

GENERAL NOTES

- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- PLACE THE 3.5" HMA PAVEMENT IN A SINGLE LAYER
- STATIONING OF CONCRETE PAVEMENT REPAIR AND REPLACEMENT LOCATIONS IN THE PLAN ARE APPROXIMATE. VERIFY LOCATIONS WITH ENGINEER
- SAWING CONCRETE WILL BE MEASURED AND PAID FOR ONLY ONCE WHEN REPAIRS ARE ADJACENT ALONG THE CENTERLINE OF THE LANES
- OVER-SAWING INTO PAVEMENT THAT IS TO REMAIN TO FACILITATE REMOVAL OF REPAIR AREAS SHALL BE SEALED WITH AN APPROVED EPOXY. THE OVER-SAWING AND EPOXY ARE INCIDENTAL TO BID ITEMS 416.1715, 416.1725.
- WITHIN CONCRETE PAVEMENT REPLACEMENT SECTIONS, THE NEW CONTRACTION JOINTS MAY NOT MATCH ABUTTING EXISTING JOINTS BECAUSE OF CHANGES TO STANDARDS AND PRIOR REPAIRS. ADJUST NEW JOINTS TO MATCH EXISTING JOINTS WHERE PRACTICAL. DO NOT EXCEED THE MAXIMUM CONTRACTION JOINT SPACING OF 15'.
- THE NEW FINISH SHOULD MATCH THE ADJACENT PAVEMENT PATTERN.

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 = 0.1 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.1 ACRES

STANDARD ABBREVIATIONS

AC	ACRE	LC.	LONG CHORD
AGG	AGGREGATE	LS	LUMP SUM
<	ANGLE	M.P.	MARKER POST
AE, AEW	APRON ENDWALL	MGAL	1000 GALLONS
ASPH.	ASPHALTIC	N.C.	NORMAL CROWN
A.D.T.	AVERAGE DAILY TRAFFIC	N	NORTH
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
B.F.	BACK FACE	NOR	NORMAL
BM	BENCHMARK	NO.	NUMBER
BTWN	BETWEEN	PAV'T	PAVEMENT
CTR.	CENTER	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
C.E.	COMMERCIAL ENTRANCE	P.T.	POINT OF TANGENCY
CONST.	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE	P.E.	PRIVATE ENTRANCE
CMP	CORRUGATED METAL PIPE	PGL	PROFILE GRADE LINE
CO.	COUNTY	P.L.	PROPERTY LINE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR.	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SYM	SYMMETRICAL
EXIST	EXISTING	T.	PERCENT TRUCKS
F.F.	FACE TO FACE	TEL.	TELEPHONE
FERT.	FERTILIZER	TEMP.	TEMPORARY
F.E.	FIELD ENTRANCE	T.L.E.	TEMPORARY LIMITED EASEMENT
F/L, F.L.	FLOW LINE	T.O.C.	TOP OF CURB
GALV.	GALVANIZE	TYP	TYPICAL
H.S.	HIGH STRENGTH	UNCL.	UNCLASSIFIED
CWT	HUNDRED WEIGHT	U.G.	UNDERGROUND (CABLE)
INL	INLET	VAR	VARIABLE
INTER.	INTERSECTION	V.C.	VERTICAL CURVE
IH	INTERSTATE HIGHWAY	V.P.C.	VERTICAL POINT OF CURVATURE
JT.	JOINT	V.P.I.	VERTICAL POINT OF INTERSECTION
LT	LEFT	V.P.T.	VERTICAL POINT OF TANGENCY
L.H.F.	LEFT HAND FORWARD	Wt.	WEIGHT
L.	LENGTH OF CURVE	W	WEST
L.F.	LINEAR FOOT(FEET)	WB	WESTBOUND

DESIGN CONTACTS

JOHN BANTER
PROJECT MANAGER
WISDOT SW REGION
3550 MORMON COULEE RD
LA CROSSE, WI 54601
608-785-9729
john.bainter@dot.wi.gov

BRIAN DAHL
PROJECT DESIGNER
WISDOT SW REGION
3550 MORMON COULEE RD
LA CROSSE, WI 54601
608-785-9074
brian.dahl@dot.wi.gov

DNR LIAISON

KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DEPT. OF NATURAL RESOURCES
WEST CENTRAL REGION
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
608-785-9115



UTILITY CONTACTS

Kenneth Nine
AT&T Legacy - Communication Line
110 N. Main St.
Culver, IN 46511
574-842-8830
574-904-6336 (Mobile)
Knine@JMCEAinc.com

Josh Lobenstein
Alliant Energy - Electricity
520 Commerce Ave
Baraboo, WI 53913
608-356-0671
608-963-5519 (Mobile)
JoshuaLobenstein@AlliantEnergy.com

Eric Becker
Windstream KDL, LLC - Communication Line
314 N Danz Ave
Green Bay, WI 54302-3526
(920) 461-9825
Eric.Becker@windstream.com

Shad Garcia
Level 3 Communications LLC - Communication Line
3235 Intertech Dr, Suite 600
Brookfield, WI 53045
414-908-1070
262-606-0896 (Mobile)

Ken Las
Reedsburg Utility Commission - Communication Line
501 Utility Court
P.O. Box 230
Reedsburg, WI 53959
(608) 768-6450
klas@rucls.net

Keith Jackson
Rogers Telecom - Communication Line
4804 N 40th St
Sheboygan, WI 53083
(920) 395-7121
(920) 889-9905 (Mobile)
KJackson@gabes.com

Lenny Klass
Northern Natural Gas Company - Gas/Petroleum
5557 County Highway D
Platteville, WI 53818
402-530-2806
608-778-8514 (Mobile)
Leonard.Klass@NNGco.com

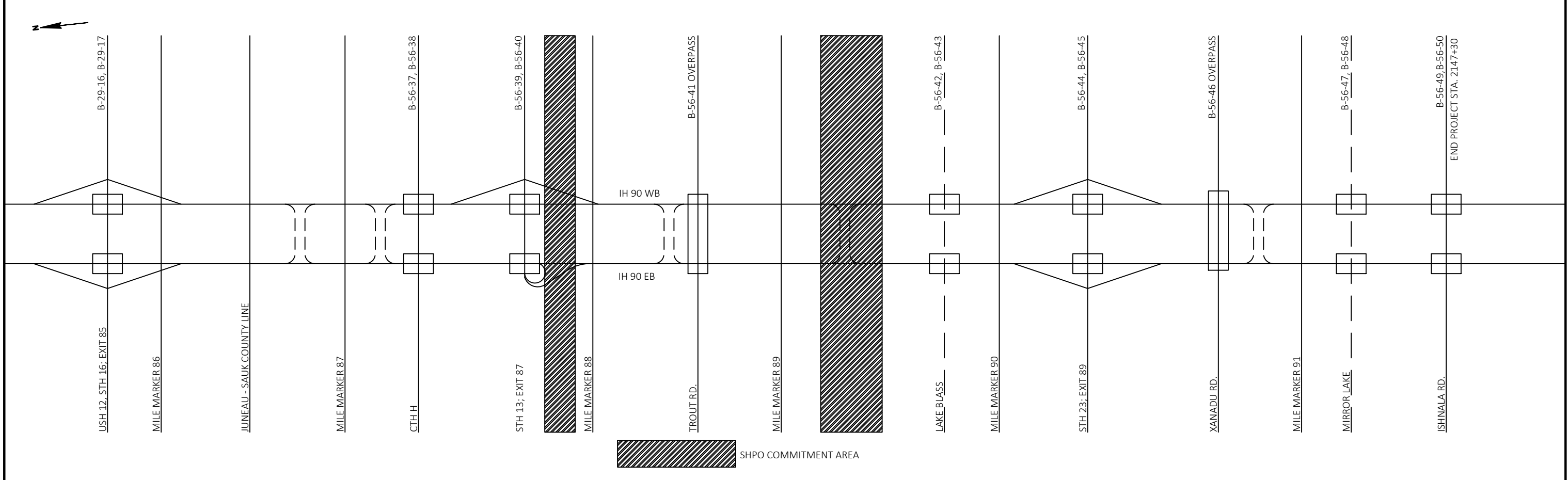
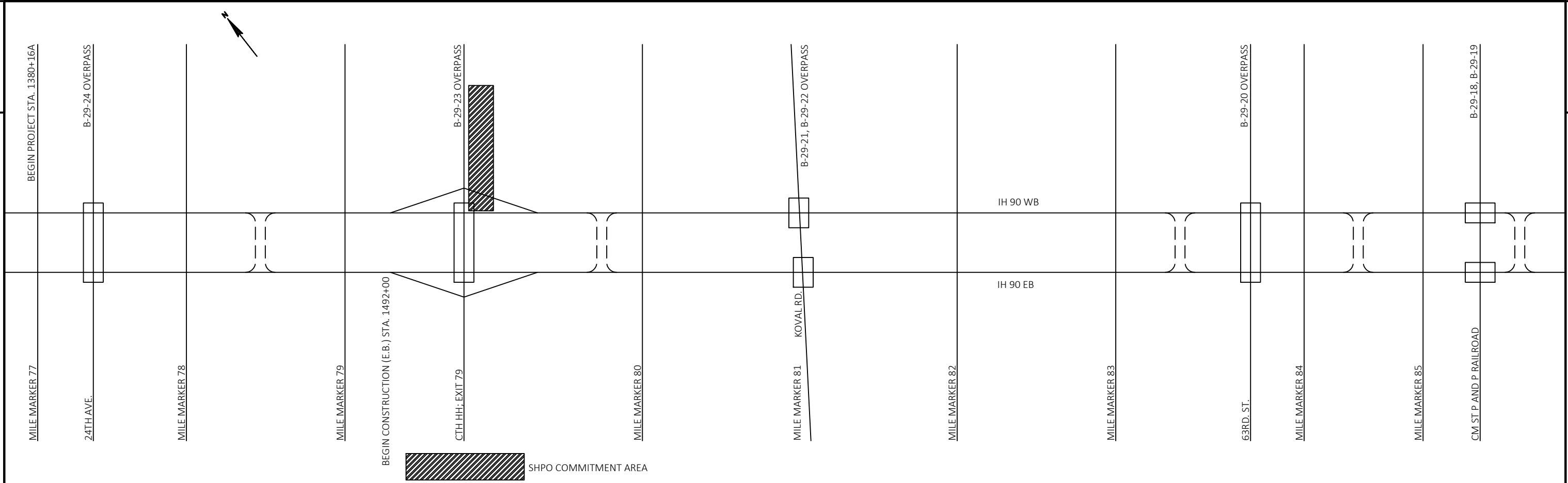
Doug Vosberg
ATC Management, Inc. - Electricity-transmission
2489 Rinden Road
Cottage Grove, WI 53527
608-877-7650
DVosberg@ATCllc.com

Roy Boyles
Oakdale Electric Cooperative - Electricity
P.O. Box 40
Oakdale, WI 54649-0128
608 372-4131 Ext. 8851
608 343-3871 (Mobile)
RBoyles@OakdaleREC.com

David Holzem
City of Wisconsin Dells - Sewer & Water
300 LaCrosse St
Wisconsin Dells, WI 53965
(608) 253-2542 (W) (Primary)
(608) 432-1018 (M) (Primary)
dholzem@dellscitygov.com

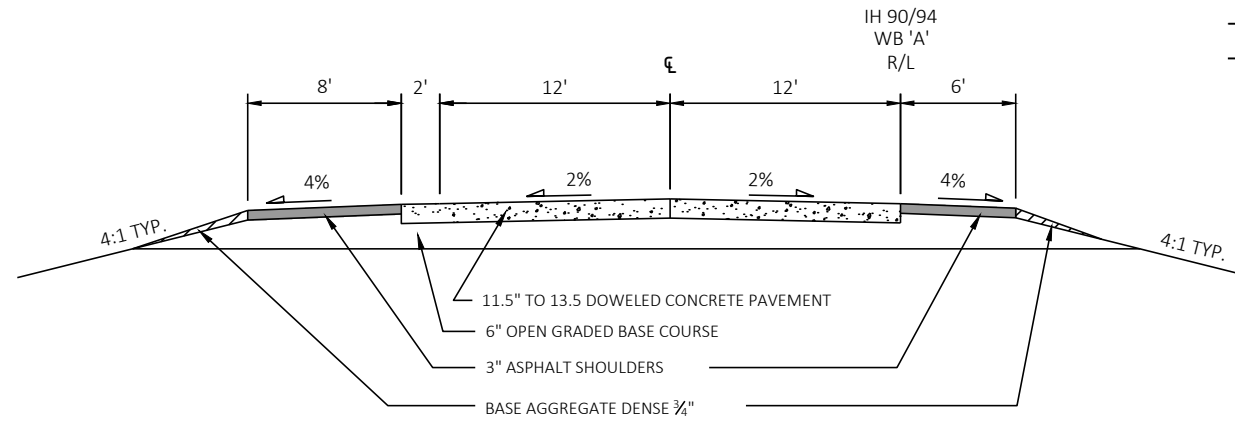
Gary Hansen
Village of Lake Delton - Sewer
P.O. Box 87
Lake Delton, WI 53940-0087
(608) 254-6704
(608) 432-1141 (Mobile)
GHansen@LakeDelton.org

Jerald Moore
Frontier Communications of WI LLC - Communication Line
2222 W Wisconsin St
Portage, WI 53901
(608) 742-9507
(608) 346-0353 (Mobile)
jerald.r.moore@ftr.com



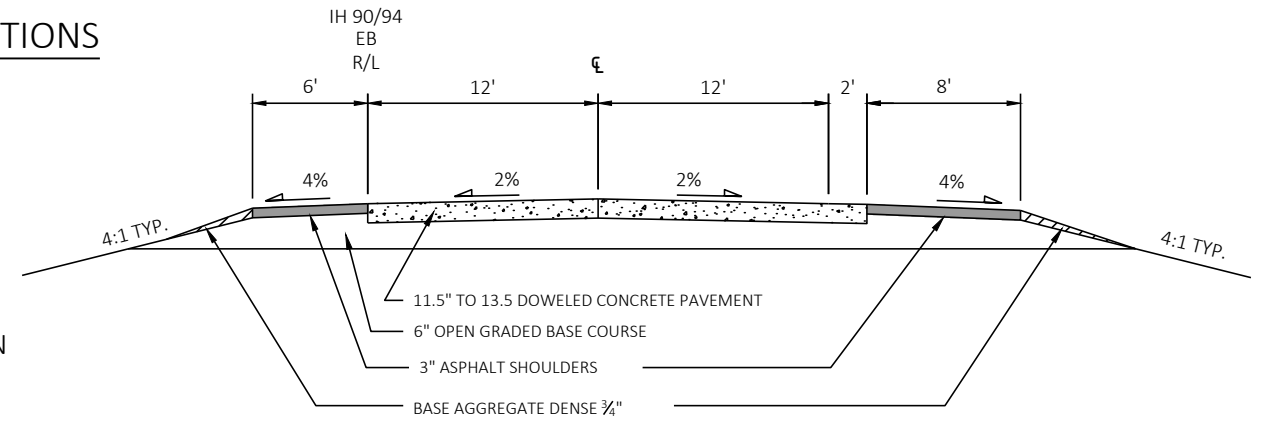
PROJECT NO: 1016-01-62	HWY: IH - 90	COUNTY: JUNEAU, SAUK	PROJECT OVERVIEW	SHEET E
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TYPICAL EXISTING SECTIONS



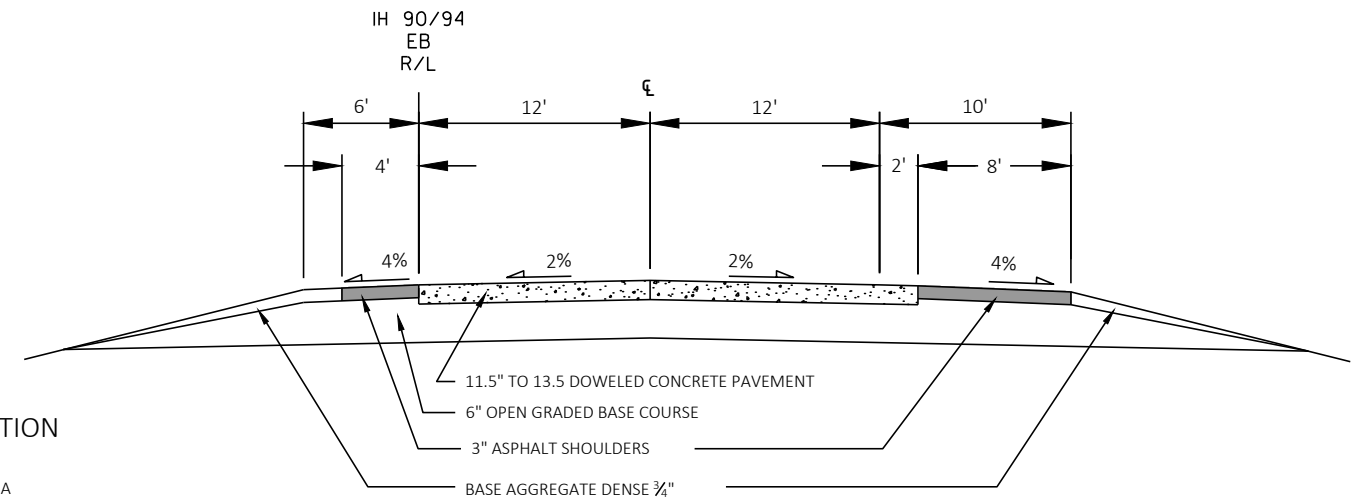
TYPICAL EXISTING SECTION

WESTBOUND
STA. 1381+54A - STA. 1824+37A
EASTBOUND
STA 1380+00 TO STA 1820+33



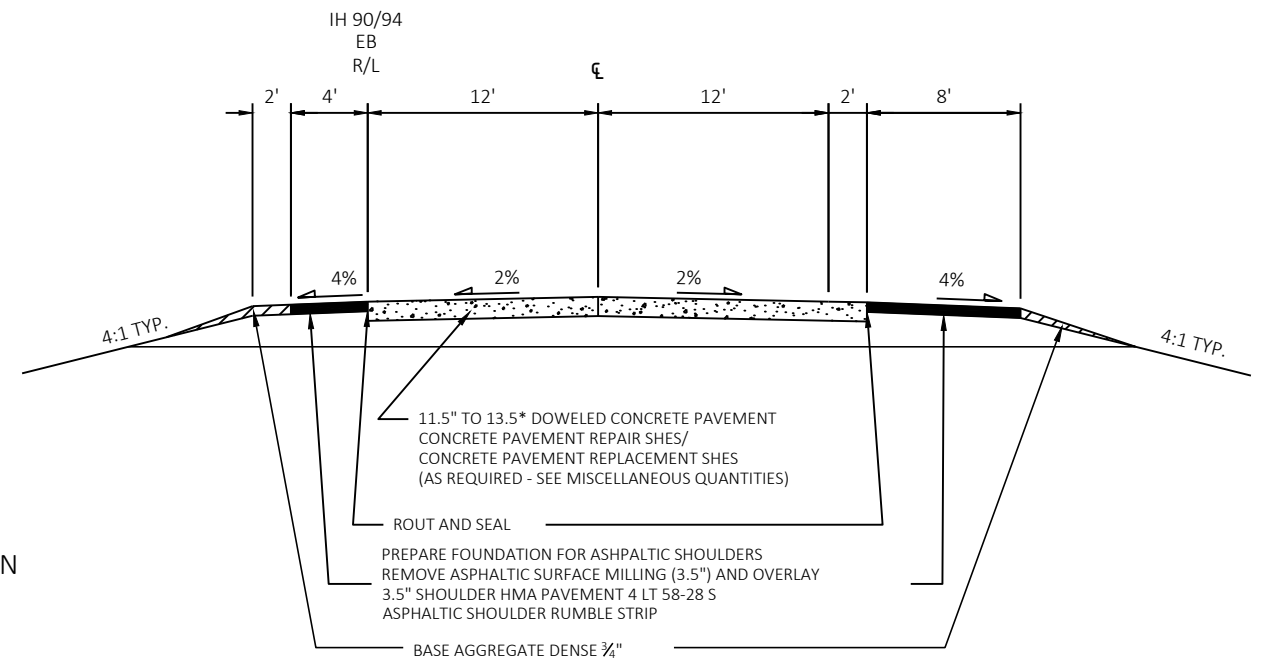
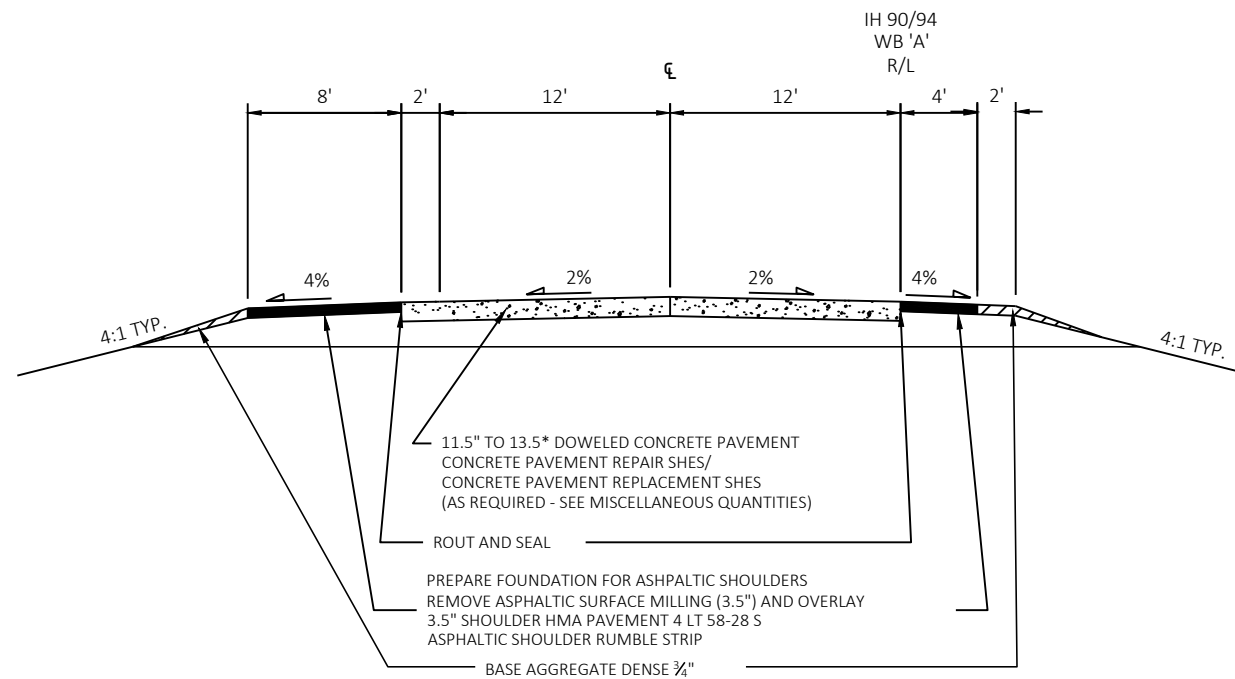
TYPICAL EXISTING SECTION

WESTBOUND
STA. 1826+32A - STA. 2148+22A
EASTBOUND
STA 1822+51 TO STA 2147+30

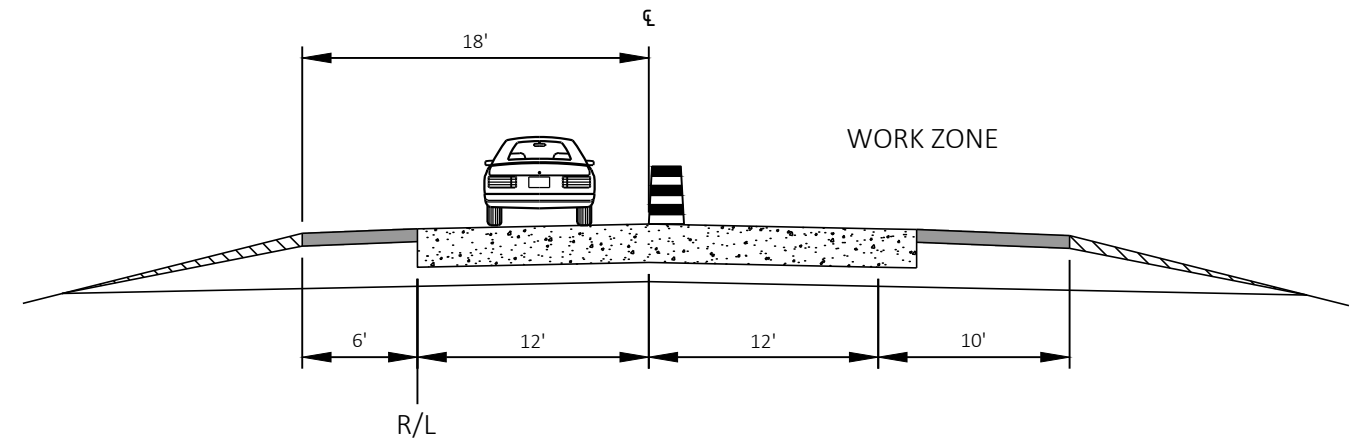
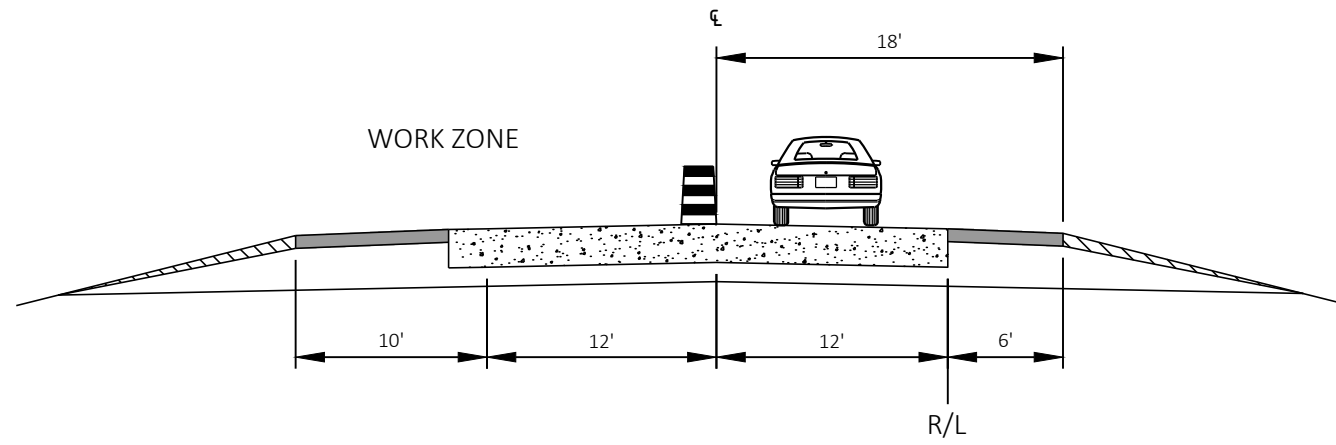


TYPICAL PROPOSED SECTION

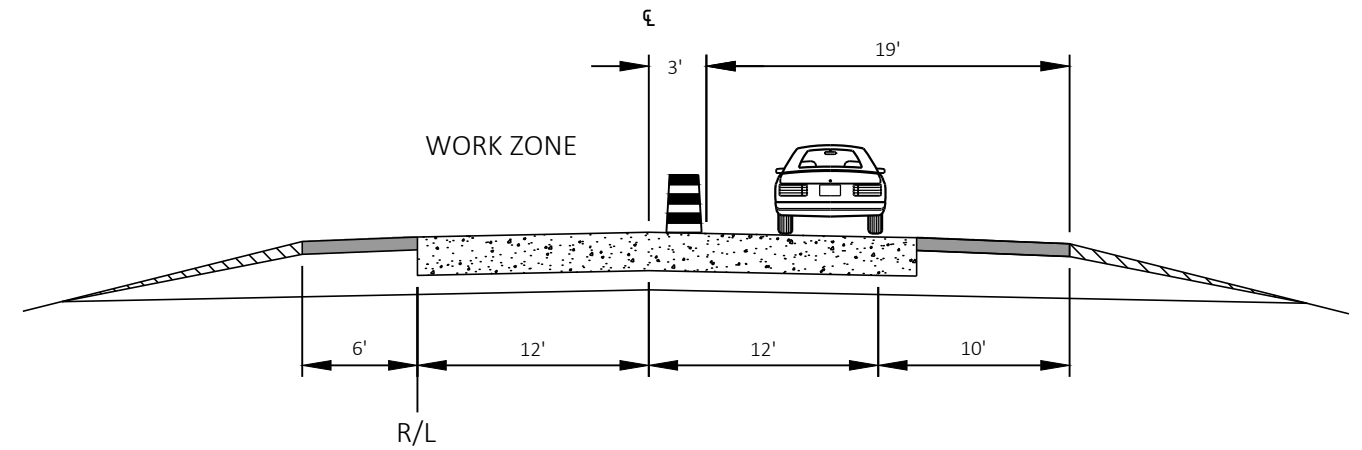
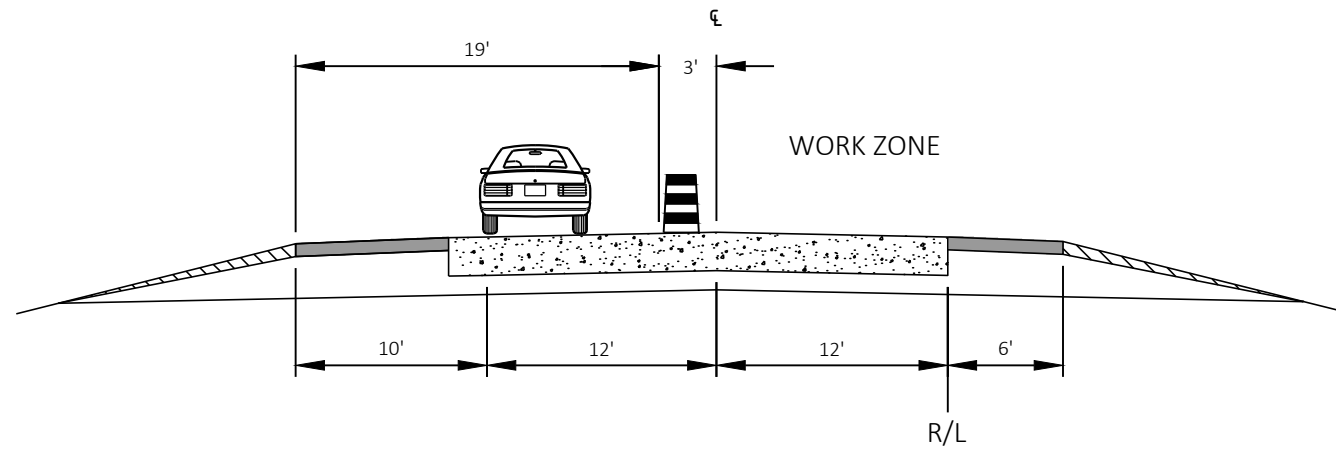
WESTBOUND
STA. 1381+54A - STA. 2148+22A
EASTBOUND
STA 1492+00 TO STA 2147+30



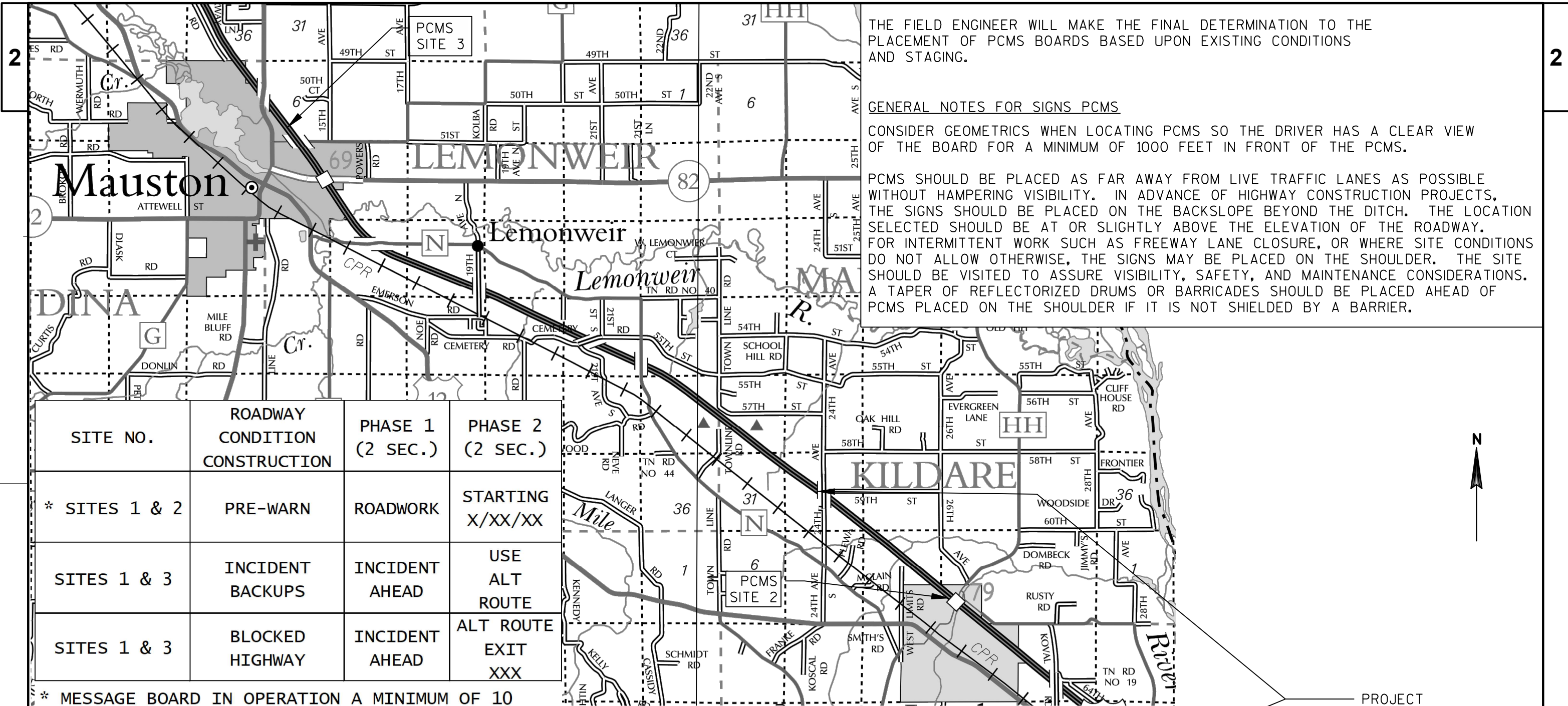
*NO ADDITIONAL COMPENSATION SHALL BE PAID FOR THICKNESSES OVER 13.5"



TYPICAL SECTION: OUTSIDE LANE CLOSED



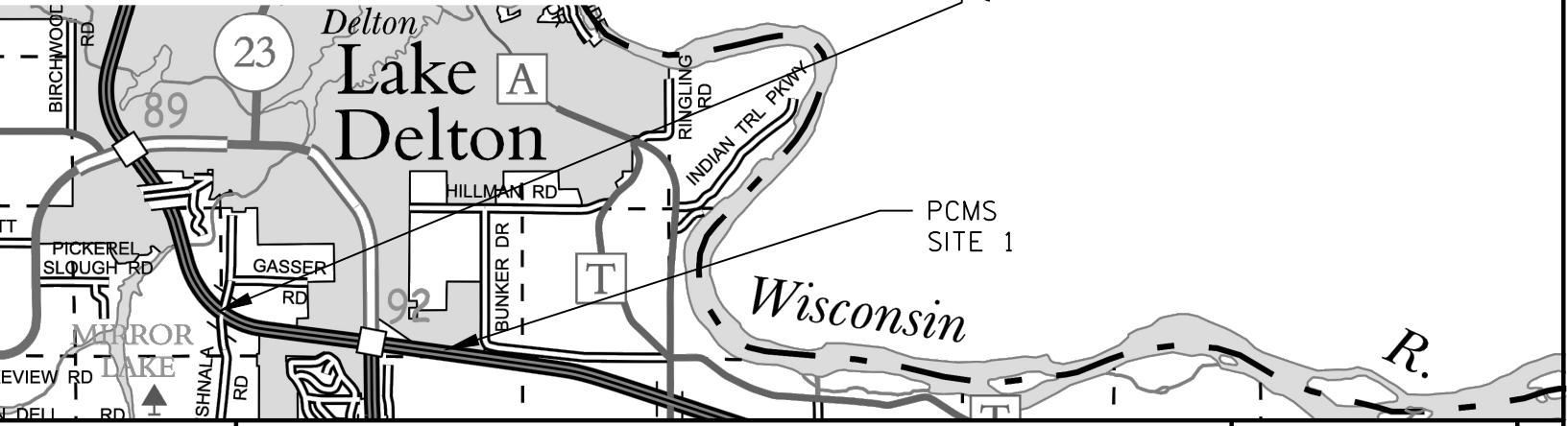
TYPICAL SECTION: MEDIAN LANE CLOSED

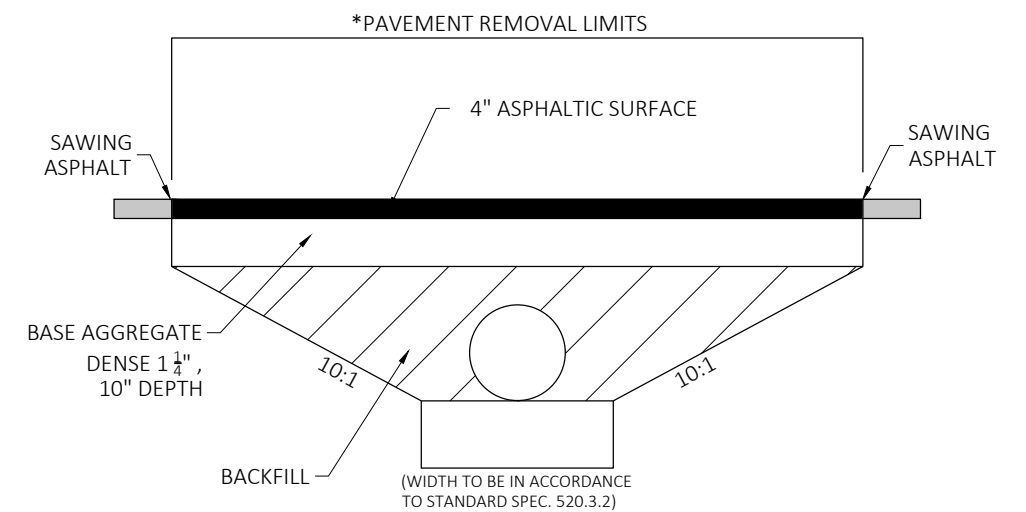
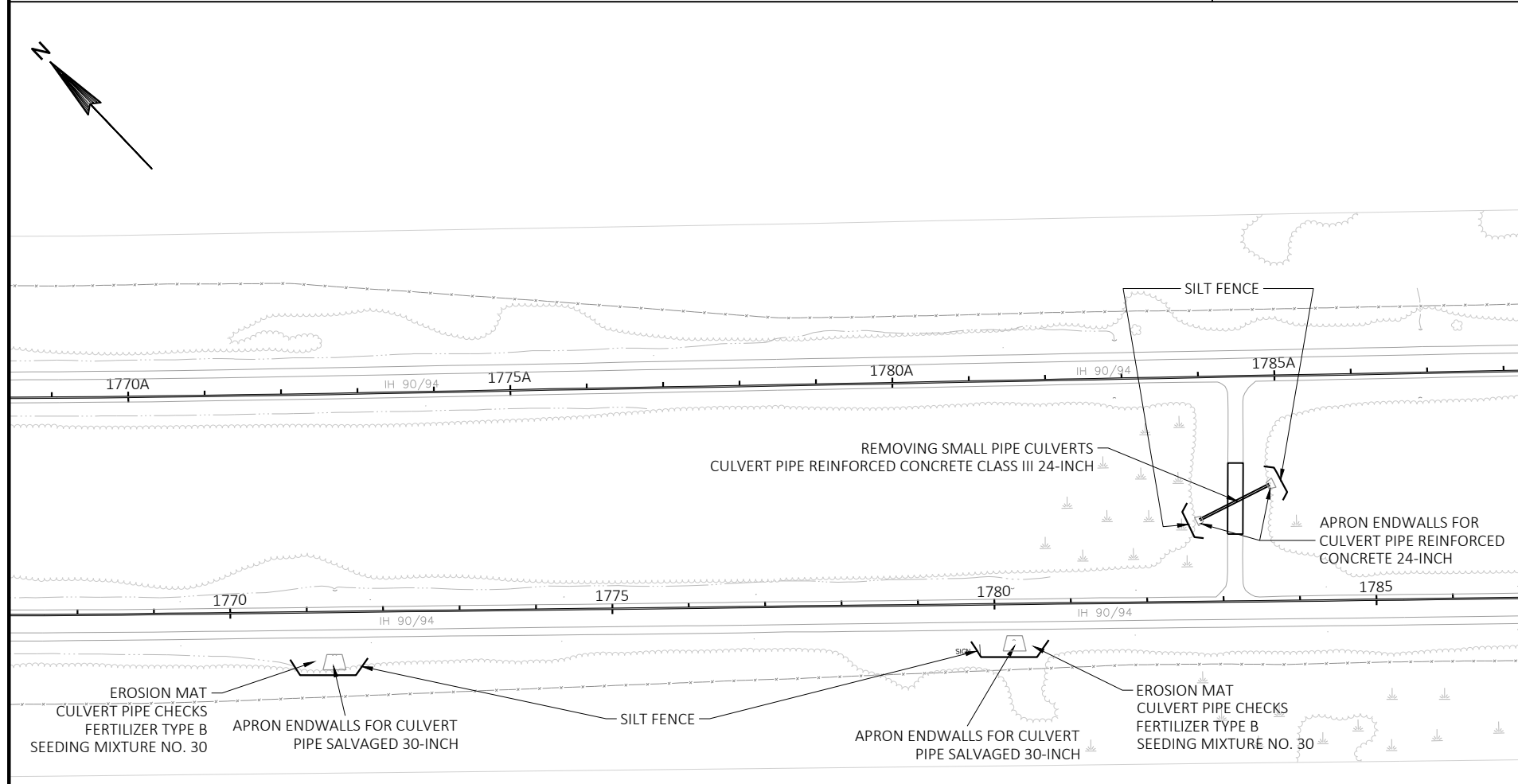
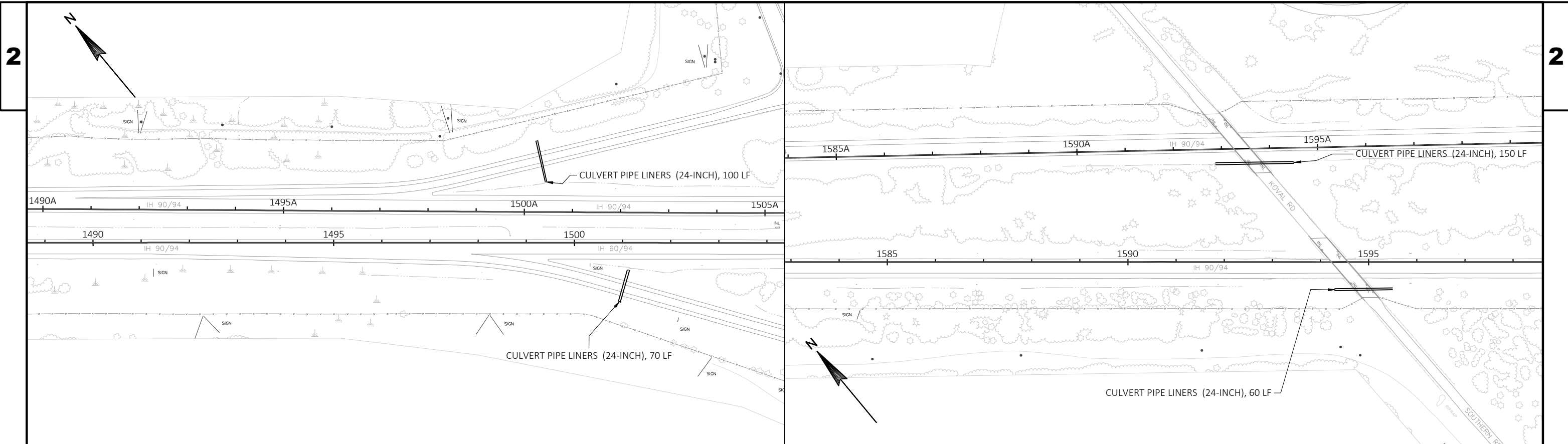


SITE NO.	ROADWAY CONDITION CONSTRUCTION	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)
* SITES 1 & 2	PRE-WARN	ROADWORK	STARTING X/XX/XX
SITES 1 & 3	INCIDENT BACKUPS	INCIDENT AHEAD	USE ALT ROUTE
SITES 1 & 3	BLOCKED HIGHWAY	INCIDENT AHEAD	ALT ROUTE EXIT XXX

* MESSAGE BOARD IN OPERATION A MINIMUM OF 10 DAYS PRIOR TO THE START OF WORK

SITE NO.	APPROXIMATE LOCATION
1	MEDIAN CROSSOVER BEFORE EXIT 92
2 (PRIOR TO CONSTRUCTION)	MEDIAN CROSSOVER BEFORE EXIT 79
3 (DURING CONSTRUCTION)	MEDIAN CROSSOVER BEFORE CTH G





CROSS SECTION DETAIL FOR CULVERT REPLACEMENT

***EXCAVATION AND BACKFILL PAID UNDER GRADING, SHAPING AND FINISHING ENDWALL**

Estimate Of Quantities

1016-01-62

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	206,200.000	206,200.000
0006	204.0170	Removing Fence	LF	132,800.000	132,800.000
0008	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	2,838.000	2,838.000
0010	213.0100	Finishing Roadway (project) 01. 1016-01-62	EACH	1.000	1.000
0012	305.0110	Base Aggregate Dense 3/4-Inch	TON	6,400.000	6,400.000
0014	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	130.000	130.000
0016	415.6000.S	Rout and Seal	LF	283,570.000	283,570.000
0018	416.0610	Drilled Tie Bars	EACH	3,366.000	3,366.000
0020	416.0620	Drilled Dowel Bars	EACH	26,400.000	26,400.000
0022	416.1715	Concrete Pavement Repair SHES	SY	15,027.000	15,027.000
0024	416.1725	Concrete Pavement Replacement SHES	SY	6,912.000	6,912.000
0026	460.2000	Incentive Density HMA Pavement	DOL	24,070.000	24,070.000
0028	460.5224	HMA Pavement 4 LT 58-28 S	TON	37,600.000	37,600.000
0030	465.0105	Asphaltic Surface	TON	50.000	50.000
0032	465.0400	Asphaltic Shoulder Rumble Strips	LF	283,570.000	283,570.000
0034	520.9700.S	Culvert Pipe Liners (size) 01. 24-INCH	LF	380.000	380.000
0036	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	4.000	4.000
0038	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	95.000	95.000
0040	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0042	524.0630	Apron Endwalls for Culvert Pipe Salvaged 30-Inch	EACH	2.000	2.000
0044	616.0100	Fence Woven Wire (height) 01. 4-FT	LF	132,800.000	132,800.000
0046	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1016-01-62	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	1.000	1.000
0050	624.0100	Water	MGAL	100.000	100.000
0052	625.0500	Salvaged Topsoil	SY	200.000	200.000
0054	628.1504	Silt Fence	LF	300.000	300.000
0056	628.1520	Silt Fence Maintenance	LF	300.000	300.000
0058	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0062	628.2004	Erosion Mat Class I Type B	SY	750.000	750.000
0064	628.7555	Culvert Pipe Checks	EACH	10.000	10.000
0066	629.0210	Fertilizer Type B	CWT	0.130	0.130
0068	630.0120	Seeding Mixture No. 20	LB	6.000	6.000
0070	630.0130	Seeding Mixture No. 30	LB	3.000	3.000
0072	630.0200	Seeding Temporary	LB	3.000	3.000
0074	630.0500	Seed Water	MGAL	3.000	3.000
0076	633.5200	Markers Culvert End	EACH	3.000	3.000
0078	642.5201	Field Office Type C	EACH	1.000	1.000
0080	643.0300	Traffic Control Drums	DAY	46,382.000	46,382.000
0082	643.0420	Traffic Control Barricades Type III	DAY	3,493.000	3,493.000
0084	643.0705	Traffic Control Warning Lights Type A	DAY	6,986.000	6,986.000
0086	643.0715	Traffic Control Warning Lights Type C	DAY	488.000	488.000
0088	643.0800	Traffic Control Arrow Boards	DAY	244.000	244.000
0090	643.0900	Traffic Control Signs	DAY	1,952.000	1,952.000
0092	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	244.000	244.000
0094	643.4100.S	Traffic Control Interim Lane Closure	EACH	85.000	85.000
0096	643.5000	Traffic Control	EACH	1.000	1.000
0098	646.1020	Marking Line Epoxy 4-Inch	LF	353,600.000	353,600.000

Estimate Of Quantities

1016-01-62

Line	Item	Item Description	Unit	Total	Qty
0100	646.3020	Marking Line Epoxy 8-Inch	LF	19,000.000	19,000.000
0102	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0104	650.8000	Construction Staking Resurfacing Reference	LF	141,785.000	141,785.000
0106	650.9910	Construction Staking Supplemental Control (project) 01. 1016-01-62	LS	1.000	1.000
0108	690.0150	Sawing Asphalt	LF	40.000	40.000
0110	690.0250	Sawing Concrete	LF	58,303.000	58,303.000
0112	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,500.000	2,500.000
0114	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	3,520.000	3,520.000
0116	SPV.0060	Special 01. Grading, Shaping and Finishing Endwalls	EACH	1.000	1.000

CONCRETE REPAIR SUMMARY

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY										CONCRETE REPAIR SUMMARY (CONTINUED)										
				416.0610	416.0620	416.1715	416.1725	690.0250						416.0610	416.0620	416.1715	416.1725	690.0250		
		EASTBOUND LOCATION		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	REMARKS			EASTBOUND LOCATION		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	REMARKS	
EB MILE MARKER	PLUS	SIDE	LENGTH							EB MILE MARKER	PLUS	SIDE	LENGTH							
78	4852	RIGHT	15.00	6	16	23.33	-	43		80	2490	RIGHT	6.00	-	16	9.33	-	34		
78	4872	LEFT	6.00	-	16	8.00	-	30		80	2580	RIGHT	8.00	4	16	12.44	-	36		
78	5037	RIGHT	10.00	4	16	15.56	-	38		80	2815	RIGHT	30.00	12	16	-	46.67	58		
78	5141	LEFT	6.00	-	16	8.00	-	30		80	3050	RIGHT	30.00	12	16	-	46.67	58		
79	25	RIGHT	6.00	-	16	-	-	34		80	3150	RIGHT	6.00	-	16	9.33	-	34		
79	100	RIGHT	6.00	-	16	9.33	-	34		80	3490	RIGHT	6.00	-	16	9.33	-	34		
79	890	LEFT	6.00	-	16	8.00	-	30		80	3900	RIGHT	6.00	-	16	9.33	-	34		
79	1087	LEFT	10.00	4	16	13.33	-	34		80	3952	RIGHT	6.00	-	16	9.33	-	34		
79	1318	RIGHT	8.00	4	16	12.44	-	36		80	4150	RIGHT	6.00	-	16	9.33	-	34		
79	1430	LEFT	8.00	4	16	10.67	-	32	REPATCH	80	4617	RIGHT	6.00	-	16	9.33	-	34		
79	1662	RIGHT	6.00	-	16	9.33	-	34		80	4630	RIGHT	6.00	-	16	9.33	-	34		
79	1758	RIGHT	8.00	4	16	-	-	36	REPATCH	80	4660	LEFT	6.00	-	16	8.00	-	30		
79	1817	RIGHT	15.00	6	16	23.33	-	43		80	4747	LEFT	6.00	-	16	8.00	-	30		
79	1930	RIGHT	6.00	-	16	9.33	-	34		80	4850	LEFT	6.00	-	16	8.00	-	30		
79	1970	RIGHT	6.00	-	16	9.33	-	34		81	70	BOTH	6.00	-	32	17.33	-	58		
79	2000	RIGHT	25.00	10	16	-	38.89	53	REPATCH	81	250	LEFT	6.00	-	16	8.00	-	30		
79	2261	LEFT	10.00	4	16	13.33	-	34		81	275	LEFT	6.00	-	16	8.00	-	30		
79	2545	RIGHT	30.00	12	16	-	46.67	58		81	326	LEFT	6.00	-	16	8.00	-	30		
79	2703	RIGHT	6.00	-	16	9.33	-	34		81	356	RIGHT	6.00	-	16	-	-	34		
79	2790	RIGHT	6.00	-	16	9.33	-	34		81	425	RIGHT	6.00	-	16	9.33	-	34		
79	2883	RIGHT	10.00	4	16	15.56	-	38		81	489	LEFT	6.00	-	16	8.00	-	30		
79	3100	RIGHT	6.00	-	16	9.33	-	34		81	503	LEFT	6.00	-	16	8.00	-	30		
79	3550	RIGHT	6.00	-	16	-	-	34		81	660	BOTH	6.00	-	32	17.33	-	58		
79	3830	RIGHT	30.00	12	16	-	46.67	58		81	720	RIGHT	6.00	-	16	9.33	-	34		
79	3900	RIGHT	6.00	-	16	9.33	-	34		81	880	RIGHT	6.00	-	16	9.33	-	34		
79	4060	RIGHT	6.00	-	16	9.33	-	34		81	890	RIGHT	6.00	-	16	9.33	-	34		
79	4190	RIGHT	10.00	4	16	15.56	-	38	REPATCH	81	910	RIGHT	6.00	-	16	-	-	34		
79	4340	RIGHT	20.00	8	16	-	31.11	48		81	960	RIGHT	6.00	-	16	9.33	-	34		
79	4430	RIGHT	6.00	-	16	9.33	-	34		81	1015	LEFT	6.00	-	16	8.00	-	30		
79	4700	RIGHT	6.00	-	16	9.33	-	34		81	1075	RIGHT	6.00	-	16	9.33	-	34		
79	4940	RIGHT	6.00	-	16	9.33	-	34		81	1085	RIGHT	6.00	-	16	9.33	-	34		
79	4990	RIGHT	6.00	-	16	9.33	-	34		81	1110	RIGHT	6.00	-	16	9.33	-	34		
79	5000	RIGHT	6.00	-	16	9.33	-	34		81	1120	RIGHT	6.00	-	16	9.33	-	34		
80	30	RIGHT	6.00	-	16	9.33	-	34		81	1190	RIGHT	6.00	-	16	9.33	-	34		
80	510	RIGHT	8.00	4	16	12.44	-	36		81	1230	RIGHT	6.00	-	16	9.33	-	34		
80	610	RIGHT	6.00	-	16	9.33	-	34		81	1265	RIGHT	6.00	-	16	9.33	-	40		
80	905	RIGHT	6.00	-	16	9.33	-	34		81	1300	RIGHT	6.00	-	16	9.33	-	40		
80	945	RIGHT	8.00	4	16	12.44	-	36		81	1640	RIGHT	6.00	-	16	9.33	-	40		
80	980	RIGHT	6.00	-	16	9.33	-	34		81	2120	LEFT	6.00	-	16	8.00	-	36		
80	1160	RIGHT	6.00	-	16	9.33	-	34		81	2350	RIGHT	6.00	-	16	-	-	40		
80	1295	RIGHT	6.00	-	16	0.00	-	6		81	2480	RIGHT	6.00	-	16	9.33	-	40		
80	1485	RIGHT	6.00	-	16	0.00	-	6		81	2500	RIGHT	15.00	6	16	-	-	58		
80	1580	RIGHT	6.00	-	16	0.00	-	6		81	2705	BOTH	6.00	-	32	17.33	-	64		
80	1620	LEFT	6.00	-	16	0.00	-	6		81	2930	RIGHT	10.00	4	16	15.56	-	48		
80	2130	RIGHT	6.00	-	16	-	-	6		81	2963	RIGHT	8.00	4	16	12.44	-	44		
SUBTOTAL 1 =				94	640	369	163	1,465		SUBTOTAL 2 =				42	768	387	93	1,702		

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CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
EB MILE		EASTBOUND		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	EB MILE		EASTBOUND		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
MARKER	PLUS	LOCATION	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	PLUS	LOCATION	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
81	3180	RIGHT	6.00	-	16	9.33	-	40		83	540	RIGHT	6.00	-	16	9.33	-	34	
81	3415	RIGHT	6.00	-	16	9.33	-	40		83	620	RIGHT	6.00	-	16	9.33	-	34	
81	3570	BOTH	6.00	-	32	17.33	-	64		83	850	RIGHT	10.00	4	16	15.56	-	38	
81	3730	RIGHT	6.00	-	16	9.33	-	40		83	1390	RIGHT	6.00	-	16	9.33	-	34	
81	3755	LEFT	8.00	4	16	10.67	-	40		83	1500	RIGHT	6.00	-	16	9.33	-	34	
81	3920	RIGHT	6.00	-	16	9.33	-	40		83	1510	RIGHT	6.00	-	16	9.33	-	34	
81	4170	RIGHT	6.00	-	16	9.33	-	40		83	1615	RIGHT	6.00	-	16	9.33	-	34	
81	4270	LEFT	6.00	-	16	8.00	-	36		83	1790	LEFT	6.00	-	16	8.00	-	30	
81	4330	RIGHT	6.00	-	16	9.33	-	40		83	1830	LEFT	6.00	-	16	8.00	-	30	
81	4465	RIGHT	30.00	12	16	-	46.67	88		83	1845	RIGHT	6.00	-	16	9.33	-	34	
81	4595	RIGHT	6.00	-	16	9.33	-	40		83	1890	RIGHT	10.00	4	16	15.56	-	38	
81	4800	RIGHT	6.00	-	16	9.33	-	40		83	2015	LEFT	6.00	-	16	8.00	-	30	
81	5140	RIGHT	6.00	-	16	9.33	-	40		83	2070	RIGHT	6.00	-	16	9.33	-	34	
81	5173	RIGHT	6.00	-	16	9.33	-	40		83	2095	RIGHT	6.00	-	16	9.33	-	34	
81	5210	RIGHT	6.00	-	16	9.33	-	40		83	2265	LEFT	6.00	-	16	8.00	-	30	
82	15	RIGHT	30.00	12	16	-	46.67	88		83	2410	LEFT	6.00	-	16	8.00	-	30	
82	130	LEFT	6.00	-	16	8.00	-	36		83	2440	LEFT	6.00	-	16	8.00	-	30	
82	160	RIGHT	6.00	-	16	9.33	-	40		83	2530	RIGHT	6.00	-	16	9.33	-	34	
82	230	RIGHT	6.00	-	16	9.33	-	40		83	2570	RIGHT	15.00	6	16	23.33	-	43	
82	500	RIGHT	30.00	12	16	-	46.67	88		83	2590	LEFT	6.00	-	16	8.00	-	30	
82	650	RIGHT	6.00	-	16	9.33	-	40		83	2620	RIGHT	6.00	-	16	9.33	-	34	
82	1165	RIGHT	10.00	4	16	15.56	-	48		83	2640	LEFT	6.00	-	16	8.00	-	30	
82	1280	RIGHT	6.00	-	16	9.33	-	40		83	2680	RIGHT	6.00	-	16	9.33	-	34	
82	1300	BOTH	6.00	-	32	17.33	-	64		83	2950	LEFT	6.00	-	16	8.00	-	30	
82	1320	RIGHT	6.00	-	16	9.33	-	40		83	3020	RIGHT	6.00	-	16	9.33	-	34	
82	1780	RIGHT	6.00	-	16	9.33	-	40		83	3030	LEFT	6.00	-	16	8.00	-	30	
82	1860	RIGHT	6.00	-	16	9.33	-	40		83	3310	RIGHT	6.00	-	16	9.33	-	34	
82	2060	RIGHT	6.00	-	16	9.33	-	40		83	3520	RIGHT	6.00	-	16	9.33	-	34	
82	2470	RIGHT	6.00	-	16	9.33	-	40		83	3620	RIGHT	6.00	-	16	9.33	-	34	
82	2618	RIGHT	6.00	-	16	9.33	-	40		83	3730	RIGHT	6.00	-	16	9.33	-	34	
82	2800	RIGHT	6.00	-	16	9.33	-	34		83	3810	RIGHT	6.00	-	16	0.00	-	34	
82	2960	RIGHT	30.00	12	16	-	46.67	58		83	3870	RIGHT	6.00	-	16	9.33	-	34	
82	3200	RIGHT	6.00	-	16	9.33	-	34		83	4030	RIGHT	6.00	-	16	9.33	-	34	
82	3320	BOTH	30.00	12	32	-	86.67	82		83	4170	RIGHT	6.00	-	16	9.33	-	34	
82	3780	RIGHT	6.00	-	16	-	-	34		83	4280	RIGHT	6.00	-	16	9.33	-	34	
82	4140	LEFT	6.00	-	16	8.00	-	30		83	4290	LEFT	6.00	-	16	0.00	-	30	
82	4210	RIGHT	6.00	-	16	9.33	-	34		83	4400	RIGHT	6.00	-	16	8.00	-	34	
82	4520	RIGHT	6.00	-	16	-	-	34		83	4850	LEFT	6.00	-	16	9.33	-	30	
82	4538	RIGHT	15.00	6	16	23.33	-	43		83	4870	RIGHT	6.00	-	16	8.00	-	34	
82	4600	RIGHT	15.00	6	16	23.33	-	43		84	150	LEFT	6.00	-	16	9.33	-	30	
82	5030	RIGHT	8.00	4	16	12.44	-	36		84	290	LEFT	6.00	-	16	0.00	-	30	
82	5075	LEFT	6.00	-	16	8.00	-	30		84	340	RIGHT	6.00	-	16	-	-	34	
83	373	RIGHT	6.00	-	16	9.33	-	34		84	390	LEFT	6.00	-	16	9.33	-	30	
83	515	RIGHT	6.00	-	16	9.33	-	34		84	605	LEFT	6.00	-	16	8.00	-	30	
83	515	LEFT	6.00	-	16	8.00	-	30		84	635	LEFT	6.00	-	16	-	-	30	

SUBTOTAL 3 = 84 768 403 273 1,982

SUBTOTAL 4 = 138 1,424 780 407 3,403

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
84	705	RIGHT	15.00	6	16	0.00	-	43	
84	740	LEFT	6.00	-	16	9.33	-	30	
84	990	RIGHT	6.00	-	16	8.00	-	34	
84	1060	RIGHT	6.00	-	16	9.33	-	34	
84	1170	RIGHT	6.00	-	16	9.33	-	34	
84	1850	LEFT	6.00	-	16	0.00	-	30	
84	2140	BOTH	6.00	-	32	8.00	-	58	
84	2335	RIGHT	6.00	-	16	17.33	-	34	
84	2470	RIGHT	6.00	-	16	9.33	-	34	
84	2500	LEFT	6.00	-	16	9.33	-	30	
84	2555	RIGHT	6.00	-	16	0.00	-	34	
84	2590	LEFT	6.00	-	16	9.33	-	30	
84	2850	BOTH	6.00	-	32	8.00	-	58	
84	3000	RIGHT	8.00	4	16	23.11	-	36	
84	3190	RIGHT	6.00	-	16	9.33	-	34	
84	3330	LEFT	6.00	-	16	0.00	-	30	
84	3480	LEFT	6.00	-	16	8.00	-	30	
84	3600	LEFT	6.00	-	16	8.00	-	30	
84	3630	RIGHT	6.00	-	16	8.00	-	34	
84	3720	RIGHT	6.00	-	16	9.33	-	34	
84	3790	BOTH	6.00	-	32	17.33	-	58	
84	3860	RIGHT	30.00	12	16	-	46.67	58	
84	3920	RIGHT	6.00	-	16	9.33	-	34	
84	3950	RIGHT	6.00	-	16	9.33	-	34	
84	3995	LEFT	6.00	-	16	-	-	30	
84	4230	LEFT	6.00	-	16	8.00	-	30	
84	4260	LEFT	6.00	-	16	8.00	-	30	
84	4300	BOTH	6.00	-	32	17.33	-	58	
84	4330	LEFT	6.00	-	16	8.00	-	30	
84	4360	LEFT	6.00	-	16	8.00	-	30	
84	4490	RIGHT	6.00	-	16	9.33	-	34	
84	4885	RIGHT	6.00	-	16	9.33	-	34	
84	4900	LEFT	6.00	-	16	8.00	-	30	
85	200	RIGHT	6.00	-	16	9.33	-	34	
85	300	RIGHT	6.00	-	16	9.33	-	34	
85	850	LEFT	6.00	-	16	8.00	-	30	
85	1136	BOTH	6.00	-	32	17.33	-	58	
85	1150	BOTH	6.00	-	32	17.33	-	58	
85	1188	RIGHT	6.00	-	16	9.33	-	34	
85	1212	RIGHT	6.00	-	16	9.33	-	34	
85	1276	LEFT	6.00	-	16	8.00	-	30	
85	1311	LEFT	6.00	-	16	8.00	-	30	
85	1336	BOTH	6.00	-	32	17.33	-	58	
85	1351	LEFT	6.00	-	16	8.00	-	30	
85	1436	RIGHT	6.00	-	16	9.33	-	34	
SUBTOTAL 5 =				22	848	406	47	1,665	

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
85	1476	LEFT	6.00	-	16	8.00	-	30	
85	1501	LEFT	6.00	-	16	8.00	-	30	
85	1524	RIGHT	6.00	-	16	9.33	-	34	
85	1536	BOTH	6.00	-	32	17.33	-	58	
85	1551	LEFT	6.00	-	16	8.00	-	30	
85	1566	LEFT	6.00	-	16	8.00	-	30	
85	1581	LEFT	6.00	-	16	8.00	-	30	
85	1596	LEFT	6.00	-	16	-	-	30	
85	1603	BOTH	6.00	-	32	-	-	58	
85	1641	RIGHT	6.00	-	16	9.33	-	34	
85	1666	RIGHT	8.00	4	16	12.44	-	36	
85	1676	LEFT	6.00	-	16	8.00	-	30	
85	1756	LEFT	6.00	-	16	8.00	-	30	
85	1806	LEFT	6.00	-	16	8.00	-	30	
85	2036	LEFT	6.00	-	16	8.00	-	30	
85	2086	RIGHT	6.00	-	16	9.33	-	34	
85	2136	RIGHT	6.00	-	16	9.33	-	34	
85	2646	RIGHT	6.00	-	16	9.33	-	34	
85	3636	RIGHT	6.00	-	16	9.33	-	34	
85	4006	RIGHT	15.00	6	16	23.33	-	43	
85	4086	RIGHT	6.00	-	16	9.33	-	34	
85	4156	LEFT	15.00	6	16	20.00	-	39	
85	4200	RIGHT	6.00	-	16	9.33	-	34	
85	4276	RIGHT	6.00	-	16	9.33	-	34	
85	4286	RIGHT	6.00	-	16	9.33	-	34	
85	4406	LEFT	6.00	-	16	8.00	-	30	
85	4446	RIGHT	6.00	-	16	9.33	-	34	
85	4501	LEFT	6.00	-	16	8.00	-	30	
85	4526	RIGHT	6.00	-	16	9.33	-	34	
85	4546	RIGHT	6.00	-	16	9.33	-	34	
85	4571	LEFT	6.00	-	16	8.00	-	30	
85	4646	RIGHT	10.00	4	16	15.56	-	38	
85	4696	RIGHT	8.00	4	16	12.44	-	36	
85	4816	LEFT	6.00	-	16	8.00	-	30	
85	4836	RIGHT	6.00	-	16	9.33	-	34	
85	4916	LEFT	6.00	-	16	8.00	-	30	
85	4966	LEFT	6.00	-	16	8.00	-	30	
85	5036	RIGHT	6.00	-	16	9.33	-	34	
85	5216	LEFT	6.00	-	16	8.00	-	30	
85	5266	RIGHT	6.00	-	16	9.33	-	34	
85	5286	RIGHT	6.00	-	16	9.33	-	34	
85	5736	RIGHT	6.00	-	16	-	-	34	
85	5836	LEFT	6.00	-	16	8.00	-	30	
85	5906	RIGHT	8.00	4	16	12.44	-	36	
85	5913	RIGHT	6.00	-	16	9.33	-	34	
SUBTOTAL 6 =				28	752	418	0	1,530	

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)																					
EB MILE		EASTBOUND		416.0610		416.0620		416.1715		416.1725		690.0250		REMARKS		EB MILE		EASTBOUND		416.0610		416.0620		416.1715		416.1725		690.0250		REMARKS	
MARKER	PLUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	PLUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	PLUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
85	6036	RIGHT	6.00	-	16	9.33	-	34		86	1580	BOTH	15.00	6	32	43.33	-	67													
85	6166	RIGHT	6.00	-	16	9.33	-	34		86	1620	LEFT	6.00	-	16	8.00	-	30													
85	6386	BOTH	6.00	-	32	17.33	-	58		86	1660	LEFT	6.00	-	16	8.00	-	30													
85	6416	RIGHT	6.00	-	16	9.33	-	34		86	1670	RIGHT	10.00	4	16	15.56	-	38													
86	15	LEFT	6.00	-	16	8.00	-	30		86	1695	LEFT	6.00	-	16	8.00	-	30													
86	170	RIGHT	6.00	-	16	9.33	-	34		86	1705	LEFT	6.00	-	16	8.00	-	30													
86	200	LEFT	6.00	-	16	8.00	-	30		86	1708	RIGHT	10.00	4	16	15.56	-	38													
86	430	RIGHT	6.00	-	16	9.33	-	34		86	1718	LEFT	6.00	-	16	8.00	-	30													
86	460	RIGHT	6.00	-	16	9.33	-	34		86	1730	LEFT	6.00	-	16	8.00	-	30													
86	480	LEFT	6.00	-	16	8.00	-	30		86	1748	RIGHT	6.00	-	16	-	-	34													
86	515	BOTH	6.00	-	32	17.33	-	58		86	1760	RIGHT	8.00	4	16	12.44	-	36													
86	548	LEFT	6.00	-	16	8.00	-	30		86	1760	LEFT	15.00	6	16	20.00	-	39													
86	560	LEFT	6.00	-	16	8.00	-	30		86	1800	BOTH	6.00	-	32	17.33	-	58													
86	645	BOTH	6.00	-	32	17.33	-	58		86	1814	LEFT	6.00	-	16	8.00	-	30													
86	660	BOTH	6.00	-	32	-	-	58		86	1829	RIGHT	15.00	6	16	23.33	-	43													
86	680	RIGHT	30.00	12	16	-	46.67	58		86	1840	LEFT	6.00	-	16	8.00	-	30													
86	711	LEFT	6.00	-	16	8.00	-	30		86	1855	BOTH	6.00	-	32	17.33	-	58													
86	735	LEFT	15.00	6	16	20.00	-	39		86	1880	RIGHT	15.00	6	16	23.33	-	43													
86	800	BOTH	6.00	-	32	17.33	-	58		86	1900	LEFT	15.00	6	16	20.00	-	39													
86	825	LEFT	6.00	-	16	8.00	-	30		86	1907	RIGHT	6.00	-	16	9.33	-	34													
86	840	LEFT	6.00	-	16	8.00	-	30		86	1925	LEFT	15.00	6	16	20.00	-	39													
86	850	RIGHT	6.00	-	16	-	-	34		86	1950	LEFT	6.00	-	16	8.00	-	30													
86	880	LEFT	6.00	-	16	-	-	30		86	1970	LEFT	6.00	-	16	8.00	-	30													
86	935	BOTH	6.00	-	32	-	-	58		86	1978	LEFT	6.00	-	16	8.00	-	30													
86	950	RIGHT	6.00	-	16	9.33	-	34		86	1980	RIGHT	45.00	18	16	-	70.00	73													
86	985	RIGHT	20.00	8	16	-	31.11	48		86	2010	LEFT	6.00	-	16	8.00	-	30													
86	985	LEFT	10.00	4	16	13.33	-	34		86	2015	LEFT	6.00	-	16	8.00	-	30													
86	1020	LEFT	6.00	-	16	8.00	-	30		86	2030	RIGHT	20.00	8	16	-	31.11	48													
86	1050	LEFT	6.00	-	16	8.00	-	30		86	2060	BOTH	6.00	-	32	17.33	-	58													
86	1070	LEFT	15.00	6	16	20.00	-	39		86	2070	LEFT	6.00	-	16	8.00	-	30													
86	1110	RIGHT	10.00	4	16	15.56	-	38		86	2080	RIGHT	8.00	4	16	12.44	-	36													
86	1160	RIGHT	20.00	8	16	-	31.11	48		86	2095	RIGHT	15.00	6	16	23.33	-	43													
86	1180	LEFT	6.00	-	16	8.00	-	30		86	2115	RIGHT	6.00	-	16	9.33	-	34													
86	1210	RIGHT	6.00	-	16	9.33	-	34		86	2130	RIGHT	15.00	6	16	23.33	-	43													
86	1240	RIGHT	8.00	4	16	12.44	-	36		86	2185	BOTH	6.00	-	32	17.33	-	58													
86	1310	RIGHT	20.00	8	16	-	31.11	48		86	2265	RIGHT	8.00	4	16	12.44	-	36													
86	1360	LEFT	6.00	-	16	8.00	-	30		86	2330	RIGHT	60.00	24	16	-	93.33	88													
86	1380	RIGHT	6.00	-	16	9.33	-	34		86	2330	LEFT	6.00	-	16	8.00	-	30													
86	1400	RIGHT	140.00	56	16	-	217.78	168		86	2380	LEFT	6.00	-	16	8.00	-	30													
86	1405	LEFT	6.00	-	16	8.00	-	30		86	2400	RIGHT	6.00	-	16	9.33	-	34													
86	1445	LEFT	6.00	-	16	8.00	-	30		86	2485	LEFT	6.00	-	16	8.00	-	30													
86	1480	LEFT	6.00	-	16	8.00	-	30		86	2520	BOTH	6.00	-	32	17.33	-	58													
86	1480	RIGHT	8.00	4	16	12.44	-	36		86	2605	RIGHT	6.00	-	16	9.33	-	34													
86	1515	RIGHT	15.00	6	16	23.33	-	43		86	2650	LEFT	6.00	-	16	8.00	-	30													
86	1530	LEFT	15.00	6	16	20.00	-	39		86	2690	LEFT	6.00	-	16	8.00	-	30													
SUBTOTAL 7 =				132	816	410	358	1,842		SUBTOTAL 8 =				274	1,552	806	716	3,527													

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CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
86	2740	RIGHT	6.00	-	16	9.33	-	34	
86	2770	LEFT	6.00	-	16	8.00	-	30	
86	2800	LEFT	6.00	-	16	8.00	-	30	
86	2825	LEFT	8.00	4	16	10.67	-	32	
86	2865	LEFT	6.00	-	16	8.00	-	30	
86	2950	LEFT	6.00	-	16	8.00	-	30	
86	2980	RIGHT	8.00	4	16	12.44	-	36	
86	2980	LEFT	6.00	-	16	8.00	-	30	
86	3005	LEFT	6.00	-	16	8.00	-	30	
86	3025	LEFT	6.00	-	16	8.00	-	30	
86	3090	LEFT	6.00	-	16	8.00	-	30	
86	3110	LEFT	6.00	-	16	8.00	-	30	
86	3125	LEFT	6.00	-	16	8.00	-	30	
86	3170	LEFT	10.00	4	16	13.33	-	34	
86	3195	RIGHT	6.00	-	16	9.33	-	34	
86	3260	LEFT	6.00	-	16	8.00	-	30	
86	3300	LEFT	6.00	-	16	8.00	-	30	
86	3310	RIGHT	6.00	-	16	9.33	-	34	
86	3315	LEFT	6.00	-	16	8.00	-	30	
86	3340	BOTH	6.00	-	32	17.33	-	58	
86	3360	LEFT	6.00	-	16	8.00	-	30	
86	3400	RIGHT	6.00	-	16	9.33	-	34	
86	3440	LEFT	6.00	-	16	8.00	-	30	
86	3460	BOTH	6.00	-	32	17.33	-	58	
86	3480	RIGHT	6.00	-	16	9.33	-	34	
86	3500	RIGHT	15.00	6	16	23.33	-	43	
86	3530	LEFT	6.00	-	16	8.00	-	30	
86	3550	RIGHT	15.00	6	16	23.33	-	43	
86	3590	RIGHT	10.00	4	16	15.56	-	38	
86	3595	LEFT	6.00	-	16	8.00	-	30	
86	3630	LEFT	6.00	-	16	8.00	-	30	
86	3650	LEFT	8.00	4	16	10.67	-	32	
86	3690	RIGHT	15.00	6	16	23.33	-	43	
86	3730	RIGHT	8.00	4	16	12.44	-	36	
86	3750	RIGHT	30.00	12	16	-	46.67	58	
86	3870	LEFT	6.00	-	16	8.00	-	30	
86	4000	RIGHT	6.00	-	16	9.33	-	34	
86	4040	LEFT	6.00	-	16	8.00	-	30	
86	4120	RIGHT	6.00	-	16	9.33	-	34	
86	4170	RIGHT	6.00	-	16	9.33	-	34	
86	4190	RIGHT	6.00	-	16	9.33	-	34	
86	4240	RIGHT	6.00	-	16	9.33	-	34	
86	4370	RIGHT	10.00	4	16	15.56	-	38	
86	4450	LEFT	8.00	4	16	10.67	-	32	
86	4520	RIGHT	30.00	12	16	-	46.67	58	
SUBTOTAL 9 =				74	752	459	93	1,579	

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
86	4590	RIGHT	30.00	12	16	-	46.67	58	
86	4625	LEFT	6.00	-	16	8.00	-	30	
86	4650	RIGHT	8.00	4	16	12.44	-	36	
86	4670	RIGHT	25.00	10	16	-	38.89	53	
86	4710	RIGHT	6.00	-	16	9.33	-	34	
86	4765	LEFT	6.00	-	16	8.00	-	30	
86	4770	LEFT	6.00	-	16	8.00	-	30	
86	4800	RIGHT	6.00	-	16	9.33	-	34	
86	4890	RIGHT	45.00	18	16	-	70.00	73	
86	4960	RIGHT	30.00	12	16	-	46.67	58	
86	5000	LEFT	6.00	-	16	8.00	-	30	
86	5010	RIGHT	10.00	4	16	15.56	-	38	
86	5030	RIGHT	8.00	4	16	12.44	-	36	
86	5060	RIGHT	6.00	-	16	9.33	-	34	
86	5080	RIGHT	6.00	-	16	9.33	-	34	
87	880	RIGHT	6.00	-	16	9.33	-	34	
87	1670	RIGHT	10.00	4	16	15.56	-	38	
87	1880	RIGHT	20.00	8	16	-	31.11	48	
87	1920	RIGHT	20.00	8	16	-	31.11	48	
87	1994	RIGHT	6.00	-	16	9.33	-	34	
87	2090	RIGHT	8.00	4	16	12.44	-	36	
87	2130	RIGHT	8.00	4	16	12.44	-	36	
87	2160	RIGHT	20.00	8	16	-	31.11	48	
87	2225	RIGHT	8.00	4	16	12.44	-	36	
87	2280	RIGHT	30.00	12	16	-	46.67	58	
87	2330	RIGHT	6.00	-	16	9.33	-	34	
87	2390	RIGHT	20.00	8	16	-	31.11	48	
87	2390	LEFT	6.00	-	16	8.00	-	30	
87	2500	RIGHT	8.00	4	16	12.44	-	36	
87	2700	LEFT	6.00	-	16	8.00	-	30	
87	2800	LEFT	6.00	-	16	8.00	-	30	
87	2920	RIGHT	8.00	4	16	12.44	-	36	
87	3120	LEFT	6.00	-	16	8.00	-	30	
87	3200	LEFT	6.00	-	16	8.00	-	30	
87	3300	LEFT	6.00	-	16	8.00	-	30	
87	3360	BOTH	6.00	-	32	-	-	58	
87	3400	LEFT	6.00	-	16	8.00	-	30	
87	3430	BOTH	6.00	-	32	17.33	-	58	
87	3445	LEFT	6.00	-	16	8.00	-	30	
87	3480	RIGHT	15.00	6	16	23.33	-	43	
87	3505	BOTH	6.00	-	32	17.33	-	58	
87	3560	RIGHT	10.00	4	16	15.56	-	38	
87	3640	LEFT	15.00	6	16	20.00	-	39	
87	3760	RIGHT	45.00	18	16	-	70.00	73	
87	3880	RIGHT	20.00	8	16	-	31.11	48	
SUBTOTAL 10 =				174	768	373	474	1,833	

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610		416.0620		416.1715		416.1725 CONCRETE PAVEMENT REPLACEMENT		690.0250		REMARKS
		SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF						
87	3970	RIGHT	30.00	12	16	-	46.67	58						
87	4120	RIGHT	6.00	-	16	9.33	-	34						
87	4280	RIGHT	6.00	-	16	9.33	-	34						
87	4370	RIGHT	8.00	4	16	12.44	-	36						
87	4370	LEFT	6.00	-	16	8.00	-	30						
87	4600	RIGHT	6.00	-	16	9.33	-	34						
87	4850	RIGHT	6.00	-	16	9.33	-	34						
87	5020	BOTH	8.00	4	32	23.11	-	60						
88	140	RIGHT	20.00	8	16	-	31.11	48						
88	200	RIGHT	30.00	12	16	-	46.67	58						
88	430	LEFT	6.00	-	16	8.00	-	30						
88	480	RIGHT	6.00	-	16	9.33	-	34						
88	660	BOTH	8.00	4	32	23.11	-	60						
88	735	RIGHT	8.00	4	16	12.44	-	36						
88	790	RIGHT	6.00	-	16	9.33	-	34						
88	830	RIGHT	6.00	-	16	9.33	-	34						
88	1065	RIGHT	20.00	8	16	-	31.11	48						
88	1220	RIGHT	30.00	12	16	-	46.67	58						
88	1220	LEFT	6.00	-	16	8.00	-	30						
88	1330	RIGHT	60.00	24	16	-	93.33	88						
88	1415	RIGHT	30.00	12	16	-	46.67	58						
88	1530	RIGHT	30.00	12	16	-	46.67	58						
88	1545	LEFT	8.00	4	16	10.67	-	32						
88	1660	RIGHT	10.00	4	16	15.56	-	38						
88	1730	RIGHT	8.00	4	16	12.44	-	36						
88	1800	LEFT	20.00	8	16	-	26.67	44						
88	1885	RIGHT	8.00	4	16	12.44	-	36						
88	1990	RIGHT	8.00	4	16	12.44	-	36						
88	2090	BOTH	30.00	12	32	-	86.67	82						
88	2230	LEFT	20.00	8	16	-	26.67	44						
88	2300	RIGHT	20.00	8	16	-	31.11	48						
88	2350	RIGHT	10.00	4	16	15.56	-	38						
88	2400	RIGHT	45.00	18	16	-	70.00	73						
88	2460	RIGHT	30.00	12	16	-	46.67	58						
88	2520	RIGHT	30.00	12	16	-	46.67	58						
88	2660	RIGHT	30.00	12	16	-	46.67	58						
88	2670	LEFT	6.00	-	16	8.00	-	30						
88	2715	RIGHT	30.00	12	16	-	46.67	58						
88	2775	RIGHT	6.00	-	16	9.33	-	34						
88	2840	LEFT	6.00	-	16	8.00	-	30						
88	2865	RIGHT	30.00	12	16	-	46.67	58						
88	2925	RIGHT	10.00	4	16	15.56	-	38						
88	3065	RIGHT	15.00	6	16	23.33	-	43						
88	3110	RIGHT	30.00	12	16	-	46.67	58						
88	3155	RIGHT	10.00	4	16	15.56	-	38						

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610		416.0620		416.1715		416.1725 CONCRETE PAVEMENT REPLACEMENT		690.0250		REMARKS
		SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF						
88	3190	RIGHT	10.00	4	16	15.56	-	38						
88	3300	RIGHT	6.00	-	16	9.33	-	34						
88	3365	RIGHT	10.00	4	16	15.56	-	38						
88	3440	RIGHT	8.00	4	16	12.44	-	36						
88	3485	RIGHT	8.00	4	16	12.44	-	36						
88	3530	RIGHT	6.00	-	16	9.33	-	34						
88	3620	LEFT	6.00	-	16	8.00	-	30						
88	3650	RIGHT	8.00	4	16	12.44	-	36						
88	3690	RIGHT	60.00	24	16	-	93.33	88						
88	3750	RIGHT	20.00	8	16	-	31.11	48						
88	3820	RIGHT	8.00	4	16	12.44	-	36						
88	3850	RIGHT	6.00	-	16	9.33	-	34						
88	3880	LEFT	6.00	-	16	8.00	-	30						
88	3915	LEFT	6.00	-	16	8.00	-	30						
88	3965	BOTH	6.00	-	32	24.89	-	62						
88	3980	BOTH	6.00	-	32	17.33	-	58						
88	4000	RIGHT	6.00	-	16	9.33	-	34						
88	4040	BOTH	6.00	-	32	17.33	-	58						
88	4070	RIGHT	6.00	-	16	9.33	-	34						
88	4120	LEFT	6.00	-	16	8.00	-	30						
88	4135	RIGHT	6.00	-	16	9.33	-	34						
88	4155	BOTH	6.00	-	32	17.33	-	58						
88	4175	RIGHT	6.00	-	16	9.33	-	34						
88	4190	LEFT	6.00	-	16	8.00	-	30						
88	4210	BOTH	6.00	-	32	17.33	-	58						
88	4250	RIGHT	6.00	-	16	9.33	-	34						
88	4300	RIGHT	45.00	18	16	-	70.00	73						
88	4350	LEFT	6.00	-	16	8.00	-	30						
88	4360	RIGHT	6.00	-	16	9.33	-	34						
88	4420	BOTH	6.00	-	32	17.33	-	58						
88	4445	BOTH	6.00	-	32	17.33	-	58						
88	4460	BOTH	6.00	-	32	17.33	-	58						
88	4470	RIGHT	6.00	-	16	9.33	-	34						
88	4475	RIGHT	6.00	-	16	9.33	-	34						
88	4500	LEFT	6.00	-	16	8.00	-	30						
88	4535	BOTH	6.00	-	32	17.33	-	58						
88	4550	BOTH	6.00	-	32	17.33	-	58						
88	4580	RIGHT	6.00	-	16	9.33	-	34						
88	4610	RIGHT	6.00	-	16	9.33	-	34						
88	4650	LEFT	6.00	-	16	8.00	-	30						
88	4680	RIGHT	6.00	-	16	9.33	-	34						
88	4710	RIGHT	6.00	-	16	9.33	-	34						
88	4745	BOTH	6.00	-	32	17.33	-	58						
88	4760	BOTH	6.00	-	32	17.33	-	58						
88	4770	LEFT	6.00	-	16	8.00	-	30						

SUBTOTAL 11 = 280 768 319 910 2,062

SUBTOTAL 12 = 74 912 508 194 1,909

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
EB MILE		EASTBOUND		DRILLED TIE	DRILLED	CONCRETE	CONCRETE	SAWING	REMARKS	EB MILE		EASTBOUND		DRILLED TIE	DRILLED	CONCRETE	CONCRETE	SAWING	REMARKS
MARKER	PLUS	LOCATION	LENGTH	BARS	DOWEL BARS	PAVEMENT	PAVEMENT	CONCRETE		MARKER	PLUS	LOCATION	LENGTH	BARS	DOWEL BARS	PAVEMENT	PAVEMENT	CONCRETE	
		SIDE		EACH	EACH	REPAIR SHES	REPLACEMENT	LF					EACH	EACH	REPAIR SHES	REPLACEMENT	CONCRETE		
						SY	SHES								SY	SHES	LF		
88	4785	RIGHT	6.00	-	16	9.33	-	34		89	1465	BOTH	15.00	6	32	43.33	-	67	
88	4820	RIGHT	6.00	-	16	9.33	-	34		89	1480	BOTH	6.00	-	32	17.33	-	58	
88	4845	RIGHT	6.00	-	16	9.33	-	34		89	1515	RIGHT	6.00	-	16	9.33	-	34	
88	4860	LEFT	6.00	-	16	8.00	-	30		89	1535	RIGHT	8.00	4	16	12.44	-	36	
88	4870	LEFT	6.00	-	16	8.00	-	30		89	1575	LEFT	6.00	-	16	8.00	-	30	
88	4880	RIGHT	6.00	-	16	9.33	-	34		89	1605	RIGHT	6.00	-	16	9.33	-	34	
88	4930	RIGHT	6.00	-	16	9.33	-	34		89	1635	LEFT	6.00	-	16	8.00	-	30	
88	5000	BOTH	6.00	-	32	17.33	-	58		89	1665	BOTH	6.00	-	32	17.33	-	58	
88	5020	RIGHT	15.00	6	16	23.33	-	43		89	1680	LEFT	10.00	4	16	13.33	-	34	
88	5020	LEFT	6.00	-	16	8.00	-	30		89	1705	RIGHT	6.00	-	16	9.33	-	34	
89	10	RIGHT	6.00	-	16	9.33	-	34		89	1715	LEFT	6.00	-	16	8.00	-	30	
89	27	RIGHT	6.00	-	16	9.33	-	34		89	1770	BOTH	6.00	-	32	17.33	-	58	
89	45	RIGHT	20.00	8	16	-	31.11	48		89	1780	RIGHT	6.00	-	16	9.33	-	34	
89	75	LEFT	6.00	-	16	8.00	-	30		89	1790	RIGHT	20.00	8	16	-	31.11	48	
89	95	RIGHT	6.00	-	16	9.33	-	34		89	1805	LEFT	6.00	-	16	8.00	-	30	
					16	0.00	-	28											
89	110	LEFT	8.00	4	16	10.67	-	32		89	1820	LEFT	6.00	-	16	8.00	-	30	
89	110	RIGHT	8.00	4	16	12.44	-	36		89	1825	LEFT	6.00	-	16	8.00	-	30	
89	127	RIGHT	6.00	-	16	9.33	-	34		89	1830	LEFT	15.00	6	16	20.00	-	39	
89	140	RIGHT	6.00	-	16	9.33	-	34		89	1850	LEFT	10.00	4	16	13.33	-	34	
89	155	RIGHT	6.00	-	16	9.33	-	34		89	1875	LEFT	6.00	-	16	8.00	-	30	
89	165	LEFT	6.00	-	16	8.00	-	30		89	1905	LEFT	6.00	-	16	8.00	-	30	
89	225	RIGHT	6.00	-	16	9.33	-	34		89	1920	BOTH	6.00	-	32	17.33	-	58	
89	240	RIGHT	6.00	-	16	9.33	-	34		89	1940	LEFT	6.00	-	16	8.00	-	30	
89	275	BOTH	6.00	-	32	17.33	-	58		89	1960	RIGHT	10.00	4	16	15.56	-	38	
89	305	LEFT	6.00	-	16	8.00	-	30		89	1980	RIGHT	6.00	-	16	9.33	-	34	
89	370	BOTH	6.00	-	32	17.33	-	58		89	2000	LEFT	10.00	4	16	13.33	-	34	
89	390	LEFT	6.00	-	16	8.00	-	30		89	2025	LEFT	15.00	6	16	20.00	-	39	
89	415	LEFT	6.00	-	16	8.00	-	30		89	2040	RIGHT	6.00	-	16	9.33	-	34	
89	425	BOTH	6.00	-	32	17.33	-	58		89	2050	BOTH	8.00	4	32	23.11	-	60	
89	430	RIGHT	6.00	-	16	9.33	-	34		89	2080	LEFT	15.00	6	16	20.00	-	39	
89	445	BOTH	6.00	-	32	17.33	-	58		89	2125	LEFT	6.00	-	16	8.00	-	30	
89	470	RIGHT	6.00	-	16	9.33	-	34		89	2155	RIGHT	6.00	-	16	9.33	-	34	
89	505	LEFT	6.00	-	16	8.00	-	30		89	2195	RIGHT	6.00	-	16	9.33	-	34	
89	530	RIGHT	6.00	-	16	9.33	-	34		89	2235	RIGHT	20.00	8	16	-	31.11	48	
89	540	RIGHT	6.00	-	16	9.33	-	34		89	2255	LEFT	6.00	-	16	8.00	-	30	
89	610	RIGHT	6.00	-	16	9.33	-	34		89	2270	BOTH	6.00	-	32	17.33	-	58	
89	655	RIGHT	6.00	-	16	9.33	-	34		89	2310	LEFT	20.00	8	16	-	26.67	44	
89	665	RIGHT	6.00	-	16	9.33	-	34		89	2325	RIGHT	6.00	-	16	9.33	-	34	
89	710	RIGHT	6.00	-	16	9.33	-	34		89	2345	RIGHT	6.00	-	16	9.33	-	34	
89	830	LEFT	6.00	-	16	8.00	-	30		89	2375	LEFT	6.00	-	16	8.00	-	30	
89	950	RIGHT	6.00	-	16	9.33	-	34		89	2400	LEFT	6.00	-	16	8.00	-	30	
89	1325	RIGHT	6.00	-	16	9.33	-	34		89	2415	RIGHT	15.00	6	16	23.33	-	43	
89	1380	BOTH	15.00	6	32	43.33	-	67		89	2445	BOTH	6.00	-	32	17.33	-	58	
89	1405	RIGHT	6.00	-	16	9.33	-	34		89	2450	LEFT	8.00	4	16	10.67	-	32	
89	1425	BOTH	6.00	-	32	17.33	-	58		89	2490	RIGHT	6.00	-	16	9.33	-	34	
SUBTOTAL 13 =				28	848	498	31	1,718		SUBTOTAL 14 =				82	848	539	89	1,747	

3

3

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
89	2515	RIGHT	10.00	4	16	15.56	-	38	
89	2520	LEFT	10.00	4	16	13.33	-	34	
89	2600	BOTH	30.00	12	32	-	86.67	82	
89	2620	RIGHT	6.00	-	16	9.33	-	34	
89	2630	LEFT	6.00	-	16	8.00	-	30	
89	2850	RIGHT	6.00	-	16	9.33	-	34	
89	2870	RIGHT	6.00	-	16	9.33	-	34	
89	2900	RIGHT	8.00	4	16	12.44	-	36	
89	3030	RIGHT	8.00	4	16	12.44	-	36	
89	3165	BOTH	6.00	-	32	17.33	-	58	
89	3230	RIGHT	6.00	-	16	9.33	-	34	
89	3330	RIGHT	6.00	-	16	9.33	-	34	
89	3380	RIGHT	6.00	-	16	9.33	-	34	
89	3420	LEFT	8.00	4	16	10.67	-	32	
89	3450	RIGHT	6.00	-	16	9.33	-	34	
89	3530	RIGHT	6.00	-	16	9.33	-	34	
89	3560	RIGHT	6.00	-	16	9.33	-	34	
89	3600	RIGHT	6.00	-	16	9.33	-	34	
89	3630	RIGHT	6.00	-	16	9.33	-	34	
89	3670	LEFT	6.00	-	16	8.00	-	30	
89	3700	LEFT	6.00	-	16	8.00	-	30	
89	3970	RIGHT	6.00	-	16	9.33	-	34	
89	4200	RIGHT	6.00	-	16	9.33	-	34	
89	4400	RIGHT	6.00	-	16	9.33	-	34	
89	4575	RIGHT	6.00	-	16	9.33	-	34	
89	4620	RIGHT	6.00	-	16	9.33	-	34	
89	4570	RIGHT	30.00	12	16	-	46.67	58	
89	4860	RIGHT	6.00	-	16	9.33	-	34	
89	4880	RIGHT	6.00	-	16	9.33	-	34	
89	4900	RIGHT	6.00	-	16	9.33	-	34	
89	4970	RIGHT	6.00	-	16	9.33	-	34	
89	5035	LEFT	6.00	-	16	8.00	-	30	
89	5070	RIGHT	6.00	-	16	9.33	-	34	
89	5280	LEFT	6.00	-	16	8.00	-	30	
90	25	LEFT	6.00	-	16	8.00	-	30	
90	90	LEFT	6.00	-	16	8.00	-	30	
90	115	RIGHT	6.00	-	16	9.33	-	34	
90	145	RIGHT	6.00	-	16	9.33	-	34	
90	160	LEFT	6.00	-	16	8.00	-	30	
90	165	RIGHT	45.00	18	16	-	70.00	73	
90	240	RIGHT	6.00	-	16	9.33	-	34	
90	250	RIGHT	15.00	6	16	23.33	23.33	43	
90	330	LEFT	6.00	-	16	8.00	-	30	
90	370	RIGHT	6.00	-	16	9.33	-	34	
90	400	LEFT	6.00	-	16	8.00	-	30	

SUBTOTAL 15 =

68 768 418 227 1,640

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
90	440	LEFT	6.00	-	16	8.00	-	30	
90	495	RIGHT	6.00	-	16	9.33	-	34	
90	530	RIGHT	6.00	-	16	9.33	-	34	
90	545	RIGHT	6.00	-	16	9.33	-	34	
90	565	RIGHT	6.00	-	16	9.33	-	34	
90	600	RIGHT	6.00	-	16	9.33	-	34	
90	650	RIGHT	6.00	-	16	9.33	-	34	
90	655	LEFT	6.00	-	16	8.00	-	30	
90	670	RIGHT	6.00	-	16	9.33	-	34	
90	800	LEFT	6.00	-	16	8.00	-	30	
90	850	RIGHT	6.00	-	16	9.33	-	34	
90	995	LEFT	10.00	4	16	13.33	-	34	
90	1100	RIGHT	15.00	6	16	23.33	-	43	
90	1160	LEFT	15.00	6	16	20.00	-	39	
90	1225	LEFT	6.00	-	16	8.00	-	30	
90	1230	RIGHT	15.00	6	16	23.33	-	43	
90	1250	LEFT	6.00	-	16	8.00	-	30	
90	1275	RIGHT	15.00	6	16	23.33	-	43	
90	1285	LEFT	6.00	-	16	8.00	-	30	
90	1295	LEFT	6.00	-	16	8.00	-	30	
90	1325	BOTH	6.00	-	32	17.33	-	58	
90	1365	LEFT	6.00	-	16	8.00	-	30	
90	1390	LEFT	6.00	-	16	8.00	-	30	
90	1400	RIGHT	10.00	4	16	15.56	-	38	
90	1430	LEFT	6.00	-	16	8.00	-	30	
90	1460	RIGHT	15.00	6	16	23.33	-	43	
90	1460	LEFT	6.00	-	16	8.00	-	30	
90	1515	BOTH	6.00	-	32	17.33	-	58	
90	1525	LEFT	6.00	-	16	8.00	-	30	
90	1534	LEFT	6.00	-	16	8.00	-	30	
90	1550	RIGHT	60.00	24	16	-	93.33	88	
90	1560	LEFT	6.00	-	16	8.00	-	30	
90	1570	LEFT	6.00	-	16	8.00	-	30	
90	1595	LEFT	6.00	-	16	8.00	-	30	
90	1615	RIGHT	30.00	12	16	-	46.67	58	
90	1625	LEFT	6.00	-	16	8.00	-	30	
90	1645	LEFT	6.00	-	16	8.00	-	30	
90	1660	RIGHT	6.00	-	16	9.33	-	34	
90	1670	BOTH	6.00	-	32	17.33	-	58	
90	1740	RIGHT	15.00	6	16	23.33	-	43	
90	1770	RIGHT	10.00	4	16	15.56	-	38	
90	1790	LEFT	10.00	4	16	13.33	-	34	
90	1825	RIGHT	6.00	-	16	9.33	-	34	
90	1850	LEFT	6.00	-	16	8.00	-	30	
90	1865	RIGHT	6.00	-	16	9.33	-	34	

SUBTOTAL 16 =

88 768 501 140 1,662

PROJECT NO: 1016-01-62

HWY: IH - 90

COUNTY: JUNEAU, SAUK

MISCELLANEOUS QUANTITIES

SHEET:

E

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
90	1885	LEFT	6.00	-	16	8.00	-	30	
90	1900	RIGHT	6.00	-	16	9.33	-	34	
90	1925	LEFT	6.00	-	16	8.00	-	30	
90	1940	BOTH	6.00	-	32	17.33	-	58	
90	1970	RIGHT	6.00	-	16	9.33	-	34	
90	2025	RIGHT	6.00	-	16	9.33	-	34	
90	2040	RIGHT	6.00	-	16	9.33	-	34	
90	2050	RIGHT	6.00	-	16	9.33	-	34	
90	2065	LEFT	6.00	-	16	8.00	-	30	
90	2110	LEFT	6.00	-	16	8.00	-	30	
90	2140	RIGHT	6.00	-	16	9.33	-	34	
90	2175	LEFT	6.00	-	16	8.00	-	30	
90	2255	LEFT	6.00	-	16	8.00	-	30	
90	2260	RIGHT	6.00	-	16	9.33	-	34	
90	2340	LEFT	15.00	6	16	20.00	-	39	
90	2340	RIGHT	6.00	-	16	9.33	-	34	
90	2400	RIGHT	6.00	-	16	9.33	-	34	
90	2410	LEFT	6.00	-	16	8.00	-	30	
90	2420	RIGHT	6.00	-	16	9.33	-	34	
90	3160	RIGHT	6.00	-	16	9.33	-	34	
90	3200	LEFT	6.00	-	16	8.00	-	30	
90	3260	RIGHT	6.00	-	16	9.33	-	34	
90	3280	RIGHT	6.00	-	16	9.33	-	34	
90	3320	LEFT	6.00	-	16	8.00	-	30	
90	3340	BOTH	6.00	-	32	17.33	-	58	
90	3380	LEFT	6.00	-	16	8.00	-	30	
90	3400	BOTH	6.00	-	32	17.33	-	58	
90	3420	RIGHT	6.00	-	16	9.33	-	34	
90	3450	RIGHT	6.00	-	16	9.33	-	34	
90	3460	BOTH	6.00	-	32	17.33	-	58	
90	3470	RIGHT	6.00	-	16	9.33	-	34	
90	3500	RIGHT	6.00	-	16	9.33	-	34	
90	3520	BOTH	6.00	-	32	17.33	-	58	
90	3580	RIGHT	6.00	-	16	9.33	-	34	
90	3600	LEFT	6.00	-	16	8.00	-	30	
90	3620	LEFT	6.00	-	16	8.00	-	30	
90	3660	RIGHT	6.00	-	16	9.33	-	34	
90	3675	LEFT	6.00	-	16	8.00	-	30	
90	3680	RIGHT	6.00	-	16	9.33	-	34	
90	3730	RIGHT	6.00	-	16	9.33	-	34	
90	3770	RIGHT	6.00	-	16	9.33	-	34	
90	3795	BOTH	6.00	-	32	17.33	-	58	
90	3800	RIGHT	6.00	-	16	9.33	-	34	
90	3820	BOTH	6.00	-	32	17.33	-	58	
90	3835	LEFT	6.00	-	16	8.00	-	30	
SUBTOTAL 17 =				6	832	468	0	1,647	

EB MILE MARKER	PLUS	EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
90	3845	BOTH	6.00	-	32	17.33	-	58	
90	3850	BOTH	6.00	-	32	17.33	-	58	
90	3880	BOTH	6.00	-	32	17.33	-	58	
90	3900	BOTH	6.00	-	32	17.33	-	58	
90	3910	RIGHT	10.00	4	16	15.56	-	38	
90	3925	BOTH	6.00	-	32	17.33	-	58	
90	3940	BOTH	6.00	-	32	17.33	-	58	
90	3960	RIGHT	6.00	-	16	9.33	-	34	
90	3985	RIGHT	6.00	-	16	9.33	-	34	
90	4000	LEFT	6.00	-	16	8.00	-	30	
90	4010	LEFT	6.00	-	16	8.00	-	30	
90	4010	RIGHT	30.00	12	16	-	46.67	58	
90	4030	LEFT	6.00	-	16	8.00	-	30	
90	4045	RIGHT	6.00	-	16	9.33	-	34	
90	4050	RIGHT	6.00	-	16	9.33	-	34	
90	4060	BOTH	6.00	-	32	17.33	-	58	
90	4095	RIGHT	6.00	-	16	9.33	-	34	
90	4110	BOTH	6.00	-	32	17.33	-	58	
90	4120	RIGHT	6.00	-	16	9.33	-	34	
90	4150	BOTH	6.00	-	32	17.33	-	58	
90	4165	RIGHT	6.00	-	16	9.33	-	34	
90	4180	RIGHT	6.00	-	16	9.33	-	34	
90	4195	BOTH	6.00	-	32	17.33	-	58	
90	4210	BOTH	6.00	-	32	17.33	-	58	
90	4225	BOTH	6.00	-	32	17.33	-	58	
90	4235	BOTH	6.00	-	32	17.33	-	58	
90	4250	BOTH	6.00	-	32	17.33	-	58	
90	4280	RIGHT	6.00	-	16	9.33	-	34	
90	4295	BOTH	6.00	-	32	17.33	-	58	
90	4315	LEFT	6.00	-	16	8.00	-	30	
90	4350	RIGHT	6.00	-	16	9.33	-	34	
90	4375	RIGHT	6.00	-	16	9.33	-	34	
90	4410	LEFT	6.00	-	16	8.00	-	30	
90	4450	RIGHT	6.00	-	16	9.33	-	34	
90	4470	LEFT	6.00	-	16	8.00	-	30	
90	4500	RIGHT	6.00	-	16	9.33	-	34	
90	4525	RIGHT	6.00	-	16	9.33	-	34	
90	4535	RIGHT	6.00	-	16	9.33	-	34	
90	4550	RIGHT	6.00	-	16	9.33	-	34	
90	4560	RIGHT	6.00	-	16	9.33	-	34	
90	4565	LEFT	6.00	-	16	8.00	-	30	
90	4595	RIGHT	6.00	-	16	9.33	-	34	
90	4630	RIGHT	30.00	12	16	-	46.67	58	
90	4655	LEFT	6.00	-	16	8.00	-	30	
90	4680	BOTH	6.00	-	32	17.33	-	58	
SUBTOTAL 18 =				28	976	525	93	1,934	

PROJECT NO: 1016-01-62

HWY: IH - 90

COUNTY: JUNEAU, SAUK

MISCELLANEOUS QUANTITIES

SHEET:

E

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
EB MILE		EASTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
MARKER	PLUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
90	4700	RIGHT	6.00	-	16	9.33	-	34		92	5000	LEFT	6.00	-	16	8.00	-	30	
90	4715	RIGHT	6.00	-	16	9.33	-	34		92	5140	LEFT	6.00	-	16	8.00	-	30	
90	4725	RIGHT	6.00	-	16	9.33	-	34		92	5290	LEFT	6.00	-	16	8.00	-	30	
90	4740	RIGHT	6.00	-	16	9.33	-	34		91	20	BOTH	6.00	-	32	17.33	-	58	
90	4750	RIGHT	6.00	-	16	9.33	-	34		91	60	BOTH	6.00	-	32	17.33	-	58	
90	4770	RIGHT	6.00	-	16	9.33	-	34		91	120	LEFT	6.00	-	16	8.00	-	30	
90	4785	RIGHT	6.00	-	16	9.33	-	34		91	150	RIGHT	6.00	-	16	9.33	-	34	
90	4800	RIGHT	8.00	4	16	12.44	-	36		91	210	BOTH	6.00	-	32	17.33	-	58	
90	4815	RIGHT	6.00	-	16	9.33	-	34		91	270	LEFT	6.00	-	16	8.00	-	30	
90	4830	RIGHT	6.00	-	16	9.33	-	34		91	460	RIGHT	6.00	-	16	9.33	-	34	
90	4840	RIGHT	6.00	-	16	9.33	-	34		91	500	RIGHT	6.00	-	16	9.33	-	34	
90	4860	LEFT	6.00	-	16	8.00	-	30		91	590	LEFT	6.00	-	16	8.00	-	30	
90	4885	RIGHT	6.00	-	16	9.33	-	34		91	640	LEFT	6.00	-	16	8.00	-	30	
90	4910	RIGHT	6.00	-	16	9.33	-	34		91	770	RIGHT	12.00	5	16	18.67	-	40	
90	4925	RIGHT	8.00	4	16	12.44	-	36		91	820	LEFT	6.00	-	16	8.00	-	30	
90	4955	LEFT	6.00	-	16	8.00	-	30		91	900	LEFT	6.00	-	16	8.00	-	30	
90	4960	RIGHT	6.00	-	16	9.33	-	34		91	940	RIGHT	6.00	-	16	9.33	-	34	
90	4965	LEFT	6.00	-	16	8.00	-	30		91	960	LEFT	6.00	-	16	8.00	-	30	
90	4995	LEFT	6.00	-	16	8.00	-	30		91	1090	BOTH	6.00	-	32	17.33	-	58	
90	5000	RIGHT	20.00	8	16	-	31.11	48		91	1120	LEFT	6.00	-	16	8.00	-	30	
90	5040	RIGHT	30.00	12	16	-	46.67	58		91	1140	LEFT	6.00	-	16	8.00	-	30	
90	5075	RIGHT	6.00	-	16	9.33	-	34		91	1240	RIGHT	6.00	-	16	9.33	-	34	
90	5090	RIGHT	6.00	-	16	9.33	-	34		91	1340	BOTH	6.00	-	32	17.33	-	58	
90	5130	RIGHT	6.00	-	16	9.33	-	34		91	1480	LEFT	6.00	-	16	8.00	-	30	
90	5140	RIGHT	6.00	-	16	9.33	-	34		91	1700	RIGHT	30.00	12	16	-	46.67	58	
90	5165	BOTH	6.00	-	32	17.33	-	58		91	1800	LEFT	6.00	-	16	8.00	-	30	
90	5200	RIGHT	6.00	-	16	9.33	-	34		91	1900	LEFT	6.00	-	16	8.00	-	30	
90	5215	RIGHT	6.00	-	16	9.33	-	34		91	2000	LEFT	6.00	-	16	8.00	-	30	
90	5230	BOTH	6.00	-	32	17.33	-	58		91	2555	LEFT	6.00	-	16	8.00	-	30	
91	10	RIGHT	6.00	-	16	9.33	-	34		91	2570	LEFT	6.00	-	16	8.00	-	30	
91	160	RIGHT	8.00	4	16	12.44	-	36		91	2600	BOTH	6.00	-	32	17.33	-	58	
91	190	RIGHT	6.00	-	16	9.33	-	34		91	2630	LEFT	6.00	-	16	8.00	-	30	
91	200	BOTH	6.00	-	32	17.33	-	58		91	2660	LEFT	6.00	-	16	8.00	-	30	
91	220	LEFT	6.00	-	16	8.00	-	30		91	2720	BOTH	6.00	-	32	17.33	-	58	
91	230	LEFT	6.00	-	16	8.00	-	30		91	3140	RIGHT	6.00	-	16	9.33	-	34	
SUBTOTAL 19 =										91	3170	RIGHT	6.00	-	16	9.33	-	34	
										91	3270	RIGHT	10.00	4	16	15.56	-	38	
										91	3290	LEFT	6.00	-	16	8.00	-	30	
										91	3360	LEFT	6.00	-	16	8.00	-	30	
										91	3430	RIGHT	6.00	-	16	9.33	-	34	
										91	1080	LEFT	6.00	-	16	8.00	-	30	
										91	3460	LEFT	6.00	-	16	9.33	-	34	
										91	3490	LEFT	6.00	-	16	8.00	-	30	
										91	3533	RIGHT	20.00	8	16	-	31.11	48	
										91	3533	LEFT	6.00	-	16	8.00	-	30	
										SUBTOTAL 20 =									
										29	816	432	78	1,616					

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
91	3640	LEFT	10.00	4	16	15.56	-	38		90	3156	LEFT	6.00	-	16	8.00	-	30	
91	3690	RIGHT	6.00	-	16	8.00	-	30		90	3206	LEFT	6.00	-	16	8.00	-	30	
91	3700	RIGHT	6.00	-	16	9.33	-	34		90	3256	LEFT	6.00	-	16	8.00	-	30	
91	3720	LEFT	6.00	-	16	8.00	-	30		90	3276	BOTH	6.00	-	32	17.33	-	58	
91	3890	LEFT	6.00	-	16	9.33	-	34		90	3306	RIGHT	6.00	-	16	9.33	-	34	
91	3980	LEFT	6.00	-	16	9.33	-	34		90	3316	LEFT	6.00	-	16	8.00	-	30	
91	4100	RIGHT	6.00	-	16	8.00	-	30		90	3456	RIGHT	6.00	-	16	9.33	-	34	
91	4200	RIGHT	6.00	-	16	9.33	-	34		90	3496	LEFT	6.00	-	16	8.00	-	30	
91	4480	RIGHT	10.00	4	16	15.56	-	38		90	3656	LEFT	6.00	-	16	-	-	30	
91	4560	RIGHT	6.00	-	16	8.00	-	30		90	3756	LEFT	6.00	-	16	8.00	-	30	
91	4580	BOTH	6.00	-	32	17.33	-	58		90	4156	RIGHT	6.00	-	16	9.33	-	34	
91	4640	LEFT	6.00	-	16	8.00	-	30		90	4389	RIGHT	6.00	-	16	9.33	-	34	
91	4660	RIGHT	6.00	-	16	8.00	-	30		90	4426	LEFT	6.00	-	16	8.00	-	30	
91	4680	BOTH	6.00	-	32	17.33	-	58		90	4616	BOTH	6.00	-	32	17.33	-	58	
91	4730	RIGHT	6.00	-	16	9.33	-	34		90	4906	RIGHT	6.00	-	16	9.33	-	34	
91	4769	LEFT	6.00	-	16	8.00	-	30		90	4946	RIGHT	6.00	-	16	9.33	-	34	
91	4990	LEFT	6.00	-	16	8.00	-	30		89	50	RIGHT	6.00	-	16	9.33	-	34	
91	5000	LEFT	6.00	-	16	9.33	-	34		89	90	BOTH	6.00	-	32	17.33	-	58	
91	5020	BOTH	6.00	-	32	17.33	-	58		89	100	LEFT	6.00	-	16	8.00	-	30	
90	0	BOTH	6.00	-	32	17.33	-	58		89	170	LEFT	6.00	-	16	8.00	-	30	
90	200	LEFT	6.00	-	16	9.33	-	34		89	170	RIGHT	8.00	4	16	12.44	-	36	
90	500	RIGHT	6.00	-	16	9.33	-	34		89	200	LEFT	6.00	-	16	8.00	-	30	
90	1156	LEFT	6.00	-	16	8.00	-	30		89	230	BOTH	6.00	-	32	17.33	-	58	
90	1256	LEFT	6.00	-	16	8.00	-	30		89	280	RIGHT	6.00	-	16	9.33	-	34	
90	1456	LEFT	6.00	-	16	9.33	-	34		89	290	LEFT	6.00	-	16	8.00	-	30	
90	1756	LEFT	6.00	-	16	8.00	-	30		89	430	LEFT	6.00	-	16	8.00	-	30	
90	1856	LEFT	8.00	4	16	12.44	-	36		89	550	RIGHT	15.00	6	16	23.33	-	43	
90	2056	RIGHT	6.00	-	16	9.33	-	34		89	570	RIGHT	6.00	-	16	9.33	-	34	
90	2096	LEFT	6.00	-	16	9.33	-	34		89	640	RIGHT	6.00	-	16	9.33	-	34	
90	2156	RIGHT	30.00	12	16	-	46.67	58		89	705	RIGHT	6.00	-	16	9.33	-	34	
90	2206	LEFT	6.00	-	16	9.33	-	34		89	769	RIGHT	6.00	-	16	9.33	-	34	
90	2356	RIGHT	6.00	-	16	9.33	-	34		89	830	RIGHT	6.00	-	16	9.33	-	34	
90	2456	BOTH	6.00	-	32	17.33	-	58		89	870	RIGHT	6.00	-	16	9.33	-	34	
90	2486	LEFT	6.00	-	16	9.33	-	34		89	940	LEFT	6.00	-	16	8.00	-	30	
90	2526	LEFT	6.00	-	16	8.00	-	30		89	1060	LEFT	6.00	-	16	8.00	-	30	
90	2656	RIGHT	6.00	-	16	9.33	-	34		89	1120	RIGHT	6.00	-	16	9.33	-	34	
90	2676	LEFT	6.00	-	16	8.00	-	30		89	1190	LEFT	6.00	-	16	8.00	-	30	
90	2686	LEFT	6.00	-	16	8.00	-	30		89	1250	BOTH	6.00	-	32	17.33	-	58	
90	2756	LEFT	6.00	-	16	8.00	-	30		89	1390	RIGHT	10.00	4	16	15.56	-	38	
90	2806	RIGHT	6.00	-	16	9.33	-	34		89	1520	RIGHT	8.00	4	16	12.44	-	36	
90	2886	RIGHT	6.00	-	16	9.33	-	34		89	1640	RIGHT	8.00	4	16	12.44	-	36	
90	2896	RIGHT	6.00	-	16	9.33	-	34		89	1690	LEFT	6.00	-	16	8.00	-	30	
90	2996	RIGHT	6.00	-	16	9.33	-	34		89	1750	RIGHT	8.00	4	16	12.44	-	36	
90	3016	RIGHT	6.00	-	16	9.33	-	34		89	1870	RIGHT	10.00	4	16	15.56	-	38	
90	3126	LEFT	6.00	-	16	8.00	-	30		89	1980	RIGHT	10.00	4	16	15.56	-	38	
SUBTOTAL 21 =				24	800	445	47	1,620		SUBTOTAL 22 =				34	800	474	0	1,611	

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CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

WB MILE MARKER	MINUS	WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
89	2110	RIGHT	10.00	4	16	15.56	-	38	
89	2220	RIGHT	10.00	4	16	15.56	-	38	
89	2290	RIGHT	8.00	4	16	12.44	-	36	
89	2320	RIGHT	8.00	4	16	-	-	36	
89	2340	RIGHT	8.00	4	16	12.44	-	36	
89	2400	RIGHT	6.00	-	16	9.33	-	34	
89	2460	RIGHT	6.00	-	16	9.33	-	34	
89	2620	RIGHT	10.00	4	16	15.56	-	38	
89	2690	RIGHT	15.00	6	16	23.33	-	43	
89	2750	RIGHT	12.00	5	16	18.67	-	40	
89	2920	RIGHT	15.00	6	16	23.33	-	43	
89	2960	RIGHT	8.00	4	16	12.44	-	36	
89	3048	LEFT	8.00	4	16	10.67	-	32	
89	3080	RIGHT	8.00	4	16	12.44	-	36	
89	3200	RIGHT	8.00	4	16	12.44	-	36	
89	3200	LEFT	8.00	4	16	10.67	-	32	
89	3215	RIGHT	12.00	5	16	18.67	-	40	
89	3260	RIGHT	10.00	4	16	15.56	-	38	
89	3320	RIGHT	10.00	4	16	15.56	-	38	
89	3430	RIGHT	30.00	12	16	-	46.67	58	
89	3510	RIGHT	10.00	4	16	15.56	-	38	
89	3720	RIGHT	12.00	5	16	18.67	-	40	
89	3800	LEFT	6.00	-	16	8.00	-	30	
89	4100	RIGHT	10.00	4	16	15.56	-	38	
89	4350	LEFT	6.00	-	16	8.00	-	30	
89	4500	RIGHT	8.00	4	16	12.44	-	36	
89	4950	RIGHT	15.00	6	16	23.33	-	43	
89	5020	RIGHT	15.00	6	16	23.33	-	43	
88	15	RIGHT	8.00	4	16	12.44	-	36	
88	120	LEFT	6.00	-	16	8.00	-	30	
88	120	RIGHT	8.00	4	16	12.44	-	36	
88	450	RIGHT	8.00	4	16	12.44	-	36	
88	780	RIGHT	8.00	4	16	12.44	-	36	
88	900	RIGHT	10.00	4	16	15.56	-	38	
88	1150	RIGHT	8.00	4	16	12.44	-	36	
88	1260	RIGHT	8.00	4	16	12.44	-	36	
88	1380	RIGHT	6.00	-	16	9.33	-	34	
88	1444	RIGHT	10.00	4	16	15.56	-	38	
88	1560	LEFT	6.00	-	16	8.00	-	30	
88	1600	LEFT	6.00	-	16	8.00	-	30	
88	1700	LEFT	6.00	-	16	8.00	-	30	
88	1800	RIGHT	8.00	4	16	12.44	-	36	
88	1900	RIGHT	8.00	4	16	12.44	-	36	
88	2000	LEFT	6.00	-	16	-	-	30	
88	2222	LEFT	6.00	-	16	8.00	-	30	
SUBTOTAL 23 =				155	720	569	47	1,638	

WB MILE MARKER	MINUS	WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
		DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF			
88	2300	LEFT	10.00	4	16	13.33	-	34	
88	2500	RIGHT	10.00	4	16	15.56	-	38	
88	2763	RIGHT	10.00	4	16	15.56	-	38	
88	2810	RIGHT	8.00	4	16	12.44	-	36	
88	2855	LEFT	6.00	-	16	8.00	-	30	
88	2980	RIGHT	8.00	4	16	12.44	-	36	
88	3050	RIGHT	10.00	4	16	15.56	-	38	
88	3200	LEFT	6.00	-	16	8.00	-	30	
88	3400	LEFT	6.00	-	16	8.00	-	30	
88	3460	LEFT	6.00	-	16	8.00	-	30	
88	4800	RIGHT	6.00	-	16	9.33	-	34	
87	50	RIGHT	8.00	4	16	12.44	-	36	
87	730	RIGHT	12.00	5	16	18.67	-	40	
87	1010	RIGHT	6.00	-	16	9.33	-	34	
87	1310	RIGHT	10.00	4	16	15.56	-	38	
87	1370	RIGHT	10.00	4	16	15.56	-	38	
87	1430	RIGHT	8.00	4	16	12.44	-	36	
87	1480	RIGHT	8.00	4	16	12.44	-	36	
87	1620	RIGHT	12.00	5	16	18.67	-	40	
87	1620	LEFT	8.00	4	16	10.67	-	32	
87	1666	RIGHT	8.00	4	16	12.44	-	36	
87	1810	RIGHT	10.00	4	16	15.56	-	38	
87	1888	RIGHT	10.00	4	16	15.56	-	38	
87	2050	RIGHT	30.00	12	16	-	46.67	58	
87	2170	LEFT	6.00	-	16	8.00	-	30	
87	2200	LEFT	6.00	-	16	8.00	-	30	
87	2280	RIGHT	10.00	4	16	15.56	-	38	
87	2320	LEFT	10.00	4	16	13.33	-	34	
87	2380	RIGHT	10.00	4	16	15.56	-	38	
87	2400	RIGHT	15.00	6	16	23.33	-	43	
87	2480	RIGHT	10.00	4	16	15.56	-	38	
87	2580	LEFT	6.00	-	16	8.00	-	30	
87	2738	RIGHT	12.00	5	16	18.67	-	40	
87	2777	RIGHT	15.00	6	16	23.33	-	43	
87	2888	RIGHT	8.00	4	16	12.44	-	36	
87	2960	LEFT	6.00	-	16	8.00	-	30	
87	3060	RIGHT	10.00	4	16	15.56	-	38	
87	3190	RIGHT	12.00	5	16	-	-	40	
87	3260	RIGHT	8.00	4	16	12.44	-	36	
87	3310	RIGHT	12.00	5	16	18.67	-	40	
87	3369	RIGHT	10.00	4	16	-	-	38	
87	3369	LEFT	12.00	5	16	-	-	36	
87	3540	RIGHT	10.00	4	16	15.56	-	38	
87	3580	RIGHT	12.00	5	16	18.67	-	40	
87	3620	RIGHT	8.00	4	16	12.44	-	36	
SUBTOTAL 24 =				159	720	559	47	1,646	

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)										
WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	
MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		
87	3690	RIGHT	8.00	4	16	12.44	-	36		86	3830	RIGHT	60.00	24	16	-	93.33	88		
87	3750	RIGHT	12.00	5	16	18.67	-	40		86	4000	RIGHT	10.00	4	16	15.56	-	38		
87	4222	LEFT	6.00	-	16	8.00	-	30		86	4030	RIGHT	30.00	12	16	-	46.67	58		
87	4270	RIGHT	6.00	-	16	9.33	-	34		86	4100	RIGHT	10.00	4	16	15.56	-	38		
87	4400	RIGHT	15.00	6	16	23.33	-	43		86	4300	RIGHT	10.00	4	16	15.56	-	38		
87	4760	RIGHT	6.00	-	16	9.33	-	34		86	4370	RIGHT	8.00	4	16	12.44	-	36		
87	4830	RIGHT	10.00	4	16	15.56	-	38		86	4470	RIGHT	6.00	-	16	9.33	-	34		
87	4890	BOTH	10.00	4	32	28.89	-	62		86	4500	RIGHT	10.00	4	16	15.56	-	38		
87	4900	LEFT	6.00	-	16	8.00	-	30		86	4550	LEFT	6.00	-	16	8.00	-	30		
87	5100	LEFT		0	16	-	-	24		86	4580	LEFT	6.00	-	16	8.00	-	30		
87	5100	RIGHT	8.00	4	16	-	-	36		86	4700	RIGHT	6.00	-	16	9.33	-	34		
86	60	RIGHT	15.00	6	16	23.33	-	43		86	4750	RIGHT	8.00	4	16	12.44	-	36		
86	300	RIGHT	10.00	4	16	15.56	-	38		86	4900	RIGHT	30.00	12	16	-	46.67	58		
86	480	RIGHT	10.00	4	16	15.56	-	38		86	5100	LEFT	6.00	-	16	8.00	-	30		
86	550	RIGHT	8.00	4	16	12.44	-	36		86	5200	RIGHT	6.00	-	16	9.33	-	34		
86	700	RIGHT	6.00	-	16	9.33	-	34		86	5600	LEFT	6.00	-	16	8.00	-	30		
86	777	RIGHT	10.00	4	16	15.56	-	38		86	5800	LEFT	6.00	-	16	8.00	-	30		
86	840	RIGHT	8.00	4	16	12.44	-	36		86	6300	RIGHT	8.00	4	16	-	-	36		
86	940	LEFT	6.00	-	16	8.00	-	30		85	100	RIGHT	8.00	4	16	12.44	-	36		
86	960	LEFT	6.00	-	16	8.00	-	30		85	120	RIGHT	8.00	4	16	12.44	-	36		
86	1070	RIGHT	12.00	5	16	18.67	-	40		85	200	LEFT	6.00	-	16	8.00	-	30		
86	1190	RIGHT	12.00	5	16	18.67	-	40		85	220	LEFT	6.00	-	16	8.00	-	30		
86	1250	LEFT	6.00	-	16	8.00	-	30		85	260	LEFT	6.00	-	16	-	-	30		
86	1250	RIGHT	12.00	5	16	18.67	-	40		85	280	LEFT	6.00	-	16	8.00	-	30		
86	1270	LEFT	6.00	-	16	8.00	-	30		85	310	LEFT	6.00	-	16	8.00	-	30		
86	1300	RIGHT	10.00	4	16	15.56	-	38		85	430	LEFT	6.00	-	16	8.00	-	30		
86	1310	LEFT	6.00	-	16	8.00	-	30		85	470	RIGHT	8.00	4	16	12.44	-	36		
86	1360	RIGHT	10.00	4	16	15.56	-	38		85	750	RIGHT	6.00	-	16	-	-	34		
86	1400	LEFT	6.00	-	16	8.00	-	30		85	820	RIGHT	30.00	12	16	-	46.67	58		
86	1430	LEFT	6.00	-	16	8.00	-	30		85	930	RIGHT	8.00	4	16	12.44	-	36		
86	1480	LEFT	6.00	-	16	8.00	-	30		85	1250	RIGHT	6.00	-	16	9.33	-	34		
86	1520	RIGHT	6.00	-	16	9.33	-	34		85	1540	RIGHT	6.00	-	16	9.33	-	34		
86	1600	RIGHT	10.00	4	16	-	-	38		85	1700	LEFT	10.00	4	16	-	-	34		
86	1640	LEFT	6.00	-	16	8.00	-	30		85	2350	RIGHT	6.00	-	16	9.33	-	34		
86	1650	RIGHT	10.00	4	16	15.56	-	38		85	2400	LEFT	8.00	4	16	10.67	-	32		
86	1800	LEFT	6.00	-	16	8.00	-	30		85	3000	RIGHT	6.00	-	16	9.33	-	34		
86	1900	RIGHT	8.00	4	16	12.44	-	36		85	3150	RIGHT	10.00	4	16	15.56	-	38		
86	2100	LEFT	6.00	-	16	8.00	-	30		85	3200	RIGHT	6.00	-	16	-	-	34		
86	2150	LEFT	6.00	-	16	8.00	-	30		85	3550	RIGHT	6.00	-	16	9.33	-	34		
86	2200	LEFT	6.00	-	16	8.00	-	30		85	3590	RIGHT	10.00	4	16	15.56	-	38		
86	2316	BOTH	6.00	-	32	17.33	-	58		85	3780	RIGHT	8.00	4	16	12.44	-	36		
86	3390	LEFT	6.00	-	16	8.00	-	30		85	3950	LEFT	6.00	-	16	8.00	-	30		
86	3470	LEFT	6.00	-	16	8.00	-	30		85	4050	RIGHT	6.00	-	16	-	-	34		
86	3699	LEFT	6.00	-	16	8.00	-	30		85	4080	RIGHT	10.00	4	16	15.56	-	38		
86	3730	RIGHT	10.00	4	16	15.56	-	38		85	4290	LEFT	6.00	-	16	8.00	-	30		
SUBTOTAL 25 =				92	752	523	0	1,588		SUBTOTAL 26 =				128	720	377	233	1,646		

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CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
85	4330	RIGHT	6.00	-	16	9.33	-	34		85	4770	LEFT	6.00	-	16	8.00	-	30	
85	4400	RIGHT	6.00	-	16	9.33	-	34		84	100	LEFT	6.00	-	16	8.00	-	30	
85	4480	LEFT	6.00	-	16	-	-	30		84	160	BOTH	6.00	-	32	17.33	-	58	
85	4650	RIGHT	6.00	-	16	9.33	-	34		84	230	LEFT	6.00	-	16	8.00	-	30	
										84	270	RIGHT	15.00	6	16	23.33	-	43	
85	4700	LEFT	6.00	-	16	8.00	-	30											
85	4770	LEFT	6.00	-	16	8.00	-	30		84	680	LEFT	8.00	4	16	10.67	-	32	
86	4750	RIGHT	8.00	4	16	12.44	-	36		84	720	LEFT	6.00	-	16	8.00	-	30	
86	4900	RIGHT	30.00	12	16	-	46.67	58		84	770	RIGHT	6.00	-	16	9.33	-	34	
86	5100	LEFT	6.00	-	16	8.00	-	30		84	800	RIGHT	6.00	-	16	9.33	-	34	
86	5200	RIGHT	6.00	-	16	9.33	-	34		84	820	LEFT	6.00	-	16	8.00	-	30	
86	5600	LEFT	6.00	-	16	8.00	-	30		84	860	LEFT	6.00	-	16	8.00	-	30	
86	5800	LEFT	6.00	-	16	8.00	-	30		84	940	LEFT	6.00	-	16	8.00	-	30	
86	6300	RIGHT	8.00	4	16	12.44	-	36		84	1500	LEFT	6.00	-	16	-	-	30	
85	100	RIGHT	8.00	4	16	12.44	-	36		84	1740	LEFT	6.00	-	16	8.00	-	30	
85	120	RIGHT	8.00	4	16	12.44	-	36		84	1860	LEFT	6.00	-	16	8.00	-	30	
85	200	LEFT	6.00	-	16	8.00	-	30		84	1920	RIGHT	6.00	-	16	9.33	-	34	
85	220	LEFT	6.00	-	16	8.00	-	30		84	2020	LEFT	6.00	-	16	-	-	30	
85	260	LEFT	6.00	-	16	8.00	-	30		84	2030	RIGHT	8.00	4	16	12.44	-	36	
85	280	LEFT	6.00	-	16	8.00	-	30		84	2200	LEFT	6.00	-	16	8.00	-	30	
85	310	LEFT	6.00	-	16	8.00	-	30		84	2290	LEFT	6.00	-	16	8.00	-	30	
85	430	LEFT	6.00	-	16	8.00	-	30		84	2290	RIGHT	50.00	20	16	-	77.78	78	
85	470	RIGHT	8.00	4	16	-	-	36		84	2450	LEFT	6.00	-	16	8.00	-	30	
85	750	RIGHT	6.00	-	16	9.33	-	34		84	2680	RIGHT	8.00	4	16	12.44	-	36	
85	820	RIGHT	30.00	12	16	-	46.67	58		84	2800	LEFT	6.00	-	16	8.00	-	30	
85	930	RIGHT	8.00	4	16	12.44	-	36		84	3450	RIGHT	6.00	-	16	9.33	-	34	
85	1250	RIGHT	6.00	-	16	9.33	-	34		84	3600	LEFT	6.00	-	16	8.00	-	30	
85	1540	RIGHT	6.00	-	16	9.33	-	34		84	3750	RIGHT	6.00	-	16	9.33	-	34	
85	1700	LEFT	10.00	4	16	13.33	-	34		84	3969	RIGHT	6.00	-	16	9.33	-	34	
85	2350	RIGHT	6.00	-	16	9.33	-	34		84	4250	LEFT	6.00	-	16	8.00	-	30	
85	2400	LEFT	8.00	4	16	10.67	-	32		84	4555	LEFT	6.00	-	16	8.00	-	30	
85	3000	RIGHT	6.00	-	16	9.33	-	34		84	4555	RIGHT	10.00	4	16	15.56	-	38	
85	3150	RIGHT	10.00	4	16	15.56	-	38		84	4969	RIGHT	6.00	-	16	9.33	-	34	
85	3200	RIGHT	6.00	-	16	9.33	-	34		84	4980	LEFT	6.00	-	16	8.00	-	30	
85	3550	RIGHT	6.00	-	16	9.33	-	34		84	5000	RIGHT	6.00	-	16	-	-	34	
85	3590	RIGHT	10.00	4	16	15.56	-	38		83	333	RIGHT	6.00	-	16	9.33	-	34	
85	3780	RIGHT	8.00	4	16	12.44	-	36		83	500	RIGHT	10.00	4	16	15.56	-	38	
85	3950	LEFT	6.00	-	16	8.00	-	30		83	650	RIGHT	6.00	-	16	9.33	-	34	
85	4050	RIGHT	6.00	-	16	9.33	-	34		83	666	LEFT	6.00	-	16	8.00	-	30	
85	4080	RIGHT	10.00	4	16	15.56	-	38		83	950	LEFT	6.00	-	16	8.00	-	30	
85	4290	LEFT	6.00	-	16	8.00	-	30		83	980	LEFT	6.00	-	16	8.00	-	30	
85	4330	RIGHT	6.00	-	16	-	-	34		83	1020	RIGHT	30.00	12	16	-	46.67	58	
85	4400	RIGHT	6.00	-	16	9.33	-	34		83	1330	RIGHT	30.00	12	16	-	46.67	58	
85	4480	LEFT	6.00	-	16	8.00	-	30		83	1616	RIGHT	6.00	-	16	9.33	-	34	
85	4650	RIGHT	6.00	-	16	9.33	-	34		83	1670	RIGHT	6.00	-	16	9.33	-	34	
85	4700	LEFT	6.00	-	16	8.00	-	30		83	1820	RIGHT	15.00	6	16	23.33	-	43	
SUBTOTAL 27 =				72	720	396	93	1,538		SUBTOTAL 28 =				76	736	393	171	1,586	

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CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
83	2070	RIGHT	6.00	-	16	9.33	-	34		81	3620	RIGHT	30.00	12	16	-	46.67	58	
83	2111	LEFT	6.00	-	16	8.00	-	30		81	3730	RIGHT	15.00	6	16	23.33	-	43	
83	2470	RIGHT	6.00	-	16	9.33	-	34		81	3910	RIGHT	30.00	12	16	-	46.67	58	
83	2500	RIGHT	6.00	-	16	9.33	-	34		81	4390	RIGHT	15.00	6	16	23.33	-	43	
83	2580	LEFT	6.00	-	16	8.00	-	30		81	4888	RIGHT	15.00	6	16	23.33	-	43	
83	2900	RIGHT	6.00	-	16	9.33	-	34		80	269	LEFT	6.00	-	16	8.00	-	30	
83	3600	RIGHT	10.00	4	16	15.56	-	38		80	769	LEFT	6.00	-	16	-	-	30	
83	3920	RIGHT	8.00	4	16	12.44	-	36		80	1350	LEFT	8.00	4	16	10.67	-	32	
83	4555	RIGHT	6.00	-	16	9.33	-	34		80	1360	LEFT	6.00	-	16	8.00	-	30	
83	4620	LEFT	6.00	-	16	8.00	-	30		80	1870	RIGHT	6.00	-	16	9.33	-	34	
83	4640	LEFT	6.00	-	16	8.00	-	30		80	2620	RIGHT	6.00	-	16	9.33	-	34	
83	4750	RIGHT	15.00	6	16	-	-	43		80	2800	LEFT	6.00	-	16	8.00	-	30	
83	4820	LEFT	6.00	-	16	8.00	-	30		80	3450	RIGHT	15.00	6	16	23.33	-	43	
83	4890	RIGHT	6.00	-	16	9.33	-	34		80	3460	RIGHT	6.00	-	16	9.33	-	34	
83	5000	LEFT	6.00	-	16	8.00	-	30		80	3650	LEFT	6.00	-	16	8.00	-	30	
83	5111	LEFT	6.00	-	16	8.00	-	30		80	3740	LEFT	6.00	-	16	8.00	-	30	
82	170	RIGHT	8.00	4	16	12.44	-	36		80	3800	RIGHT	6.00	-	16	9.33	-	34	
82	212	RIGHT	30.00	12	16	-	46.67	58		80	3900	LEFT	6.00	-	16	8.00	-	30	
82	300	RIGHT	15.00	6	16	23.33	-	43		80	4070	LEFT	6.00	-	16	8.00	-	30	
82	480	LEFT	6.00	-	16	8.00	-	30		80	4150	RIGHT	6.00	-	16	9.33	-	34	
82	760	LEFT	6.00	-	16	8.00	-	30		80	4200	LEFT	6.00	-	16	8.00	-	30	
82	833	LEFT	6.00	-	16	8.00	-	30		80	5070	RIGHT	10.00	4	16	15.56	-	38	
82	940	RIGHT	30.00	12	16	-	46.67	58		80	5169	LEFT	6.00	-	16	8.00	-	30	
82	1222	RIGHT	12.00	5	16	18.67	-	40		79	0	BOTH	6.00	-	32	17.33	-	58	
82	1720	RIGHT	15.00	6	16	23.33	-	43		79	50	LEFT	6.00	-	16	8.00	-	30	
82	1888	RIGHT	15.00	6	16	23.33	-	43		79	250	RIGHT	6.00	-	16	9.33	-	34	
82	2222	LEFT	6.00	-	16	8.00	-	30		79	320	RIGHT	8.00	4	16	12.44	-	36	
82	2800	RIGHT	30.00	12	16	-	46.67	58		79	580	LEFT	6.00	-	16	8.00	-	30	
82	3300	LEFT	6.00	-	16	8.00	-	30		79	610	RIGHT	8.00	4	16	12.44	-	36	
82	4640	LEFT	6.00	-	16	-	-	30		79	760	RIGHT	10.00	4	16	15.56	-	38	
82	5000	RIGHT	6.00	-	16	9.33	-	34		79	940	LEFT	6.00	-	16	8.00	-	30	
82	5100	LEFT	8.00	4	16	10.67	-	32		79	960	LEFT	6.00	-	16	8.00	-	30	
81	80	RIGHT	30.00	12	16	-	46.67	58		79	1030	LEFT	6.00	-	16	8.00	-	30	
81	340	LEFT	6.00	-	16	8.00	-	30		79	1120	RIGHT	6.00	-	16	9.33	-	34	
81	420	LEFT	6.00	-	16	8.00	-	30		79	1300	LEFT	6.00	-	16	8.00	-	30	
81	730	LEFT	6.00	-	16	8.00	-	30		79	1433	RIGHT	15.00	6	16	23.33	-	43	
81	769	RIGHT	45.00	18	16	-	70.00	73		79	1515	LEFT	6.00	-	16	8.00	-	30	
81	1640	RIGHT	20.00	8	16	-	31.11	48		79	1589	LEFT	6.00	-	16	8.00	-	30	
81	2020	RIGHT	30.00	12	16	-	46.67	58		79	1644	LEFT	6.00	-	16	8.00	-	30	
81	2040	LEFT	6.00	-	16	8.00	-	30		79	1745	RIGHT	10.00	4	16	15.56	-	38	
81	2450	RIGHT	15.00	6	16	23.33	-	43		79	1850	RIGHT	6.00	-	16	9.33	-	34	
81	2570	RIGHT	15.00	6	16	23.33	-	43		79	1900	LEFT	6.00	-	16	8.00	-	30	
81	2666	RIGHT	15.00	6	16	23.33	-	43		79	1940	LEFT	6.00	-	16	8.00	-	30	
81	2910	LEFT	6.00	-	16	8.00	-	30		79	1990	LEFT	6.00	-	16	8.00	-	30	
81	3380	RIGHT	6.00	-	16	9.33	-	34		79	2130	LEFT	6.00	-	16	8.00	-	30	
SUBTOTAL 29 =				149	720	420	334	1,706		SUBTOTAL 30 =				78	736	467	93	1,569	

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CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)

CONCRETE REPAIR SUMMARY (CONTINUED)										CONCRETE REPAIR SUMMARY (CONTINUED)									
WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS	WB MILE		WESTBOUND LOCATION		416.0610	416.0620	416.1715	416.1725	690.0250	REMARKS
MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF		MARKER	MINUS	SIDE	LENGTH	DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH	CONCRETE PAVEMENT REPAIR SHES SY	CONCRETE PAVEMENT REPLACEMENT SHES SY	SAWING CONCRETE LF	
79	2190	RIGHT	6.00	-	16	9.33	-	34		78	930	LEFT	6.00	-	16	8.00	-	30	
79	2366	RIGHT	6.00	-	16	-	-	34		78	1300	RIGHT	15.00	6	16	23.33	-	43	
79	2600	RIGHT	6.00	-	16	9.33	-	34		78	1520	LEFT	6.00	-	16	8.00	-	30	
79	2858	RIGHT	8.00	4	16	12.44	-	36		78	1590	RIGHT	6.00	-	16	9.33	-	34	
79	2888	RIGHT	6.00	-	16	9.33	-	34		78	1666	RIGHT	15.00	6	16	23.33	-	43	
79	3070	LEFT	6.00	-	16	8.00	-	30		78	2040	RIGHT	15.00	6	16	23.33	-	43	
79	3080	LEFT	6.00	-	16	8.00	-	30		78	2100	RIGHT	6.00	-	16	9.33	-	34	
79	3100	LEFT	8.00	4	16	10.67	-	32		78	2130	LEFT	6.00	-	16	8.00	-	30	
79	3120	RIGHT	30.00	12	16	-	46.67	58		78	2190	RIGHT	6.00	-	16	9.33	-	34	
79	3333	RIGHT	6.00	-	16	9.33	-	34		78	2260	RIGHT	6.00	-	16	9.33	-	34	
79	3350	RIGHT	6.00	-	16	9.33	-	34		78	2400	RIGHT	6.00	-	16	9.33	-	34	
79	3400	LEFT	6.00	-	16	8.00	-	30		78	2480	RIGHT	8.00	4	16	12.44	-	36	
79	35550	LEFT	6.00	-	16	8.00	-	30		78	2600	RIGHT	6.00	-	16	9.33	-	34	
79	3740	LEFT	6.00	-	16	8.00	-	30		78	2666	RIGHT	6.00	-	16	9.33	-	34	
79	3900	LEFT	6.00	-	16	8.00	-	30		78	2690	RIGHT	6.00	-	16	9.33	-	34	
79	3900	RIGHT	8.00	4	16	12.44	-	36		78	2850	RIGHT	6.00	-	16	9.33	-	34	
79	3944	LEFT	6.00	-	16	8.00	-	30		78	2910	LEFT	6.00	-	16	8.00	-	30	
79	4020	LEFT	6.00	-	16	8.00	-	30		78	2950	RIGHT	12.00	5	16	18.67	-	40	
79	4040	RIGHT	6.00	-	16	9.33	-	34		78	3030	RIGHT	15.00	6	16	23.33	-	43	
79	4060	LEFT	6.00	-	16	8.00	-	30		78	3100	RIGHT	6.00	-	16	9.33	-	34	
79	4100	RIGHT	6.00	-	16	9.33	-	34		78	3190	LEFT	6.00	-	16	8.00	-	30	
79	4150	RIGHT	6.00	-	16	9.33	-	34		78	3260	LEFT	6.00	-	16	8.00	-	30	
79	4380	LEFT	6.00	-	16	8.00	-	30		78	3320	RIGHT	6.00	-	16	9.33	-	34	
79	4460	RIGHT	12.00	5	16	18.67	-	40		78	3920	LEFT	15.00	6	16	20.00	-	39	
79	4610	LEFT	6.00	-	16	8.00	-	30		78	3988	RIGHT	20.00	8	16	-	31.11	48	
79	4630	LEFT	6.00	-	16	8.00	-	30		78	4190	BOTH	10.00	4	32	28.89	-	62	
79	4740	RIGHT	30.00	12	16	-	46.67	58		78	4370	RIGHT	8.00	4	16	12.44	-	36	
79	4920	RIGHT	6.00	-	16	9.33	-	34		78	4700	LEFT	6.00	-	16	-	-	30	
79	4970	RIGHT	12.00	5	16	18.67	-	40		78	4733	RIGHT	30.00	12	16	-	46.67	58	
78	20	RIGHT	15.00	6	16	23.33	-	43		78	4910	RIGHT	30.00	12	16	-	46.67	58	
78	40	RIGHT	12.00	5	16	18.67	-	40		78	4990	RIGHT	6.00	-	16	9.33	-	34	
78	60	RIGHT	8.00	4	16	12.44	-	36		78	5010	RIGHT	10.00	4	16	15.56	-	38	
78	108	RIGHT	15.00	6	16	23.33	-	43		78	5070	RIGHT	6.00	-	16	9.33	-	34	
78	169	RIGHT	12.00	5	16	18.67	-	40		78	5120	RIGHT	6.00	-	16	9.33	-	34	
78	260	RIGHT	45.00	18	16	-	70.00	73		77	300	RIGHT	6.00	-	16	9.33	-	34	
78	289	LEFT	6.00	-	16	8.00	-	30		77	444	LEFT	6.00	-	16	8.00	-	30	
78	320	LEFT	6.00	-	16	8.00	-	30		77	500	RIGHT	30.00	12	16	-	46.67	58	
78	450	RIGHT	12.00	5	16	18.67	-	40		77	566	LEFT	6.00	-	16	8.00	-	30	
78	500	RIGHT	30.00	12	16	-	46.67	58		77	666	RIGHT	10.00	4	16	-	-	38	
78	520	LEFT	6.00	-	16	8.00	-	30		77	730	BOTH	6.00	-	32	-	-	58	
78	620	RIGHT	10.00	4	16	15.56	-	38		77	969	RIGHT	15.00	6	16	23.33	-	43	
78	640	RIGHT	15.00	6	16	23.33	-	43		77	969	LEFT	6.00	-	16	8.00	-	30	
78	740	LEFT	6.00	-	16	8.00	-	30											
78	780	RIGHT	6.00	-	16	9.33	-	34				UNDISTRIBUTED	6.00	-	160	156.00	-	500	UNDISTRIBUTED REPAIR
78	900	LEFT	6.00	-	16	8.00	-	30				UNDISTRIBUTED	650.00	400	160	-	1,000.00	678	REPLACE
SUBTOTAL 31 =				117	720	456	210	1,638		SUBTOTAL 32 =				505	1,024	593	1,171	2,772	

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CONCRETE REPAIR SUMMARY (TOTALS)

SHOULDER SUMMARY

	416.0610	416.0620	416.1715	416.1725	690.0250					204.0120	211.0400	305.0110	415.6000.S	460.5224	465.0400	
	DRILLED TIE	DRILLED	CONCRETE	CONCRETE	SAWING					REMOVING	FOUNDATION FOR	BASE AGGREGATE	ROUT AND SEAL	HMA PAVEMENT 4	ASPHALTIC	
	BARS	DOWEL BARS	PAVEMENT	PAVEMENT	CONCRETE	REMARKS	STATION	TO	STATION	LOCATION	ASPHALTIC	ASPHALTIC	DENSE 3/4-INCH	LF	LT 58-28 S	SHOULDER
	EACH	EACH	REPAIR SHES	REPLACEMENT	CONCRETE					SURFACE MILLING	SHOULDERS	TON		TON	RUMBLE STRIPS	REMARKS
			SY	SHES	LF					SY	STA				LF	
SUBTOTAL 1	94	640	369	163	1,465	EASTBOUND										
SUBTOTAL 2	42	768	387	93	1,702		1492+00	-	1820+33	EB Inside	21,900	329	800	32,833	2,900	32,833
SUBTOTAL 3	84	768	403	273	1,982		1492+00	-	1820+33	EB Outside	29,200	329	800	32,833	5,800	32,833
SUBTOTAL 4	138	1,424	780	407	3,403		1381+54A	-	1824+37A	WB Inside	29,500	443	1,000	44,283	3,900	44,283
SUBTOTAL 5	22	848	406	47	1,665		1381+54A	-	1824+37A	WB Outside	39,400	443	1,000	44,283	7,800	44,283
SUBTOTAL 6	28	752	418	0	1,530											
SUBTOTAL 7	132	816	410	358	1,842		1822+51	-	2147+30	EB Inside	14,400	325	700	32,479	2,900	32,479
SUBTOTAL 8	274	1,552	806	716	3,527		1822+51	-	2147+30	EB Outside	28,900	325	700	32,479	5,700	32,479
SUBTOTAL 9	74	752	459	93	1,579		1826+32A	-	2148+22A	WB Inside	14,300	322	700	32,190	2,900	32,190
SUBTOTAL 10	174	768	373	474	1,833		1826+32A	-	2148+22A	WB Outside	28,600	322	700	32,190	5,700	32,190
SUBTOTAL 11	280	768	319	910	2,062											
SUBTOTAL 12	74	912	508	194	1,909											
SUBTOTAL 13	28	848	498	31	1,718											
SUBTOTAL 14	82	848	539	89	1,747											
SUBTOTAL 15	68	768	418	227	1,640											
SUBTOTAL 16	88	768	501	140	1,662											
SUBTOTAL 17	6	832	468	0	1,647											
SUBTOTAL 18	28	976	525	93	1,934											
SUBTOTAL 19	32	608	333	78	1,282											
SUBTOTAL 20	29	816	432	78	1,616	WESTBOUND										
SUBTOTAL 21	24	800	445	47	1,620											
SUBTOTAL 22	34	800	474	0	1,611											
SUBTOTAL 23	155	720	569	47	1,638											
SUBTOTAL 24	159	720	559	47	1,646											
SUBTOTAL 25	92	752	523	0	1,588											
SUBTOTAL 26	128	720	377	233	1,646											
SUBTOTAL 27	72	720	396	93	1,538											
SUBTOTAL 28	76	736	393	171	1,586											
SUBTOTAL 29	149	720	420	334	1,706											
SUBTOTAL 30	78	736	467	93	1,569		1500+00A		WB ON RAMP	100	1	-	-	-	-	EXISTING CULVERT - 24 INCH, STEEL
SUBTOTAL 31	117	720	456	210	1,638		1501+00		EB OFF RAMP	70	1	-	-	-	-	EXISTING CULVERT - 24 INCH, STEEL
SUBTOTAL 32	505	1,024	593	1,171	2,772		1594+00A		WB DITCH UNDER KOVAL RD.	150	1	-	-	-	-	EXISTING CULVERT - 24 INCH, CONCRETE
TOTAL 0010	3,366	26,400	15,027	6,912	58,303		1594+00		EB DITCH UNDER KOVAL RD.	60	1	-	-	-	-	EXISTING CULVERT - 24 INCH, CONCRETE
							1771+30		OUTSIDE ENDWALL	-	-	1	10	1		
									TOTAL 0010	380	4	1	10	1		

CULVERT MAINTENANCE

STATION	LOCATION	LF	EACH	EACH	EACH	EACH	REMARKS
520.9700.S.01	520.9750.S	524.0630	628.7555	633.5200			
	CULVERT PIPE LINERS (SIZE) (01. 24-INCH)	CLEANING CULVERT PIPES FOR LINER VERIFICATION	APRON ENDWALLS FOR CULVERT PIPE SALVAGED 30-INCH	CULVERT PIPE CHECKS	MARKERS CULVERT END		

CONSTRUCTION STAKING

650.8000	650.9910.01
CONSTRUCTION STAKING	CONSTRUCTION STAKING
RESURFACING REFERENCE	SUPPLEMENTAL CONTROL (PROJECT) (01. 1016-01-62)
LF	LS

CULVERT REPLACEMENT

STATION	LOCATION	REMOVING SMALL PIPE CULVERTS EACH	BASE AGGREGATE DENSE 1 1/4-INCH TON	ASPHALTIC SURFACE TON	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	690.0150 SAWING ASPHALT LF	SPV.0060.01 SPECIAL (01. GRADING, SHAPING AND FINISHING ENDWALLS) EACH	REMARKS
1783+00	MEDIAN CROSSOVER	1	130	50	95	2	2	1	40	1	REPLACE EXISTING 24" STEEL CULVERT
	TOTAL 0010	1	130	50	95	2	2	1	40	1	

FENCE SUMMARY (EASTBOUND)

			204.0170	616.0100.01
			REMOVING FENCE	FENCE WOVEN
			LF	WIRE (HEIGHT)
STATION	TO	STATION	LF	(01. 4-FT)
JUNEAU COUNTY				
1380+16	-	1505+00	11,800	11,800
1508+00	-	1594+00	9,500	9,500
MILE 77 - EXIT 79				
EXIT 79- KOVAL RD				
1603+00	-	1614+00	700	700
1621+00	-	1630+00	700	700
1632+00	-	1640+00	800	800
1642+00	-	1648+00	600	600
1651+50	-	1657+50	600	600
KOVAL RD				
1660+00	-	1668+00	800	800
1669+00	-	1677+00	800	800
1679+00	-	1686+00	700	700
1689+50	-	1695+50	600	600
1698+00	-	1701+00	300	300
1702+50	-	1708+50	600	600
63rd STREET				
1709+00	-	1724+00	1,500	1,500
1726+00	-	1733+00	700	700
1735+00	-	1742+00	700	700
1744+00	-	1752+00	800	800
1755+00	-	1759+00	400	400
1762+00	-	1769+00	700	700
1771+00	-	1777+00	600	600
1780+00	-	1787+00	700	700
1789+00	-	1797+00	800	800
1799+00	-	1806+00	700	700
1808+00	-	1812+00	400	400
1814+00	-	1820+00	600	600
CANADAIAN PACIFIC RR				
1821+00	-	1822+00	300	300
1839+50	-	1843+50	400	400
1850+00	-	1854+00	800	800
1858+00	-	1866+00	800	800
1867+00	-	1875+00	800	800
1876+00	-	1885+00	900	900
1887+50	-	1894+50	700	700
1896+50	-	1903+50	700	700
1907+00	-	1921+00	1,400	1,400
SAUK COUNTY				
1926+00	-	1934+50	900	900
1935+50	-	1941+00	900	900
1965+00	-	1989+50	2,400	2,400
1990+00	-	2048+00	5,800	5,800
2049+50	-	2070+00	2,100	2,100
EXIT 89				
2081+00	-	2099+00	1,800	1,800
2099+20	-	2117+00	1,800	1,800
2120+50	-	2125+50	500	500
2128+00	-	2147+30	2,100	2,100
XANADU RD				
MIRROR LAKE				
ISHNALA RD				
SUBTOTAL EASTBOUND =			62,200	62,200

FENCE SUMMARY (WESTBOUND)

			204.0170	616.0100.01
			REMOVING FENCE	FENCE WOVEN
			LF	WIRE (HEIGHT)
STATION	TO	STATION	LF	(01. 4-FT)
JUNEAU COUNTY				
1381+54A	-	1390+00A	900	900
1390+50A	-	1506+00A	12,000	12,000
1509+00A	-	1593+00A	8,400	8,400
1593+10A	-	1711+00A	11,800	11,800
1711+50A	-	1825+00A	11,800	11,800
MILE 77 - 24TH AVE.				
EXIT 79				
KOVAL RD.				
63rd ST.				
CANADIAN PACIFIC RR				
SAUK COUNTY				
1855+00A	-	1937+00A	8,400	8,400
1939+00A	-	1945+00A	1,000	1,000
EXIT 85 - CTH H				
EXIT 87				
1949+00A	-	1959+00A	1,000	1,000
1961+00A	-	1969+50A	800	800
1971+50A	-	1975+50A	400	400
1977+50A	-	1984+50A	700	700
1986+50A	-	1992+50A	600	600
1992+60A	-	2000+60A	800	800
2002+00A	-	2009+00A	700	700
2011+00A	-	2018+00A	700	700
2019+50A	-	2026+00A	700	700
2028+00A	-	2035+00A	700	700
2038+00A	-	2044+50A	700	700
2046+50A	-	2051+50A	500	500
SPRING BROOK				
2051+50A	-	2055+00A	300	300
2056+00A	-	2063+00A	700	700
2065+00A	-	2072+00A	700	700
2074+00A	-	2077+00A	300	300
EXIT 89				
2080+00A	-	2091+00A	1,100	1,100
2093+00A	-	2101+20A	900	900
2101+50A	-	2108+00A	600	600
2111+50A	-	2119+50A	800	800
2123+00A	-	2148+00A	2,600	2,600
MIRROR LAKE				
ISHNALA RD				
SUBTOTAL WESTBOUND =			70,600	70,600
SUBTOTAL EASTBOUND =			62,200	62,200
TOTAL 0010			132,800	132,800

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EROSION CONTROL SUMMARY

STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS
1771+30	EB OUTSIDE APRON	60	70	70	2	1	250	0.04	2	1	-	1	
1780+00	EB OUTSIDE APRON	60	70	70	2	1	250	0.04	2	1	-	1	
1738+00	MEDIAN CROSSOVER	-	100	100	2	1	0	0.00	0	0	-	-	
	UNDISTRIBUTED	80	60	60	2	2	250	0.05	2	1	3	1	
	TOTAL 0010	200	300	300	8	5	750	0.13	6	3	3	3	

TRAFFIC CONTROL SUMMARY

STATION	TO	STATION	LOCATION	SERVICE DAYS	643.0300 TRAFFIC CONTROL DRUMS QTY DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III QTY DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A QTY DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C QTY DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS QTY DAY	643.0900 TRAFFIC CONTROL SIGNS QTY DAY	643.1051 TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS QTY DAY	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	REMARKS							
1492+00	-	1879+87	EB	35	388	13,580	29	1,015	58	2,030	4	140	2	70	16	560	2	70	-	
1381+54A	-	1882+55A	WB	41	501	20,541	38	1,558	76	3,116	4	164	2	82	16	656	2	82	-	
1879+87	-	2147+30	EB	25	267	6,675	20	500	40	1,000	4	100	2	50	16	400	2	50	-	
1882+55A	-	2148+22A	WB	21	266	5,586	20	420	40	840	4	84	2	42	16	336	2	42	-	
																			45	DAILY SETUP/TEARDOWN - EASTBOUND
																			40	DAILY SETUP/TEARDOWN - WESTBOUND
			TOTAL 0010			46,382		3,493		6,986		488		244		1,952		244		85

PAVEMENT MARKING SUMMARY (RAMPS)

LOCATION	646.1020	646.3020	REMARKS
	MARKING LINE EPOXY 4-INCH LF	MARKING LINE EPOXY 8-INCH LF	
LYNDON STATION EXIT 79			
EB OFF RAMP LT	703	-	YELLOW
EB MAINLINE @ OFF RAMP	-	259	
EB OFF RAMP	-	259	
EB OFF RAMP	138	-	3' MINI SKIPS, WHITE
EB ON RAMP LT	710	-	YELLOW
EB ON RAMP	-	826	
EB MAINLINE @ ON RAMP	-	826	
EB RT EDGE: GORE TO GORE	1431	-	WHITE
WB OFF RAMP LT	674	-	YELLOW
WB OFF RAMP	138	-	3' MINI SKIPS, WHITE
WB OFF RAMP	-	276	
WB MAINLINE @ OFF RAMP	-	276	
WB ON RAMP LT	737	-	YELLOW
WB ON RAMP	-	792	
WB MAINLINE @ ON RAMP	-	792	
WB RT EDGE: GORE TO GORE	1401	-	WHITE
DELLS EXIT 85			
EB OFF RAMP LT	591	-	YELLOW
EB OFF RAMP	177	318	3' MINI SKIPS, WHITE
EB MAINLINE @ OFF RAMP	-	297	
EB ON RAMP RT	115	-	WHITE
EB ON RAMP LT	140	-	YELLOW
EB ON RAMP LT	-	342	
EB MAINLINE @ ON RAMP	-	342	
EB ON RAMP	-	69	3' SKIPS
EB RT EDGE: GORE TO GORE	1605	-	WHITE
WB OFF RAMP LT	674	-	YELLOW
WB OFF RAMP	135	-	3' MINI SKIPS, WHITE
WB OFF RAMP	-	289	
WB MAINLINE @ OFF RAMP	-	281	
WB ON RAMP LT	737	-	YELLOW
WB ON RAMP	-	668	
WB MAINLINE @ ON RAMP	-	668	
WB RT EDGE: GORE TO GORE	1401	-	WHITE
DELLS EXIT 87			
EB OFF RAMP LT	1952	-	YELLOW
EB OFF RAMP	-	434	
EB OFF RAMP	-	108	3' SKIPS
EB MAINLINE @ OFF RAMP	-	343	
EB RT EDGE: GORE TO GORE	852	-	WHITE
EB ON RAMP LT	558	-	YELLOW
EB ON RAMP	-	395	
EB MAINLINE @ ON RAMP	-	395	
WB OFF RAMP LT	1128	-	YELLOW
WB OFF RAMP	51	-	3' MINI SKIPS, WHITE
WB OFF RAMP	-	284	
WB MAINLINE @ OFF RAMP	-	284	
WB RT EDGE: GORE TO GORE	975	-	WHITE
WB ON RAMP LT	712	250	YELLOW
WB ON RAMP	-	69	3' SKIPS
WB MAINLINE @ ON RAMP	-	509	
SUBTOTAL RAMPS 1:	17,800	10,700	

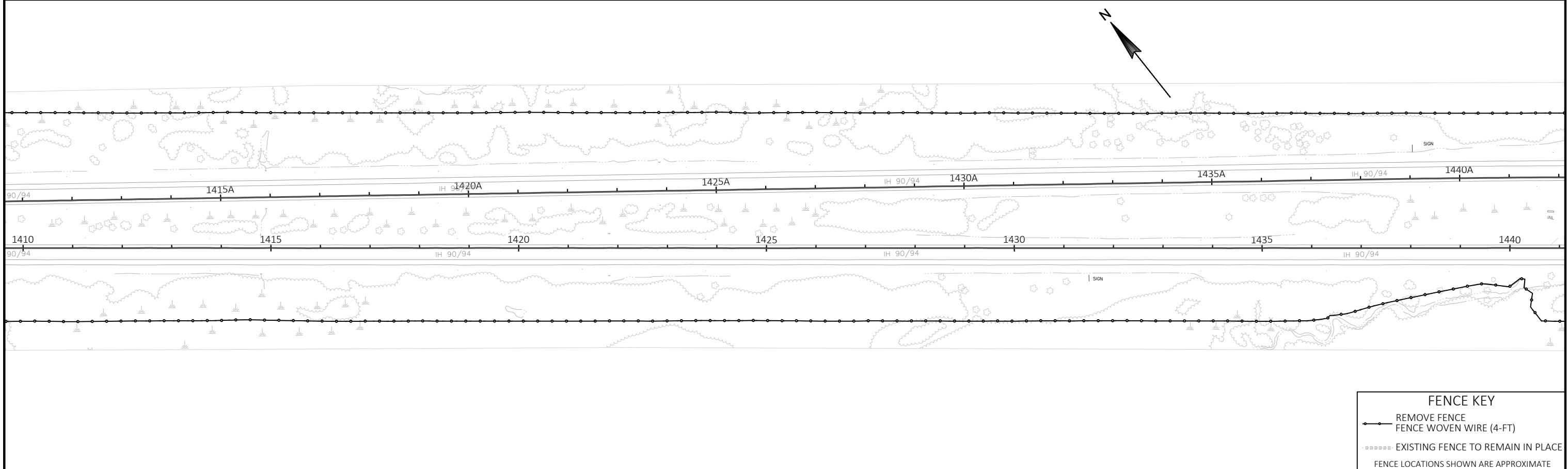
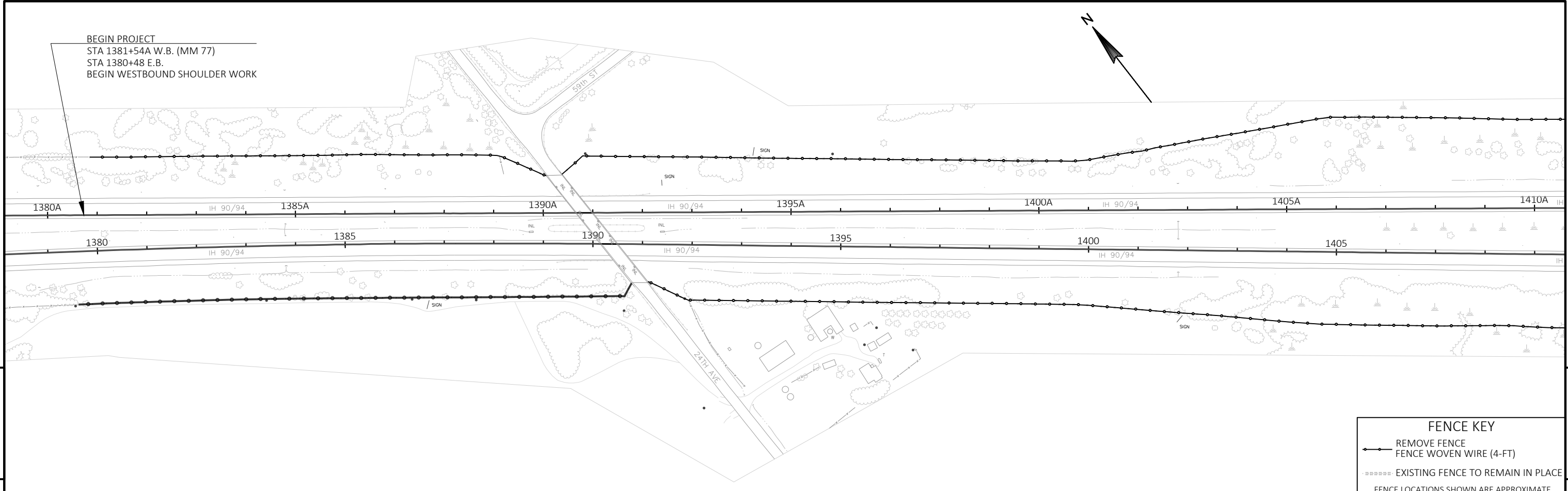
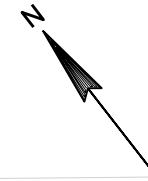
PAVEMENT MARKING SUMMARY (RAMPS, CONTINUED)

LOCATION	646.1020	646.3020	REMARKS
	MARKING LINE EPOXY 4-INCH LF	MARKING LINE EPOXY 8-INCH LF	
DELLS EXIT 89			
EB OFF RAMP LT	905	-	YELLOW
EB OFF RAMP	42	-	3' MINI SKIPS, WHITE
EB MAINLINE @ OFF RAMP	-	225	
EB OFF RAMP	-	410	
EB ON RAMP LT	1138	-	YELLOW
EB ON RAMP	-	451	
EB MAINLINE @ ON RAMP	-	451	
EB RT EDGE: GORE TO GORE	2098	-	WHITE
WB OFF RAMP LT	987	-	YELLOW
WB OFF RAMP	87	-	3' MINI SKIPS, WHITE
WB MAINLINE @ OFF RAMP	-	276	
WB OFF RAMP	-	739	
WB ON RAMP LT	1088	-	YELLOW
WB ON RAMP	-	673	
WB MAINLINE @ ON RAMP	-	673	
WB RT EDGE: GORE TO GORE	2209	-	WHITE
DELLS EXIT 92			
EB OFF RAMP LT	105	-	3' MINI SKIPS, WHITE
EB OFF RAMP LT	2275	-	YELLOW
EB OFF RAMP	-	470	
EB OFF RAMP	-	90	3' SKIPS
EB MAINLINE @ OFF RAMP	-	437	
EB RT EDGE: GORE TO GORE	1015	-	WHITE
EB ON RAMP LT (WEST)	1269	-	YELLOW
EB ON RAMP RT (WEST)	2508	-	WHITE
EB ON RAMP RT (WEST)	96	-	12' SKIPS, WHITE
EB ON RAMP LT (EAST)	909	-	YELLOW
EB ON RAMP	-	340	
EB MAINLINE @ ON RAMP	-	340	
EB ON RAMP (WEST)	-	414	3' SKIPS
WB OFF RAMP LT	1967	-	YELLOW
WB OFF RAMP RT	197	-	WHITE
WB OFF RAMP	-	358	
WB OFF RAMP	117	-	3' MINI SKIPS, WHITE
WB MAINLINE @ OFF RAMP	-	358	
WB RT EDGE: GORE TO GORE	1171	-	WHITE
WB ON RAMP (EAST)	51	-	3' MINI SKIPS, WHITE
WB ON RAMP (EAST)	-	411	3' SKIPS
WB ON RAMP LT (EAST)	1241	-	YELLOW
WB ON RAMP RT (EAST)	2195	-	WHITE
WB ON RAMP	-	463	
WB ON RAMP LT (WEST)	1020	-	YELLOW
WB MAINLINE @ ON RAMP	-	632	
SUBTOTAL RAMPS 2:	24,700	8,300	

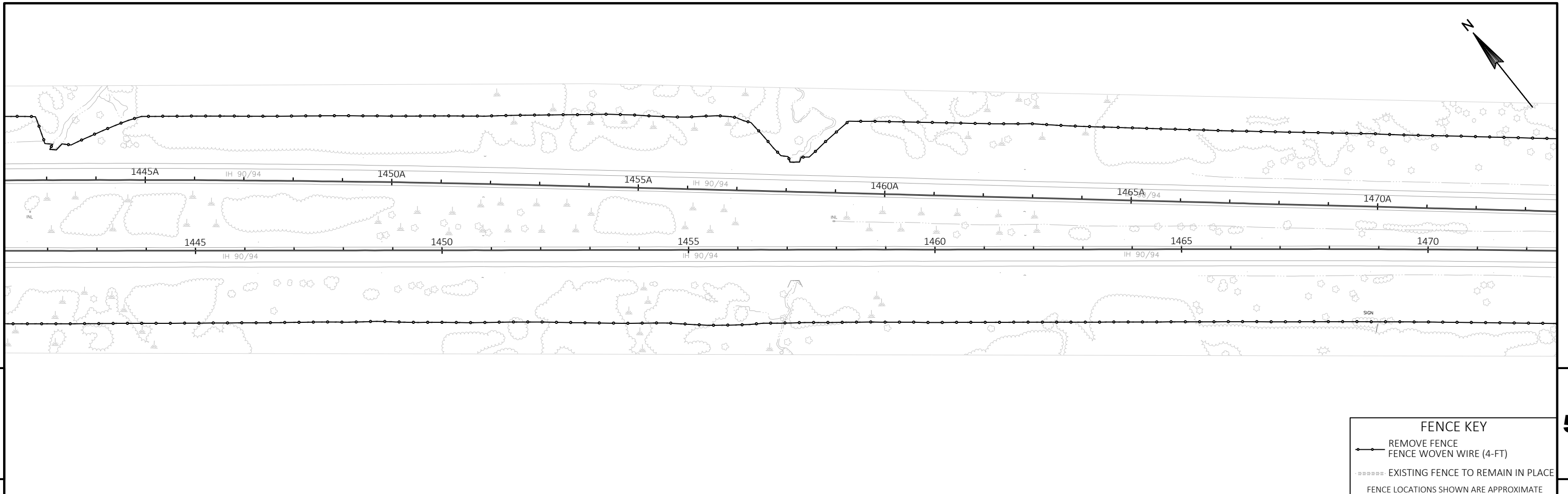
PAVEMENT MARKING SUMMARY

STATION	TO	STATION	LOCATION	646.1020	646.3020	REMARKS
				MARKING LINE EPOXY 4-INCH LF	MARKING LINE EPOXY 8-INCH LF	
1492+00	-	1879+87	EB LT EDGELINE	38,787	-	YELLOW
1492+00	-	1879+87	EB RT EDGELINE	38,787	-	WHITE
1879+87	-	2147+30	EB LT EDGELINE	26,743	-	YELLOW
1879+87	-	2147+30	EB RT EDGELINE	26,743	-	WHITE
1381+54A	-	1882+55A	WB LT EDGELINE	50,101	-	YELLOW
1381+54A	-	1882+55A	WB RT EDGELINE	50,101	-	WHITE
1882+55A	-	2148+22A	WB LT EDGELINE	26,567	-	YELLOW
1882+55A	-	2148+22A	WB RT EDGELINE	26,567	-	WHITE
1879+87	-	2147+30	EB CL SKIPS	6,686	-	WHITE
1882+55A	-	2148+22A	WB CL SKIPS	6,642	-	WHITE
1879+87	-	2147+30	EB CL SKIPS	6,686	-	WHITE
1882+55A	-	2148+22A	WB CL SKIPS	6,642	-	WHITE
SUBTOTAL MAINLINE:				311,100	0	
SUBTOTAL RAMPS 1:				17,800	10,700	
SUBTOTAL RAMPS 2:				24,700	8,300	
TOTAL 0010				353,600	19,000	

BEGIN PROJECT
 STA 1381+54A W.B. (MM 77)
 STA 1380+48 E.B.
 BEGIN WESTBOUND SHOULDER WORK



PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: JUNEAU	PLAN	SHEET	E
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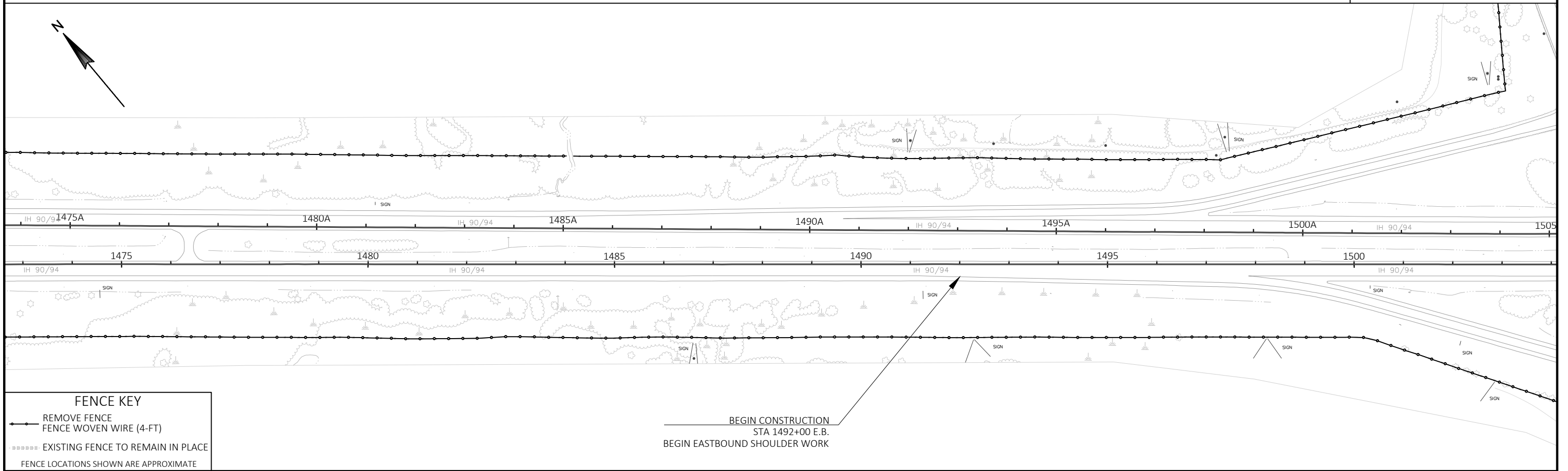
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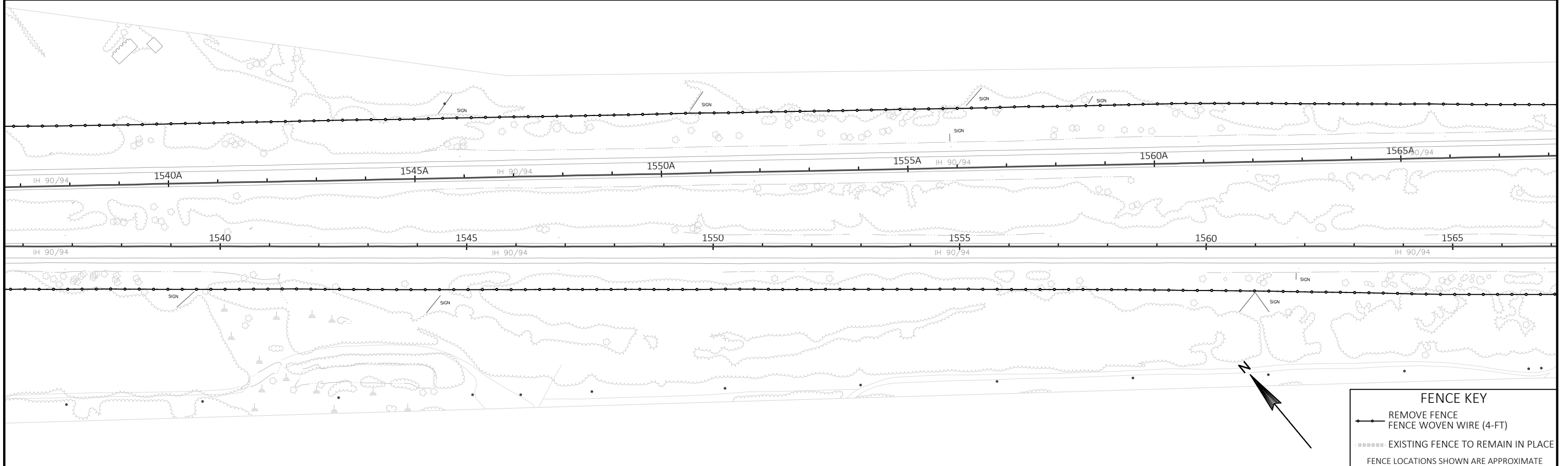
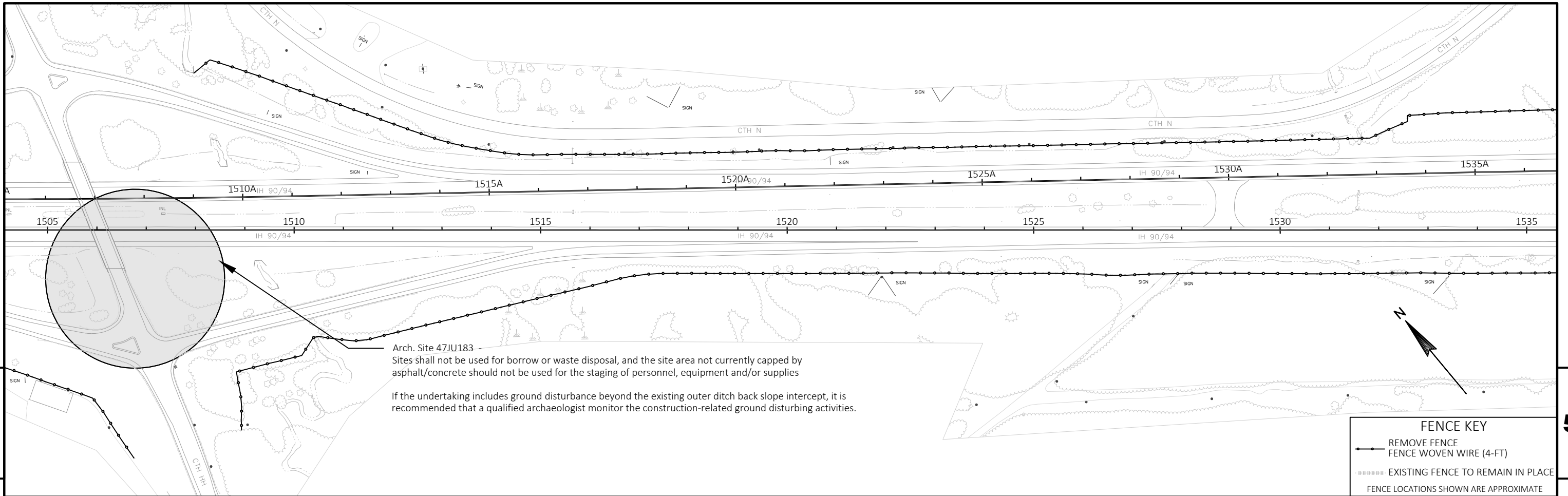
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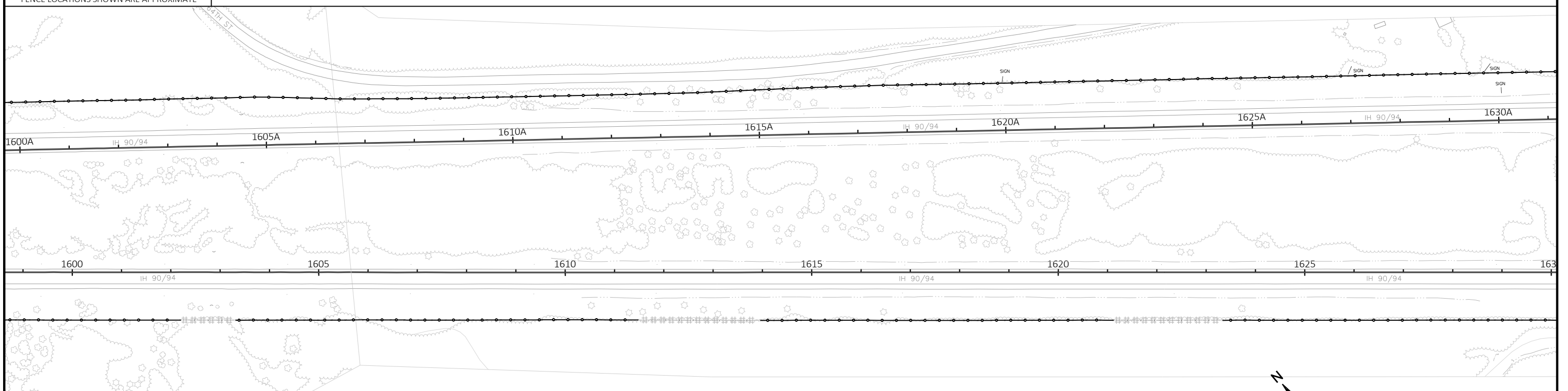
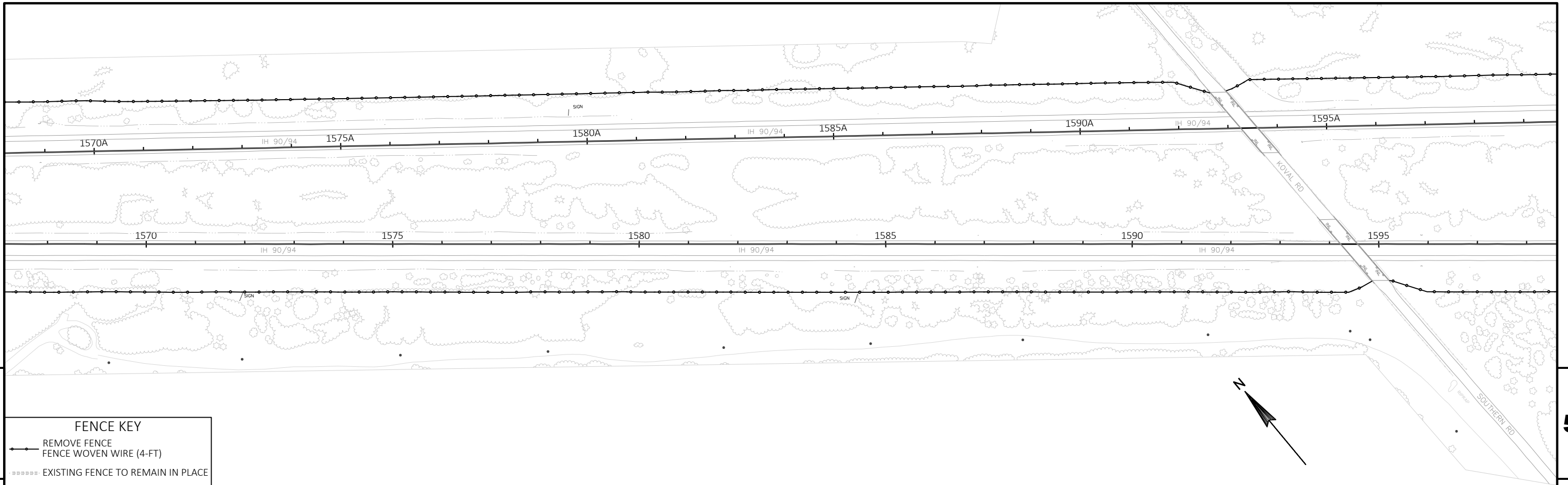
- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

FENCE LOCATIONS SHOWN ARE APPROXIMATE

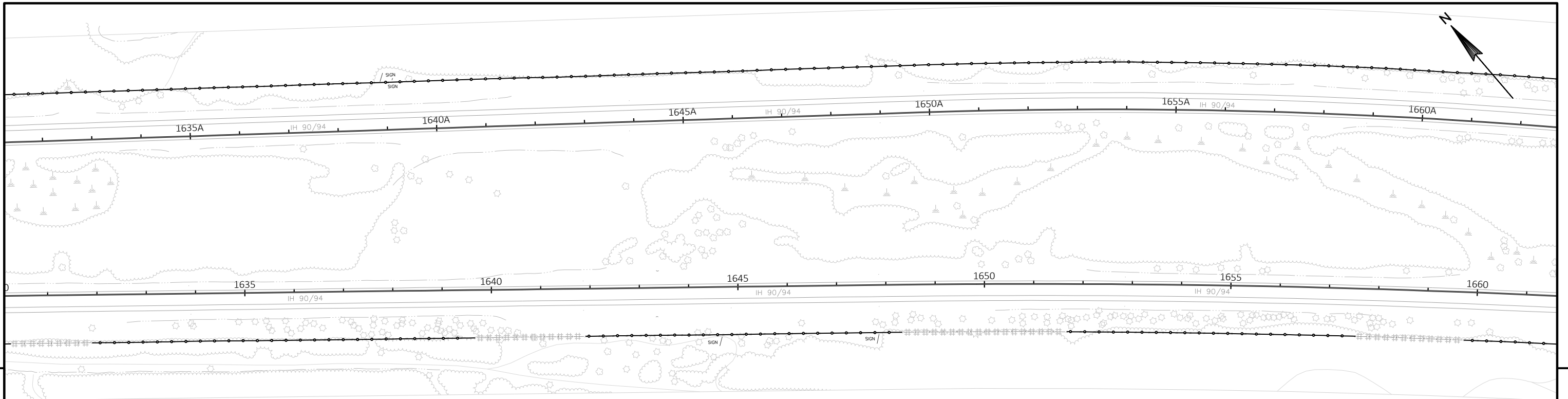


PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: JUNEAU	PLAN	SHEET	E
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PROJECT NO: 1016-01-62 | HWY: IH-90 | COUNTY: JUNEAU | PLAN | SHEET | **E**



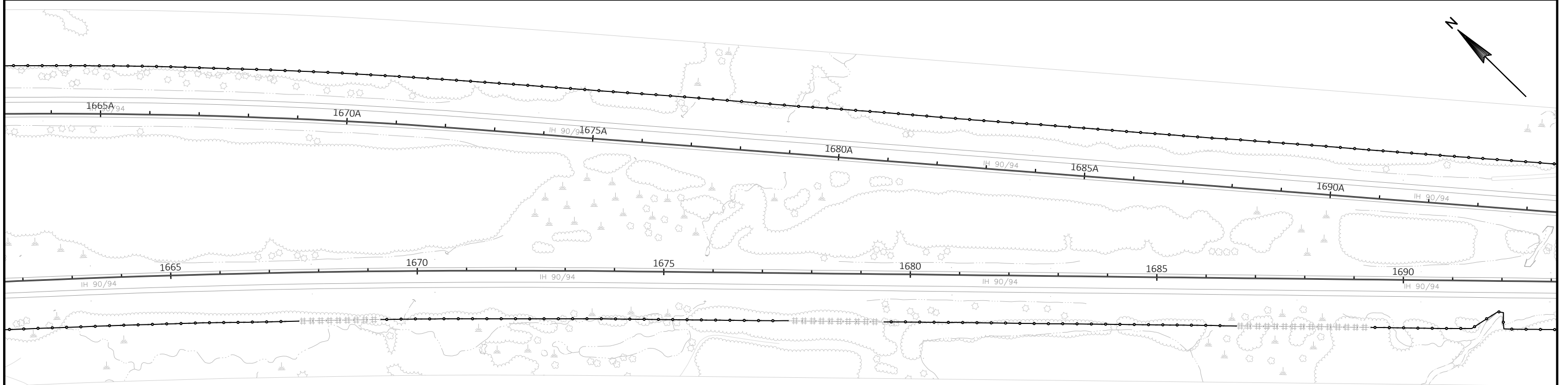
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FENCE KEY

- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

FENCE LOCATIONS SHOWN ARE APPROXIMATE

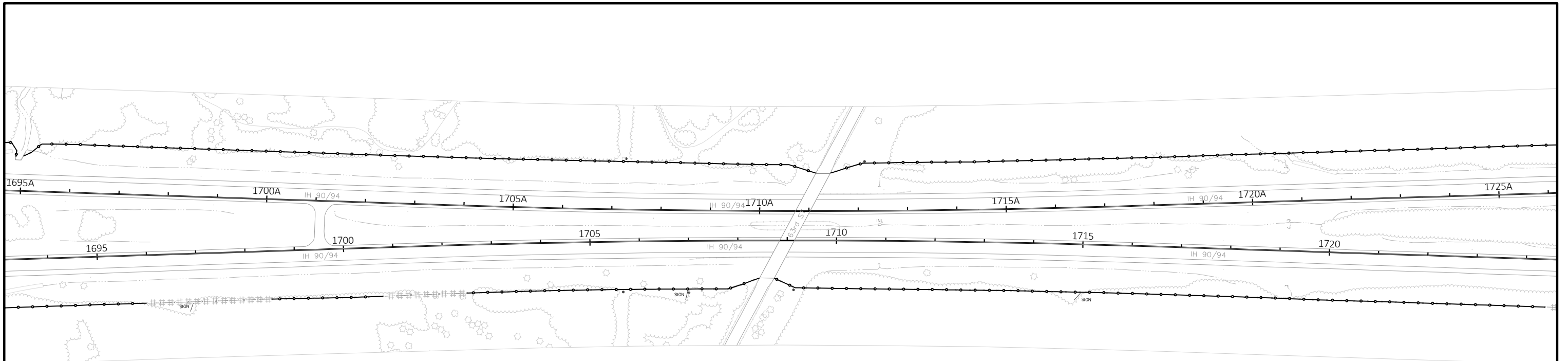


FENCE KEY

- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

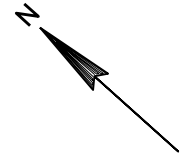
FENCE LOCATIONS SHOWN ARE APPROXIMATE

PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: JUNEAU	PLAN	SHEET	E
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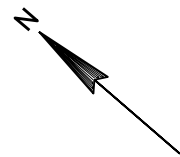
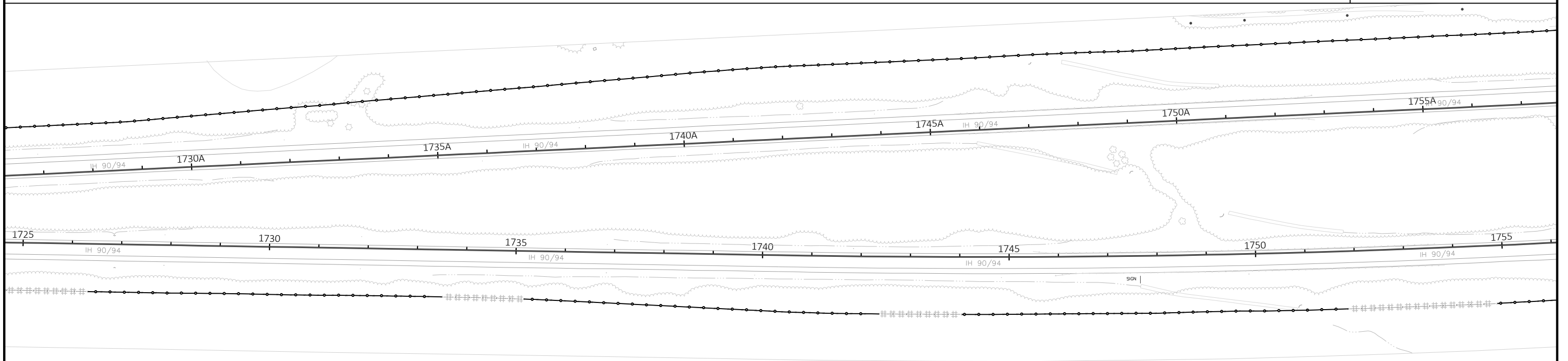
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FENCE KEY

- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

FENCE LOCATIONS SHOWN ARE APPROXIMATE

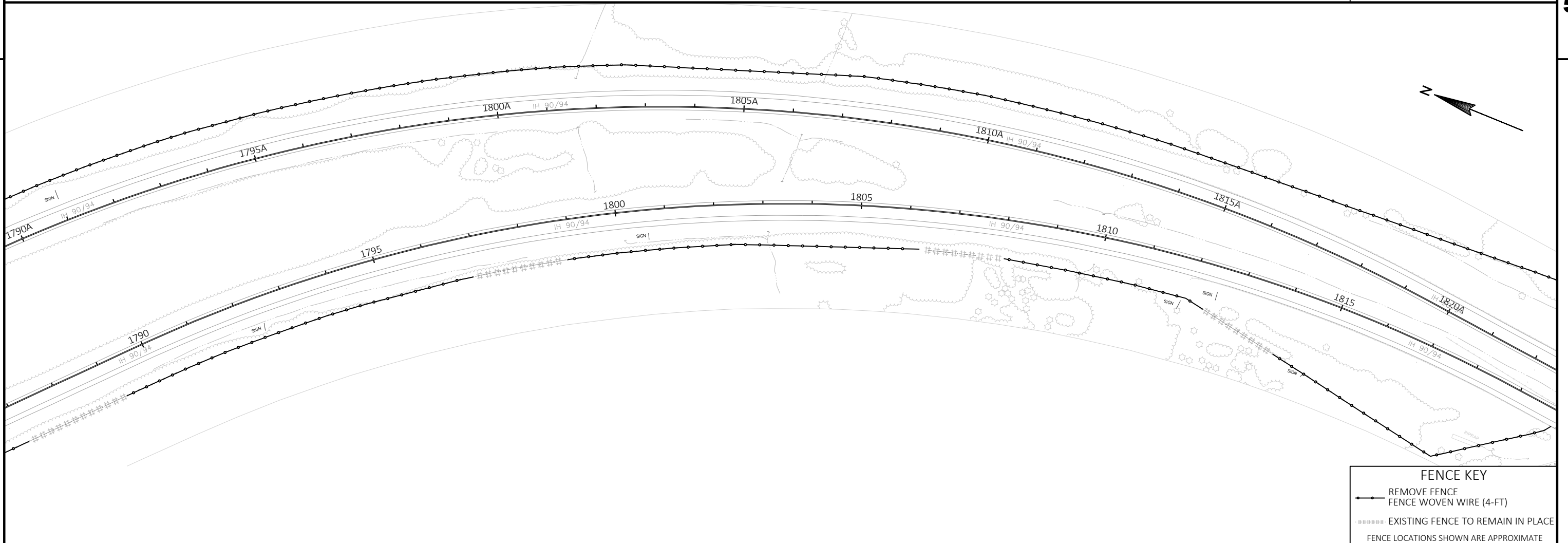
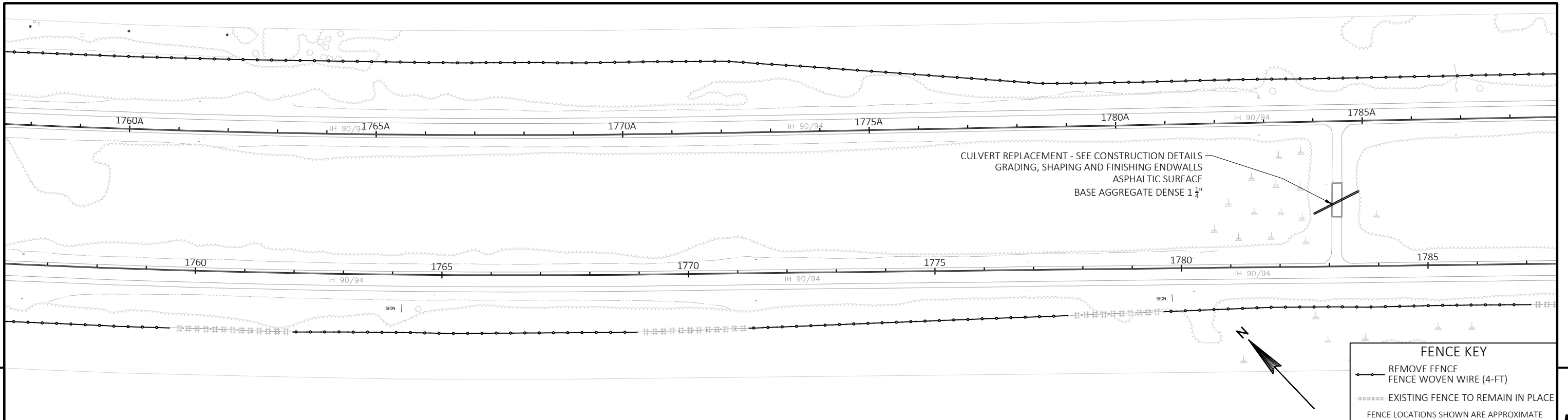


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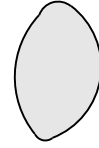
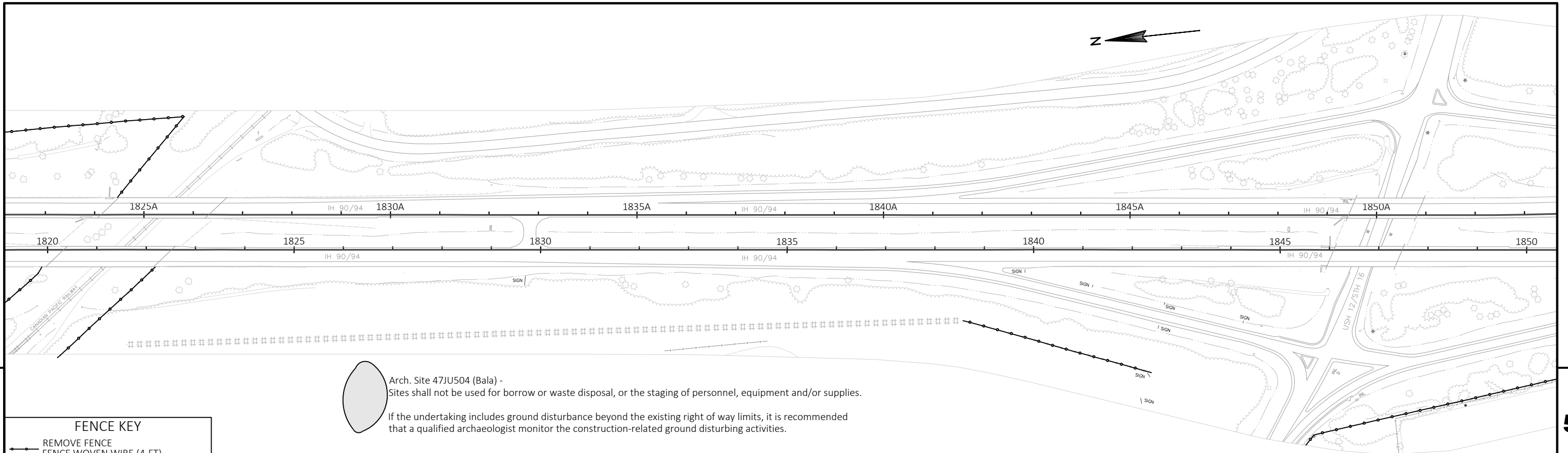
- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

FENCE LOCATIONS SHOWN ARE APPROXIMATE

PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: JUNEAU	PLAN	SHEET	E
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PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: JUNEAU	PLAN	SHEET	E
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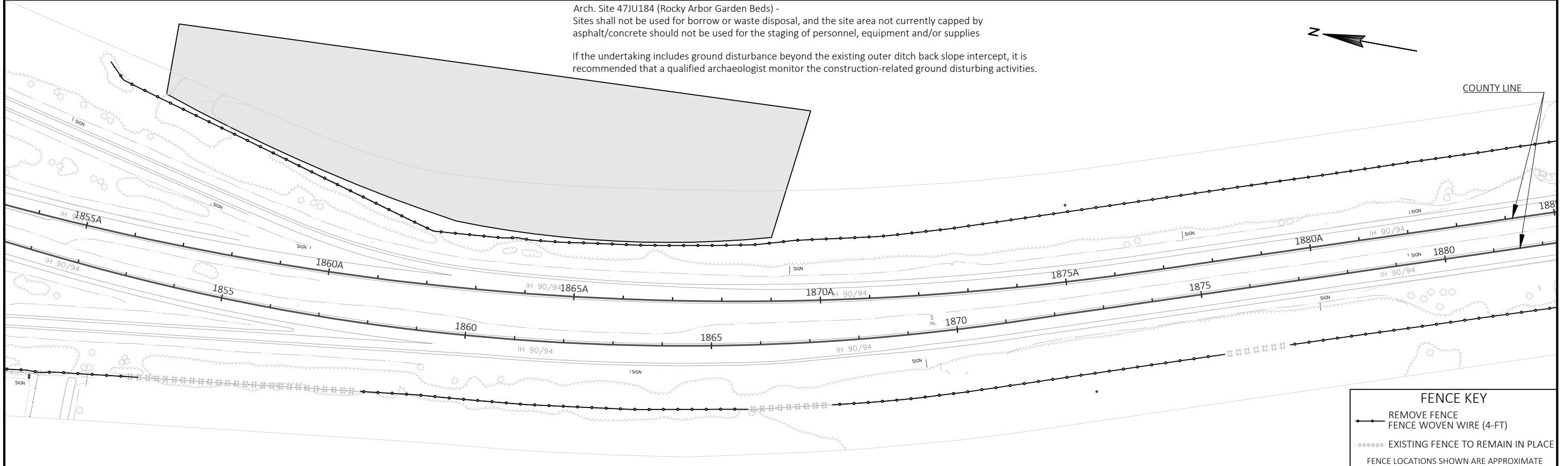


Arch. Site 47JU504 (Bala) -
 Sites shall not be used for borrow or waste disposal, or the staging of personnel, equipment and/or supplies.
 If the undertaking includes ground disturbance beyond the existing right of way limits, it is recommended that a qualified archaeologist monitor the construction-related ground disturbing activities.

5

FENCE KEY
 —○— REMOVE FENCE
 —●— FENCE WOVEN WIRE (4-FT)
 ##### EXISTING FENCE TO REMAIN IN PLACE
 FENCE LOCATIONS SHOWN ARE APPROXIMATE

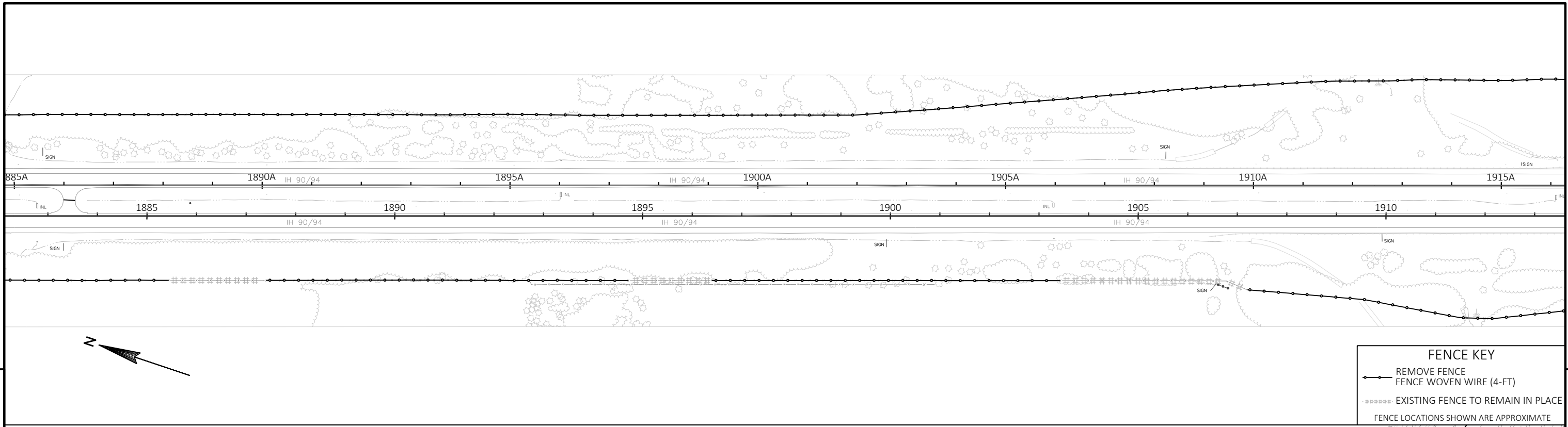
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Arch. Site 47JU184 (Rocky Arbor Garden Beds) -
 Sites shall not be used for borrow or waste disposal, and the site area not currently capped by asphalt/concrete should not be used for the staging of personnel, equipment and/or supplies
 If the undertaking includes ground disturbance beyond the existing outer ditch back slope intercept, it is recommended that a qualified archaeologist monitor the construction-related ground disturbing activities.

FENCE KEY
 —○— REMOVE FENCE
 —●— FENCE WOVEN WIRE (4-FT)
 ##### EXISTING FENCE TO REMAIN IN PLACE
 FENCE LOCATIONS SHOWN ARE APPROXIMATE

PROJECT NO: 1016-01-62 HWY: IH-90 COUNTY: JUNEAU PLAN SHEET **E**



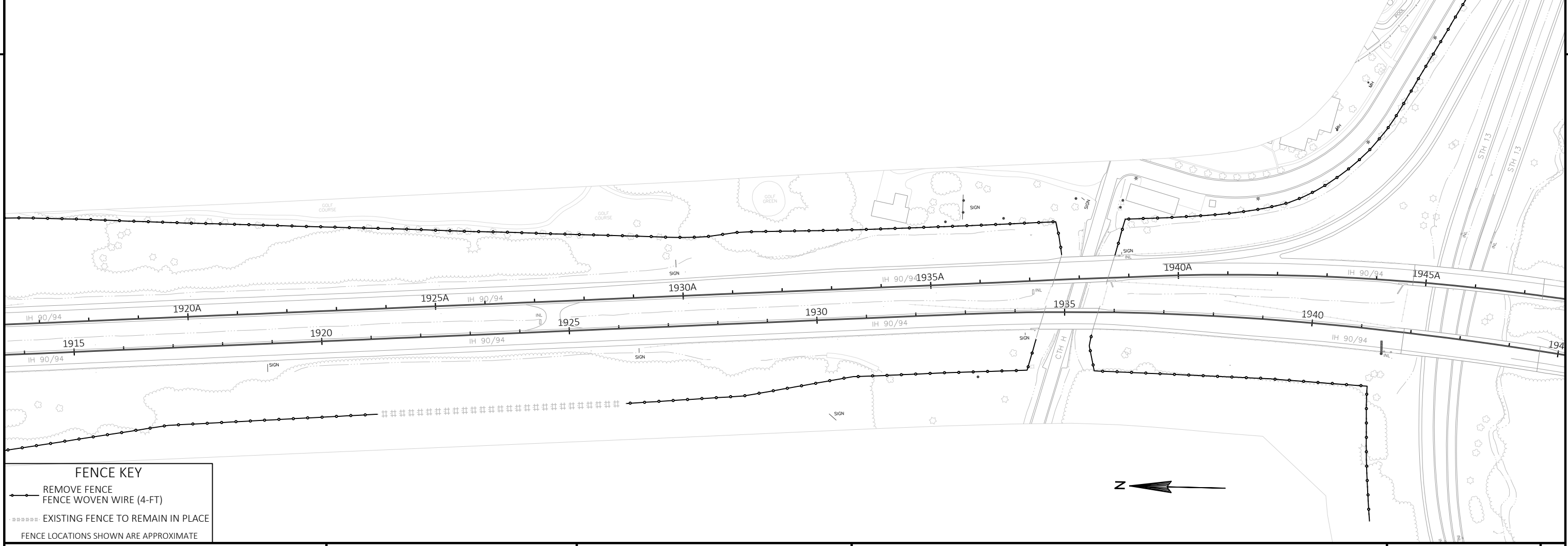
FENCE KEY

- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

FENCE LOCATIONS SHOWN ARE APPROXIMATE

5

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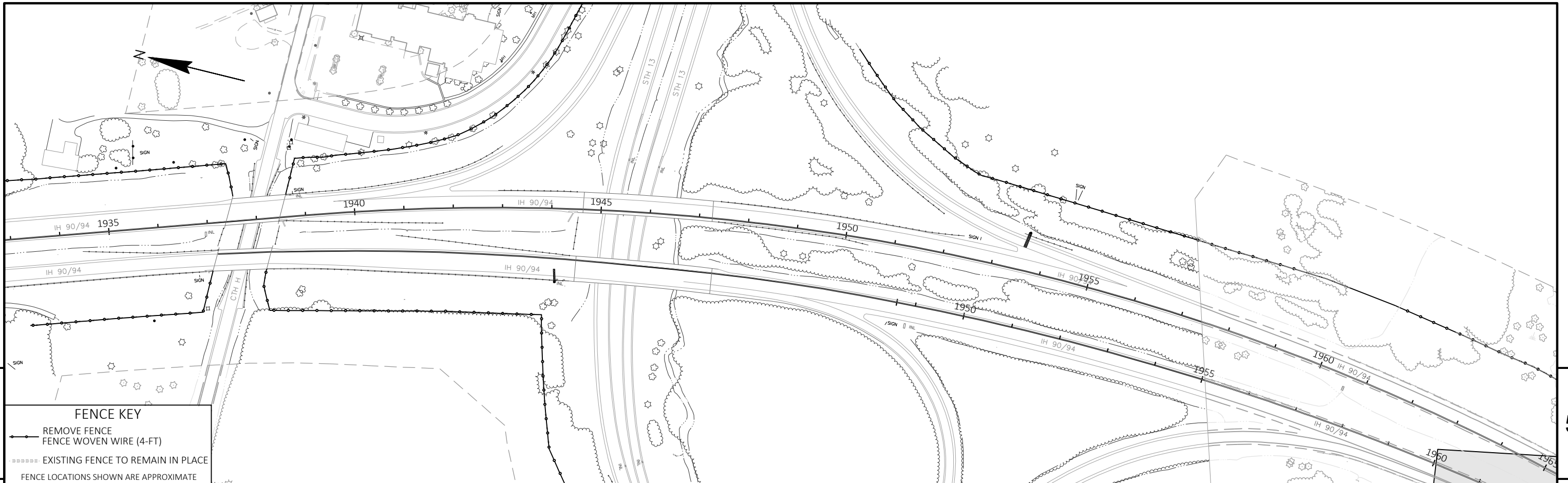


FENCE KEY

- REMOVE FENCE
- FENCE WOVEN WIRE (4-FT)
- EXISTING FENCE TO REMAIN IN PLACE

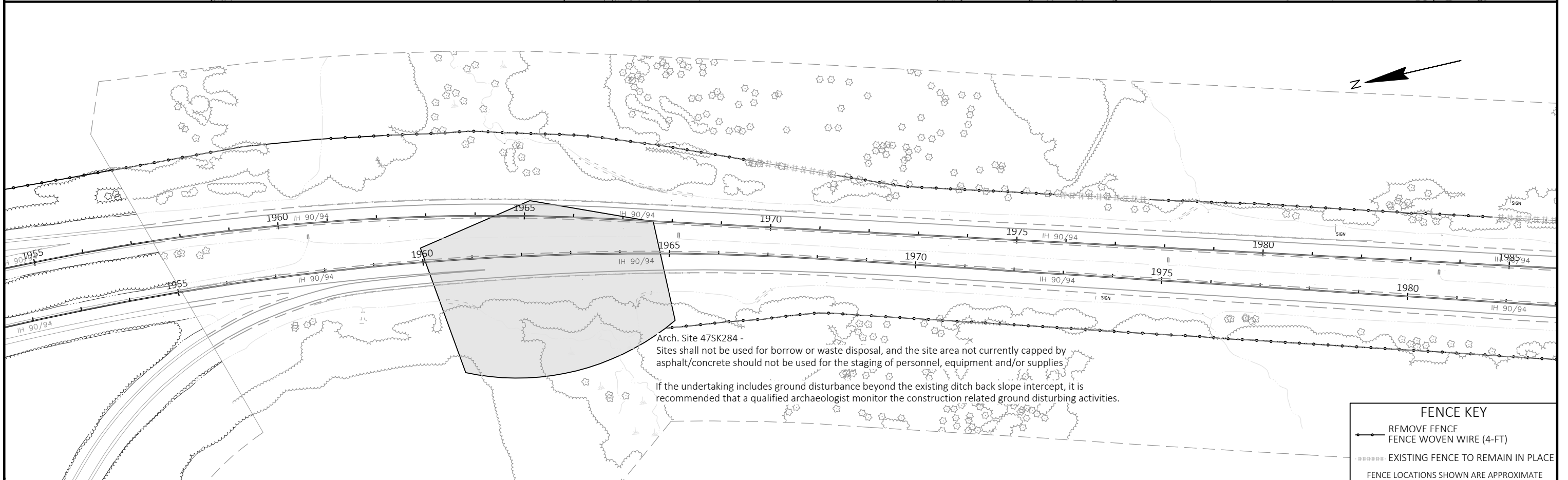
FENCE LOCATIONS SHOWN ARE APPROXIMATE

PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: SAUK	PLAN	SHEET	E
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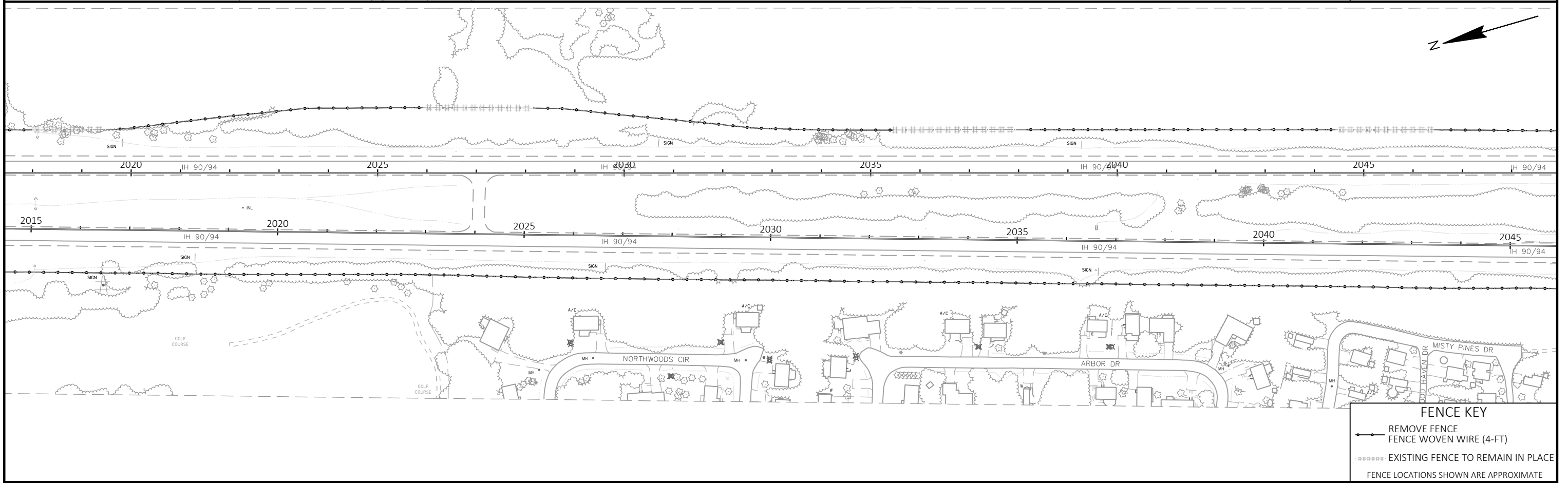
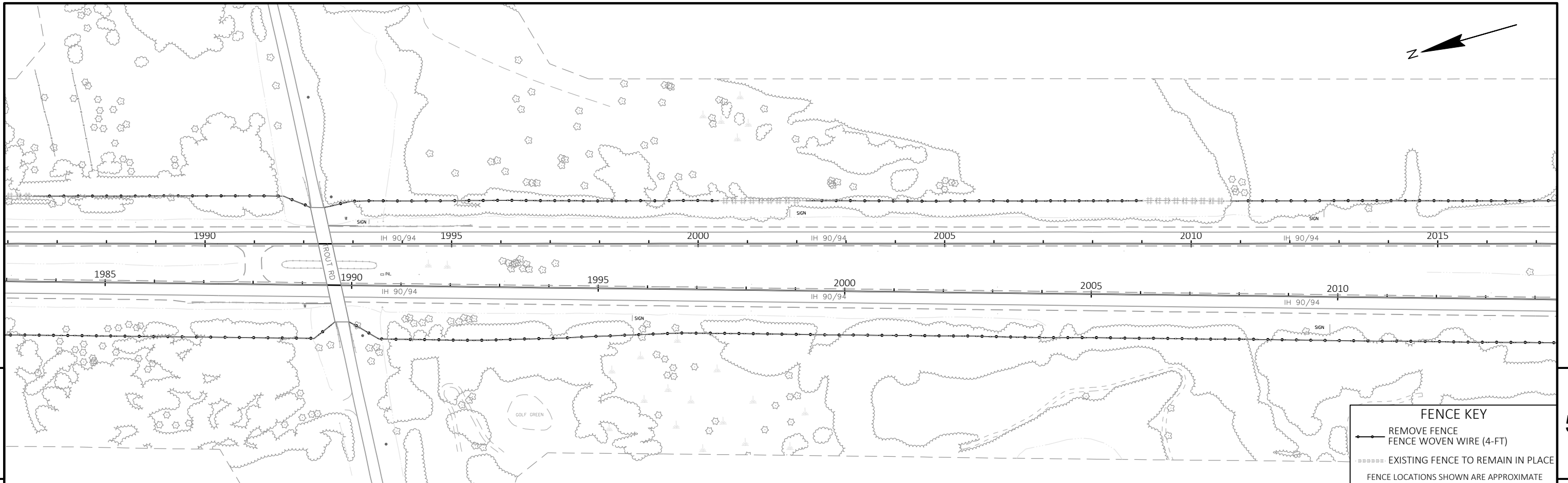
5

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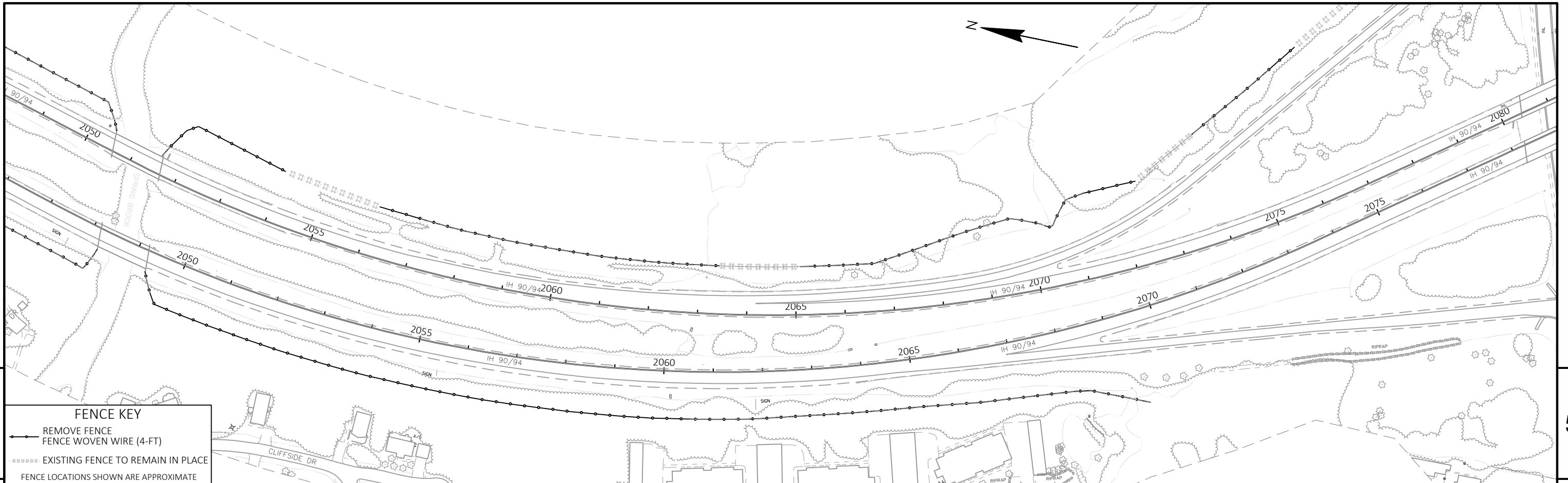


Arch. Site 47SK284 -
 Sites shall not be used for borrow or waste disposal, and the site area not currently capped by
 asphalt/concrete should not be used for the staging of personnel, equipment and/or supplies.
 If the undertaking includes ground disturbance beyond the existing ditch back slope intercept, it is
 recommended that a qualified archaeologist monitor the construction related ground disturbing activities.

PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: SAUK	PLAN	SHEET	E
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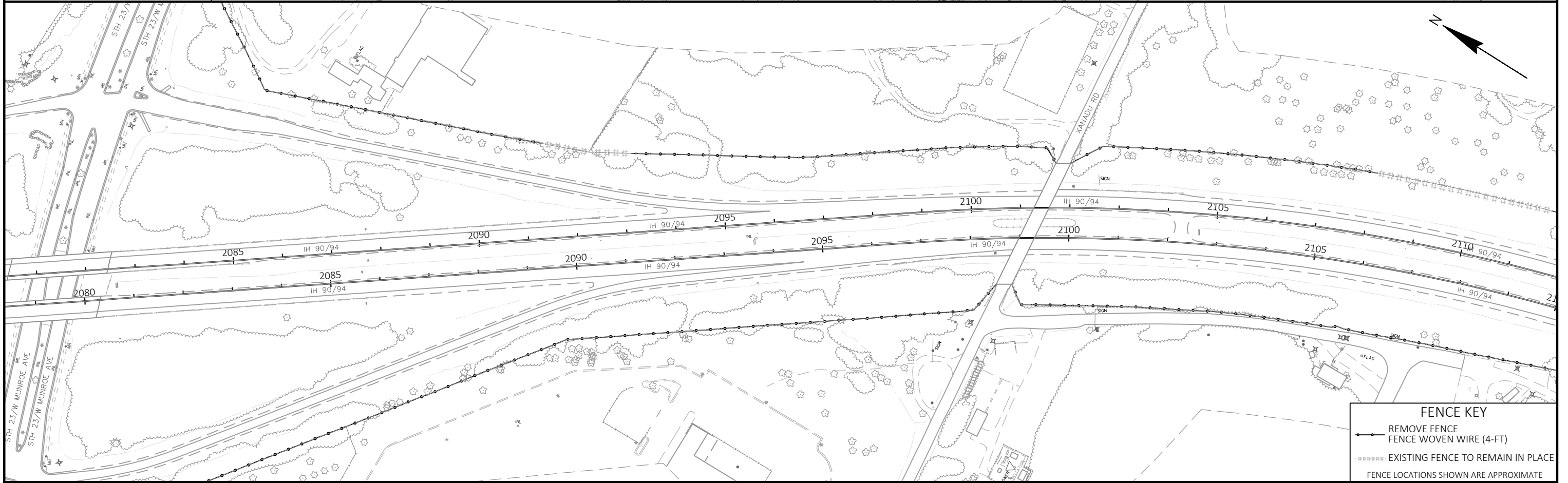


PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: SAUK	PLAN	SHEET	E
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PROJECT NO: 1016-01-62

HWY: IH-90

COUNTY: SAUK

PLAN

SHEET

E

FILE NAME: \\LAX31FP2\N3PUBLIC\PD5\C3D\10160131\SHETSPLAN\050201-PN.DWG
LAYOUT NAME - 27

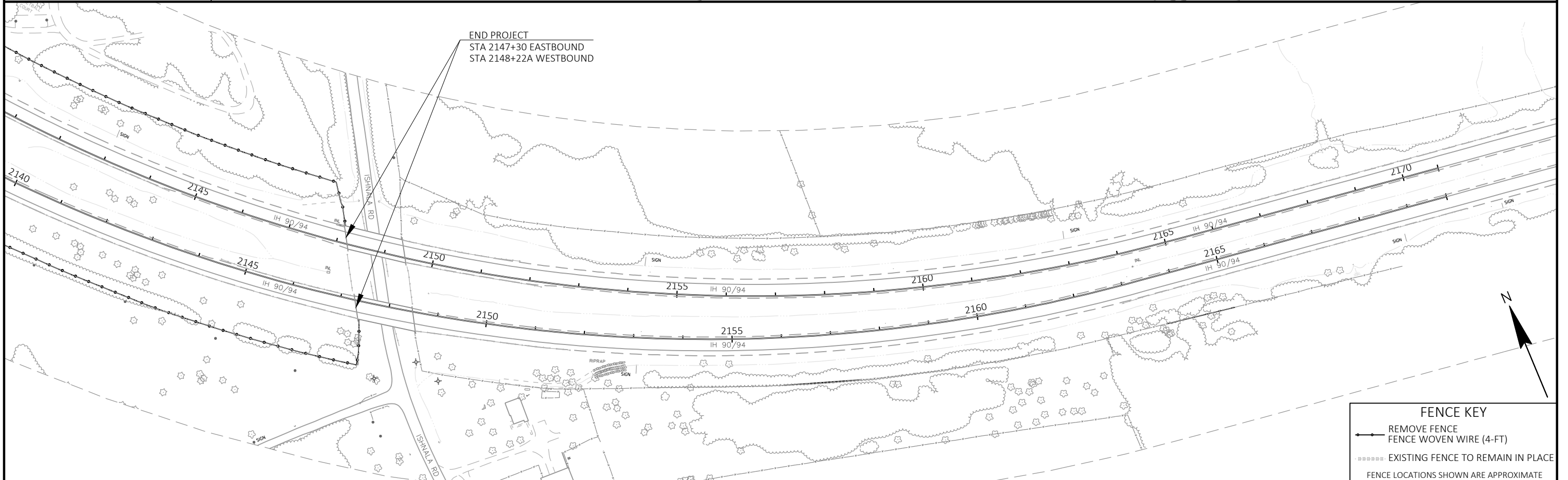
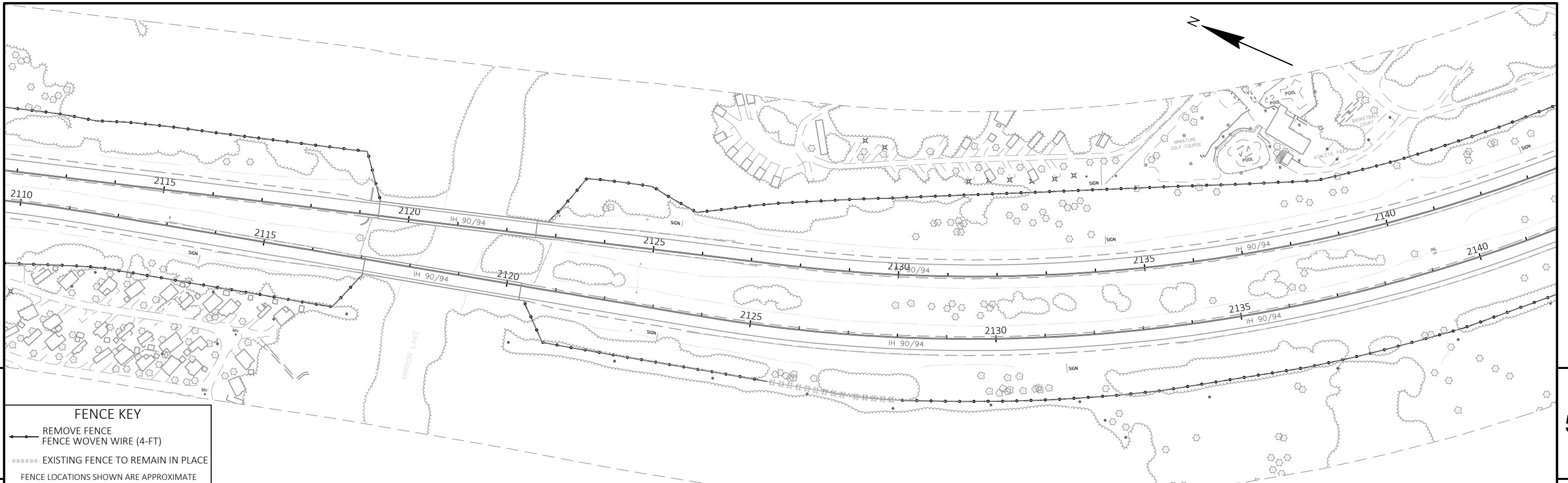
PLOT DATE: 3/22/2022 11:25 AM

PLOT BY: DAHL, BRIAN D

PLOT NAME:

PLOT SCALE: 1 IN:200 FT

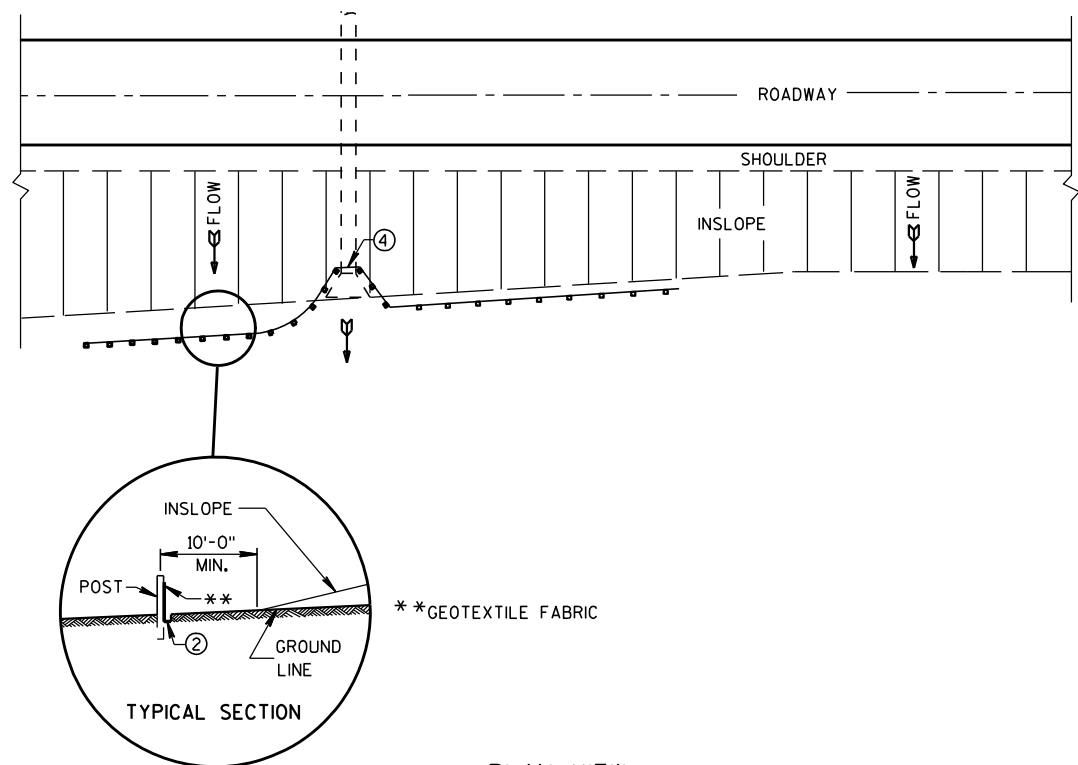
WISDOT/CADD5 SHEET 44



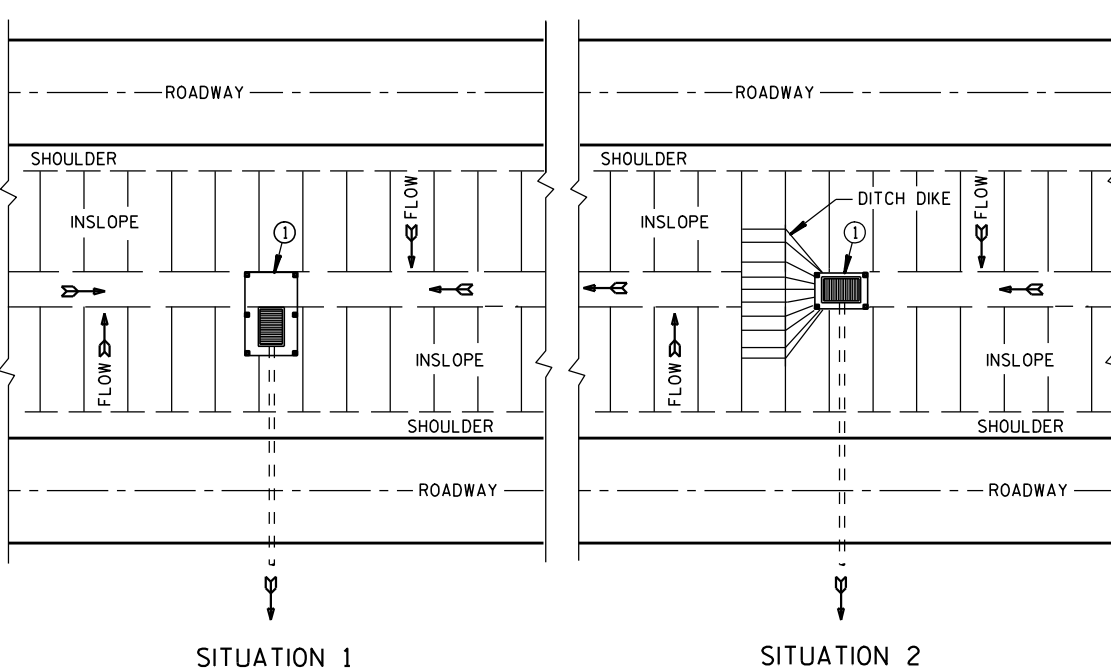
PROJECT NO: 1016-01-62	HWY: IH-90	COUNTY: SAUK	PLAN	SHEET	E
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Standard Detail Drawing List

08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
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
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D12-09B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-09D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D15-05B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-05E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

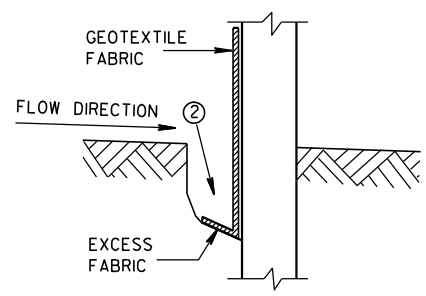


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

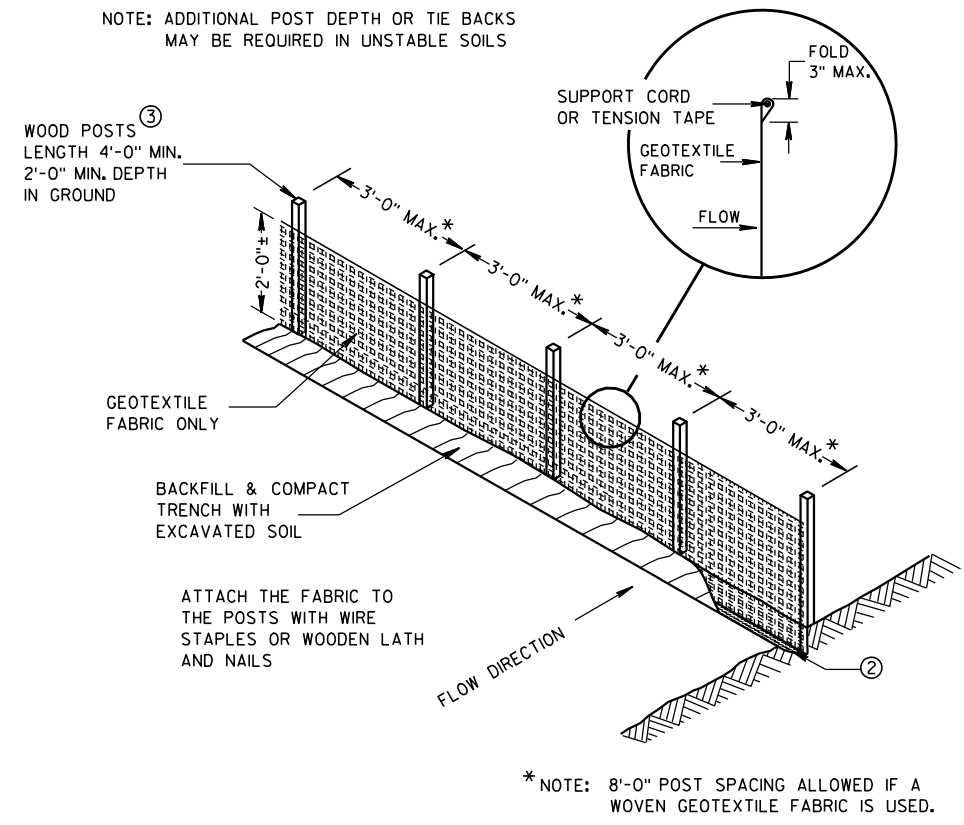
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

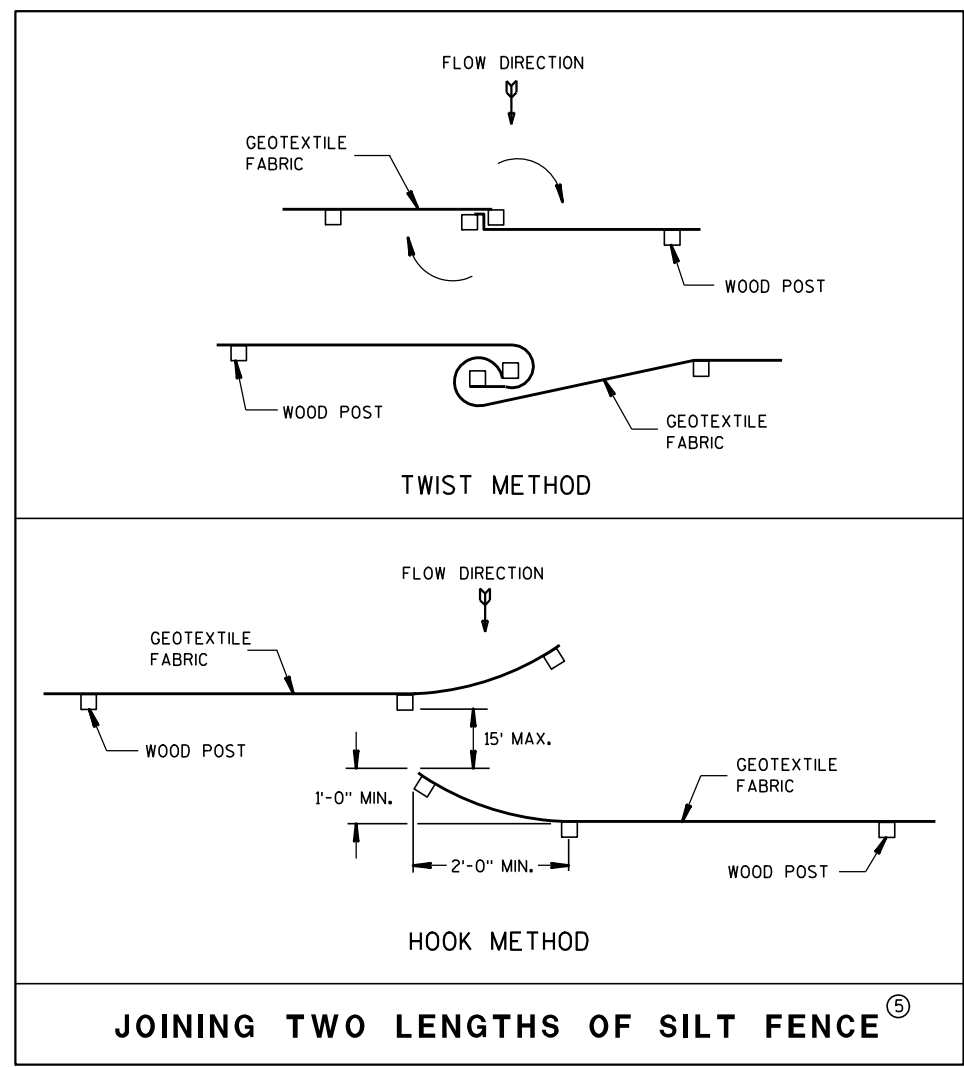


TRENCH DETAIL

6

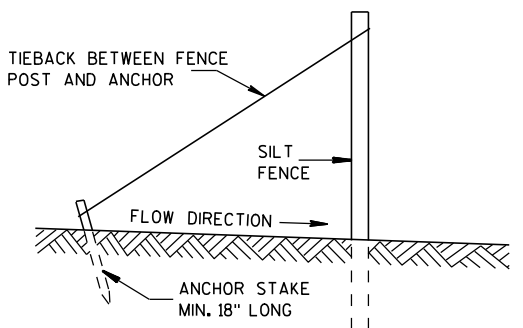


SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

6

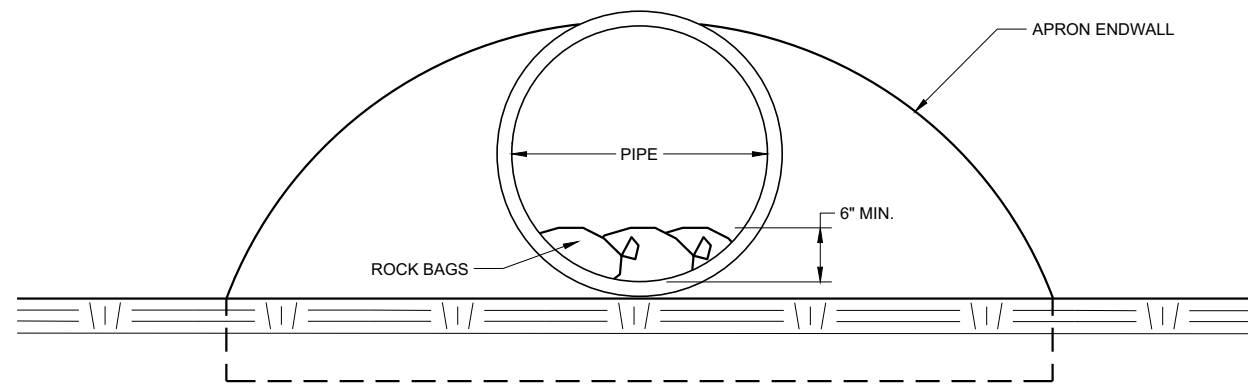


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

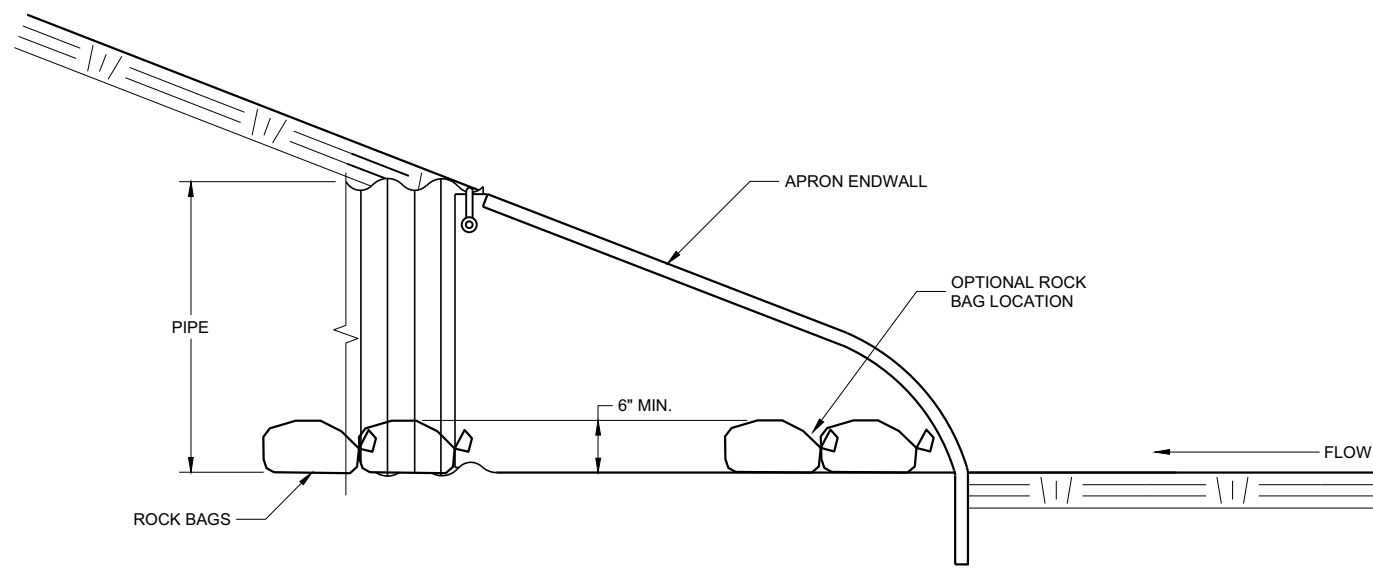
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

S.D.D. 8 E 9-6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
 (INSTALL ON INLET END ONLY)

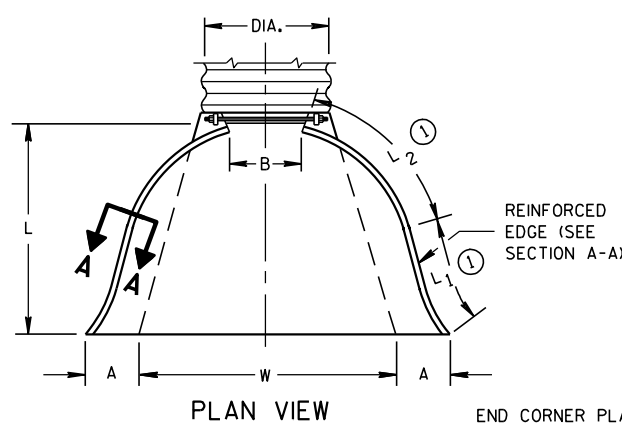
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
<small>FHWA</small>	

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

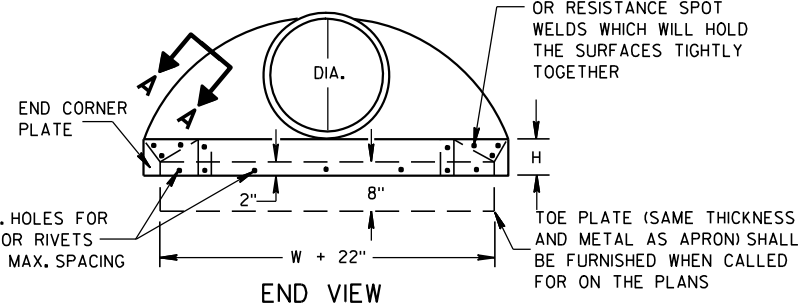
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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

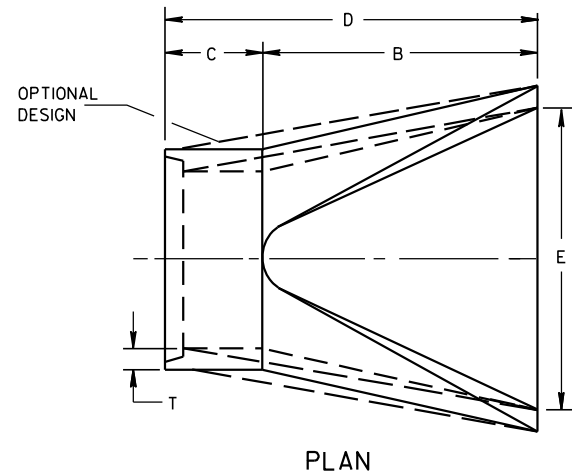
* MINIMUM
** MAXIMUM



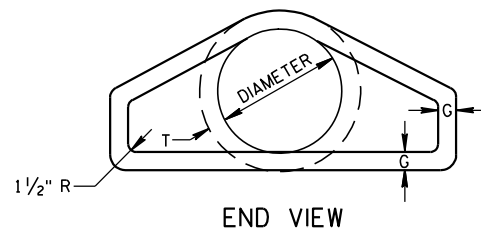
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



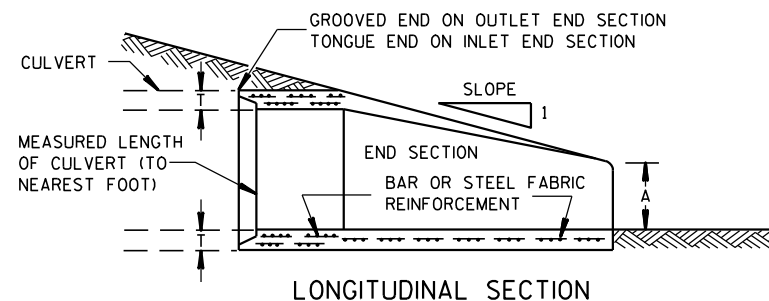
SIDE ELEVATION
METAL ENDWALLS



PLAN

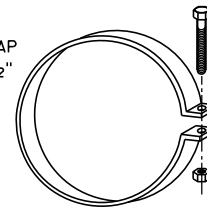


END VIEW

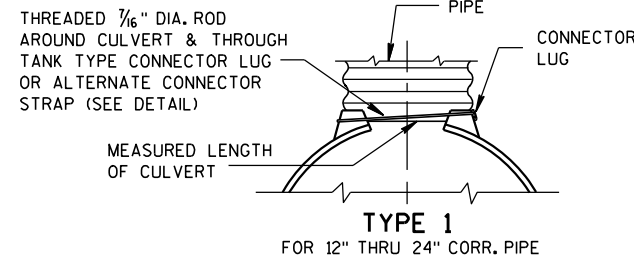


LONGITUDINAL SECTION
CONCRETE ENDWALLS

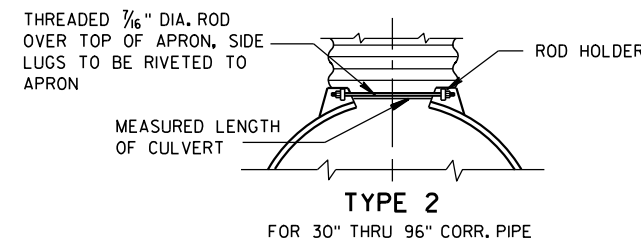
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



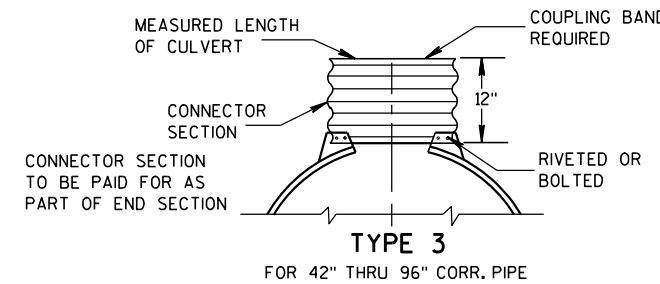
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



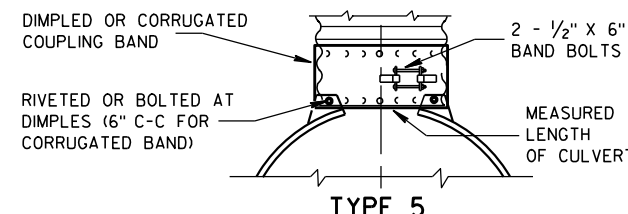
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

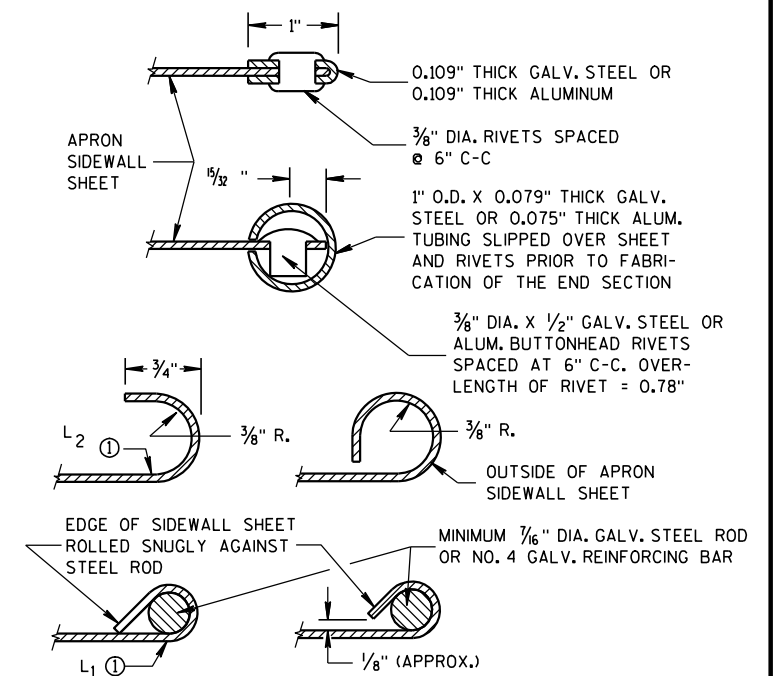
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

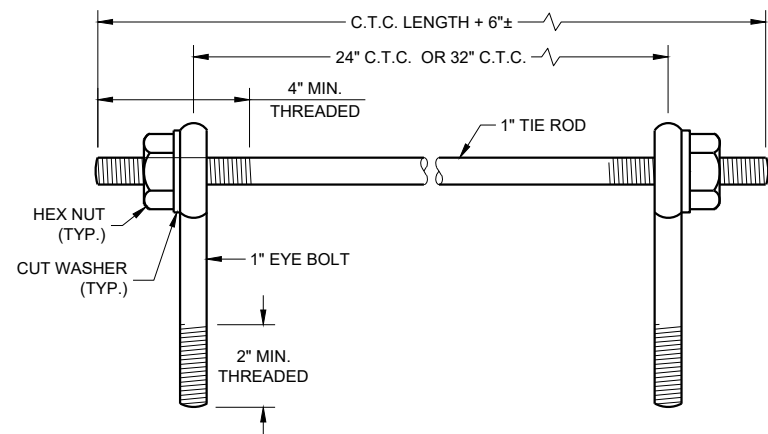
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

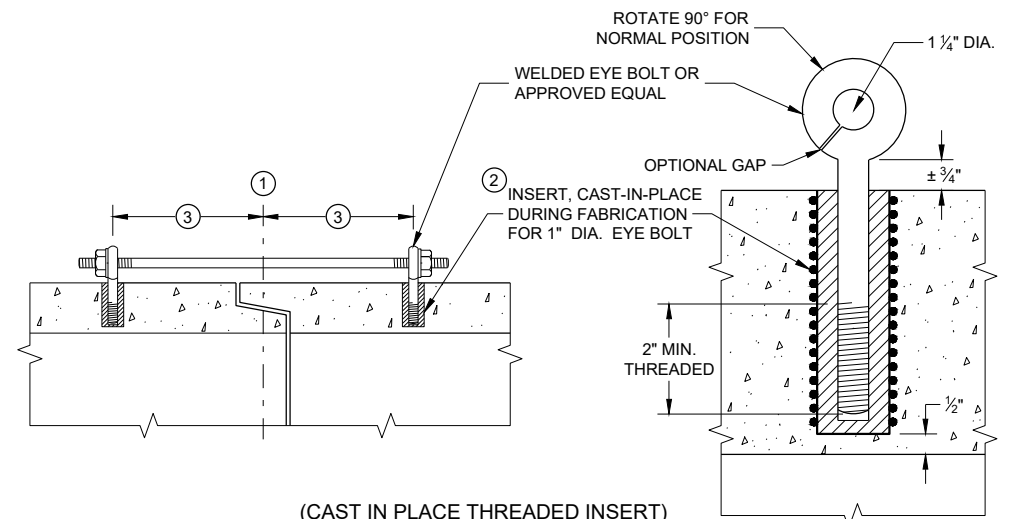
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

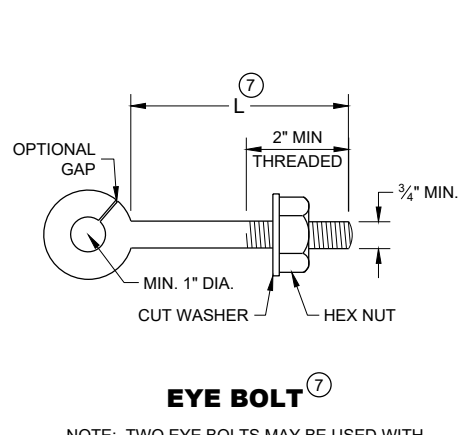
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

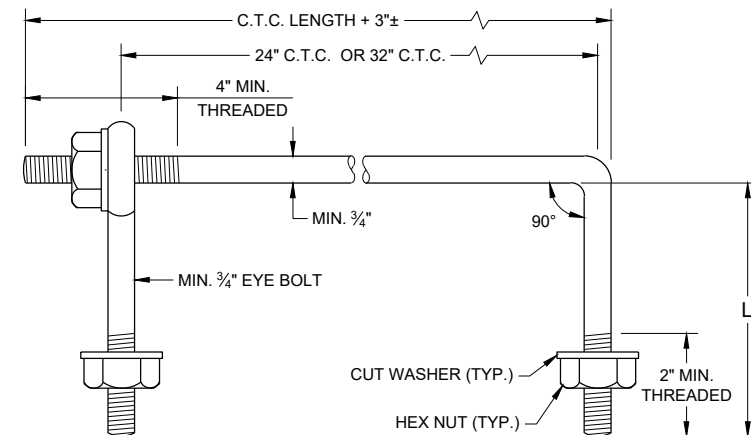
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

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

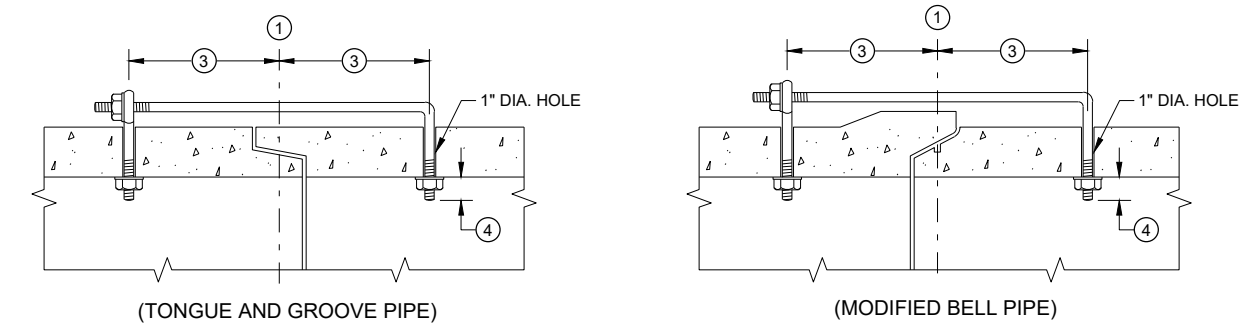


EYE BOLT ⑦

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



EYE BOLT AND TIE ROD



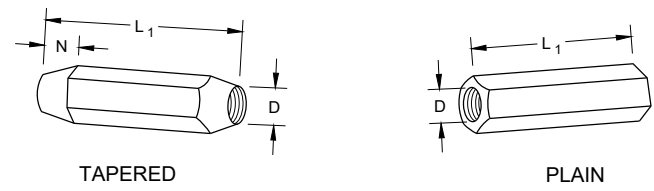
LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

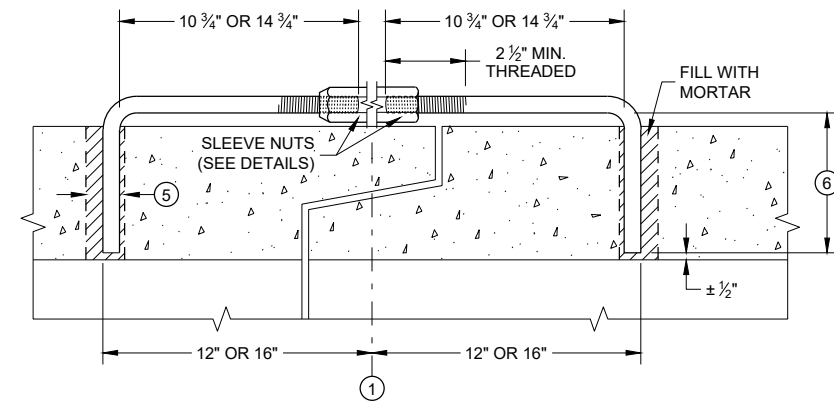
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

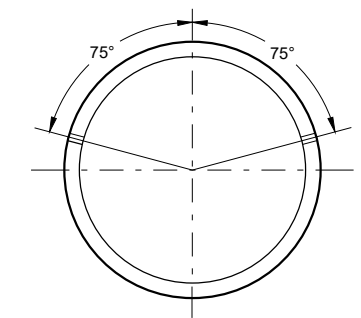


RIGHT AND LEFT THREADS SLEEVE NUTS



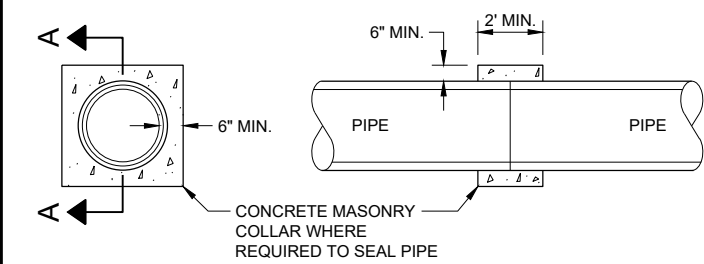
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

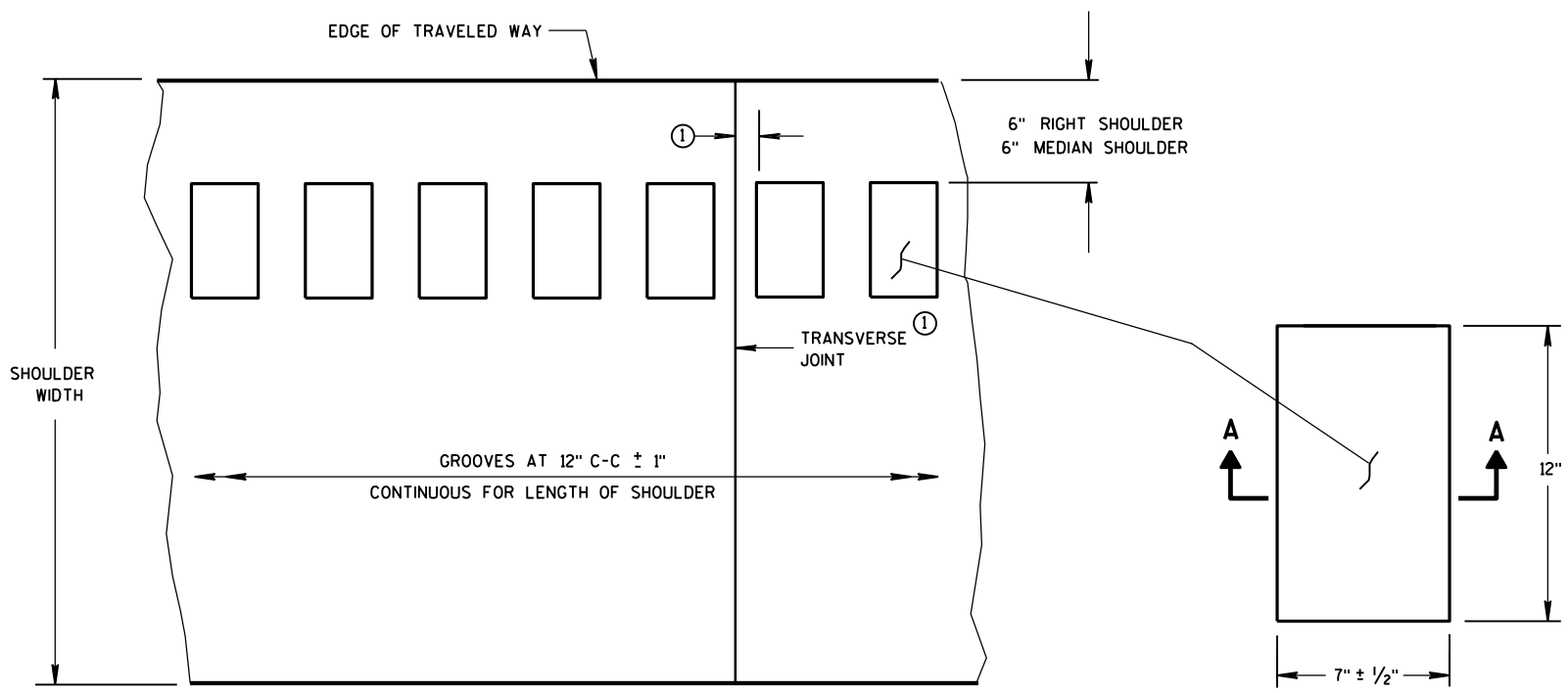
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

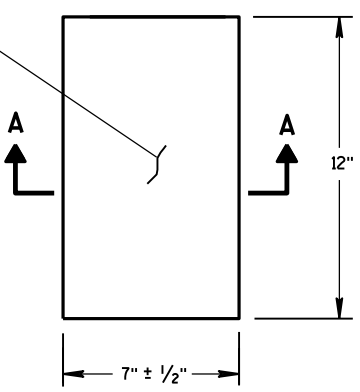
FHWA

SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

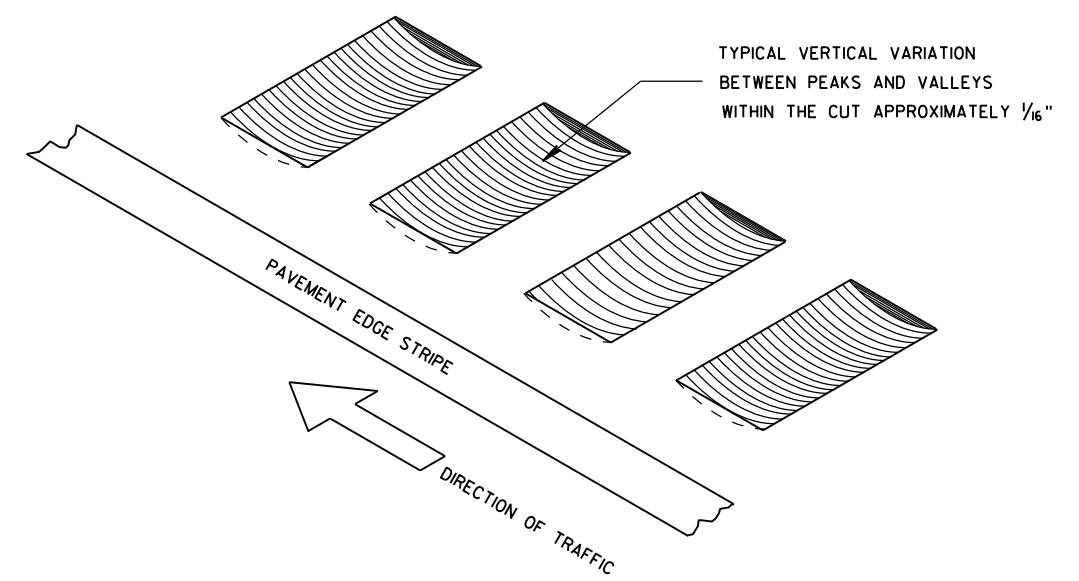
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

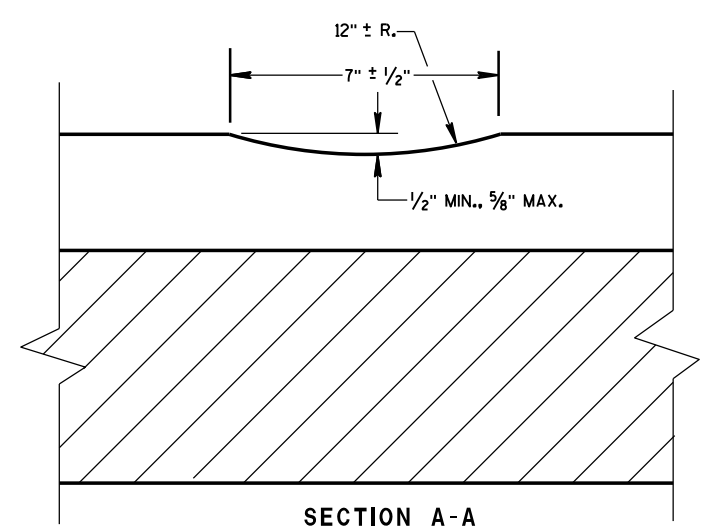
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

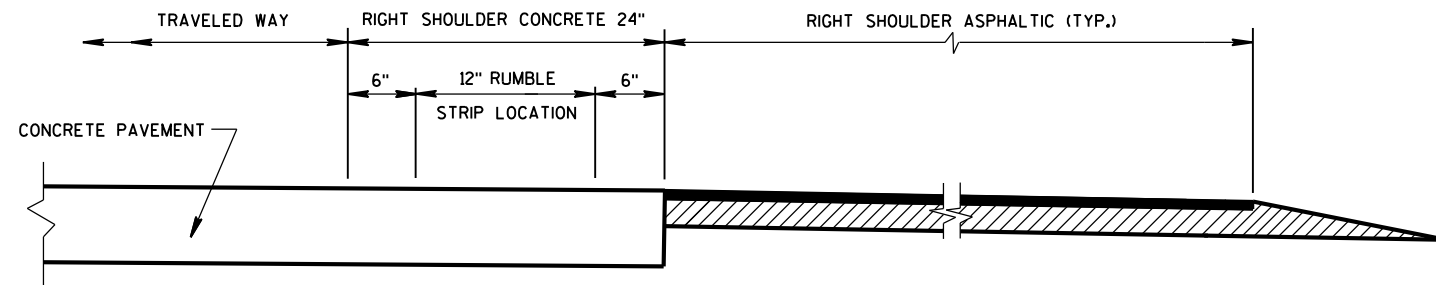
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



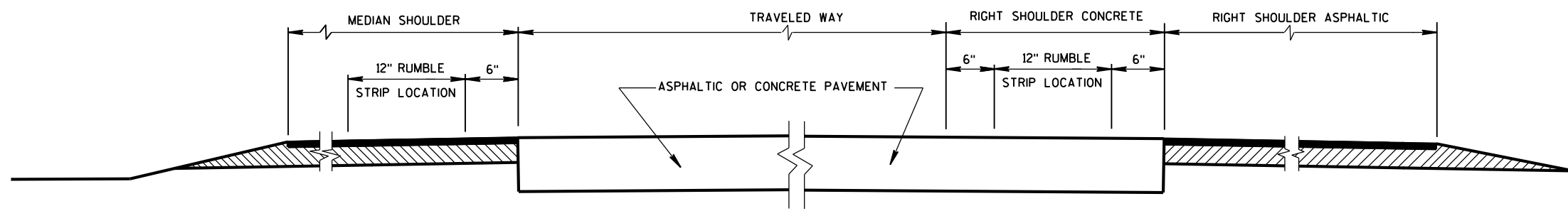
ISOMETRIC



SECTION A-A



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



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

SHOULDER RUMBLE STRIP,
MILLING

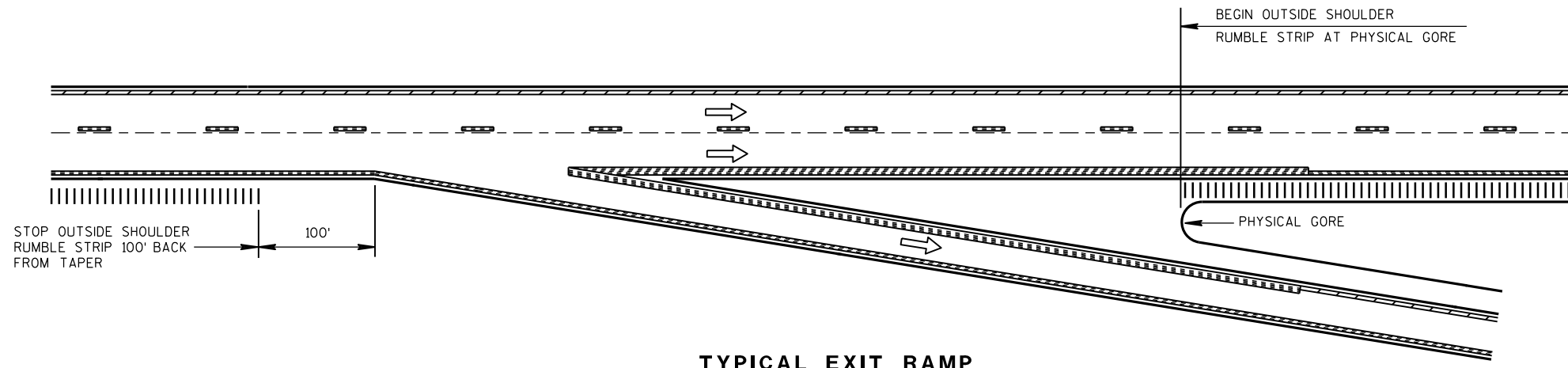
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

S.D.D. 13 A 5-5a

S.D.D. 13 A 5-5a

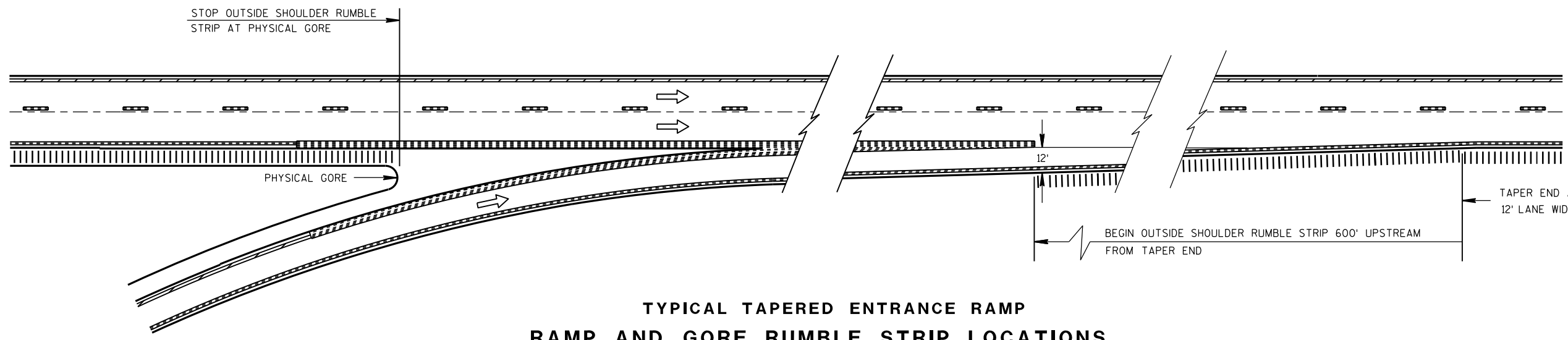


TYPICAL EXIT RAMP

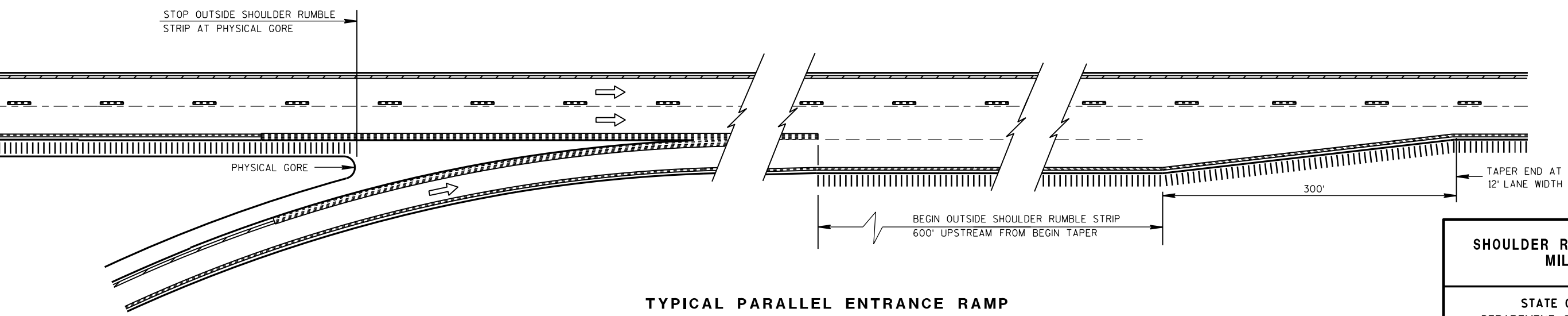
NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMP, 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

6

6

S.D.D. 13 A 5-5b

S.D.D. 13 A 5-5b

SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 12/17/2012 FHWA	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER

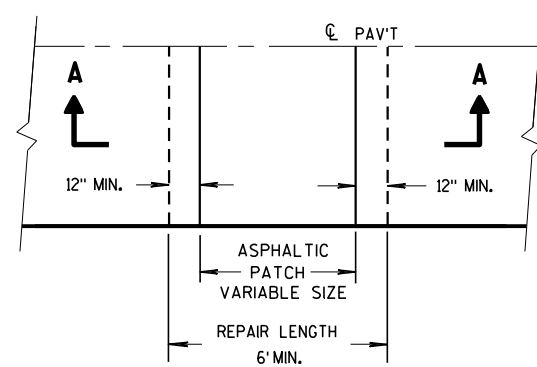
GENERAL NOTES

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.

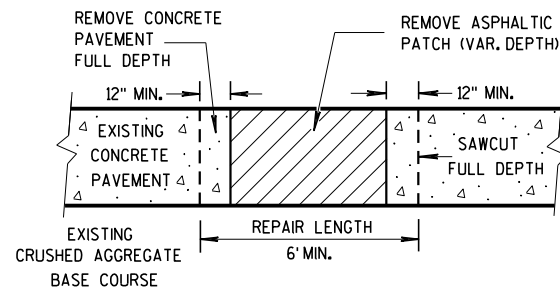
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

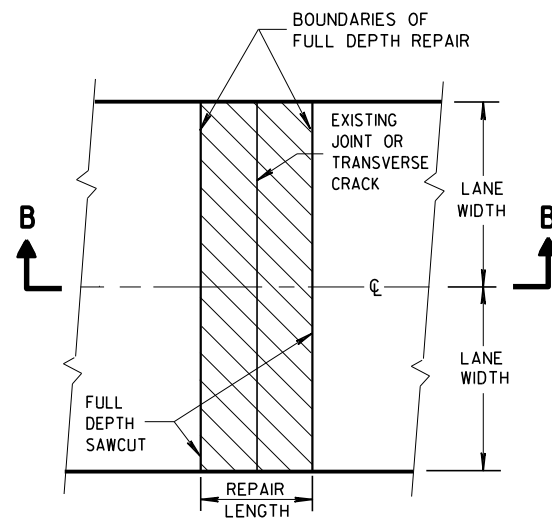


PLAN VIEW

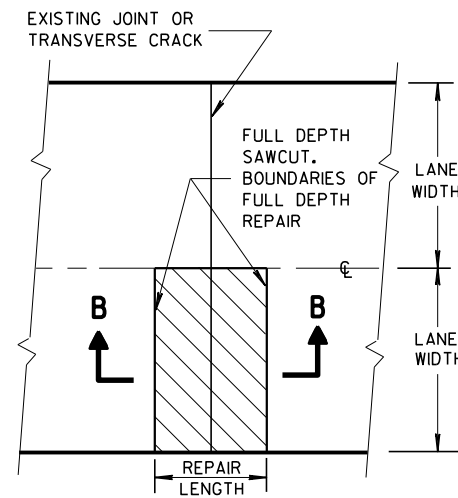


SECTION A-A

HMA PATCH REMOVAL

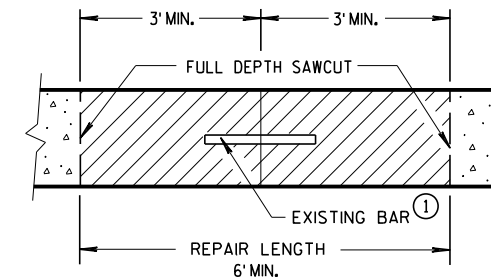


**PLAN VIEW
(DOUBLE LANE REPAIR)**



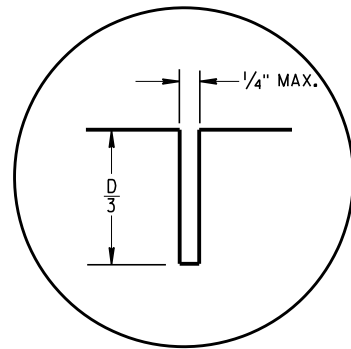
**PLAN VIEW
(SINGLE LANE REPAIR)**

FULL DEPTH CONCRETE PAVEMENT REMOVAL

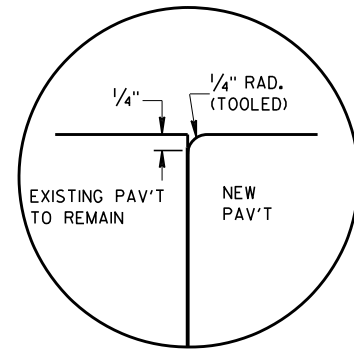


**SECTION B-B
CONCRETE REMOVAL**

<p>CONCRETE PAVEMENT REPAIR AND REPLACEMENT</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>

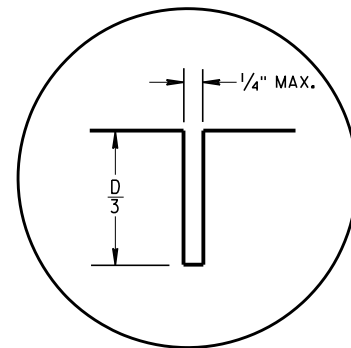


C1

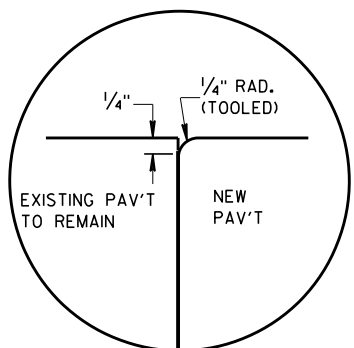


C2

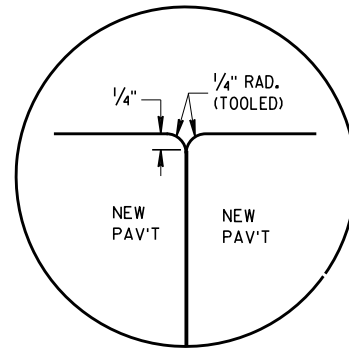
TRANSVERSE JOINTS



L1



L2



L3

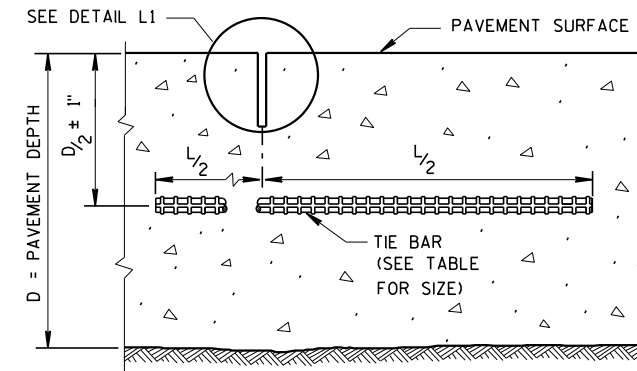
LONGITUDINAL JOINTS

TIE BAR TABLE

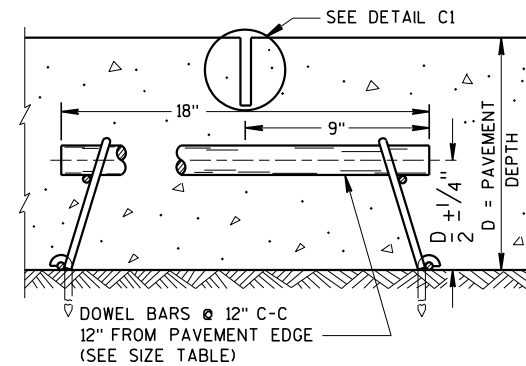
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

* 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

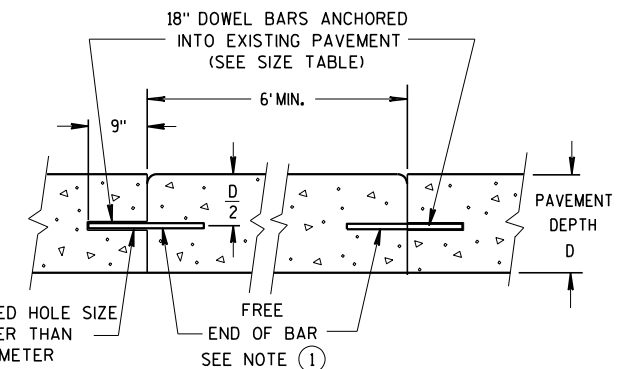
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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

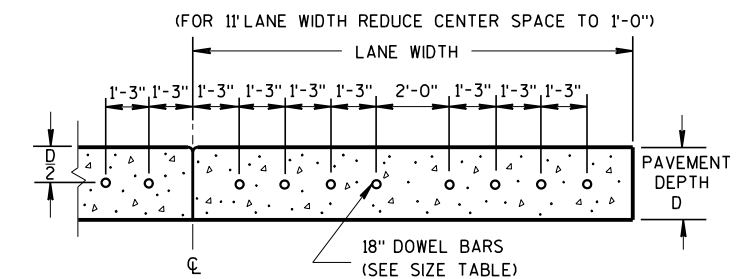
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

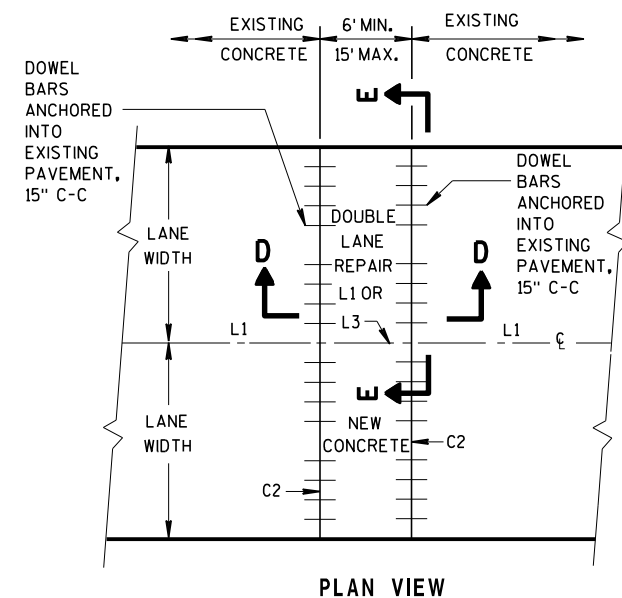
- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D-D

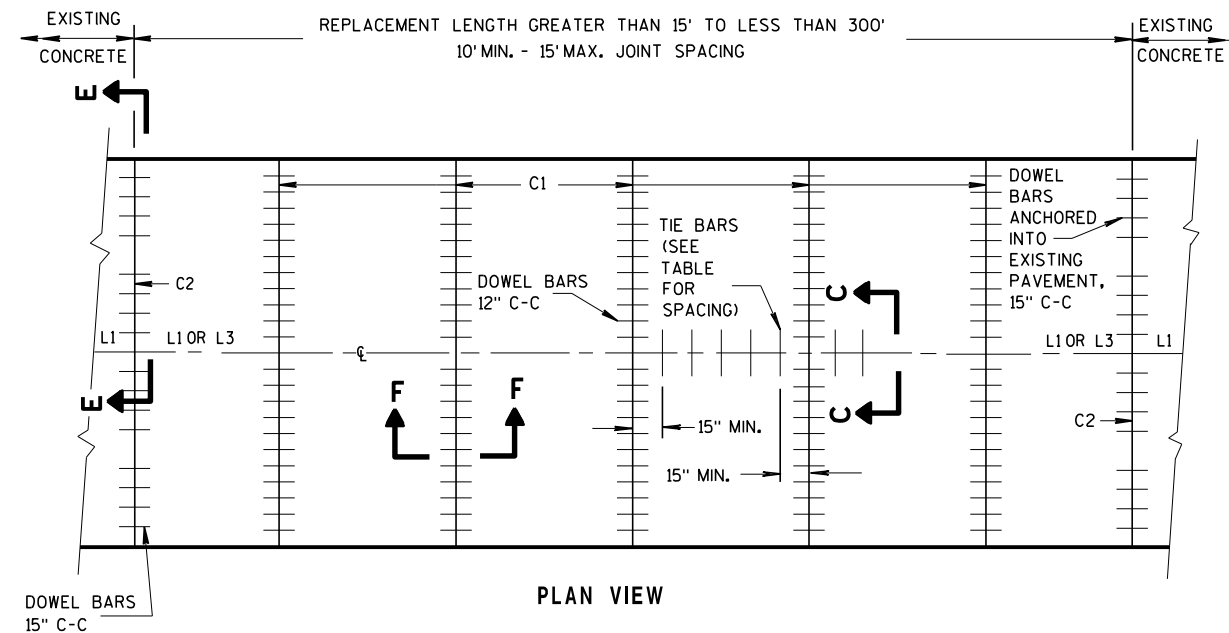


**SECTION E-E
DRILLED DOWEL BAR CONSTRUCTION JOINT**



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

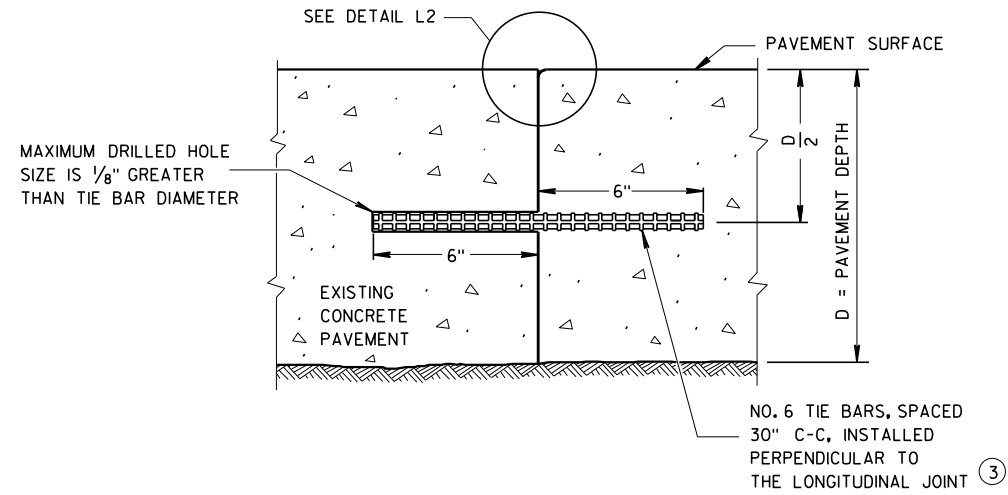
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

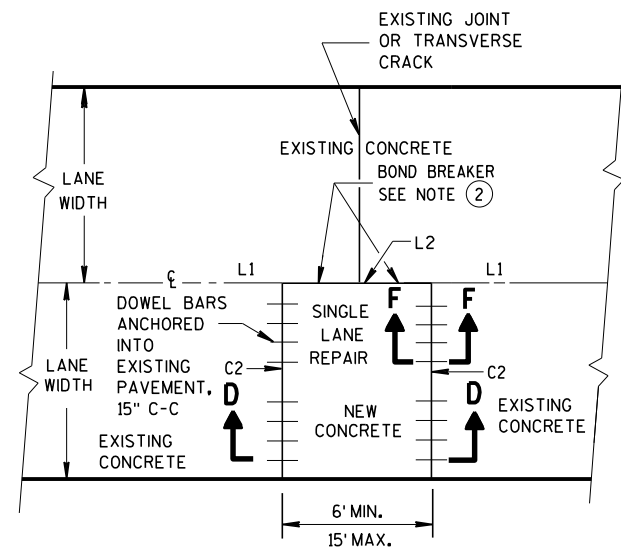
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

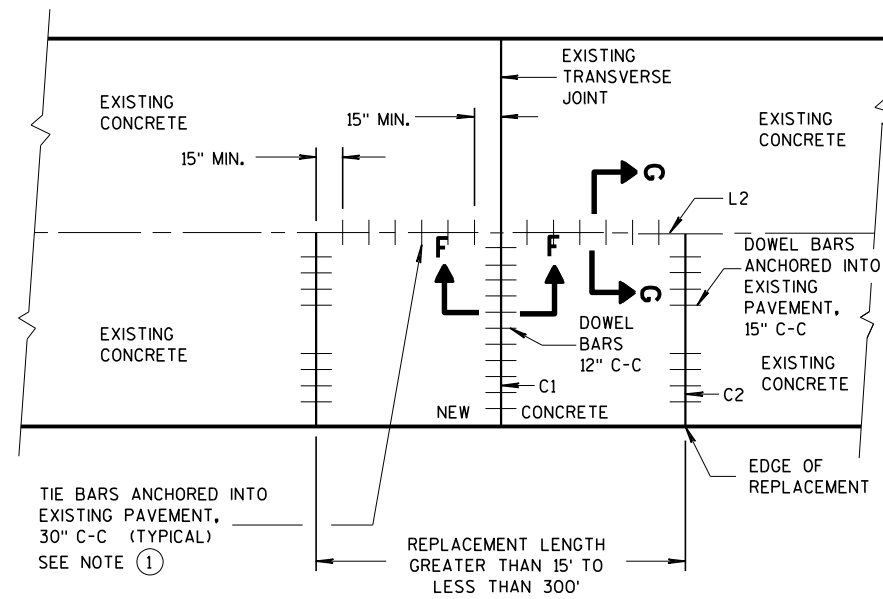
- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER 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.



SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

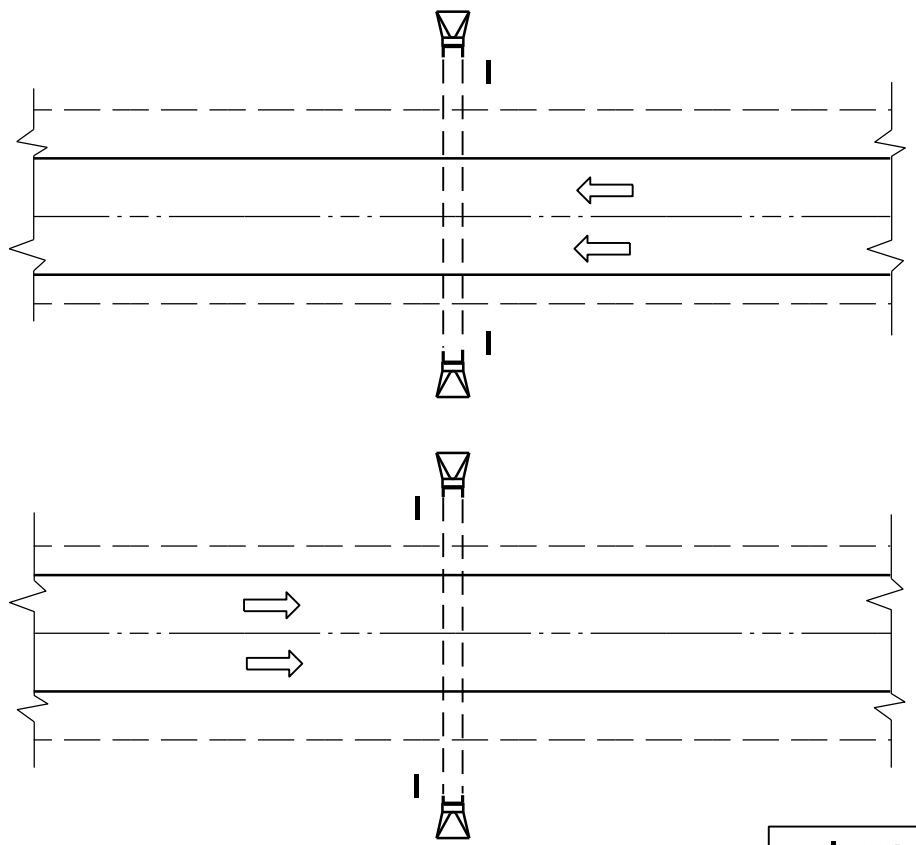


PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR

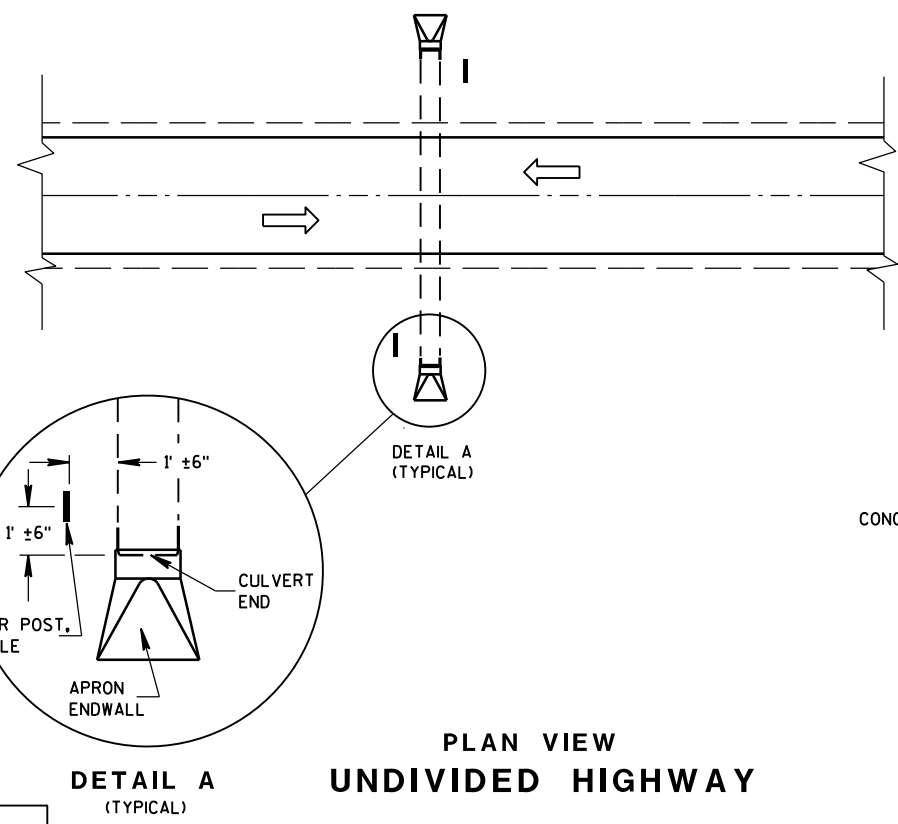


PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

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



PLAN VIEW
DIVIDED HIGHWAY

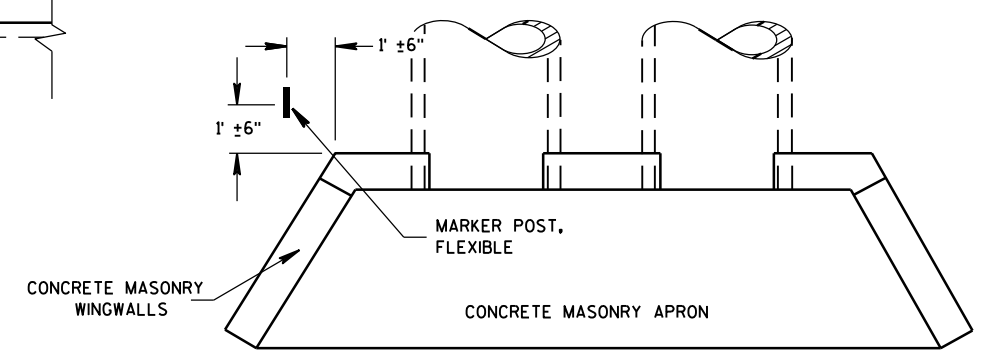


PLAN VIEW
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE
 DIRECTION OF TRAFFIC FLOW

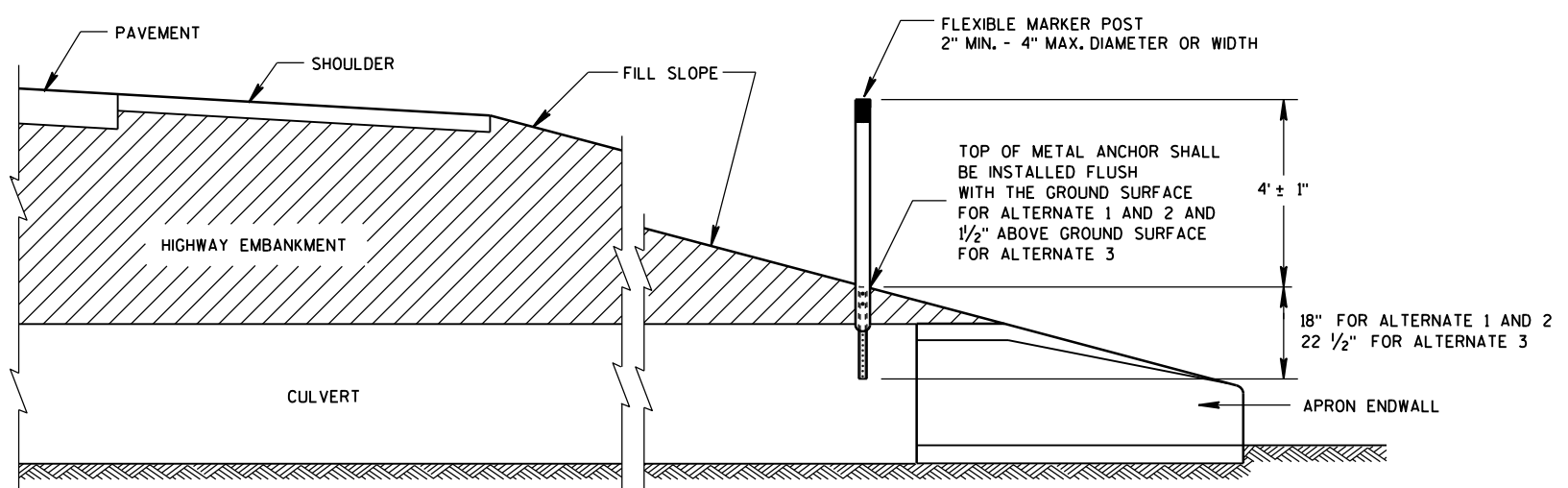
GENERAL NOTES

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

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

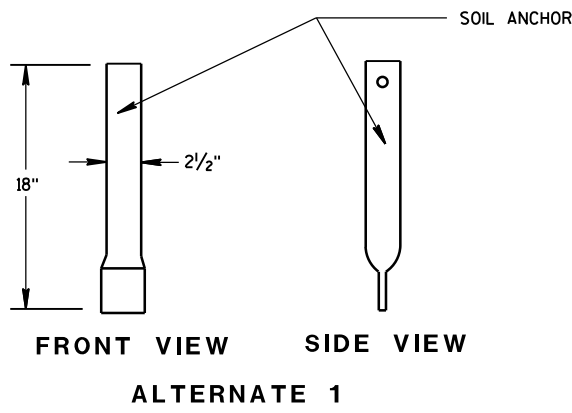
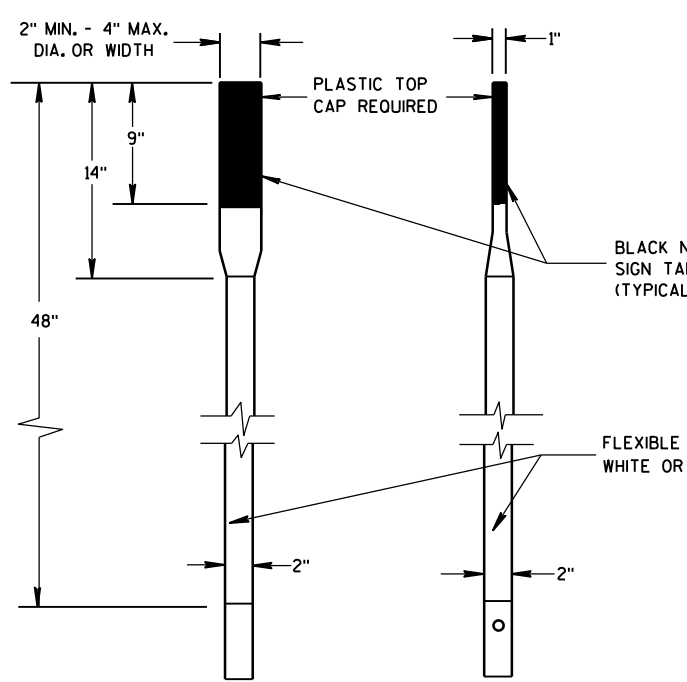
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

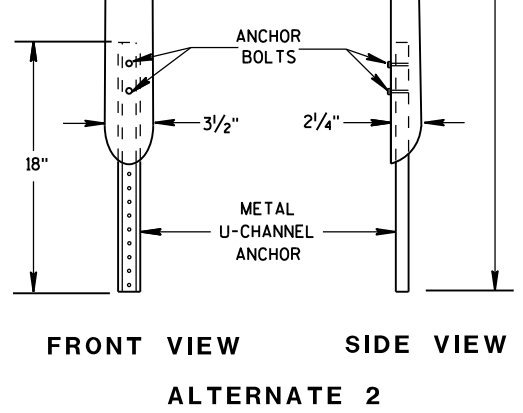
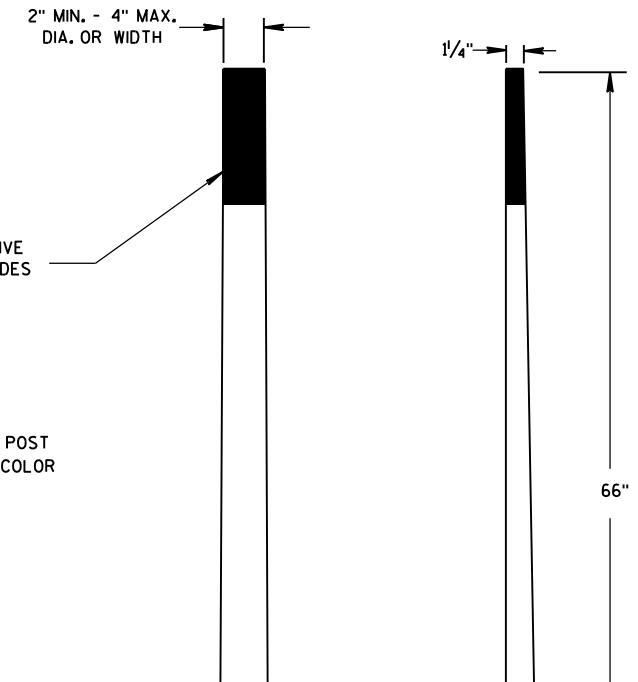
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S.D.D. 15 A 3-2a

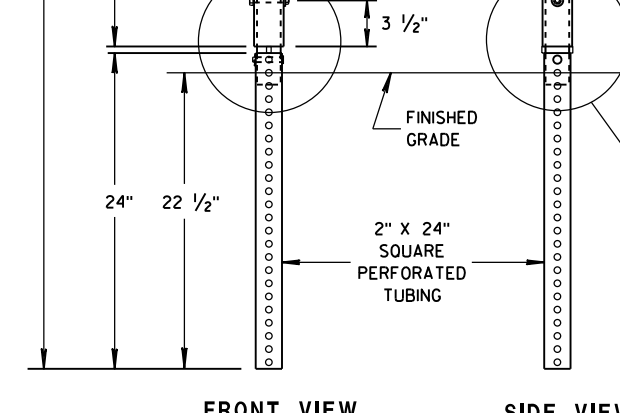
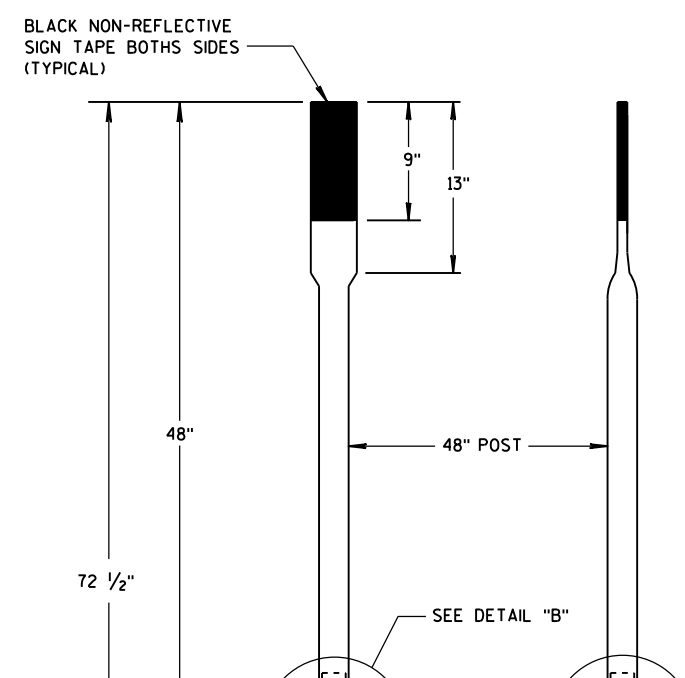
S.D.D. 15 A 3-2a



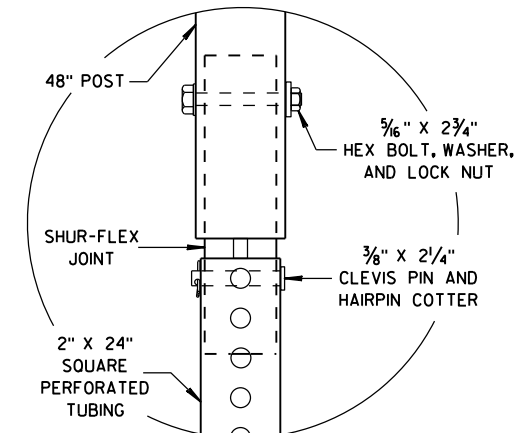
FRONT VIEW SIDE VIEW
ALTERNATE 1



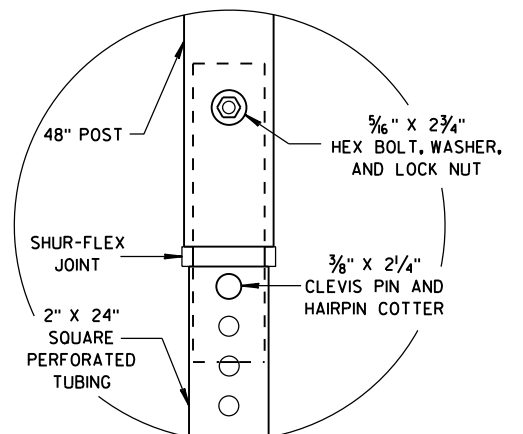
FRONT VIEW SIDE VIEW
ALTERNATE 2



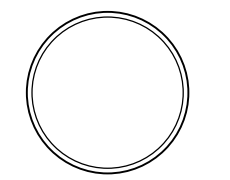
FRONT VIEW SIDE VIEW
ALTERNATE 3



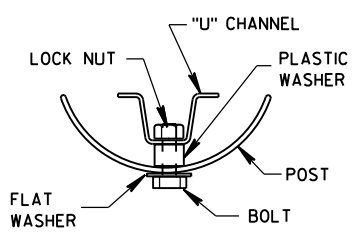
DETAIL B



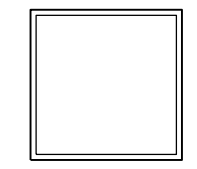
DETAIL C



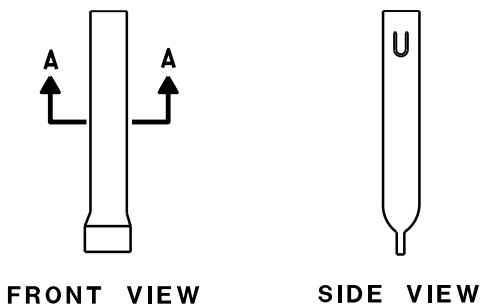
SECTION A-A



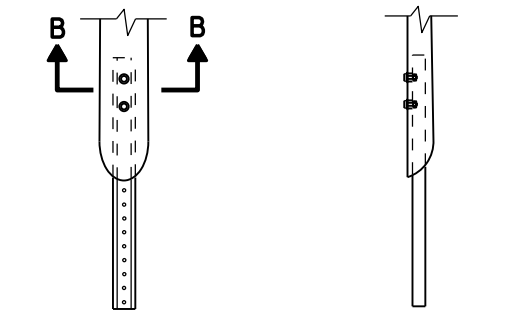
SECTION B-B



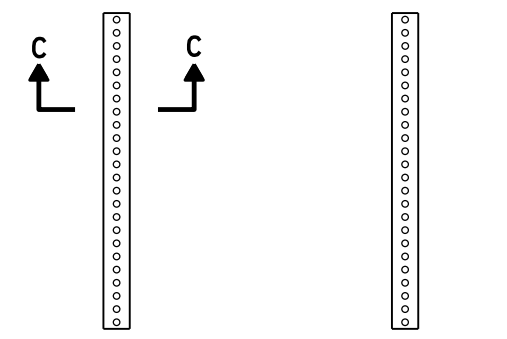
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



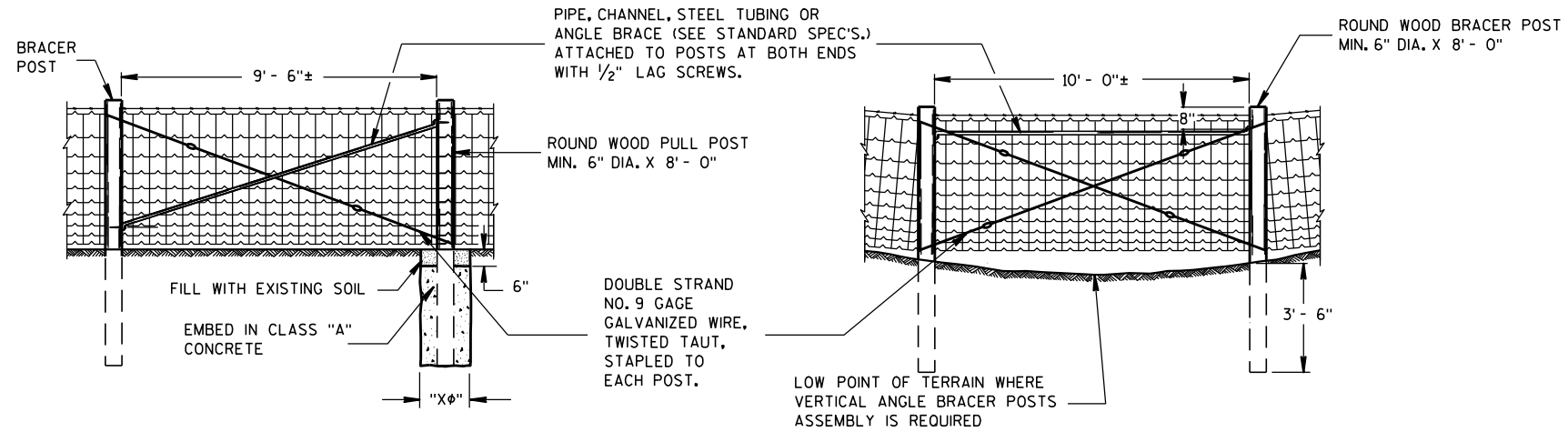
FRONT VIEW SIDE VIEW
ALTERNATE 3

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	

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY

VERTICAL ANGLE BRACER POSTS ASSEMBLY

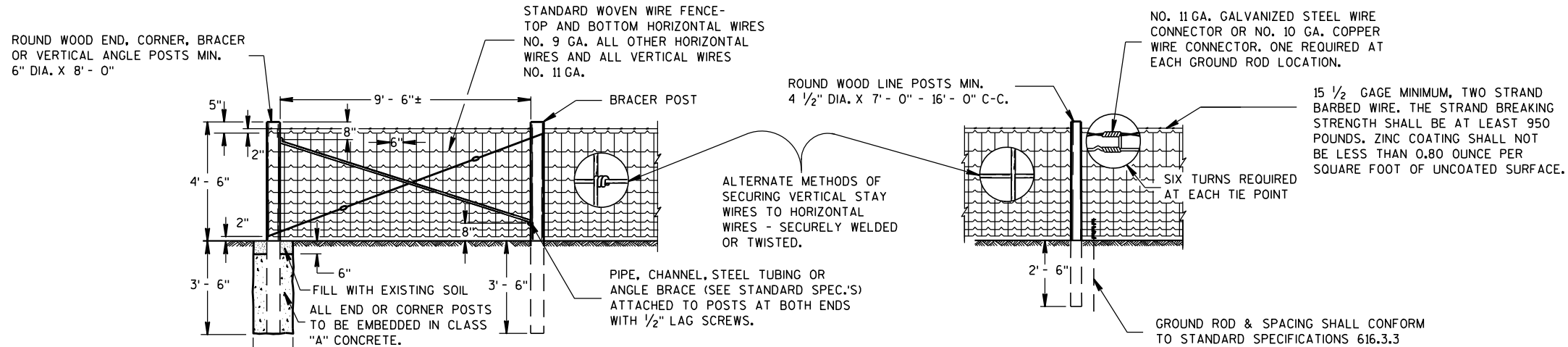
GENERAL NOTES

"Xφ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

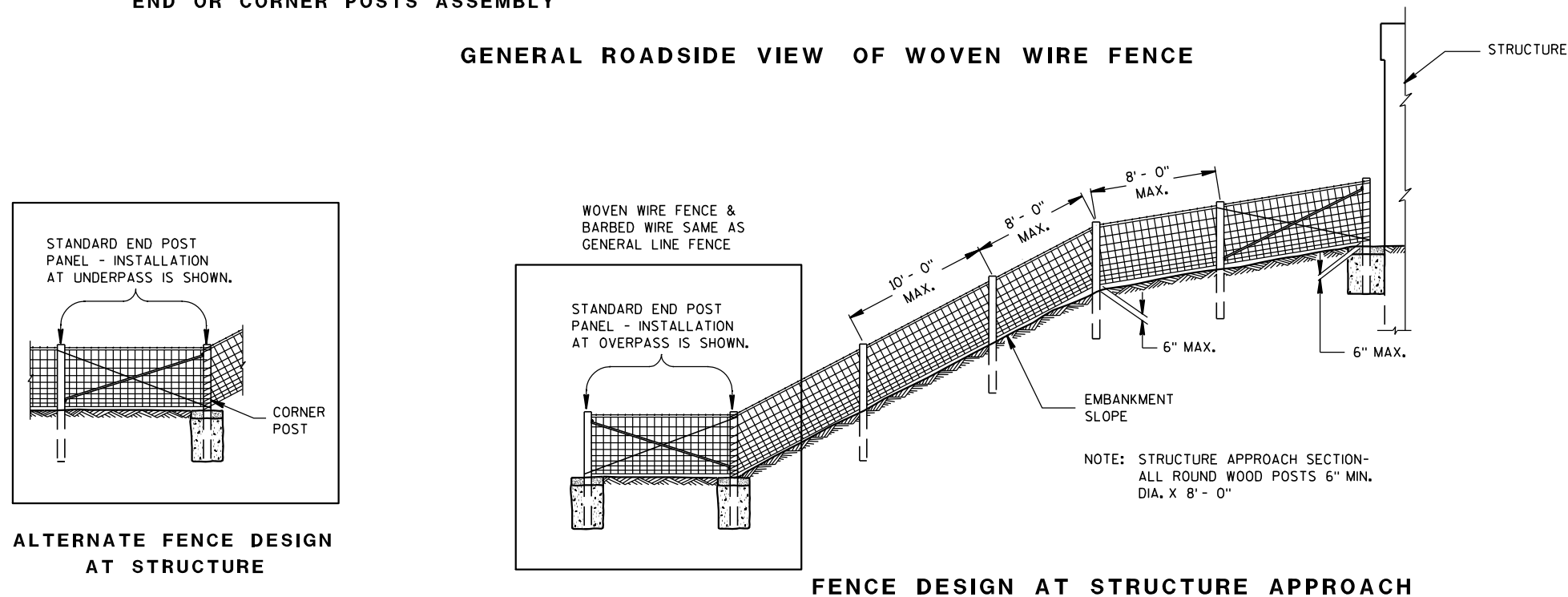
FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



END OR CORNER POSTS ASSEMBLY

LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE

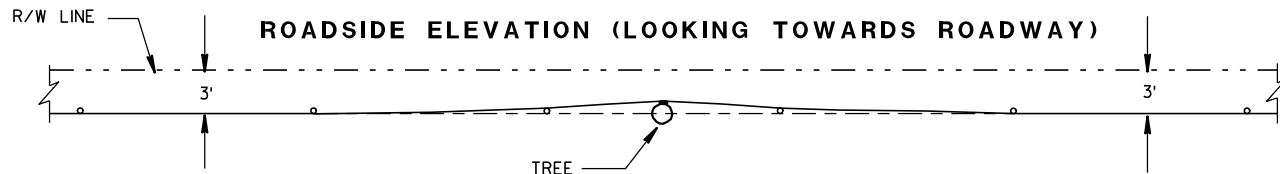
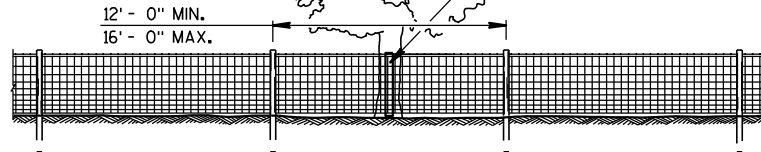
FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

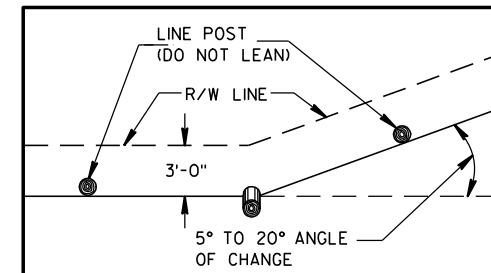
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

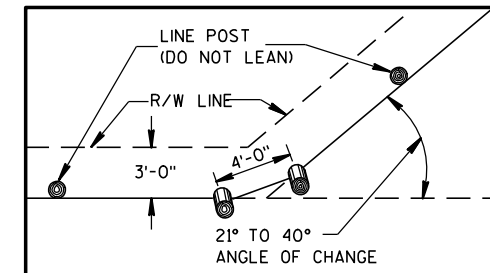
2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.



PLAN VIEW
FENCE DESIGN AT TREES REMAINING
IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

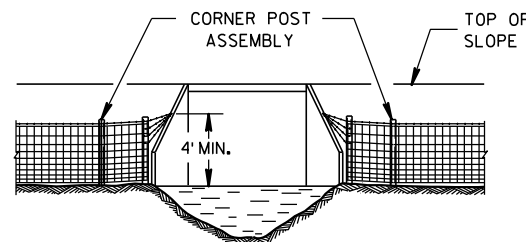


PLAN VIEW
DOUBLE POST CORNER

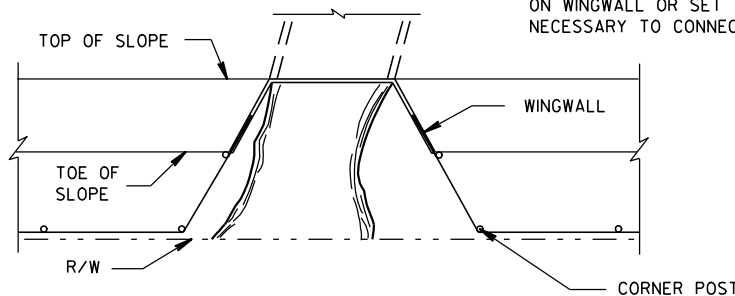
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

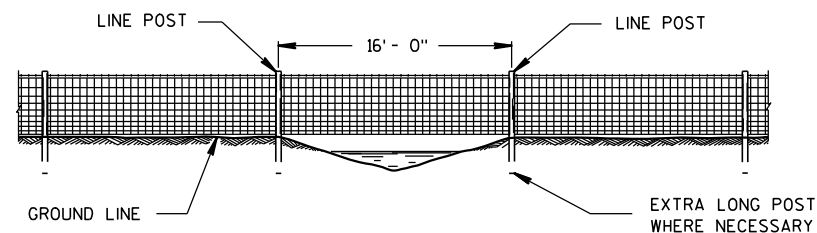
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



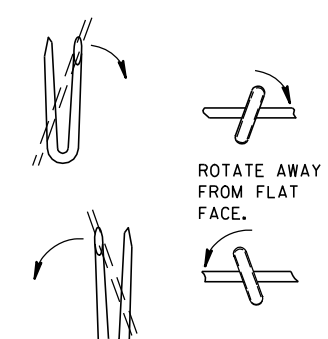
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS



FENCE CONSTRUCTION OVER STREAM
COURSES OF 15 FT. OR LESS IN WIDTH



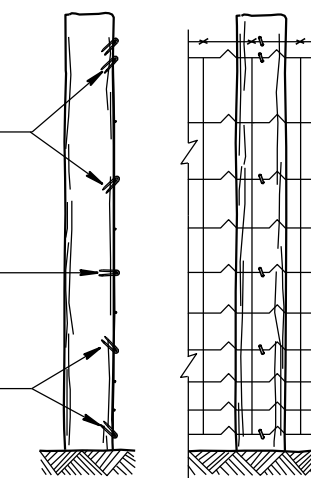
LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

STAPLES SLOPED DOWNWARD FOR SUSTAINED GRADES AND OVER KNOLLS.

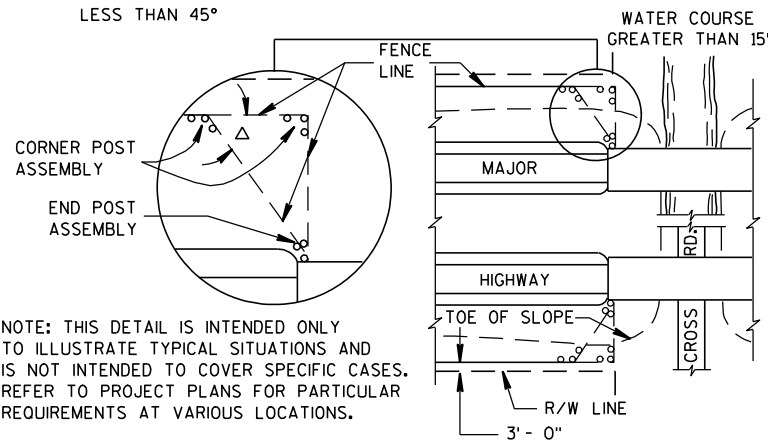
STAPLES LEVEL FOR LEVEL GROUND.

SLOPE UPWARDS WHEN FENCE TENDS TO LIFT.



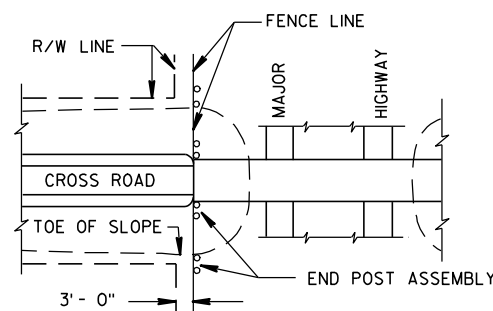
END ELEVATION FARM SIDE ELEVATION
FENCE MOUNTING DETAIL

NOTE: Δ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE
CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

FENCE LOCATION AT STRUCTURES

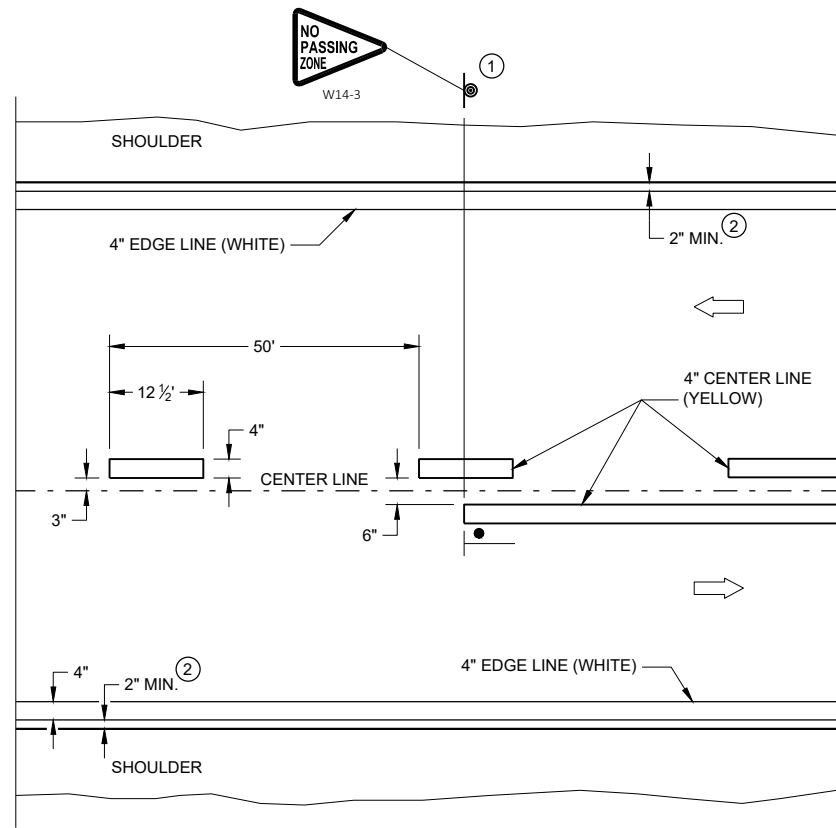
FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

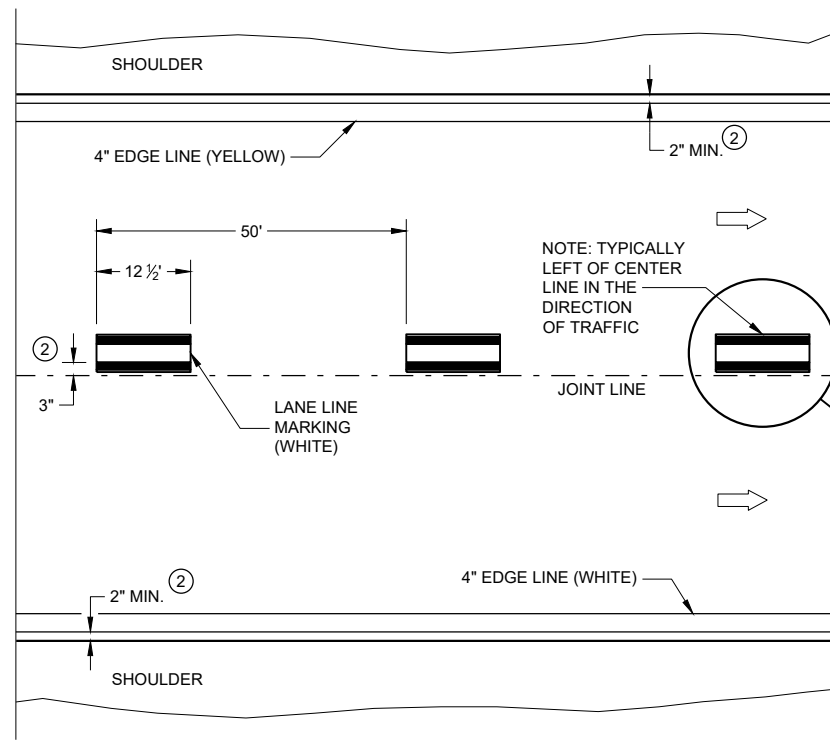
APPROVED
4/4/2008
DATE

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

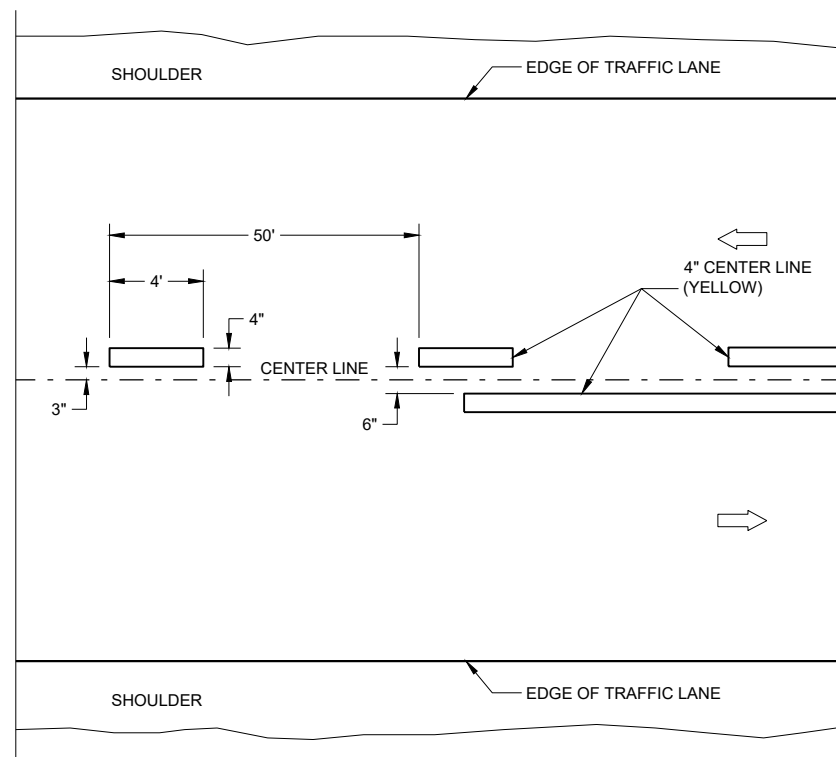


TWO WAY TRAFFIC

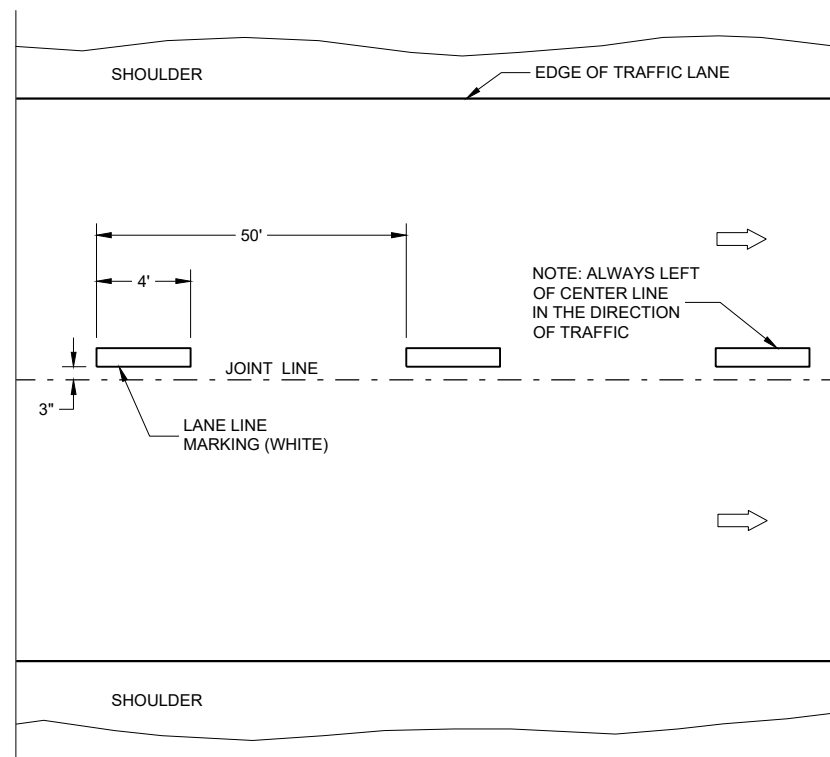


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

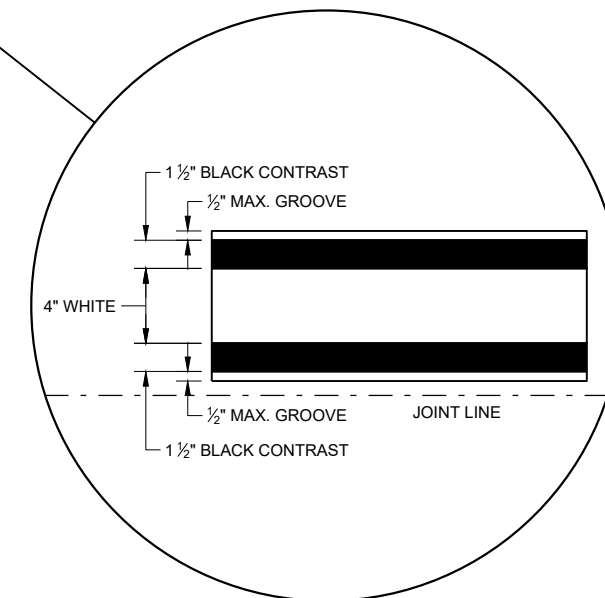
GENERAL NOTES

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

LEGEND

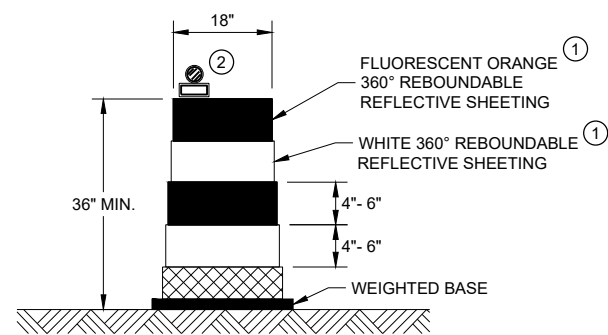
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



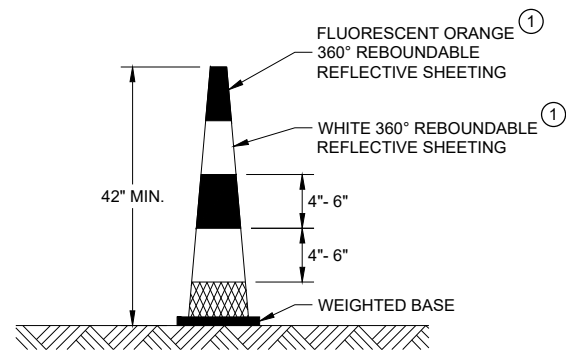
**LONGITUDINAL MARKING
(MAINLINE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

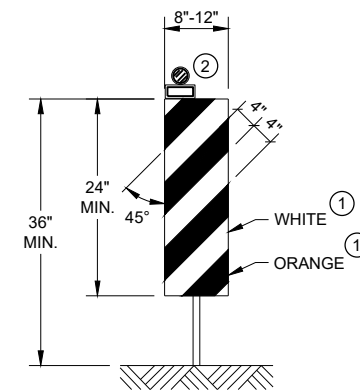


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

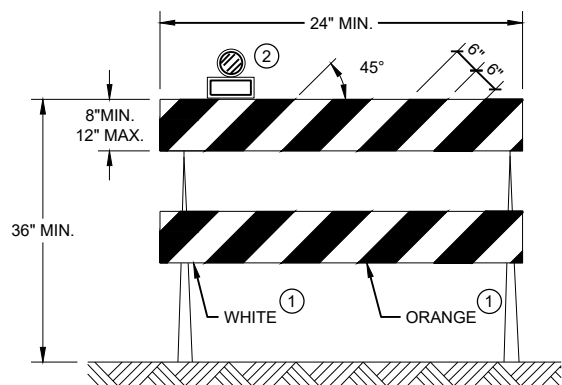


VERTICAL PANEL

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

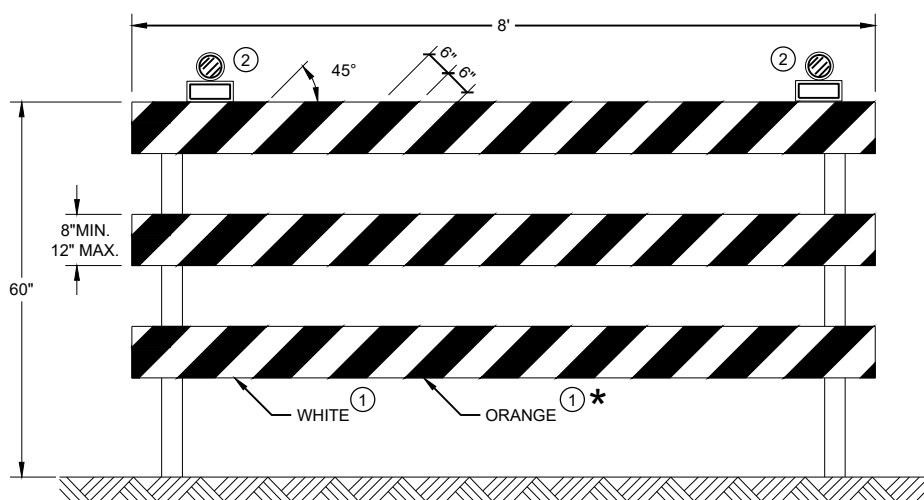
GENERAL NOTES

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



TYPE II BARRICADE

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








TYPE III BARRICADE

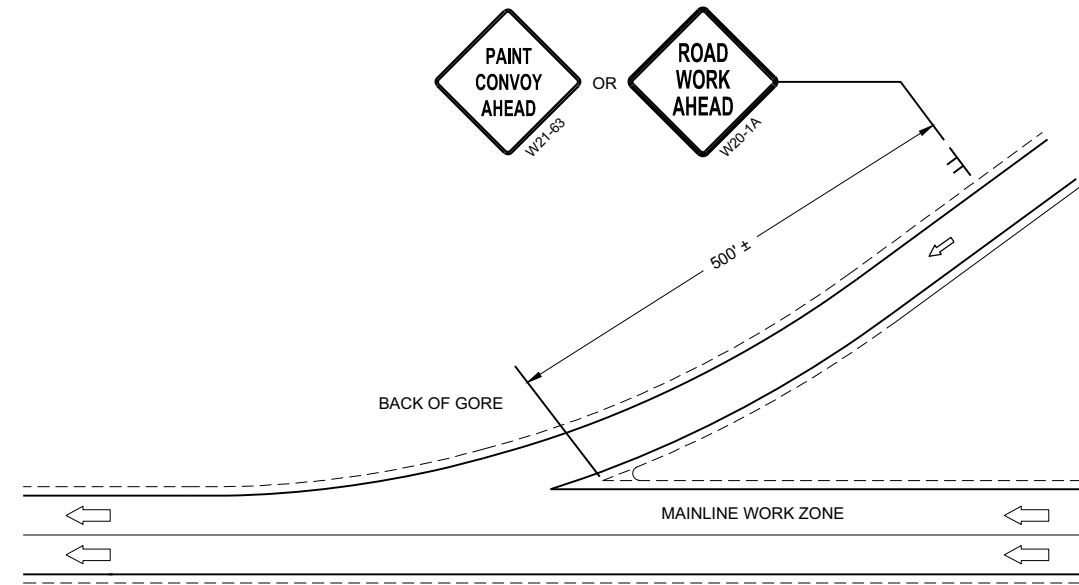
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	

LEGEND

- V1 MARKING VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (MERGE)
-  FLASHING ARROW PANEL (CAUTION)



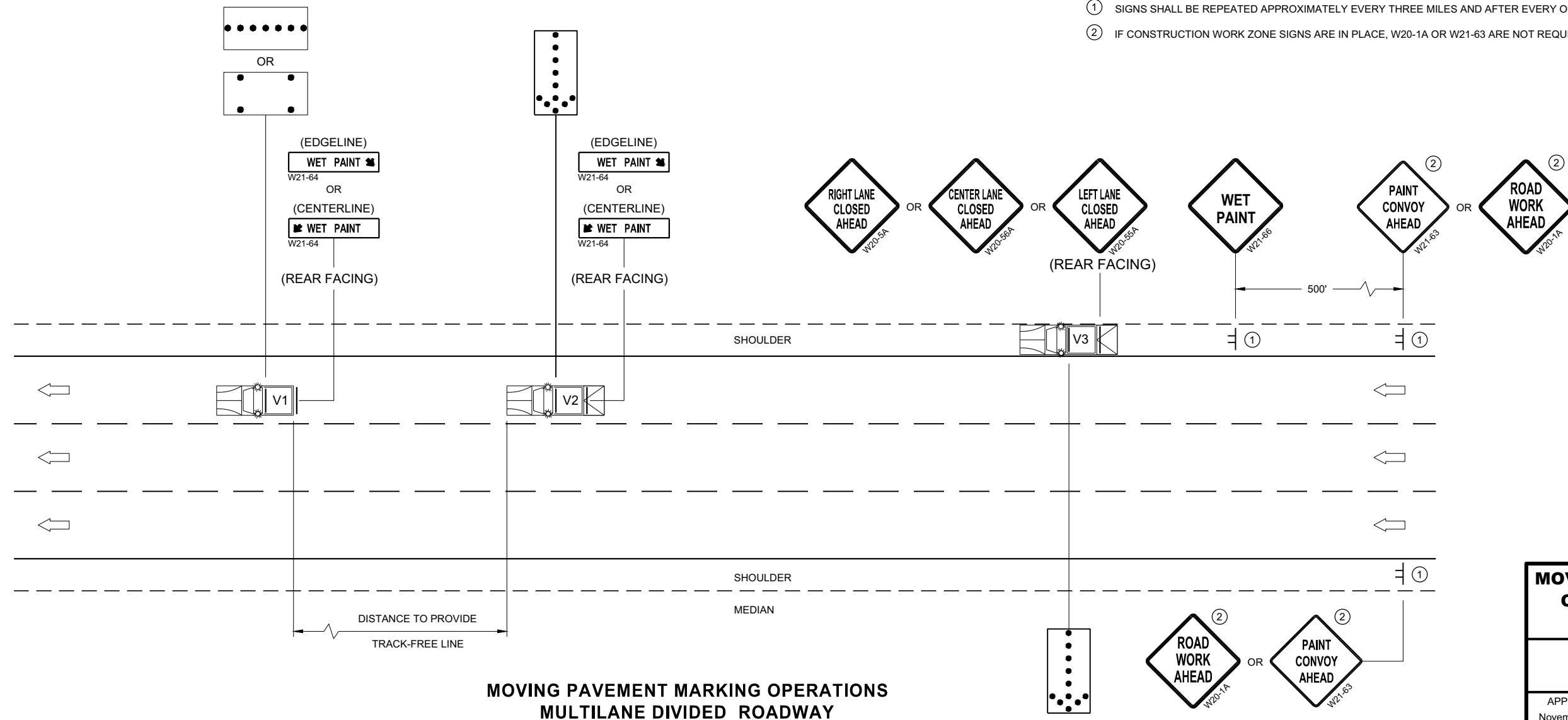
GENERAL NOTES

- 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.
- 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 AND 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 REAR MOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.
- IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC
- CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- CONES SHALL BE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

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

6

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SDD 15C19 - 06C

SDD 15C19 - 06C

**MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY**

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 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.

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.

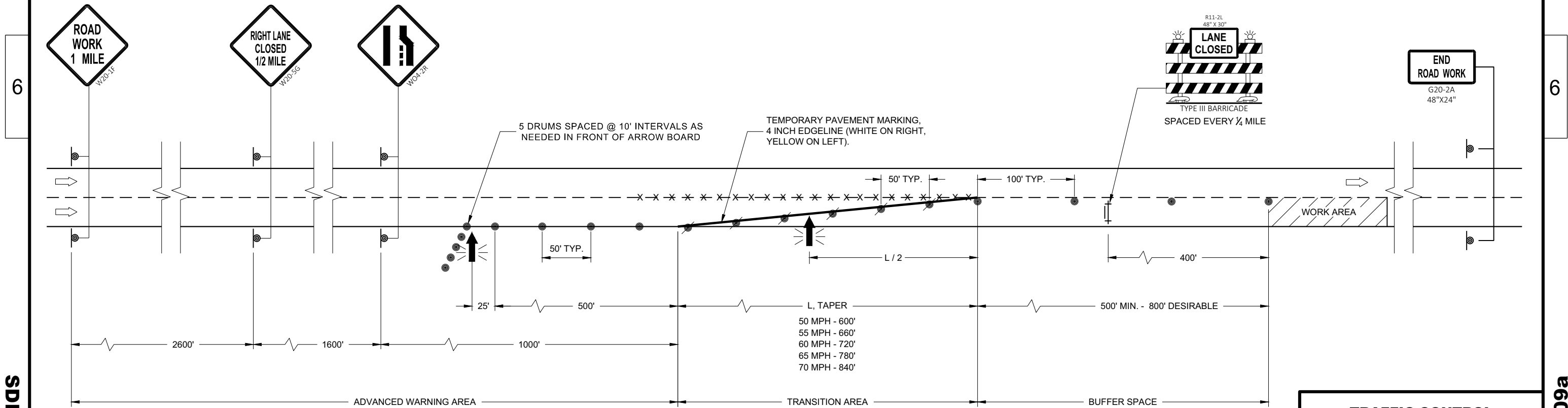
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

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

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



SDD 15D12 - 09a

SDD 15D12 - 09a

TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 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" SIGNS ARE THE SAME AS "W" SIGNS 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.

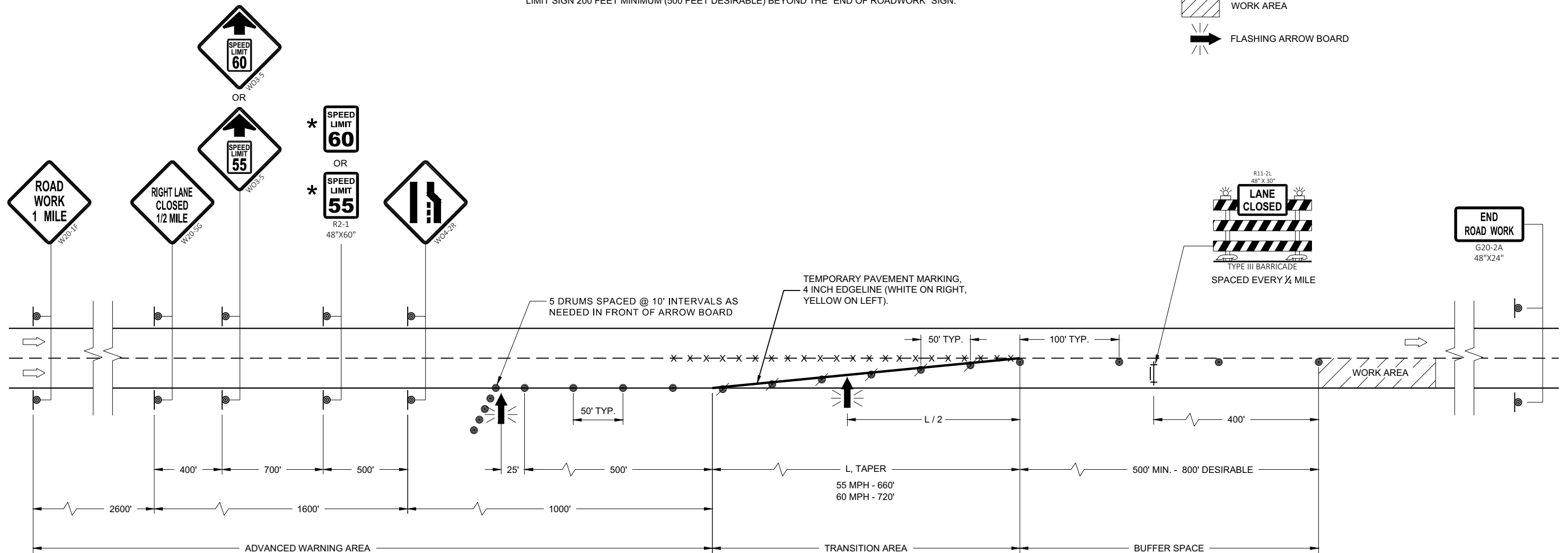
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE 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

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

6














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SDD 15D12 - 09b

SDD 15D12 - 09b

TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

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

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING FBS 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" SIGNS ARE THE SAME AS "W" SIGNS 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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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.

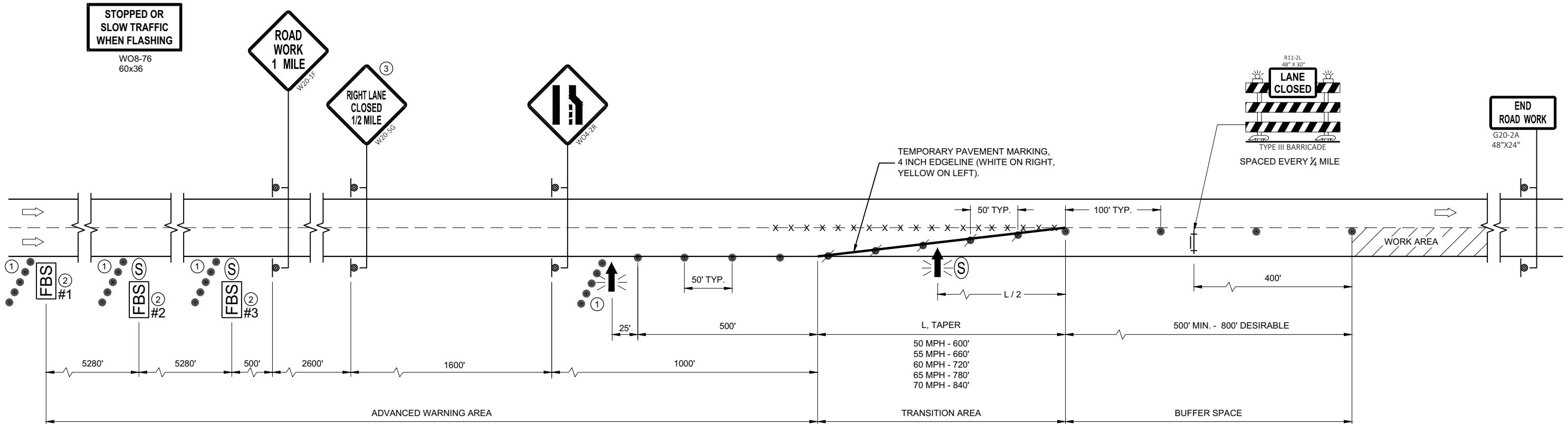
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

- ① 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
- ② IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.
- ③ IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. 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 (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.

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SDD 15D12 - 09d

SDD 15D12 - 09d








TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

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

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

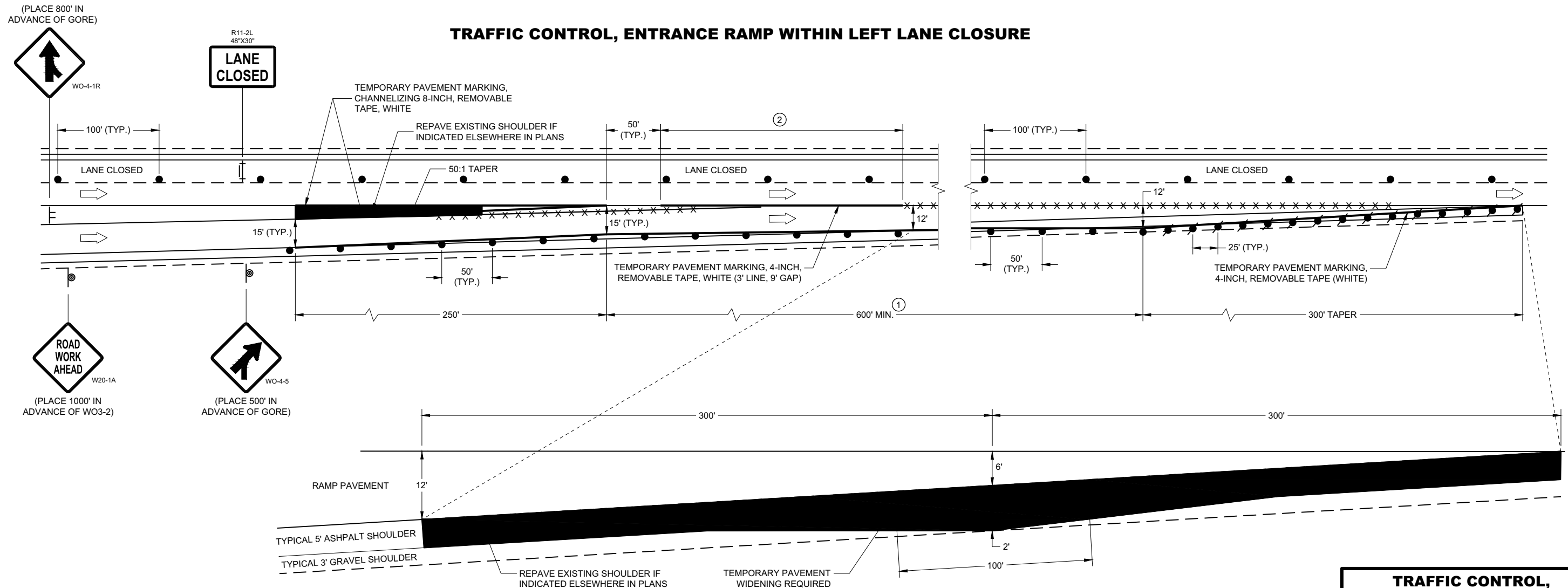
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

- ① EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.
- ② END TEMPORARY MARKING AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LEFT LANE CLOSURE



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ⊞ SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- ⦿ TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ×-×-× REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- ⊞ TYPE III BARRICADE WITH ATTACHED SIGN
- ➡ DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

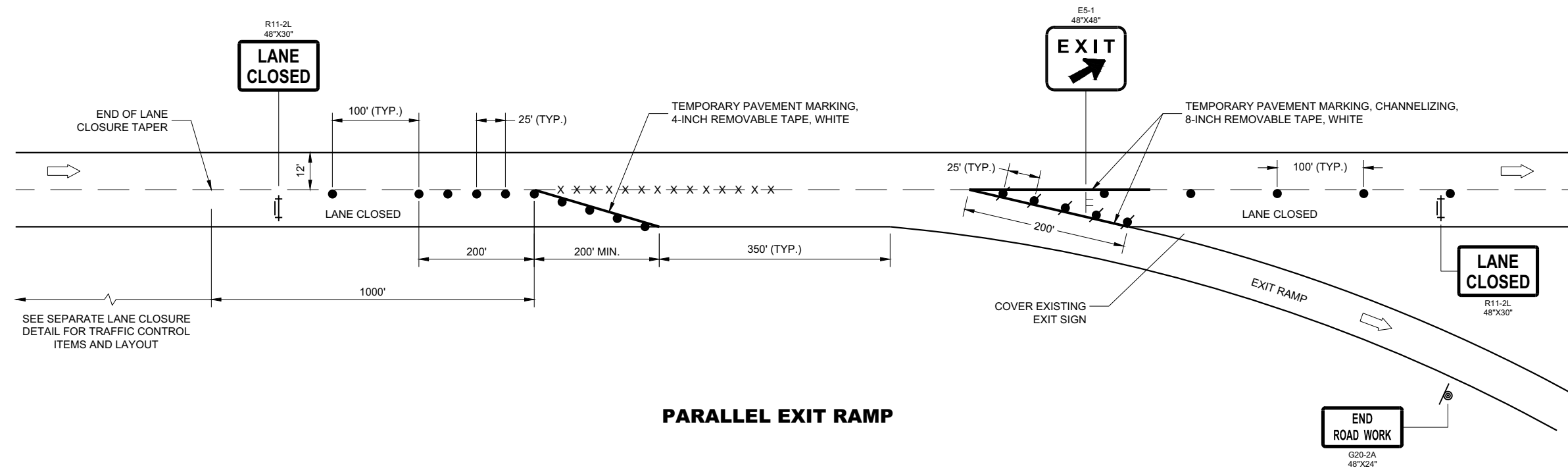
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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



PARALLEL EXIT RAMP

6

6

SDD 15D15 - 05e

SDD 15D15 - 05e

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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.

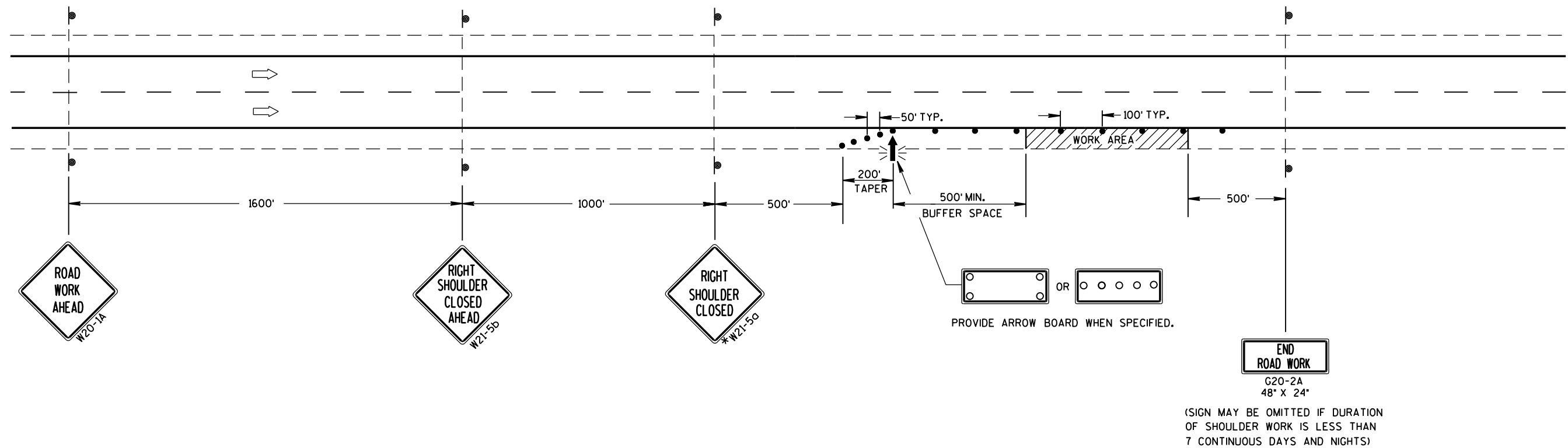
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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 W21-50 SIGN MAY BE OMITTED.

LEGEND

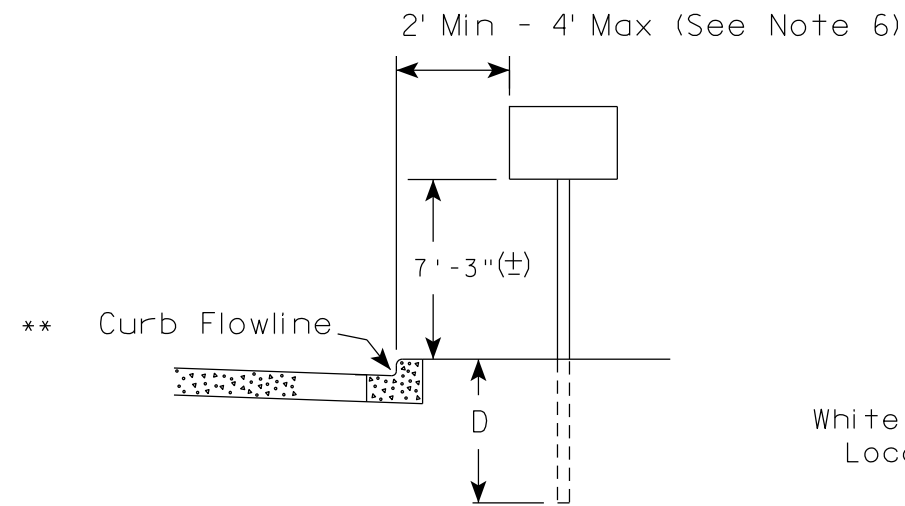
- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡ FLASHING ARROW BOARD
- ▨ WORK AREA



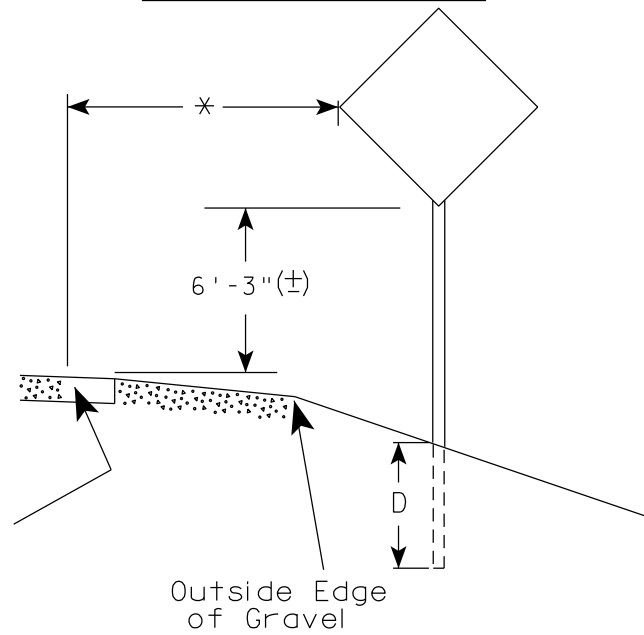
TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/s/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

URBAN AREA

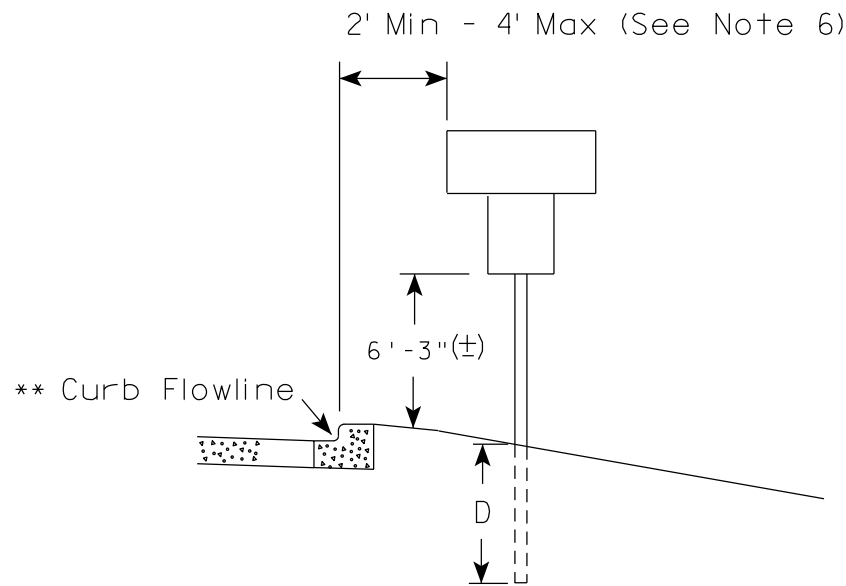
RURAL AREA (See Note 2)



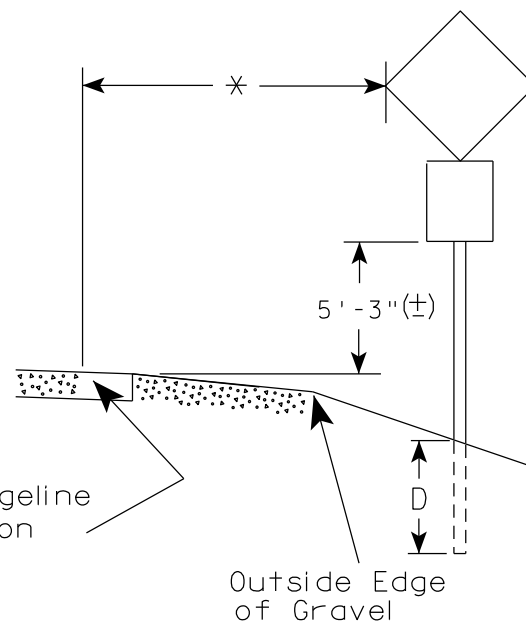
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

* * 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.

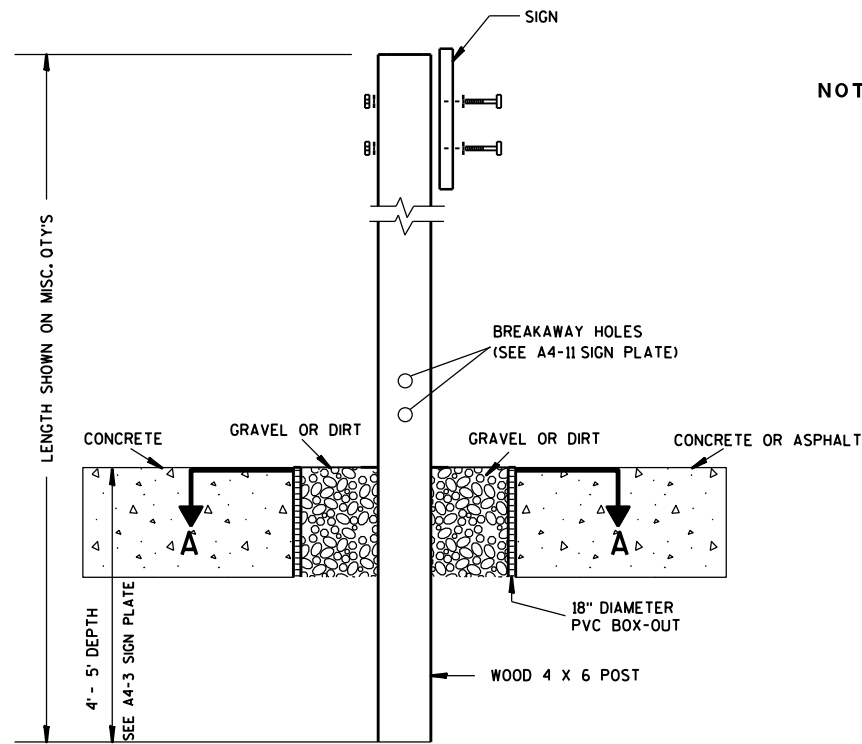
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

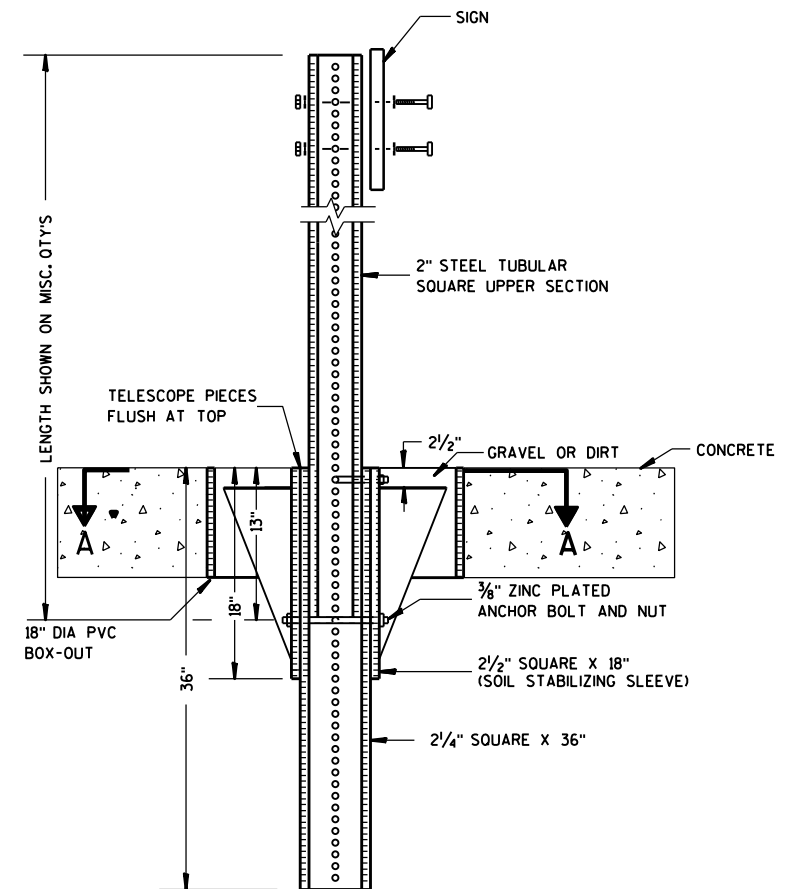
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

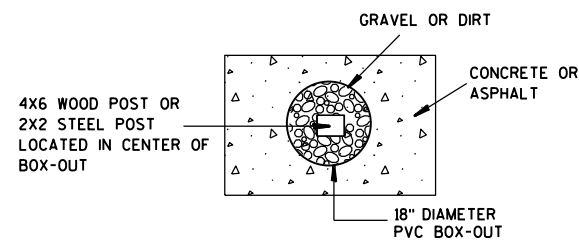
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

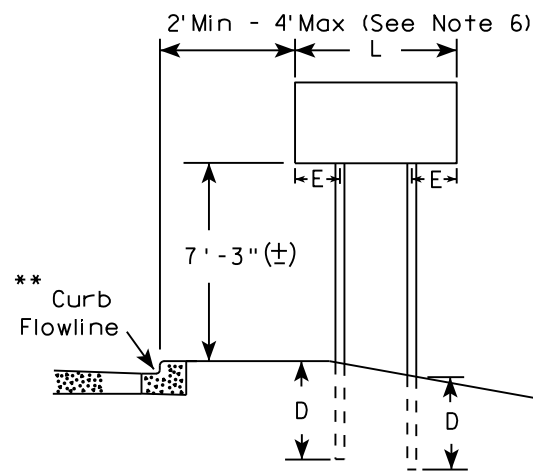
7

7

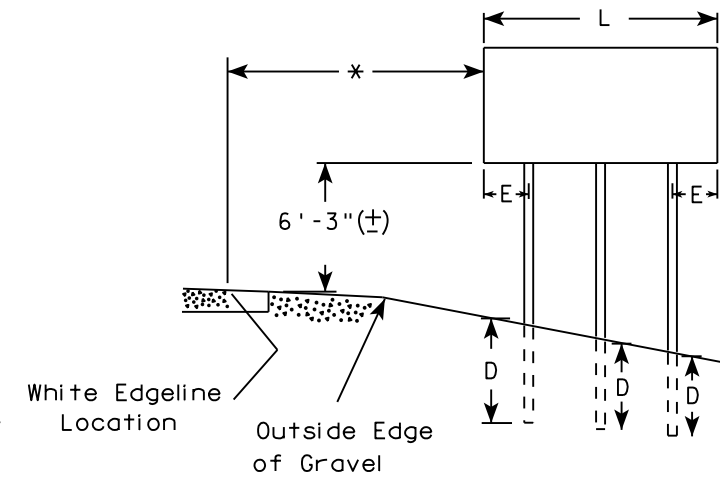
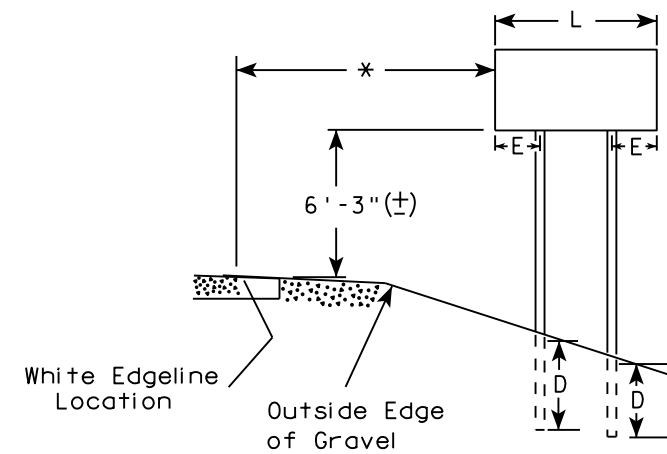
GENERAL NOTES

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" (±).

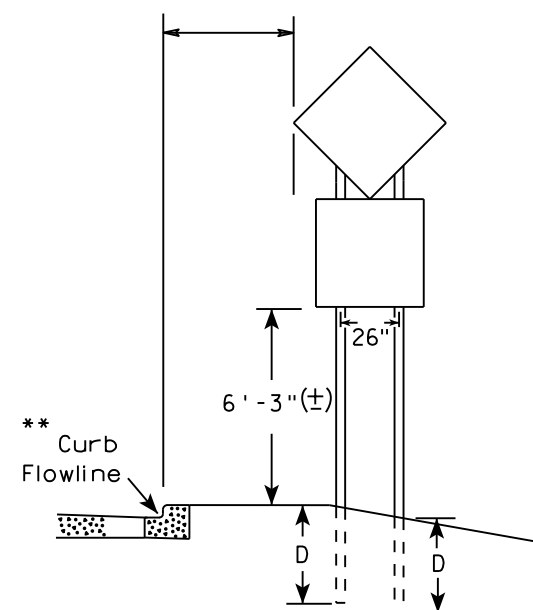
URBAN AREA



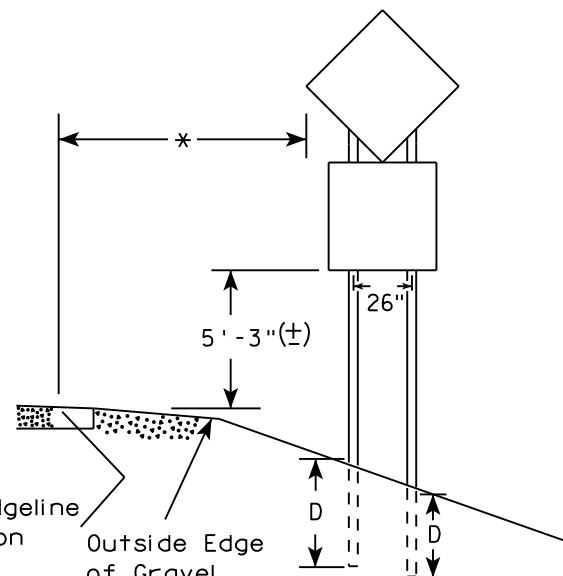
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

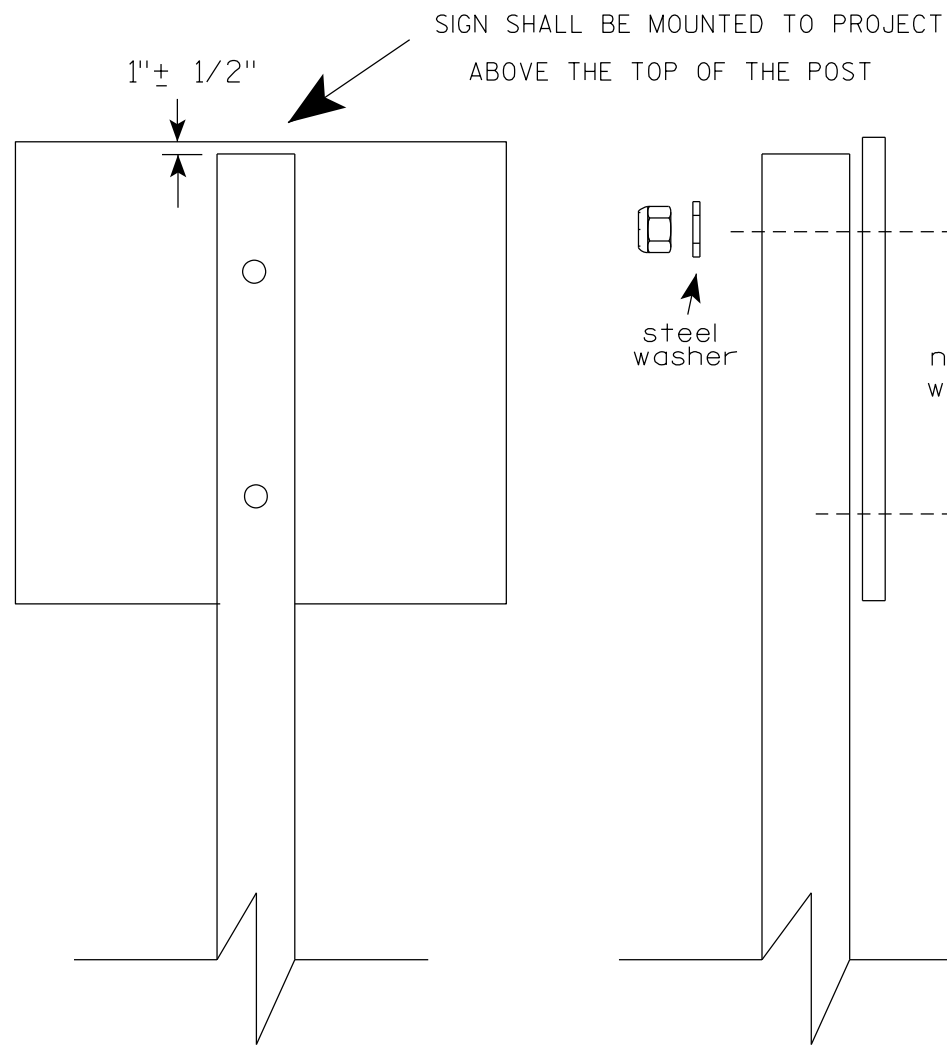
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



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

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

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

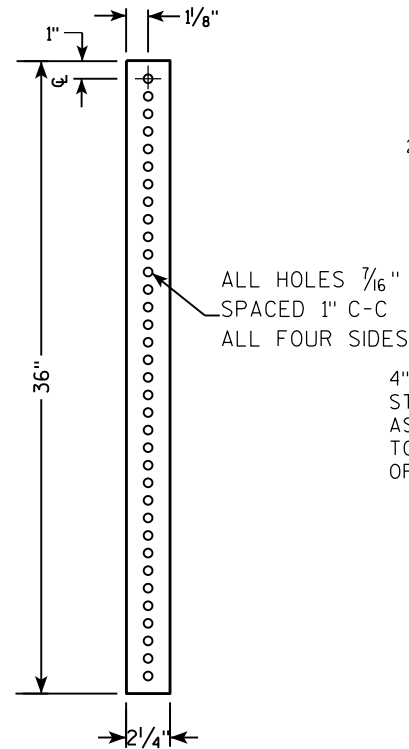
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE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

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

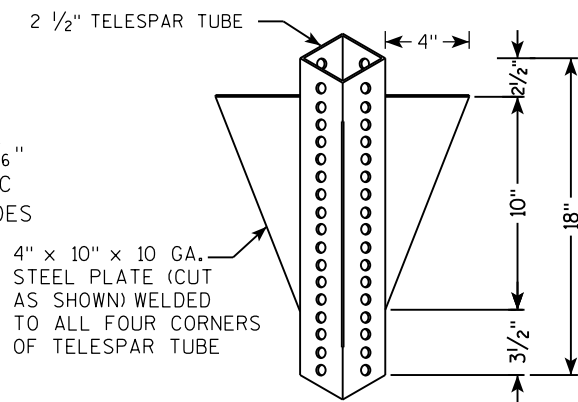
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

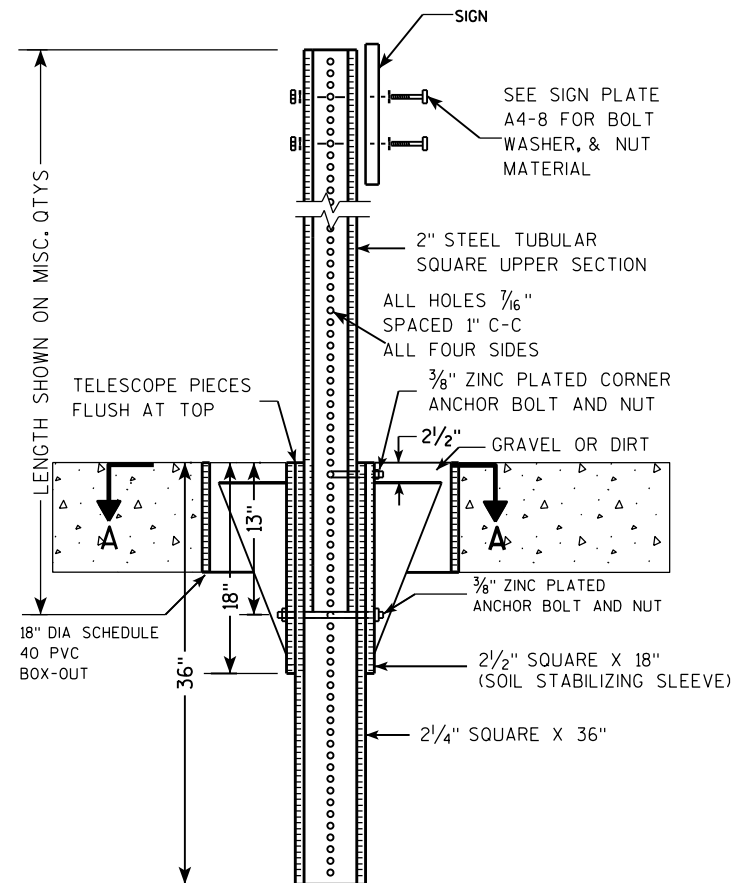
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



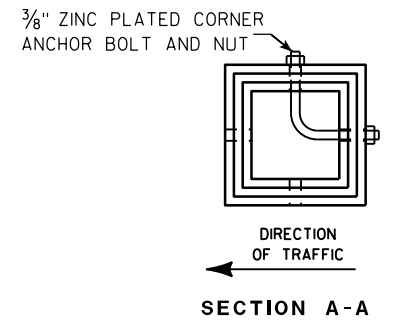
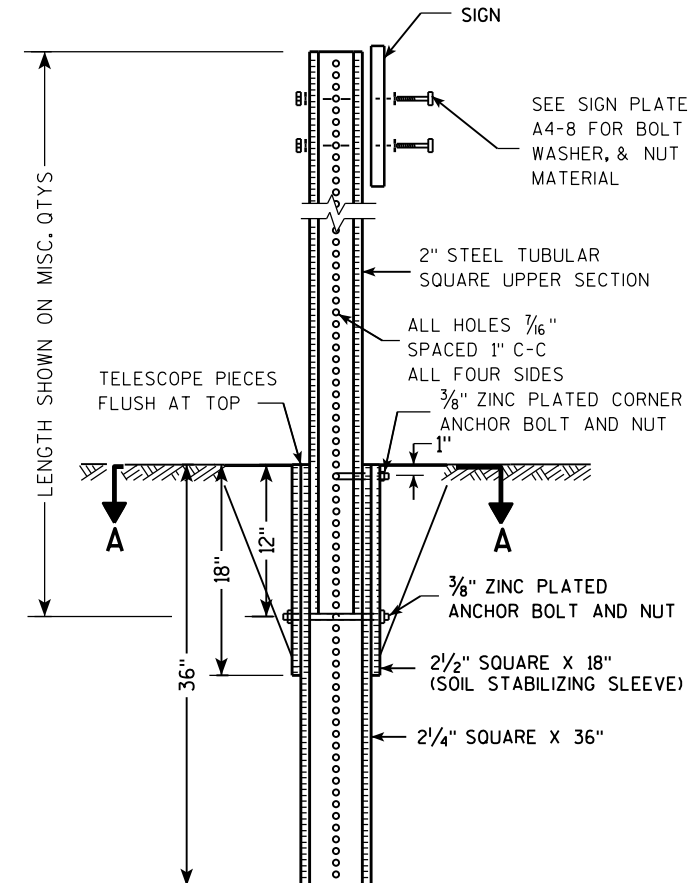
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

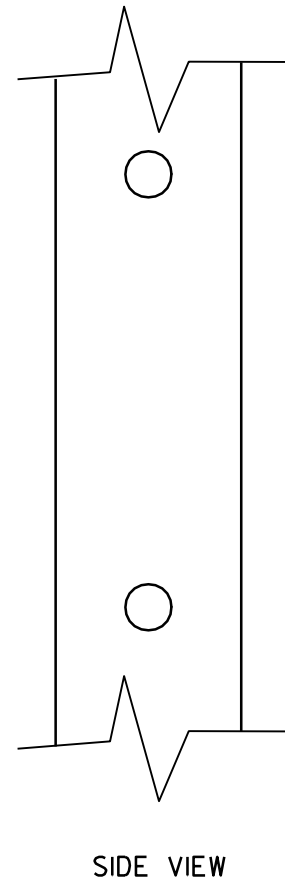
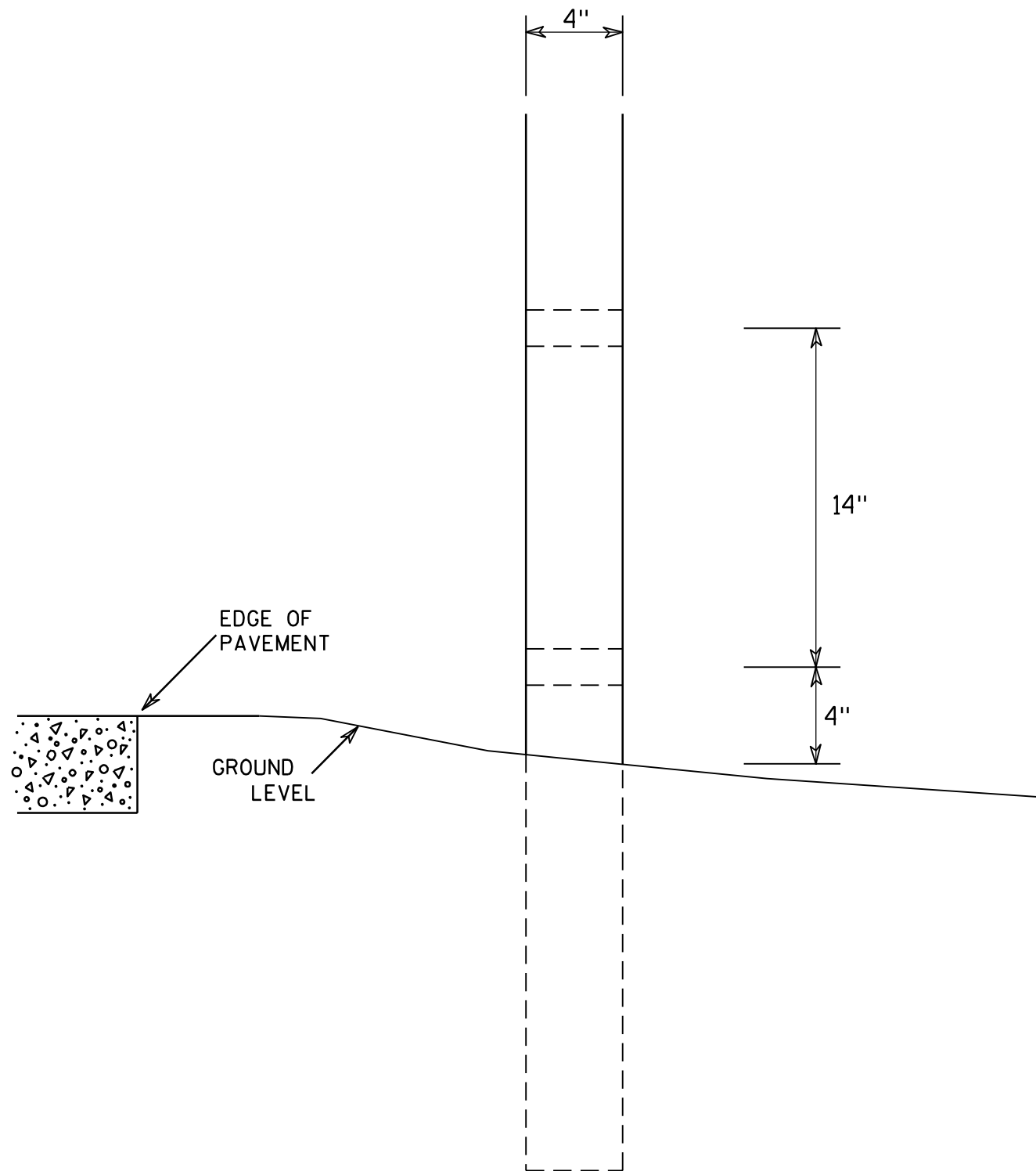
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

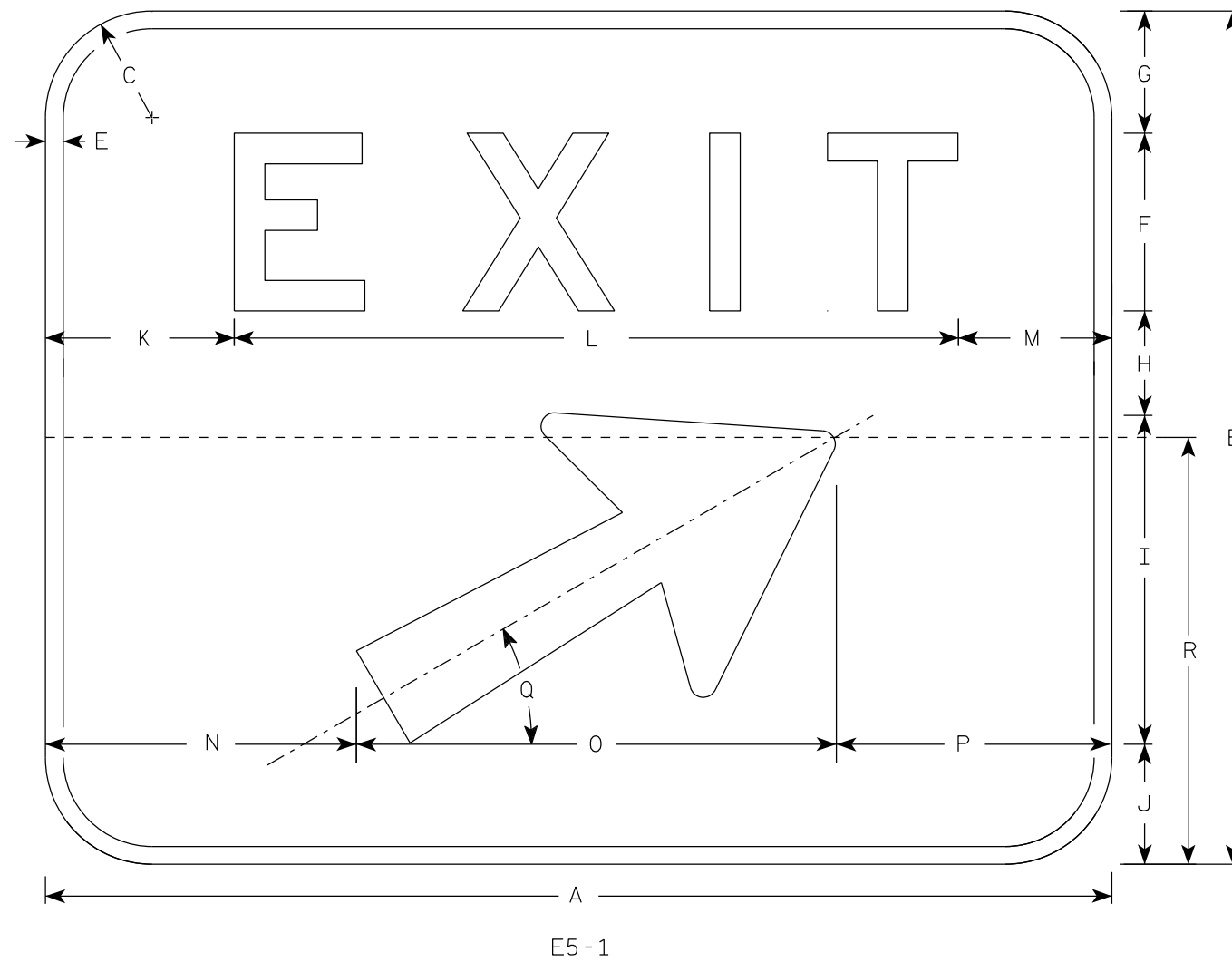
7

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

NOTES

1. Sign is Type II - Type H reflective
2. Color:
Background - Green
Message - White
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. When Base material for this sign is plywood sign shall be split into two separate pieces for the 72 x 60 size as shown on the detail by the dashed line (-----).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.
8. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	48	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

STANDARD SIGN
E5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

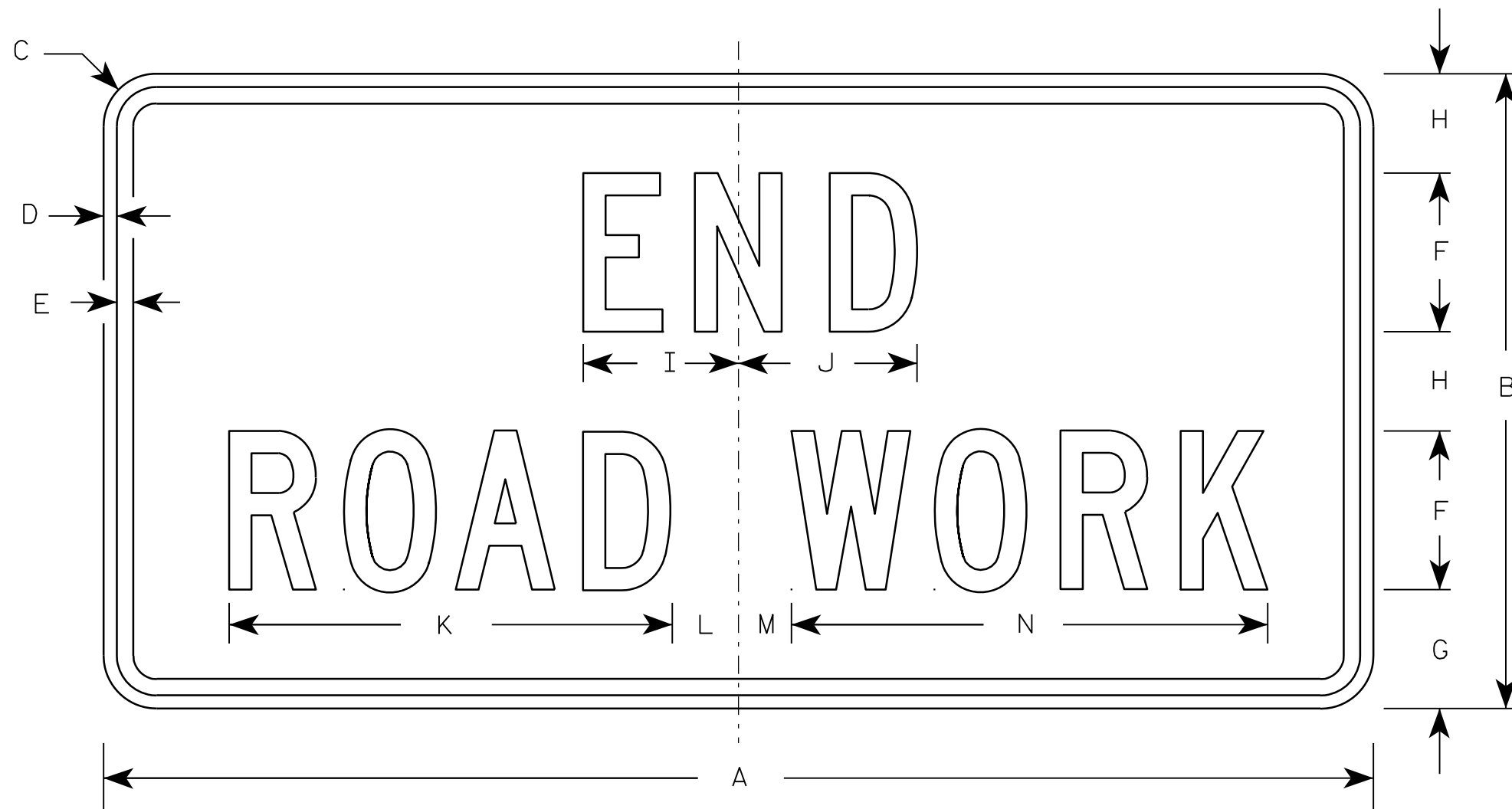
DATE 7/26/18 PLATE NO. E5-1.10

7

7

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.



G20-2A

7

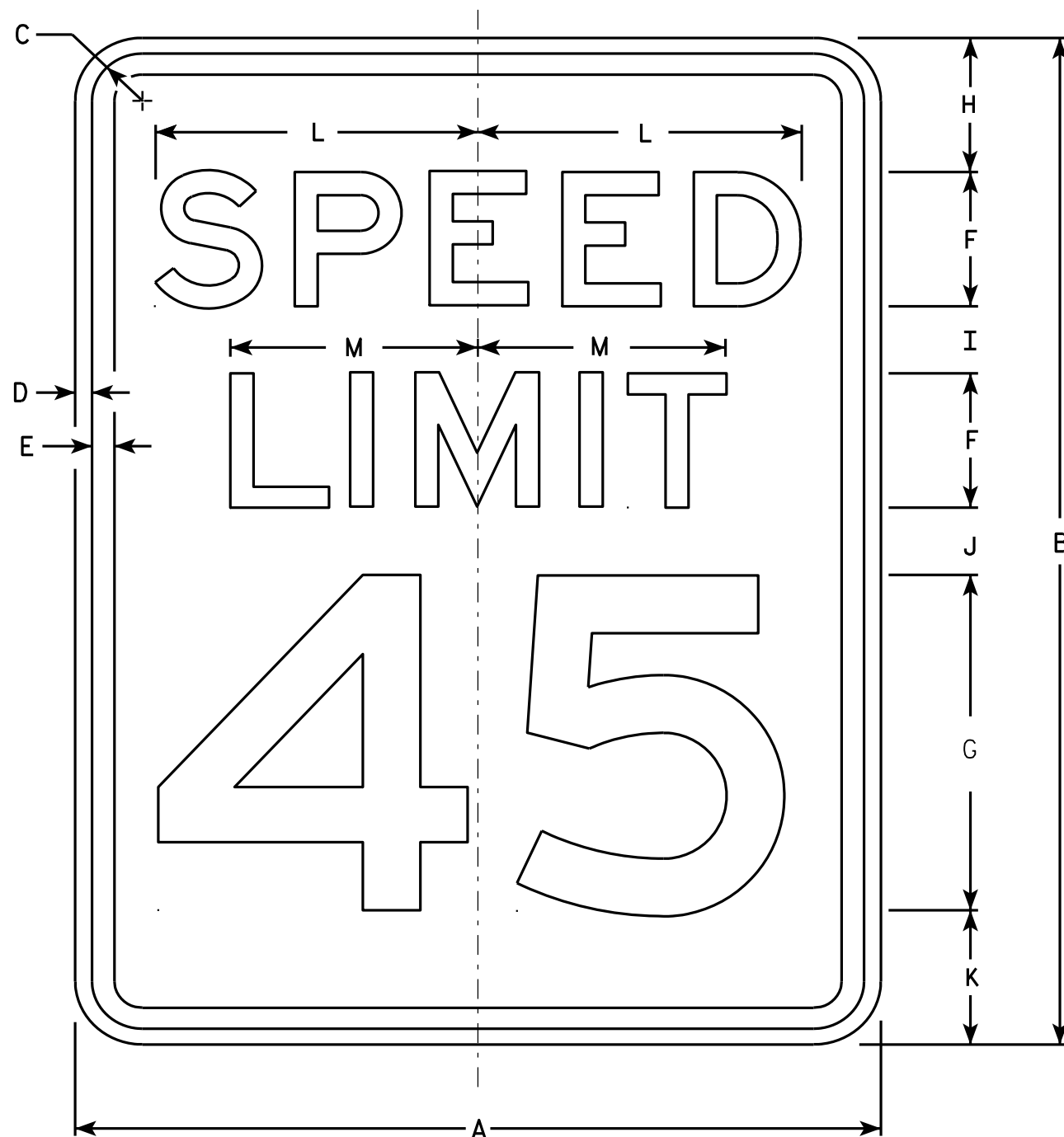
7

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 sq. m
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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8



R2-1

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.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

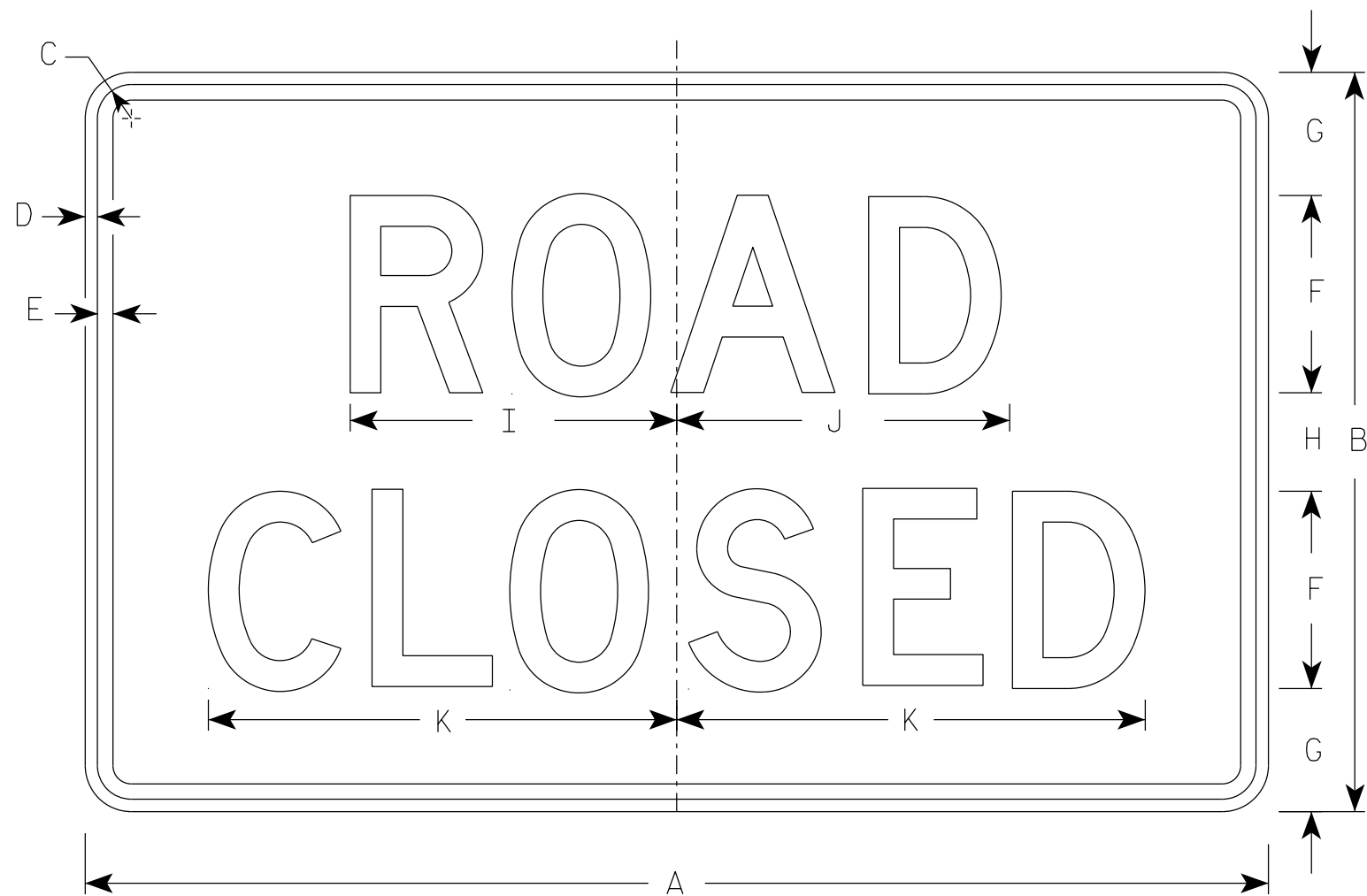
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

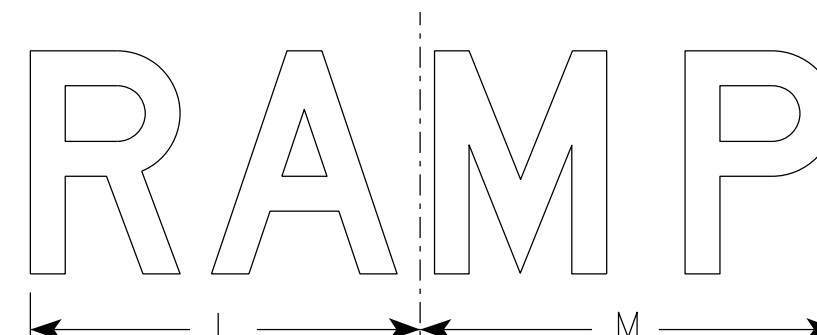
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

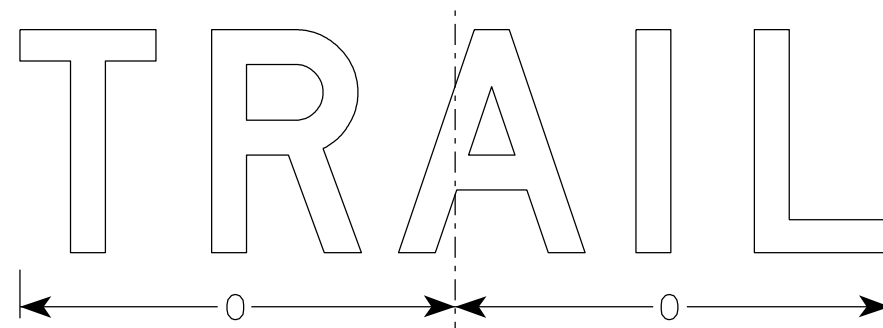
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



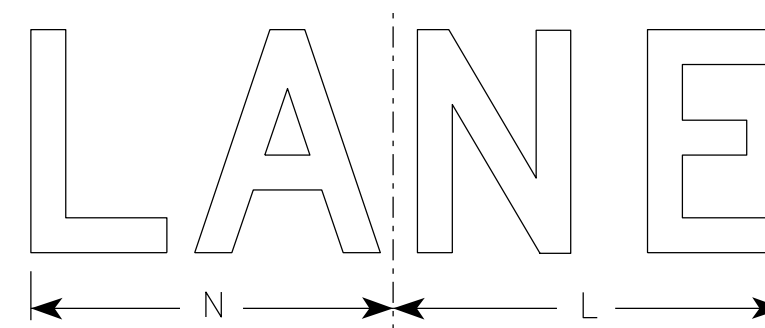
R11-2



R11-2R



R11-2T



R11-2L

NOTES

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

7

7

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

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

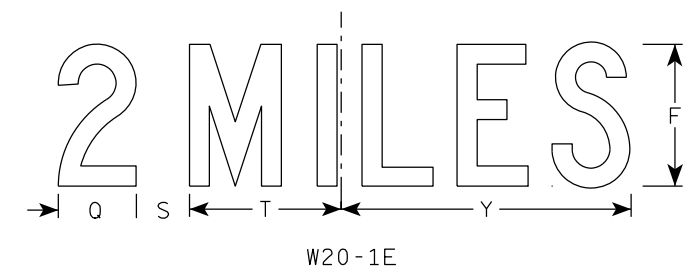
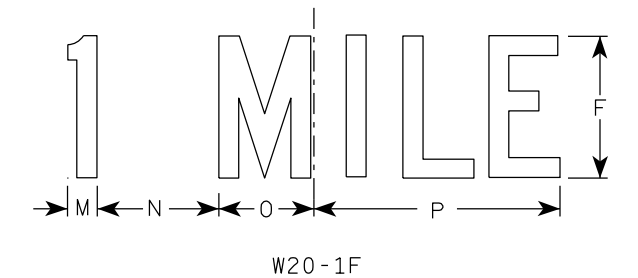
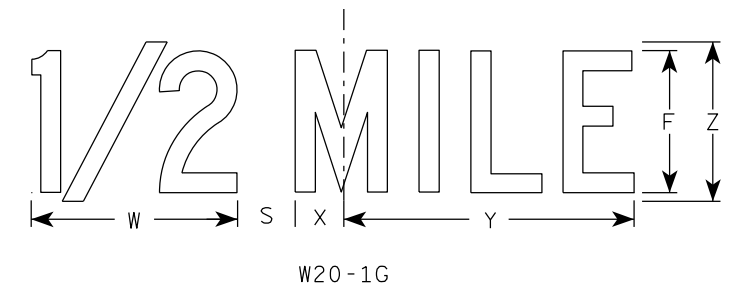
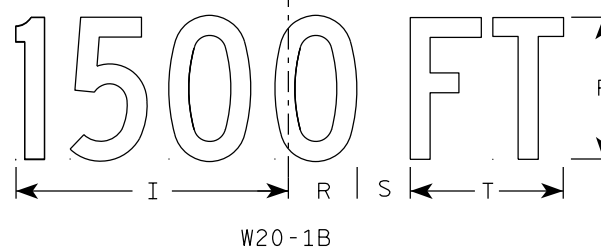
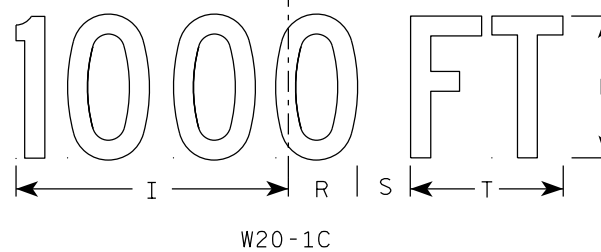
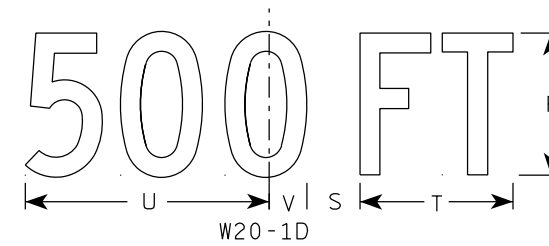
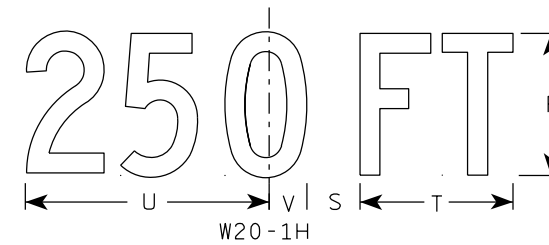
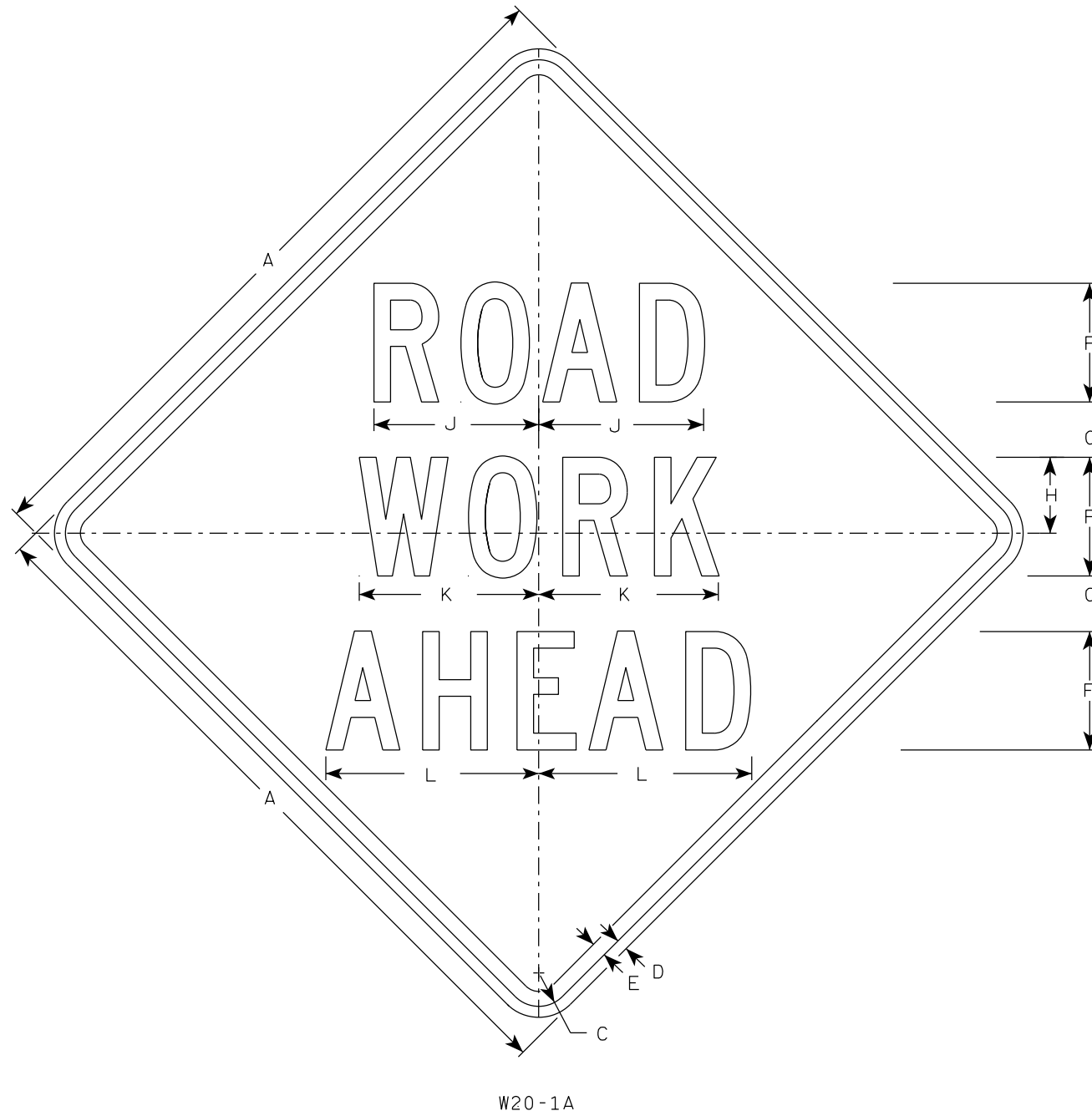
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

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

NOTES

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



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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

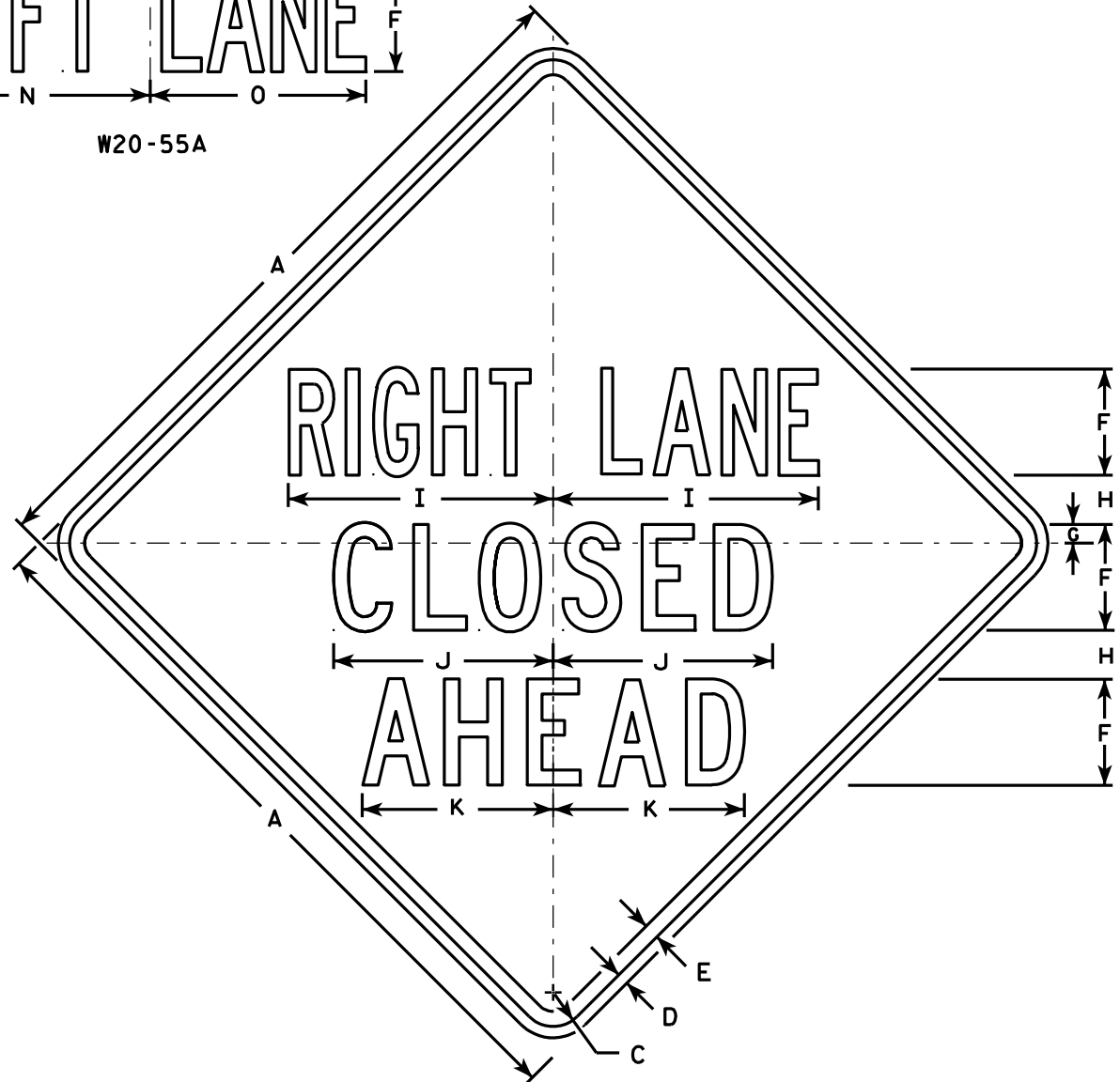
DATE 3/25/2020 PLATE NO. W20-1.11

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

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.

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

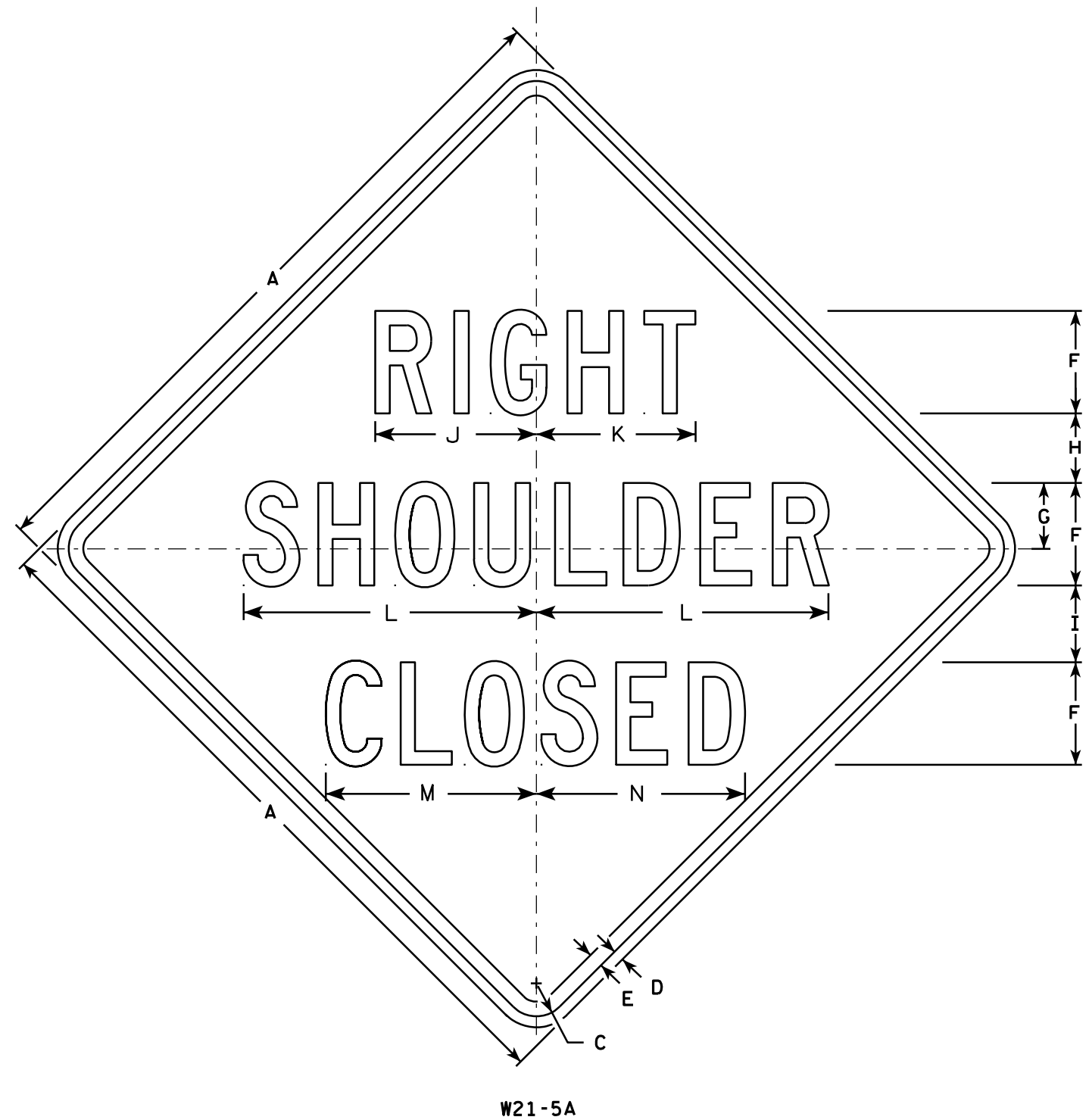
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

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

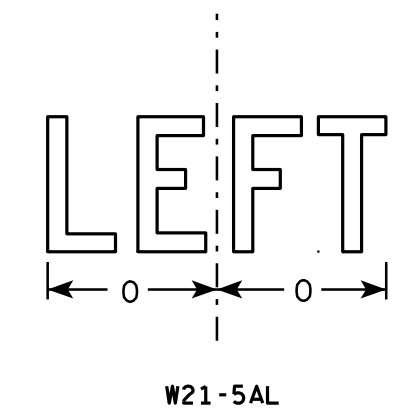
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W21-5A

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 - 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.



W21-5AL

7

7

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

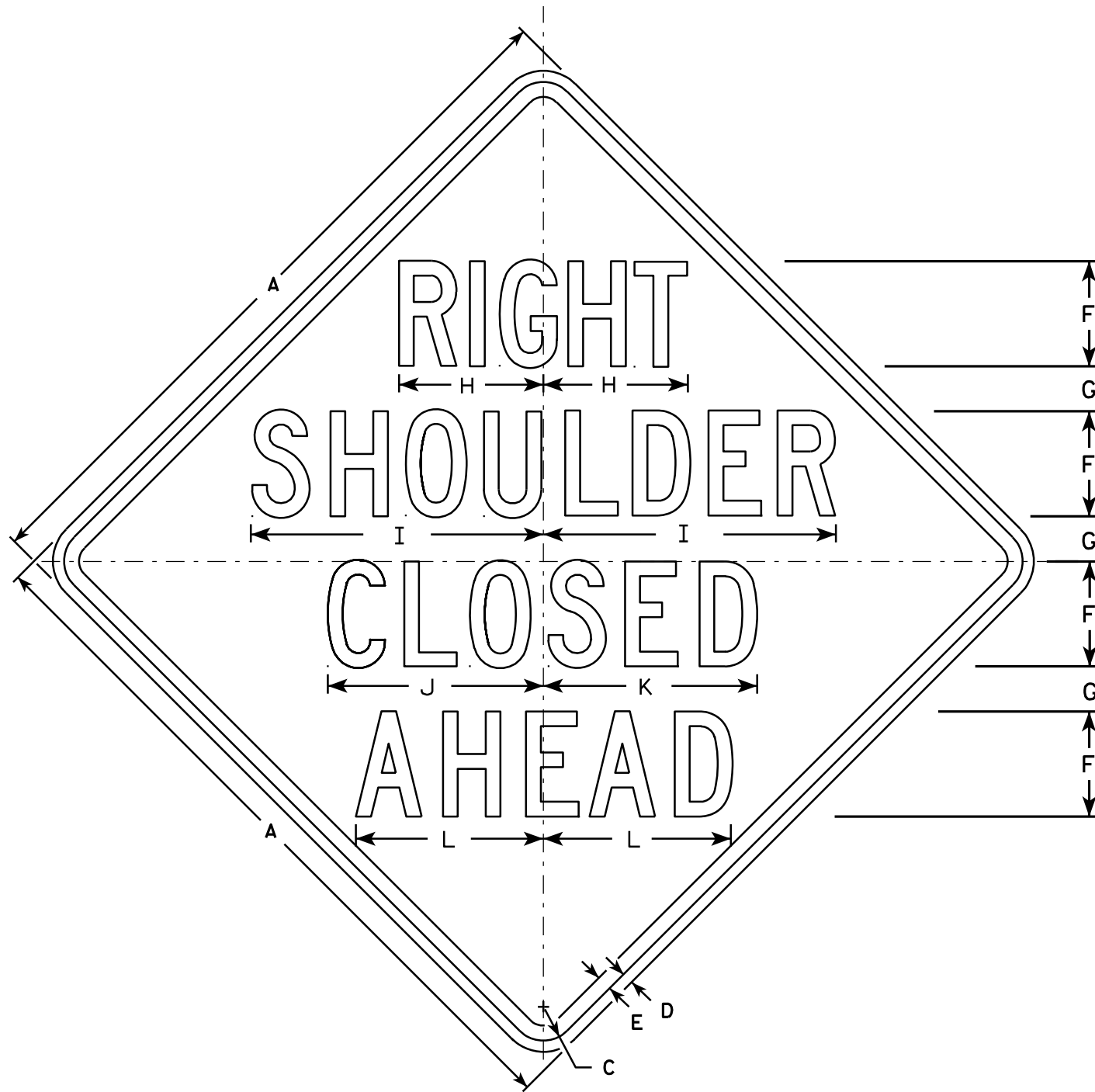
STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5A.3

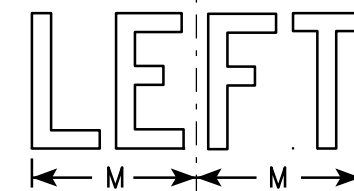
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**



W21-5B

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.



W21-5BL

7

7

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

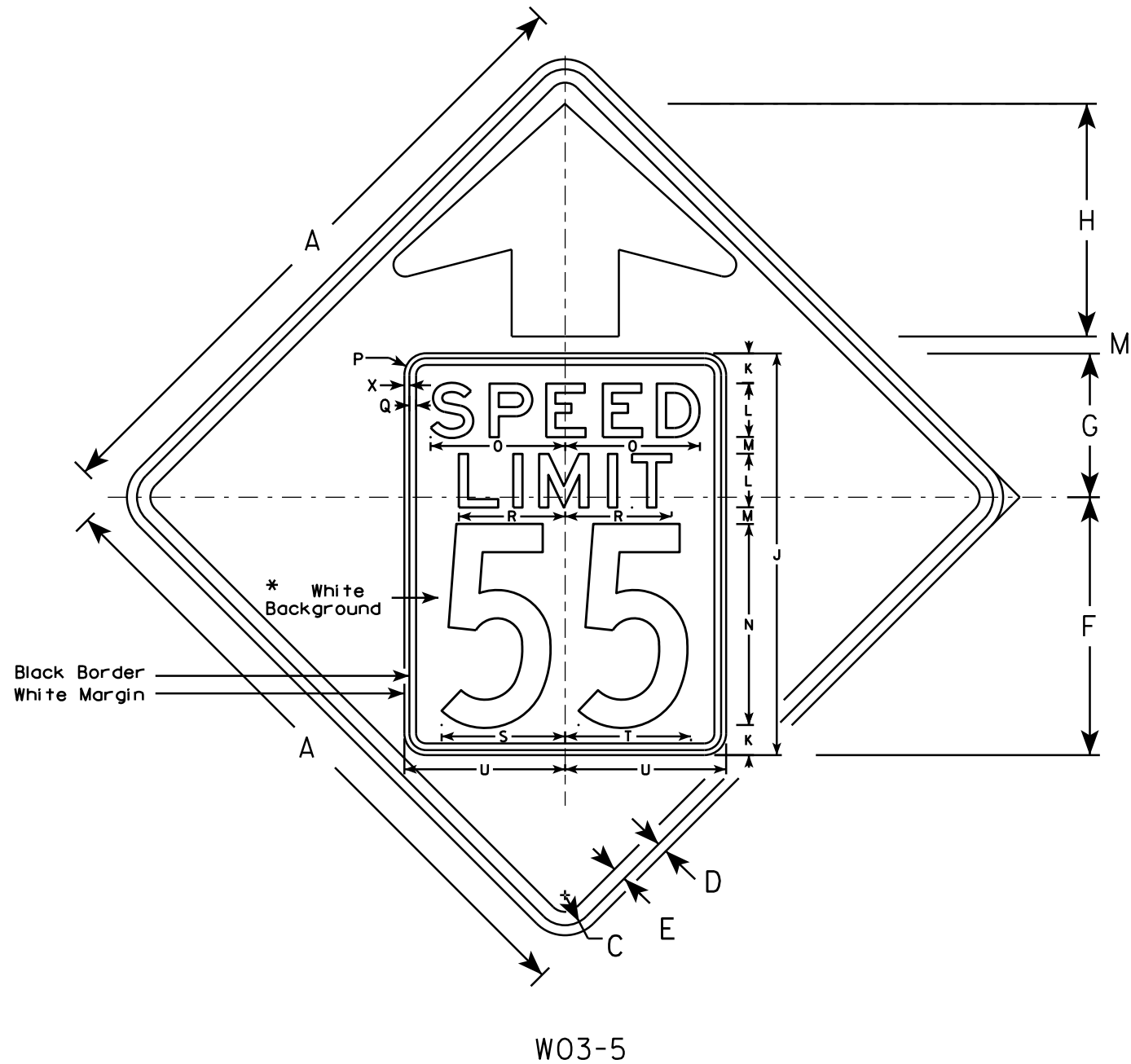
STANDARD SIGN
W21-5B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5B.3

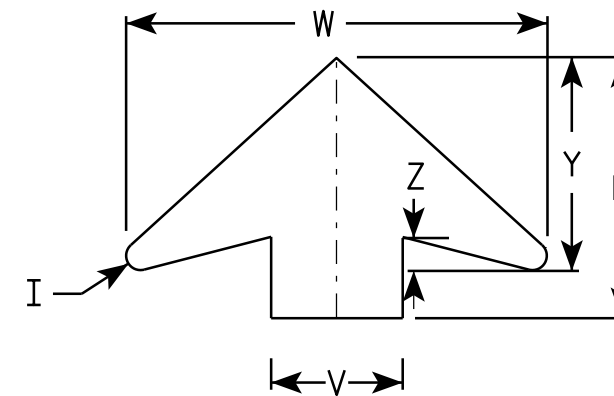
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



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 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

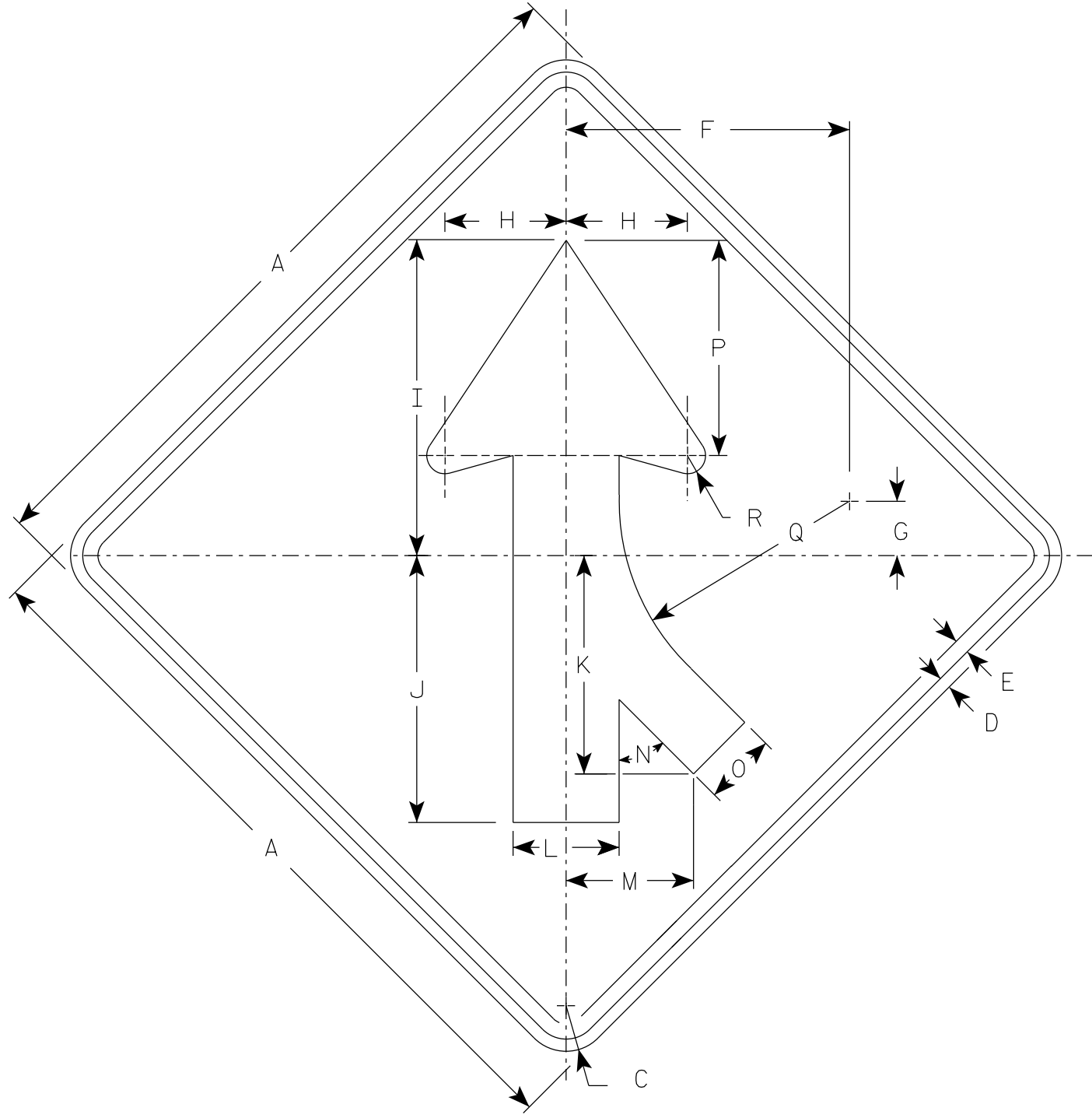
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13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

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



W04-1R

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.
4. W04-1L is the same as W04-1R except the arrow is reversed along the vertical centerline.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

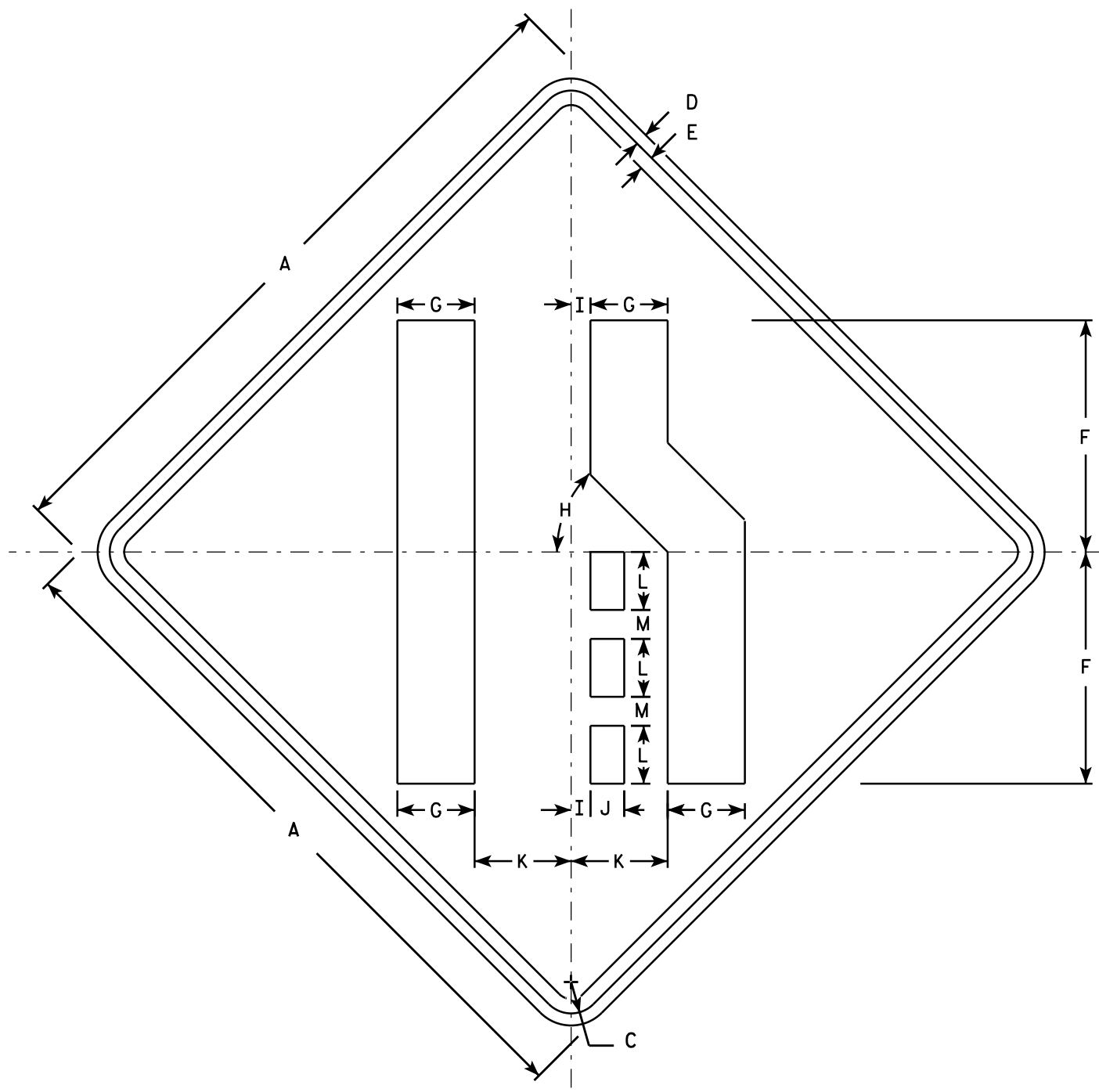
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/31/2021 PLATE NO. W04-1.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ 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 symbols is reversed along the vertical centerline.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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

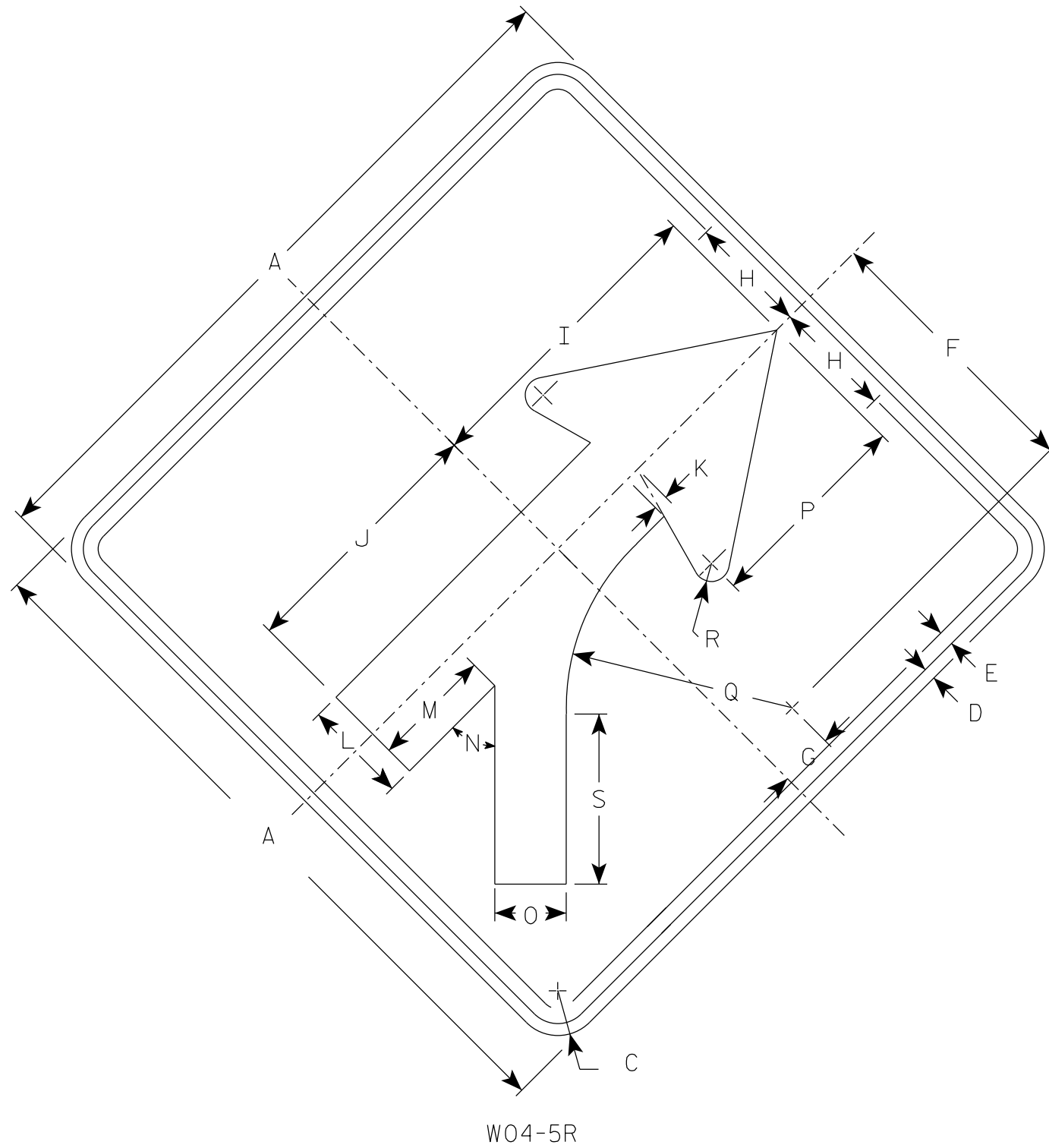
WISCONSIN DEPT OF TRANSPORTATION

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
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. W04-5L is the same as W04-5R except the arrow 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	14	2 3/4	6	15 3/4	13 1/4	3/4	5 1/4	6 1/8	45°	3 5/8	10 5/8	11 3/8	7/8	8 1/2								9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0

STANDARD SIGN
W04-5

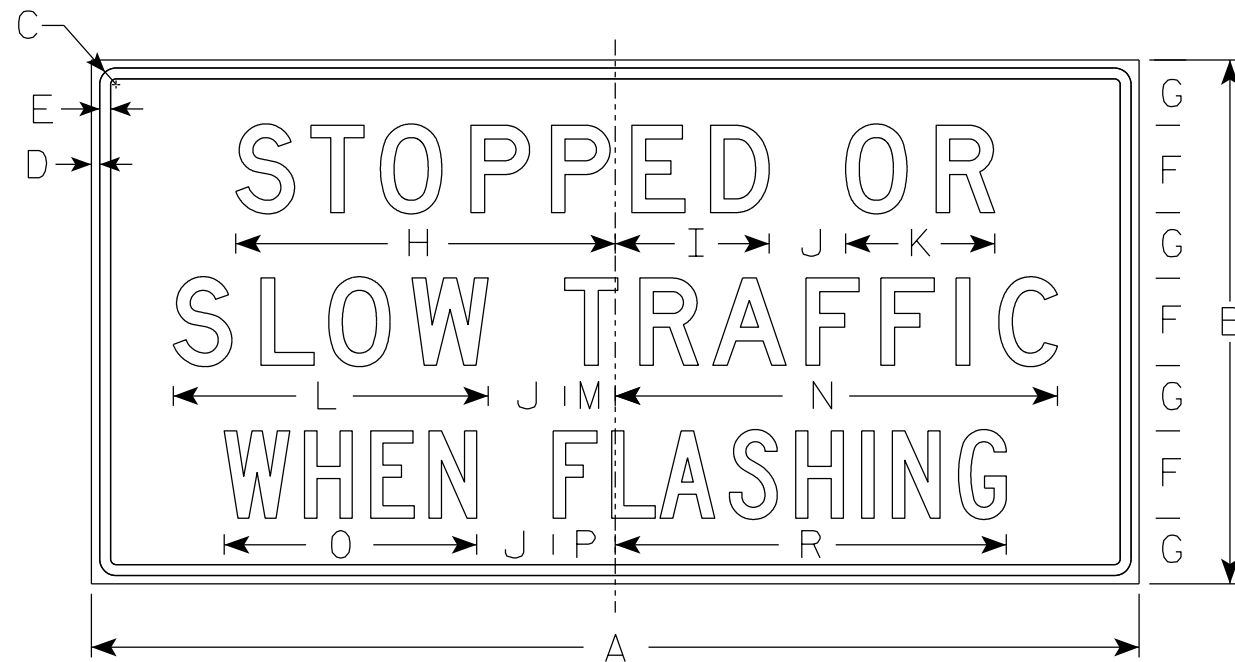
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 12/06/2021 PLATE NO. W04-5.2

NOTES

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



W08-76

7

7

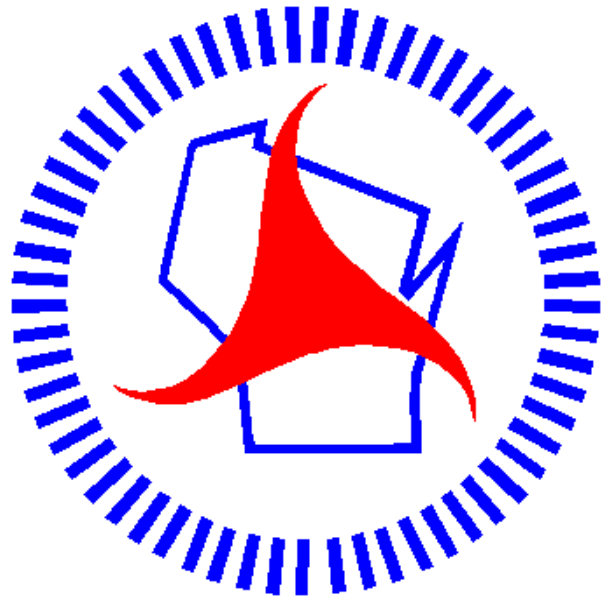
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	96	48	2 1/4	3/4	1	8	6	34 3/4	14 1/8	7	13 5/8	28 7/8	4 5/8	40 1/2	23 1/8	5 3/4		35 7/8									32.0
5																											

STANDARD SIGN
W08-76

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 4/8/2021 PLATE NO. W08-76.2

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



Wisconsin Department of Transportation

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