

MAD  
PROJECT ID:  
WITH: N/A

5170-05-60

COUNTY:

CRAWFORD

JANUARY 2022

ORDER OF SHEETS

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

TOTAL SHEETS = 30



PROJECT LOCATION

DESIGN DESIGNATION

A.A.D.T.	2022	=	2780
A.A.D.T.	2042	=	3300
D.H.V.		=	386
D.D.		=	60/40
T.		=	10.6%
DESIGN SPEED		=	55 MPH
ESALS		=	680,000

CONVENTIONAL SYMBOLS

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

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

ROCK	
LABEL	
SCALE	

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

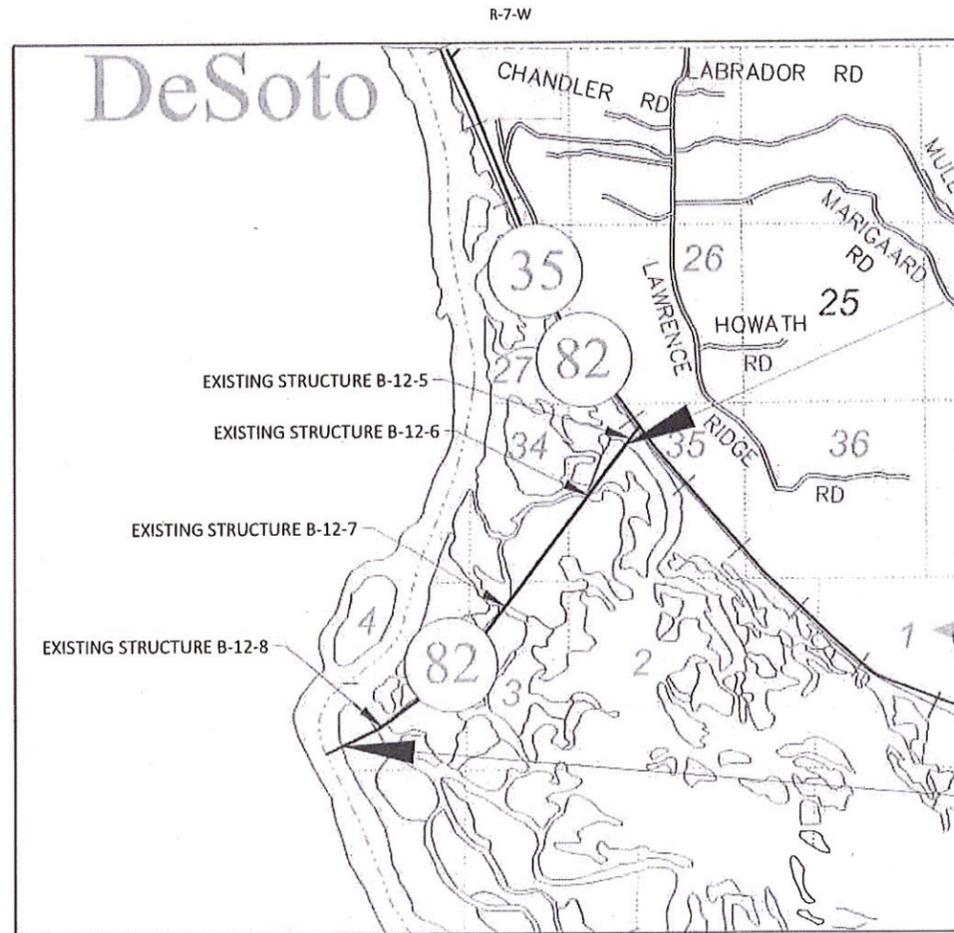
### LANSING - DE SOTO

IOWA STATE LINE TO STH 35

STH 82

CRAWFORD COUNTY

STATE PROJECT NUMBER  
5170-05-60



END PROJECT  
STA 135+82.92  
Y = 245,571.29  
X = 308,636.59

T-11-N  
T-10-N

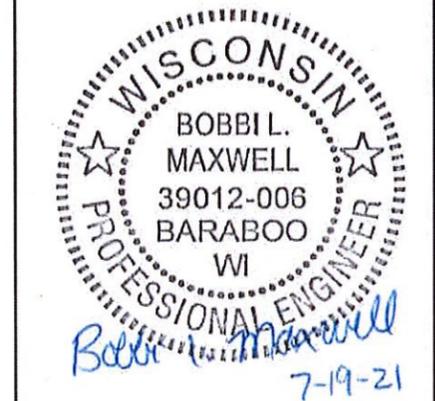
BEGIN PROJECT  
STA 16+01.24  
Y = 236,939.15  
X = 300,542.76

LAYOUT  
SCALE 0 1 MI  
TOTAL NET LENGTH OF CENTERLINE = 2.269 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), CRAWFORD COUNTY NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5170-05-60	WISC 2022113	1

ORIGINAL PLANS PREPARED BY  
**MSA**  
1230 SOUTH BOULEVARD, BARABOO, WI 53913  
(608) 356-2771 www.msa-ps.com



STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	EMMANUEL YARTEY, P.E.
Regional Examiner	SW REGION
Regional Supervisor	KIM SCHAUDER, P.E.

APPROVED FOR THE DEPARTMENT  
DATE: 7/19/21

E

GENERAL NOTES

MISCELLANEOUS

THERE ARE NO KNOWN UTILITY FACILITIES WITHIN THE PROJECT AREA. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THIS.

ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OPERATIONS REQUIRE THEM TO BE REMOVED/MOVED OR UNLESS THE ENGINEER APPROVES THEM TO BE REMOVED/MOVED.

REMOVALS

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

GRADING AND EROSION CONTROL

DO NOT STORE EQUIPMENT OR MATERIALS IN, NOR IMPACT ANY WETLANDS OR WATERWAYS OUTSIDE THE SLOPE INTERCEPTS SHOWN.

PAVING

CURVE DATA BASED ON ARC DEFINITION.

HMA WEIGHT CALCULATIONS BASED ON 113 LBS/SY/IN.

APPLY TACK COAT A RATE OF 0.07 GAL/SY TO MILLED SURFACES.

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

UNLESS OTHERWISE SHOWN ON THE PLAN, SAWCUT ALL MATCHING DRIVEWAYS AND STREETS. COST OF CUTTING IS TO BE PAID FOR UNDER "SAWING ASPHALT" FOR ASPHALT PAVEMENT OR "SAWING CONCRETE" FOR CONCRETE PAVEMENT.

SECTION 2 ORDER OF SHEETS

1. GENERAL NOTES
2. PROJECT OVERVIEW
3. EXISTING TYPICAL SECTIONS
4. FINISHED TYPICAL SECTIONS
5. CONSTRUCTION DETAILS
6. PLAN DETAILS
7. ALIGNMENT DIAGRAM

ABBREVIATIONS

AC	ACRES	G.V.	GAS VALVE
AC	ASPHALT CEMENT	INV	INVERT
AEW	APRON ENDWALL	IP	IRON PIPE
ASPH	ASPHALT	JCT	JUNCTION
AVG	AVERAGE	LHF	LEFT HAND FORWARD
ADT	AVERAGE DAILY TRAFFIC	L	LENGTH
BAD	BASE AGGREGATE DENSE	LS	LUMP SUM
BM	BENCHMARK	NC	NORMAL CROWN
CL	CENTERLINE	N	NORTH
CC	CENTER TO CENTER	Y	NORTH GRID COORDINATE
CONC	CONCRETE	PACS	PIPE ARCH CORRUGATED STEEL
CMCP	CORRUGATED METAL CULVERT PIPE	PT	POINT
CPRC	CULVERT PIPE REINFORCED CONCRETE	PC	POINT OF CURVATURE
CSCP	CORRUGATED STEEL CULVERT PIPE	PI	POINT OF INTERSECTION
CSM	CERTIFIED SURVEY MAP	PT	POINT OF TANGENCY
CTH	COUNTY TRUNK HIGHWAY	PL	PROPERTY LINE
CULV	CULVERT	PE	PRIVATE ENTRANCE
CP	CULVERT PIPE	R	RADIUS
C&G	CURB & GUTTER	REQ'D	REQUIRED
D	DEGREE OF CURVE	R/W	RIGHT-OF-WAY
DHV	DESIGN HOURLY VOLUME	RHF	RIGHT HAND FORWARD
DIA	DIAMETER	SALV	SALVAGED
DWY	DRIVEWAY	SHLDR	SHOULDER
E	EAST	SDD	STANDARD DETAIL DRAWING
X	EAST GRID COORDINATE	STA	STATION
ELEV	ELEVATION	SE	SUPERELEVATION
EW	ENDWALL	TAN	TANGENT
ENT	ENTRANCE	TLE	TEMPORARY LIMITED EASEMENT
ESALS	EQUIVALENT SINGLE AXLE LOADS	T	TRUCKS
EXC	EXCAVATION	TYP	TYPICAL
EBS	EXCAVATION BELOW SUBGRADE	VERT	VERTICAL
EXIST	EXISTING	VC	VERTICAL CURVE
FF	FACE TO FACE	VOL	VOLUME
FERT	FERTILIZER	WV	WATER VALVE
FE	FIELD ENTRANCE	W	WELL
FG	FINISHED GRADE		
FT	FOOT		

UTILITIES

NONE

WISDOT DESIGN CONTACT

WISDOT SW REGION  
ATTN: EMMANUEL YARTEY, P.E.  
2101 WRIGHT ST  
MADISON, WI 53704  
OFFICE: (608) 884-7131  
MOBILE: (608) 516-6541  
EMAIL: EMMANUEL.YARTEY@DOT.WI.GOV

MSA DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.  
ATTN: BOBBI MAXWELL, P.E.  
1230 SOUTH BOULEVARD  
BARABOO, WI 53913  
OFFICE: (608) 355-8861  
EMAIL: BMAXWELL@MSA-PS.COM

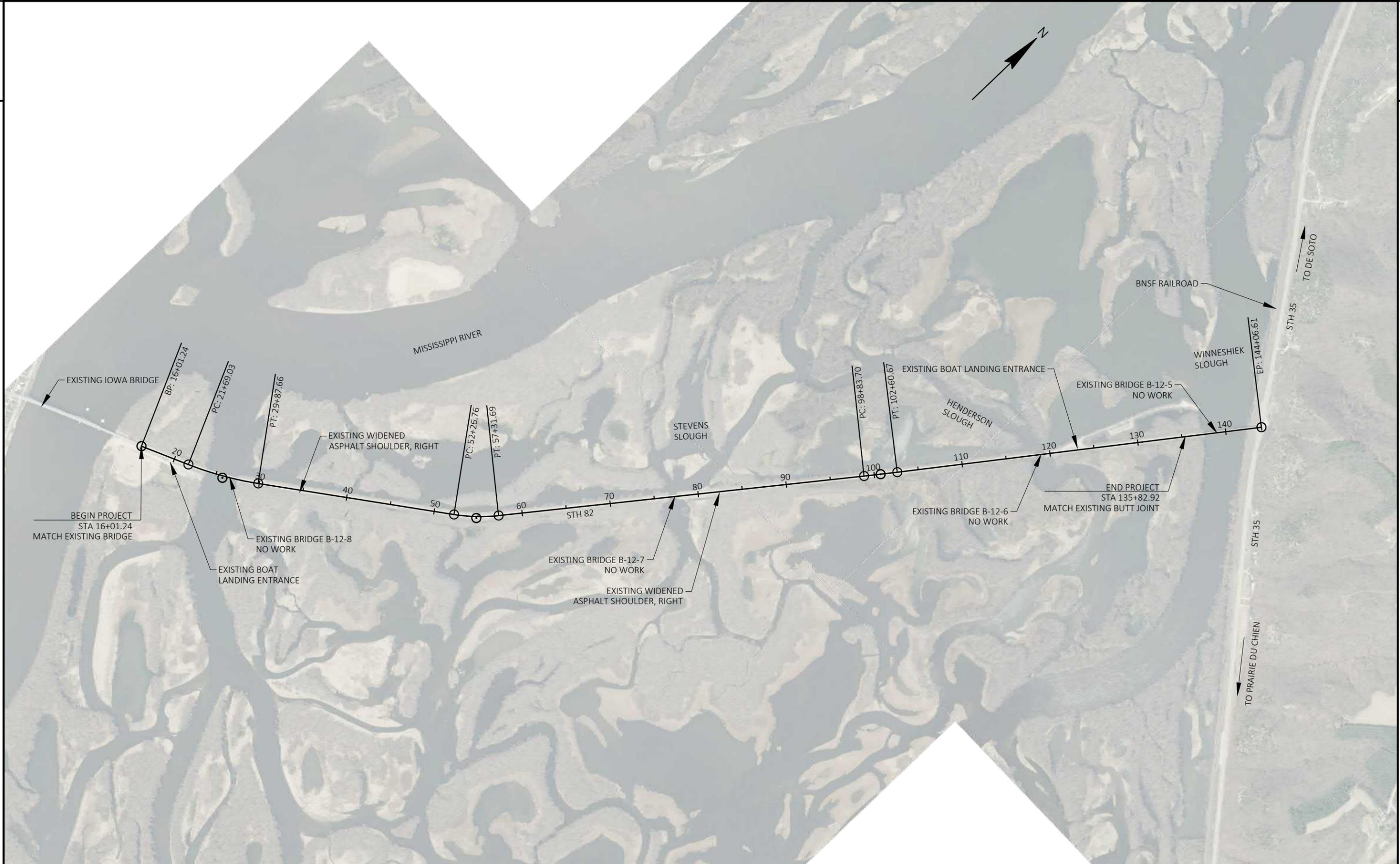
DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
ATTN: KAREN KALVELAGE  
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST  
DNR SERVICE CENTER  
3550 MORMON COULEE ROAD  
LA CROSSE, WI 54601  
OFFICE: (608) 785-9115  
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

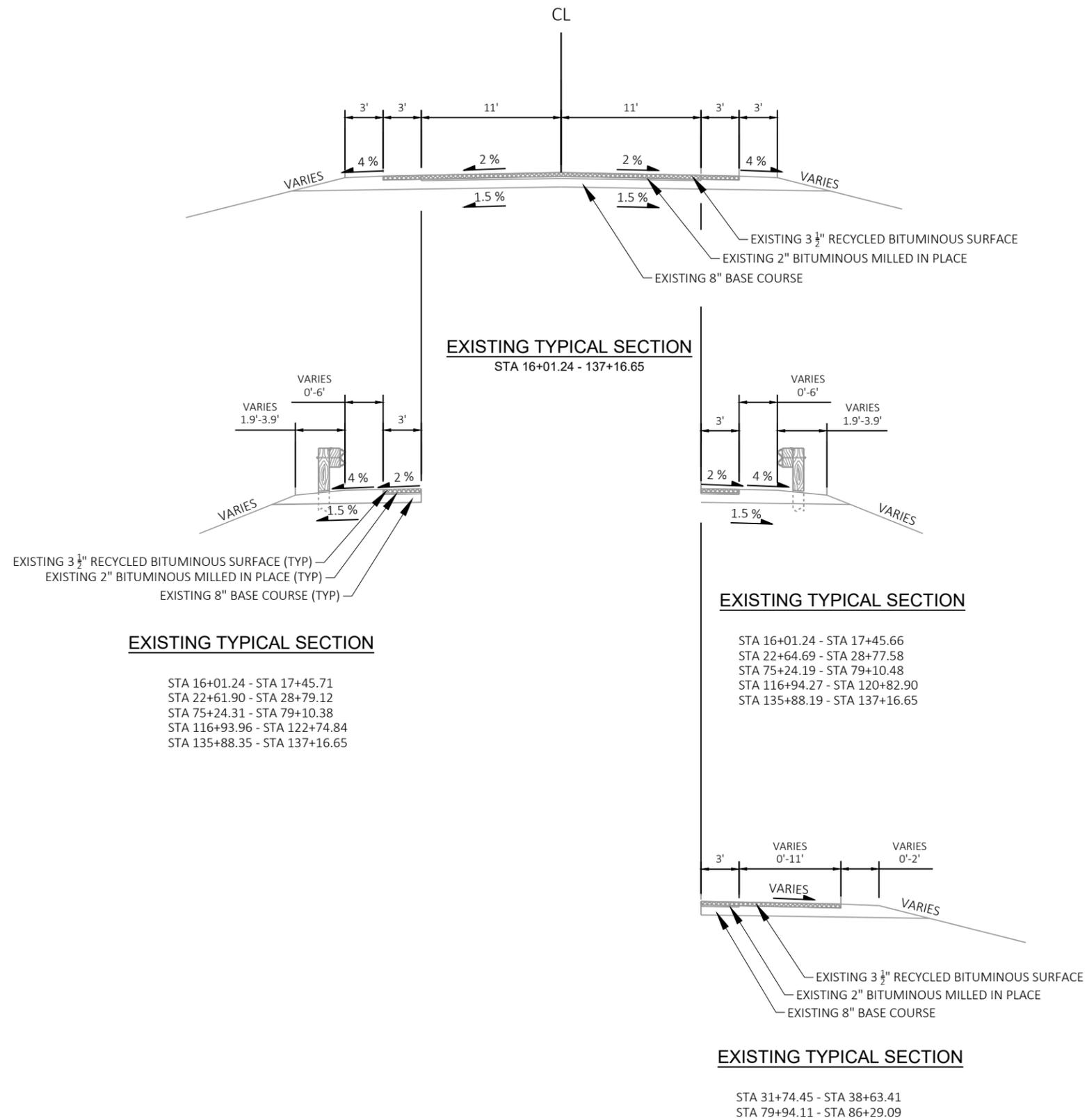


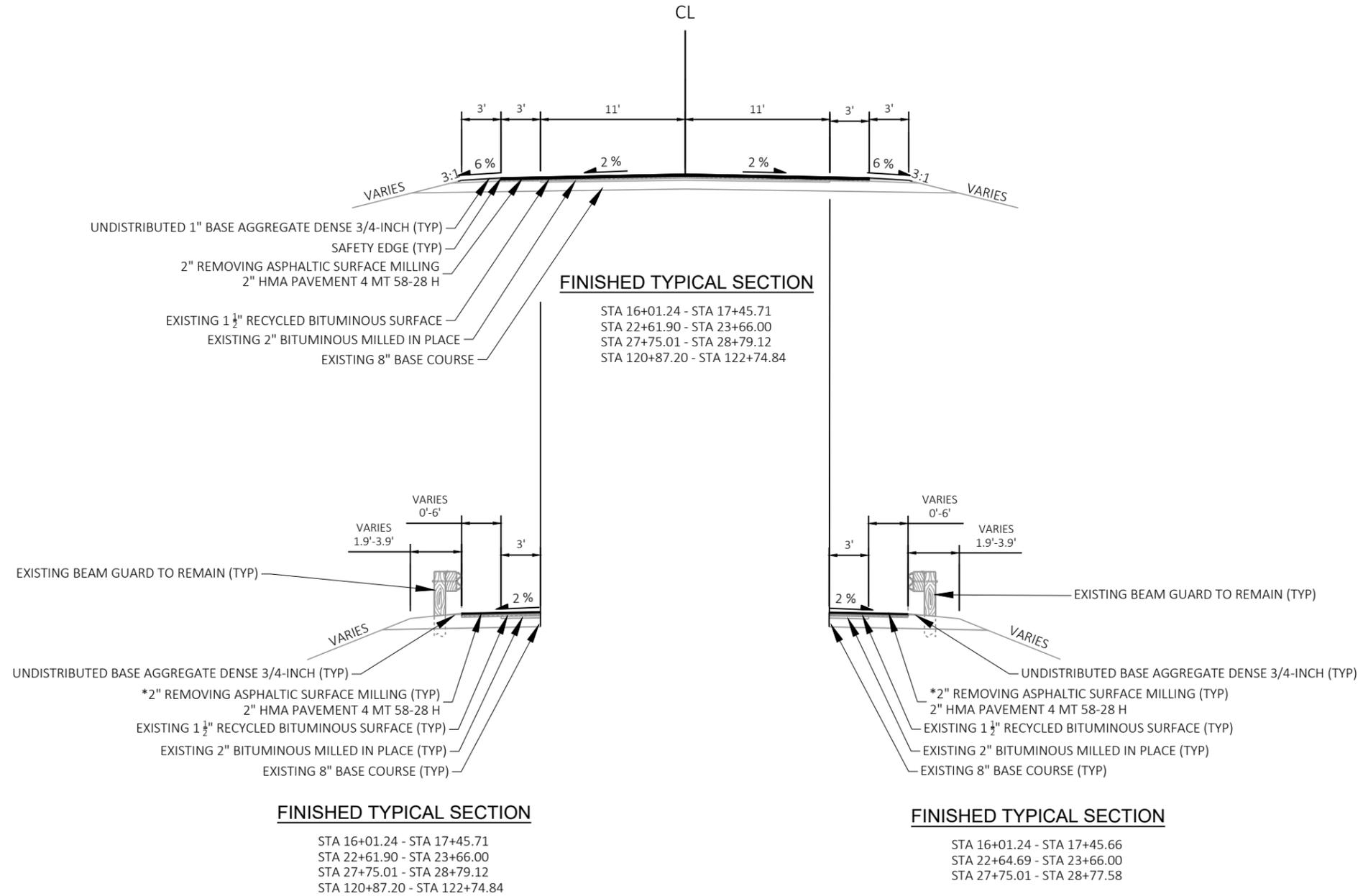
Dial **811** or (800)242-8511

www.DiggersHotline.com



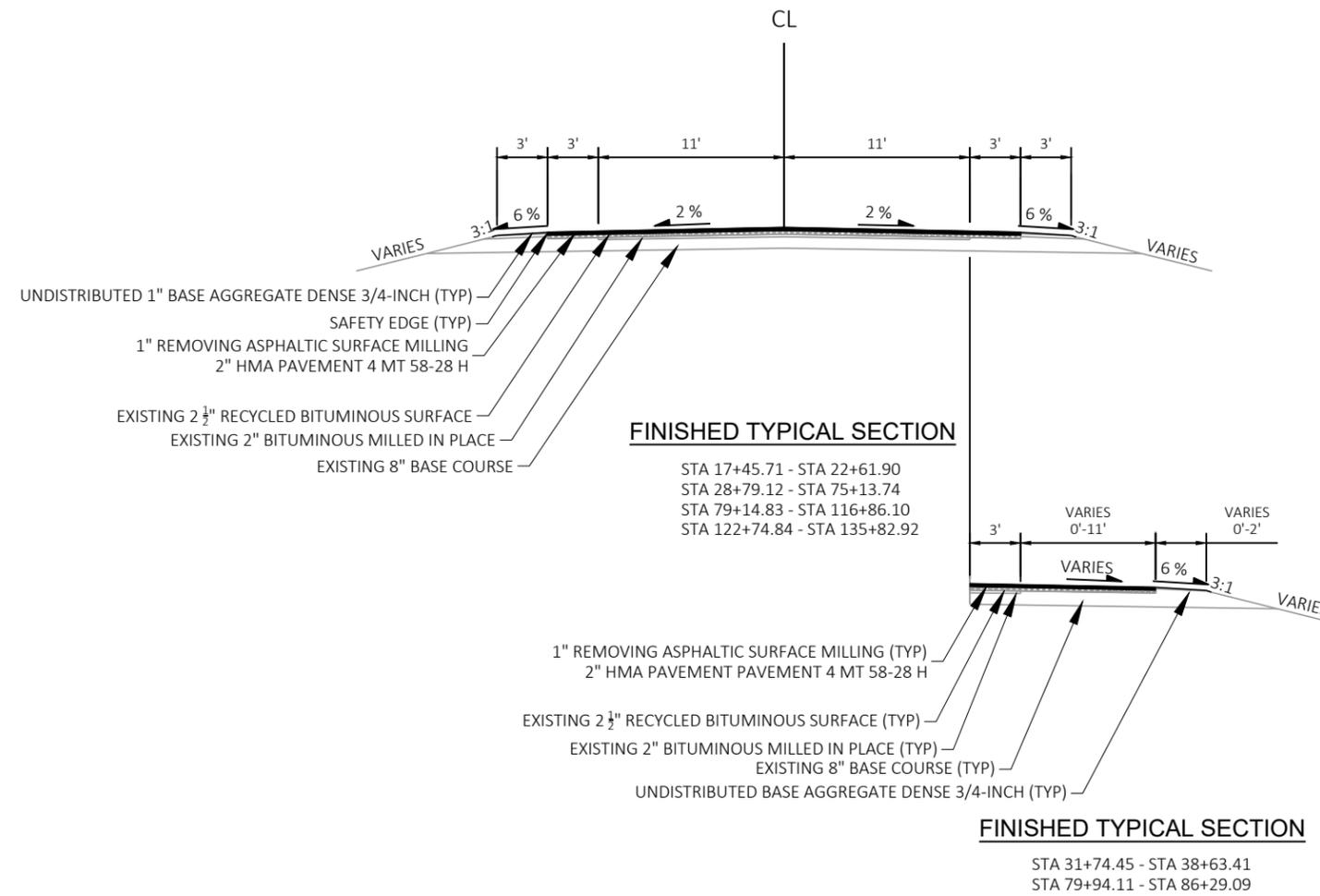
PROJECT NO: 5170-05-60	HWY: STH 82	COUNTY: CRAWFORD	PROJECT OVERVIEW	SHEET <b>E</b>
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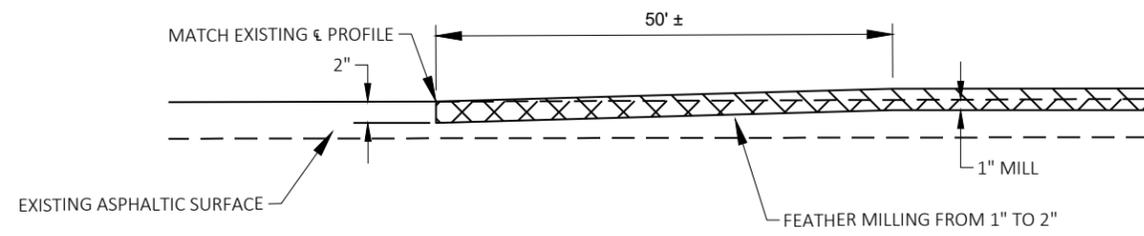




NOTES:

- \* 2" GRAVEL TO BE REMOVED WITH MILLING OPERATIONS IN AREAS WHERE THERE IS NO EXISTING ASPHALT.

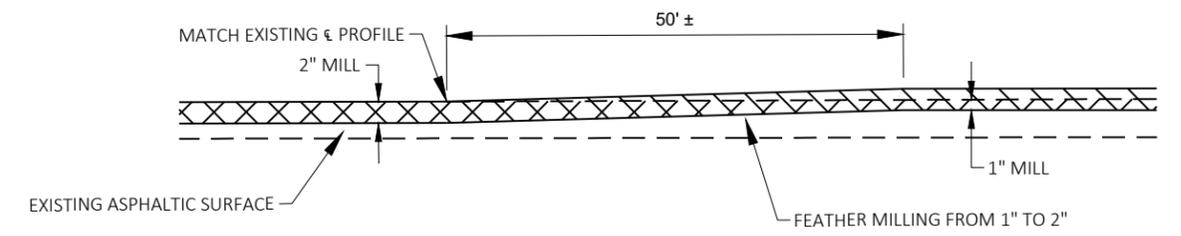




- HMA PAVEMENT 4 MT 58-28 H
- ASPHALTIC SURFACE MILLING

**BUTT JOINT DETAIL**

STA 74+64 - STA 75+14  
 STA 79+15 - STA 79+65  
 STA 116+36 - STA 116+86  
 STA 135+33 - STA 135+83



- HMA PAVEMENT 4 MT 58-28 H
- ASPHALTIC SURFACE MILLING

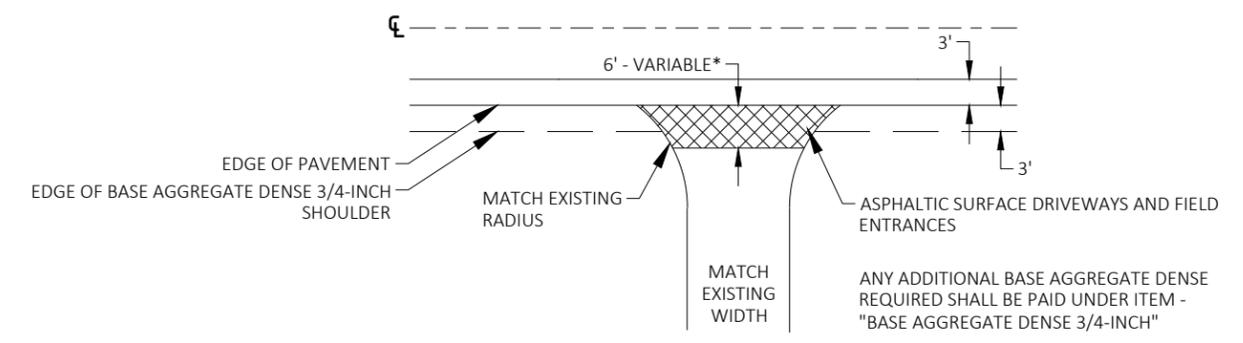
**MILLING TRANSITION DETAIL**

STA 17+46 - STA 17+96  
 STA 22+11 - STA 22+61 (REVERSED)  
 STA 28+79 - STA 29+29  
 STA 122+75 - STA 123+00

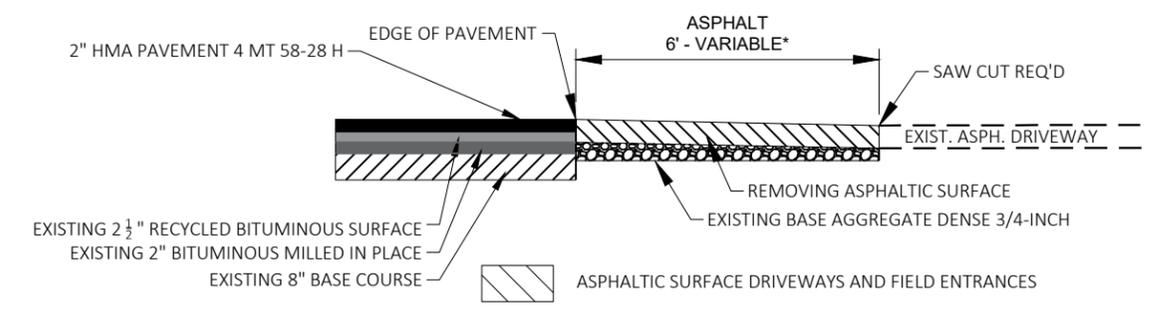
**RUNOFF COEFFICIENT TABLE**

	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									
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.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 = 18.35 ACRES  
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.00 ACRES



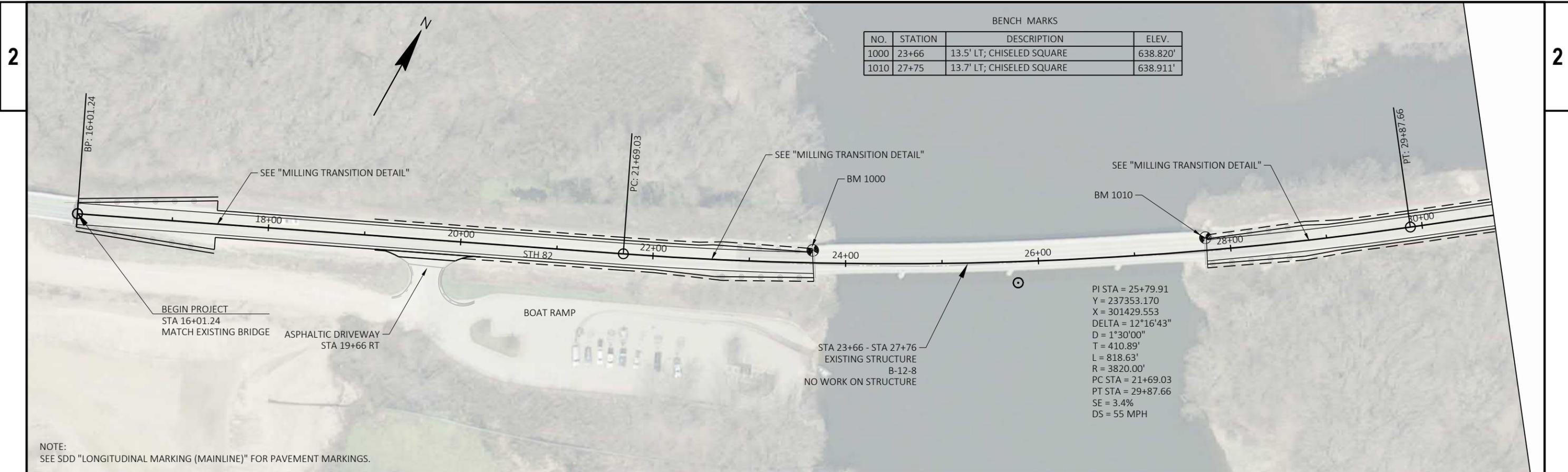
**PLAN VIEW**



**ELEVATION VIEW**

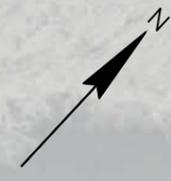
**ASPHALTIC DRIVEWAY DETAIL**

\* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD  
 STA 19+66 RT  
 STA 123+18 LT



MATCH LINE 45+49.88

MATCH LINE 60+25.06

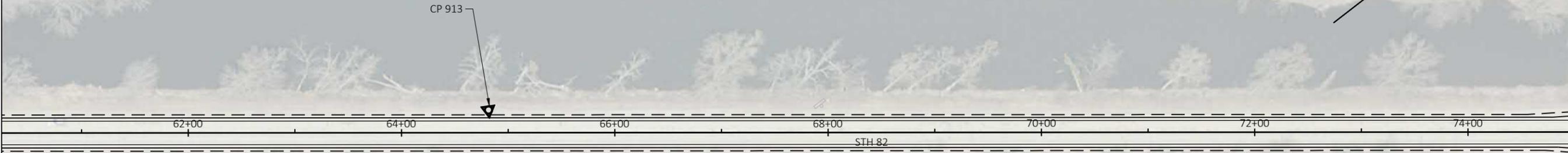
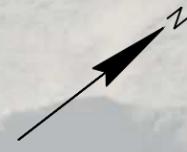


PI STA = 54+80.70  
 Y = 239113.123  
 X = 303739.401  
 DELTA = 15°08'48"  
 D = 2°59'59"  
 T = 253.94'  
 L = 504.93'  
 R = 1910.00'  
 PC STA = 52+26.76  
 PT STA = 57+31.69  
 SE = 4.9%  
 DS = 55 MPH

NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS

MATCH LINE 60+25.06

MATCH LINE 75+00.06



CONTROL POINTS

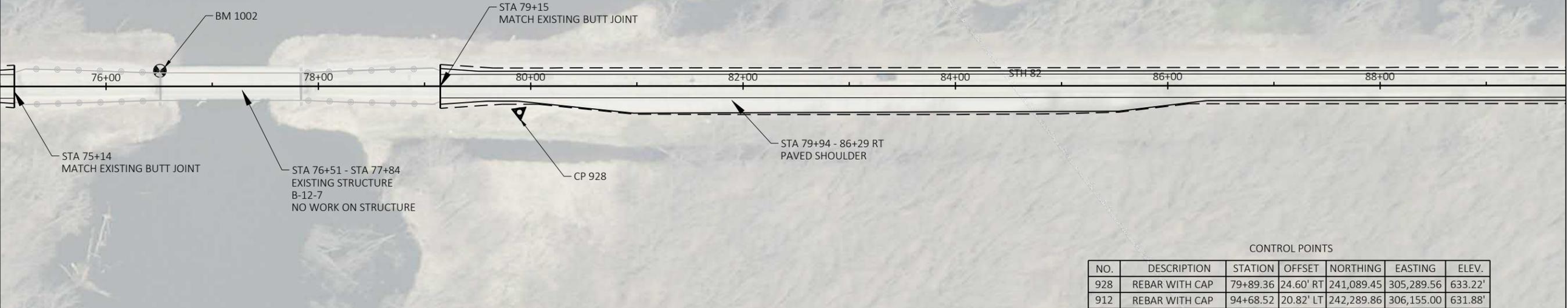
NO.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING	ELEV.
913	REBAR WITH CAP	64+81.50	21.18' LT	239,921.85	304,334.33	631.52'

NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1002	76+51	14.5' LT; ALUMINUM DISK	636.779'

MATCH LINE 75+00.06

MATCH LINE 89+75.06

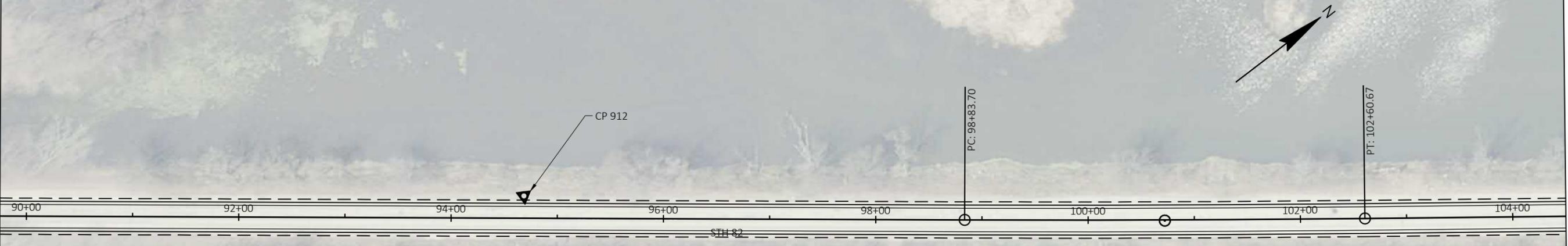


NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS

CONTROL POINTS						
NO.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING	ELEV.
928	REBAR WITH CAP	79+89.36	24.60' RT	241,089.45	305,289.56	633.22'
912	REBAR WITH CAP	94+68.52	20.82' LT	242,289.86	306,155.00	631.88'

MATCH LINE 89+75.06

MATCH LINE 104+50.06



NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS

PI STA = 100+72.19  
 Y = 242755.786  
 X = 306539.390  
 DELTA = 0°52'00"  
 D = 0°13'48"  
 T = 188.49'  
 L = 376.97'  
 R = 24920.00'  
 PC STA = 98+83.70  
 PT STA = 102+60.67  
 SE = NC  
 DS = 55 MPH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1001	118+20	15.1' LT; ALUMINUM DISK	636.721'

MATCH LINE 104+50.06

MATCH LINE 119+25.06



NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS

MATCH LINE 119+25.06

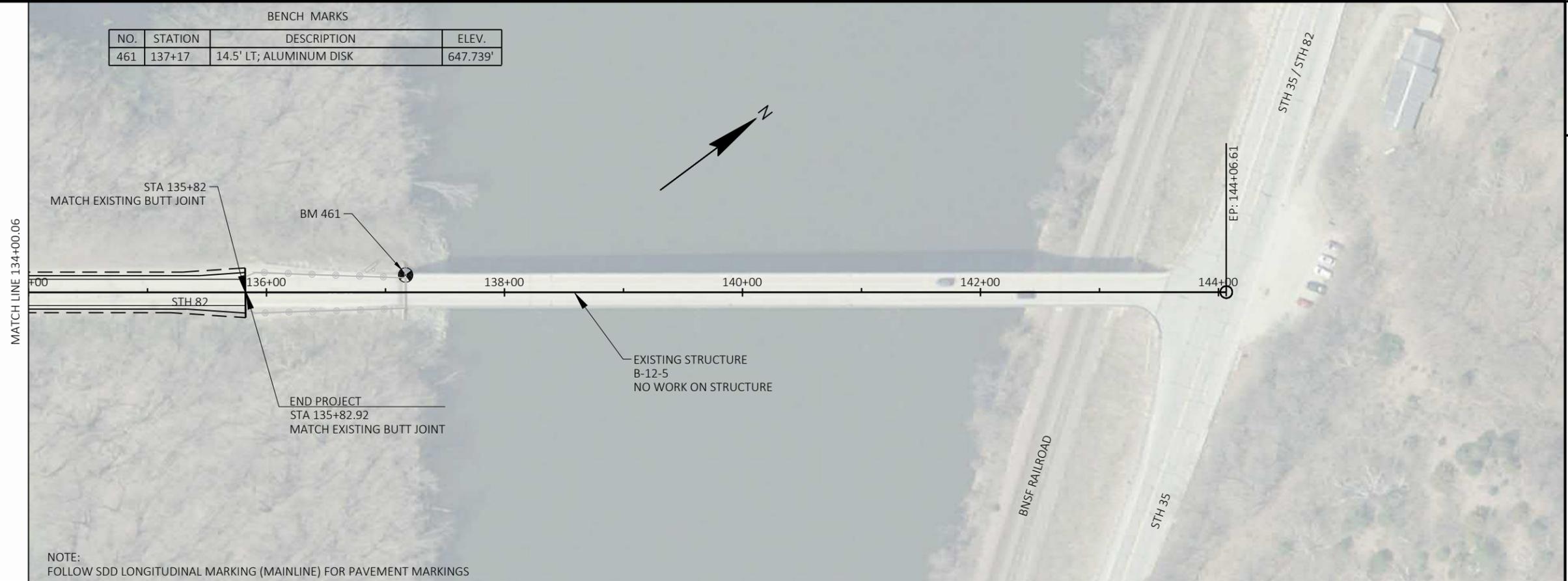
MATCH LINE 134+00.06



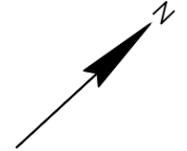
NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS

CONTROL POINTS						
NO.	DESCRIPTION	STATION	OFFSET	NORTHING	EASTING	ELEV.
906	REBAR WITH CAP	130+10.07	22.50' RT	245,098.44	308,312.43	632.08'

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
461	137+17	14.5' LT; ALUMINUM DISK	647.739'



NOTE:  
FOLLOW SDD LONGITUDINAL MARKING (MAINLINE) FOR PAVEMENT MARKINGS



BEGIN PROJECT  
STA 16+01.24  
MATCH EXISTING  
BRIDGE

END PROJECT  
STA 135+82.92  
MATCH EXISTING  
BUTT JOINT

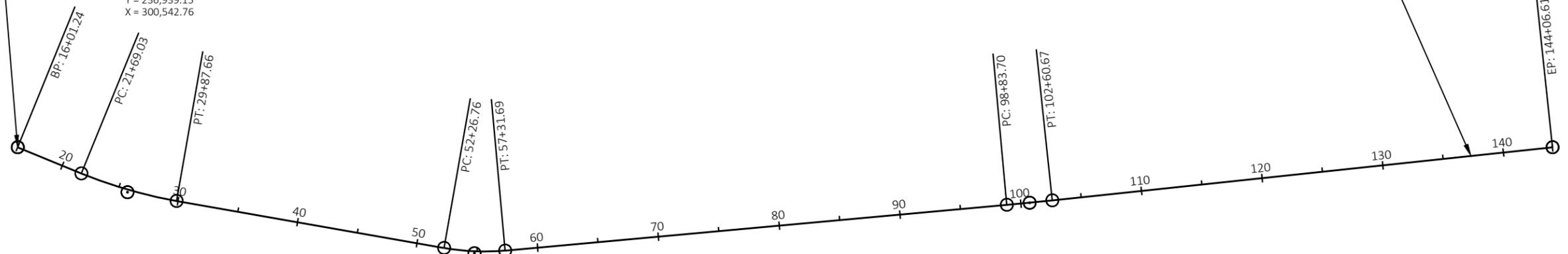
PI STA = 144+06.61  
Y = 246,231.87  
X = 309,128.64

PI STA = 16+01.24  
Y = 236,939.15  
X = 300,542.76

PI STA = 25+79.91  
Y = 237353.170  
X = 301429.553  
DELTA = 12°16'43"  
D = 1°30'00"  
T = 410.89'  
L = 818.63'  
R = 3820.00'  
PC STA = 21+69.03  
Y = 237179.349  
X = 301057.242  
PT STA = 29+87.66  
Y = 237602.192  
X = 301756.382  
BK = N64°58'24.6"E  
AH = N52°41'41.9"E  
SE = MATCH EXISTING  
DS = 55 MPH

PI STA = 54+80.70  
Y = 239113.123  
X = 303739.401  
DELTA = 15°08'48"  
D = 2°59'59"  
T = 253.94'  
L = 504.93'  
R = 1910.00'  
PC STA = 52+26.76  
Y = 238959.218  
X = 303537.408  
PT STA = 57+31.69  
Y = 239314.461  
X = 303894.163  
BK = N52°41'41.9"E  
AH = N37°32'53.6"E  
SE = 4.9%  
DS = 55 MPH

PI STA = 100+72.19  
Y = 242755.786  
X = 306539.390  
DELTA = 0°52'00"  
D = 0°13'48"  
T = 188.49'  
L = 376.97'  
R = 24920.00'  
PC STA = 98+83.70  
Y = 242606.343  
X = 306424.518  
PT STA = 102+60.67  
Y = 242906.950  
X = 306651.988  
BK = N37°32'53.6"E  
AH = N36°40'53.4"E  
SE = NC  
DS = 55 MPH



Estimate Of Quantities

5170-05-60

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	110.000	110.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	625.000	625.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	34,708.000	34,708.000
0008	211.0100	Prepare Foundation for Asphaltic Paving (project) 01.5170-05-60	LS	1.000	1.000
0010	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	3.000	3.000
0012	213.0100	Finishing Roadway (project) 01. 5170-05-60	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,527.000	1,527.000
0016	455.0605	Tack Coat	GAL	2,469.000	2,469.000
0018	460.2000	Incentive Density HMA Pavement	DOL	2,550.000	2,550.000
0020	460.6424	HMA Pavement 4 MT 58-28 H	TON	3,984.000	3,984.000
0022	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	13.000	13.000
0024	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5170-05-60	EACH	1.000	1.000
0026	619.1000	Mobilization	EACH	1.000	1.000
0028	624.0100	Water	MGAL	22.900	22.900
0030	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0032	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0034	642.5001	Field Office Type B	EACH	1.000	1.000
0036	643.0300	Traffic Control Drums	DAY	300.000	300.000
0038	643.0900	Traffic Control Signs	DAY	92.000	92.000
0040	643.5000	Traffic Control	EACH	1.000	1.000
0042	646.1020	Marking Line Epoxy 4-Inch	LF	9,514.000	9,514.000
0044	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	22,894.000	22,894.000
0046	648.0100	Locating No-Passing Zones	MI	2.000	2.000
0048	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	7,815.000	7,815.000
0050	650.8000	Construction Staking Resurfacing Reference	LF	10,773.000	10,773.000
0052	650.9910	Construction Staking Supplemental Control (project) 01. 5170-05-60	LS	1.000	1.000
0054	690.0150	Sawing Asphalt	LF	149.000	149.000
0056	740.0440	Incentive IRI Ride	DOL	8,160.000	8,160.000

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0010	16+01	-	23+66	MAINLINE	---	2,563
0010	27+75	-	74+64	MAINLINE & PARKING SHLD	---	15,480
0010	74+64	-	75+14	MAINLINE	156	---
0010	79+15	-	79+65	MAINLINE	158	---
0010	79+65	-	116+36	MAINLINE & PARKING SHLD	---	12,110
0010	116+36	-	116+86	MAINLINE	156	---
0010	120+87	-	135+33	MAINLINE	---	4,555
0010	135+33	-	135+83	MAINLINE	155	---
TOTAL 0010					625	34,708

REMOVING ASPHALTIC DRIVEWAYS

CATEGORY	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY
0010	19+66	RT	51
0010	123+18	LT	59
TOTAL 0010			110

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
0010	16+84	-	17+46	RT	1
0010	16+84	-	17+46	LT	1
0010	22+64	-	23+10	RT	1
TOTAL 0010					3

BASE AGGREGATE DENSE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	624.0100 WATER MGAL	REMARKS
0010	16+01	-	17+47	LT	14	0.2	BEHIND BEAMGUARD SHOULDER
0010	16+04	-	17+45	RT	13	0.2	BEHIND BEAMGUARD SHOULDER
0010	17+45	-	22+62	LT & RT	65	1.0	SHOULDER
0010	22+62	-	23+66	LT	10	0.2	BEHIND BEAMGUARD SHOULDER
0010	22+62	-	23+66	RT	10	0.2	BEHIND BEAMGUARD SHOULDER
0010	27+75	-	28+77	RT	10	0.2	BEHIND BEAMGUARD SHOULDER
0010	27+75	-	28+79	LT	10	0.2	BEHIND BEAMGUARD SHOULDER
0010	28+77	-	31+75	LT & RT	38	0.6	SHOULDER
0010	31+75	-	38+63	LT & RT	59	0.9	PARKING SHOULDER
0010	38+63	-	75+14	LT & RT	455	6.8	SHOULDER
0010	79+14	-	79+94	LT & RT	10	0.2	SHOULDER
0010	79+94	-	86+29	LT & RT	55	0.8	PARKING SHOULDER
0010	86+29	-	116+86	LT & RT	383	5.7	SHOULDER
0010	120+87	-	122+73	LT	24	0.4	BEHIND BEAMGUARD SHOULDER
0010	120+83	-	123+62	RT	18	0.3	SHOULDER
0010	123+62	-	135+82	LT & RT	153	2.3	SHOULDER
0010	UNDISTRIBUTED				200	3.0	
TOTAL 0010					1,527	22.9	

HMA PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	DEPTH IN	455.0605 TACK COAT GAL	460.6424 HMA PAVEMENT 4 MT 58-28 H TON
0010	16+01	-	23+66	MAINLINE	2	180	290
0010	27+75	-	75+14	MAINLINE	2	1,085	1,751
0010	79+14	-	116+86	MAINLINE	2	871	1,406
0010	120+87	-	135+82	MAINLINE	2	333	537
TOTAL 0010						2,469	3,984

DRIVEWAY ITEMS

CATEGORY	STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	19+66	RT	6
0010	123+17	LT	7
TOTAL 0010			13

TRAFFIC CONTROL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	DAYS	643.0300		643.0900		SIGN NUMBERS
						TRAFFIC CONTROL DRUMS EACH	TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL WARNING SIGNS EACH	TRAFFIC CONTROL SIGNS DAY	
0010	16+01	-	137+15	RT	12	---	---	4	48	W08-52, W08-1, W016-7L
0010	16+01	-	137+15	LT	11	---	---	4	44	W08-52, W08-1, W016-7L
			UNDISTRIBUTED		15	20	300		--	
TOTAL 0010							300		92	

NOTE: SEE SDD TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC  
SEE SDD TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

LOCATION NO PASSING ZONES

CATEGORY	STATION	TO	STATION	LOCATION	648.0100
					LOCATING NO-PASSING ZONES MI
0010	16+01	-	137+15	MAINLINE	2
TOTAL 0010					2

SAWING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	690.0150
					SAWING ASPHALT LF
0010	19+36	-	19+96	RT	60
0010	122+73	-	123+62	LT	89
TOTAL 0010					149

PAVEMENT MARKINGS

CATEGORY	STATION	TO	STATION	LOCATION	646.1020		646.1040		649.0120		REMARKS
					MARKING LINE EPOXY 4-INCH LF	MARKING LINE EPOXY 4-INCH LF	MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	MARKING LINE GROOVED WET REF EPOXY 4-INCH LF	TEMPORARY MARKING LINE EPOXY 4-INCH LF	TEMPORARY MARKING LINE EPOXY 4-INCH LF	
0010	16+01	-	137+20	LT	--	--	11,447	--	--	--	WHITE; EDGELINE
0010	16+01	-	137+20	RT	--	--	11,447	--	--	--	WHITE; EDGELINE
0010	16+01	-	23+67	CENTERLINE	1,530	--	--	--	1,530	--	NO PASSING
0010	27+75	-	36+37	CENTERLINE	1,078	--	--	--	931	--	EB PASSING
0010	36+37	-	43+35	CENTERLINE	168	--	--	--	54	--	PASSING BOTH DIRECTIONS
0010	43+35	-	54+42	CENTERLINE	1,384	--	--	--	1,196	--	WB PASSING
0010	54+42	-	65+42	CENTERLINE	1,375	--	--	--	1,188	--	EB PASSING
0010	65+42	-	67+97	CENTERLINE	64	--	--	--	21	--	PASSING BOTH DIRECTIONS
0010	67+97	-	74+28	CENTERLINE	789	--	--	--	682	--	WB PASSING
0010	74+28	-	75+14	CENTERLINE	22	--	--	--	7	--	PASSING BOTH DIRECTIONS
0010	79+14	-	79+44	CENTERLINE	8	--	--	--	--	--	PASSING BOTH DIRECTIONS
0010	79+44	-	81+84	CENTERLINE	300	--	--	--	260	--	EB PASSING
0010	81+84	-	108+64	CENTERLINE	670	--	--	--	215	--	PASSING BOTH DIRECTIONS
0010	108+64	-	116+87	CENTERLINE	1,029	--	--	--	889	--	WB PASSING
0010	120+87	-	128+09	CENTERLINE	903	--	--	--	780	--	EB PASSING
0010	128+09	-	135+83	CENTERLINE	194	--	--	--	62	--	PASSING BOTH DIRECTIONS
TOTAL 0010					9,514		22,894		7,815		

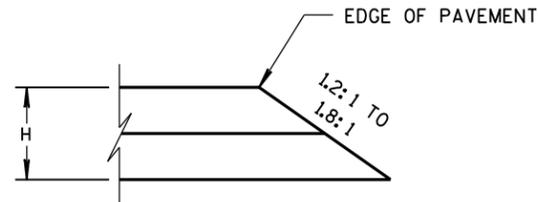
NOTE: SEE SDD LONGITUDINAL MARKING (MAINLINE)  
SEE SDD MOVING PAVEMENT MARKING OPERATIONS  
\* TO BE PLACED FOLLOWING REMOVING ASPHALTIC SURFACE MILLING  
\*\* TO BE PLACED FOLLOWING HMA PAVEMENT

CONSTRUCTION STAKING

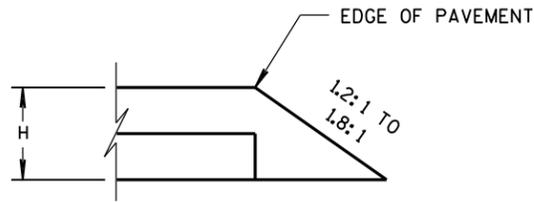
CATEGORY	STATION	TO	STATION	650.8000	650.9910.01
				CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION SUPPLEMENTAL CONTROL (PROJECT) (01. 5170-05-60) LS
0010			PROJECT	--	1
0010	16+01	-	23+66	765	--
0010	27+75	-	75+14	4,739	--
0010	79+14	-	116+87	3,773	--
0010	120+87	-	135+83	1,496	--
TOTAL 0010				10,773	1

## Standard Detail Drawing List

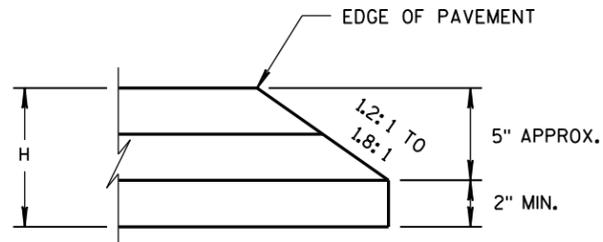
14B29-01	SAFETY EDGE
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



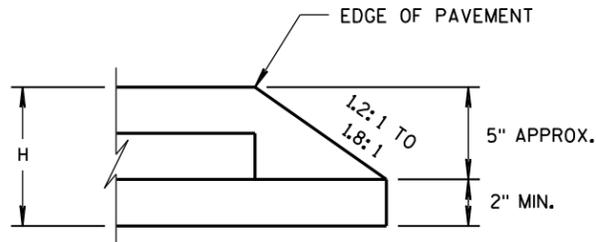
CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER  
FOR H 5" OR LESS

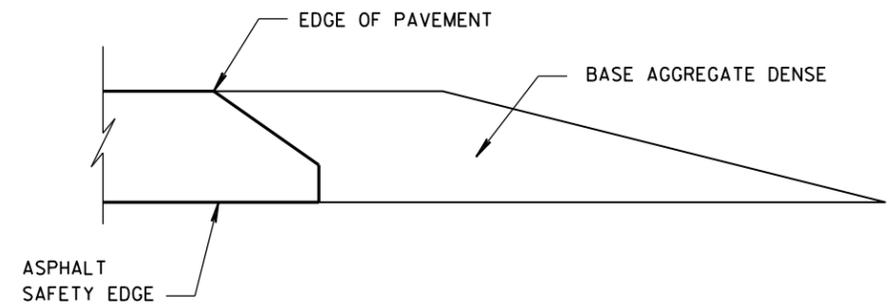


CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER  
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE <sub>SM</sub>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

**GENERAL NOTES**

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

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

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

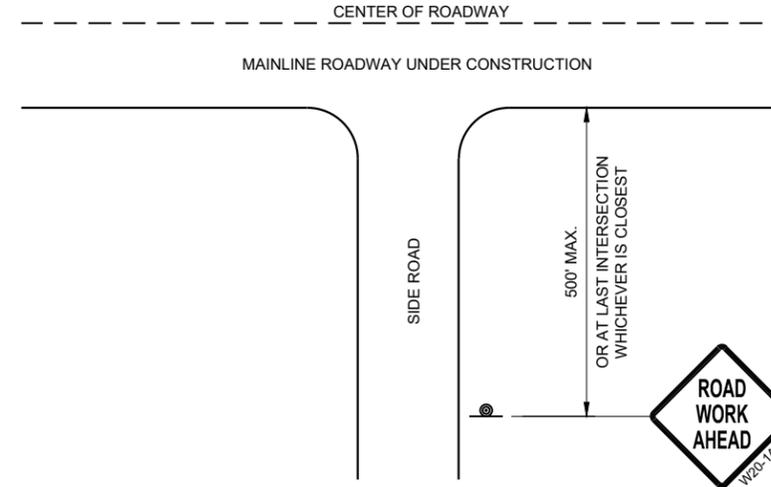
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

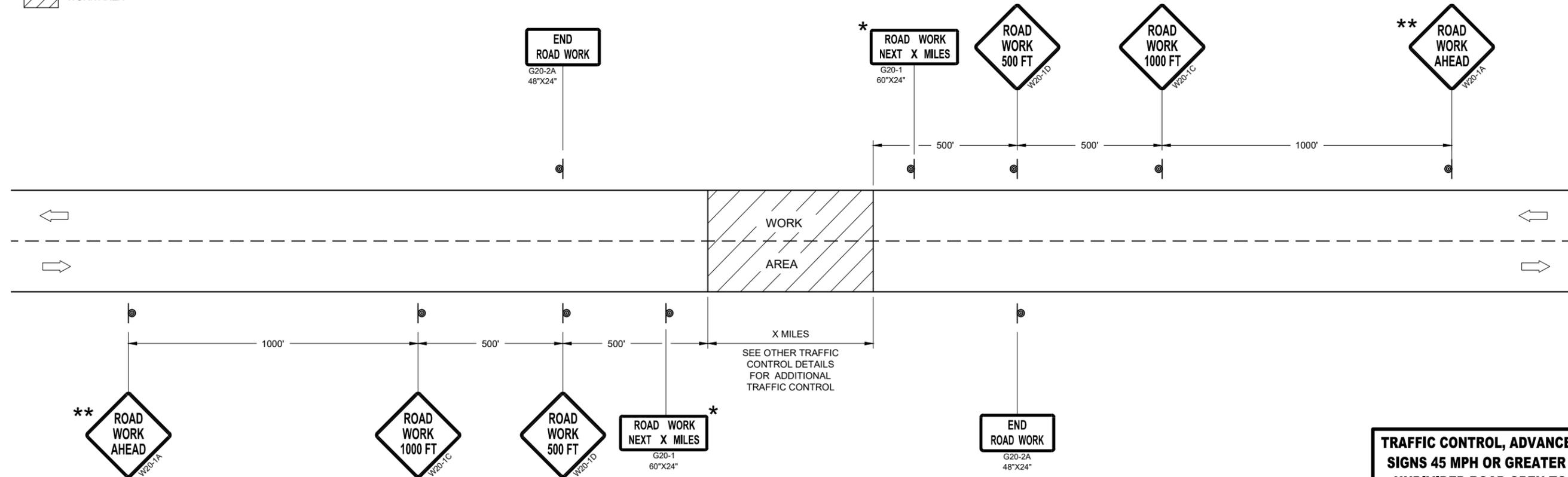
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

**LEGEND**

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



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**



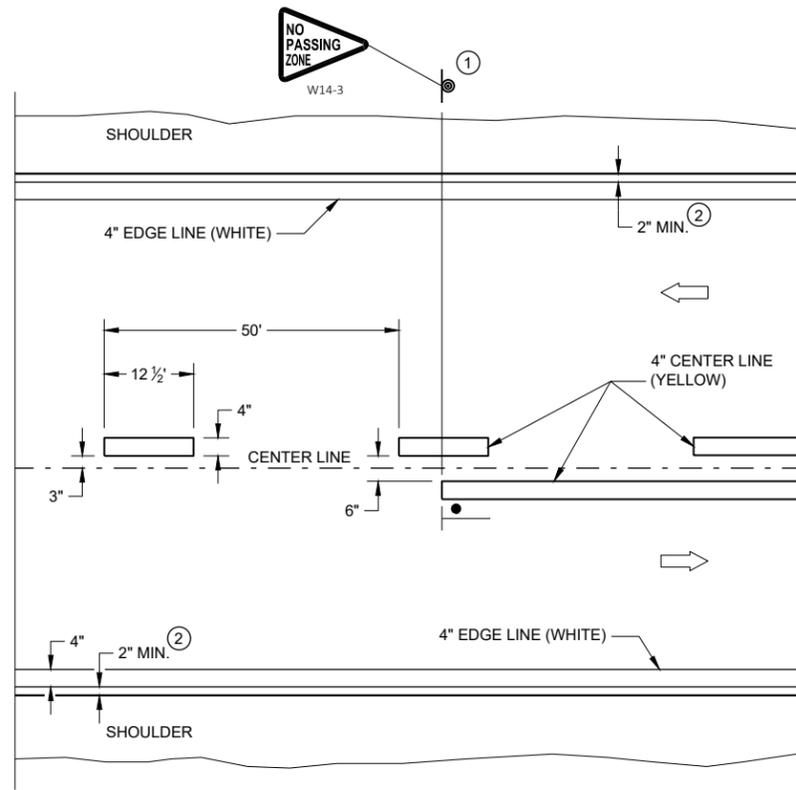
**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER**

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

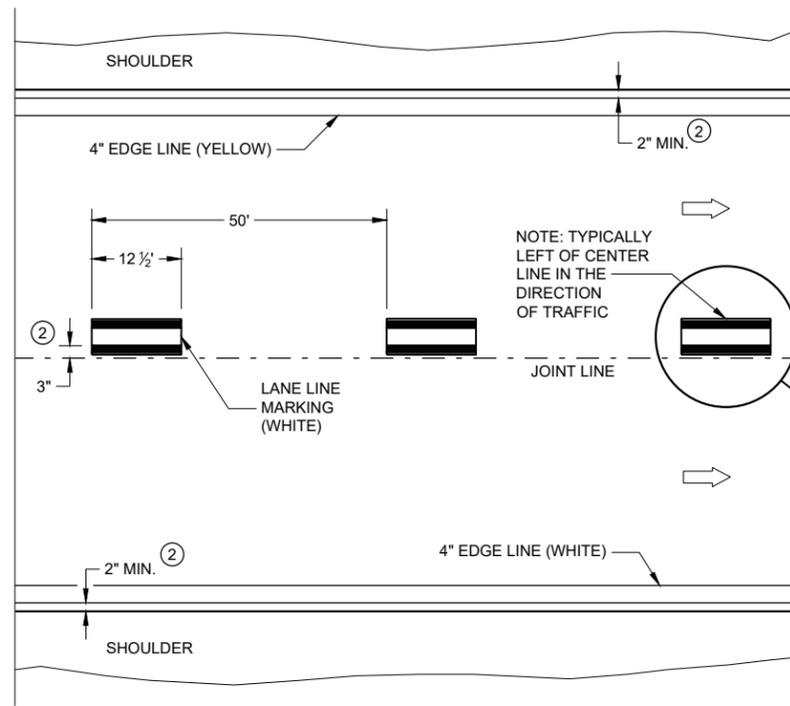
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED \_\_\_\_\_ /S/ Andrew Heidtke  
DATE \_\_\_\_\_ WORK ZONE ENGINEER

FHWA

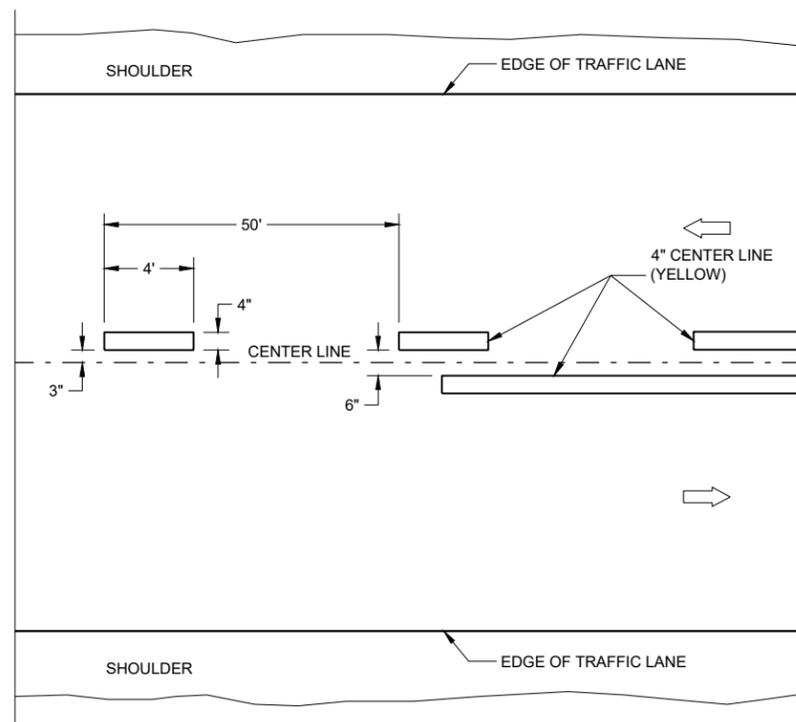


**TWO WAY TRAFFIC**

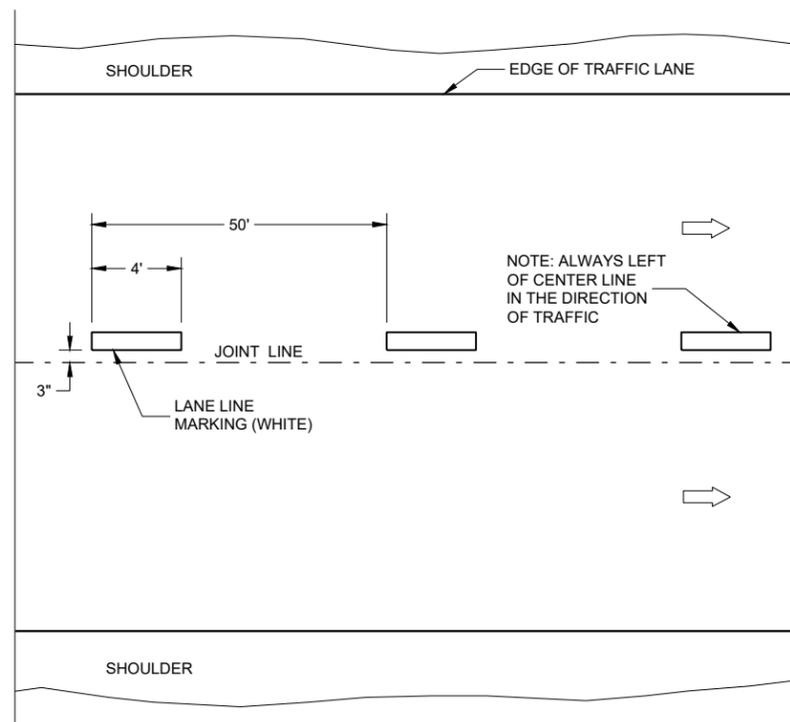


**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**TEMPORARY PAVEMENT MARKING**

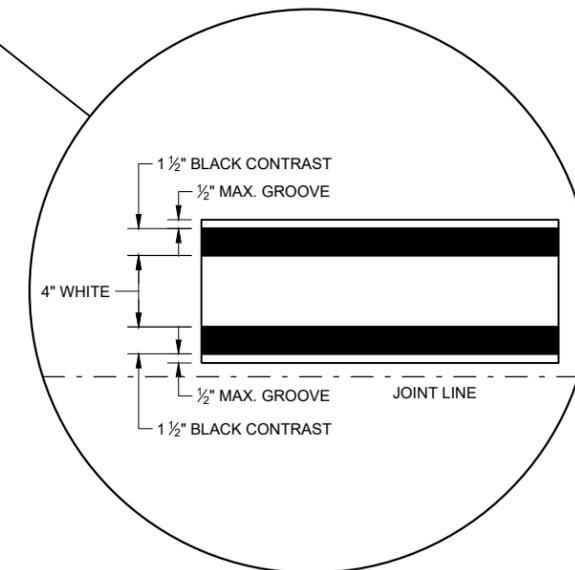
**GENERAL NOTES**

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

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

**LEGEND**

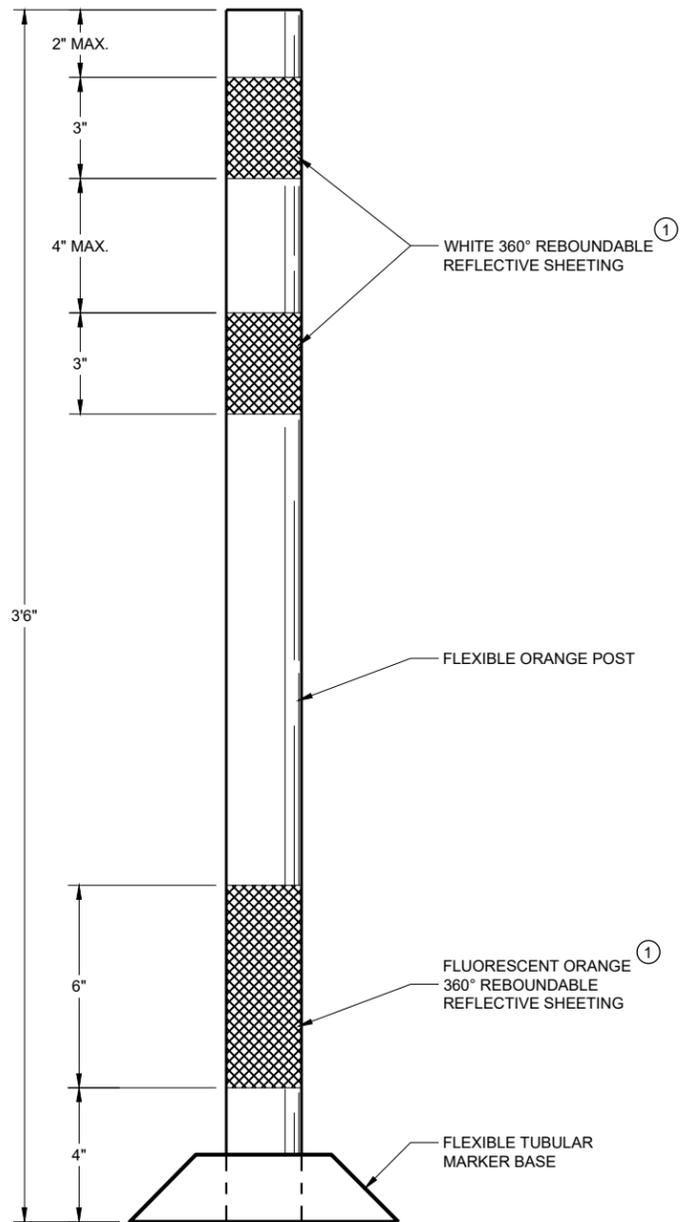
- |• "T" MARKING
- |⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



**LONGITUDINAL MARKING (MAINLINE)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



FLEXIBLE TUBULAR MARKER POST WORK ZONE

**GENERAL NOTES**

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

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

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

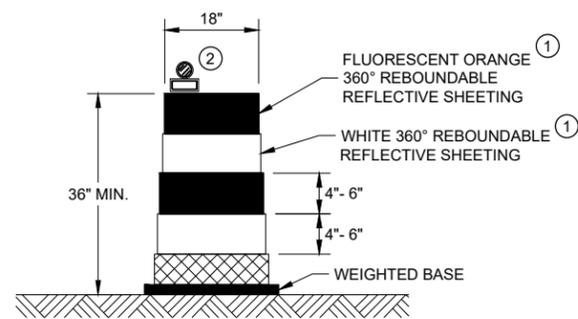
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

**CHANNELIZING DEVICES  
FLEXIBLE TUBULAR  
MARKER POST**

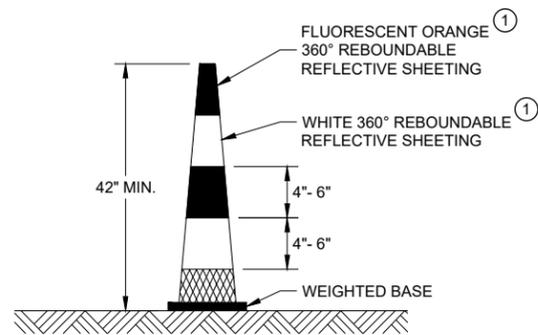
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



**DRUM**

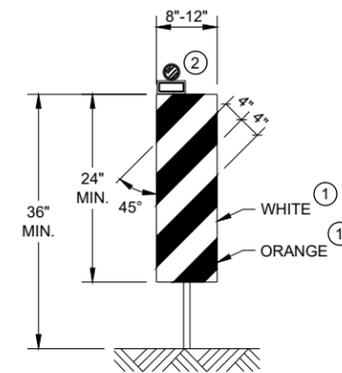


**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS

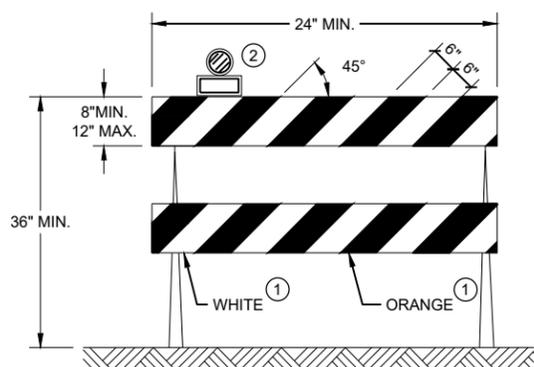
**GENERAL NOTES**

- 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.



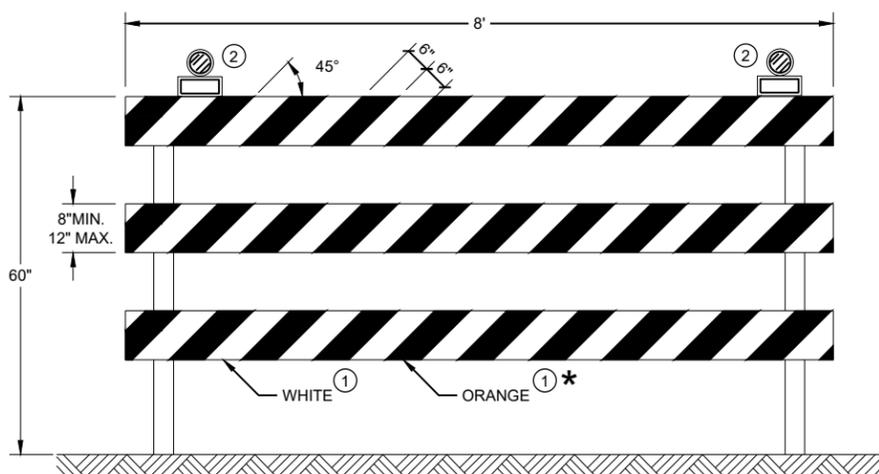
**VERTICAL PANEL**

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



**TYPE II BARRICADE**

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



**TYPE III BARRICADE**

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

\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

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

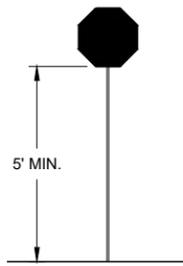
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

**FLAGGING**

- FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
  - ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

**TEMPORARY PORTABLE RUMBLE STRIPS**

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



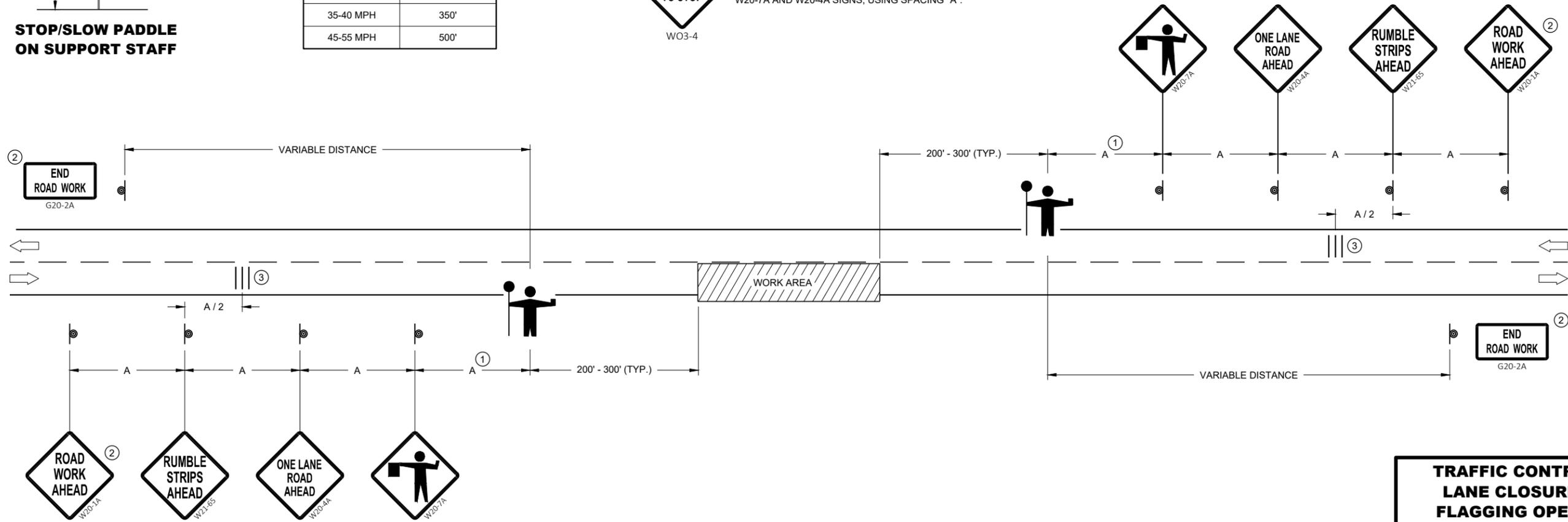
**STOP/SLOW PADDLE ON SUPPORT STAFF**

**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

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



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



**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**LEGEND**

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  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 OPERATING IN CAUTION MODE. 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.

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

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.

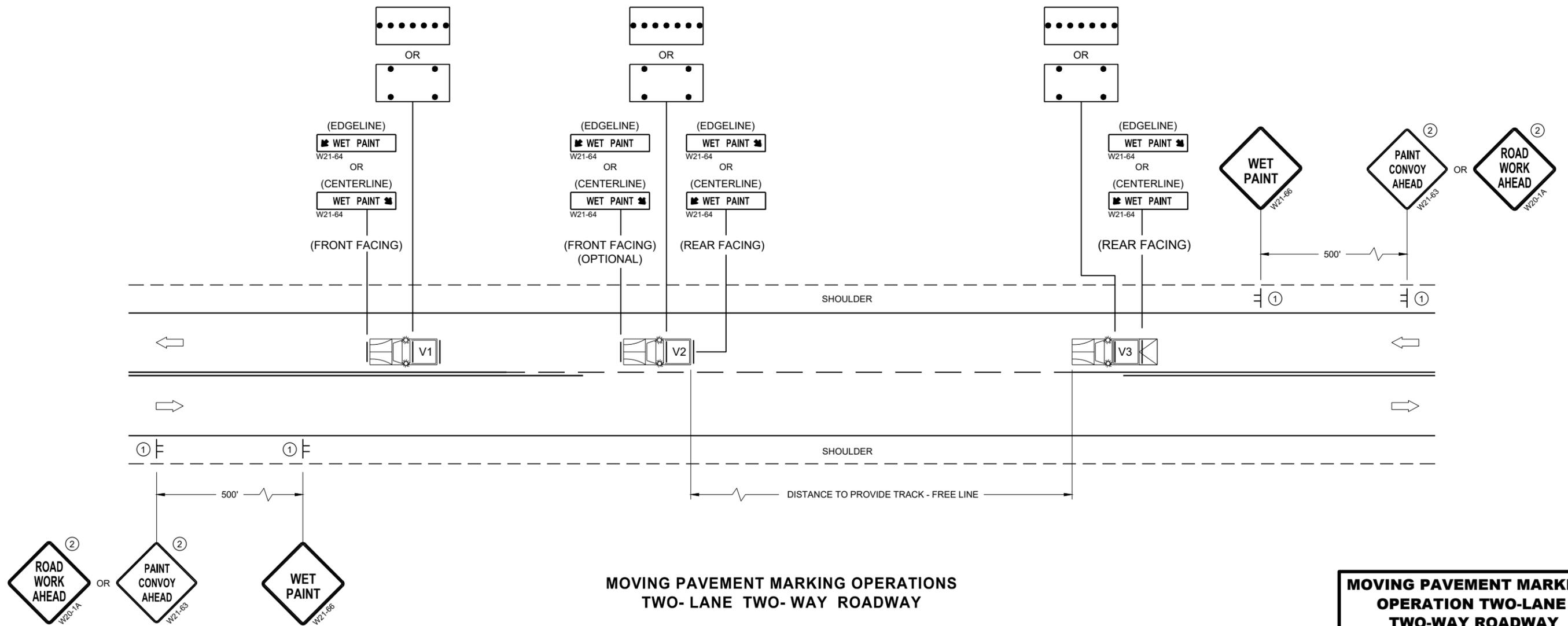
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

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

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

SDD 15C19 - 06a

SDD 15C19 - 06a

<b>MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**LEGEND**

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

**GENERAL NOTES**

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

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

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

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

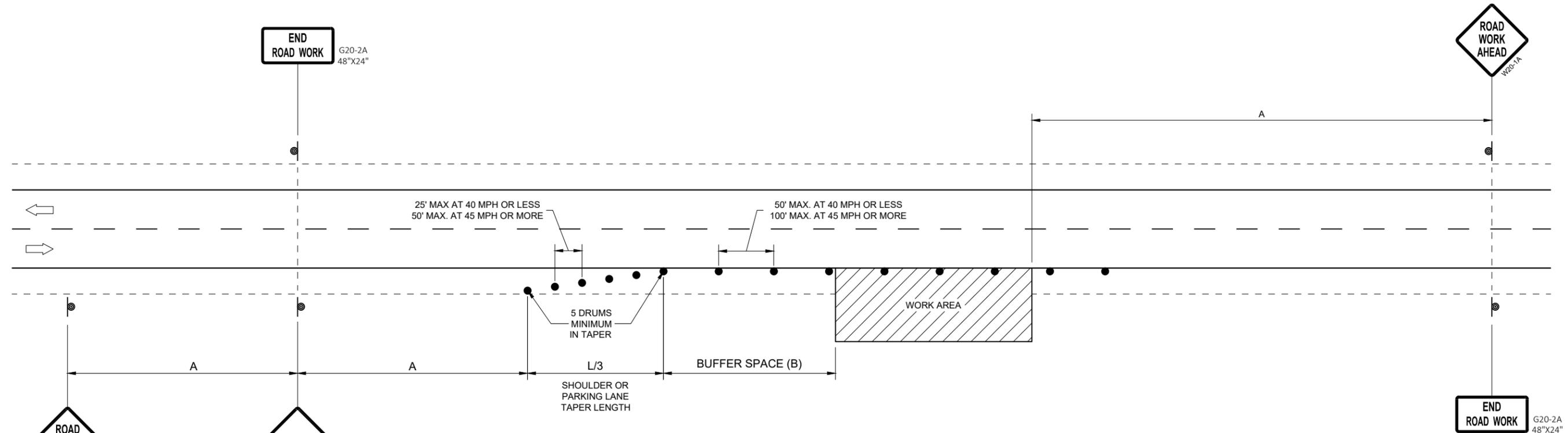
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

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

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

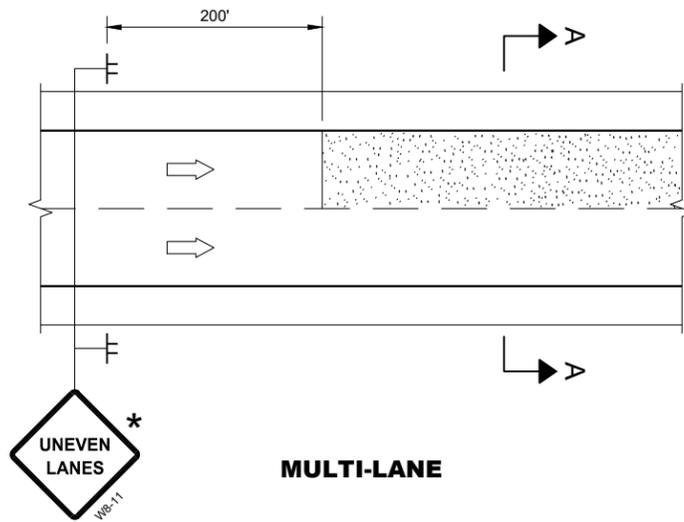
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

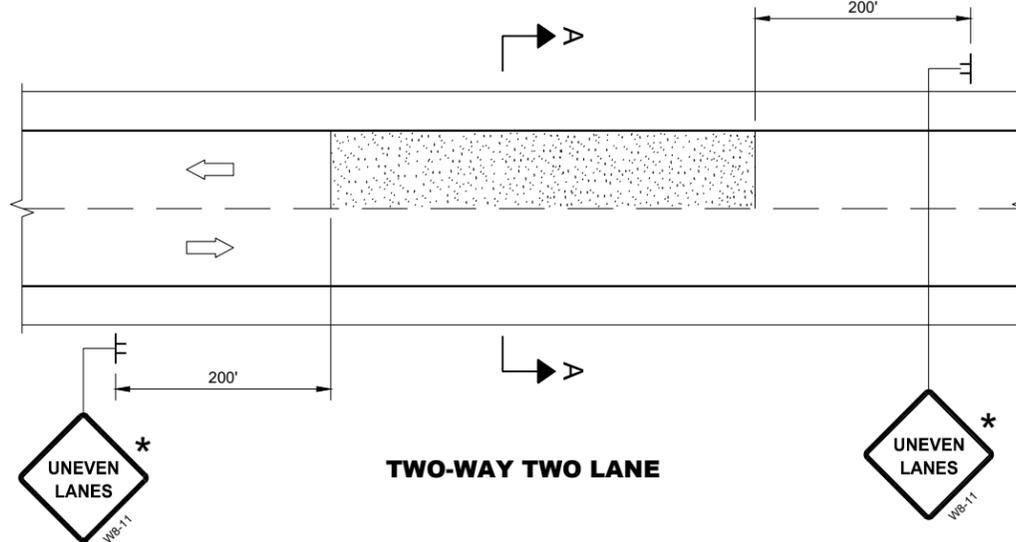
FHWA

SDD 15D28 - 04

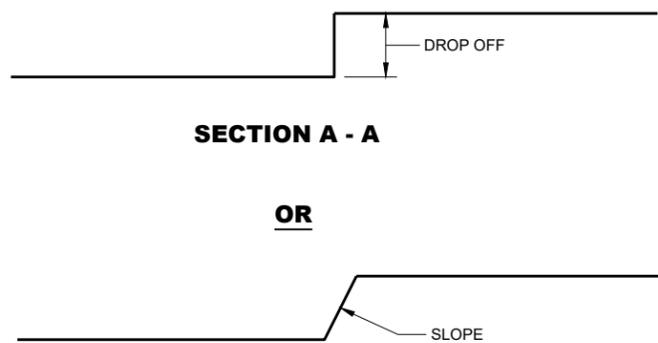
SDD 15D28 - 04



**MULTI-LANE**



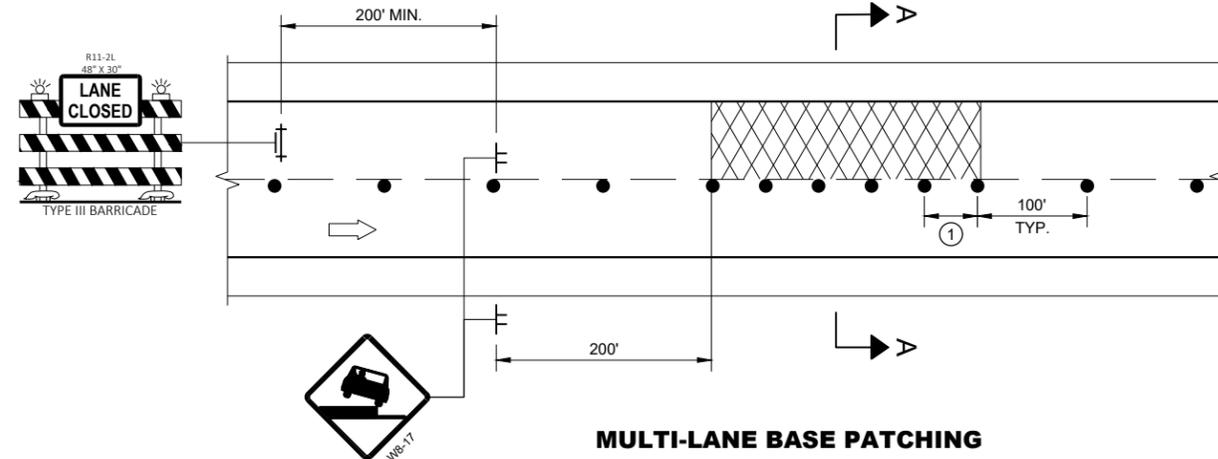
**TWO-WAY TWO LANE**



**SECTION A - A**

**OR**

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

**GENERAL NOTES**

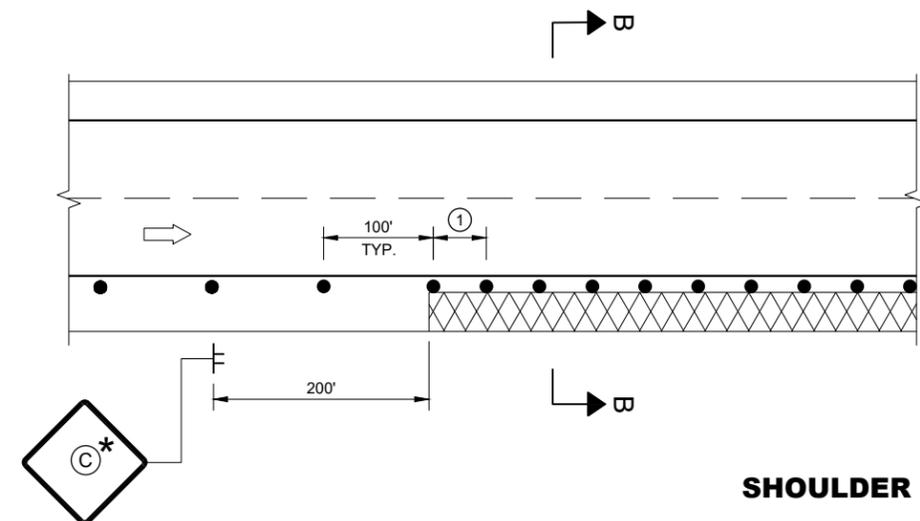
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF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

**LEGEND**

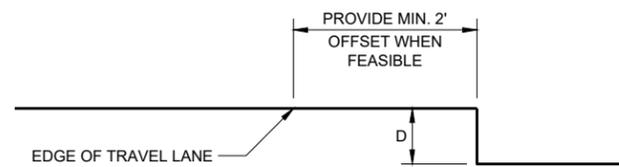
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

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**SHOULDER DROP-OFFS**



**SECTION B - B**

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

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

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**GENERAL NOTES**

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

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

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

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

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

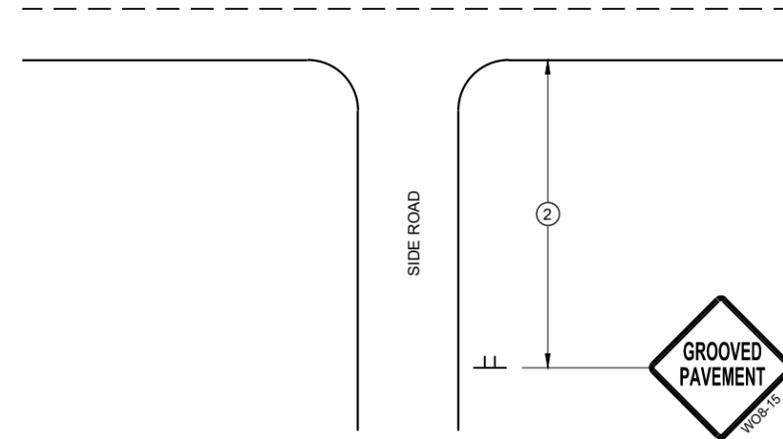
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

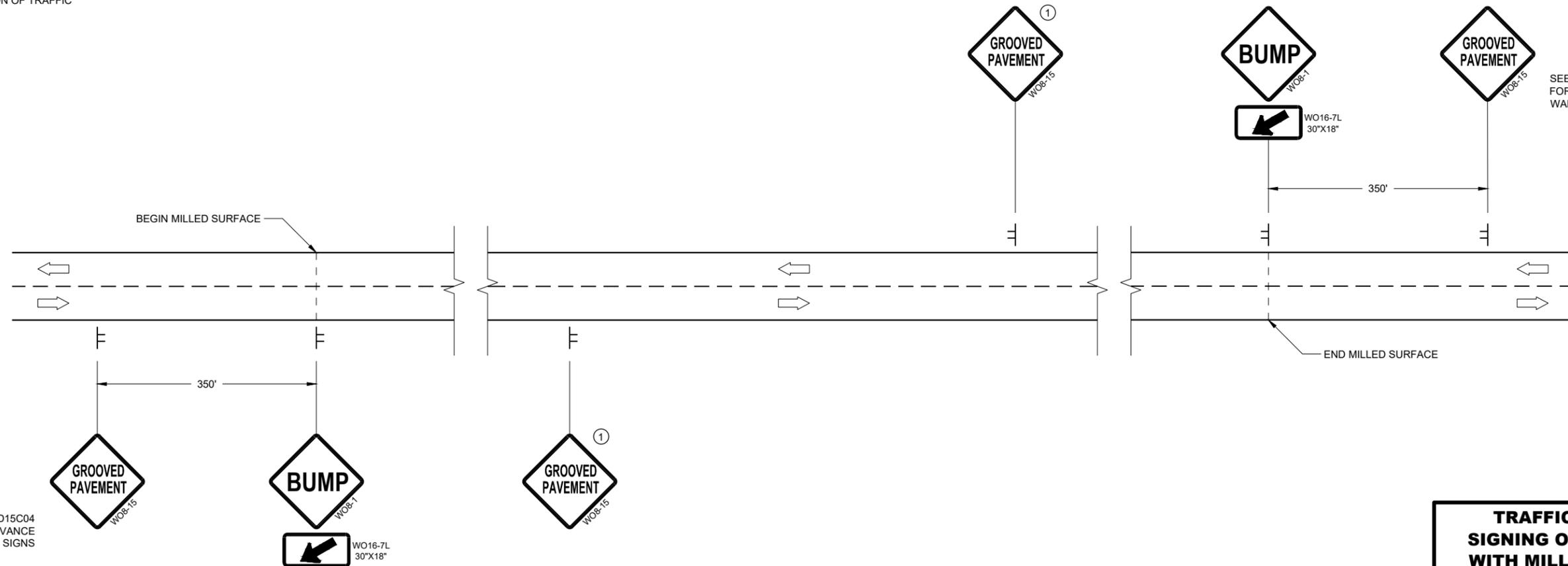
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

**DETAIL FOR SIGNING ON MILLED SURFACES**

**TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

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**LEGEND**

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

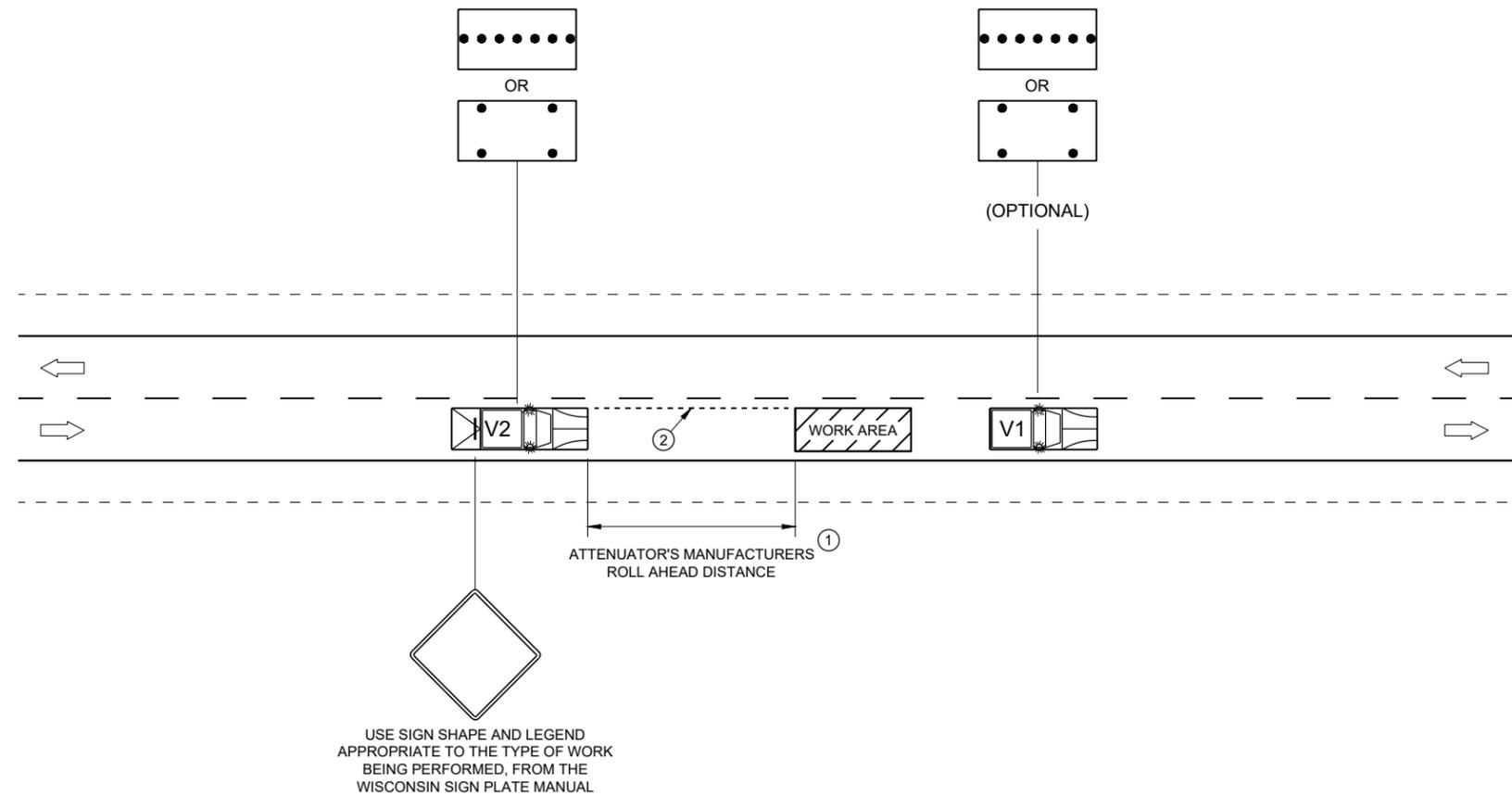
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

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

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



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SDD 15D51 - 01

SDD 15D51 - 01

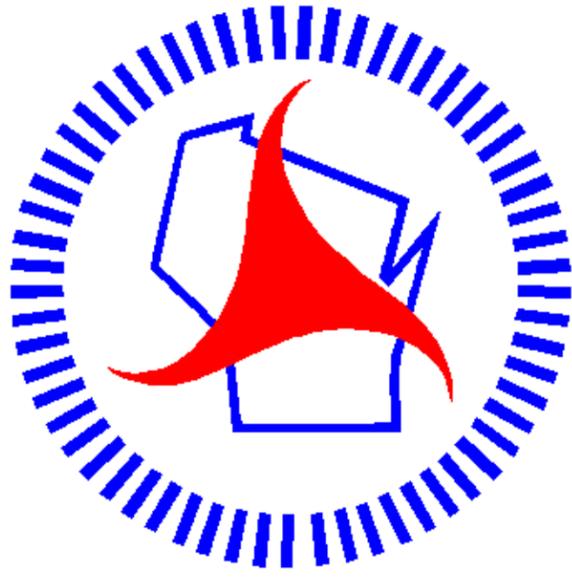
**TRAFFIC CONTROL,  
MOBILE OPERATIONS ON  
AN UNDIVIDED ROADWAY**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 DATE /S/ Andrew Heidtke  
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

Notes



## ***Wisconsin Department of Transportation***

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