

PROJECT ID:
WTH: N/A

3030-02-66

COUNTY:

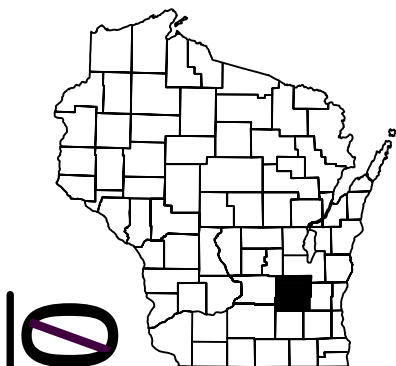
DODGE

JANUARY 2026

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 Plan
Section No.	5	Plan
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 118

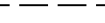
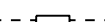
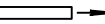
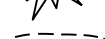
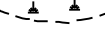


DESIGN DESIGNATION 3030-02-36

A.A.D.T.	(2024)	=	4800
A.A.D.T.	(2044)	=	5520
D.H.V.		=	740
D.D.		=	65/35
T.		=	19.0
DESIGN SPEED		=	60 MPH
ESALS		=	1,200,000

CONVENTIONAL SYMBOLS

PLAN

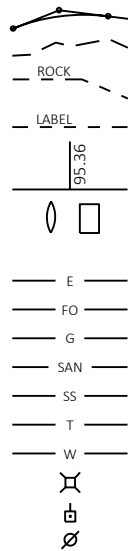
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

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



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

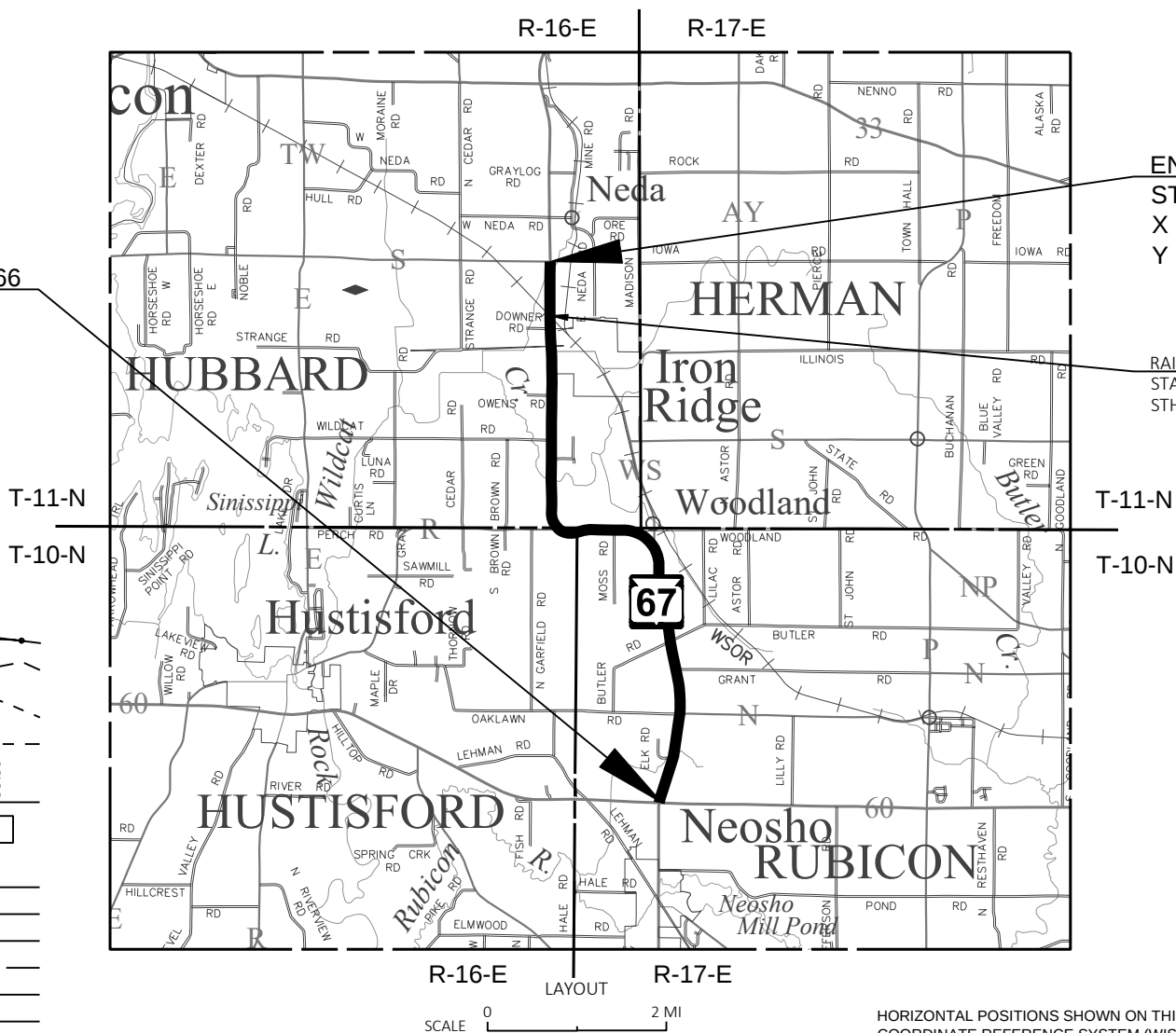
OCONOMOWOC - MAYVILLE

STH 60 TO W JCT CTH S

STH 67

DODGE COUNTY

STATE PROJECT NUMBER
3030-02-66



END PROJECT 3030-02-66

STA 528+70
X = 925,907.15
Y = 708,011.33

RAILROAD CROSSING
STA 494+07
STH 67 CL & WSOR RR CL

TOTAL NET LENGTH OF CENTERLINE = 7.083 MILES

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3030-02-66	WISC 2026122	1

ORIGINAL PLANS PREPARED BY



1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664



DATE 5/14/25 Nathan Cook
(Professional Engineer signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	<u>MSA PROFESSIONAL SERVICES, INC.</u>
Designer	<u>MSA PROFESSIONAL SERVICES, INC.</u>
Project Manager	<u>MIKE RAMPETREITER, P.E.</u>
Regional Examiner	<u>SOUTHWEST REGION</u>
Regional Supervisor	<u>JUSTIN KUTSCHENREUTER, P.E.</u>

APPROVED FOR THE DEPARTMENT

DATE: _____

Mike Rampetsreiter (Signature)

DN: C=US, E=michael.rampetsreiter@dot.wi.gov,
O=Wisconsin Department of Transportation,
OU=DTSD - SouthWest Region (PDS), CN=Mike
Rampetsreiter

Location: DTSD-SWR

Reason: I am approving this document

Contact Info: 1.608.246.7917

Date: 2025.05.27 13:45:06-05'00'

F

GENERAL NOTES

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

COORDINATE 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.

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 TRAVEL OR TURN LANE.

THE LIMITS OF PAYMENT REMOVAL ON SIDE STREETS ARE APPROXIMATE AND WILL BE VERIFIED IN THE FIELD BY THE ENGINEER.

THE LOCATIONS OF EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

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

ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY WILL BE TOPSOILED, FERTILIZED, AND SEEDED AS DIRECTED BY THE ENGINEER.

PLACE EROSION CONTROL DEVICES IN SEQUENCE WITH CONSTRUCTION OPERATIONS AND MAINTAINED AS DETERMINED BY THE ENGINEER.

MAKE A VERTICAL SAWCUT THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

ADJUST TRAFFIC CONTROL DEVICES TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

COVER SIGNS IN CONFLICT WITH TRAFFIC CONTROL IN USE AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE BID ITEM "TRAFFIC CONTROL COVERING SIGNS".

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

APPLY TACK COAT AT A MINIMUM RATE OF 0.07 GAL/SY TO MILLED SURFACES, AND 0.05 GAL/SY BETWEEN HMA LIFTS.

EXISTING RIGHT OF WAY LINES ARE APPROXIMATE AND BASED ON COUNTY GIS DATA.

TYPICAL FINISHED SECTIONS SHOW THE GENERAL ROADWAY FEATURES THROUGHOUT THE PROJECT. PAVEMENT SLOPES, BORDER SLOPES, ETC., MAY VARY WITHIN THE STATION LIMITS OF EACH SECTION.

UTILITY CONTACTS

CHUCK BARTELT
AT&T WISCONSIN - COMMUNICATION LINE
70 E DIVISION ST
FOND DU LAC, WI 54935
(920) 410-5104
CB1461@ATT.COM

CHRIS BLUMER
FRONTIER COMMUNICATIONS OF WI LLC -
COMMUNICATION LINE
451 BROADWAY DR
SUN PRAIRIE, WI 53590
(608) 622-3807
CHRISTOPHER.BLUMER@FTR.COM

ADAM THEIS
GUARDIAN PIPELINE - GAS/PETROLEUM
128 M B LANE
CHILTON, WI 53014
(262) 374-2756
ADAM.THEIS@ONEOK.COM

NICK FRASE
SPECTRUM - COMMUNICATION LINE
1515 WEST WASHINGTON STREET
WEST BEND, WI 53095
(920) 304-6797
NICK.FRASE@CHARTER.COM

ALISON PECHA
TOWN OF HERMAN SANITARY DISTRICT NO. 1 -
SEWER *
W1892 ROCK ROAD
IRON RIDGE, WI 53035
(920) 387-9322
CLERK@TOWNOFHERMAN-WI.GOV

GREGORY BOERNER
WE ENERGIES - ELECTRICITY
500 S 116TH STREET
WEST ALLIS, WI 53214
(618) 409-5861
GREGORY.BOERNER@WE-ENERGIES.COM

ALEX DANTINNE
WE ENERGIES - GAS/PETROLEUM
500 S 116TH STREET
WEST ALLIS, WI 53214
(920) 621-6903
ALEX.DANTINNE@WE-ENERGIES.COM



* NOT A DIGGERS HOTLINE MEMBER

INDEX OF SECTIONS 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
DETOUR SIGNING PLAN

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: ERIC HEGGELUND
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 444-2835
EMAIL: ERIC.HEGGELUND@WISCONSIN.GOV

RAILROAD CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION
ATTN: TERI BECKMAN
2101 WRIGHT STREET
MADISON, WI 53704
PHONE: (608) 733-1923
EMAIL: teri.beckman@dot.wi.gov

DESIGN CONTACTS

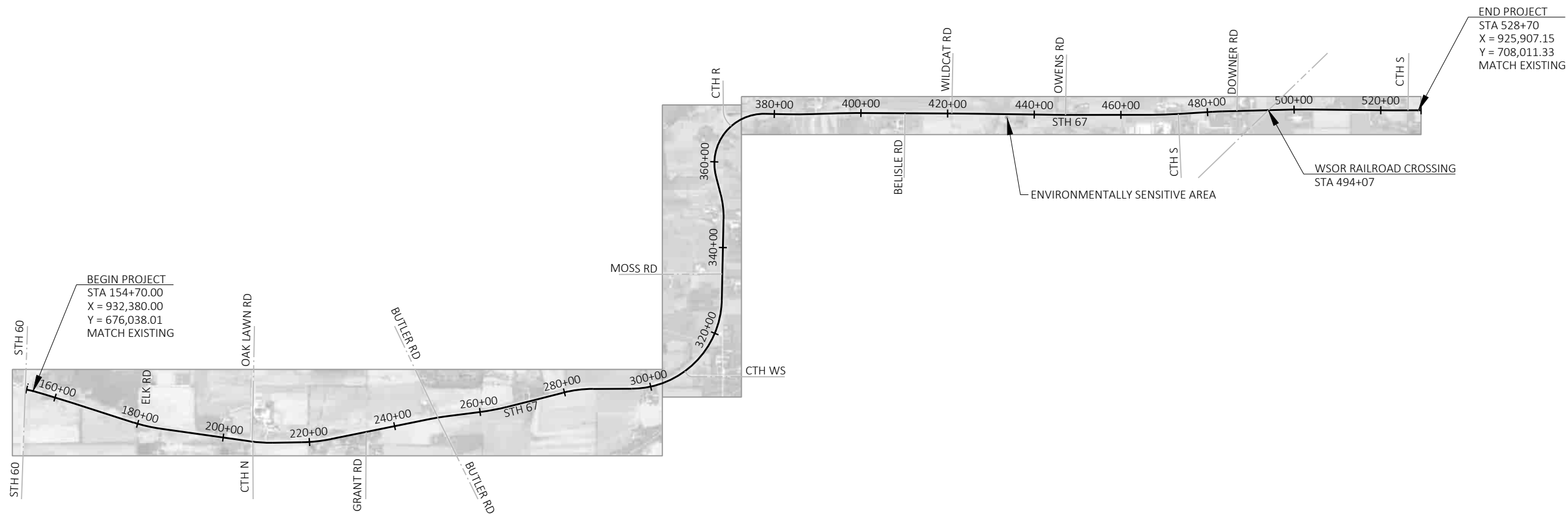
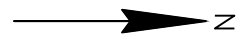
WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION
ATTN: MIKE RAMPETSREITER, P.E.
2101 WRIGHT STREET
MADISON, WI 53704
PHONE: (608) 246-7917
EMAIL: michael.rampetsreiter@dot.wi.gov

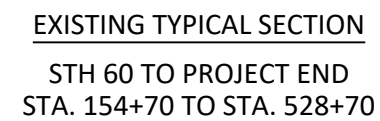
MSA PROFESSIONAL SERVICES, INC.
ATTN: NATHAN COOK, P.E.
1702 PANKRATZ ST
MADISON, WI 53704
PHONE: (608) 216-2058
E-MAIL: ncook@msa-ps.com

STANDARD ABBREVIATIONS

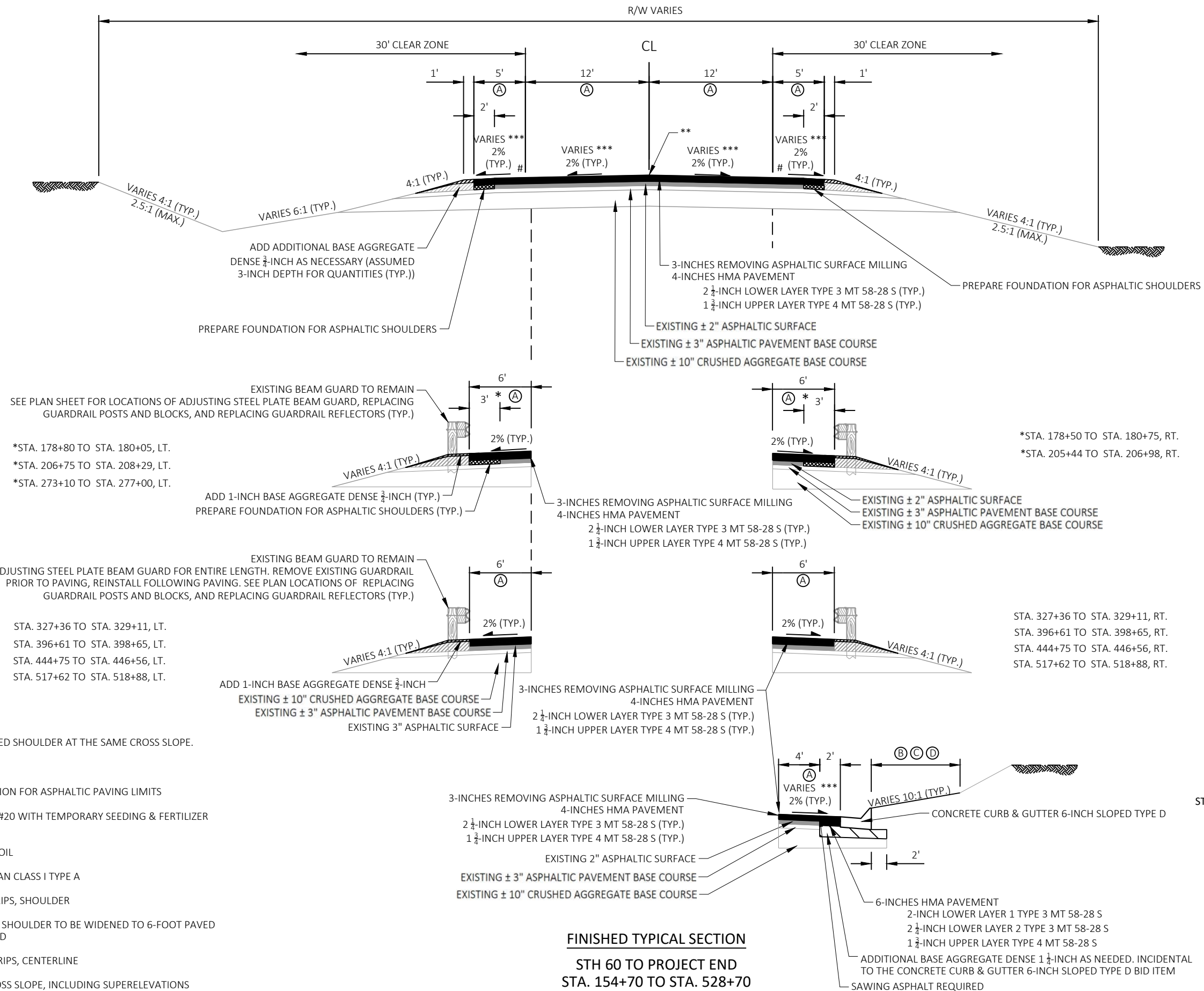
AC ACRES
AEW APRON ENDWALL
AGG AGGREGATE
AH AHEAD
ALUM. ALUMINUM
A.P. ACCESS POINT
ASPH ASPHALT
AVE AVENUE
BAD BASE AGGREGATE DENSE
BK BACK
BLK BLOCK
BOC BACK OF CURB
BOW BACK OF SIDEWALK
BM BENCHMARK
CABC CRUSHED AGGREGATE BASE COURSE
CL or Δ CENTERLINE
Δ CENTRAL ANGLE or DELTA
CMCP CORRUGATED METAL CULVERT PIPE
CONC CONCRETE
CP CONTROL POINT
CPCS CULVERT PIPE CORRUGATED STEEL
CSM CERTIFIED SURVEY MAP
CTH COUNTY TRUNK HIGHWAY
D DEGREE OF CURVATURE
DES DESIRABLE
E EAST
EB EASTBOUND
EBS EXCAVATION BELOW SUBGRADE
EOP EDGE OF PAVEMENT
ET AL AND OTHERS
EW ENDWALL
EXIST EXISTING
FT FOOT
FT2 SQUARE FEET
GN GRID NORTH
GV GAS VALVE
HERCP HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HYD HYDRANT
IN INCH
INL INLET
INV INVERT
IP IRON PIPE
L LENGTH
L LENGTH OF CURVE
LC LONG CHORD
LCP LONG CHORD BEARING
LF LINEAR FEET
LT LEFT

MH MANHOLE
MON MONUMENT
N NORTH
NB NORTHBOUND
N.C. NORMAL CROWN
NO NUMBER
PB PULLBOX
PC POINT OF CURVATURE
PI POINT OF INTERSECTION
PL PROPERTY LINE
PLE PERMANENT LIMITED EASEMENT
POB POINT OF BEGINNING
PT POINT OF TANGENCY
R RADIUS
R RANGE
RCP REINFORCED CONCRETE PIPE
RD ROAD
REQ'D REQUIRED
RL or R/L REFERENCE LINE
RP RADIUS POINT
RT RIGHT
R/W RIGHT OF WAY
S SOUTH
SAN SANITARY SEWER
SB SOUTHBOUND
S.E. SUPERELEVATION
SEC SECTION
SSPRC STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SQ SQUARE
ST STREET
STA STATION
STD STANDARD
STH STATE TRUNK HIGHWAY
STM STORM SEWER
STR STRUCTURE
T TANGENT
TAN TANGENT
TEMP TEMPORARY
TLE TEMPORARY LIMITED EASEMENT
T or TN TOWN
TYP. TYPICAL
WM WATERMIN
WV WATER VALVE
W WEST
WB WESTBOUND
X EAST GRID COORDINATE
Y NORTH GRID COORDINATE





*6-FOOT PAVED SHOULDER



PROJECT NO: 3030-02-66

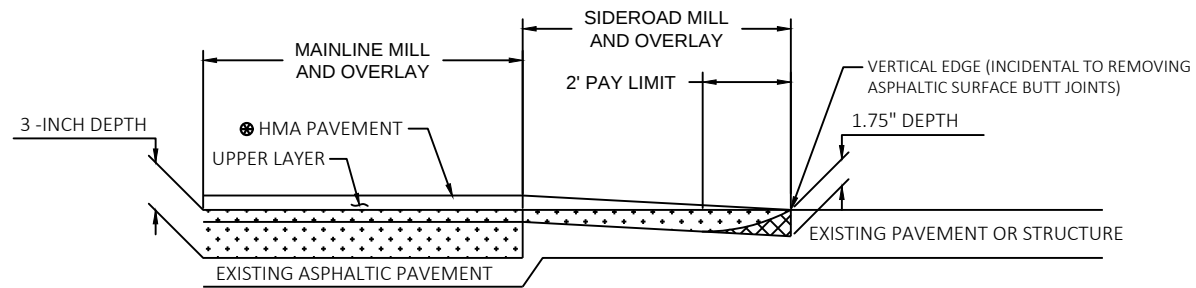
HWY: STH 67

COUNTY: DODGE

TYPICAL SECTIONS

SHEET

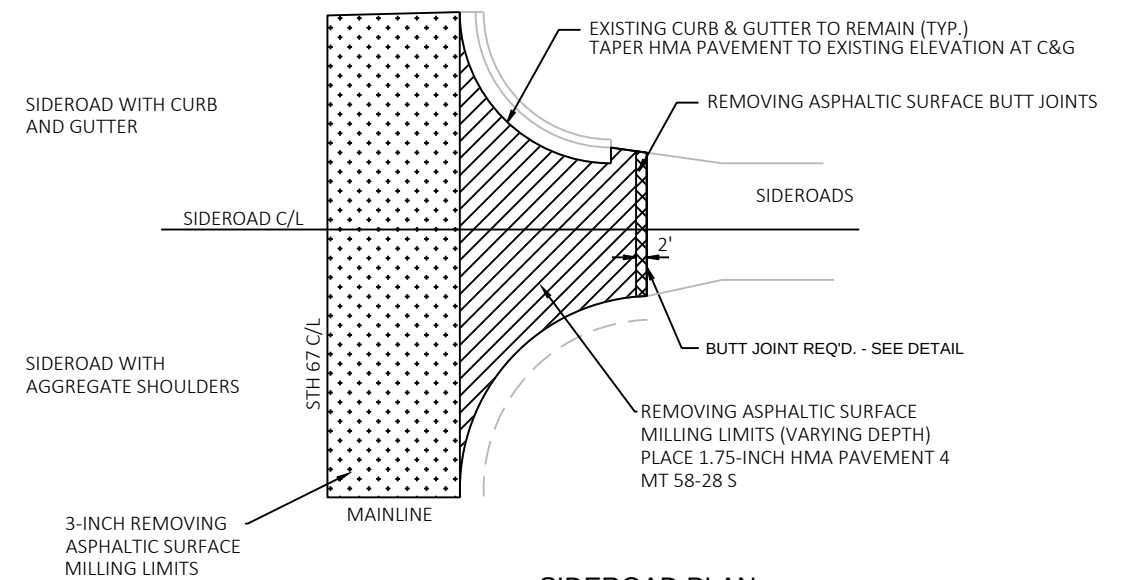
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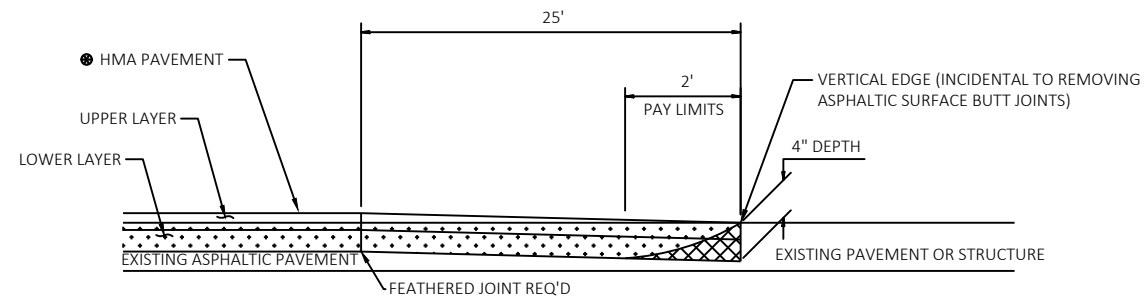
● SEE TYPICAL SECTIONS FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

- REMOVING ASPHALTIC SURFACE, MILLING
● REMOVING ASPHALTIC SURFACE BUTT JOINT

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS ON SIDEROADS



SIDEROAD PLAN

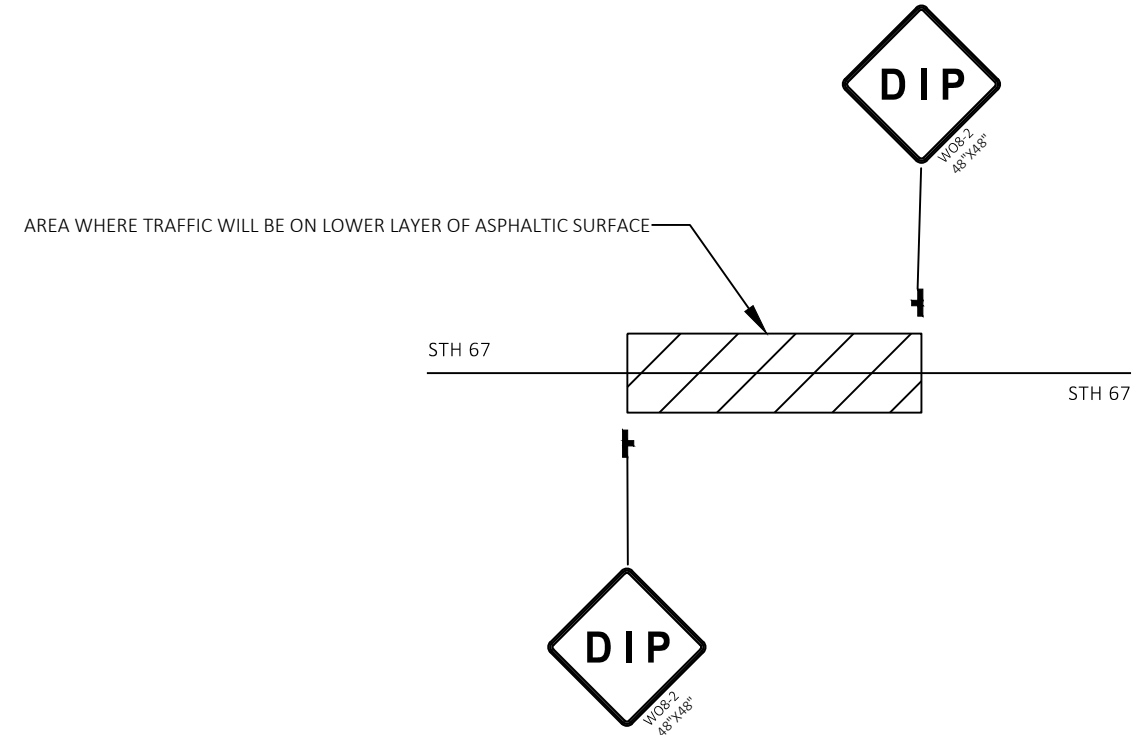


● SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

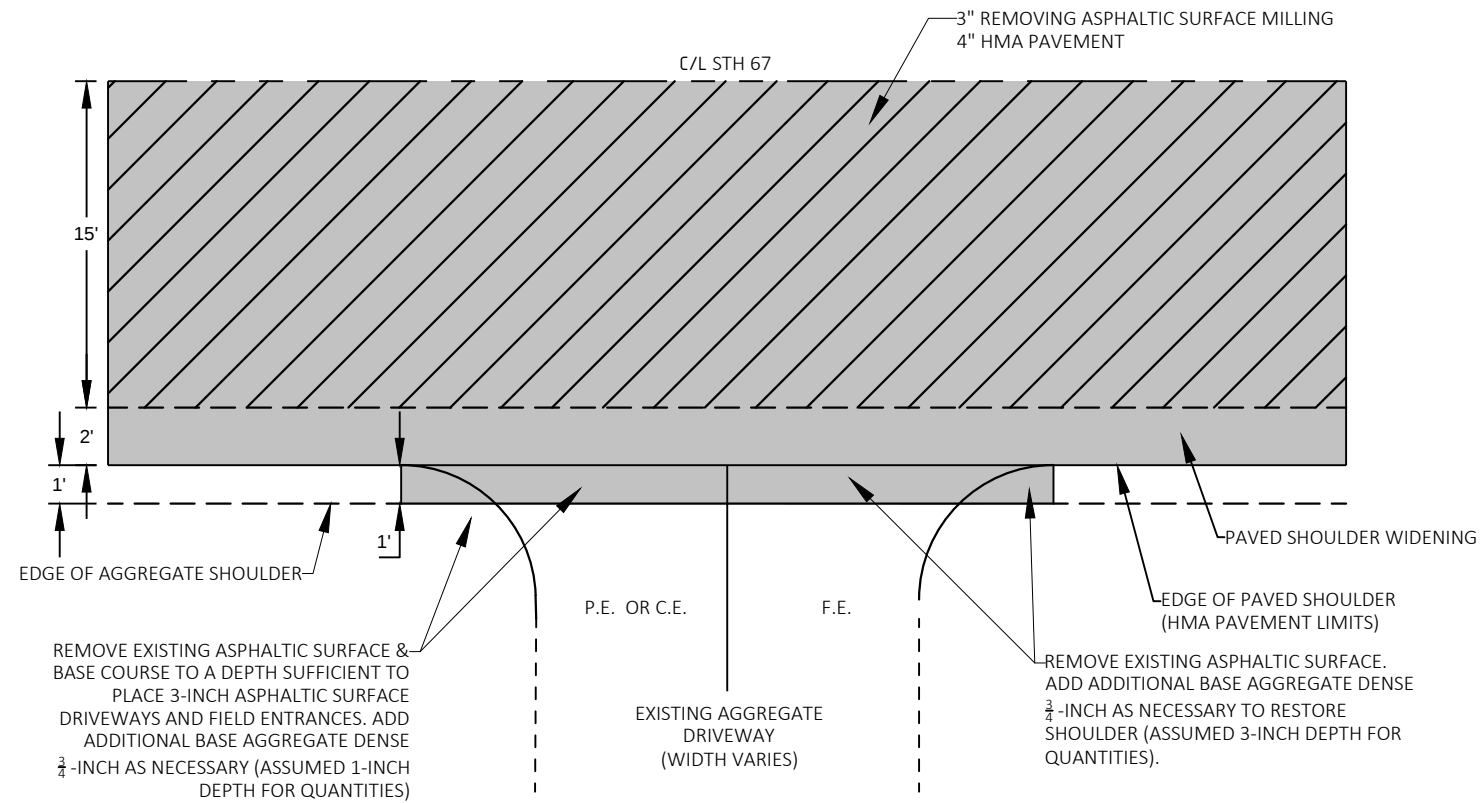
- REMOVING ASPHALTIC SURFACE, MILLING
● REMOVING ASPHALTIC SURFACE BUTT JOINT

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (PROFILE CHANGE)

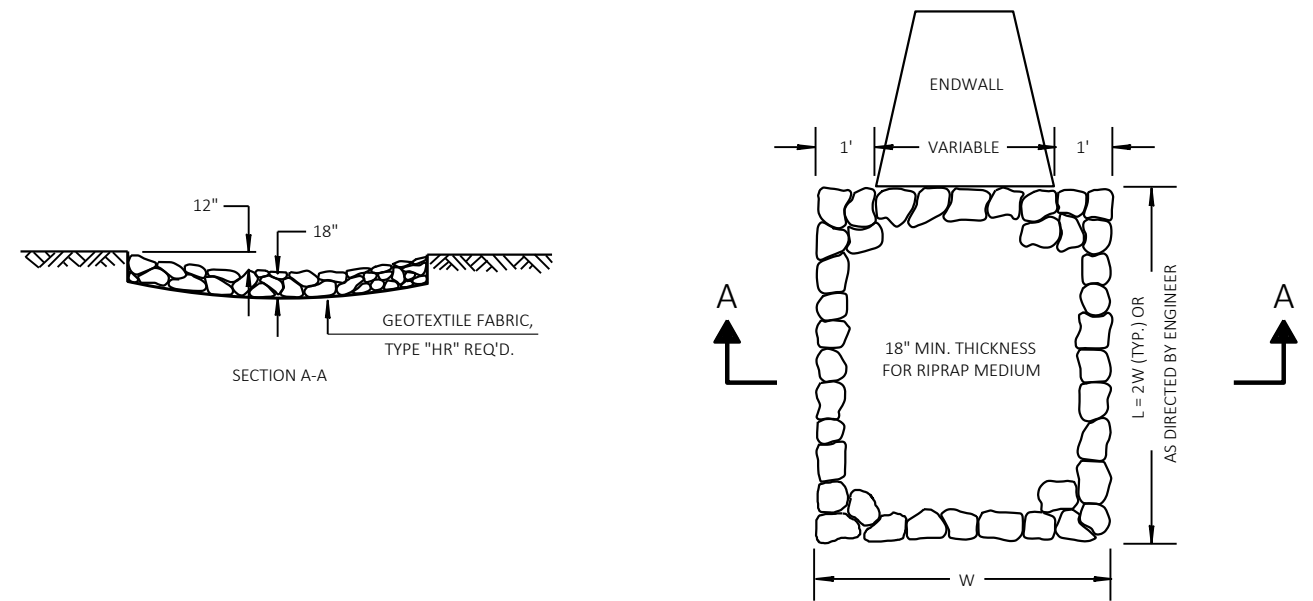
STA. 154+70 TO STA. 154+95
STA. 528+70 TO STA. 528+45



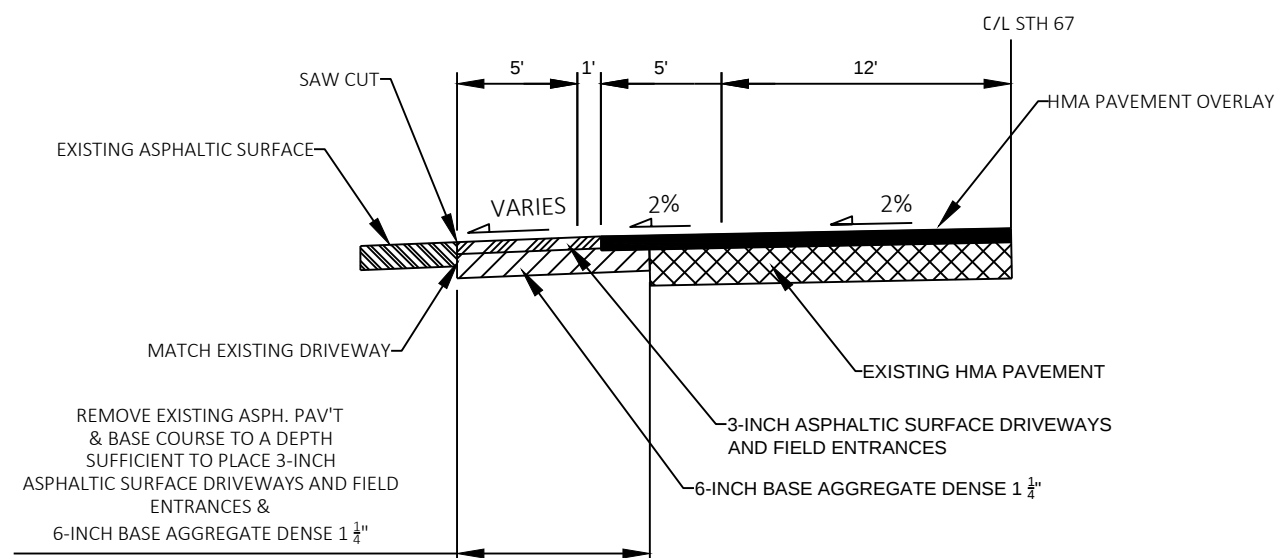
TEMPORARY SIGNING AT CULVERT PIPE REPLACEMENT



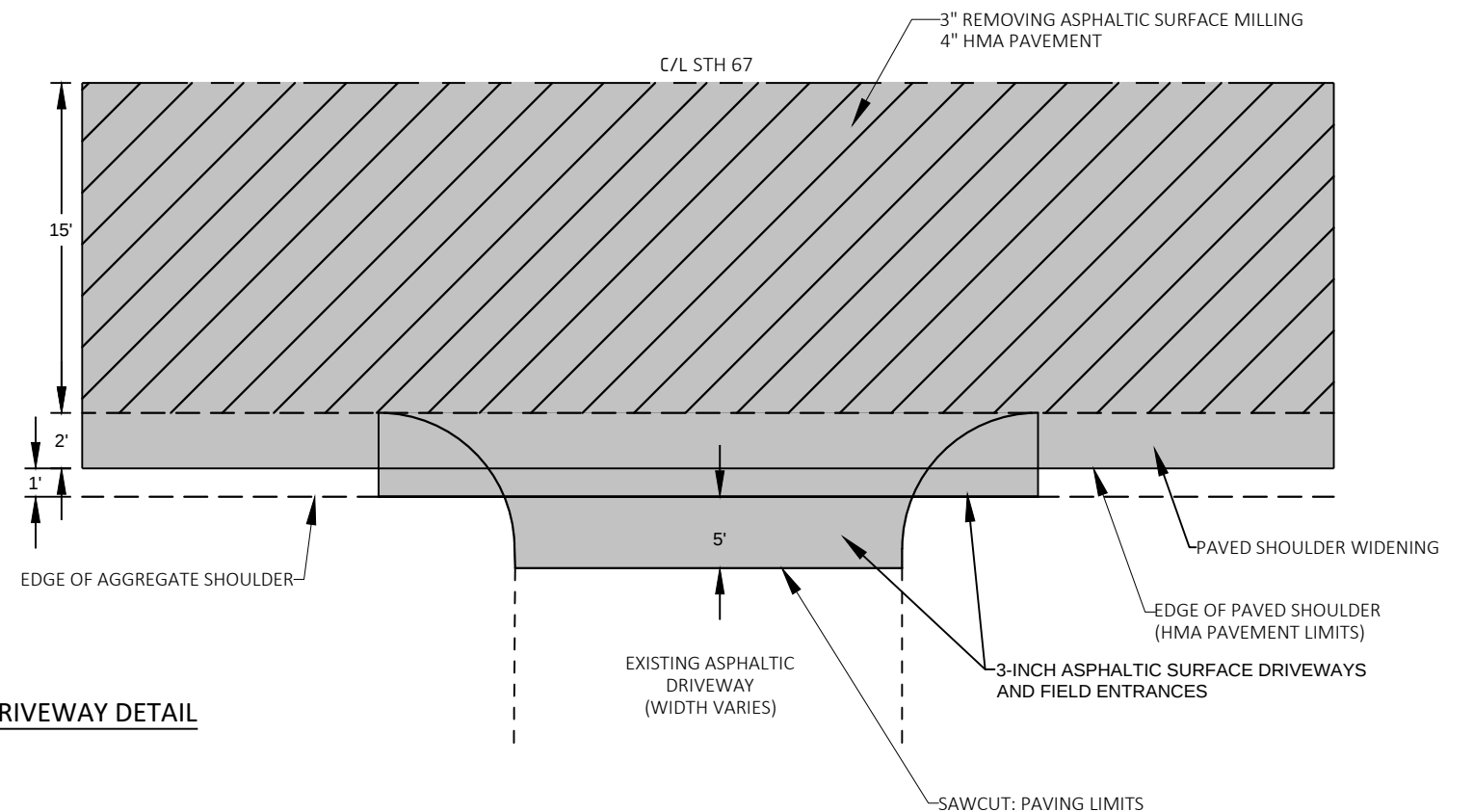
TYPICAL AGGREGATE DRIVEWAY DETAIL

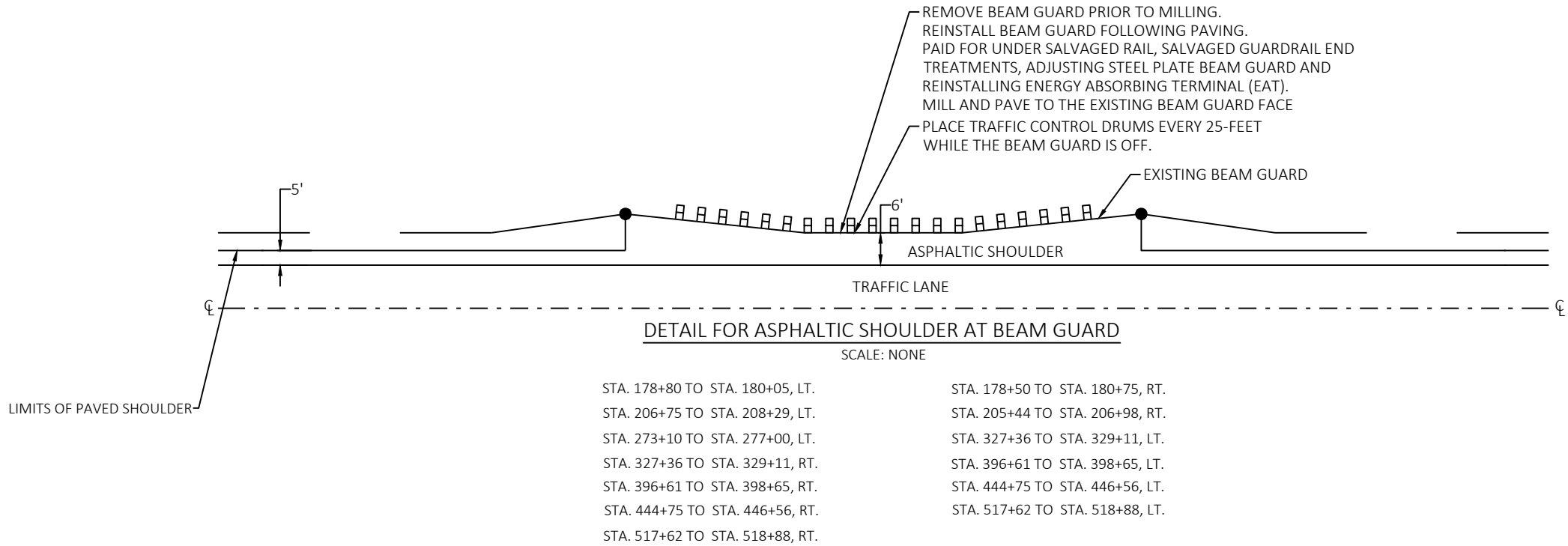


RIPRAP MEDIUM TREATMENT AT CULVERTS



TYPICAL ASPHALT DRIVEWAY DETAIL

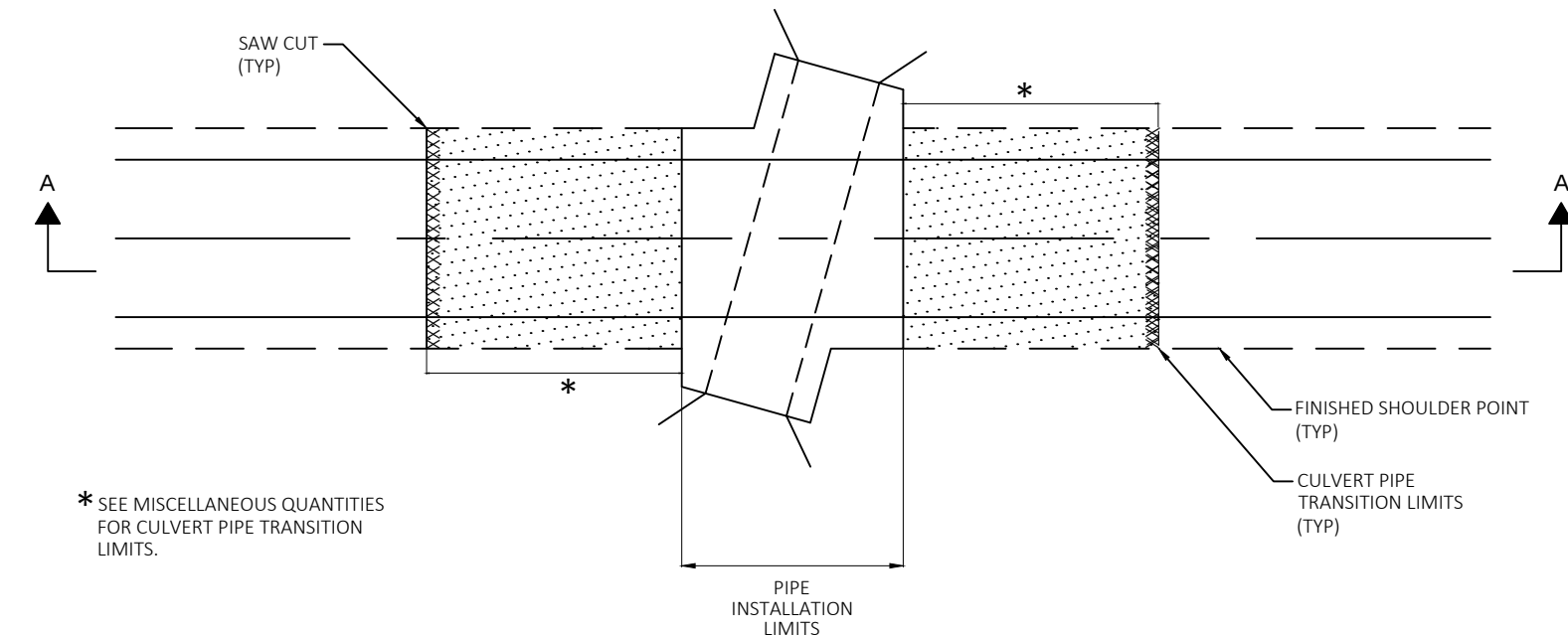




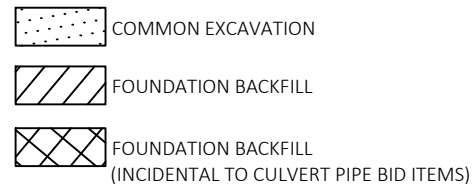
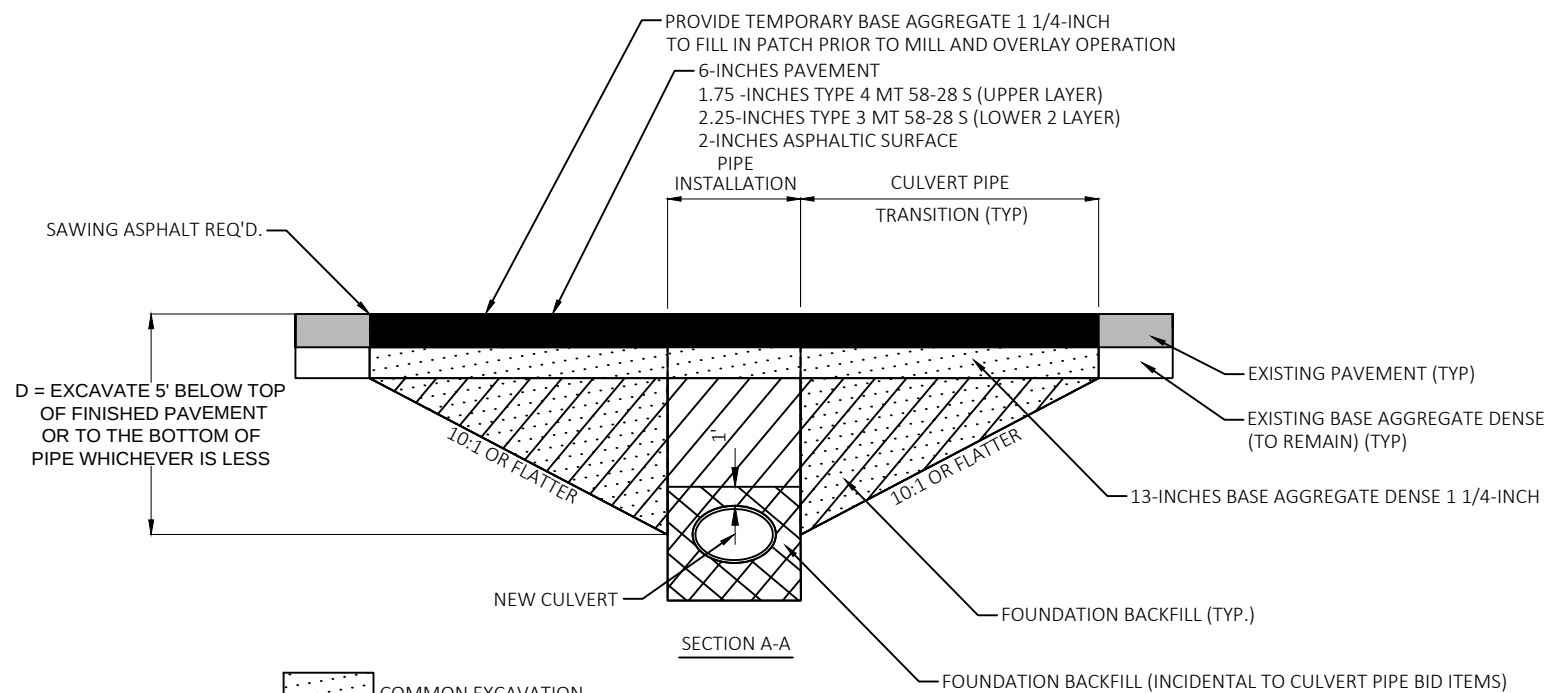
RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIPTURF:	.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 SLOPETURF:			.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 = 107.344 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.852 ACRES



* SEE MISCELLANEOUS QUANTITIES FOR CULVERT PIPE TRANSITION LIMITS.



NEW CULVERT PIPES WITH TRANSITION

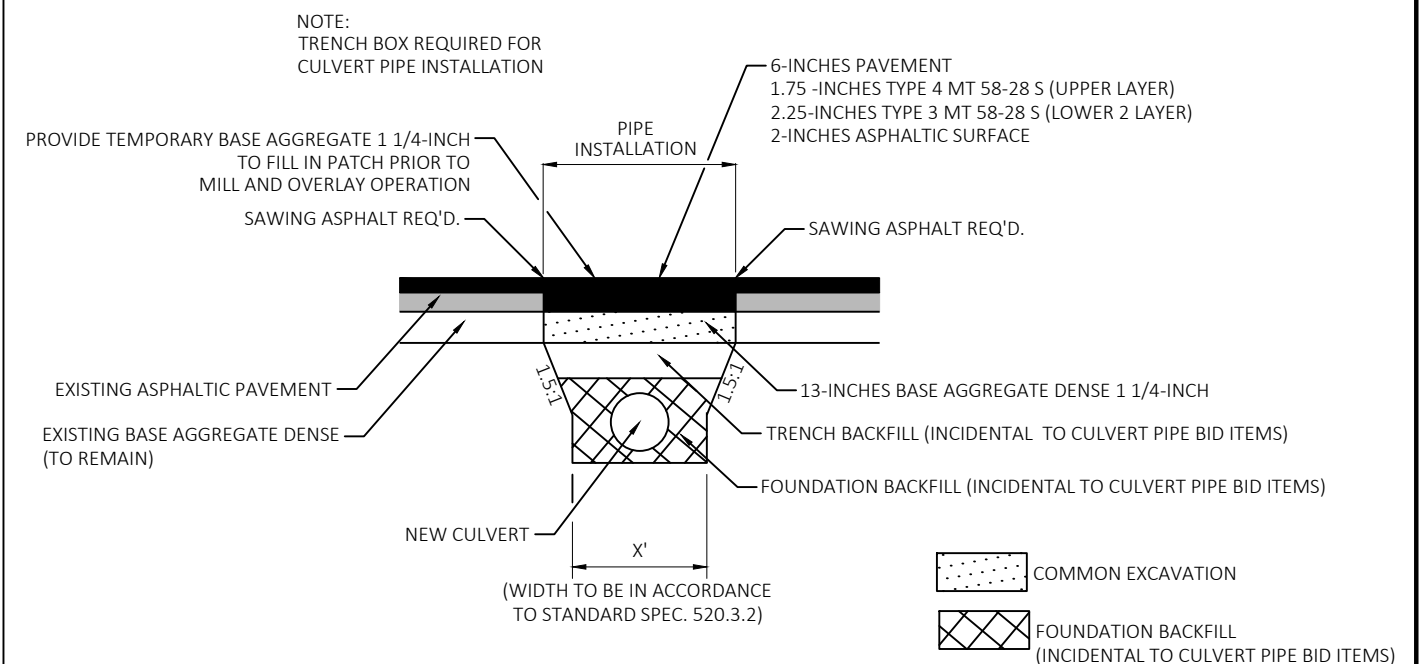
SCALE: NONE
STA. 158+72

FOLLOW STANDARD SPECIFICATION SECTION 520 FOR PIPE INSTALLATION, WIDTHS AND PAYMENT.

CULVERT PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.

SAW CUT PAVEMENT PERPENDICULAR TO ROADWAY ALIGNMENT.

PLAN STATION AND OFFSET CALLOUTS ARE TO THE ENDS OF THE PIPE.



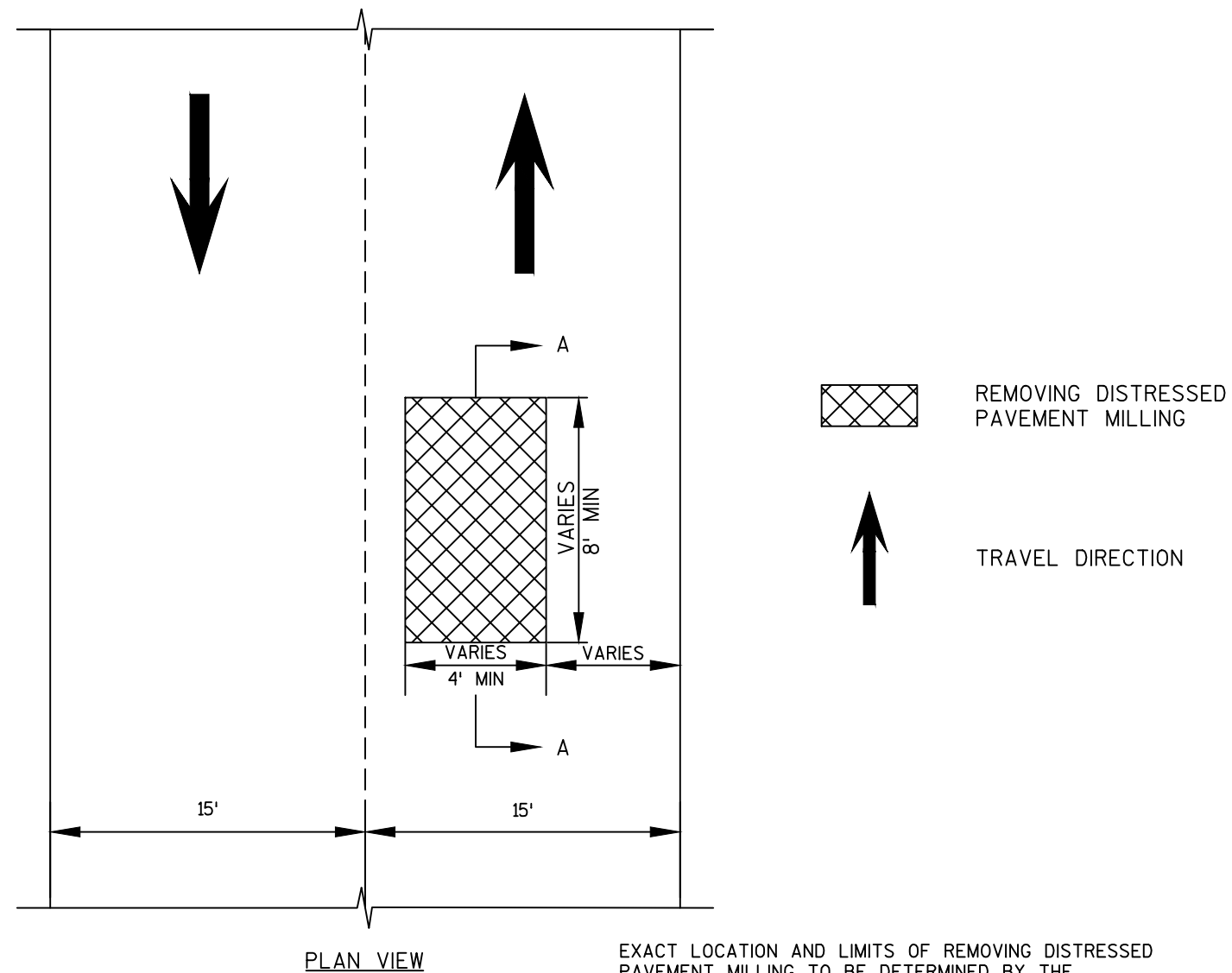
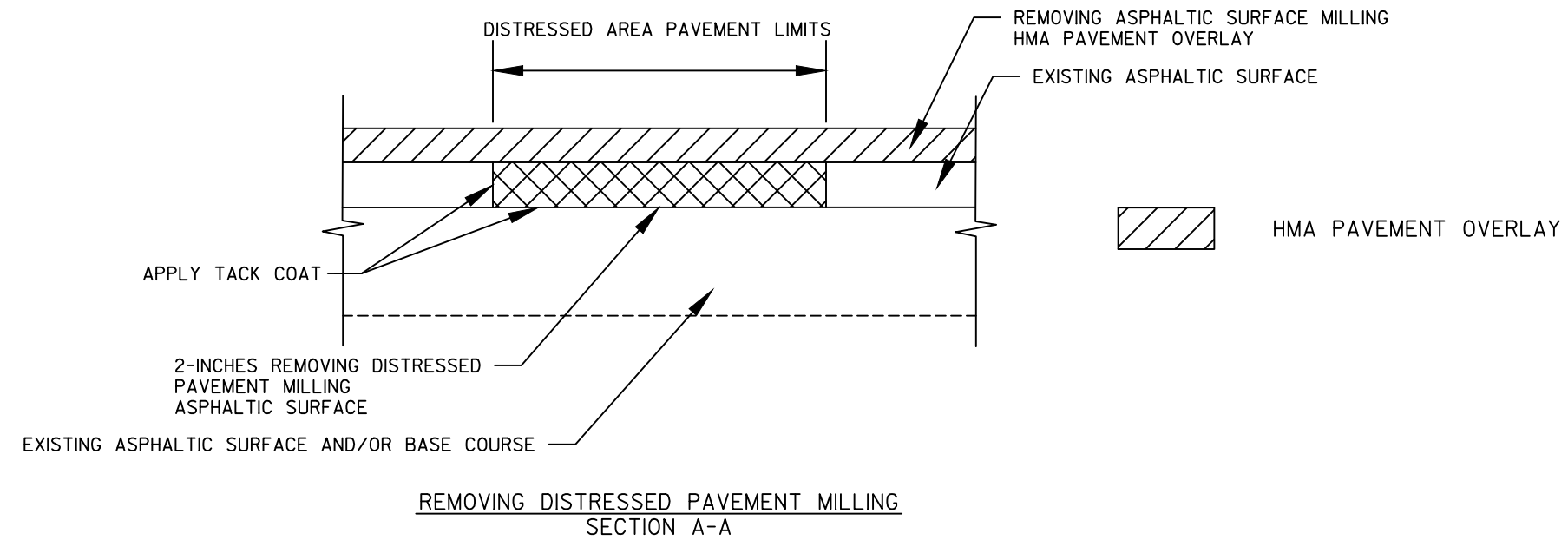
PAVEMENT AT CULVERT REPLACEMENTS, NO TRANSITION

SCALE: NONE
STA. 223+47
STA. 351+53
STA. 358+36
STA. 370+75
STA. 384+34

FOLLOW STANDARD SPECIFICATION SECTION 520 FOR PIPE INSTALLATION, WIDTHS AND PAYMENT.

SAW CUT PAVEMENT PERPENDICULAR TO ROADWAY ALIGNMENT.

PLAN STATION AND OFFSET CALLOUTS ARE TO THE ENDS OF THE PIPE.

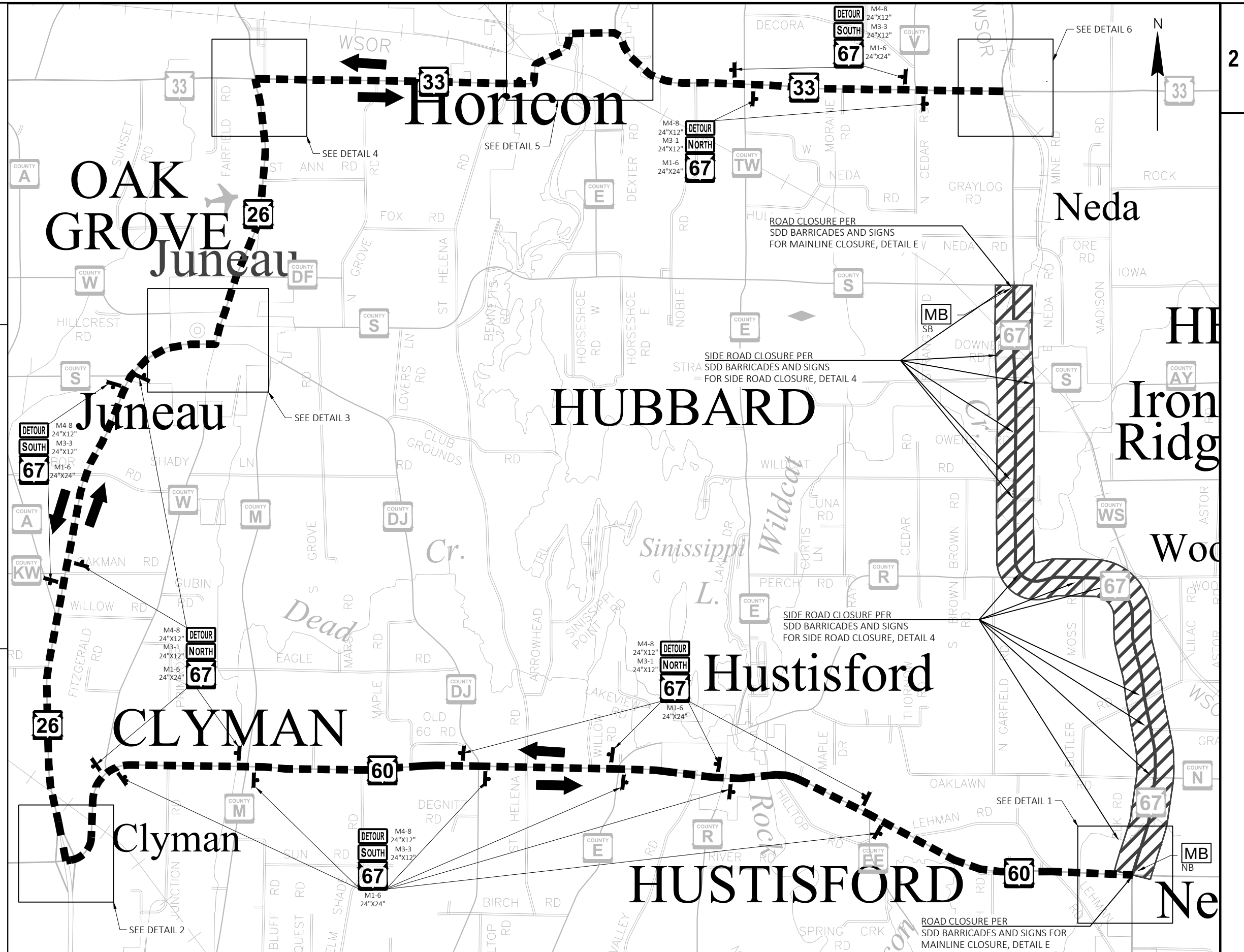


1. ALL TC COVERING SIGNS TYPE I/II SHALL BE PAID AS EACH CONTIGUOUS SIGN(S) COVERED PER LOCATION PER CYCLE NOT AS INDIVIDUAL CLUSTER.
2. REFER TO PLATE A4-12 WHEN COVERING ARROWS FOR DESTINATION DIRECTIONAL ARROWS.
3. SEE SDD "BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES" FOR SIDE ROAD SIGNING ALONG THE WORKZONE CORRIDOR.
4. DRAWINGS SHOW TC DETOUR FOR A TYPICAL SITUATION. ADDITIONAL TC DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON SITE CONDITIONS AS DIRECTED BY THE ENGINEER. ALL CHANGES TO THE TC DETOUR PLAN SHALL BE REVIEWED WITH THE PROJECT ENGINEER.
5. SIGN FACES SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE NOTED.
6. TRAFFIC CONTROL PLANS ARE NOT TO SCALE.
7. COVER, REMOVE, OR ALTER ANY EXISTING OR PROPOSED SIGNS THAT DISPLAY A CONFLICTING MESSAGE WITH THE PROPOSED DETOUR ROUTE FOR THE PHASE THAT IS ACTIVE.
8. MAINTAIN ACCESS TO DRIVEWAYS AND SIDE ROADS AT ALL TIMES.
9. WO SIGNS ARE THE SAME AS W SIGNS EXCEPT THE BACKGROUND IS ORANGE.

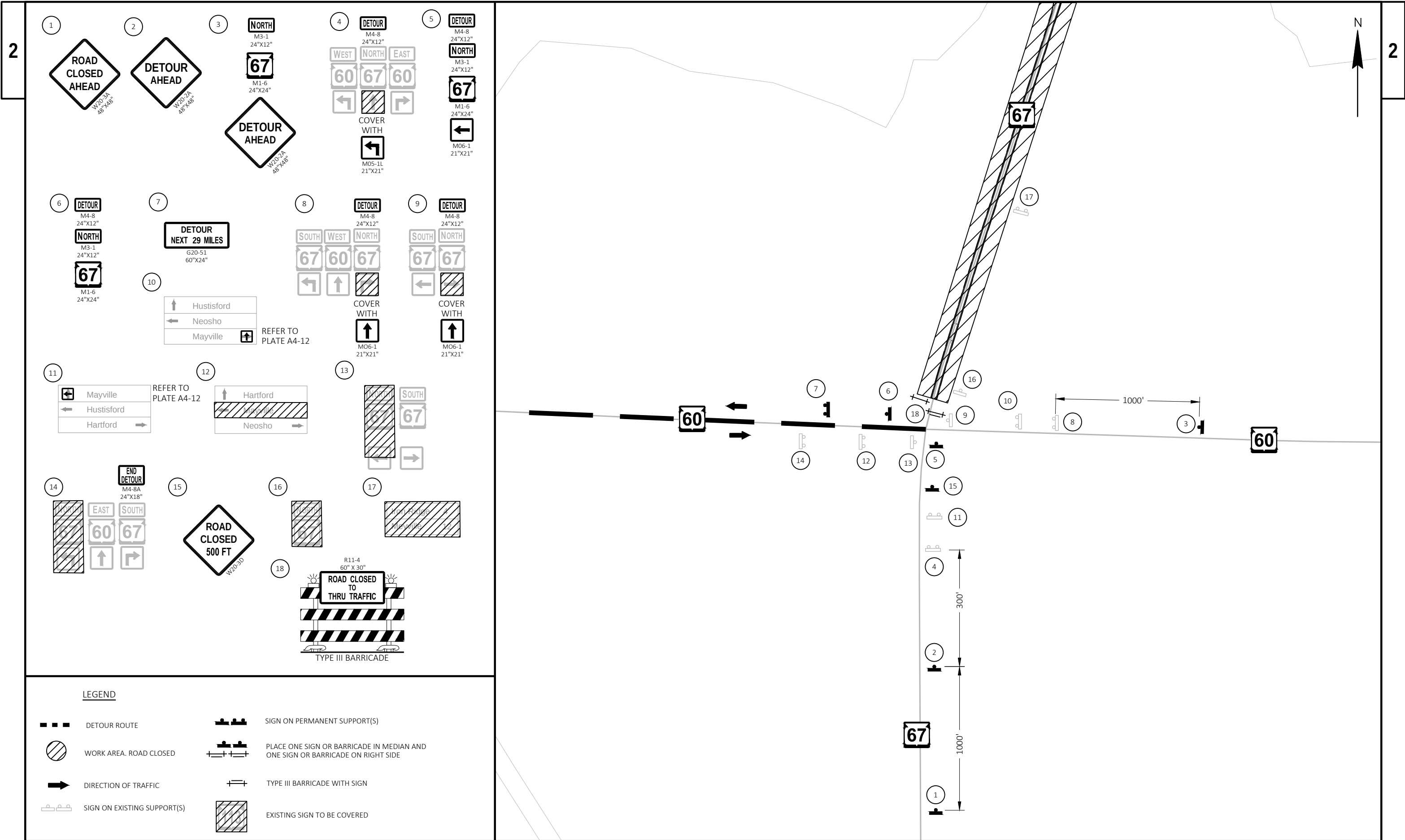
PCMS MESSAGES		
PCMS SITE LOCATION	7 DAYS PRIOR TO CONSTRUCTION/STAGE	
	FRAME A (2 SEC)	FRAME B (2 SEC)
NB	ROAD CLOSED BEGINS	D.O.W. MM-DD
SB	ROAD CLOSED BEGINS	D.O.W. MM-DD

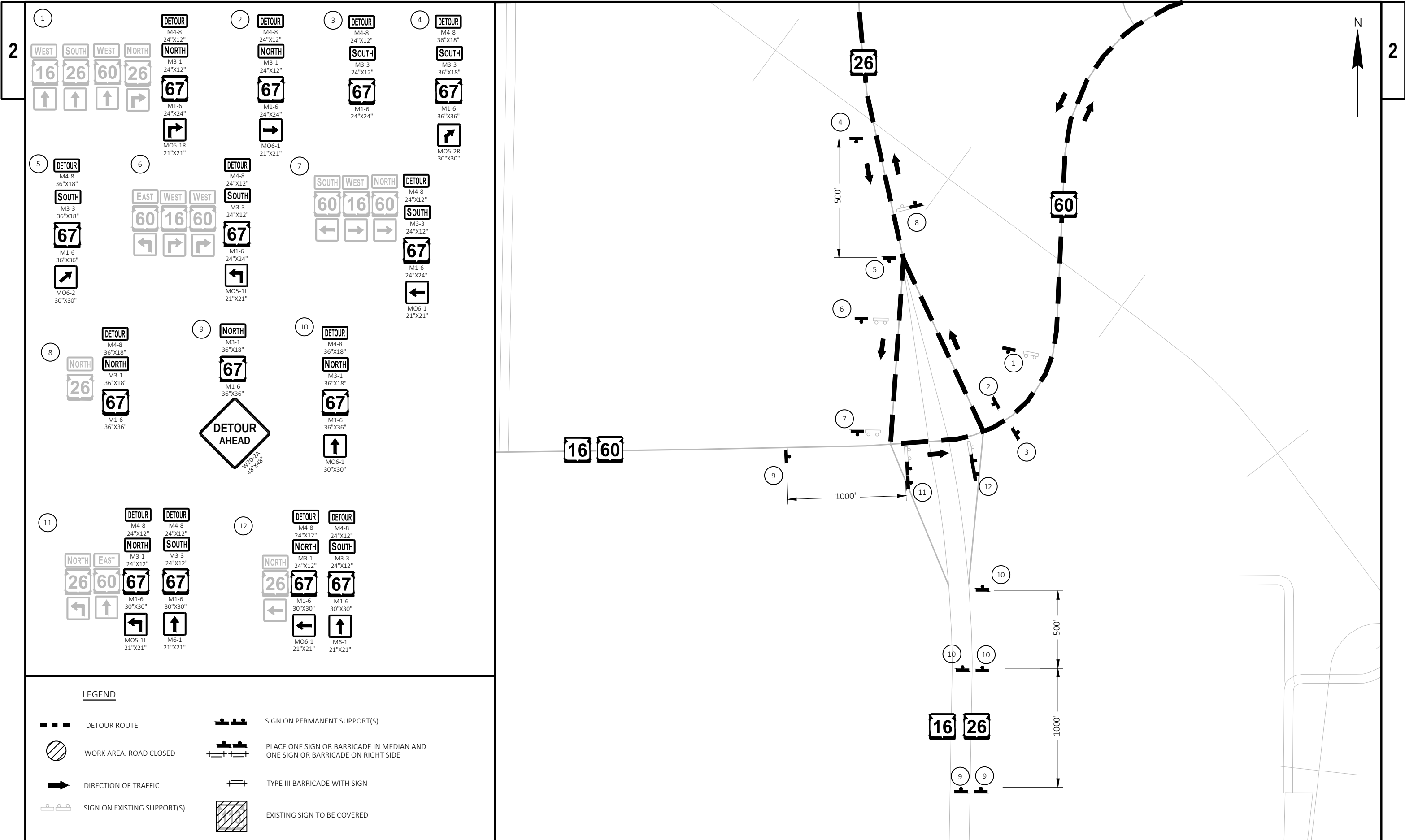
1. PCMS LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. PLACE PCMS AS FAR AWAY FROM THE LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.
3. PLACE REFLECTORIZED DRUMS AHEAD OF PCMS ON THE SHOULDER.

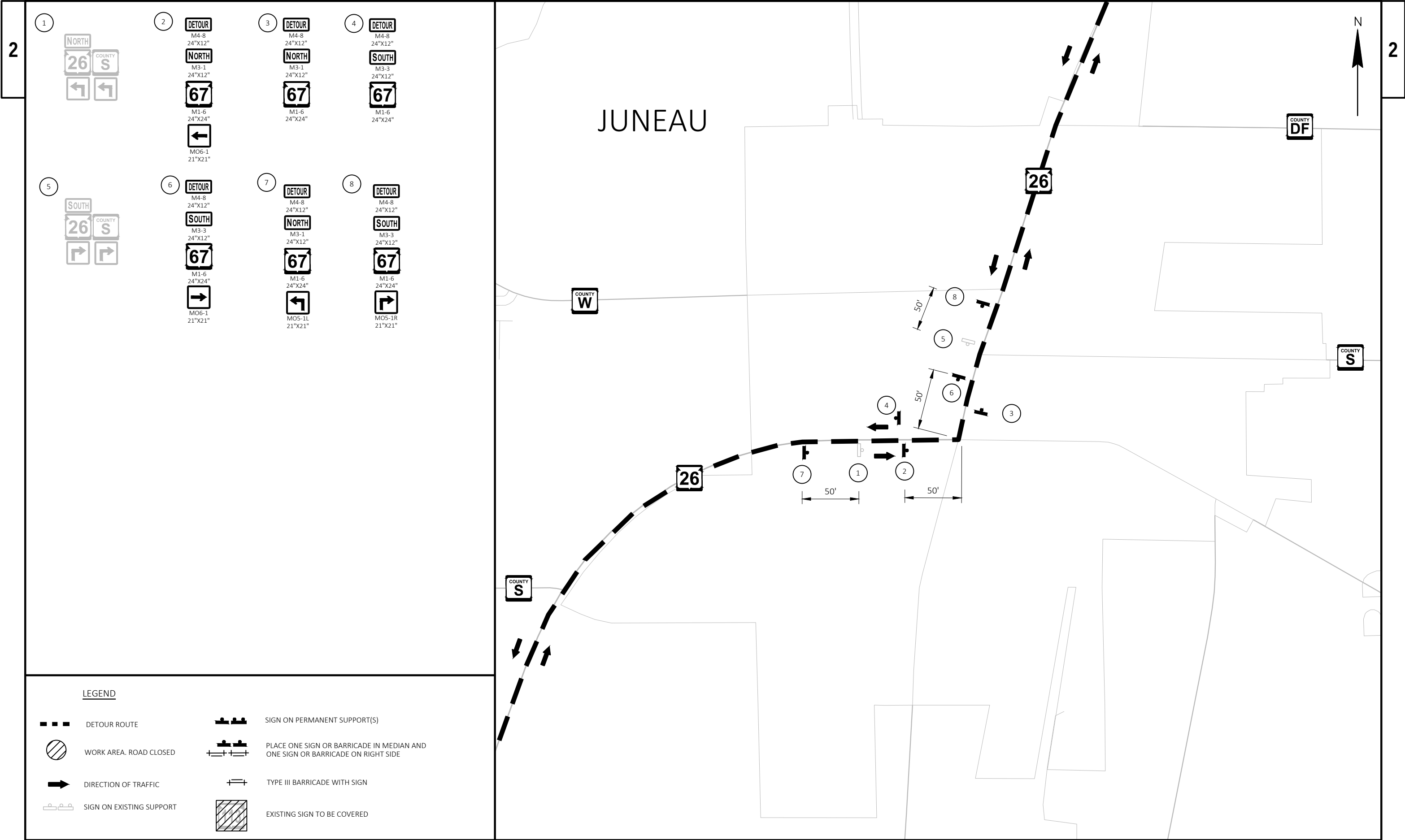
	DETOUR ROUTE
	WORK AREA. ROAD CLOSED
	DIRECTION OF TRAFFIC
	SIGN ON EXISTING SUPPORT
	SIGN ON PERMANENT SUPPORT
	TYPE III BARRICADE WITH SIGN
	PORTABLE CHANGEABLE MESSAGE BOARD
	EXISTING SIGN TO BE COVERED

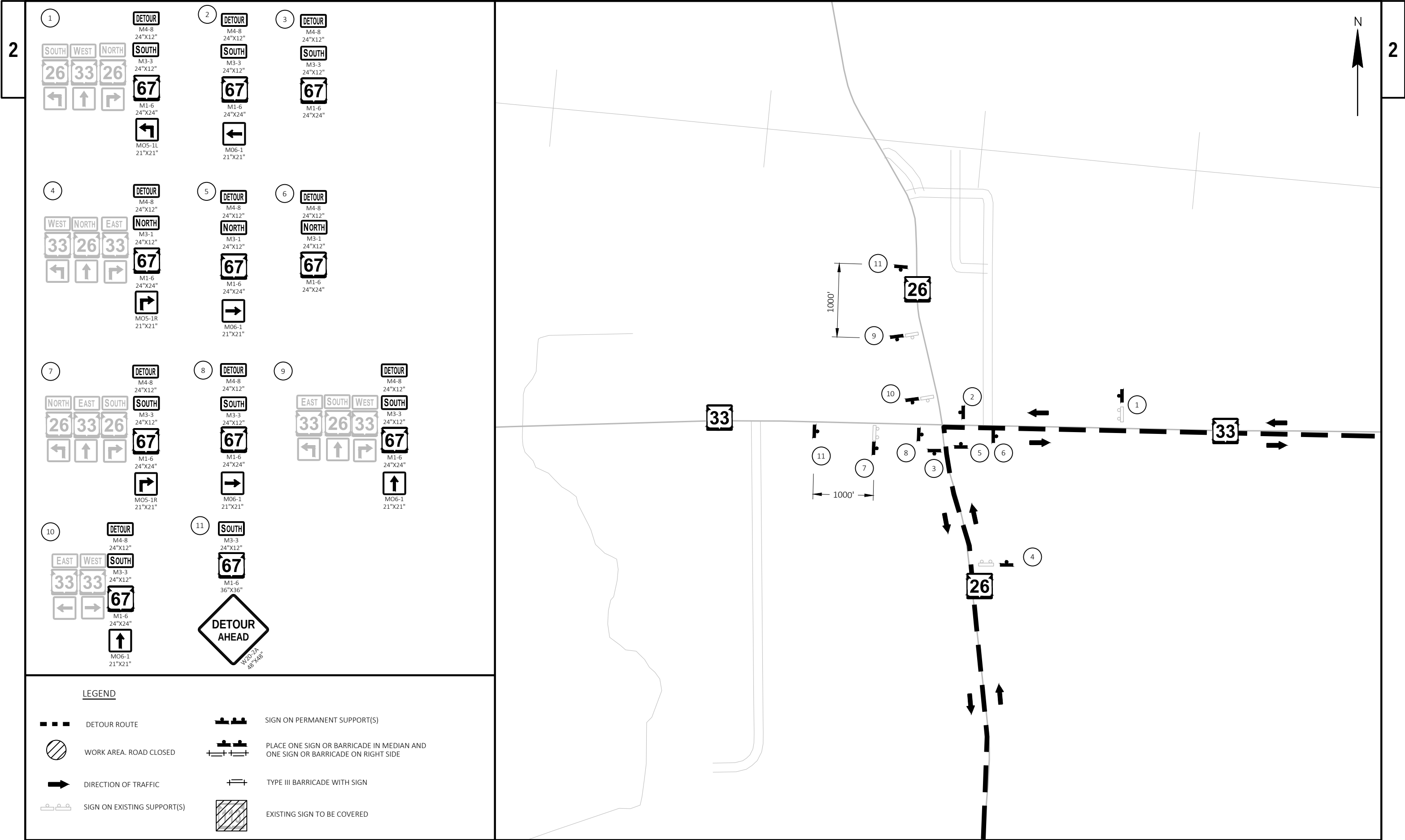


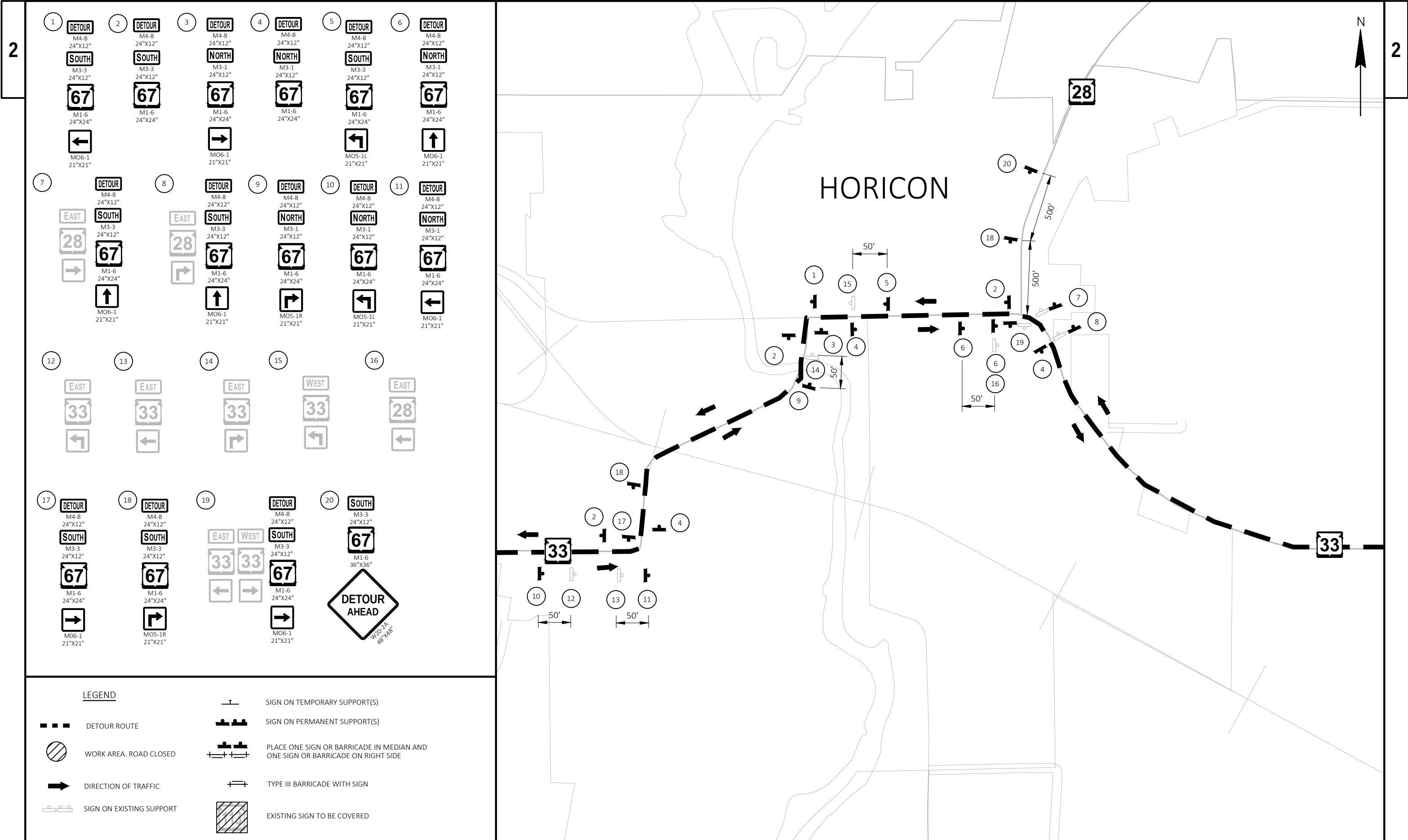
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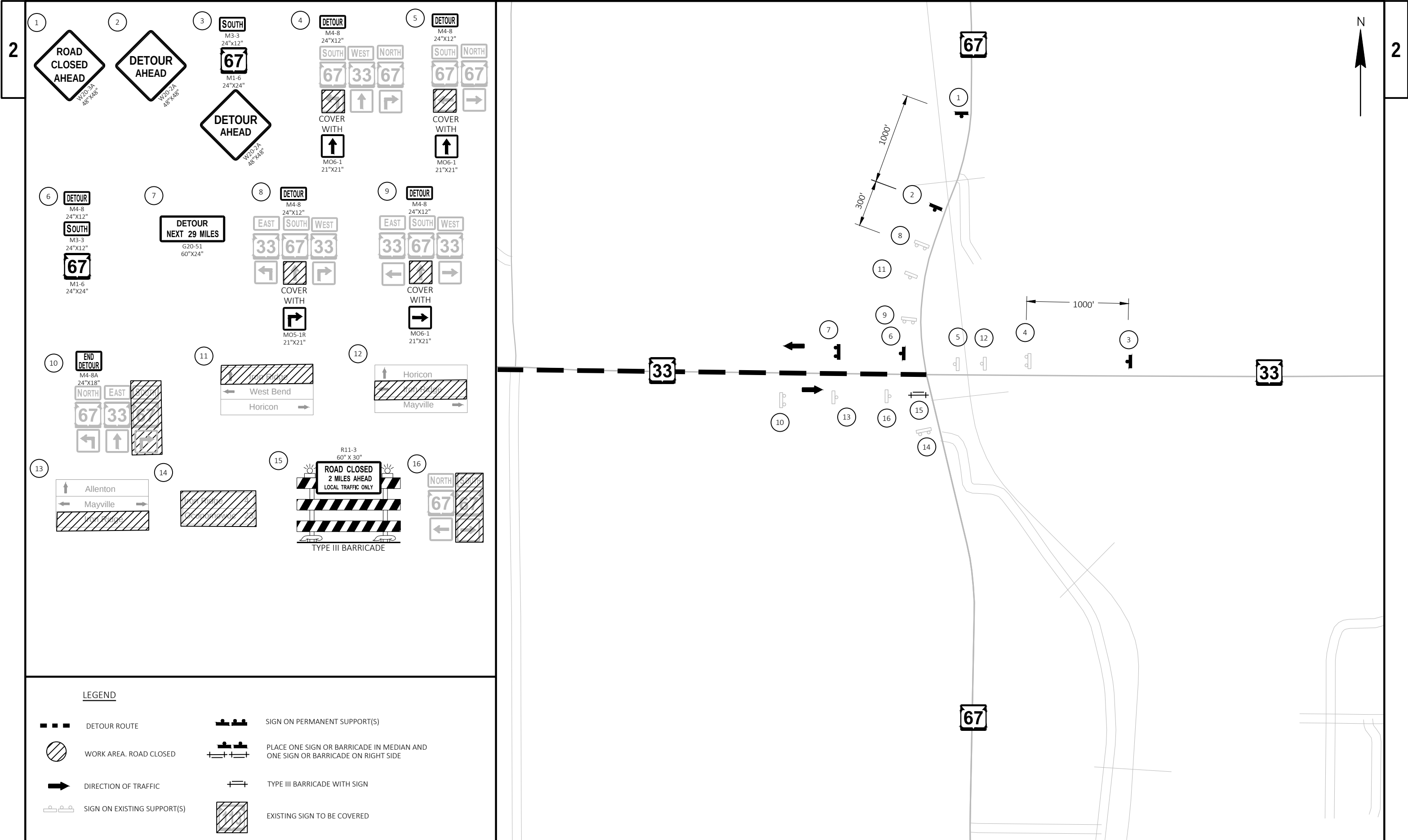












Estimate Of Quantities

3030-02-66

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	6.000	6.000
0004	204.0100	Removing Concrete Pavement	SY	100.000	100.000
0006	204.0110	Removing Asphaltic Surface	SY	715.000	715.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	140.000	140.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	134,000.000	134,000.000
0012	204.0150	Removing Curb & Gutter	LF	1,332.000	1,332.000
0014	205.0100	Excavation Common	CY	1,377.000	1,377.000
0016	208.0100	Borrow	CY	955.000	955.000
0018	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 3030-02-66	EACH	1.000	1.000
0020	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	722.000	722.000
0022	213.0100	Finishing Roadway (project) 01. 3030-02-66	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,485.000	2,485.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,695.000	1,695.000
0028	455.0605	Tack Coat	GAL	17,860.000	17,860.000
0030	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0032	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0034	460.2005	Incentive Density PWL HMA Pavement	DOL	22,340.000	22,340.000
0036	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	14,960.000	14,960.000
0038	460.2010	Incentive Air Voids HMA Pavement	DOL	32,900.000	32,900.000
0040	460.6223	HMA Pavement 3 MT 58-28 S	TON	18,289.000	18,289.000
0042	460.6224	HMA Pavement 4 MT 58-28 S	TON	14,710.000	14,710.000
0044	465.0105	Asphaltic Surface	TON	396.000	396.000
0046	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	98.000	98.000
0048	465.0315	Asphaltic Flumes	SY	19.000	19.000
0050	465.0520	Asphaltic Rumble Strips, Shoulder	LF	50,800.000	50,800.000
0052	465.0560	Asphaltic Rumble Strips, Centerline	LF	31,100.000	31,100.000
0054	465.0580	Asphaltic Rumble Strips, Transverse	SY	80.000	80.000
0056	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0058	520.3324	Culvert Pipe Class III-A 24-Inch	LF	82.000	82.000
0060	520.3524	Culvert Pipe Class III-B 24-Inch	LF	121.000	121.000
0062	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	312.000	312.000
0064	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	110.000	110.000
0066	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0068	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	4.000	4.000
0070	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	1,332.000	1,332.000
0072	606.0200	Riprap Medium	CY	25.000	25.000
0074	614.0400	Adjusting Steel Plate Beam Guard	LF	1,300.000	1,300.000
0076	614.0920	Salvaged Rail	LF	1,300.000	1,300.000
0078	614.0925	Salvaged Guardrail End Treatments	EACH	26.000	26.000
0080	614.0950	Replacing Guardrail Posts and Blocks	EACH	15.000	15.000
0082	614.0952	Replacing Guardrail Reflectors	EACH	39.000	39.000
0084	618.0100	Maintenance and Repair of Haul Roads (project) 01. 3030-02-66	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	61.000	61.000
0090	625.0100	Topsoil	SY	500.000	500.000
0092	625.0500	Salvaged Topsoil	SY	3,920.000	3,920.000
0094	628.1504	Silt Fence	LF	270.000	270.000
0096	628.1520	Silt Fence Maintenance	LF	270.000	270.000
0098	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000

Estimate Of Quantities

3030-02-66

Line	Item	Item Description	Unit	Total	Qty
0100	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0102	628.2006	Erosion Mat Urban Class I Type A	SY	4,480.000	4,480.000
0104	628.7555	Culvert Pipe Checks	EACH	22.000	22.000
0106	629.0210	Fertilizer Type B	CWT	2.800	2.800
0108	630.0120	Seeding Mixture No. 20	LB	118.000	118.000
0110	630.0200	Seeding Temporary	LB	60.000	60.000
0112	630.0500	Seed Water	MGAL	24.000	24.000
0114	633.5200	Markers Culvert End	EACH	12.000	12.000
0116	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	1.000	1.000
0118	637.2210	Signs Type II Reflective H	SF	5.180	5.180
0120	642.5201	Field Office Type C	EACH	1.000	1.000
0122	643.0300	Traffic Control Drums	DAY	4,374.000	4,374.000
0124	643.0420	Traffic Control Barricades Type III	DAY	1,782.000	1,782.000
0126	643.0705	Traffic Control Warning Lights Type A	DAY	3,564.000	3,564.000
0128	643.0900	Traffic Control Signs	DAY	29,705.000	29,705.000
0130	643.0920	Traffic Control Covering Signs Type II	EACH	11.000	11.000
0132	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0134	643.3165	Temporary Marking Line Paint 6-Inch	LF	143,400.000	143,400.000
0136	643.5000	Traffic Control	EACH	1.000	1.000
0138	645.0120	Geotextile Type HR	SY	50.000	50.000
0140	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	120,120.000	120,120.000
0142	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	645.000	645.000
0144	646.5320	Marking Railroad Crossing Epoxy	EACH	2.000	2.000
0146	646.6120	Marking Stop Line Epoxy 18-Inch	LF	160.000	160.000
0148	650.4500	Construction Staking Subgrade	LF	370.000	370.000
0150	650.5000	Construction Staking Base	LF	370.000	370.000
0152	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,332.000	1,332.000
0154	650.6000	Construction Staking Pipe Culverts	EACH	6.000	6.000
0156	650.8000	Construction Staking Resurfacing Reference	LF	37,384.000	37,384.000
0158	650.9911	Construction Staking Supplemental Control (project) 01. 3030-02-66	EACH	1.000	1.000
0160	690.0150	Sawing Asphalt	LF	2,203.000	2,203.000
0162	740.0440	Incentive IRI Ride	DOL	28,330.000	28,330.000
0164	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	450.000	450.000
0166	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	325.000	325.000
0168	SPV.0035	Special 01. Foundation Backfill	CY	230.000	230.000
0170	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	9.000	9.000
0172	SPV.0060	Special 02. Reinstalling Energy Absorbing Terminal (EAT)	EACH	26.000	26.000
0174	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	2,000.000	2,000.000

REMOVING SMALL PIPE CULVERTS

203.0100 REMOVING SMALL PIPE CULVERTS				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	158+72	LT & RT	1	24" CMCP X 59'
0010	223+47	LT & RT	1	30" CMCP X 69'
0010	351+53	LT & RT	1	24" CMCP X 122'
0010	358+36	LT & RT	1	24" CMCP X 153'
0010	370+75	LT & RT	1	24" CMCP X 155'
0010	384+34	LT & RT	1	24" CMCP X 96'
TOTAL 0010			6	

REMOVING C&G

* 204.0150 REMOVING CURB & GUTTER 204.0150 SAWING ASPHALT						
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF
0010	409+28	-	422+60	RT	1,332	1,338
TOTAL 0010					1,332	1,338

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

REMOVING BUTT JOINTS

204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	154+70	-	154+72	LT & RT	7	PROJECT START
0010	180+09	-	180+32	RT	5	ELK RD
0010	206+53	-	206+83	LT	7	OAK LAWN RD
0010	206+86	-	207+16	RT	7	CTH N
0010	233+02	-	233+24	RT	5	GRANT RD
0010	249+82	-	250+12	LT	7	BUTLER RD
0010	250+23	-	250+54	RT	7	BUTLER RD
0010	308+54	-	308+94	RT	10	CTH WS
0010	333+75	-	333+99	LT	6	MOSS RD
0010	369+19	-	369+58	LT	10	CTH R
0010	420+84	-	421+14	LT	7	WILDCAT RD
0010	447+11	-	447+34	LT	6	OWENS RD
0010	473+03	-	473+44	RT	10	CTH S
0010	486+77	-	486+93	LT	5	DOWNER RD
0010	493+78	-	494+18	LT & RT	12	WISCONSIN SOUTHERN RAILROAD
0010	493+98	-	494+38	LT & RT	12	WISCONSIN SOUTHERN RAILROAD
0010	526+15	-	526+44	LT	7	WEST JCT CTH S
0010	528+68	-	528+70	LT & RT	10	PROJECT END
TOTAL 0010					140	

REMOVING ASPHALTIC SURFACE MILLING

* 204.0110 REMOVING ASPHALTIC SURFACE 204.0120 REMOVING ASPHALTIC SURFACE MILLING							
CATEGORY	STATION	TO	STATION	LOCATION	SY	SY	REMARKS
0010	154+70	-	179+87	LT & RT	-	8,100	MAINLINE
0010	179+87	-	206+15	LT & RT	-	9,000	MAINLINE
0010	206+15	-	232+50	LT & RT	-	9,100	MAINLINE
0010	232+50	-	249+49	LT & RT	-	5,900	MAINLINE
0010	249+49	-	308+11	LT & RT	-	20,400	MAINLINE
0010	308+11	-	333+36	LT & RT	-	9,100	MAINLINE
0010	333+36	-	368+65	LT & RT	-	11,510	MAINLINE
0010	368+65	-	420+40	LT & RT	-	18,010	MAINLINE
0010	420+40	-	446+51	LT & RT	-	9,100	MAINLINE
0010	446+51	-	472+59	LT & RT	-	9,400	MAINLINE
0010	472+59	-	486+15	LT & RT	-	5,050	MAINLINE
0010	486+15	-	493+99	LT & RT	180	2,740	MAINLINE
0010	494+16	-	528+70	LT & RT	-	12,430	MAINLINE
0010	180+30	-	180+30	LT	-	210	ELK RD
0010	206+75	-	206+75	LT & RT	-	550	OAK LAWN RD
0010	233+25	-	233+25	RT	-	350	GRANT RD
0010	250+00	-	250+00	LT & RT	-	610	BUTLER RD
0010	308+75	-	308+75	RT	-	340	CTH WS
0010	334+00	-	334+00	LT	-	250	MOSS RD
0010	369+40	-	369+40	LT	-	380	CTH R
0010	421+00	-	421+00	LT	-	350	WILDCAT RD
0010	447+25	-	447+25	LT	-	230	OWENS RD
0010	473+25	-	473+25	RT	-	360	CTH S (EAST)
0010	486+85	-	486+85	LT	-	200	DOWNER RD
0010	526+30	-	526+30	LT	-	330	CTH S (WEST)

TOTAL 0010 180 134,000

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

REMOVING CONCRETE PAVEMENT

204.0100 REMOVING CONCRETE PAVEMENT						
CATEGORY	STATION	TO	STATION	LOCATION	SY	
0010	157+33	-	157+58	LT	33	
0010	159+58	-	159+83	LT	34	
0010	163+09	-	163+34	LT	33	
TOTAL 0010					100	

PREPARE ASPH SHOULDER

					211.0400
					PREPARE
					FOUNDATION
					FOR ASPHALTIC
					SHOULDERS
CATEGORY	STATION	TO	STATION	LOCATION	STA
0020	154+70	-	179+87	LT & RT	52
0020	179+87	-	206+15	LT & RT	53
0020	206+15	-	232+50	LT & RT	52
0020	232+50	-	249+49	LT & RT	33
0020	249+49	-	308+11	LT & RT	116
0020	308+11	-	333+36	LT & RT	48
0020	333+36	-	368+65	LT & RT	71
0020	368+65	-	420+40	LT & RT	88
0020	420+40	-	446+51	LT & RT	47
0020	446+51	-	472+59	LT & RT	53
0020	472+59	-	486+15	LT & RT	27
0020	486+15	-	493+99	LT & RT	15
0020	494+16	-	528+70	LT & RT	67
TOTAL 0020					722

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TOTAL 0020

DRIVEWAYS

			*	*	*	*	*	*		
			204.0110	205.0100	305.0110	305.0120	465.0120	624.0100	690.0150	
			REMOVING ASPHALTIC SURFACE	EXCAVATION COMMON	BASE AGGREGATE DENSE 3/4-INCH	BASE AGGREGATE DENSE 1 1/4-INCH	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	WATER	SAWING ASPHALT	
CATEGORY	STATION	LOCATION	SY	CY	TON	TON	TON	MGAL	LF	REMARKS
0010	161+75	RT	-	-	0.4	-	-	0.01	-	BAD FE
0010	167+00	RT	-	-	0.4	-	-	0.01	-	BAD FE
0010	185+71	RT	-	-	0.4	-	-	0.01	-	BAD FE
0010	198+89	LT	4	-	0.2	-	1	0.00	-	BAD PE
0010	210+16	LT	6	-	0.3	-	1	0.00	-	BAD PE
0010	220+95	RT	25	5	8.0	7	4	0.21	26	ASPH CE
0010	222+11	RT	53	9	16.0	16	9	0.45	72	ASPH CE
0010	223+98	RT	4	-	0.2	-	1	0.00	-	BAD CE
0010	230+96	RT	18	4	6.0	5	3	0.15	24	ASPH PE
0010	233+34	LT	-	-	0.4	-	-	0.01	-	BAD FE
0010	234+58	RT	20	4	6.0	6	3	0.17	22	ASPH PE
0010	260+20	LT	-	-	0.4	-	-	0.01	-	BAD FE
0010	270+59	LT	4	-	0.2	-	1	0.00	-	BAD PE
0010	271+88	LT	6	-	0.3	-	1	0.00	-	BAD PE
0010	280+33	LT	-	-	0.4	-	-	0.01	-	BAD FE
0010	287+30	RT	-	-	0.1	-	-	0.00	-	BAD FE
0010	298+03	LT	3	-	0.2	-	1	0.00	-	BAD PE
0010	298+79	LT	4	-	0.2	-	1	0.00	-	BAD PE
0010	301+29	LT	24	5	7.0	7	4	0.20	29	ASPH PE
0010	312+10	LT	3	-	0.2	-	1	0.00	-	BAD PE
SUBTOTALS	-	-	174	27	47.2	41	31	1.24	173	-

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HMA PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	LANE	LAYER	THICKNESS	*	*		REMARKS
								455.0605	460.6223	460.6224	
								TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	
0010	154+70	-	179+87	LT & RT	SHOULDER	UPPER LAYER	1.75	82	--	160	STH 60
0010	154+70	-	179+87	LT & RT	SHOULDER	LOWER LAYER	2.25	115	206	--	STH 60
0010	154+70	-	179+87	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	336	--	658	STH 60
0010	154+70	-	179+87	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	470	860	--	STH 60
0010	179+87	-	206+15	LT & RT	SHOULDER	UPPER LAYER	1.75	97	--	190	ELK RD
0010	179+87	-	206+15	LT & RT	SHOULDER	LOWER LAYER	2.25	136	244	--	ELK RD
0010	179+87	-	206+15	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	351	--	687	ELK RD
0010	179+87	-	206+15	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	492	883	--	ELK RD
0010	206+15	-	232+50	LT & RT	SHOULDER	UPPER LAYER	1.75	97	--	190	CTH N
0010	206+15	-	232+50	LT & RT	SHOULDER	LOWER LAYER	2.25	136	244	--	CTH N
0010	206+15	-	232+50	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	352	--	689	CTH N
0010	206+15	-	232+50	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	493	887	--	CTH N
0010	232+50	-	249+49	LT & RT	SHOULDER	UPPER LAYER	1.75	62	--	121	GRANT RD
0010	232+50	-	249+49	LT & RT	SHOULDER	LOWER LAYER	2.25	87	156	--	GRANT RD
0010	232+50	-	249+49	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	227	--	444	GRANT RD
0010	232+50	-	249+49	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	318	571	--	GRANT RD
0010	249+49	-	308+11	LT & RT	SHOULDER	UPPER LAYER	1.75	224	--	439	BUTLER RD
0010	249+49	-	308+11	LT & RT	SHOULDER	LOWER LAYER	2.25	314	565	--	BUTLER RD
0010	249+49	-	308+11	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	783	--	1532	BUTLER RD
0010	249+49	-	308+11	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	1096	1971	--	BUTLER RD
0010	308+11	-	333+36	LT & RT	SHOULDER	UPPER LAYER	1.75	112	--	220	CTH WS
0010	308+11	-	333+36	LT & RT	SHOULDER	LOWER LAYER	2.25	157	282	--	CTH WS
0010	308+11	-	333+36	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	337	--	660	CTH WS
0010	308+11	-	333+36	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	472	850	--	CTH WS
0010	333+36	-	368+65	LT & RT	SHOULDER	UPPER LAYER	1.75	124	--	242	MOSS RD
0010	333+36	-	368+65	LT & RT	SHOULDER	LOWER LAYER	2.25	173	311	--	MOSS RD
0010	333+36	-	368+65	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	471	--	923	MOSS RD
0010	333+36	-	368+65	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	660	1186	--	MOSS RD
0010	368+65	-	420+40	LT & RT	SHOULDER	UPPER LAYER	1.75	245	--	479	CTH R
0010	368+65	-	420+40	LT & RT	SHOULDER	LOWER LAYER	2.25	342	616	--	CTH R
0010	368+65	-	420+40	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	691	--	1351	CTH R
0010	368+65	-	420+40	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	966	1737	--	CTH R
0010	420+40	-	446+51	LT & RT	SHOULDER	UPPER LAYER	1.75	105	--	205	WILDCAT RD
0010	420+40	-	446+51	LT & RT	SHOULDER	LOWER LAYER	2.25	146	263	--	WILDCAT RD
0010	420+40	-	446+51	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	349	--	683	WILDCAT RD
0010	420+40	-	446+51	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	488	879	--	WILDCAT RD
0010	446+51	-	472+59	LT & RT	SHOULDER	UPPER LAYER	1.75	111	--	217	OWENS RD
0010	446+51	-	472+59	LT & RT	SHOULDER	LOWER LAYER	2.25	155	278	--	OWENS RD
0010	446+51	-	472+59	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	349	--	683	OWENS RD
0010	446+51	-	472+59	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	488	879	--	OWENS RD
0010	472+59	-	486+15	LT & RT	SHOULDER	UPPER LAYER	1.75	60	--	118	CTH S
0010	472+59	-	486+15	LT & RT	SHOULDER	LOWER LAYER	2.25	84	151	--	CTH S
0010	472+59	-	486+15	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	181	--	355	CTH S
0010	472+59	-	486+15	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	254	456	--	CTH S
0010	486+15	-	493+99	LT & RT	SHOULDER	UPPER LAYER	1.75	28	--	54	DOWNER RD
0010	486+15	-	493+99	LT & RT	SHOULDER	LOWER LAYER	2.25	39	69	--	DOWNER RD
0010	486+15	-	493+99	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	105	--	205	DOWNER RD
0010	486+15	-	493+99	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	147	264	--	DOWNER RD
0010	494+16	-	528+70	LT & RT	SHOULDER	UPPER LAYER	1.75	148	--	289	WISCONSIN SOUTHERN RAILROAD
0010	494+16	-	528+70	LT & RT	SHOULDER	LOWER LAYER	2.25	206	371	--	WISCONSIN SOUTHERN RAILROAD
0010	494+16	-	528+70	LT & RT	TRAVEL LANES	UPPER LAYER	1.75	461	--	903	WISCONSIN SOUTHERN RAILROAD
0010	494+16	-	528+70	LT & RT	TRAVEL LANES	LOWER LAYER	2.25	646	1189	--	WISCONSIN SOUTHERN RAILROAD
SUBTOTALS	-	-	-	-	-	-	-	15,568	16,368	12,697	

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HMA PAVEMENT ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	LANE	LAYER	THICKNESS	*	*		REMARKS
								455.0605	460.6223	460.6224	
								TACK COAT	HMA PAVEMENT	HMA PAVEMENT	
								GAL	3 MT 58-28 S	4 MT 58-28 S	
									TON	TON	
0010	180+30			LT	INTERSECTION	UPPER LAYER	1.50	16	--	27	ELK RD
0010	206+75			LT & RT	INTERSECTION	UPPER LAYER	1.50	42	--	70	OAK LAWN RD
0010	233+25			RT	INTERSECTION	UPPER LAYER	1.50	23	--	38	GRANT RD
0010	250+00			LT & RT	INTERSECTION	UPPER LAYER	1.50	46	--	77	BUTLER RD
0010	308+75			RT	INTERSECTION	UPPER LAYER	1.50	25	--	42	CTH WS
0010	334+00			LT	INTERSECTION	UPPER LAYER	1.50	16	--	27	MOSS RD
0010	369+40			LT	INTERSECTION	UPPER LAYER	1.50	27	--	45	CTH R
0010	421+00			LT	INTERSECTION	UPPER LAYER	1.50	27	--	45	WILDCAT RD
0010	447+25			LT	INTERSECTION	UPPER LAYER	1.50	16	--	27	OWENS RD
0010	473+25			RT	INTERSECTION	UPPER LAYER	1.50	28	--	46	CTH S (EAST)
0010	486+85			LT	INTERSECTION	UPPER LAYER	1.50	18	--	30	DOWNER RD
0010	526+30			LT	INTERSECTION	UPPER LAYER	1.50	26	--	43	CTH S (WEST)
TOTAL 0010								15,878	16,368	13,214	
0020	154+70	-	179+87	LT & RT	SHOULDER	UPPER LAYER	1.75	60	--	110	STH 60
0020	154+70	-	179+87	LT & RT	SHOULDER	LOWER LAYER	2.25	80	150	--	STH 60
0020	179+87	-	206+15	LT & RT	SHOULDER	UPPER LAYER	1.75	60	--	110	ELK RD
0020	179+87	-	206+15	LT & RT	SHOULDER	LOWER LAYER	2.25	80	150	--	ELK RD
0020	206+15	-	232+50	LT & RT	SHOULDER	UPPER LAYER	1.75	60	--	110	CTH N
0020	206+15	-	232+50	LT & RT	SHOULDER	LOWER LAYER	2.25	80	140	--	CTH N
0020	232+50	-	249+49	LT & RT	SHOULDER	UPPER LAYER	1.75	40	--	70	GRANT RD
0020	232+50	-	249+49	LT & RT	SHOULDER	LOWER LAYER	2.25	50	90	--	GRANT RD
0020	249+49	-	308+11	LT & RT	SHOULDER	UPPER LAYER	1.75	125	--	250	BUTLER RD
0020	249+49	-	308+11	LT & RT	SHOULDER	LOWER LAYER	2.25	175	314	--	BUTLER RD
0020	308+11	-	333+36	LT & RT	SHOULDER	UPPER LAYER	1.75	50	--	90	CTH WS
0020	308+11	-	333+36	LT & RT	SHOULDER	LOWER LAYER	2.25	70	120	--	CTH WS
0020	333+36	-	368+65	LT & RT	SHOULDER	UPPER LAYER	1.75	80	--	150	MOSS RD
0020	333+36	-	368+65	LT & RT	SHOULDER	LOWER LAYER	2.25	110	200	--	MOSS RD
0020	368+65	-	420+40	LT & RT	SHOULDER	UPPER LAYER	1.75	80	--	160	CTH R
0020	368+65	-	420+40	LT & RT	SHOULDER	LOWER LAYER	2.25	110	200	--	CTH R
0020	420+40	-	446+51	LT & RT	SHOULDER	UPPER LAYER	1.75	50	--	90	WILDCAT RD
0020	420+40	-	446+51	LT & RT	SHOULDER	LOWER LAYER	2.25	60	107	--	WILDCAT RD
0020	446+51	-	472+59	LT & RT	SHOULDER	UPPER LAYER	1.75	60	--	120	OWENS RD
0020	446+51	-	472+59	LT & RT	SHOULDER	LOWER LAYER	2.25	80	140	--	OWENS RD
0020	472+59	-	486+15	LT & RT	SHOULDER	UPPER LAYER	1.75	30	--	60	CTH S
0020	472+59	-	486+15	LT & RT	SHOULDER	LOWER LAYER	2.25	40	70	--	CTH S
0020	486+15	-	493+99	LT & RT	SHOULDER	UPPER LAYER	1.75	20	--	30	DOWNER RD
0020	486+15	-	493+99	LT & RT	SHOULDER	LOWER LAYER	2.25	25	39	--	DOWNER RD
0020	494+16	-	528+70	LT & RT	SHOULDER	UPPER LAYER	1.75	70	--	146	WISCONSIN SOUTHERN RAILROAD
0020	494+16	-	528+70	LT & RT	SHOULDER	LOWER LAYER	2.25	97	172	--	WISCONSIN SOUTHERN RAILROAD
TOTAL 0020								1,842	1,892	1,496	
PROJECT TOTAL								17,720	18,260	14,710	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PWL MIXTURE USE TABLE										
LOCATION	STATION	TO STATION	LOCATION	MIXTURE TYPE	UNDERLAYING SURFACE	BID ITEM	TONS	THICKNESS (IN)	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCES	DENSITY ACCEPTANCES
12 FOOT DRIVING LANE	154+70	179+87	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	860	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	154+70	179+87	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	658	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	154+70	179+87	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	206	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	154+70	179+87	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	160	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	154+70	179+87	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	150	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	154+70	179+87	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	110	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	179+87	206+15	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	883	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	179+87	206+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	687	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	179+87	206+15	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	239	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	179+87	206+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	186	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	179+87	206+15	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	150	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	179+87	206+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	110	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	206+15	232+50	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	886	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	206+15	232+50	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	689	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	206+15	232+50	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	242	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	206+15	232+50	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	188	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	206+15	232+50	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	140	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	206+15	232+50	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	110	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	232+50	249+49	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	571	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	232+50	249+49	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	444	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	232+50	249+49	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	156	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	232+50	249+49	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	121	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	232+50	249+49	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	90	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	232+50	249+49	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	70	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE

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PWL MIXTURE USE TABLE										
LOCATION	STATION	TO STATION	LOCATION	MIXTURE TYPE	UNDERLAYING SURFACE	BID ITEM	TONS	THICKNESS (IN)	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCES	DENSITY ACCEPTANCES
12 FOOT DRIVING LANE	249+49	308+11	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	1970	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	249+49	308+11	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	1532	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	249+49	308+11	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	559	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	249+49	308+11	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	435	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	249+49	308+11	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	314	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	249+49	308+11	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	250	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	308+11	333+36	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	849	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	308+11	333+36	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	660	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	308+11	333+36	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	282	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	308+11	333+36	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	220	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	308+11	333+36	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	120	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	308+11	333+36	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	90	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	333+36	368+65	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	1186	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	333+36	368+65	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	923	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	333+36	368+65	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	311	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	333+36	368+65	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	242	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	333+36	368+65	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	200	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	333+36	368+65	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	150	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	368+65	420+40	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	1737	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	368+65	420+40	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	1351	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	368+65	420+40	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	616	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	368+65	420+40	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	479	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	368+65	420+40	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	200	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	368+65	420+40	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	160	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE

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PWL MIXTURE USE TABLE										
LOCATION	STATION	TO STATION	LOCATION	MIXTURE TYPE	UNDERLAYING SURFACE	BID ITEM	TONS	THICKNESS (IN)	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCES	DENSITY ACCEPTANCES
12 FOOT DRIVING LANE	420+40	446+51	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	878	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	420+40	446+51	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	683	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	420+40	446+51	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	278	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	420+40	446+51	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	217	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	420+40	446+51	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	107	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	420+40	446+51	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	90	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	446+51	472+59	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	878	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	446+51	472+59	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	683	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	446+51	472+59	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	278	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	446+51	472+59	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	217	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	446+51	472+59	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	140	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	446+51	472+59	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	120	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	472+59	486+15	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	456	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	472+59	486+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	355	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	472+59	486+15	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	151	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	472+59	486+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	118	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	472+59	486+15	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	70	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	472+59	486+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	60	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	486+15	493+99	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	264	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	486+15	493+99	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	205	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	486+15	493+99	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	69	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	486+15	493+99	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	54	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	486+15	493+99	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	39	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	486+15	493+99	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	30	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE

CONTINUED ON NEXT PAGE

PWL MIXTURE USE TABLE										
LOCATION	STATION	TO STATION	LOCATION	MIXTURE TYPE	UNDERLAYING SURFACE	BID ITEM	TONS	THICKNESS (IN)	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCES	DENSITY ACCEPTANCES
12 FOOT DRIVING LANE	494+16	528+70	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	1189	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	494+16	528+70	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	903	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	494+16	528+70	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	371	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	494+16	528+70	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	289	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	494+16	528+70	LT & RT	LOWER LAYER	BASE AGGREGATE	3 MT 58-28 S	172	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	494+16	528+70	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	146	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
ELK RD	180+30	180+30	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	27	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
OAK LAWN RD	206+75	206+75	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	70	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
GRANT RD	233+25	233+25	RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	38	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
BUTLER RD	250+00	250+00	LT & RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	77	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
CTH WS	308+75	308+75	RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	42	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
MOSS RD	334+00	334+00	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	27	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
CTH R	369+40	369+40	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	45	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
WILDCAT RD	421+00	421+00	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	45	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
OWENS RD	447+25	447+25	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	27	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
CTH S (EAST)	473+25	473+25	RT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	46	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
DOWNER RD	486+85	486+85	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	30	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE
CTH S (WEST)	526+30	526+30	LT	UPPER LAYER	LOWER LAYER HMA 3 MT 58-28 S	4 MT 58-28 S	43	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DEPARTMENT ACCEPTANCE (SS460.3.3.2) *NOT ELIGIBLE FOR INCENTIVE

SHOULDER RUMBLE STRIPS

					465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF
CATEGORY	STATION	TO	STATION	LOCATION	
0020	154+70	-	179+87	LT & RT	3,890
0020	179+87	-	206+15	LT & RT	3,860
0020	206+15	-	232+50	LT & RT	3,250
0020	232+50	-	249+49	LT & RT	2,350
0020	249+49	-	308+11	LT & RT	8,320
0020	308+11	-	333+36	LT & RT	3,640
0020	333+36	-	368+65	LT & RT	4,880
0020	368+65	-	420+40	LT & RT	6,600
0020	420+40	-	446+51	LT & RT	3,800
0020	446+51	-	472+59	LT & RT	3,260
0020	472+59	-	486+15	LT & RT	1,680
0020	486+15	-	493+99	LT & RT	740
0020	494+16	-	528+70	LT & RT	4,530
TOTAL 0020					50,800

INTERSECTION RUMBLE STRIPS

					465.0580 ASPHALTIC RUMBLE STRIPS, TRANSVERSE SY
CATEGORY	STATION	TO	STATION	LOCATION	
0010	157+35	-	163+35	LT	80
TOTAL 0010					80

CENTERLINE RUMBLE STRIPS

					465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
CATEGORY	STATION	TO	STATION	LOCATION	
0010	154+70	-	178+37	CENTERLINE	2,370
0010	182+37	-	204+76	CENTERLINE	2,240
0010	208+93	-	219+94	CENTERLINE	1,100
0010	223+09	-	231+35	CENTERLINE	830
0010	235+35	-	248+08	CENTERLINE	1,280
0010	252+31	-	306+70	CENTERLINE	5,440
0010	310+70	-	331+92	CENTERLINE	2,127
0010	335+92	-	344+76	CENTERLINE	884
0010	348+75	-	367+38	CENTERLINE	1,863
0010	371+38	-	408+20	CENTERLINE	3,682
0010	412+20	-	418+99	CENTERLINE	679
0010	422+99	-	445+24	CENTERLINE	2,230
0010	449+24	-	459+65	CENTERLINE	1,050
0010	461+65	-	471+23	CENTERLINE	960
0010	475+23	-	484+83	CENTERLINE	960
0010	488+83	-	493+05	CENTERLINE	430
0010	495+05	-	524+28	CENTERLINE	2,930
0010	528+28	-	528+70	CENTERLINE	45
TOTAL 0010					31,100

ASPHALTIC FLUMES

			465.0315 ASPHALTIC FLUMES SY
CATEGORY	STATION	LOCATION	
0010	409+20	RT	10
0010	422+59	RT	9
TOTAL 0010			19

3

3

[illegible]

PROJECT NO: 3030-02-66	HWY: STH 67	COUNTY: DODGE	MISCELLANEOUS QUANTITIES	SHEET:	E
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TRAFFIC CONTROL SIGNING

		643.0300		643.0420		643.0705		643.0900		643.0920				
		DETOUR DURATION	TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS TYPE II			
CATEGORY	SHEET SHOWN IN PLANS	DAYS	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	NUMBER OF		EACH	REMARKS
											CYCLES	SIGNS		
0010	DETOUR PLAN	81	-	-	19	1539	38	3078	95	7695	-	-	-	
0010	DETOUR PLAN - DETAIL 1	81	-	-	2	162	4	324	24	1944	1	5	5	
0010	DETOUR PLAN - DETAIL 2	81	-	-	-	-	-	-	64	5184	-	-	-	
0010	DETOUR PLAN - DETAIL 3	81	-	-	-	-	-	-	22	1782	-	-	-	
0010	DETOUR PLAN - DETAIL 4	81	-	-	-	-	-	-	44	3564	-	-	-	
0010	DETOUR PLAN - DETAIL 5	81	-	-	-	-	-	-	77	6237	-	-	-	
0010	DETOUR PLAN - DETAIL 6	81	-	-	1	81	2	162	19	1539	1	6	6	
0010	BEAM GUARD REPLACEMENT	81	54	4374	-	-	-	-	-	-	-	-	-	
0010	CULVERT REPLACEMENT	20	-	-	-	-	-	-	36	720	-	-	-	SEE SDD TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
0010	MILLED SURFACE	35	-	-	-	-	-	-	16	560	-	-	-	SEE SDD TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
0010	UNEVEN LANES	60	-	-	-	-	-	-	8	480	-	-	-	SEE SDD TRAFFIC CONTROL, DROP-OFF SIGNING
TOTAL 0010			4,374		1,782		3,564		29,705		11			

PAVEMENT MARKINGS

		**		***									
		643.3165		646.2040		646.4040		646.5320		646.6120			
		TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)		MARKING LINE GROOVED WET REF EPOXY 6-INCH		MARKING LINE GROOVED WET REF EPOXY 10- INCH (WHITE)		MARKING RAILROAD CROSSINGS EPOXY (WHITE)		MARKING STOP LINE EPOXY 18- INCH (WHITE)			
CATEGORY	STATION	TO	STATION	LOCATION	LF	(YELLOW SOLID) LF	(YELLOW SKIP) LF	(WHITE SKIP) LF	(WHITE SOLID) LF	(WHITE) LF	(WHITE) EACH	(WHITE) LF	
0010	154+70	-	179+87	ELK RD	8,760	2,290	630	-	5,040	-	-	-	
0010	179+87	-	206+15	CTH N	8,070	2,030	660	90	4,940	-	-	-	
0010	206+15	-	232+50	GRANT RD	12,660	3,840	380	80	4,710	-	-	30	
0010	232+50	-	249+49	BUTLER RD	3,600	770	430	50	3,100	-	-	-	
0010	249+49	-	308+11	CTH WS	29,490	9,200	630	50	11,280	210	-	-	
0010	308+11	-	333+36	MOSS RD	15,450	5,150	0	60	4,920	-	-	34	
0010	333+36	-	368+65	CTH R	21,180	7,060	0	40	6,820	-	-	-	
0010	368+65	-	420+40	WILDCAT RD	18,390	5,180	950	60	10,160	220	-	32	
0010	420+40	-	446+51	OWENS RD	3,150	390	660	50	4,940	-	-	-	
0010	446+51	-	472+59	CTH S	4,110	710	660	30	5,000	215	-	-	
0010	472+59	-	486+15	DOWNER RD	5,520	1,500	340	50	2,630	-	-	34	
0010	486+15	-	493+99	WISCONSIN SOUTHERN RAILROAD	4,590	1,530	0	30	1,360	-	2	-	
0010	494+16	-	528+70	PROJECT END	8,430	1,960	850	100	6,730	-	-	30	
TOTAL 0010					143,400		120,120		645		2	160	

NOTES:

** TO BE PLACED ON CL FOLLOWING MILLING, LOWER LAYER OF PAVEMENT AND UPPER LAYER OF PAVEMENT PRIOR TO RUMBLE STRIPS
*** TO BE PLACED FOLLOWING CENTERLINE AND SHOULDER RUMBLE STRIP MILLING

PCMS

CATEGORY	STATION	LOCATION	TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0010	154+70	STH 67 SOUTHBOUND NORTH OF WEST JCT CTH S	1	7
0010	528+70	STH 67 NORTHBOUND NORTH OF STH 60	1	7
TOTAL 0010				14

LANDMARK REFERENCE MONUMENTS

CATEGORY	STATION	OFFSET	LOCATION	SPV.0060.01 SPECIAL (01. VERIFY LANDMARK REFERENCE MONUMENTS) EACH	REMARKS
0010	287+43.90	4.77	LT	1	SECTION CORNER 27063
0010	333+81.35	11.70	RT	1	SECTION CORNER 27065
0010	344+27.65	7.03	LT	1	SECTION CORNER 36361
0010	394+73.50	9.66	LT	1	SECTION CORNER 36353
0010	420+98.63	17.54	RT	1	SECTION CORNER 36262
0010	447+14.96	3.55	LT	1	SECTION CORNER 36263
0010	473+51.62	24.34	LT	1	SECTION CORNER 36232
0010	499+84.50	20.96	RT	1	SECTION CORNER 36233
0010	526+15.21	25.30	LT	1	SECTION CORNER 36142
TOTAL 0010				9	

DISTRESSED PAVEMENT ITEMS

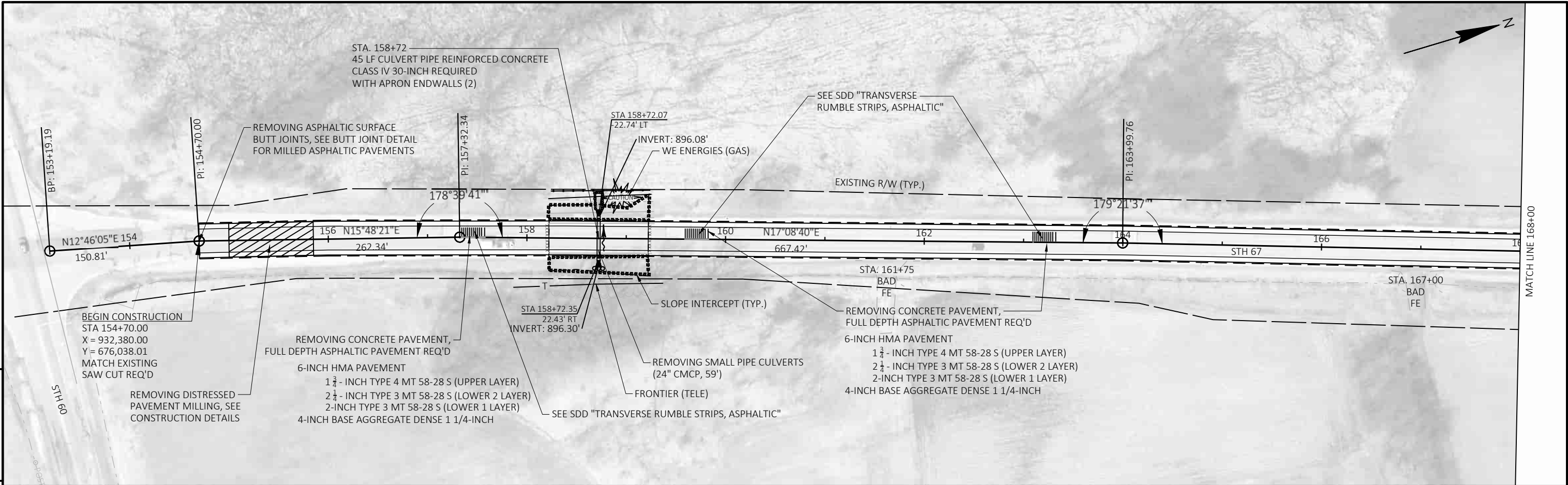
CATEGORY	STATION	TO	STATION	LOCATION	TACK COAT GAL	ASPHALTIC SURFACE TON	SPV.0180.01 SPECIAL (01. REMOVING DISTRESSED PAVEMENT MILLING) SY
0010	154+70	-	528+70	PROJECT	72	115	1,024
0010			UNDISTRIBUTED		68	110	976
TOTAL 0010					140	225	2,000
* ADDITIONAL QUANTITIES LISTED ELSEWHERE							

RESURFACING STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF
0010	154+70	-	494+00	PROJECT	33,930
0010	494+16	-	528+70	PROJECT	3,454
TOTAL 0010					37,384

PWL Test Strips

CATEGORY	LOCATION	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
0010	LOWER LAYER OVER MILLED SURFACE	---	1
0010	UPPER LAYER OVER MILLED SURFACE	---	1
0010	3 MT	1	---
0010	4 MT	1	---
TOTAL 0010		2	2



PAVEMENT MARKING REFERENCE

SEE SDD "PERMANENT LONGITUDINAL PAVEMENT MARKING"

SEE SDD "TEMPORARY LONGITUDINAL PAVEMENT MARKING"

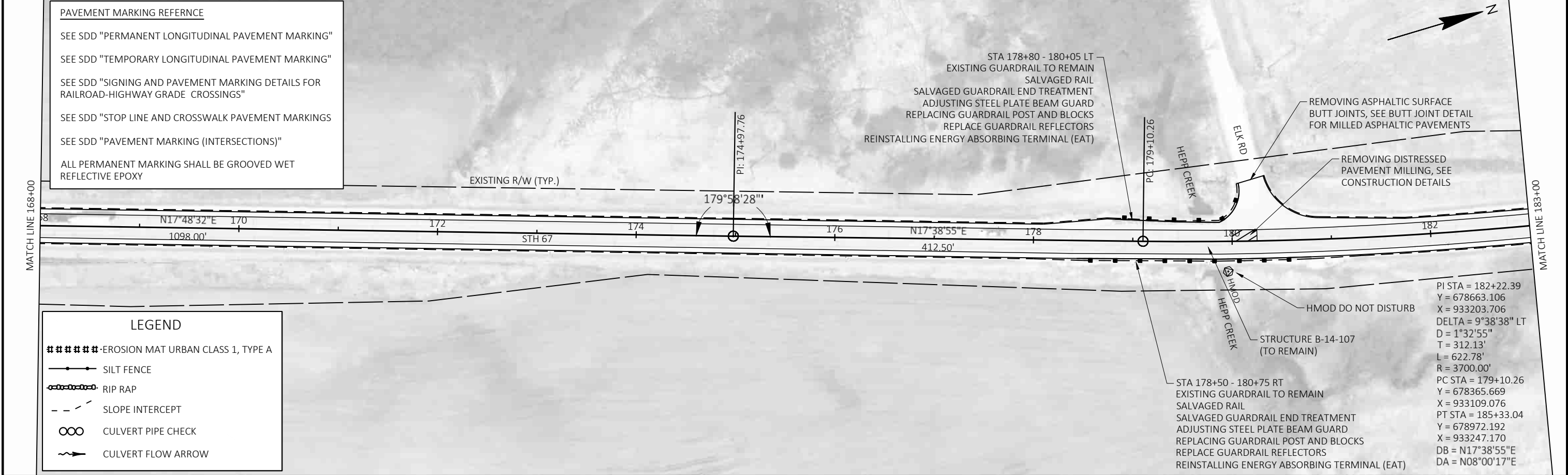
SEE SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS"

SEE SDD "STOP LINE AND CROSSWALK PAVEMENT MARKINGS"

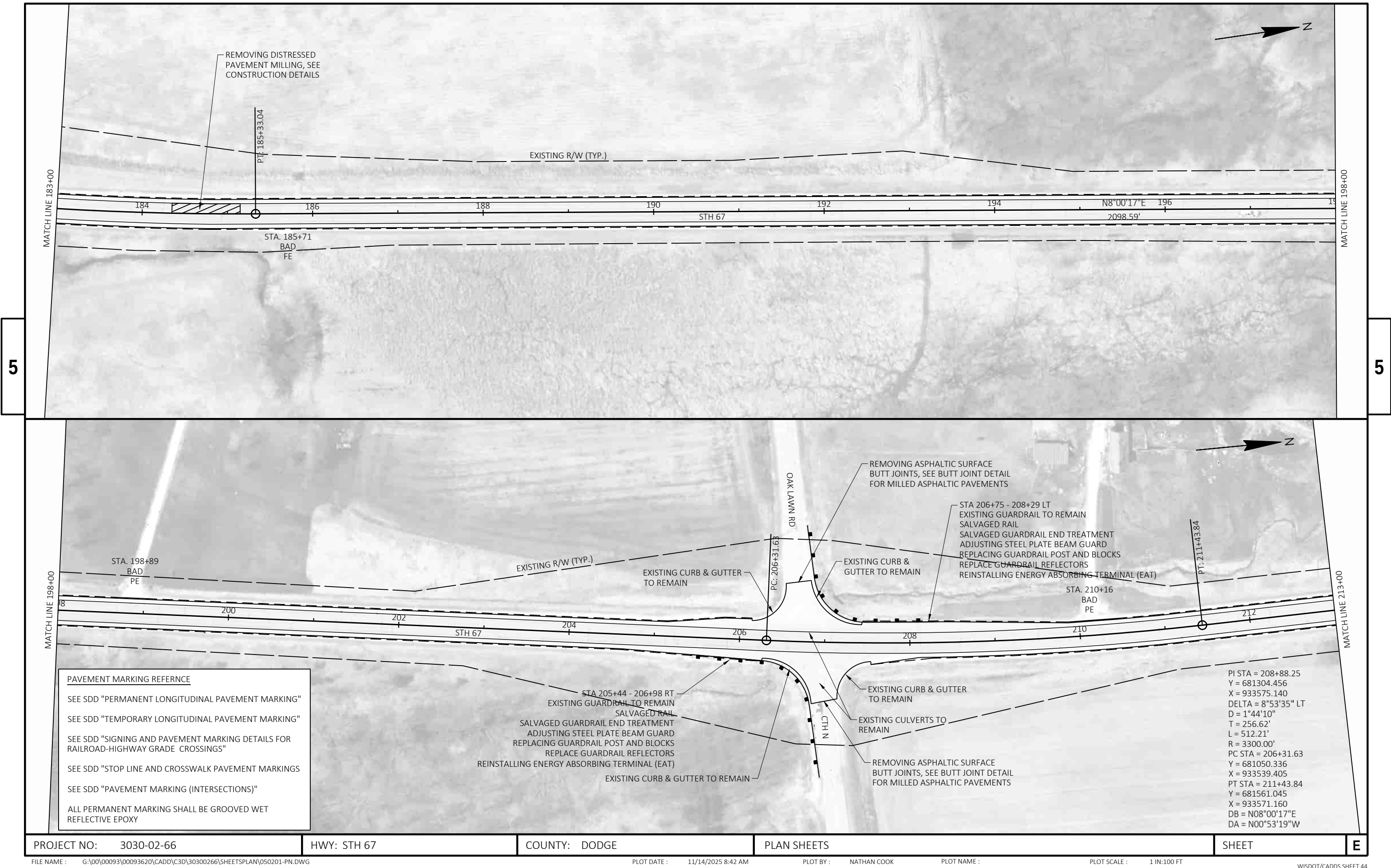
SEE SDD "PAVEMENT MARKING (INTERSECTIONS)"

ALL PERMANENT MARKING SHALL BE GROOVED WET REFLECTIVE EPOXY

- LEGEND**
- ##### EROSION MAT URBAN CLASS 1, TYPE A
 - SILT FENCE
 - RIP RAP
 - - - SLOPE INTERCEPT
 - ∞ CULVERT PIPE CHECK
 - CULVERT FLOW ARROW



PROJECT NO: 3030-02-66	HWY: STH 67	COUNTY: DODGE	PLAN SHEETS	SHEET	E
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PAVEMENT MARKING REFERENCE

SEE SDD "PERMANENT LONGITUDINAL PAVEMENT MARKING"

SEE SDD "TEMPORARY LONGITUDINAL PAVEMENT MARKING"

SEE SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS"

SEE SDD "STOP LINE AND CROSSWALK PAVEMENT MARKINGS"

SEE SDD "PAVEMENT MARKING (INTERSECTIONS)"

ALL PERMANENT MARKING SHALL BE GROOVED WET REFLECTIVE EPOXY

REMOVING DISTRESSED PAVEMENT MILLING, SEE CONSTRUCTION DETAILS

PI STA = 221+59.92
Y = 682576.995
X = 933555.403
DELTA = 10°34'14" LT
D = 1°35'30"
T = 333.03'
L = 664.16'
R = 3600.00'
PC STA = 218+26.89
Y = 682244.010
X = 933560.568
PT STA = 224+91.05
Y = 682903.382
X = 933489.242
DB = N00°53'19"W
DA = N11°27'32"W

WE ENERGIES (ELEC)
STA 223+47.08
-31.44' LT
INVERT: 972.63'

STA. 223+47
65 LF CULVERT PIPE REINFORCED CONCRETE
CLASS IV 30-INCH REQUIRED
WITH APRON ENDWALS (2)

REMOVING SMALL PIPE CULVERTS (30" CMCP, 69')
WE ENERGIES (GAS)
CAUTION

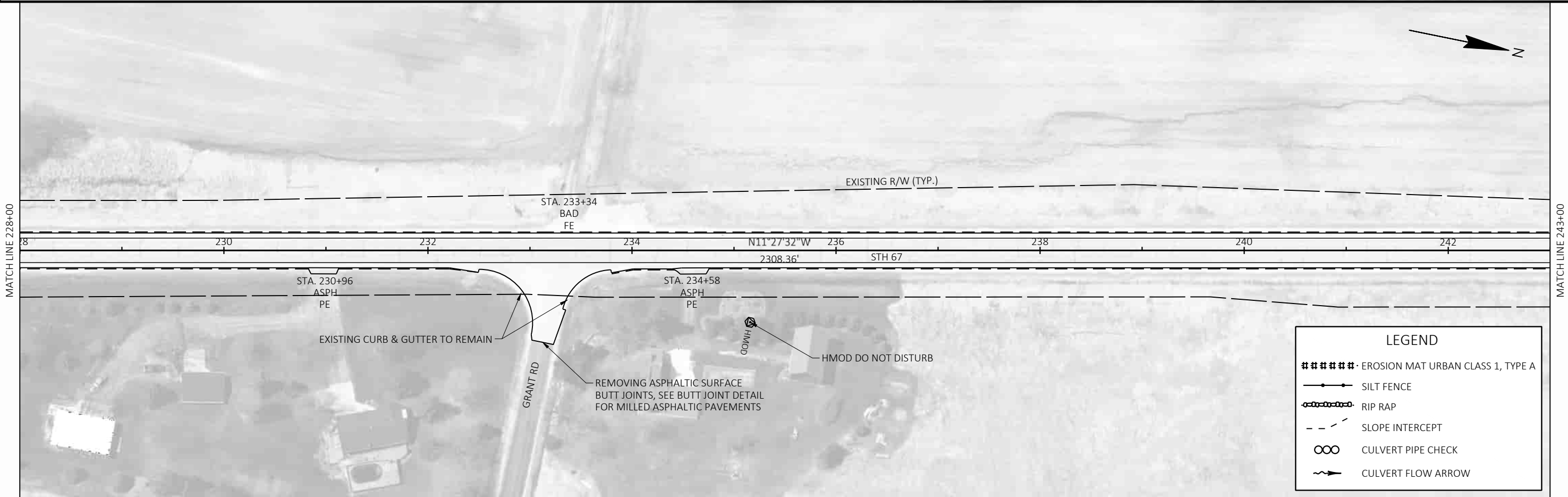
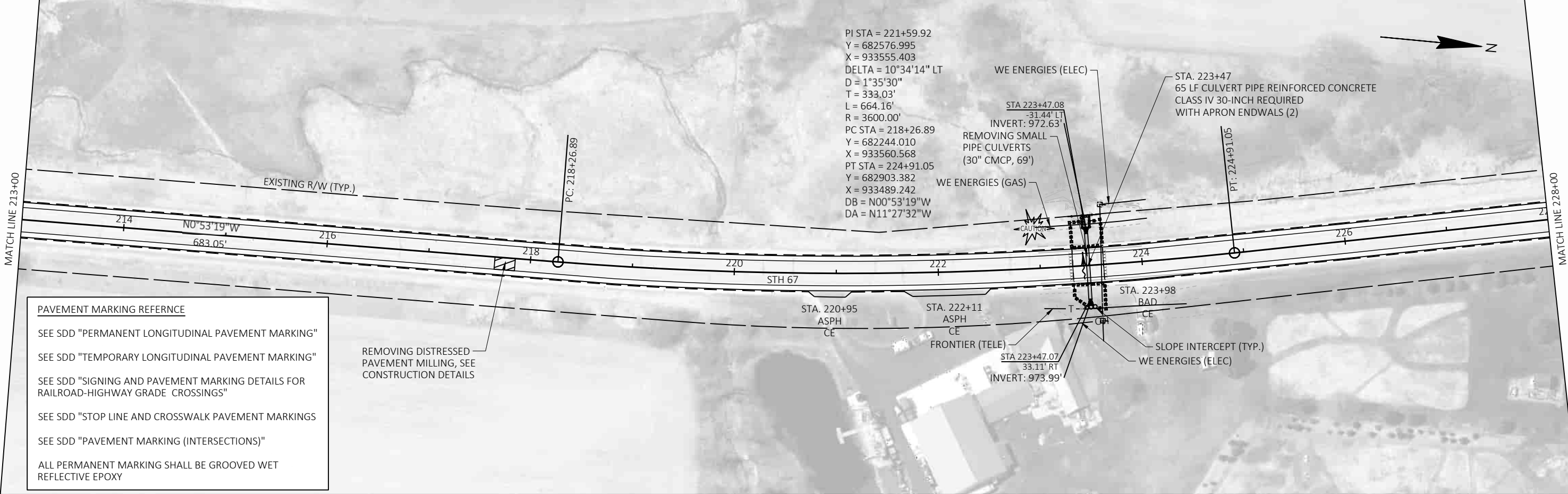
STA 223+47.07
33.11' RT
INVERT: 973.99'

STA. 223+98
BAD CE
SLOPE INTERCEPT (TYP.)
WE ENERGIES (ELEC)

STA. 220+95
ASPH CE

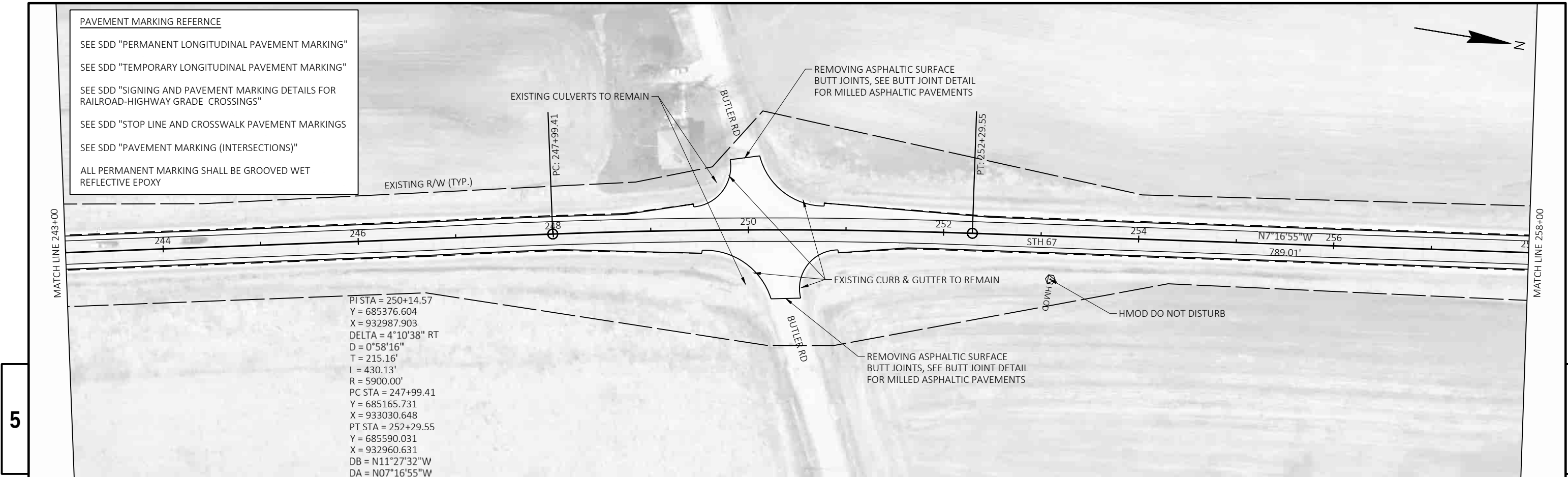
STA. 222+11
ASPH CE

FRONTIER (TELE)



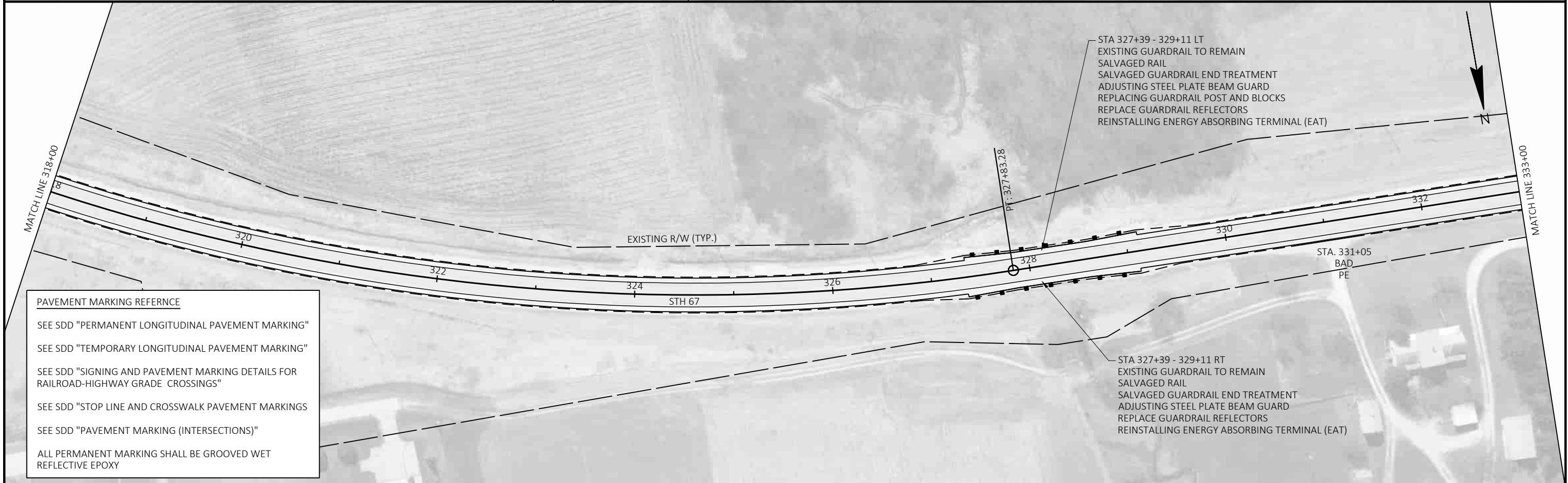
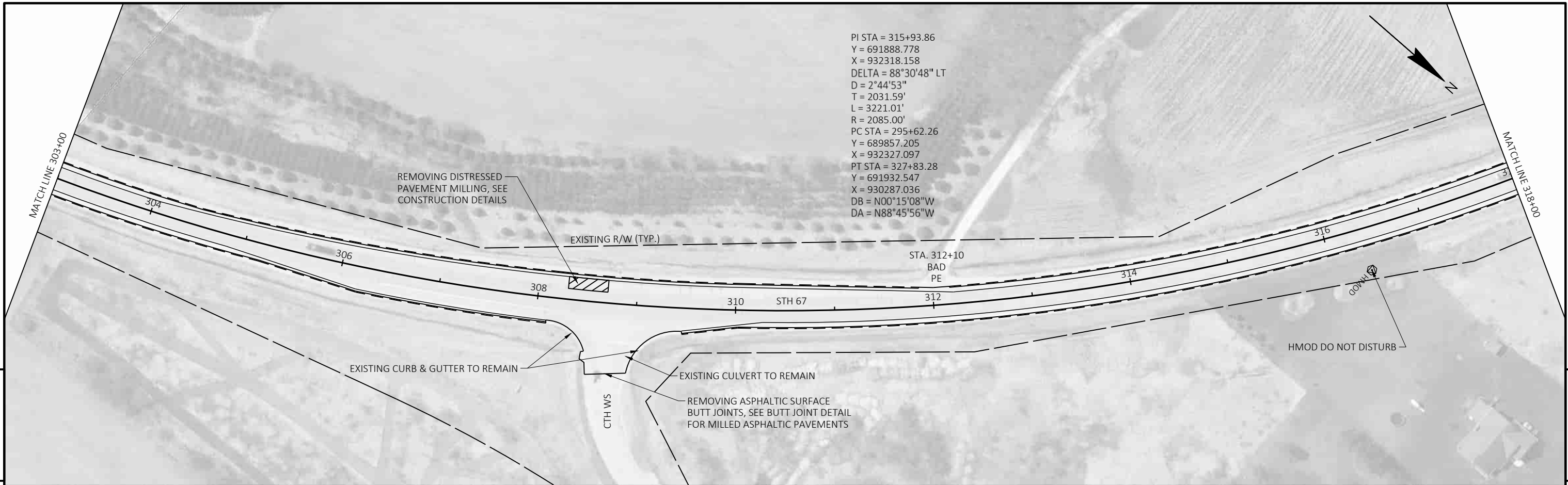
LEGEND

- ##### EROSION MAT URBAN CLASS 1, TYPE A
- SILT FENCE
- RIP RAP
- - - SLOPE INTERCEPT
- CULVERT PIPE CHECK
- ~> CULVERT FLOW ARROW



PROJECT NO: 3030-02-66	HWY: STH 67	COUNTY: DODGE	PLAN SHEETS	SHEET	E
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PAVEMENT MARKING REFERENCE

SEE SDD "PERMANENT LONGITUDINAL PAVEMENT MARKING"

SEE SDD "TEMPORARY LONGITUDINAL PAVEMENT MARKING"

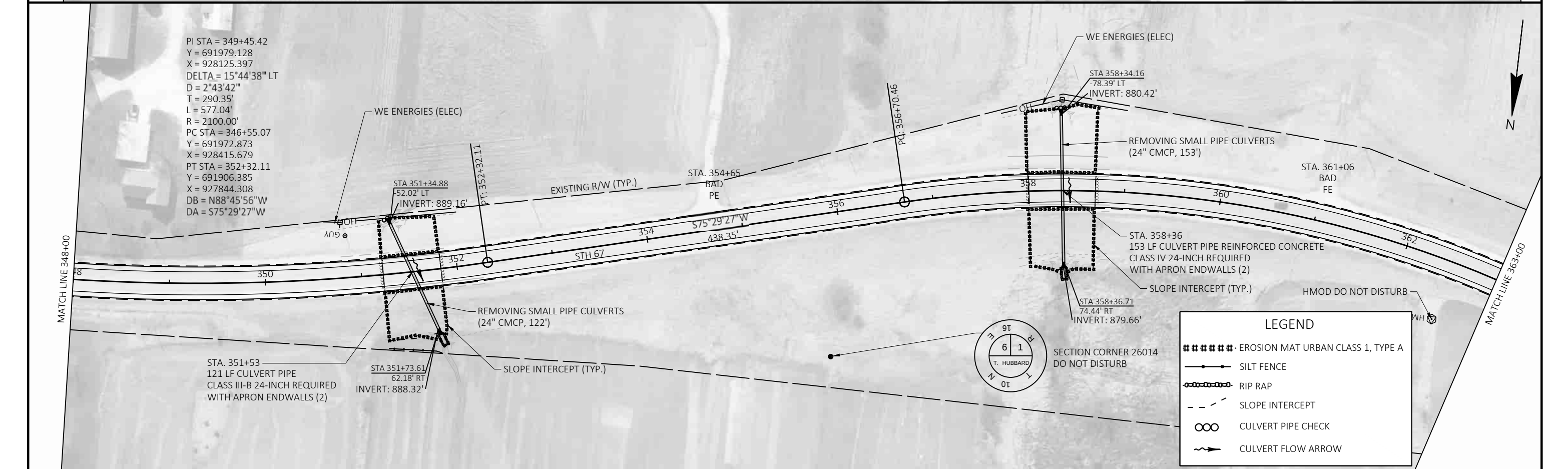
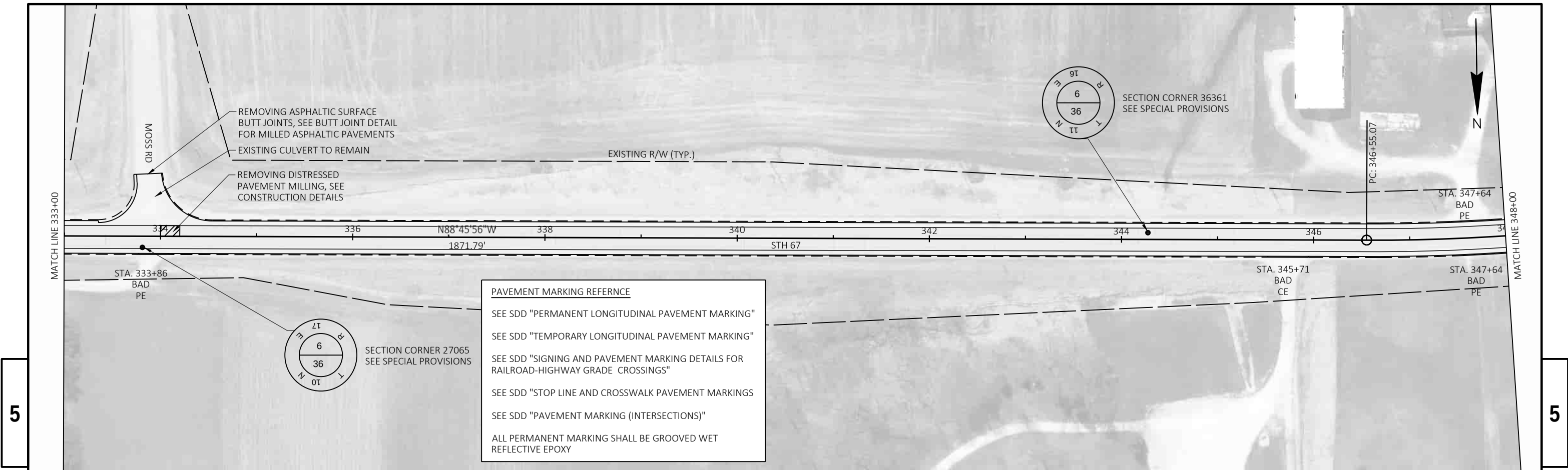
SEE SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS"

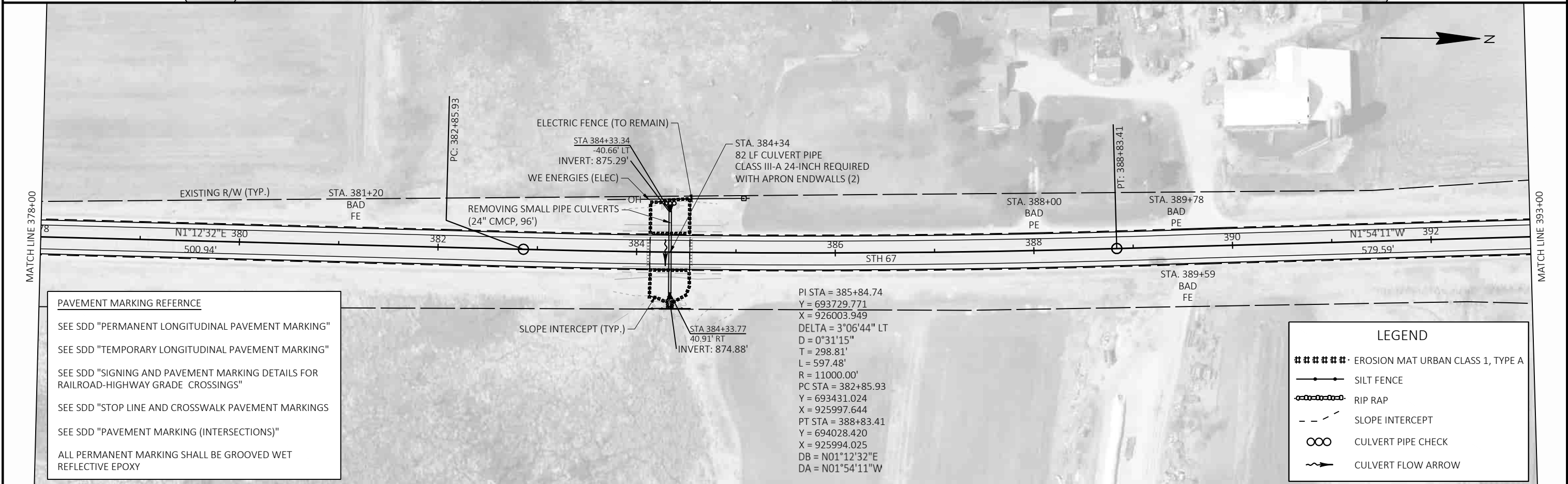
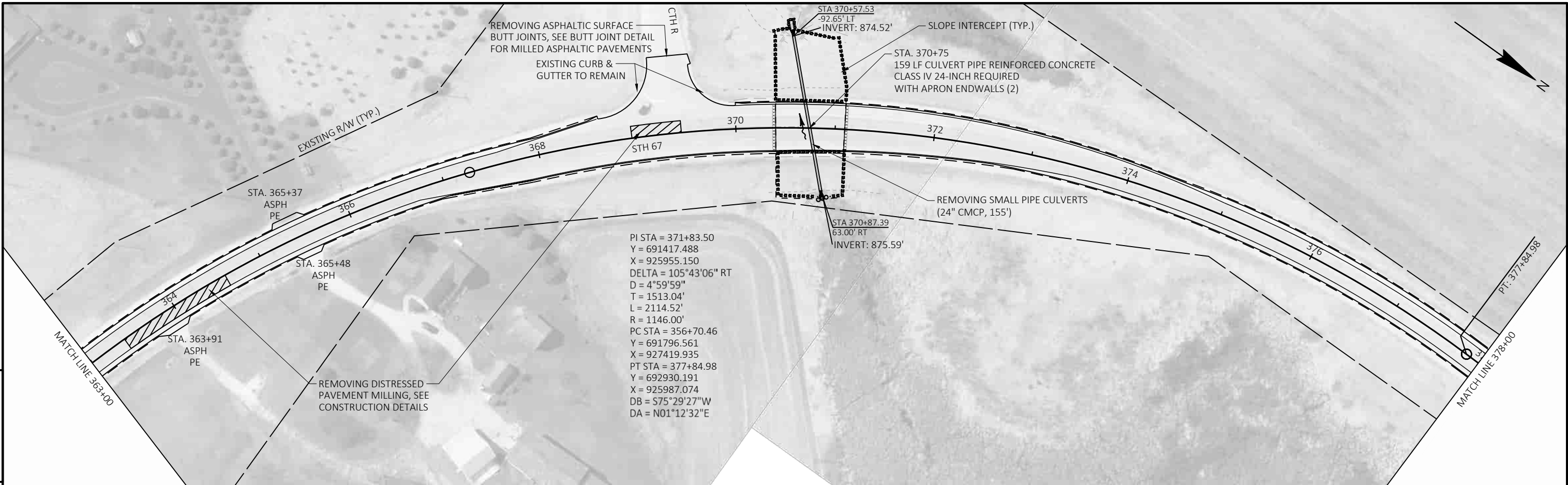
SEE SDD "STOP LINE AND CROSSWALK PAVEMENT MARKINGS"

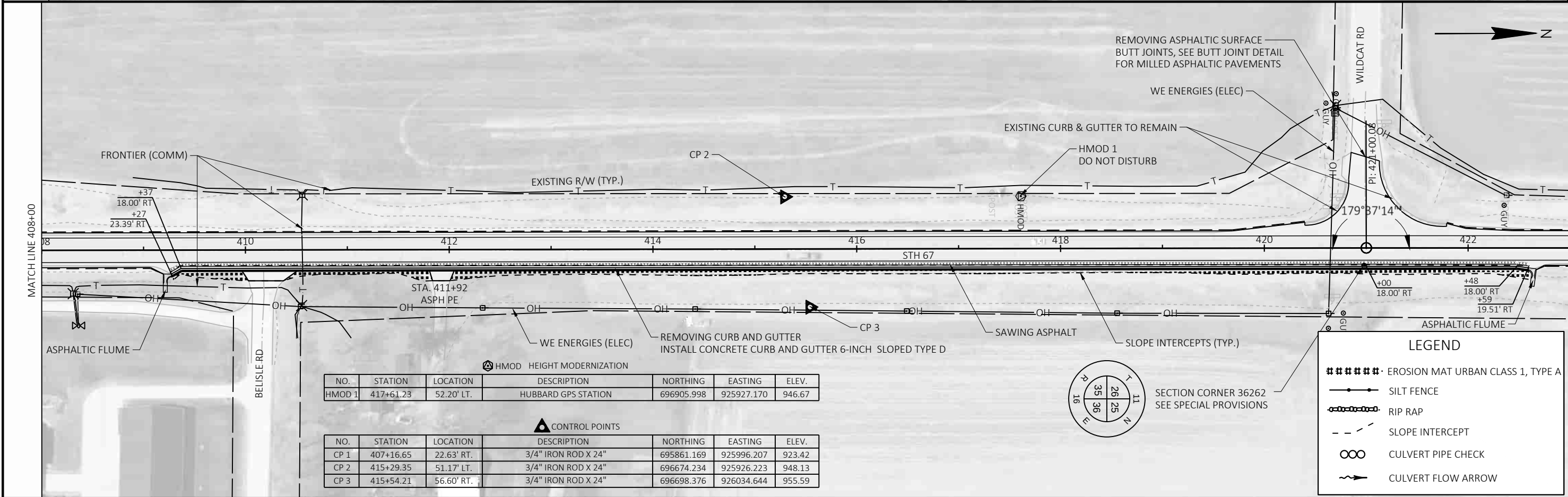
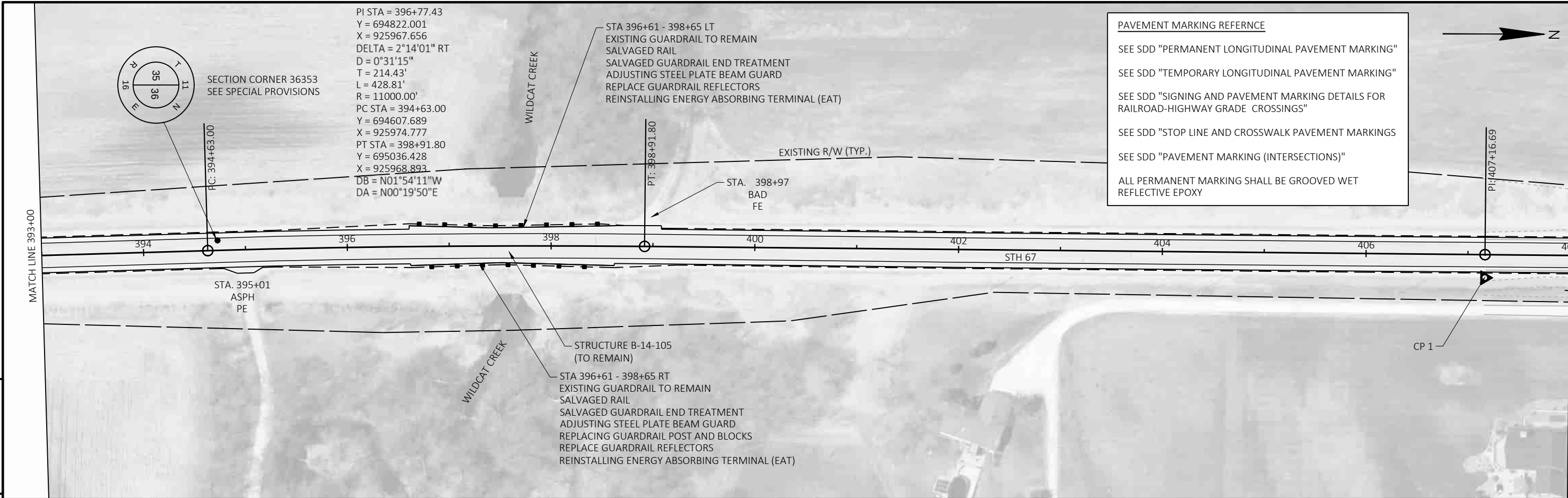
SEE SDD "PAVEMENT MARKING (INTERSECTIONS)"

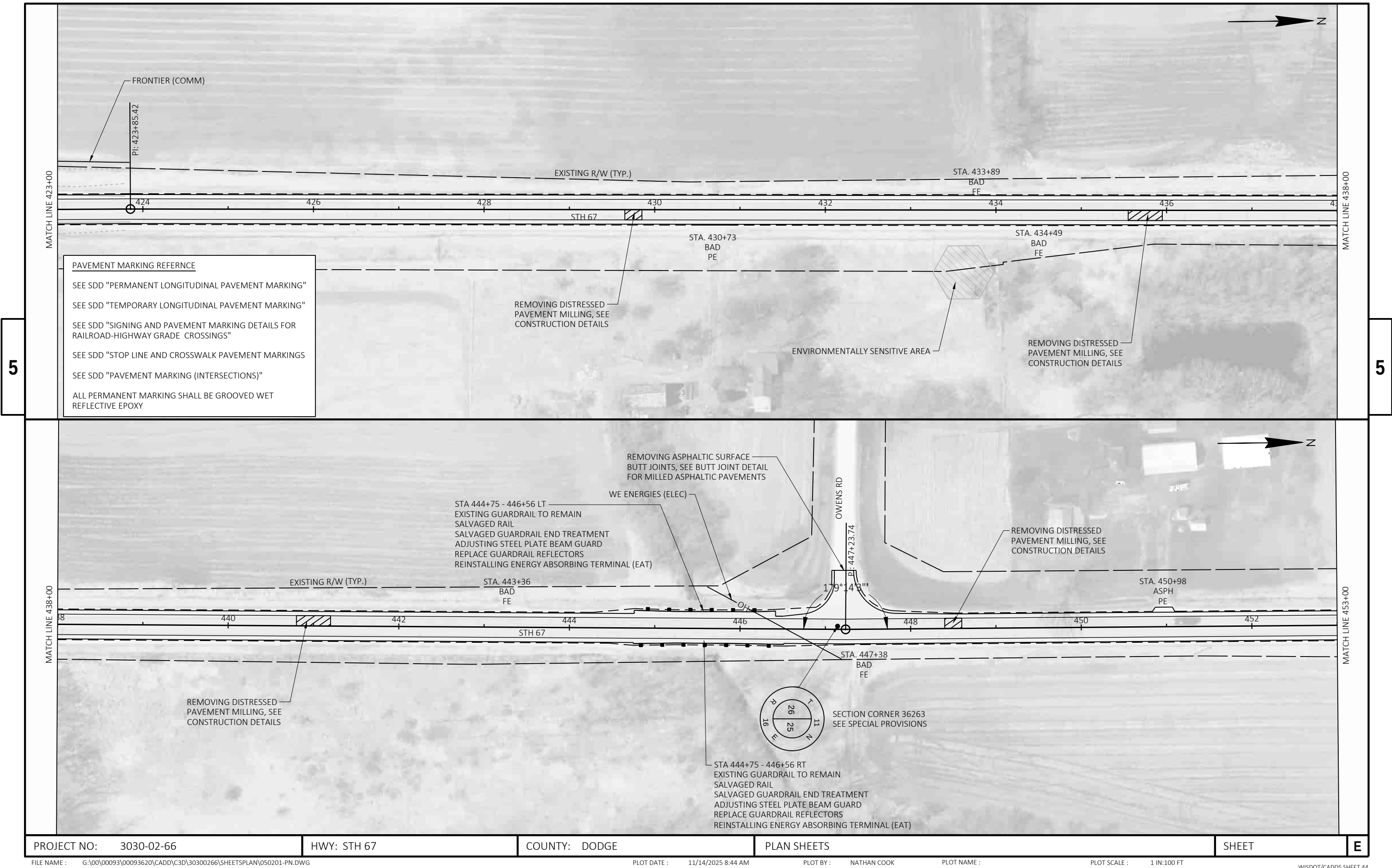
ALL PERMANENT MARKING SHALL BE GROOVED WET REFLECTIVE EPOXY

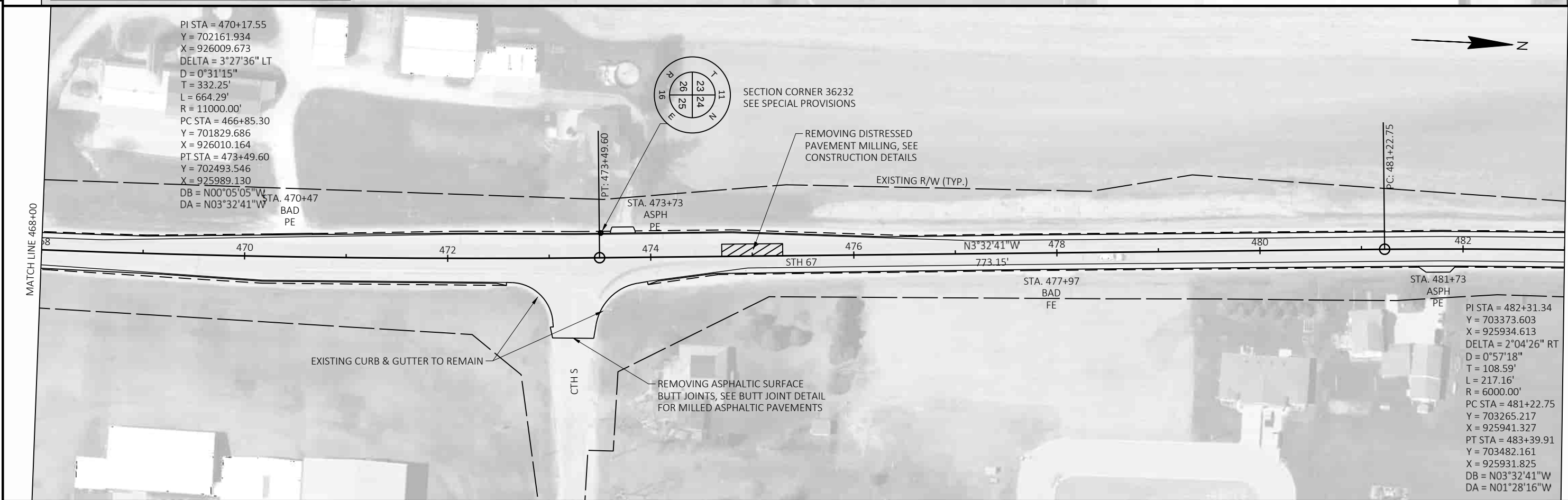
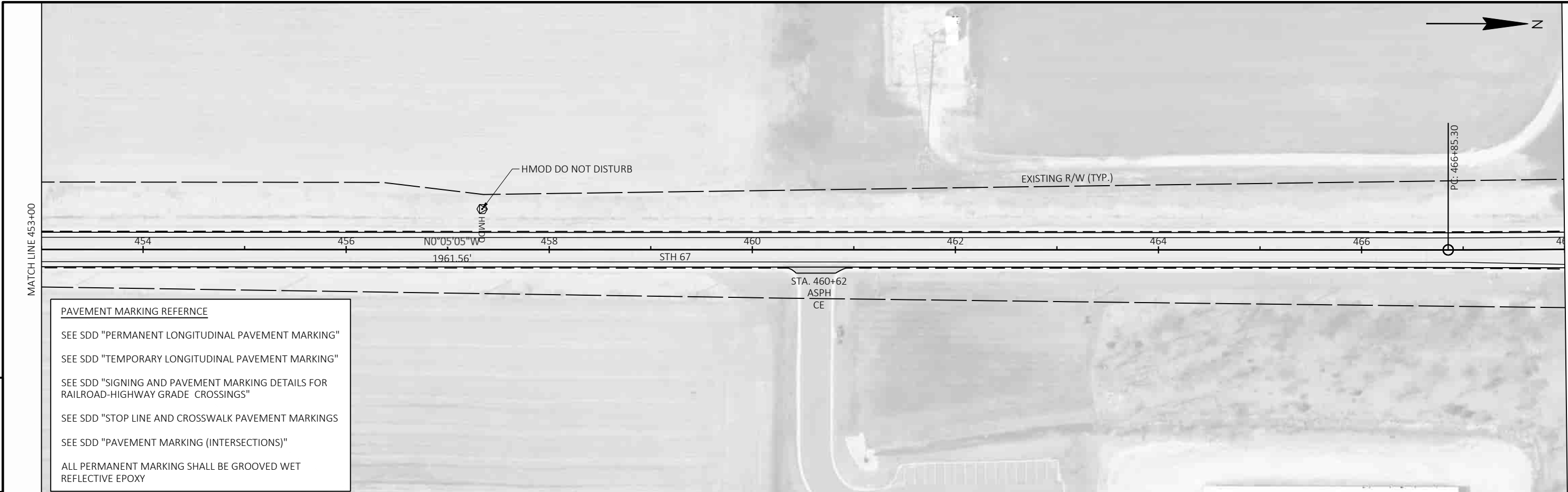
PROJECT NO: 3030-02-66	HWY: STH 67	COUNTY: DODGE	PLAN SHEETS	SHEET	E
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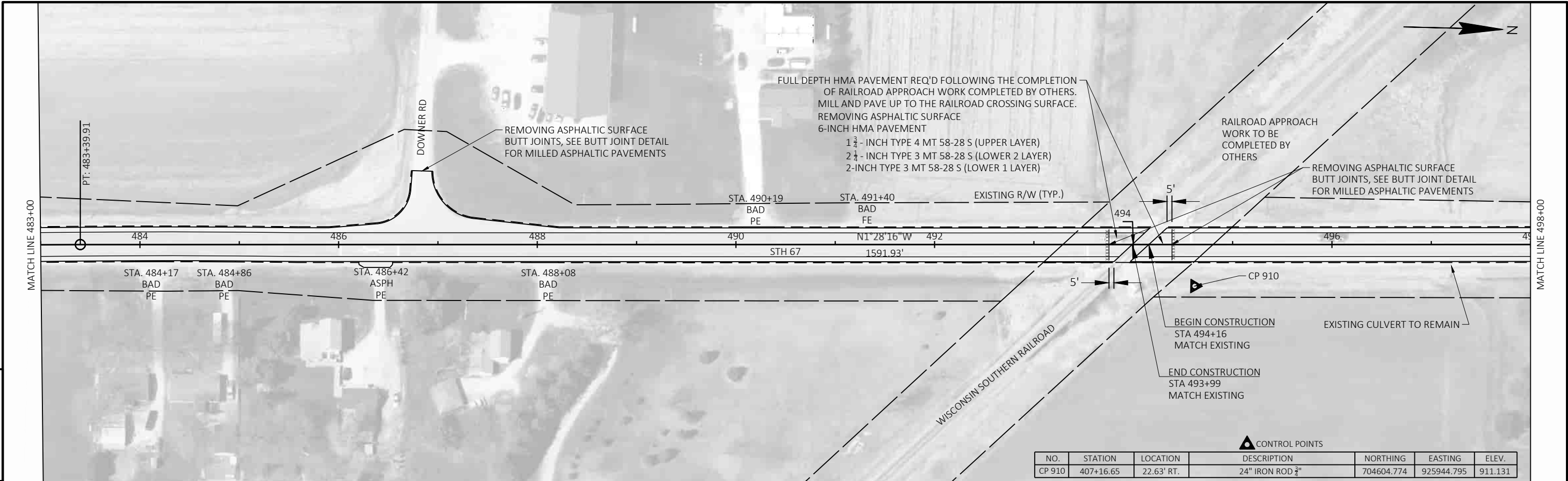


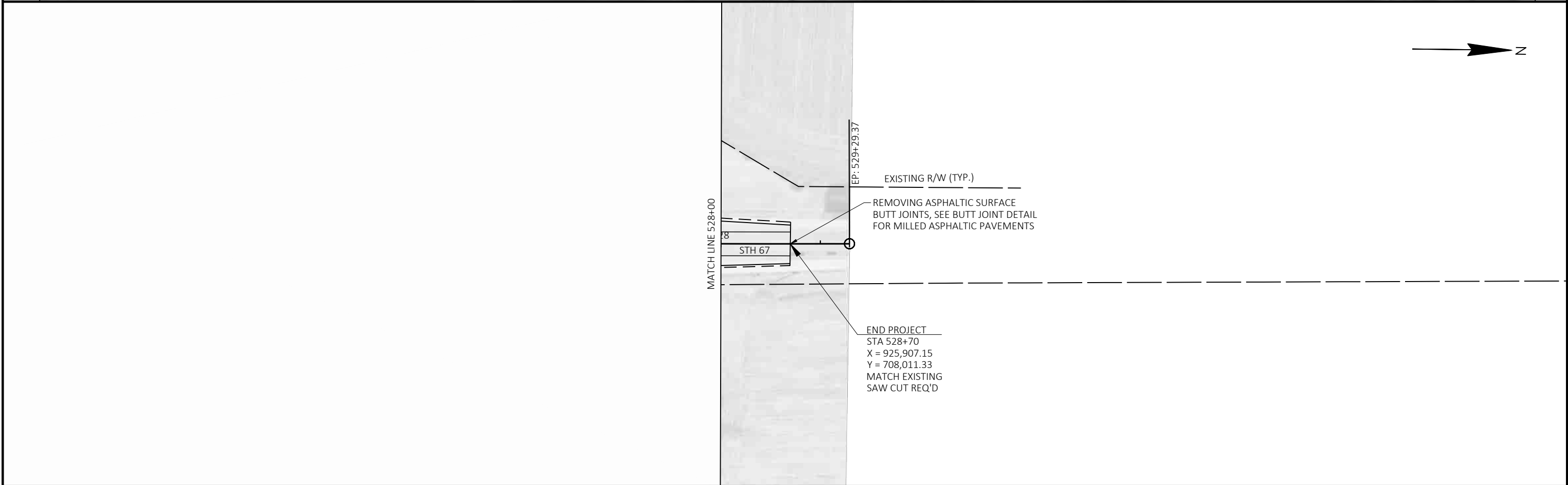
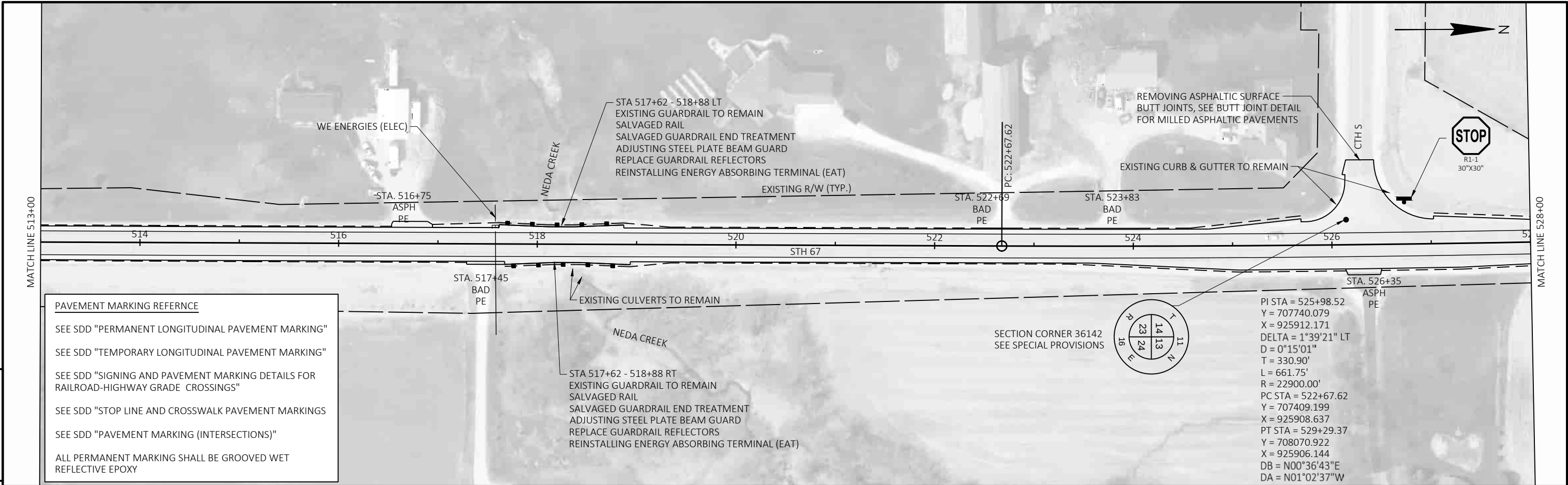






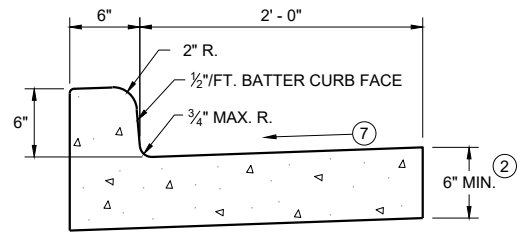




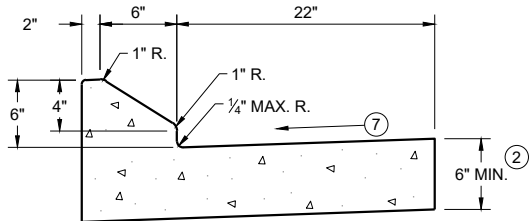


Standard Detail Drawing List

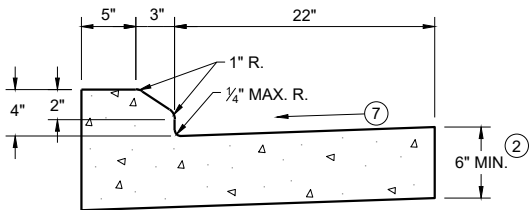
08D01-24A	CONCRETE CURB & GUTTER
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
13A08-02	TRANSVERSE RUMBLE STRIPS, ASPHALTIC
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13B01-11A	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B01-11B	TYPICAL SECTIONS FOR RAILWAY APPROACH
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-09A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



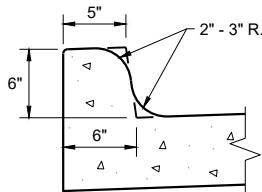
TYPES A^① & D



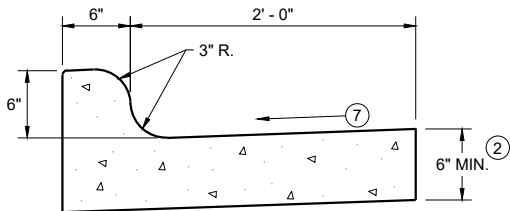
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

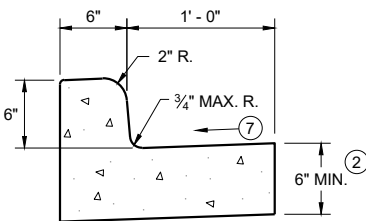


TYPES K^① & L
(OPTIONAL CURB SHAPE)



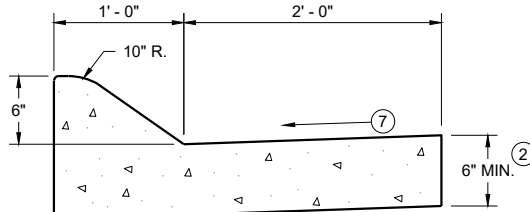
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

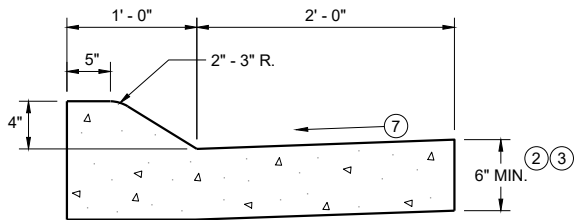


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

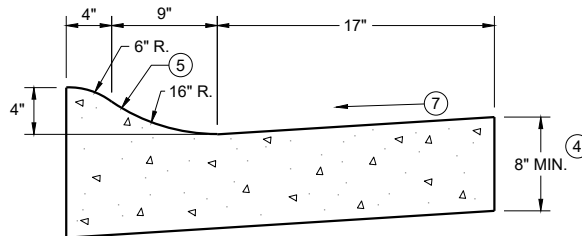


6" SLOPED CURB TYPES A^① & D



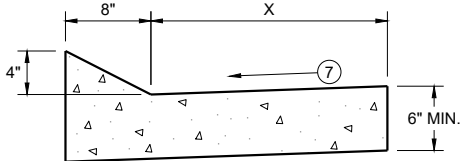
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T
CONCRETE CURB AND GUTTER 30"

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

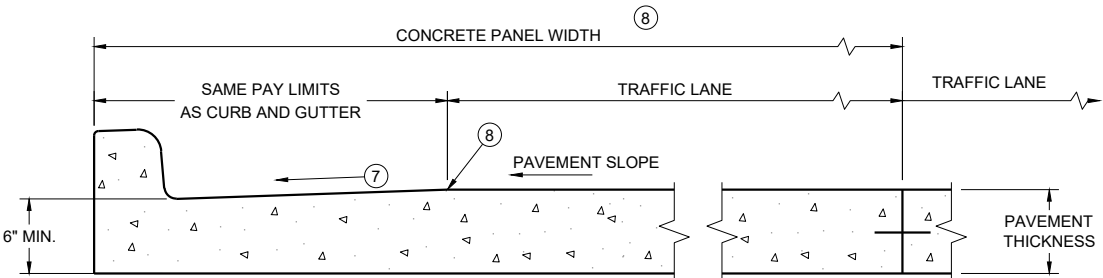


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

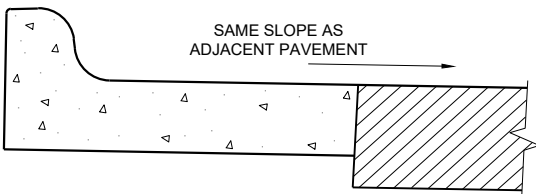
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

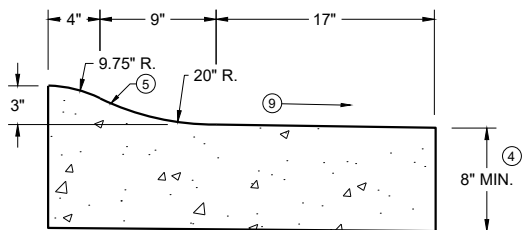


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)



3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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

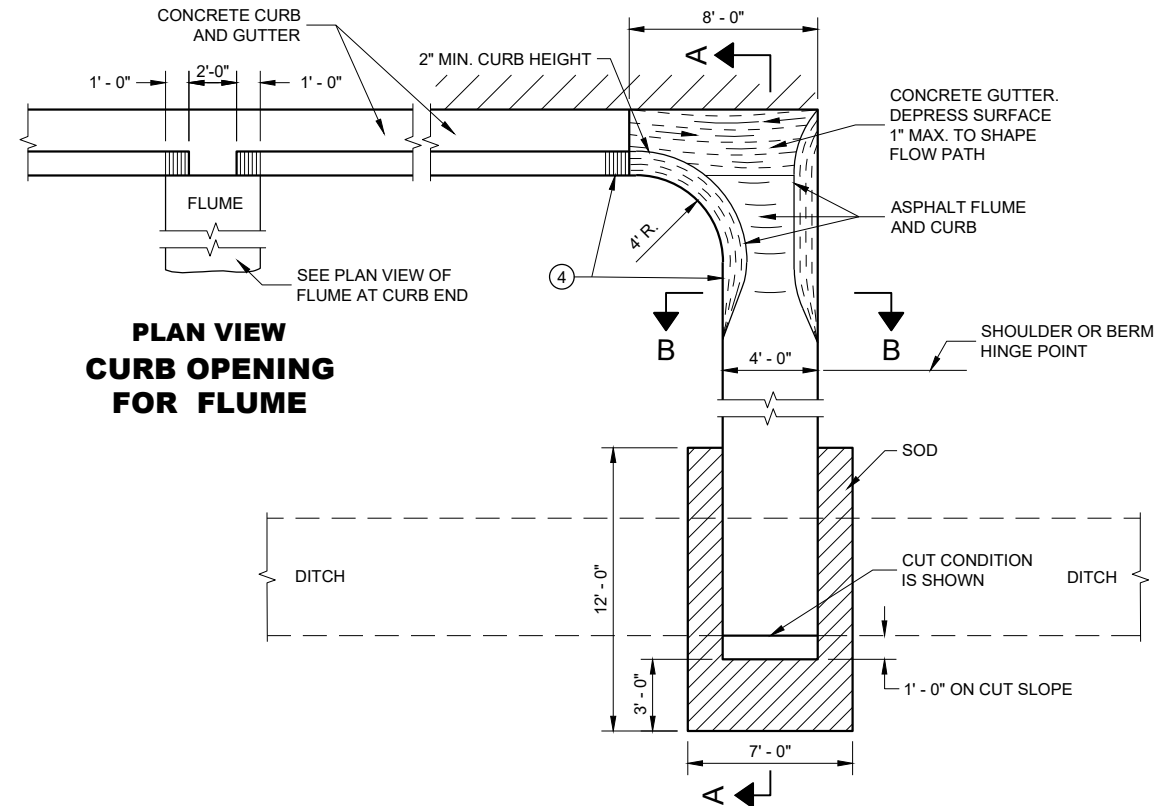
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

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

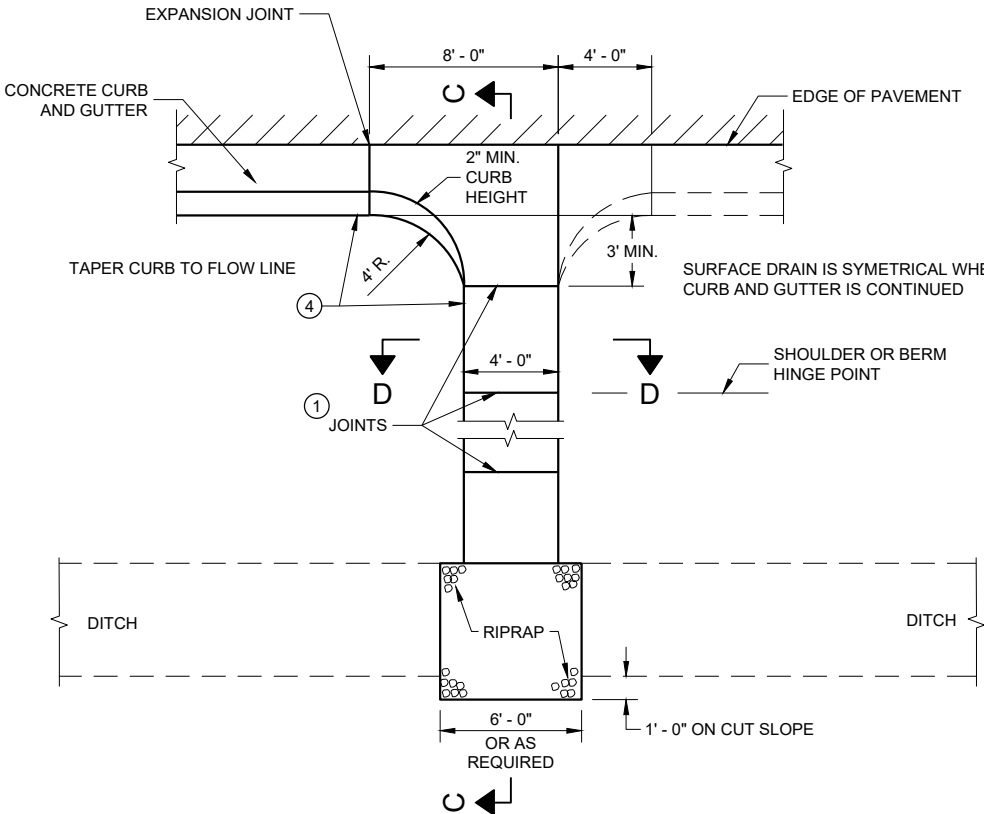
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



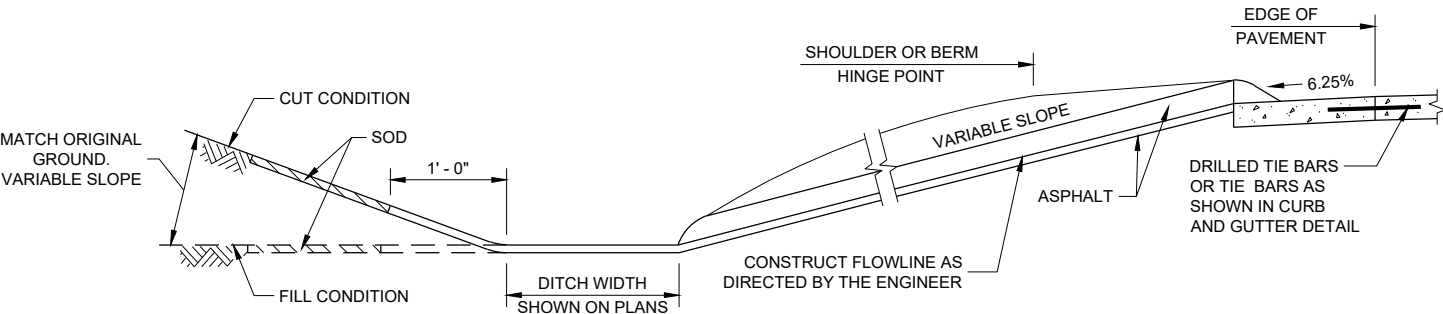
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

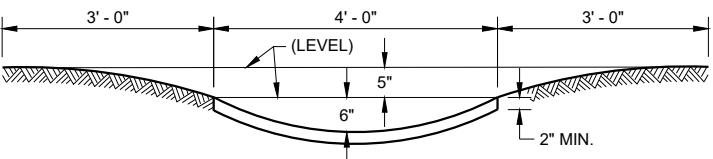
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

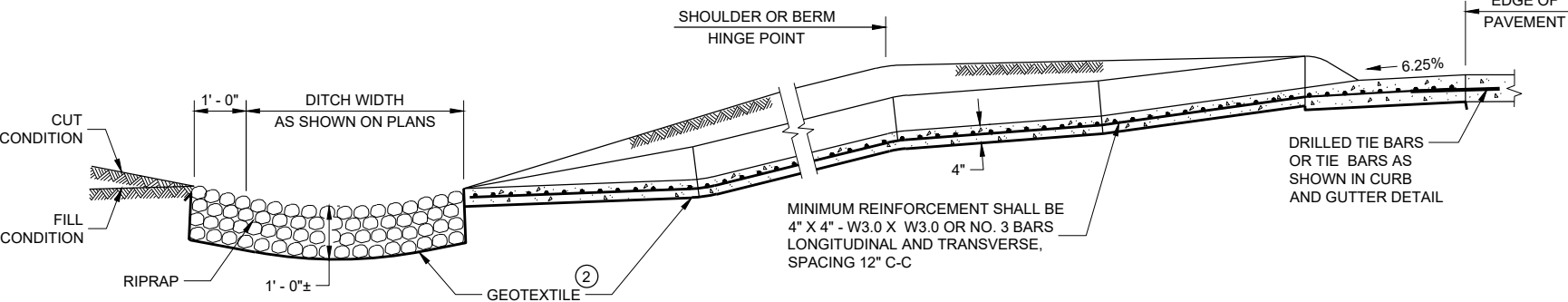
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



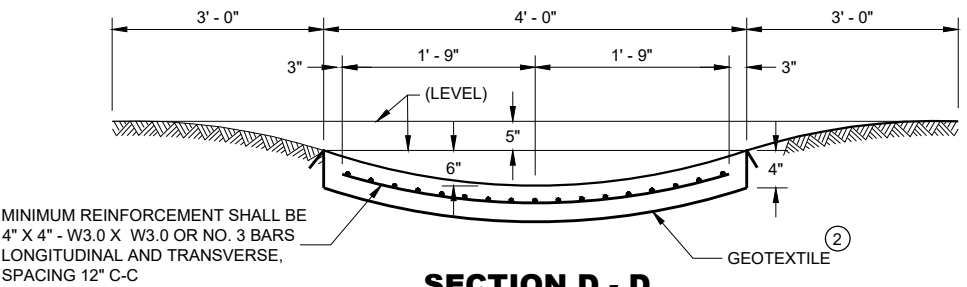
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

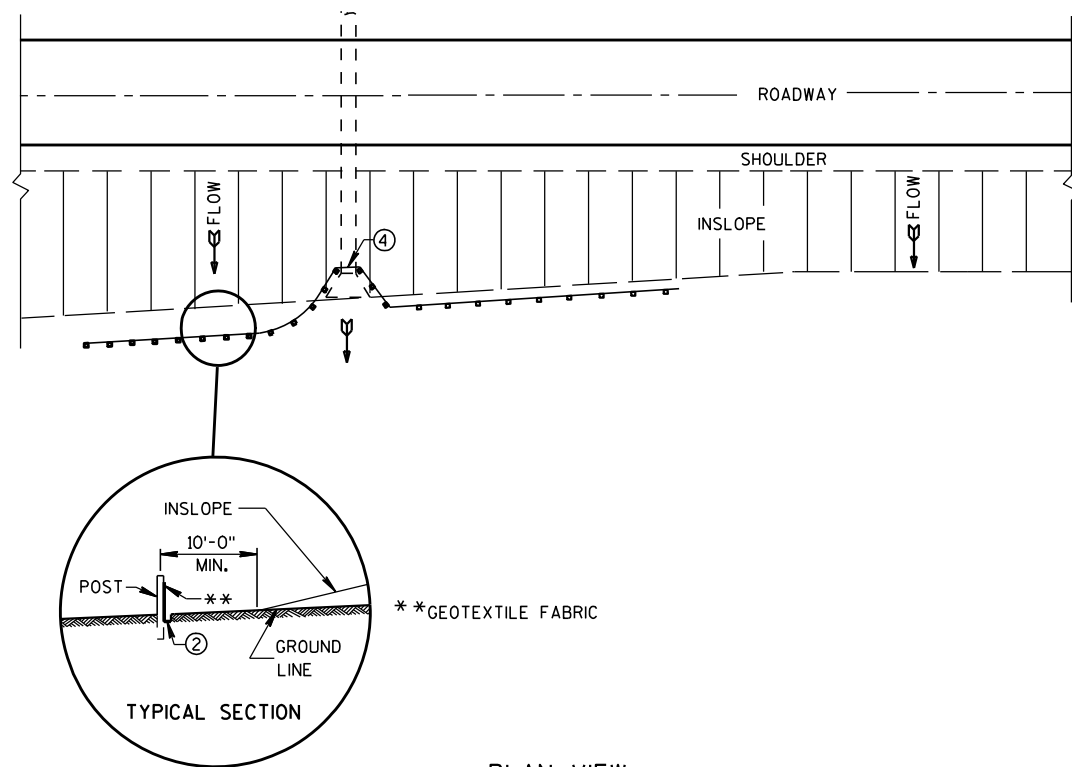
APPROVED

May 2023

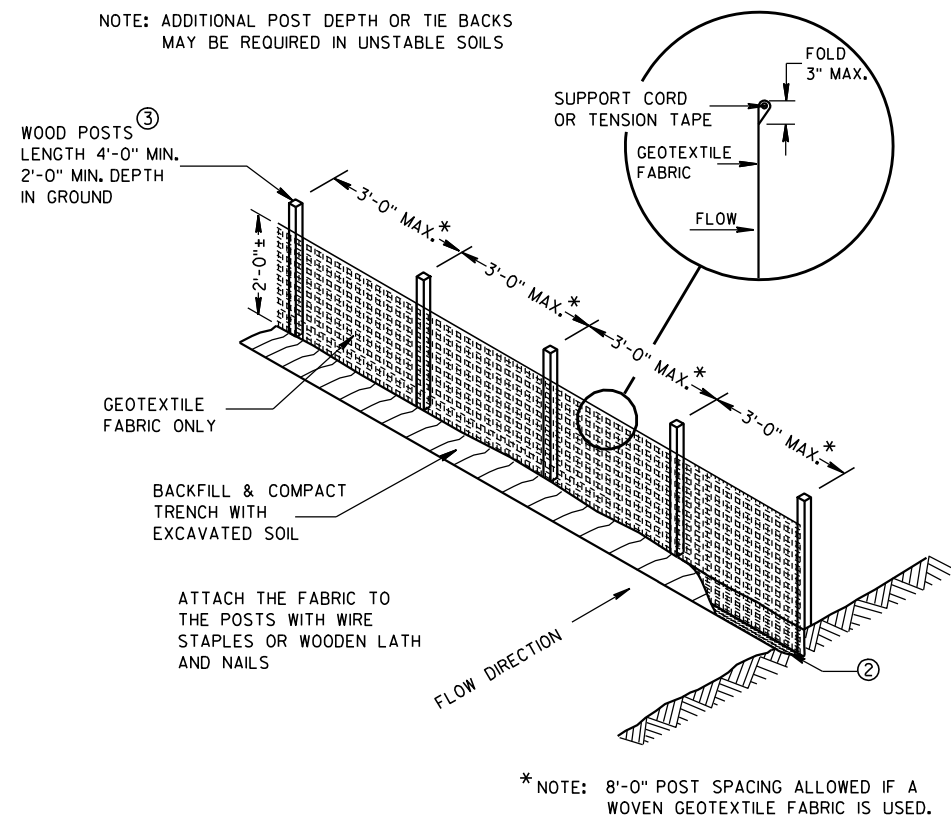
DATE

FHWA

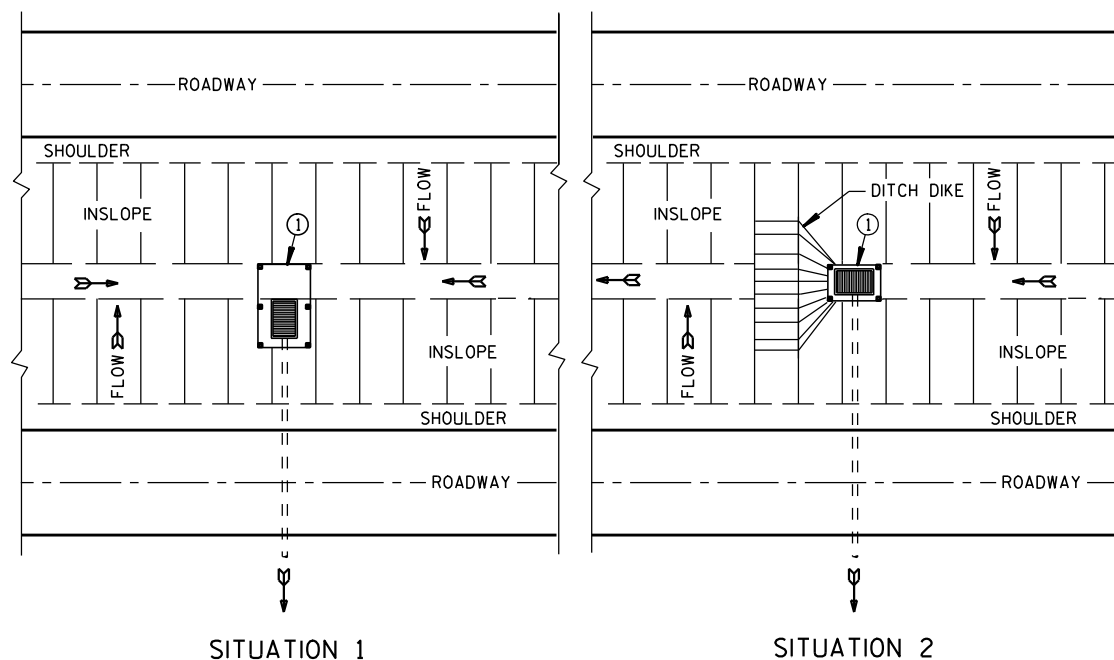
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



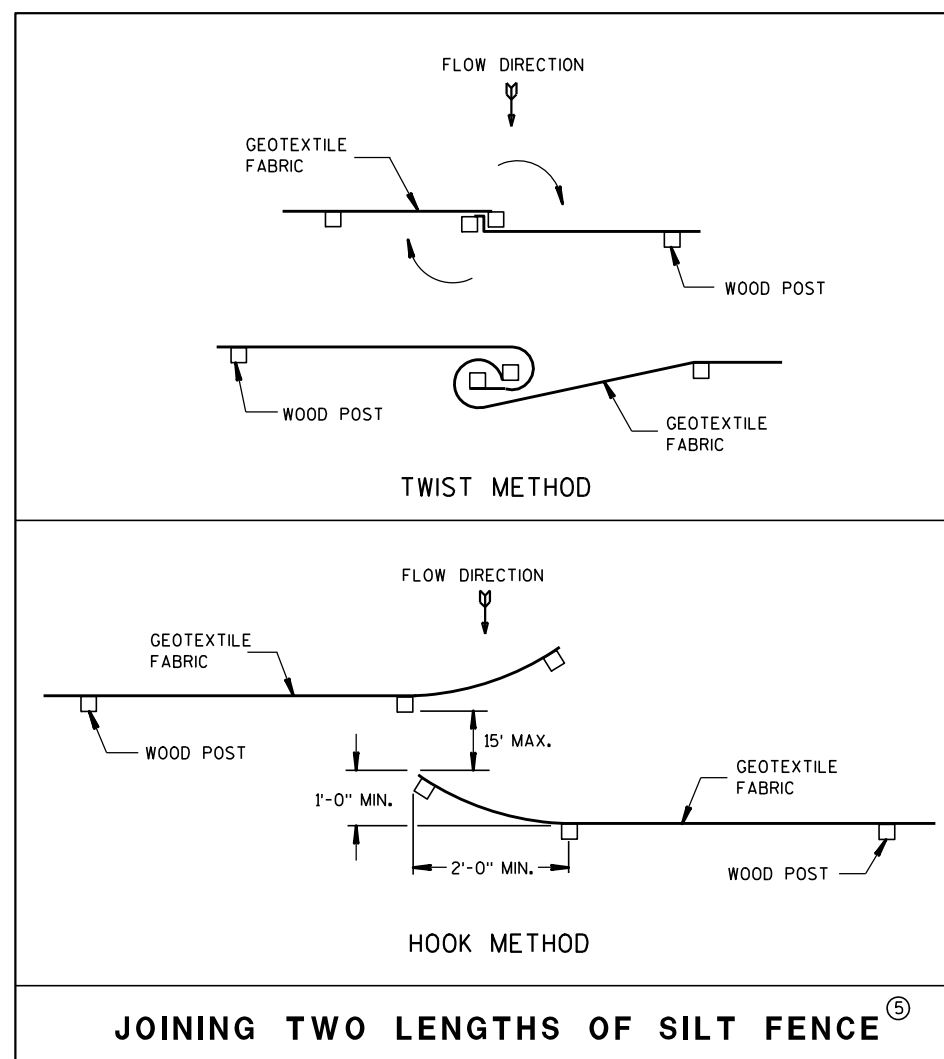
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



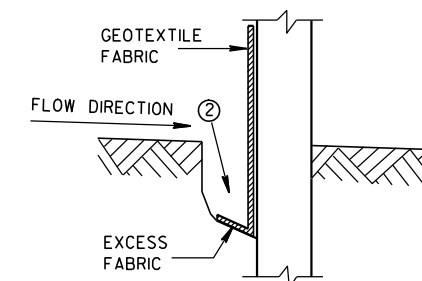
SILT FENCE AT MEDIAN SURFACE DRAINS



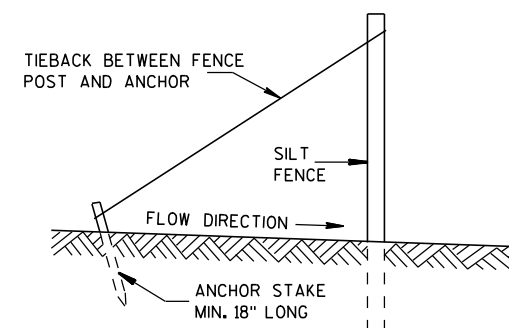
GENERAL NOTES

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

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



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

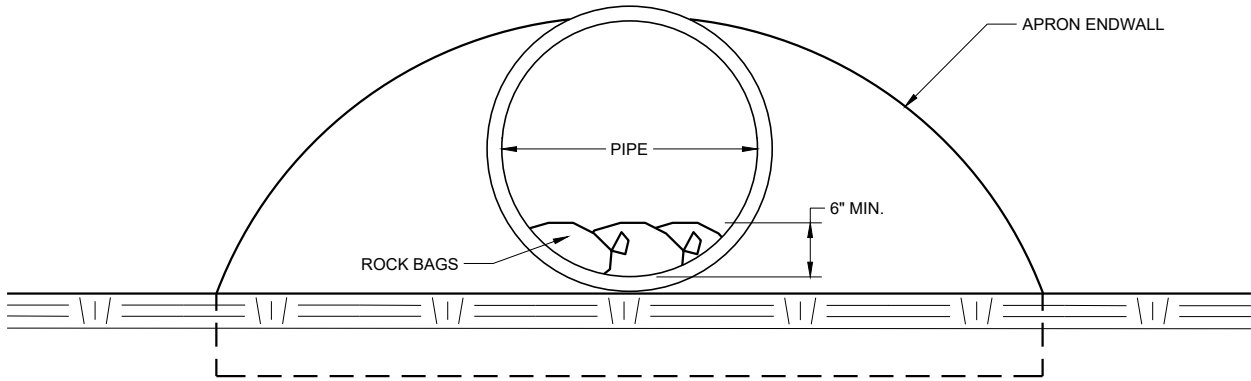
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

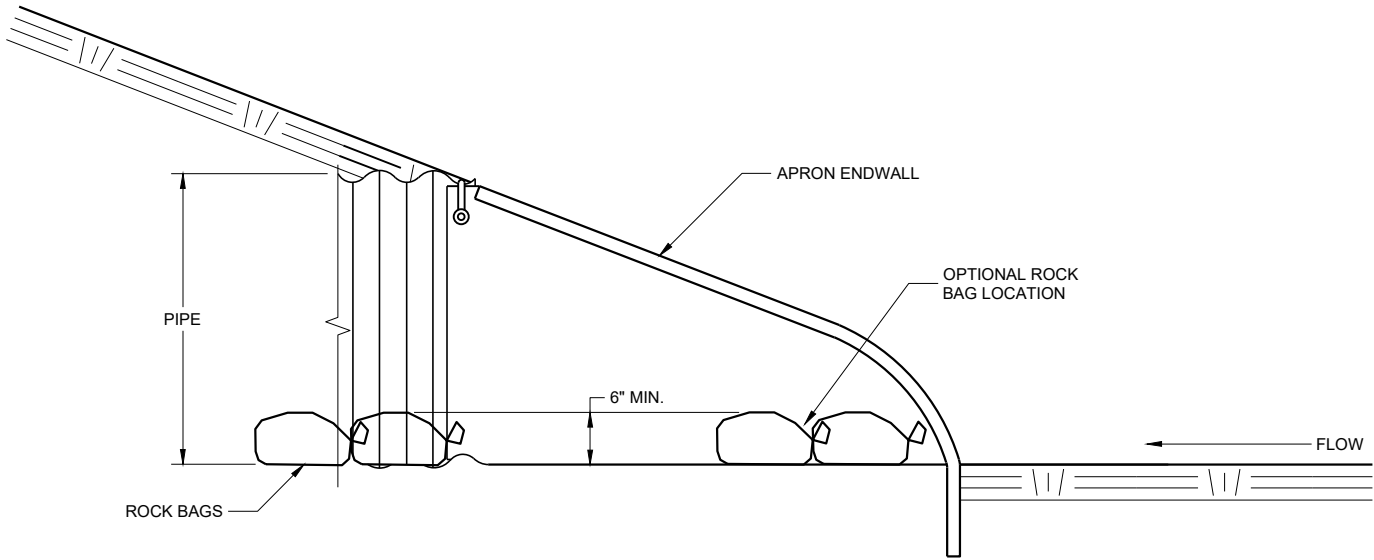
4-29-05
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



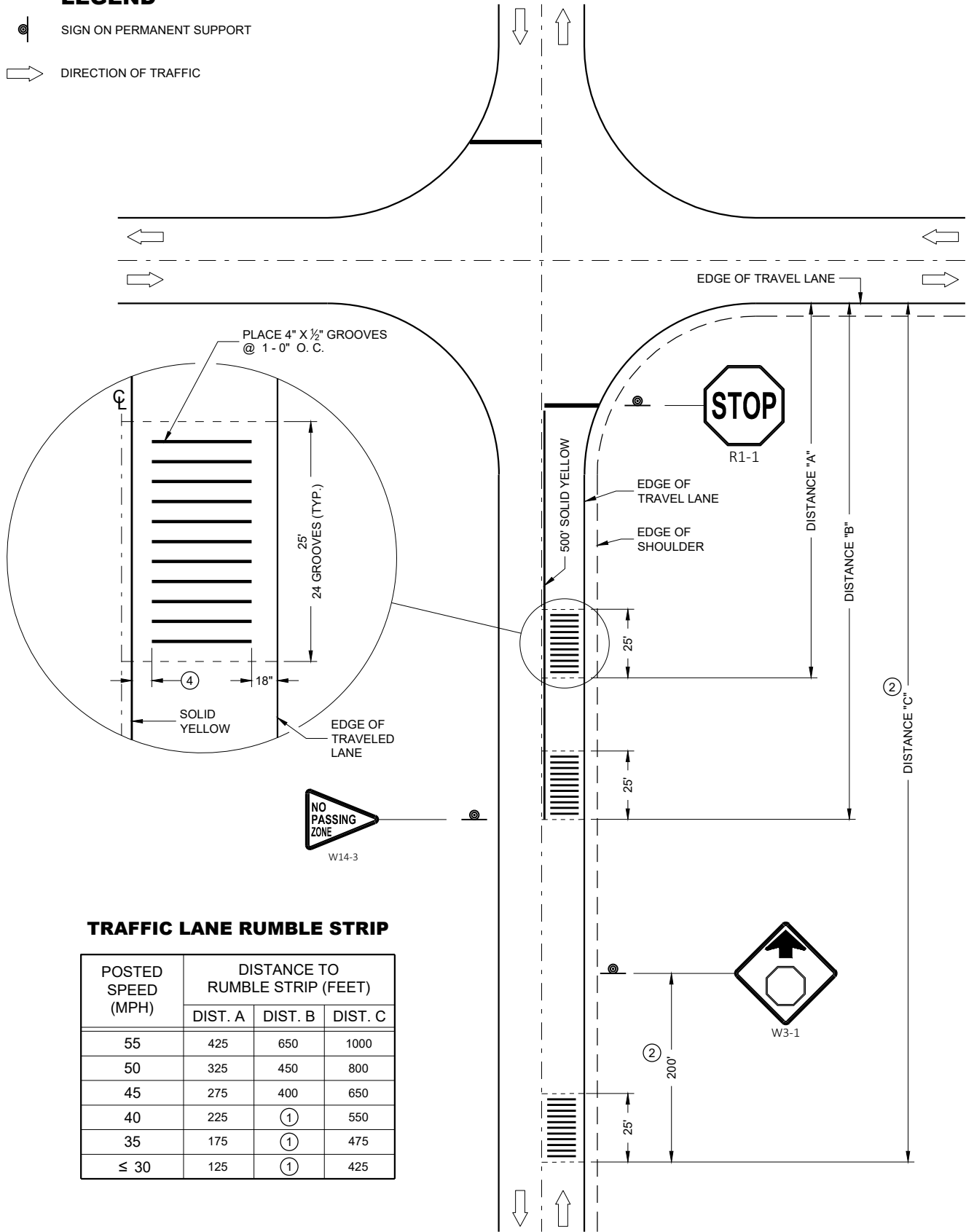
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

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

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC



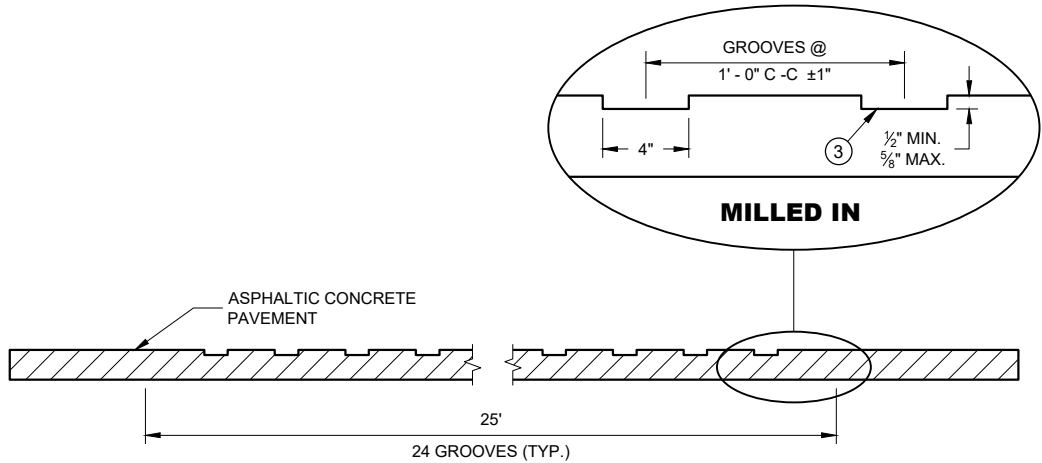
TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (MPH)	DISTANCE TO RUMBLE STRIP (FEET)		
	DIST. A	DIST. B	DIST. C
55	425	650	1000
50	325	450	800
45	275	400	650
40	225	①	550
35	175	①	475
≤ 30	125	①	425

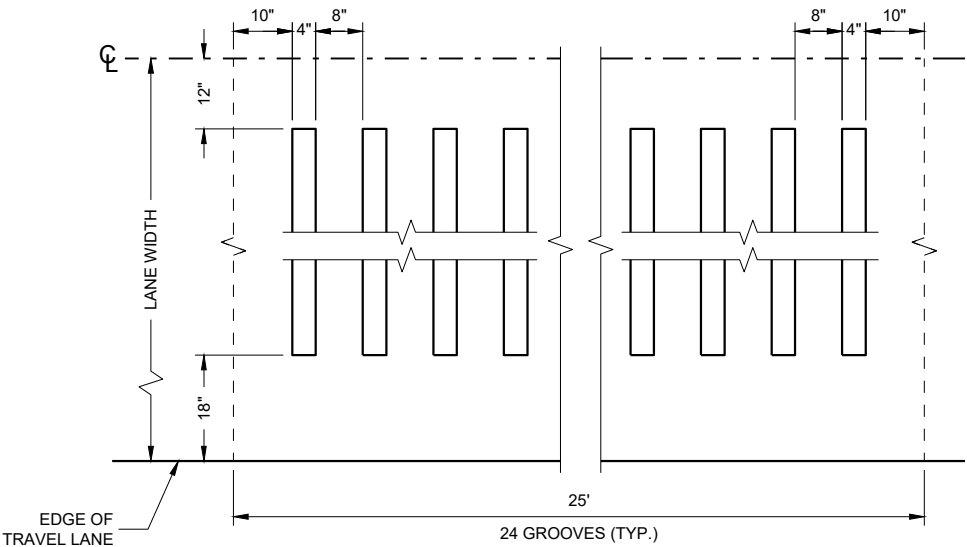
RUMBLE STRIP LOCATION

GENERAL NOTES

- CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.
- WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA, THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.
- PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDE ELSEWHERE IN THE CONTRACT.
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
 - ② LOCATE RUMBLE STRIP 200 FEET IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE "C".
 - ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY $\frac{1}{16}$ ".
 - ④ 12 INCH CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.



ELEVATION VIEW



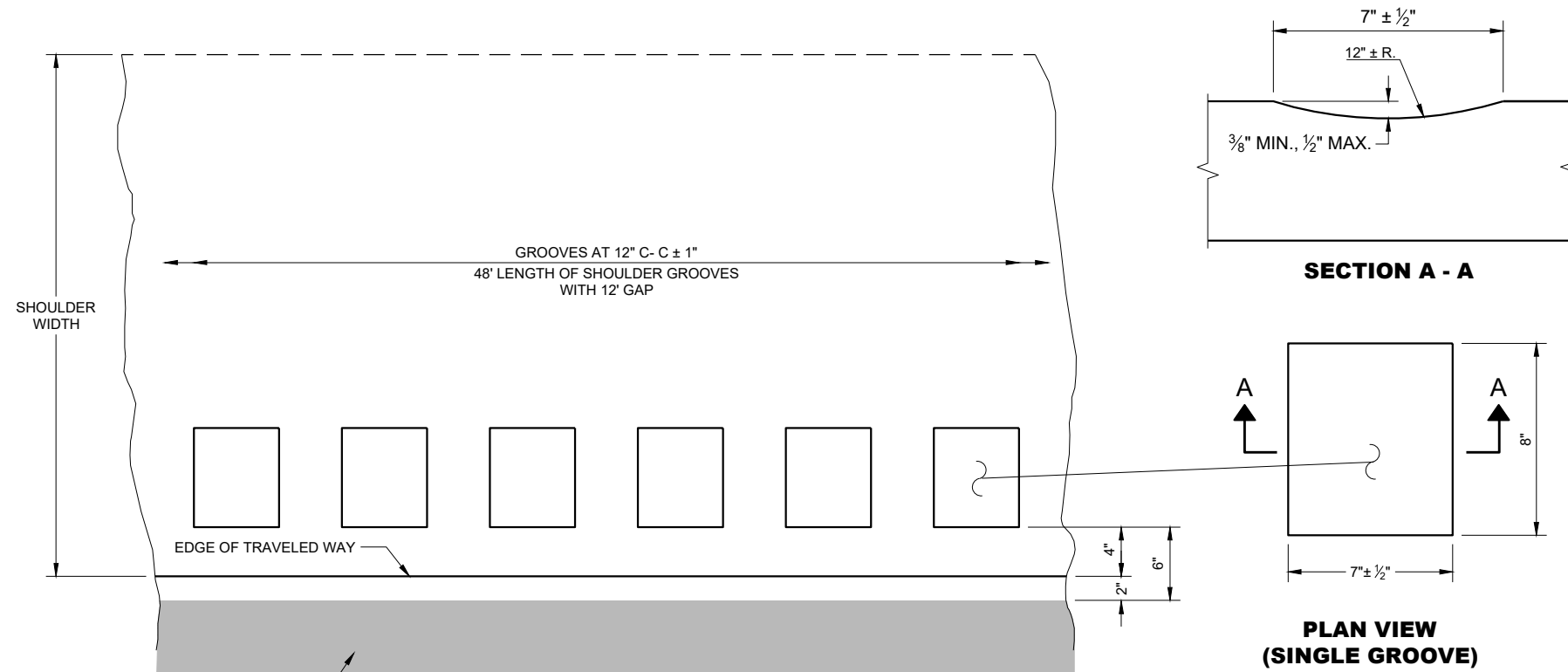
PLAN VIEW

ASPHALTIC PAVEMENT MILLED IN

TRANSVERSE RUMBLE STRIPS, ASPHALTIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

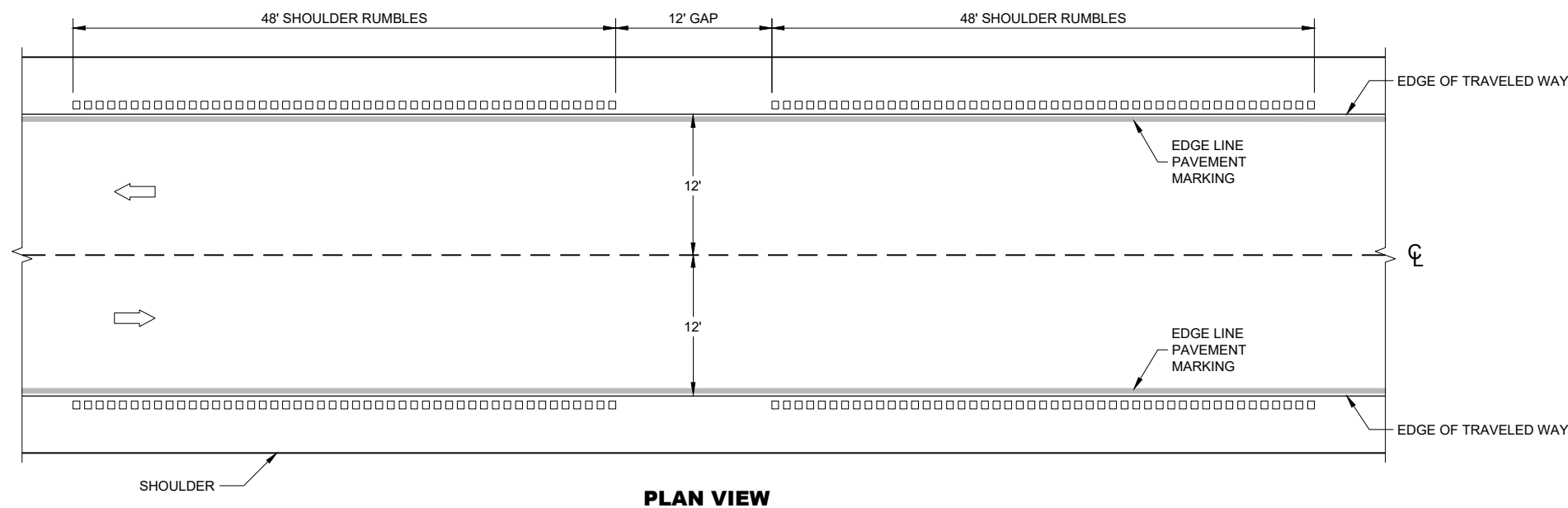
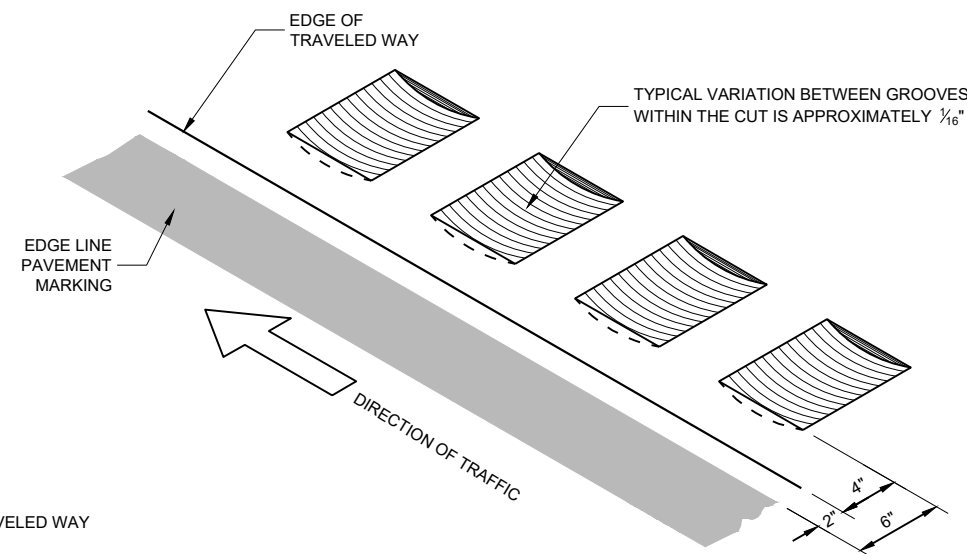
APPROVED
May 2023
DATE
/S/ Rodney Taylor
ROADWAY DESIGN STANDARDS
UNIT SUPERVISOR
FHWA



GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

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



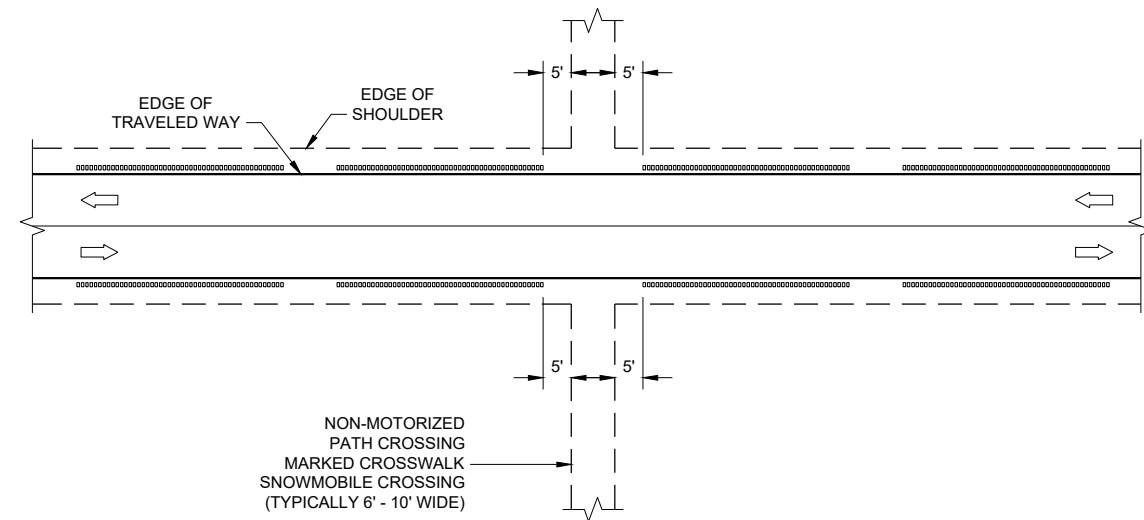
**PLAN DETAIL VIEW
SHOULDER WITH GROOVES**

PLAN VIEW

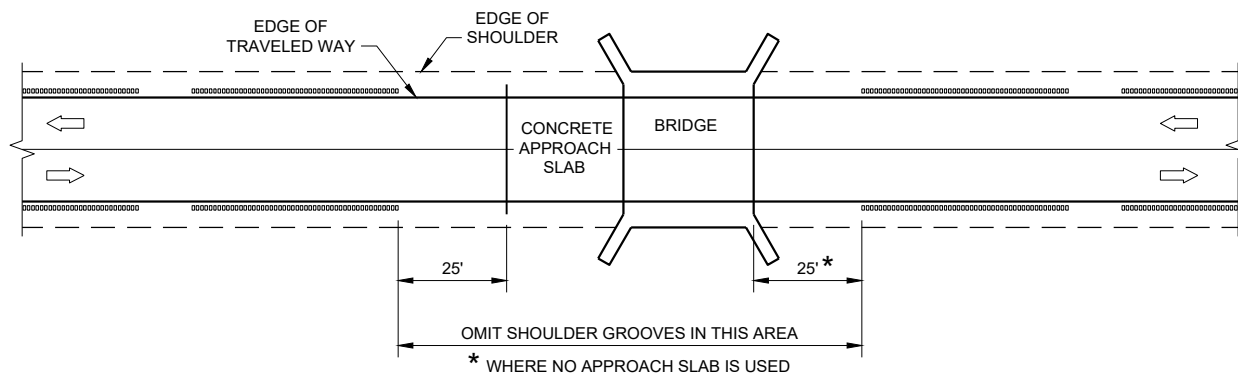
SHOULDER RUMBLE STRIPS - ASPHALT

**SHOULDER RUMBLE
STRIPS ASPHALT**

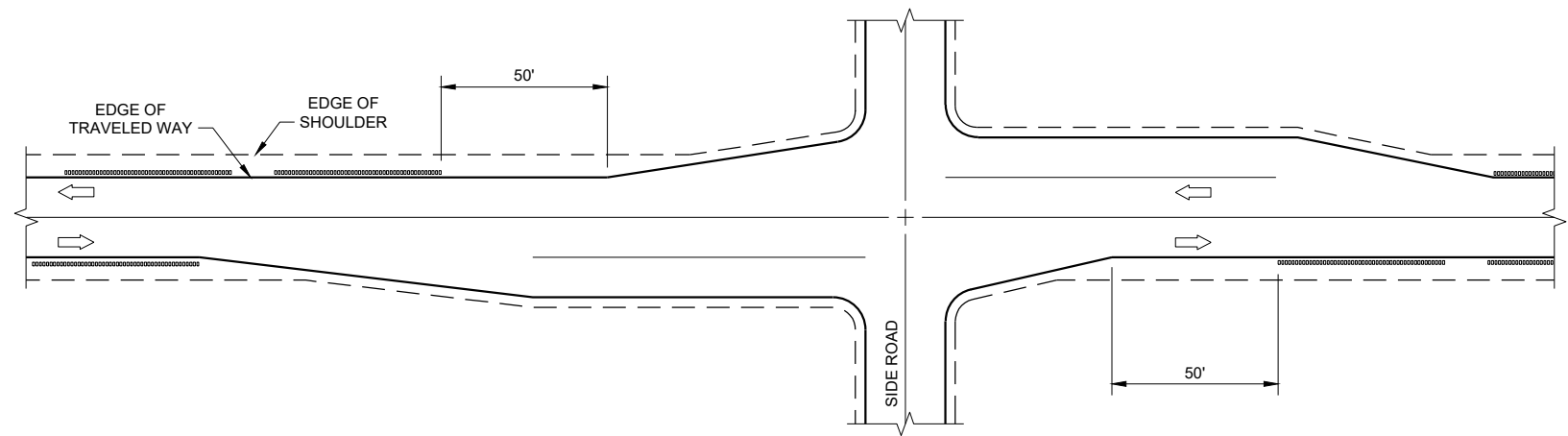
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



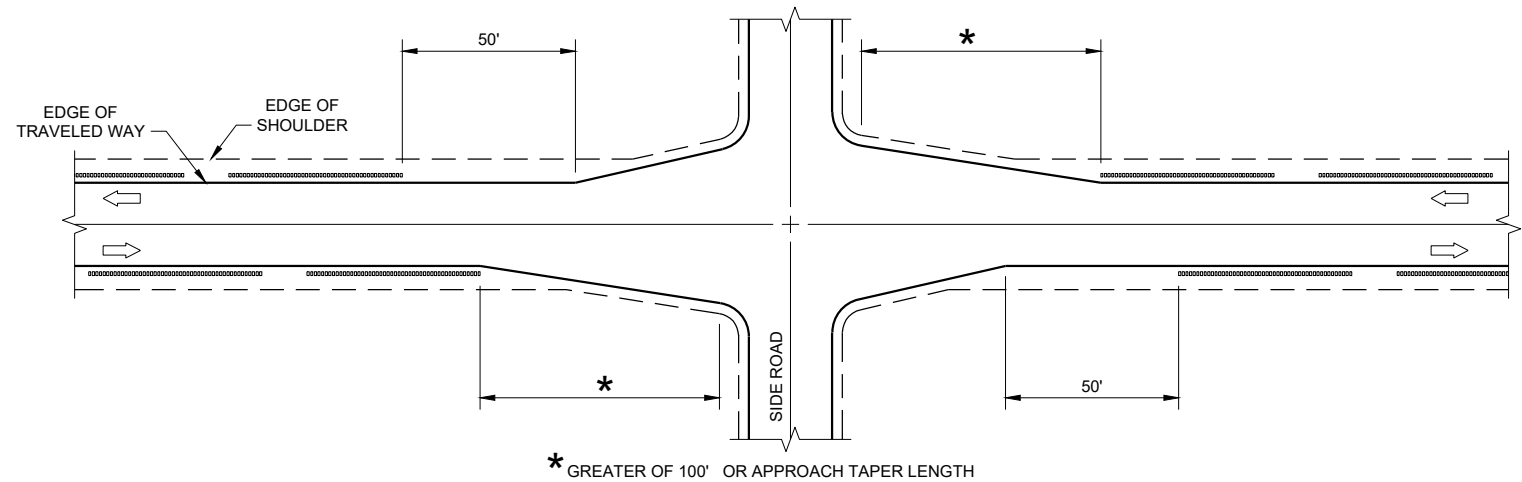
GROOVES AT MISCELLANEOUS CROSSINGS



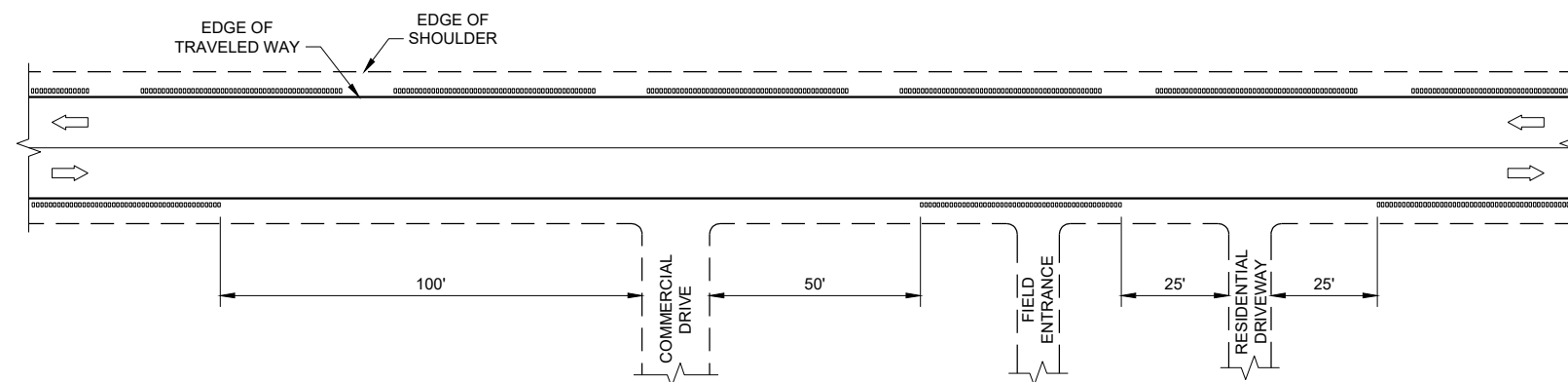
GROOVES AT BRIDGES



GROOVES AT RIGHT TURN LANE



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



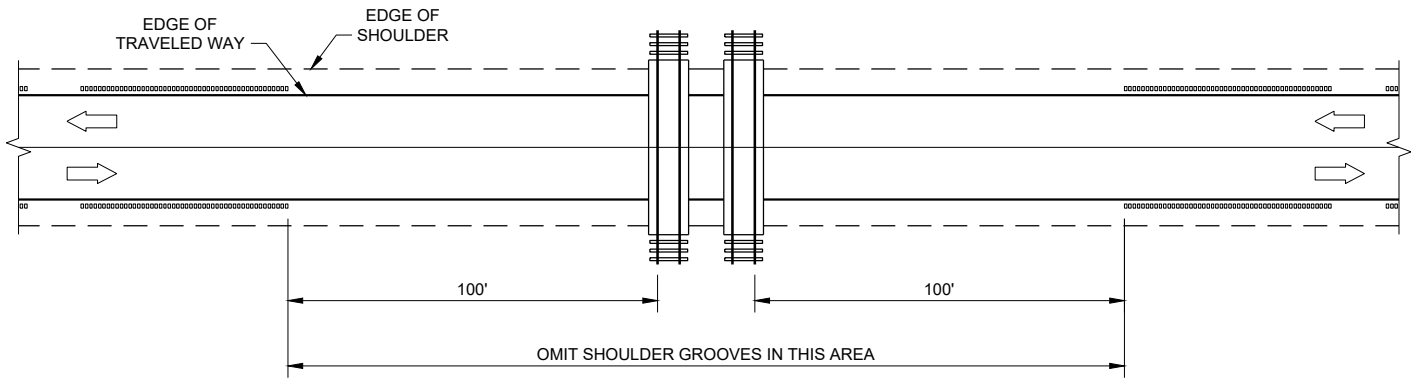
GROOVES AT DRIVEWAYS

GENERAL NOTES

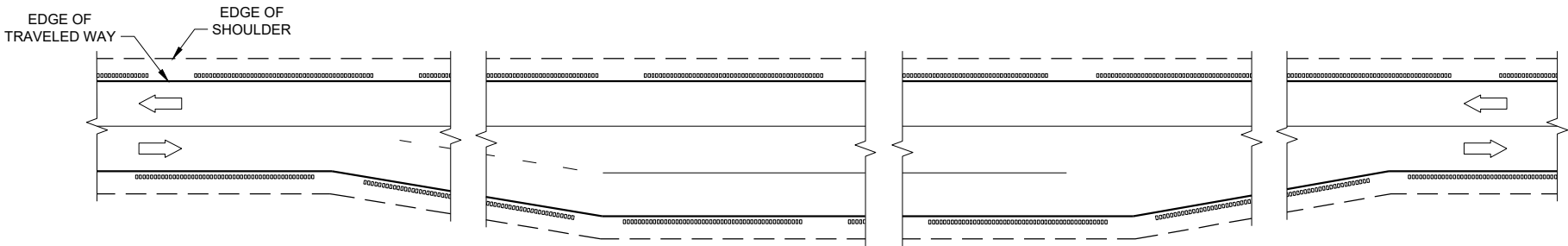
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

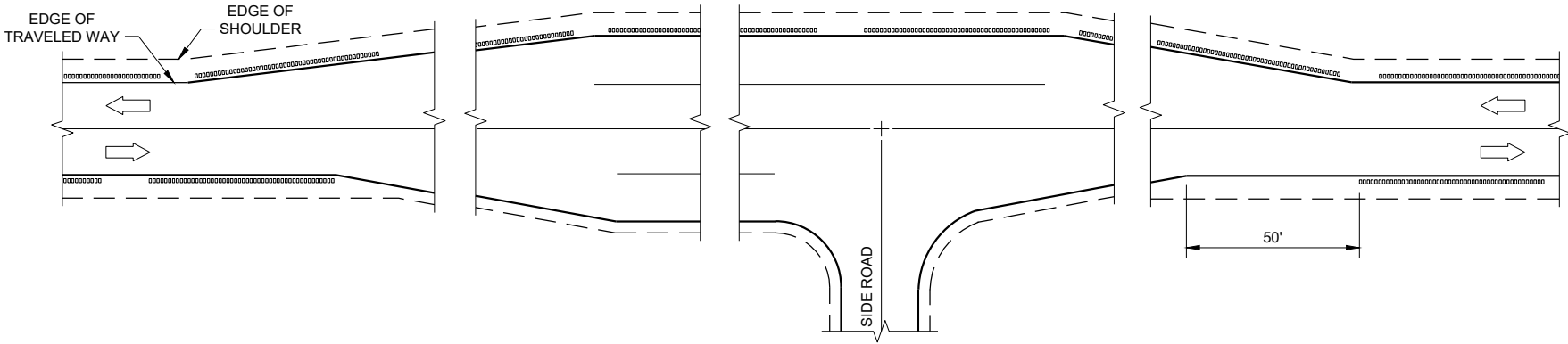
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES

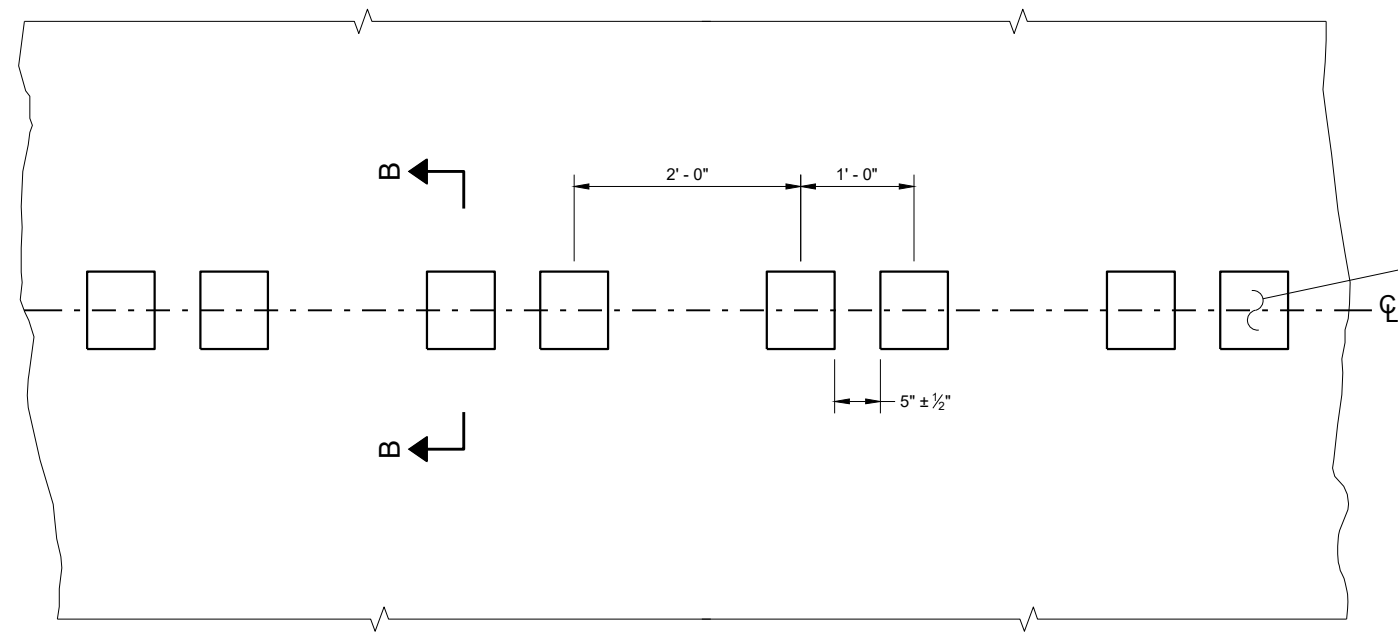


GROOVES AT BYPASS LANES

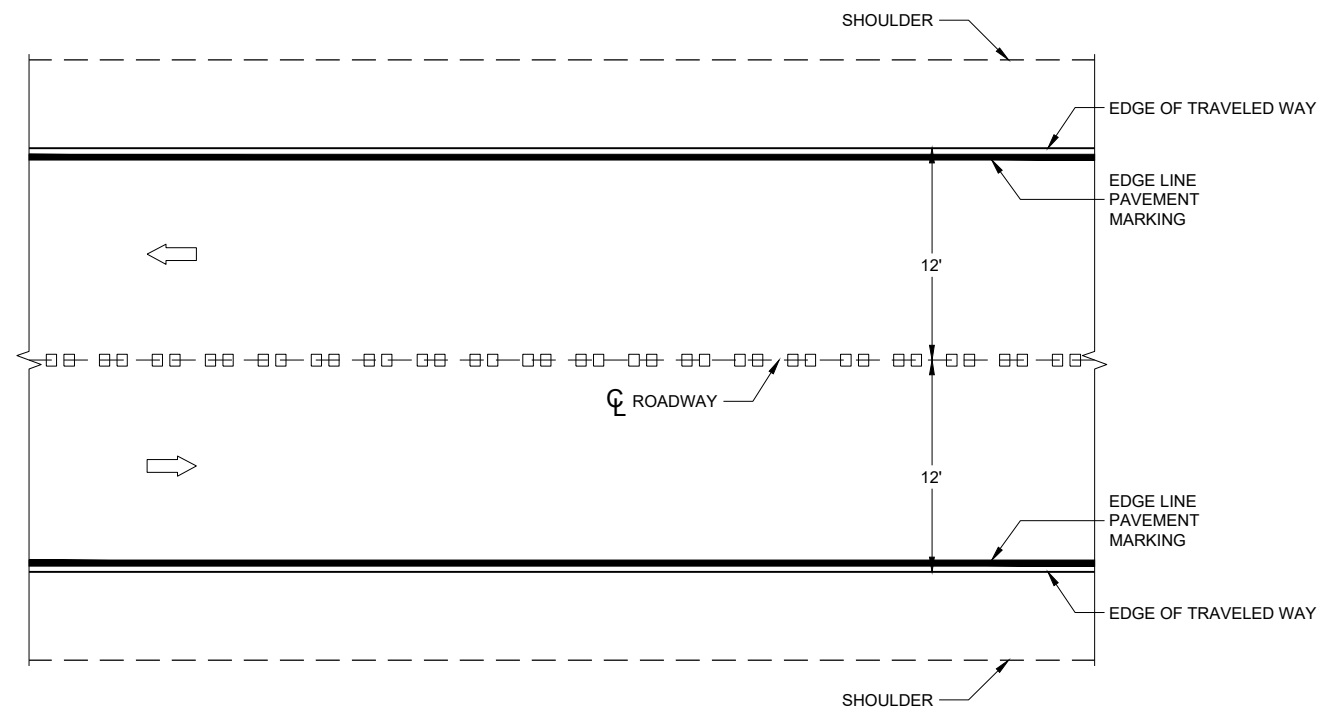
**SHOULDER AND EDGE LINE
RUMBLE STRIPS -
RAILROAD, PASSING,
CLIMBING AND BYPASS LANES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ John Jenkins
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

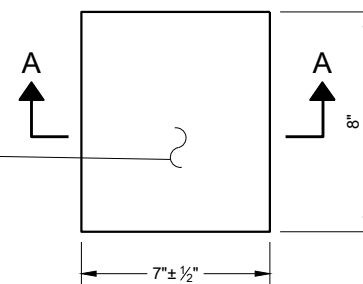


PLAN DETAIL VIEW

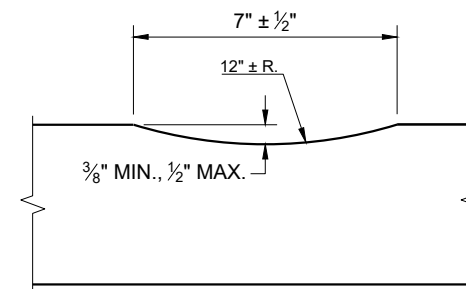


PLAN VIEW

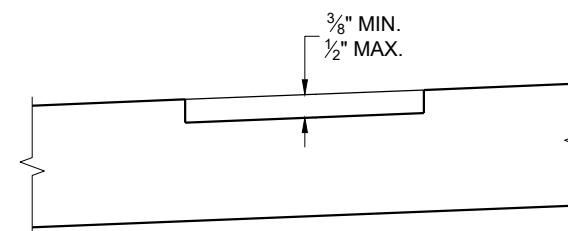
CENTERLINE RUMBLE STRIPS - ASPHALT



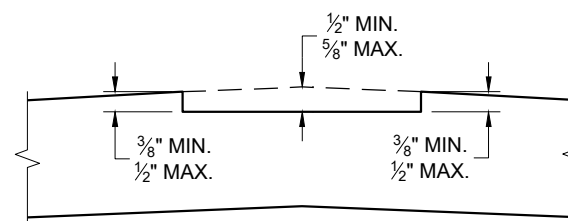
PLAN VIEW
(SINGLE GROOVE)



SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY

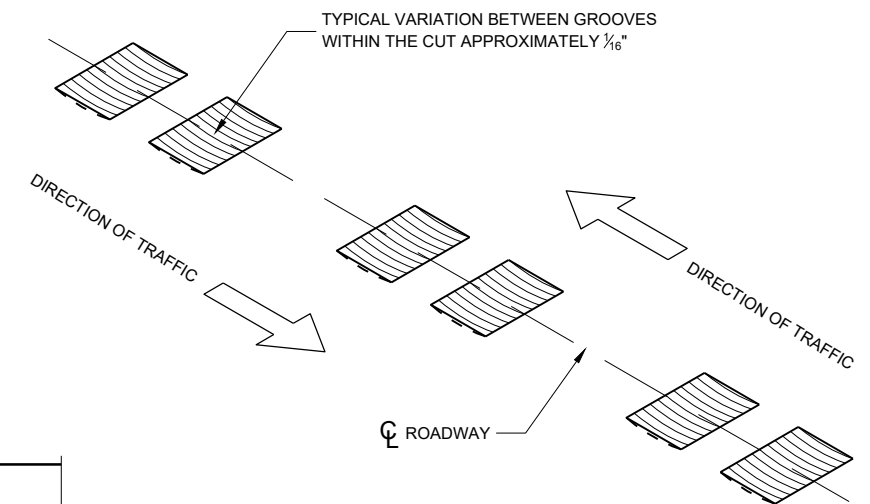


SECTION B - B
CROWNED ROADWAY

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

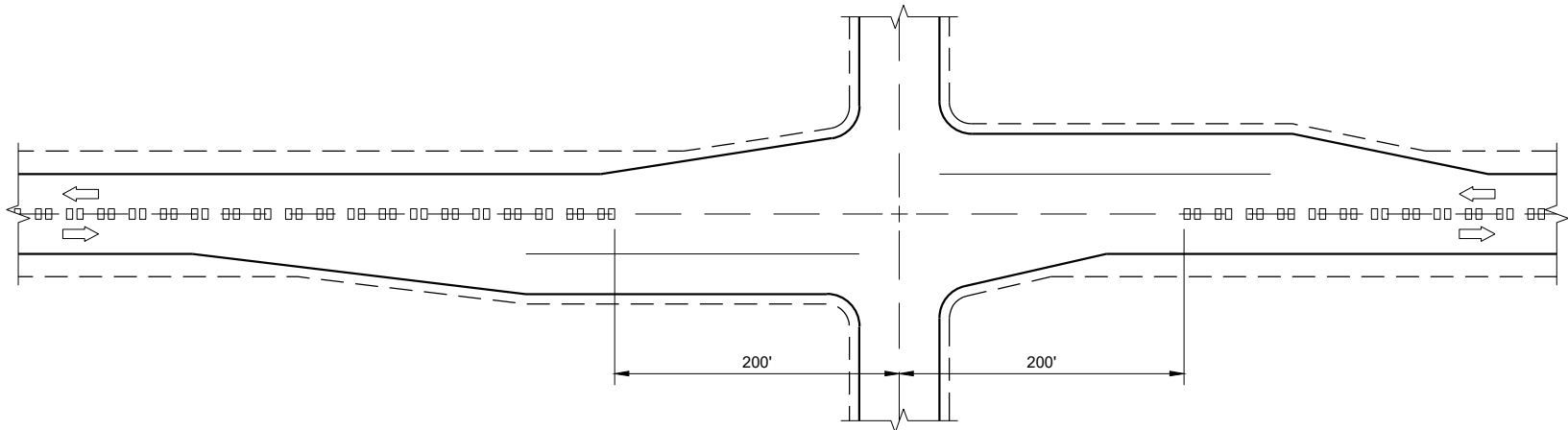
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



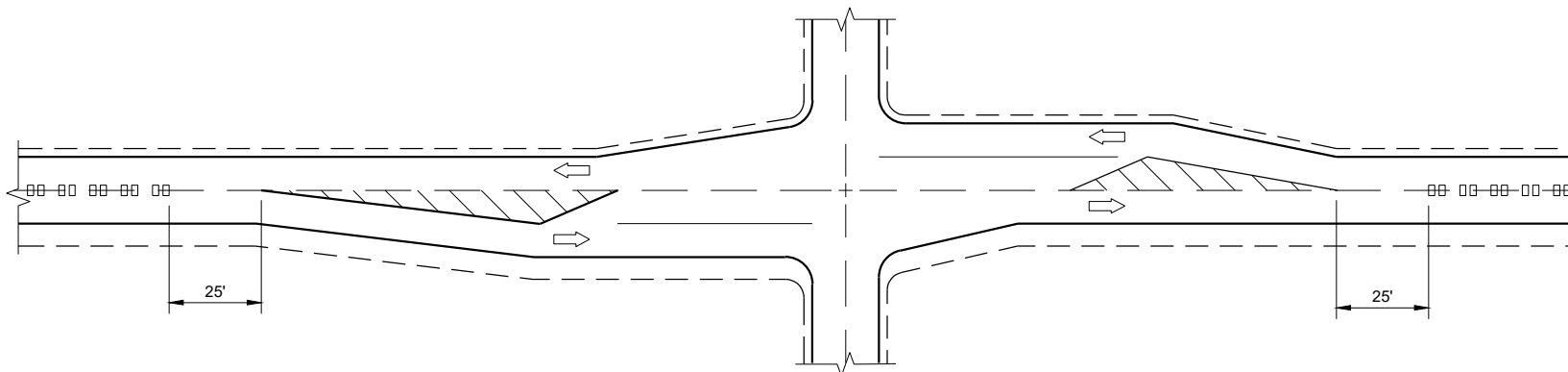
ISOMETRIC

CENTERLINE RUMBLE
STRIPS - ASPHALT

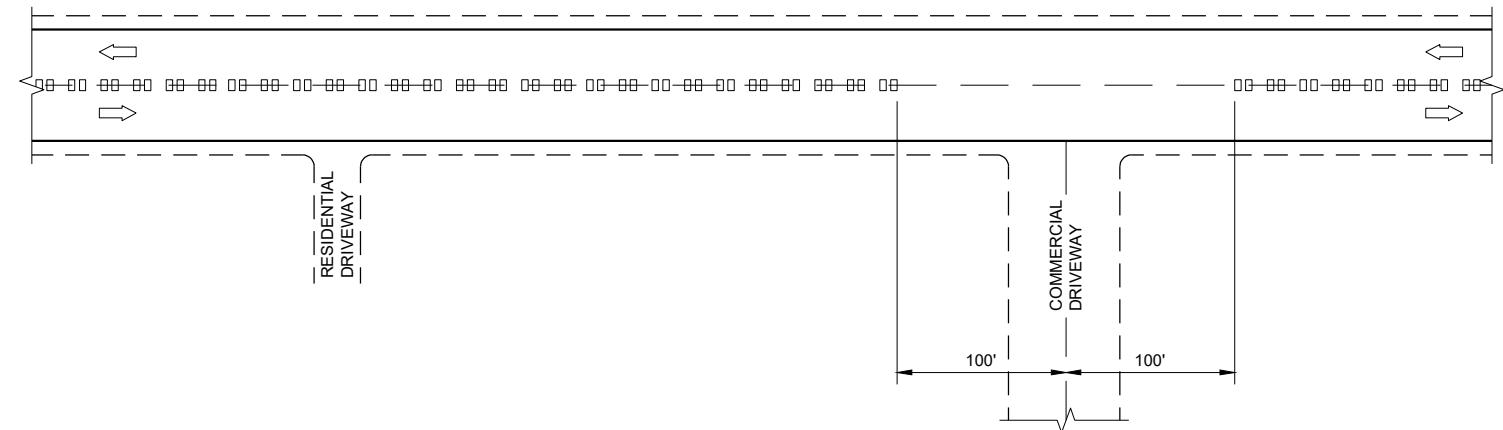
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



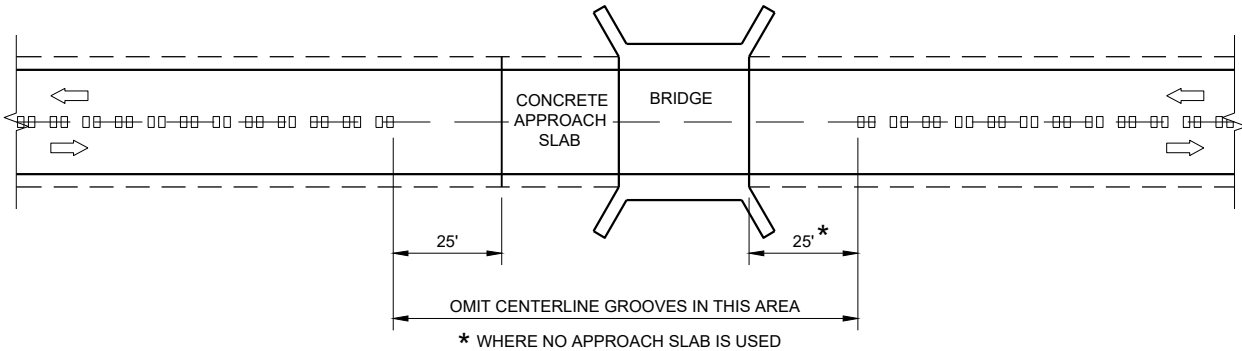
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



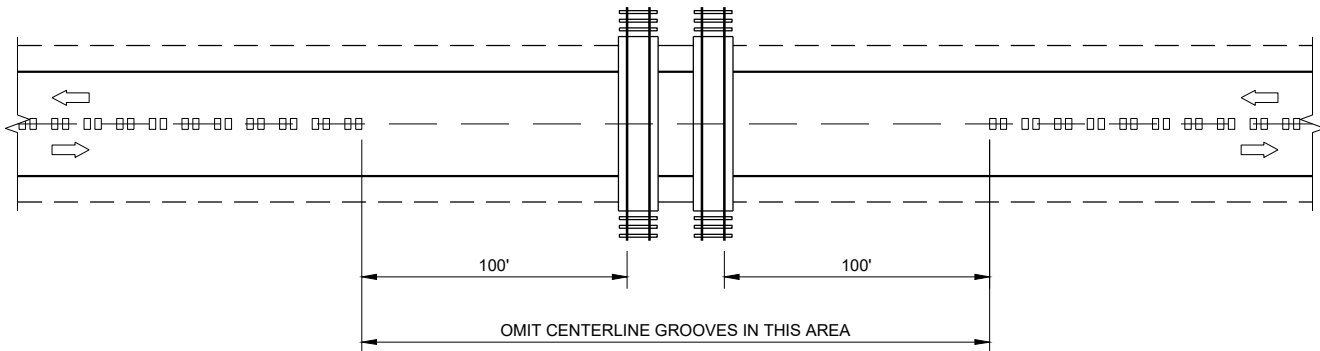
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



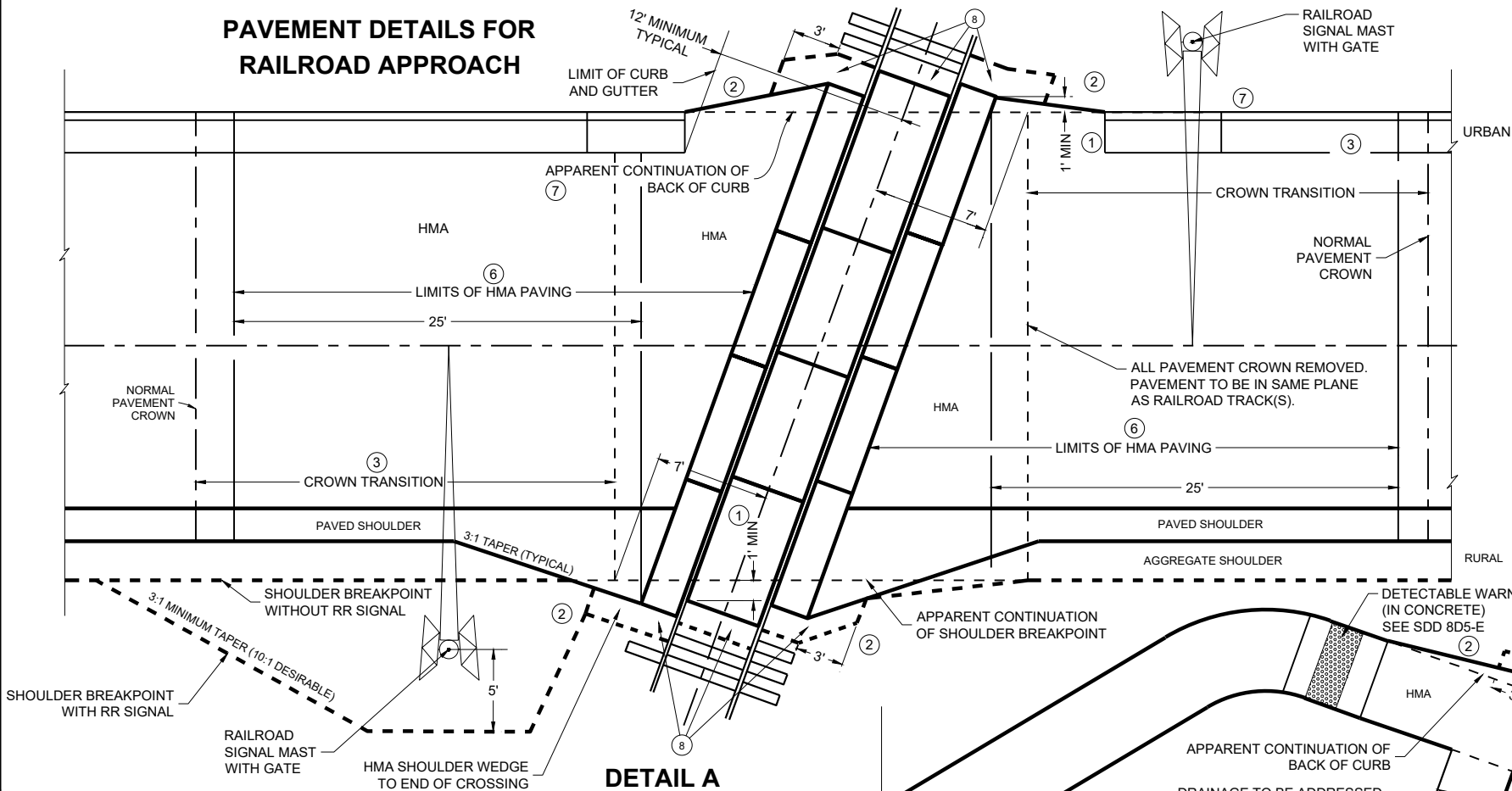
CENTERLINE GROOVES AT RAILROADS

CENTER LINE
RUMBLE STRIPS -
INTERSECTIONS, DRIVEWAYS,
BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE /S/ John Jenkins
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

PAVEMENT DETAILS FOR RAILROAD APPROACH



DETAIL A
RAILROAD APPROACH

GENERAL NOTES CONTINUED

- 1' MINIMUM CROSSING SURFACE COVERAGE PAST THE APPARENT CONTINUATION OF SHOULDER BREAKPOINT, BACK OF CURB, OR OUTSIDE EDGE OF SIDEWALK/PATH. INDIVIDUAL RAILROADS MAY HAVE DIFFERENT MINIMUM STANDARDS.
- HMA FLARE FROM OUTSIDE EDGE OF SIDEWALK/PATH, BACK OF CURB, OR AGGREGATE SHOULDER BREAKPOINT TO THE END OF CROSSING SURFACE MATERIAL.
- CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.
- NEAR EDGE OF PATH TO THE CENTER OF SIGNAL OR GATE MAST SHOULD BE A MINIMUM OF 5'-0". FOR SIDEWALK, THE NEAR EDGE SHOULD BE A MINIMUM OF 3'-0" TO THE CENTER OF SIGNAL OR GATE. NEAR EDGE OF SIDEWALK TO A NON-GATED MAST OR CANTILEVER SHOULD BE A MINIMUM OF 2'-6". SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATION IF THEY ARE NOT ALREADY INSTALLED.
- TERRACE WIDTH VARIES. SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATIONS. PER PLAN OR PROJECT ENGINEER THE TERRACE AND SIDEWALK/PATH GRADES SHALL BE TRANSITIONED TO MATCH THE GRADE OF THE TRACK. FIELD FIT TO AVOID PONDING.
- 25' MINIMUM HMA PAVING MEASURED PARALLEL TO THE ROAD OR 10' MINIMUM MEASURED PERPENDICULAR TO THE TRACK FROM THE EDGE OF THE CROSSING SURFACE, WHICHEVER IS GREATER.
- REFERENCE SDD 8-D-01 END SECTION CURB AND GUTTER. MEDIAN END NEAR THE TRACK SHOULD BE PARALLEL TO THE TRACK. 6'-0" TAPER FOR A MEDIAN SHOULD BE REDUCED TO GET FULL HEIGHT CURB WHERE THE GATE COMES DOWN. DESIGN OPTION TO POUR MEDIAN TAPER IN ONE PIECE. BUILD PER PLAN UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.
- IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL G.

GENERAL NOTES

PLANS AND SECTIONS ARE TYPICAL. DIMENSIONS VARY PER PROJECT.

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

CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS DIRECTED OTHERWISE. IF THE FINAL GRADES DON'T MATCH TO THE PLAN GRADES THEN GRADE ADJUSTMENTS WILL BE NECESSARY. CONFIRM NEW GRADES WITH PROJECT ENGINEER.

HMA PAVEMENT APPROACHES, HMA PAVEMENT CROSSING SURFACES, AND HMA FLANGWAY/FIELD FILLERS TO BE REPLACED BY ROADWAY CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE PLANS, SPECIAL PROVISIONS, RAILROAD ENGINEER, OR PROJECT ENGINEER.

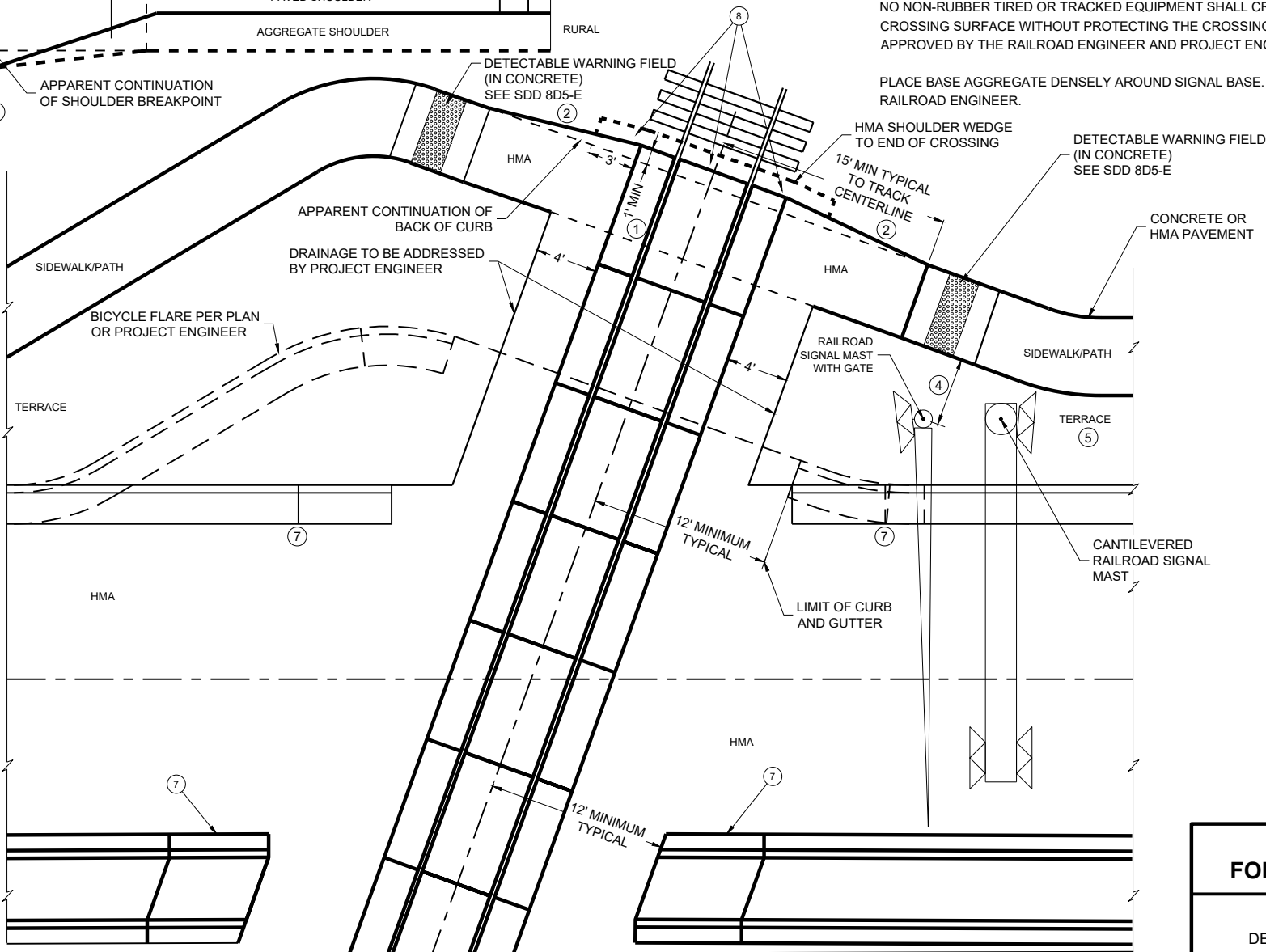
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

WHEN THERE IS A SIDEWALK OR SHARED-USE PATH, ADD DETECTABLE WARNING FIELDS PER CURRENT STANDARD DETAIL DRAWING 8D5-E.

THE CROSSING SHALL NOT BE OPENED TO ANY TYPE OF TRAFFIC UNTIL IT IS FULLY PAVED AND COOLED SUFFICIENTLY UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

NO NON-RUBBER TIRED OR TRACKED EQUIPMENT SHALL CROSS OR SIT ON THE CROSSING SURFACE WITHOUT PROTECTING THE CROSSING SURFACE WITH A METHOD APPROVED BY THE RAILROAD ENGINEER AND PROJECT ENGINEER.

PLACE BASE AGGREGATE DENSELY AROUND SIGNAL BASE. COORDINATE WITH THE RAILROAD ENGINEER.



DETAIL B
MEDIAN AND SIDEWALK/SHARED-USE PATH APPROACH

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

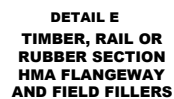
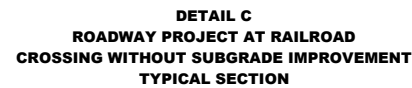
APPROVED

May 2023
DATE

/S/ Kristen Sommers
STATE RAILROAD ENGINEERING
AND SAFETY SUPERVISOR

FHWA

6

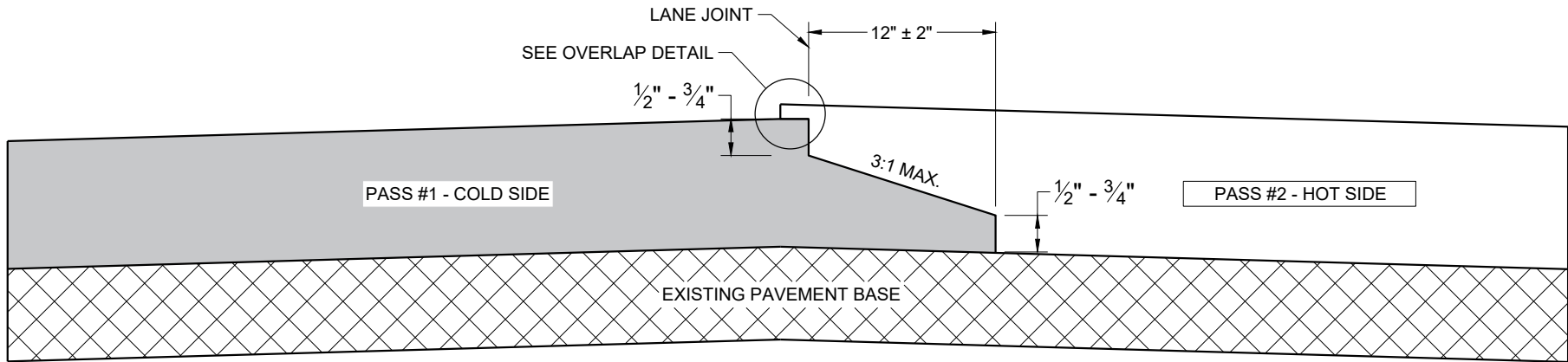


- 6

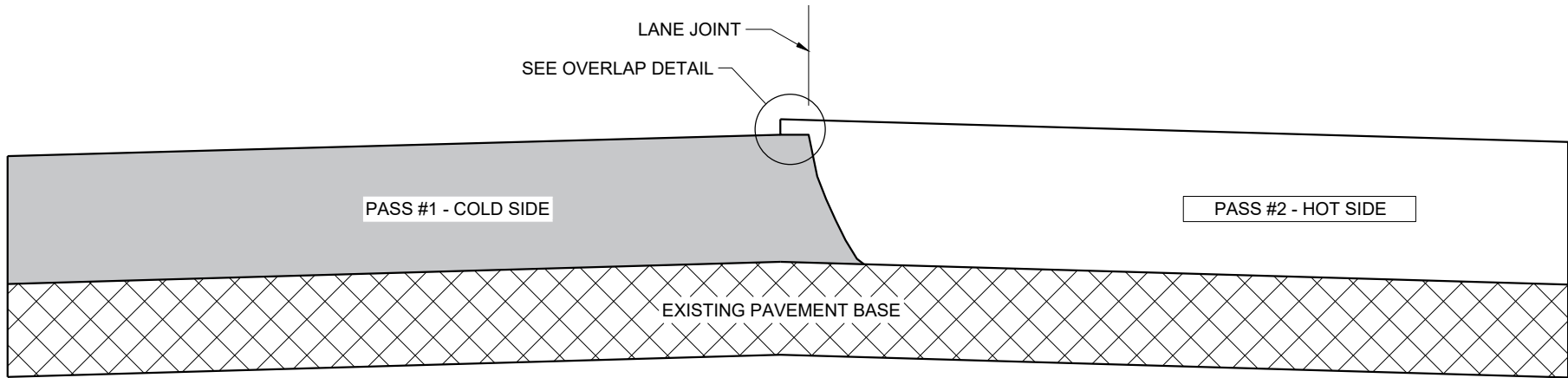
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

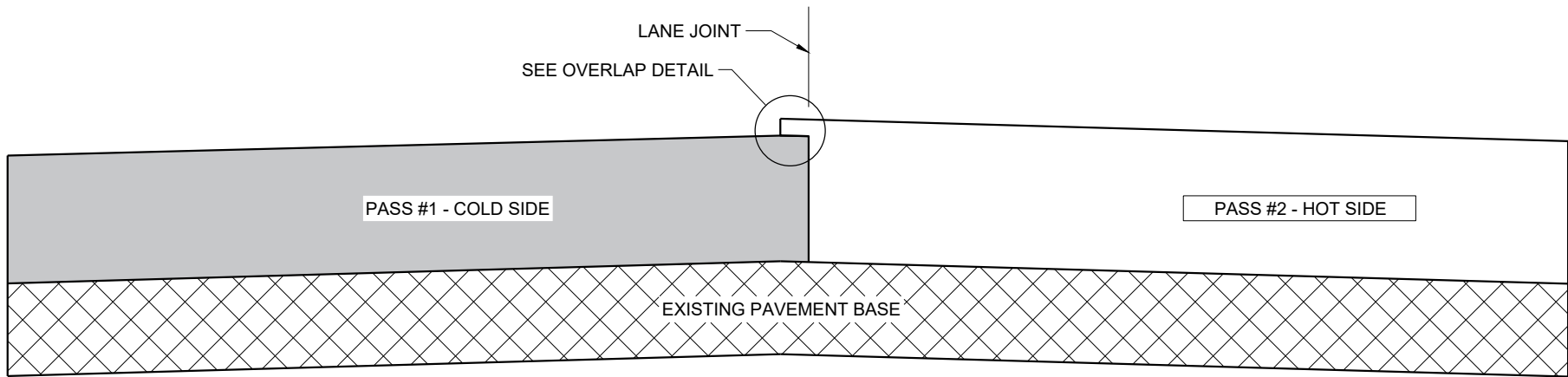
/S/ Kristen Sommers
STATE RAILROAD ENGINEERING
AND SAFETY SUPERVISOR



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

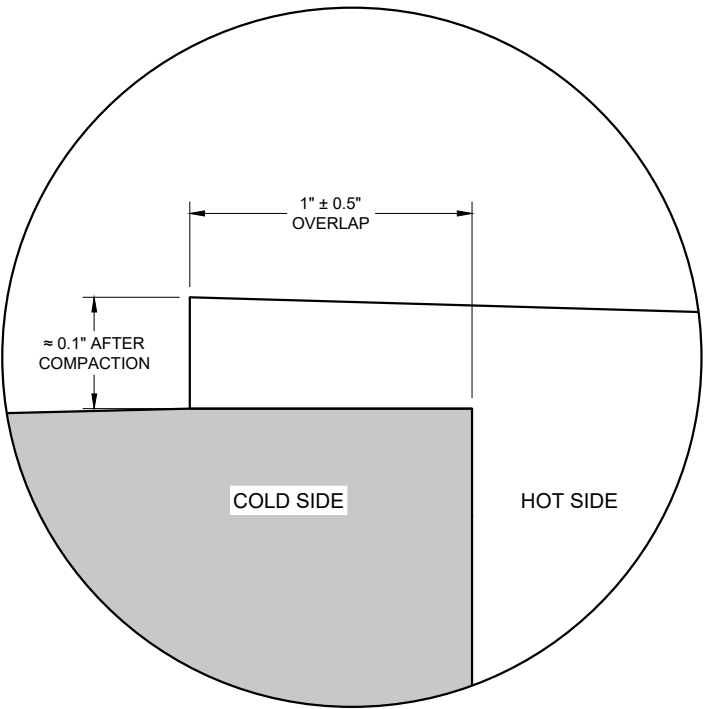
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



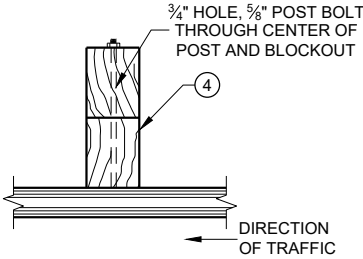
SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

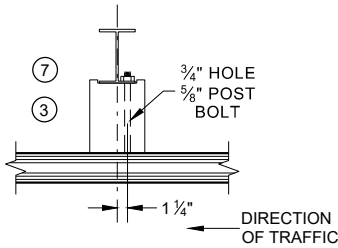
- WOOD OR STEEL POSTS (w6x9 OR w6x8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"x8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.
- USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPALTER COATING ON GALVANIZED POSTS.
- INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- IF THE DISTANCE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.
- WHEN USING STEEL POSTS AND WOOD BLOCKOUTS, INSTALL FOUR 16d GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

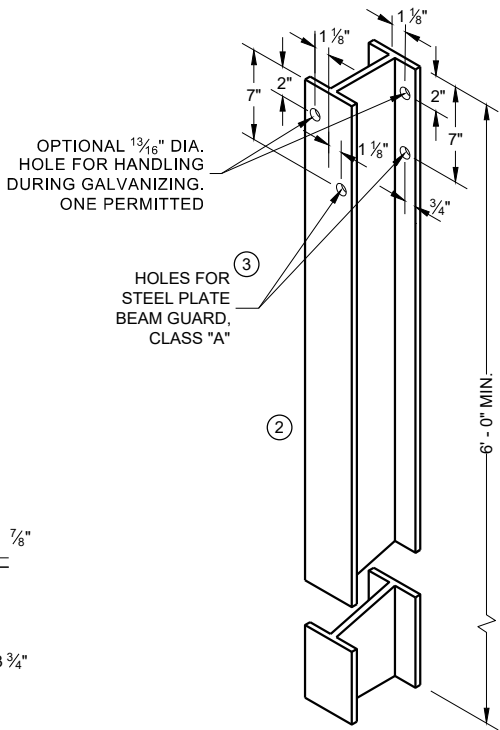
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

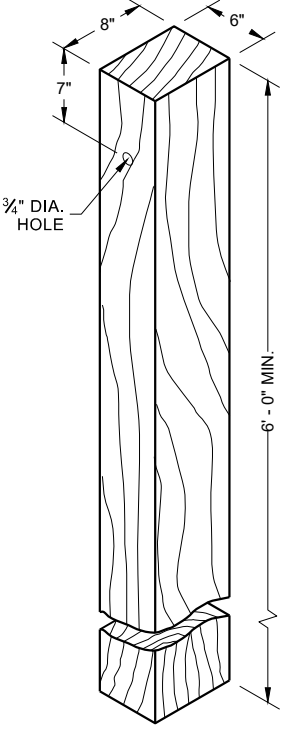


PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

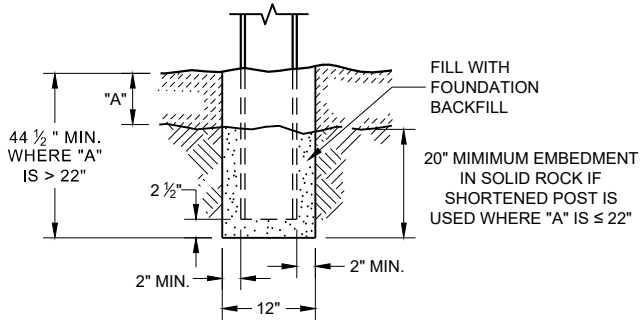


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) ①

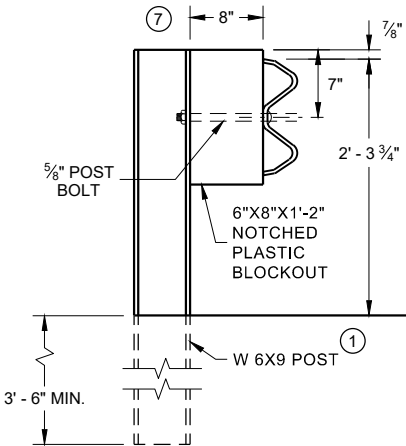
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



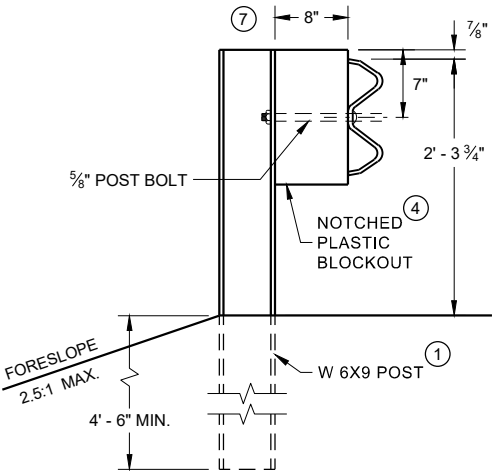
WOOD POST (6" X 8") NOMINAL ①



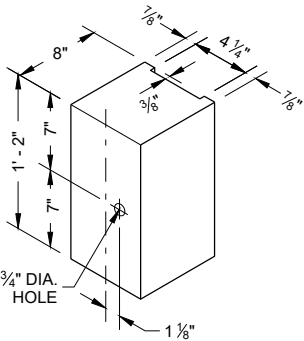
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥



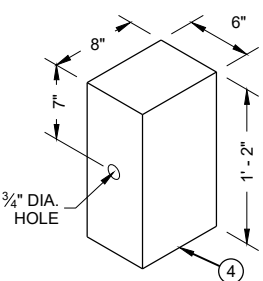
END VIEW
STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



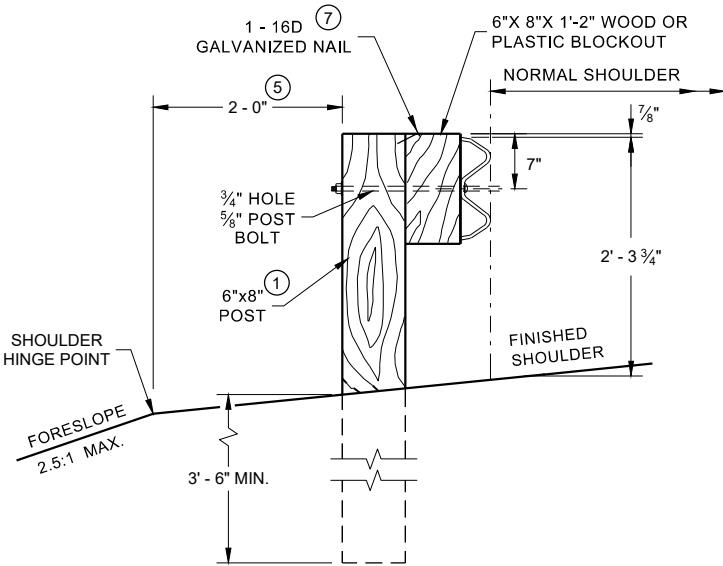
END VIEW
LONGER POST AT HALF POST SPACING W BEAM (LHW)



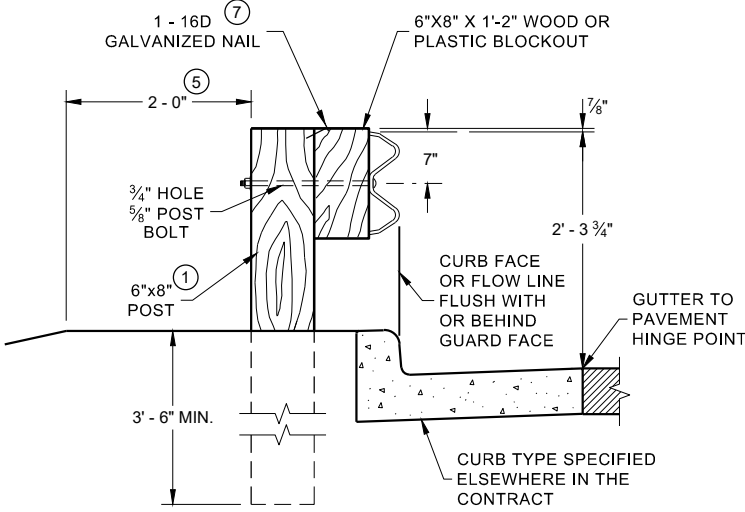
TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS



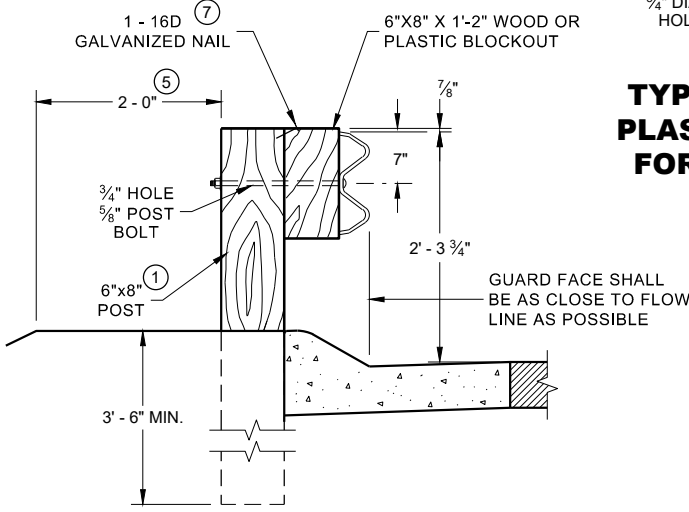
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



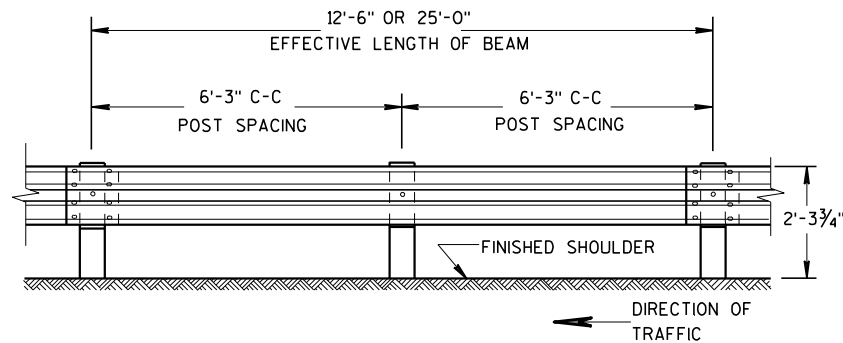
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

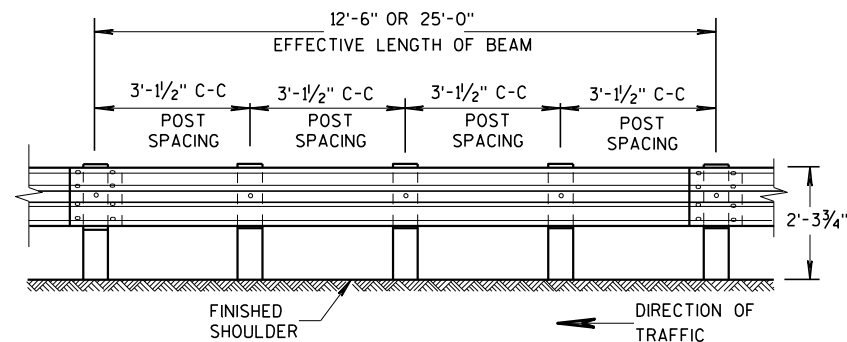
STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION AND ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



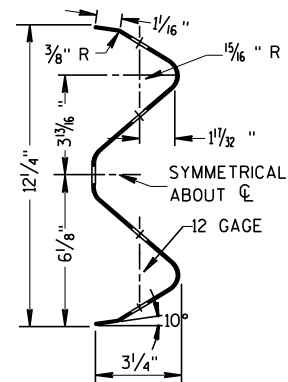
FRONT VIEW

POST SPACING STANDARD INSTALLATION

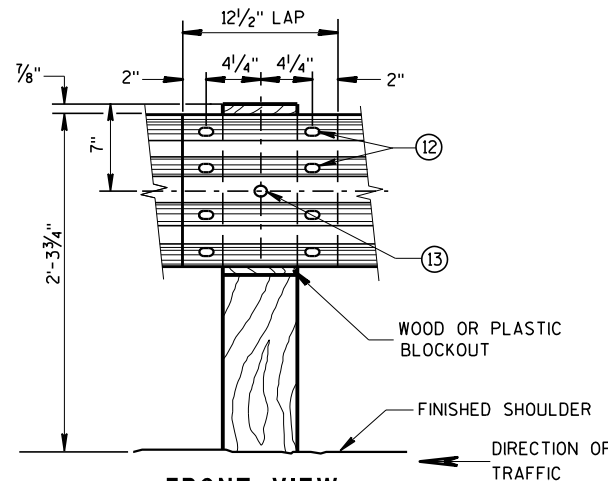


FRONT VIEW

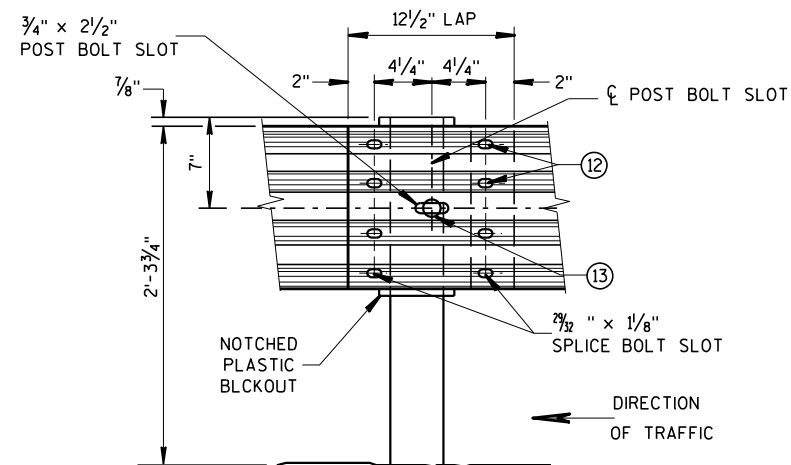
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)



SECTION THRU W BEAM



FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



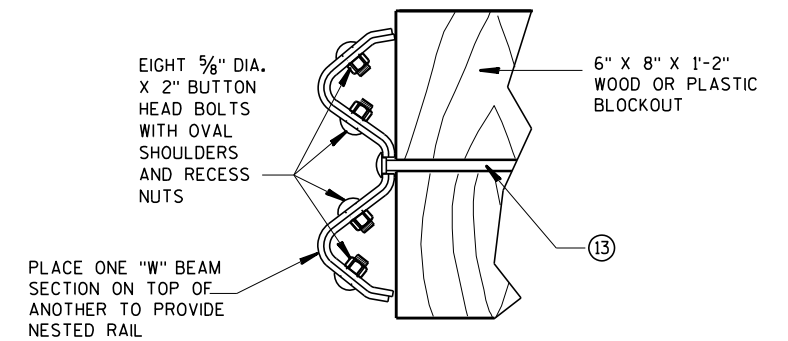
FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

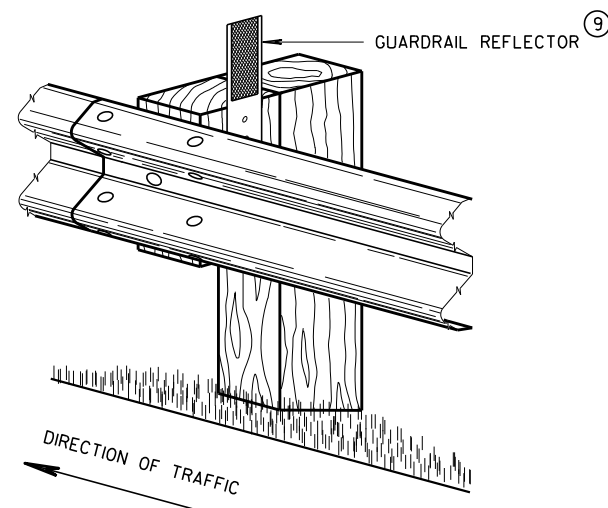
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



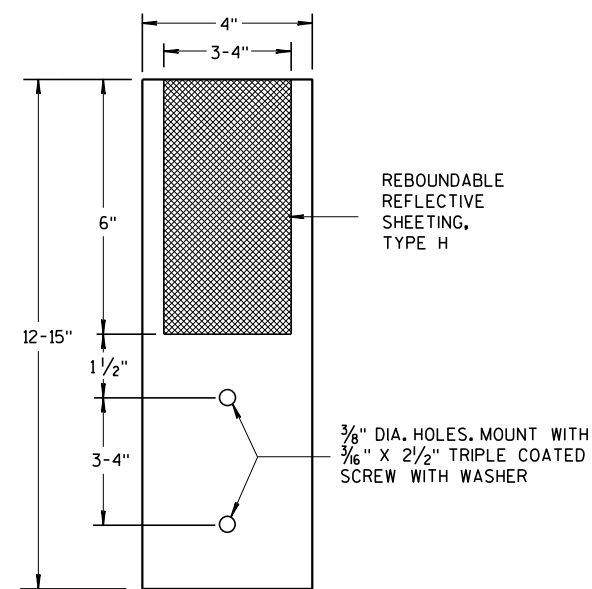
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUARDRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



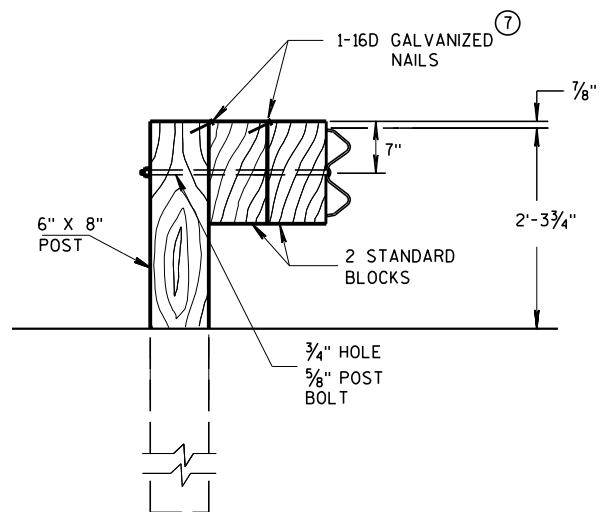
4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

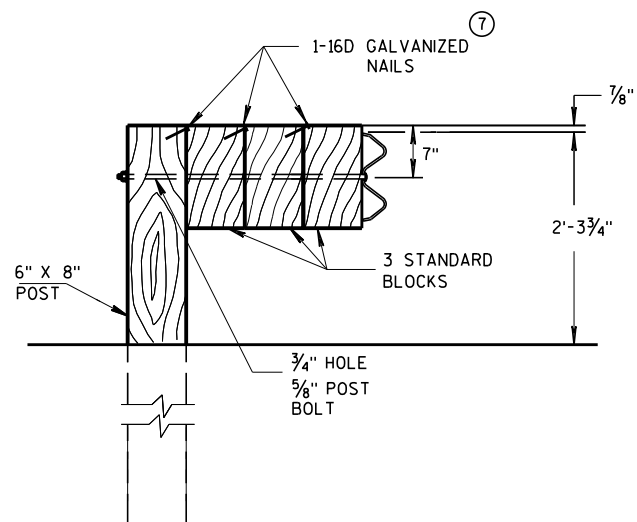
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

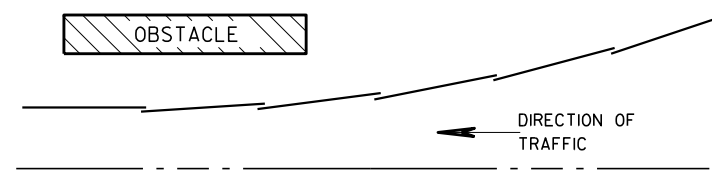


DETAIL FOR TRIPLE BLOCKS

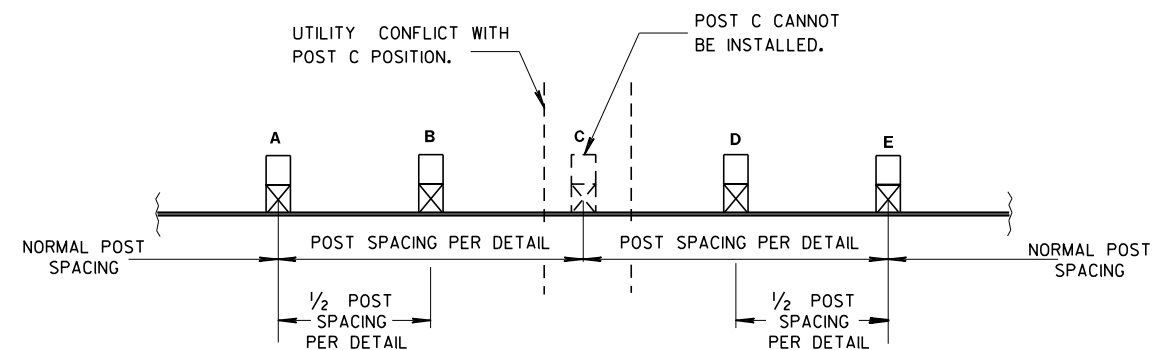
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES
PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND
SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION
DISTANCE OF THE BARRIER.



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017

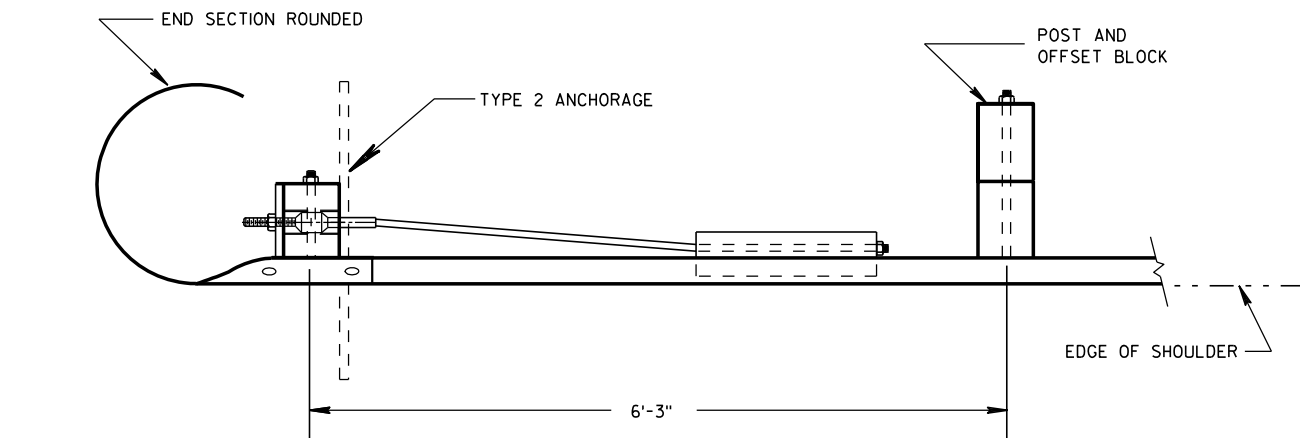
DATE

FHWA

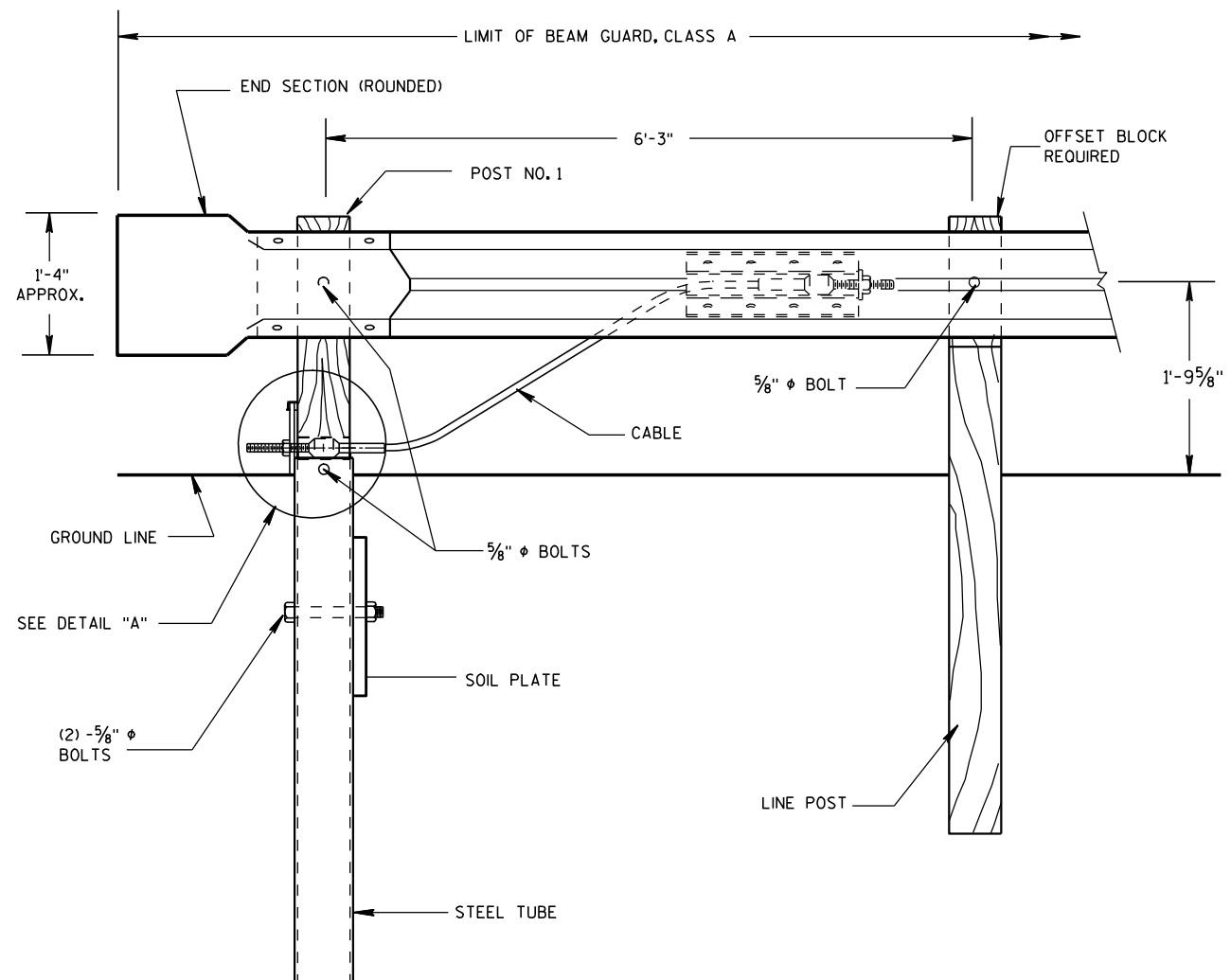
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR



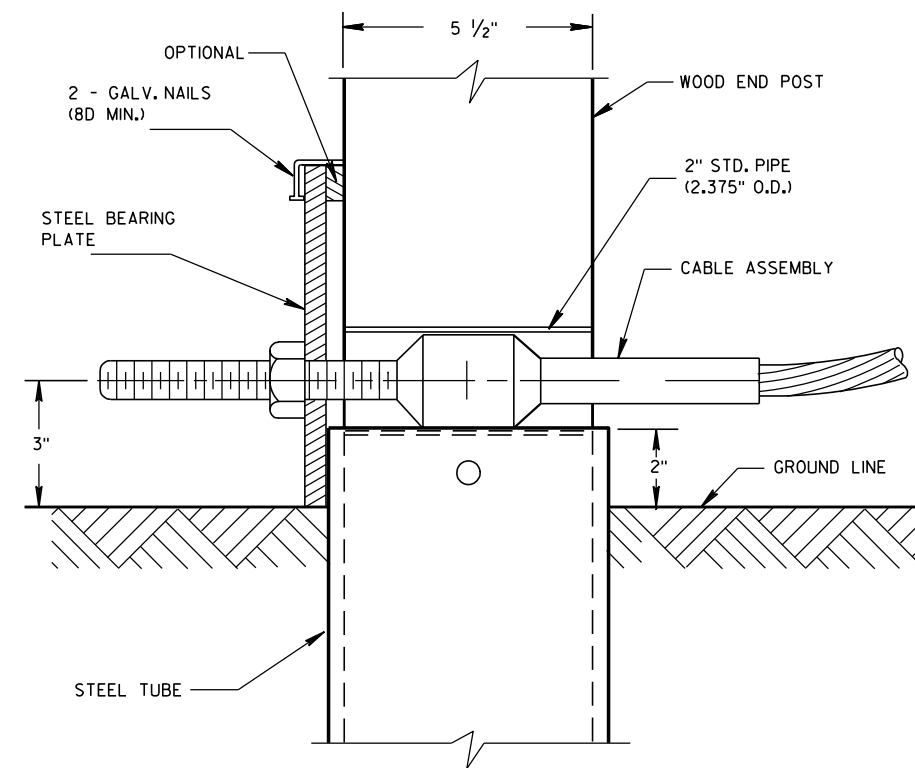
PLAN VIEW



FRONT VIEW

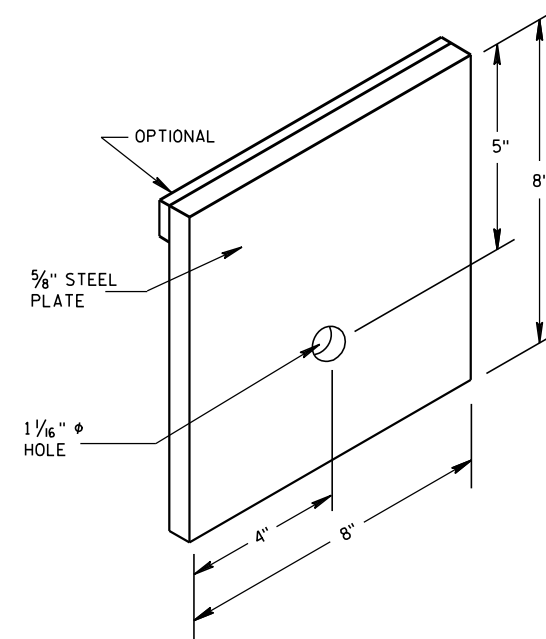
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



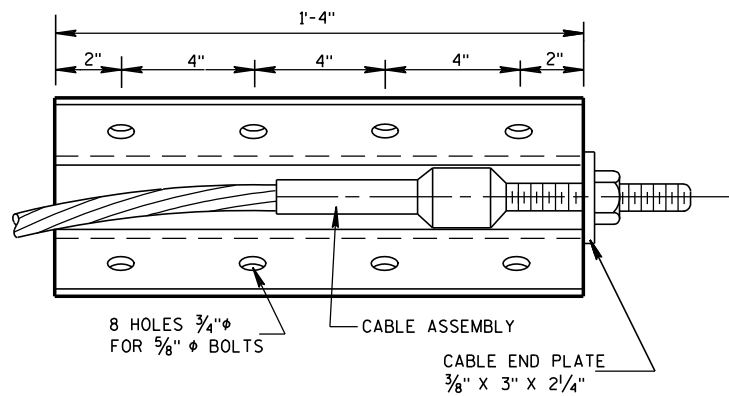
DETAIL "A"

POST NO. 1

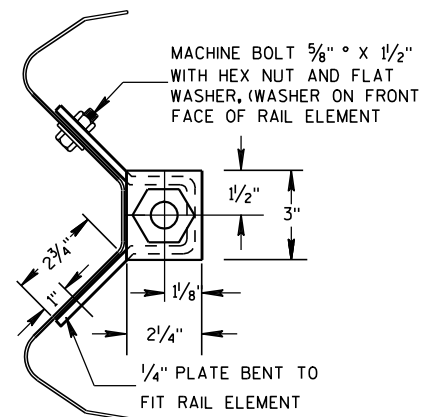


STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

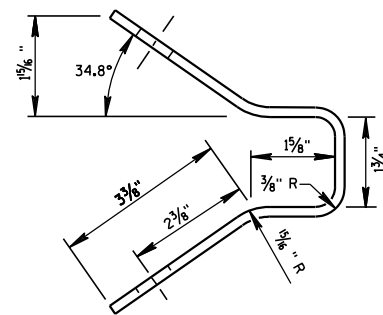


FRONT VIEW

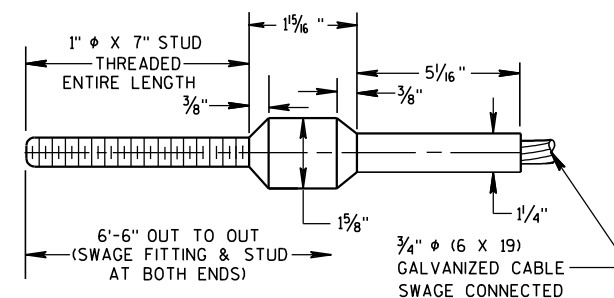


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP A MINIMUM BREAKING STRENGTH OF 40,000 LB (TIGHTEN UNTIL TAUT)

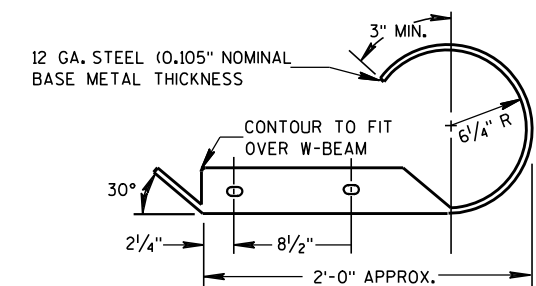
GENERAL NOTES

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

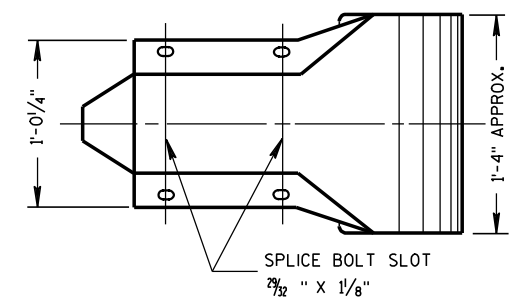
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

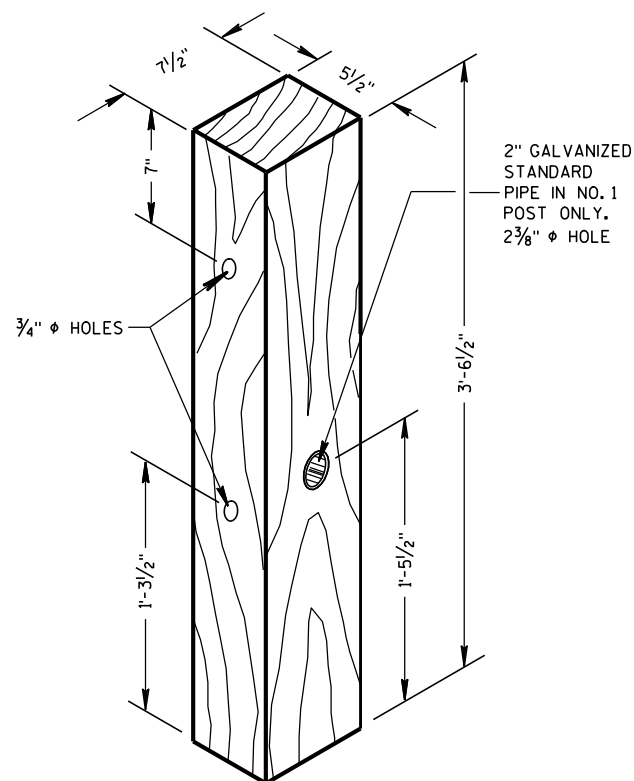
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE, WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



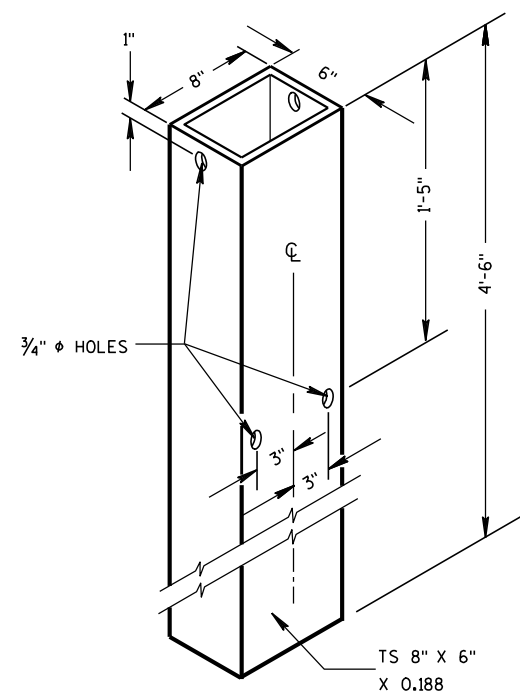
PLAN VIEW



FRONT VIEW
W BEAM END SECTION ROUNDED

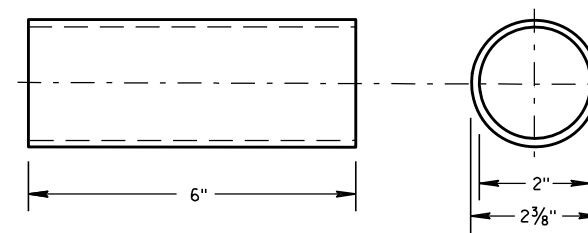


WOOD BREAKAWAY POST



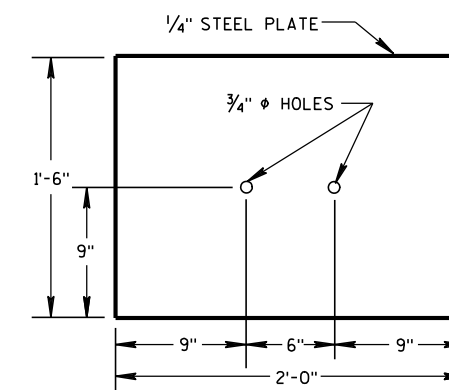
STEEL TUBE

STEEL TUBE SHALL CONFORM TO REQUIREMENTS OF ASTM A500



BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



SOIL PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

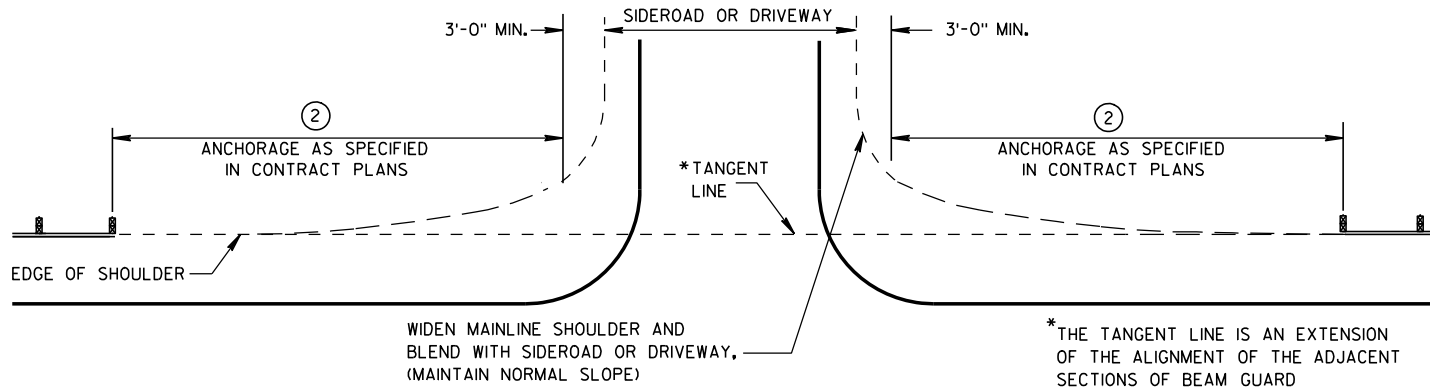
APPROVED

8/21/2007

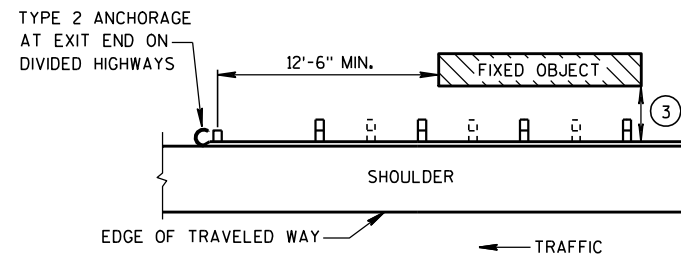
DATE

FHWA

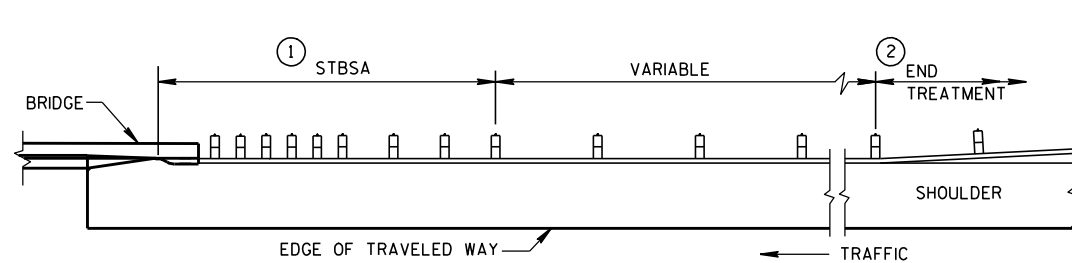
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



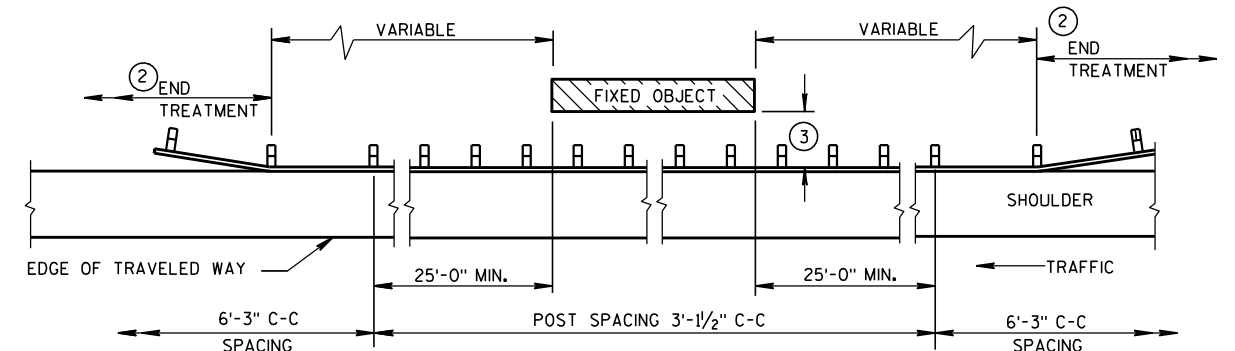
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES

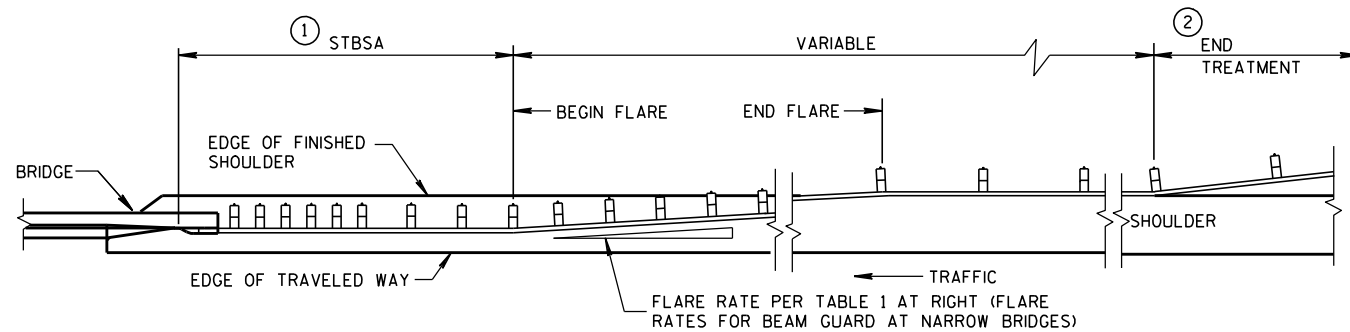


BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1



BEAM GUARD AT NARROW BRIDGES (FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

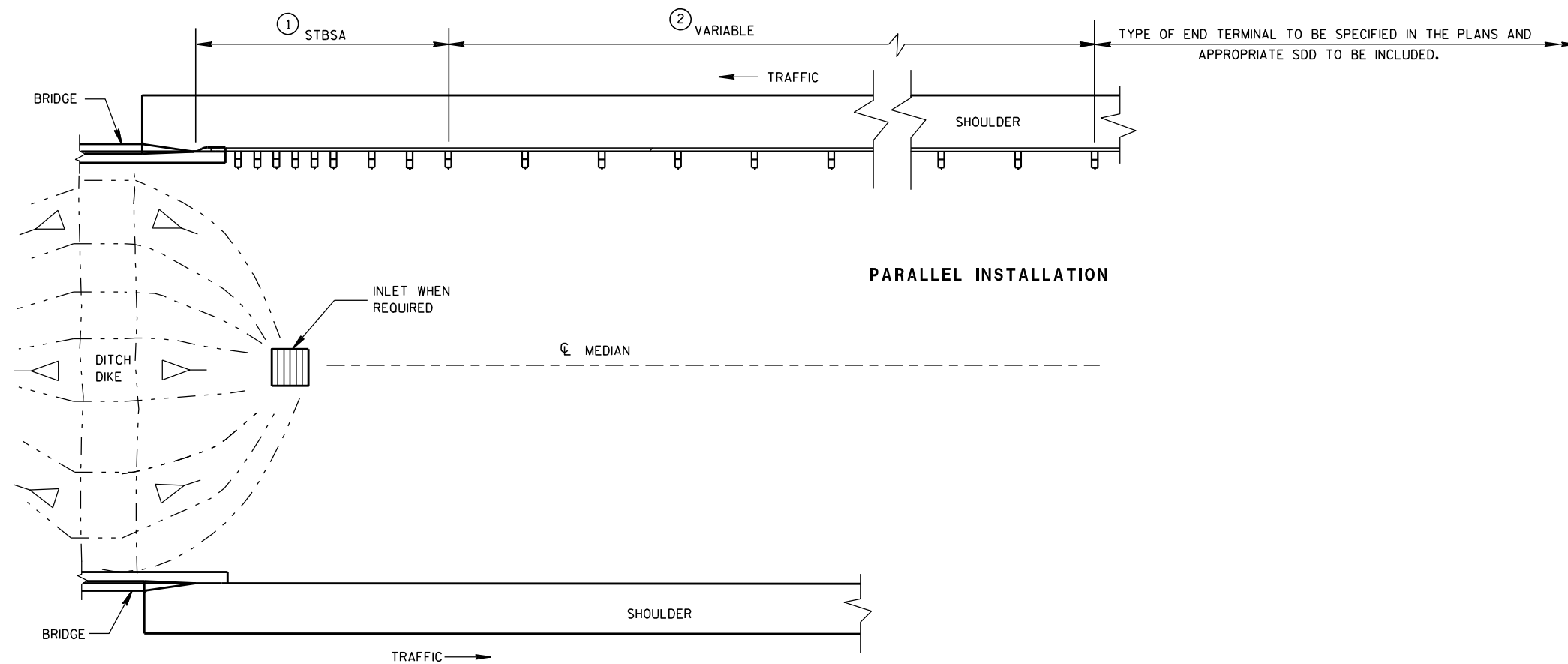
- STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1 1/2"
4'-6"	6' - 3"

STEEL PLATE BEAM GUARD
CLASS "A"
AT BRIDGES, OBSTACLES
AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD
CLASS "A" AT
MEDIAN APPROACH TO BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-21-07
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

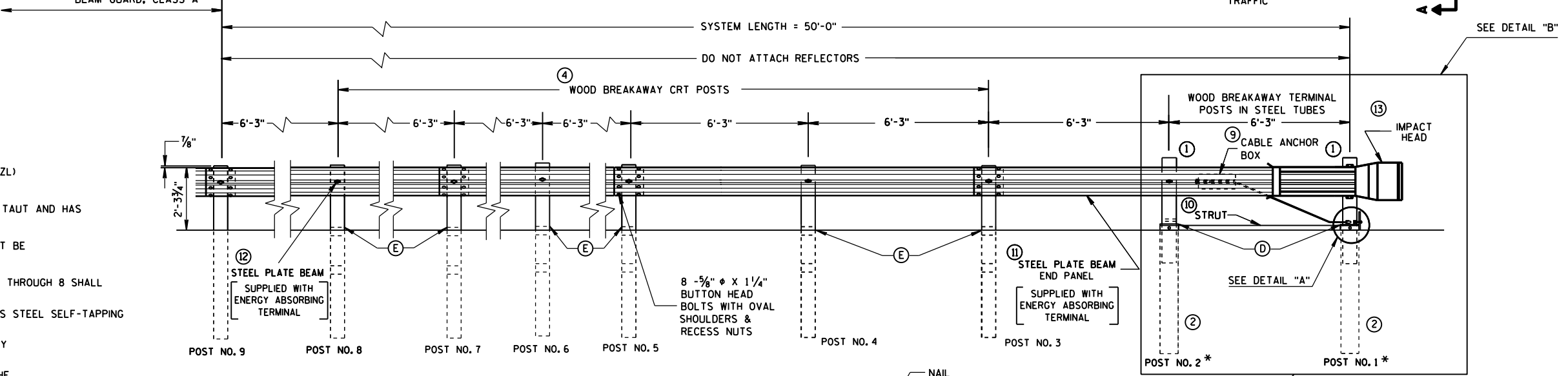
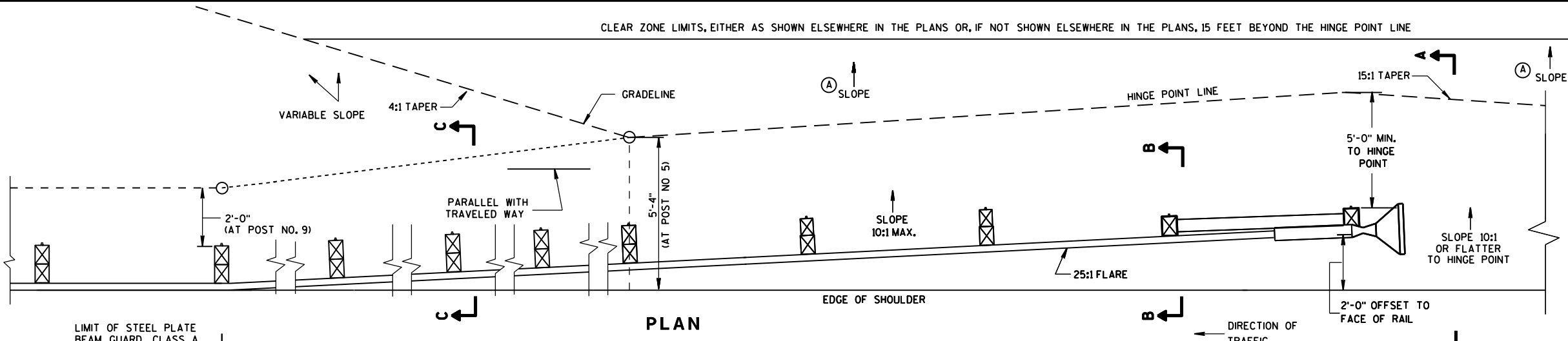
FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.
- (F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

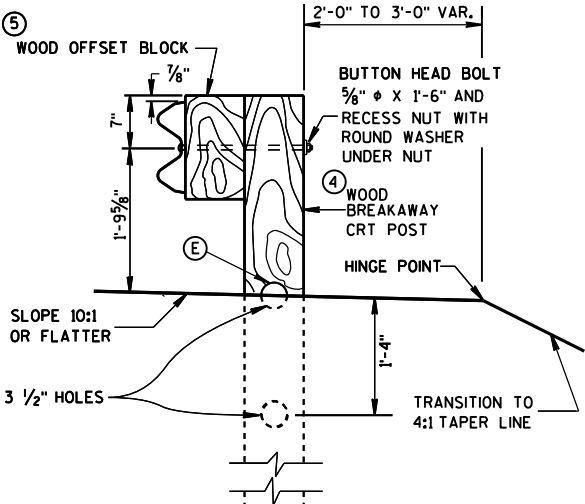
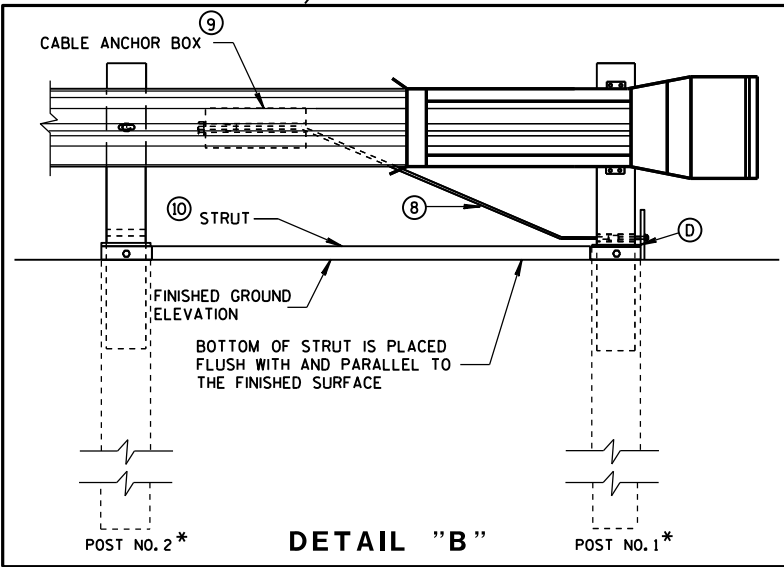
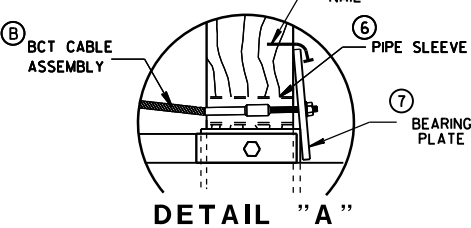
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

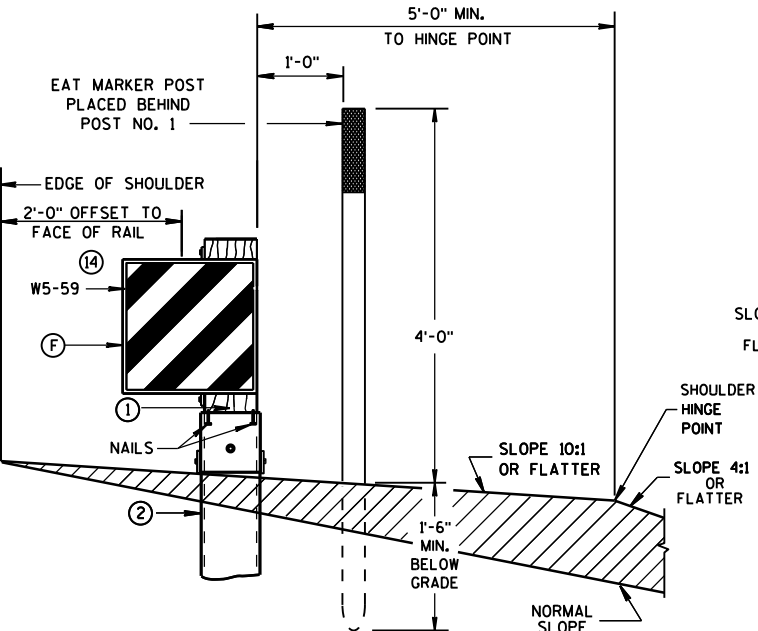
*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.



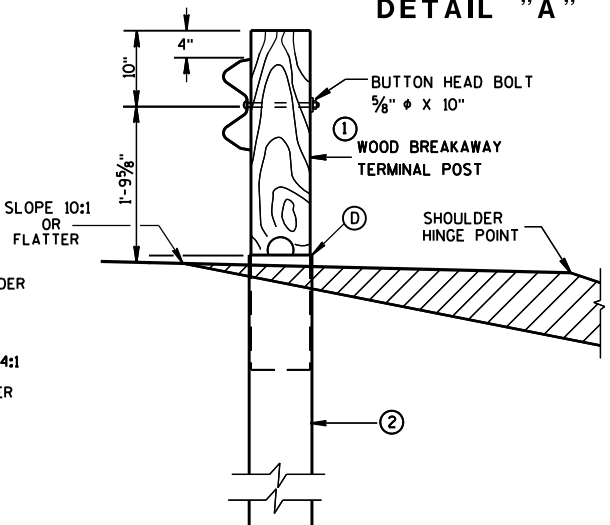
ELEVATION



SECTION C-C
TYPICAL AT POST NOS. 6, 8



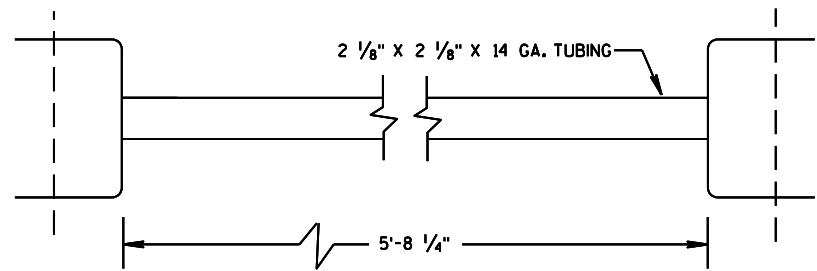
SECTION A-A
TYPICAL AT POST NO. 1*



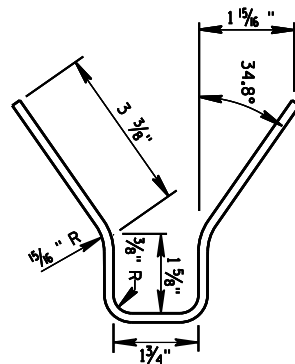
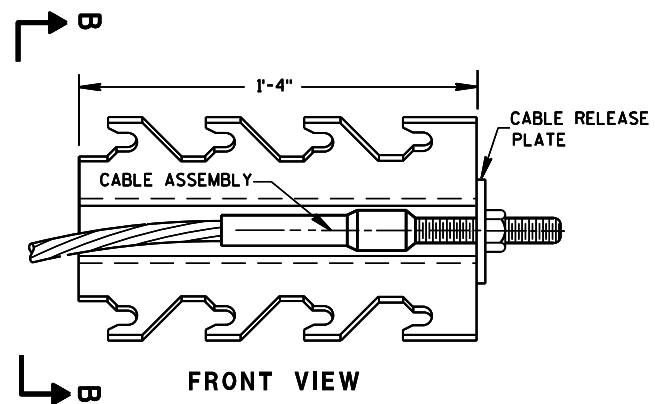
SECTION B-B
TYPICAL AT POST NO. 2*

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

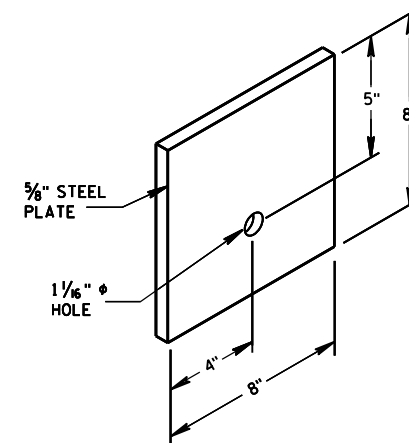


⑩ STRUT DETAIL



SECTION B-B

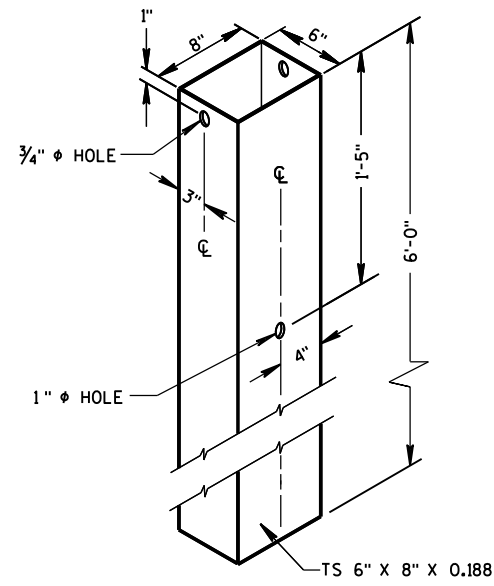
⑨ CABLE ANCHOR BOX



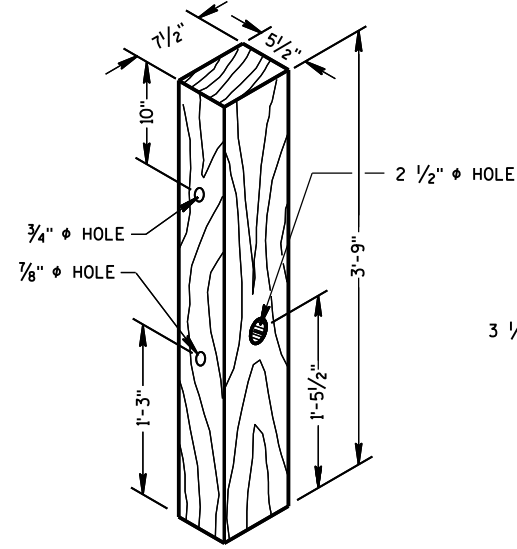
⑦ STEEL BEARING PLATE

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

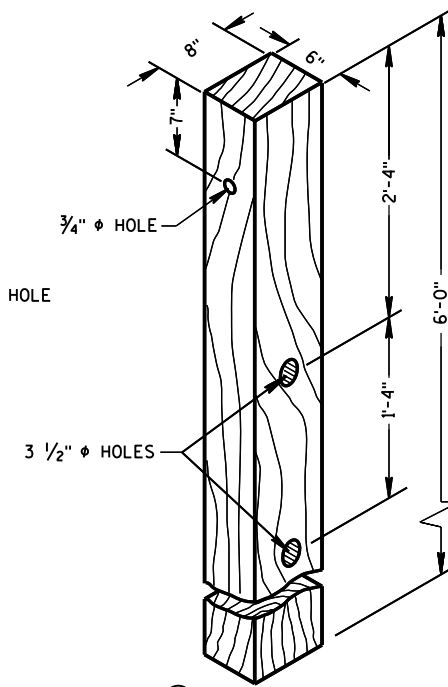
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



② **72" STEEL TUBE**
(POSTS NO. 1-2)



① **TERMINAL POST**

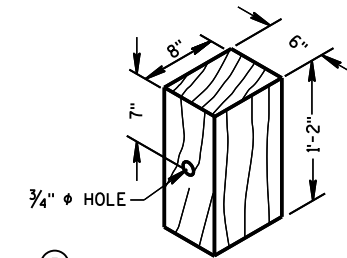


④ **CRT POST**
(POSTS NO'S 5-8)

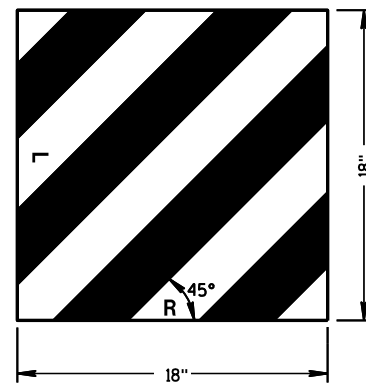
WOOD BREAKAWAY POSTS

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



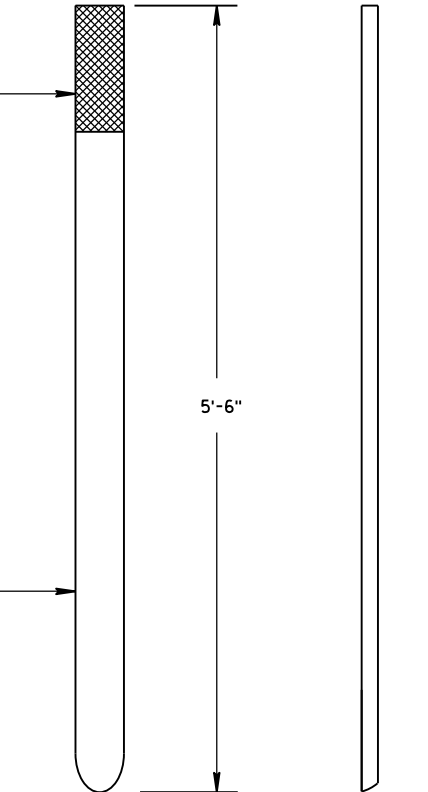
⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ **REFLECTIVE SHEETING DETAILS**

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

E.A.T. MARKER
POST (YELLOW)
SEE APPROVED
PRODUCTS LIST

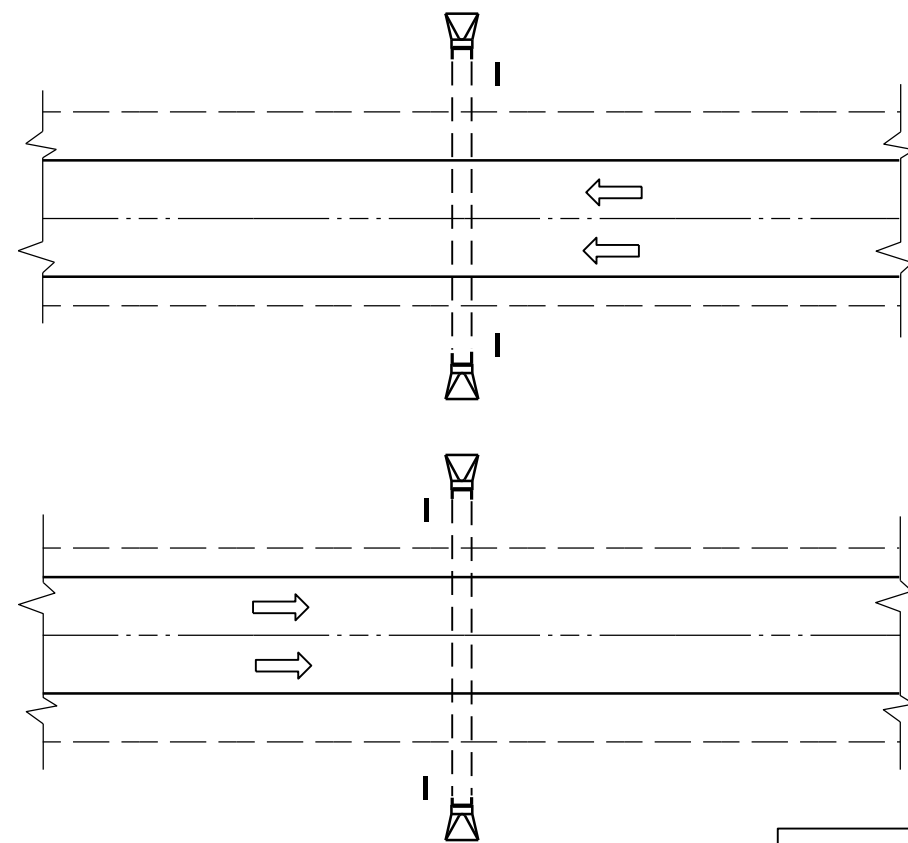


FRONT VIEW SIDE VIEW
E.A.T. MARKER POST

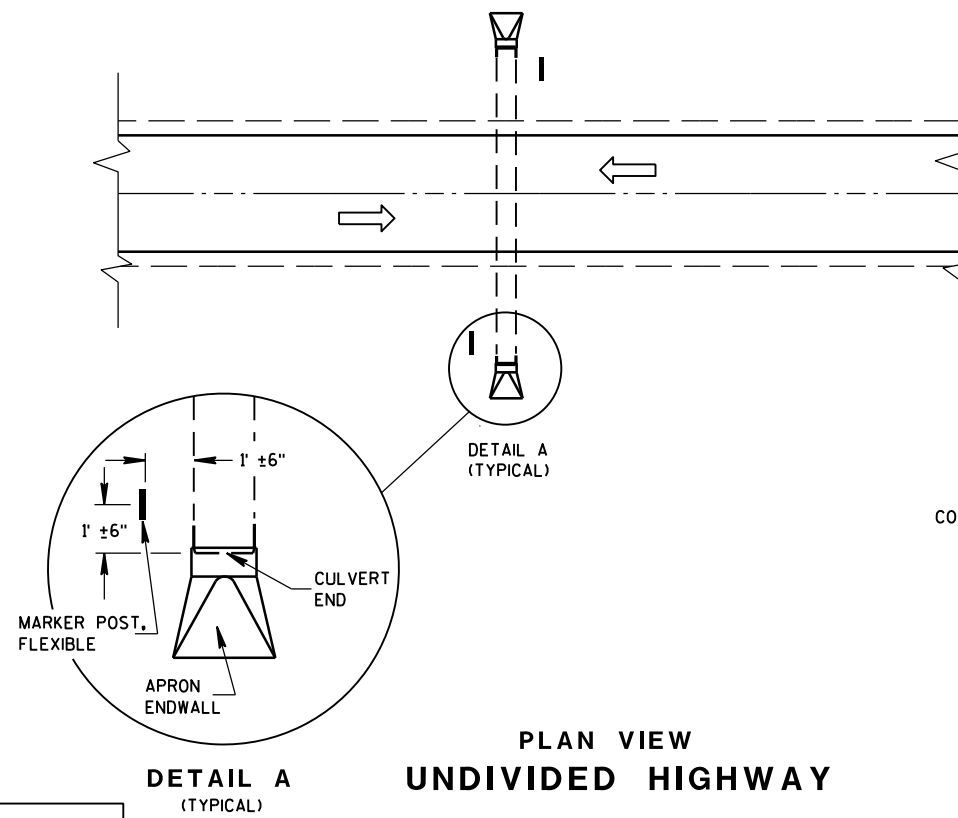
**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

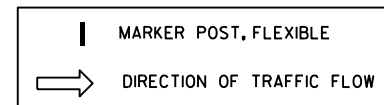
APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW
DIVIDED HIGHWAY



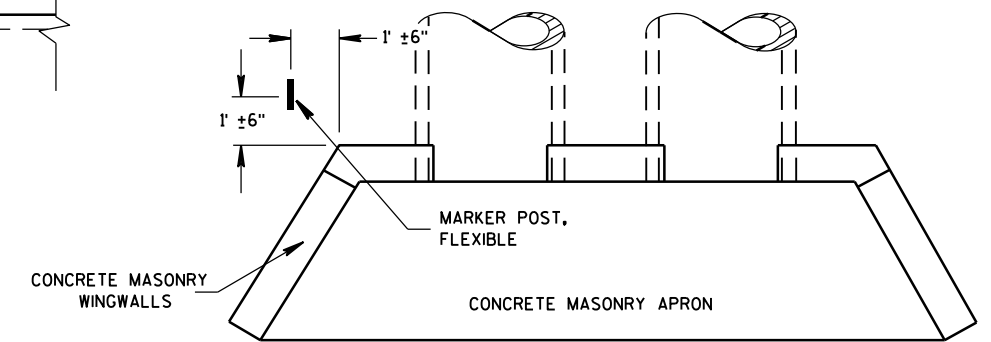
PLAN VIEW
UNDIVIDED HIGHWAY



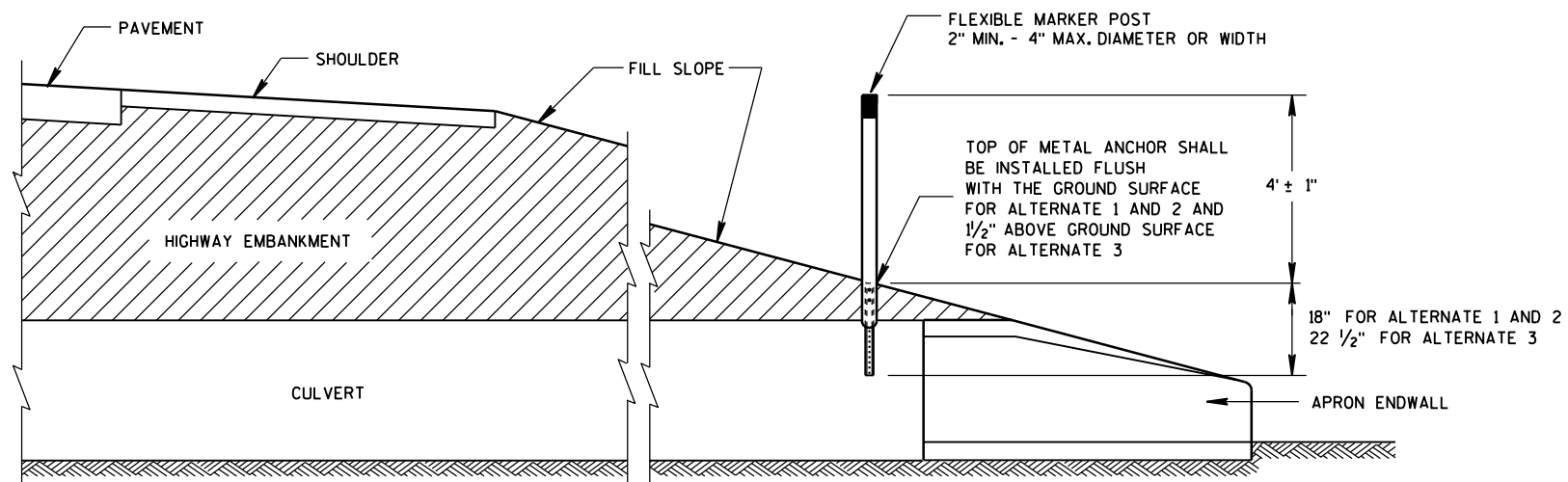
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



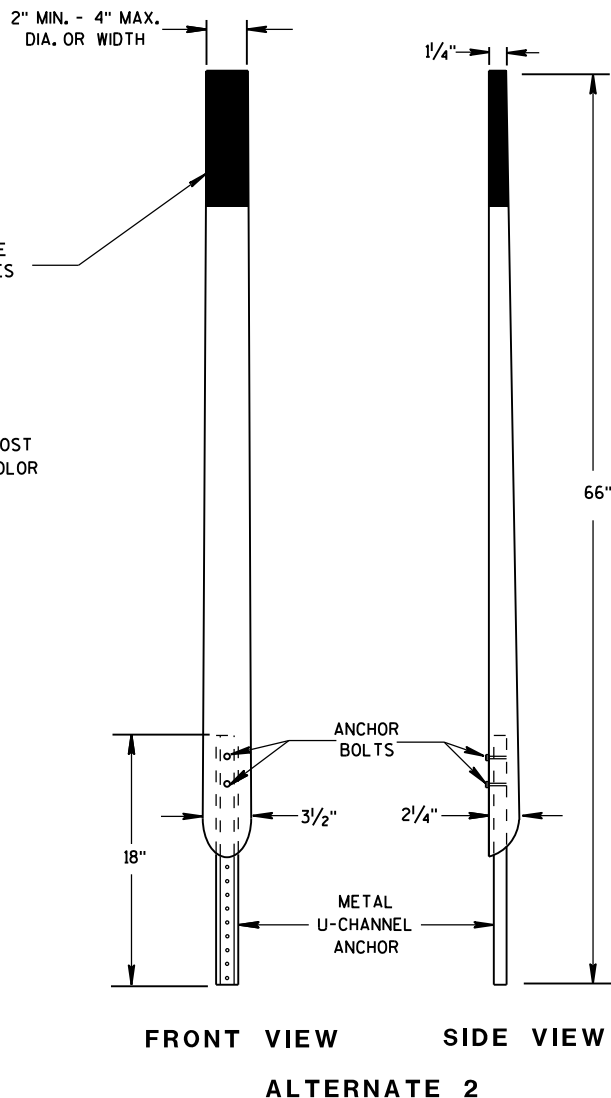
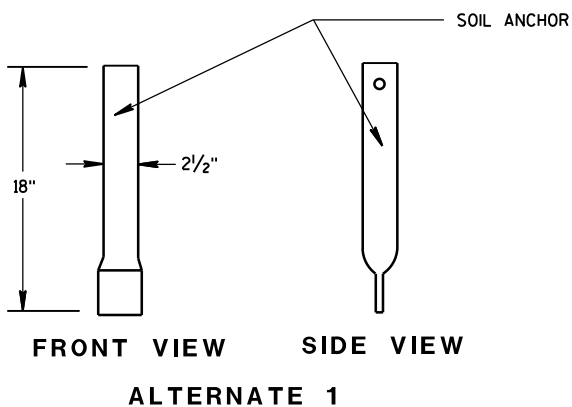
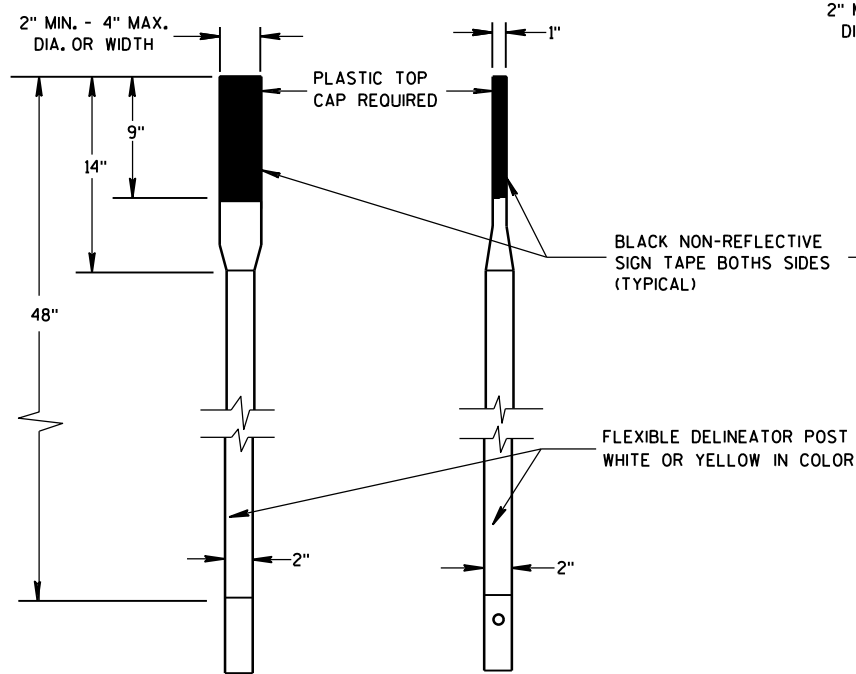
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



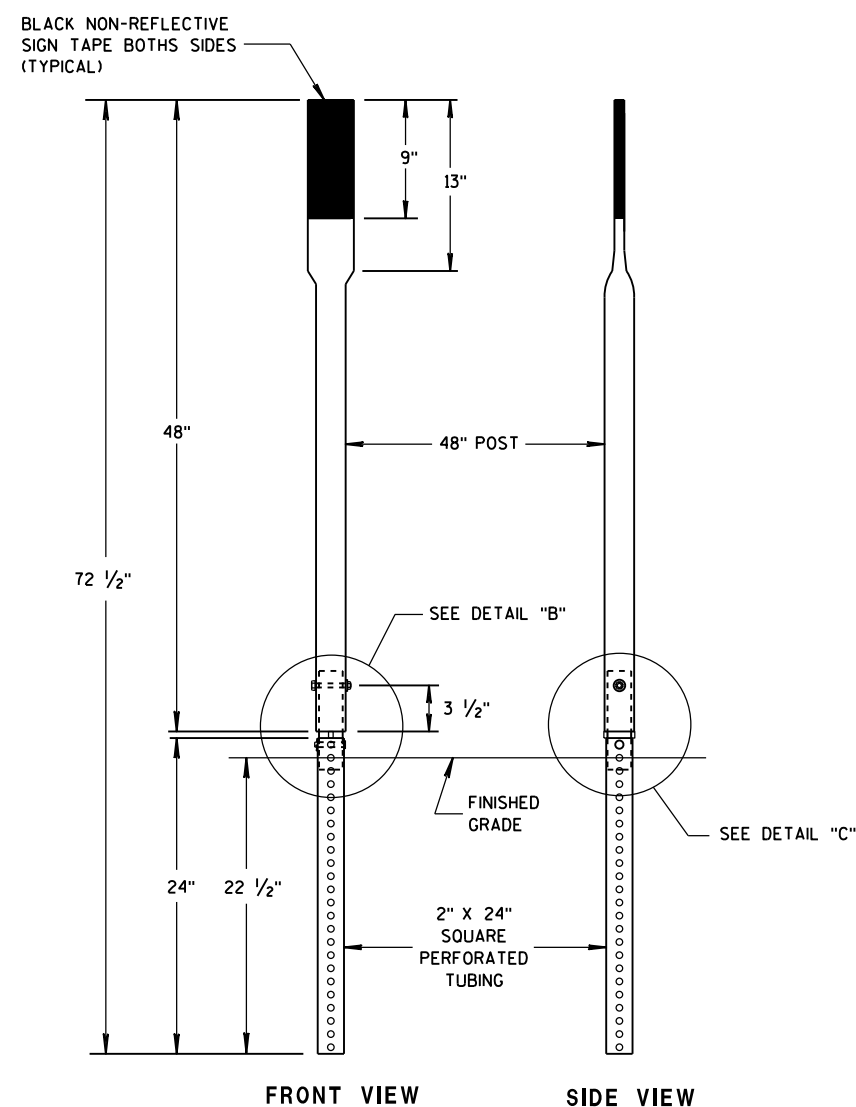
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

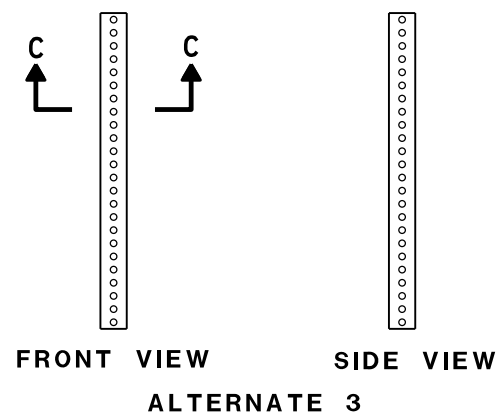
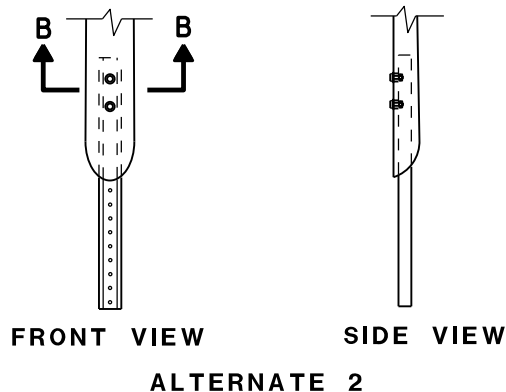
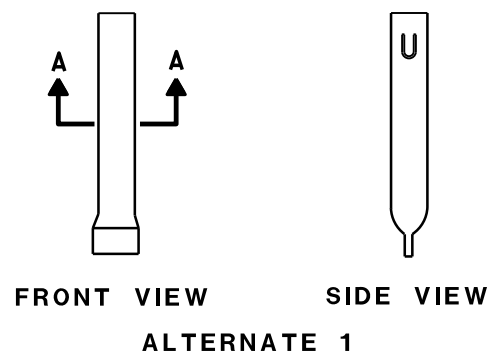
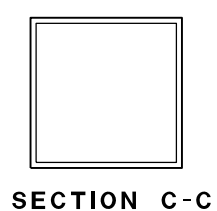
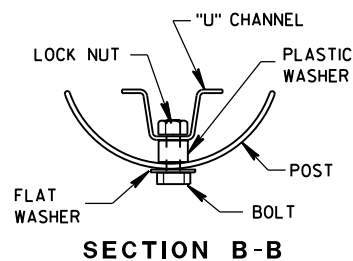
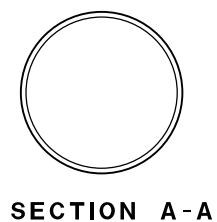
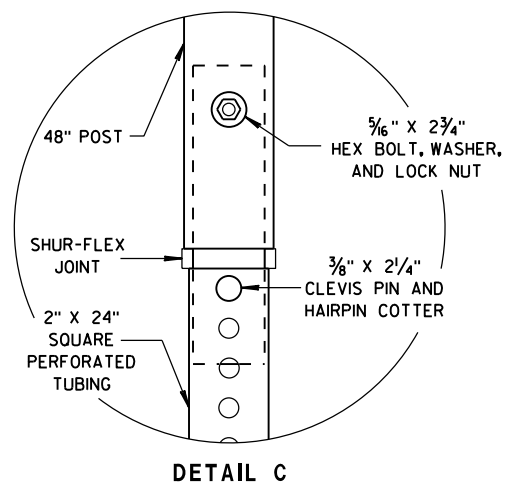
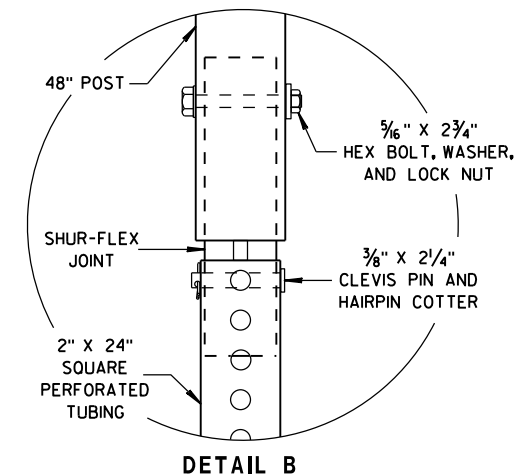
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FLEXIBLE MARKER POSTS



ALTERNATE 3

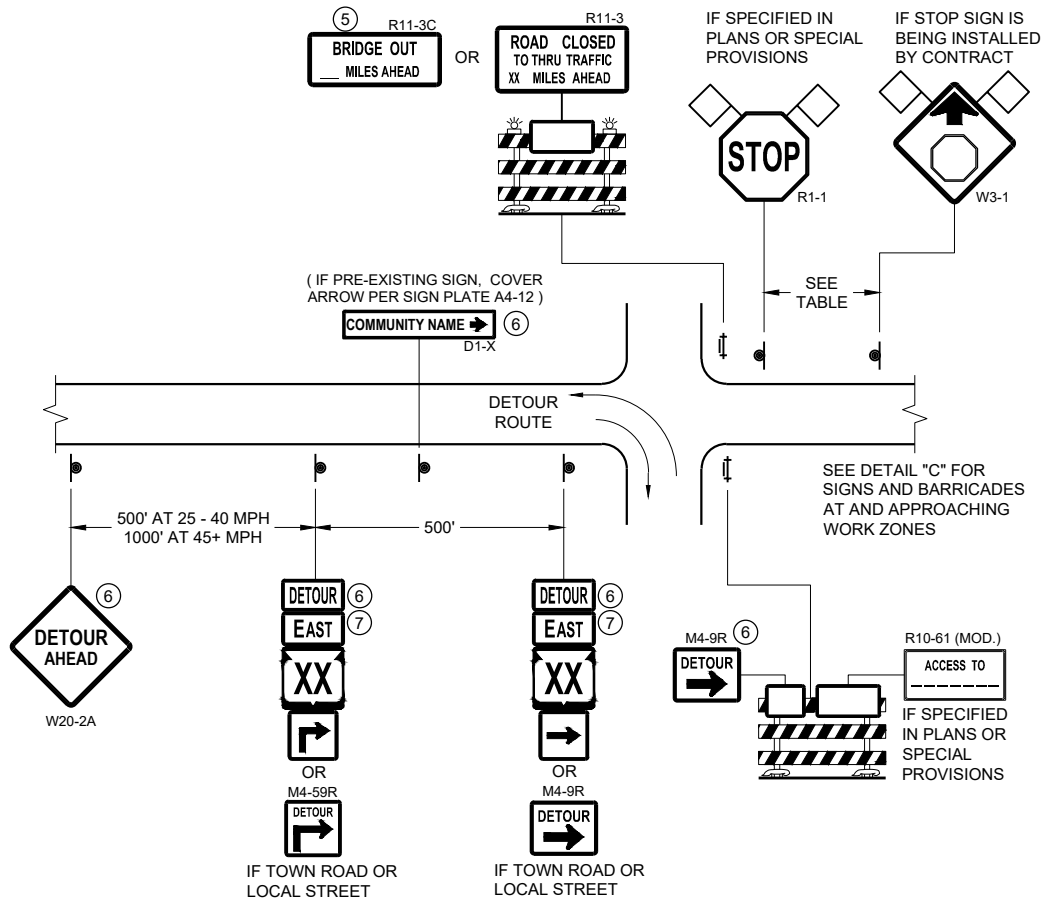


FLEXIBLE MARKER POST ANCHORS

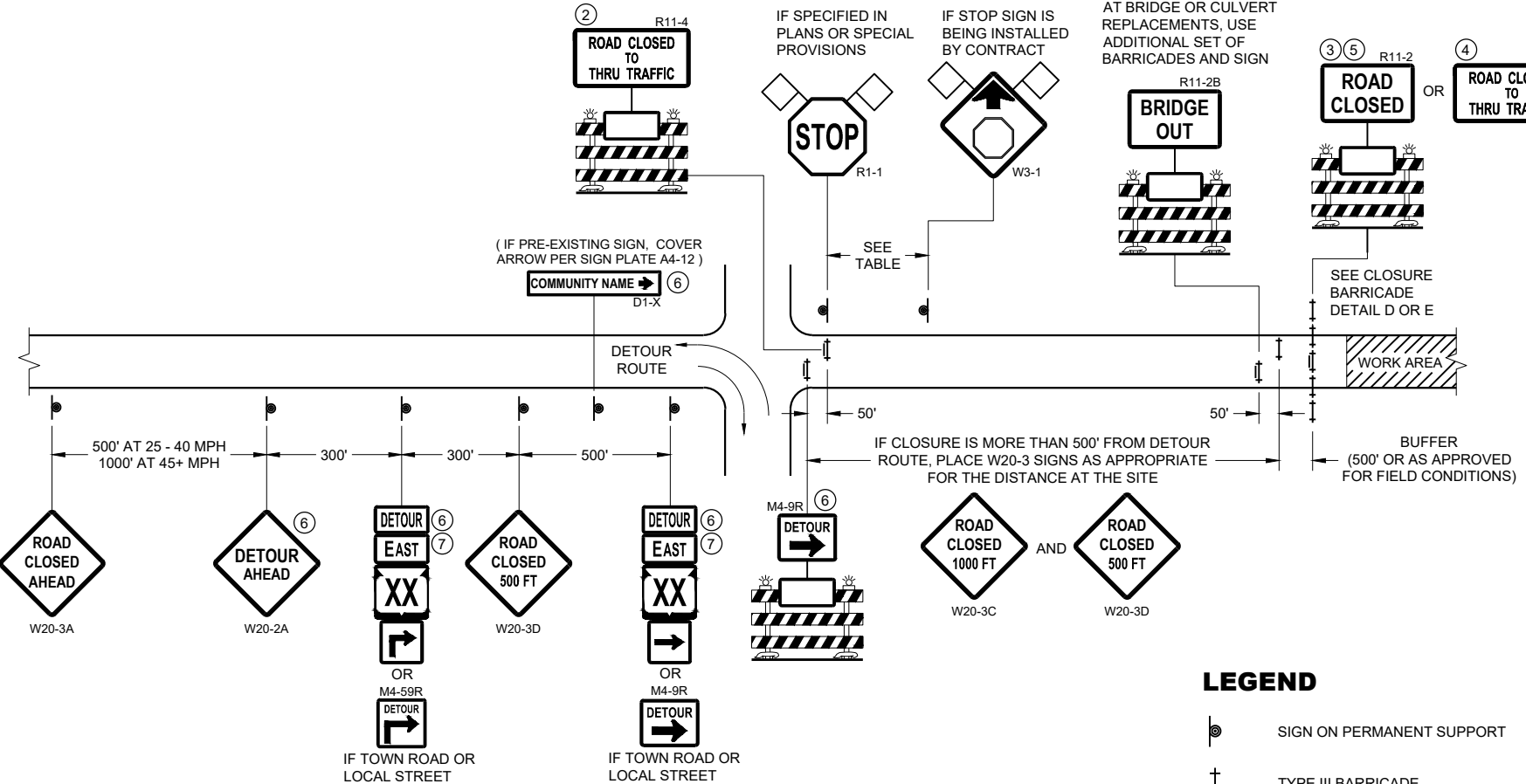
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



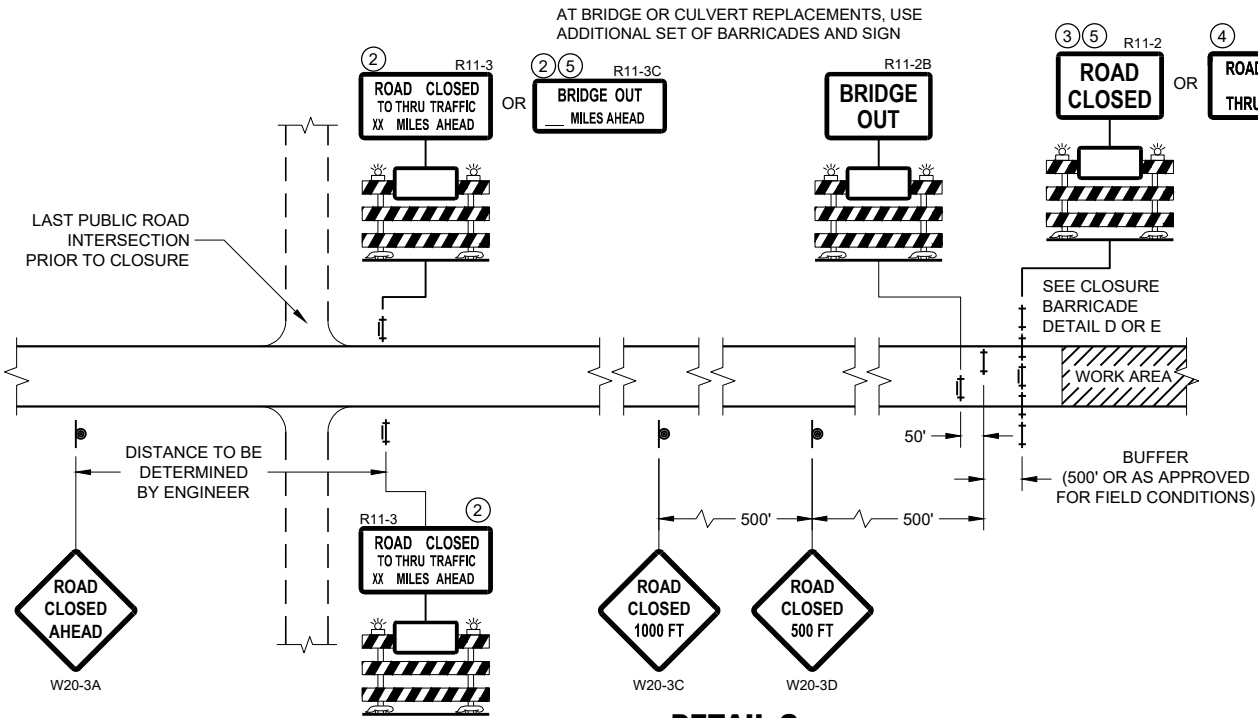
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- 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)

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- OR M05 - 1 OR M06 - 1

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

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



SEE SDD 15C2 - SHEET "a" FOR LEGEND

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:

LESS 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.

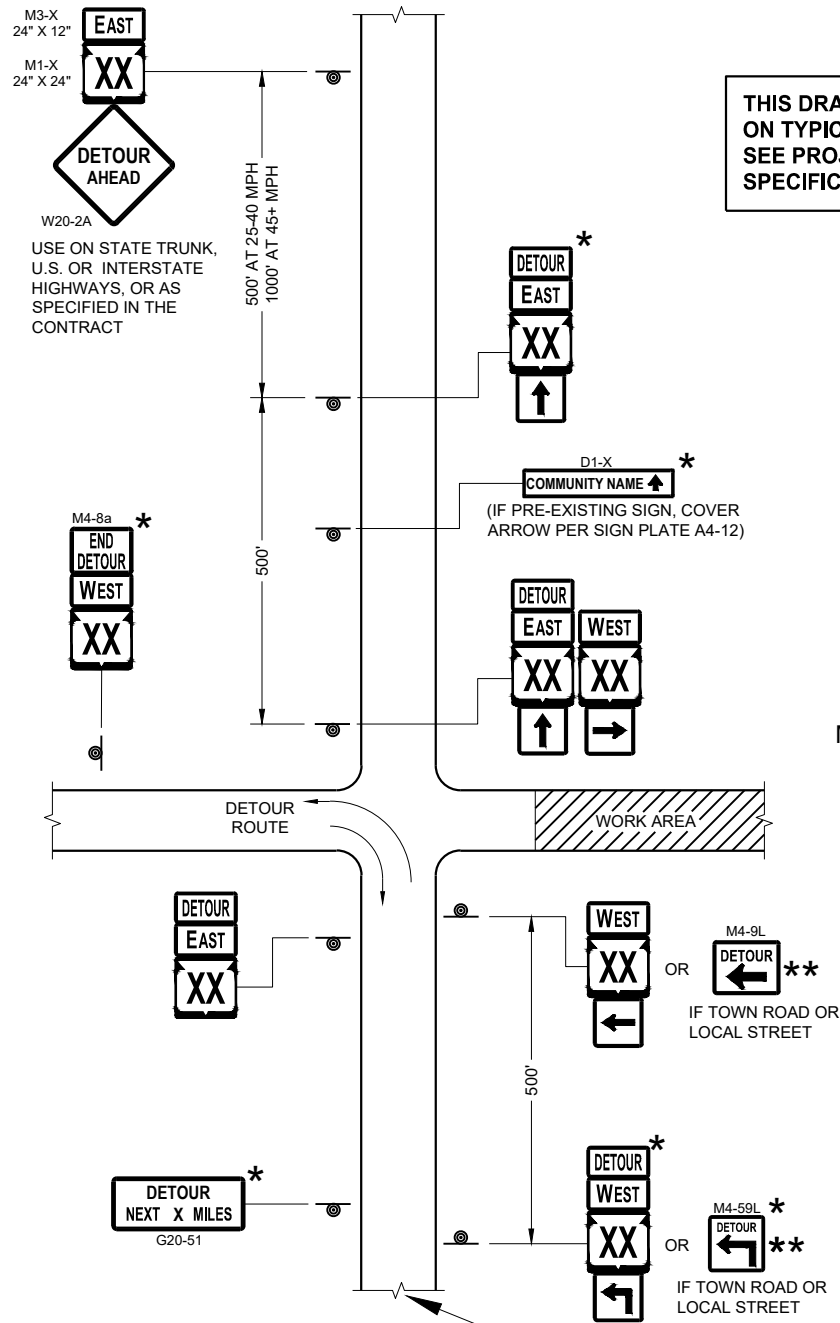
R1 - 1 SHALL BE 36" X 36"

- 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.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

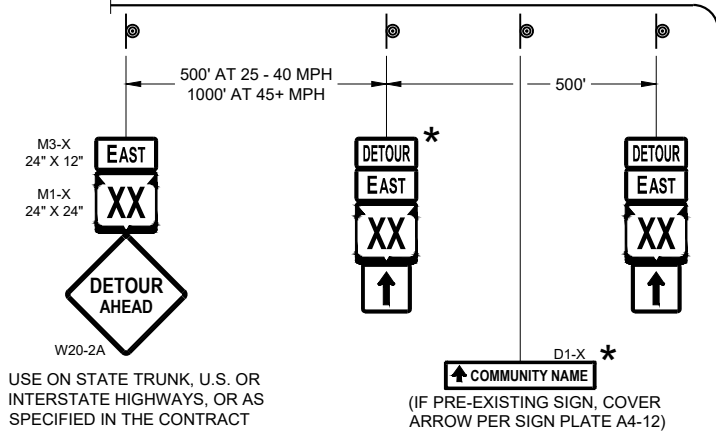
/S/ Andrew Heidtknecht
WORK ZONE ENGINEER



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

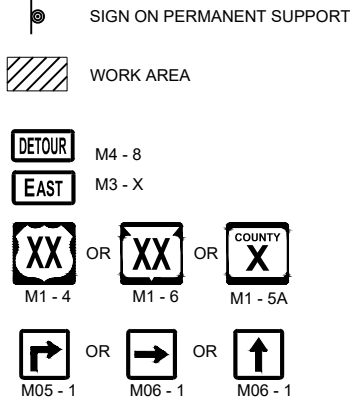
THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND



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.

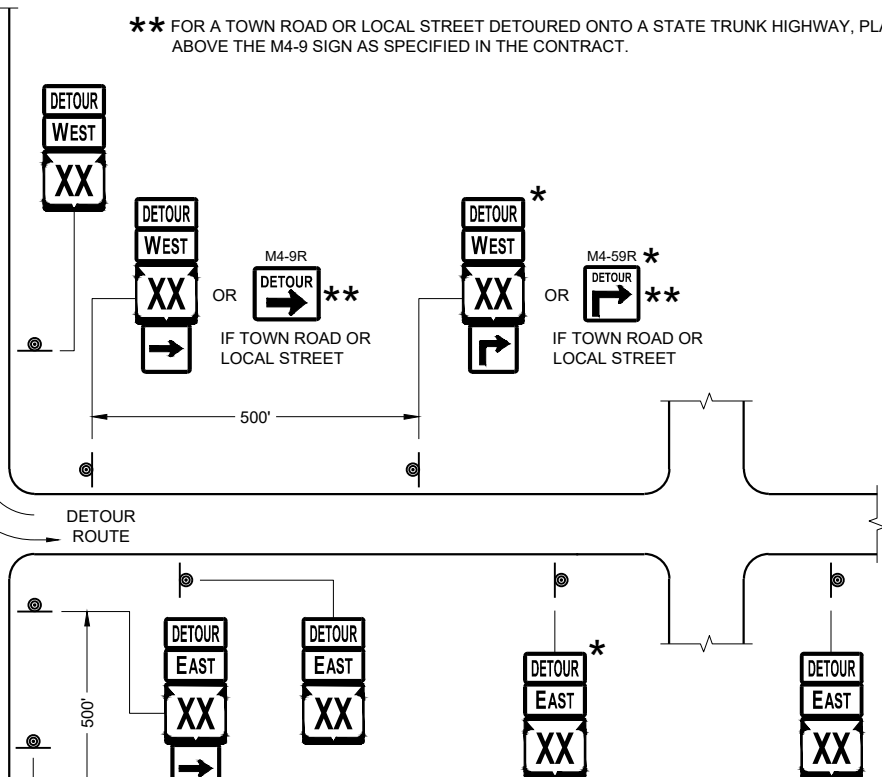
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"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.



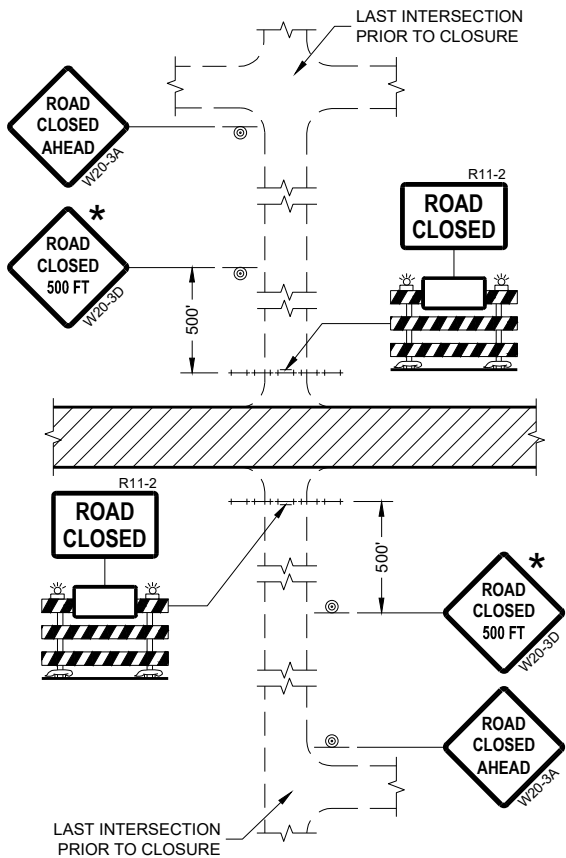
PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING
FOR MAINLINE CLOSURES

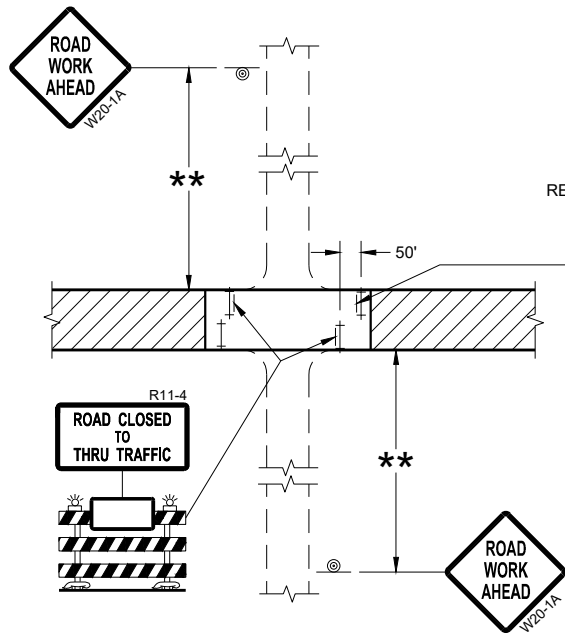
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

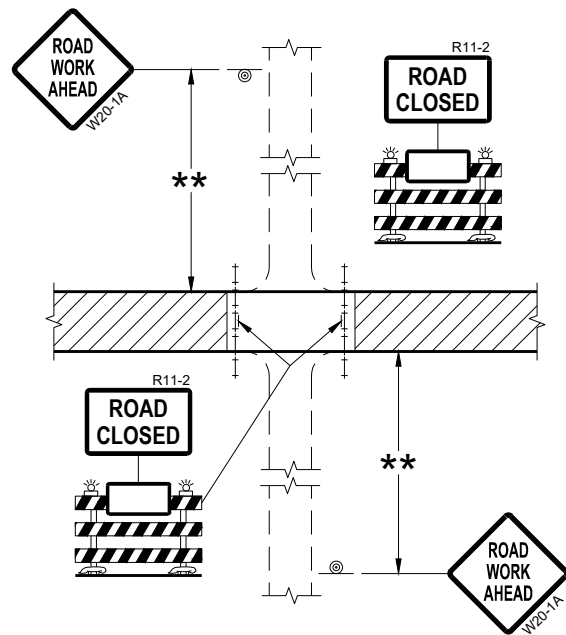
FHWA



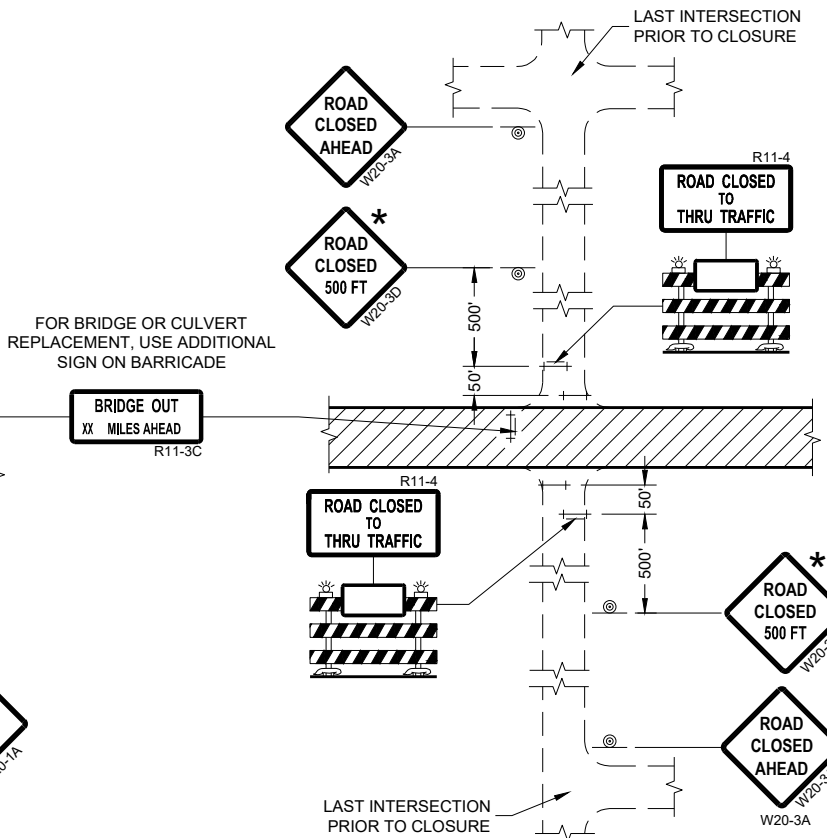
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

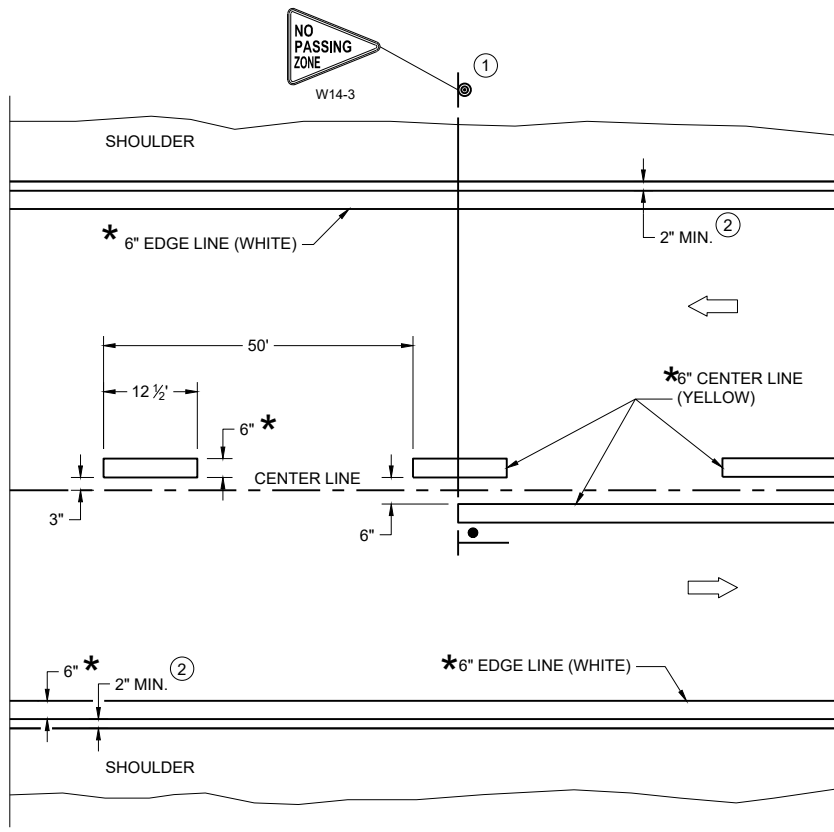
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

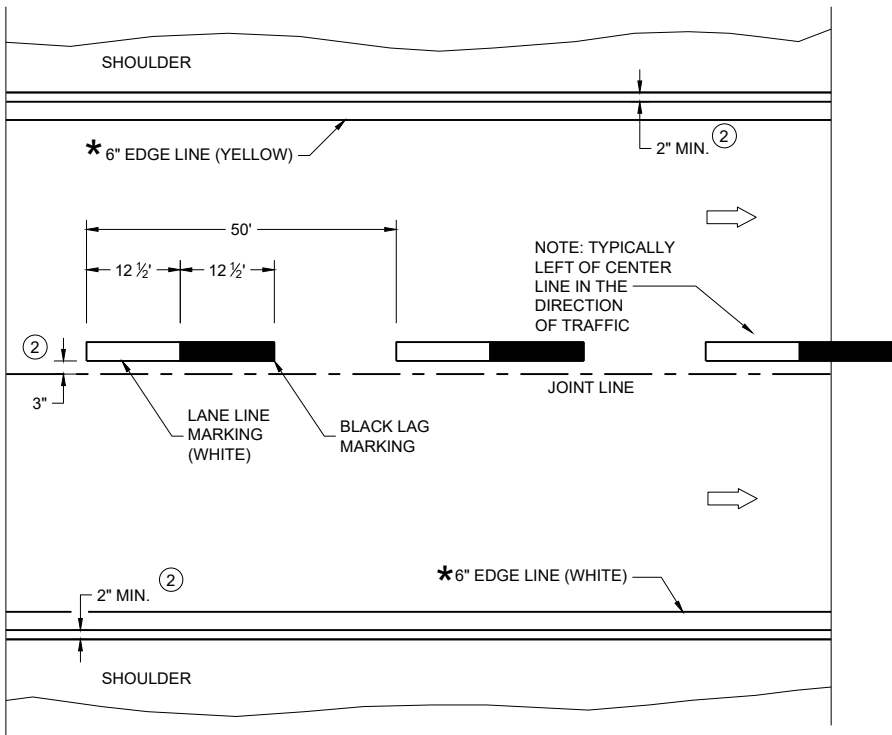
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

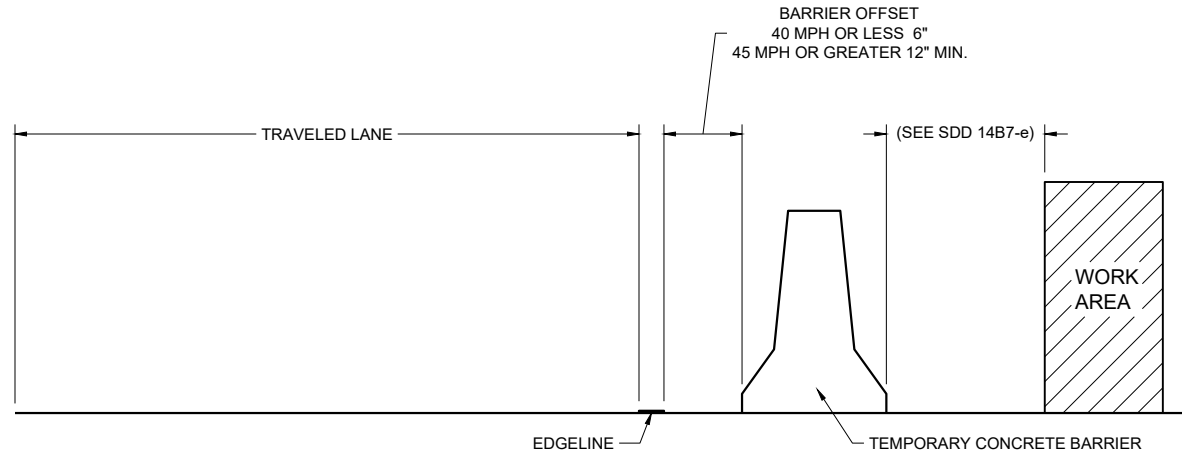
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



TEMPORARY BARRIER OFFSET FROM EDGE LINE

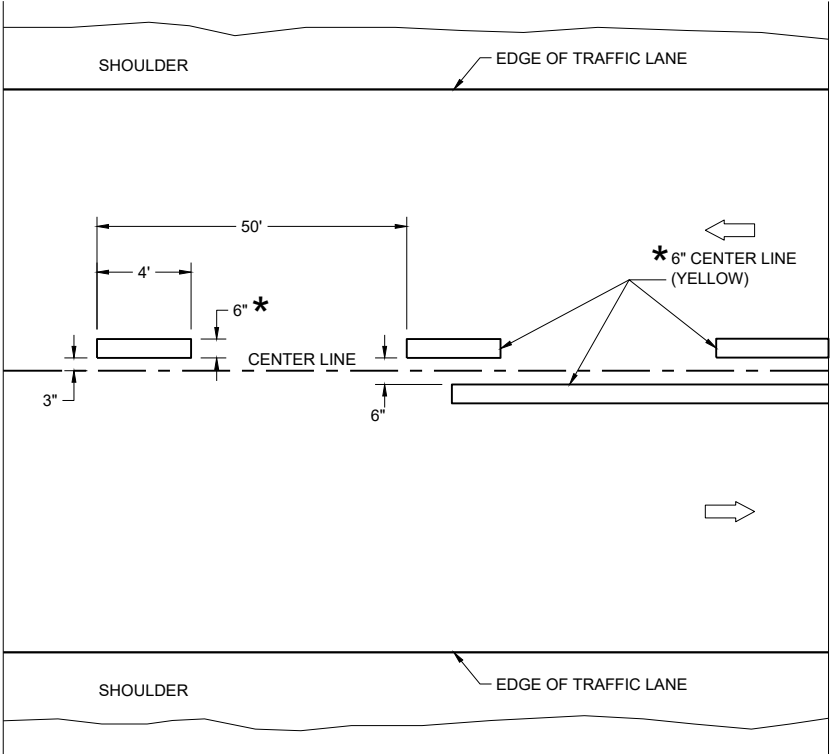
GENERAL NOTES

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

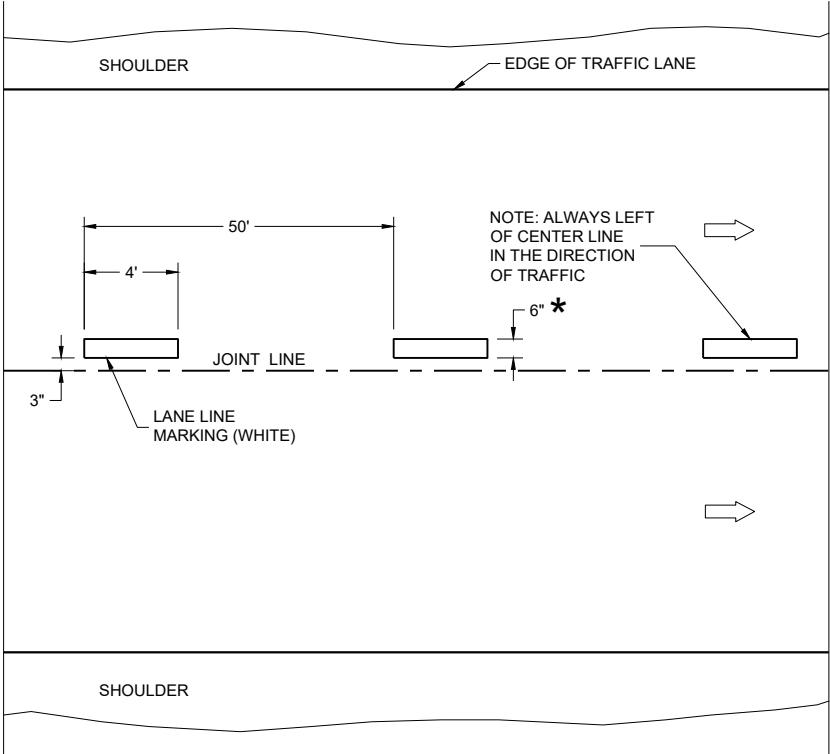
LEGEND

DIRECTION OF TRAFFIC

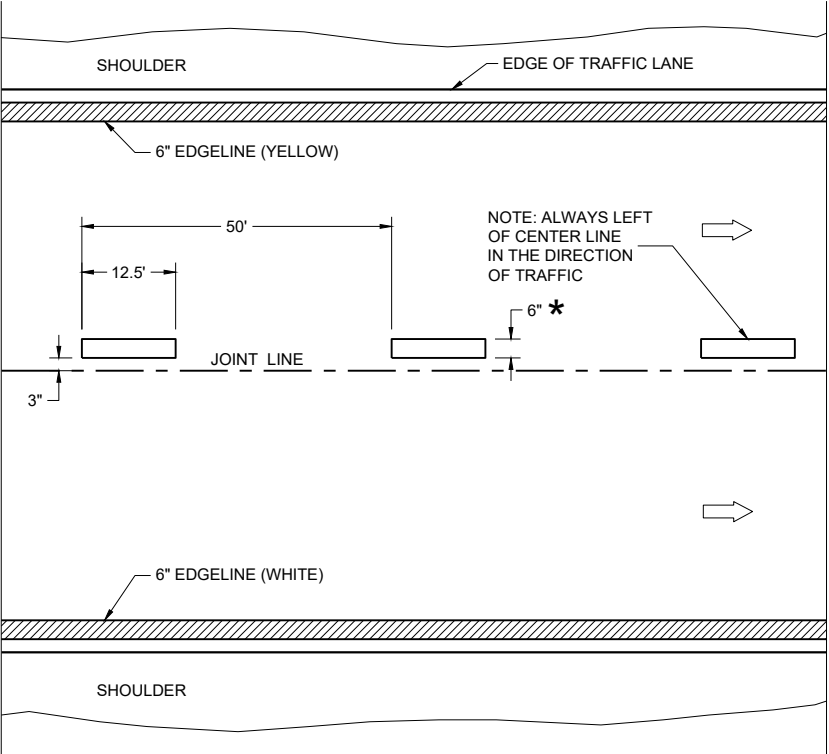
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



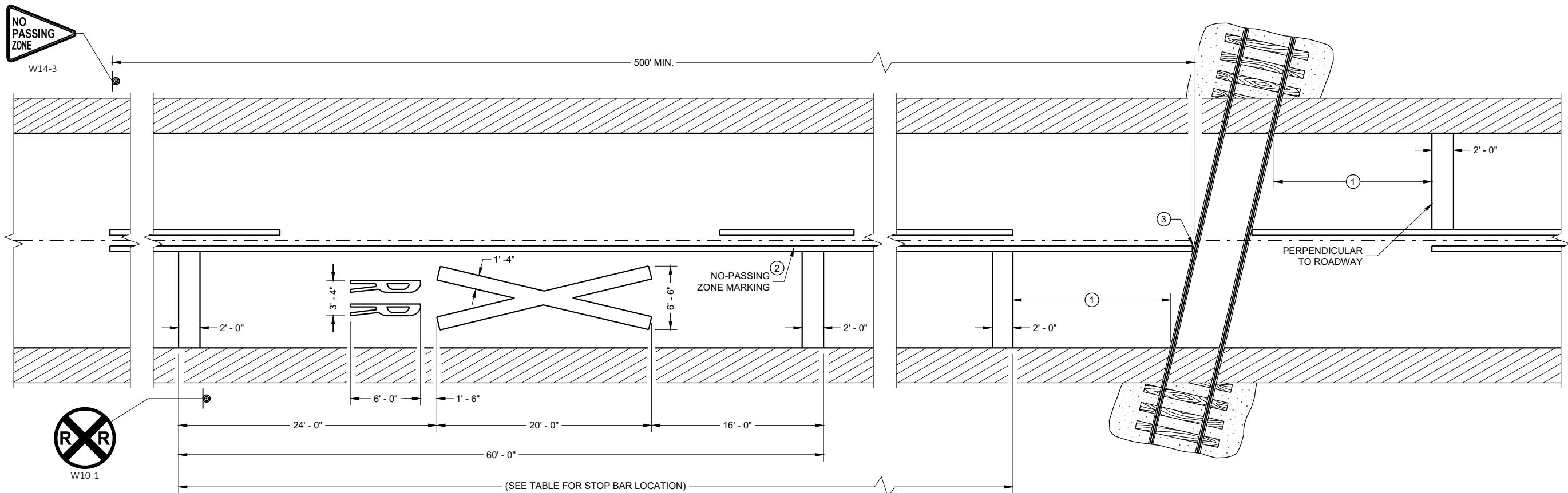
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



PAVEMENT MARKING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

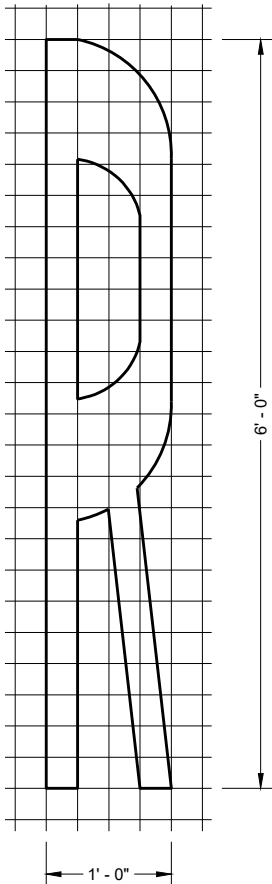
- ① PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

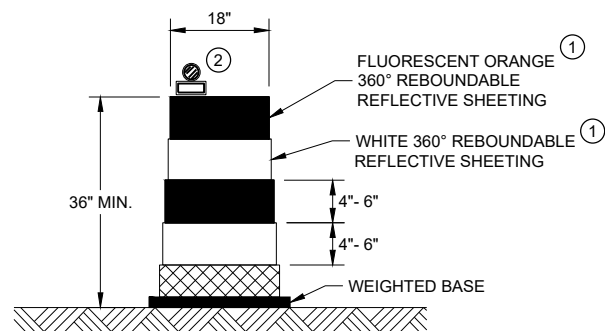


SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

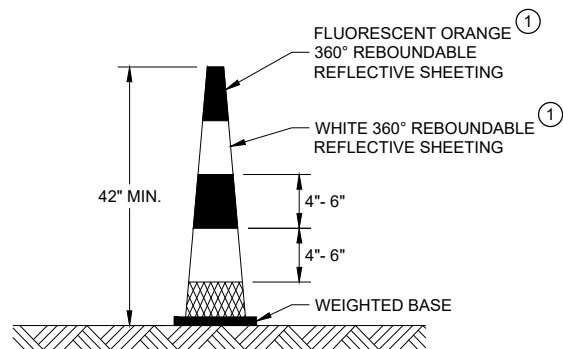
APPROVED
May 2023
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA



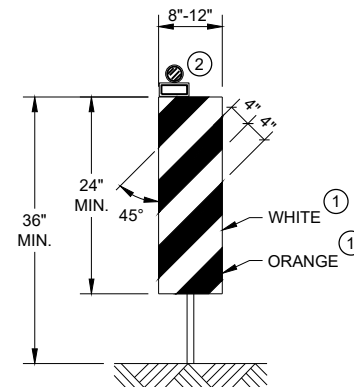
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



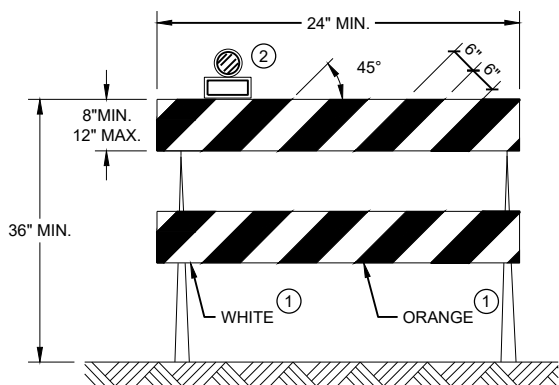
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



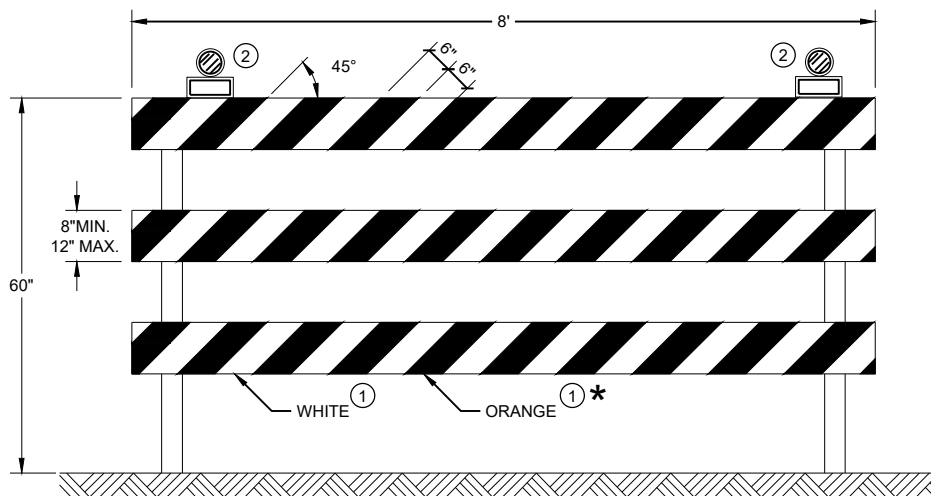
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

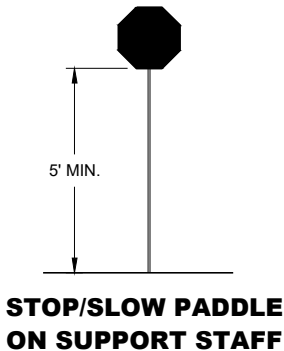
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

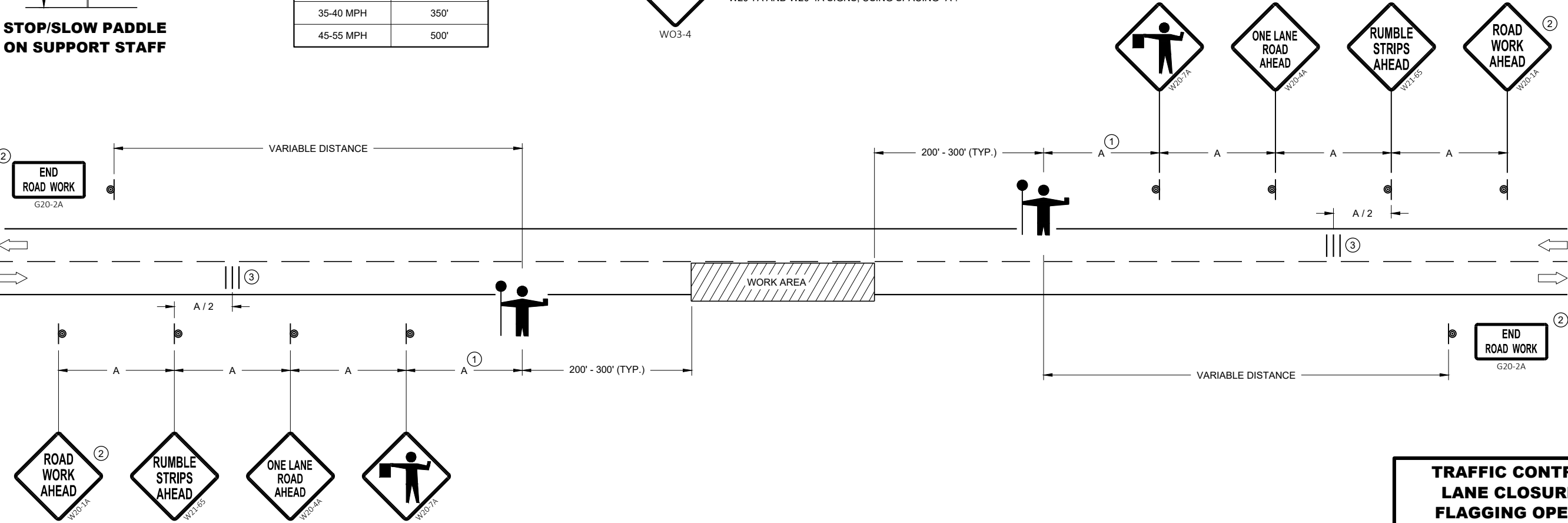


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

- V1

LEAD VEHICLE
- V2

MARKING VEHICLE
- V3

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

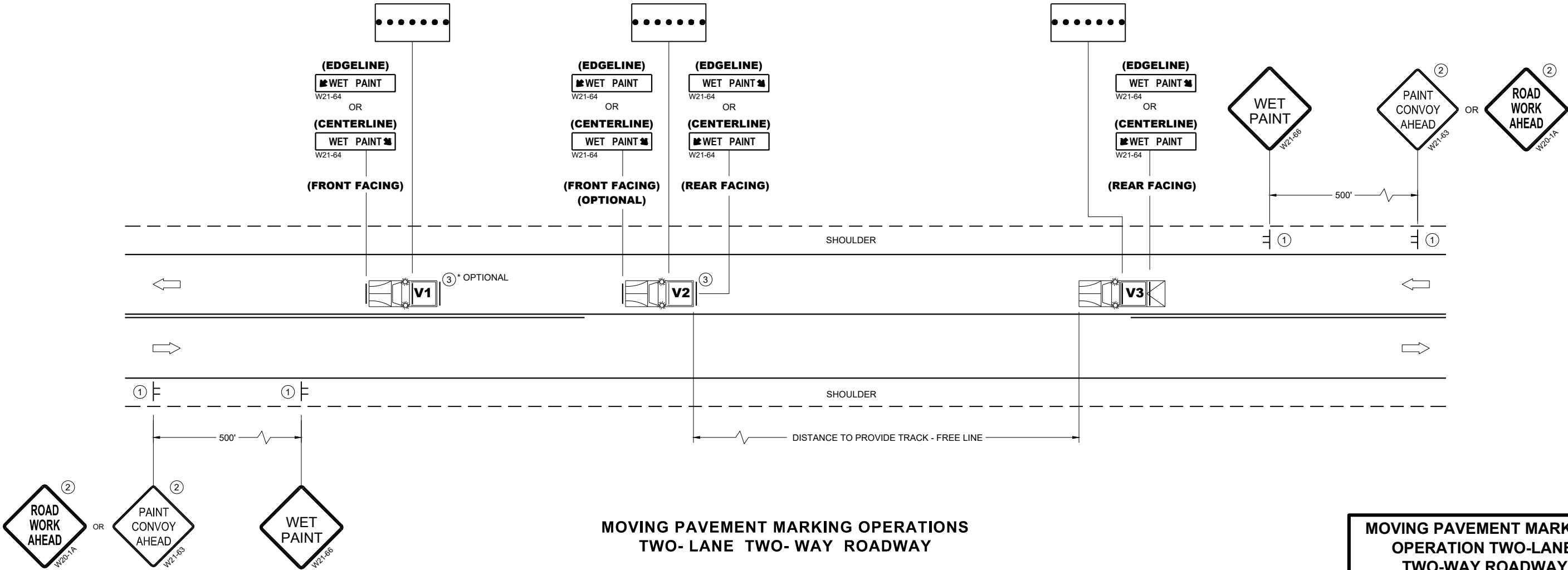
SIGN ON TEMPORARY SUPPORT
- 

DIRECTION OF TRAFFIC

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 AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

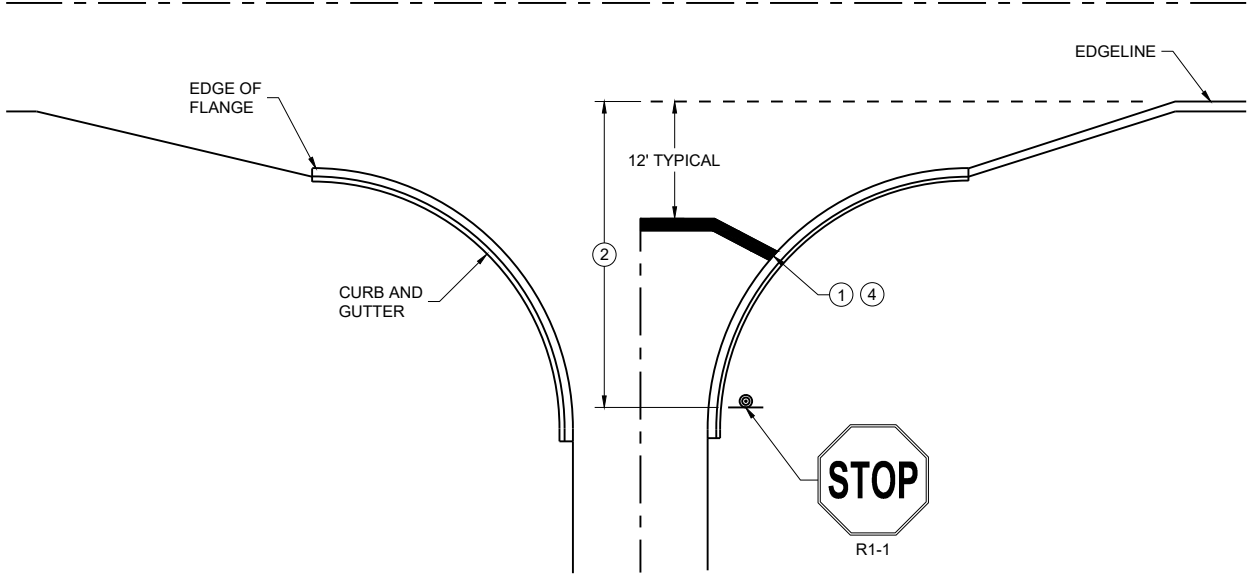


MOVING PAVEMENT MARKING
OPERATION TWO-LANE
TWO-WAY ROADWAY

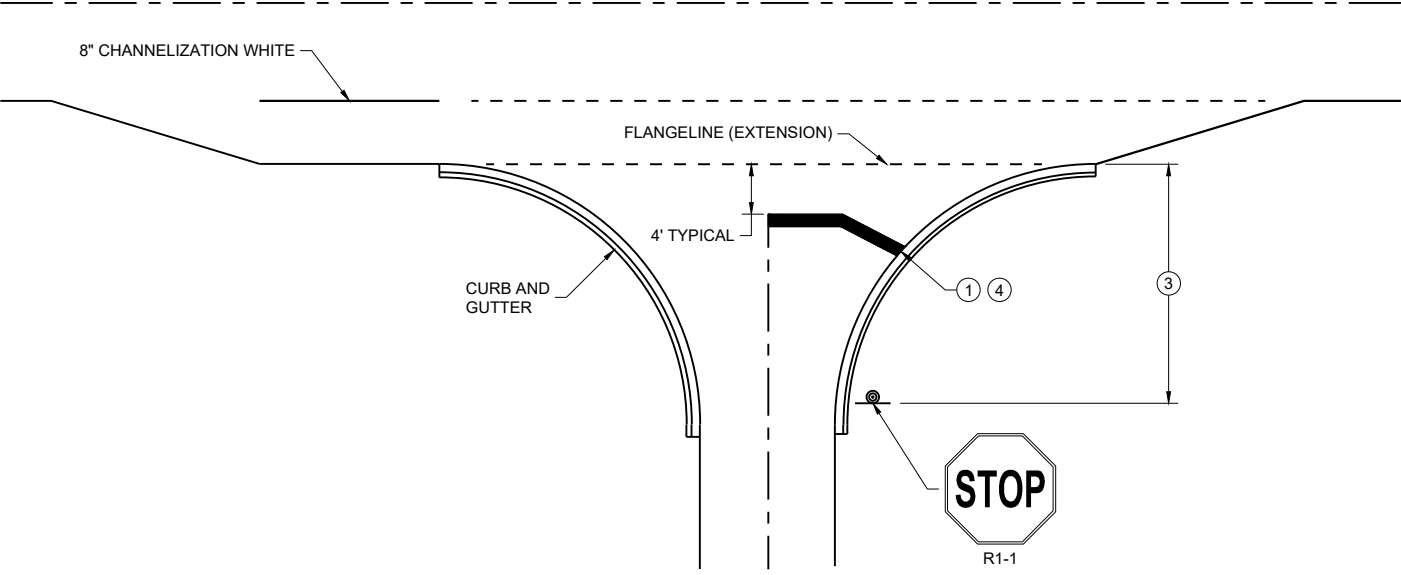
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

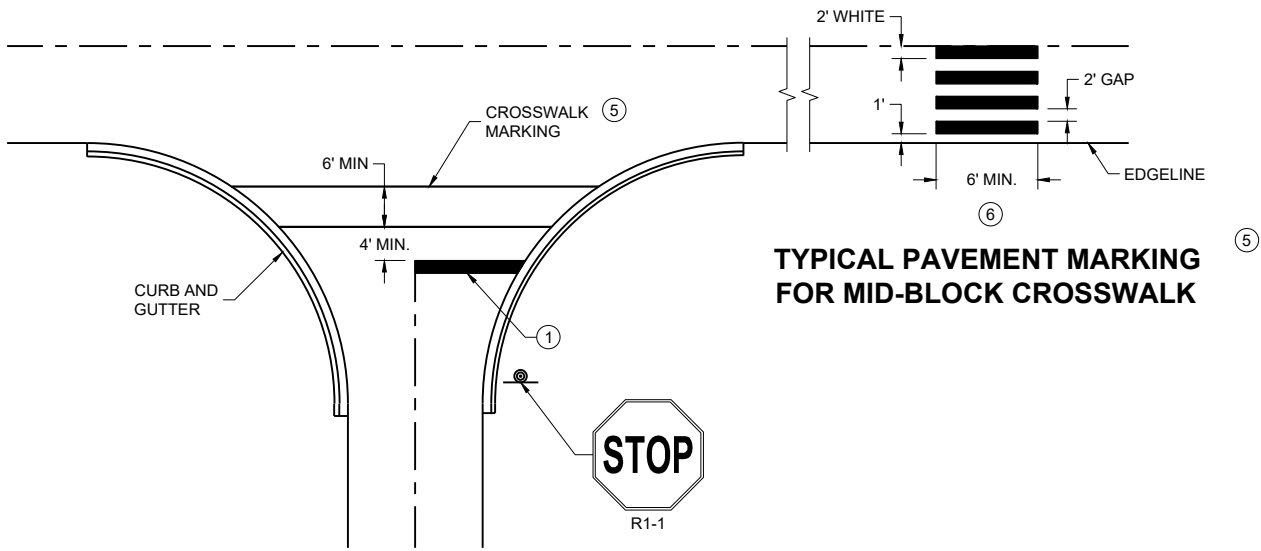
FHWA



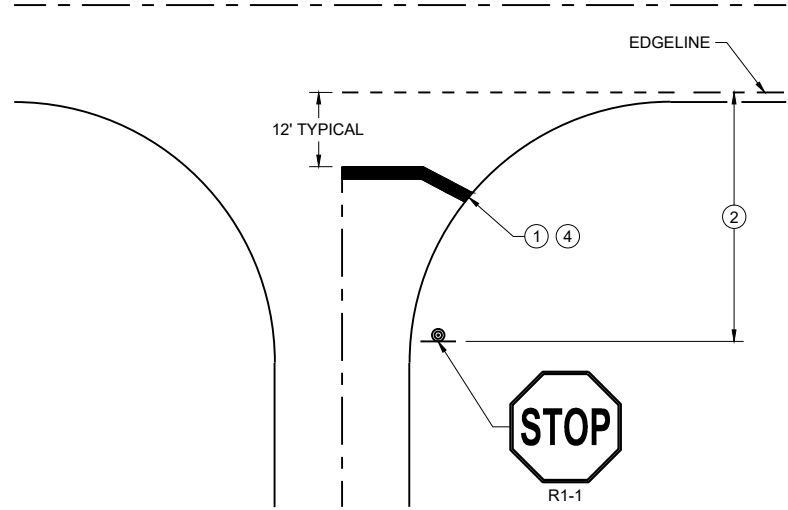
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

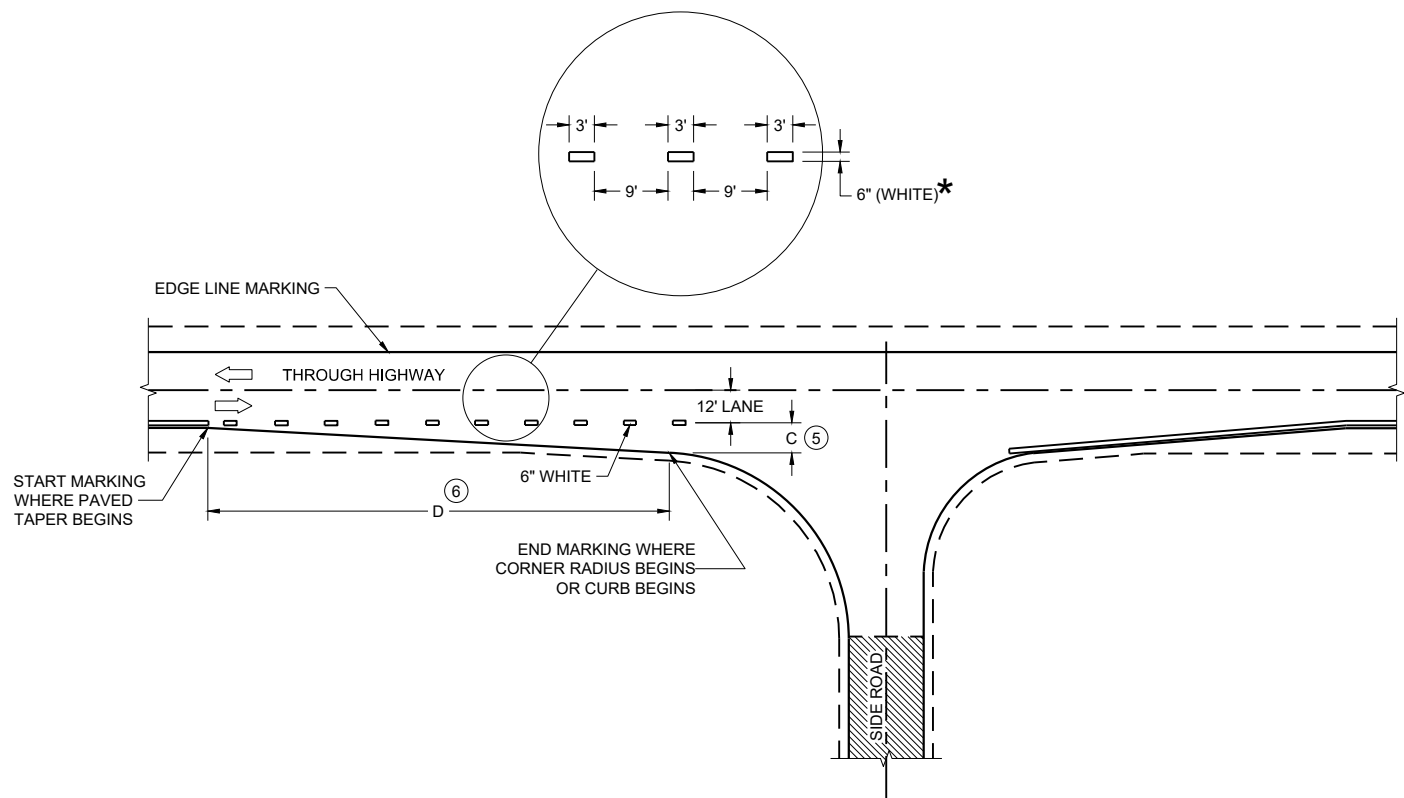
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- 6 POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

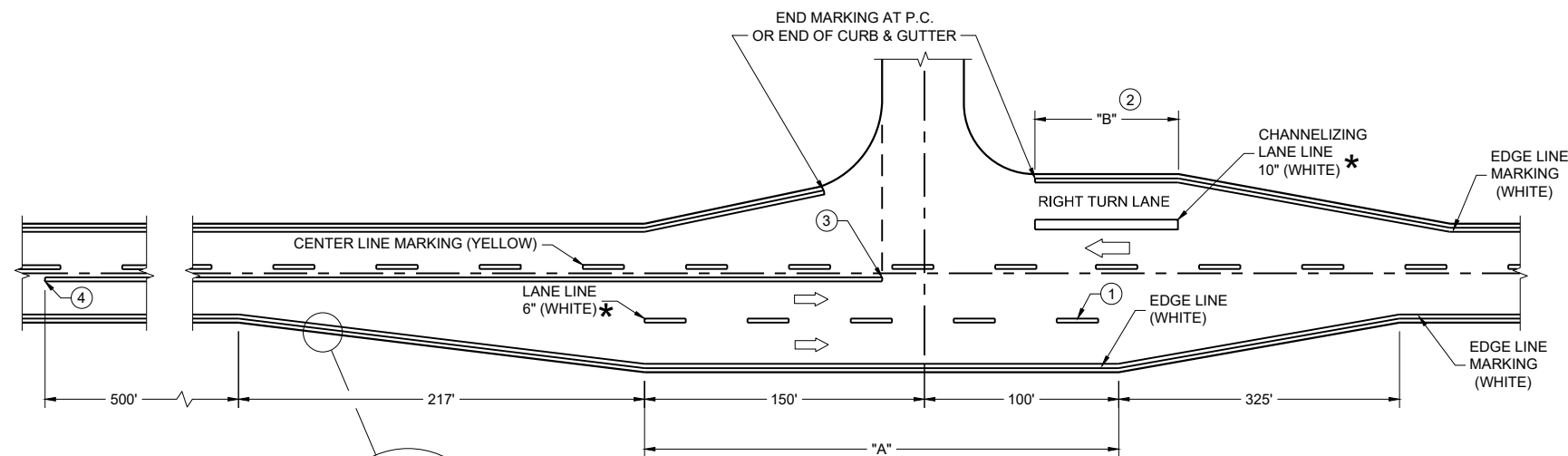
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER
FHWA



MINOR INTERSECTION



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

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

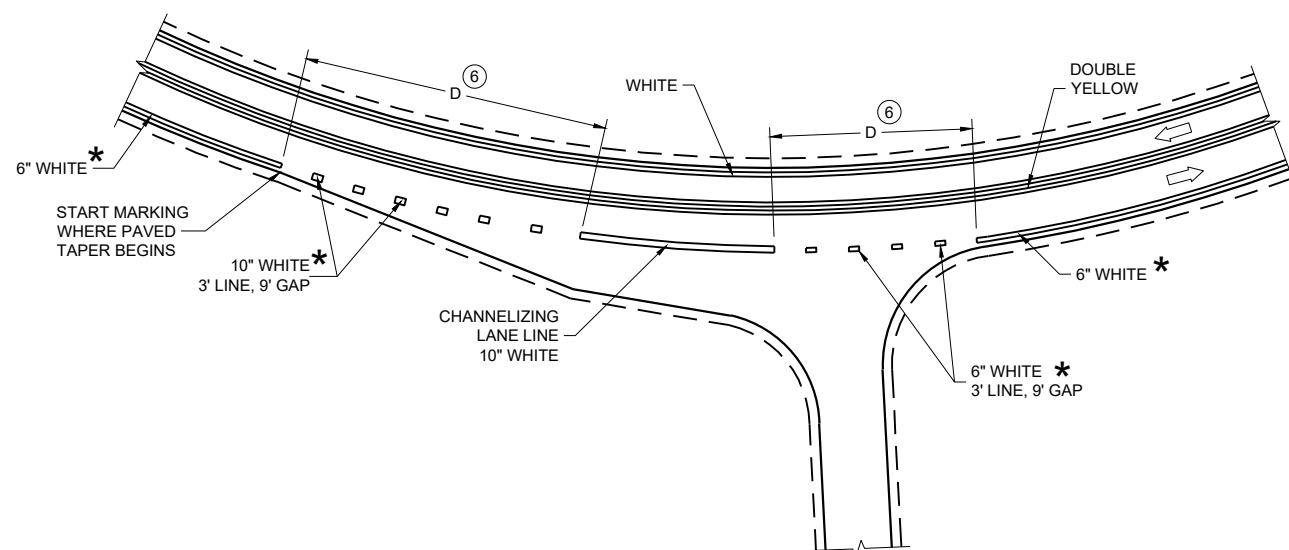
GENERAL NOTES

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.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

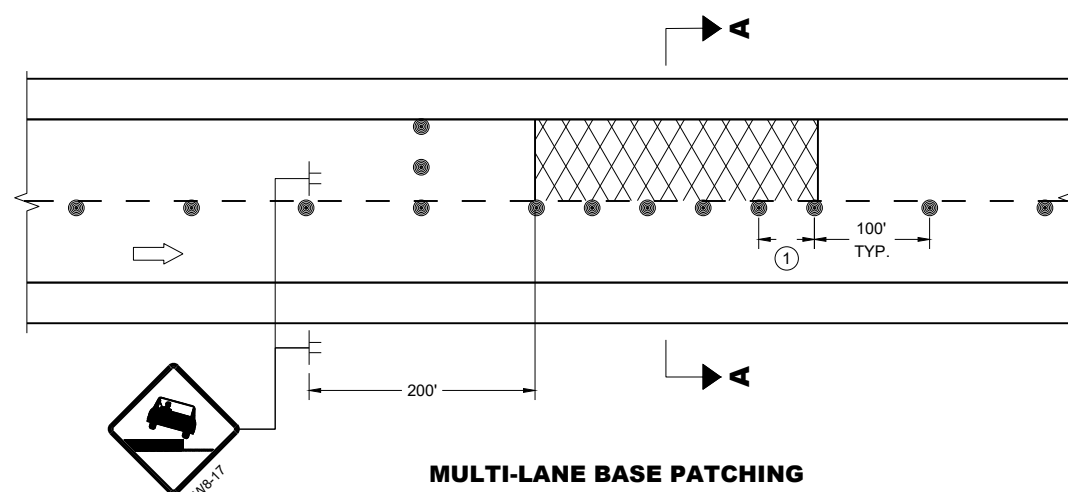
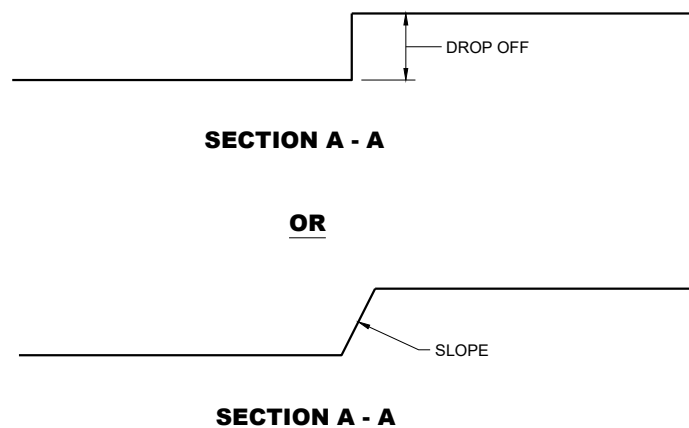
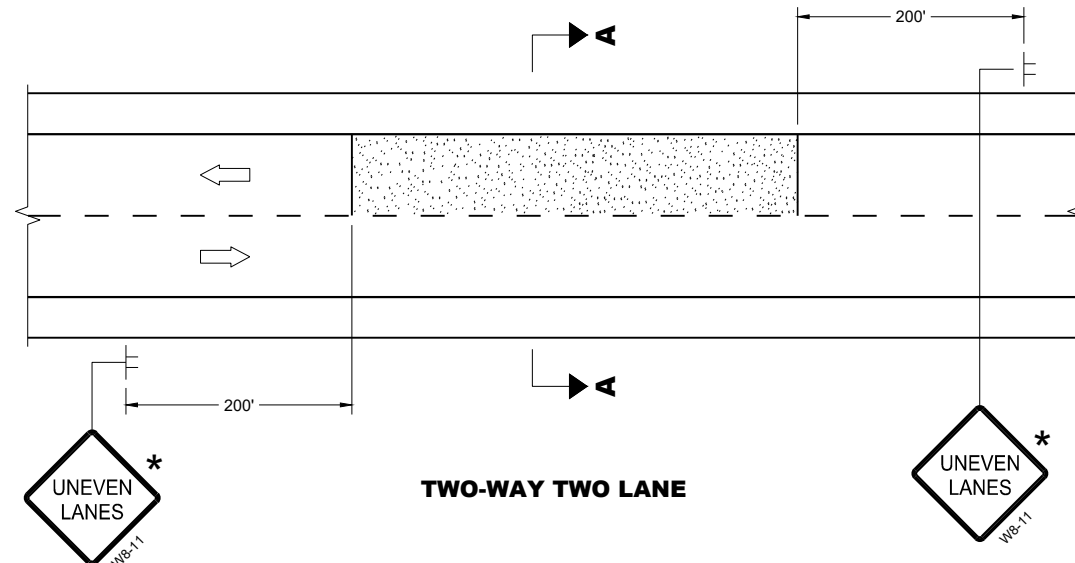
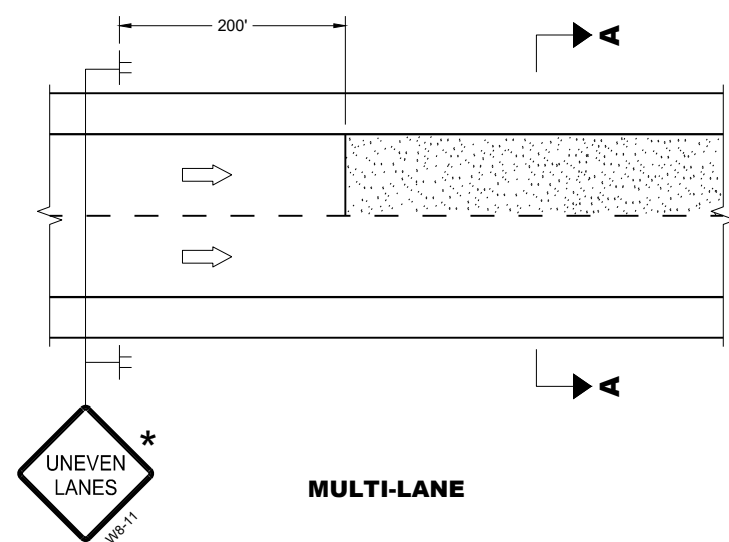
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

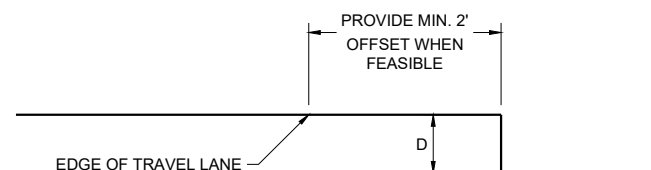
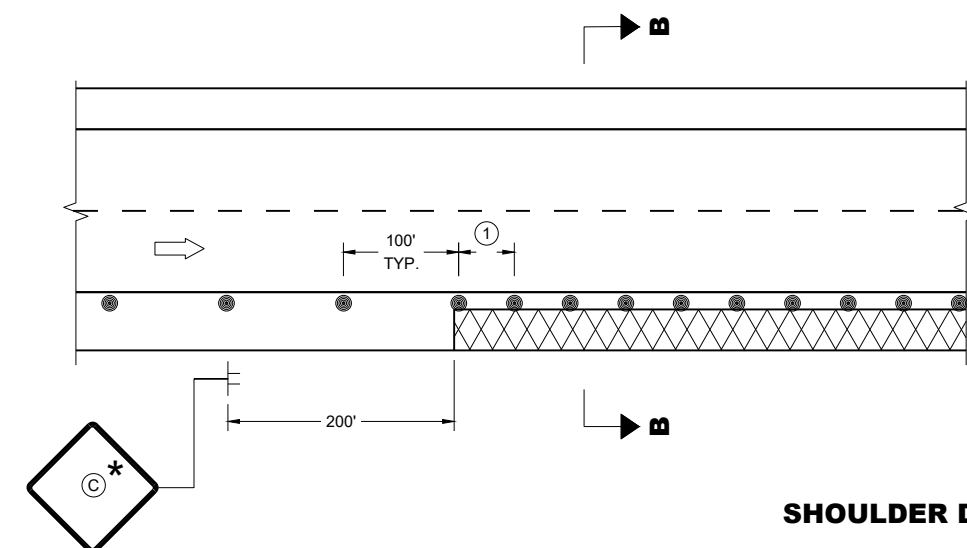
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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



SECTION B - B

SHOULDER DROP-OFFS

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 W8-9A
	PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

6

6

SDD 15D39-03

SDD 15D39-03

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.

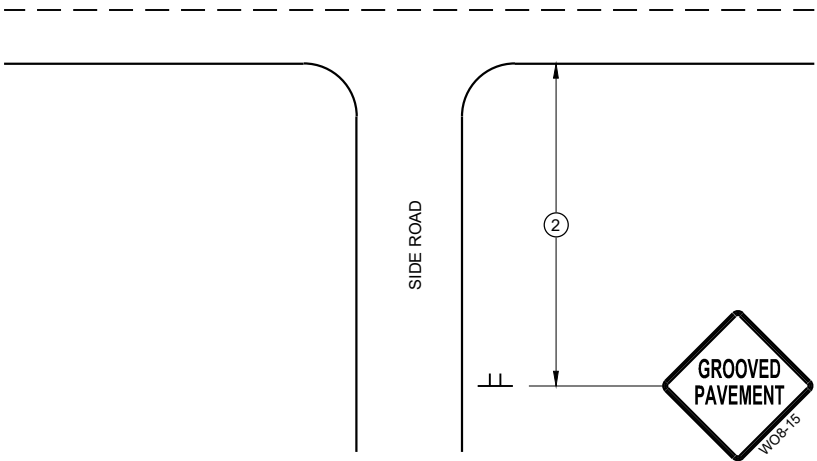
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

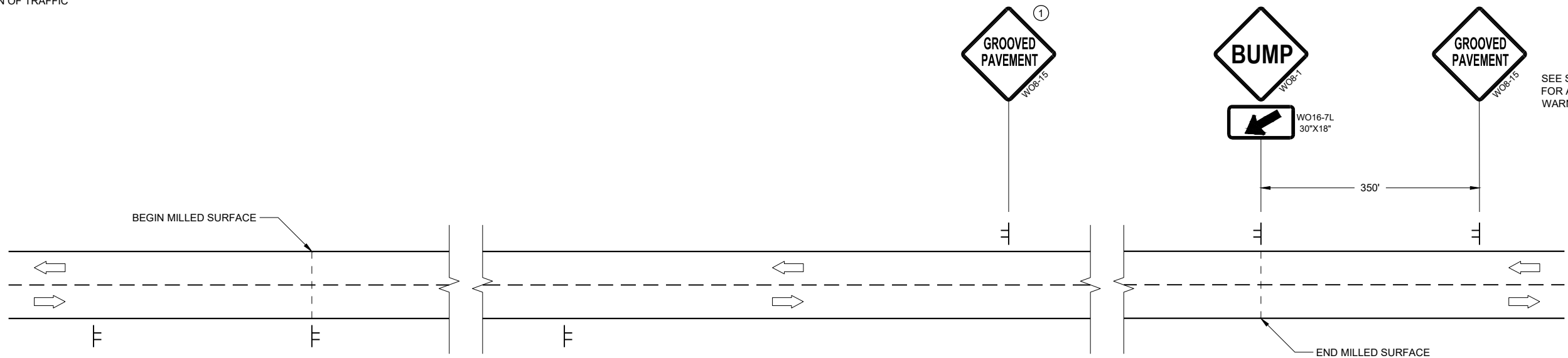
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

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

FHWA

GENERAL NOTES

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

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

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

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

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

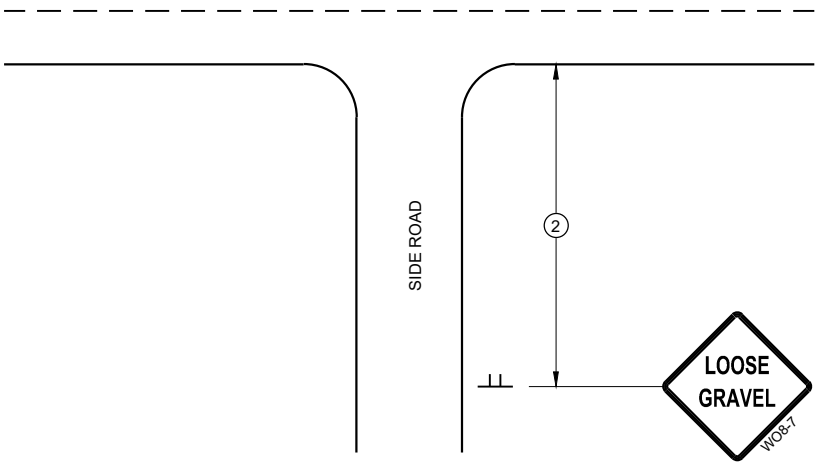
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

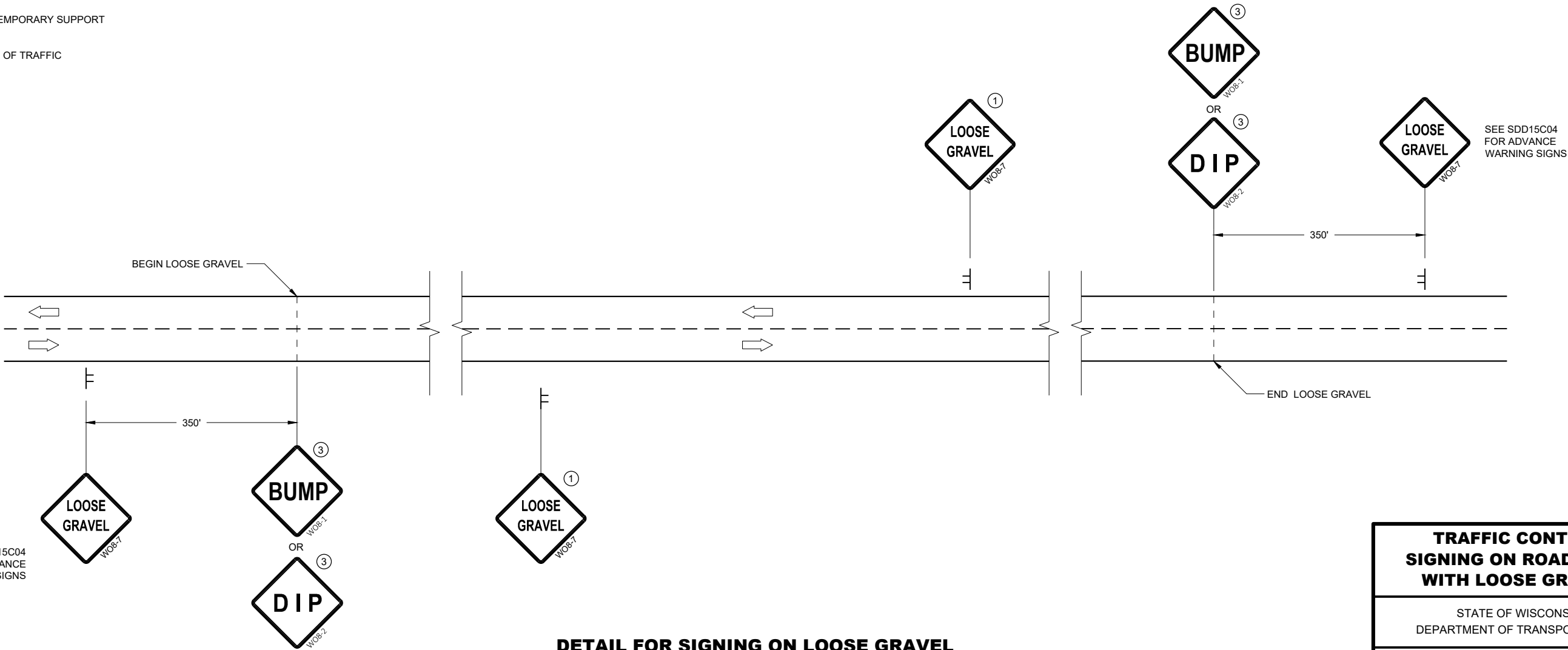
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL

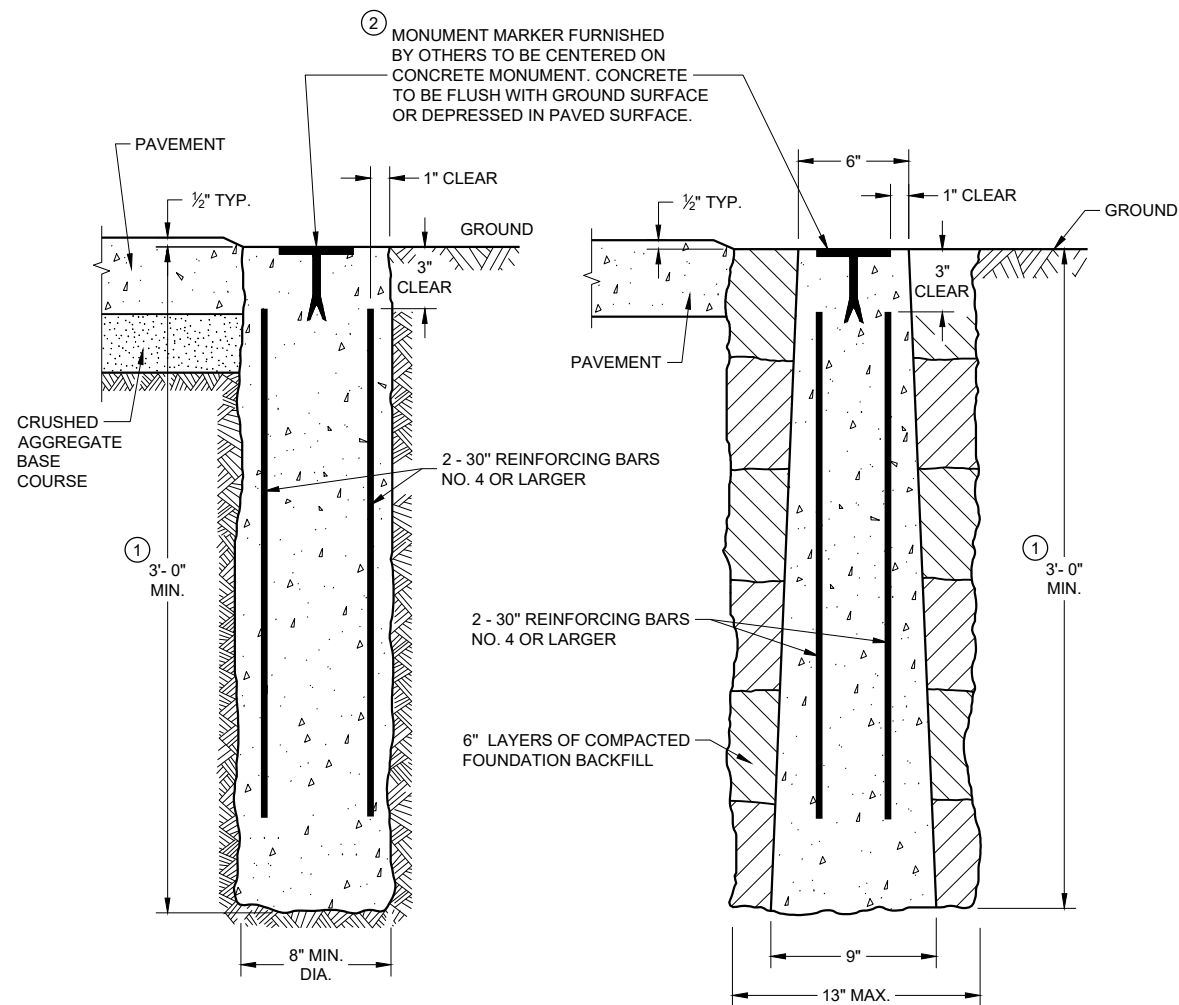


DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

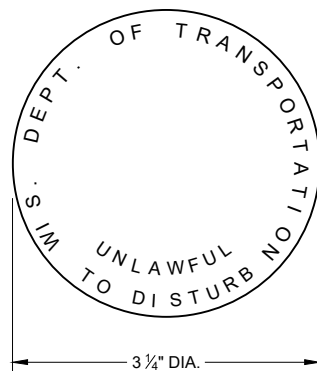
APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



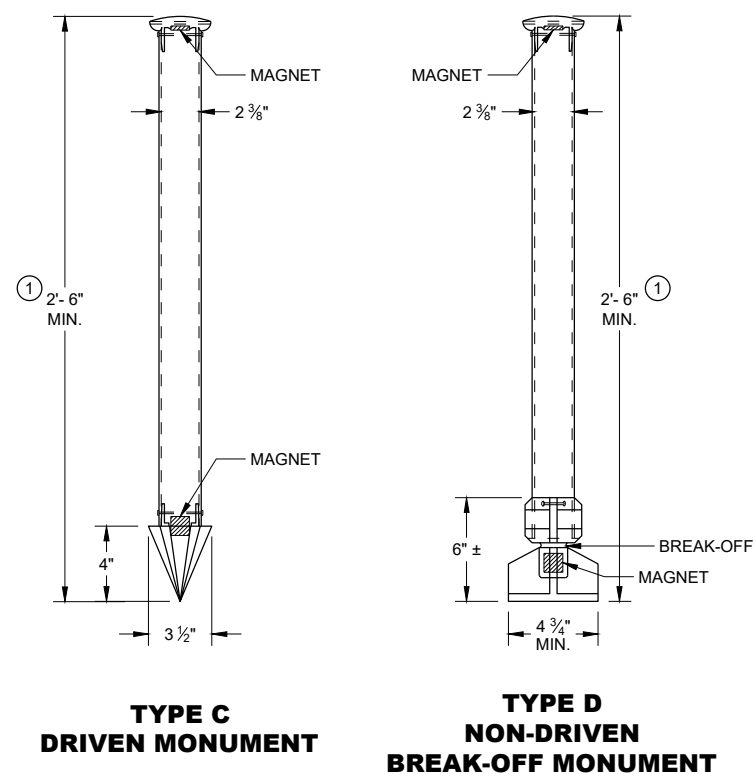
CAST-IN-PLACE

PRECAST

CONCRETE MONUMENTS TYPE A



② **WIS DOT MONUMENT
MARKER LOGO**
FOR TYPES "A", "C" & "D"



ALUMINUM MONUMENTS (INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

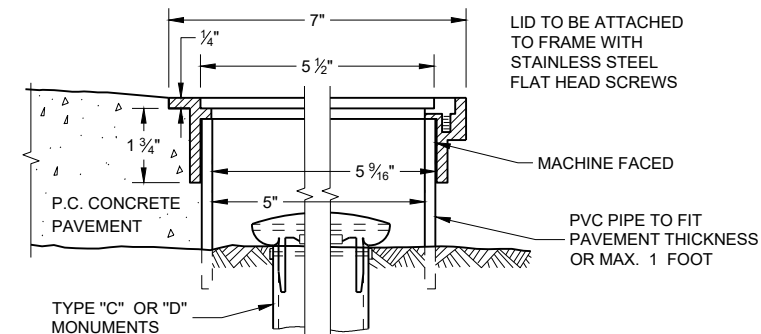
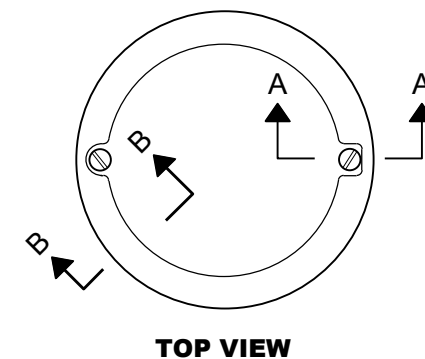
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

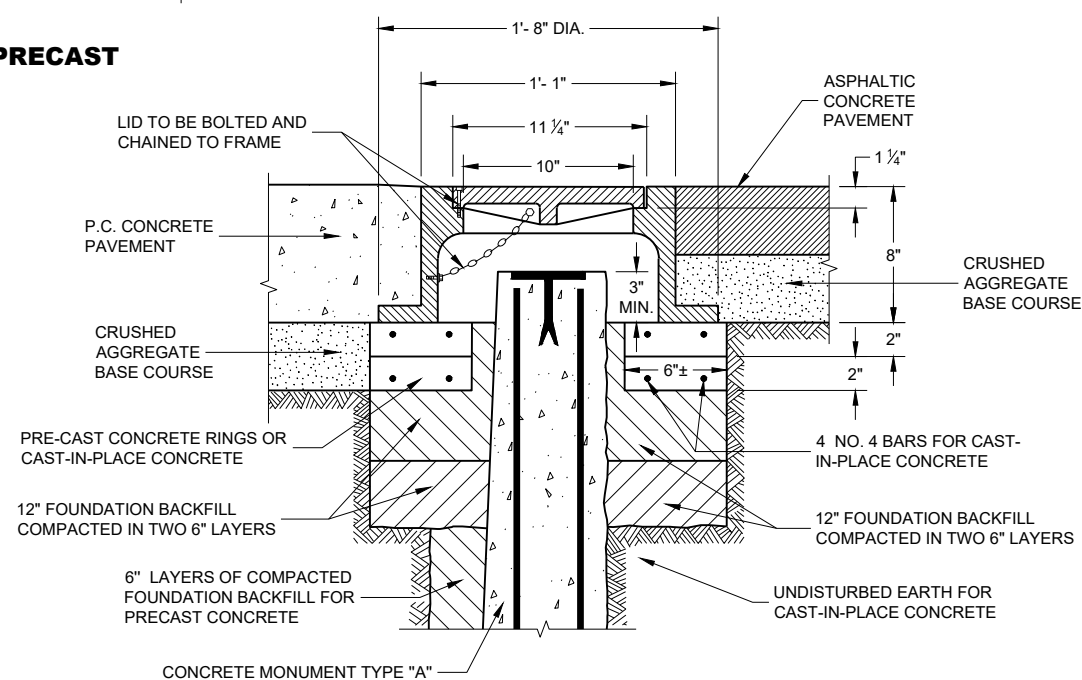
THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



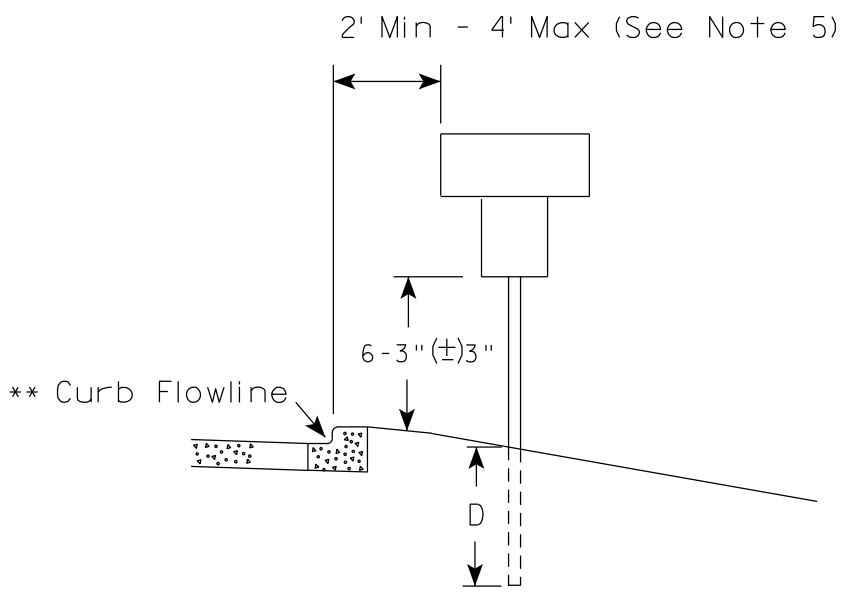
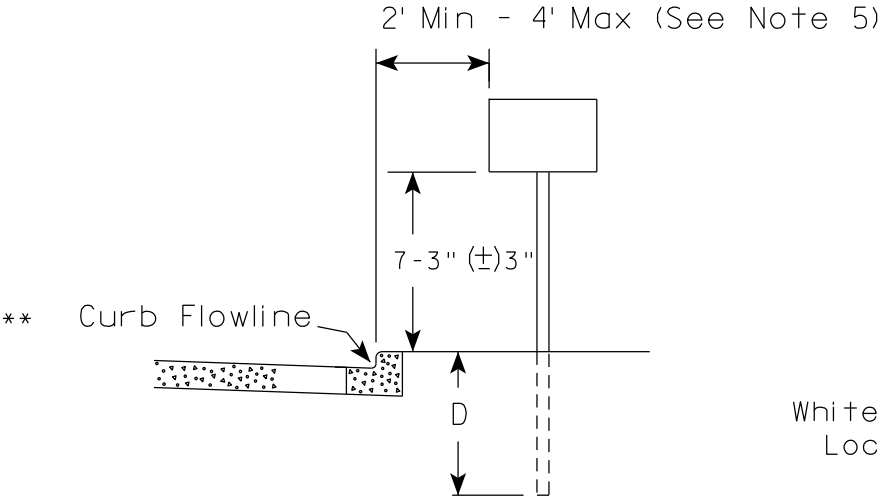
CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

LANDMARK REFERENCE MONUMENTS AND COVERS

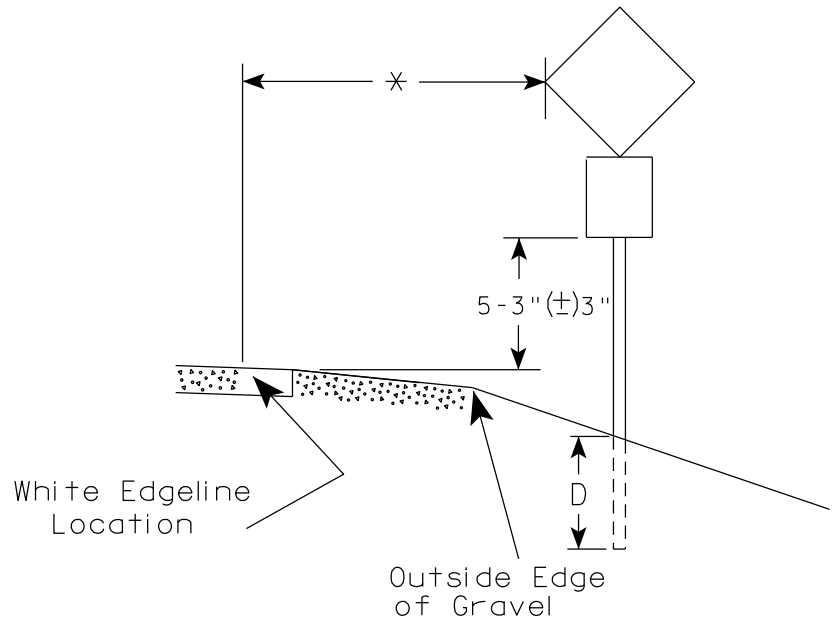
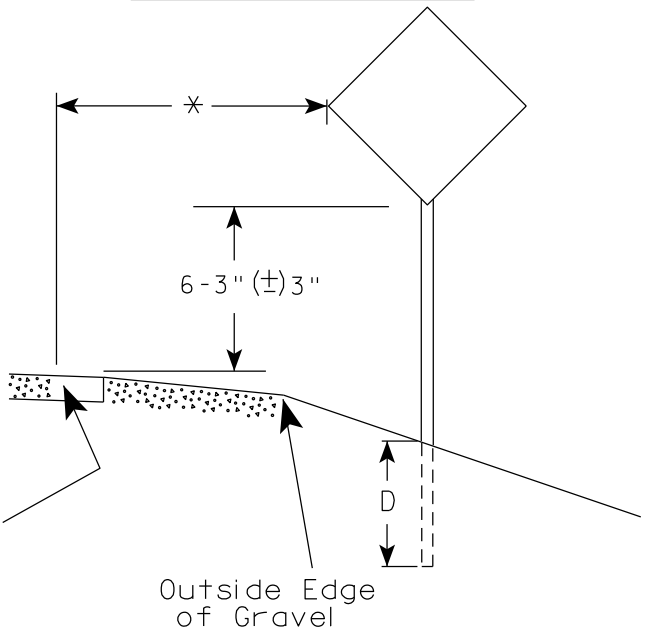
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Raymond A. Kumapayii
DATE CHIEF SURVEYING AND MAPPING
ENGINEER
FHWA

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

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

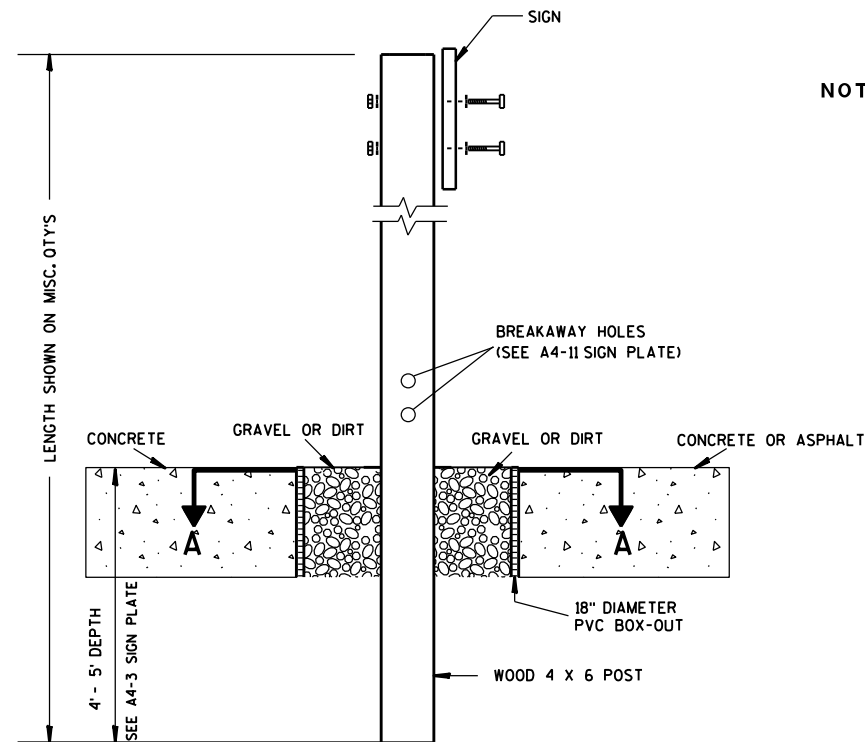
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

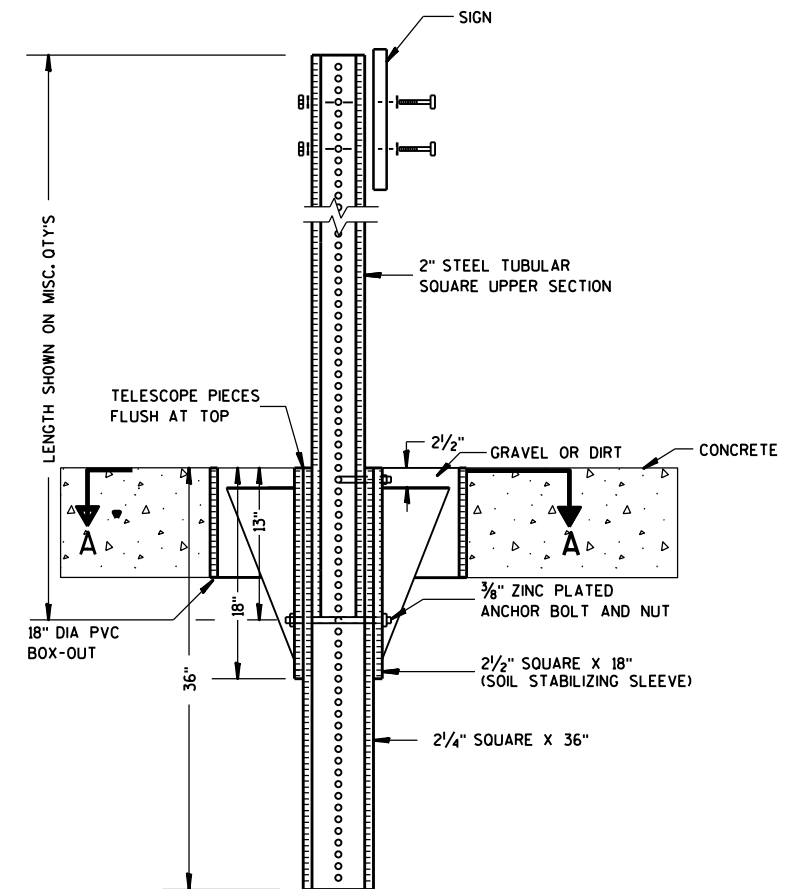
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

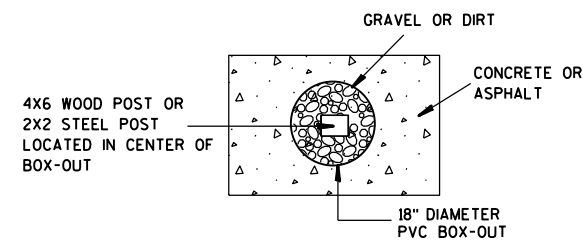
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

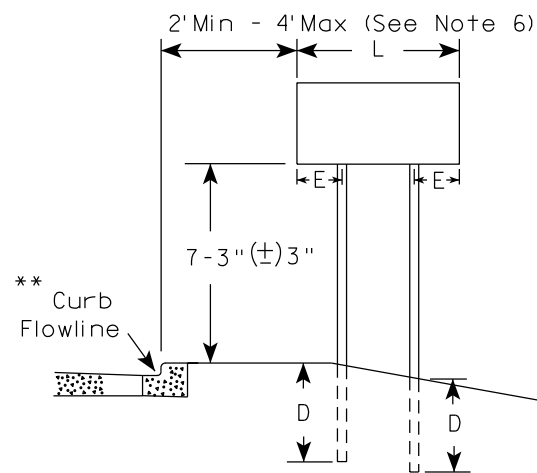
HWY:

COUNTY:

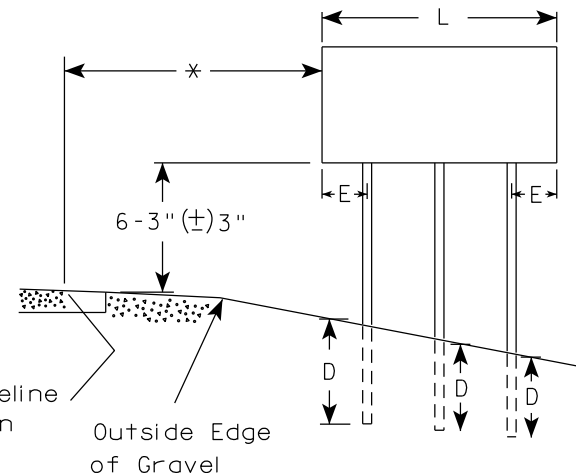
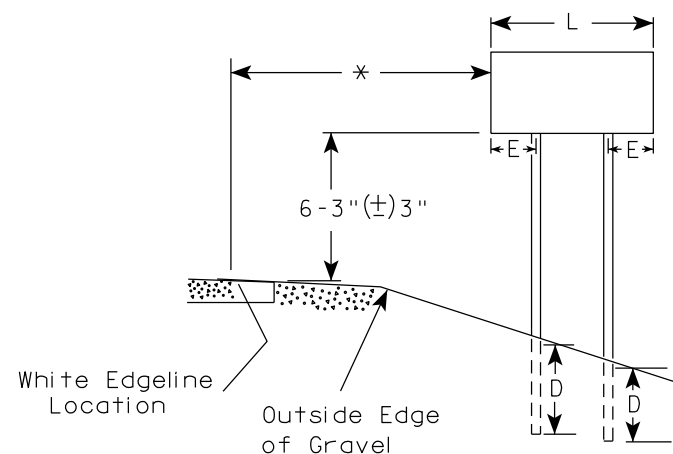
SHEET NO:

E

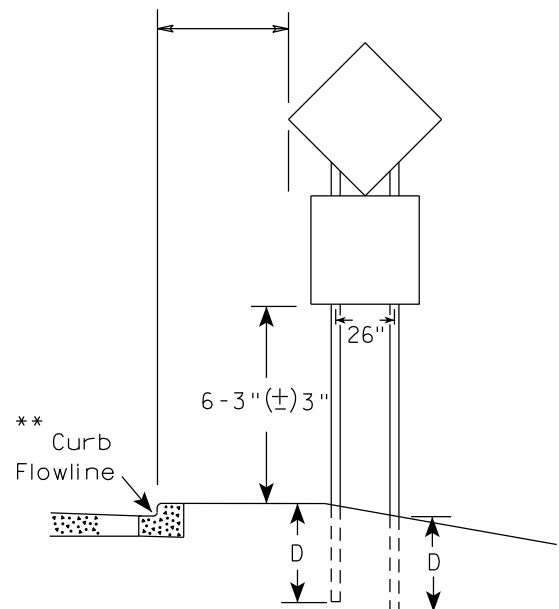
URBAN AREA



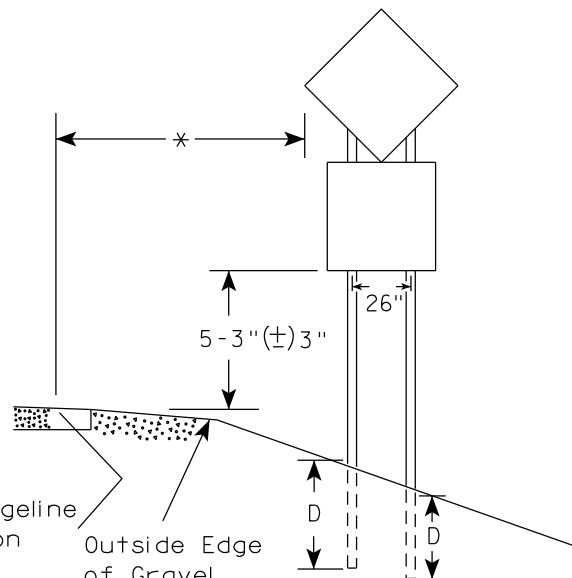
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

POST EMBEDMENT DEPTH

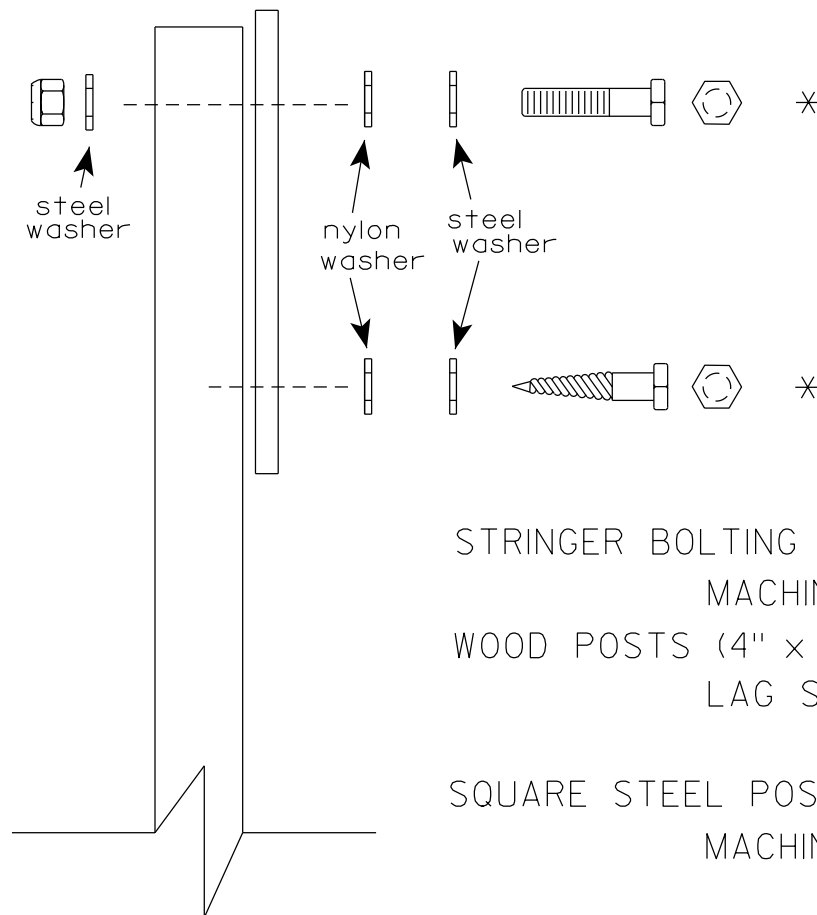
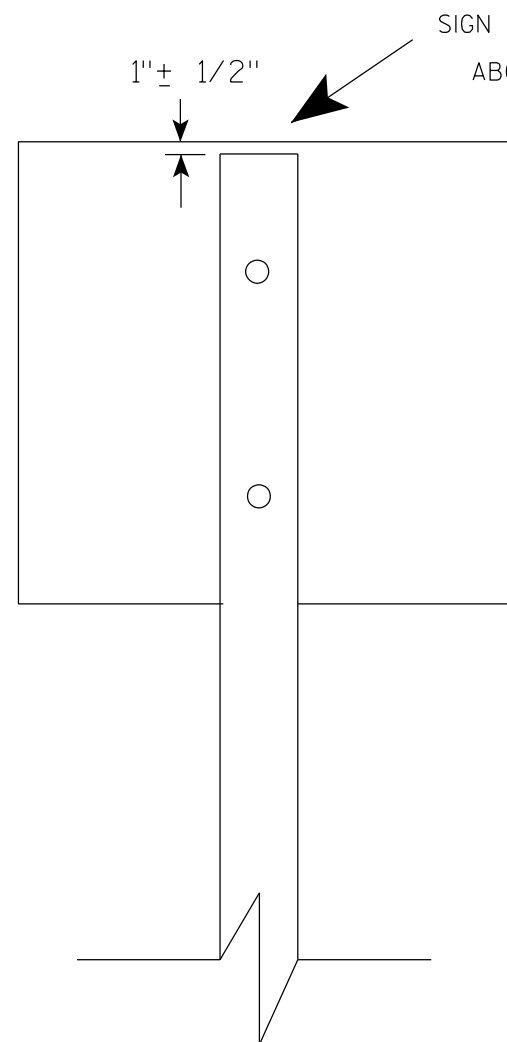
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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

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

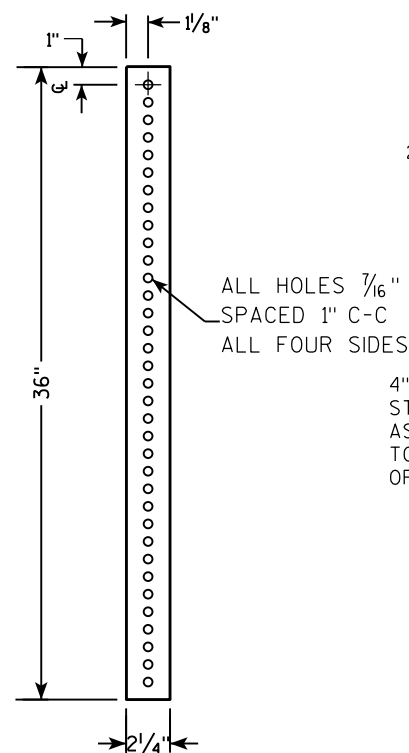
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

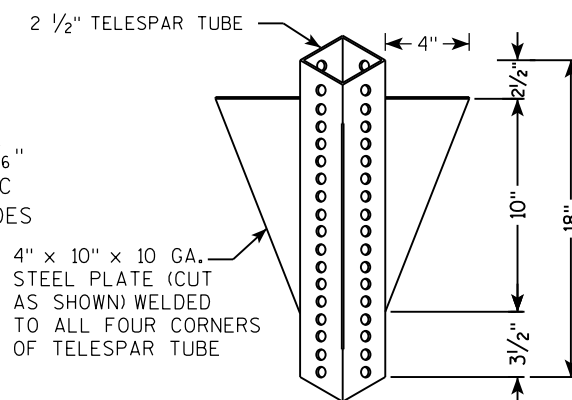
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

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



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



TECHNICAL DRAWING OF A VERTICAL SIGN POST ASSEMBLY.

Labels and Dimensions:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by arrows pointing to the top of the vertical sections.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical post.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the post's perforations.
- SIGN**: The top horizontal section.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware.
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware for the upper section.
- 2 1/2" GRAVEL OR DIRT**: The material filling the base of the post.
- $\frac{3}{16}$ " ZINC PLATED ANCHOR BOLT AND NUT**: Hardware for the base.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The sleeve around the base of the post.
- 2 1/4" SQUARE X 36"**: The base of the post.
- 18" DIA SCHEDULE 40 PVC BOX-OUT**: The base of the post.
- 36"**: Total height of the post.
- 18"**: Height of the upper section.
- 13"**: Height of the lower section.
- LONGITUDINAL SECTION SHOWN ON MISC. QTY'S**: Indicated by an arrow pointing to the side view.

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

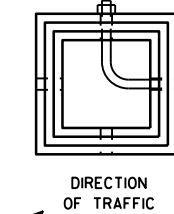
Side View (Left):

- Overall height dimension: LENGTH SHOWN ON MISC. Q'TYS
- Top section: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Telescope pieces: TELESCOPE PIECES FLUSH AT TOP
- Vertical dimensions from ground line: 36", 18", 12"
- Ground level indicated by hatched area with downward arrow 'A'.

End View (Right):

- Top section: SIGN
- Fasteners: SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- Upper section: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Hole specifications: ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
- Corner fasteners: $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
- Ground level indicated by hatched area with downward arrow 'A'.
- Fasteners: $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
- Soil stabilizing sleeve: $2\frac{1}{2}$ " SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Post section: $2\frac{1}{4}$ " SQUARE X 36"

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthaeus R. Rauch

for State Traffic Engineer

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

PROJECT NO:

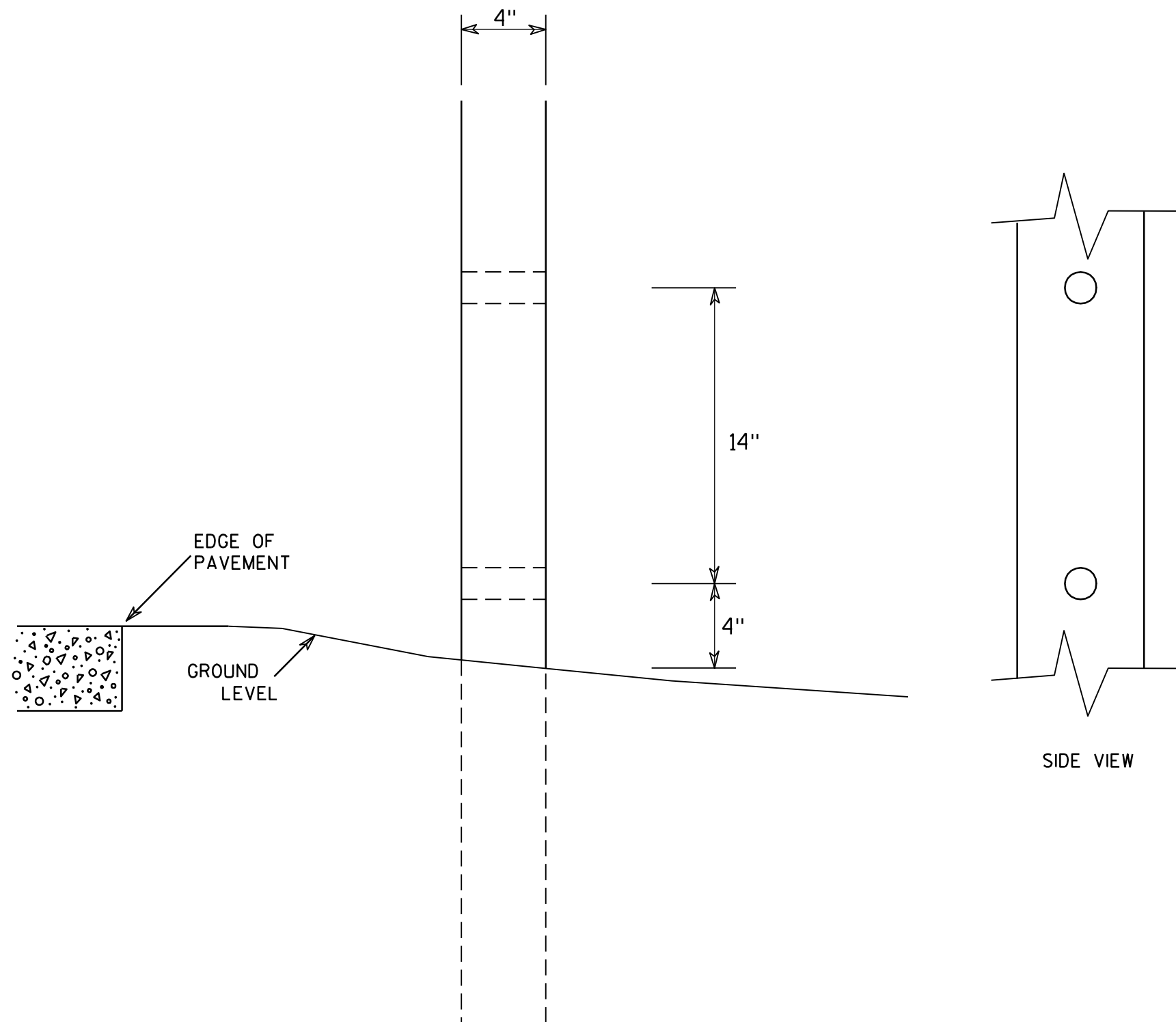
HWY:

COUNTY:

SHEET NO:

E

7

GENERAL NOTES

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

7

**4 X 6 WOOD POST
MODIFICATIONS**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

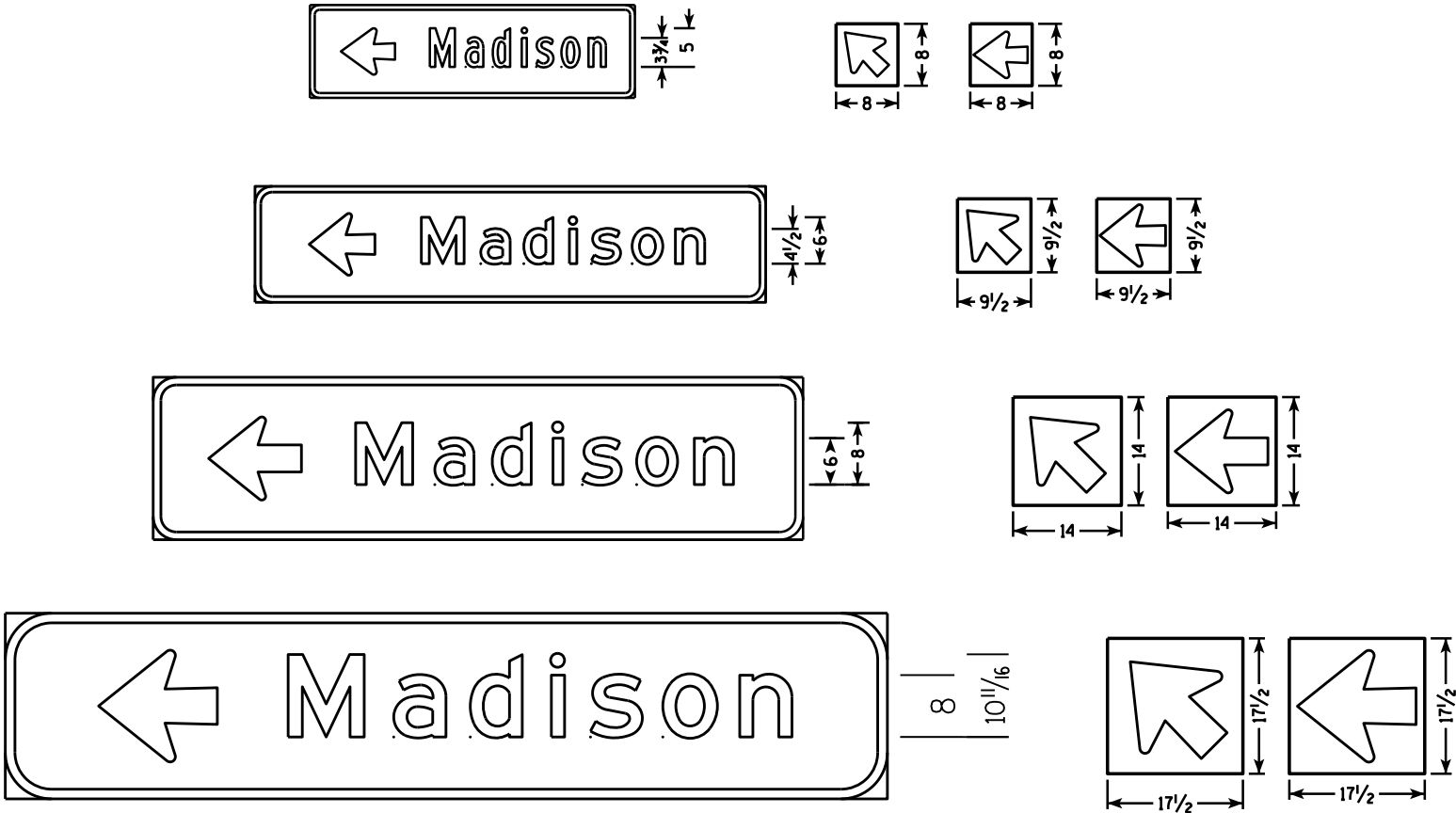
E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

GENERAL NOTES

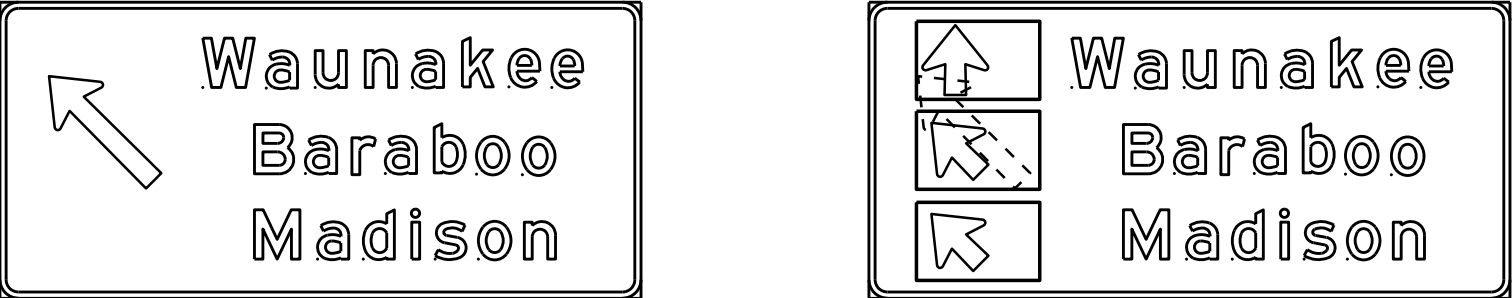
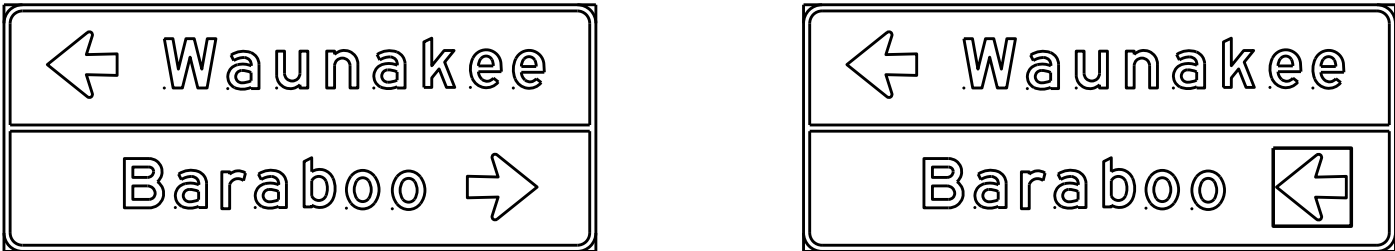
- 1. Materials shall conform to Standard Specification Section 637.
Base - Sheet Aluminum 0.040" Thickness
Sheeting - Orange Type F Reflective
Arrow - Black Non-Reflective
- 2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws.
There shall be a minmum of 2 fasteners used per arrow sign.
- 3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
- 4. Arrows are per standard plate A1-2
- 5. Use separate arrow sign for each destination
- 6. Tilt arrow is always at 45 degrees
- 7. Arrow is centered on arrow sign

Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3 3/4" Series C	8	9 1/2	14 1/2	8
4 1/2" Series D & E	9 1/2	10	15	9 1/2
6" Series D & E	14	16	20 1/2	14
8" Series E	17 1/2	20 1/2	25	17 1/2



BEFORE

AFTER



DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

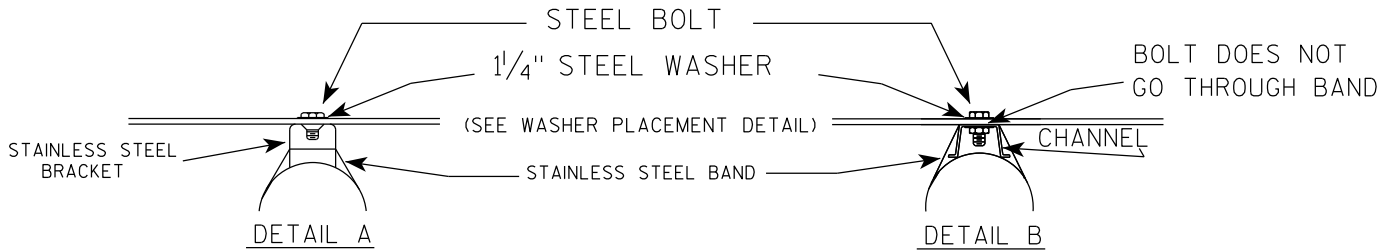
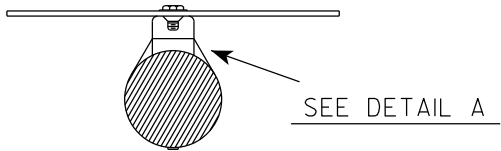
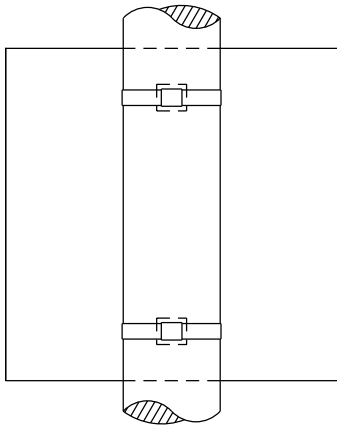
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

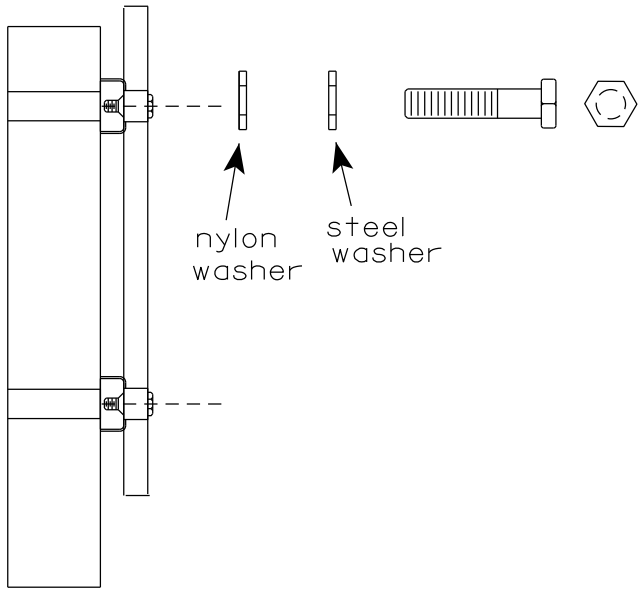
DATE 10/08/14 PLATE NO. A4-12.2

BANDING

SINGLE SIGN



WASHER PLACEMENT

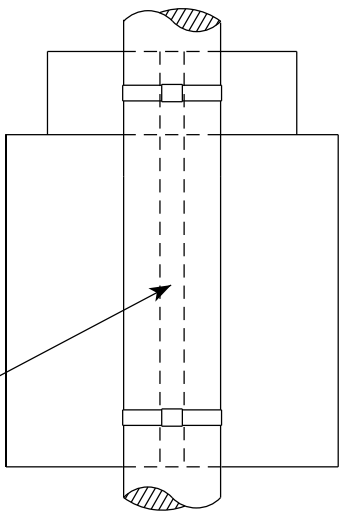


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

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

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

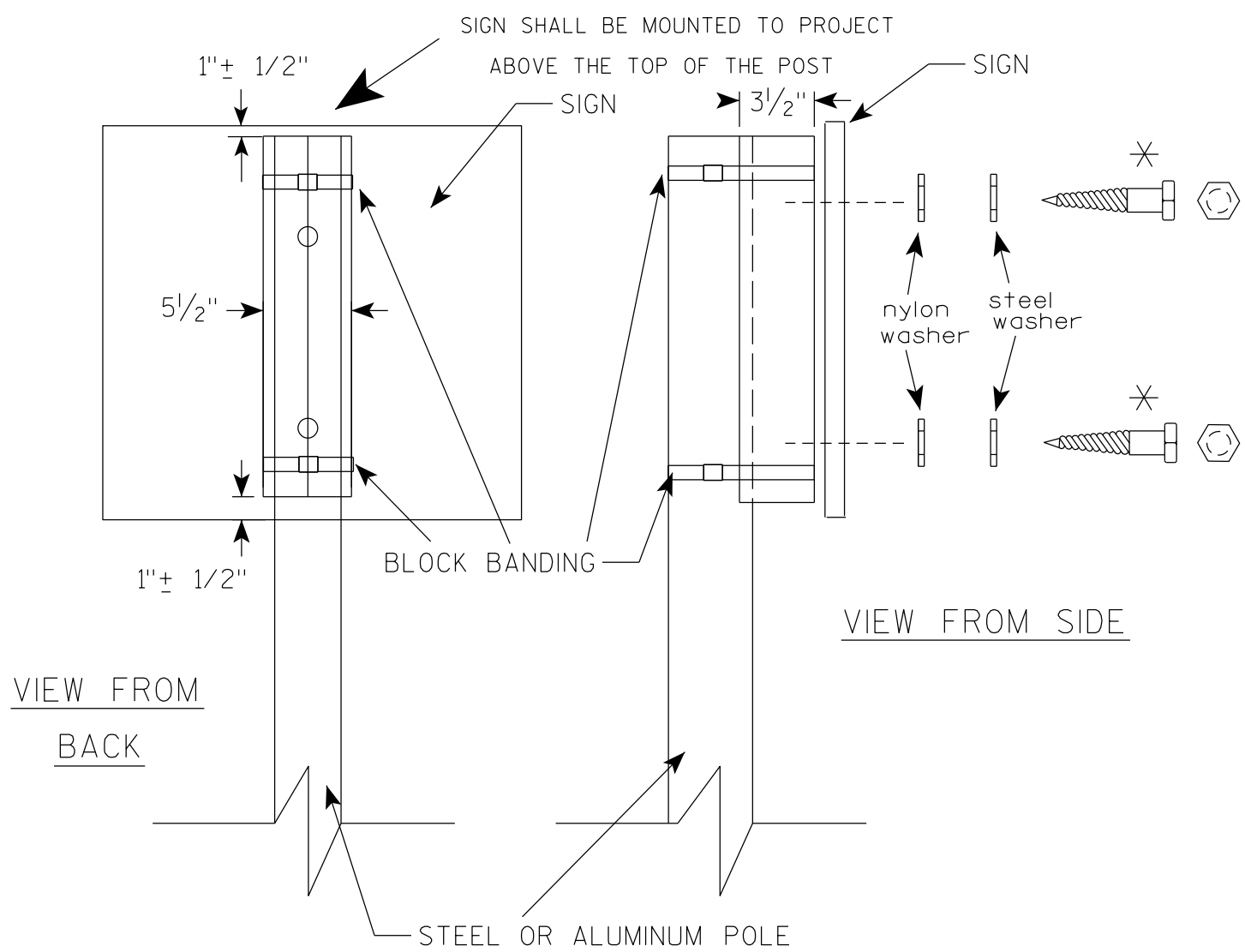
SEE DETAIL B

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

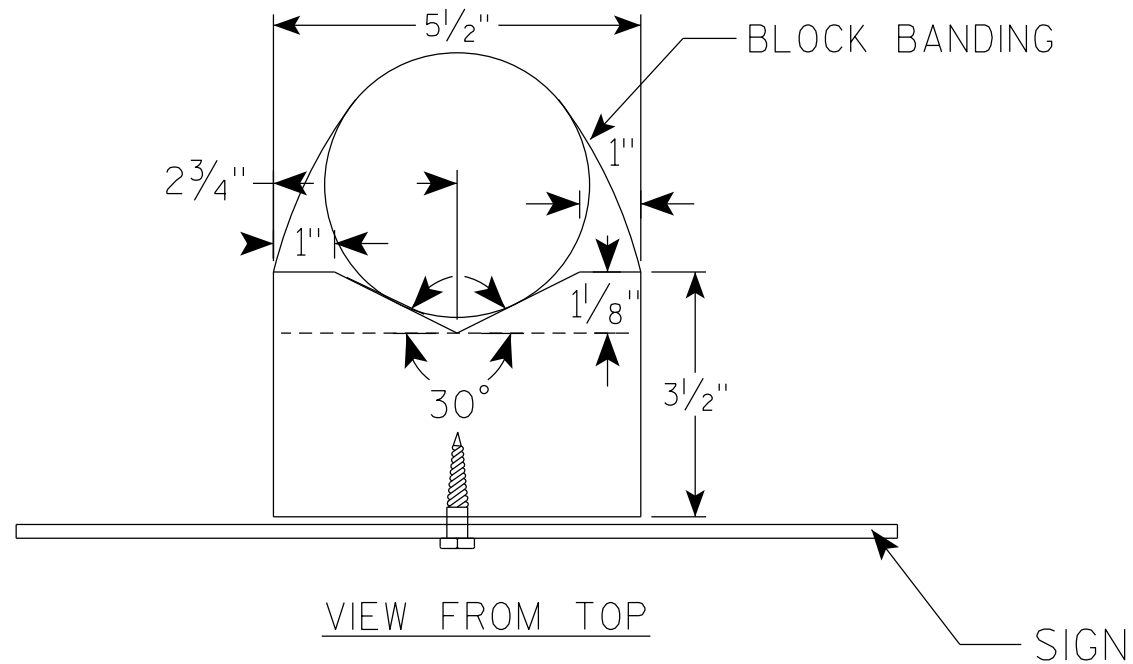
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

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

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO:

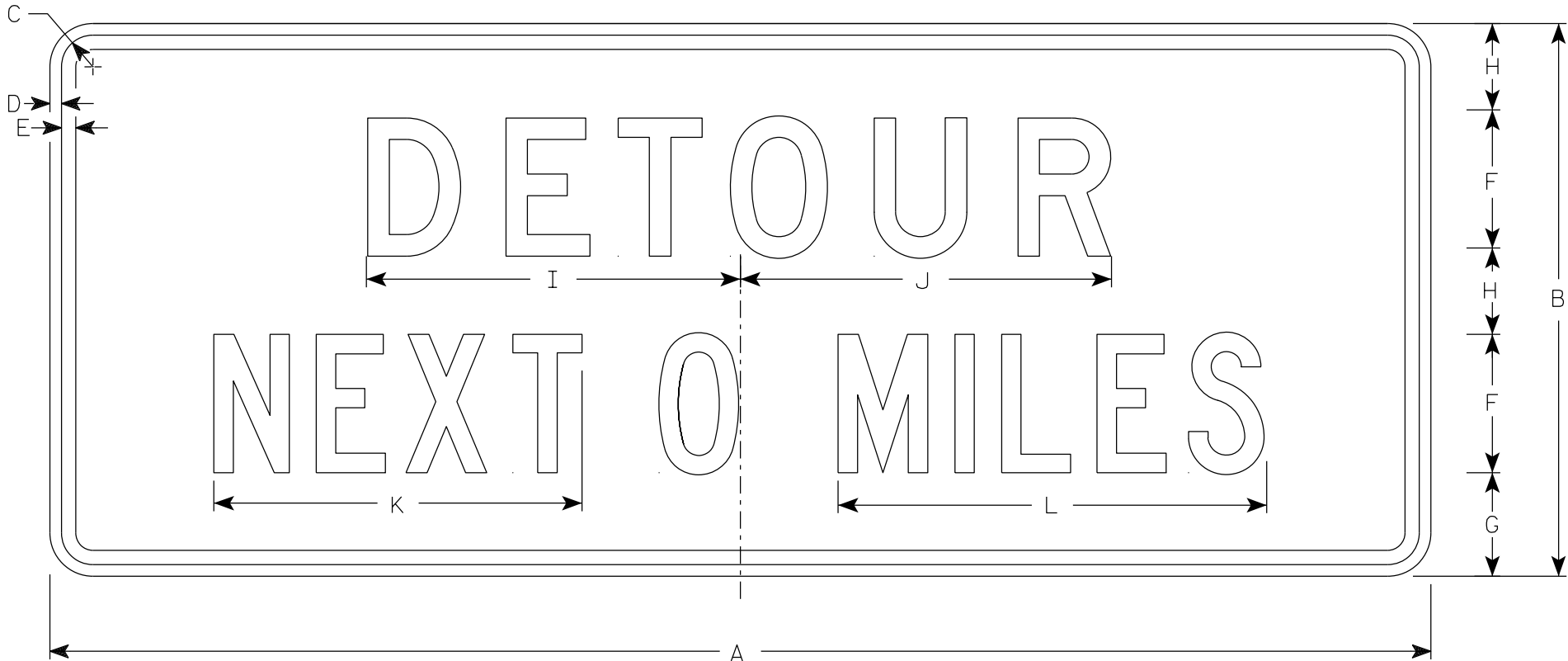
E

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NOTES

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



G20-51

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
2M	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
3	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
4	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0
5	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4	16 1⁄4	16 1⁄8	16	18 5⁄8															10.0

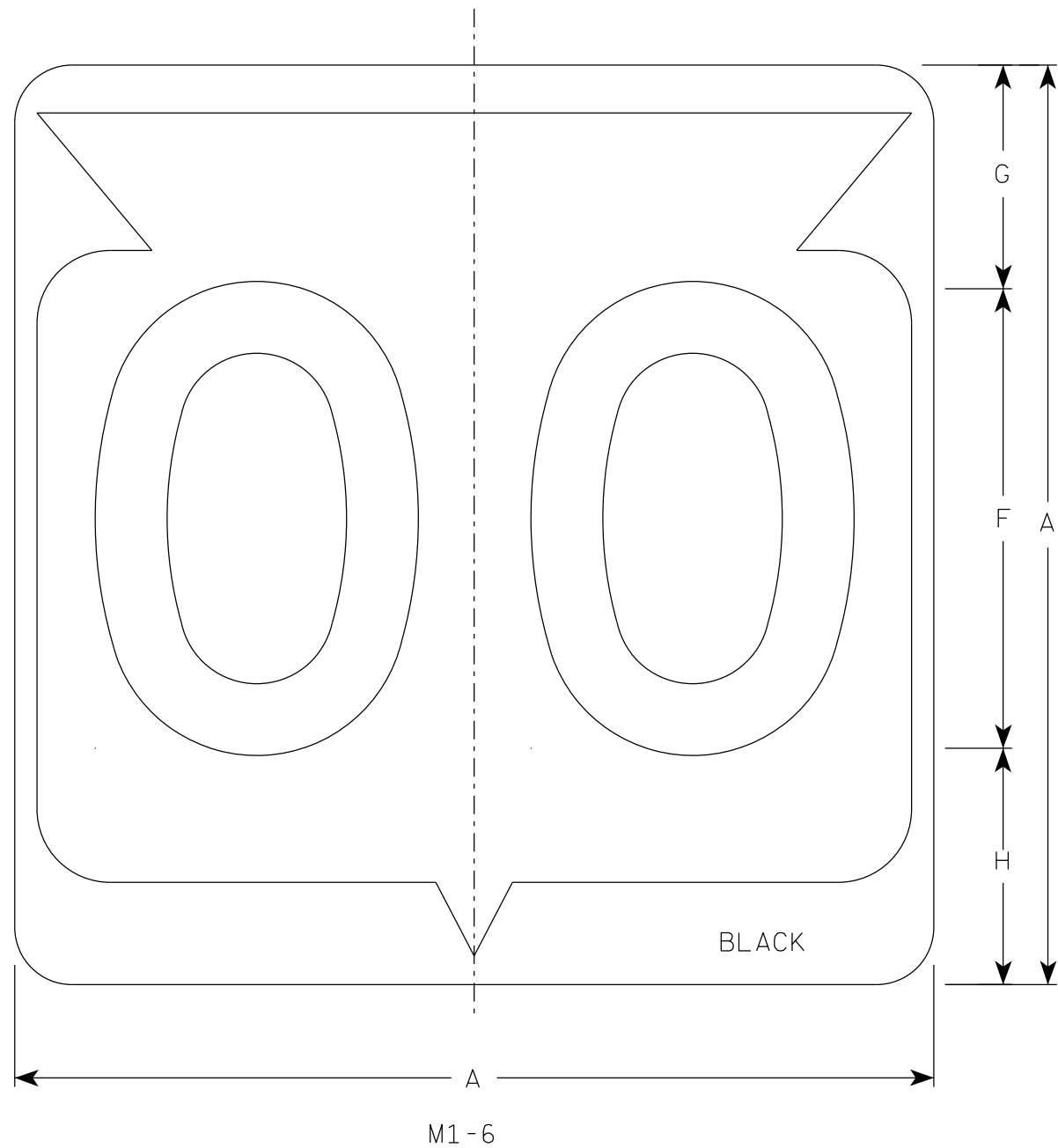
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
State Traffic Engineer

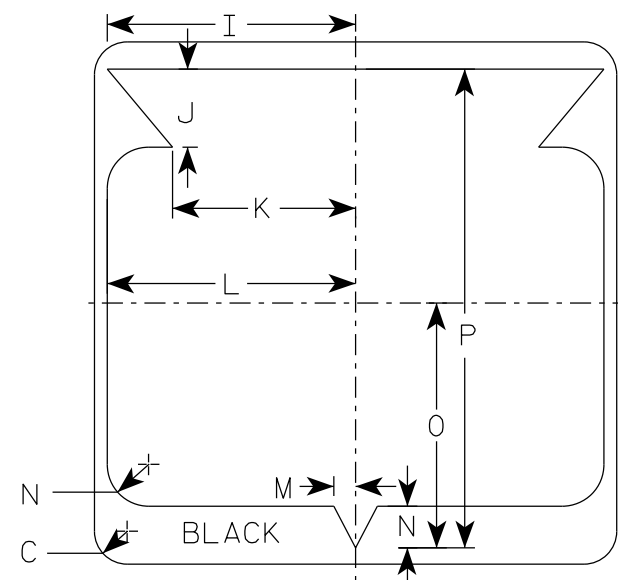
DATE 1/26/2023 PLATE NO. G20-51.3

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NOTES

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

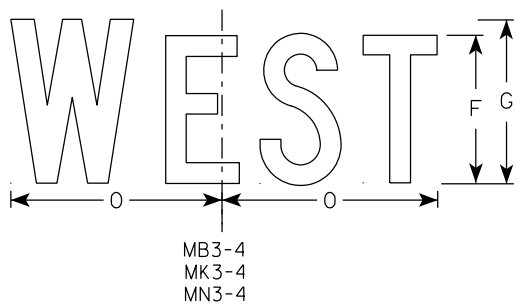
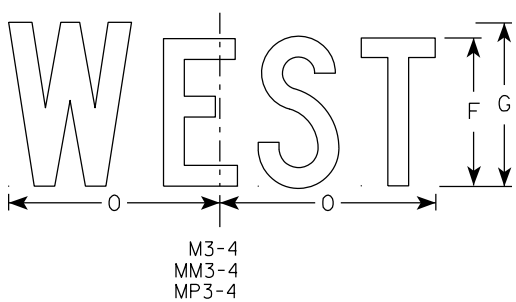
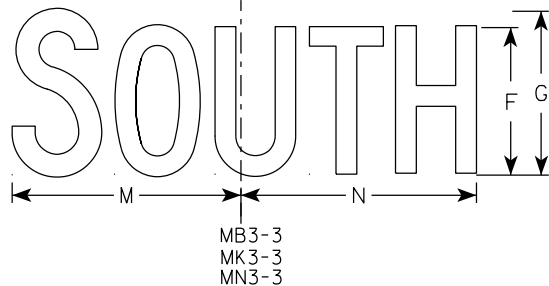
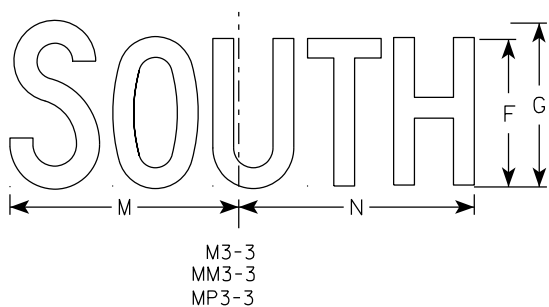
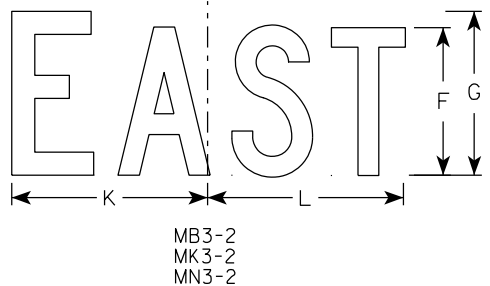
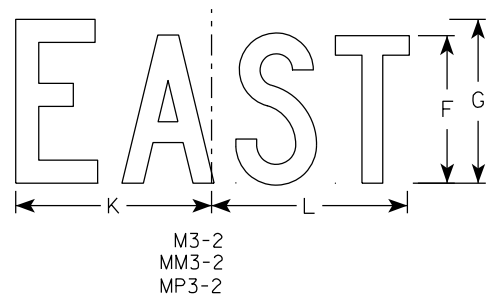
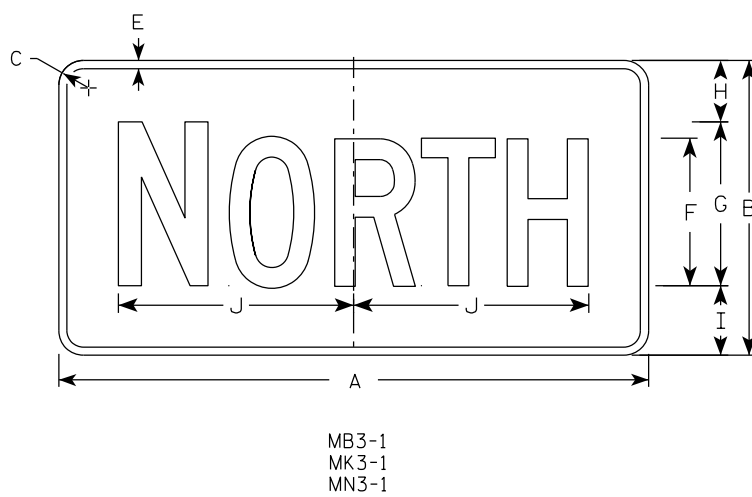
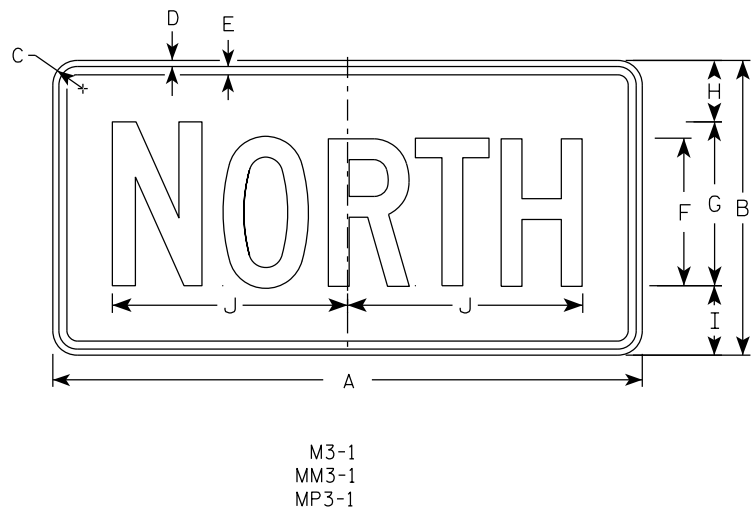


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SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1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

STATE ROUTE MARKER M1-6 FOR ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/8/2022	PLATE NO. M1-6.11

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

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

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

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

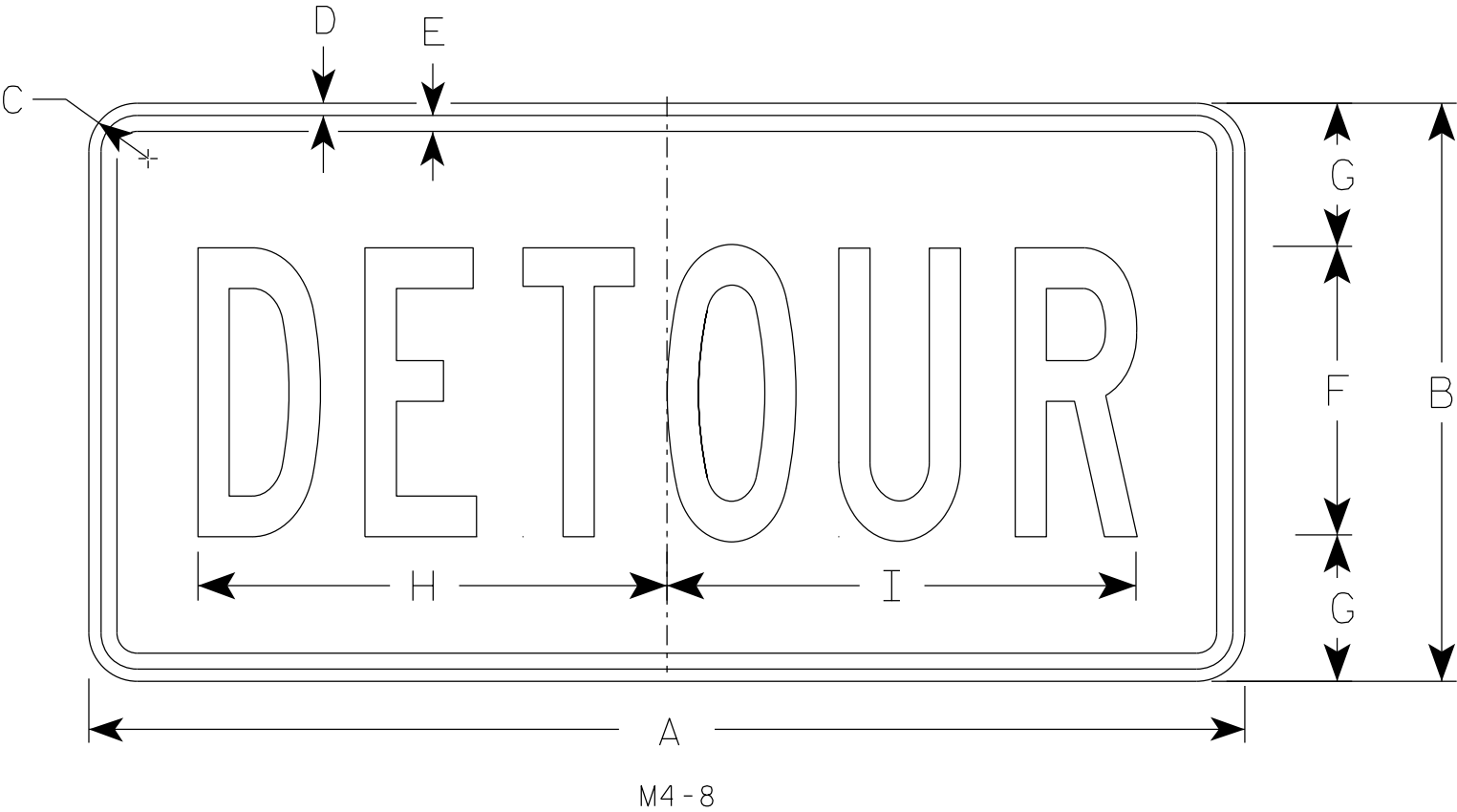
DATE 2/8/2023 PLATE NO. M3-1.15

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NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN

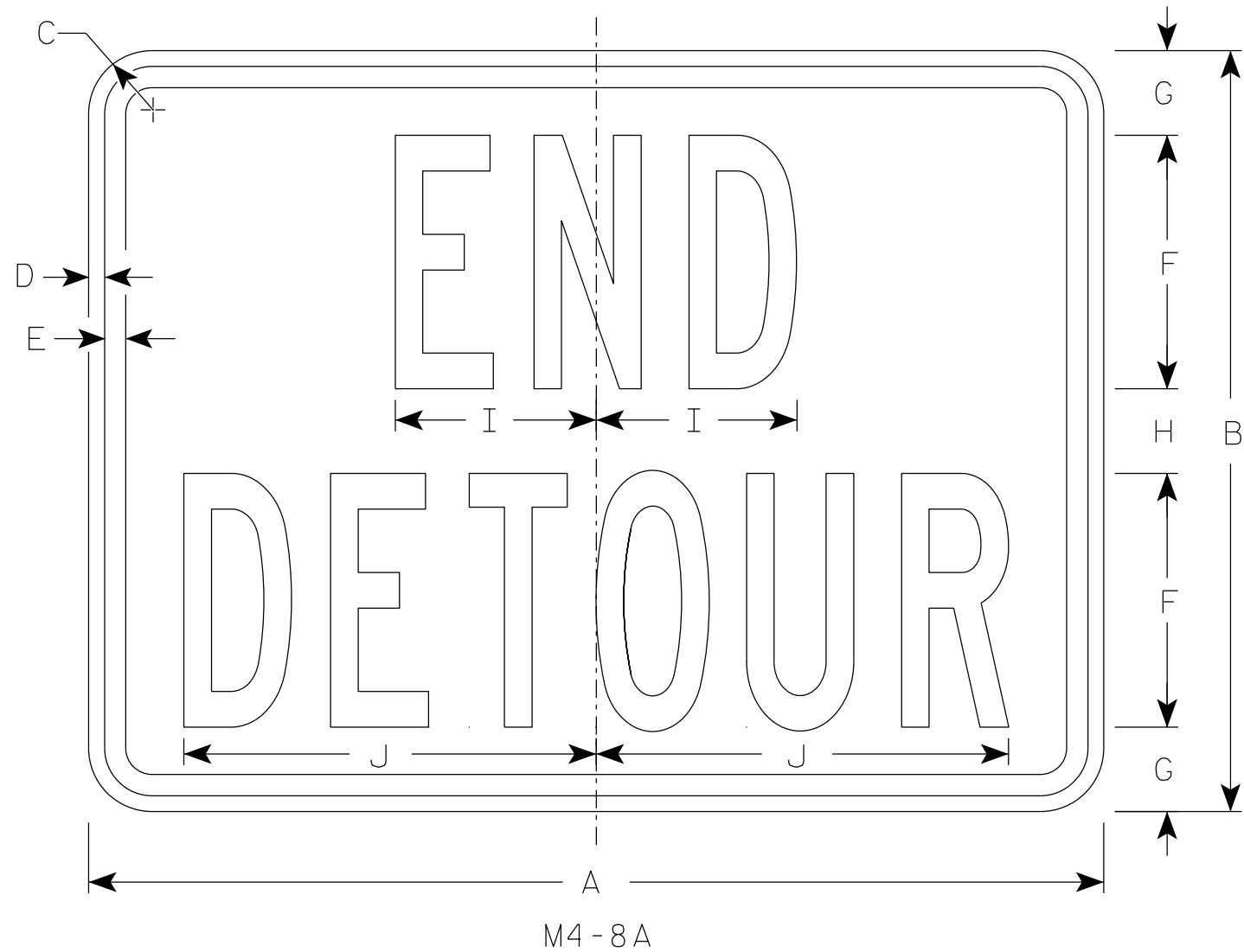
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

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NOTES

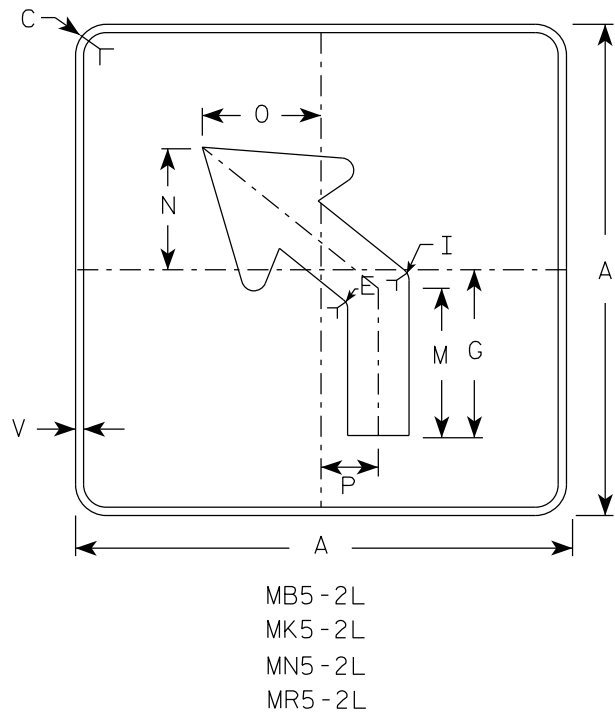
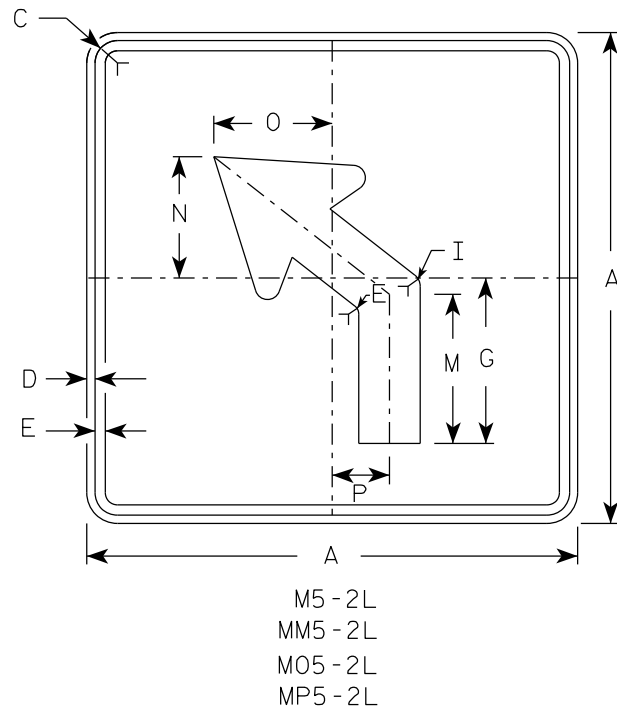
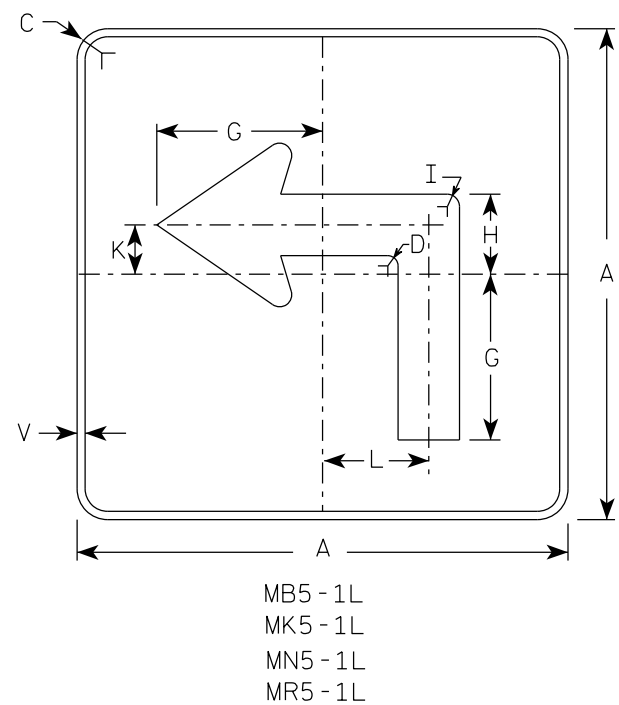
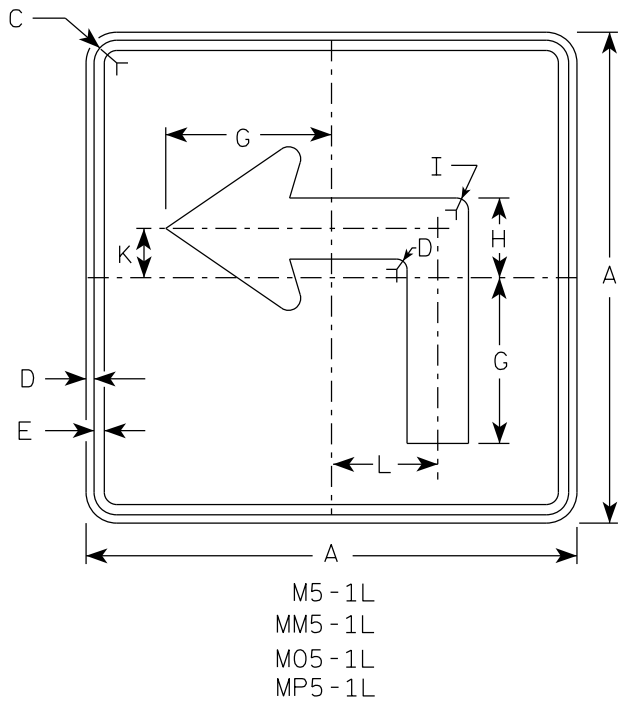
1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

STANDARD SIGN	
M4-8A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 2/9/2023	PLATE NO. M4-8A.4

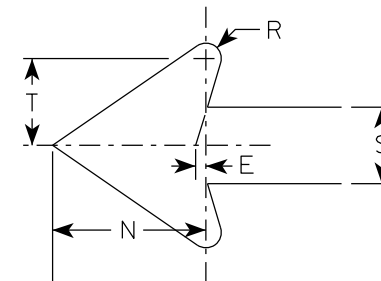
PROJECT NO:	HWY:	COUNTY:	SHEET NO:		E
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NOTES

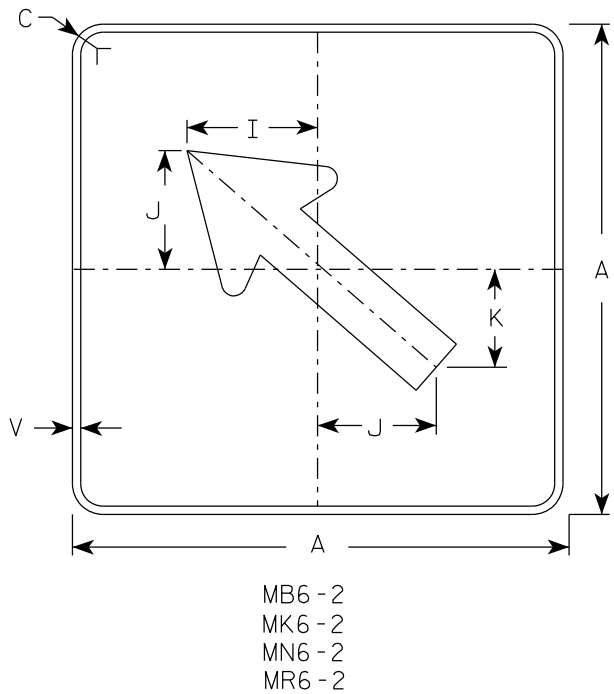
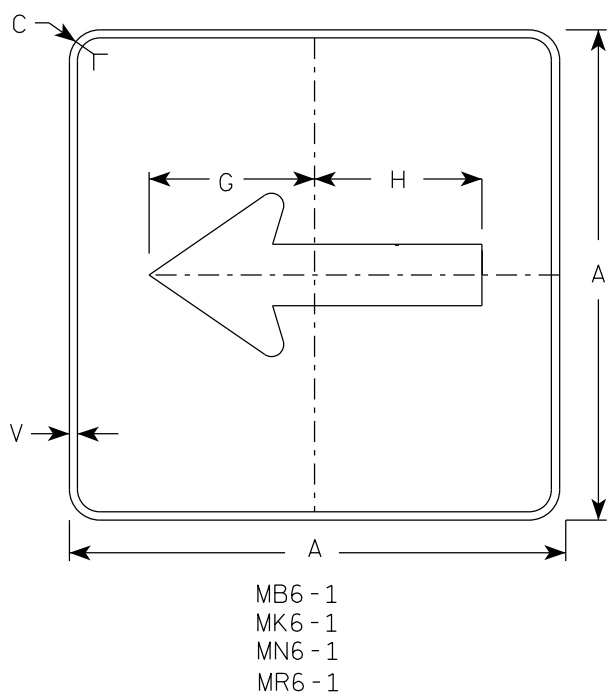
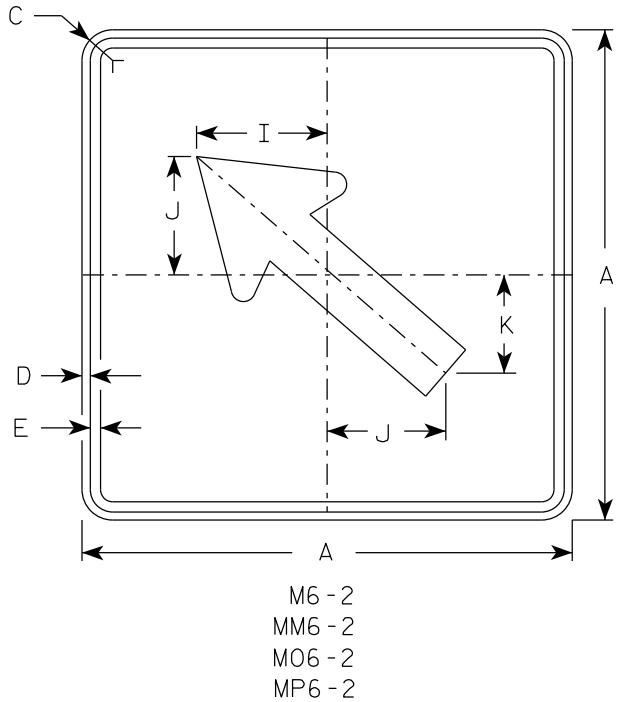
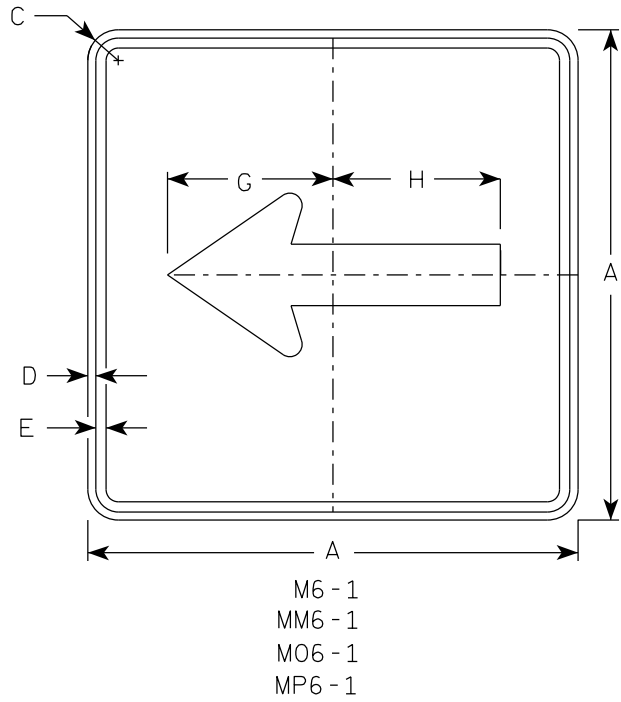
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| M5-1 and | M5-2 | Background - White |
| | | Message - Black |
| MB5-1 and | MB5-2 | Background - Blue |
| | | Message - White |
| MK5-1 and | MK5-2 | Background - Green |
| | | Message - White |
| MM5-1 and | MM5-2 | Background - White |
| | | Message - Green |
| MN5-1 and | MN5-2 | Background - Brown |
| | | Message - White |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL

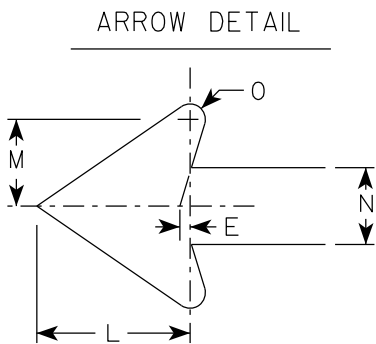


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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- NOTES**
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See note 4
Message - See note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	
1																												
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2						3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2						3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2						6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2						6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2						6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

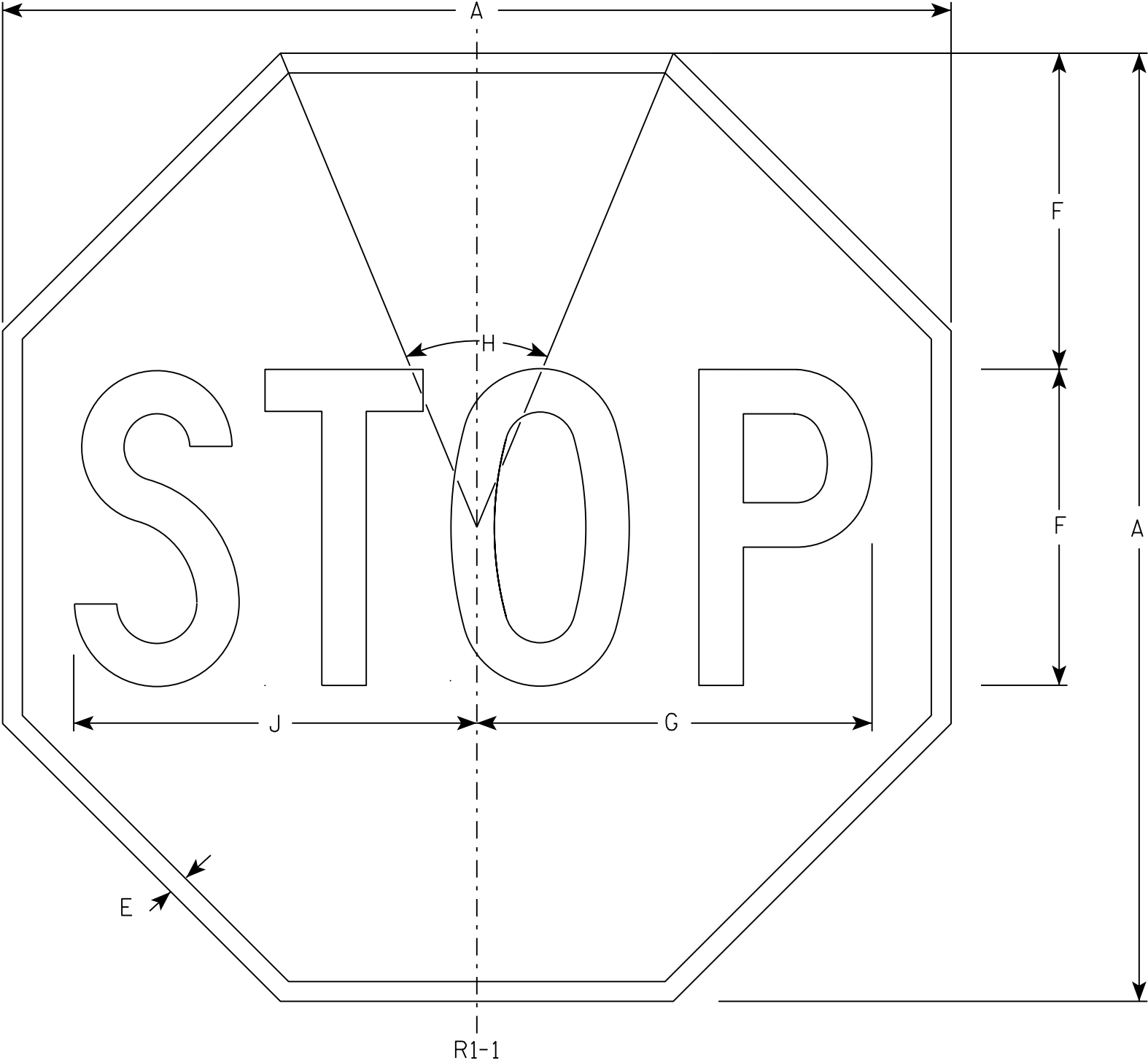
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

7

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

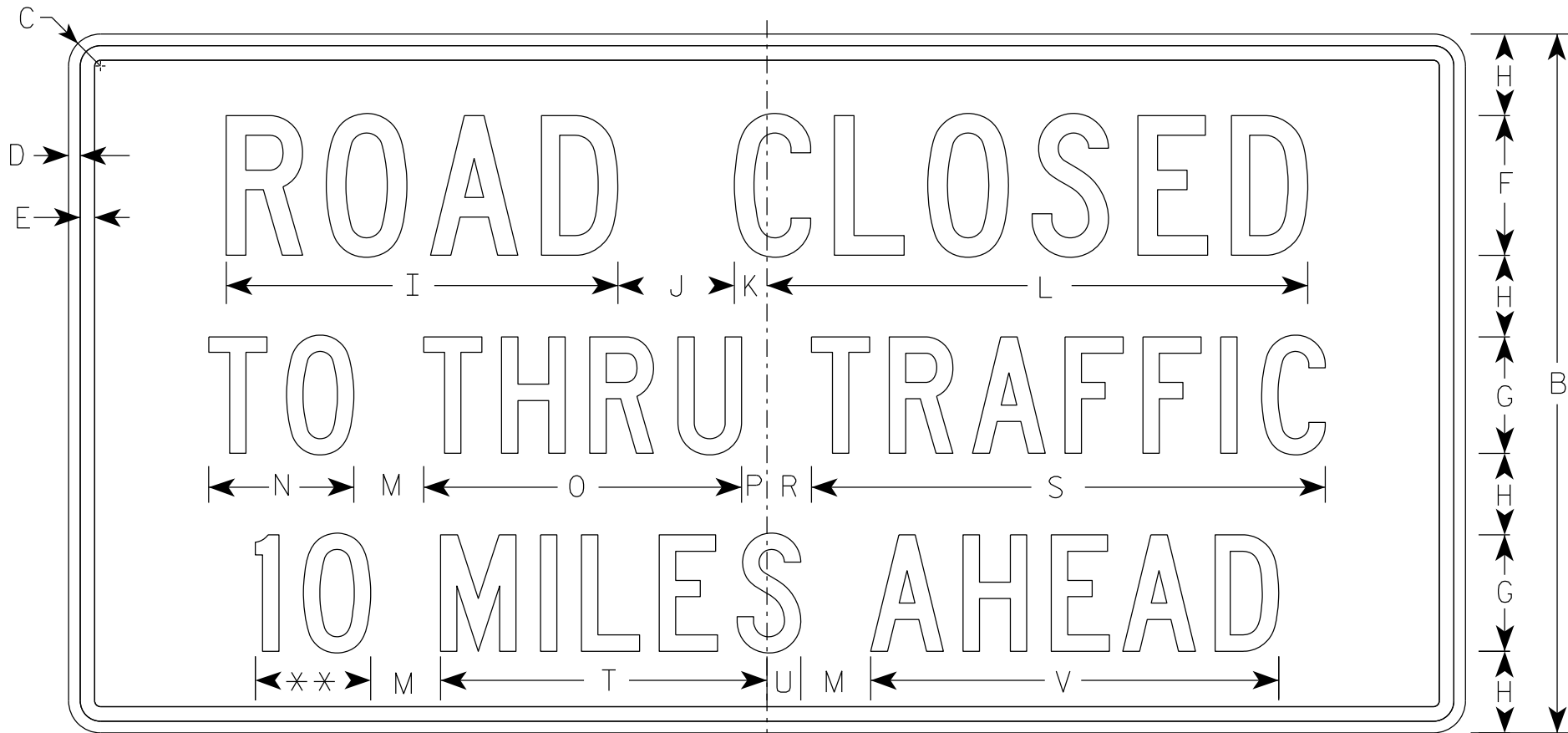
STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

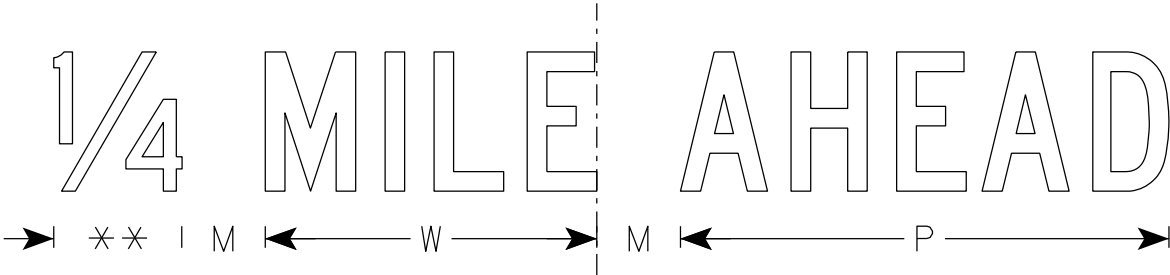
DATE 11/12/15 PLATE NO. R1-1.13

7



R11-3

** See Note 5



NOTES

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

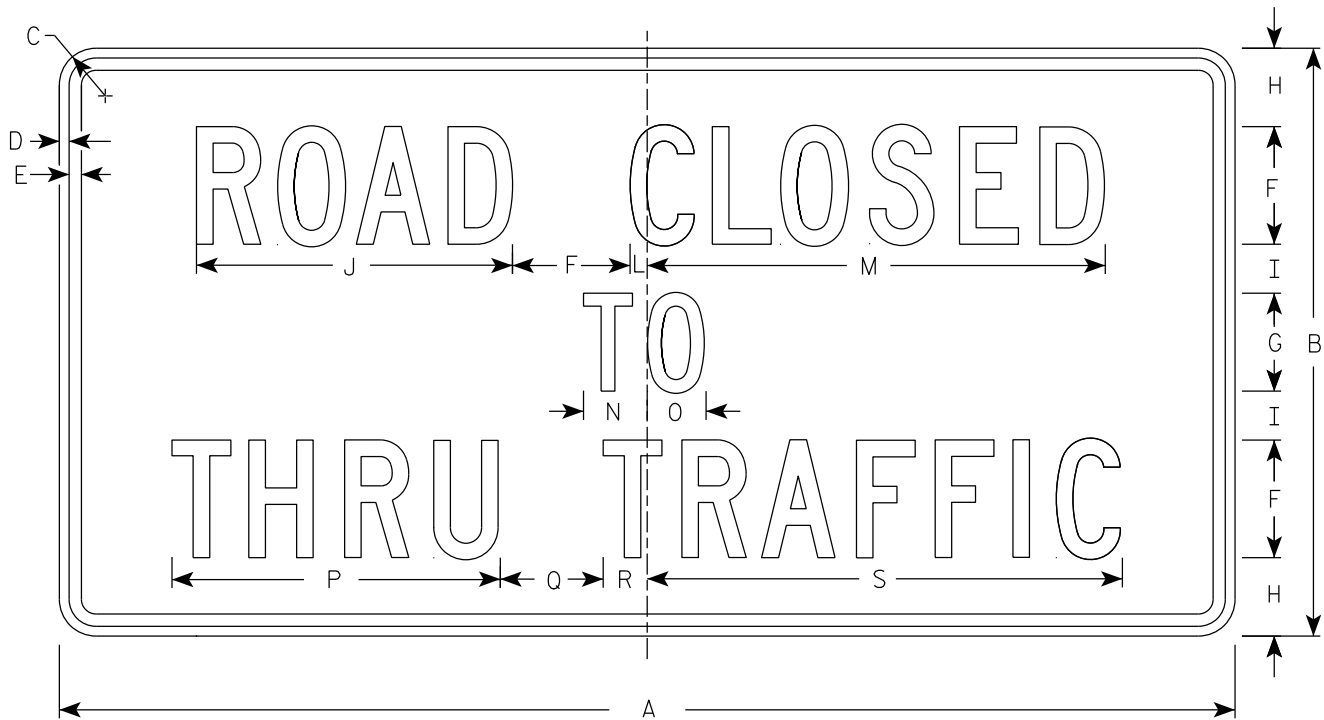
7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

STANDARD SIGN R11-3	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 2/5/24	PLATE NO. R11-3.10

NOTES

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



R11-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
2M	60	30	1 7⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
3																											
4																											
5																											

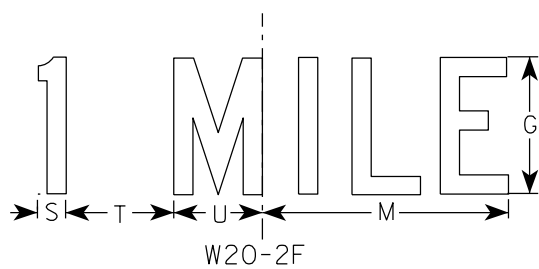
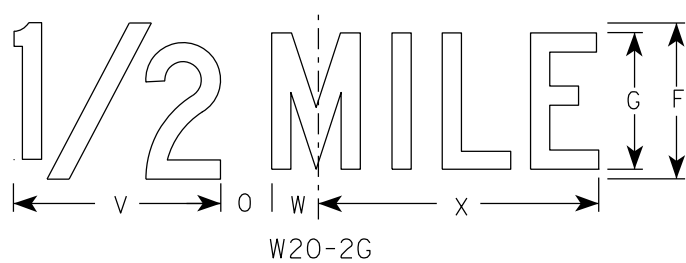
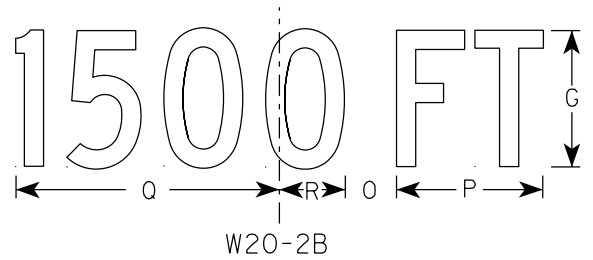
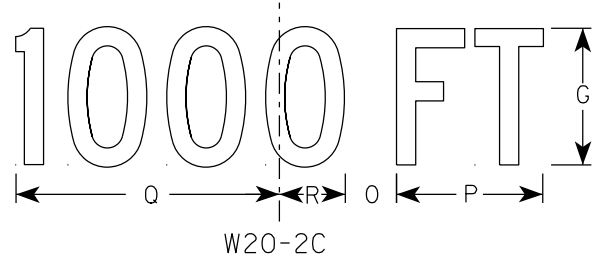
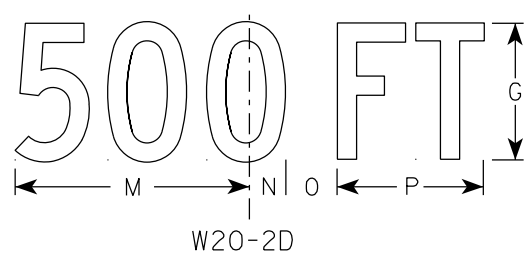
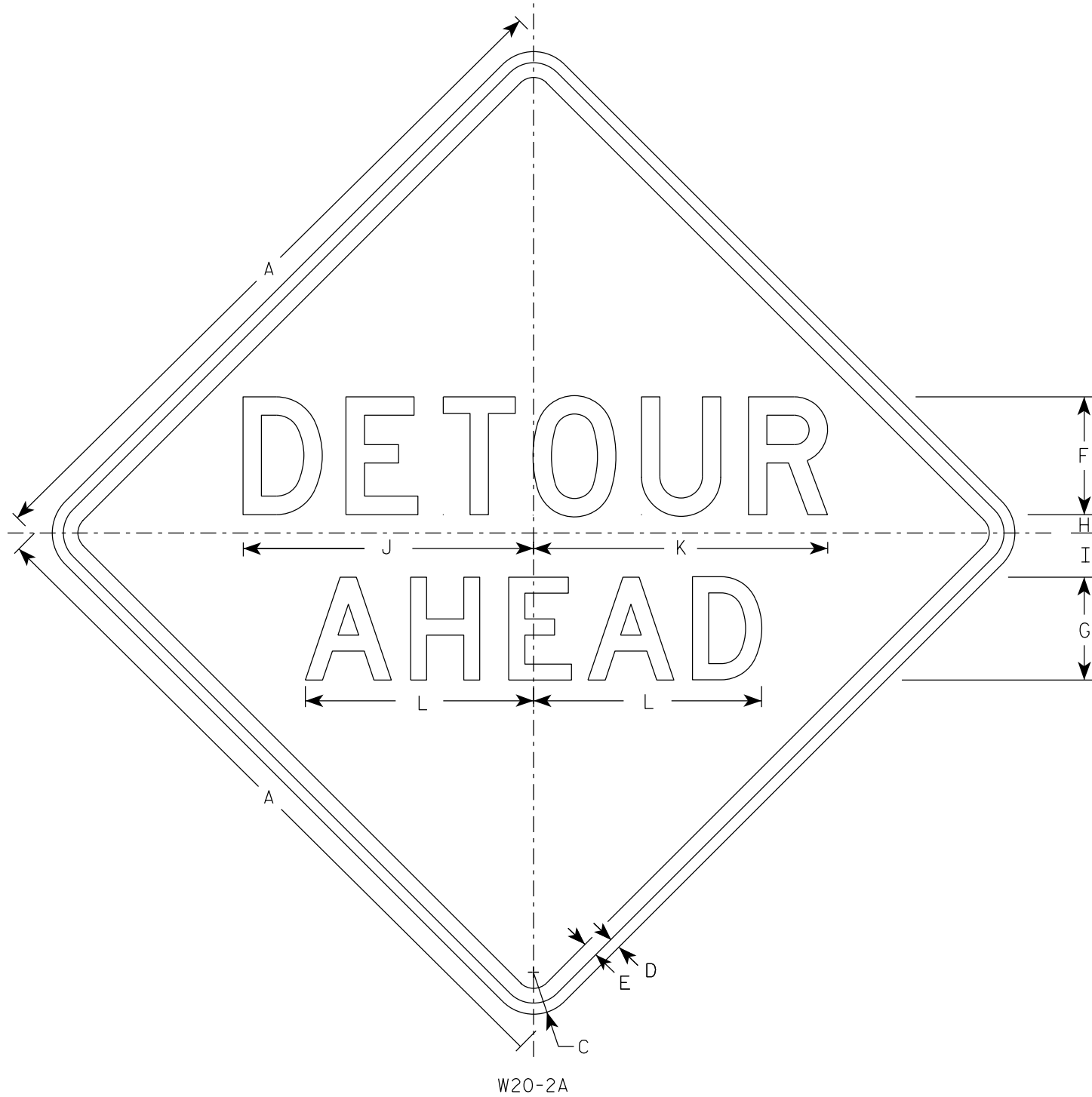
STANDARD SIGN

R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4



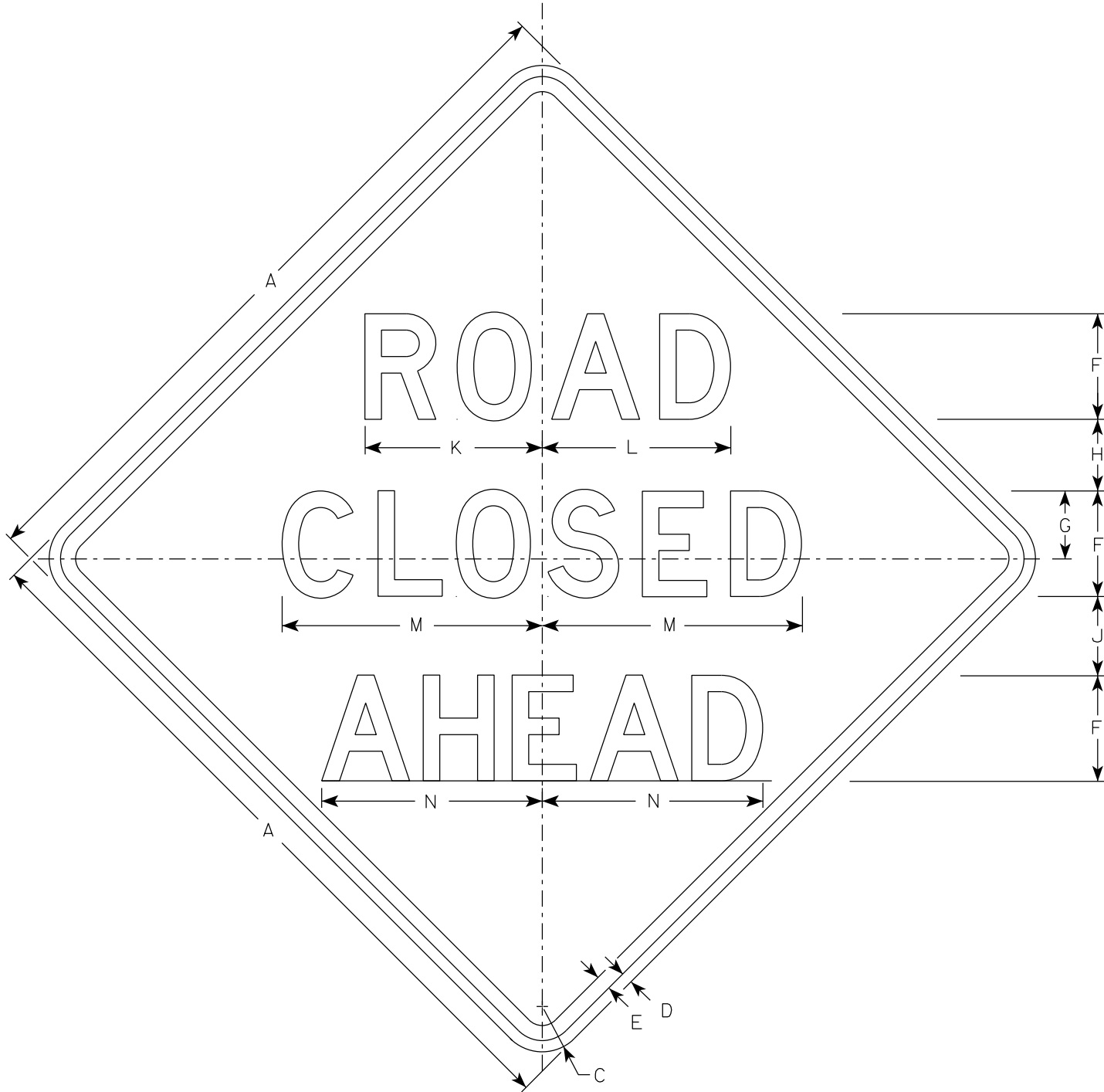
NOTES

- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

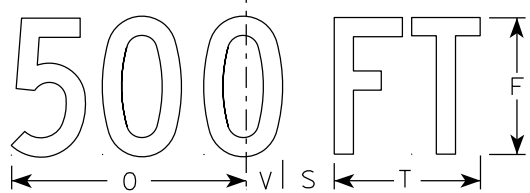
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	w	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 1/10/2024	PLATE NO. W20-2.7

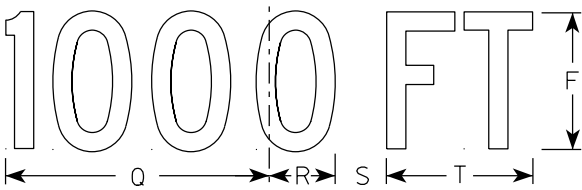
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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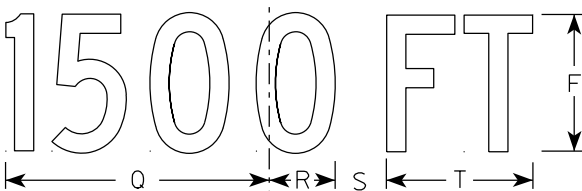
W20-3A



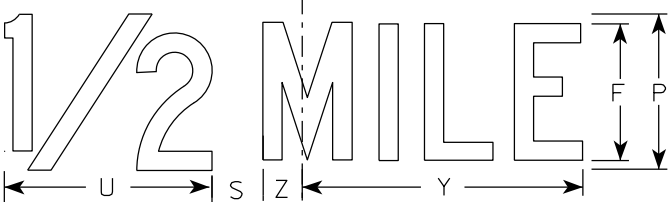
W20-3D



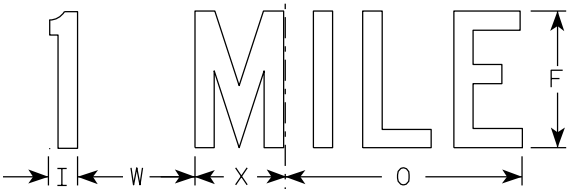
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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

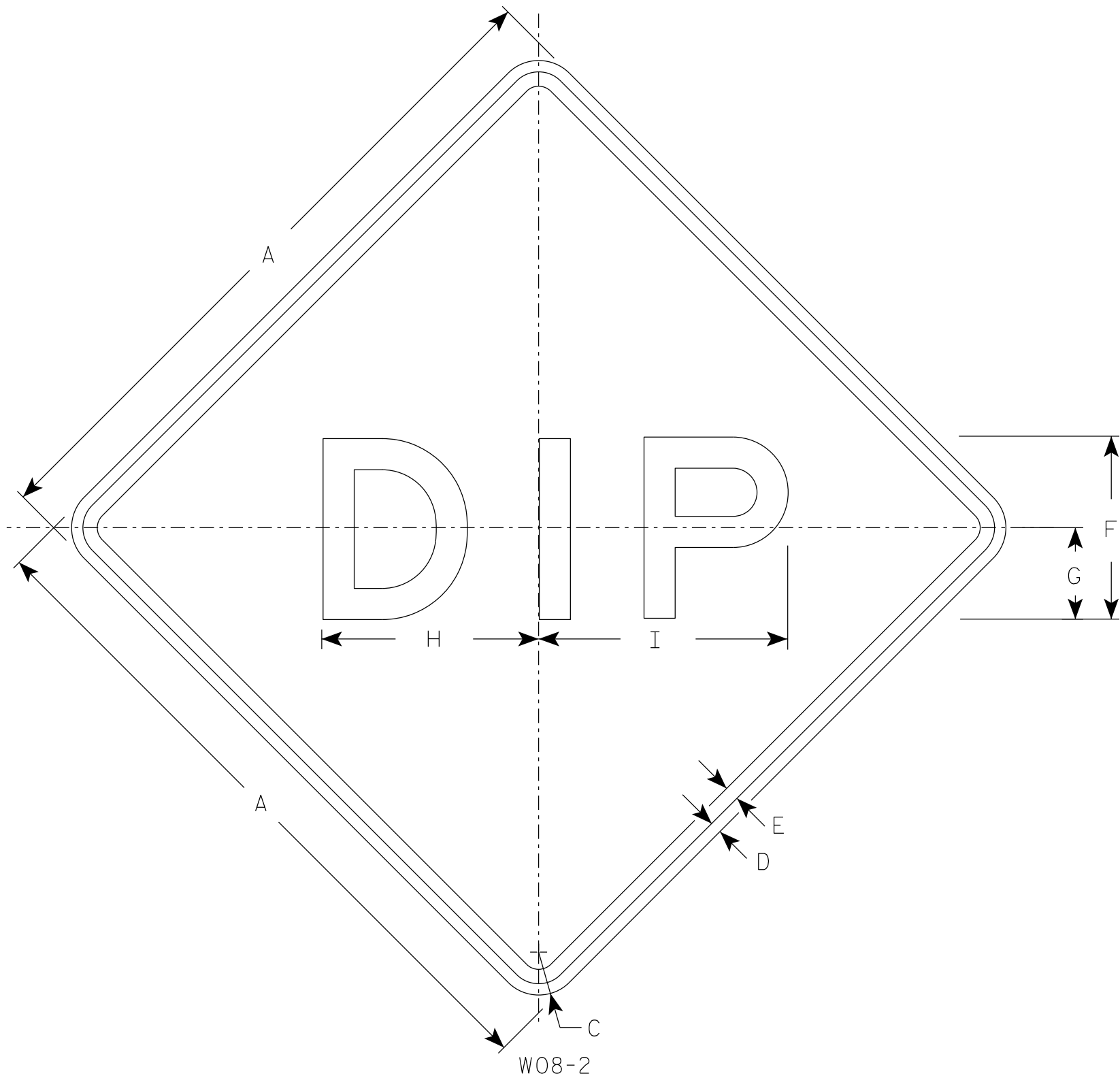
STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

7



NOTES

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

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

STANDARD SIGN
W08-2

WISCONSIN DEPT OF TRANSPORTATION

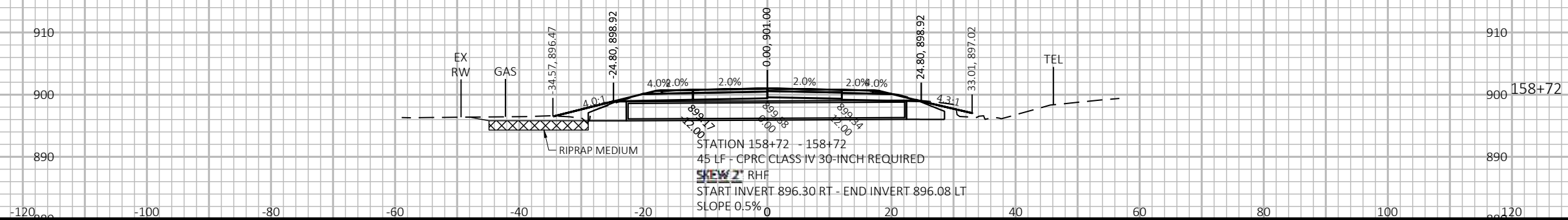
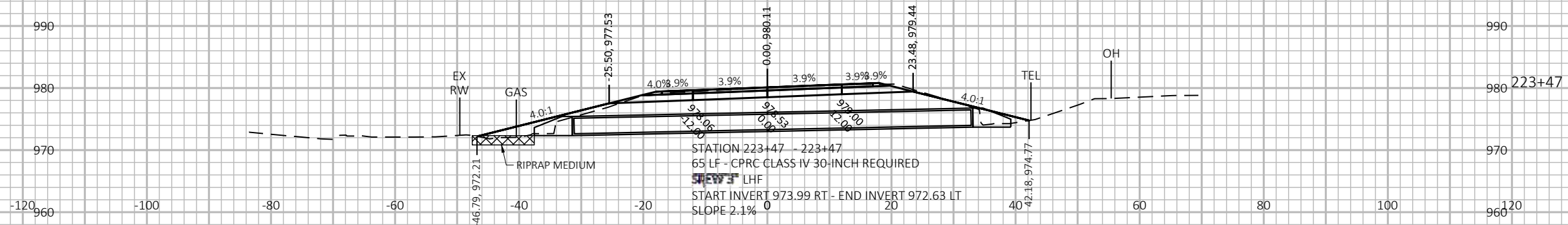
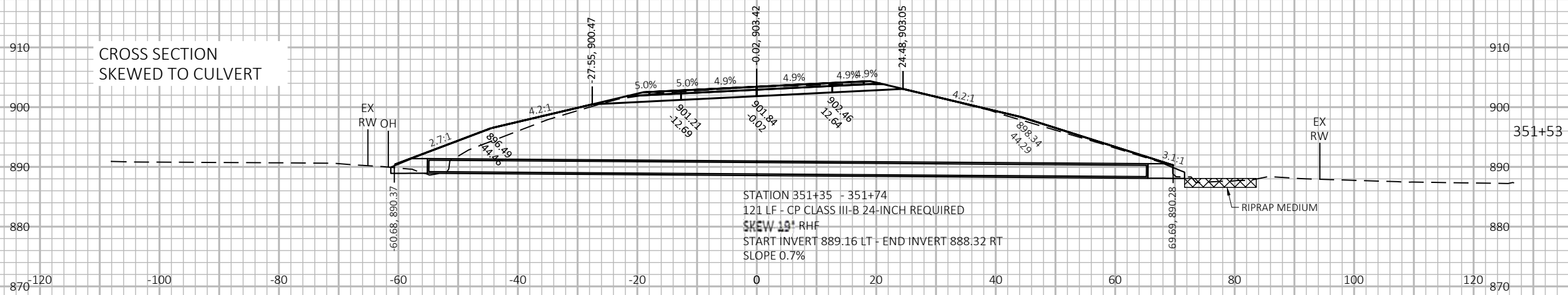
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/30/2024 PLATE NO. W08-2.3

PROJECT NO:	HWY:	COUNTY:	SHEET NO:		E
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7

CROSS SECTION
SKEWED TO CULVERT



20 FT

20 FT

PROJECT NO: 3030-02-66

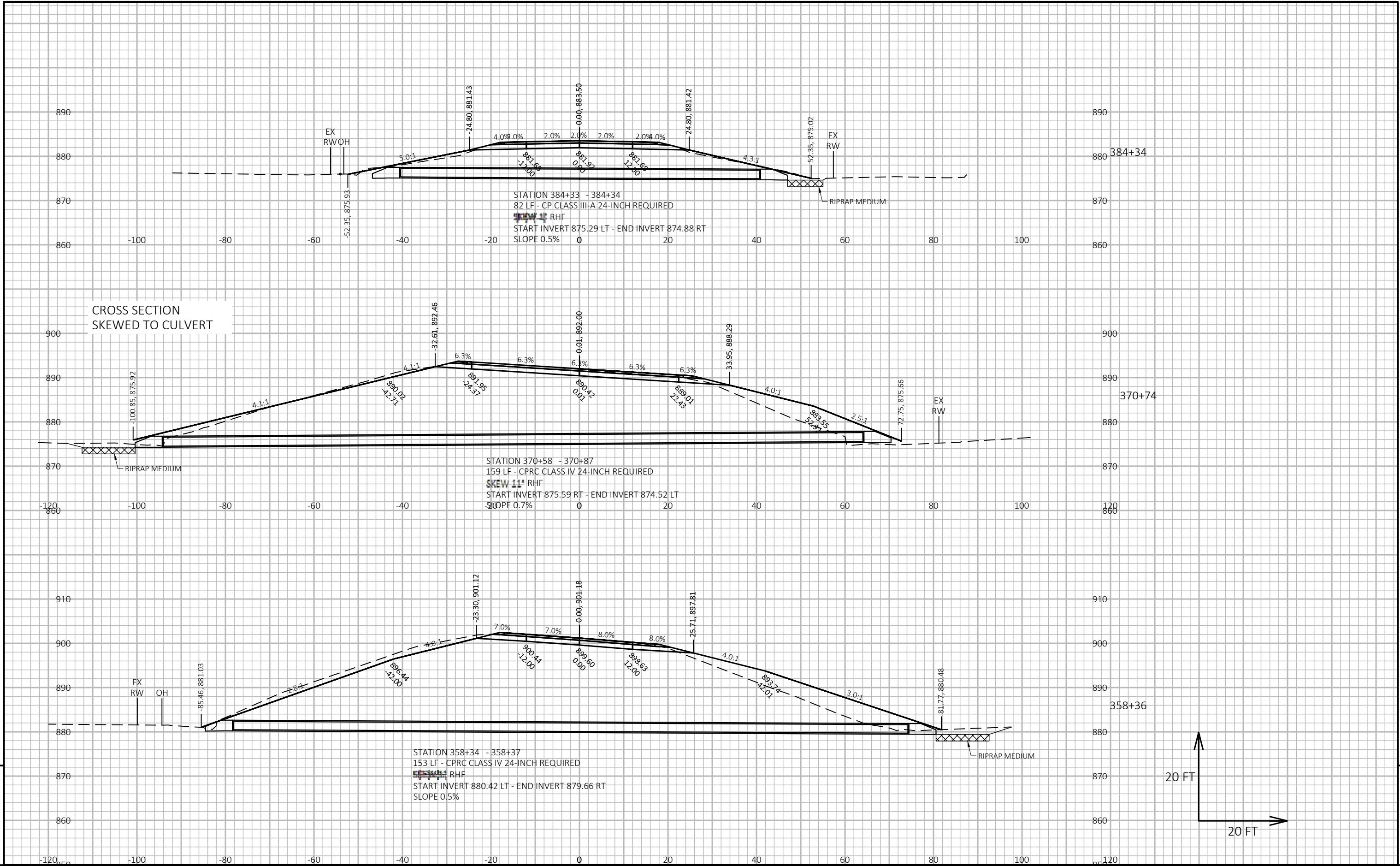
HWY: STH 67

COUNTY: DODGE

CROSS SECTIONS:

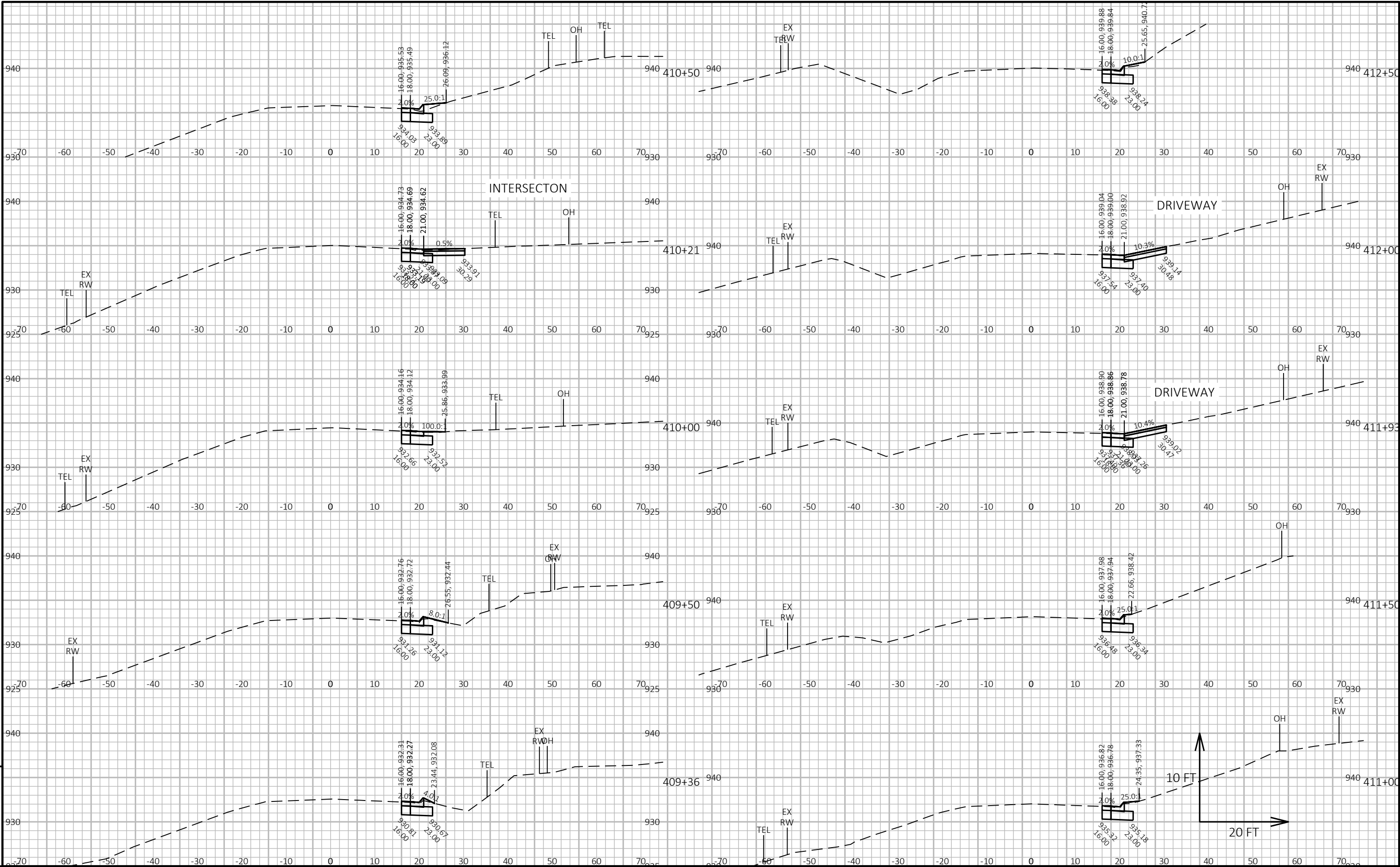
SHEET

E



9

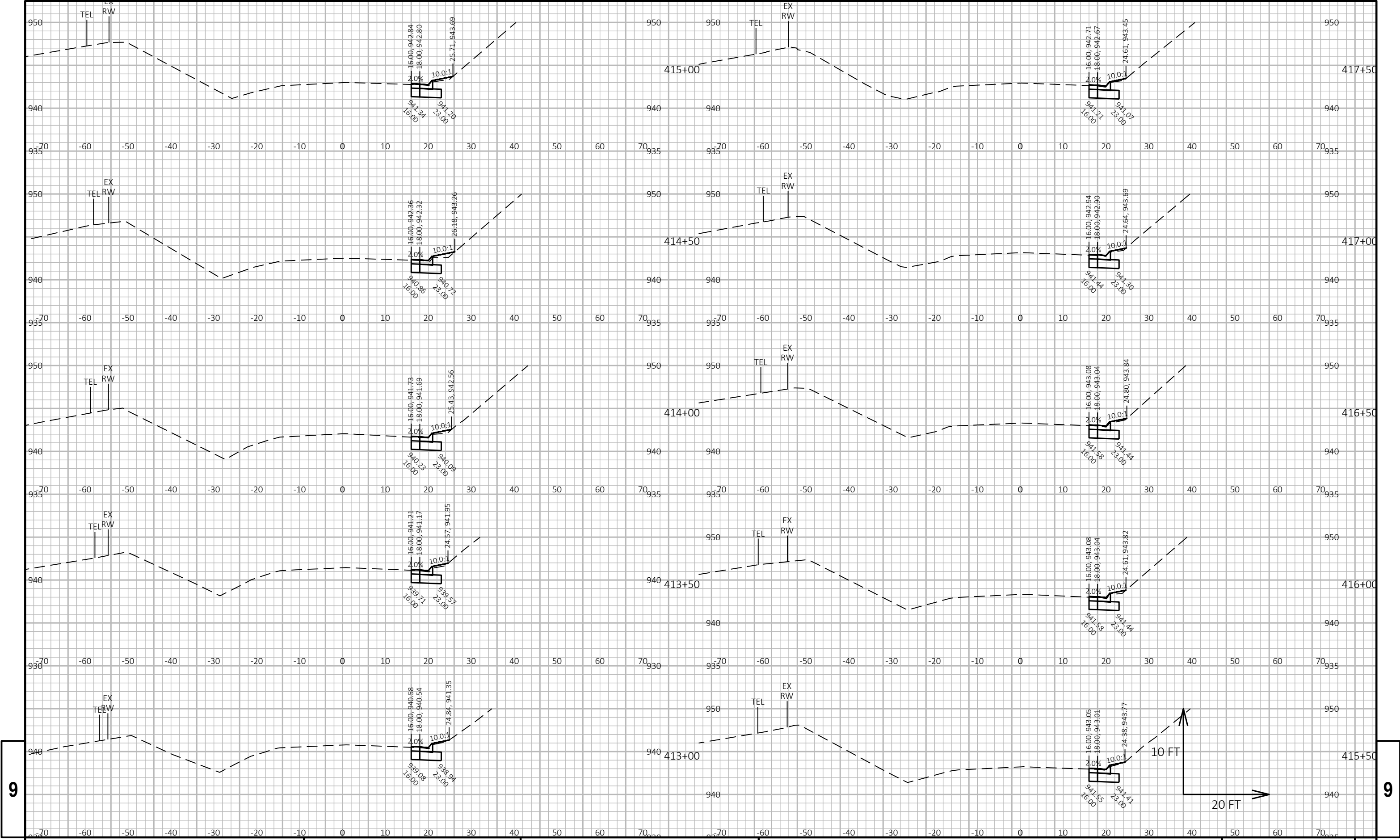
9

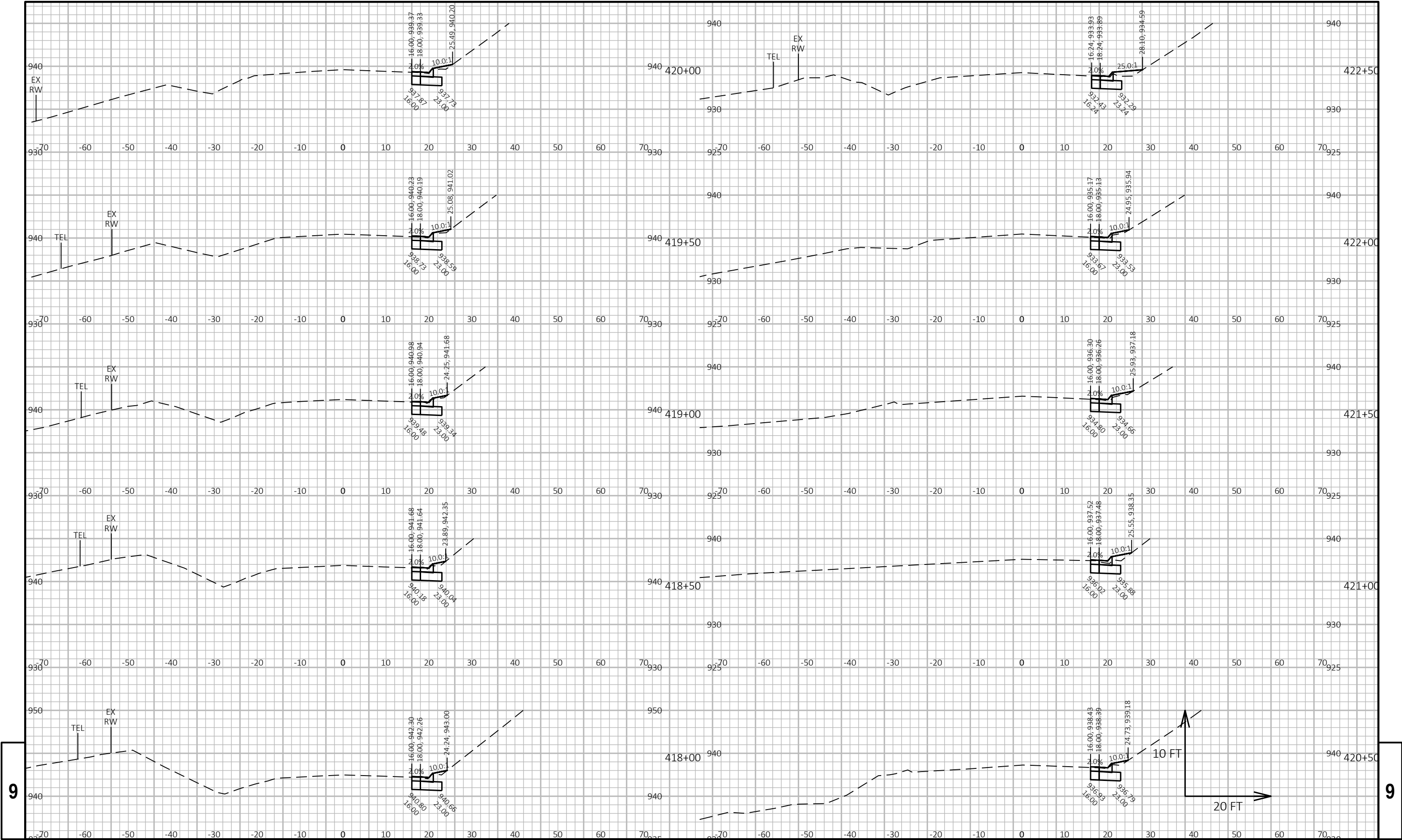


9

9

PROJECT NO: 3030-02-66	HWY: STH 67	COUNTY: DODGE	CROSS SECTIONS: CROSS SECTIONS	SHEET	E
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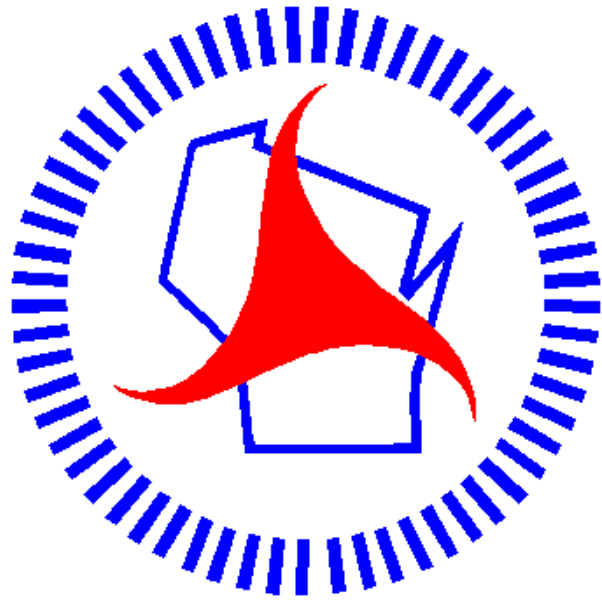




9

9

PROJECT NO:	3030-02-66	HWY:	STH 67	COUNTY:	DODGE	CROSS SECTIONS:	CROSS SECTIONS	SHEET	E
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Wisconsin Department of Transportation

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