

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8510-00-76	WISC 2026340	1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

PORT WING - SUPERIOR

.48 MILES W OF AIRPORT RD

STH 13

BAYFIELD COUNTY

STATE PROJECT NUMBER
8510-00-76

R-09-W ← | → R-08-W

ORDER OF SHEETS

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

TOTAL SHEETS = 78



STH 13
DESIGN DESIGNATION

A.A.D.T.	2028	=	630
A.A.D.T.	2048	=	630
D.H.V.		=	173
D.D.		=	61/39
T.		=	183
DESIGN SPEED		=	55 MPH
ESALS		=	220,000

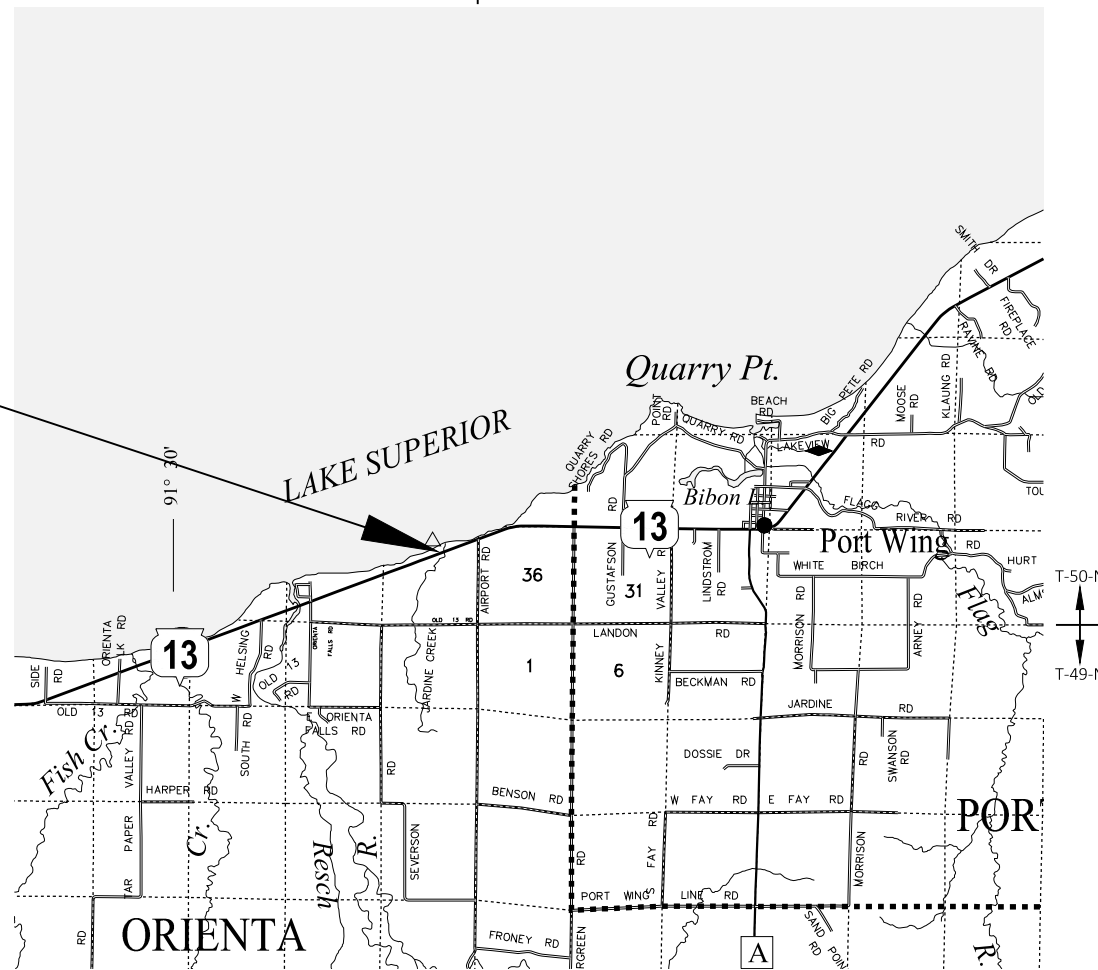
PROJECT LOCATION

X = 673,878.398
Y = 524,473.485

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	
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	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



TOTAL NET LENGTH OF CENTERLINE = 0.000

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	MSA PROFESSIONAL SERVICES, INC.
Designer	ADAM HOGQUIST
Project Manager	BILL BIESMANN, KL ENGINEERING
Regional Examiner	TOU YANG
Regional Supervisor	NICOLE PASSUELLO
APPROVED FOR THE DEPARTMENT	
DATE:	3/24/2026

E

PROJECT ID: 8510-00-76

COUNTY: BAYFIELD

21

GENERAL NOTES

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.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE, SUBBASE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

DESIGN PROJECT LEADER

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WISCONSIN DNR LIAISON

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DESIGN CONSULTANT

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MSA PROFESSIONAL SERVICES
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BARABOO, WI 53913
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EMAIL: BMAXWELL@MSA-PS.COM

LIST OF CONSULTANT PREPARED SHEETS

TYPICAL SECTIONS: REVETMENT
MISCELLANEOUS QUANTITIES: REVETMENT
PLAN: REVETMENT
EARTHWORK DATA: REVETMENT
CROSS SECTIONS: REVETMENT

UTILITIES CONTACTS

NORVADO
COMMUNICATIONS
WILLIAM KURTZ
43705 US HIGHWAY 53, P.O. BOX 67
CABLE, WI 54801
PHONE: 715-798-7122 OR 715-209-0270
EMAIL: WKURTZ@NORVADO.COM

XCEL ENERGY
ELECTRICITY
JOHN KELSER
1414 W. HAMILTON AVE, P.O. BOX 8
EAU CLAIRE, WI 54702
PHONE: 715-737-6020
EMAIL: JOHN.KELSER@XCELENERGY.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS

STANDARD ABBREVIATIONS

Table with 2 columns of abbreviations and their corresponding full names, including terms like ABUTMENT, ACRE, AGGREGATE, etc.

RUNOFF COEFFICIENT TABLE

Table with columns for LAND USE, HYDROLOGIC SOIL GROUP (A, B, C, D), and SLOPE RANGE (PERCENT) (0-2, 2-6, 6 & OVER).

TOTAL PROJECT AREA = 7.5 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.4 ACRES



LAKE SUPERIOR



PROJECT NO: 8510-00-76

HWY: STH 13

COUNTY: BAYFIELD

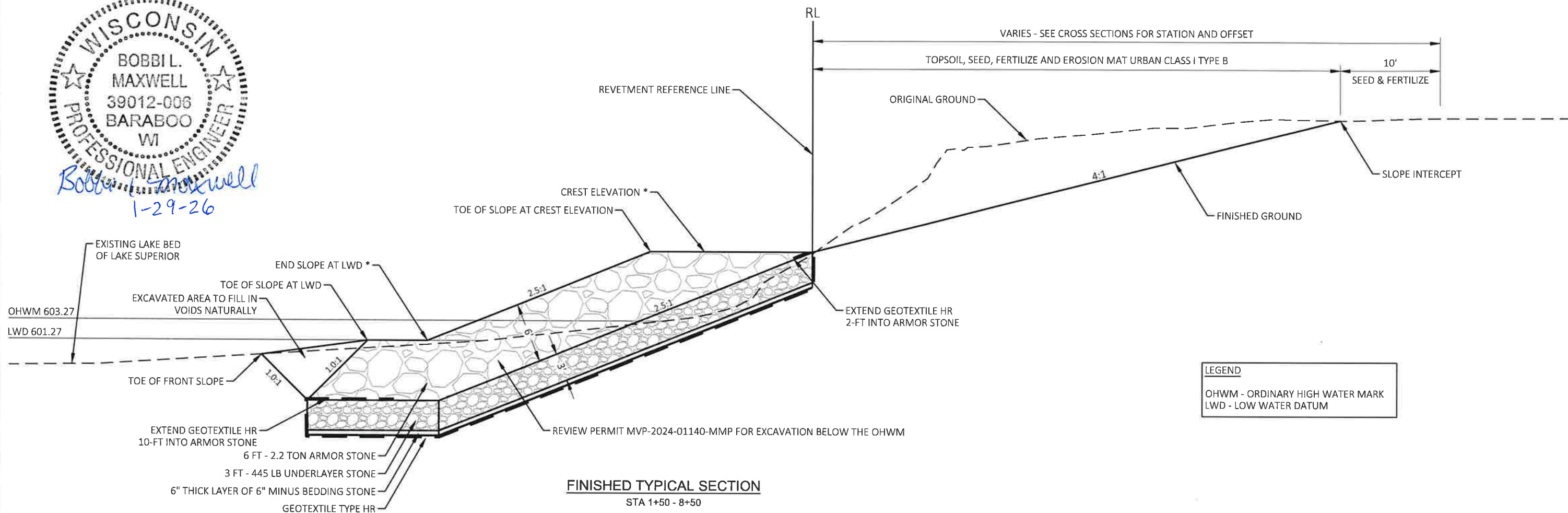
PROJECT OVERVIEW

SHEET

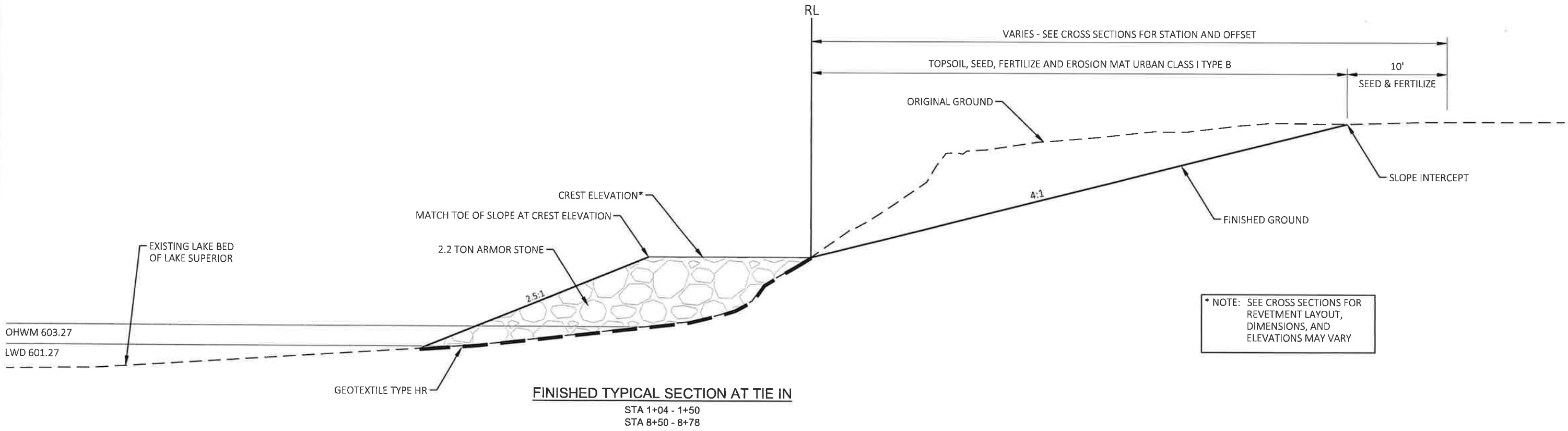
E



Bobbi L. Maxwell
1-29-26



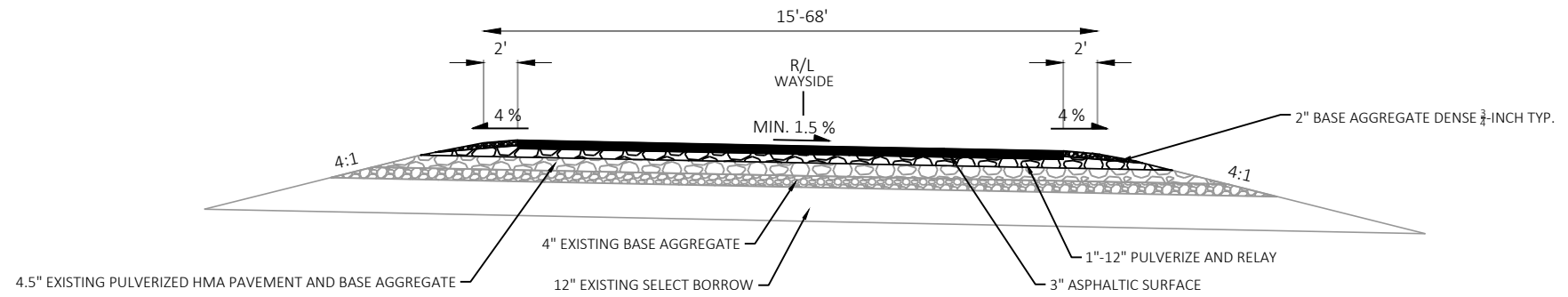
FINISHED TYPICAL SECTION
STA 1+50 - 8+50



FINISHED TYPICAL SECTION AT TIE IN
STA 1+04 - 1+50
STA 8+50 - 8+78

LEGEND
OHWM - ORDINARY HIGH WATER MARK
LWD - LOW WATER DATUM

* NOTE: SEE CROSS SECTIONS FOR
REVETMENT LAYOUT,
DIMENSIONS, AND
ELEVATIONS MAY VARY



FINISHED TYPICAL SECTION

STA 20+69 - 27+06.86

NOTE:
TYPICAL APPLIES TO ALL AREAS OF THE
PARKING LOT.

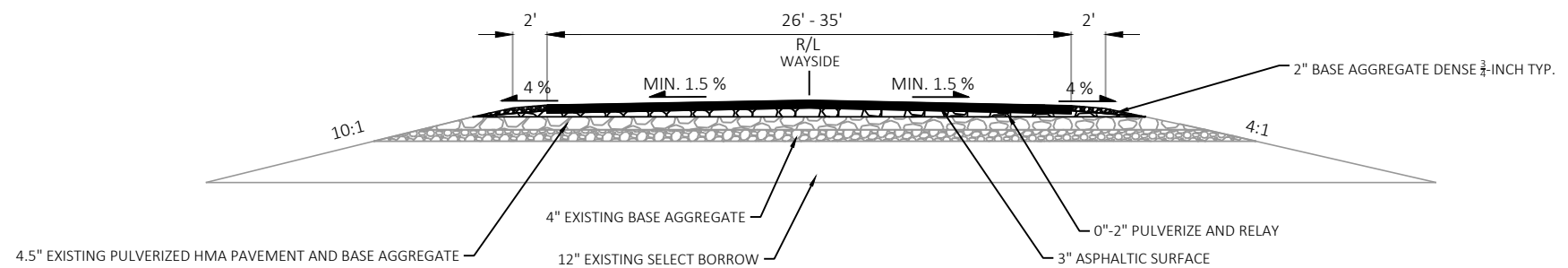
SEE PARKING LOT GRADING DETAILS FOR
CROSS SLOPES.

PULVERIZE AND RELAY INCLUDES 3\"/>

PULVERIZED MATERIAL IS EXPECTED TO BE
USE AS BASE. PAID AS PULVERIZE AND RELAY.

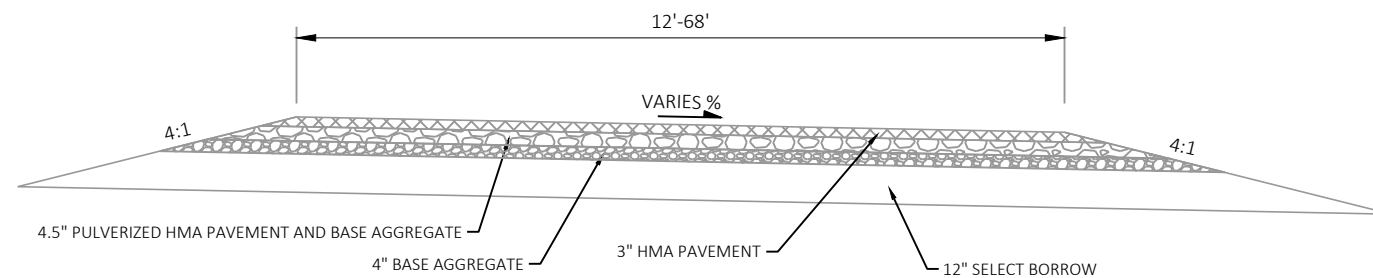
PULVERIZED MATERIAL THICKNESS VARIES
BASED ON THICKNESS REQUIRED TO ACHIEVE
CROSS SLOPES SHOWN IN THE PARKING LOT
GRADING DETAILS.

CROWN WHERE NECESSARY TO OBTAIN
MINIMUM CROSS SLOPE AS DIRECTED BY
ENGINEER IN FIELD. SEE PARKING LOT
GRADING DETAILS FOR LOCATIONS.



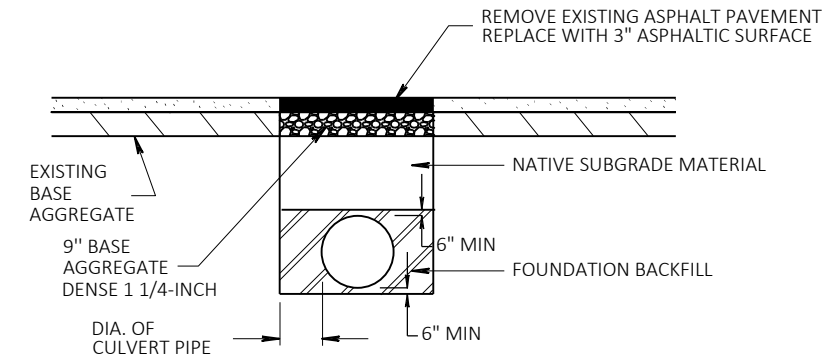
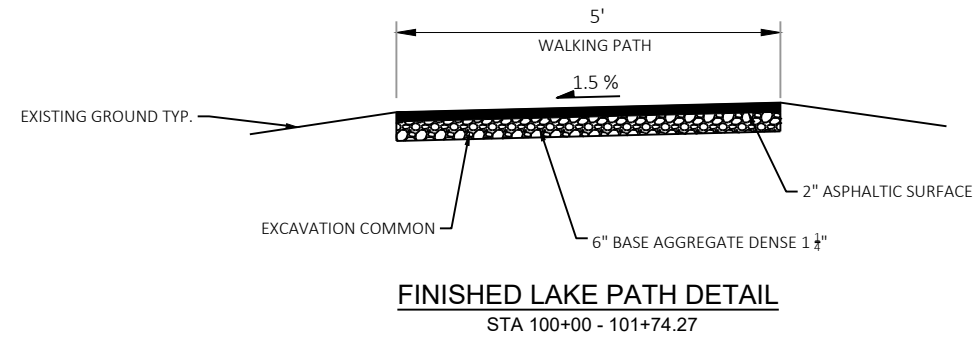
FINISHED TYPICAL SECTION

STA 20+20 - 20+69

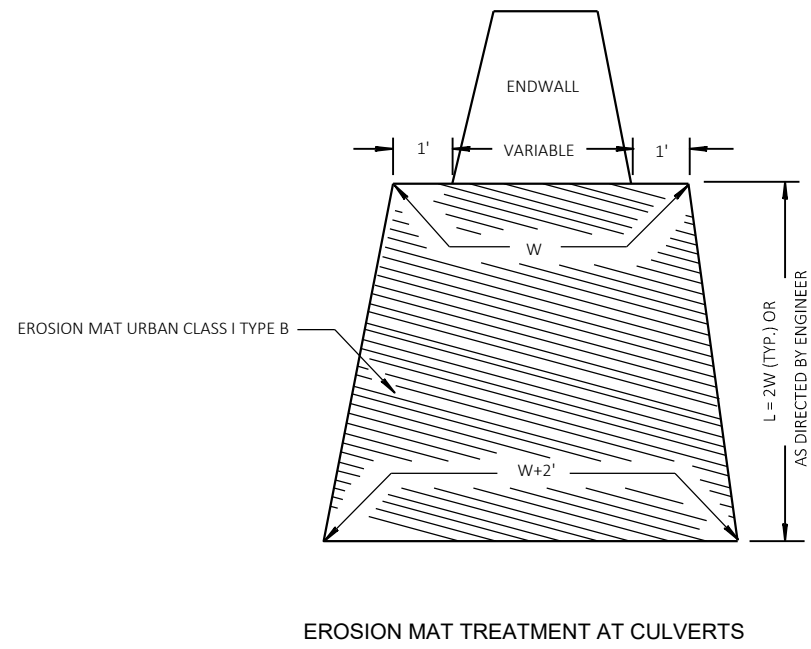


EXISTING TYPICAL SECTION

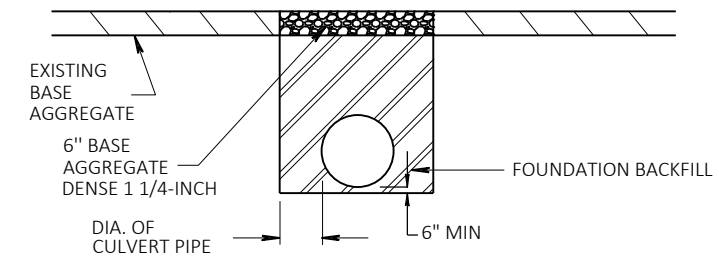
STA 20+20 - 27+06.86



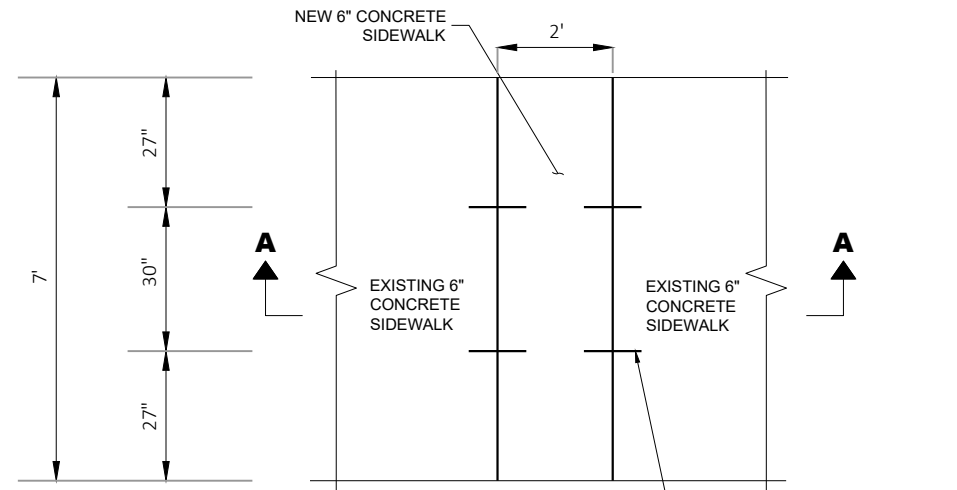
**DETAIL FOR CULVERT PIPE INSTALLATION
IN AREAS OF EXISTING PAVEMENT**



*INSTALLATION IS PRIOR TO ASPHALT PAVING OF LAKE PATH

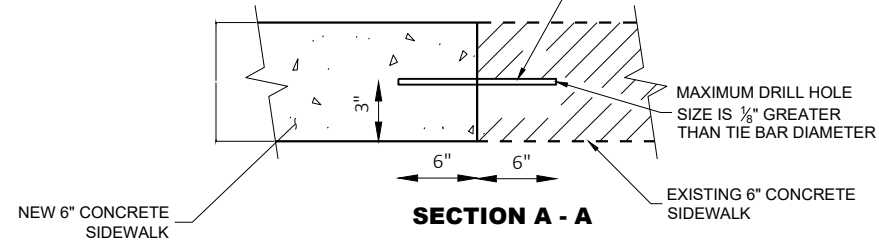


**DETAIL FOR CULVERT PIPE INSTALLATION
IN LAKE PATH AREA**



PLAN VIEW

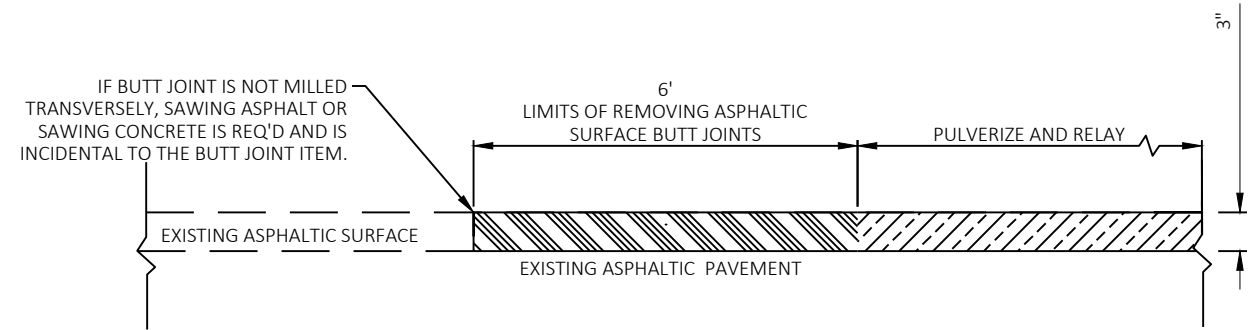
NO. 6 TIE BARS INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.



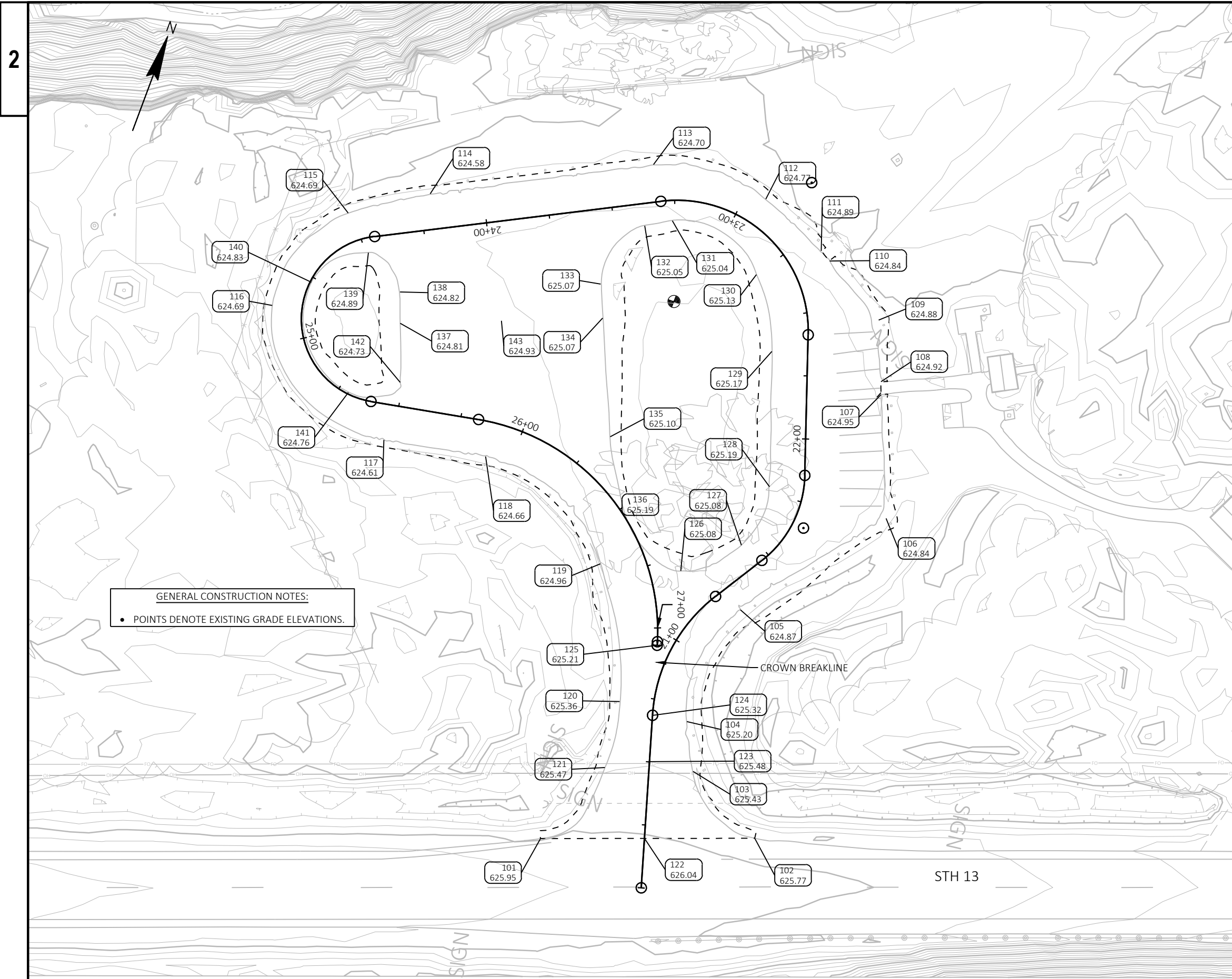
SECTION A - A

DETAIL FOR CONCRETE SLAB REPAIR

STA 22+28, 77' RT



DETAIL FOR DRIVEWAY BUTT JOINT



Parking Lot Existing					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
101	20+16.92	41.09' LT	625.95	524477.95	673834.18
102	20+22.55	43.53' RT	625.77	524507.54	673913.67
103	20+47.44	17.34' RT	625.43	524523.90	673881.45
104	20+66.94	13.60' RT	625.20	524541.53	673872.30
105	21+27.86	10.11' RT	624.87	524590.41	673876.80
106	21+76.41	34.24' RT	624.84	524644.44	673918.32
107	22+18.36	29.50' RT	624.95	524689.73	673899.52
108	22+23.35	29.18' RT	624.92	524694.35	673897.61
109	22+45.46	27.93' RT	624.88	524716.90	673888.25
110	22+65.07	14.58' RT	624.84	524732.15	673861.91
111	22+68.91	13.49' RT	624.89	524734.65	673857.58
112	22+93.40	11.17' RT	624.77	524746.30	673829.83
113	23+31.66	14.73' RT	624.70	524743.64	673783.36
114	24+20.80	14.03' RT	624.58	524702.05	673704.51
115	24+51.51	11.38' RT	624.69	524683.68	673676.85
116	24+88.45	11.78' RT	624.69	524638.96	673661.36
117	25+46.38	14.03' RT	624.61	524604.53	673721.17
118	25+88.13	13.60' RT	624.66	524612.41	673761.17
119	26+66.92	17.10' RT	624.96	524588.25	673818.65
120	20+72.30	13.36' LT	625.36	524539.73	673844.84
121	20+46.67	17.40' LT	625.47	524513.23	673848.38
122	20+19.65	0.00' RT	626.04	524492.32	673872.78
123	20+50.09	0.00' RT	625.48	524521.49	673864.08
124	20+68.50	0.00' RT	625.32	524539.13	673858.82
125	27+06.86	0.00'	625.21	524565.77	673850.87
126	26+80.32	12.15' LT	625.08	524596.50	673849.49
127	21+43.88	9.64' LT	625.08	524614.42	673868.45
128	21+78.46	13.32' LT	625.19	524640.01	673870.91
129	22+34.43	14.06' LT	625.17	524690.78	673853.10
130	22+74.83	13.08' LT	625.13	524717.14	673836.79
131	23+26.32	7.91' LT	625.04	524725.56	673798.00
132	23+37.98	8.73' LT	625.05	524719.90	673788.52
133	23+58.05	29.66' LT	625.07	524692.09	673780.32
134	23+58.90	42.97' LT	625.07	524679.88	673785.68
135	26+28.14	16.46' LT	625.10	524636.62	673804.67
136	26+49.03	1.89' LT	625.19	524613.16	673818.53
137	25+45.01	32.51' LT	624.81	524649.99	673711.11
138	24+37.46	23.00' LT	624.82	524661.51	673706.73
139	24+48.54	5.78' LT	624.89	524671.86	673689.67
140	24+77.01	0.58' LT	624.83	524652.97	673672.71
141	25+29.07	0.79' LT	624.76	524617.28	673701.50
142	25+49.11	9.31' LT	624.73	524627.97	673719.49
143	23+98.88	39.10' LT	624.93	524664.94	673748.40

PROJECT NO: 8510-00-76

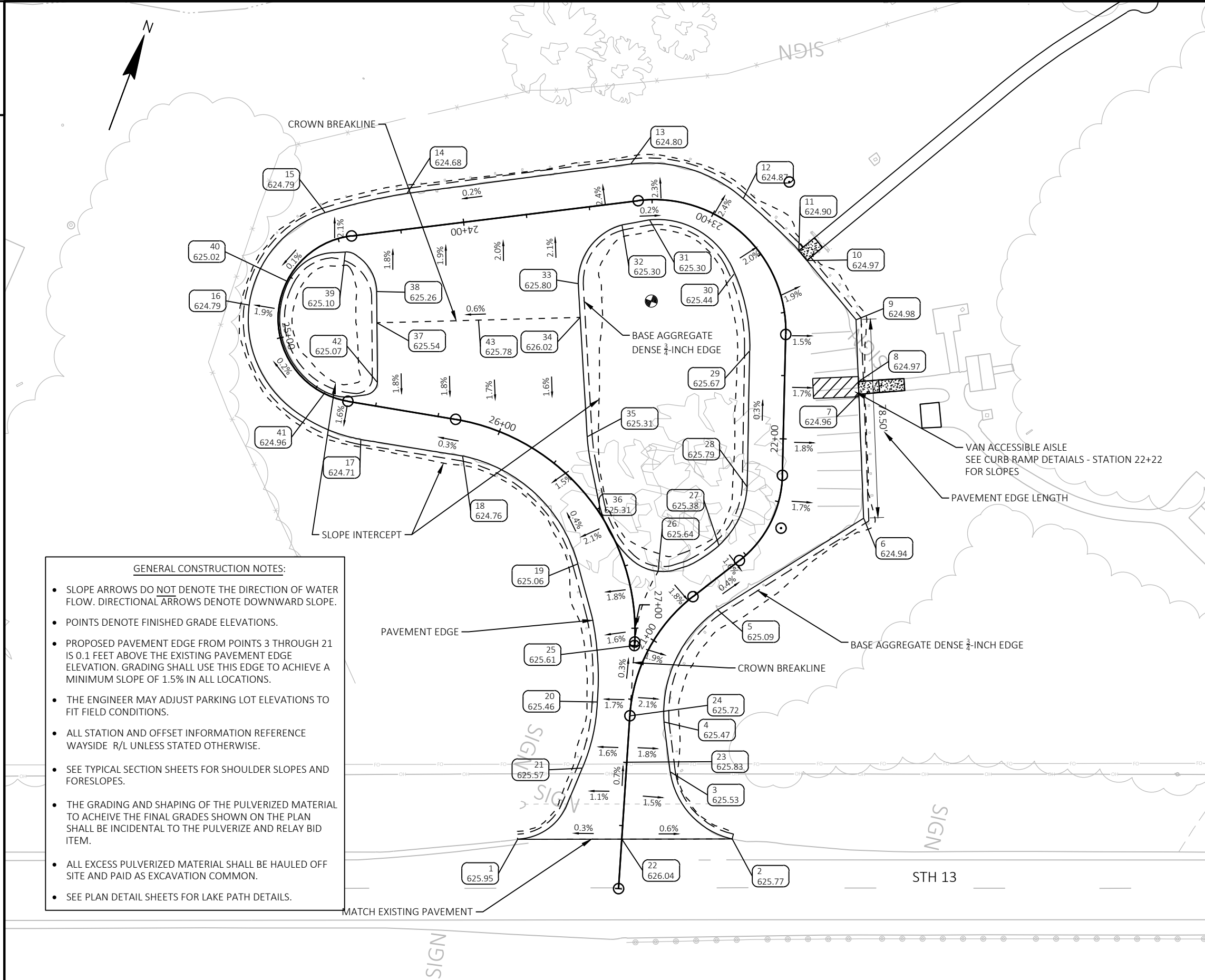
HWY: STH 13

COUNTY: BAYFIELD

PLAN DETAILS : PARKING LOT EXISTING

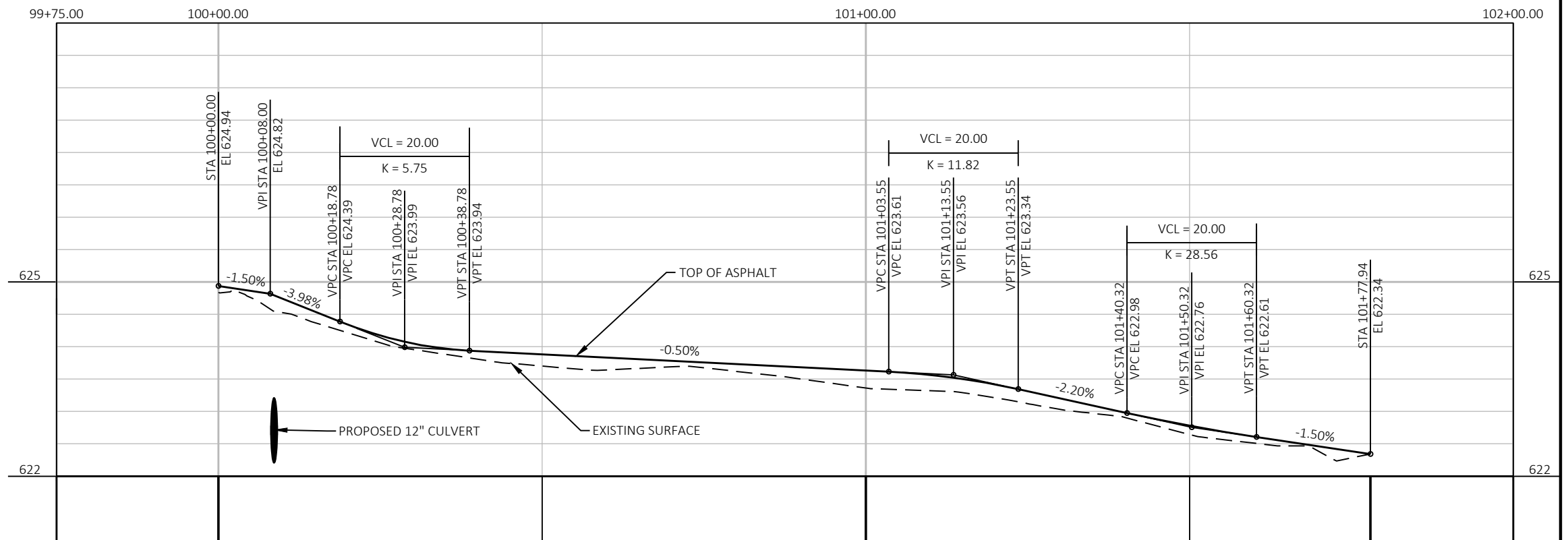
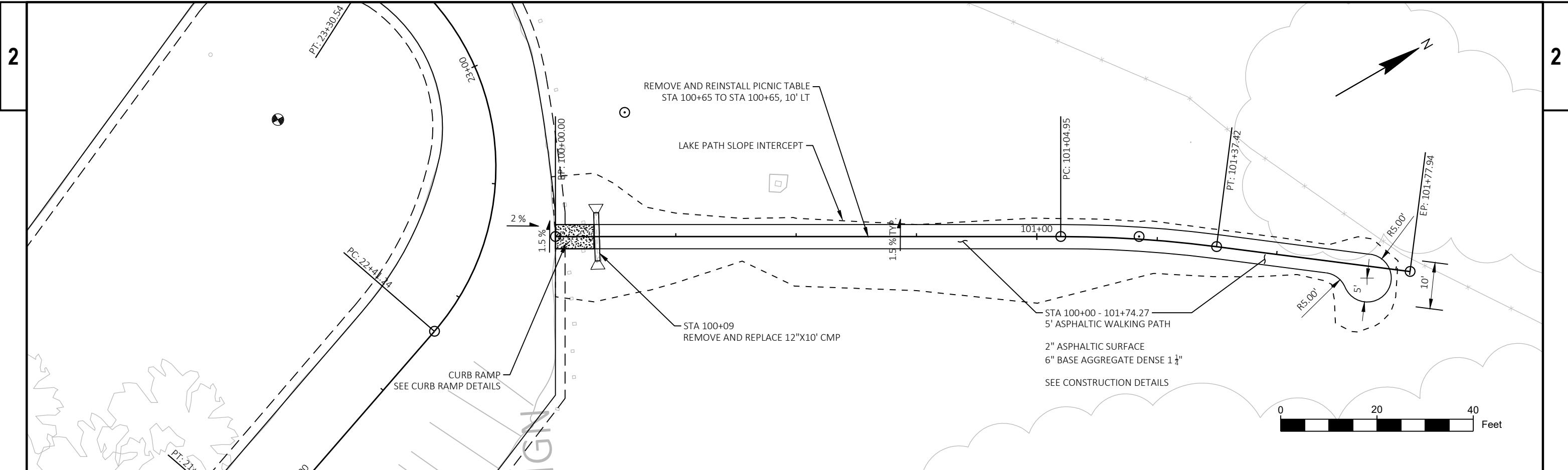
SHEET

E

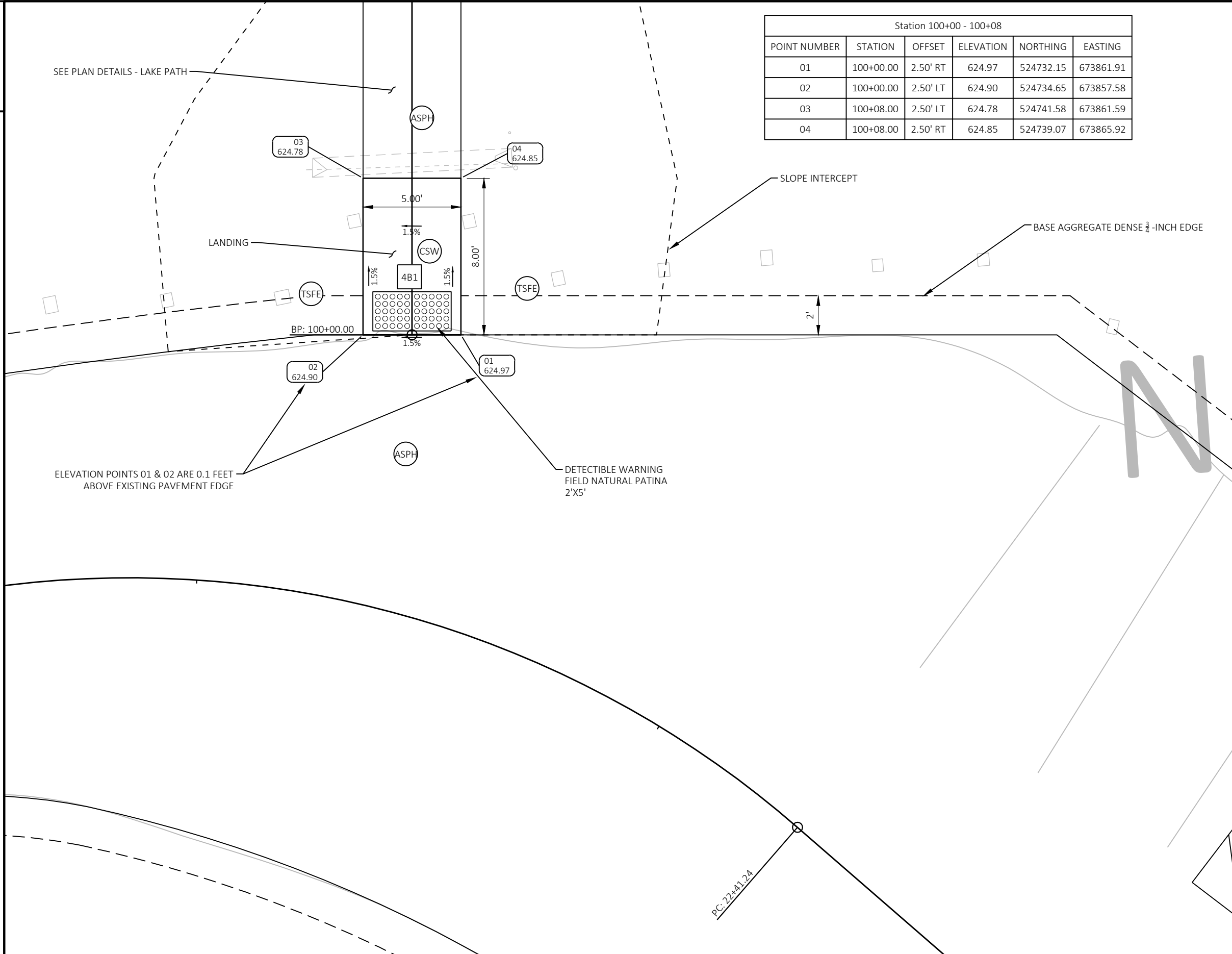
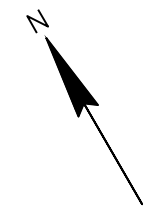


Parking Lot					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	20+16.92	41.09' LT	625.95	524477.95	673834.18
2	20+22.55	43.53' RT	625.77	524507.54	673913.67
3	20+47.44	17.34' RT	625.53	524523.90	673881.45
4	20+66.94	13.60' RT	625.47	524541.53	673872.30
5	21+27.86	10.11' RT	625.09	524590.41	673876.80
6	21+76.41	34.24' RT	624.94	524644.44	673918.32
7	22+18.36	29.50' RT	624.96	524689.73	673899.52
8	22+23.35	29.18' RT	624.97	524694.35	673897.61
9	22+45.46	27.93' RT	624.98	524716.90	673888.25
10	22+65.07	14.58' RT	624.97	524732.15	673861.91
11	22+68.91	13.49' RT	624.90	524734.65	673857.58
12	22+93.40	11.17' RT	624.87	524746.30	673829.83
13	23+31.66	14.73' RT	624.80	524743.64	673783.36
14	24+20.80	14.03' RT	624.68	524702.05	673704.51
15	24+51.51	11.38' RT	624.79	524683.68	673676.85
16	24+88.45	11.78' RT	624.79	524638.96	673661.36
17	25+46.38	14.03' RT	624.71	524604.53	673721.17
18	25+88.13	13.60' RT	624.76	524612.41	673761.17
19	26+66.92	17.10' RT	625.06	524588.25	673818.65
20	20+72.30	13.36' LT	625.46	524539.73	673844.84
21	20+46.67	17.40' LT	625.57	524513.23	673848.38
22	20+19.65	0.00'	626.04	524492.32	673872.78
23	20+50.09	0.00'	625.83	524521.49	673864.08
24	20+68.50	0.00'	625.72	524539.13	673858.82
25	27+06.86	0.00'	625.61	524565.77	673850.87
26	26+80.32	12.15' LT	625.64	524596.50	673849.49
27	21+43.88	9.64' LT	625.38	524614.42	673868.45
28	21+78.46	13.32' LT	625.79	524640.01	673870.91
29	22+34.43	14.06' LT	625.67	524690.78	673853.10
30	22+74.83	13.08' LT	625.44	524717.14	673836.79
31	23+26.32	7.91' LT	625.30	524725.56	673798.00
32	23+37.98	8.73' LT	625.30	524719.90	673788.52
33	23+58.05	29.66' LT	625.80	524692.09	673780.32
34	23+58.90	42.97' LT	626.02	524679.88	673785.68
35	26+28.14	16.46' LT	625.31	524636.62	673804.67
36	26+49.03	1.89' LT	625.31	524613.16	673818.53
37	25+45.01	32.51' LT	625.54	524649.99	673711.11
38	24+37.46	23.00' LT	625.26	524661.51	673706.73
39	24+48.54	5.78' LT	625.10	524671.86	673689.67
40	24+77.01	0.58' LT	625.02	524652.97	673672.71
41	25+29.07	0.79' LT	624.96	524617.28	673701.50
42	25+49.11	9.31' LT	625.07	524627.97	673719.49
43	23+98.88	39.10' LT	625.78	524664.94	673748.40

- GENERAL CONSTRUCTION NOTES:**
- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. DIRECTIONAL ARROWS DENOTE DOWNWARD SLOPE.
 - POINTS DENOTE FINISHED GRADE ELEVATIONS.
 - PROPOSED PAVEMENT EDGE FROM POINTS 3 THROUGH 21 IS 0.1 FEET ABOVE THE EXISTING PAVEMENT EDGE ELEVATION. GRADING SHALL USE THIS EDGE TO ACHIEVE A MINIMUM SLOPE OF 1.5% IN ALL LOCATIONS.
 - THE ENGINEER MAY ADJUST PARKING LOT ELEVATIONS TO FIT FIELD CONDITIONS.
 - ALL STATION AND OFFSET INFORMATION REFERENCE WAYSIDE R/L UNLESS STATED OTHERWISE.
 - SEE TYPICAL SECTION SHEETS FOR SHOULDER SLOPES AND FORESLOPES.
 - THE GRADING AND SHAPING OF THE PULVERIZED MATERIAL TO ACHIEVE THE FINAL GRADES SHOWN ON THE PLAN SHALL BE INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.
 - ALL EXCESS PULVERIZED MATERIAL SHALL BE HAULED OFF SITE AND PAID AS EXCAVATION COMMON.
 - SEE PLAN DETAIL SHEETS FOR LAKE PATH DETAILS.



Station 100+00 - 100+08					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	100+00.00	2.50' RT	624.97	524732.15	673861.91
02	100+00.00	2.50' LT	624.90	524734.65	673857.58
03	100+08.00	2.50' LT	624.78	524741.58	673861.59
04	100+08.00	2.50' RT	624.85	524739.07	673865.92

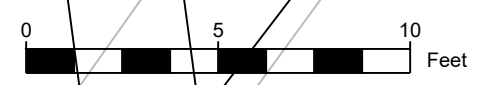


LEGEND

- POINT NUMBER
- TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE B
- CONCRETE SIDEWALK 6-INCH
- ASPHALTIC SURFACE
- CURB RAMP TYPE

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. DIRECTIONAL ARROWS DENOTE DOWNWARD SLOPE.
- PROTECT THE SIDEWALK AGAINST CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL VAN ACCESSIBLE AISLE SLOPES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE WAYSIDE AND WALKING PATH R/L UNLESS STATED OTHERWISE.
- SEE PLAN DETAIL SHEETS FOR LAKE PATH DETAILS.



SEE PLAN DETAILS - LAKE PATH

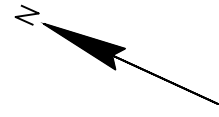
LANDING

SLOPE INTERCEPT

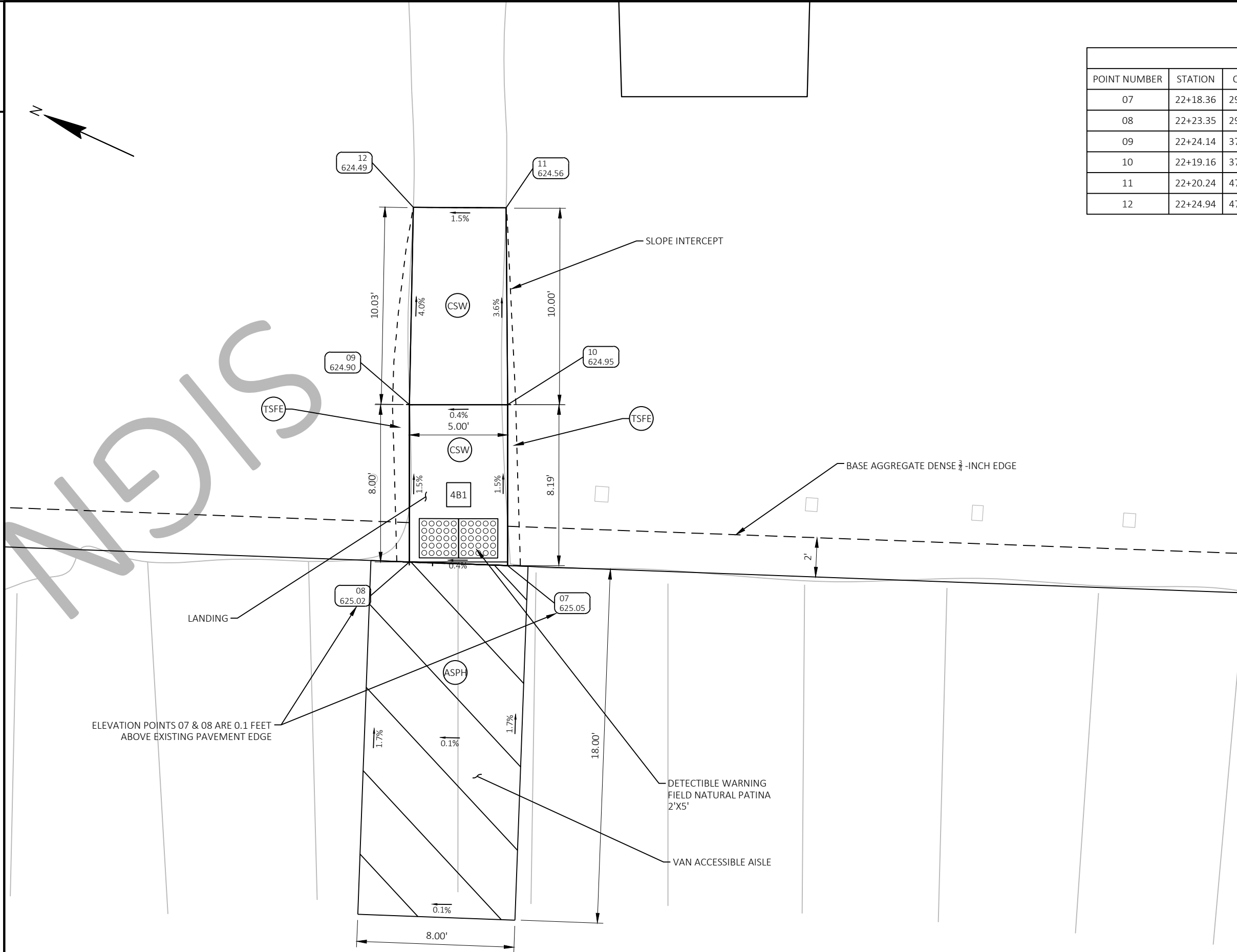
BASE AGGREGATE DENSE 3/4-INCH EDGE

ELEVATION POINTS 01 & 02 ARE 0.1 FEET ABOVE EXISTING PAVEMENT EDGE

DETECTIBLE WARNING FIELD NATURAL PATINA 2'X5'



Station 22+22					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
07	22+18.36	29.50' RT	625.05	524689.73	673899.52
08	22+23.35	29.18' RT	625.02	524694.35	673897.61
09	22+24.14	37.14' RT	624.90	524697.69	673904.88
10	22+19.16	37.64' RT	624.95	524693.14	673906.96
11	22+20.24	47.59' RT	624.56	524697.39	673916.02
12	22+24.94	47.14' RT	624.49	524701.69	673914.07

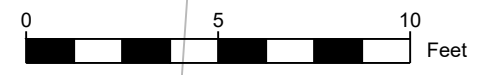


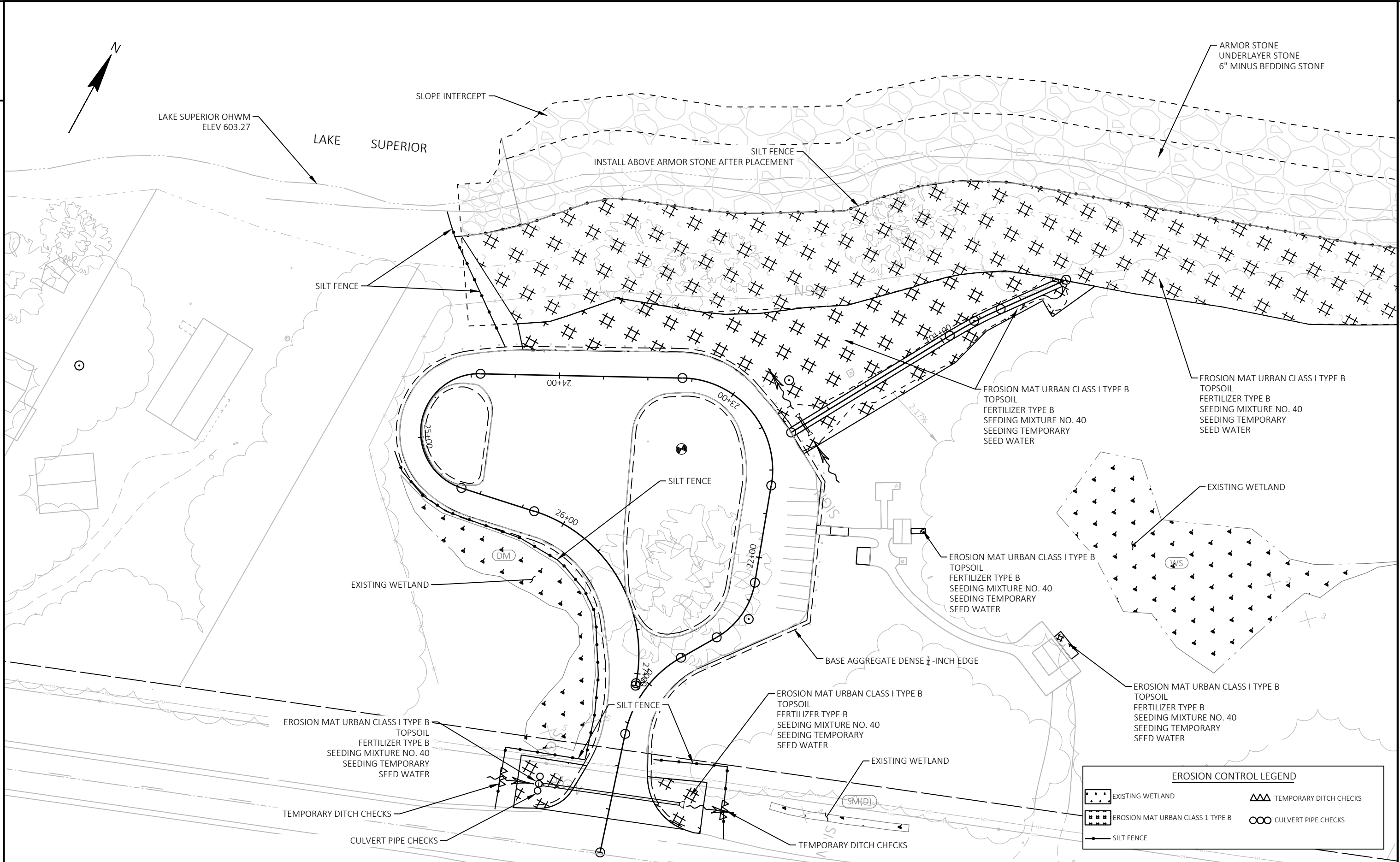
LEGEND

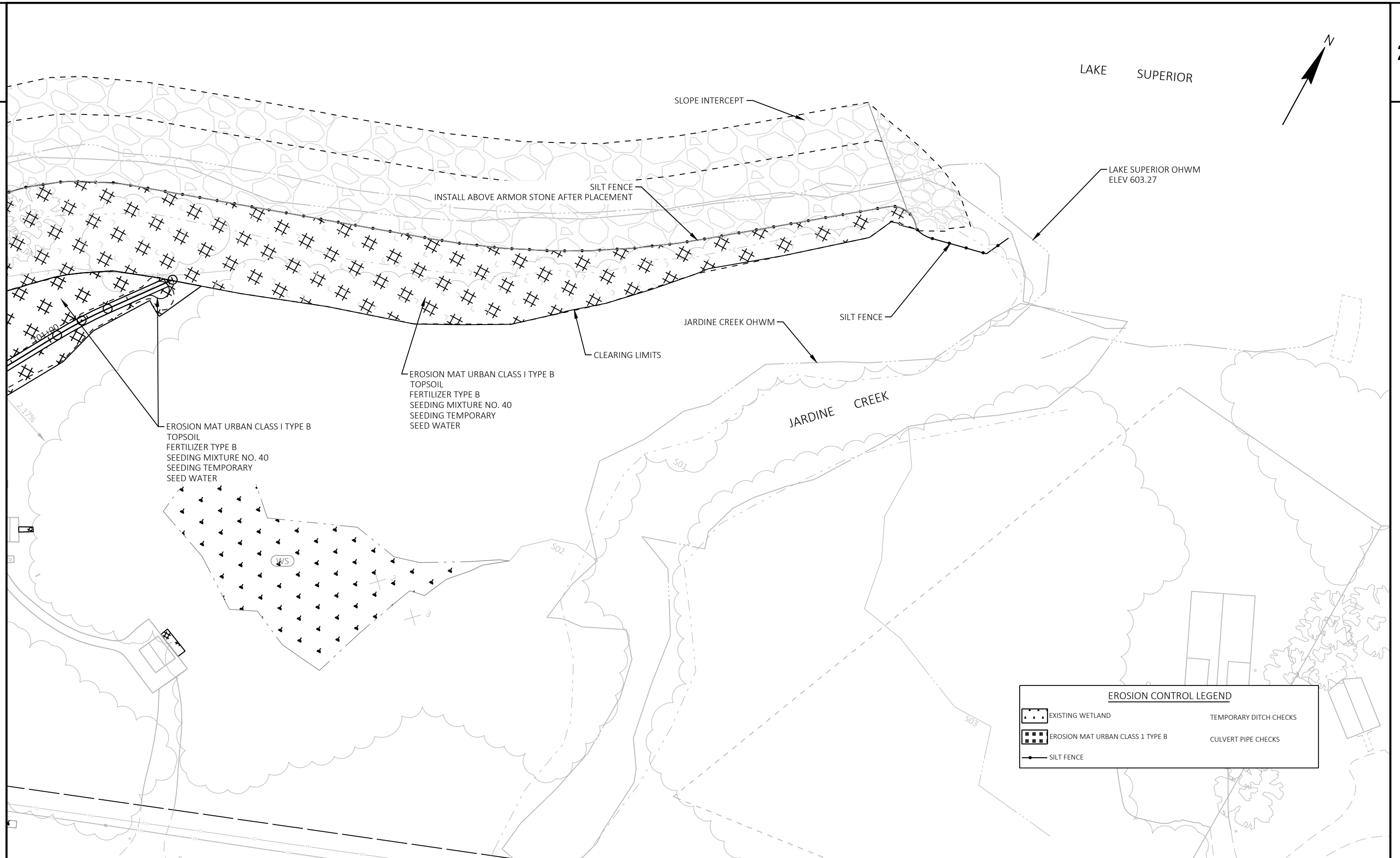
- POINT NUMBER
- TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE B
- CONCRETE SIDEWALK 6-INCH
- ASPHALTIC SURFACE
- CURB RAMP TYPE

GENERAL CONSTRUCTION NOTES:

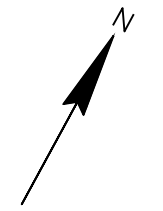
- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. DIRECTIONAL ARROWS DENOTE DOWNWARD SLOPE.
- PROTECT THE SIDEWALK AGAINST CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL VAN ACCESSIBLE AISLE SLOPES SHALL NOT EXCEED 2.0% IN ALL DIRECTIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE WAYSIDE AND WALKING PATH R/L UNLESS STATED OTHERWISE.
- SEE PLAN DETAIL SHEETS FOR LAKE PATH DETAILS.







LAKE SUPERIOR



SLOPE INTERCEPT

INSTALL ABOVE ARMOR STONE AFTER PLACEMENT

SILT FENCE

LAKE SUPERIOR OHWM
ELEV 603.27

JARDINE CREEK OHWM

SILT FENCE

CLEARING LIMITS

JARDINE CREEK

EROSION MAT URBAN CLASS I TYPE B
TOPSOIL
FERTILIZER TYPE B
SEEDING MIXTURE NO. 40
SEEDING TEMPORARY
SEED WATER







EROSION MAT URBAN CLASS I TYPE B
TOPSOIL
FERTILIZER TYPE B
SEEDING MIXTURE NO. 40
SEEDING TEMPORARY
SEED WATER

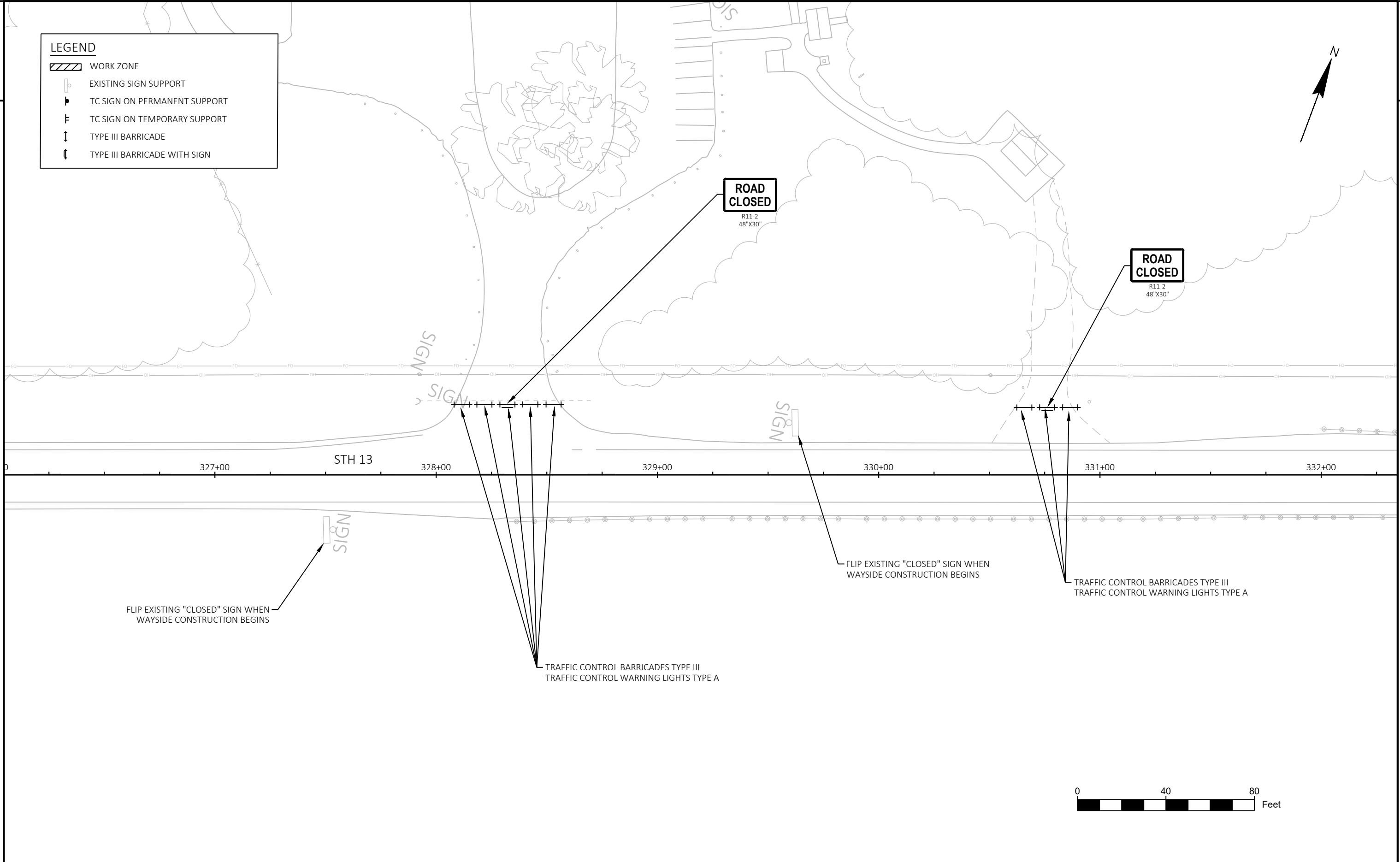
2.17%

EROSION CONTROL LEGEND

	EXISTING WETLAND		TEMPORARY DITCH CHECKS
	EROSION MAT URBAN CLASS 1 TYPE B		CULVERT PIPE CHECKS
	SILT FENCE		







LEGEND

-  WORK ZONE
-  EXISTING SIGN SUPPORT
-  TC SIGN ON PERMANENT SUPPORT
-  TC SIGN ON TEMPORARY SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH SIGN

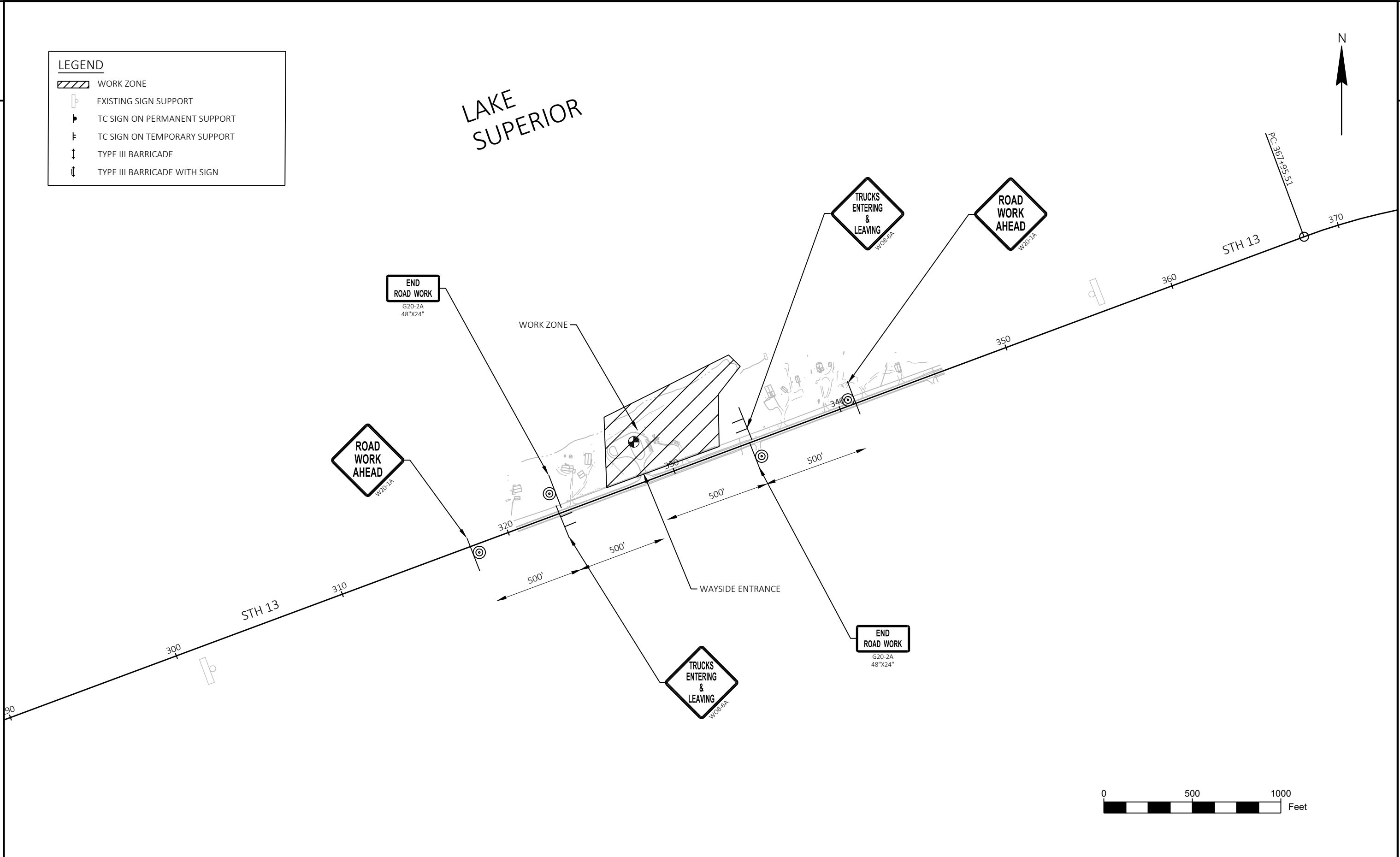


PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	TRAFFIC CONTROL	SHEET E
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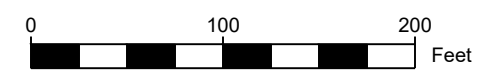
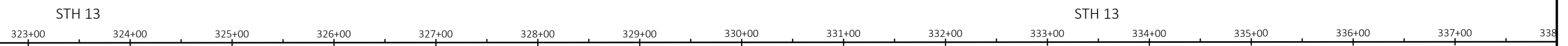
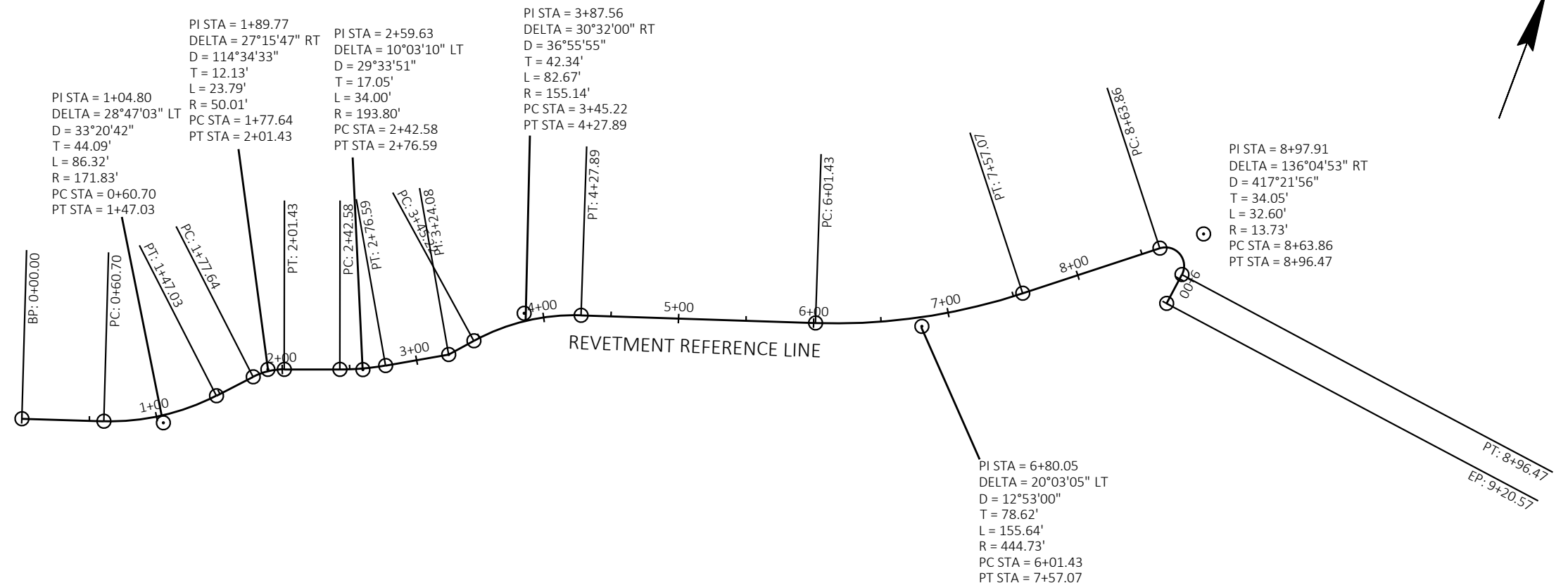
LEGEND

-  WORK ZONE
-  EXISTING SIGN SUPPORT
-  TC SIGN ON PERMANENT SUPPORT
-  TC SIGN ON TEMPORARY SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH SIGN

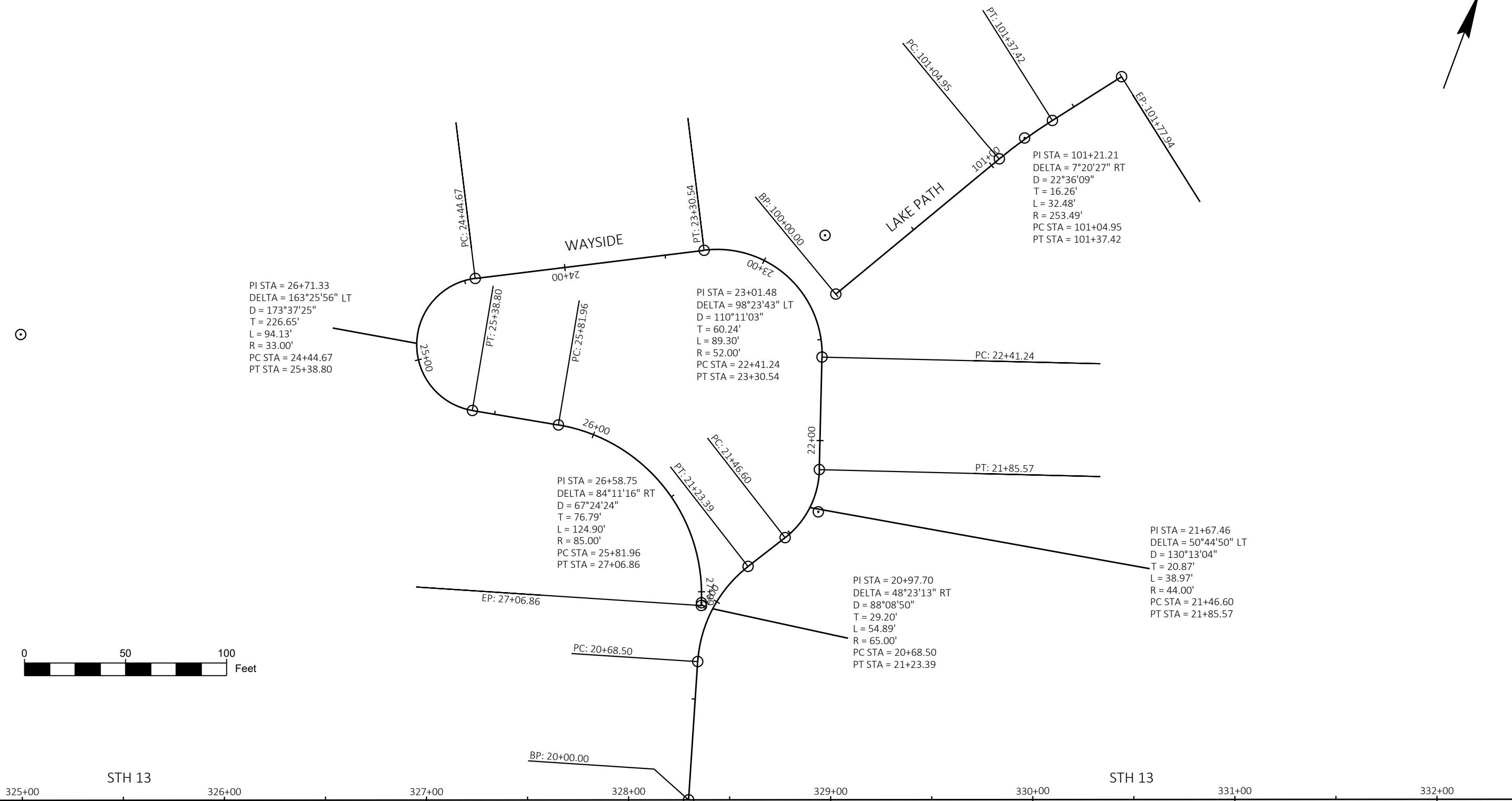
LAKE SUPERIOR



PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	TRAFFIC CONTROL	SHEET	E
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PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	ALIGNMENT DETAILS - REVETMENT	SHEET	E
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325+00 STH 13 326+00 327+00 328+00 329+00 330+00 STH 13 331+00 332+00

Estimate Of Quantities

8510-00-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	5.000	5.000
0004	201.0110	Clearing	SY	1,520.000	1,520.000
0006	201.0210	Grubbing	SY	1,520.000	1,520.000
0008	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0010	203.0216.S	Abatement of Asbestos Containing Material (project) 01. 8510-00-76	EACH	1.000	1.000
0012	204.0110	Removing Asphaltic Surface	SY	57.000	57.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	45.000	45.000
0016	204.0155	Removing Concrete Sidewalk	SY	14.000	14.000
0018	204.0170	Removing Fence	LF	180.000	180.000
0020	204.9060.S	Removing (item description) 01. Guard Posts Timber	EACH	56.000	56.000
0022	205.0100	Excavation Common	CY	5,677.000	5,677.000
0024	213.0100	Finishing Roadway (project) 01. 8510-00-76	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	30.000	30.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	84.000	84.000
0030	325.0100	Pulverize and Relay	SY	2,520.000	2,520.000
0032	416.0610	Drilled Tie Bars	EACH	4.000	4.000
0034	465.0105	Asphaltic Surface	TON	443.000	443.000
0036	520.1012	Apron Endwalls for Culvert Pipe 12-Inch	EACH	2.000	2.000
0038	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	2.000	2.000
0040	520.3312	Culvert Pipe Class III-A 12-Inch	LF	10.000	10.000
0042	520.3318	Culvert Pipe Class III-A 18-Inch	LF	78.000	78.000
0044	602.0415	Concrete Sidewalk 6-Inch	SF	210.000	210.000
0046	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	20.000	20.000
0048	615.0300	Guard Posts Timber	EACH	56.000	56.000
0050	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8510-00-76	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	1.200	1.200
0056	625.0100	Topsoil	SY	6,070.000	6,070.000
0058	628.1504	Silt Fence	LF	1,330.000	1,330.000
0060	628.1520	Silt Fence Maintenance	LF	1,330.000	1,330.000
0062	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0066	628.2008	Erosion Mat Urban Class I Type B	SY	6,070.000	6,070.000
0068	628.7504	Temporary Ditch Checks	LF	20.000	20.000
0070	628.7555	Culvert Pipe Checks	EACH	2.000	2.000
0072	629.0210	Fertilizer Type B	CWT	5.000	5.000
0074	630.0140	Seeding Mixture No. 40	LB	320.000	320.000
0076	630.0200	Seeding Temporary	LB	200.000	200.000
0078	630.0500	Seed Water	MGAL	120.000	120.000
0080	638.2102	Moving Signs Type II	EACH	1.000	1.000
0082	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,050.000	1,050.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	2,100.000	2,100.000
0090	643.0900	Traffic Control Signs	DAY	790.000	790.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0120	Geotextile Type HR	SY	6,260.000	6,260.000
0096	646.5205	Marking Symbol Paint	EACH	1.000	1.000
0098	646.8305	Marking Parking Stall Paint	LF	489.000	489.000

Estimate Of Quantities

8510-00-76

Line	Item	Item Description	Unit	Total	Qty
0100	650.5000	Construction Staking Base	LF	861.000	861.000
0102	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0104	650.9000	Construction Staking Curb Ramps	EACH	2.000	2.000
0106	650.9500	Construction Staking Sidewalk (project) 01. 8510-00-76	EACH	1.000	1.000
0108	650.9911	Construction Staking Supplemental Control (project) 01. 8510-00-76	EACH	1.000	1.000
0110	650.9920	Construction Staking Slope Stakes	LF	783.000	783.000
0112	690.0150	Sawing Asphalt	LF	108.000	108.000
0114	690.0250	Sawing Concrete	LF	14.000	14.000
0116	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	800.000	800.000
0118	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0120	SPV.0035	Special 01. Excavation Common Special	CY	8,063.000	8,063.000
0122	SPV.0060	Special 01. Remove and Reinstall Picnic Table	EACH	1.000	1.000
0124	SPV.0195	Special 01. Armor Stone	TON	12,442.000	12,442.000
0126	SPV.0195	Special 02. Underlayer Stone	TON	7,460.000	7,460.000
0128	SPV.0195	Special 03. 6" Minus Bedding Stone	TON	1,420.000	1,420.000

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CLEARING

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	201.0105	201.0110	201.0210	REMARKS
					CLEARING STA	CLEARING SY	GRUBBING SY	
0010	4+00	-	9+00	RT	--	1,520	1,520	
0010	1+50	-	8+50	LT	5	--	--	DEBRIS ALONG SHORELINE
TOTAL 0010					5	1,520	1,520	

CATEGORY	STATION	TO	STATION	LOCATION	204.0170
					REMOVING FENCE LF
0010	1+00	-	4+91	SAFETY FENCE	180
TOTAL 0010					180

COMMON EXCAVATION

CATEGORY	STATION	TO	STATION	LOCATION	* 205.0100 SPV.0035.01 SPECIAL (01. EXCAVATION							REMARKS
					EXCAVATION COMMON CUT CY	COMMON SPECIAL CUT CY	UNEXPANDED FILL CY	EXPANDED FILL (1) CY	MASS ORDINATE +/- (2) CY	WASTE (3) CY		
0010	1+04	-	8+87	LT & RT	5,540	--	21	26	5514	5514	EXCAVATION FOR STONE INCLUDED	
0010	1+04	-	8+87	LT & RT	--	8,063	0	0	8063	8063	EXCAVATION FOR STONE INCLUDED	
TOTAL 0010					5,540	8,063						

NOTES:

- (1) EXPANDED FILL FACTOR = 1.25
EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
- (2) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
- (3) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

RESTORATION

REVETMENT

CATEGORY	STATION	TO	STATION	LOCATION	* 625.0100	* 628.2008	* 629.0210	* 630.0140	* 630.0200	* 630.0500
					TOPSOIL SY	EROSION MAT URBAN CLASS I TYPE B SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 40 LB	SEEDING TEMPORARY LB	SEED WATER MGAL
0010	1+04	-	8+87	RT	4,070	4,070	3	225	140	69
TOTAL 0010					4,070	4,070	3	225	140	69

CATEGORY	STATION	TO	STATION	LOCATION	645.0120	SPV.0195.01	SPV.0195.02	SPV.0195.03
					GEOTEXTILE TYPE HR SY	SPECIAL (01. ARMOR STONE) TON	SPECIAL (02. UNDERLAYER STONE) TON	SPECIAL (03. 6-INCH MINUS BEDDING STONE) TON
0010	1+04	-	8+87	LT	6,260	12,442	7,460	1,420
TOTAL 0010					6,260	12,442	7,460	1,420

* QUANTITIES SHOWN ELSEWHERE

ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	* 205.0100 EXCAVATION COMMON CY	325.0100 PULVERIZE AND RELAY SY	465.0105 ASPHALTIC SURFACE TON	REMARKS
0020	20+20	-	27+07			45		2,520	432	PARKING LOT
0020	20+20	-	27+07				119			EXCESS PULVERIZE MATERIAL
0020	20+33	-			51					DRIVEWAY CULVERT
0020	20+21	-		22' RT	6					
0020	100+00	-	101+81				18		11	LAKE PATH
TOTAL 0020					57	45	137	2,520	443	

PARKING LOT GRADING AND SHAPING IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM. SEE PLAN DETAILS -PARKING LOT GRADING

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL	REMARKS
0020	100+00	-	101+81	LAKE PATH		35	0.4	
0020	20+33					9	0.1	DRIVEWAY CULVERT
0020						40	0.4	REPAIR QUANTITY
0020	20+20	-	27+07		30		0.3	SHOULDERS
TOTAL 0020					30	84	1.2	

CONCRETE

CATEGORY	STATION	TO	STATION	LOCATION	203.0216.S ABATEMENT OF ASBESTOS CONTAINING MATERIAL (PROJECT) EACH	204.0155 REMOVING CONCRETE SIDEWALK SY	416.0610 DRILLED TIE BARS EACH	602.0415 CONCRETE SIDEWALK 6- INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	REMARKS
0020	22+28			77' RT	1	2	4	14		CONCRETE SLAB REPAIR
0020	22+22			30' RT				79	10	STATION 22+22 CURB RAMP
0020	22+29			86' RT		2				CONCRETE FLUME REMOVAL
0020	22+11			58' RT		10		84		CONCRETE SLAB REPLACEMENT
0020	100+00	-	100+06					30	10	LAKE PATH CURB RAMP
TOTAL 0020					1	14	4	210	20	

CULVERTS

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	520.1012 APRON ENDWALLS FOR CULVERT PIPE 12- INCH EACH	520.1018 APRON ENDWALLS FOR CULVERT PIPE 18- INCH EACH	520.3312 CULVERT PIPE CLASS III-A 12- INCH LF	520.3318 CULVERT PIPE CLASS III-A 18- INCH LF	REMARKS
0020	20+33	DRIVEWAY CULVERT	1		2		78	MINIMUM WALL THICKNESS 0.064" FOR CORRUGATED STEEL
0020	100+09	LAKE PATH CULVERT	1	2		10		MINIMUM WALL THICKNESS 0.064" FOR CORRUGATED STEEL
TOTAL 0020			2	2	2	10	78	

SEE EARTHWORK DATA FOR CULVERT CUT AND FILL VOLUMES

3

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GUARD POSTS

CATEGORY	STATION	TO	STATION	LOCATION	204.9060.S.01 REMOVING (ITEM DESCRIPTION) (01. GUARD POSTS TIMBER) EACH	615.0300 GUARD POSTS TIMBER EACH
0020	20+00	-	27+07	PROJECT	56	56
TOTAL 0020					56	56

MISC

CATEGORY	LOCATION	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 8510-00-76) EACH	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 8510-00-76) EACH	642.5001 FIELD OFFICE TYPE B EACH
0010	PROJECT	1	1	1
TOTAL 0010		1	1	1

RESTORATION WAYSIDE

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS	
1+04			RT		930	930											
20+33			LT & RT		160	160				20	2						
21+86			180' RT	9					9				2	2	1		BEHIND OUTHOUSE
22+28			86' RT	3					3				1	1	1		
22+57	-	24+24	RT	1,980					1,980				2	92	57	49	TOP OF SLOPE
25+04	-	27+04	RT		235	235											SILT FENCE ALONG WETLAND
PROJECT							12	2									
TOTAL 0020				2,000	1,330	1,330	12	2	2,000	20	2	2	95	60	51		

MARKING AND SIGNING

CATEGORY	STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	646.5205 MARKING SYMBOL PAINT EACH	646.8305 MARKING PARKING STALL PAINT LF	REMARKS
0020	22+29		1	1	1		HANDICAP PARKING
0020		PROJECT				406	PARKING STALL LINES
0020	20+20	RT				83	ACCESS ISLE LINES
TOTAL 0020			1	1	1	489	

PROJECT NO: 8510-00-76

HWY: STH 13

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET

24

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TRAFFIC CONTROL

CATEGORY	LOCATION	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
0010	PROJECT	1,050	2,100	790	1
TOTAL 0010		1,050	2,100	790	1

SAWCUTS

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0020	20+33		93		DRIVEWAY CULVERT
0020	22+11	62' RT	10		CONCRETE SLAB REPLACEMENT
0020	22+23	47' RT	5		
0020	22+28	86' RT		14	CONCRETE SLAB REPAIR
TOTAL 0020			108	14	

3




STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500.01 CONSTRUCTION STAKING SIDEWALK (PROJECT) (01. 8510-00-76) EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8510-00-76) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010				PROJECT					1		
0010	1+04	-	8+87							783	
TOTAL 0010					0	0	0	0	1	783	
0020				PROJECT				1			
0020	20+33					1					
0020	100+09					1					
0020	20+20	-	27+07		687						STAKING PULVERIZED MATERIAL
0020	22+22			RT						1	STATION 22+22 CURB RAMP
0020	100+00	-	101+74		174					1	LAKE PATH
TOTAL 0020					861	2	2	1	0	0	
PROJECT TOTAL					861	2	2	1	1	783	

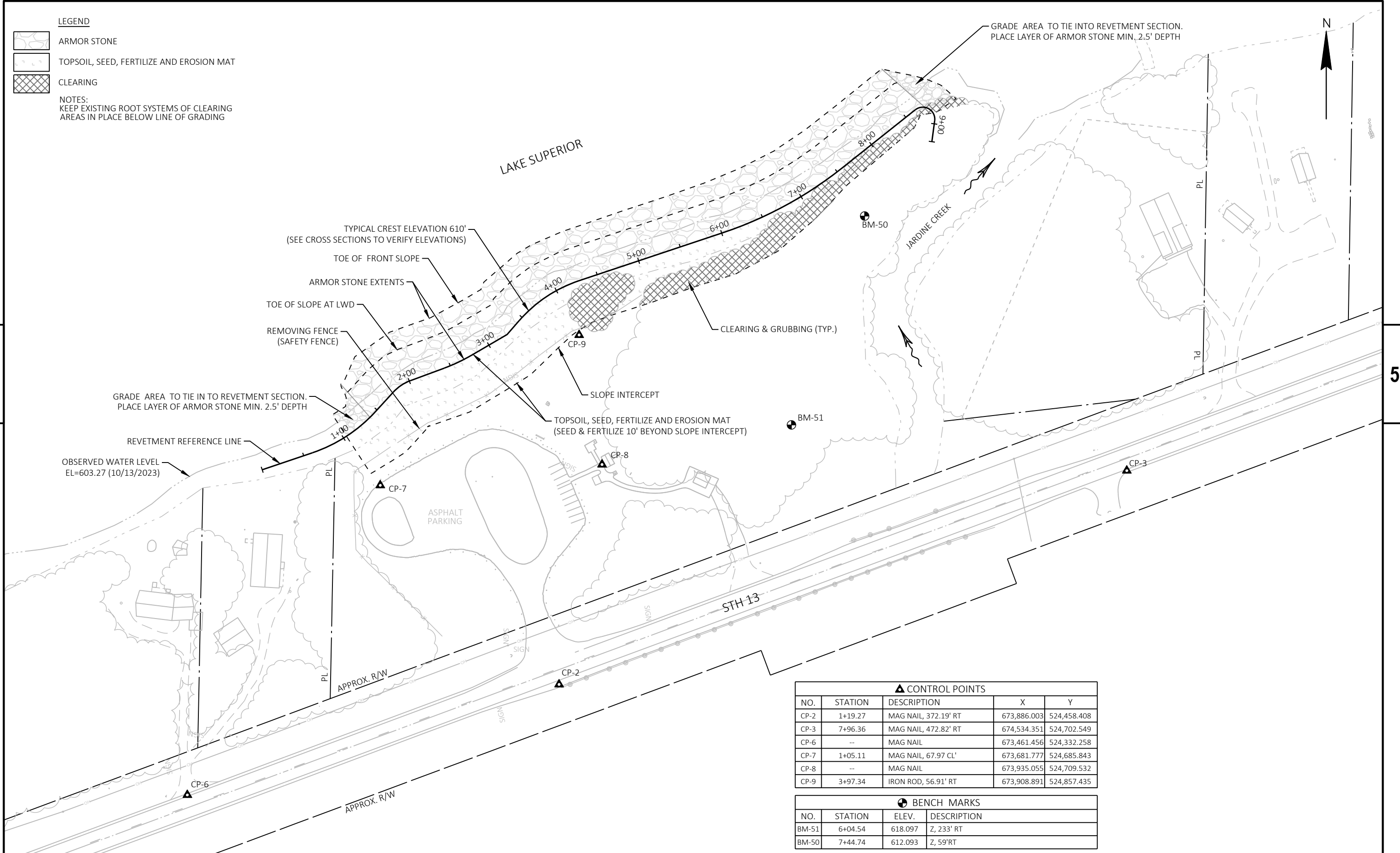
PICNIC TABLE

CATEGORY	STATION	LOCATION	SPV.0060.01 SPECIAL (01. REMOVE AND REINSTALL PICNIC TABLE) EACH
0020	100+65		1
TOTAL 0020			1

LEGEND

-  ARMOR STONE
-  TOPSOIL, SEED, FERTILIZE AND EROSION MAT
-  CLEARING

NOTES:
KEEP EXISTING ROOT SYSTEMS OF CLEARING AREAS IN PLACE BELOW LINE OF GRADING

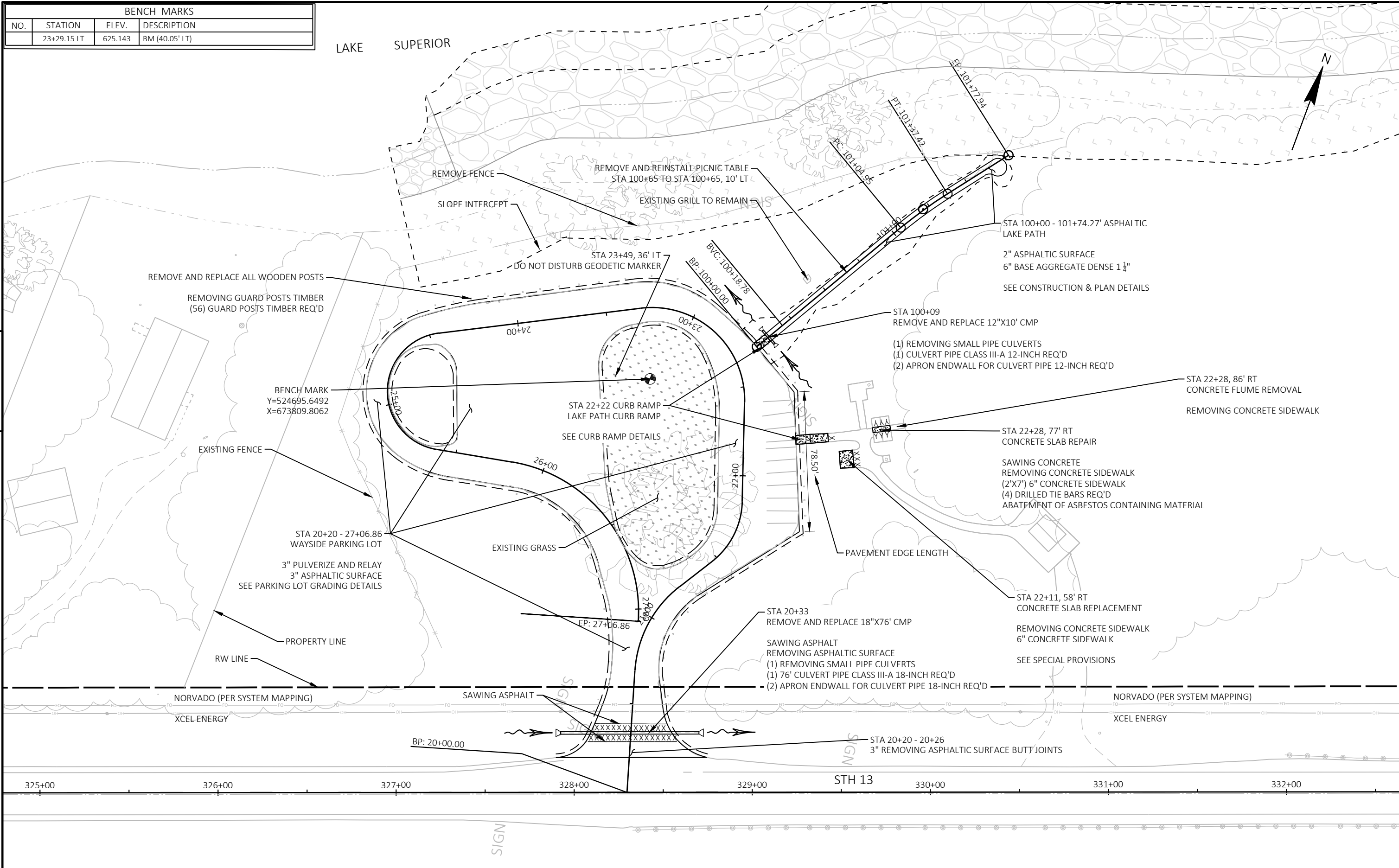


▲ CONTROL POINTS				
NO.	STATION	DESCRIPTION	X	Y
CP-2	1+19.27	MAG NAIL, 372.19' RT	673,886.003	524,458.408
CP-3	7+96.36	MAG NAIL, 472.82' RT	674,534.351	524,702.549
CP-6	--	MAG NAIL	673,461.456	524,332.258
CP-7	1+05.11	MAG NAIL, 67.97 CL'	673,681.777	524,685.843
CP-8	--	MAG NAIL	673,935.055	524,709.532
CP-9	3+97.34	IRON ROD, 56.91' RT	673,908.891	524,857.435

● BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM-51	6+04.54	618.097	Z, 233' RT
BM-50	7+44.74	612.093	Z, 59' RT

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
	23+29.15 LT	625.143	BM (40.05' LT)

LAKE SUPERIOR



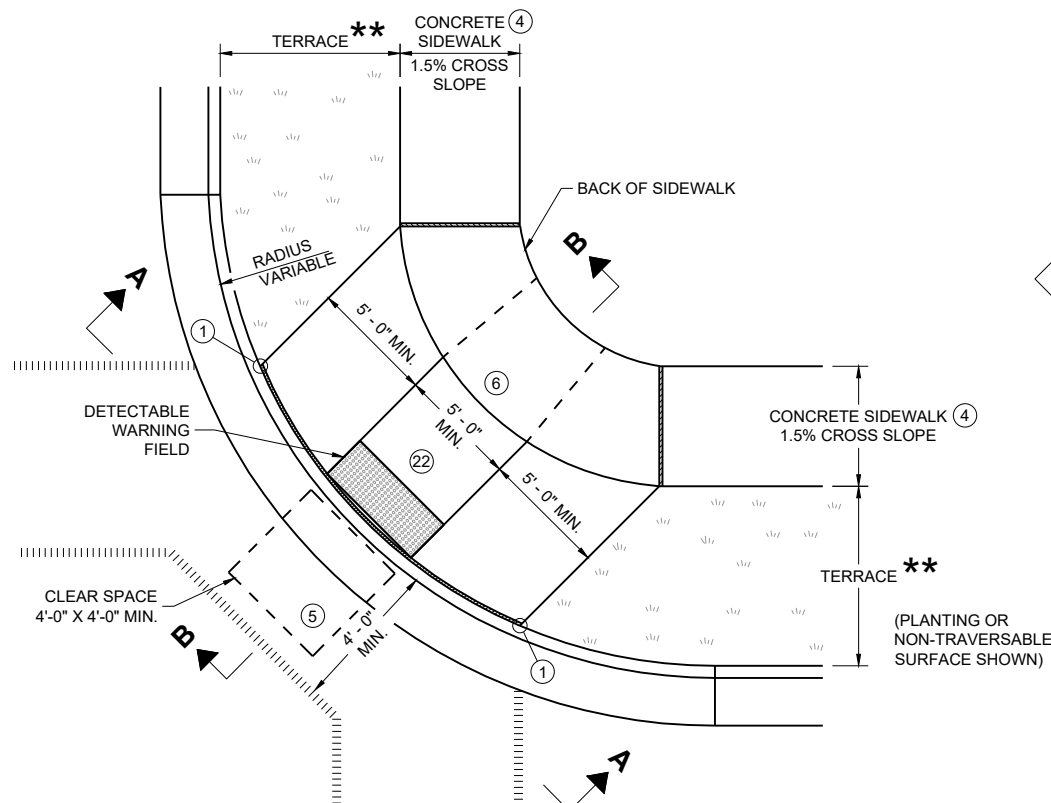
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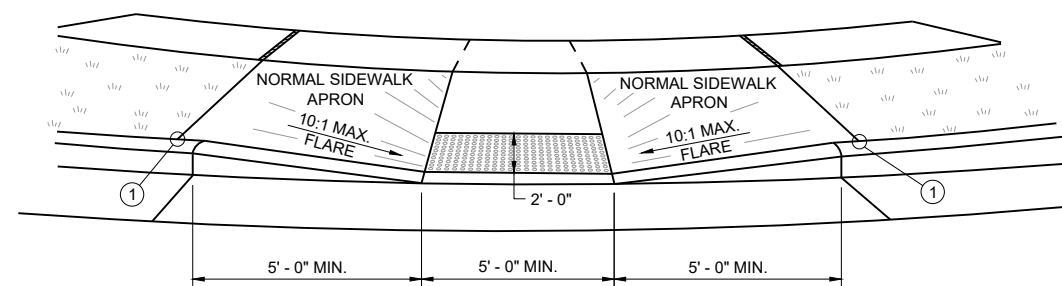
PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS	SHEET	E
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Standard Detail Drawing List

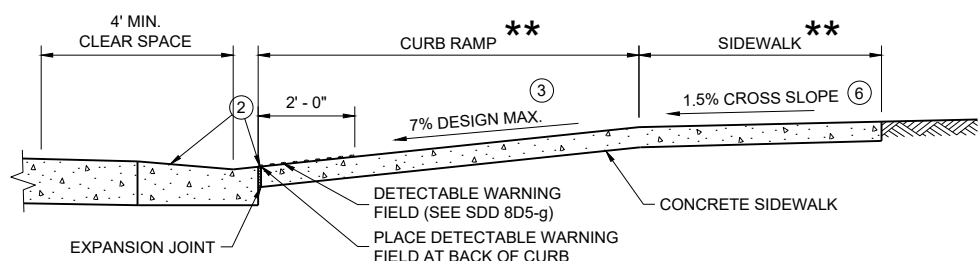
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
14C01-03	TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST
14C07-04A	PICNIC TABLE, SINGLE PEDESTAL
14C07-04B	PICNIC TABLE, SINGLE PEDESTAL
15C02-10A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-10B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C07-16A	PAVEMENT MARKING SYMBOLS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C36-01	PARKING STALL MARKING
15D29-06	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD



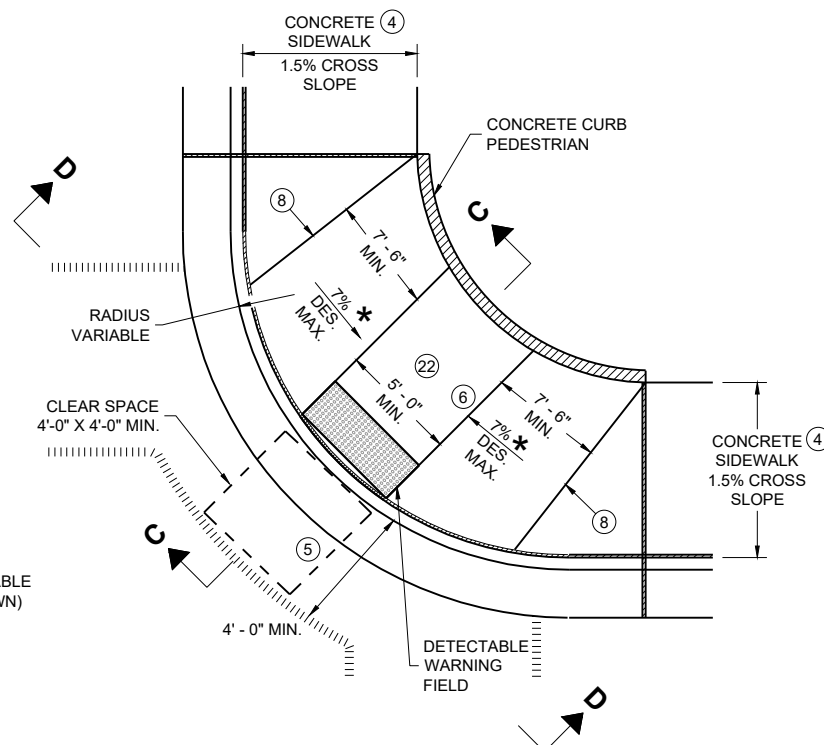
**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**



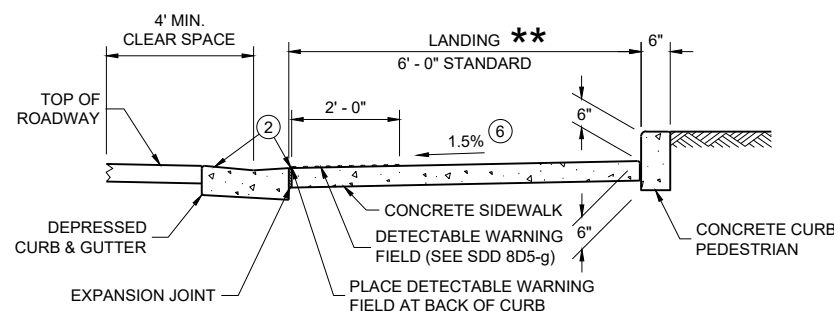
VIEW A - A FOR TYPE 1



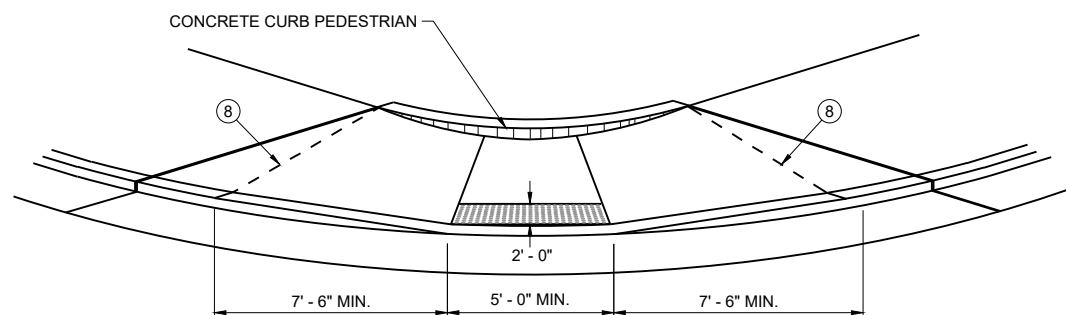
SECTION B - B FOR TYPE 1



**PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)**



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE CURB RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF CURB RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE CURB RAMP.

- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑳ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- — — — — 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

**CURB RAMPS
TYPE 1 AND 1-A**

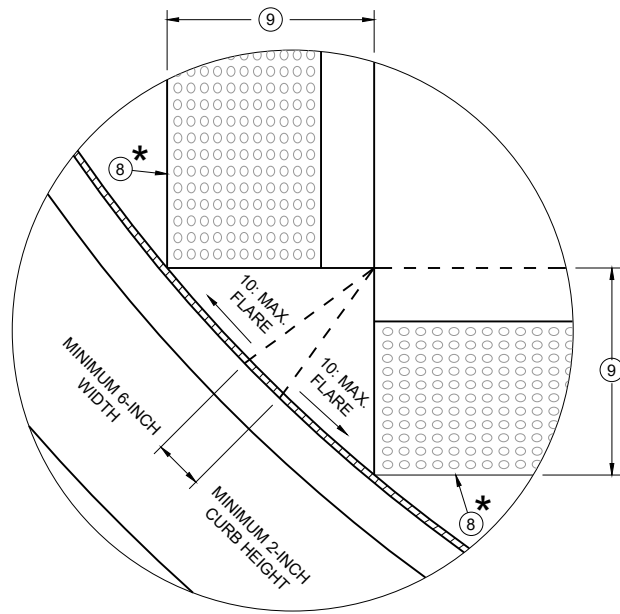
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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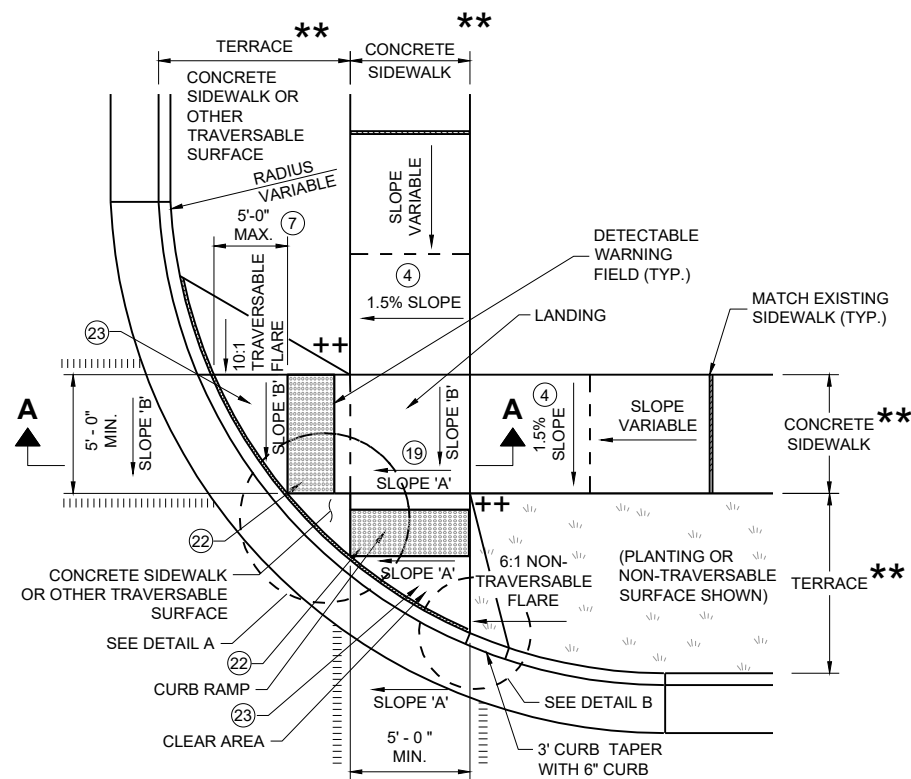
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SDD 08D05-22a

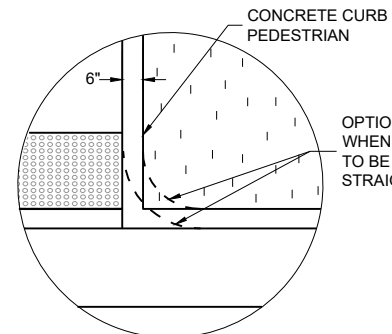
SDD 08D05-22a



DETAIL A

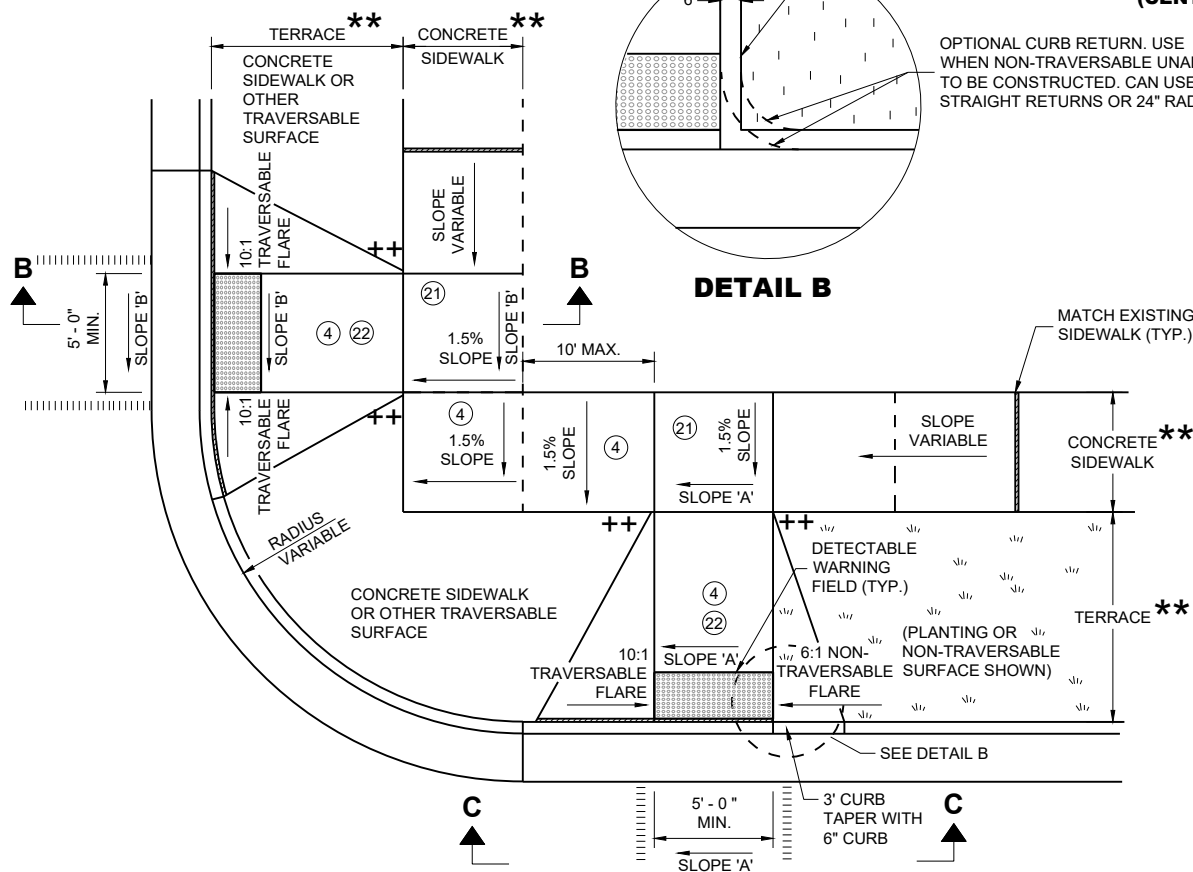


**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**

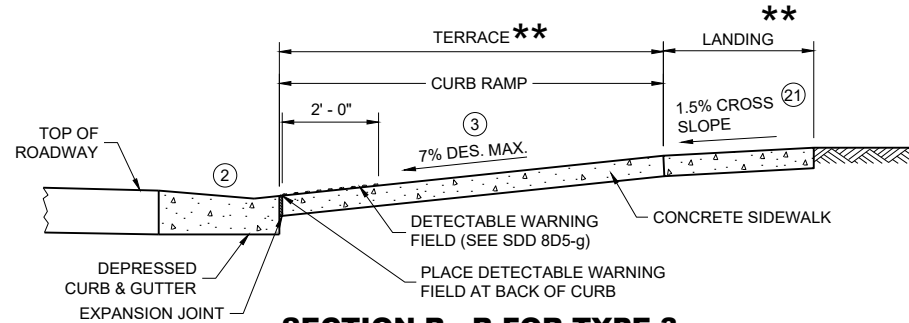


DETAIL B

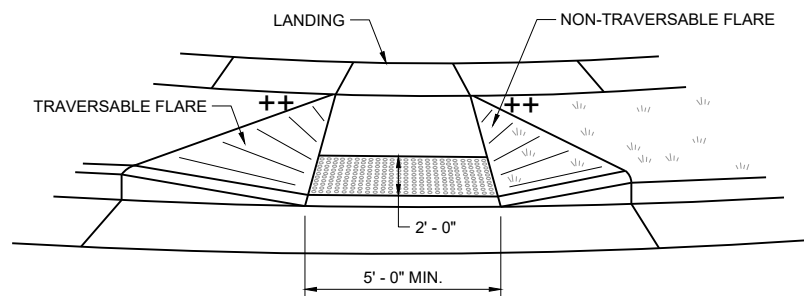
OPTIONAL CURB RETURN. USE WHEN NON-TRAVERSABLE UNABLE TO BE CONSTRUCTED. CAN USE STRAIGHT RETURNS OR 24" RADIUS.



**PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)**



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

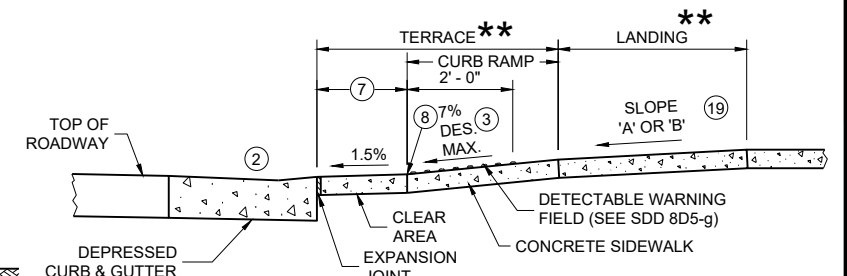
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-4.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑲ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑳ PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- ㉑ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ㉒ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



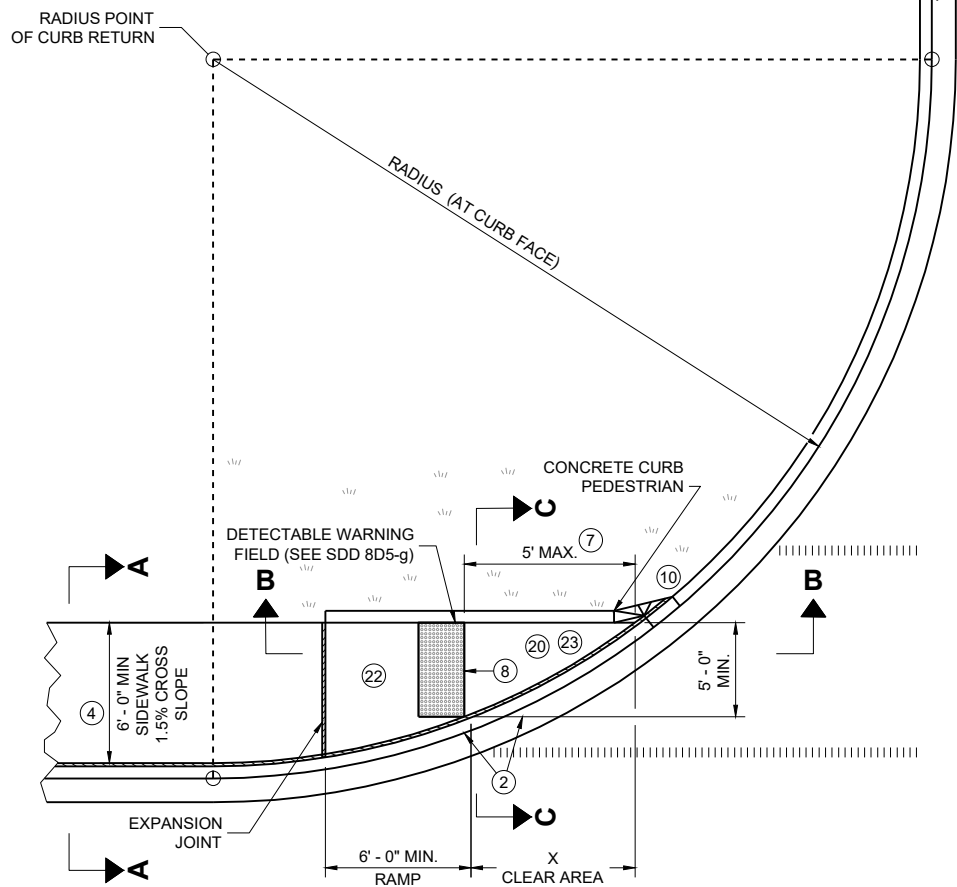
SECTION A - A FOR TYPE 2

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

**CURB RAMPS
TYPE 2 AND 3**

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DEPARTMENT OF TRANSPORTATION

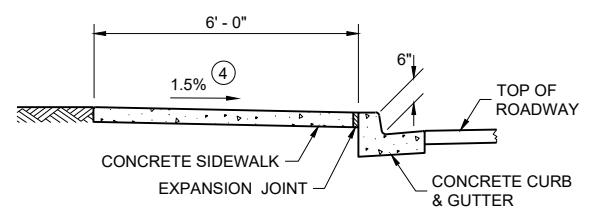


**PLAN VIEW
CURB RAMP TYPE 4A**

- LEGEND**
- ½" EXPANSION JOINT SIDEWALK
 - - - CONTRACTION JOINT SIDEWALK
 - ||||| PAVEMENT MARKING CROSSWALK (WHITE)
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

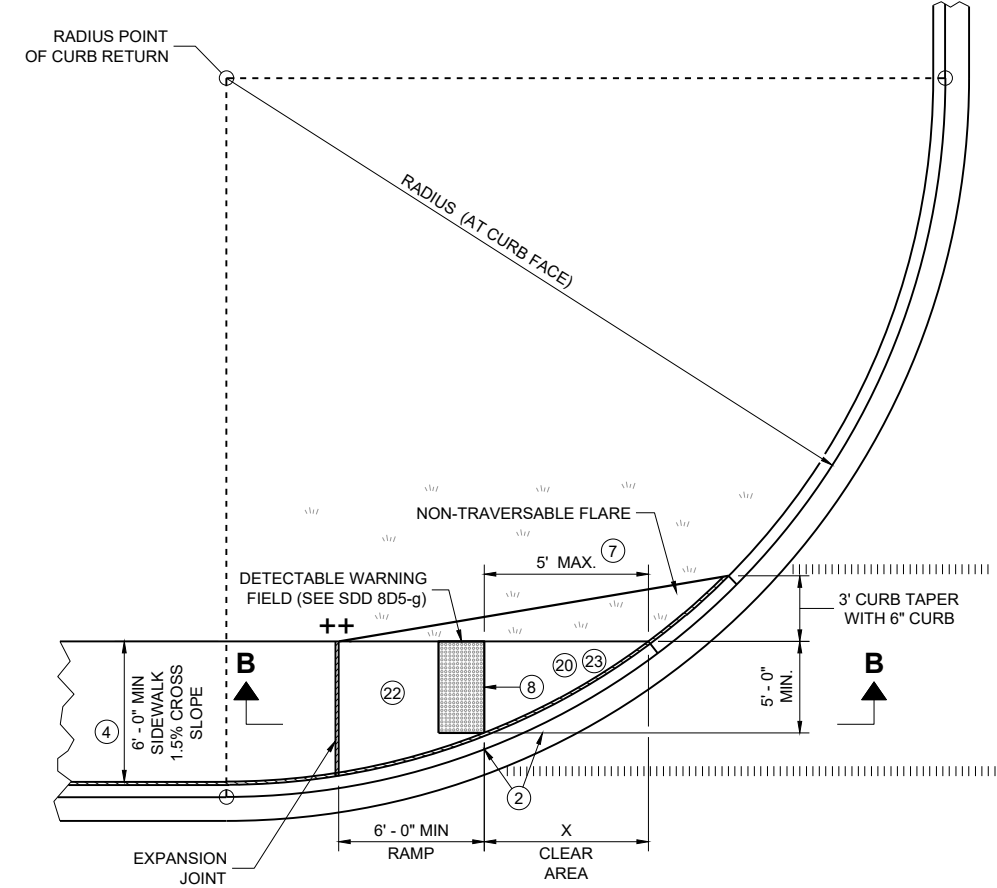
INTERMEDIATE RADII CAN BE INTERPOLATED



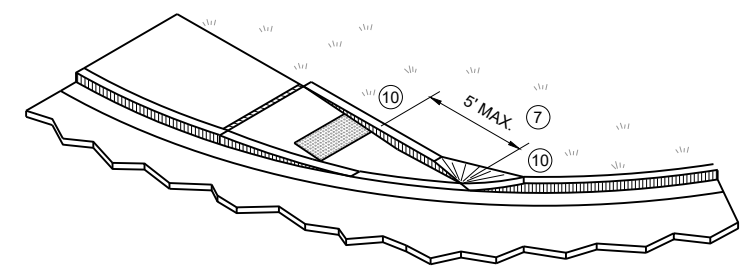
SECTION A - A FOR TYPE 4A

GENERAL NOTES

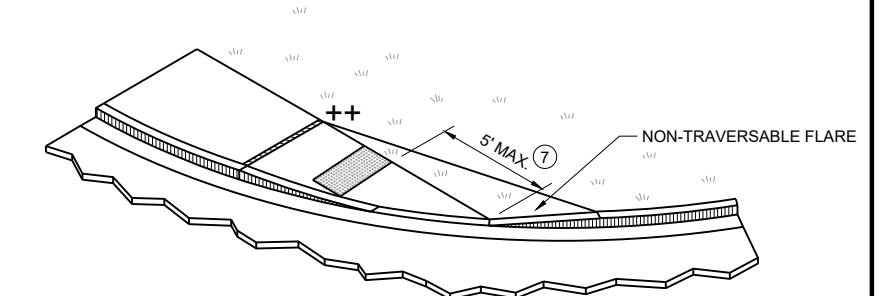
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑳ MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- ㉒ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ㉓ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



**PLAN VIEW
CURB RAMP TYPE 4A1**



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

**CURB RAMPS
TYPE 4A AND 4A1**

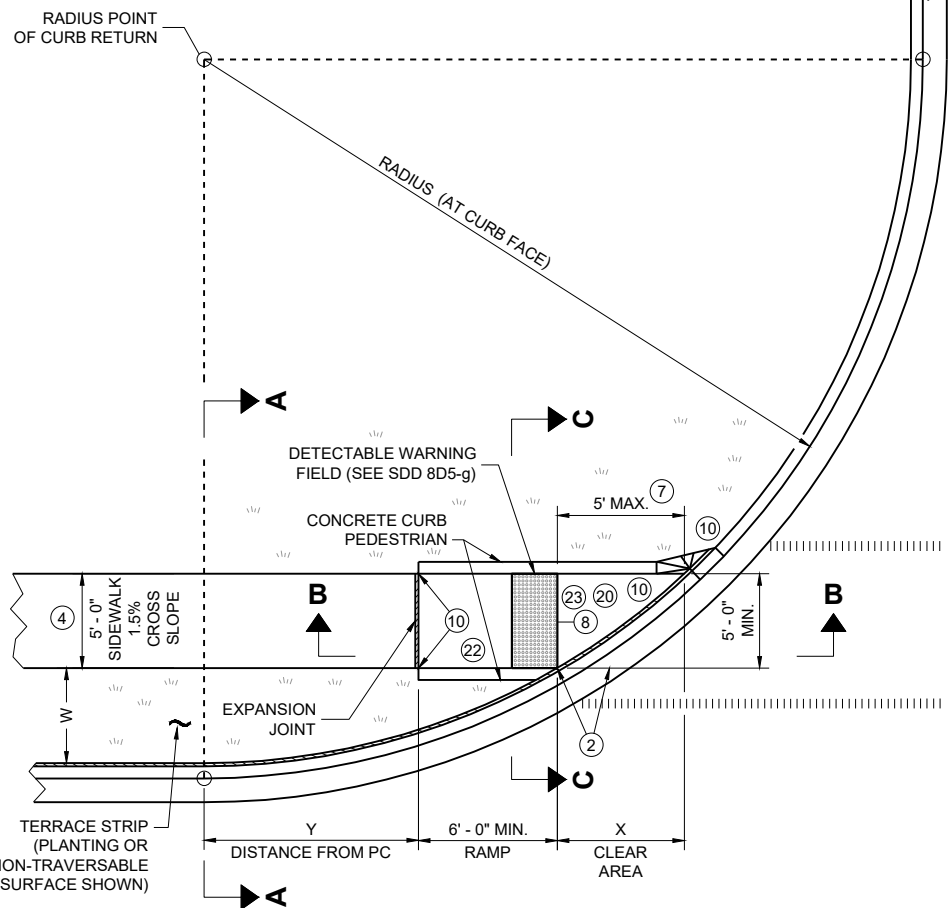
STATE OF WISCONSIN
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SDD 08D05-22C

SDD 08D05-22C



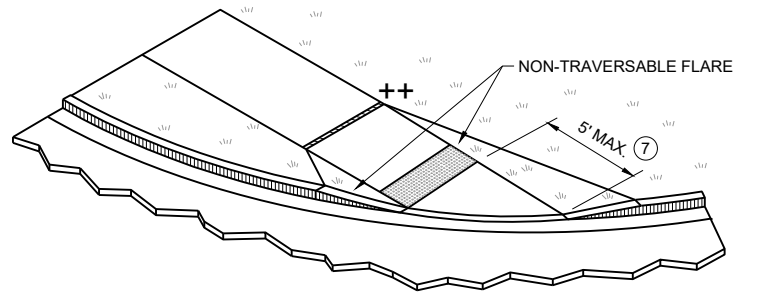
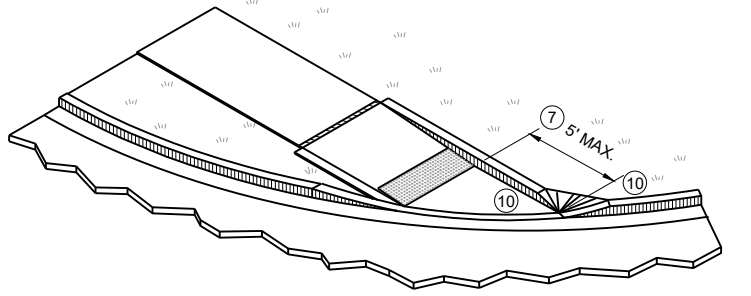
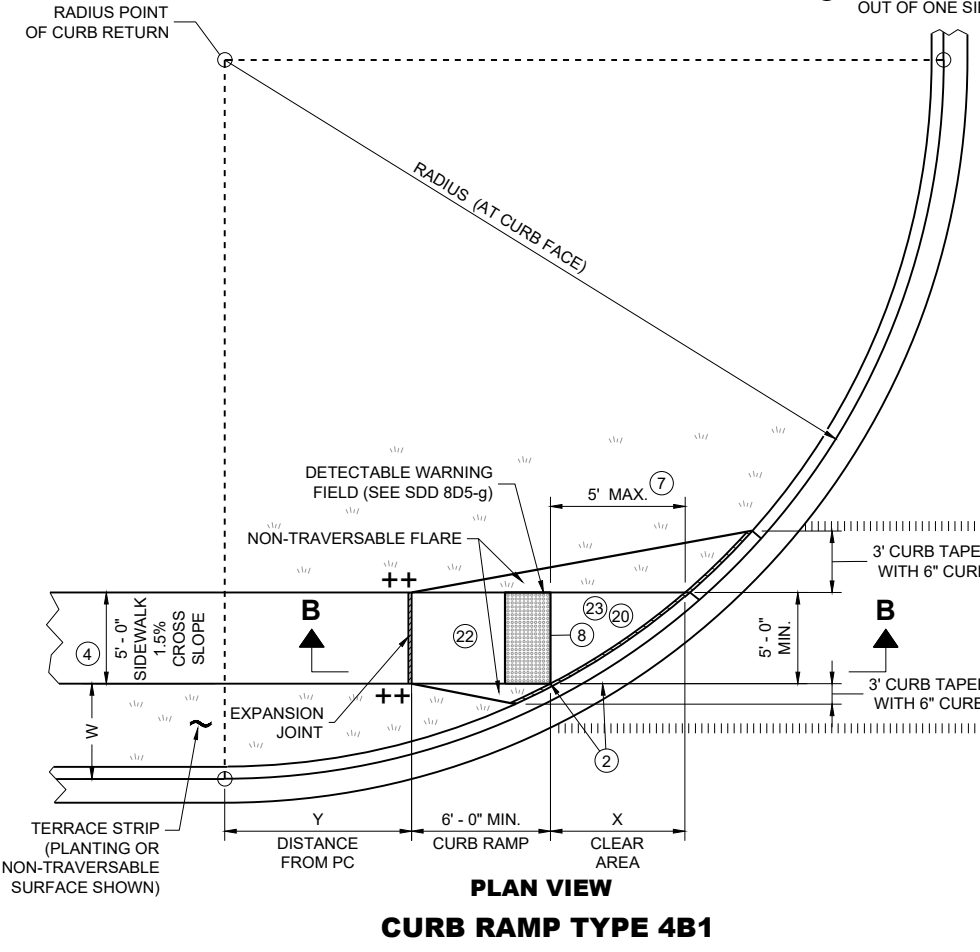
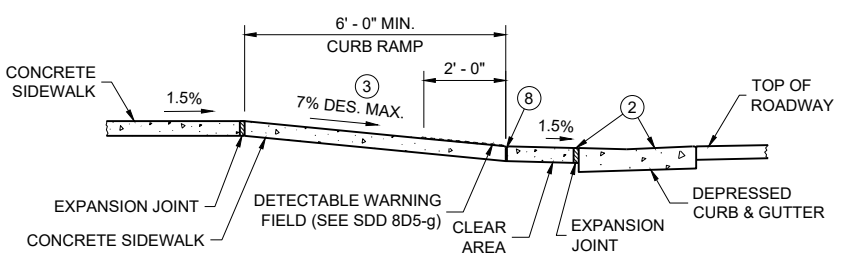
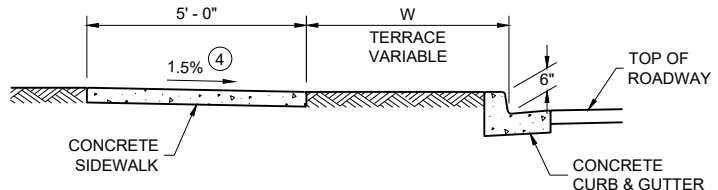
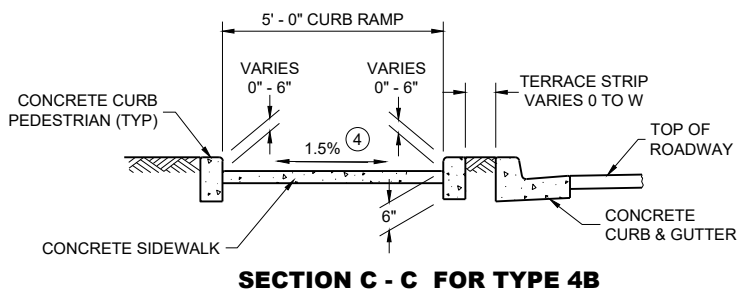
RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 3/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 3/4"	3'-1 1/4"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0'-10 3/4"	7'-7 1/4"
20 FEET			4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET									4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET															4'-10 3/4"	19'-8 1/4"

- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT SIDEWALK
 - PAVEMENT MARKING CROSSWALK (WHITE)
 - MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
 - CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

INTERMEDIATE RADII CAN BE INTERPOLATED
 DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
 DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- (2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- (8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- (20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- (23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



CURB RAMPS TYPE 4B AND 4B1

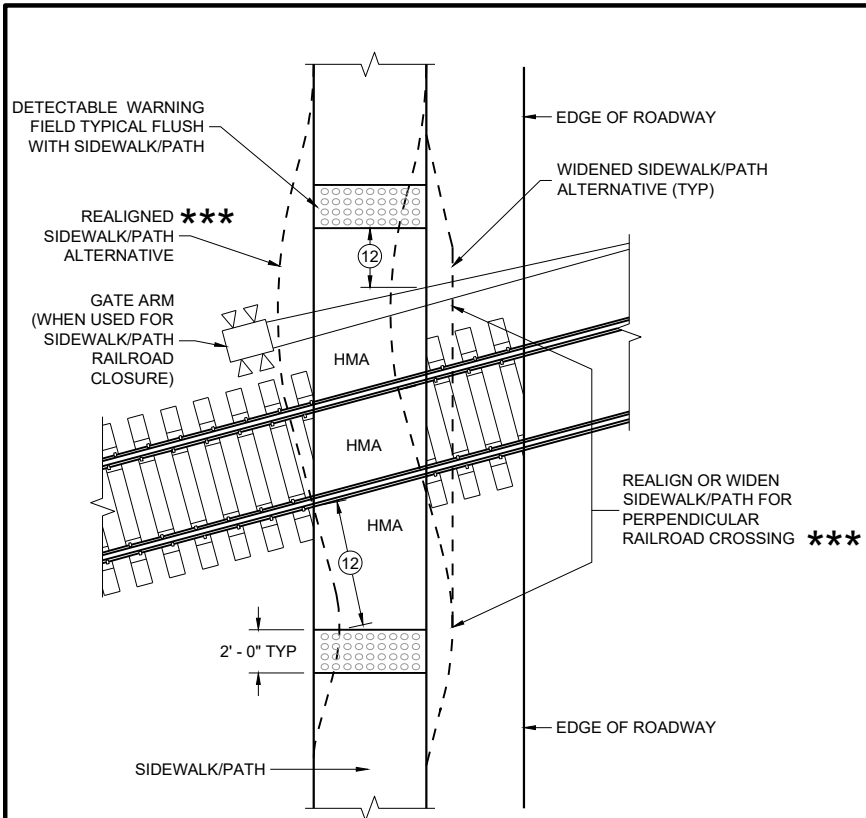
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

6

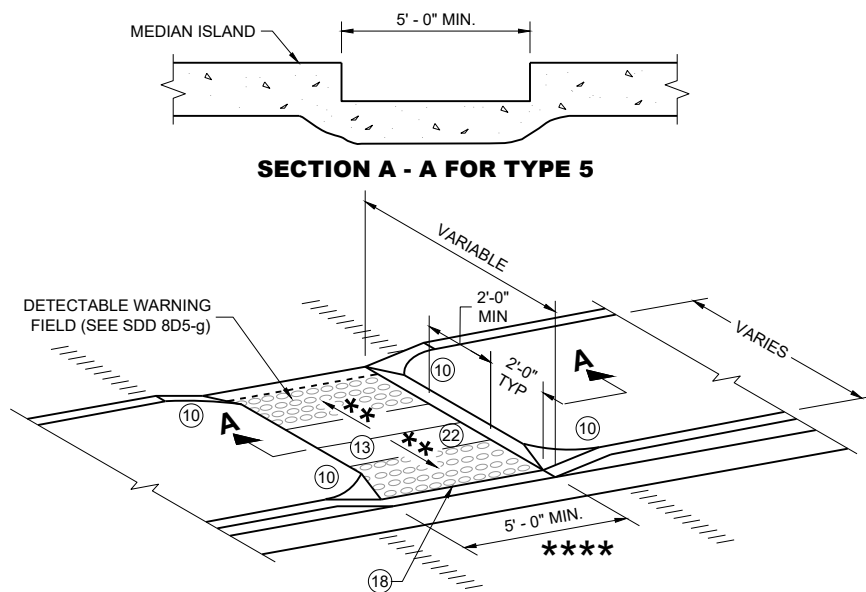
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SDD 08D05-22d

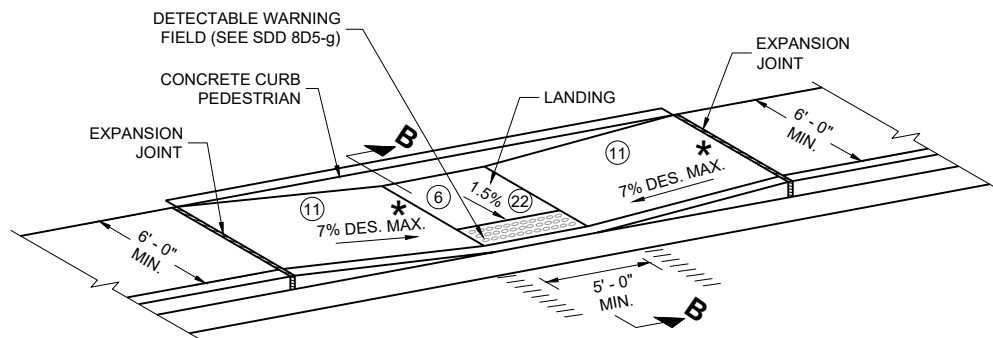
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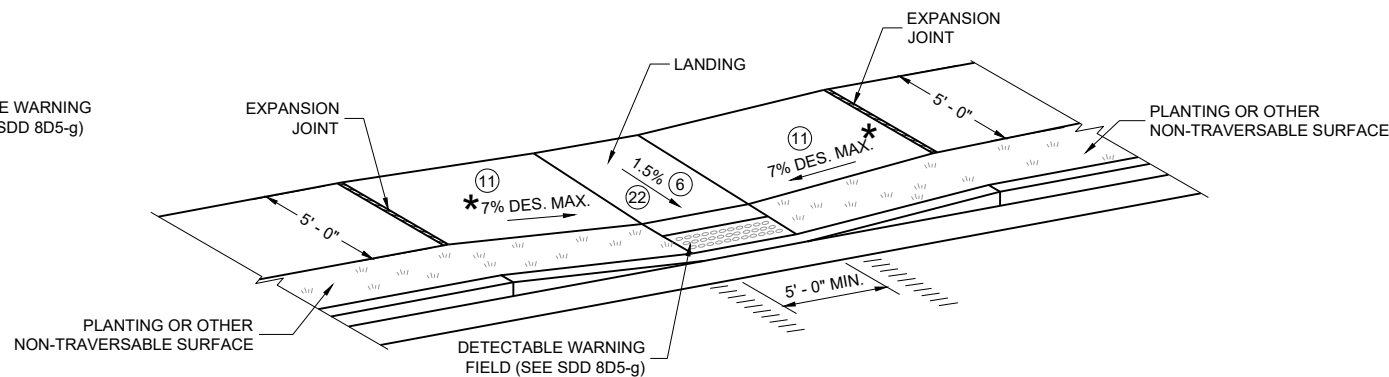
CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS



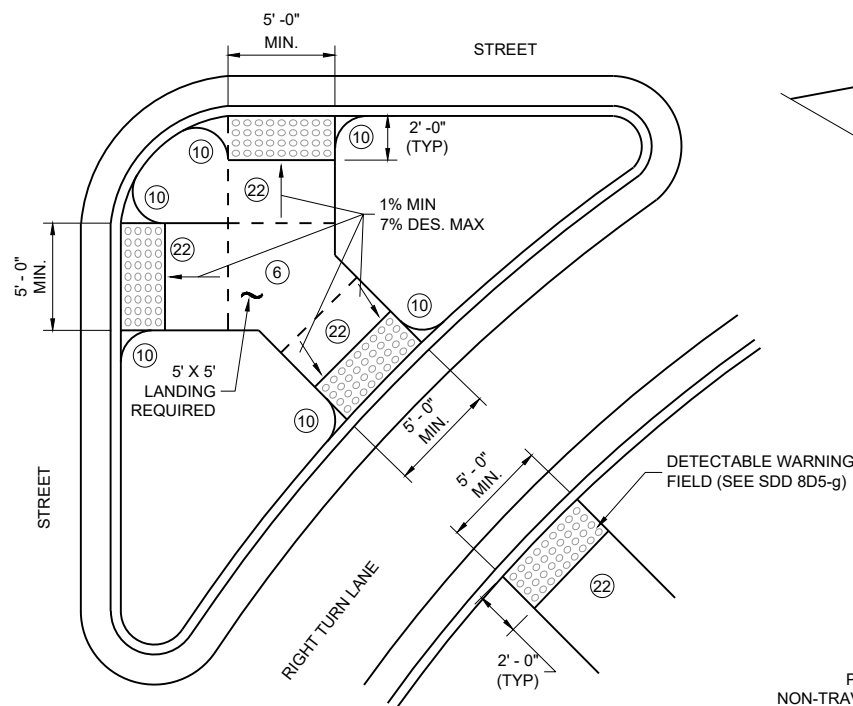
SECTION A - A FOR TYPE 5
CURB RAMP TYPE 5
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 7B
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

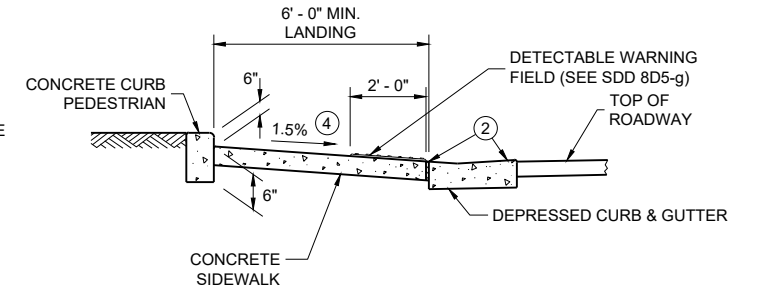
REFER TO GENERAL NOTES (2) AND (3)
 FOR ALL ISLAND CURB RAMPS

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- (2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEEL-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.
- (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- (18) WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.
- (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** 1% MINIMUM (PROVIDE DRAINAGE)
- *** DETAILS TO BE DETERMINED BY ENGINEER
- **** FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK

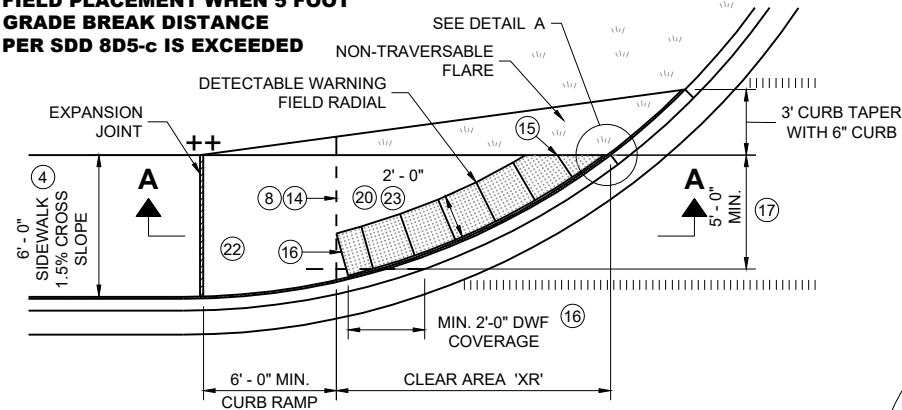


SECTION B - B FOR TYPE 7A

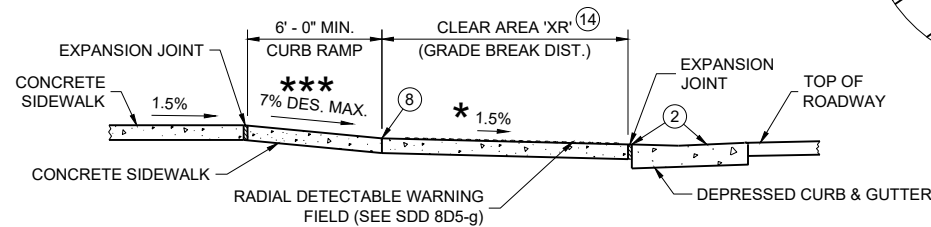
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

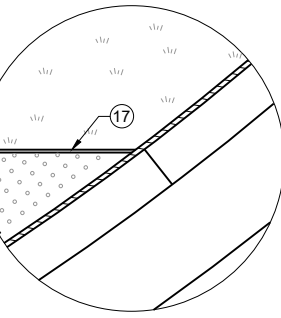
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



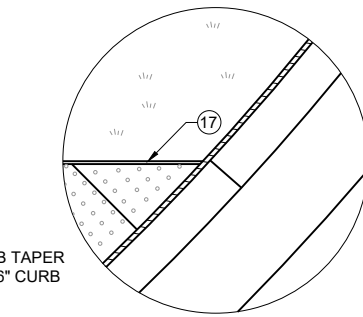
**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



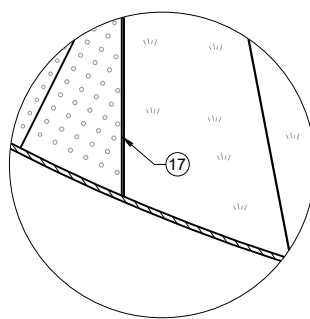
SECTION A - A FOR TYPE 4A1



DETAIL A

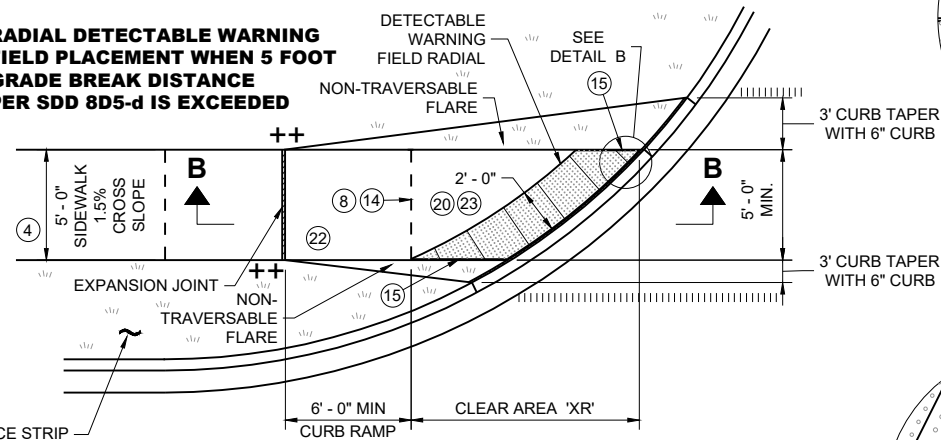


DETAIL B

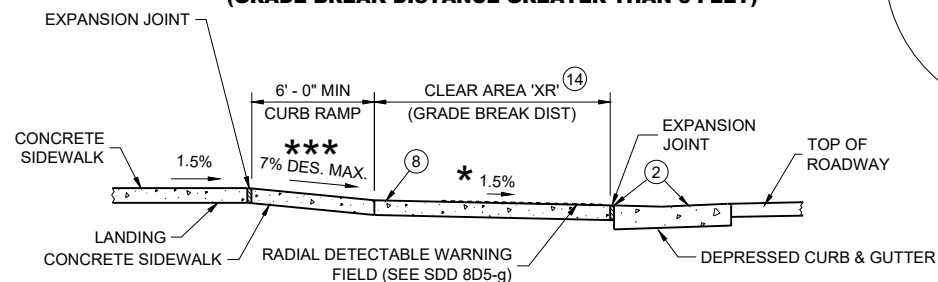


DETAIL C

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-d IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



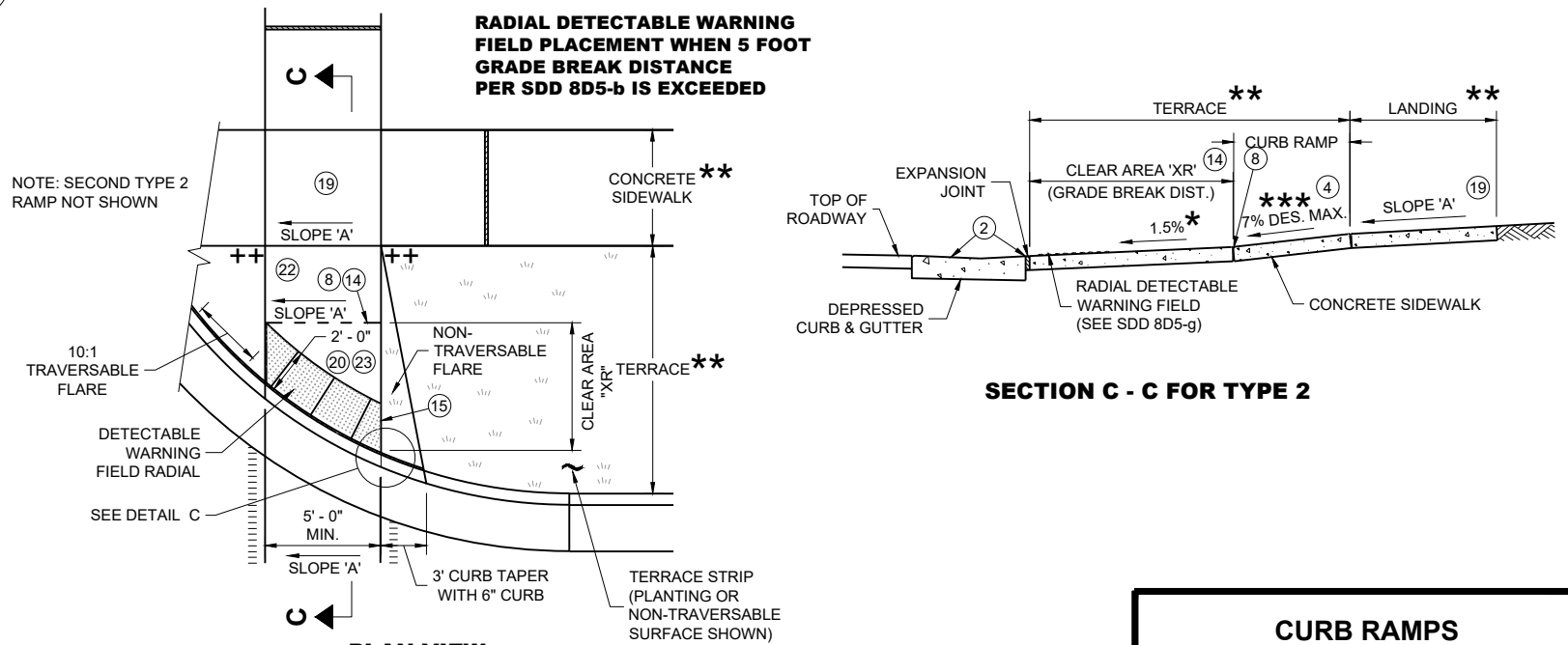
SECTION B - B FOR TYPE 4B1

GENERAL NOTES

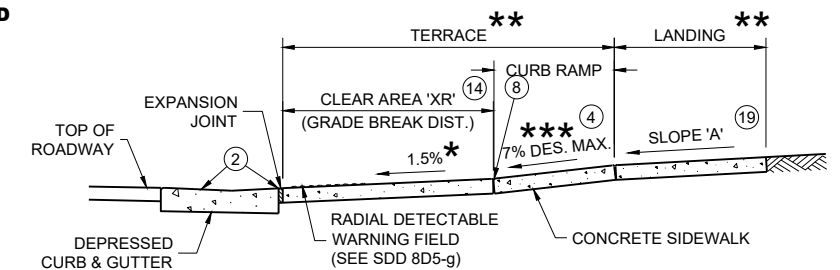
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
 DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
 DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
 APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.
 REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
 FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
 DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑭ CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- ⑮ FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- ⑯ USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑲ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑳ MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- ㉒ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ㉓ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)**



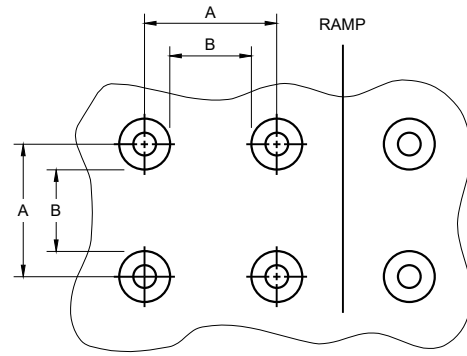
SECTION C - C FOR TYPE 2

**CURB RAMPS
RADIAL DETECTABLE WARNING**

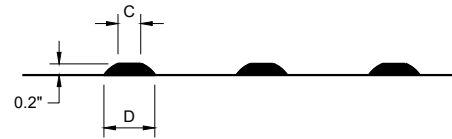
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	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

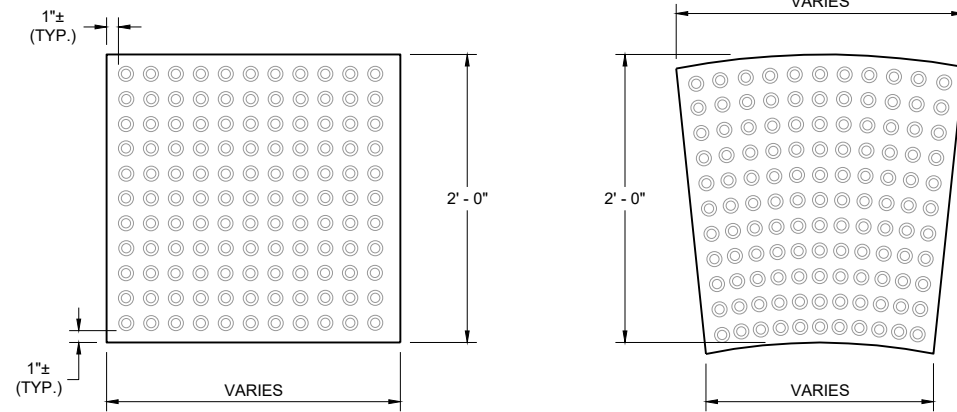


PLAN VIEW



ELEVATION VIEW

**TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL**

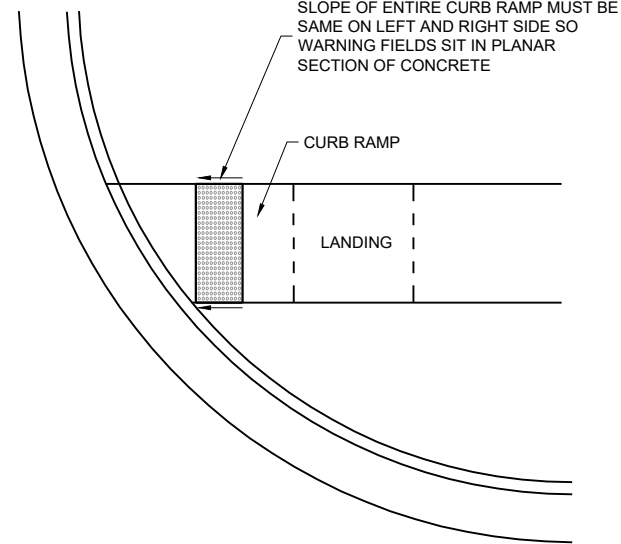


**RECTANGULAR
PLATES**

**RADIAL
PLATES**

PLAN VIEW

DETECTABLE WARNING FIELDS (TYPICAL)

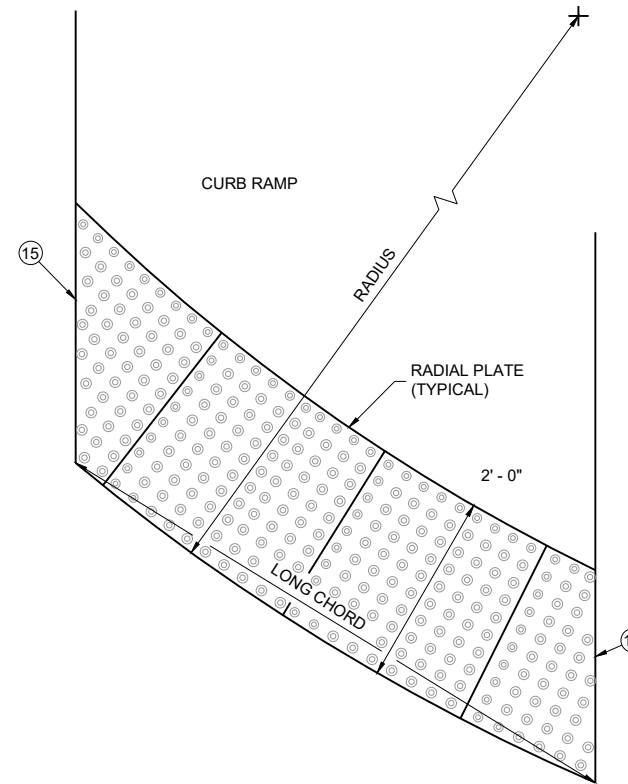


**DETECTABLE WARNING FIELD
PLANAR INSTALLATION**

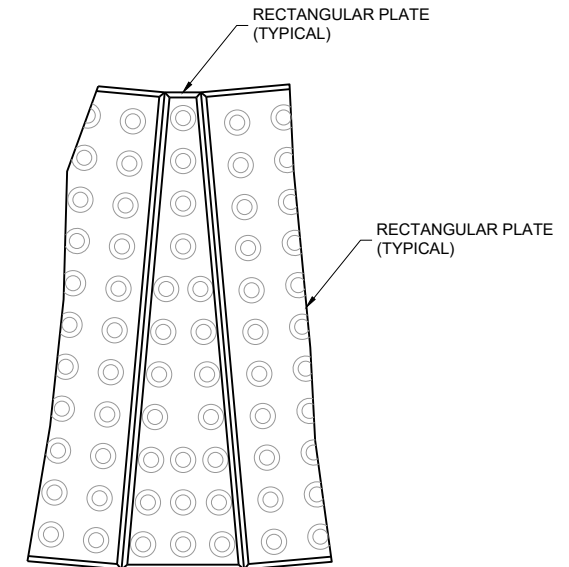
GENERAL NOTES

- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.
- PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.
- REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.
- DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



**PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES**



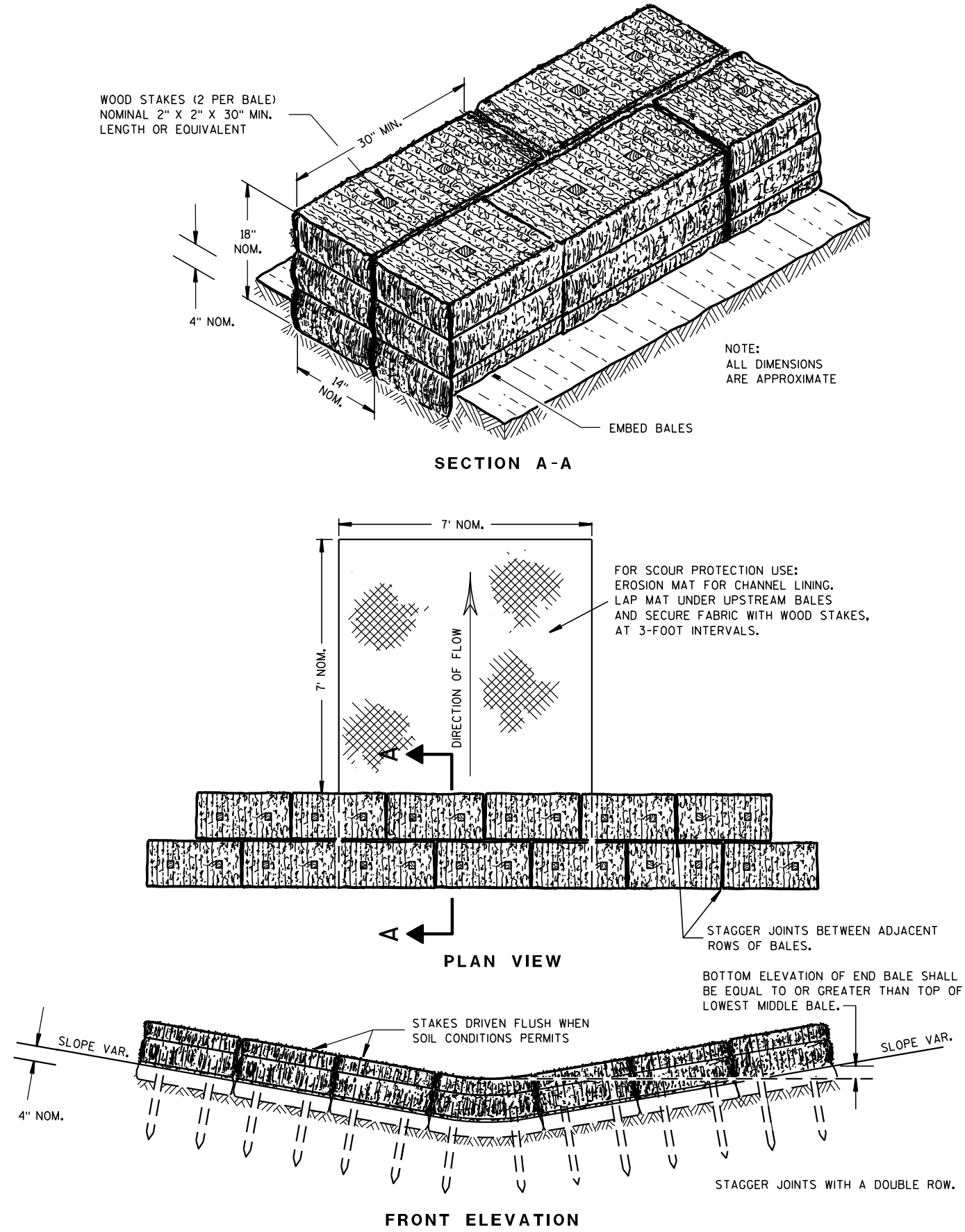
**PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL**

**CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE <position>

FHWA

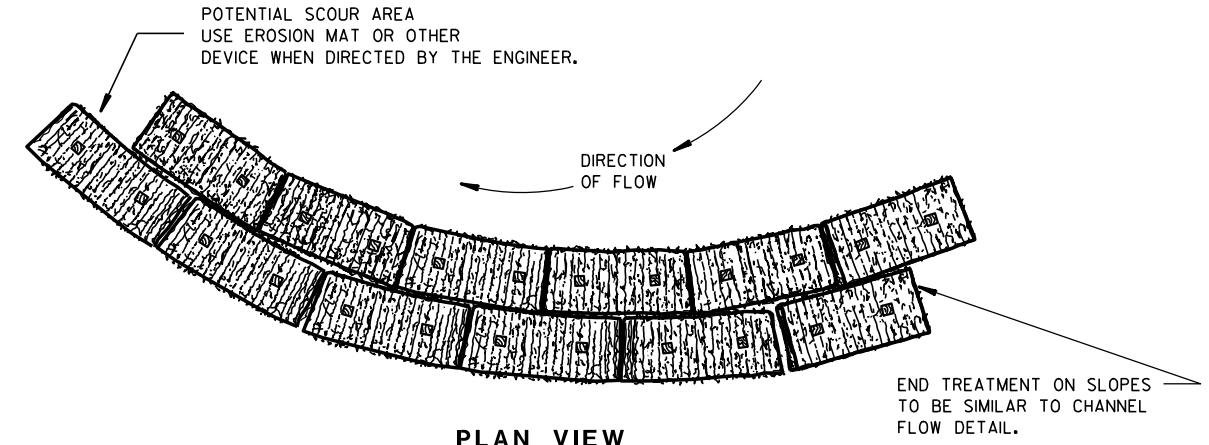


TEMPORARY DITCH CHECK USING EROSION BALES ①

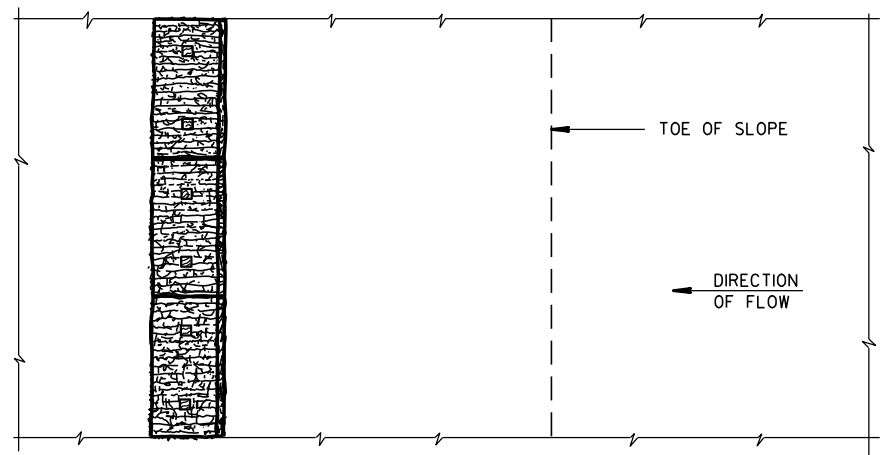
GENERAL NOTES

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

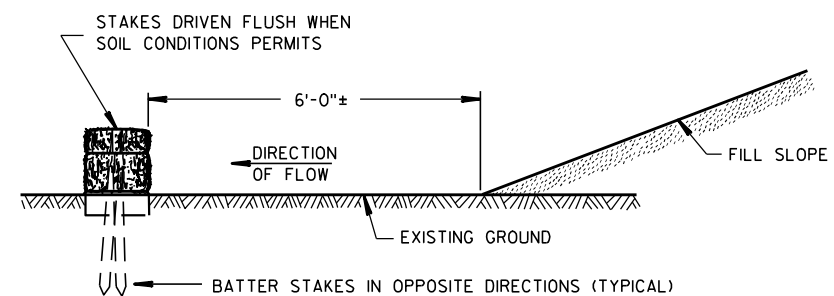
- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.



PLAN VIEW WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW

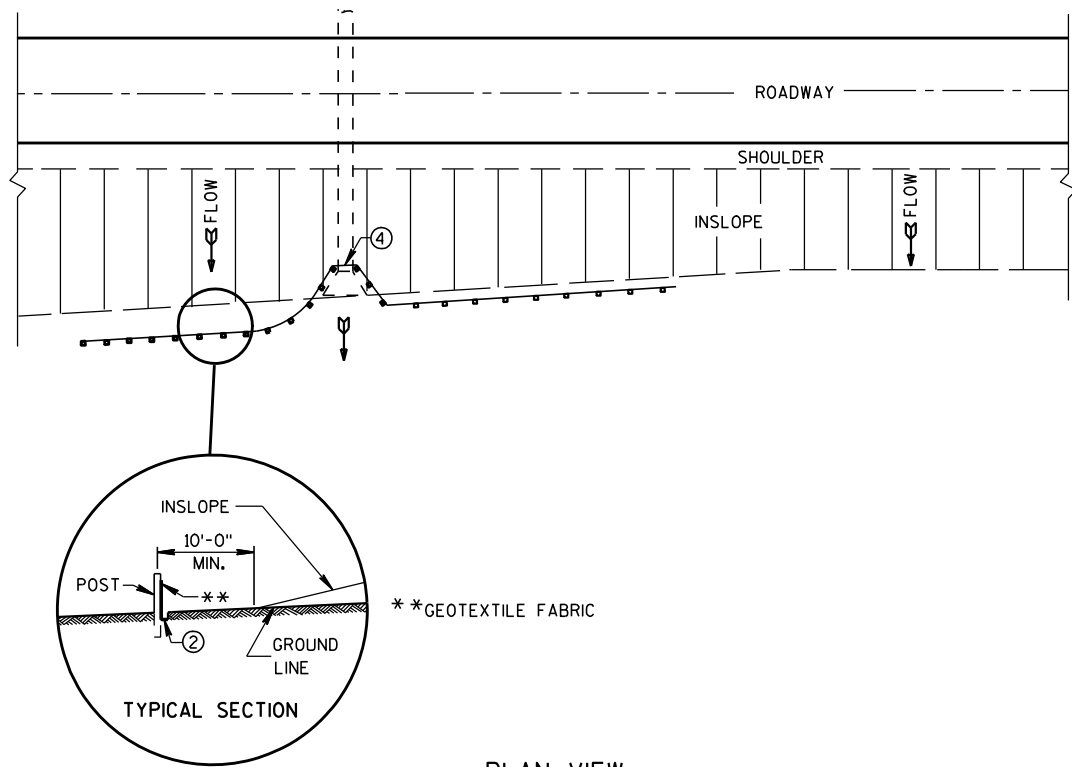


FRONT ELEVATION WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE EROSION BALES FOR SHEET FLOW

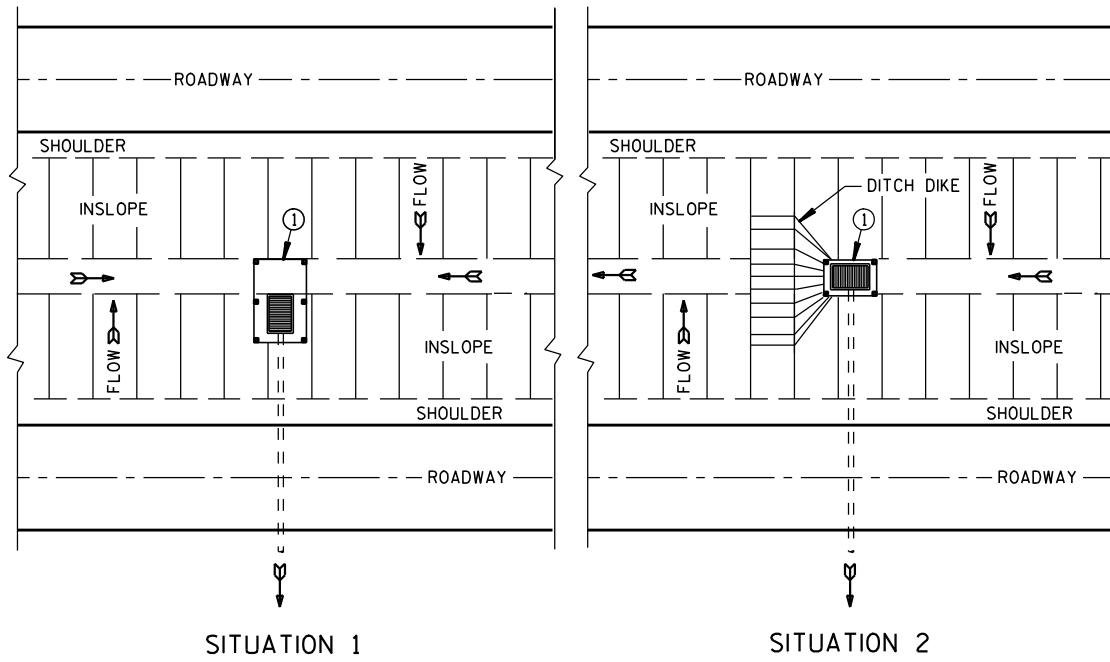
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

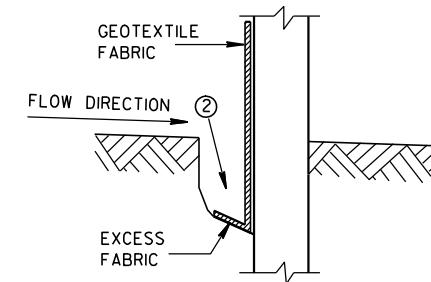


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

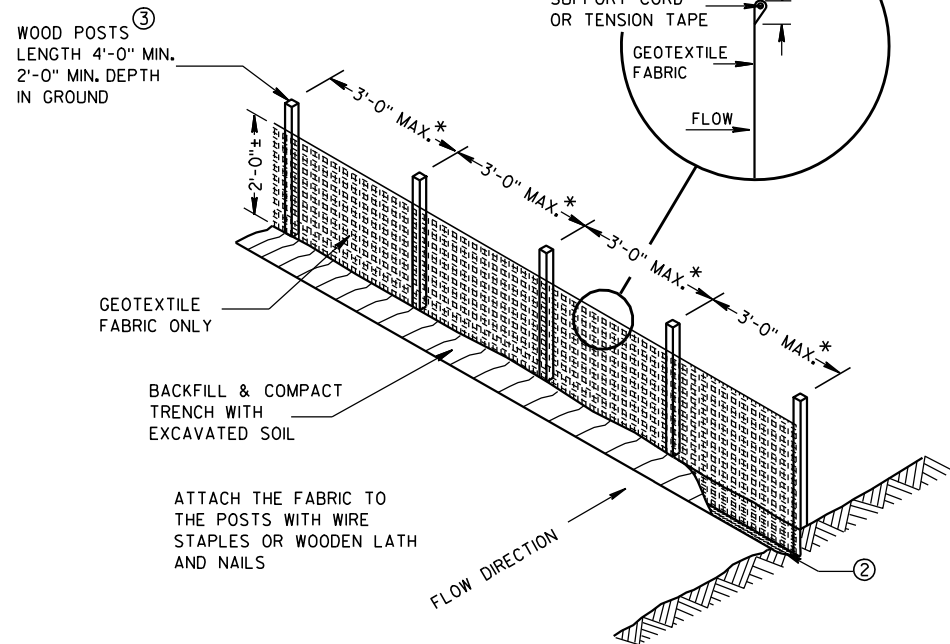
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

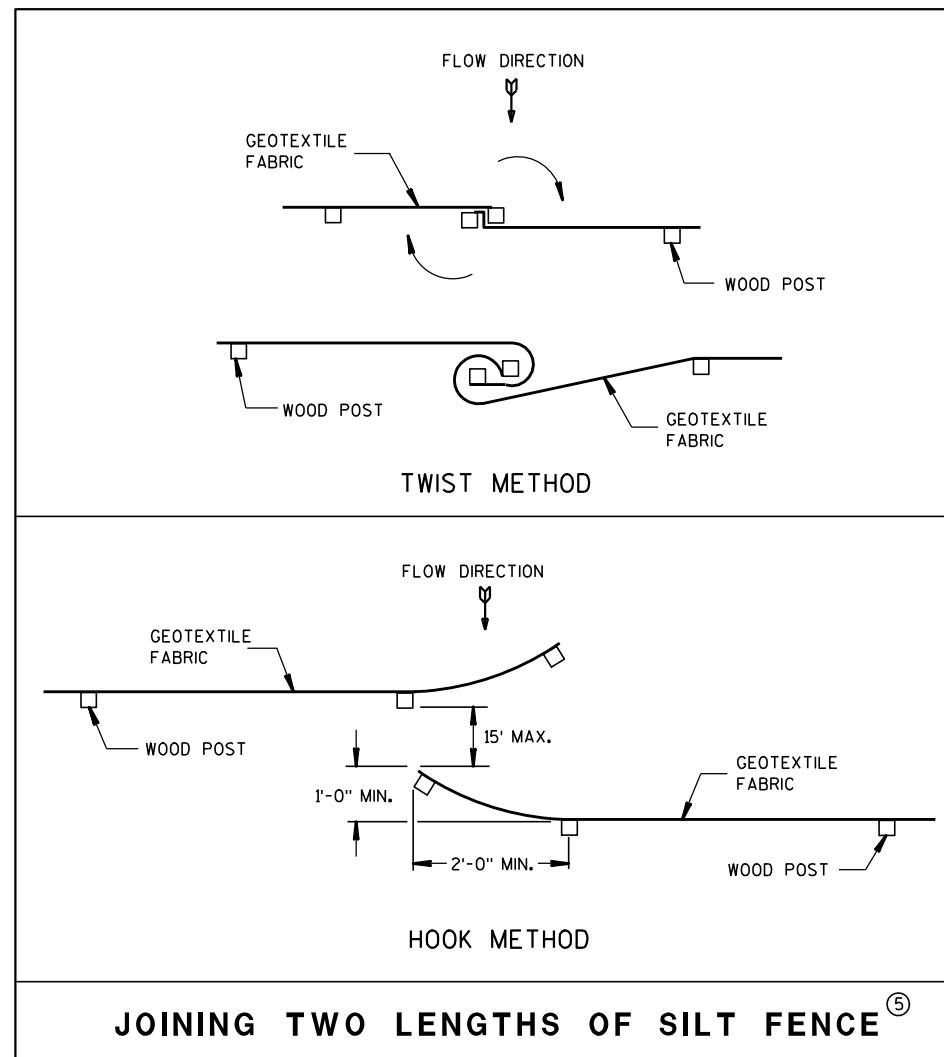


TRENCH DETAIL

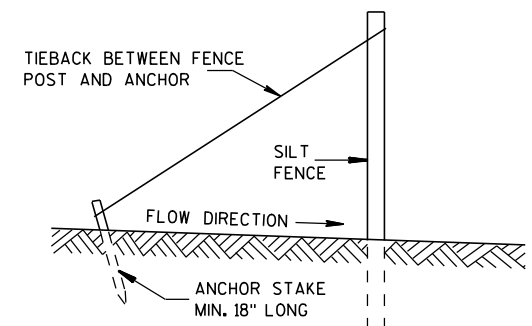
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

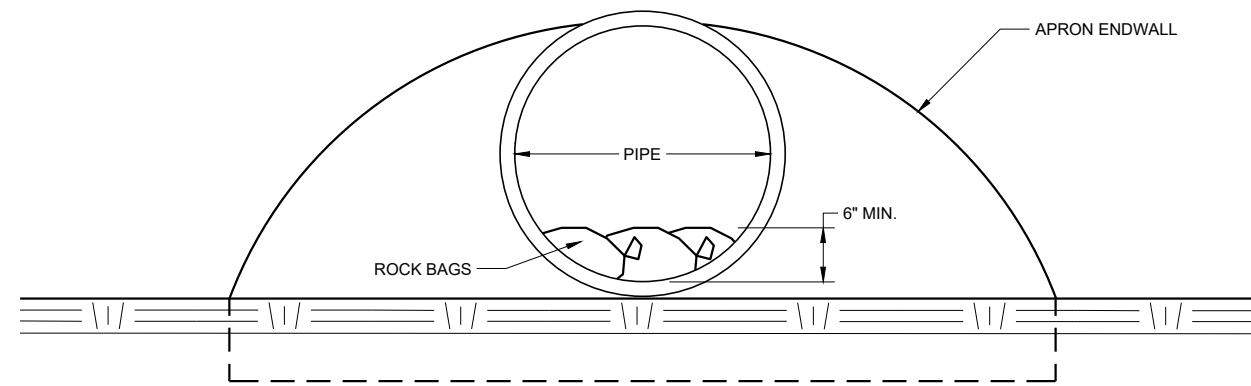


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

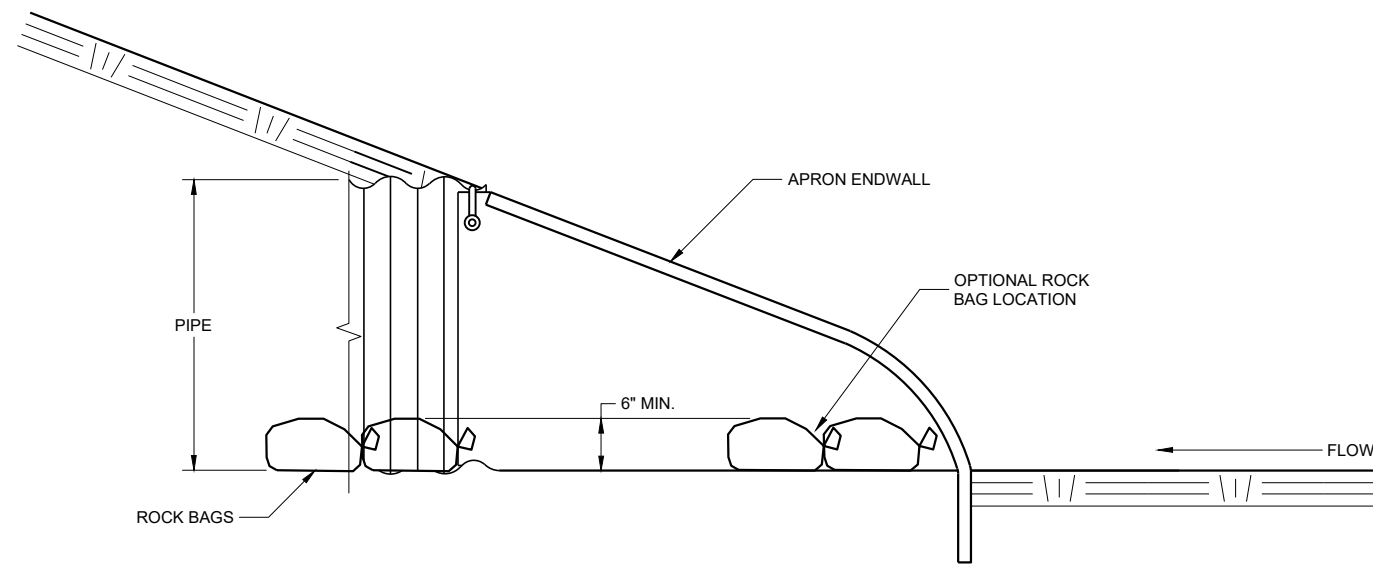
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

6

6

SDD 08E15 - 01

SDD 08E15 - 01

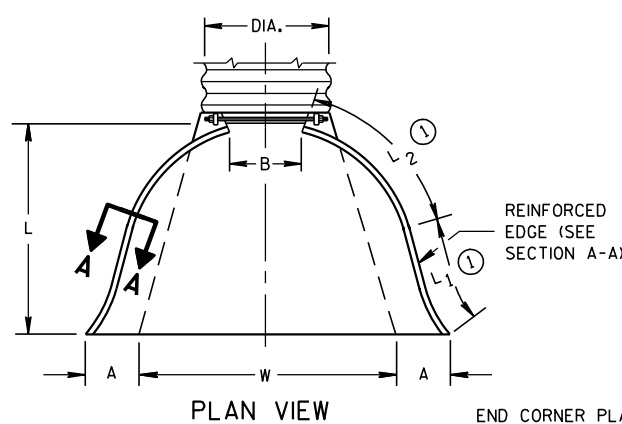
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
<small>FHWA</small>	

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

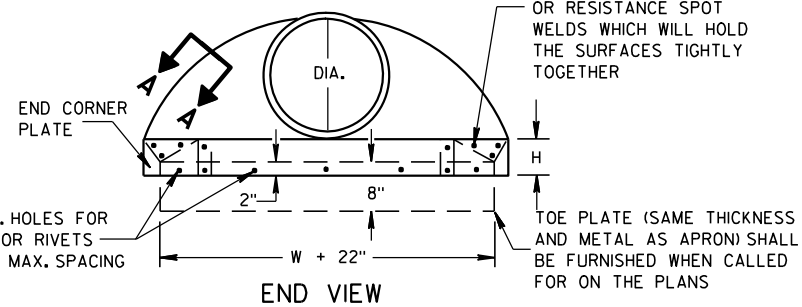
* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1	
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1	
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1	
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1	
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1	
48	5	24	72	26	98	84	5	3 to 1	
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1	
60	6	30-35	60	39	99	96	5	2 to 1	
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	24-36	78	21	99	108	6	2 to 1	
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1	
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1	
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1	

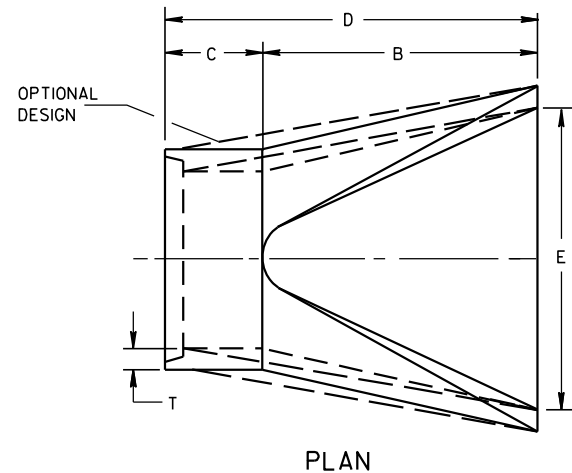
* MINIMUM
** MAXIMUM



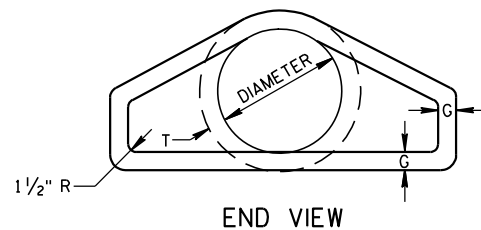
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



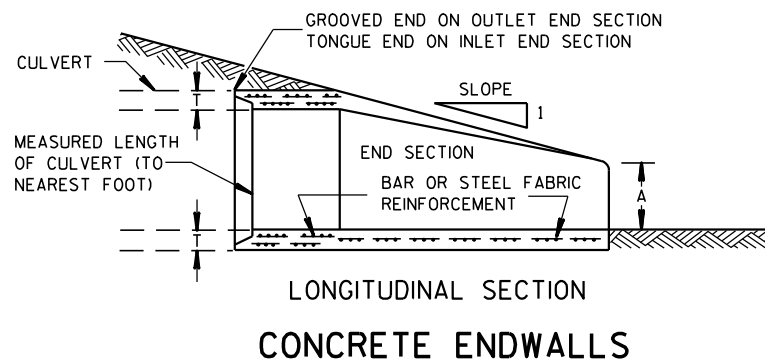
SIDE ELEVATION
METAL ENDWALLS



PLAN

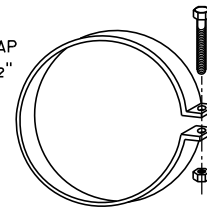


END VIEW

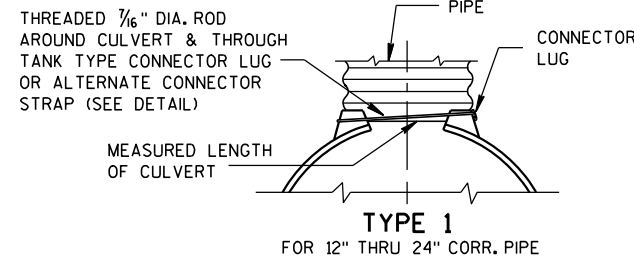


LONGITUDINAL SECTION
CONCRETE ENDWALLS

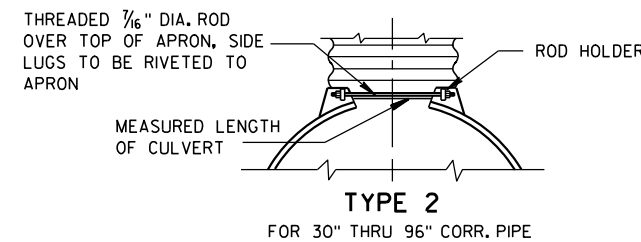
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



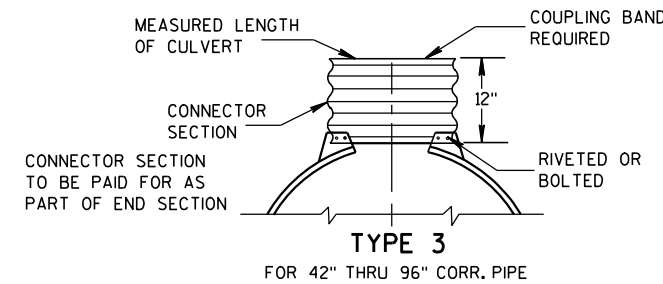
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



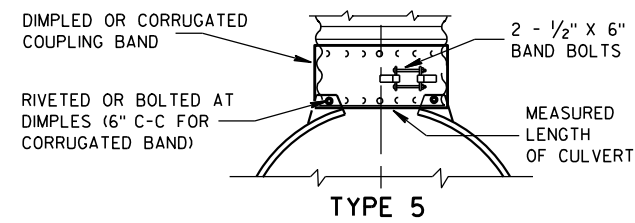
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

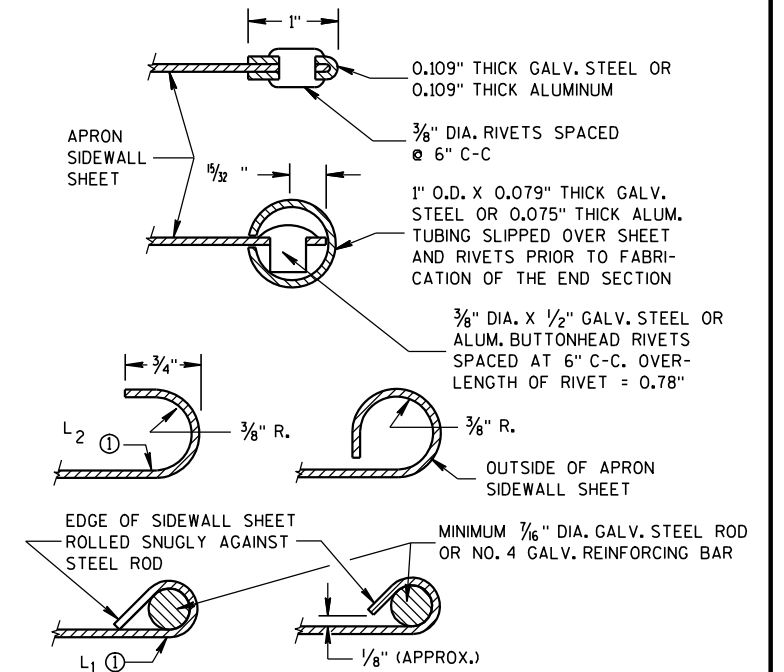
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VICE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

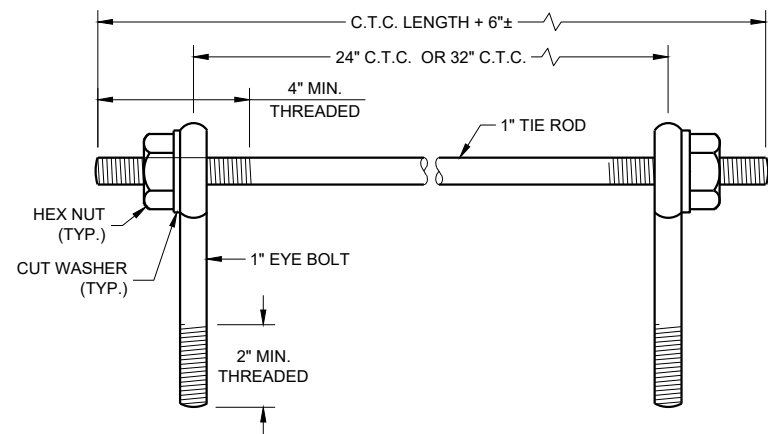
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

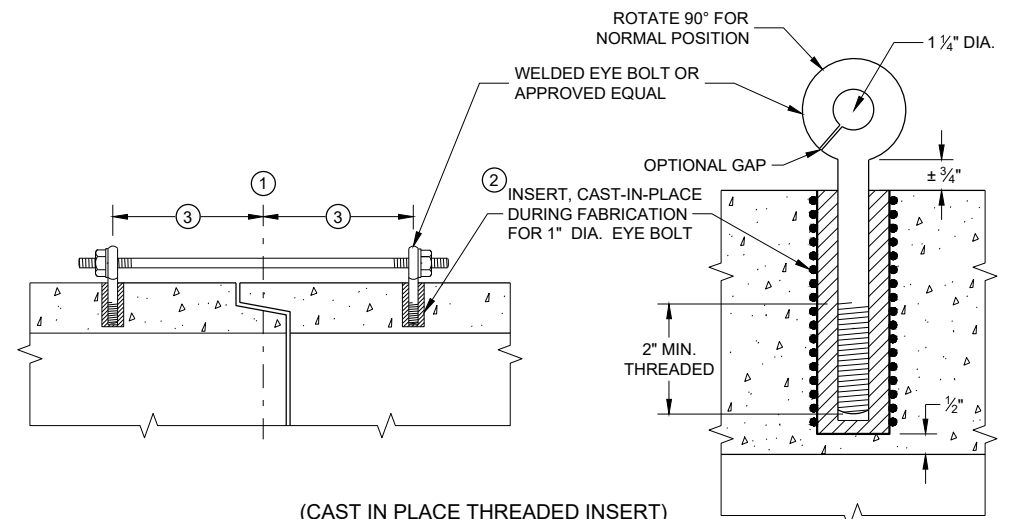
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

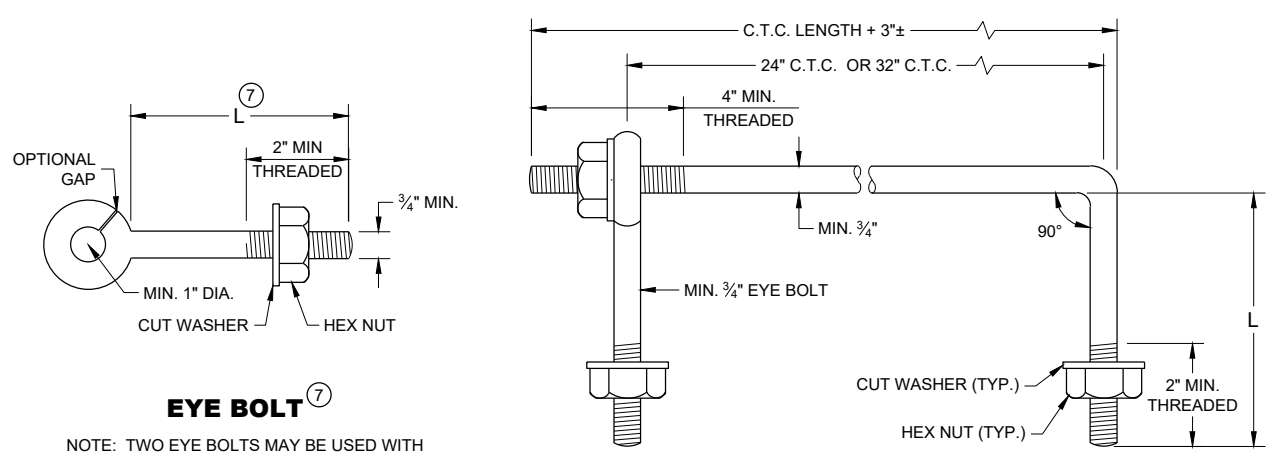
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

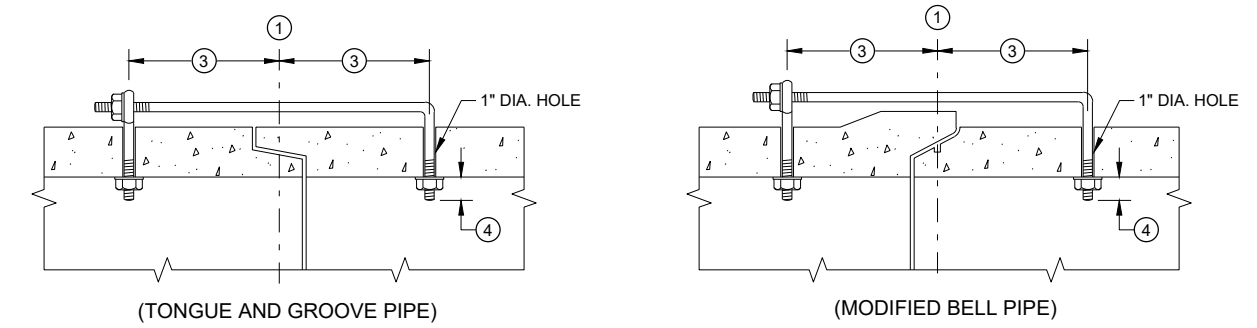
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.



EYE BOLT ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.

EYE BOLT AND TIE ROD



LONGITUDINAL SECTION

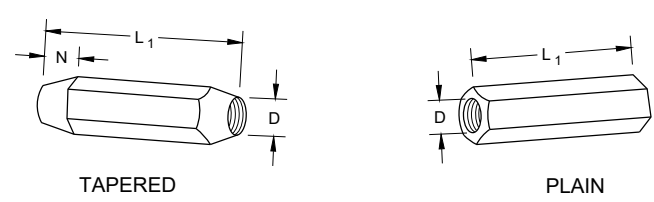
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

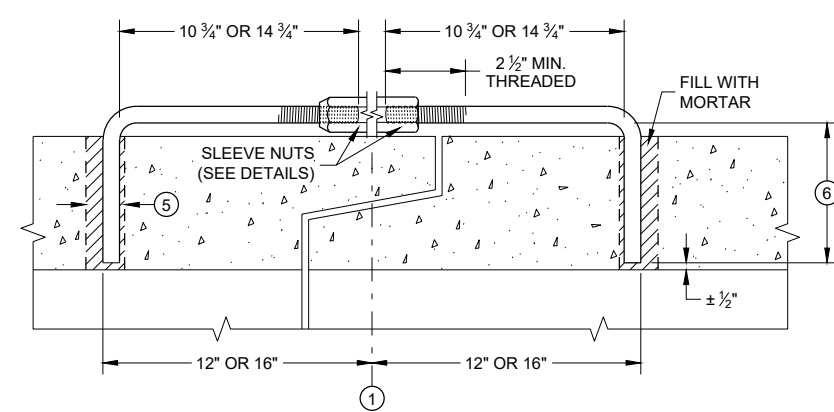
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

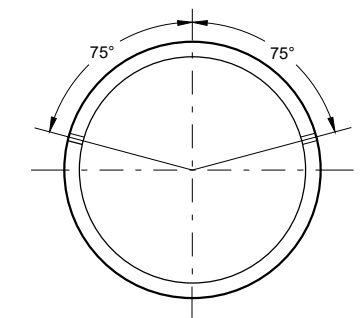


RIGHT AND LEFT THREADS SLEEVE NUTS



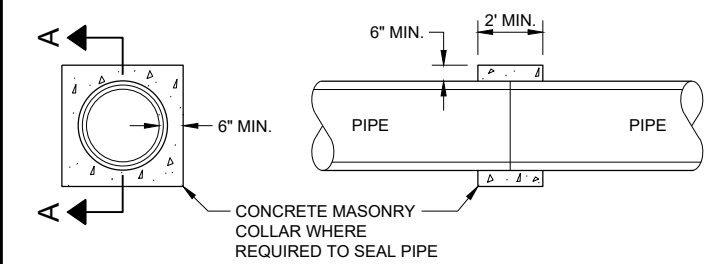
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

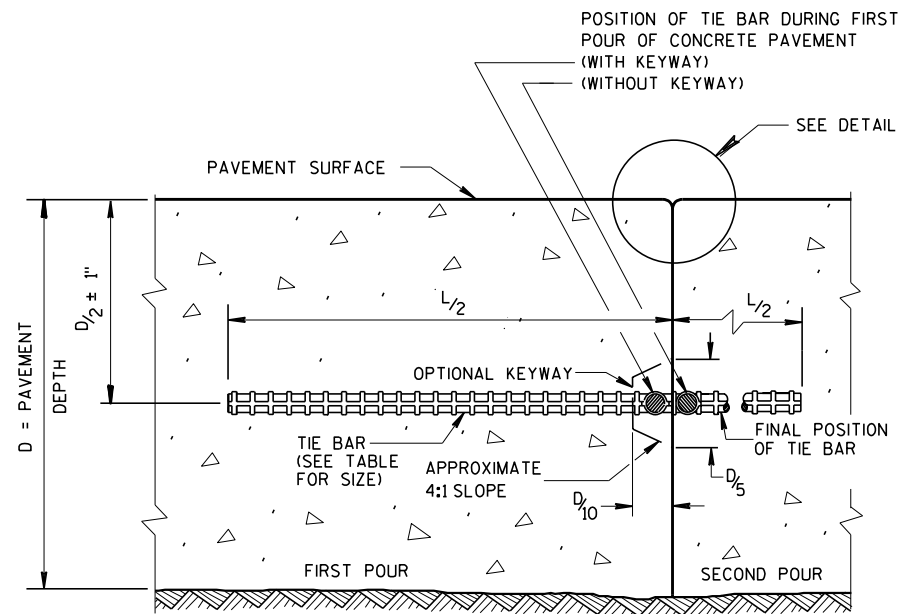
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

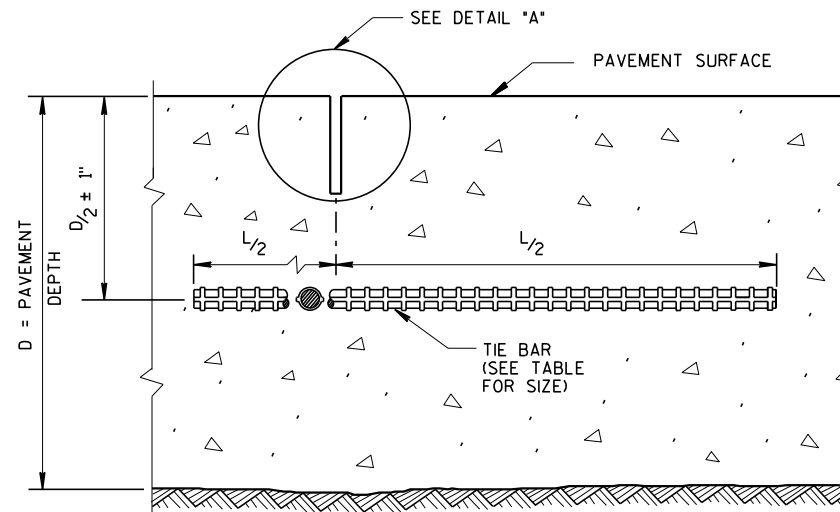
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

SDD 08F04 - 08

SDD 08F04 - 08



CONSTRUCTION JOINT



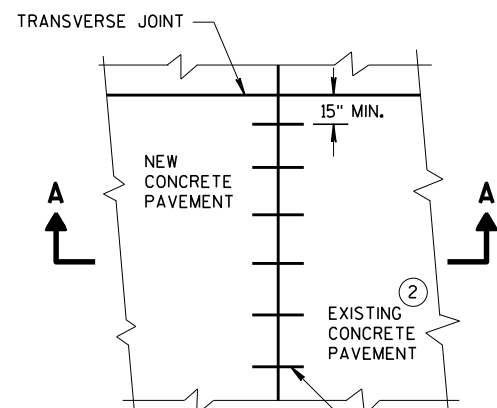
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

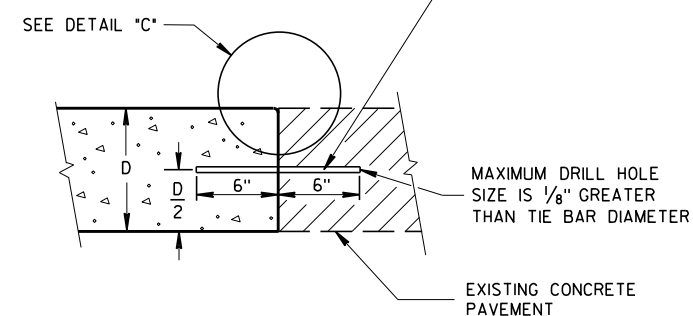
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

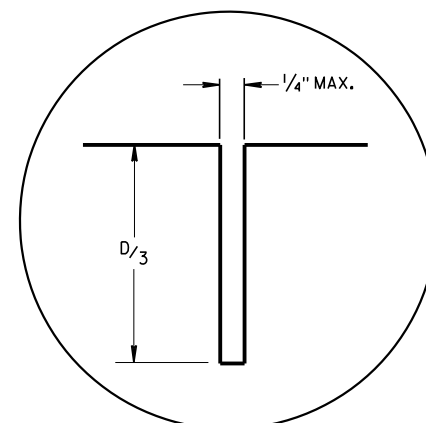


PLAN VIEW

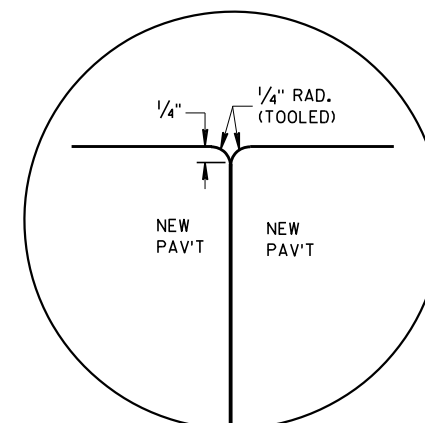
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



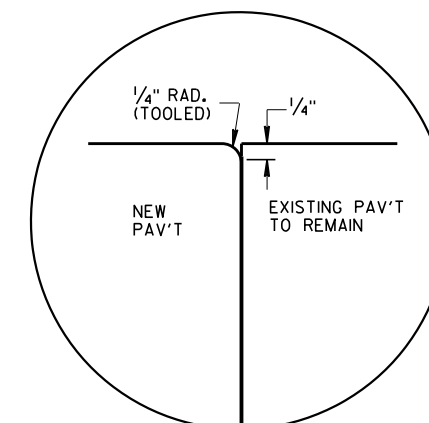
**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"



DETAIL "B"



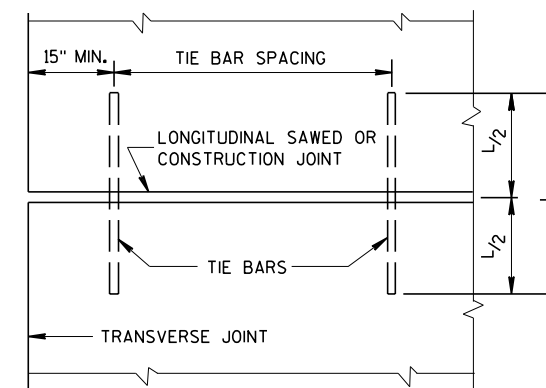
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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

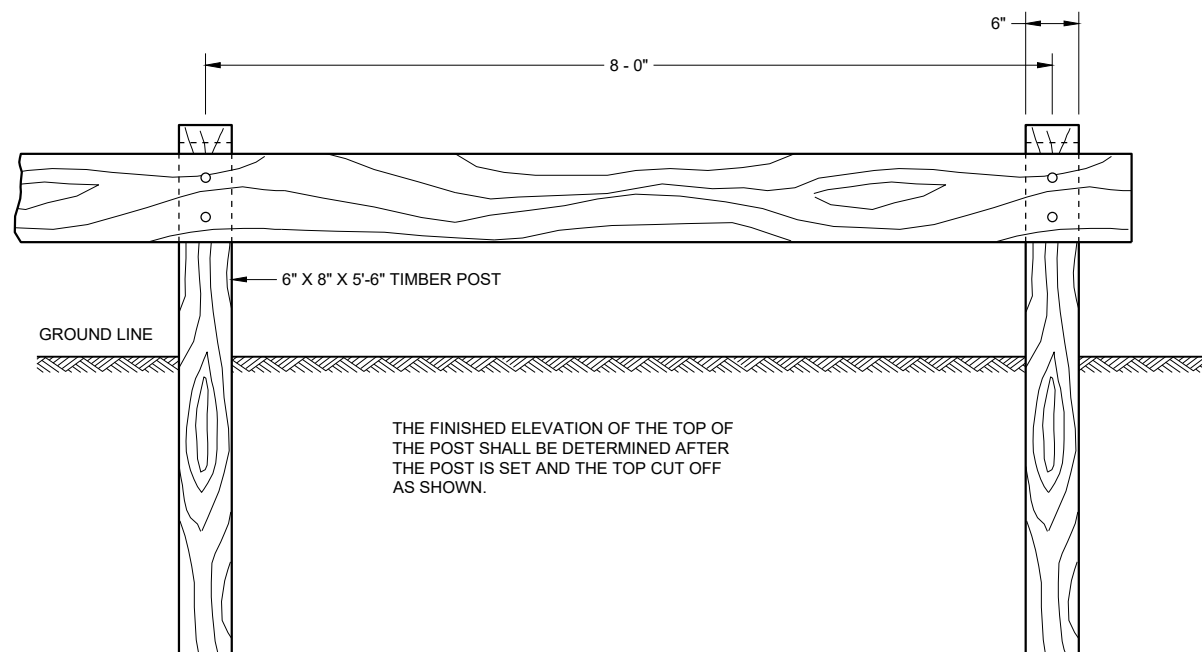


**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

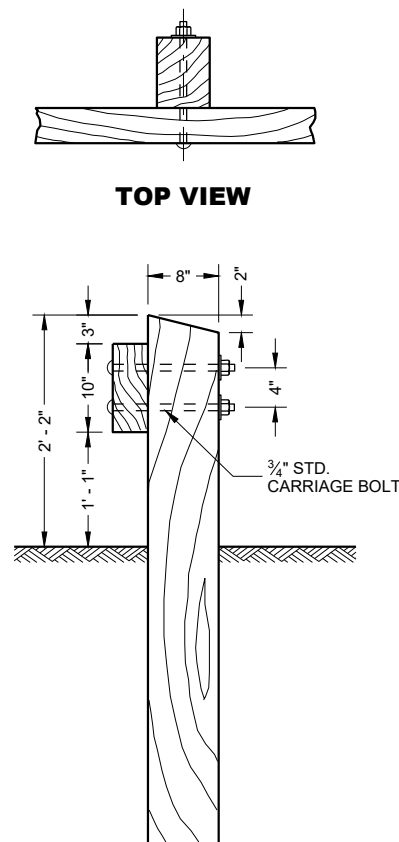
**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

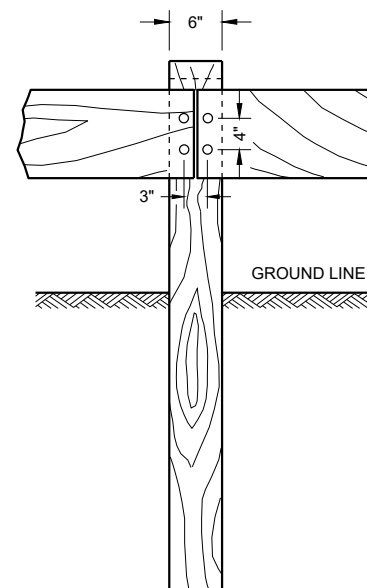
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



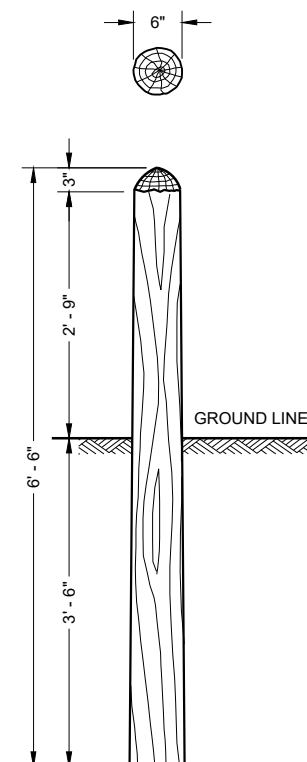
FRONT VIEW



SIDE VIEW

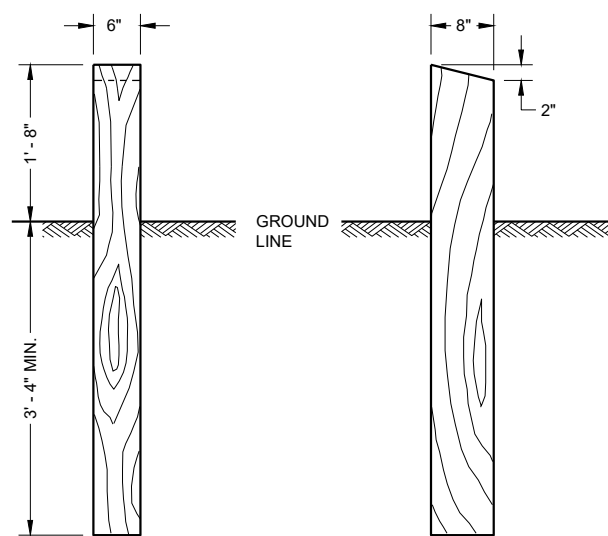


SPLICE POST



RUSTIC MARKER POST

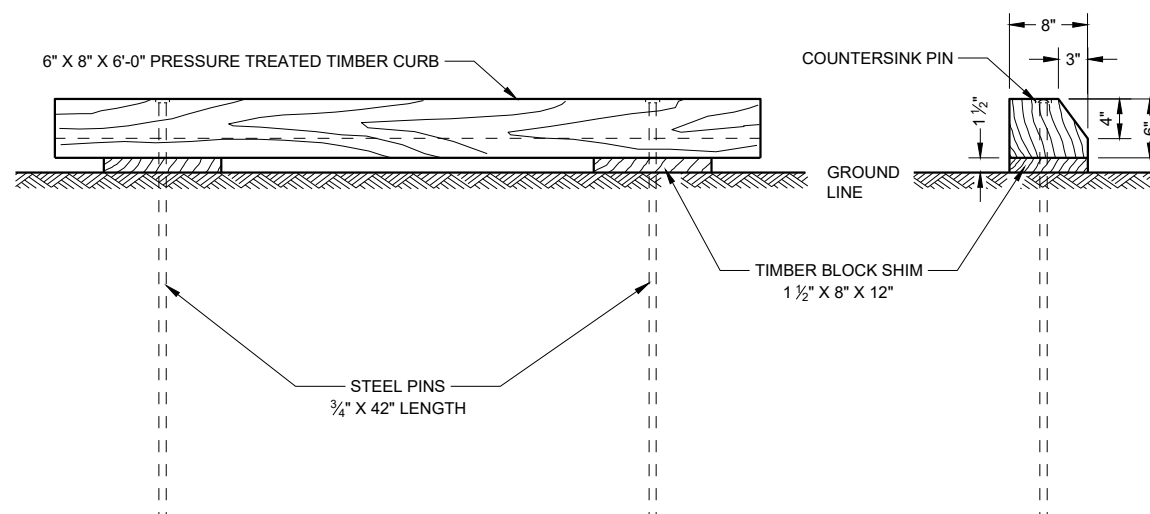
TIMBER RAIL GUARD FENCE
(PARKING LOT PROTECTION)



FRONT VIEW

SIDE VIEW

TIMBER RAIL GUARD POST
(REQUIREMENTS SHALL BE THE SAME AS POSTS FOR TIMBER RAIL GUARD FENCE)



FRONT VIEW

SIDE VIEW

TREATED TIMBER CURB

GENERAL NOTES

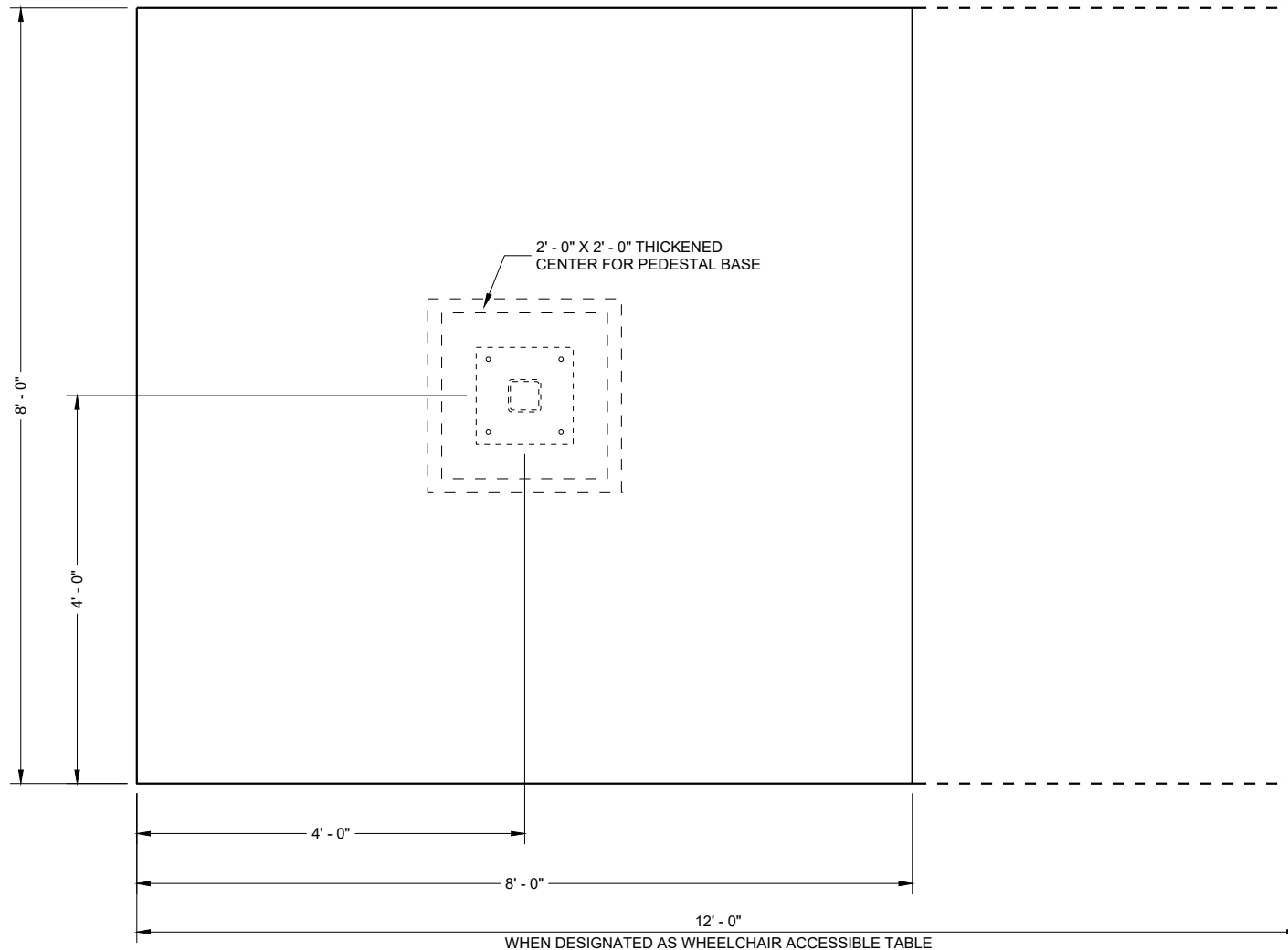
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATION SECTION 615. ALL POST AND RAIL DIMENSIONS ARE NOMINAL DIMENSIONS.

TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST

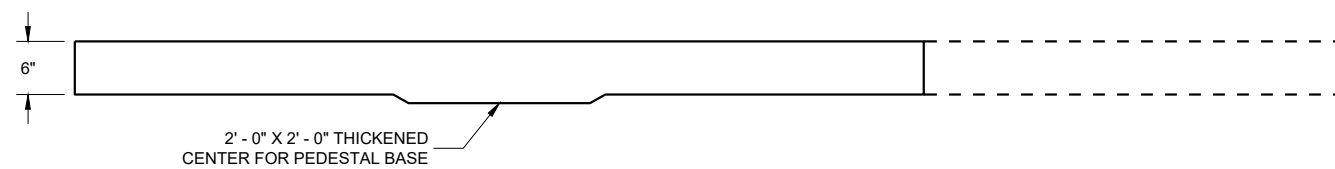
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE May 2021 /S/ Joseph Coughlin
ROADSIDE FACILITIES ENGINEER

FHWA



TOP VIEW

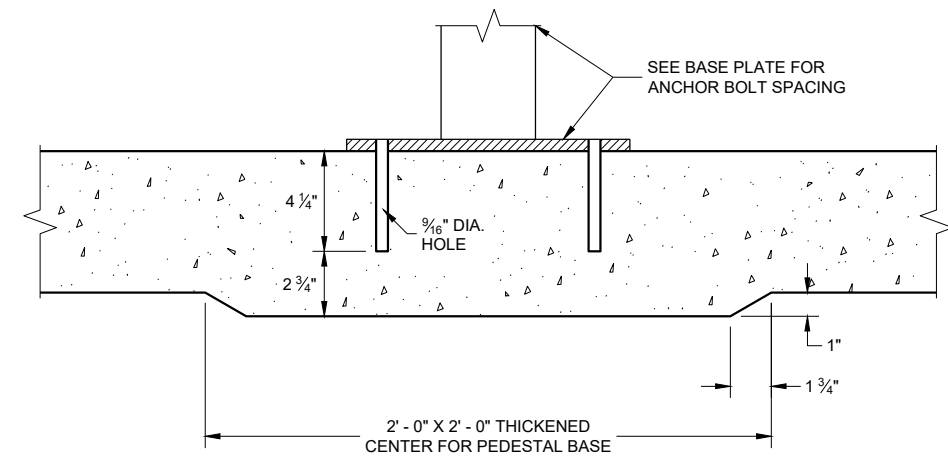


SLAB ELEVATION

CONCRETE PAD FOR PICNIC TABLE

GENERAL NOTES

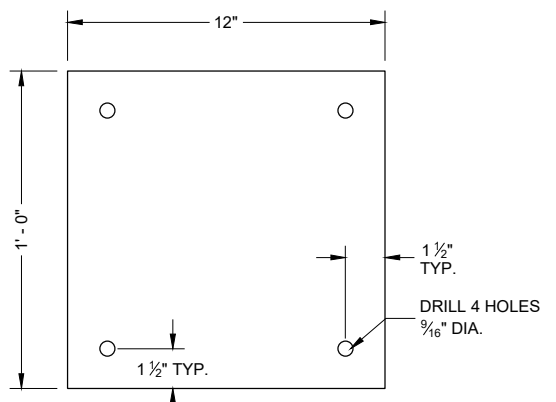
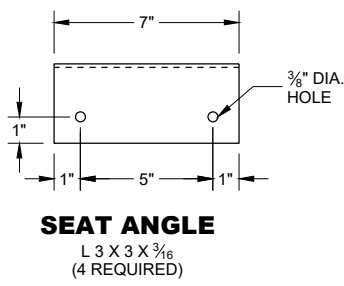
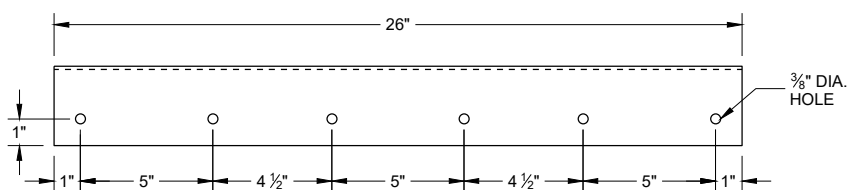
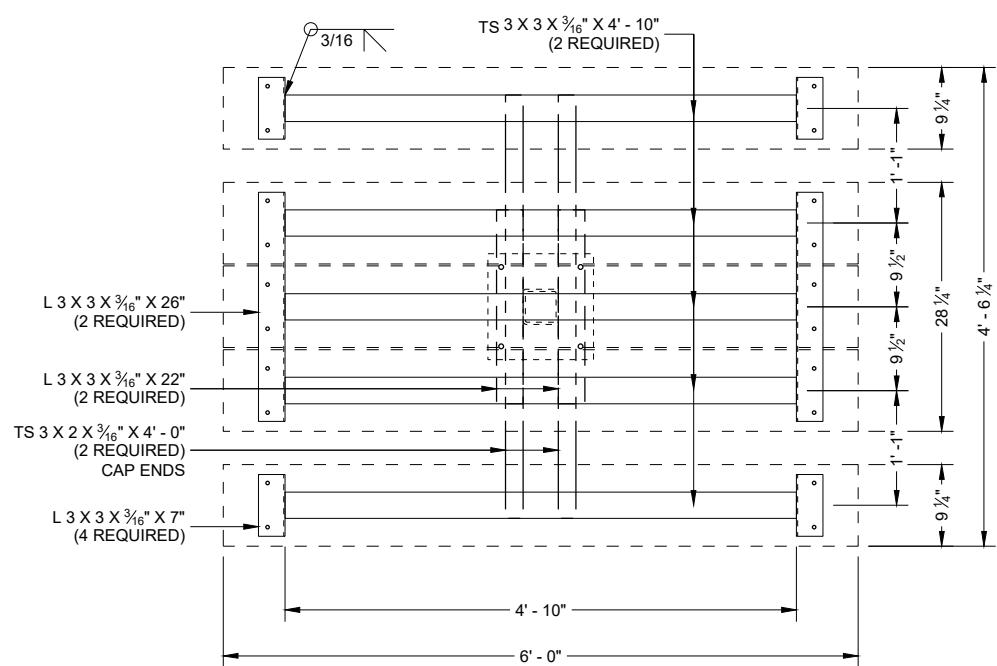
- PICNIC TABLE PAD SHALL BE PAID FOR AS CONCRETE SIDEWALK 6-INCH.
- PICNIC TABLE PAD SHALL BE LEVEL.
- WHEEL CHAIR ACCESSIBLE TABLES MUST HAVE SIDEWALK EXTENSION.



ANCHOR BOLT HOLE DETAIL

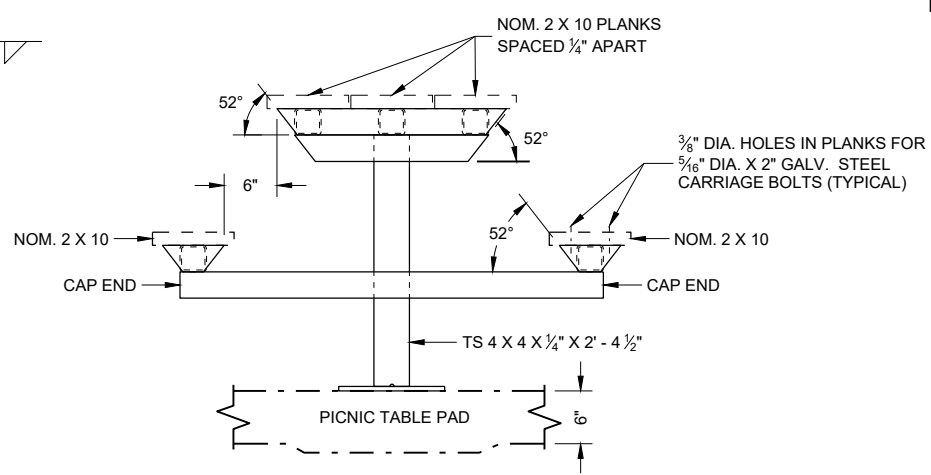
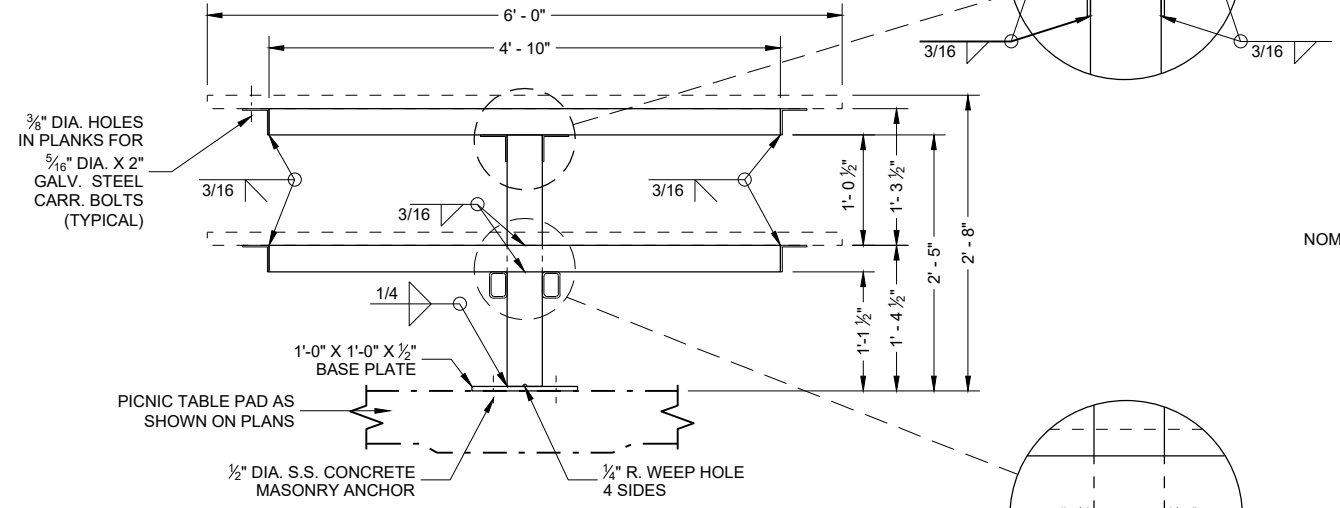
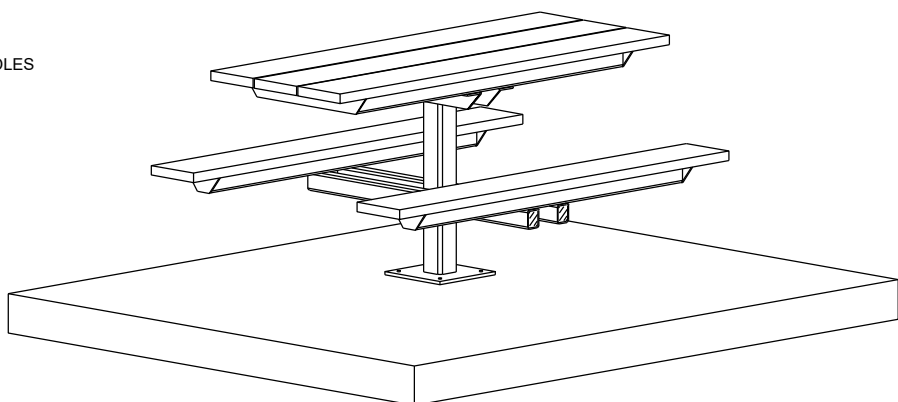
**PICNIC TABLE
SINGLE PEDESTAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



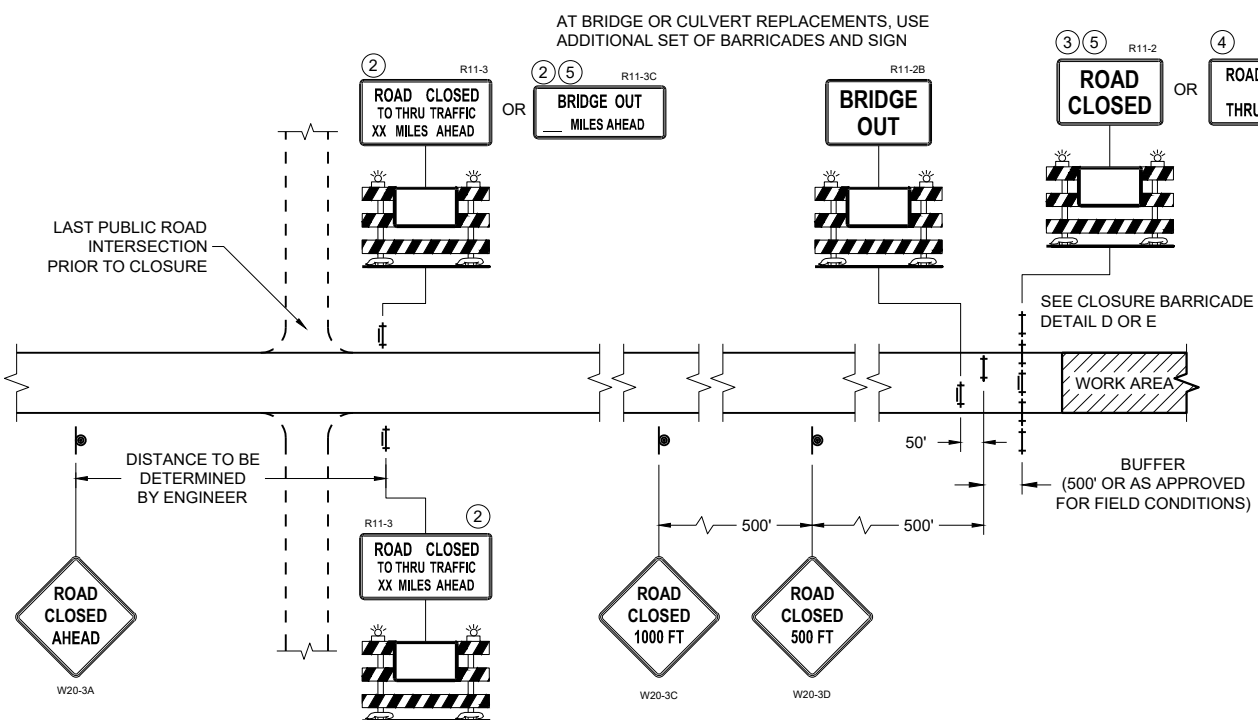
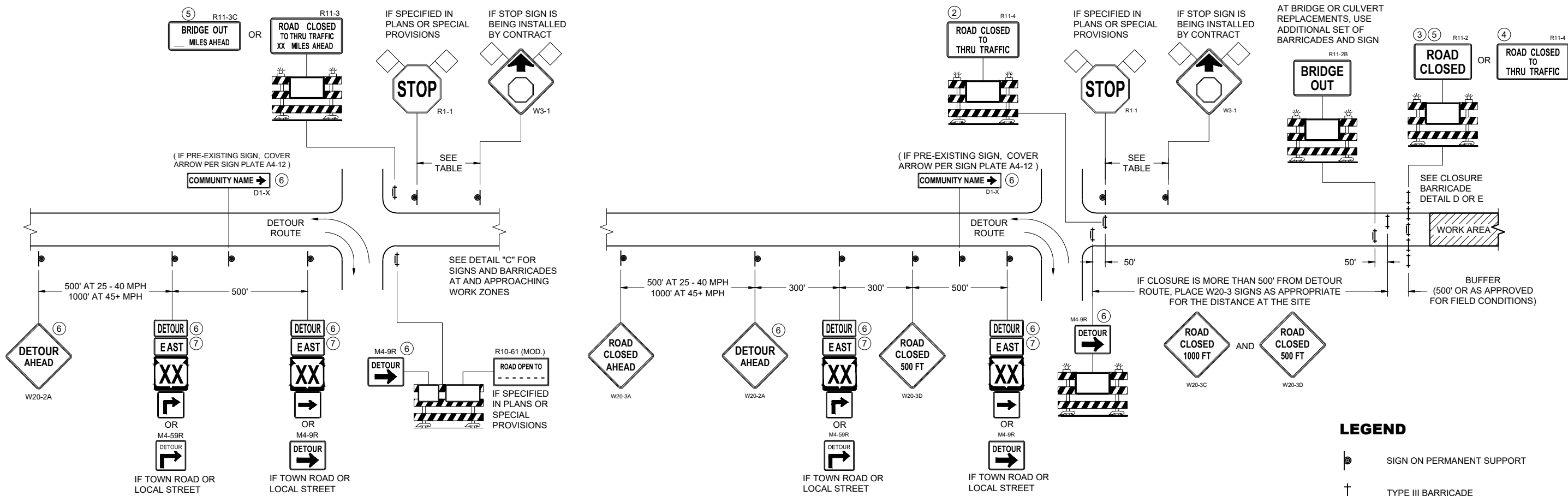
GENERAL NOTES

- ALL EDGES AND CORNERS OF CUT ANGLES TO BE ROUNDED TO PREVENT SHARP EDGES.
- ALL STRUCTURAL TUBES TO BE 46 KSI YIELD, ALL OTHER STEEL TO BE 36 KSI YIELD MIN.
- PLANKS TO BE MADE OF RECYCLED PLASTIC.
- ACTUAL SIZE OF NOMINAL 2X10 PLANKS SHALL BE 1 1/2" X 9 1/4".
- ALL NUTS, BOLTS AND WASHERS SHALL BE ASTM A36.
- THE 1/2" DIA. STAINLESS STEEL CONCRETE MASONRY ANCHOR SHALL BE IN ACCORDANCE WITH SECTION 502.2.12 OF THE STANDARD SPECIFICATION.
- THE TYPE "S" MASONRY ANCHOR SHALL DEVELOP A MIN. 2400 LBS. TENSION.
- CONCRETE SHALL BE CURED A MINIMUM OF 7 DAYS PRIOR TO SETTING ANCHOR BOLTS.



SINGLE PEDESTAL PICNIC TABLE

PICNIC TABLE SINGLE PEDESTAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE May 2021	/S/ Joseph Coughlin ROADSIDE FACILITIES ENGINEER



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)

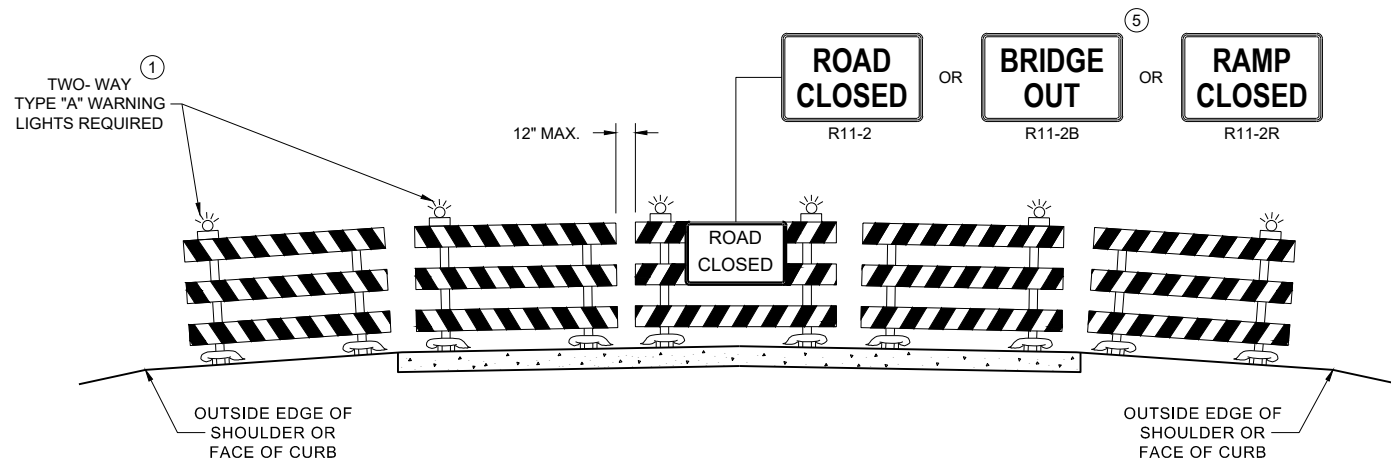
DETOUR M4 - 8
 EAST M3 - X
 XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
 M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

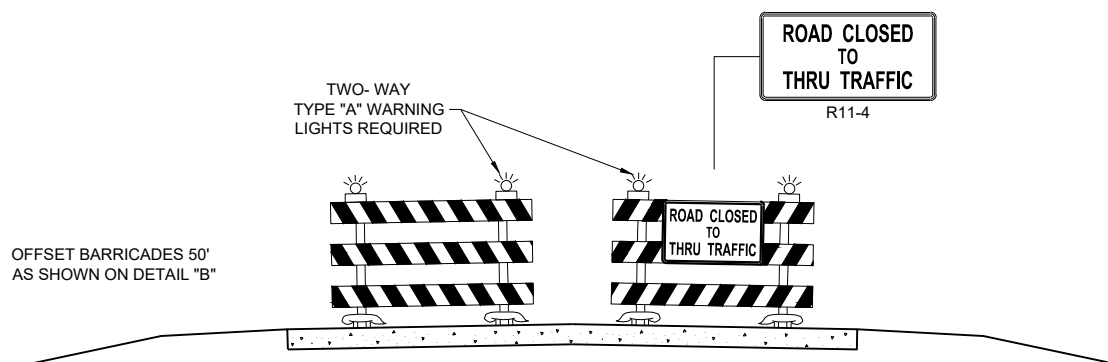
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2025 /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.

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

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

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

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

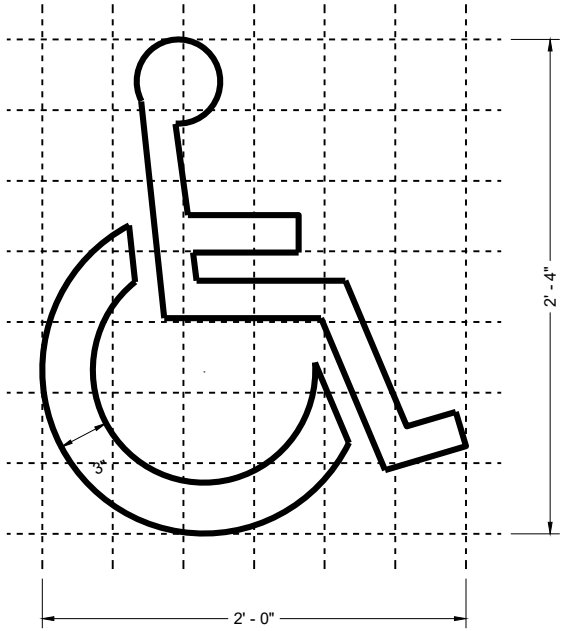
SIGNS PLACED ON TYPE III BARRICADES THAT ARE SIZES OTHER THAN 48"X30" SHALL HAVE A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE.

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

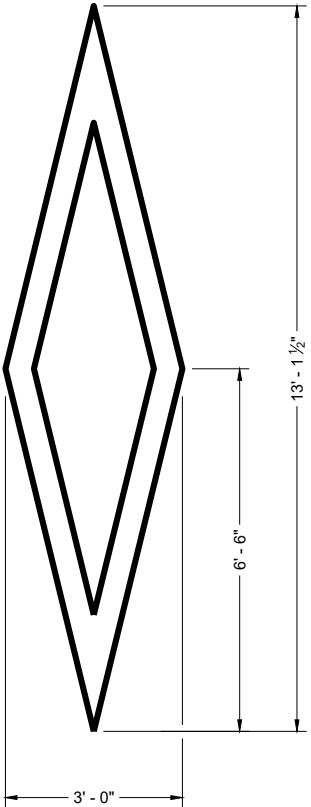
BARRICADES AND SIGNS FOR VARIOUS CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

GENERAL NOTES

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



HANDICAP SYMBOL



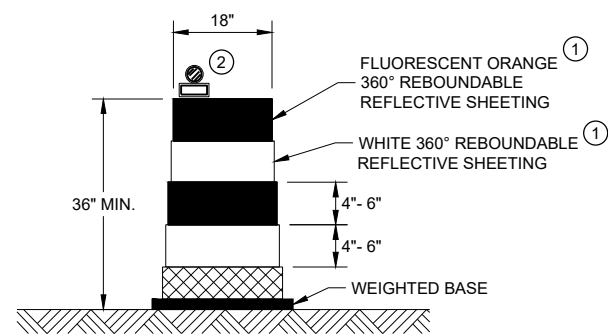
PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

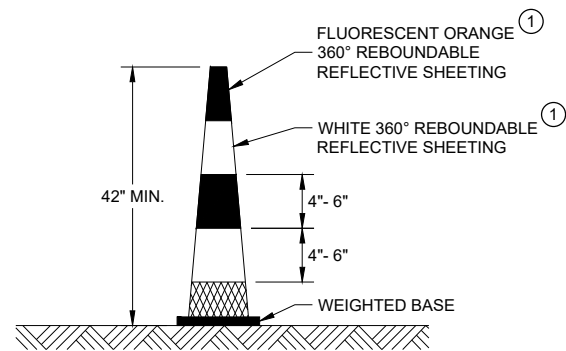
APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



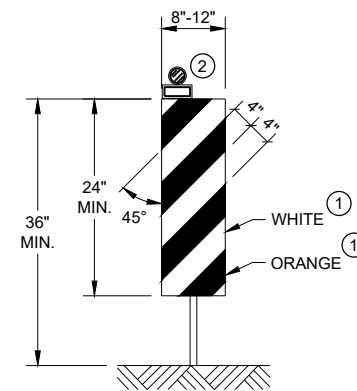
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

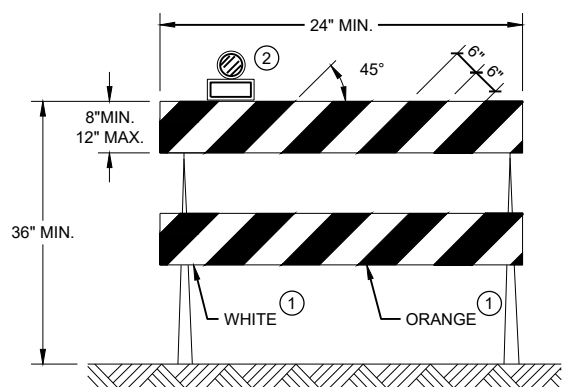


VERTICAL PANEL

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

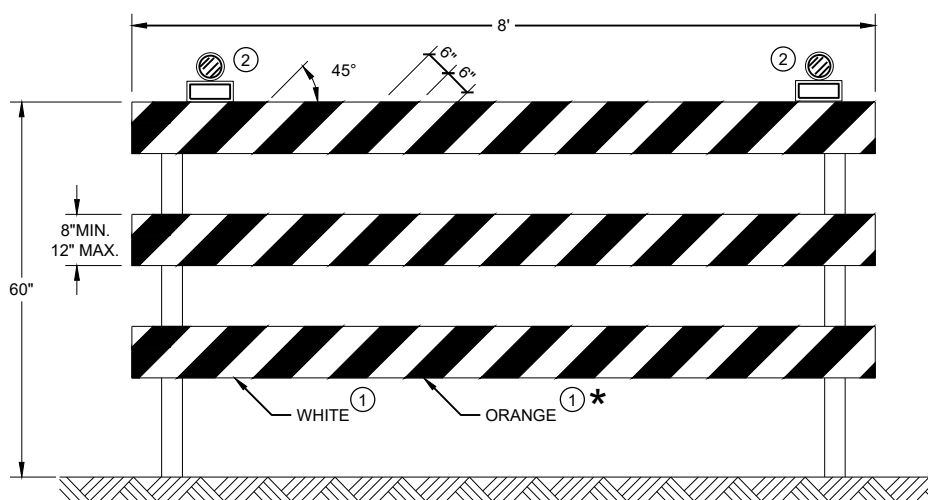
GENERAL NOTES

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



TYPE II BARRICADE

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



TYPE III BARRICADE

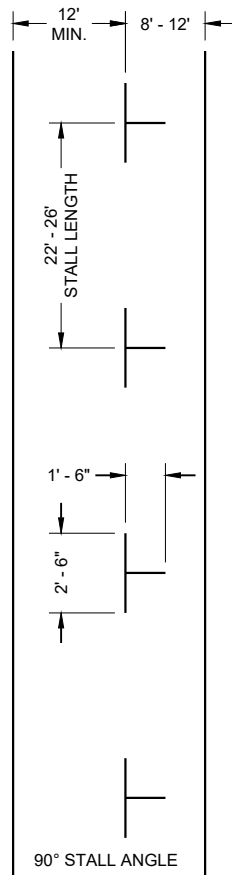
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

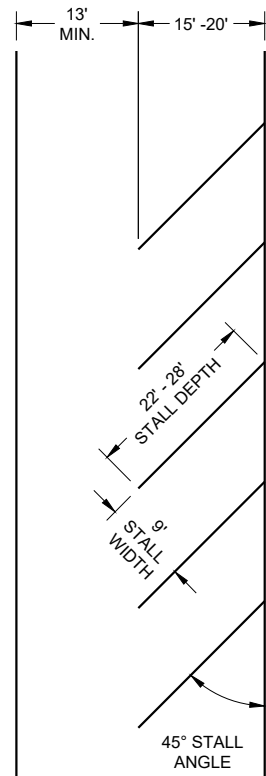
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

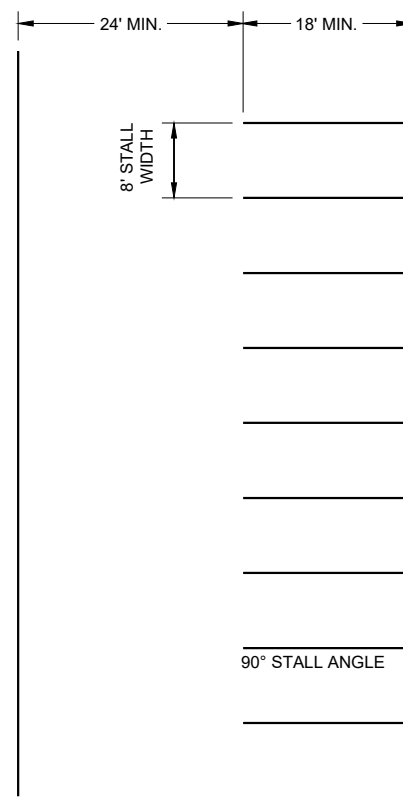
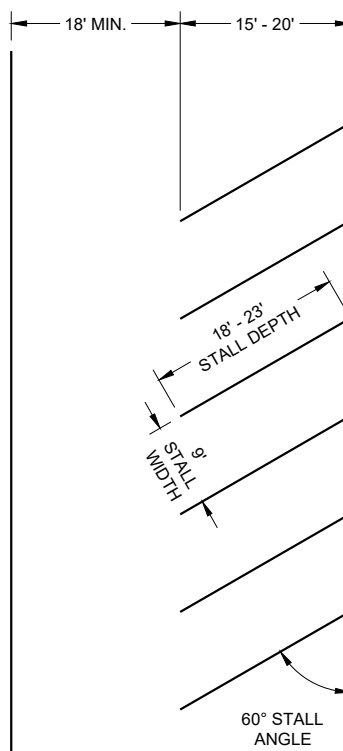


PARALLEL PARKING



ANGLED PARKING

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



PARKING LOTS

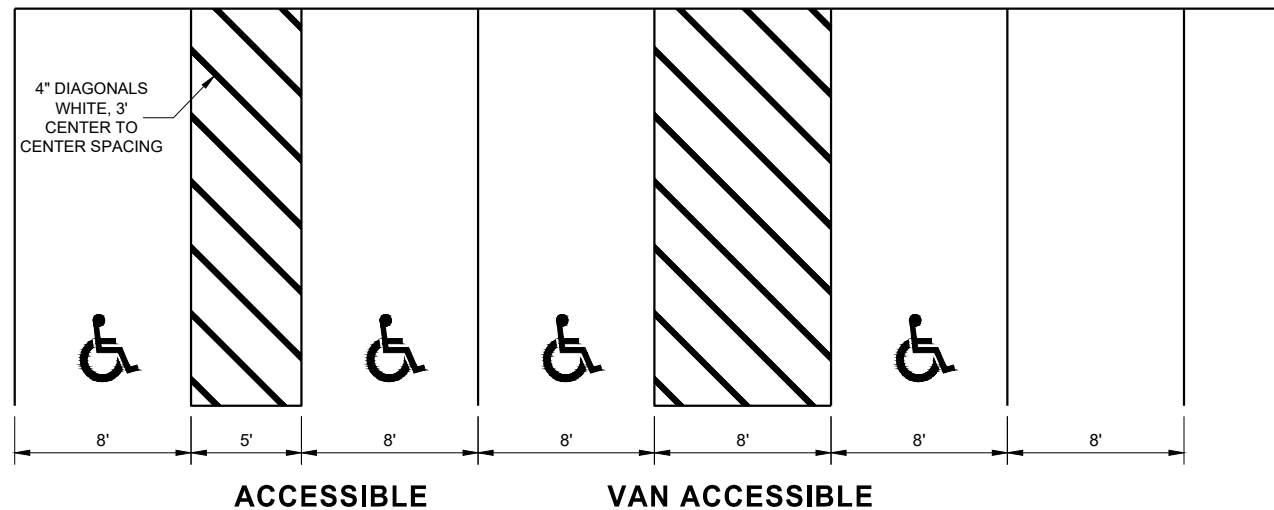
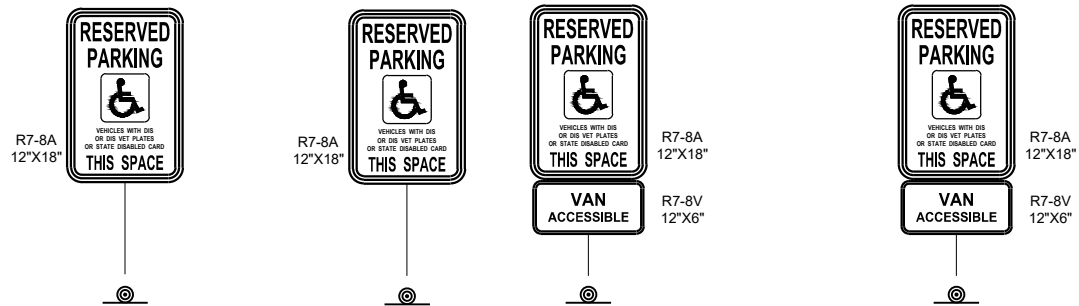
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.








LEGEND

⊙ SIGN ON PERMANENT SUPPORT



PARKING STALL MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2019 DATE	/s/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
<small>FHWA</small>	

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  DIRECTION OF TRAFFIC
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

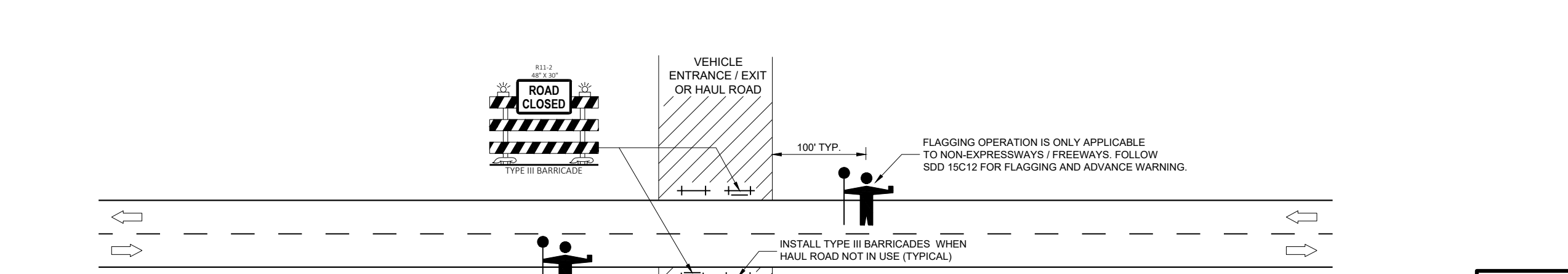
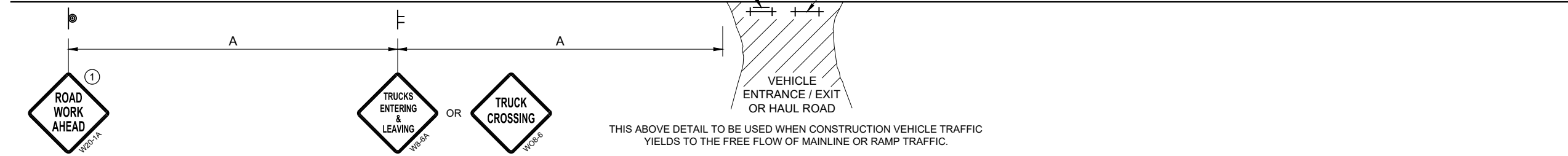
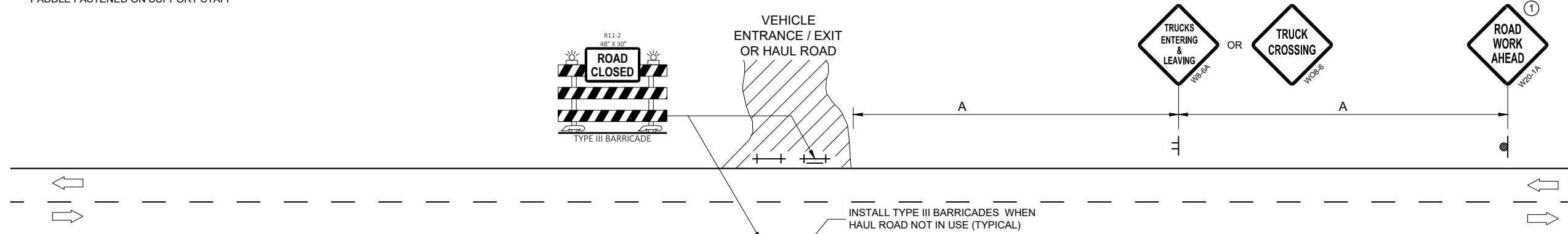
POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET
0-30	200'
35-40	350'
45-55	500'

GENERAL NOTES

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- "WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.
- WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.
- PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.
- ① THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE / EXIT CONDITIONS ARE SEPARATED BY MORE THAN TWO MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

6

6



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

**TRAFFIC CONTROL,
VEHICLE ENTRANCE/EXIT
OR HAUL ROAD**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
DATE May 2020 /S/ Andrew Heidtke
WORK ZONE ENGINEER

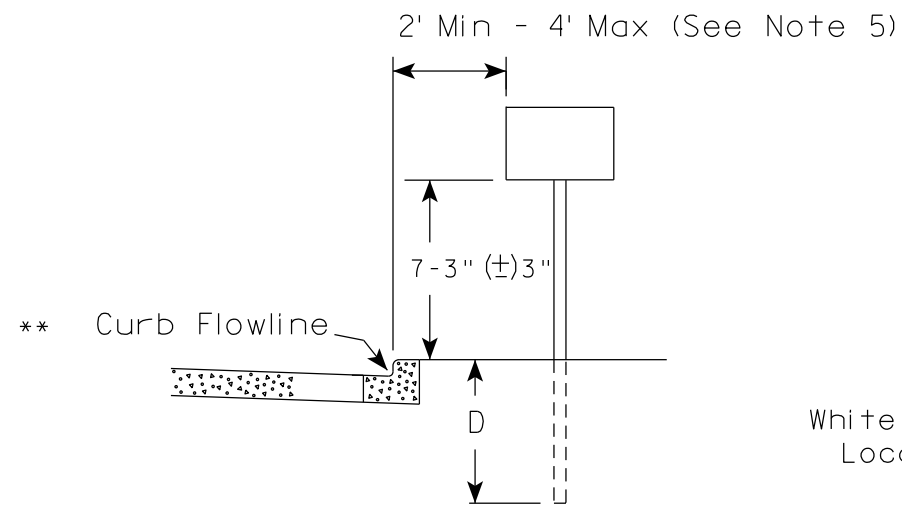
FHWA

SDD 15D29 - 06

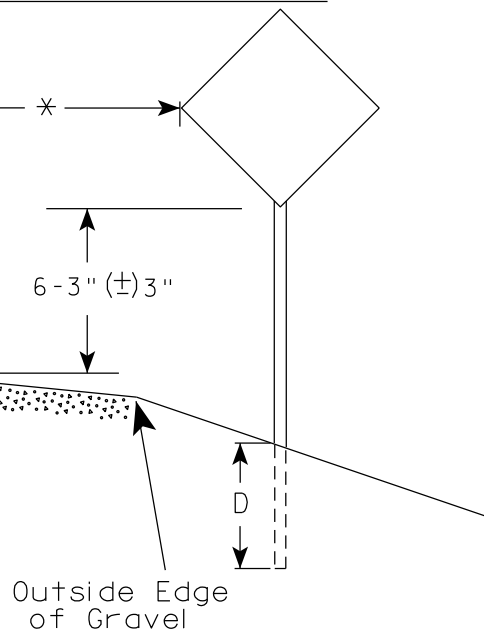
SDD 15D29 - 06

URBAN AREA

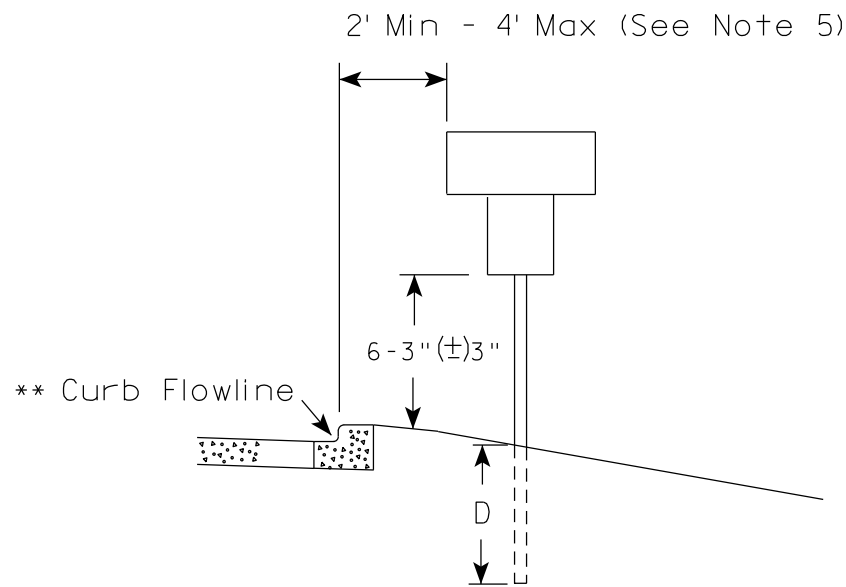
RURAL AREA (See Note 2)



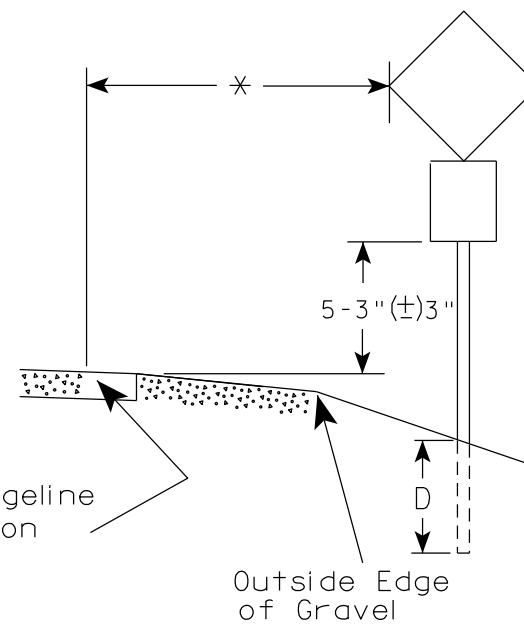
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (± 3)". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (± 3)".
3. For expressways and freeways, mounting height is 7'- 3" (± 3)" or 6'-3" (± 3)" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (± 3)".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (± 3)" or as directed by the 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.

* 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

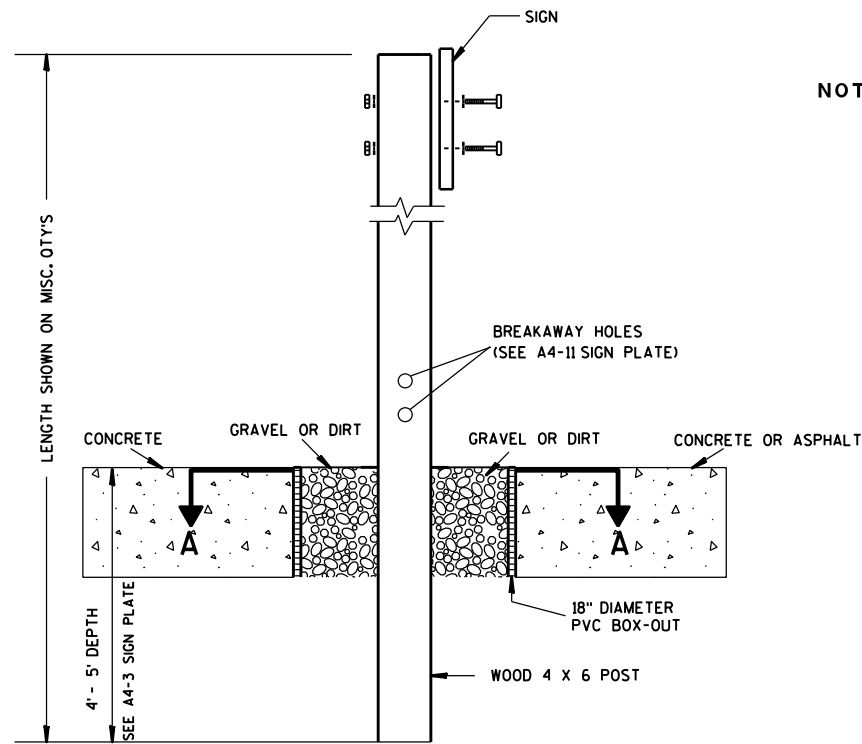
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Raub
for State Traffic Engineer

DATE 12/6/23

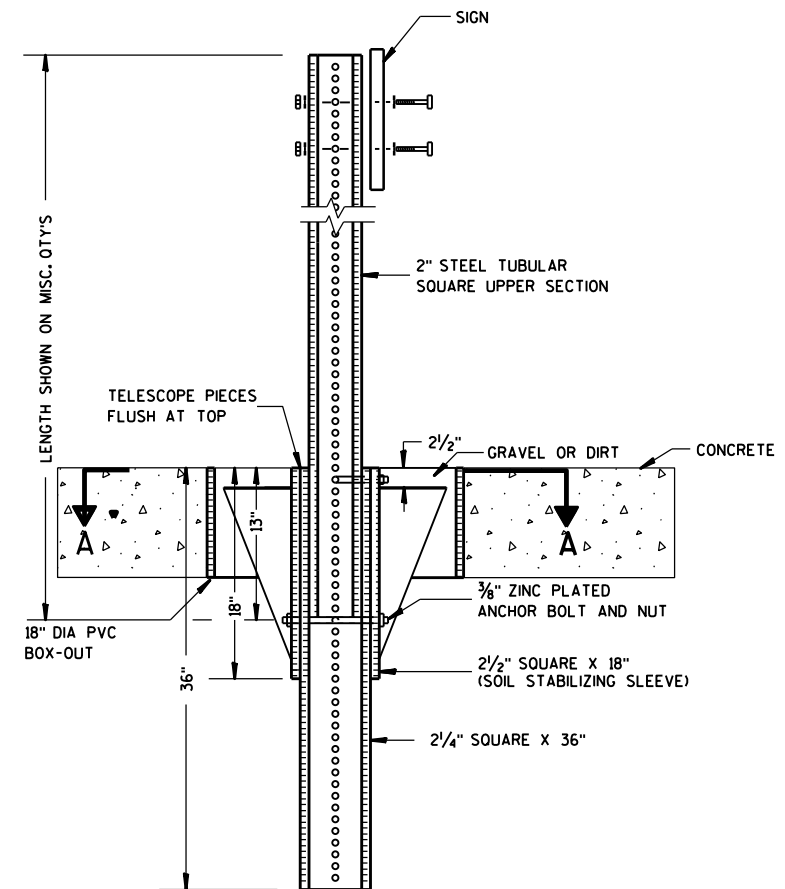
PLATE NO. A4-3.23



ELEVATION VIEW

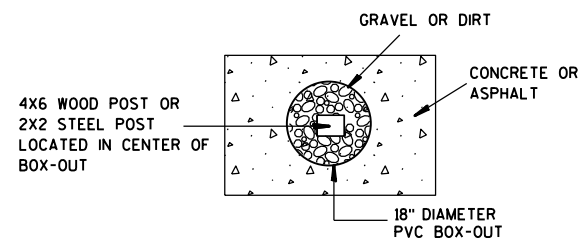
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

GENERAL NOTES

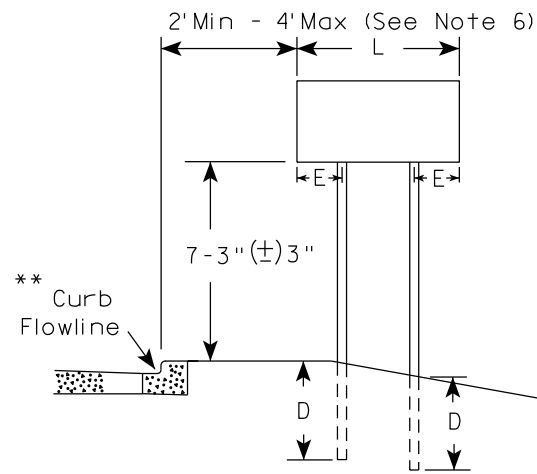
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.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

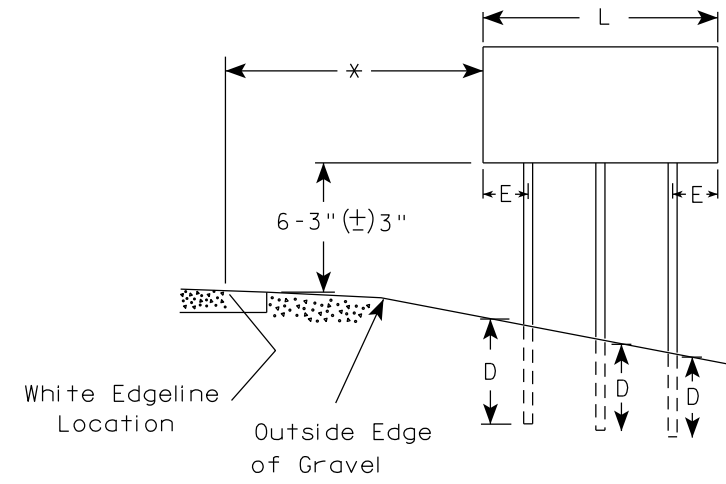
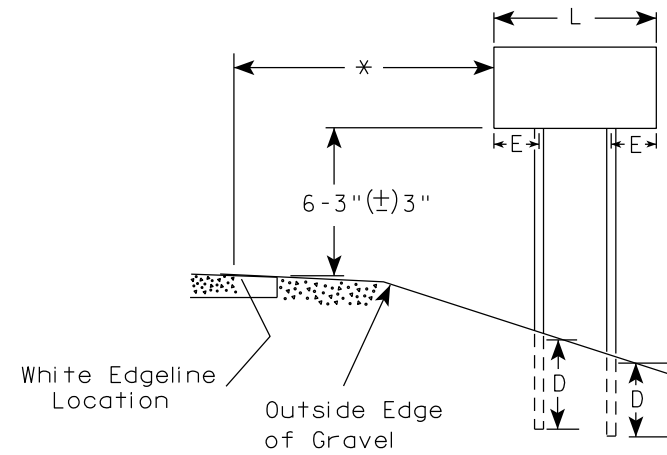
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

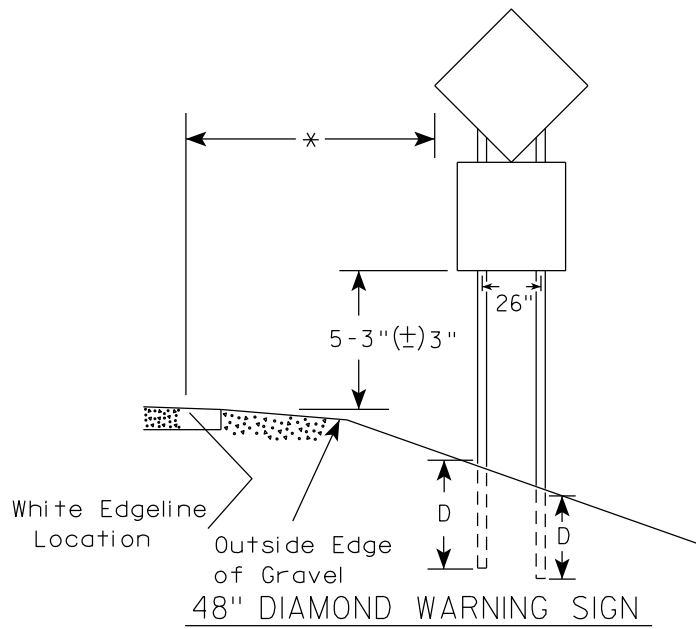
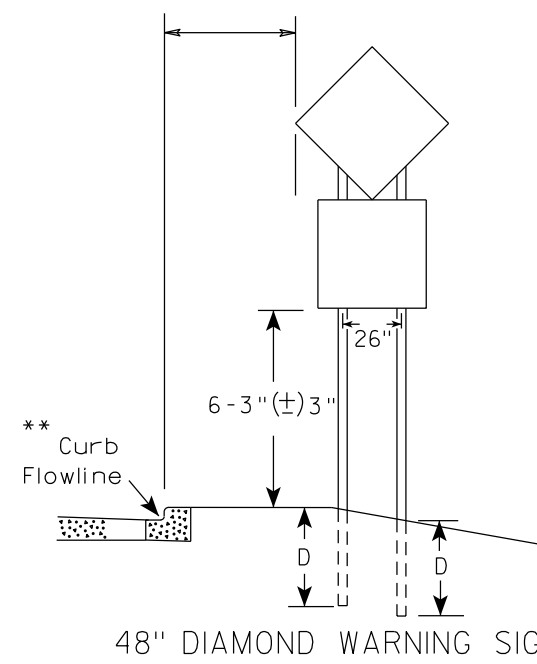
URBAN AREA



RURAL AREA (See Note 3)



URBAN 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

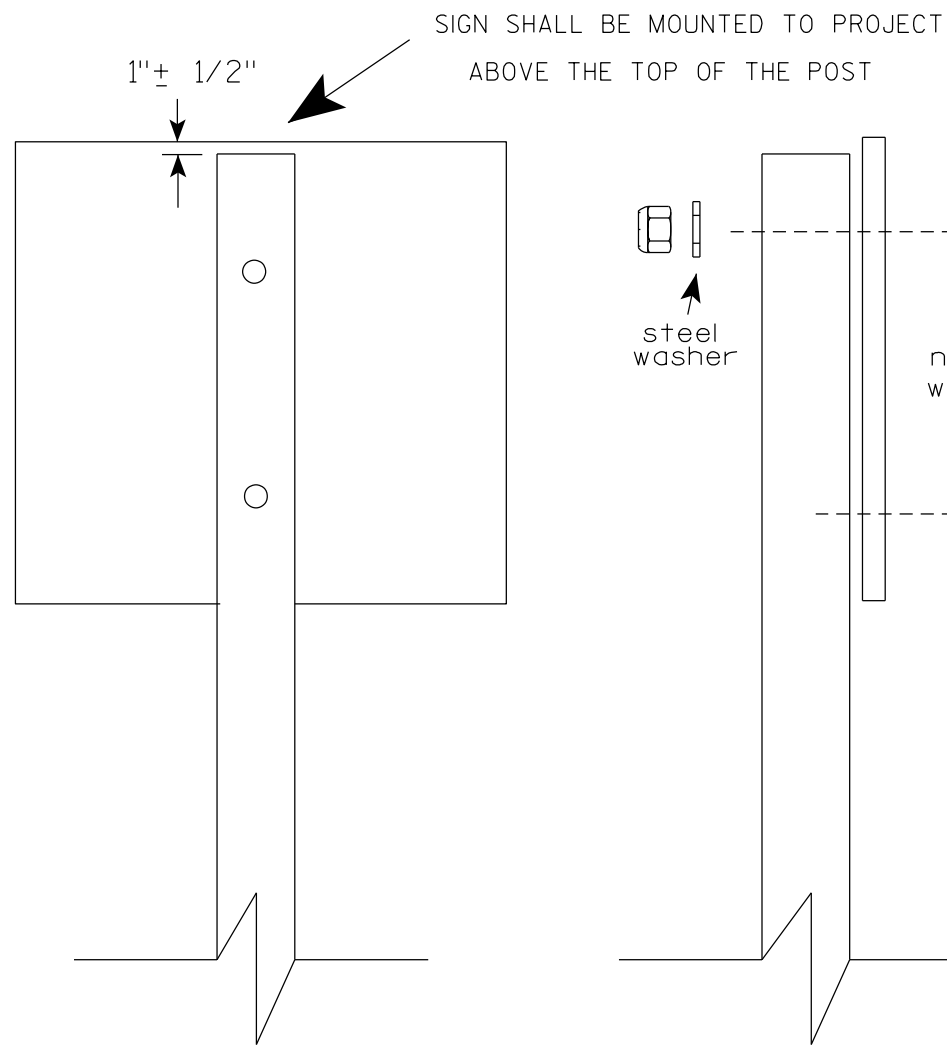
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- 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.

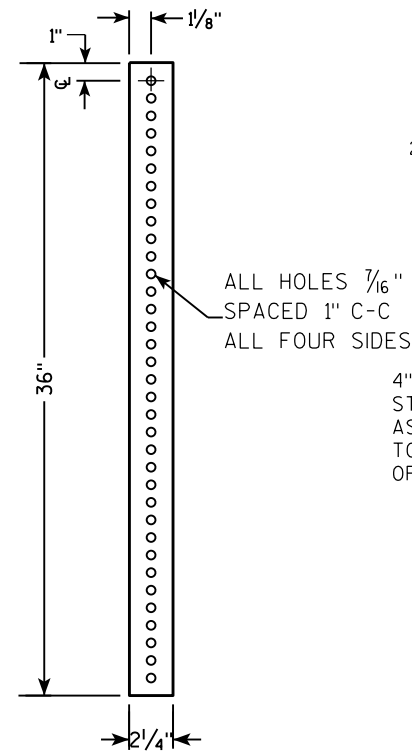
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE 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.

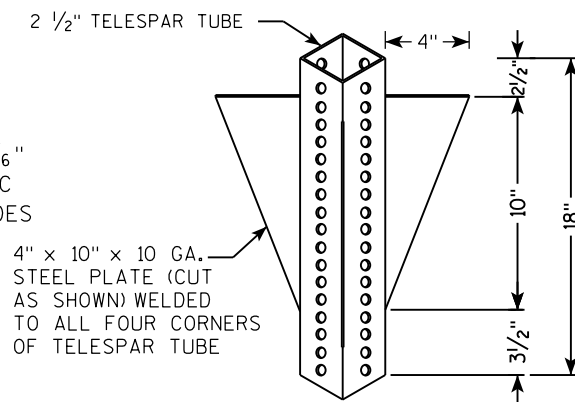
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

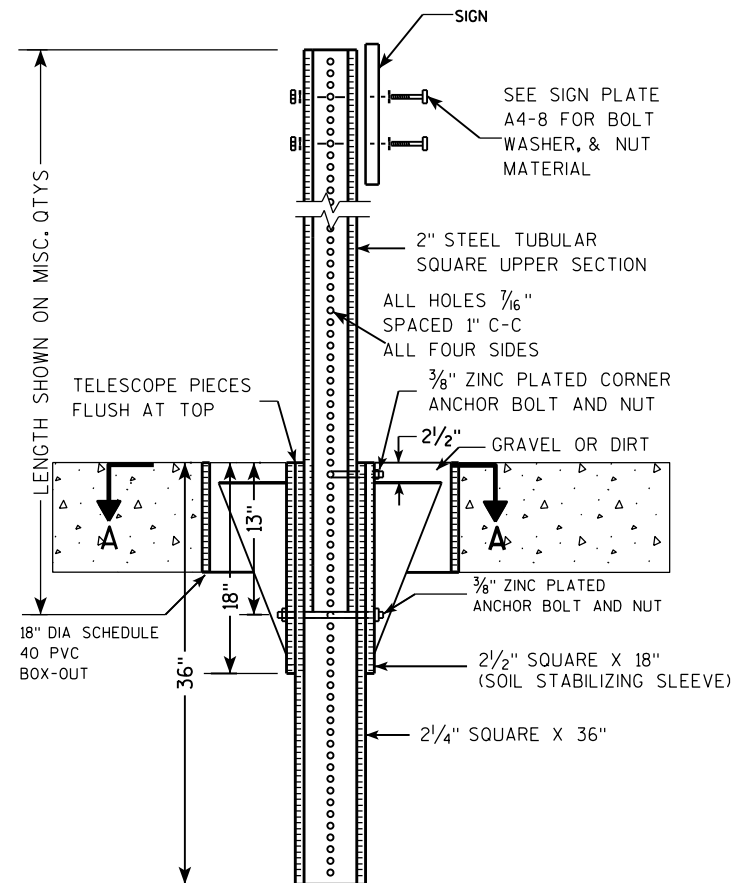
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



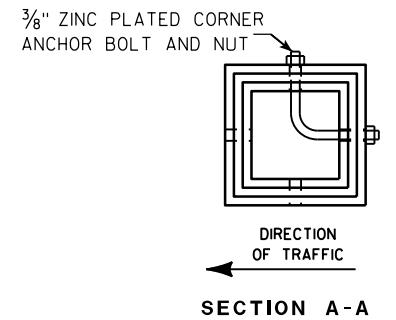
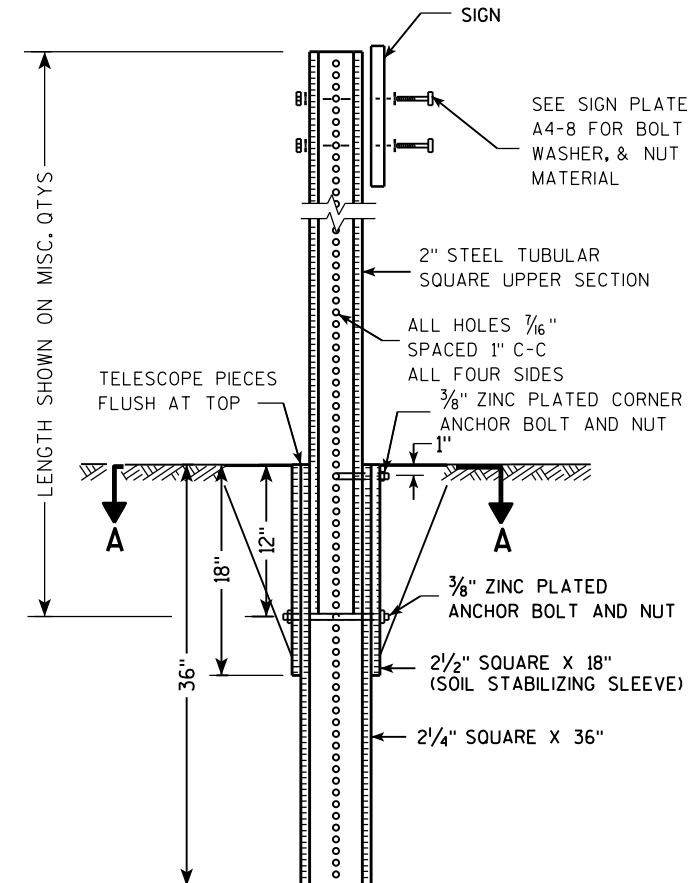
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

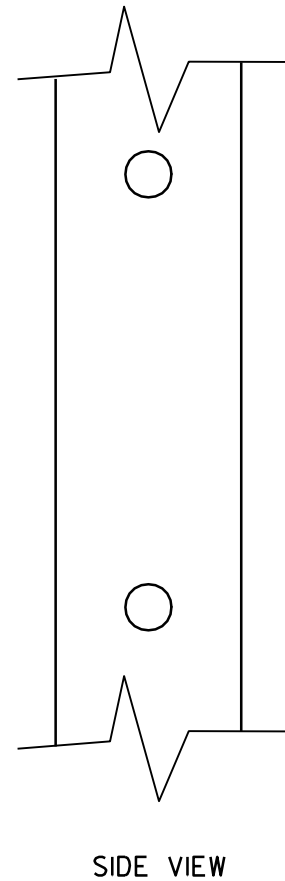
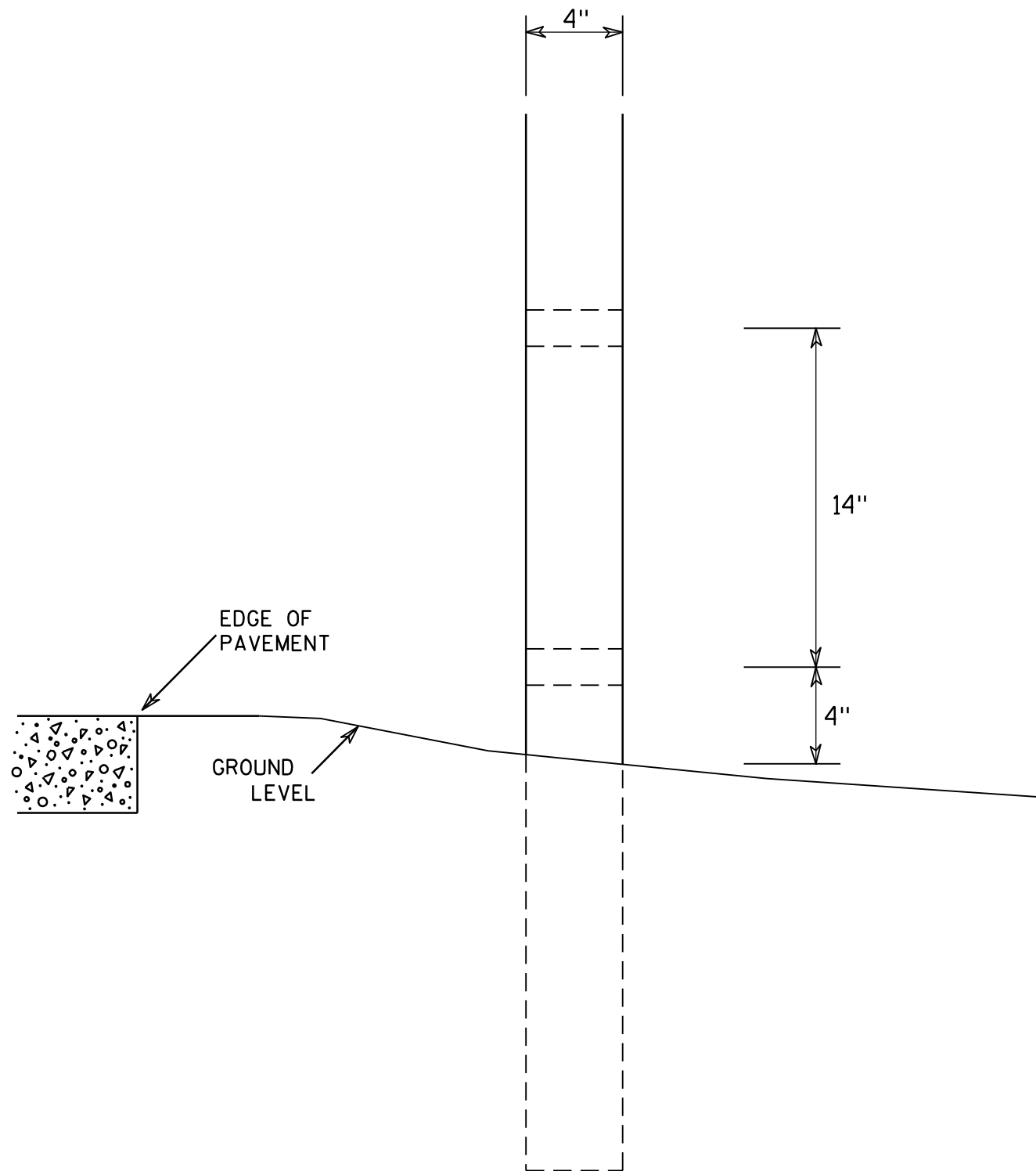
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**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



GENERAL NOTES

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

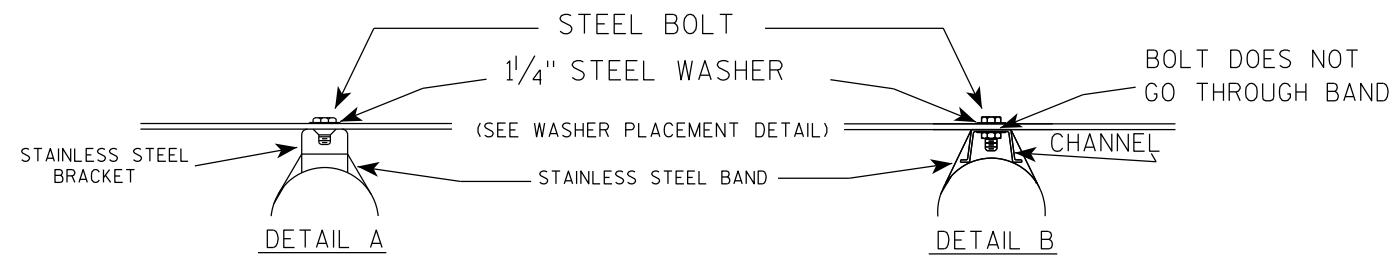
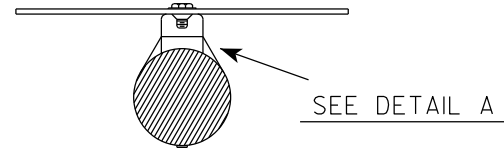
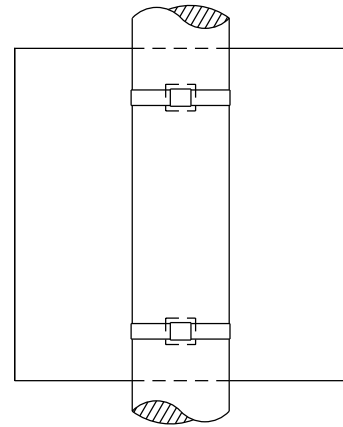
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

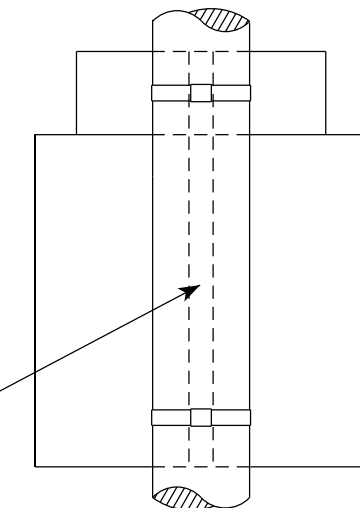
SINGLE SIGN



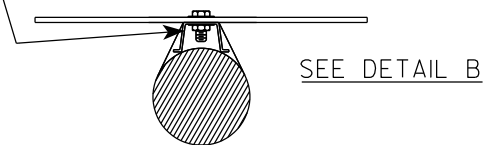
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 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

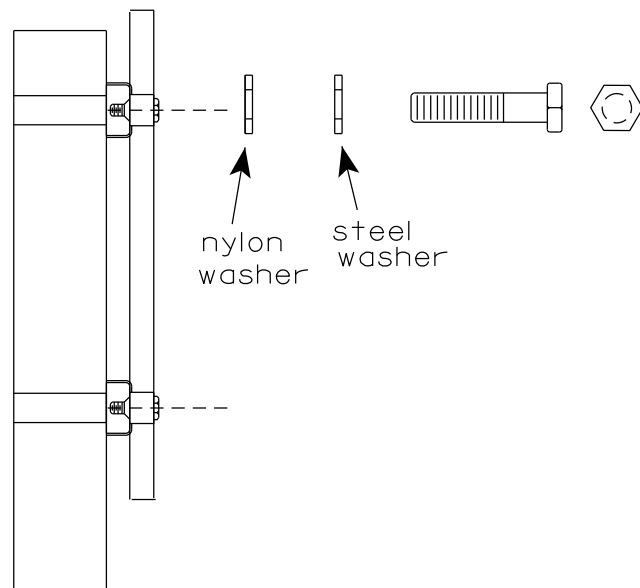
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



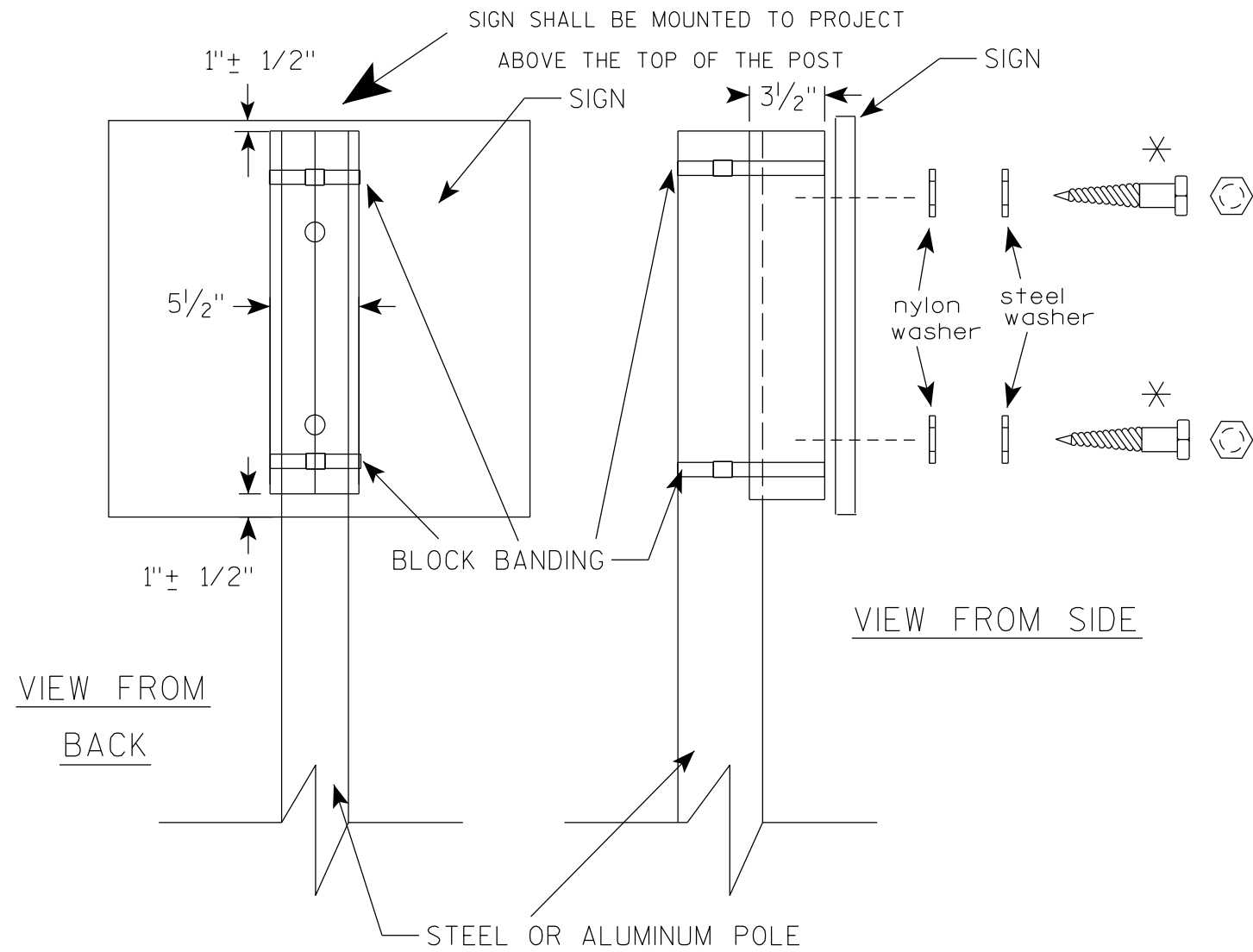
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

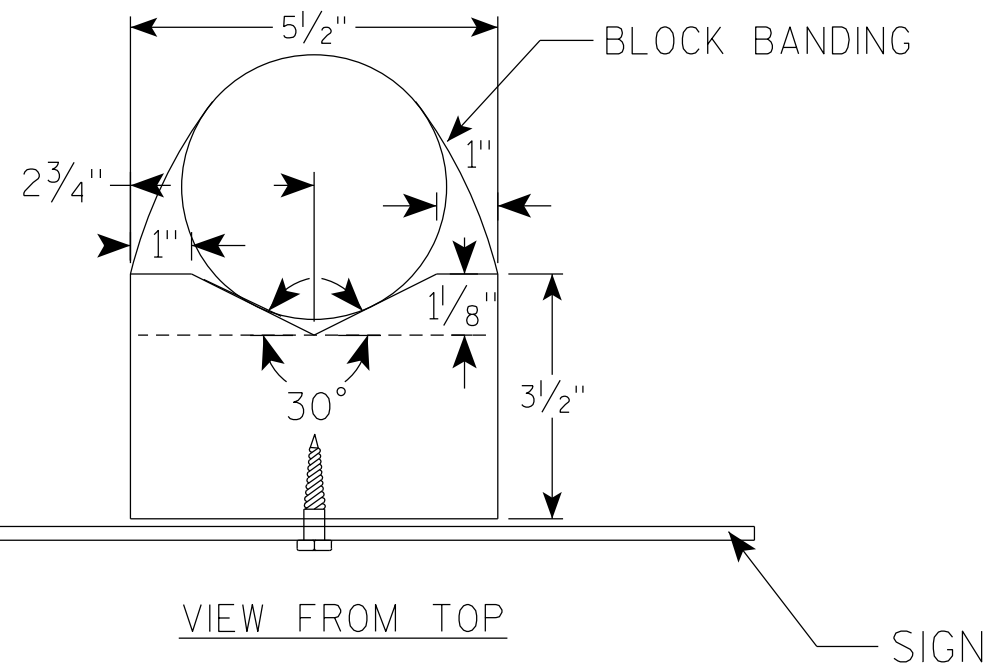
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE

STEEL OR ALUMINUM POLE



VIEW FROM TOP

SIGN

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, 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

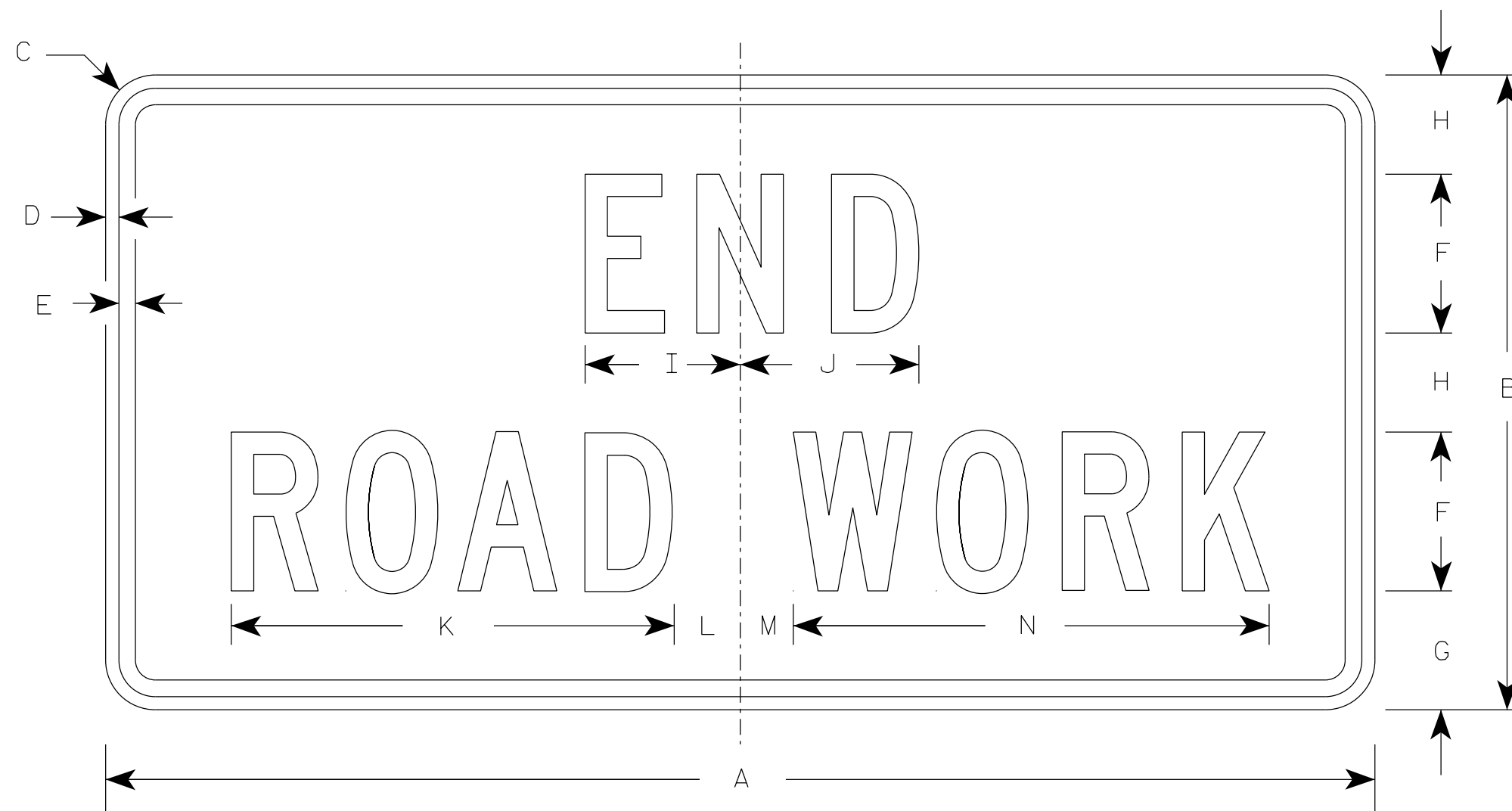
PROJECT NO:

SHEET NO:

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
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.



G20-2A

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	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

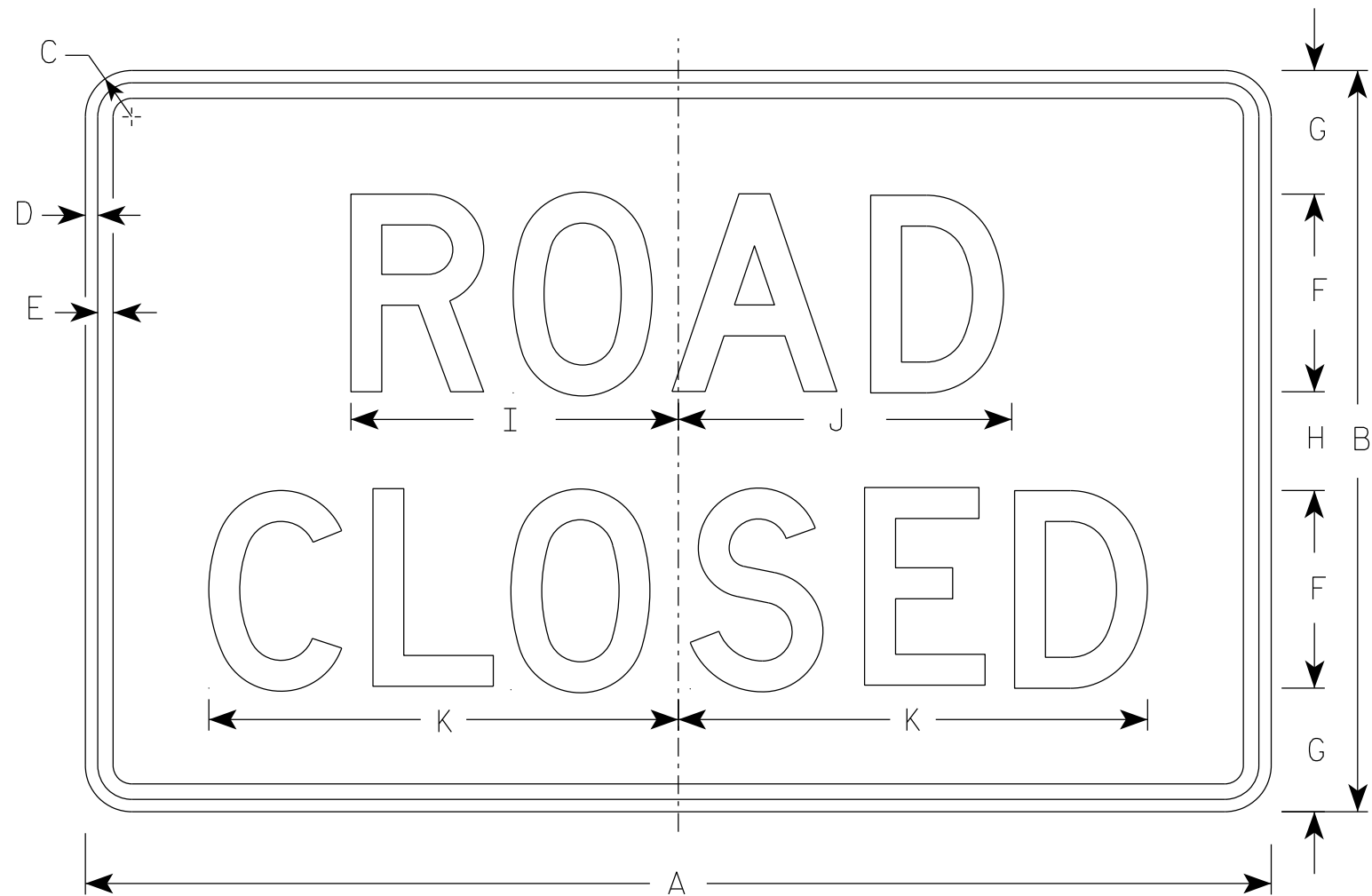
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

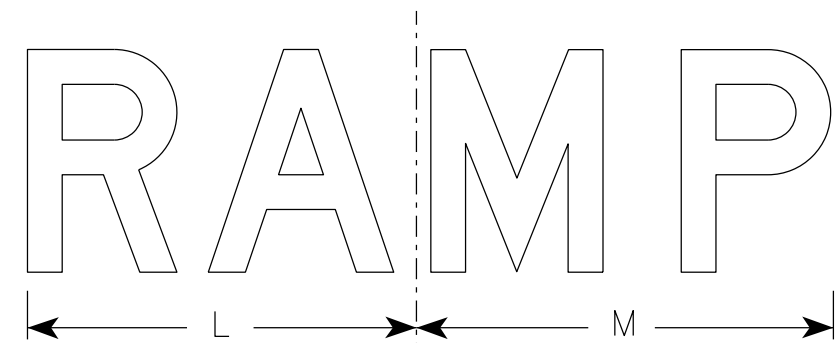
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

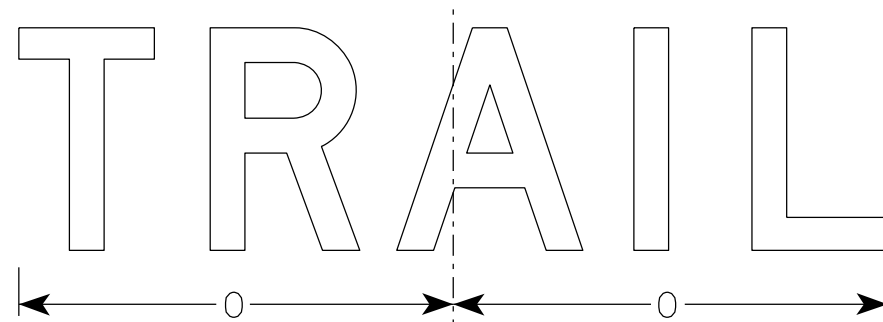
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



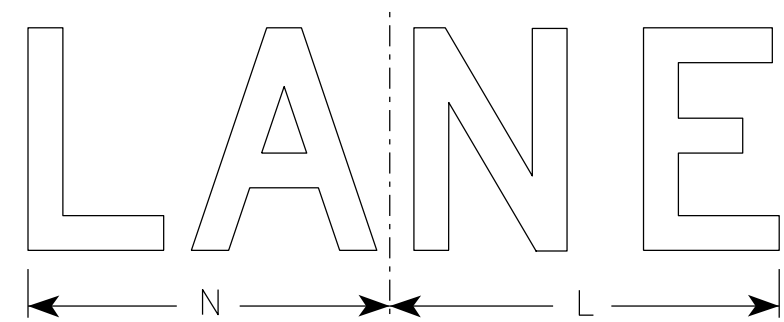
R11-2



R11-2R



R11-2T



R11-2L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

7

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																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

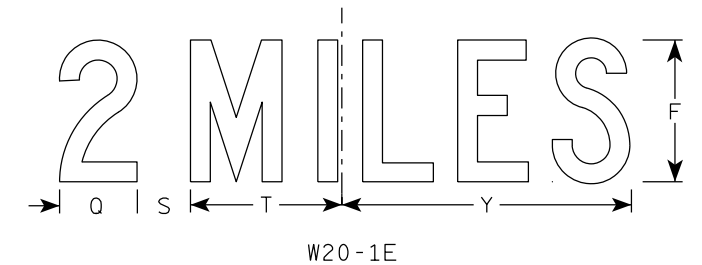
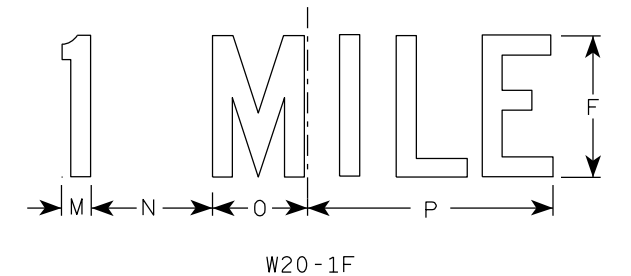
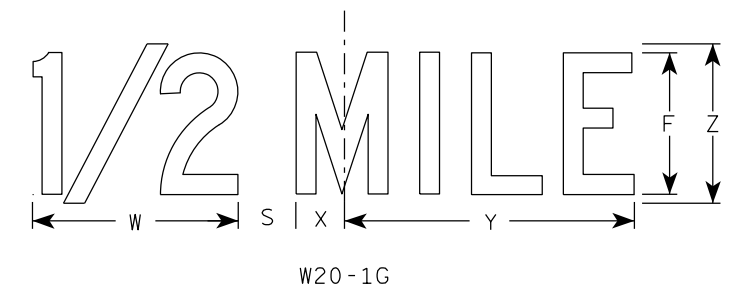
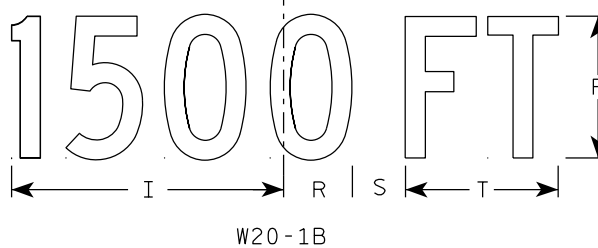
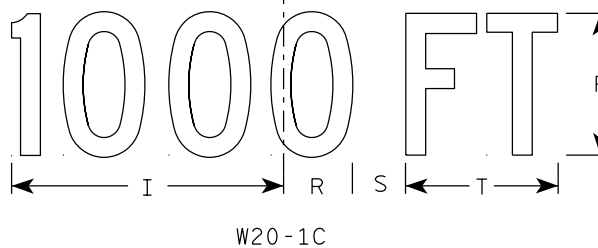
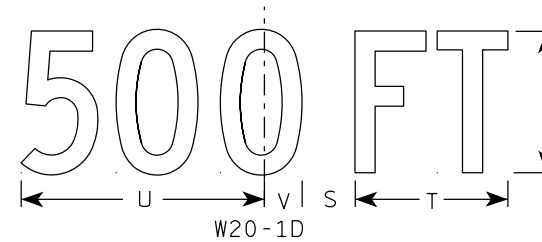
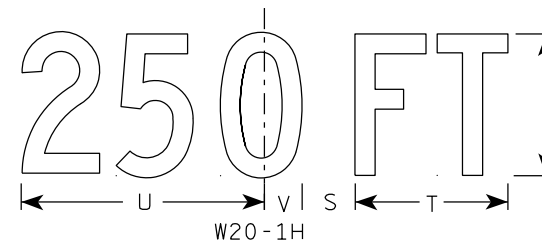
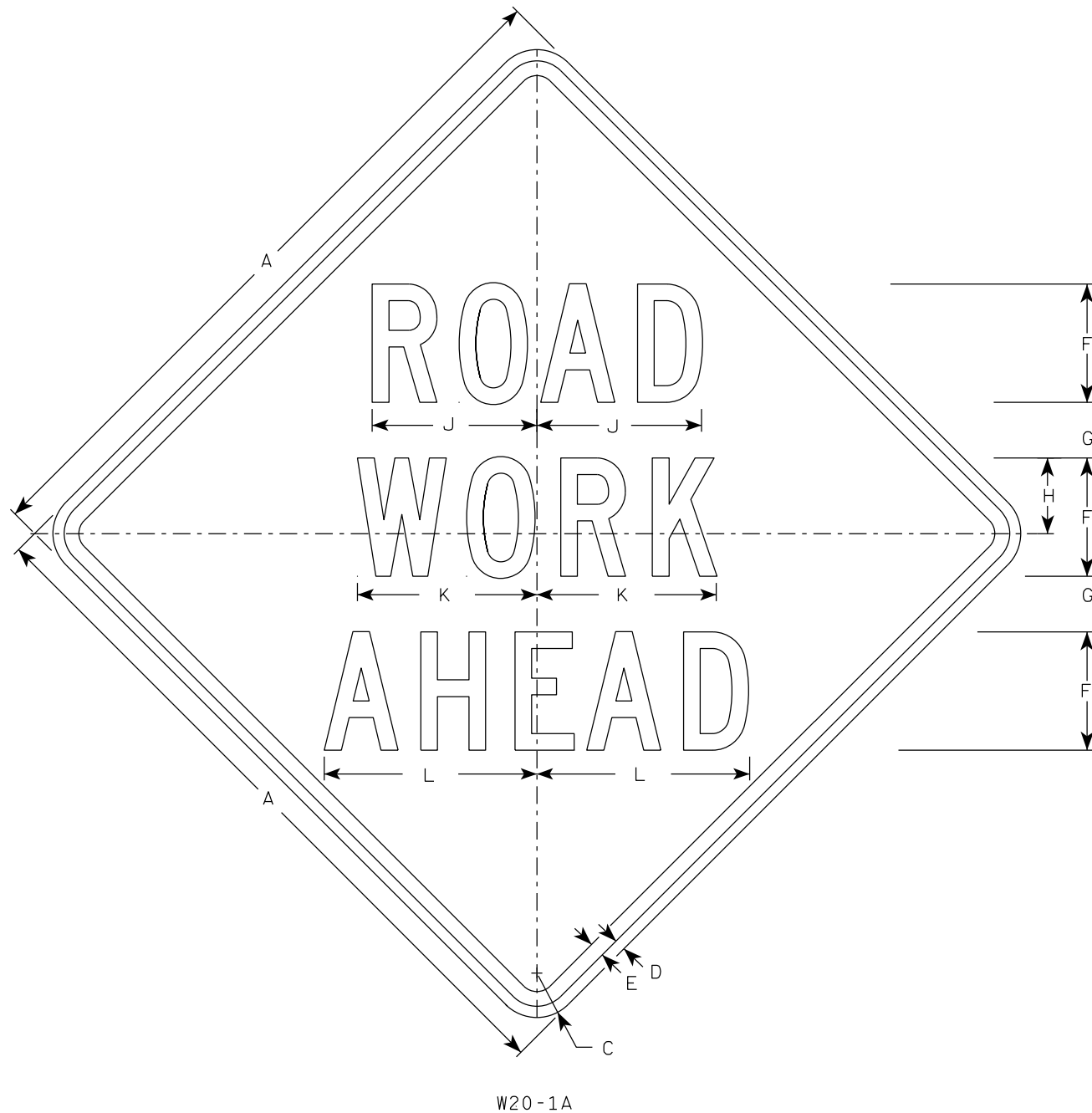
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



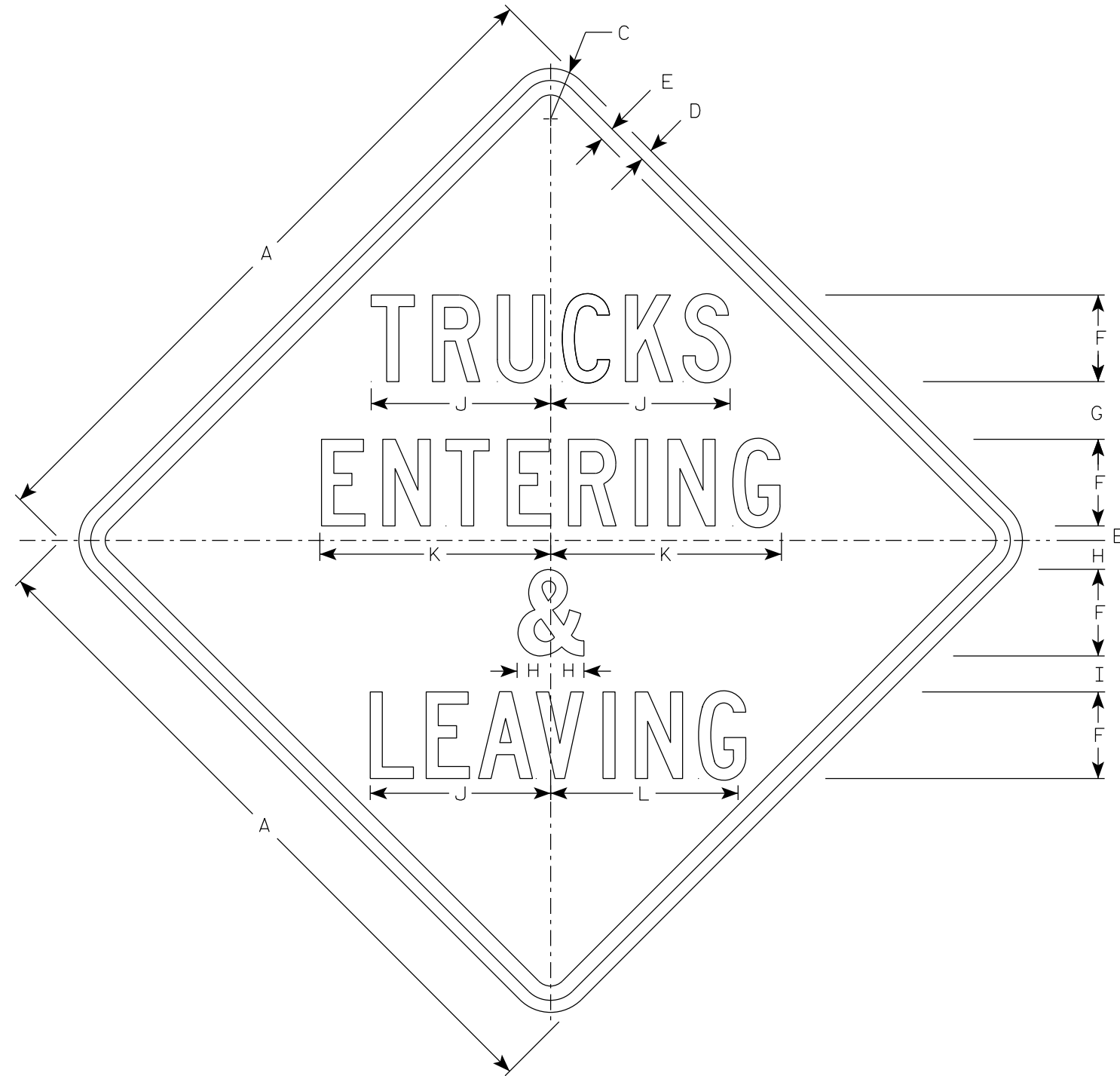
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-1.12



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
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.

W08-6A

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	1/2	5/8	4 1/2	3	1 1/2	1 7/8	9 3/8	12	9 3/4															9.0
2S	48		3	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16.0
2M	48		3	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16.0
3	48		3	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16.0
4	48		3	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16.0
5	48		3	3/4	1	6	4	2	2 1/2	12 1/2	16	13															16.0

STANDARD SIGN
W08-6A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/31/2024 PLATE NO. W08-6A.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

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EXCAVATION ABOVE OHWM

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
1+04	0.00	0	0	0	0.0	0.0	0.0	0.0
1+25	21.14	188.94	0	74	0.0	74.0	0.0	74.0
1+50	25.00	233.77	0.14	196	1.0	270.0	1.3	268.8
2+00	50.00	319.98	0.2	513	1.0	783.0	2.5	780.5
2+50	50.00	272.94	0.03	549	1.0	1332.0	3.8	1328.3
3+00	50.00	241.41	0	477	1.0	1809.0	5.0	1804.0
3+50	50.00	305.98	0	507	0.0	2316.0	5.0	2311.0
4+00	50.00	273.08	0	537	0.0	2853.0	5.0	2848.0
4+50	50.00	263.73	0.06	498	1.0	3351.0	6.3	3344.8
5+00	50.00	218.54	0	447	1.0	3798.0	7.5	3790.5
5+50	50.00	165.6	0.33	356	1.0	4154.0	8.8	4145.3
6+00	50.00	165.2	1.36	307	2.0	4461.0	11.3	4449.8
6+50	50.00	269.09	0	403	2.0	4864.0	13.8	4850.3
7+00	50.00	80.86	3.1	325	3.0	5189.0	17.5	5171.5
7+50	50.00	69.45	0	140	3.0	5329.0	21.3	5307.8
8+00	50.00	41.95	0.8	104	1.0	5433.0	22.5	5410.5
8+50	50.00	41.33	0.74	78	2.0	5511.0	25.0	5486.0
8+87	37.09	0.01	0	29	1.0	5540.0	26.3	5513.8

EXCAVATION BELOW OHWM

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
1+04	0.00	0	0	0	0.0	0.0	0.0	0.0
1+25	21.14	0	0	0	0.0	0.0	0.0	0.0
1+50	25.00	194.35	0	90	0.0	90.0	0.0	90.0
2+00	50.00	319.53	0	476	0.0	566.0	0.0	566.0
2+50	50.00	275.8	0	552	0.0	1118.0	0.0	1118.0
3+00	50.00	278.05	0	513	0.0	1631.0	0.0	1631.0
3+50	50.00	279.07	0	516	0.0	2147.0	0.0	2147.0
4+00	50.00	276.03	0	514	0.0	2661.0	0.0	2661.0
4+50	50.00	280.53	0	516	0.0	3177.0	0.0	3177.0
5+00	50.00	285.02	0	524	0.0	3701.0	0.0	3701.0
5+50	50.00	289.85	0	533	0.0	4234.0	0.0	4234.0
6+00	50.00	328.22	0	573	0.0	4807.0	0.0	4807.0
6+50	50.00	349.66	0	628	0.0	5435.0	0.0	5435.0
7+00	50.00	326.12	0	626	0.0	6061.0	0.0	6061.0
7+50	50.00	327.17	0	605	0.0	6666.0	0.0	6666.0
8+00	50.00	317.41	0	597	0.0	7263.0	0.0	7263.0
8+50	50.00	325.3	0	596	0.0	7859.0	0.0	7859.0
8+87	37.09	0	0	224	0.0	8083.0	0.0	8083.0

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PROJECT NO: 8510-00-76

HWY: STH 13

COUNTY: BAYFIELD

EARTHWORK DATA: REVETMENT

SHEET

E

DIVISION - CULVERT-12IN

REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
0.00	0.00	3.51	0.00	0.0	0.0	0	0	0
2.00	2.00	4.56	0.00	0.3	0.0	0	0	0
4.00	2.00	5.48	2.48	0.4	0.1	1	0	1
6.00	2.00	5.51	2.47	0.4	0.2	1	0	1
8.00	2.00	5.53	2.49	0.4	0.2	1	1	1
10.00	2.00	5.57	2.56	0.4	0.2	2	1	1
12.00	2.00	4.40	0.00	0.4	0.1	2	1	1
13.48	1.48	3.68	0.00	0.2	0.0	2	1	2

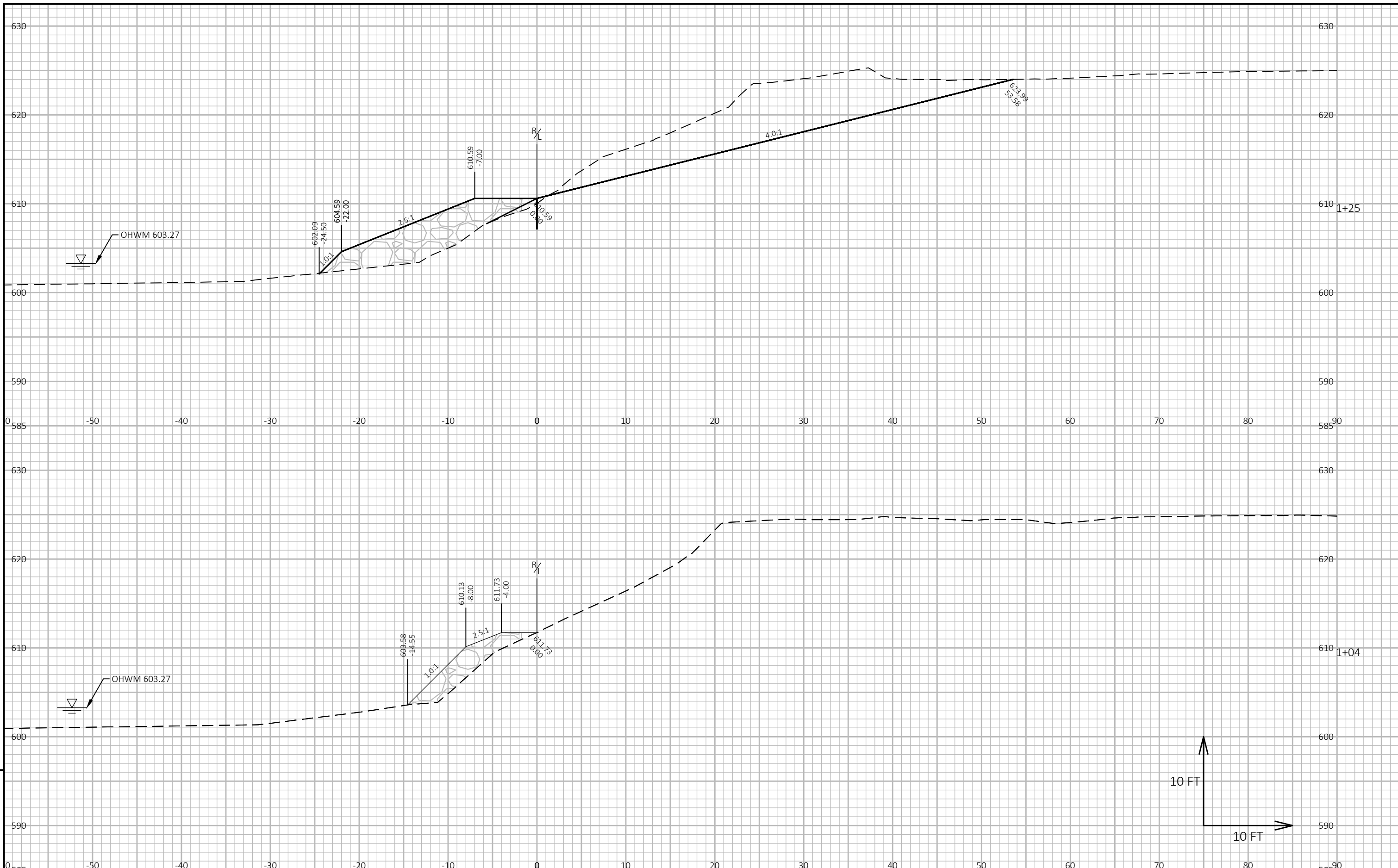
*CUT IS INCIDENTAL TO THE REMOVING SMALL PIPE CULVERTS BID ITEM

*FILL IS INCIDENTAL TO THE CULVERT PIPE CLASS III-A 12-INCH & CULVERT PIPE CLASS III-A 18-INCH BID ITEMS

DIVISION - CULVERT-18IN

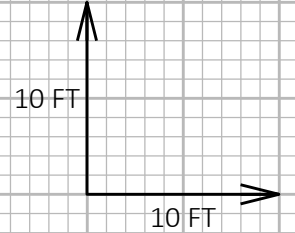
REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
10.00	10	4.74	0.00	0.00	1	0	0	1	0	1
20.00	10	8.73	0.00	0.00	2	0	0	3	0	3
30.00	10	9.90	1.13	6.52	3	0	1	6	1	5
40.00	10	10.04	1.13	6.65	4	0	2	10	4	6
50.00	10	10.07	1.13	6.68	4	0	2	14	6	8
60.00	10	10.00	1.13	6.62	4	0	2	18	9	9
70.00	10	9.58	1.13	6.17	4	0	2	22	11	11
80.00	10	6.68	0.00	0.00	3	0	1	25	13	13
90.00	10	0.00	0.00	0.00	1	0	0	26	13	14
92.89	2.89	0.00	0.00	0.00	0	0	0	26	13	14

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL (BACKFILL GRANULAR)	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: (CUT + SALVAGED PAVT + FILL * FILL FACTOR)

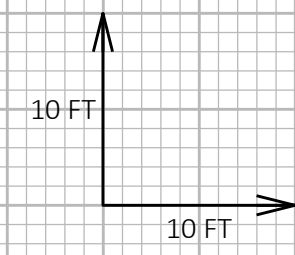
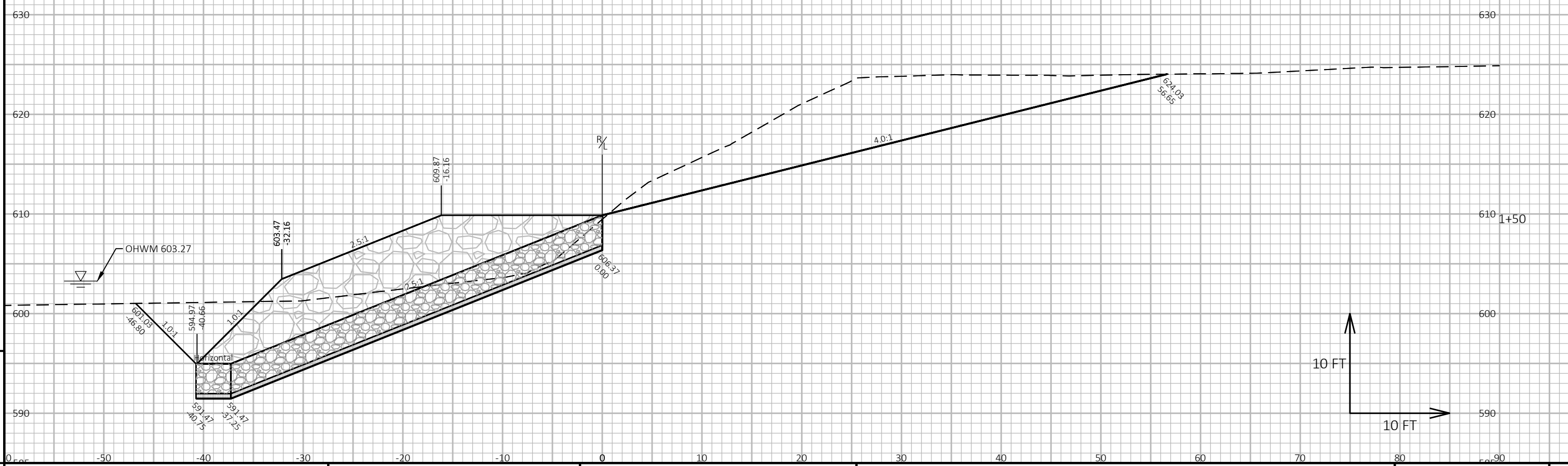
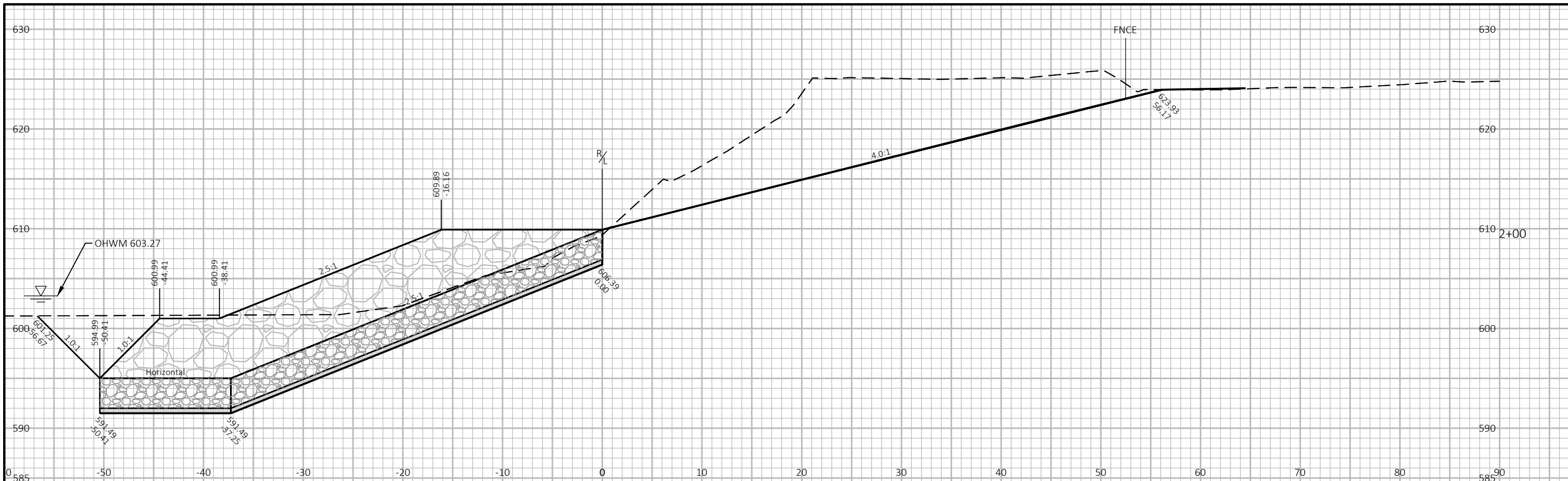


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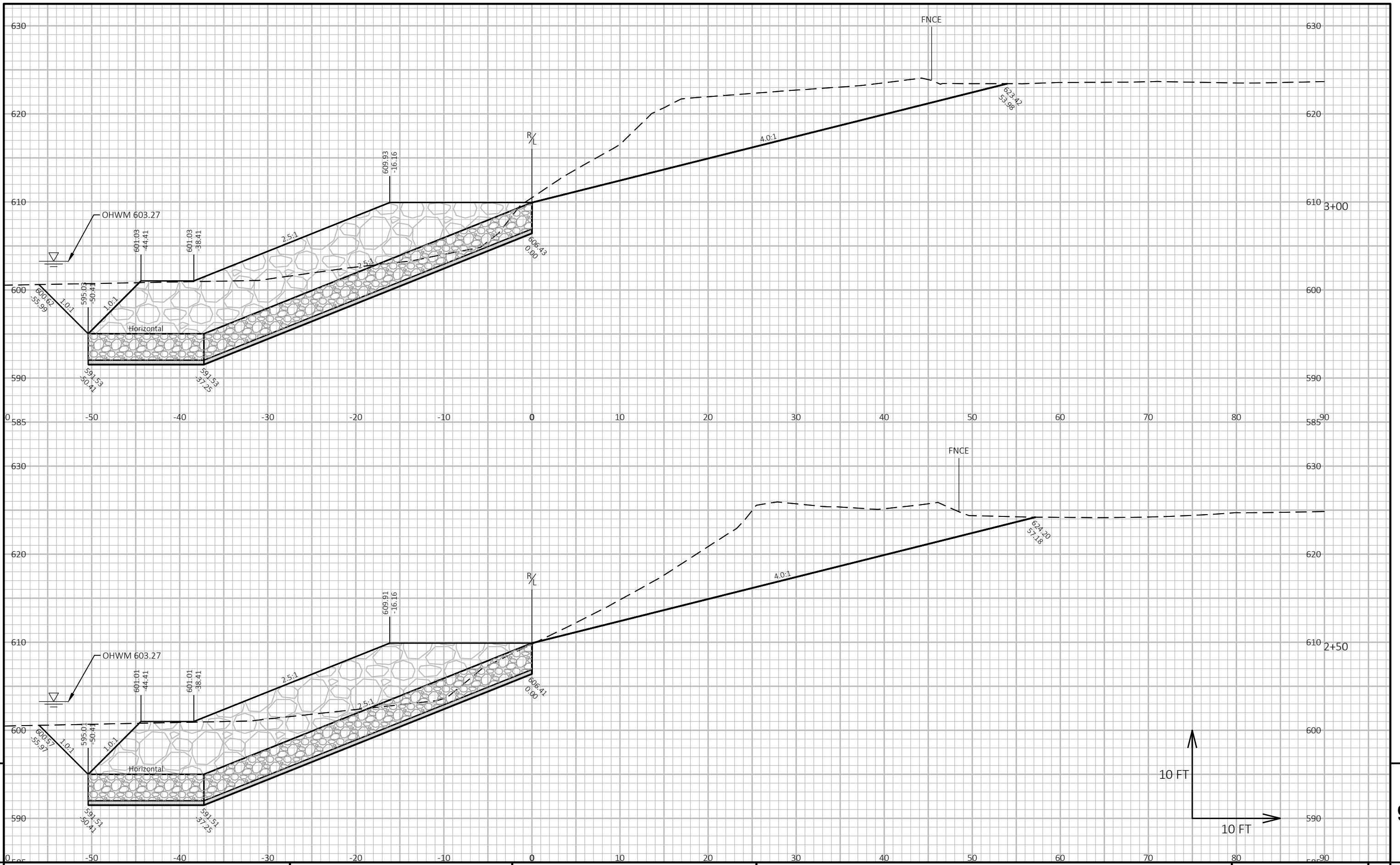
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PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: REVETMENT	SHEET	E
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9	PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: REVETMENT	SHEET	9
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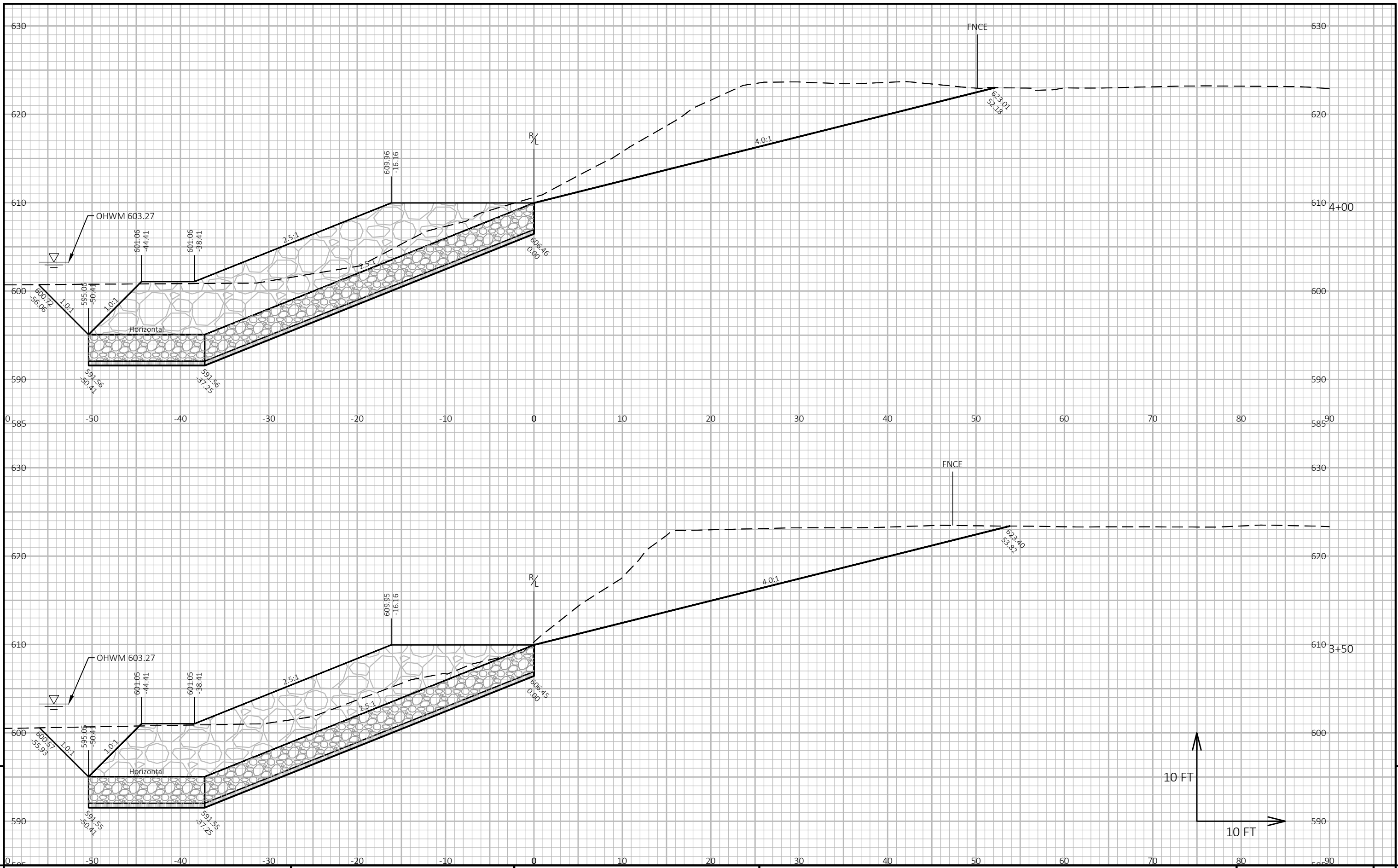
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PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: REVETMENT	SHEET	E
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FILE NAME : G:\00\00093\00093796\CADD\DESIGN\CORRIDORS\CRDR-STH 13 WAYSIDE.DWG PLOT DATE : 9/24/2025 4:52 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 03



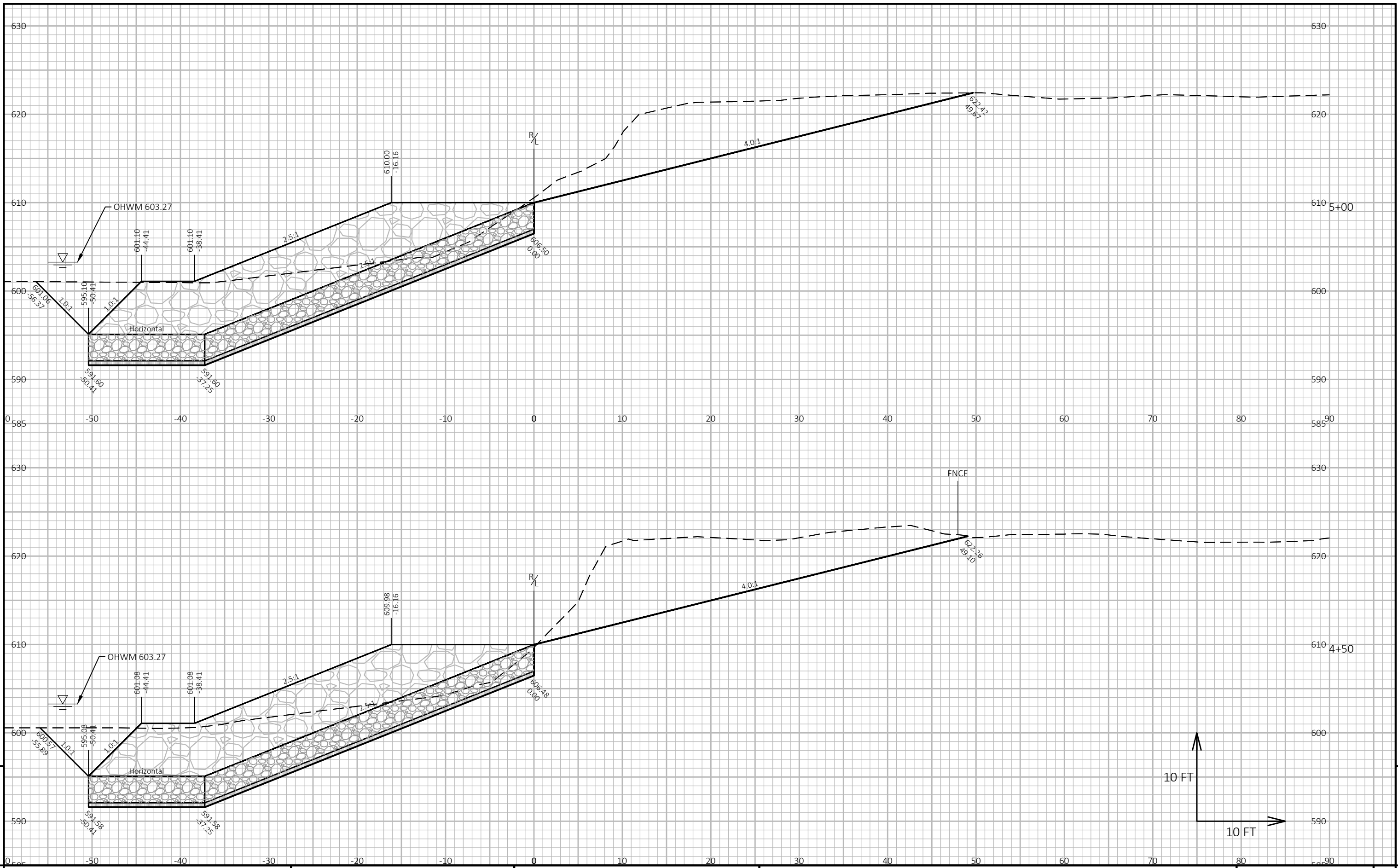
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PROJECT NO: 8510-00-76 HWY: STH 13 COUNTY: BAYFIELD CROSS SECTIONS: REVETMENT SHEET E

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LAYOUT NAME - 04



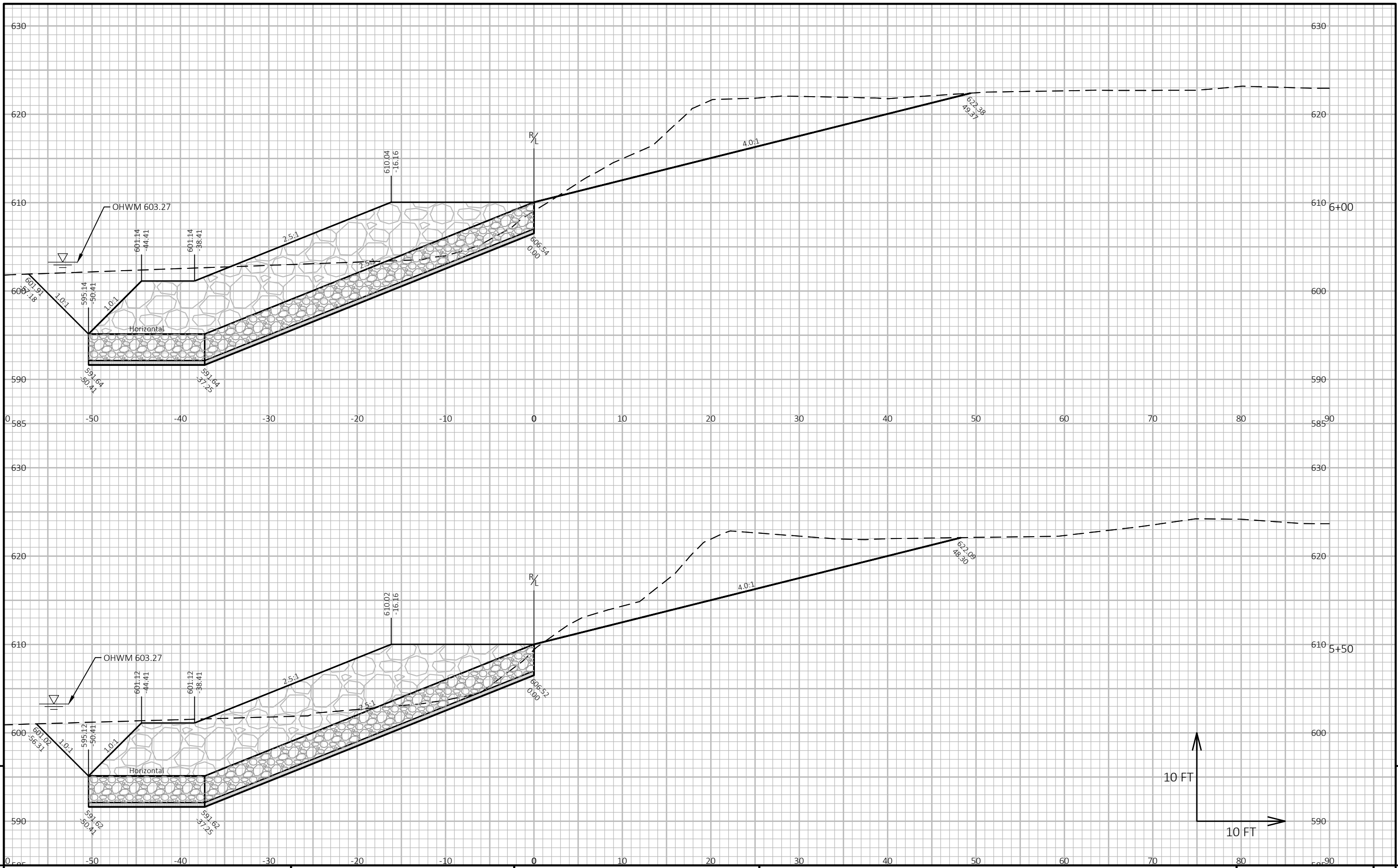
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PROJECT NO: 8510-00-76 HWY: STH 13 COUNTY: BAYFIELD CROSS SECTIONS: REVETMENT SHEET E

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LAYOUT NAME - 05



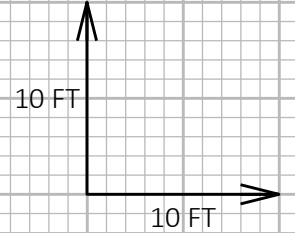
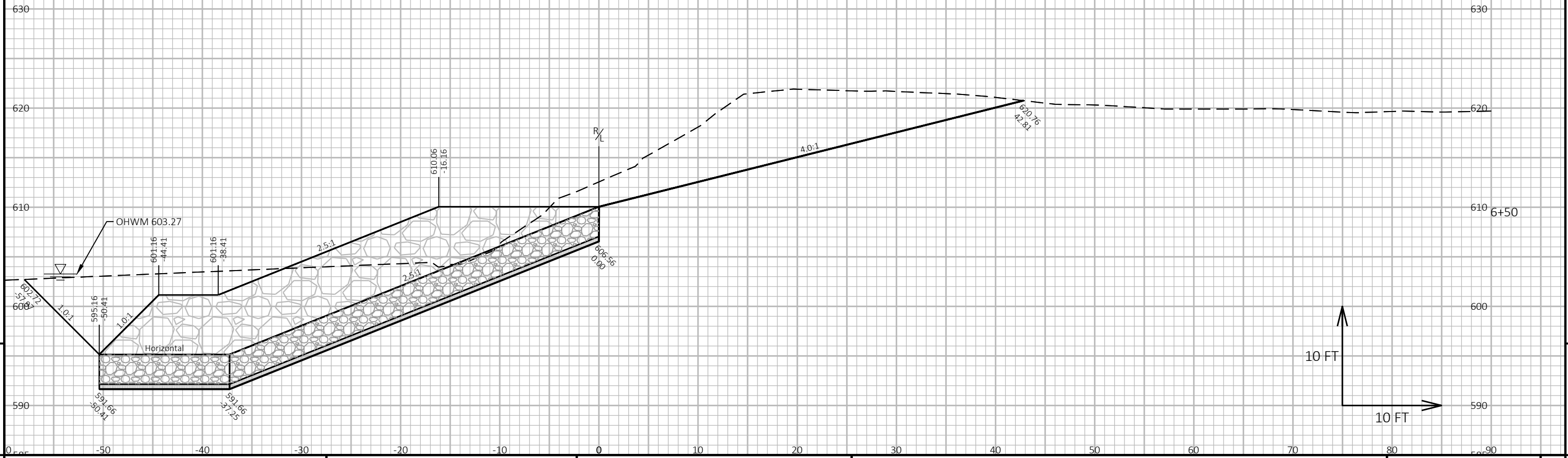
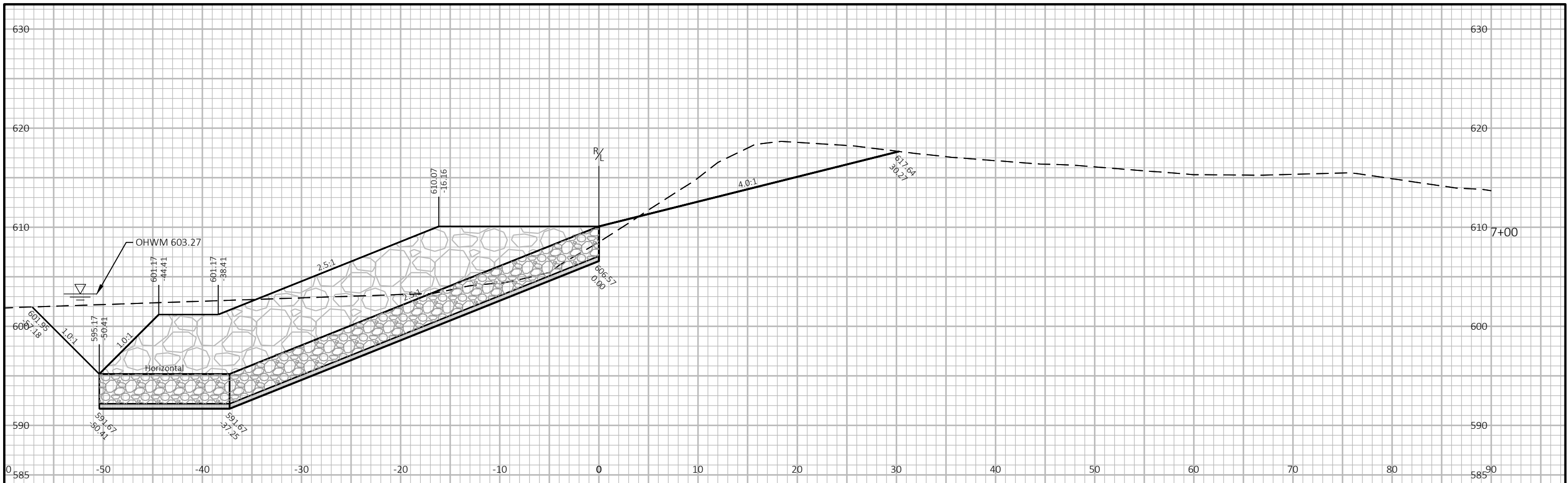
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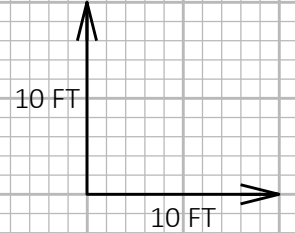
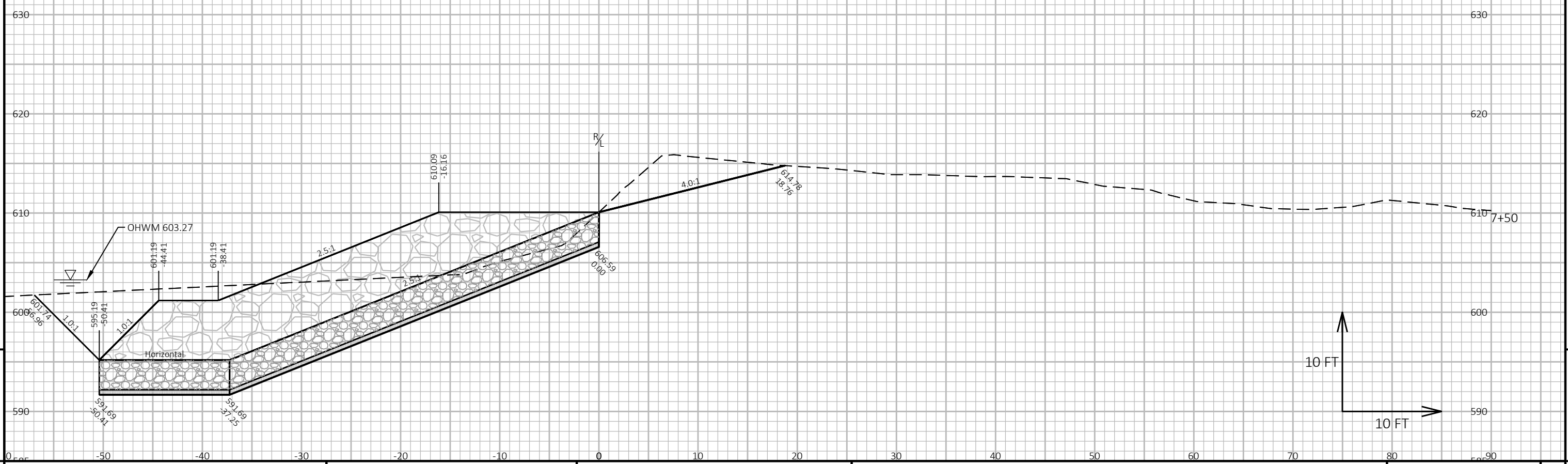
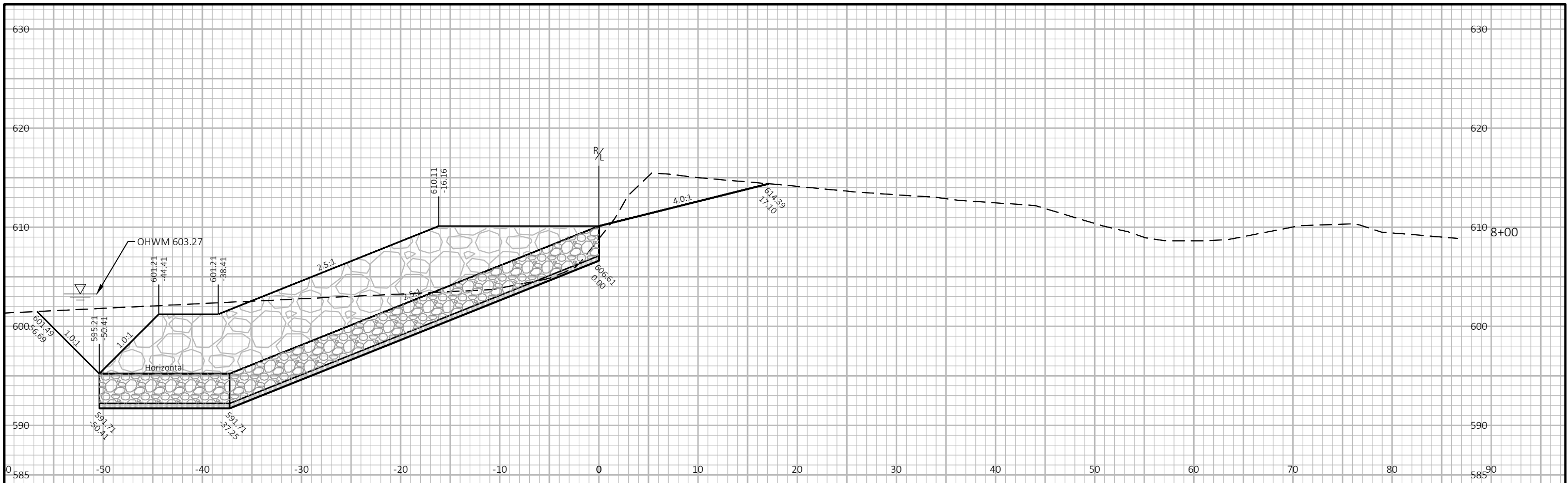
PROJECT NO: 8510-00-76 HWY: STH 13 COUNTY: BAYFIELD CROSS SECTIONS: REVETMENT SHEET E

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LAYOUT NAME - 06



PROJECT NO: 8510-00-76 HWY: STH 13 COUNTY: BAYFIELD CROSS SECTIONS: REVETMENT SHEET 9



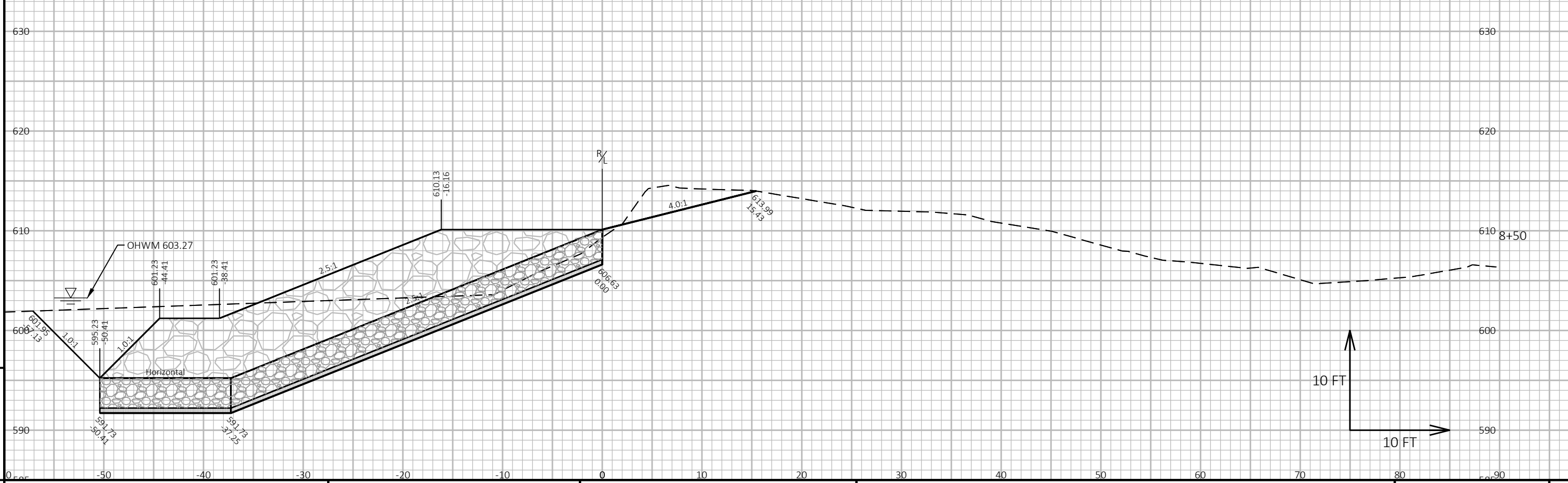
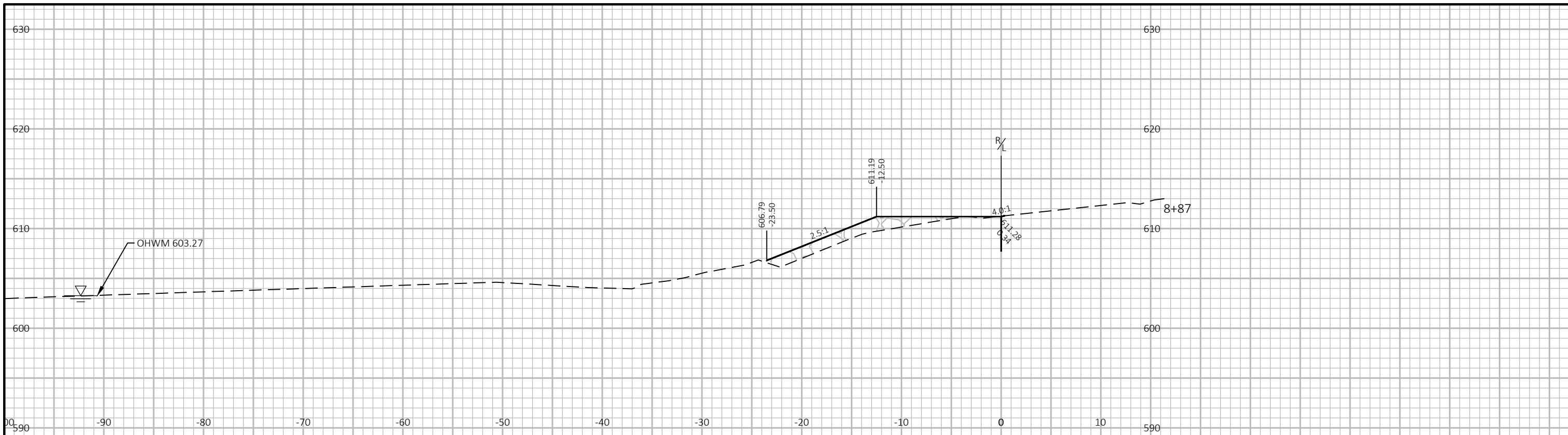
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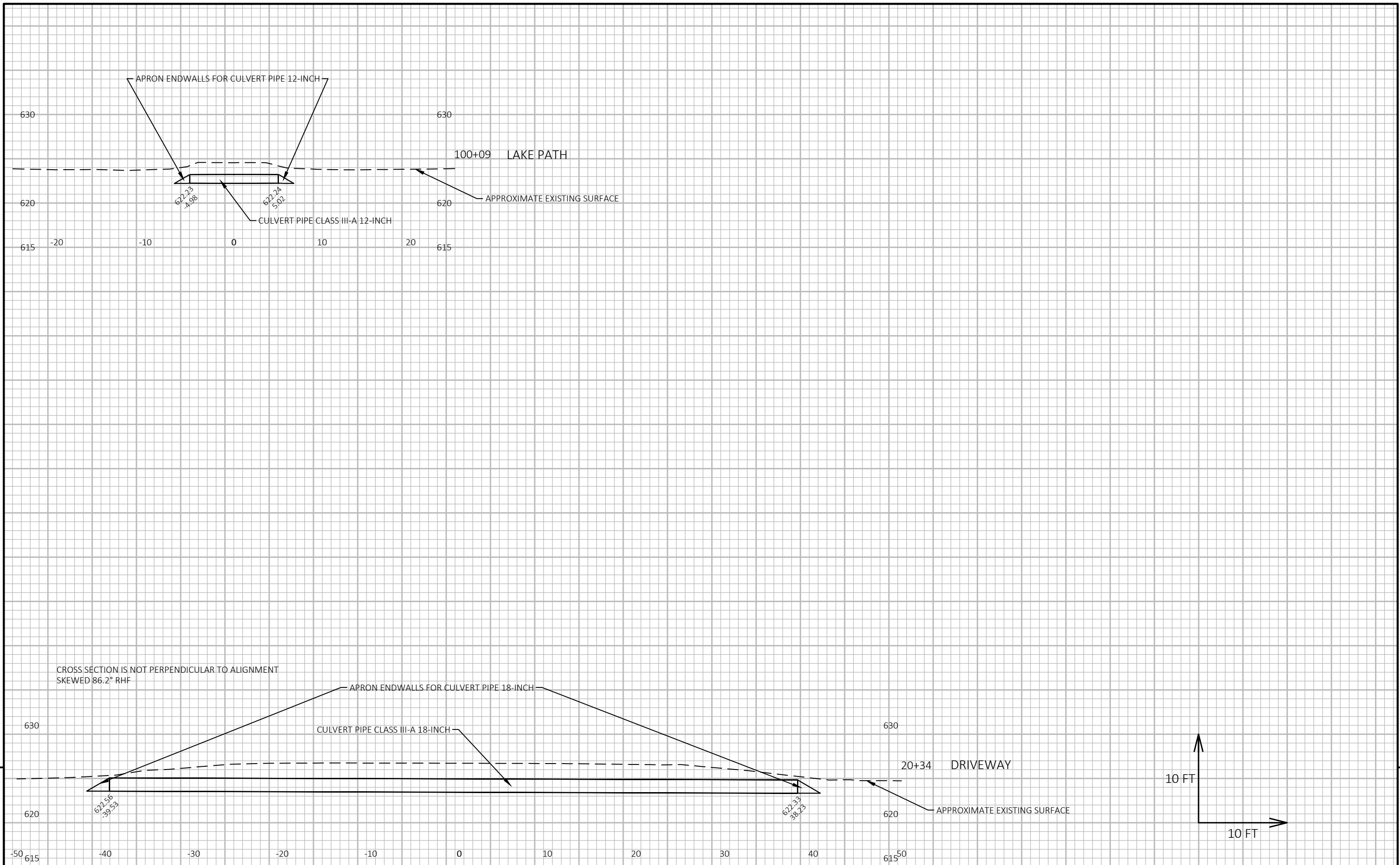
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FILE NAME : G:\00\00093\00093796\CADD\DESIGN\CORRIDORS\CRDR-STH 13 WAYSIDE.DWG PLOT DATE : 9/24/2025 4:52 PM PLOT BY : BOBBI MAXWELL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 08



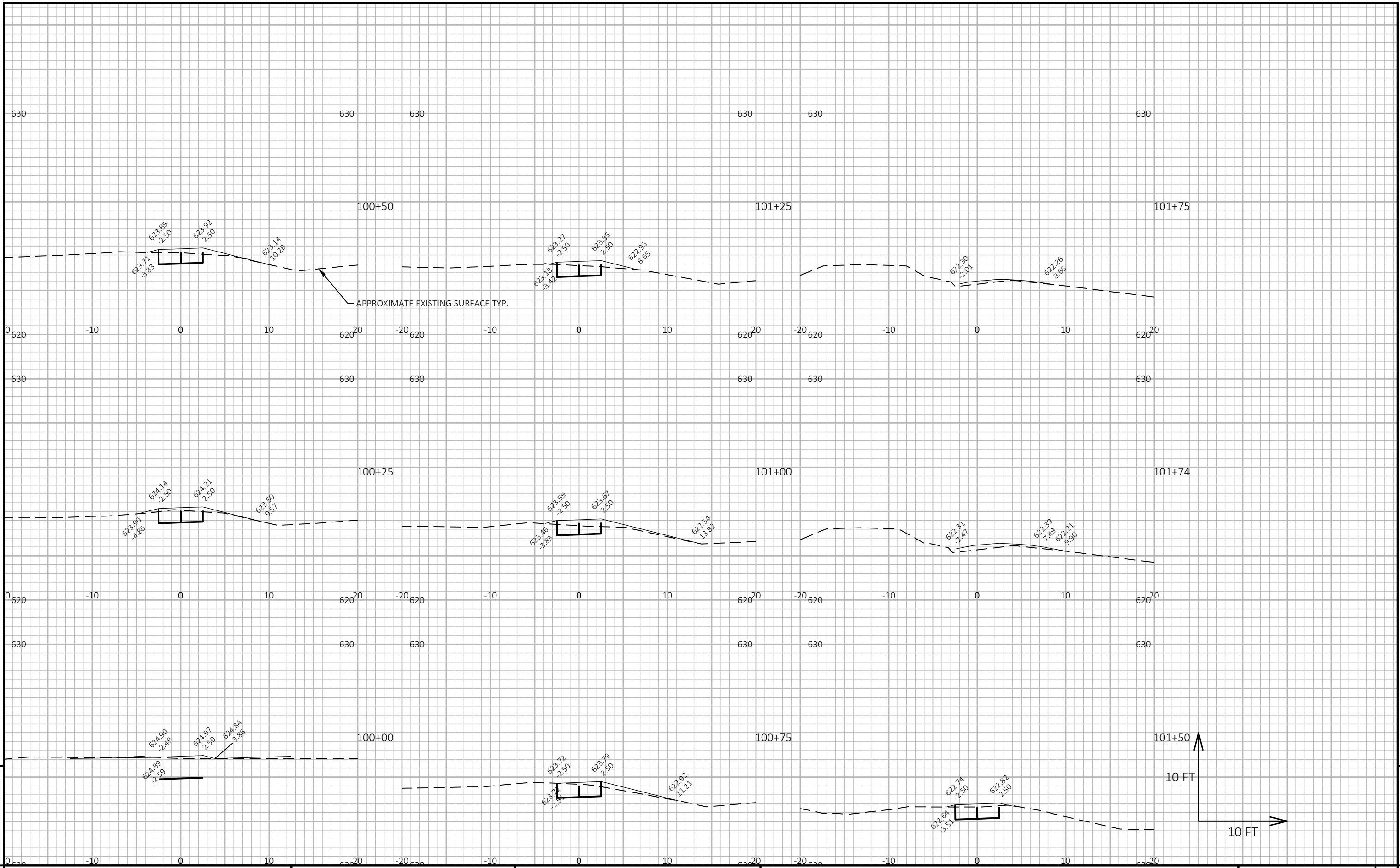
PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: REVETMENT	SHEET	E
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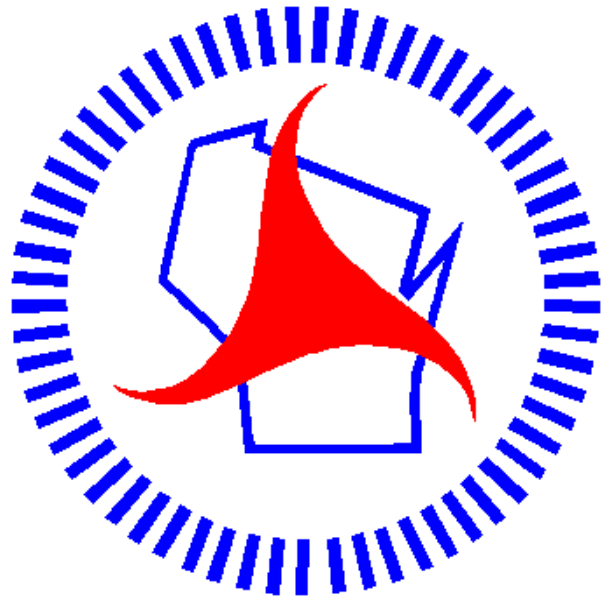
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PROJECT NO: 8510-00-76	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: CROSS SECTIONS - CULVERTS	SHEET	E
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PROJECT NO: 8510-00-76 HWY: STH 13 COUNTY: BAYFIELD CROSS SECTIONS: CROSS SECTIONS : LAKE PATH SHEET E

Notes



Wisconsin Department of Transportation

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