

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	Gross Sections

TOTAL SHEETS = 88

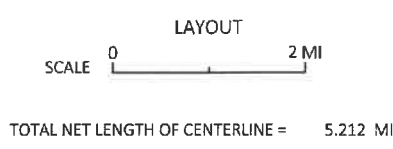
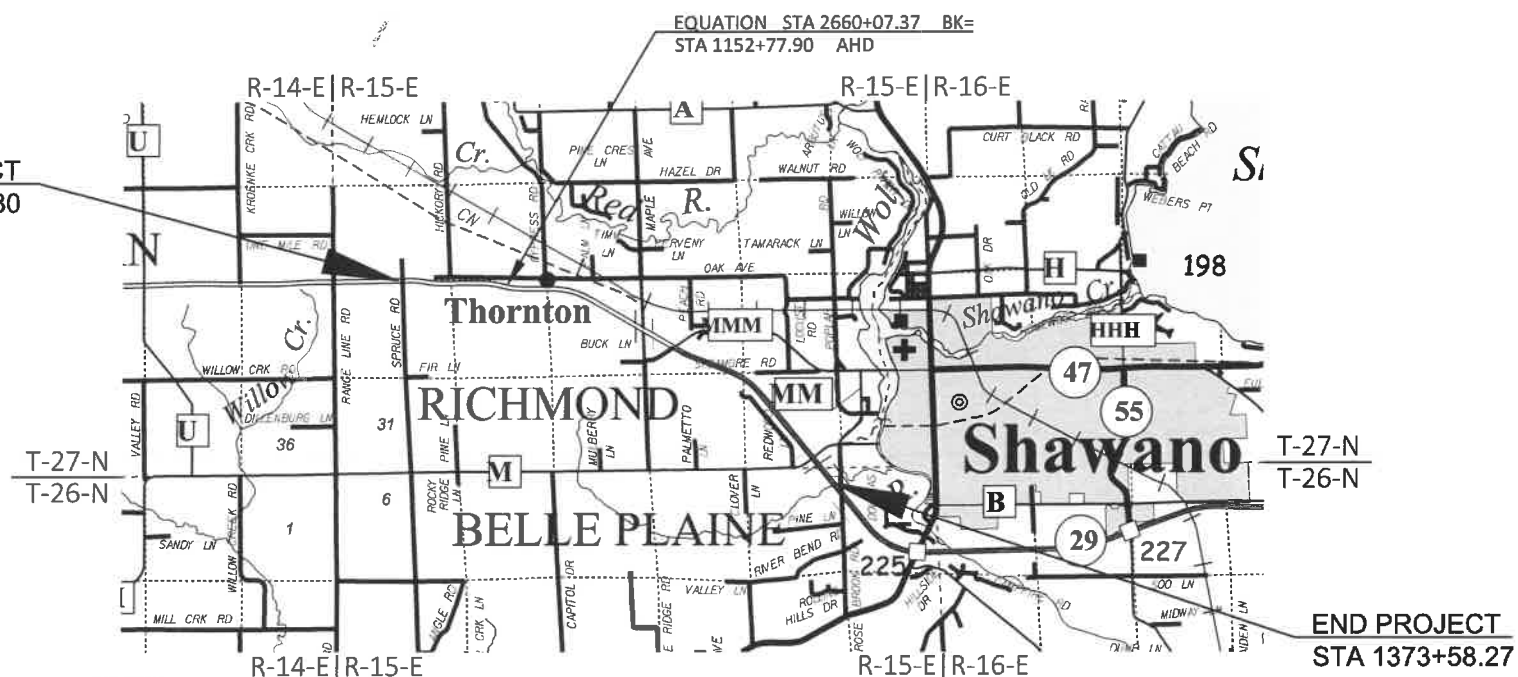


DESIGN DESIGNATION		
A.A.D.T.	(2023)	= 9,900
A.A.D.T.	(2043)	= 13,000
D.H.V.		= 1,560
D.D.		= 60/40
T.		= 16.2%
DESIGN SPEED		= 65 MPH
ESALS		= 11,018,000

CONVENTIONAL SYMBOLS

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

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



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SHAWANO COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NATIONAL AMERICAN VERTICAL DATUM OF 1983 NAVD83 (2012) ADJUSTMENT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WITTENBERG - SHAWANO

SPRUCE ROAD TO CTH M, WB

STH 29

SHAWANO COUNTY

STATE PROJECT NUMBER
1058-23-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1058-23-71	WISC 2020050	1

jt ENGINEERING, INC
Consultant Services

WISCONSIN
PROFESSIONAL ENGINEER

ANDREW W. BLOCK
E-41224-6
APPLETON, WI.

DATE: 4/24/2019
(Professional Engineer Signature)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	JT ENGINEERING, INC.
Designer	JT ENGINEERING, INC.
Project Manager	JIM VOLKMANN, P.E.
Regional Examiner	
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 4/24/2019	(Signature)



UTILITY CONTACTS

ALLIANT ENERGY
ELECTRICITY
MR. KENT SMITH
708 N.E. 7TH STREET
MARION, WI 54950
TEL: (715) 754-4323
MOBILE: (715) 903-0201
KENTSMITH@ALLIANTENERGY.COM

FRONTIER COMMUNICATIONS OF WI LLC
COMMUNICATION LINE
MR. JAMES JASKOLSKI
26 W 12TH STREET
CLINTONVILLE, WI 54929
TEL: (715) 823-1227
JAMES.JASKOLSKI@FTR.COM

SHAWANO MUNICIPAL UTILITIES
ELECTRICITY
MR. ROBERT KOEPP
122 N SAWYER STREET
PO BOX 436
SHAWANO, WI 54166
TEL: (715) 526-3131
MOBILE: (715) 853-9314
RKOEPP@CITYOFSHAWANO.COM

WE ENERGIES-GAS/PETROLEUM
GAS/PETROLEUM
MS. DEBORA ROBINSON
800 S. LYNDAL DRIVE
APPLETON, WI 54911
TEL: (920) 380-3493
DEBORA.ROBINSON@WE-ENERGIES.COM

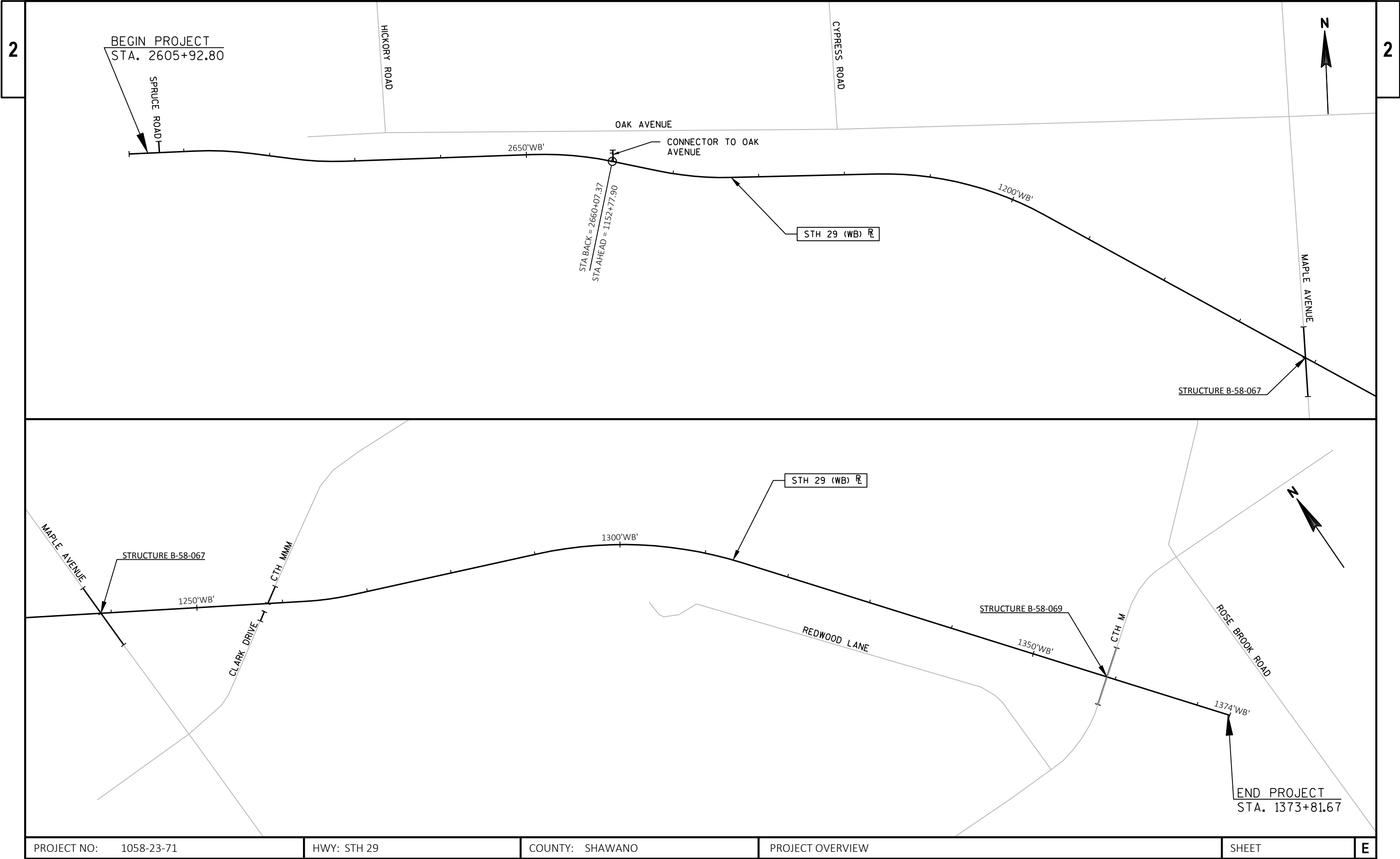
AGENCY/PROJECT CONTACTS

WISCONSIN DNR LIAISON
MR. JIM DOPERALSKI JR.
CENTRAL REGION
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

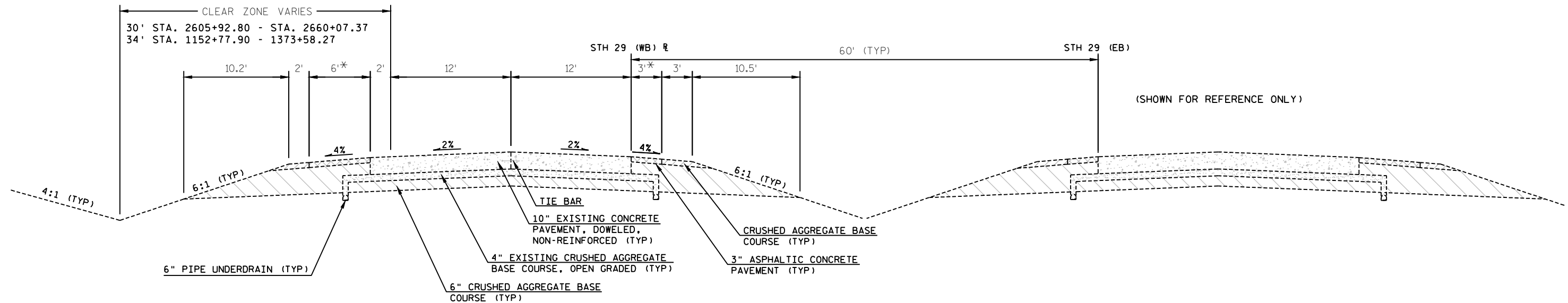
SEQUENCE OF PLANS AND DETAILS IN SECTION 2

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS

1. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
2. ANY LOCAL OR MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.



PROJECT NO: 1058-23-71	HWY: STH 29	COUNTY: SHAWANO	PROJECT OVERVIEW	SHEET	E
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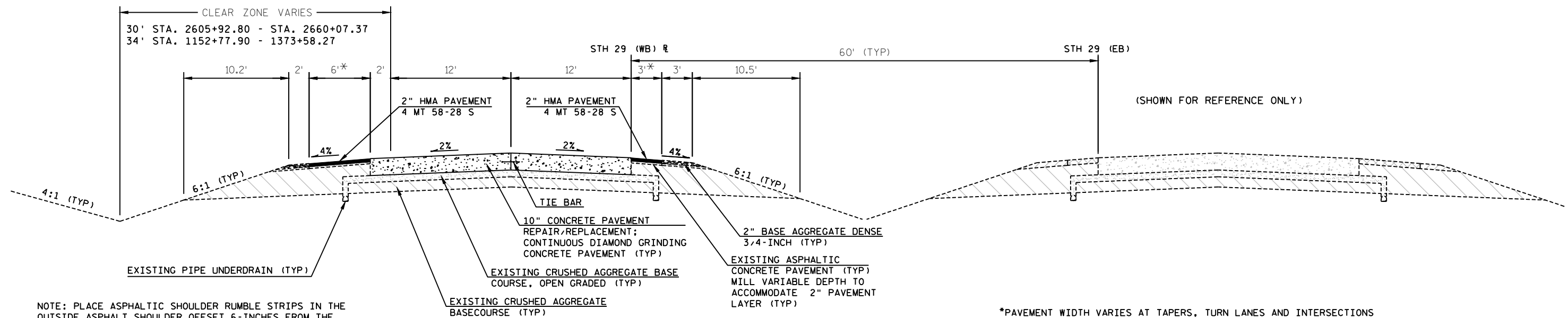


TYPICAL EXISTING STH 29 SECTION

STA. 2605+92.80 - STA. 2660+07.37
STA. 1152+77.90 - STA. 1373+58.27

*PAVEMENT WIDTH VARIES AT TAPERS, TURN LANES AND INTERSECTIONS

LEFT		RIGHT	
STA. 2605+92.75 - STA. 2610+61.75	3'-12"	STA. 2605+96.74 - STA. 2610+58.83	6'-12"
STA. 2632+58.46 - STA. 2634+93.47	3'-7"	STA. 2659+05.59 - STA. 2660+07.37	6'-10"
STA. 2659+03.30 - STA. 2660+07.37	3'-15"	STA. 1152+77.90 - STA. 1156+00.25	6'-10"
STA. 1152+77.90 - STA. 1154+51.19	3'-15"	STA. 1257+74.11 - STA. 1263+44.31	6'-10"
STA. 1256+73.73 - STA. 1263+44.84	3'-13"		

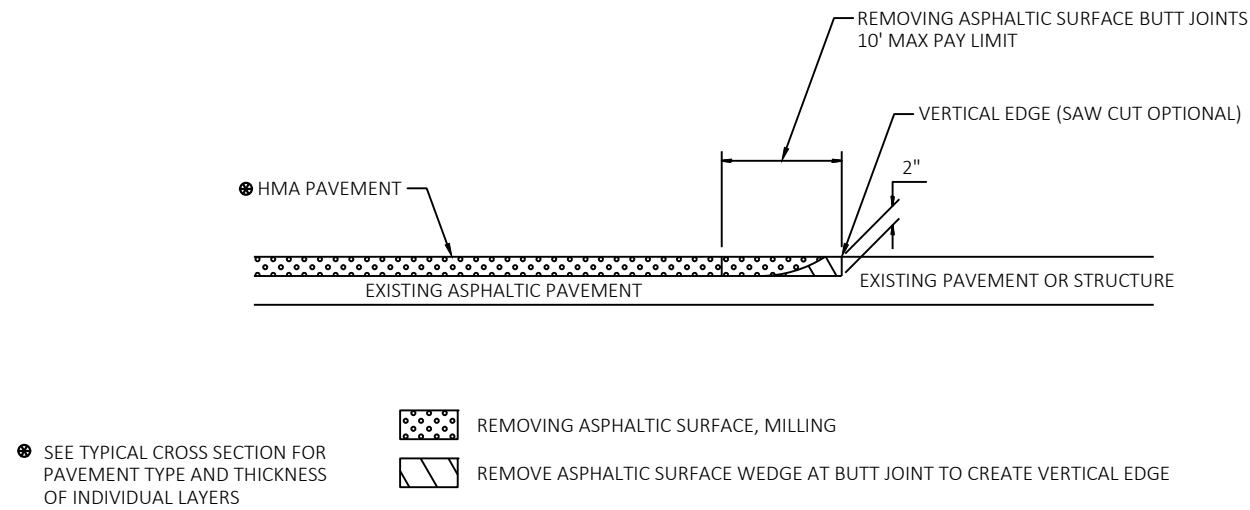


TYPICAL FINISHED STH 29 SECTION

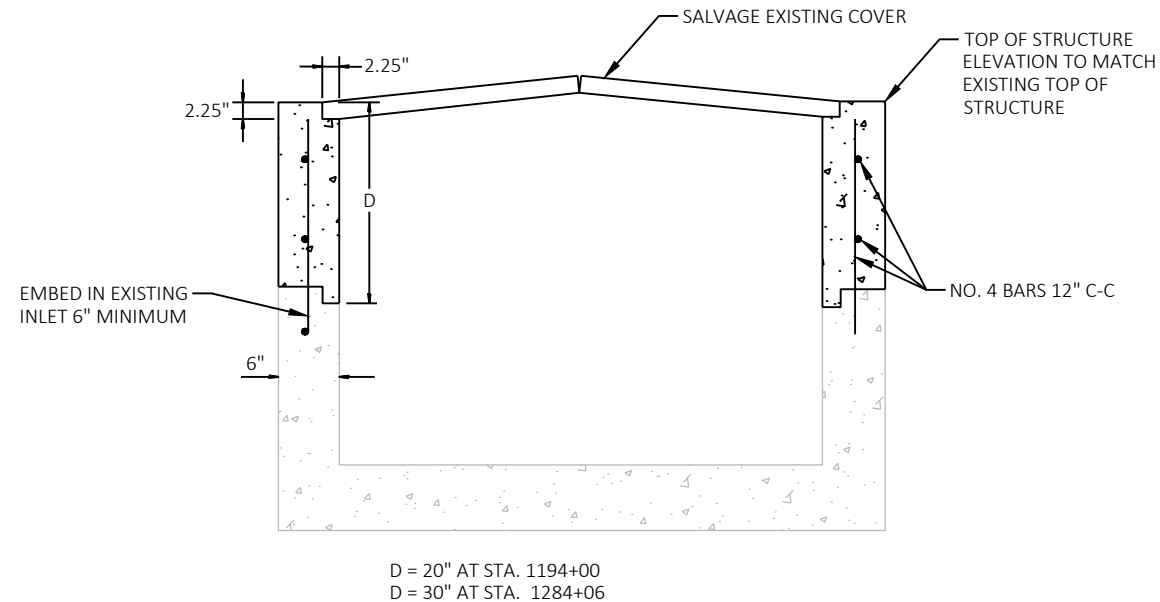
STA. 2605+92.80 - STA. 2660+07.37
STA. 1152+77.90 - STA. 1373+58.27

*PAVEMENT WIDTH VARIES AT TAPERS, TURN LANES AND INTERSECTIONS

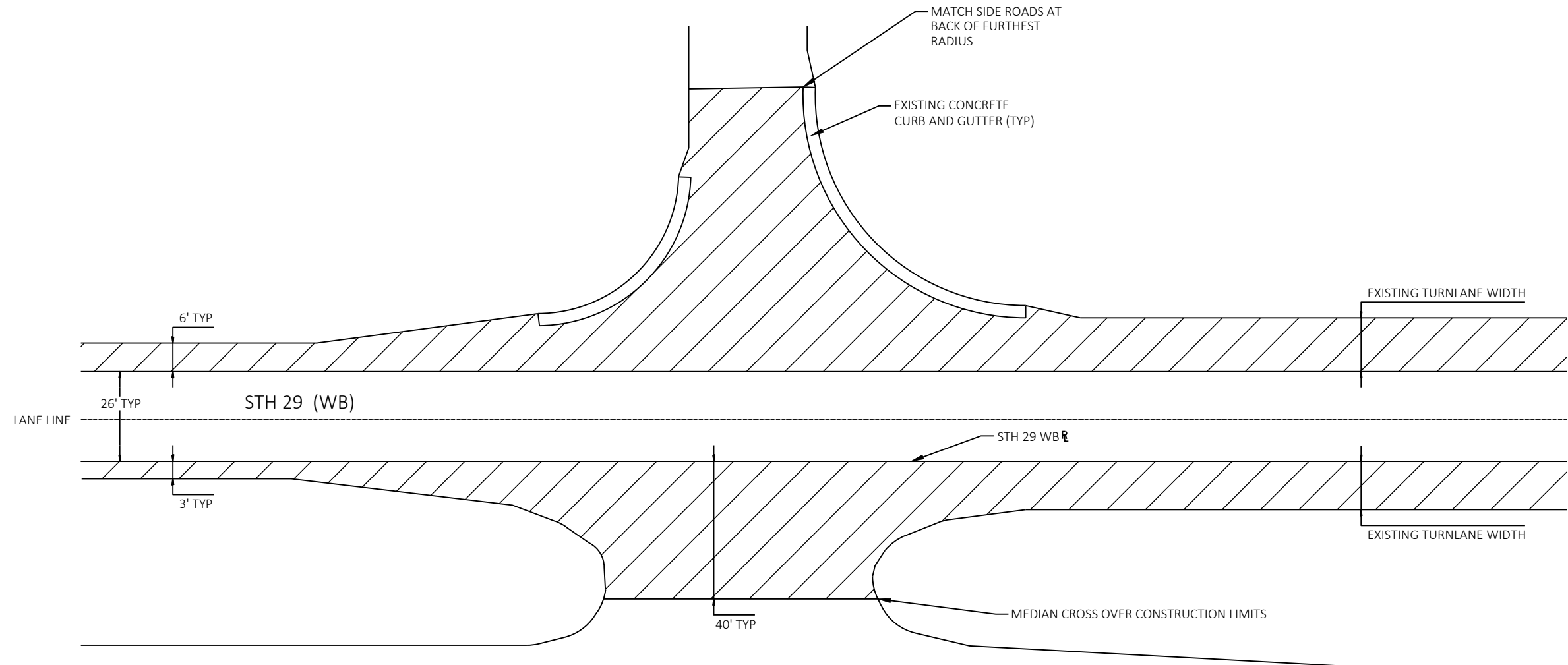
LEFT		RIGHT	
STA. 2605+92.75 - STA. 2610+61.75	3'-12'	STA. 2605+96.74 - STA. 2610+58.83	6'-12'
STA. 2632+58.46 - STA. 2634+93.47	3'-7'	STA. 2659+05.59 - STA. 2660+07.37	6'-10'
STA. 2659+03.30 - STA. 2660+07.37	3'-15'	STA. 1152+77.90 - STA. 1156+00.25	6'-10'
STA. 1152+77.90 - STA. 1154+51.19	3'-15'	STA. 1257+74.11 - STA. 1263+44.31	6'-10'
STA. 1256+73.73 - STA. 1263+44.84	3'-13'		



BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)

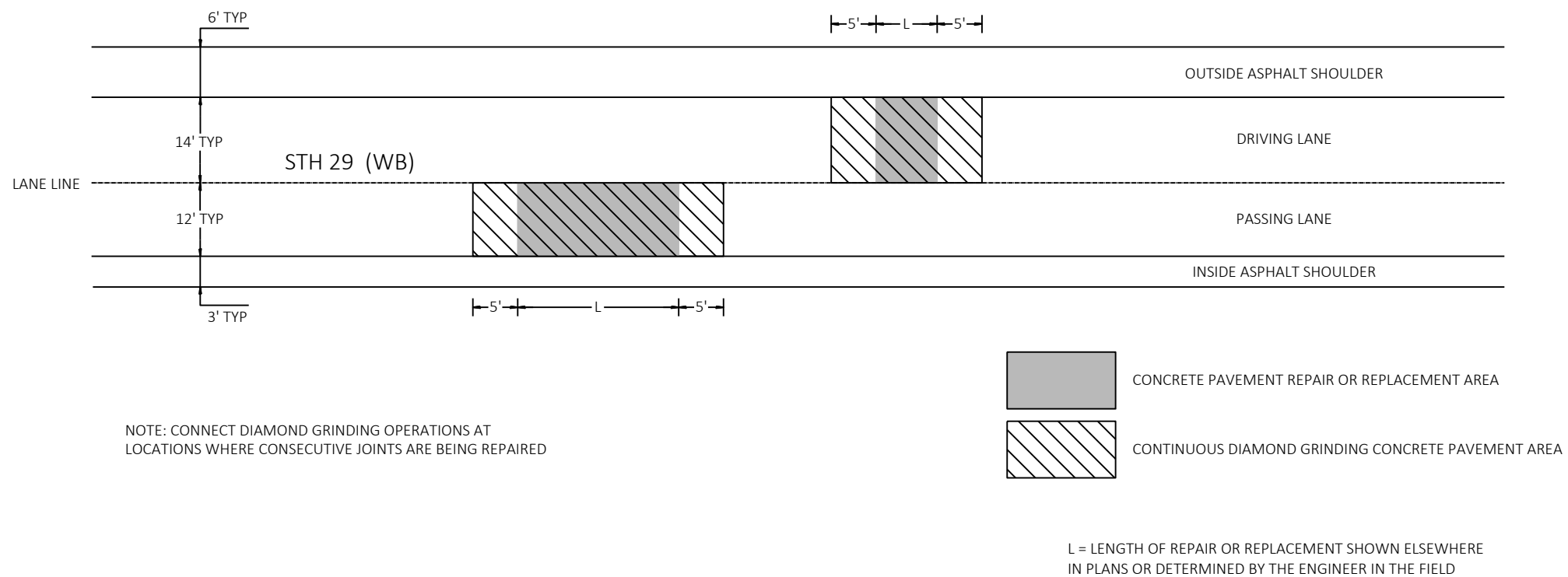


MEDIAN INLET RECONSTRUCTION DETAIL

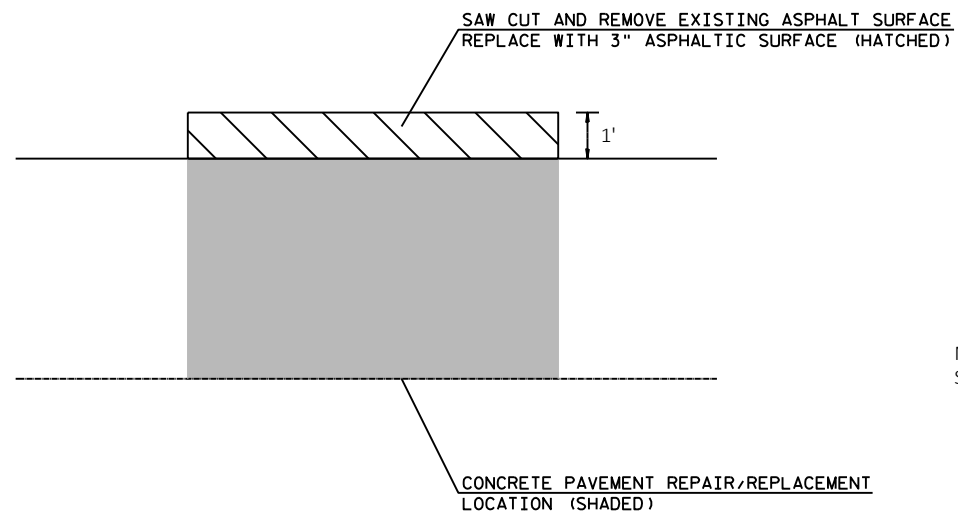


DETAIL FOR TYPICAL SIDE ROAD AND MEDIAN CROSSOVER SHOULDER PAVING LIMITS

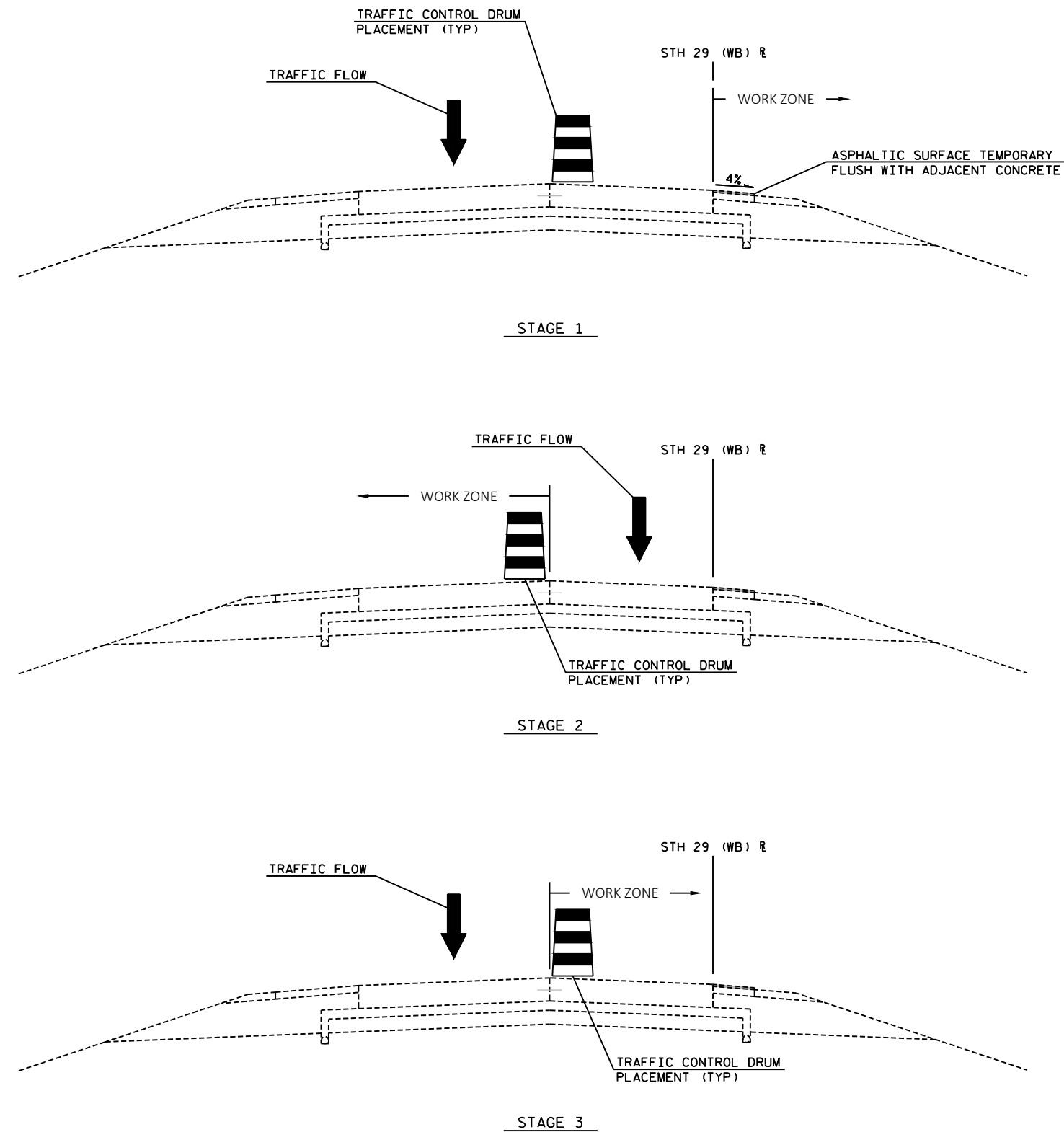
NOTE: MEDIAN JOINT SHALL NOT BE LOCATED IN THE LOW POINT OF THE CROSSOVER/INTERSECTION



DETAIL FOR LIMITS OF DIAMOND GRINDING



DETAIL FOR ASPHALT SHOULDER AT CONCRETE PAVEMENT/REPLACEMENT



DETAIL FOR STAGING OF CONSTRUCTION OPERATIONS

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE :	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.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 = 194 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.02 ACRES

Estimate Of Quantities

1058-23-71					
Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	200.000	200.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	495.000	495.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	31,635.000	31,635.000
0008	213.0100	Finishing Roadway (project) 01. 1058-23-71	EACH	1.000	1.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,800.000	1,800.000
0012	416.0610	Drilled Tie Bars	EACH	150.000	150.000
0014	416.0620	Drilled Dowel Bars	EACH	3,750.000	3,750.000
0016	416.1710	Concrete Pavement Repair	SY	2,010.000	2,010.000
0018	416.1720	Concrete Pavement Replacement	SY	605.000	605.000
0020	420.1000	Continuous Diamond Grinding Concrete Pavement	SY	5,810.000	5,810.000
0022	455.0605	Tack Coat	GAL	2,450.000	2,450.000
0024	460.2000	Incentive Density HMA Pavement	DOL	2,270.000	2,270.000
0026	460.6224	HMA Pavement 4 MT 58-28 S	TON	3,545.000	3,545.000
0028	465.0105	Asphaltic Surface	TON	36.000	36.000
0030	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0032	465.0125	Asphaltic Surface Temporary	TON	760.000	760.000
0034	465.0400	Asphaltic Shoulder Rumble Strips	LF	51,820.000	51,820.000
0036	520.8700	Cleaning Culvert Pipes	EACH	5.000	5.000
0038	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1058-23-71	EACH	1.000	1.000
0040	619.1000	Mobilization	EACH	1.000	1.000
0042	624.0100	Water	MGAL	20.000	20.000
0044	625.0100	Topsoil	SY	105.000	105.000
0046	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0048	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0050	628.2002	Erosion Mat Class I Type A	SY	105.000	105.000
0052	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0054	628.7504	Temporary Ditch Checks	LF	70.000	70.000
0056	629.0210	Fertilizer Type B	CWT	0.060	0.060
0058	630.0130	Seeding Mixture No. 30	LB	2.000	2.000
0060	630.0500	Seed Water	MGAL	3.000	3.000
0062	633.5200	Markers Culvert End	EACH	12.000	12.000
0064	642.5001	Field Office Type B	EACH	1.000	1.000
0066	643.0300	Traffic Control Drums	DAY	28,700.000	28,700.000
0068	643.0420	Traffic Control Barricades Type III	DAY	975.000	975.000
0070	643.0705	Traffic Control Warning Lights Type A	DAY	3,120.000	3,120.000
0072	643.0715	Traffic Control Warning Lights Type C	DAY	910.000	910.000
0074	643.0800	Traffic Control Arrow Boards	DAY	130.000	130.000
0076	643.0900	Traffic Control Signs	DAY	3,158.000	3,158.000
0078	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000

Estimate Of Quantities

1058-23-71

Line	Item	Item Description	Unit	Total	Qty
0080	643.5000	Traffic Control	EACH	1.000	1.000
0082	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	54,575.000	54,575.000
0084	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	6,900.000	6,900.000
0086	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	1,340.000	1,340.000
0088	646.6120	Marking Stop Line Epoxy 18-Inch	LF	18.000	18.000
0090	650.8000	Construction Staking Resurfacing Reference	LF	27,675.000	27,675.000
0092	650.9910	Construction Staking Supplemental Control (project) 01. 1058-23-71	LS	1.000	1.000
0094	690.0150	Sawing Asphalt	LF	2,185.000	2,185.000
0096	690.0250	Sawing Concrete	LF	8,645.000	8,645.000
0098	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0100	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0102	SPV.0060	Special 01. Reconstructing Median Inlets	EACH	2.000	2.000

BUTT JOINT AND MILLING SUMMARY

						204.0115	204.0120		
						ASPHALTIC	ASPHALTIC		
						SURFACE BUTT	SURFACE		
						JOINTS	MILLING		
CATEGORY	STATION	TO	STATION			SY	SY	REMARKS	
0010	2605+92.80	-	2610+59	LT		41	913	BEGINNING OF PROJECT AND SPRUCE RD.	
0010	2605+92.80	-	2610+62	RT		88	811	BEGINNING OF PROJECT AND SPRUCE RD. MEDIAN	
0010	2610+59	-	2659+06	LT		-	3,231		
0010	2610+62	-	2632+58	RT		-	732		
0010	2632+58	-	2634+93	RT		41	290	MAINTENANCE X-OVER	
0010	2634+93	-	2659+03	RT		-	803		
0010	2659+06	-	1156+00	LT		36	779	CONNECTOR TO OAK RD.	
0010	2659+03	-	1154+51	RT		104	582	CONNECTOR TO OAK RD. MEDIAN	
0010	1156+00	-	1257+74	LT		-	6,783		
0010	1154+51	-	1256+74	RT		-	3,408		
0010	1257+74	-	1263+44	LT		45	1,074	CTH MMM	
0010	1256+74	-	1263+45	RT		101	1,087	CTH MMM MEDIAN	
0010	1263+44	-	1373+35	LT		10	7,334	END OF PROJECT	
0010	1263+45	-	1290+41	RT		-	899		
0010	1290+41	-	1290+97	RT		22	115	MAINTENANCE X-OVER	
0010	1290+97	-	1373+58	RT		7	2,794	END OF PROJECT	
TOTAL						495	31,635		

BASE AGGREGATE DENSE 3/4-INCH SUMMARY

						305.0110		
CATEGORY	STATION	TO	STATION	LOCATION		TON	REMARKS	
0010	2605+93	-	2660+07	LT		150		
0010	1152+78	-	1373+35	LT		580		
0010	2605+93	-	2660+07	RT		210		
0010	1152+78	-	1373+58	RT		860		
TOTAL						1,800		

WATER SUMMARY

						624.0100		
CATEGORY	LOCATION					MGAL	REMARKS	
0010	STH 29 WB, LT & RT					20	FOR BASE AGGREGATE COMPACTION	
TOTAL						20		

CONCRETE REPAIR AND REPLACEMENT SUMMARY

					416.0610	416.0620	416.1710	416.1720	420.1000	204.0110	465.0105	690.0150	690.0250
					CONTINUOUS								
					DIAMOND								
					DRILLED	DRILLED	CONCRETE	CONCRETE	GRINDING	REMOVING	ASPHALTIC	ASPHALTIC	SAWING
					TIE	DOWEL	PAVEMENT	PAVEMENT	CONCRETE	ASPHALTIC	ASPHALTIC	SAWING	SAWING
					BARS	BARS	REPAIR	REPLACEMENT	PAVEMENT	SURFACE	SURFACE	ASPHALT	CONCRETE
CATEGORY	STATION	TO	STATION	LANE	EA	EA	SY	SY	SY	SY	TON	LF	LF
0010	2623+30	-	2623+36	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	2630+50	-	2630+60	PASSING	-	16	13.3	-	26.7	1.1	0.19	12	46
0010	2641+68	-	2641+74	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	2644+32	-	2644+38	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	2645+22	-	2645+28	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	2654+18	-	2654+38	PASSING	9	16	-	26.7	40.0	2.2	0.37	22	68
0010	2656+52	-	2656+58	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	2657+12	-	2657+18	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	2658+58	-	2658+74	PASSING	7	16	-	21.3	34.7	1.8	0.30	18	64
0010	1161+60	-	1161+66	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1161+60	-	1161+66	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1161+97	-	1162+03	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1161+97	-	1162+03	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1163+05	-	1163+11	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1163+05	-	1163+11	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1163+24	-	1163+37	DRIVING	-	18	20.2	-	35.8	1.4	0.24	15	55
0010	1165+81	-	1165+87	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1165+98	-	1166+04	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1166+16	-	1166+22	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1166+52	-	1166+59	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1166+69	-	1166+75	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1167+03	-	1167+09	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1167+39	-	1167+45	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1170+17	-	1170+23	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1170+36	-	1170+44	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1171+04	-	1171+10	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1171+94	-	1172+14	PASSING	9	16	-	26.7	40.0	2.2	0.37	22	68
0010	1172+07	-	1172+14	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1172+72	-	1172+79	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1173+97	-	1174+03	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1174+66	-	1174+73	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1174+85	-	1174+91	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1176+24	-	1176+31	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1176+41	-	1176+50	DRIVING	-	18	14.0	-	29.6	1.0	0.17	11	51
0010	1176+77	-	1176+85	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1177+13	-	1177+20	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1177+30	-	1177+38	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1185+52	-	1185+59	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1186+23	-	1186+29	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1188+21	-	1188+27	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
SUBTOTAL					25	694	373.1	74.7	1,040.8	34.8	5.64	385	1,527

CONCRETE REPAIR AND REPLACEMENT SUMMARY CONT.

					416.0610	416.0620	416.1710	416.1720	420.1000	204.0110	465.0105	690.0150	690.0250
					CONTINUOUS DIAMOND								
					DRILLED TIE BARS	DRILLED DOWEL BARS	CONCRETE PAVEMENT REPAIR	CONCRETE PAVEMENT REPLACEMENT	GRINDING CONCRETE PAVEMENT	REMOVING ASPHALTIC SURFACE	ASPHALTIC SURFACE	SAWING ASPHALT	SAWING CONCRETE
CATEGORY	STATION	TO	STATION	LANE	EA	EA	SY	SY	SY	SY	TON	LF	LF
0010	1191+06	-	1191+13	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1194+11	-	1194+19	DRIVING	-	18	10.7	-	24.0	0.9	0.15	10	44
0010	1195+72	-	1195+79	PASSING	-	16	9.3	-	22.7	0.8	0.13	9	31
0010	1199+82	-	1200+09	DRIVING	11	18	-	42.0	57.6	3.0	0.50	29	97
0010	1200+73	-	1200+79	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1201+95	-	1202+01	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1201+98	-	1202+06	PASSING	-	16	10.7	-	24.0	0.9	0.15	10	44
0010	1202+96	-	1203+03	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1203+49	-	1203+55	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1203+49	-	1203+55	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1207+63	-	1207+73	DRIVING	-	18	15.6	-	31.1	1.1	0.19	12	52
0010	1208+32	-	1208+38	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1208+32	-	1208+38	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1208+51	-	1208+57	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1208+51	-	1208+57	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1229+83	-	1229+90	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1232+54	-	1232+64	DRIVING	-	18	15.6	-	31.1	1.1	0.19	12	52
0010	1239+63	-	1239+76	DRIVING	-	18	20.2	-	35.8	1.4	0.24	15	55
0010	1241+48	-	1241+54	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1242+77	-	1242+83	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1246+57	-	1246+89	DRIVING	13	18	-	49.8	65.3	3.6	0.60	34	116
0010	1248+05	-	1248+12	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1248+24	-	1248+31	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1249+16	-	1249+22	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1250+25	-	1250+31	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1253+45	-	1253+52	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1253+56	-	1253+63	PASSING	-	16	9.3	-	22.7	0.8	0.13	9	31
0010	1253+56	-	1253+63	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1253+69	-	1253+91	DRIVING	9	18	-	34.2	49.8	2.4	0.41	24	92
0010	1254+03	-	1254+10	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1254+26	-	1254+36	DRIVING	-	18	15.6	-	31.1	1.1	0.19	12	52
0010	1254+44	-	1254+67	DRIVING	10	18	-	35.8	51.3	2.6	0.43	25	93
0010	1256+00	-	1256+06	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1256+00	-	1256+06	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1256+13	-	1256+20	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1257+93	-	1257+99	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1258+29	-	1258+36	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1258+48	-	1258+56	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1262+86	-	1263+27	DRIVING	17	18	-	63.8	79.3	4.6	0.77	43	139
0010	1264+59	-	1264+72	PASSING	-	16	17.3	-	30.7	1.4	0.24	15	49
SUBTOTAL					60	700	377.6	225.6	1,200.4	45.1	7.42	479	1,833

CONCRETE REPAIR AND REPLACEMENT SUMMARY CONT.

					416.0610	416.0620	416.1710	416.1720	420.1000	204.0110	465.0105	690.0150	690.0250
					CONTINUOUS								
					DIAMOND								
					DRILLED	DRILLED	CONCRETE	CONCRETE	GRINDING	REMOVING	ASPHALTIC	ASPHALTIC	SAWING
					TIE	DOWEL	PAVEMENT	PAVEMENT	CONCRETE	ASPHALTIC	ASPHALTIC	ASPHALT	SAWING
					BARS	BARS	REPAIR	REPLACEMENT	PAVEMENT	SURFACE	SURFACE	CONCRETE	CONCRETE
CATEGORY	STATION	TO	STATION	LANE	EA	EA	SY	SY	SY	SY	TON	LF	LF
0010	1264+59	-	1264+72	DRIVING	-	18	20.2	-	35.8	1.4	0.24	15	55
0010	1267+91	-	1267+97	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1269+22	-	1269+28	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1270+59	-	1270+65	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1270+69	-	1270+75	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1270+78	-	1270+84	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1273+24	-	1273+30	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1278+41	-	1278+49	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1278+61	-	1278+69	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1279+67	-	1279+73	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1281+08	-	1281+15	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1282+54	-	1282+60	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1283+87	-	1283+93	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1283+87	-	1283+93	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1284+23	-	1284+29	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1284+23	-	1284+29	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1285+01	-	1285+09	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1286+26	-	1286+32	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1287+68	-	1287+76	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1289+12	-	1289+19	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1291+10	-	1291+16	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1292+09	-	1292+30	PASSING	9	16	-	28.0	41.3	2.3	0.39	23	81
0010	1292+09	-	1292+30	DRIVING	-	18	-	32.7	48.2	2.3	0.39	23	91
0010	1293+23	-	1293+29	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1294+67	-	1294+73	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1294+96	-	1295+02	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1294+96	-	1295+02	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1295+93	-	1295+99	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1297+52	-	1297+58	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1298+41	-	1298+48	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1298+58	-	1298+65	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1298+94	-	1299+00	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1301+62	-	1301+68	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1303+32	-	1303+38	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1303+86	-	1303+99	PASSING	-	16	17.3	-	30.7	1.4	0.24	15	49
0010	1303+86	-	1303+99	DRIVING	-	18	20.2	-	35.8	1.4	0.24	15	55
0010	1305+99	-	1306+05	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1306+69	-	1306+76	PASSING	-	16	9.3	-	22.7	0.8	0.13	9	31
0010	1306+86	-	1306+92	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1308+01	-	1308+07	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
SUBTOTAL					9	700	393.8	60.7	1,054.3	34.6	5.61	384	1,558

CONCRETE REPAIR AND REPLACEMENT SUMMARY CONT.

					416.0610	416.0620	416.1710	416.1720	420.1000	204.0110	465.0105	690.0150	690.0250
					CONTINUOUS								
					DIAMOND								
					DRILLED TIE BARS	DRILLED DOWEL BARS	CONCRETE PAVEMENT REPAIR	CONCRETE PAVEMENT REPLACEMENT	GRINDING CONCRETE PAVEMENT	REMOVING ASPHALTIC SURFACE	ASPHALTIC SURFACE	SAWING ASPHALT	SAWING CONCRETE
CATEGORY	STATION	TO	STATION	LANE	EA	EA	SY	SY	SY	SY	TON	LF	LF
0010	1308+98	-	1309+14	DRIVING	7	18	-	24.9	40.4	1.8	0.30	18	72
0010	1309+43	-	1309+49	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1309+96	-	1310+02	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1310+93	-	1311+09	PASSING	7	16	-	21.3	34.7	1.8	0.30	18	64
0010	1310+93	-	1311+09	DRIVING	-	18	-	24.9	40.4	1.8	0.30	18	72
0010	1311+47	-	1311+53	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1312+27	-	1312+35	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50
0010	1313+45	-	1313+58	DRIVING	-	18	20.2	-	35.8	1.4	0.24	15	55
0010	1314+34	-	1314+40	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1316+02	-	1316+18	PASSING	7	16	-	21.3	34.7	1.8	0.30	18	64
0010	1316+02	-	1316+18	DRIVING	-	18	-	24.9	40.4	1.8	0.30	18	72
0010	1319+16	-	1319+22	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1319+16	-	1319+22	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1319+35	-	1319+42	PASSING	-	16	9.3	-	22.7	0.8	0.13	9	31
0010	1319+35	-	1319+42	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1319+98	-	1320+04	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1320+34	-	1320+40	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1320+79	-	1320+85	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1320+79	-	1320+85	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1322+23	-	1322+29	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1322+23	-	1322+29	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1322+95	-	1323+01	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1323+30	-	1323+36	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1323+30	-	1323+36	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1323+85	-	1323+99	DRIVING	-	18	21.8	-	37.3	1.6	0.26	16	70
0010	1324+39	-	1324+45	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1324+39	-	1324+45	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1324+55	-	1324+61	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1324+55	-	1324+61	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1325+44	-	1325+51	DRIVING	-	16	9.3	-	22.7	0.8	0.13	9	31
0010	1325+44	-	1325+51	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1325+82	-	1325+94	DRIVING	-	18	18.7	-	34.2	1.3	0.22	14	54
0010	1326+66	-	1326+72	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1326+66	-	1326+72	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1335+32	-	1335+39	PASSING	-	16	9.3	-	22.7	0.8	0.13	9	31
0010	1335+32	-	1335+39	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35
0010	1335+47	-	1335+53	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1335+47	-	1335+53	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
0010	1335+64	-	1335+70	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30
0010	1335+64	-	1335+70	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34
SUBTOTAL					21	690	353.8	117.3	1,059.7	36.5	5.90	399	1,581

CONCRETE REPAIR AND REPLACEMENT SUMMARY CONT.														
					416.0610	416.0620	416.1710	416.1720	420.1000	204.0110	465.0105	690.0150	690.0250	
					CONTINUOUS									
					DRILLED	DRILLED	CONCRETE	CONCRETE	CONCRETE	REMOVING	ASPHALTIC	ASPHALTIC	SAWING	SAWING
					TIE	DOWEL	PAVEMENT	PAVEMENT	GRINDING	ASPHALTIC	ASPHALTIC	ASPHALTIC	SAWING	SAWING
					BARS	BARS	REPAIR	REPLACEMENT	CONCRETE	SURFACE	SURFACE	SURFACE	ASPHALT	CONCRETE
CATEGORY	STATION	TO	STATION	LANE	EA	EA	SY	SY	SY	SY	TON	LF	LF	LF
0010	1336+51	-	1336+57	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1336+51	-	1336+57	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1339+15	-	1339+21	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1341+84	-	1341+90	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1341+84	-	1341+90	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1342+01	-	1342+07	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1342+01	-	1342+07	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1344+48	-	1344+58	PASSING	-	16	13.3	-	26.7	1.1	0.19	12	46	
0010	1344+48	-	1344+58	DRIVING	-	18	15.6	-	31.1	1.1	0.19	12	52	
0010	1344+65	-	1344+71	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1344+65	-	1344+71	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1344+83	-	1344+89	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1344+83	-	1344+89	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1345+70	-	1345+76	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1345+70	-	1345+76	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1345+87	-	1345+93	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1345+87	-	1345+93	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1349+84	-	1349+90	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1350+01	-	1350+07	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1350+01	-	1350+07	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1350+11	-	1350+17	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1351+99	-	1352+05	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1352+58	-	1352+64	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1352+58	-	1352+64	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1352+77	-	1352+83	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1352+77	-	1352+83	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1355+60	-	1355+66	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1356+31	-	1356+49	DRIVING	8	18	-	28.0	43.6	2.0	0.34	20	74	
0010	1357+63	-	1357+70	PASSING	-	16	9.3	-	22.7	0.8	0.13	9	31	
0010	1357+63	-	1357+70	DRIVING	-	18	10.9	-	26.4	0.8	0.13	9	35	
0010	1357+83	-	1357+89	PASSING	-	16	8.0	-	21.3	0.7	0.11	8	30	
0010	1357+83	-	1357+89	DRIVING	-	18	9.3	-	24.9	0.7	0.11	8	34	
0010	1360+86	-	1360+95	DRIVING	-	18	14.0	-	29.6	1.0	0.17	11	51	
0010	1364+00	-	1364+27	DRIVING	11	18	-	42.0	57.6	3.0	0.50	29	97	
0010	1365+49	-	1365+57	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50	
0010	1365+67	-	1365+75	DRIVING	-	18	12.4	-	28.0	0.9	0.15	10	50	
0010	UNDISTRIBUTED				16	344	186.4	56.8	528.4	18.5	6.51	200	786	
SUBTOTAL					35	966	511.8	126.8	1,454.8	49.0	11.43	538	2,146	
TOTALS					150	3,750	2,010	605	5,810	200	36	2,185	8,645	

ASPHALT SUMMARY										
					455.0605	460.6224	465.0110	465.0125	465.0400	
					TACK COAT	HMA PAVEMENT 4 MT 58-28 S	ASPHALTIC SURFACE PATCHING	ASPHALTIC SURFACE TEMPORARY	ASPHALTIC SHOULDER RUMBLE STRIPS	
CATEGORY	STAGE	STATION		STATION	LOCATION	GAL	TON	TON	TON	LF
0010	1	2605+93	-	2660+07	RT	110	-	-	150	-
0010		1152+78	-	1258+29	RT	210	-	-	290	-
0010		1258+29	-	1373+58	RT	230	-	-	320	-
SUBTOTAL STAGE 1						550	0	0	760	0
0010	2	2605+93	-	2610+59	LT	55	102	-	-	-
0010		2610+59	-	2659+06	LT	195	362	-	-	4,850
0010		2659+06	-	1156+00	LT	45	88	-	-	-
0010		1156+00	-	1257+74	LT	405	760	-	-	10,200
0010		1257+74	-	1263+44	LT	65	120	-	-	-
0010		1263+44	-	1373+25	LT	440	820	-	-	11,000
SUBTOTAL STAGE 2						1205	2252	0	0	26,050
0010	3	2605+93	-	2610+62	RT	50	91	-	-	-
0010		2610+62	-	2632+58	RT	45	82	-	-	2,200
0010		2632+58	-	2634+93	RT	15	32	-	-	-
0010		2634+93	-	2659+03	RT	50	90	-	-	2,410
0010		2659+03	-	1154+51	RT	35	65	-	-	-
0010		1154+51	-	1256+74	RT	205	382	-	-	10,200
0010		1256+74	-	1263+45	RT	65	122	-	-	-
0010		1263+45	-	1290+41	RT	55	102	-	-	2,700
0010		1290+41	-	1290+97	RT	5	13	-	-	-
0010		1290+97	-	1373+58	RT	170	314	-	-	8,260
SUBTOTOTAL STAGE 3						695	1293	0	0	25,770
UNDISTRIBUTED						0	0	20	0	0
TOTAL						2,450	3,545	20	760	51,820

CULVERT SUMMARY

		520.8700	633.5200		
		CLEANING	MARKERS		
		CULVERT PIPES	CULVERT END		
CATEGORY	STATION	EACH	EACH	REMARKS	
0010	2613+22	-	1	REPLACE EXISTING DAMAGED MARKER	
0010	2613+38	-	1	REPLACE EXISTING DAMAGED MARKER	
0010	2620+37	-	1		
0010	2627+95	1	1		
0010	2648+28	1	1		
0010	1154+70	-	1		
0010	1162+88	1	1		
0010	1170+82	1	1		
0010	1184+70	-	1		
0010	1254+10	-	1		
0010	1256+14	1	-		
0010	1307+13	-	1	REPLACE EXISTING DAMAGED MARKER	
0010	1357+43	-	1	REPLACE EXISTING DAMAGED MARKER	
TOTAL		5	12		

RESTORATION SUMMARY

		625.0100	628.2002	628.7504	629.0210	630.0130	630.0500		
		EROSION MAT		TEMPORARY		SEEDING			
		CLASS I TYPE		DITCH CHECKS		MIXTURE NO.			
		TOPSOIL	A			30	SEED WATER		
CATEGORY	STATION	SY	SY	LF	CWT	LB	MGAL	REMARKS	
0010	2627+95	12	12	10	-	0.2	0.34	ADJACENT WETLANDS	
0010	2648+28	13	13	10	0.01	0.2	0.36		
0010	1162+88	13	13	10	0.01	0.2	0.36		
0010	1170+82	13	13	10	-	0.2	0.36	ADJACENT WETLANDS	
0010	1194+00	16	16	-	0.01	0.3	0.45		
0010	1256+14	12	12	10	0.01	0.2	0.34		
0010	1284+06	16	16	-	0.01	0.3	0.45		
0010	UNDISTRIBUTED	10	10	20	0.01	0.4	0.34		
TOTAL		105	105	70	0.06	2	3		

TRAFFIC CONTROL SUMMARY																			
				643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.1050		643.5000	
				TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL	
				DRUMS		BARRICADES TYPE III		WARNING LIGHTS TYPE A		WARNING LIGHTS TYPE C		ARROW BOARDS		SIGNS		SIGNS PCMS		TRAFFIC CONTROL	
CATEGORY	STAGE	DURATION	LOCATION	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	REMARKS
0010	1	7	PCMS PREWARN	0	0	0	0	0	0	0	0	0	0	0	0	2	14	-	
0010		2	WB STH 29	312	624	12	24	42	84	14	28	2	4	33	66	0	0	-	
0010		2	SIDE ROADS	112	224	3	6	6	12	0	0	0	0	15	30	0	0	-	
SUBTOTALS (STAGE 1)				848		30		96		28		4		96		14		0	
0010	2	38	WB STH 29	312	11856	12	456	42	1596	14	532	2	76	33	1254	0	0	-	
0010		38	SIDE ROADS	142	5396	3	114	6	228	0	0	0	0	16	608	0	0	-	
SUBTOTALS (STAGE 2)				17252		570		1824		532		76		1862		0		0	
0010	3	25	WB STH 29	312	7800	12	300	42	1050	14	350	2	50	33	825	0	0	-	
0010		25	SIDE ROADS	112	2800	3	75	6	150	0	0	0	0	15	375	0	0	-	
SUBTOTALS (STAGE 3)				10600		375		1200		350		50		1200		0		0	
PROJECT 1058-23-71				-		-		-		-		-		-		-		1	
TOTAL				28,700		975		3,120		910		130		3,158		14		1	

PAVEMENT MARKING SUMMARY

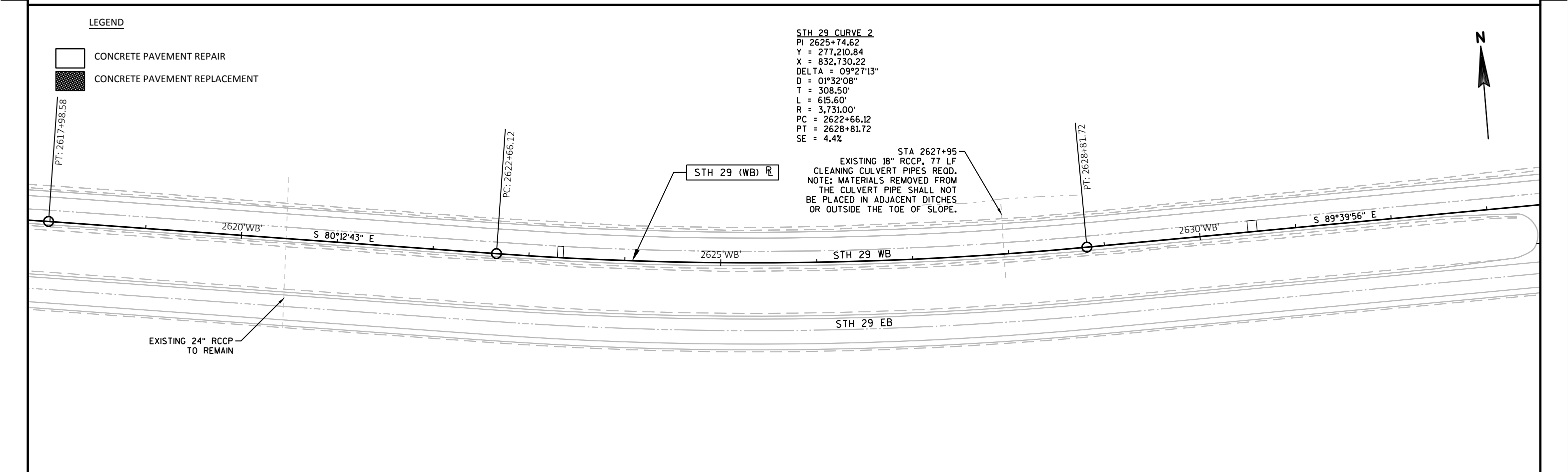
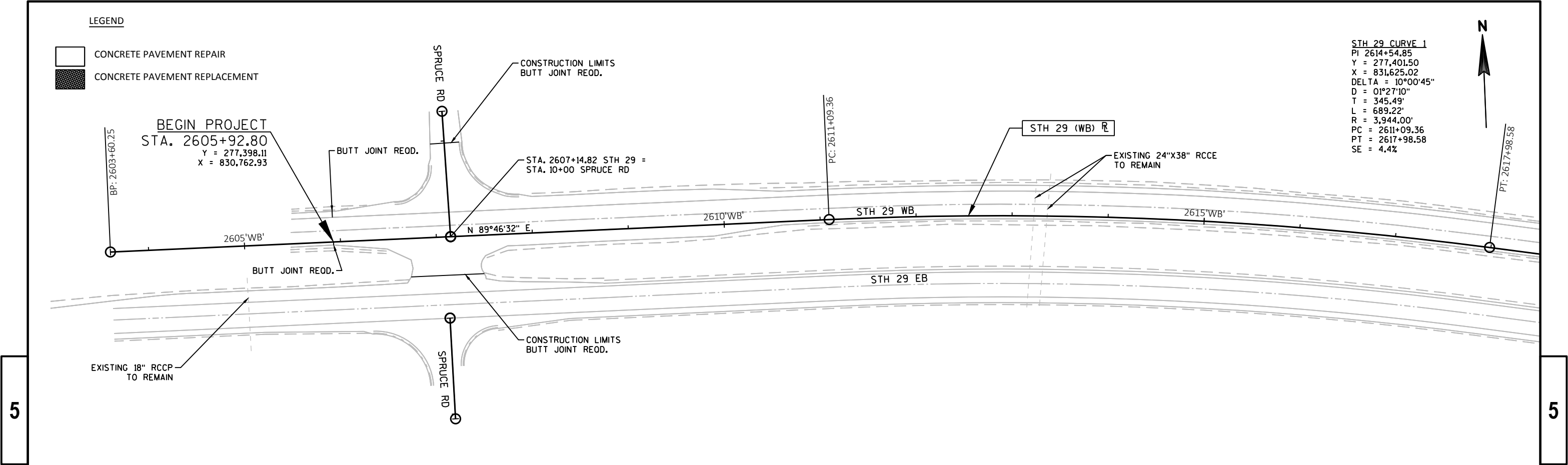
					646.1040		646.1555		646.3555		646.6120			
					MARKING LINE GROOVED		MARKING LINE GROOVED		MARKING LINE GROOVED		MARKING STOP LINE			
					WET REF EPOXY 4-INCH		CONTRAST PERMANENT TAPE 4-INCH		CONTRAST PERMANENT TAPE 8-INCH		EPOXY 18-INCH			
					(WHITE)	(YELLOW)	(12.5' SEG, 37.5' GAP)		(WHITE)		(WHITE)			
CATEGORY	STATION		STATION		LF	LF		LF		LF		LF		REMARKS
0010	2605+93	-	2660+07	LT	-	-		1,370		-		-		
0010	1152+78	-	1373+58	LT	-	-		5,530		-		-		
0010	2605+93	-	2660+07	RT	-	5,190		-		-		-		
0010	1152+78	-	1373+58	RT	-	22,000		-		-		-		
0010	2605+93	-	2660+07	LT	5,220	-		-		-		-		
0010	1152+78	-	1373+58	LT	22,000	-		-		-		-		
0010	2605+93	-	2660+07	RT	-	-		-	200			-		
0010	1152+78	-	1373+58	RT	-	-		-	576			-		
0010	2605+93	-	2660+07	LT	-	-		-	215			-		
0010	1152+78	-	1373+58	LT	-	-		-	349			-		
CTH MMM					55	110		-		-		18		
TOTAL					54,575			6,900		1,340		18		

CONSTRUCTION STAKING SUMMARY

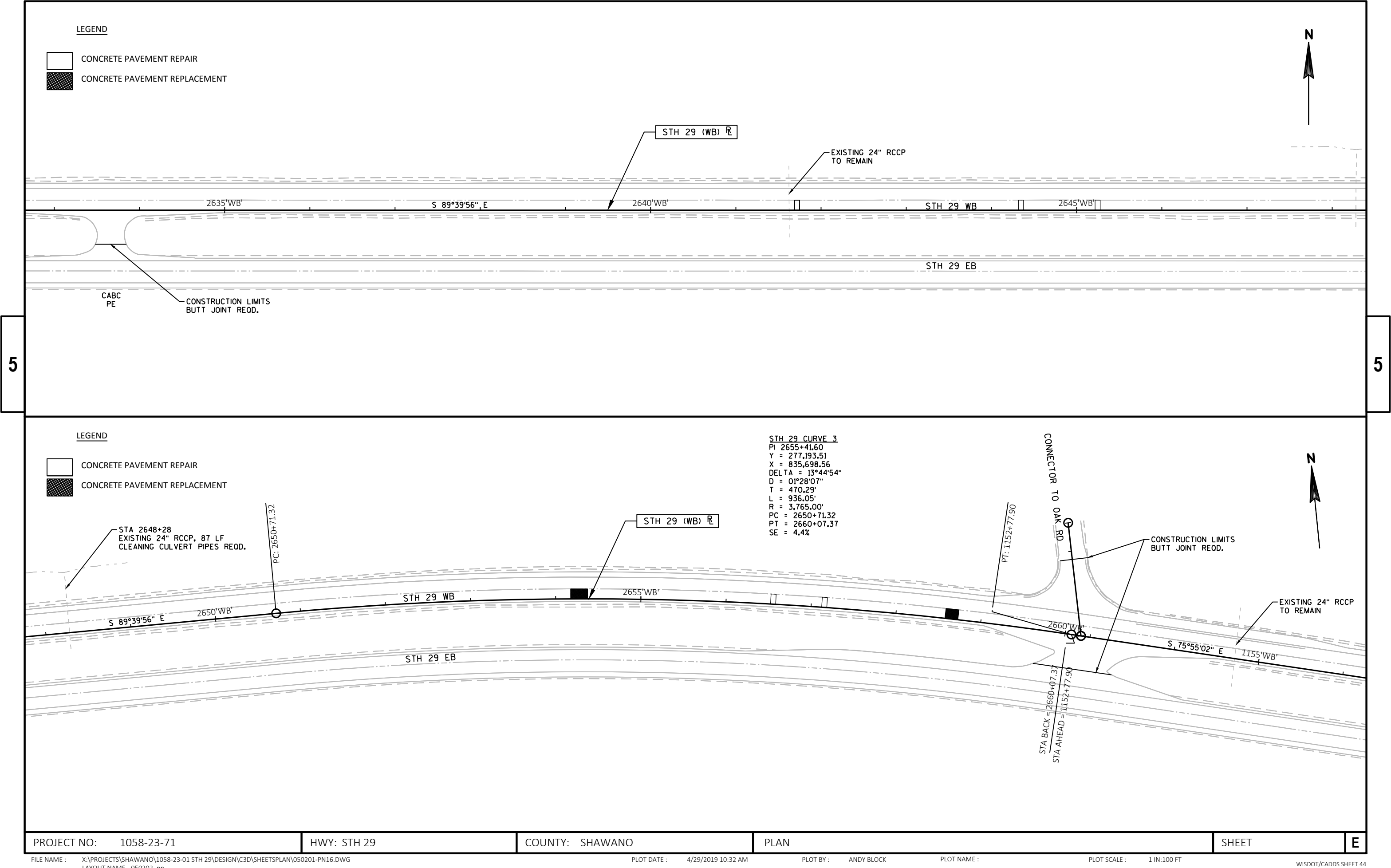
		650.8000		650.9910		REMARKS
		STAKING		STAKING		
		RESURFACING		SUPPLEMENTAL		
		REFERENCE		CONTROL		
CATEGORY	STATION	STATION	LF	LS		
0010	2605+93	- 2660+07	5,415	-		
0010	1152+78	- 1375+38	22,260	-		
0010	PROJECT	1058-23-71	-	1		
TOTAL			27,675	1		

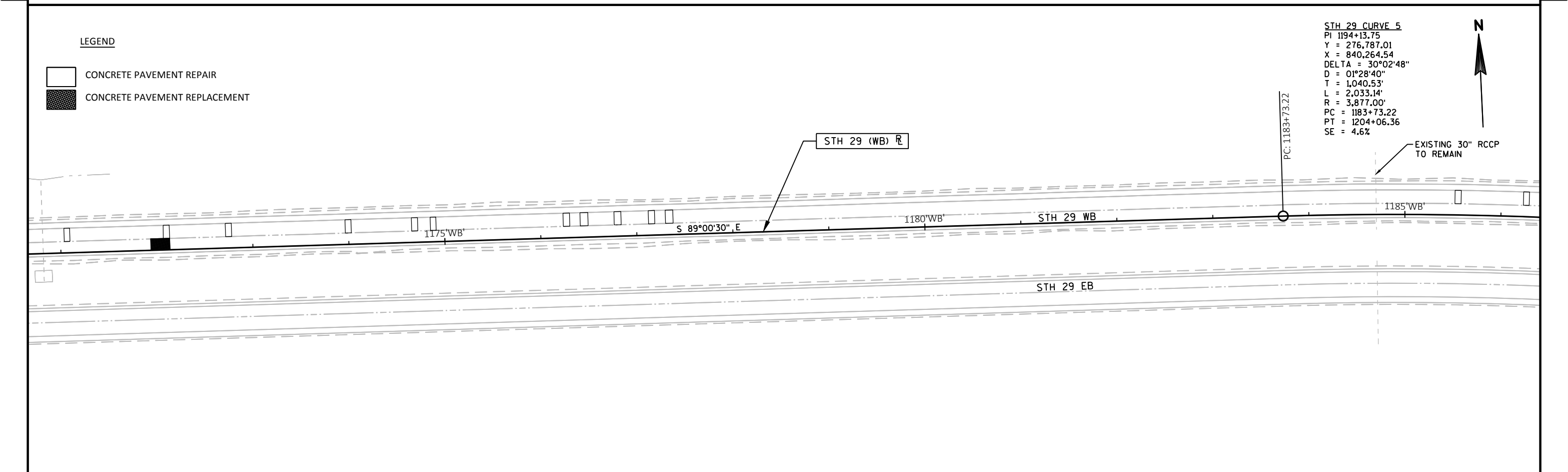
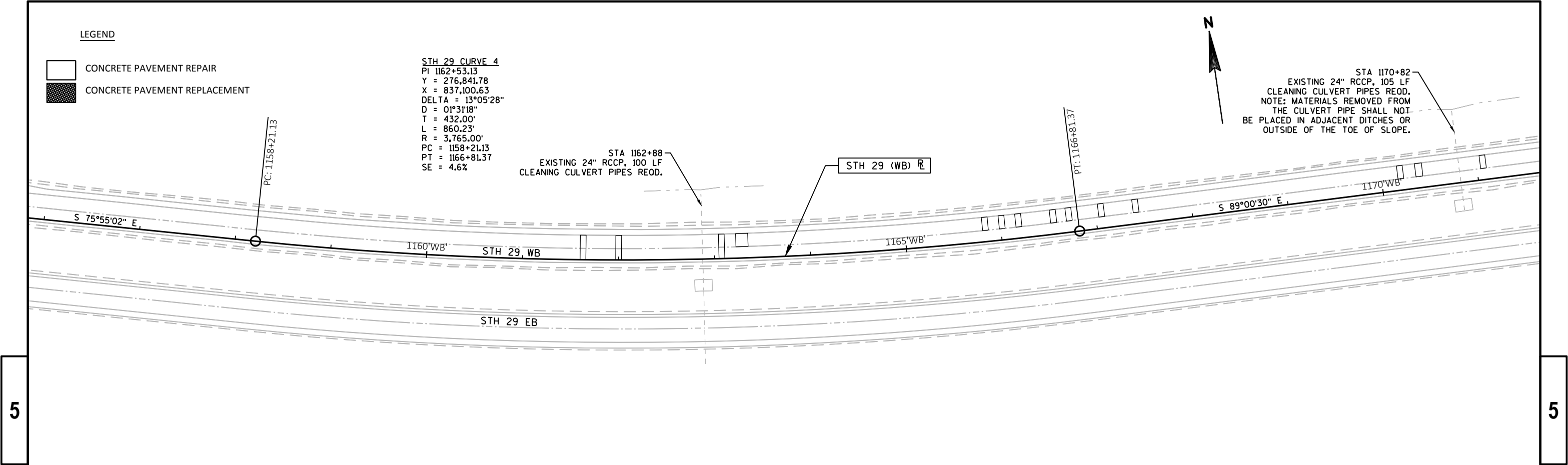
INLET SUMMARY

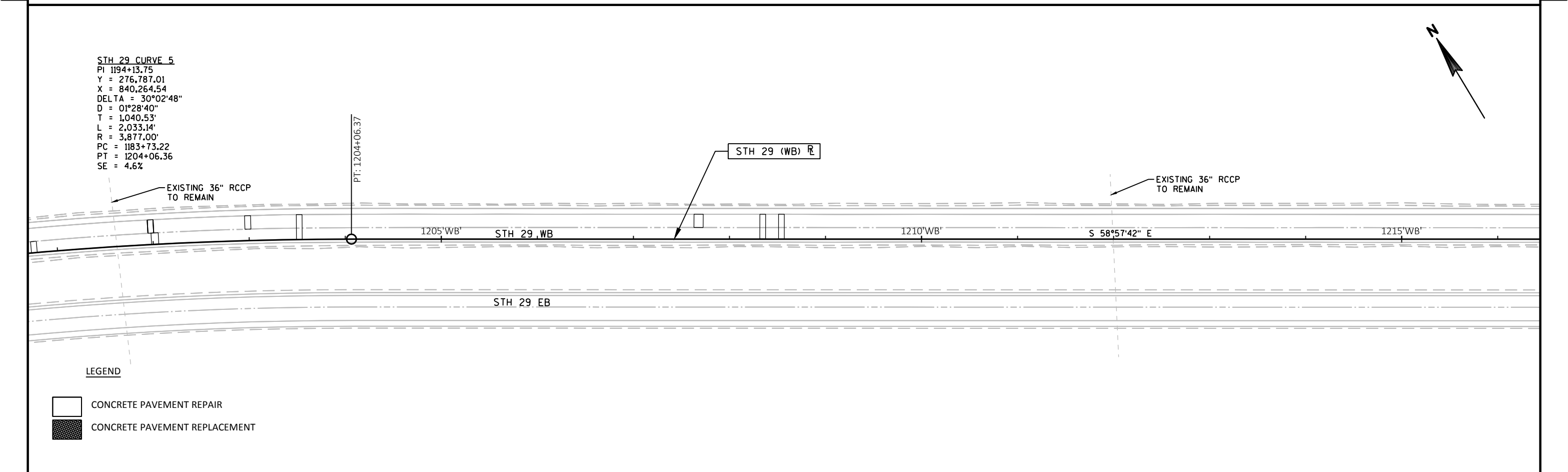
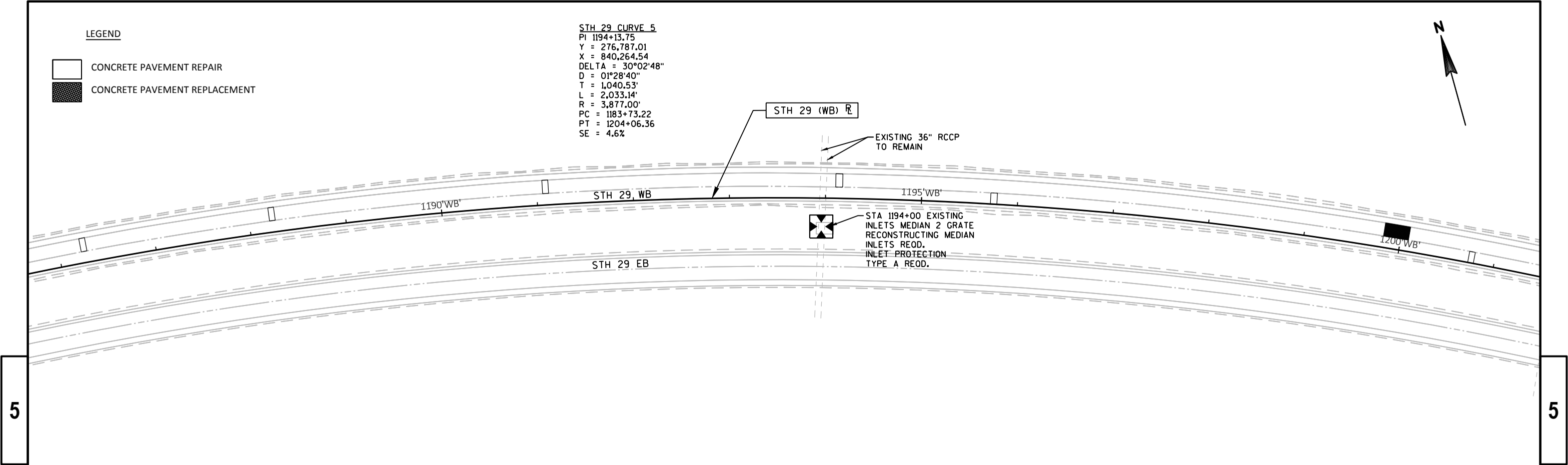
		SPV.0060.01	628.7005	REMARKS
		RECONSTRUCTING	INLET	
		MEDIAN INLETS	PROTECTION	
			TYPE A	
CATEGORY	STATION	EACH	EACH	
0010	1194+00	1	1	
0010	1284+06	1	1	
TOTAL		2	2	



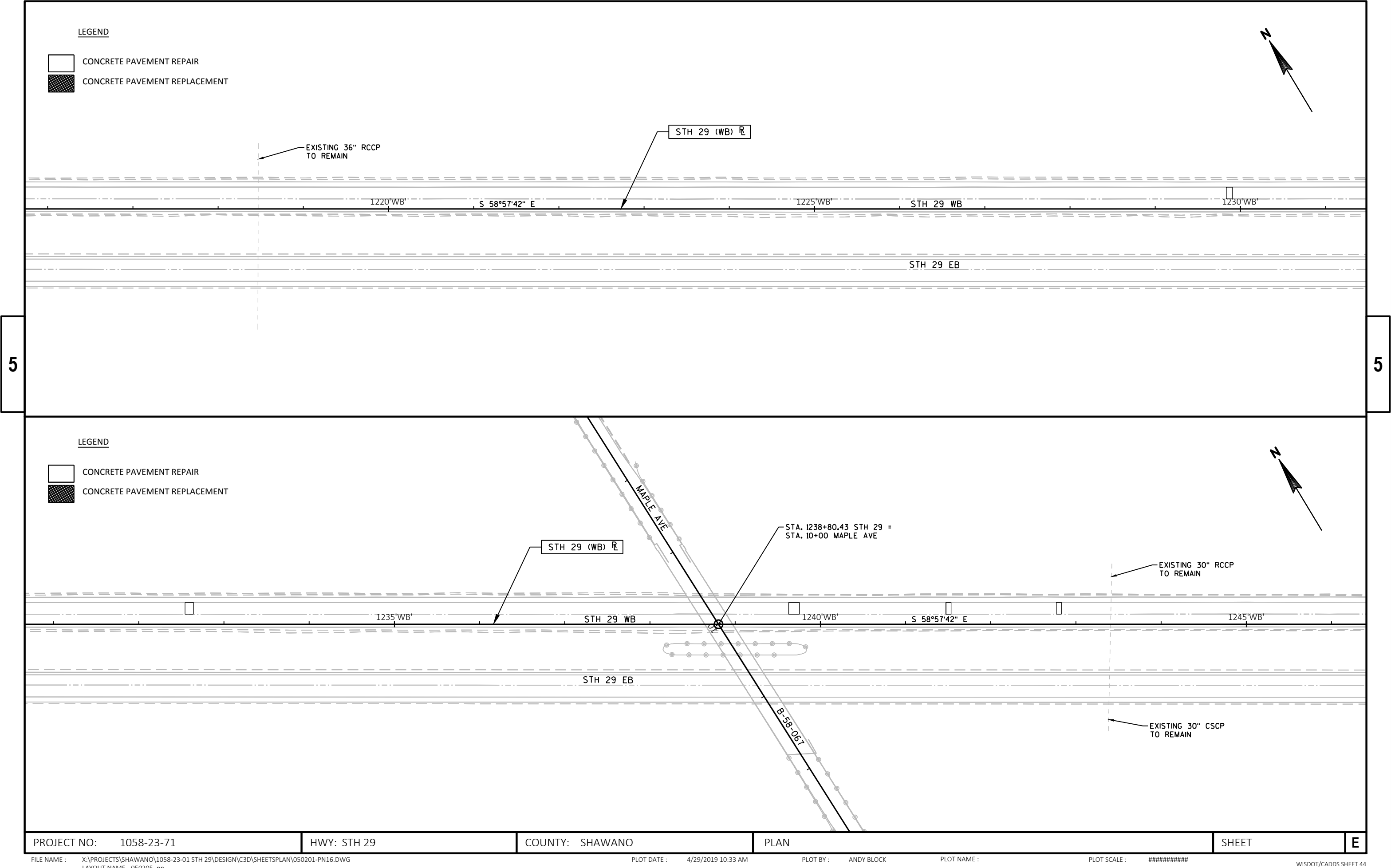
PROJECT NO: 1058-23-71	HWY: STH 29	COUNTY: SHAWANO	PLAN	SHEET	E
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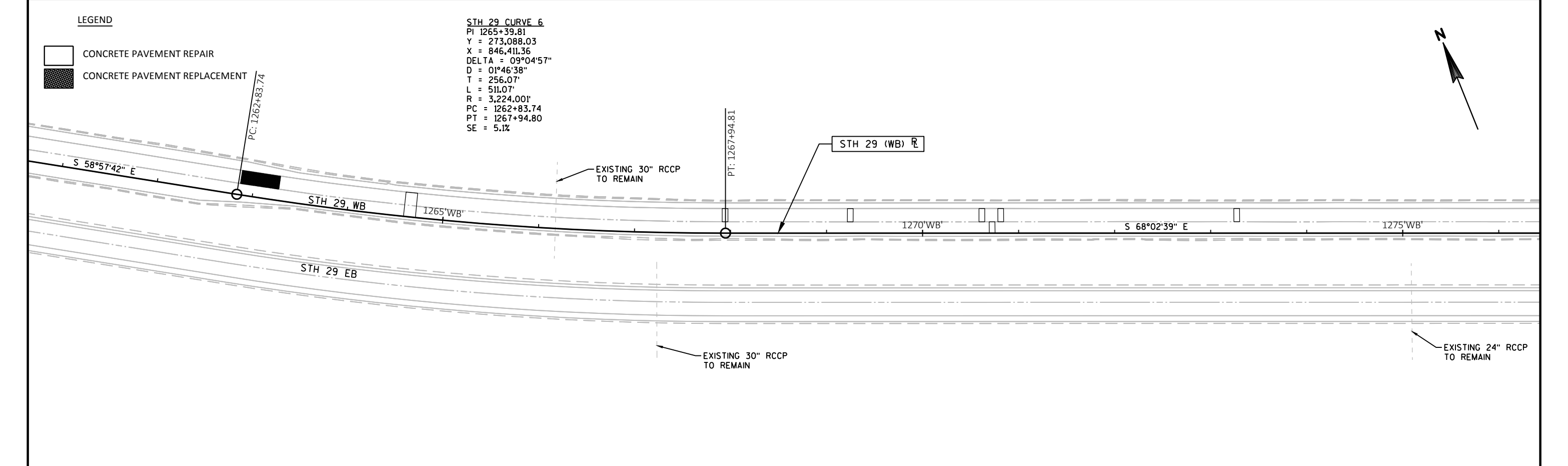
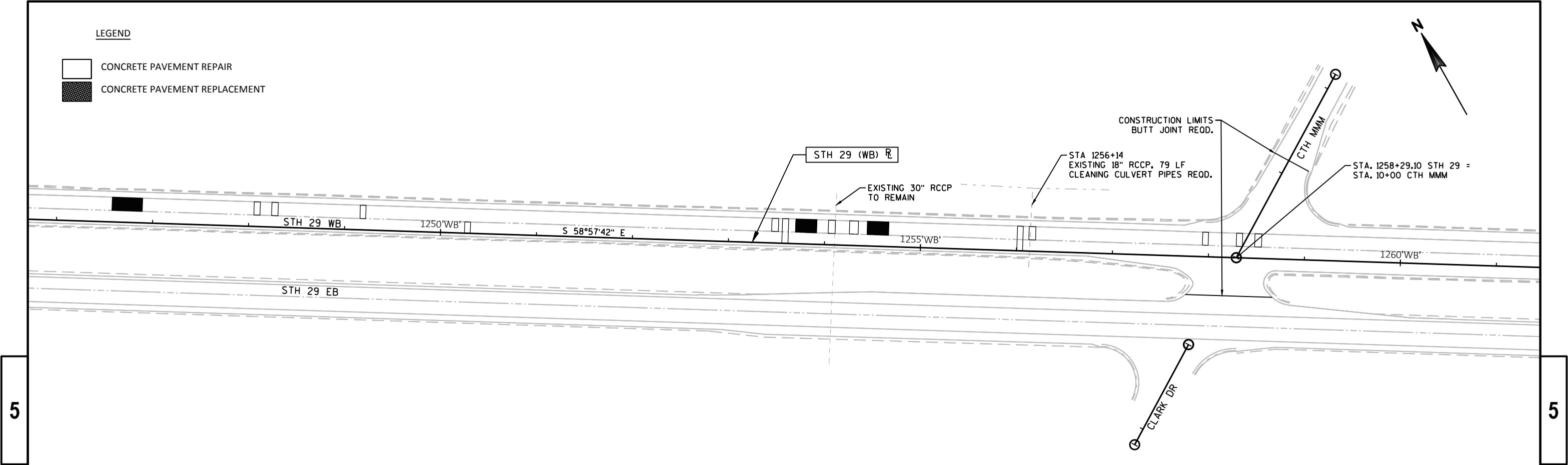


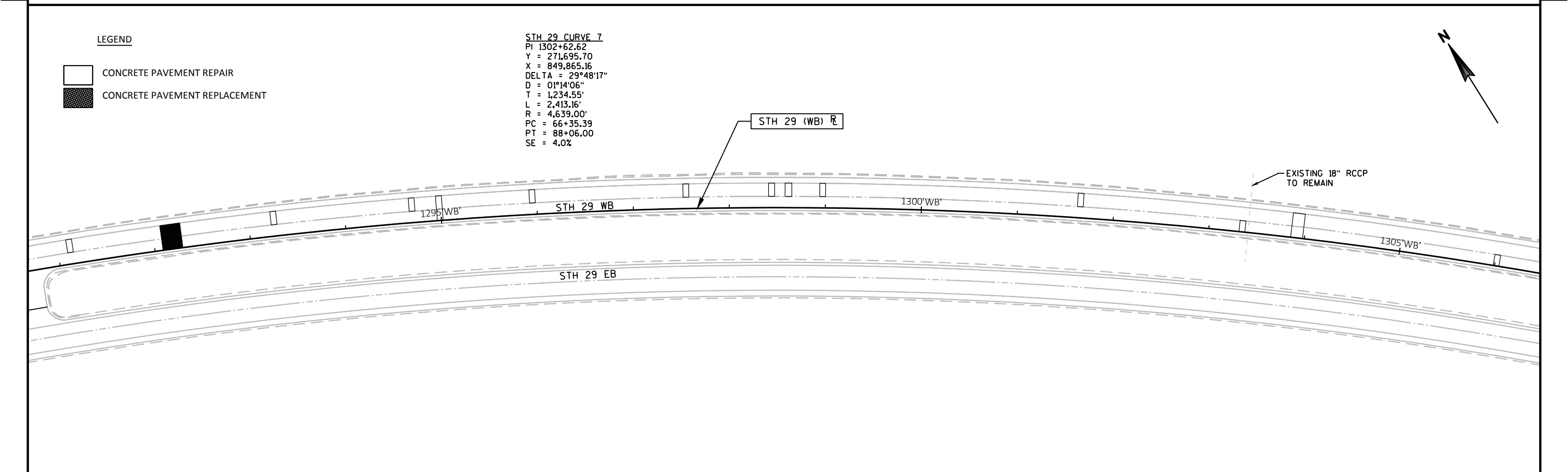
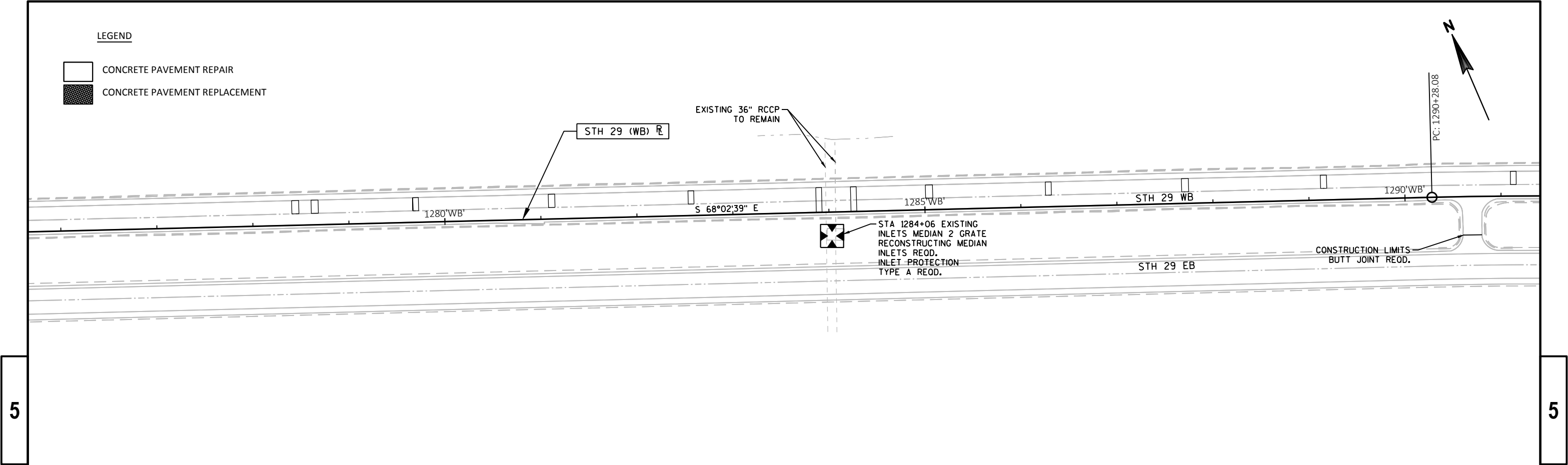


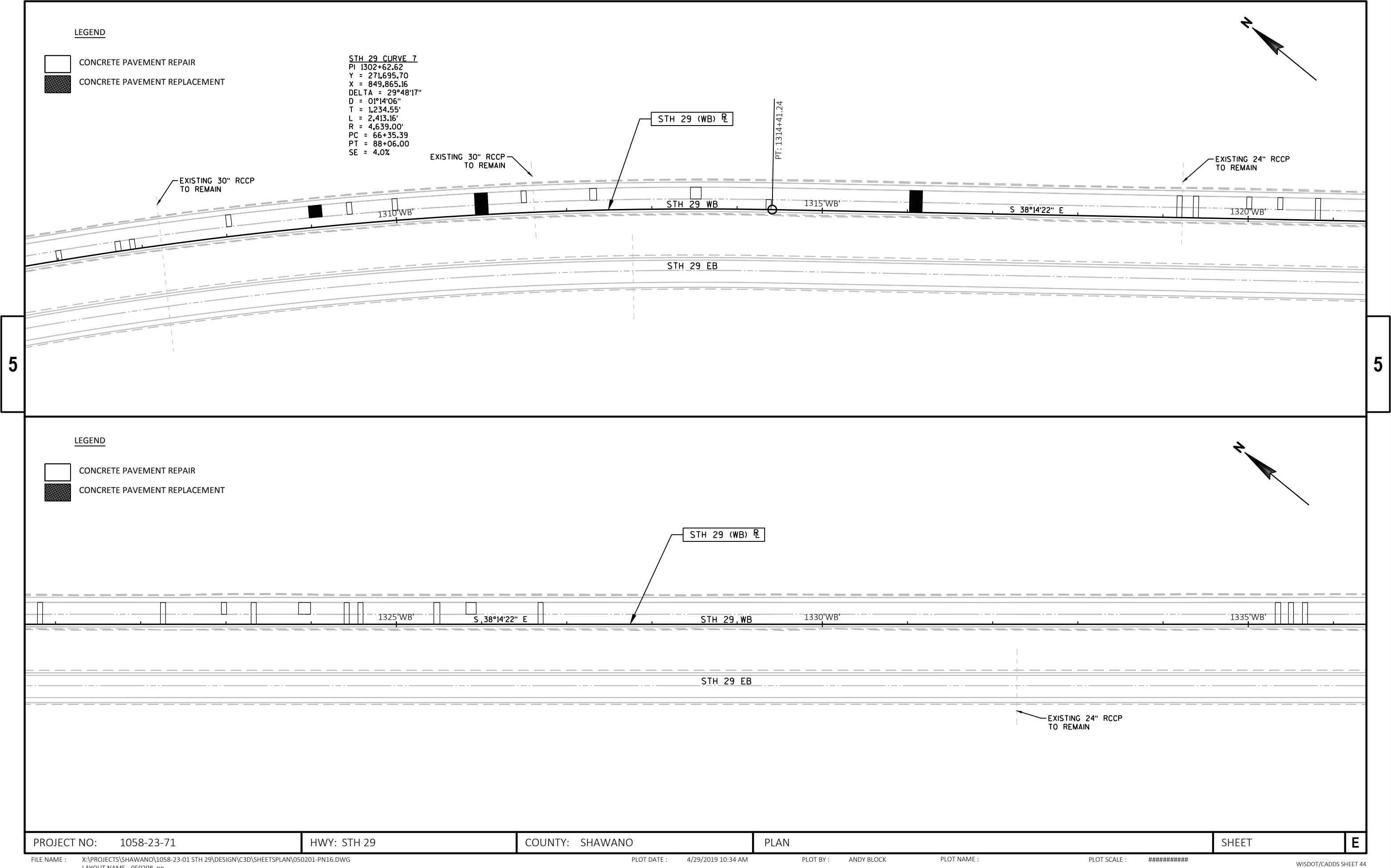


PROJECT NO: 1058-23-71	HWY: STH 29	COUNTY: SHAWANO	PLAN	SHEET	E
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LEGEND

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPLACEMENT

STH 29 (WB) R

1325'WB'

S 38°14'22" E

STH 29 WB

1330'WB'

1335'WB'

STH 29 EB

EXISTING 24" RCCP TO REMAIN

5

5

PROJECT NO: 1058-23-71

HWY: STH 29

COUNTY: SHAWANO

PLAN

SHEET

E

FILE NAME : X:\PROJECTS\SHAWANO\1058-23-01 STH 29\DESIGN\C3D\SHEETSPLAN\050201-PN16.DWG

LAYOUT NAME - 050208_pn

PLOT DATE : 4/29/2019 10:34 AM

PLOT BY : ANDY BLOCK

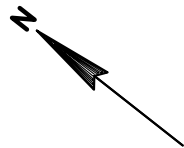
PLOT NAME :

PLOT SCALE : #####

WISDOT/CADD5 SHEET 44

LEGEND

- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT

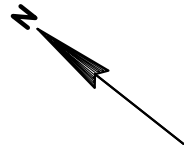


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LEGEND

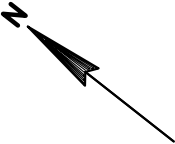
- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT



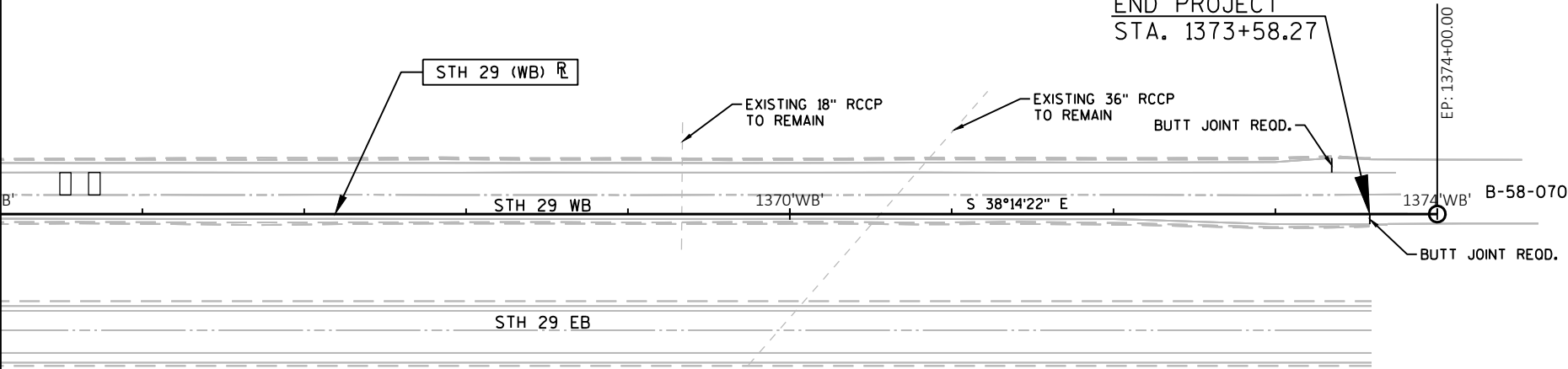
PROJECT NO: 1058-23-71	HWY: STH 29	COUNTY: SHAWANO	PLAN	SHEET	E
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LEGEND

- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT



END PROJECT
STA. 1373+58.27

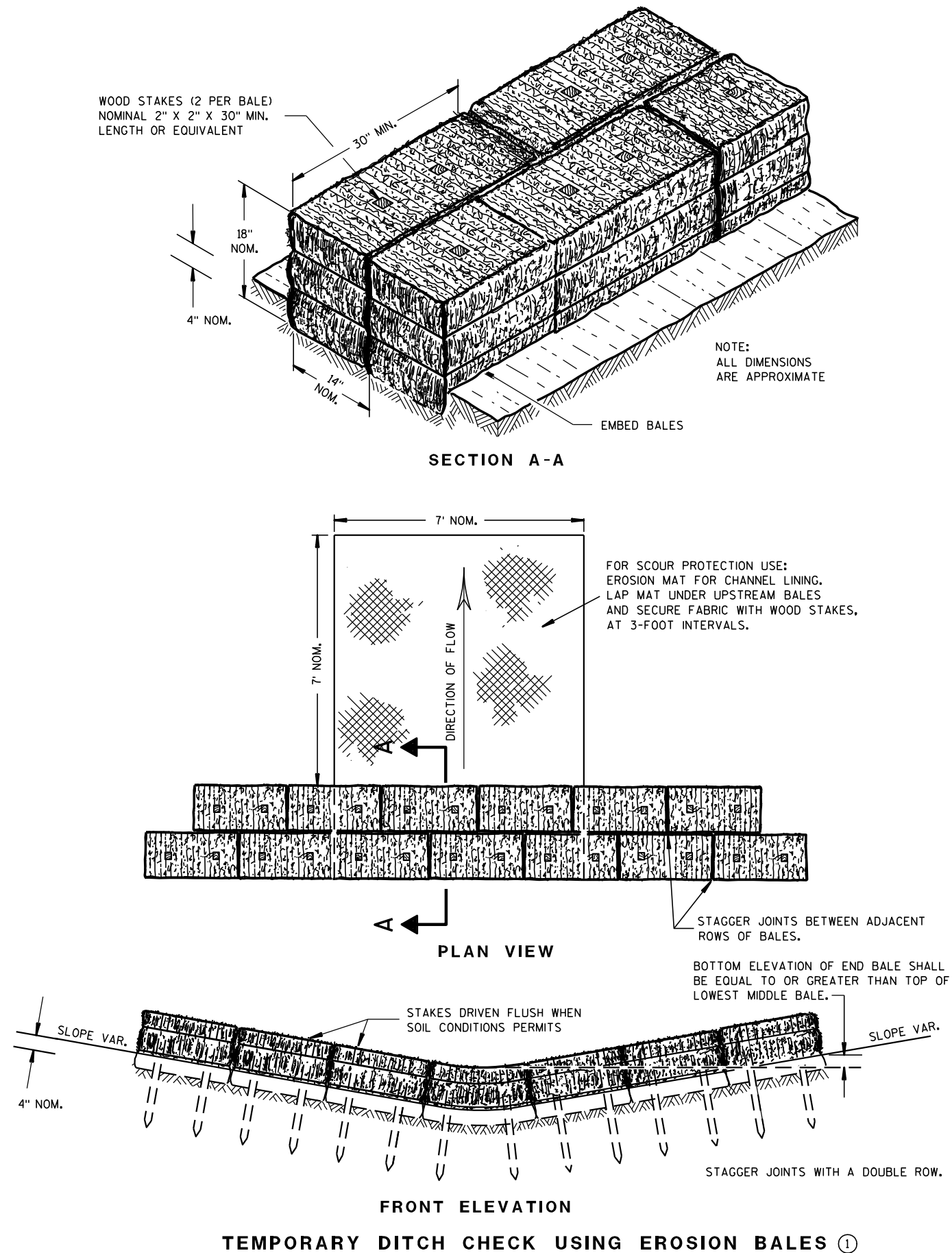


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5

Standard Detail Drawing List

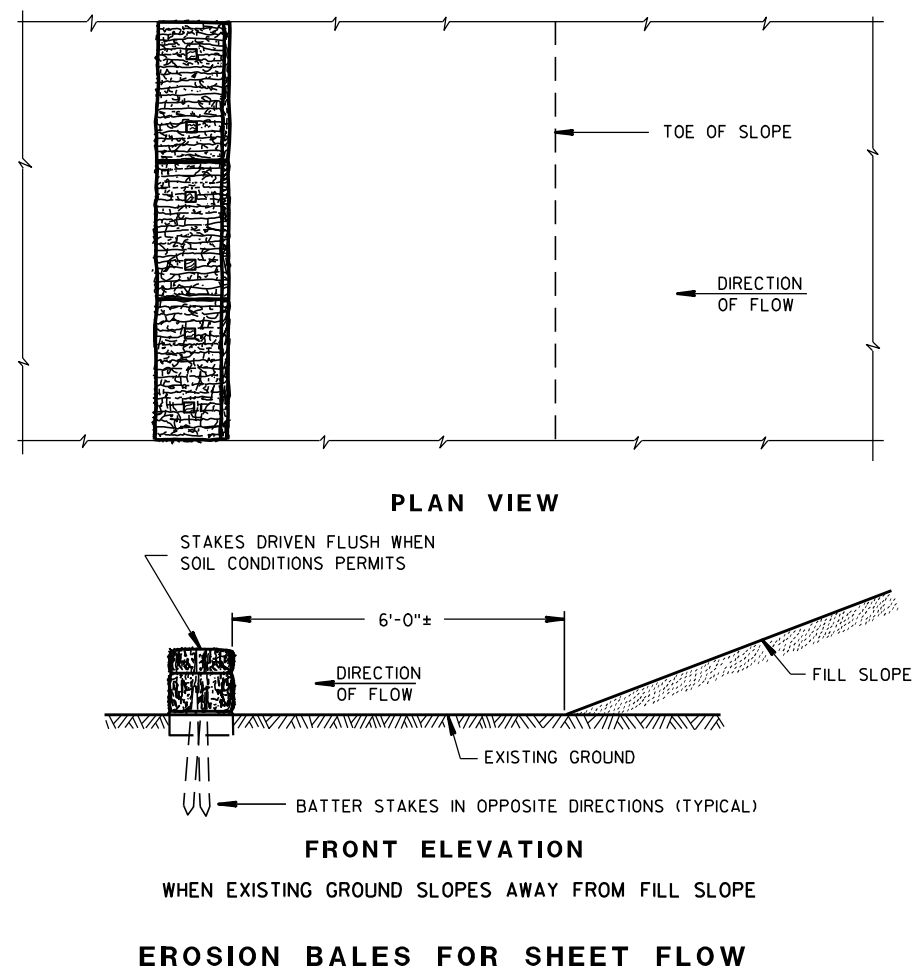
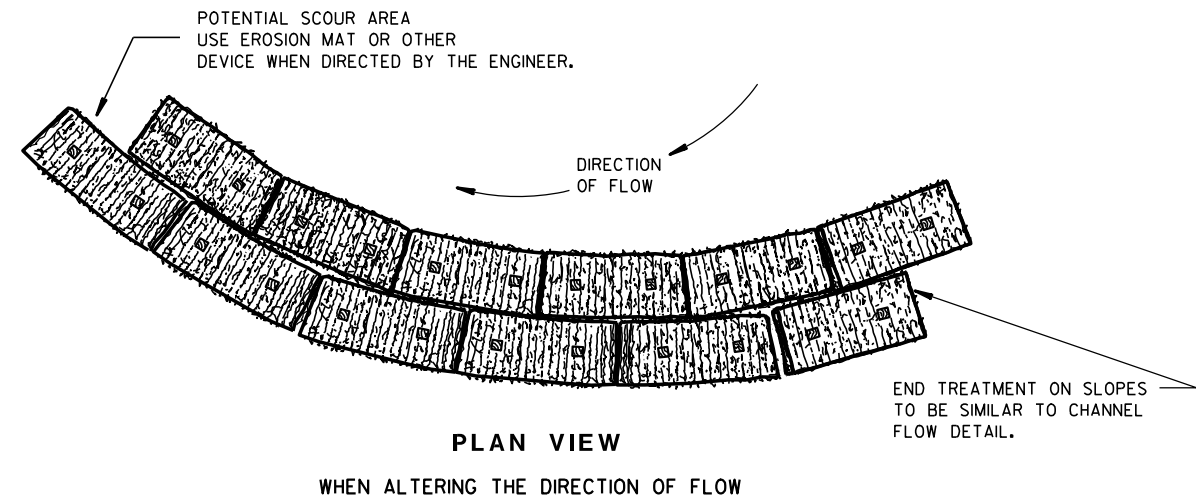
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-12A	RURAL DOWELED CONCRETE PAVEMENT
13C11-12B	RURAL DOWELED CONCRETE PAVEMENT
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-05C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D12-07B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING



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

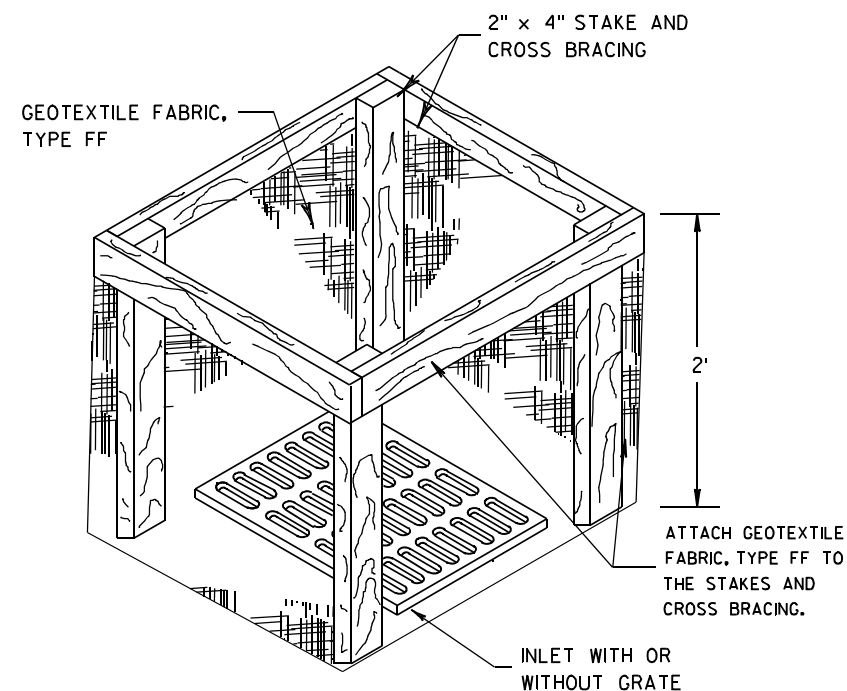
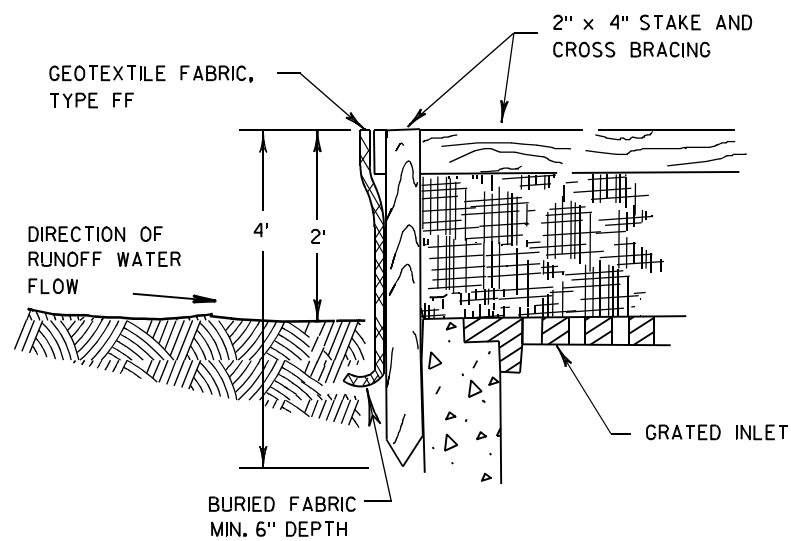
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



INLET PROTECTION, TYPE A

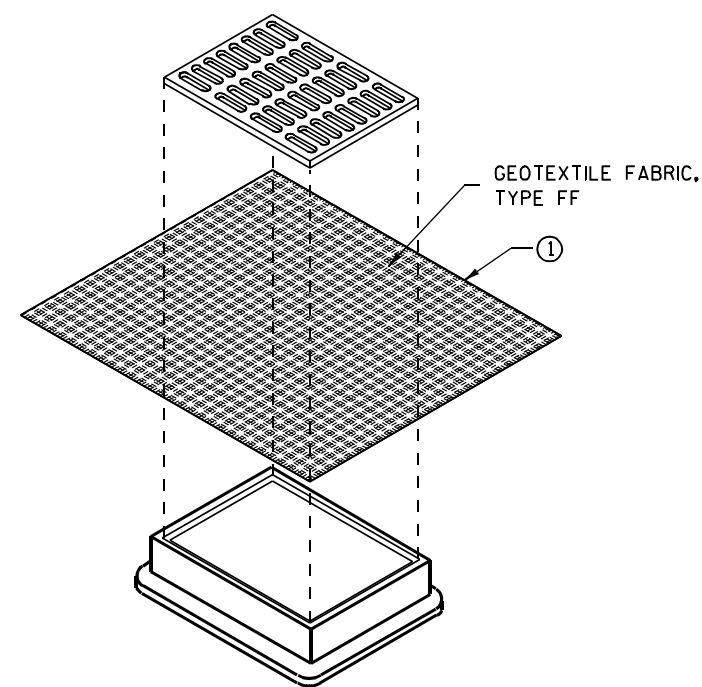
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

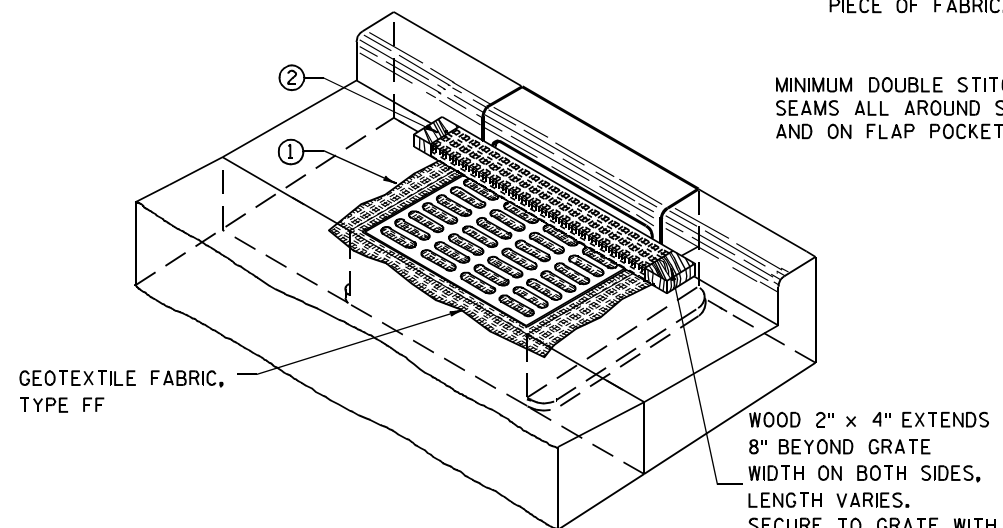
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

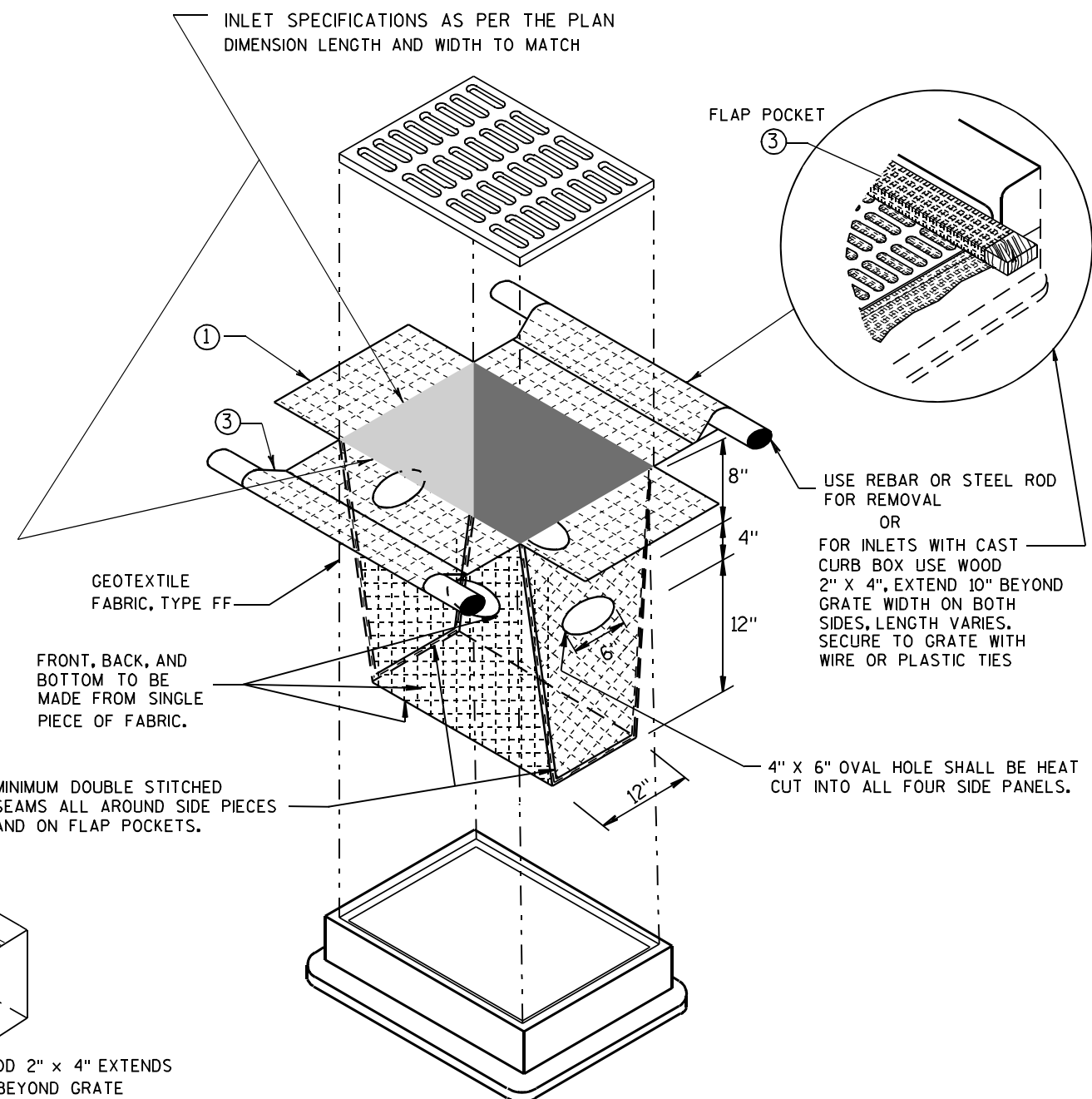
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



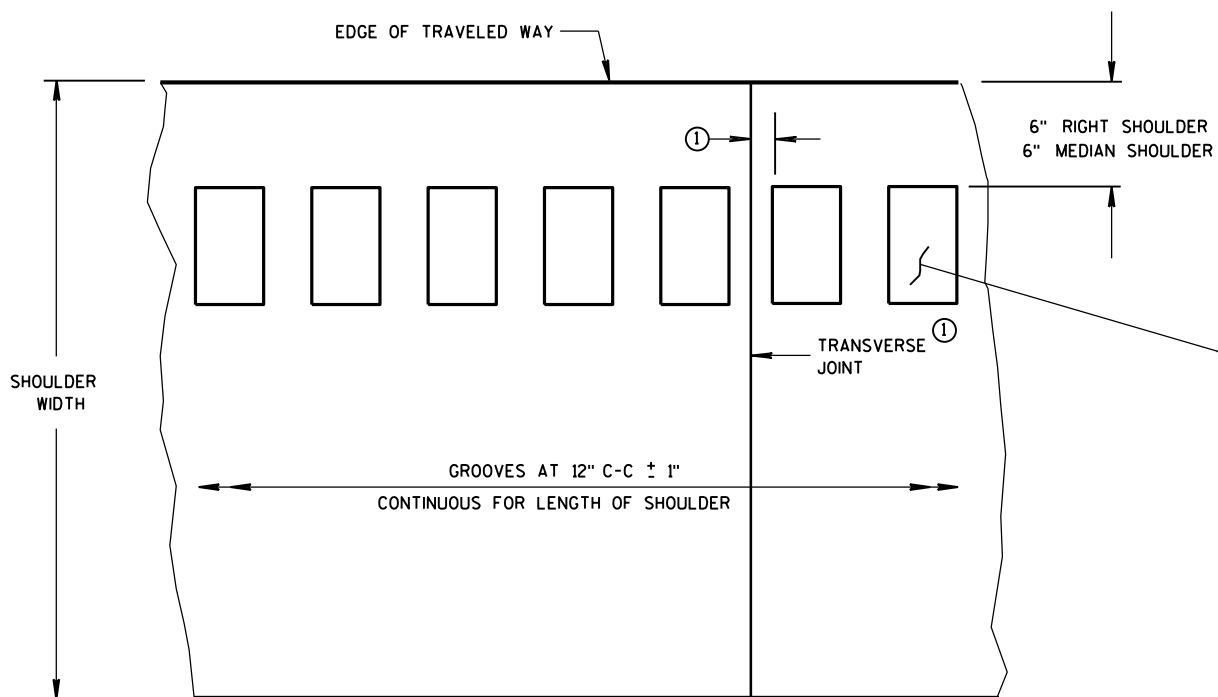
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

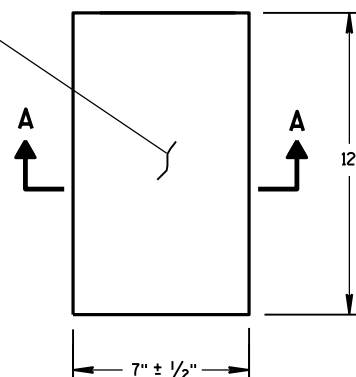
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

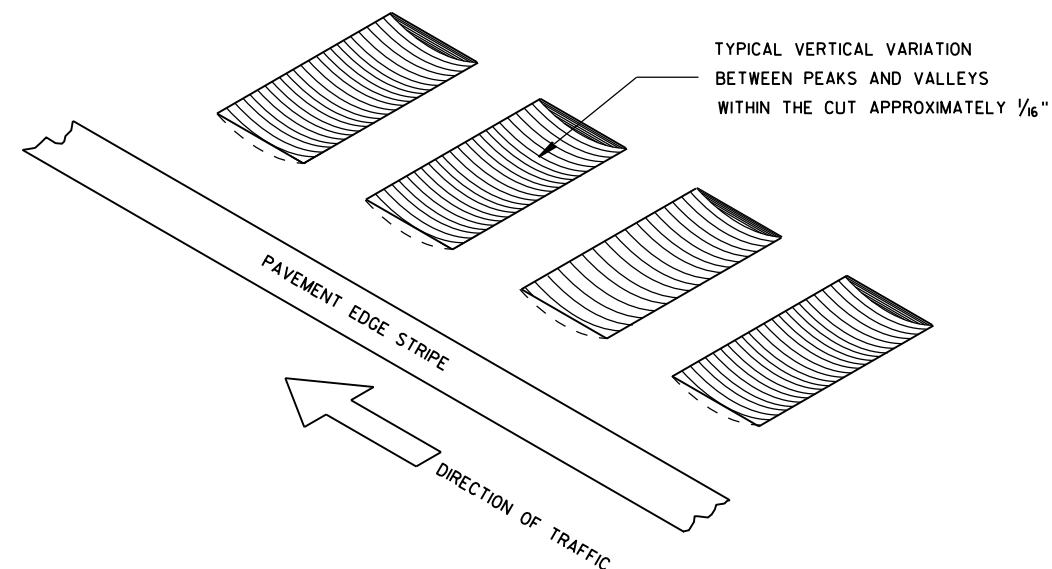
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

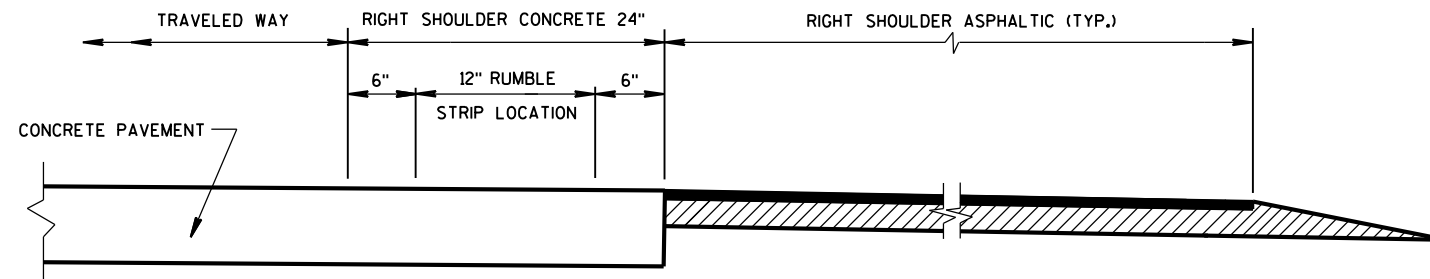
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

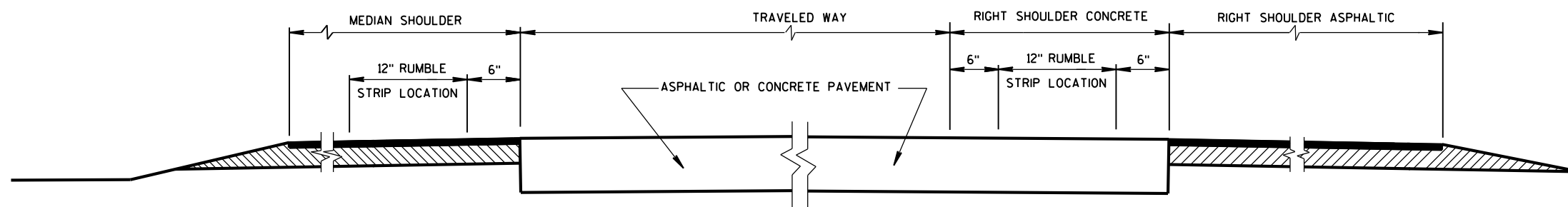
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



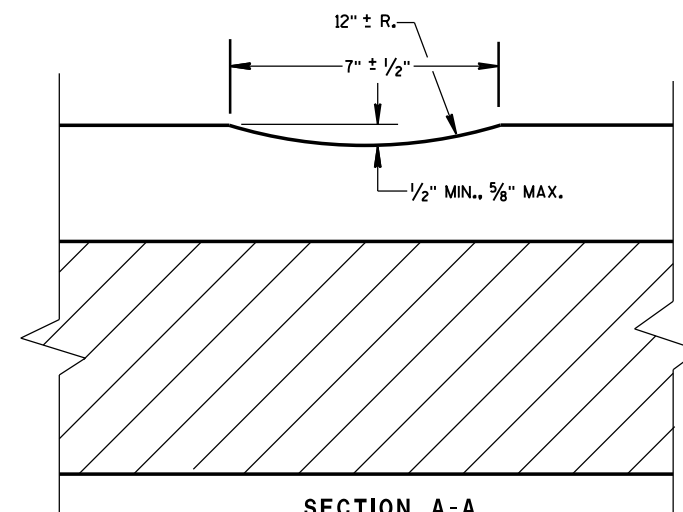
ISOMETRIC



SECTION VIEW
(CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



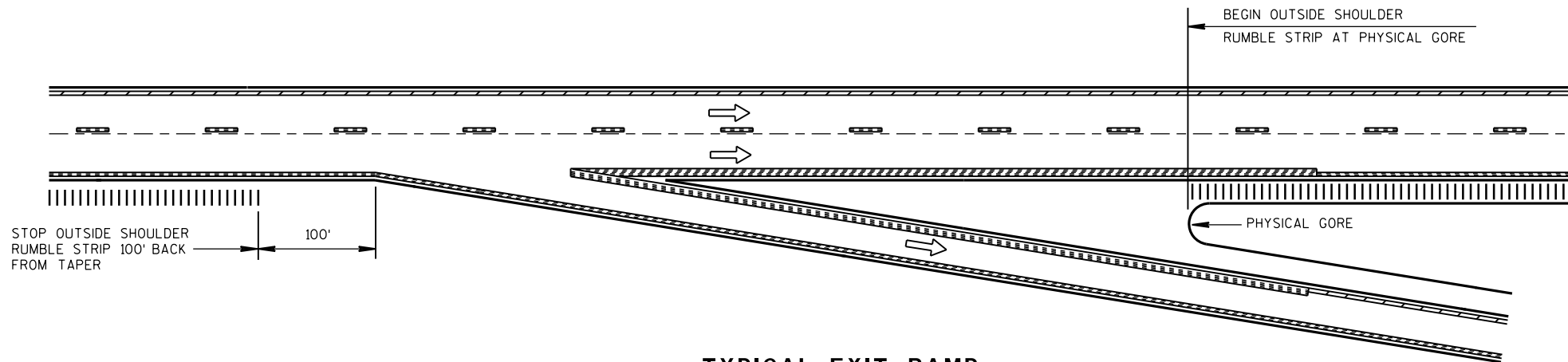
SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



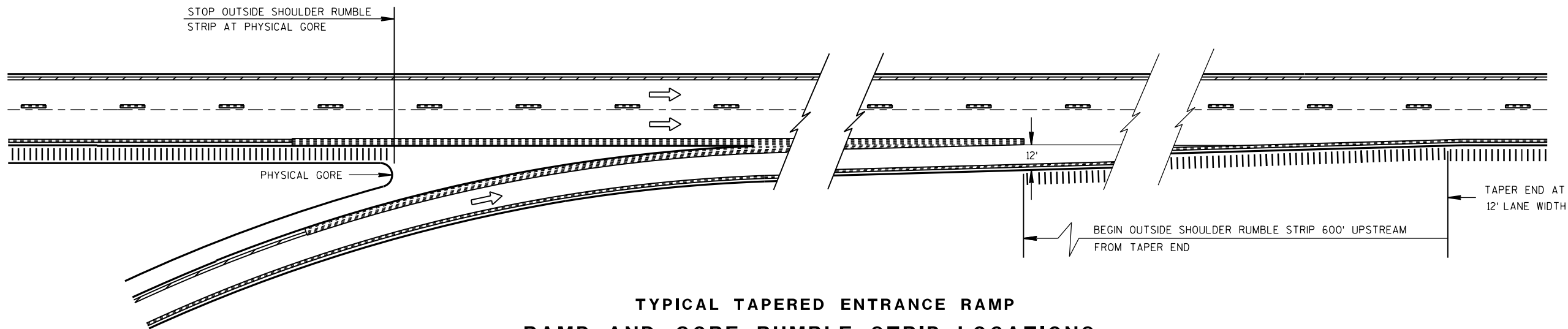
TYPICAL EXIT RAMP

NOTES:

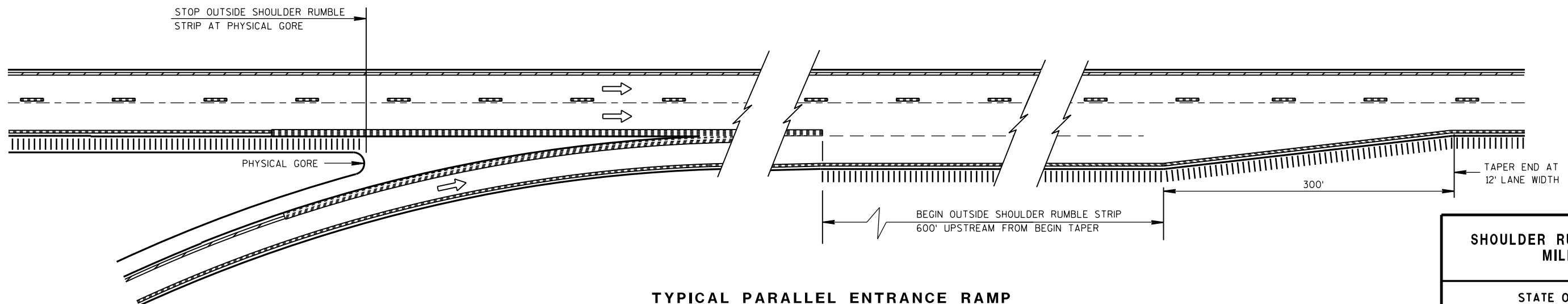
NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (→)
SHOWS DIRECTION OF TRAVEL



**TYPICAL TAPERED ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**



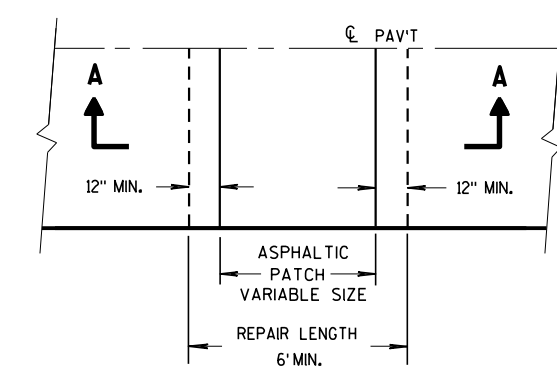
**TYPICAL PARALLEL ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**

**SHOULDER RUMBLE STRIP,
MILLING**

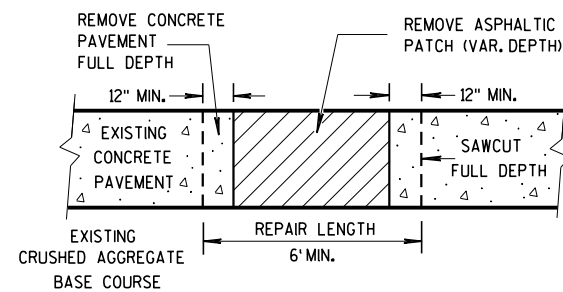
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

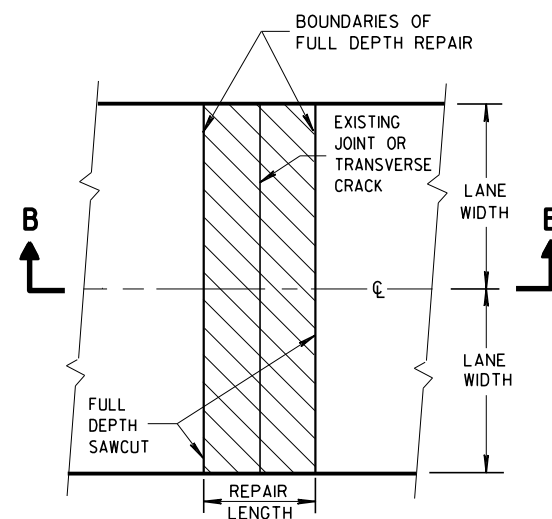
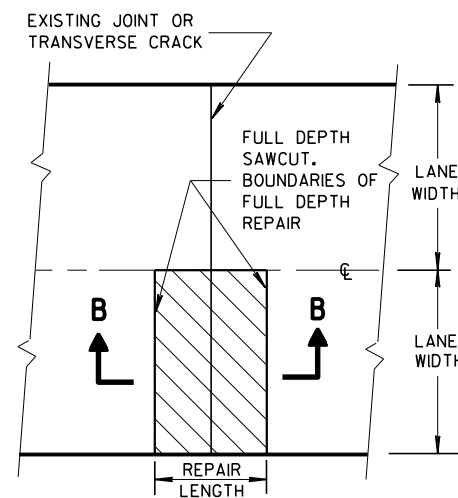


PLAN VIEW



SECTION A-A

HMA PATCH REMOVAL

PLAN VIEW
(DOUBLE LANE REPAIR)PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

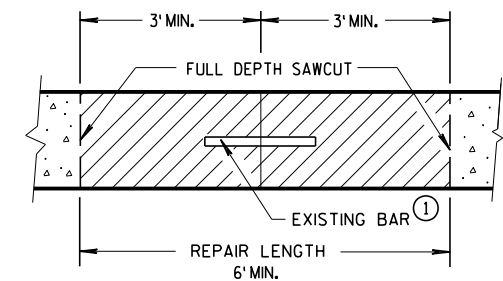
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

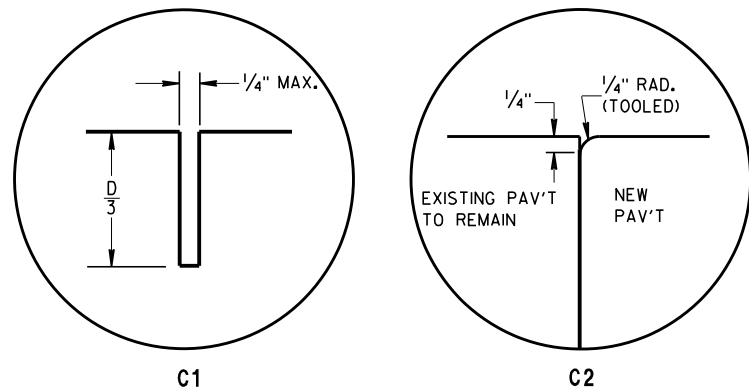
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

① DOWEL BARS MIGHT NOT EXIST.

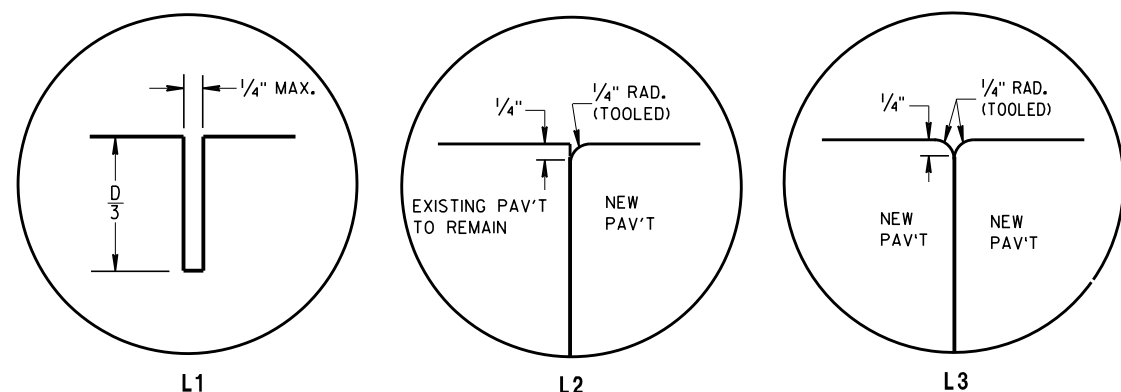
SECTION B-B
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR
AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TRANSVERSE JOINTS

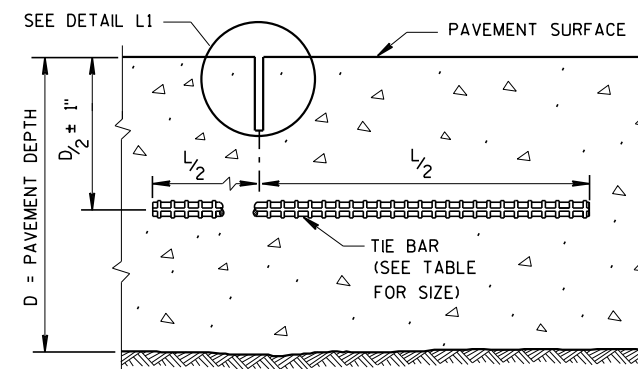


LONGITUDINAL JOINTS

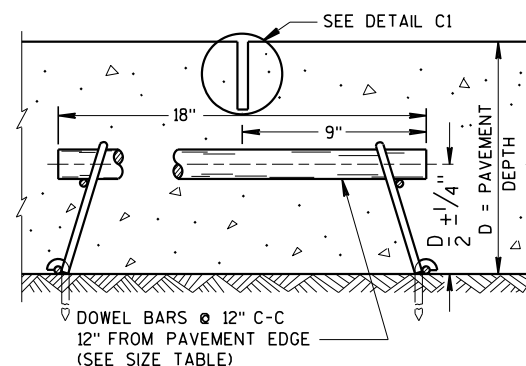
TIE BAR TABLE			
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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



SECTION C-C
SAWED LONGITUDINAL JOINT



SECTION F-F
CONTRACTION JOINT

GENERAL NOTES

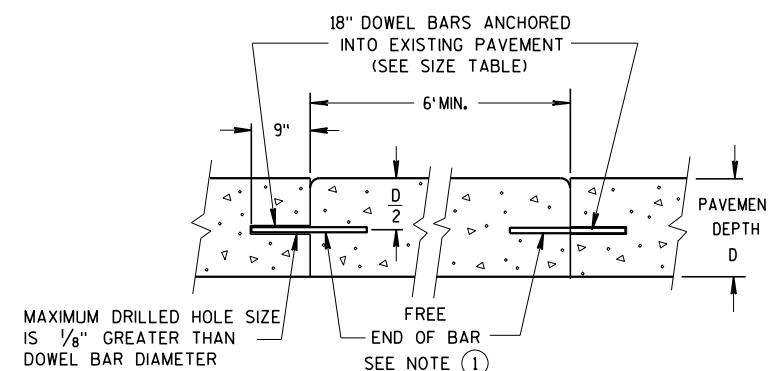
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

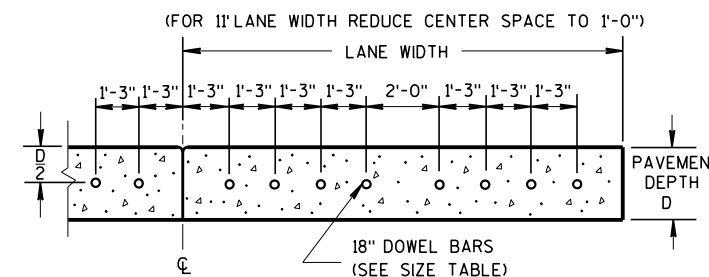
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D-D



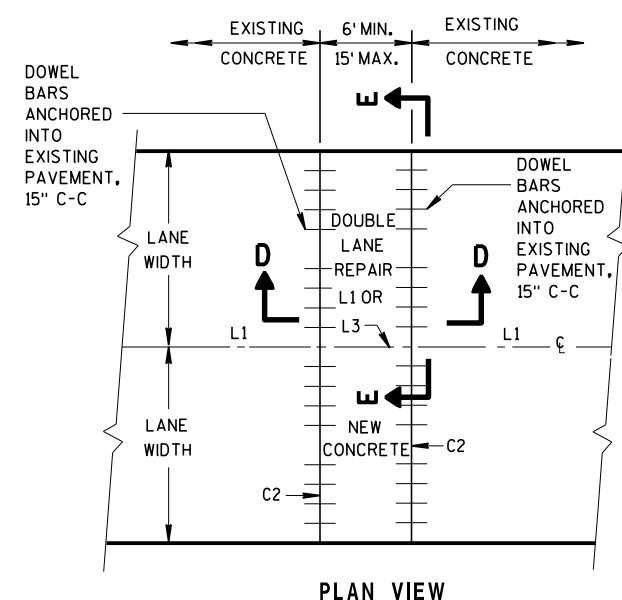
SECTION E-E
DRILLED DOWEL BAR CONSTRUCTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

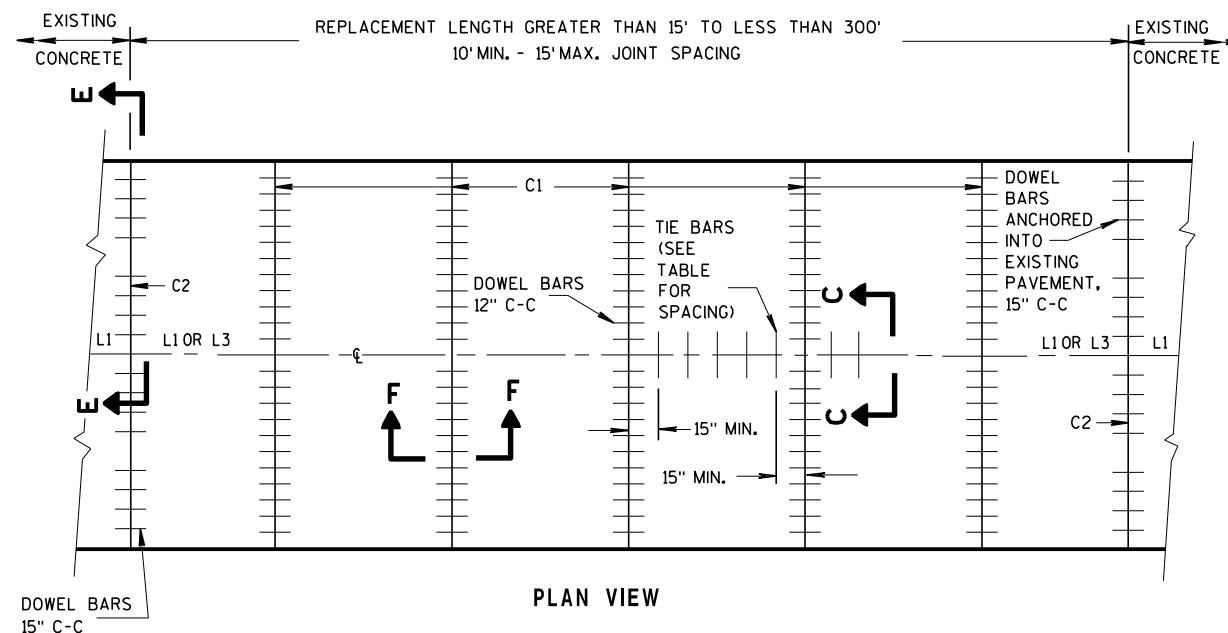
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'

CONCRETE PAVEMENT
REPAIR AND REPLACEMENT

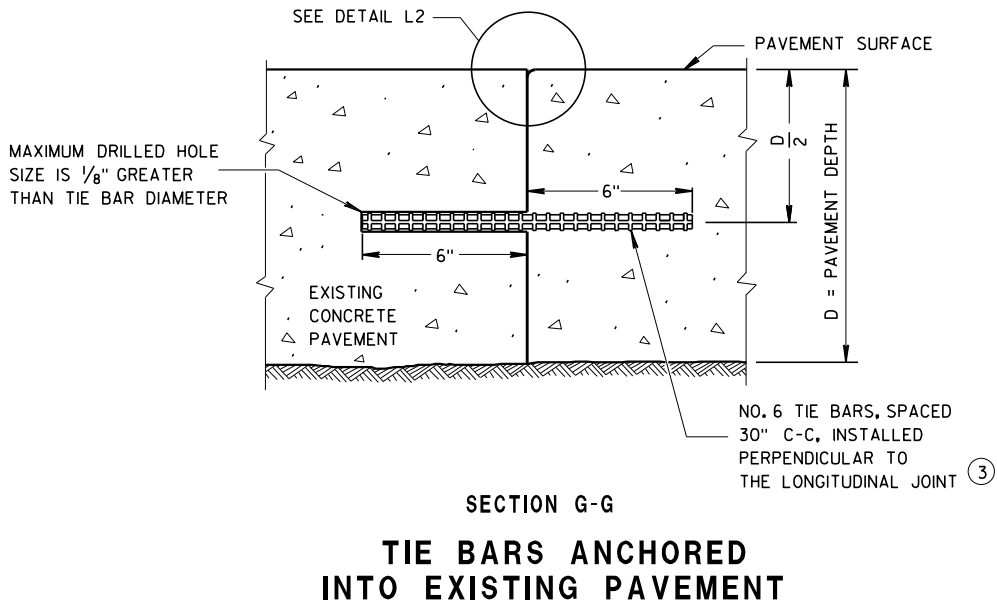
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MULTI-LANE CONCRETE PAVEMENT REPAIR

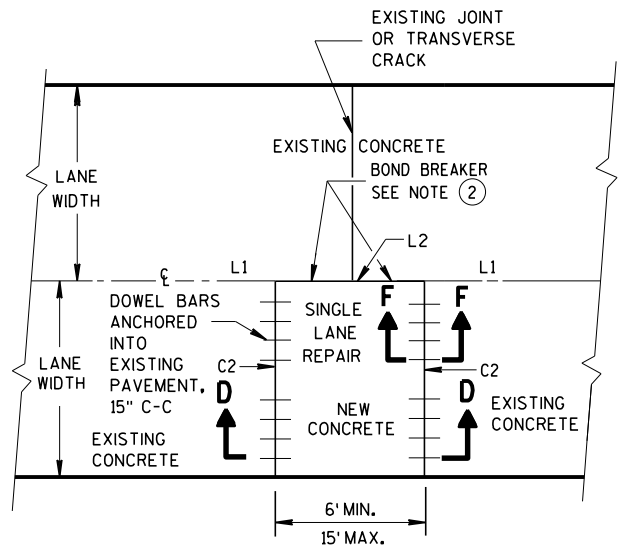


MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

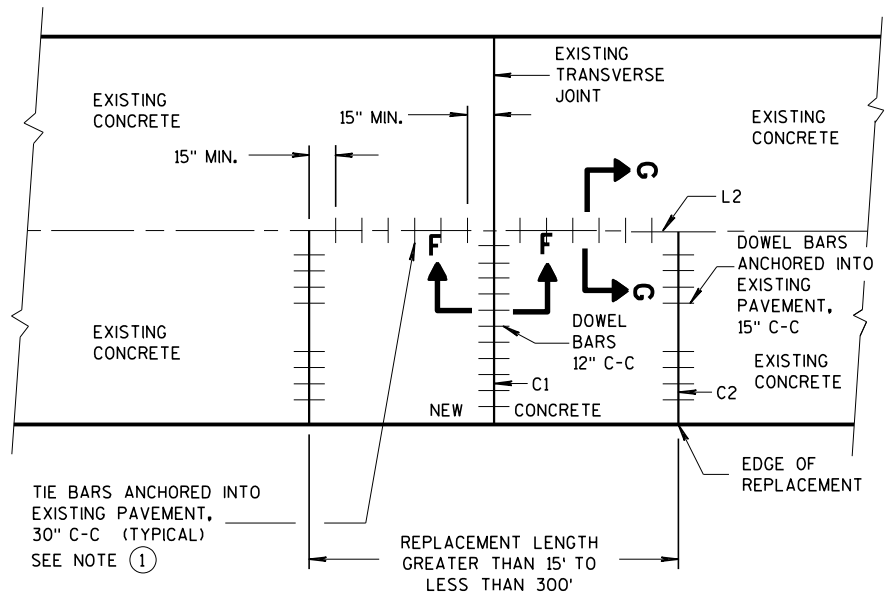


GENERAL NOTES

- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- ③ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

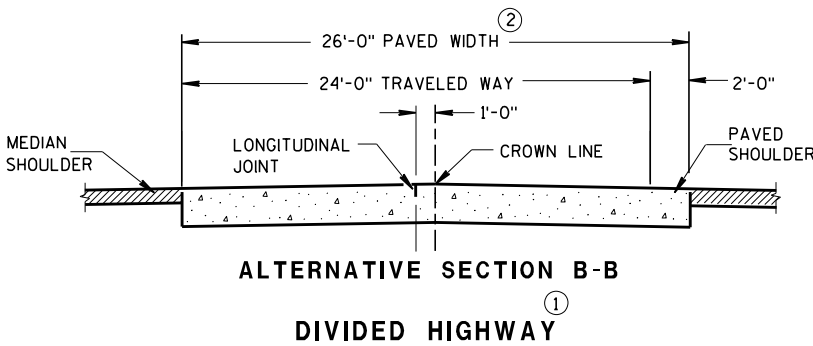
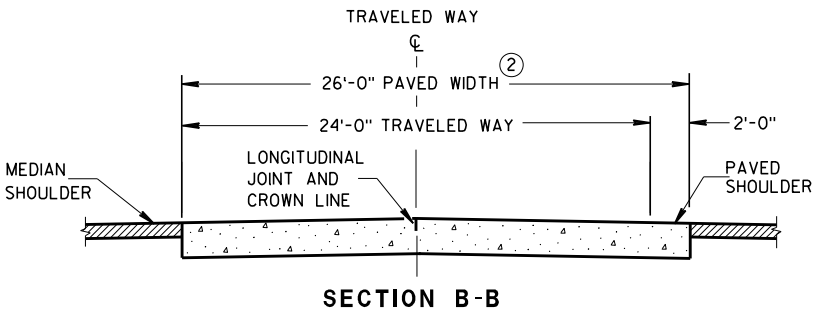
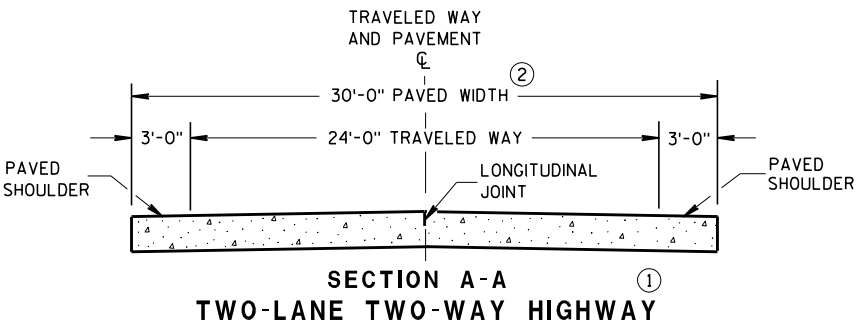


PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/S/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	



GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

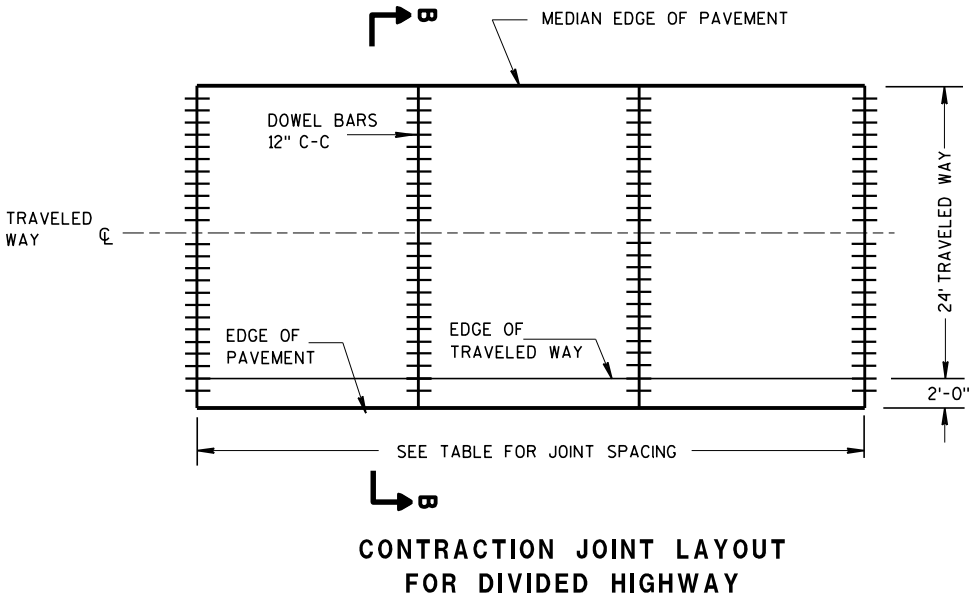
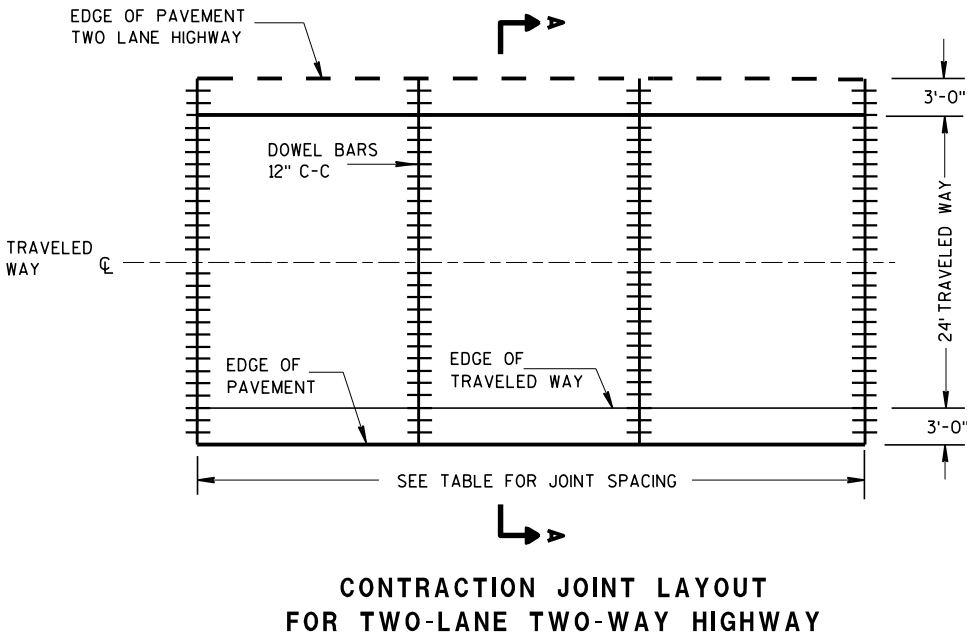
CONSTRUCTION JOINTS

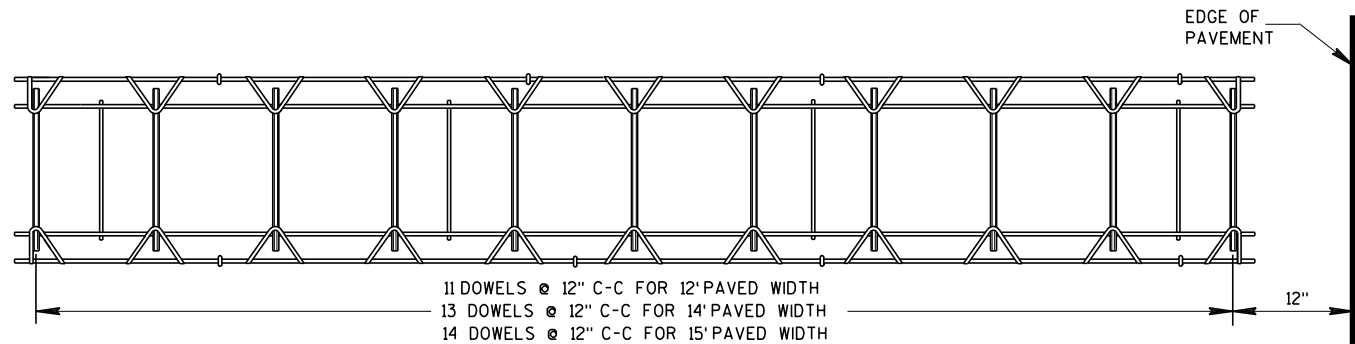
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

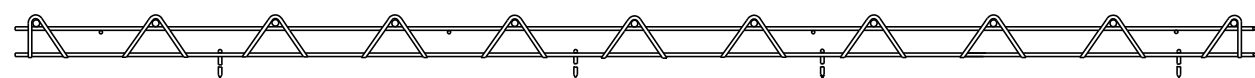
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'





PLAN VIEW

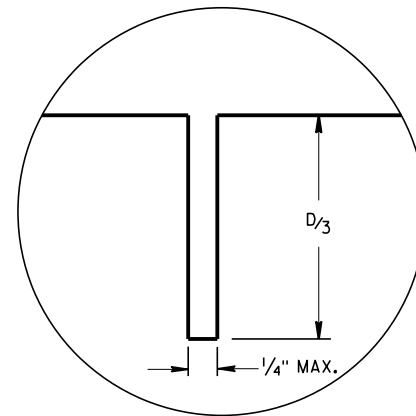


②

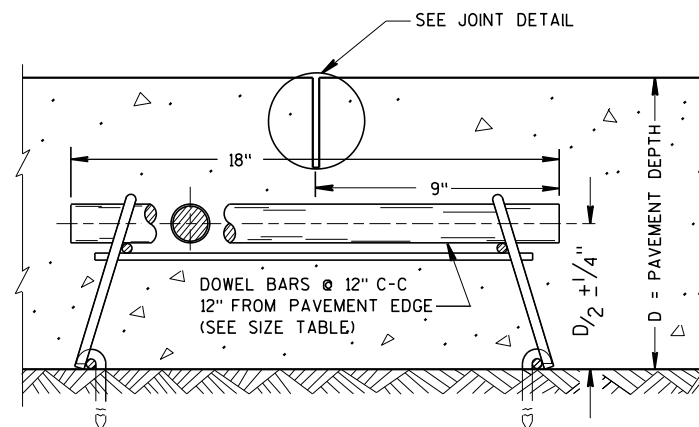
SIDE VIEW

(NORMAL TO CENTERLINE)

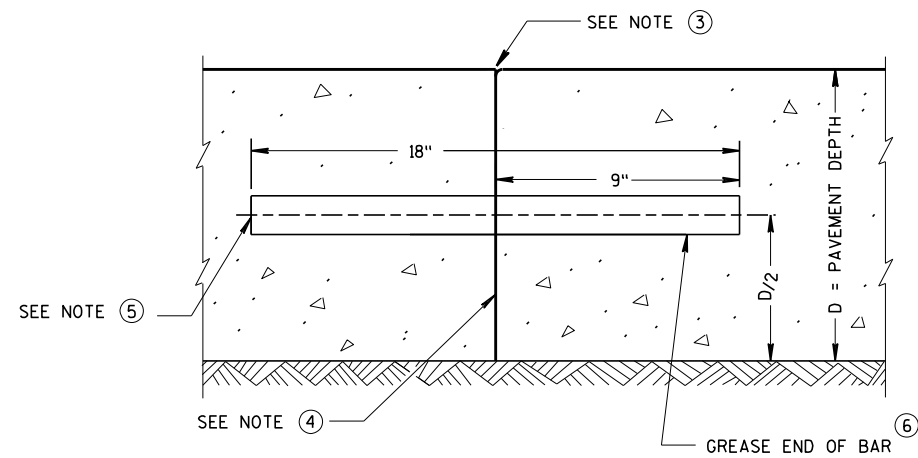
CONTRACTION JOINT DOWEL ASSEMBLY ①



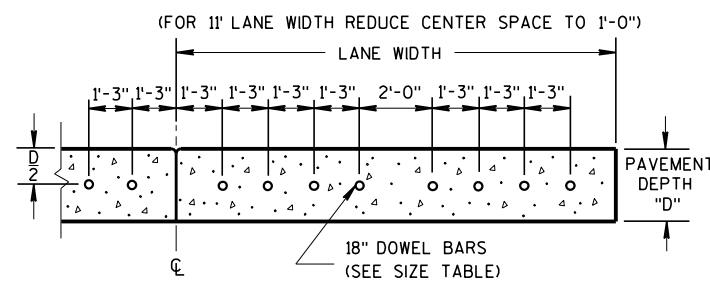
JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

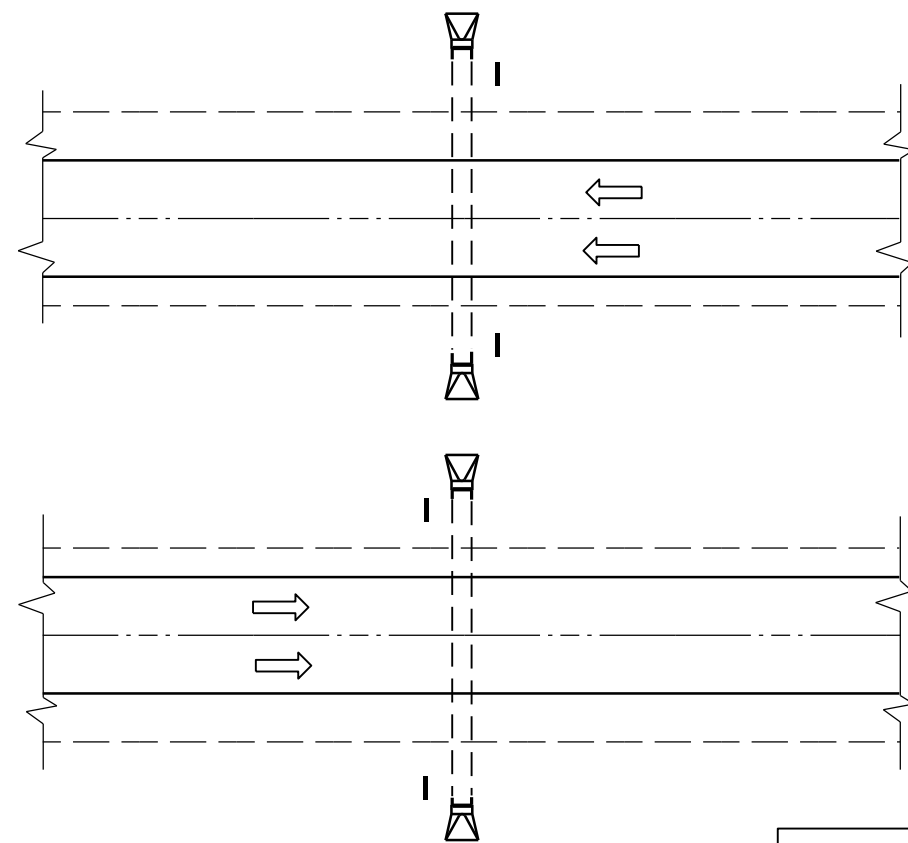
GENERAL NOTES

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

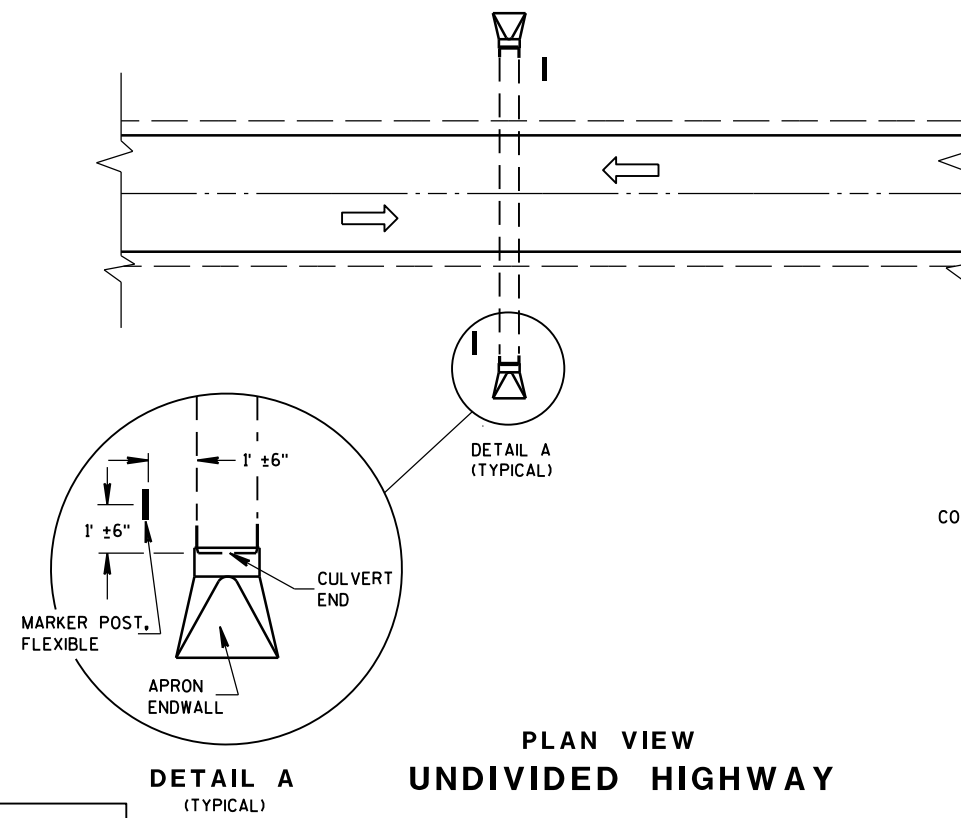
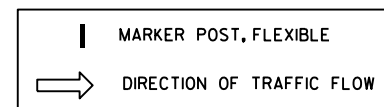
RURAL DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
DIVIDED HIGHWAY

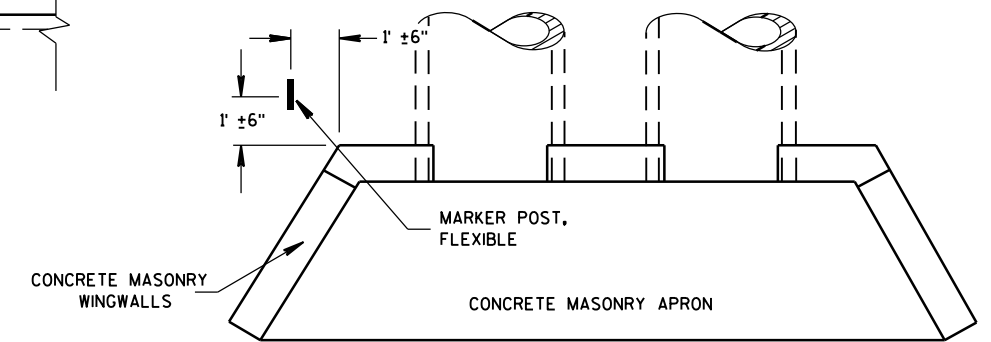


PLAN VIEW
UNDIVIDED HIGHWAY

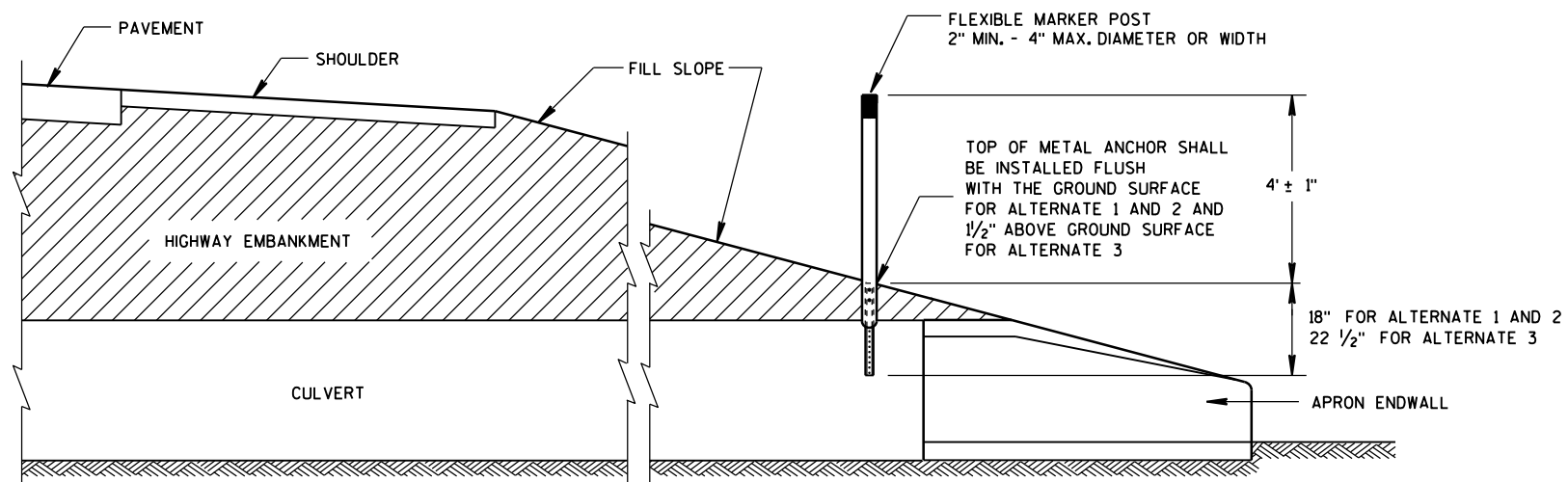
FLEXIBLE MARKER POST LOCATION

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.



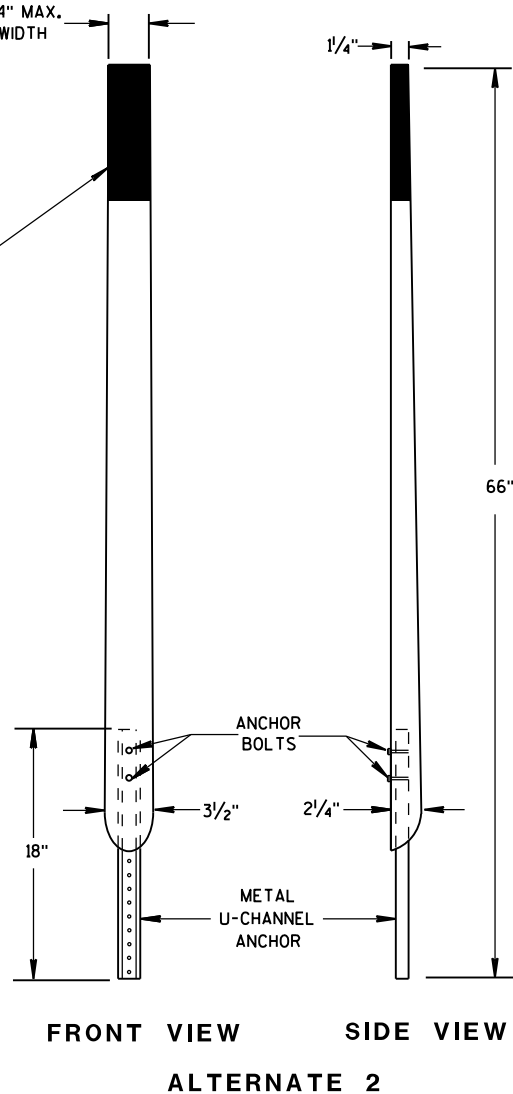
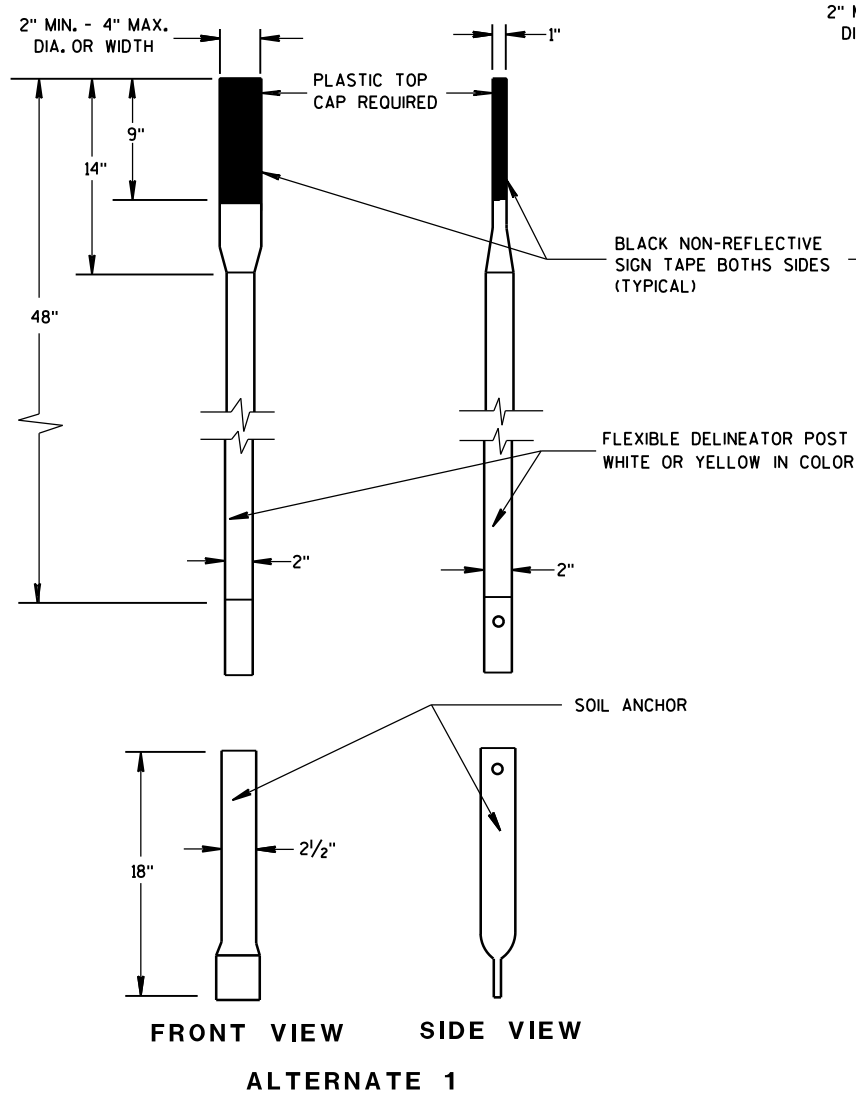
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



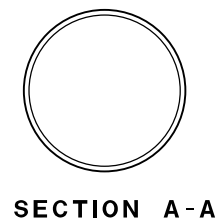
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

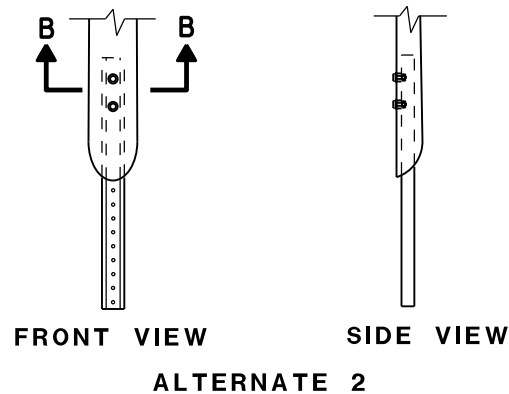
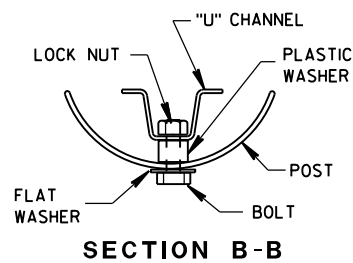
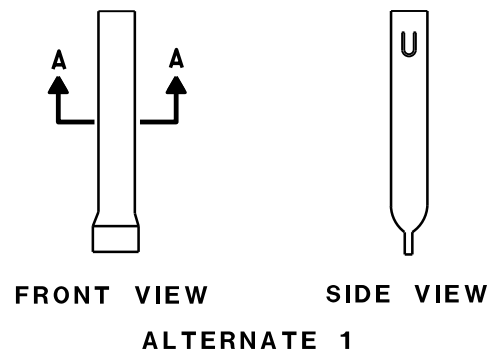
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



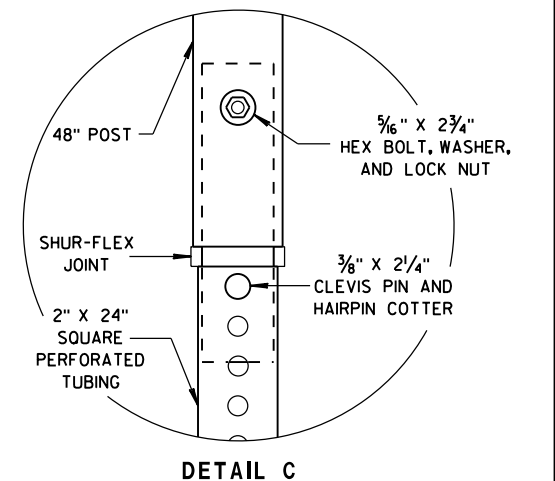
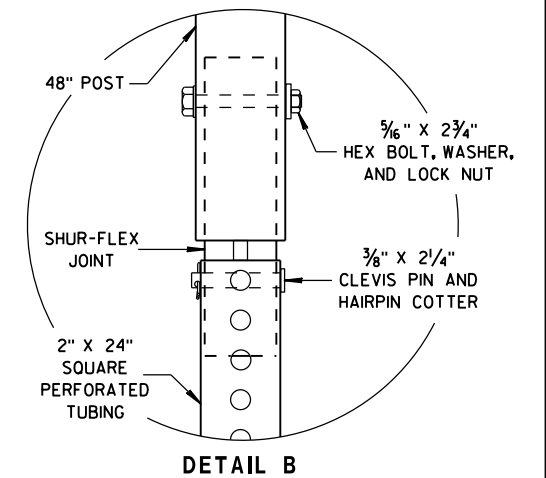
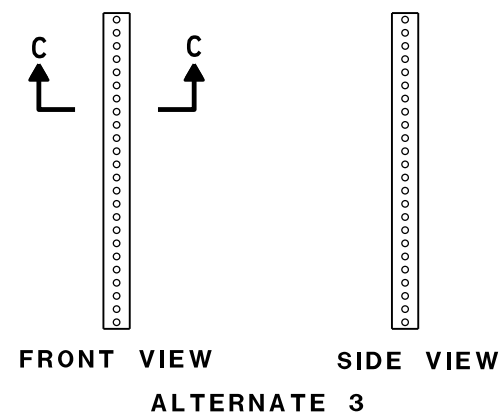
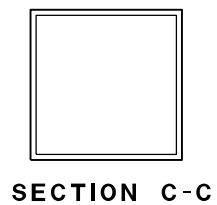
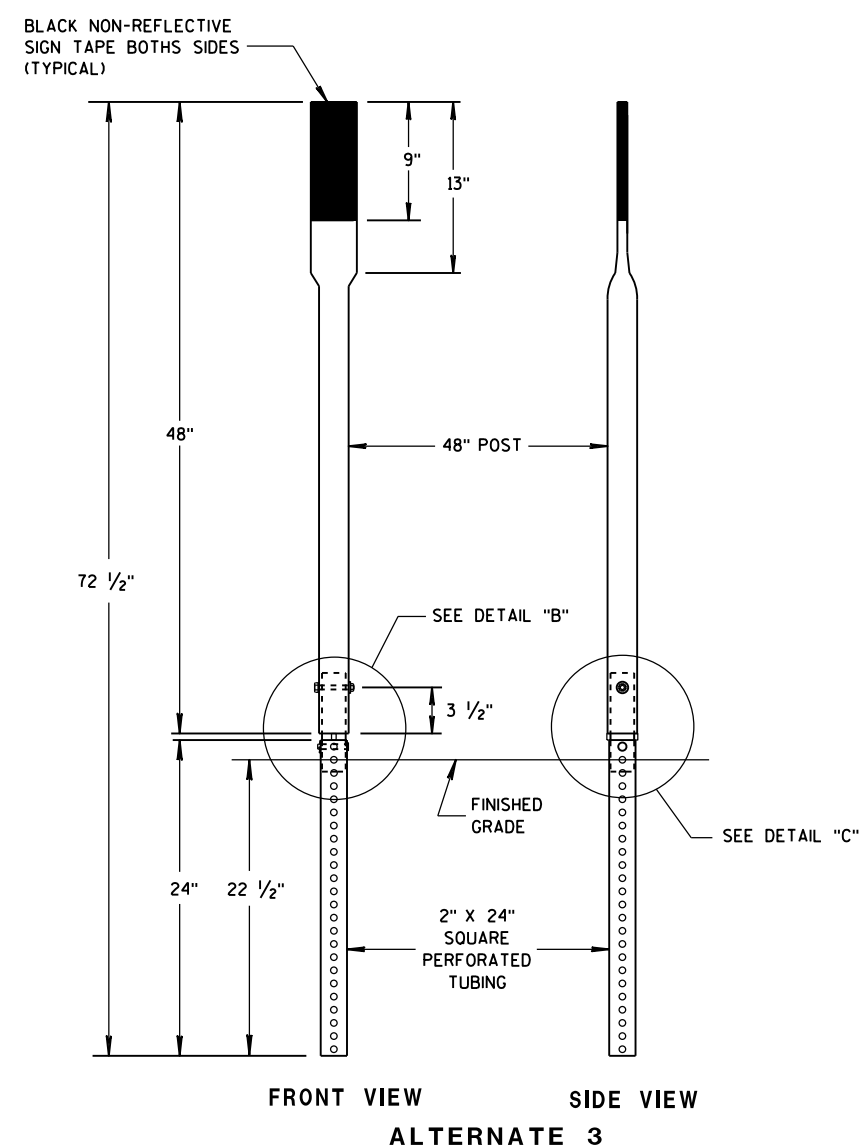
FLEXIBLE MARKER POSTS



SECTION A-A



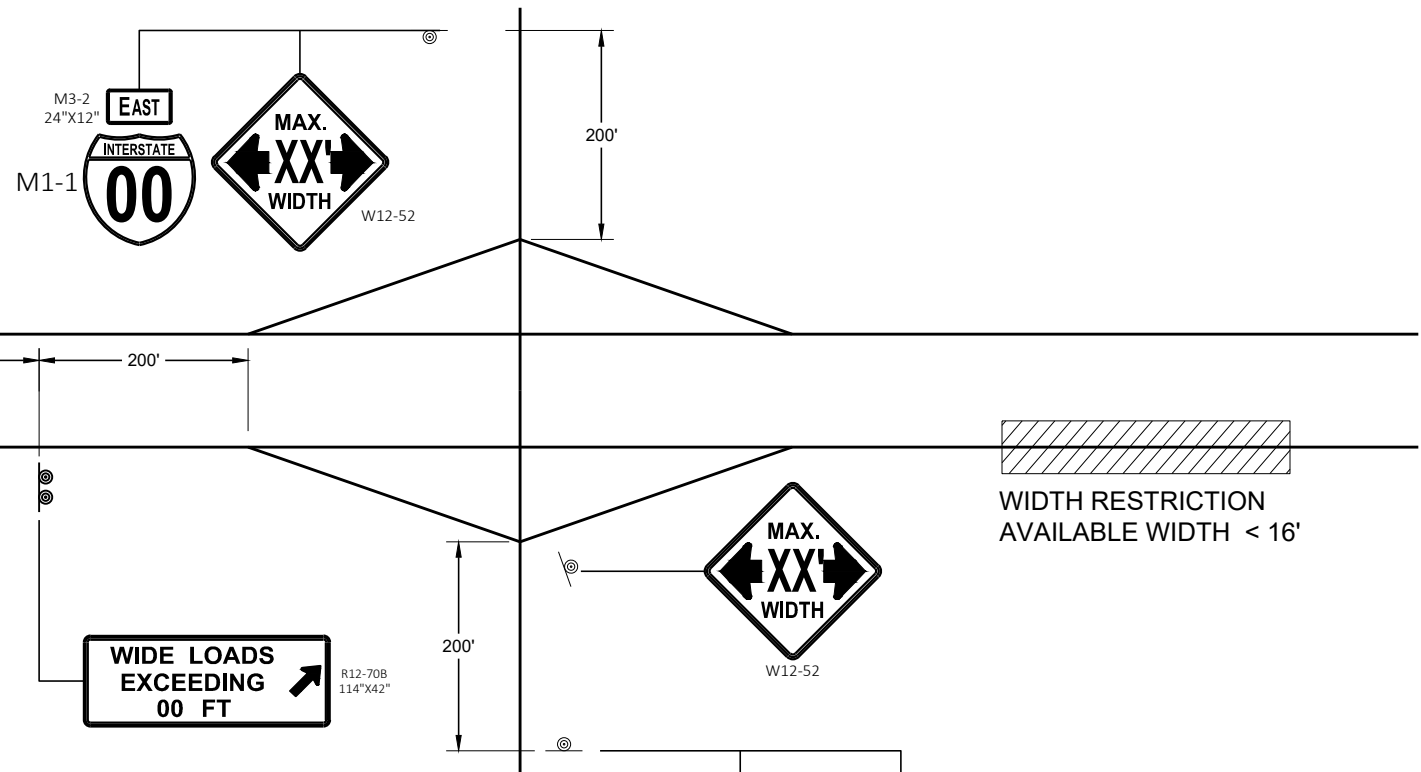
FLEXIBLE MARKER POST ANCHORS



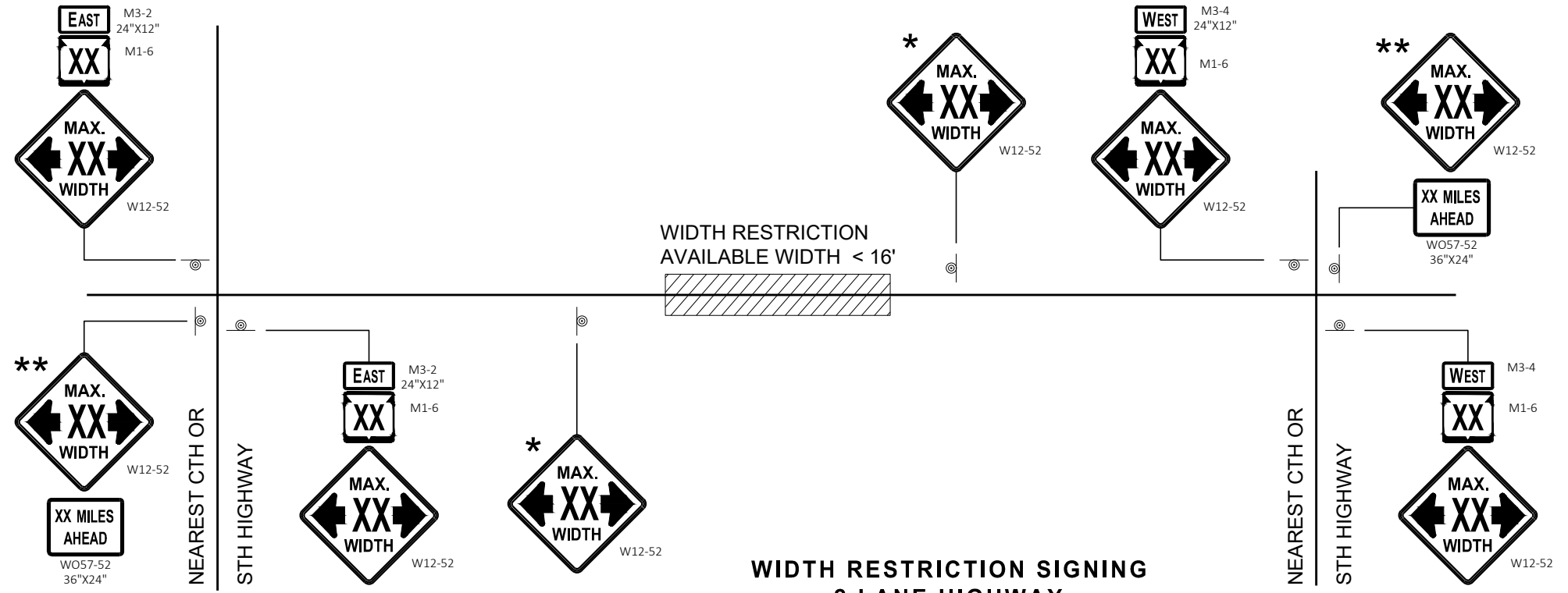
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

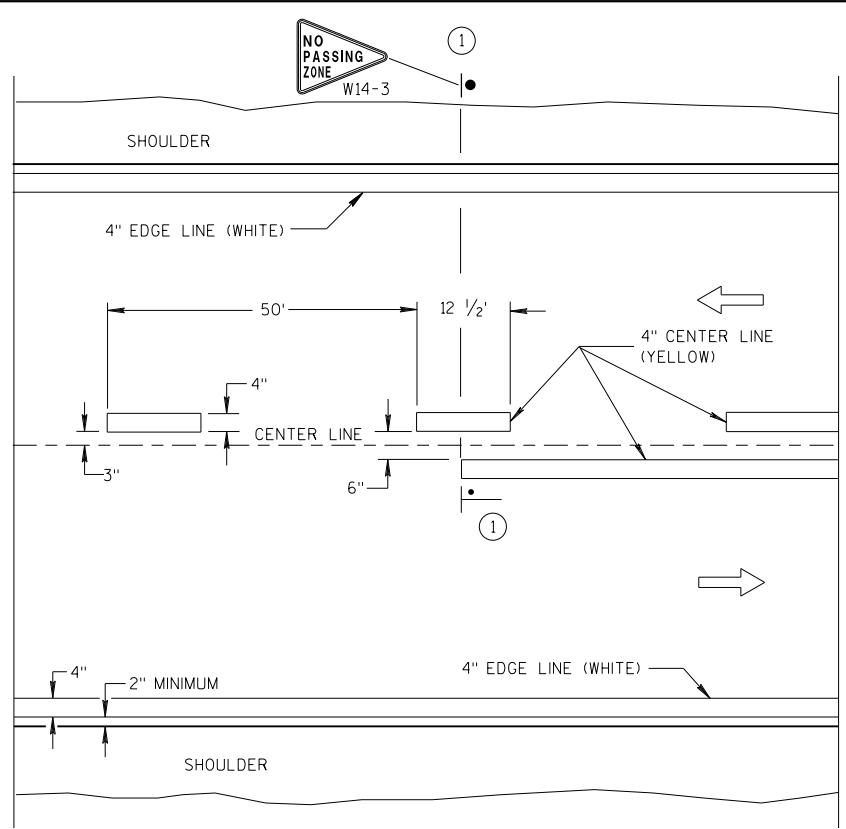
 SIGN ON PERMANENT SUPPORT

GENERAL NOTES

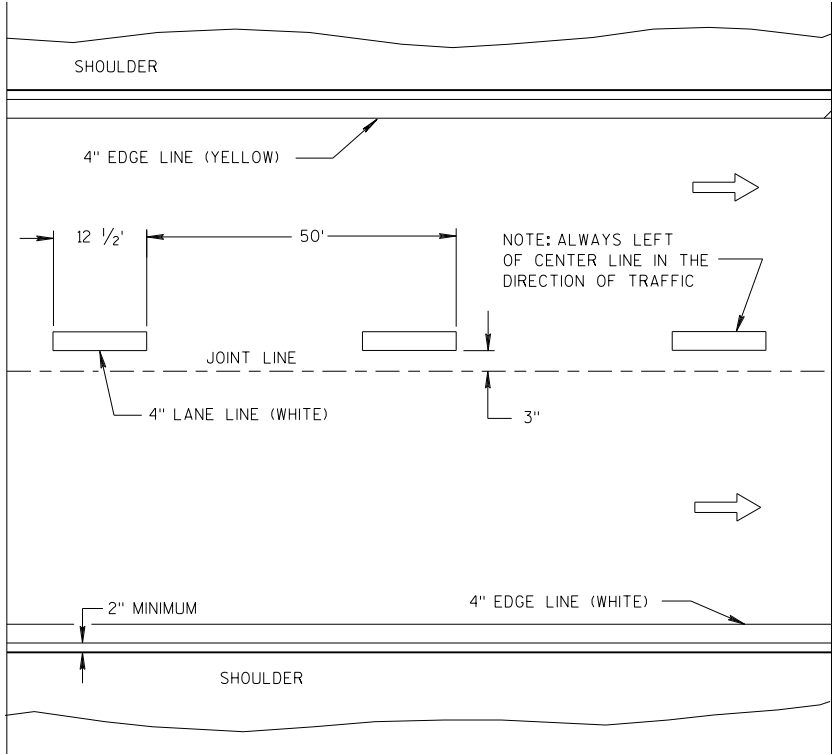
- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.
- *** PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
- **** SIGN SHALL BE VISIBLE FROM ROADWAY.
- ***** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



ADVANCED WIDTH RESTRICTION SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

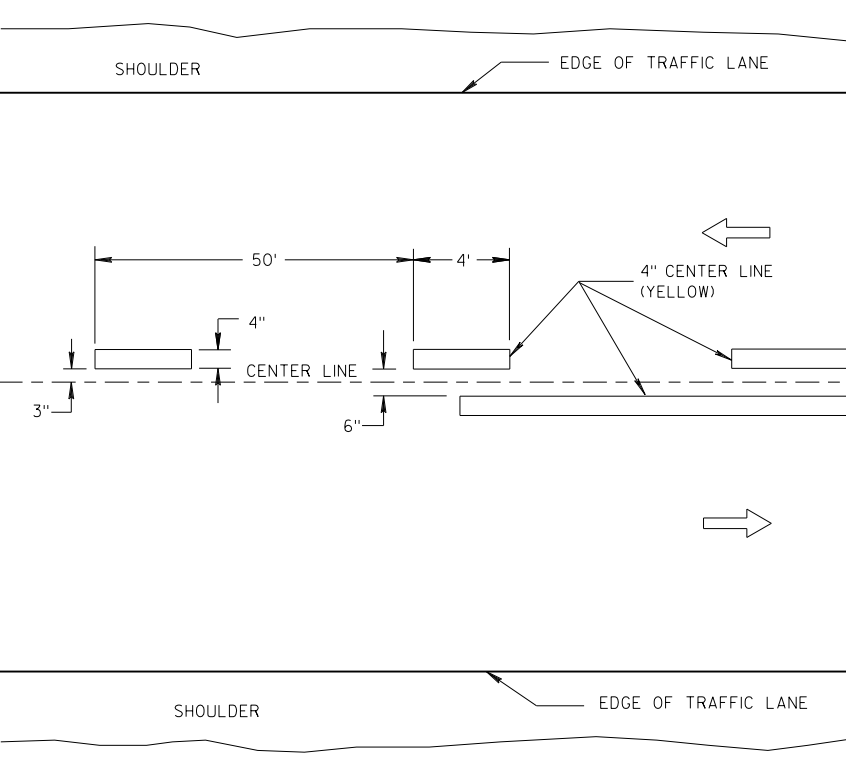


TWO WAY TRAFFIC

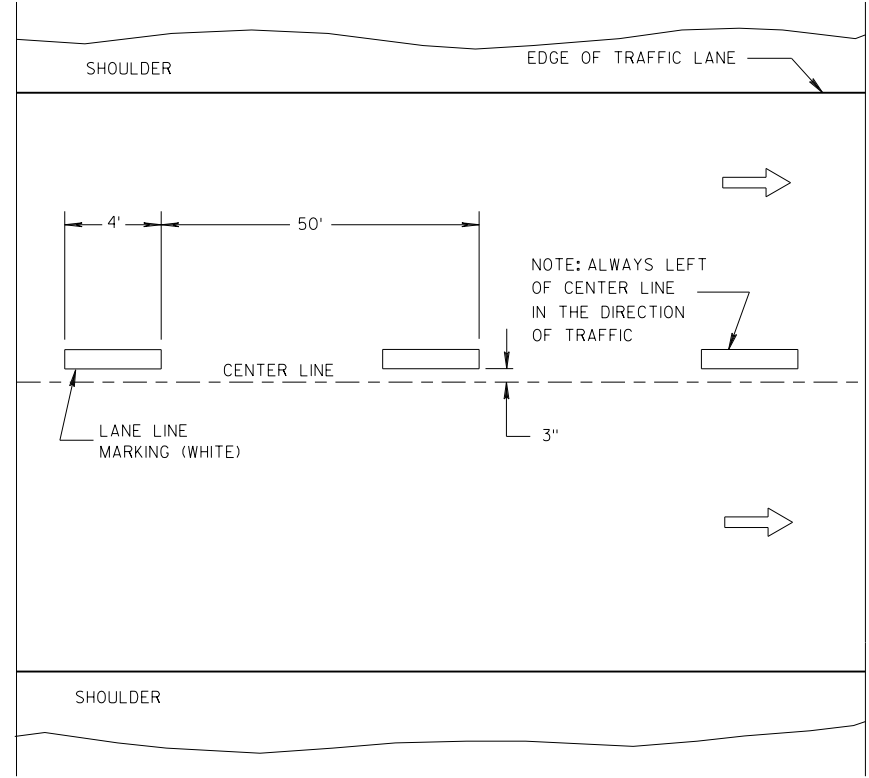


ONE WAY TRAFFIC

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 WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

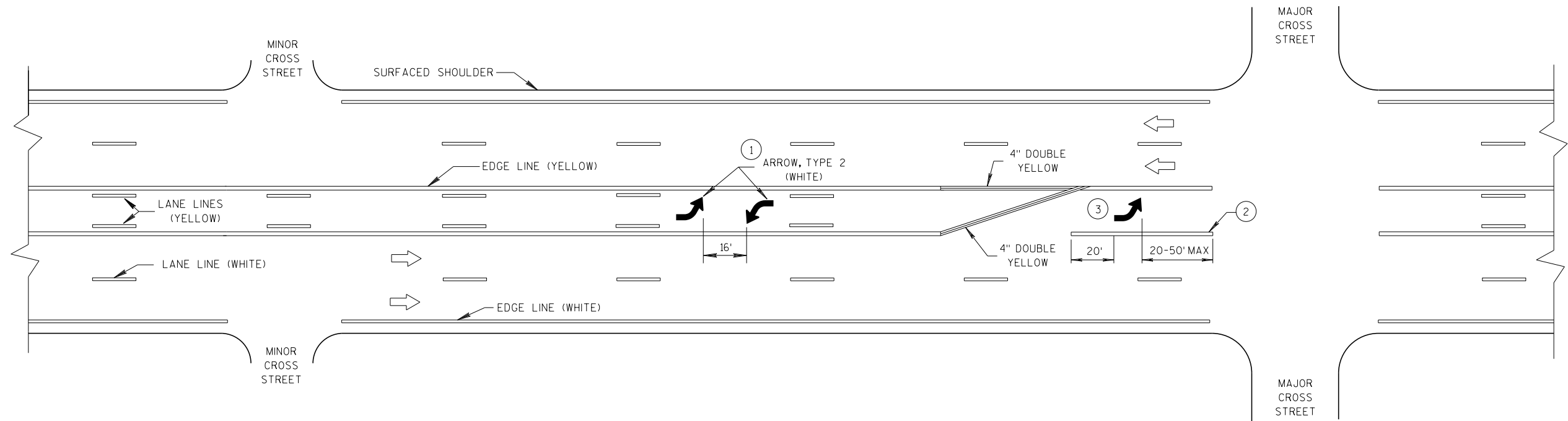
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

GENERAL NOTES

- 1 A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- 2 8" WHITE
- 3 TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



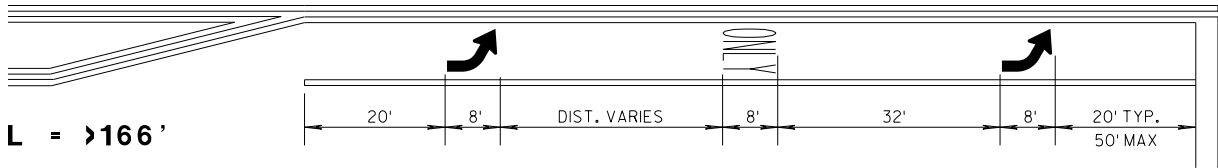
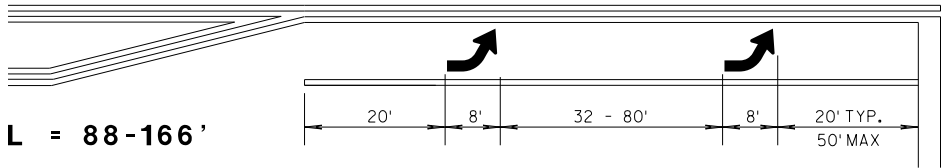
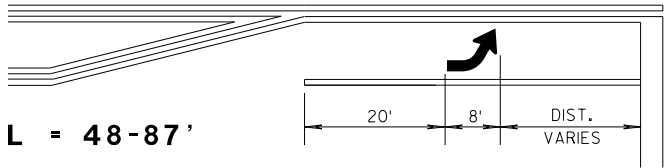
TWO WAY LEFT TURN LANE

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

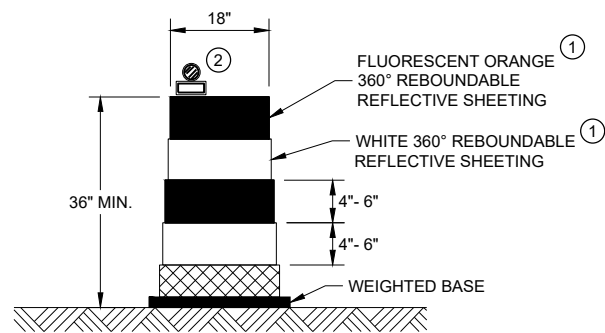
GENERAL NOTES

- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

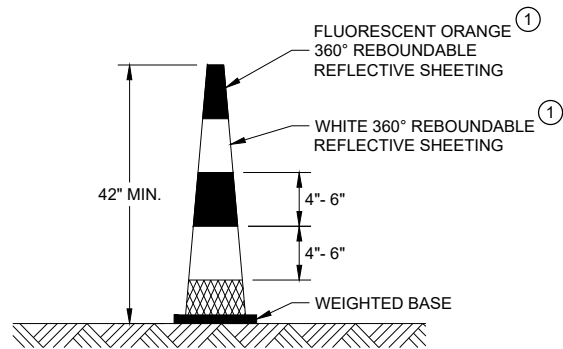
→ DIRECTION OF TRAFFIC
L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

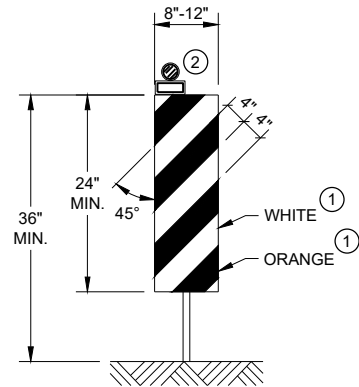


DRUM



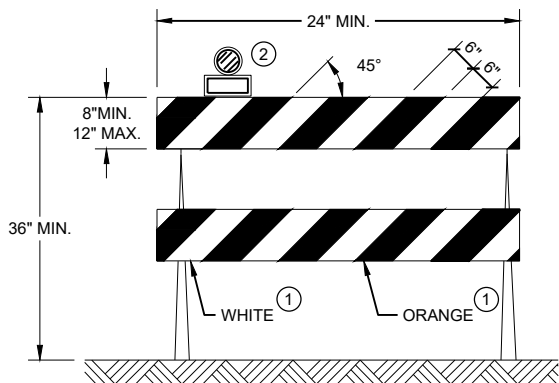
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



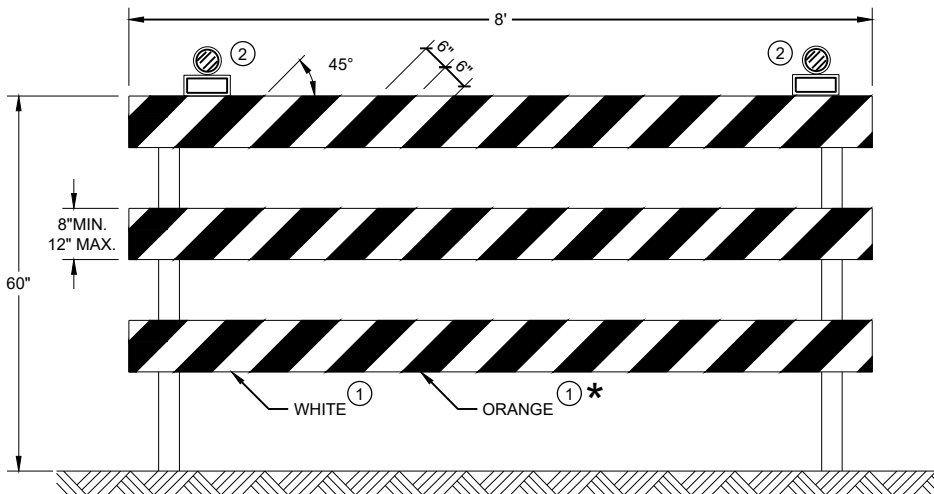
VERTICAL PANEL

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

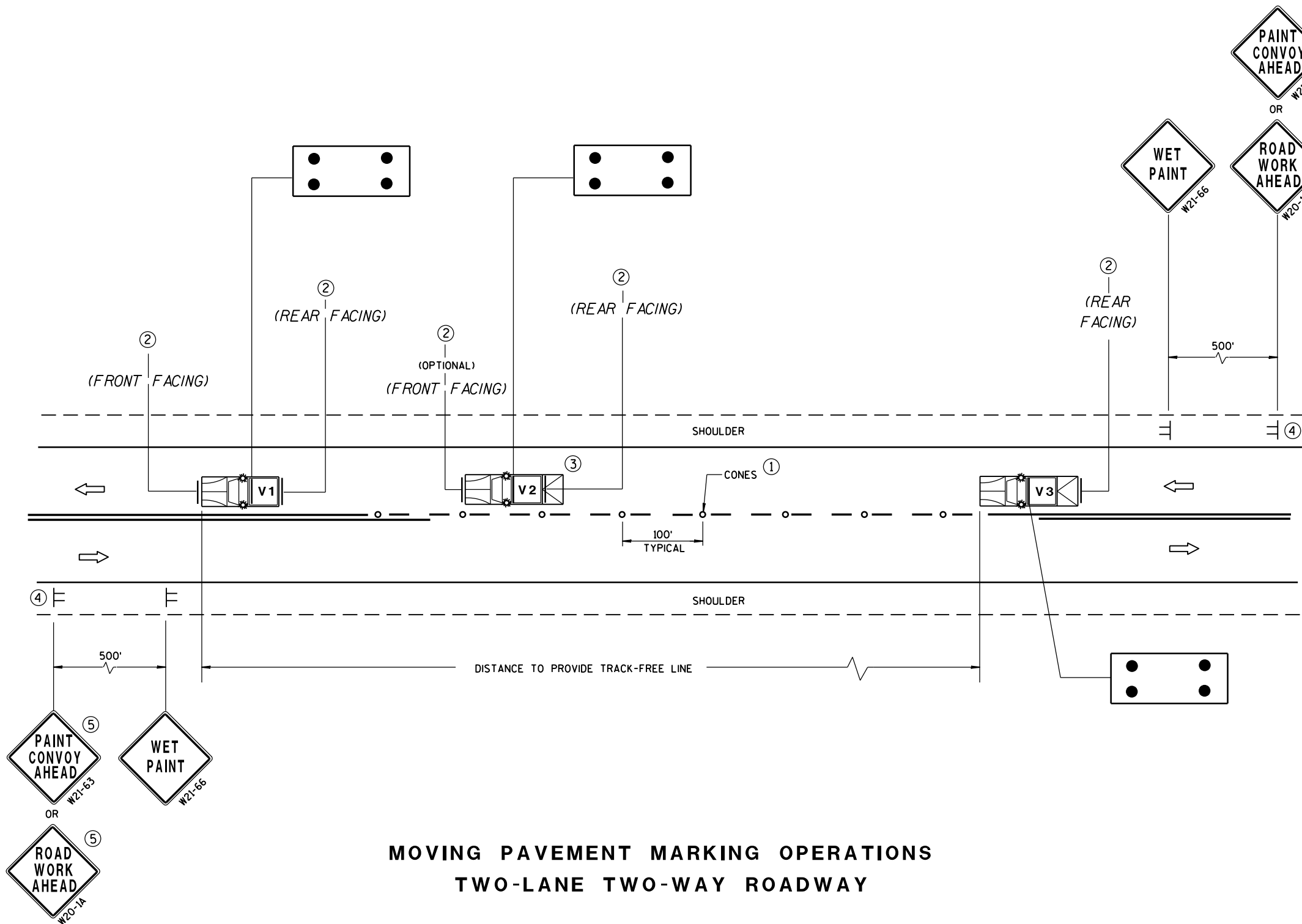
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

LEGEND

V1 LEAD VEHICLE
V2 SHADOW VEHICLE
V3 TRAIL VEHICLE WITH TMA
TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

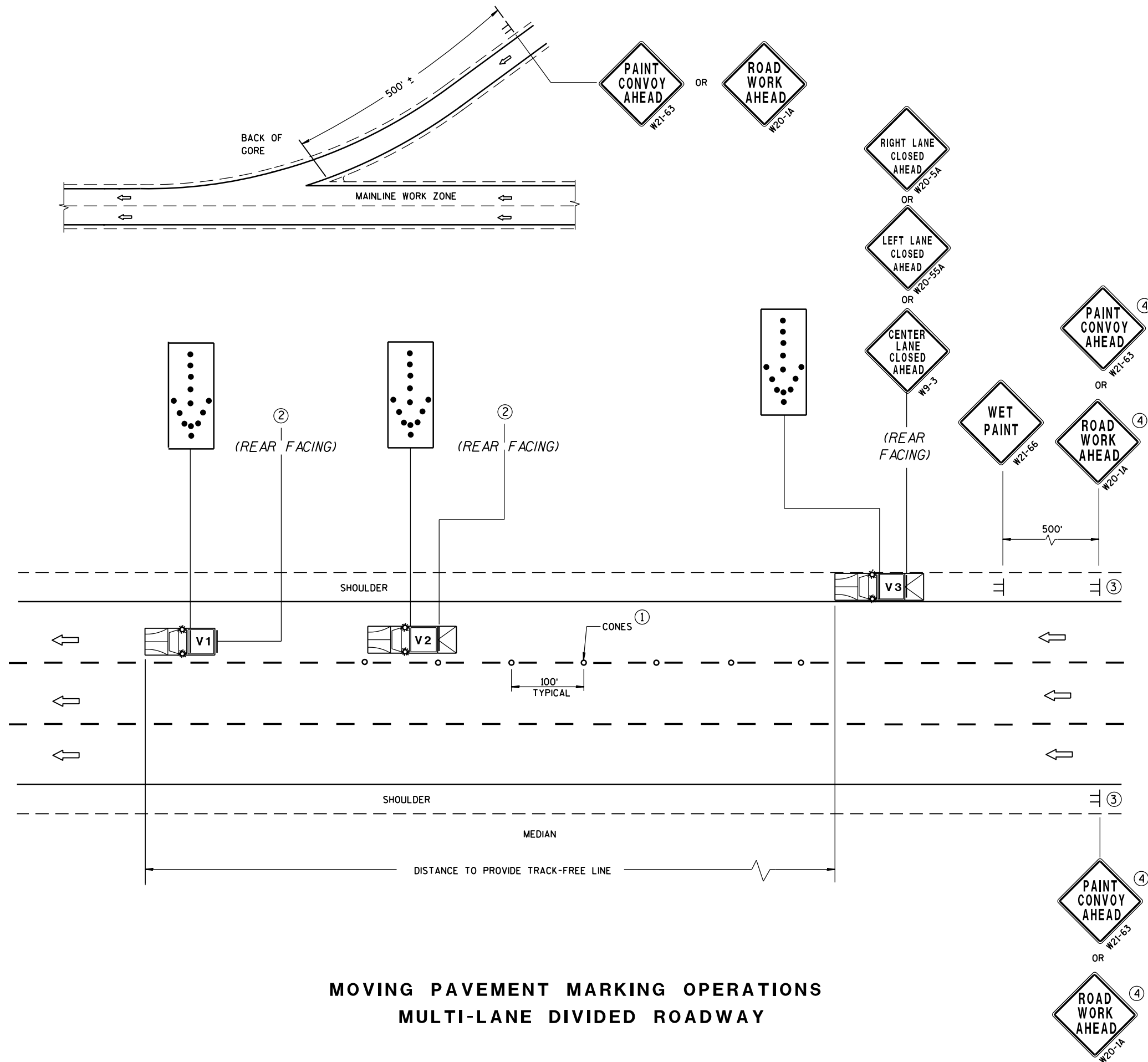
CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE Sept., 2017 /S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

 WET PAINT

OR

WET PAINT 

W21-64W21-64
- ③ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.
- ④ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

 **TMA** TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

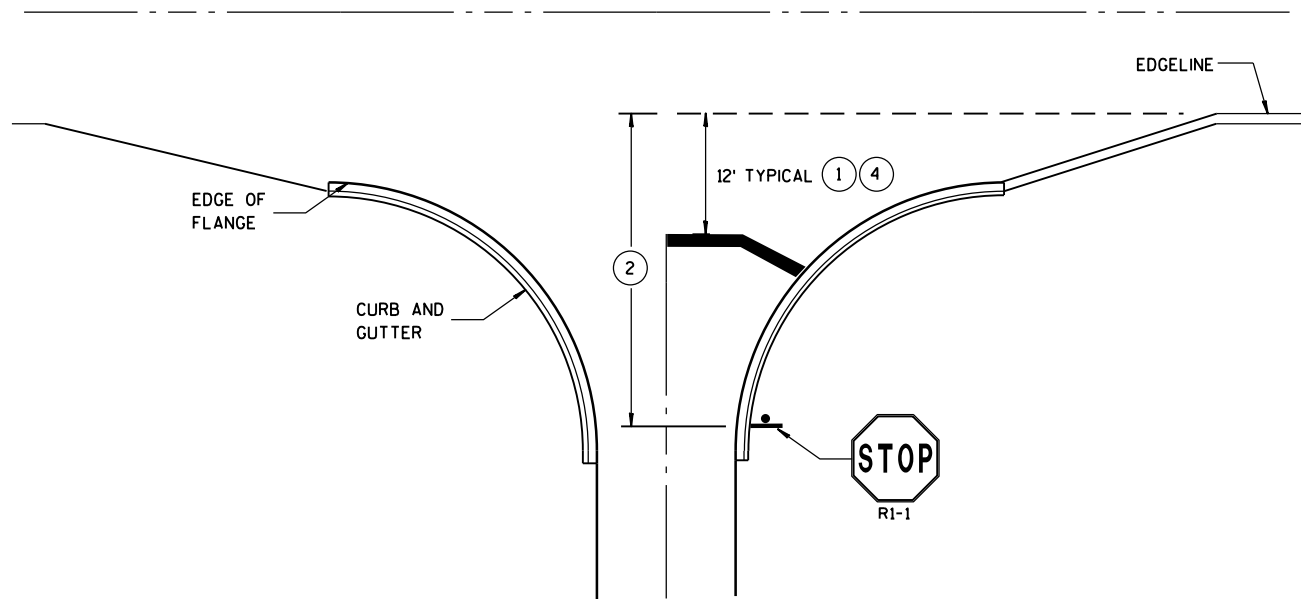
○ CONES

 FLASHING
ARROW
PANEL (MERGE)

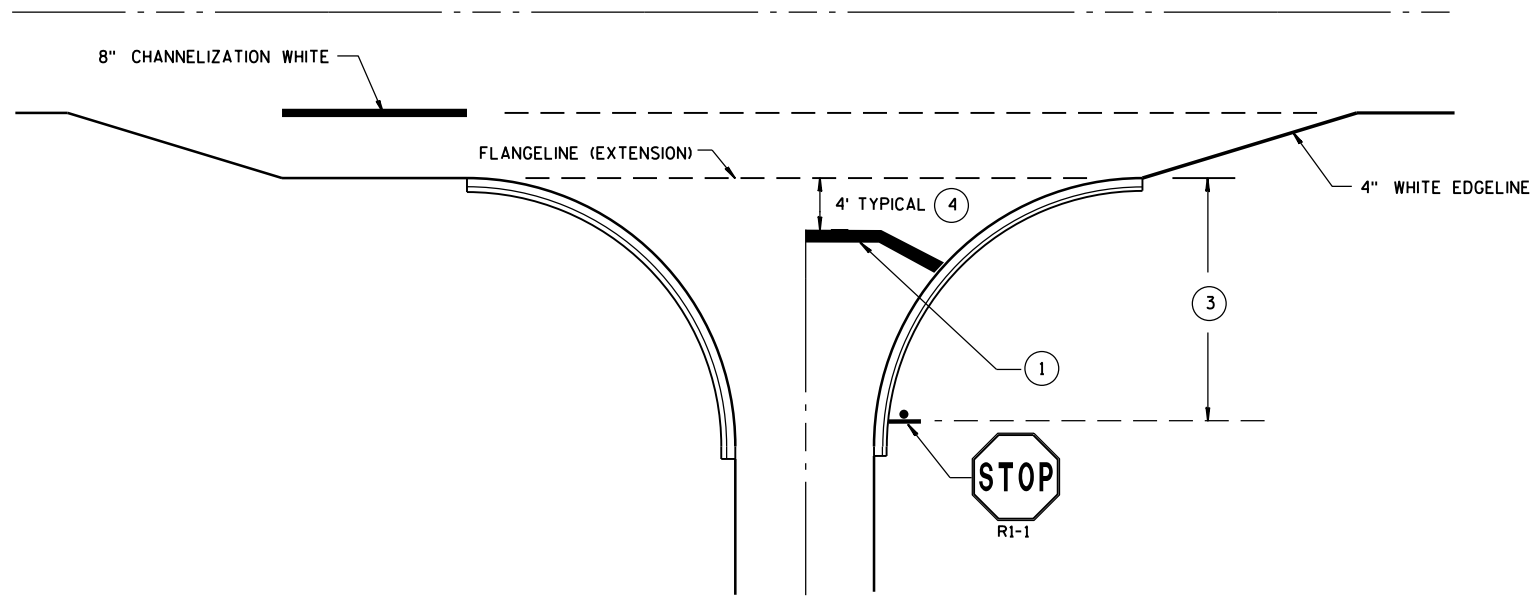
MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2017 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA



TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER

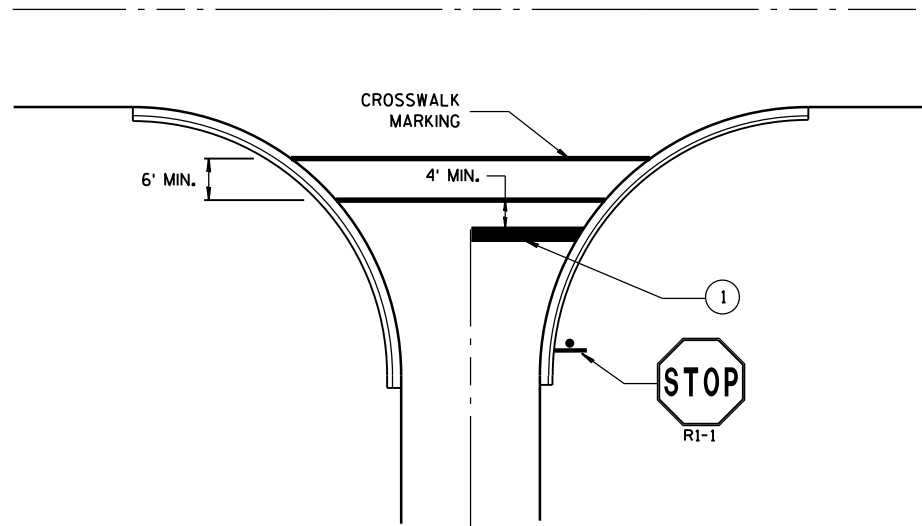


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE

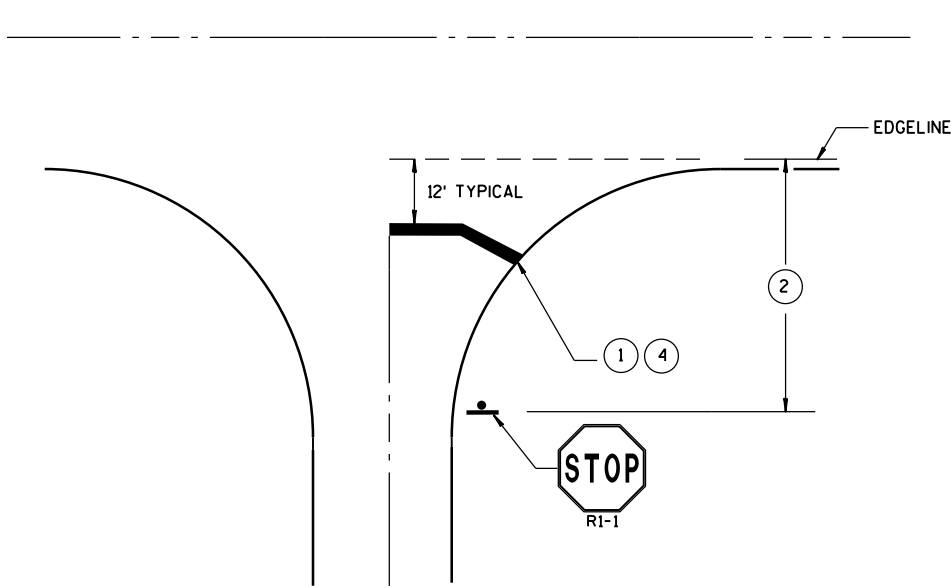
GENERAL NOTES

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 PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

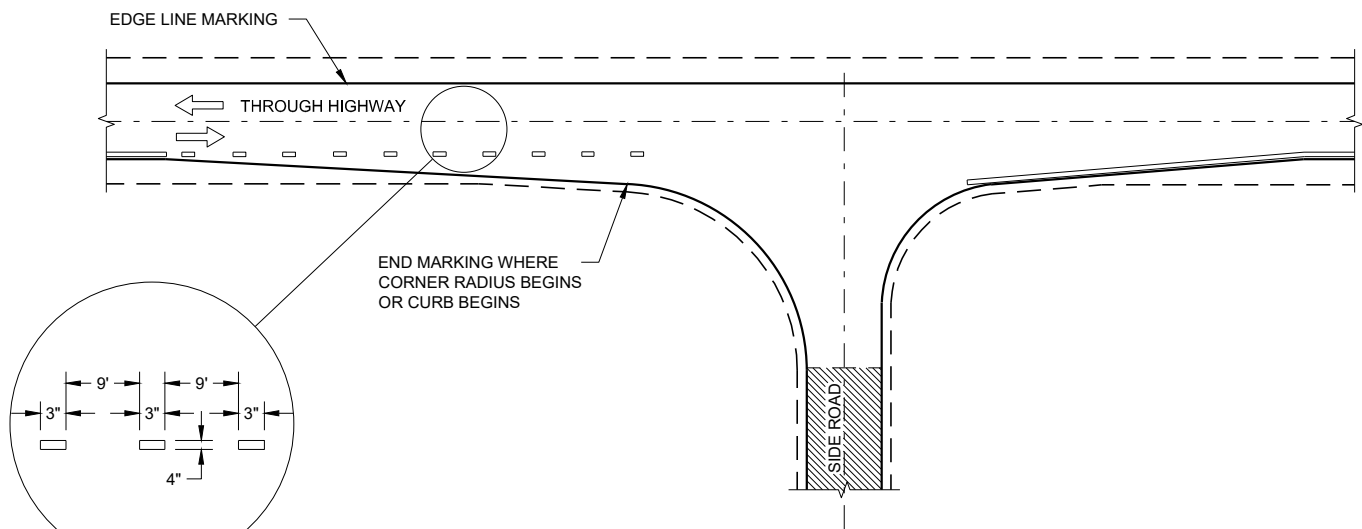


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING

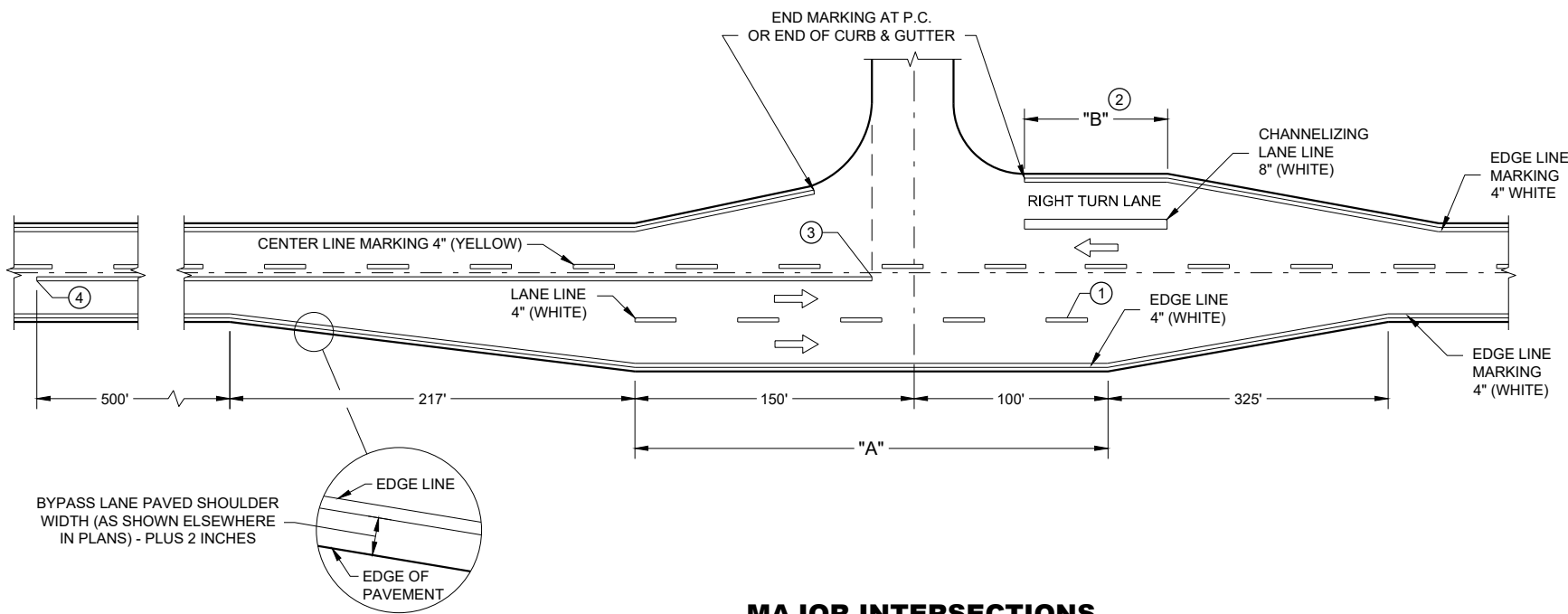


TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE Sept., 2017	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



MINOR INTERSECTION



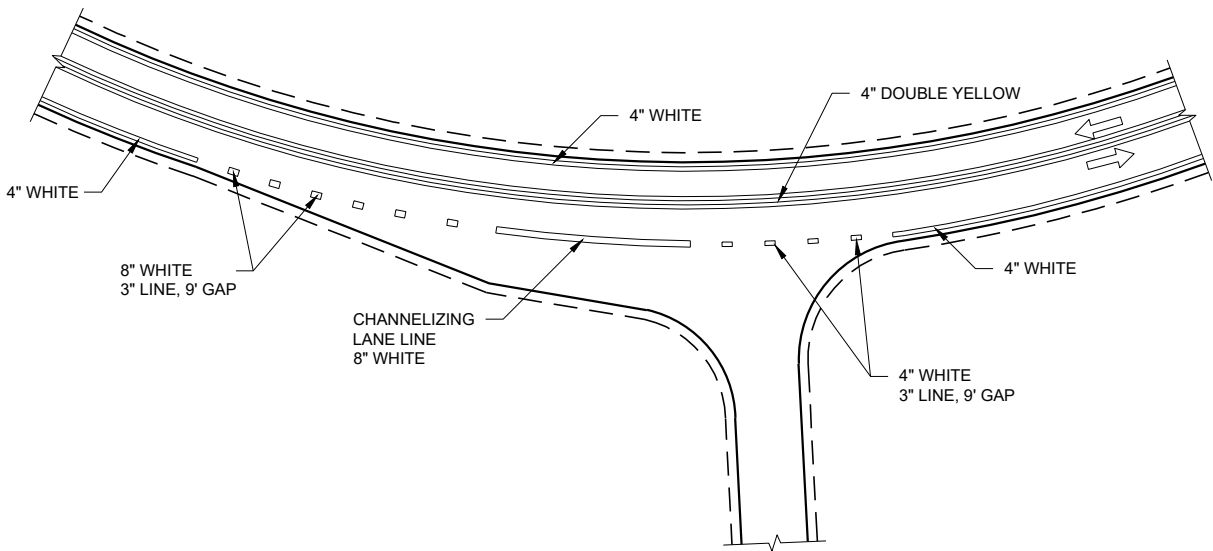
MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

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

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

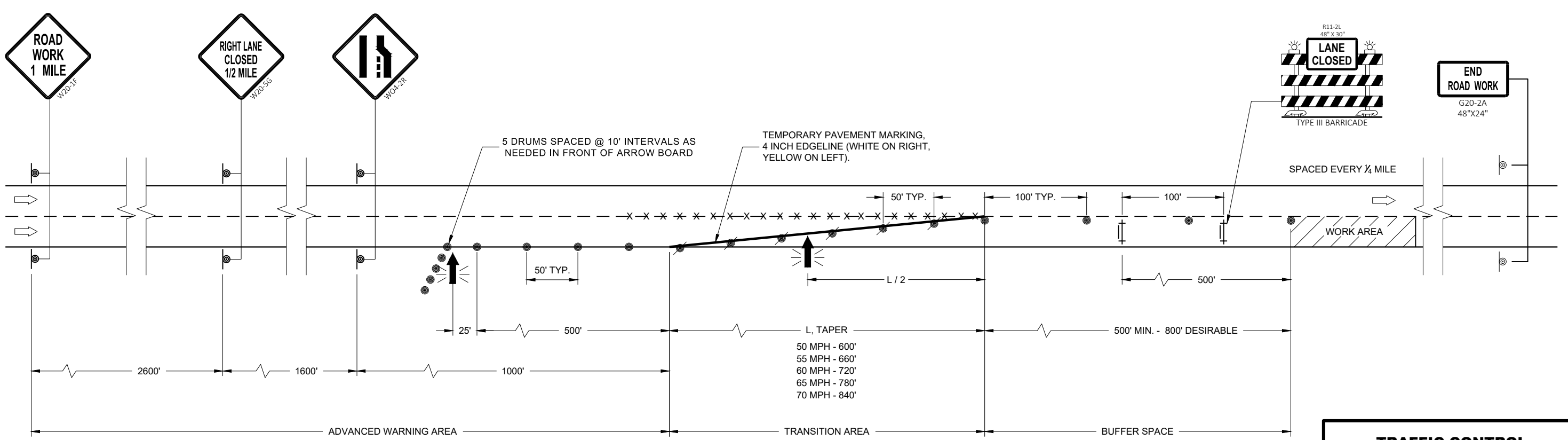
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

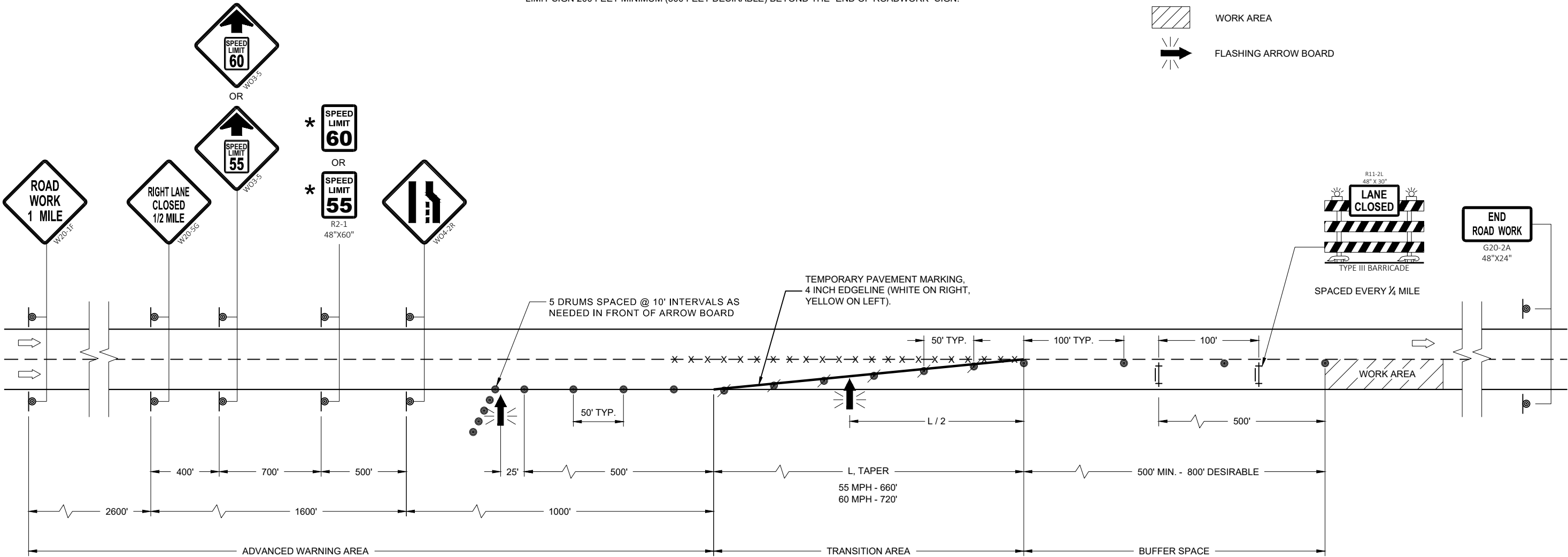
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD

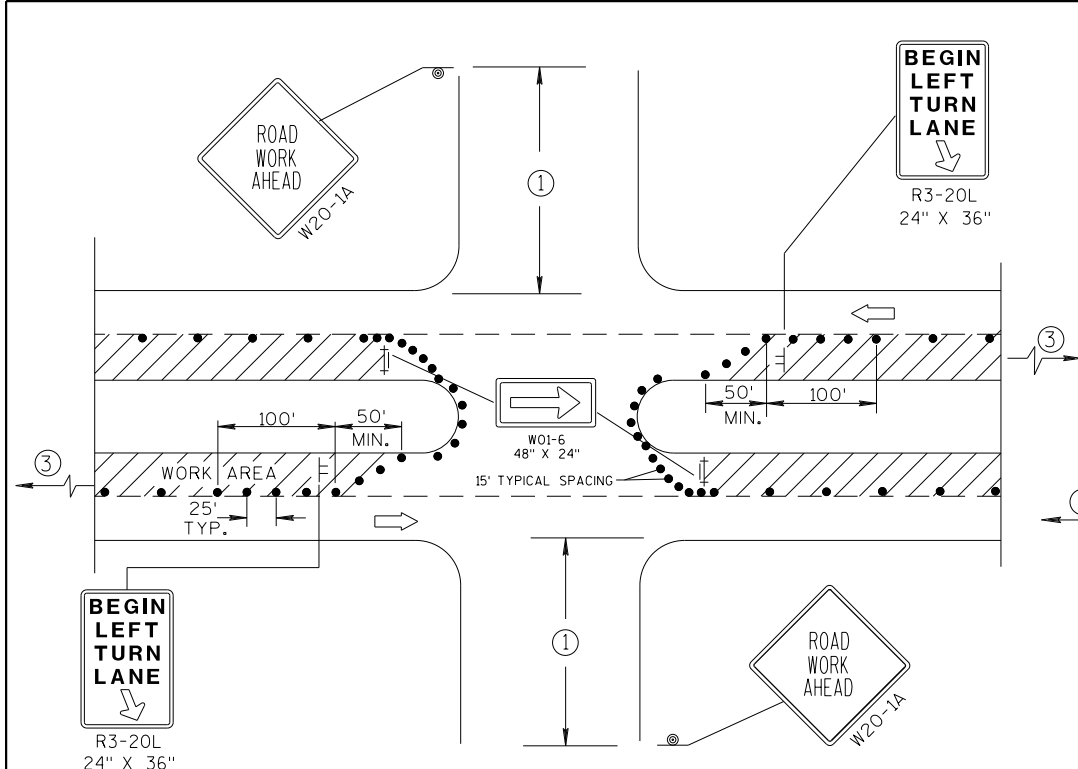


TRAFFIC CONTROL,
LANE CLOSURE,
SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

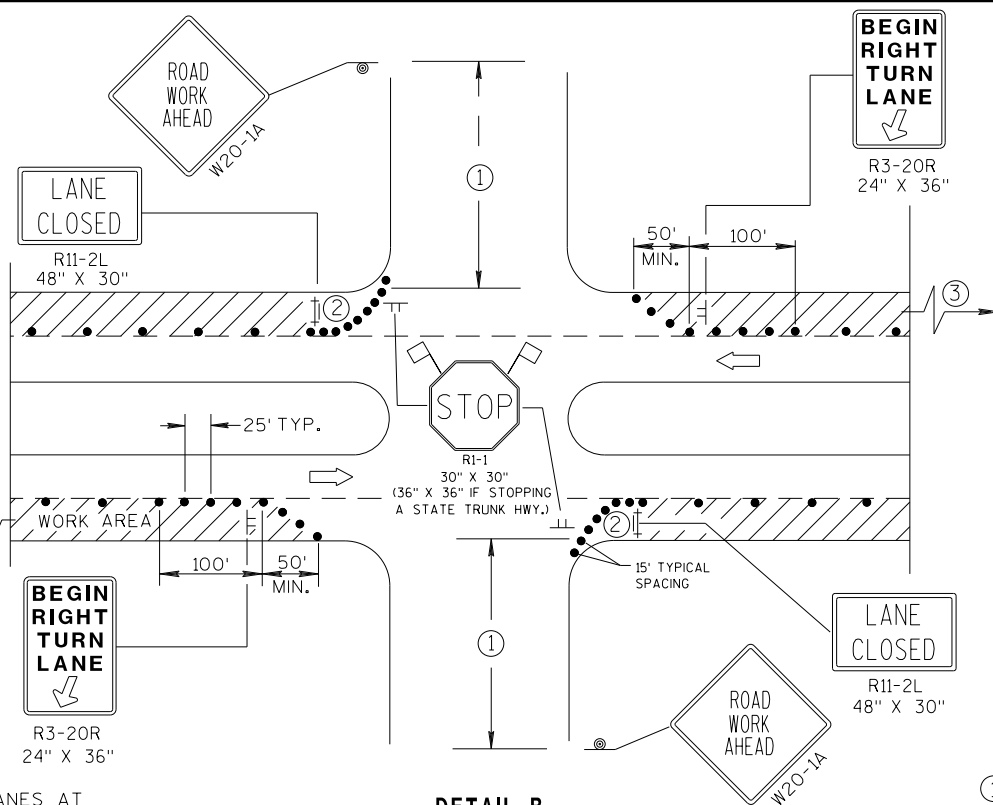
APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



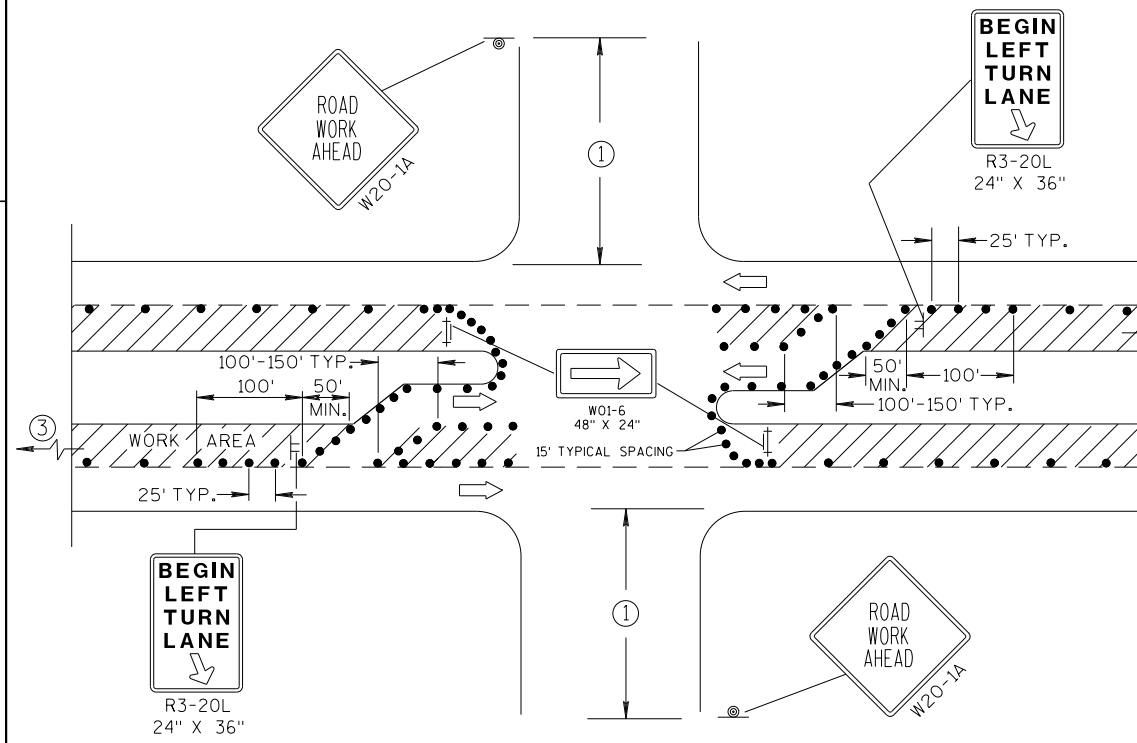
DETAIL A
FOR LEFT LANE CLOSURE AT
INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT
INTERSECTIONS WHENEVER
STAGING OF WORK ALLOWS.
TAPER AND TURN LANE
LENGTHS BASED ON FIELD
CONDITIONS AS APPROVED
BY THE ENGINEER.

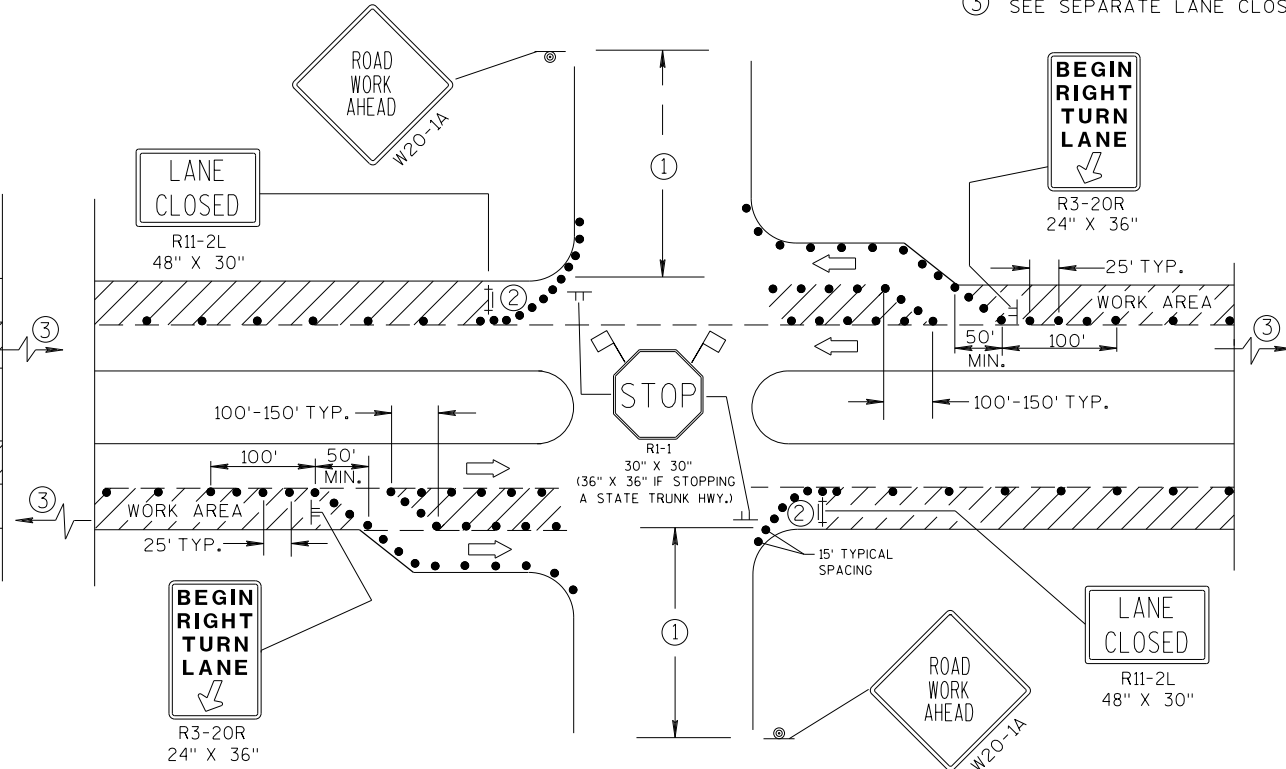


DETAIL B
FOR RIGHT LANE CLOSURE
AT INTERSECTION

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.
- ② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C
FOR LEFT LANE CLOSURE AT INTERSECTION OR
MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D
FOR RIGHT LANE CLOSURE AT INTERSECTION
(WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- ≡ SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- ≡ TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- ➡ DIRECTION OF TRAFFIC
- 🚩 FLAGS, 16" X 16" MIN., (ORANGE)
- ▨ WORK AREA

TRAFFIC CONTROL,
INTERSECTION WITHIN
SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /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 AS APPROVED BY THE ENGINEER.

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

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 DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

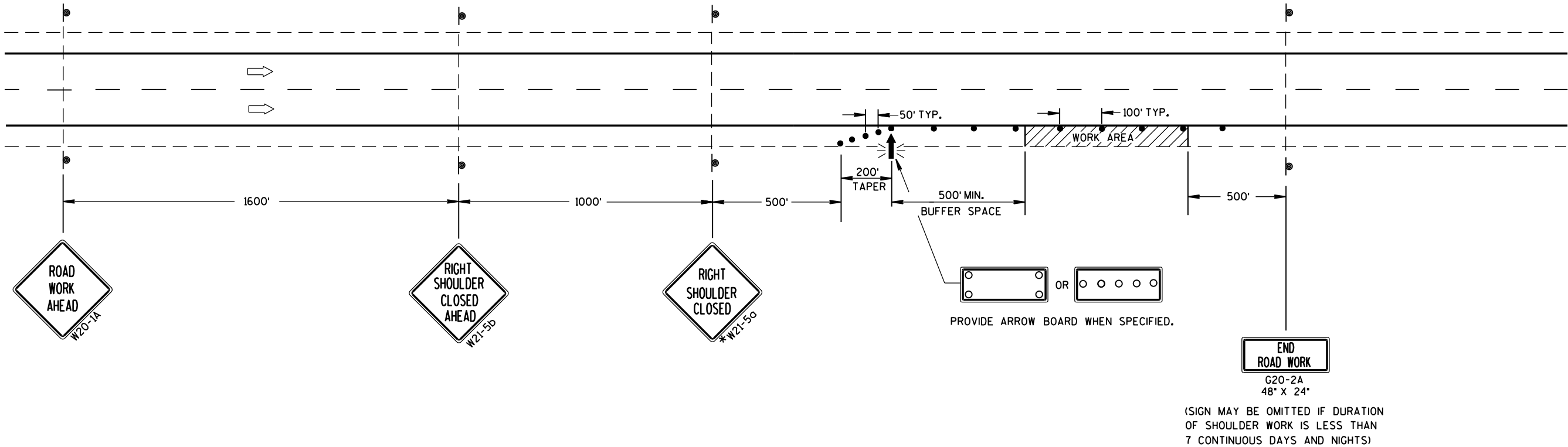
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A 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.

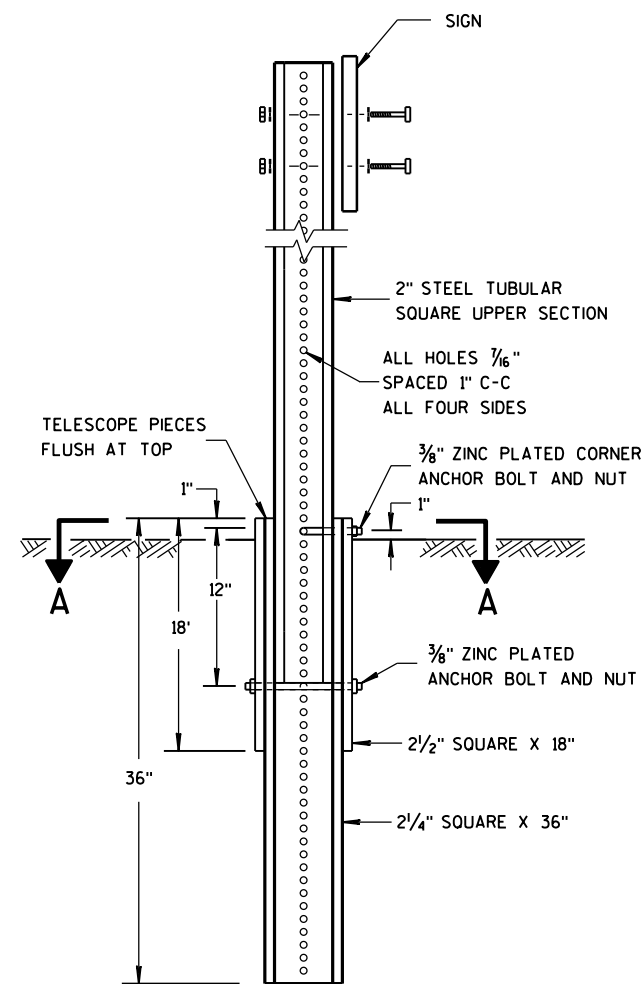
*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL
SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER
THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



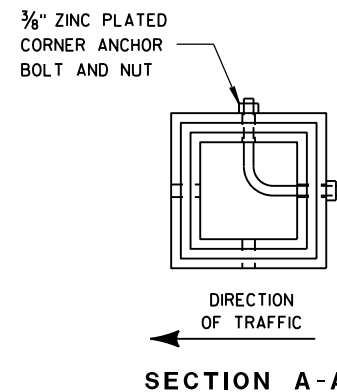
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

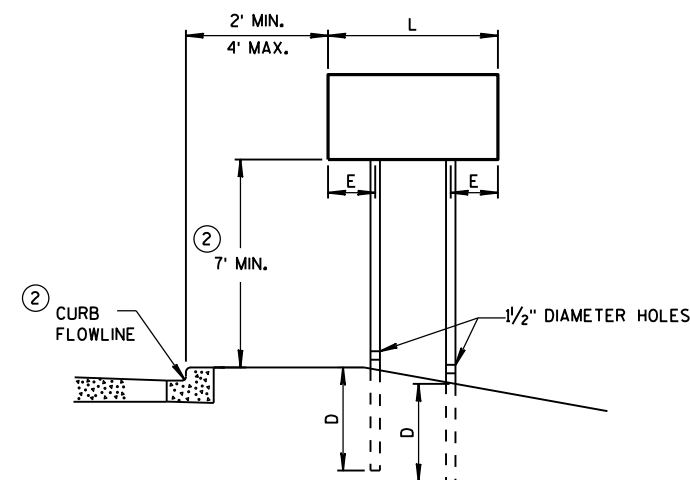
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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

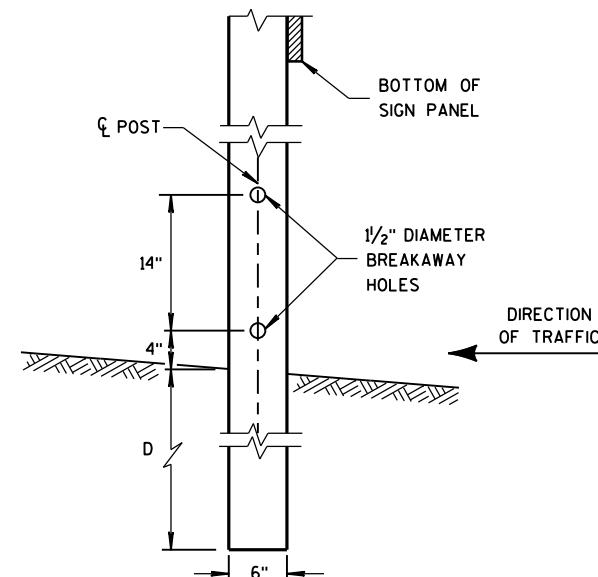


URBAN AREA

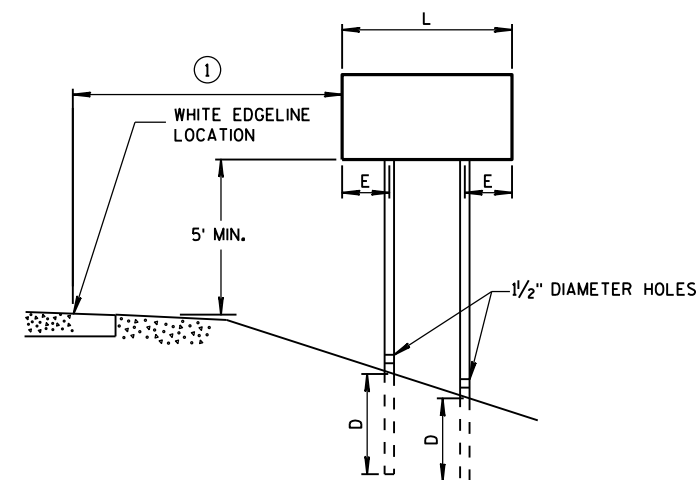
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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

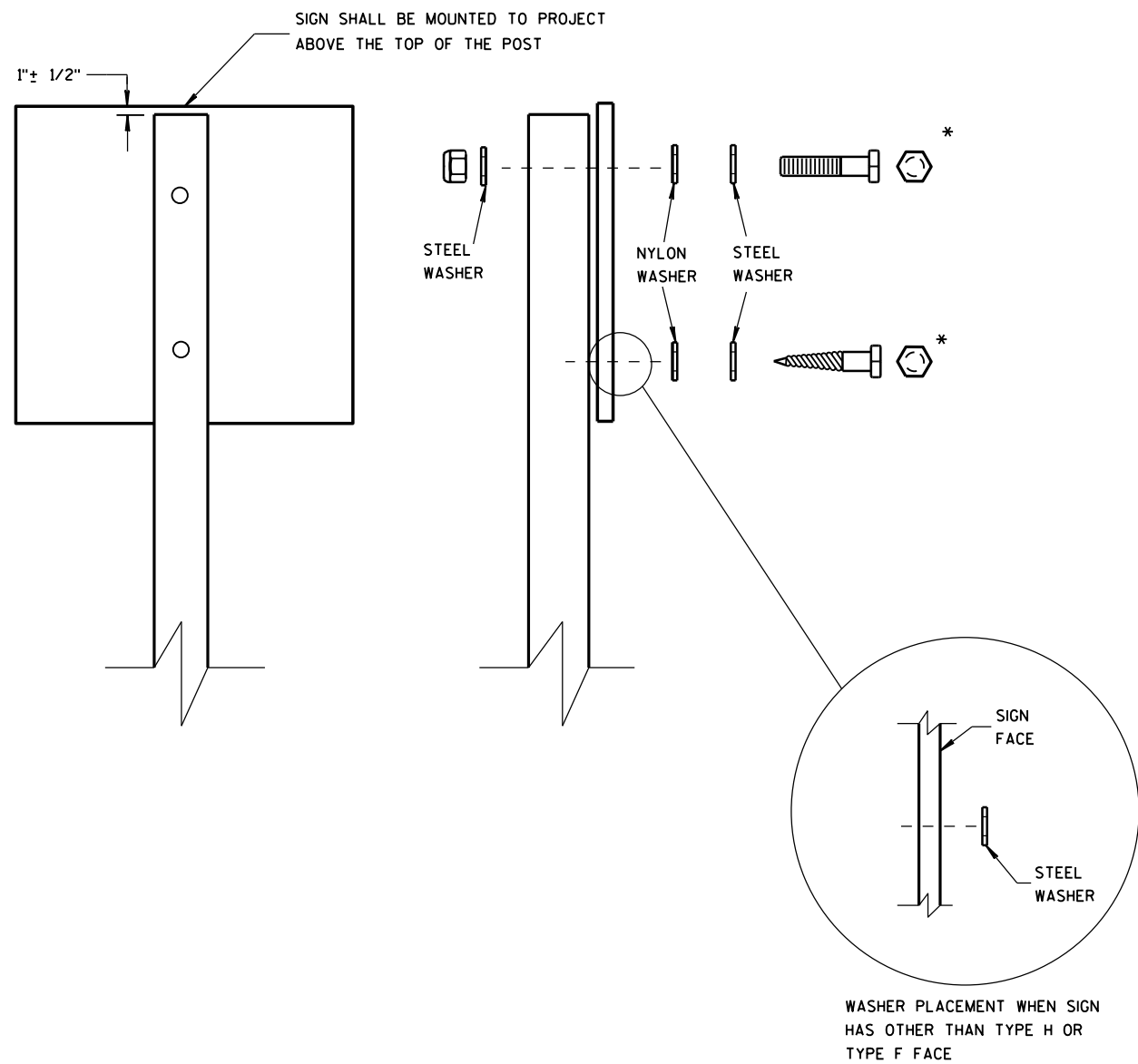
SEE NOTE ③

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.

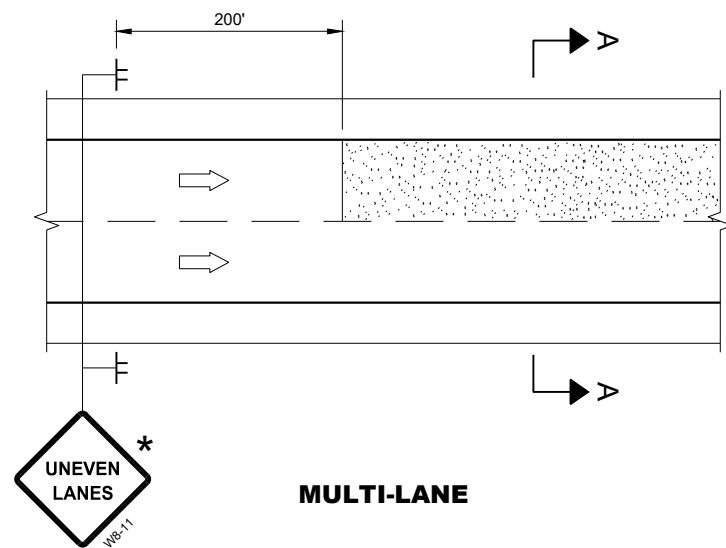
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

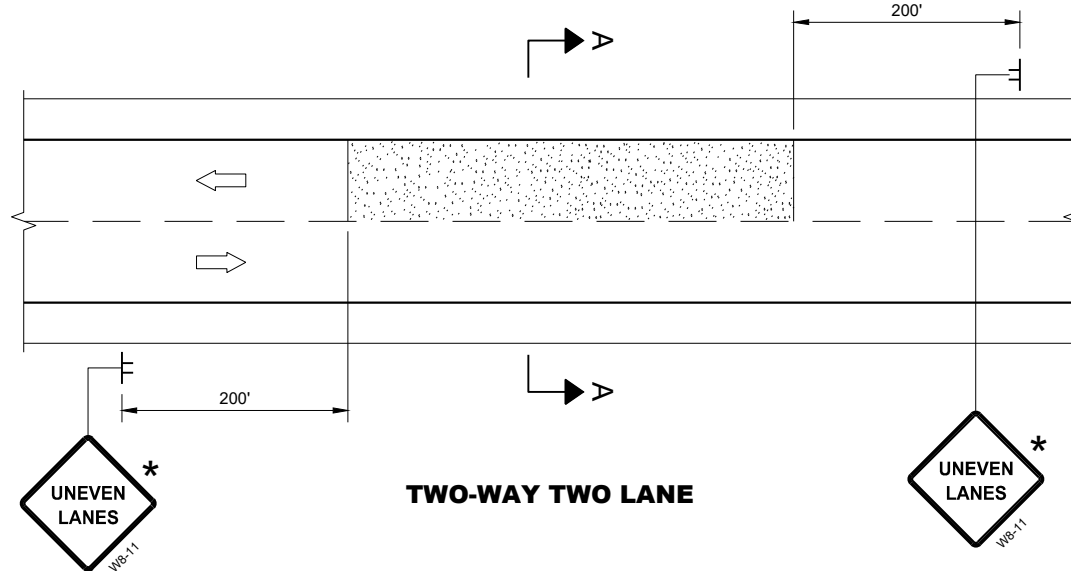
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

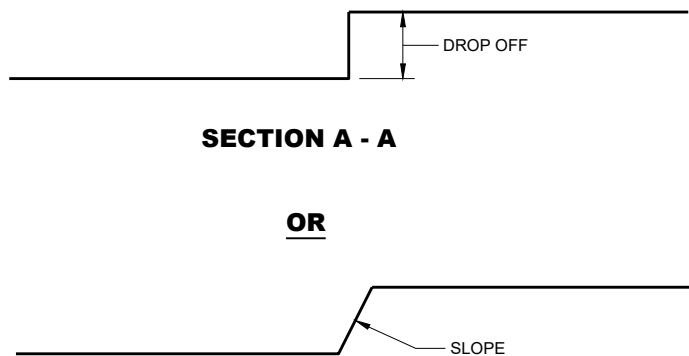
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



MULTI-LANE



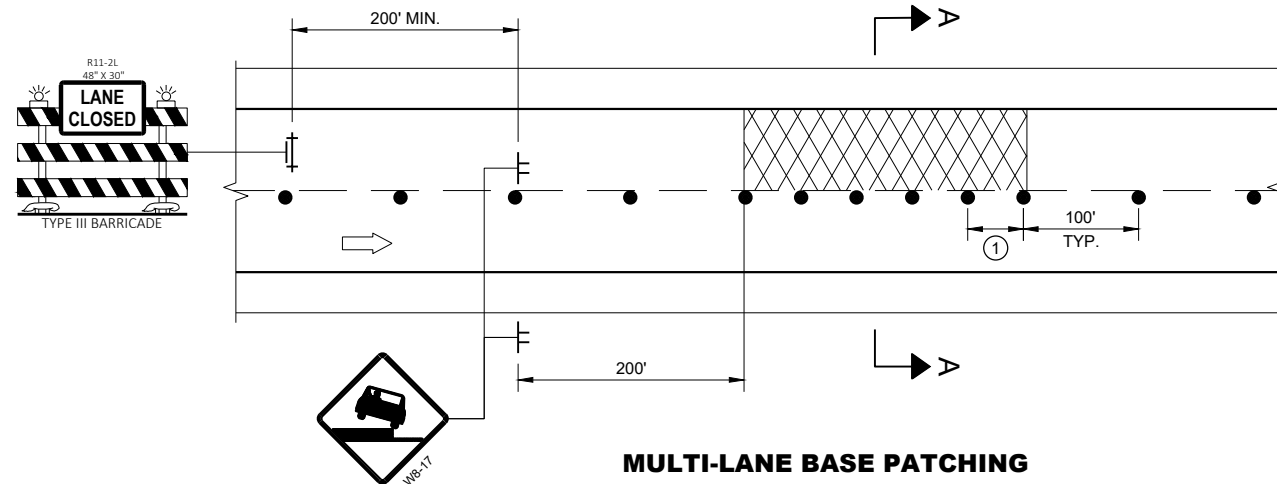
TWO-WAY TWO LANE



SECTION A - A

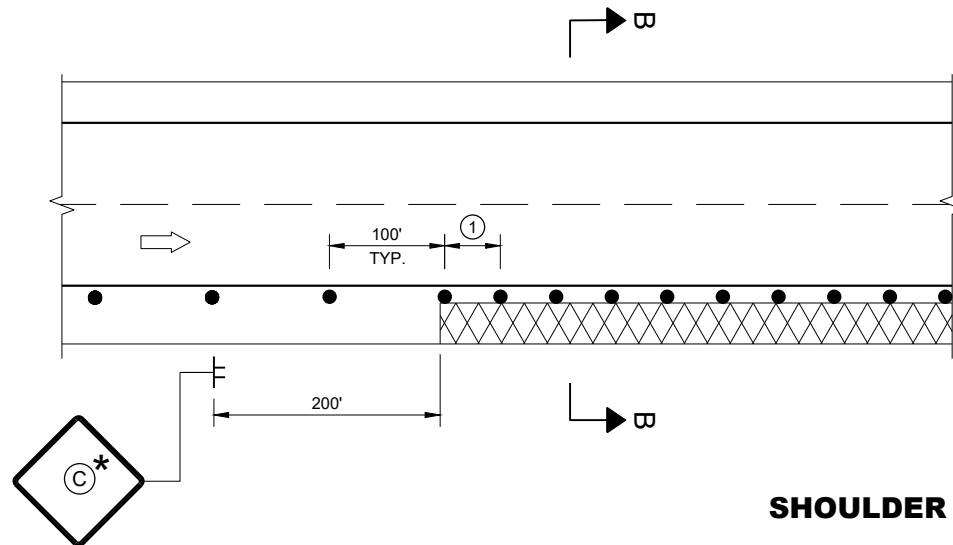
OR

SECTION A - A

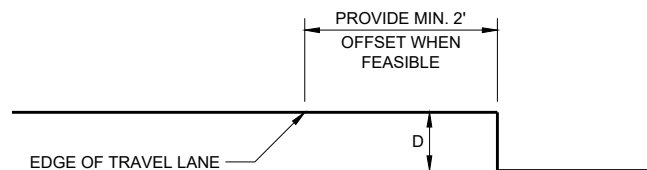


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 WB-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

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.

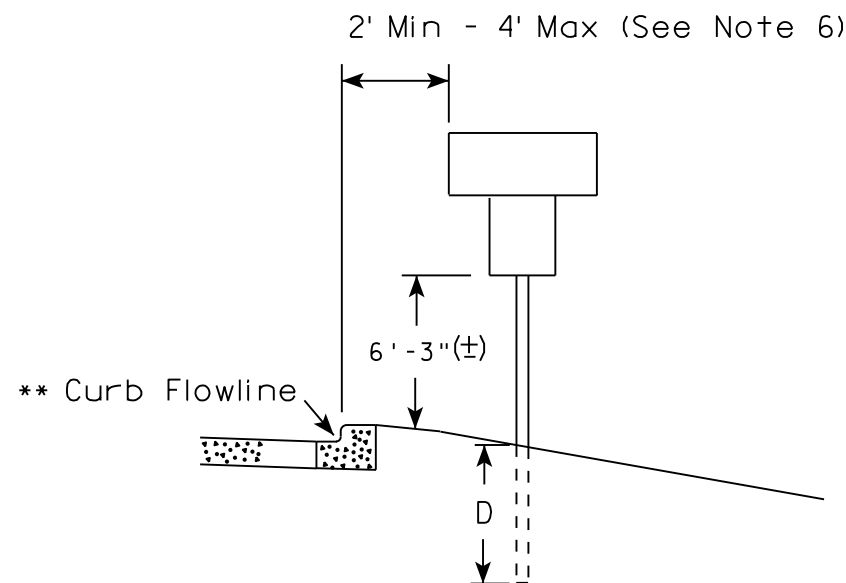
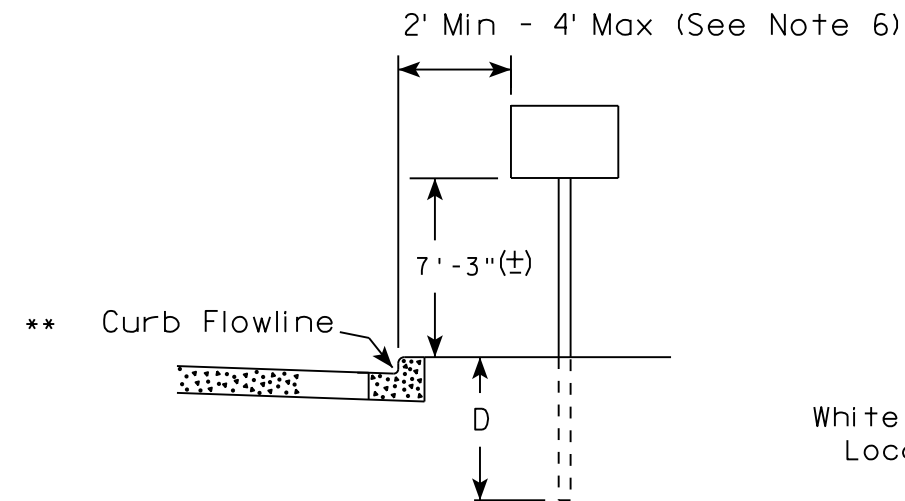
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

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

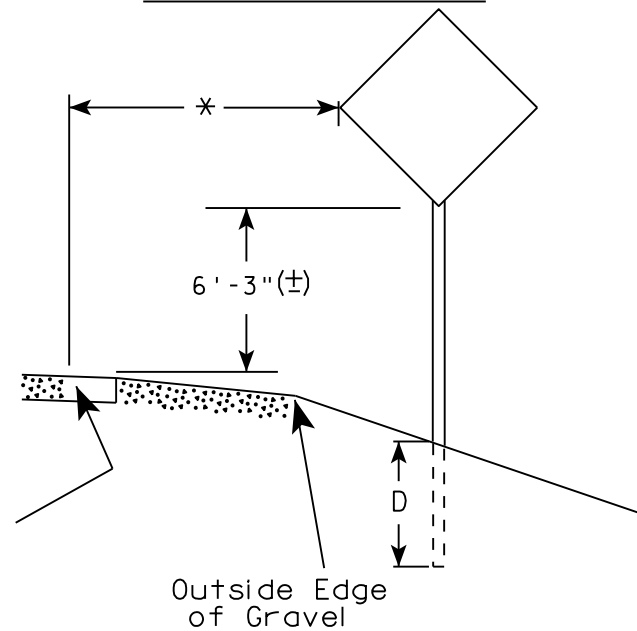
TRAFFIC CONTROL, DROP-OFF SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

URBAN AREA

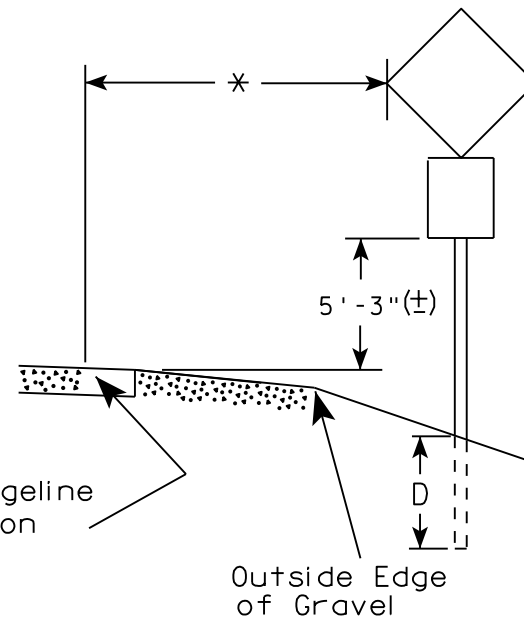


White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location



Outside Edge
of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/21/17

PLATE NO. A4-3.21

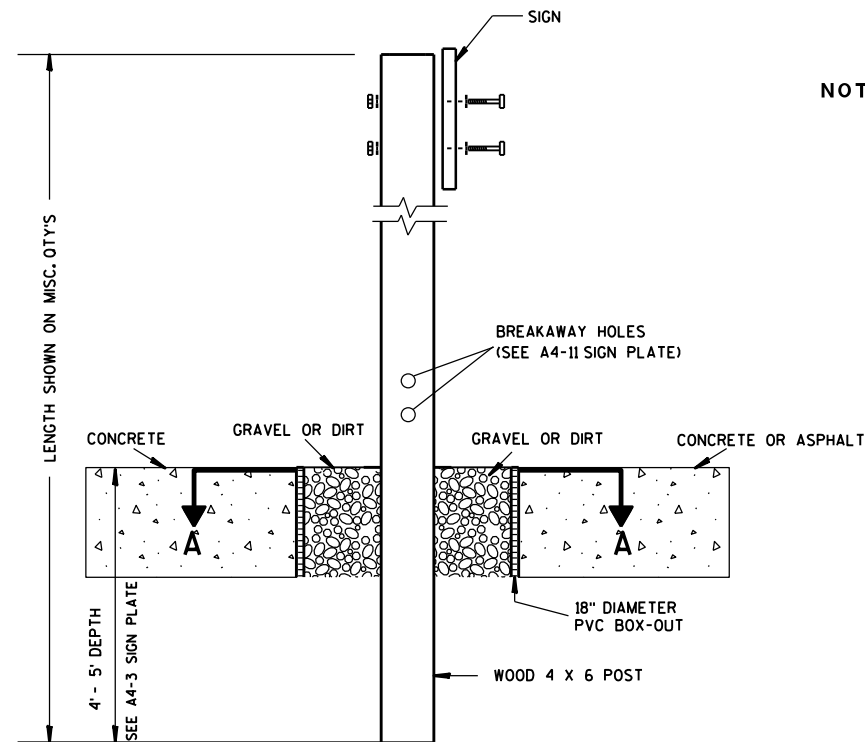
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

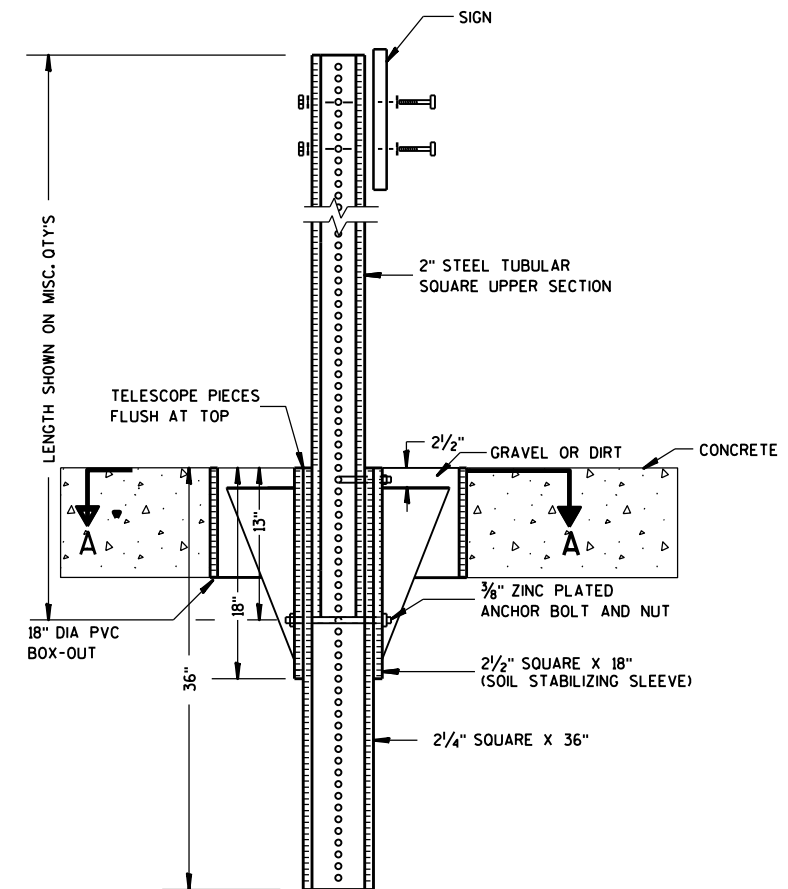
E



ELEVATION VIEW

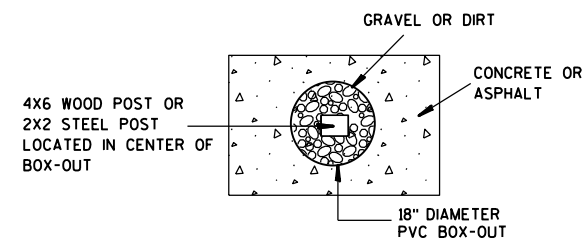
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

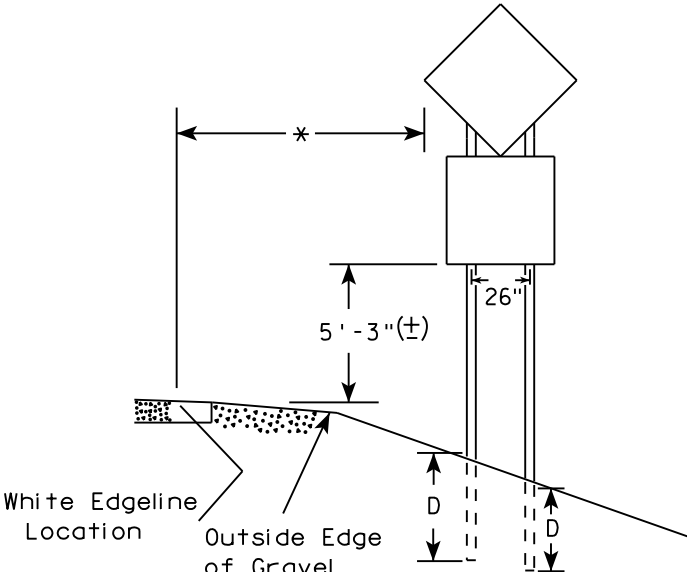
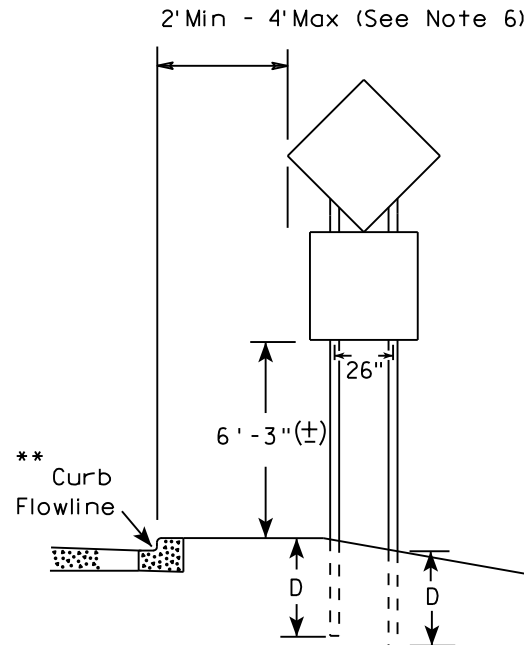
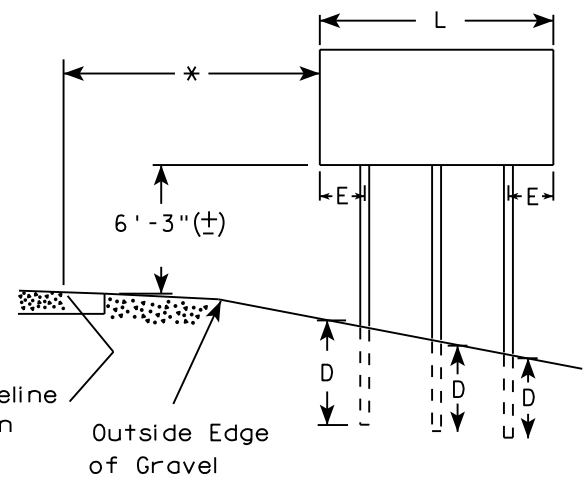
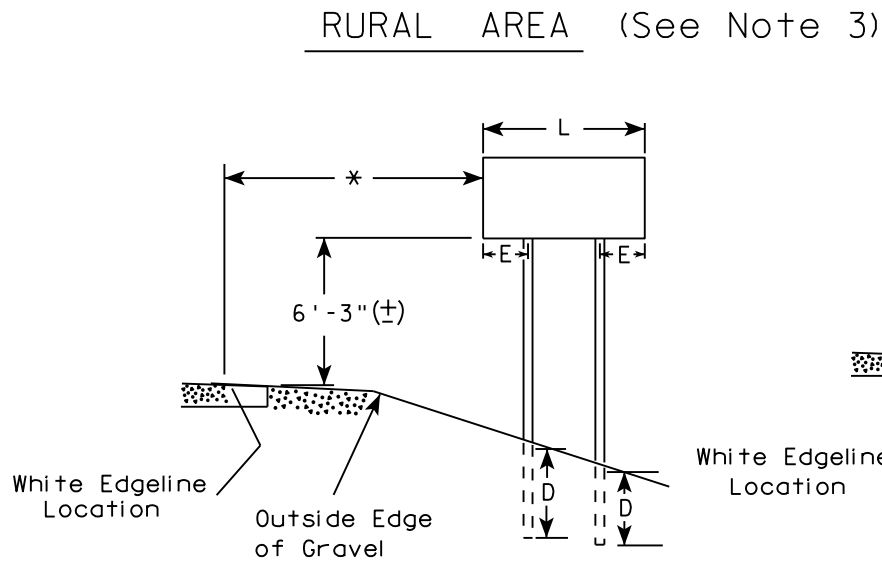
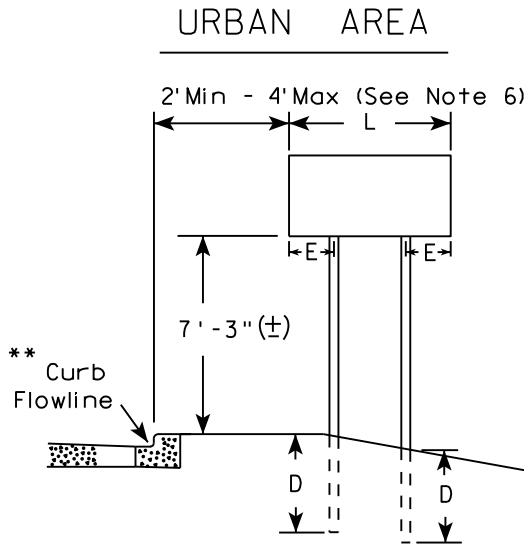
PROJECT NO:

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

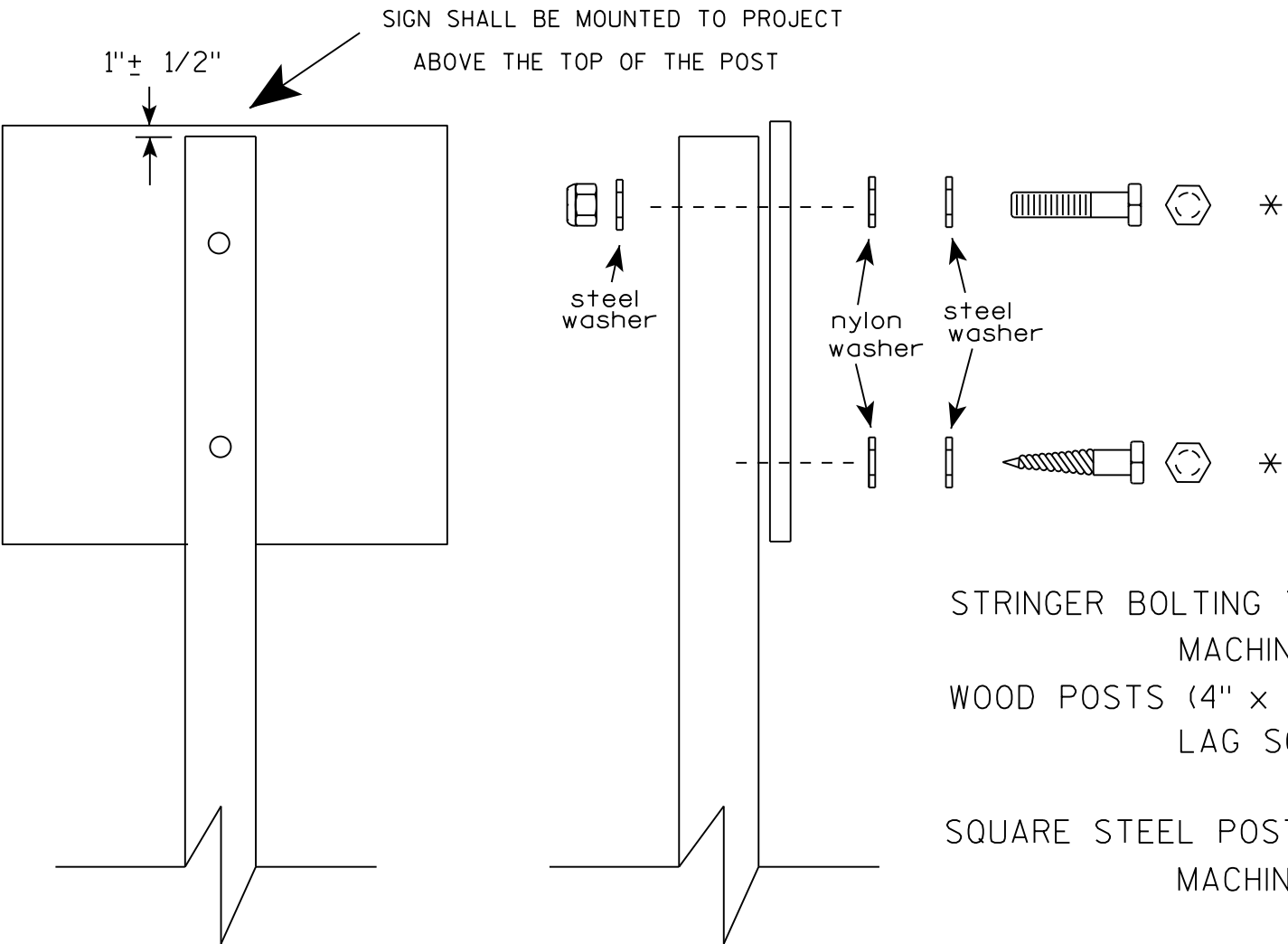
WISCONSIN DEPT OF TRANSPORTATION

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.

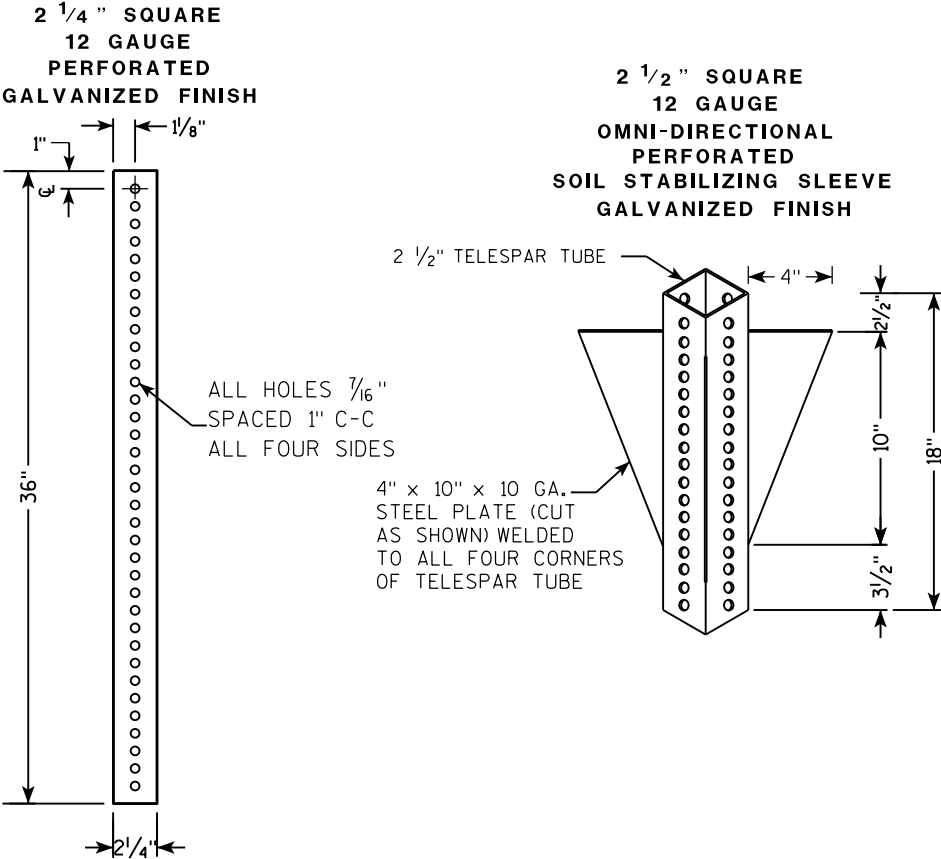
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

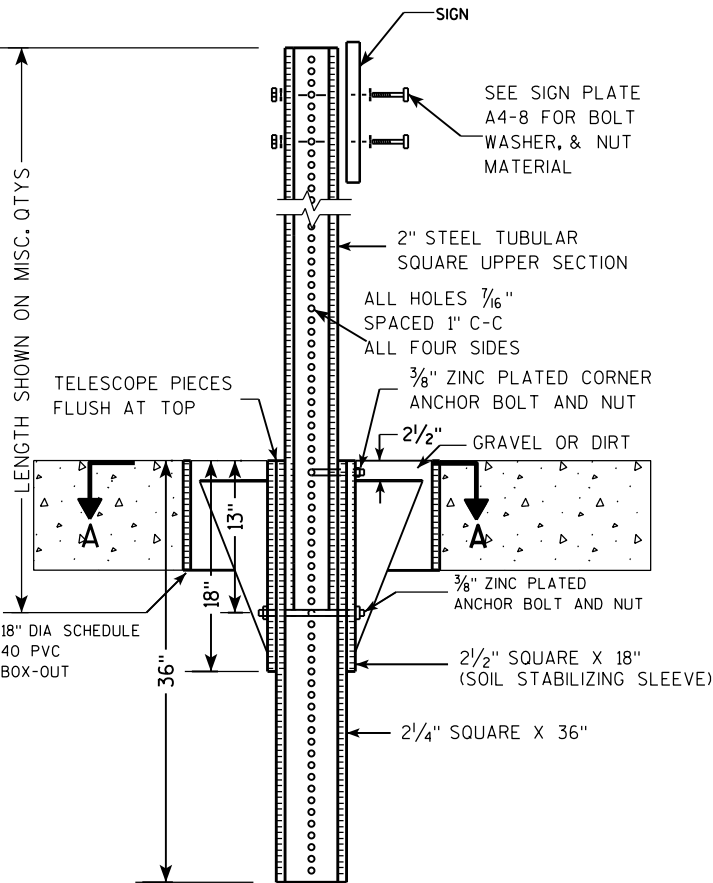
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8

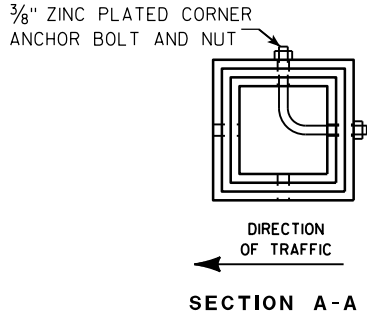
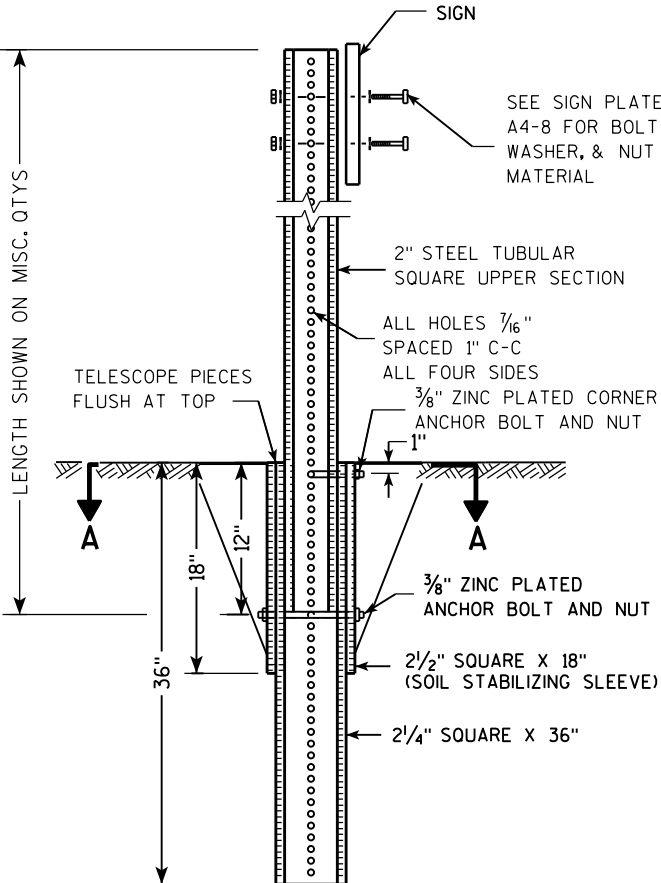
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

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

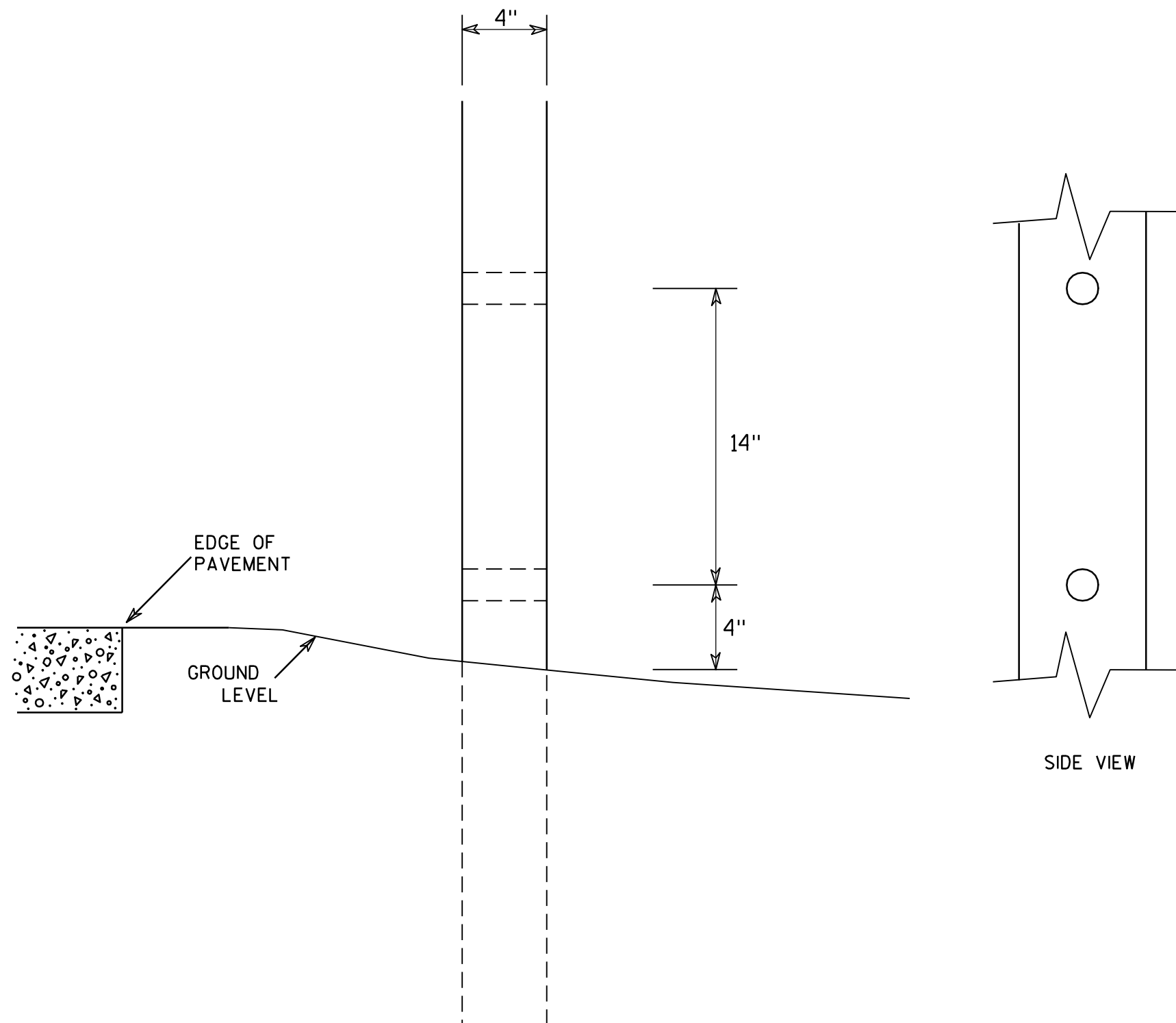
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

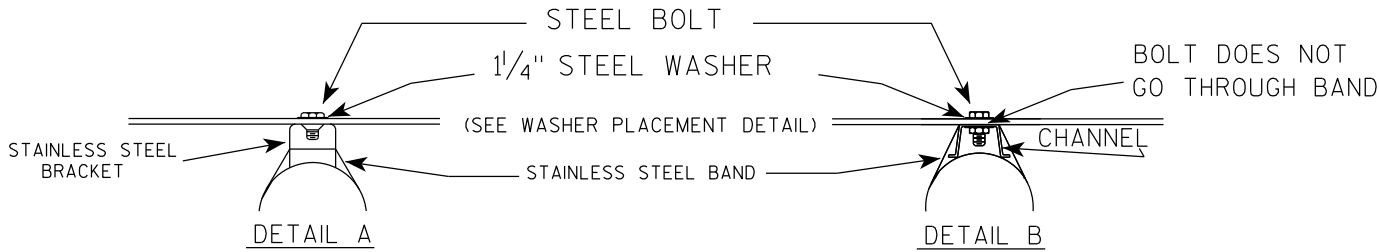
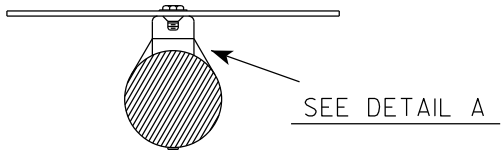
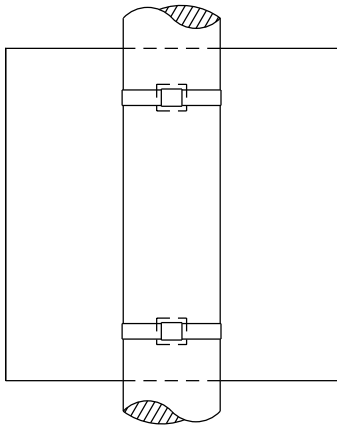
COUNTY:

SHEET NO:

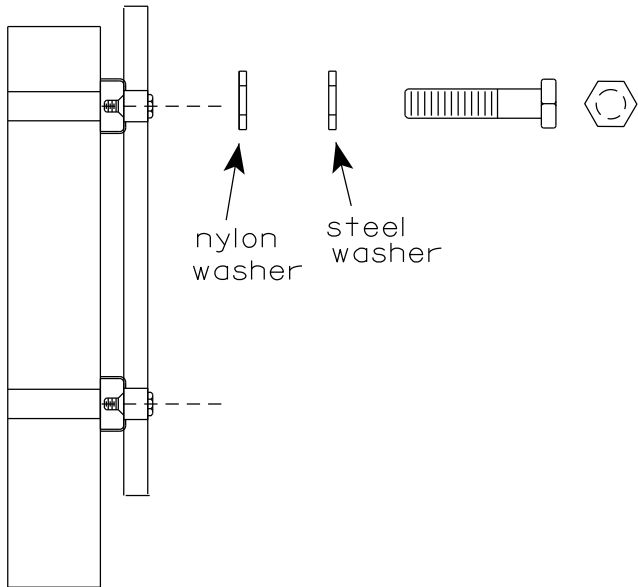
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

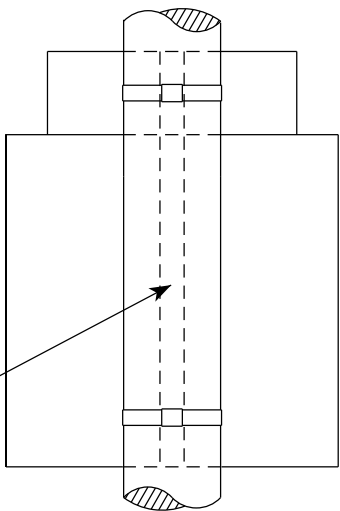


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

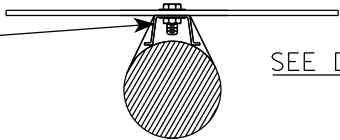
GENERAL NOTES

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

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

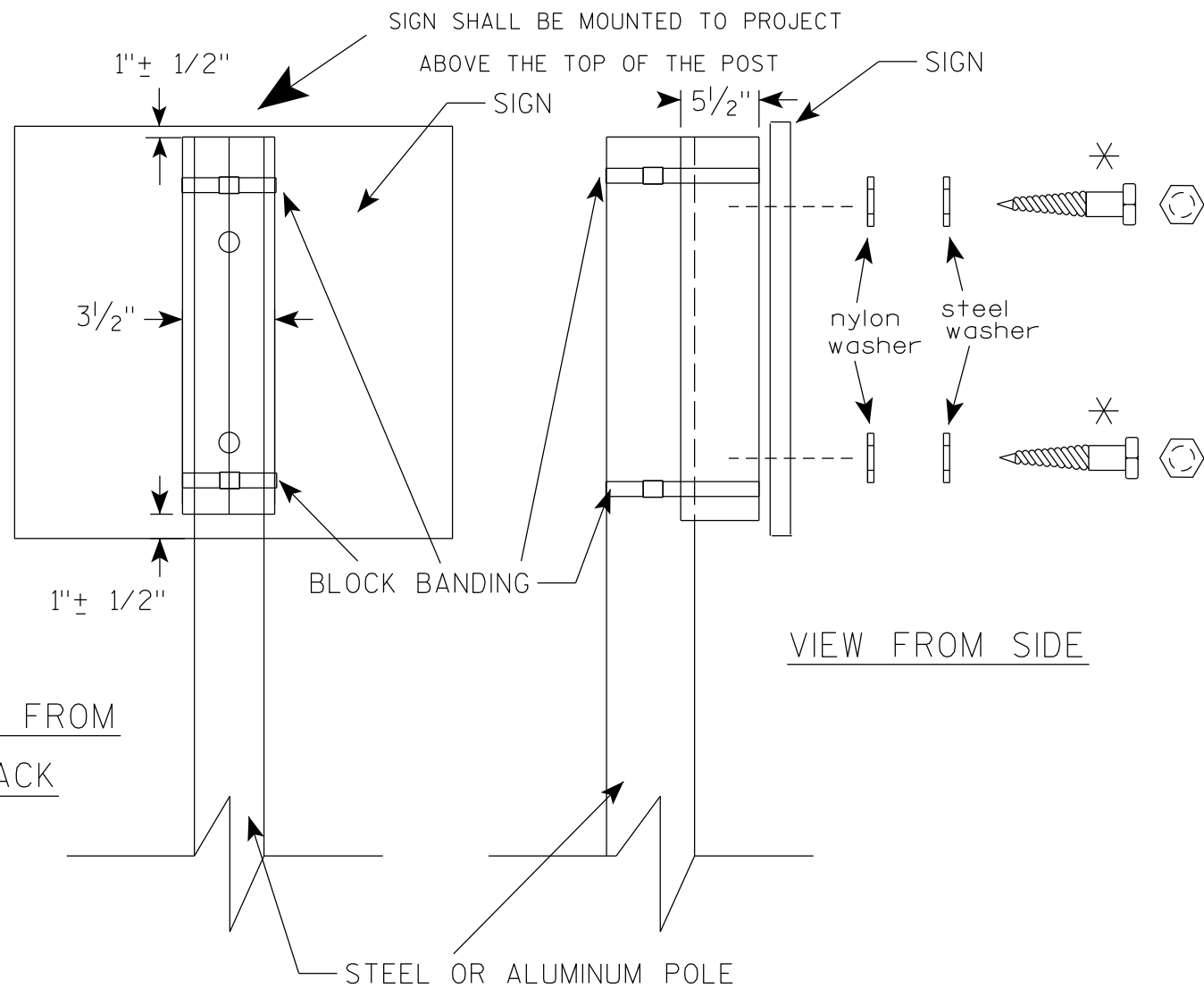


STANDARD SIGN
SIGN BANDING DETAILS

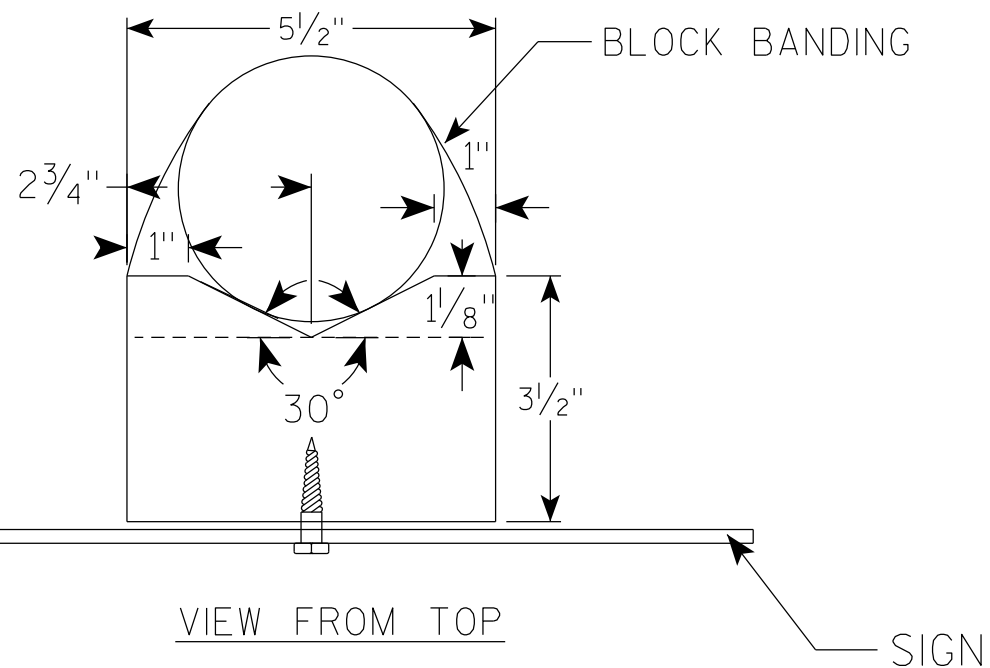
WISCONSIN DEPT OF TRANSPORTATION

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

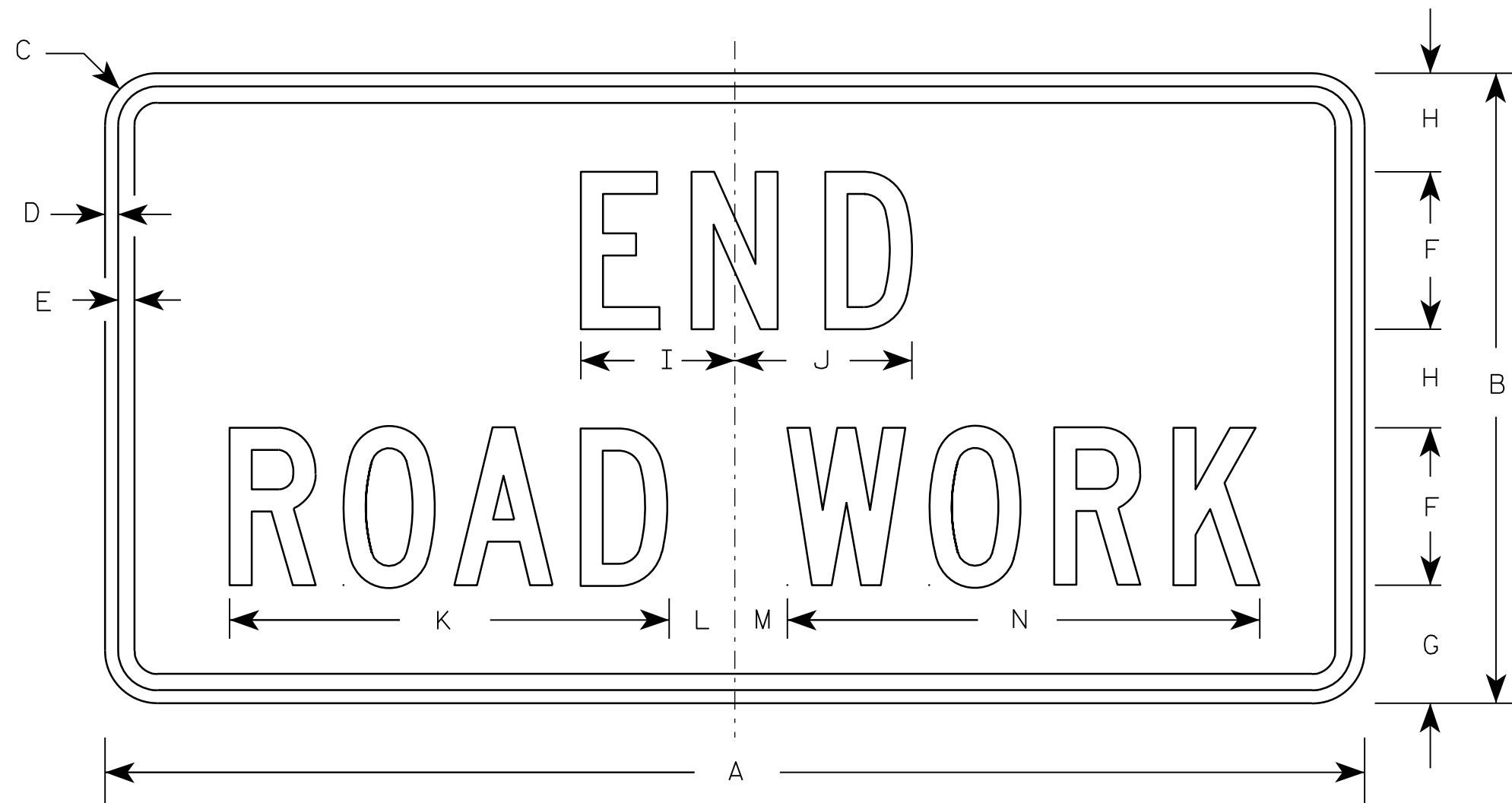
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO:

E

7



G20-2A

NOTES

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

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

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.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

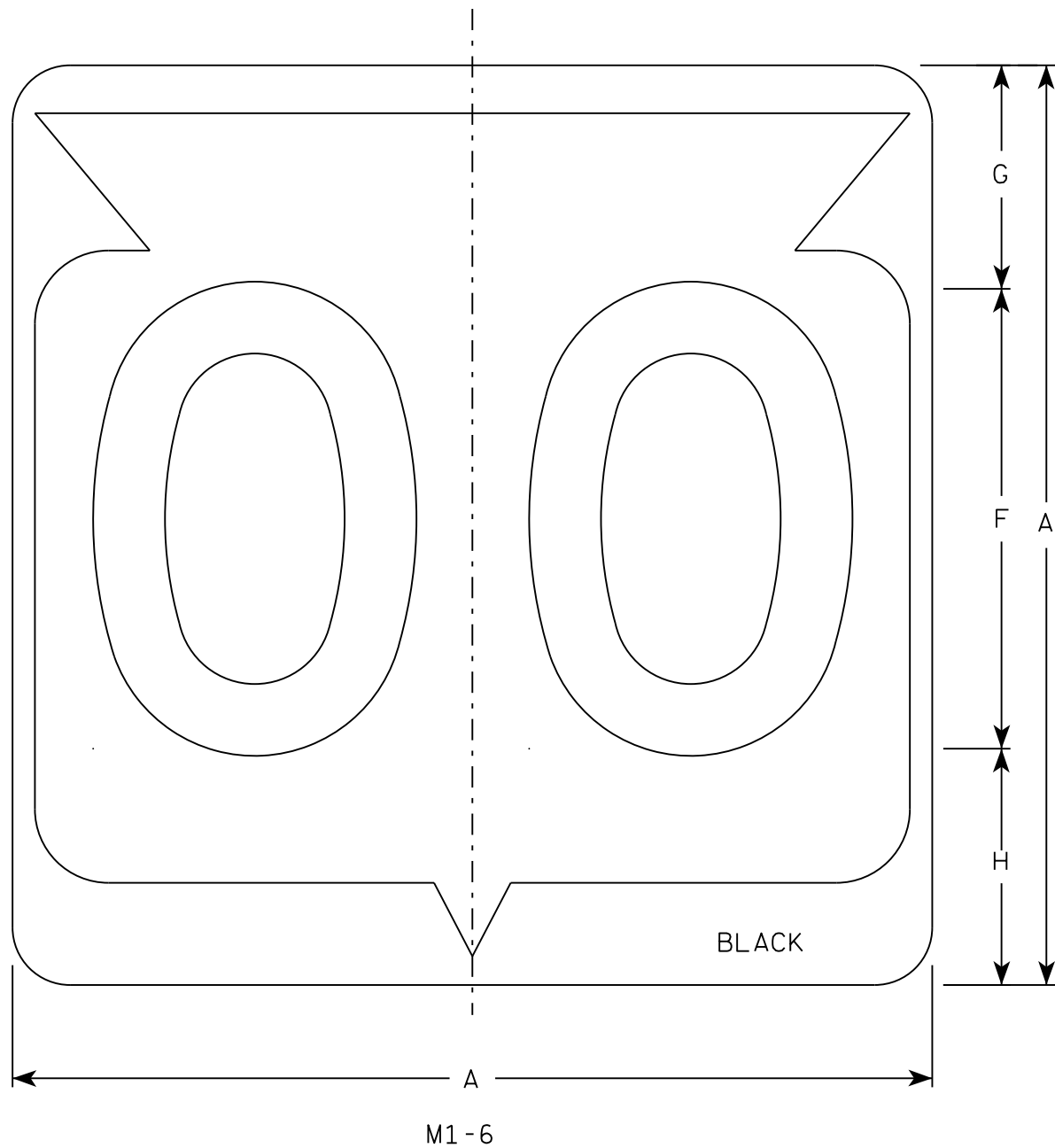
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

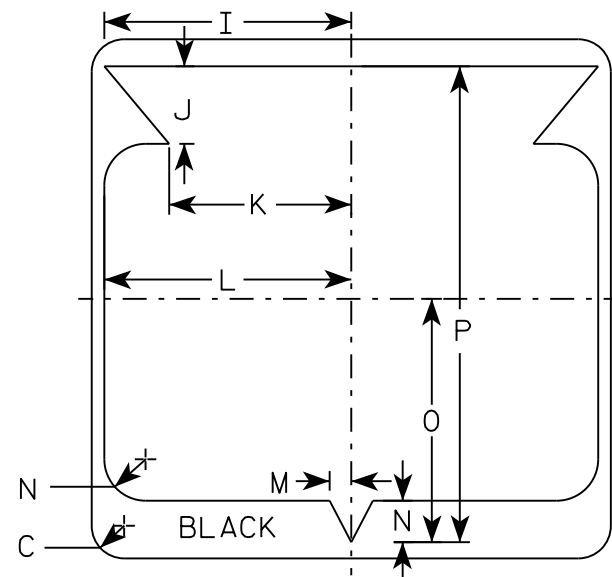
7

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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.



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

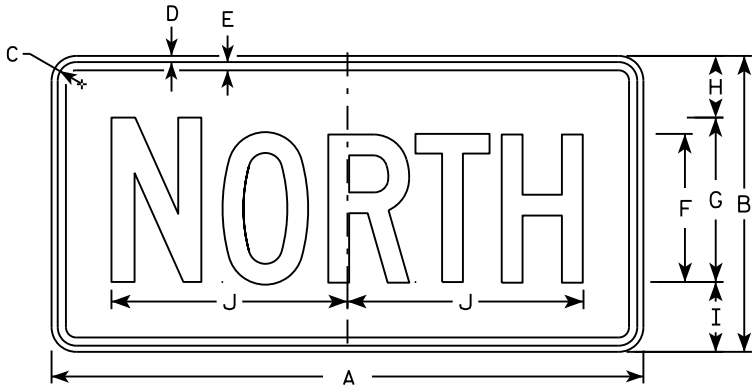
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

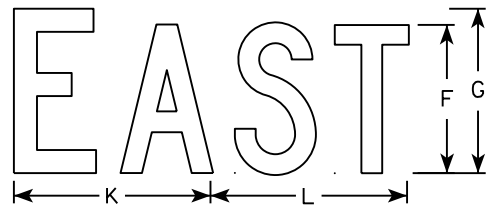
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

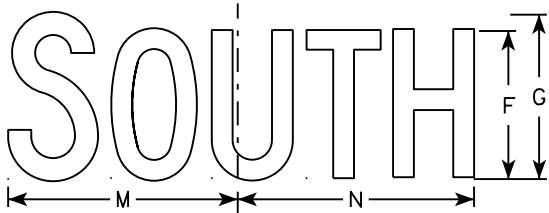
SHEET NO: E



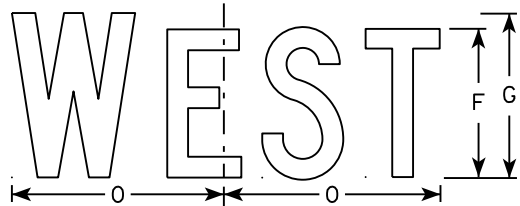
M3-1
MM3-1
MP3-1



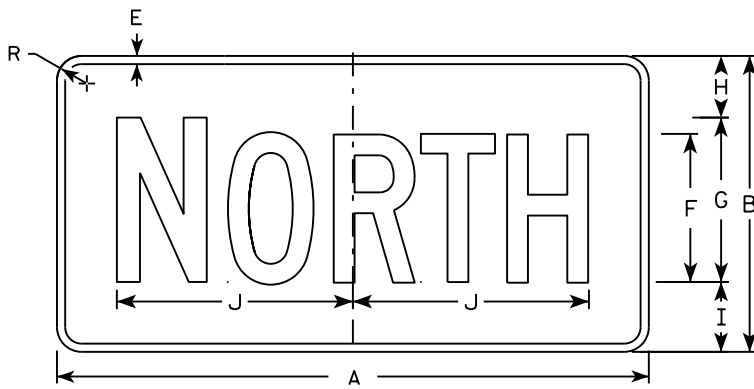
M3-2
MM3-2
MP3-2



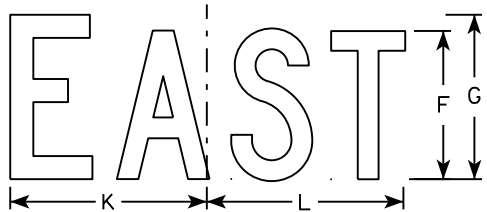
M3-3
MM3-3
MP3-3



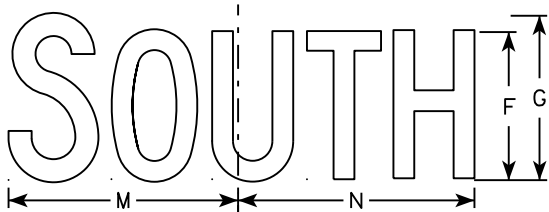
M3-4
MM3-4
MP3-4



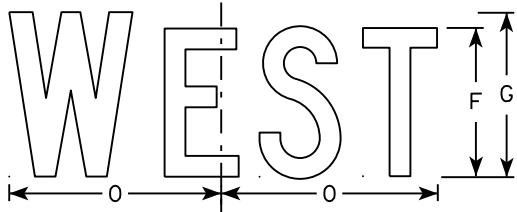
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

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

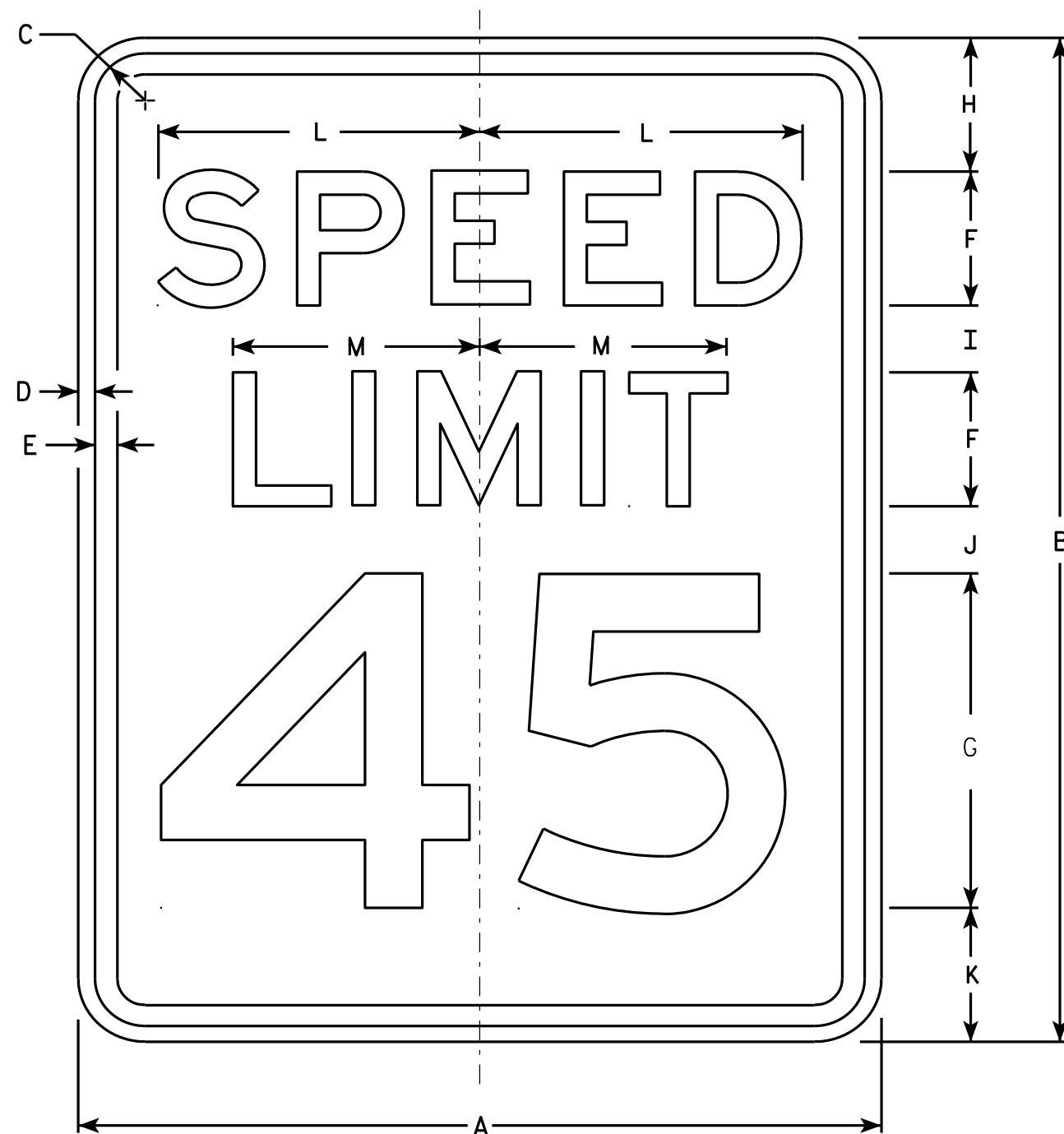
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14



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 - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

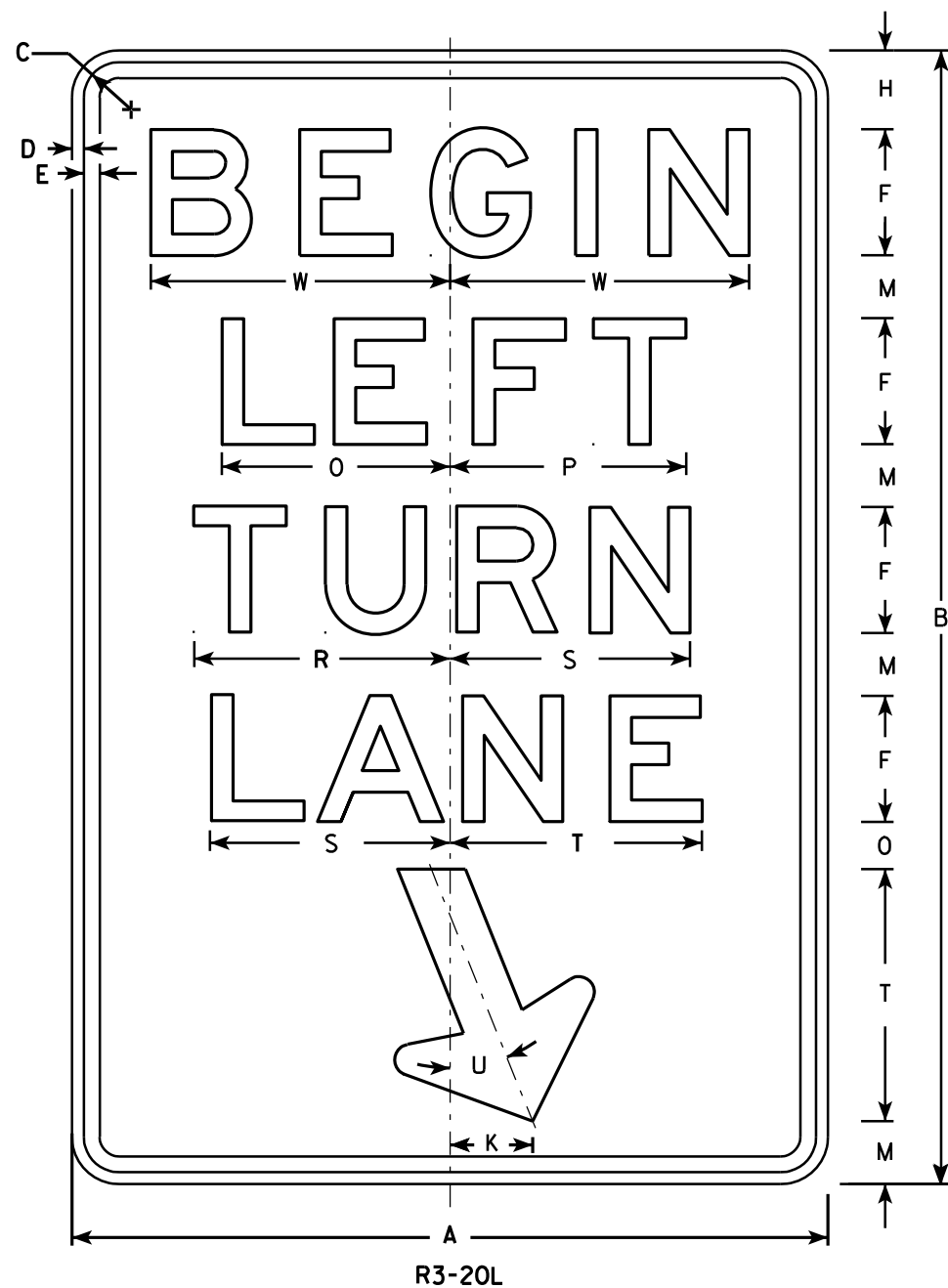
R2-1

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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

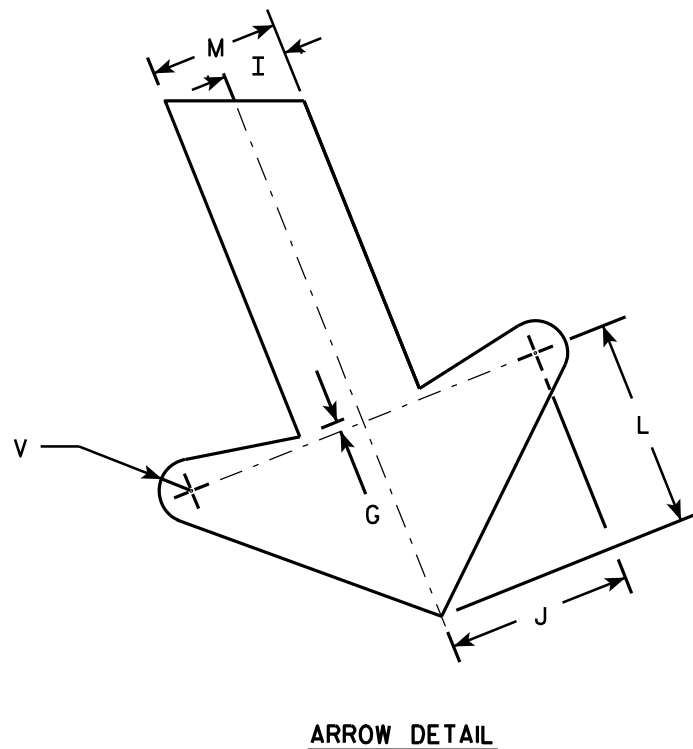
STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: E



- 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 - E
 - 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



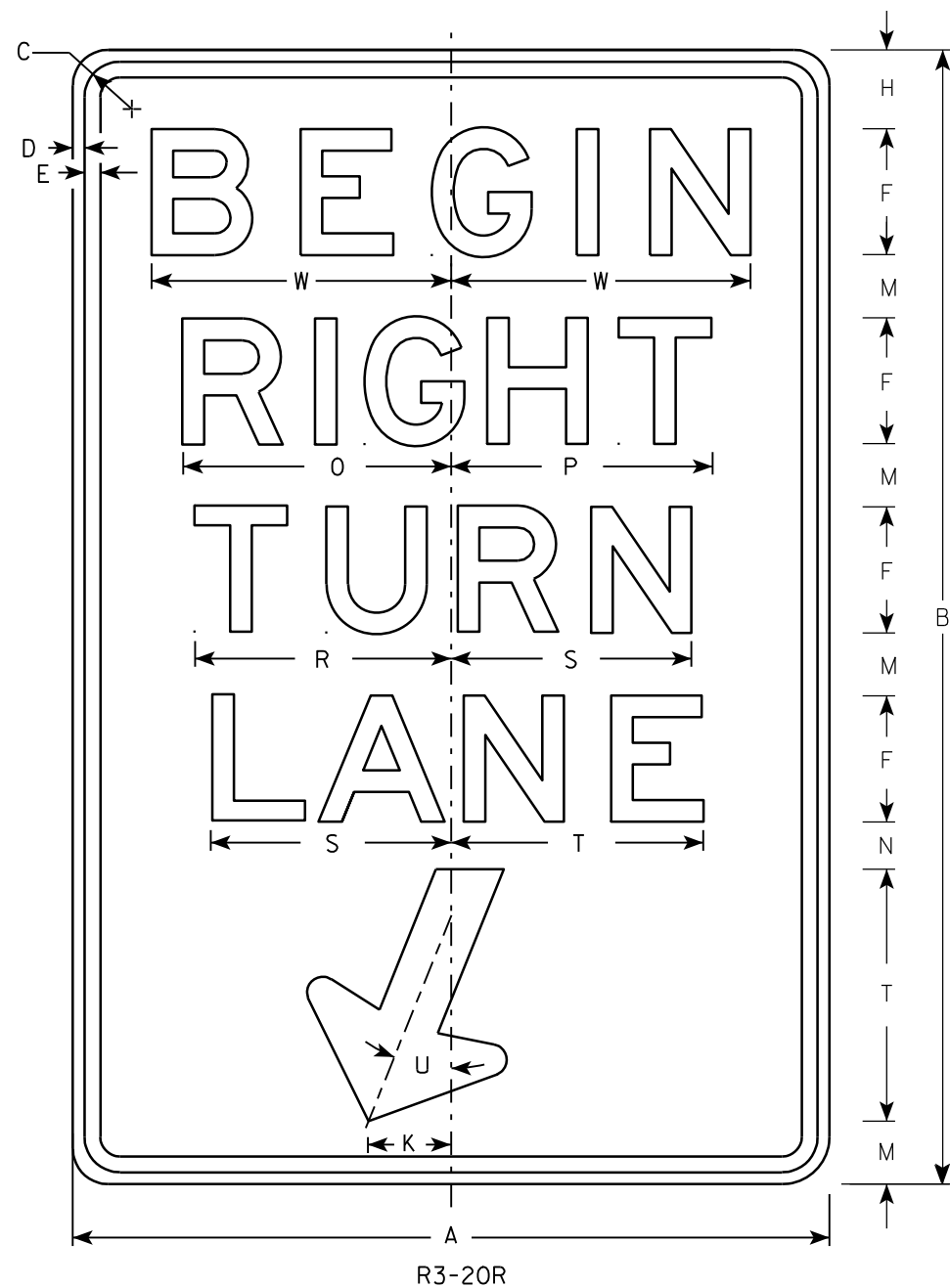
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

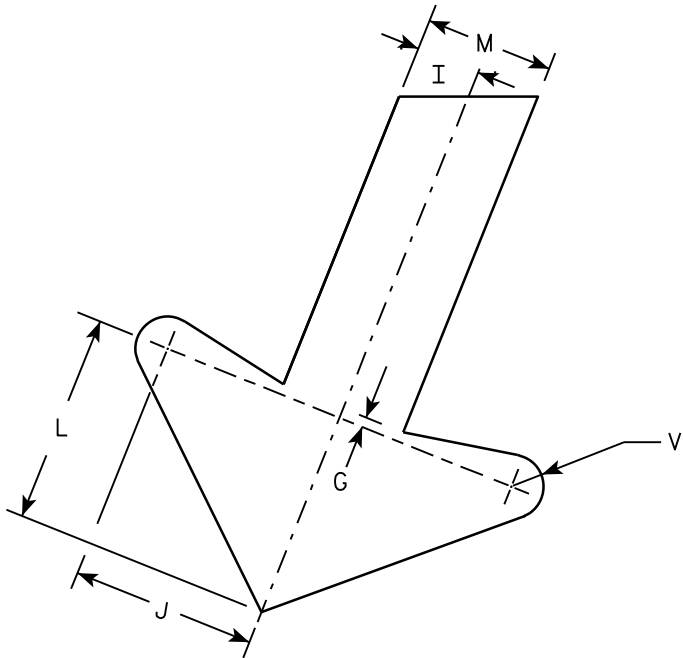
DATE 10/18/10 PLATE NO. R3-20L.7



R3-20R

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 - E
- 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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

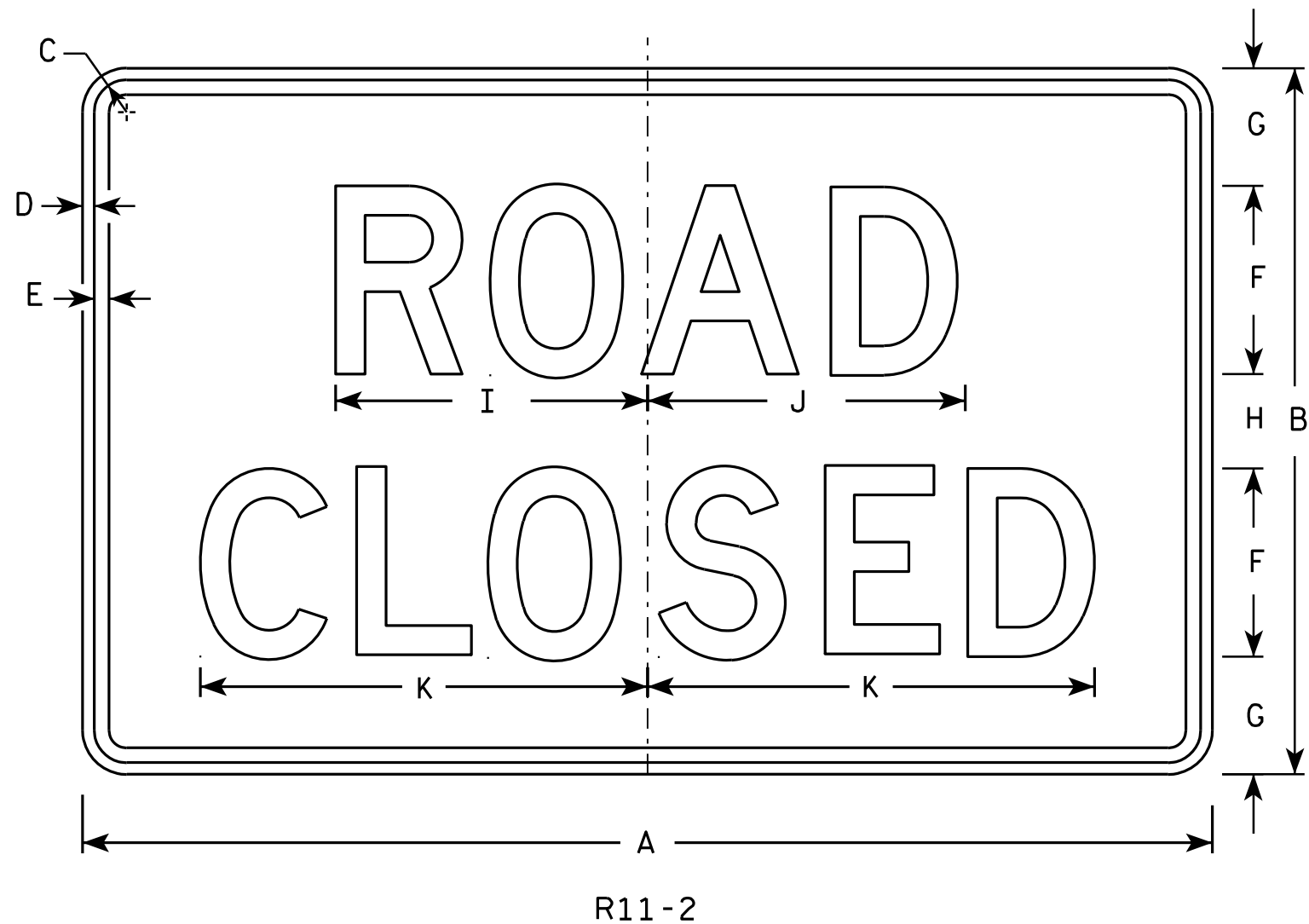
PROJECT NO:

HWY:

COUNTY:

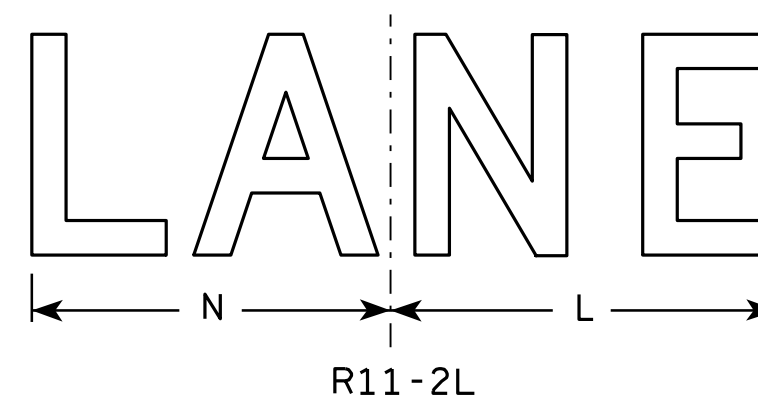
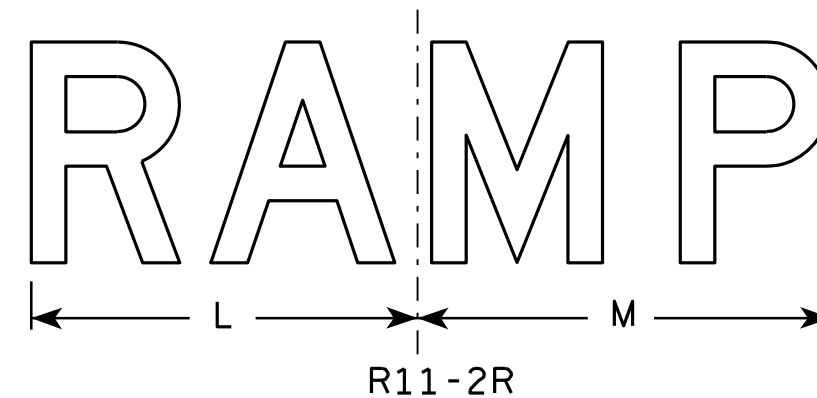
SHEET NO:

E



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
Message - Black
- Message Series - D
- 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.
- Modify the message as required.

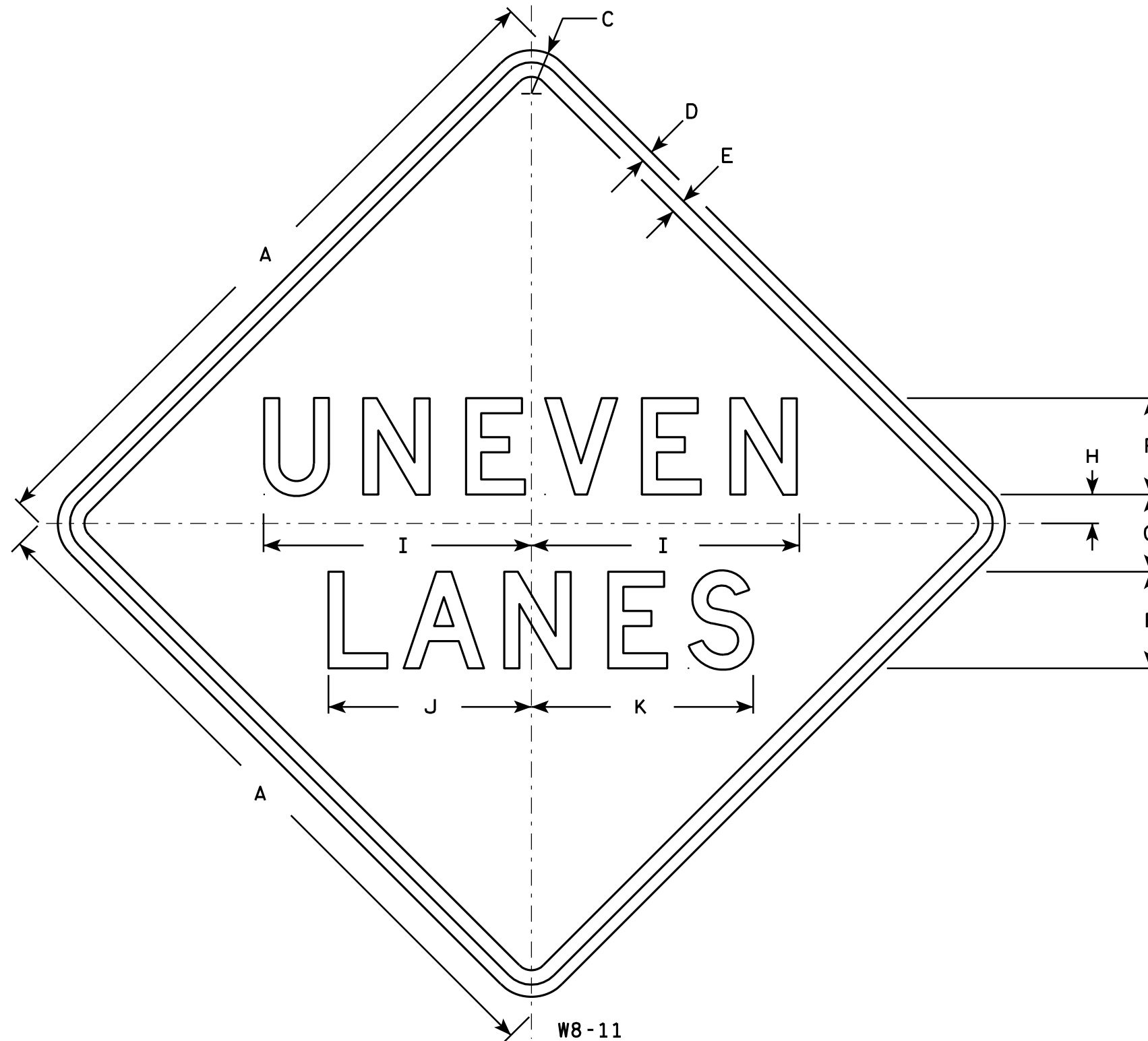


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - D
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	5	4	1 1⁄2	13 7⁄8	10 1⁄2	11 1⁄2																9.0
2M	36		1 5⁄8	5⁄8	3⁄4	5	4	1 1⁄2	13 7⁄8	10 1⁄2	11 1⁄2																9.0
3																											
4	36		1 5⁄8	5⁄8	3⁄4	5	4	1 1⁄2	13 7⁄8	10 1⁄2	11 1⁄2																9.0
5	48		2 1⁄4	3⁄4	1	7	5	2	18 1⁄2	14	15 3⁄8																16.0

STANDARD SIGN

W8-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/22/11 PLATE NO. W8-11.4

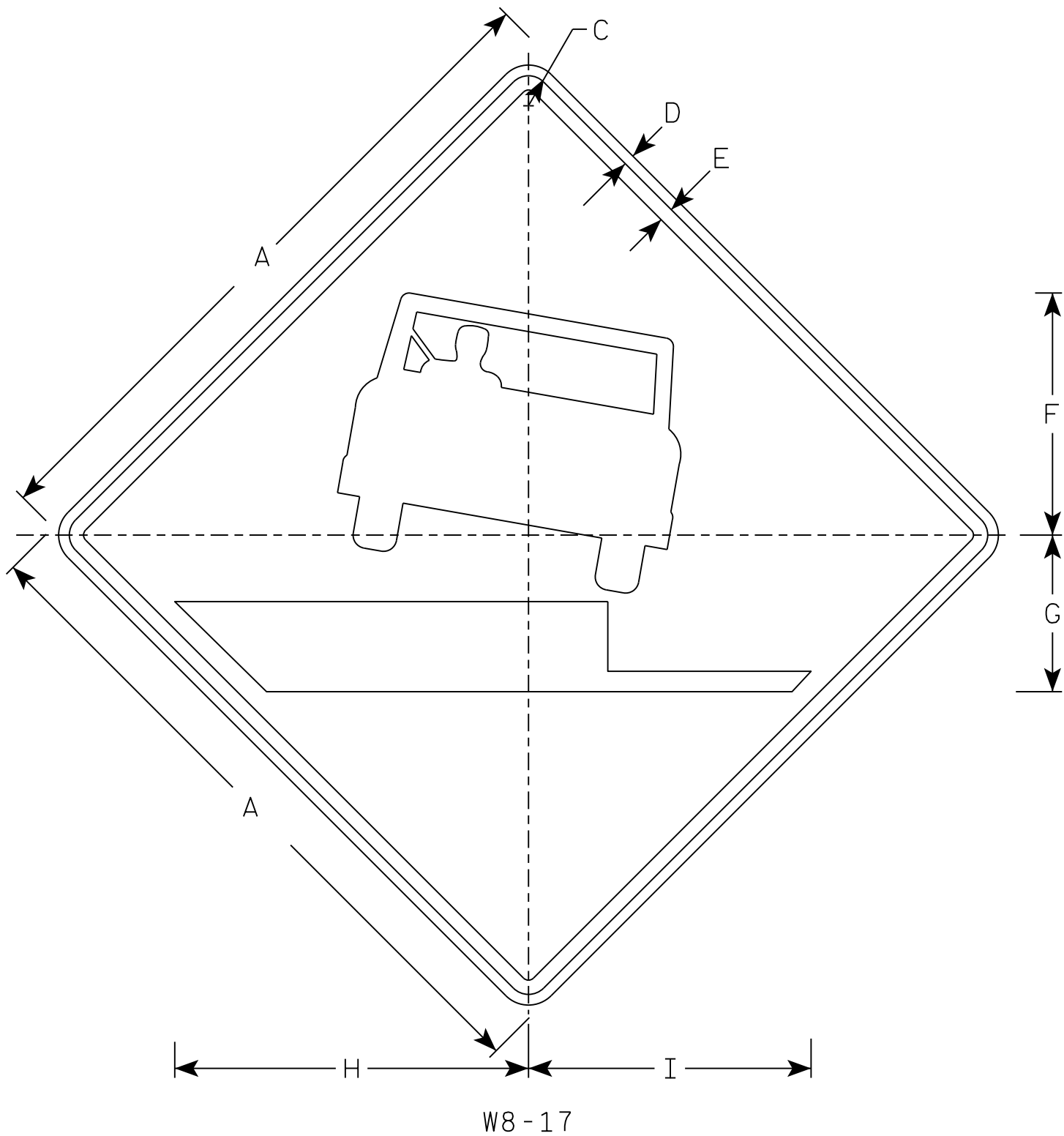
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

W8-17

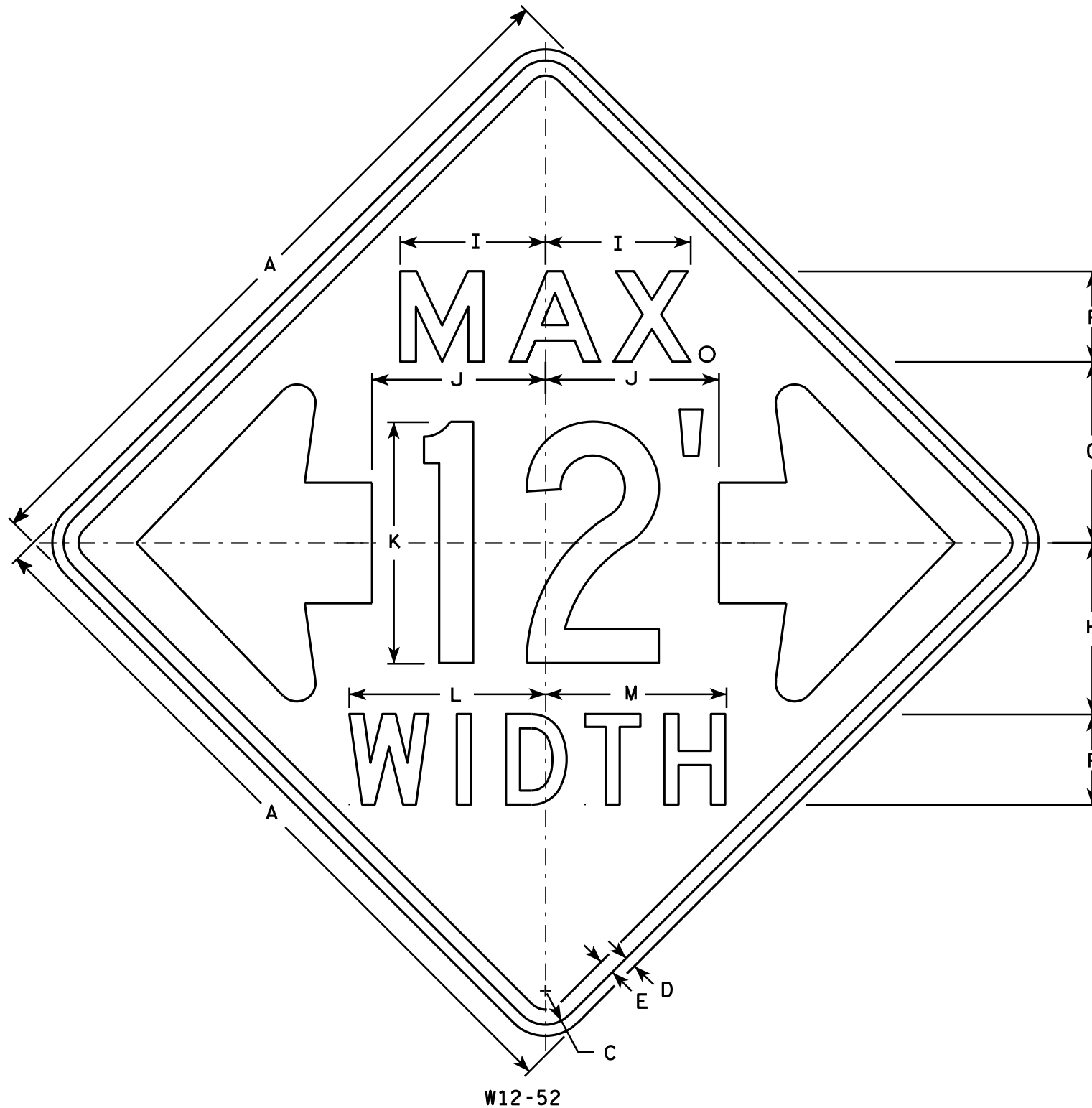
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
2M	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
3	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
4	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
5	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0

STANDARD SIGN
W8-17

WISCONSIN DEPT OF TRANSPORTATION

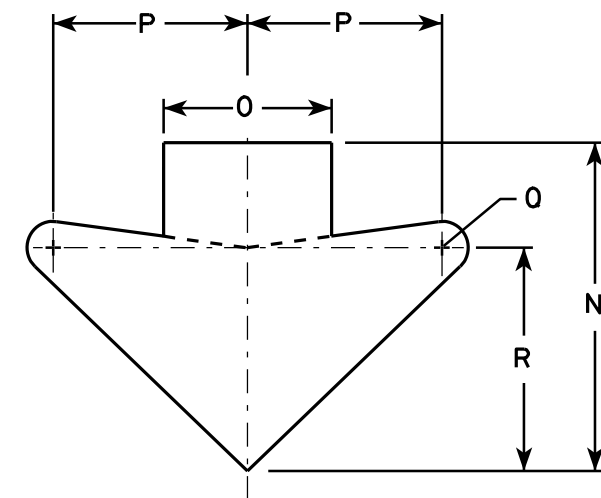
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/10/17 PLATE NO. W8-17.1



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- The top line is series E, the numerals are series C, and the bottom line is series D.
- Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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

STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

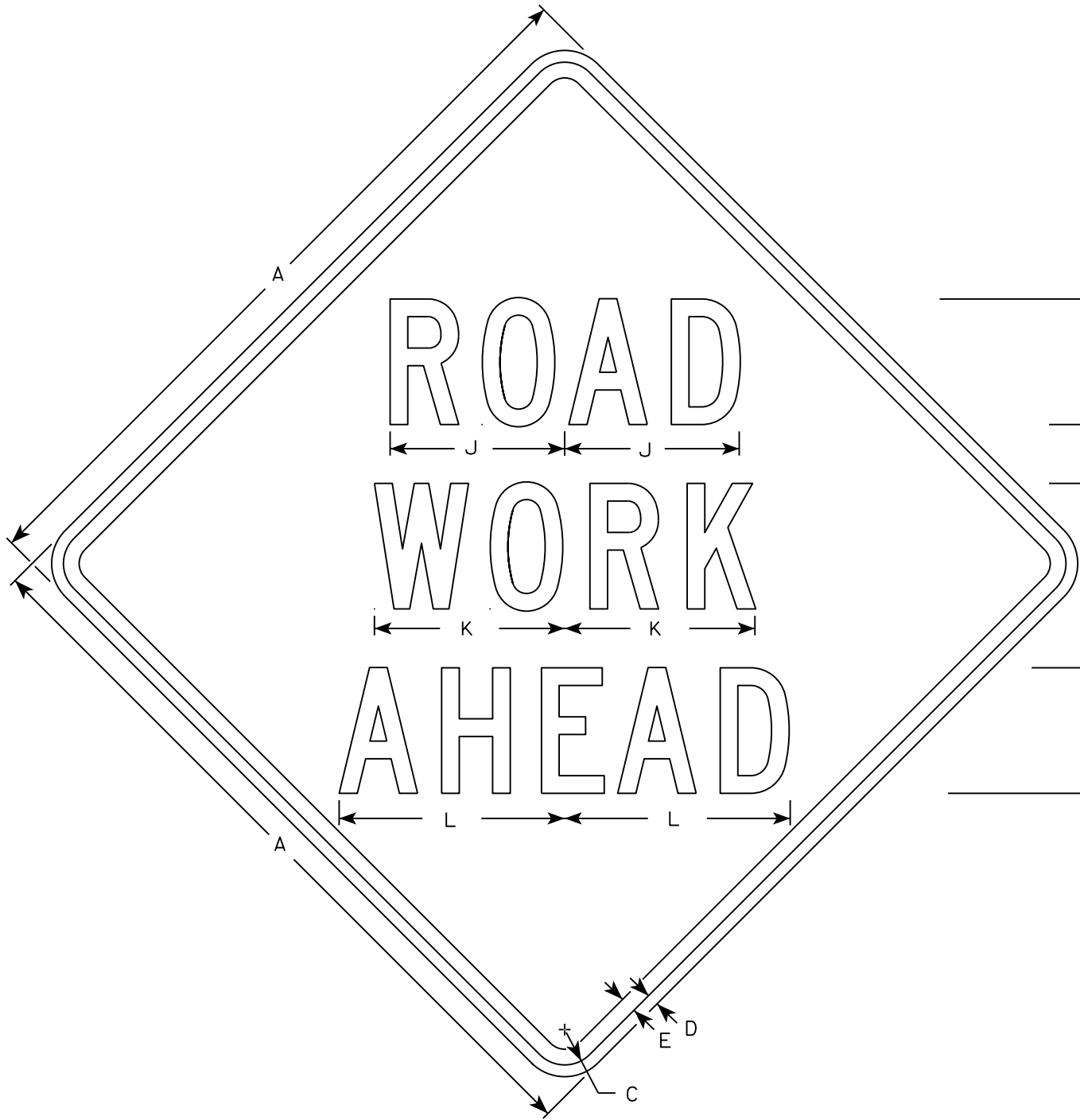
PROJECT NO:

HWY:

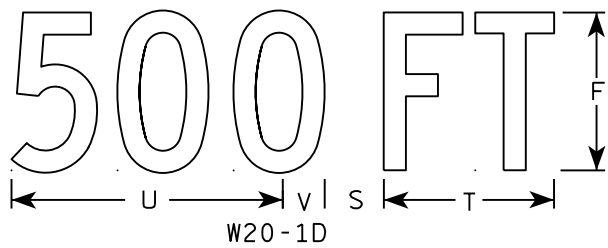
COUNTY:

SHEET NO:

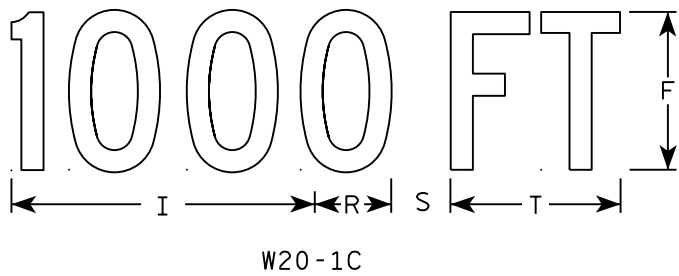
E



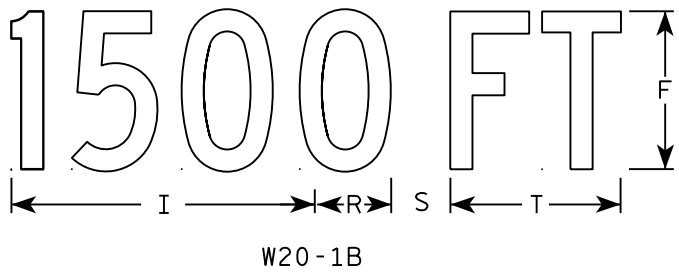
W20-1A



W20-1D



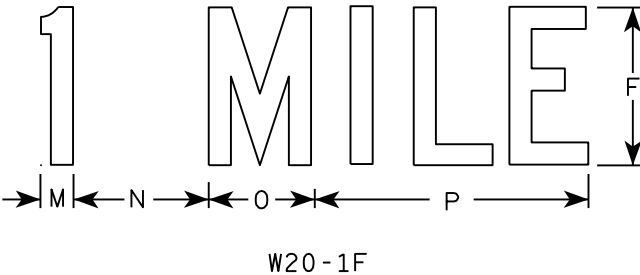
W20-1C



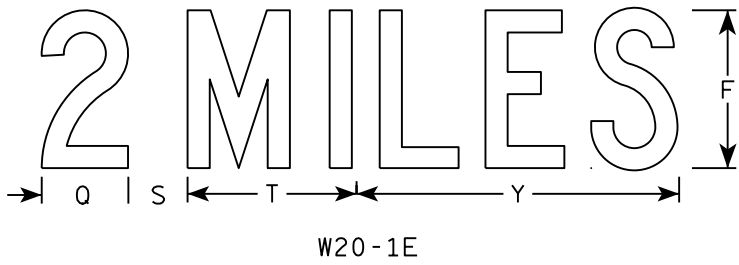
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

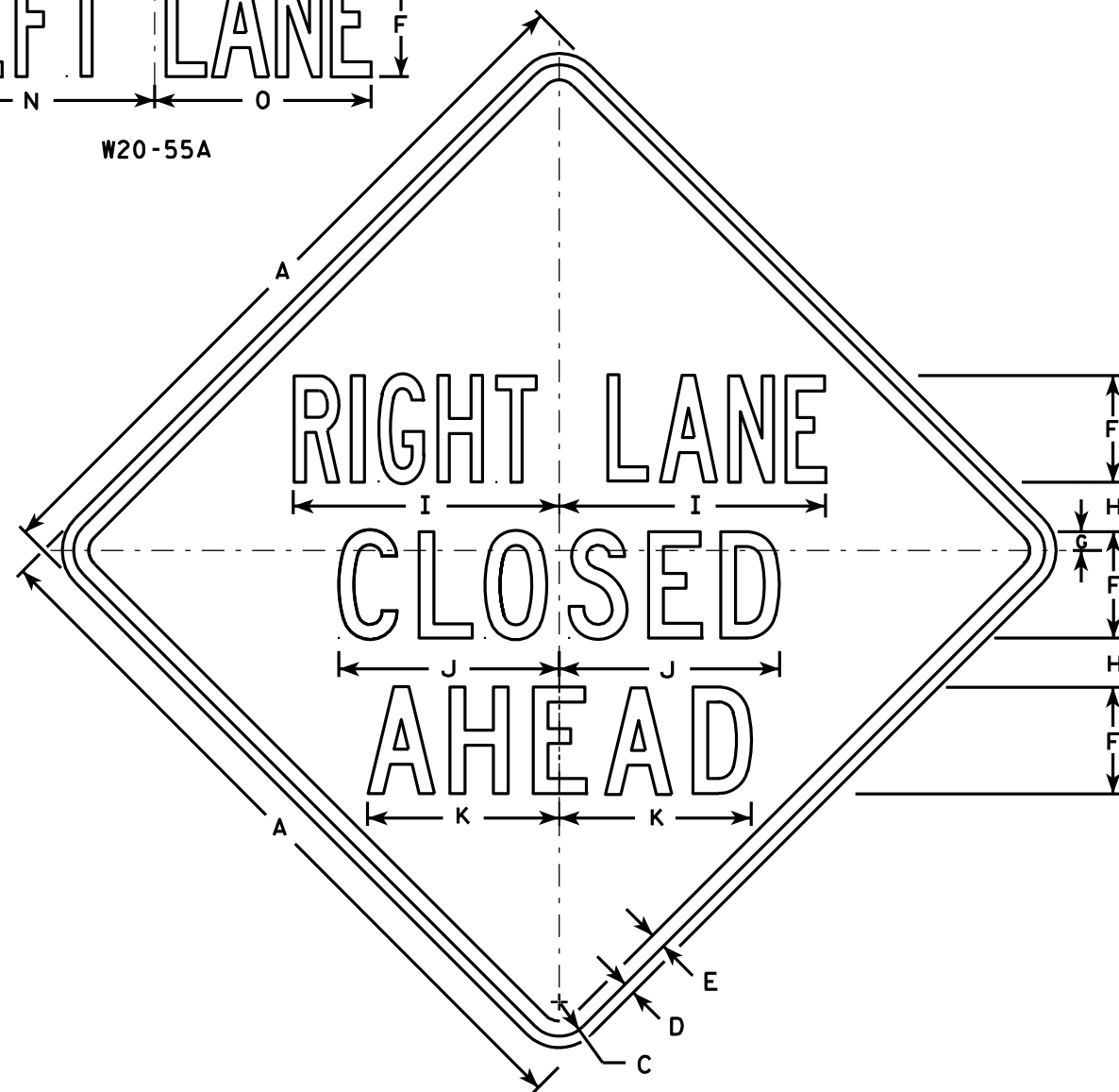
DATE 5/07/15 PLATE NO. W20-1.10

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. "----- LANE" is Series B.
All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

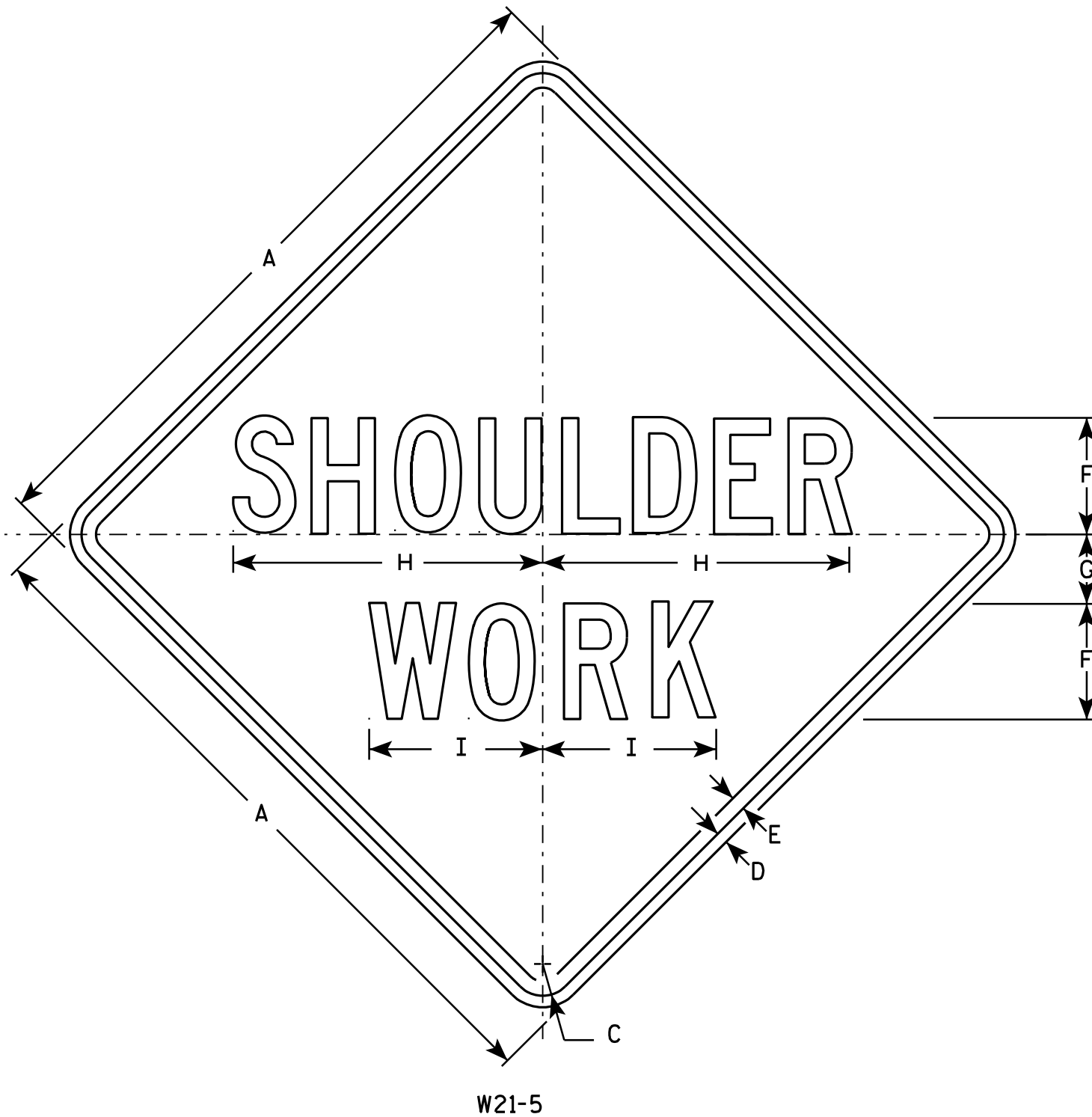
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN

W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/21/11 PLATE NO. W21-5.5

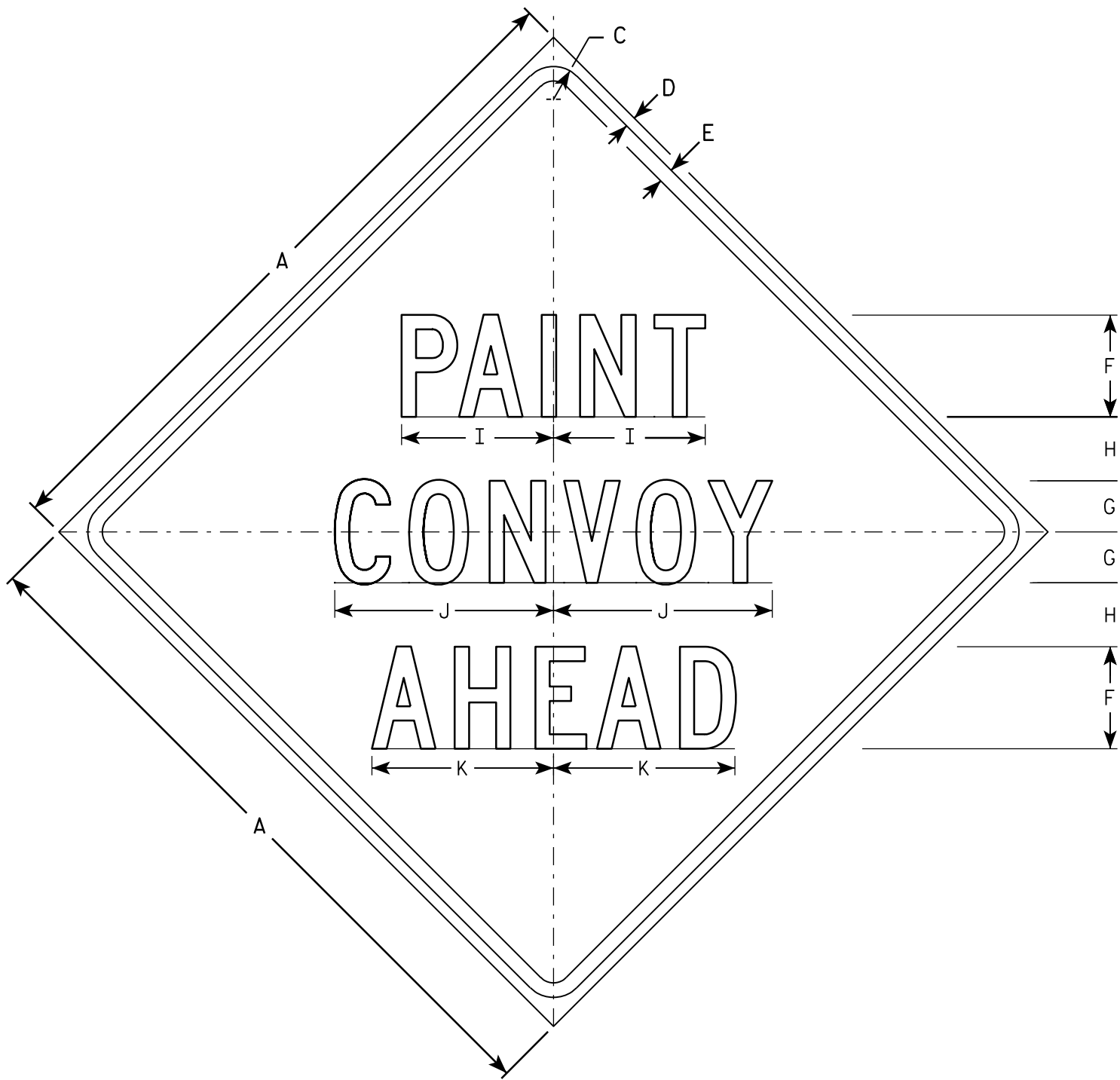
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

W21-63

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

STANDARD SIGN
W21-63

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-63.3

PROJECT NO:

HWY:

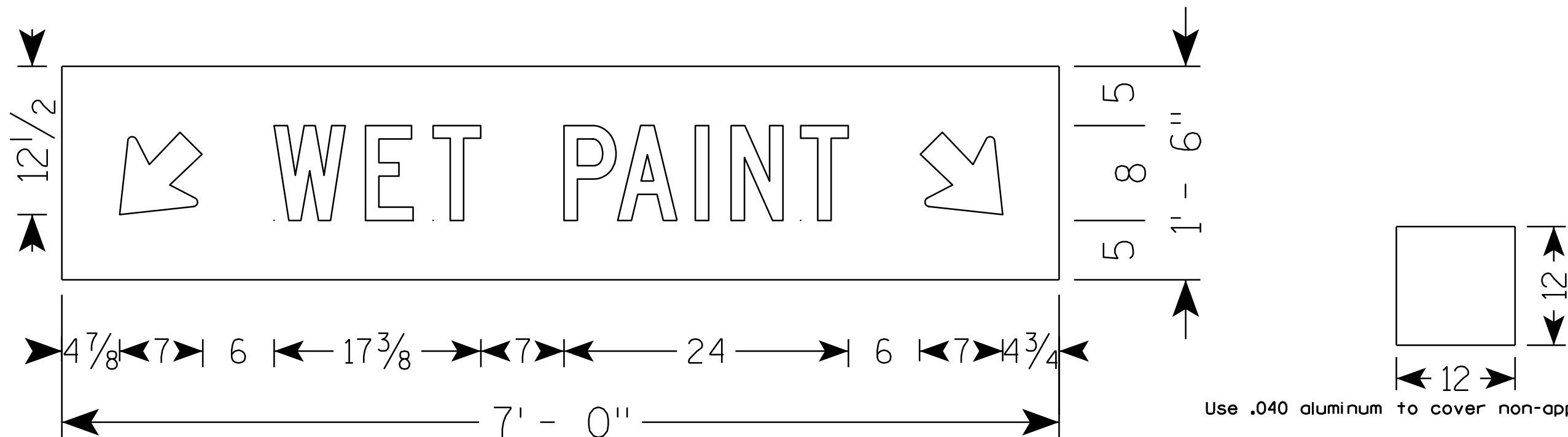
COUNTY:

SHEET NO:

E

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C



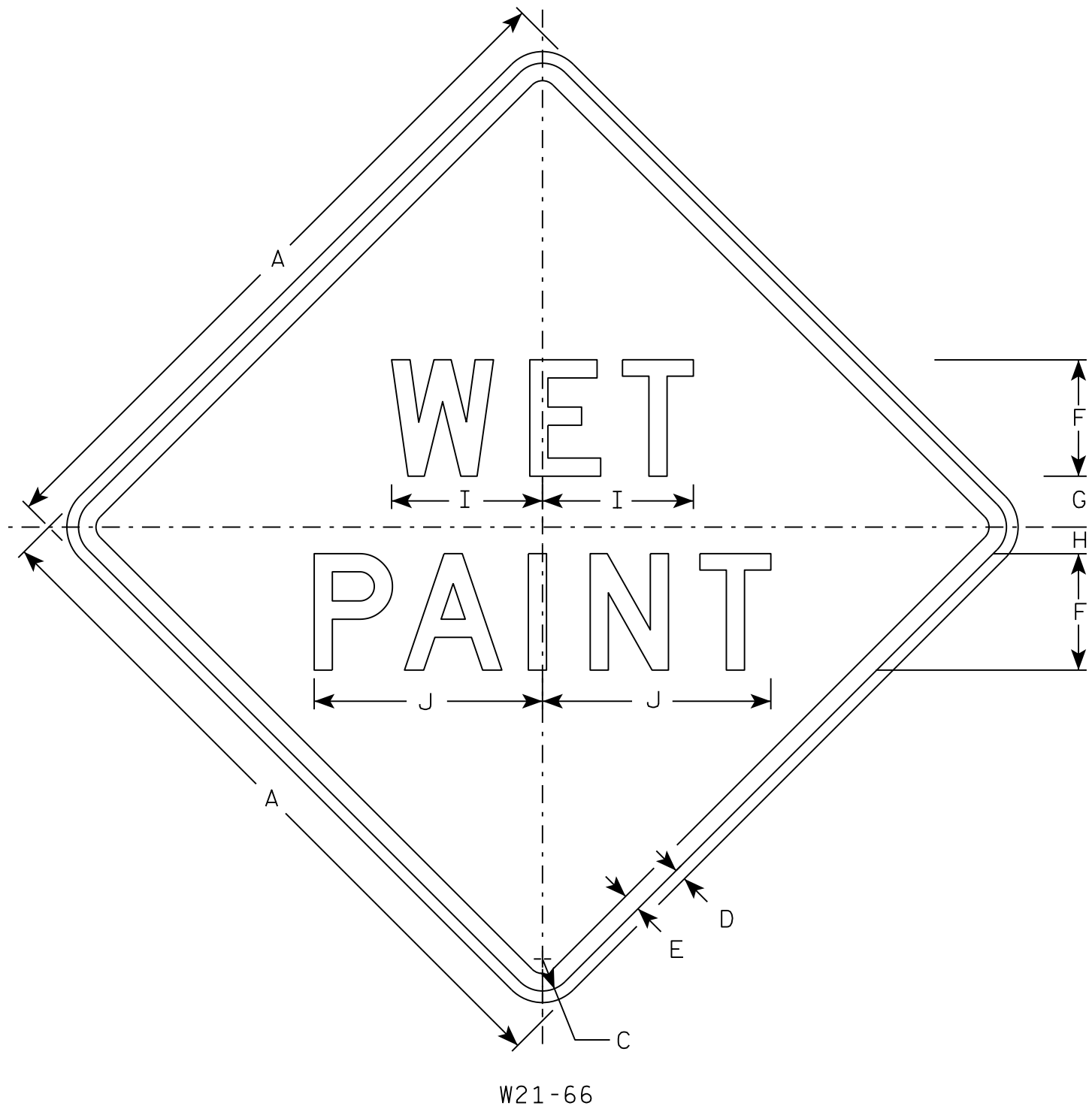
STANDARD SIGN
W21-64

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 5/11/09 PLATE NO. W21-64.1

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

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

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

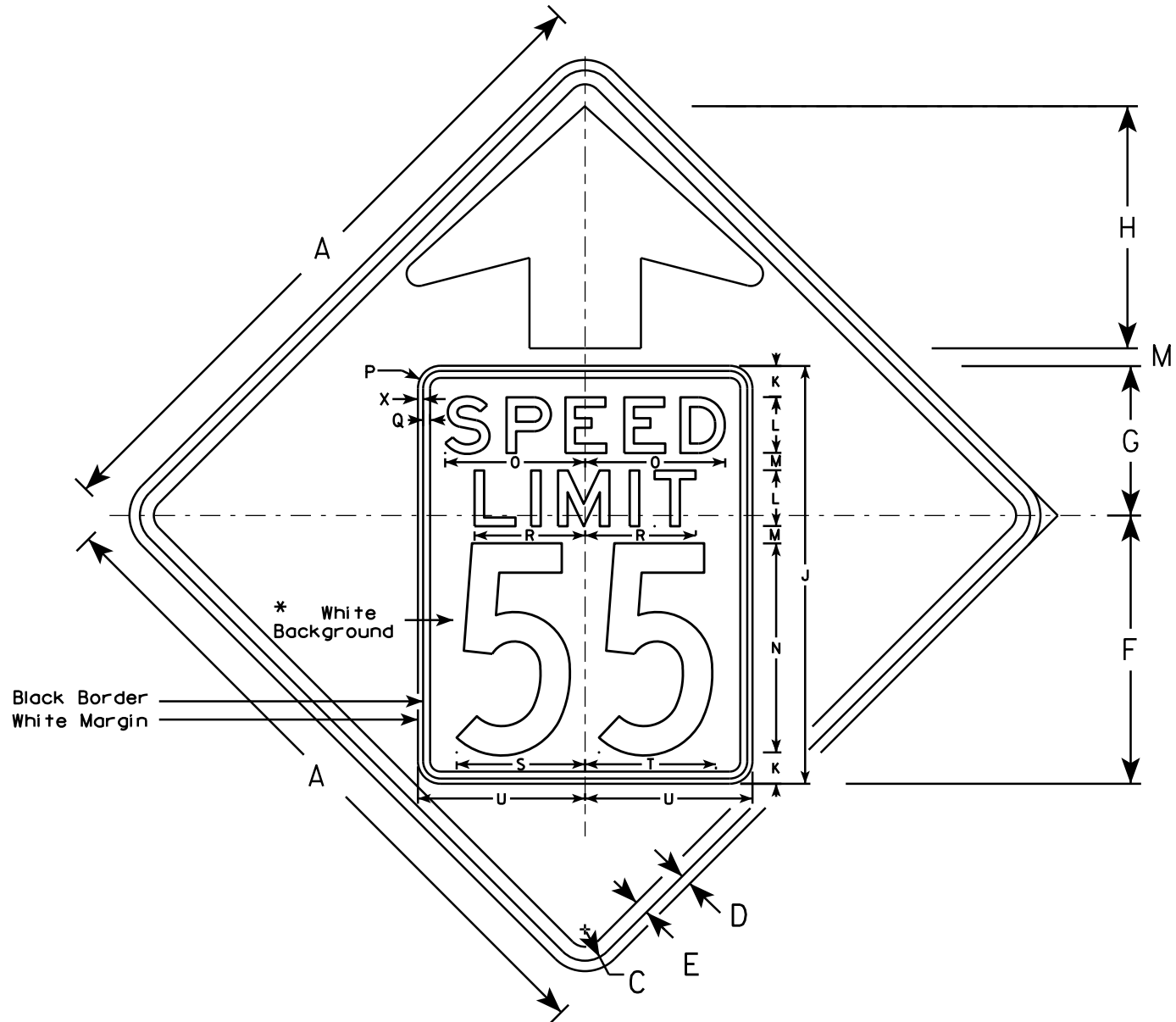
STANDARD SIGN

W21-66

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/19/18 PLATE NO. W21-66.1

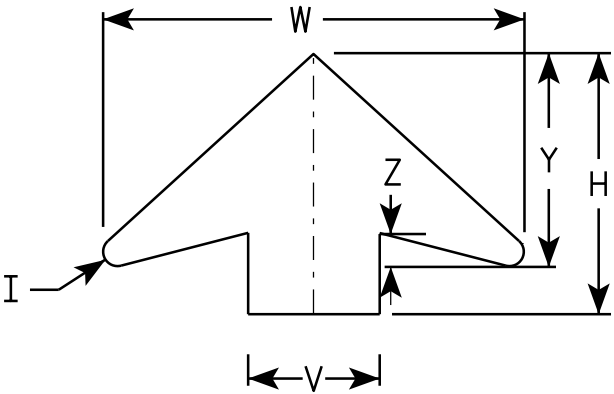


W03-5

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color: *
Background - ORANGE*
Message - BLACK
- 3. Message Series - C for numbers Series E for wording
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

PROJECT NO:

STANDARD SIGN
W03-5

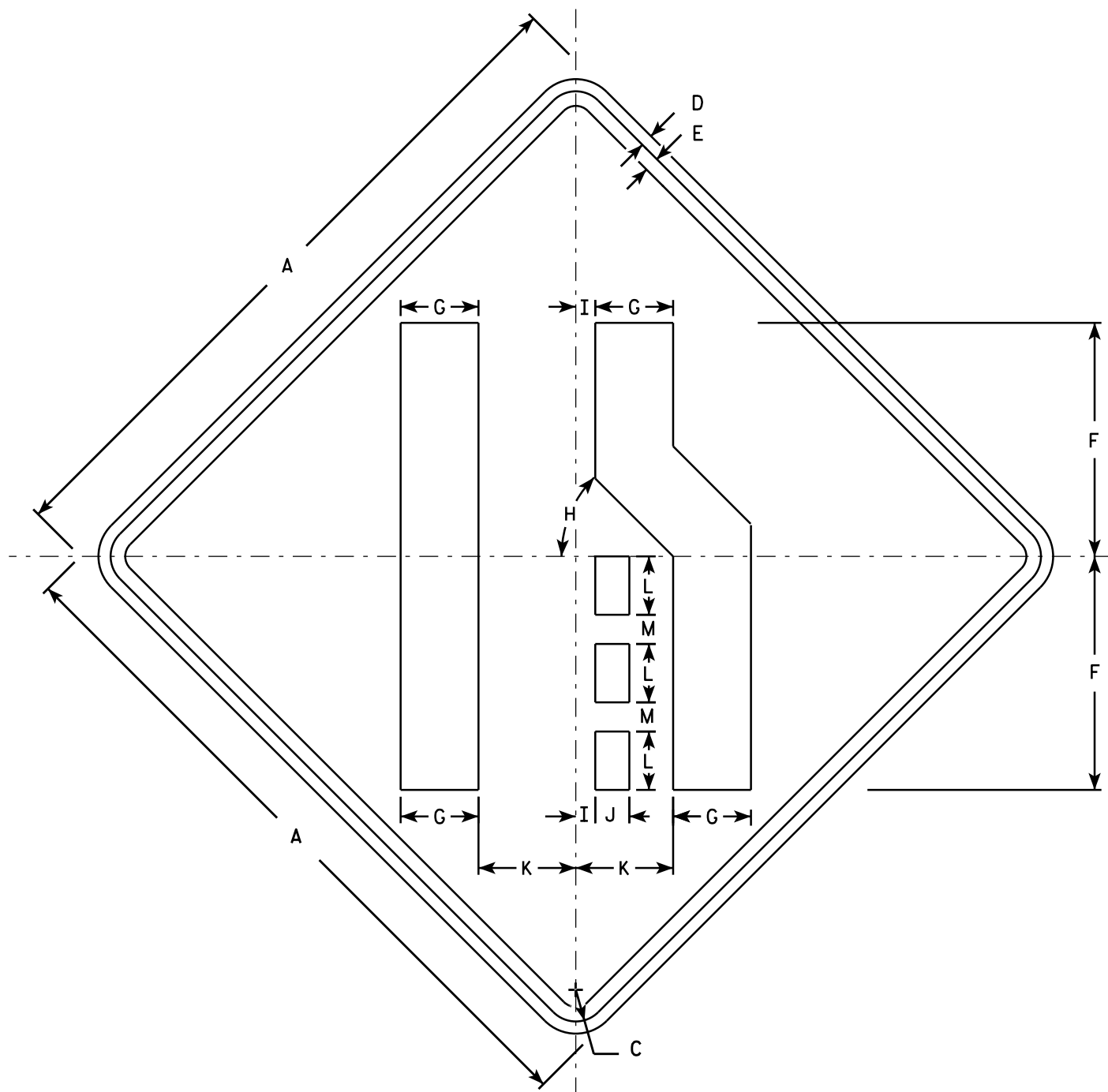
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W03-5.1

SHEET NO:

E



W04-2R

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN

W04-2

WISCONSIN DEPT OF TRANSPORTATION

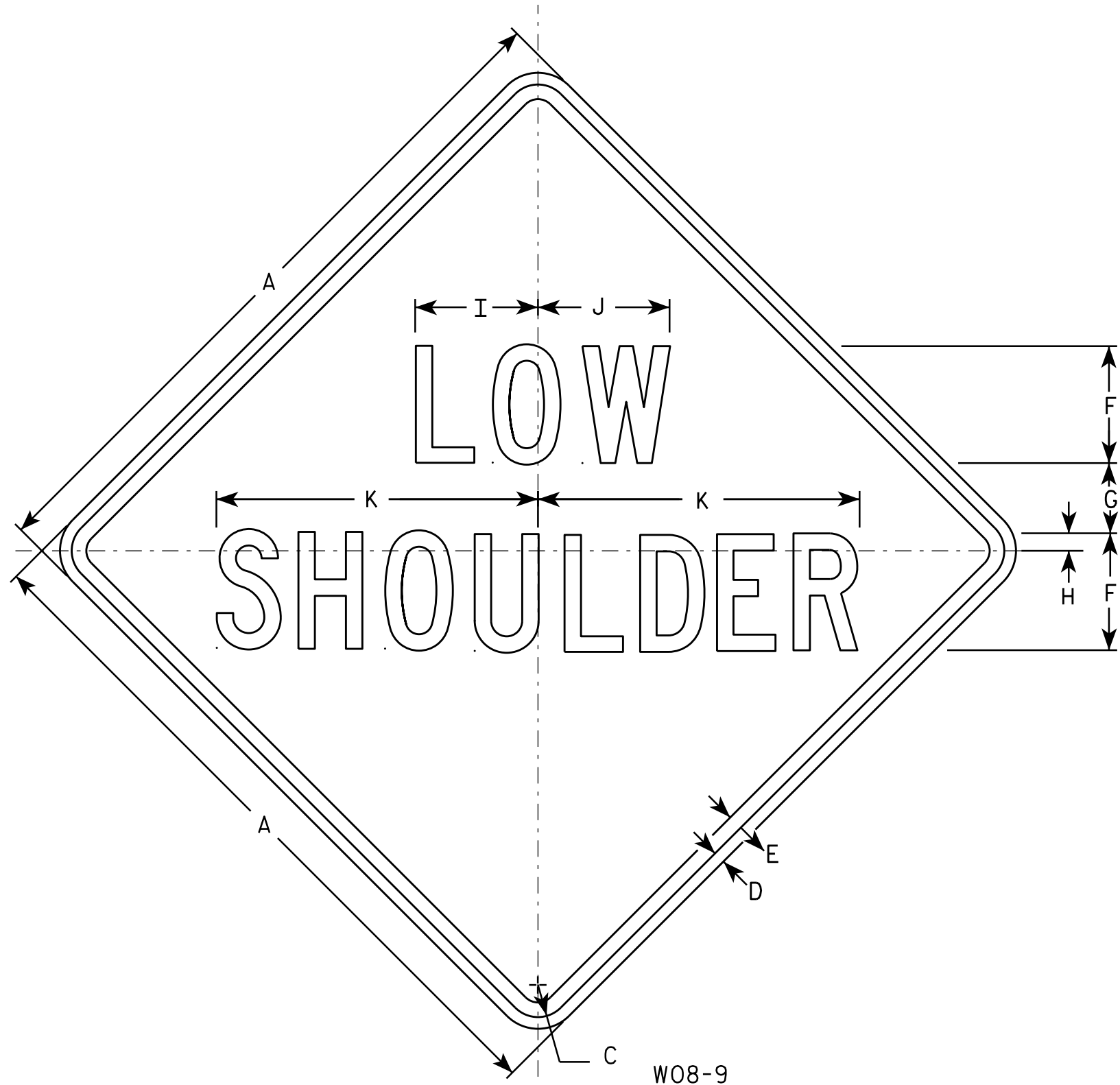
APPROVED

Matthew R. Rauch

For State Traffic Engineer

DATE 11/20/13

PLATE NO. W04-2.1



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	1	6 1/4	6 3/4	16 1/2																9.0
2S	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
2M	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
3	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
4	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
5	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0

STANDARD SIGN
W08-9

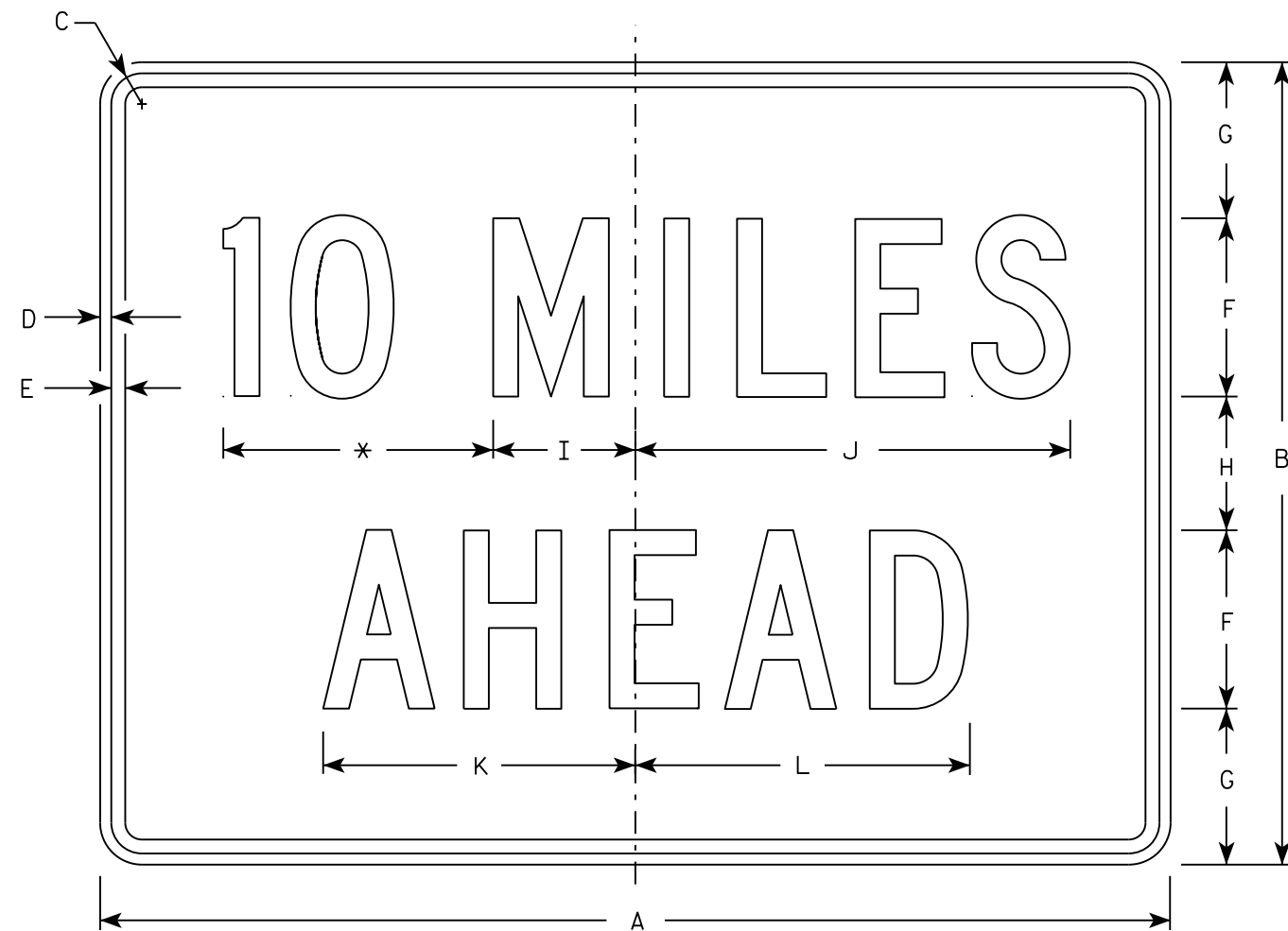
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

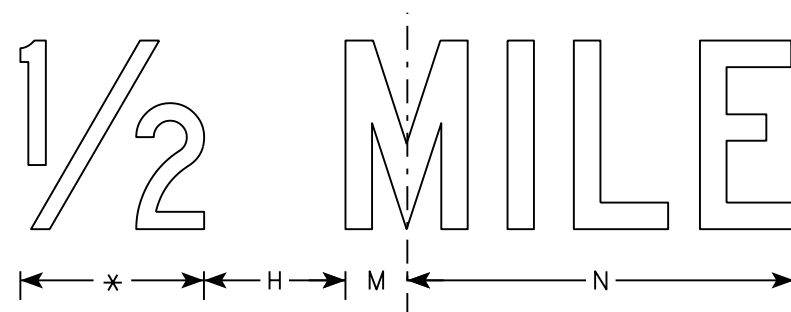
DATE 11/20/13 PLATE NO. W08-9.1

NOTES

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



W057-52



* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

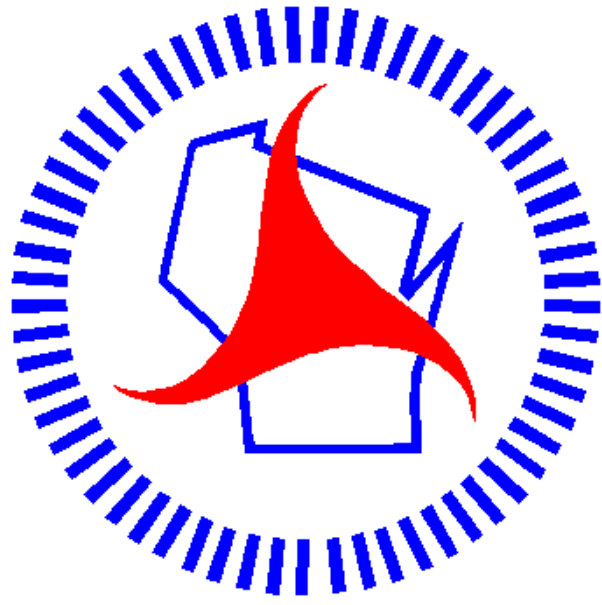
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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