

ORDER OF SHEETS

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

TOTAL SHEETS = 42

PROJECT ID: 5263-00-60

COUNTY: SAUK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BARABOO - IH 90/94

CITY VIEW RD/MAN MOUND RD TO CTH U

CTH T
SAUK COUNTY

STATE PROJECT		FEDERAL PROJECT	
5263-00-60		PROJECT	CONTRACT
		WISC 2023239	1

STATE PROJECT NUMBER
5263-00-60

END PROJECT
STA. 255+09.32



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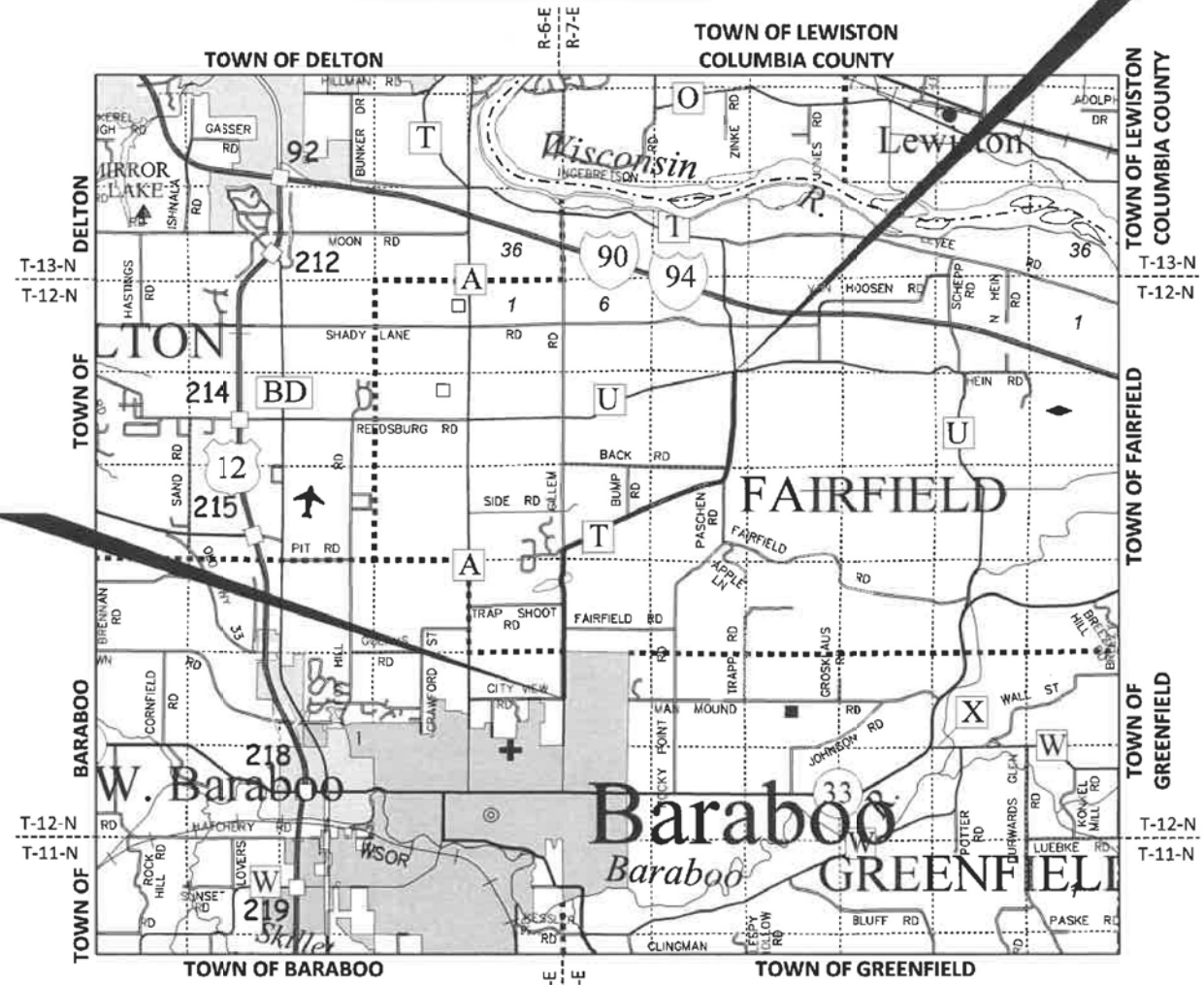
DESIGN DESIGNATION

A.A.D.T. (2023)	=	1395
A.A.D.T. (2043)	=	2075
D.H.V.	=	187
D.D.	=	60/40
T.	=	10% (ASSUMED)
DESIGN SPEED	=	45 MPH (STA. 10+00 - STA. 16+96) 55 MPH (STA. 16+96 - STA. 255+09.32)
ESALS	=	N/A

BEGIN PROJECT
STA. 10+00
Y = 244,161.77
X = 657,103.38

CONVENTIONAL SYMBOLS

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



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 4.642

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

ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

ACCEPTED FOR
COUNTY of SAUK
10/13/2022 (Date)
ADOLF (Highway Commissioner)

ORIGINAL PLANS PREPARED BY
JEWELL
associates engineers, inc
Engineers - Architects - Surveyors

WISCONSIN PROFESSIONAL ENGINEER
DANIEL J. TRACY
E-47578-6
MUSCODA, WI
10/13/2022

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: JEWELL ASSOCIATES ENGINEERS, INC.
Designer: JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager: LORRAINE BETZEL, P.E.
Regional Examiner: SW REGION
Regional Supervisor: REGIONAL SUPERVISOR

APPROVED FOR THE DEPARTMENT
DATE: 10/14/22
Lorraine Betzel (Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

CURVE DATA IS BASED ON THE ARC DEFINITION.

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, ALL SIGNS RELATING TO THIS OPERATION SHALL BE COVERED OR REMOVED AND FACILITY RESTORED TO NORMAL OPERATIONS.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL 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.

IF THERE ARE UTILITY CONFLICTS WITH SIGNS OR OTHER WORK UNDER THIS PROJECT, THE CONTRACTOR WILL WORK AROUND THE UTILITY FACILITIES.

EXISTING SIGNS NOT SHOWN ON PLAN ARE TO REMAIN. PRIOR TO PLACEMENT OF PERMANENT SIGNS THE ENGINEER IN THE FIELD WILL VERIFY PERMANENT SIGNING LOCATION. IF THERE IS A CONFLICT BETWEEN THE EXISTING SIGN AND PERMANENT SIGN THE ENGINEER IN THE FIELD WILL DETERMINE THE LOCATION OF THE PROPOSED PERMANENT SIGN PRIOR TO PLACEMENT.

EXISTING SHOULDER AGGREGATE SHALL BE INCORPORATED INTO THE NEW SHOULDERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF THE ITEM OF ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A VERTICAL EDGE MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF ASPHALTIC SURFACE.

CONTACTS

SAUK COUNTY HIGHWAY DEPARTMENT:
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 WEST BARABOO, WI 53913
 PH: (608) 355-4855
 EMAIL: patrick.gavinski@saukcountywi.gov

DESIGN CONSULTANT:
 JEWELL ASSOCIATES ENGINEERS, INC.
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 SPRING GREEN, WI 53588
 ATTN: DAN TRACY, P.E.
 PH: (608) 459-6052
 CELL: (608) 604-6905
 EMAIL: dan.tracy@jewellassoc.com

WISCONSIN DEPARTMENT OF TRANSPORTATION:
 DTSD SW REGION
 2101 WRIGHT STREET
 MADISON, WI 53704
 ATTN: LORRAINE BETZEL, P.E.
 PH: (608) 246-3279
 EMAIL:lorraine.betzel@dot.wi.gov

WDNR LIAISON:
 STATE OF WISCONSIN
 DNR SOUTH CENTREAL REGION HQ
 3911 FISH HATCHERY ROAD
 FITCHBURG, WI 53711
 ATTN: ANDY BARTA
 PH: (608) 235-2955
 EMAIL: andrew.barta@wisconsin.gov

UTILITIES

ELECTRICITY
 ALLIANT ENERGY
 ATTN: RYAN DICKINSON
 520 COMMERCE AVE
 BARABOO, WI 53913
 PH: (608) 356-0610
 EMAIL: ryandickinson@alliantenergy.com

GAS
 ALLIANT ENERGY
 ATTN: RYAN DICKINSON
 520 COMMERCE AVE
 BARABOO, WI 53913
 PH: (608) 356-0610
 EMAIL: ryandickinson@alliantenergy.com

ADAMS-COLUMBIA ELECTRIC COOPERATIVE
 ATTN: SHAWN PIETRZAK
 P.O. BOX 70
 FRIENDSHIP, WI 53934
 PH: (800) 831-8269
 EMAIL: spietrzak@acecwi.com

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment	INV	Invert	RDWY	Roadway
AC	Acre	IP	Iron Pipe or Pin	SALV	Salvaged
AGG	Aggregate	IRS	Iron Rod Set	SAN S	Sanitary Sewer
AH	Ahead	JT	Joint	SEC	Section
<	Angle	JCT	Junction	SHLDR	Shoulder
ASPH	Asphaltic	LHF	Left-Hand Forward	SHR	Shrinkage
AVG	Average	L	Length of Curve	SW	Sidewalk
ADT	Average Daily Traffic	LIN FT	Linear Foot	S	South
BAD	Base Aggregate Dense	or LF		SQ	Square
BK	Back	LC	Long Chord of Curve	SF or SQ FT	Square Feet
BF	Back Face	MH	Manhole	SY or SQ YD	Square Yard
BM	Bench Mark	MB	Mailbox	STD	Standard
BR	Bridge	ML or M/L	Match Line	SDD	Standard Detail Drawings
C or C/L	Center Line	N	North	STH	State Trunk Highways
CC	Center to Center	Y	North Grid Coordinate	STA	Station
C.E.	Commercial Entrance	OD	Outside Diameter	SS	Storm Sewer
CTH	County Trunk Highway	PLE	Permanent Limited Easement	SG	Subgrade
CR	Creek	PT	Point	SE	Superelevation
CR	Crushed	PC	Point of Curvature	SL or S/L	Survey Line
CY or CU YD	Cubic Yard	PI	Point of Intersection	SV	Septic Vent
CP	Culvert Pipe	PRC	Point of Reverse Curvature	T	Tangent
C & G	Curb and Gutter			TEL	Telephone
D	Degree of Curve	PT	Point of Tangency	TEMP	Temporary
DHV	Design Hour Volume	POC	Point On Curve	TI	Temporary Interest
DIA	Diameter	POT	Point on Tangent	TLE	Temporary Limited Easement
E	East	PVC	Polyvinyl Chloride	t	Ton
X	East Grid Coordinate	PCC	Portland Cement Concrete	T or TN	Town
ELEC	Electric (al)	LB	Pound	TRANS	Transition
EL or ELEV	Elevation	PSI	Pounds Per Square Inch	TL or T/L	Transit Line
ESALS	Equivalent Single Axle Loads	P.E.	Private Entrance	T	Trucks (percent of)
EBS	Excavation Below Subgrade	R	Radius	TYP	Typical
FF	Face to Face	RR	Railroad	UNCL	Unclassified
F.E.	Field Entrance	R	Range	UG	Underground Cable
F	Fill	RL or R/L	Reference Line	USH	United States Highway
FG	Finished Grade	RP	Reference Point	VAR	Variable
FL or F/L	Flow Line	RCCP	Reinforced Concrete Culvert Pipe	V	Velocity or Design Speed
FT	Foot	REQD	Required	VERT	Vertical
FTG	Footing	RES	Residence or Residential	VC	Vertical Curve
GN	Grid North	RW	Retaining Wall	VOL	Volume
HT	Height	RT	Right	WM	Water Main
CWT	Hundredweight	RHF	Right-Hand Forward	WV	Water Valve
HYD	Hydrant	R/W	Right-of-Way	W	West
INL	Inlet	RD	Road	WB	Westbound
ID	Inside Diameter	R	River	YD	Yard

ORDER OF SECTION 2 SHEETS:

- GENERAL NOTES, UTILITIES, CONTACTS, & ABBREVIATIONS
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS

CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X	Z
1	63+14	¾" I.R.S., 21.7' RT.	249,475.75	657,135.97	874.36
2	126+05	¾" I.R.S., 17.8' LT.	254,057.82	659,914.53	850.69
3	166+34	NGS HARN, 34.4' RT.	255,648.38	663,614.94	858.86





PROJECT NO: 5263-00-60

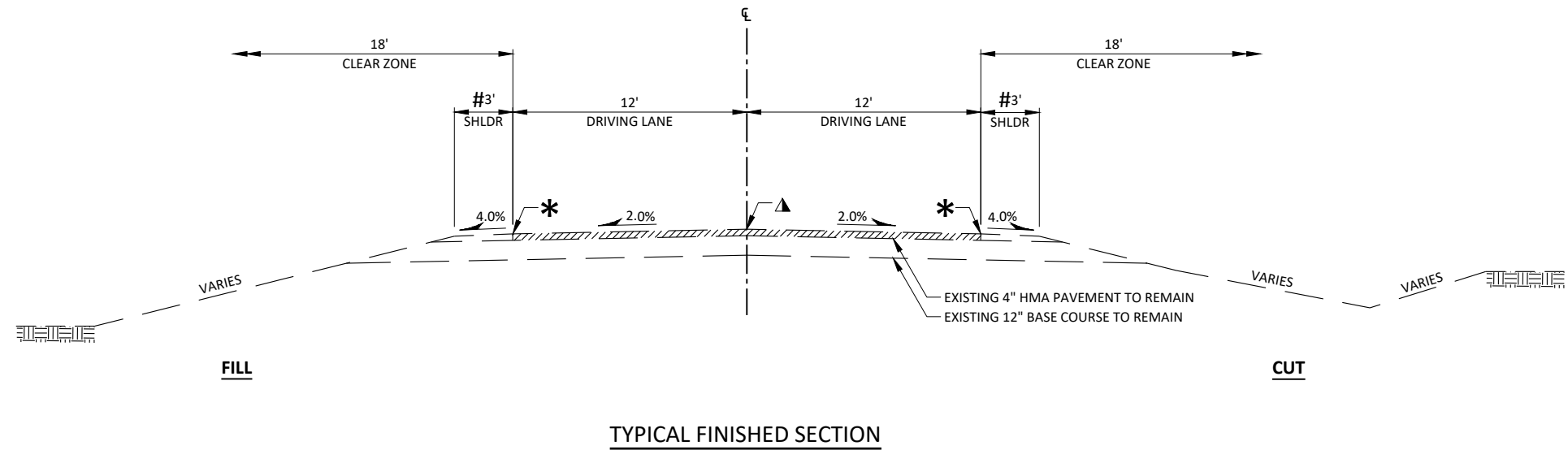
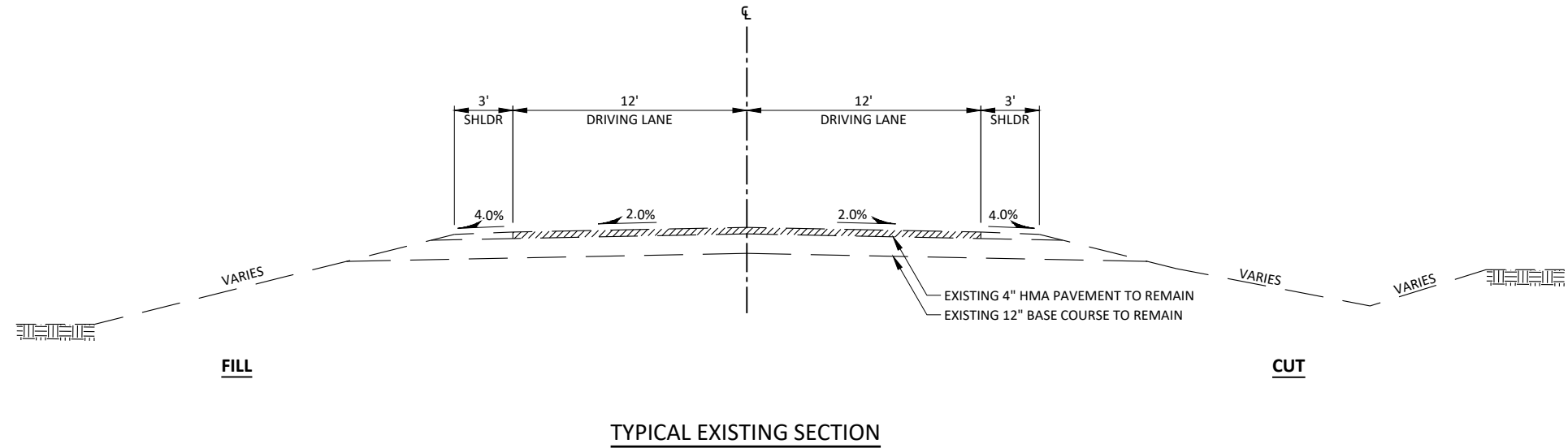
HWY: CTH T

COUNTY: SAUK

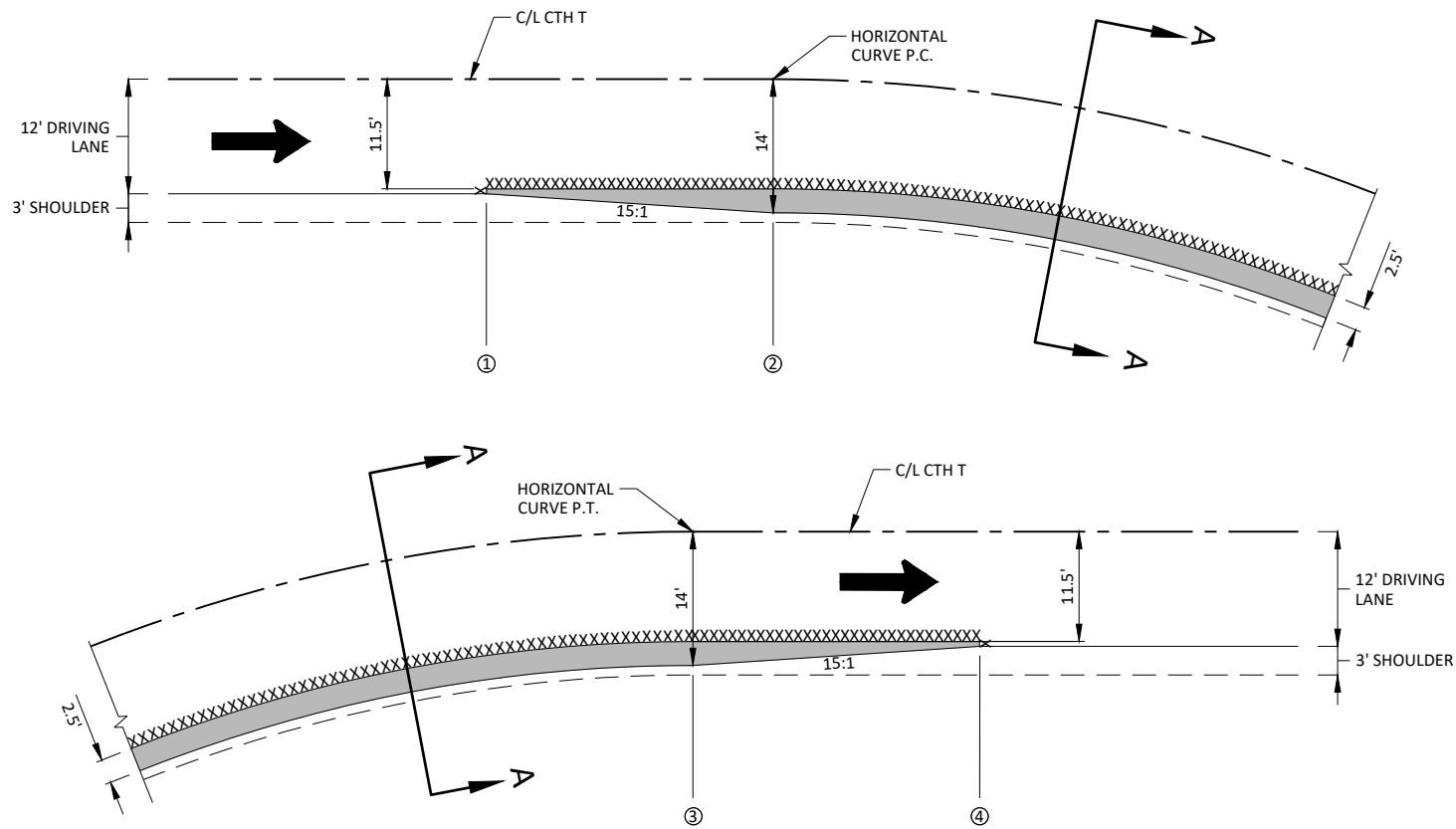
PROJECT OVERVIEW

SHEET

E



- ▲ ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL REQ'D. SEE MISCELLANEOUS QUANTITIES AND STANDARD DETAIL DRAWINGS FOR DETAILS.
- * MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH REQ'D. SEE MISCELLANEOUS QUANTITIES AND STANDARD DETAIL DRAWINGS FOR DETAILS.
- # SEE CONSTRUCTION DETAILS FOR SHOULDER WIDENING AREAS

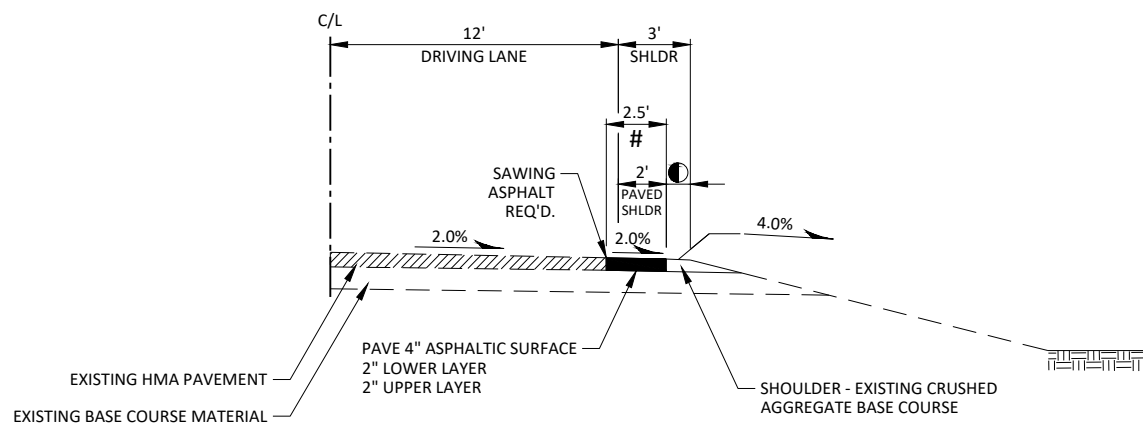


LIMITS OF ASPHALTIC SURFACE PAVEMENT
 SAWING ASPHALT
 DIRECTION OF TRAFFIC

SHOULDER WIDENING LAYOUT DETAIL

NOTE - SHOULDER WIDENING ON RIGHT SIDE IS SHOWN, LEFT SIDE IS SIMILAR

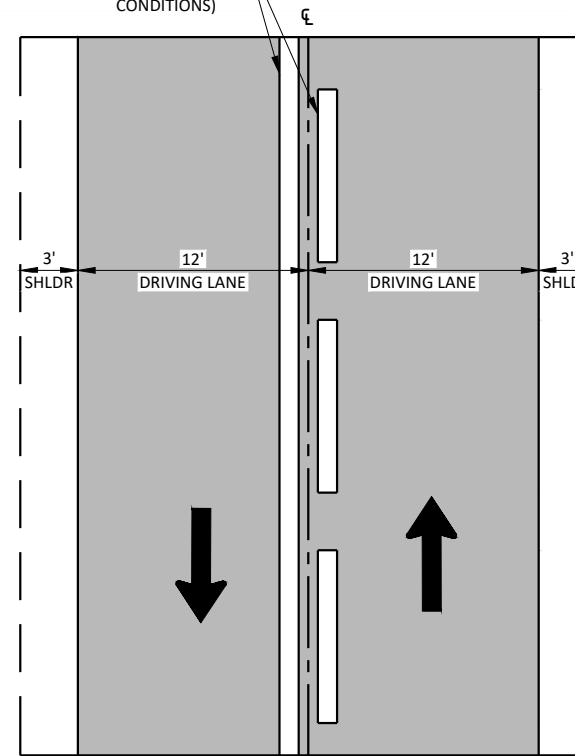
STATION-STATION	CURVE #	LOCATION	①	②	③	④
70+67 - 84+17	1, 2, 3	MAINLINE, LT./RT.	70+67	70+97	83+87	84+17
91+67 - 97+37	4	MAINLINE, LT./RT.	91+67	91+97	97+07	97+37
115+52 - 124+38	6, 7	MAINLINE, LT./RT.	115+52	115+82	124+08	124+38
190+16 - 194+99	11	MAINLINE, LT./RT.	190+16	190+46	194+69	194+99



SECTION A-A

SHAPING SHOULDERS REQ'D
 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
 STA. 70+67 - STA. 84+17, LT./RT.
 STA. 91+67 - STA. 97+37, LT./RT.
 STA. 115+52 - STA. 124+38, LT./RT.
 STA. 190+16 - STA. 194+99, LT./RT.

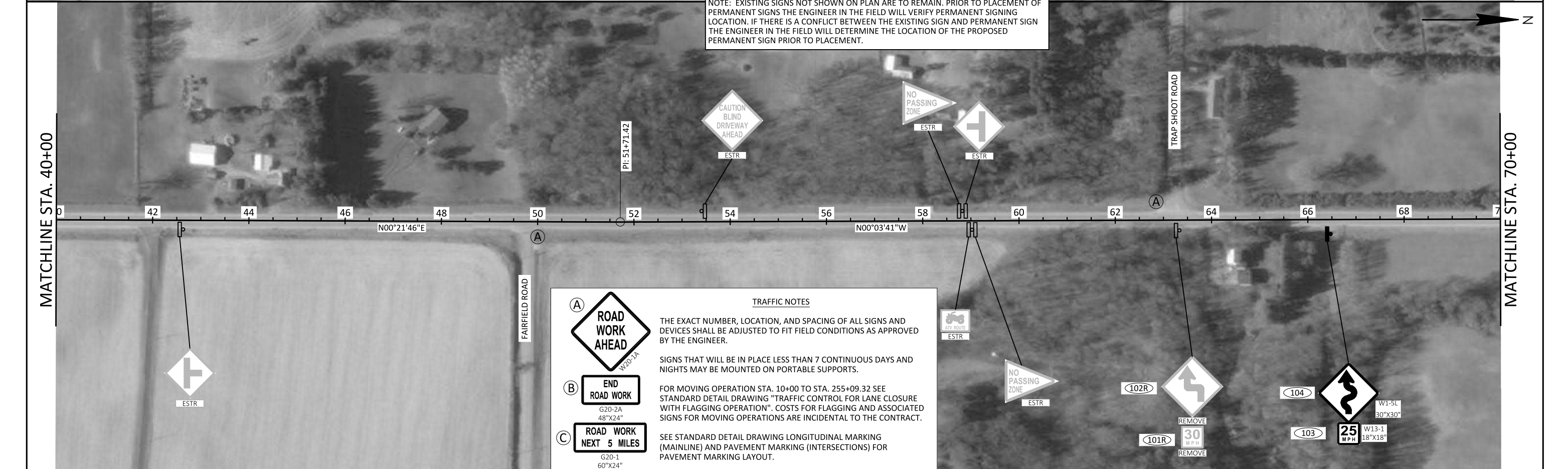
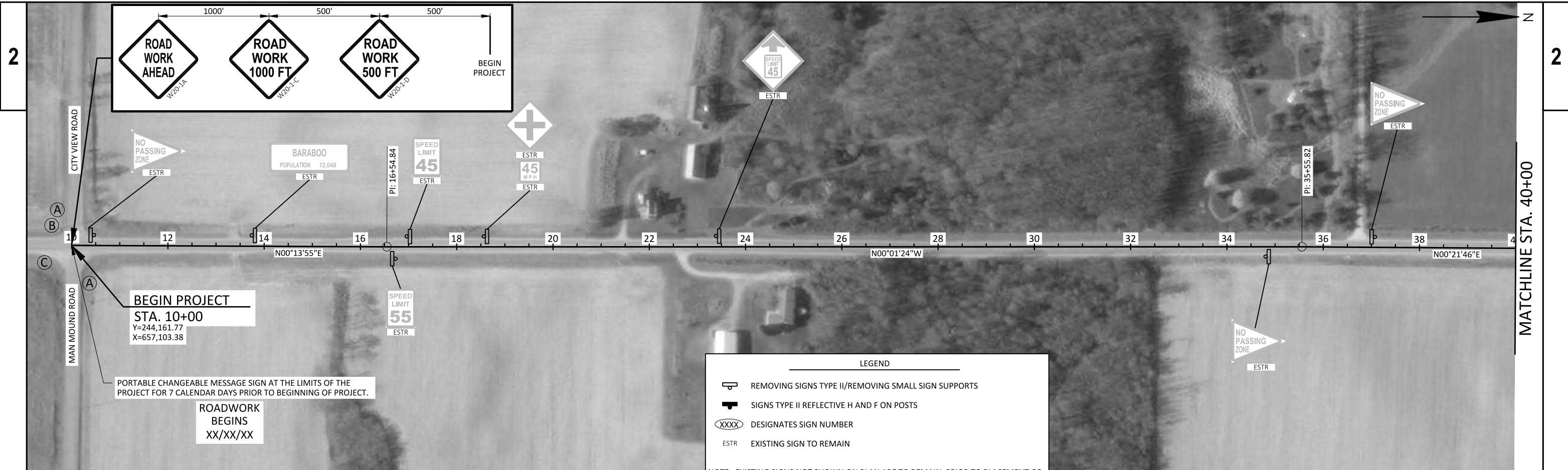
MARKING LINE SAME DAY EPOXY 4-INCH TO BE PLACED SAME DAY AS CENTERLINE RUMBLE STRIPS. (ALL MARKING LINE EPOXY IS TO MATCH EXISTING CONDITIONS)



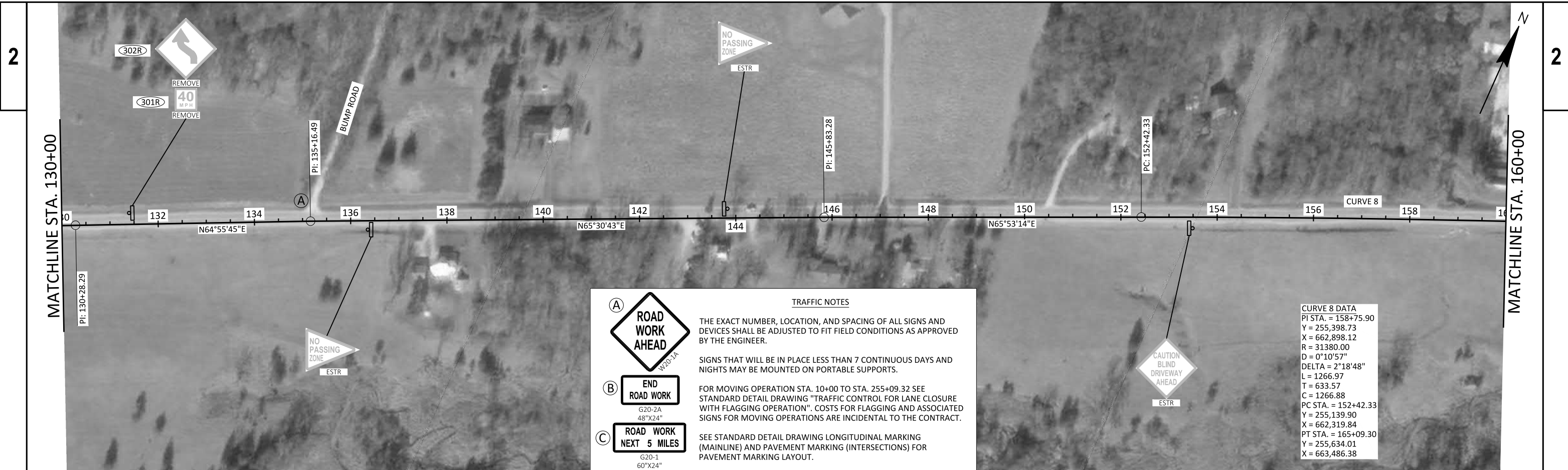
PLAN VIEW

- EXISTING ASPHALTIC SURFACE TO REMAIN
1. REMOVE CENTERLINE UNDER MARKING REMOVAL LINE 4-INCH
 2. PLACE TEMPORARY MARKING LINE EPOXY 4-INCH (TO BE PLACED SAME DAY AS MARKING REMOVAL LINE 4-INCH)
 3. INSTALL ASPHALTIC CENTERLINE RUMBLE STRIPS
 4. PLACE MARKING LINE SAME DAY EPOXY 4-INCH

CENTERLINE PAVEMENT MARKING SEQUENCE DETAIL







TRAFFIC NOTES

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

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

FOR MOVING OPERATION STA. 10+00 TO STA. 255+09.32 SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". COSTS FOR FLAGGING AND ASSOCIATED SIGNS FOR MOVING OPERATIONS ARE INCIDENTAL TO THE CONTRACT.

SEE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) AND PAVEMENT MARKING (INTERSECTIONS) FOR PAVEMENT MARKING LAYOUT.

CURVE 8 DATA
 PI STA. = 158+75.90
 Y = 255,398.73
 X = 662,898.12
 R = 31380.00
 D = 0°10'57"
 DELTA = 2°18'48"
 L = 1266.97
 T = 633.57
 C = 1266.88
 PC STA. = 152+42.33
 Y = 255,139.90
 X = 662,319.84
 PT STA. = 165+09.30
 Y = 255,634.01
 X = 663,486.38



CURVE 8 DATA
 PI STA. = 158+75.90
 Y = 255,398.73
 X = 662,898.12
 R = 31380.00
 D = 0°10'57"
 DELTA = 2°18'48"
 L = 1266.97
 T = 633.57
 C = 1266.88
 PC STA. = 152+42.33
 Y = 255,139.90
 X = 662,319.84
 PT STA. = 165+09.30
 Y = 255,634.01
 X = 663,486.38

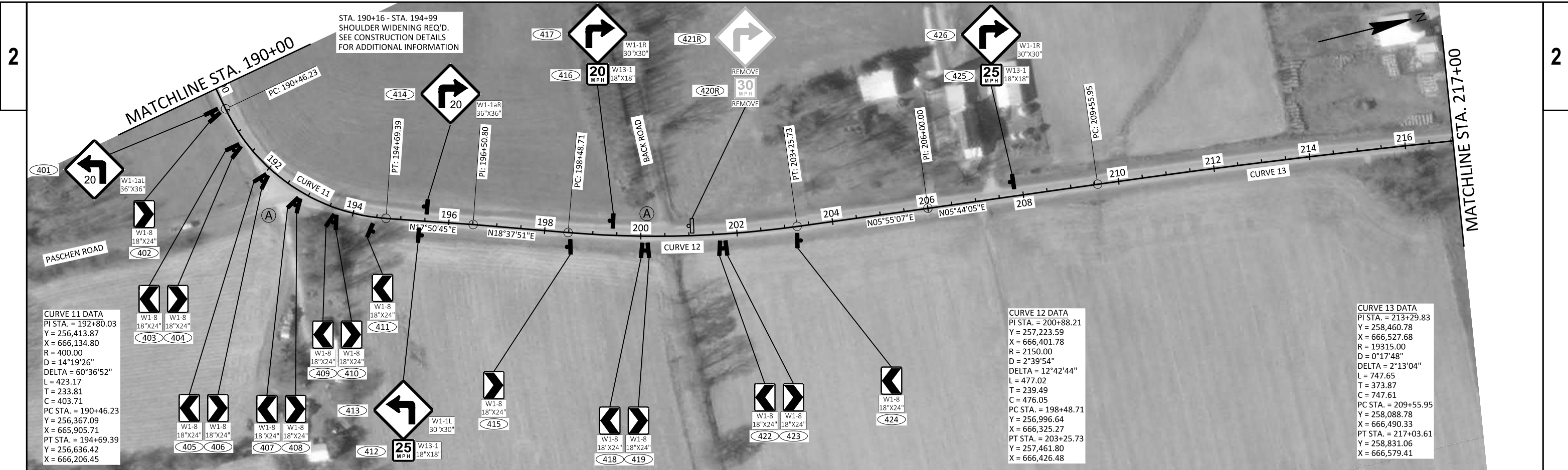
CURVE 9 DATA
 PI STA. = 173+33.69
 Y = 255,940.16
 X = 664,251.82
 R = 32890.00
 D = 0°10'27"
 DELTA = 1°44'18"
 L = 997.83
 T = 498.95
 C = 997.79
 PC STA. = 168+34.74
 Y = 255,754.87
 X = 663,788.55
 PT STA. = 178+32.57
 Y = 256,111.31
 X = 664,720.50

CURVE 10 DATA
 PI STA. = 179+97.13
 Y = 256,167.76
 X = 664,875.08
 R = 1850.00
 D = 3°05'49"
 DELTA = 9°14'31"
 L = 298.41
 T = 149.53
 C = 298.09
 PC STA. = 178+47.60
 Y = 256,116.47
 X = 664,734.62
 PT STA. = 181+46.01
 Y = 256,195.83
 X = 665,021.96

LEGEND

- ☐ REMOVING SIGNS TYPE II/REMOVING SMALL SIGN SUPPORTS
- ▬ SIGNS TYPE II REFLECTIVE H AND F ON POSTS
- XXXXX DESIGNATES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN

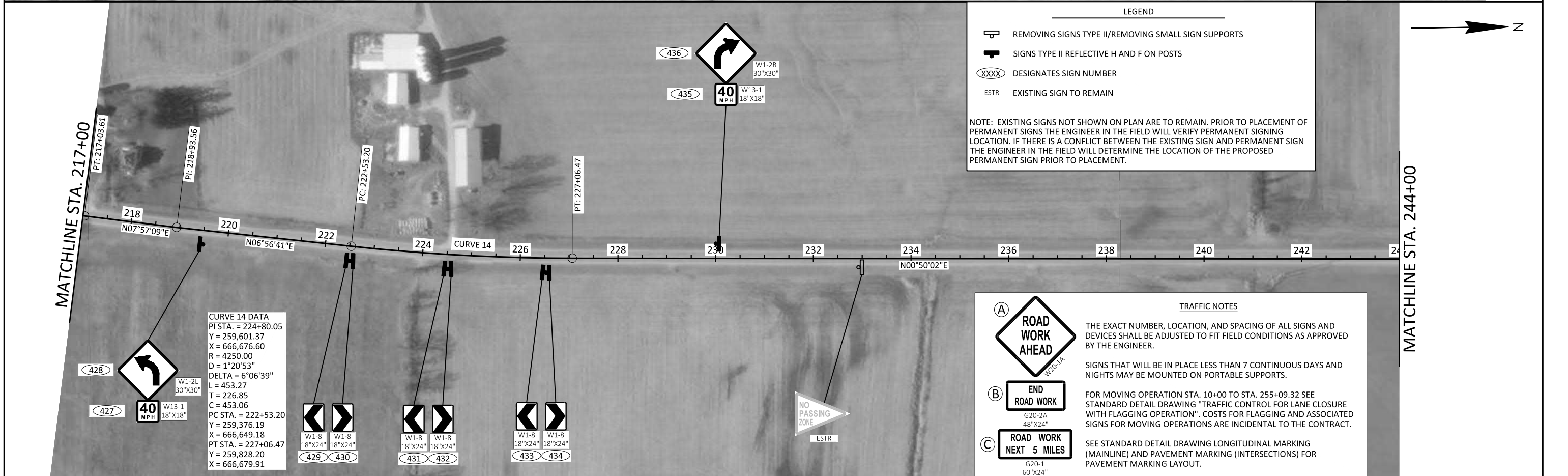
NOTE: EXISTING SIGNS NOT SHOWN ON PLAN ARE TO REMAIN. PRIOR TO PLACEMENT OF PERMANENT SIGNS THE ENGINEER IN THE FIELD WILL VERIFY PERMANENT SIGNING LOCATION. IF THERE IS A CONFLICT BETWEEN THE EXISTING SIGN AND PERMANENT SIGN THE ENGINEER IN THE FIELD WILL DETERMINE THE LOCATION OF THE PROPOSED PERMANENT SIGN PRIOR TO PLACEMENT.



CURVE 11 DATA
 PI STA. = 192+80.03
 Y = 256,413.87
 X = 666,134.80
 R = 400.00
 D = 14°19'26"
 DELTA = 60°36'52"
 L = 423.17
 T = 233.81
 C = 403.71
 PC STA. = 190+46.23
 Y = 256,367.09
 X = 665,905.71
 PT STA. = 194+69.39
 Y = 256,636.42
 X = 666,206.45

CURVE 12 DATA
 PI STA. = 200+88.21
 Y = 257,223.59
 X = 666,401.78
 R = 2150.00
 D = 2°39'54"
 DELTA = 12°42'44"
 L = 477.02
 T = 239.49
 C = 476.05
 PC STA. = 198+48.71
 Y = 256,996.64
 X = 666,325.27
 PT STA. = 203+25.73
 Y = 257,461.80
 X = 666,426.48

CURVE 13 DATA
 PI STA. = 213+29.83
 Y = 258,460.78
 X = 666,527.68
 R = 19315.00
 D = 0°17'48"
 DELTA = 2°13'04"
 L = 747.65
 T = 373.87
 C = 747.61
 PC STA. = 209+55.95
 Y = 258,088.78
 X = 666,490.33
 PT STA. = 217+03.61
 Y = 258,831.06
 X = 666,579.41



LEGEND

- REMOVING SIGNS TYPE II/REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE II REFLECTIVE H AND F ON POSTS
- DESIGNATES SIGN NUMBER
- EXISTING SIGN TO REMAIN

NOTE: EXISTING SIGNS NOT SHOWN ON PLAN ARE TO REMAIN. PRIOR TO PLACEMENT OF PERMANENT SIGNS THE ENGINEER IN THE FIELD WILL VERIFY PERMANENT SIGNING LOCATION. IF THERE IS A CONFLICT BETWEEN THE EXISTING SIGN AND PERMANENT SIGN THE ENGINEER IN THE FIELD WILL DETERMINE THE LOCATION OF THE PROPOSED PERMANENT SIGN PRIOR TO PLACEMENT.

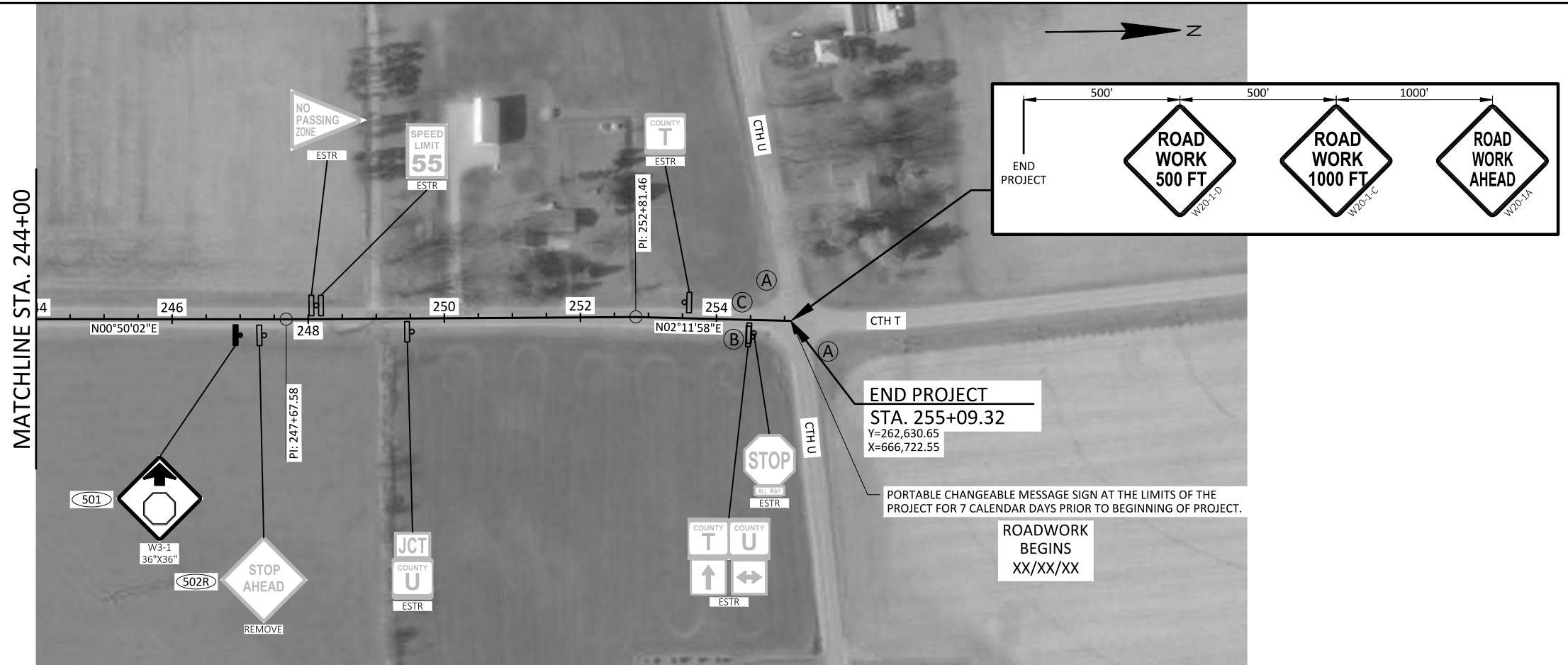
TRAFFIC NOTES

(A) ROAD WORK AHEAD
 THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

(B) END ROAD WORK
 SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

(C) ROAD WORK NEXT 5 MILES
 FOR MOVING OPERATION STA. 10+00 TO STA. 255+09.32 SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". COSTS FOR FLAGGING AND ASSOCIATED SIGNS FOR MOVING OPERATIONS ARE INCIDENTAL TO THE CONTRACT.

SEE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) AND PAVEMENT MARKING (INTERSECTIONS) FOR PAVEMENT MARKING LAYOUT.



LEGEND

- REMOVING SIGNS TYPE II/REMOVING SMALL SIGN SUPPORTS
- SIGNS TYPE II REFLECTIVE H AND F ON POSTS
- DESIGNATES SIGN NUMBER
- EXISTING SIGN TO REMAIN

NOTE: EXISTING SIGNS NOT SHOWN ON PLAN ARE TO REMAIN. PRIOR TO PLACEMENT OF PERMANENT SIGNS THE ENGINEER IN THE FIELD WILL VERIFY PERMANENT SIGNING LOCATION. IF THERE IS A CONFLICT BETWEEN THE EXISTING SIGN AND PERMANENT SIGN THE ENGINEER IN THE FIELD WILL DETERMINE THE LOCATION OF THE PROPOSED PERMANENT SIGN PRIOR TO PLACEMENT.

TRAFFIC NOTES

- (A) ROAD WORK AHEAD** (W20-1A)
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- (B) END ROAD WORK** (G20-2A, 48"x24")
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- (C) ROAD WORK NEXT 5 MILES** (G20-1, 60"x24")
FOR MOVING OPERATION STA. 10+00 TO STA. 255+09.32 SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". COSTS FOR FLAGGING AND ASSOCIATED SIGNS FOR MOVING OPERATIONS ARE INCIDENTAL TO THE CONTRACT.
- (C) ROAD WORK NEXT 5 MILES** (G20-1, 60"x24")
SEE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) AND PAVEMENT MARKING (INTERSECTIONS) FOR PAVEMENT MARKING LAYOUT.

Estimate Of Quantities

5263-00-60

Line	Item	Item Description	Unit	Total	Qty
0002	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	67.000	67.000
0004	213.0100	Finishing Roadway (project) 01. 5263-00-60	EACH	1.000	1.000
0006	305.0500	Shaping Shoulders	STA	67.000	67.000
0008	455.0605	Tack Coat	GAL	100.000	100.000
0010	465.0105	Asphaltic Surface	TON	480.000	480.000
0012	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	22,000.000	22,000.000
0014	619.1000	Mobilization	EACH	1.000	1.000
0016	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	24.000	24.000
0018	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	18.000	18.000
0020	637.2230	Signs Type II Reflective F	SF	293.500	293.500
0022	638.2602	Removing Signs Type II	EACH	21.000	21.000
0024	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0026	642.5001	Field Office Type B	EACH	1.000	1.000
0028	643.0300	Traffic Control Drums	DAY	70.000	70.000
0030	643.0900	Traffic Control Signs	DAY	650.000	650.000
0032	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0034	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	37,800.000	37,800.000
0036	643.5000	Traffic Control	EACH	1.000	1.000
0038	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	48,600.000	48,600.000
0040	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	37,800.000	37,800.000
0042	646.9000	Marking Removal Line 4-Inch	LF	37,800.000	37,800.000
0044	650.8000	Construction Staking Resurfacing Reference	LF	24,510.000	24,510.000
0046	650.9911	Construction Staking Supplemental Control (project) 01. 5263-00-60	EACH	1.000	1.000
0048	690.0150	Sawing Asphalt	LF	6,700.000	6,700.000

ASPHALTIC SURFACE						SHAPING SHOULDERS				RUMBLE STRIPS			TRAFFIC CONTROL				
STATION - STATION	CURVE #	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)	STATION - STATION	CURVE #	LOCATION	305.0500 (STA)	STATION - STATION	LOCATION	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL (LF)	LOCATION	643.0300 TRAFFIC CONTROL DRUMS (DAY)	643.0900 TRAFFIC CONTROL SIGNS (DAY)	643.105 TRAFFIC CONTROL SIGNS PCMS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
			(STA)	(GAL)	(TON)									(DAY)	(DAY)	(DAY)	(EACH)
70+67 - 84+17	1, 2, 3	MAINLINE	27	41	180	70+67 - 84+17	1, 2, 3	MAINLINE	27	1+50 - 180+00	MAINLINE	7,700	MAINLINE	-	310	-	-
91+67 - 97+37	4	MAINLINE	12	17	110	91+67 - 97+37	4	MAINLINE	12	180+00 - 360+00	MAINLINE	8,700	SIDERoads	-	340	-	-
115+52 - 124+38	6, 7	MAINLINE	18	28	120	115+52 - 124+38	6, 7	MAINLINE	18	360+00 - 601+20	MAINLINE	5,600	PCMS BOARDS PROJECT	70	-	14	-
190+16 - 194+99	11	MAINLINE	10	14	70	190+16 - 194+99	11	MAINLINE	10	TOTALS =		22,000		-	-	-	1
TOTALS =			67	100	480	TOTAL =			67	TOTALS =			70	650	14	1	

PERMANENT SIGNING

SIGN NUMBER	APPROX. STATION	LOCATION	POSITION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIZE (INCH X INCH)	637.2230 SIGNS TYPE II	POSTS WOOD 4X6- INCH		638.2602 REMOVING SIGNS TYPE II	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS
								REFLECTIVE F (SF)	634.0616 16 FT (EACH)	634.0618 18 FT (EACH)	(EACH)	(EACH)	
101R	63+33	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	30	-	-	-	-	1	1	-
102R	63+33	MAINLINE	RIGHT	W1-3L	REVERSE TURN LEFT	-	-	-	-	-	1	-	101R
103	66+50	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	25	18X18	2.25	-	1	-	-	-
104	66+50	MAINLINE	RIGHT	W1-5L	WINDING ROAD	-	30X30	6.25	-	-	-	-	103
201R	79+55	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	35	-	-	-	-	1	1	-
202R	79+55	MAINLINE	RIGHT	W1-2L	LEFT CURVE	-	-	-	-	-	1	-	201R
203	79+85	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
204	79+85	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	203
205R	81+31	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	30	-	-	-	-	1	1	-
206R	81+31	MAINLINE	LEFT	W1-3L	REVERSE TURN LEFT	-	-	-	-	-	1	-	205R
207	81+80	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
208	81+80	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	207
209	83+85	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
210	83+85	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	209
211R	85+37	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	35	-	-	-	-	1	1	-
212R	85+37	MAINLINE	RIGHT	W1-2R	RIGHT CURVE	-	-	-	-	-	1	-	211R
213	87+95	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	30	18X18	2.25	-	1	-	-	-
214	87+95	MAINLINE	RIGHT	W1-1R	RIGHT TURN	-	30X30	6.25	-	-	-	-	213
215	88+35	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	25	18X18	2.25	-	1	-	-	-
216	88+35	MAINLINE	LEFT	W1-5R	WINDING ROAD	-	30X30	6.25	-	-	-	-	215
217R	89+08	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	35	-	-	-	-	1	1	-
218R	89+08	MAINLINE	LEFT	W1-2R	RIGHT CURVE	-	-	-	-	-	1	-	217R
219	101+05	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	30	18X18	2.25	-	1	-	-	-
220	101+05	MAINLINE	LEFT	W1-1L	LEFT TURN	-	30X30	6.25	-	-	-	-	219
221R	104+79	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	35	-	-	-	-	1	1	-
222R	104+79	MAINLINE	LEFT	W1-2L	LEFT CURVE	-	-	-	-	-	1	-	221R
223R	104+91	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	40	-	-	-	-	1	1	-
224R	104+91	MAINLINE	RIGHT	W1-4L	REVERSE CURVE LEFT	-	-	-	-	-	1	-	223R
225	106+50	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	50	18X18	2.25	-	1	-	-	-
226	106+50	MAINLINE	RIGHT	W1-2L	LEFT CURVE	-	30X30	6.25	-	-	-	-	225
227	112+30	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	35	18X18	2.25	-	1	-	-	-
228	112+30	MAINLINE	RIGHT	W1-4L	REVERSE CURVE LEFT	-	30X30	6.25	-	-	-	-	227
229	115+80	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
230	115+80	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	229
231	117+00	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
232	117+00	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	231
233	118+20	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
234	118+20	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	233
235	119+85	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
236	119+85	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	235
237	121+45	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
238	121+45	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	237
239	123+05	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
240	123+05	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	239
241	124+25	MAINLINE	LEFT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
242	127+60	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	35	18X18	2.25	-	1	-	-	-
243	127+60	MAINLINE	LEFT	W1-4L	REVERSE CURVE LEFT	-	30X30	6.25	-	-	-	-	242
301R	131+40	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	40	-	-	-	-	1	1	-
302R	131+40	MAINLINE	LEFT	W1-4L	REVERSE CURVE LEFT	-	-	-	-	-	1	-	301R
303	174+00	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	25	18X18	2.25	-	1	-	-	-

SHEET TOTALS = 118.75 10 8 16 8

FILE NAME: S:\PROJECTS\W11628 WISDOT - CTH T SAUK CO. HRRRP DESIGN\SHEETS\PLAN\DETAILS\52630030_MISC.QTVS.DWG PLOT DATE: 11/3/2022 8:14:43 AM PLOT BY: CODY KINTZ PLOT SCALE: 1" = 1' LAYOUT: LAYOUT1

PERMANENT SIGNING CONTINUED

SIGN NUMBER	APPROX. STATION	LOCATION	POSITION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIZE (INCH X INCH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	POSTS WOOD 4X6- INCH		638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS
									634.0616 16 FT (EACH)	634.0618 18 FT (EACH)			
304	174+00	MAINLINE	RIGHT	W1-2R	RIGHT CURVE	-	30X30	6.25	-	-	-	-	303
305	179+80	MAINLINE	LEFT	W1-6	DIRECTIONAL ARROW RIGHT	-	48X24	8.00	1	-	-	-	-
306	180+20	MAINLINE	LEFT	W1-6	DIRECTIONAL ARROW LEFT	-	48X24	8.00	1	-	-	-	-
307R	182+67	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	30	-	-	-	-	1	1	-
308R	182+67	MAINLINE	RIGHT	W1-1L	LEFT TURN	-	-	-	-	-	1	-	307R
309	185+70	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	20	18X18	2.25	-	1	-	-	-
310	185+70	MAINLINE	RIGHT	W1-1L	LEFT TURN	-	30X30	6.25	-	-	-	-	309
311	185+95	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	25	18X18	2.25	-	1	-	-	-
312	185+95	MAINLINE	LEFT	W1-2L	LEFT CURVE	-	30X30	6.25	-	-	-	-	311
401	190+45	MAINLINE	RIGHT	W1-1aL	LEFT TURN W/ ADVISORY SPEED	20	36X36	9.00	-	1	-	-	-
402	190+45	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	401
403	191+25	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
404	191+25	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	403
405	192+05	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
406	192+05	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	405
407	192+85	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
408	192+85	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	407
409	193+65	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
410	193+65	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	409
411	194+45	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
412	195+45	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	25	18X18	2.25	-	1	-	-	-
413	195+45	MAINLINE	RIGHT	W1-1L	LEFT TURN	-	30X30	6.25	-	-	-	-	412
414	195+45	MAINLINE	LEFT	W1-1aR	RIGHT TURN W/ ADVISORY SPEED	20	36X36	9.00	-	1	-	-	-
415	198+50	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
416	199+35	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	20	18X18	2.25	-	1	-	-	-
417	199+35	MAINLINE	LEFT	W1-1R	RIGHT TURN	-	30X30	6.25	-	-	-	-	416
418	200+10	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
419	200+10	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	418
420R	201+00	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	30	-	-	-	-	1	1	-
421R	201+00	MAINLINE	LEFT	W1-1R	RIGHT TURN	-	-	-	-	-	1	-	420R
422	201+70	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
423	201+70	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	422
424	203+30	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
425	207+75	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	25	18X18	2.25	-	1	-	-	-
426	207+75	MAINLINE	LEFT	W1-1R	RIGHT TURN	-	30X30	6.25	-	-	-	-	425
427	219+50	MAINLINE	RIGHT	W13-1	ADVISORY SPEED LIMIT	40	18X18	2.25	-	1	-	-	-
428	219+50	MAINLINE	RIGHT	W1-2L	LEFT CURVE	-	30X30	6.25	-	-	-	-	427
429	222+55	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
430	222+55	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	429
431	224+55	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
432	224+55	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	431
433	226+55	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	1	-	-	-	-
434	226+55	MAINLINE	RIGHT	W1-8	CHEVRON	-	18X24	3.00	-	-	-	-	433
435	230+00	MAINLINE	LEFT	W13-1	ADVISORY SPEED LIMIT	40	18X18	2.25	-	1	-	-	-
436	230+00	MAINLINE	LEFT	W1-2R	RIGHT CURVE	-	30X30	6.25	-	-	-	-	435
501	247+00	MAINLINE	RIGHT	W3-1	STOP AHEAD SIGN	-	36X36	9.00	-	1	-	-	-
502R	247+35	MAINLINE	RIGHT	W3-1	"STOP AHEAD" SIGN	-	-	-	-	-	1	1	-
SHEET TOTALS =								174.75	14	10	5	3	
PROJECT TOTALS =								293.50	24	18	21	11	

PAVEMENT MARKING

STATION - STATION	LOCATION	DESCRIPTION	643.3120		646.1040	646.4520		646.9000	
			TEMPORARY MARKING LINE EPOXY 4-INCH		MARKING LINE GROOVED	MARKING LINE SAME DAY EPOXY 4-INCH		MARKING REMOVAL LINE 4-INCH	
			YELLOW SOLID (LF)	YELLOW 4' SKIPS (LF)	WHITE SOLID (LF)	YELLOW SOLID (LF)	YELLOW 12.5' SKIPS (LF)	YELLOW SOLID (LF)	YELLOW 12.5' SKIPS (LF)
10+00 - 10+31	MAINLINE	DOUBLE YELLOW	70	-	-	70	-	70	-
10+31 - 19+98	MAINLINE	SB PASSING	967	250	-	967	250	967	250
19+98 - 23+55	MAINLINE	DOUBLE YELLOW	714	-	-	714	-	714	-
23+55 - 34+79	MAINLINE	NB PASSING	1,124	288	-	1,124	288	1,124	288
34+79 - 37+11	MAINLINE	PASSING	-	50	-	-	50	-	50
37+11 - 47+71	MAINLINE	SB PASSING	1,060	275	-	1,060	275	1,060	275
47+71 - 49+73	MAINLINE	DOUBLE YELLOW	404	-	-	404	-	404	-
49+73 - 59+02	MAINLINE	NB PASSING	929	238	-	929	238	929	238
59+02 - 72+18	MAINLINE	SB PASSING	1,316	338	-	1,316	338	1,316	338
72+18 - 128+91	MAINLINE	DOUBLE YELLOW	11,346	-	-	11,346	-	11,346	-
128+91 - 136+33	MAINLINE	NB PASSING	742	188	-	742	188	742	188
136+33 - 143+80	MAINLINE	PASSING	-	194	-	-	194	-	194
143+80 - 156+73	MAINLINE	SB PASSING	1,293	325	-	1,293	325	1,293	325
156+73 - 223+59	MAINLINE	DOUBLE YELLOW	13,372	-	-	13,372	-	13,372	-
223+59 - 232+95	MAINLINE	NB PASSING	936	238	-	936	238	936	238
232+95 - 248+18	MAINLINE	PASSING	-	338	-	-	338	-	338
248+18 - 254+60	MAINLINE	SB PASSING	642	163	-	642	163	642	163
10+00 - 255+09.32	MAINLINE	WHITE EDGELINES	-	-	48,600	-	-	-	-
SUBTOTALS =			34,915	2,885	-	34,915	2,885	34,915	2,885
TOTALS =			37,800		48,600	37,800		37,800	

CONSTRUCTION STAKING

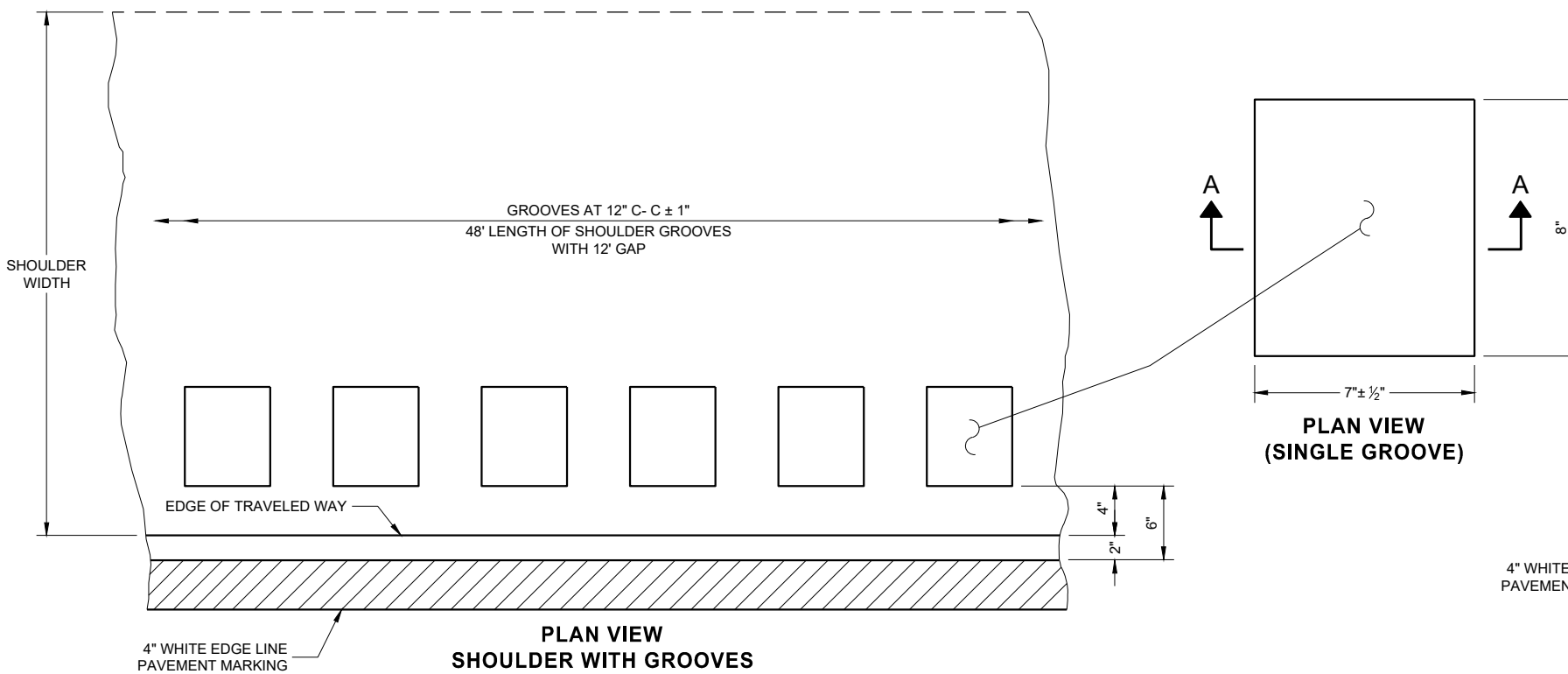
STATION - STATION	LOCATION	650.8000	650.9911
		RESURFACING REFERENCE (LF)	SUPPLEMENTAL CONTROL (01. 5263-00-60) (EACH)
1+50 - 180+00	MAINLINE	9,000	-
180+00 - 360+00	MAINLINE	9,000	-
360+00 - 601+20	MAINLINE	6,510	-
-	PROJECT	-	1
TOTALS =		24,510	1

SAWING ASPHALT

STATION - STATION	CURVE #	LOCATION	690.0150 (LF)
70+67 - 84+17	1, 2, 3	MAINLINE LT./RT.	2,750
91+67 - 97+37	4	MAINLINE LT./RT.	1,160
115+52 - 124+38	6, 7	MAINLINE LT./RT.	1,800
190+16 - 194+99	11	MAINLINE LT./RT.	990
TOTAL =			6,700

Standard Detail Drawing List

13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-07A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



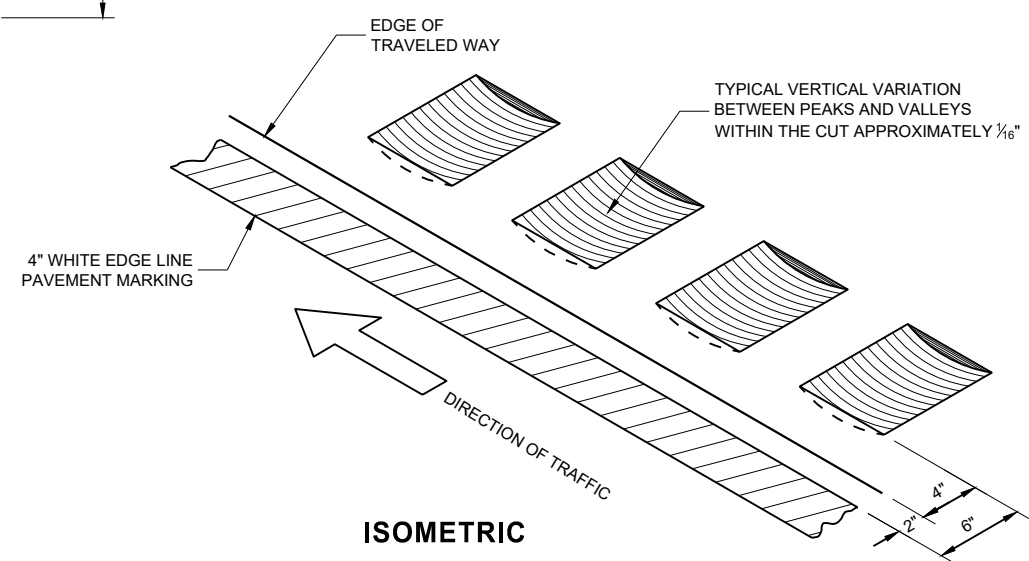
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

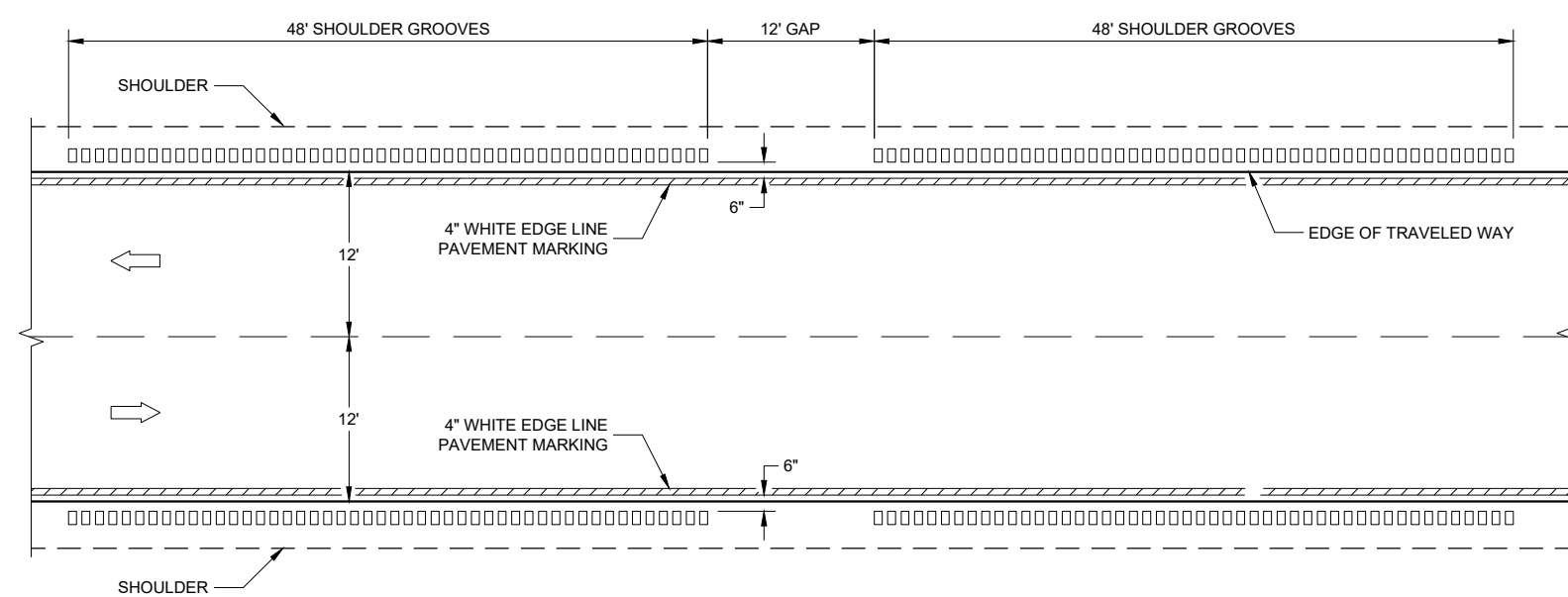
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

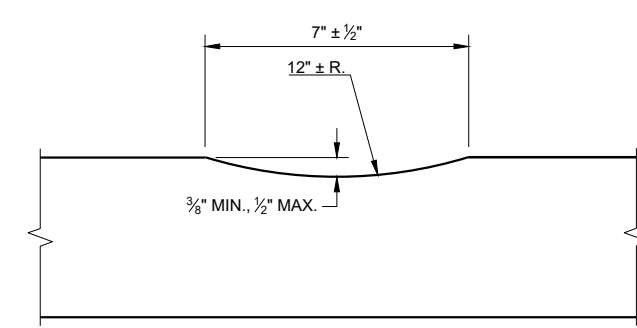
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

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

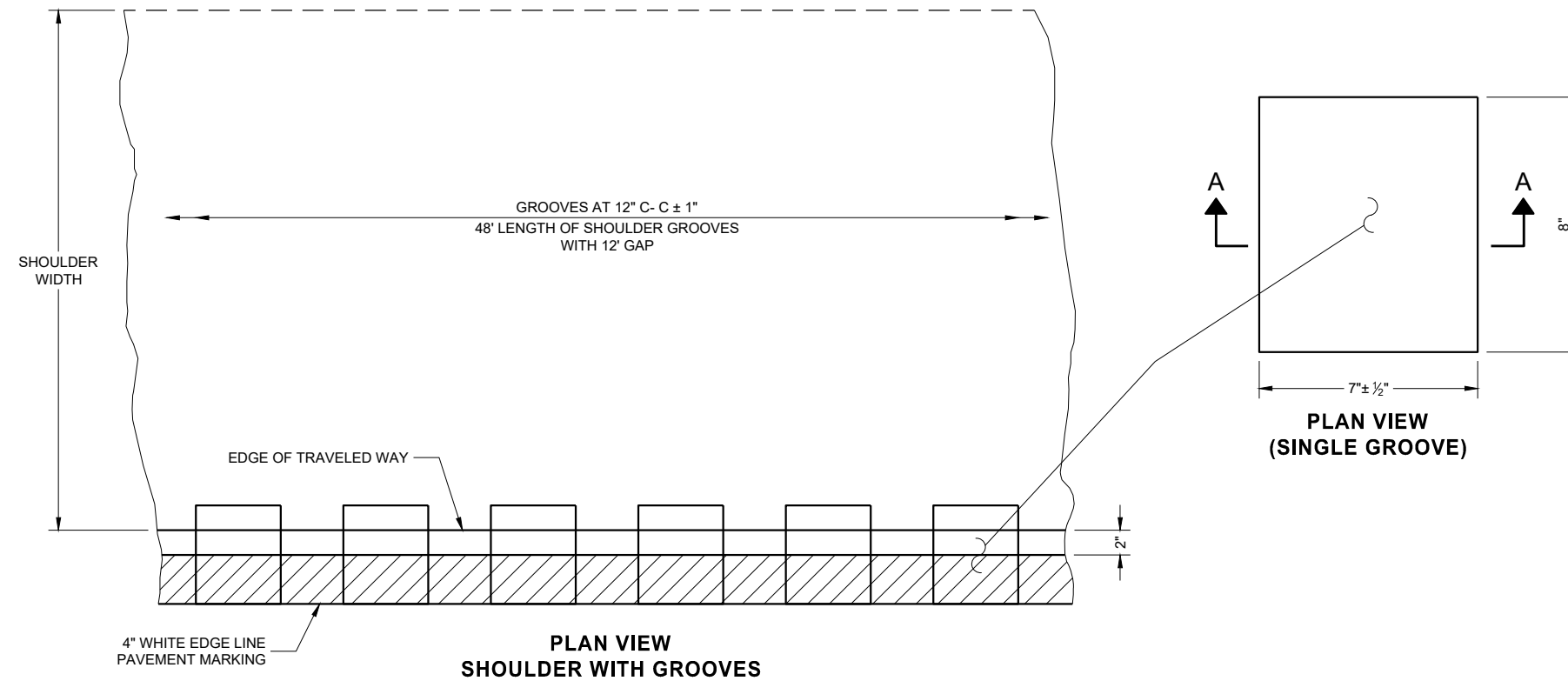
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

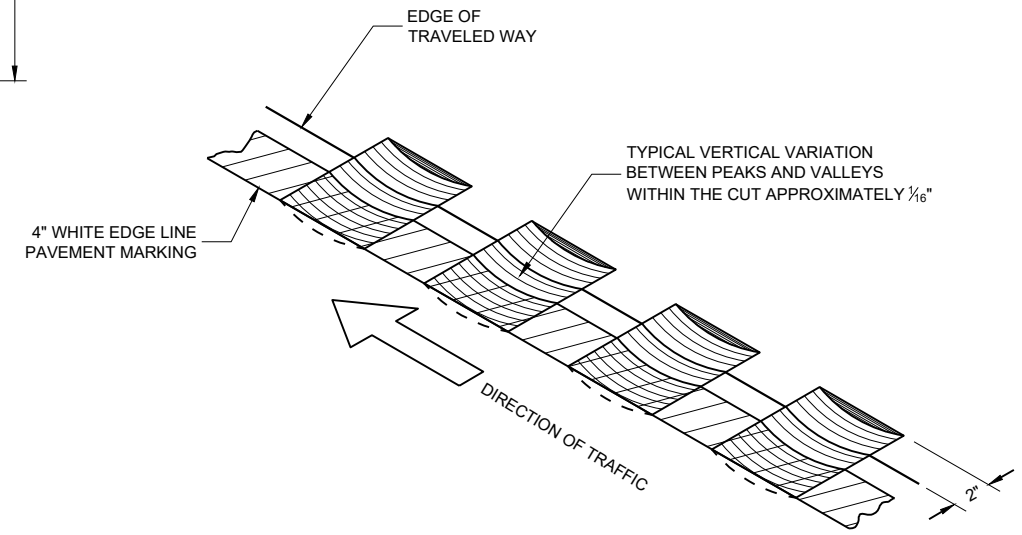
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

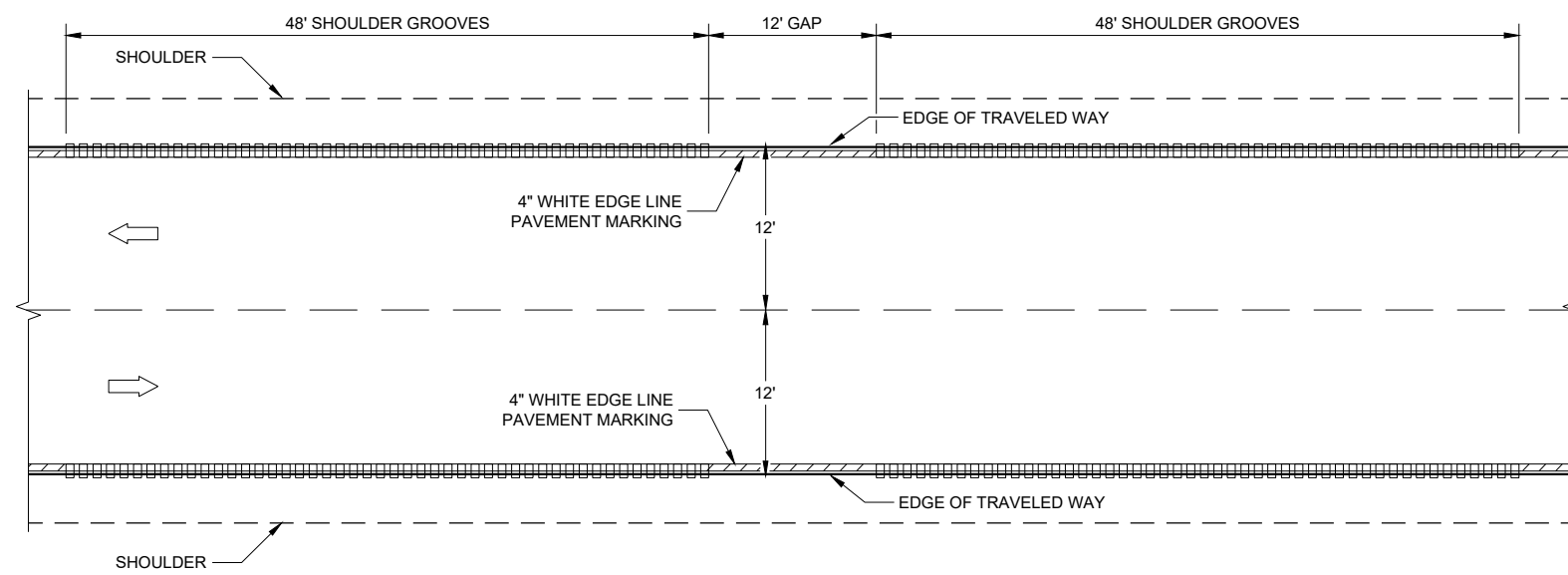
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



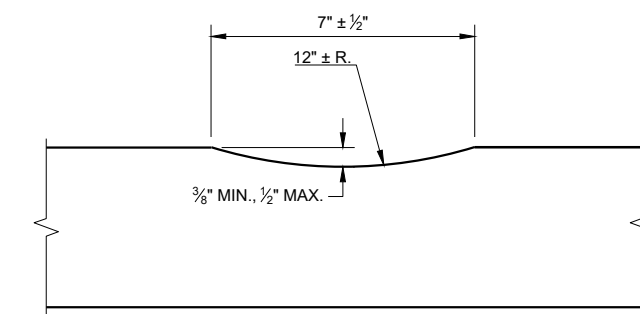
PLAN VIEW SHOULDER WITH GROOVES
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



ISOMETRIC



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

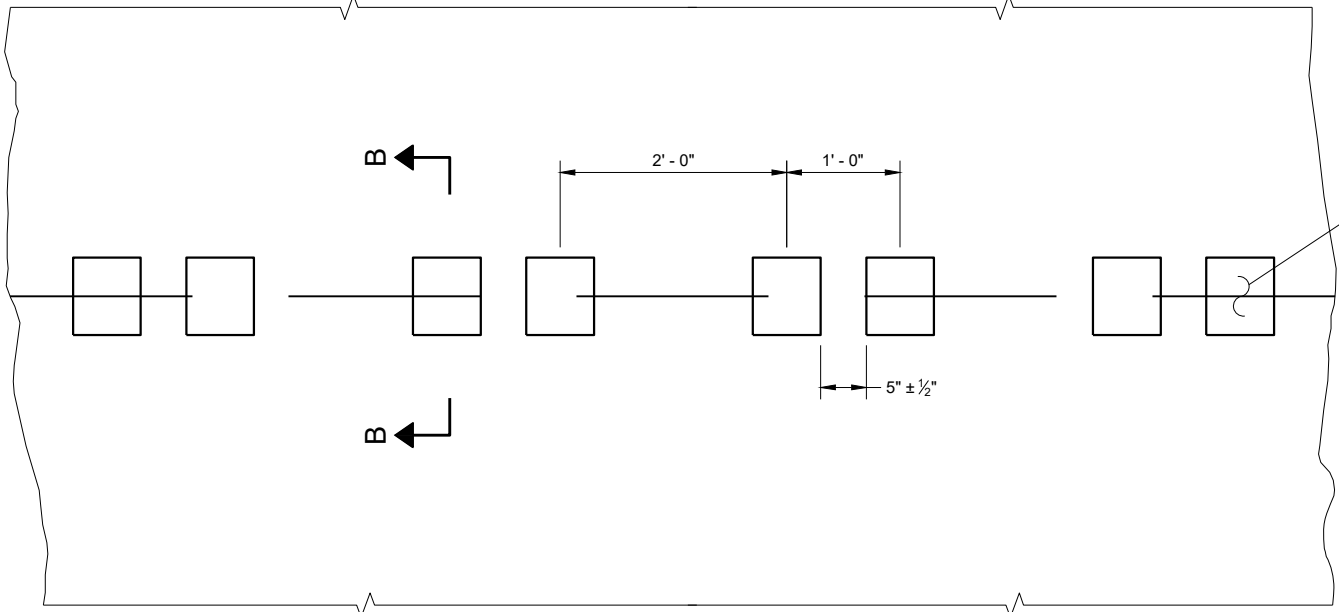
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

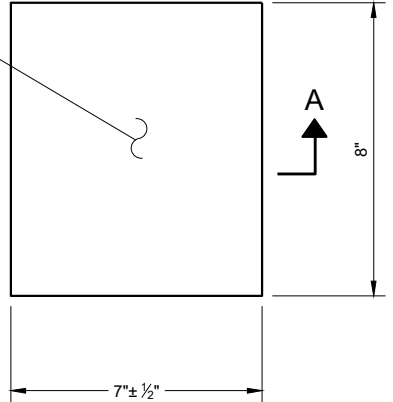
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

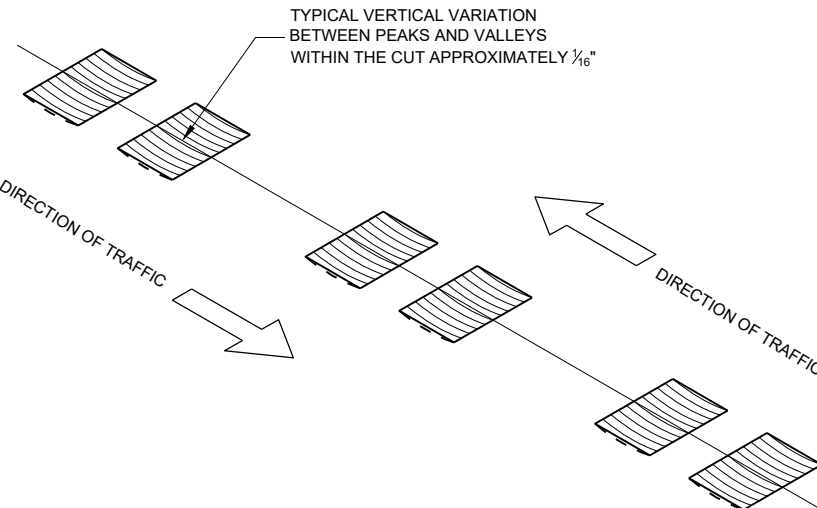
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

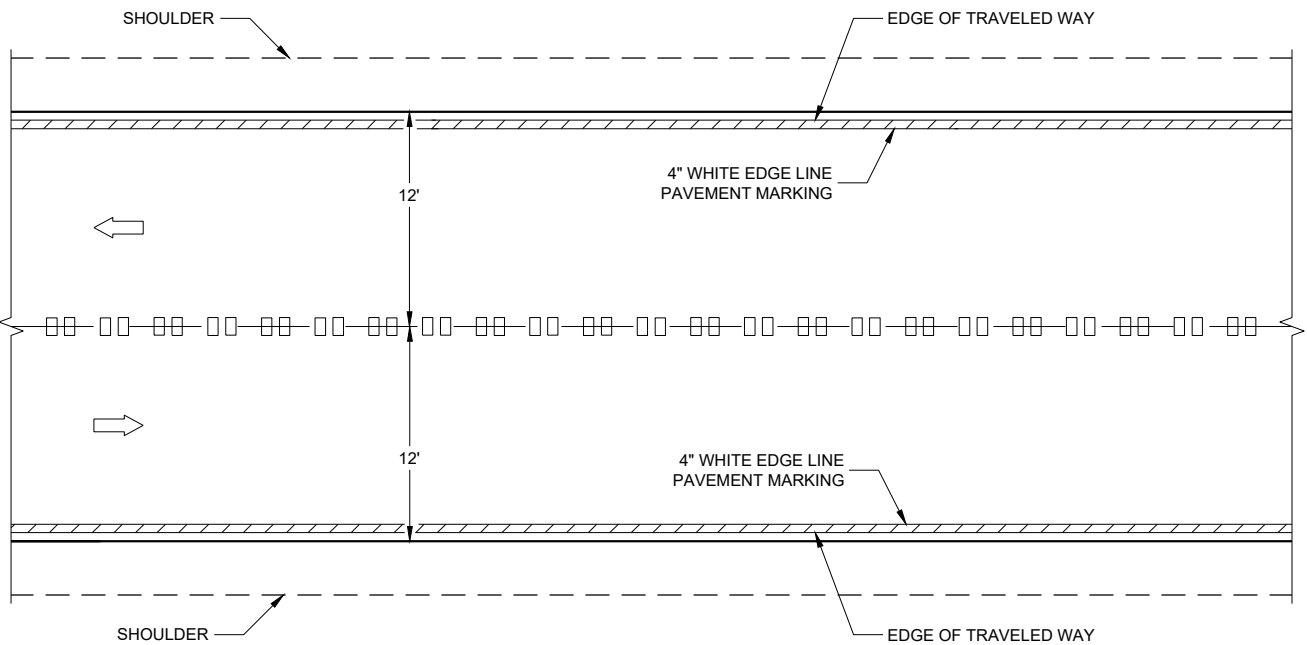


**PLAN VIEW
(SINGLE GROOVE)**

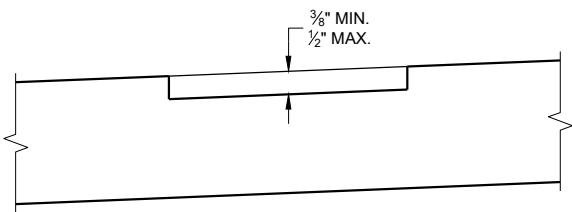


ISOMETRIC

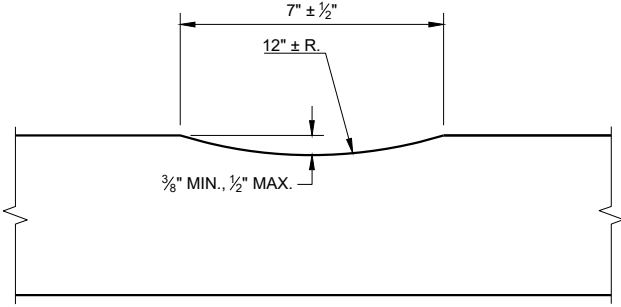
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



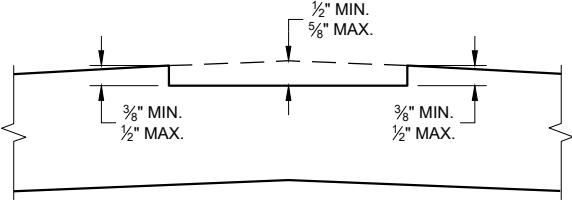
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



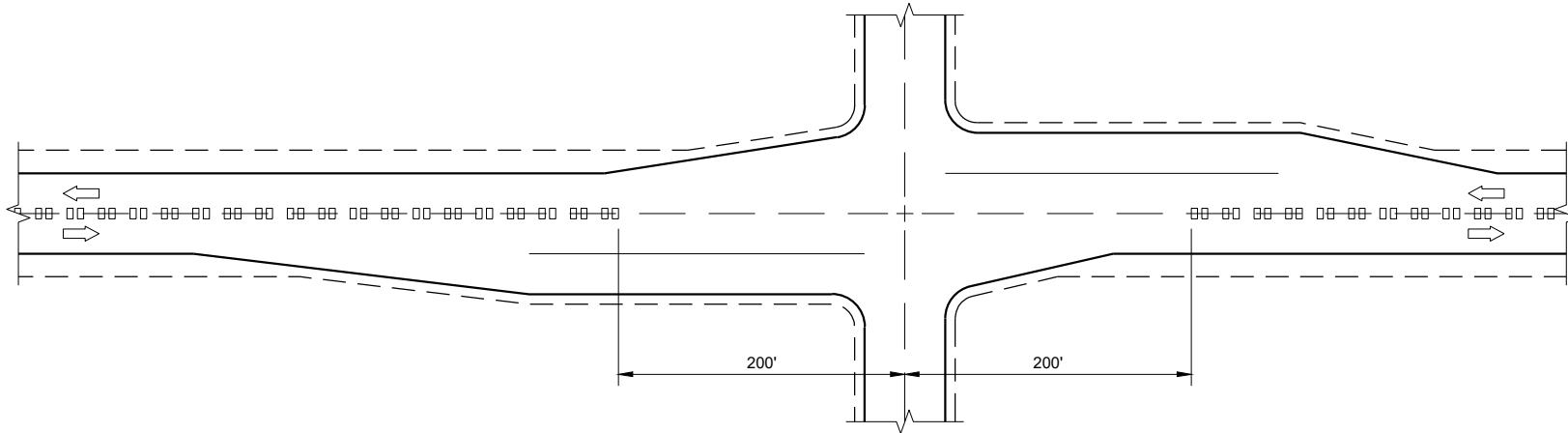
SECTION A - A



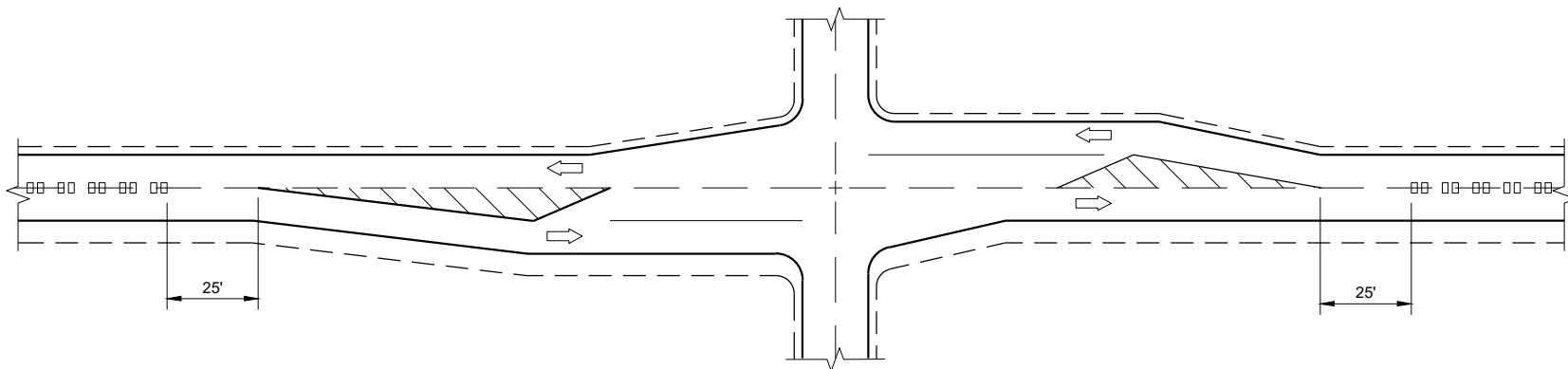
**SECTION B - B
CROWNED ROADWAY**

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

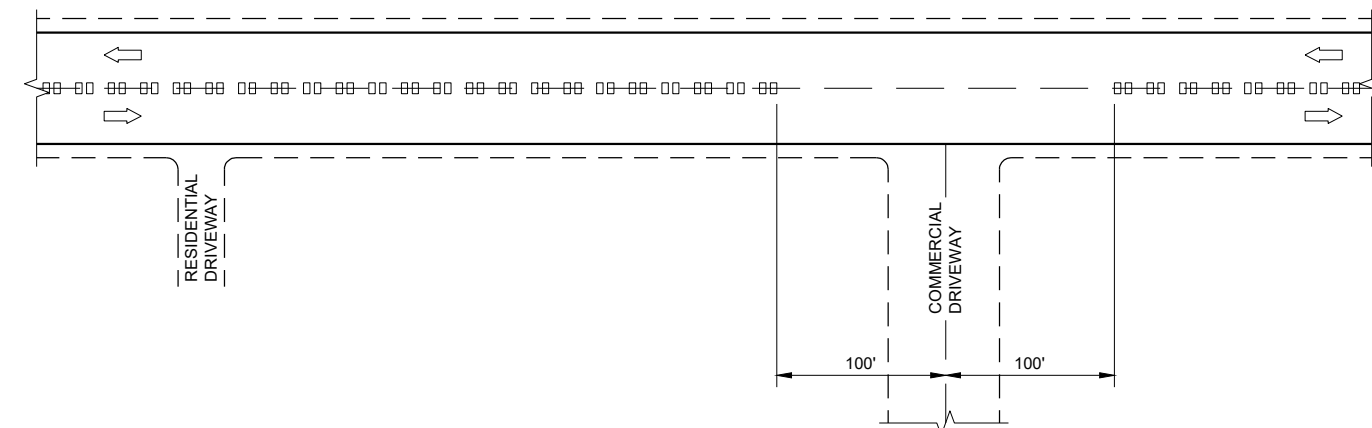
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



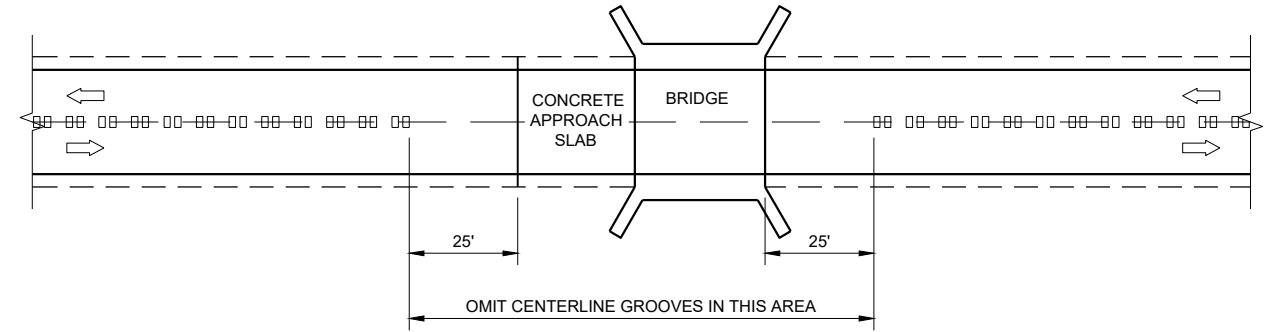
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



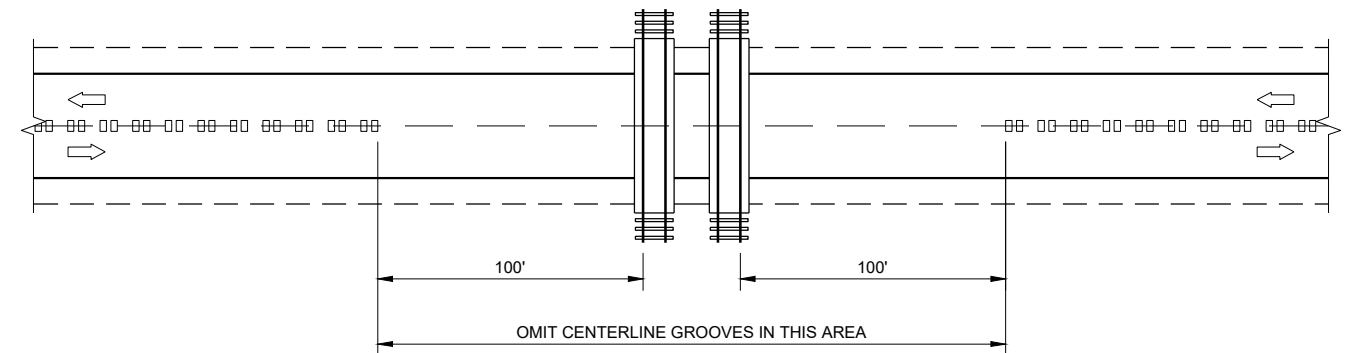
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

6

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SDD 13A11 - 03b

SDD 13A11 - 03b

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

GENERAL NOTES

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

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




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

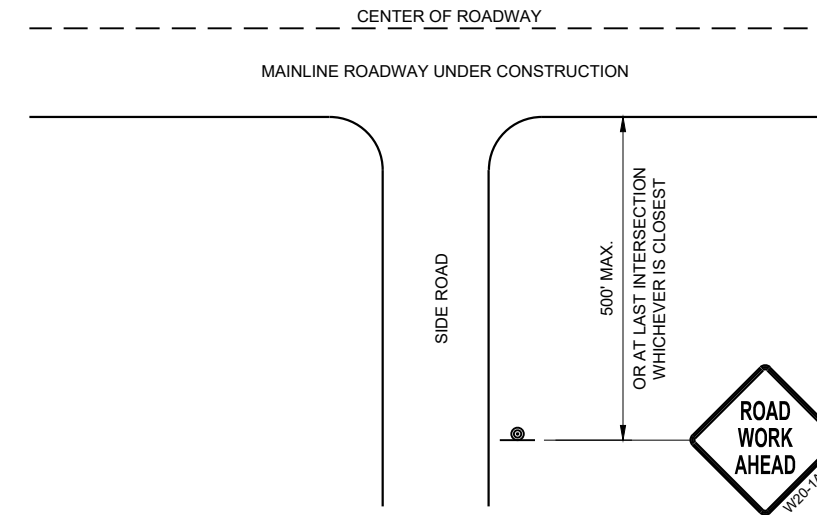
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

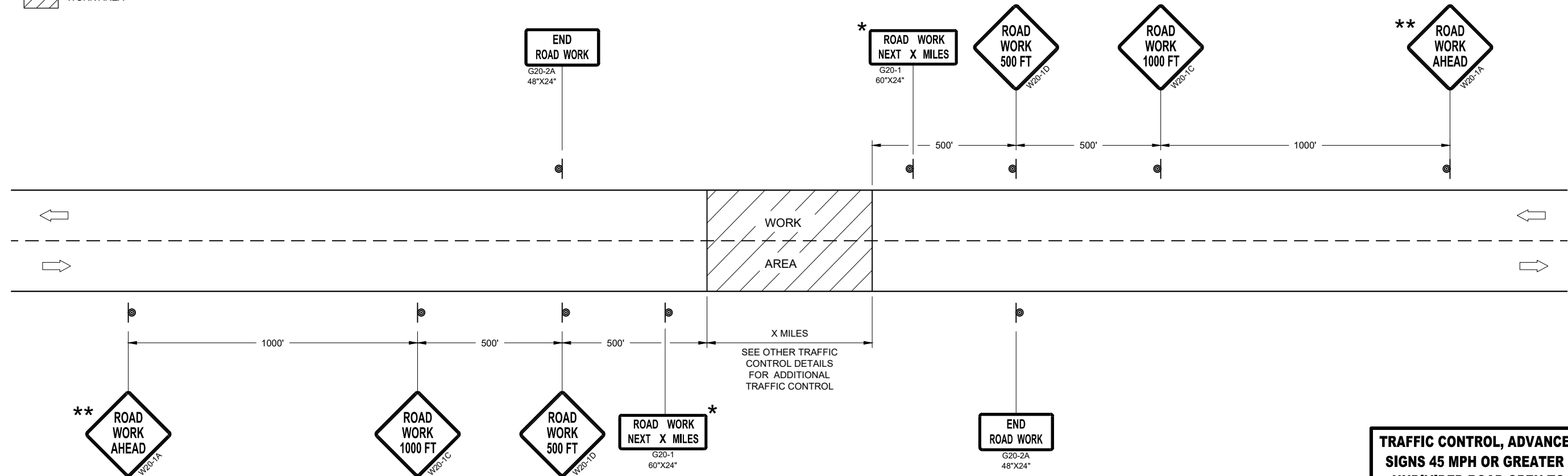
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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




FHWA

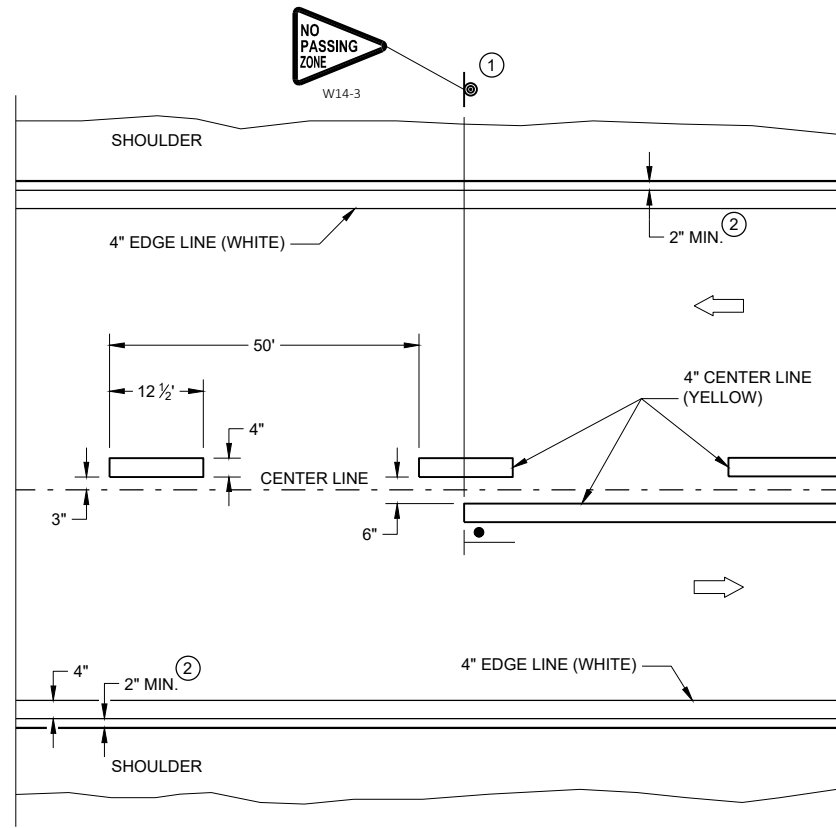
GENERAL NOTES

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

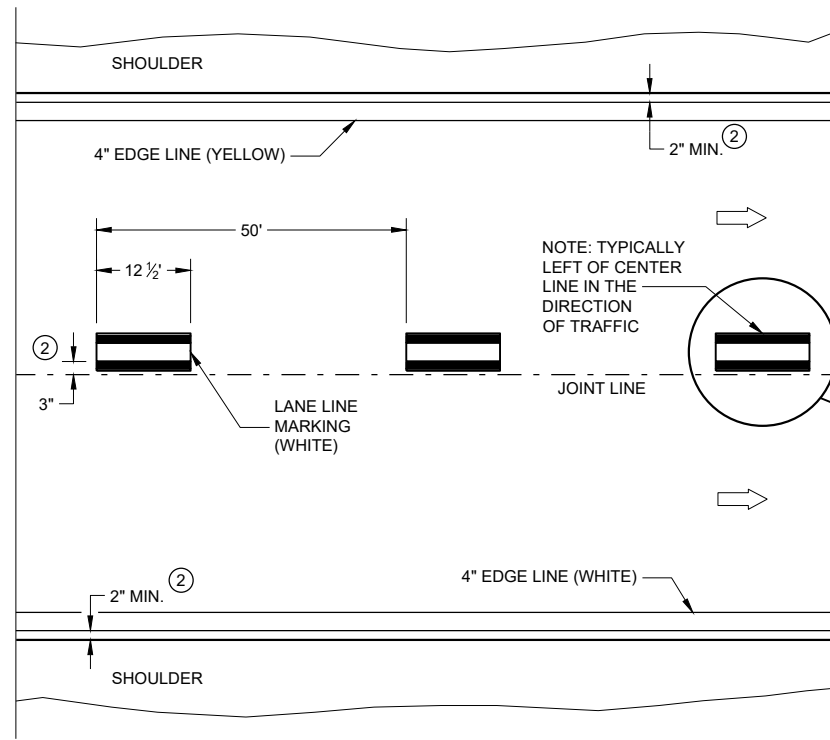
- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

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

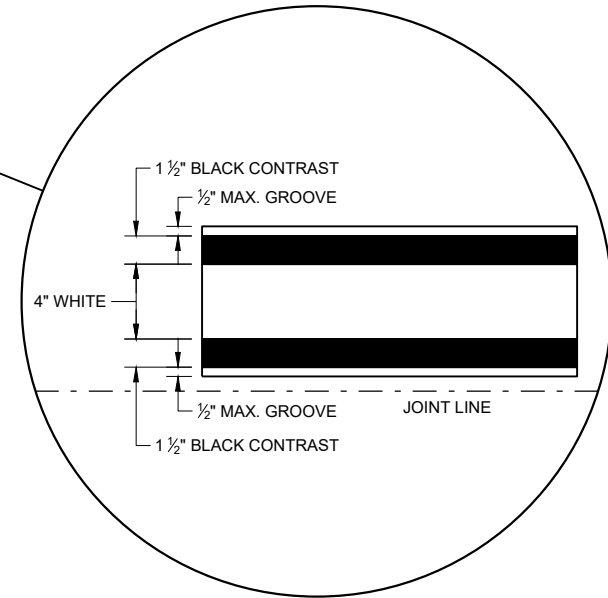


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



6

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SDD 15C08 - 22a

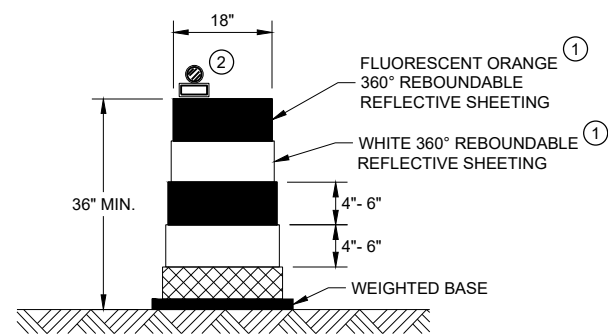
SDD 15C08 - 22a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

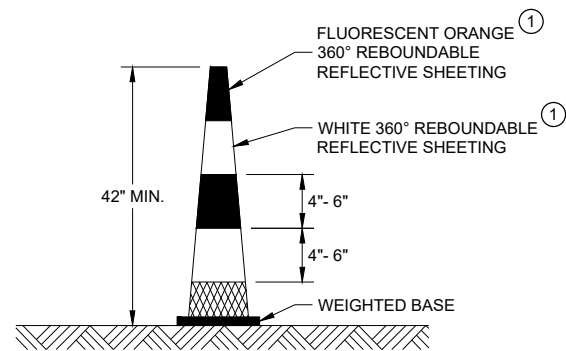
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



DRUM

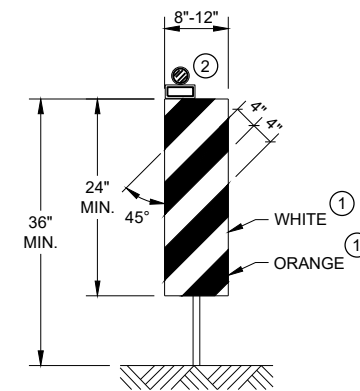


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

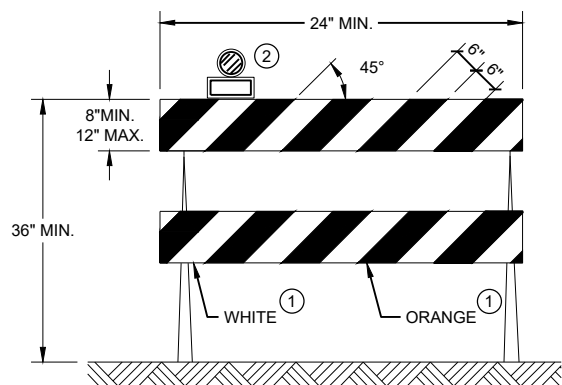
GENERAL NOTES

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



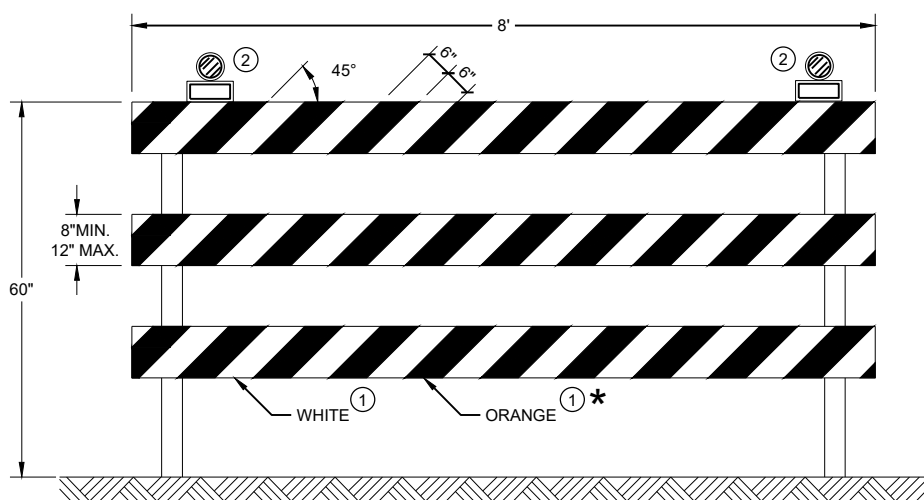
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

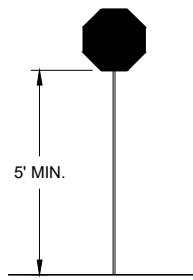
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.



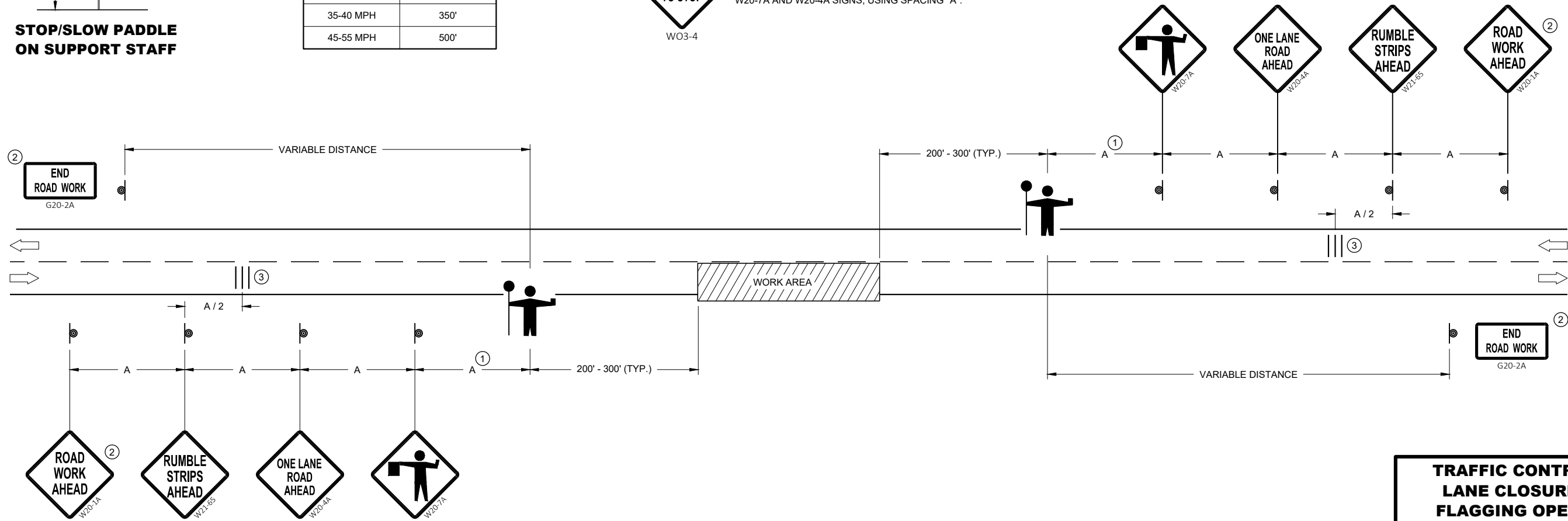
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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







TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

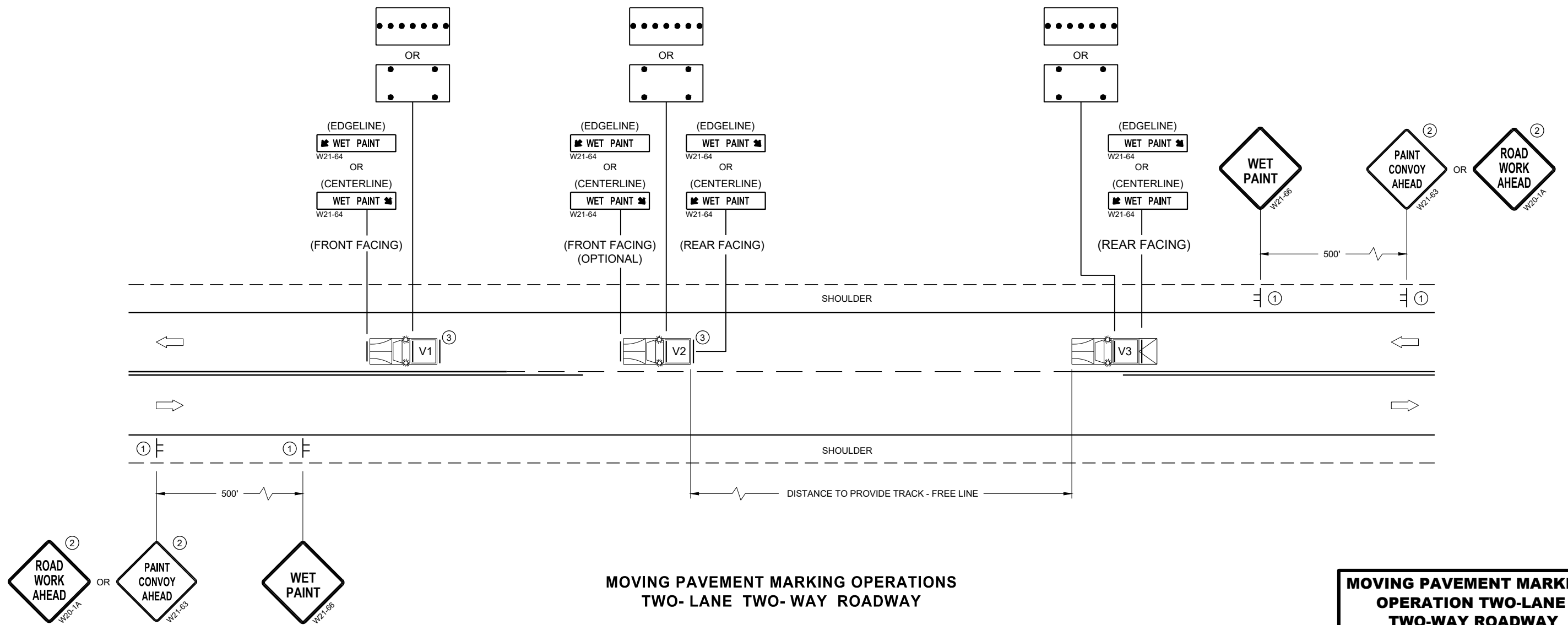
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

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

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

SDD 15C19 - 07a

SDD 15C19 - 07a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

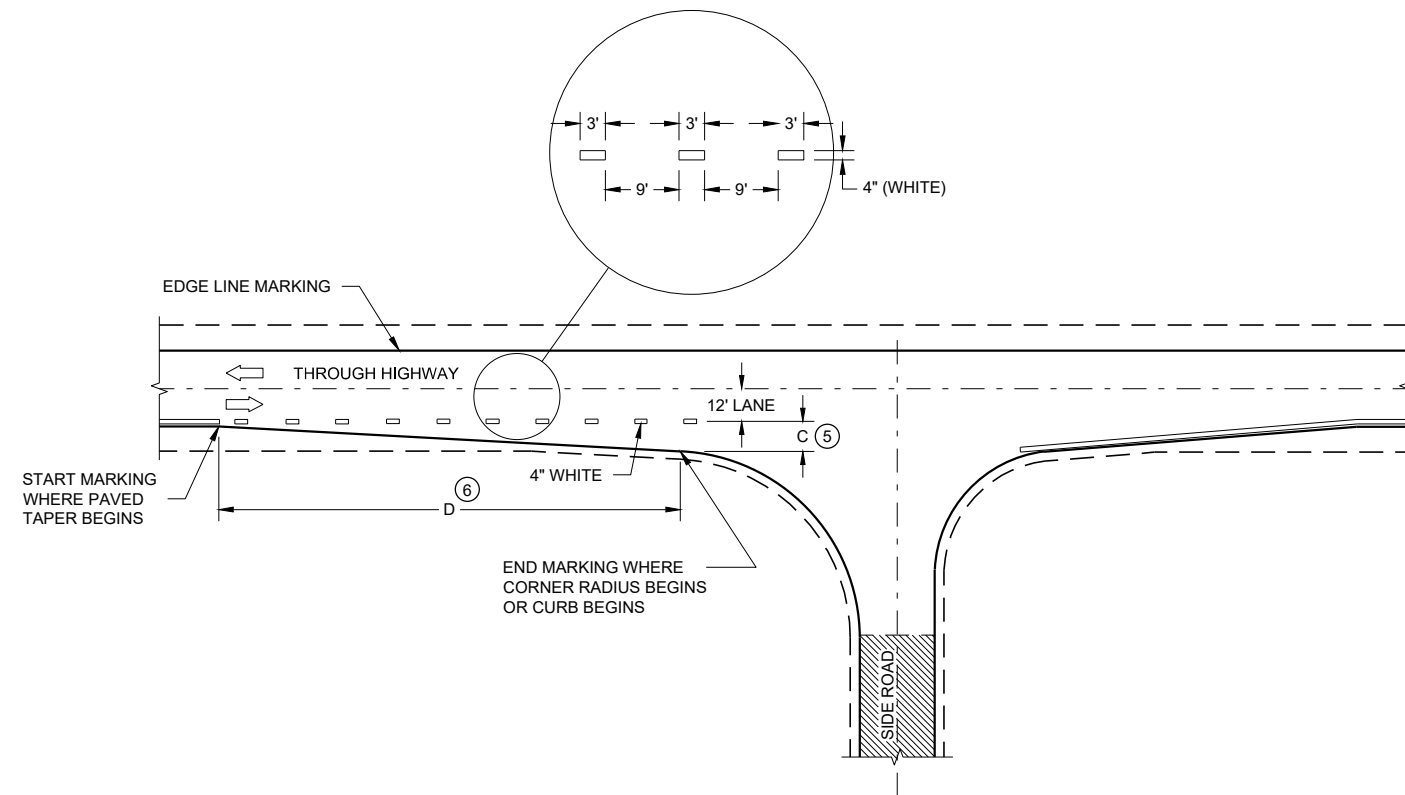
GENERAL NOTES

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

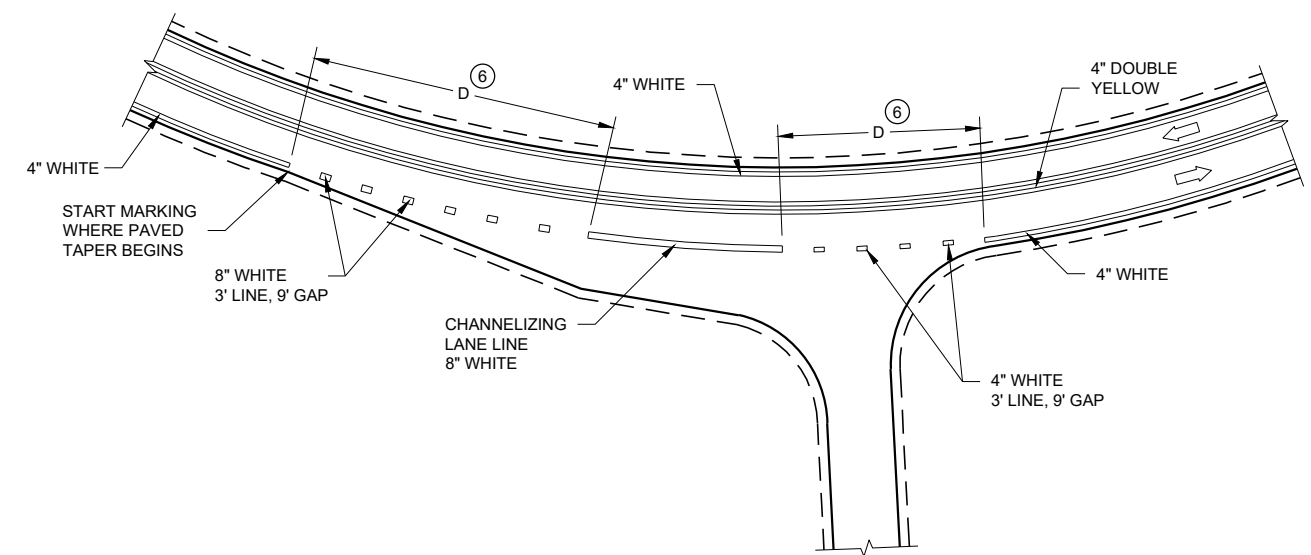
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

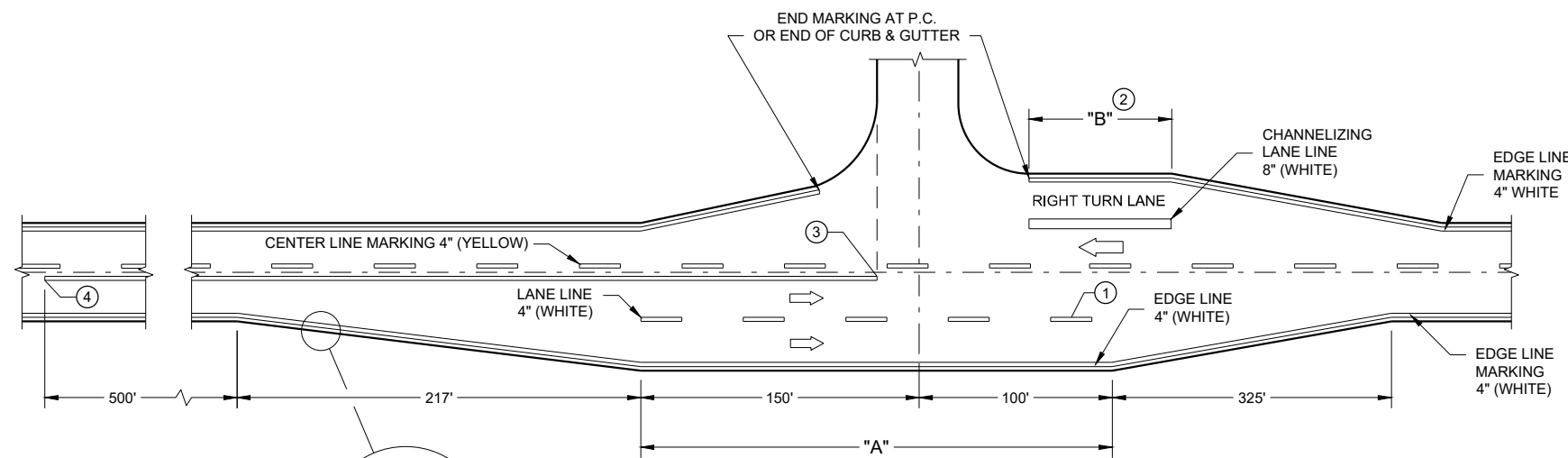
➡ DIRECTION OF TRAVEL



MINOR INTERSECTION

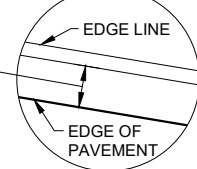


INTERSECTION ON OUTSIDE OF CURVE



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

BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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

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

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

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

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

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

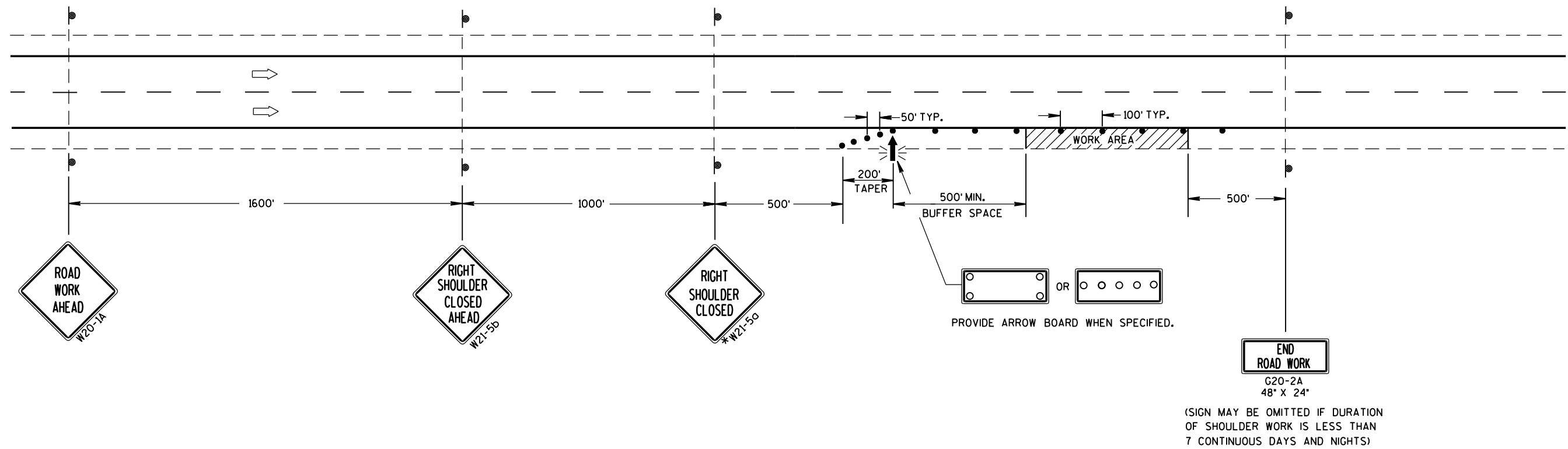
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-50 SIGN MAY BE OMITTED.

LEGEND

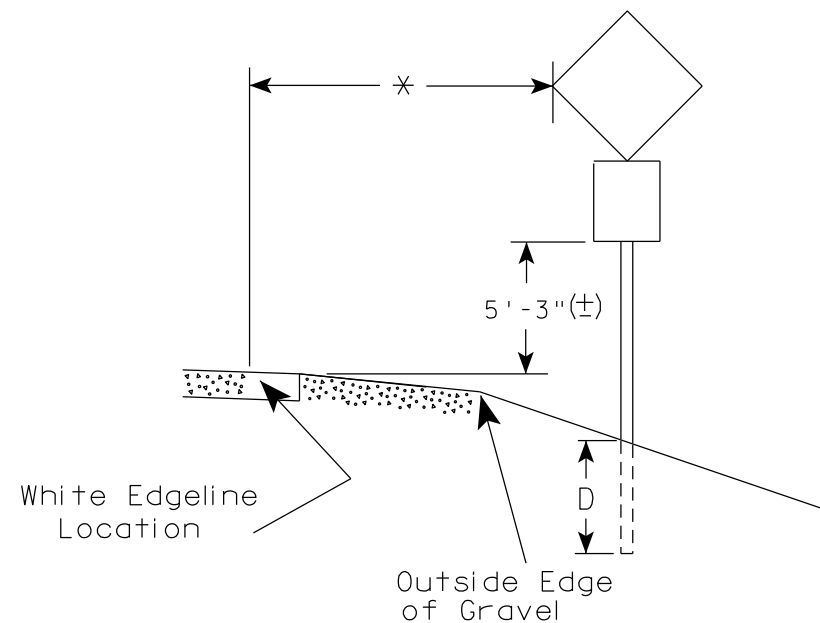
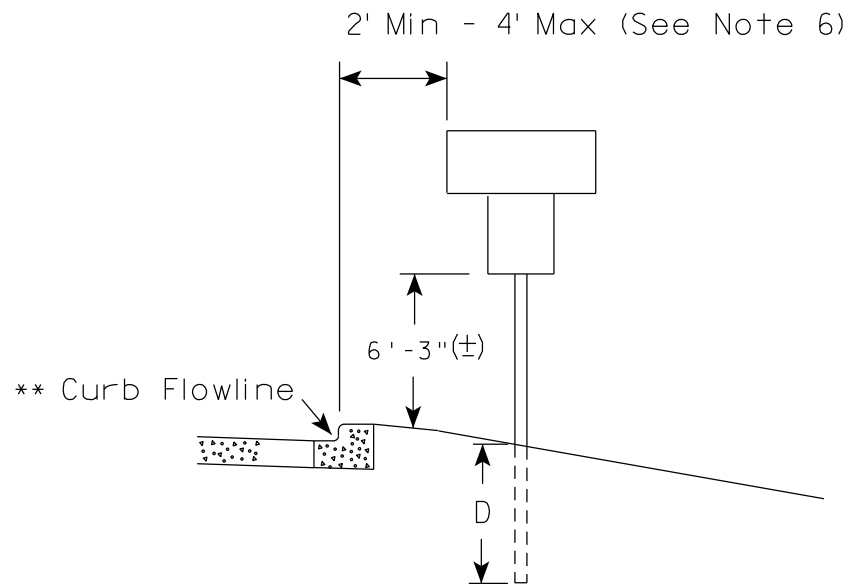
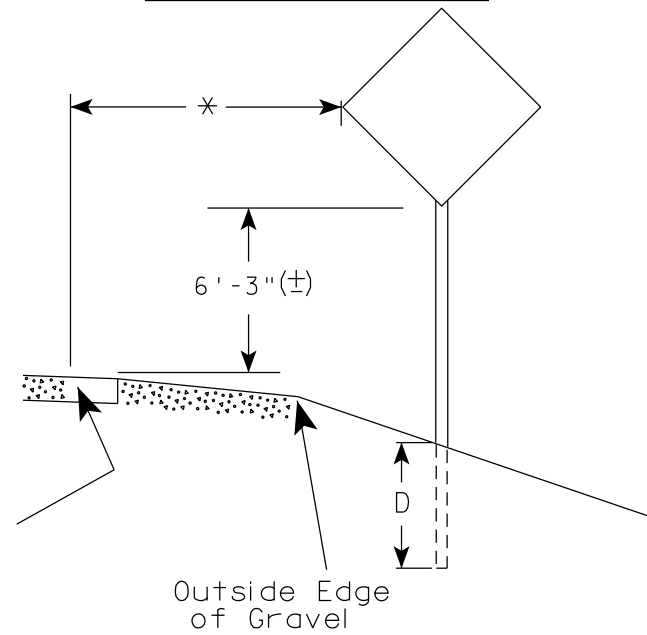
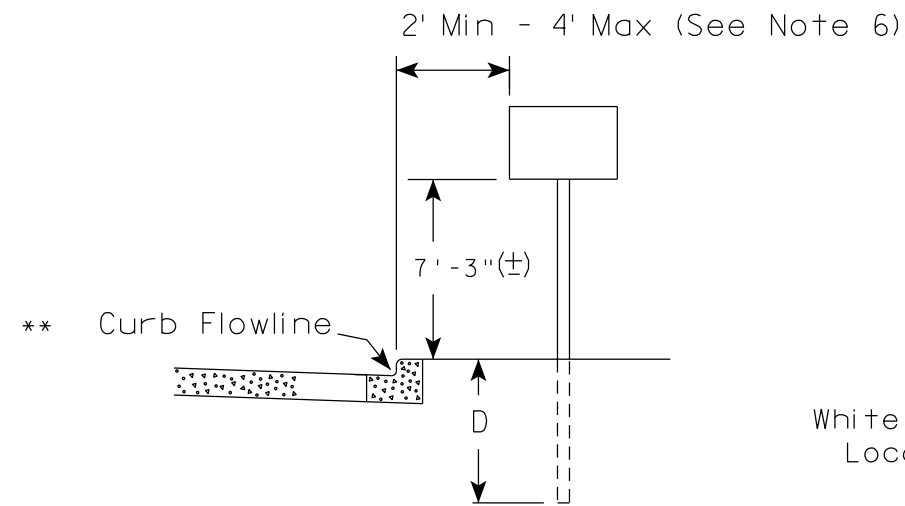
- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- ⚡ FLASHING ARROW BOARD
- ▨ WORK AREA



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

URBAN AREA

RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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

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

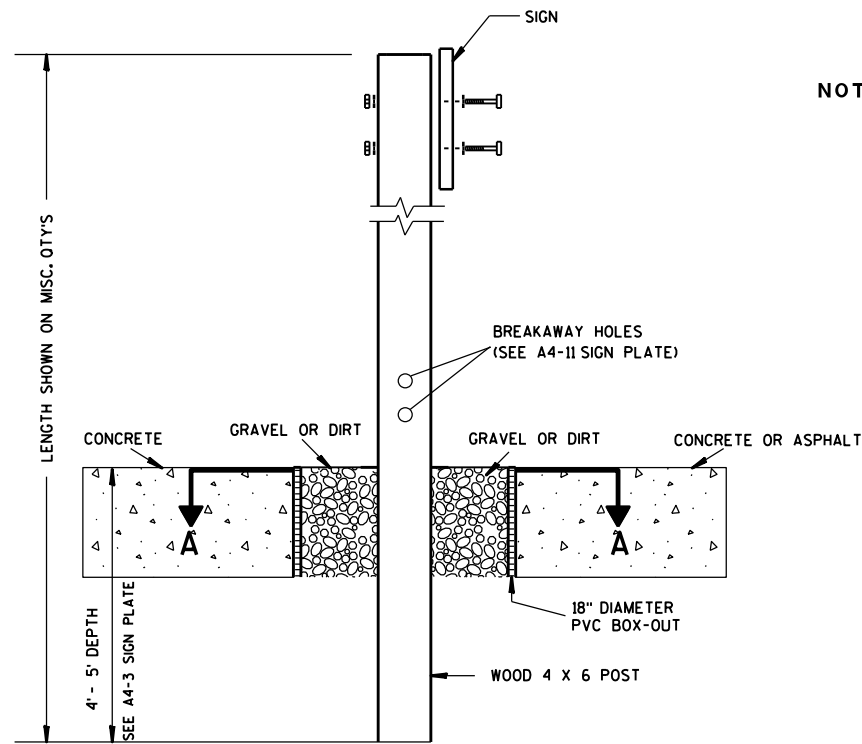
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

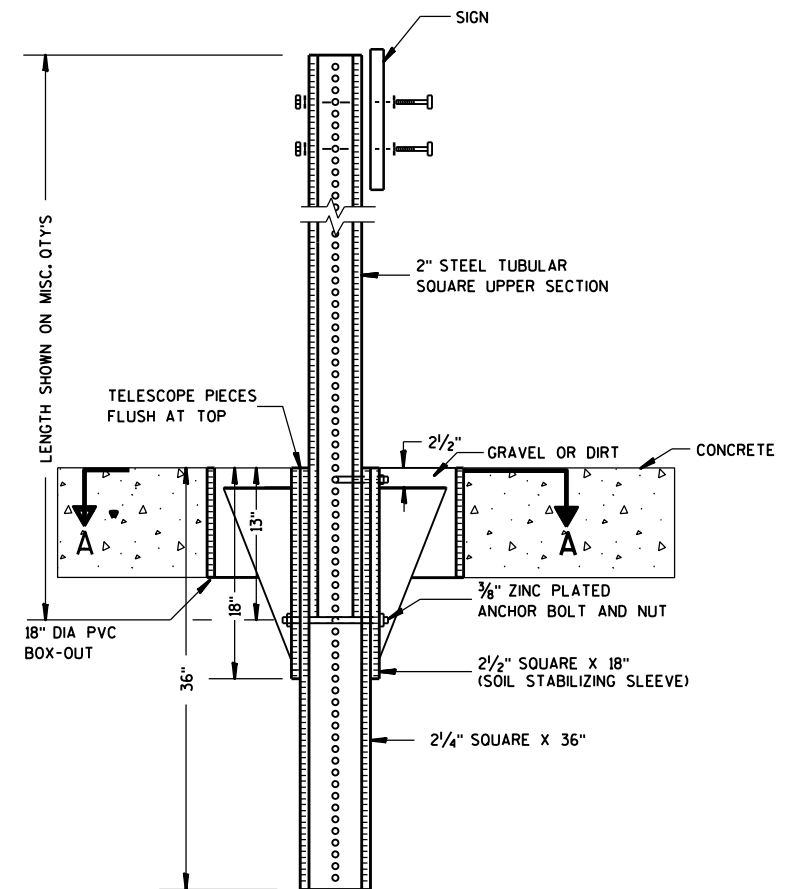
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

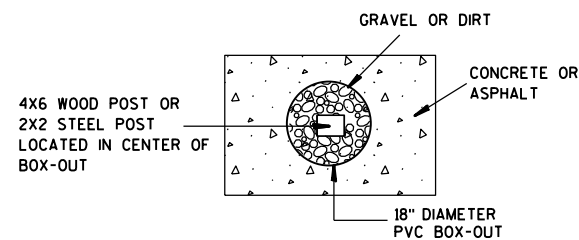
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

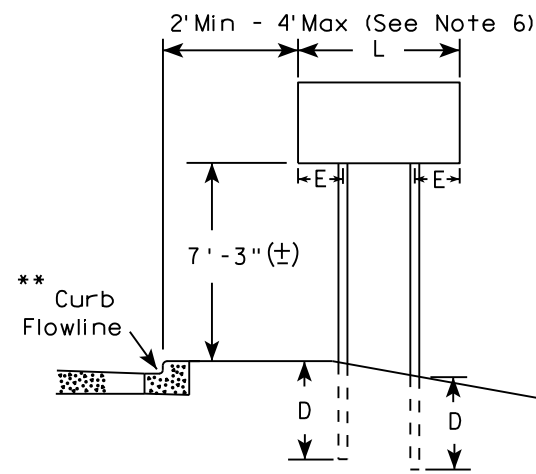
7

7

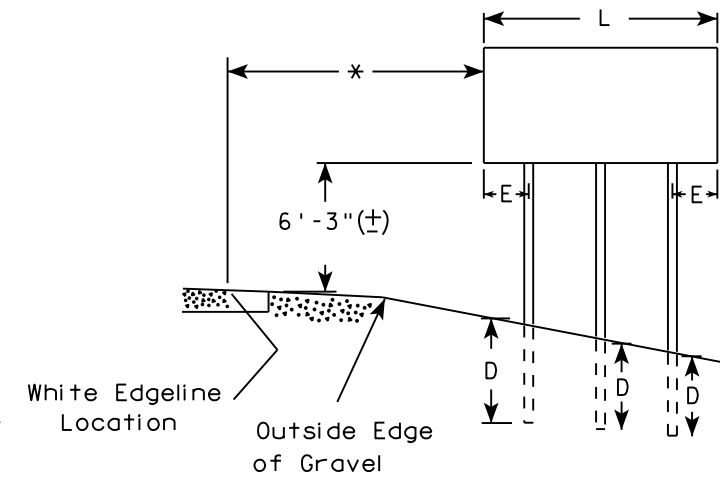
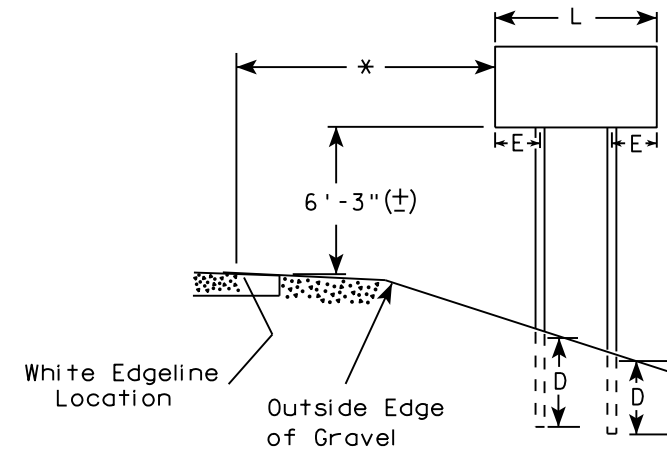
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

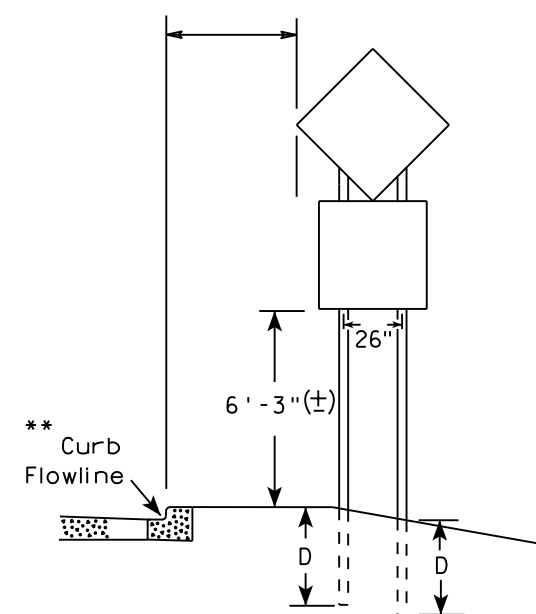
URBAN AREA



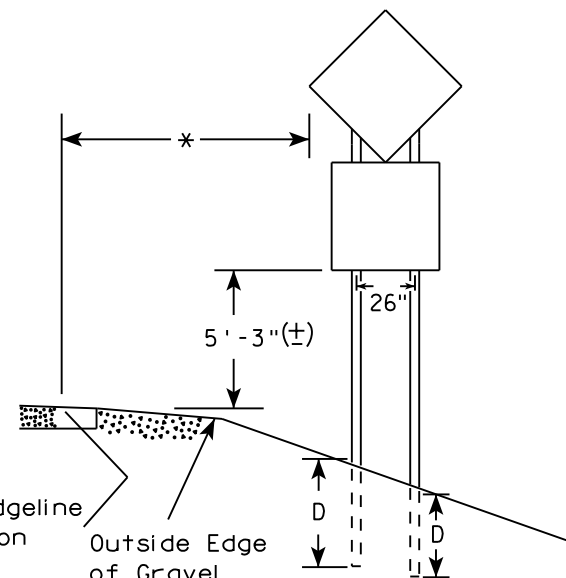
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

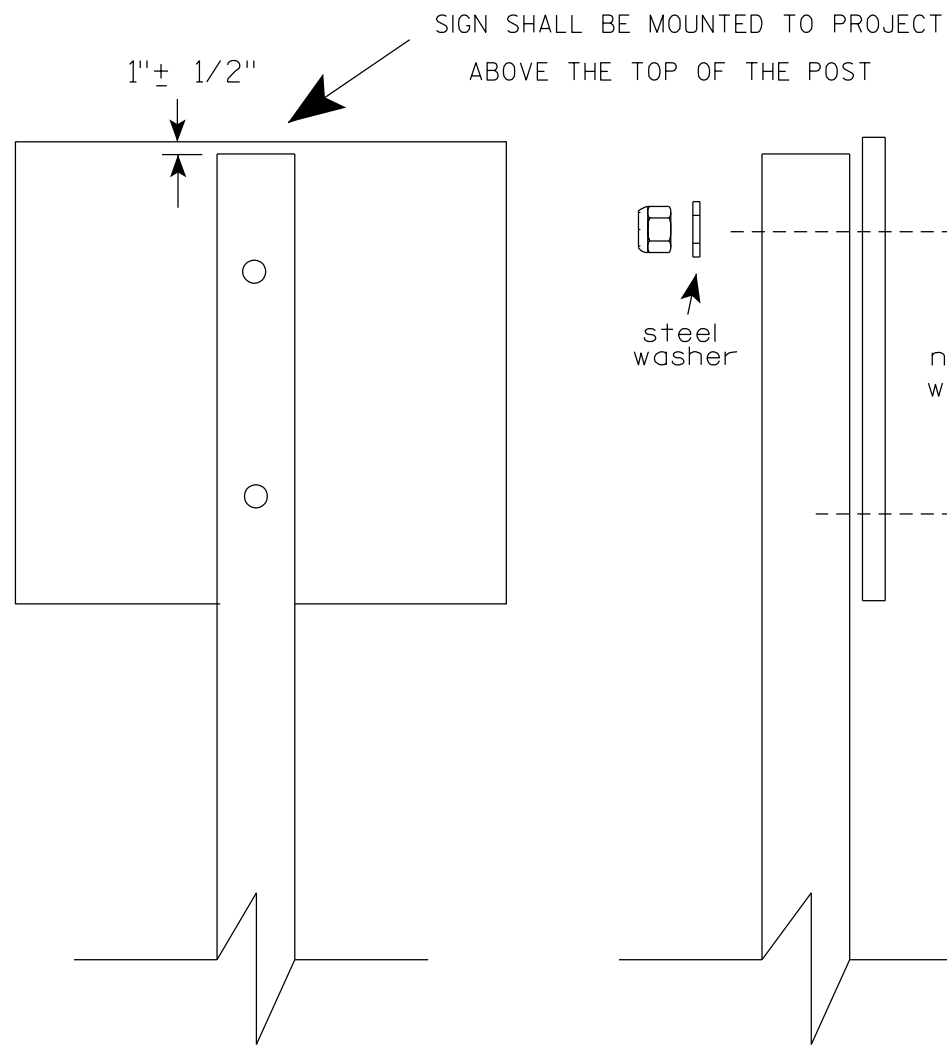
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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



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

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

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

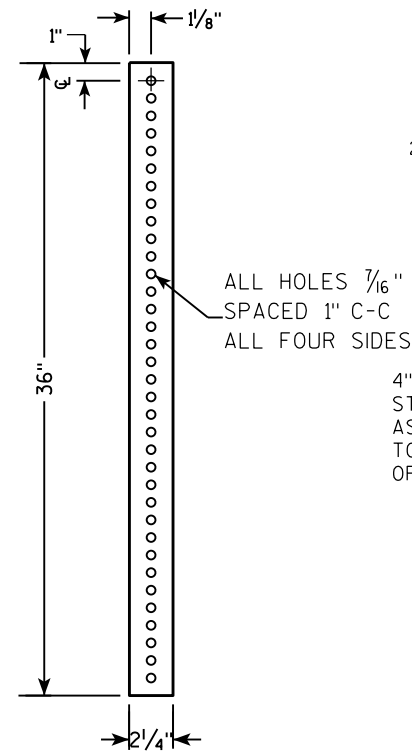
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE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

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

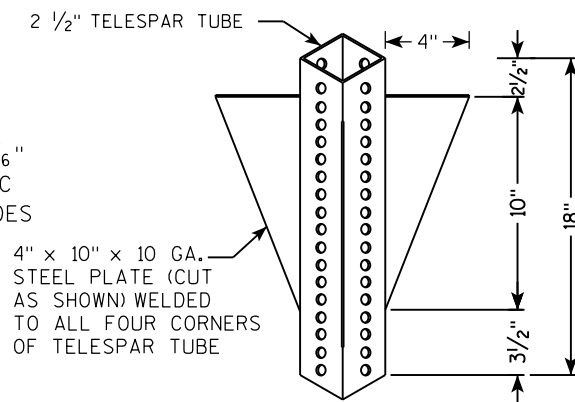
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

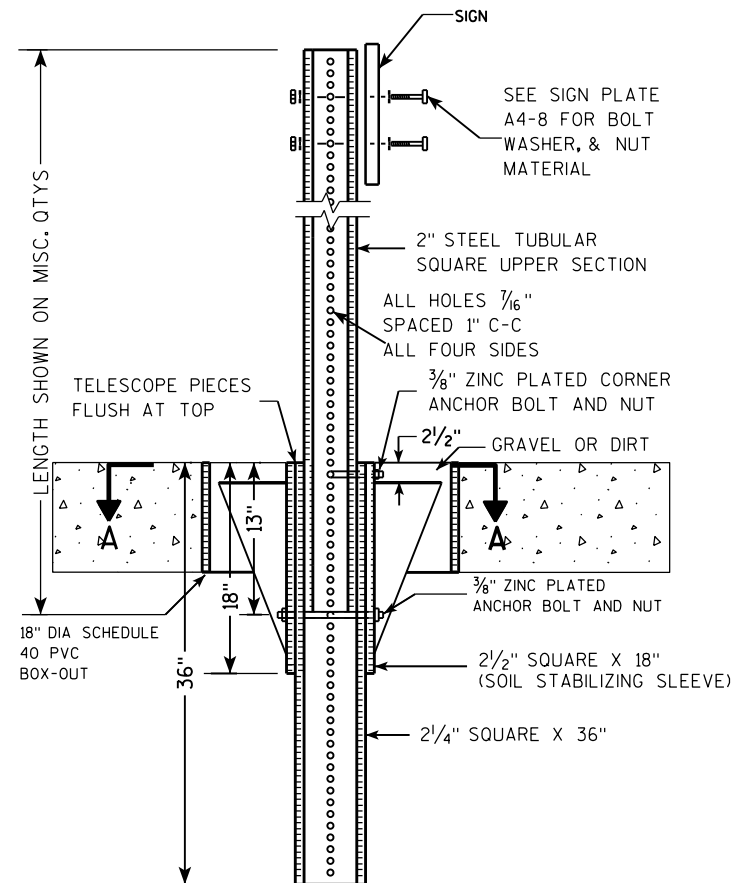
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



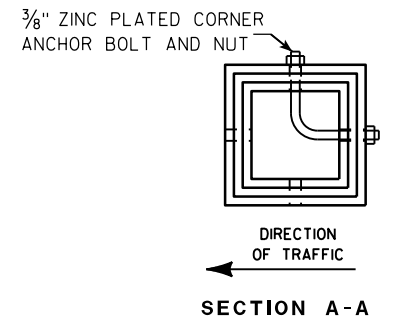
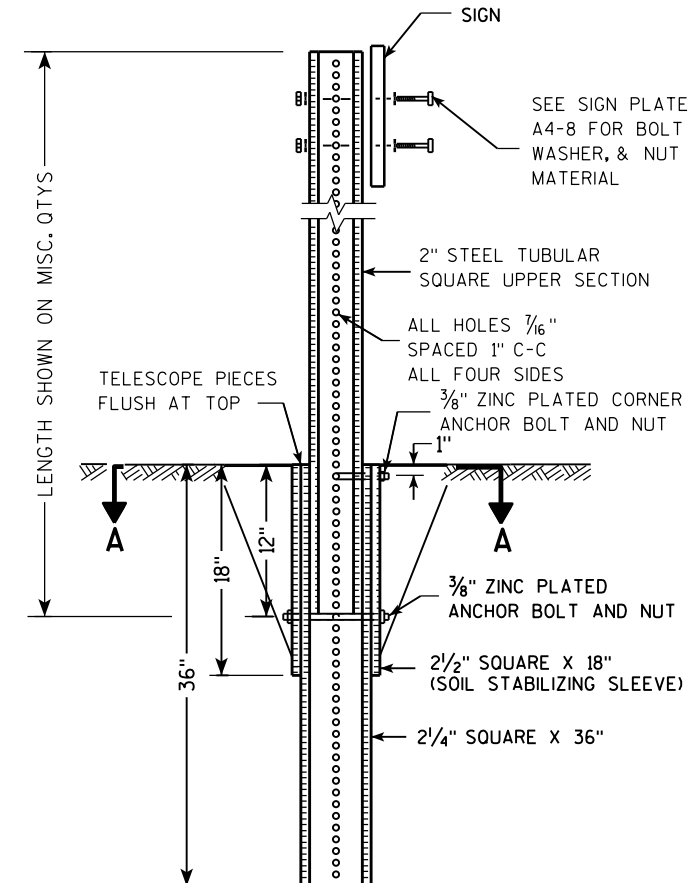
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

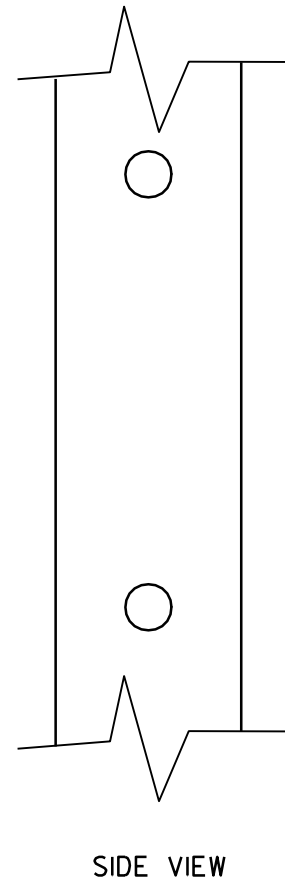
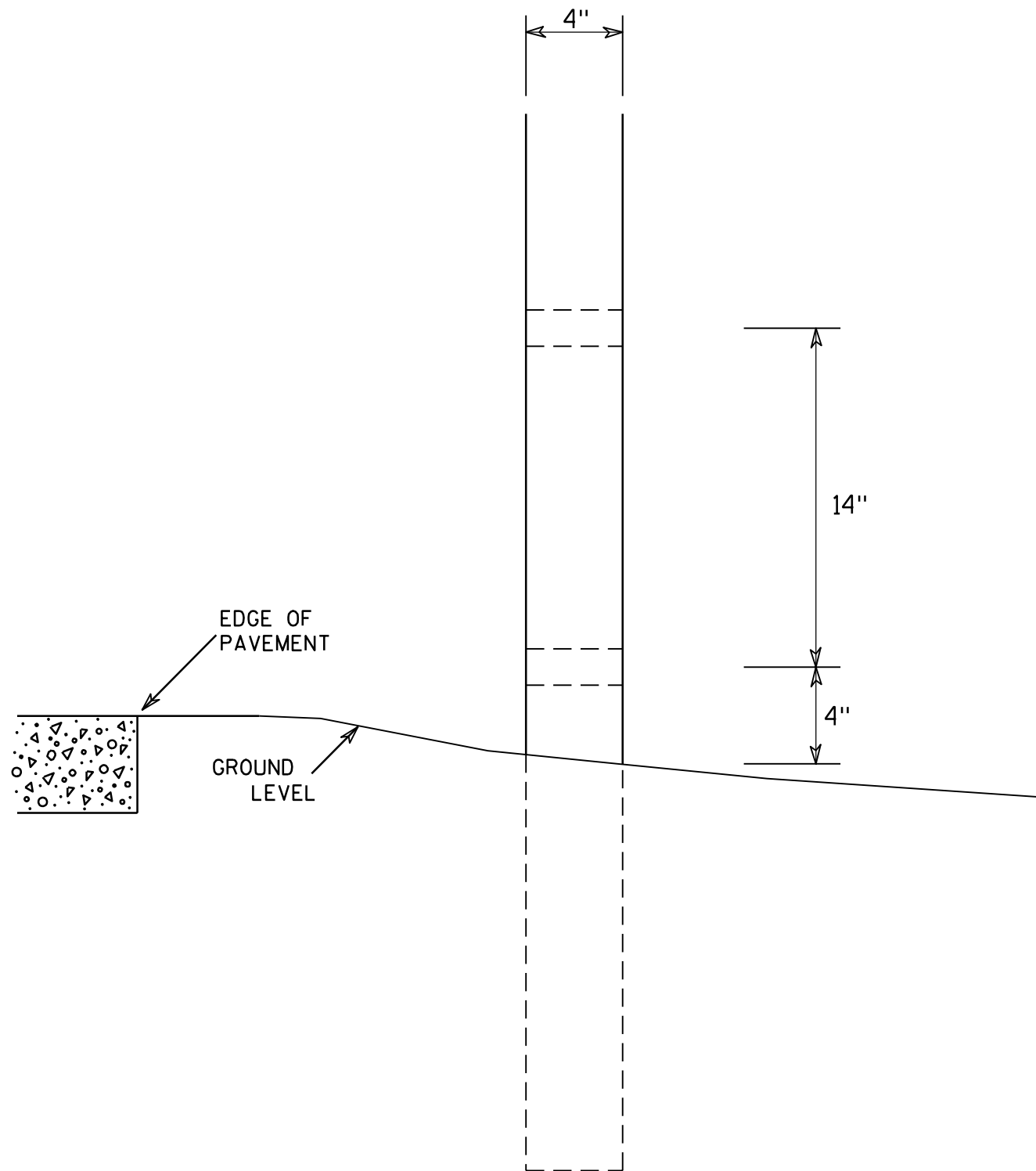
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



GENERAL NOTES

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

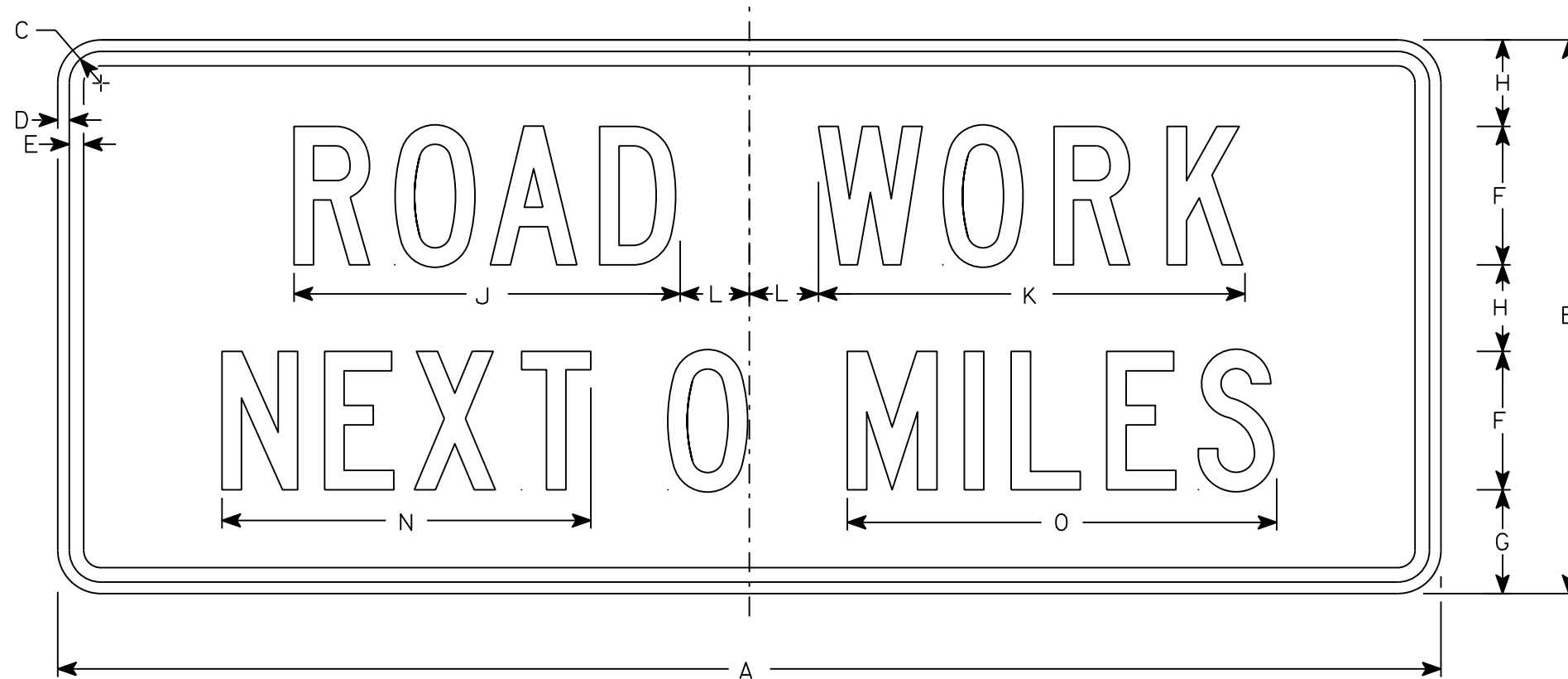
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4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

NOTES

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



G20-1

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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	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8													10
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8													10
5																												

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

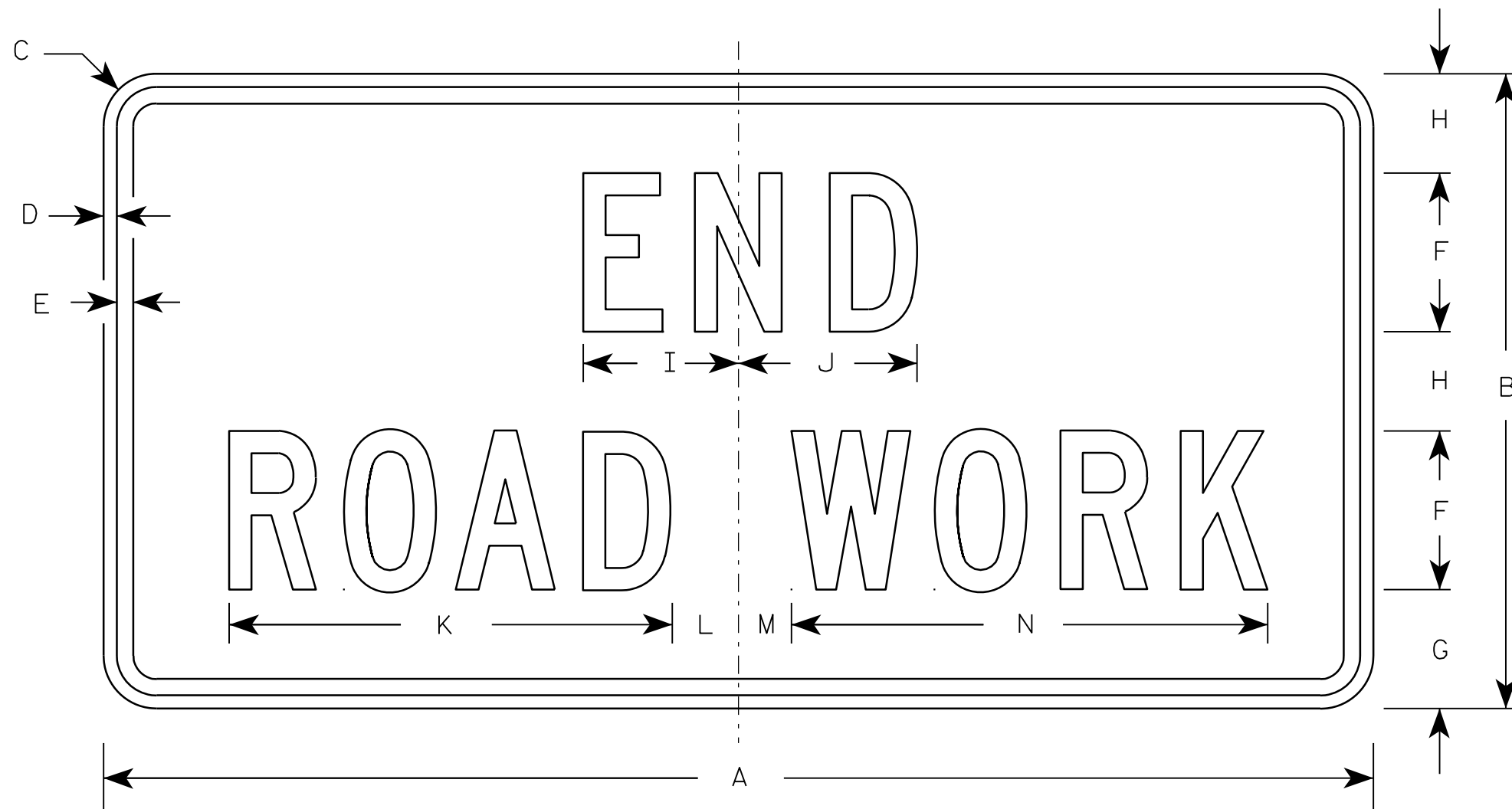
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

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

NOTES

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



G20-2A

7

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Metric equivalent for this sign is:

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

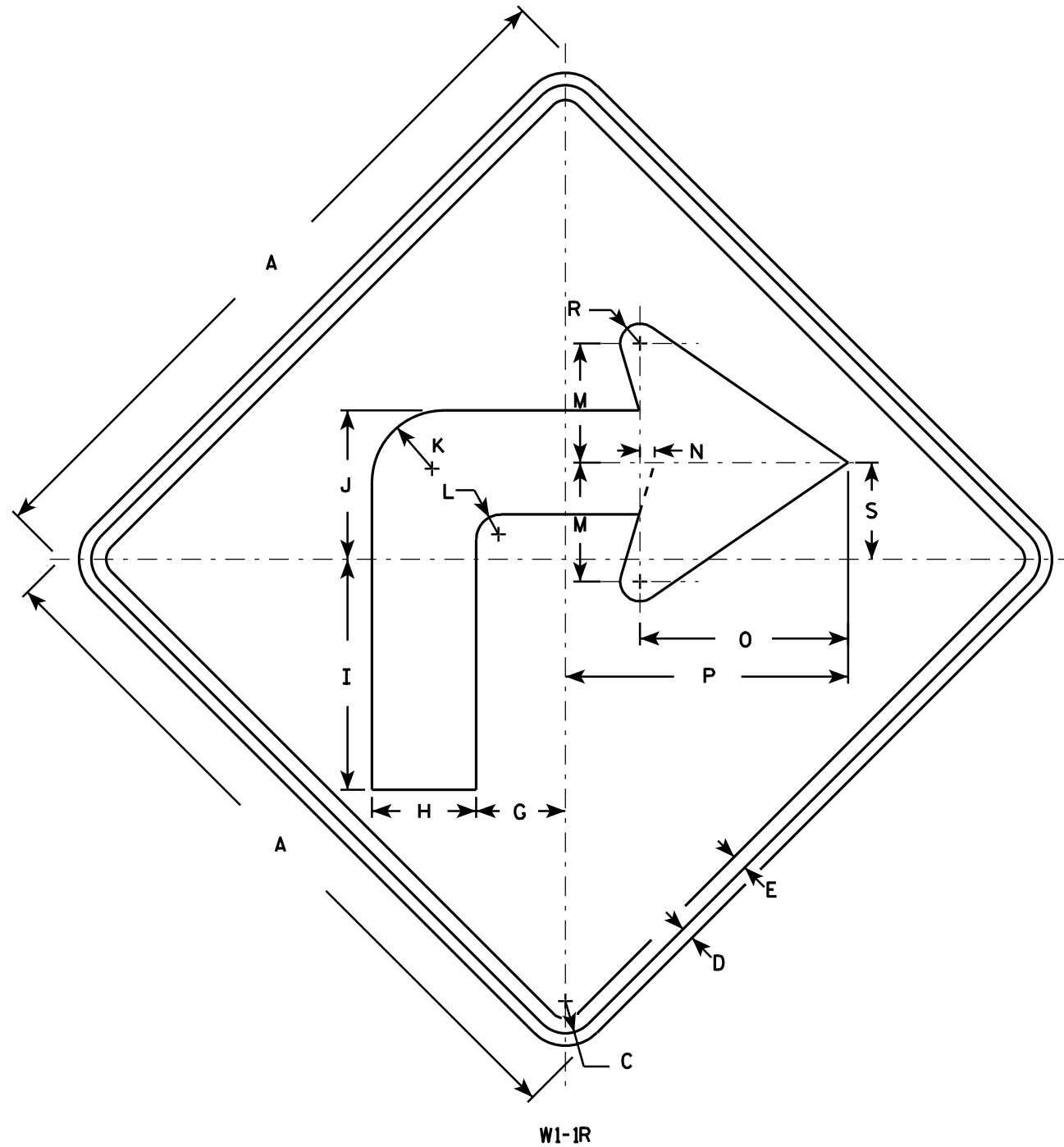
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

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

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2							16.0	
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2							16.0	

STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

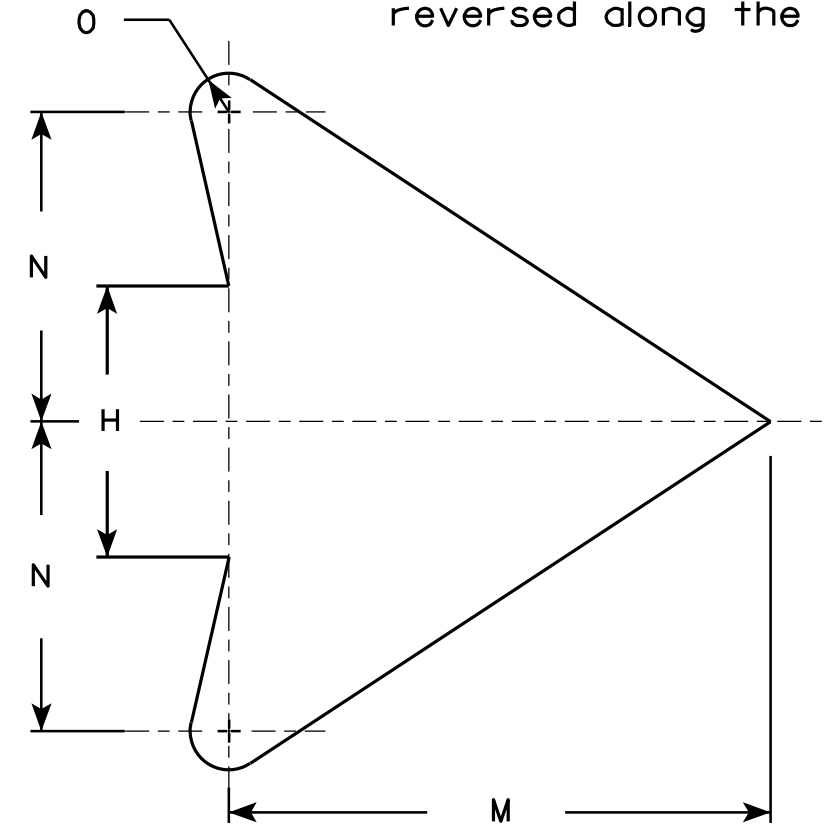
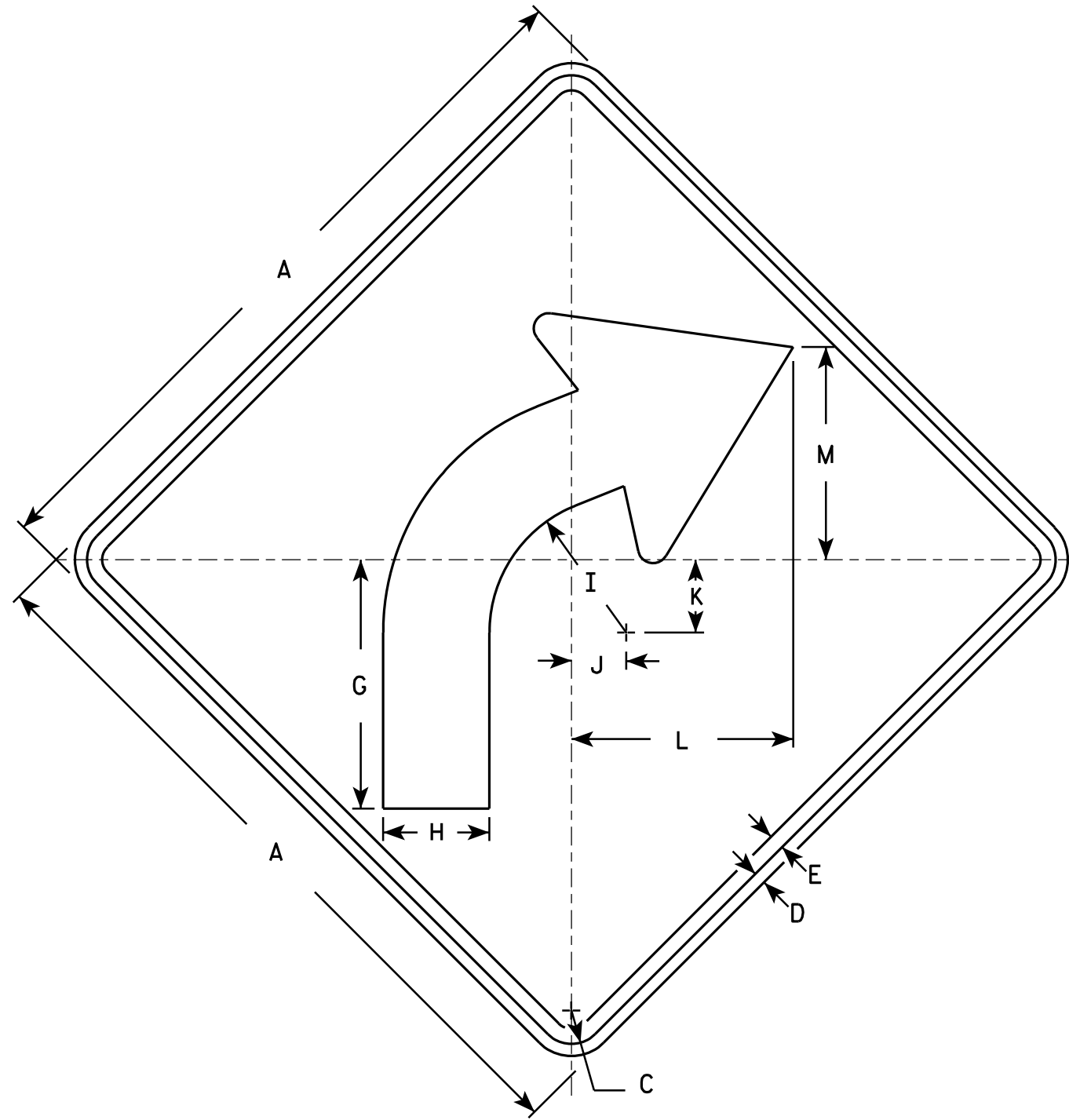
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

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

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

W1-2R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

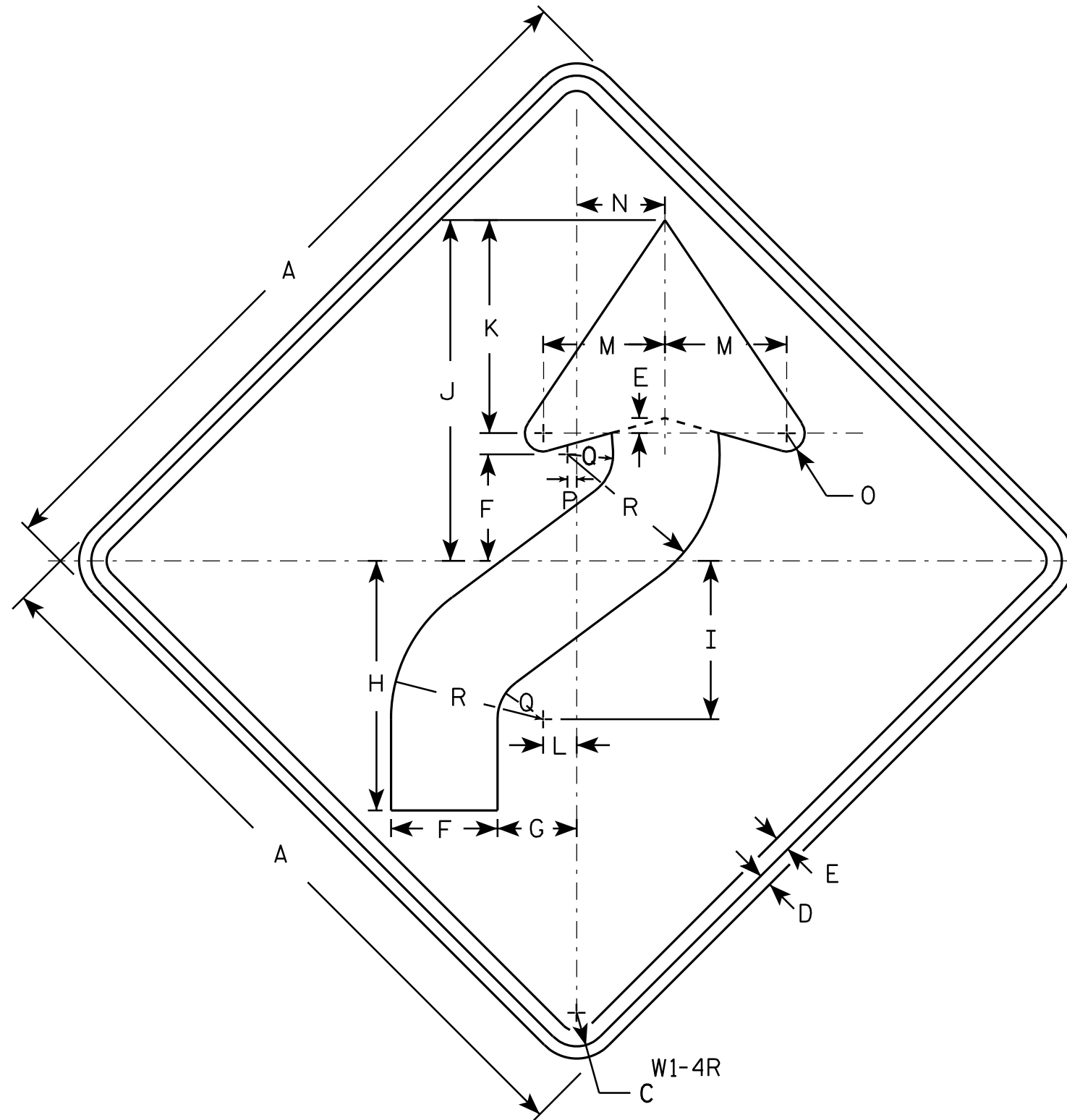
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

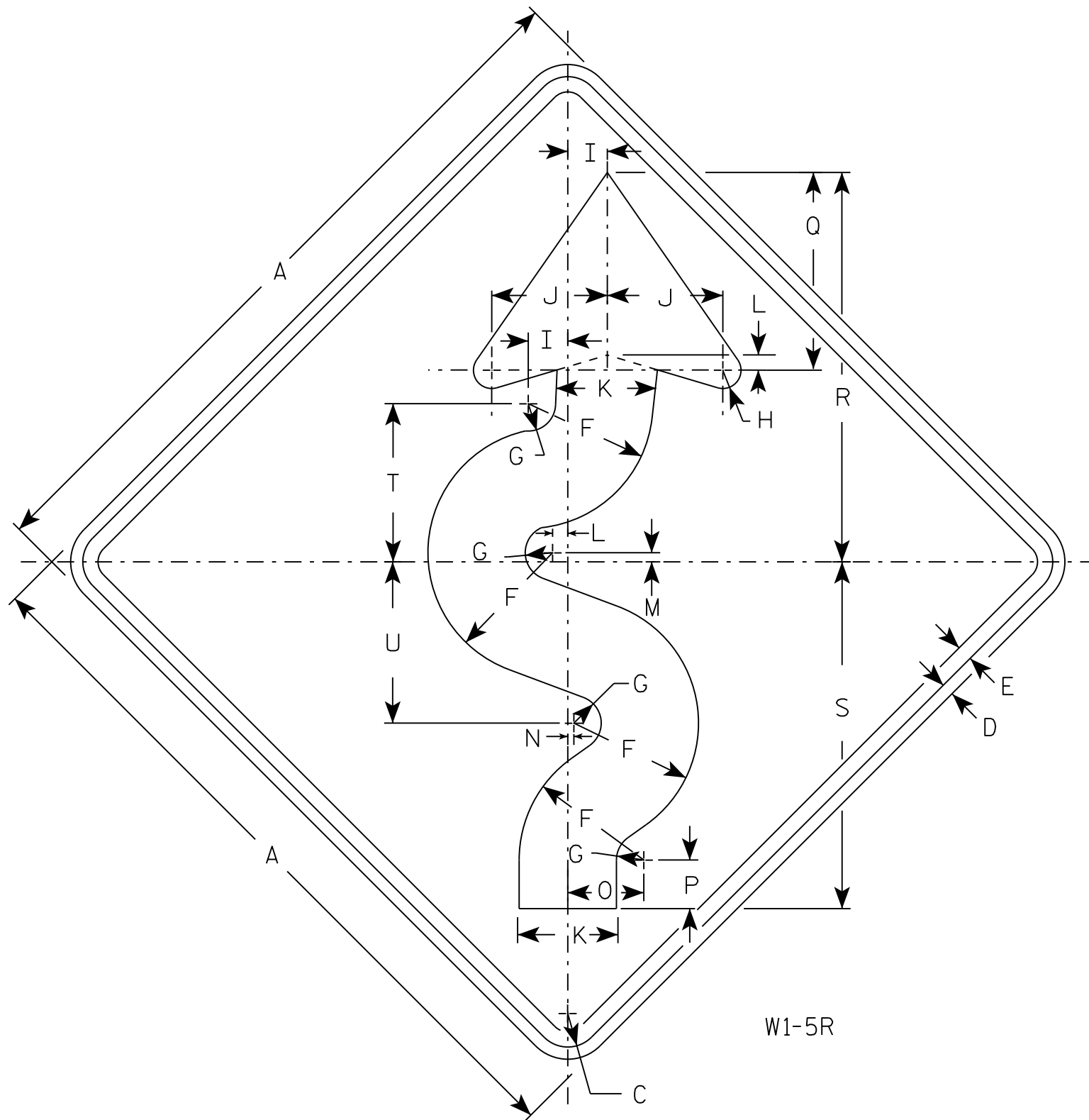
STANDARD SIGN
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

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



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.
4. If used with W13-1 of 30 MPH or less, use 36" sign for Size 2S.

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	24		1 1/8	3/8	1/2	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

STANDARD SIGN
W1-5

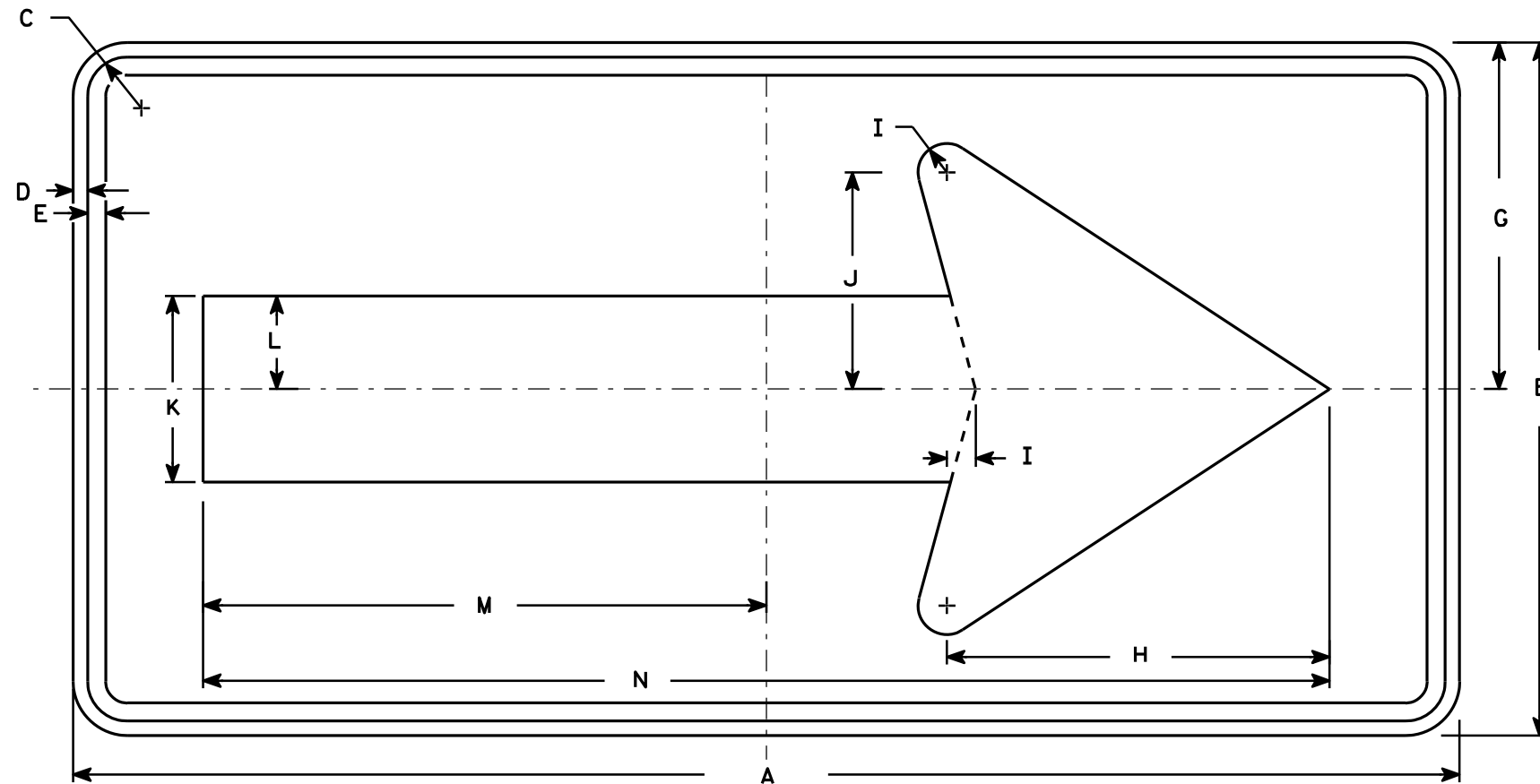
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/1/16 PLATE NO. W1-5.9

NOTES

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



W1-6

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

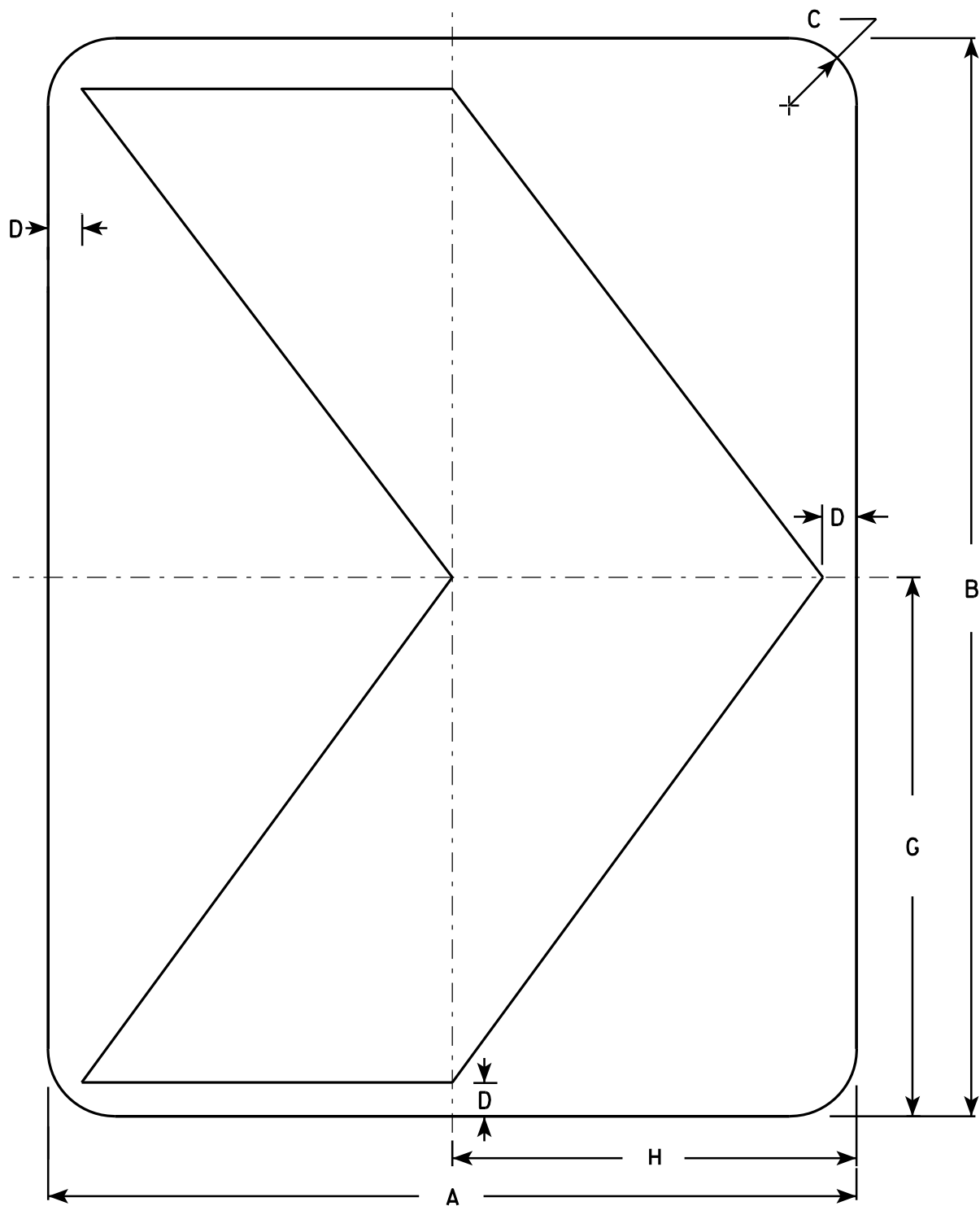
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

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



NOTES

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

7

7

W1-8

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	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN
W1-8

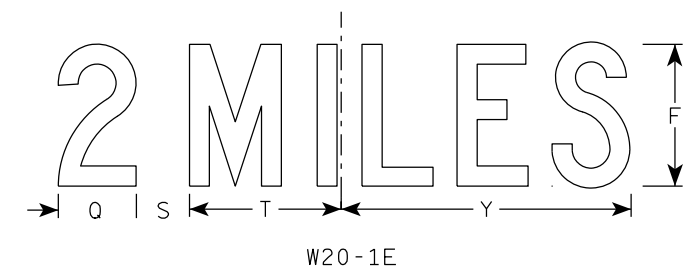
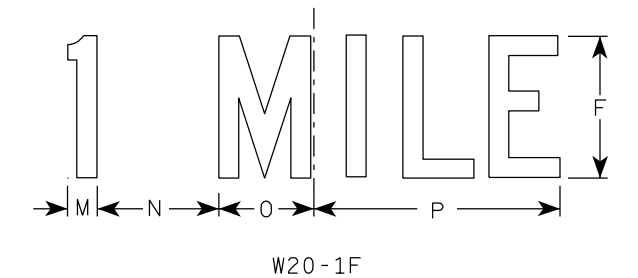
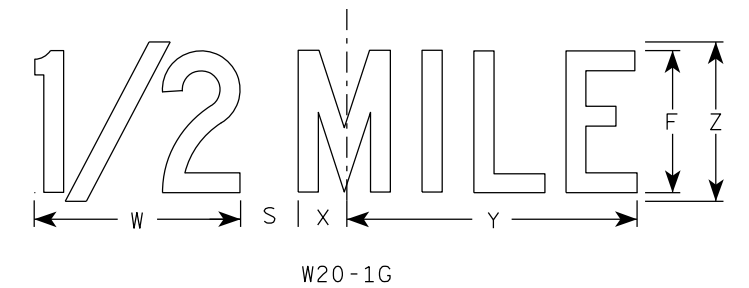
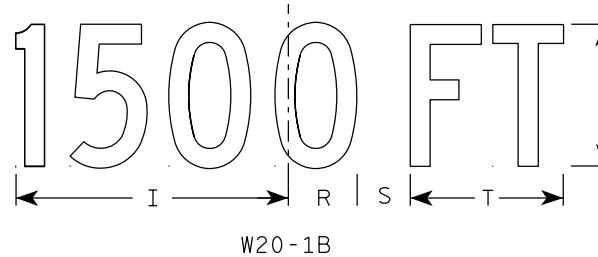
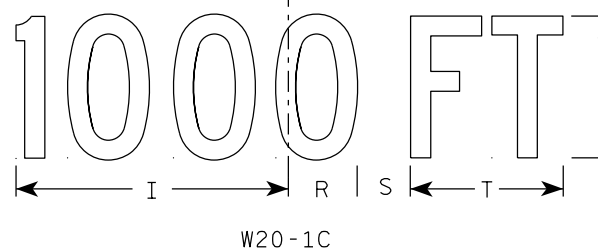
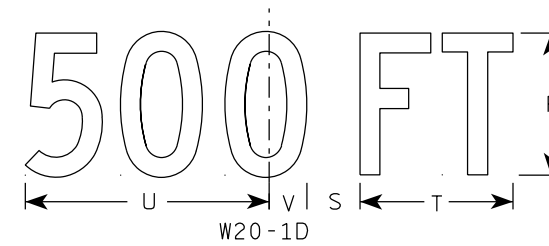
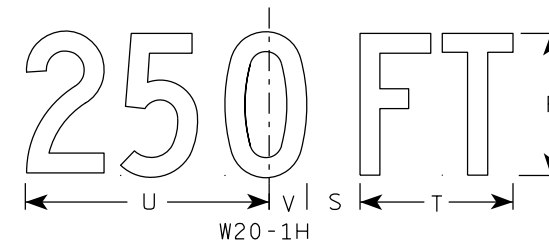
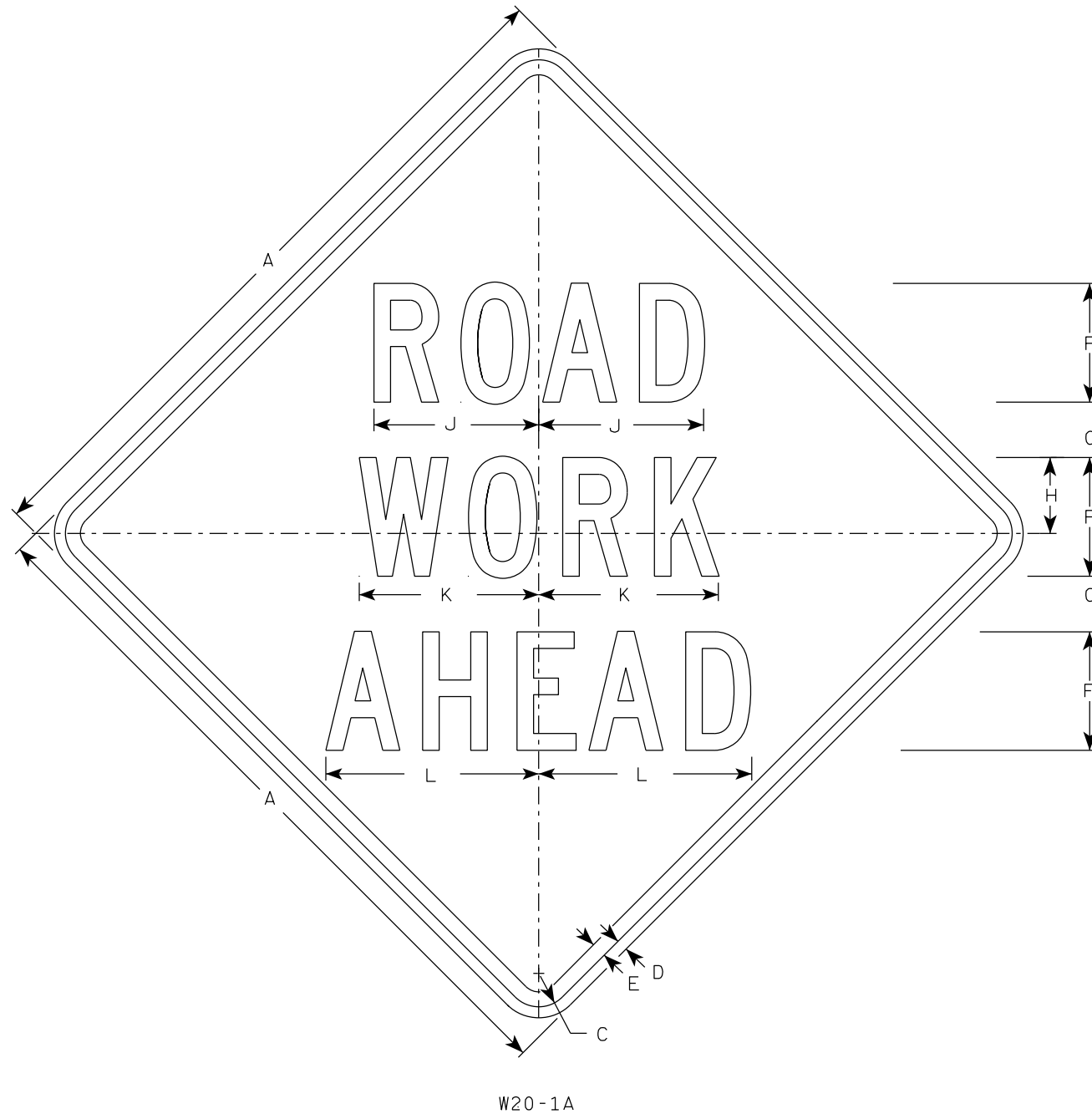
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

NOTES

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



W20-1A

W20-1C

W20-1B

W20-1G

W20-1F

W20-1E

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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