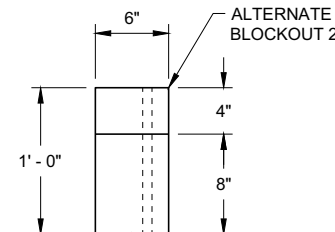


SIDE VIEW

E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



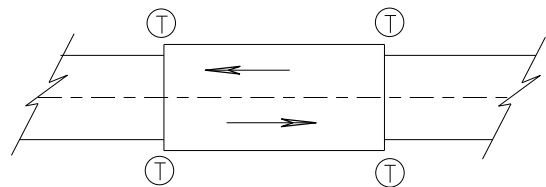
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

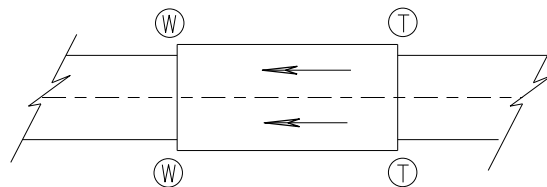
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

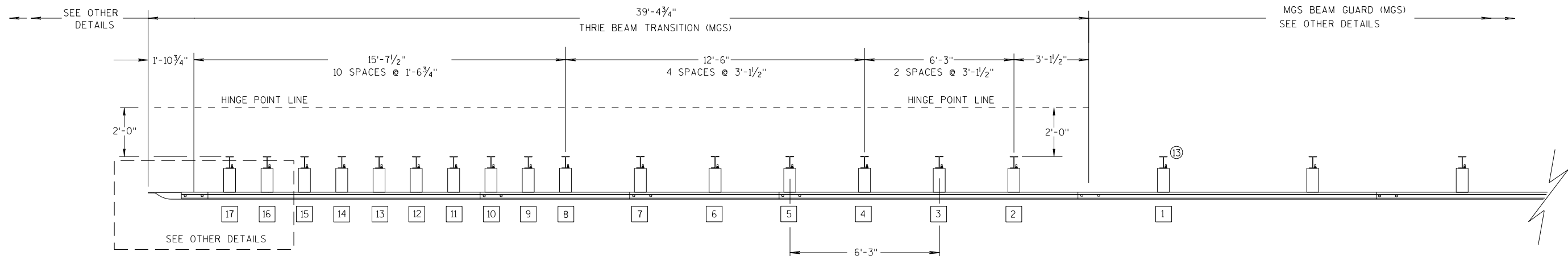
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

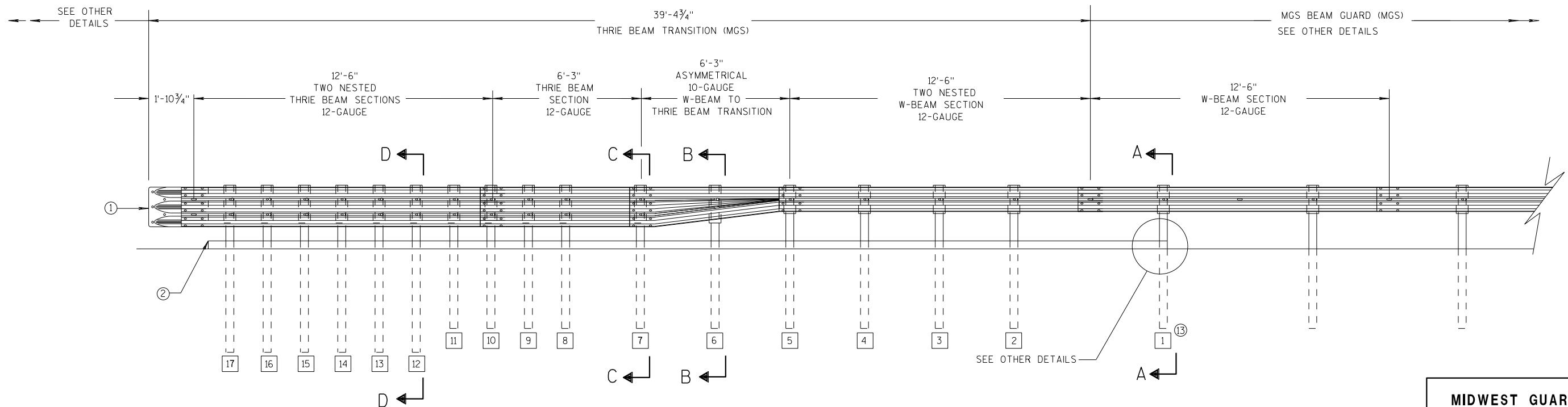
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

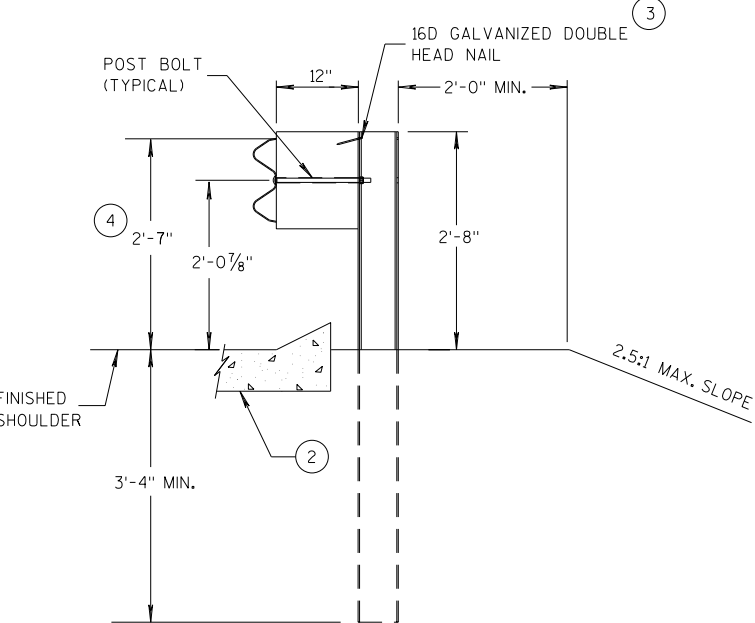
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

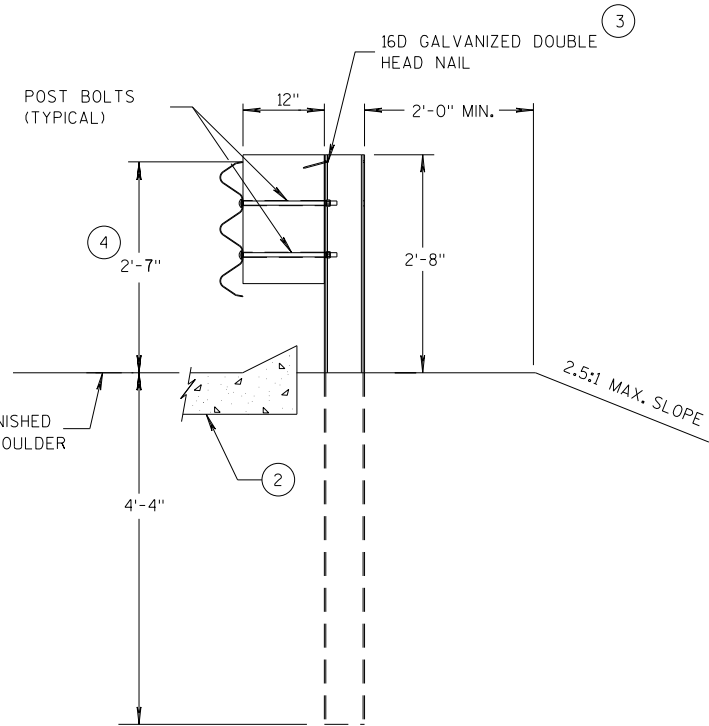
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

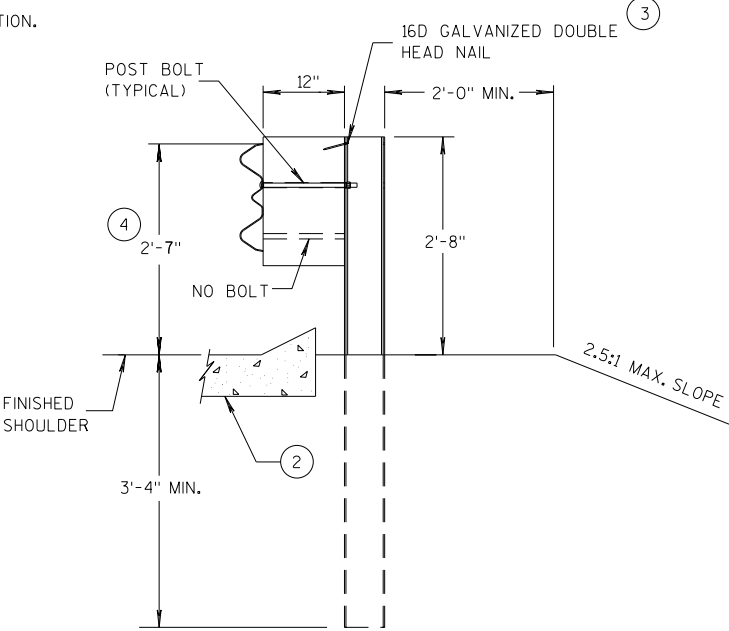
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.
- 13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



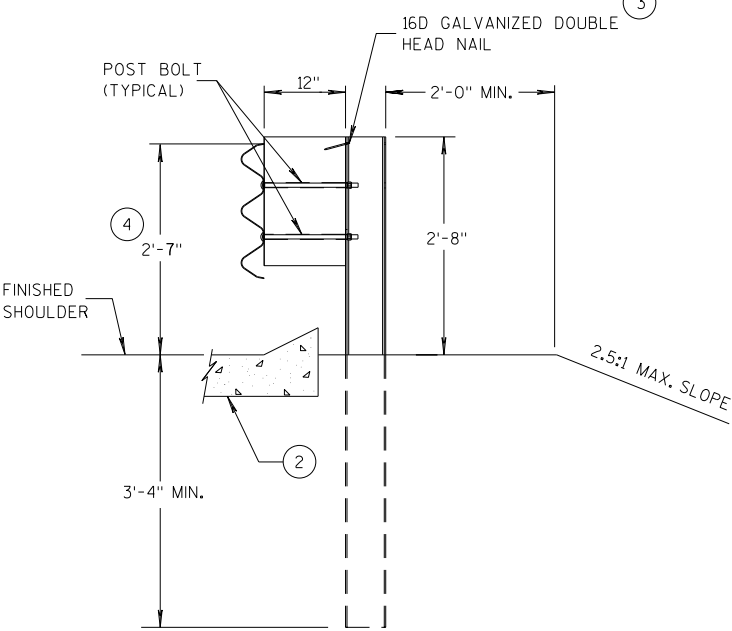
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

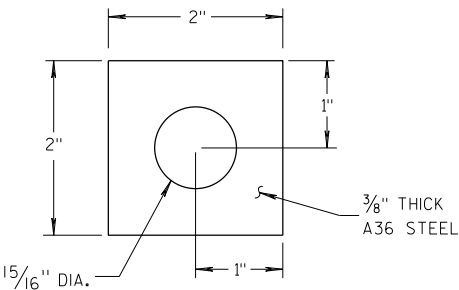
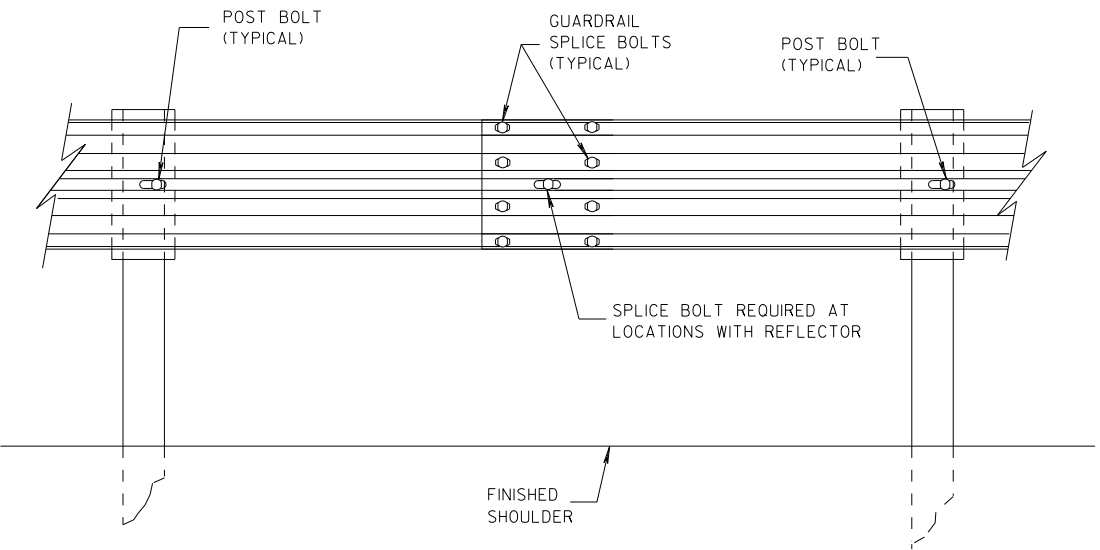
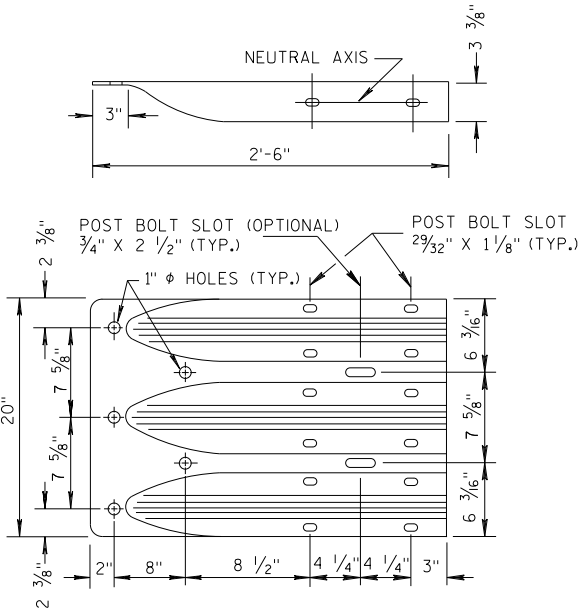


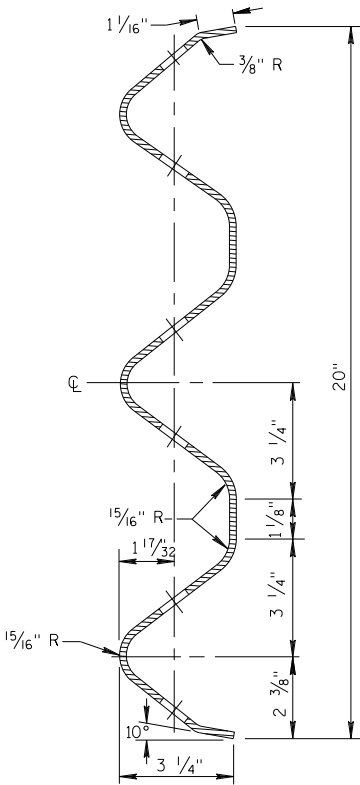
PLATE WASHER DETAIL



SPLICE DETAIL



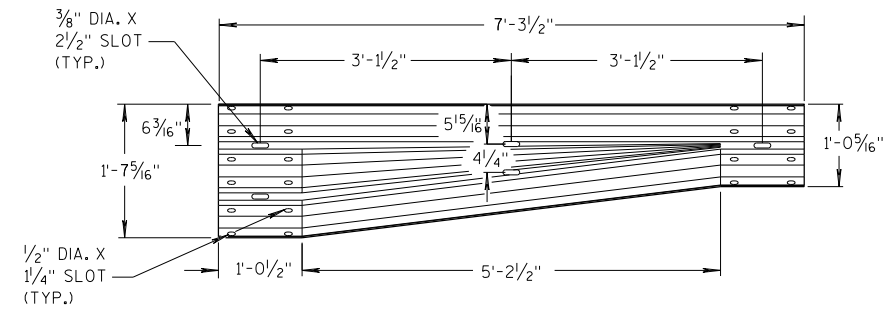
THRIE BEAM
TERMINAL CONNECTOR



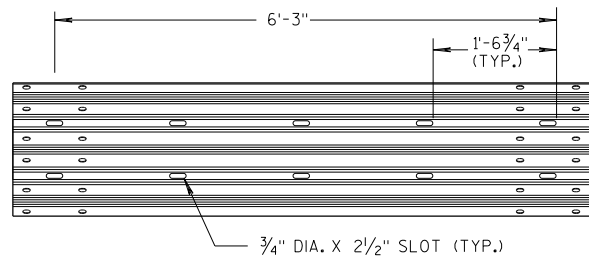
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

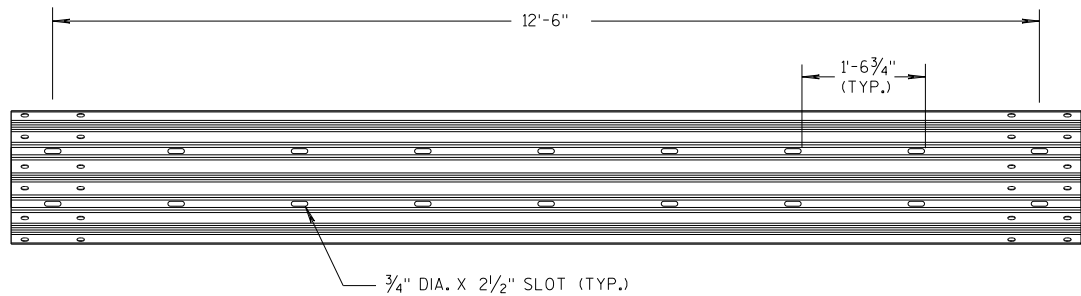
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



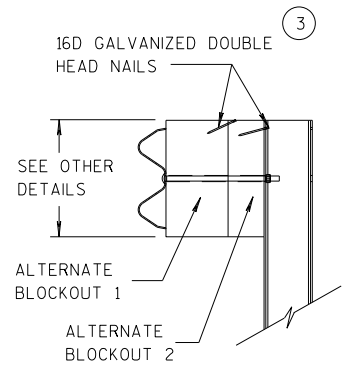
W-BEAM TO THRIE BEAM TRANSITION SECTION



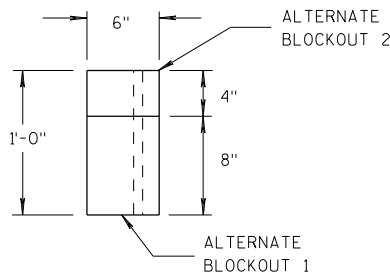
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

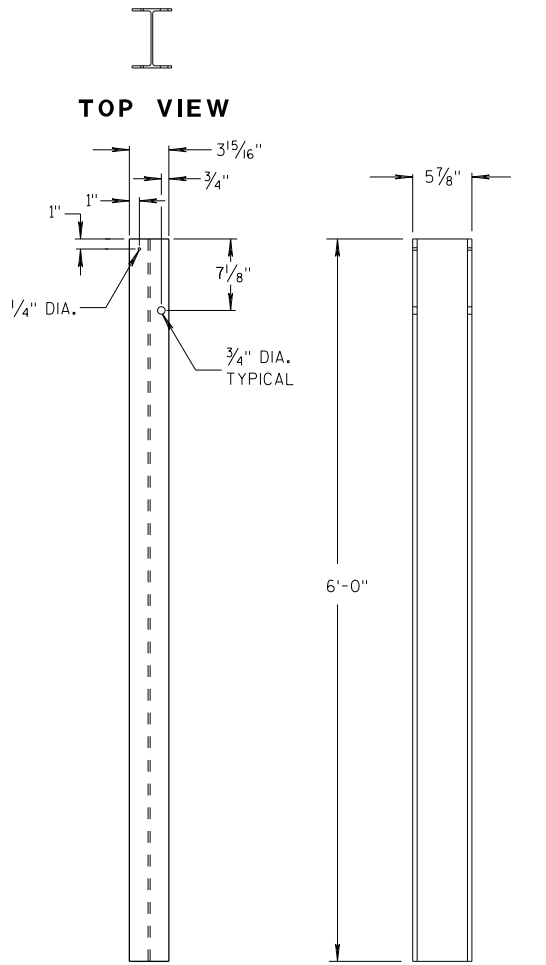


SIDE VIEW



TOP VIEW

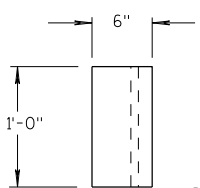
ALTERNATE WOOD BLOCKOUT DETAIL



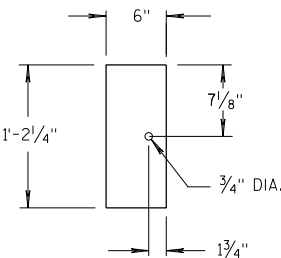
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

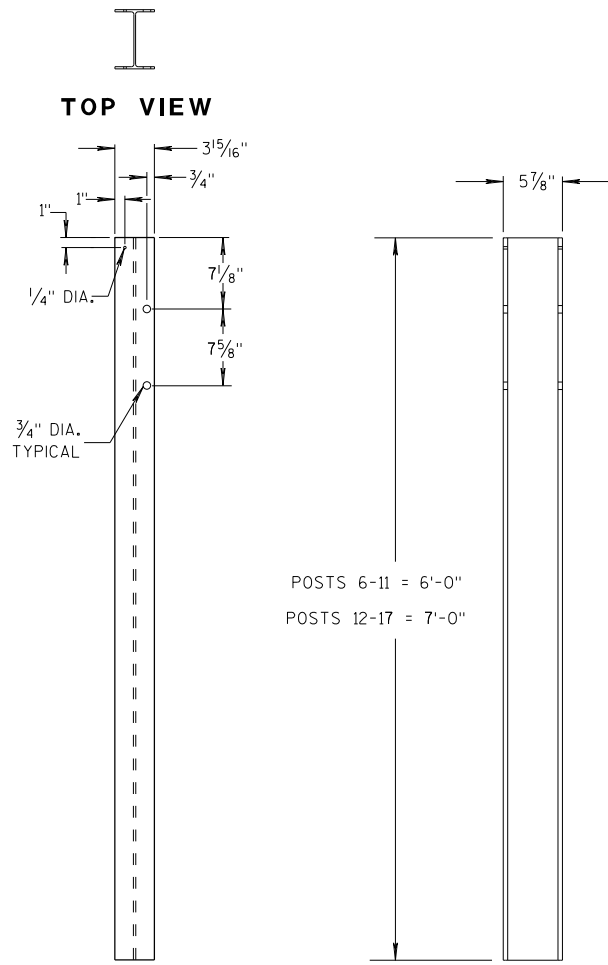


TOP VIEW



FRONT VIEW

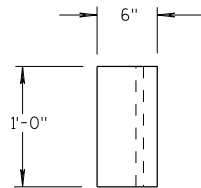
**BLOCKOUT
POSTS 1-5**



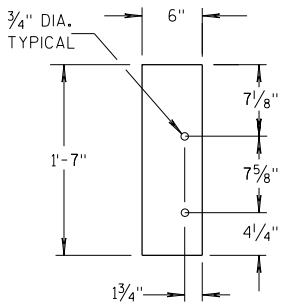
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



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.

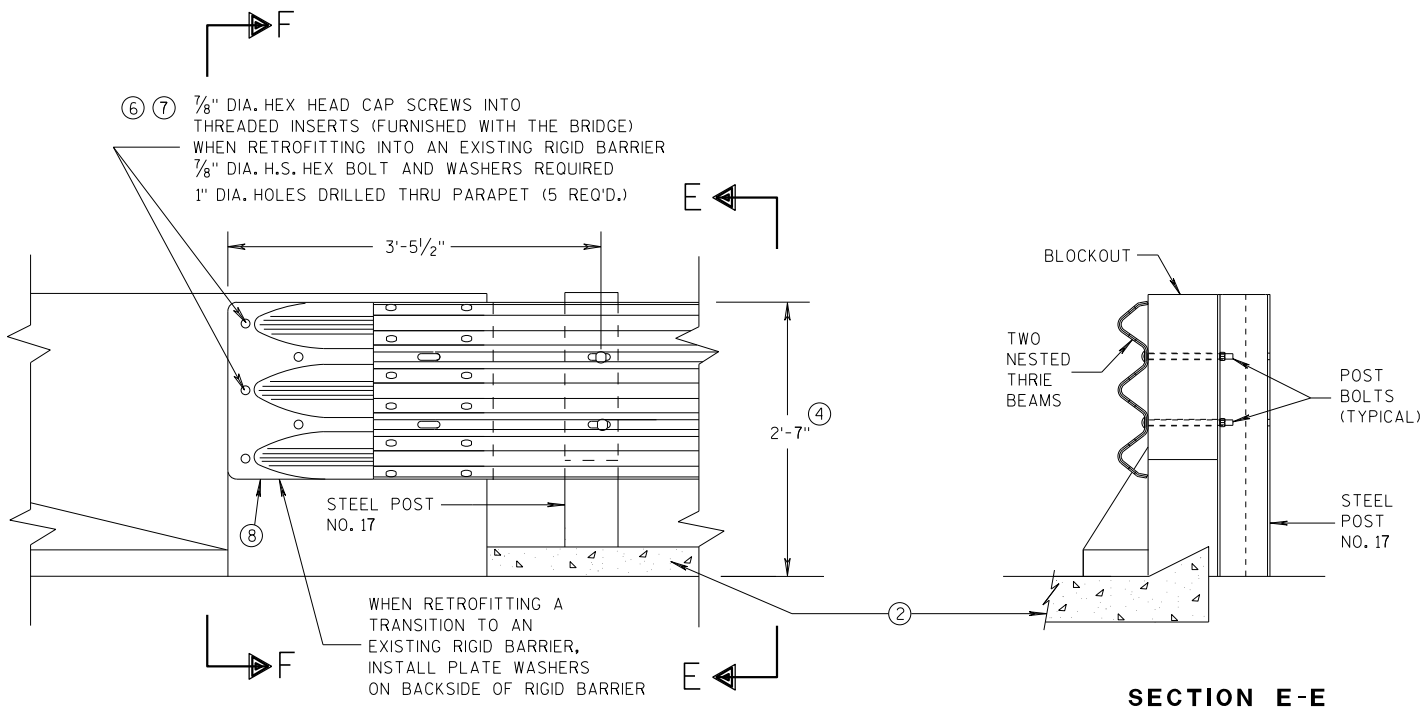
③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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)**

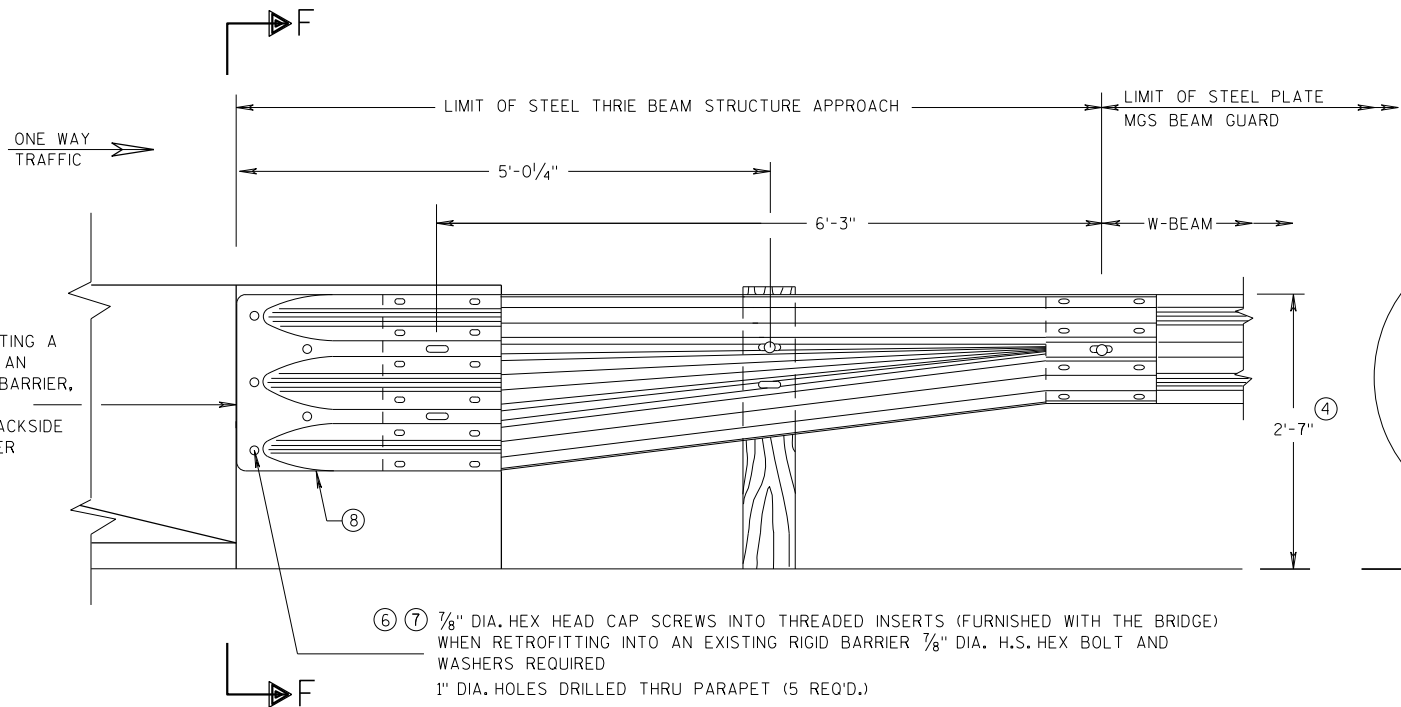
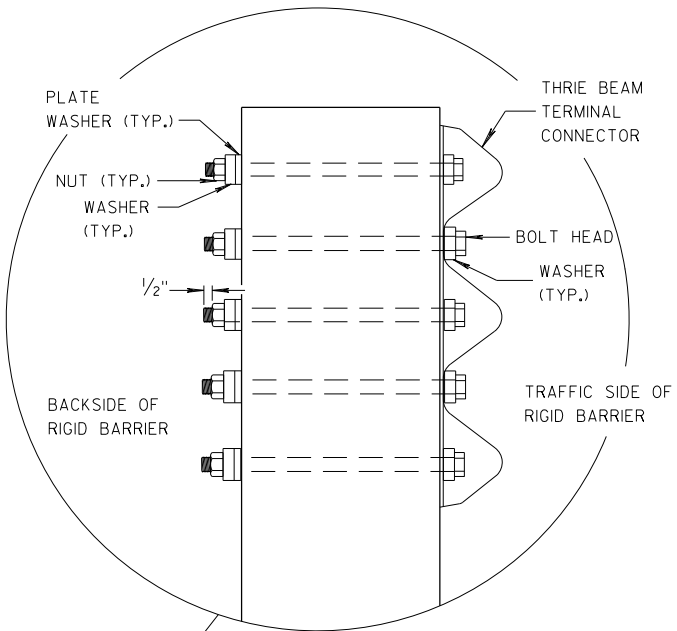
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



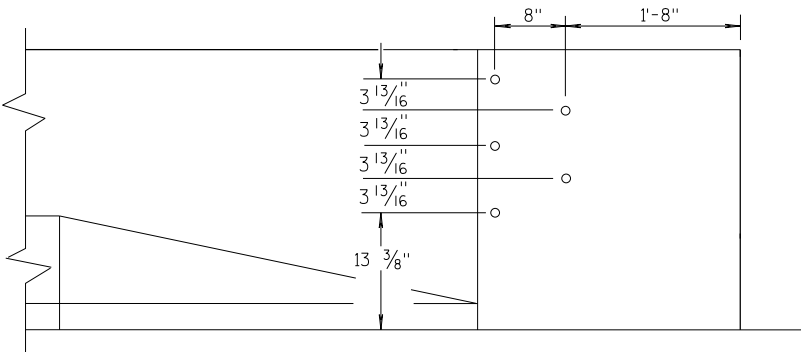
GENERAL NOTES

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

- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".



SECTION F-F



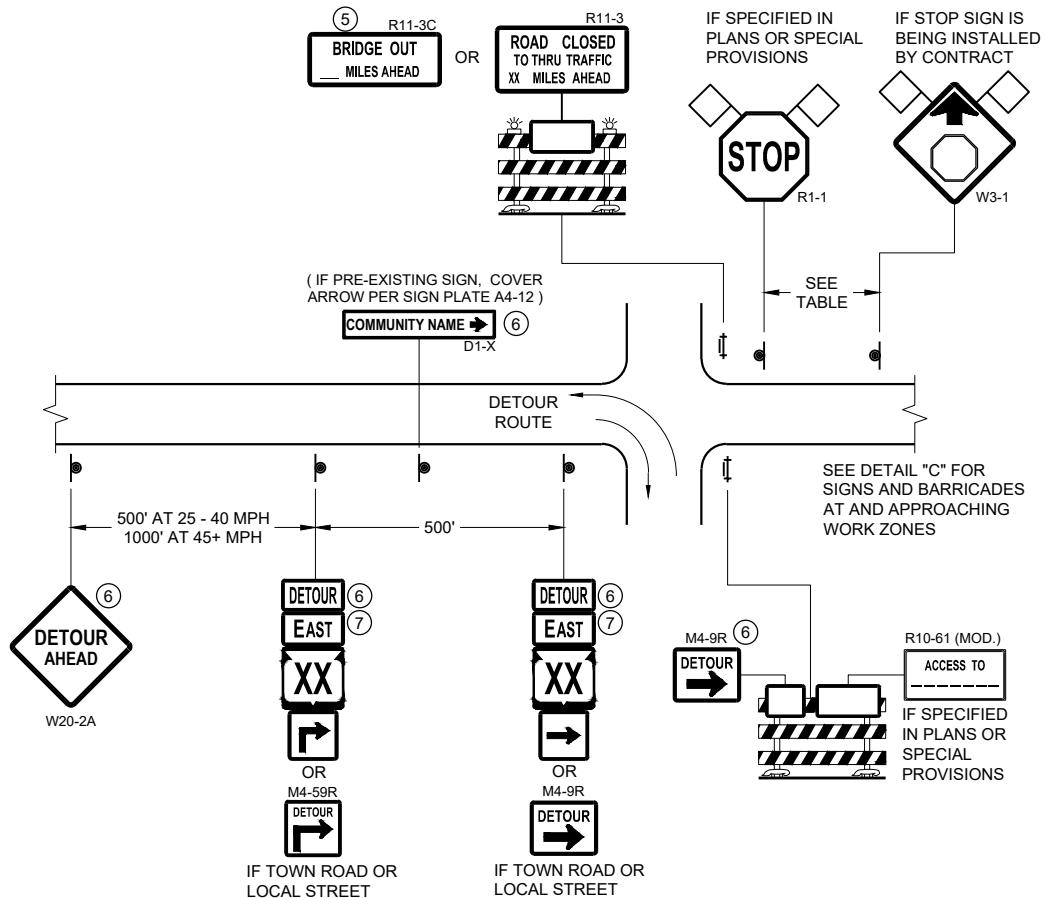
DRILL HOLE LOCATION

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

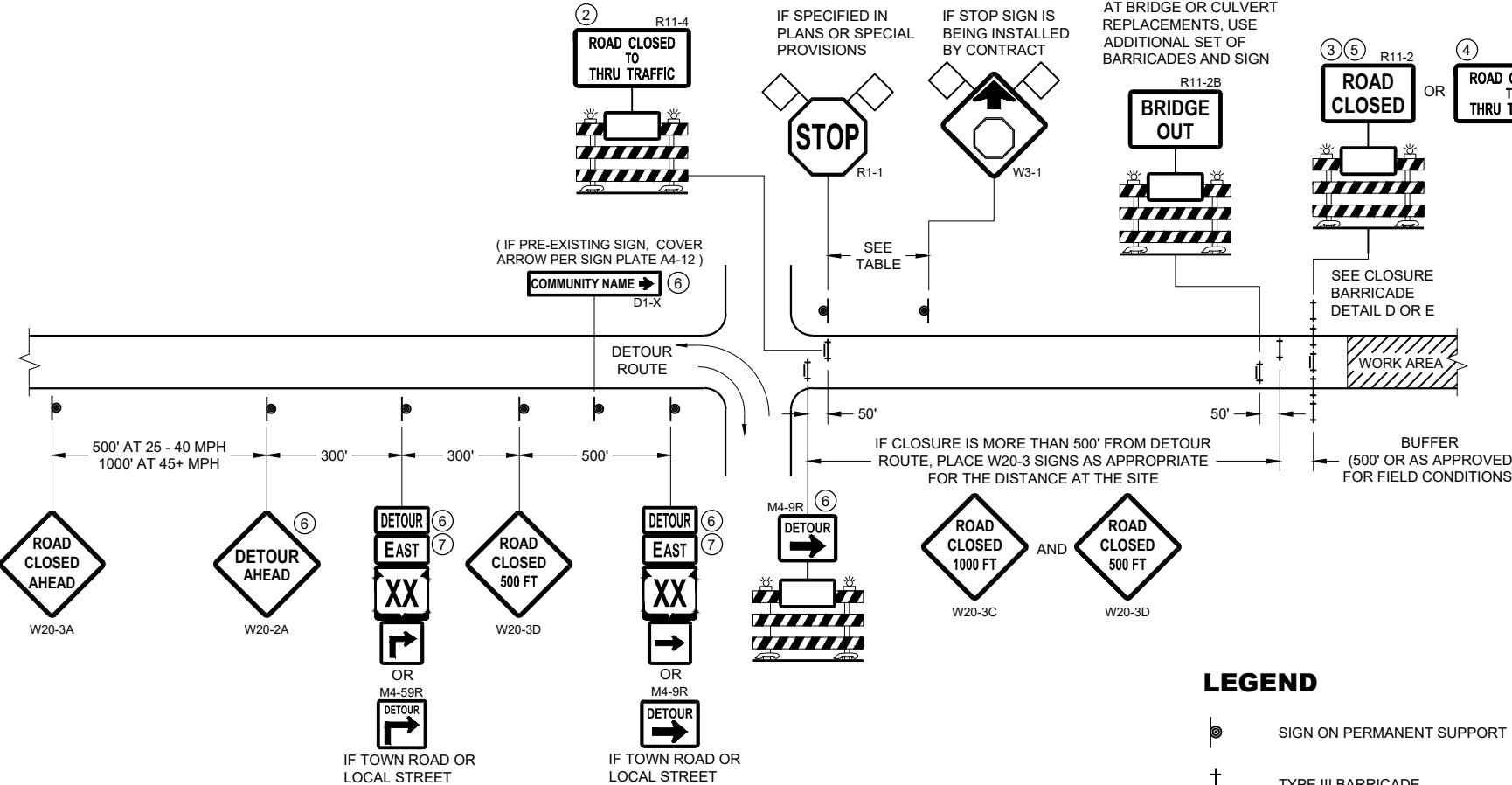
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
FHWA

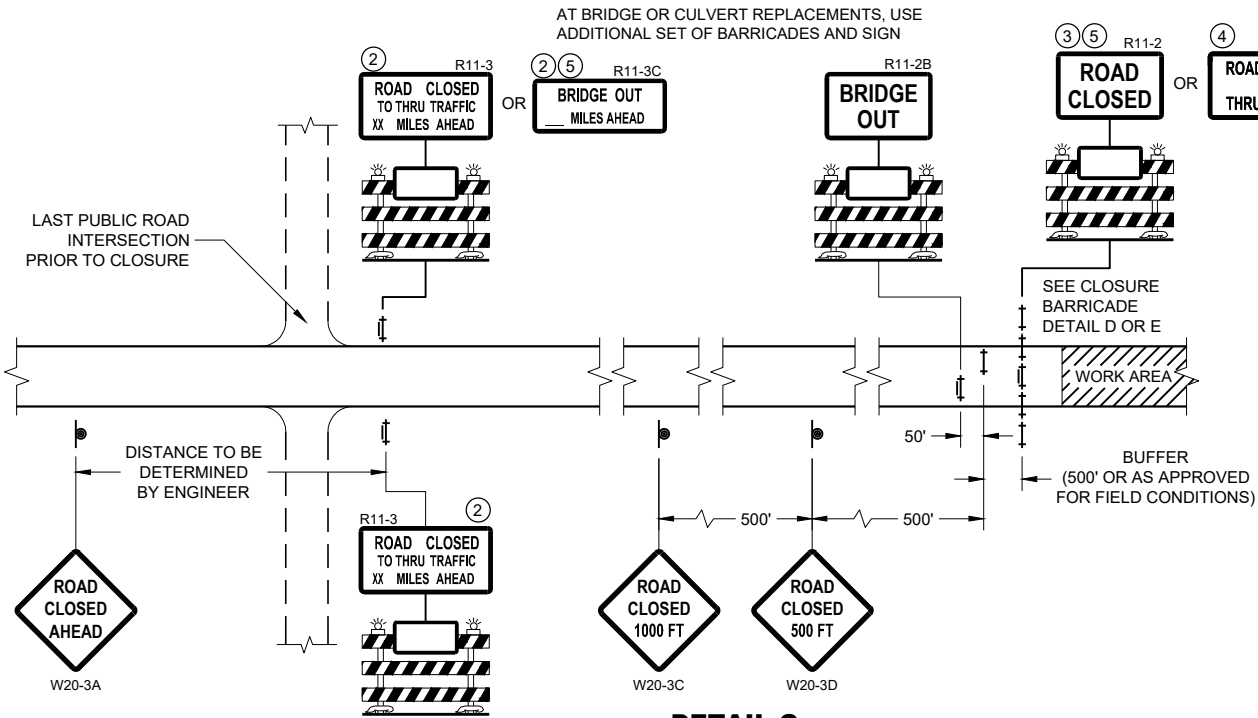
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



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

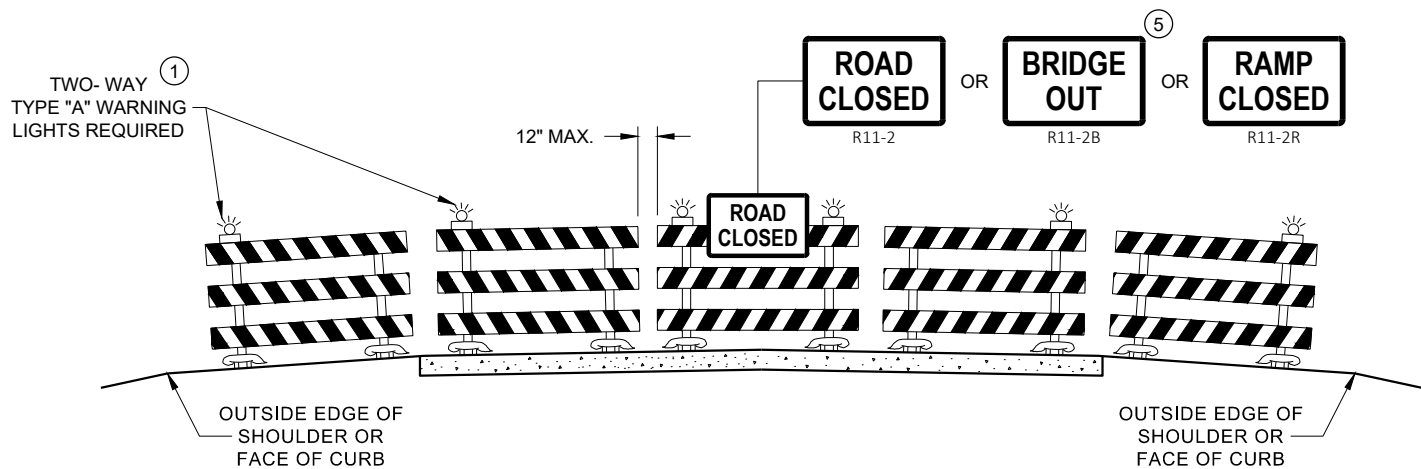
LEGEND

- 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 M1 - 5A
- OR M05 - 1 OR M06 - 1

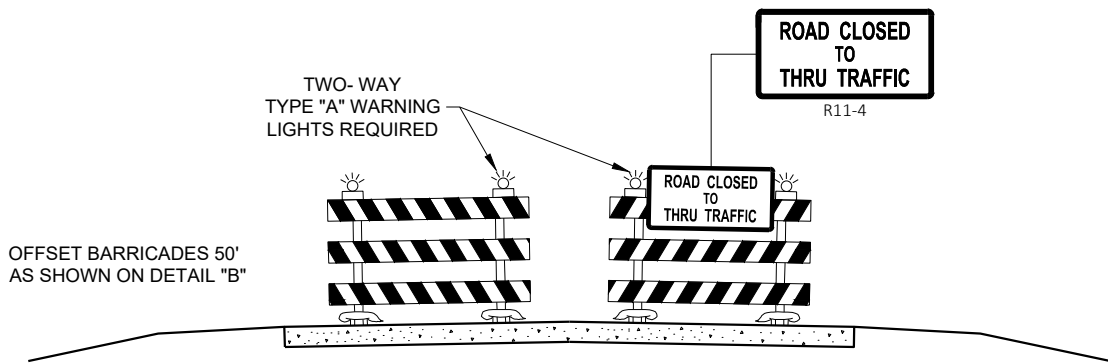
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 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"

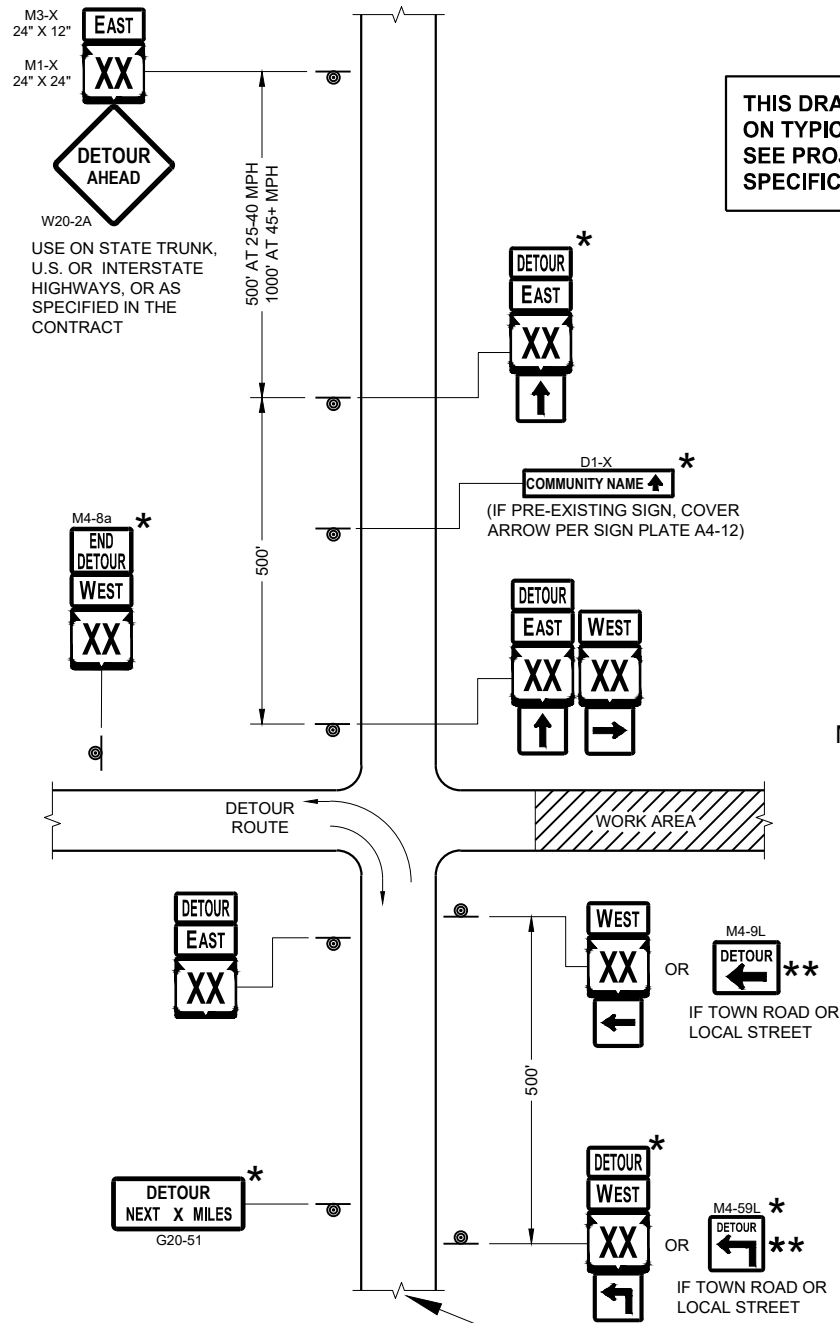
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS 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
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

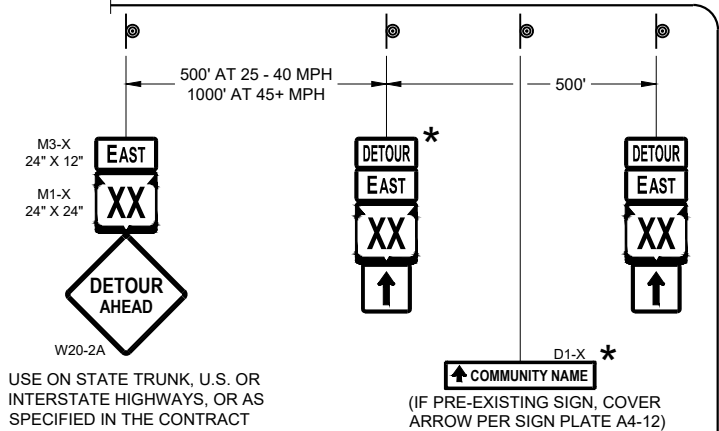
FHWA



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

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

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST M4 - 8
- DETOUR WEST M3 - X
- DETOUR AHEAD M1 - 4 OR M1 - 6 OR M1 - 5A
- DETOUR NEXT X MILES 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.

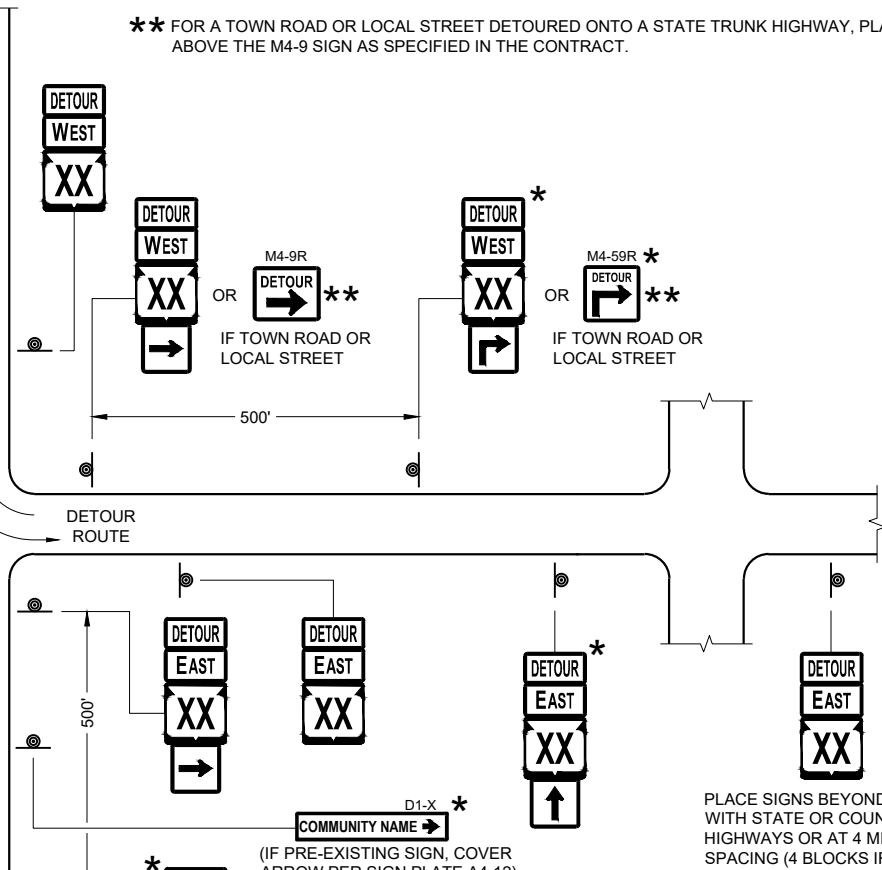
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"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.

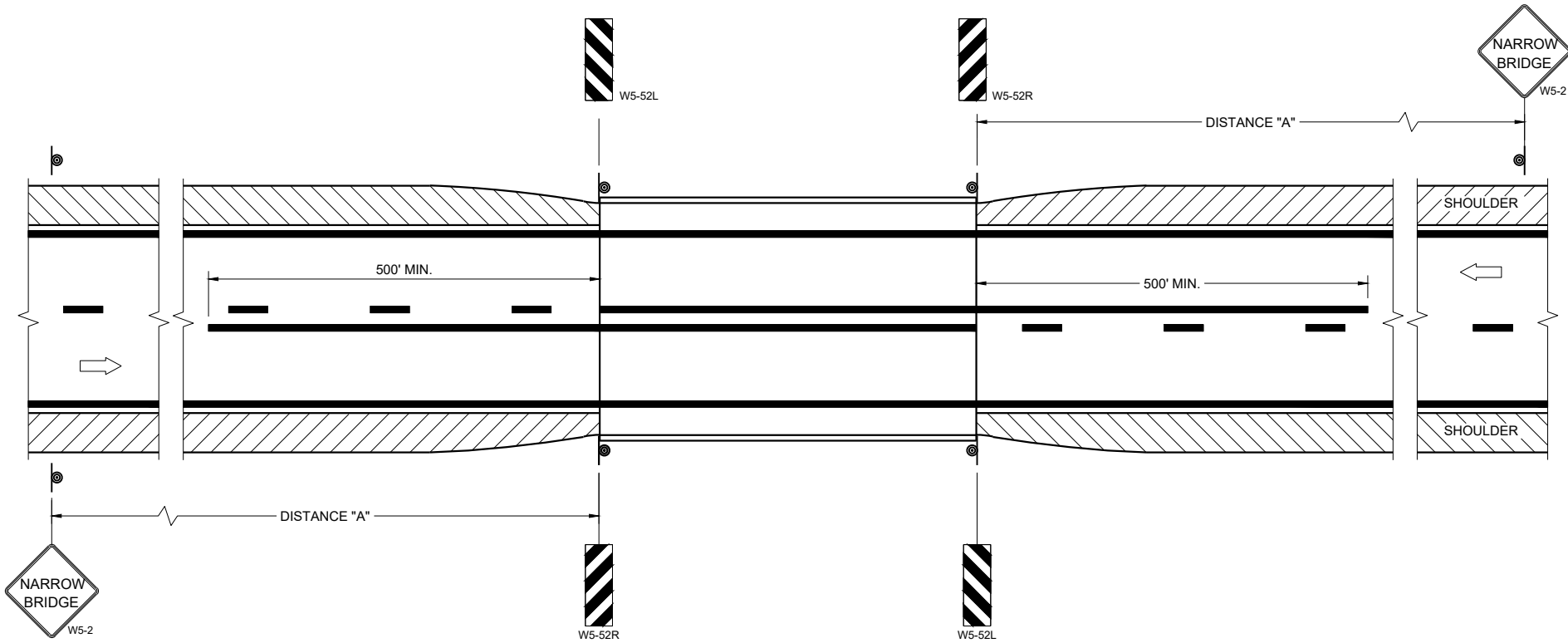


**DETOUR SIGNING
FOR MAINLINE CLOSURES**

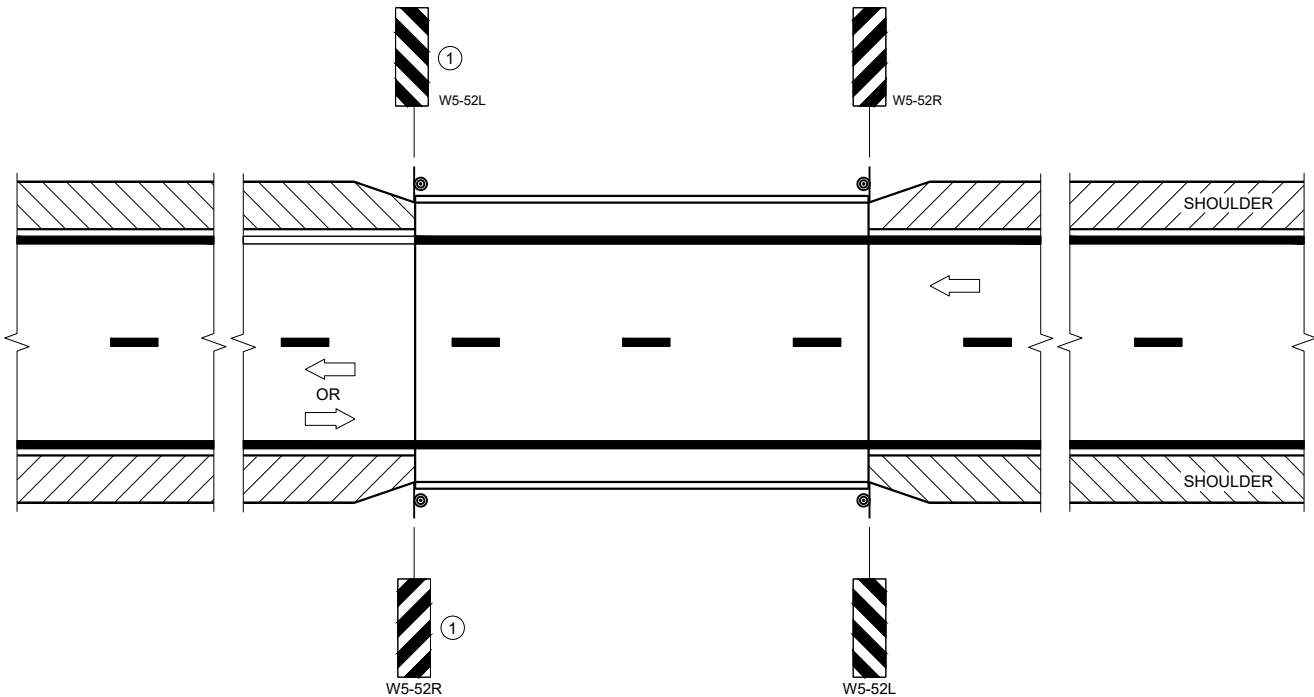
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



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'

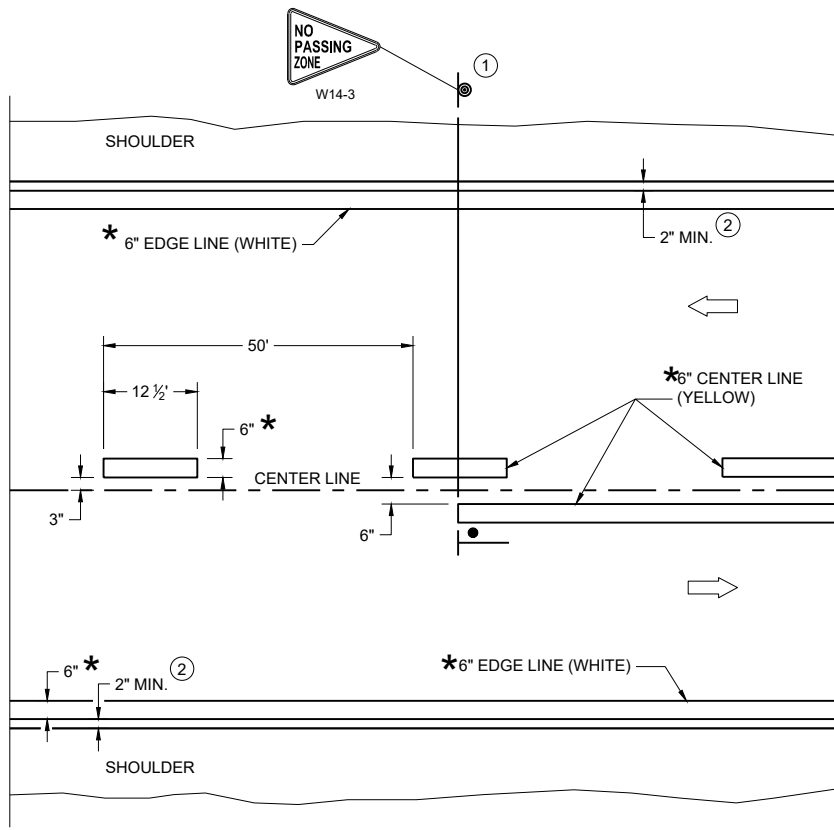
**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

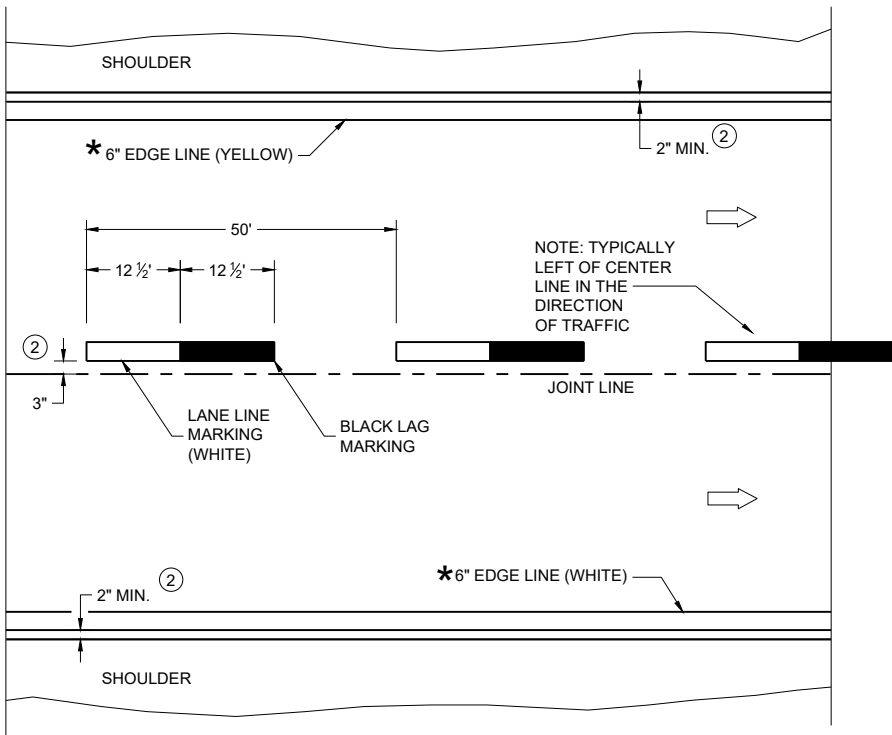
APPROVED
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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.

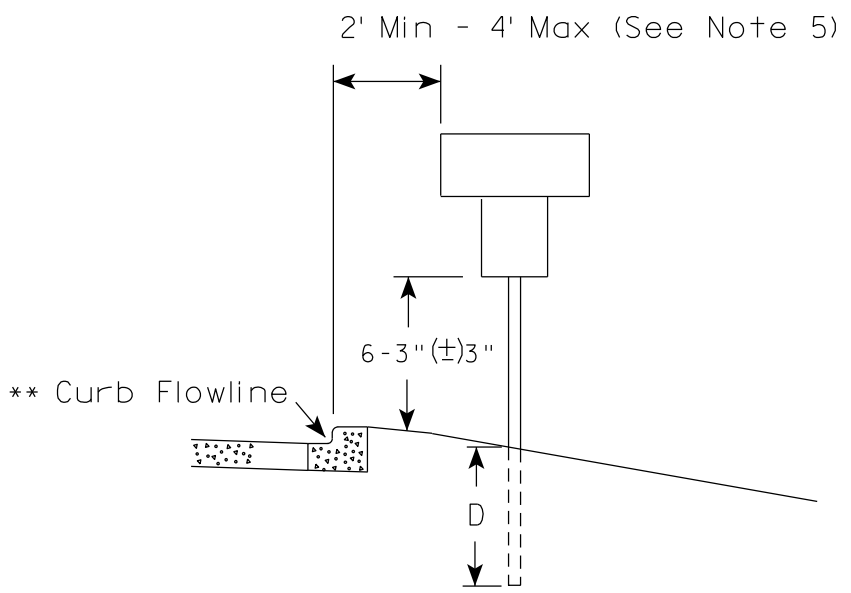
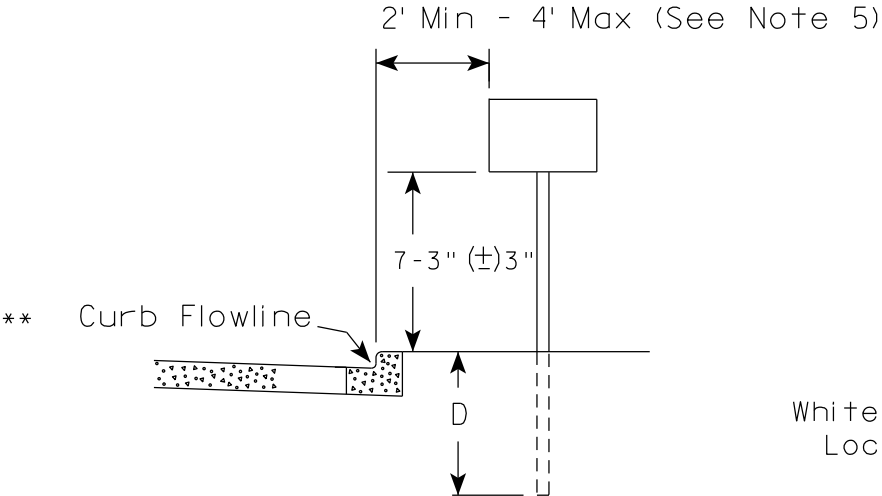
LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

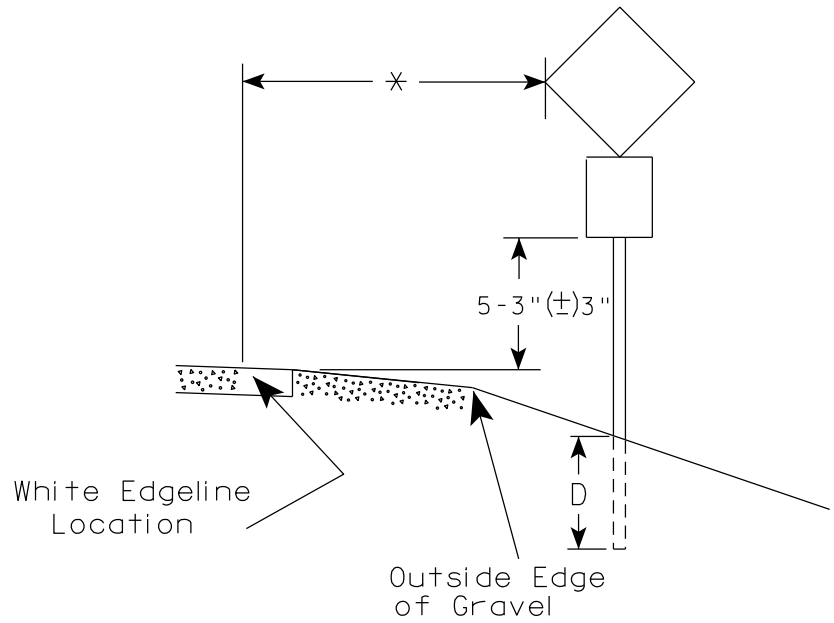
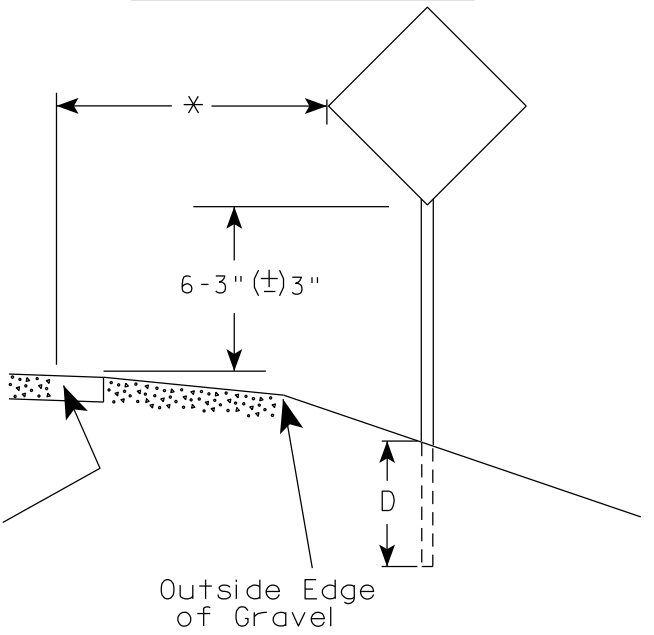
PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer

FHWA

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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 directed by the Engineer.

POST EMBEDMENT DEPTH

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

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

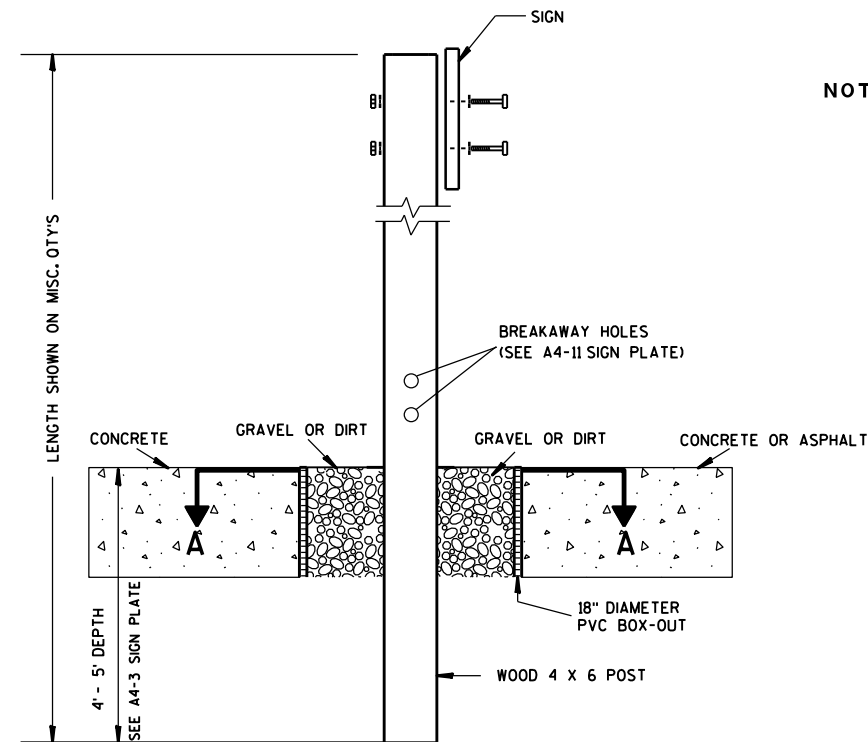
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

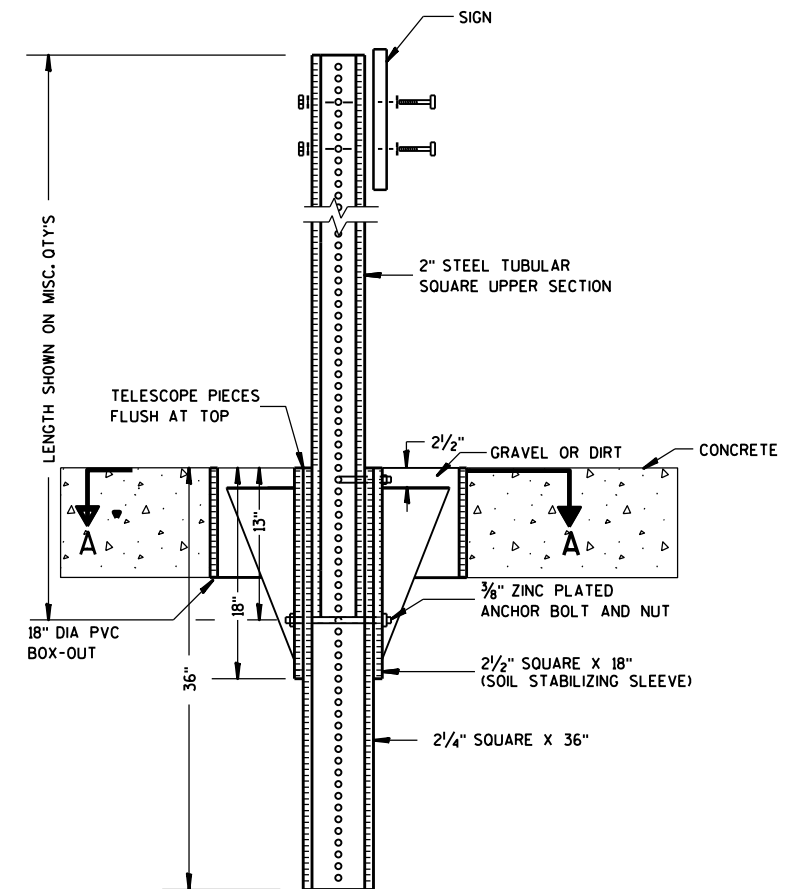
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

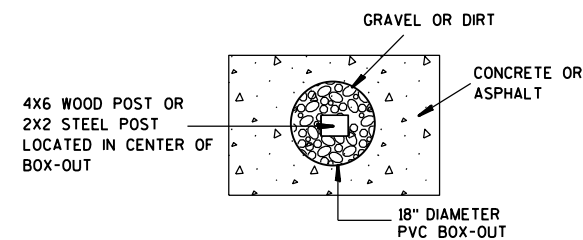
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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:

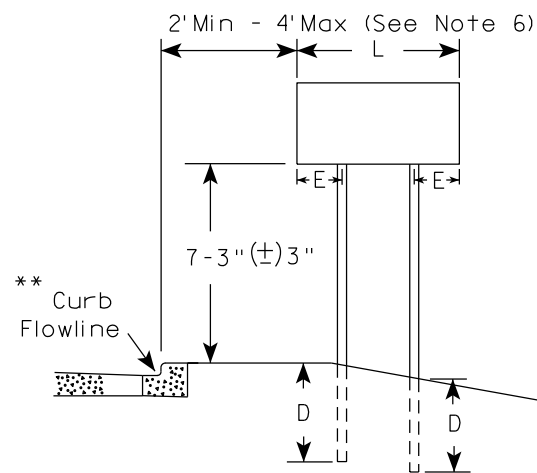
HWY:

COUNTY:

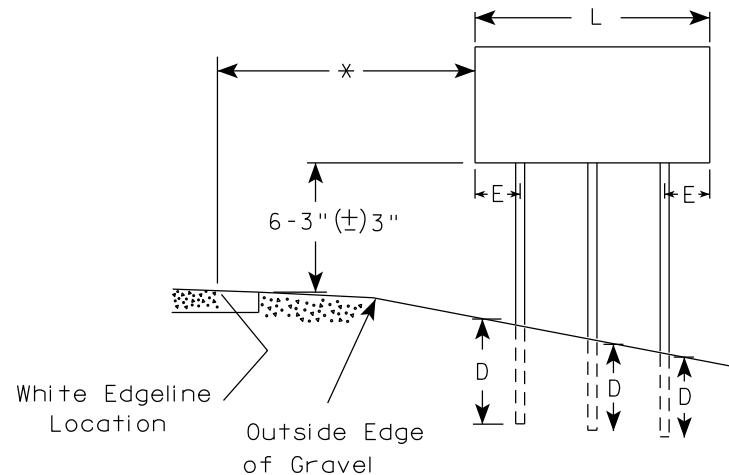
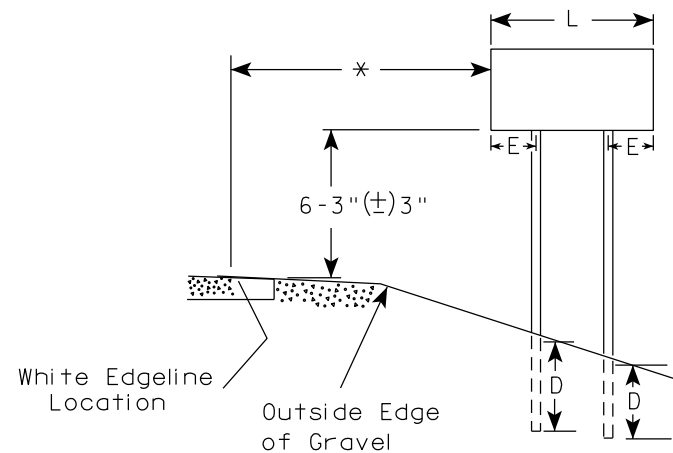
SHEET NO:

E

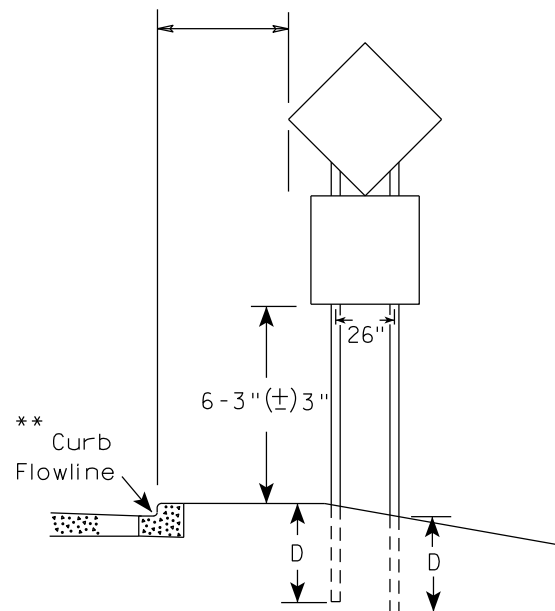
URBAN AREA



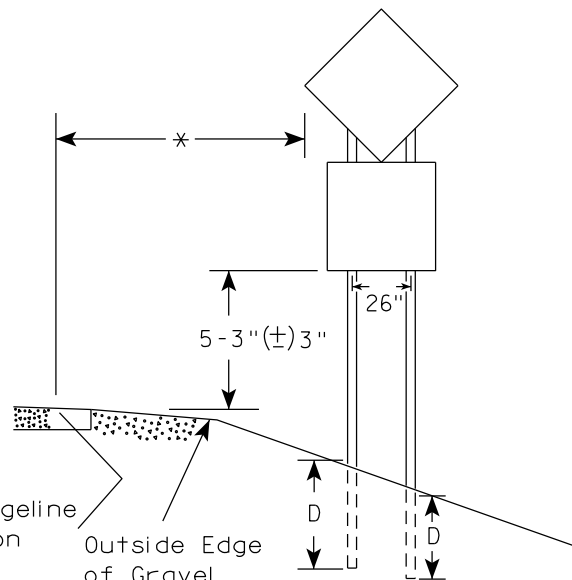
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



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

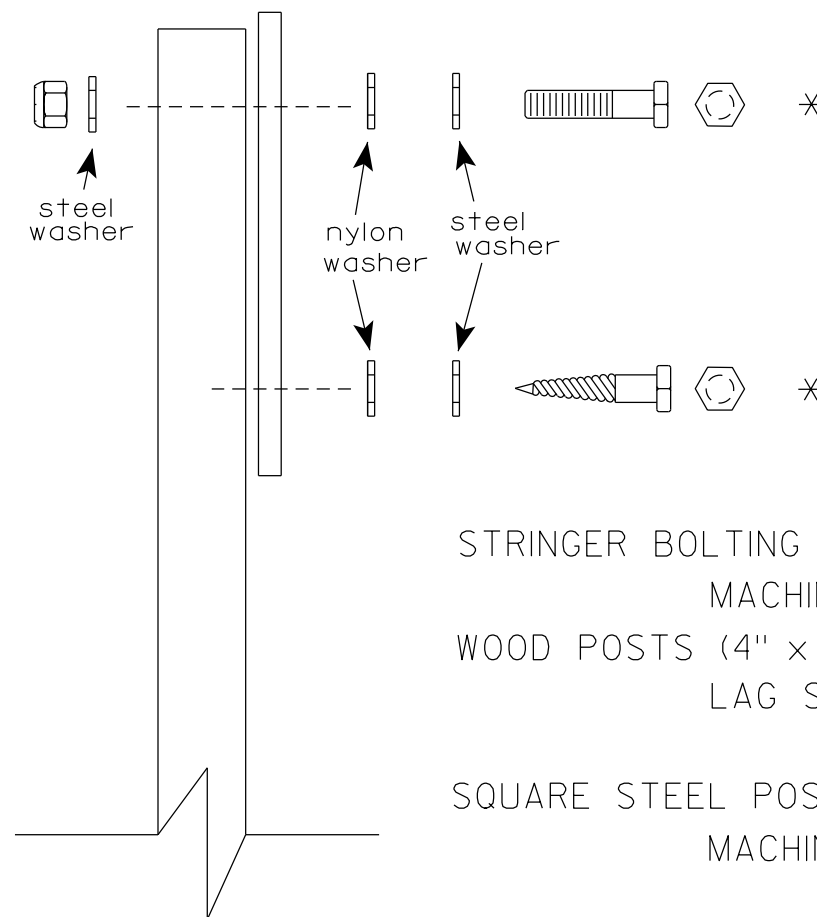
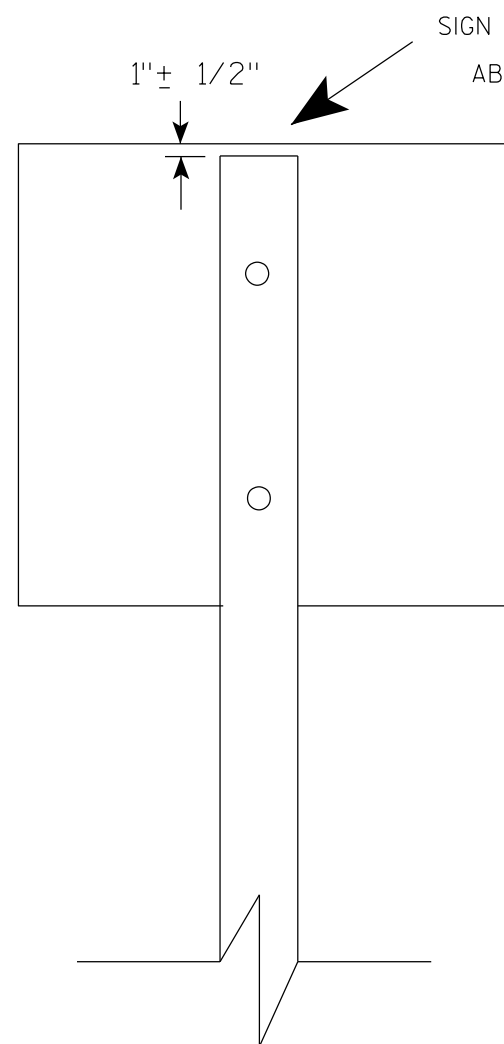
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

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 - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**

4" x 10" x 10 GA. ———→
STEEL PLATE (CUT
AS SHOWN) WELDED
TO ALL FOUR CORNERS
OF TELESPAR TUBE

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

2 1/2" TELES PAR TUBE

4" x 10" x 10 GA. STEEL PLATE (CUT AS SHOWN) WELDED TO ALL FOUR CORNERS OF TELES PAR TUBE

4"

2 1/2"

10"

3 1/2"

16"

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

18" DIA SCHEDULE 40 PVC BOX-OUT

36"

18"

13"

2 1/2"

2 1/4" SQUARE X 36"

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

3/8" ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES

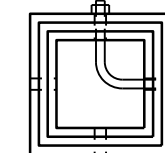
SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- Dimensions:**
 - Overall height: LENGTH SHOWN ON MISC. QTY'S
 - Section A-A: 36" (total), 18" (upper), 12" (lower)
 - Section B-B: 1"
- Components:**
 - SIGN
 - SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 - 2" STEEL TUBULAR SQUARE UPPER SECTION
 - ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
 - $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
 - TELESCOPE PIECES FLUSH AT TOP
 - $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
 - 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 - 2 1/4" SQUARE X 36"

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



DIRECTION
OF TRAFFIC

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 NO. A4-9.9

PROJECT NO:

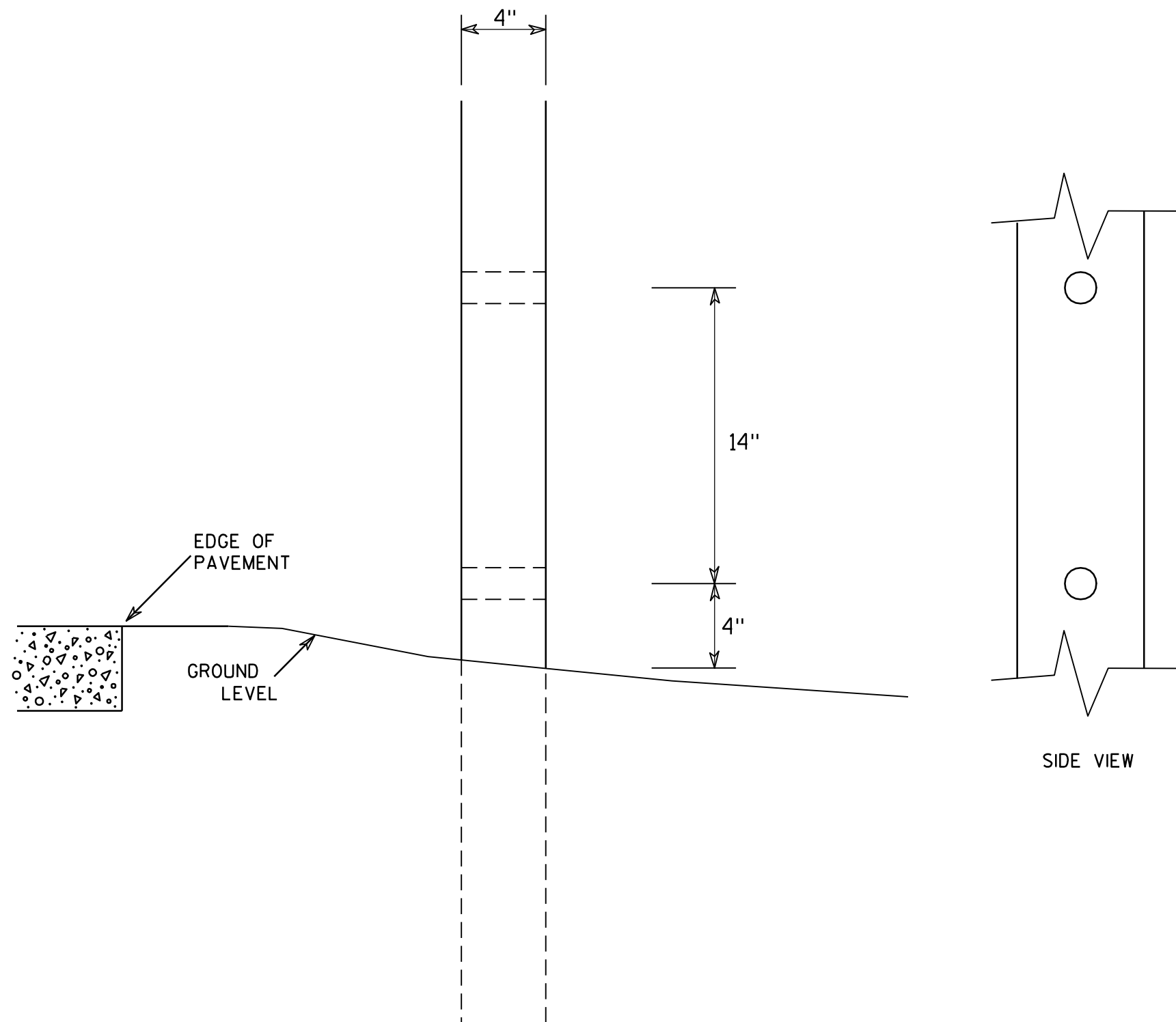
HWY:

COUNTY:

SHEET NO:

T

7



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

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:

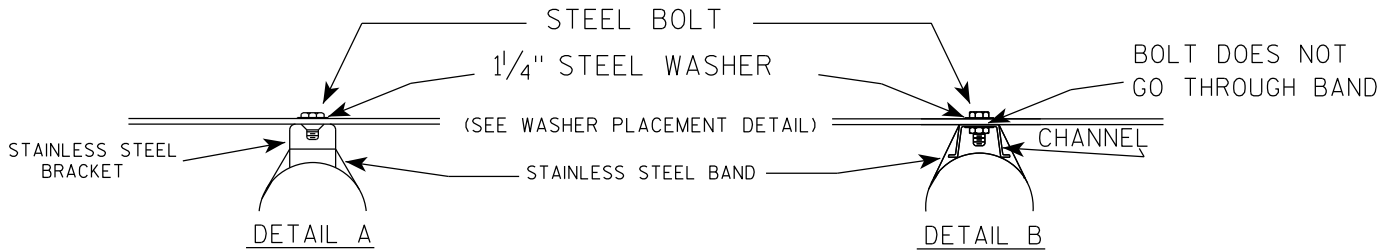
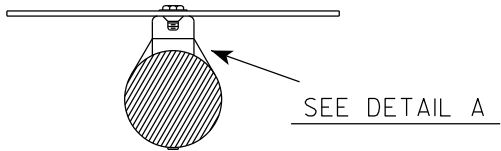
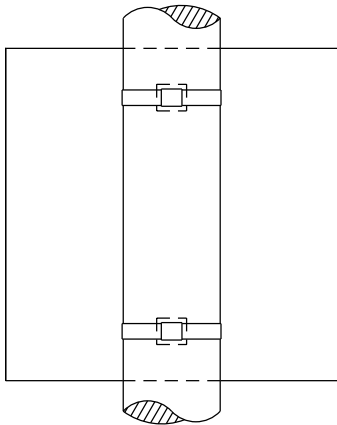
COUNTY:

SHEET NO:

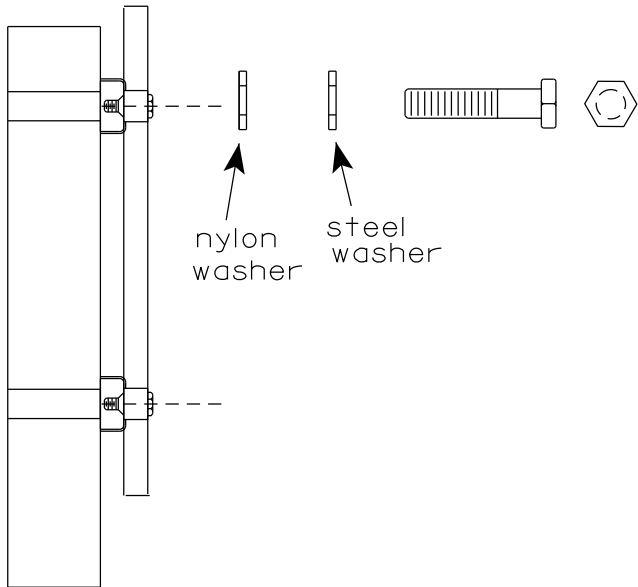
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

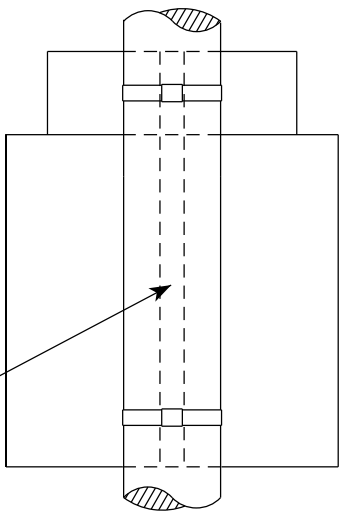


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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 3/4" 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

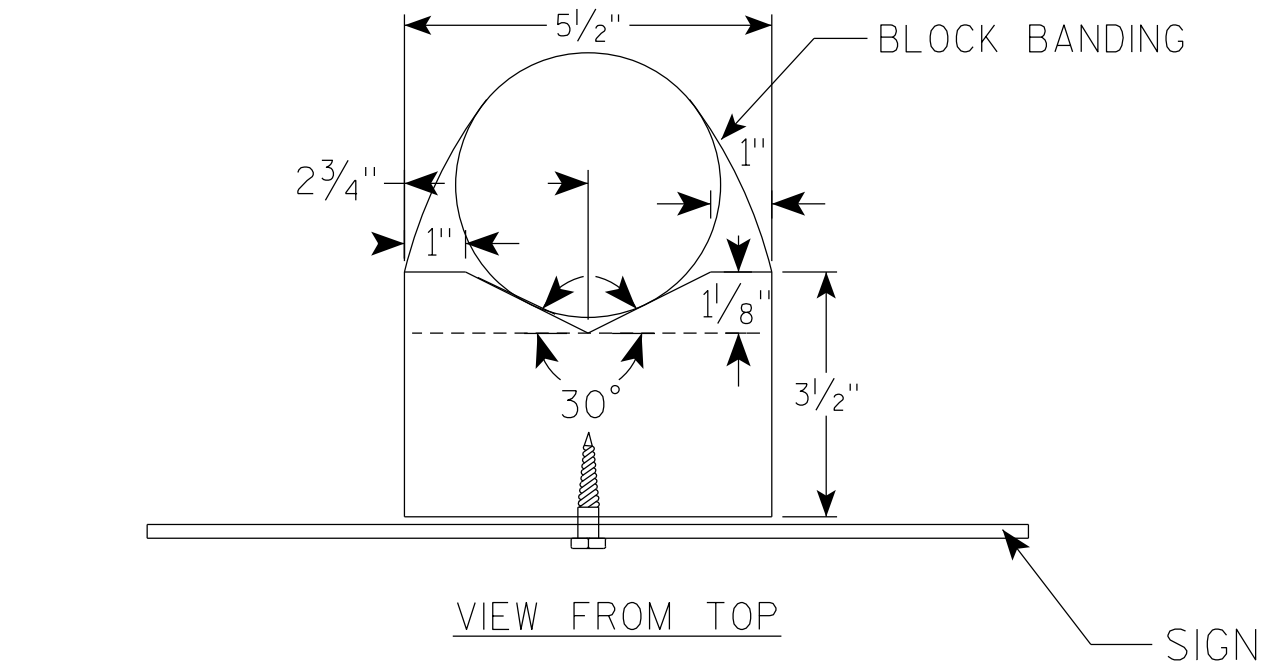
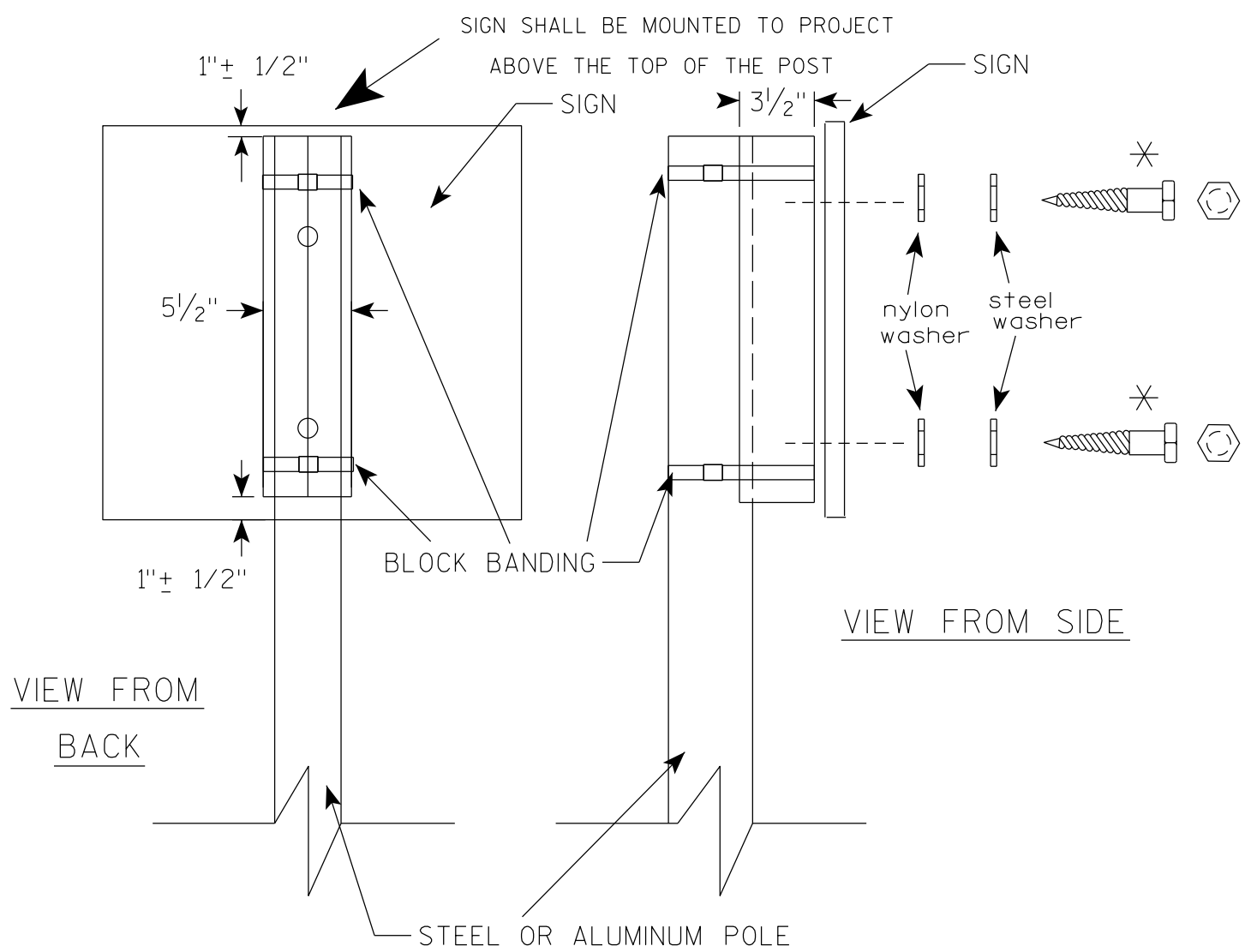


SEE DETAIL B

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



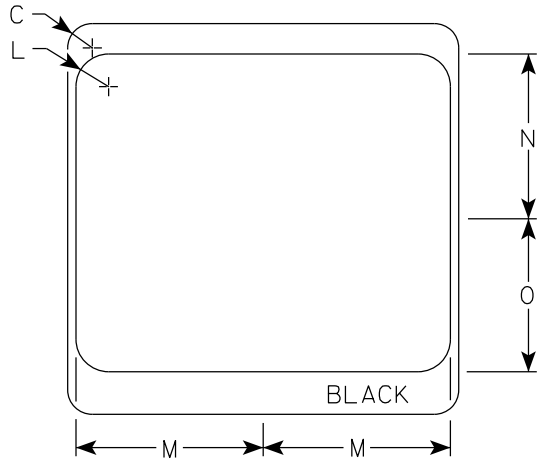
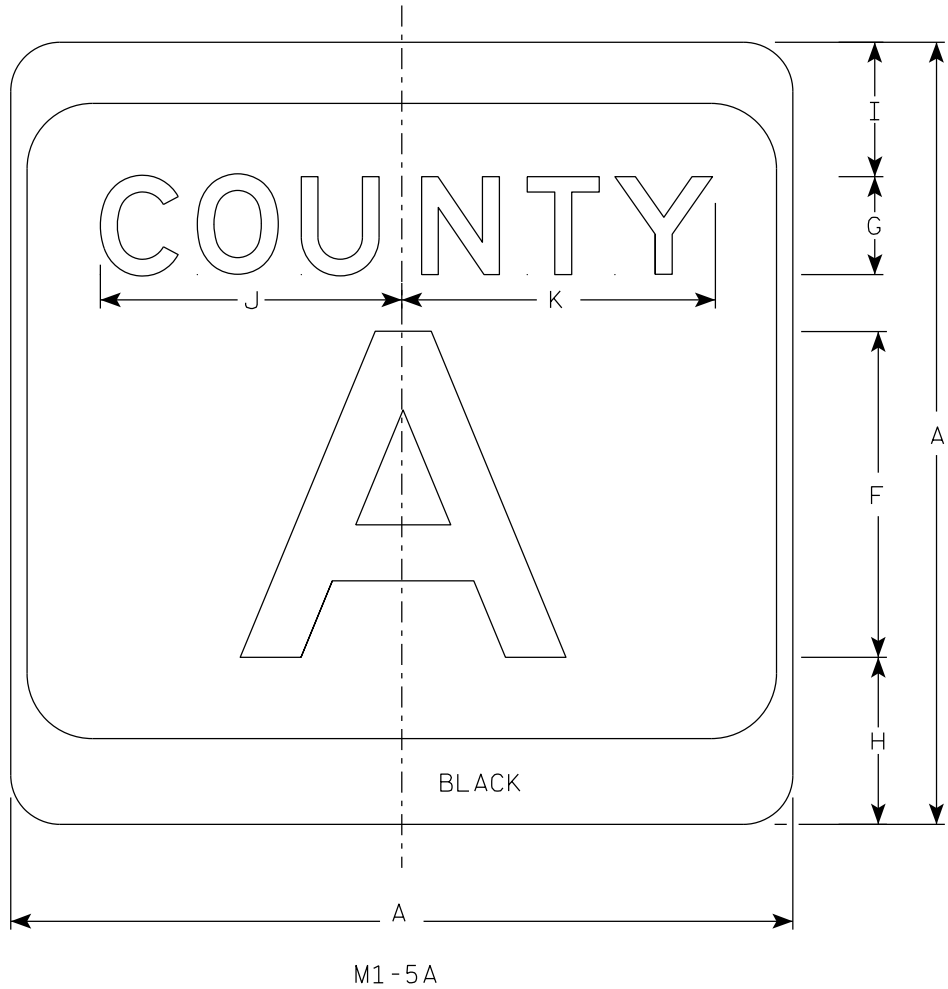
GENERAL NOTES

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, $\frac{3}{4}$ " 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 NORMALLY 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

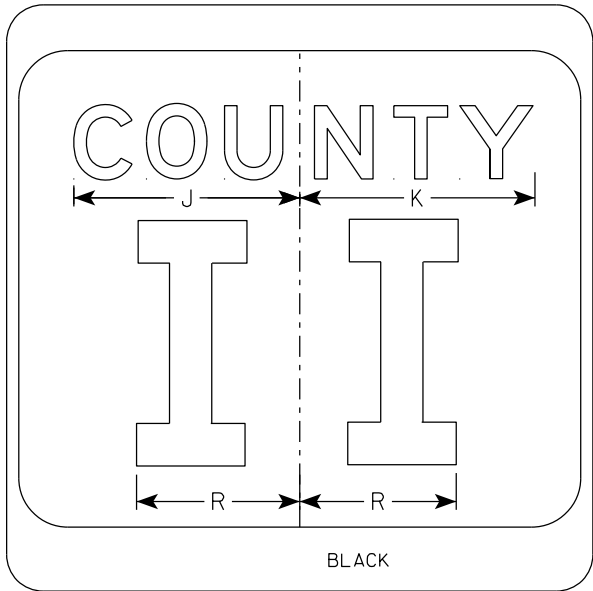
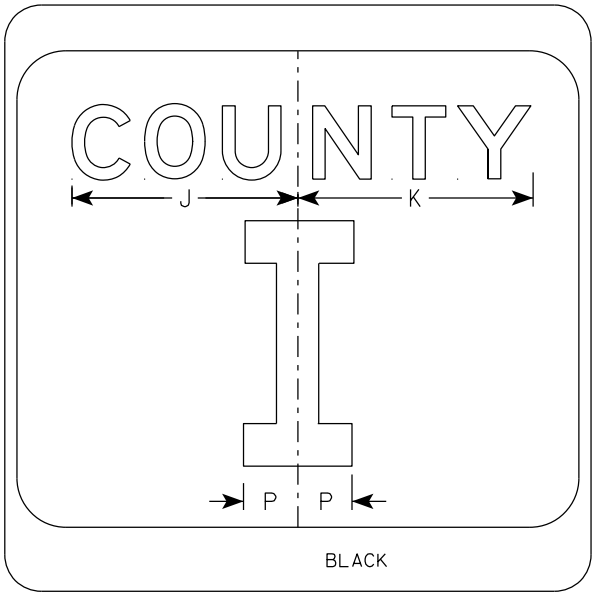
BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

7



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

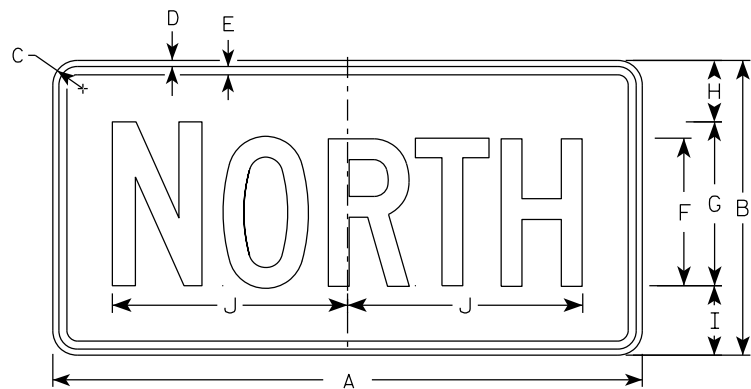
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

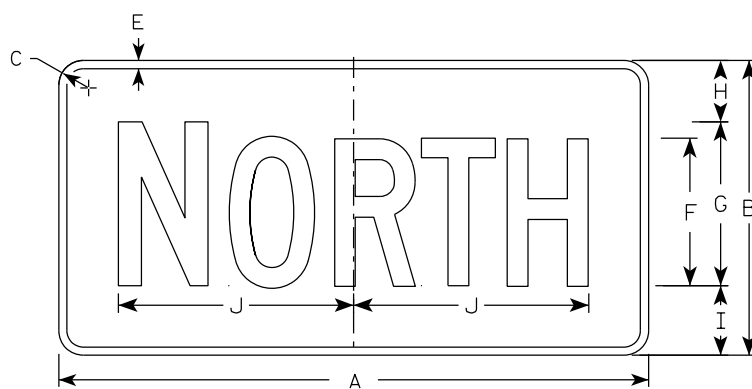
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

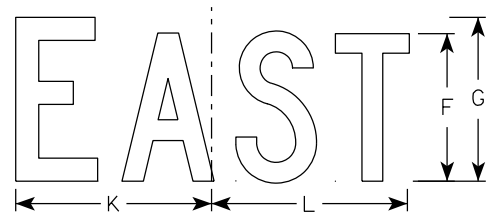
7



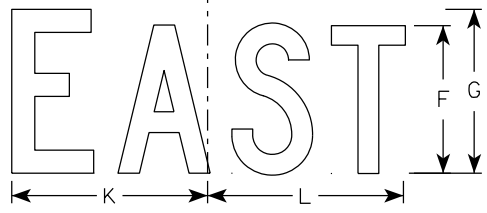
M3-1
MM3-1
MP3-1



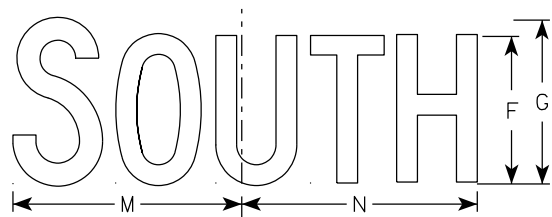
MB3-1
MK3-1
MN3-1



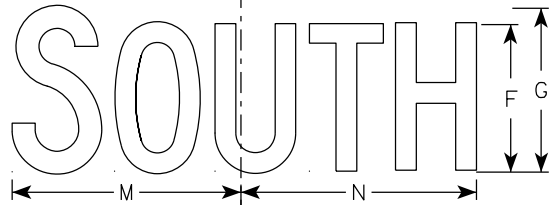
M3-2
MM3-2
MP3-2



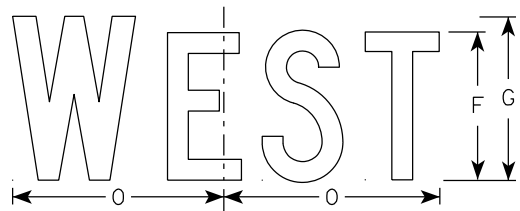
MB3-2
MK3-2
MN3-2



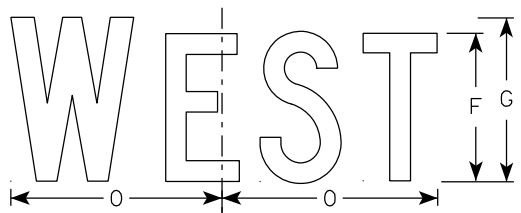
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

- All Signs Type II - Type H Reflective
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- 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.
- 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
- 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: E

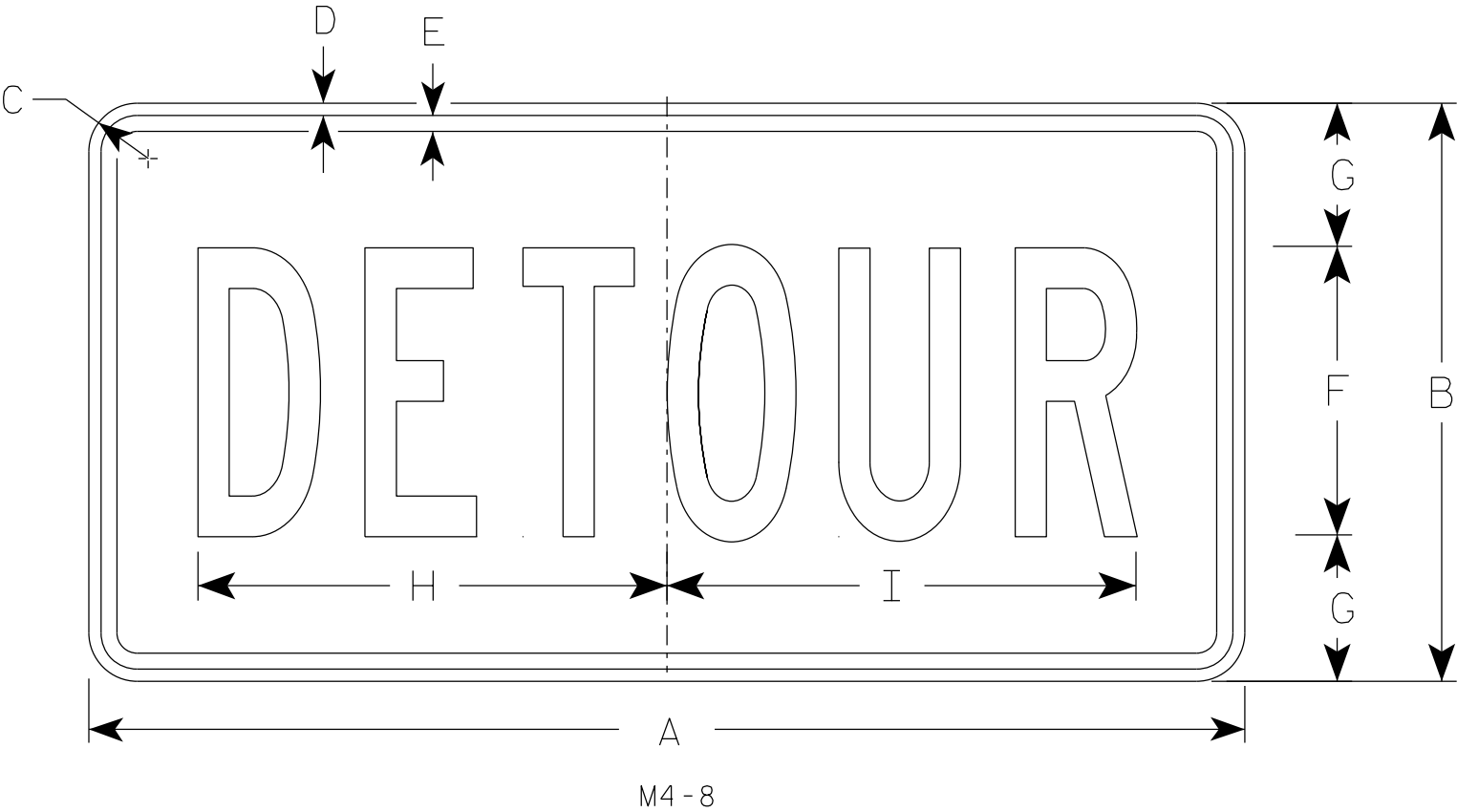
FILE NAME : C:\CAEfiles\Projects\tr_stdplate-M31.dgn PLOT DATE : 8-FEB 2023 11:00 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : \$\$.....plotscale.....\$\$WISDOT/CADDs SHEET 42

7

7

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	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

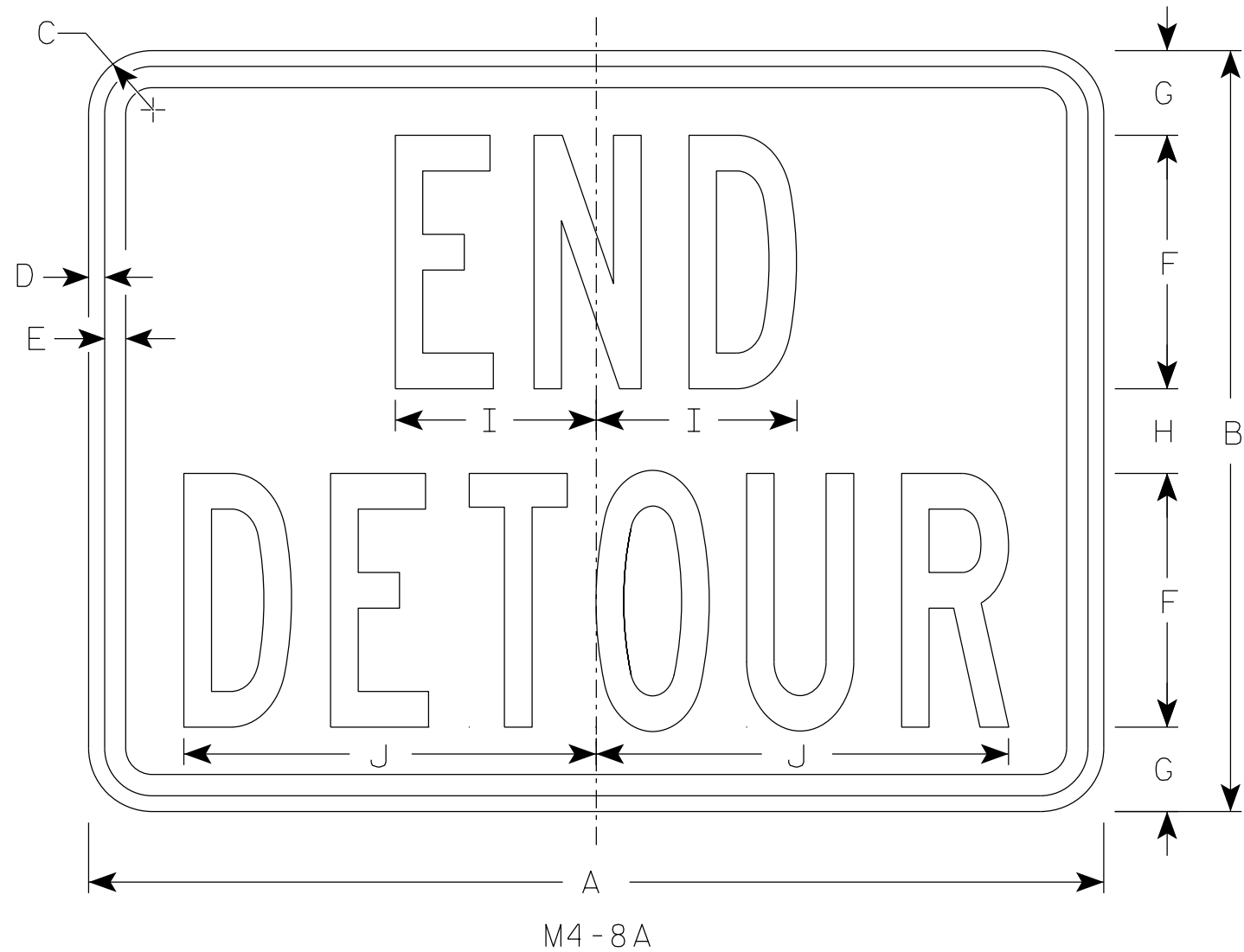
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



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.

7

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 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

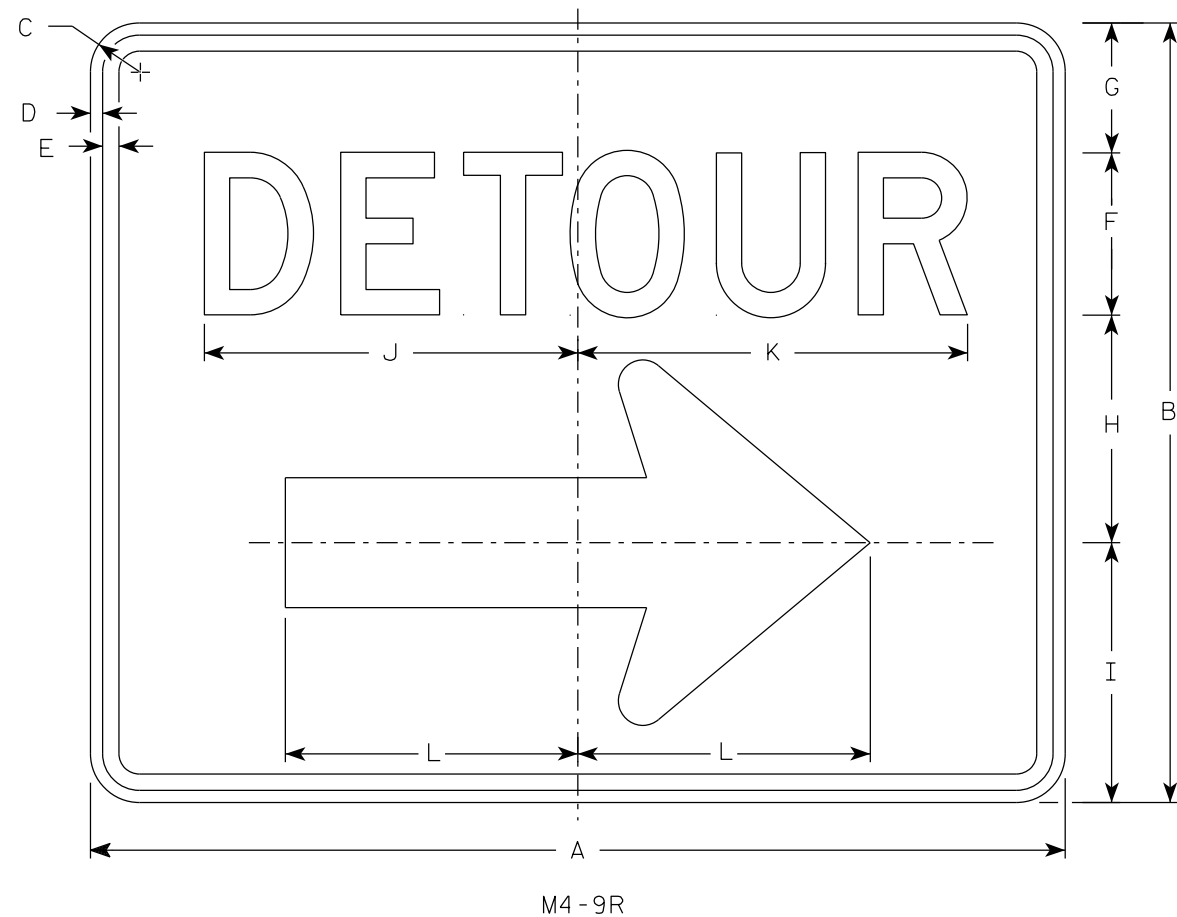
STANDARD SIGN

M4-8A

WISCONSIN DEPT OF TRANSPORTATION

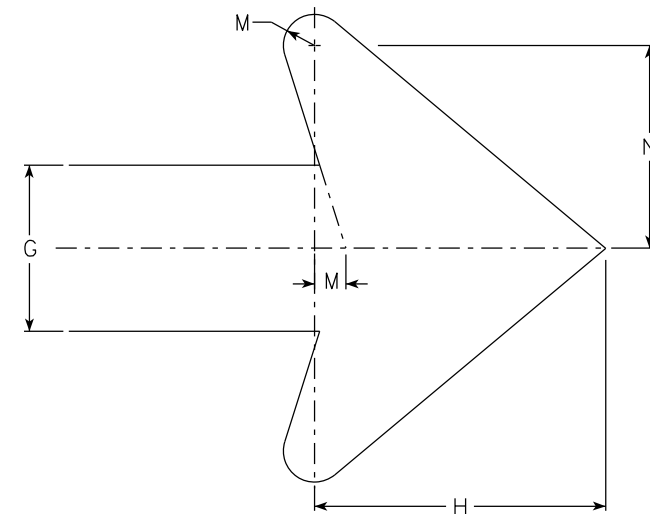
APPROVED *Matthew R Rauch*
For State Traffic Engineer

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



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

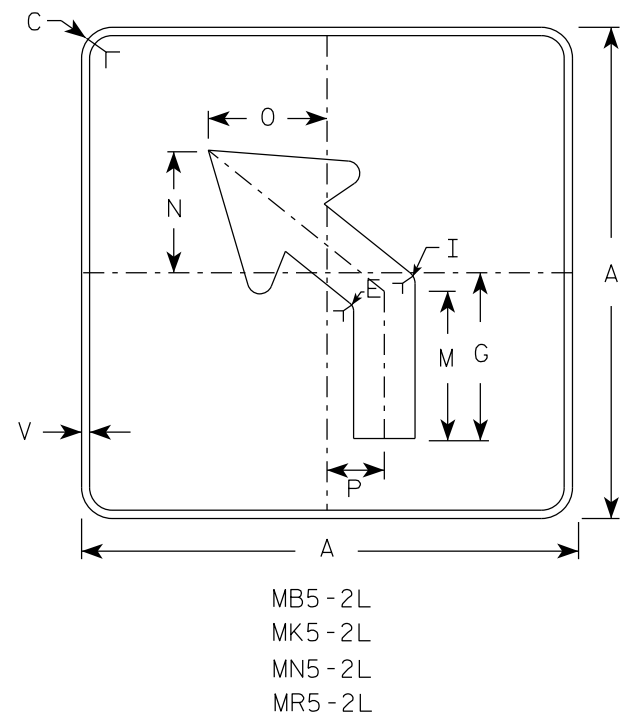
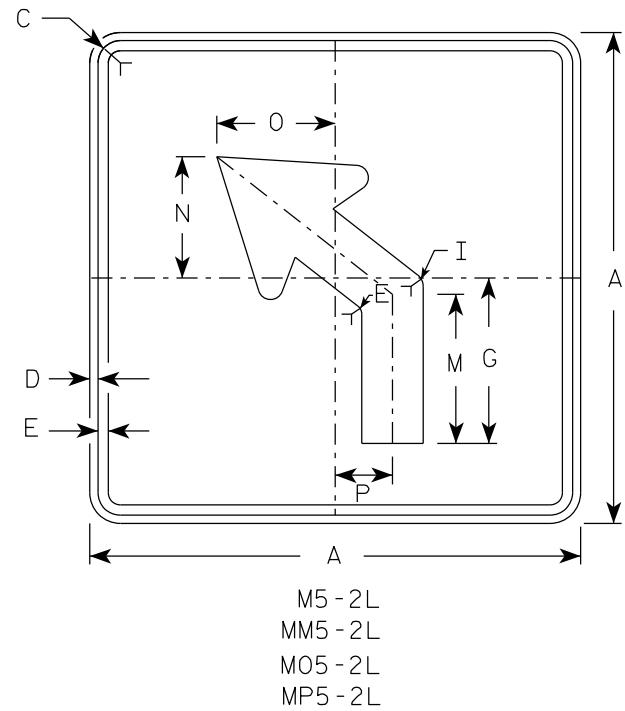
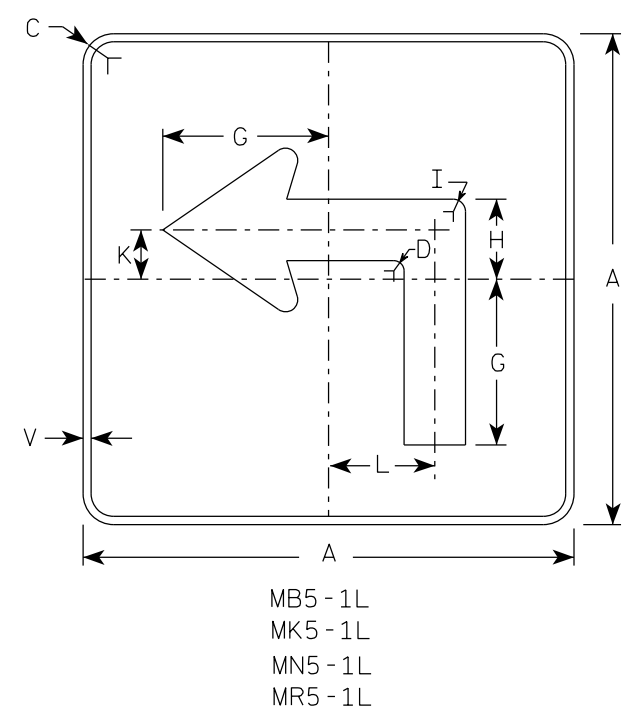
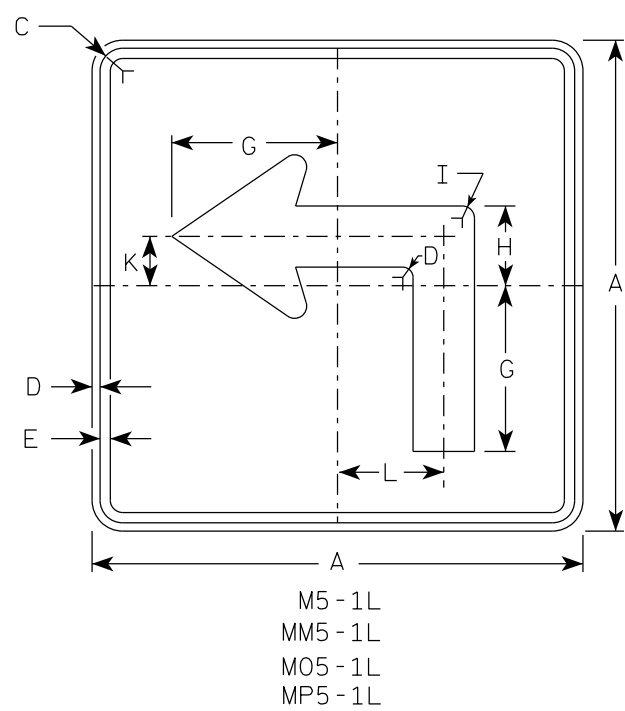
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

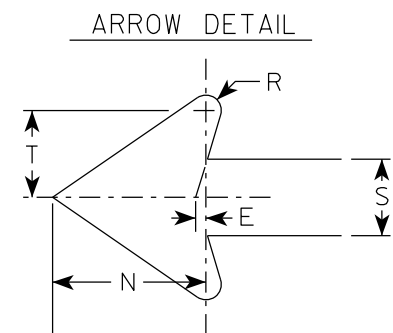
DATE 2/9/2023 PLATE NO. M4-9R.6

PROJECT NO: HWY: COUNTY: SHEET NO:

E

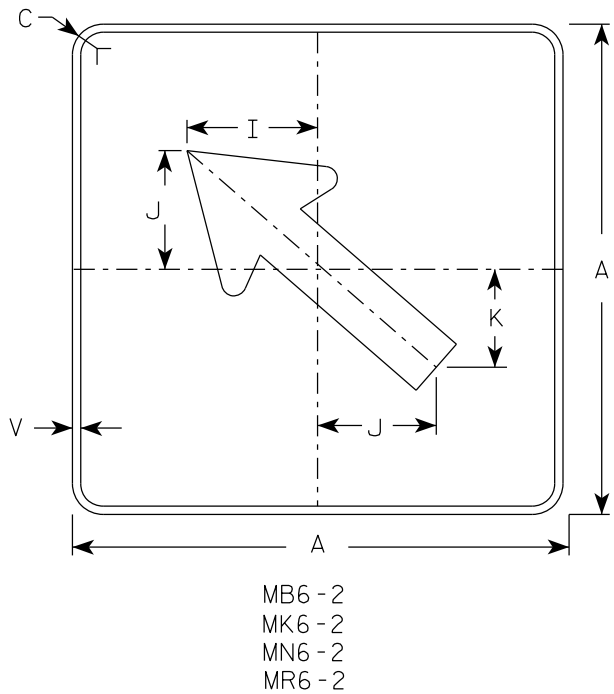
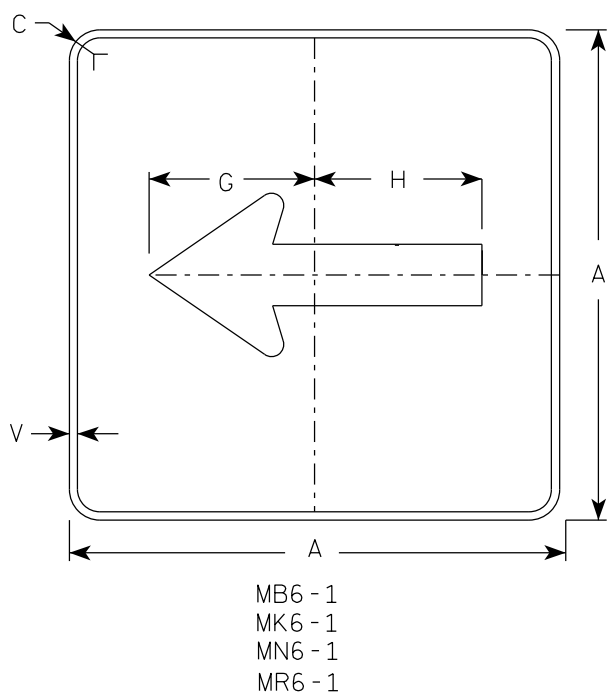
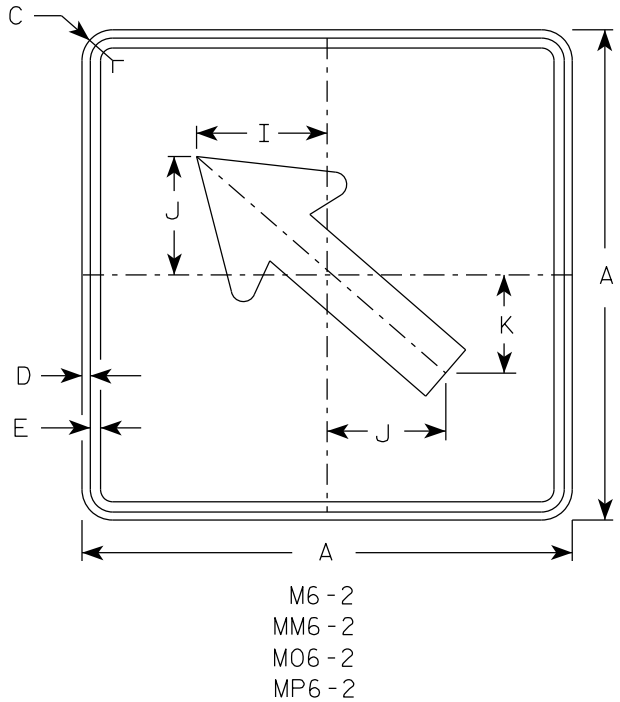
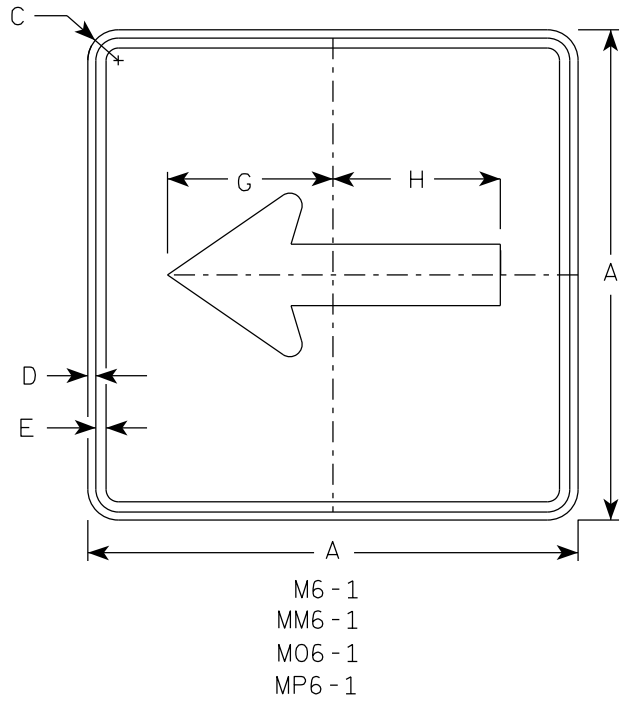


- NOTES
- Signs are Type II - Type H reflective except as shown
 - Color:
Background - See note 4
Message - See note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - | | | |
|-----------|-------|---|
| 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 |
| M05-1 and | M05-2 | 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 |
 - M5-1R same as M5-1L except arrow points right.
 - M5-2R same as M5-2L except arrow tilts right.

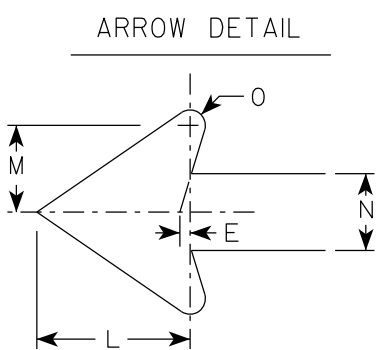


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2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

PROJECT NO:		HWY:		COUNTY:		SHEET NO:		E
FILE NAME : C:\CAEfiles\Projects\tr_stdplate_M51.dgn								
PLOT DATE : 13-FEB 2023 10:05								
PLOT BY : dotc4c								
PLOT NAME :								
PLOT SCALE : \$\$.....plotscale.....\$\$WISDOT/CADDs SHEET 42								



- NOTES**
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See note 4
Message - See note 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.
 - 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
M06-1 and M06-2 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



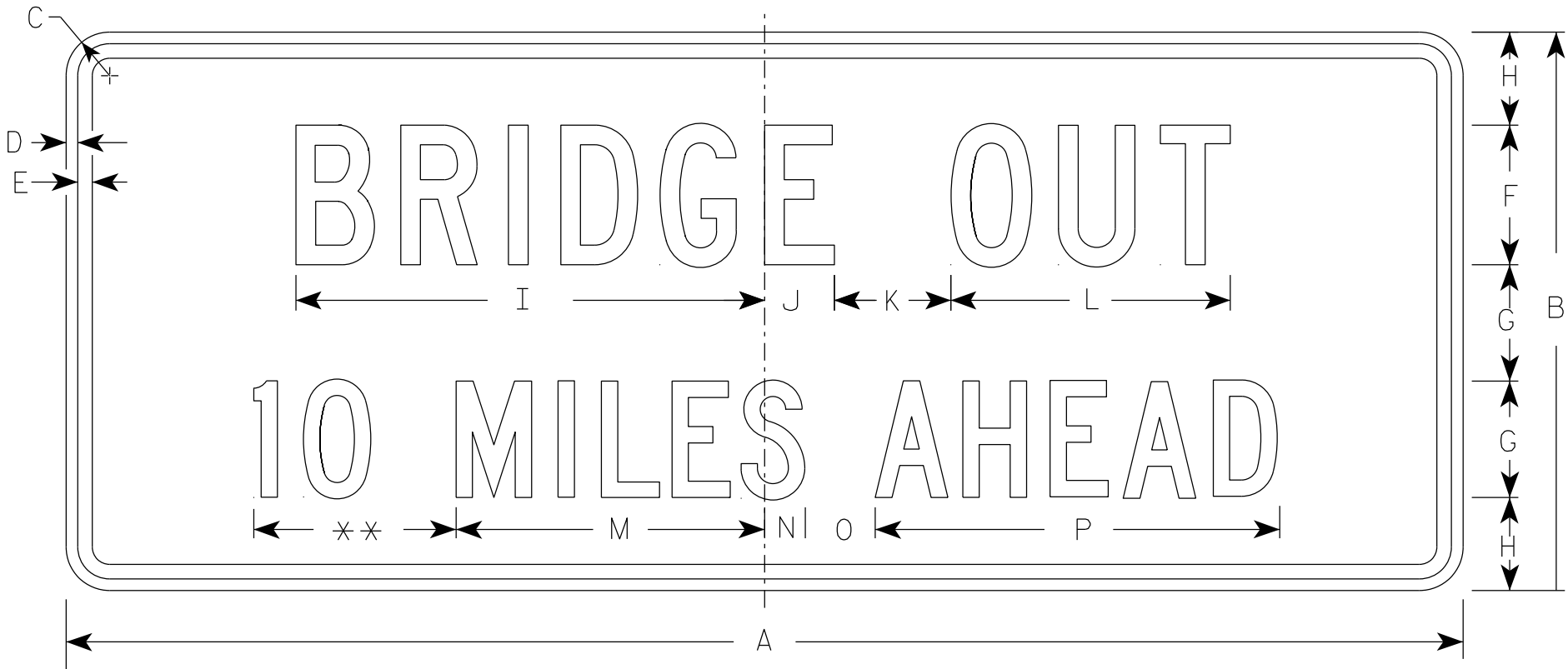
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4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

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

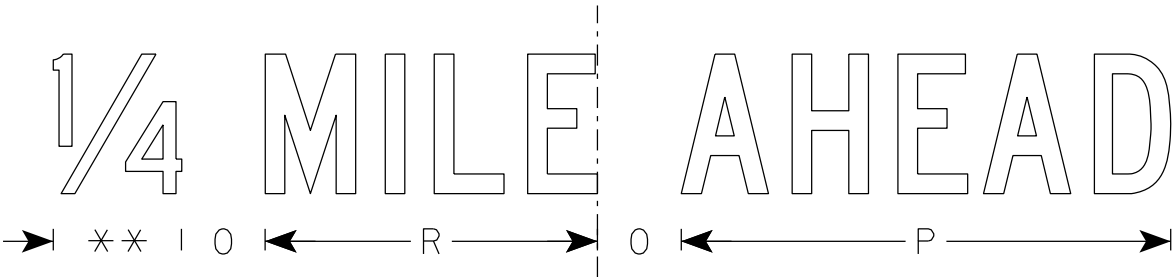
Background - White

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

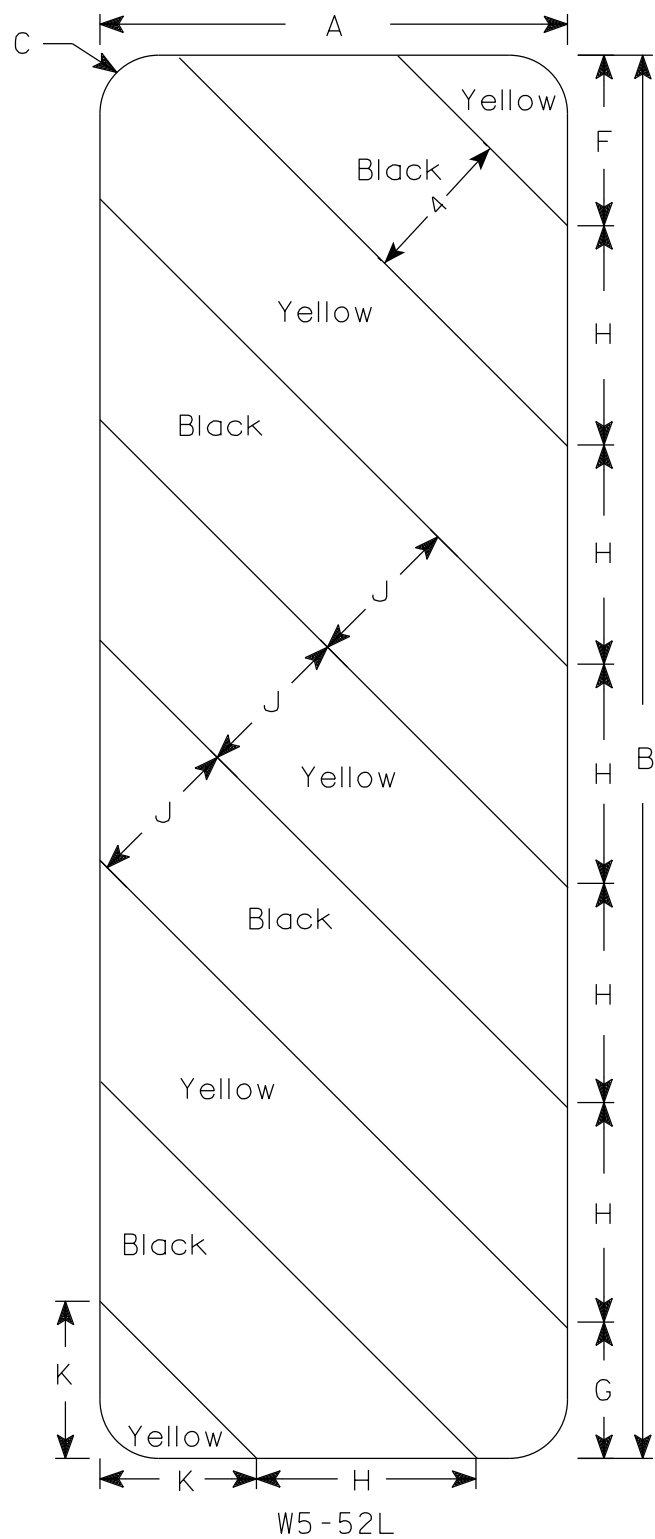
APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

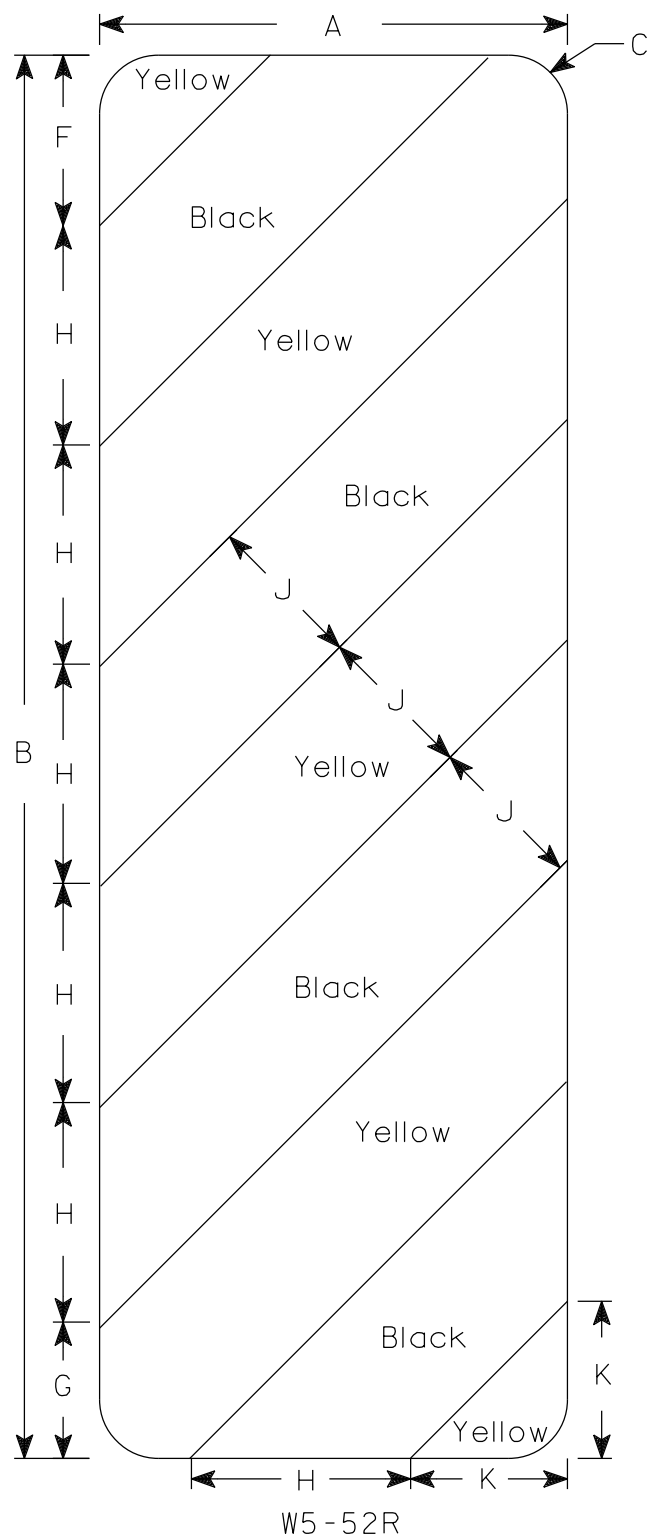
PROJECT NO:

SHEET NO:

E



W5-52L



W5-52R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Alternate colors of stripes as shown.

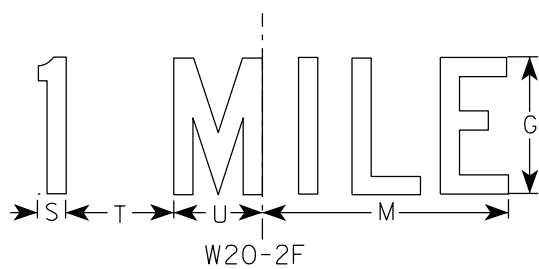
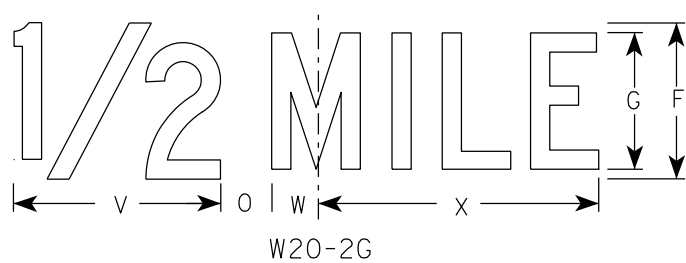
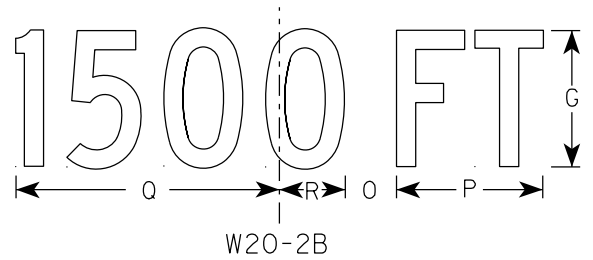
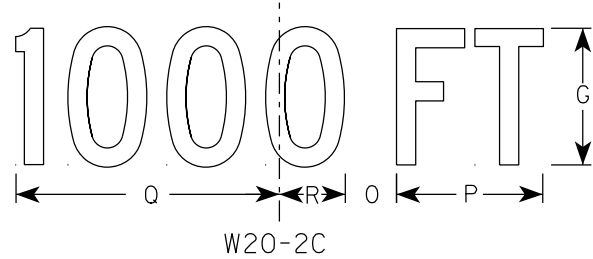
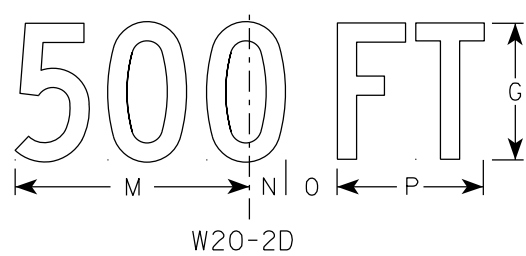
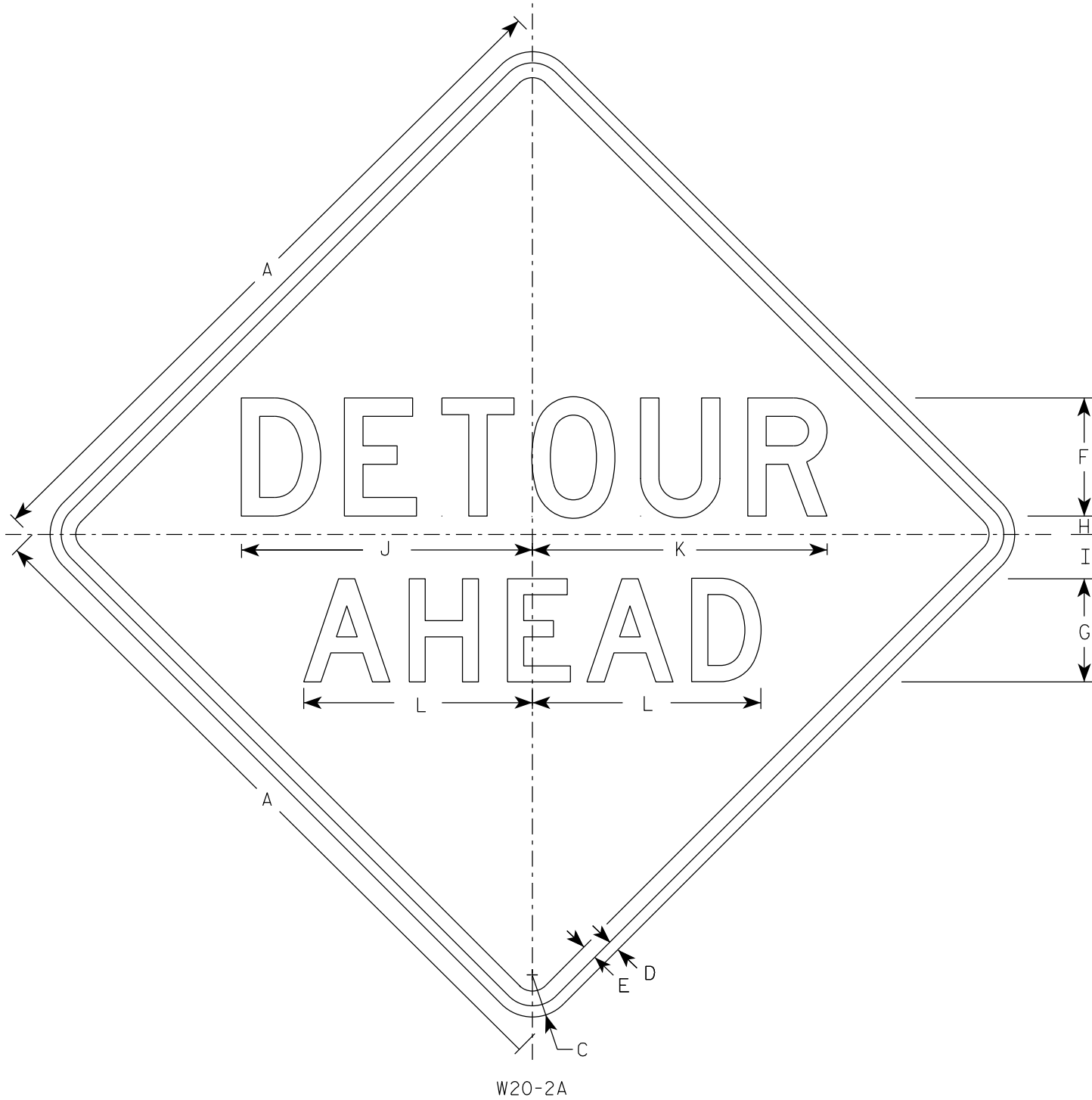
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4													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

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10



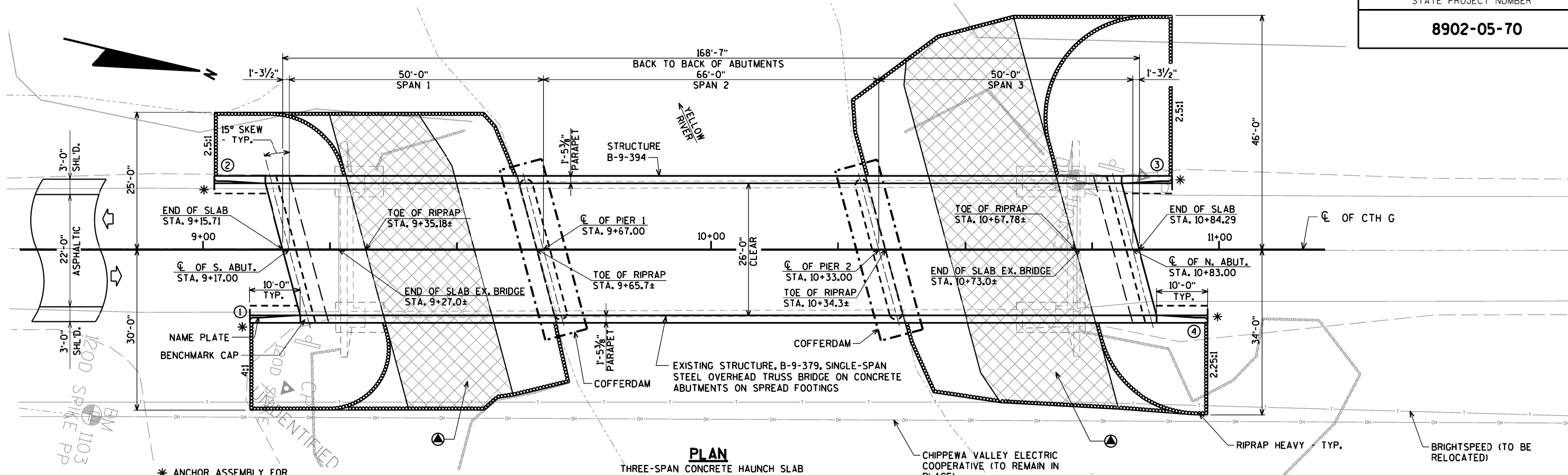
NOTES

- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- 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.
- 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 1/10/2024	PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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* ANCHOR ASSEMBLY FOR STEEL PLATE BEAM GUARD.

○ DENOTES WING NUMBER.

▲ TRAVEL CORRIDOR. FILL VOIDS IN RIPRAP HEAVY WITH SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDORS.

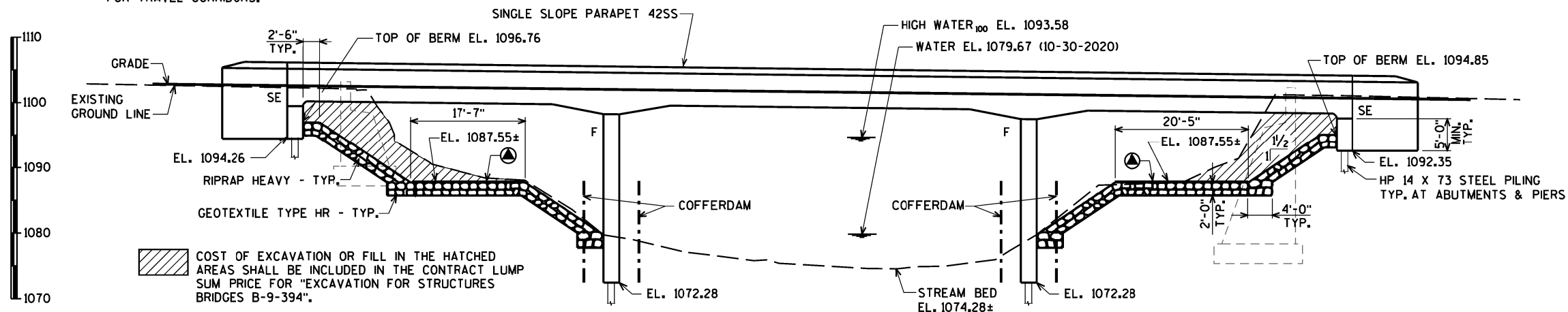
PLAN

THREE-SPAN CONCRETE HAUNCH SLAB

CHIPPEWA VALLEY ELECTRIC COOPERATIVE (TO REMAIN IN PLACE)

RIPRAP HEAVY TYP.

BRIGHTSPEED (TO BE RELOCATED)



ELEVATION

(NORMAL TO CL OF CREEK)

REMOVE EXISTING SUBSTRUCTURE AS NEEDED. COST INCLUDED WITH "REMOVING STRUCTURE" ITEM. TYPICAL AT ALL SUBSTRUCTURES.

COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-9-394".

GEOTEXTILE TYPE HR - TYP.

RIPRAP HEAVY - TYP.

EXISTING GROUND LINE

GRADE

SINGLE SLOPE PARAPET 42SS

TOP OF BERM EL. 1096.76

2'-6" TYP.

SE

RIPRAP HEAVY - TYP.

EL. 1094.26

TOP OF BERM EL. 1096.76

2'-6" TYP.

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EL. 1094.26

TOP OF BERM EL. 1096.76

2'-6" TYP.

SE

9/10/2024
PENTABLE:BRQu-shd_uHl.tbi

STATE PROJECT NUMBER

8902-05-70

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	PIER 1	PIER 2	N. ABUT.	SUPER.	TOTAL
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS B-9-379	LS	-----	-----	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-9-394	LS	-----	-----	-----	-----	-----	1
206.5000	COFFERDAMS B-9-394	LS	-----	-----	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	125	-----	-----	125	-----	250
502.0100	CONCRETE MASONRY BRIDGES	CY	31.4	64.6	62.7	31.4	439.7	630
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	-----	-----	490	490
502.3210	PIGMENTED SURFACE SEALER	SY	-----	-----	-----	-----	190	190
502.9000.S	UNDERWATER SUBSTRUCTURE INSPECTION B-9-394	EACH	-----	1	1	-----	-----	2
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,800	3,090	2,990	1,800	-----	9,680
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,230	50	50	1,230	73,140	75,700
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	-----	-----	9	-----	18
550.0500	PILE POINTS	EACH	5	8	8	5	-----	26
550.1140	PILING STEEL HP 14-INCH X 73 LB	LF	250	400	400	200	-----	1,250
606.0300	RIPRAP HEAVY	CY	250	-----	-----	355	-----	605
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	-----	-----	90	-----	180
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-----	-----	2	-----	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	30	-----	-----	30	-----	60
645.0120	GEOTEXTILE TYPE HR	SY	400	-----	-----	550	-----	950
SPV.0195.01	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	50	-----	-----	85	-----	135
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	-----	-----	1/2" & 3/4"

- SALVAGE AND RE-USE RIPRAP ALLOWED, PROVIDED MATERIAL MEETS "RIPRAP HEAVY" SPECIFICATIONS. COST INCLUDED WITH "RIPRAP HEAVY" ITEM.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.17
OPERATING RATING FACTOR: 1.51
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20" S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE f'c = 4,000 p.s.i.
ALL OTHER f'c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) fy = 60,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q100 = 15,240 c.f.s. { STRUCTURE = 14,560 c.f.s.
ROADWAY OVERFLOW = 680 c.f.s.
VEL. = 13.45 f.p.s.
HW100 = EL. 1093.58
WATERWAY AREA = 1,083 sq. ft.
DRAINAGE AREA = 245.0 sq. mi.
SCOUR CRITICAL CODE = 5
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY

Q2 = 4,450 c.f.s.
VEL. = 7.5 f.p.s.
HW2 = EL. 1086.78

ROAD OVERTOPPING FREQUENCY

FREQUENCY = 18 YEARS
Q18 = 10,400 c.f.s.
HW18 = EL. 1093.42

FOUNDATION DATA:

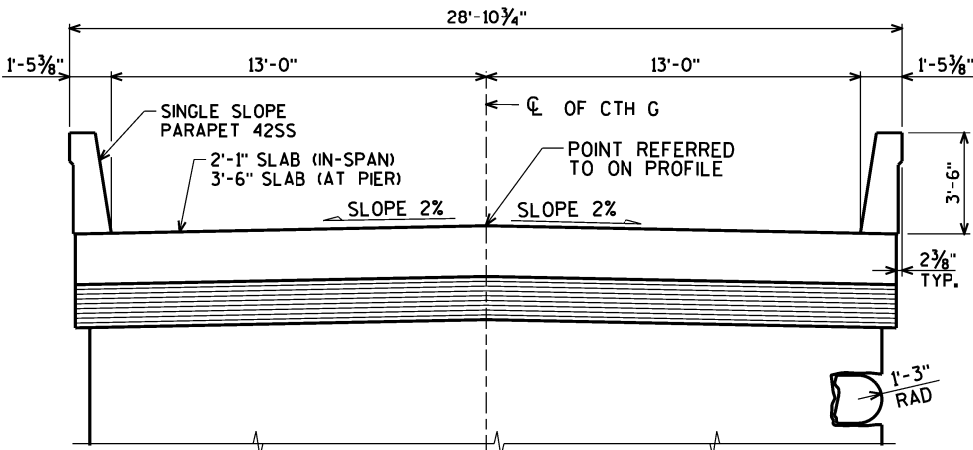
ABUTMENTS TO BE SUPPORTED ON HP 14 x 73 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 50'-0" AT THE SOUTH ABUTMENT AND 40'-0" AT THE NORTH ABUTMENT.

PIERS TO BE SUPPORTED ON HP 14 x 73 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 250 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 50'-0" AT PIER 1 AND 50'-0" AT PIER 2.

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

TRAFFIC DATA:

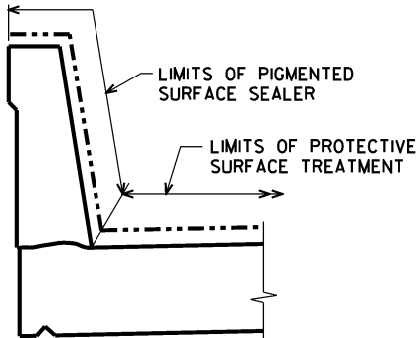
A.A.D.T. = 360 (2025)
A.A.D.T. = 485 (2045)
R.D.S. = 40 M.P.H.



TYPICAL SECTION THRU BRIDGE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER.
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-9-394" SHALL BE THE EXISTING GROUNDLINE.
AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.
PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.
BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.
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.
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 EXCAVATIONS FOR STRUCTURES.
AT PIERS, COFFERDAM REQUIRED, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH STANDARD SPEC 502.3.5.2. CONCRETE POURED UNDERWATER SHALL NOT EXCEED 10.0 FEET IN DEPTH, UNLESS APPROVED OTHERWISE.
EXTENT OF BELOW GRADE SUBSTRUCTURES SHOWN ARE PER ORIGINAL PLANS. REMOVE EXISTING SUBSTRUCTURES AS NEEDED TO BUILD NEW SUBSTRUCTURES. COST OF SUBSTRUCTURE REMOVAL IS CONSIDERED INCIDENTAL TO "REMOVING STRUCTURE" BID ITEM.



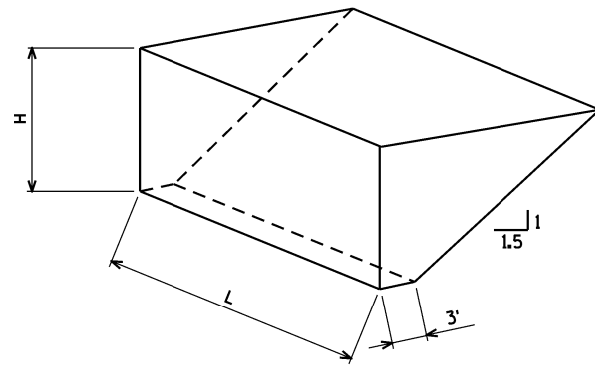
PROTECTIVE SURFACE TREATMENT AND PIGMENTED SURFACE SEALER DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
	DRAWN BY	JLB/CLP	PLANS CK'D. NBE
QUANTITIES, TYPICAL SECTION, AND NOTES		SHEET 2 OF 17	

9/5/2024
PENTABLE:BReou_shd_util.tbl

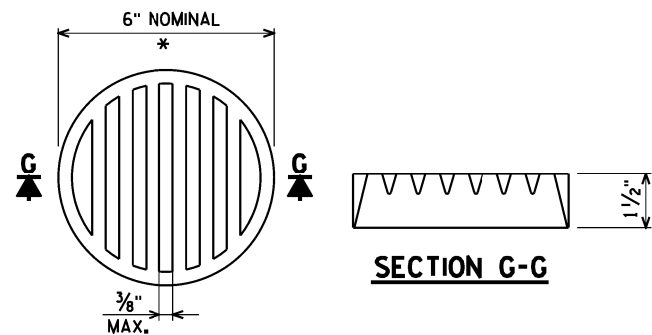
STATE PROJECT NUMBER

8902-05-70



ABUTMENT BACKFILL DIAGRAM

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

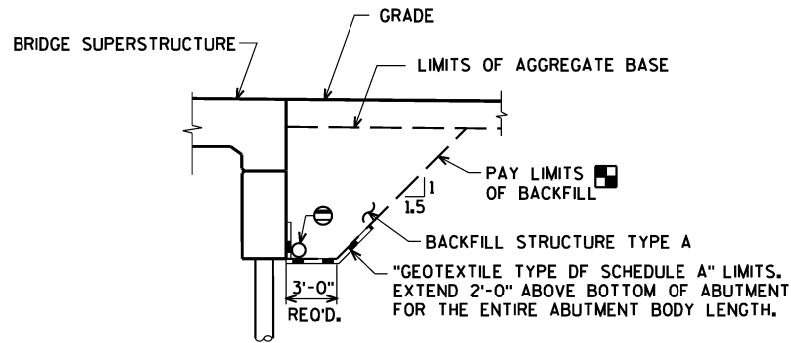


* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

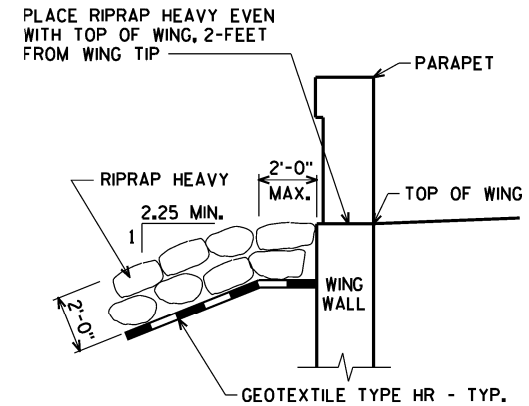
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH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

RODENT SHIELD DETAIL



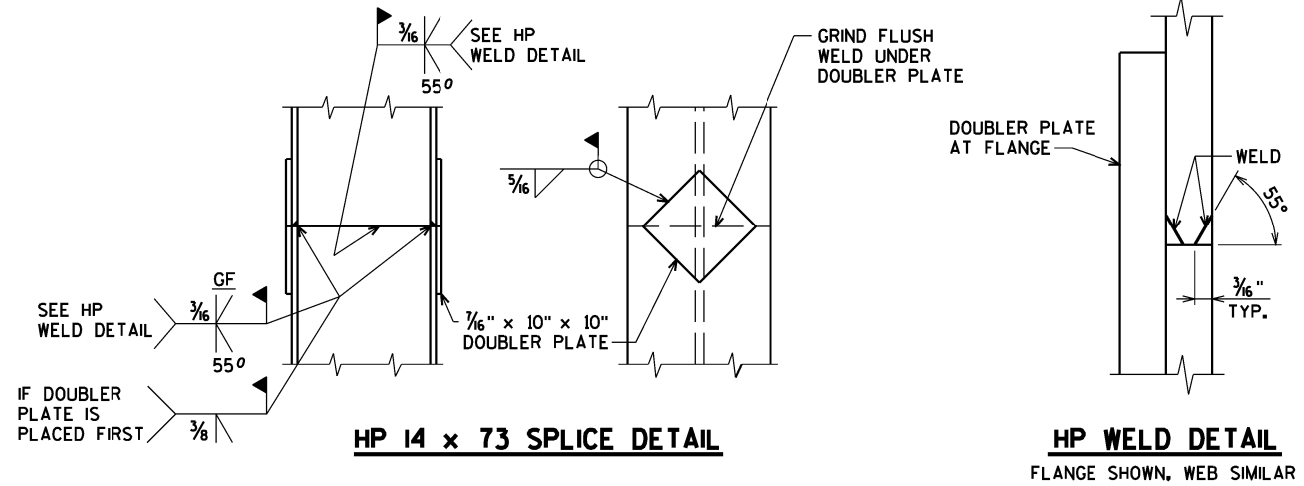
BACKFILL STRUCTURE LIMITS

- BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL 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 AS DETAILED ON THIS SHEET.



TYPICAL FILL SECTION AT WING TIPS

NOTE: PLACE RIPRAP HEAVY AS SHOWN ON GENERAL PLAN SHEET



8

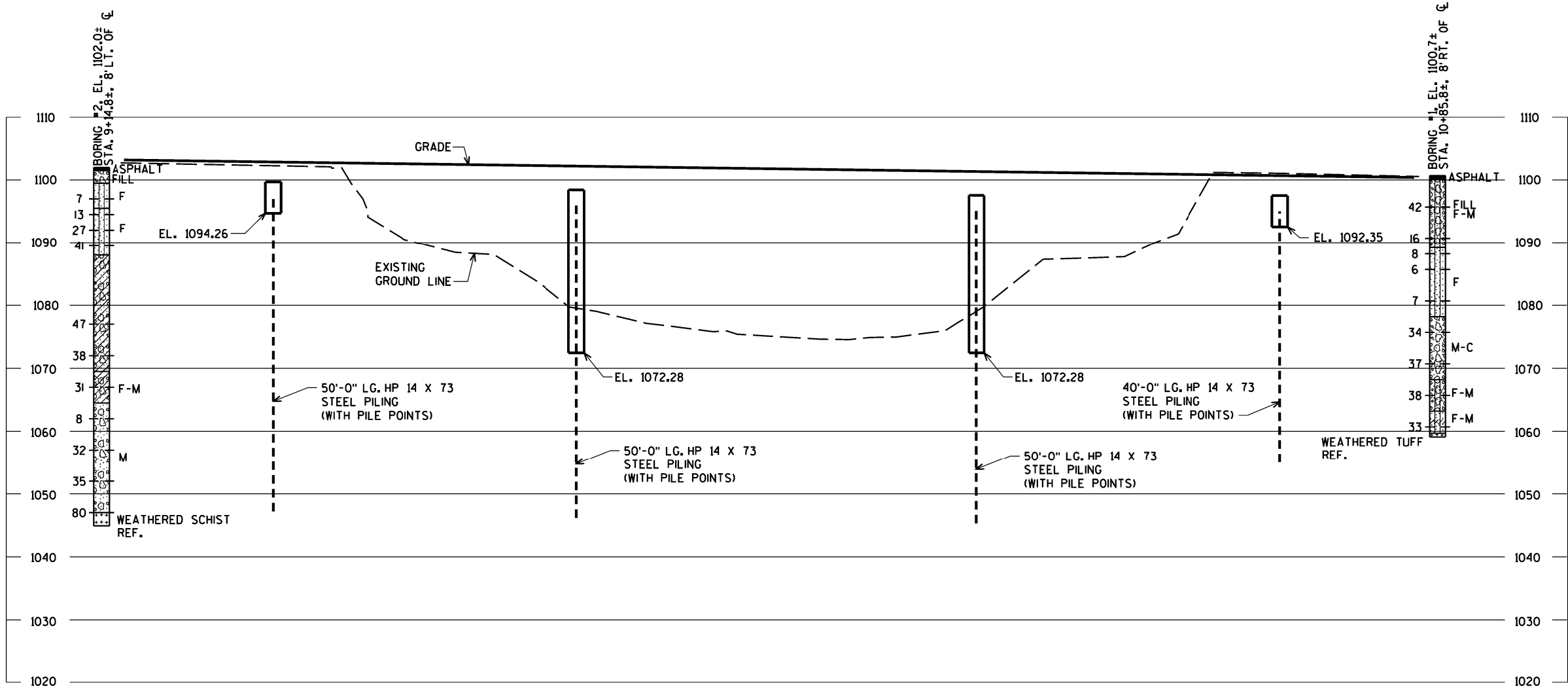
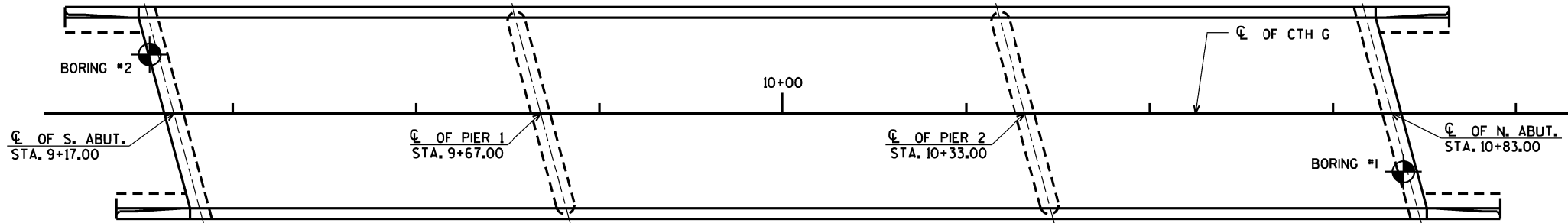
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9/5/2024
PENTABLE:BReou_shd_util.tbl

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	2/10/2022	197468.55	273590.49
2	2/10/2022	197298.82	273616.68

BORINGS COMPLETED BY: CHOSEN VALLEY TESTING, INC
REPORT COMPLETED BY: CHOSEN VALLEY TESTING, INC
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) CHIPPEWA COUNTY

YELLOW
RIVER



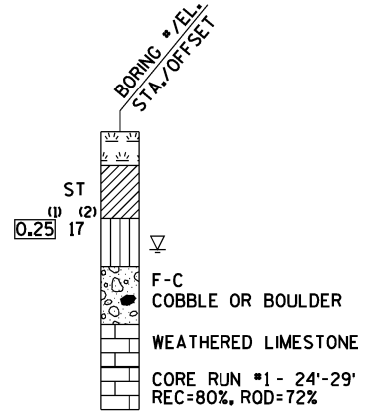
STATE PROJECT NUMBER

8902-05-70

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

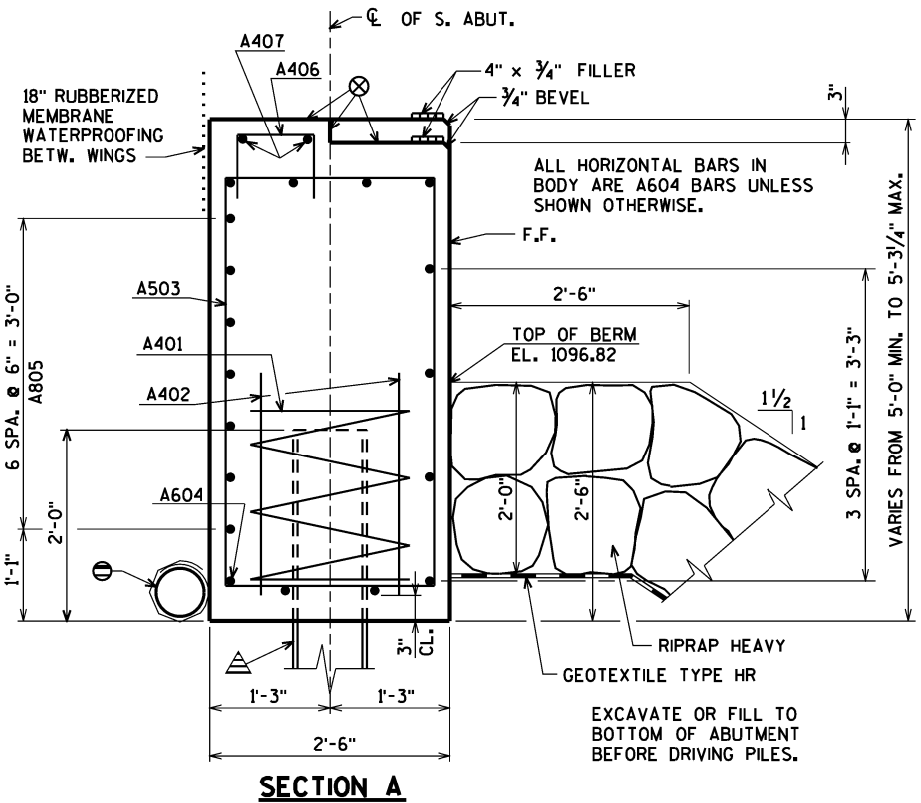
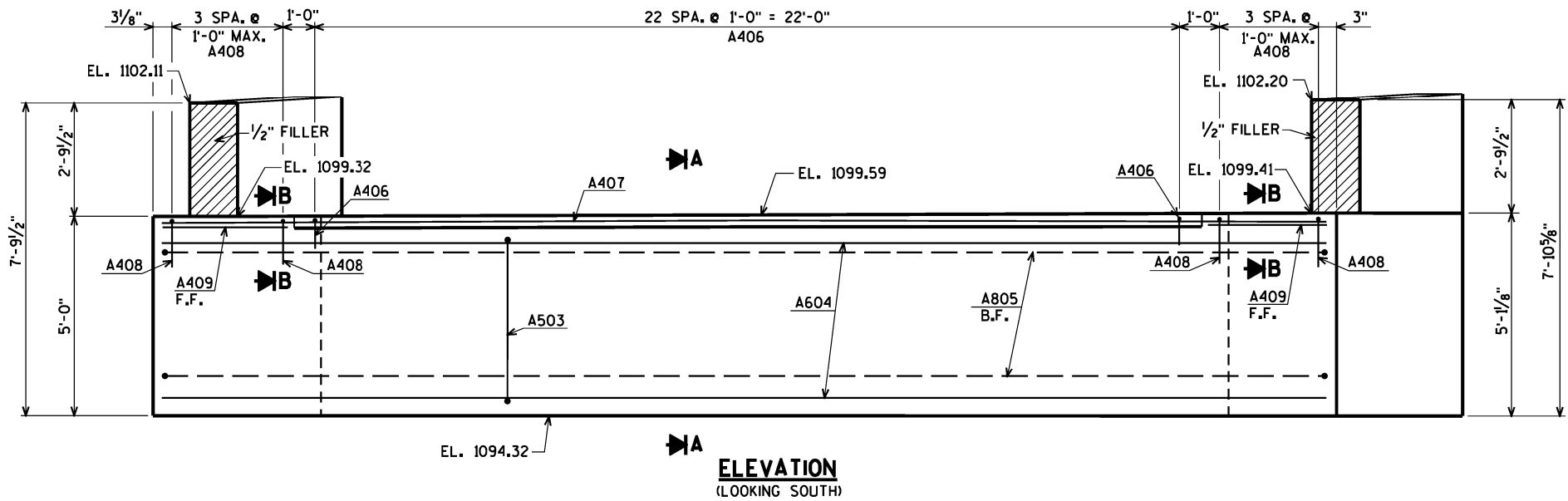
BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT 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-9-394			
DRAWN BY JLB		PLANS CK'D. NBE	
SUBSURFACE EXPLORATION		SHEET 4 OF 17	

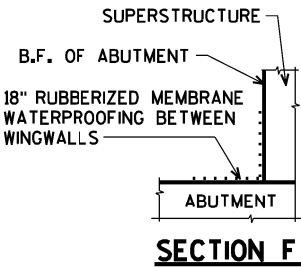
NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF
1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

STATE PROJECT NUMBER

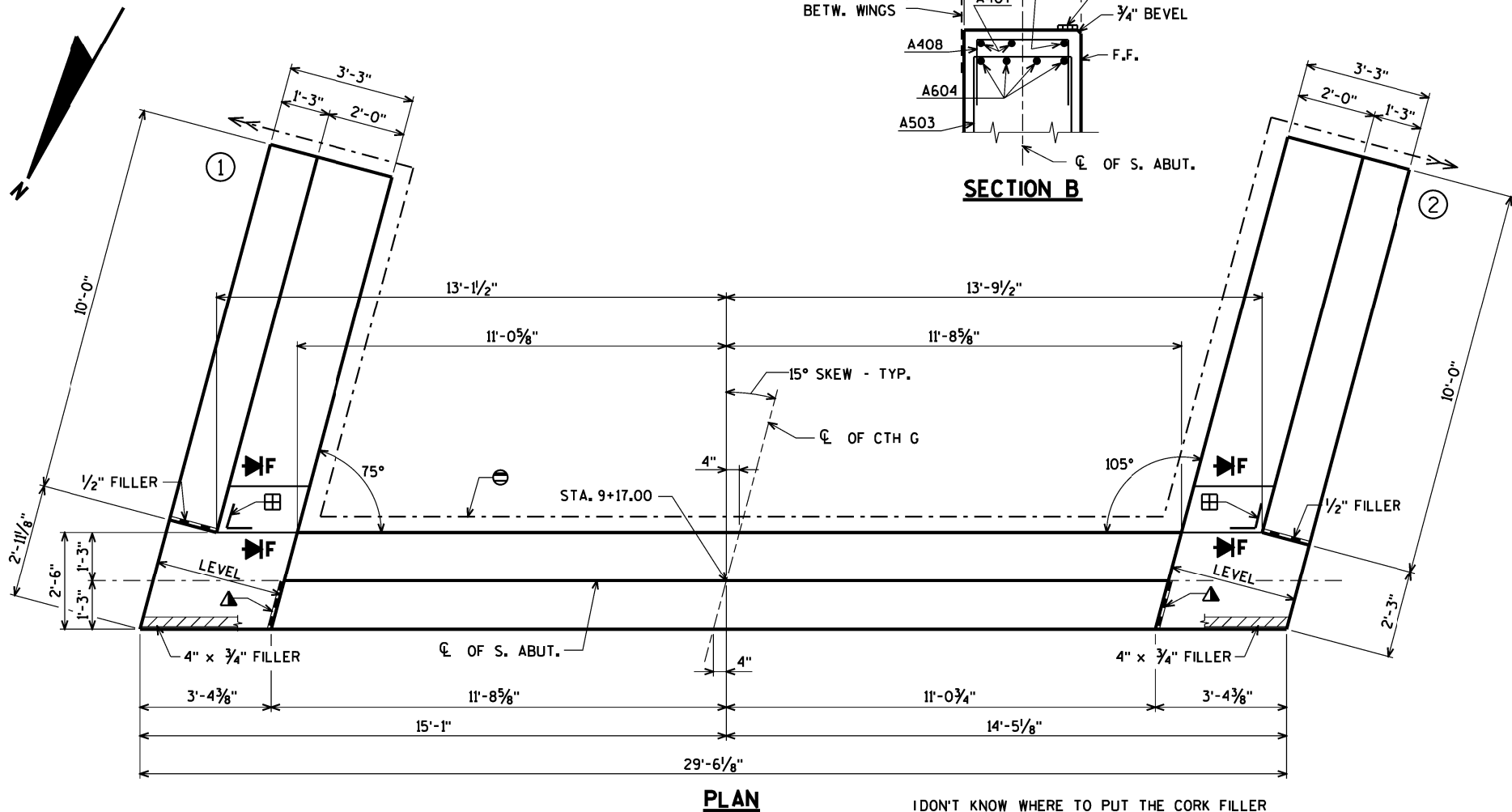
8902-05-70



SECTION A



SECTION F

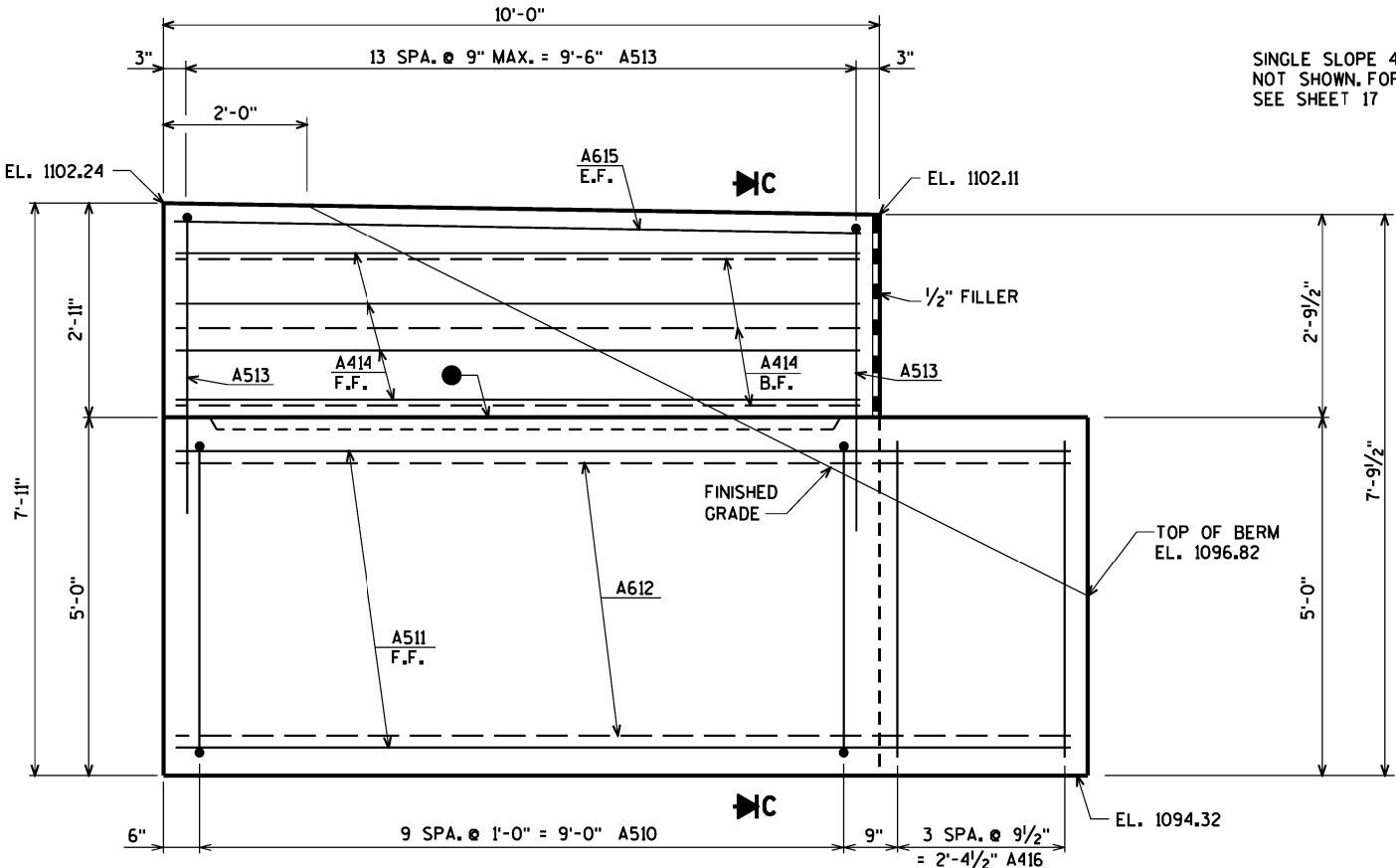


PLAN

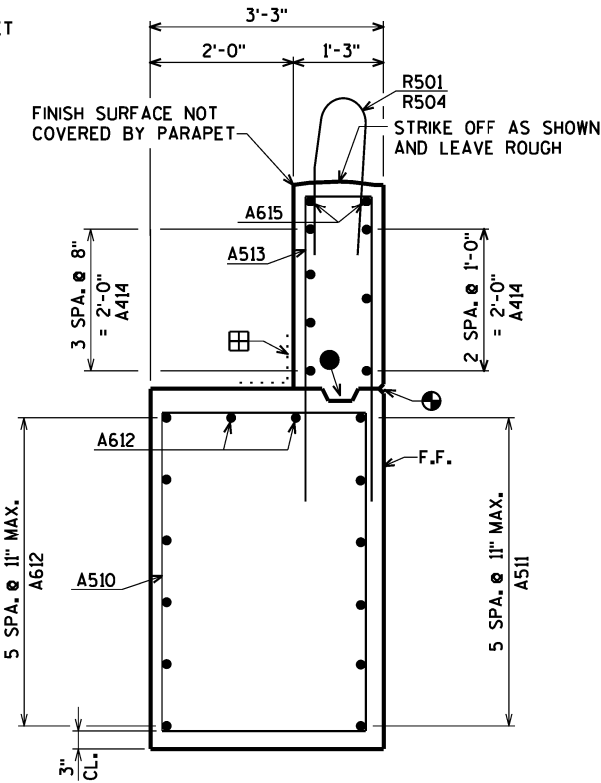
IDON'T KNOW WHERE TO PUT THE CORK FILLER
AND THEN WILL NEED TO RE-DIMENSION

- ABUTMENT TO BE SUPPORTED ON
HP 14 x 73 STEEL PILING (WITH PILE POINTS)
DRIVEN TO A REQ'D. DRIVING
RESISTANCE OF 250 TONS PER PILE.
ESTIMATED LENGTH 50'-0".
 - PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5%
MIN. TO SUITABLE DRAINAGE. ATTACH RODENT
SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL
ON SHEET 3.
 - STEEL TROWEL TOP SURFACE OF ABUTMENT.
PLACE MULTIPLE LAYERS OF POLYETHYLENE
SHEETS OVER ENTIRE ABUTMENT TOP BEFORE
PLACING BEARING PADS AND SUPERSTRUCTURE.
TOTAL THICKNESS OF SHEETS SHALL BE AT
LEAST 0.03".
 - 3/4" CORK FILLER ON VERTICAL
FACE ONLY.
 - VERTICAL 18" RUBBERIZED MEMBRANE
WATERPROOFING TO EXTEND FROM
BRIDGE SEAT TO TOP OF WINGWALL.
- FOR PILE SPLICE DETAIL SEE SHEET 3.

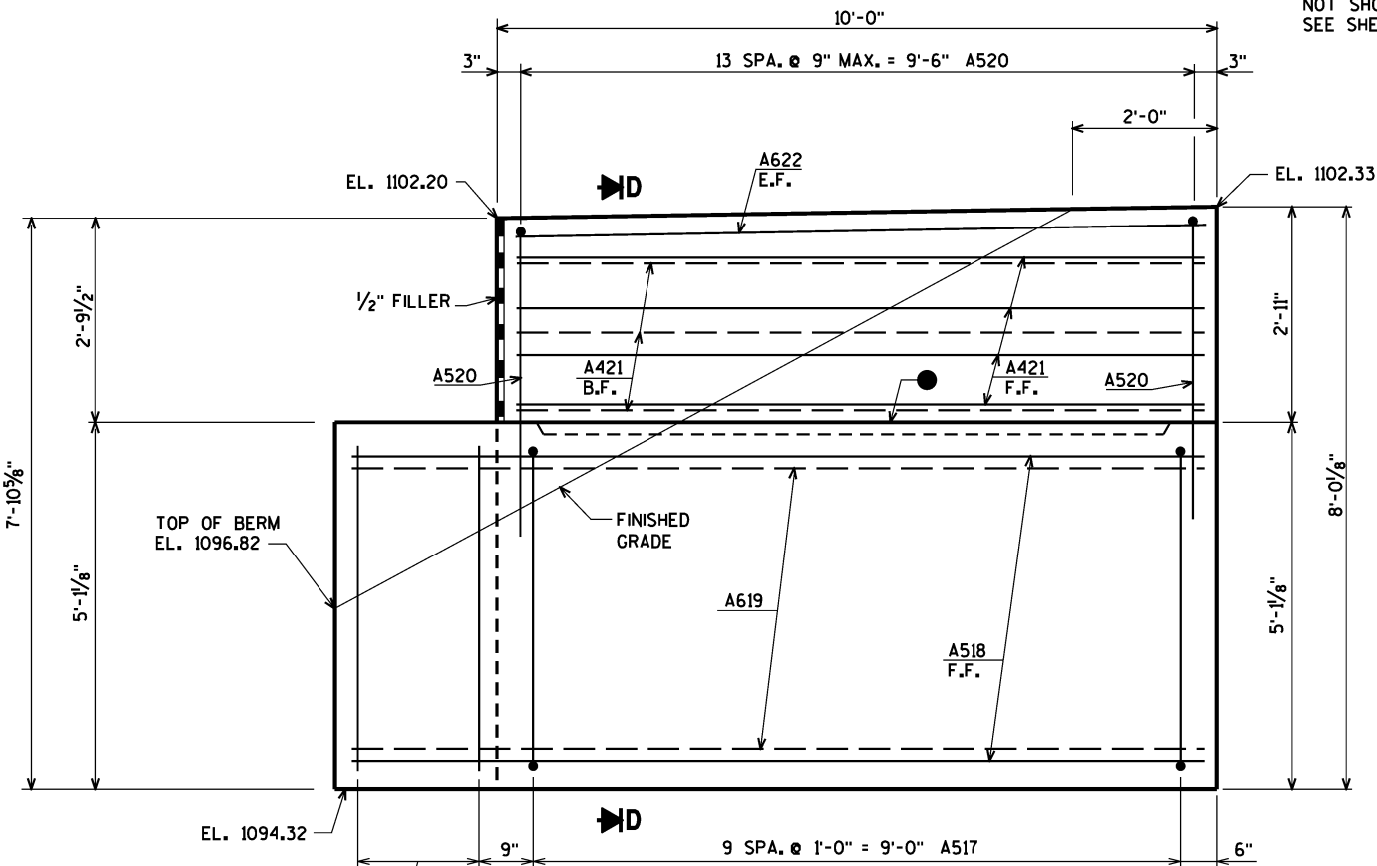
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
SOUTH ABUTMENT		SHEET 5 OF 17	



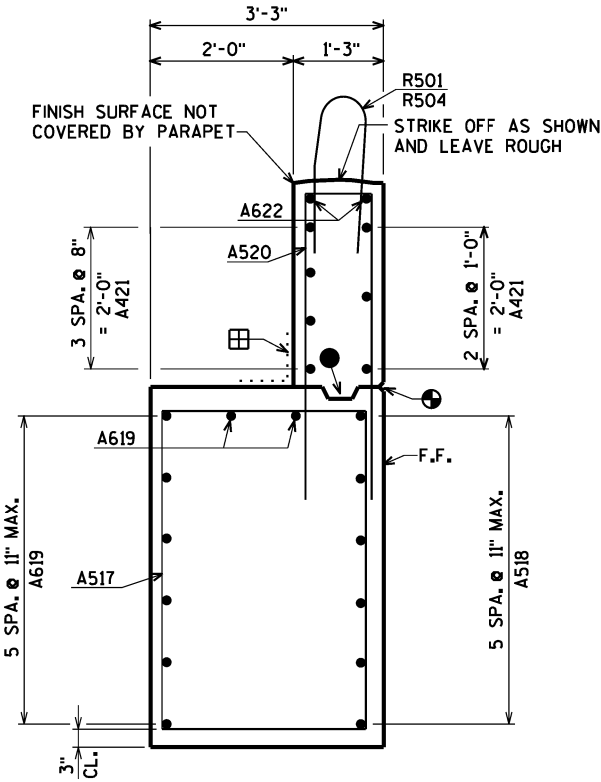
ELEVATION - WING 1



SECTION C



ELEVATION - WING 2



SECTION D

- 3/4" "V" GROOVE ON FRONT FACE OF WINGWALL. ONLY REQUIRED IF OPTIONAL CONSTRUCTION JOINT IS USED.
- OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		PLANS CK'D.	NBE
SOUTH ABUTMENT WING DETAILS		SHEET 6 OF 17	

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	LOCATION
A401		5	28-0	X			BODY @ PILES
A402		10	2-3				BODY @ PILES
A503		36	13-8	X			BODY VERT.
A604		11	29-2				BODY HORIZ.
A805		7	30-10	X			BODY HORIZ. @ WING B.F.
A406		23	3-3	X			BODY VERT. TOP
A407		2	29-2				BODY HORIZ. TOP
A408		8	4-6	X			BODY VERT. TOP @ WINGS
A409		2	3-0				BODY HORIZ. TOP F.F. @ WINGS
A510	X	10	15-8	X			WING 1 VERT.
A511	X	6	12-6				WING 1 HORIZ. F.F.
A612	X	8	11-4				WING 1 HORIZ. B.F. & TOP
A513	X	14	10-0	X			WING 1 VERT.
A414	X	7	9-7				WING 1 HORIZ. E.F.
A615	X	2	9-7				WING 1 HORIZ. E.F.
A416	X	4	4-7				BODY VERT. END @ WING 1
A517	X	10	15-10	X			WING 2 VERT.
A518	X	6	11-11				WING 2 HORIZ. F.F.
A619	X	8	12-5				WING 2 HORIZ. B.F. & TOP
A520	X	14	10-2	X			WING 2 VERT.
A421	X	7	9-7				WING 2 HORIZ. E.F.
A622	X	2	9-7				WING 2 HORIZ. E.F.
A423	X	3	4-8				BODY VERT. END @ WING 2

Technical drawing showing a spring and a rectangular plate with dimensions and labels.

Spring Dimensions:

- Overall height: 2'-0"
- Coil diameter: 1'-9"
- Coil thickness: 6"

Rectangular Plate Dimensions:

- Overall width: 2'-2"
- Overall height: 4'-4"
- Inner width: 2'-1"
- Inner height: 4'-7"
- Inner width (bottom): 2'-1"
- Inner height (bottom): 4'-8"
- Bottom corner radius: 5/2"

Labels:

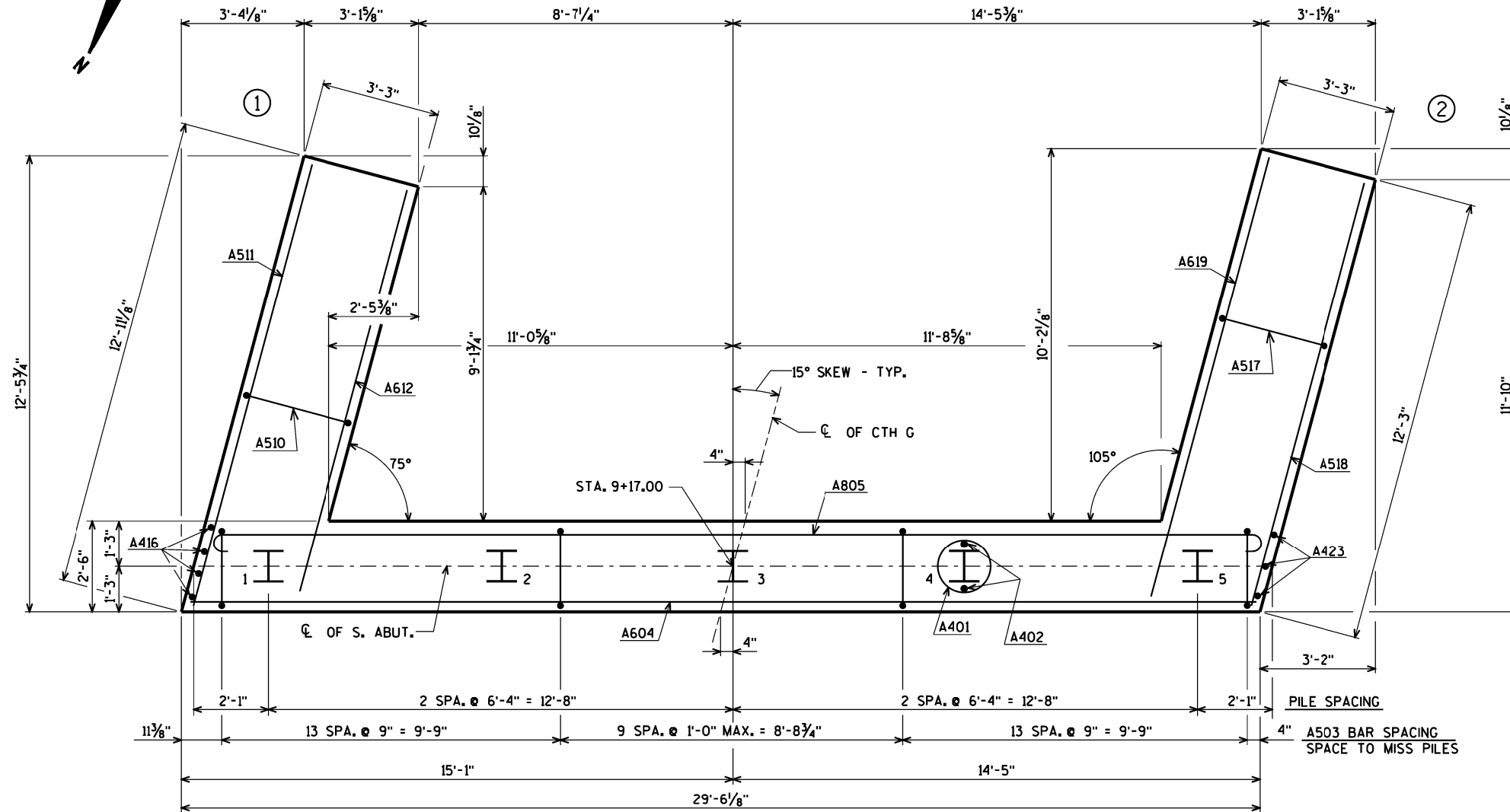
- A401 (Spring)
- A503 (Top right corner)
- A510 (Middle right corner)
- A517 (Bottom right corner)

29'-0"

STD. 180° HOOK

A805

PILE LAYOUT

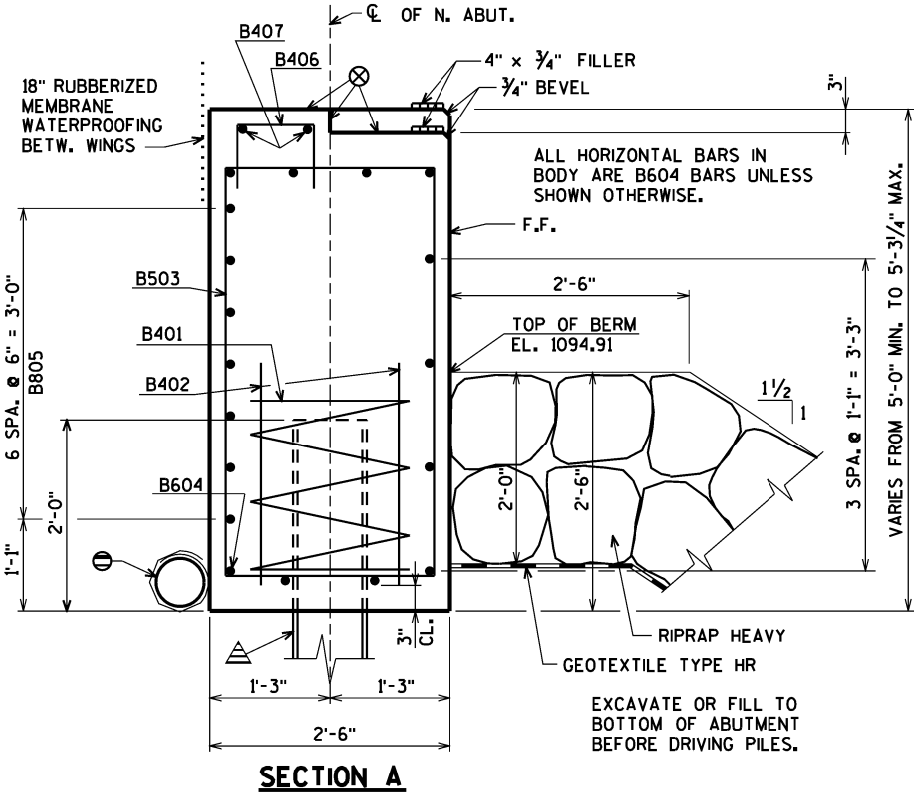
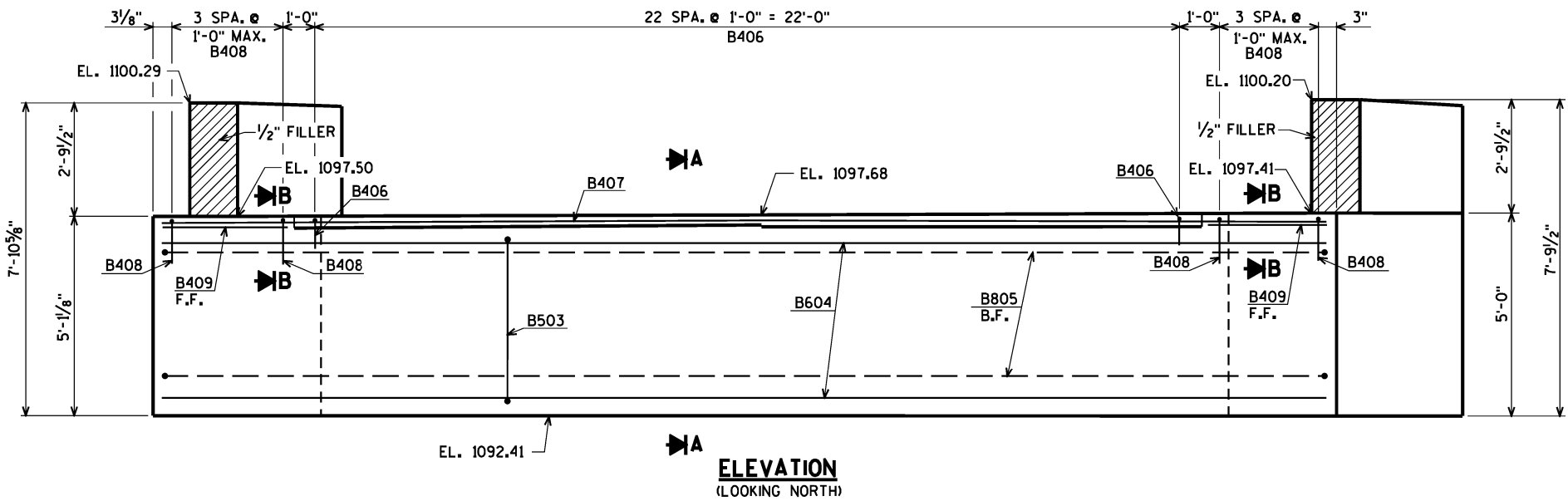


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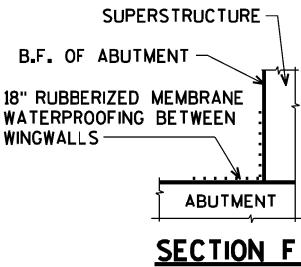
8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
SOUTH ABUTMENT PILE LAYOUT & BILL OF BARS		SHEET 7 OF 17	

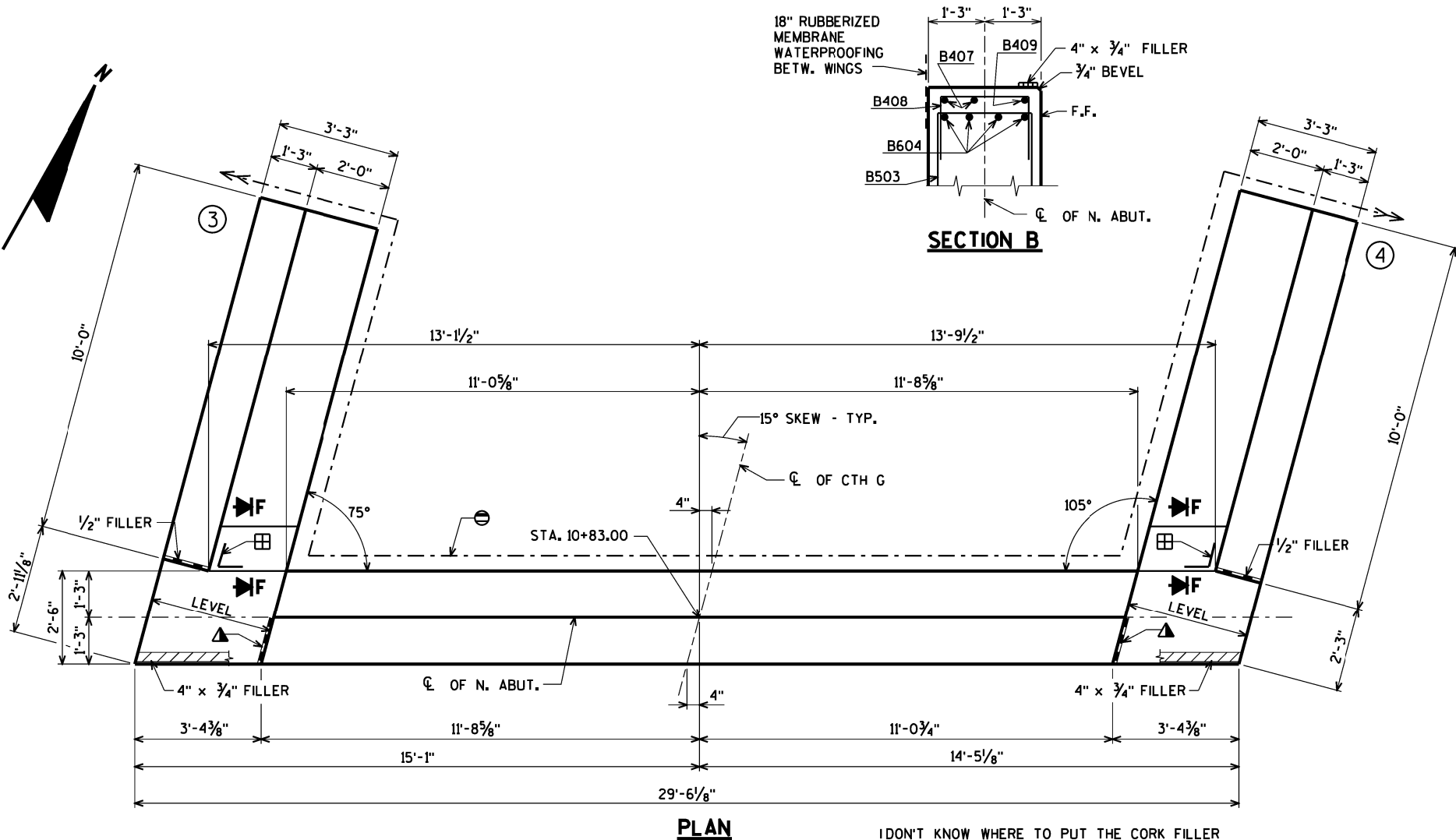
NOTE:
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF
1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).



SECTION A



SECTION F

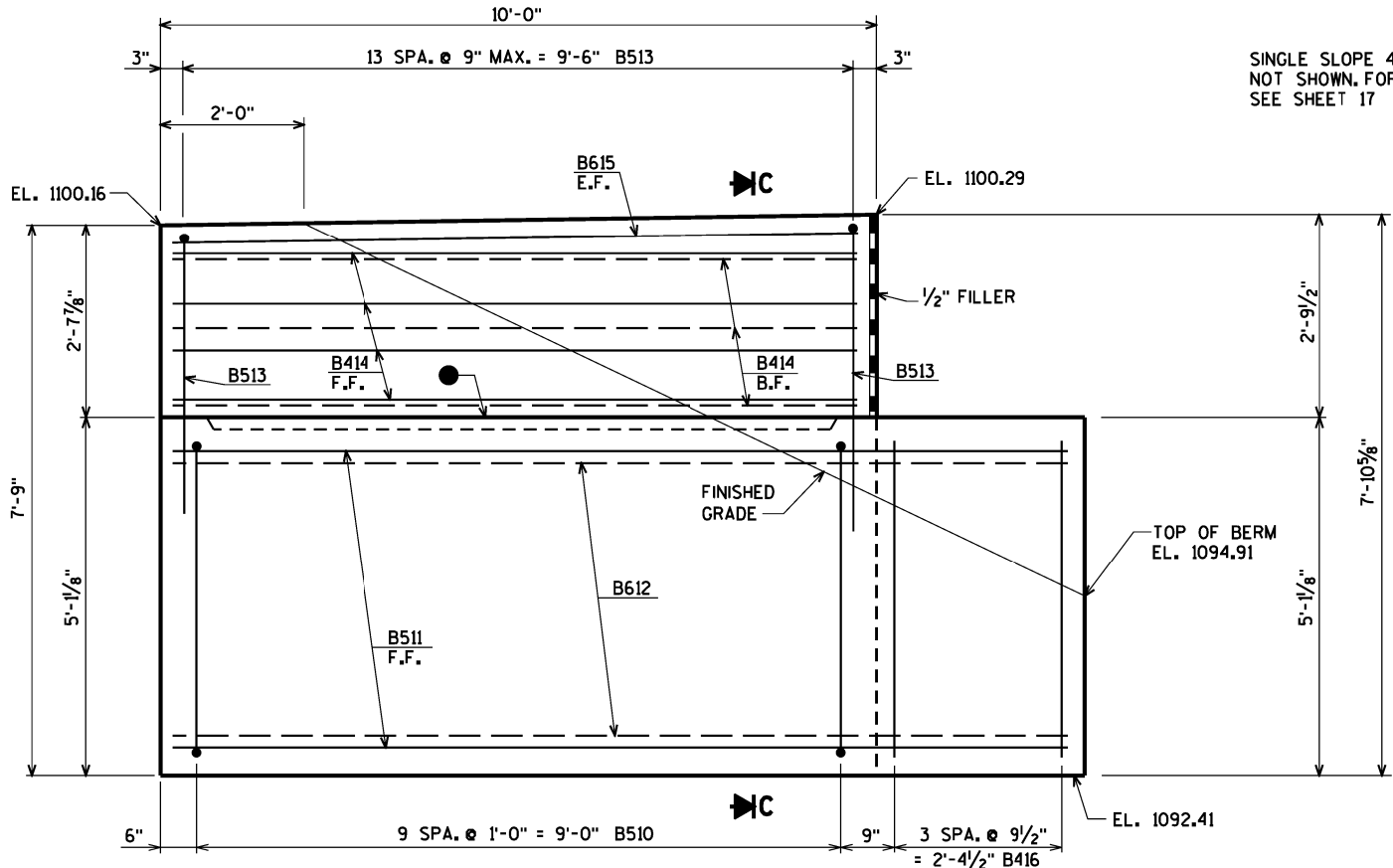


PLAN

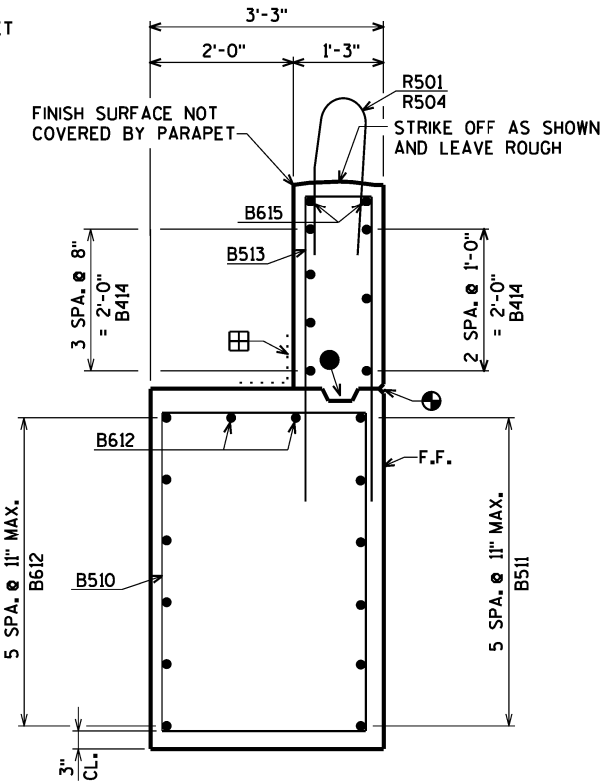
IDON'T KNOW WHERE TO PUT THE CORK FILLER
AND THEN WILL NEED TO RE-DIMENSION

- △ ABUTMENT TO BE SUPPORTED ON
HP 14 x 73 STEEL PILING (WITH PILE POINTS)
DRIVEN TO A REQ'D. DRIVING
RESISTANCE OF 250 TONS PER PILE.
ESTIMATED LENGTH 40'-0".
 - ⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5%
MIN. TO SUITABLE DRAINAGE. ATTACH RODENT
SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL
ON SHEET 3.
 - ⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT.
PLACE MULTIPLE LAYERS OF POLYETHYLENE
SHEETS OVER ENTIRE ABUTMENT TOP BEFORE
PLACING BEARING PADS AND SUPERSTRUCTURE.
TOTAL THICKNESS OF SHEETS SHALL BE AT
LEAST 0.03".
 - ▲ 3/4" CORK FILLER ON VERTICAL
FACE ONLY.
 - ⊞ VERTICAL 18" RUBBERIZED MEMBRANE
WATERPROOFING TO EXTEND FROM
BRIDGE SEAT TO TOP OF WINGWALL.
- FOR PILE SPLICE DETAIL SEE SHEET 3.

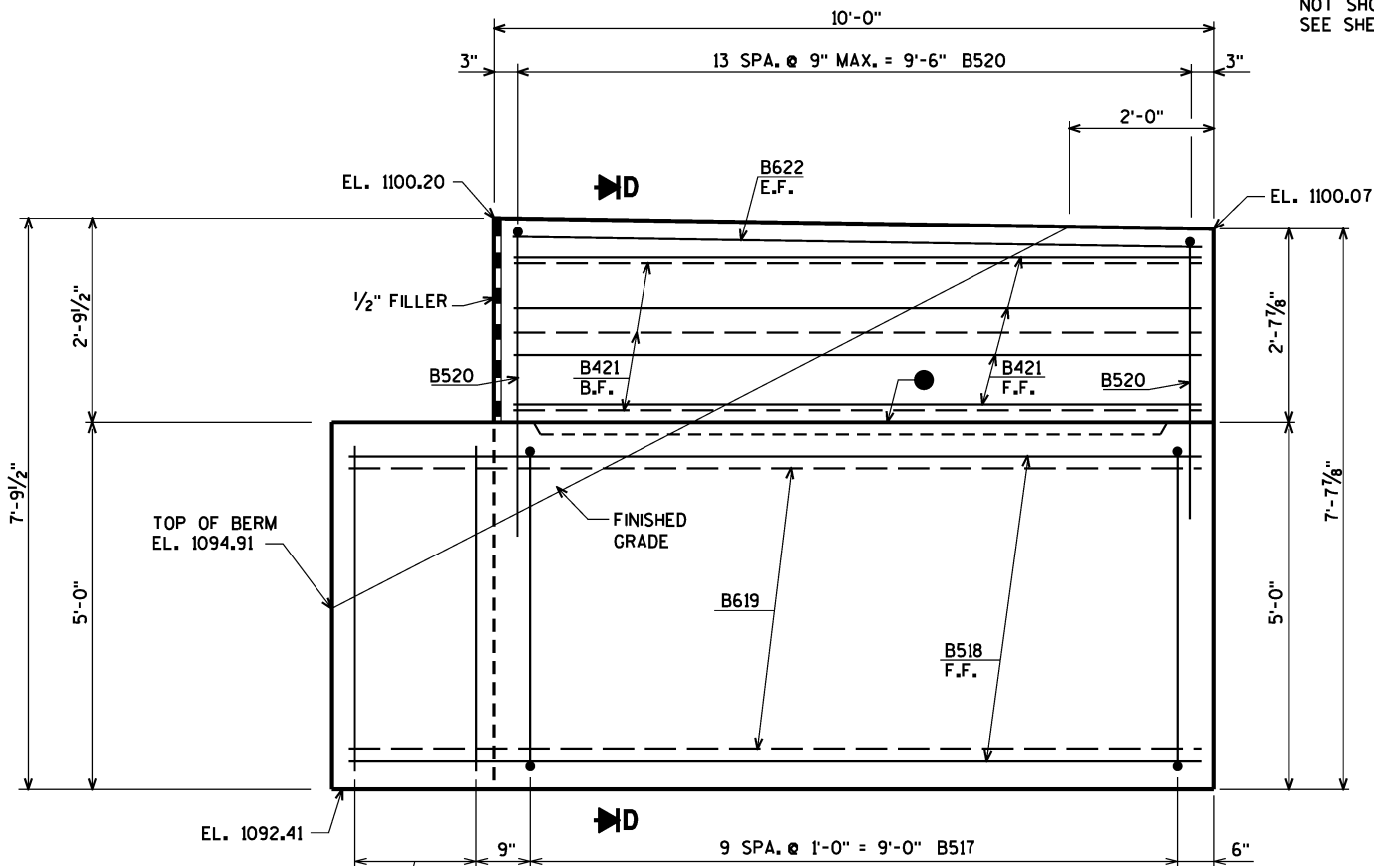
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
NORTH ABUTMENT		SHEET 8 OF 17	



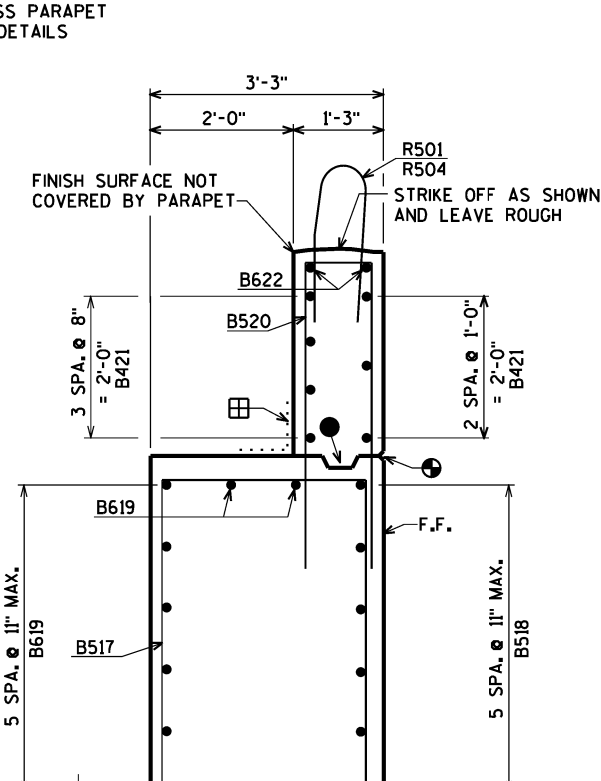
ELEVATION - WING 3



SECTION C



ELEVATION - WING 4



SECTION D

- 3/4" "V" GROOVE ON FRONT FACE OF WINGWALL. ONLY REQUIRED IF OPTIONAL CONSTRUCTION JOINT IS USED.
- OPT. CONST. JOINT FORMED BY A BEVELED 2" x 6" KEYWAY WITH MEMBRANE ON BACKFACE.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
NORTH ABUTMENT WING DETAILS		SHEET 9 OF 17	

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	LOCATION
B401		5	28-0	X			BODY @ PILES
B402		10	2-3				BODY @ PILES
B503		36	13-8	X			BODY VERT.
B604		11	29-2				BODY HORIZ.
B805		7	30-10	X			BODY HORIZ. @ WING B.F.
B406		23	3-3	X			BODY VERT. TOP
B407		2	29-2				BODY HORIZ. TOP
B408		8	4-6	X			BODY VERT. TOP @ WINGS
B409		2	3-0				BODY HORIZ. TOP F.F. @ WINGS
B510	X	10	15-10	X			WING 3 VERT.
B511	X	6	12-6				WING 3 HORIZ. F.F.
B612	X	8	11-4				WING 3 HORIZ. B.F. & TOP
B513	X	14	10-0	X			WING 3 VERT.
B414	X	7	9-7				WING 3 HORIZ. E.F.
B615	X	2	9-7				WING 3 HORIZ. E.F.
B416	X	4	4-8				BODY VERT. END @ WING 3
B517	X	10	15-8	X			WING 4 VERT.
B518	X	6	11-11				WING 4 HORIZ. F.F.
B619	X	8	12-5				WING 4 HORIZ. B.F. & TOP
B520	X	14	10-2	X			WING 4 VERT.
B421	X	7	9-7				WING 4 HORIZ. E.F.
B622	X	2	9-7				WING 4 HORIZ. E.F.
B423	X	3	4-7				BODY VERT. END @ WING 4

Technical drawing showing two components with dimensions and callouts:

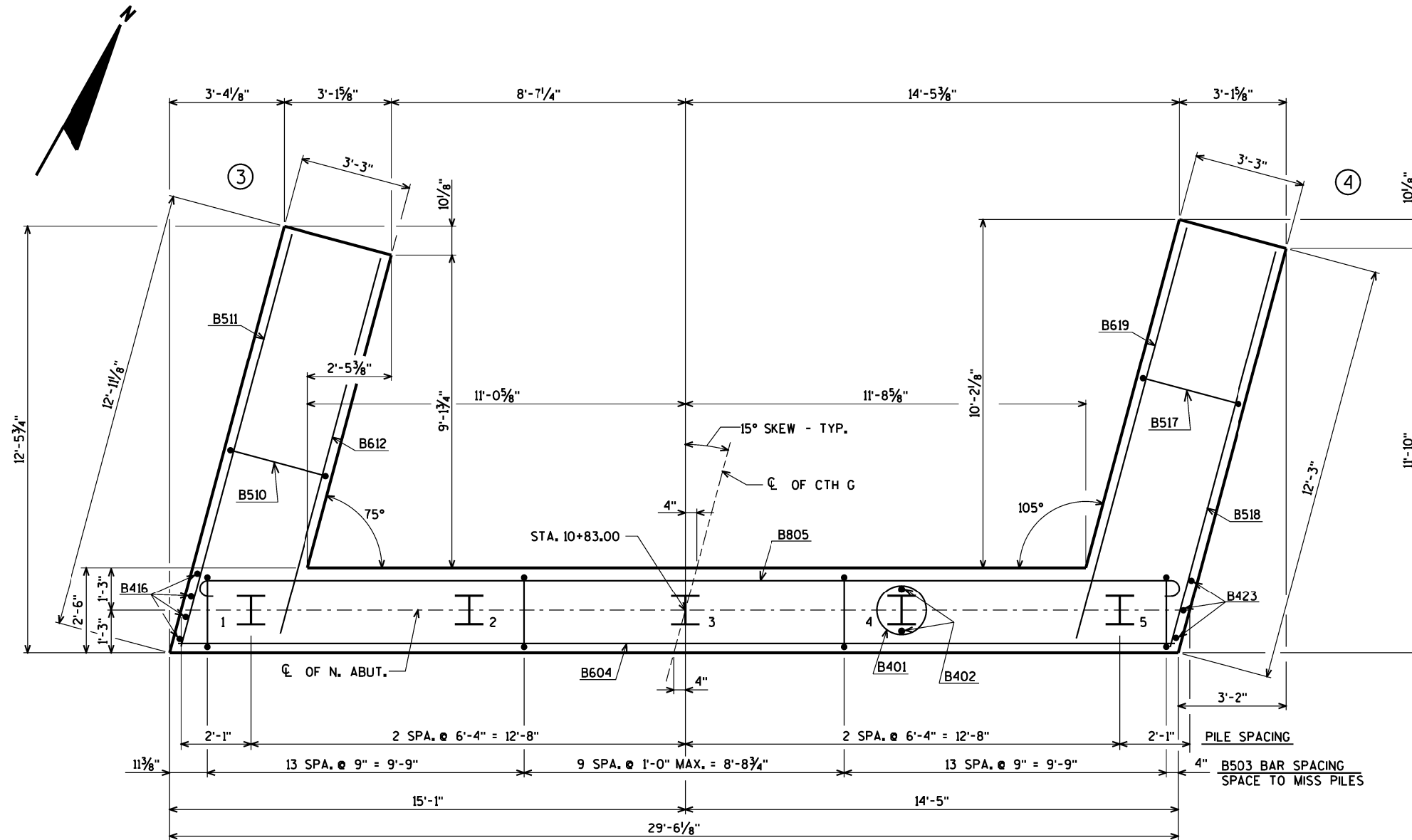
- Left Component (Spring):**
 - Overall height: 2'-0"
 - Coil diameter: 1'-9"
 - Coil thickness: 6"
 - Callout: **B401**
- Right Component (Rectangular):**
 - Overall height: 4'-4"
 - Height of top section: 4'-8"
 - Height of middle section: 4'-7"
 - Width of top section: 2'-2"
 - Width of middle section: 2'-1"
 - Width of bottom section: 2'-1"
 - Bottom right corner radius: 5/2"
 - Callouts: **B503**, **B510**, **B517**

29'-0"

STD. 180° HOOK

B805

PILE LAYOUT

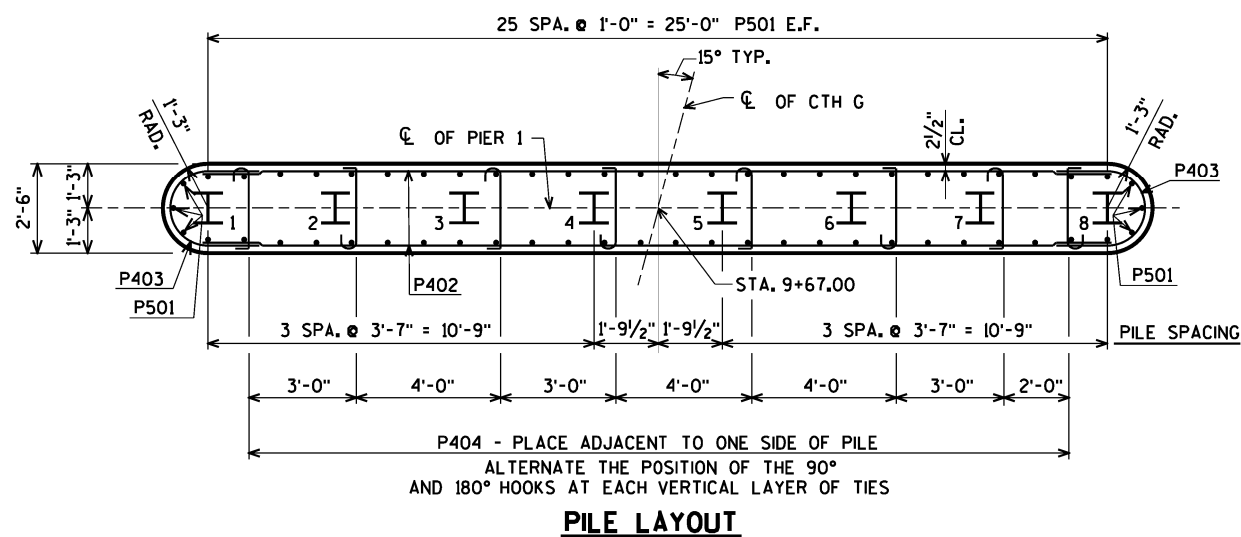
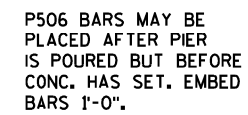


8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
NORTH ABUTMENT PILE LAYOUT & BILL OF BARS		SHEET 10 OF 17	

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

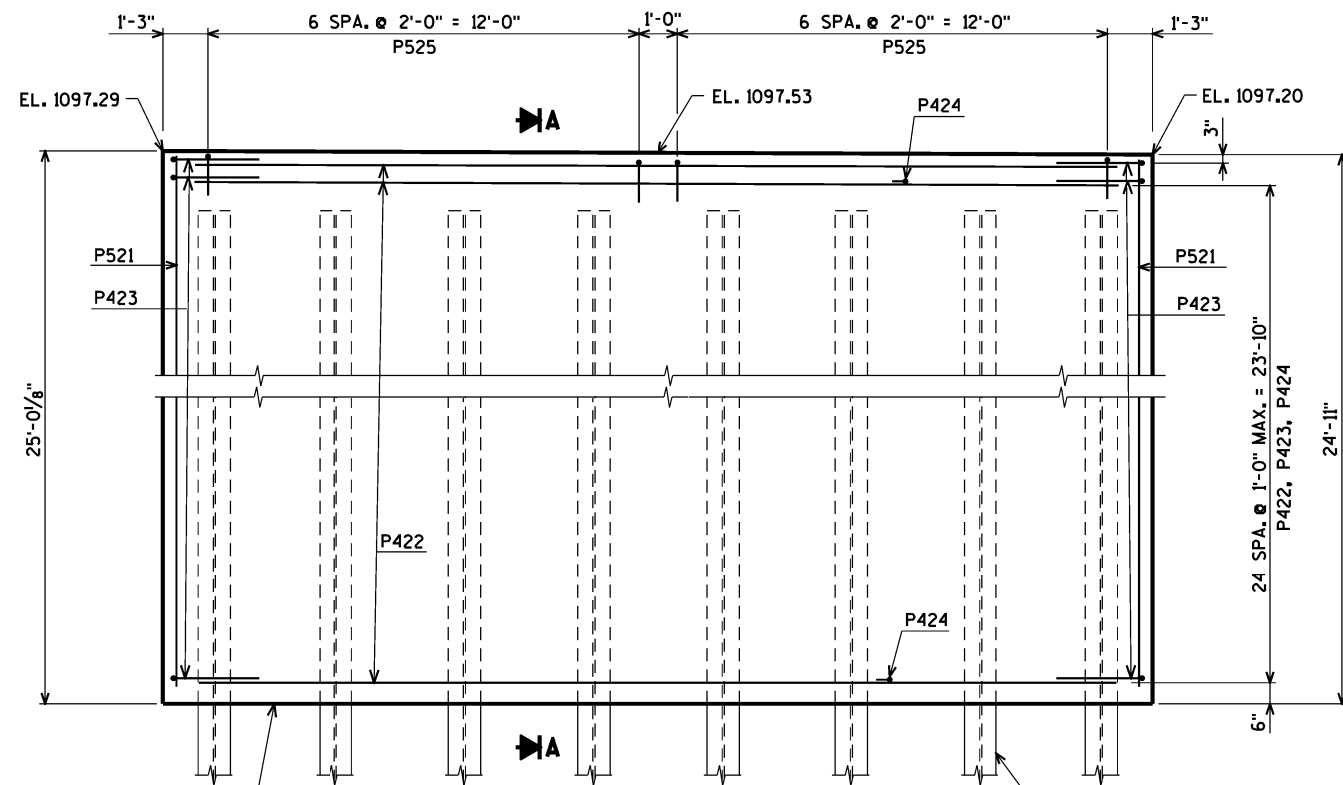


FOR PILE SPLICE DETAIL SEE SHEET 3.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
PIER 1		SHEET 11 OF 17	

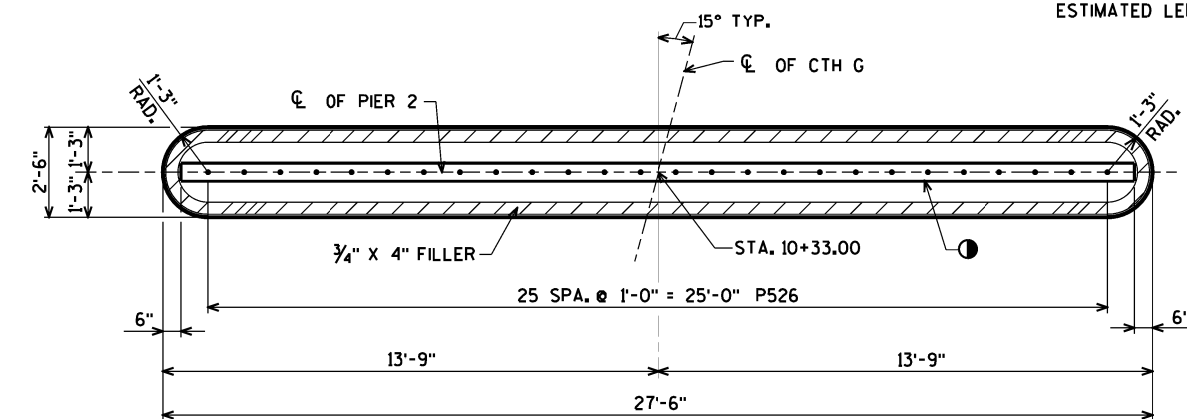
9/5/2024
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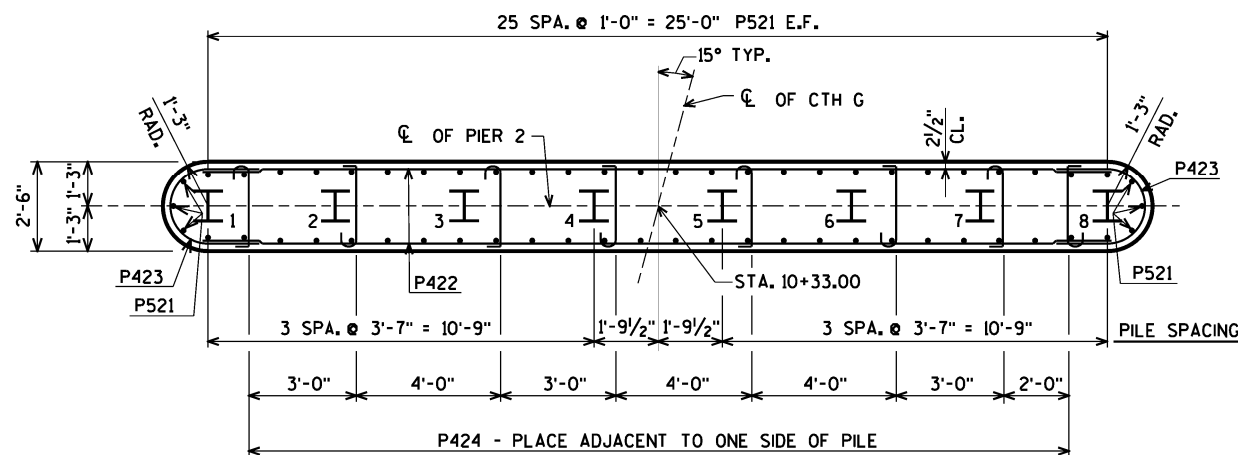


ELEVATION
(LOOKING NORTH)

PIER TO BE SUPPORTED ON
HP 14 x 73 STEEL PILING (WITH PILE
POINTS) DRIVEN TO A REQ'D. DRIVING
RESISTANCE OF 250 TONS PER PILE
ESTIMATED LENGTH 50'-0".

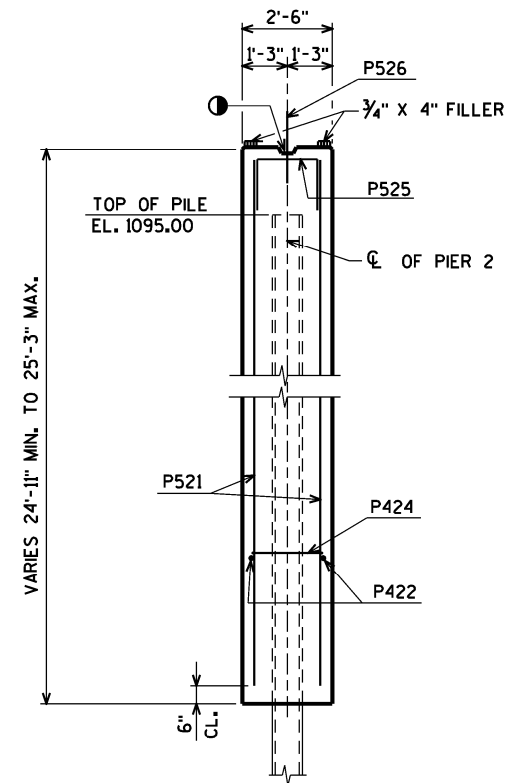


PLAN



PILE LAYOUT

P424 - PLACE ADJACENT TO ONE SIDE OF PILE
ALTERNATE THE POSITION OF THE 90°
AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES

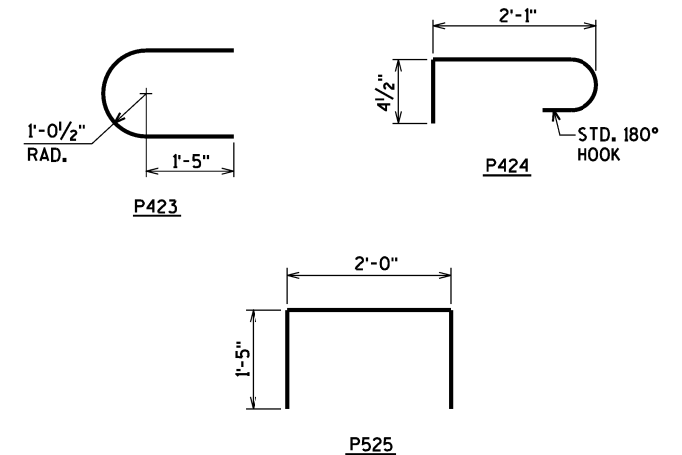


SECTION A

P526 BARS MAY BE
PLACED AFTER PIER
IS POURED BUT BEFORE
CONC. HAS SET. EMBED
BARS 1'-0".

BILL OF BARS							STATE PROJECT NUMBER	
							8902-05-70	
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	LOCATION	
P521		58	24-3				COLUMN VERT.	
P422		52	25-0				COLUMN HORIZ.	
P423		52	6-1	X			COLUMN HORIZ.	
P424		200	2-10	X			COLUMN TIES	
P525		14	4-7	X			COLUMN TOP	
P526	X	26	2-0				COLUMN DOWELS	

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



KEYED CONST. JOINT - FORMED
BY A BEVELED 2" x 6".

FOR PILE SPLICE DETAIL SEE SHEET 3.

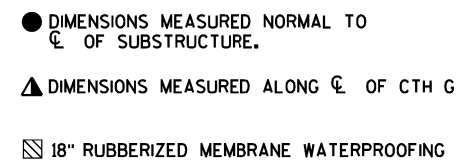
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
PIER 2			SHEET 12 OF 17

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	
							LOCATION
S401	X	46	3-3	X			SLAB @ ABUT. NOTCH
S402	X	4	22-3				SLAB @ ABUT. NOTCH
S503	X	58	6-3	X			SLAB @ ABUT.
S504	X	58	3-10	X			SLAB @ ABUT.
S705	X	64	23-1	X			SLAB BOT. LONG. @ PIERS
S906	X	64	45-2				SLAB BOT. LONG. IN SPANS 1 & 3
S907	X	62	30-11				SLAB BOT. LONG. IN SPANS 1 & 3
S908	X	32	54-2				SLAB BOT. LONG. IN SPAN 2
S909	X	31	33-10				SLAB BOT. LONG. IN SPAN 2
S510	X	175	29-2				SLAB BOT. TRANS.
S511	X	64	22-9				SLAB TOP LONG. @ ENDS
S912	X	62	48-7				SLAB TOP LONG. @ PIERS
S913	X	64	53-9				SLAB TOP LONG. @ PIERS
S514	X	169	29-2				SLAB TOP TRANS.
S515	X	166	5-0				SLAB TOP TRANS. @ EDGES
S516	X	506	4-5	X			SLAB @ PARAPET
S517	X	506	6-8	X			PARAPET VERT.
S518	X	48	58-1				PARAPET HORIZ.

Diagram of a U-shaped pipe section. The radius is labeled as $4\frac{1}{2}"R$ and the arc angle is labeled as 180° . The section is identified as S517.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
SUPERSTRUCTURE PLAN		SHEET 14 OF 17	



DETAIL OF ABUTMENT END

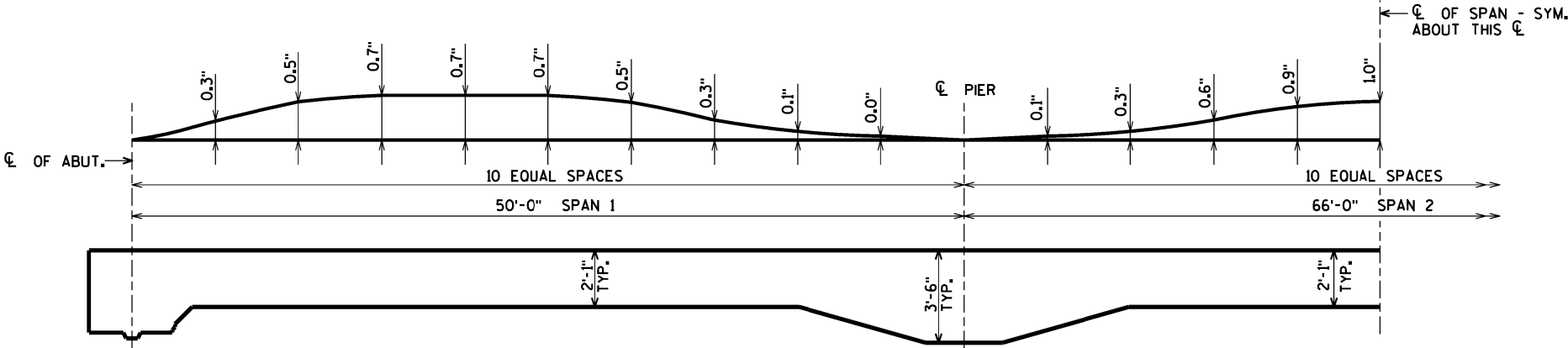
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
		DRAWN BY	CLP
		PLANS CK'D.	NBE
SUPERSTRUCTURE LONGITUDINAL SECTION DETAIL		SHEET 15 OF 17	

TOP OF SLAB ELEVATIONS

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

LOCATION	℄ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF PIER 1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF PIER 2
W. EDGE OF SLAB	1102.20	1102.14	1102.08	1102.03	1101.97	1101.91	1101.85	1101.80	1101.74	1101.68	1101.62	1101.55	1101.47	1101.40	1101.32	1101.24	1101.17	1101.09	1101.02	1100.94	1100.86
℄ OF STRUCTURE	1102.42	1102.36	1102.30	1102.25	1102.19	1102.13	1102.07	1102.02	1101.96	1101.90	1101.84	1101.77	1101.69	1101.62	1101.54	1101.47	1101.39	1101.31	1101.24	1101.16	1101.09
E. EDGE OF SLAB	1102.11	1102.05	1102.00	1101.94	1101.88	1101.82	1101.77	1101.71	1101.65	1101.59	1101.54	1101.46	1101.38	1101.31	1101.23	1101.16	1101.08	1101.00	1100.93	1100.85	1100.78

LOCATION	℄ OF PIER 2	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF N. ABUT.
W. EDGE OF SLAB	1100.86	1100.81	1100.75	1100.69	1100.63	1100.58	1100.52	1100.46	1100.40	1100.35	1100.29
℄ OF STRUCTURE	1101.09	1101.03	1100.97	1100.91	1100.86	1100.80	1100.74	1100.68	1100.63	1100.57	1100.51
E. EDGE OF SLAB	1100.78	1100.72	1100.66	1100.60	1100.55	1100.49	1100.43	1100.37	1100.32	1100.26	1100.20



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTION.

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

PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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

- TOP OF SLAB ELEVATION AT FINAL GRADE
- MINUS..... SLAB THICKNESS
- PLUS..... CAMBER
- PLUS..... FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
- EQUALS = TOP OF SLAB FLASEWORK ELEVATION

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	℄ OF S. ABUT.	5/10 PT.	℄ OF PIER 1	5/10 PT.	℄ OF PIER 2	5/10 PT.	℄ OF N. ABUT.
WEST EDGE OF SLAB							
℄ OF STRUCTURE							
EAST EDGE OF SLAB							

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS, THE ℄ OF PIER AND AT 1/2 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-394			
DRAWN BY		CLP	PLANS CK'D. NBE
SUPERSTRUCTURE DETAILS		SHEET 16 OF 17	

NOTE: REINFORCEMENT WEIGHT INCLUDED IN ABUTMENT QUANTITIES.

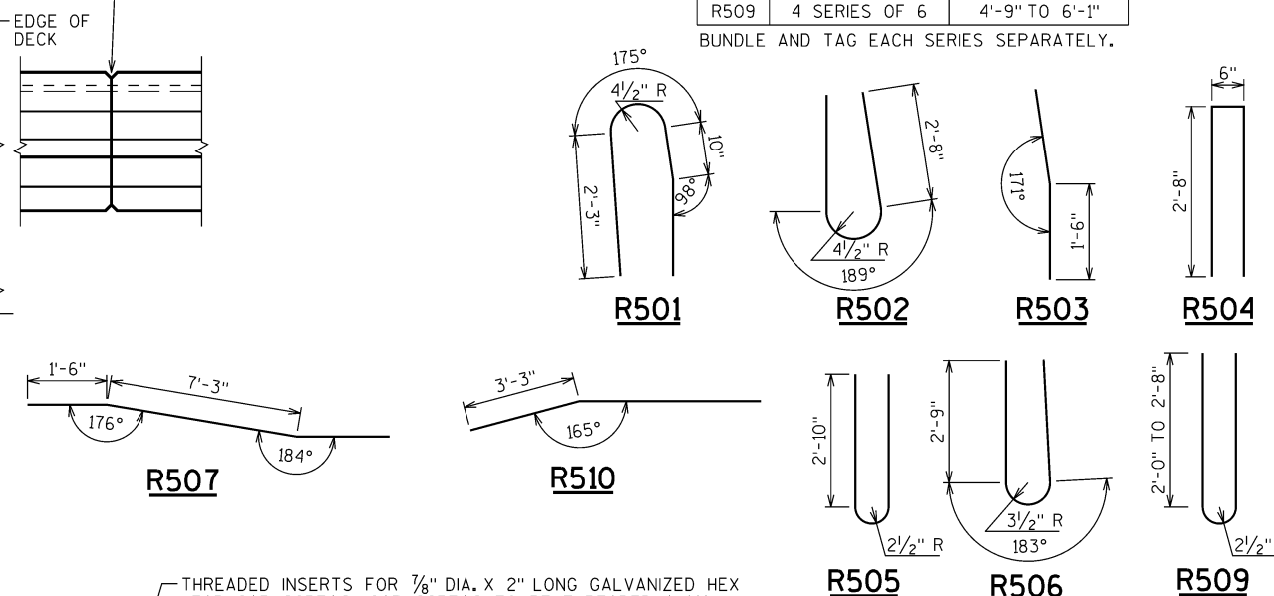
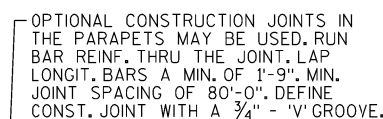
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

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

BUNDLE AND TAG EACH SERIES SEPARATELY

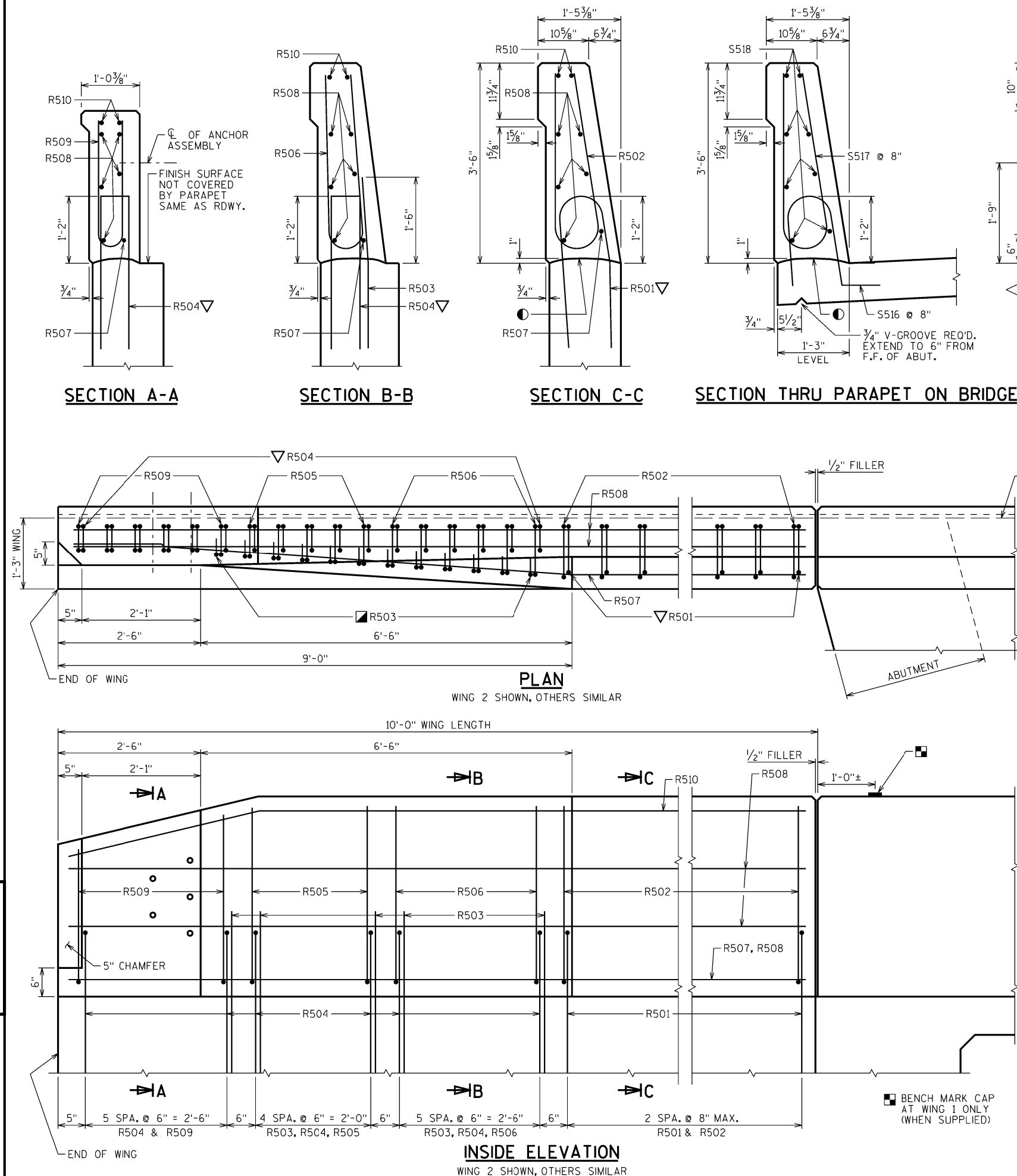
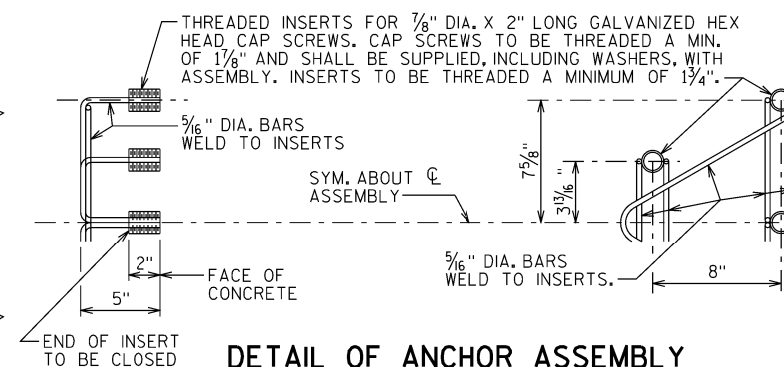


LOOKING AT INSIDE FACE OF PARAPET

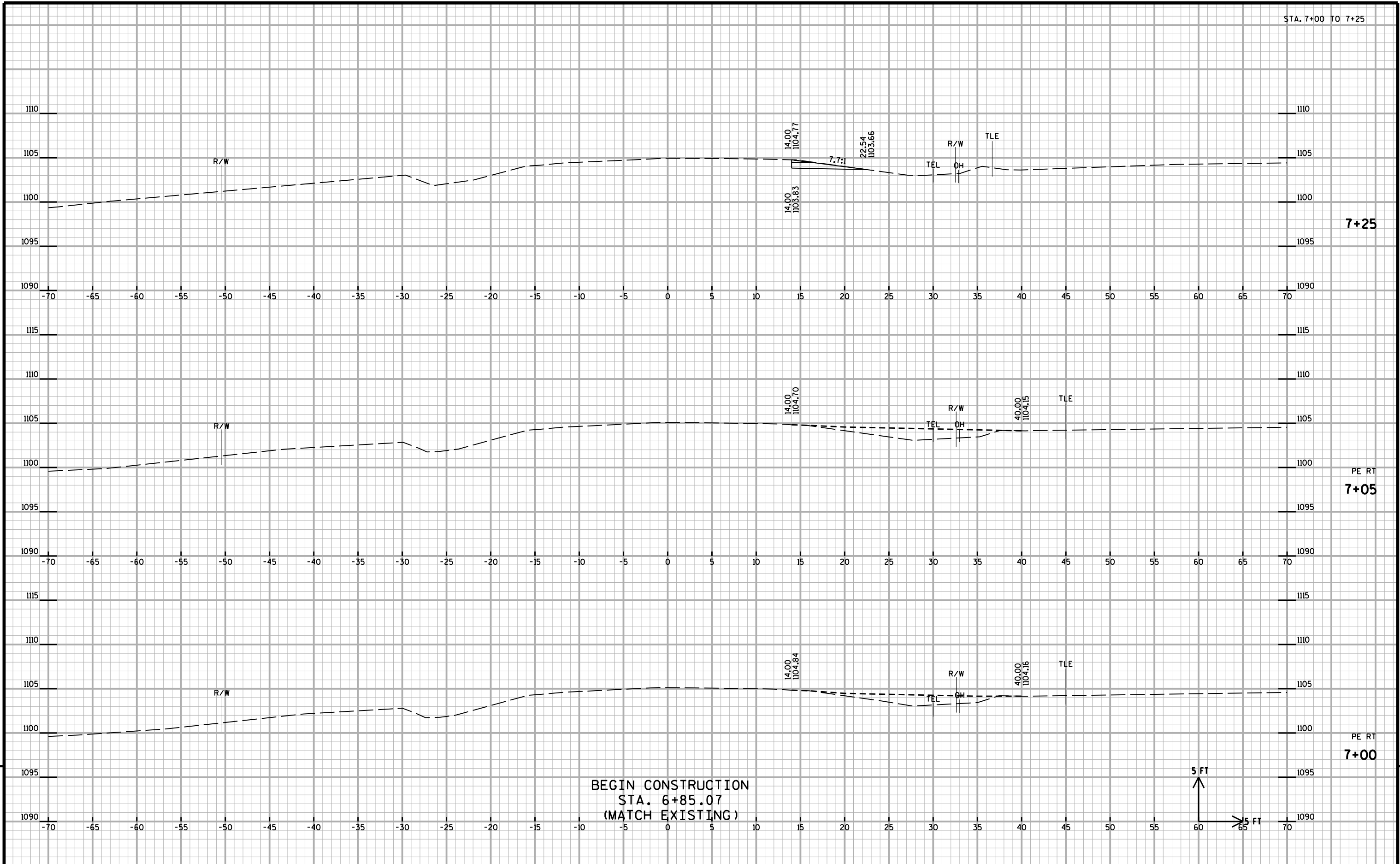


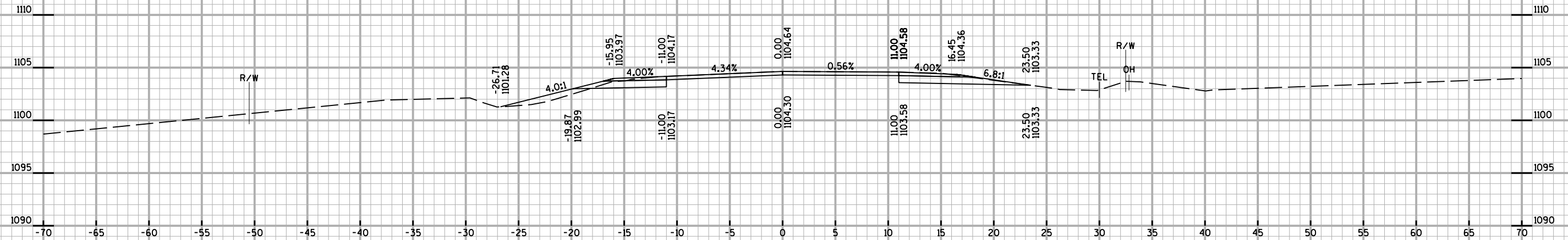
▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

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

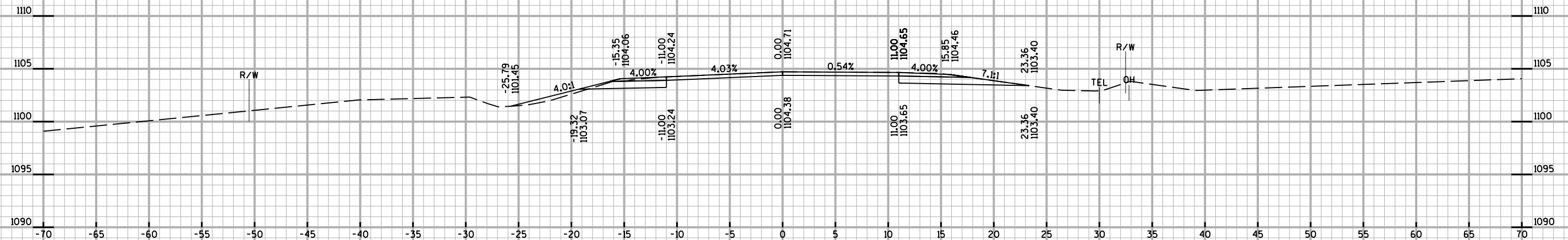


CTH G COMPUTER EARTHWORK										
Station	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Unuseable Pavement Material	Fill	Salvaged / Unuseable Pavement Material			Expanded		
					Cut	Unuseable Pavement Material	Fill	Cut 1.00	Fill 1.30	
7+00	--	0.0	0.0	0.0	--	--	--			
7+05	5.0	0.0	0.0	0.0	0	0	2	0	2	-2
7+25	20.0	4.3	0.0	0.0	2	0	4	2	7	-5
7+29.09	4.1	13.0	0.0	0.0	1	0	0	3	7	-4
7+50	20.9	13.1	0.0	2.0	10	0	1	13	8	5
7+56.67	6.7	12.9	0.0	3.4	3	0	1	16	9	7
7+75	18.3	14.4	0.0	7.4	9	0	4	25	14	12
7+81.67	6.7	14.2	0.0	8.9	4	0	2	29	16	13
8+00	18.3	13.0	0.0	14.8	9	0	8	38	27	11
8+06.67	6.7	13.0	0.0	16.9	3	0	4	41	32	10
8+12.2	5.5	13.3	0.0	4.0	3	0	2	44	35	9
8+25	12.8	11.5	0.0	18.9	6	0	5	50	42	8
8+31.67	6.7	11.5	0.0	15.3	3	0	4	53	47	6
8+37.2	5.5	11.8	0.0	12.9	2	0	3	55	51	4
8+50	12.8	18.6	0.0	4.2	7	0	4	62	56	6
8+56.67	6.7	13.7	0.0	1.1	4	0	1	66	57	9
8+62.2	5.5	13.9	0.0	0.3	3	0	0	69	57	12
8+65.71	3.5	13.8	0.0	0.3	2	0	0	71	57	14
8+65.71	--	37.2	12.8	0.3						
8+75	9.3	39.6	13.0	0.8	13	4	0	80	58	22
9+00	25.0	47.4	13.1	1.8	40	12	1	108	59	49
9+02.22	2.2	47.5	13.1	0.0	4	1	0	111	59	52
9+09.19	7.0	48.1	13.1	0.0	12	3	0	120	59	60
9+15.71	6.5	48.1	13.1	0.0	12	3	0	128	59	69
B-37-473	--	--	--	--	--	--	--	--	--	--
10+84.29	--	37.4	11.3	0.0	--	--	--	--	--	--
10+90.81	6.5	37.4	11.3	0.0	9	3	0	135	59	75
10+97.78	7.0	39.5	11.3	0.0	10	3	0	142	59	82
11+00	2.2	41.2	11.3	6.6	3	1	0	144	60	84
11+25	25.0	33.0	11.2	1.0	34	10	4	168	64	104
11+34.29	9.3	31.0	11.2	23.1	11	4	4	175	70	105
11+34.29	--	10.1	0.0	23.1	--	--	--	--	--	--
11+37.8	3.5	9.7	0.0	30.4	1	0	3	176	74	102
11+42.33	4.5	9.4	0.0	41.6	2	0	6	178	82	96
11+50	7.7	9.5	0.0	56.7	3	0	14	181	100	80
11+62.8	12.8	9.8	0.0	81.0	5	0	33	185	143	43
11+68.33	5.5	9.9	0.0	83.4	2	0	17	187	164	23
11+75	6.7	10.0	0.0	86.8	2	0	21	190	192	-2
11+87.8	12.8	10.3	0.0	92.0	5	0	42	194	247	-52
11+93.33	5.5	10.4	0.0	89.4	2	0	19	197	271	-74
12+00	6.7	10.5	0.0	81.8	3	0	21	199	298	-99
12+18	18.0	12.1	0.0	58.6	8	0	47	207	359	-153
12+25	7.0	11.6	0.0	56.3	3	0	15	210	379	-169
12+43	18.0	11.5	0.0	25.4	8	0	27	217	414	-197
12+50	7.0	11.6	0.0	17.2	3	0	6	220	421	-201
12+70.65	20.7	12.5	0.0	0.0	9	0	7	230	430	-200
					275	45	331			

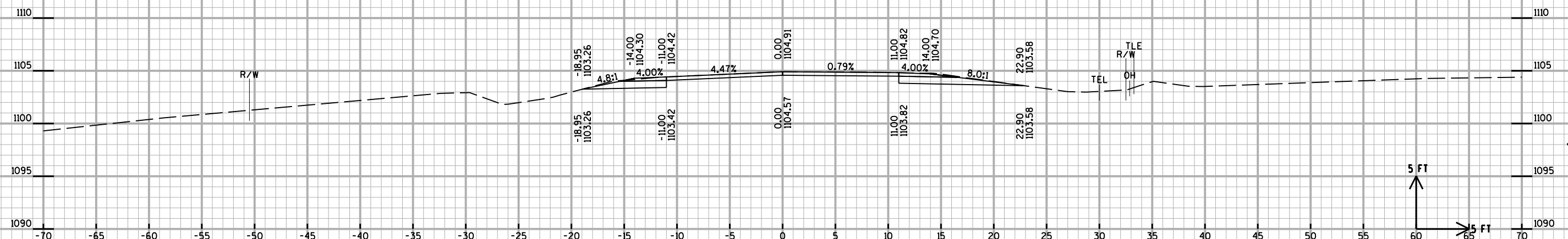




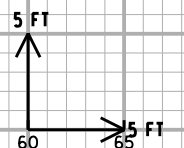
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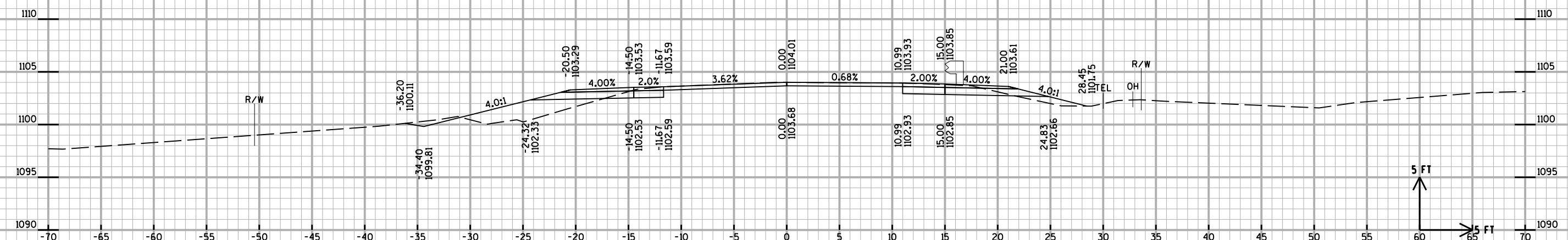
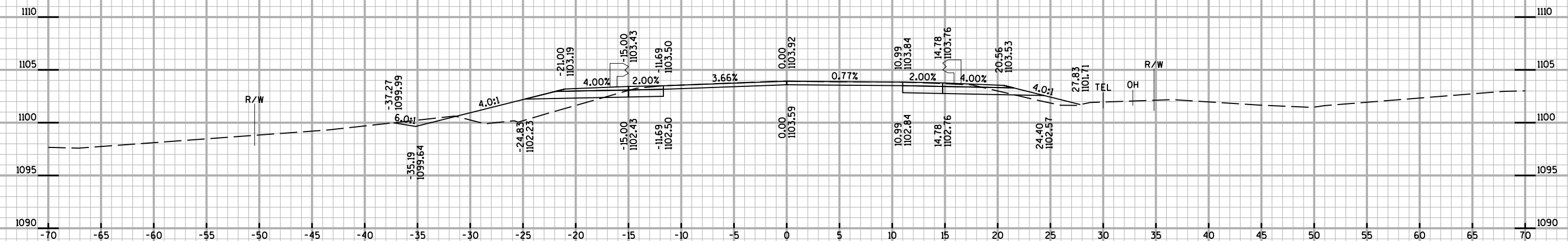
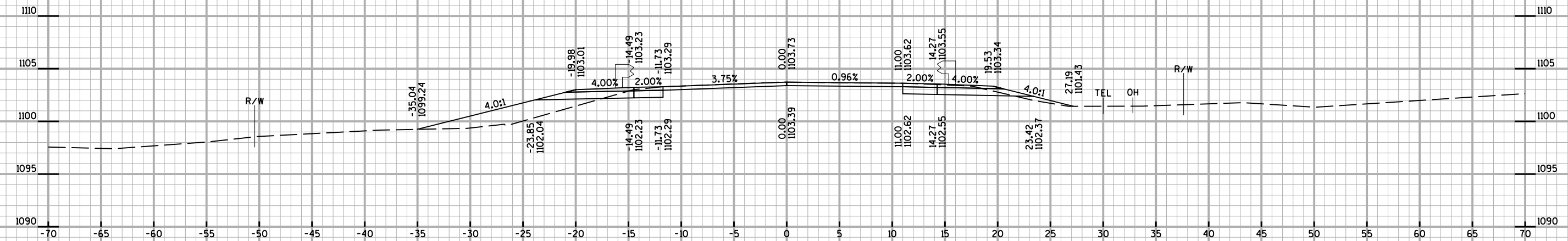


7+50



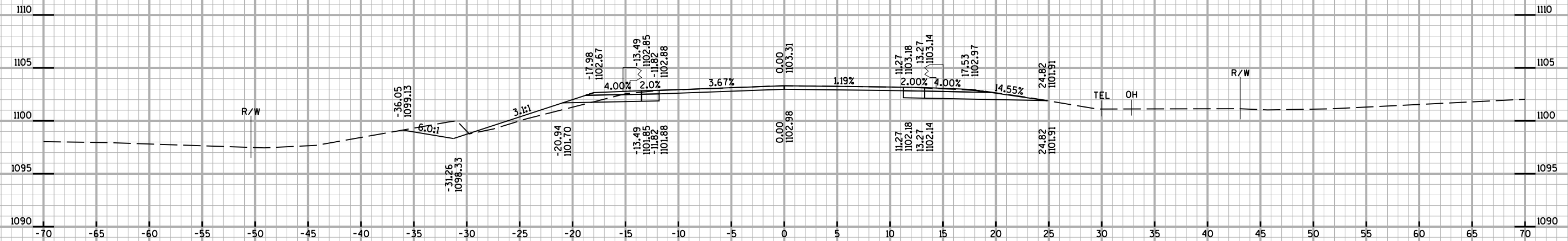
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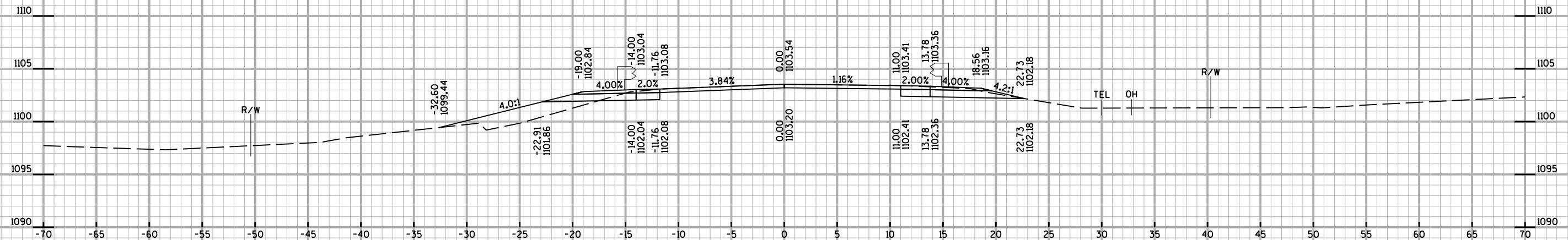


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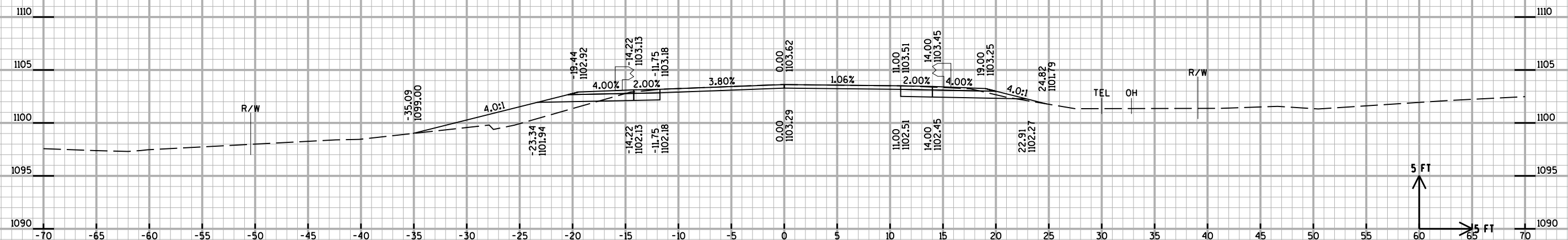
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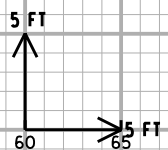
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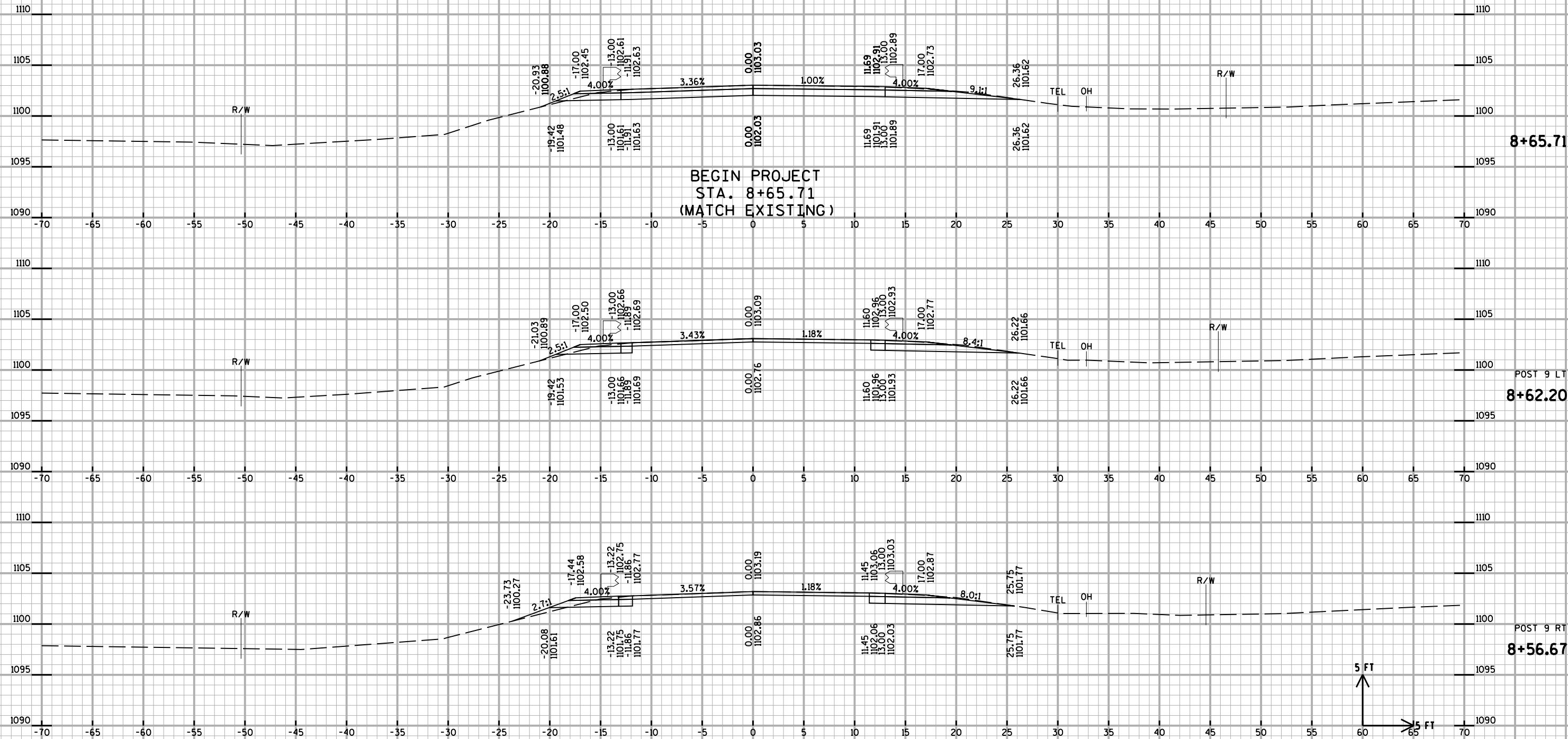


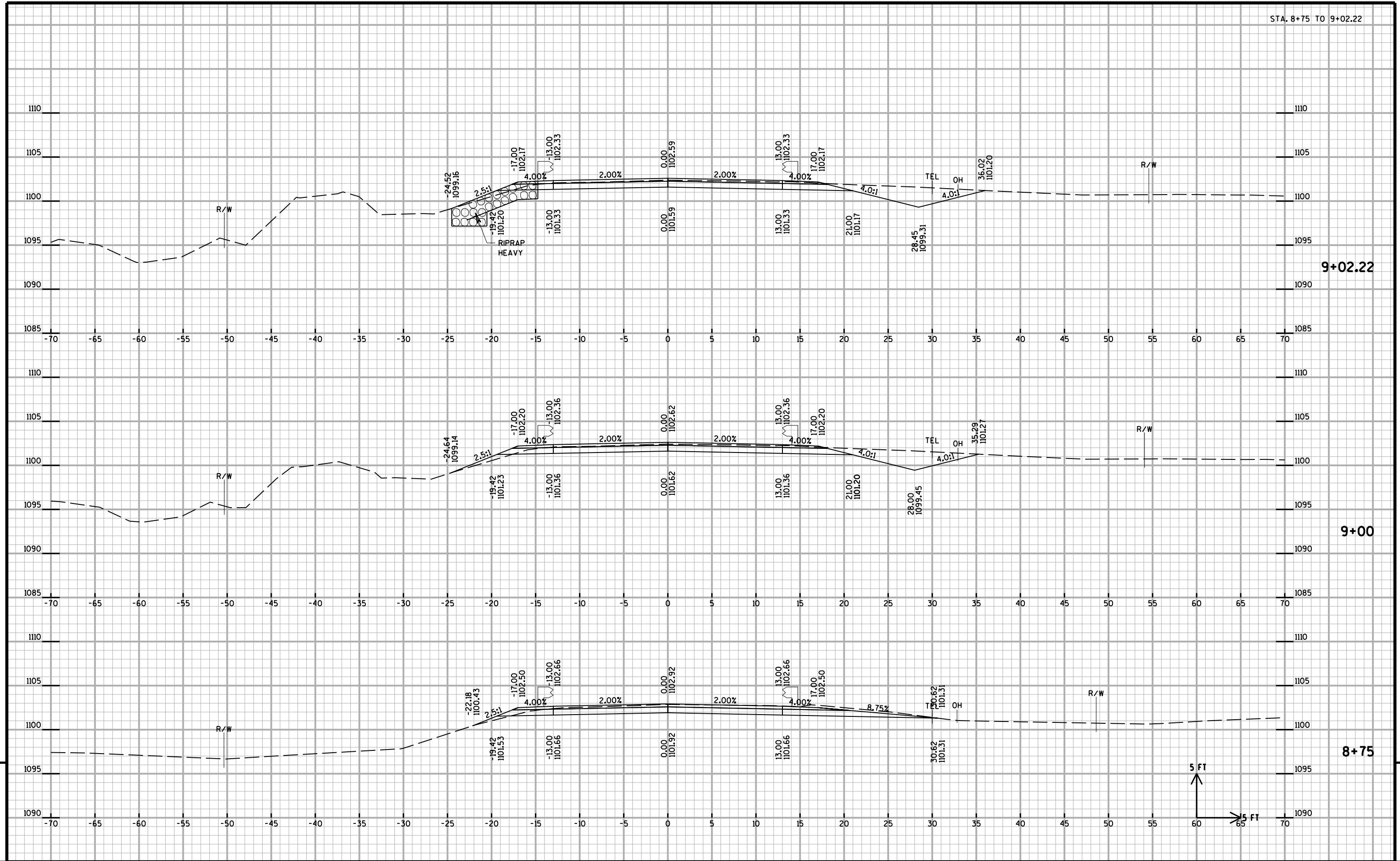
POST 5 LT
8+37.20

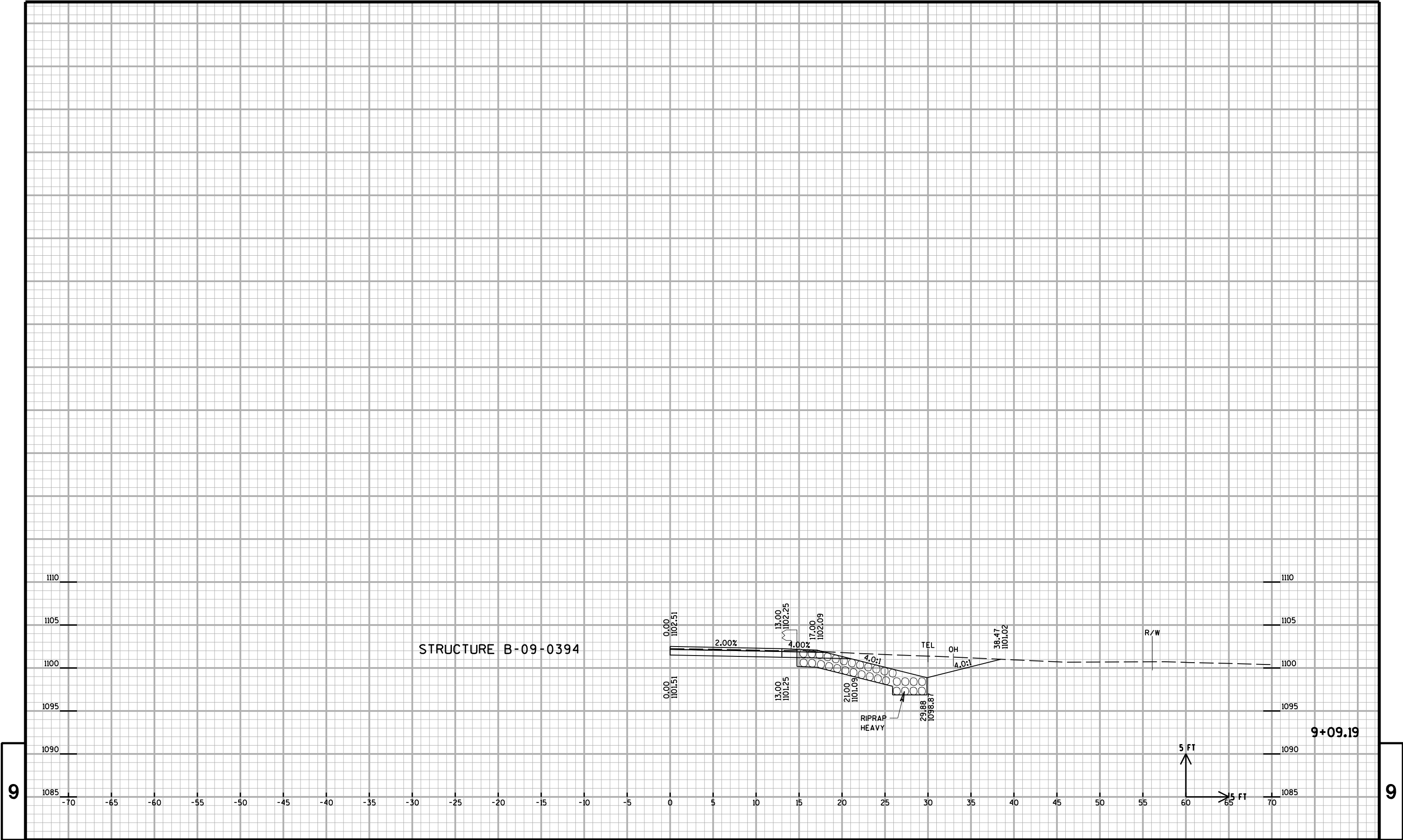


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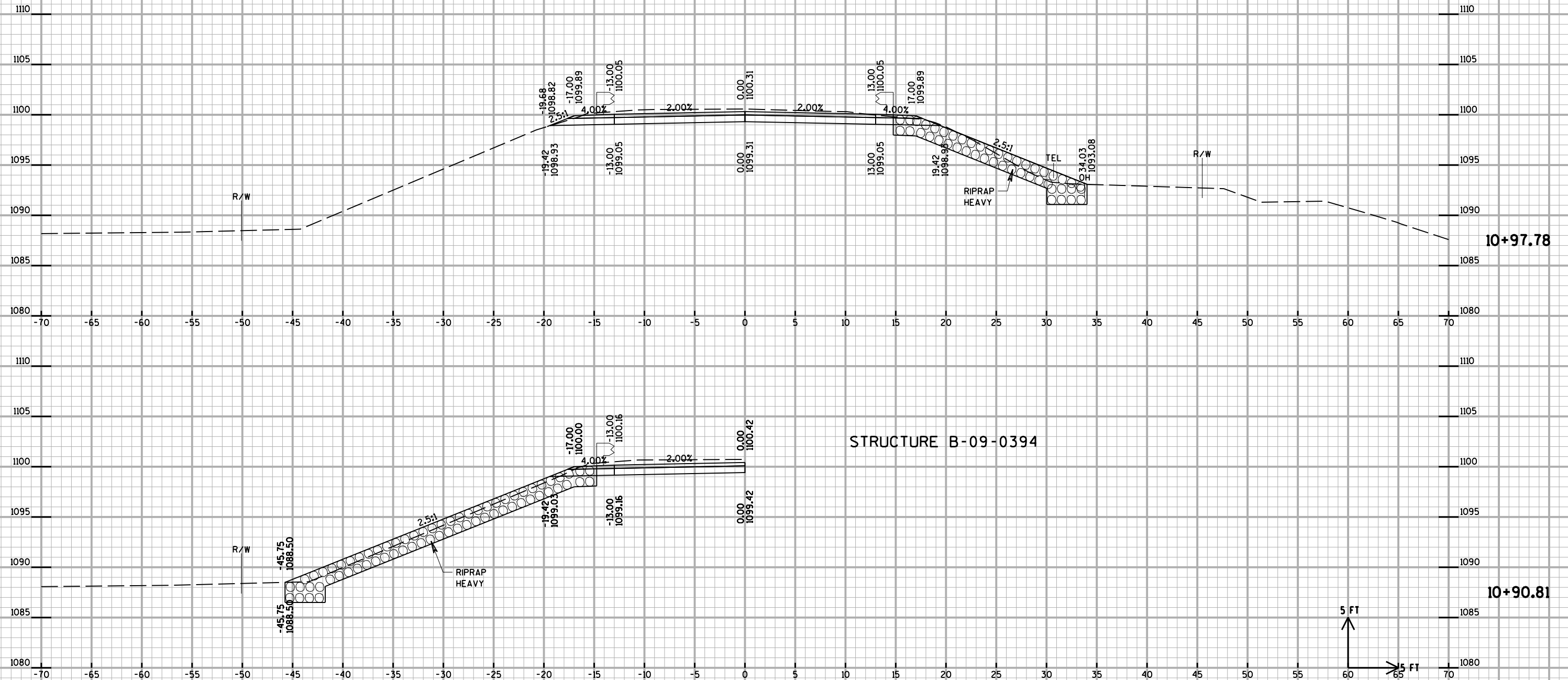








STA. 10+90.81 TO 10+97.78



PROJECT NO: 8902-05-70

HWY: CTH G

COUNTY: CHIPPEWA

CROSS SECTIONS

SHEET

E

FILE NAME : \\ayres\Active\42\42-1264.00 - Chippewa Co - CTH G\Roadway\421264_xs updated.dgn

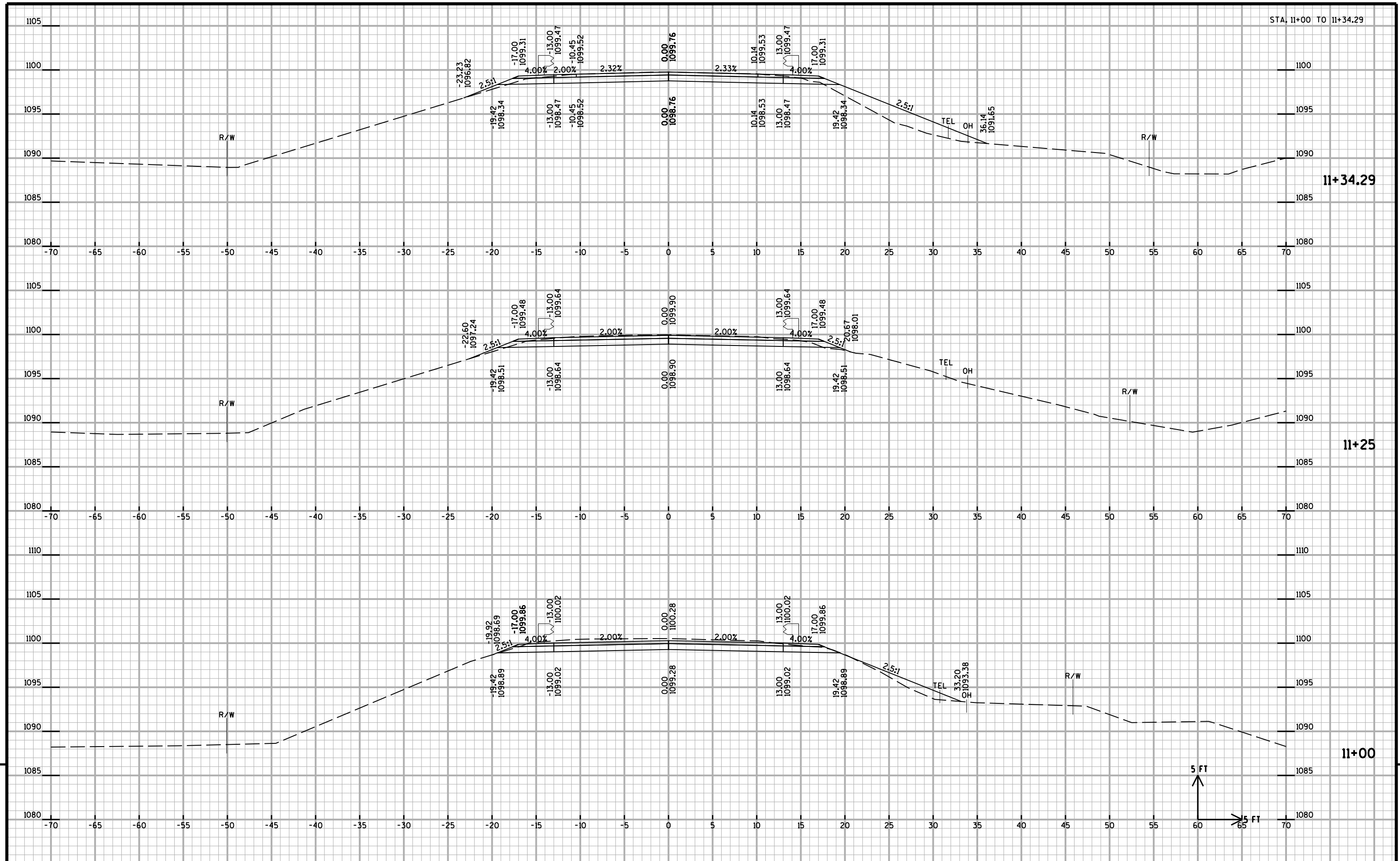
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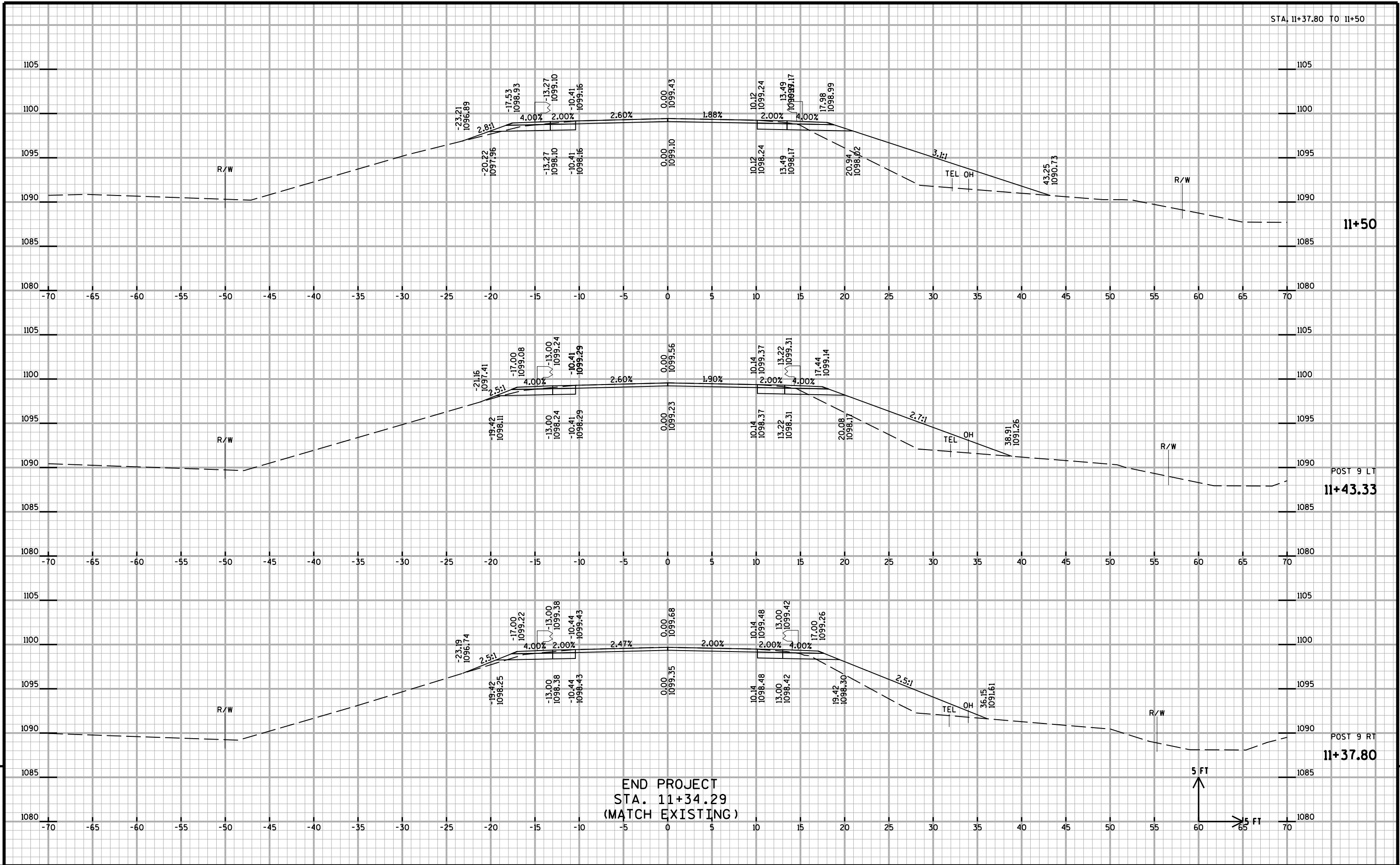
PLOT BY : walderak

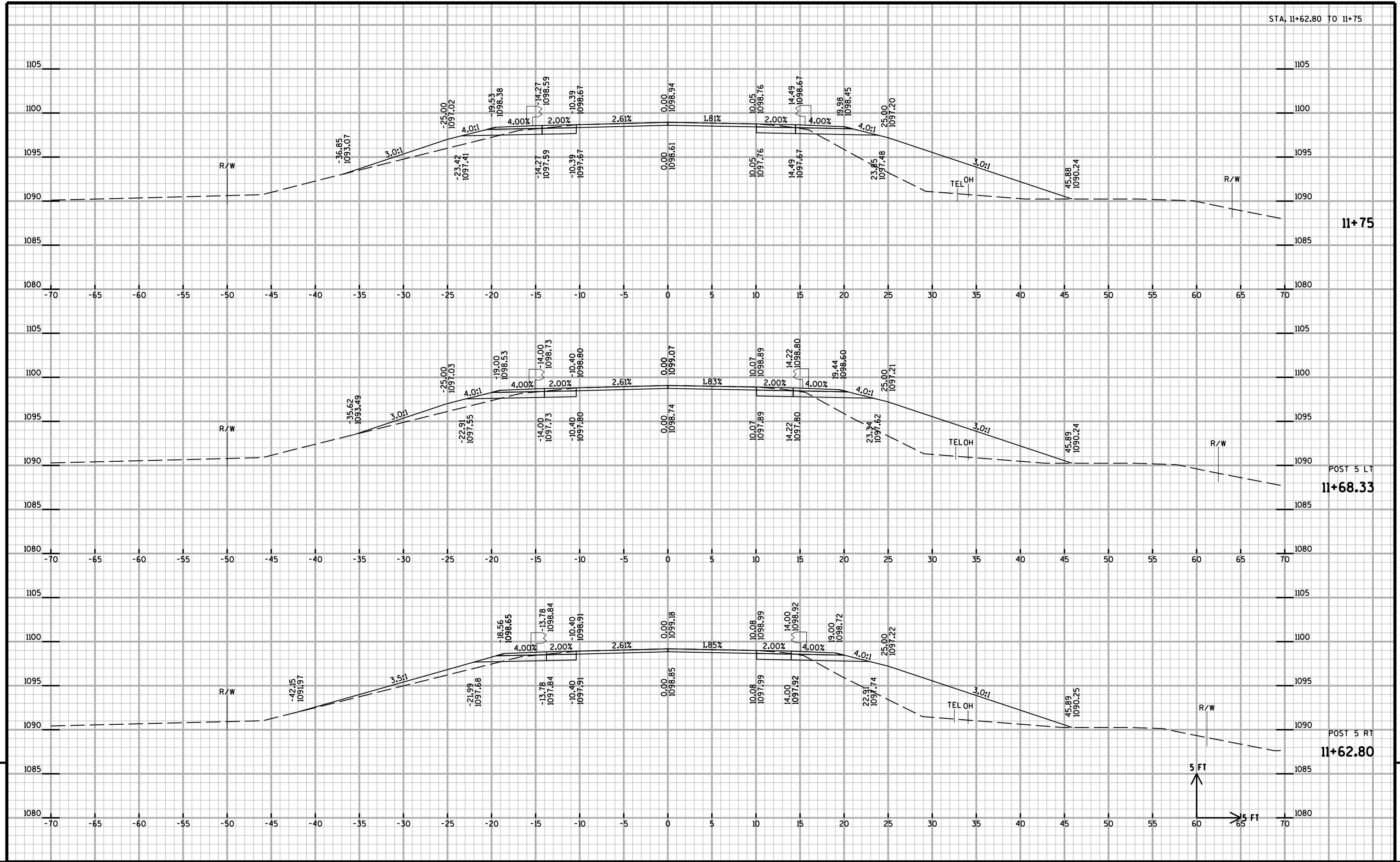
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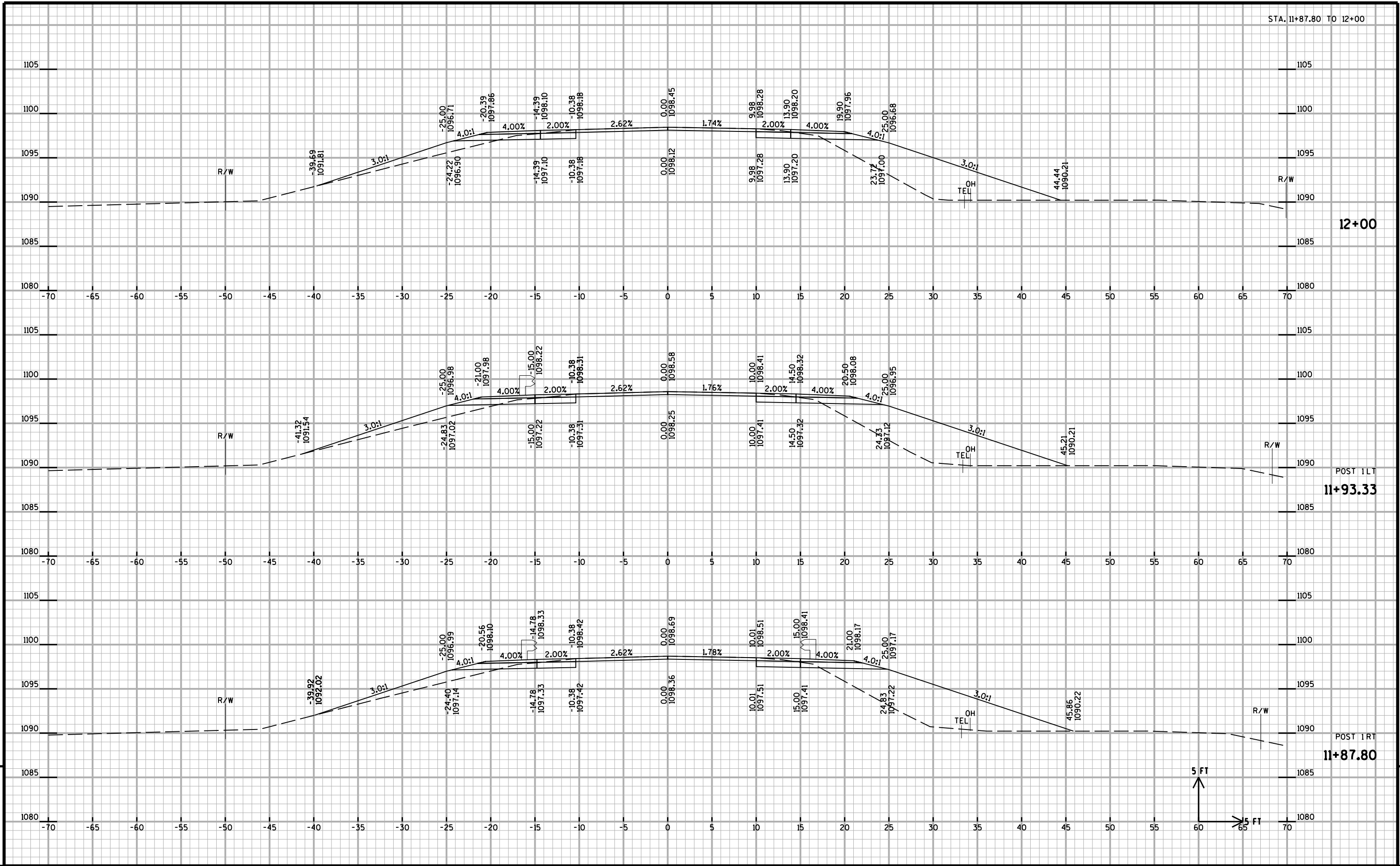
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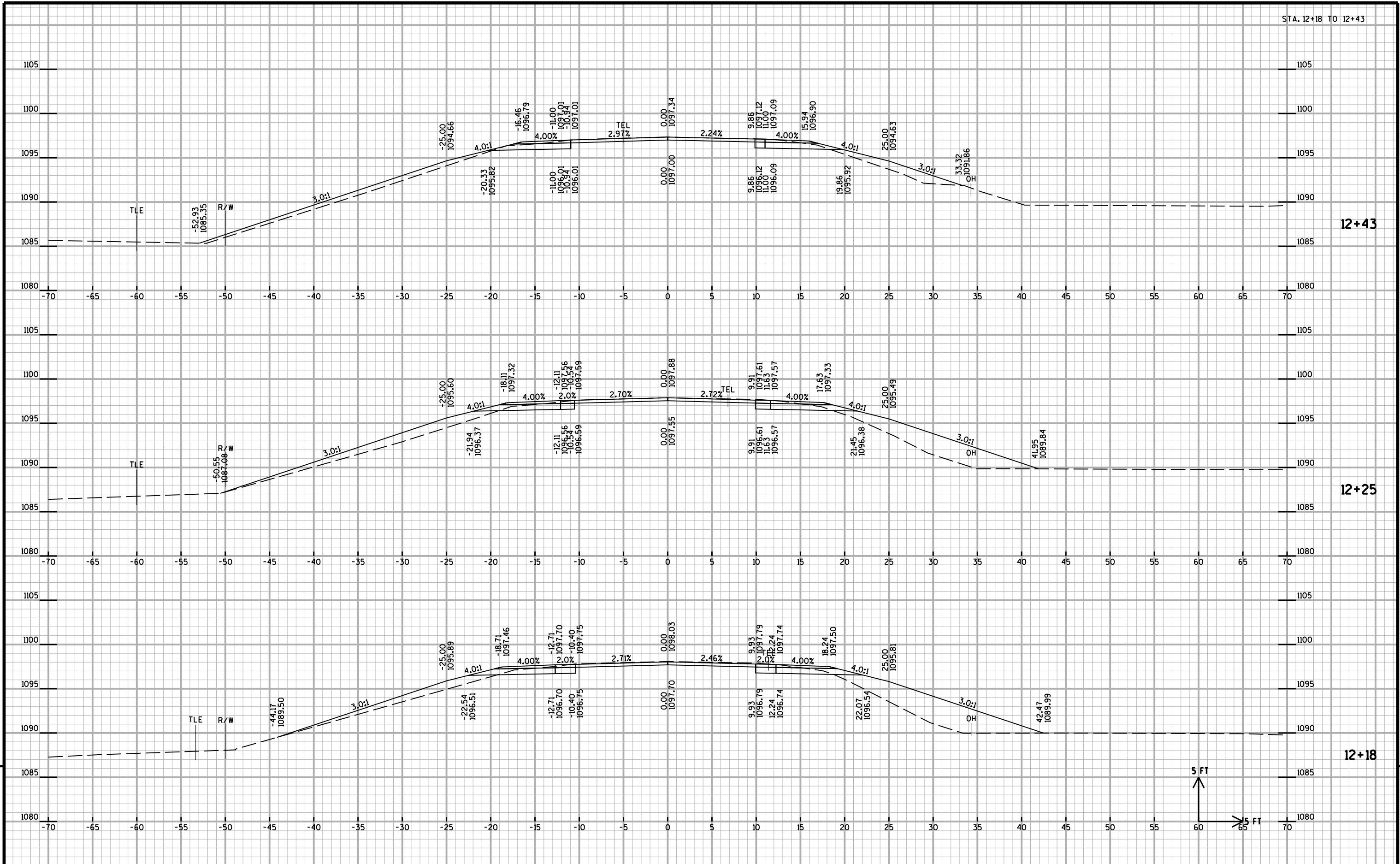
WISDOT/CADDS SHEET 21



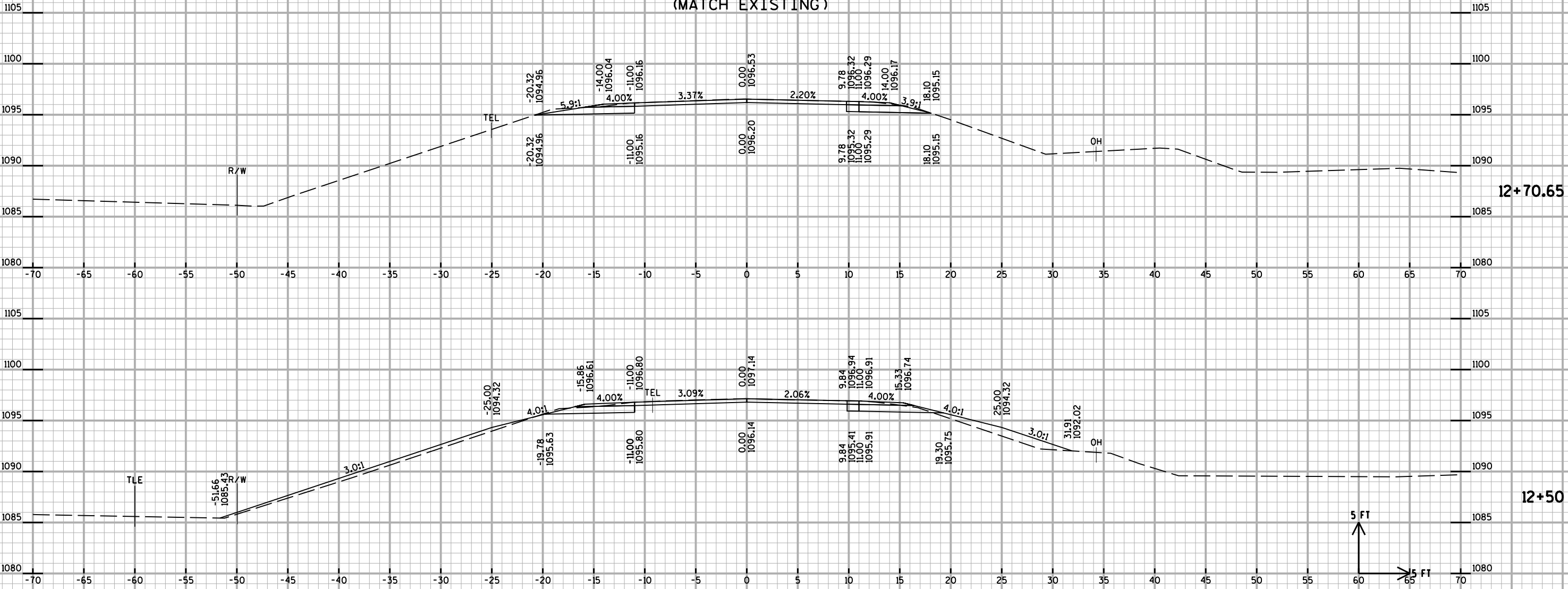




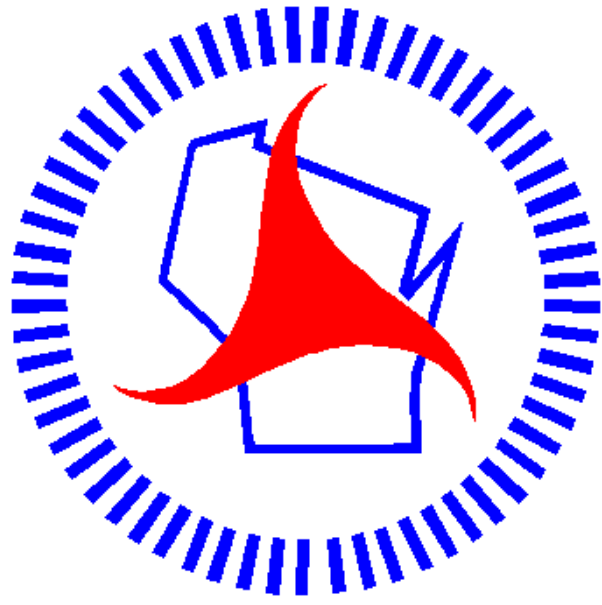




END CONSTRUCTION
STA. 12+70.65
(MATCH EXISTING)



Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>