

RHI

AUGUST 2021

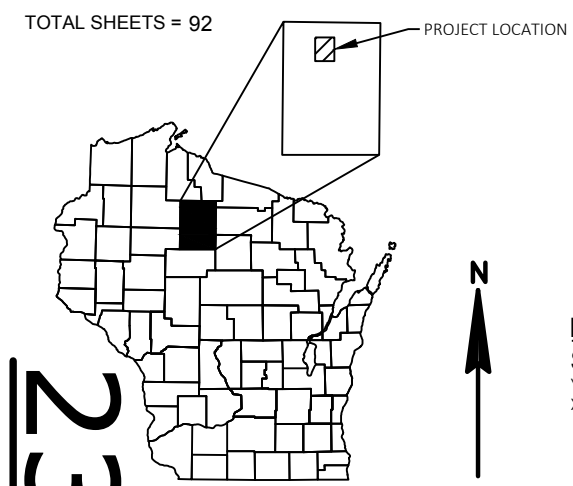
PROJECT ID: 1610-44-73

WITH: 23

COUNTY: PRICE

ORDER OF SHEETS

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



DESIGN DESIGNATION

A.A.D.T.	2021	=	4,600
A.A.D.T.	2041	=	5,100
D.H.V.		=	15.8
D.D.		=	60/40
T.		=	19%
DESIGN SPEED		=	60 MPH
ESALS		=	1,912,600

CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
	STORM SEWER
	TELEPHONE
	WATER
MARSH AREA	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

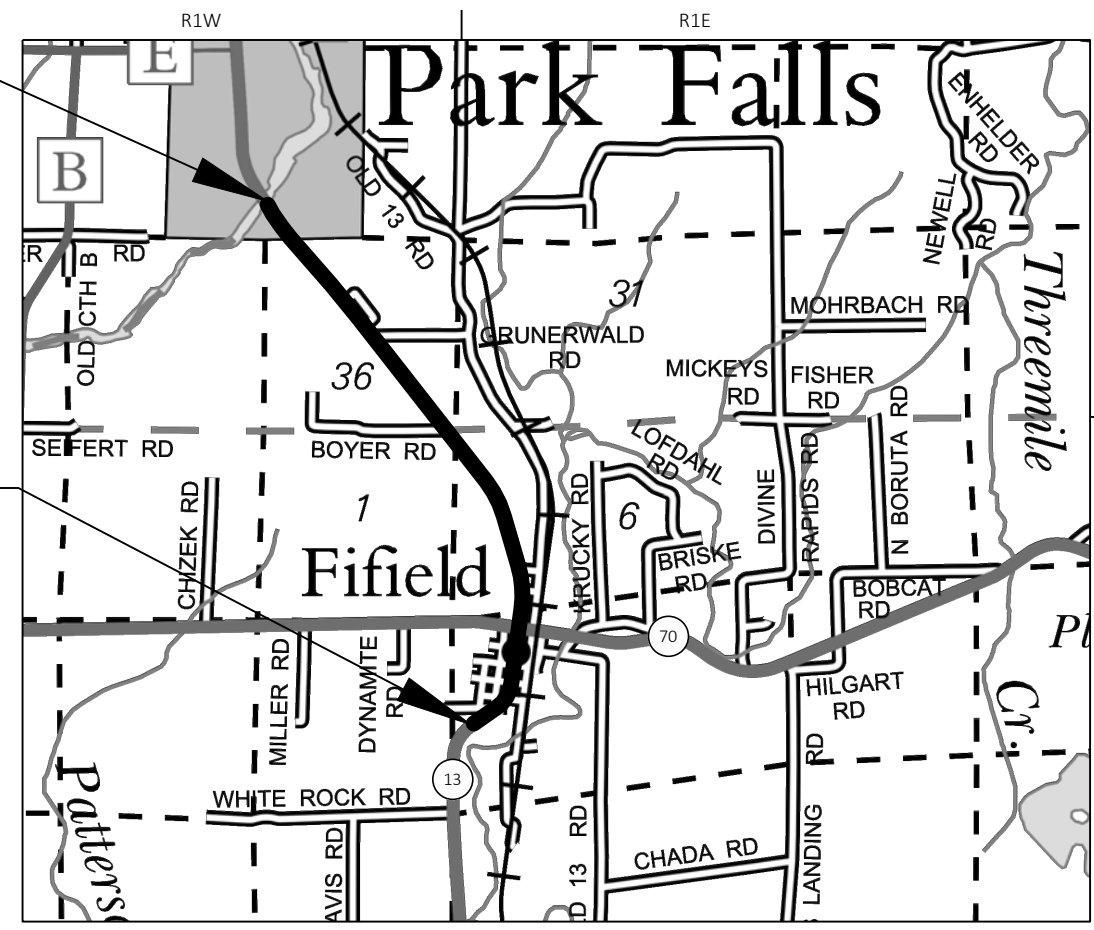
PRENTICE - PARK FALLS

WALNUT ST TO N FK FLAMBEAU RVR BRIDGE

STH 13

PRICE COUNTY

STATE PROJECT NUMBER
1610-44-73



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 3.181 MI  
MCPL = 0.208 MI  
RURAL = 2.973 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), PRICE COUNTY, NAD83 ( 2011 ), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 ( 2012 ). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1610-44-73	WISC 2021444	1

ORIGINAL PLANS PREPARED BY

KNIGHT

831 Critter Court  
Suite 400  
Onalaska, WI 54650  
Engineers & Architects Phone: (608) 519-1455

4/21/2021 (Date)

Ryan B. McKane (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor CBS SQUARED

Designer KNIGHT E/A

Project Manager STACY HAGENBUCHER

Regional Examiner CHERYL SIMON

Regional Supervisor ROBIN STAFFORD

APPROVED FOR THE DEPARTMENT

DATE: 4/27/21

Stacy Hagenbucher (Signature)

E

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- WHEN THE QUANTITIY OF BASE AGGREGATE IS MEASURED FOR PAVEMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.
- RIGHT OF WAY DEPICTED ON THE PLANS ARE BASED OFF OF PREVIOUS AS BUILTS.
- PAVING IS TO MATCH EXISTING SUPERELEVATIONS, UNLESS OTHERWISE NOTED.

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 78.55 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.51 ACRES

UTILITY CONTACTS

ASTREA  
COMMUNICATION LINE  
ANDREW HEIGL  
105 KENT STP.O. BOX 190  
IRON MOUNTAIN, MI 49801  
(906) 221-7536  
ASTREACONSTRUCTION@ASTREACONNECT.COM

CENTURYLINK  
COMMUNICATION LINE  
BEN BAKER  
425 ELLINGSON AVE.  
HAWKINS, WI 54530  
(715) 585-6303  
[Ben.Baker@centurylink.com](mailto:Ben.Baker@centurylink.com)

CHARTER COMMUNICATIONS  
COMMUNICATION LINE  
DAVE HOFF  
821 LINCOLN ST  
RHINELANDER, WI 54501  
(715) 420-0301  
DAVE.HOFF@CHARTER.COM

FIFIELD SANITARY DISTRICT  
SEWER  
TED FLEMING  
P.O. BOX 61  
FIFIELD, WI 54524  
(715) 762-5414  
TEDFLEMING@CENTURYTEL.NET

AREA CONTACTS

WISDNR: PRICE COUNTY  
WENDY HENNIGES  
107 SUTLIFF AVENUE  
RHINELANDER, WI 54501  
(715) 365-8916  
WENDY.HENNIGES@WISCONSIN.GOV

FIFIELD SANITARY DISTRICT  
WATER  
TED FLEMING  
P.O. BOX 61  
FIFIELD, WI 54524  
(715) 762-5414  
TEDFLEMING@CENTURYTEL.NET

FLAMBEAU HYDRO, LLC  
ELECTRICITY - TRANSMISSION  
CONNIE NOWACK  
1001 STEPHENSON  
NORWAY, MI 49870  
(855) 994-9376  
CNOWACK@KISERHYDRO.COM

NORTHERN NATURAL GAS COMPANY  
GAS/PETROLEUM  
EARL CROTTEAU  
1995 NORTHERN NATURAL GAS RD  
CARLTON, MN 55718  
(402) 530-3462  
EARL.CROTTEAU@NNGCO.COM

PRICE COUNTY TELEPHONE COMPANY  
COMMUNICATION LINE  
BRAD KUHNERT  
P.O. BOX 108  
PHILLIPS, WI 54555  
(715) 339-2151  
KUHNERTB@PCTCNET.NET

PRICE ELECTRIC COOPERATIVE INC  
ELECTRICTY  
BEN ORYSEN  
P.O. BOX 110  
PHILLIPS, WI 54555  
(715) 339-2155  
BORYSEN@PRICE-ELECTRIC.COM

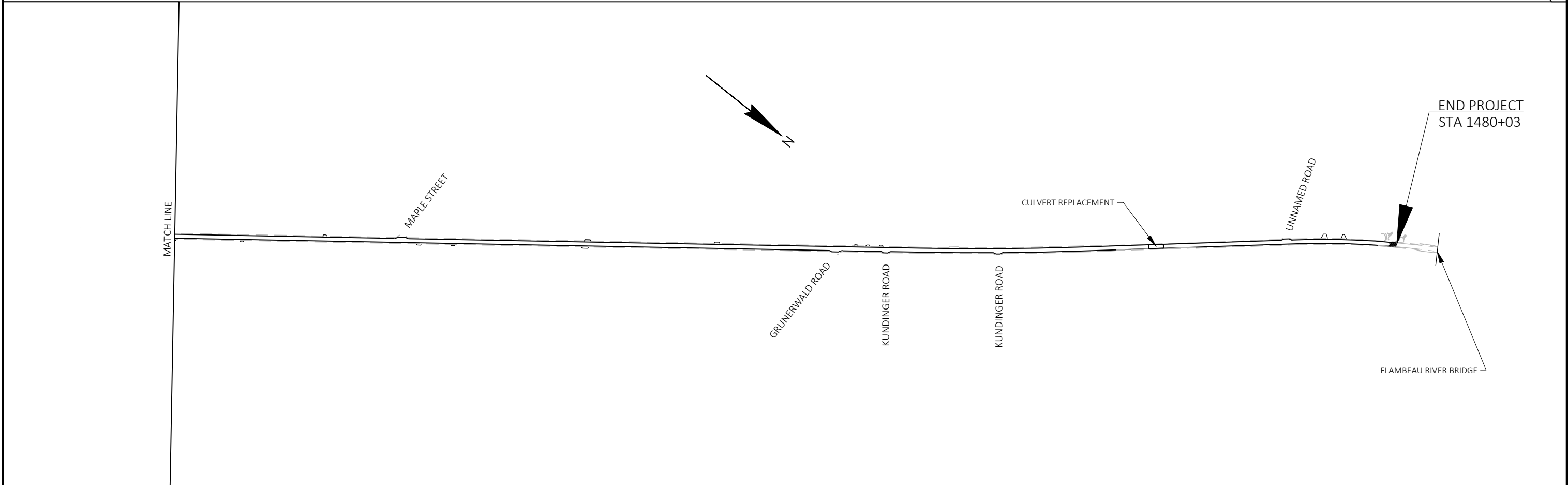
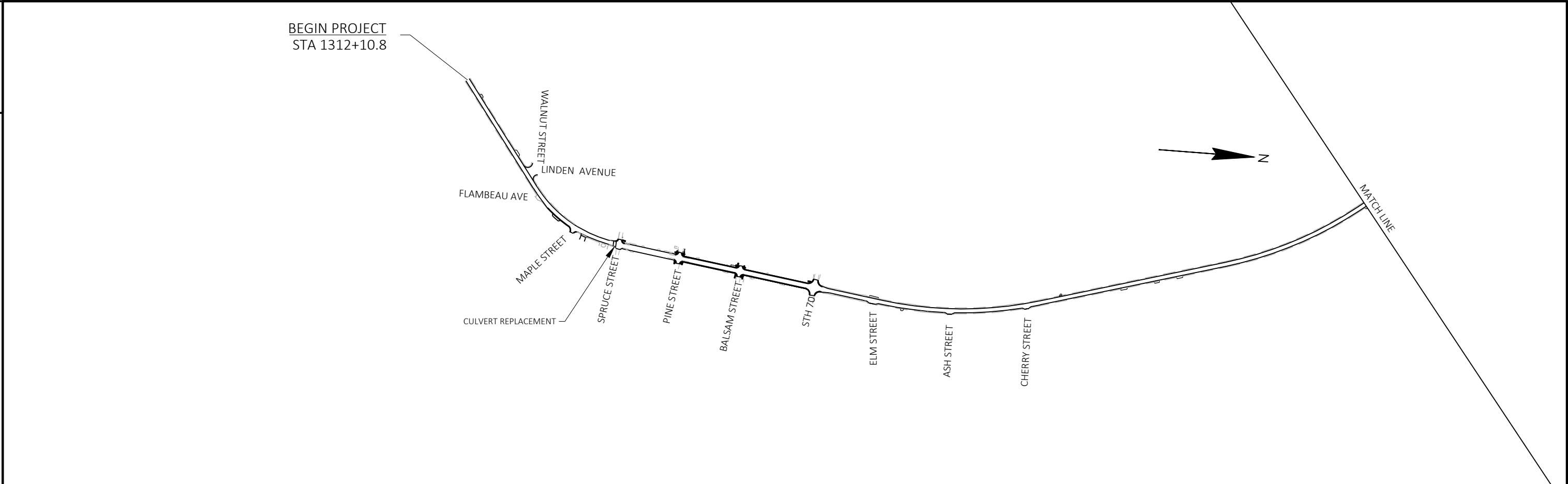
XCEL ENERGY  
ELECTRICTY  
KATHY SCHANTNER  
1414 W HAMILTON AVEP.O. BOX 8  
EAU CLAIRE, WI 54702-0008  
(715) 737-1102  
[kathleen.r.schantner@xcelenergy.com](mailto:kathleen.r.schantner@xcelenergy.com)

XCEL ENERGY  
GAS/PETROLEUM  
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1414 W HAMILTON AVEP.O. BOX 8  
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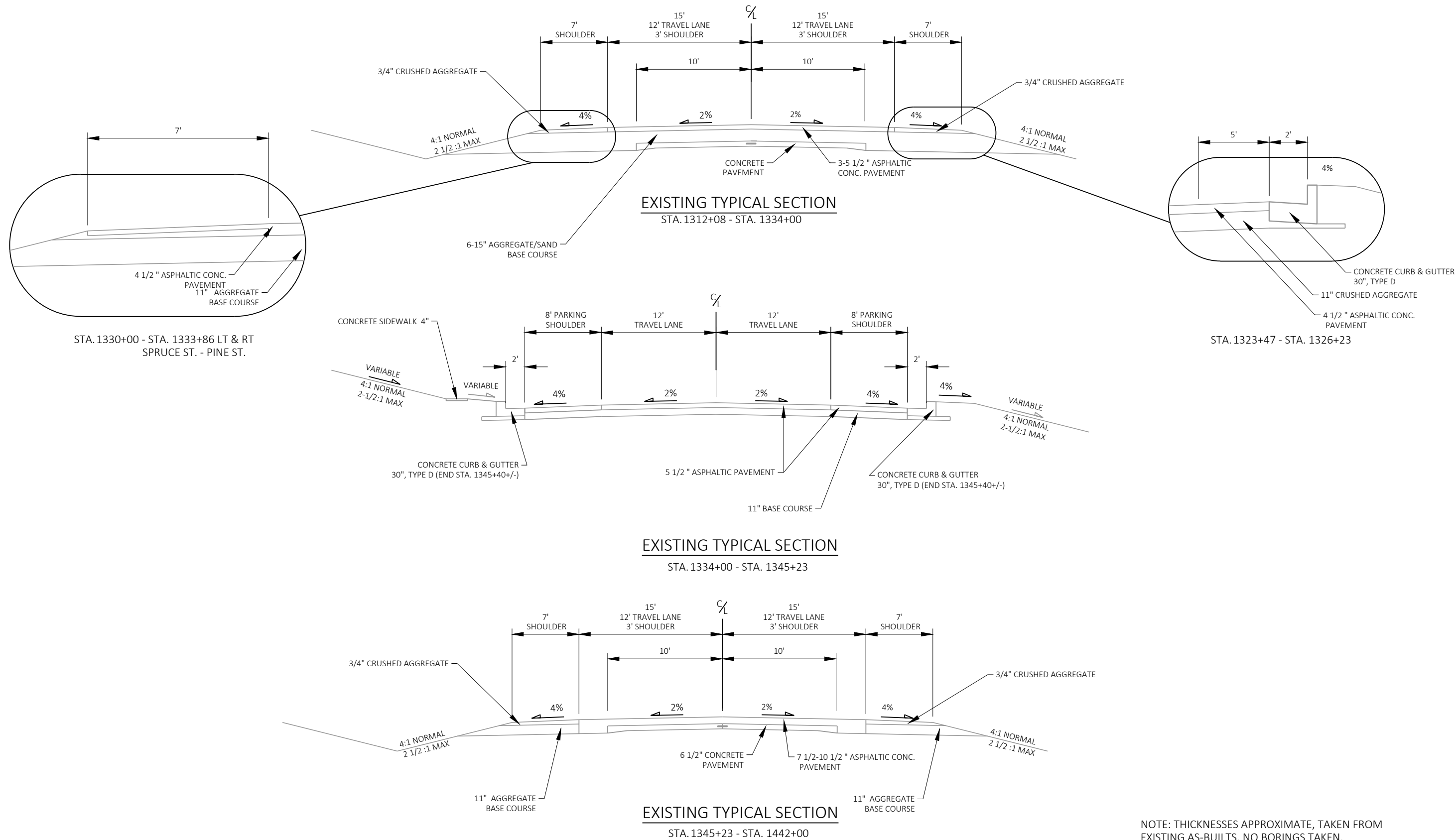


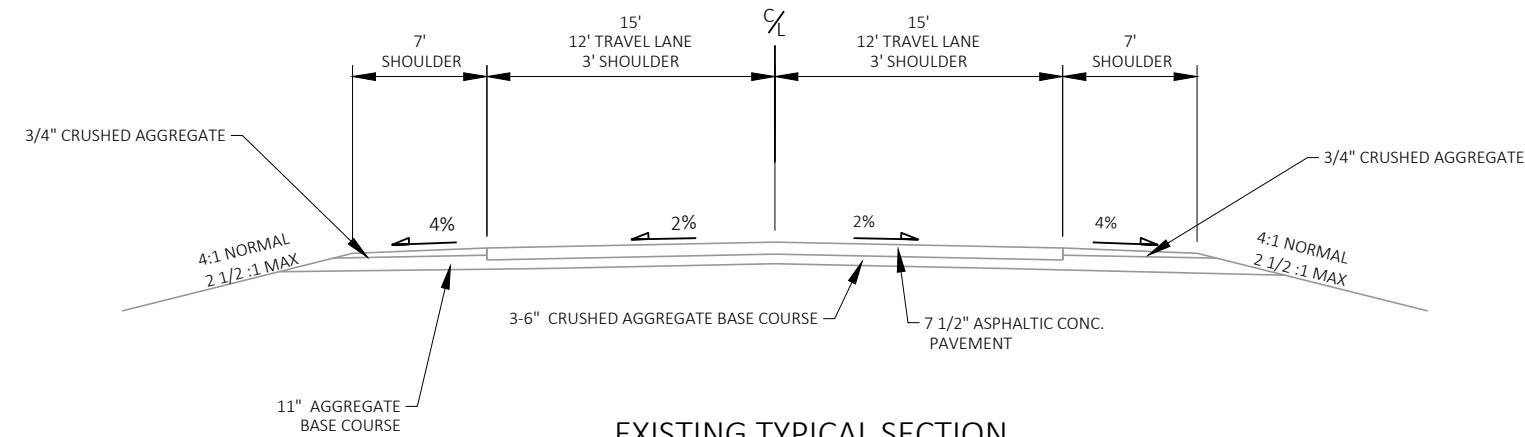
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PROJECT NO: 1610-44-73	HWY: STH 13	COUNTY: PRICE	PROJECT OVERVIEW	SHEET	E
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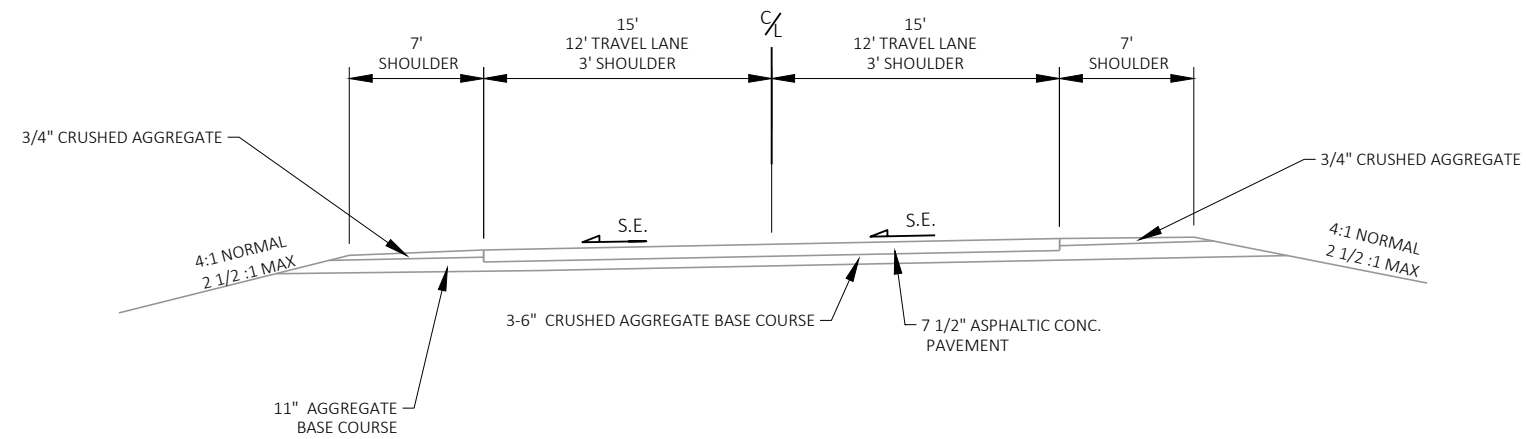




### EXISTING TYPICAL SECTION

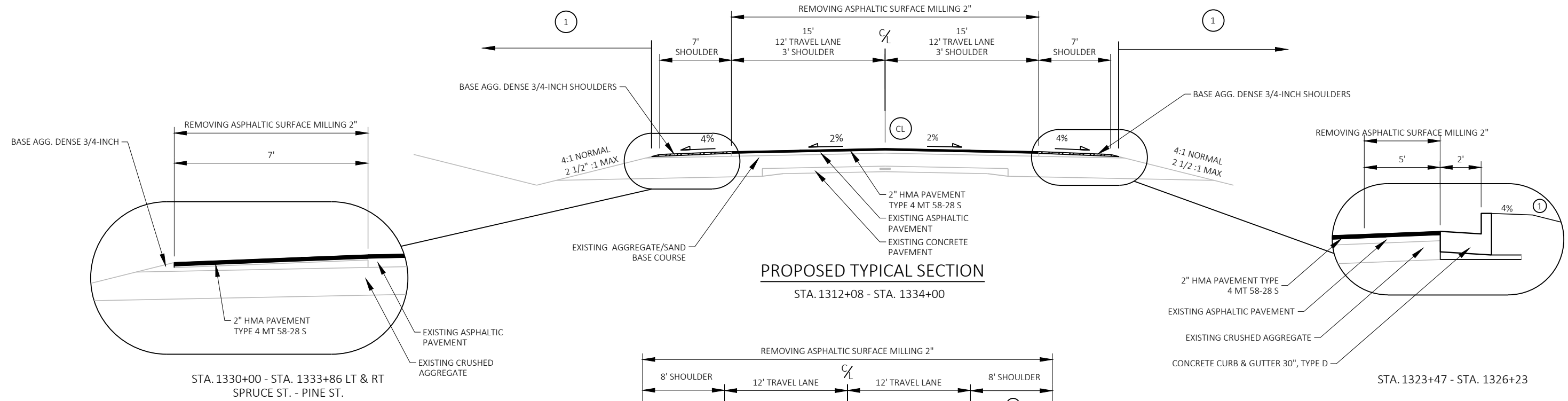
STA. 1442+00- STA. 1480+03

NOTE: THICKNESSES APPROXIMATE, TAKEN FROM  
EXISTING AS-BUILTS, NO BORINGS TAKEN.



### EXISTING TYPICAL SECTION

SUPERELEVATED SECTIONS

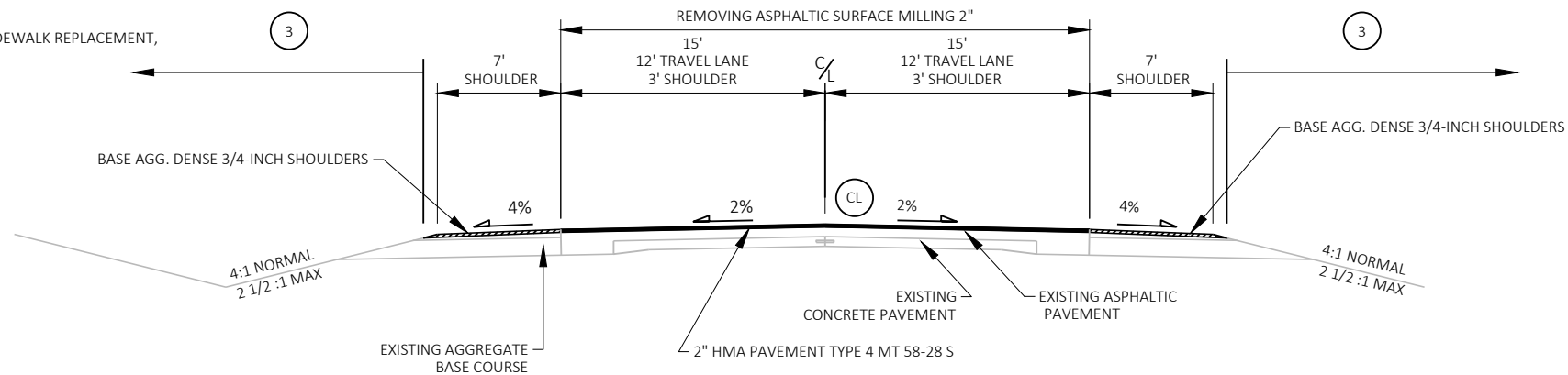


- 1 #40 SEED, FERTILIZER TYPE B, TOPSOIL, & E-MAT URBAN CLASS I TYPE A REQ'D  
EXTEND 2-FT BEYOND BACK OF CURB OR 5-FT BEYOND DAYLIGHT SLOPE FOR DITCHING AND SHAPING AREA
- 2 PARKING LANE FROM BALSAM ST. TO STH 70  
STA. 1339+26-1344+00
- 3 #30 SEED, FERTILIZER TYPE B, TOPSOIL, & E-MAT URBAN CLASS I TYPE A REQ'D  
EXTEND 5-FT BEYOND DAYLIGHT SLOPE
- CL ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL REQ'D  
(STA. 1312+08-1323+42) & (STA. 1362+85-1482+69)

NOTE: FINISHING ITEMS TO BE USED ONLY IN AREAS OF CURB REPLACEMENT, SIDEWALK REPLACEMENT,  
DITCHING AND SHAPING, AND CULVERT REPLACEMENT AREAS

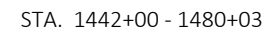
### PROPOSED TYPICAL SECTION

STA. 1334+00 - STA. 1345+23

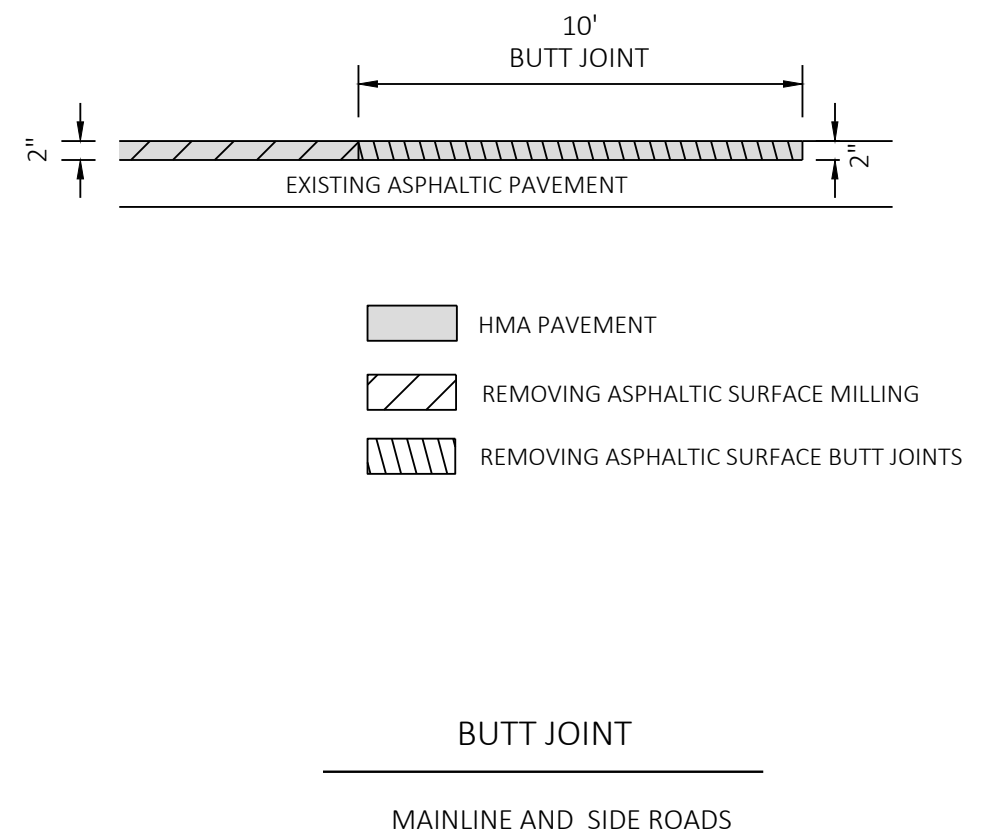
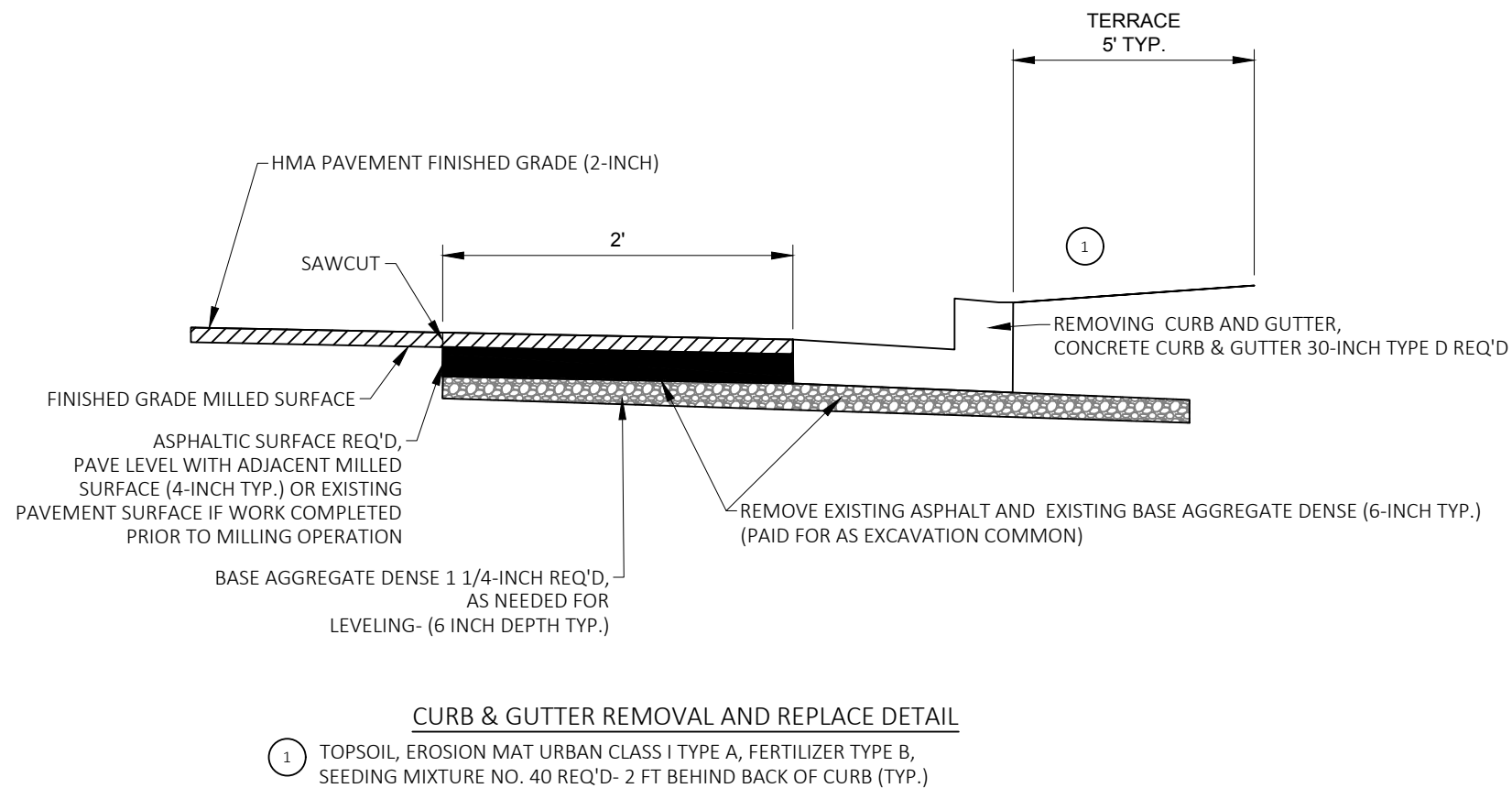


### PROPOSED TYPICAL SECTION

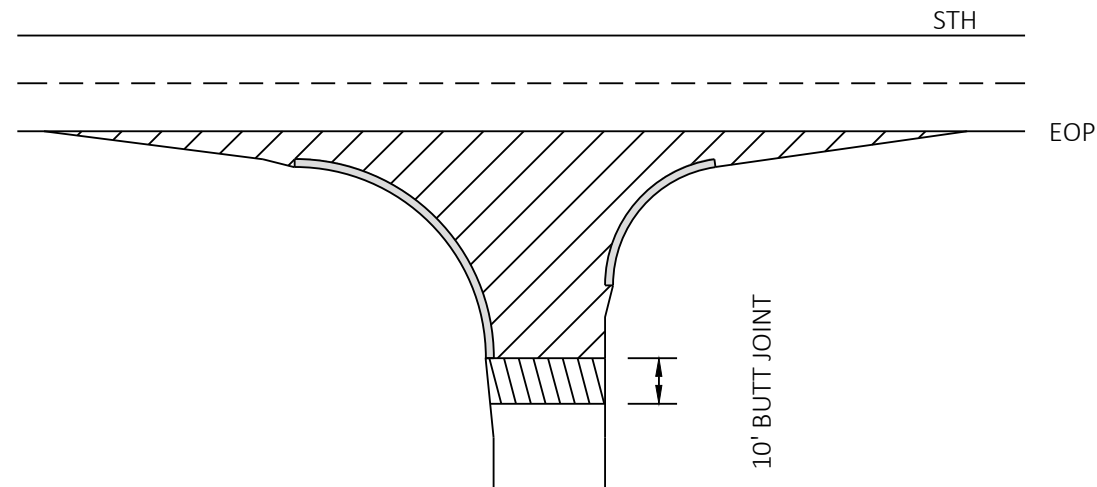
STA. 1345+23 - STA. 1442+00





- CURVE 5: STA. 1472+69.63-1481+06.12





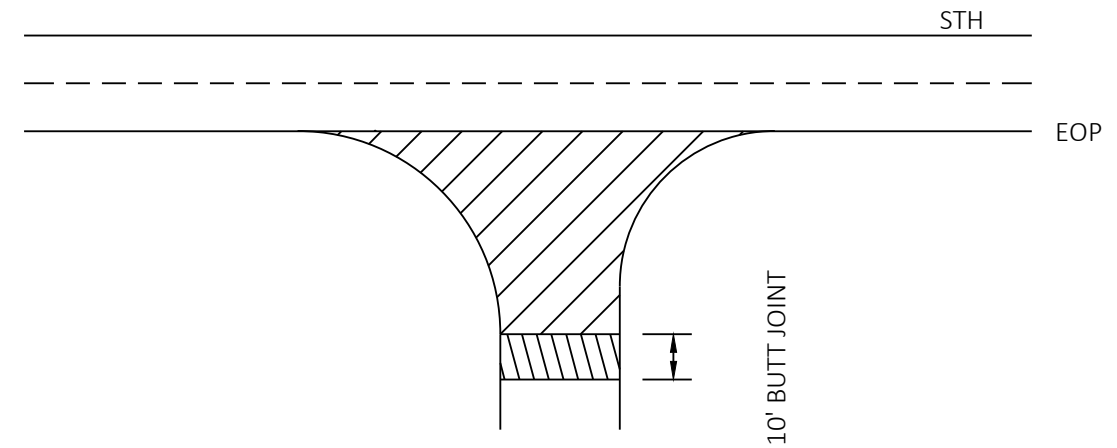




-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS  
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE  
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITH CURB AND GUTTER

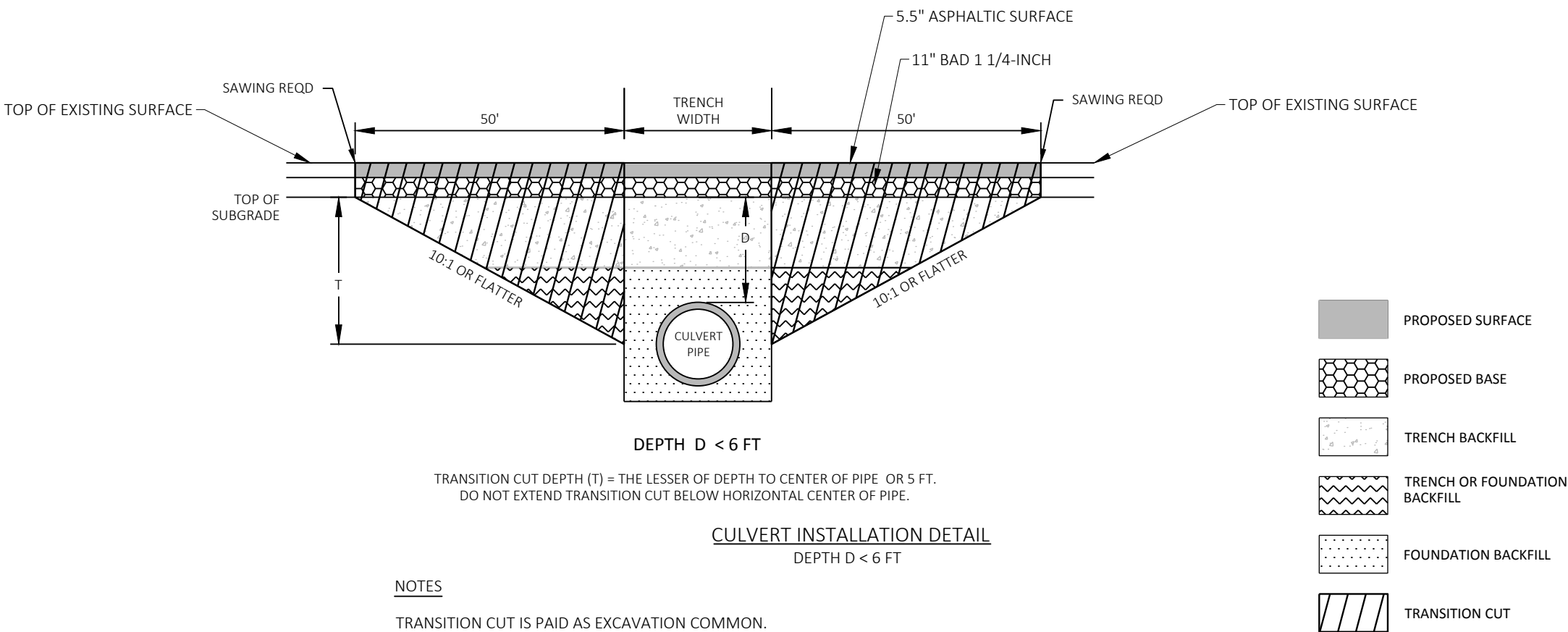


-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS  
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE  
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITHOUT CURB AND GUTTER

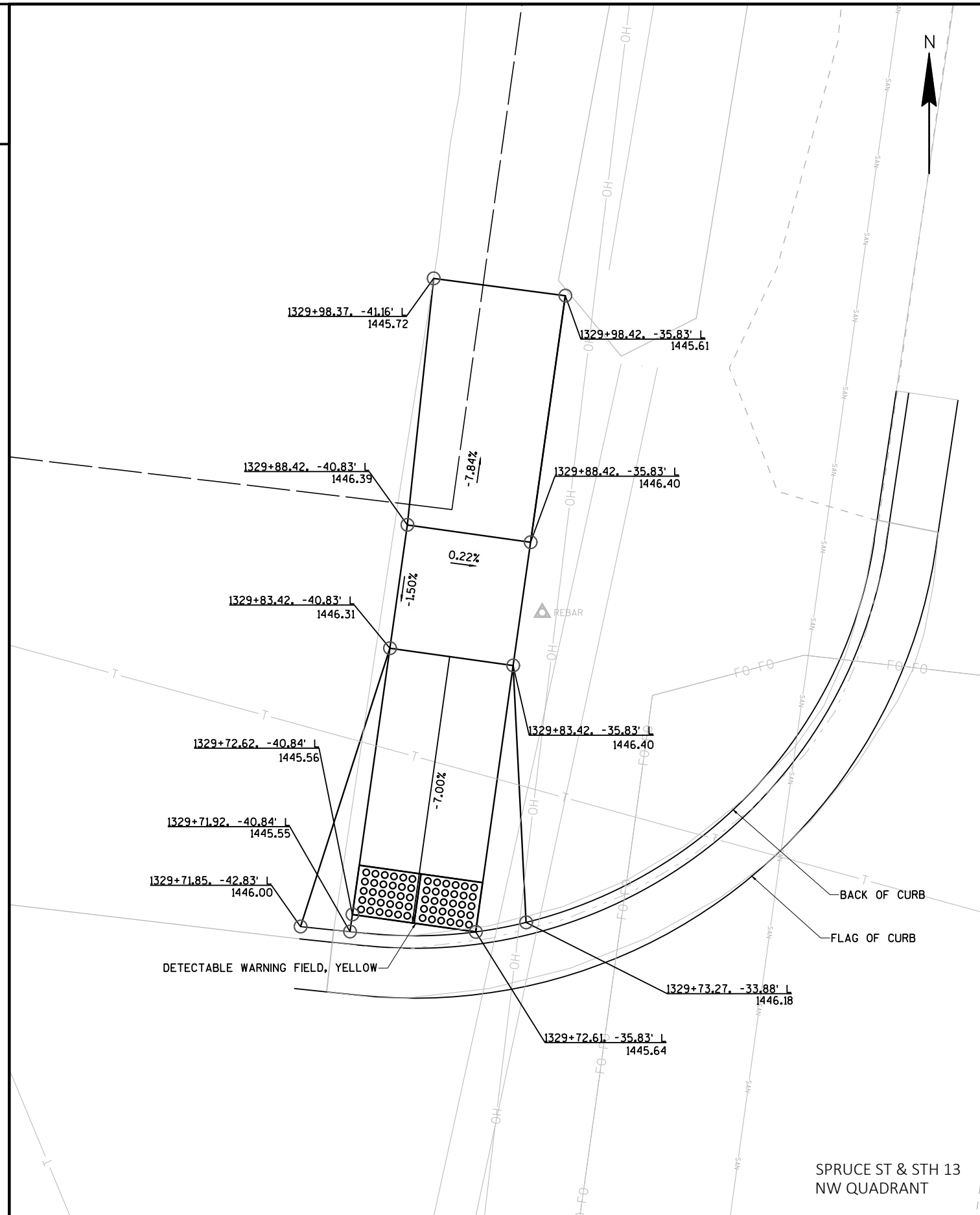


**NOTES**

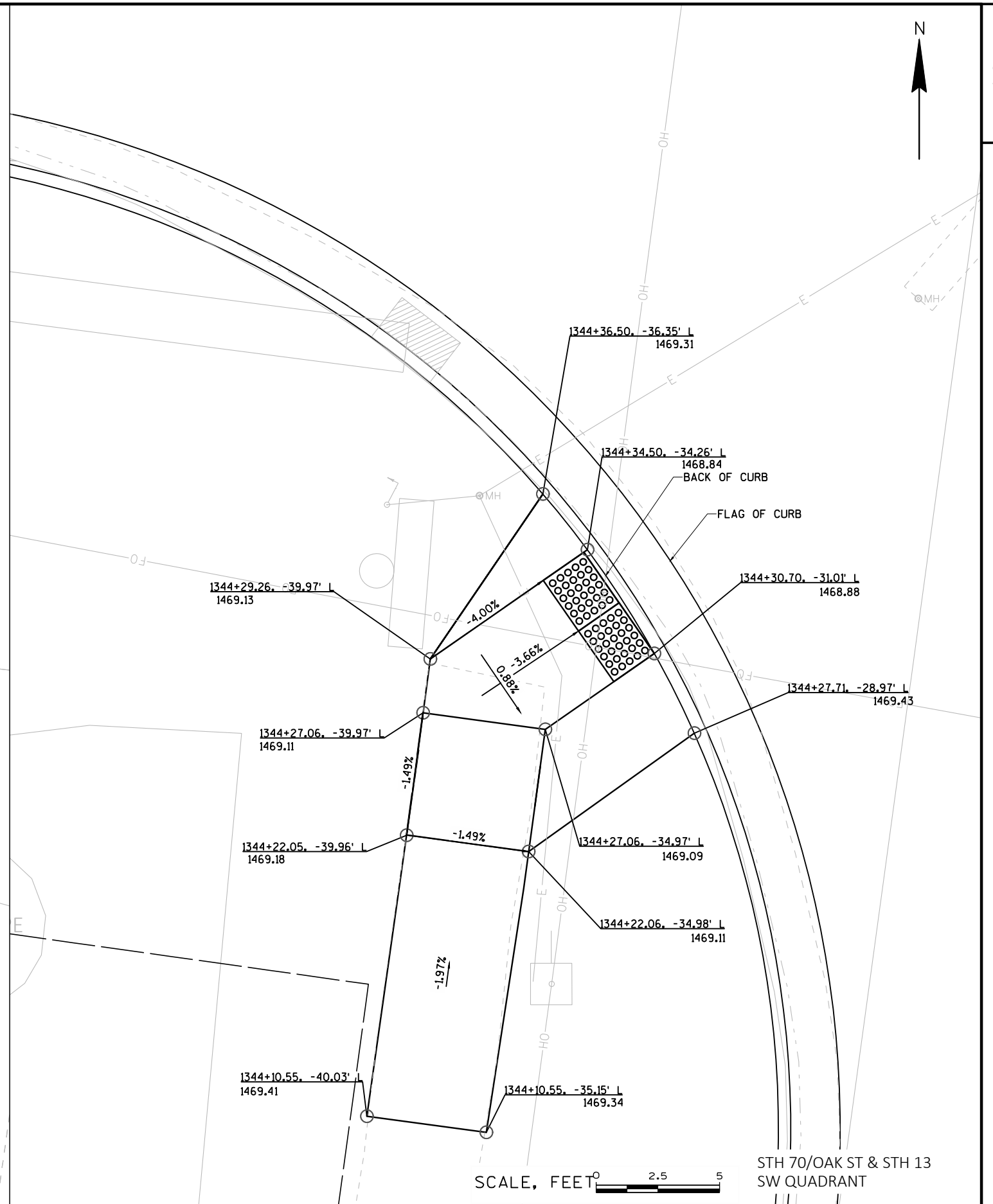
TRANSITION CUT IS PAID AS EXCAVATION COMMON.  
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.  
BACKFILL THE TRANSITION CUT AREAS WITH TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.  
PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.

**CULVERT PIPE TRANSITION**

ROUTE	STA.	DEPTH	PIPE DIA. (IN)	REMARKS
STH 13	1329+24	2.5 FT	24	50013003628
STH 13	1461+90	2.6 FT	30	50013003635



SPRUCE ST & STH 13  
NW QUADRANT



STH 70/OAK ST & STH 13  
SW QUADRANT

PROJECT NO: 1610-44-73

HWY: STH 13

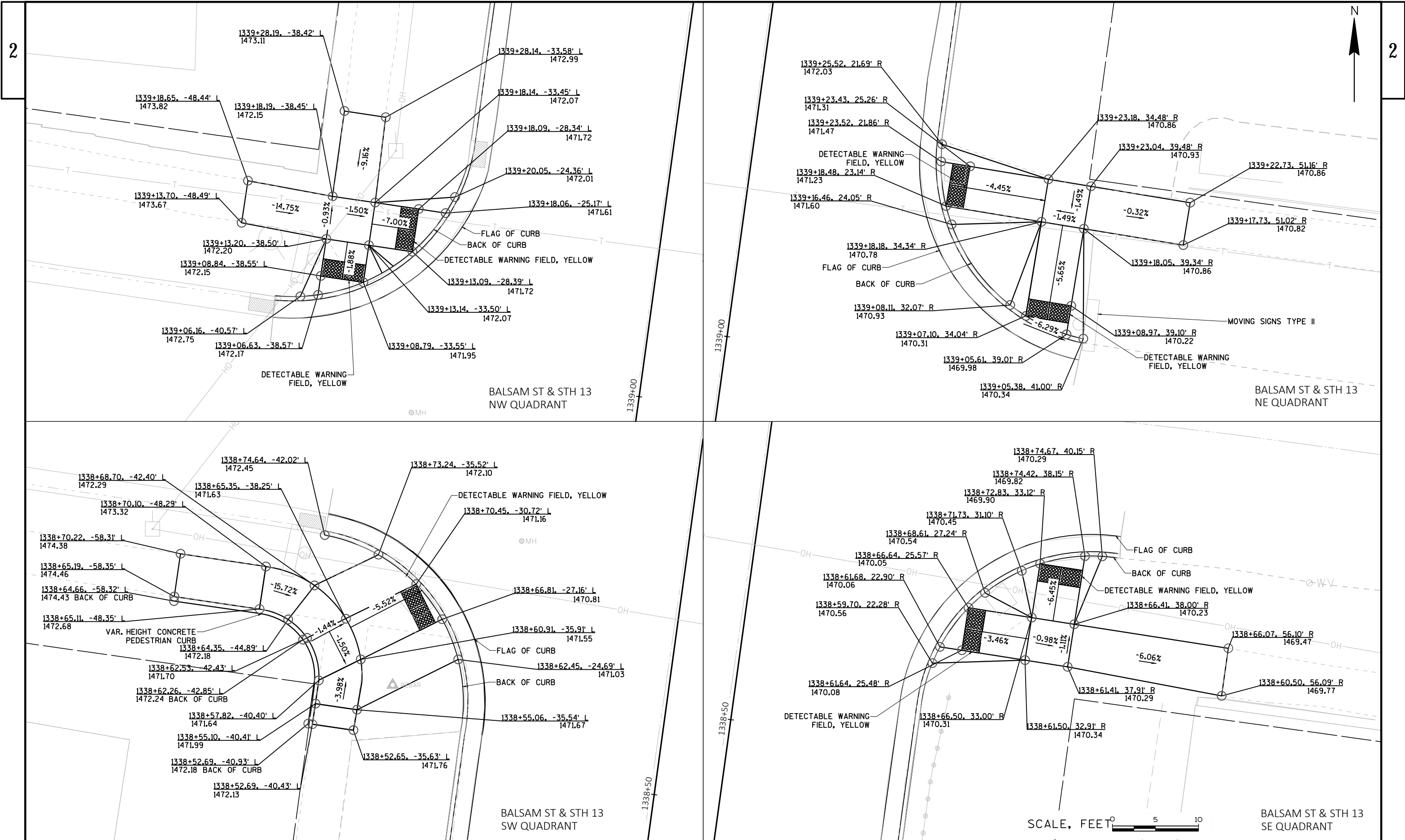
COUNTY: PRICE

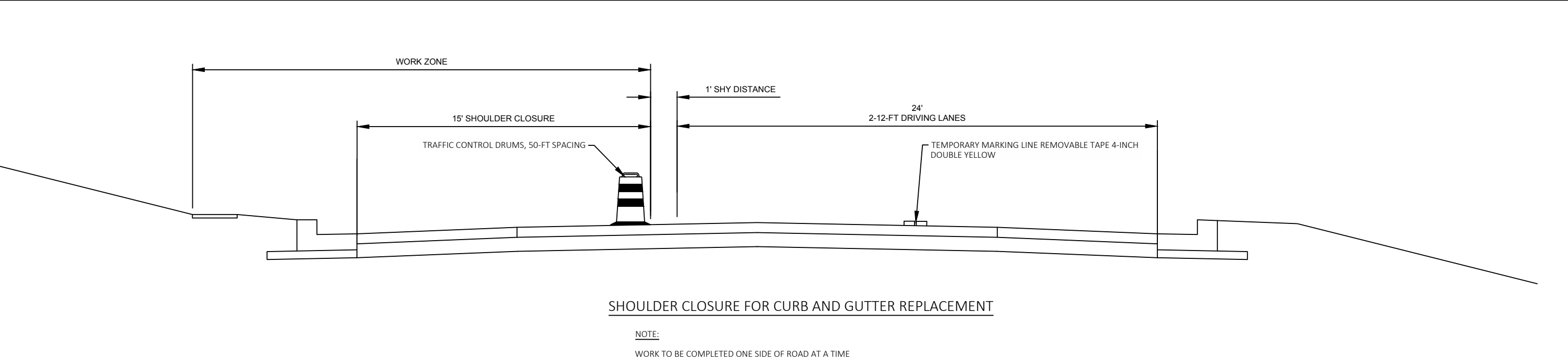
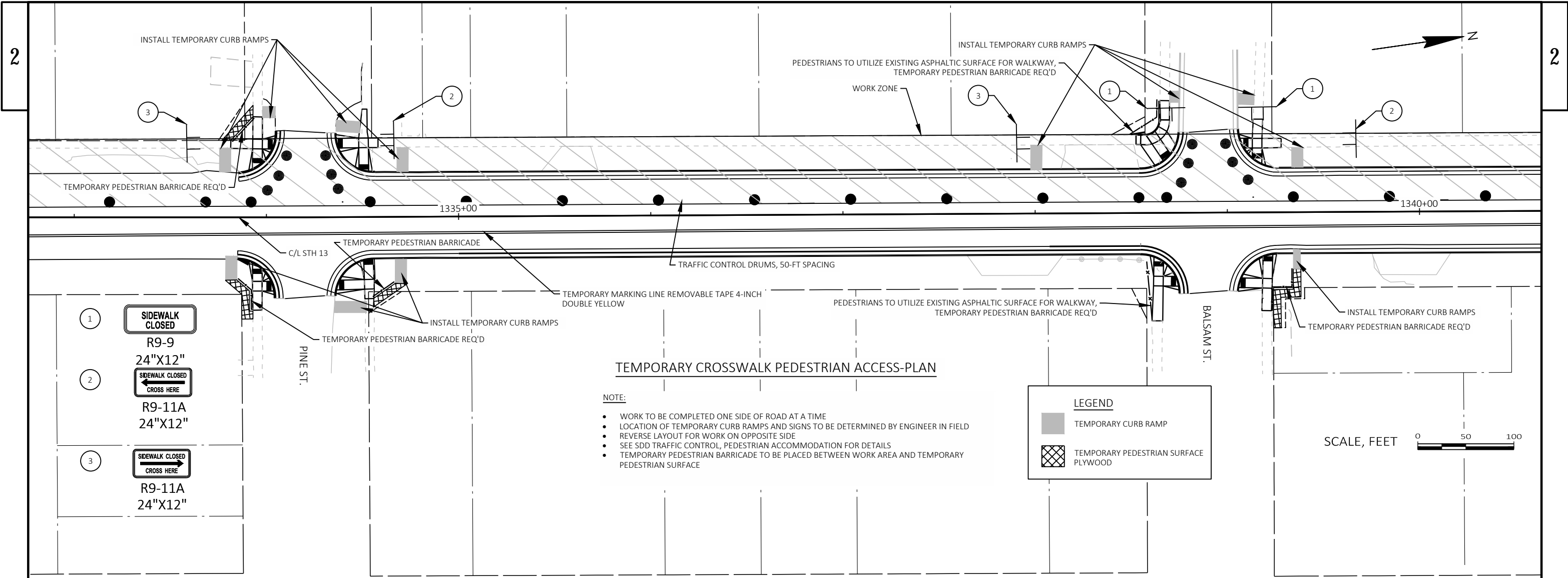
PLAN: CURB RAMP DETAILS

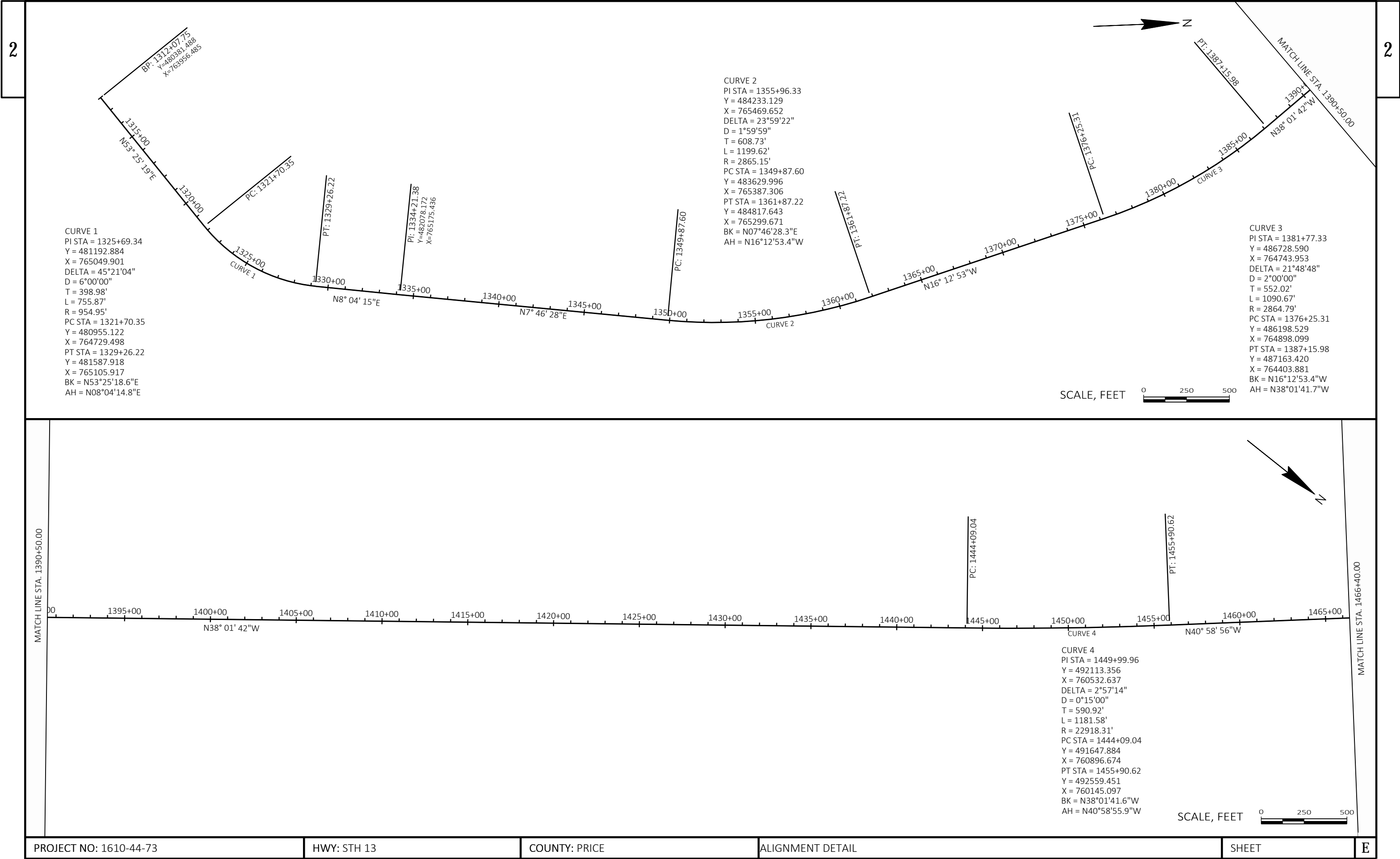
SHEET

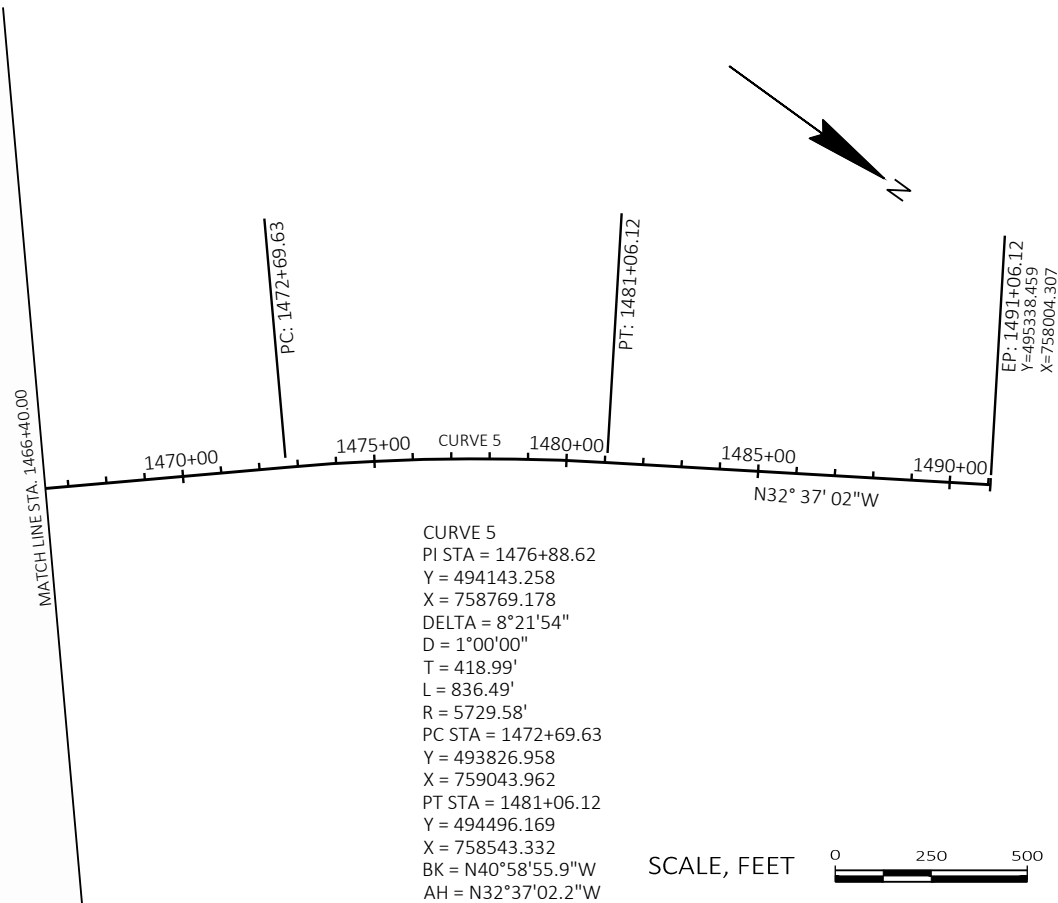
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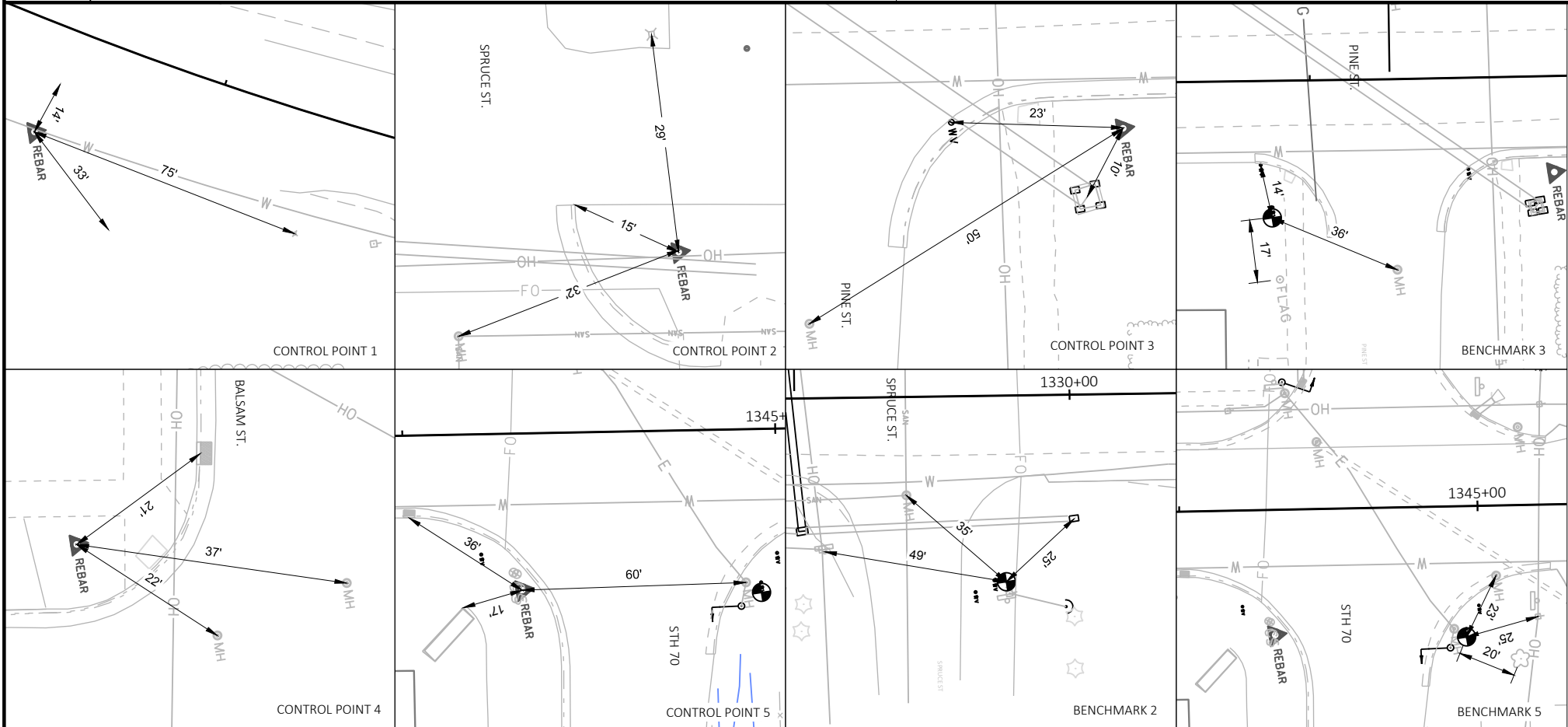








BENCHMARK/CONTROL POINT TABLE							
BM/CP NO.	NORTHING	EASTING	ELEVATION	STATION	OFFSET	LOCATION	DESCRIPTION
BM2	481636.50	765163.17	1444.35	1329+82	49.9	RT	Bolt with no drain tag on Hydrant, NE quadrant of Spruce St/STH 13. Survey Point #28266
BM3	482041.36	765207.28	1455.31	1333+89	36.7	RT	Bolt with no drain tag on Hydrant, SE quadrant of Pine St/STH 13. Survey Point #28125
BM5	483136.45	765364.15	1471.31	1344+95	43.8	RT	Bolt with no drain tag on Hydrant, NE quadrant of STH 70/STH 13. Survey Point #28267
BM6	494649.22	758418.23	1494.68	1483+02	22.9	LT	SW railing bolt, SW parapet of River Bridge. Survey Point #28268
BM7	494325.25	758720.15	1494.59	1478+65	51.8	RT	Set RR spike in Guy Pole East side of STH 13, South of River. Survey Point #28269
BM8	493169.15	759744.31	1502.70	1463+14	97.3	RT	Set RR spike in 10\" Popple Tree. Survey Point #27928
BM9	492946.34	759727.88	1502.75	1461+56	61.2	LT	Set RR spike in 14\" Tamarack Tree. Survey Point #27927



BENCHMARK/CONTROL POINT TABLE							
BM/CP NO.	NORTHING	EASTING	ELEVATION	STATION	OFFSET	LOCATION	DESCRIPTION
CP1	481226.50	765010.90	1447.36	1325+57	29.3	RT	3/4-INCH REBAR
CP2	481651.70	765079.60	1445.89	1329+86	35.0	LT	3/4-INCH REBAR
CP3	482117.90	765206.80	1455.72	1334+65	25.8	RT	3/4-INCH REBAR
CP4	482515.50	765203.00	1471.72	1338+58	31.8	LT	3/4-INCH REBAR
CP5	483073.20	765353.60	1468.99	1344+31	41.9	RT	3/4-INCH REBAR
CP6	494617.30	758435.60	1491.917	1482+66	25.4	LT	3/4-INCH REBAR
CP7	493981.10	758885.20	1500.78	1474+89	23.1	LT	3/4-INCH REBAR
CP8	492999.90	759795.10	1505.26	1461+53	24.6	RT	3/4-INCH REBAR
CP9	490225.50	762039.40	1499.502	1425+85	23.9	RT	3/4-INCH REBAR
CP10	489829.20	762291.80	1505.534	1421+17	21.4	LT	3/4-INCH REBAR
CP11	487776.20	763956.00	1482.167	1394+75	24.6	RT	3/4-INCH REBAR
CP12	484556.20	765389.30	1479.579	1359+13	26.2	RT	3/4-INCH REBAR



Estimate Of Quantities

1610-44-73

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0004	204.0100	Removing Concrete Pavement	SY	98.000	98.000
0006	204.0110	Removing Asphaltic Surface	SY	35.000	35.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,538.000	1,538.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	58,025.000	58,025.000
0012	204.0150	Removing Curb & Gutter	LF	2,610.000	2,610.000
0014	204.0155	Removing Concrete Sidewalk	SY	166.000	166.000
0016	204.9060.S	Removing (item description) 01. Endwalls	EACH	1.000	1.000
0018	205.0100	Excavation Common	CY	1,466.000	1,466.000
0020	208.1500.S	Temporary Lane Shift During Culvert Work 02. Lane Shift	EACH	2.000	2.000
0022	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1610-44-73	LS	1.000	1.000
0024	213.0100	Finishing Roadway (project) 01. 1610-44-73	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,784.000	2,784.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	720.000	720.000
0030	455.0605	Tack Coat	GAL	4,171.000	4,171.000
0032	460.2000	Incentive Density HMA Pavement	DOL	4,280.000	4,280.000
0034	460.6224	HMA Pavement 4 MT 58-28 S	TON	6,682.000	6,682.000
0036	465.0105	Asphaltic Surface	TON	420.000	420.000
0038	465.0110	Asphaltic Surface Patching	TON	104.000	104.000
0040	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	9,808.000	9,808.000
0042	520.8700	Cleaning Culvert Pipes	EACH	2.000	2.000
0044	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	68.000	68.000
0046	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	90.000	90.000
0048	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0050	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	3.000	3.000
0052	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	2.000	2.000
0054	524.0630	Apron Endwalls for Culvert Pipe Salvaged 30-Inch	EACH	2.000	2.000
0056	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,616.000	2,616.000
0058	601.0600	Concrete Curb Pedestrian	LF	27.000	27.000
0060	602.0405	Concrete Sidewalk 4-Inch	SF	2,201.000	2,201.000
0062	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	170.000	170.000
0064	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0066	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0068	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000
0070	611.8115	Adjusting Inlet Covers	EACH	8.000	8.000
0072	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1610-44-73	EACH	1.000	1.000

Estimate Of Quantities

1610-44-73

Line	Item	Item Description	Unit	Total	Qty
0074	619.1000	Mobilization	EACH	1.000	1.000
0076	624.0100	Water	MGAL	53.000	53.000
0078	625.0100	Topsoil	SY	2,589.000	2,589.000
0080	628.1504	Silt Fence	LF	610.000	610.000
0082	628.1520	Silt Fence Maintenance	LF	610.000	610.000
0084	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0086	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0088	628.2006	Erosion Mat Urban Class I Type A	SY	3,107.000	3,107.000
0090	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0092	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0094	628.7015	Inlet Protection Type C	EACH	12.000	12.000
0096	628.7504	Temporary Ditch Checks	LF	60.000	60.000
0098	628.7555	Culvert Pipe Checks	EACH	32.000	32.000
0100	629.0210	Fertilizer Type B	CWT	0.310	0.310
0102	630.0130	Seeding Mixture No. 30	LB	16.000	16.000
0104	630.0140	Seeding Mixture No. 40	LB	59.000	59.000
0106	630.0500	Seed Water	MGAL	70.000	70.000
0108	638.2102	Moving Signs Type II	EACH	10.000	10.000
0110	642.5001	Field Office Type B	EACH	1.000	1.000
0112	643.0300	Traffic Control Drums	DAY	1,162.000	1,162.000
0114	643.0900	Traffic Control Signs	DAY	2,964.000	2,964.000
0116	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0118	643.5000	Traffic Control	EACH	1.000	1.000
0120	644.1420	Temporary Pedestrian Surface Plywood	SF	415.000	415.000
0122	644.1601	Temporary Pedestrian Curb Ramp	DAY	36.000	36.000
0124	644.1810	Temporary Pedestrian Barricade	LF	140.000	140.000
0126	646.1020	Marking Line Epoxy 4-Inch	LF	64,285.000	64,285.000
0128	646.6120	Marking Stop Line Epoxy 18-Inch	LF	54.000	54.000
0130	648.0100	Locating No-Passing Zones	MI	2.560	2.560
0132	649.0105	Temporary Marking Line Paint 4-Inch	LF	31,100.000	31,100.000
0134	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	31,100.000	31,100.000
0136	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	5,648.000	5,648.000
0138	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,616.000	2,616.000
0140	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0142	650.8000	Construction Staking Resurfacing Reference	LF	16,795.000	16,795.000
0144	650.9000	Construction Staking Curb Ramps	EACH	17.000	17.000
0146	650.9910	Construction Staking Supplemental Control (project) 01. 1610-44-73	LS	1.000	1.000
0148	690.0150	Sawing Asphalt	LF	2,908.000	2,908.000
0150	690.0250	Sawing Concrete	LF	159.000	159.000

Estimate Of Quantities

1610-44-73

Line	Item	Item Description	Unit	Total	Qty
0152	740.0440	Incentive IRI Ride	DOL	6,361.000	6,361.000
0154	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0156	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0158	SPV.0060	Special 01. Adjusting Sanitary Manhole Covers	EACH	4.000	4.000
0160	SPV.0090	Special 01. Ditching and Shaping	LF	238.000	238.000

REMOVING SMALL PIPE CULVERTS

		203.0100		
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	1329+24	SPRUCE ST	1	24" CORRUGATED STEEL-68 LF
0010	1461+90	-	1	24" REINFORCED CONCRETE-90 LF
PROJECT TOTAL=			2	

PAVEMENT REMOVAL SUMMARY

						REMOVING	REMOVING	REMOVING	REMOVING	REMARKS
						CONCRETE	ASPHALTIC	ASPHALTIC	ASPHALTIC	
						PAVEMENT	SURFACE	SUFACE BUTT	SURFACE	
						204.0100	204.0110	204.0115	204.0120	
CATEGORY	STATION	TO	STATION	LOCATION		SY	SY	SY	SY	
0010	1312+08	-	1480+03	MAINLINE		-	-	474	57,450	PROJECT START/END
0010	1312+08	-	1480+03	SIDEROADS		-	-	1,064	110	
0010	1329+15	-	1329+35	CULVERT REPLACEMENT		98	-	-	98	
0010	1461+40	-	1462+40	CULVERT REPLACEMENT		-	-	-	367	
0010	1338+50	-	1338+75	CURB RAMP REPLACEMENT		-	35	-	-	BALSAM ST SW & SE CORNERS
PROJECT TOTAL=						98	35	1,538	58,025	

SIDEWALK SUMMARY

		REMOVING	CONCRETE	CURB RAMP
		CONCRETE	SIDEWALK	DETECTABLE WARNING
		SIDEWALK	4-INCH	FIELD YELLOW
		204.0155	602.0405	602.0505
CATEGORY	LOCATION	SY	SF	SF
0010	NW SPRUCE ST	-	155	10
0010	SW PINE ST	26	241	20
0010	SE PINE ST	13	166	20
0010	NW PINE ST	36	264	20
0010	NE PINE ST	13	217	20
0010	SW BALSAM ST	26	305	10
0010	SE BALSAM ST	5	234	20
0010	NW BALSAM ST	19	211	20
0010	NE BALSAM ST	18	251	20
0010	SW STH 70	10	157	10
PROJECT TOTALS=		166	2,201	170

CURB & GUTTER SUMMARY

						REMOVING CURB	CONCRETE CURB	CONCRETE CURB	REMARKS
						& GUTTER	& GUTTER 30-	PEDESTRIAN	
						204.0150	INCH TYPE D	601.0600	
						LF	601.0411	LF	
CATEGORY	STATION	TO	STATION	LOCATION			LF	LF	
0010	1323+50	-	1325+83	RT		279	279	-	MAPLE ST
0010	1329+85	-	1330+00	LT		32	38	-	SPRUCE ST. NW.
0010	1329+21	-	1329+43	LT		31	31	-	SPRUCE ST. SW
0010	1333+85	-	1334+07	LT		33	33	-	PINE ST. SW
0010	1333+85	-	1334+07	RT		32	32	-	PINE ST. SE
0010	1334+35	-	1338+75	RT		463	463	-	PINE - BALSAM
0010	1334+35	-	1338+75	LT		463	463	-	PINE - BALSAM
0010	1338+53	-	1338+65	LT		-	-	27	BALSAM ST. SW
0010	1339+05	-	1344+47	LT		575	575	-	BALSAM - STH 70
0010	1339+05	-	1344+42	RT		572	572	-	BALSAM - STH 70
0010	1344+83	-	1345+23	LT		63	63	-	STH 70 NW
0010	1344+80	-	1345+24	RT		67	67	-	STH 70 NE
PROJECT TOTALS =						2,610	2,616	27	

EXCAVATION COMMON

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 CY	REMARKS
0010	1323+50	-	1345+24	CURB REMOVAL	314	
0010	1328+75	-	1329+70	SPRUCE ST	167	CULVERT REPLACEMENT
0010	1461+40	-	1462+40		984	CULVERT REPLACEMENT
PROJECT TOTAL=					1,466	

PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 1610-44-73

CATEGORY	STATION	TO	STATION	LOCATION	211.0100 LS
0010	1312+08	-	1480+03	STH 13	1
PROJECT TOTAL=					1

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 TON
0010	1312+08	-	1480+03	SHOULDERS	2,672
0010	1312+08	-	1480+03	DRIVEWAYS/SIDE ROADS	112
PROJECT TOTAL=					2,784

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 TON	REMARKS
0010	1323+50	-	1345+24		435	CURB REPLACEMENT
0010	1328+75	-	1329+70	SPRUCE ST	60	CULVERT REPLACEMENT
0010	1461+40	-	1462+40		225	CULVERT REPLACEMENT
PROJECT TOTAL=					720	

ASPHALT ITEMS SUMMARY

					HMA PAVEMENT 4 MT 58-28 S 460.6224 TON	TACK COAT 455.0605 GAL	ASPHALTIC SURFACE 465.0105 TON	ASPHALTIC SURFACE PATCHING 465.0110 TON	REMARKS
CATEGORY	STATION	TO	STATION	LOCATION					
0010	1312+08	-	1480+03	MAINLINE	6,564	4,130	-	-	
0010	1472+73	-	1480+03	MAINLINE	-	-	73	-	WEDGING
0010	1323+47	-	1345+23	CURB REPLACEMENT	65	41	195	-	
0010	1338+50	-	1338+75	CURB RAMP REPLACEMENT	-	-	8	-	
0010	1329+14	-	1329+34	CULVERT REPLACEMENT	11	-	31	-	
0010	1461+35	-	1462+45	CULVERT REPLACEMENT	42	-	113	-	
0010	PROJECT	-	-	UNDISTRIBUTED	-	-	-	104	
PROJECT TOTALS=					6,682	4,171	420	104	

ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL

CATEGORY	STATION	TO	STATION	LOCATION	465.0475 LF
0010	1312+08	-	1323+42	CL	734
0010	1362+85	-	1480+03	CL	9,074
PROJECT TOTAL=					9,808

CULVERT SUMMARY

CATEGORY	STATION	LOCATION	REMOVING	CLEANING	CULVERT PIPE	CULVERT PIPE	APRON ENDWALLS	APRON ENDWALLS	APRON ENDWALLS	APRON ENDWALLS	INLET	DISCHARGE	REMARKS
			ENDWALLS	CULVERT	REINFORCED	REINFORCED	FOR CULVERT PIPE	FOR CULVERT PIPE	FOR CULVERT	FOR CULVERT			
			204.9060.S	520.8700	CONCRETE CLASS III	CONCRETE CLASS IV	CONCRETE 24-INCH	CONCRETE 30-INCH	PIPE SALVAGED	PIPE SALVAGED			
			EACH	EACH	24-INCH	30-INCH	522.1024	522.1030	24-INCH	30-INCH			
					522.0124	522.0430	522.1024	522.1030	524.0624	524.0630	ELEVATION	ELEVATION	
0010	1321+94	LT	1	1	-	-	-	1	-	-	-	-	30" RCCP
0010	1329+25	LT/RT	-	-	68	-	1	-	-	-	-	1440.25	-
0010	1365+07	LT/RT	-	-	-	-	-	-	-	2	-	-	-
0010	1428+43	LT/RT	-	1	-	-	-	-	2	-	-	-	24" RCCP
0010	1461+90	LT/RT	-	-	-	90	-	2	-	-	1500.29	1498.82	-
PROJECT TOTALS=			1	2	68	90	1	3	2	2			

ADJUSTING INLETS/COVERS

CATEGORY	STATION	OFFSET	LOCATION	ADJUSTING MANHOLE	ADJUSTING	ADJUSTING
				COVERS	INLET COVERS	SANITARY MANHOLE
				611.8110	611.8115	SPV.0060.01
				EACH	EACH	EACH
0010	1329+56	-	LT/RT	-	-	2
0010	1334+23	24	LT	-	-	1
0010	1334+35	45	LT	-	1	-
0010	1334+57	25	LT	1	-	-
0010	1334+57	22	LT	-	1	-
0010	1334+59	20	RT	-	1	-
0010	1337+25	22	LT	-	1	-
0010	1337+25	15	LT	1	-	-
0010	1338+77	19	LT	1	-	-
0010	1338+95	26	LT	-	-	1
0010	1339+25	22	LT	-	1	-
0010	1342+40	22	LT	-	1	-
0010	1344+02	22	RT	-	1	-
0010	1344+99	30	LT	-	1	-
0010	1345+05	23	RT	1	-	-
PROJECT TOTALS=				4	8	4

RECONSTRUCTING MANHOLES/INLETS

CATEGORY	STATION	LOCATION	RECONSTRUCTING	RECONSTRUCTING	RIM ELEV
			MANHOLES	INLETS	
			611.0420	611.0430	
			EACH	EACH	
0010	1329+25	35.5' RT	-	1	1445.81
0010	1344+42	42.1' LT	-	1	1468.85
0010	1344+46	23.3' LT	1	-	1468.96
PROJECT TOTALS=			1	2	

WATER

CATEGORY	LOCATION	624.0100
		MGAL
0010	PROJECT	53
PROJECT TOTAL=		53

EROSION CONTROL ITEMS												
CATEGORY	LOCATION	TOPSOIL	SILT	SILT FENCE	EROSION	TEMPORARY	CULVERT	FERTILIZER	SEEDING	SEEDING MIXTURE	SEED WATER	REMARKS
		625.0100	628.1504	628.1520	CLASS I TYPE A 628.2006	DITCH CHECKS 628.7504	PIPE CHECKS 628.7555	TYPE B 629.0210	MIXTURE NO. 30 630.0130	NO. 40 630.0140	630.0500	
		SY	LF	LF	SY	LF	EACH	CWT	LB	LB	MGAL	
0010	START-MAPLE ST.	17	-	-	17	-	-	0.01	-	0.4	-	
0010	NW SPRUCE ST	30	-	-	30	-	-	0.01	-	0.6	-	
0010	SW PINE ST	25	-	-	25	-	-	0.01	-	0.5	-	
0010	NW PINE ST	31	-	-	31	-	-	0.01	-	0.6	-	
0010	NE PINE ST	27	-	-	27	-	-	0.01	-	0.5	-	
0010	SE PINE ST	16	-	-	16	-	-	0.01	-	0.3	-	
0010	PINE ST-BALSAM ST CURB	442	-	-	442	-	-	0.03	-	8.0	-	
0010	SW BALSAM ST	13	-	-	13	-	-	0.01	-	0.3	-	
0010	NW BALSAM ST	14	-	-	14	-	-	0.01	-	0.4	-	
0010	NE BALSAM ST	7	-	-	7	-	-	0.01	-	0.4	-	
0010	BALSAM ST-STH 70 CURB	666	-	-	666	-	-	0.05	-	12.0	-	
0010	1321+94	-	20	20	-	-	4	-	-	-	-	
0010	1327+76 - 1329+44, RT	301	-	-	301	30	-	0.02	-	6	-	DITCHING AND SHAPING AREAS
0010	1328+65 - 1329+75, LT	166	100	100	166	10	-	0.02	-	3	-	DITCHING AND SHAPING AREAS
0010	1355+33	-	-	-	-	-	4	-	-	-	-	
0010	1365+07	-	20	20	-	-	4	-	-	-	-	
0010	1394+57	-	-	-	-	-	4	-	-	-	-	
0010	1428+43	-	20	20	-	-	4	-	-	-	-	
0010	1461+40 - 1462+60, LT & RT	834	250	250	834	-	4	0.06	16	16	-	NORTH CULVERT REPLACEMENT
0010	UNDISTRIBUTED	-	200	200	518	20	8	0.04	-	10	70	
PROJECT TOTALS=		2,589	610	610	3,107	60	32	0.31	16	59	70	

INLET PROTECTION SUMMARY				
CATEGORY	LOCATION	INLET PROTECTION TYPE A 628.7005	INLET PROTECTION TYPE B 628.7010	INLET PROTECTION TYPE C 628.7015
		EACH	EACH	EACH
0010	SW PINE ST	-	-	1
0010	NW PINE ST	-	-	2
0010	NE PINE ST	-	1	1
0010	PINE ST-BALSAM ST CURB	-	-	1
0010	SW BALSAM ST	-	-	1
0010	NW BALSAM ST	-	-	2
0010	BALSAM ST-STH 70 CURB	-	-	1
0010	SE STH 70	-	-	1
0010	SW STH 70	-	-	1
0010	NW STH 70	-	-	1
0010	1327+76 - 1329+44, RT	2	-	-
PROJECT TOTALS=		2	1	12

MOBILIZATIONS EROSION CONTROL SUMMARY			
CATEGORY	LOCATION	MOBILIZATIONS EROSION CONTROL 628.1905	MOBILIZATIONS EMERGENCY EROSION CONTROL 628.1910
		EACH	EACH
0010	PROJECT LIMITS	4	2
PROJECT TOTALS=		4	2

MOVING SIGNS TYPE II

638.2102					
CATEGORY	STATION	OFFSET	LOCATION	EACH	REMARKS
0010	1333+91	45.9	RT	1	CURB RAMP
0010	1333+99	43.6	LT	1	CURB RAMP
0010	1334+43	36.2	RT	2	CURB RAMP
0010	1338+73	44.1	LT	1	CURB RAMP
0010	1339+07	40.3	RT	1	CURB RAMP
0010	1339+11	39.7	LT	1	CURB RAMP
0010	1344+33	42.6	LT	1	CURB RAMP
0010	1345+47	23.3'	LT	1	SIGHT DISTANCE
0010	1345+19	32.1'	RT	1	SIGHT DISTANCE
PROJECT TOTAL=				10	

TEMPORARY PEDESTRIAN ITEMS

						TEMPORARY PEDESTRIAN SURFACE PLYWOOD 644.1420	TEMPORARY PEDESTRIAN CURB RAMP 644.1601	TEMPORARY PEDESTRIAN BARRICADE 644.1810
CATEGORY	STATION	TO	STATION	DAYS	LOCATION	SF	QTY.	DAY
0010	1333+00	-	1340+00	3	PINE ST	250	7	21
0010	1333+00	-	1340+00	3	BALSAM ST	165	5	15
PROJECT TOTALS=						415		36
								140

TRAFFIC CONTROL

				TRAFFIC CONTROL SIGNS 643.0900	TRAFFIC CONTROL DRUMS 643.0300	TRAFFIC CONTROL SIGNS FIXED MESSAGE 643.1000	TRAFFIC CONTROL 643.5000	TEMPORARY LANE SHIFT DURING CULVERT WORK 208.1500.S		
CATEGORY	STATION	TO	STATION	LOCATION	DAY	DAY	SF	EACH	EACH	STAGE
0010	STH 13			PROJECT	-	-	-	1	-	
0010	STH 13			SIDEROADS	2,880	-	-	-	-	PAVING
0010	1329+65	-	1344+49	SHOULDER CLOSURE	42	357	-	-	-	1-SIDEWALK
0010	1329+65	-	1344+49	SHOULDER CLOSURE	42	357	-	-	-	2-SIDEWALK
0010	1328+75	-	1329+70	CULVERT REPLACEMENT	-	224	-	-	1	
0010	1461+40	-	1462+40	CULVERT REPLACEMENT	-	224	-	-	1	
0010	STH 13			* PROJECT LIMITS	-	-	36	-	-	"ROAD WORK NEXT 3.5 MILES"
PROJECT TOTAL=					2,964	1,162	36	1	2	

\* PLACED AT PROJECT TERMINI 7 DAYS PRIOR TO CONSTRUCTION



PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	MARKING	MARKING	TEMPORARY	TEMPORARY	TEMPORARY	REMARKS
					LINE EPOXY	STOP LINE	MARKING	MARKING	MARKING	
					4-INCH	EPOXY 18-INCH	LINE PAINT	LINE EPOXY	REMOVABLE TAPE	
					646.1020	646.6120	649.0105	649.0120	649.0150	
					LF	LF	LF	LF	LF	
0010	1312+08	-	1334+00	LT/RT	4,379	-	-	-	-	OUTSIDE LANE MARKERS
0010	1334+00	-	1345+00	LT/RT	2,200	-	-	-	-	OUTSIDE LANE MARKERS
0010	1345+00	-	1480+03	LT/RT	26,606	-	-	-	-	OUTSIDE LANE MARKERS
0010	1312+11	-	1344+00	CL	6,378	-	6,378	6,378	-	DOUBLE SOLID, YELLOW
0010	1345+25	-	1357+00	CL	2,350	-	2,350	2,350	-	DOUBLE SOLID, YELLOW
0010	1312+08	-	1357+00	CL	8,984	-	8,984	8,984	-	DOUBLE SOLID, YELLOW
0010	1357+00	-	1379+39	CL	2,799	-	2,799	2,799	-	DASHED/SOLID, YELLOW
0010	1379+39	-	1381+59	CL	440	-	440	440	-	DOUBLE SOLID, YELLOW
0010	1381+59	-	1389+24	CL	956	-	956	956	-	DASHED/SOLID, YELLOW
0010	1389+24	-	1396+44	CL	1,440	-	1,440	1,440	-	DOUBLE SOLID, YELLOW
0010	1396+44	-	1406+08	CL	1,205	-	1,205	1,205	-	DASHED/SOLID, YELLOW
0010	1406+08	-	1412+76	CL	1,336	-	1,336	1,336	-	DOUBLE SOLID, YELLOW
0010	1412+76	-	1428+56	CL	1,975	-	1,975	1,975	-	DASHED/SOLID, YELLOW
0010	1428+56	-	1435+21	CL	166	-	166	166	-	DASHED, YELLOW
0010	1435+21	-	1442+62	CL	926	-	926	926	-	DASHED/SOLID, YELLOW
0010	1442+62	-	1444+33	CL	43	-	43	43	-	DASHED, YELLOW
0010	1444+33	-	1456+42	CL	1,511	-	1,511	1,511	-	DASHED/SOLID, YELLOW
0010	1456+42	-	1480+03	CL	590	-	590	590	-	DASHED, YELLOW
0010	1344+35	-	1344+65	STH 70 INT	-	54	-	-	-	WHITE
0010	1330+00	-	1344+00	STH 13	-	-	-	-	5,648	DOUBLE SOLID, YELLOW-SHOULDER CLOSURE
PROJECT TOTALS=					64,285	54	31,100	31,100	5,648	

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
					STAKING CURB	STAKING PIPE	STAKING	STAKING	STAKING
					GUTTER AND CURB	CULVERTS	RESURFACING	RESURFACING	SUPPLEMENTAL
					& GUTTER		REFERENCE	REFERENCE	CONTROL (PROJECT)
					650.5500	650.6000	650.8000	650.9000	01. 1610-44-73
					LF	EACH	LF	EACH	650.9910
0010	1312+08	-	1480+03	STH 13	2,616	2	16,795	17	1
PROJECT TOTAL=					2,616	2	16,795	17	1

LOCATING NO-PASSING ZONES

					648.0100	
CATEGORY	STATION	TO	STATION	LOCATION	MI	REMARKS
0010	1345+00	-	1480+03	STH 13	2.56	RURAL SECTION
PROJECT TOTAL=					2.56	

DITCHING AND SHAPING

					SPV.0090.01	
CATEGORY	STATION	TO	STATION	LOCATION	LF	
0010	1327+76	-	1329+44	RT	128	
0010	1328+65	-	1329+75	LT	110	
PROJECT TOTAL=					238	

SAWING ASPHALT

					690.0150	
CATEGORY				LOCATION	LF	REMARKS
0010				CURB REPLACEMENT	2,783	
0010				CURB RAMP REPLACEMENT	65	BALSAM ST SW & SE CORNERS
0010				STA. 1461+90 CULVERT REPLACEMENT	60	
PROJECT TOTAL=					2,908	

SAWING CONCRETE

					690.0250	
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	1329+15	-	1329+35	CULVERT REPLACEMENT	93	CONCRETE SUBBASE
0010	1334+00	-	1339+00	SIDEWALKS	66	
PROJECT TOTAL=					159	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

1610-44-23

PRENTICE - PARK FALLS

WALNUT ST TO N FK FLAMBEAU RVR BRIDGE

STH 13

PRICE COUNTY



CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE		SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	
SIXTEENTH LINE		GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	
NEW REFERENCE LINE		SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE		SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE		OFF-PREMISE SIGN		NON-COMPENSABLE	
PROPERTY LINE		ELECTRIC POLE			
LOT, TIE & OTHER MINOR LINES		TELEPHONE POLE			
SLOPE INTERCEPT		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
CORPORATE LIMITS		ACCESS RESTRICTED BY ACQUISITION			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		NO ACCESS (BY STATUTORY AUTHORITY)			
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
TEMPORARY LIMITED EASEMENT AREA		NO ACCESS (NEW HIGHWAY)			
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		PARCEL NUMBER		UTILITY NUMBER	
TRANSMISSION STRUCTURES		PARALLEL OFFSETS			
BUILDING					
BRIDGE					

CONVENTIONAL ABBREVIATIONS

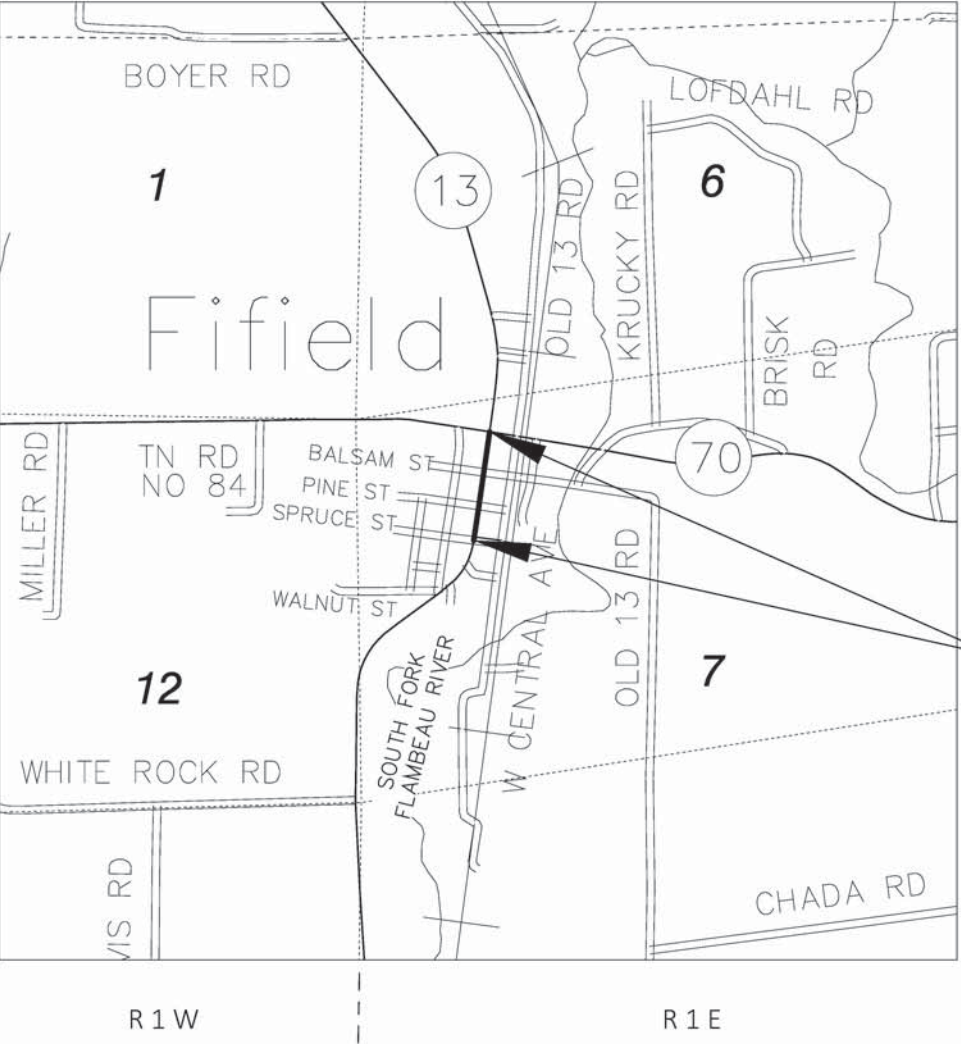
ACCESS RIGHTS	AR	POINT OF CURVATURE	PC
ACRES	AC	POINT OF COMPOUND CURVE	PCC
AHEAD	AH	POINT OF INTERSECTION	PI
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
BUILDING	B	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
FRACTIONAL	FRAC	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV		
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ / DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	
GAS	
TELEPHONE	
OVERHEAD TRANSMISSION LINES	
ELECTRIC	
CABLE TELEVISION	
FIBER OPTIC	
SANITARY SEWER	
STORM SEWER	



PROJECT LOCATION



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1610-44-23.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), PRICE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. NGS POINT UTILIZED WAS EISENSTEIN SW GPS DNS058.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NC REGION.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 1610-44-23-4.01  
SHEET 2 OF 2



TRANSPORTATION PROJECT PLAT NO : 1610-44-23-4.01

THAT PART OF LOTS 1 AND 8, BLOCK 19, AND PART OF LOT 16, BLOCK 13, MAP OF FIFIELD, POCKET 4, MAP 3, LOCATED IN GOVERNMENT LOT 7, SECTION 7, TOWNSHIP 39 NORTH, RANGE 1 EAST, TOWN OF FIFIELD, PRICE COUNTY, WISCONSIN.

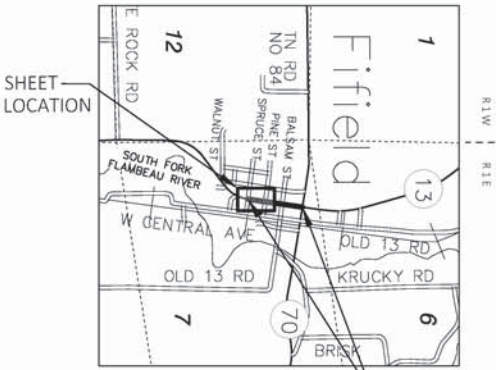
RELOCATION ORDER OF STH 13 PRENTICE - PARK FALLS, WALNUT ST TO N FK FLAMBEAU RVR BRIDGE, PRICE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

LOCATION SKETCH  
NOT TO SCALE



FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), PRICE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. NGS POINT UTILIZED WAS EISENSTEIN SW GPS D50508.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1/2" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NC REGION.

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 13	FEDERAL AID PROJECT NO 405-H	1955
STH 13	R/W PLAT T0283(3)	1950
STH 13	FIRST ADDITION TO FIFIELD	
SPRUCE ST		
PINE ST		
STH 13	MAP OF FIFIELD, POCKET 4, MAP 3	1876
SPRUCE ST		
PINE ST		

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQUARE FEET REQUIRED			TLE SQUARE FEET
			NEW	EXISTING	TOTAL	
1	TRAVIS BOTTOLFSON	TLE	-	-	-	140
2	CORNERSTONE PROPERTY MANAGEMENT LLC	TLE	-	-	-	138
3	DARIAN D EITEL	TLE	-	-	-	142

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
80	NORTHERN STATES POWER COMPANY d/b/a XCEL ENERGY	RELEASE OF RIGHTS

UTILITY EASEMENT TABLE			
UTILITY NUMBER	PARCEL	RECORDING INFORMATION	NAME
80	3	DOC 193394, V183, P511	NORTHERN STATES POWER COMPANY

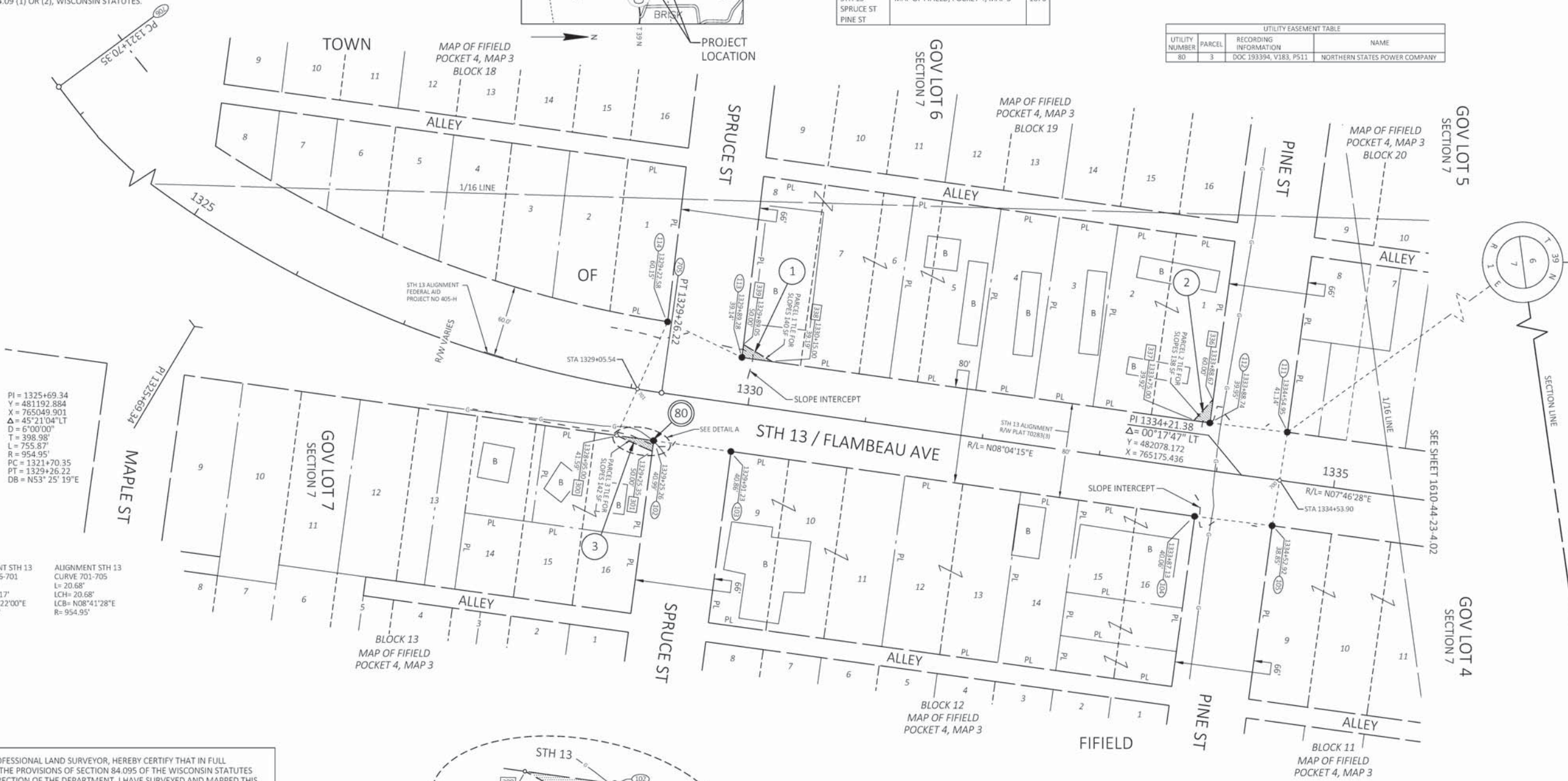
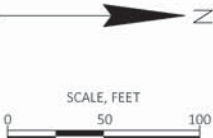
Document No. 388443

JUDITH L. CHIZEK  
PRICE COUNTY, WI  
REGISTER OF DEEDS  
RECEIVED FOR RECORD  
May 27, 2020  
AT 12:54 PM  
RECORDING FEE: \$25.00

PAGES:2 By: SK\*

\*\*The above recording information verifies that this document has been electronically recorded and returned to the submitter

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 1610-44-23-4.01  
SHEET 1 OF 2



PI = 1325+69.34  
Y = 481192.884  
X = 765049.901  
Δ = 45°21'04"LT  
D = 6°00'00"  
T = 398.98'  
L = 755.87'  
R = 954.95'  
PC = 1321+70.35  
PT = 1329+26.22  
DB = N53°25'19"E

ALIGNMENT STH 13  
CURVE 706-701  
L = 735.19'  
LCH = 717.17'  
LCB = N31°22'00"E  
R = 954.95'

ALIGNMENT STH 13  
CURVE 701-705  
L = 20.68'  
LCH = 20.68'  
LCB = N08°41'28"E  
R = 954.95'

FOUND WEST  
160 ACRE CORNER  
6" X 7" CEMENT STONE  
\* Y = 483,477.260  
X = 764,995.710

FOUND EAST  
160 ACRE CORNER  
2" IRON PIPE  
\* Y = 483,846.460  
X = 767,596.680

I, NEIL C. BOWE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

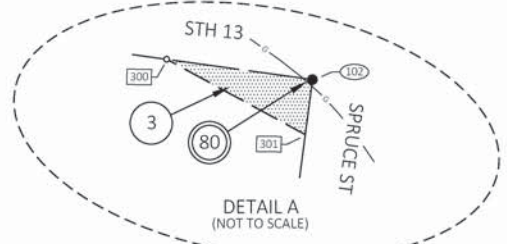
SIGNATURE: *Neil C. Bowe* DATE: 5/19/20

PRINT NAME: NEIL C. BOWE  
REGISTRATION NUMBER: S-2827

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

SIGNATURE: *Brent L. Stella* DATE: 5/19/20

PRINT NAME: BRENT L. STELLA



COURSE TABLE			
FROM	TO	DIRECTION	DISTANCE
5013	111	S 06° 01' 20" E	1367.81'
111	112	S 06° 52' 54" W	66.01'
112	113	S 07° 57' 18" W	399.46'
113	114	S 25° 36' 54" W	69.71'
114	300	S 65° 51' 11" E	105.33'
300	102	N 07° 57' 18" E	31.58'
102	103	N 07° 57' 18" E	66.00'
103	104	N 07° 57' 18" E	395.90'
104	105	N 06° 53' 07" E	66.01'
105	111	N 80° 46' 25" W	80.03'

COURSE TABLE - SEGMENTS			
FROM	TO	DIRECTION	DISTANCE
114	701	S 65° 51' 11" E	62.37'
701	300	S 65° 51' 11" E	42.96'
105	700	N 80° 46' 25" W	38.87'
700	111	N 80° 46' 25" W	41.16'

COURSE TABLE - SECTION LINE			
FROM	TO	DIRECTION	DISTANCE
5012	5013	S 81° 55' 16" W	2627.04'

\* PRICE COUNTY PUBLISHED COORDINATE VALUE. COORDINATE VALUES FIELD VERIFIED WITH CORNER TIE SHEETS.



TRANSPORTATION PROJECT PLAT NO : 1610-44-23-4.02

THAT PART OF LOT 9, BLOCK 11, MAP OF FIFIELD, POCKET 4, MAP 3, LOCATED IN GOVERNMENT LOT 7, PART OF LOT 1, BLOCK 20, PART OF LOT 1, BLOCK 21, PART OF LOT 16, BLOCK 11, AND PART OF LOT 11, BLOCK 10, MAP OF FIFIELD, POCKET 4, MAP 3, LOCATED IN GOVERNMENT LOT 4, ALL IN SECTION 7, TOWNSHIP 39 NORTH, RANGE 1 EAST, TOWN OF FIFIELD, PRICE COUNTY, WISCONSIN.

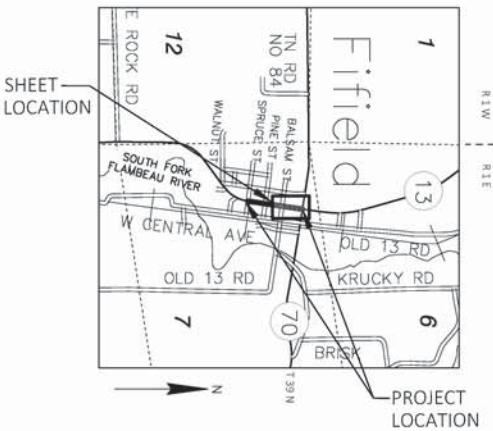
RELOCATION ORDER OF STH 13 PRENTICE - PARK FALLS,  
WALNUT ST TO N FK FLAMBEAU RVR BRIDGE, PRICE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

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LOCATION SKETCH  
NOT TO SCALE



FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN PRICE COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 388443.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), PRICE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. NGS POINT UTILIZED WAS EISENSTEIN SW GPS DMS058.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 2" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN THE NC REGION.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQUARE FEET REQUIRED			TLE SQUARE FEET
			NEW	EXISTING	TOTAL	
7	HOWARD M AND LYNN M NEECK	FEE,TLE	5	-	5	76
8	BONITA L SALM	TLE	-	-	-	154
9	SANDRA L VOLZKA AND MICHAEL W VOLZKA	TLE	-	-	-	95
11	KIM A SMITH AND JOHN W SMITH	TLE	-	-	-	62
12	RORY J MICHALSKI AND MICHELE A MICHALSKI	TLE	-	-	-	187

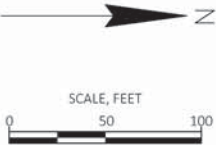
Document No. 388615  
JUDITH L. CHIZEK  
PRICE COUNTY, WI  
REGISTER OF DEEDS  
RECEIVED FOR RECORD  
June 09, 2020  
AT 11:06 AM  
RECORDING FEE: \$25.00

PAGES: 1 By: 5K\*  
\*\*The above recording information  
verifies that this document has  
been electronically recorded  
and returned to the submitter

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 1610-44-23-4.02

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
25003	482693.665	765295.655	3/4" IRON PIPE
25006	482418.029	765426.715	2" IRON PIPE
25492	482662.894	765213.463	3/4" IRON PIPE

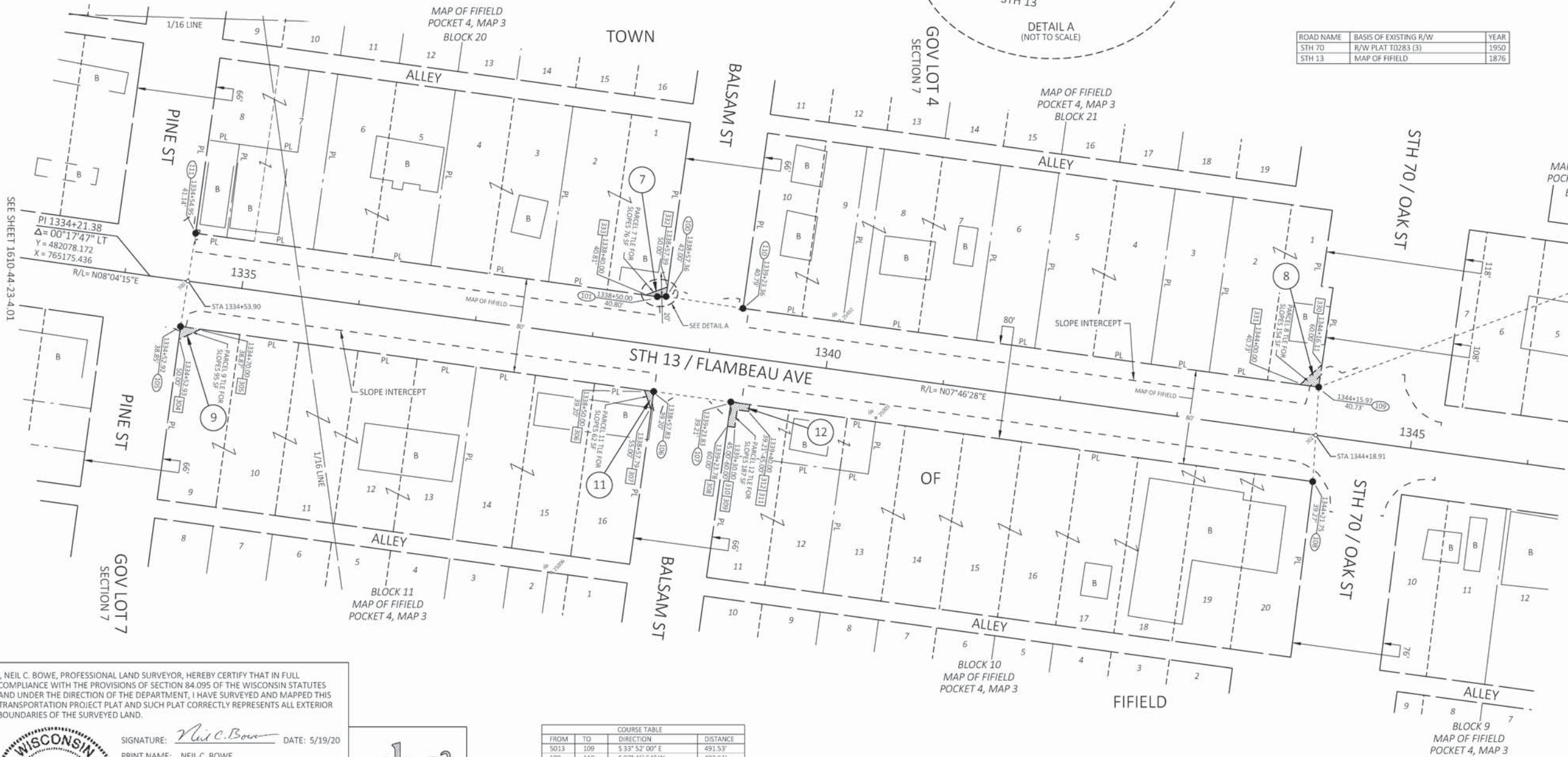
ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 70	R/W PLAT T0283 (3)	1950
STH 13	MAP OF FIFIELD	1876



\* PRICE COUNTY PUBLISHED COORDINATE  
VALUE. COORDINATE VALUES FIELD VERIFIED  
WITH CORNER TIE SHEETS.

WEST 160 ACRE CORNER  
FOUND 6" X 7" CEMENT  
STONE  
\* Y= 483,477.260  
X= 764,995.710

EAST 160 ACRE CORNER  
FOUND 2" IRON PIPE  
\* Y= 483,846.460  
X= 767,596.680



I, NEIL C. BOWE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: Neil C. Bowe DATE: 5/19/20  
PRINT NAME: NEIL C. BOWE  
REGISTRATION NUMBER: S-2827

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR  
THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

SIGNATURE: Brent L. Stella DATE: 5/19/20  
PRINT NAME: BRENT L. STELLA

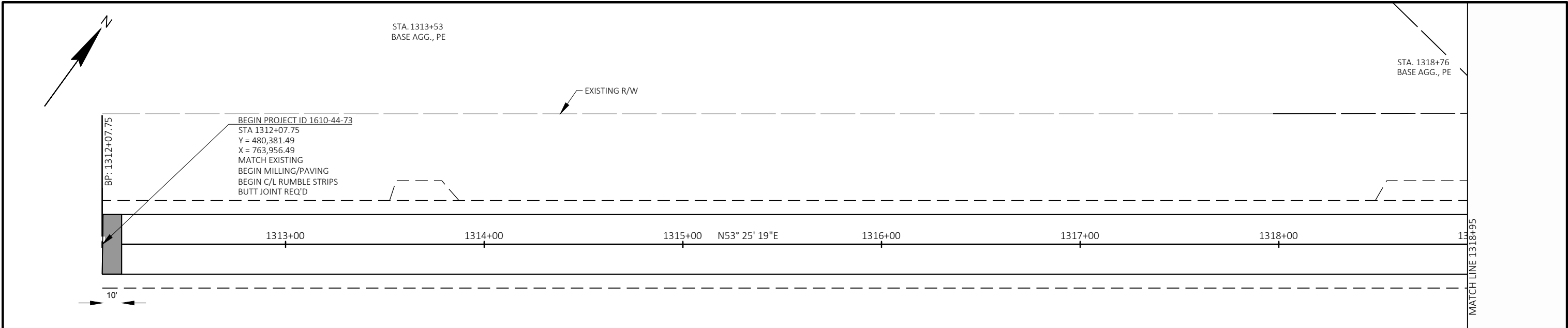


770 TECHNOLOGY WAY  
CHIPPEWA FALLS, WI 54729

COURSE TABLE			
FROM	TO	DIRECTION	DISTANCE
5013	109	S33°52'00"E	491.53'
109	110	S07°46'54"W	492.61'
110	100	S08°49'19"W	66.01'
100	101	S01°27'21"E	7.46'
101	111	S07°49'26"W	395.05'
111	105	S80°46'25"E	80.03'
105	106	N07°49'26"E	404.91'
106	107	N07°46'39"E	66.00'
107	108	N07°46'54"E	497.92'
108	109	N86°21'36"W	80.21'

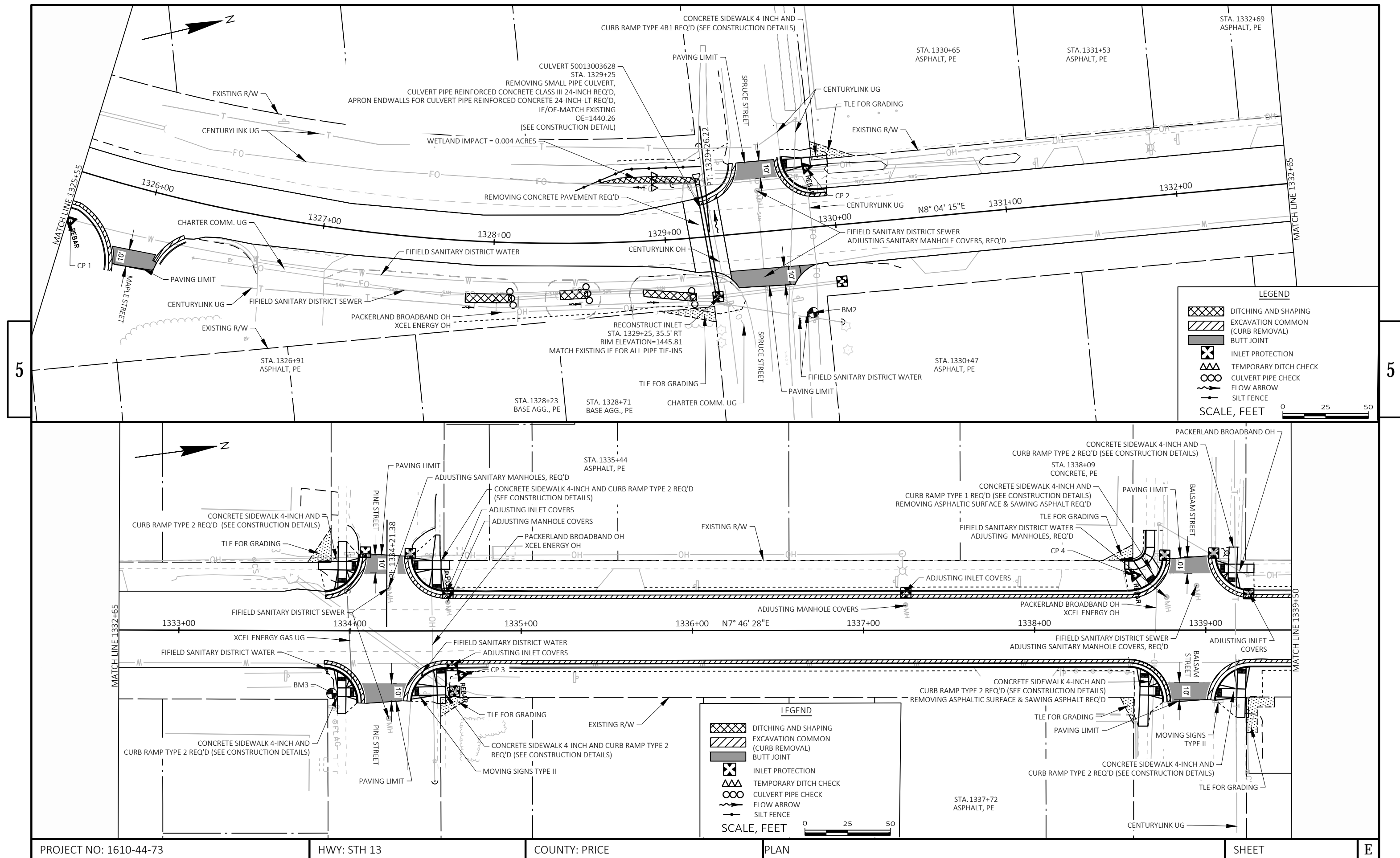
COURSE TABLE - SEGMENTS			
FROM	TO	DIRECTION	DISTANCE
111	700	S80°46'25"E	41.16'
700	105	S80°46'25"E	38.87'
108	702	N86°21'36"W	39.37'
702	109	N86°21'36"W	40.84'

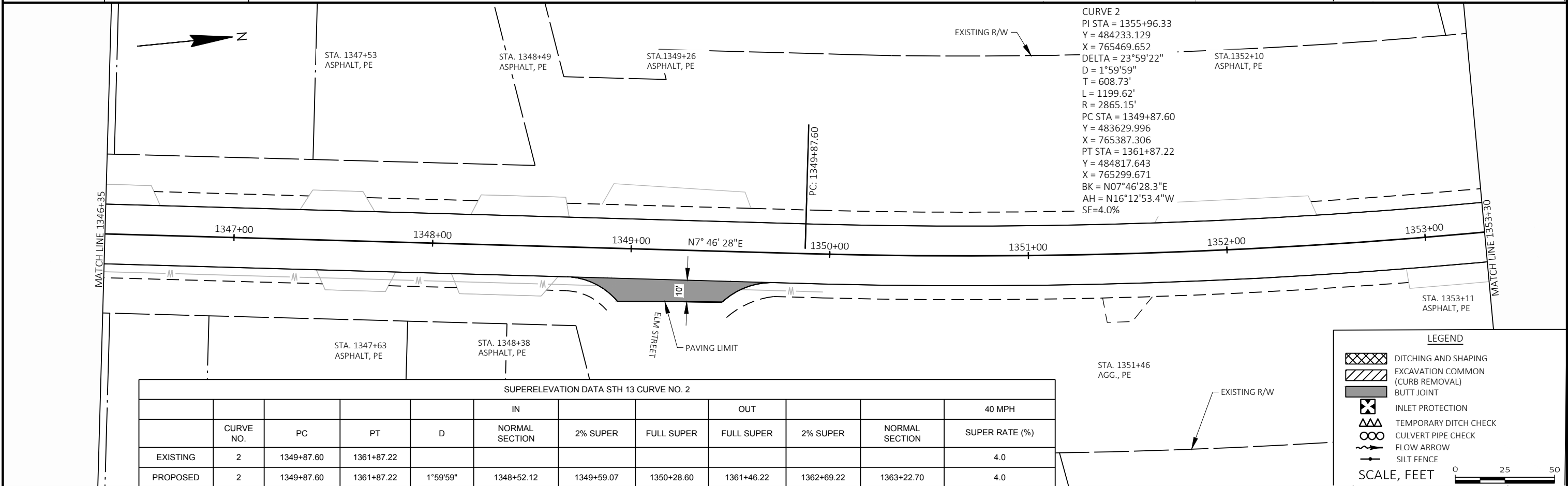
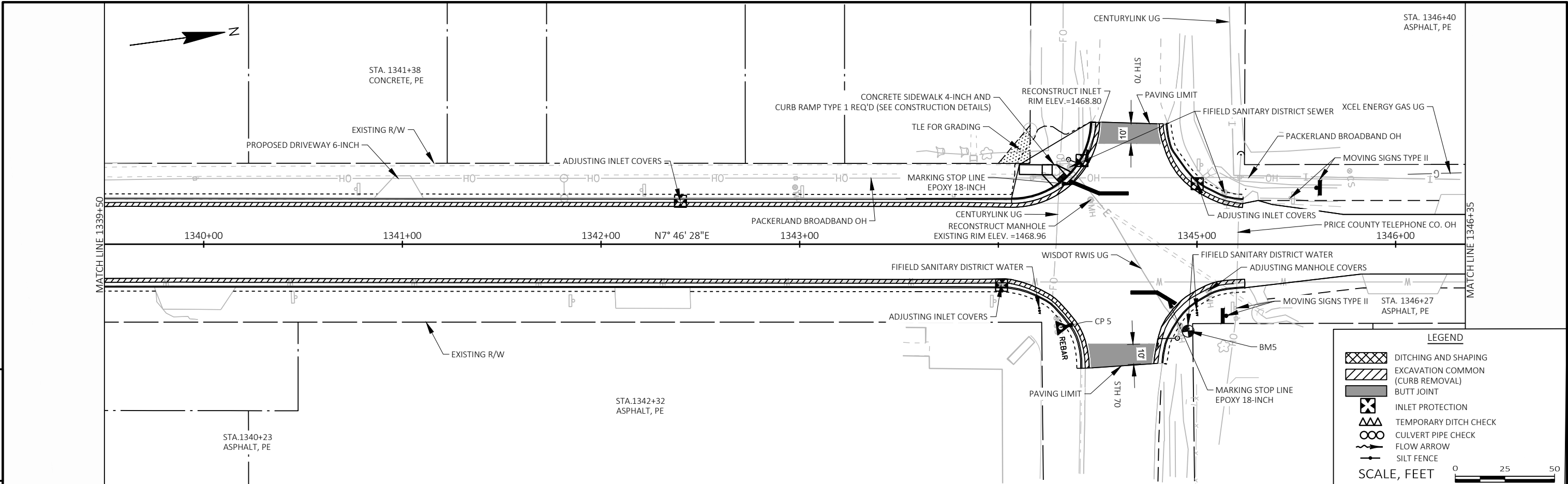
COURSE TABLE - SECTION LINE			
FROM	TO	DIRECTION	DISTANCE
5012	5013	S81°55'16"W	2627.04'



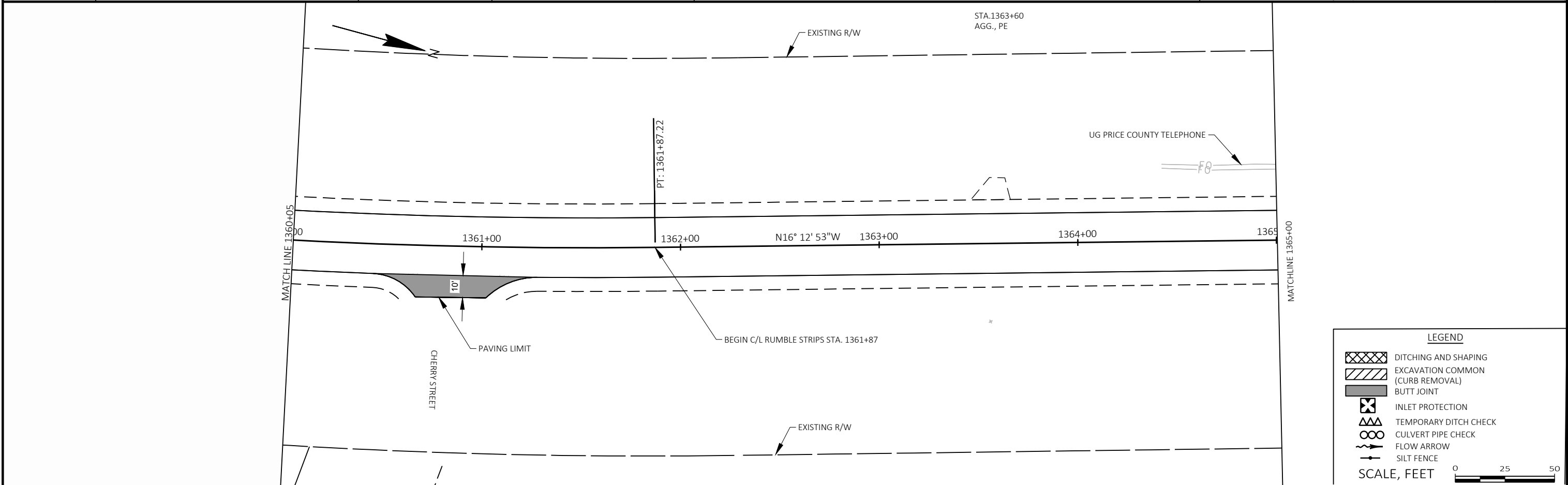
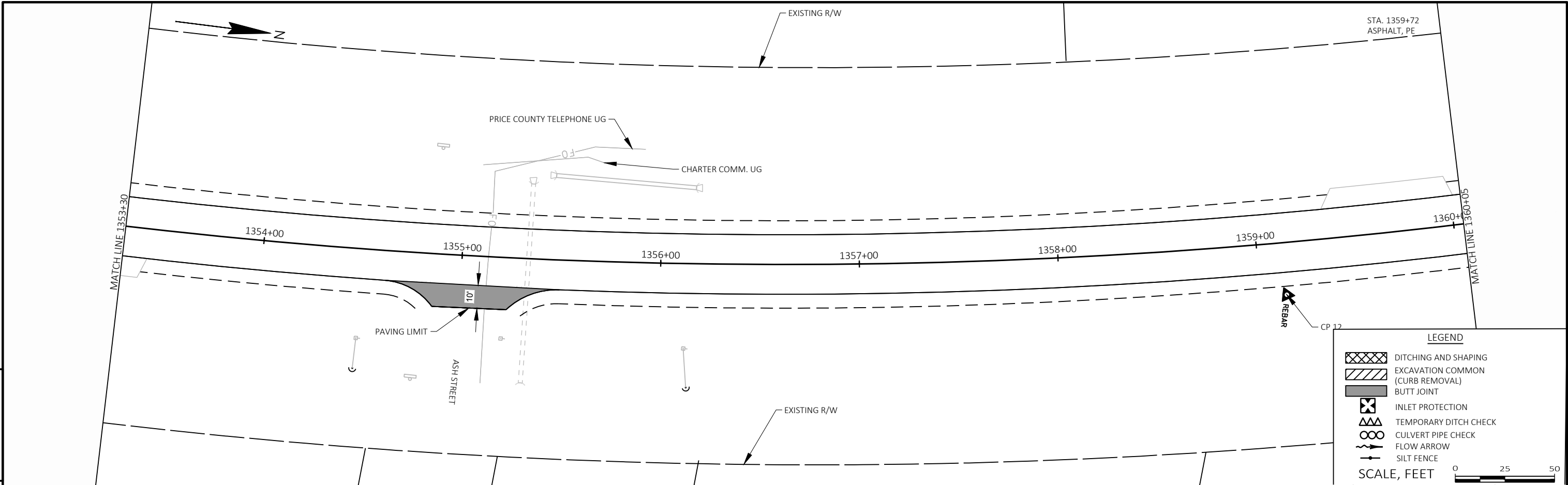
SUPERELEVATION DATA STH 13 CURVE NO. 1											
	CURVE NO.	PC	PT	D	IN			OUT			40 MPH
					NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	1	1321+70.35	1329+26.22								5.9
PROPOSED	1	1321+70.35	1329+26.22	6 °00'00"	1320+10.35	1321+17.01	1322+23.68	1328+72.89	1329+79.56	1330+86.23	5.9



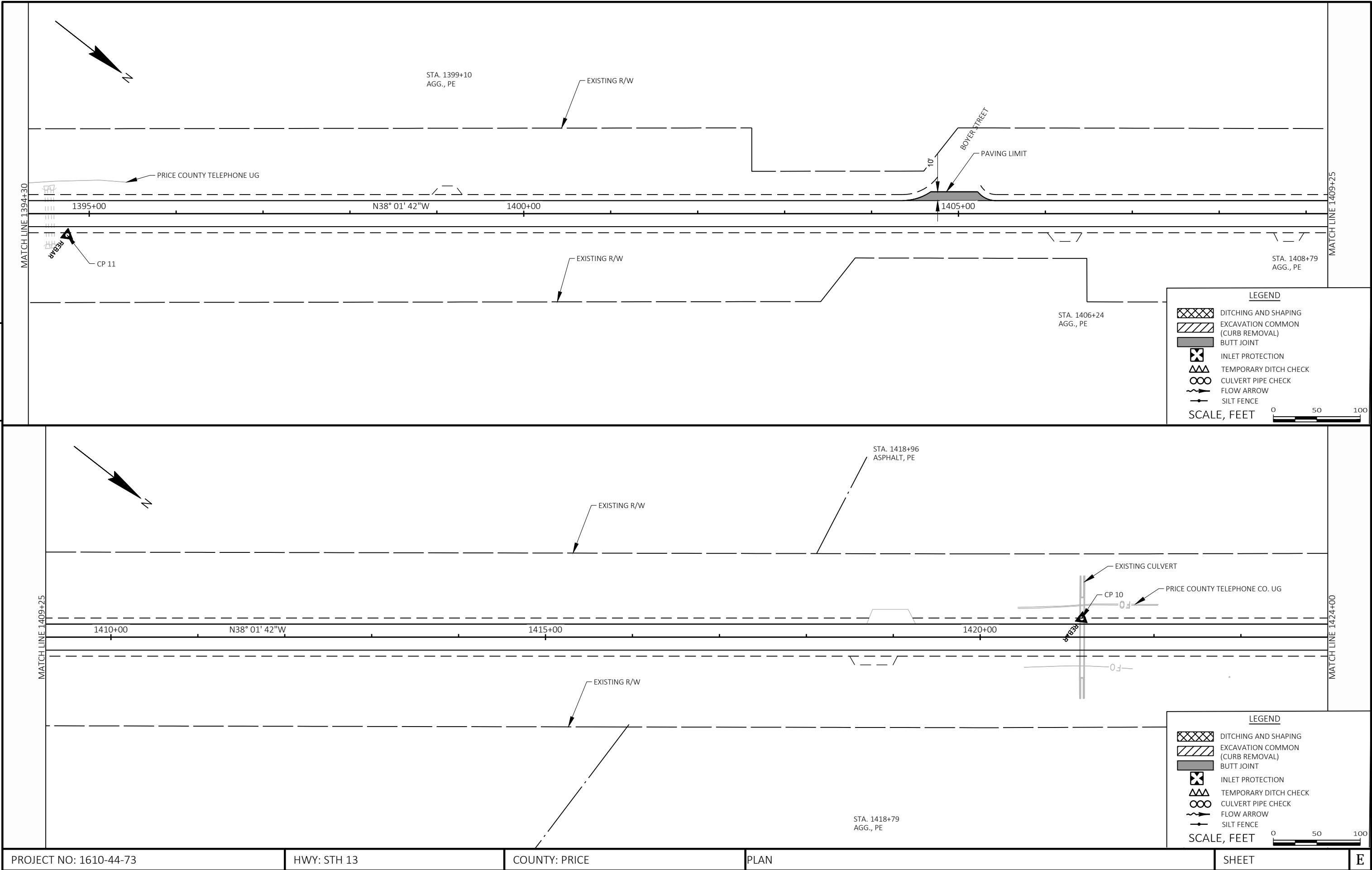


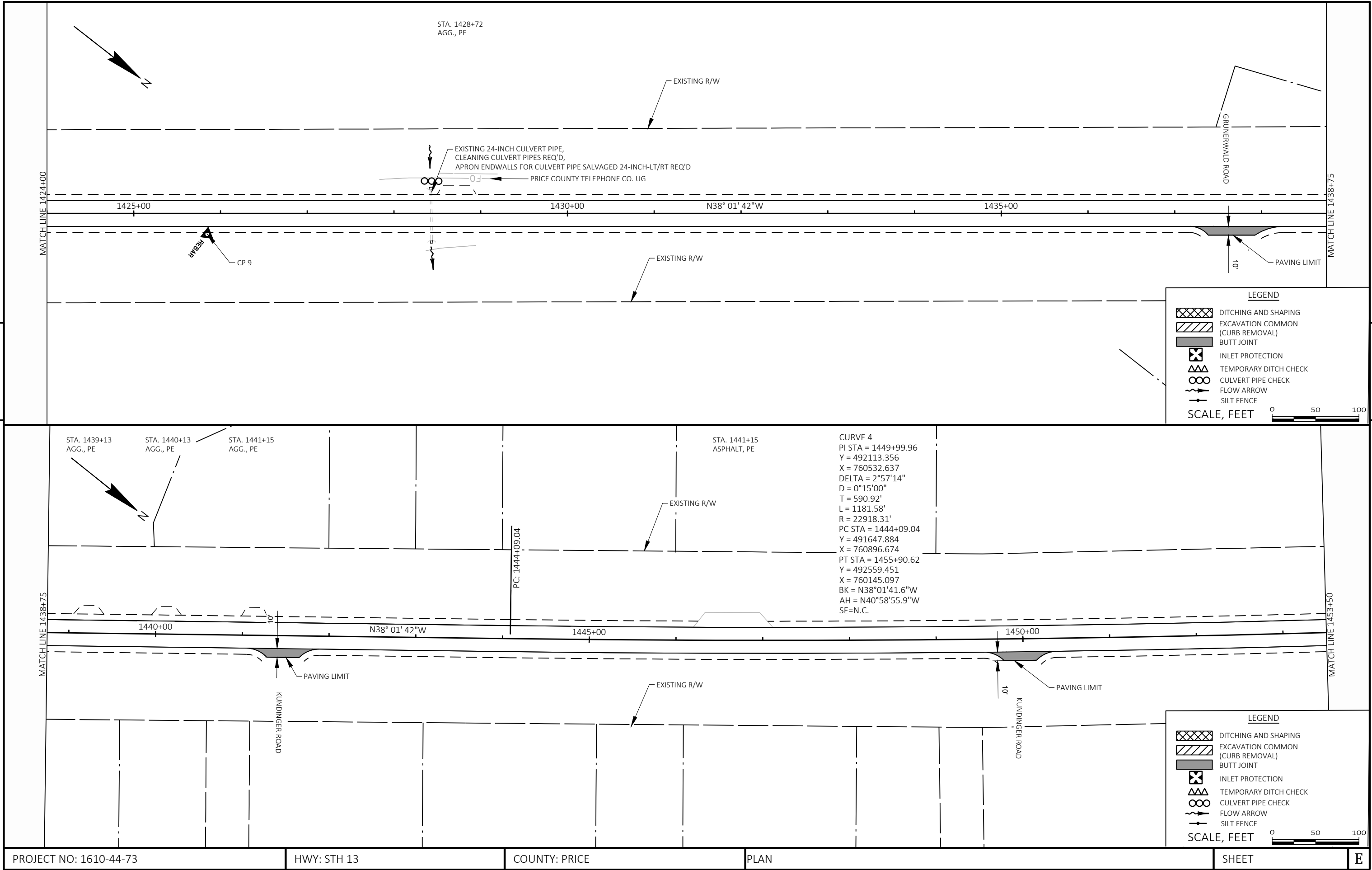


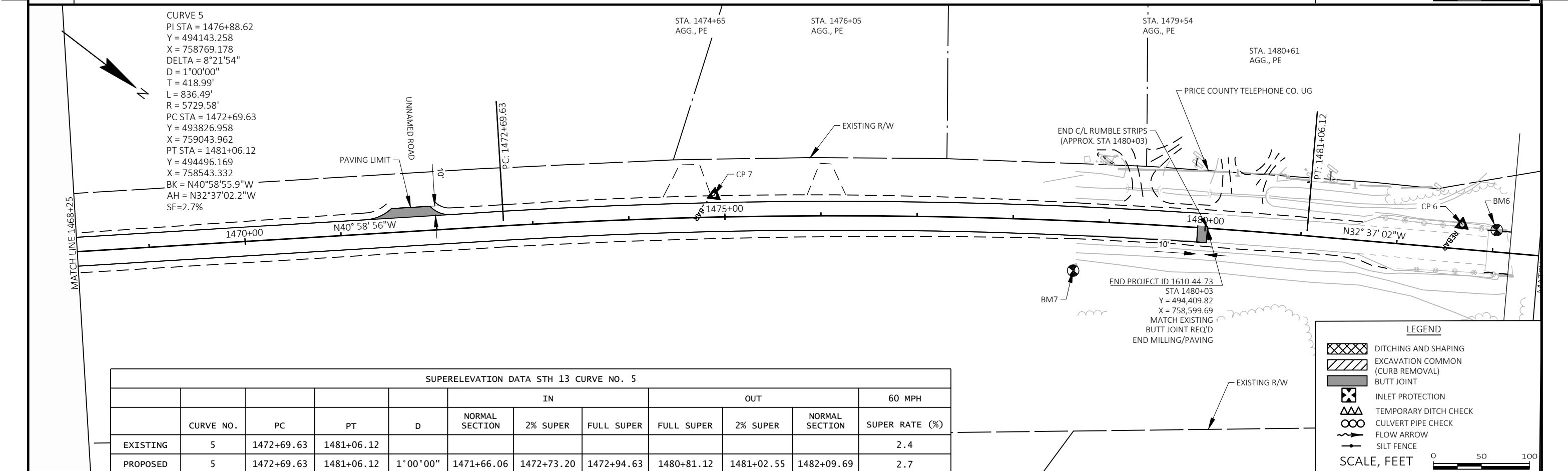
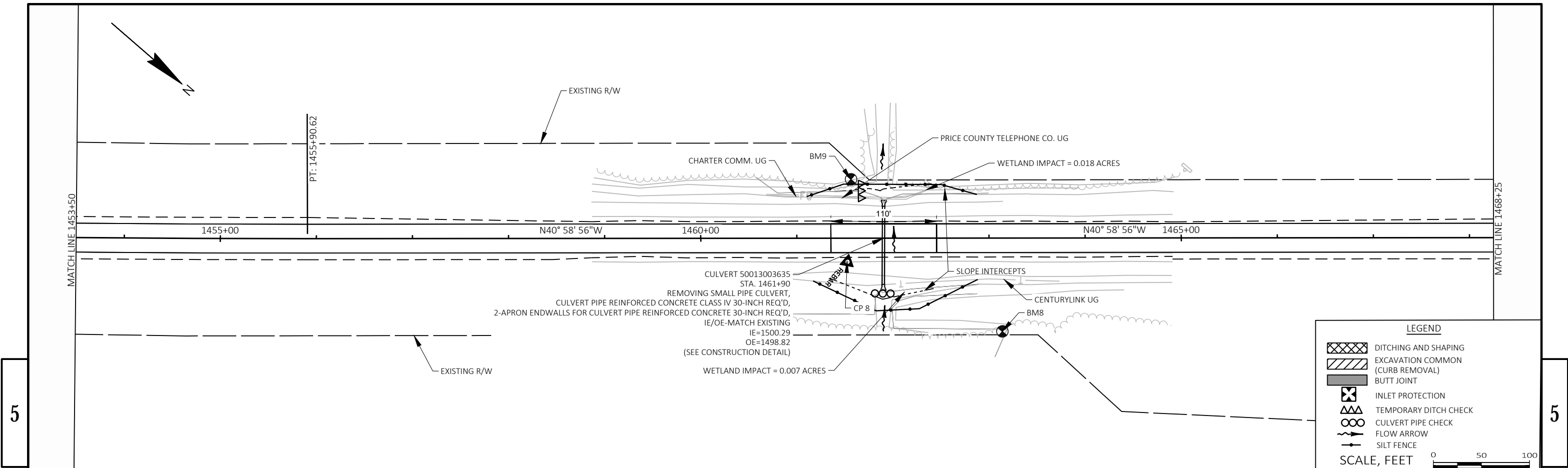








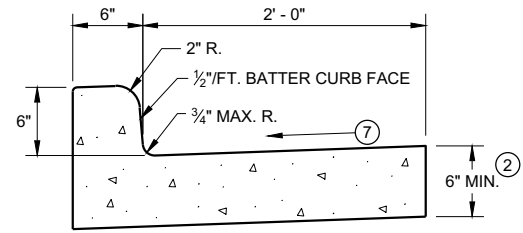




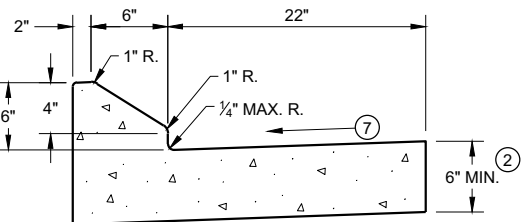
SUPERELEVATION DATA STH 13 CURVE NO. 5											
					IN			OUT			60 MPH
	CURVE NO.	PC	PT	D	NORMAL SECTION	2% SUPER	FULL SUPER	FULL SUPER	2% SUPER	NORMAL SECTION	SUPER RATE (%)
EXISTING	5	1472+69.63	1481+06.12								2.4
PROPOSED	5	1472+69.63	1481+06.12	1°00'00"	1471+66.06	1472+73.20	1472+94.63	1480+81.12	1481+02.55	1482+09.69	2.7

Standard Detail Drawing List

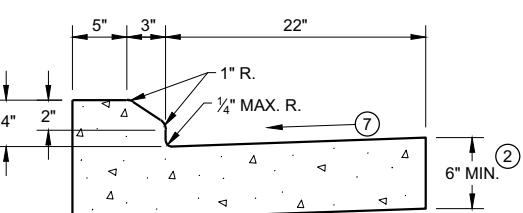
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-08A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK



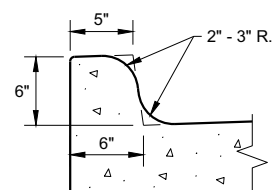
TYPES A<sup>①</sup> & D



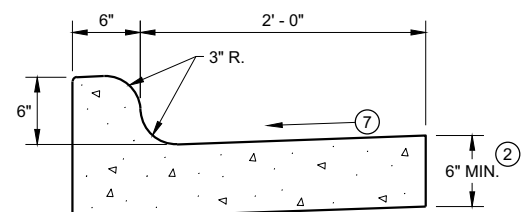
6" SLOPED CURB TYPES G<sup>①</sup> & J



4" SLOPED CURB TYPES G<sup>①</sup> & J

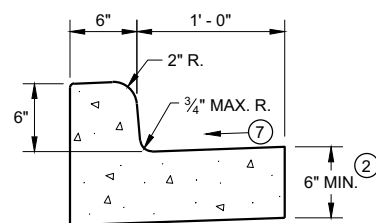


TYPES K<sup>①</sup> & L  
(OPTIONAL CURB SHAPE)



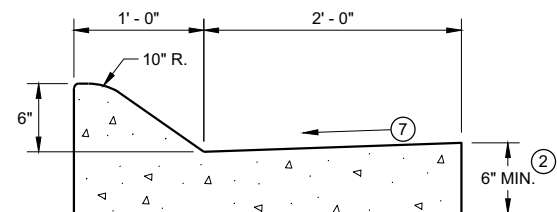
TYPES K<sup>①</sup> & L

CONCRETE CURB AND GUTTER 30"

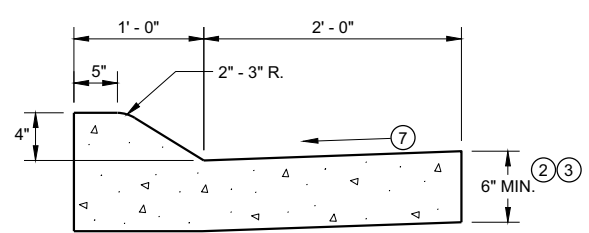


TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 18"

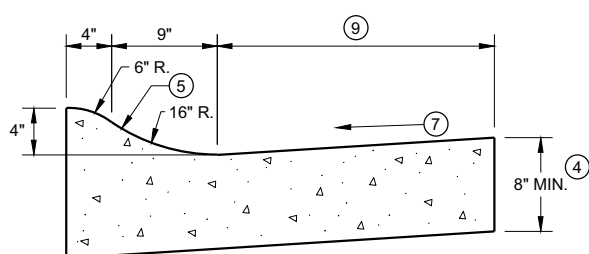


6" SLOPED CURB TYPES A<sup>①</sup> & D



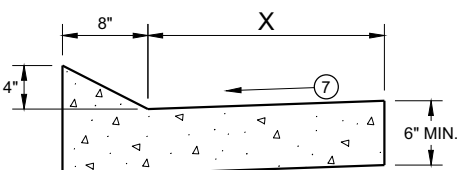
4" SLOPED CURB TYPES A<sup>①</sup> & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R<sup>①</sup> & T

TBT & TBTT	X
30"	22"
36"	28"

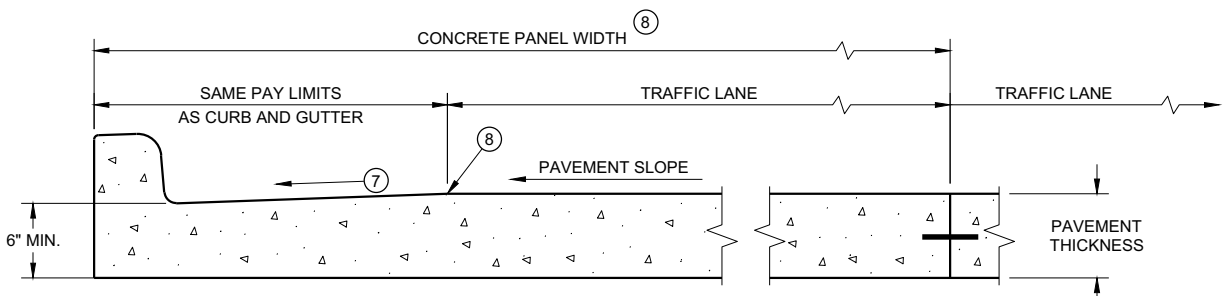


TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB AND GUTTER

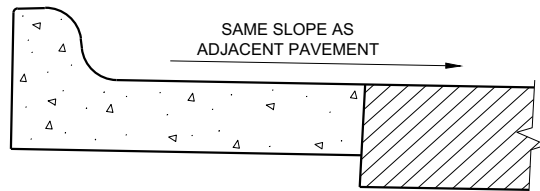
PAVEMENT THICKNESS  
AND MAXIMUM CONCRETE  
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT \*  
WITH INTEGRAL CURB AND GUTTER

\* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER<sup>⑥</sup>  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

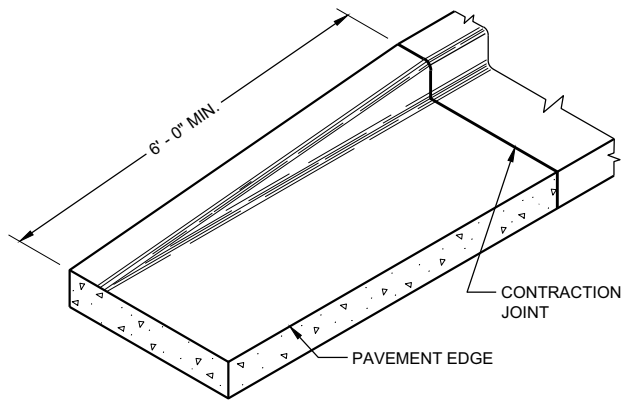
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

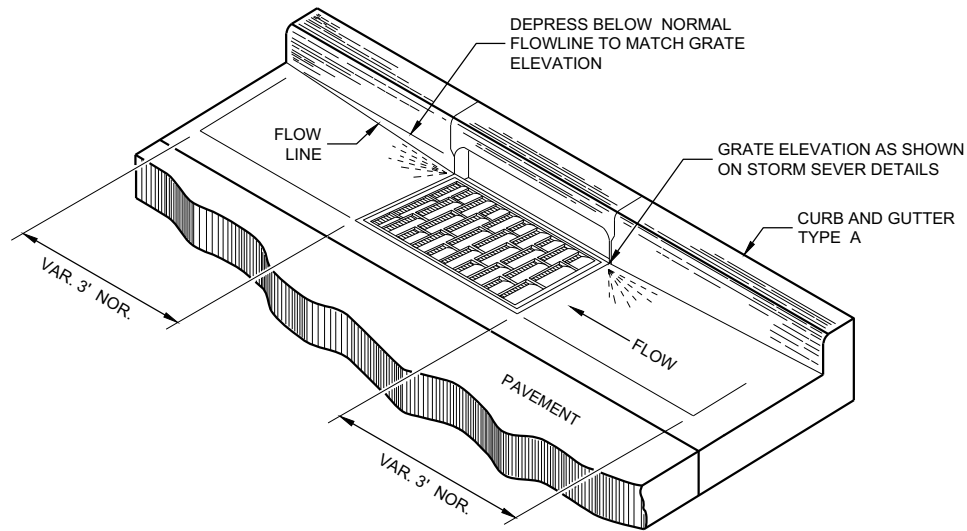
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES  
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

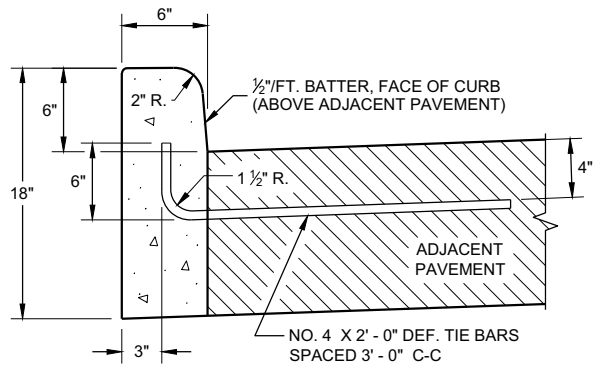
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



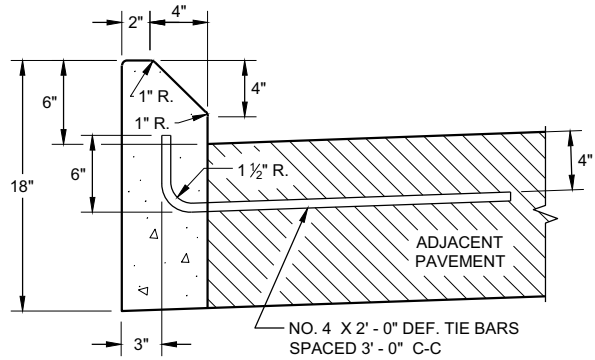
END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS  
(TYPICAL H INLET COVER SHOWN)

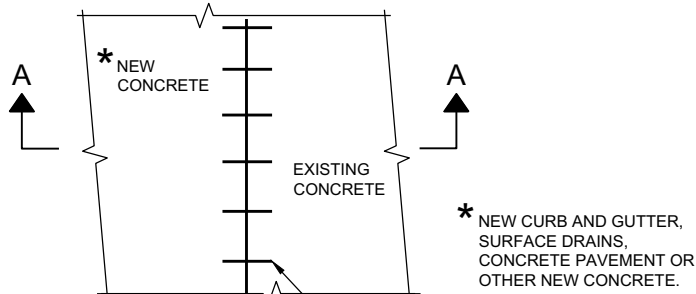


TYPES A<sup>①</sup> & D

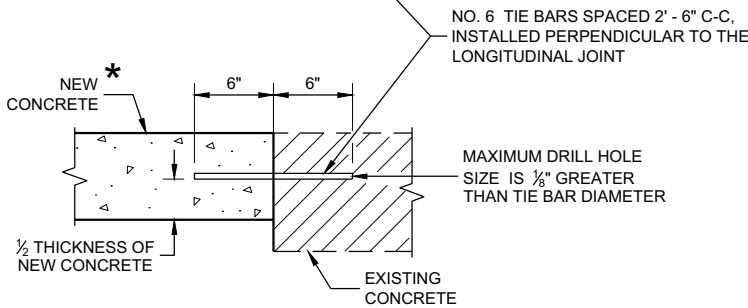


TYPES G<sup>①</sup> & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED  
INTO EXISTING PAVEMENT

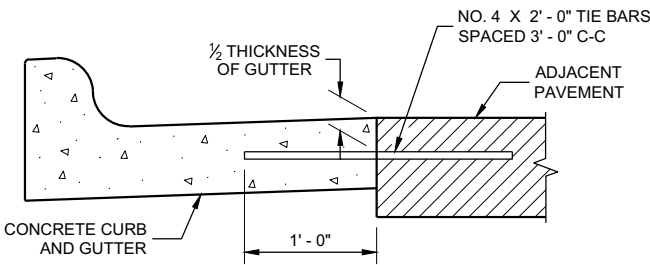
### GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

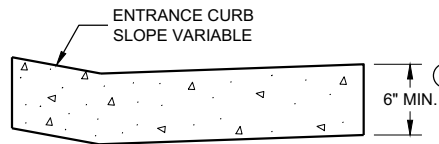
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION<sup>①</sup>



DRIVEWAY ENTRANCE CURB<sup>⑨</sup>  
(WHEN DIRECTED BY THE ENGINEER)

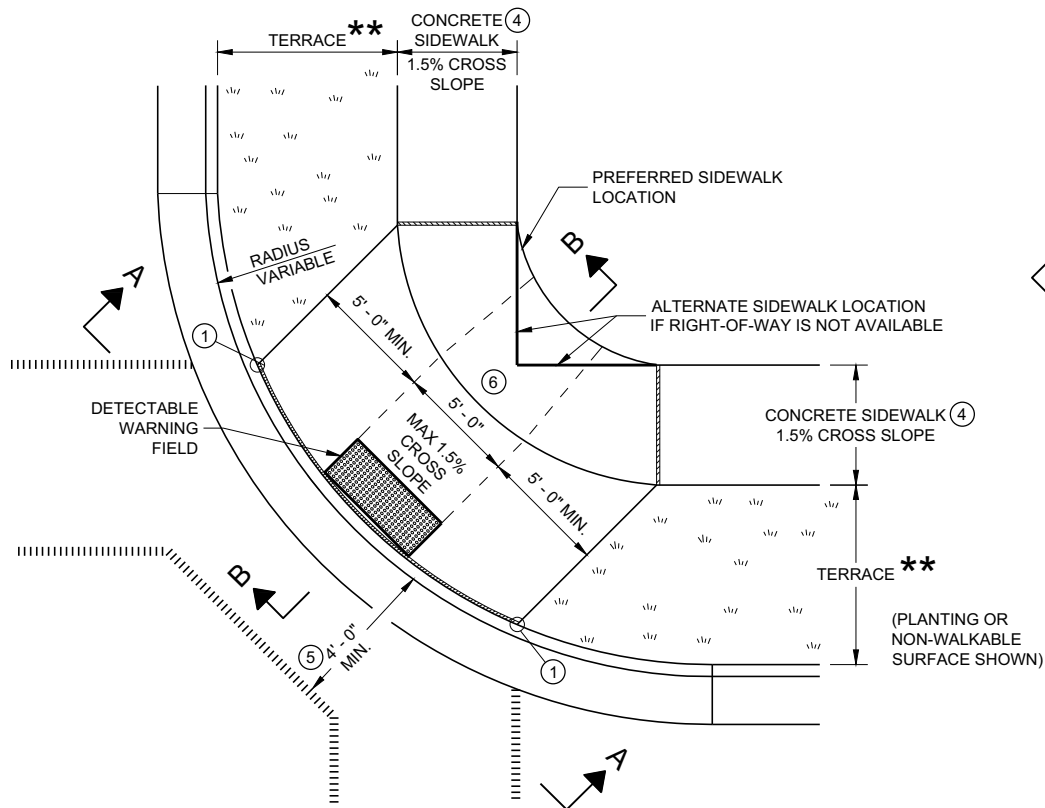
### CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

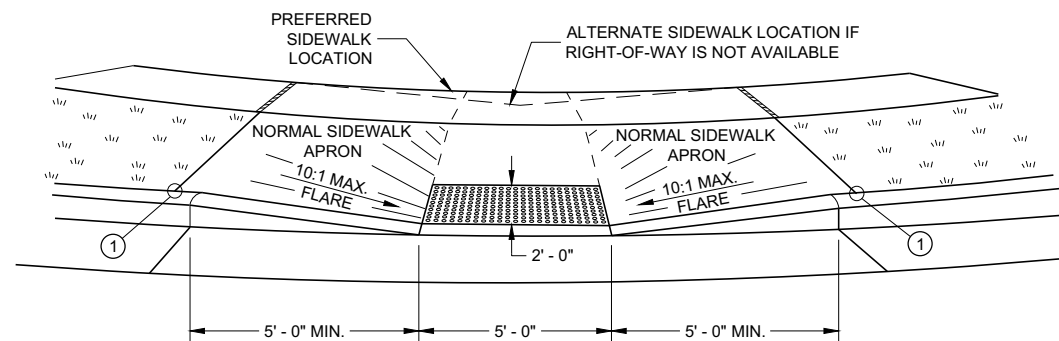
APPROVED  
February 2021  
DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA



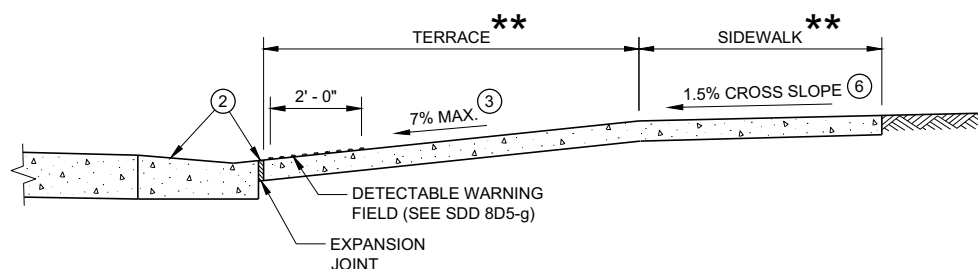


**PLAN VIEW**  
**CURB RAMP TYPE 1**  
**(CENTER OF CORNER RADIUS)**

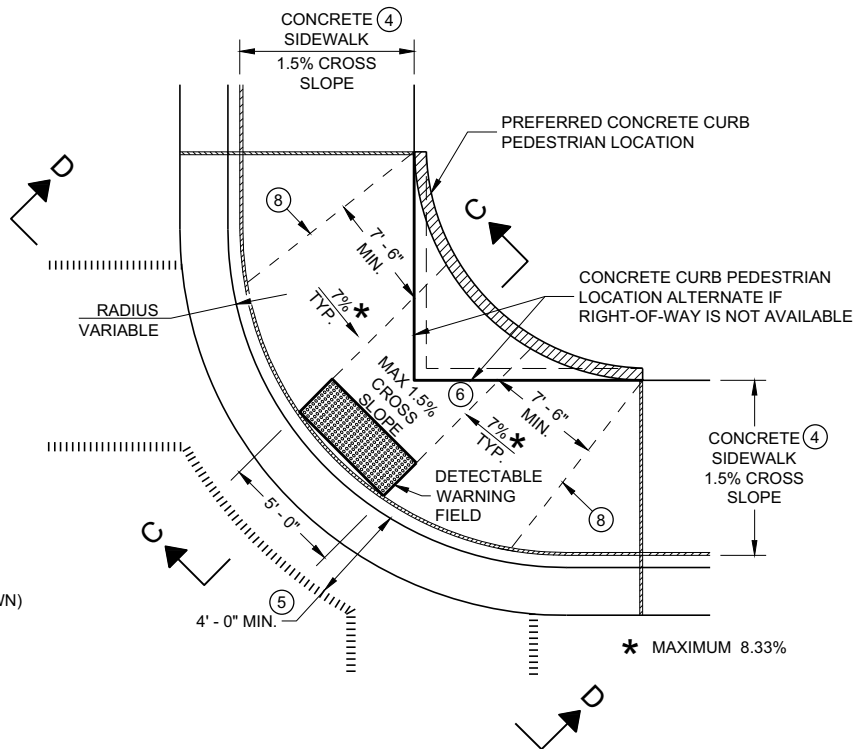


**VIEW A - A FOR TYPE 1**

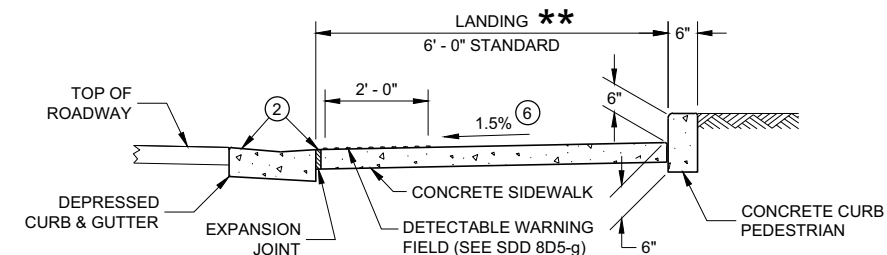
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



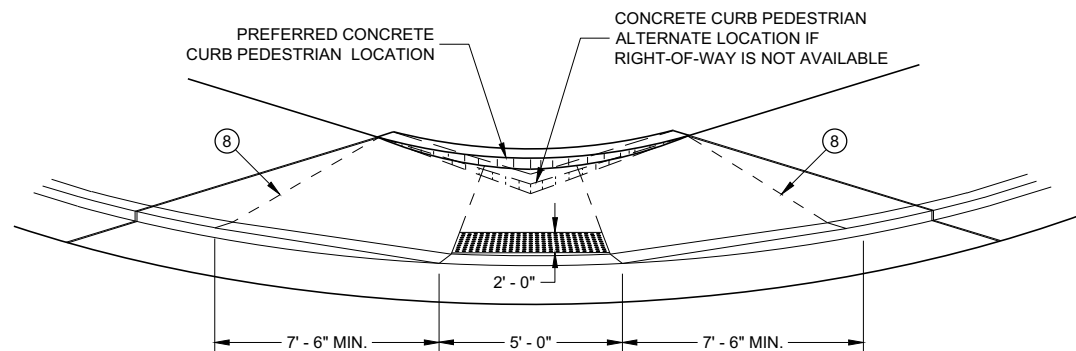
**SECTION B - B FOR TYPE 1**



**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 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 RAMP.

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

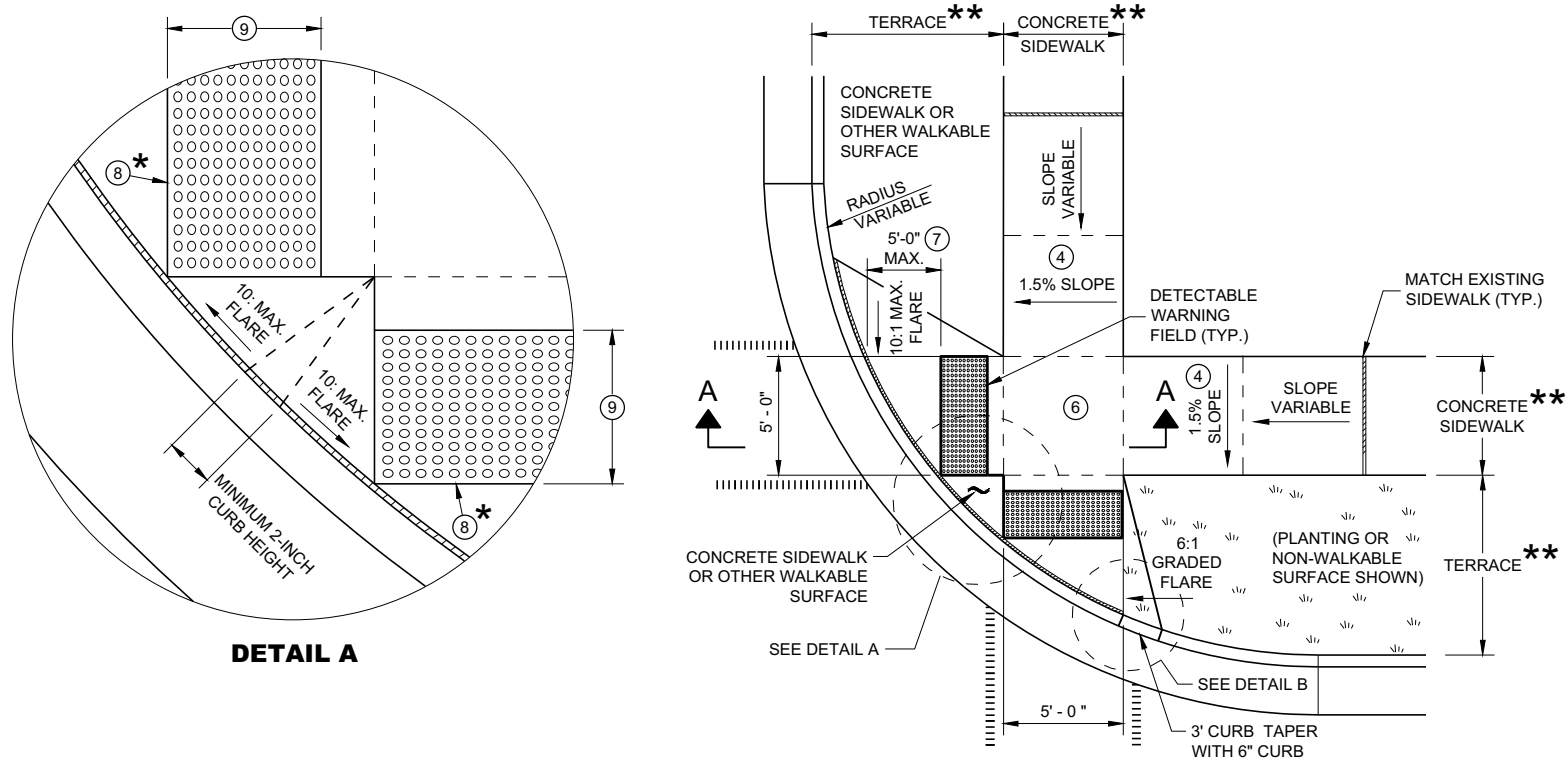
- 1 THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 5 PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

**LEGEND**

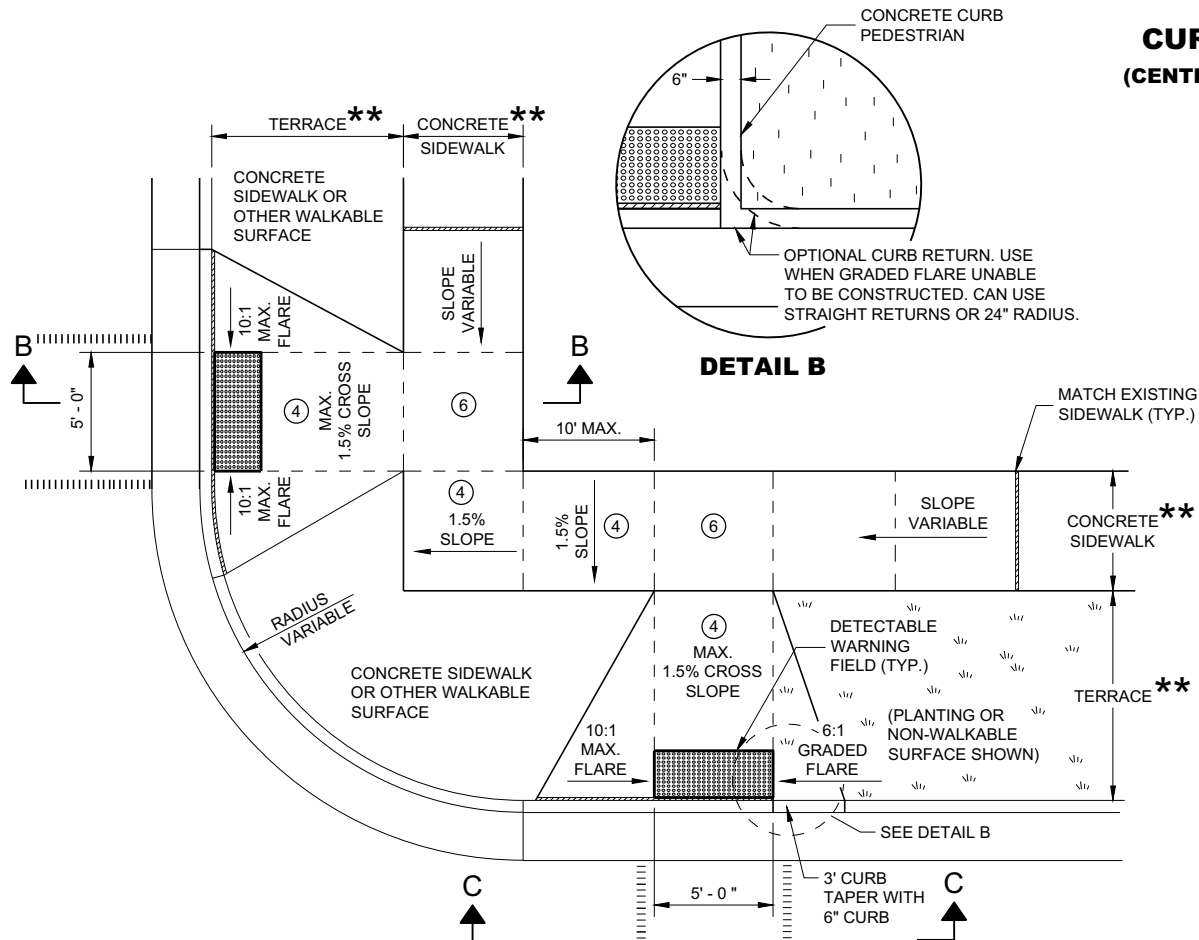
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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

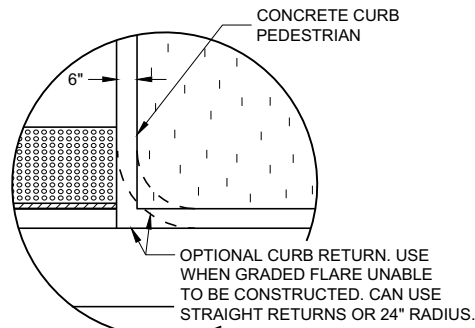
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



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



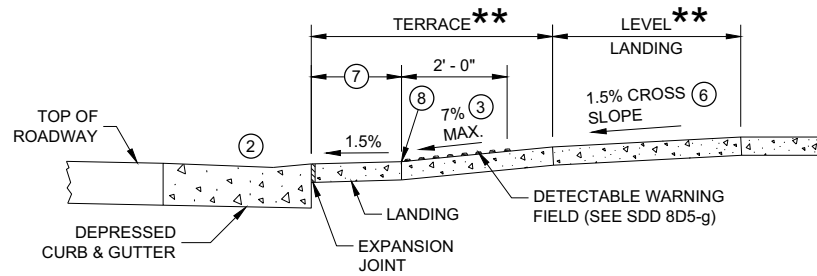
**PLAN VIEW  
CURB RAMP TYPE 3  
(OUTSIDE OF CROSSWALK AREA)**



**DETAIL B**

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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 FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
  - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
  - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
  - ⑦ WHEN 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.
  - ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



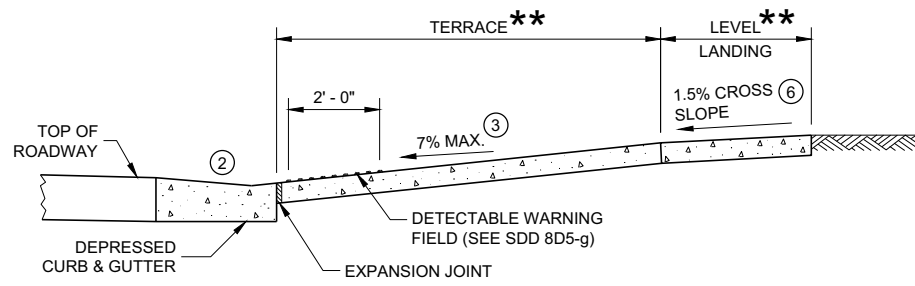
**SECTION A - A FOR TYPE 2**

\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

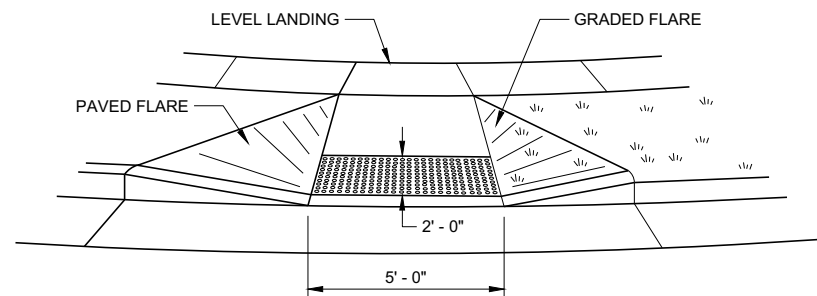
\*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



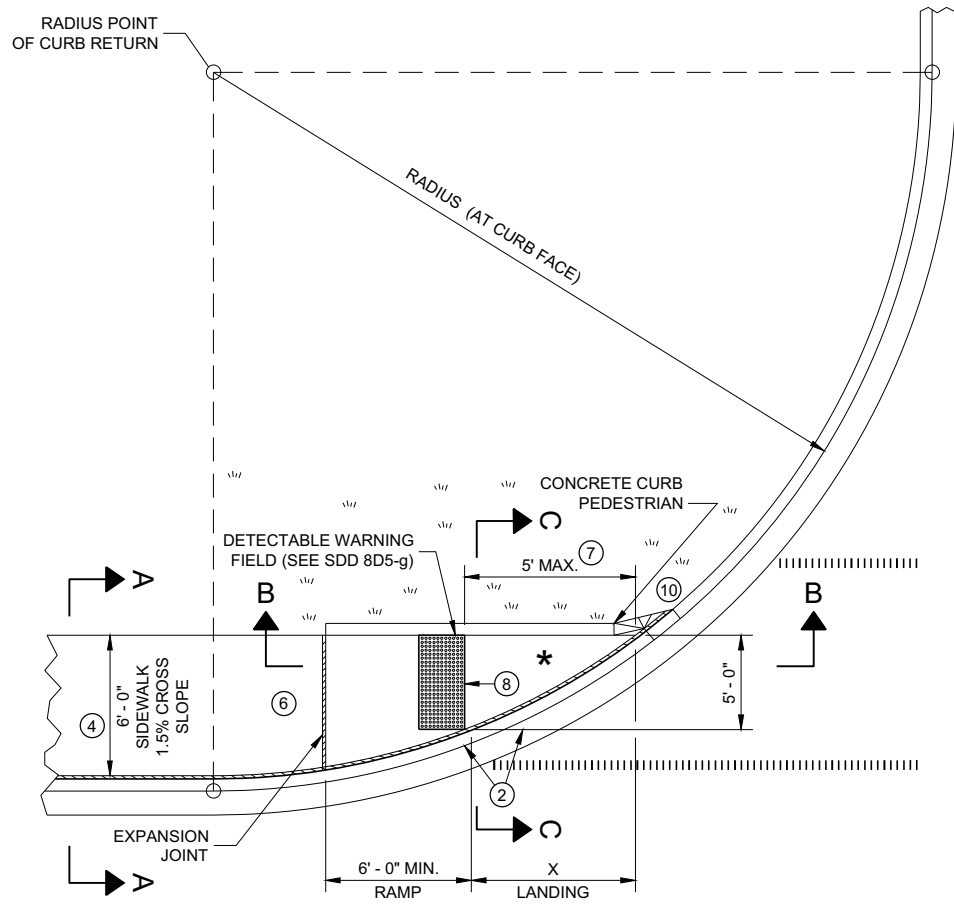
**SECTION B - B FOR TYPE 3**



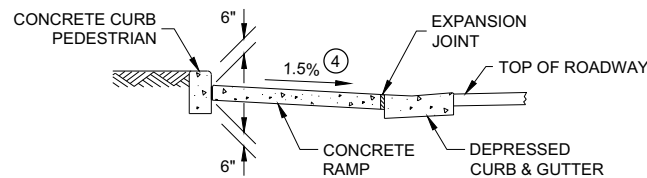
**VIEW C - C FOR TYPE 3**

**CURB RAMPS  
TYPE 2 AND 3**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

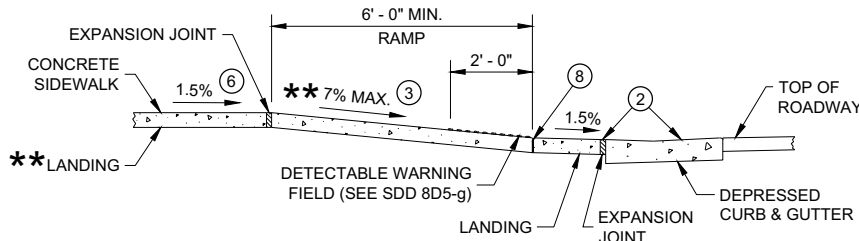


PLAN VIEW  
CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A

\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

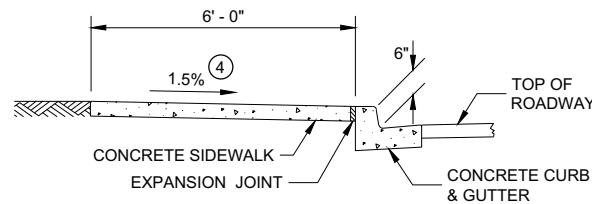


\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

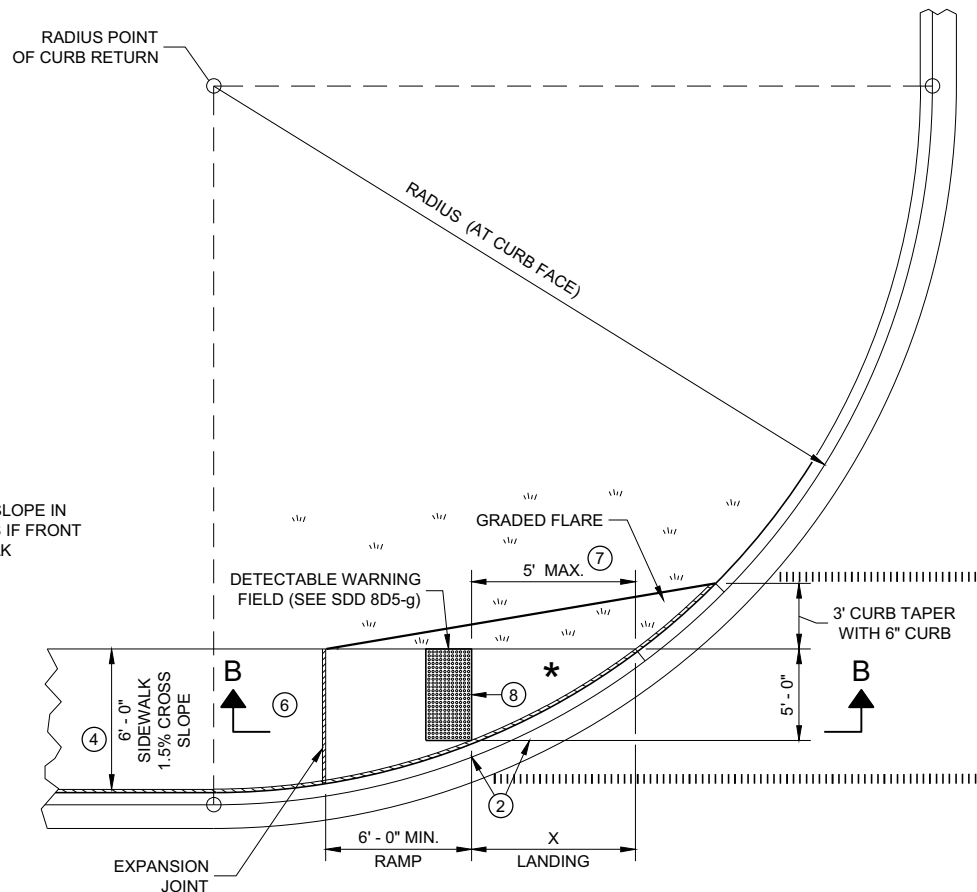
SECTION B - B FOR  
TYPE 4A AND TYPE 4A1

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



PLAN VIEW  
CURB RAMP TYPE 4A1

## GENERAL NOTES

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

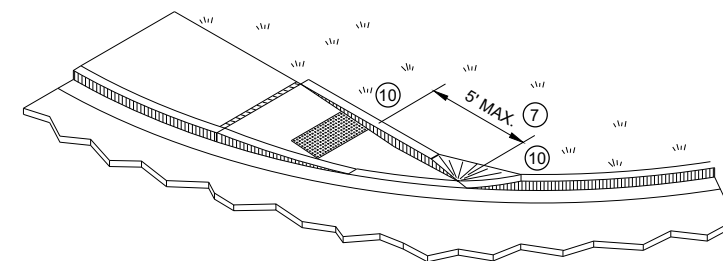
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

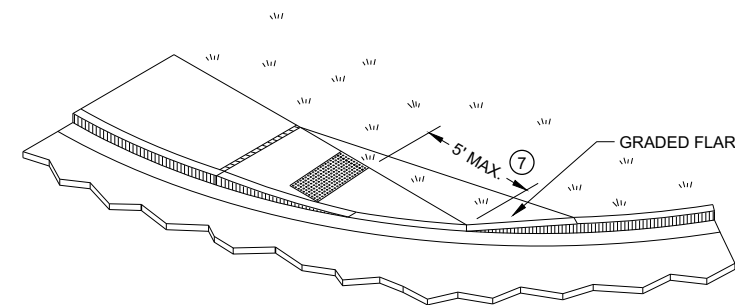
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

## LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



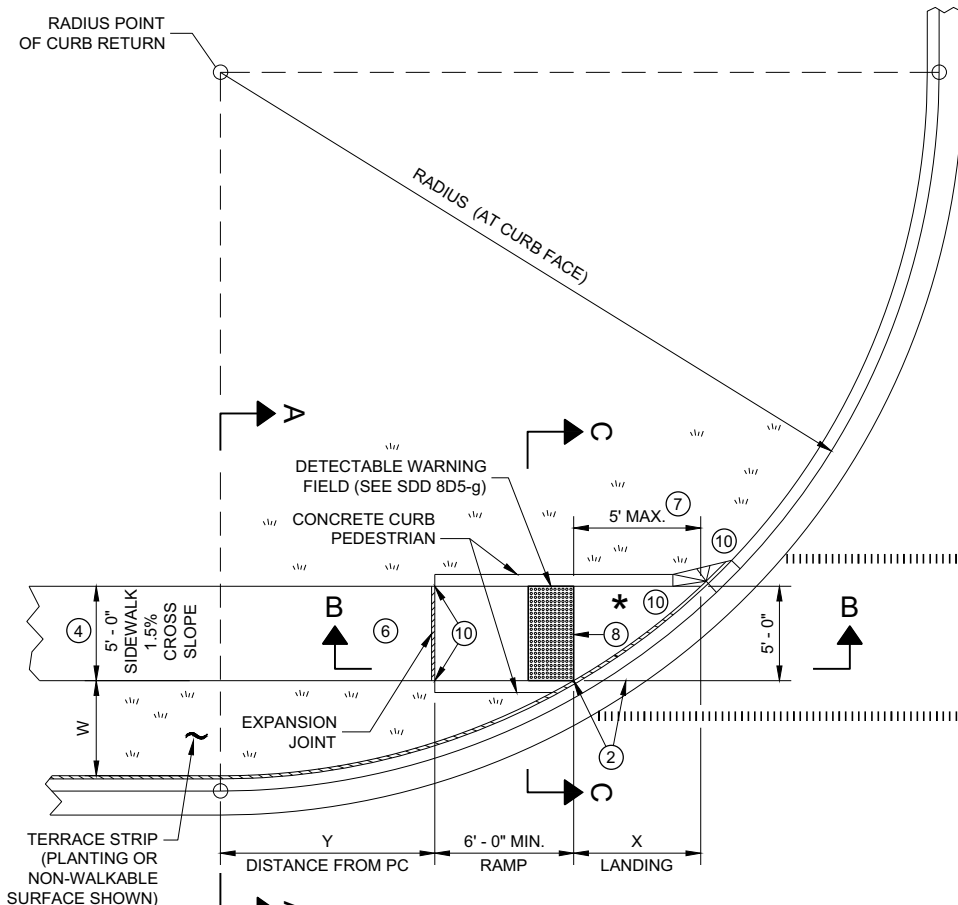
ISOMETRIC VIEW FOR TYPE 4A



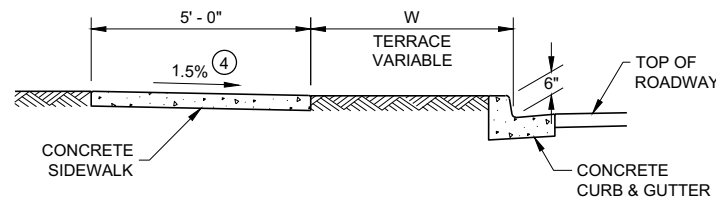
ISOMETRIC VIEW FOR TYPE 4A1

## CURB RAMPS TYPE 4A AND 4A1

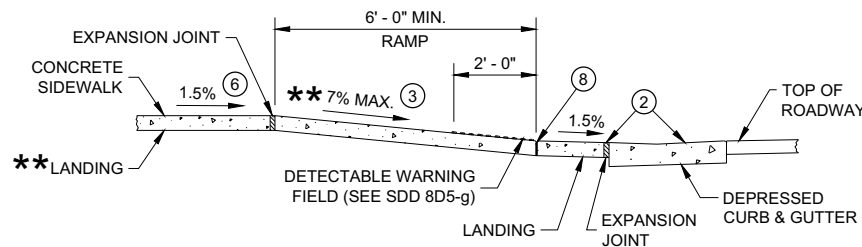
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



PLAN VIEW  
CURB RAMP TYPE 4B



SECTION A - A FOR TYPE 4B

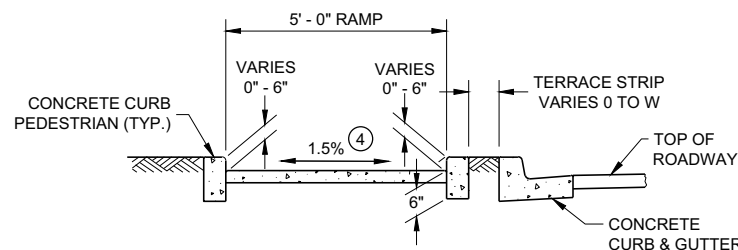


SECTION B - B FOR  
TYPE 4B AND TYPE 4B1

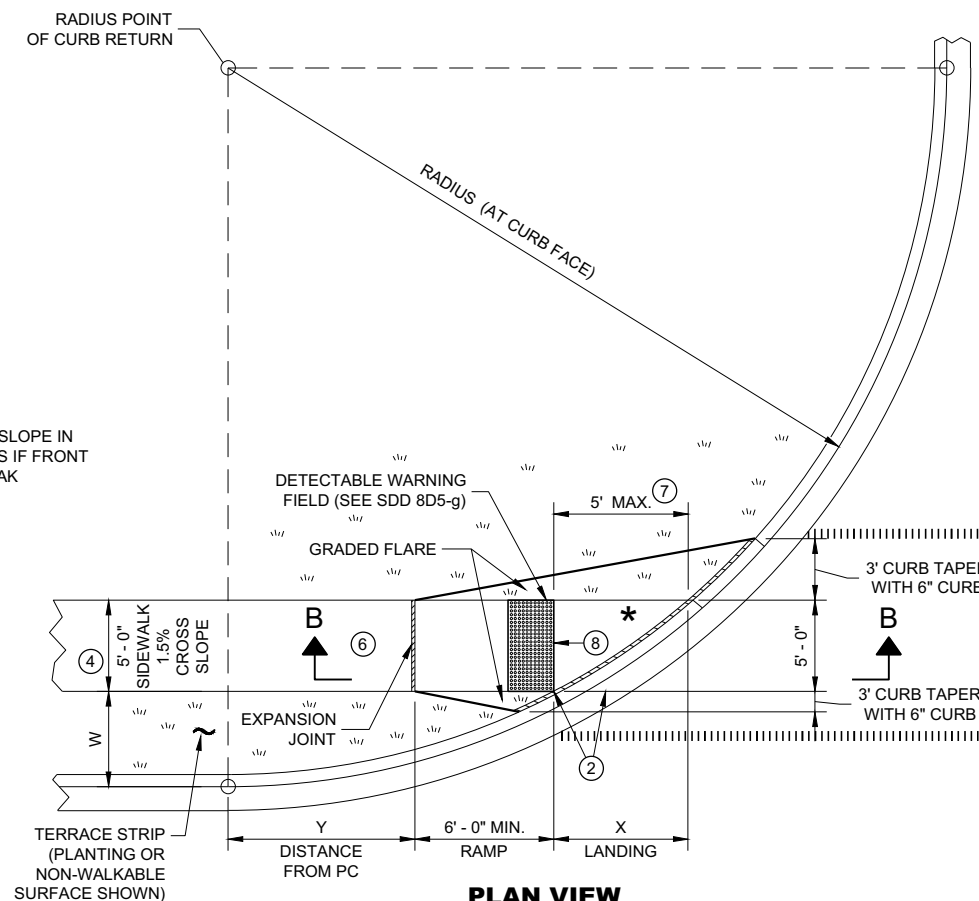
\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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	5' - 9 3/4"	3' - 6 1/2"	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			6' - 9 1/4"	7' - 11 1/2"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	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									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

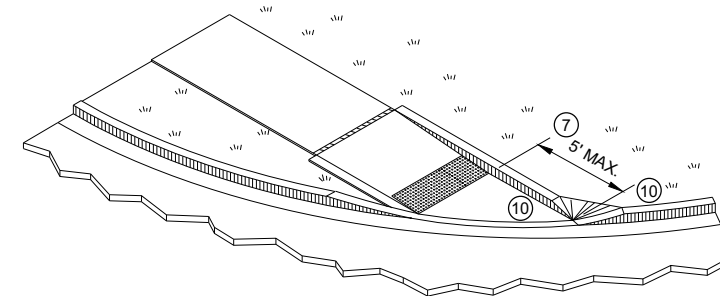
INTERMEDIATE RADII CAN BE INTERPOLATED  
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH  
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



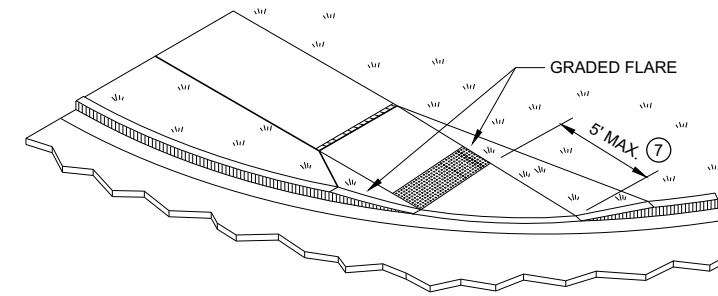
SECTION C - C FOR TYPE 4B



PLAN VIEW  
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

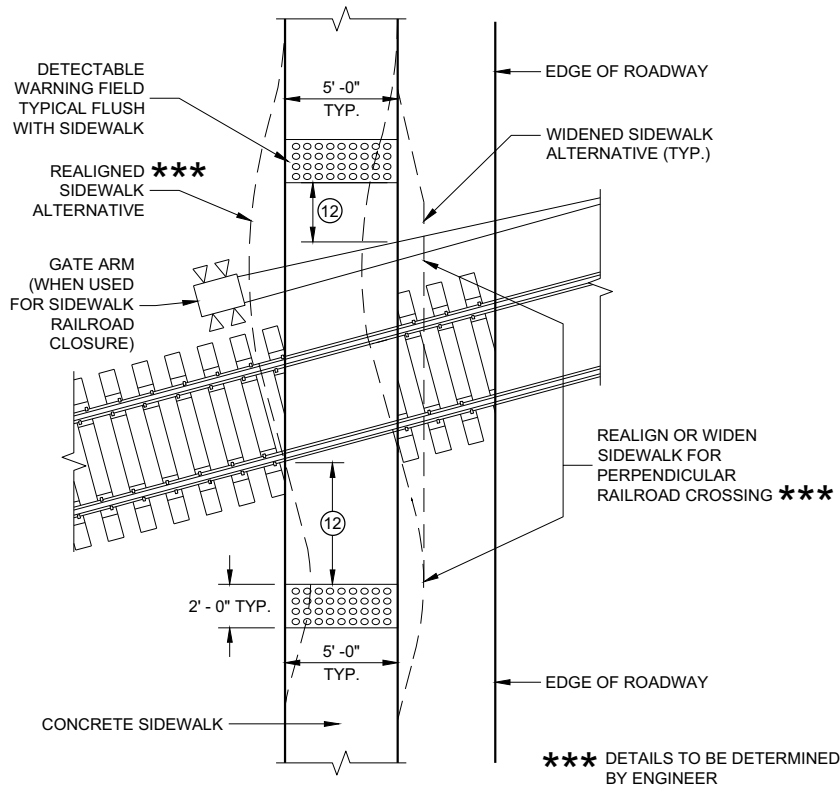
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

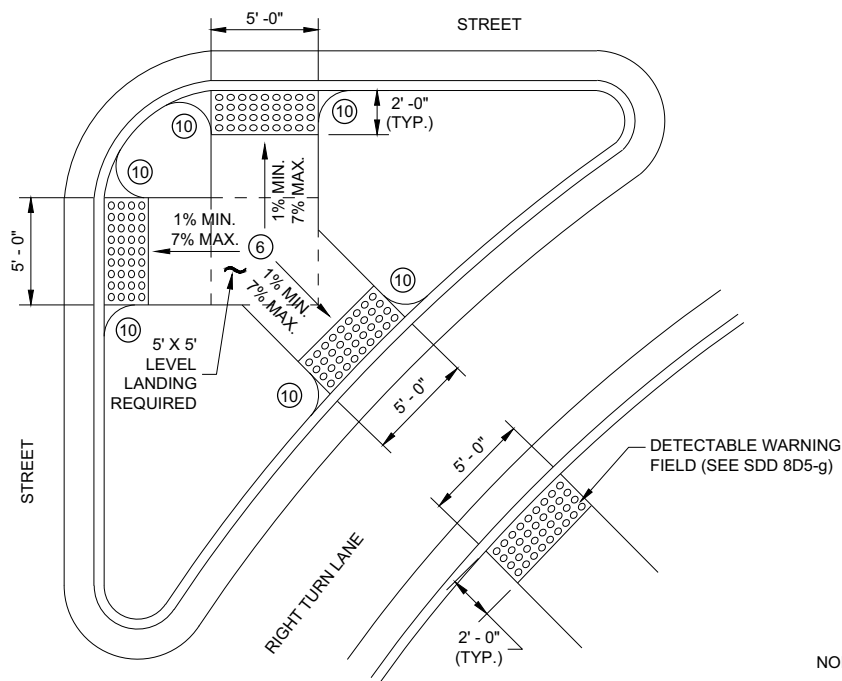
CURB RAMPS  
TYPE 4B AND 4B1

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 8**

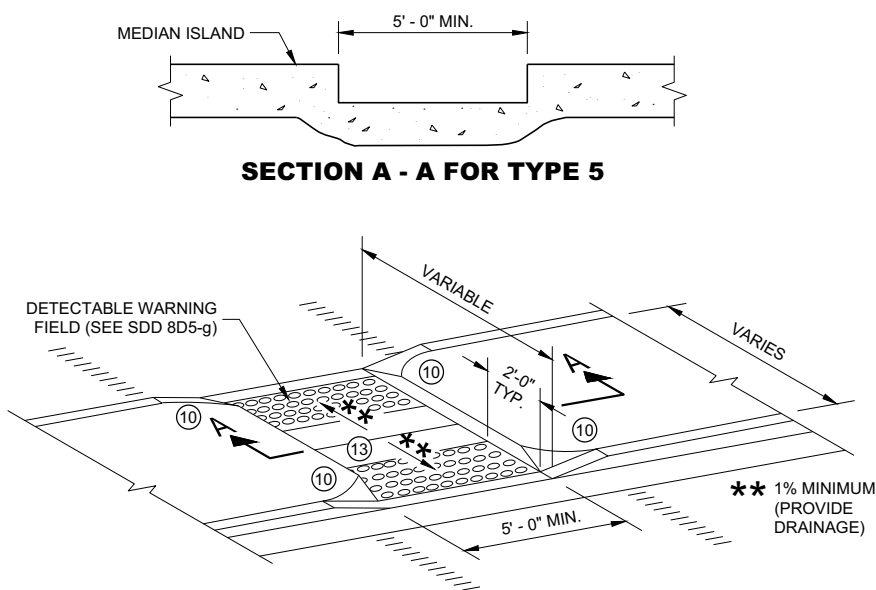
**DETECTABLE WARNINGS AT RAILROAD CROSSING**



**CURB RAMP TYPE 6**

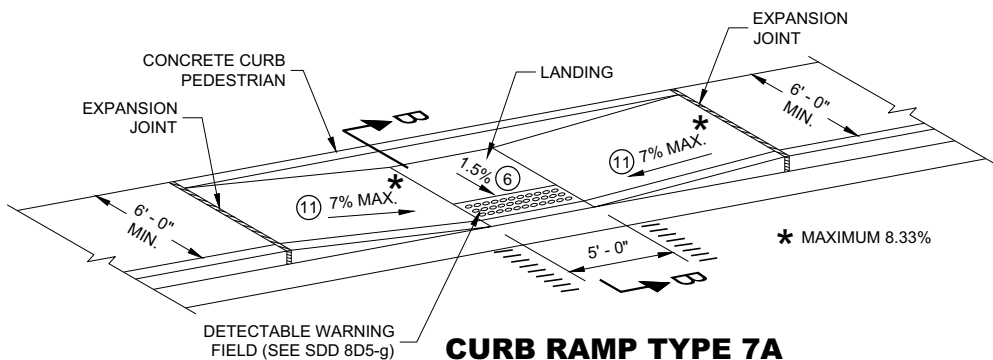
**DETECTABLE WARNING AT ISLANDS**

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

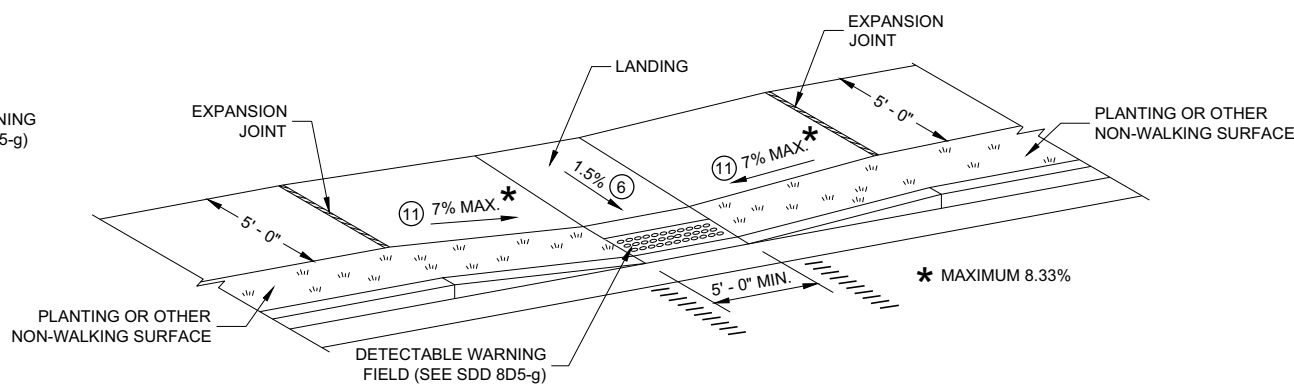


**CURB RAMP TYPE 5**

**MEDIAN ISLAND  
NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A  
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B  
MID BLOCK CROSSING**

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS  
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

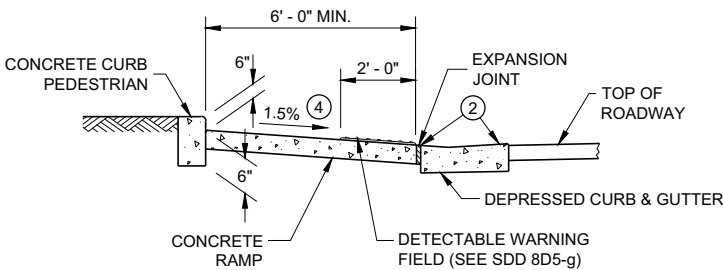
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- (2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- (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. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

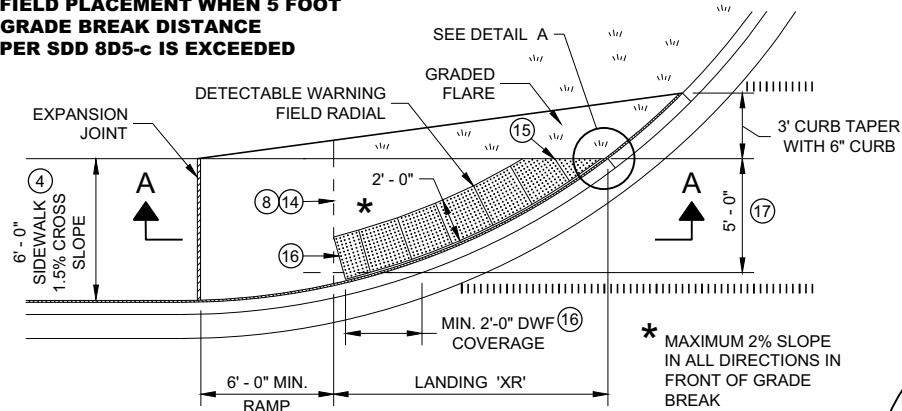


**SECTION B - B FOR TYPE 7A**

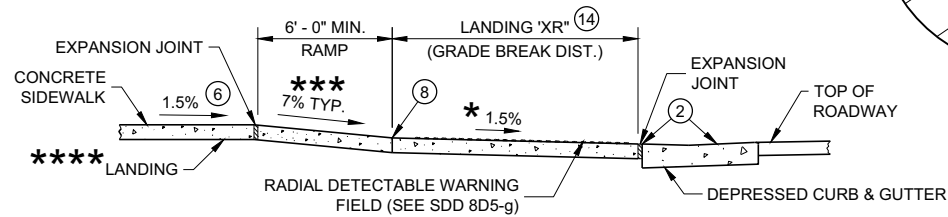
**CURB RAMPS  
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



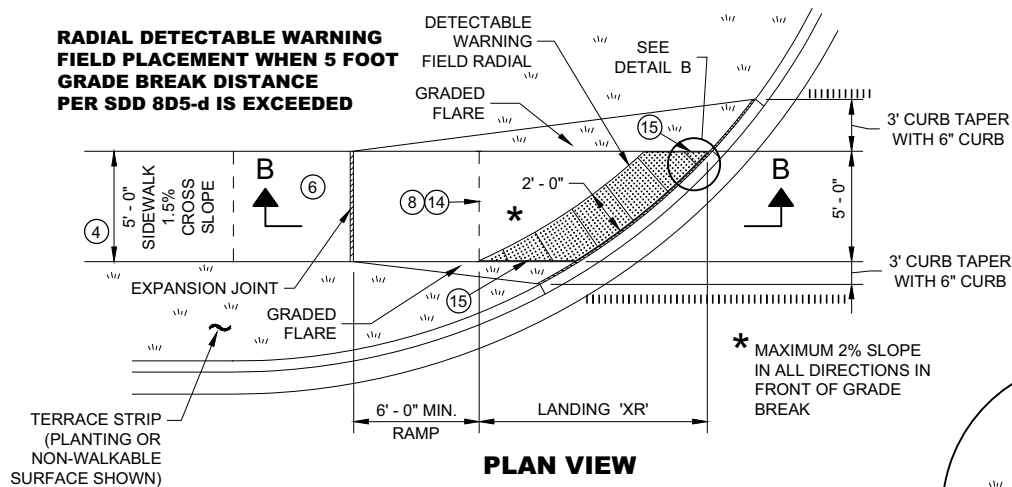
**PLAN VIEW  
CURB RAMP TYPE 4A1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



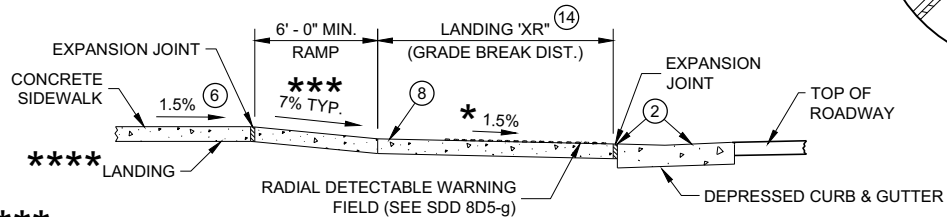
\*\*\*\*  
IF RAMP SLOPE IS LESS  
THAN 5.0%, THEN NO  
ADJACENT UPHILL  
LANDING IS REQUIRED

**SECTION A - A FOR TYPE 4A1**

**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)**

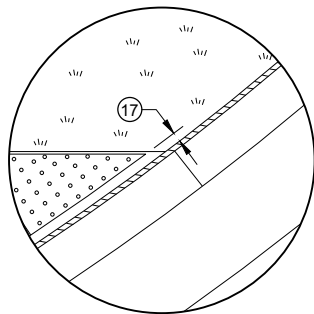


\*\*\*\*  
IF RAMP SLOPE IS LESS  
THAN 5.0%, THEN NO  
ADJACENT UPHILL  
LANDING IS REQUIRED

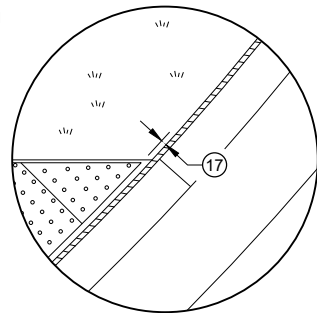
**SECTION B - B FOR TYPE 4B1**

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



**DETAIL A**



**DETAIL B**

**GENERAL NOTES**

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

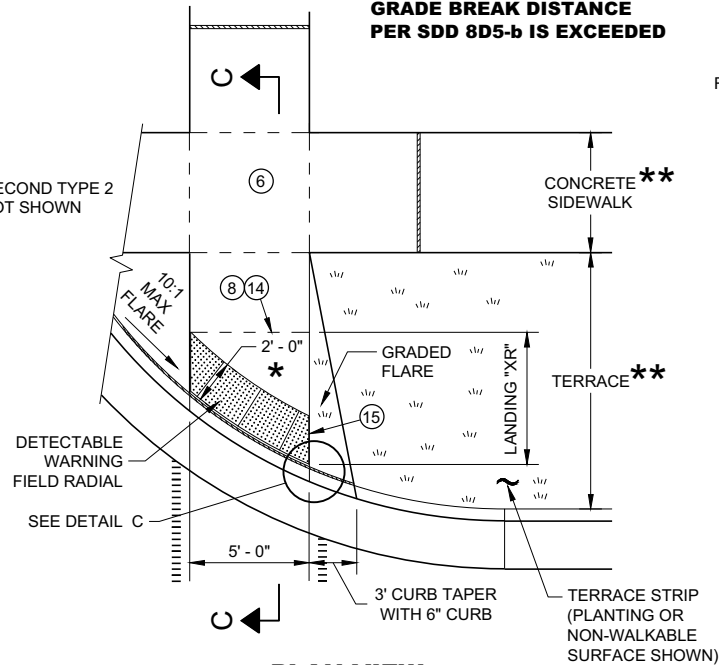
FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

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.

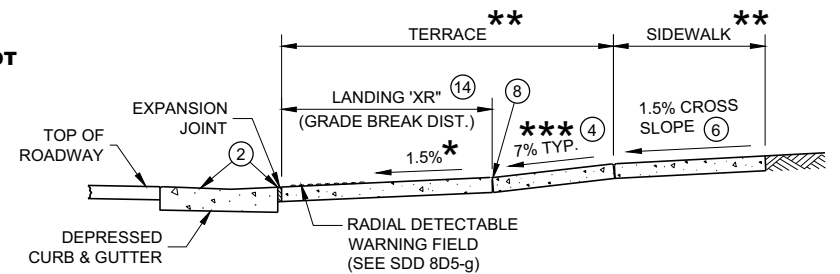
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- 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 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

NOTE: SECOND TYPE 2  
RAMP NOT SHOWN

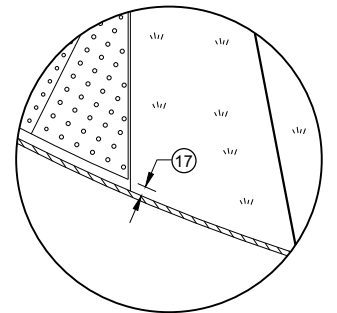


**PLAN VIEW  
CURB RAMP TYPE 2  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)  
(ON LINE WITH SIDEWALK)**



**SECTION C - C FOR TYPE 2**

- \* MAXIMUM 2% SLOPE  
IN ALL DIRECTIONS IN  
FRONT OF GRADE  
BREAK
- \*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS
- \*\*\* MAXIMUM 8.33%



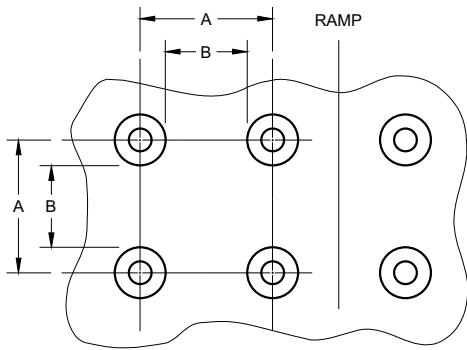
**DETAIL C**

**CURB RAMPS  
RADIAL DETECTABLE WARNING  
FIELD APPLICATIONS**

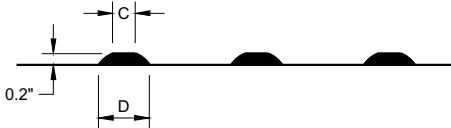
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

	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.

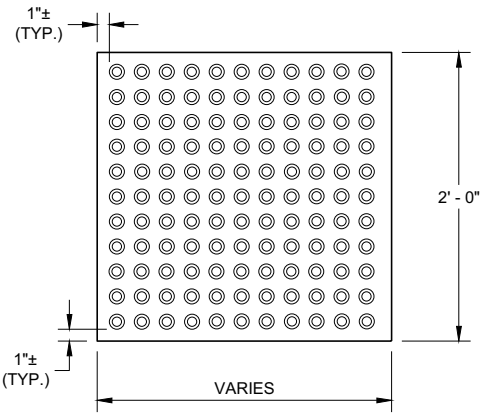


PLAN VIEW

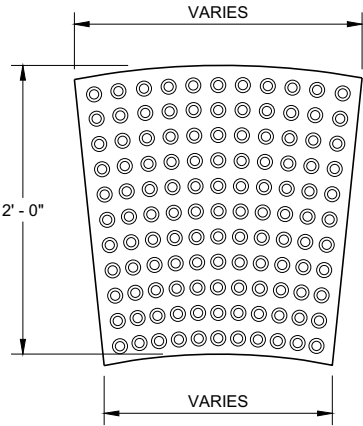


ELEVATION VIEW

TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL

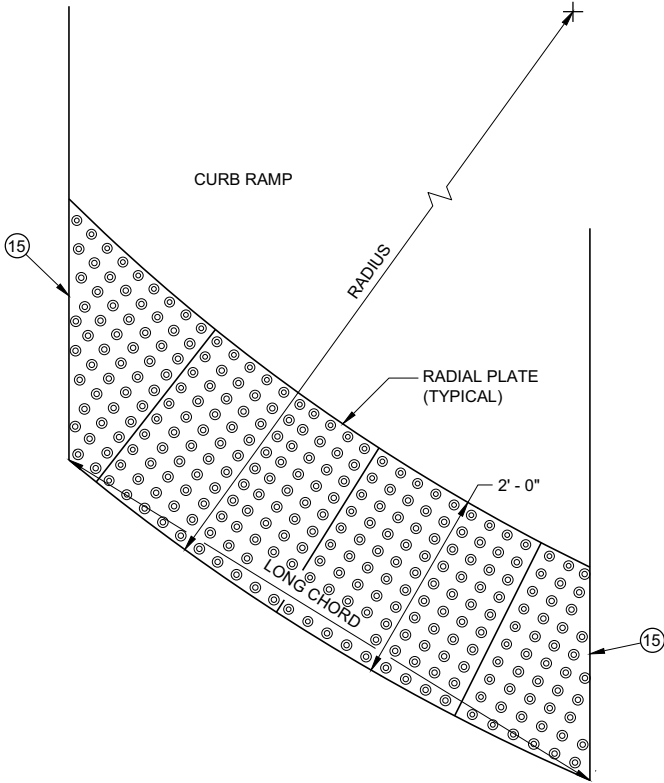


RECTANGULAR  
PLATES



RADIAL  
PLATES

PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES

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 FILED ARE PROHIBITED.

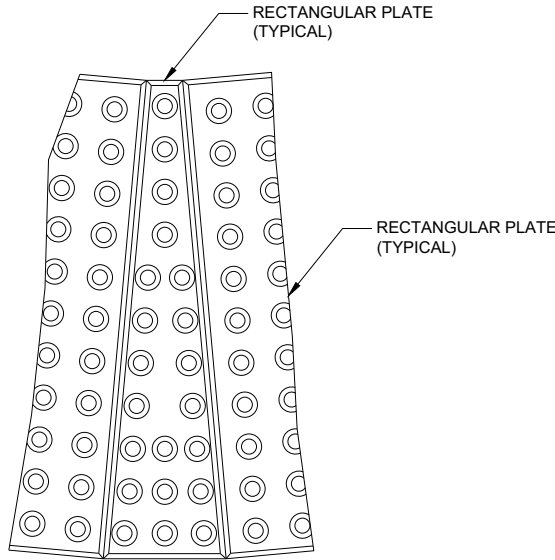
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

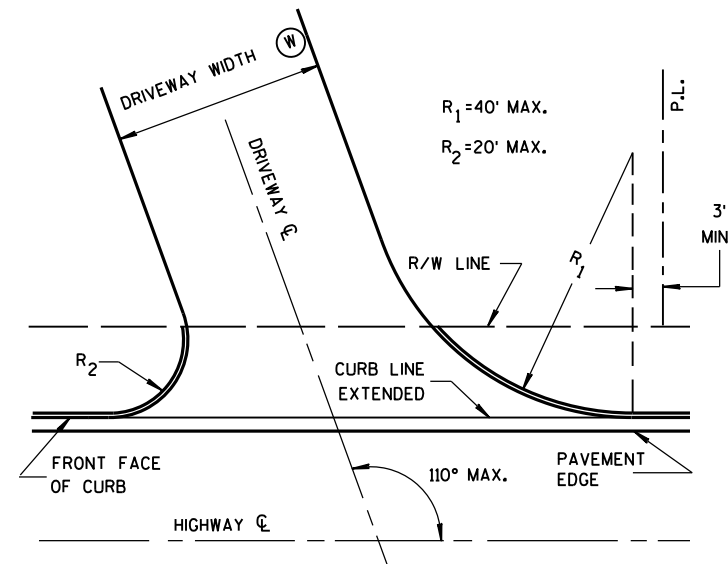
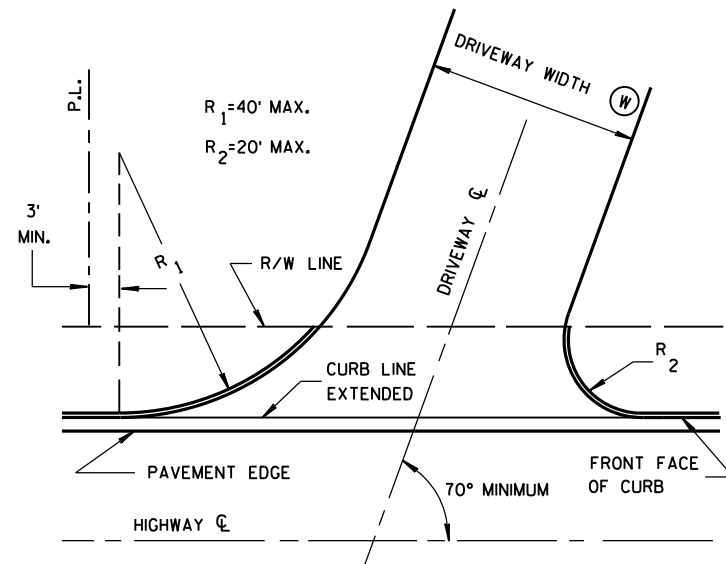


PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL

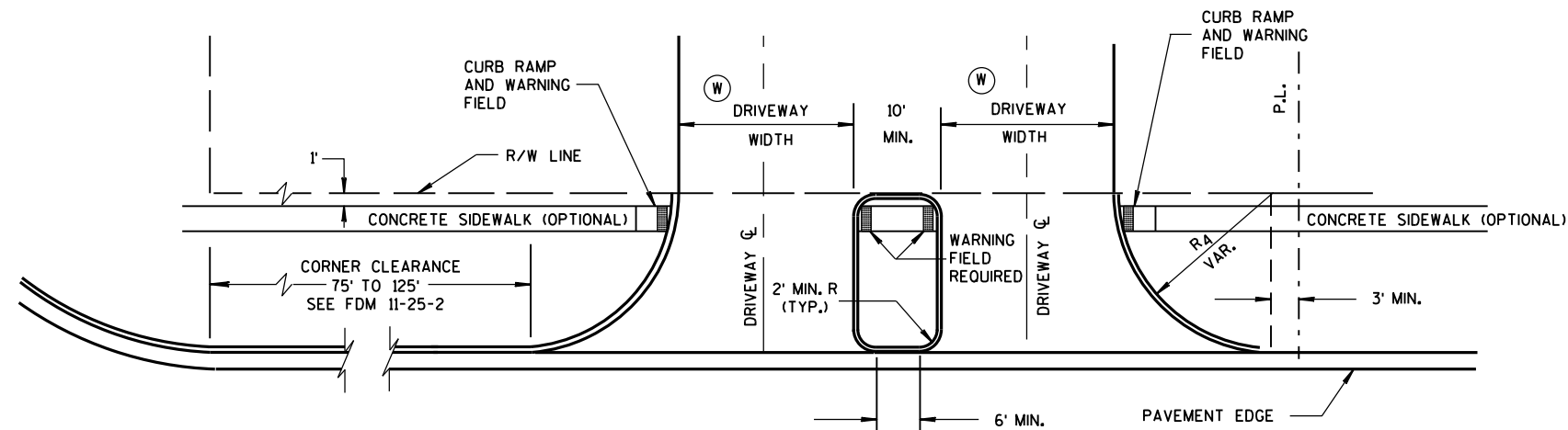
CURB RAMPS  
RECTANGULAR AND RADIAL  
DETECTABLE WARNING PLATES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2019 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



**SKewed DRIVEWAY DETAILS  
(COMMERCIAL AND NON-COMMERCIAL)  
SIDEWALK NOT SHOWN**



**DRIVEWAY LOCATION AND SPACING DETAILS  
SIDEWALK SHOWN**

**NOTES**

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

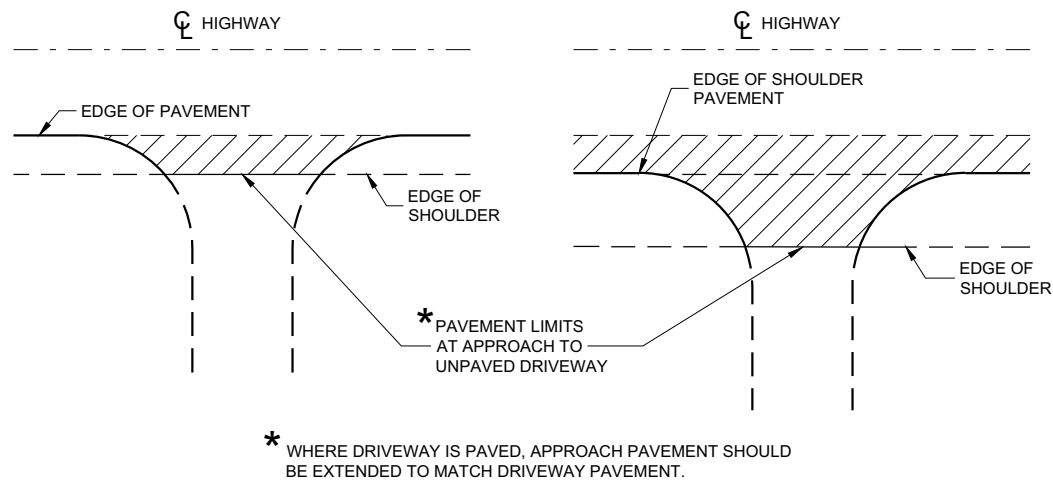
Ⓢ DRIVEWAY WIDTHS:  
COMMERCIAL - 35' MAX., 16' MIN.  
RESIDENTIAL AND NON-COMMERCIAL - 24' MAX., 12' MIN.

**DRIVEWAYS WITH  
CURB & GUTTER RETURNS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
December, 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

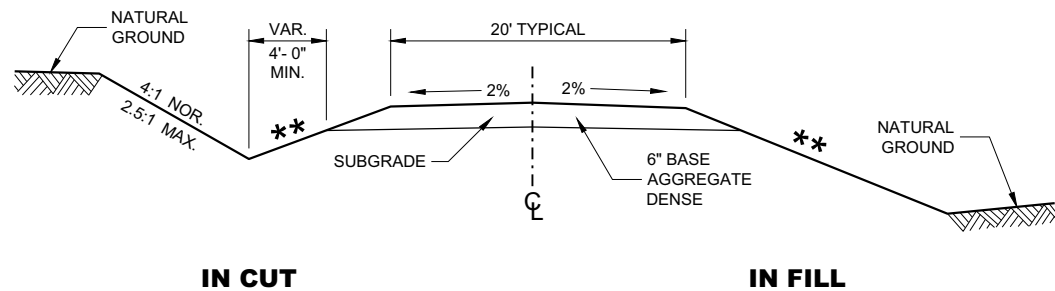




**PLAN VIEW**  
(UNPAVED SHOULDER ON HIGHWAY)

**PLAN VIEW**  
(PAVED SHOULDER ON HIGHWAY)

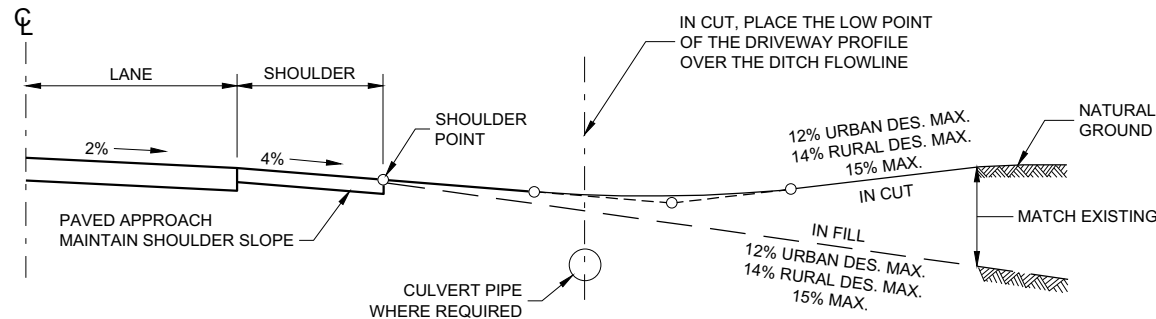
**RURAL DRIVEWAY INTERSECTION DETAIL  
(NO CURB AND GUTTER OR SIDEWALK)**



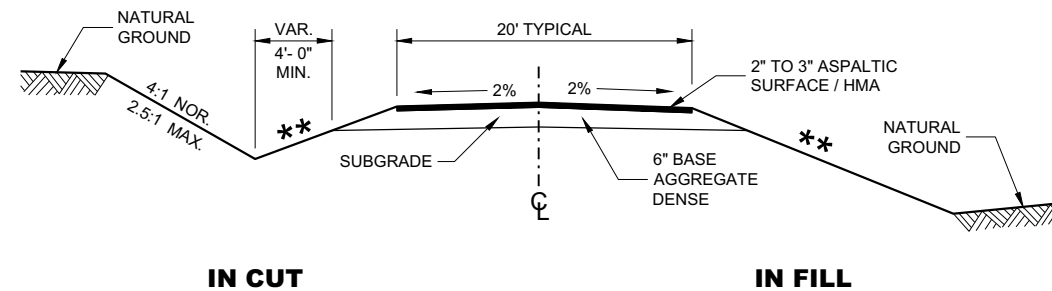
**TYPICAL CROSS SECTION FOR  
PRIVATE DRIVE OR FIELD ENTRANCE  
AGGREGATE SURFACE**

**\*\*** SLOPE CAN VARY WITH  
SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



**TYPICAL DRIVEWAY PROFILES**

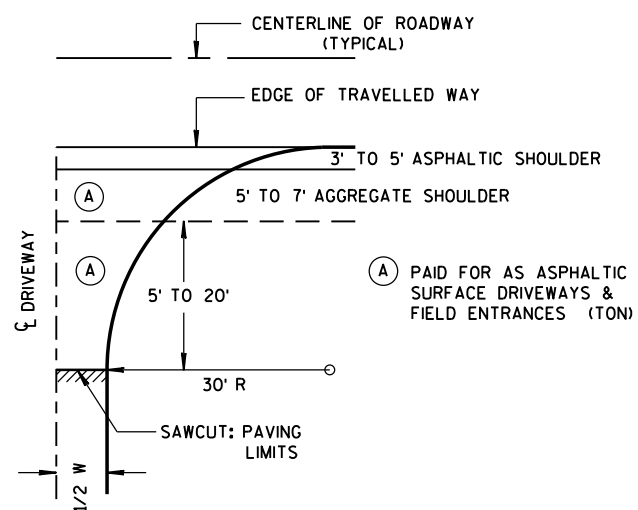


**TYPICAL CROSS SECTION FOR  
PRIVATE DRIVE OR FIELD ENTRANCE  
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT  
CURB AND GUTTER**

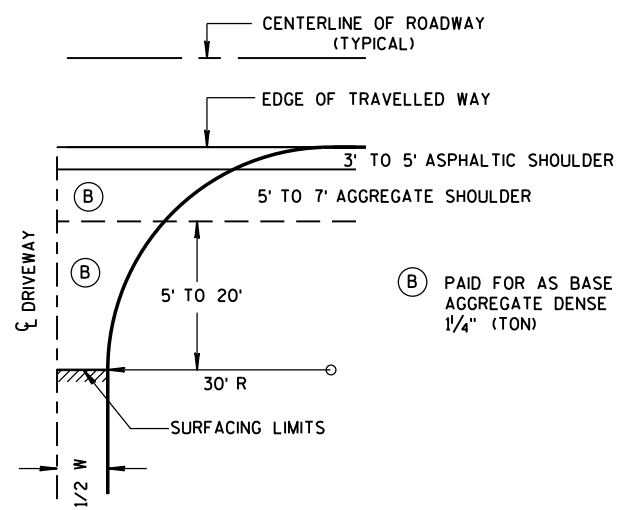
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
December 2017  
DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA

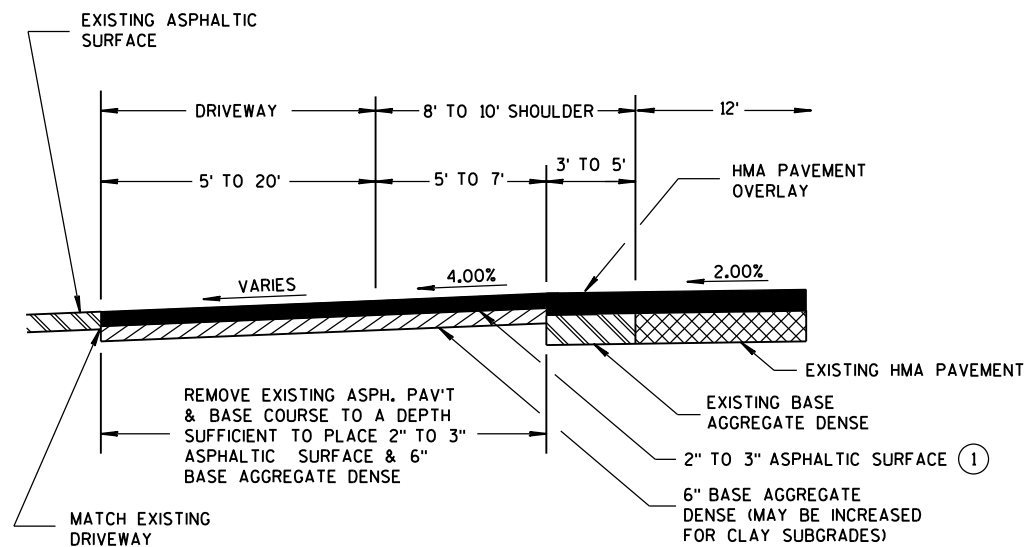


PLAN VIEW  
HALF SECTION

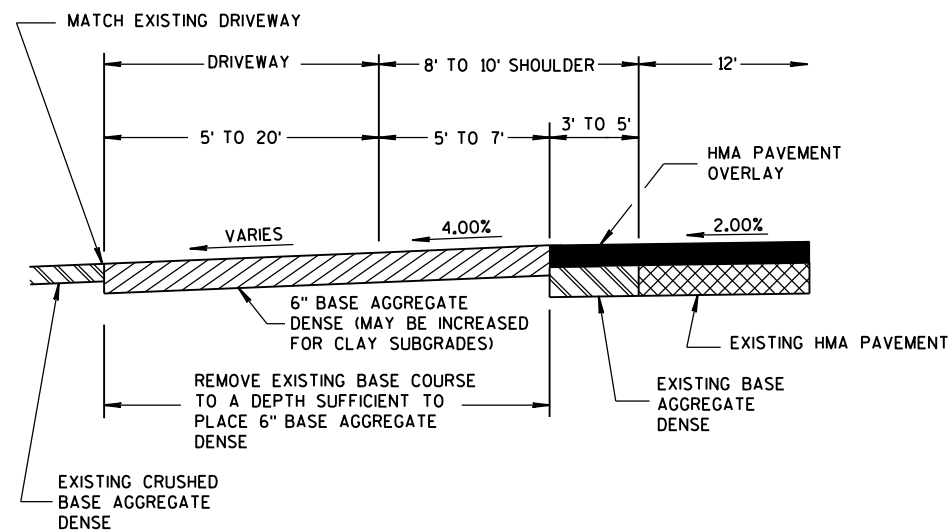
W MIN. = 16'  
W MAX. = 24'



PLAN VIEW  
HALF SECTION



PROFILE VIEW  
RURAL ENTRANCE  
WITH ASPHALTIC SURFACE  
RESURFACING PROJECTS



PROFILE VIEW  
RURAL ENTRANCE  
WITH AGGREGATE SURFACE  
6" BASE AGGREGATE DENSE  
RESURFACING PROJECTS

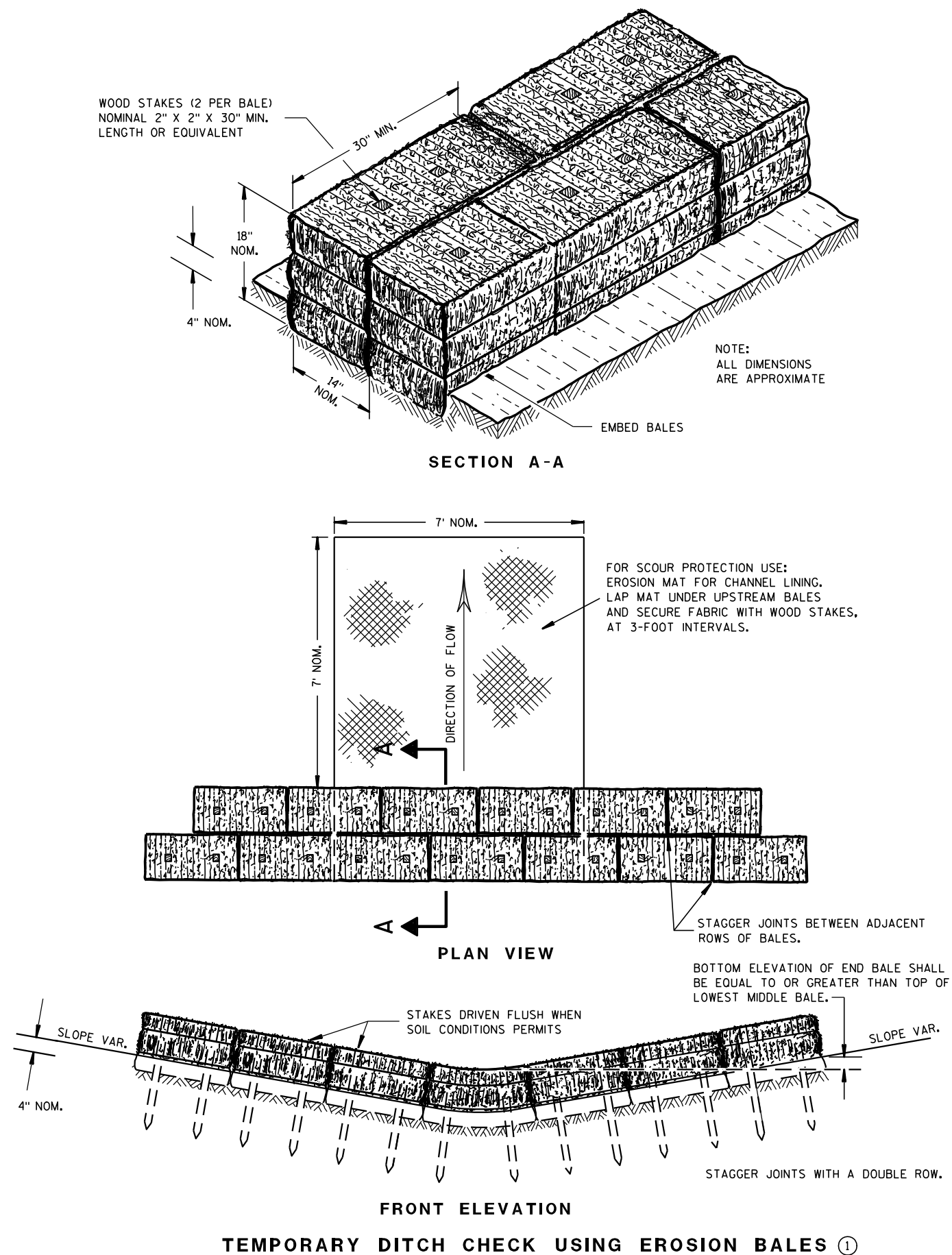
## GENERAL NOTES

- DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

DRIVEWAYS WITHOUT  
CURB & GUTTER  
RESURFACING PROJECTS RURAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

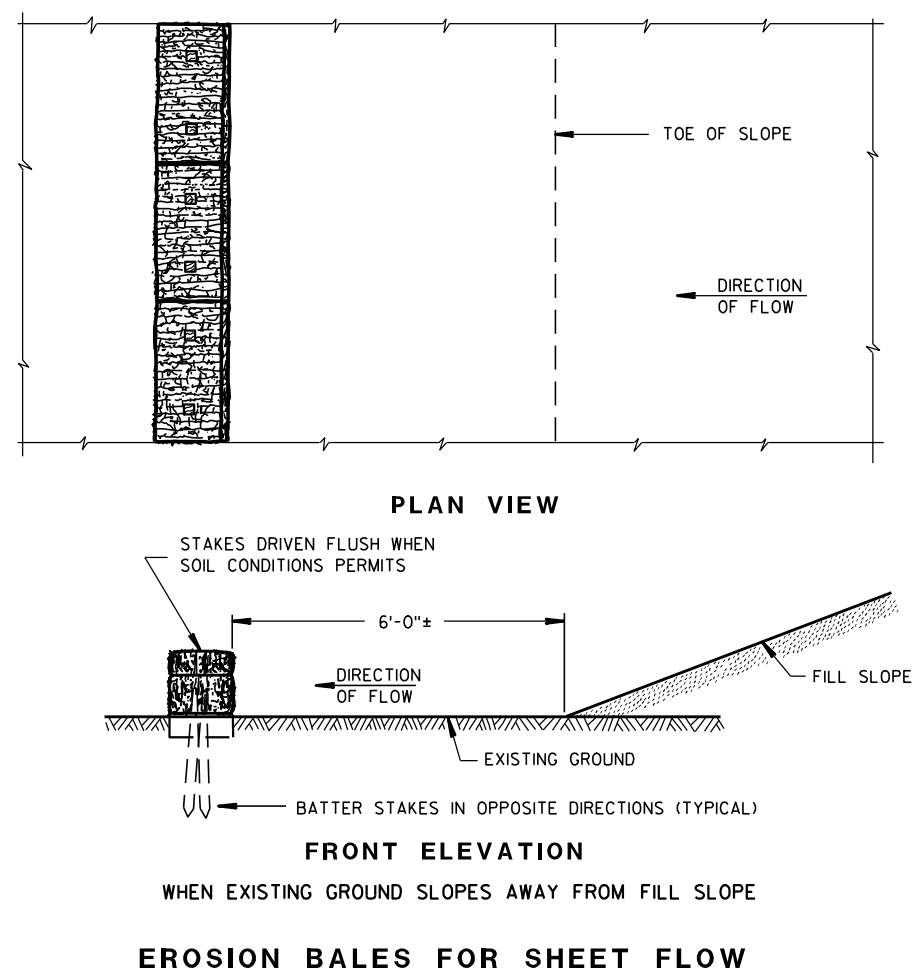
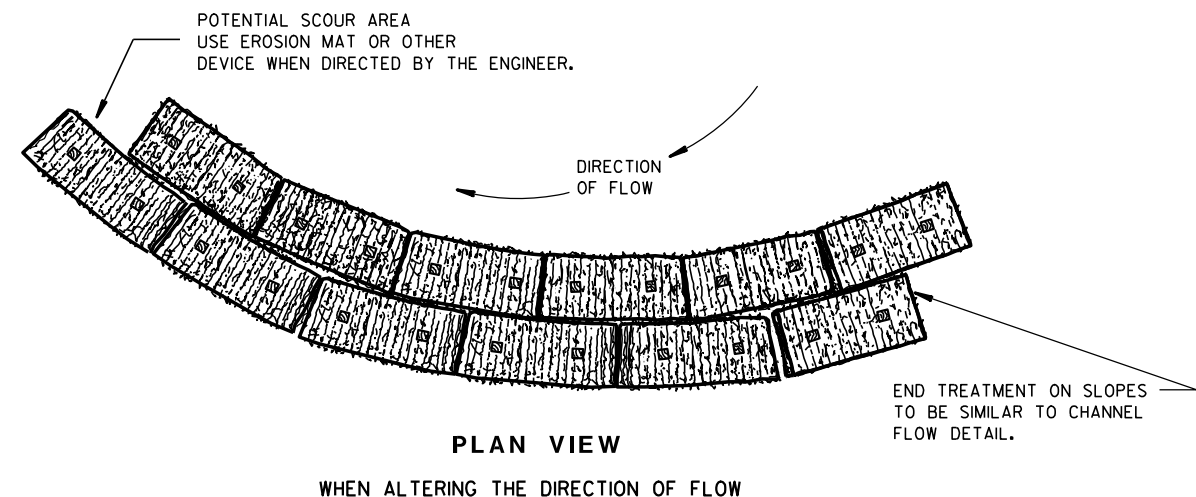
APPROVED  
December, 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



## GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

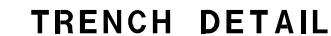
APPROVED

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

FHWA

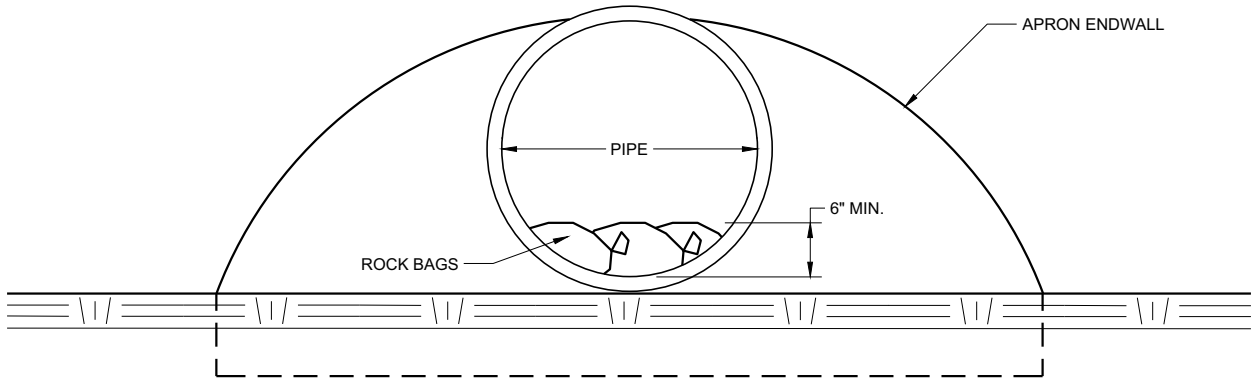


- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

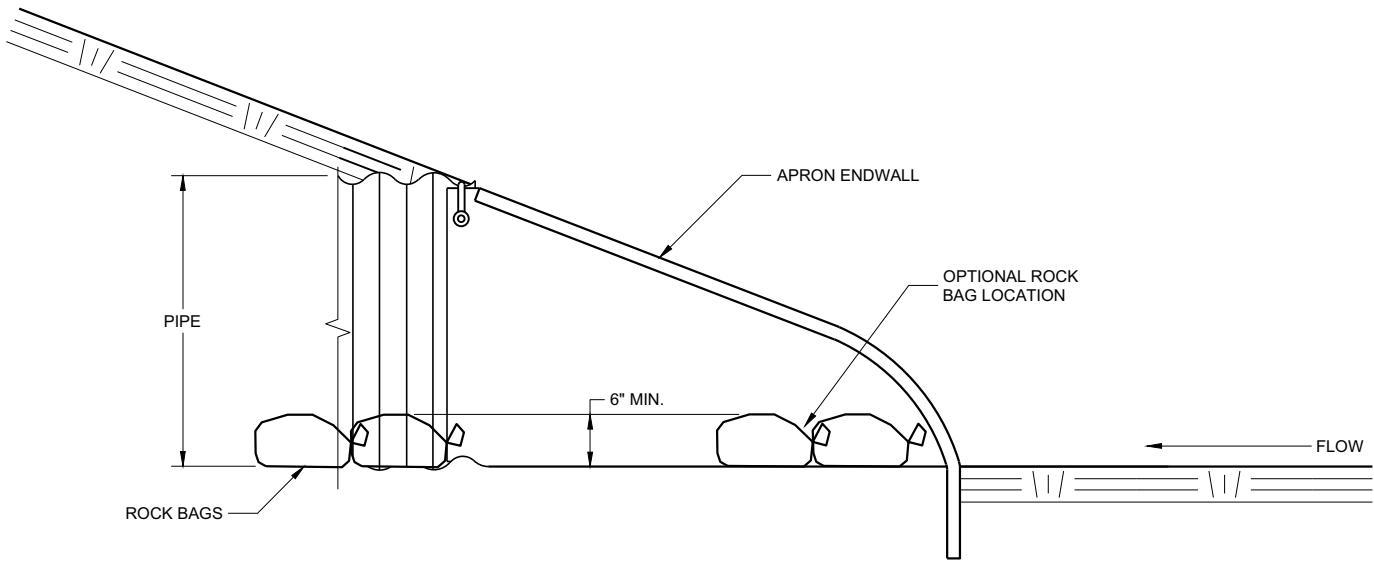


<p style="text-align: center;"><b>SILT FENCE</b></p>	
<p style="text-align: center;"><b>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</b></p>	
<p><b>APPROVED</b></p> <p><u>4-29-05</u></p> <p><u>DATE</u></p>	<p><u>/S/ Beth Canestra</u></p> <p><b>CHIEF ROADWAY DEVELOPMENT ENGINEER</b></p>





END VIEW



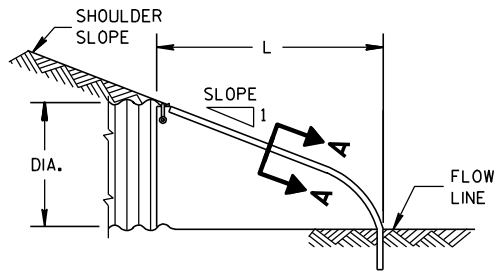
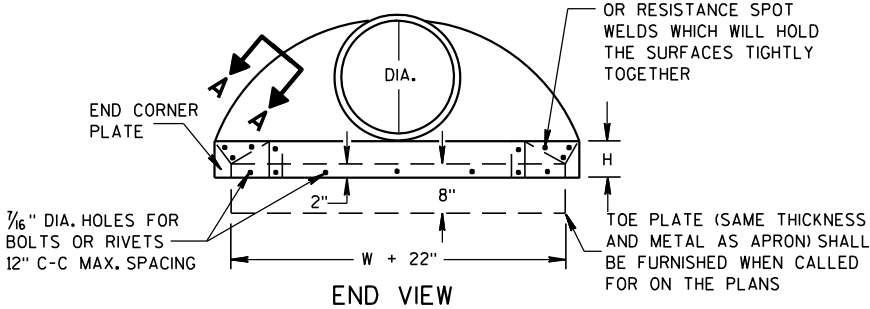
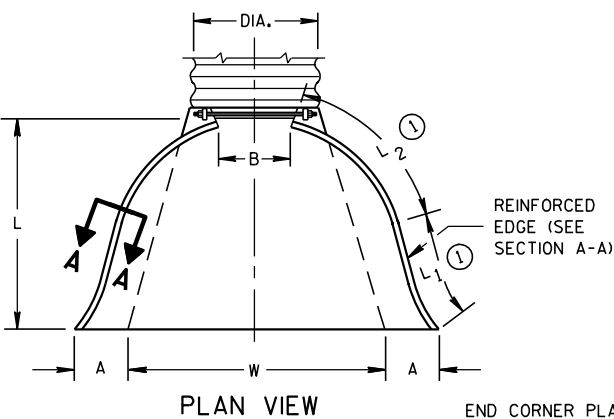
SIDE VIEW

**CULVERT PIPE CHECK**  
(INSTALL ON INLET END ONLY)

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

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 ①	L2 ①	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.

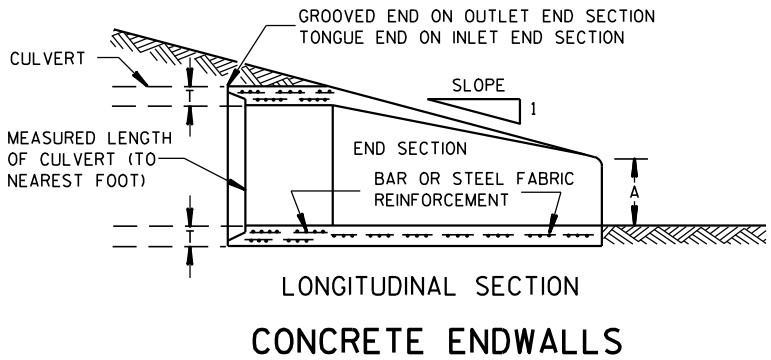
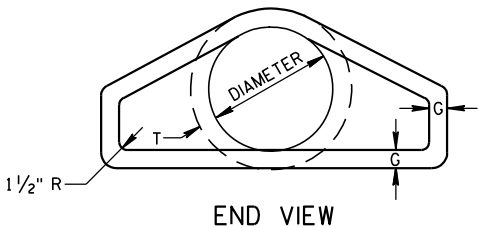
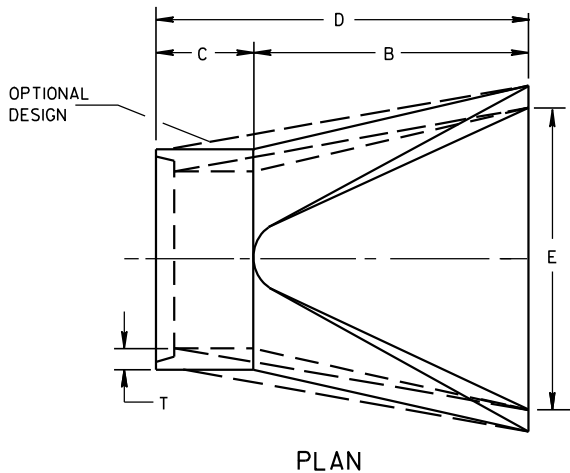
\* EXCEPT CENTER PANEL  
SEE GENERAL NOTES



SIDE ELEVATION  
METAL ENDWALLS

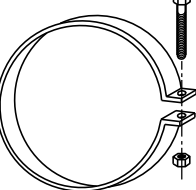
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 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

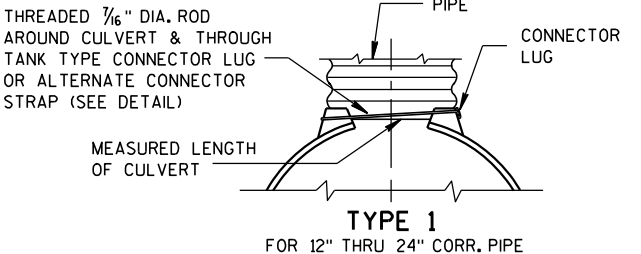


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

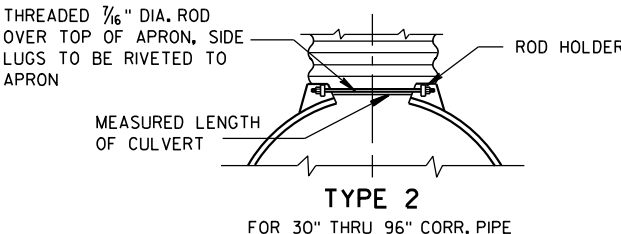
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



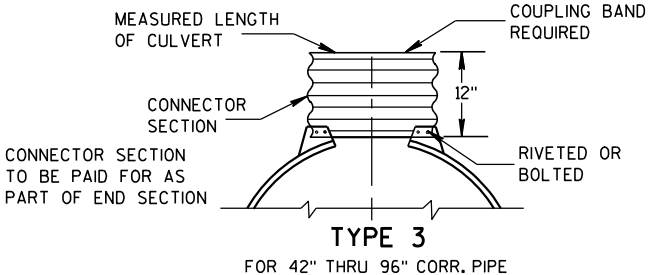
ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



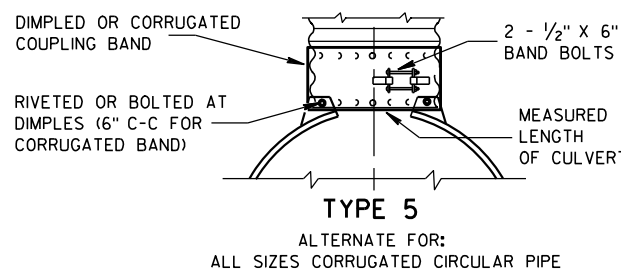
TYPE 1  
FOR 12" THRU 24" CORR. PIPE



TYPE 2  
FOR 30" THRU 96" CORR. PIPE



TYPE 3  
FOR 42" THRU 96" CORR. PIPE



TYPE 5  
ALTERNATE FOR:  
ALL SIZES CORRUGATED CIRCULAR PIPE

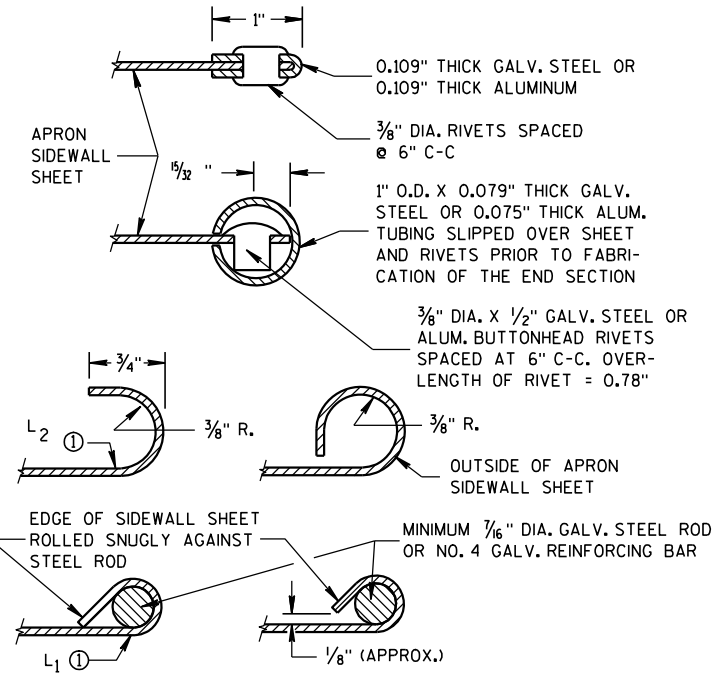
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

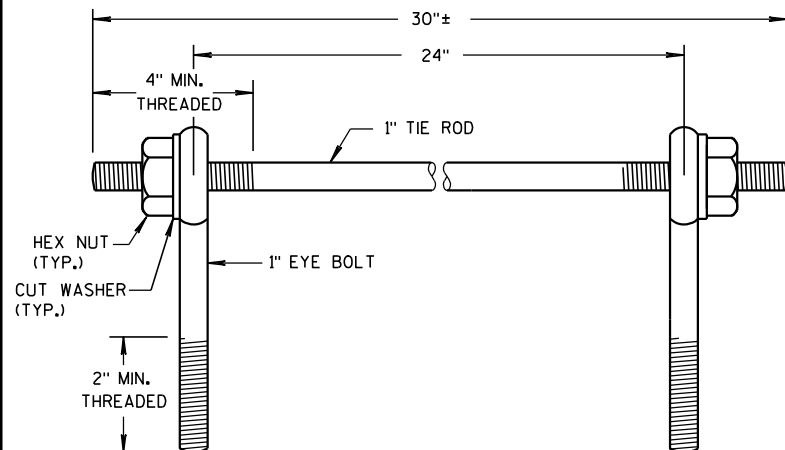
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR  
CULVERT PIPE

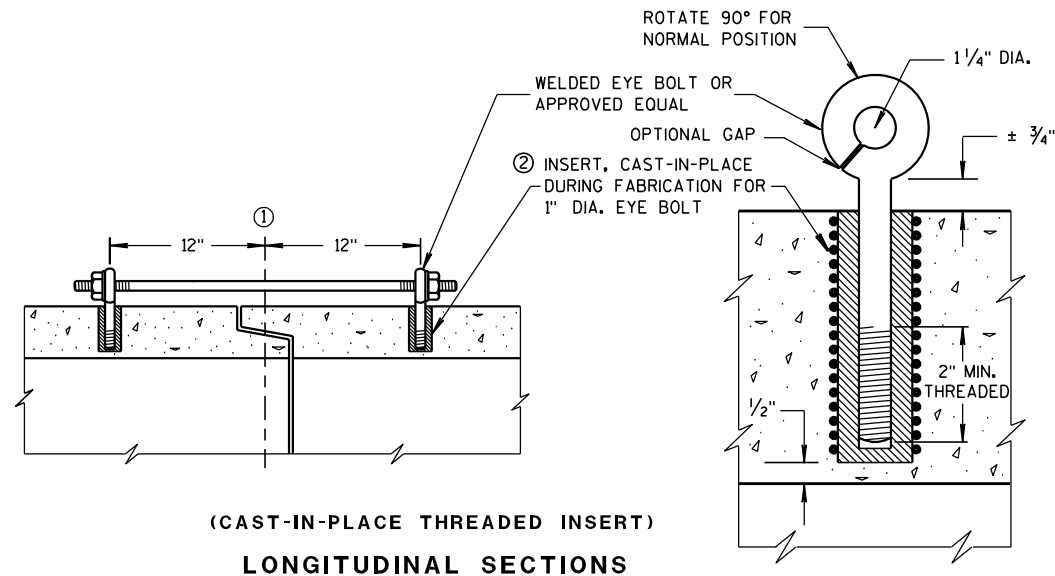
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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

(CAST-IN-PLACE THREADED INSERT)  
LONGITUDINAL SECTIONS

## GENERAL NOTES

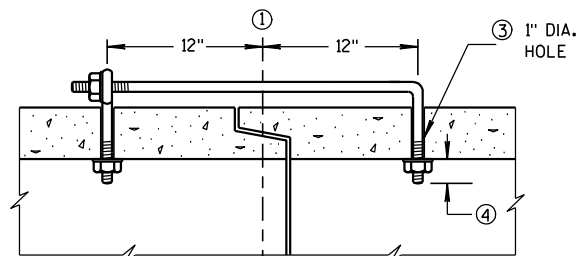
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

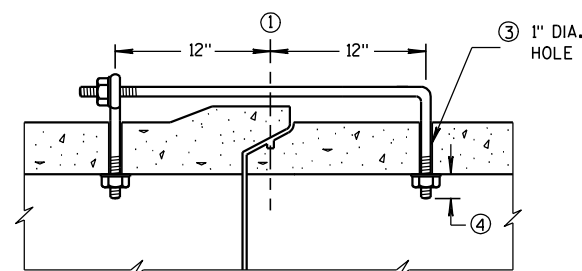
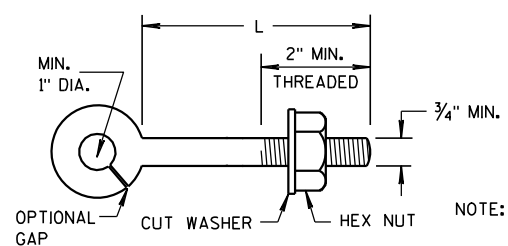
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

- ①  $\phi$  OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM  $\phi$  OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN  $\frac{1}{2}$  INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE &amp; GROOVE PIPE)

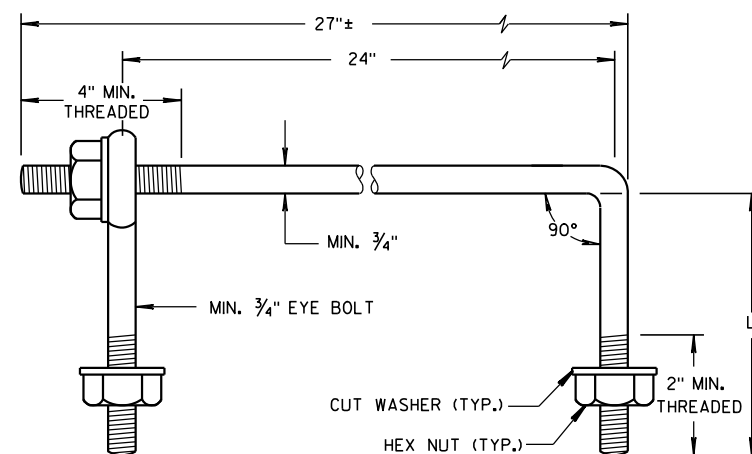
(MODIFIED BELL PIPE)  
LONGITUDINAL SECTION

EYE BOLT

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

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

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



EYE BOLT AND TIE ROD

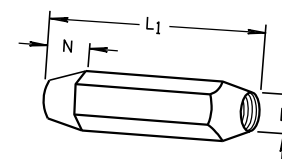
EYE BOLT DIMENSION TABLE

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

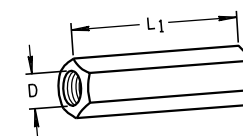
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L <sub>1</sub>	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



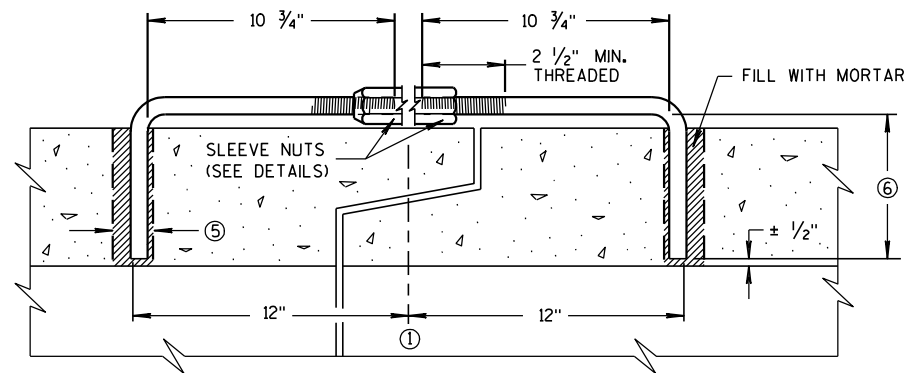
TAPERED



PLAIN

RIGHT AND LEFT THREADS

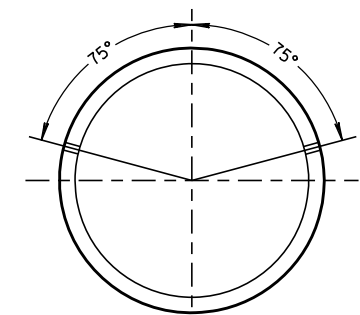
## SLEEVE NUTS



LONGITUDINAL SECTION

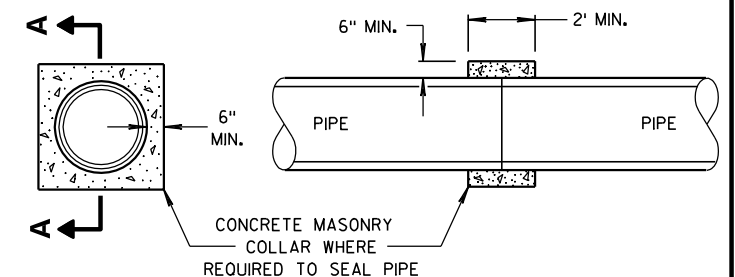
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

## ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

## CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE  
PIPE AND CONCRETE  
COLLAR DETAIL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

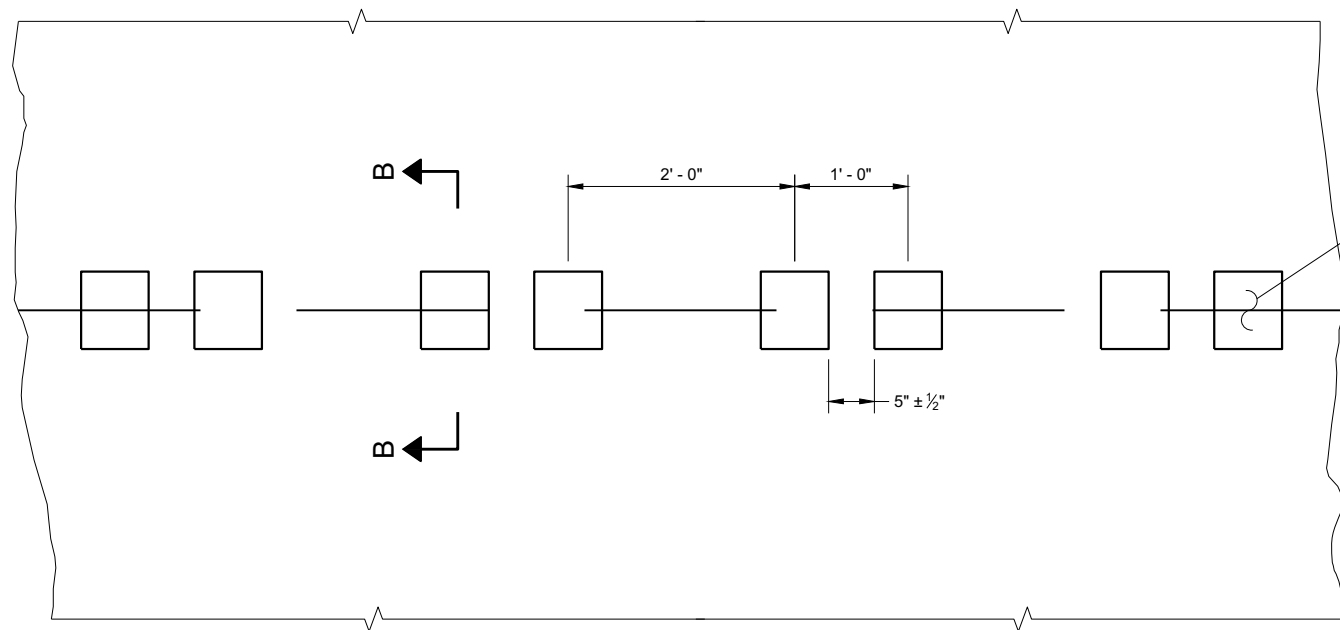
6/5/2012

DATE

FHWA

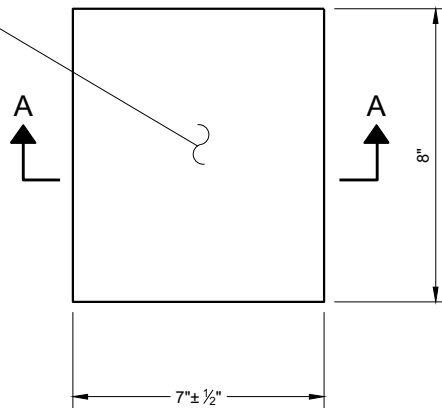
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER





PLAN VIEW  
SHOULDER WITH GROOVES

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



PLAN VIEW  
(SINGLE GROOVE)

**GENERAL NOTES**

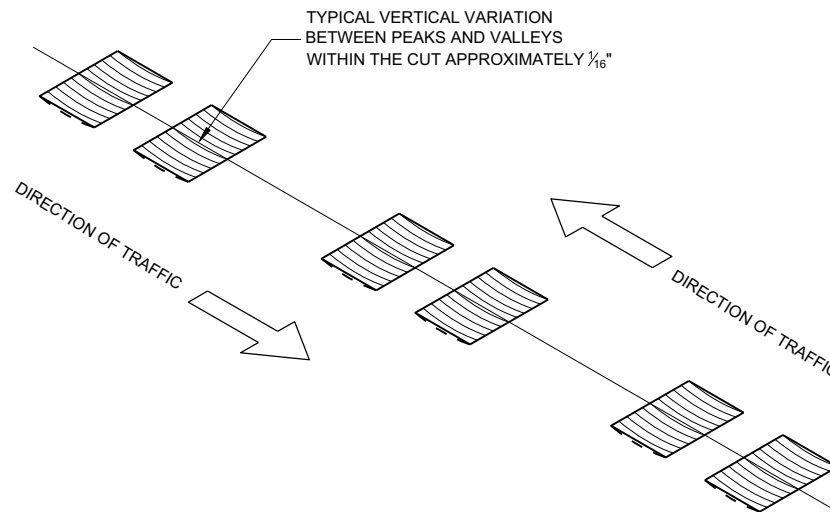
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

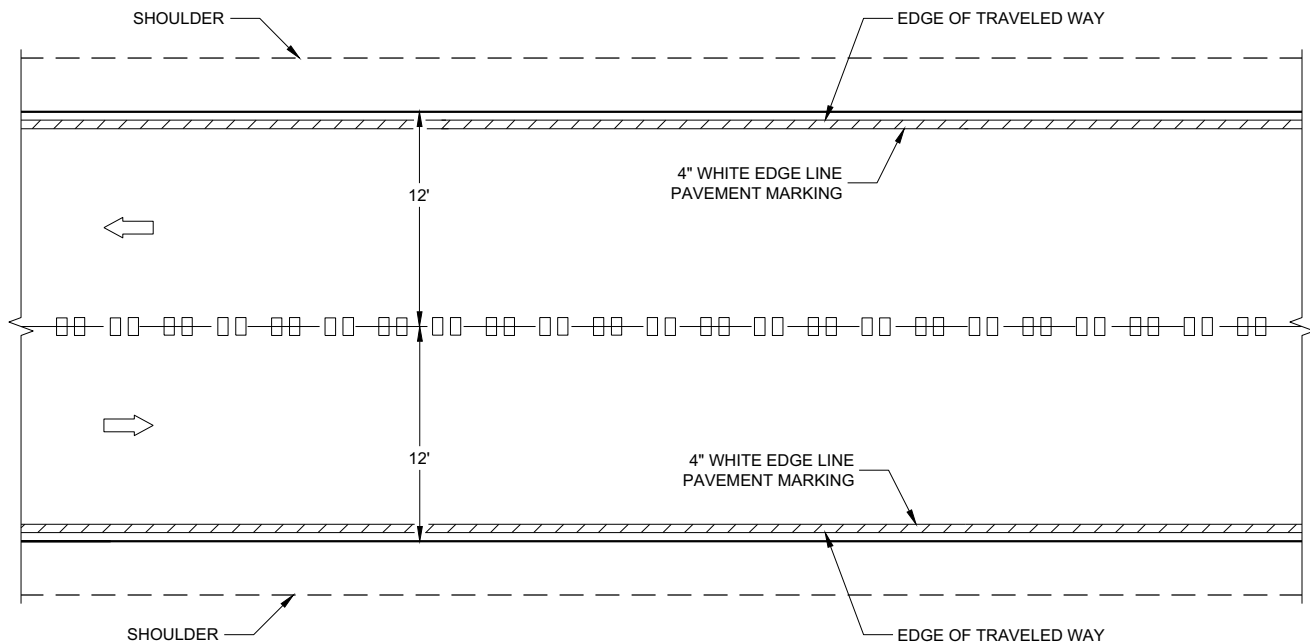
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

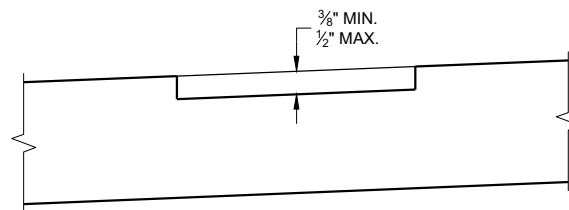
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



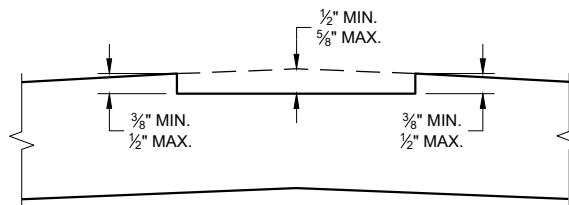
ISOMETRIC



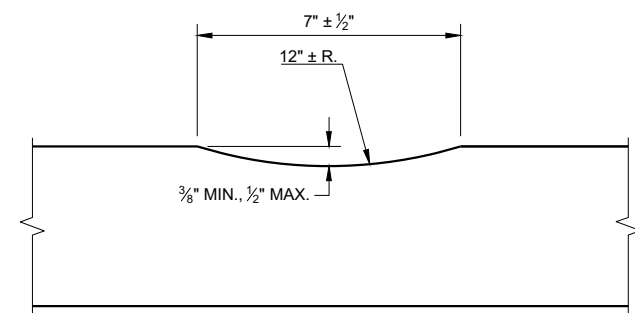
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B  
SUPERELEVATED ROADWAY



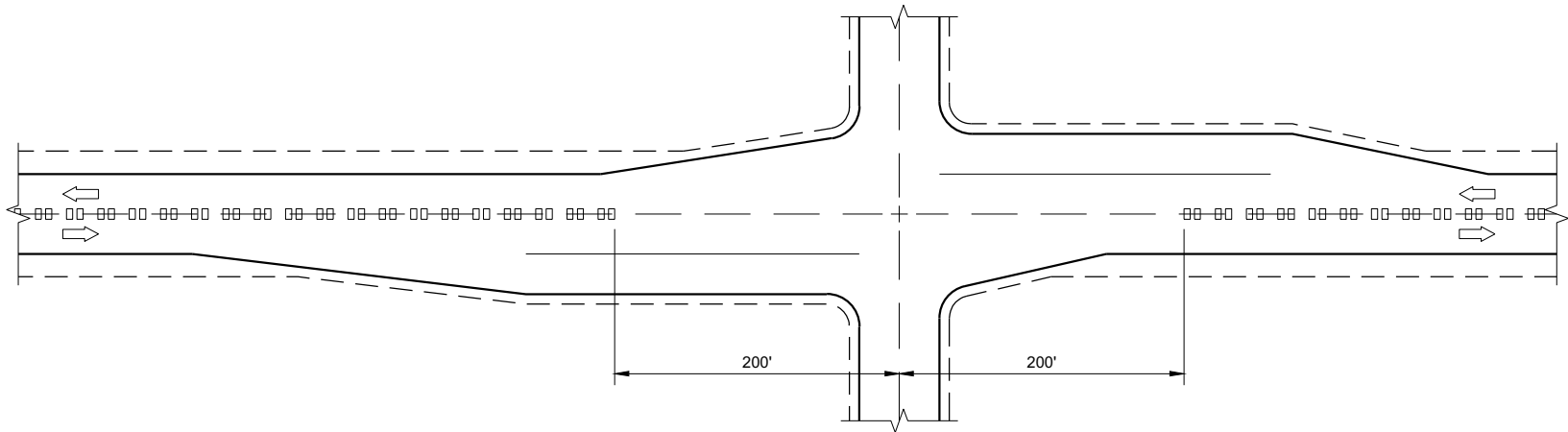
SECTION B - B  
CROWNED ROADWAY



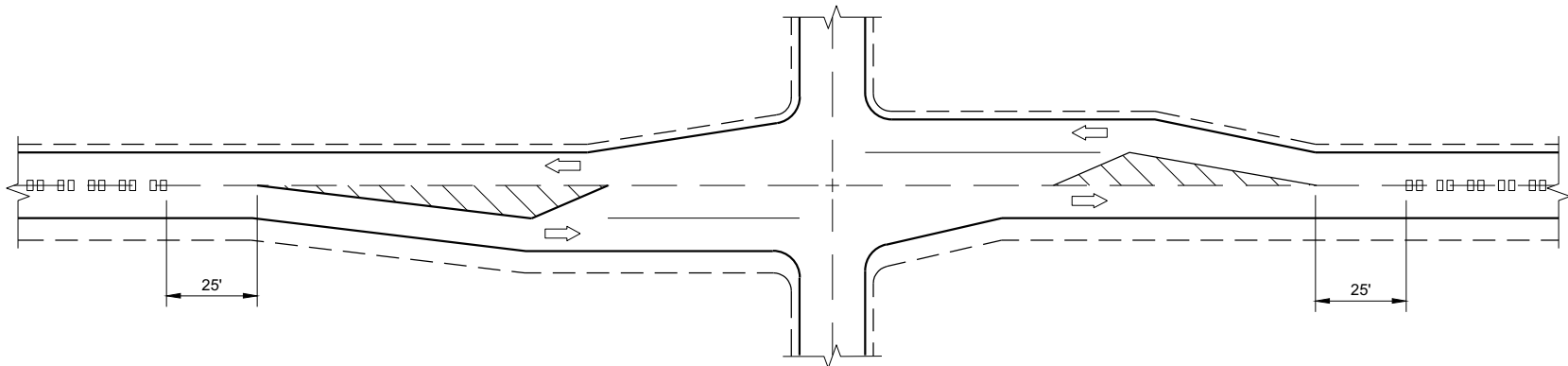
SECTION A - A

**2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING**

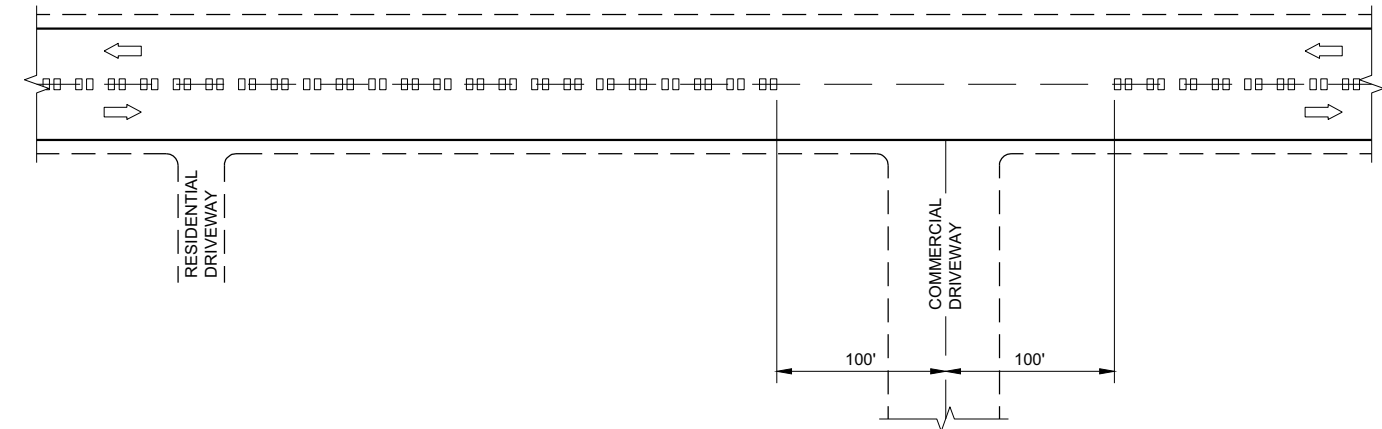
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



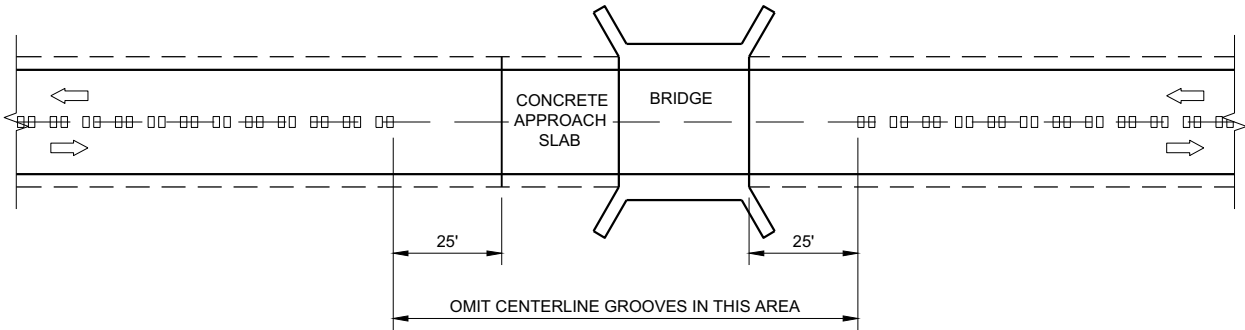
CENTERLINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)



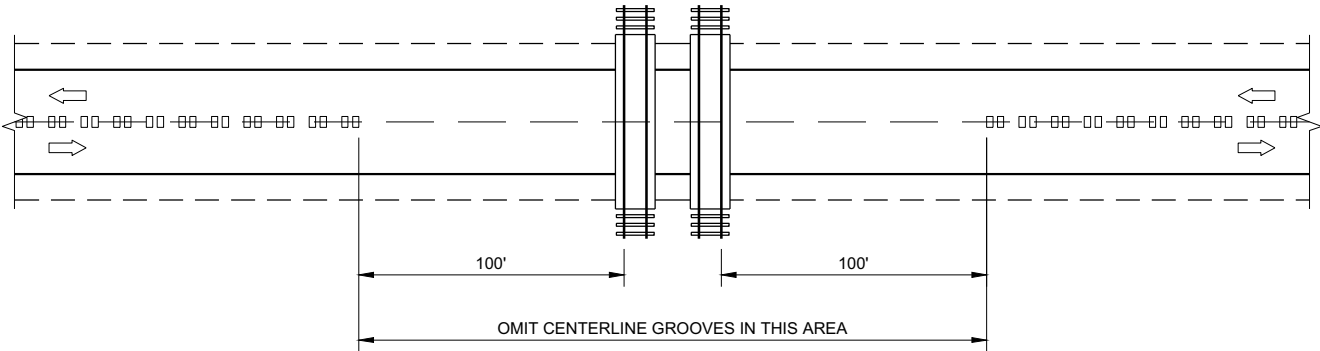
CENTERLINE GROOVES AT DRIVEWAYS<sup>①</sup>

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL  
CENTERLINE RUMBLE STRIP,  
MILLING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018

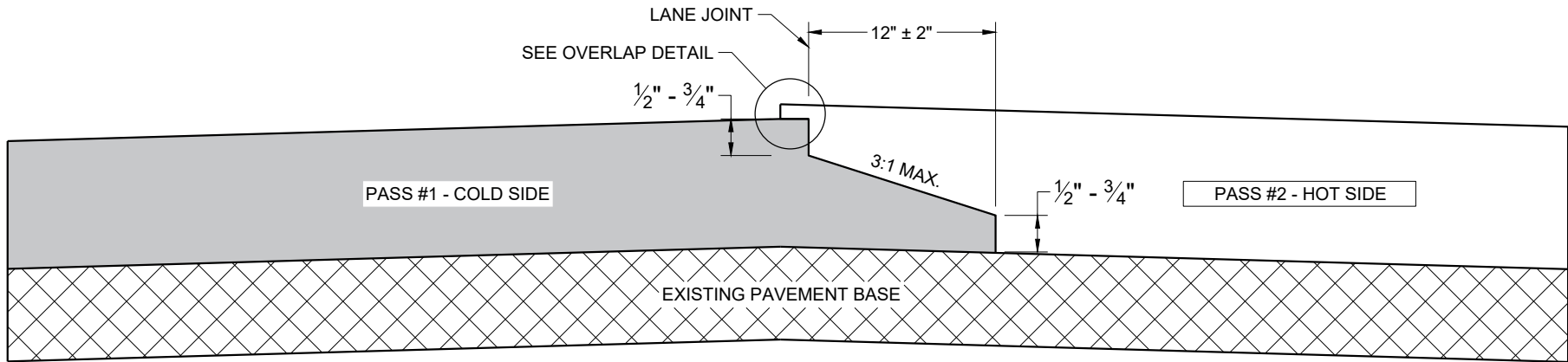
DATE

FHWA

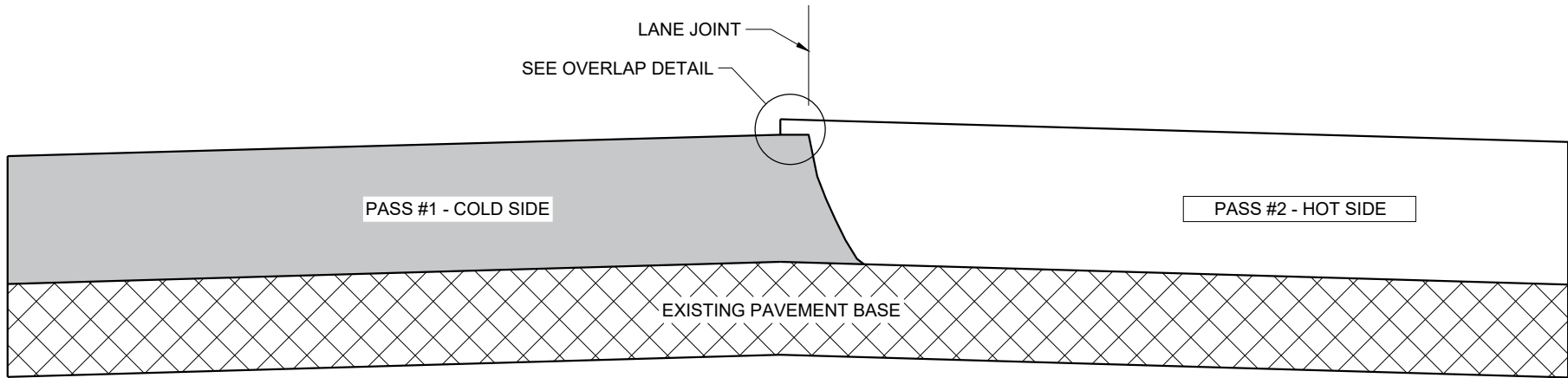
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

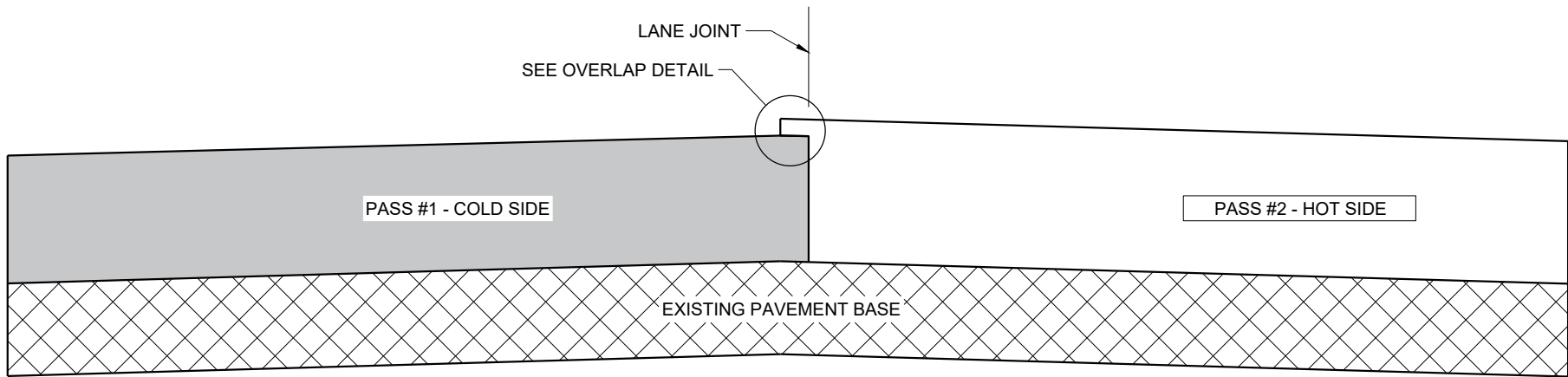
ENGINEER



TYPICAL PAVEMENT CROSS SECTION  
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION  
VERTICAL JOINT (MILLED)

GENERAL NOTES

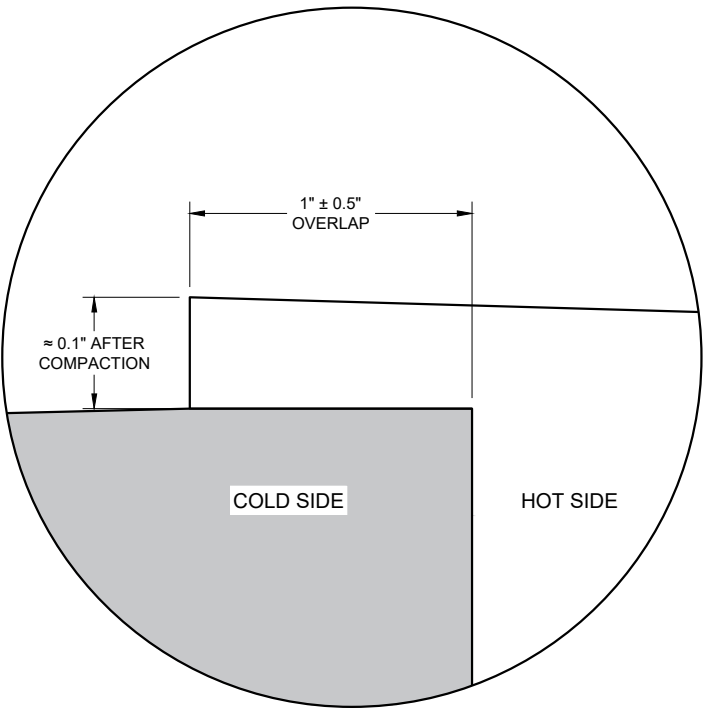
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

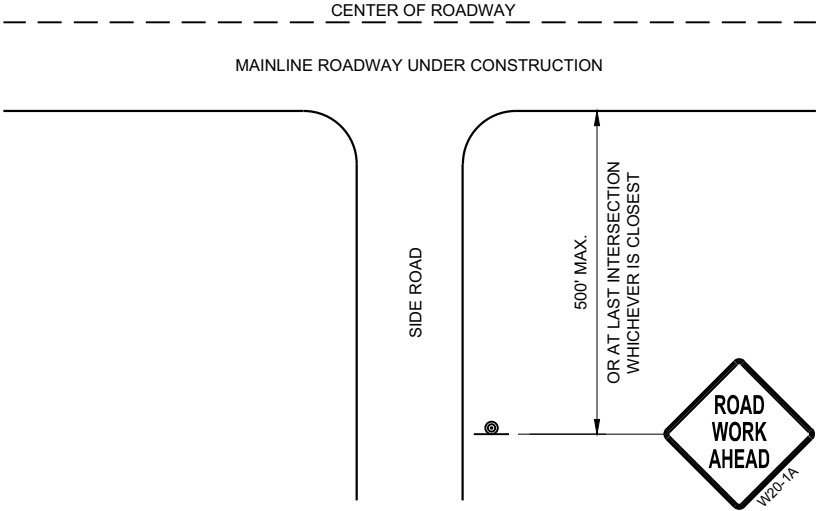
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

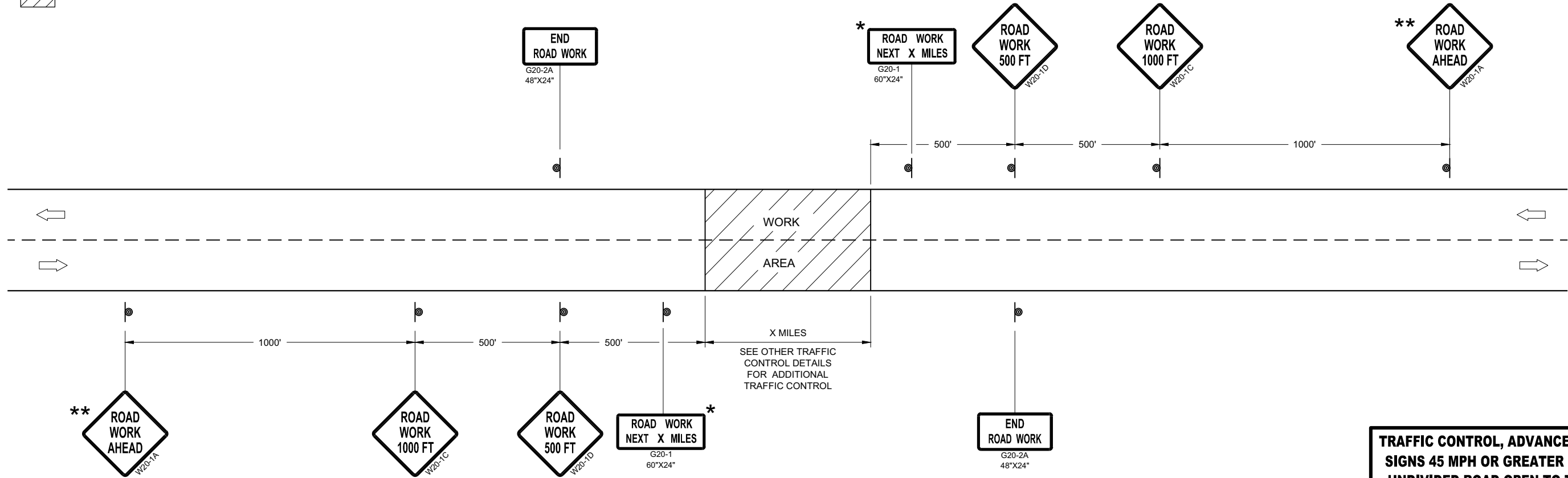
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 45 MPH OR GREATER TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

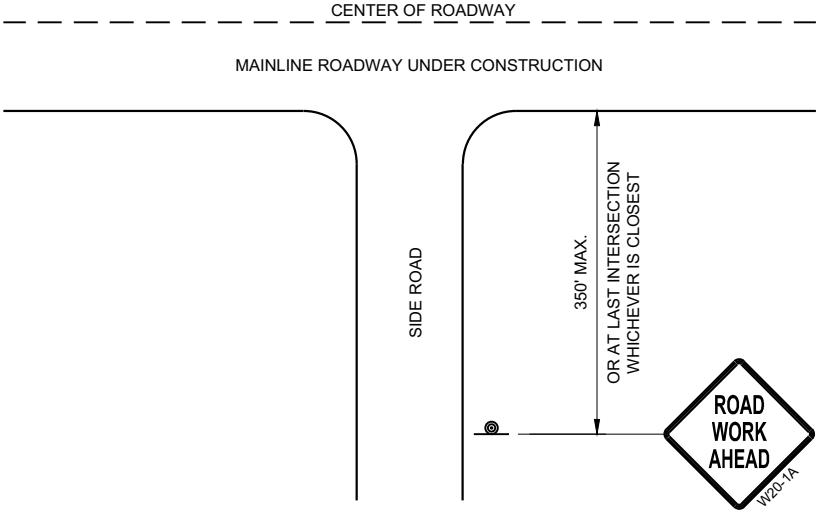
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

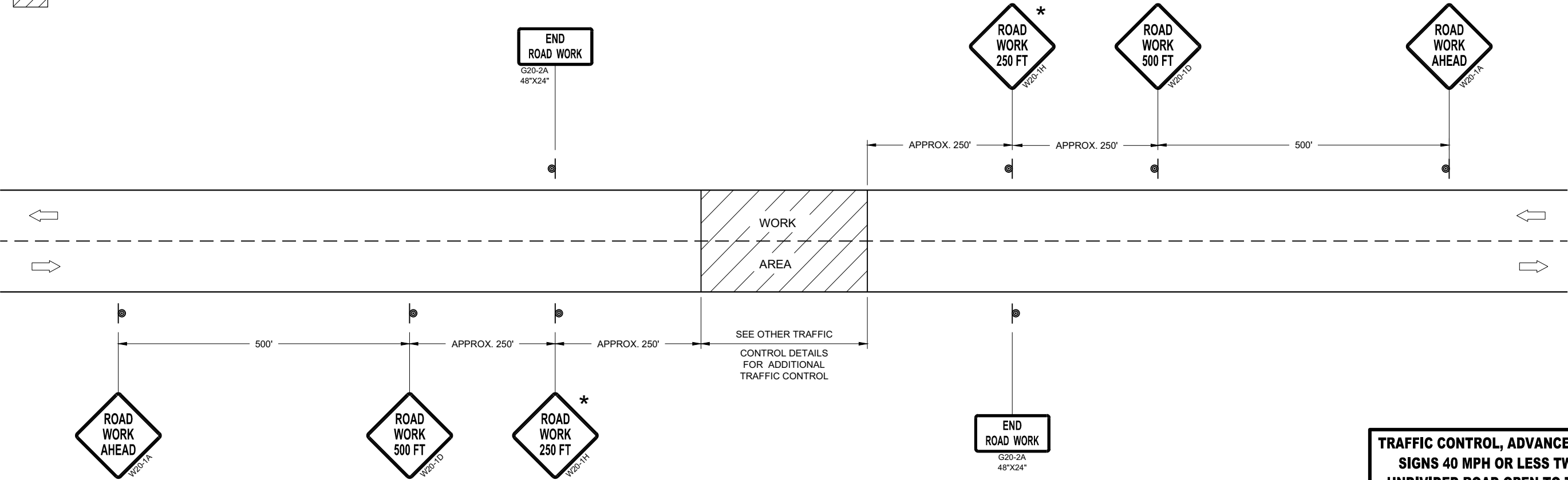
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL

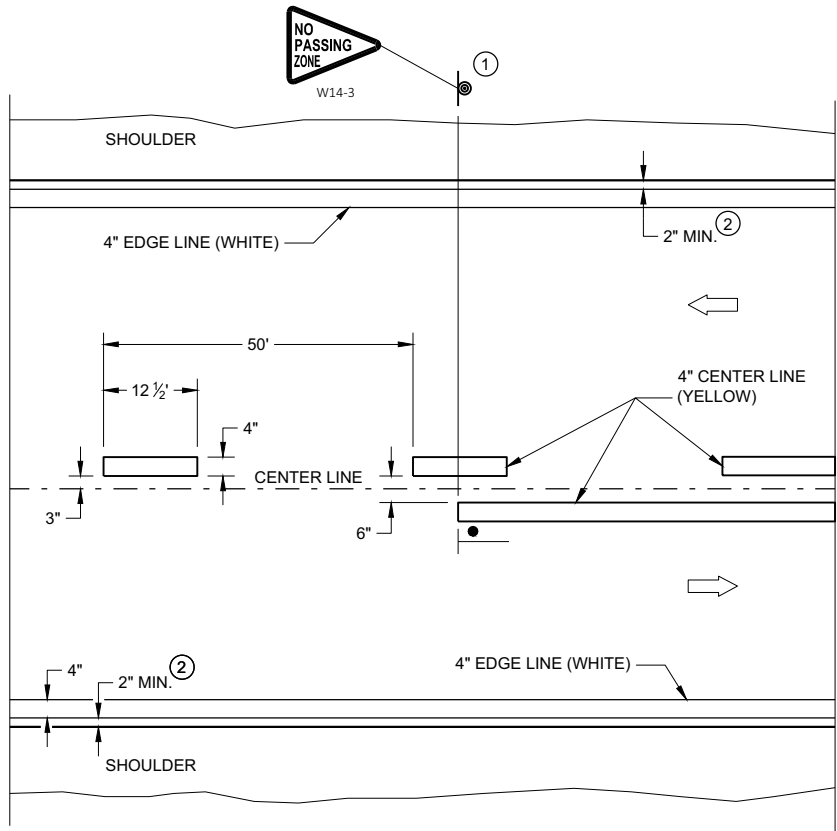


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

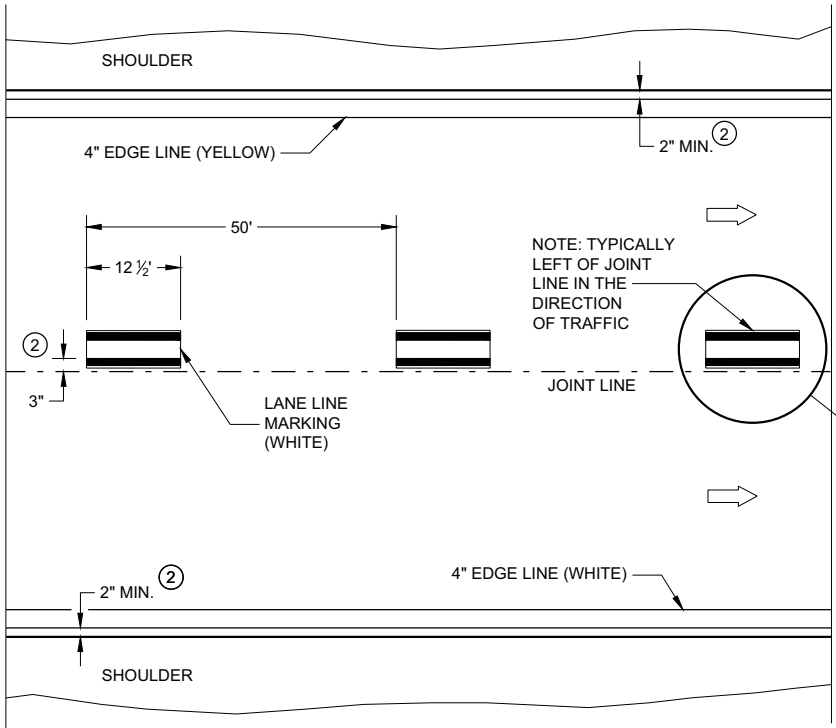
TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 40 MPH OR LESS TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018  
DATE  
/S/ Andrew Heidtke  
WORK ZONE ENGINEER  
FHWA

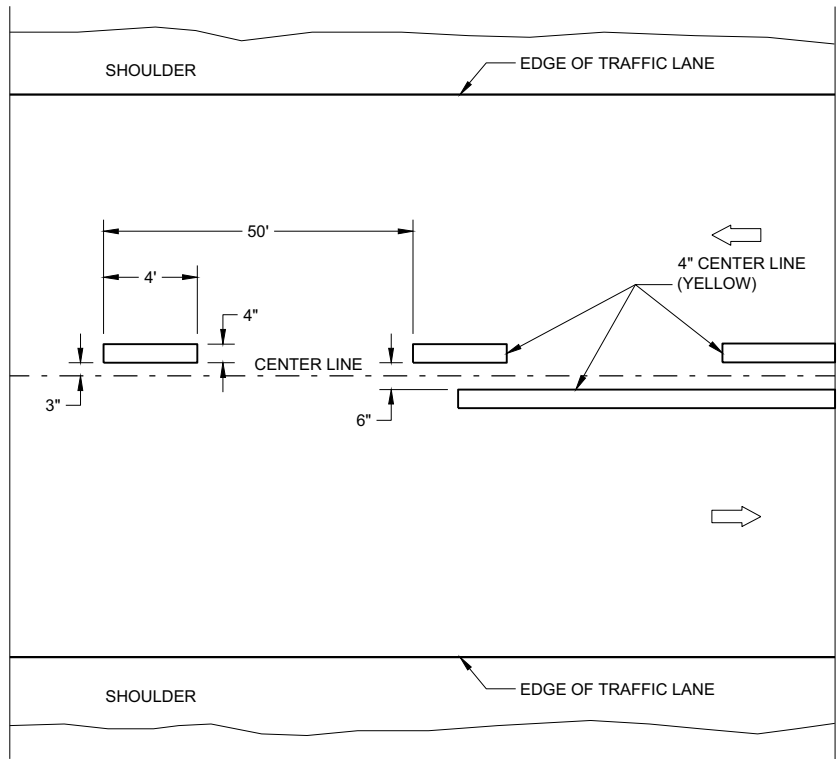


TWO WAY TRAFFIC

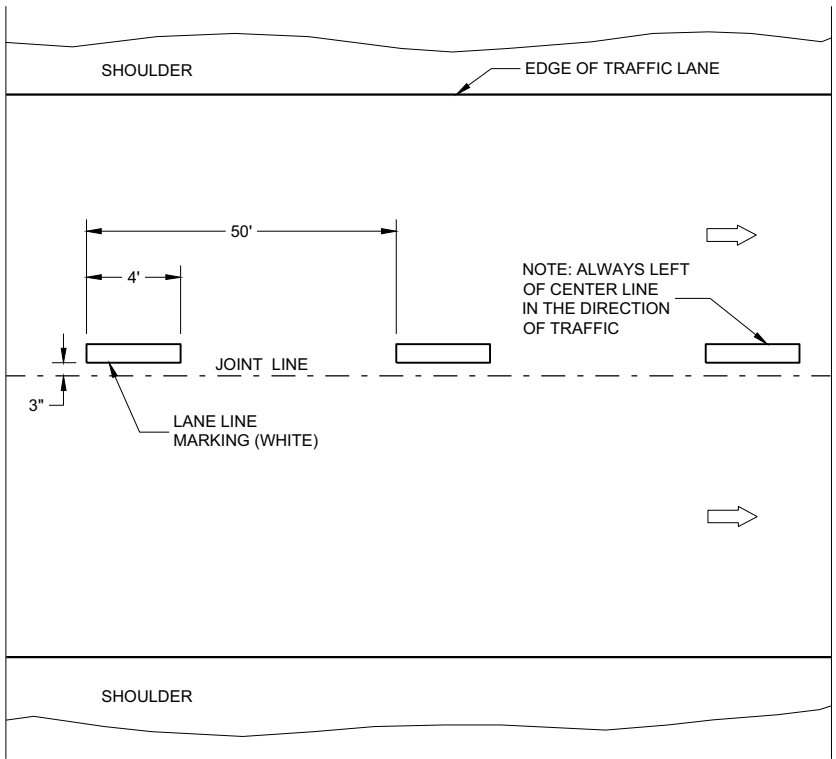


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

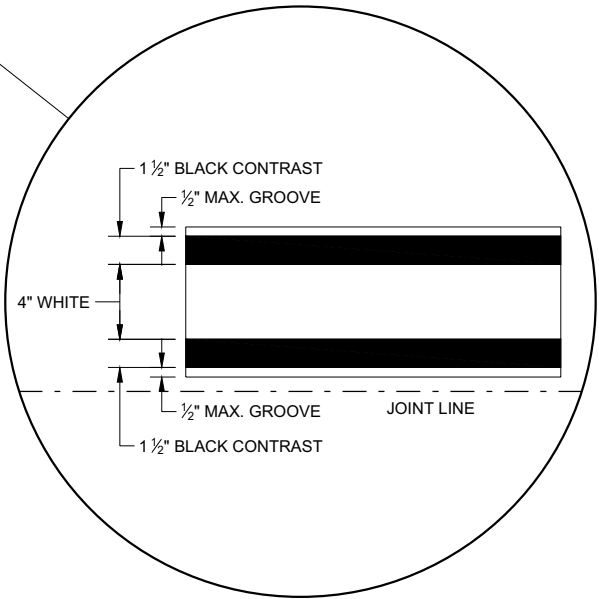
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

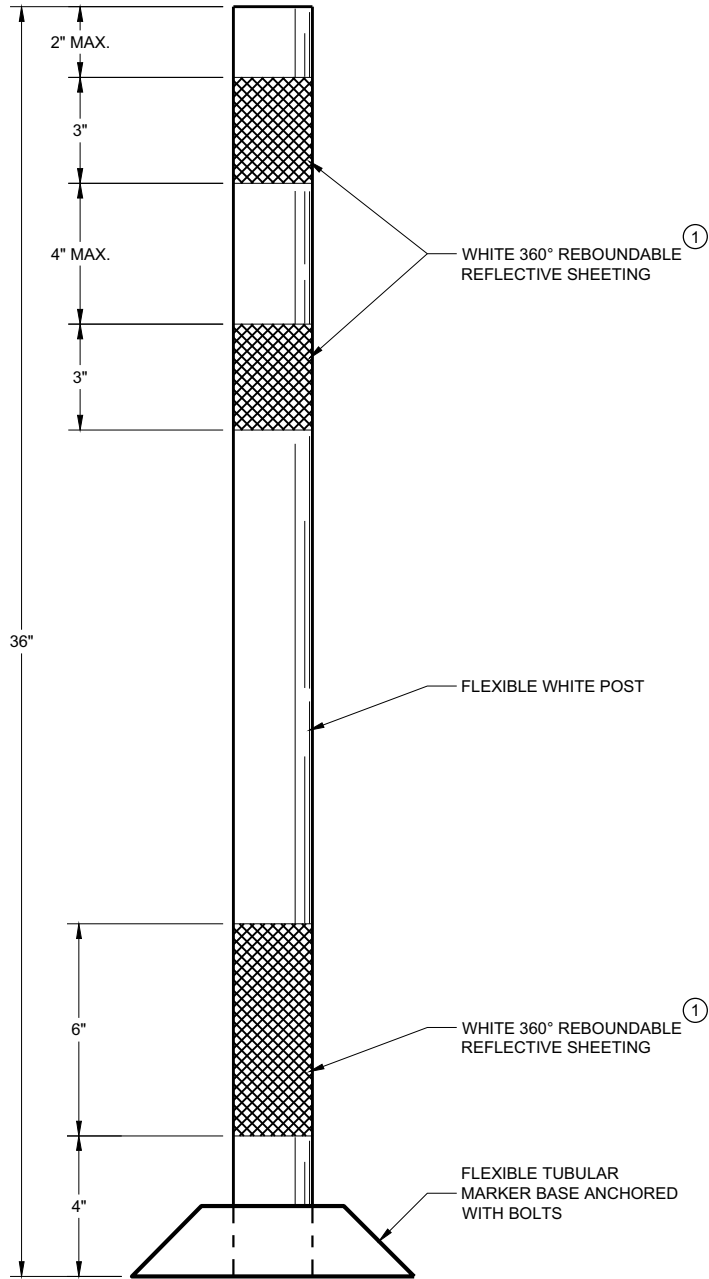
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



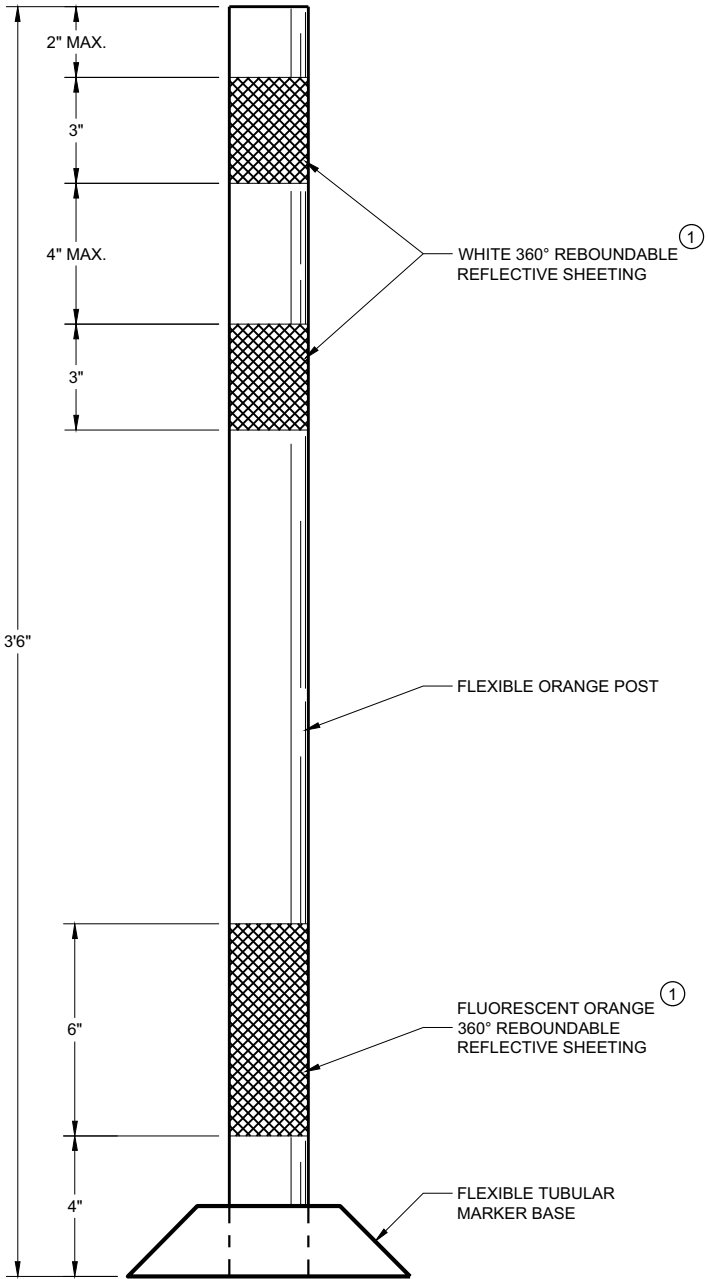
LONGITUDINAL MARKING  
(MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020  
DATE  
/S/ Matthew Rauch  
STATEWIDE SIGNING AND MARKING  
ENGINEER  
FHWA



FLEXIBLE TUBULAR  
MARKER POST  
PERMANENT CROSSOVER



FLEXIBLE TUBULAR  
MARKER POST  
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

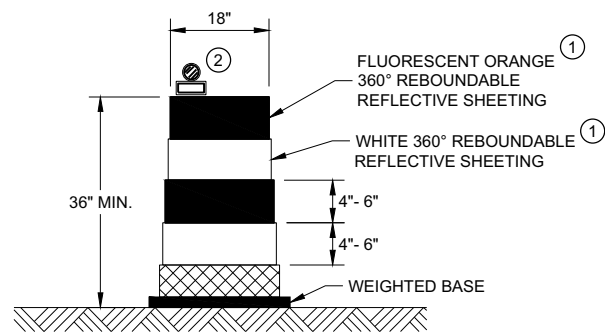
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES  
FLEXIBLE TUBULAR  
MARKER POST

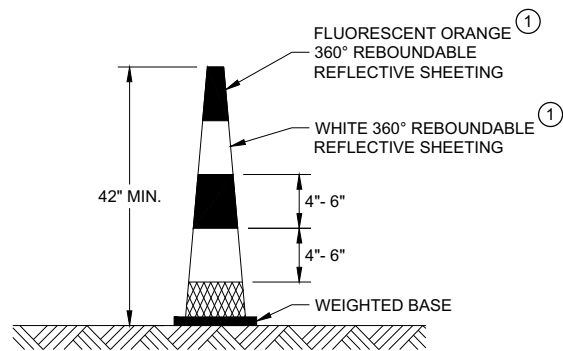
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

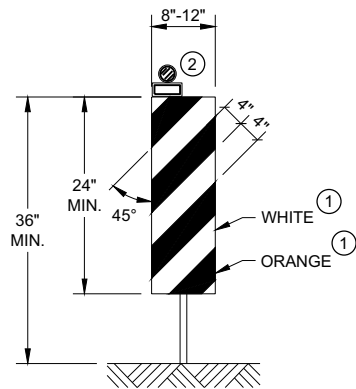


DRUM



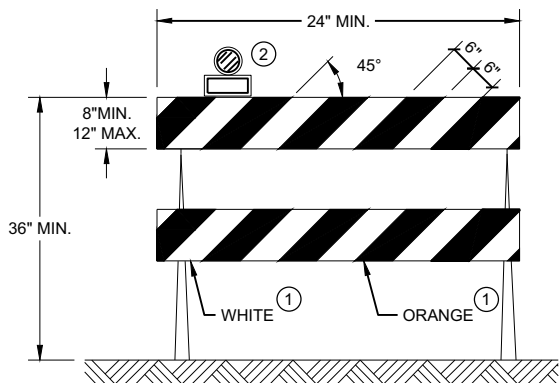
42" CONE

DO NOT USE IN TAPERS  
½ SPACING OF DRUMS



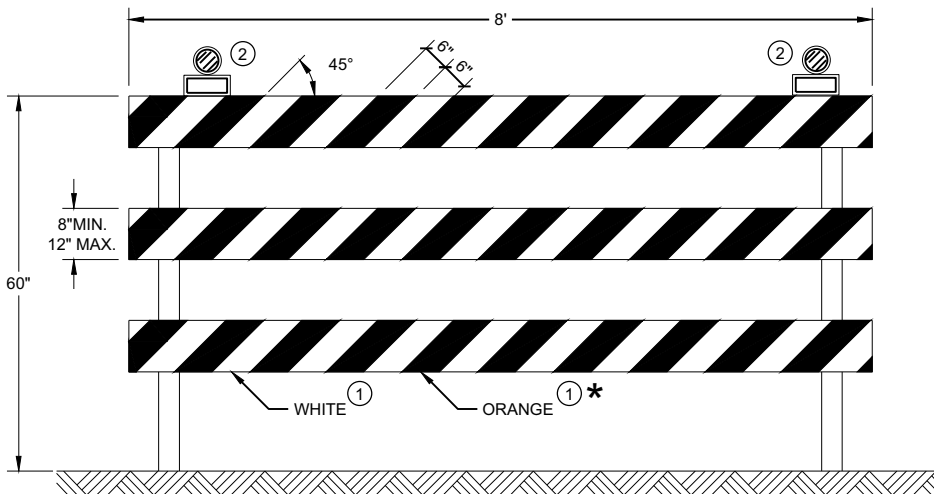
VERTICAL PANEL

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



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.

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.

CHANNELIZING DEVICES  
DRUMS, CONES, BARRICADES  
AND VERTICAL PANELS






STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA



LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

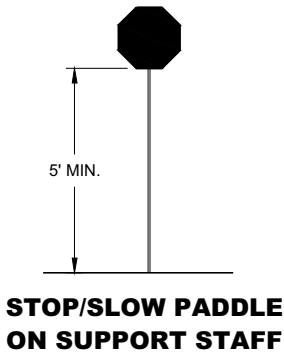
③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

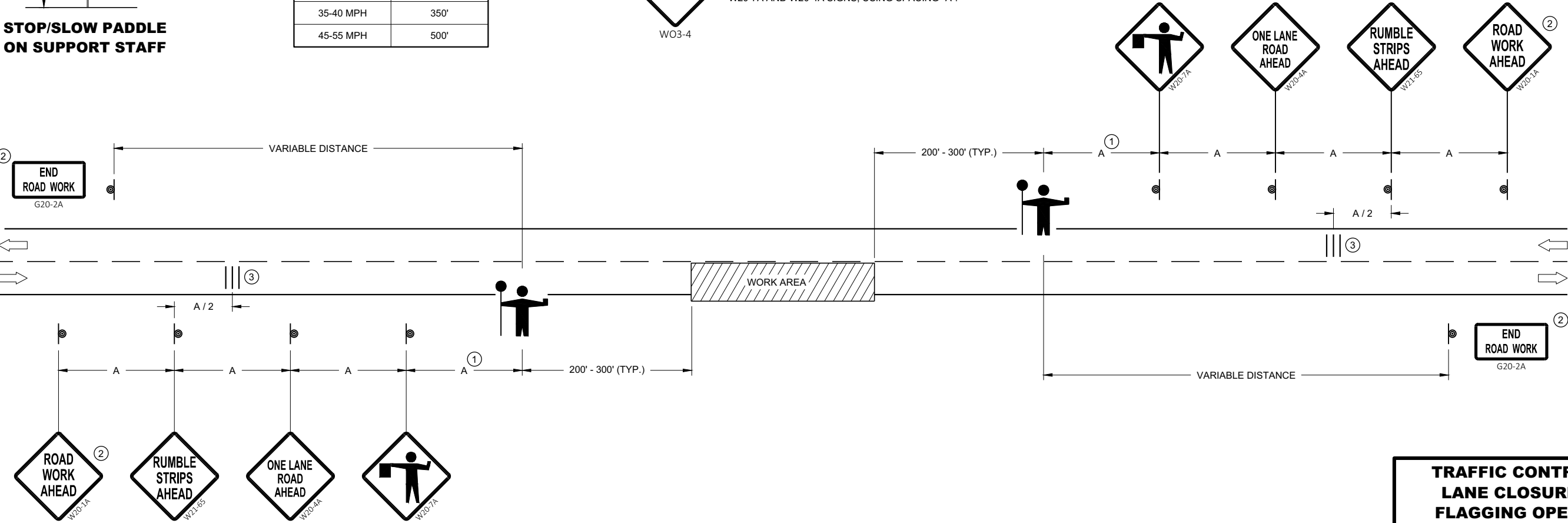


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

<b>TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

V1	LEAD VEHICLE
V2	MARKING VEHICLE
V3	SHADOW VEHICLE

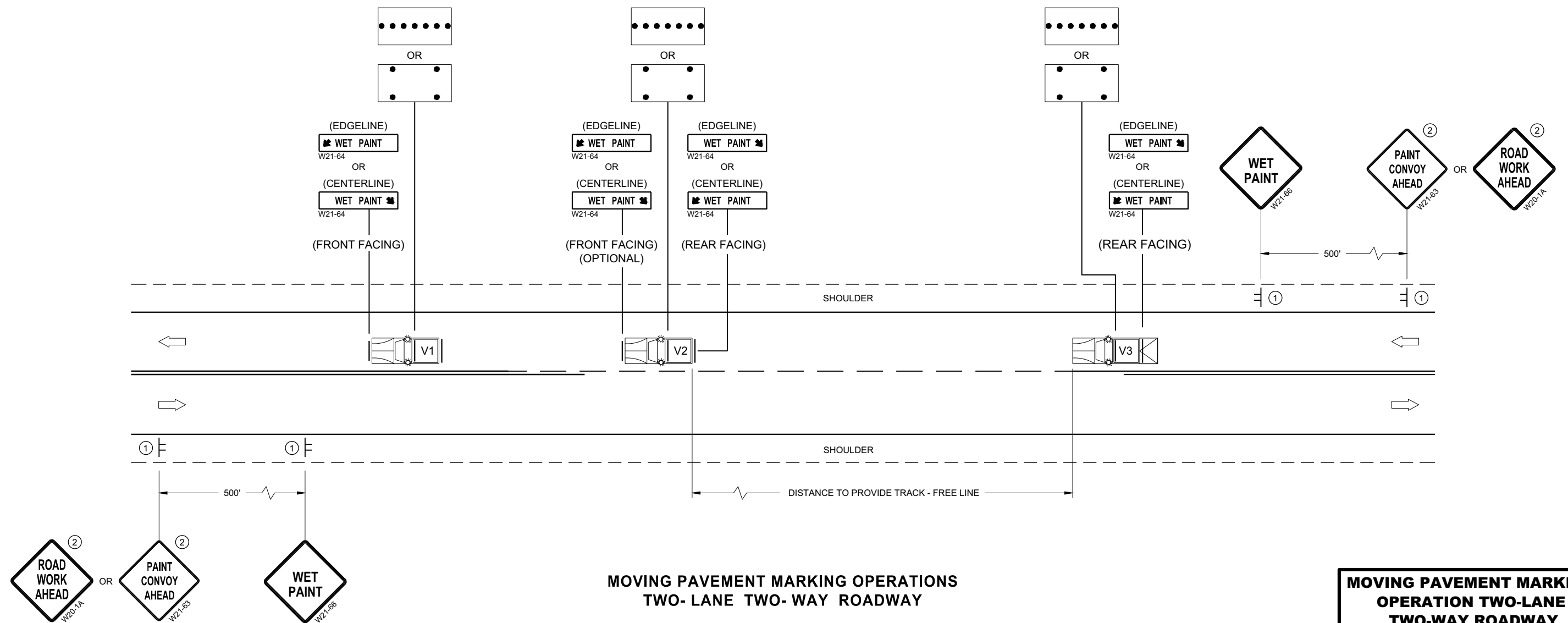


### FLASHING ARROW PANEL (CAUTION)

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

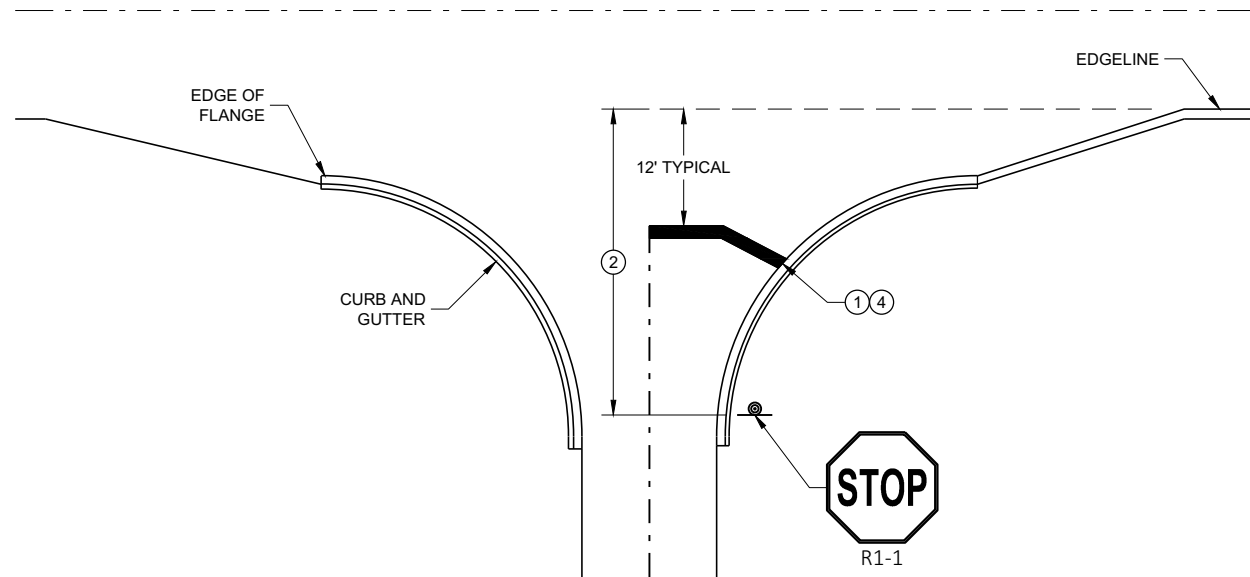


## MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

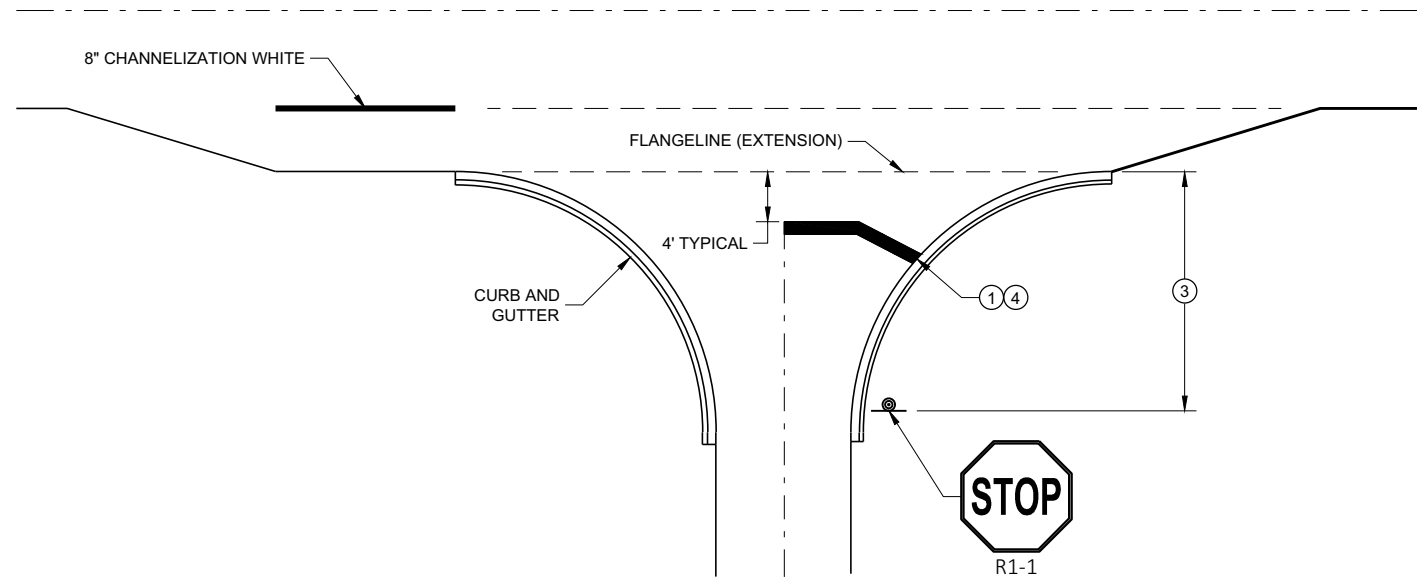
**MOVING PAVEMENT MARKING  
OPERATION TWO-LANE  
TWO-WAY ROADWAY**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

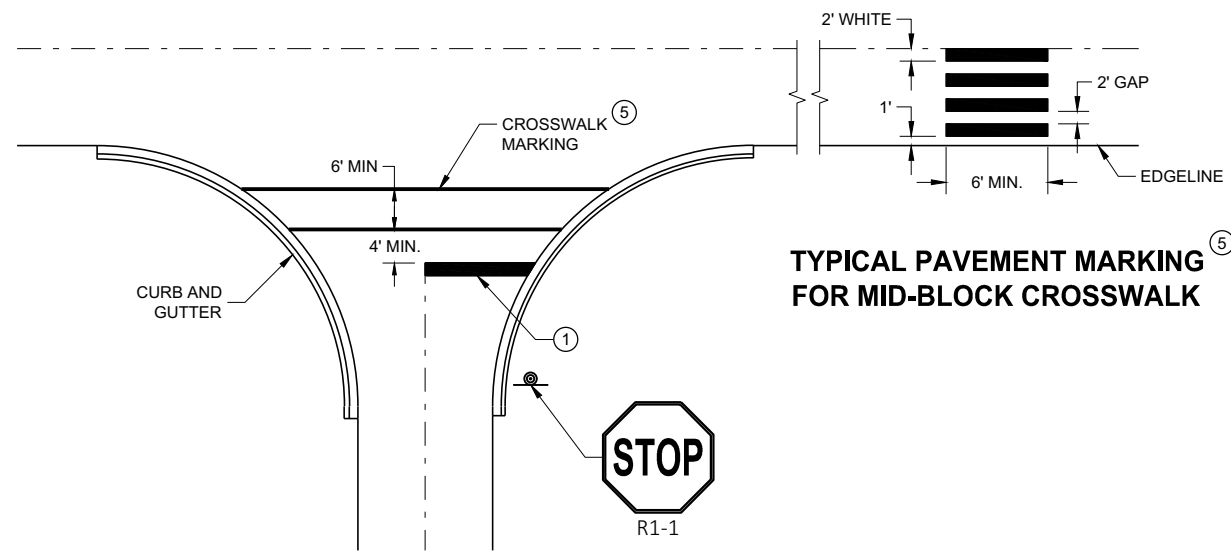
APPROVED  
November 2019 DATE /S/ Andrew Heidtke  
FHWA WORK ZONE ENGINEER



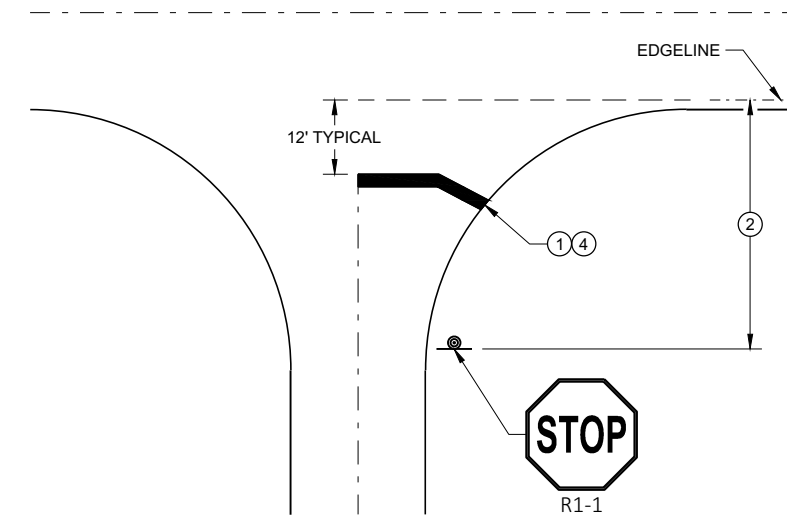
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

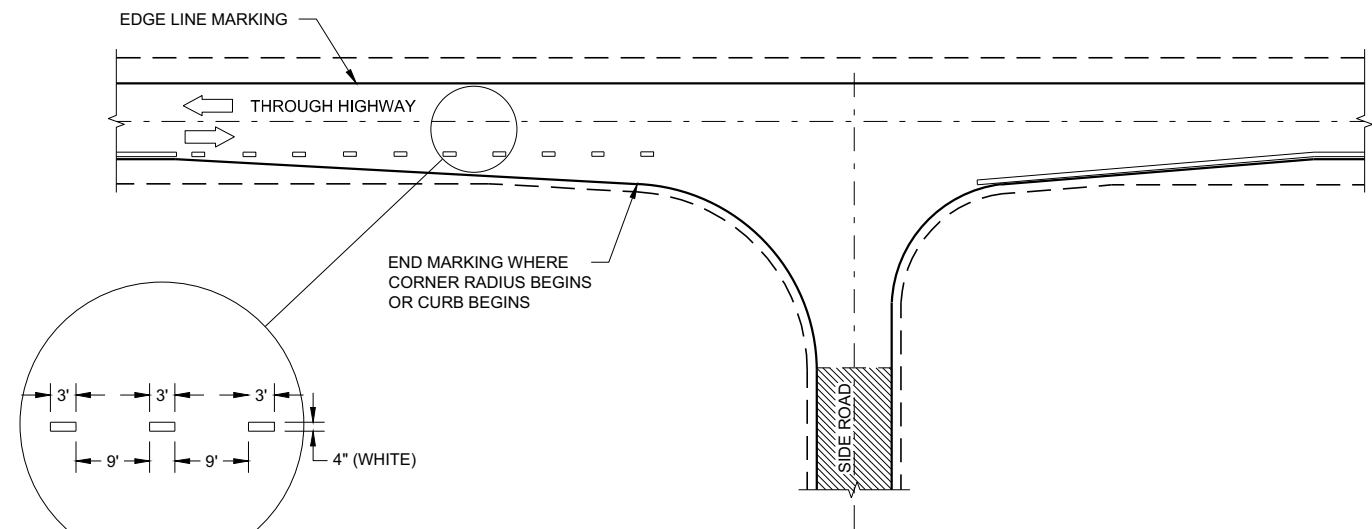
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.

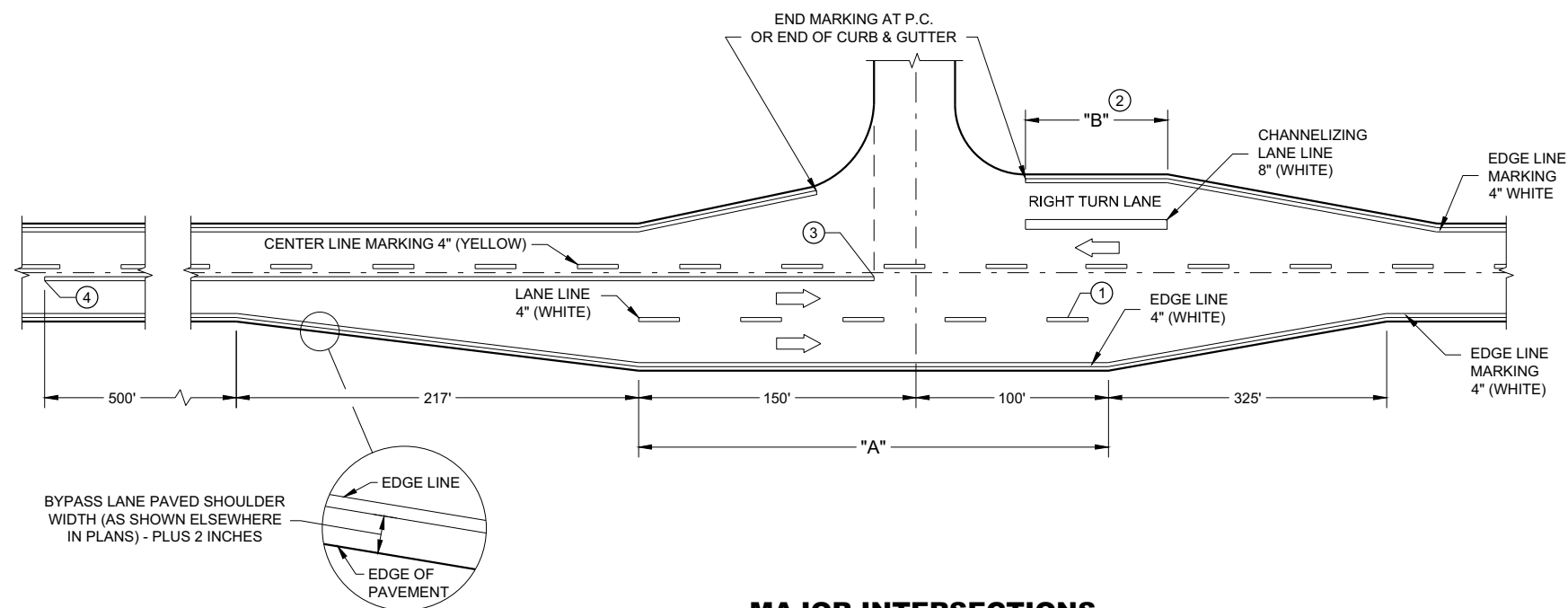
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER  
FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

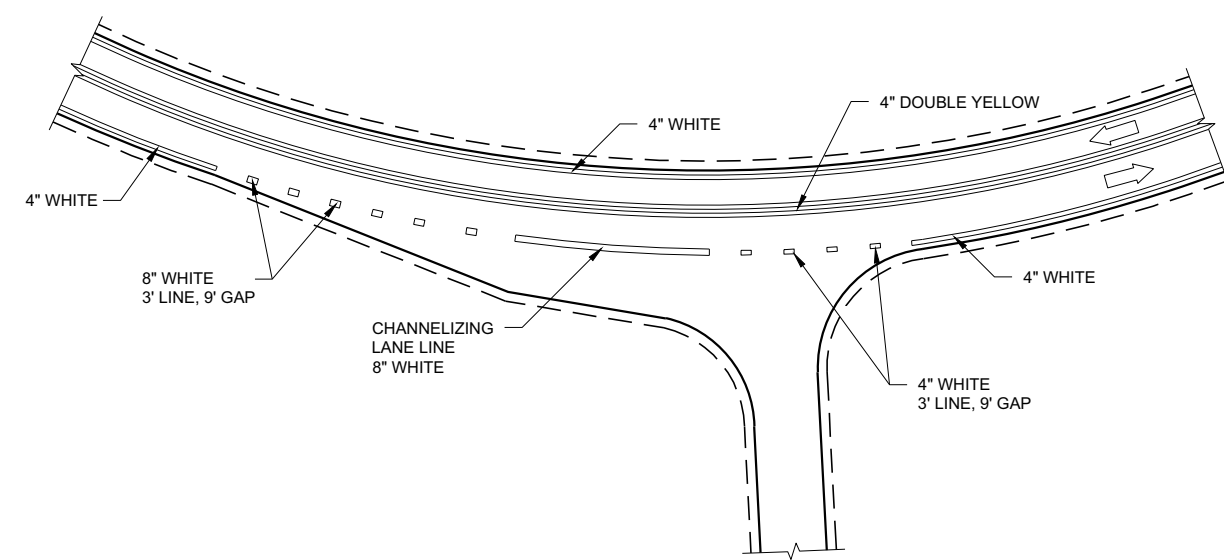
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

➡ DIRECTION OF TRAVEL







INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING  
(INTERSECTIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

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

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

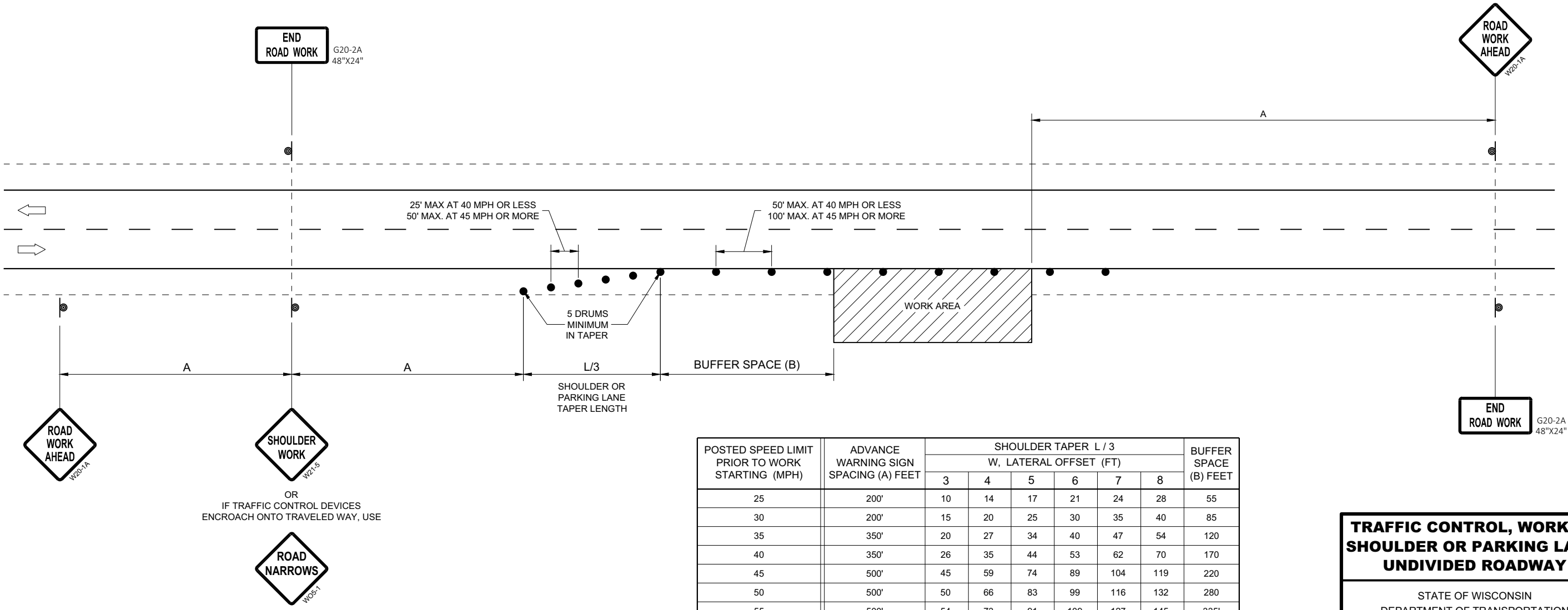
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3						BUFFER SPACE (B) FEET
		W, LATERAL OFFSET (FT)						
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON  
SHOULDER OR PARKING LANE,  
UNDIVIDED ROADWAY

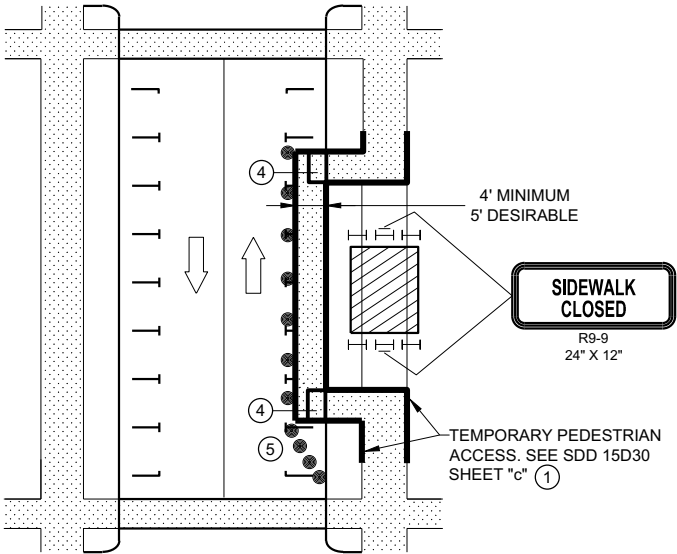
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2020  
DATE  
/S/ Andrew Heidtke  
STATEWIDE WORK ZONE TRAFFIC  
SAFETY ENGINEER  
FHWA

SDD 15D28 - 04

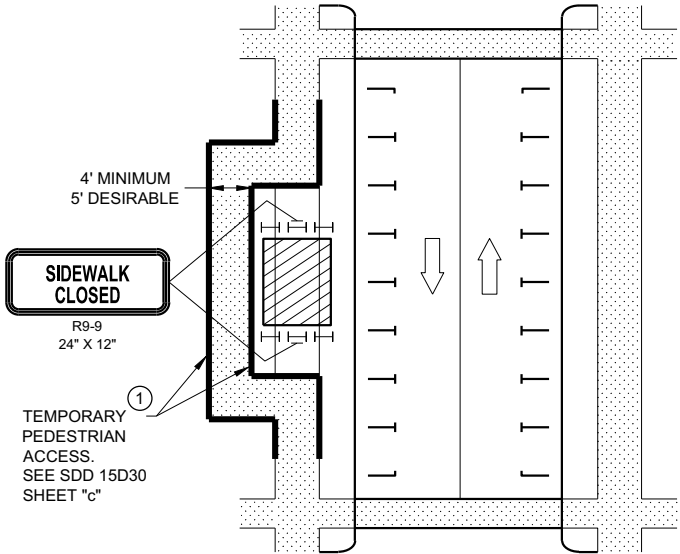
SDD 15D28 - 04

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

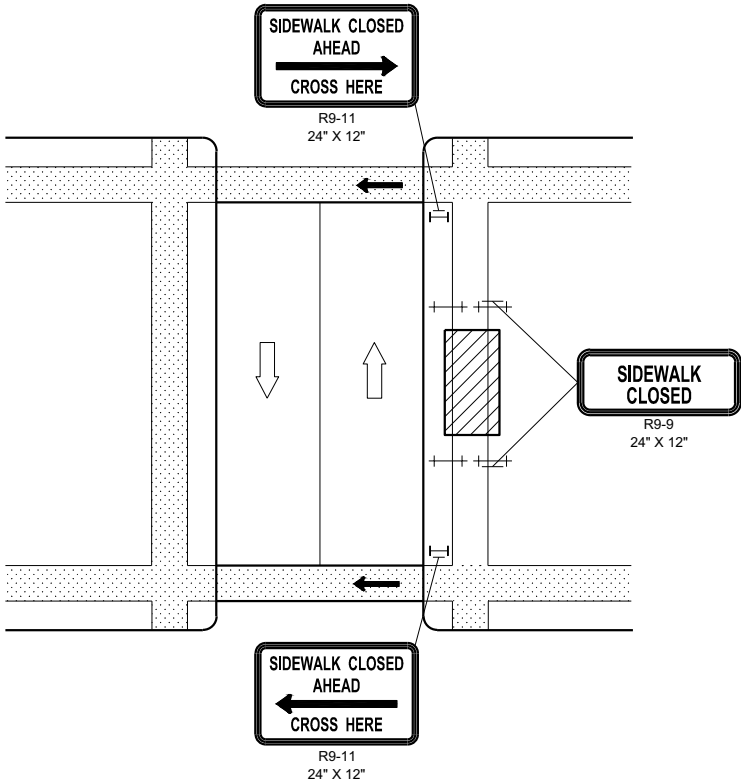


MID-BLOCK SIDEWALK CLOSURE  
IN PARKING LANE

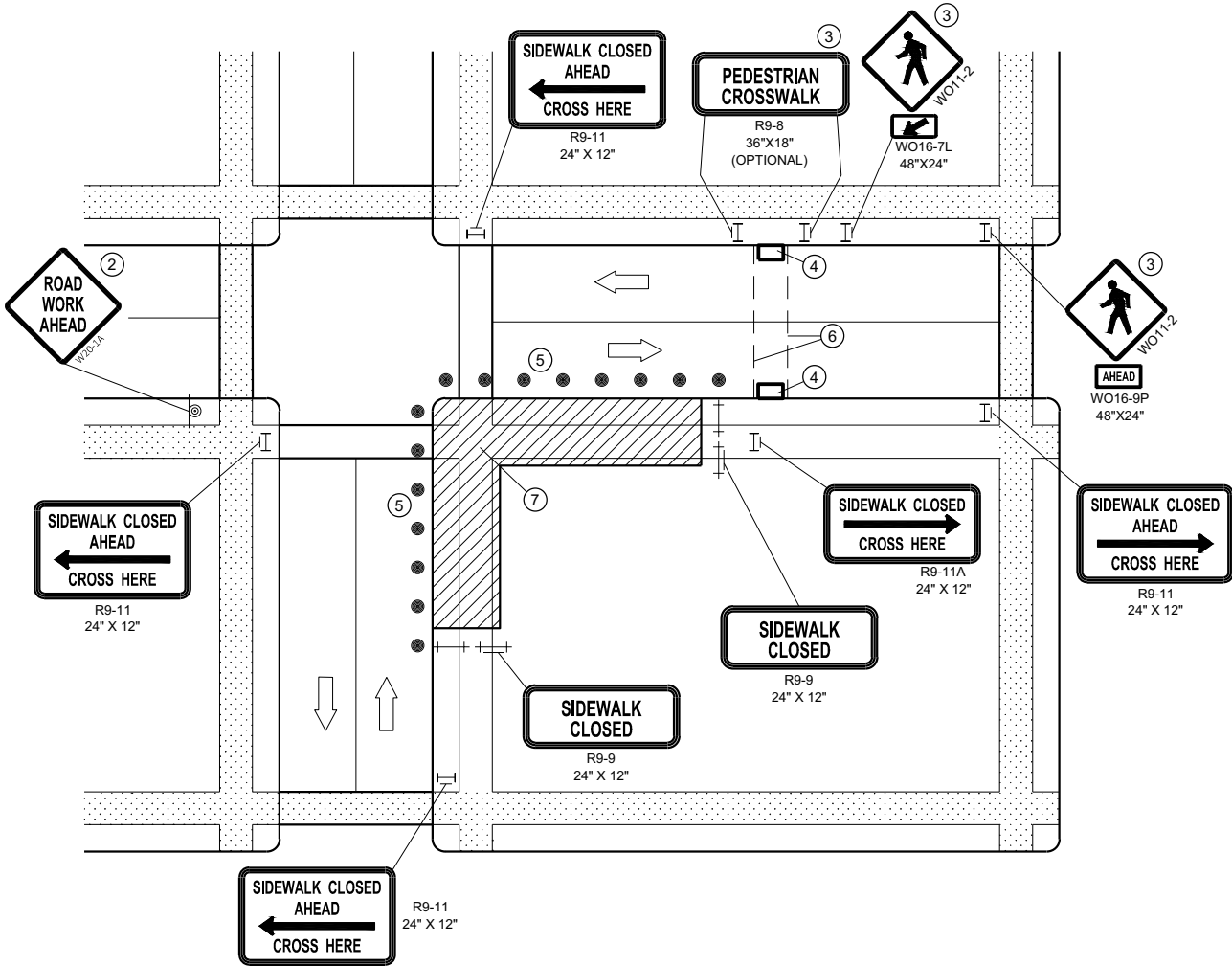
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK  
CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

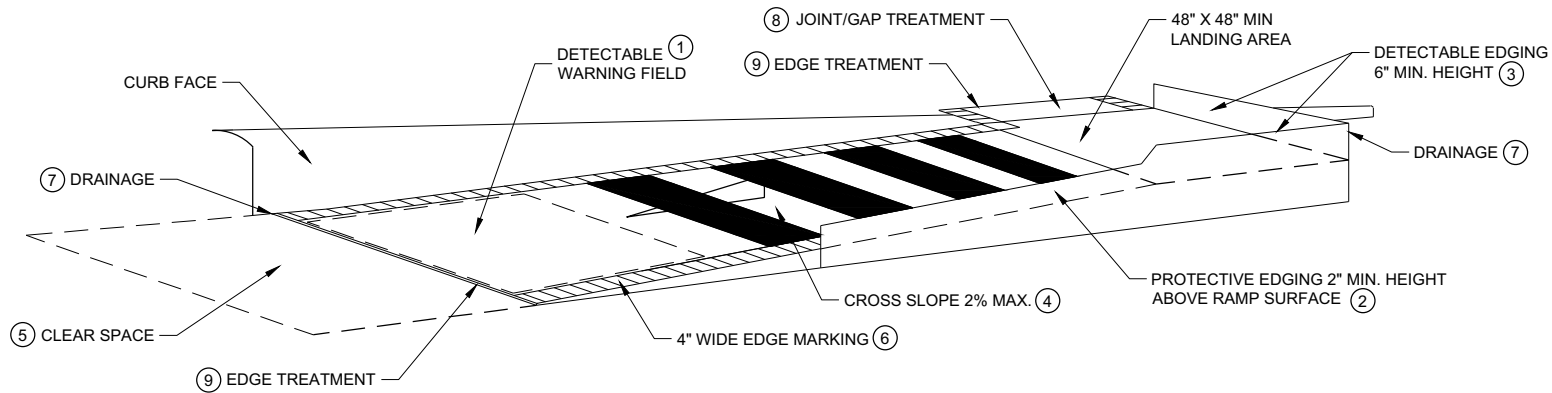
- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b".
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

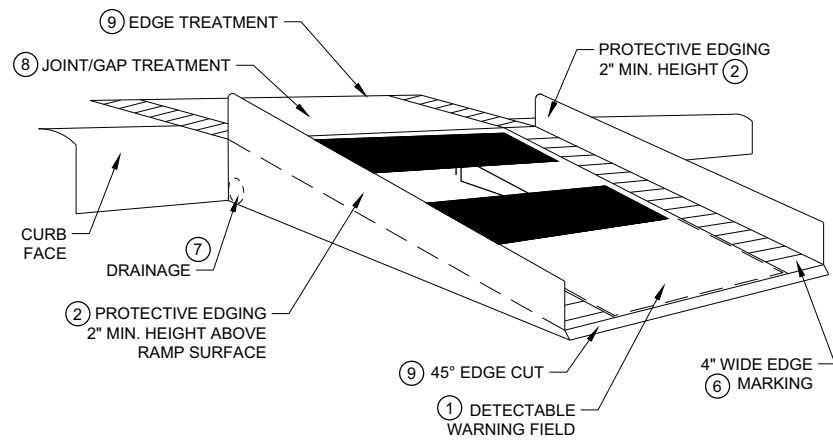
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION

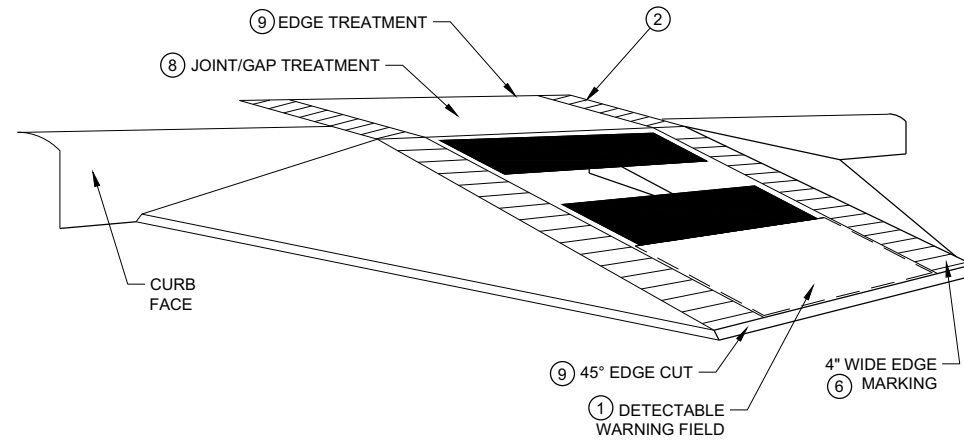
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

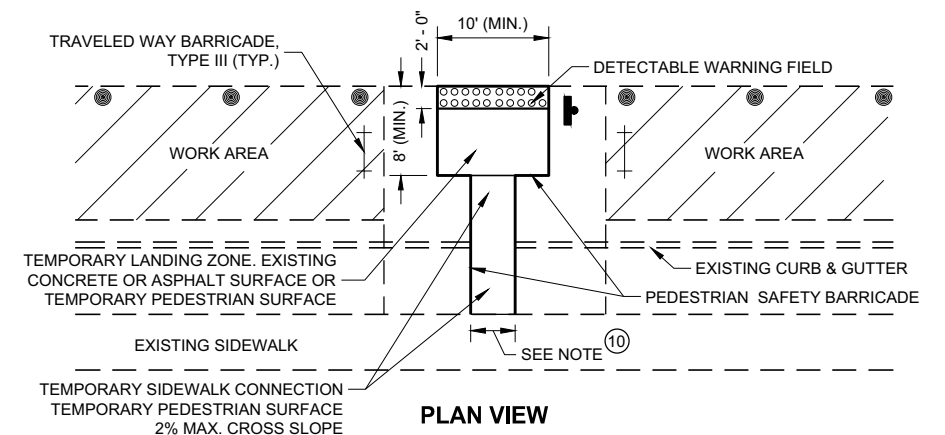
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

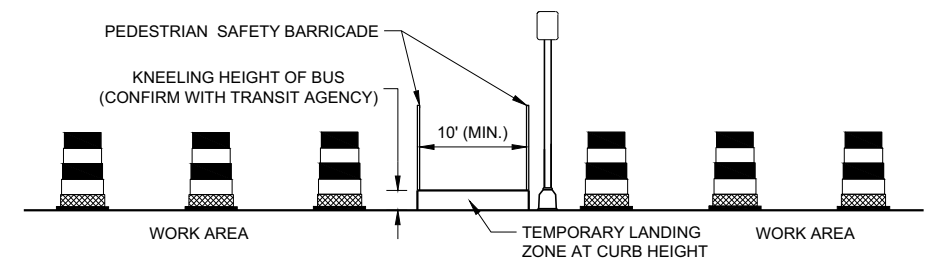
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
- 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- 5 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- 10 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



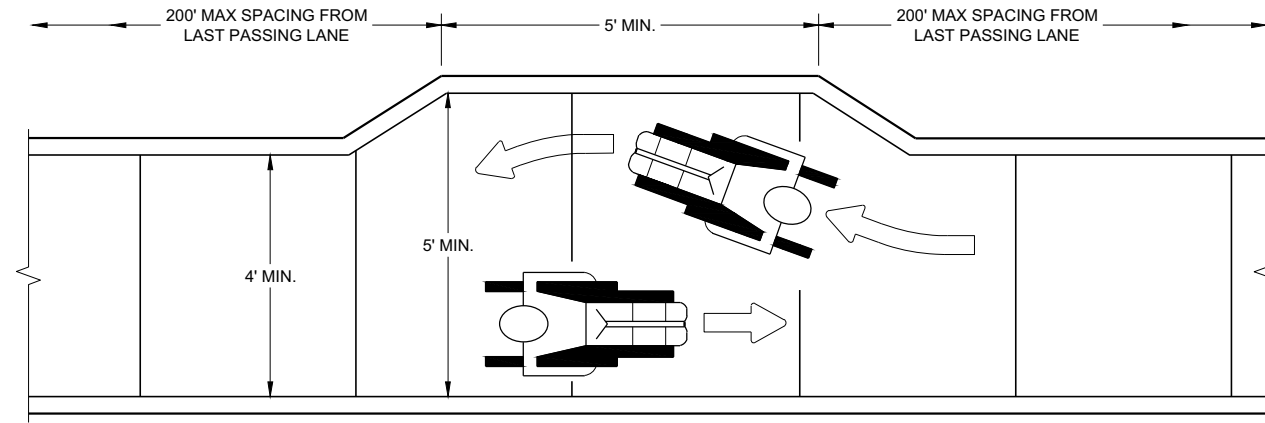
PROFILE VIEW

TEMPORARY BUS STOP PAD

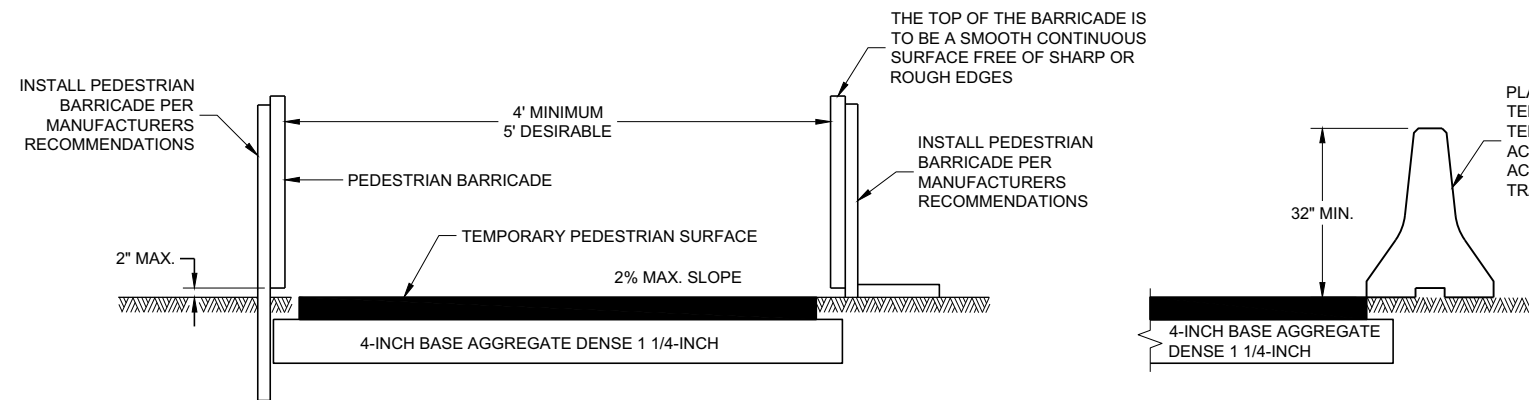
LEGEND

- TRAFFIC CONTROL DRUM
- † TYPE III BARRICADE
- ▨ WORK AREA

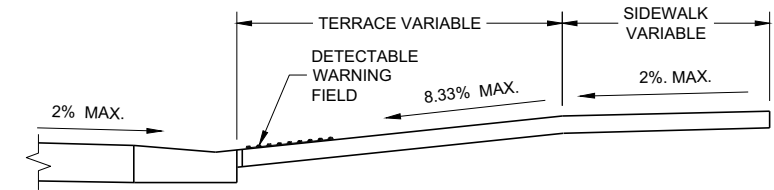
<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



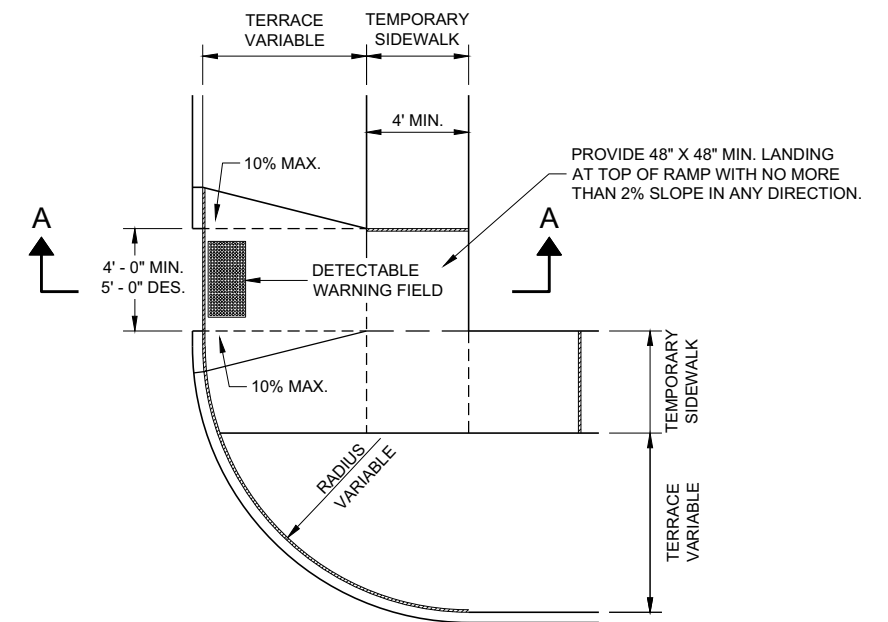
**NARROW SIDEWALK PASSING DETAIL**



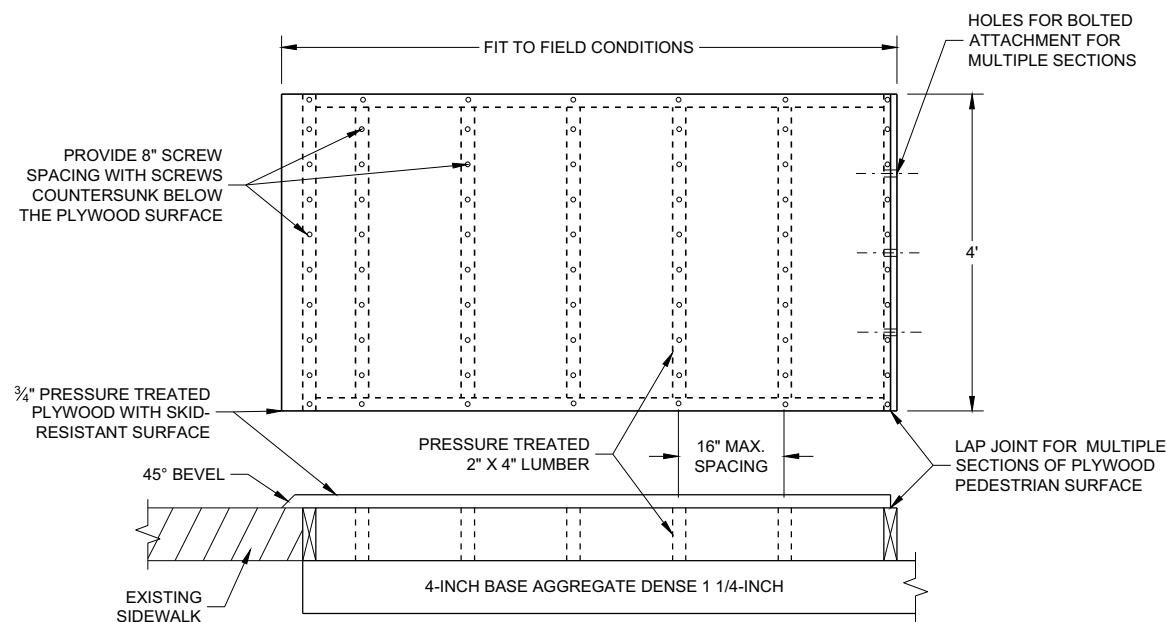
**TEMPORARY PEDESTRIAN ACCESS**



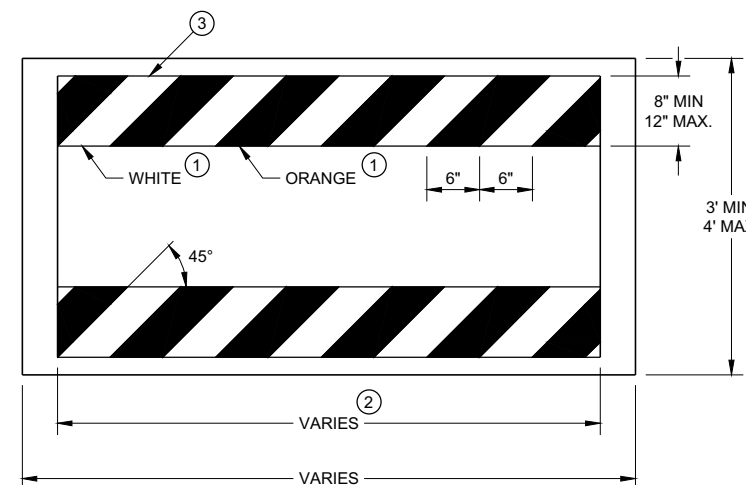
**SECTION A - A**



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



**TEMPORARY PEDESTRIAN SURFACE PLYWOOD**



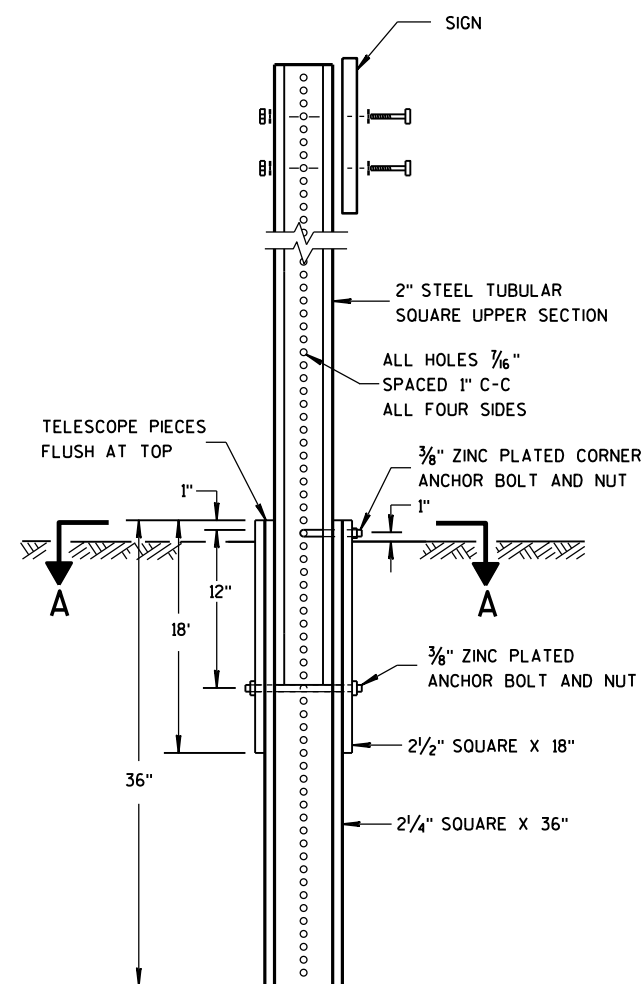
**TEMPORARY PEDESTRIAN BARRICADE \***

**GENERAL NOTES**

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- \* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	





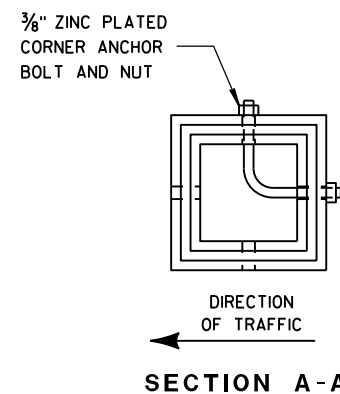
**DETAIL OF TUBULAR  
STEEL SIGN POST**

**TUBULAR STEEL POSTS**

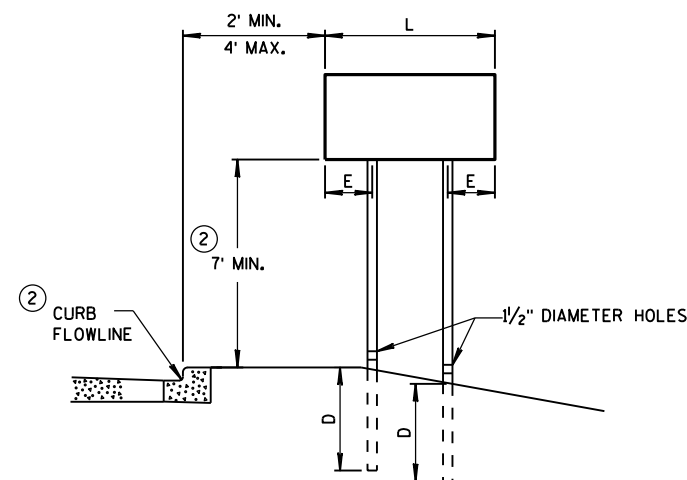
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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

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



**SECTION A-A**

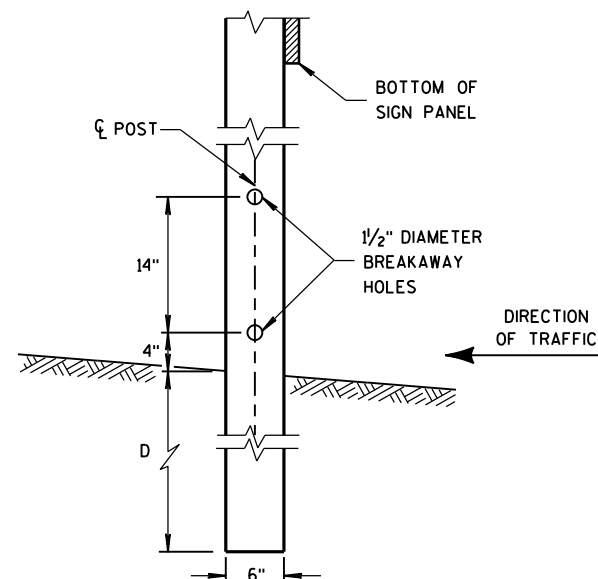


**URBAN AREA**

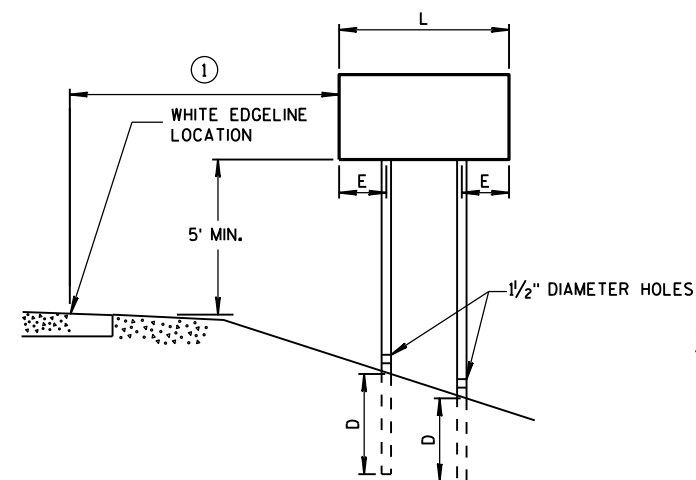
**POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS**

**WOOD POST  
EMBEDMENT DEPTH**

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



**4"x6" WOOD POST  
MODIFICATION**



**RURAL AREA**

**4" X 6" WOOD POST**

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

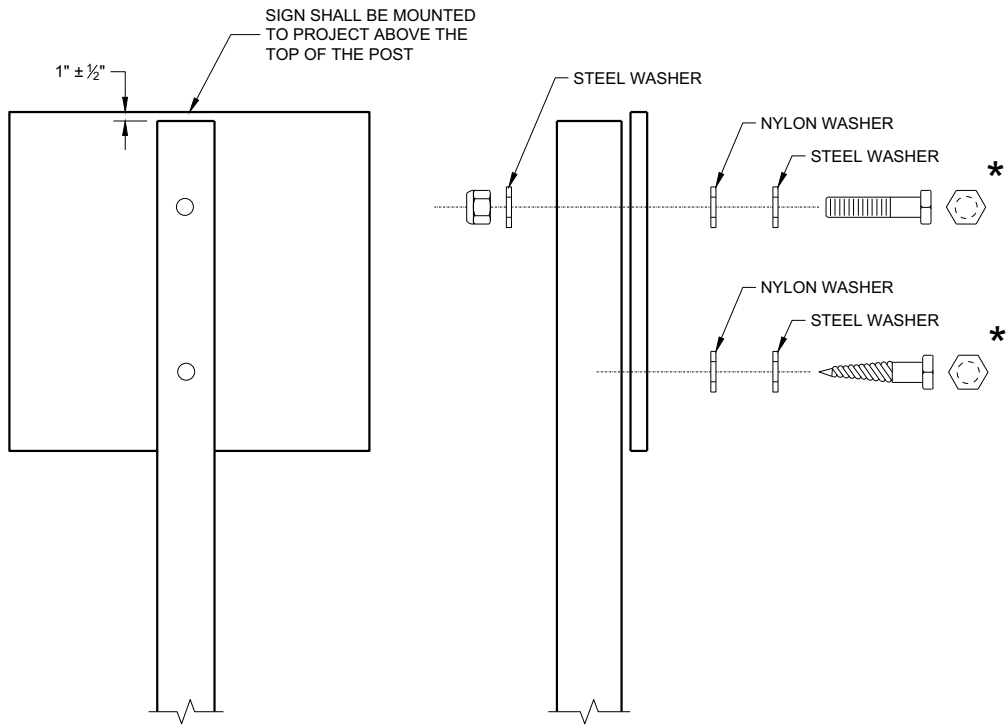
SEE NOTE ③

**GENERAL NOTES**

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

**TEMPORARY TRAFFIC CONTROL  
SIGN MOUNTING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

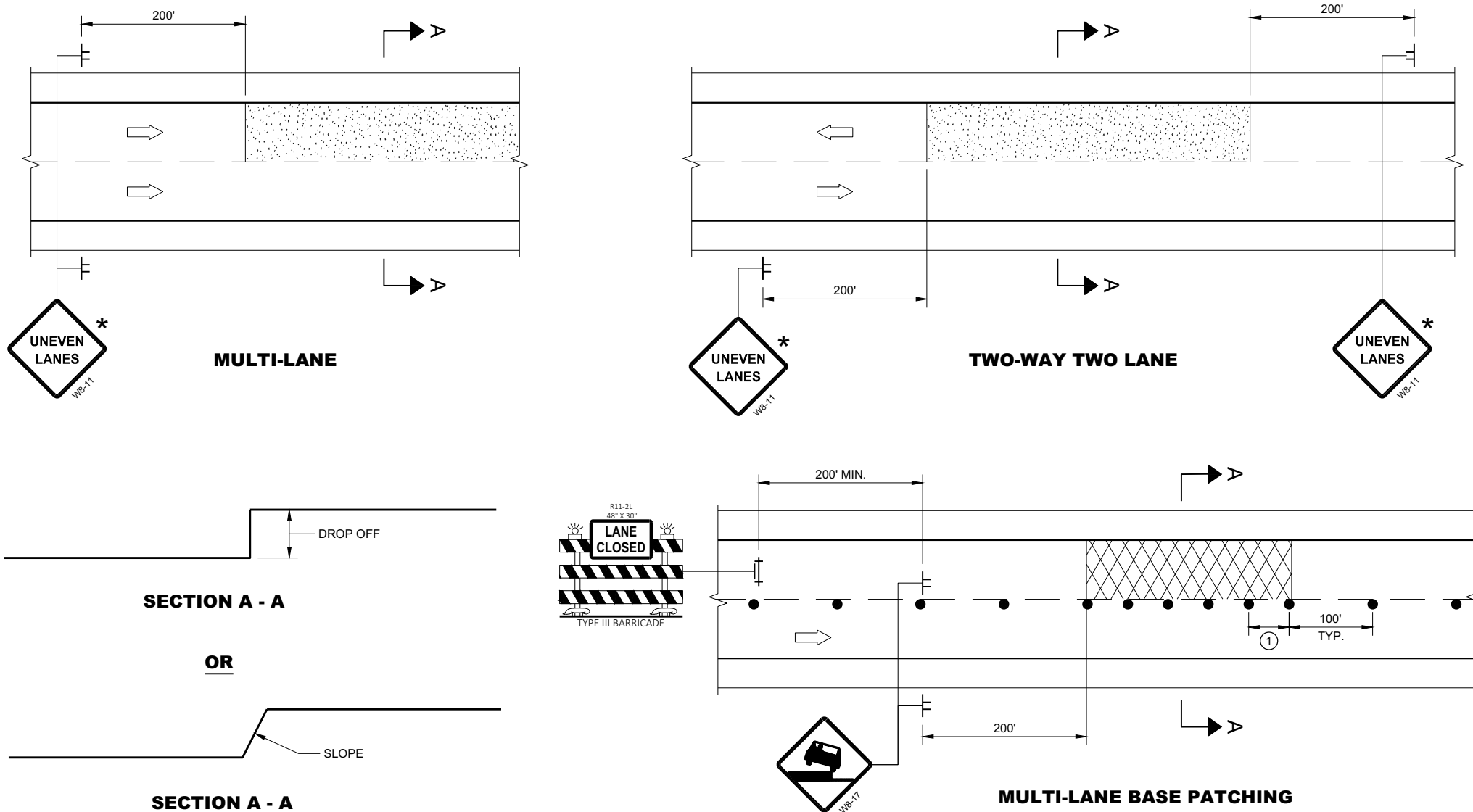
WOOD POST (4" x 6")  
LAG SCREWS - ¾" x 3"  
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")  
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS  
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM  
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,  
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -  
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL  
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



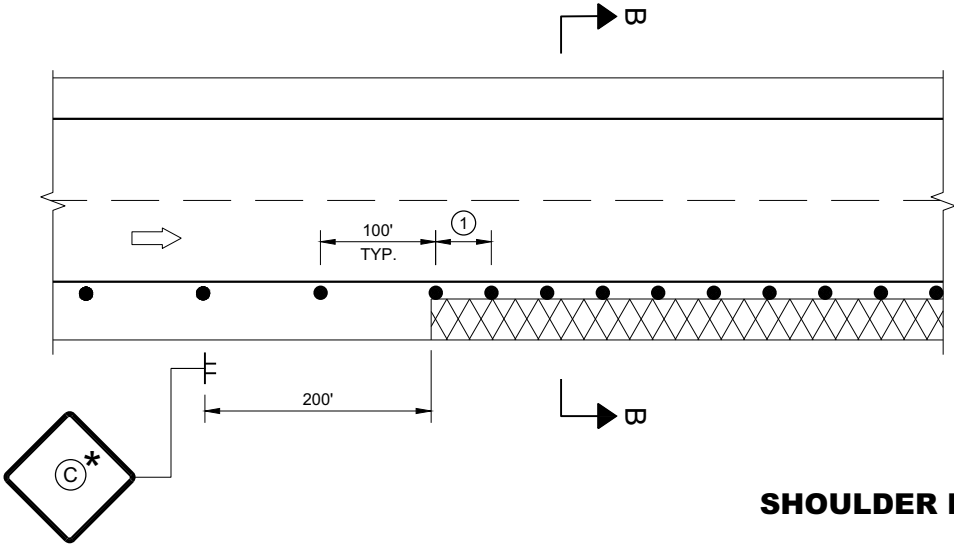
ADJACENT LANE DROP-OFFS

GENERAL NOTES

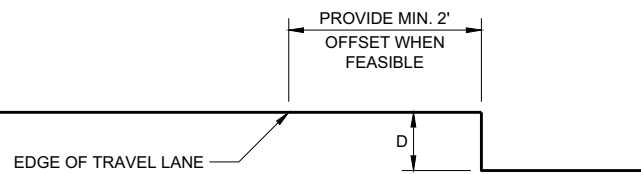
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN C
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL,  
DROP-OFF SIGNING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018  
DATE

/S/ Andrew Heidtke  
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.



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

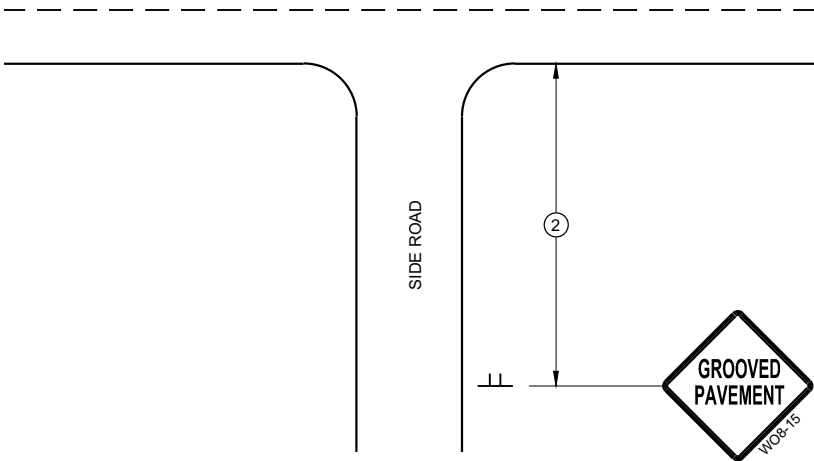
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

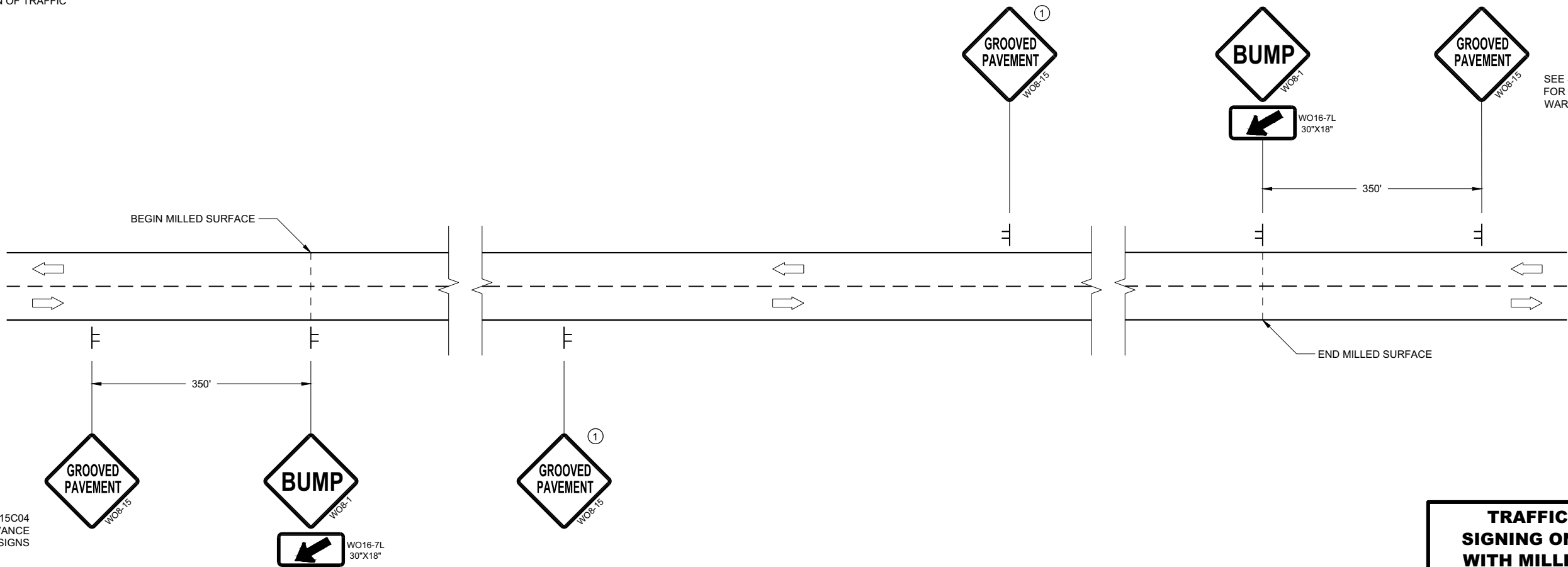
- 1 PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH  
SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,  
SIGNING ON ROADWAYS  
WITH MILLED SURFACES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.



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

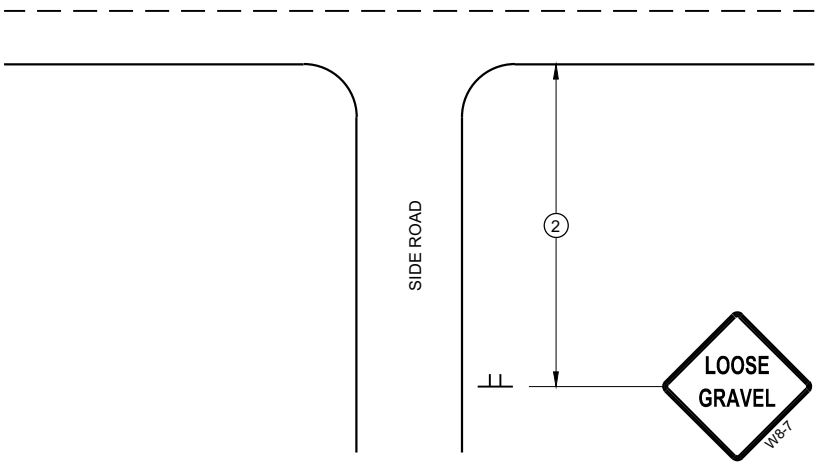
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

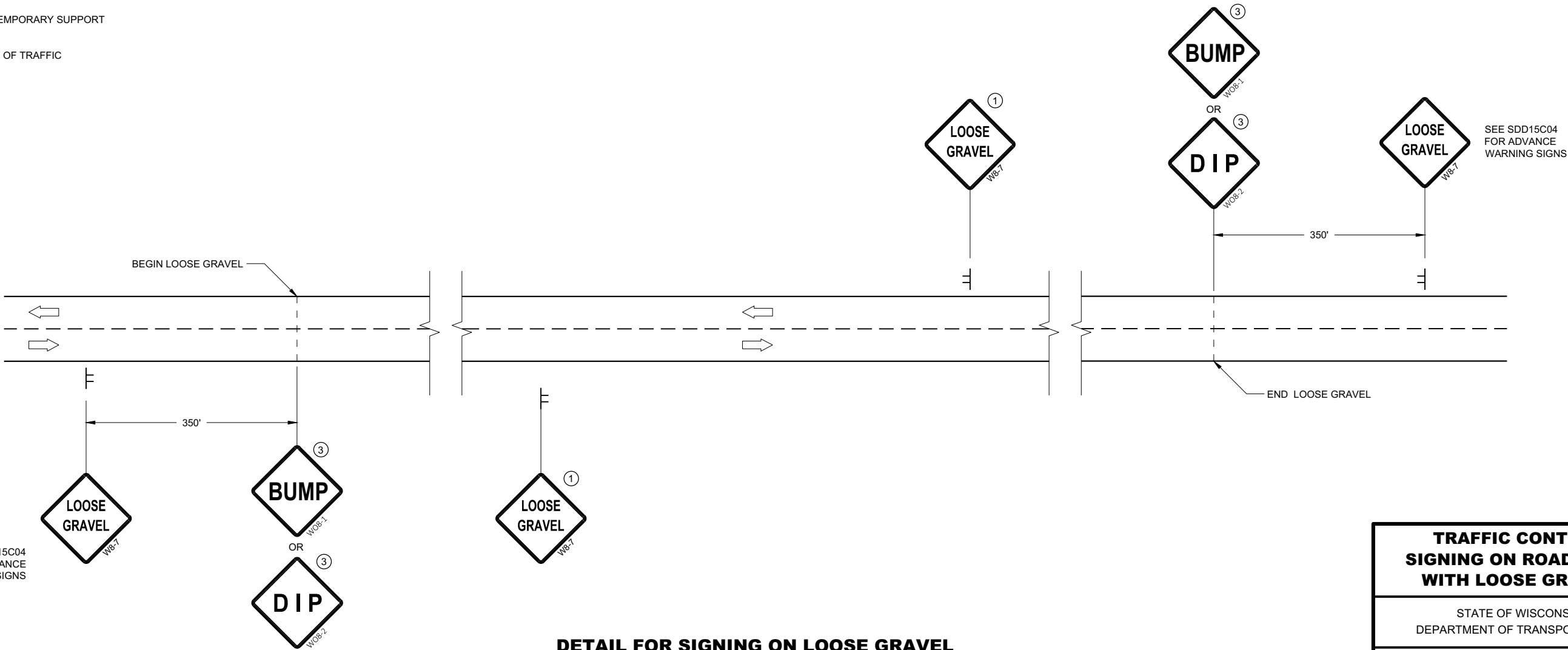
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH  
SIGN DETAIL



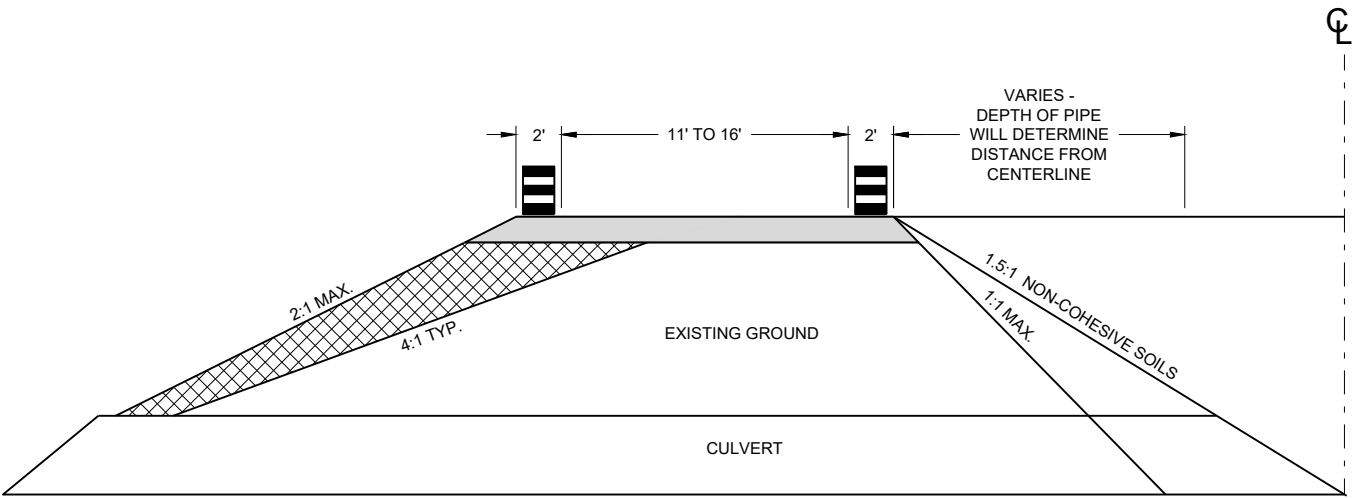
DETAIL FOR SIGNING ON LOOSE GRAVEL  
OR CHIP SEALED SURFACES

TRAFFIC CONTROL  
SIGNING ON ROADWAYS  
WITH LOOSE GRAVEL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.  
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

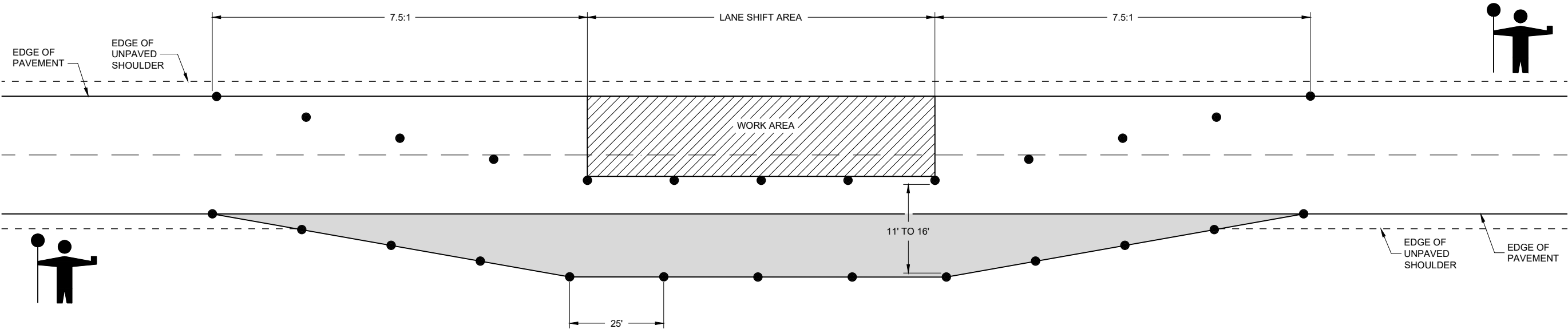
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 1/4" - INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

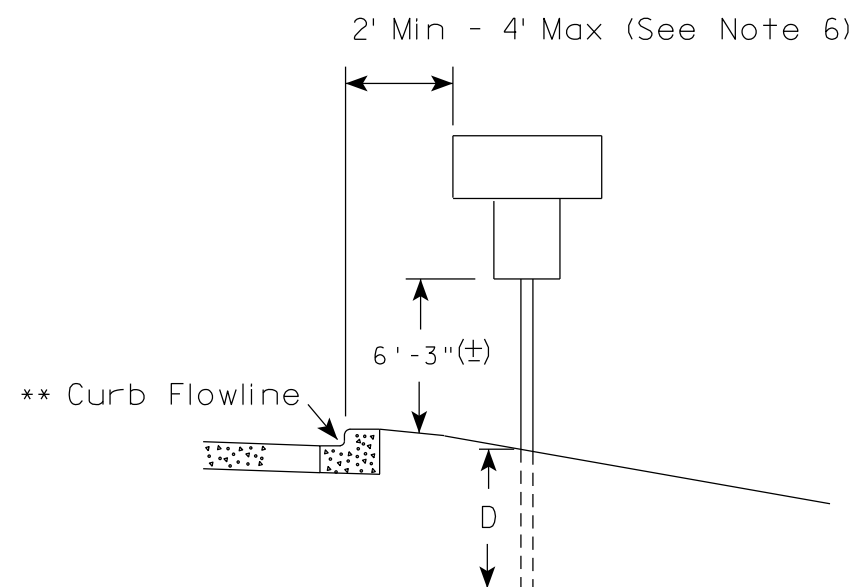
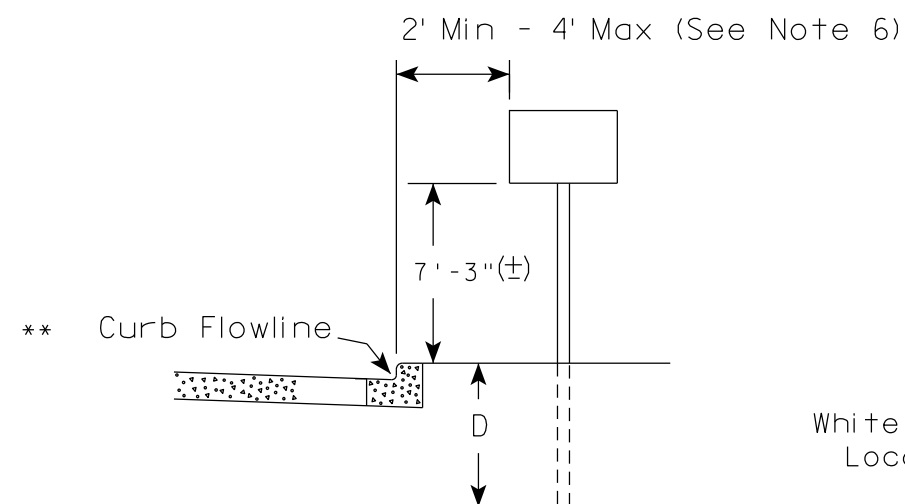
TRAFFIC CONTROL,  
TEMPORARY LANE SHIFT  
DURING CULVERT WORK

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021  
DATE /S/ Andrew Heidtke  
WORK ZONE ENGINEER

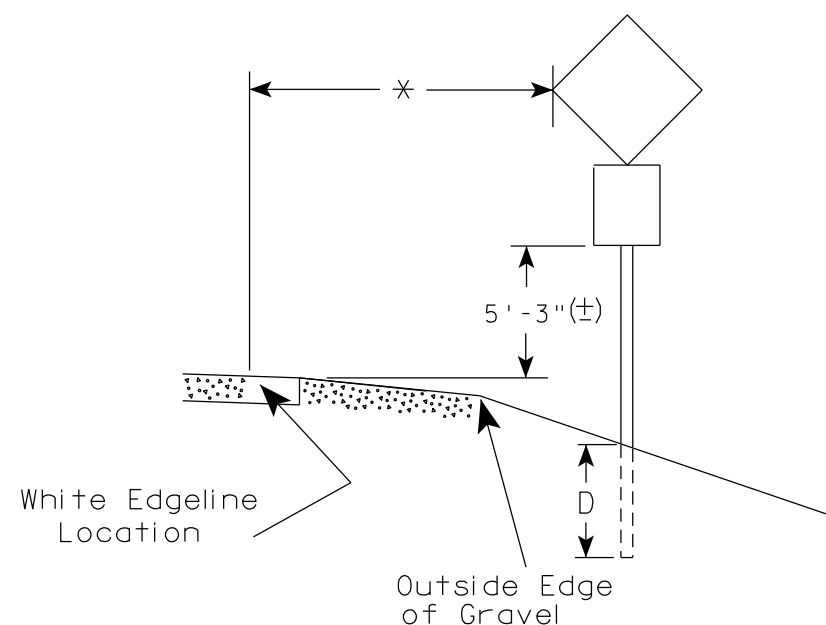
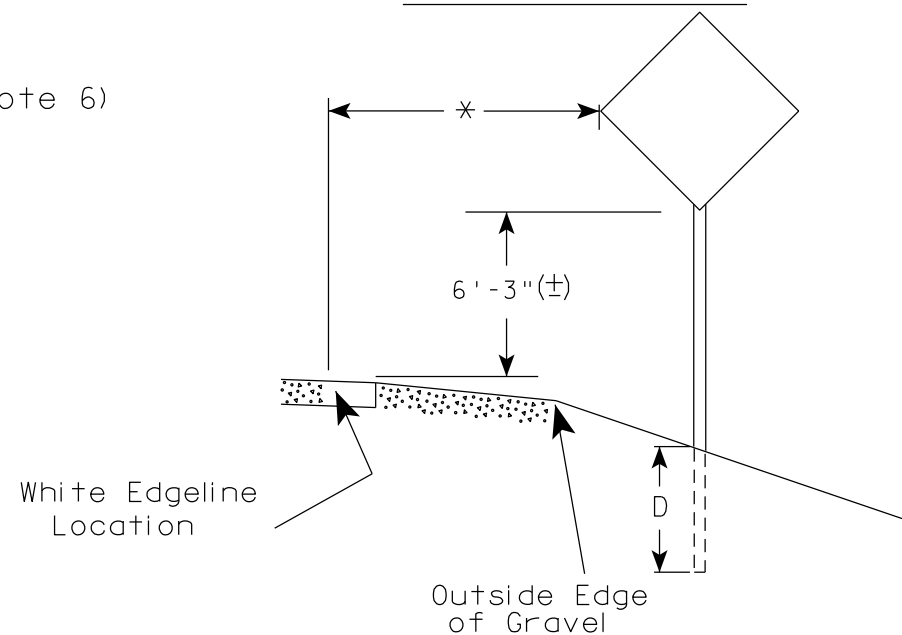
FHWA

# URBAN AREA



\*\* 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.

# RURAL AREA (See Note 2)



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

## POST EMBEDMENT DEPTH

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

## GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). 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. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

## TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

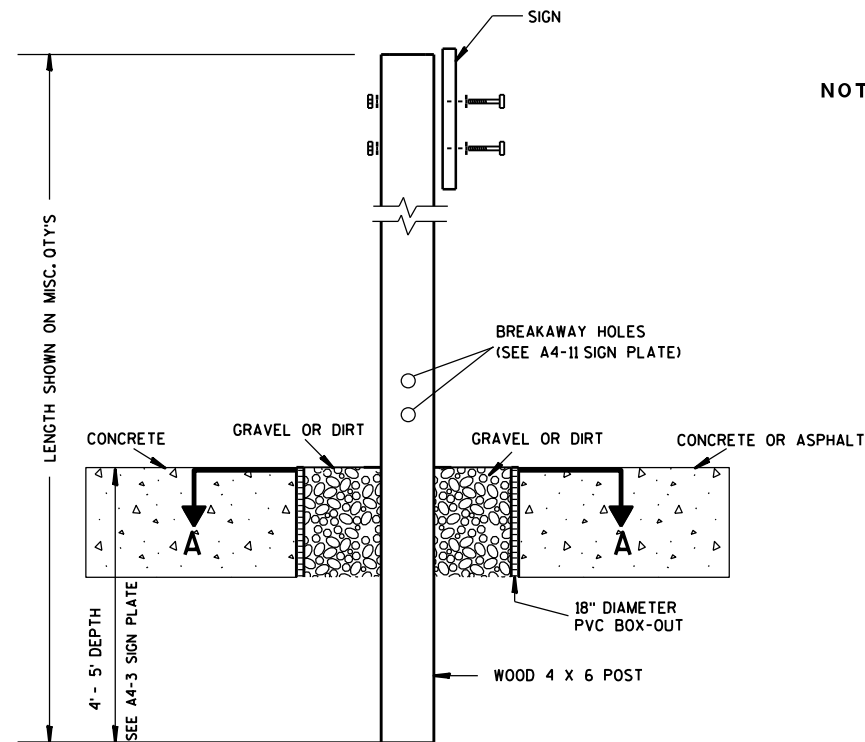
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

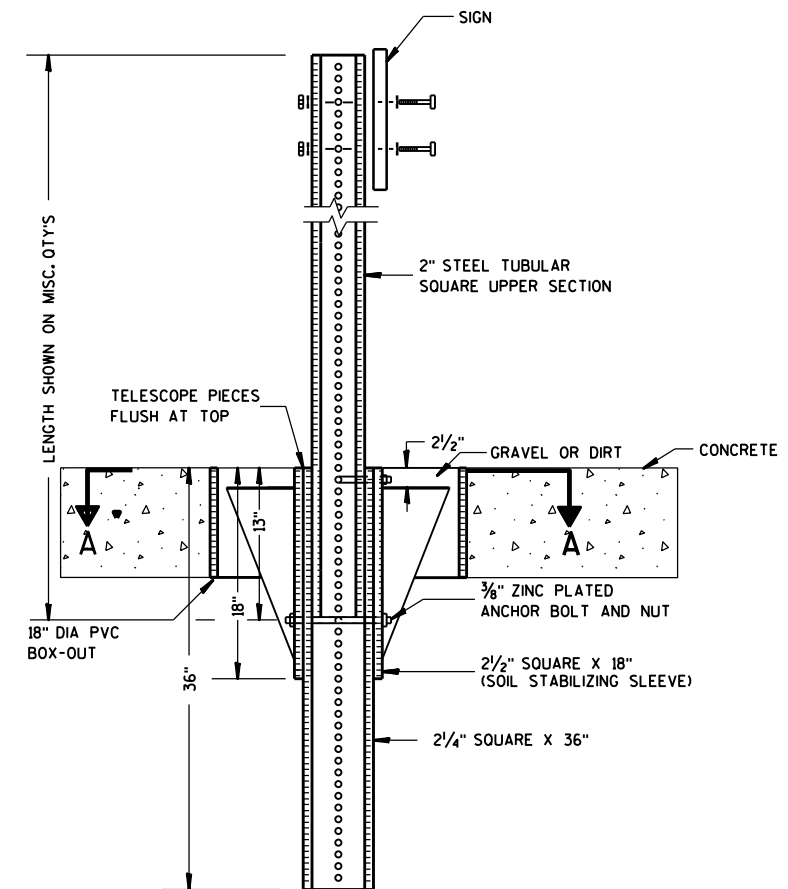
E



### ELEVATION VIEW

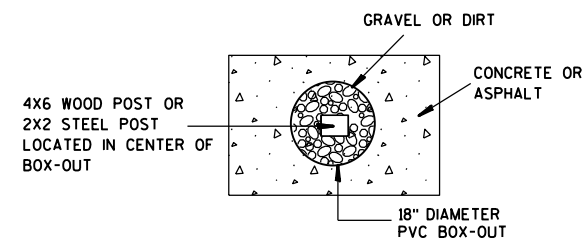
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



### ELEVATION VIEW

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



### PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST  
BOX-OUTS  
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

PROJECT NO:

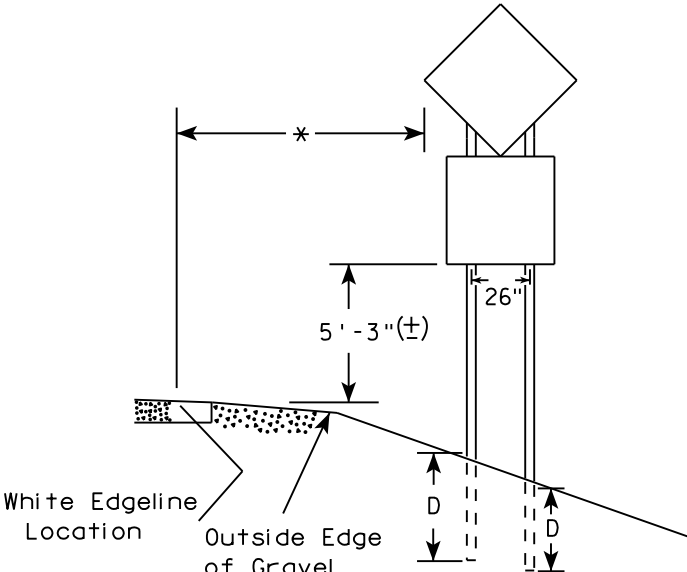
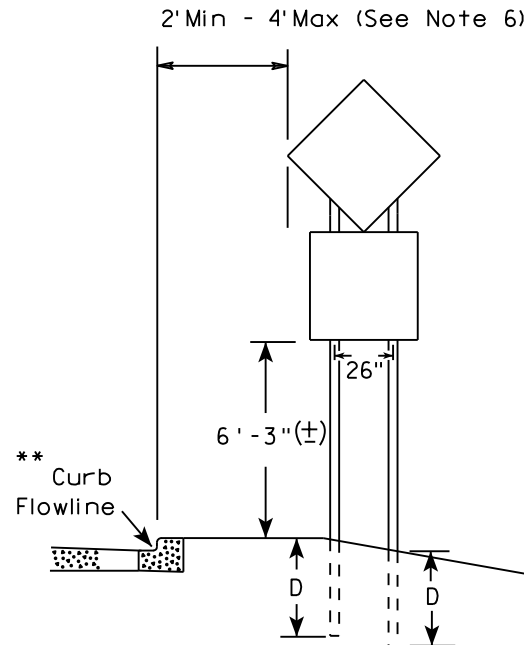
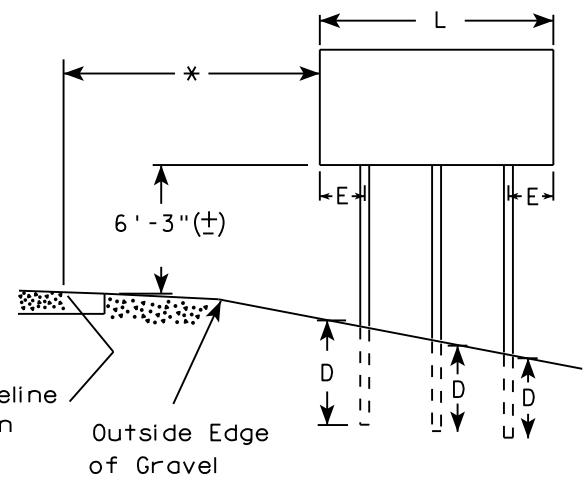
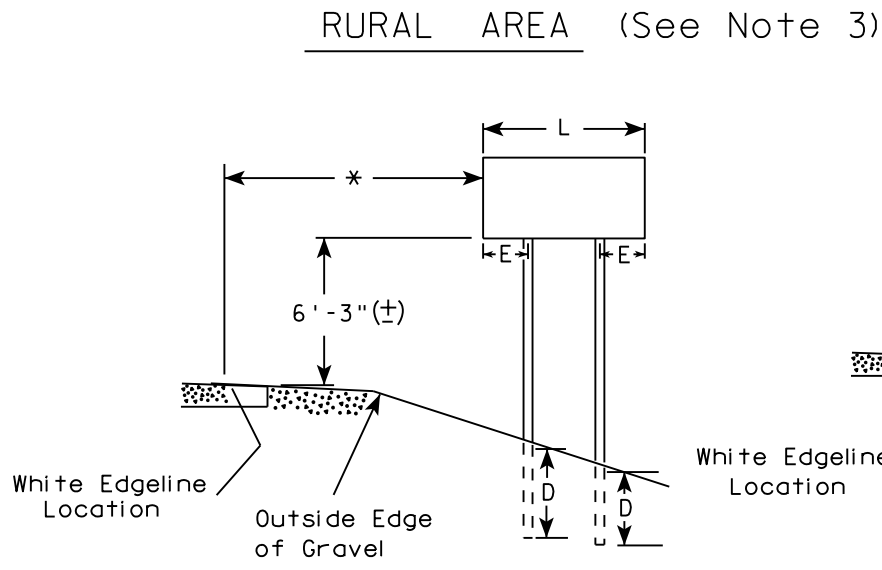
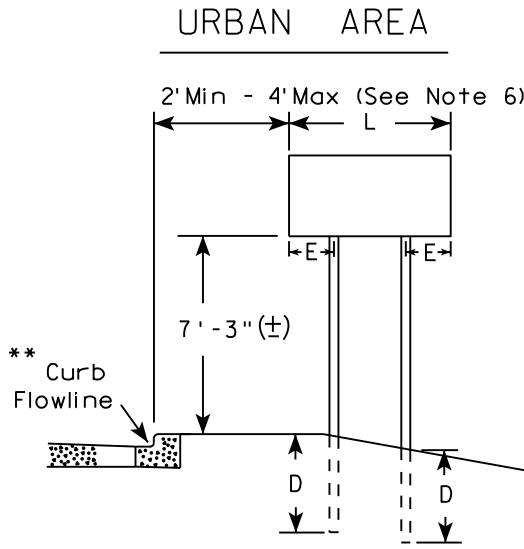
HWY:

COUNTY:

SHEET NO:

E





\*\*\*

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

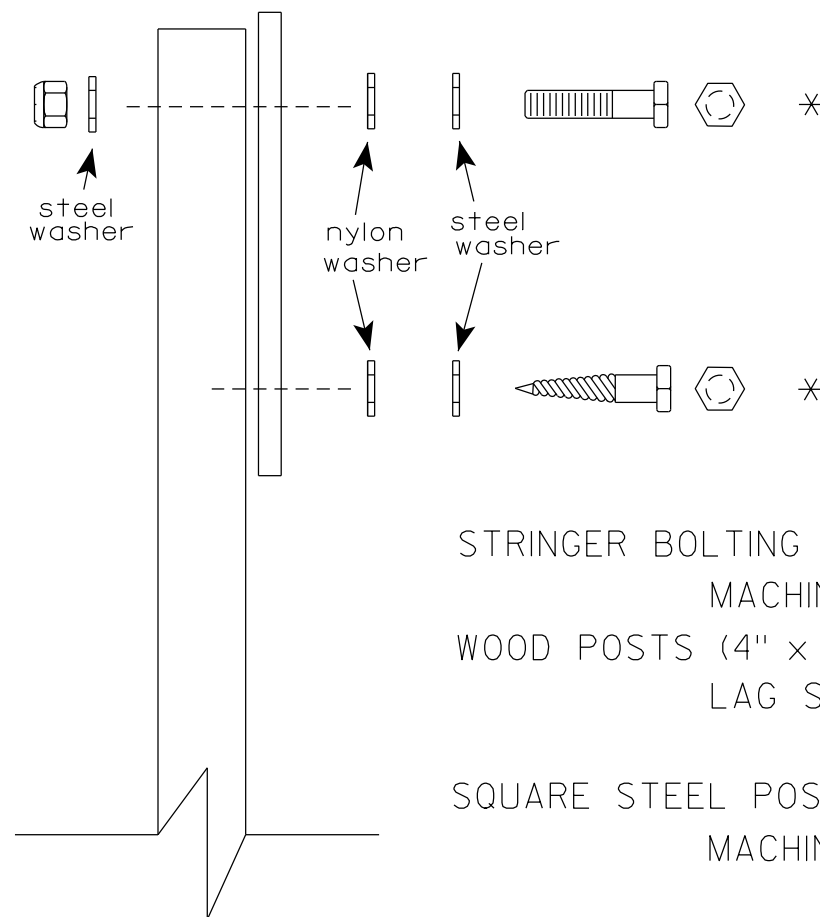
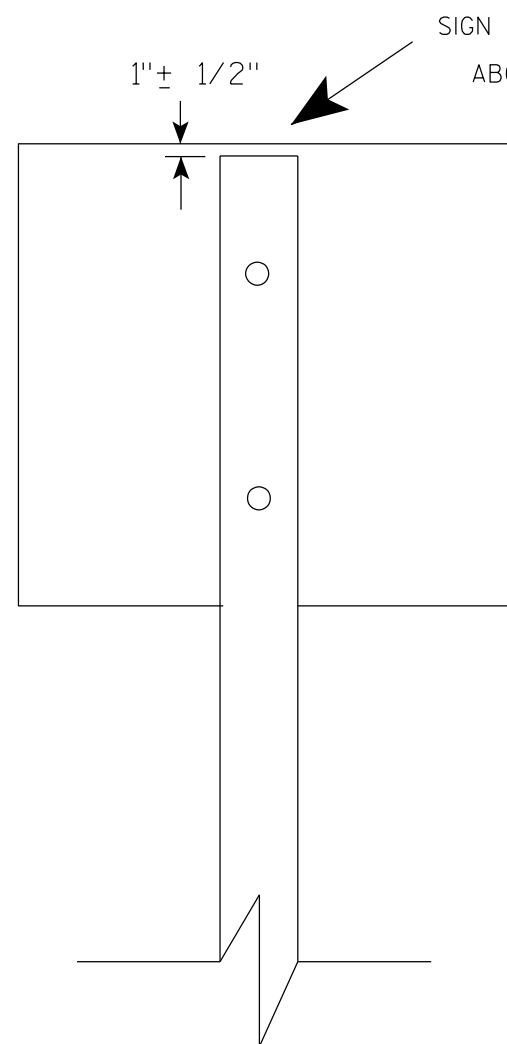
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

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

- \* 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.



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

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

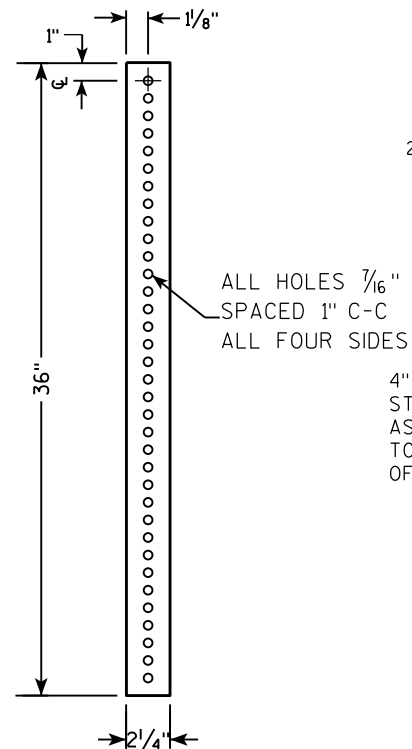
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
  - 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON

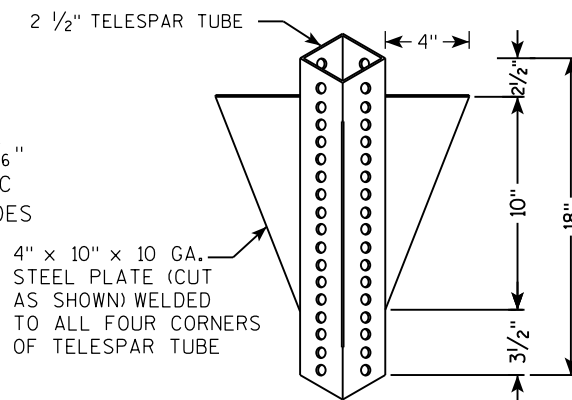
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

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

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



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



LENGTH SHOWN ON MISC. QTY'S  
 18" DIA SCHEDULE 40 PVC BOX-OUT  
 TELESCOPE PIECES FLUSH AT TOP  
 36"  
 18"  
 13"  
 2 1/2"  
 2 1/4" SQUARE X 36"  
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)  
 3/8" ZINC PLATED ANCHOR BOLT AND NUT  
 2 1/2" GRAVEL OR DIRT  
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT  
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES  
 2" STEEL TUBULAR SQUARE UPPER SECTION  
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL  
 SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

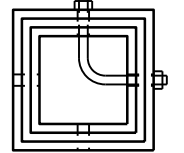
2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

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

SIGN

3/8" ZINC PLATED CORNER  
ANCHOR BOLT AND NUT



DIRECTION  
OF TRAFFIC

SECTION A-A

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

TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthieu R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:

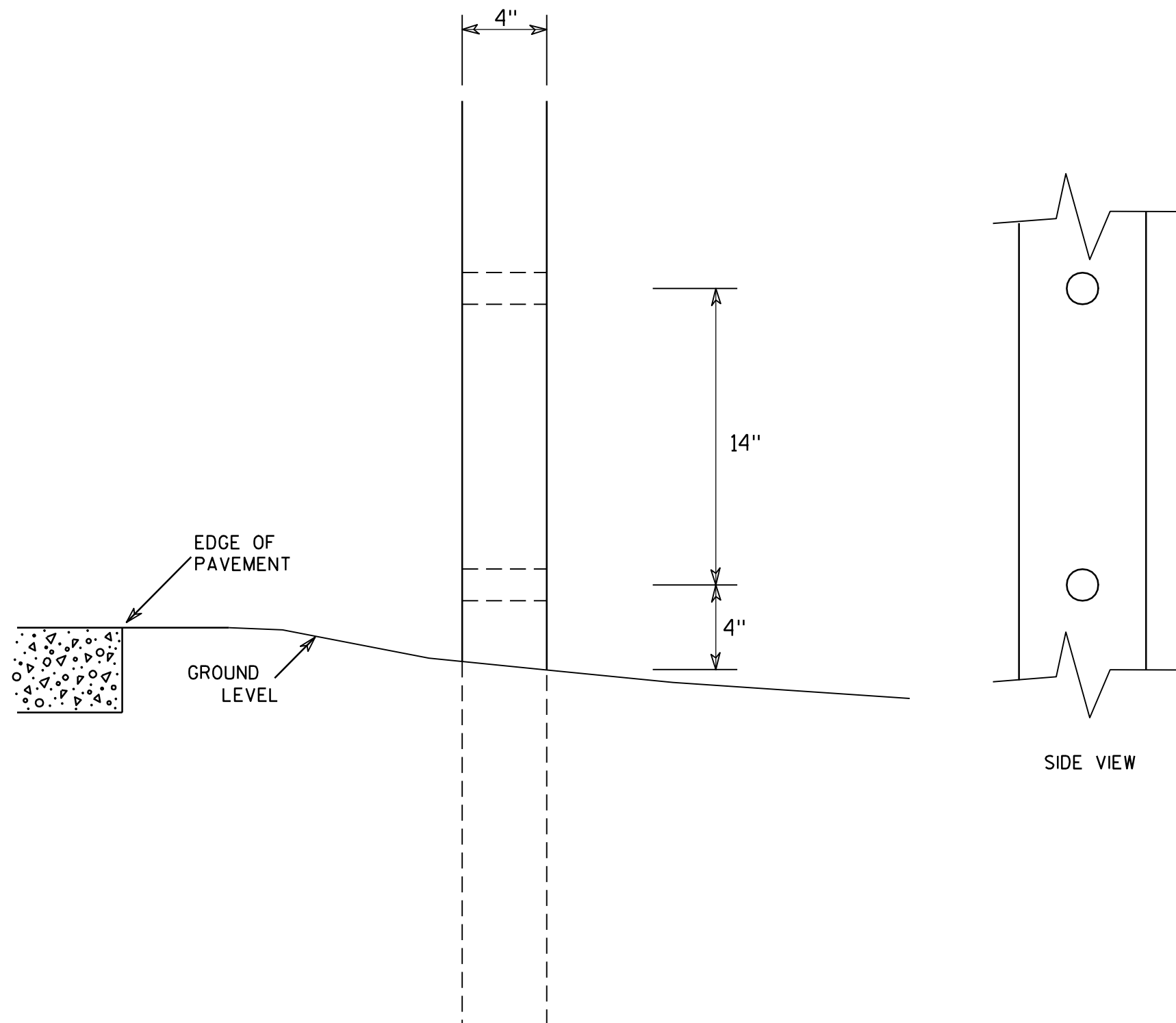
HWY:

COUNTY:

SHEET NO:

11

7



### GENERAL NOTES

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

7

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

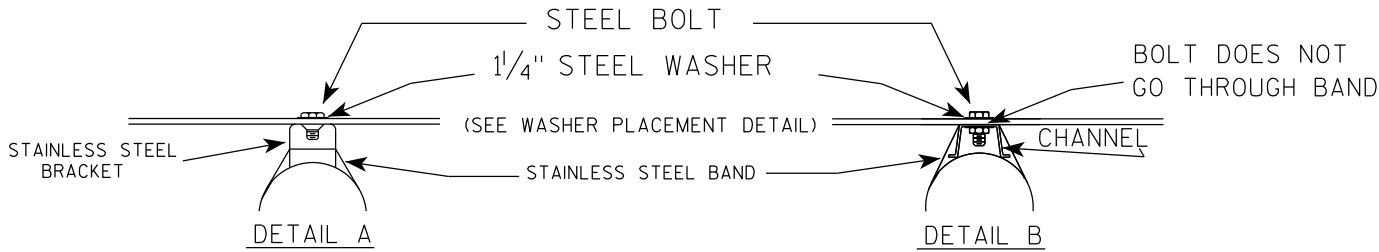
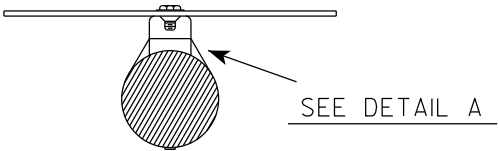
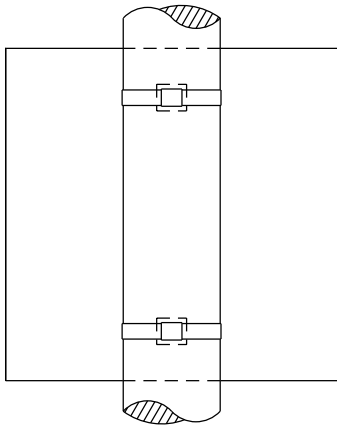
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SHEET NO:

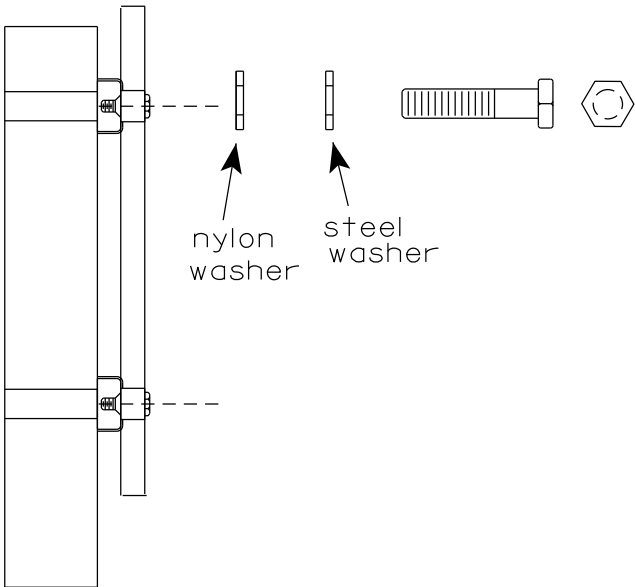
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

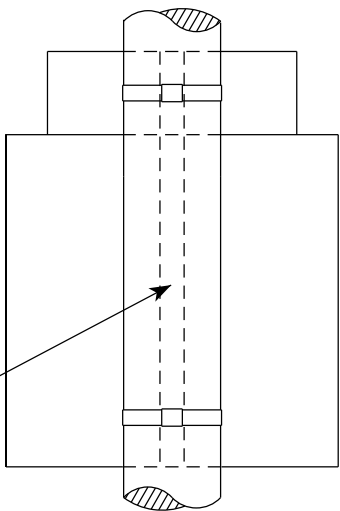


WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

GENERAL NOTES

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

"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET

SEE DETAIL B

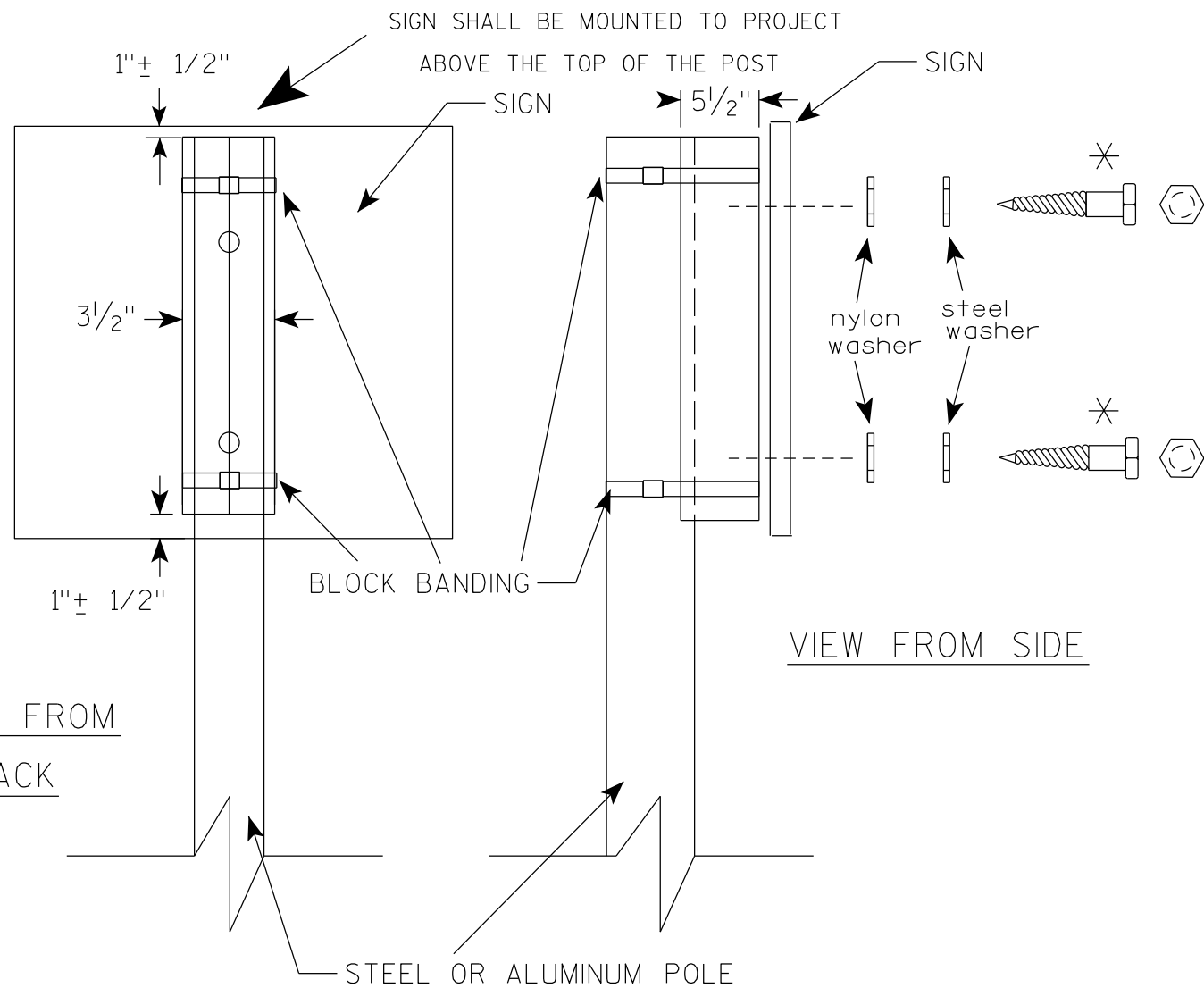
STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

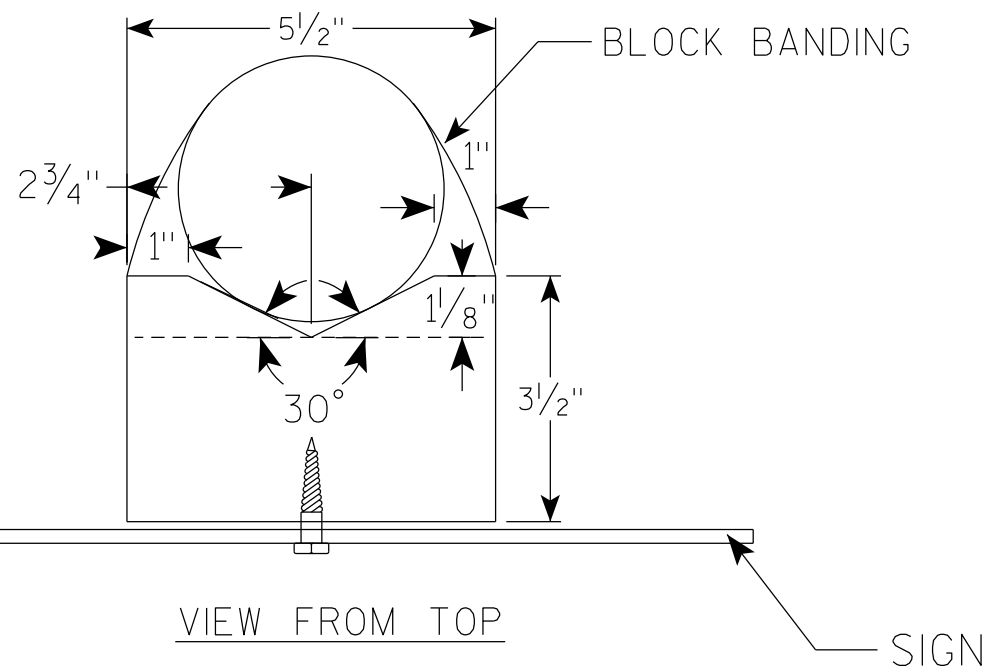
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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

VIEW FROM  
BACK



VIEW FROM SIDE



## GENERAL NOTES

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

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

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

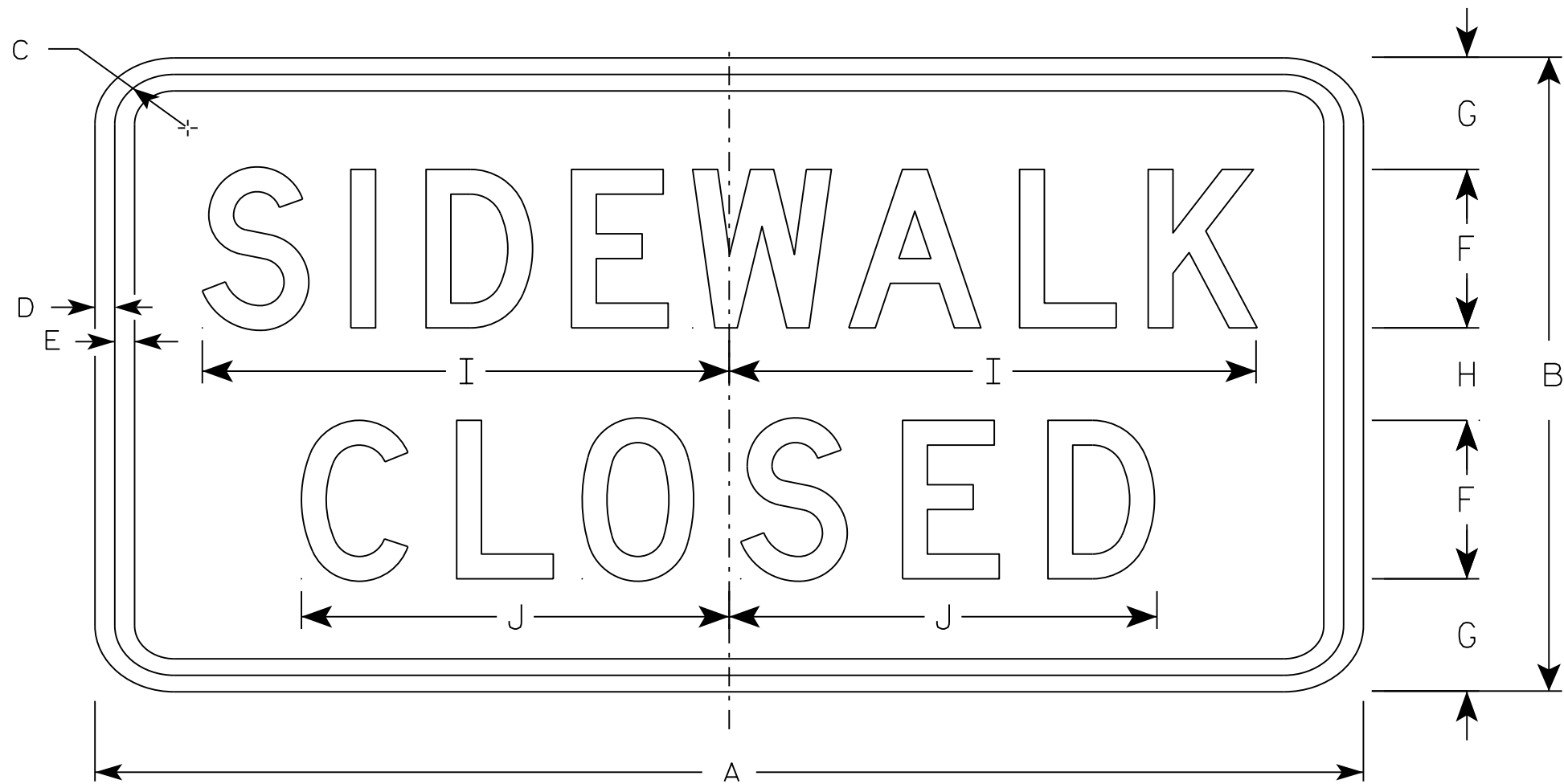
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO:

E



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - White  
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ¾	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

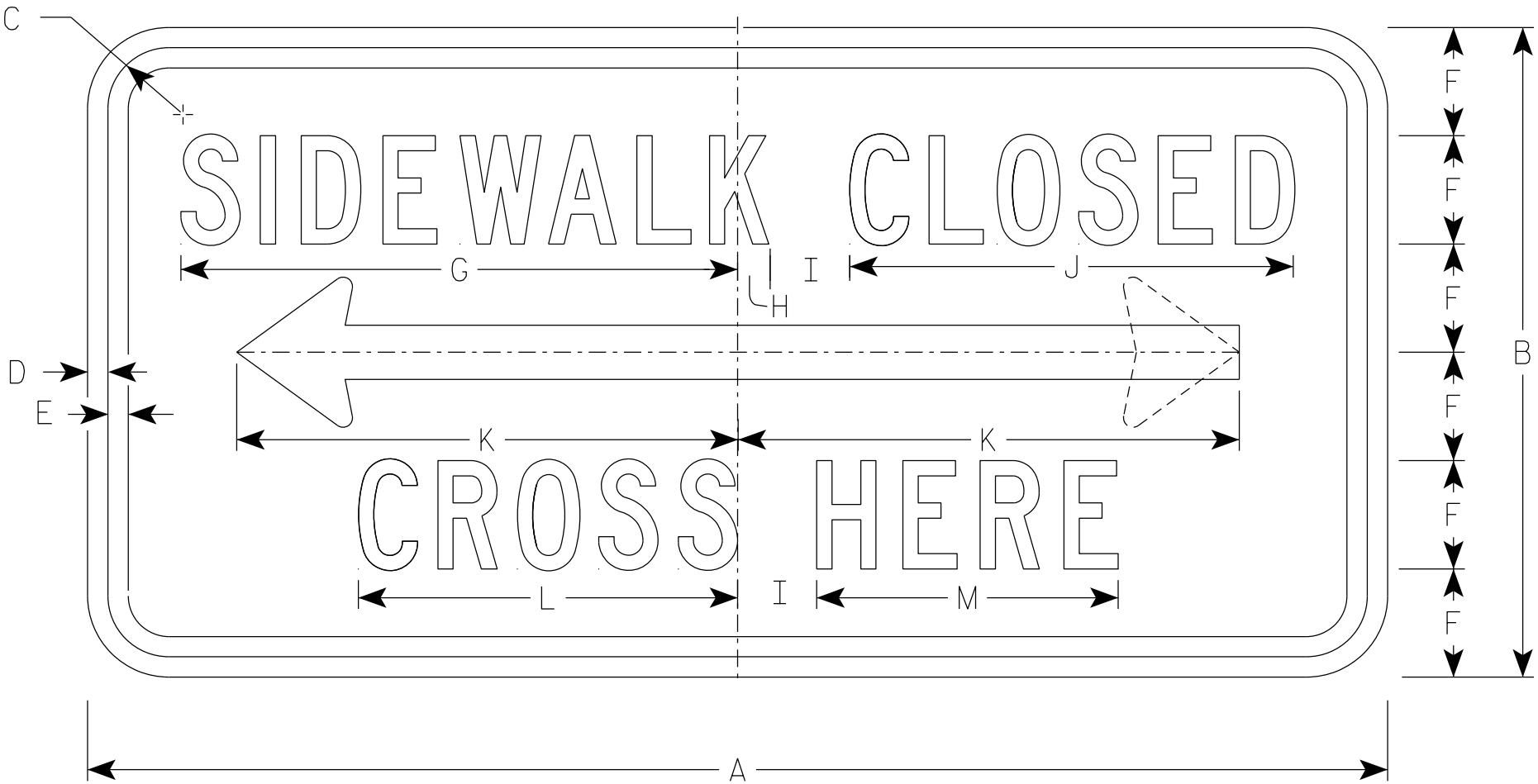
STANDARD SIGN  
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

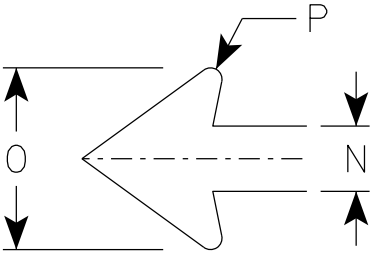
7



R9-11A

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
  - Background - White
  - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
- 6. R9-11AD (double arrow)  
R9-11AL (left arrow)  
R9-11AR (right arrow)



ARROW DETAIL

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	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

PROJECT NO:

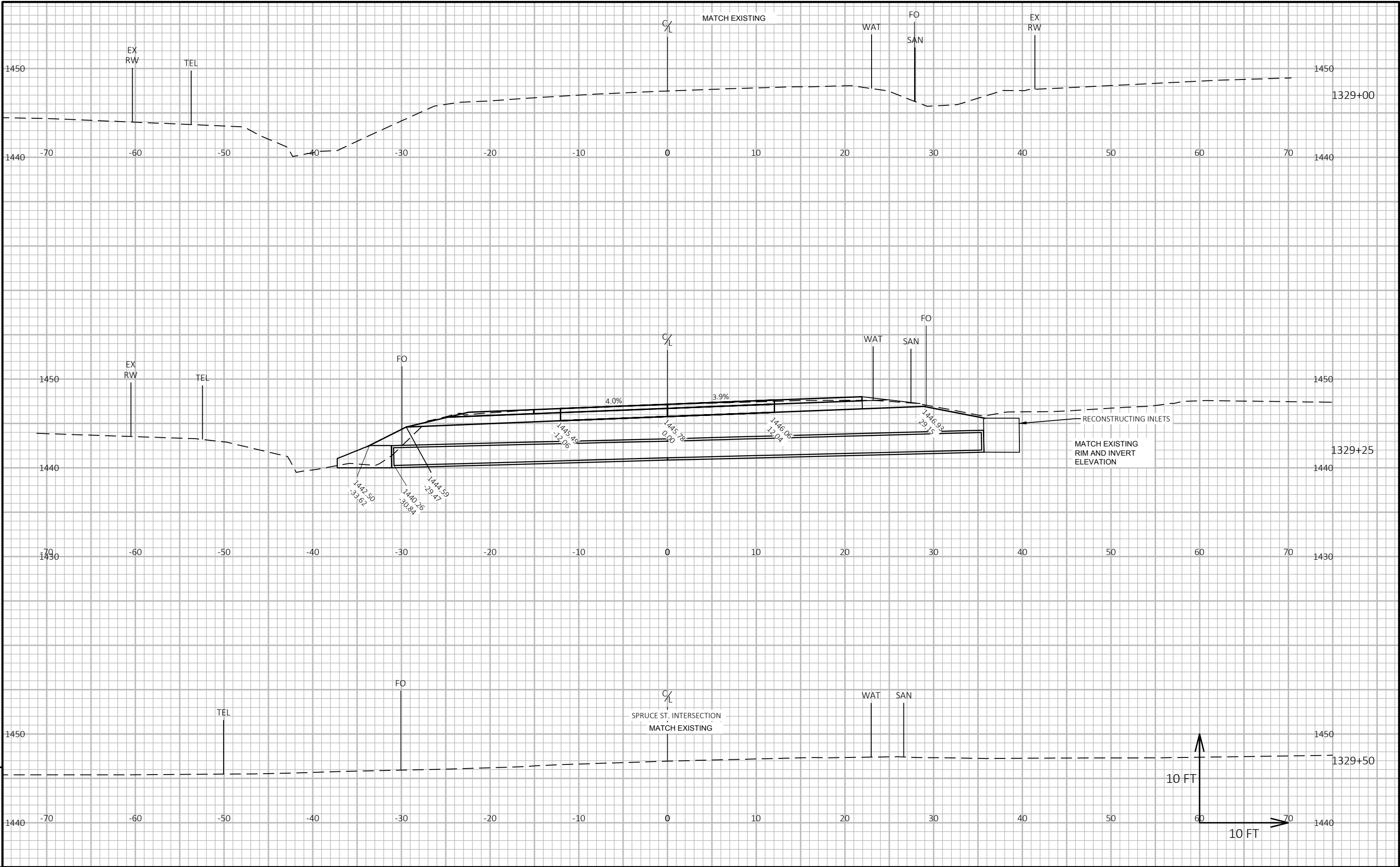
HWY:

COUNTY:

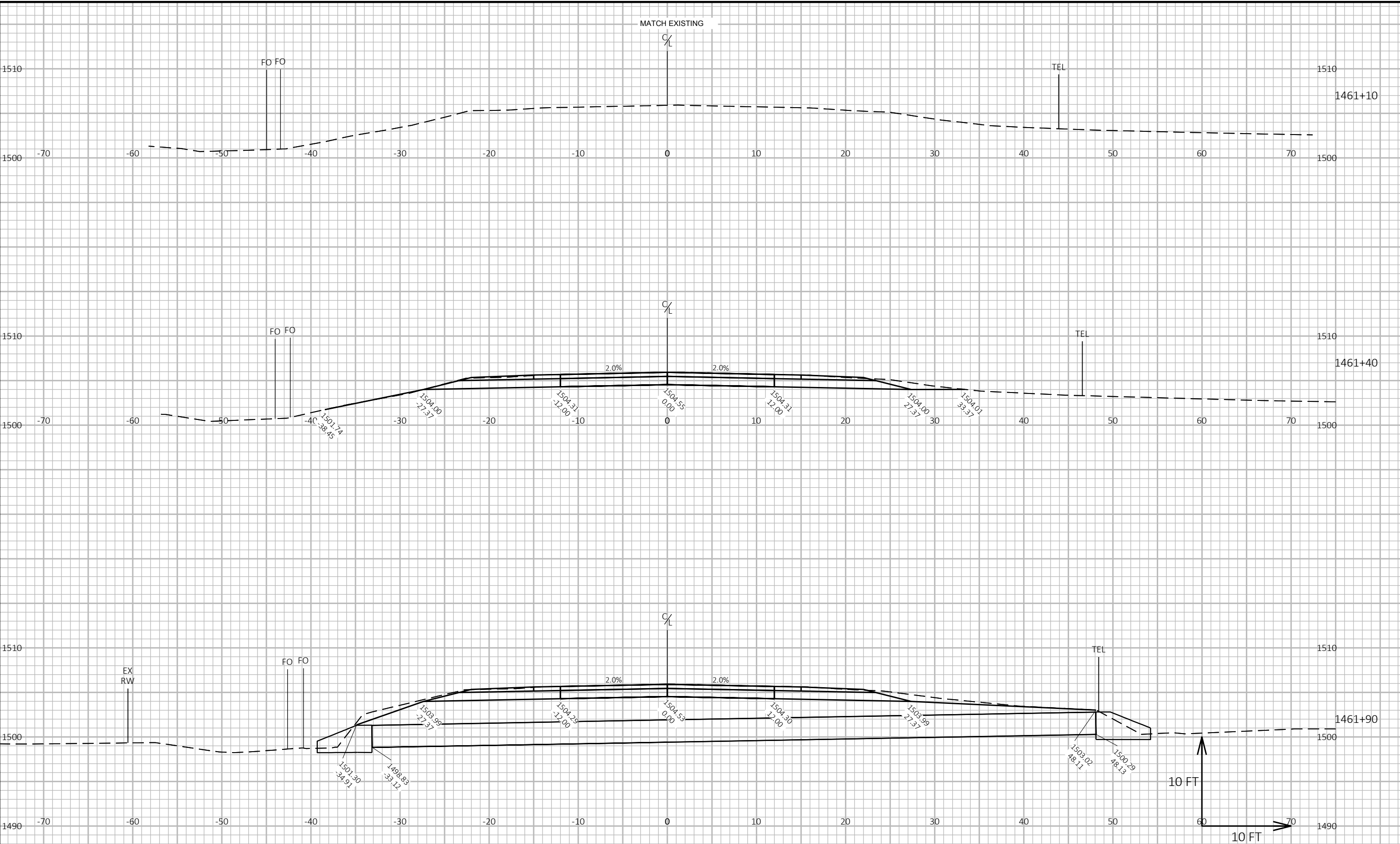
SHEET NO:

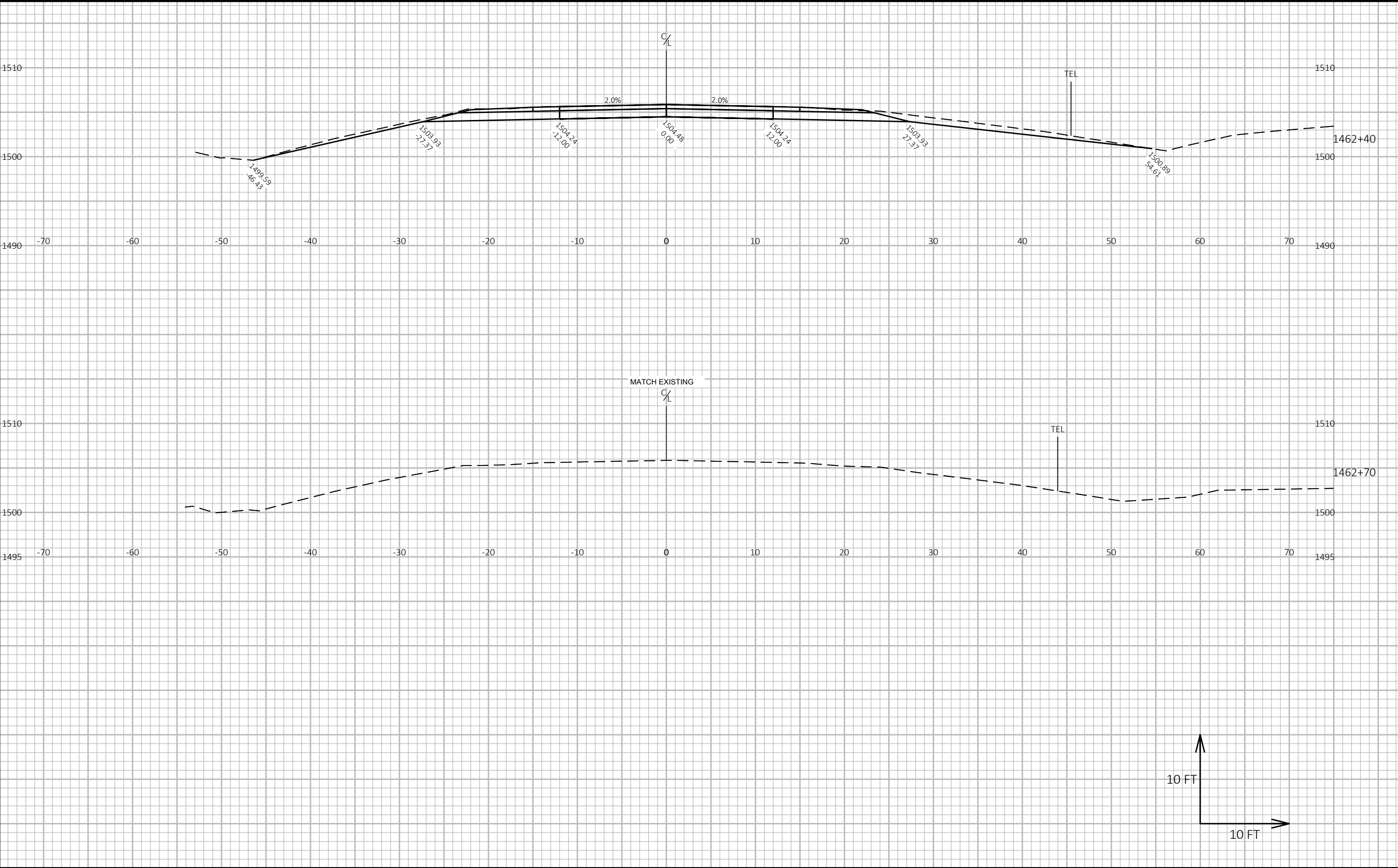
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PROJECT NO: 1610-44-73	HWY: STH 13	COUNTY: PRICE	CROSS SECTIONS: CULVERT REPLACEMENTS	SHEET E
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## ***Wisconsin Department of Transportation***

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