

ORDER OF SHEETS

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

TOTAL SHEETS = 40



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 60 - STH 80

STH 60 TO STH 80

STH 193

RICHLAND COUNTY

STATE PROJECT NUMBER
5555-02-63

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5555-02-63	WISC 2022286	1

DESIGN DESIGNATION 5555-02-33

A.A.D.T.	2027	=	1500
A.A.D.T.	2047	=	1700
D.H.V.		=	204
D.D.		=	60/40
T.		=	12.5%
DESIGN SPEED		=	60 MPH
ESALS		=	460,000

CONVENTIONAL SYMBOLS

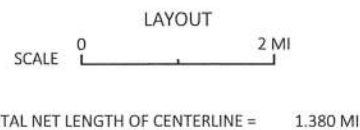
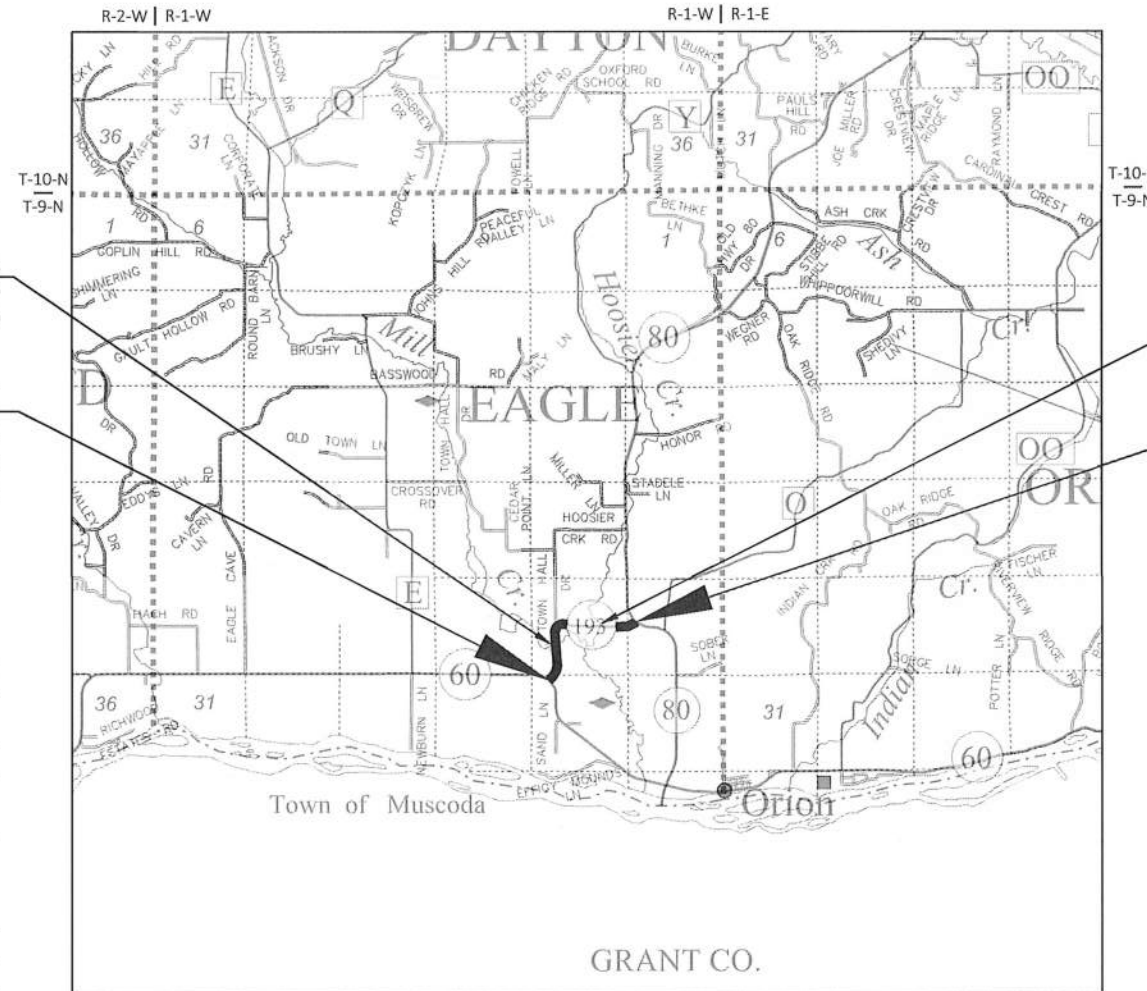
PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING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

STRUCTURE B-52-64
STA 116+46 - STA 117+76
NET EXCEPTION TO LENGTH (0.02 MI)

BEGIN PROJECT
STA 96+00
X = 654757.28
Y = 402795.52

STRUCTURE B-52-65
STA 149+79 - STA 150+49
NET EXCEPTION TO LENGTH (0.01 MI)

END PROJECT
STA 170+86
X = 659465.41
Y = 405947.86



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, RICHLAND COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED AS GROUND DISTANCES. ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: _____ SW REGION

Designer: _____ ERIN CLEMENTS

Project Manager: _____ JIM SIMPSON, P.E., P.L.S.

Regional Examiner: _____ SW REGION

Regional Supervisor: _____ KURT JOHNSON, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10-27-2021

(Signature)

E

STANDARD ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC	PT	POINT OF TANGENCY
AP	ACCESS POINT	PVC	POINT OF VERTICAL CURVE
AC	ACRE	PVI	POINT OF VERTICAL INTERSECTION
ADJ	ADJUST	PVT	POINT OF VERTICAL TANGENCY
AECPRC	APRON ENDWALLS FOR CULVERT	R	RADIUS
AGG	AGGREGATE	RD	ROAD
AH	AHEAD	RDWY	ROADWAY
AC	ASPHALT CEMENT	REINF	REINFORCING OR REINFORCEMENT
ASPH	ASPHALTIC	REQD	REQUIRED
ACP	ASPHALTIC PAVEMENT CONCRETE	RR	RAILROAD
AVG	AVERAGE	RT	RIGHT
ADT	AVERAGE DAILY TRAFFIC	R/L	REFERENCE LINE
BK	BACK	R/W	RIGHT-OF-WAY
BAD	BASE AGGREGATE DENSE	S	SOUTH
BM	BENCH MARK	SB	SOUTHBOUND
C/L	CENTER LINE	SC	SECTION CORNER
CONC	CONCRETE	SDD	STANDARD DETAIL DRAWINGS
CONST	CONSTRUCTION	SE	SUPERELEVATION
CTH	COUNTY TRUNK HIGHWAY	SF	SQUARE FEET
CABC	CRUSHED AGGREGATE BASE COURSE	SHLDR	SHOULDER
CWA	HUNDREDWEIGHT	SS	STORM SEWER
CY	CUBIC YARD	ST	STREET
CP	CULVERT PIPE	STA	STATION
CE	COMMERCIAL ENTRANCE	STH	STATE TRUNK HIGHWAYS
C & G	CURB AND GUTTER	STR	STRUCTURE OR STRUCTURAL
D	DEGREE OF CURVE	SQ	SQUARE
DRV	DESIGN HOUR VOLUME	SW	SIDEWALK
DIA	DIAMETER	SY	SQUARE YARD
DWY	DRIVEWAY	T	TANGENT
E	EAST	t	TON
EB	EASTBOUND	T	TOWN
EL	ELEVATION	T	TRUCKS (PERCENT OF)
ESALS	EQUIVALENT SINGLE AXLE LOADS	TEMP	TEMPORARY
EXC	EXCAVATION	TI	TEMPORARY INTEREST
EBS	EXCAVATION BELOW SUBGRADE	TLE	TEMPORARY LIMITED EASEMENT
EXIST	EXISTING	TYP	TYPICAL
FERT	FERTILIZE	USH	UNITED STATES HIGHWAY
FE	FIELD ENTRANCE	V	VELOCITY OF DESIGN SPEED
FL	FLOW LINE	VAR	VARIABLE
FT	FOOT	VERT	VERTICAL
HES	HIGH EARLY STRENGTH	VC	VERTICAL CURVE
HP	HIGH POINT	VOL	VOLUME
HMA	HOT MIX ASPHALT	W	WEST
INL	INLET	WB	WESTBOUND
ID	INSIDE DIAMETER	WM	WATER MAIN
I	INTERSECTION ANGLE	WV	WATER VALVE
INV	INVERT	X	EAST GRID COORDINATE
IP	IRON PIPE OR PIN	Y	YARD
JT	JOINT	Y	NORTH GRID COORDINATE
LB	POUND		
LT	LEFT		
L	LENGTH OF CURVE		
LF	LINEAR FOOT		
LP	LOW POINT		
LS	LUMP SUM		
MH	MANHOLE		
MAX	MAXIMUM		
Mgal	MEGAGALLON		
MPH	MILES PER HOUR		
MIN	MINIMUM		
MON	MONUMENT		
N	NORTH		
NB	NORTHBOUND		
NC	NORMAL CROWN		
NO	NUMBER		
NOM	NOMINAL		
OD	OUTSIDE DIAMETER		
OPT	OPTIONAL		
PAVT	PAVEMENT		
PC	POINT OF CURVATURE		
PCC	PORTLAND CEMENT CONCRETE		
PE	PRIVATE ENTRANCE		
PGL	PROFILE GRADE LINE		
PI	POINT OF INTERSECTION		
PL	PROPERTY LINE		
PLE	PERMANENT LIMITED EASEMENT		
PSI	POUNDS PER SQUARE INCH		
PSF	POUNDS PER SQUARE FOOT		
PT	POINT		

GENERAL NOTES

NO BEAM GUARD WORK INVOLVED WITH THIS PROJECT.

NO CURB AND GUTTER WORK INVOLVED WITH THIS PROJECT.

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

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. 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.

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

ASPHALTIC SURFACE/HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

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

GRADING IS NOT ALLOWED IN DELINEATED WETLAND AREAS. DO NOT STORE EQUIPMENT OR MATERIAL IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

NUMBER, LOCATIONS, AND SPACING OF TEMPORARY AND PERMANENT SIGNS AND DEVICES AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

FIELD VERIFY SUPERELEVATION CROSS SLOPES BEFORE MILLING. MATCH EXISTING SUPERELEVATION CROSS SLOPES UNLESS OTHERWISE NOTED IN THE PLANS.

UTILITY CONTACTS :

CENTURYLINK - COMMUNICATION LINE
DOUG MCGOWAN
135 N. BONSON ST
PLATTEVILLE, WI 53818
(608) 482-5377
doug.mcgowan@lumen.com

MUSCODA UTILITIES - ELECTRICITY
TROY WARDELL
P.O. BOX 206
MUSCODA, WI 53573
(608) 739-3182
twardell@wppienergy.org

NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM
SERGIO GONZALEZ
SUITE F
8101 BIRCHWOOD CT STE F
JOHNSTON, IA 60131
(402) 530-2026
sergio.gonzalez@nngco.com

RICHLAND ELECTRIC COOPERATIVE - ELECTRICITY
LARRY HALLETT
1027 N JEFFERSON
P.O. BOX 439
RICHLAND CENTER, WI 53581
(608) 647-3173
lhallett@rec.coop

WISCONSIN DEPT OF NATURAL RESOURCES CONTACTS

ANDY BARTA
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711-5367
(608) 235-2955
Andrew.Barta@wisconsin.gov

WISCONSIN DEPT OF TRANSPORTATION CONTACTS

PROJECT MANAGER
JIM SIMPSON, P.E.
2101 WRIGHT ST
MADISON WI, 53704
(608) 246-5628
Jim.Simpson@dot.wi.gov

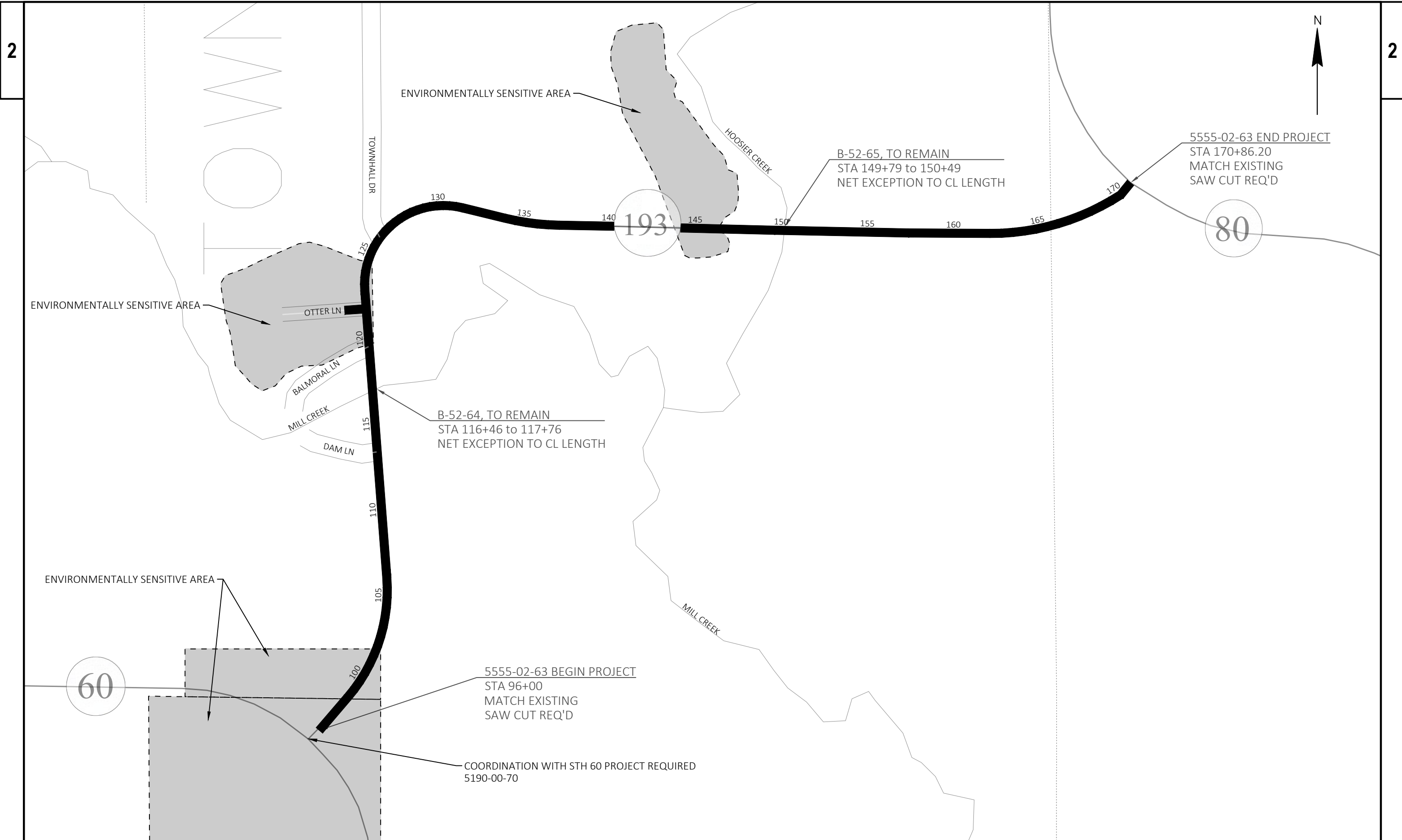
DESIGN ENGINEER
ERIN CLEMENTS
2101 WRIGHT ST
MADISON, WI 53704
(608) 261-6122
Erin.Clements@dot.wi.gov

STH 60 PROJECT COORDINATION

PROJECT MANAGER
FRANK PRITZLAFF
141 NW BARSTOW ST
WAUKESHA, WI 53188
(262) 548-5683
Frank.Pritzlaff@dot.wi.gov

DESIGN ENGINEER
DIEGO SILVA
141 NW BARSTOW ST
WAUKESHA, WI 53188
(262) 548-6433
Diego.Silva@dot.wi.gov





PROJECT NO: 5555-02-63

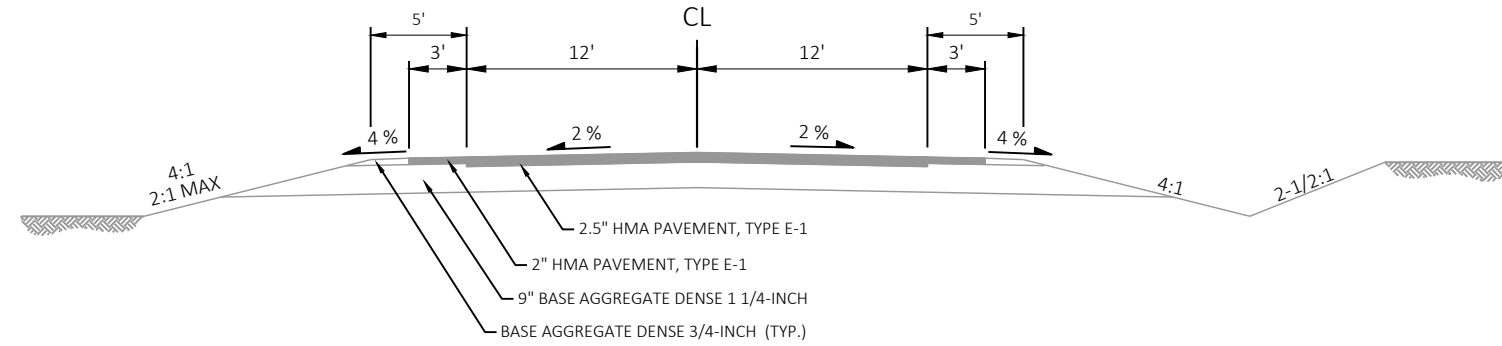
HWY: STH 193

COUNTY: RICHLAND

PROJECT OVERVIEW

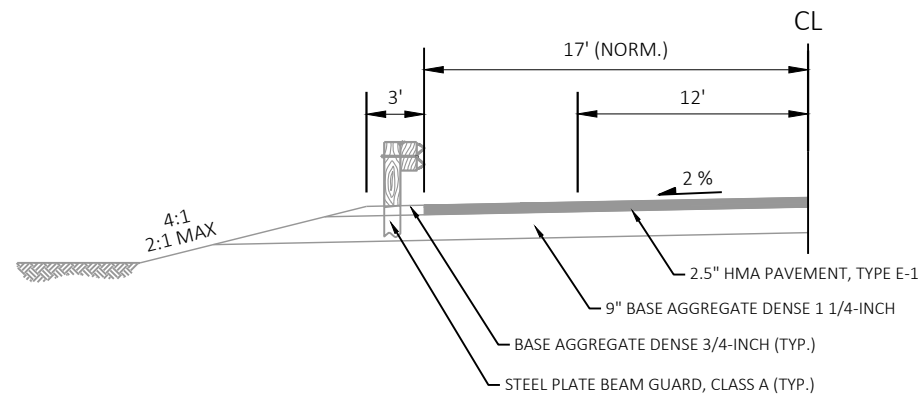
SHEET

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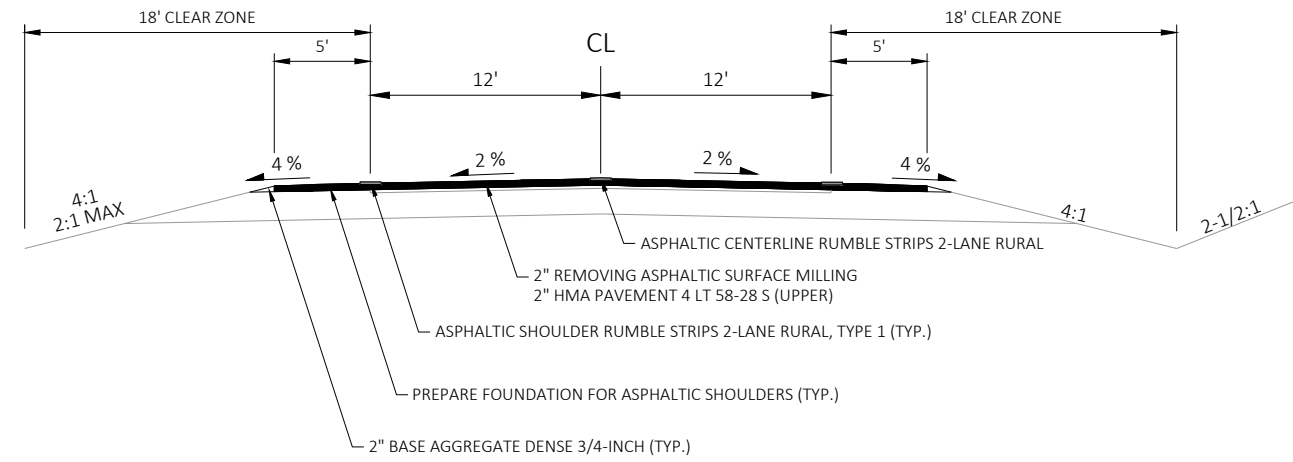


EXISTING TYPICAL SECTION

STA 96+00 - 116+46
STA 117+76 - 149+79
STA 150+49 - 170+86

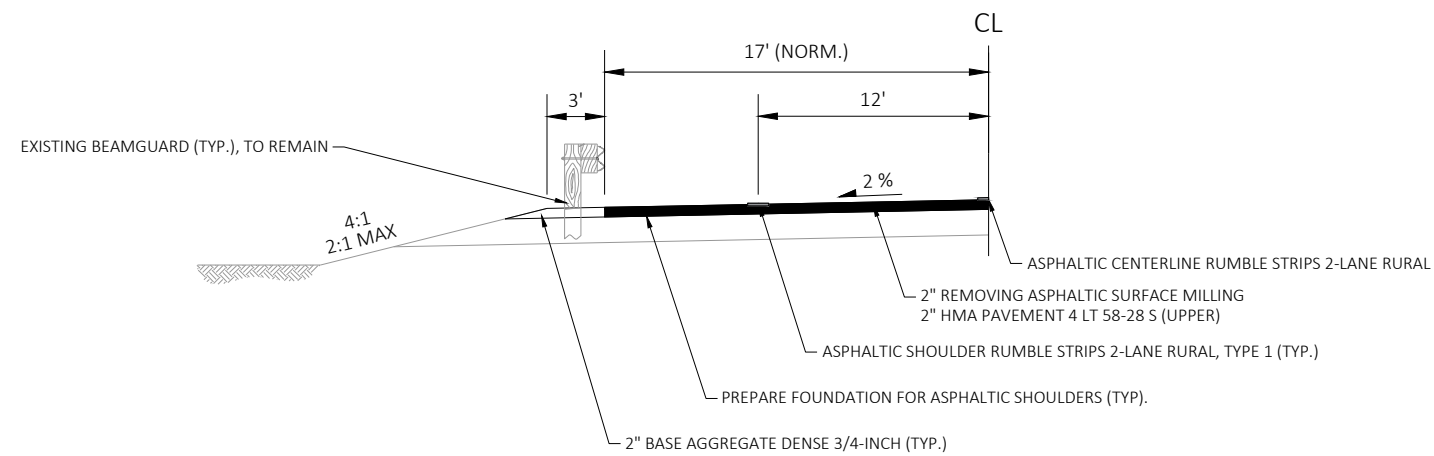


EXISTING HALF SECTION AT BEAM GUARD

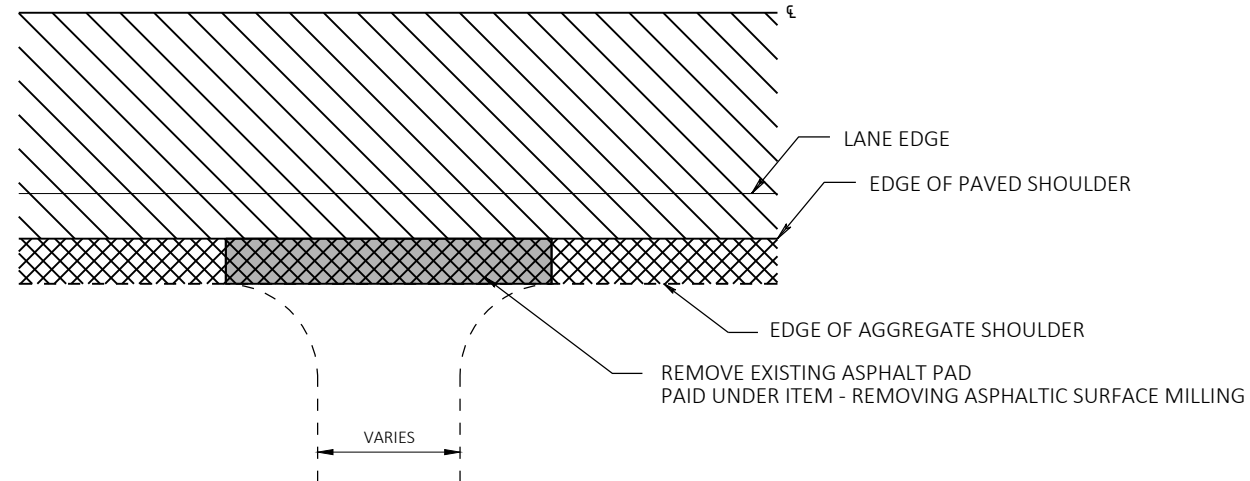


FINISHED TYPICAL SECTION

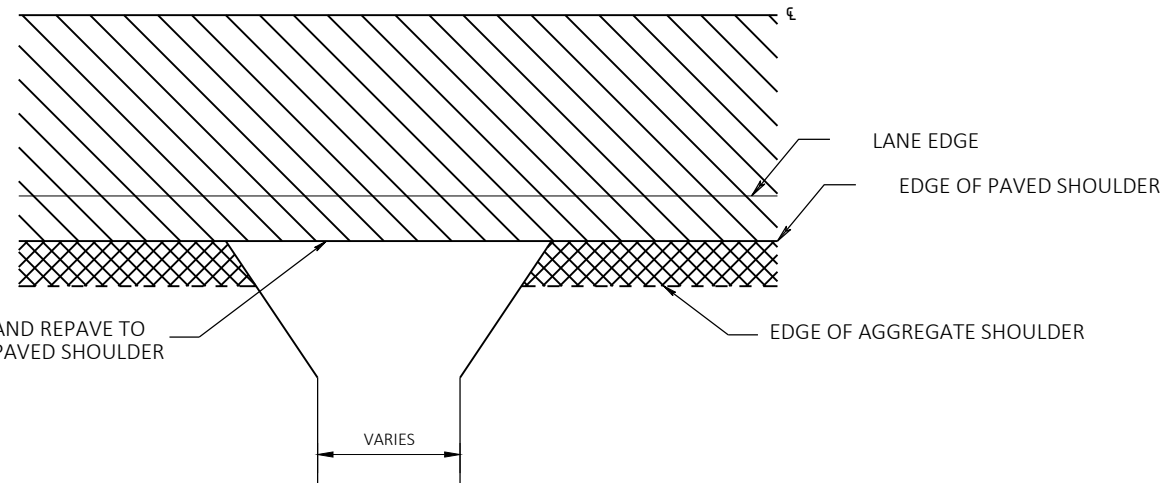
STA 96+00 - 116+46
STA 117+76 - 149+79
STA 150+49 - 170+86



FINISHED HALF SECTION AT BEAM GUARD



PLAN VIEW
EXISTING AGGREGATE DRIVEWAY/FIELD ENTRANCE

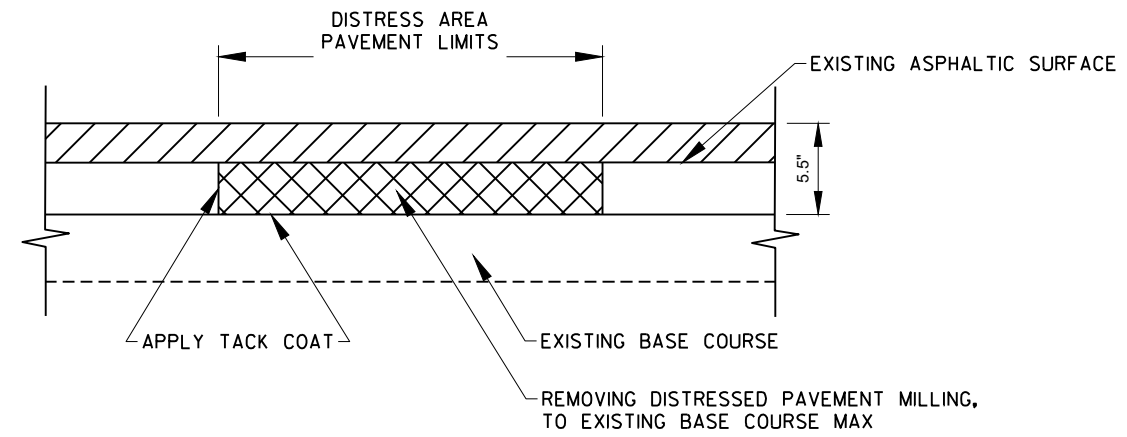


PLAN VIEW
EXISTING PAVED DRIVEWAY

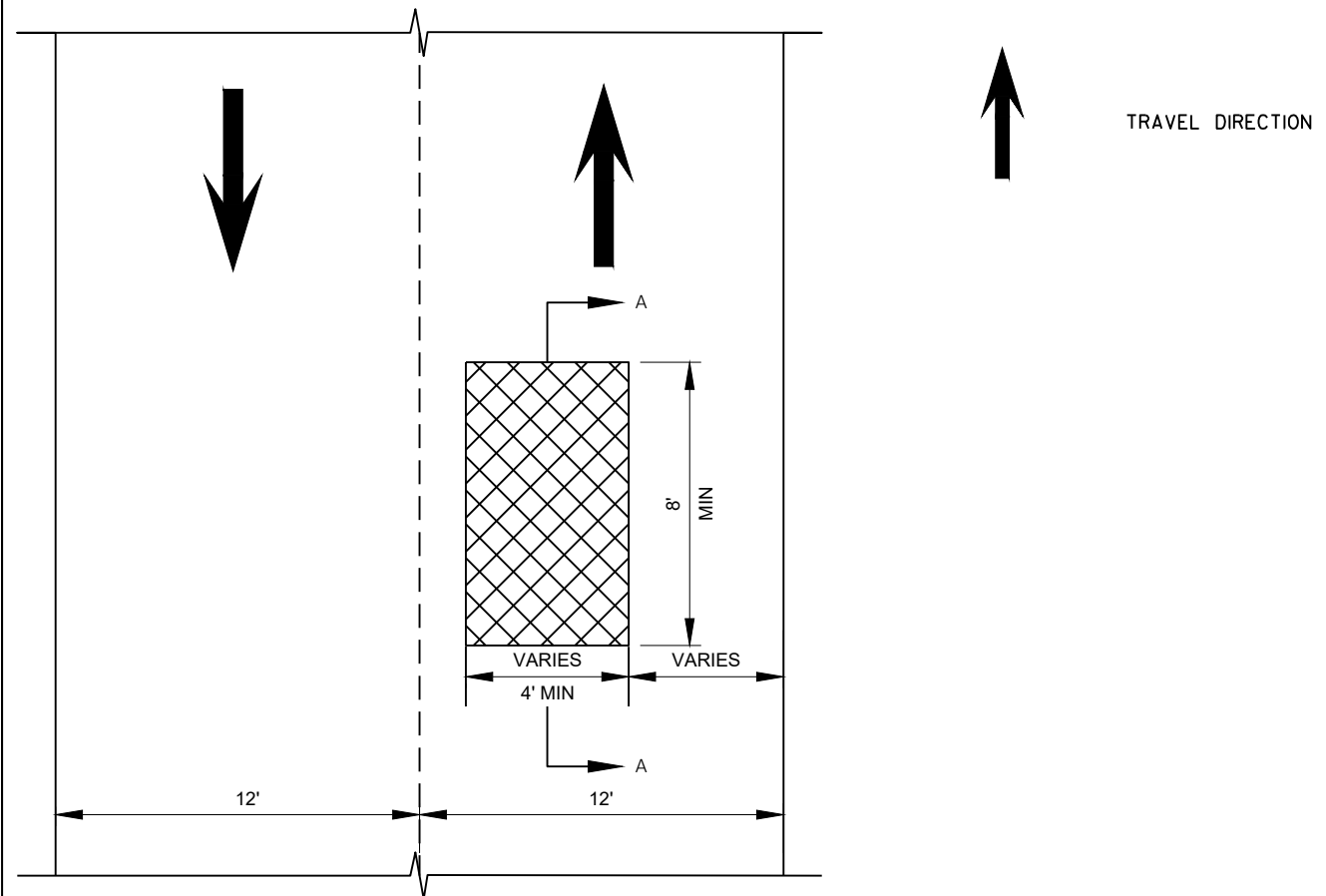
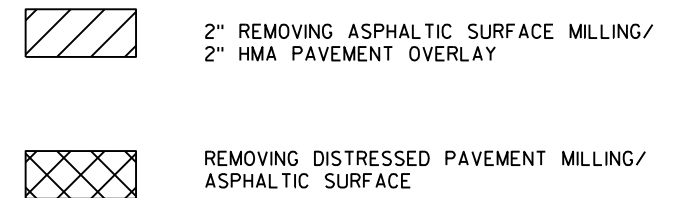


RURAL DRIVEWAY DETAIL

SEE NOTE IN MISC. QUANTITIES REGARDING AGGREGATE DRIVEWAY & FIELD ENTRANCE B.A.D. SIZE

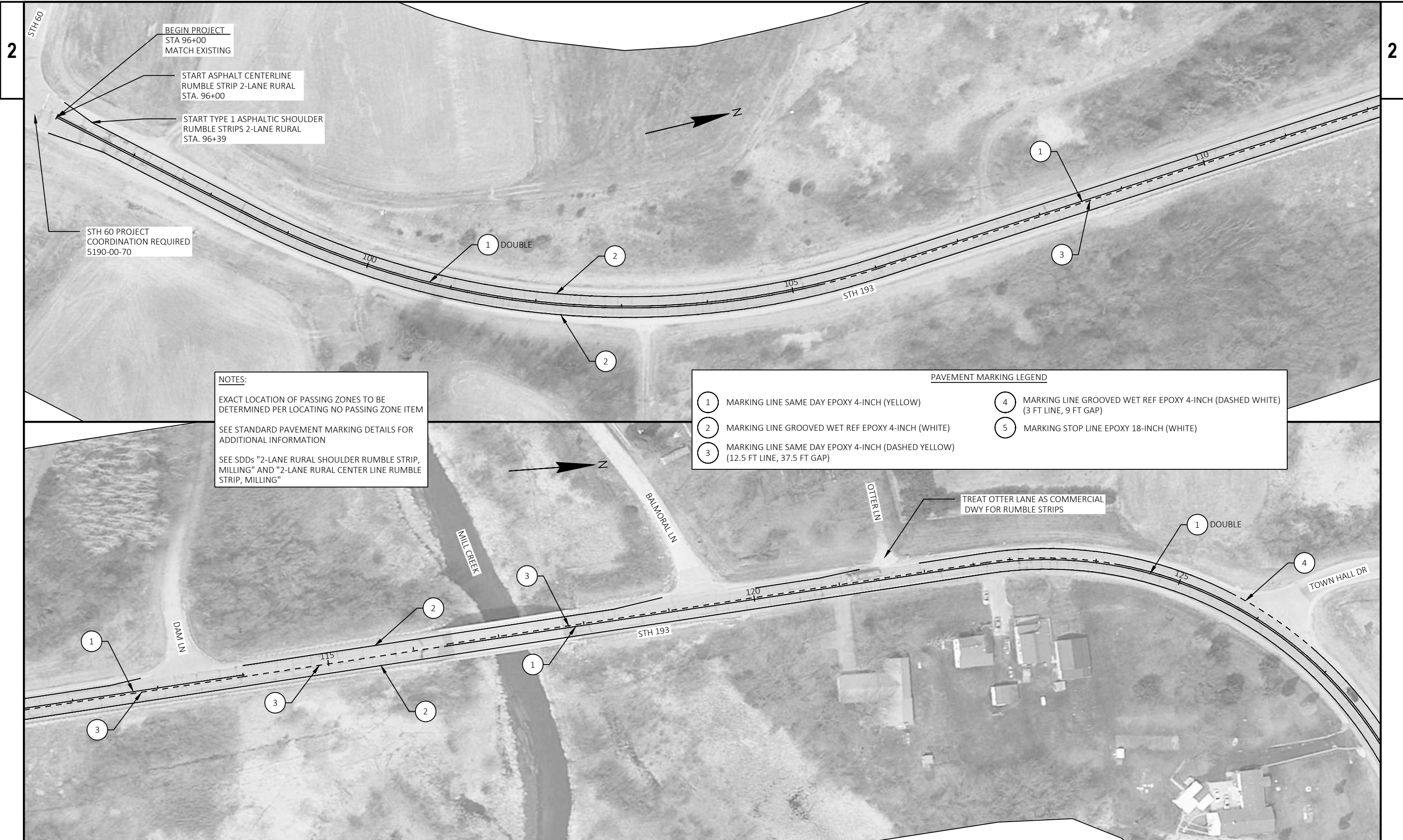


REMOVING DISTRESSED PAVEMENT MILLING
SECTION A-A



REMOVING DISTRESSED PAVEMENT MILLING
PLAN VIEW

EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD



BEGIN PROJECT
STA 96+00
MATCH EXISTING

START ASPHALT CENTERLINE
RUMBLE STRIP 2-LANE RURAL
STA. 96+00

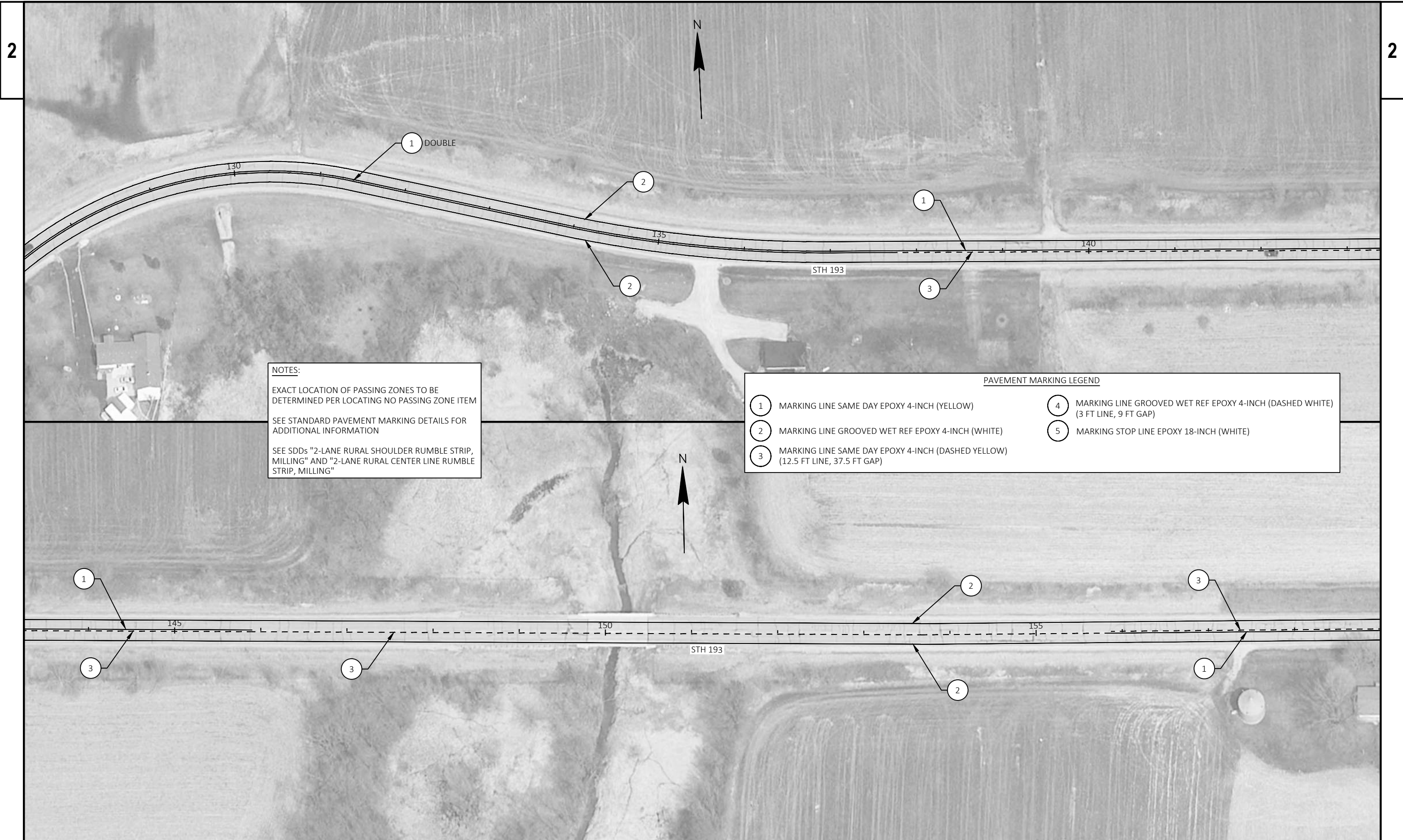
START TYPE 1 ASPHALTIC SHOULDER
RUMBLE STRIPS 2-LANE RURAL
STA. 96+39

STH 60 PROJECT
COORDINATION REQUIRED
5190-00-70

NOTES:
EXACT LOCATION OF PASSING ZONES TO BE
DETERMINED PER LOCATING NO PASSING ZONE ITEM
SEE STANDARD PAVEMENT MARKING DETAILS FOR
ADDITIONAL INFORMATION
SEE SDDs "2-LANE RURAL SHOULDER RUMBLE STRIP,
MILLING" AND "2-LANE RURAL CENTER LINE RUMBLE
STRIP, MILLING"

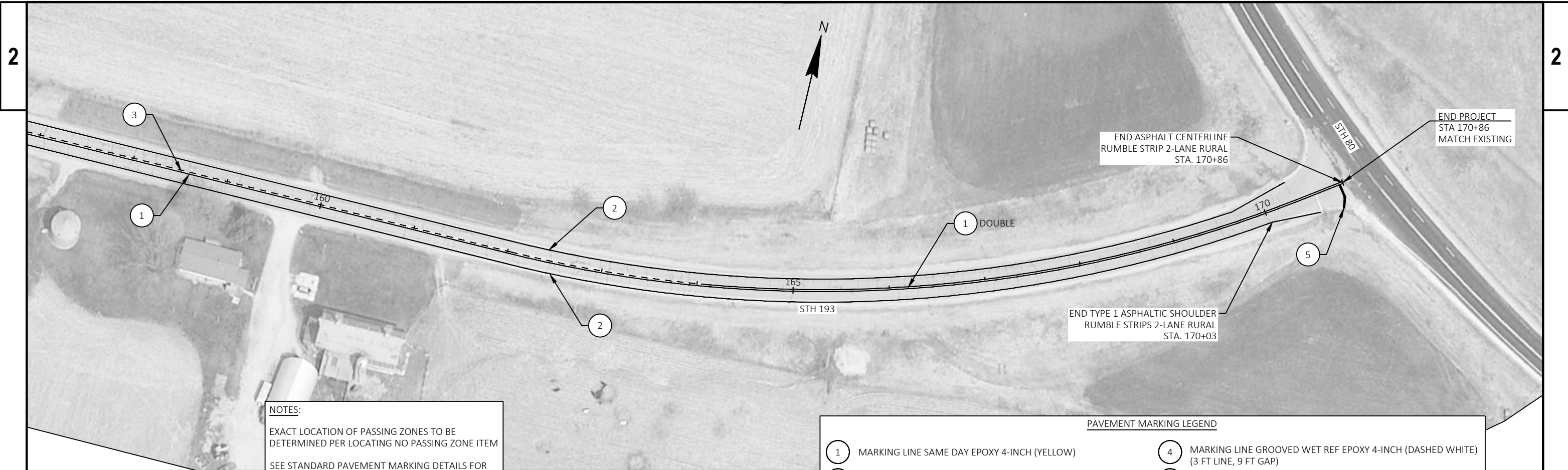
PAVEMENT MARKING LEGEND	
1	MARKING LINE SAME DAY EPOXY 4-INCH (YELLOW)
2	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
3	MARKING LINE SAME DAY EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE, 37.5 FT GAP)
4	MARKING LINE GROOVED WET REF EPOXY 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT GAP)
5	MARKING STOP LINE EPOXY 18-INCH (WHITE)

TREAT OTTER LANE AS COMMERCIAL
DWY FOR RUMBLE STRIPS



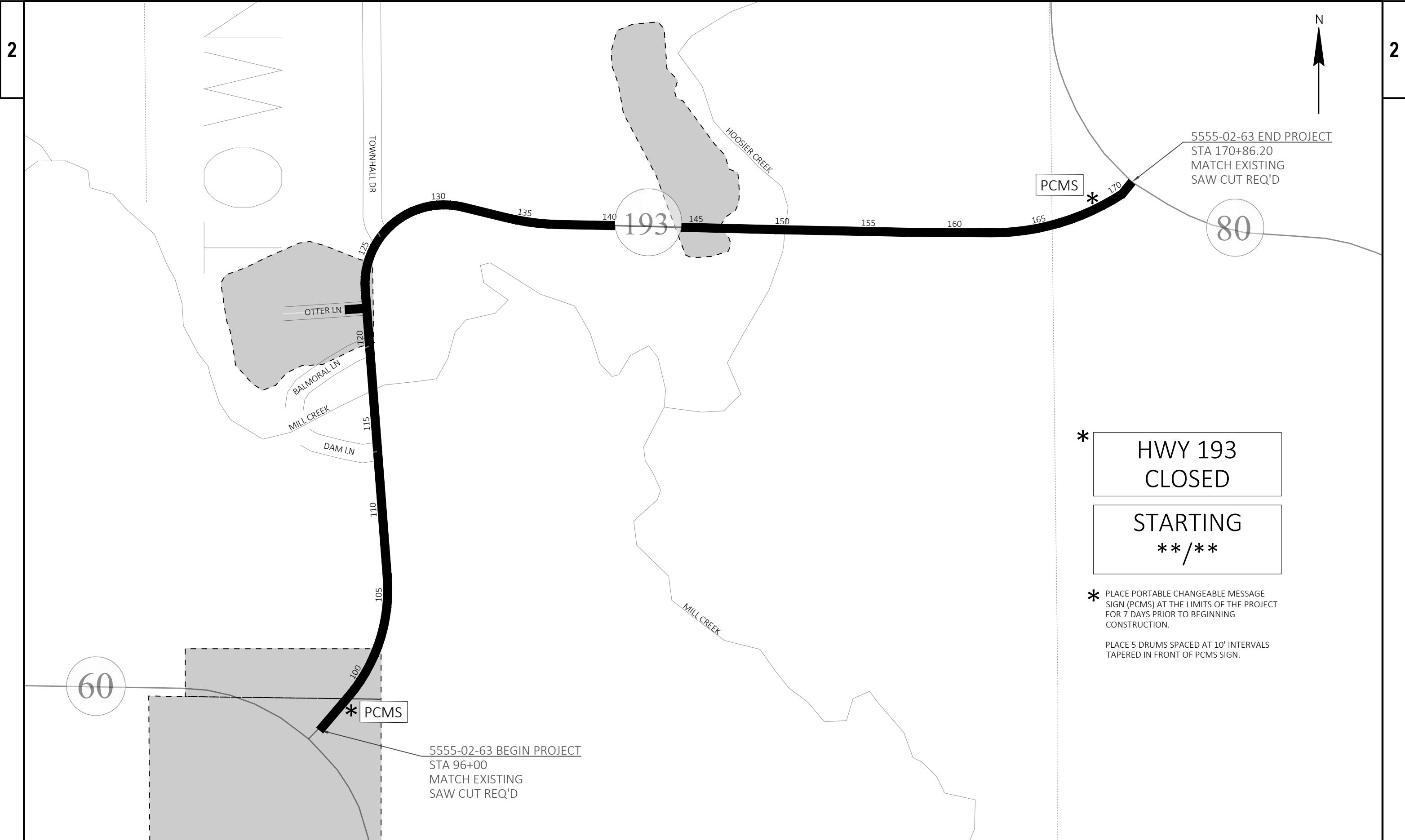
NOTES:
 EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM
 SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION
 SEE SDDs "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" AND "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING"

PAVEMENT MARKING LEGEND	
1	MARKING LINE SAME DAY EPOXY 4-INCH (YELLOW)
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NOTES:
 EXACT LOCATION OF PASSING ZONES TO BE DETERMINED PER LOCATING NO PASSING ZONE ITEM
 SEE STANDARD PAVEMENT MARKING DETAILS FOR ADDITIONAL INFORMATION
 SEE SDDs "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" AND "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING"

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





* HWY 193
CLOSED

STARTING
/

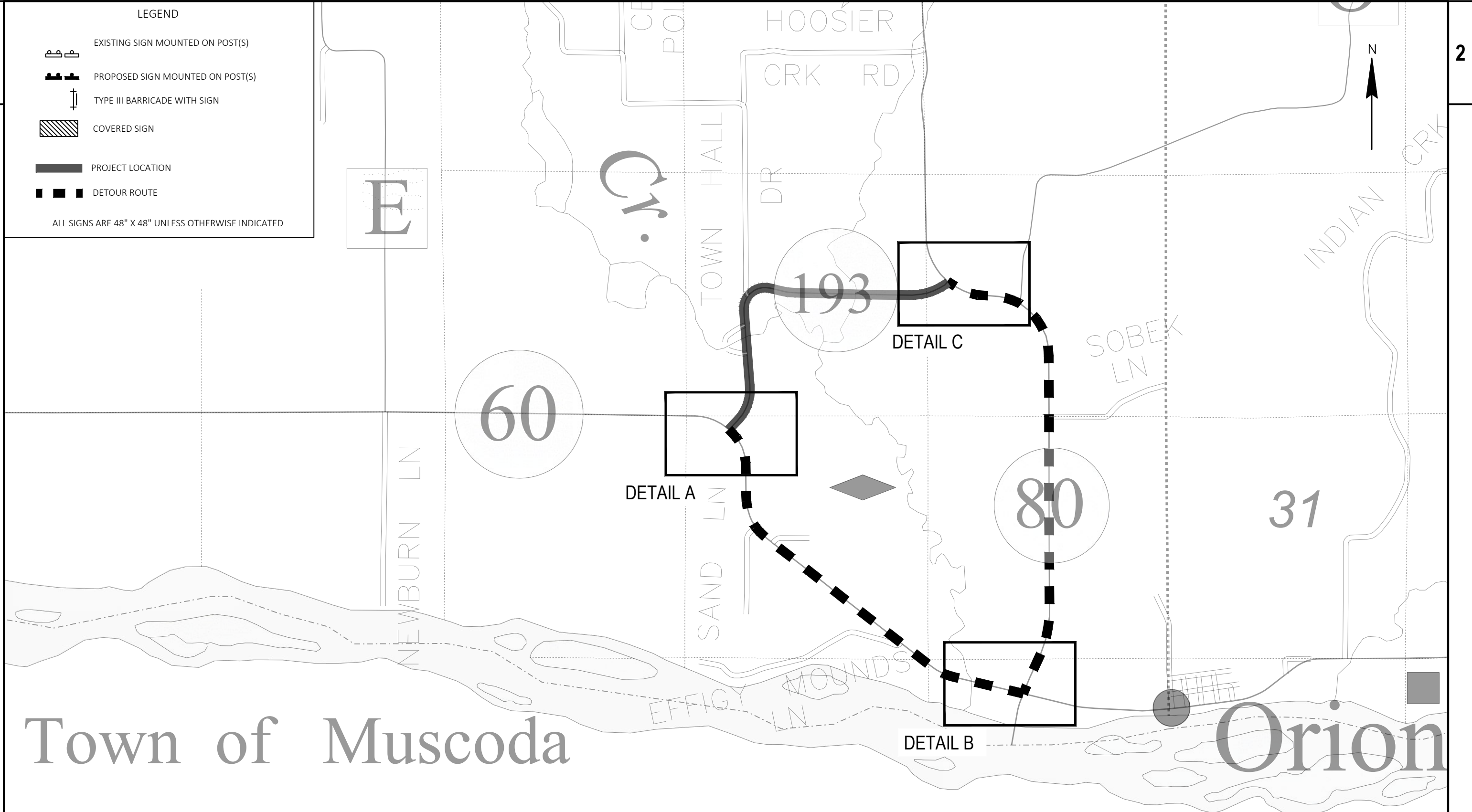
* PLACE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) AT THE LIMITS OF THE PROJECT FOR 7 DAYS PRIOR TO BEGINNING CONSTRUCTION.

PLACE 5 DRUMS SPACED AT 10' INTERVALS TAPERED IN FRONT OF PCMS SIGN.

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON POST(S)
-  TYPE III BARRICADE WITH SIGN
-  COVERED SIGN
-  PROJECT LOCATION
-  DETOUR ROUTE

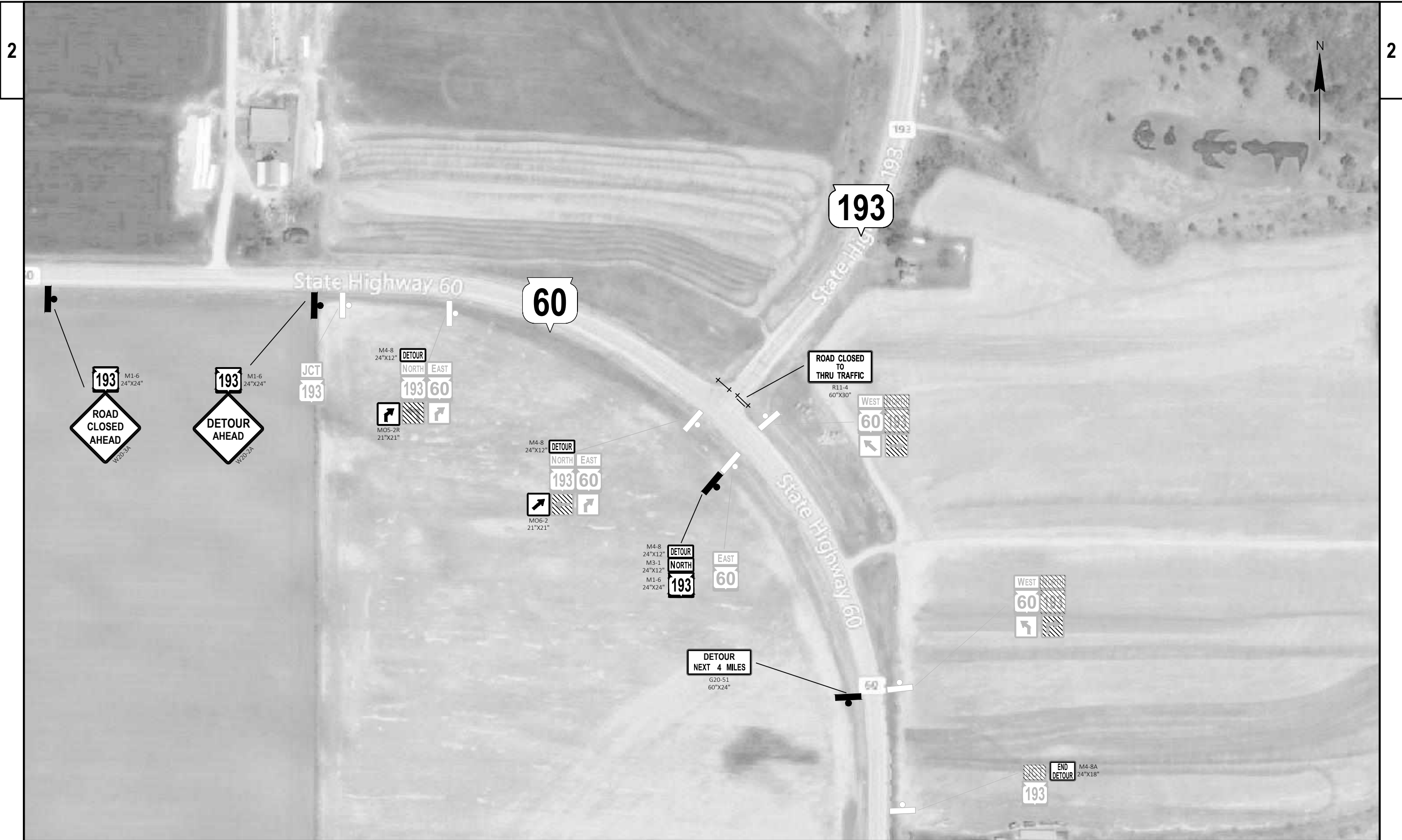
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE INDICATED



Town of Muscoda

Orion

**SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" AND
SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"**



PROJECT NO: 5555-02-63	HWY: STH 193	COUNTY: RICHLAND	DETOUR - DETAIL A	SHEET	E
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FILE NAME : N:\PDS\C3D\55550233\SHEETSPLAN\027001-DT(DETAILS).DWG
LAYOUT NAME - DETAIL A

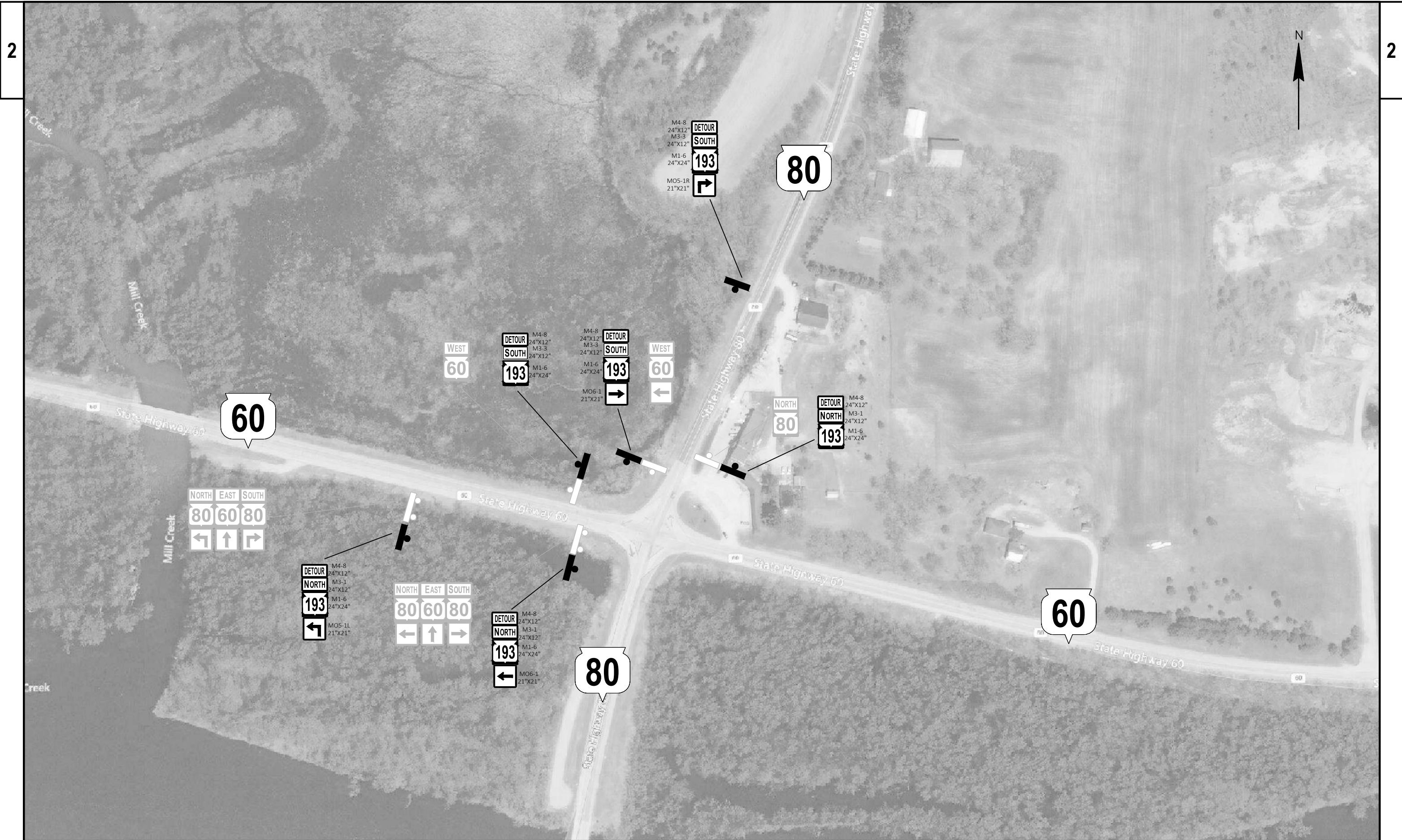
PLOT DATE : 10/4/2021 1:51 PM

PLOT BY : CLEMENTS, ERIN A

PLOT NAME :

PLOT SCALE : 1 IN:200 FT

WISDOT/CADD SHEET 42



2

2



PROJECT NO: 5555-02-63	HWY: STH 193	COUNTY: RICHLAND	DETOUR - DETAIL C	SHEET	E
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Estimate Of Quantities

5555-02-63

Line	Item	Item Description	Unit	Total	Qty
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	70.000	70.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	25,664.000	25,664.000
0006	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5555-02-63	LS	1.000	1.000
0008	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	75.000	75.000
0010	213.0100	Finishing Roadway (project) 01. 5555-02-63	EACH	1.000	1.000
0012	305.0110	Base Aggregate Dense 3/4-Inch	TON	232.000	232.000
0014	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12.000	12.000
0016	455.0605	Tack Coat	GAL	1,796.000	1,796.000
0018	460.2000	Incentive Density HMA Pavement	DOL	2,380.000	2,380.000
0020	460.5224	HMA Pavement 4 LT 58-28 S	TON	3,707.000	3,707.000
0022	465.0105	Asphaltic Surface	TON	185.000	185.000
0024	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	10,860.000	10,860.000
0026	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	5,946.000	5,946.000
0028	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5555-02-63	EACH	1.000	1.000
0030	619.1000	Mobilization	EACH	1.000	1.000
0032	624.0100	Water	MGAL	2.000	2.000
0034	643.0300	Traffic Control Drums	DAY	70.000	70.000
0036	643.0420	Traffic Control Barricades Type III	DAY	100.000	100.000
0038	643.0705	Traffic Control Warning Lights Type A	DAY	200.000	200.000
0040	643.0900	Traffic Control Signs	DAY	1,547.000	1,547.000
0042	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0044	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0046	643.5000	Traffic Control	EACH	1.000	1.000
0048	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	14,586.000	14,586.000
0050	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	10,334.000	10,334.000
0052	646.6120	Marking Stop Line Epoxy 18-Inch	LF	26.000	26.000
0054	648.0100	Locating No-Passing Zones	MI	1.420	1.420
0056	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	10,334.000	10,334.000
0058	650.8000	Construction Staking Resurfacing Reference	LF	7,486.000	7,486.000
0060	650.9910	Construction Staking Supplemental Control (project) 01. 5555-02-63	LS	1.000	1.000
0062	690.0150	Sawing Asphalt	LF	312.000	312.000
0064	740.0440	Incentive IRI Ride	DOL	5,671.000	5,671.000
0066	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	2.000	2.000
0068	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	1,283.000	1,283.000

ROADWAY ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	211.0100.01	211.0400	213.0100.01	618.0100.01	REMARKS
					PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) LS	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	FINISHING ROADWAY (PROJECT) EACH	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) EACH	
0010	96+00	-	170+86		1	-	1	1	
	96+00	-	116+46		-	21	-	-	
	117+76	-	149+79		-	33	-	-	
	150+49	-	170+86		-	21	-	-	
TOTAL 0010					1	75	1	1	

ASPHALT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	204.0115	204.0120	455.0605	460.5224	465.0105	465.0425	465.0475	690.0150	SPV.0180.01	REMARKS
					REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMOVING ASPHALTIC SURFACE MILLING SY	TACK COAT GAL	HMA PAVEMENT 4 LT 58 28 S TON	ASPHALTIC SURFACE TON	TYPE 1 ASPHALTIC SHOULDR RUMBLE STRIPS 2-LANE RURAL LF	ASPHALT CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	SAWING ASPHALT LF	REMOVING DISTRESSED PAVEMENT MILLING SY	
0010	96+00	-		PROJECT START	7	-	-	-	-	-	-	30	-	
	96+00	-	99+74	RT	-	-	-	-	-	300	-	-	-	
	96+00	-	116+22	LT	-	-	-	-	-	1284	-	-	-	
	96+00		116+46	RT/LI	8	7,230	506	1,036	-	-	-	34	-	
	96+00	-	111+34	CL	-	-	-	-	-	-	1,534	-	-	
	100+23	-	111+94	RT	-	-	-	-	-	1,268	-	-	-	
	113+35	-		LT	6	-	-	-	-	-	-	28	-	DAM LN
	114+86	-	116+21	LT	-	-	-	-	-	108	-	-	-	
	115+34	-	116+22	CL	-	-	-	-	-	-	88	-	-	
	117+76	-	149+79	RT/LT	8	11,358	795	1,645	-	-	-	34	-	
	118+01	-	120+74	RT	-	-	-	-	-	218	-	-	-	
	119+30			LI	6	-	-	-	-	-	-	28	-	BALMORAL LN
	121+24	-	122+53	RT	-	-	-	-	-	103	-	-	-	
	122+45	-	125+10	LT	-	-	-	-	-	217	-	-	-	
	122+57	-	124+16	CL	-	-	-	-	-	-	159	-	-	
	123+04	-	127+58	RT	-	-	-	-	-	353	-	-	-	
	126+26	-		LT	6	-	-	-	-	-	-	28	-	TOWNHALL DR
	127+73		149+54	LI	-	-	-	-	-	1,750	-	-	-	
	128+01	-	149+55	CL	-	-	-	-	-	571	2,153	-	-	
	128+12	-	135+33	RT	-	-	-	-	-	571	-	-	-	
	135+83	-	149+54	RT	-	-	-	-	-	1,098	-	-	-	
	150+49	-	170+86	RT/LT	-	7,076	495	1,026	-	-	-	-	-	
	150+59	-	159+46	RT	-	-	-	-	-	698	-	-	-	
	150+59		170+30	LI	-	-	-	-	-	1,509	-	-	-	
	150+75	-	170+86	CL	-	-	-	-	-	-	2,012	-	-	
	159+96	-	170+04	RT	-	-	-	-	-	812	-	-	-	
	170+86	-		PROJECT END	29	-	-	-	-	-	-	130	-	
	UNDISTRIBUTED								185				1,283	DISTRSSFD MILLING
TOTAL 0010					70	25,664	1,796	3,707	185	10,860	5,946	312	1,283	

* HMA ESTIMATED AT 2.3-INCH DEPTH DUE TO THIN EXISTING PAVEMENT

BASE AGGREGATE

CATEGORY	STATION TO	STATION	LOCATION	*		REMARKS
				305.0110 BASE AGGREGATE DENSE 3/4 INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4 INCH TON	
0010	96+00	- 113+21	LT	22	-	
	96+00	- 116+27	RT	46	-	
	97+24	-	LT	-	1	FE
	99+99	-	RT	-	2	PE
	103+26	-	RT	-	1	FE
	107+45	-	LT	-	2	FE
	113+49	- 116+28	LT	11	-	
	117+97	- 119+14	LT	5	-	
	117+97	- 120+85	RT	9	-	
	119+46	- 121+50	LT	3	-	
	121+14	- 122+63	RT	2	-	
	121+60	- 126+14	LT	7	-	
	122+95	- 127+61	RT	6	-	
	126+39	- 149+66	LT	34	-	
	127+98	- 149+66	RT	31	-	
	135+59	-	RT	-	1	PE
	139+56	-	LT	-	1	FE
	150+59	- 170+30	LT	28	-	
	150+59	- 170+53	RT	28	-	
	157+36	-	RT	-	1	FE
	159+71	-	RT	-	2	PE
	159+87	-	LT	-	1	FE
TOTAL 0010				232	12	

* CONTRACTOR CAN USE 3/4 INCH FOR DWY/FEs. SEE NOTES TO CONTRACTOR FOR EXPLANATION

TRAFFIC CONTROL

CATEGORY	STATION TO	STATION	LOCATION	643.0300		643.0420		643.0705		643.0900		* 643.0920		643.1050		643.5000		REMARKS
				TRAFFIC CONTROL DRUMS	DAY	TRAFFIC CONTROL BARRICADES TYPE III	DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A	EACH	DAY	TRAFFIC CONTROL SIGNNS	EACH	DAY	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	DAY	TRAFFIC CONTROL SIGNNS PCMS	
0010			PROJECT	10	70	-	-	-	-	-	-	-	-	2	14	-	-	PRE-CONSTRUCTION
			PROJECT	-	-	4	100	8	200	49	1,225	4	-	-	-	-	-	DETOUR
			PROJECT	-	-	-	-	-	-	14	322	-	-	-	-	1	-	PROJECT DURATION
TOTAL 0010				70	70	100	100	200	200	1,547	1,547	4	4	14	14	1	1	

* THERE IS ONLY ONE TRAFFIC CONTROL STAGE. SIGNS WILL ONLY NEED TO BE COVERED ONCE.

STAKING

CATEGORY	STATION TO STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. TBD) LS	REMARKS
0010	96+00 - 170+86	RT & LT	7,486	1	
TOTAL 0010			7,486	1	

WATER

CATEGORY	STATION TO STATION	LOCATION	624.0100 WATER MGAL	REMARKS
0010	PROJECT	5555-02-63	2	
TOTAL 0010			2	

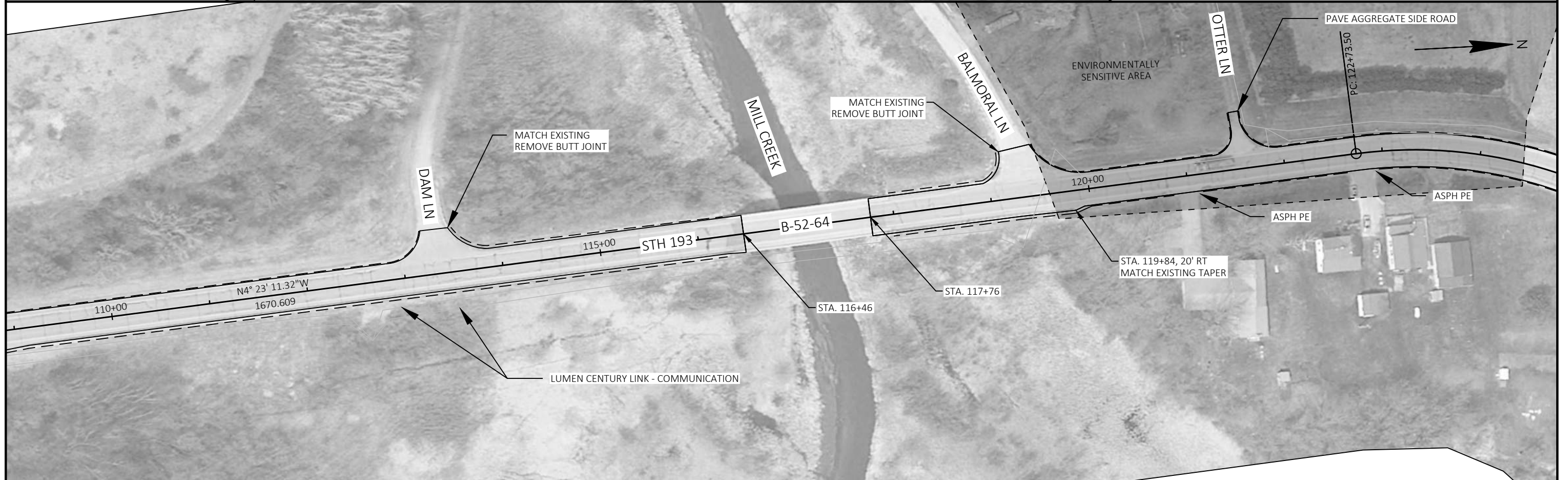
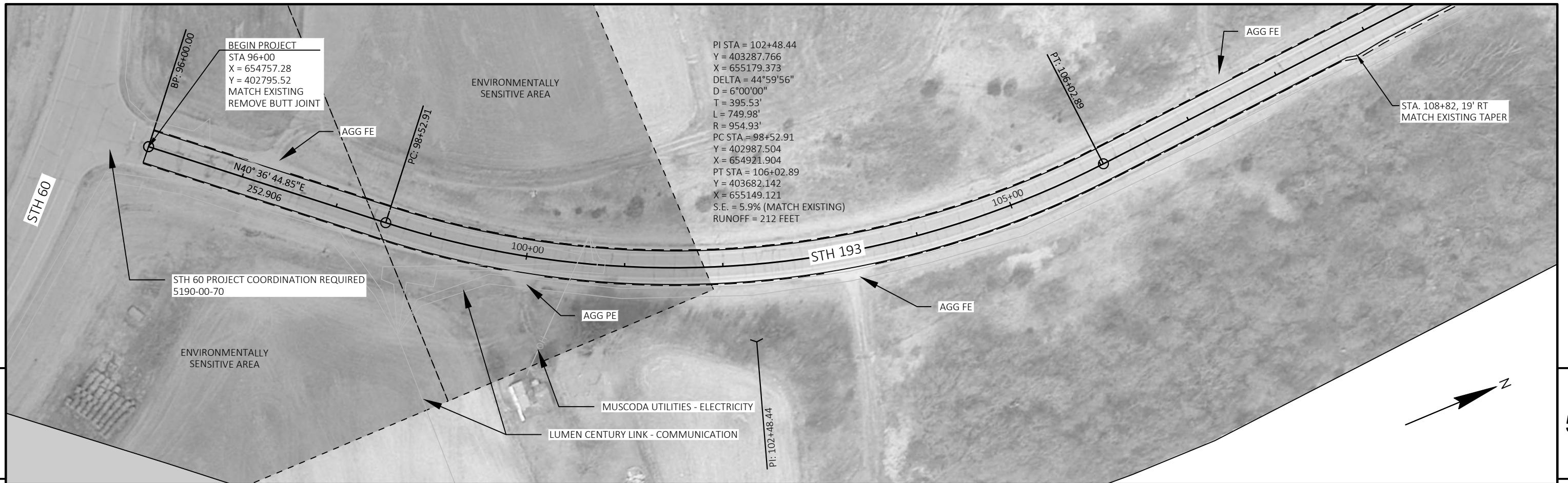
MONUMENTS

CATEGORY	STATION TO STATION	LOCATION	SPV.0060.01 VERIFY LANDMARK REFERENCE MONUMENTS EACH	REMARKS
0010	139+35 -	39.0' RT	1	
	165+52 -	42.7' RT	1	
TOTAL 0010			2	

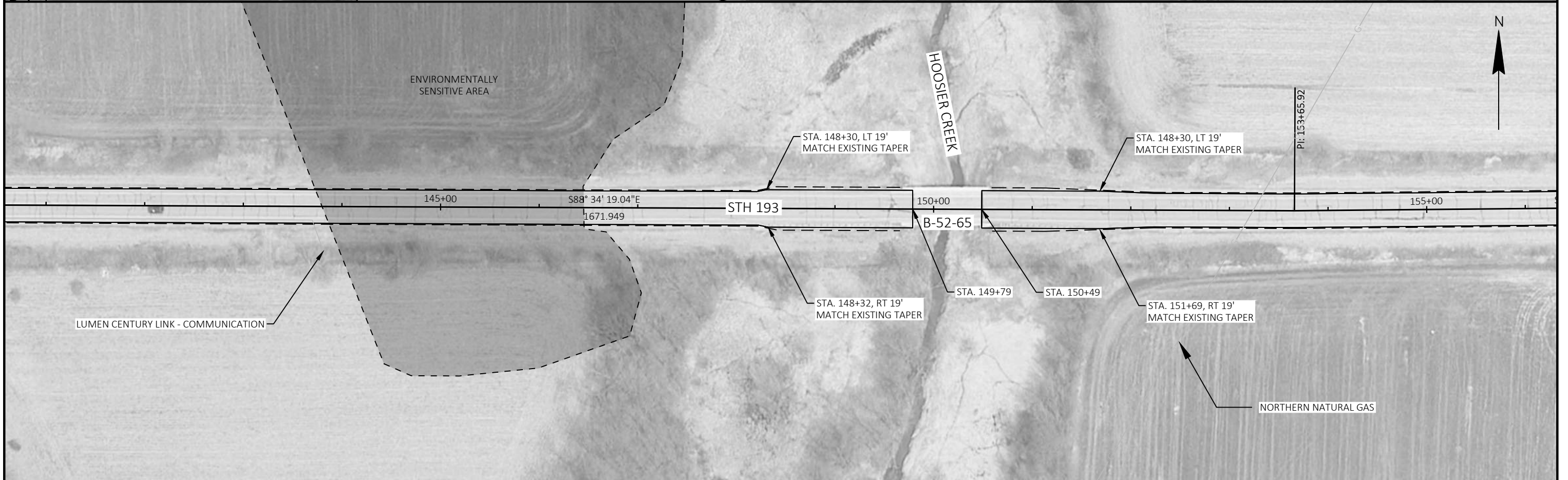
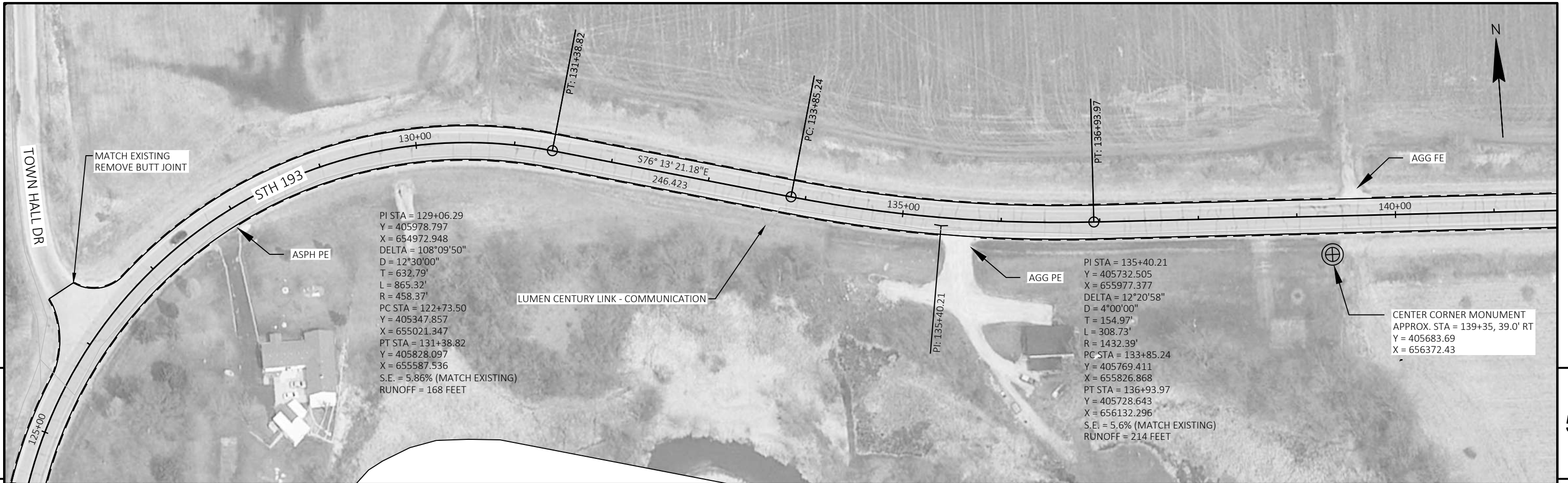
PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1040	646.4520	646.6120	648.0100	*	REMARKS
					MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	MARKING LINE SAME DAY EPOXY 4-INCH YELLOW LF	MARKING STOP LINE EPOXY 18 INCH WHITE LF	LOCATING NO- PASSING ZONES MI	TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW LF	
0010	96-00	-	170+53	RT	7453	-	-	-	-	EDGE LINE
	96-00	-	170+86	CL	-	-	-	1.42	-	
	96-00	-	105+30	CL	-	1,859	-	-	1,859	DOUBLE YELLOW EDGE LINE
	96-00	-	112+82	LT	1,682	-	-	-	-	
	105-30	-	114+01	CL	-	1,089	-	-	1,089	RT PASSING ONLY
	114-01	-	116+39	CL	-	59	-	-	59	PASSING
	114-01	-	118+94	LT	493	-	-	-	-	EDGE LINE
	116-39	-	124+27	CL	-	984	-	-	984	LT PASSING ONLY
	120-03	-	121+26	LT	123	-	-	-	-	EDGE LINE
	121-95	-	125+59	LT	364	-	-	-	-	EDGE LINE
	174-27	-	137+72	CL	-	2,691	-	-	2,691	DOUBLE YELLOW
	125-59	-	126+75	LT	116	-	-	-	-	DASHED
	126-75	-	170+30	LT	4,354	-	-	-	-	EDGE LINE
	137-72	-	145+90	CL	-	1,023	-	-	1,023	RT PASSING ONLY
	145-90	-	155+87	CL	-	249	-	-	249	PASSING
	155-87	-	164+13	CL	-	1,032	-	-	1,032	LT PASSING ONLY
	164-13	-	170+86	CL	-	1,346	-	-	1,346	DOUBLE YELLOW
		-	170+86	RT	-	-	26	-	-	
TOTAL 0010					14,586	10,334	26	1.42	10,334	

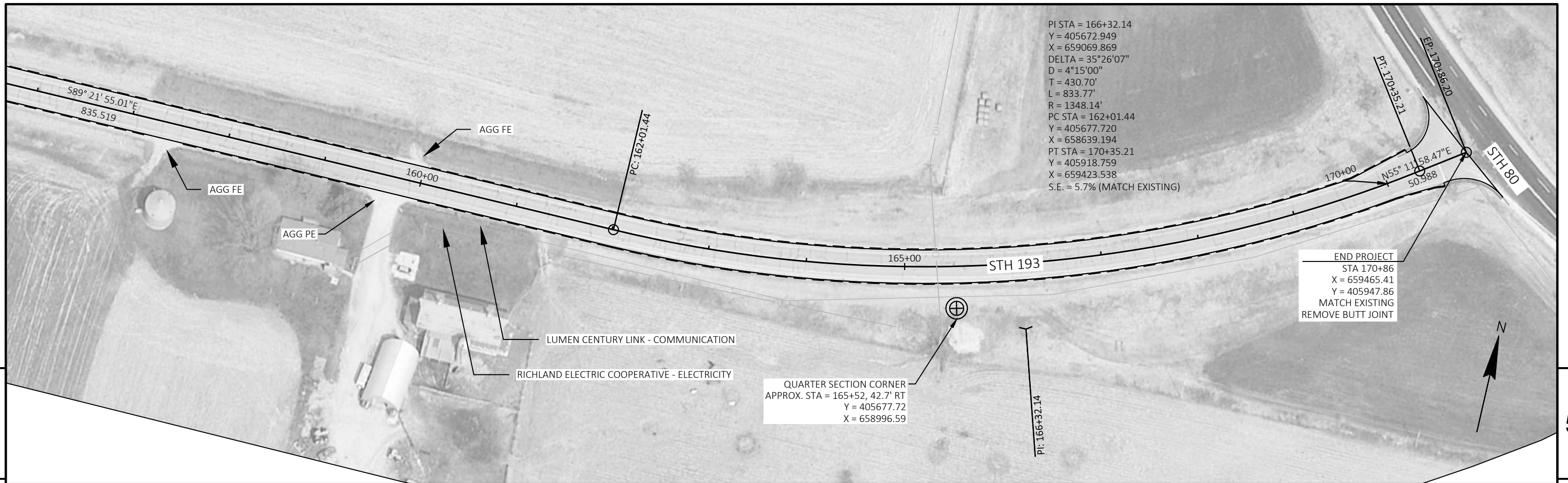
* TO BE USED ON FMA FINAL SURFACE BEFORE PLACEMENT OF CENTERLINE RUMBLE STRIPS OR AS DIRECTED BY THE FIELD ENGINEER



PROJECT NO: 5555-02-63	HWY: STH 193	COUNTY: RICHLAND	PLAN DETAILS	SHEET	E
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PROJECT NO: 5555-02-63	HWY: STH 193	COUNTY: RICHLAND	PLAN DETAILS	SHEET	E
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PROJECT NO: 5555-02-63

HWY: STH 193

COUNTY: RICHLAND

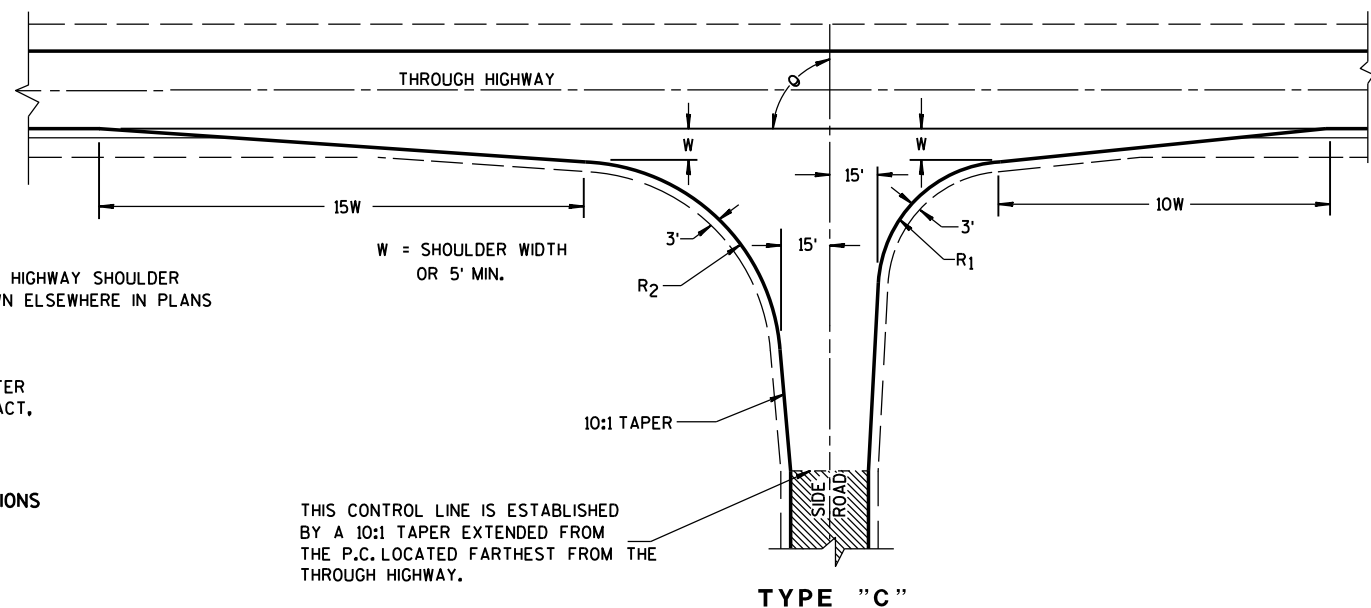
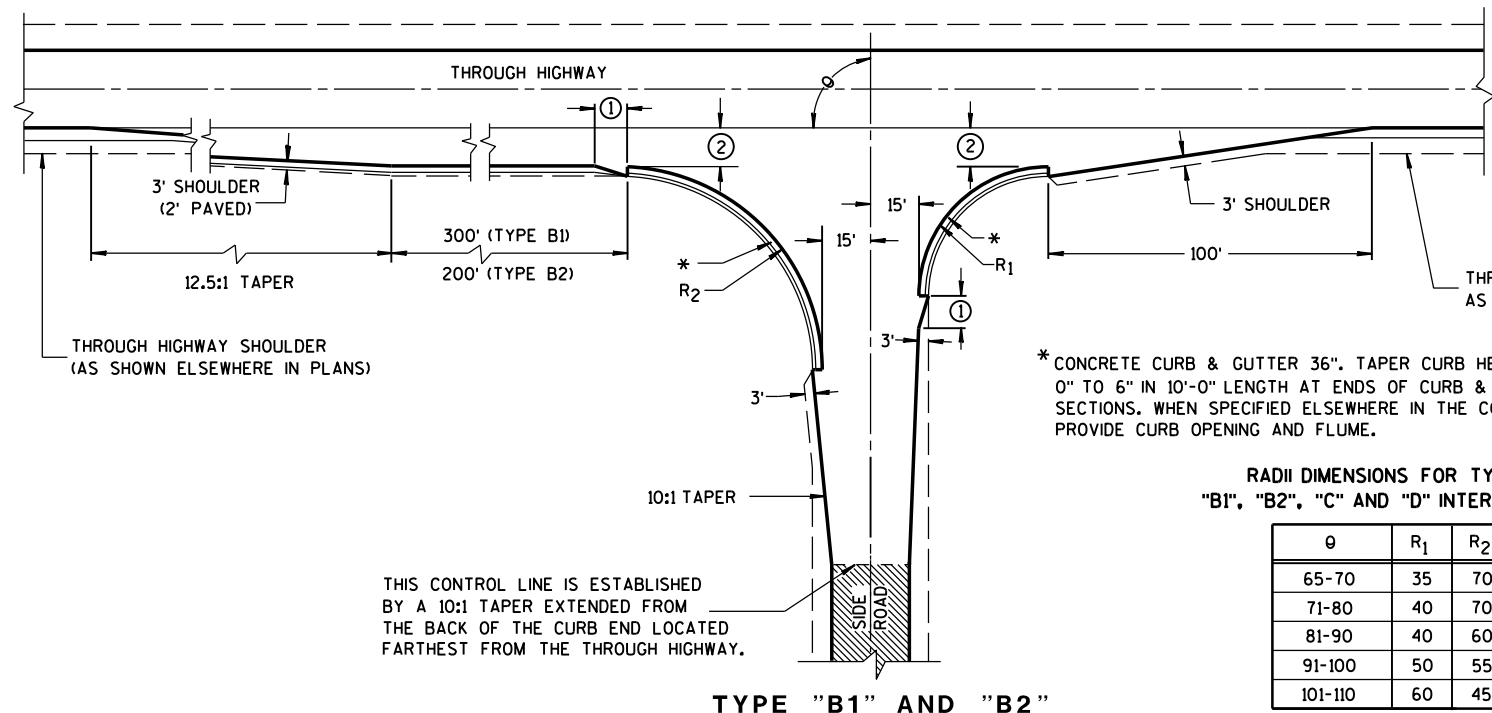
PLAN DETAILS

SHEET

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Standard Detail Drawing List

09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R ₁	R ₂
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

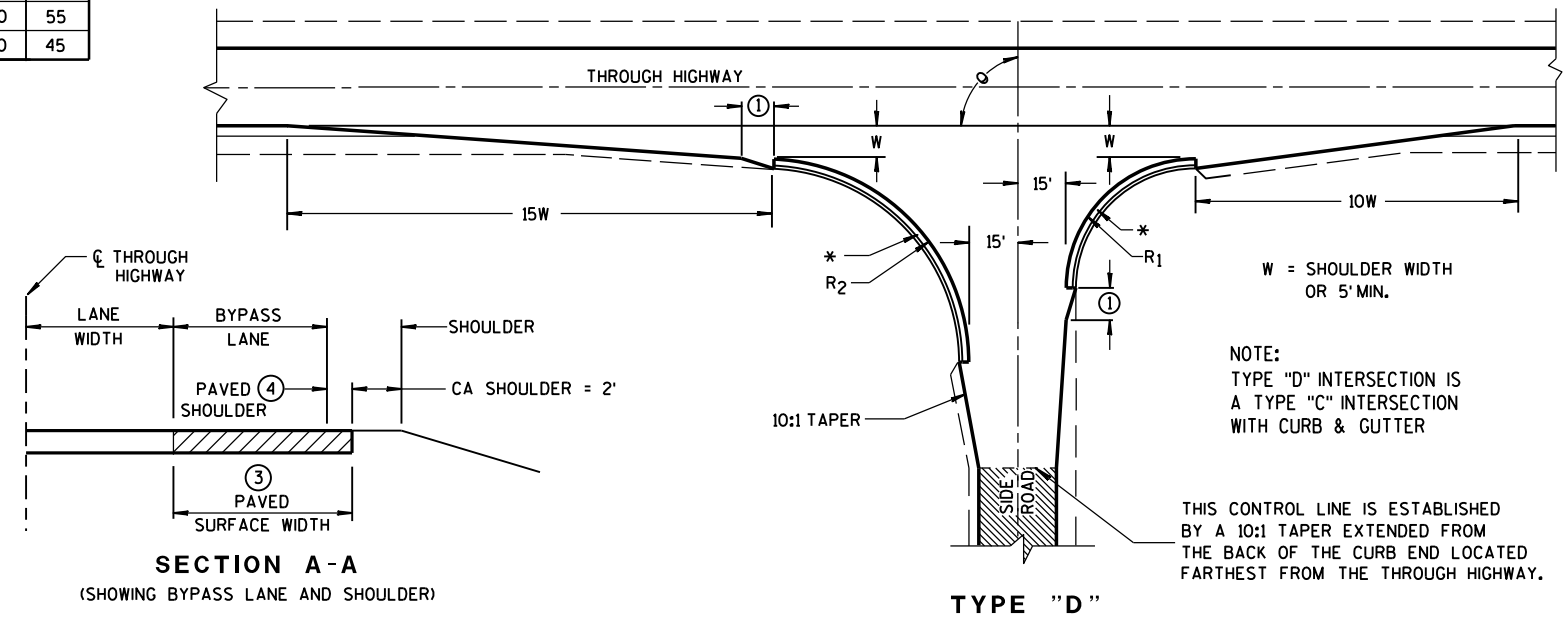
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

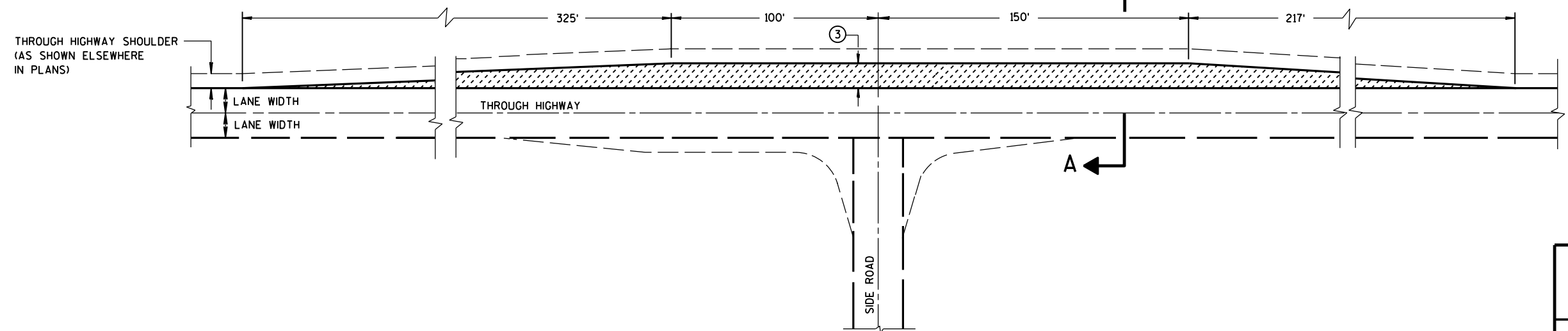
EXISTING PAVED SURFACE

BYPASS LANE

- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
- **10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A (SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

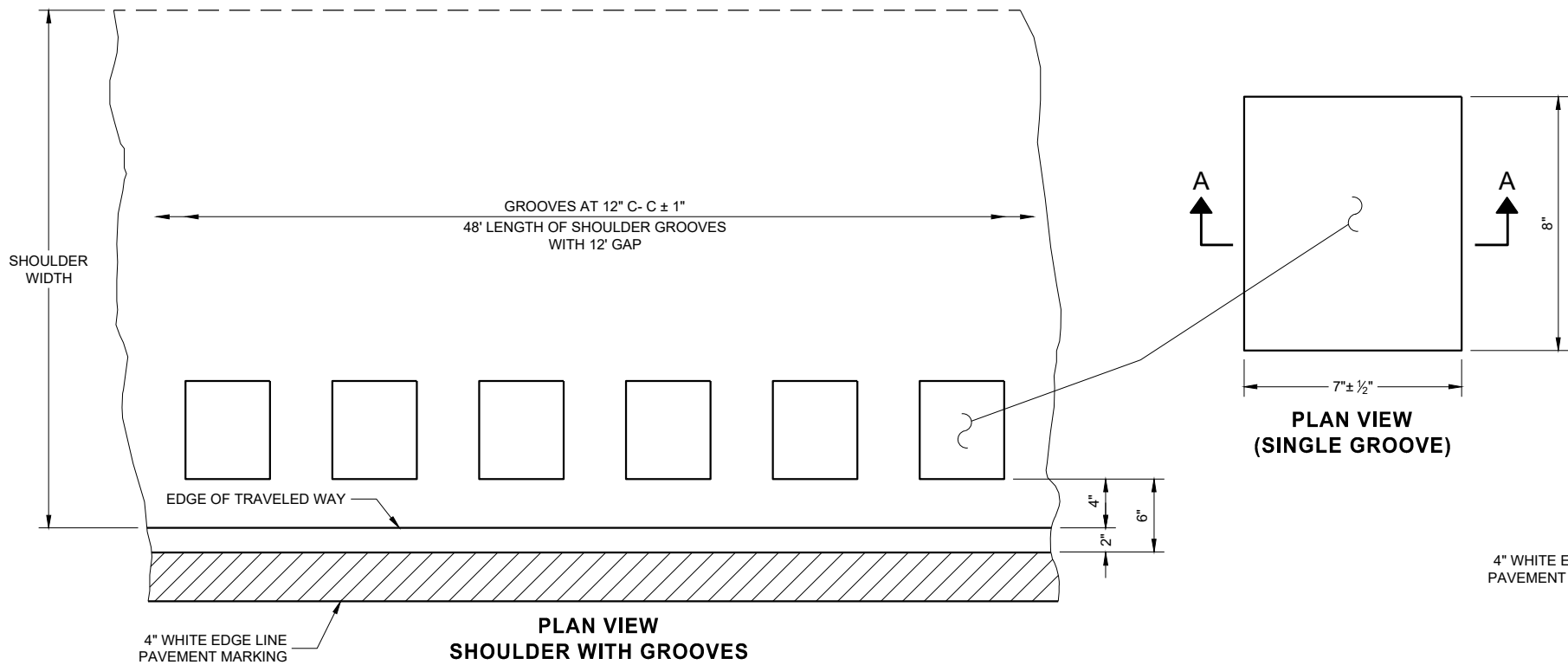
AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

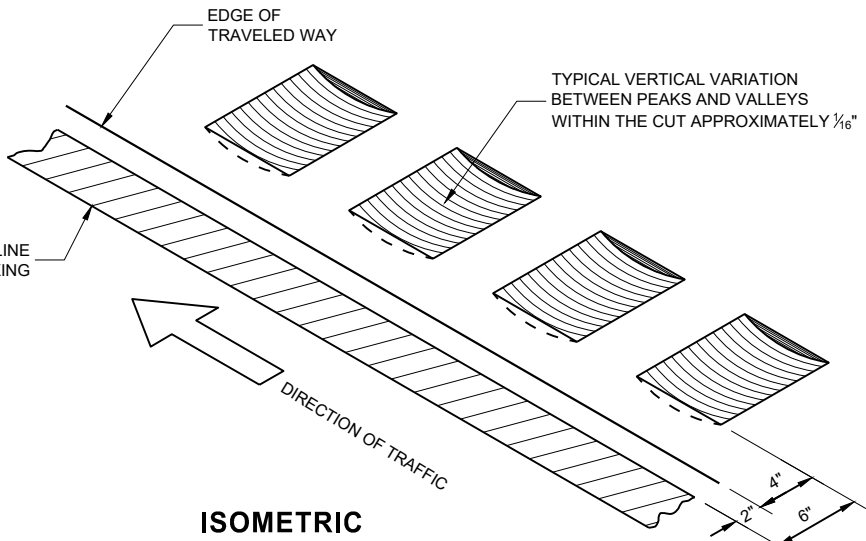
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

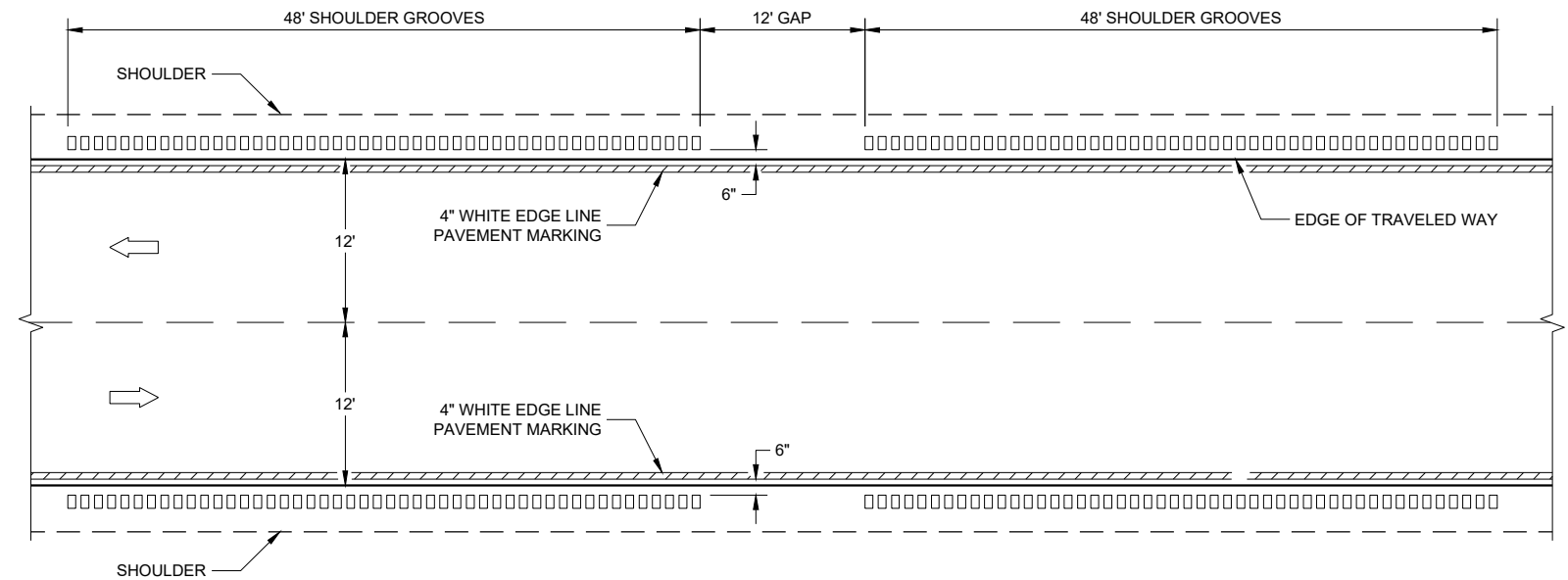
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



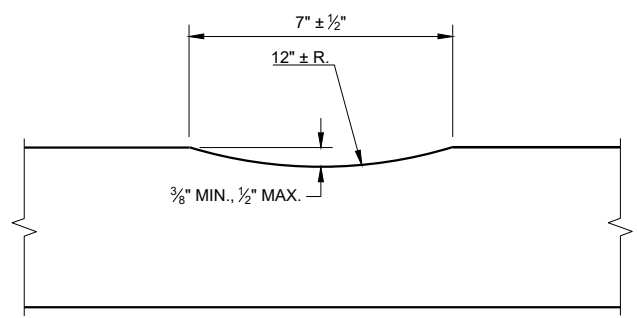
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



ISOMETRIC



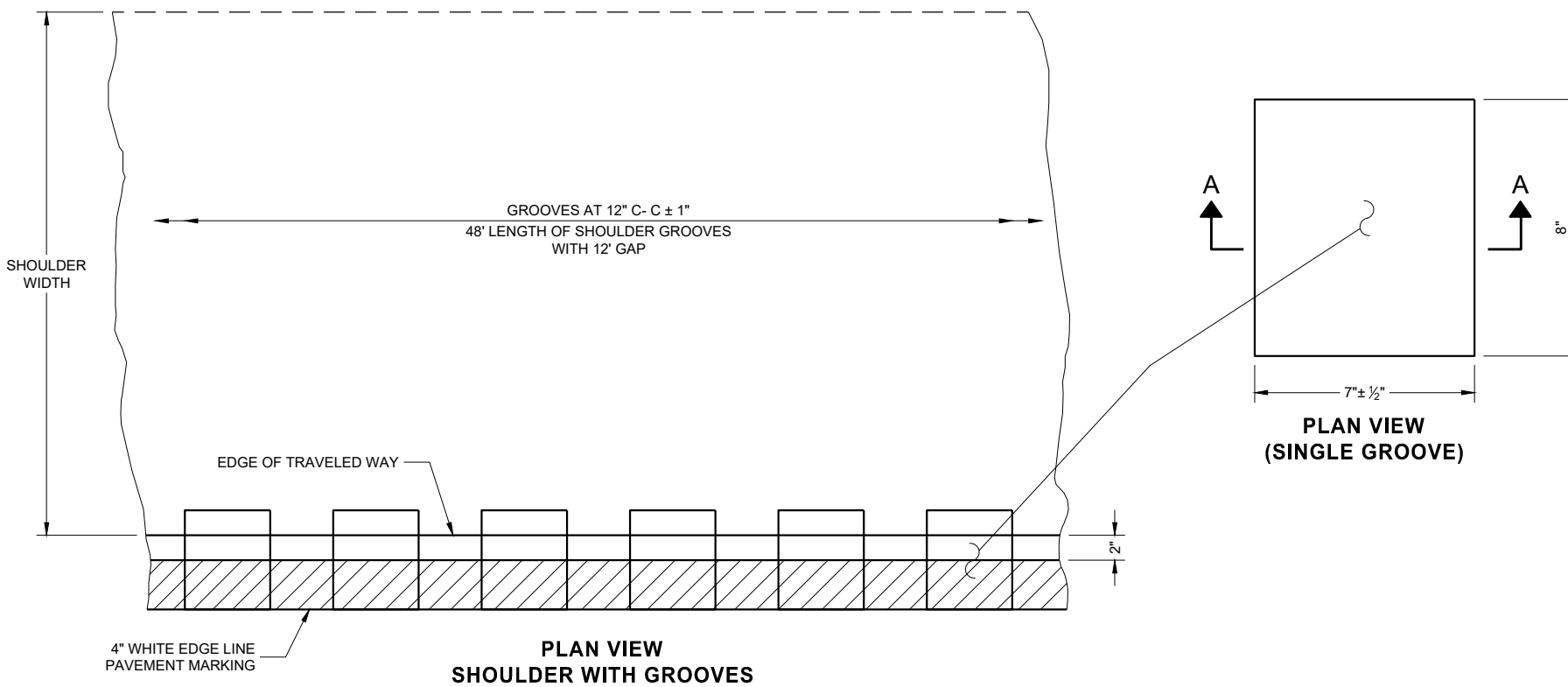
**TYPE 1
2 - LANE SHOULDER RUMBLE STRIP**



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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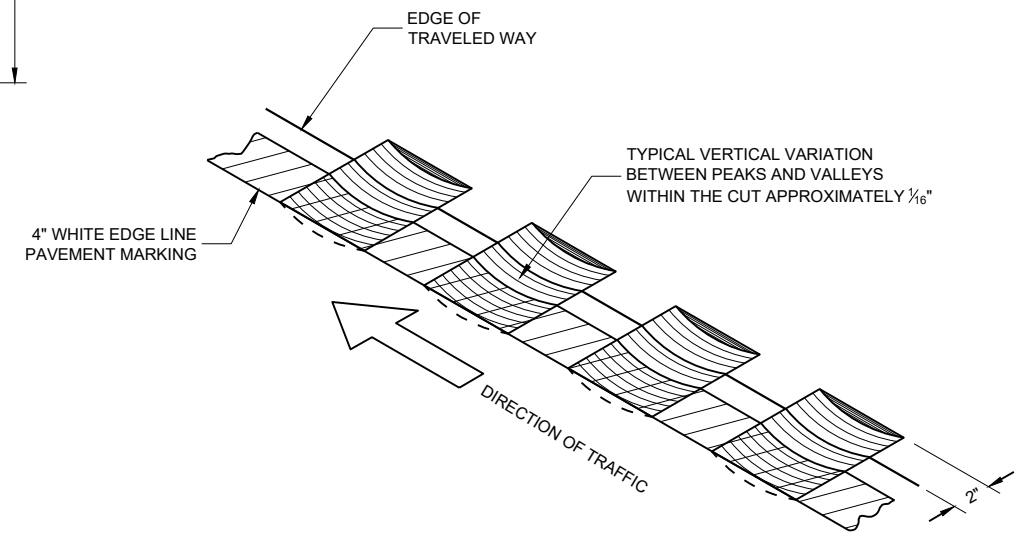
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

GENERAL NOTES

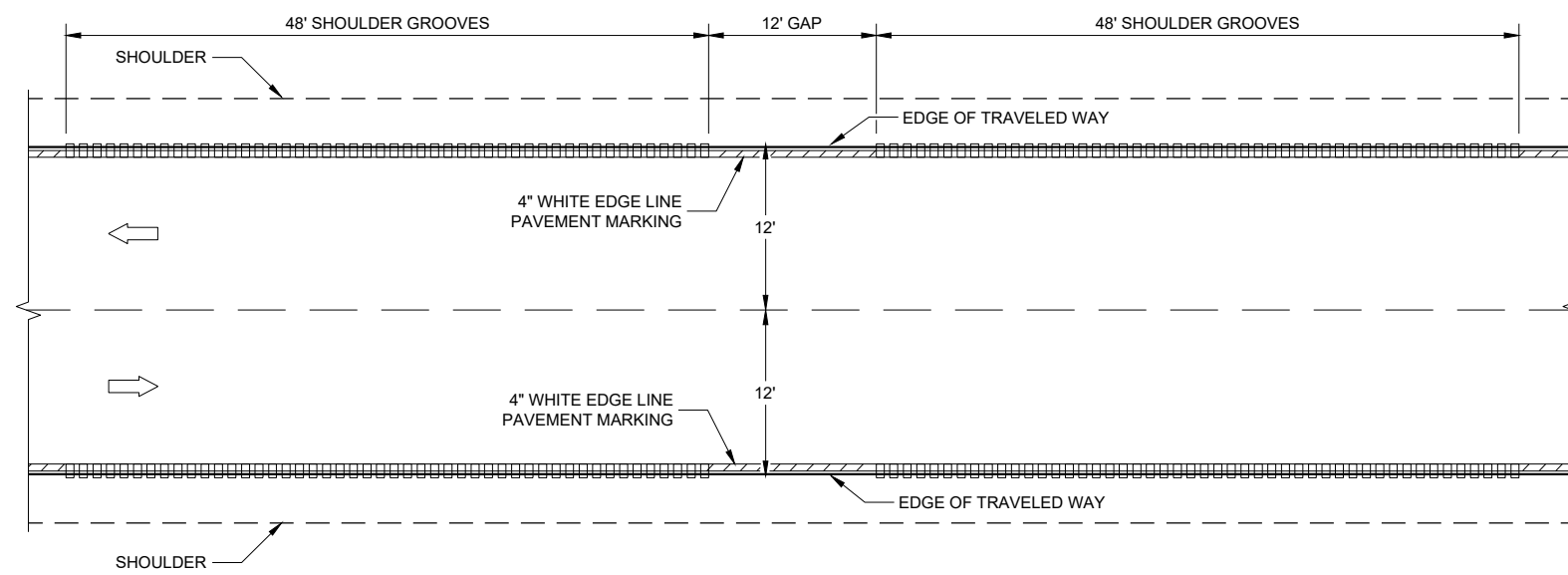
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

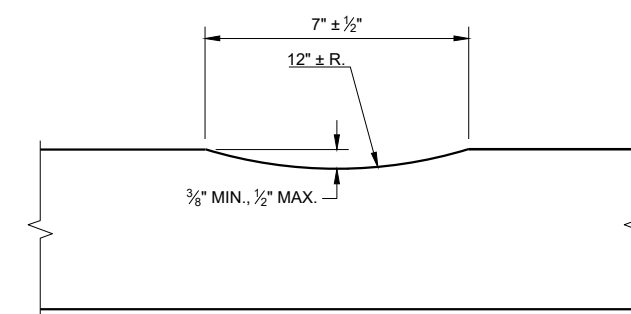
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



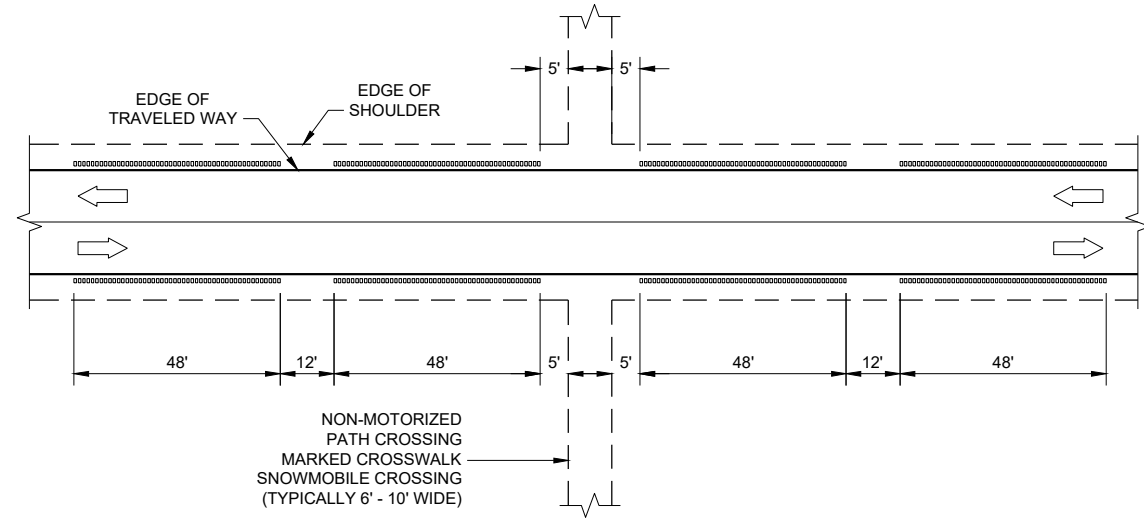
TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



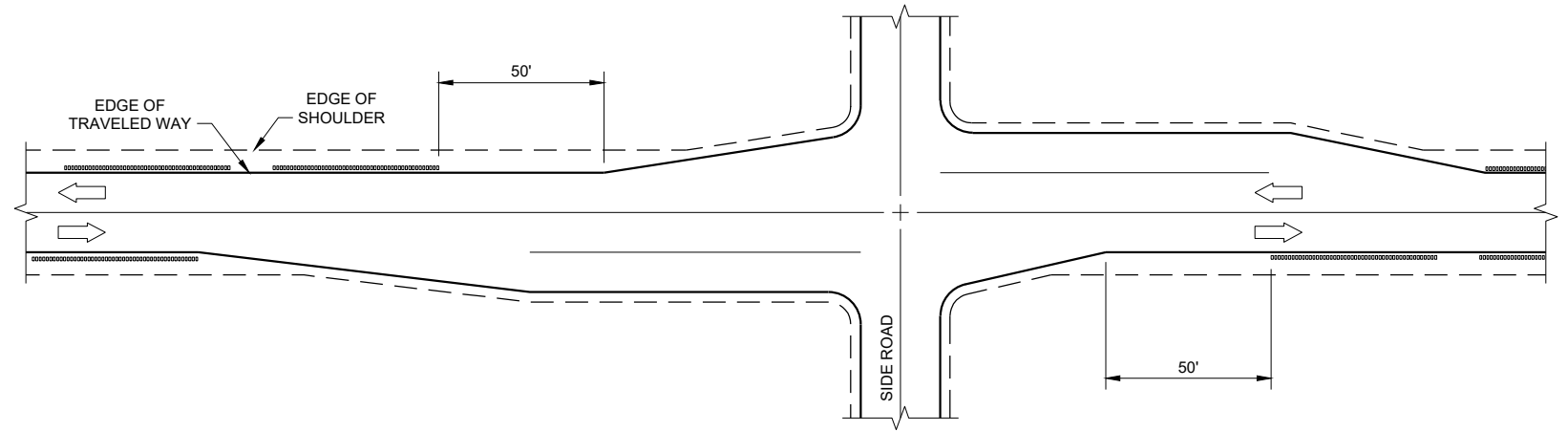
SECTION A - A

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

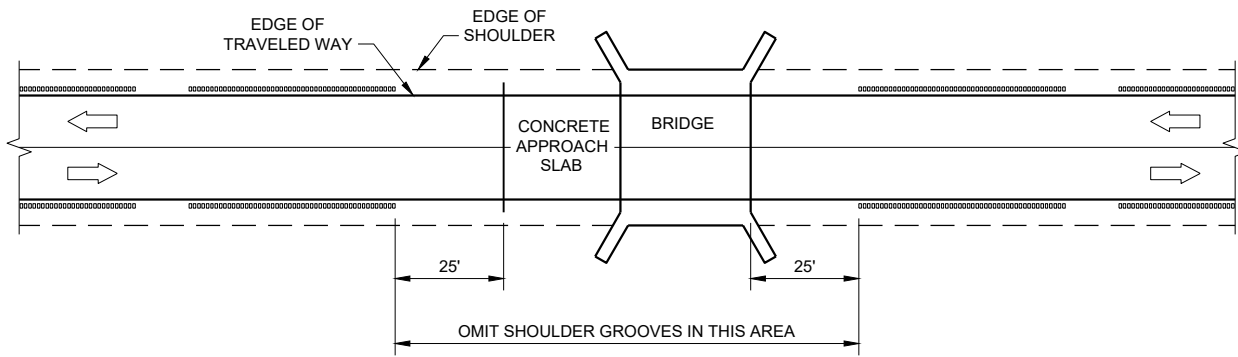
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



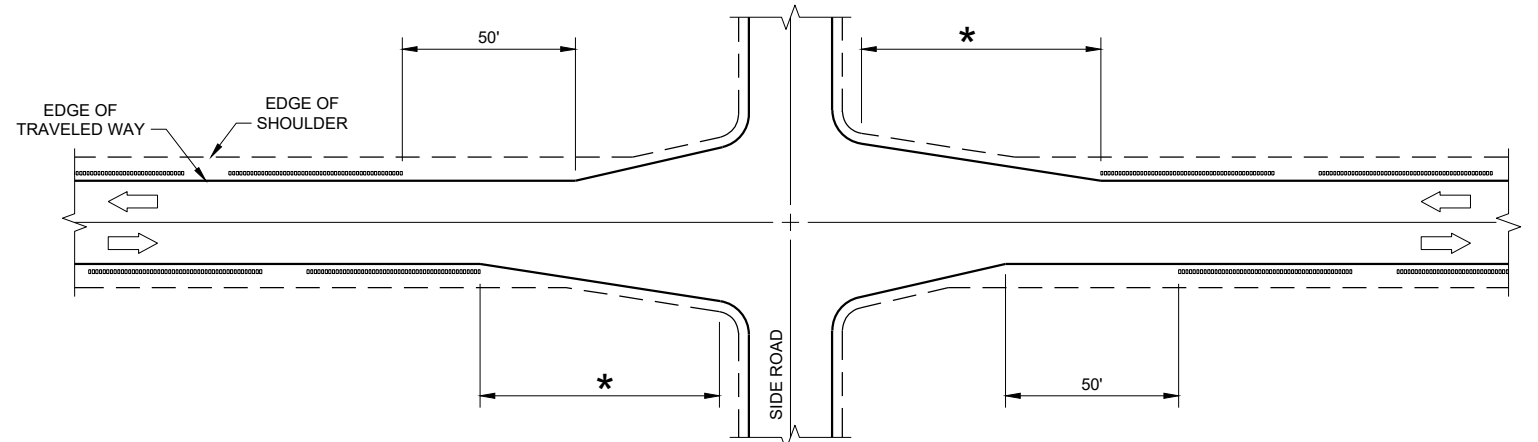
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

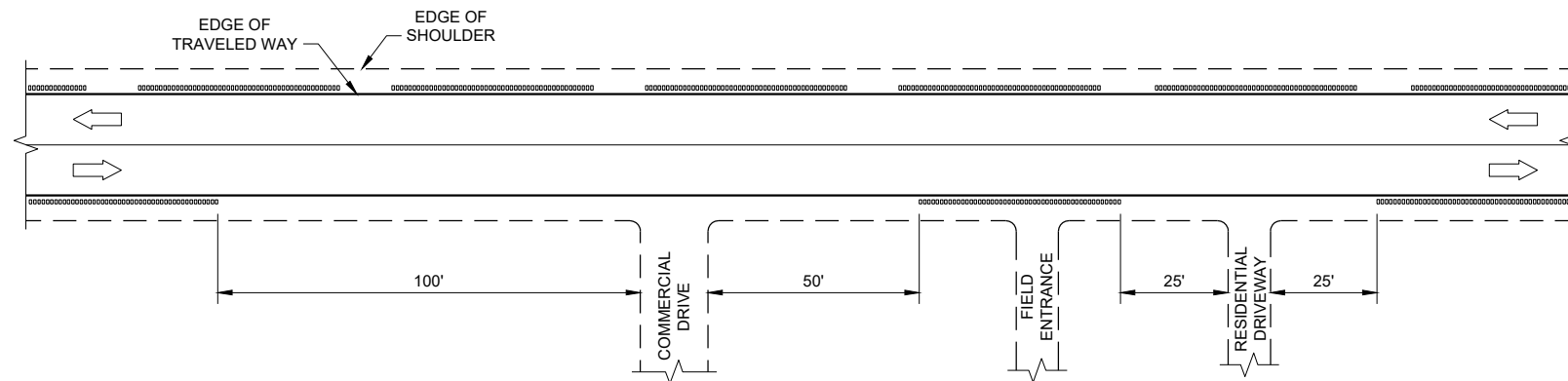


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

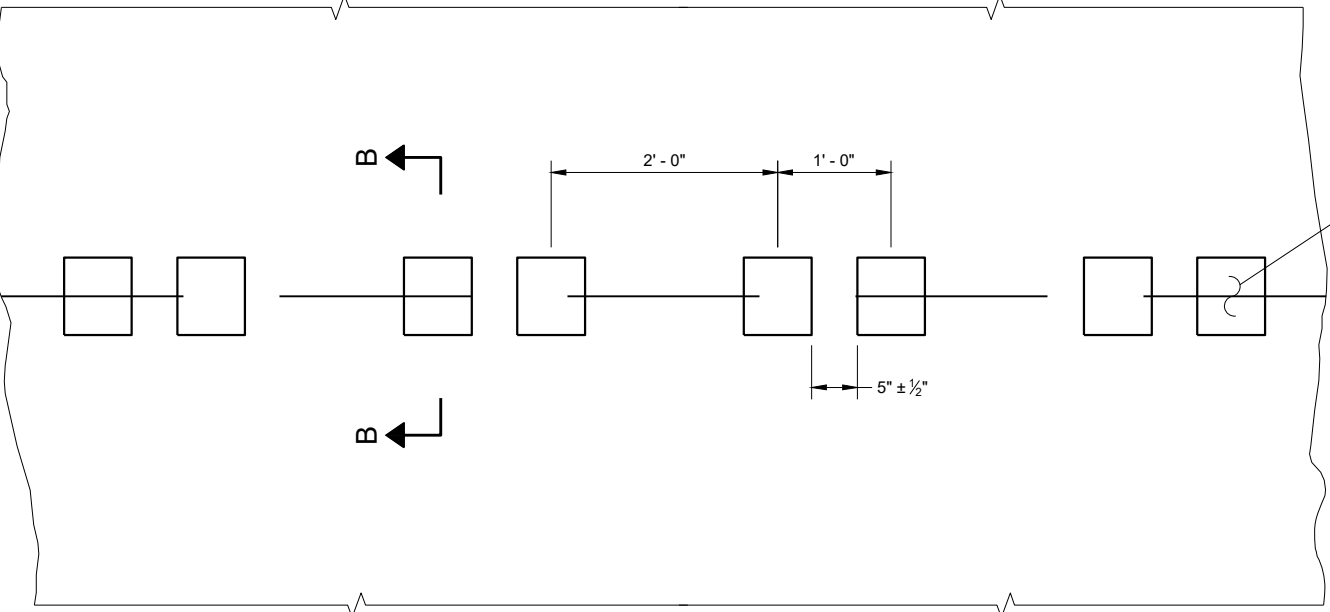
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

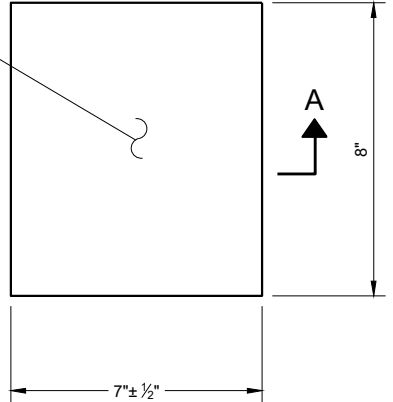
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

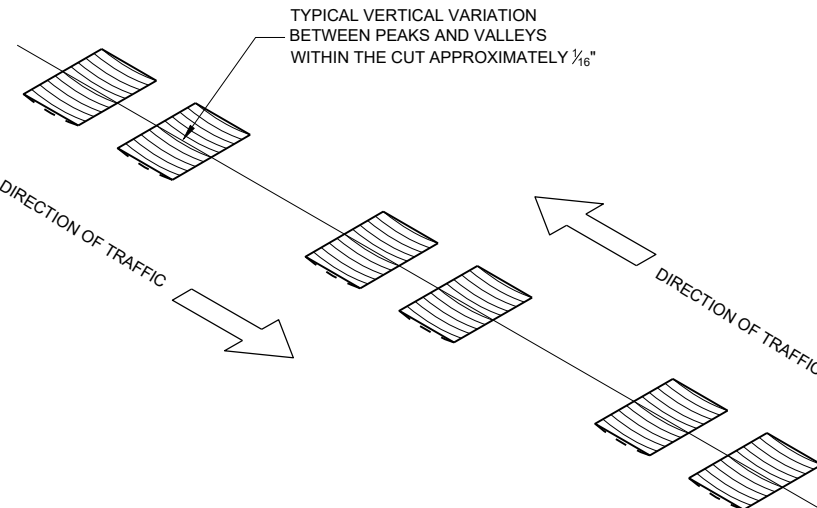
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

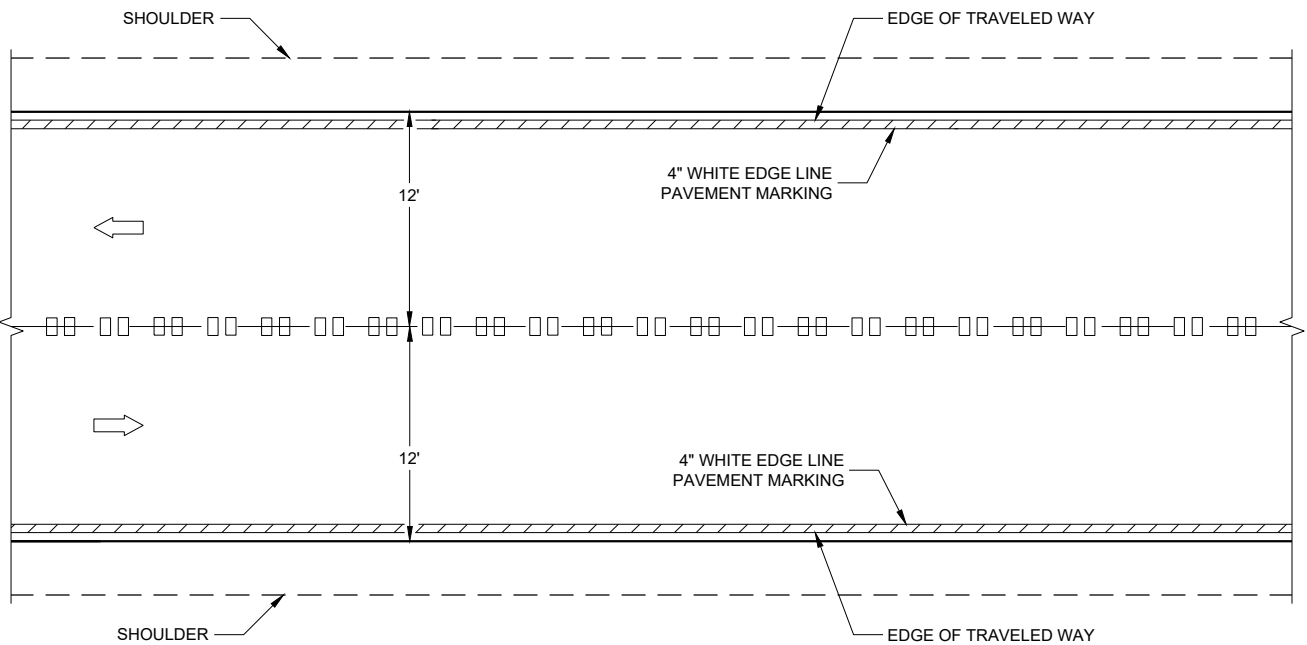


**PLAN VIEW
(SINGLE GROOVE)**

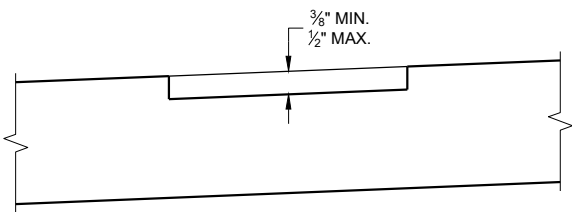


ISOMETRIC

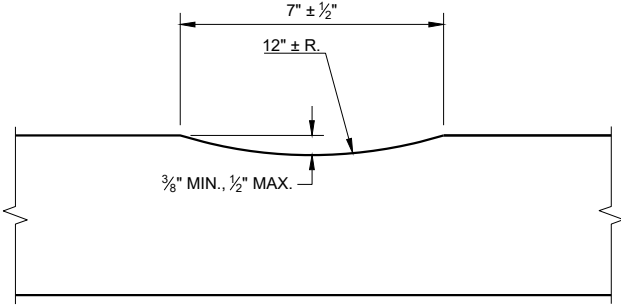
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



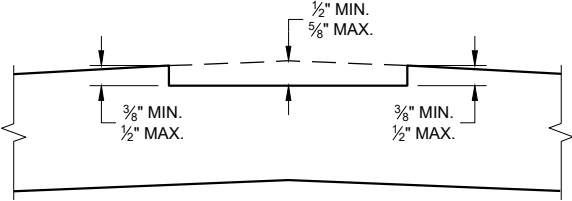
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



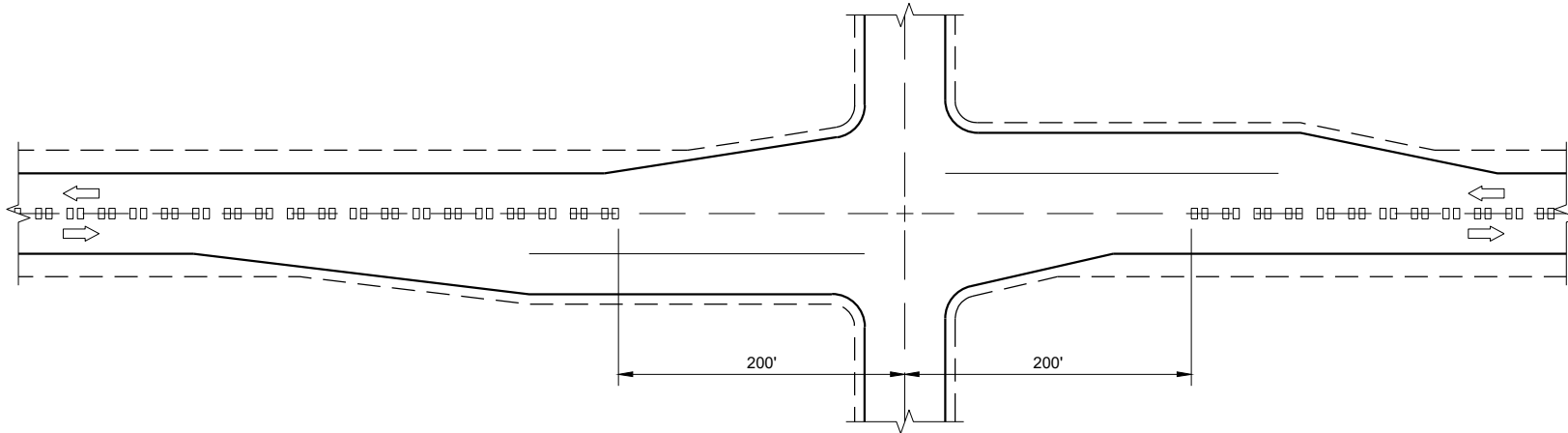
SECTION A - A



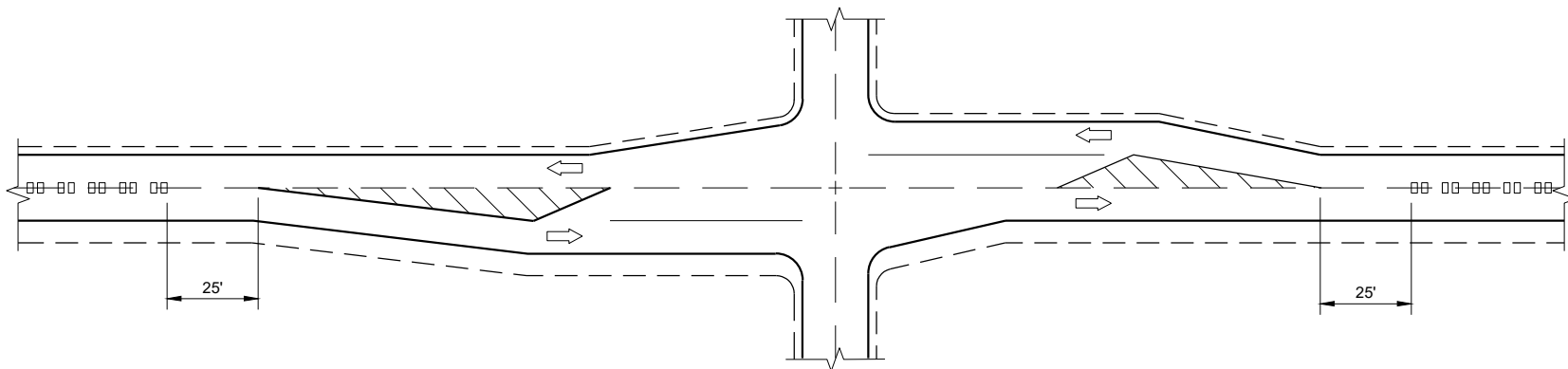
**SECTION B - B
CROWNED ROADWAY**

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

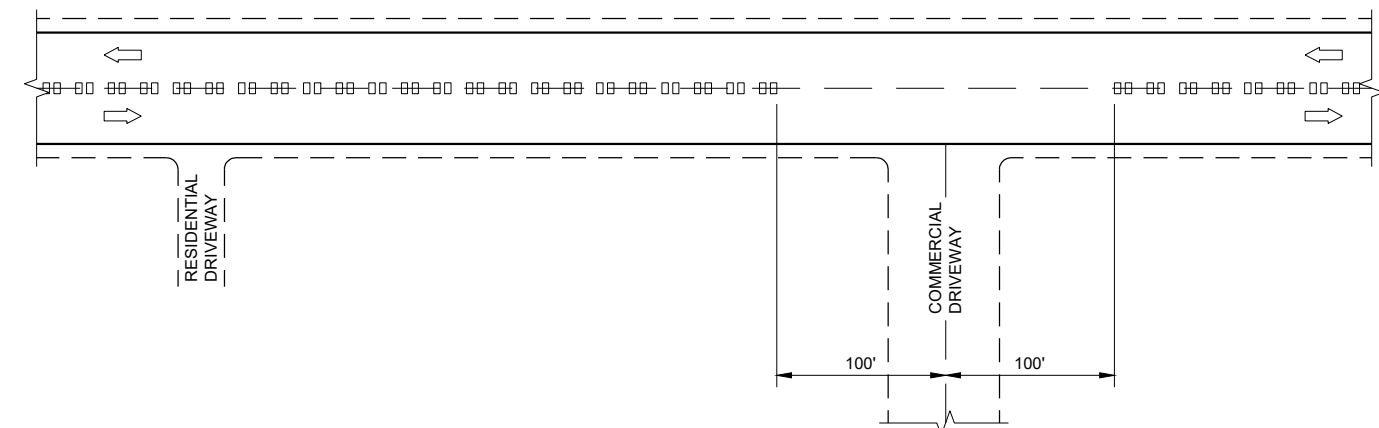
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



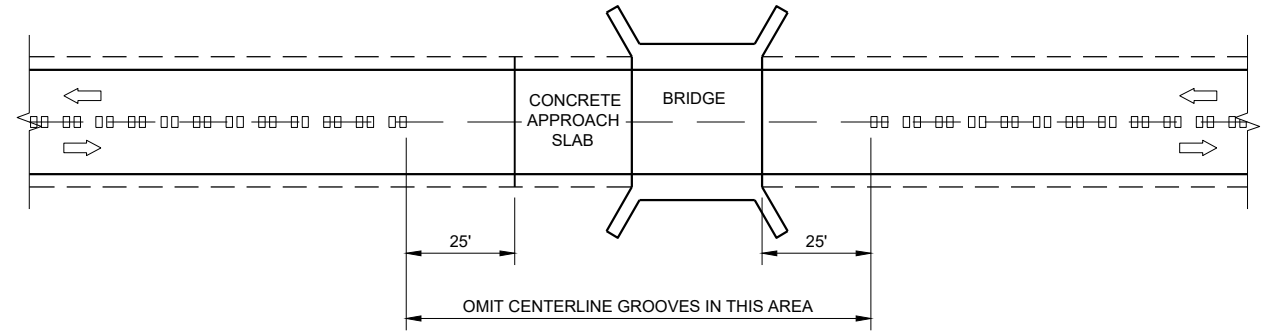
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



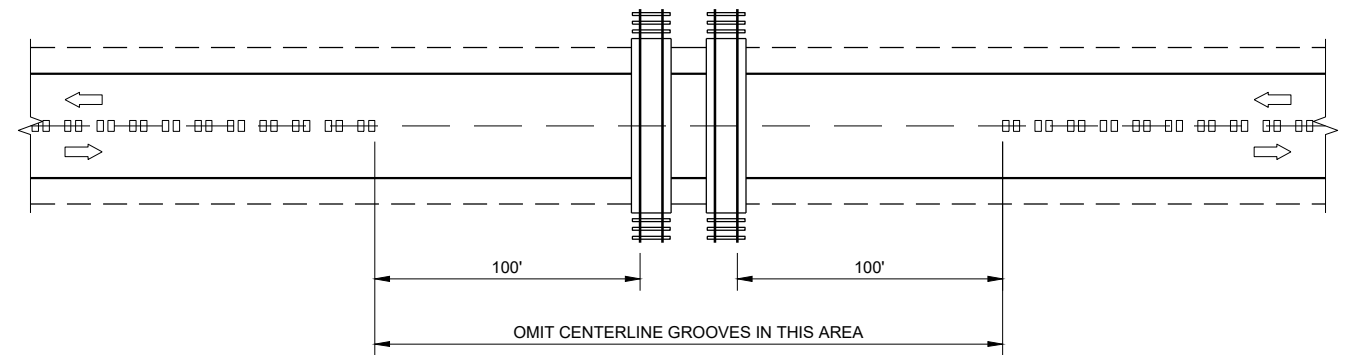
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES

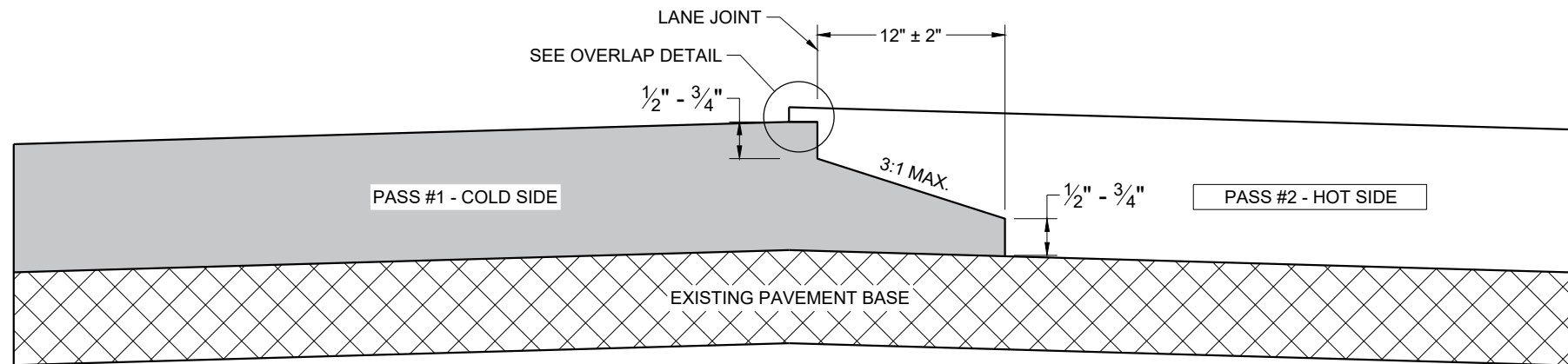


CENTERLINE GROOVES AT RAILROADS

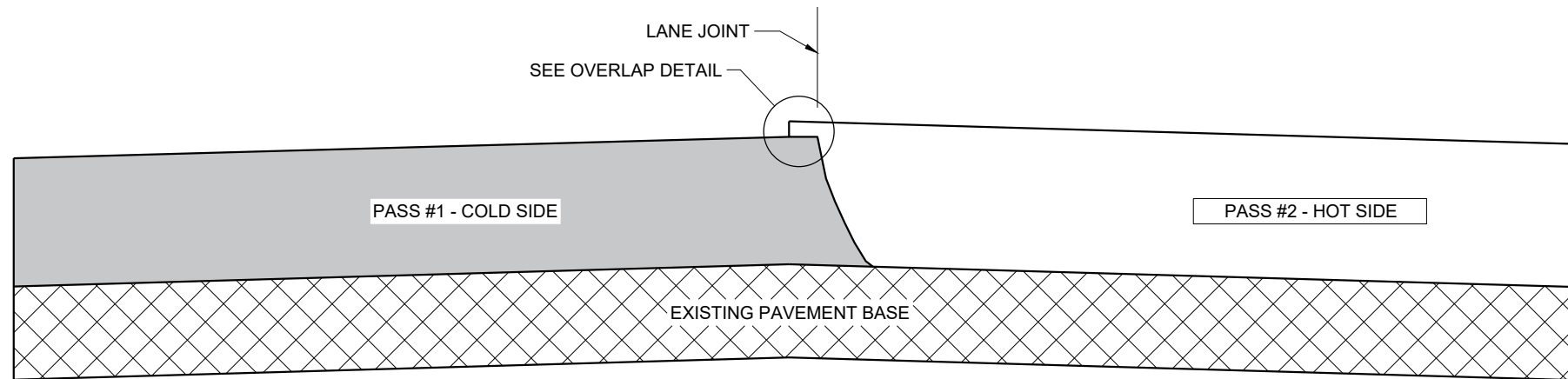
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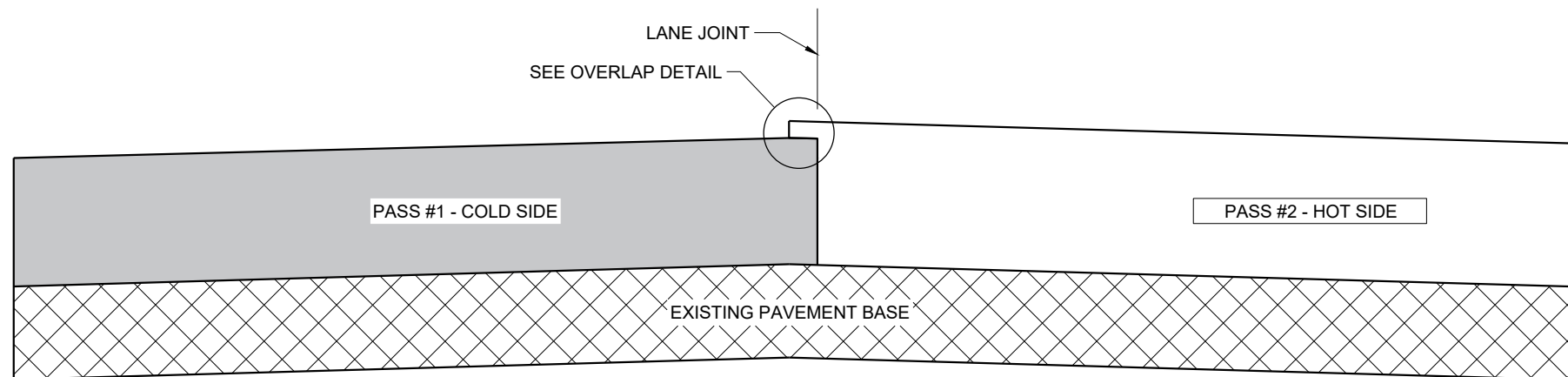
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

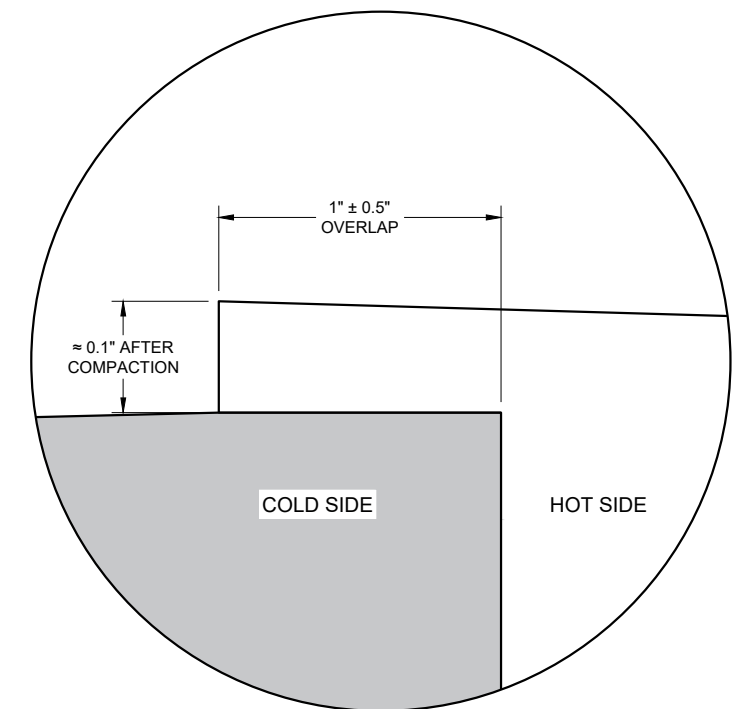
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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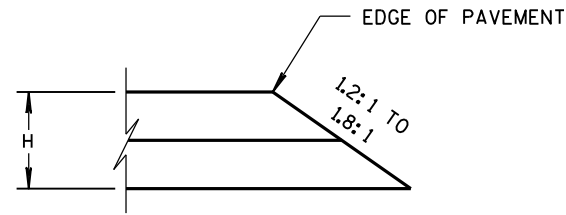
SDD 13C19 - 03

SDD 13C19 - 03

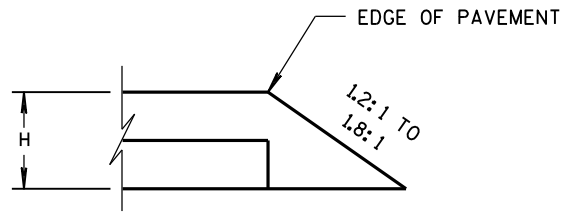
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

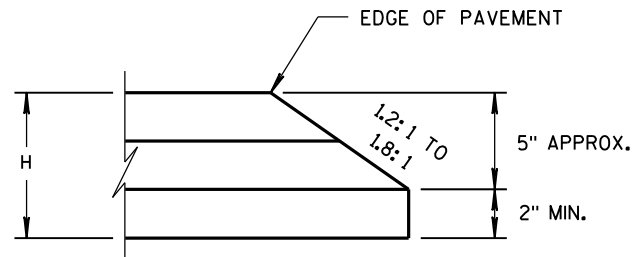
APPROVED
November 2020 DATE /S/ Steven Hefel
HMA PAVEMENT ENGINEER
FHWA



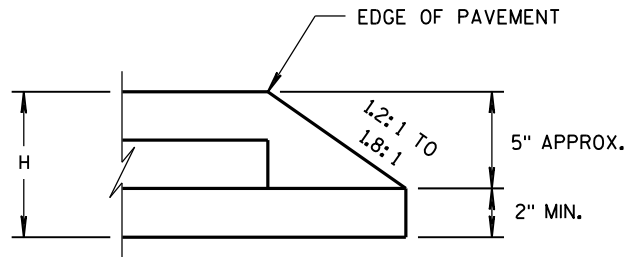
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

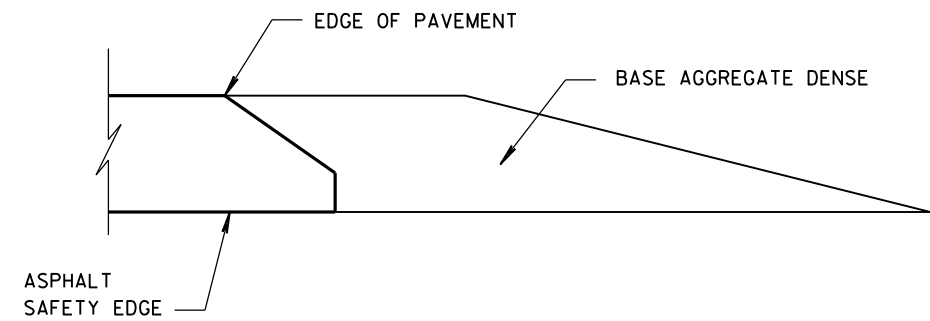


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

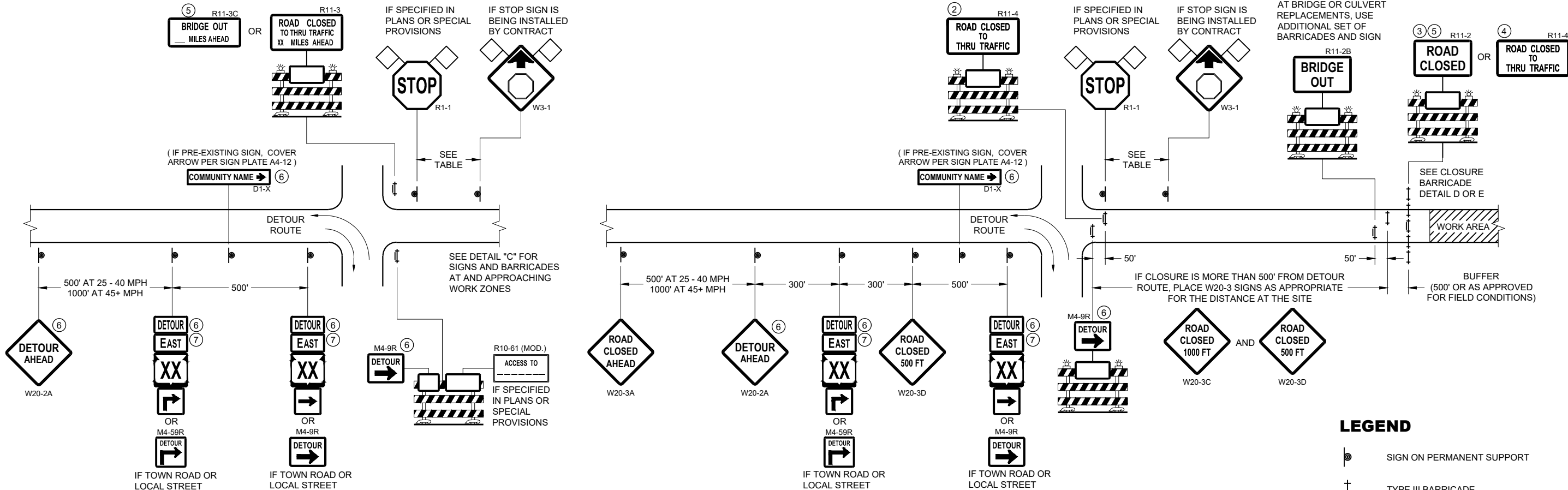
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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

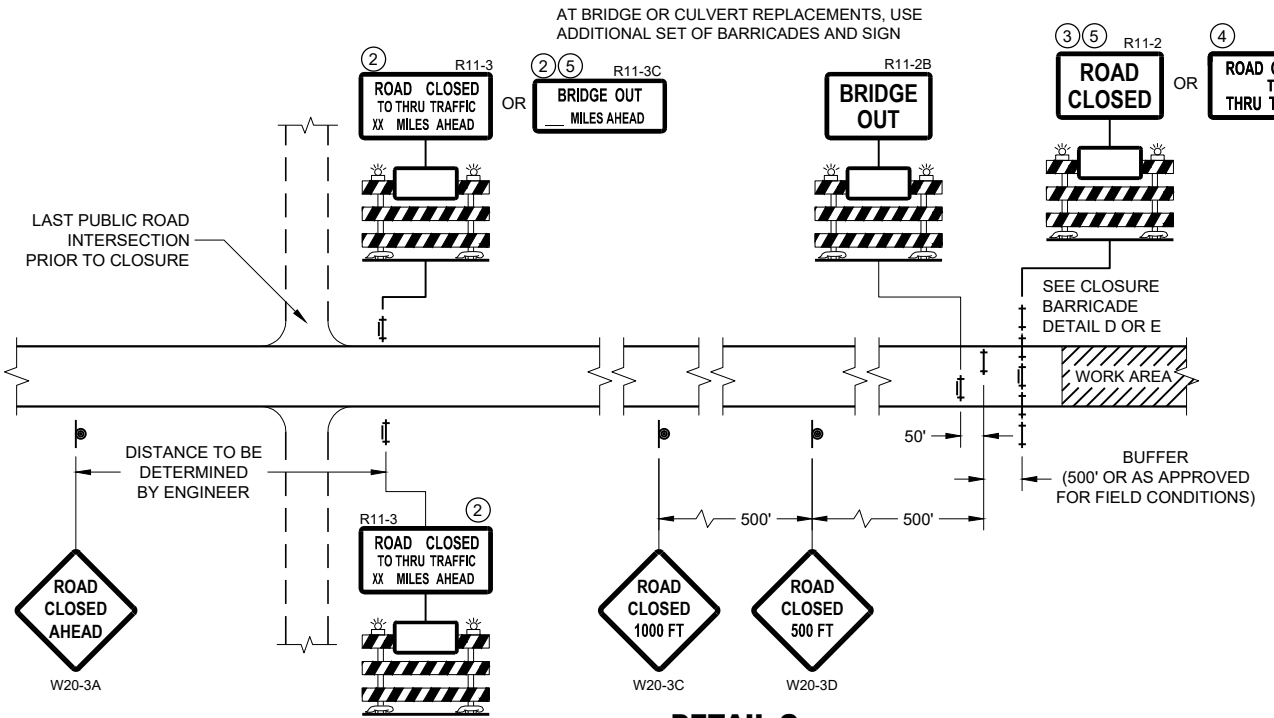
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



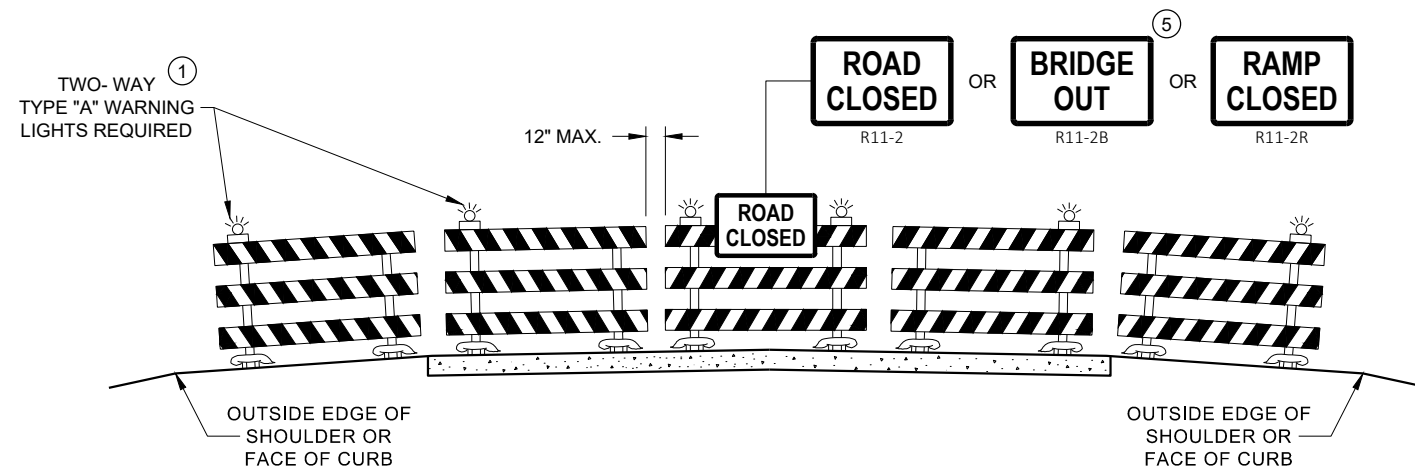
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

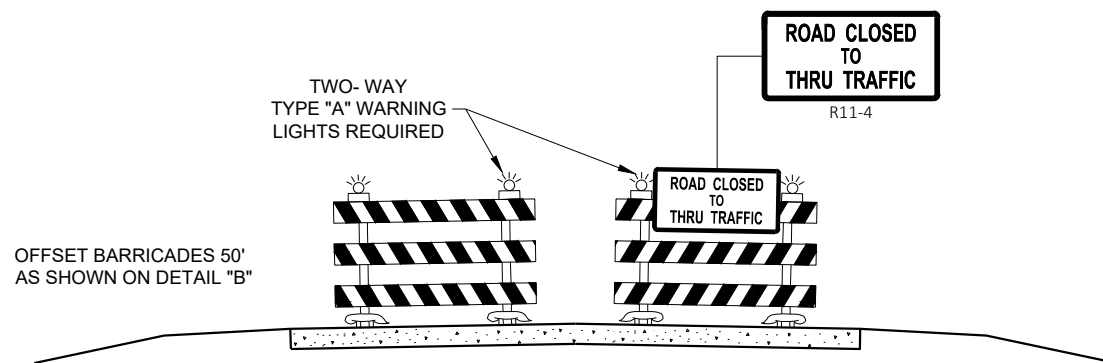
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

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

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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

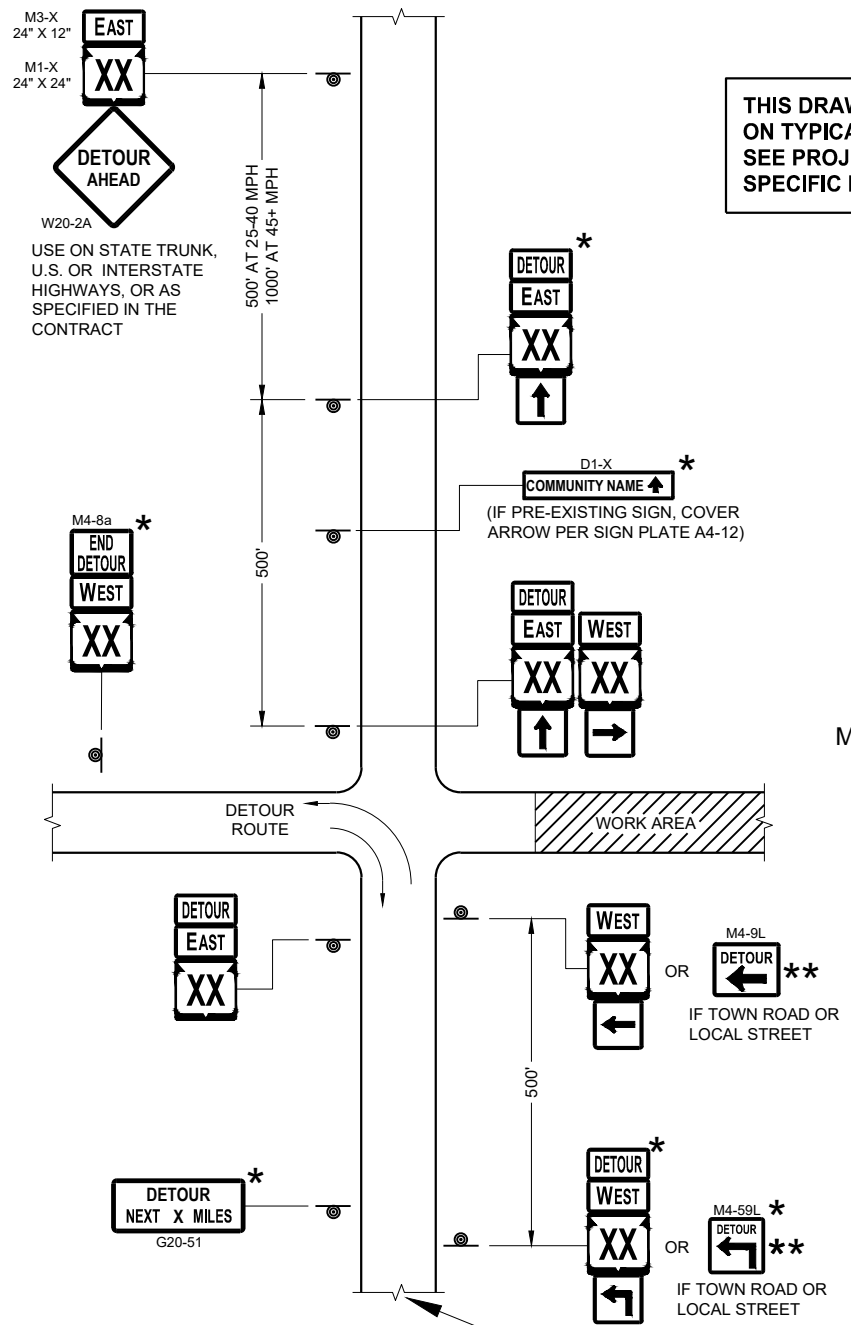
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

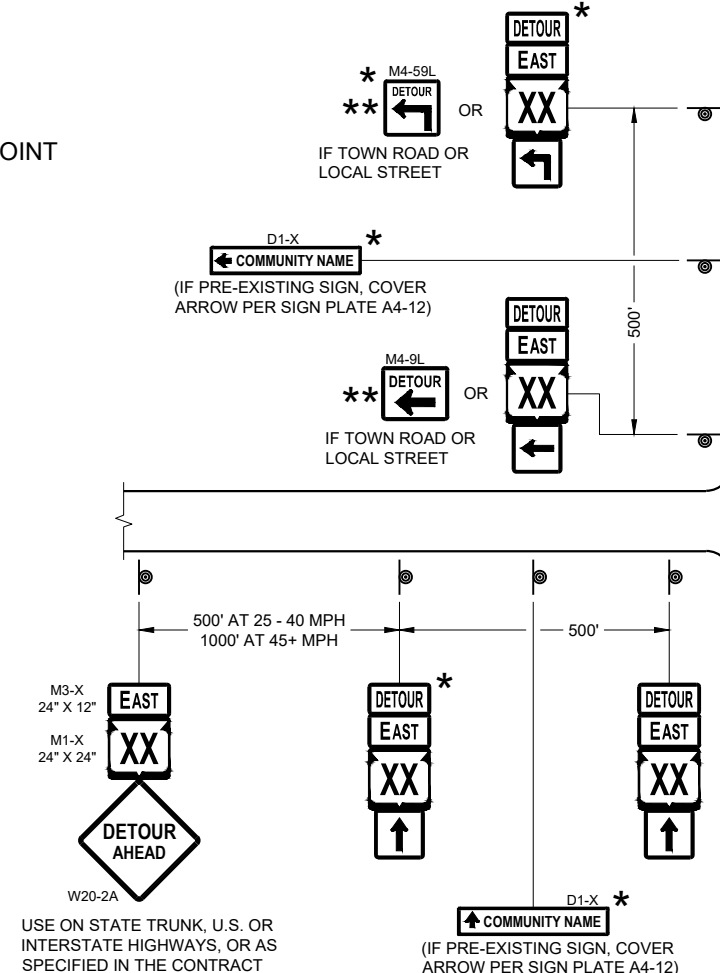
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

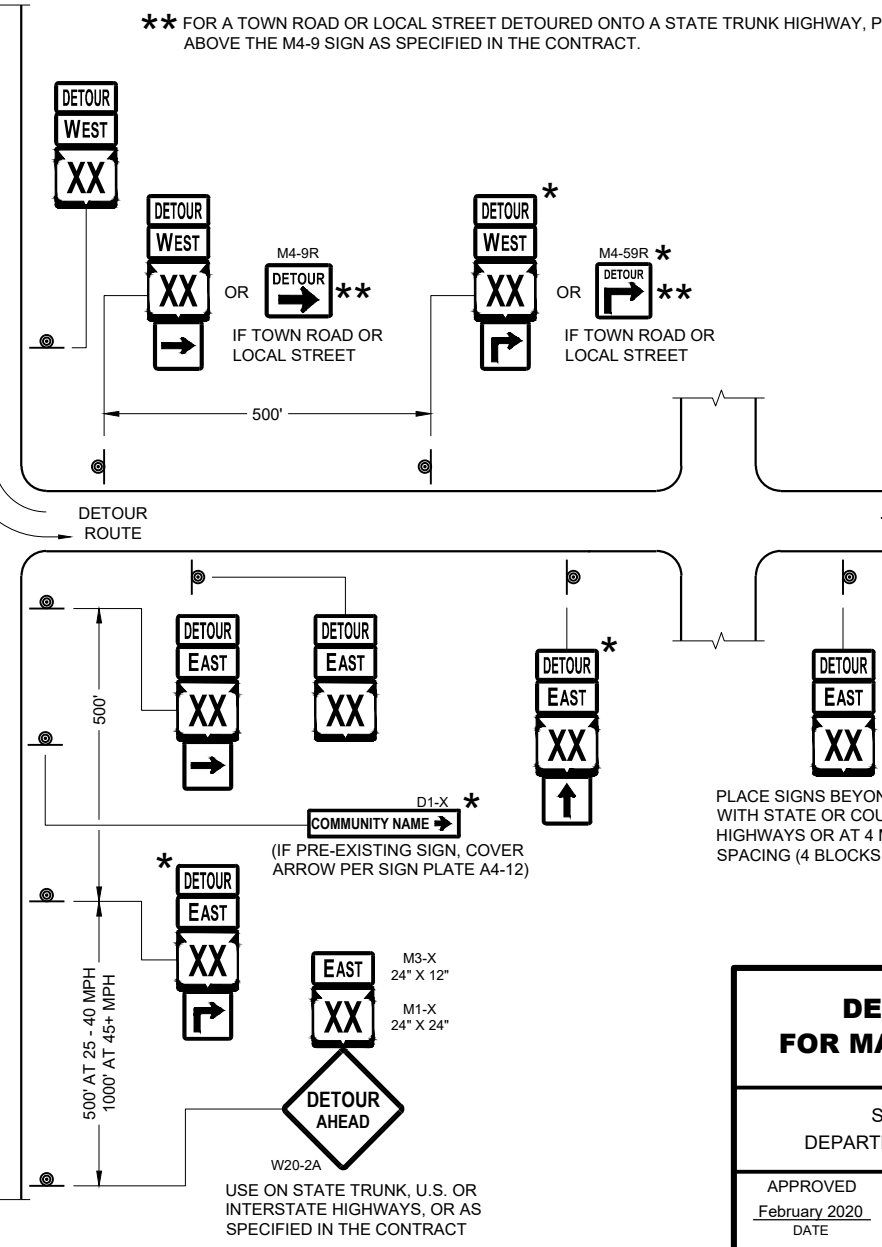
THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



MATCH POINT

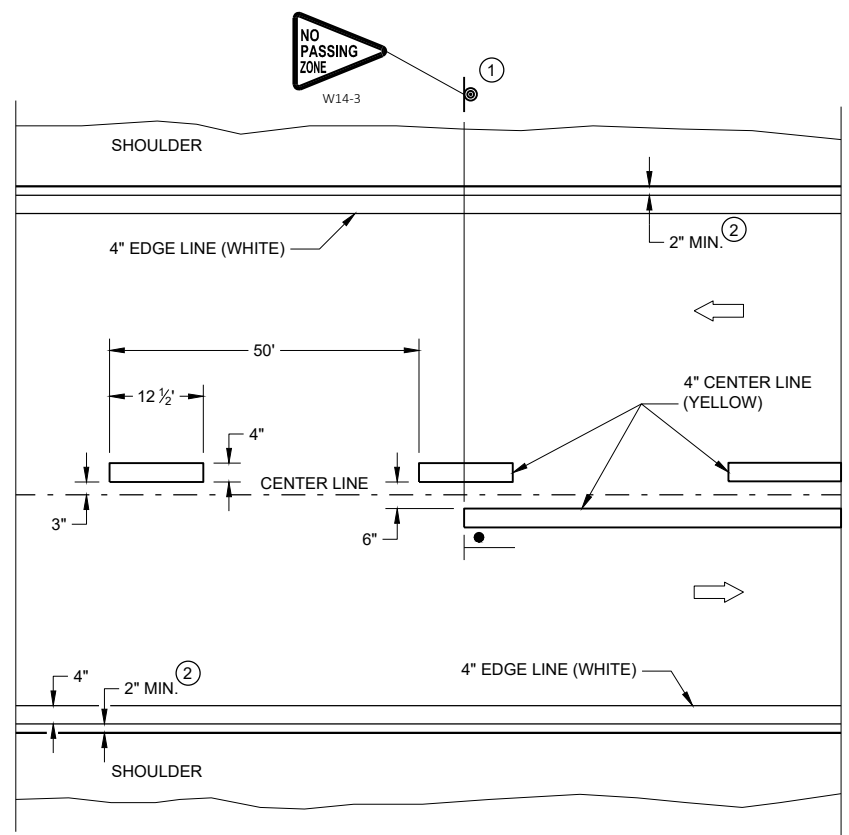


DETAIL F DETOUR SIGNING

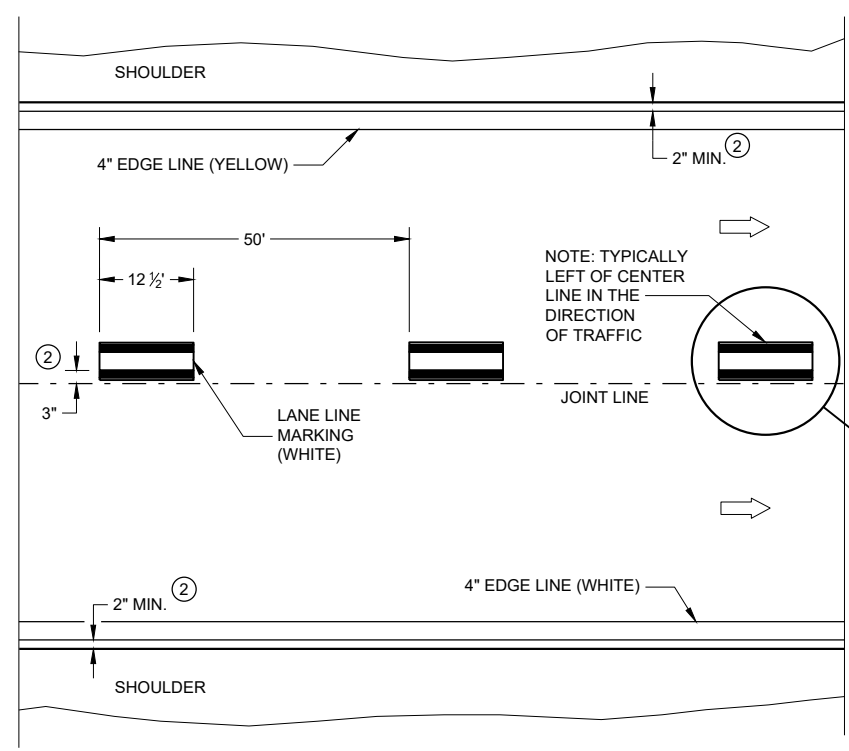


SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

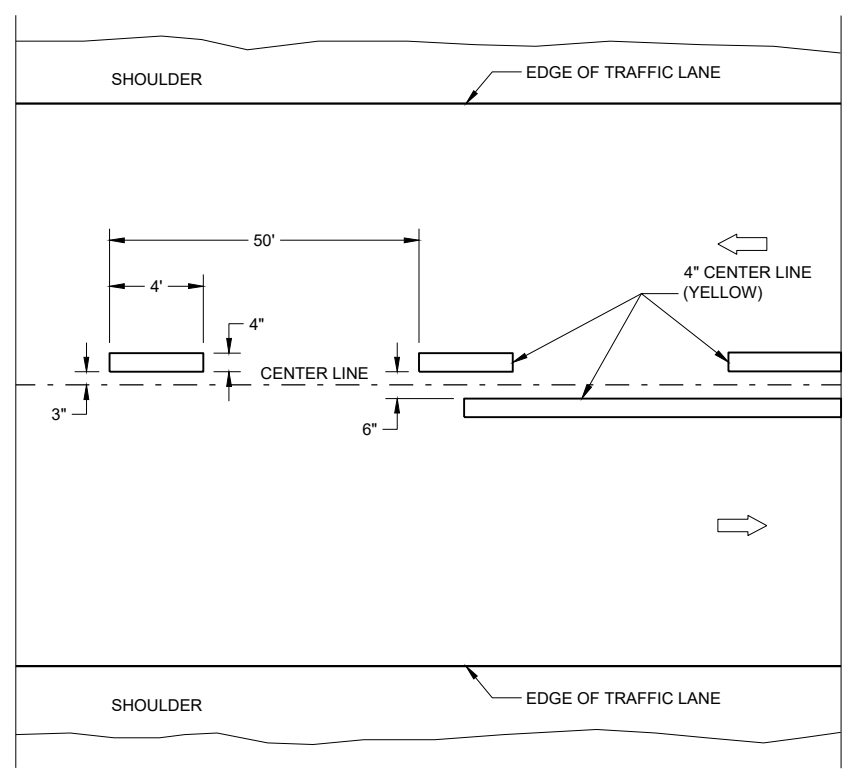


TWO WAY TRAFFIC

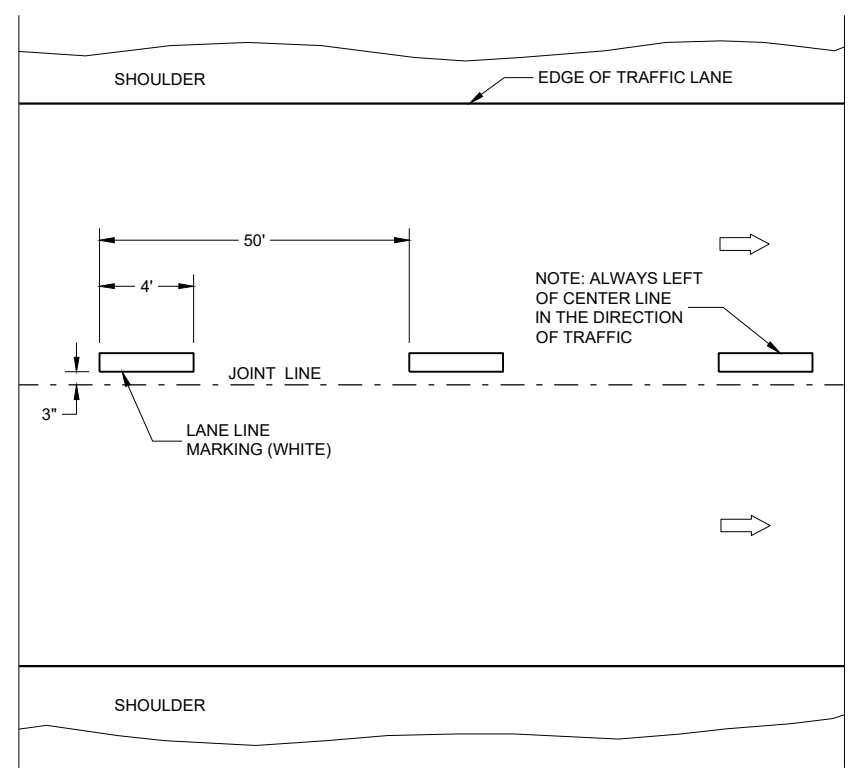


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

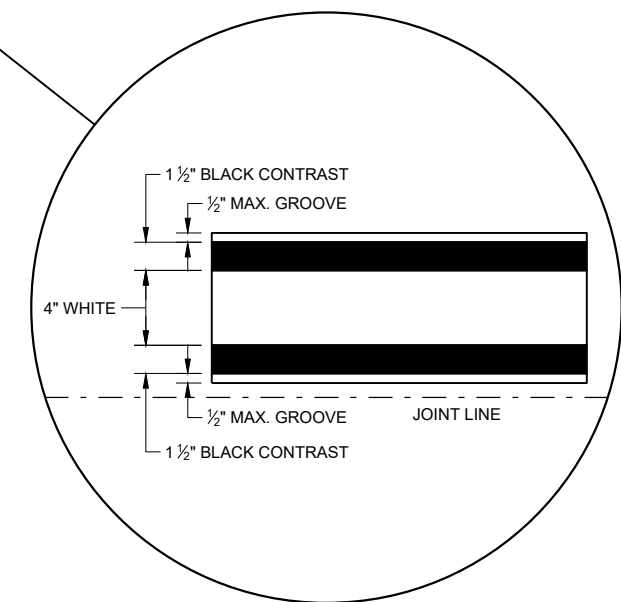
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- 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

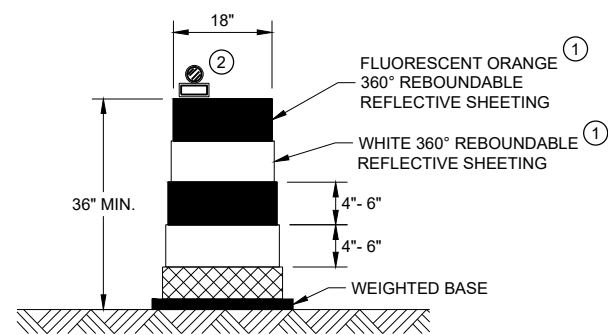


LONGITUDINAL MARKING (MAINLINE)

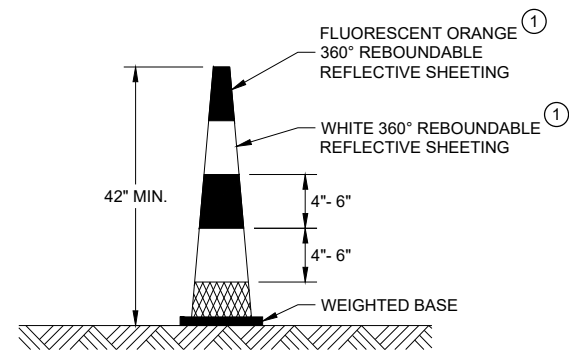
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

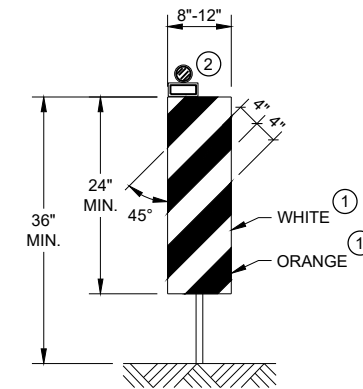


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

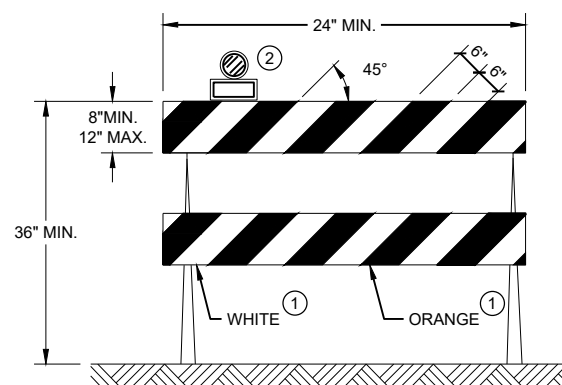


VERTICAL PANEL

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

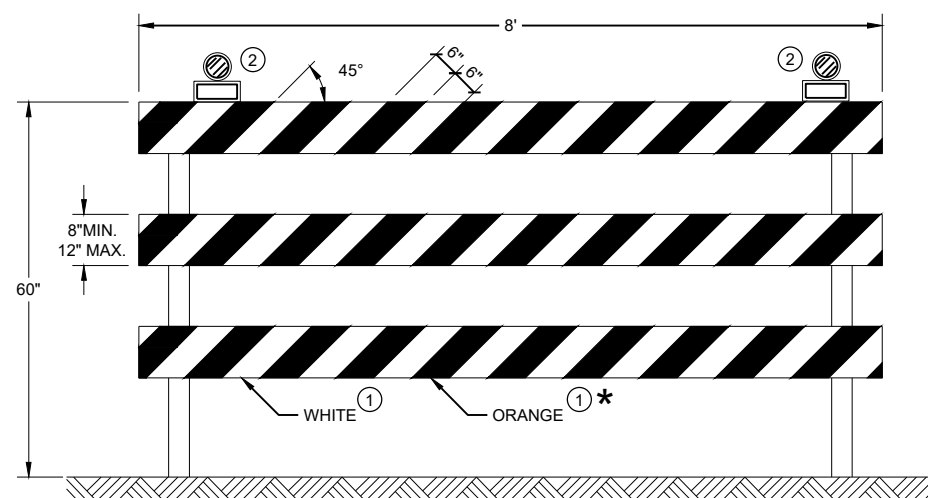
GENERAL NOTES

- 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
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.

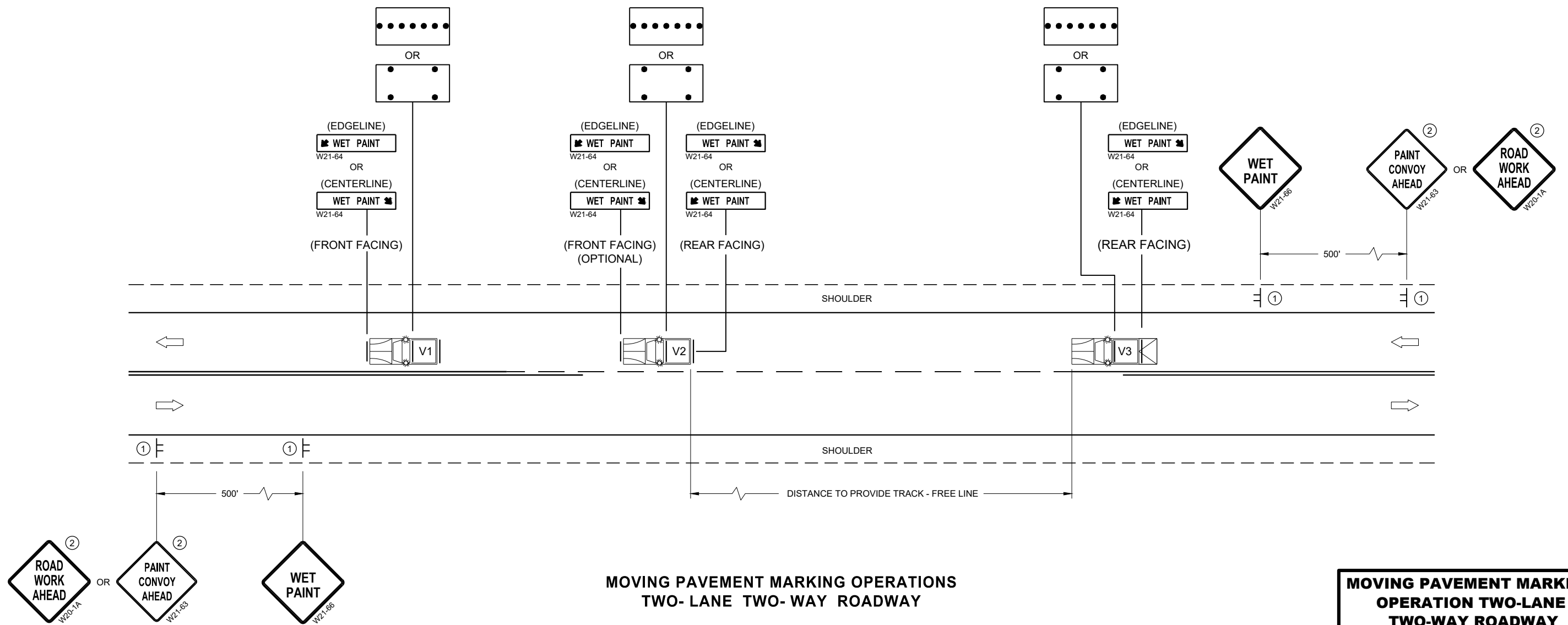
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

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

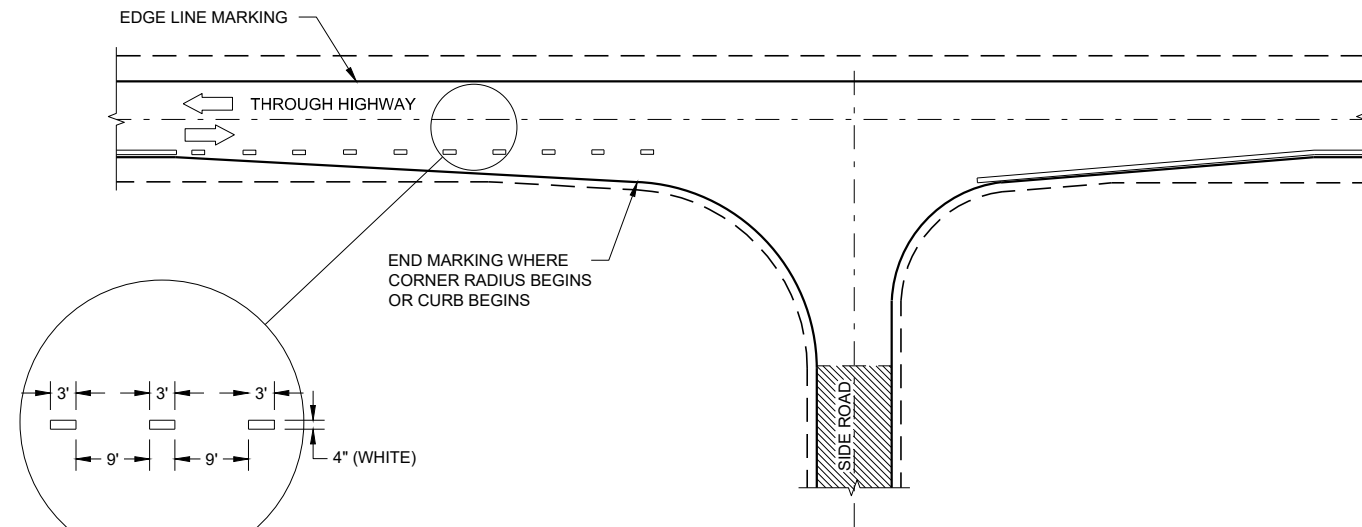
GENERAL NOTES

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

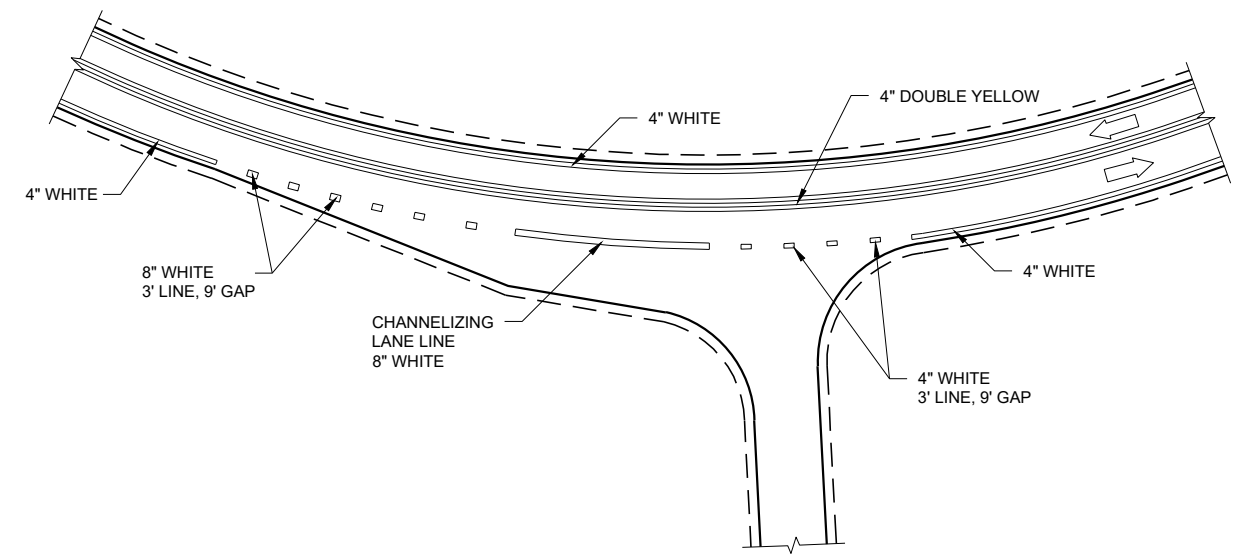
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

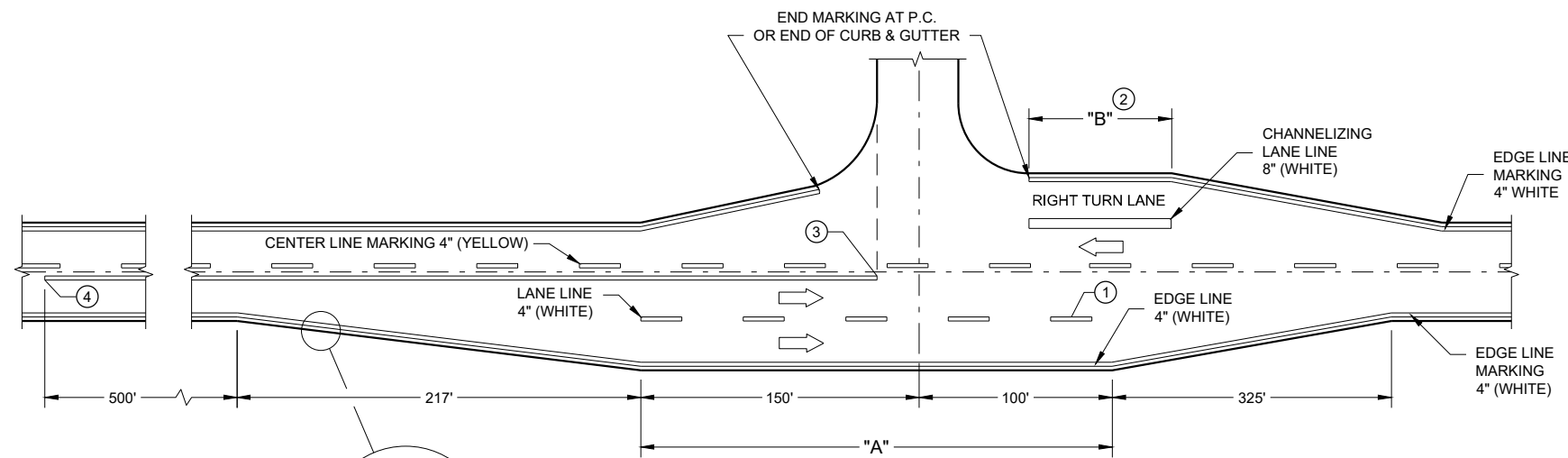
➔ DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE







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

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

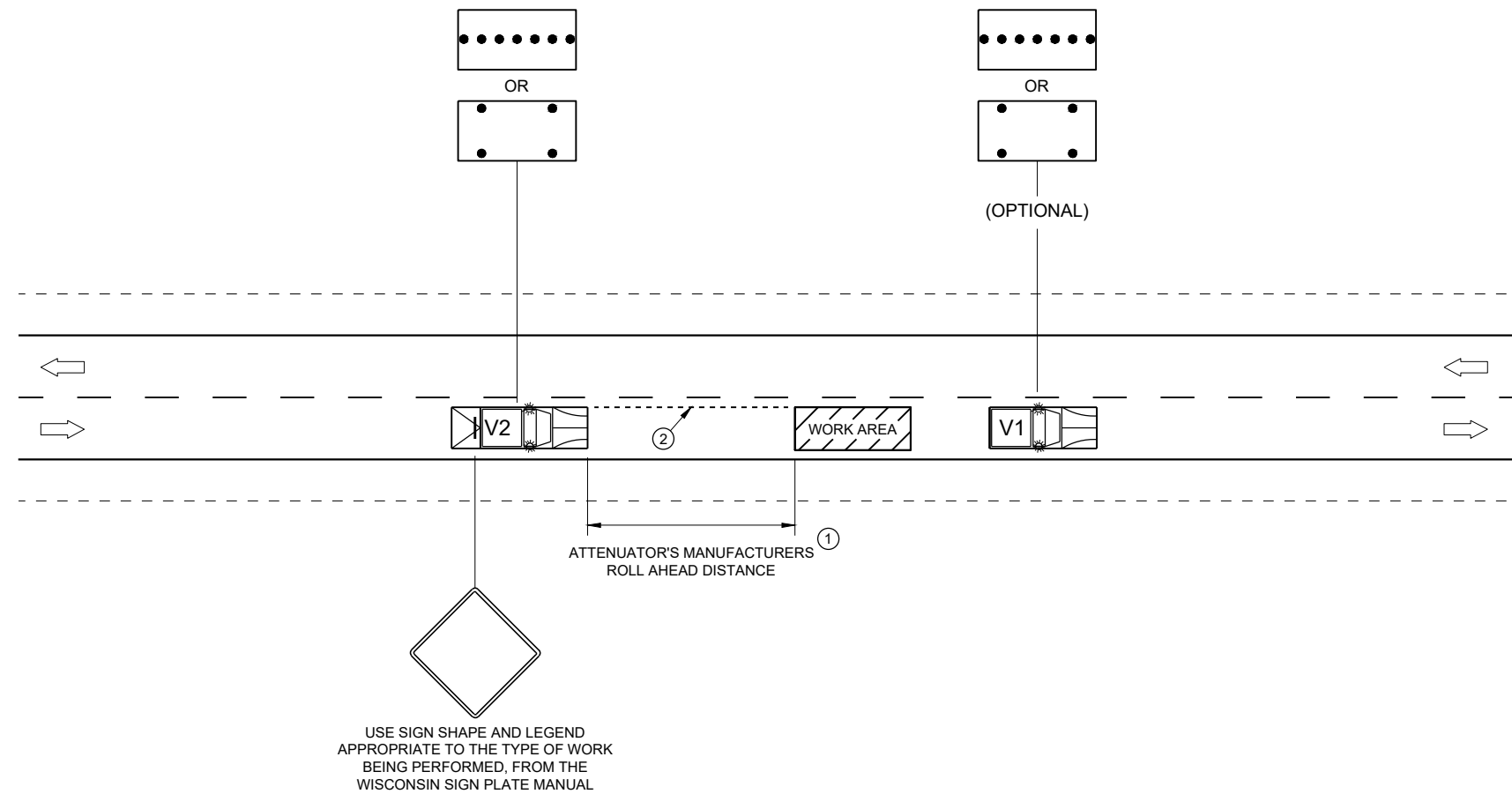
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

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.

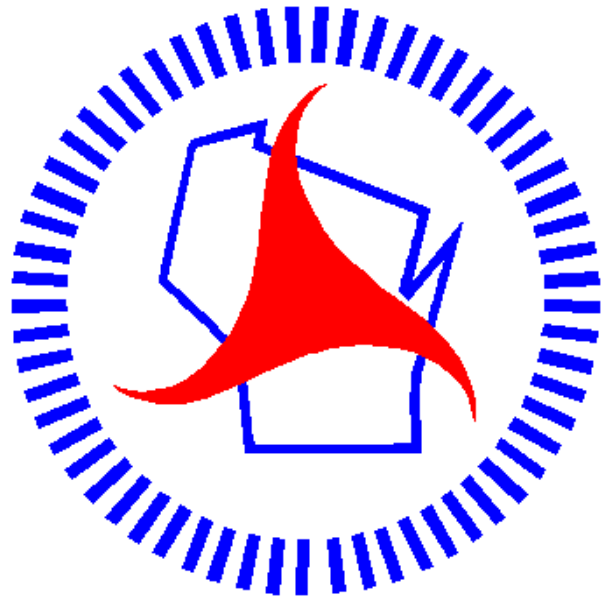
- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE 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.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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