

SUP

Feb 09, 2021

PROJECT ID:
WITH:

8727-01-60

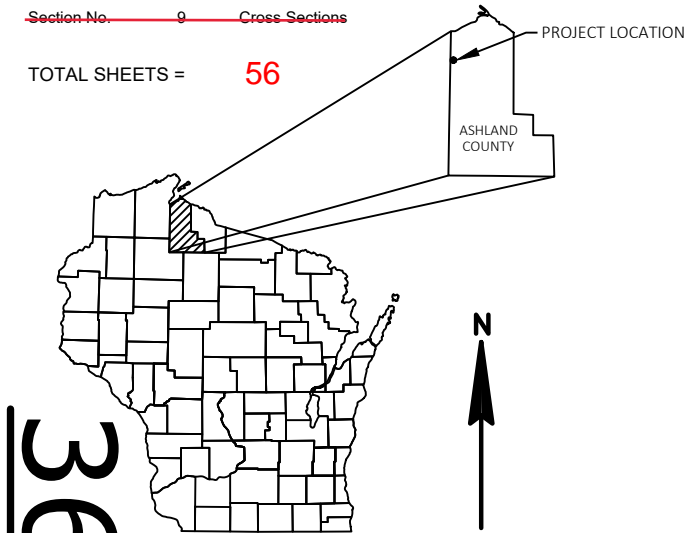
COUNTY:

ASHLAND COUNTY

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	Cross Sections

TOTAL SHEETS = 56



DESIGN DESIGNATION

A.A.D.T.	2015	=	2,000
A.A.D.T.	2039	=	2,500
D.H.V.		=	369
D.D.		=	60/40
T.		=	6.0%
DESIGN SPEED		=	55
ESALS		=	

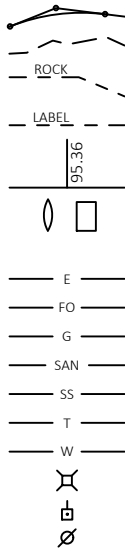
CONVENTIONAL SYMBOLS

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

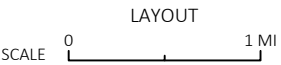
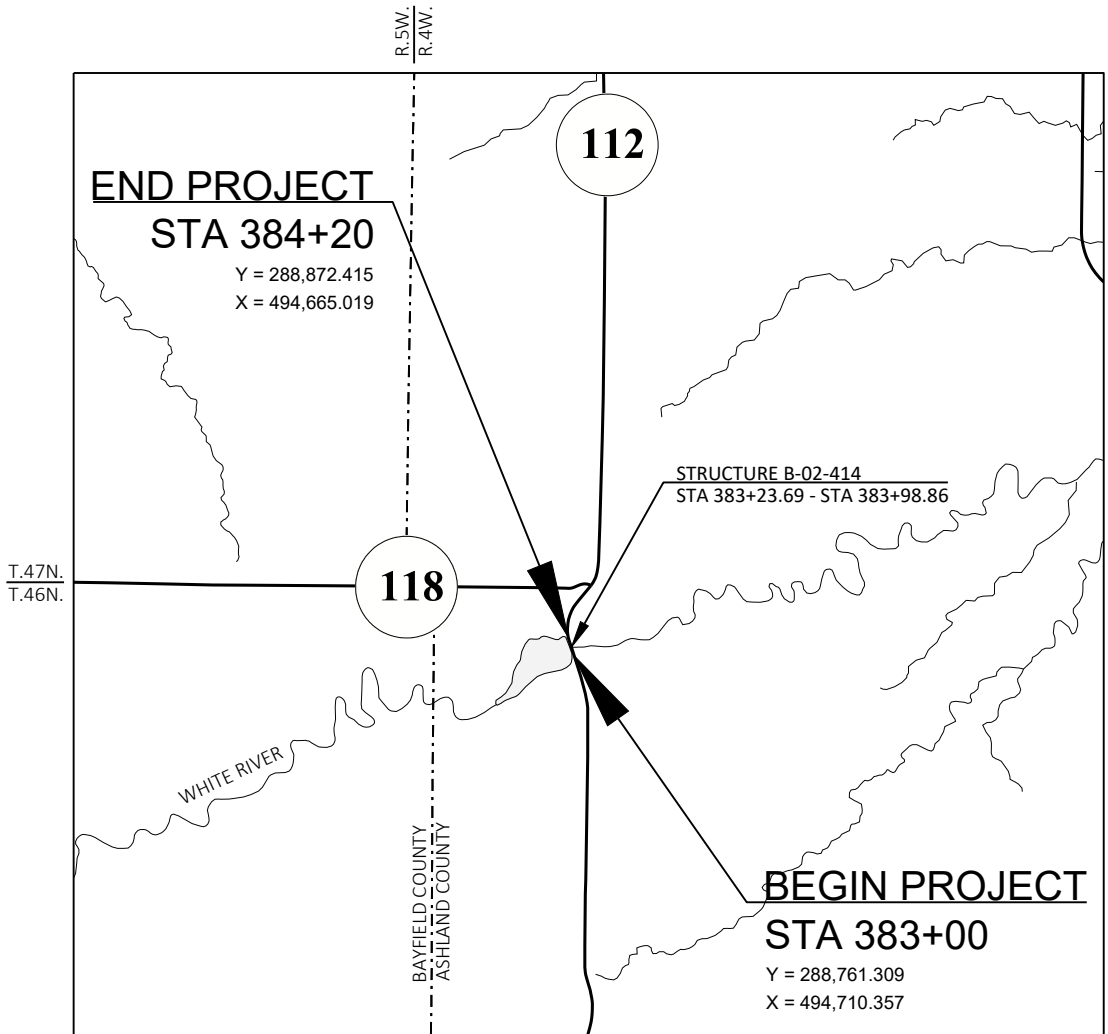
MARENGO - ASHLAND

WHITE RIVER BRIDGE B-02-0414

STH 112

ASHLAND COUNTY

STATE PROJECT NUMBER
8727-01-60



TOTAL NET LENGTH OF CENTERLINE = 0.023

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8727-01-60		

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	SURVEYOR
Designer	CAITLIN BUKOVITZ
Project Manager	MATTHEW DICKENSON
Regional Examiner	TOU YANG
Regional Supervisor	JEFFREY OLSON
APPROVED FOR THE DEPARTMENT	
DATE: 10/26/2020	Matthew J. Dickenson (signature)

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LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

GENERAL NOTES

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

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WETLANDS MAY EXIST IN LOCATIONS THAT ARE NOT SHOWN ON THE PLANS. DO NOT STAGE IN OR DISTURB WETLAND AREAS.

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

THE 6" ASPHALTIC SURFACE SHALL BE PLACED IN 3 LIFTS.



Dial 811 or (800)242-8511

www.DiggersHotline.com

XCEL ENERGY - ELECTRICITY DISTRIBUTION

ATTN: MURRAY SMERER
2400 FARM RD
ASHLAND, WI 54806
OFFICE: (715) 682-6928
MOBILE: (715) 209-3071
EMAIL: murray.j.smerer@xcelenergy.com

XCEL ENERGY- WHITE RIVER DAM CONTACT

ATTN: DEAN STEINES
1414 W. HAMILTON AVE
P.O. BOX 8
EAU CLAIRE, WI 54702
OFFICE: (715) 715-737-1051
EMAIL: dean.s.steines@xcelenergy.com

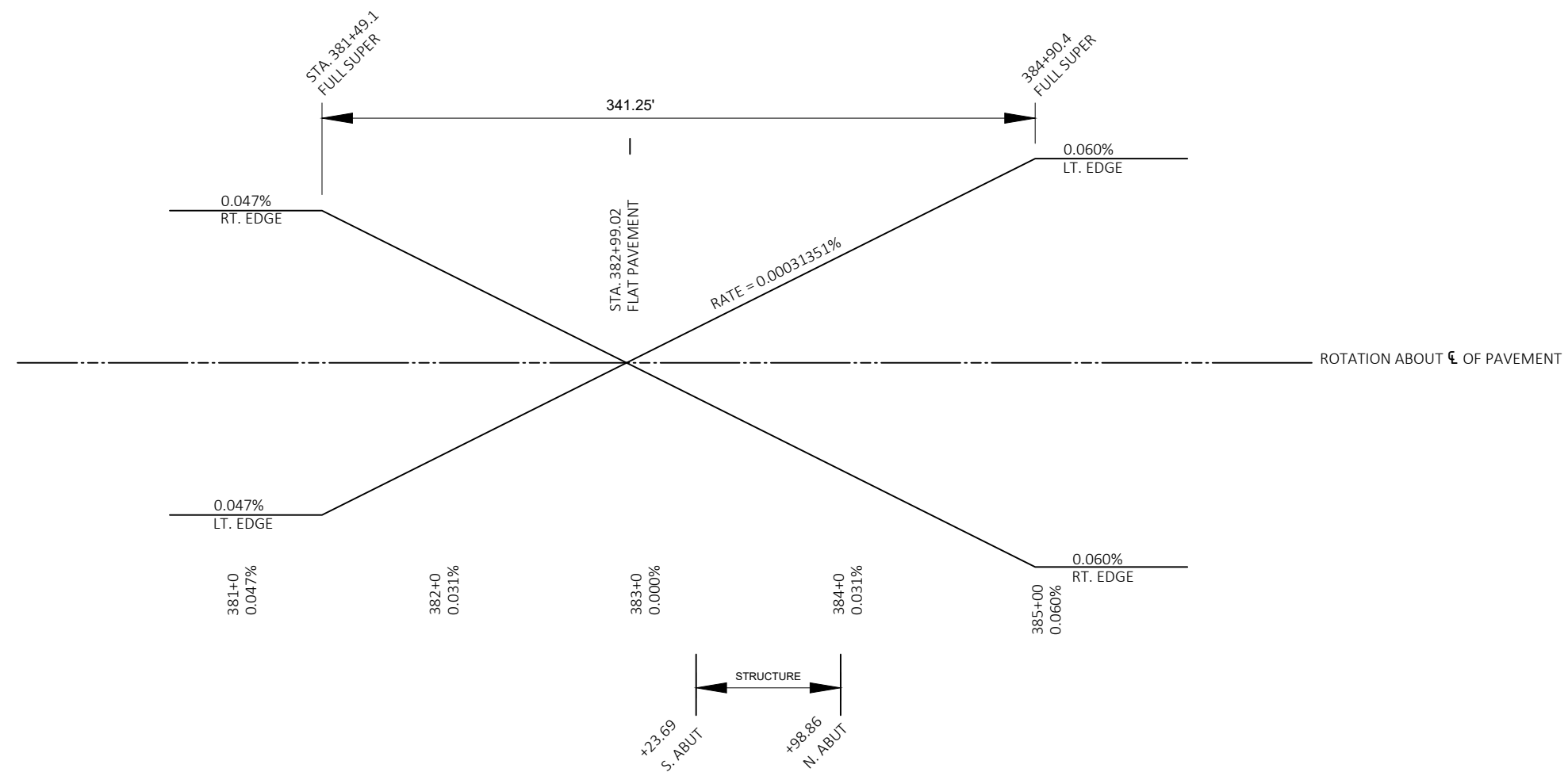
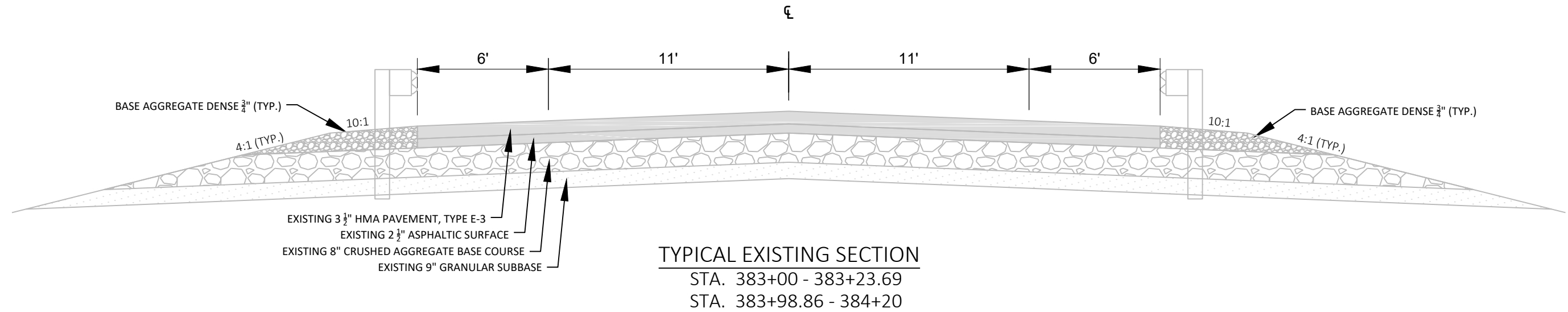
WISCONSIN DNR-LIASON

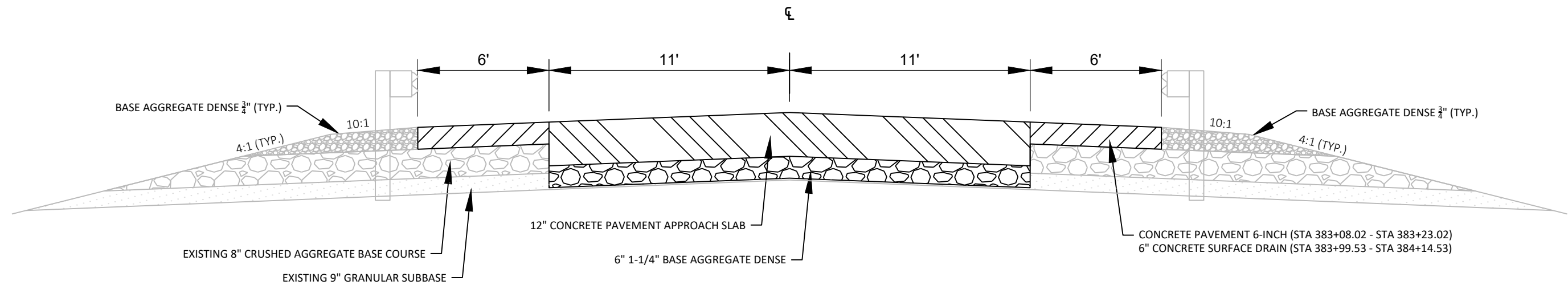
ATTN:SHAWN HASELEU
810 W. MAPLE ST.
SPOONER, WI 54801
PHONE: (715) 635-4228
EMAIL: shawn.haseleu@wisconsin.gov

WIDSDOT NW REGION

ATTN: MATTHEW DICKENSON - PROJECT MANAGER
1701 N. 4TH ST
SUPERIOR, WI 54880
PHONE: (718) 395-3022
EMAIL: matthew.dickenson@dot.wi.gov

ATTN:CAITLIN BUKOVITZ - DESIGN PROJECT LEADER
1701 N. 4TH ST
SUPERIOR, WI 54880
PHONE: (715) 392-7975
EMAIL: caitlin.bukovitz@dot.wi.gov

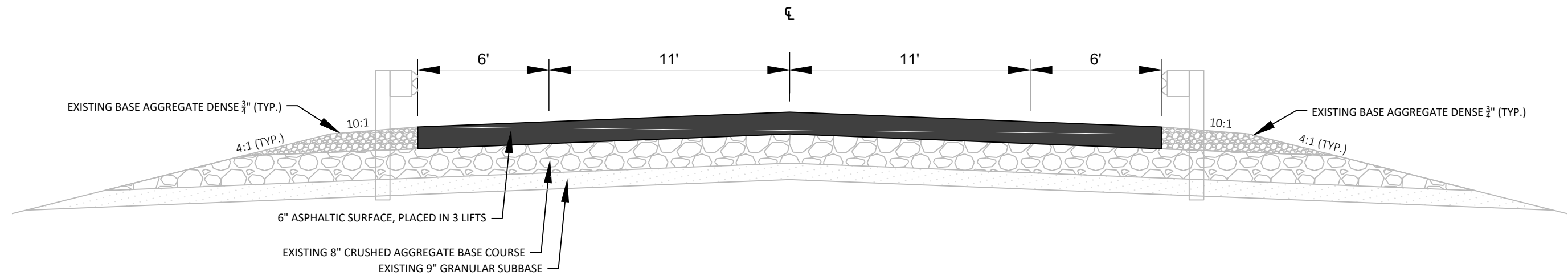




TYPICAL PROPOSED SECTION

STA. 383+08.69 - 383+23.69

STA. 383+98.86 - 384+13.86

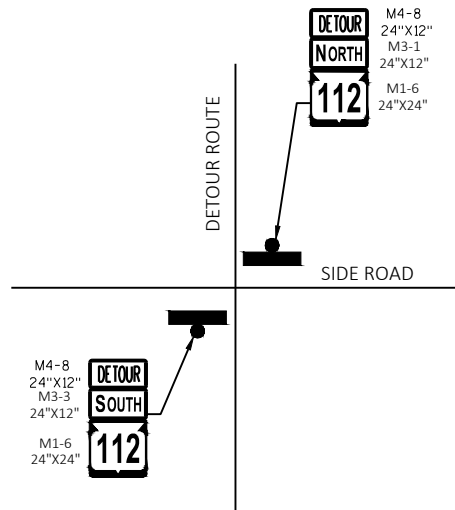


TYPICAL PROPOSED SECTION

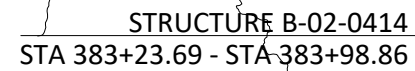
STA. 383+00 - 383+08.69

STA. 384+13.86 - 384+20

- TAPANI ROAD
- PEARCE ROAD



ALL SIGNS SHALL BE 48"x48" UNLESS OTHERWISE NOTED
"WO" OR "MO" IS THE SAME AS "W" OR "M" EXCEPT THE BACKGROUND IS ORANGE



L1-A

L1-B

WHITE

L3

RIVER

Sanborn

Marengo

PROJECT NO:	8727-01-30
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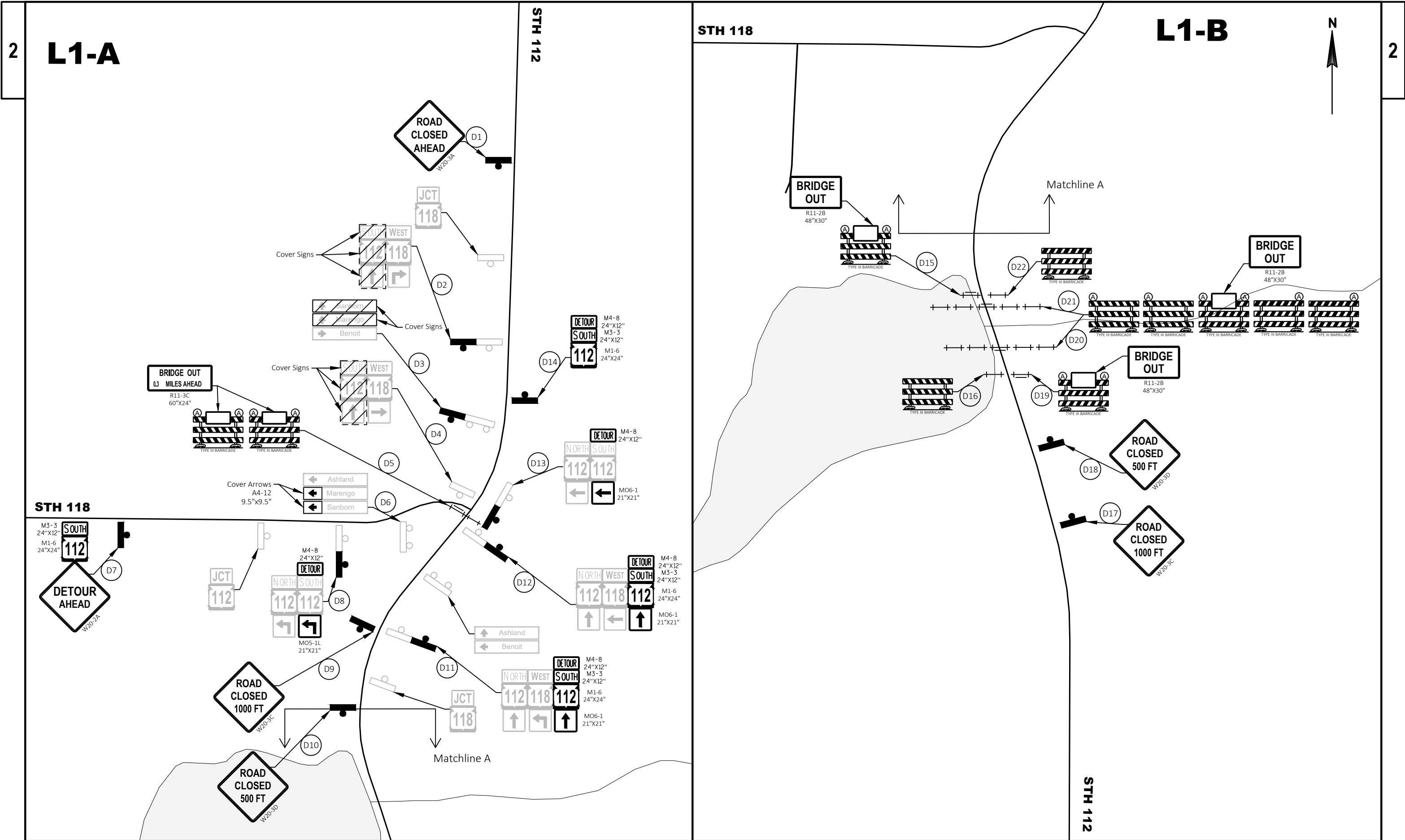
HWY: STH 112

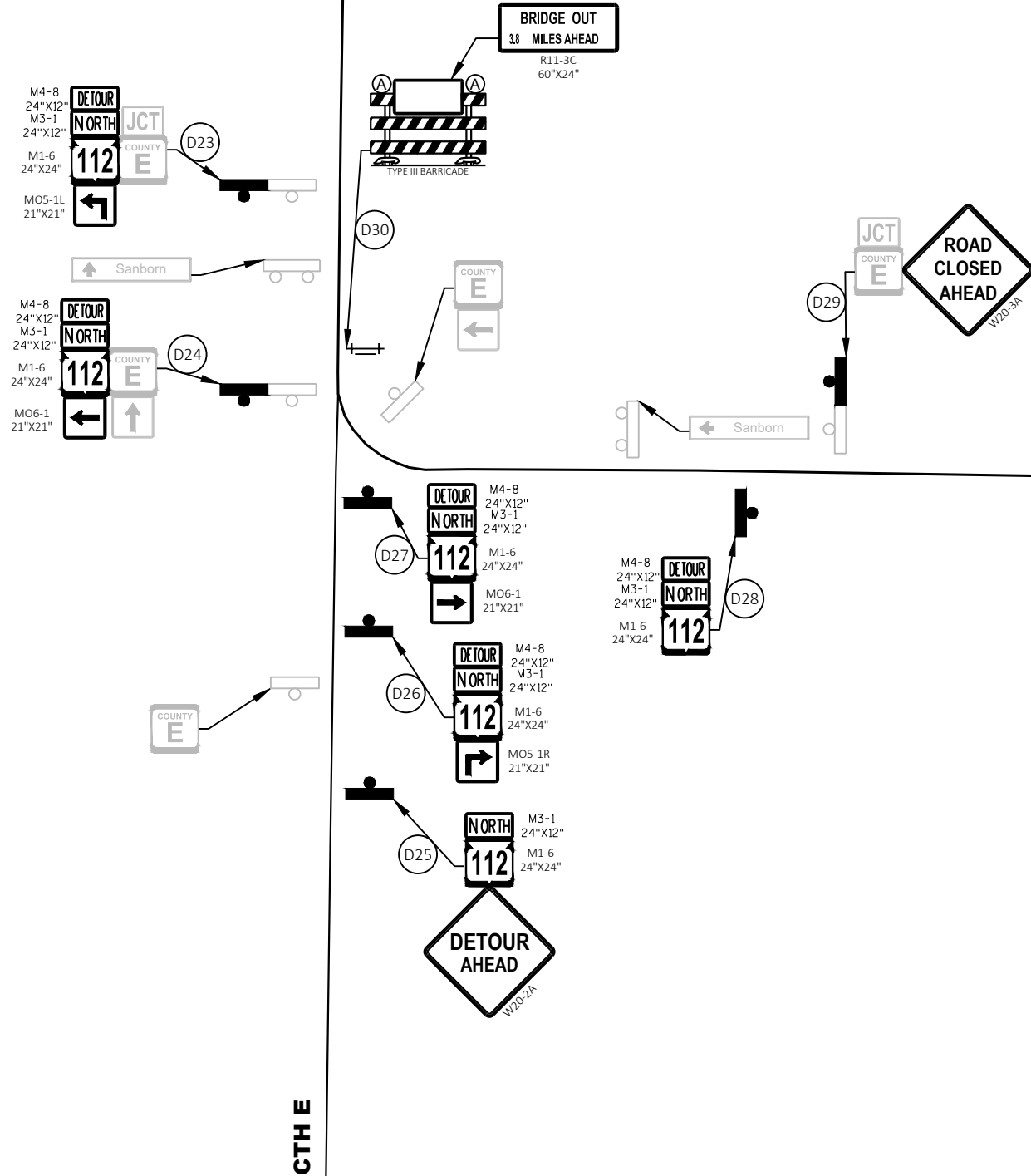
COUNTY: Ashland

DETOUR SIGNING PLAN

SHEET

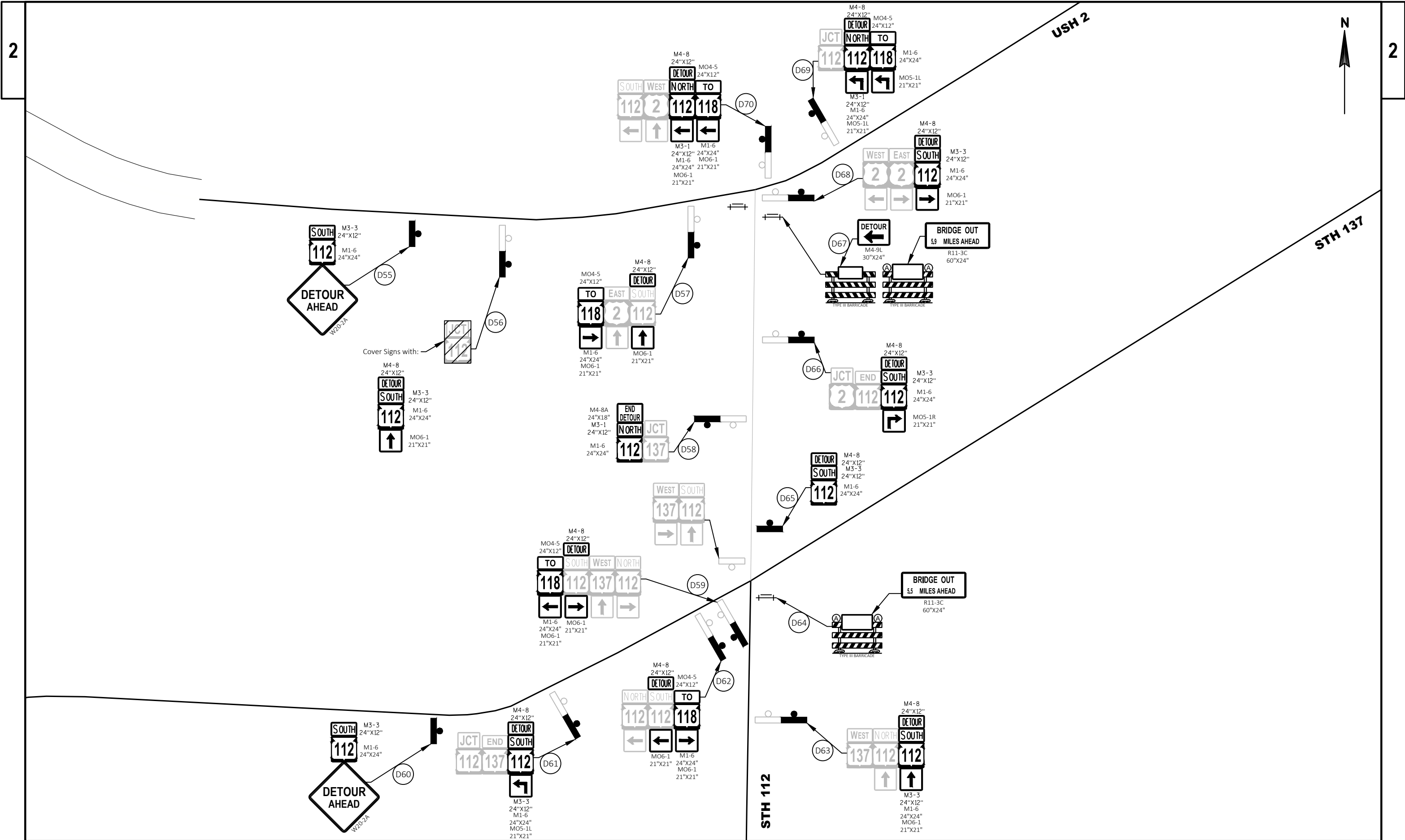
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Estimate Of Quantities

8727-01-60

Line	Item	Item Description	Unit	Total	Qty
0002	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 383+50	LS	1.000	1.000
0004	204.0110	Removing Asphaltic Surface	SY	170.000	170.000
0006	204.0150	Removing Curb & Gutter	LF	10.000	10.000
0008	204.0190	Removing Surface Drains	EACH	1.000	1.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-02-0414	LS	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	117.000	117.000
0014	213.0100	Finishing Roadway (project) 01. 8727-01-60	EACH	1.000	1.000
0016	415.0060	Concrete Pavement 6-Inch	SY	20.000	20.000
0018	415.0410	Concrete Pavement Approach Slab	SY	74.000	74.000
0020	416.1010	Concrete Surface Drains	CY	4.000	4.000
0022	455.0605	Tack Coat	GAL	9.000	9.000
0024	465.0105	Asphaltic Surface	TON	77.000	77.000
0026	502.0100	Concrete Masonry Bridges	CY	41.000	41.000
0028	502.3200	Protective Surface Treatment	SY	302.000	302.000
0030	502.3210	Pigmented Surface Sealer	SY	78.000	78.000
0032	502.4205	Adhesive Anchors No. 5 Bar	EACH	48.000	48.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	4,450.000	4,450.000
0036	509.0301	Preparation Decks Type 1	SY	50.000	50.000
0038	509.0302	Preparation Decks Type 2	SY	25.000	25.000
0040	509.0500	Cleaning Decks	SY	289.000	289.000
0042	509.1500	Concrete Surface Repair	SF	10.000	10.000
0044	509.2000	Full-Depth Deck Repair	SY	1.000	1.000
0046	509.2500	Concrete Masonry Overlay Decks	CY	21.000	21.000
0048	509.9050.S	Cleaning Parapets	LF	179.000	179.000
0050	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0052	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	10.000	10.000
0054	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	134.000	134.000
0056	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8727-01-60	EACH	1.000	1.000
0058	619.1000	Mobilization	EACH	1.000	1.000
0060	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0062	642.5001	Field Office Type B	EACH	1.000	1.000
0064	643.0420	Traffic Control Barricades Type III	DAY	770.000	770.000
0066	643.0705	Traffic Control Warning Lights Type A	DAY	980.000	980.000
0068	643.0900	Traffic Control Signs	DAY	7,665.000	7,665.000
0070	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0072	645.0111	Geotextile Type DF Schedule A	SY	30.000	30.000
0074	646.1020	Marking Line Epoxy 4-Inch	LF	480.000	480.000

Estimate Of Quantities

8727-01-60					
Line	Item	Item Description	Unit	Total	Qty
0076	650.6500	Construction Staking Structure Layout (structure) 01. B-02-0414	LS	1.000	1.000
0078	650.8000	Construction Staking Resurfacing Reference	LF	46.000	46.000
0080	650.9910	Construction Staking Supplemental Control (project) 01. 8727-01-60	LS	1.000	1.000
0082	690.0150	Sawing Asphalt	LF	68.000	68.000
0084	715.0502	Incentive Strength Concrete Structures	DOL	410.000	410.000
0086	SPV.0060	Special 01. Cleaning and Painting Bearings	EACH	10.000	10.000

REMOVING ASPHALTIC SURFACE				
STATION	TO	STATION	LOCATION	204.0110 SY
383+00	-	383+24	ML	90
383+99	-	384+20	ML	80
			TOTAL 0010	170

MARKING LINE EPOXY 4-INCH					
				646.1020	
STATION	TO	STATION	LOCATION	LF	REMARKS
383+00	-	384+20	CENTERLINE	240	YELLOW
383+00	-	384+20	EDGE LINES	240	WHITE
TOTAL 0010				480	

APPROACHES						
STATION	TO	STATION	LOCATION	CONCRETE PAVEMENT 6-INCH 415.0060 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF
383+09	-	383+24	ML	20	37	
383+99	-	384+14	ML		37	10
			TOTAL 0010	20	74	10


STAKING					
STATION	TO	STATION	LOCATION	CONSTRUCTION STAKING RESURFACING REFERENCE 650.8000 LF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8727-01-60) 650.9910.01 LS
383+00	-	384+20	ML		1
383+00	-	383+24	ML	24	
383+99	-	384+20	ML	22	
			TOTAL 0010	46	1


<u>DRAINAGE REMOVALS</u>					
				REMOVING CURB & GUTTER 204.0150 LF	REMOVING SURFACE DRAINS 204.0190 EACH
STATION TO	STATION	LOCATION			
383+99	-	384+19	RT	10	1
			TOTAL 0010	10	1


INLET PROTECTION TYPE B				
STATION	TO	STATION	LOCATION	628.7010 EACH
384+11	-	384+11	RT	1
TOTAL 0010				1


ASPHALTIC					
				TACK COAT	ASPHALTIC
				455.0605	SURFACE
					465.0105
STATION	TO	STATION	LOCATION	GAL	TON
383+00	-	383+09	ML	5	46
384+14	-	384+20	ML	4	31
TOTAL 0010				9	77

SAWING ASPHALT				
STATION	TO	STATION	LOCATION	690.0150 LF
383+00	-	383+00	ML	34
384+20	-	384+20	ML	34
			TOTAL 0010	68

 Additional quantity shown on other sheets

TRAFFIC CONTROL								
				TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL SIGNS 643.0900 DAY	TRAFFIC CONTROL COVERING SIGNS TYPE II 643.0920 EACH	REMARKS
L1-A	D2			COVER SIGN: SOUTH 112 UP ARROW			1	N OF STH 118/STH 112 INTERSECTION
L1-A	D3			COVER SIGN: UP ARROW SANBORN UP ARROW MARENGO			1	N OF STH 118/STH 112 INTERSECTION
L1-A	D4			COVER SIGN: SOUTH 112 UP ARROW			1	N OF STH 118/STH 112 INTERSECTION
L1-A	D5	1	R11-3C	BRIDGE OUT 0.3 MILES AHEAD	35	70	35	S OF STH 118/STH 112 INTERSECTION
		1	R11-3C	BRIDGE OUT 0.3 MILES AHEAD	35	70	35	
L1-A	D6			REPLACE DIRECTIONAL ARROWS WITH:				W OF STH 118/STH 112 INTERSECTION
		1	A4-12	LEFT ARROW (Marengo)			35	
		1	A4-12	LEFT ARROW (Sanborn)			35	
L1-B	D15	1	R11-2B	BRIDGE OUT	35	70	35	N OF B-02-0414
L1-B	D16	-			35			S OF B-02-0414
L1-B	D19	1	R11-2B	BRIDGE OUT	35	70	35	S OF B-02-0414
L1-B	D20	1	R11-2B	BRIDGE OUT	175	210	35	S OF B-02-0414
L1-B	D21	1	R11-2B	BRIDGE OUT	175	210	35	N OF B-02-0414
L1-B	D22	-			35			N OF B-02-0414
L2	D30	1	R11-3C	BRIDGE OUT 3.8 MILES AHEAD	35	70	35	N OF STH 112/CTH E INTERSECTION
L3	D32			COVER SIGN: RIGHT ARROW BENOIT			1	N OF STH 13/STH 112 INTERSECTION
L3	D35	1	R11-3C	BRIDGE OUT 7.0 MILES AHEAD	35	70	35	W OF STH 13/STH 112 INTERSECTION
		1	M4-9R	DETOUR RIGHT ARROW	35		35	
L3	D38	1	A4-12	REPLACE DIRECTIONAL ARROW WITH: UP ARROW (Benoit)			35	S OF STH 13/STH 112 INTERSECTION
L5	D64	1	R11-3C	BRIDGE OUT 5.5 MILES AHEAD	35	70	35	S OF STH 112/STH 137 INTERSECTION
L5	D67	1	M4-9L	DETOUR LEFT ARROW	35		35	S OF USH 2/STH 112 INTERSECTION
		1	R11-3C	BRIDGE OUT 5.9 MILES AHEAD	35	70	35	
TOTAL 0010					770	980	525	4

TRAFFIC CONTROL SIGNS						
					643.0900	
LAYOUT #	SIGN GROUP #	# OF SIGNS	SIGN CODE	DESCRIPTION	DAY	REMARKS
L1-A	D1	1	W20-3A	ROAD CLOSED AHEAD	35	N OF STH 118/STH 112 INTERSECTION
L1-A	D7	1	M3-3	SOUTH	35	W OF STH 118/STH 112 INTERSECTION
		1	M1-6	STH 112	35	
		1	W20-2A	DETOUR AHEAD	35	
L1-A	D8	1	M4-8	DETOUR	35	W OF STH 118/STH 112 INTERSECTION
		1	MO5-1L	LEFT TURN AHEAD	35	
L1-A	D9	1	W20-3C	ROAD CLOSED 1000 FT	35	S OF STH 118/STH 112 INTERSECTION
L1-A	D10	1	W20-3D	ROAD CLOSED 500 FT	35	S OF STH 118/STH 112 INTERSECTION
L1-A	D11	1	M4-8	DETOUR	35	S OF STH 118/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
SUBTOTAL 0010					420	

TRAFFIC CONTROL SIGNS						
						
					643.0900	
LAYOUT #	SIGN GROUP #	# OF SIGNS	SIGN CODE	DESCRIPTION	DAY	REMARKS
L1-A	D12	1	M4-8	DETOUR	35	S OF STH 118/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
L1-A	D13	1	M4-8	DETOUR	35	W OF STH 118/STH 112 INTERSECTION
		1	MO6-1	LEFT ARROW	35	
L1-A	D14	1	M4-4	DETOUR	35	N OF STH 118/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	M1-6	35	
L1-B	D17	1	W20-3C	ROAD CLOSED 1000 FT	35	S OF B-02-0414
L1-B	D18	1	W20-3D	ROAD CLOSED 500 FT	35	S OF B-02-0414
SUBTOTAL 0010					385	

TRAFFIC CONTROL SIGNS						
<div><div></div><div>643.0900</div></div>						
LAYOUT #	SIGN GROUP #	# OF SIGNS	SIGN CODE	DESCRIPTION	DAY	REMARKS
L2	D23	1	M4-8	DETOUR	35	N OF STH 112/CTH E INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
L2	D24	1	M4-8	DETOUR	35	N OF STH 112/CTH E INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	LEFT ARROW	35	
L2	D25	1	M3-1	NORTH	35	S OF STH 112/CTH E INTERSECTION
		1	M1-6	STH 112	35	
		1	W20-2A	DETOUR AHEAD	35	
L2	D26	1	M4-8	DETOUR	35	S OF STH 112/CTH E INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1R	RIGHT TURN AHEAD	35	
L2	D27	1	M4-8	DETOUR	35	S OF STH 112/CTH E INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	RIGHT ARROW	35	
L2	D28	1	M4-8	DETOUR	35	E OF STH 112/CTH E INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
L2	D29	1	W20-3A	ROAD CLOSED AHEAD	35	E OF STH 112/CTH E INTERSECTION
L3	D31	1	M4-8A	END DETOUR	35	N OF STH 13/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
L3	D33	1	M4-8	DETOUR	35	W OF STH 13/STH 112 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
L3	D34	1	M4-8	DETOUR	35	W OF STH 13/STH 112 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	LEFT ARROW	35	
L3	D36	1	M3-1	NORTH	35	S OF STH 13/STH 112 INTERSECTION
		1	M1-6	STH 112	35	
		1	W20-2A	DETOUR AHEAD	35	
L3	D37	1	M4-8	DETOUR	35	S OF STH 13/STH 112 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	UP ARROW	35	
L3	D39	1	M4-8	DETOUR	35	S OF STH 13/STH 112 INTERSECTION
		1	MO6-1	UP ARROW	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	UP ARROW	35	
SUBTOTAL 0010					1,715	

TRAFFIC CONTROL SIGNS					<div><div>!</div><div>643.0900</div></div>	
LAYOUT #	SIGN GROUP #	# OF SIGNS	SIGN CODE	DESCRIPTION	DAY	REMARKS
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		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
L4	D41	1	M4-8	DETOUR	35	W OF USH 2/STH 13 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1R	RIGHT TURN AHEAD	35	
L4	D42	1	M4-8	DETOUR	35	W OF USH 2/STH 13 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	RIGHT ARROW	35	
L4	D43	1	M4-8	DETOUR	35	N OF STH 13/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
L4	D44	1	M4-8	DETOUR	35	W OF STH 13/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	RIGHT ARROW	35	
L4	D45	1	M4-8	DETOUR	35	S OF STH 13/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
L4	D46	1	M4-8	DETOUR	35	S OF STH 13/STH 137 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
L4	D47	1	M4-8	DETOUR	35	S OF STH 13/STH 137 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	UP ARROW	35	
L4	D48	1	M4-8	DETOUR	35	N OF STH 13/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
L4	D49	1	M4-8	DETOUR	35	S OF USH 2/STH 13 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
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SUBTOTAL 0010					1,540	
<div><div>!</div><div>Additional quantity shown on other sheets</div></div>						

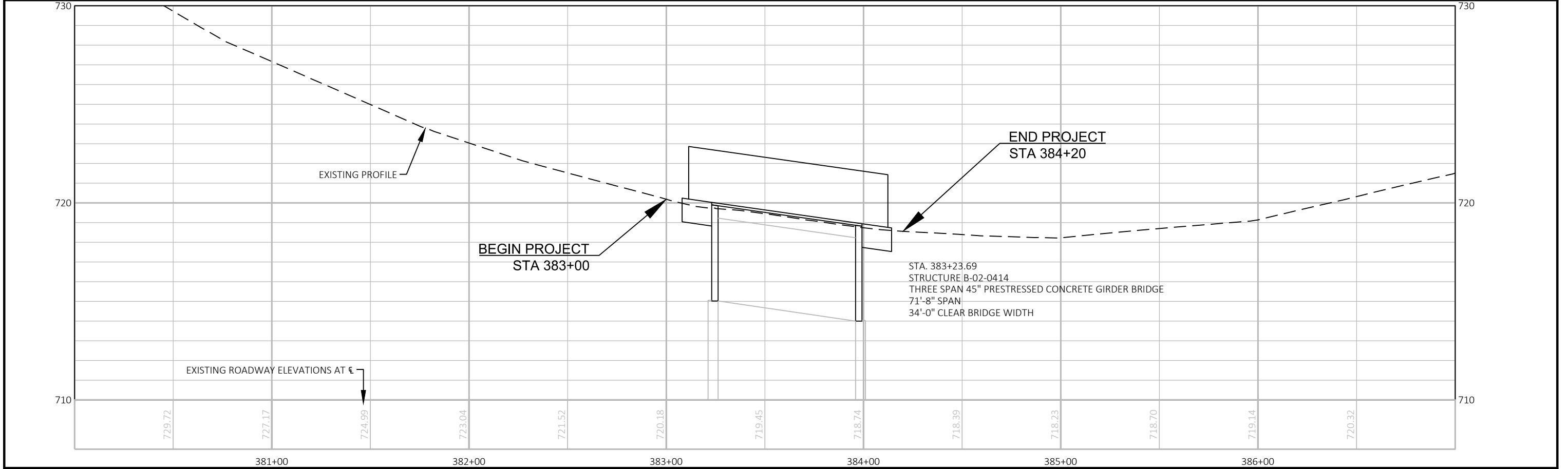
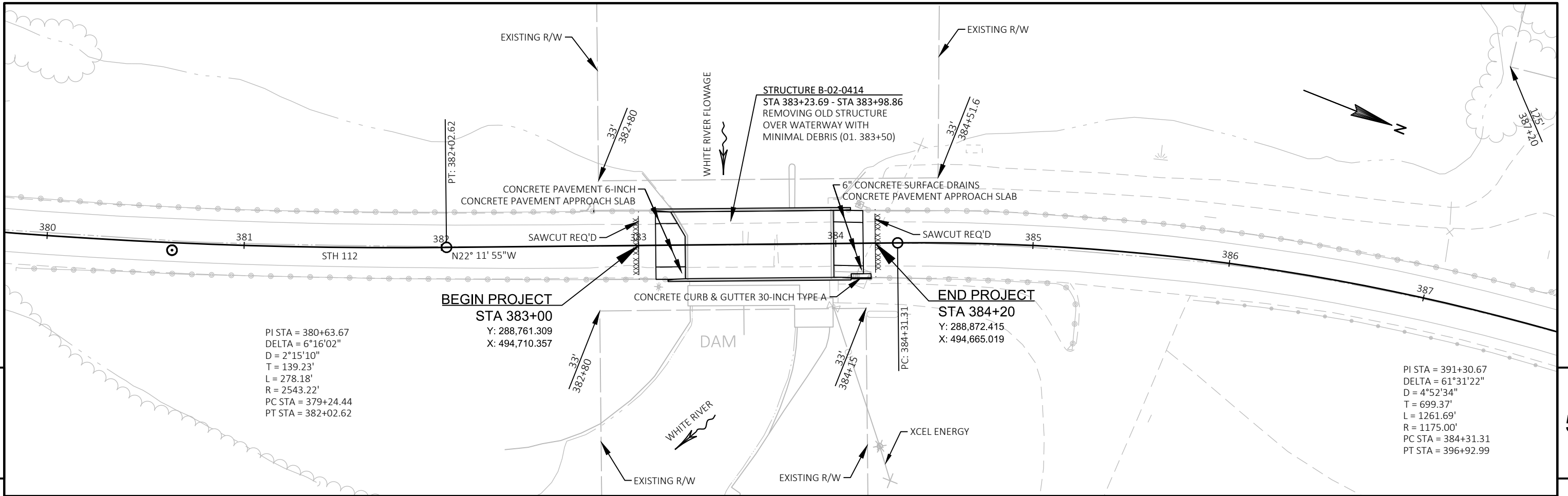
TRAFFIC CONTROL SIGNS						
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		1	M1-6	STH 112	35	
		1	W20-2A	DETOUR AHEAD	35	
L4	D51	1	M4-8	DETOUR	35	E OF USH 2/STH 13 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	UP ARROW	35	
L4	D52	1	M4-8	DETOUR	35	E OF USH 2/STH 13 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	LEFT ARROW	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	UP ARROW	35	
L4	D53	1	M4-8	DETOUR	35	N OF USH 2/STH 13 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	LEFT ARROW	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	LEFT ARROW	35	
L4	D54	1	M4-8	DETOUR	35	W OF USH 2/STH 13 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
L5	D55	1	M3-3	SOUTH	35	W OF USH 2/STH 112 INTERSECTION
		1	M1-6	STH 112	35	
		1	W20-2A	DETOUR AHEAD	35	
L5	D56	1	M4-8	DETOUR	35	W OF USH 2/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
L5	D57	1	MO4-5	TO	35	W OF USH 2/STH 112 INTERSECTION
		1	M1-6	STH 118	35	
		1	MO6-1	RIGHT ARROW	35	
		1	M4-8	DETOUR	35	
		1	MO6-1	UP ARROW	35	
L5	D58	1	M4-8A	END DETOUR	35	S OF USH 2/STH 112 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
L5	D59	1	MO4-5	TO	35	W OF STH 112/STH 137 INTERSECTION
		1	M1-6	STH 118	35	
		1	MO6-1	LEFT ARROW	35	
		1	M4-8	DETOUR	35	
		1	MO6-1	RIGHT ARROW	35	
SUBTOTAL 0010					1,645	

TRAFFIC CONTROL SIGNS					<div><div>!</div><div>643.0900</div></div>	
LAYOUT #	SIGN GROUP #	# OF SIGNS	SIGN CODE	DESCRIPTION	DAY	REMARKS
L5	D60	1	M3-3	SOUTH	35	W OF STH 112/STH 137 INTERSECTION
		1	M1-6	STH 112	35	
		1	W20-2A	DETOUR AHEAD	35	
L5	D61	1	M4-8	DETOUR	35	W OF STH 112/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
L5	D62	1	M4-8	DETOUR	35	W OF STH 112/STH 137 INTERSECTION
		1	MO6-1	LEFT ARROW	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO6-1	RIGHT ARROW	35	
L5	D63	1	M4-8	DETOUR	35	S OF STH 112/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	UP ARROW	35	
L5	D65	1	M4-8	DETOUR	35	N OF STH 112/STH 137 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
L5	D66	1	M4-8	DETOUR	35	S OF USH 2/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1R	RIGHT TURN AHEAD	35	
L5	D68	1	M4-8	DETOUR	35	S OF USH 2/STH 112 INTERSECTION
		1	M3-3	SOUTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	RIGHT ARROW	35	
L5	D69	1	M4-8	DETOUR	35	E OF USH 2/STH 112 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
		1	MO4-5	TO	35	
		1	M1-6	STH 118	35	
		1	MO5-1L	LEFT TURN AHEAD	35	
L5	D70	1	M4-8	DETOUR	35	E OF USH 2/STH 112 INTERSECTION
		1	M3-1	NORTH	35	
		1	M1-6	STH 112	35	
		1	MO6-1	LEFT ARROW	35	
		1	MO4-5	TO	35	
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TOTAL 0010					7,140	

!

 Additional quantity shown on other sheets

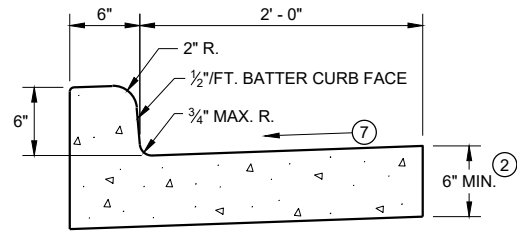
Additional quantity shown on other sheets



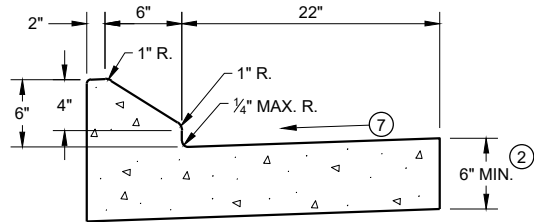
PROJECT NO: 8727-01-60	HWY: STH 112	COUNTY: ASHLAND COUNTY	PLAN AND PROFILE	SHEET	E
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Standard Detail Drawing List

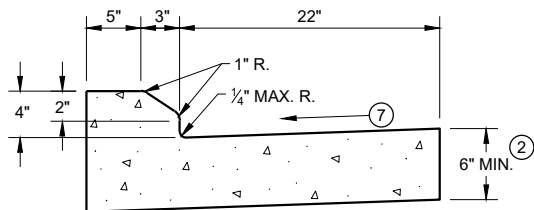
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D03-08A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



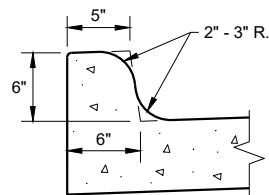
TYPES A^① & D



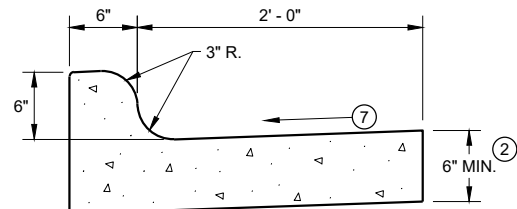
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

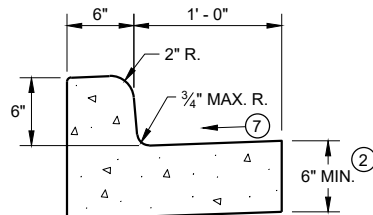


TYPES K^① & L
(OPTIONAL CURB SHAPE)



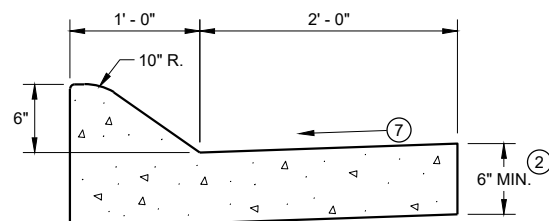
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

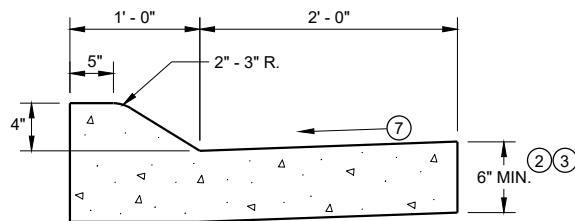


TYPES A^① & D

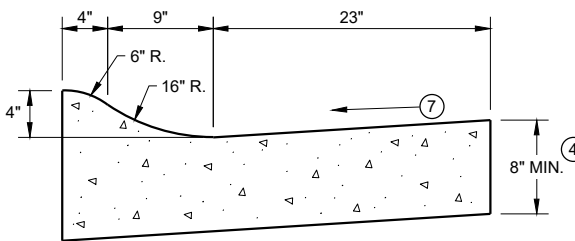
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D



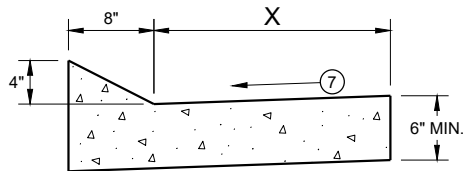
4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

CONCRETE CURB AND GUTTER 36"

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

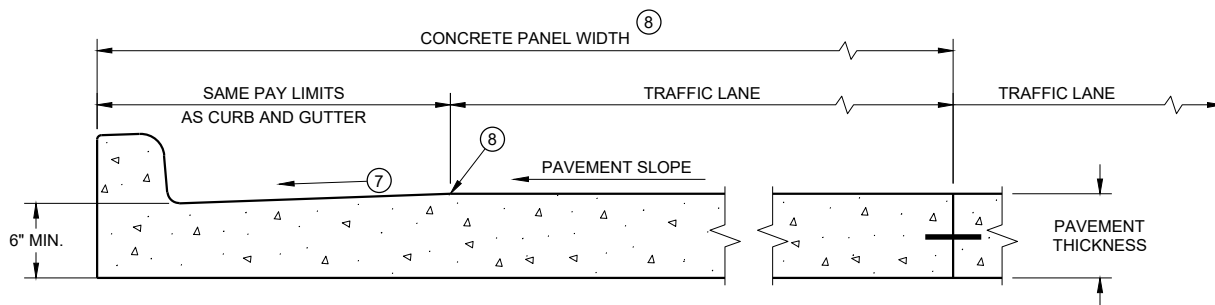


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

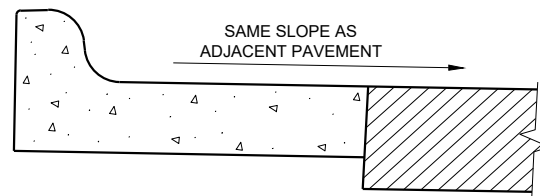
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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)

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

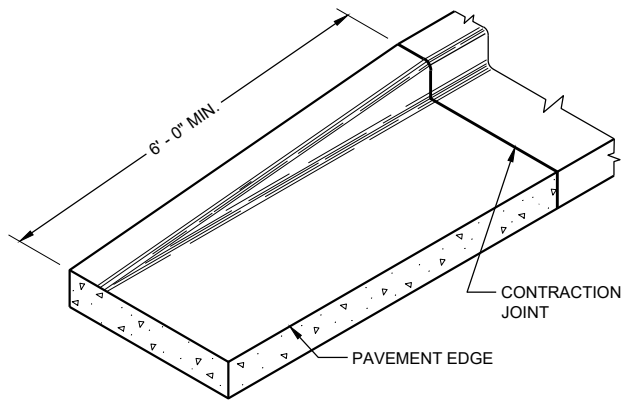
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

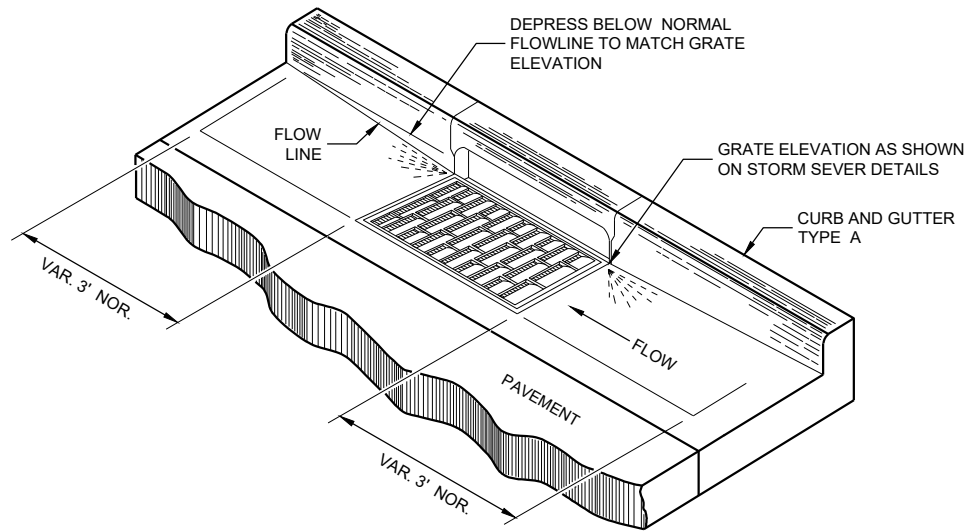
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

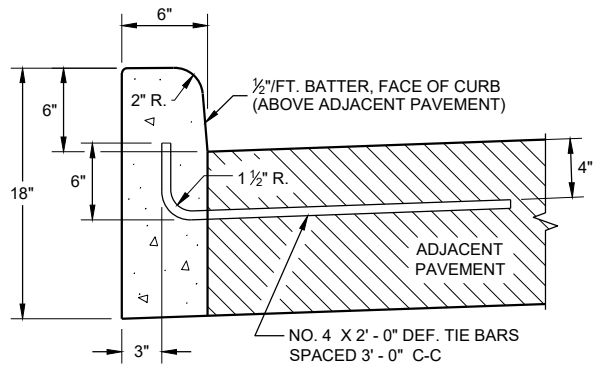
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH 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 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.



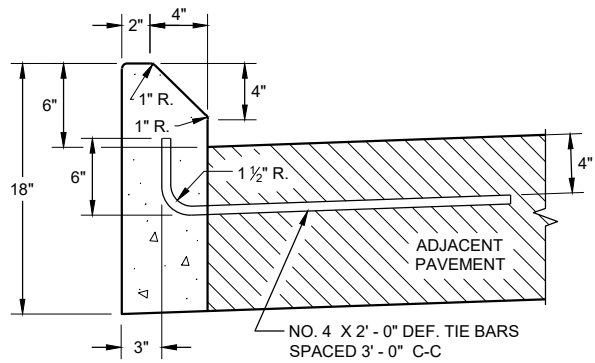
END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

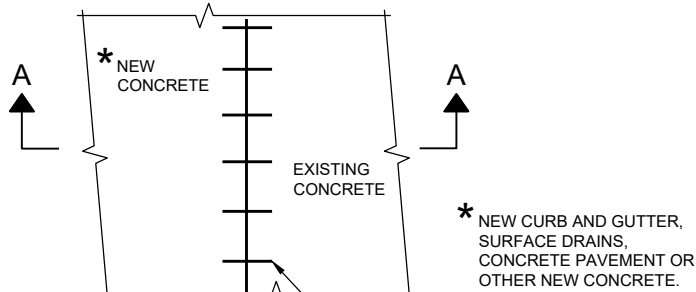


TYPES A^① & D

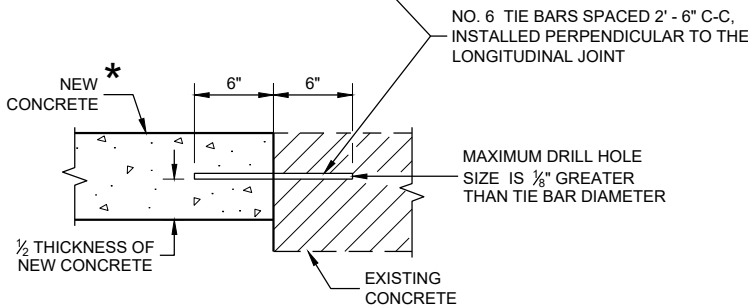


TYPES G^① & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

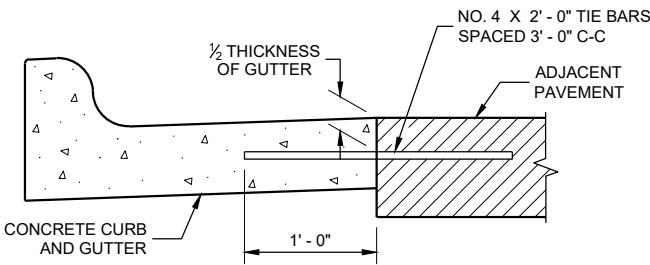
GENERAL NOTES

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

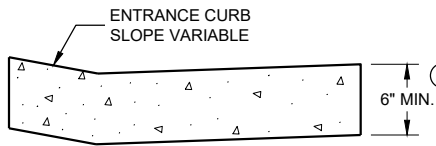
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION^①



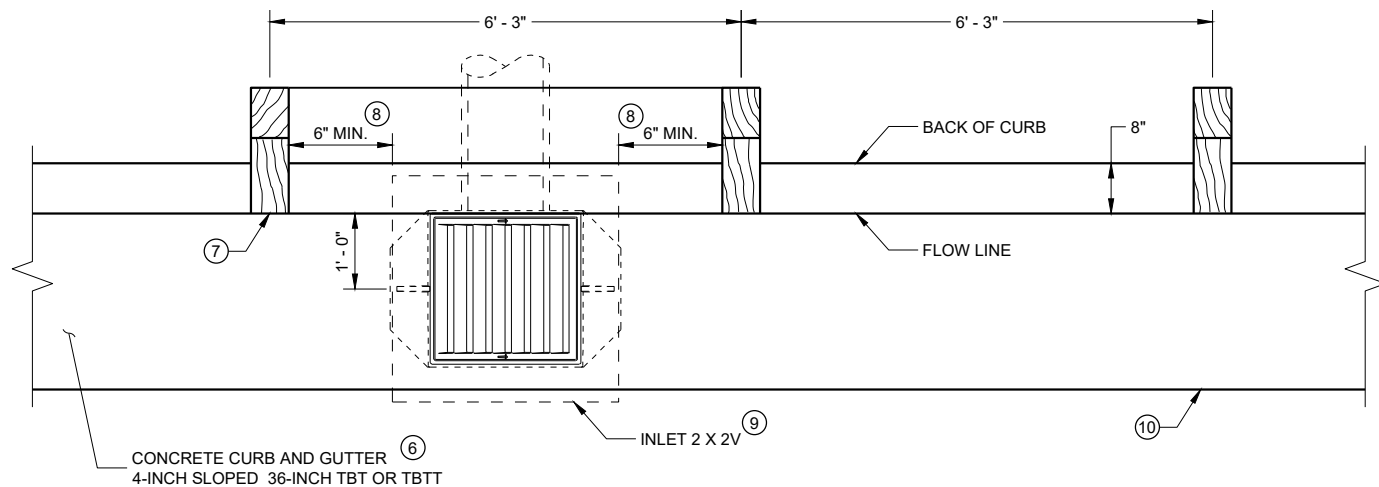
DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

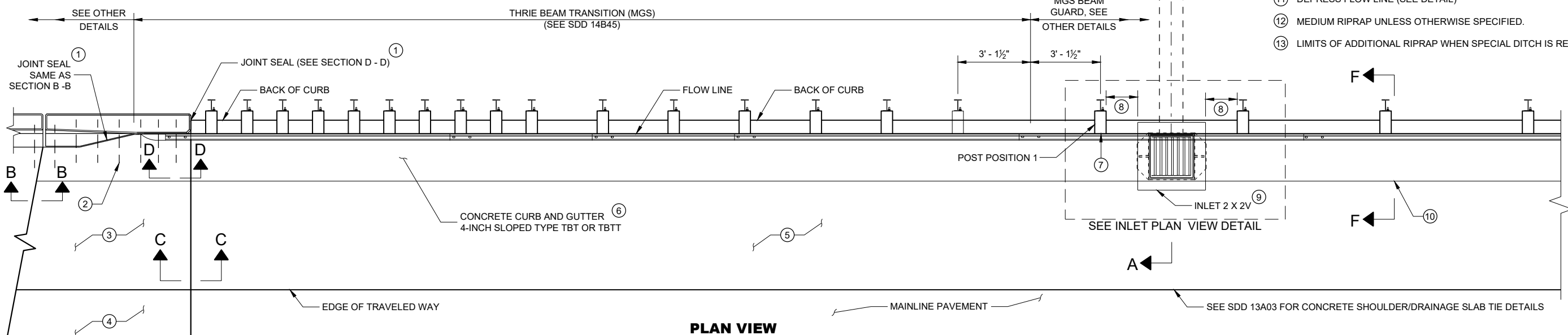
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

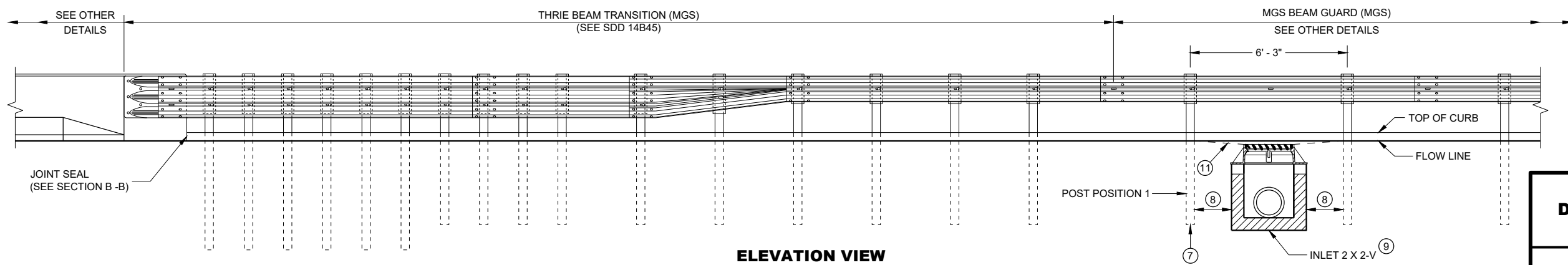
FHWA



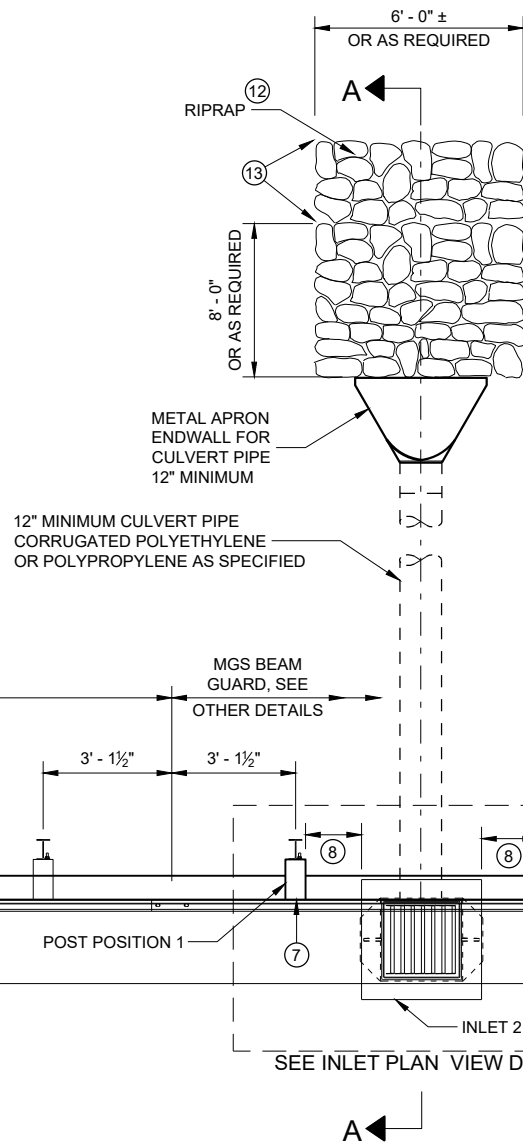
INLET PLAN VIEW
(NOTE: RAIL NOT SHOWN FOR CLARITY)



PLAN VIEW



ELEVATION VIEW



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.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- 1 USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- 2 NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- 3 PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- 4 CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- 5 PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- 6 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBT. USE TYPE TBT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- 7 PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- 8 CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
- 9 SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
- 10 START CURB AND GUTTER TRANSITION OR END SECTION.
- 11 DEPRESS FLOW LINE (SEE DETAIL)
- 12 MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- 13 LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

**CONCRETE SURFACE
DRAINS DROP INLET TYPE
AT STRUCTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



APPROACH SLAB AND ADJACENT PAVEMENT

- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) - NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
- ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- ⑦ STANDARD CONTRACTION JOINT NORMAL TO \mathbb{C} OR \mathbb{R} .
- ⑧ STANDARD LONGITUDINAL JOINT WITH TIE BARS.
- ⑨ 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO \mathbb{C} OR \mathbb{R} .

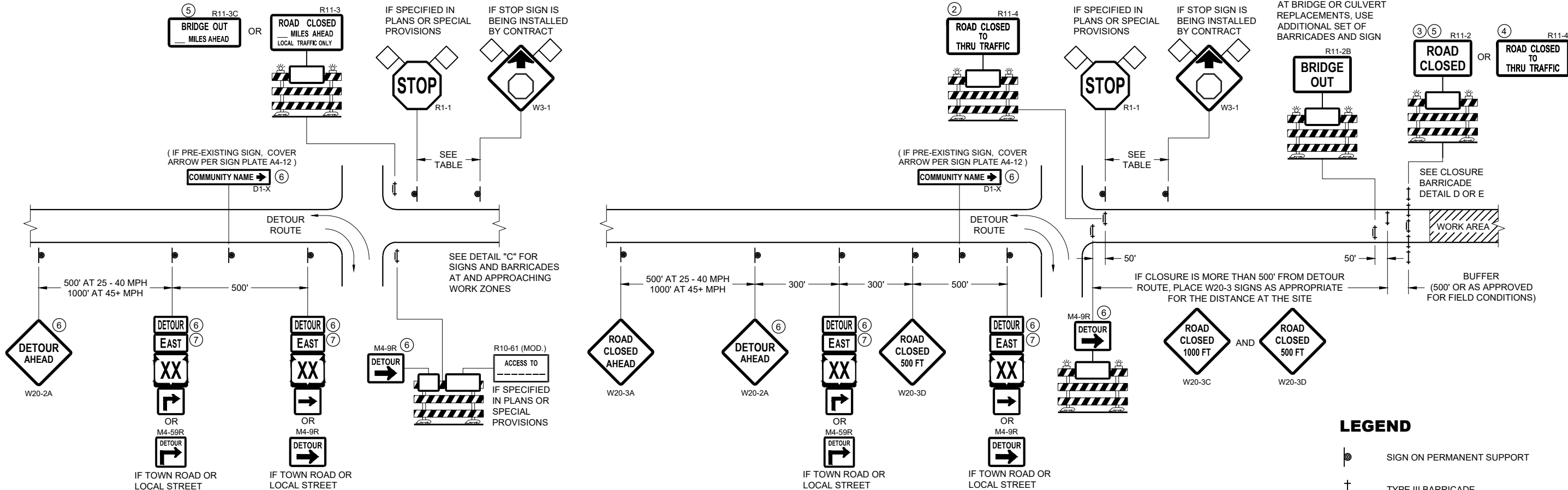


CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 _____ /S/ Peter Kemp, P.E.
DATE
PAVEMENT SUPERVISOR

FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

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

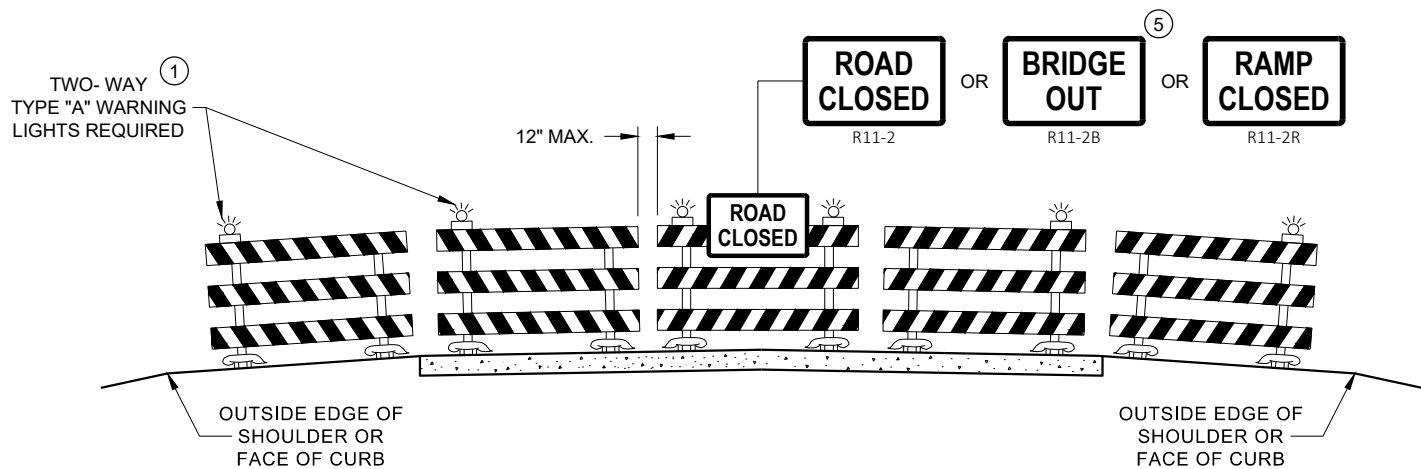
SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

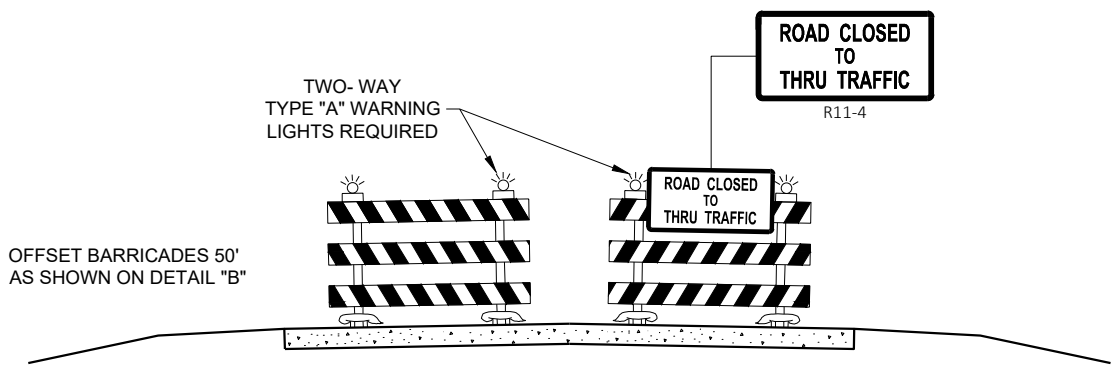
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

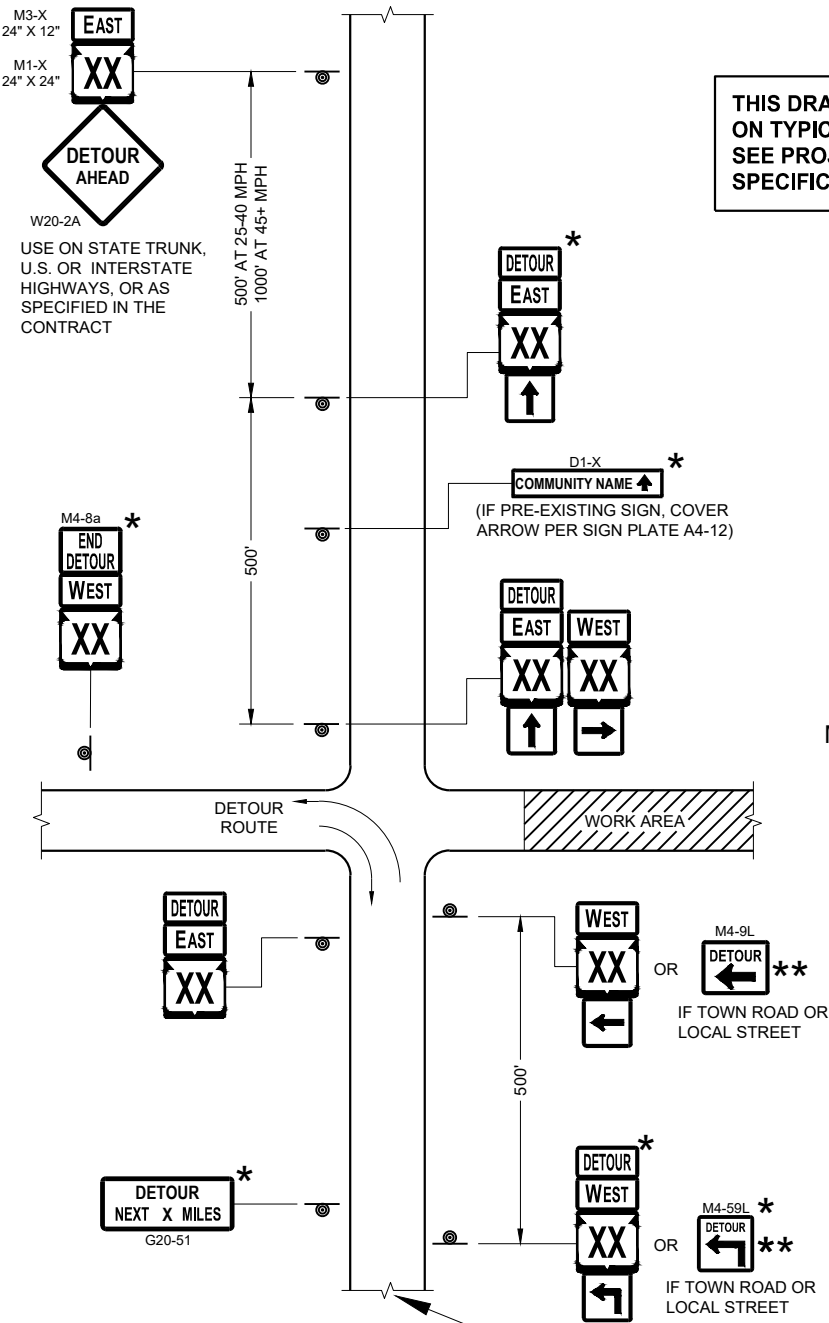
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS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

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

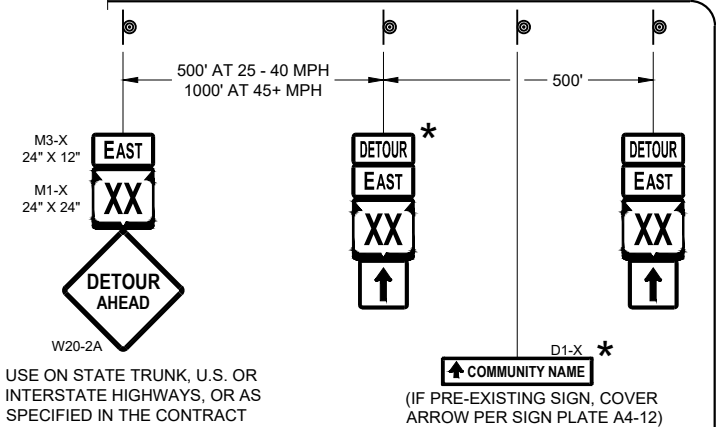
FHWA



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

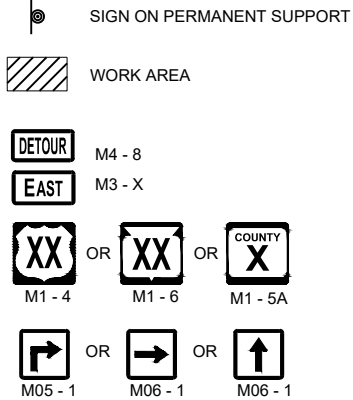
THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

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.

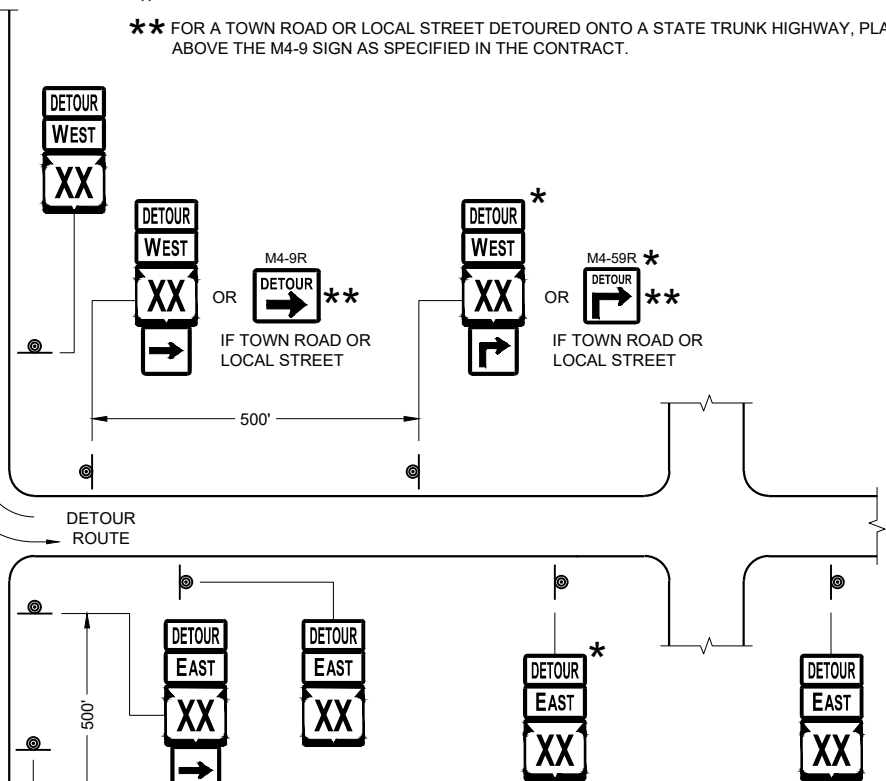
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"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" (30" X 30" 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.



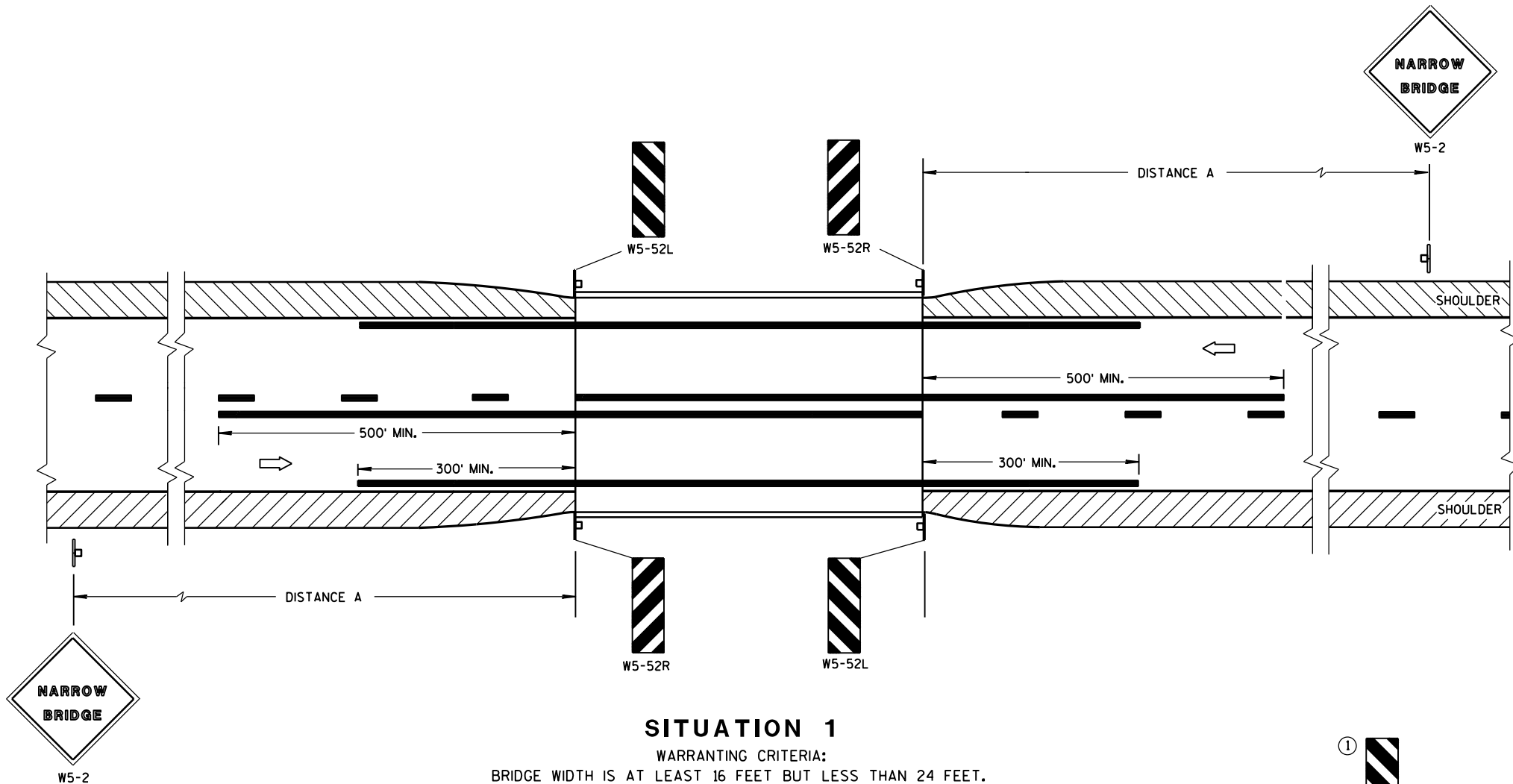
PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING
FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

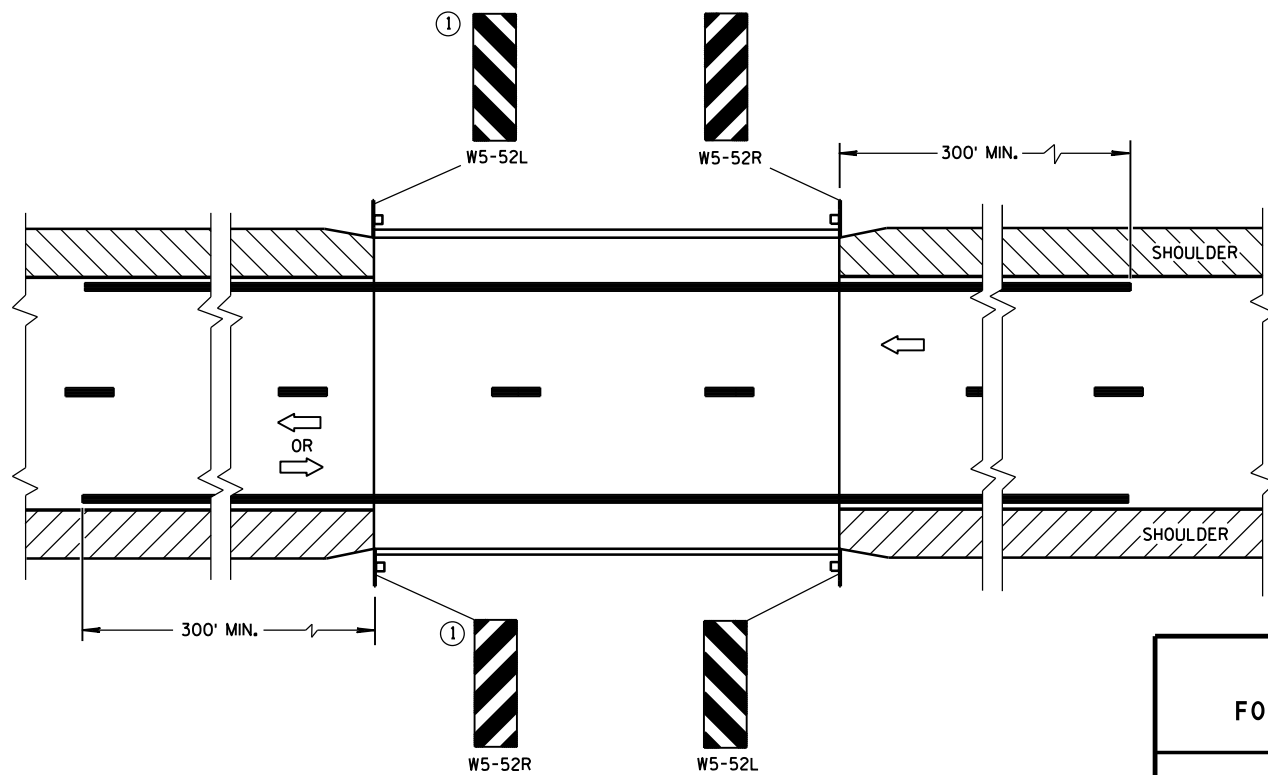
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

① OMIT ON ONE-WAY TRAVELLED WAYS.

➡ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

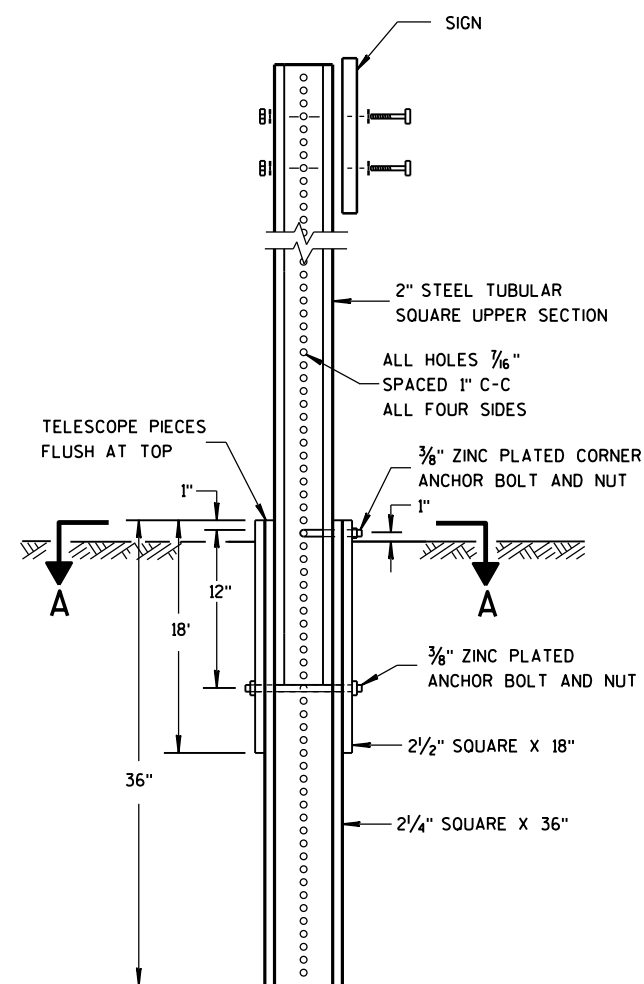
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA



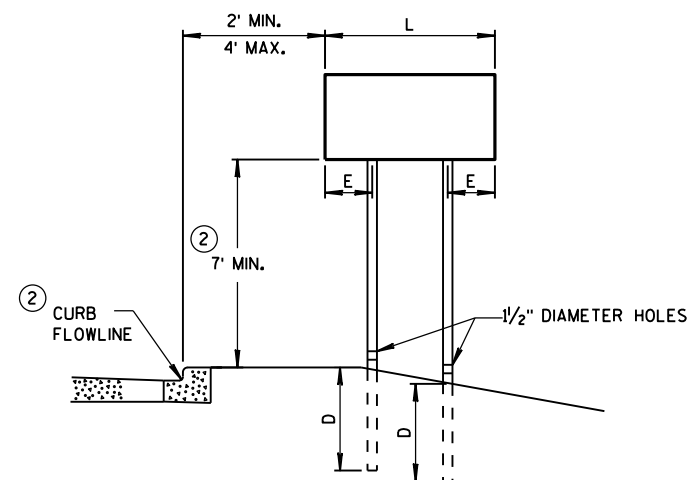
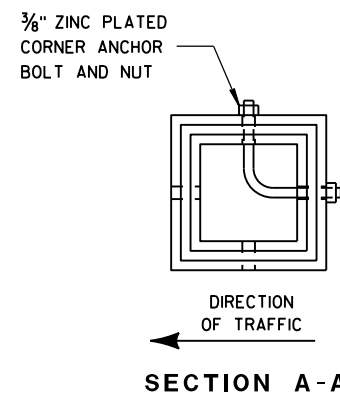
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

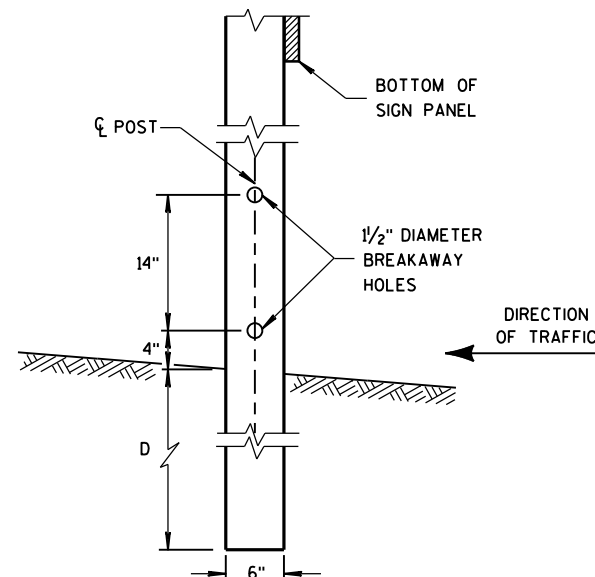


URBAN AREA

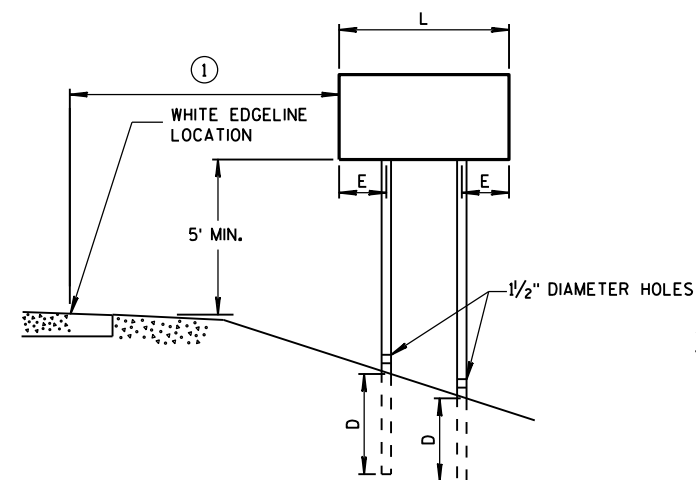
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

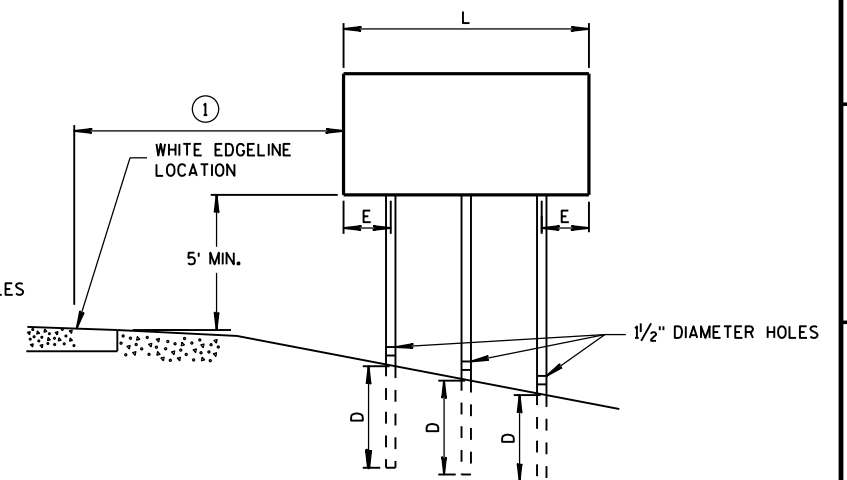
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"x6" WOOD POST MODIFICATION



RURAL AREA



4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

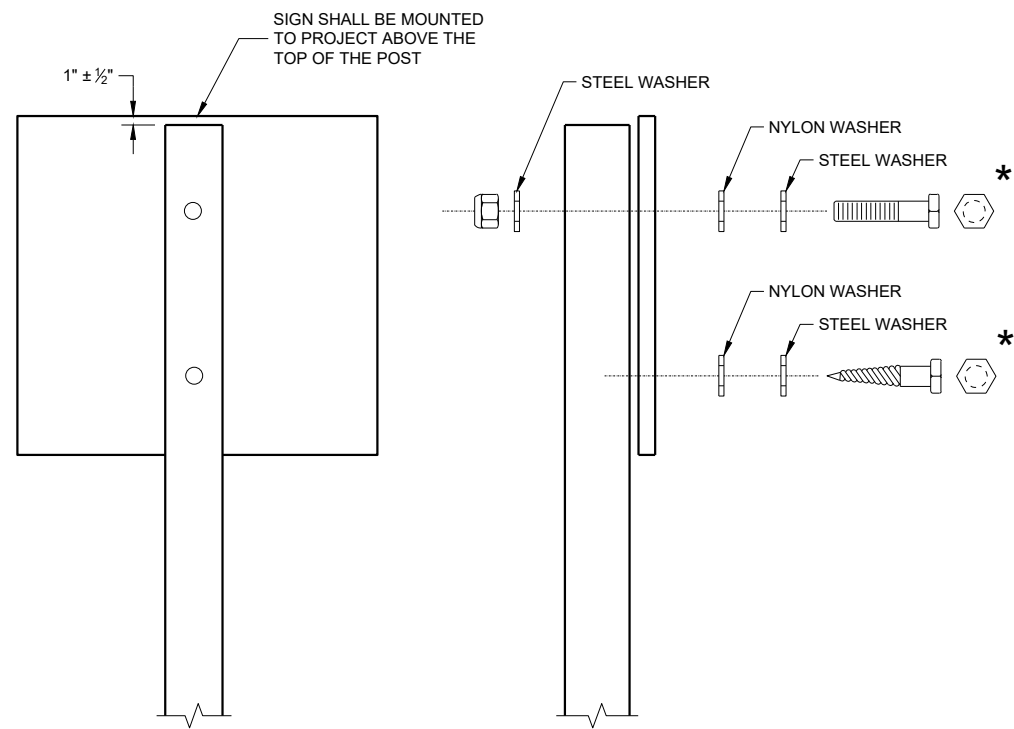
SEE NOTE (3)

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② 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, IF NO SIDEWALK AND NO PARKING. VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

WOOD POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

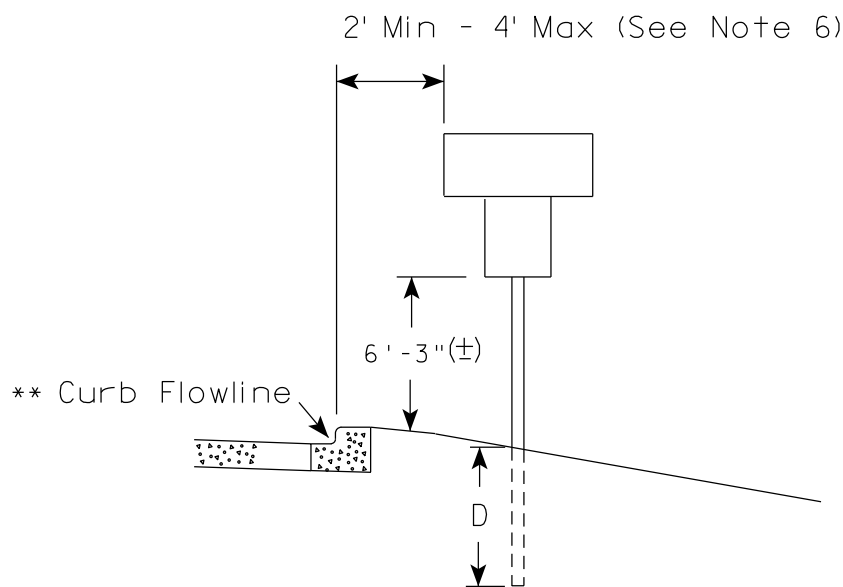
SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

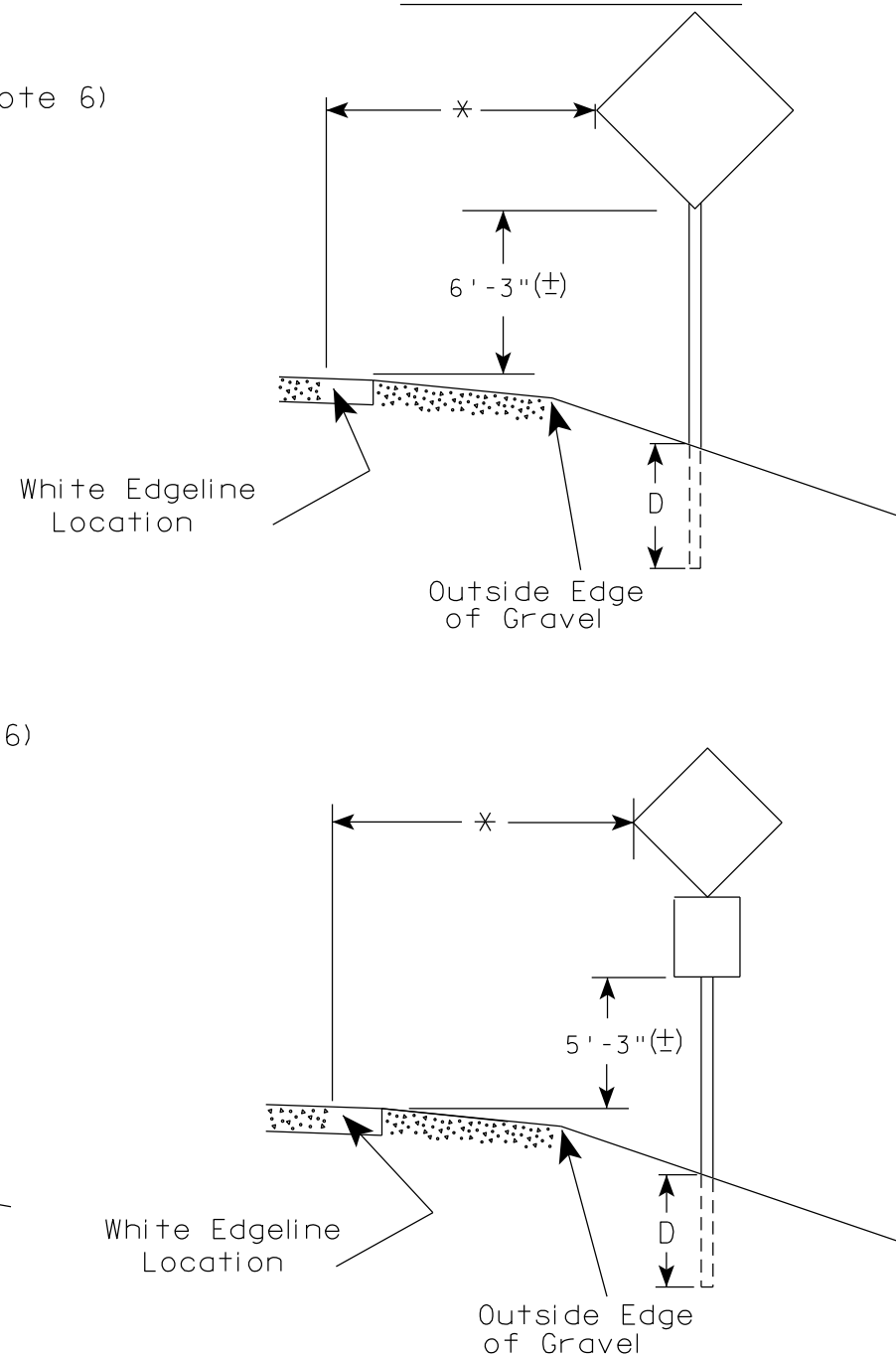
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

7



✖✖ 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.

7



* 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.

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" (\pm). 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" (\pm).

3. For expressways and freeways, mounting height is 7'- 3" (\pm) or 6'-3" (\pm) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (\pm).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (\pm) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (\pm) or as directed by the Engineer.

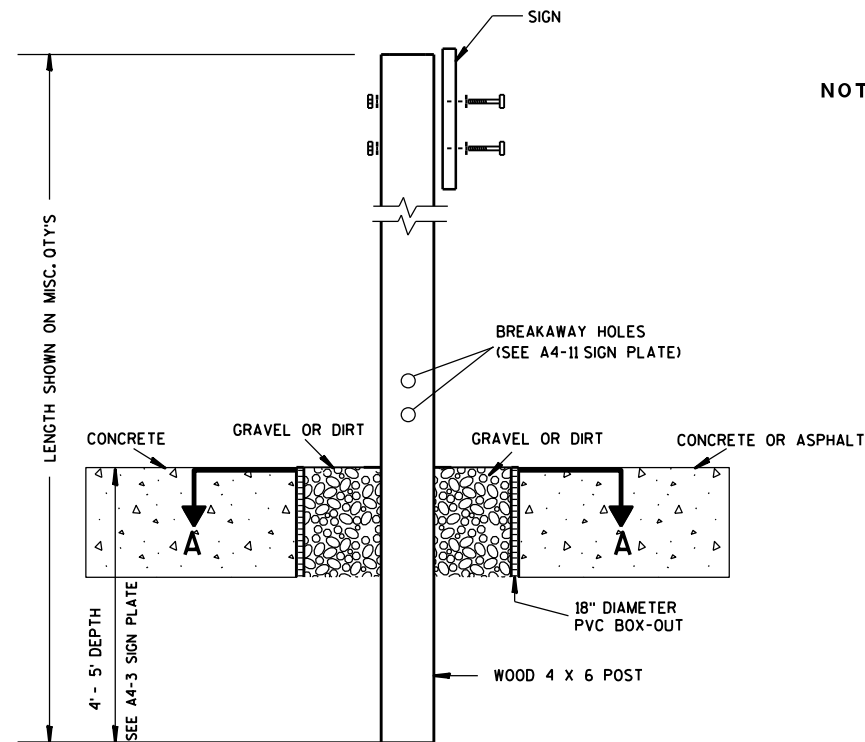
POST EMBEDMENT DEPTH	
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4"
Greater than 20	5'

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

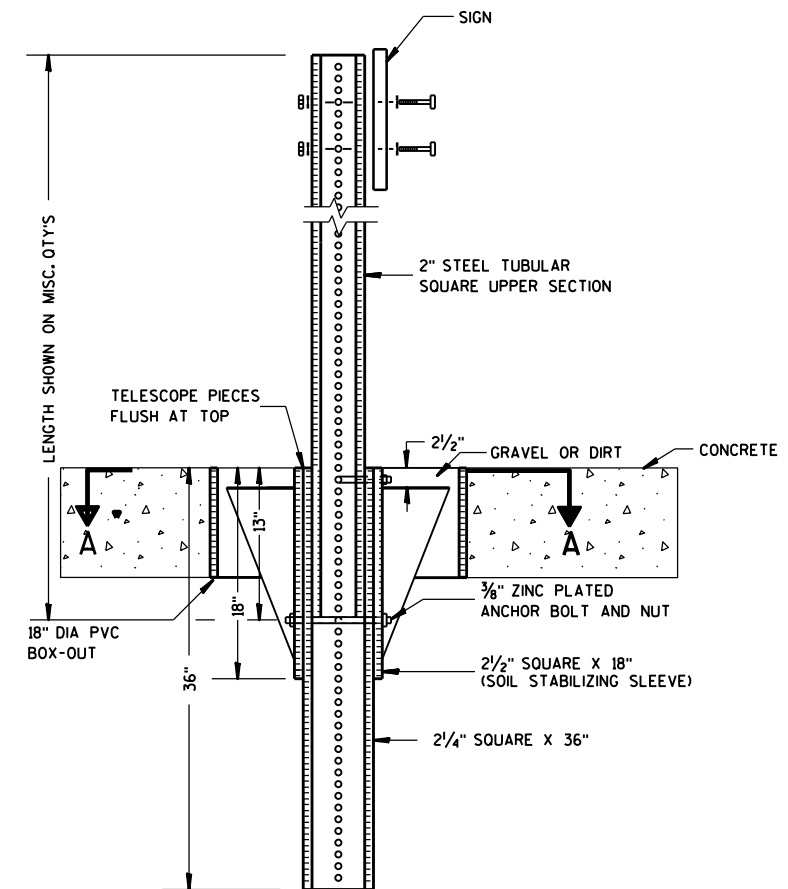
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

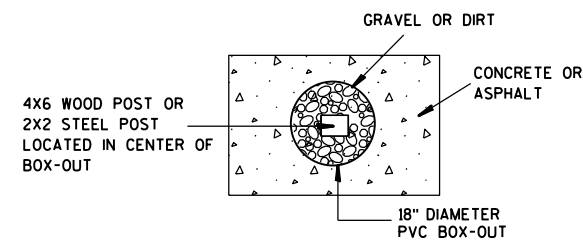
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

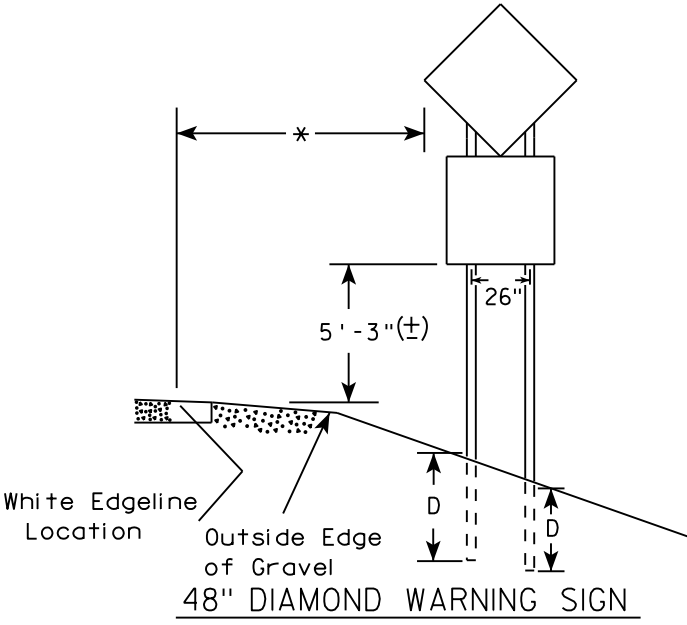
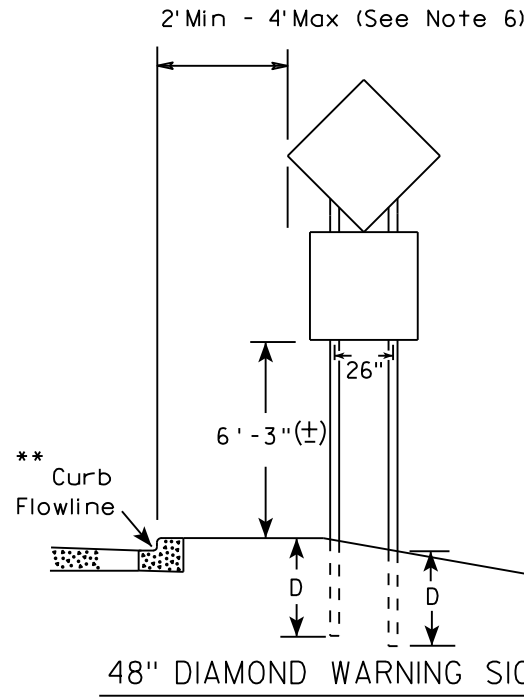
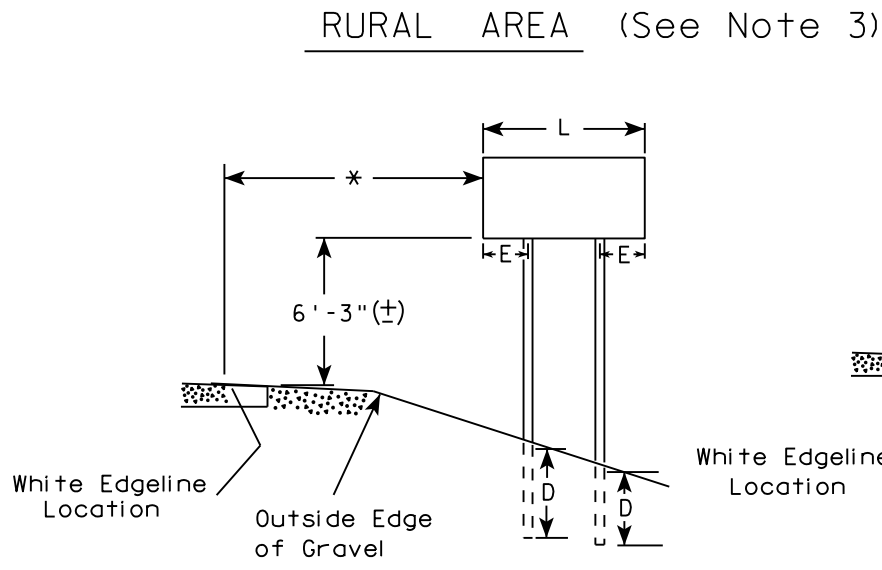
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- 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" (±).

* 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.

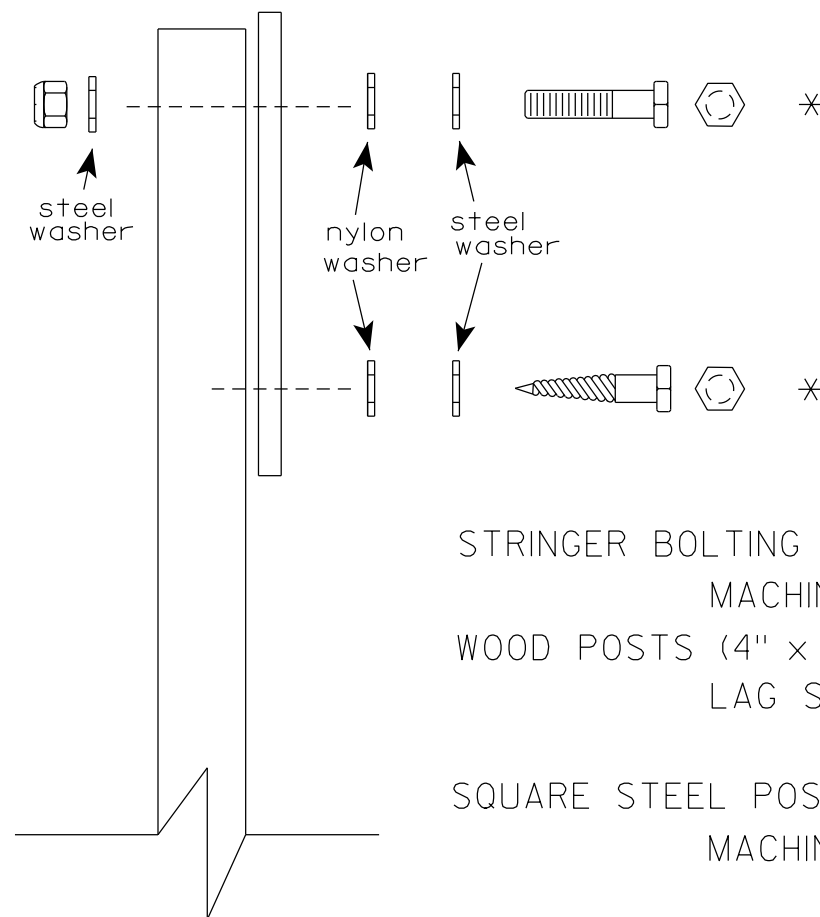
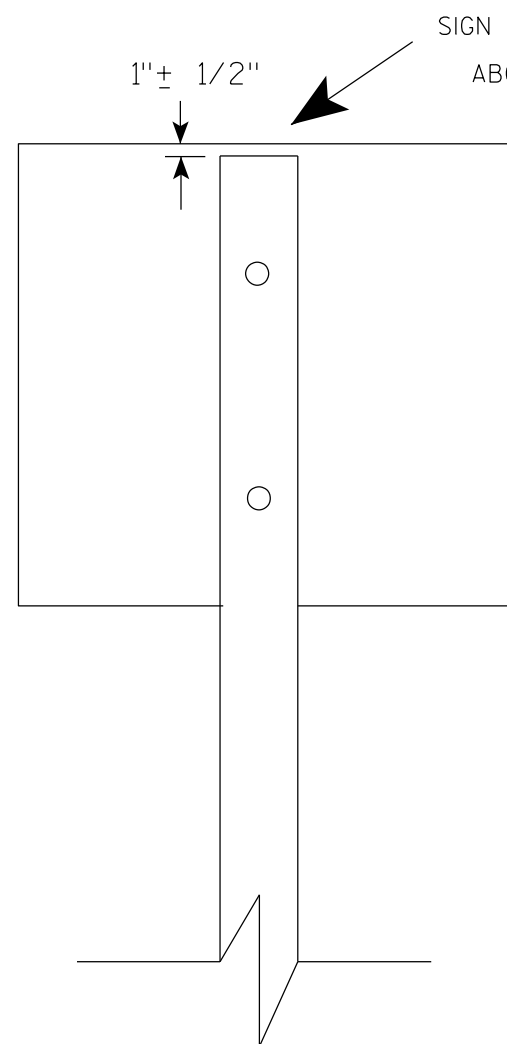
SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

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	<i>Matthew R. Rauch</i> 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 :

- 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.

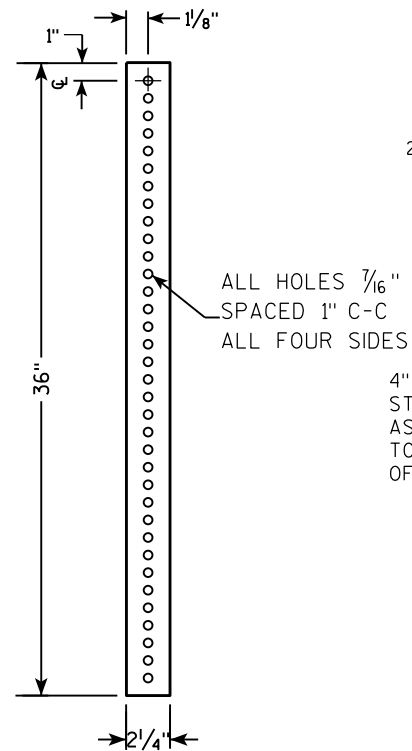
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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**



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" GRAVEL OR DIRT
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

DIRECTION
OF TRAFFIC

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

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

PROJECT NO:

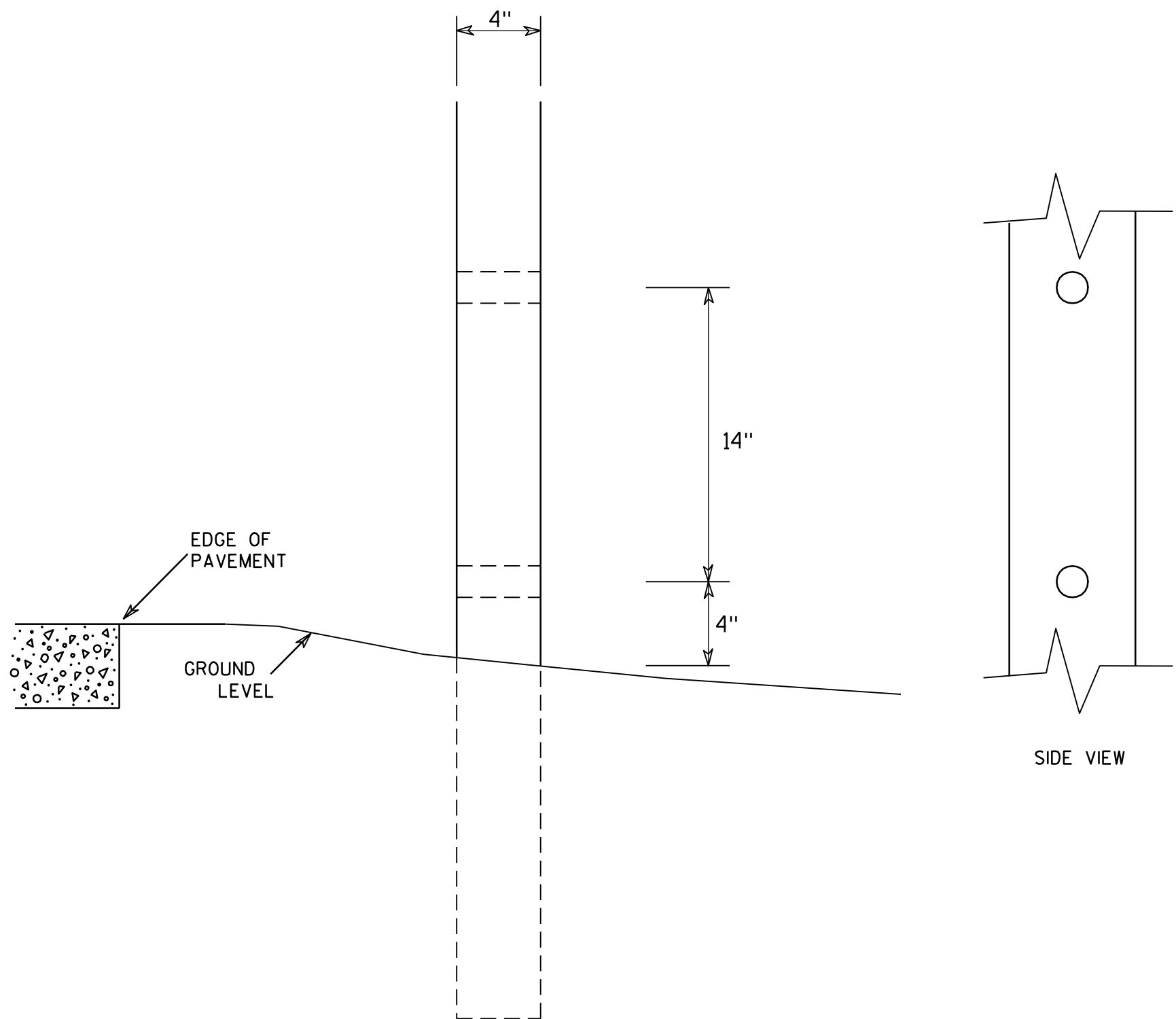
HWY:

COUNTY:

SHEET NO:

三

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

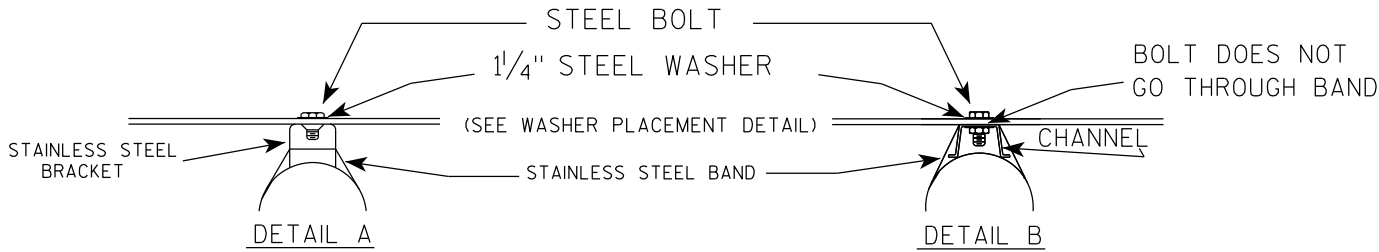
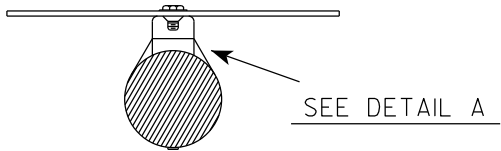
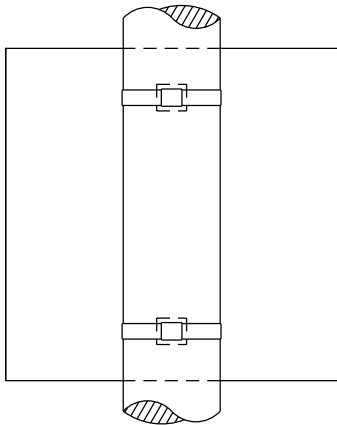
APPROVED *Chester J. Spang*
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

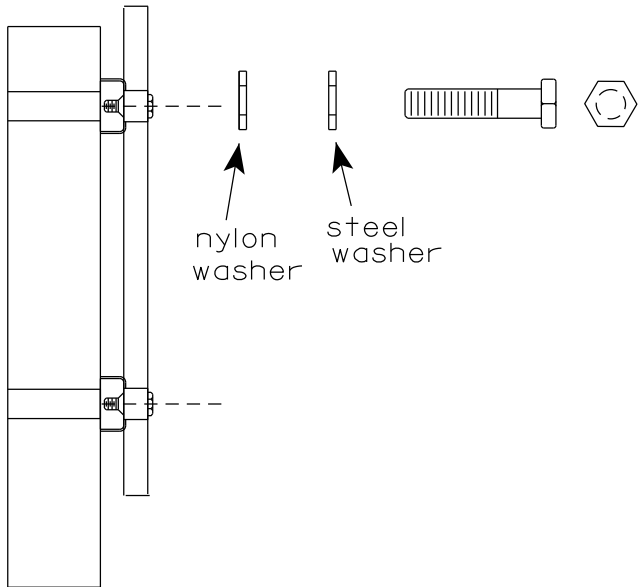
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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BANDING

SINGLE SIGN



WASHER PLACEMENT

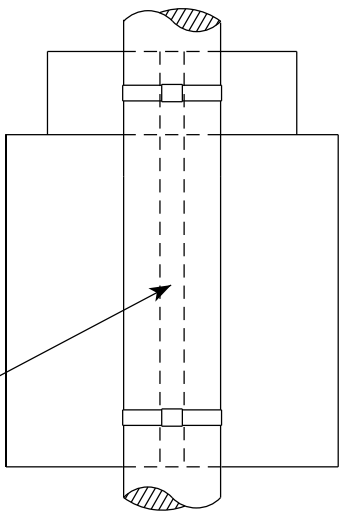


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

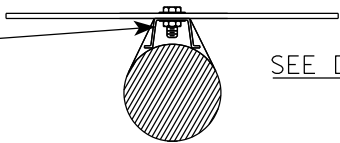
GENERAL NOTES

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

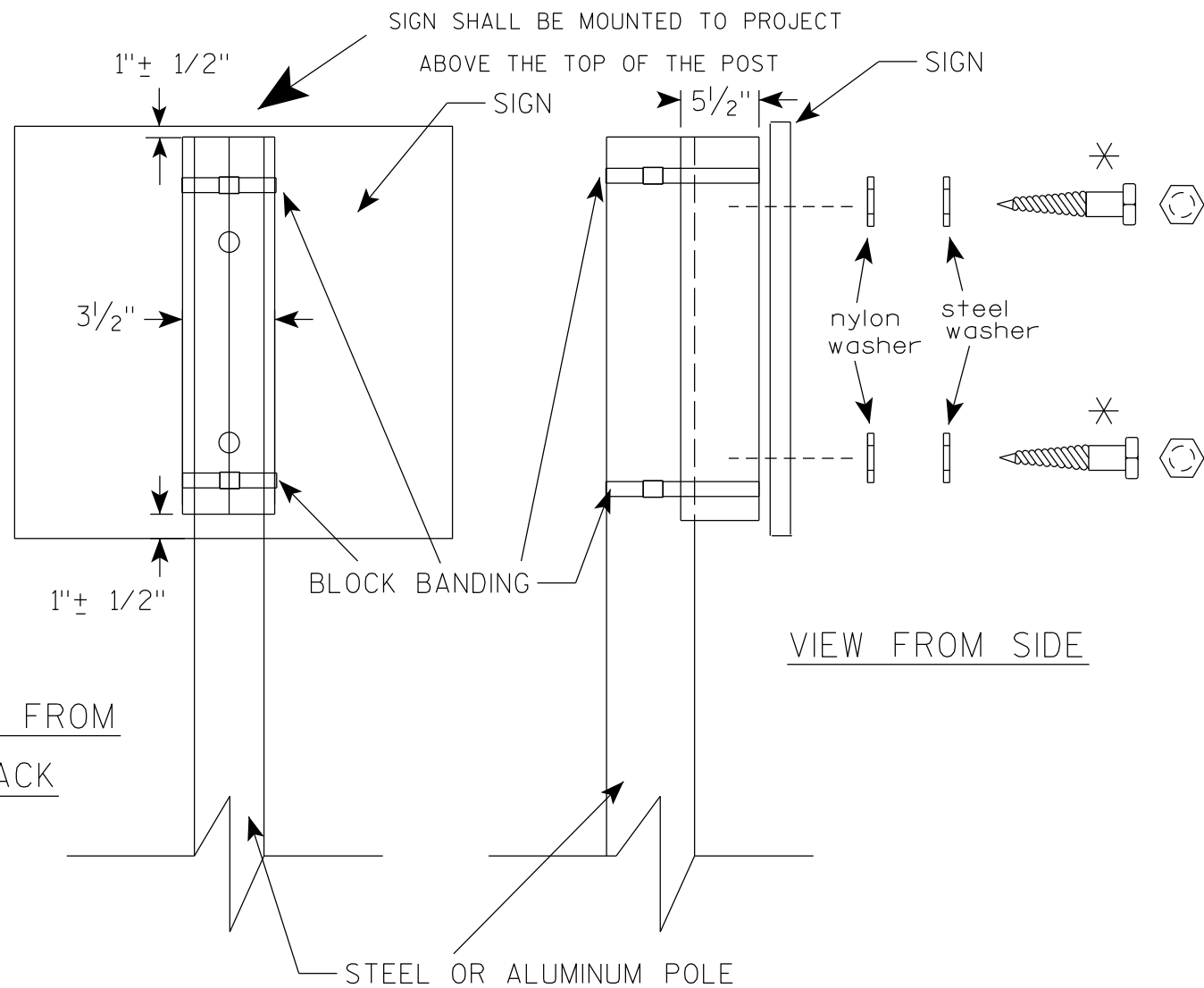


STANDARD SIGN
SIGN BANDING DETAILS

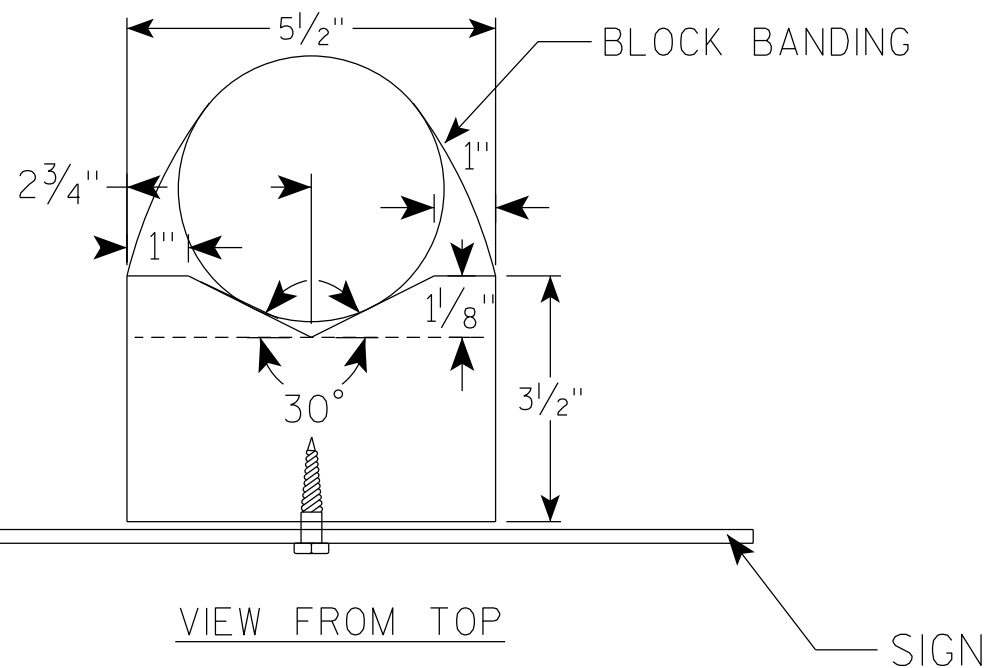
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM
BACK



VIEW FROM SIDE



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 $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " 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

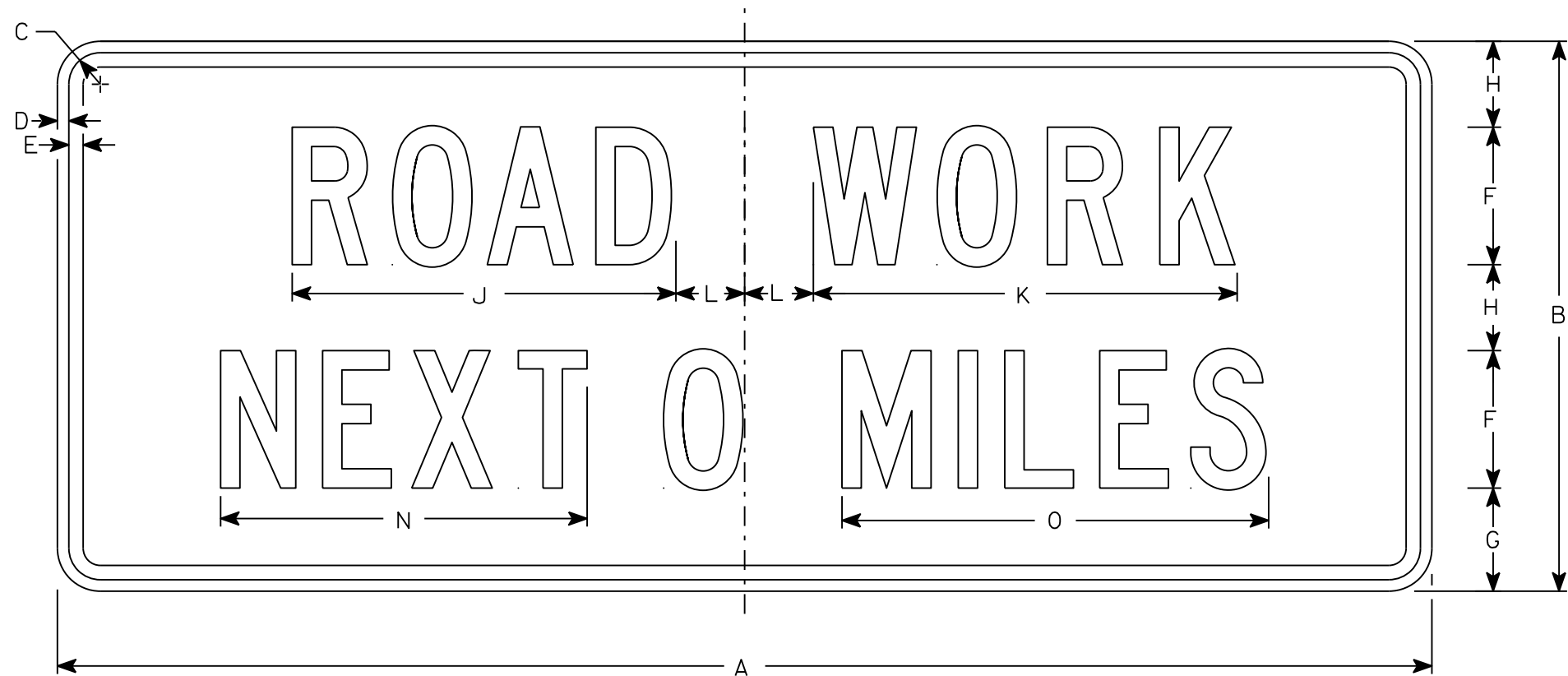
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO:

E

7



G20-1

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

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	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																											

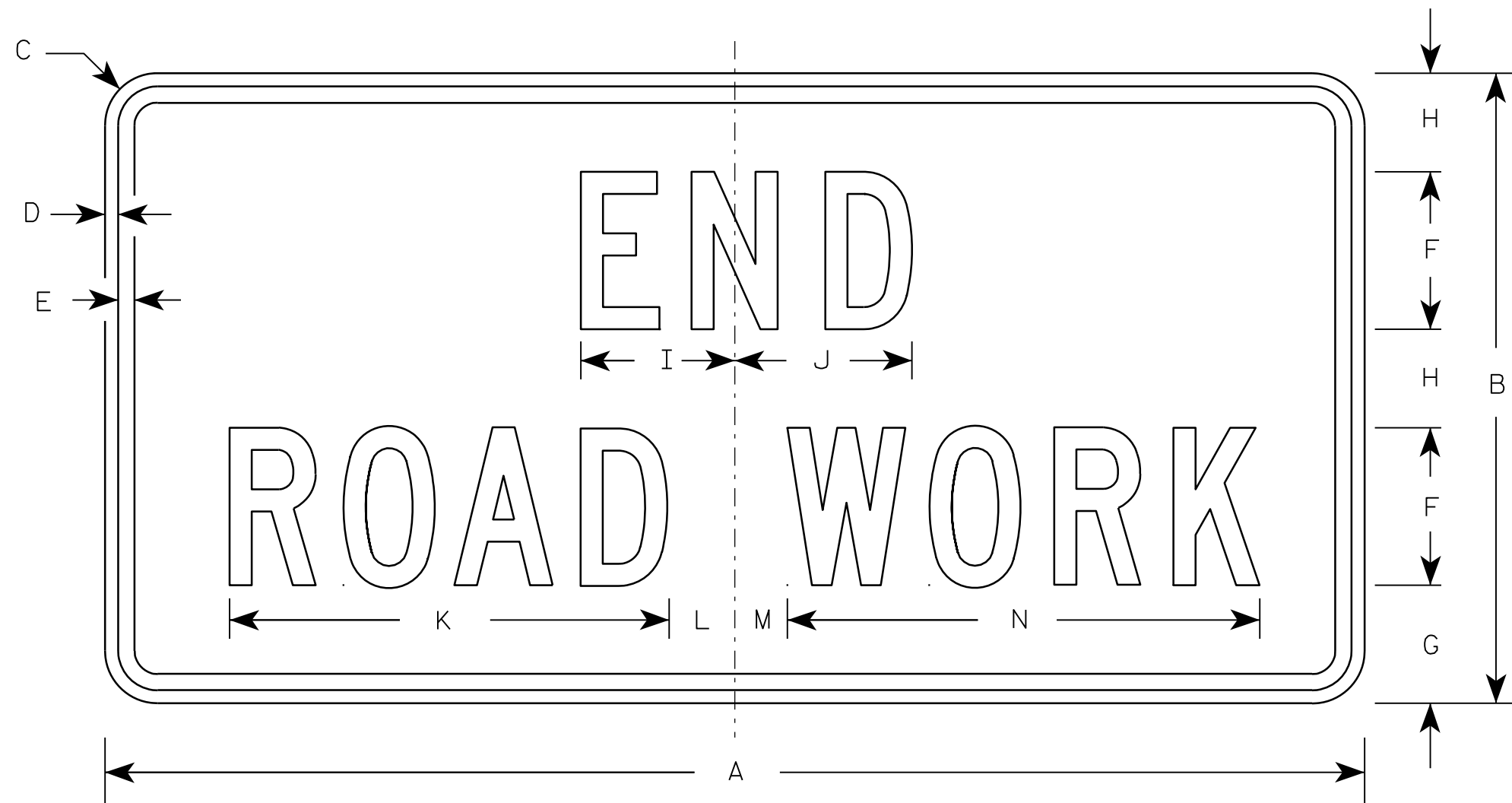
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

7



G20-2A

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.

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

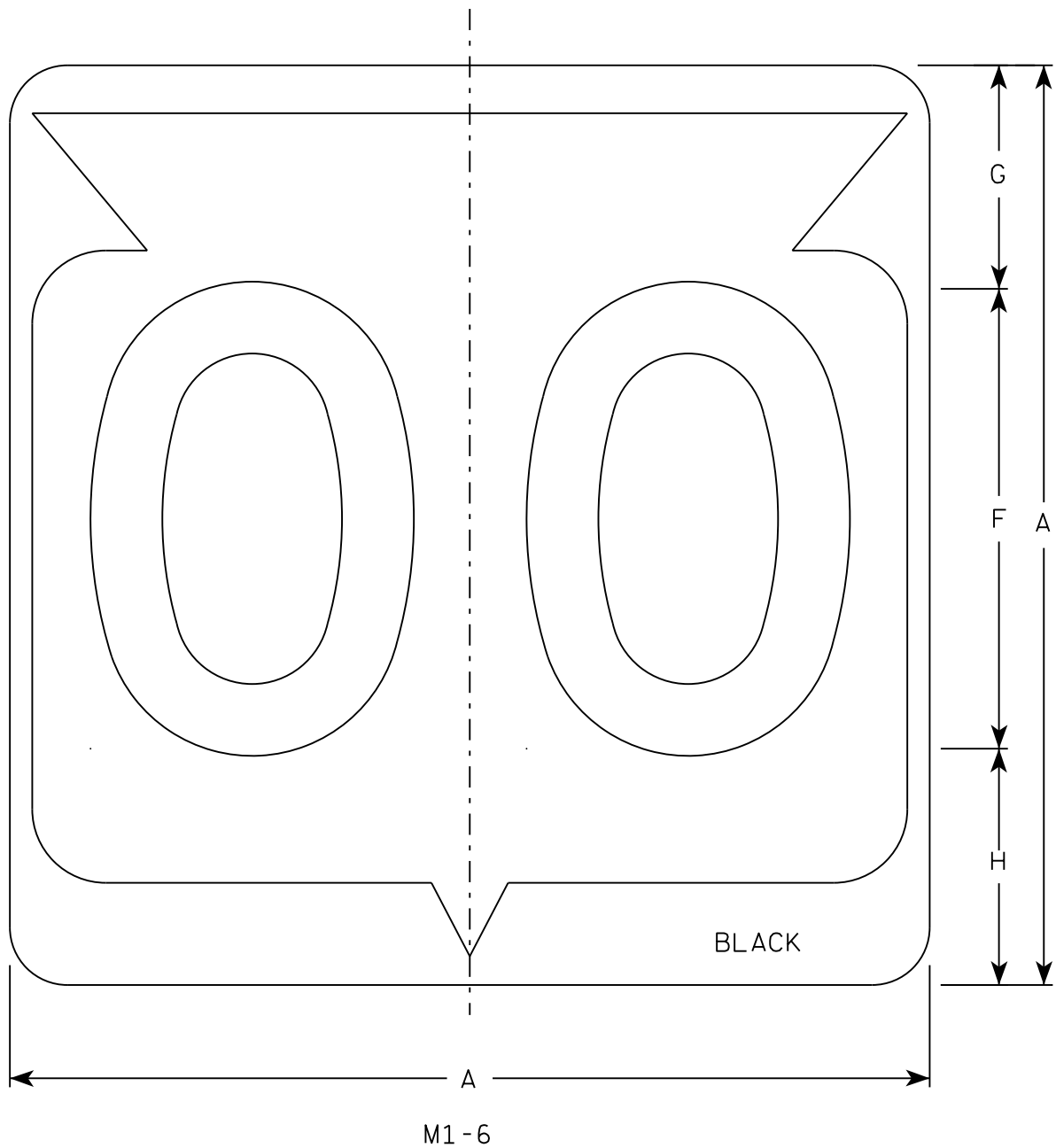
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

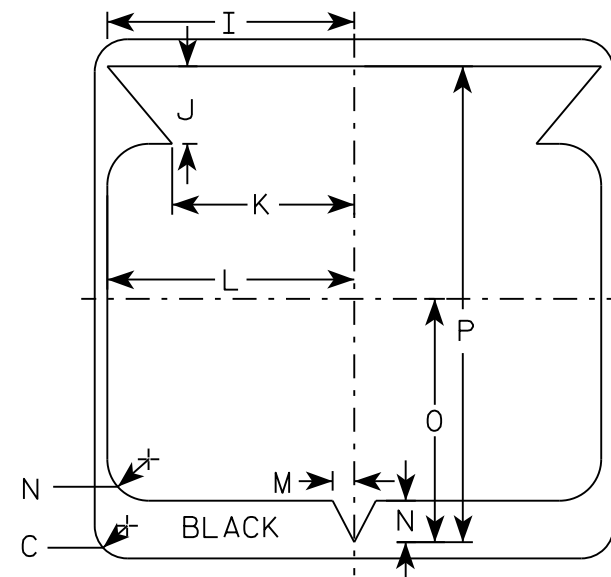
DATE 9/30/09 PLATE NO. G20-2A.8

7



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
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		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

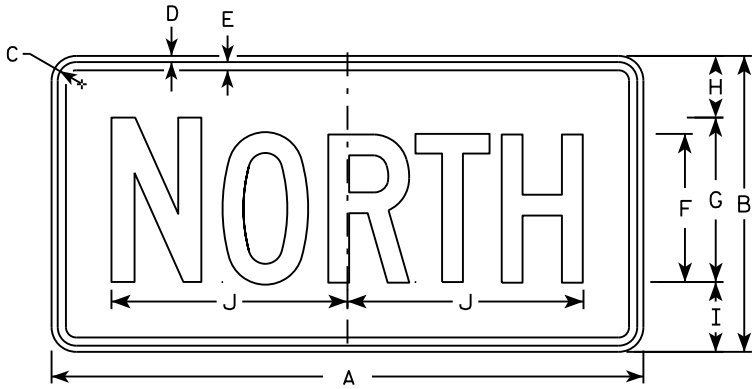
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

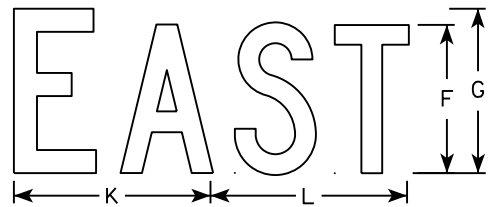
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

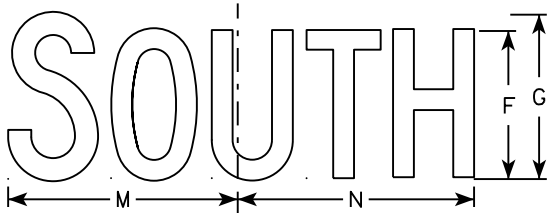
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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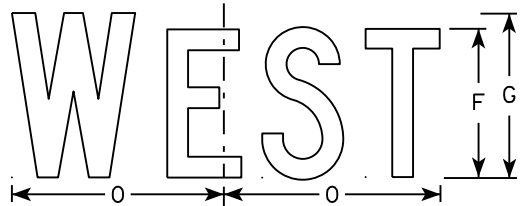
M3-1
MM3-1
MP3-1



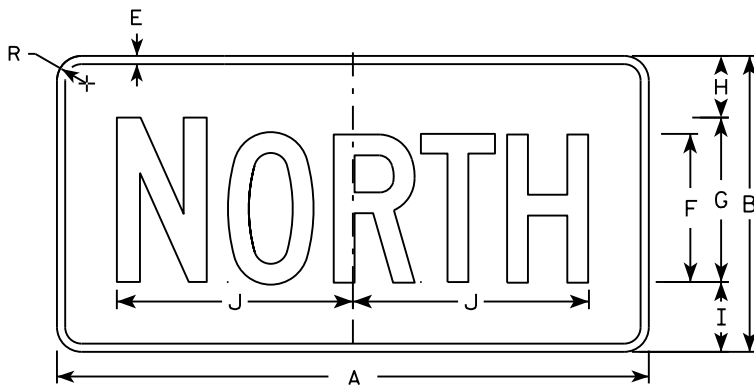
M3-2
MM3-2
MP3-2



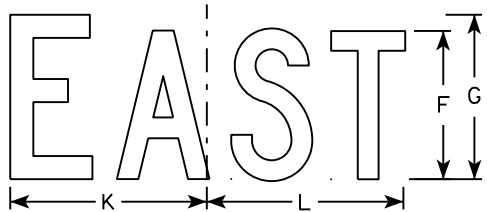
M3-3
MM3-3
MP3-3



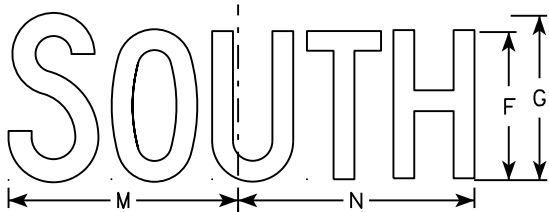
M3-4
MM3-4
MP3-4



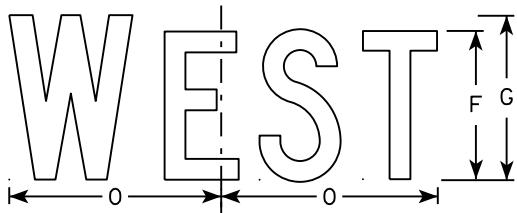
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
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																											
2	24	12	1 1/8	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			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

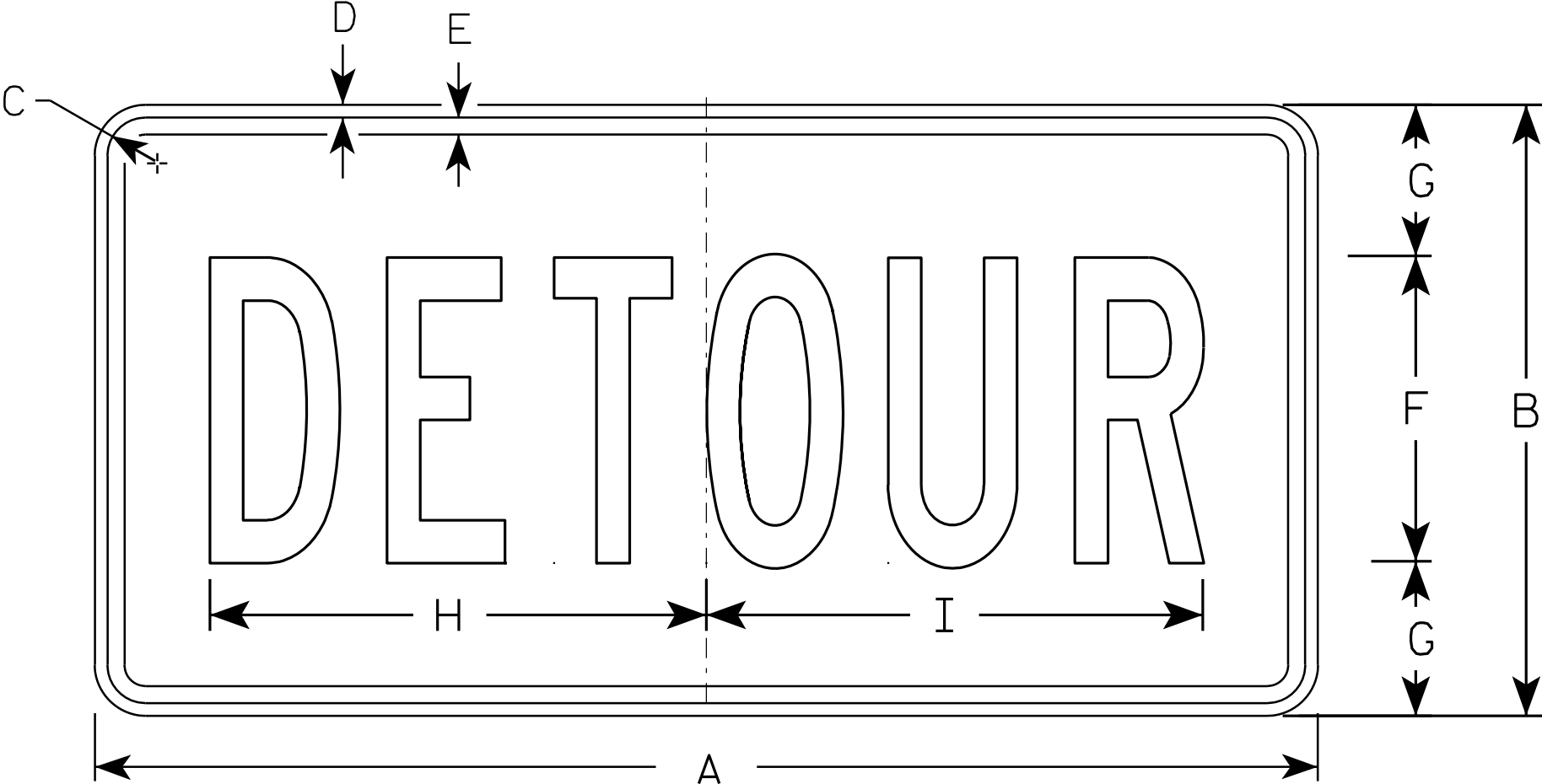
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

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 - 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.



M4 - 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																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

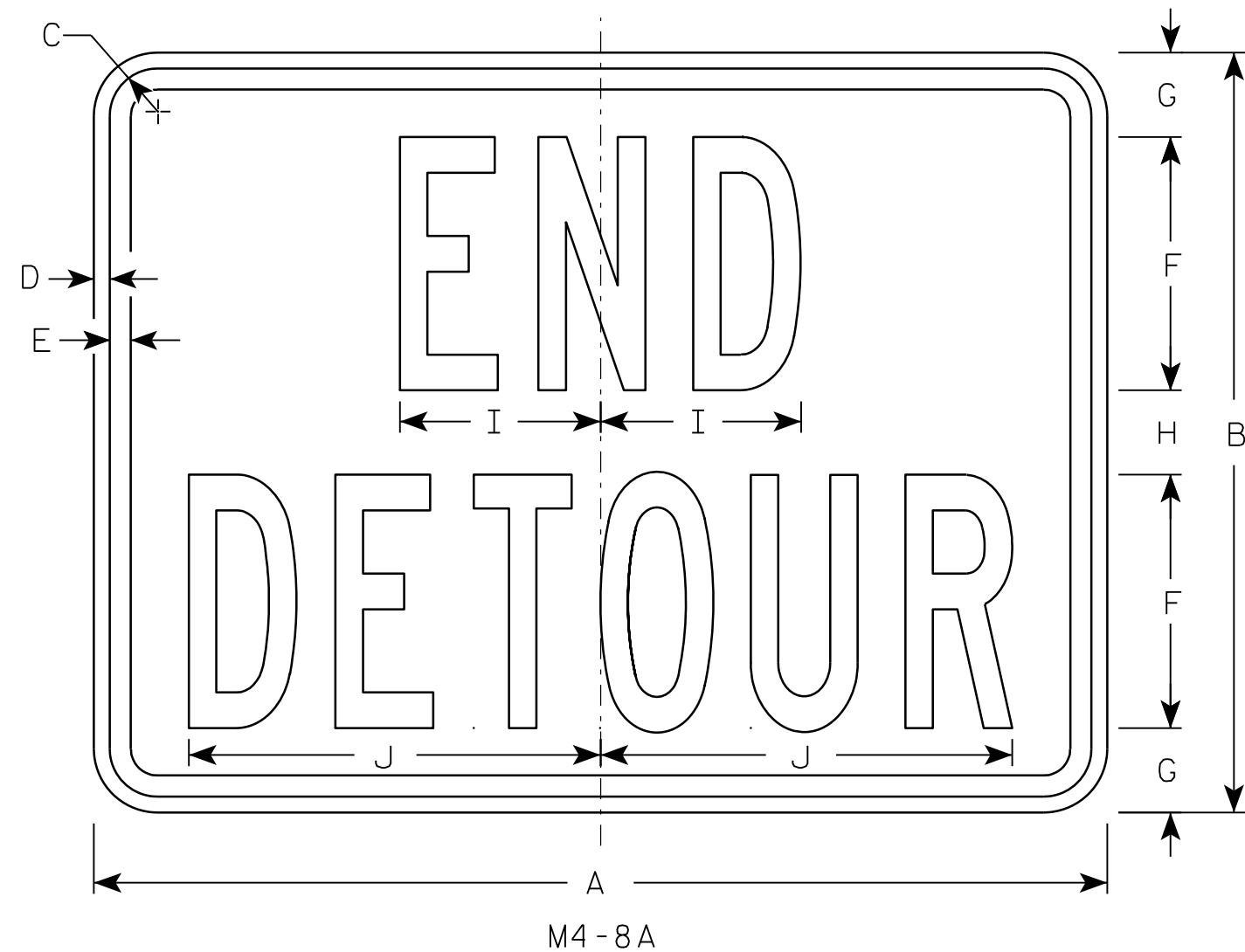
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

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 - 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	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

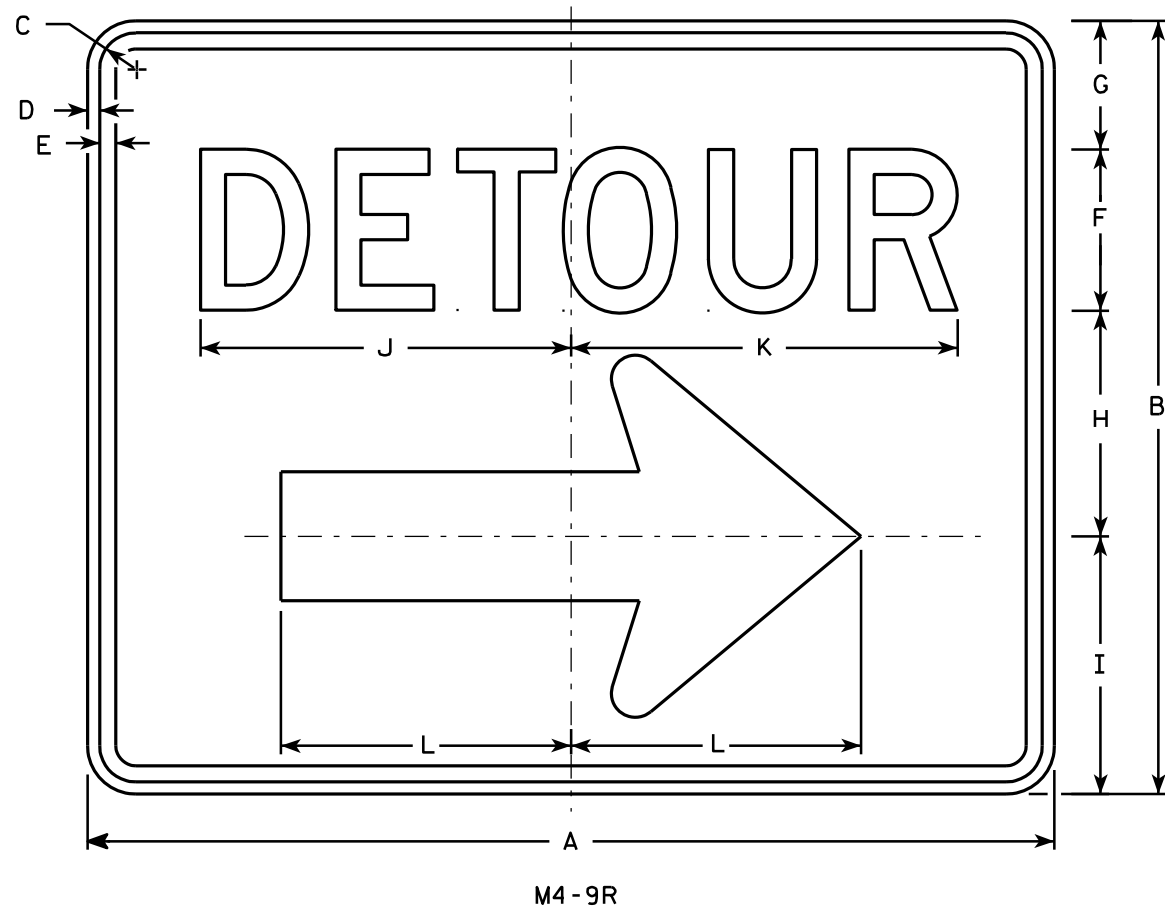
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

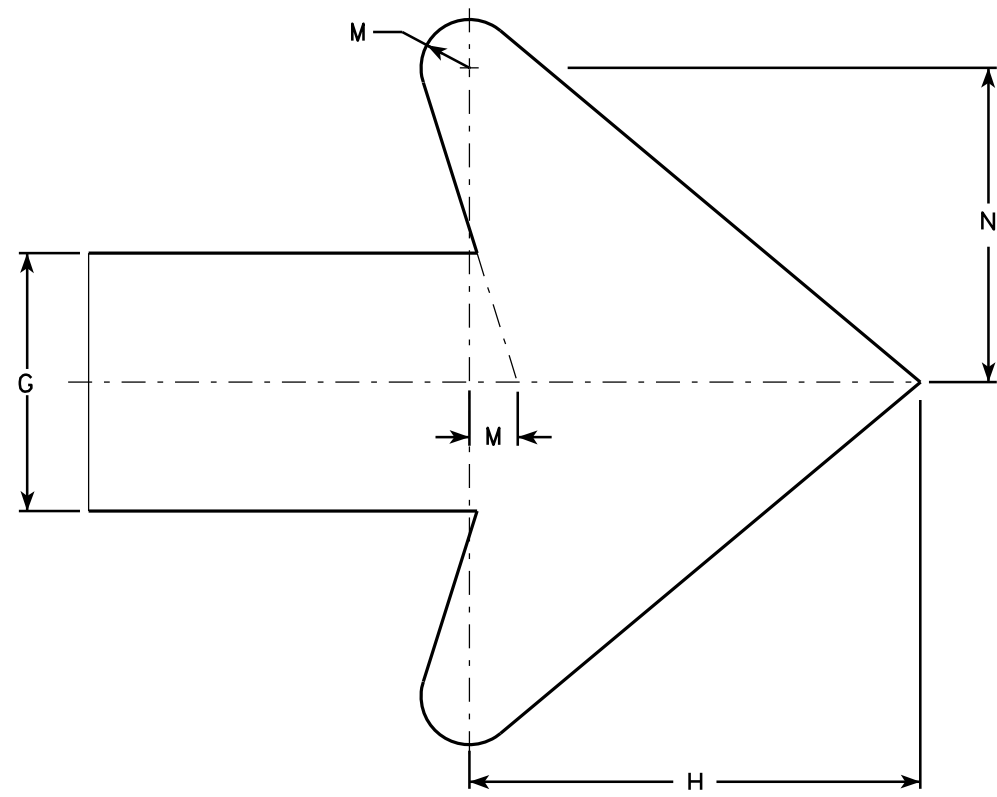
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M4-9L is the same as M4-9R except the arrow is reversed.



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																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

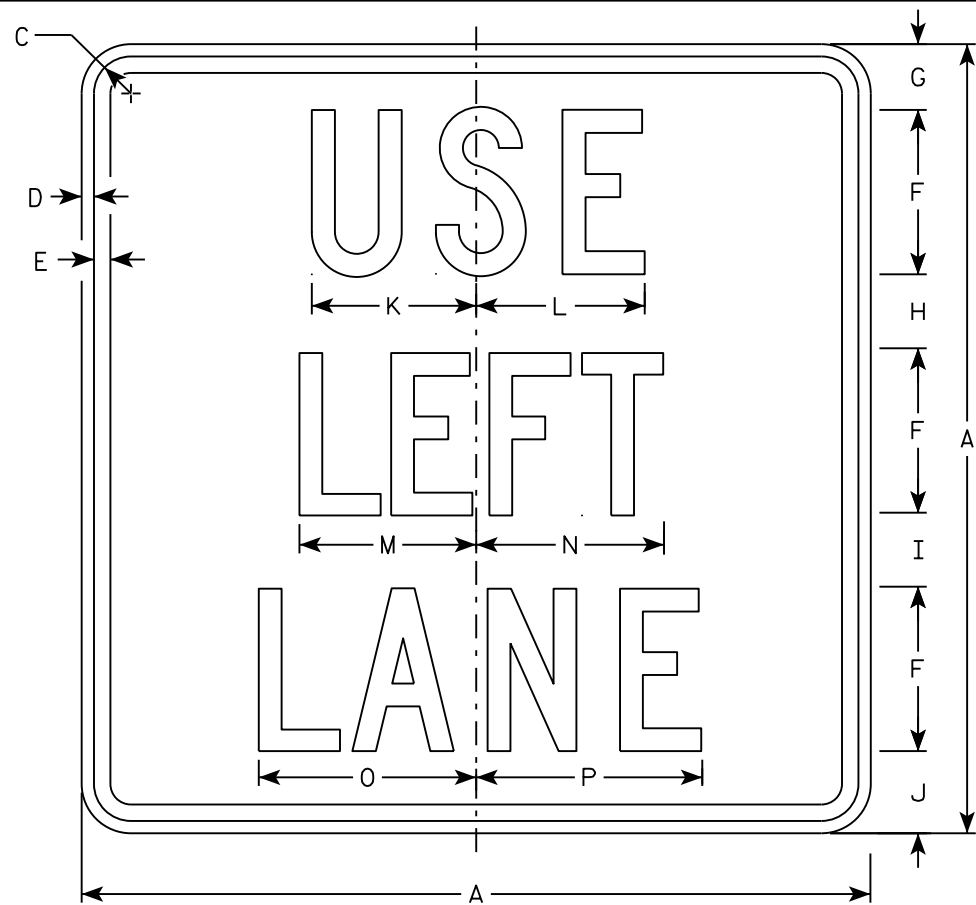
PROJECT NO:

HWY:

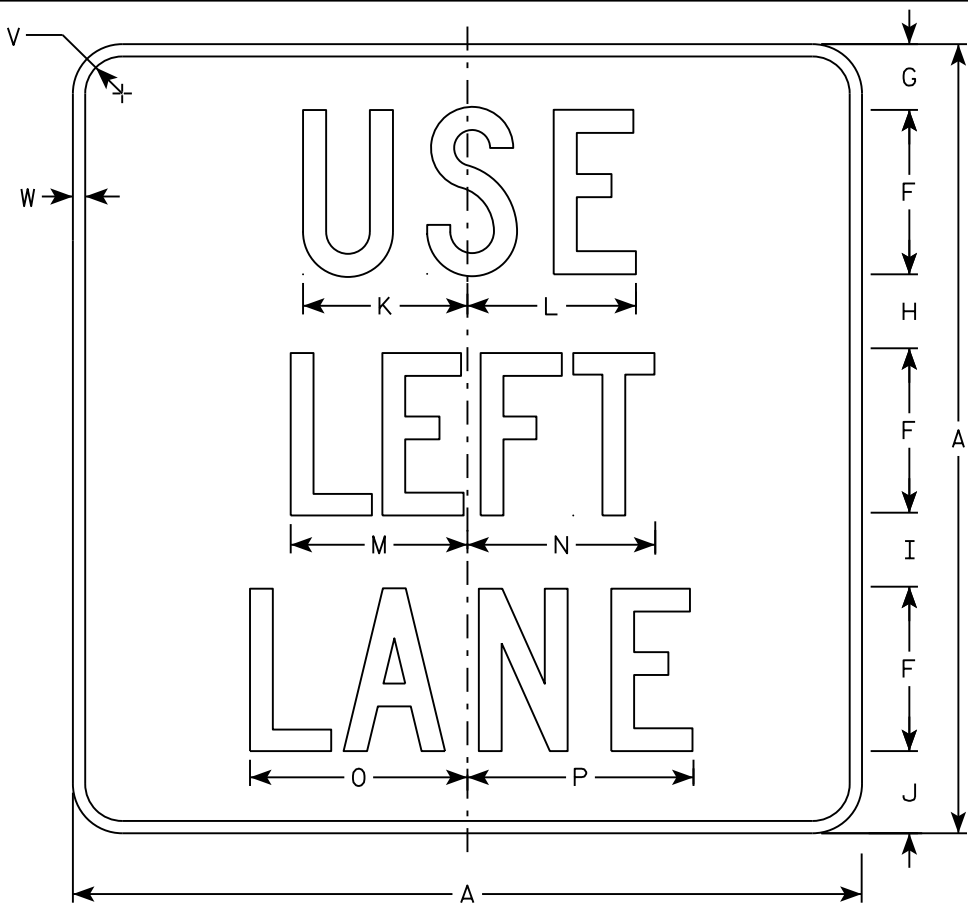
COUNTY:

SHEET NO:

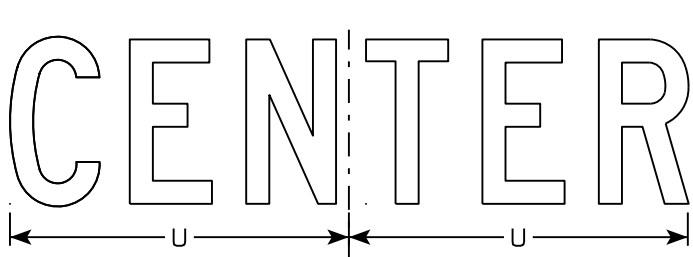
E



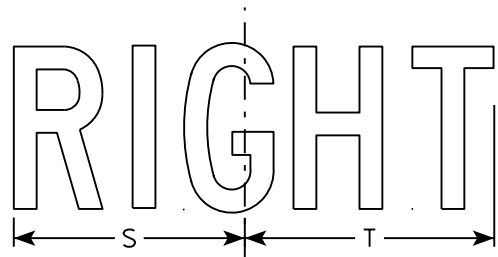
M4-20L
MM4-20L
M04-20L
MP4-20L



MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C



M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

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 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

NOTES

- Sign is Type II - Type H except as Shown
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- 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.
- M4-20 Background - White
Message - Black
MB4-20 Background - Blue
Message - White
MK4-20 Background - Green
Message - White
MM4-20 Background - White
Message - Green
MN4-20 Background - Brown
Message - White
M04-20 Background - Orange - Type F Reflective
Message - Black
MP4-20 Background - White
Message - Blue
MR4-20 Background - Brown
Message - Yellow

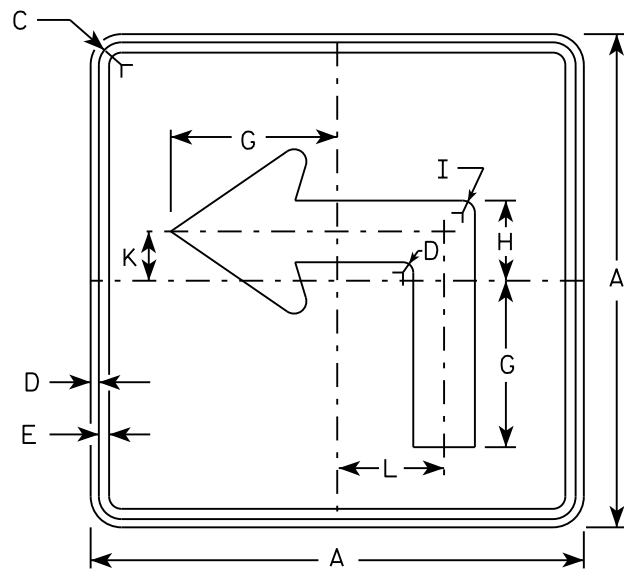
STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

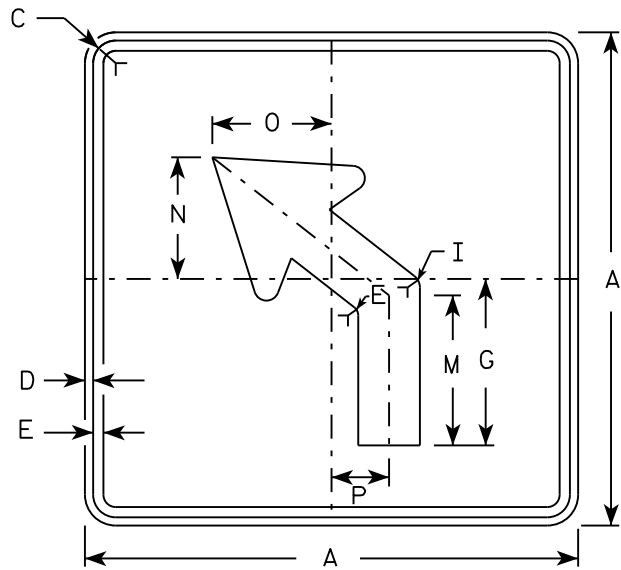
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M4-20.5

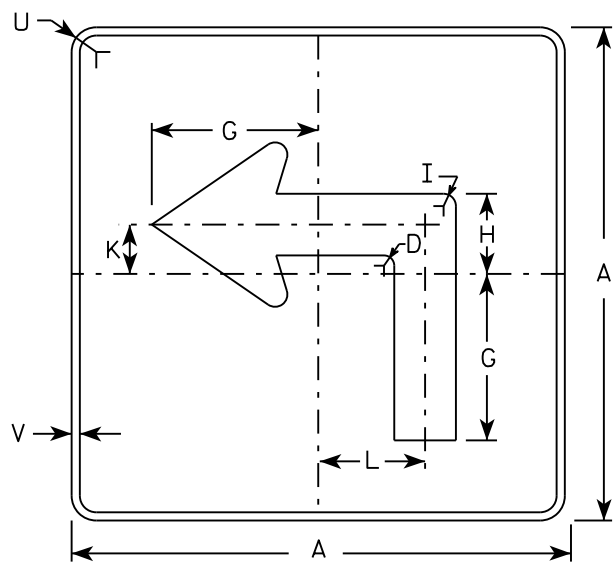
PROJECT NO: HWY: COUNTY: SHEET NO: E



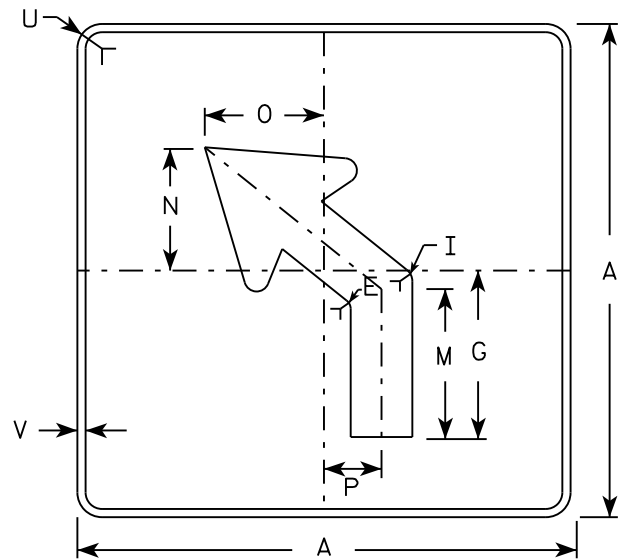
M5-1L
MM5-1L
M05-1L
MP5-1L



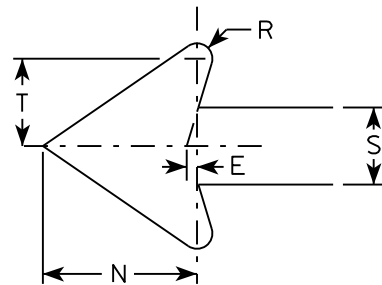
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



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 - Type H Reflective |
| | 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.

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	21		1 1/8	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 1/2	1/2					3.06
3	30		1 3/8	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 7/8	1/2					6.25
4	30		1 3/8	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 7/8	1/2					6.25
5	30		1 3/8	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 7/8	1/2					6.25

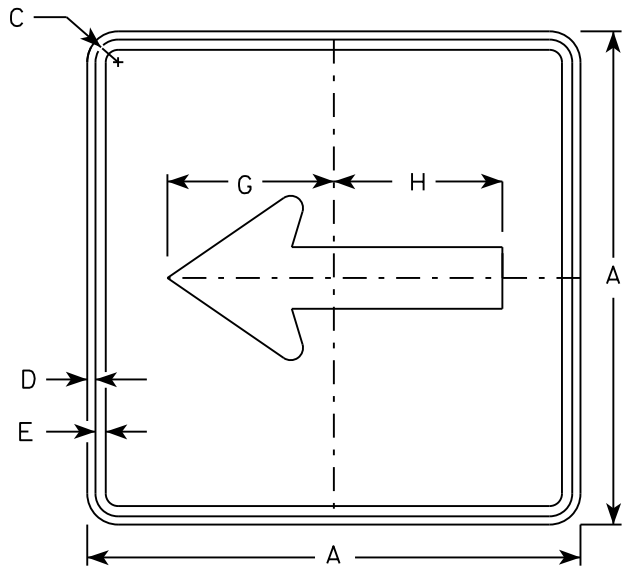
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

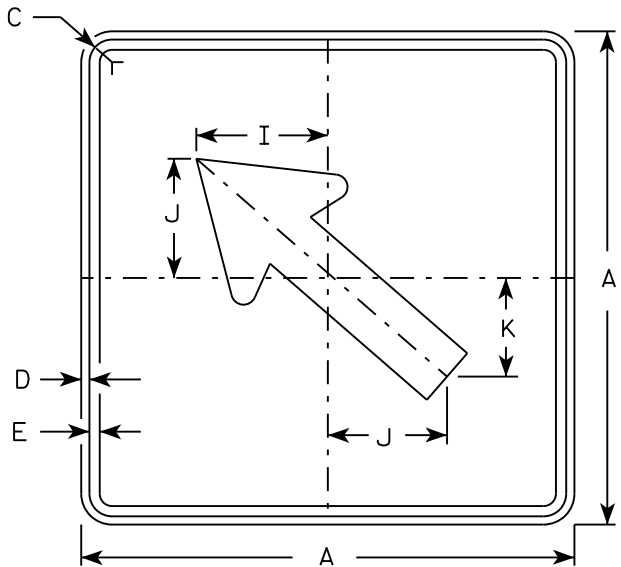
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

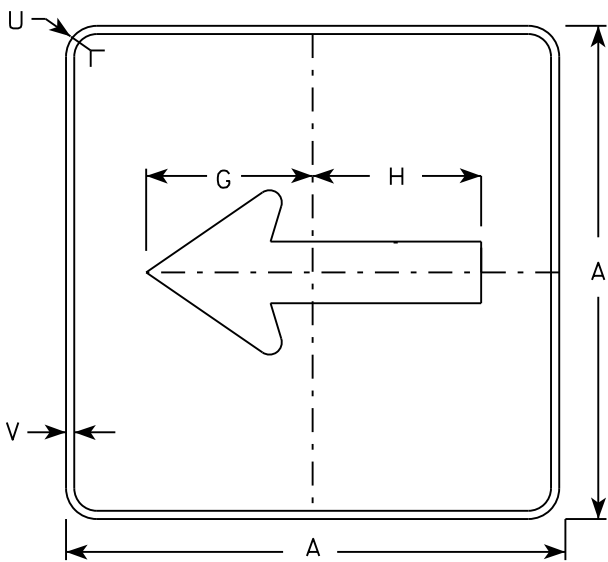
DATE 10/15/15 PLATE NO. M5-1.13



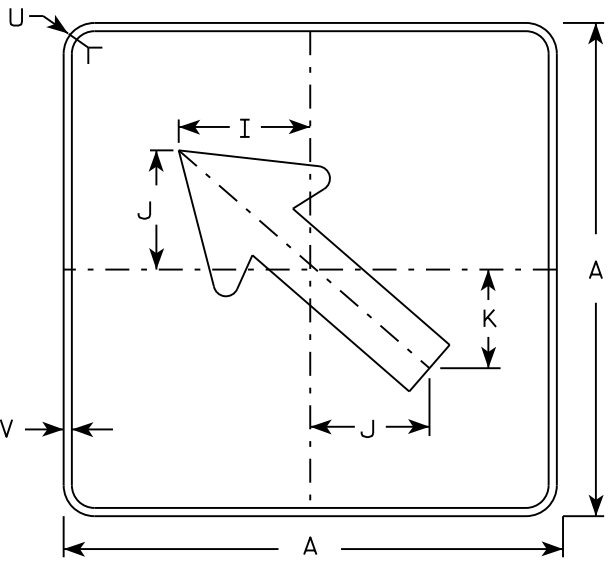
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



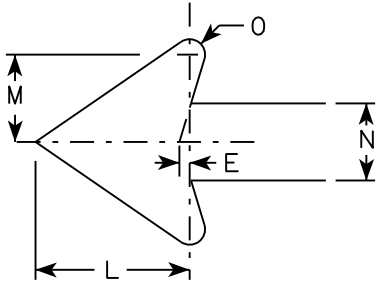
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- Signs are Type II - Type H 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

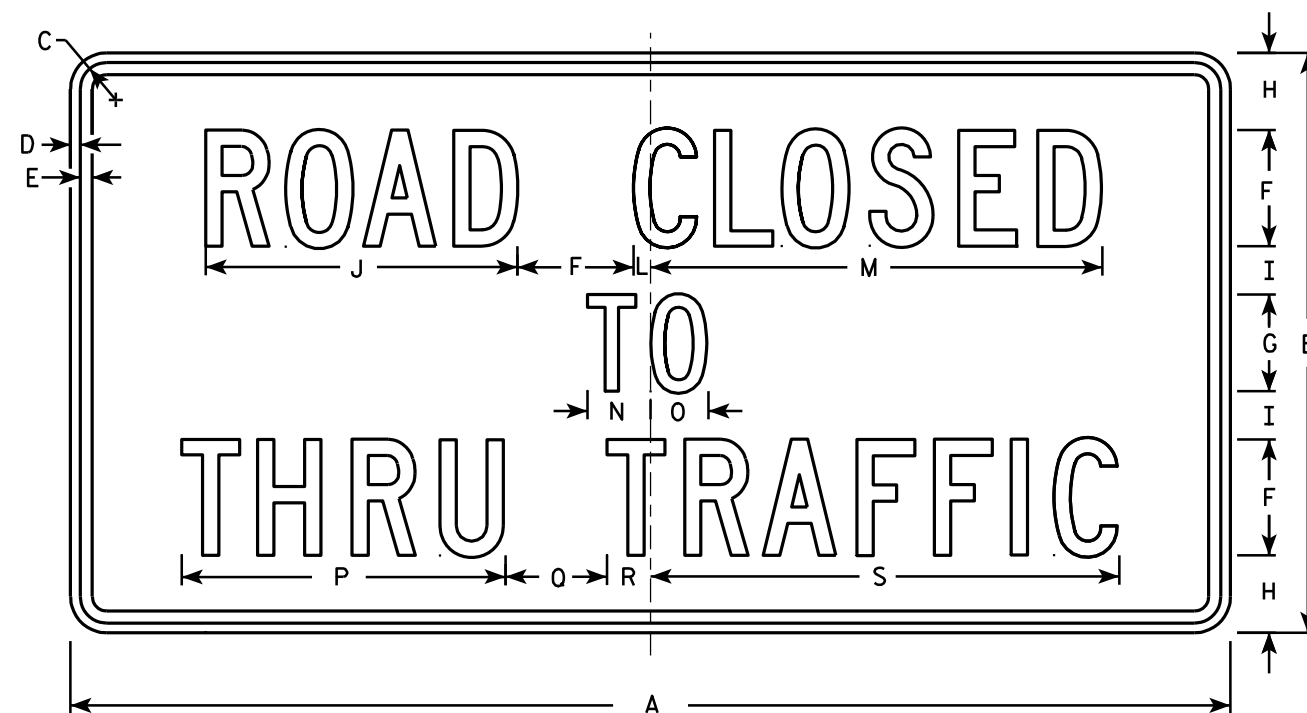
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10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

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



R11-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO:

HWY:

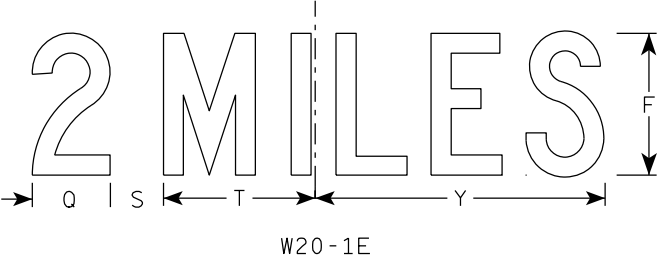
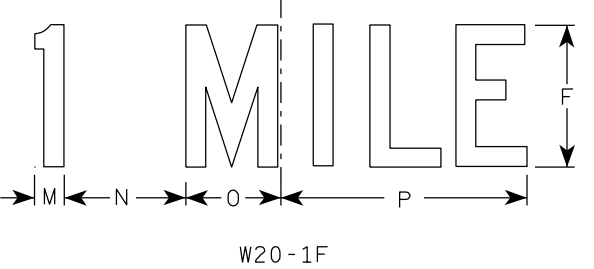
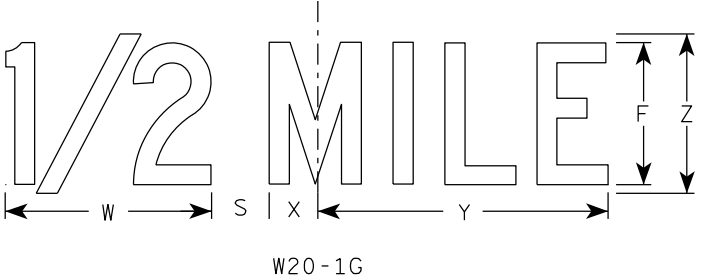
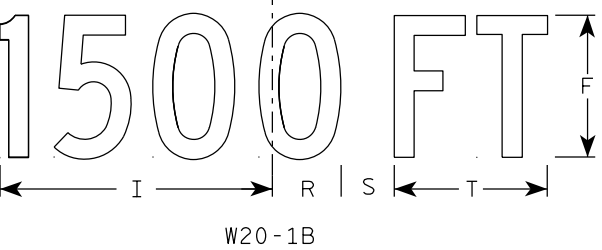
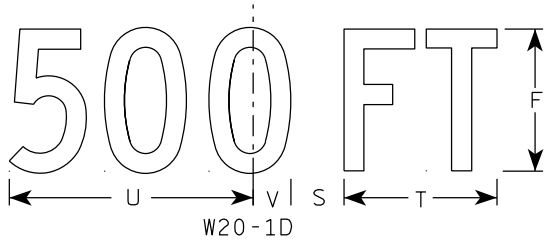
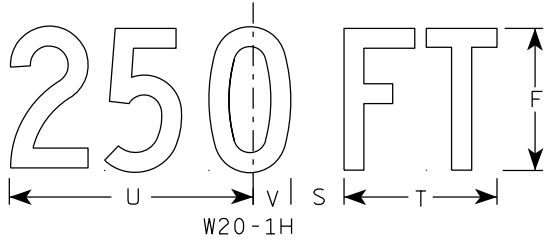
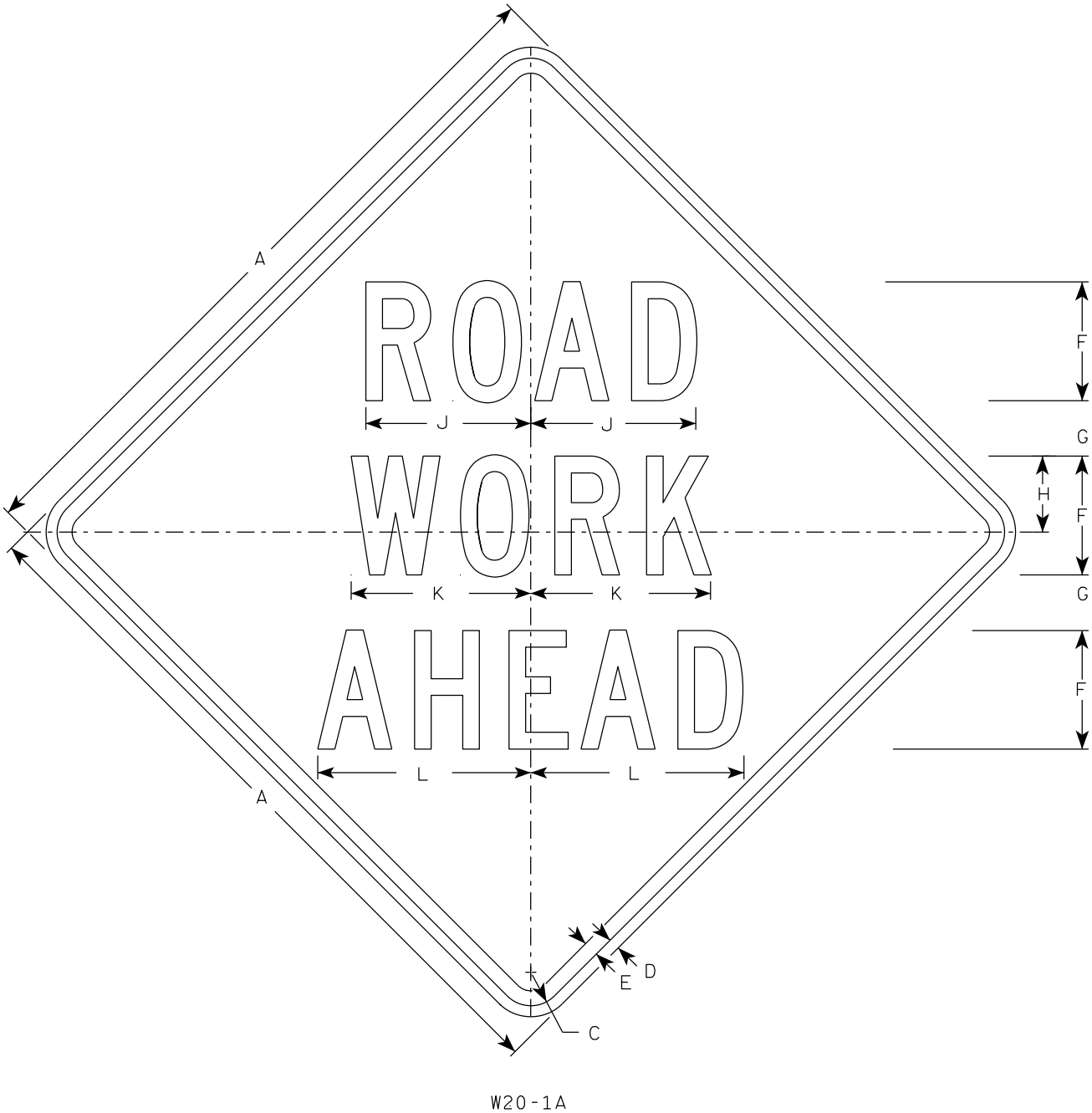
COUNTY:

SHEET NO:

E

NOTES

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



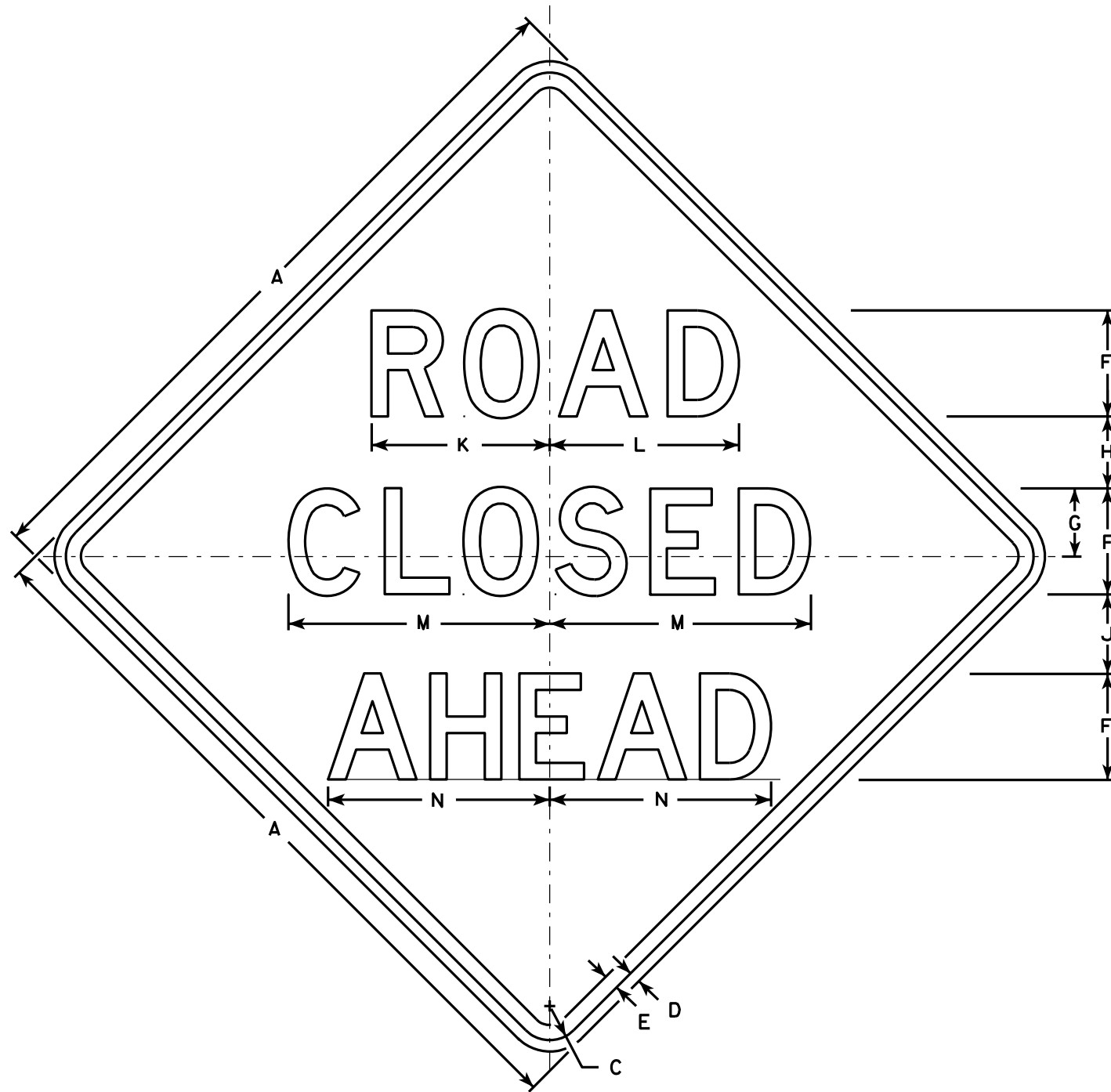
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3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



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. 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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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 3/18/11 PLATE NO. W20-3.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

INDICATES WING NUMBER

DESIGN DATA

LIVE LOAD:

DESIGN RATING: HS-20
INVENTORY RATING: HS-20
OPERATING RATING: HS-38
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY, ALL $f'_c = 4,000$ P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 - $f_y = 60,000$ P.S.I.

WHITE
RIVER

STATE PROJECT NUMBER

8727-01-60

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE 1985 AS-BUILT STRUCTURE PLANS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-2-414" SHALL BE THE EXISTING GROUNDLINE.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY INCLUDING VERTICAL & HORIZONTAL SURFACES OF PAVING NOTCH.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON WINGS. SURFACE PREPARATION PRIOR TO APPLICATION OF PIGMENTED SURFACE SEALER TO BE INCLUDED IN BID ITEM, "CLEANING PARAPETS."

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF $\frac{1}{2}$ " PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS AT THE CROWN IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN $\frac{1}{2}$ ", CONTACT THE STRUCTURES DESIGN SECTION.

CLEAN, STRAIGHTEN AND EXTEND EXISTING BAR STEEL REINFORCEMENT INTO NEW CONSTRUCTION WHERE APPLICABLE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA.383+50	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-2-414	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	117
502.0100	CONCRETE MASONRY BRIDGES	CY	41
502.3200	PROTECTIVE SURFACE TREATMENT	SY	302
502.3210	PIGMENTED SURFACE SEALER	SY	78
502.4205	ADHESIVE ANCHORS NO.5 BAR	EACH	48
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,450
509.0301	PREPARATION DECKS TYPE 1	SY	50
509.0302	PREPARATION DECKS TYPE 2	SY	25
509.0500	CLEANING DECKS	SY	289
509.1500	CONCRETE SURFACE REPAIR	SF	10
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	21
509.9050.S	CLEANING PARAPETS	LF	179
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	16
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	134
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	30
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	10

STRUCTURE DESIGN CONTACTS:

DOMINIQUE BECHLE (608) 261-8205
LAURA SHADEWALD (608) 267-9592

LIST OF DRAWINGS

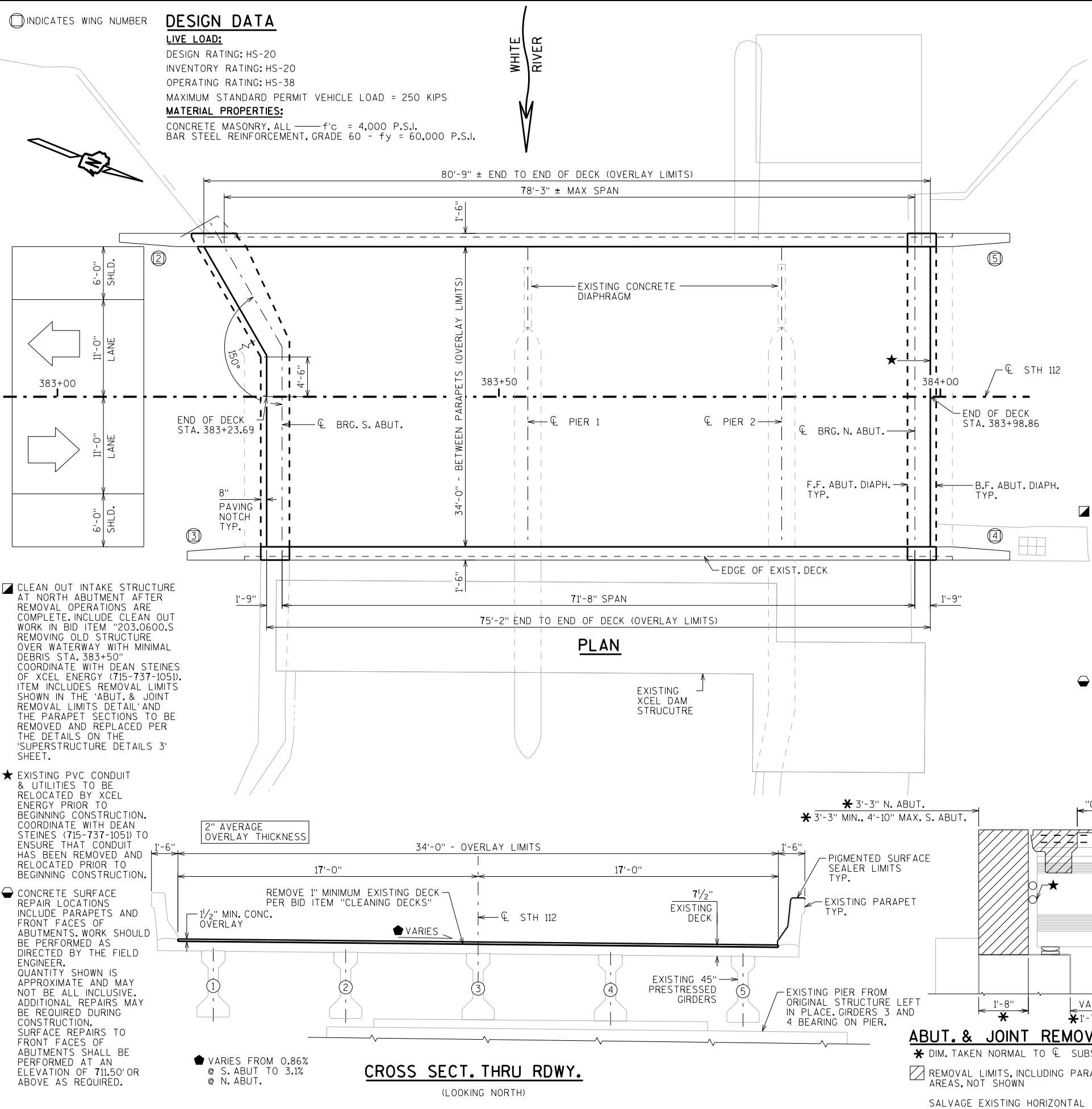
1. CONCRETE OVERLAY
2. SUPERSTRUCTURE DETAILS 1
3. SUPERSTRUCTURE DETAILS 2
4. SUPERSTRUCTURE DETAILS 3

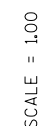
NO.	DATE	REVISION	BY
<div><div><div><div><div><div></div><div>WISCONSIN</div></div><div><div></div><div>DEPARTMENT OF TRANSPORTATION</div></div></div><div><div><div></div><div>BUREAU OF</div></div><div><div></div><div>STRUCTURES</div></div></div><div>ACCEPTED 11/30/20 CHIEF STRUCTURES DESIGN ENGINEER DATE</div></div></div></div>			
STRUCTURE B-2-414			
STH 112 OVER WHITE RIVER			
COUNTY	ASHLAND	TOWN	WHITE RIVER
DESIGN SPEC. N/A REHABILITATION			
DESIGNED BY	DMB	DESIGNED CK'D.	JDM
DRAWN BY	JDM	PLANS CK'D.	DMB
CONCRETE OVERLAY			SHEET 1 OF 4

I.D. 8727-01-30A

DATE: APRIL 2020

SCALE = 6.00



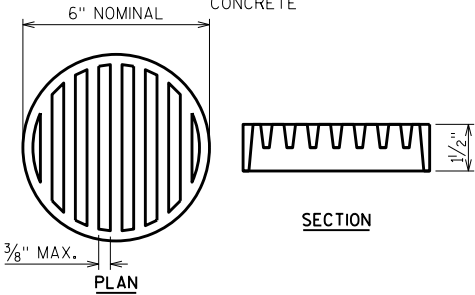


- ① INDICATES GIRDER NUMBER
① INDICATES WING NUMBER

(A15) PIPE UNDERDRAIN
WRAPPED (6-INCH).
SLOPE 0.5% MIN. TO
SUITABLE DRAINAGE.
RODENT SHIELD
REQUIRED.

(A19) 18" (RMW)
RUBBERIZED
MEMBRANE
WATERPROOFING.
SEAL ALL HORIZ. &
VERT. JOINTS AT
BACKFACE.

(M03) S501 BARS ARE ADHESIVE
ANCHORS NO. 5 BARS. EMBED
12" MIN. INTO EXISTING
CONCRETE



RODENT SHIELD DETAIL

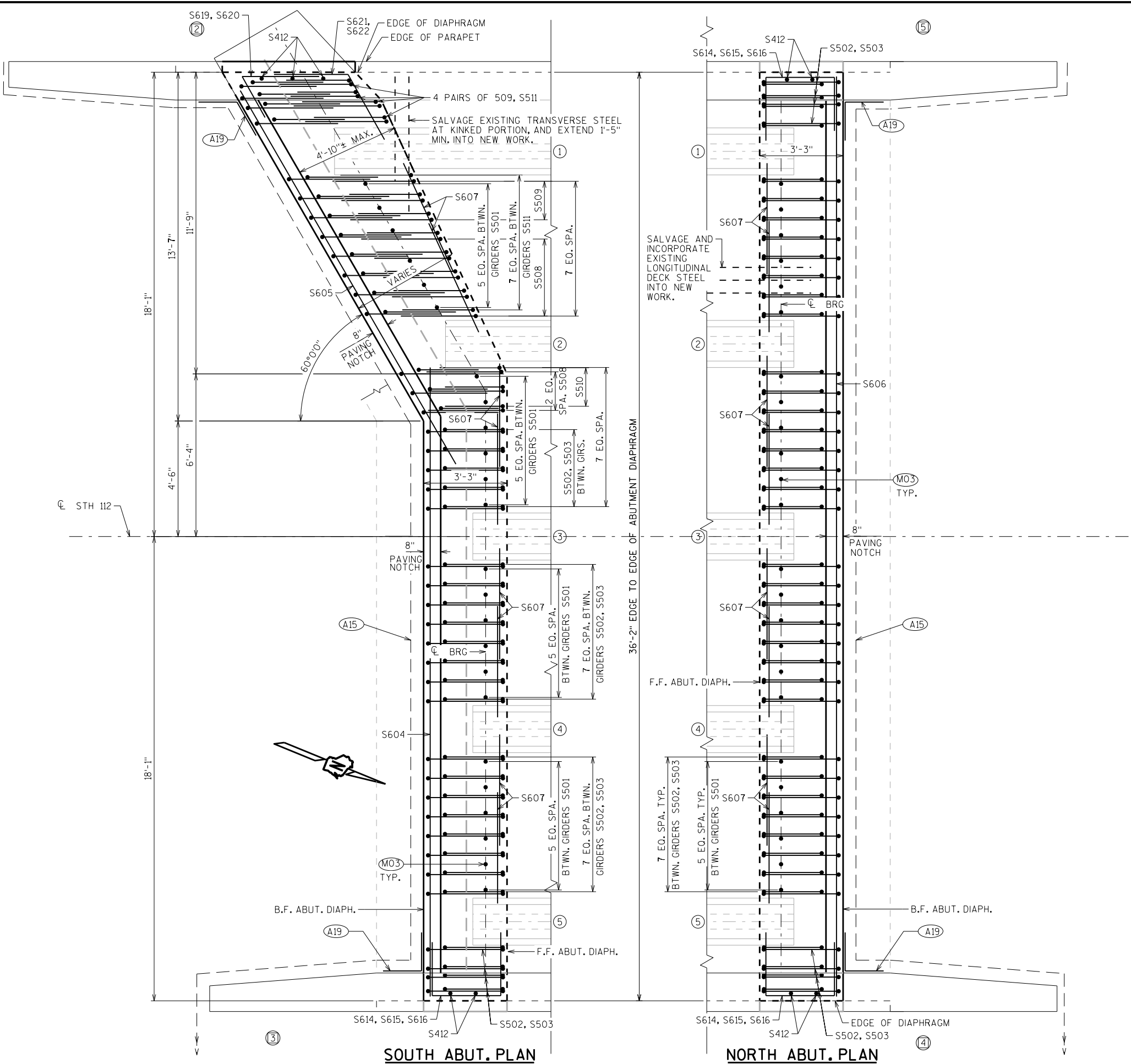
DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-2-414			
DRAWN BY JDM		PLANS CK'D. DMB	
SUPERSTRUCTURE DETAILS 2		SHEET 3	

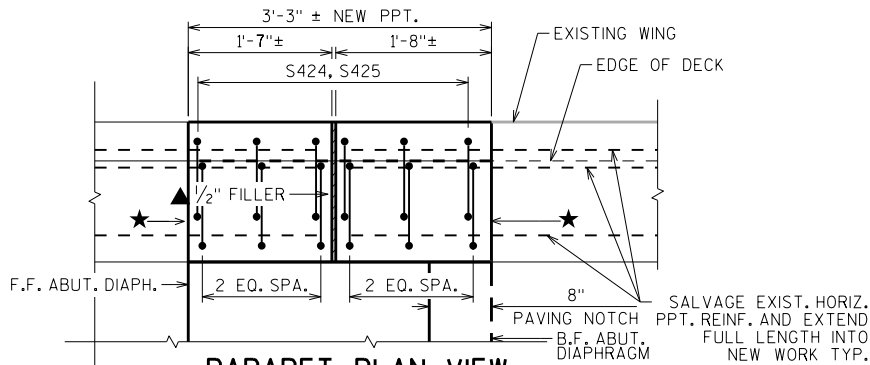
SCALE = 1:100



BILL OF BARS

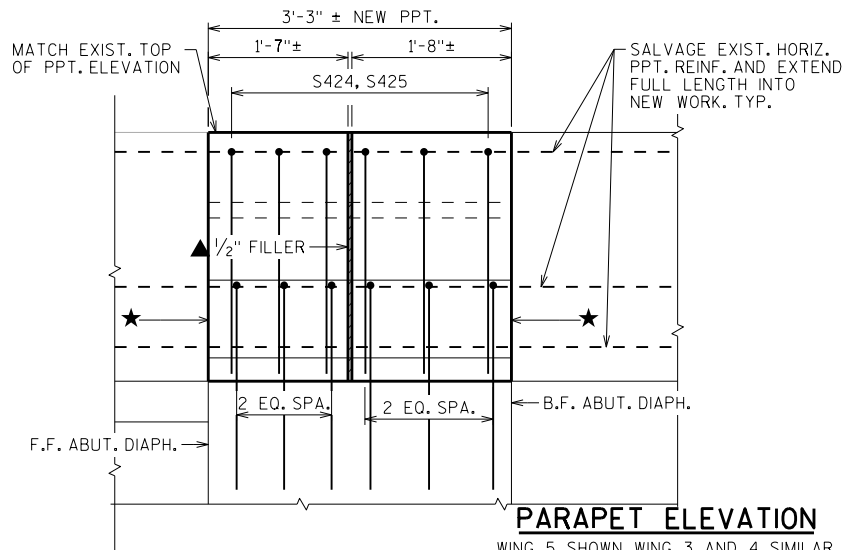
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
(M03) S501	X	48	2'-0"			ABUT. DIAPH. - ANCHORS
S502	X	65	13'-2"	X		ABUT. DIAPH. - STIRRUPS
S503	X	65	6'-2"	X		ABUT. DIAPH. - VERTICAL
S604	X	6	24'-6"			SOUTH ABUT. DIAPH. - HORIZ.
S605	X	6	17'-8"			SOUTH ABUT. DIAPH. - HORIZ.
S606	X	6	35'-10"			NORTH ABUT. DIAPH. - HORIZ.
S607	X	64	4'-8"			ABUT. DIAPH. - HORIZ. BTWN. GIRDERS
S508	X	16	9'-3"	X		SOUTH ABUT. DIAPH. - STIRRUPS
S509	X	14	9'-9"	X		SOUTH ABUT. DIAPH. - STIRRUPS
S510	X	6	4'-4"	X		SOUTH ABUT. DIAPH. - VERTICAL
S511	X	24	4'-9"	X		SOUTH ABUT. DIAPH. - VERTICAL
S412	X	9	4'-4"			ABUT. DIAPH. END - VERTICAL
S613						NOT USED
S614	X	3	5'-11"	X		ABUT. DIAPH. END - HORIZ. - WINGS 3,4,5
S615	X	9	7'-1"	X		ABUT. DIAPH. END - HORIZ. - WINGS 3,4,5
S616	X	3	5'-6"	X		ABUT. DIAPH. END - HORIZ. - WINGS 3,4,5
S617						NOT USED
S618						NOT USED
S619	X	1	4'-2"	X		ABUT. DIAPH. END - HORIZ. - WING 2
S620	X	4	5'-5"	X		ABUT. DIAPH. END - HORIZ. - WING 2
S621	X	1	5'-4"	X		ABUT. DIAPH. END - HORIZ. - WING 2
S622	X	4	6'-0"	X		ABUT. DIAPH. END - HORIZ. - WING 2
S623	X					NOT USED
S424	X	26	4'-7"	X		ABUT. DIAPH./PARAPET - VERTICAL
S425	X	26	4'-10"	X		PARAPET - VERTICAL
S526						NOT USED
S527						NOT USED
S528	X	11	24'-6"			DECK - TRANSVERSE - AT S. ABUT.
S529	X	15	17'-8"			DECK - TRANSVERSE - AT S. ABUT.
S530	X	11	35'-10"			DECK - TRANSVERSE - AT N. ABUT.
S531	X	10	5'-0"			ABUT. DIAPH. - HORIZ - FRONT OF BEARING



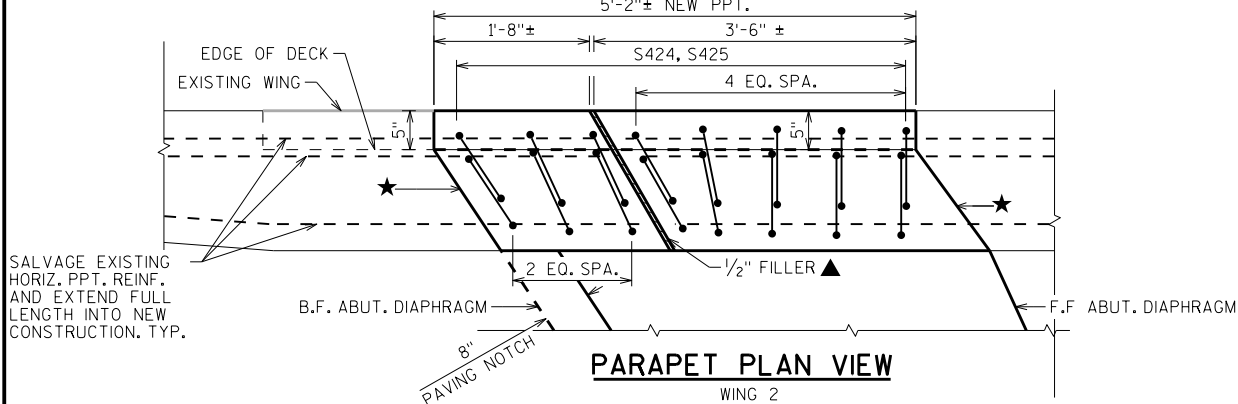
PARAPET PLAN VIEW

WING 5 SHOWN WING 3 AND 4 SIMILAR



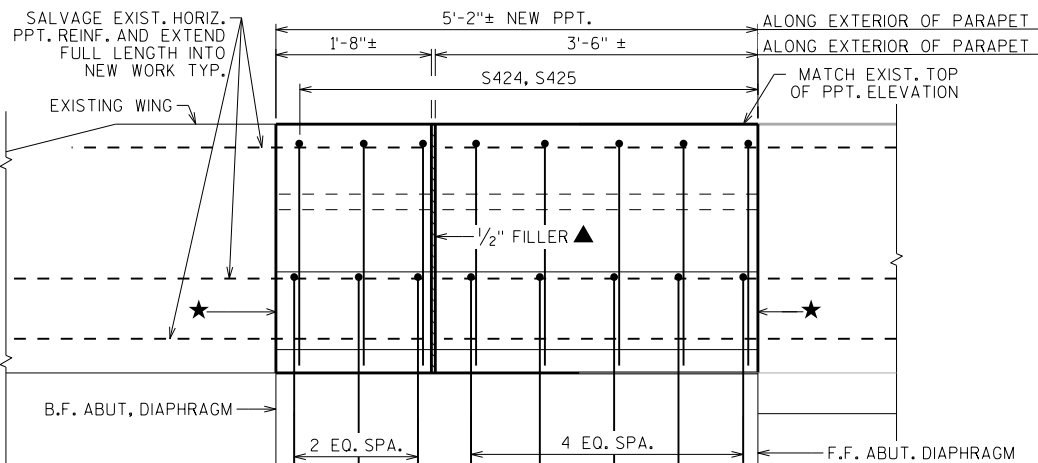
PARAPET ELEVATION

WING 5 SHOWN WING 3 AND 4 SIMILAR



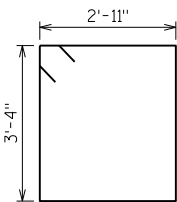
PARAPET PLAN VIEW

WING 2

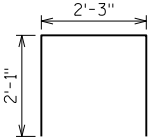


PARAPET ELEVATION

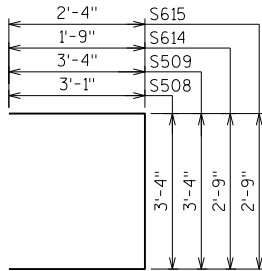
WING 2



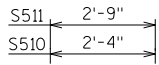
S502



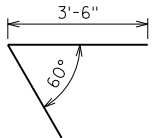
S503



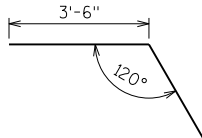
S508, S509,
S614, S615



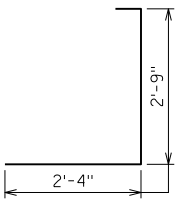
S510, S511



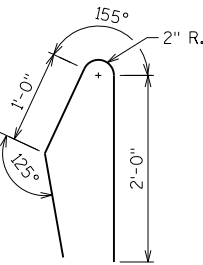
S619, S620



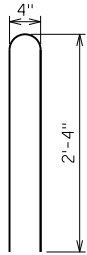
S621, S622



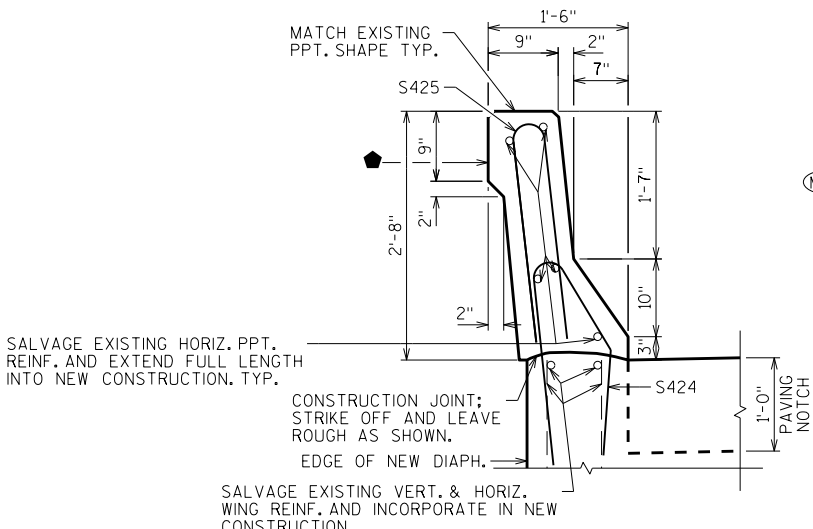
S616



S424



S425



PARAPET SECTION

AT DIAPHRAGM

- ▲ MAINTAIN EXISTING JOINT LOCATIONS AND ORIENTATION
- ◆ EXISTING STEEL RAIL & RAIL CONNECTION ELEMENTS TO BE SALVAGED AND INCORPORATED INTO NEW CONSTRUCTION TYP. COORDINATION WITH DEAN STEINES OF XCEL ENERGY (715-737-1051)

- (M03) S501 BARS ARE ADHESIVE ANCHORS NO. 5 BARS. EMBED 12" MIN. INTO EXISTING CONCRETE
- ★ ROUGHEN SURFACE OF CONC. 1/4" DEEP MIN. AT ALL AREAS OF NEW TO EXIST. CONC. CONTACT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-2-414			
		DRAWN BY JDM	PLANS CK'D. DMB
SUPERSTRUCTURE DETAILS 3		SHEET 4	

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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