MAD

MAY 2017

PROJECT ID: 5105-17-62

WITH:

COUNTY: SOUTHWEST REGION WIDE

ORDER OF SHEETS

TOTAL SHEETS = 64

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SIGN BRIDGE REPAIRS SW REGION

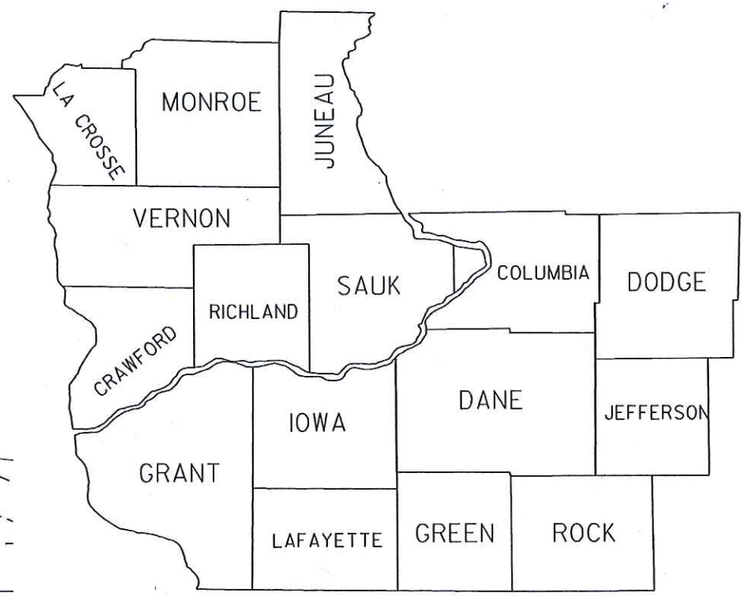
REGIONWIDE VARIOUS ROUTES STH HWY
SOUTHWEST REGION WIDE

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5105-17-62	WISC 2017262	1

STATE PROJECT NUMBER
5105-17-62

02

N



LAYOUT
SCALE 0 0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.0 MI.

DESIGN DESIGNATION

A.A.D.T.	=	N/A
A.A.D.T.	=	N/A
D.H.V.	=	N/A
D.D.	=	N/A
T. ___	=	N/A
DESIGN SPEED	=	N/A
ESALS	=	N/A

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 (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY

Fish & Associates Inc.
3148 Deming Way, Suite 160 • Middleton, WI 53562 • (608) 831-3238

WISCONSIN PROFESSIONAL ENGINEER
BRIAN R. SCHMIDT
E-43306-6
SAUK CITY, WI

2/23/17 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
- Surveyor
- Designer: FISH & ASSOCIATES, INC.
- Project Manager: SHIV GUPTA
- Regional Examiner
- Regional Supervisor
- C.O. Examiner

APPROVED FOR THE DEPARTMENT
DATE: 2/23/17 (Signature)

E

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

DESIGN CONTACT

FISH & ASSOCIATES, INC.
3148 DEMING WAY, SUITE 160
MIDDLETON, WI 53562
ATTN: BRIAN R. SCHMIDT
(608) 831-3238

DNR LIASION CONTACTS

ANDY BARTA (608) 275-3308 ANDY.BARTA@WISCONSIN.GOV
IOWA, SAUK COUNTIES

LAURA BUB (608) 275-3485 LAURA.BUB@WISCONSIN.GOV
GREEN, JEFFERSON, LAFAYETTE, ROCK COUNTIES

ERIC HEGGELUND (608) 275-3301 ERIC.HEGGELUND@WISCONSIN.GOV
COLUMBIA, DANE, DODGE COUNTIES

TRAFFIC CONTROL CONTACTS

RICHARD CANNON (608) 246-5635 RICHARD.CANNON@DOT.WI.GOV

JAMES ROMANOWSKI (608) 246-5635 JAMES.ROMANOWSKI@DOT.WI.GOV

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

2

2

DANE COUNTY

SIGN #	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S-13-0193	USH 12	EB	USH 12 EB 1/3 MILE NORTH OF USH 14
S-13-0209	USH 51	SB	USH 51 SB AT CTH CB
S-13-0290	IH-94	WB	IH-94 WB 2 MILES WEST OF CTH N
S-13-0292	CTH N	NB	CTH N NB JUST SOUTH OF IH-94
S-13-0293	CTH N	NB	CTH N NB JUST NORTH OF IH-94
S-13-0294	CTH N	SB	CTH N SB JUST NORTH OF IH-94
S-13-0295	IH-94	EB	IH-94 EB OFF-RAMP TO CTH N
S-13-0312	STH 138	SB	STH 138 SB 1/4 MILE WEST OF USH 14
S-13-0313	STH 138	SB	STH 138 SB AT USH 14
S-13-0315	STH 138	SB	STH 138 SB JUST EAST OF USH 14
S-13-0352	CTH MM	SB	CTH MM SB JUST SOUTH OF USH 14 WB

DODGE COUNTY

SIGN #	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S-14-0019	USH 16	WB	USH 16 WB AT EXIT TO USH 26 NB
S-14-0020	USH 16	WB	USH 16 WB 1/3 MILE EAST OF USH 26

JEFFERSON COUNTY

SIGN #	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S-28-0034	STH 26	NB	STH 26 NB AT EXIT TO USH 14

LAFAYETTE COUNTY

SIGN #	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S-33-0001	STH 81	WB	STH 81 WB JUST SOUTH OF STH 78
S-33-0002	STH 81	EB	STH 81 EB JUST NORTH OF MONROE ST

ROCK COUNTY

SIGN #	HIGHWAY	DIRECTION OF TRAVEL	LOCATION
S-53-0012	STH 81	EB	STH 81 EB AT EXIT TO IH-39 NB
S-53-0014	IH-43	SB	IH-43 SB AT EXIT TO IH-39 SB
S-53-0022	IH-39	NB	IH-39 NB AT EXIT TO IH-43
S-53-0033	IH-39	NB	CTH W NB 1 MILE SOUTH OF WEIGHT STATION
S-53-0034	IH-39	NB	CTH W NB 3/4 MILE SOUTH OF WEIGHT STATION

2

2

12

19

19

51

51

94

94

151

103

102

101

100

98

97

135

131

132

113

S-13-0209

Waunakee

Sun Prairie

S-13-0193

250

251

14

Middleton

Maple Bluff

Shorewood Hills

Madison

254

Monona

30

138

240

S-13-0290

S-13-0294

S-13-0293

244

S-13-0295

S-13-0292

Cottage Grove

51

39

142

267

18

12

90

258

260

261

262

263

264

265

266

PROJECT NO: 5105-17-62 | HWY: VARIOUS | COUNTY: DANE | COUNTY STRUCTURE LOCATION | SCALE: NOT TO SCALE | SHEET -4 | E

FILE NAME : $$....designfile....$$

PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : _____ PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

175

11

11

177

51

S-53-0034

S-53-0033

183

2

S-53-0014

185

81

S-53-0012

S-53-0022

213

51

90

67

39

OF ILLINOIS

STATE OF ILLINOIS

Beloit

terloo

19

89

94

DODGE CO.

JEFFERSON CO.

19

S-14-0019

S-14-0020

Wate

26

16

S-28-0034

26

259

267

94

Lake Mills

Johnson Creek

2

PROJECT NO: 5105-17-62	HWY: VARIOUS	COUNTY: DODGE, JEFFERSON, ROCK	COUNTY STRUCTURE LOCATION	SCALE: NOT TO SCALE	SHEET 5	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : _____ PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

39

IOWA CO.

DANE CO.

78

GREEN CO.

39

78

78

Blanchardville

LAFAYETTE CO.

GREEN CO.

eville

S-13-0352

2

S-13-0315

Oregon

138

S-13-0312

S-13-0313

DANE CO.

DANE CO.

Brooklyn

92

14

S-33-0001

S-33-0002

78

104

92

GREEN CO.

81

GREEN CO.

ROCK CO.

Argyle

81

59

ROCK CO.

Evansville

78

104

213

PROJECT NO: 5105-17-62	HWY: VARIOUS	COUNTY: DANE, DODGE, IOWA, LAFAYETTE	COUNTY STRUCTURE LOCATION	SCALE: NOT TO SCALE	SHEET – 6	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : _____ PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL AND WORK RESTRICTION

STRUCTURE NUMBER	HIGHWAY	COUNTY	TRAFFIC CONTROL	WORK RESTRICTION 1
S-13-0193	USH 12	DANE	SDD 15D27	
S-13-0209	USH 51	DANE	SDD 15D12	5:00 AM TO 9:00 PM
S-13-0290	IH-94	DANE	SDD 15D12	5:00 AM TO 9:00 PM
S-13-0292	CTH N	DANE	SDD 15D27	
S-13-0293	CTH N	DANE	SDD 15D27	
S-13-0294	CTH N	DANE	SDD 15D27	
S-13-0295	IH-94	DANE	SDD 15D27	
S-13-0312	STH 138	DANE	SDD 15D12	5:00 AM TO 9:00 PM
S-13-0313	STH 138	DANE	SDD 15D27	
S-13-0315	STH 138	DANE	SDD 15D12	5:00 AM TO 9:00 PM
S-13-0352	CTH MM	DANE	SDD 15D27	
S-14-0019	USH 16	DODGE	SDD 15D27	
S-14-0020	USH 16	DODGE	SDD 15D27	
S-28-0034	STH 26	JEFFERSON	SDD 15D16	NOTE 4
S-33-0001	STH 81	LAFAYETTE	SDD 15D28	
S-33-0002	STH 81	LAFAYETTE	SDD 15D28	
S-53-0012	STH 81	ROCK	SDD 15D12, SDD 15D16	5:00 AM TO 10:00 PM
S-53-0014	IH-43	ROCK	SDD 15D12, SDD 15D16	5:00 AM TO 10:00 PM
S-53-0022	IH-39	ROCK	SDD 15D12	5:00 AM TO 10:00 PM
S-53-0033	IH-39	ROCK	SDD 15D12, NOTE 3	5:00 AM TO 10:00 PM
S-53-0034	IH-39	ROCK	SDD 15D12, NOTE 3	5:00 AM TO 10:00 PM

TRAFFIC CONTROL NOTES

1. RESTRICTED HOUR TABLE INDICATES TIME FRAMES WHEN LANE CLOSURES ARE NOT PERMITTED.

2. PRE-WARN TRAFFIC WITH PCMS AND PRESS RELEASE AS DESIGNATED.

3. COORDINATE WITH WISCONSIN STATE PATROL TO PERFORM REPAIRS OF STRUCTURES RELATED TO SWEF 19 - BELOIT

4. CONTRACTOR TO DEVELOP A TRAFFIC CONTROL PLAN FOR THE REQUIRED REPAIRS ON S-28-0034 AND SUBMIT TO THE ENGINEER FOR APPROVAL AT LEAST 14 WORKING DAYS PRIOR TO PROPOSED REPAIR DATE

5105-17-62

Line	Item	Item Description	Unit	Total	Qty
0010	619.1000	Mobilization	EACH	1.000	1.000
0020	637.2210	Signs Type II Reflective H	SF	13.000	13.000
0030	638.2602	Removing Signs Type II	EACH	1.000	1.000
0040	643.0100	Traffic Control (project) 01. 5105-17-62	EACH	1.000	1.000
0050	SPV.0060	Special 01. Tension Anchor Rod	EACH	137.000	137.000
0060	SPV.0060	Special 06. Remove Grout Pad	EACH	1.000	1.000
0070	SPV.0060	Special 10. Tension Structural Connection Bolt	EACH	36.000	36.000
0080	SPV.0060	Special 13. Secure/Replace Post Cap	EACH	3.000	3.000
0090	SPV.0060	Special 18. Reinstall Truss	EACH	1.000	1.000
0100	SPV.0060	Special 20. Replace Sign Panel Connector	EACH	91.000	91.000
0110	SPV.0060	Special 21. Replace Type II Sign Support Bracket	EACH	1.000	1.000
0120	SPV.0060	Special 23. Replace Sign Connection Hardware	EACH	2.000	2.000
0130	SPV.0060	Special 24. Replace Sign Connection Clamp	EACH	3.000	3.000
0140	SPV.0060	Special 30. Replace Handrail Hinge Pins	EACH	1.000	1.000
0150	SPV.0060	Special 31. Replace Safety Chain	EACH	5.000	5.000
0160	SPV.0060	Special 40. Replace Conduit Plug	EACH	2.000	2.000
0170	SPV.0060	Special 50. Traffic Control - Single Lane Closure	EACH	11.000	11.000
0180	SPV.0060	Special 51. Traffic Control - Ramp Closure	EACH	1.000	1.000

BID ITEM QUANTITES

Region	County	Structure Number	637.2210	638.2602	SPV.0060.01	SPV.0060.06	SPV.0060.10	SPV.0060.13	SPV.0060.18	SPV.0060.20	SPV.0060.21	SPV.0060.23	SPV.0060.24
			SIGNS TYPE II REFLECTIVE H	REMOVING SIGNS TYPE II	TENSION ANCHOR ROD	REMOVE GROUT PAD	TENSION STRUCTURAL CONNECTION BOLT	SECURE/ REPLACE POST CAP	REINSTALL TRUSS	REPLACE SIGN PANEL CONNECTOR	REPLACE TYPE II SIGN SUPPORT BRACKET	REPLACE SIGN CONNECTION HARDWARE	REPLACE SIGN CONNECTION CLAMP
			SF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
			637.2210	638.2602	SPV.0060.01	SPV.0060.06	SPV.0060.10	SPV.0060.13	SPV.0060.18	SPV.0060.20	SPV.0060.21	SPV.0060.23	SPV.0060.24
Southwest - Madison	Dane	S-13-0193	13	1									
Southwest - Madison	Dane	S-13-0209											3
Southwest - Madison	Dane	S-13-0290										2	
Southwest - Madison	Dane	S-13-0292			16								
Southwest - Madison	Dane	S-13-0293			16								
Southwest - Madison	Dane	S-13-0294			8								
Southwest - Madison	Dane	S-13-0295			16								
Southwest - Madison	Dane	S-13-0312			8		8	3		1			
Southwest - Madison	Dane	S-13-0313			16								
Southwest - Madison	Dane	S-13-0315			16		4						
Southwest - Madison	Dane	S-13-0352			12								
Southwest - Madison	Dodge	S-14-0019			16								
Southwest - Madison	Dodge	S-14-0020			8								
Southwest - Madison	Jefferson	S-28-0034							1				
Southwest - Madison	Lafayette	S-33-0001									1		
Southwest - Madison	Lafayette	S-33-0002			1								
Southwest - Madison	Rock	S-53-0012								26			
Southwest - Madison	Rock	S-53-0014					16			26			
Southwest - Madison	Rock	S-53-0022								38			
Southwest - Madison	Rock	S-53-0033					4						
Southwest - Madison	Rock	S-53-0034			4	1	4						
		TOTAL	**13**	**1**	**137**	**1**	**36**	**3**	**1**	**91**	**1**	**2**	**3**

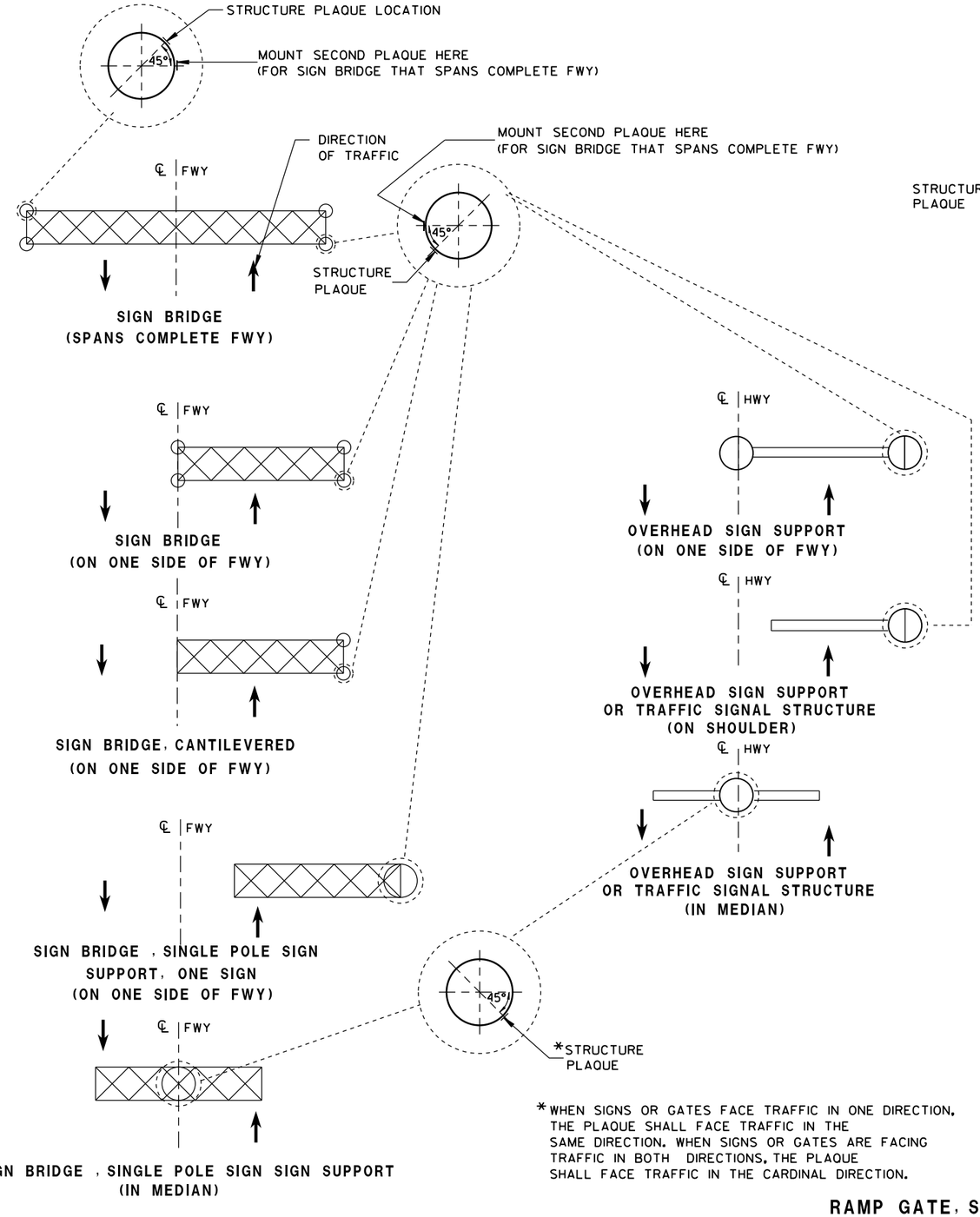
BID ITEM QUANTITES - CONT.

Region	County	Structure Number	SPV.0060.30	SPV.0060.31	SPV.0060.40	SPV.0060.50
			REPLACE HANDRAIL HINGE PINS	REPLACE SAFETY CHAIN	REPLACE CONDUIT PLUG	TRAFFIC CONTROL - SINGLE LANE CLOSURE
			EA	EA	EA	EA
			SPV.0060.30	SPV.0060.31	SPV.0060.40	SPV.0060.50
Southwest - Madison	Dane	S-13-0193				
Southwest - Madison	Dane	S-13-0209				1
Southwest - Madison	Dane	S-13-0290		1		1
Southwest - Madison	Dane	S-13-0292				
Southwest - Madison	Dane	S-13-0293				
Southwest - Madison	Dane	S-13-0294				
Southwest - Madison	Dane	S-13-0295				
Southwest - Madison	Dane	S-13-0312				2
Southwest - Madison	Dane	S-13-0313				
Southwest - Madison	Dane	S-13-0315				1
Southwest - Madison	Dane	S-13-0352				
Southwest - Madison	Dodge	S-14-0019				
Southwest - Madison	Dodge	S-14-0020				
Southwest - Madison	Jefferson	S-28-0034				
Southwest - Madison	Lafayette	S-33-0001				
Southwest - Madison	Lafayette	S-33-0002				
Southwest - Madison	Rock	S-53-0012		2	1	1
Southwest - Madison	Rock	S-53-0014	1	2	1	1
Southwest - Madison	Rock	S-53-0022				2
Southwest - Madison	Rock	S-53-0033				1
Southwest - Madison	Rock	S-53-0034				1
		TOTAL	**1**	**5**	**2**	**11**

Standard Detail Drawing List

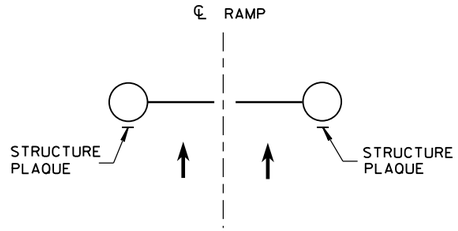
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D03-04	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-03	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D32-04	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D37-02	TRAFFIC CONTROL, 2-LANE ROUNDABOUT

6

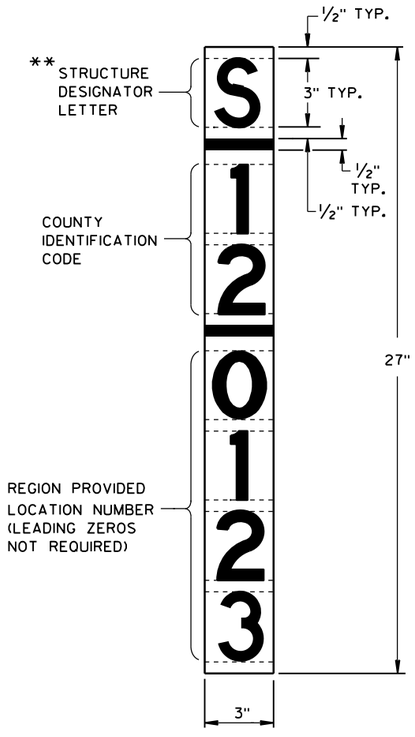


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

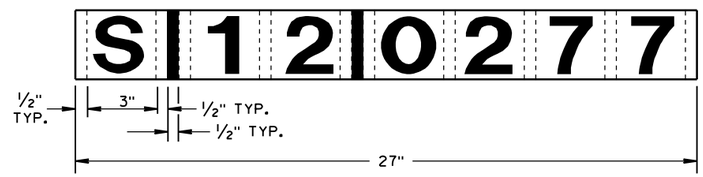
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

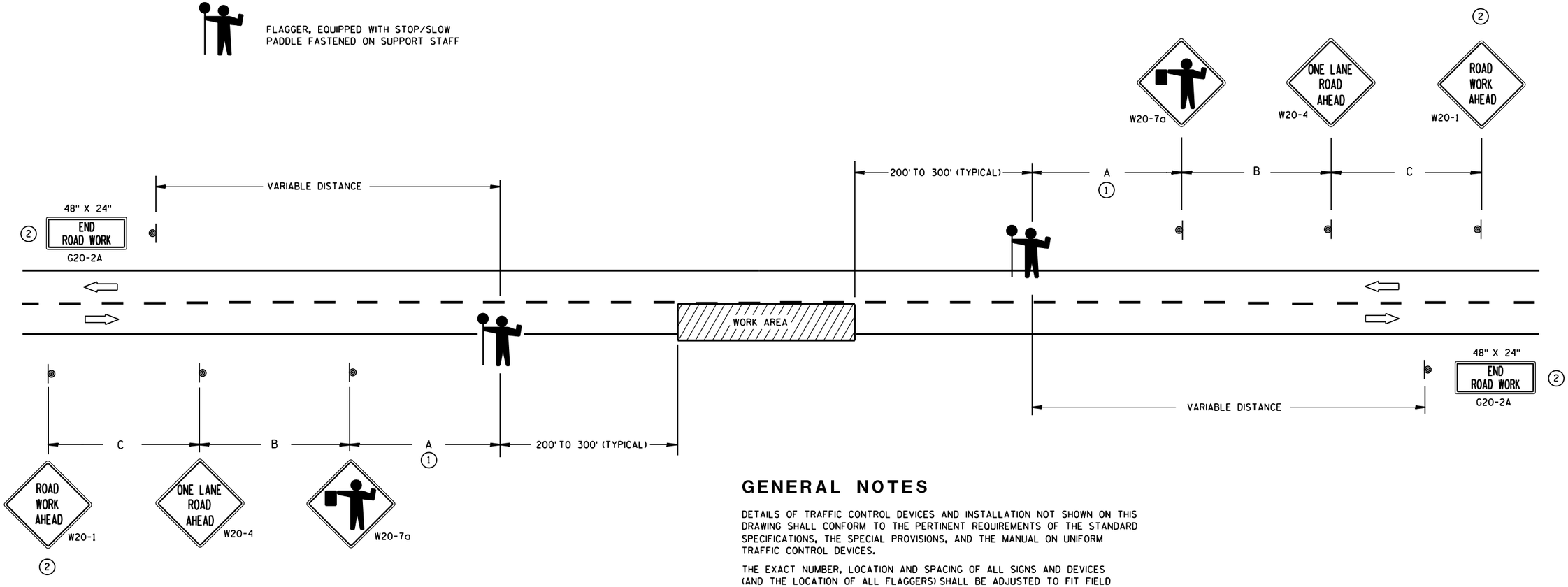
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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.

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
DESIGN
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).

OR

LOCATED 2600 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.

OR

R2-1
48"x60"
(BLACK AND WHITE)
LOCATED 500 FEET BEYOND W20-5G SIGN.

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

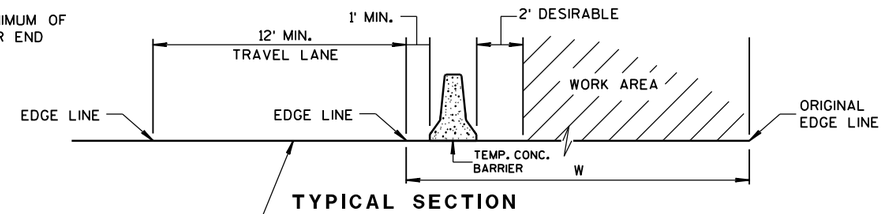
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



TYPICAL SECTION

TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN — IC
FHWA

6

S.D.D. 15 D 3-4

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

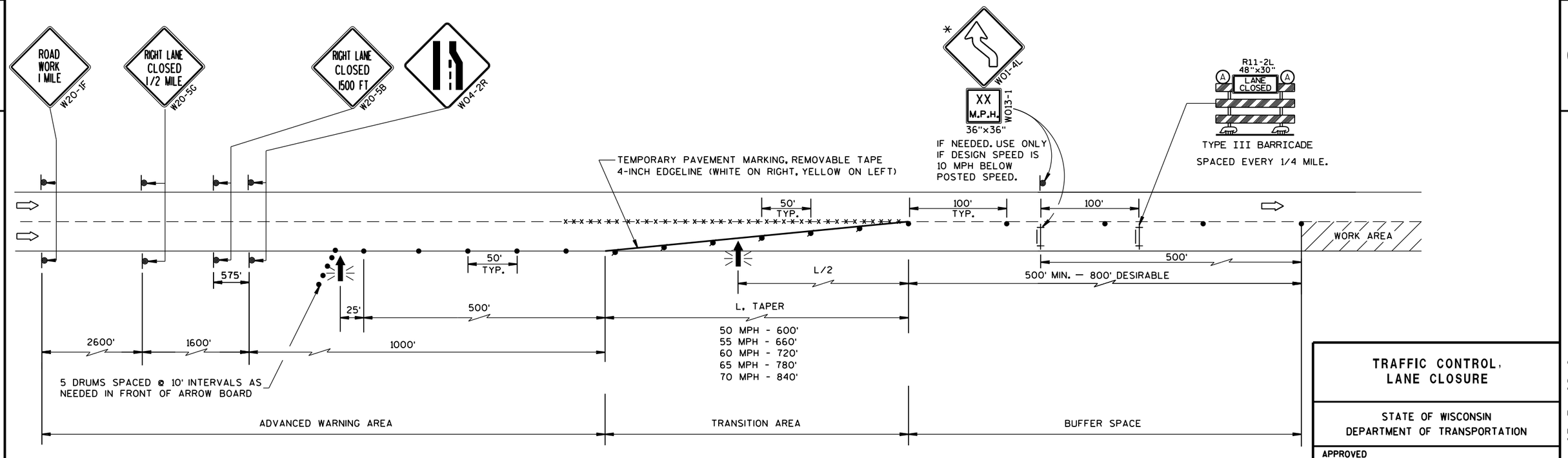
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 12-6a

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

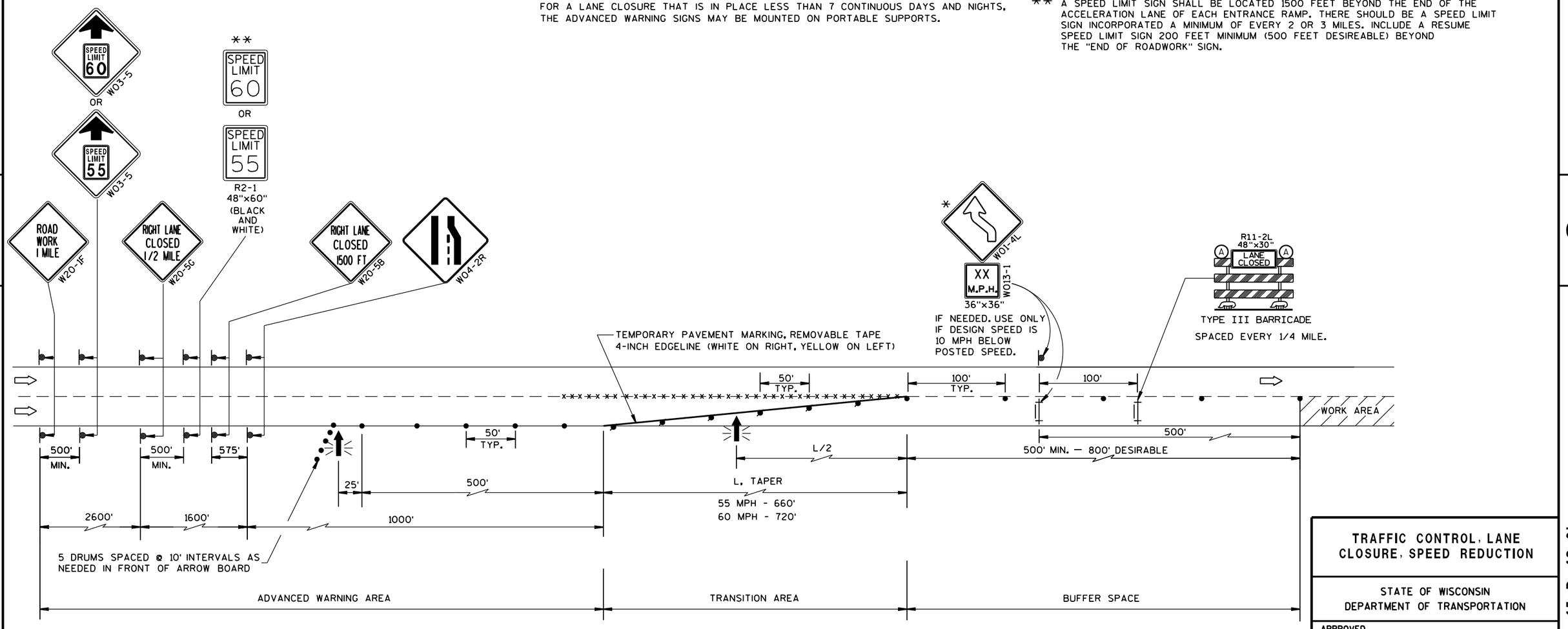
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGIN — IC
FHWA

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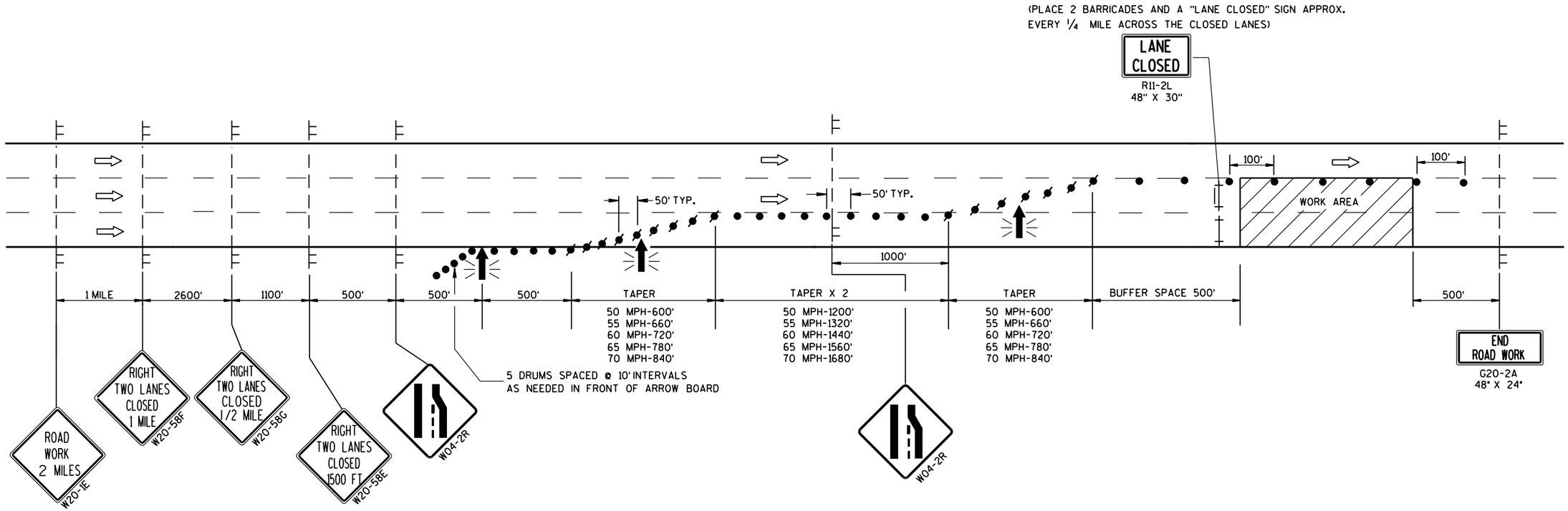
S.D.D. 15 D 12-6b



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

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

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

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

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

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.

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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

BARRICADES IN A CLOSED LANE 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.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 14, 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible]FIC SAFETY ENGR
FHWA

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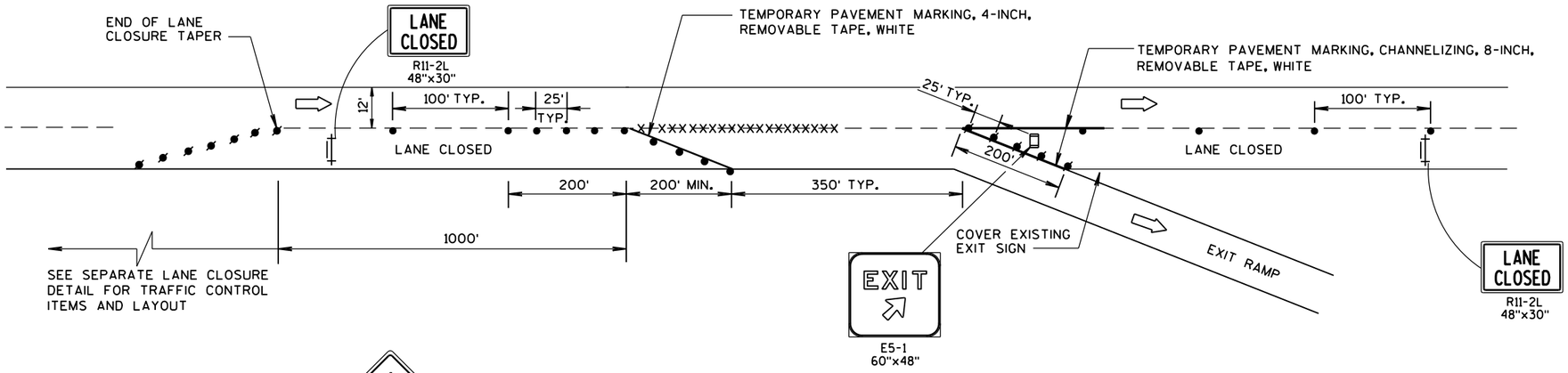
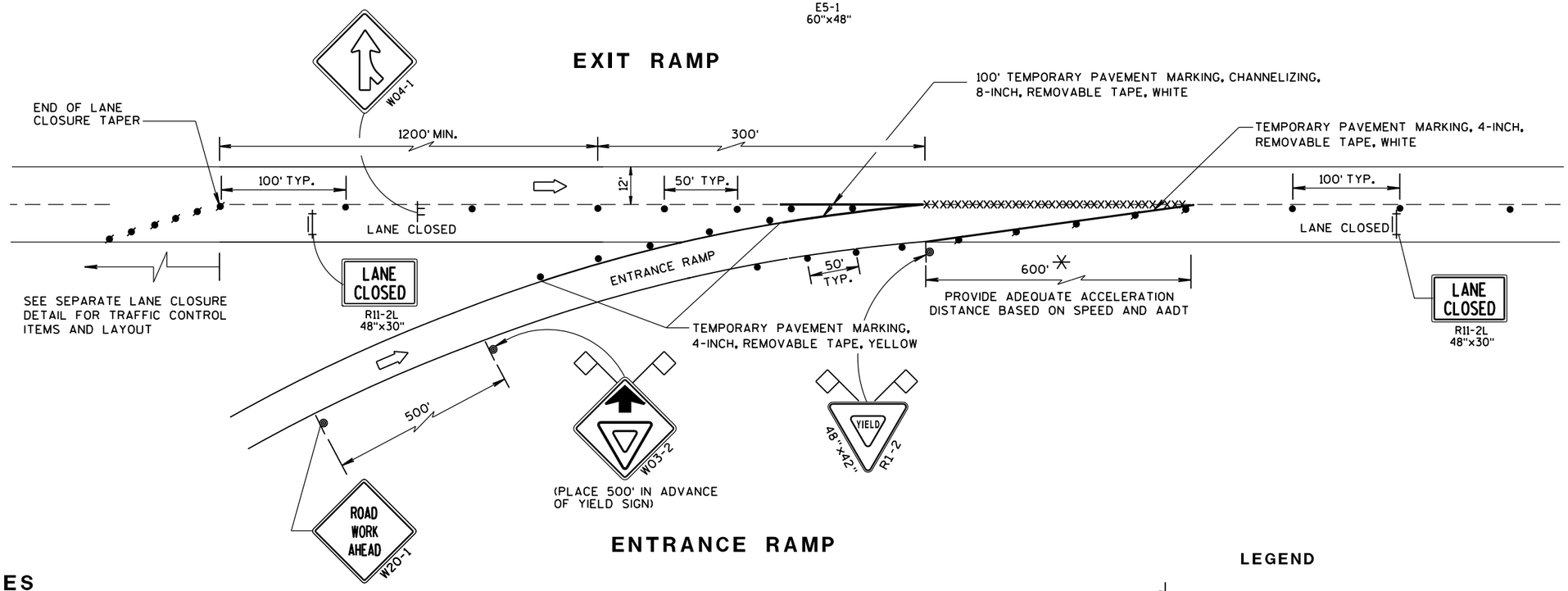
S.D.D. 15 D 14-3



EXIT RAMP



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

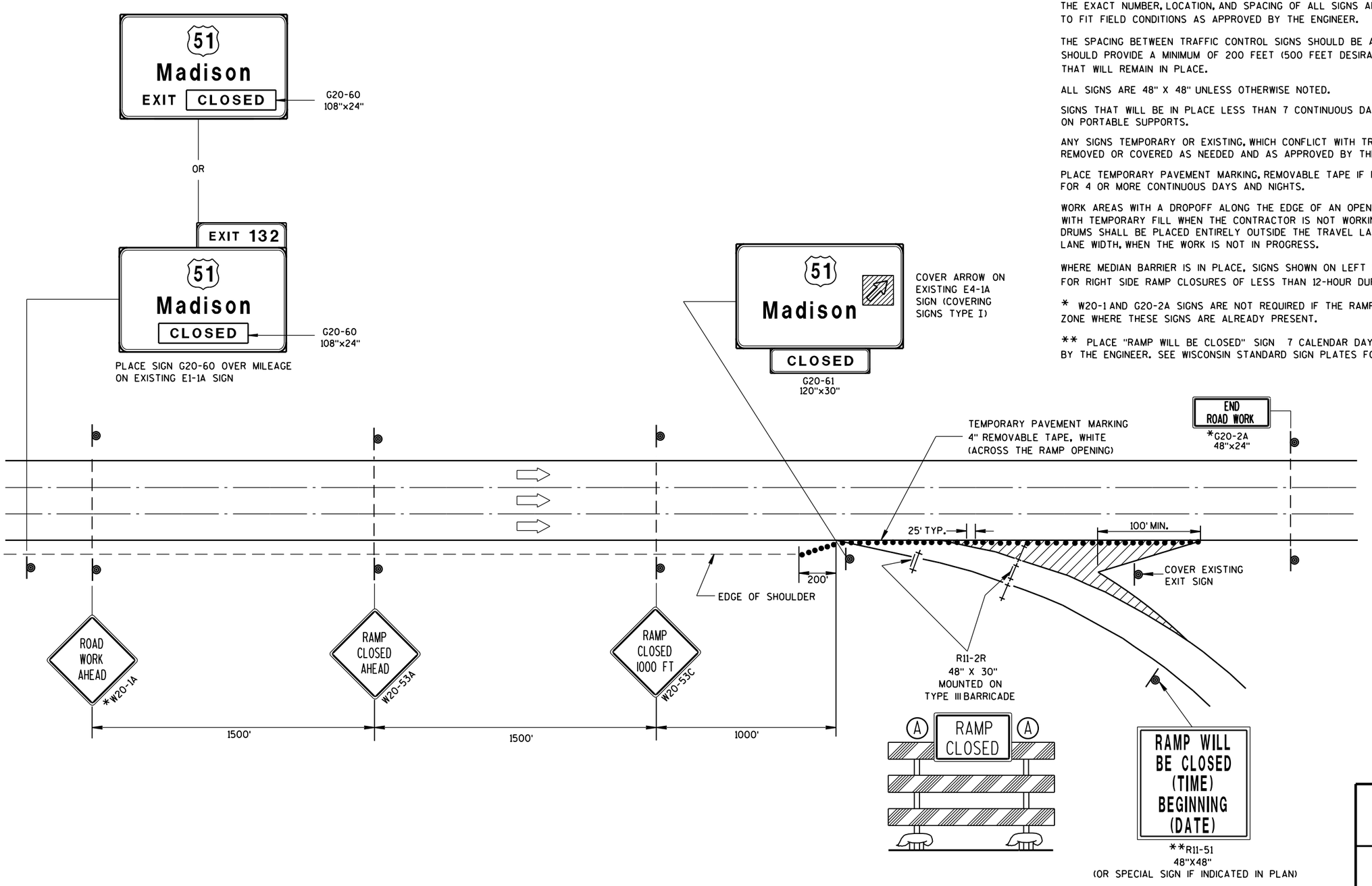
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6
S.D.D. 15 D 15-2



GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC
FHWA

6

S.D.D. 15 D 16-3

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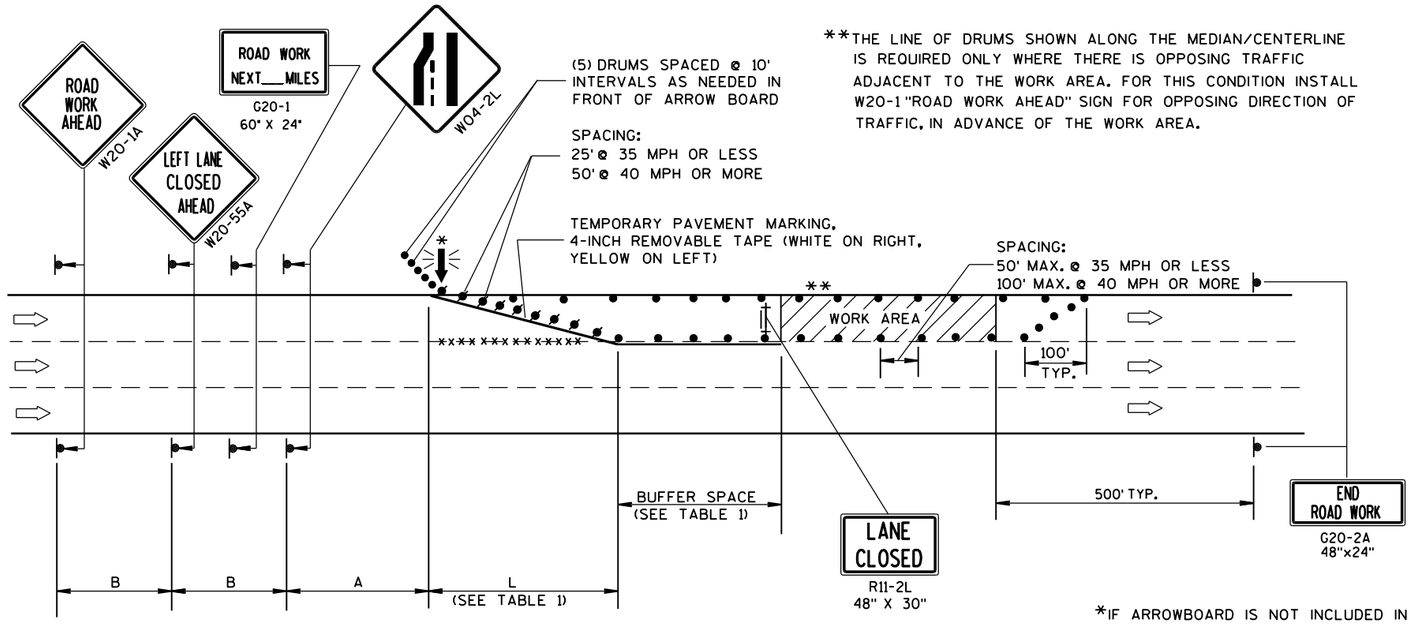
S.D.D. 15 D 16-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

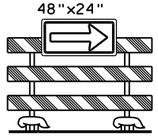


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
IC
FHWA

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S.D.D. 15 D 20-4

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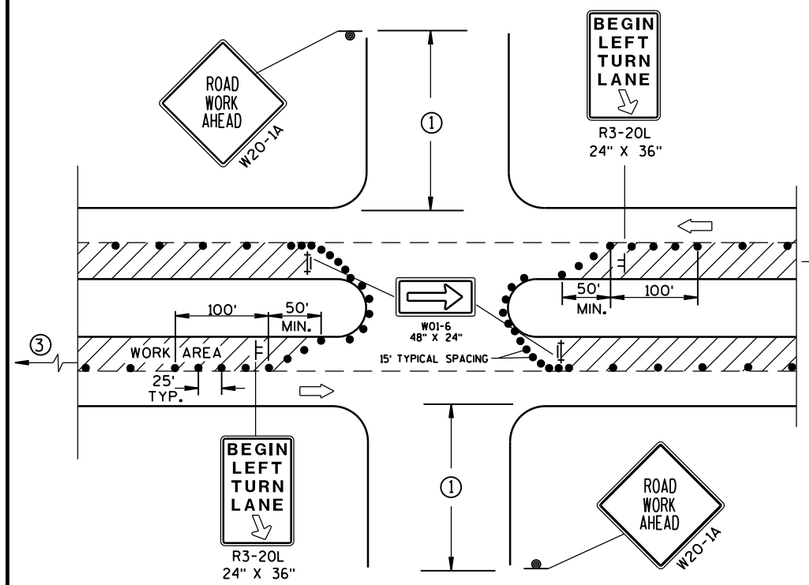
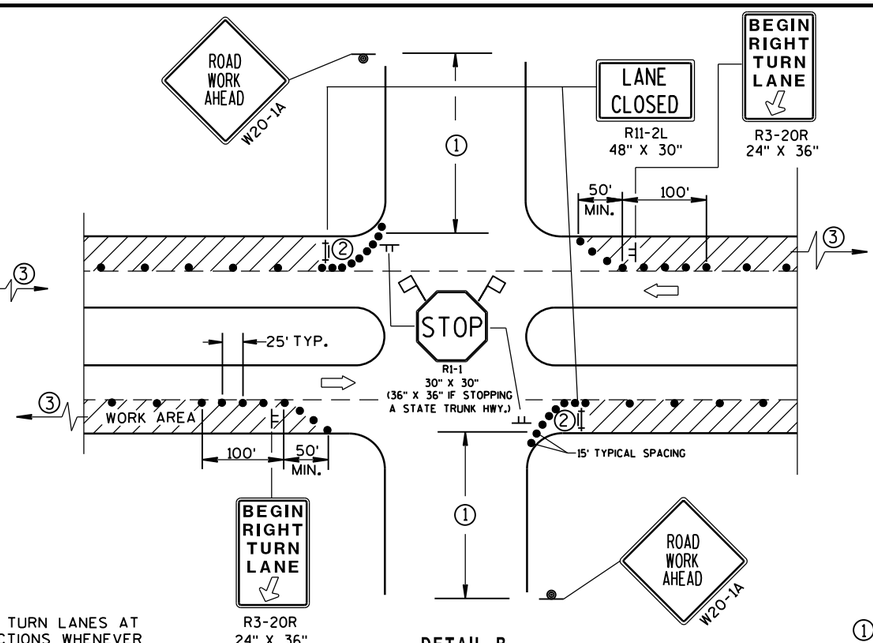


DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

THE SPACING BETWEEN 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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

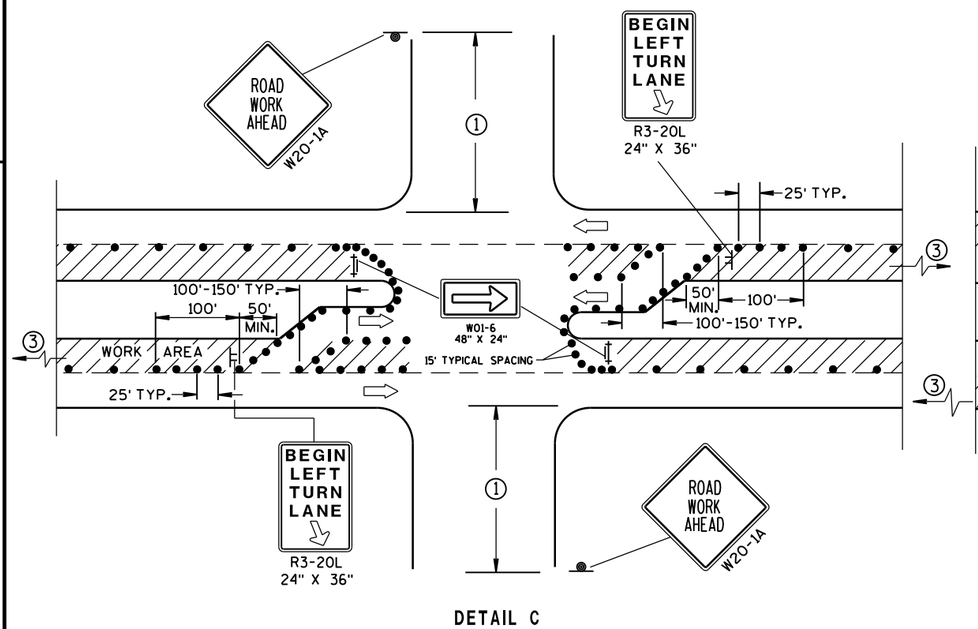
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE 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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

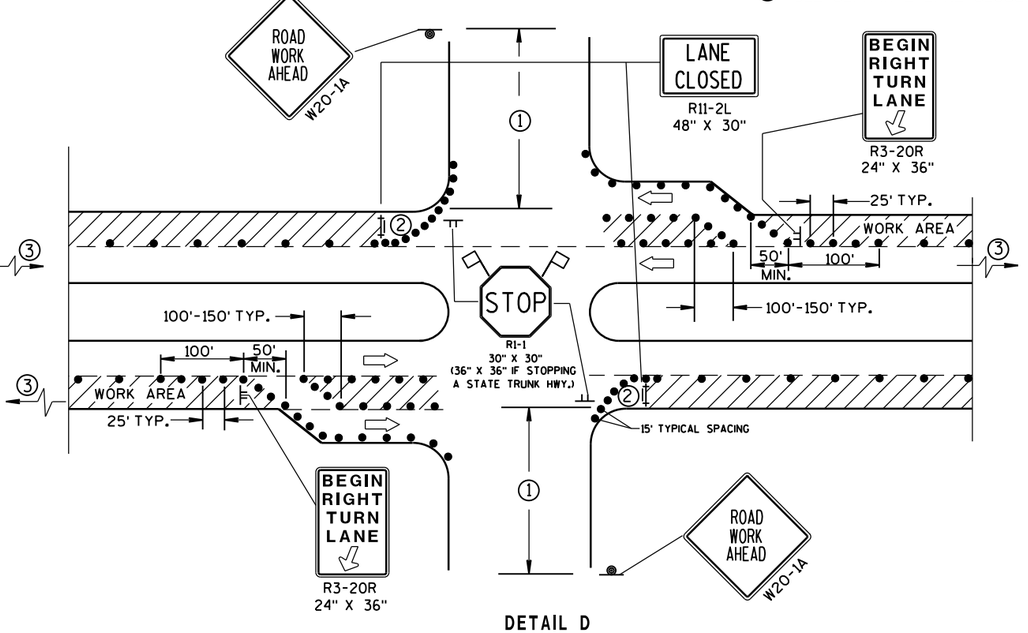
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Anakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

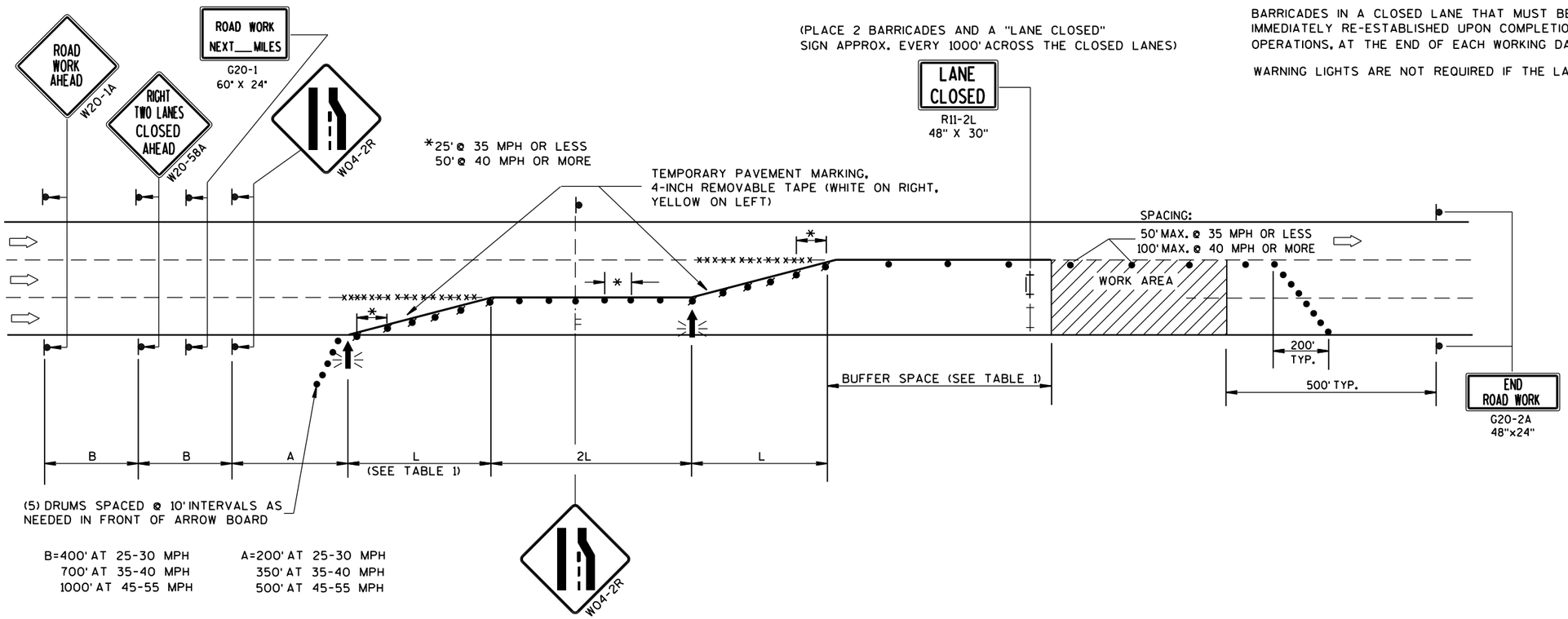
TRAFFIC CONTROL DRUM

FLASHING ARROW BOARD

DIRECTION OF TRAFFIC

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

WORK AREA



B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

GENERAL NOTES

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

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

THE SPACING BETWEEN 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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

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

BARRICADES IN A CLOSED LANE 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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 D 22-3

LEGEND

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

GENERAL NOTES

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

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

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

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

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

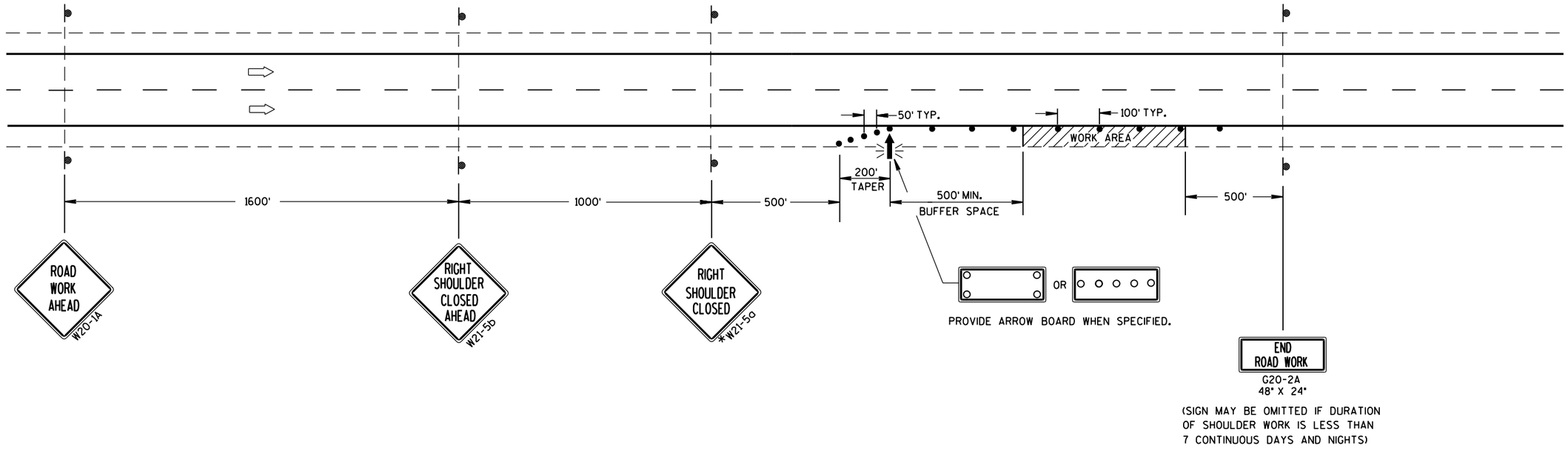
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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S.D.D. 15 D 27-3

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

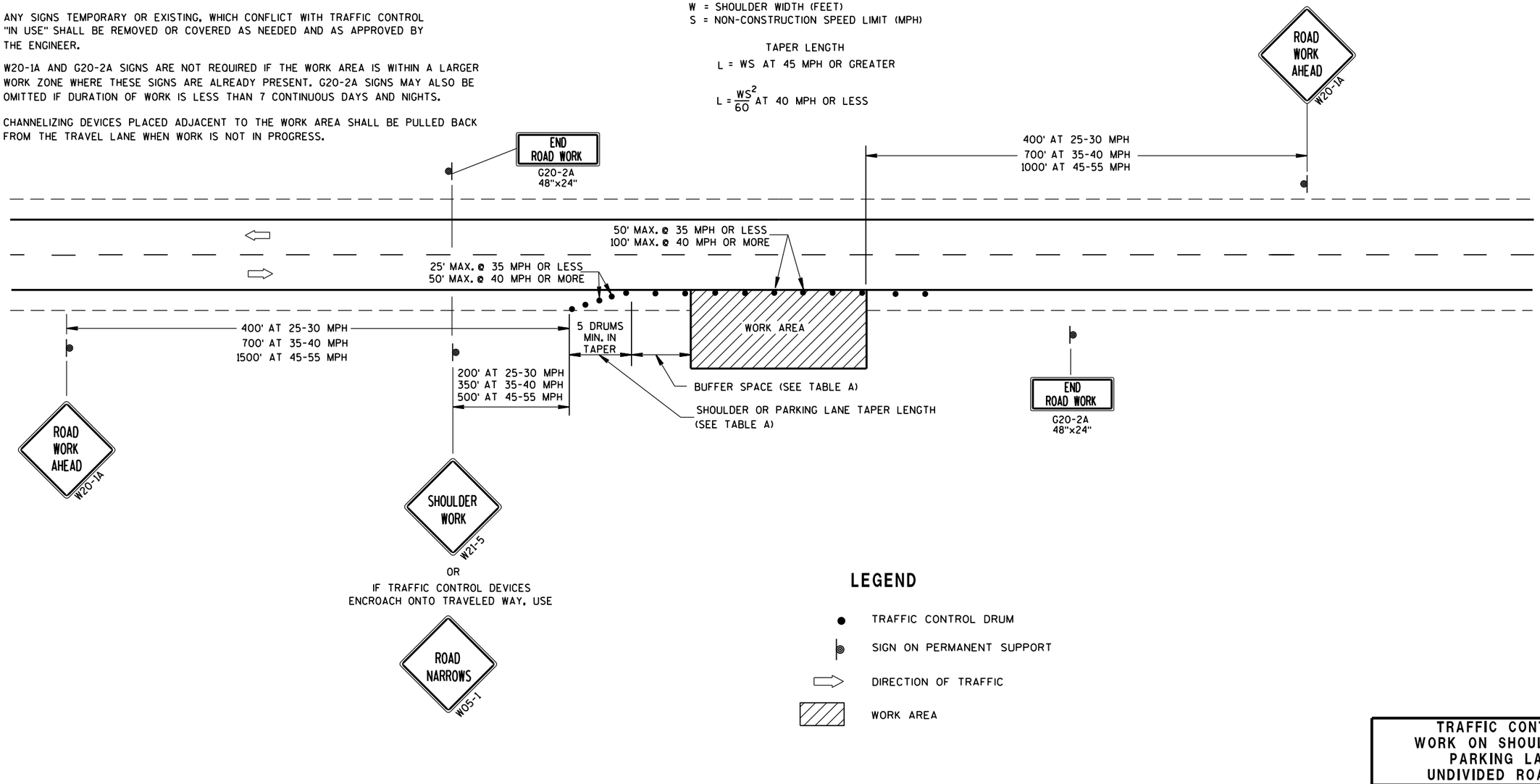
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

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S.D.D. 15 D 28-3

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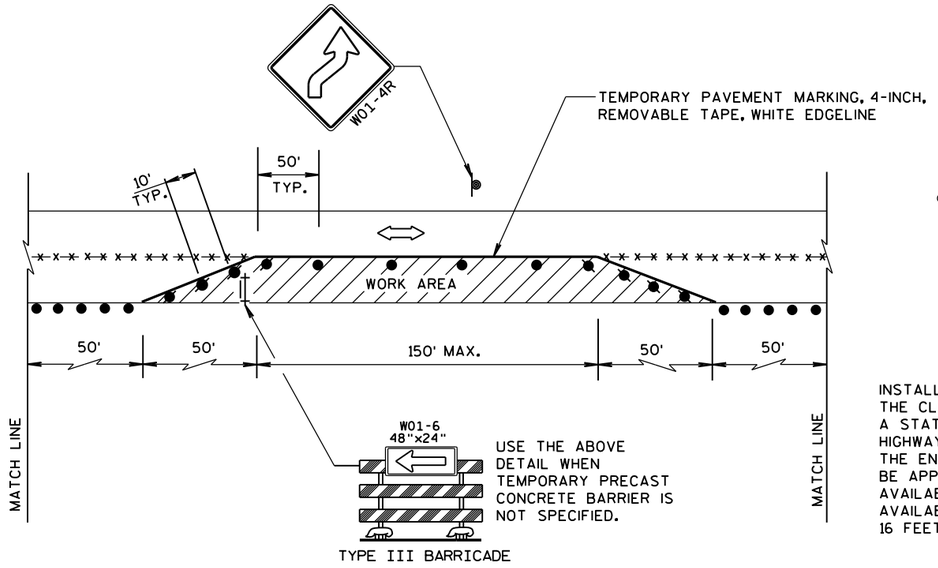
S.D.D. 15 D 28-3

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC



TYPE III BARRICADE

W057-52
36"x24"

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

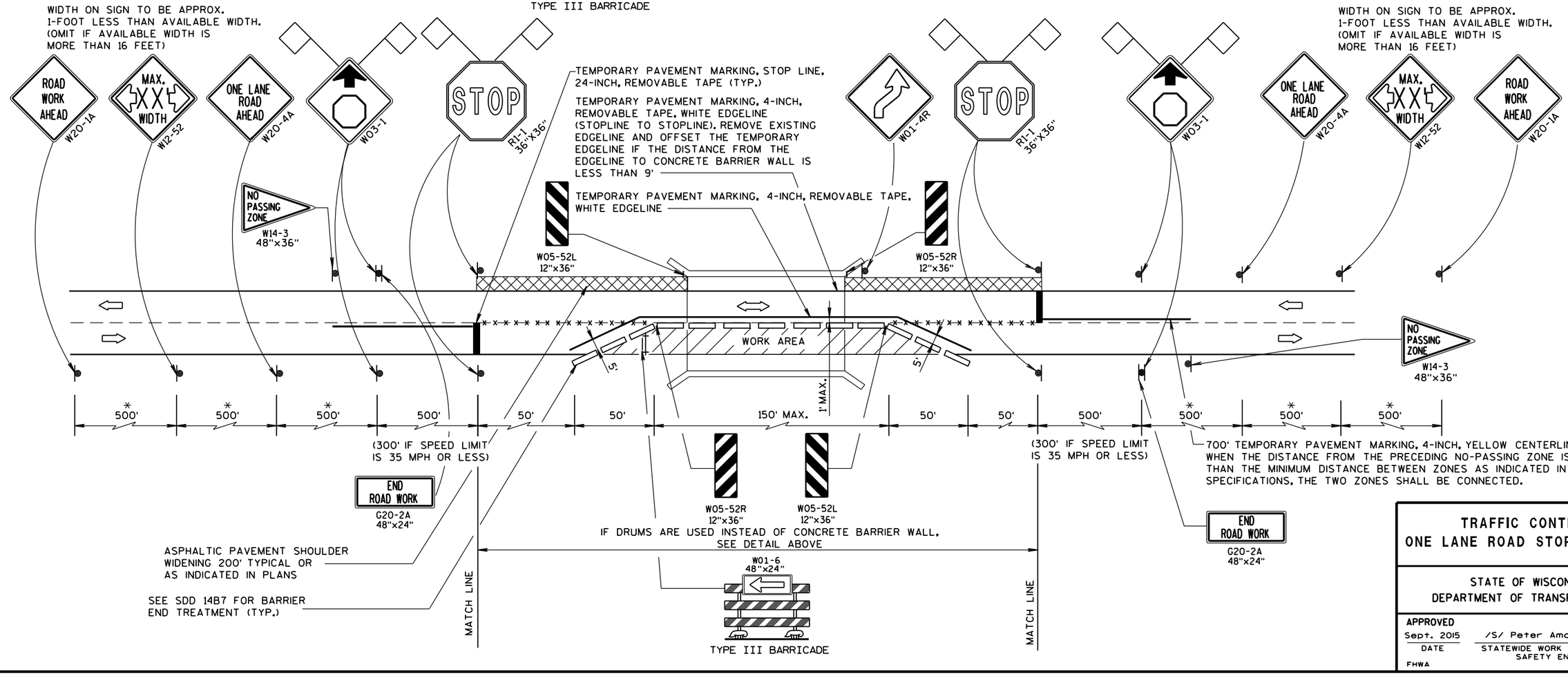
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)



TYPE III BARRICADE

TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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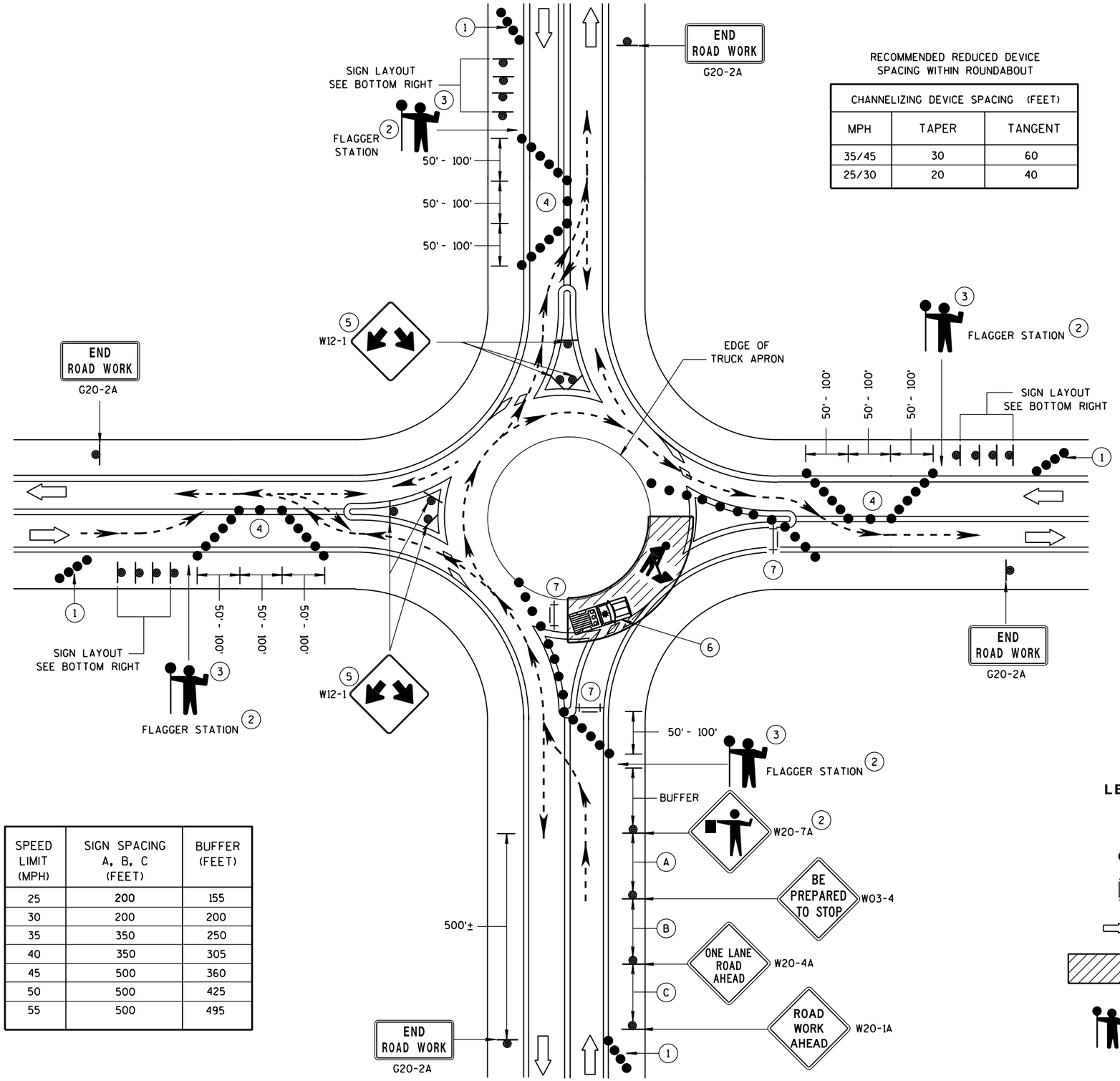

RECOMMENDED REDUCED DEVICE SPACING WITHIN ROUNDABOUT

CHANNELIZING DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

SPEED LIMIT (MPH)	SIGN SPACING A, B, C (FEET)	BUFFER (FEET)
25	200	155
30	200	200
35	350	250
40	350	305
45	500	360
50	500	425
55	500	495

GENERAL NOTES

ALL SIGNS ARE 48"x48" BLACK ON ORANGE UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48"X48" SIGNS IF APPROVED BY THE ENGINEER.

REMOVE OR COVER CONFLICTING SIGNS.

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

ONLY ONE QUADRANT OF TRAFFIC SHALL BE RELEASED AT A TIME.

FLAGGERS SHALL CONTROL TRAFFIC ON ALL APPROACHES OF THE ONE-LANE ROUNDABOUT. ONE FLAGGER SHALL BE DESIGNATED LEAD FLAGGER.

RADIO COMMUNICATION SHALL BE USED BY ALL FLAGGERS.

NIGHT TIME WORK REQUIRES ADDITIONAL LIGHTING AT FLAGGER STATION(S).

(1) PLACE A MINIMUM OF 4 DRUMS ON THE SHOULDER IN ADVANCE OF THE PCMS IN A TAPER FOR DELINEATION ON ALL APPROACHES TO THE ROUNDABOUT.

(2) ESTABLISH THE LIMITS OF THE WORK ZONE TO ENSURE THE MAXIMUM POSSIBLE SIGHT DISTANCE TO THE FLAGGER STATION.

(3) FLAGGERS SHALL BE IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

(4) ADJUST CHANNELIZING DEVICES TO ACCOMMODATE FOR TURNING RADIUS OF LARGE VEHICLES AS DIRECTED BY THE ENGINEER.

(5) GUIDE SIGN WITH ROAD NAMES MAY BE USED IN LIEU OF THE DOUBLE ARROW (W12-1) SIGN.

(6) BUFFER VEHICLE RECOMMENDED TO SHEILD WORK AREA.

(7) TYPE III BARRICADES WITH ROAD CLOSED SIGN.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

TRAFFIC CONTROL, 2-LANE ROUNDABOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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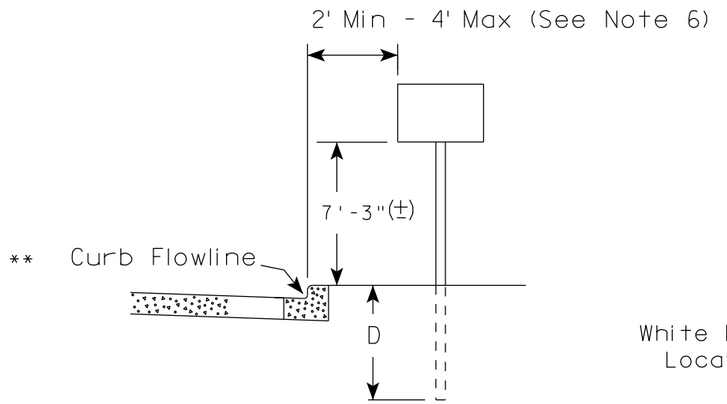
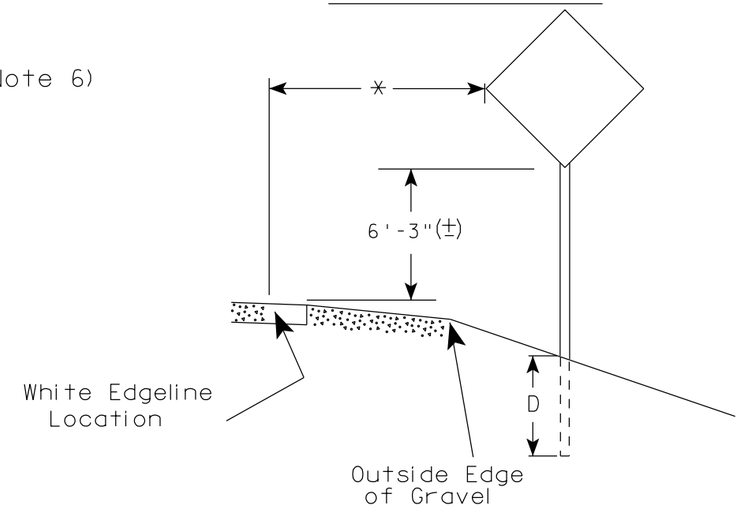
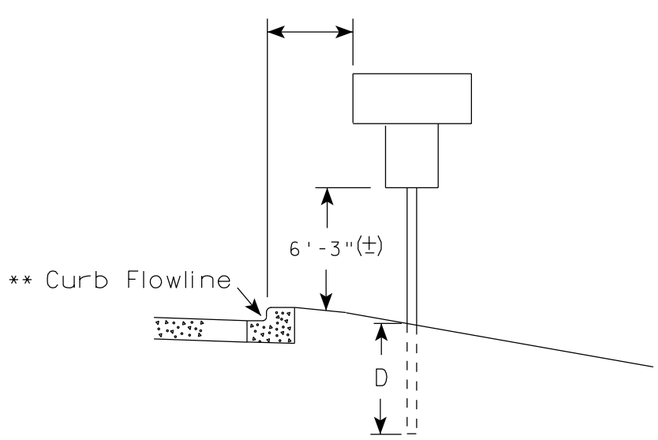
S.D.D. 15 D 37-2

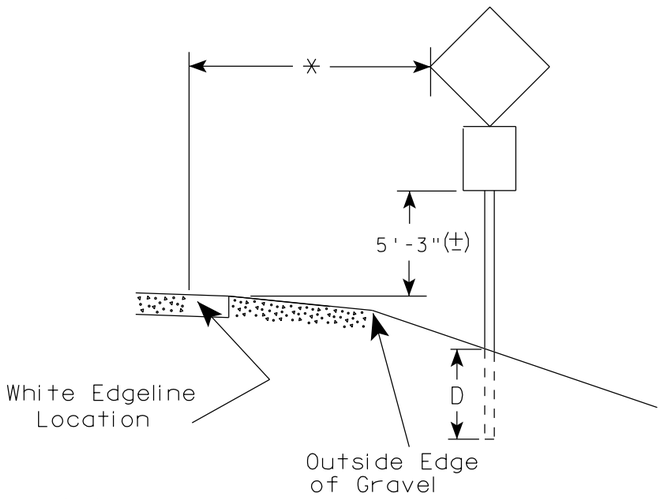
URBAN AREA



RURAL AREA (See Note 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. Offset of signs is measured from the flow line.

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. 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), 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" (±).

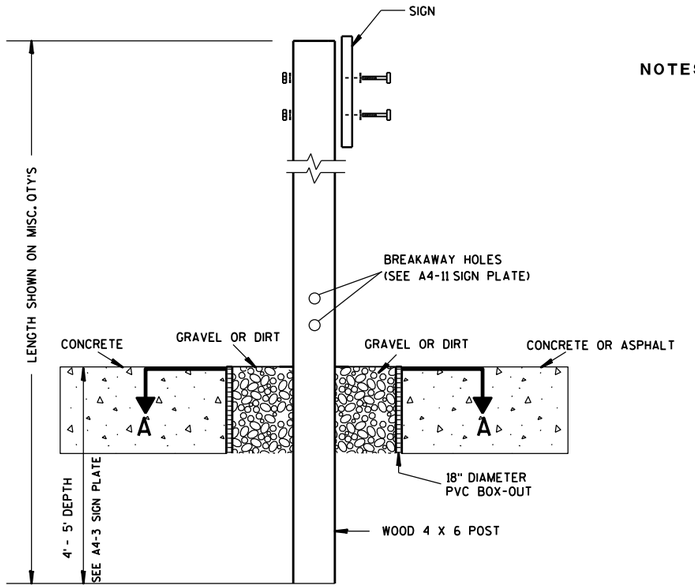
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

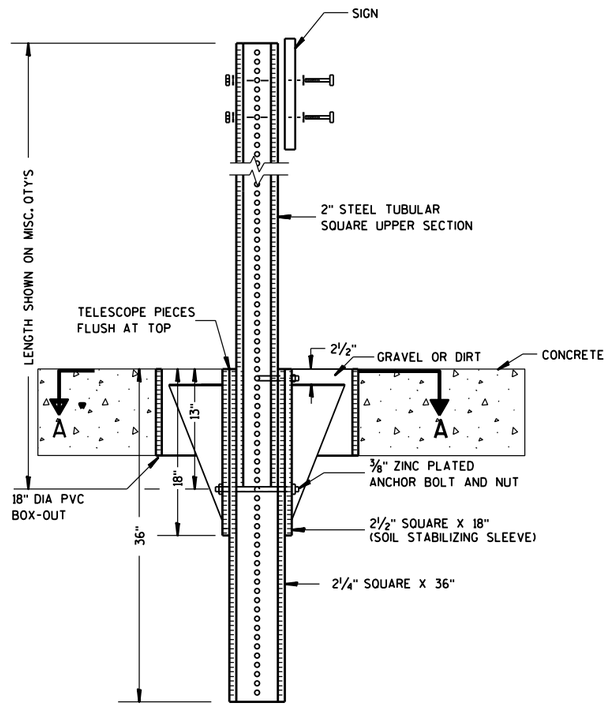
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

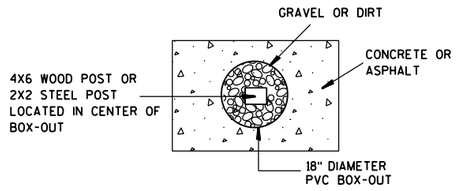
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

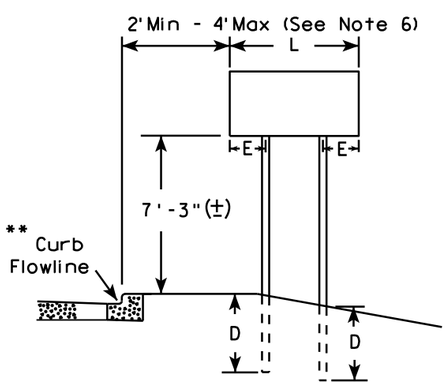
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

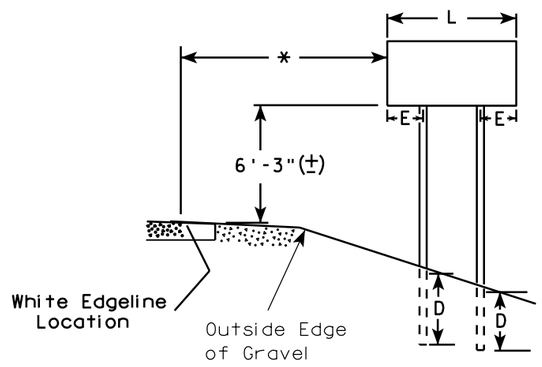
DATE 1/27/14 PLATE NO. A4-3B.1

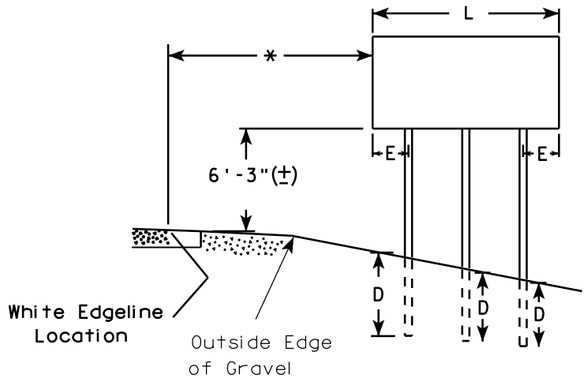
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

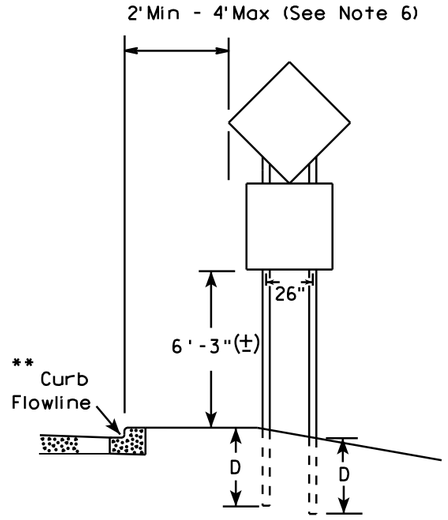
URBAN AREA



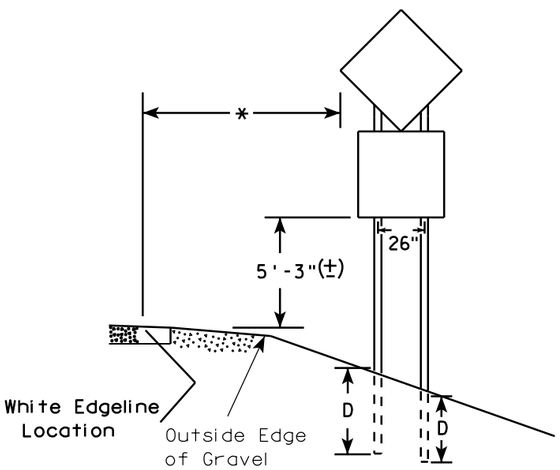
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

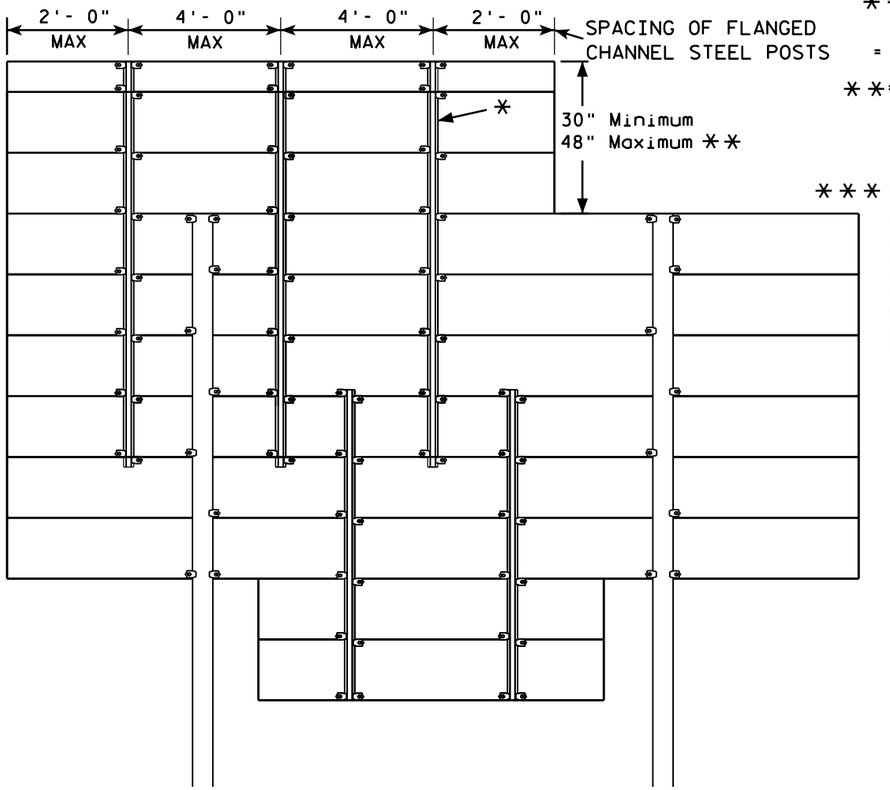
29

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

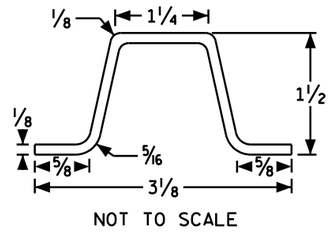


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

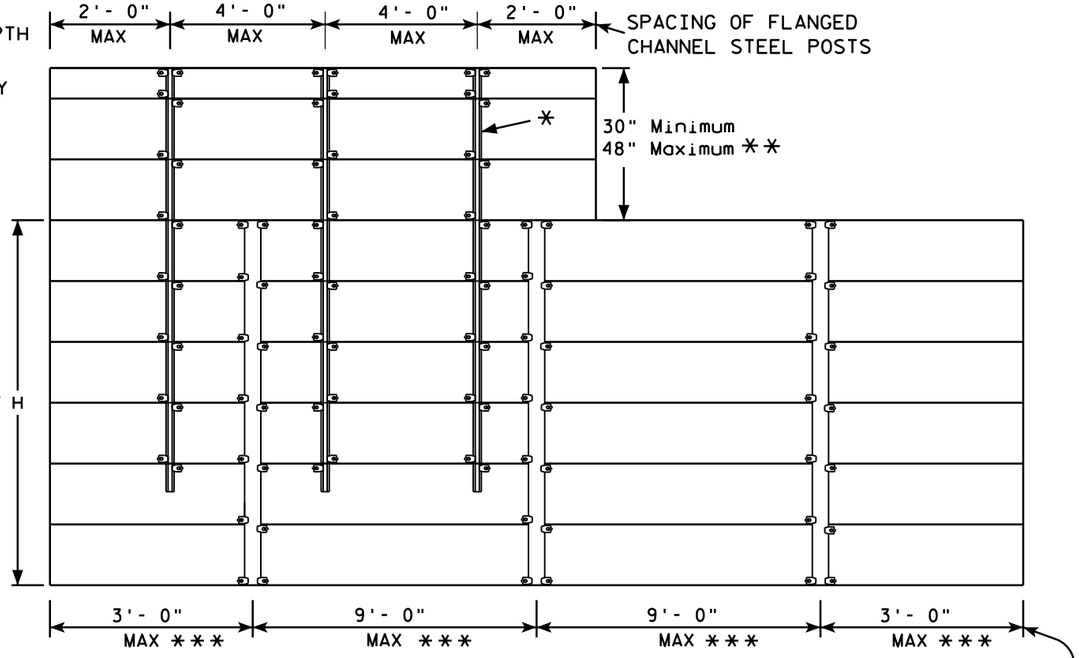
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

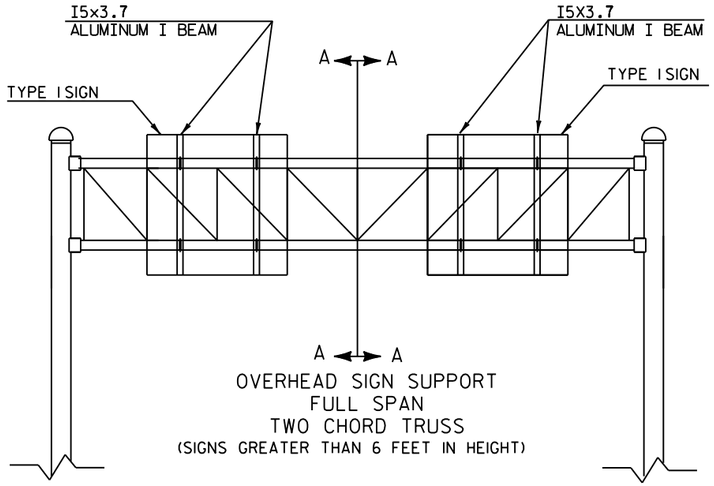
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

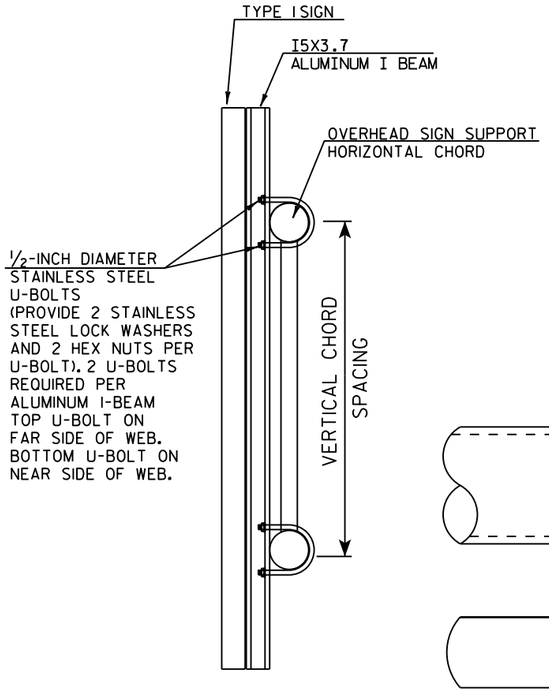
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 30 A4-6.12

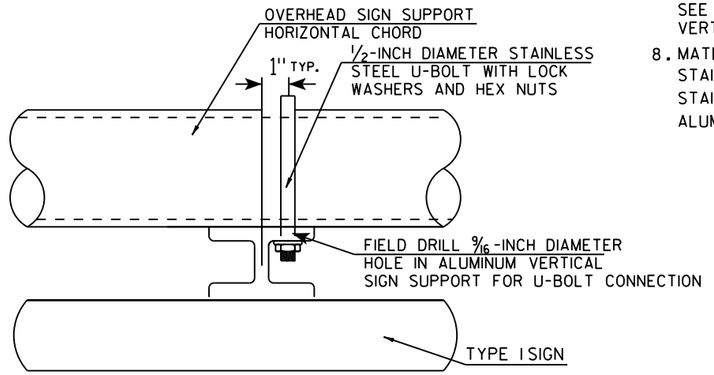
PROJECT NO: | SHEET NO: E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



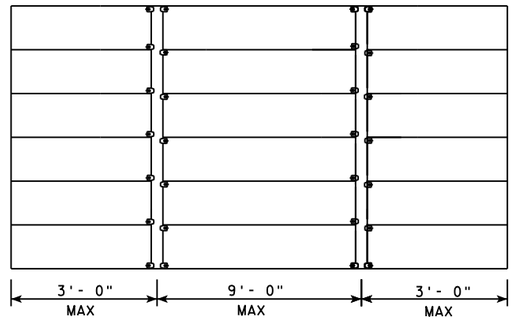
CUT SECTION A-A



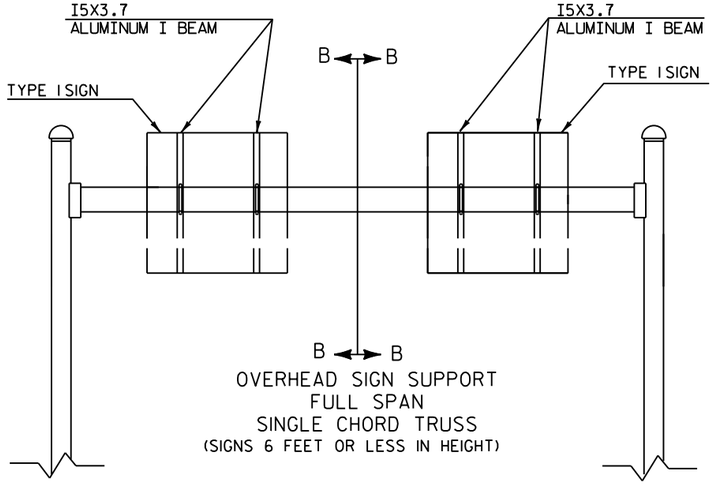
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

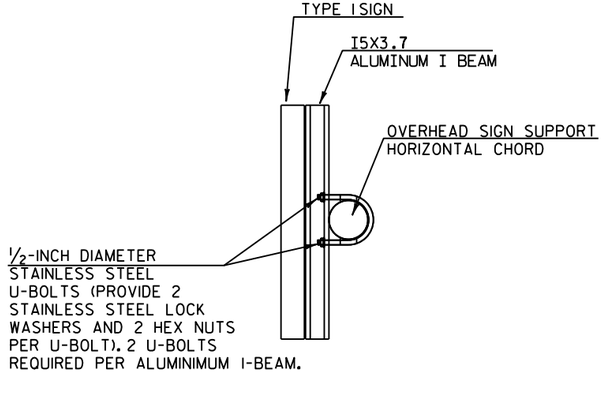
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



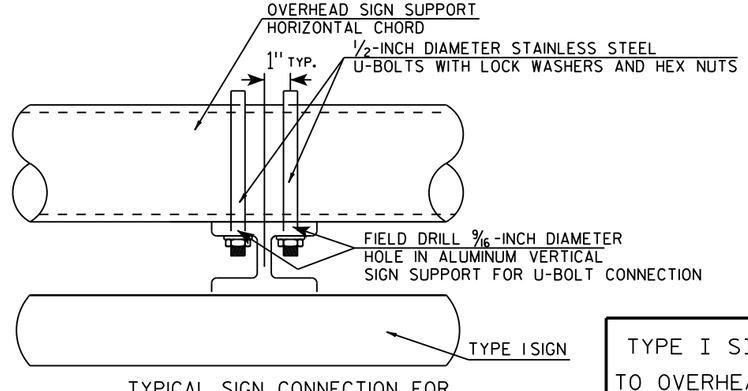
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

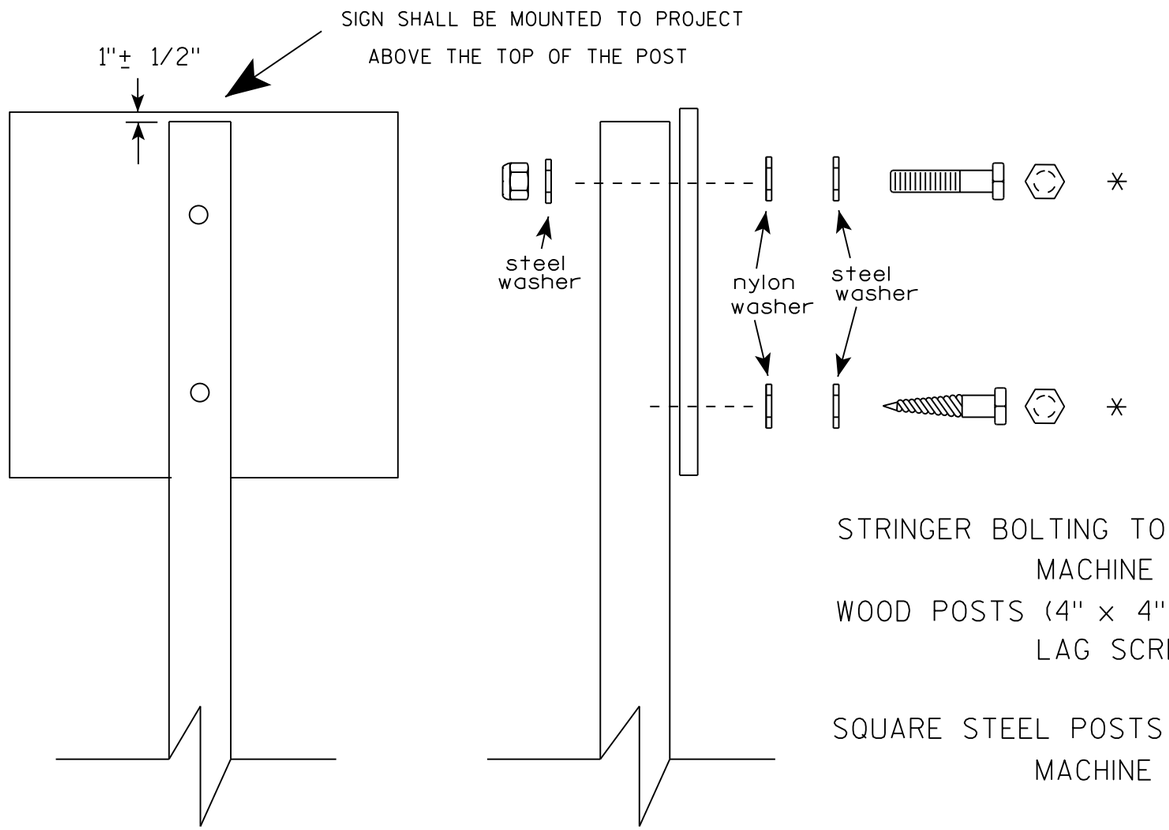
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000



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 - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 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 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 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

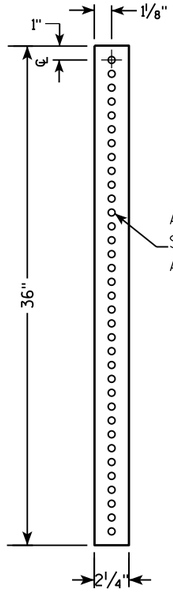
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

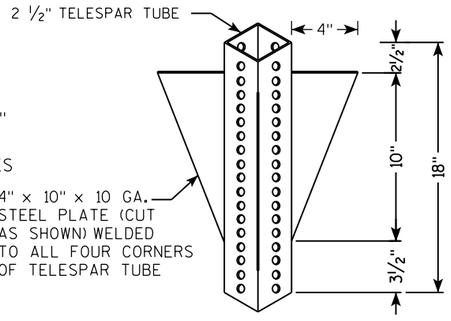
PROJECT NO: SHEET NO: E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

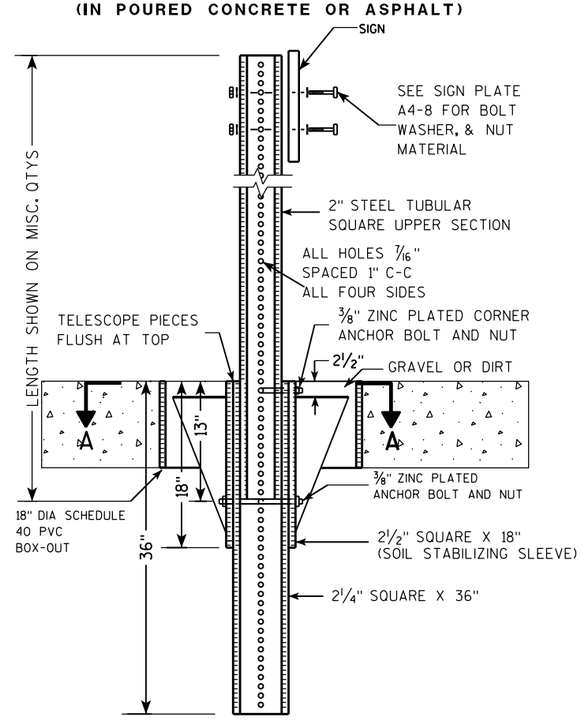
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



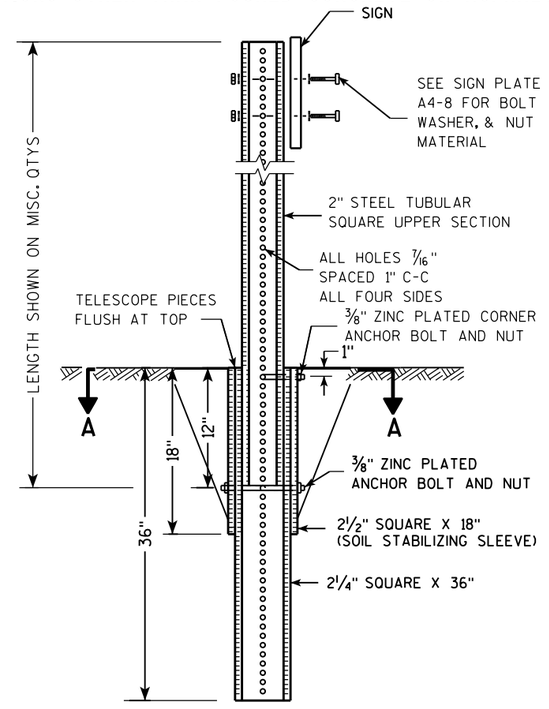
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

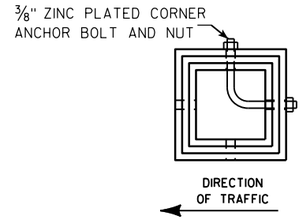


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

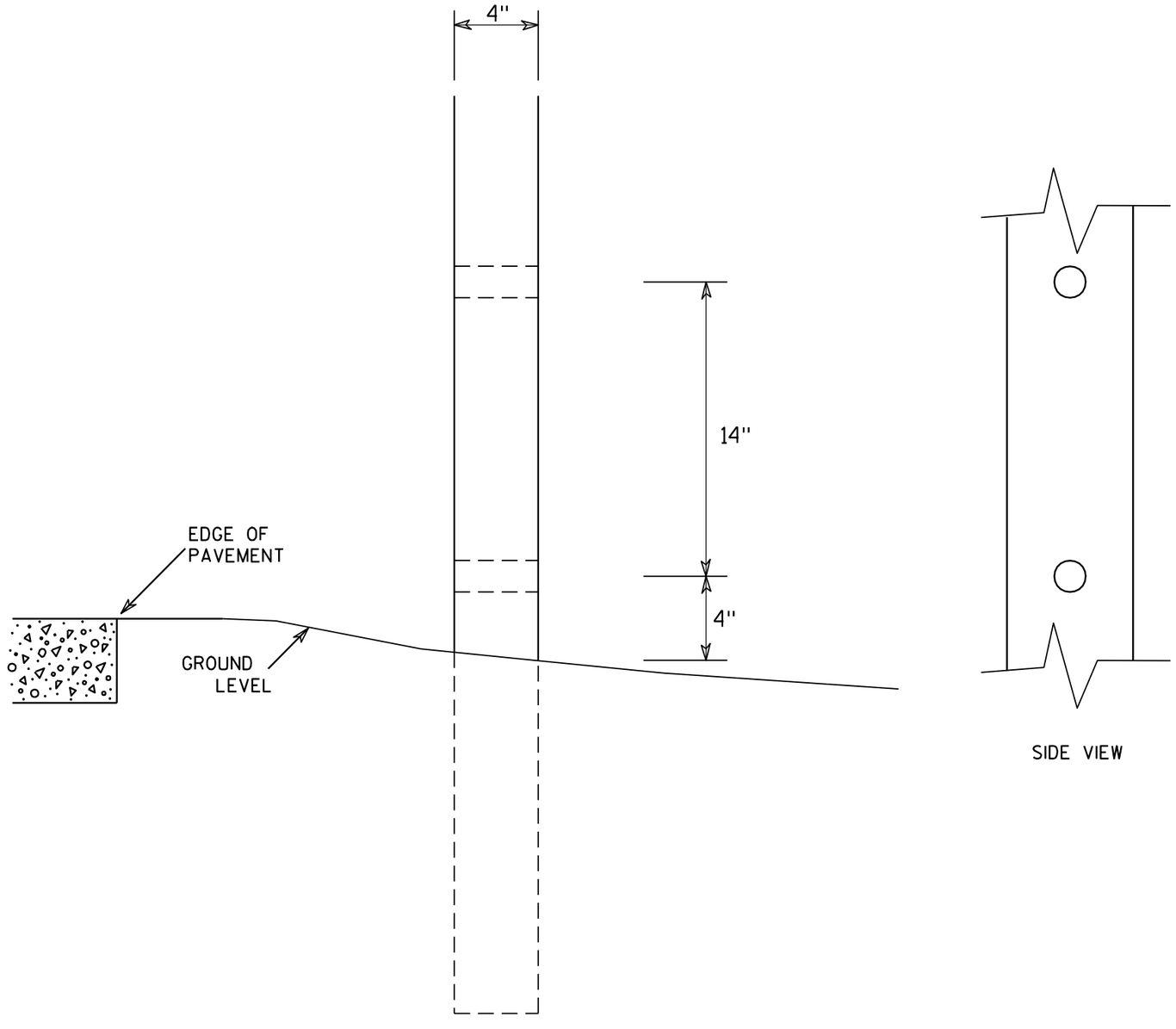
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

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

7

4 X 6 WOOD POST MODIFICATIONS

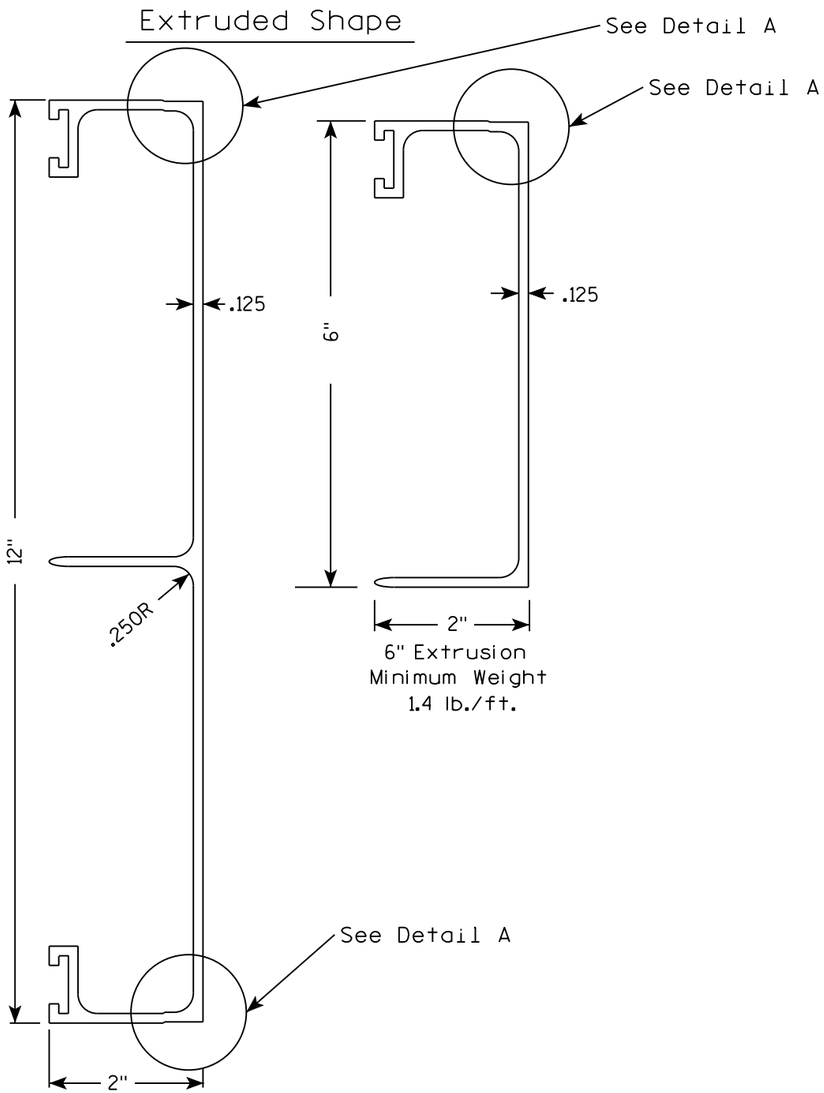
WISCONSIN DEPT OF TRANSPORTATION

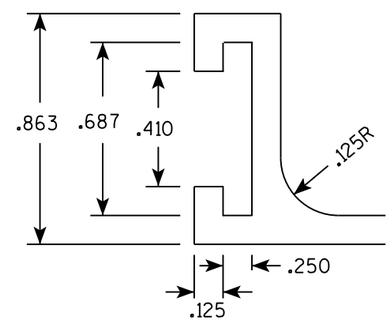
APPROVED Chester J Spang for State Traffic Engineer

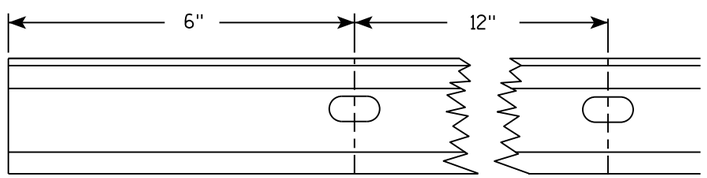
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 34	E

Extruded Shape







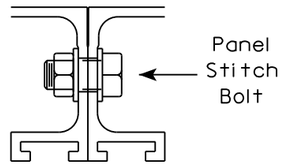
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

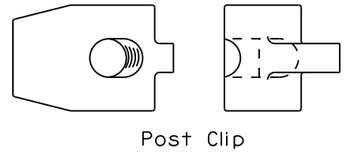
The hardware includes:

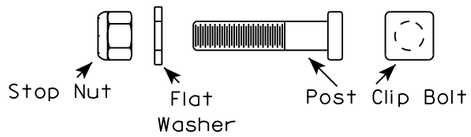
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

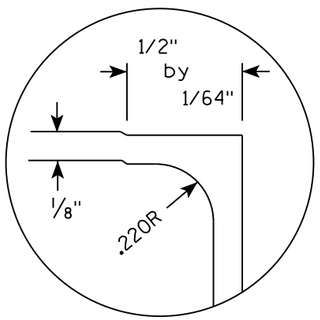
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

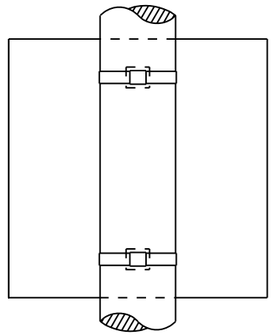
APPROVED Matthew R Rauch
for State Traffic Engineer

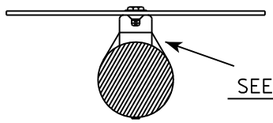
DATE 11/30/16 PLATE NO. A5-2.10

PROJECT NO:				SHEET NO: 35	E

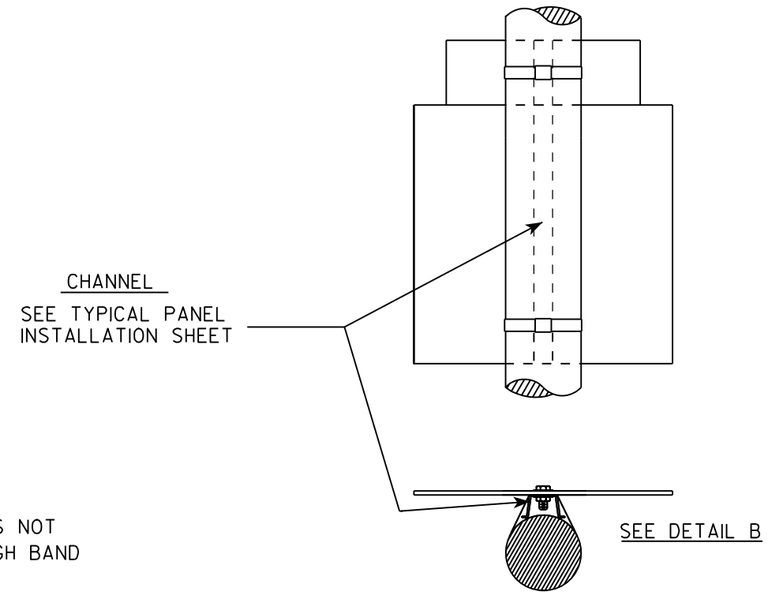
BANDING

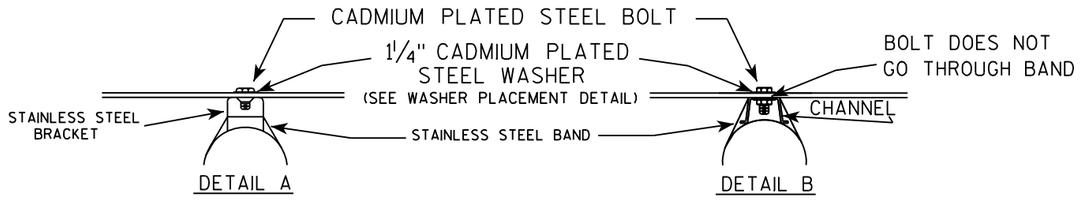
SINGLE SIGN



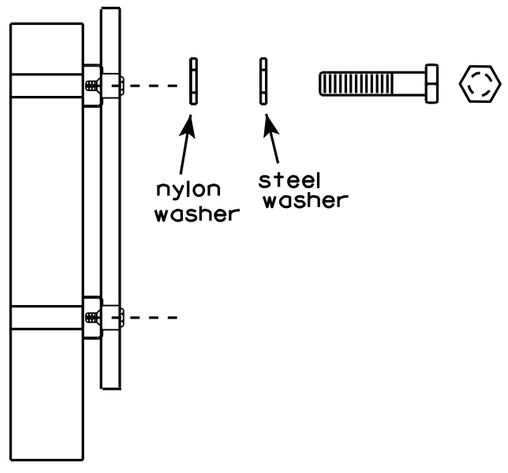


"J" ASSEMBLY





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 ¾" in width and 0.025" thickness.

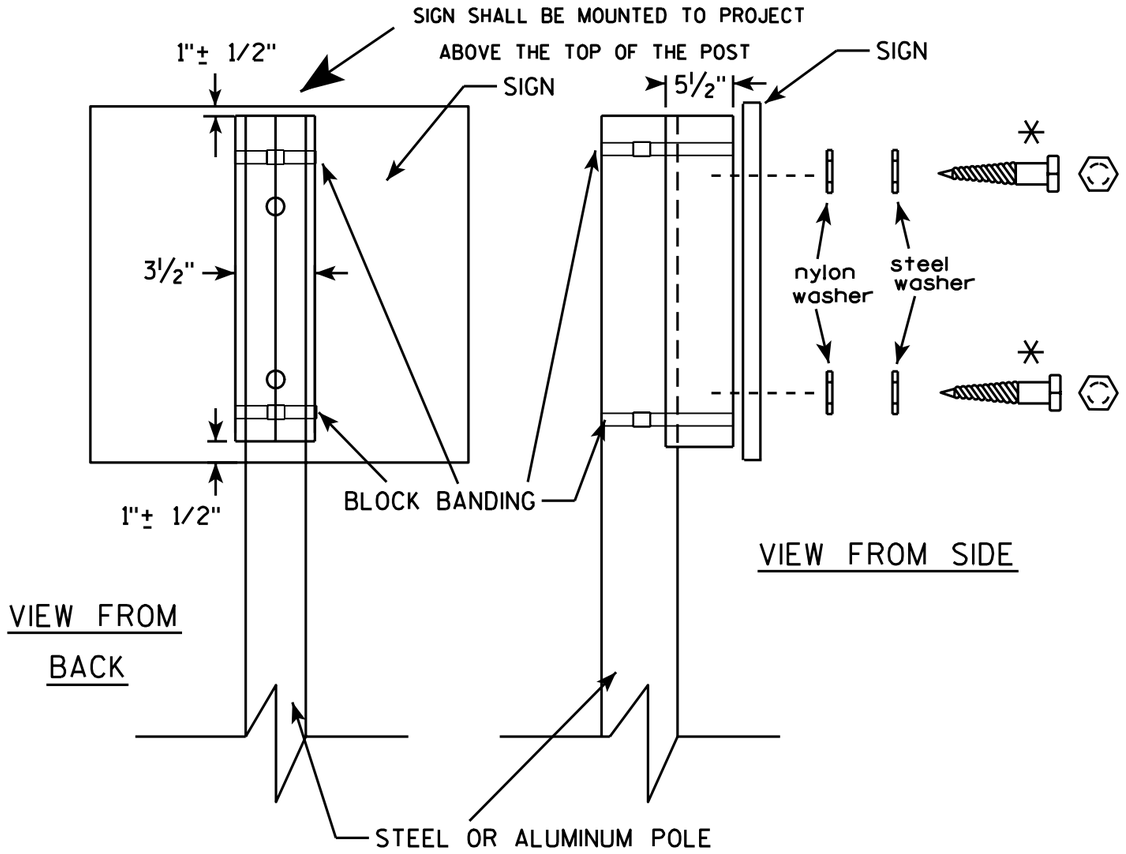
STANDARD SIGN
SIGN BANDING DETAILS

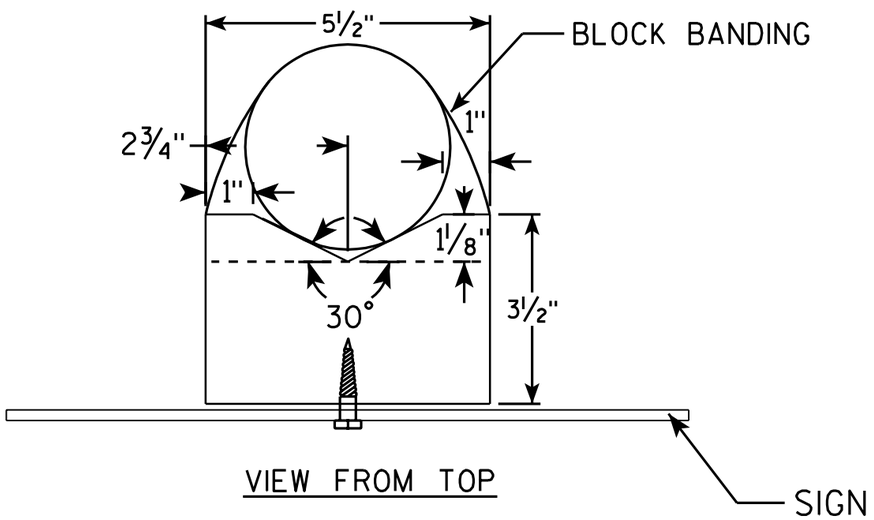
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 36	E





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, ¾" 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 NORNALLY 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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 37 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

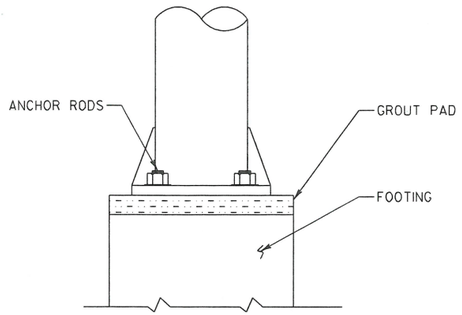
LIST OF REPAIR DRAWINGS

1. FOUNDATION DETAILS
2. TRUSS DETAILS (1 OF 2)
3. TRUSS DETAILS (2 OF 2)
4. SIGN PANEL DETAILS
5. CATWALK DETAILS/ELECTRICAL DETAILS
6. S-13-0193
7. S-13-0209
8. S-13-0290
9. S-13-0292
10. S-13-0293
11. S-13-0294
12. S-13-0295
13. S-13-0312
14. S-13-0313
15. S-13-0315
16. S-13-0352
17. S-14-0019
18. S-14-0020
19. S-28-0034
20. S-33-0001
21. S-33-0002
22. S-53-0012
23. S-53-0014
24. S-53-0022
25. S-53-0033
26. S-53-0034

TABLE OF ESTIMATED QUANTITES FOR FOUNDATIONS*

STRUCTURE NUMBER	ELEVATION VIEW SHEET NUMBER	HIGHWAY	TENSION ANCHOR ROD	REMOVE GROUT PAD
			SPV.0060.01	SPV.0060.06
			EA	EA
S-13-0292	9 OF 26	CTH N	16	
S-13-0293	10 OF 26	CTH N	16	
S-13-0294	11 OF 26	CTH N	8	
S-13-0295	12 OF 26	IH-94	16	
S-13-0312	13 OF 26	STH 138	8	
S-13-0313	14 OF 26	STH 138	16	
S-13-0315	15 OF 26	STH 138	16	
S-13-0352	16 OF 26	CTH MM	12	
S-14-0019	17 OF 26	USH 16	16	
S-14-0020	18 OF 26	USH 16	8	
S-33-0002	21 OF 26	STH 81	1	
S-53-0034	26 OF 26	IH-39	4	1
TOTAL QUANTITY*			137	1

* THE QUANTITES PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE COUNTED AS ADDITIONAL QUANTITES TO THOSE LISTED ON THE ELEVATION VIEW SHEETS.



GROUT PAD DETAIL

FOUNDATION NOTES

1. CONCRETE - fc' = 3,500 PSI
2. BAR STEEL REINF. - GRADE 60
   fy = 60,000 PSI
3. THE CONTRACOR SHALL FIELD VERIFY EXACT LOCATIONS OF ALL REPAIRS.
4. THE CONTRACTOR SHALL FIELD VERIFY DIMENSION OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.
5. APPLY ZINC-RICH PAINT TO THE ANCHOR RODS, NUTS, WASHERS, AND LEVELING NUTS IN ACCORDANCE WITH SPECIFICATIONS AFTER REMOVING THE GROUT PAD OR TENSIONING THE ANCHOR ROD. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM, "REMOVE GROUT PAD" OR "TENSION ANCHOR ROD".
6. STEEL ANCHOR BOLT NUTS AND WASHERS SHALL BE AASHTO M314 GRADE 55 fy = 55,000 PSI
7. THE TOP OF THE FOOTING SHALL BE SMOOTHED AND SLOPED TO DRAIN.
8. RODENT SCREEN ONLY REQUIRED WHEN ELECTRICAL DEVICES ARE PRESENT.

STATE PROJECT NUMBER

5105-17-62

WISCONSIN
BRIAN R. SCHMIDT
E-43306-6
SAUK CITY, WI
PROFESSIONAL ENGINEER

2/1/17

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
BRIAN SCHMIDT (608) 831-3238

NO.	DATE	REVISION	BY

Fish & Associates Inc.
Partners in Structural Solutions

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/20/17
CHIEF STRUCTURES DESIGN ENGINEER DATE

SIGN BRIDGE REPAIR & REPLACE SW

REGIONWIDE VARIOUS STH HWY

COUNTY	TOWN/CITY/VILLAGE
SOUTHWEST REGION WIDE	VARIOUS

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BRS	TD	BRS	TD

FOUNDATION DETAILS

SHEET 1 OF 26

38

8

8

STATE PROJECT NUMBER
5105-17-62

TABLE OF ESTIMATED QUANTITES FOR TRUSS*

STRUCTURE NUMBER	ELEVATION VIEW SHEET NUMBER	HIGHWAY	TENSION STRUCTURAL CONNECTION BOLT	SECURE/ REPLACE POST CAP	REINSTALL TRUSS
			SPV.0060.10	SPV.0060.13	SPV.0060.18
			EA	EA	EA
S-13-0312	13 OF 26	STH 138	8	3	
S-13-0315	15 OF 26	STH 138	4		
S-28-0034	19 OF 26	STH 26			1
S-53-0014	23 OF 26	IH-43	16		
S-53-0033	25 OF 26	IH-39	4		
S-53-0034	26 OF 26	IH-39	4		
TOTAL QUANTITY*			**36**	**3**	**1**

* THE QUANTITES PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE COUNTED AS ADDITIONAL QUANTITES TO THOSE LISTED ON THE ELEVATION VIEW SHEETS.

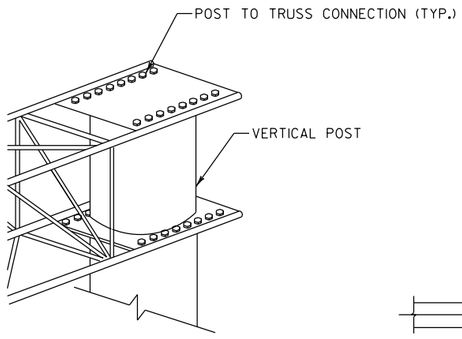
TRUSS NOTES

1. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL REPAIRS.

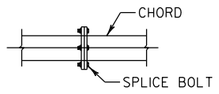
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.

3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -ANCHOR BOLT/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
   -WASHERS ASTM A240
   -ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" AND 12% FOR 3/4" DIAMETER AND SMALLER.

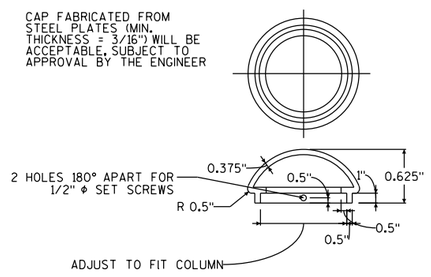
4. REPLACE MISSING BOLTS ON TOWER CAPS WITH STAINLESS STEEL BOLTS.



CANTILEVER SIGN BRIDGE
POST TO TRUSS CONNECTION DETAIL



SPLICE CONNECTION BOLT DETAIL



POST CAP DETAIL

TENSION STRUCTURAL CONNECTION BOLT REPAIR DETAIL
REPAIR CAN VARY BY LOCATION. SEE INDIVIDUAL STRUCTURE SHEET FOR DETAILS

NO.	DATE	REVISION	BY

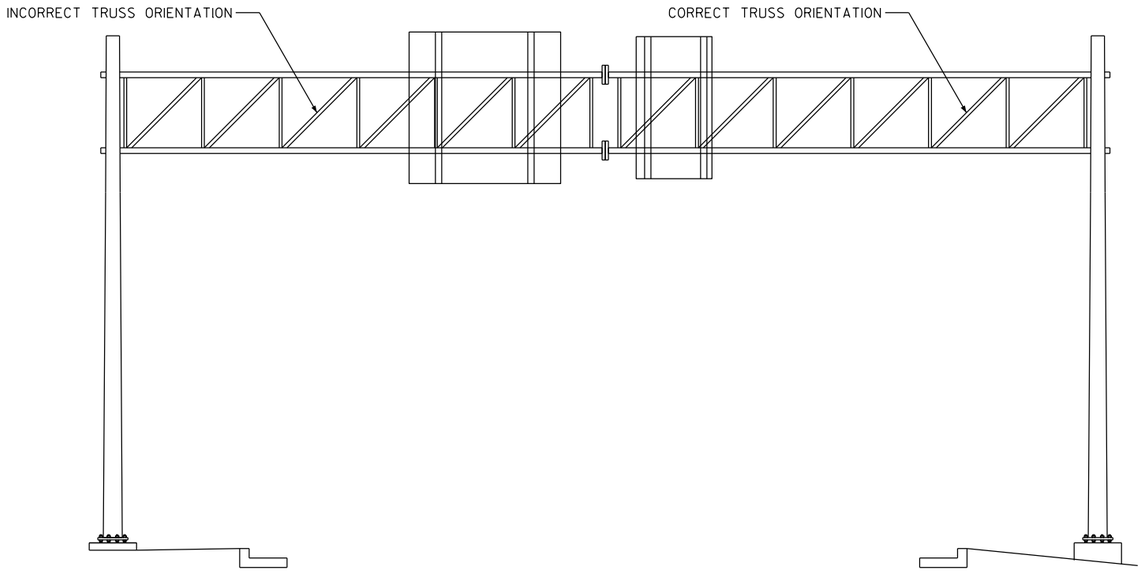
SIGN BRIDGE REPAIR & REPLACE SW

DRAWN BY: BRS | CHECKED BY: TD

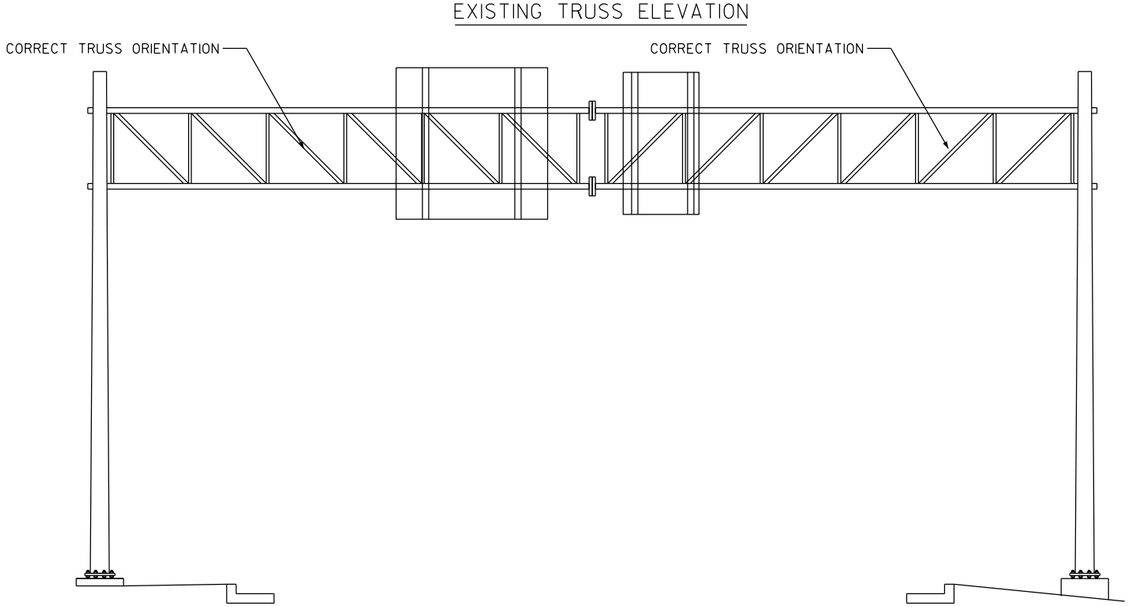
TRUSS DETAILS (1 OF 2)

SHEET 39

STATE PROJECT NUMBER
5105-17-62



EXISTING TRUSS ELEVATION



REINSTALL TRUSS DETAIL

REINSTALL TRUSS NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF ALL ITEMS ASSOCIATED WITH THE REPAIR THAT MAY NEED TO BE REPLACED DURING TRUSS REINSTALLATION. ALL REPLACED BOLTS AND OTHER ITEMS WILL BE CONSIDERED INCIDENTAL TO SPV.0060.18 - REINSTALL TRUSS

2. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
 -ANCHOR BOLTS/HEX BOLTS ASTM F593 ANY ALLOW GROUPS 1, 2, OR 3
 -HEX NUTS ASTM F594
 -WASHERS ASTM A240
 -ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" DIAMETER AND 12% FOR 3/4" DIAMETER AND SMALLER.

3. REMOVE ALL OVERHEAD SIGNS PRIOR TO TRUSS DISASSEMBLY.

4. REINSTALL ALL SIGNS TO THEIR ORIGINAL CONFIGURATION AFTER TRUSS HAS BEEN CORRECTLY REINSTALLED.

5. ALL REMOVAL AND INSTALLATION OF OVERHEAD TYPE I & TYPE II SIGNS ON THE TRUSS SHALL BE CONSIDERED INCIDENTAL TO SPV.0060.18 - REINSTALL TRUSS.

8

8

NO.	DATE	REVISION	BY

SIGN BRIDGE REPAIR & REPLACE SW

DRAWN BY: BRS | CHECKED BY: TD

TRUSS DETAILS (2 OF 2)

SHEET 40

STATE PROJECT NUMBER
5105-17-62

TABLE OF ESTIMATED QUANTITES FOR SIGN PANELS*

STRUCTURE NUMBER	ELEVATION VIEW SHEET NUMBER	HIGHWAY	SIGNS TYPE II REFLECTIVE H	REMOVING SIGNS TYPE II	REPLACE SIGN PANEL CONNECTOR	REPLACE TYPE II SIGN SUPPORT BRACKET	REPLACE SIGN CONNECTION HARDWARE	REPLACE SIGN CONNECTION CLAMP
			637.2210	638.2602	SPV.0060.20	SPV.0060.21	SPV.0060.23	SPV.0060.24
			SF	EA	EA	EA	EA	EA
S-13-0193	6 OF 26	USH 12	13	1				
S-13-0209	7 OF 26	USH 51						3
S-13-0290	8 OF 26	IH-94					2	
S-13-0312	13 OF 26	STH 138			1			
S-33-0001	20 OF 26	STH 81				1		
S-33-0002	21 OF 26	STH 81						
S-53-0012	22 OF 26	STH 81			26			
S-53-0014	23 OF 26	IH-43			26			
S-53-0022	24 OF 26	IH-39			38			
S-53-0034	26 OF 26	IH-39						
TOTAL QUANTITY*			**13**	**1**	**91**	**1**	**2**	**3**

* THE QUANTITIES PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE COUNTED AS ADDITIONAL QUANTITES TO THOSE LISTED ON THE ELEVATION VIEW SHEETS.

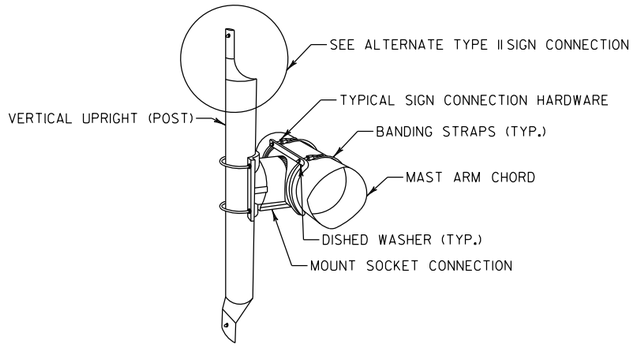
SIGN PANEL NOTES

1. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL REPAIRS.

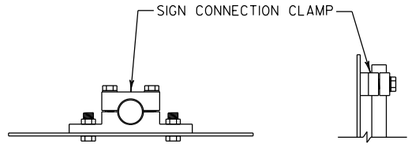
2. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE ITEM REQUIRED. DISCREPANCIES SHALL BE SUBMITTED TO THE ENGINEER FOR CLARIFICATION PRIOR TO BEGINNING WORK.

3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -ANCHOR BOLT/HEX BOLTS ASTM F593 ANY ALLOY GROUP 1, 2, OR 3
   -WASHERS ASTM A240
   -ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% FOR OVER 3/4" AND 12% FOR 3/4" DIAMETER AND SMALLER.

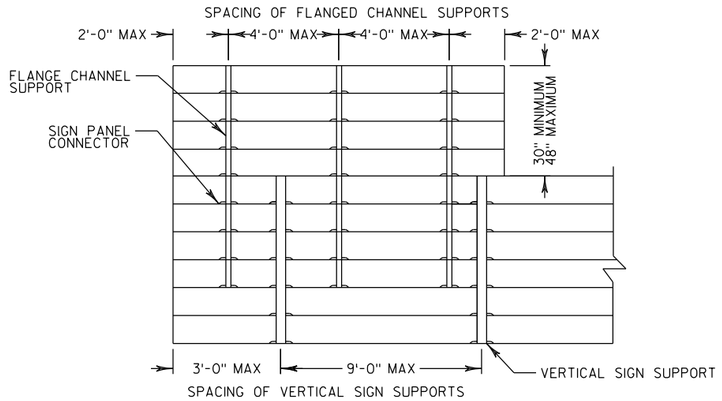
4. REPLACE MISSING BOLTS ON TOWER CAPS WITH STAINLESS STEEL BOLTS.



POST TO CHORD CONNECTION DETAIL (TYPE II SIGN)/SIGN CONNECTION ASSEMBLY DETAIL



ALTERNATE TYPE II SIGN CONNECTION DETAIL - SIGN CONNECTION CLAMP



FLANGE CHANNEL SUPPORT/VERTICAL SIGN SUPPORT DETAILS

8

8

NO.	DATE	REVISION	BY

SIGN BRIDGE REPAIR & REPLACE SW

DRAWN BY: BRS | CHECKED BY: TD

SIGN PANEL DETAILS

SHEET 4 OF 26

41

STATE PROJECT NUMBER
5105-17-62

TABLE OF ESTIMATED QUANTITES FOR CATWALKS*

STRUCTURE NUMBER	ELEVATION VIEW SHEET NUMBER	HIGHWAY	REPLACE HANDRAIL HINGE PINS	REPLACE SAFETY CHAIN
			SPV.0060.30	SPV.0060.31
			EA	EA
S-13-0290	8 OF 26	IH-94		1
S-53-0012	22 OF 26	STH 81		2
S-53-0014	23 OF 26	IH-43	1	2
TOTAL QUANTITY*			**1**	**5**

CATWALK NOTES

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.

2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE ITEM REQUIRED.

3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -HEX NUTS ASTM F594
   -WASHER ASTM A240
   -ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% OVER 3/4" DIAMETER AND 12% FOR 3/4" DIAMETER AND SMALLER.

TABLE OF ESTIMATED QUANTITES FOR ELECTRICAL*

STRUCTURE NUMBER	ELEVATION VIEW SHEET NUMBER	HIGHWAY	REPLACE CONDUIT PLUG
			SPV.0060.40
			EA
S-53-0012	22 OF 26	STH 81	1
S-53-0014	23 OF 26	IH-43	1
TOTAL QUANTITY*			**2**

* THE QUANTITIES PROVIDED IN THIS TABLE IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE COUNTED AS ADDITIONAL QUANTITES TO THOSE LISTED ON THE ELECTRICAL SHEETS.

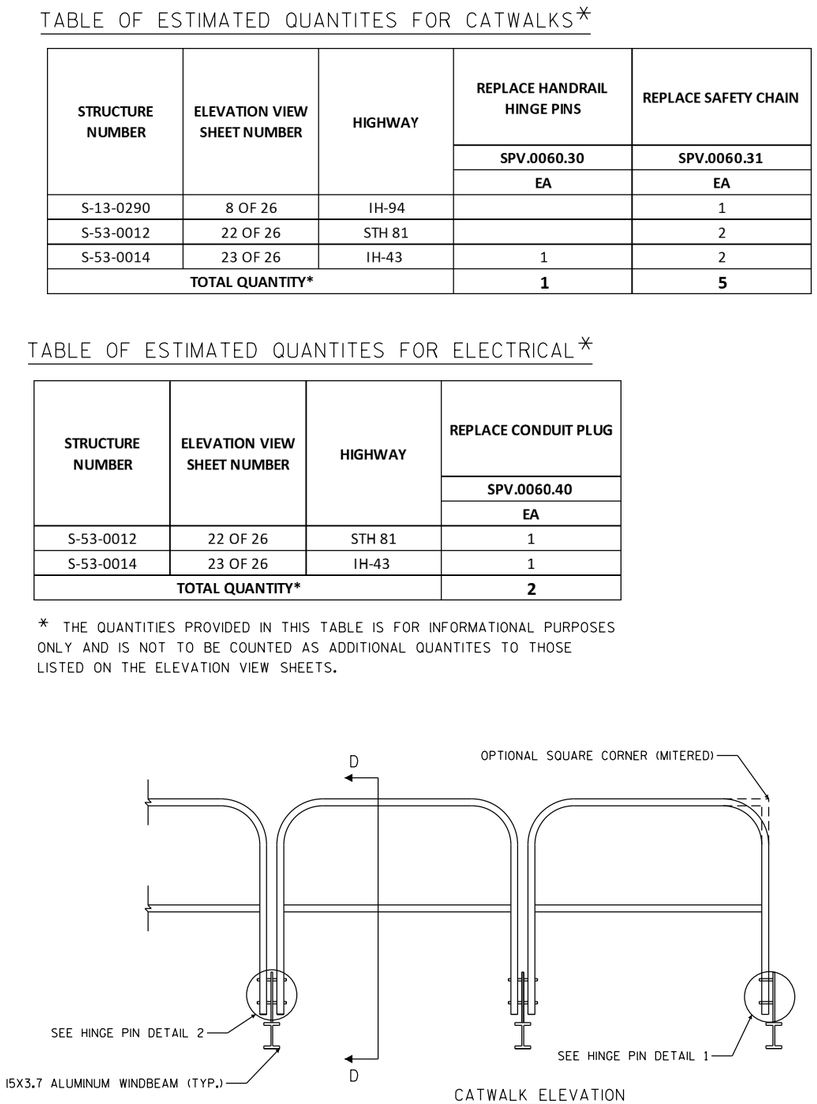
ELECTRICAL NOTES

1. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL REPAIRS.

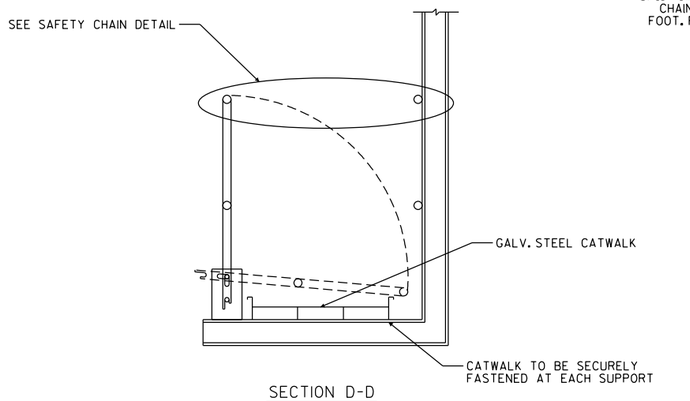
2. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE OF THE ITEM REQUIRED.

3. ALL STAINLESS STEEL BOLTS, LOCK WASHERS, AND NUTS SHALL CONFORM TO:
   -HEX NUTS ASTM F594
   -WASHER ASTM A240
   -ANY OF THE 300 SERIES WHICH HAVE A MINIMUM YIELD OF 40,000 PSI AND ELONGATION OF 15% OVER 3/4" DIAMETER AND 12% FOR 3/4" DIAMETER AND SMALLER.

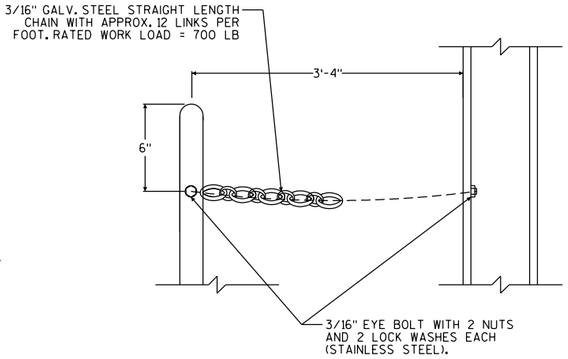
4. THE CONTRACTOR SHALL USE ANTI-SIEZE COMOUND ON ELECTRICAL HANDHOLE COVER BOLTS, JUNCTION BOX BOLTS, LUMINIARE COVER BOLTS, AND CONDUIT PLUGS PER SECTION 651.3.1(5) OF THE WISDOT STANDARD SPECIFICATION.



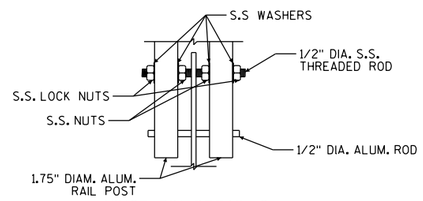
CATWALK ELEVATION



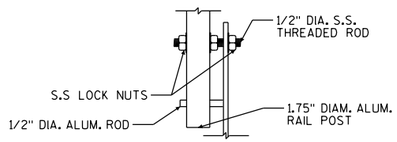
SECTION D-D



SAFETY CHAIN DETAIL



HINGE PIN DETAIL 2



HINGE PIN DETAIL 1

8

8

NO.	DATE	REVISION	BY

SIGN BRIDGE REPAIR & REPLACE SW

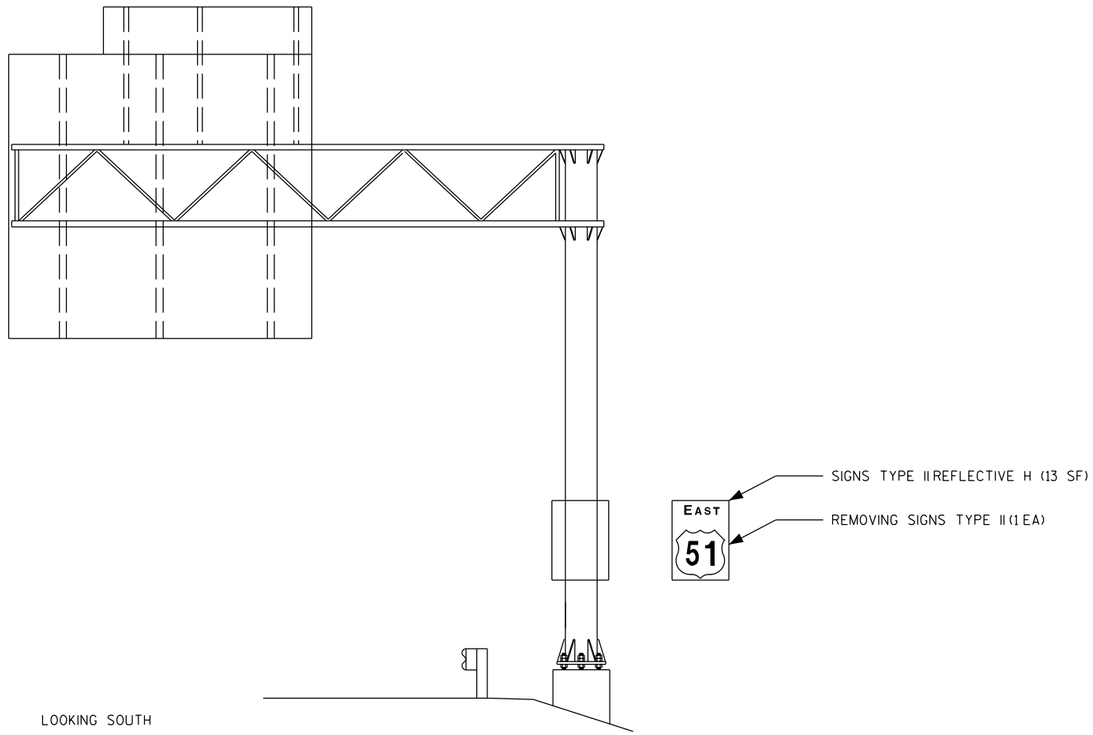
DRAWN BY: BRS | CHECKED BY: TD

CATWALK & ELECTRICAL DETAILS

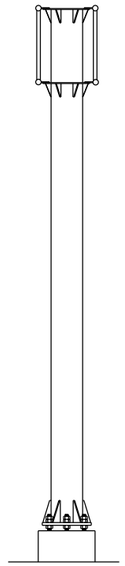
SHEET 5 OF 26

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: USH 12
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62



LOOKING SOUTH



LOOKING EAST

ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
637.2210	SIGNS TYPE II REFLECTIVE H	13 SF	NONE
638.2602	REMOVING SIGNS TYPE II	1 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0193

DRAWN BY ZW | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 6 OF 26

43

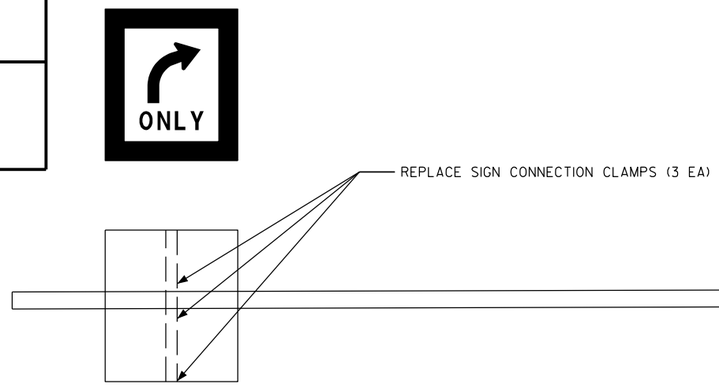
09/26/2016

8

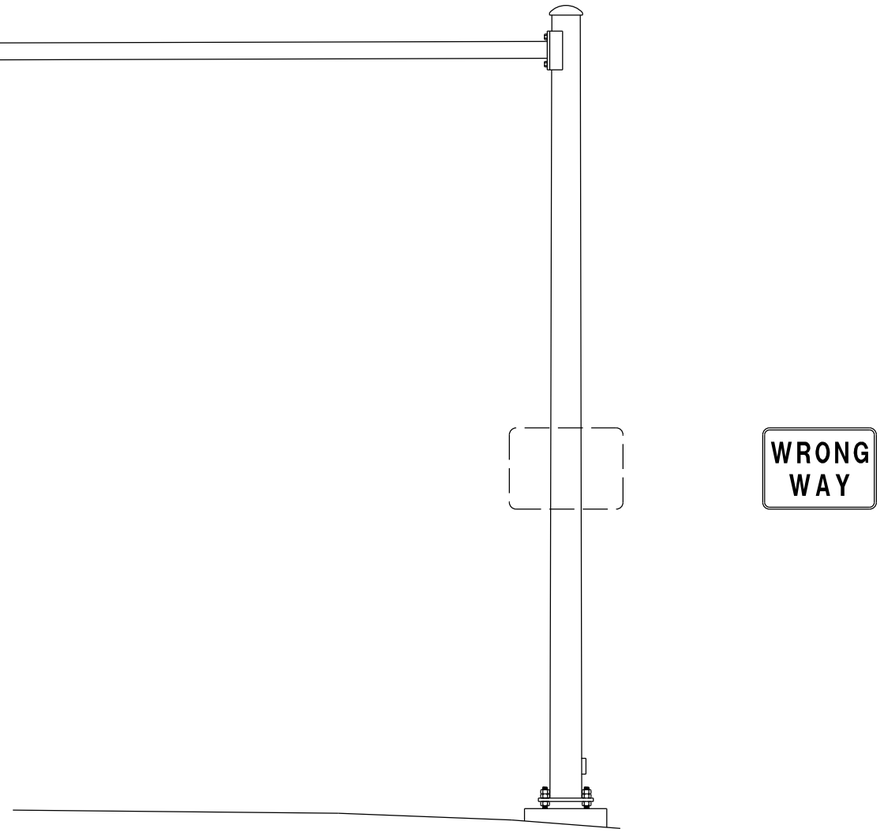
8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: USH 51
WORK RESTRICTIONS: 5:00 AM TO 9:00 PM
TRAFFIC CONTROL: RIGHT LANE CLOSURE PER SDD 15D12

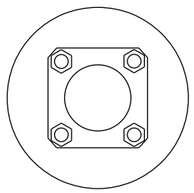
STATE PROJECT NUMBER
5105-17-62



LOOKING SOUTH



LOOKING EAST



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.24	REPLACE SIGN CONNECTION CLAMP	3 EA	SHEET 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0209

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 7 OF 26

44

09/28/2016

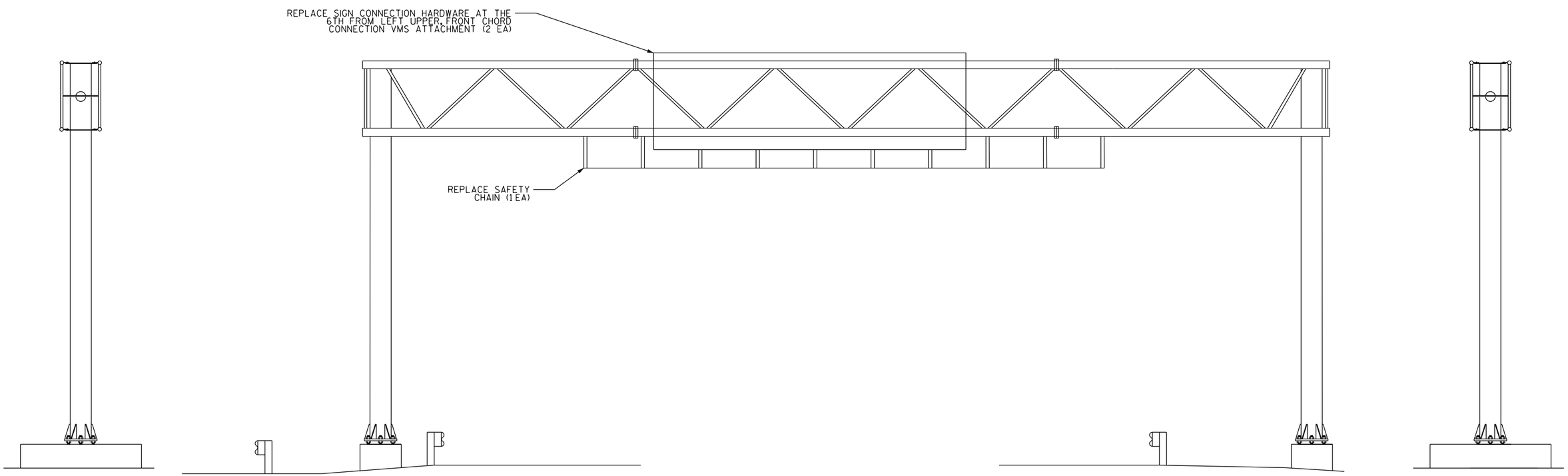
8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: IH-94
WORK RESTRICTIONS: 5:00 AM TO 9:00 PM
TRAFFIC CONTROL: LEFT LANE CLOSURE PER SDD 15D12

STATE PROJECT NUMBER
5105-17-62

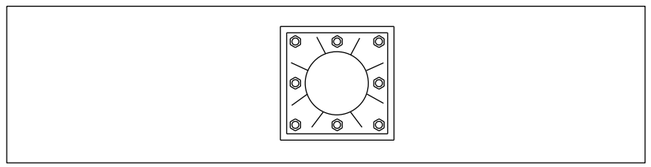
VMS

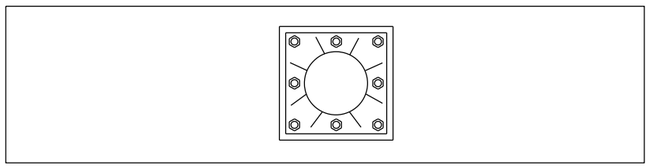


LOOKING NORTH

LOOKING WEST

LOOKING SOUTH





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.23	REPLACE SIGN CONNECTION HARDWARE	2 EA	SHEET 4
SPV.0060.31	REPLACE SAFETY CHAIN	1 EA	SHEET 5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0290

DRAWN BY ZW | PLANS CK'D. TD

MAINTENANCE ITEMS

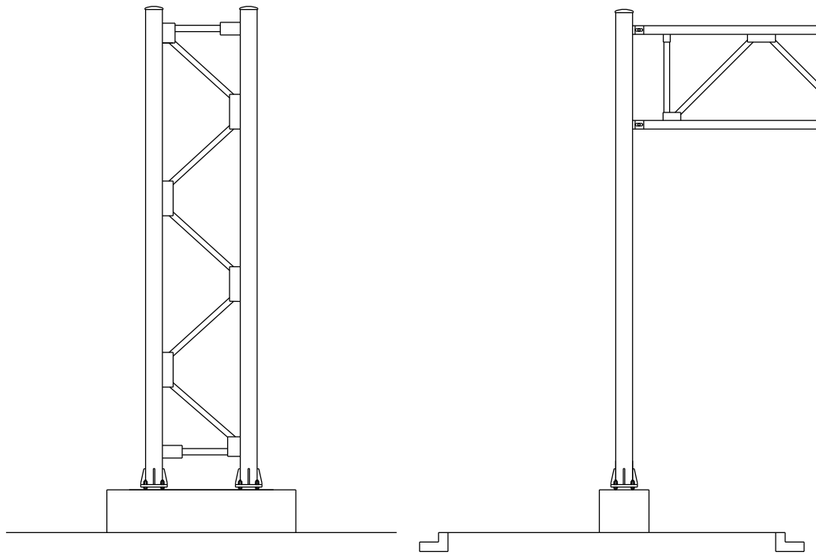
09/26/2016

8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: CTH N
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT AND LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62



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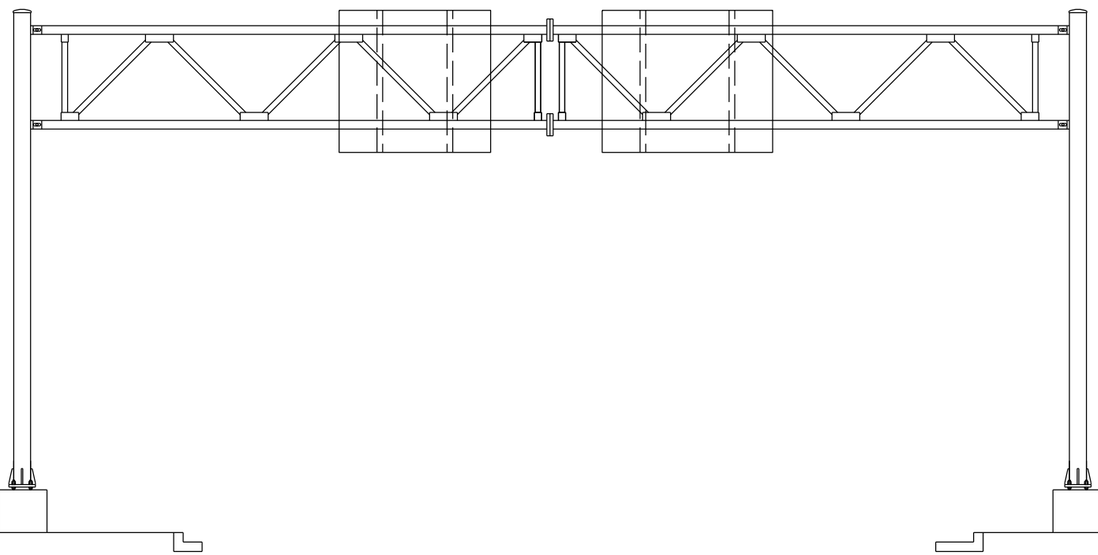

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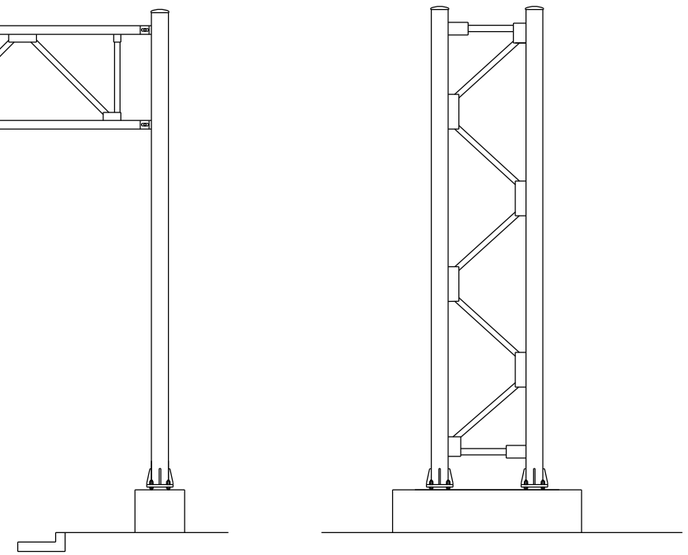
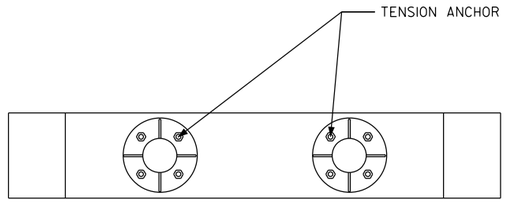
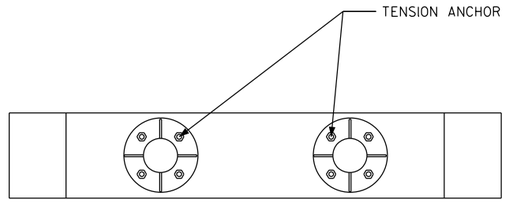


LOOKING WEST





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	16 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0292

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 9 OF 26

46

06/23/2016

8

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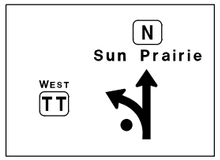
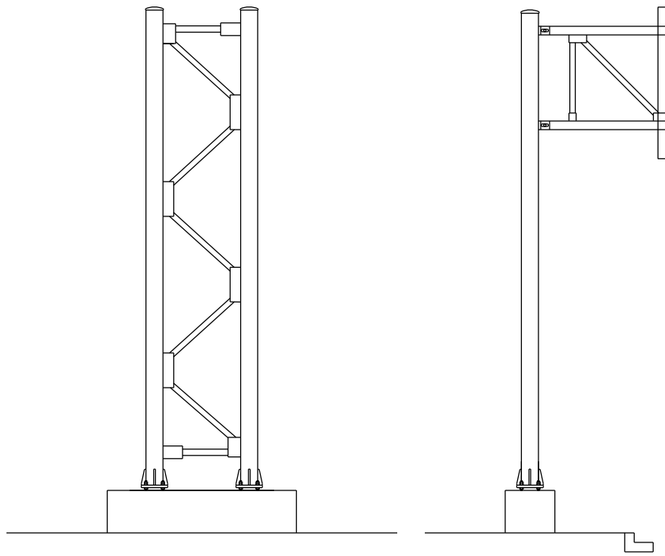
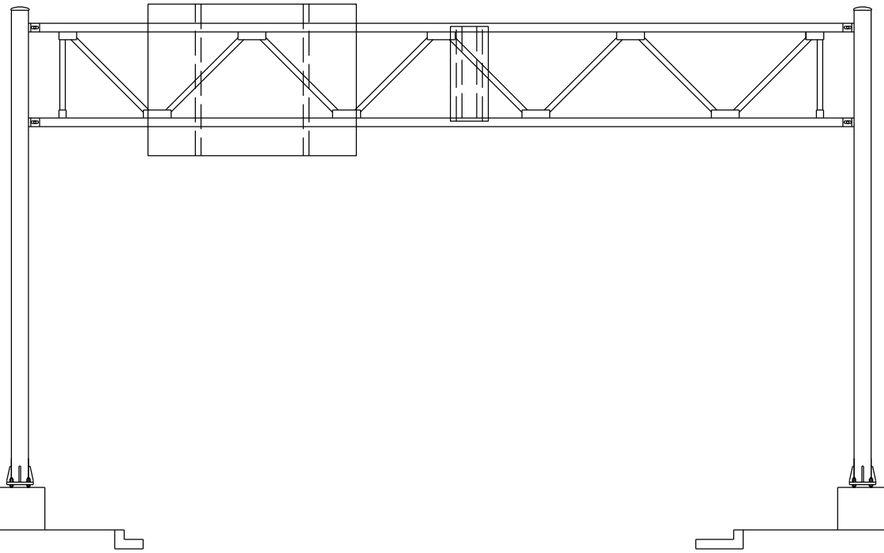
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: CTH N
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT AND LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62

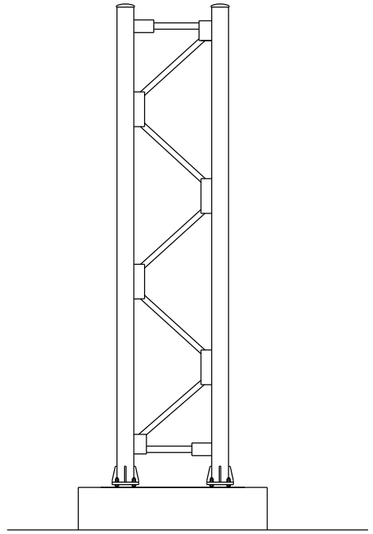




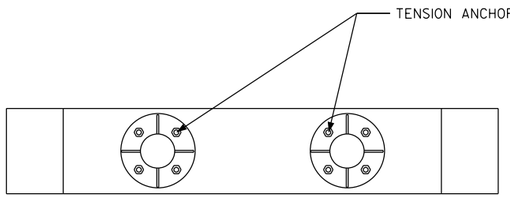
LOOKING EAST

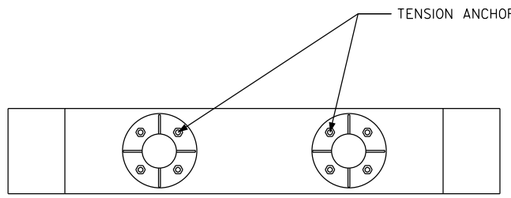


LOOKING NORTH



LOOKING WEST





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	16 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0293

DRAWN BY BRS | PLANS CK'D. TD

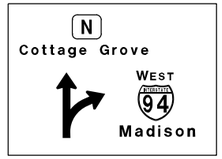
MAINTENANCE ITEMS

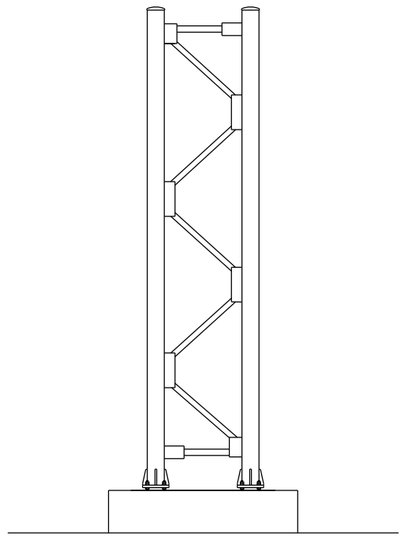
8

8

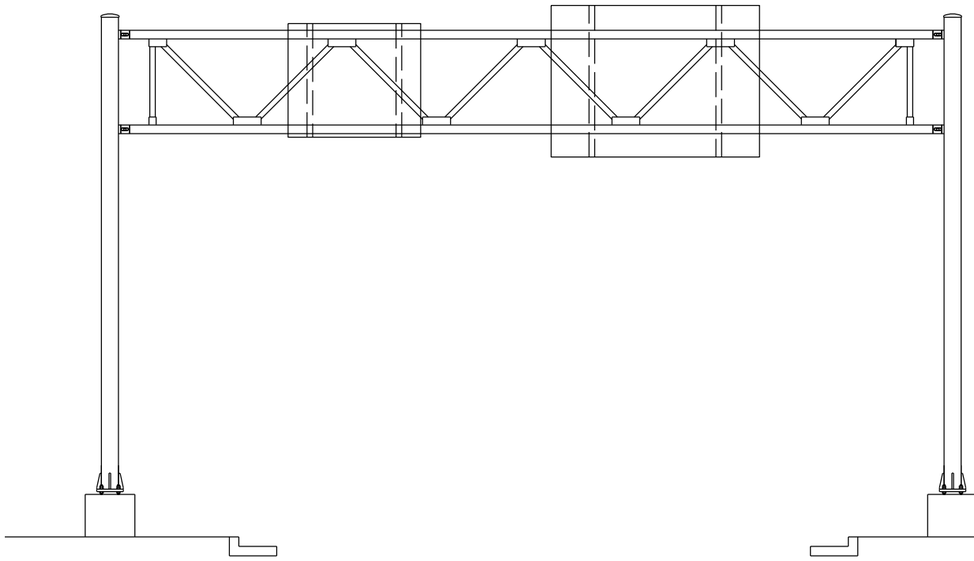
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: CTH N
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62

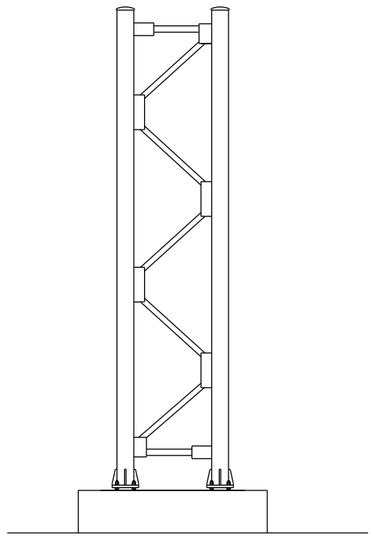




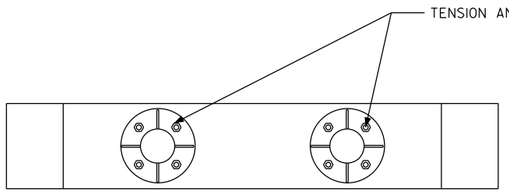
LOOKING WEST



LOOKING SOUTH



LOOKING EAST



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	8 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0294

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 11 OF 26

48

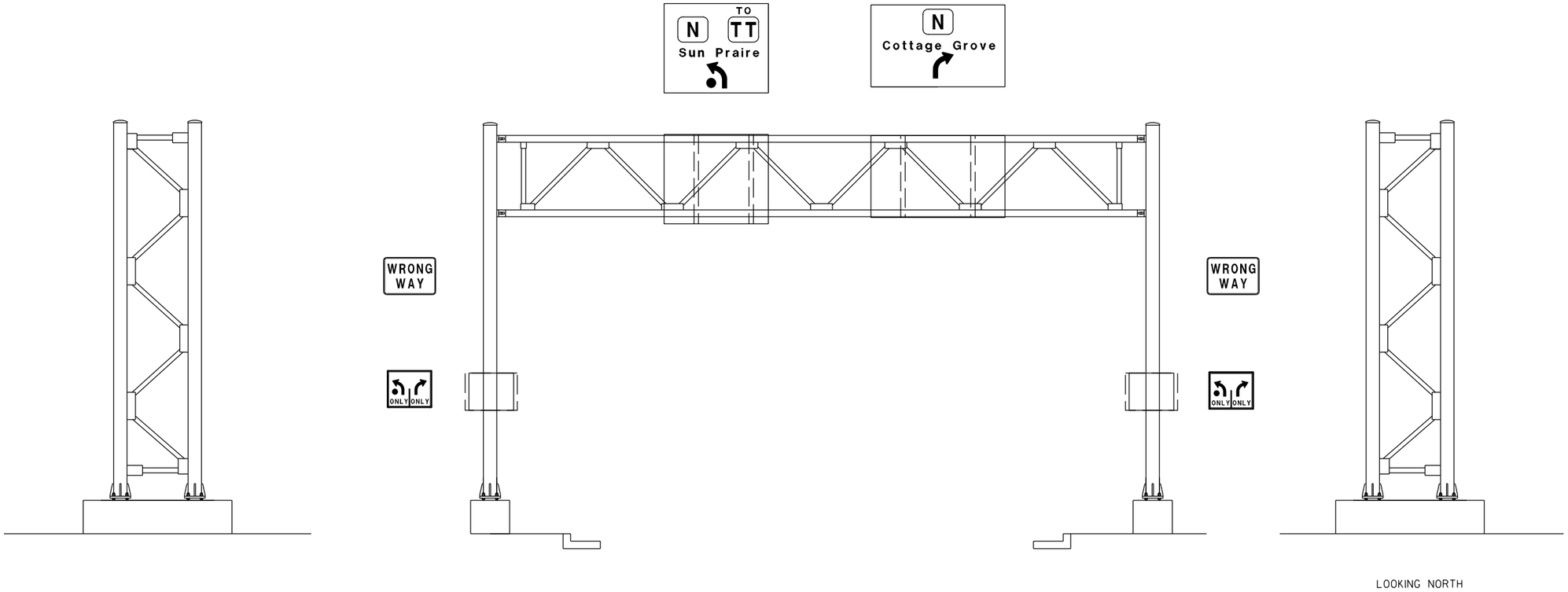
6/24/2016

8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: IH-94
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT AND LEFT SHOULDER CLOSURE PER SDD 15D27

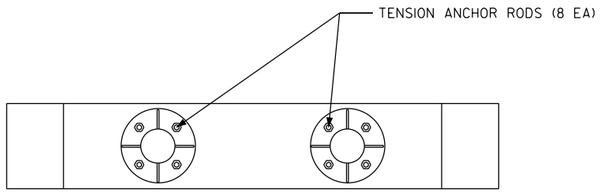
STATE PROJECT NUMBER
5105-17-62

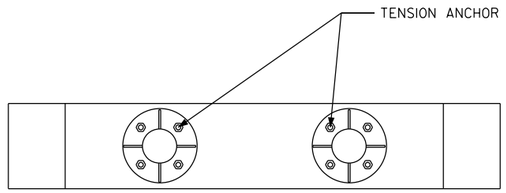


LOOKING SOUTH

LOOKING EAST

LOOKING NORTH





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	16 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0295

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 12 OF 26

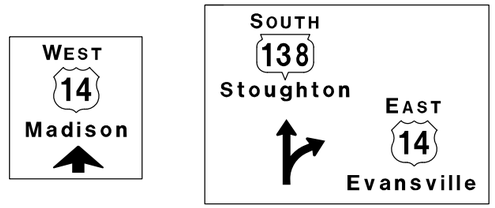
06/24/2016

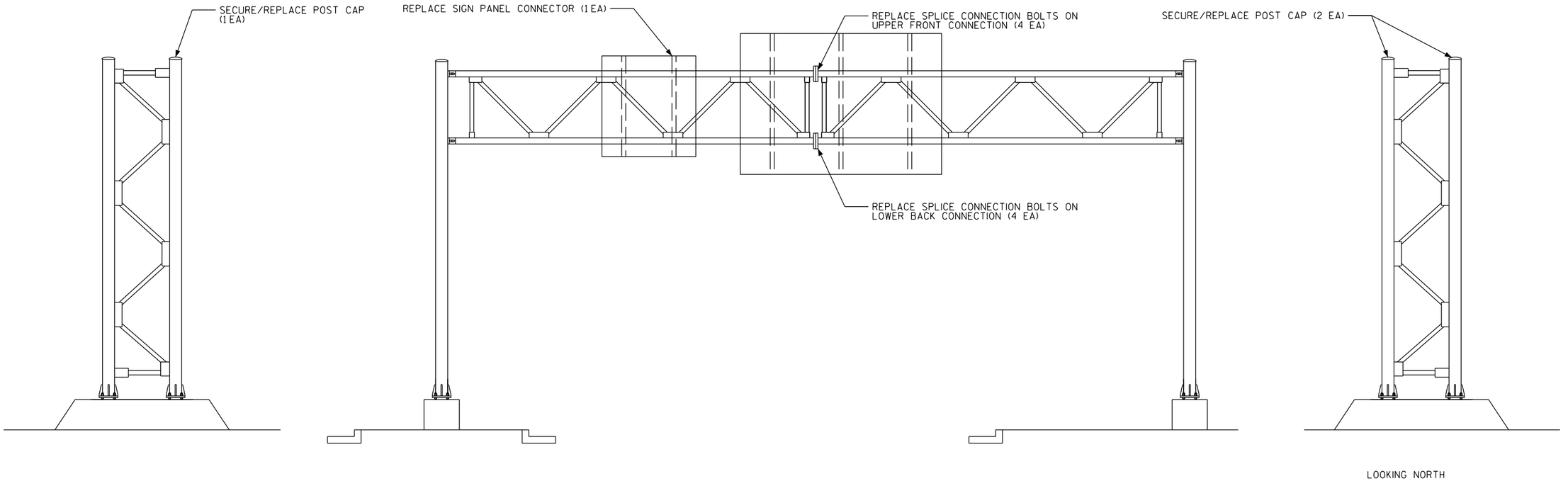
8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 138
WORK RESTRICTIONS: 5:00 AM TO 9:00 PM
TRAFFIC CONTROL: RIGHT AND LEFT LANE CLOSURE PER SDD 15D12

STATE PROJECT NUMBER
5105-17-62

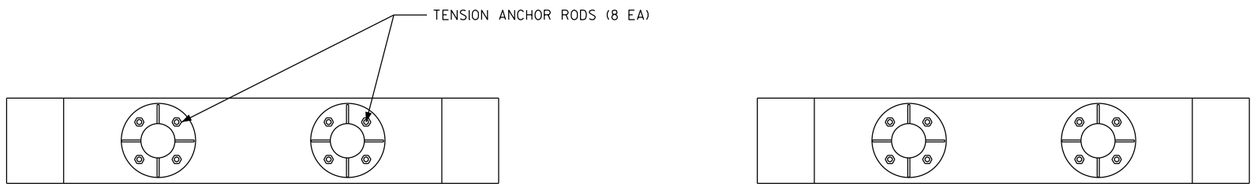




LOOKING SOUTH

LOOKING EAST

LOOKING NORTH



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	8 EA	NONE
SPV.0060.10	TENSION STRUCTURAL CONNECTION BOLT	8 EA	NONE
SPV.0060.13	SECURE/REPLACE POST CAP	3 EA	SHEET 2
SPV.0060.20	REPLACE SIGN PANEL CONNECTOR	1 EA	SHEET 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0312

DRAWN BY BRS | PLANS CK'D. TD

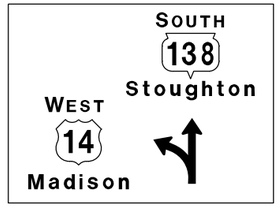
MAINTENANCE ITEMS

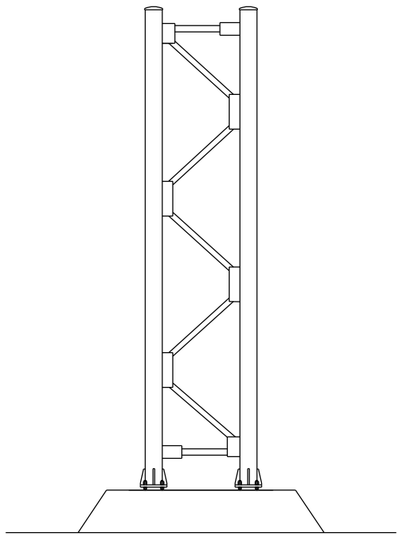
8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 138
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT AND LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62





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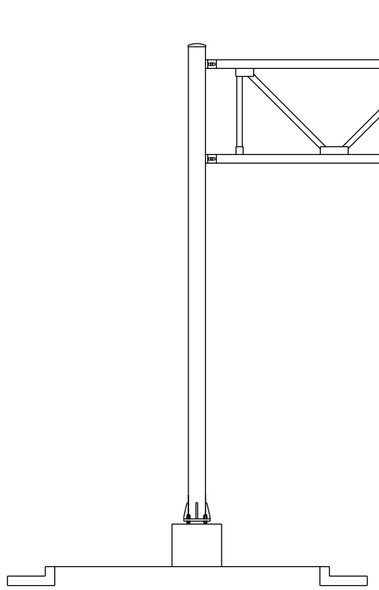
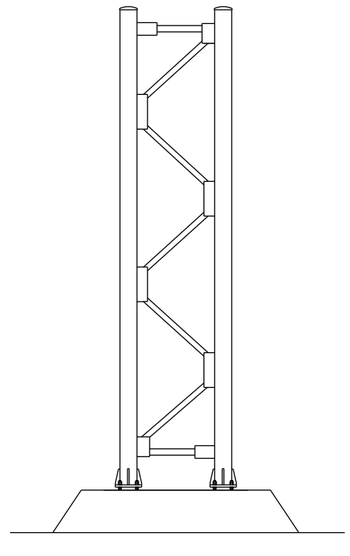
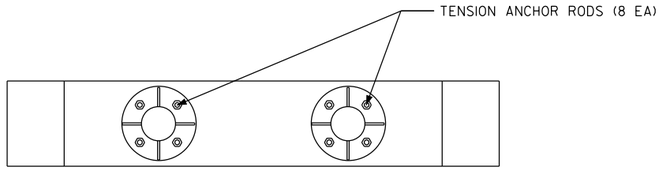
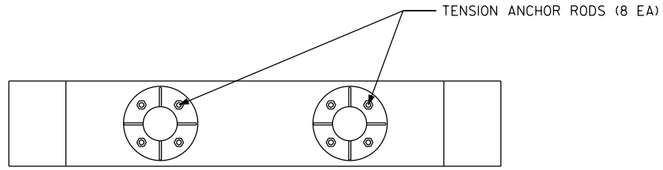


LOOKING SOUTH



LOOKING EAST





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	16 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0313

DRAWN BY BRS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 14 OF 26

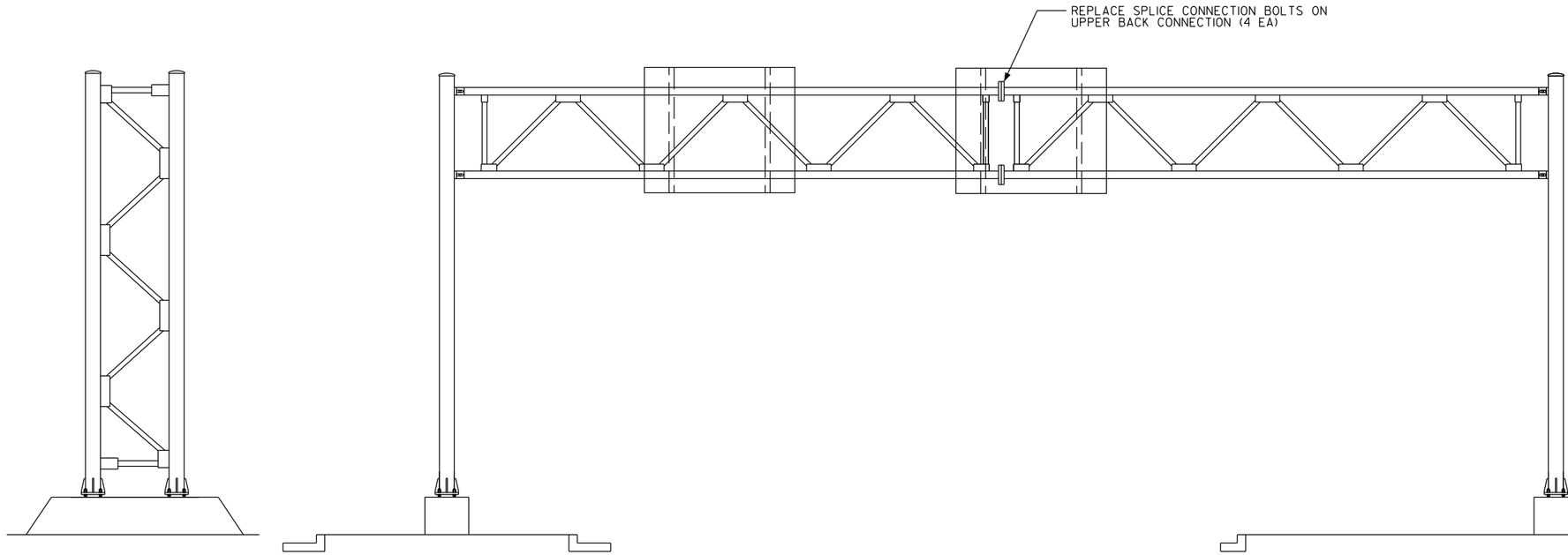
06/23/2016

8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 138
WORK RESTRICTIONS: 5:00 AM to 9:00 PM
TRAFFIC CONTROL: RIGHT LANE CLOSURE PER SDD 15D12

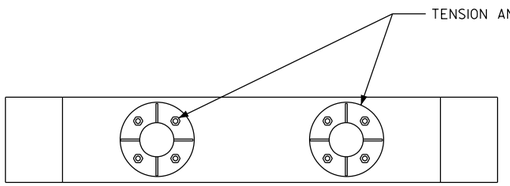
STATE PROJECT NUMBER
5105-17-62

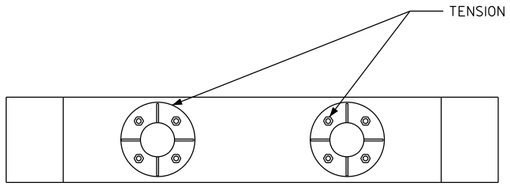


LOOKING NORTH

LOOKING WEST

LOOKING SOUTH





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	16 EA	NONE
SPV.0060.10	TENSION STRUCTURAL CONNECTION BOLT	4 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0315

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 15 OF 26

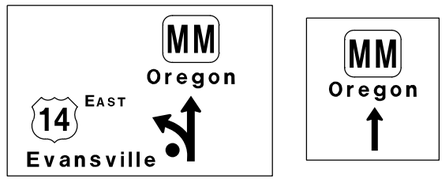
06/23/2016

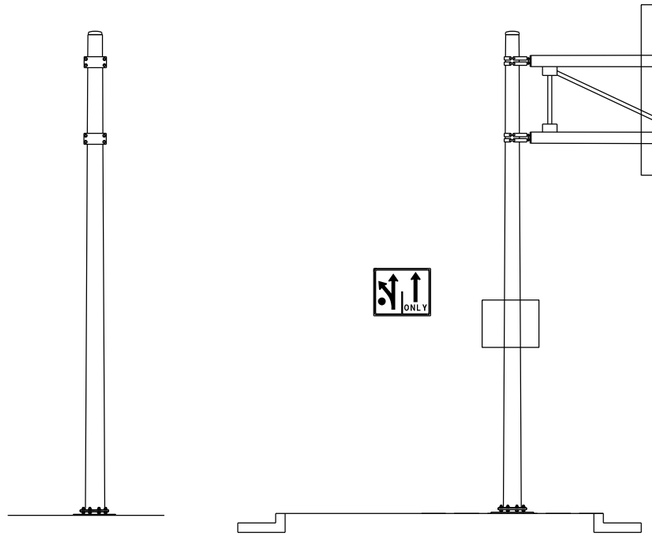
8

8

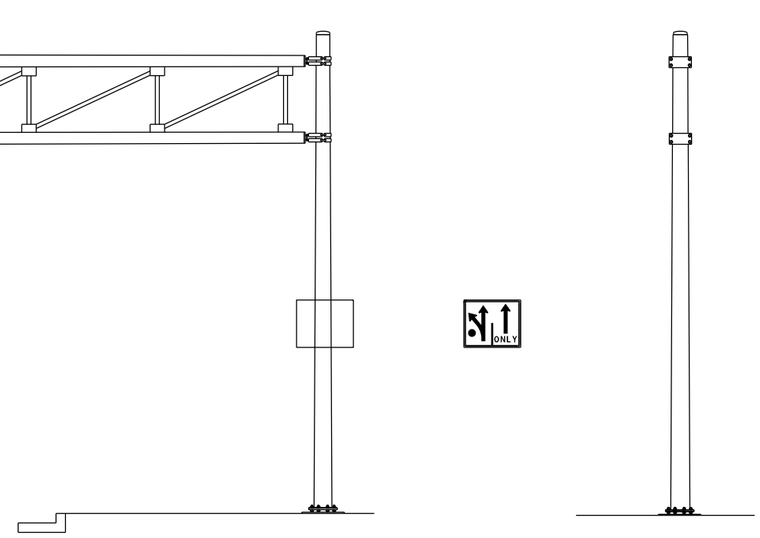
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: CTH MM
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT AND LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62



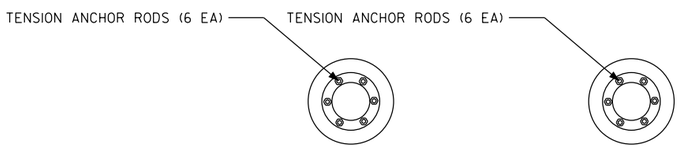


LOOKING WEST



LOOKING SOUTH

LOOKING EAST



LEFT FOUNDATION

RIGHT FOUNDATION

ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	12 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-13-0352

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 16 OF 26

53

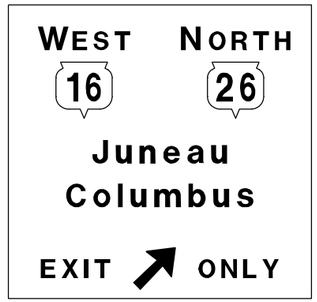
06/27/2016

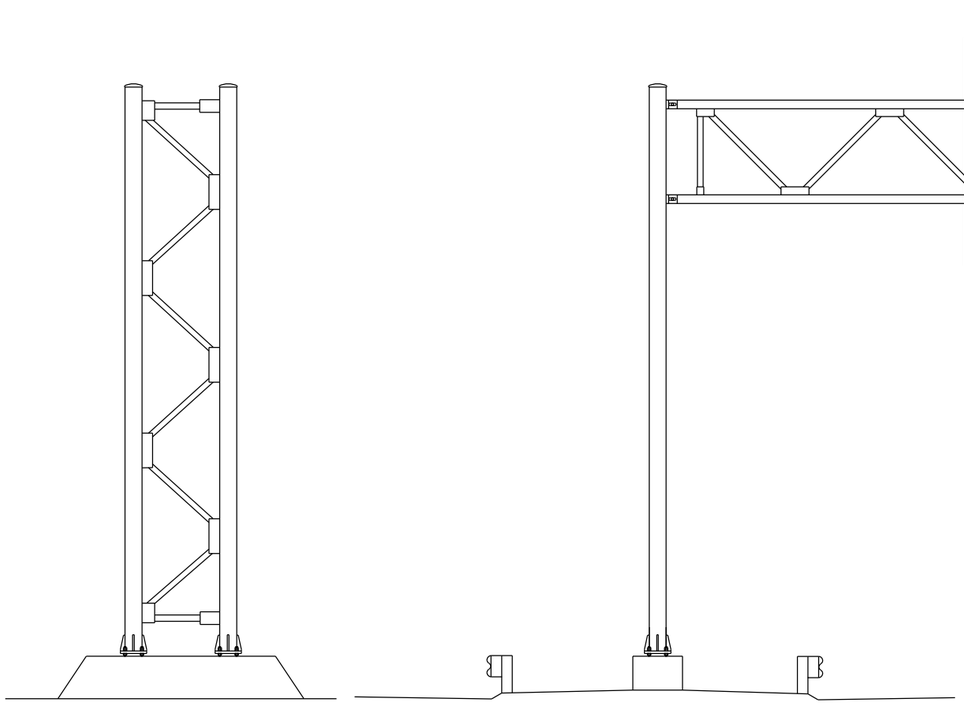
8

8

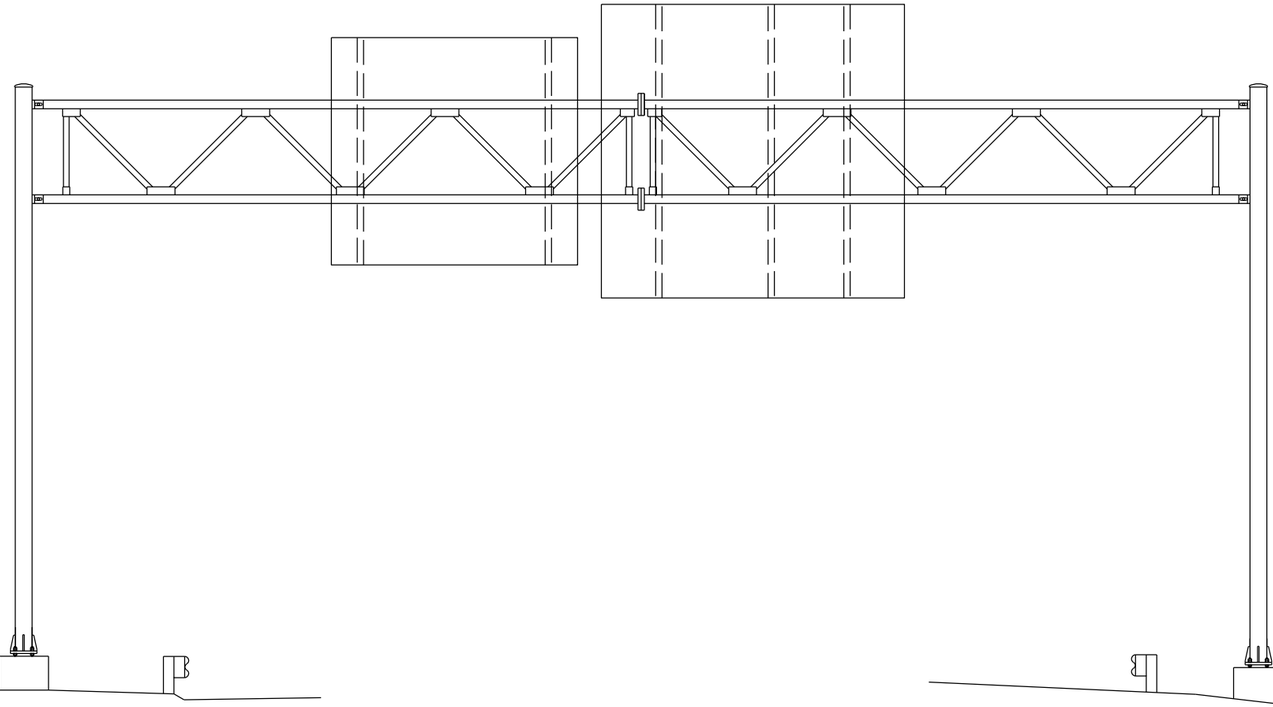
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: USH 16
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT AND LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62

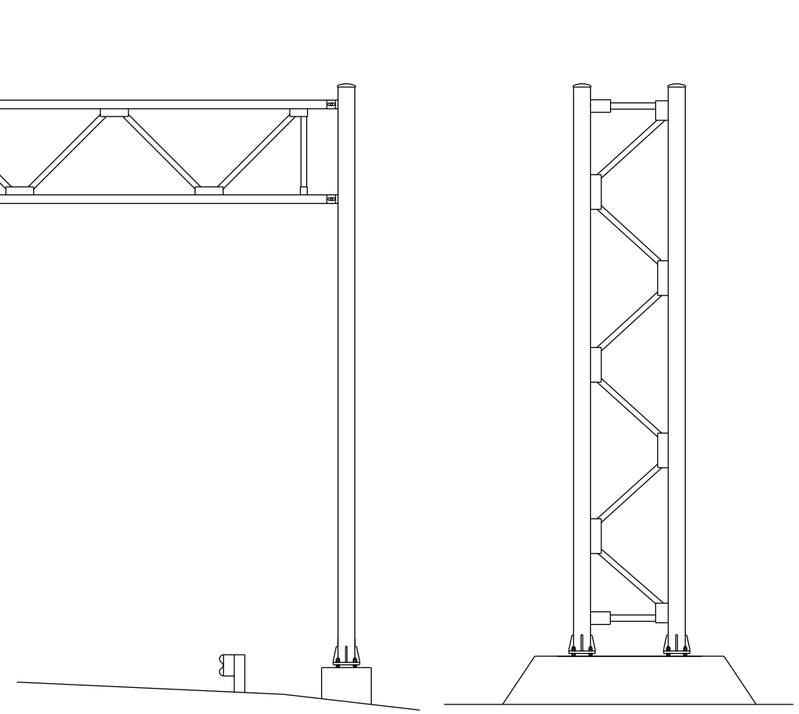




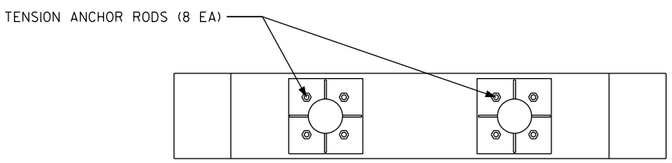
LOOKING NORTH

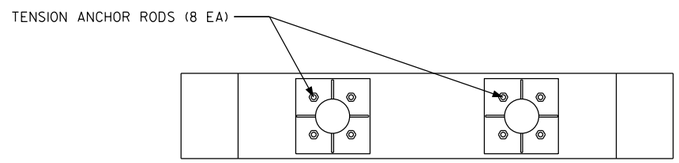


LOOKING WEST



LOOKING SOUTH





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	16 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-14-0019

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 17 OF 26

54

06/29/2016

8

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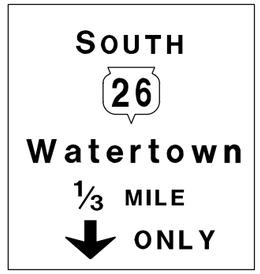
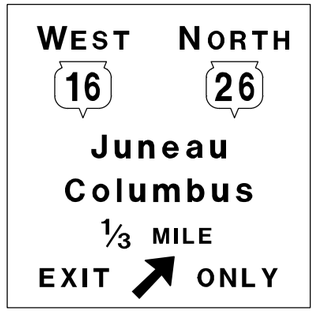
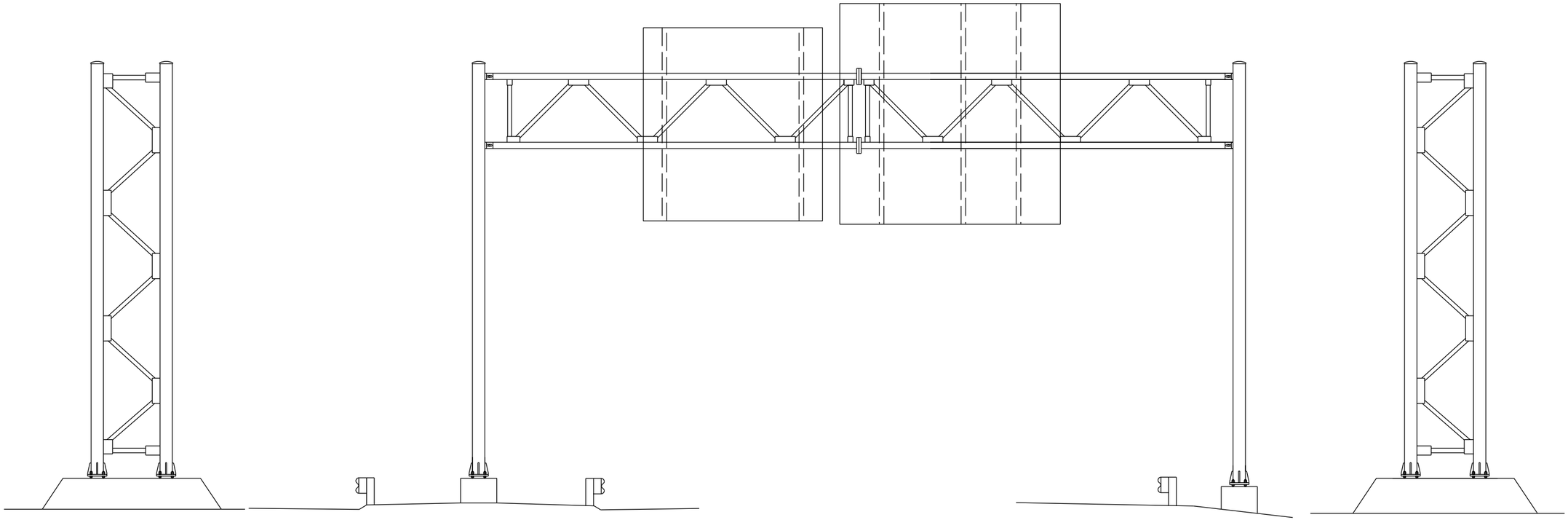
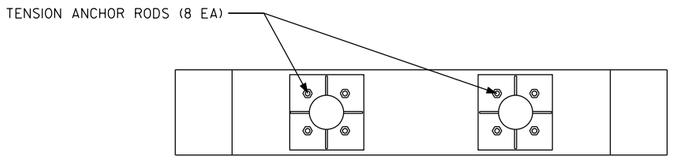
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: USH 16
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: LEFT SHOULDER CLOSURE PER SDD 15D27

STATE PROJECT NUMBER
5105-17-62









ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	8 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-14-0020

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 18 OF 26

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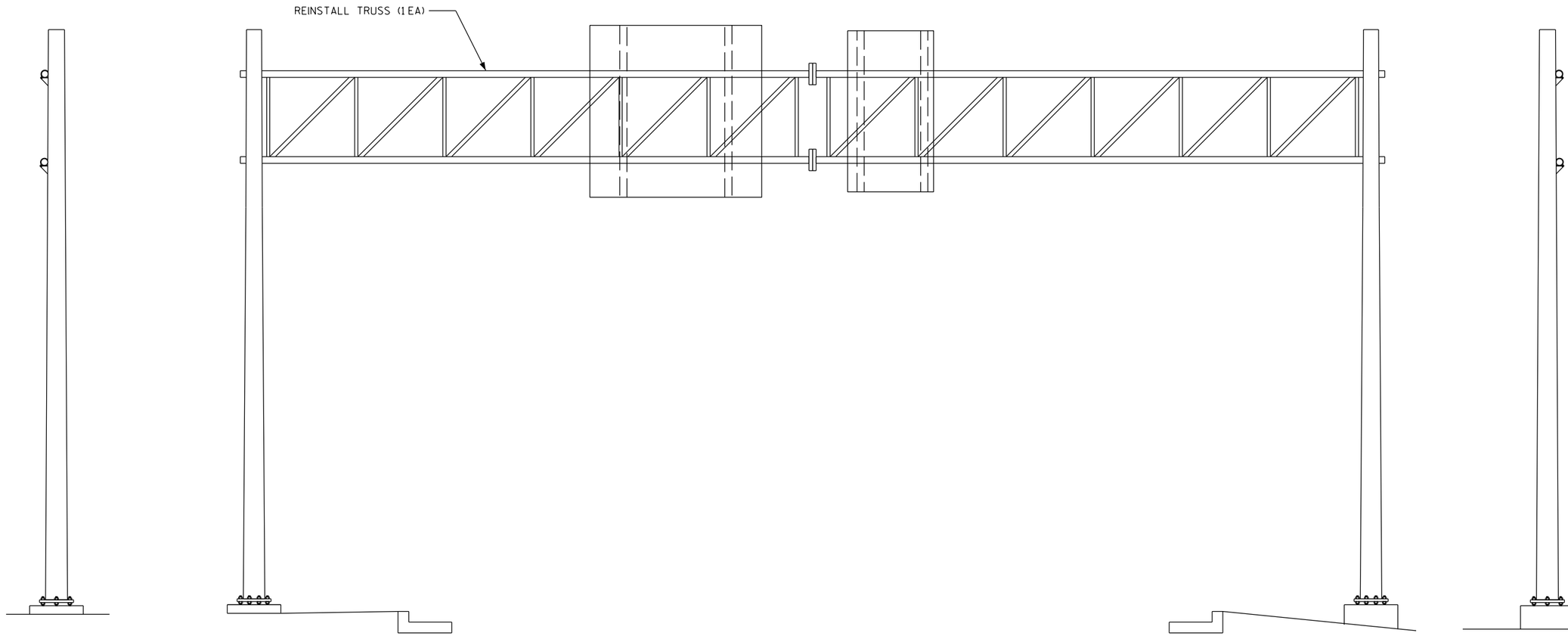
06/29/2016

8

8

STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 26
TRAFFIC CONTROL: CONTRACTOR TO DEVELOP A TRAFFIC CONTROL PLAN FOR THE REQUIRED REPAIRS ON S-28-0034 AND SUBMIT TO THE ENGINEER FOR APPROVAL AT LEAST 14 WORKING DAYS PRIOR TO PROPOSED REPAIR DATE

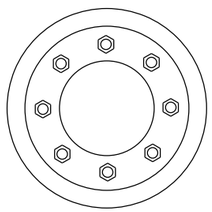
STATE PROJECT NUMBER
5105-17-62

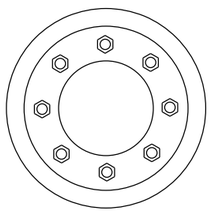


LOOKING EAST

LOOKING NORTH

LOOKING WEST





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.18	REINSTALL TRUSS	1 EA	SHEET 3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-28-0034

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 19 OF 26

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06/29/2016

8

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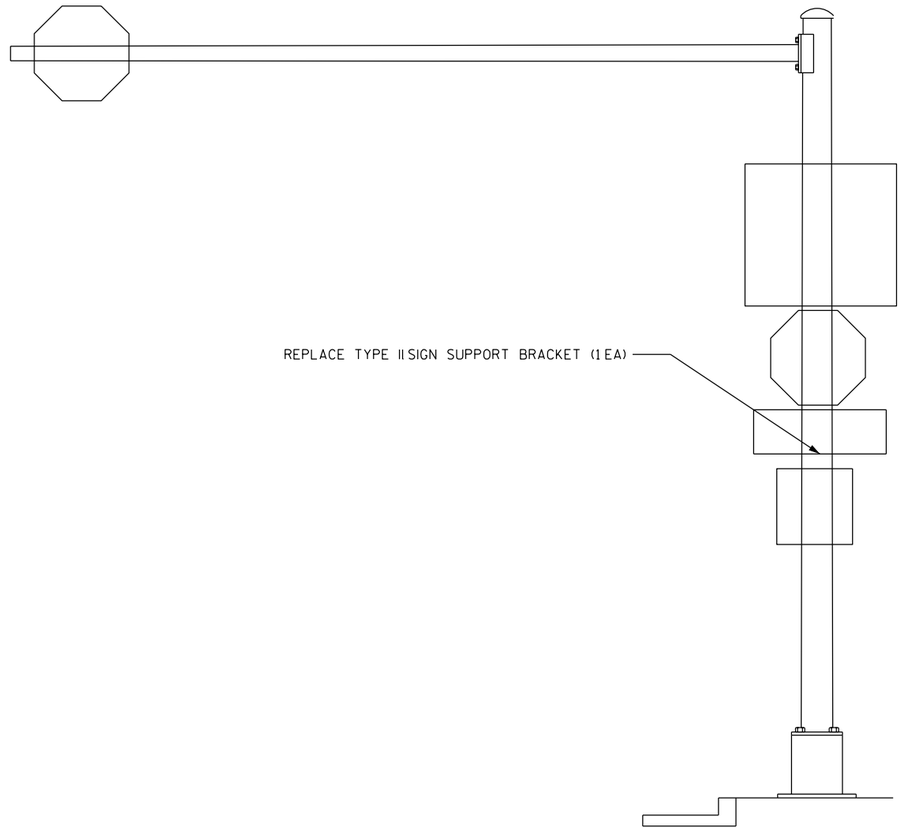
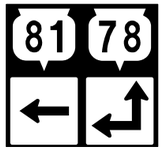
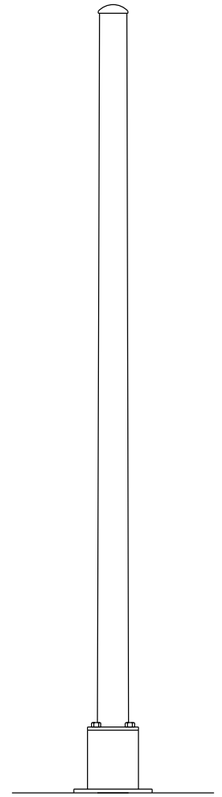
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 81
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT SHOULDER CLOSURE PER SDD 15D28

STATE PROJECT NUMBER
5105-17-62

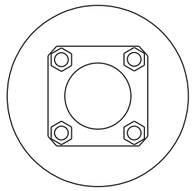


LOOKING NORTH





LOOKING WEST



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.21	REPLACE TYPE II SIGN SUPPORT BRACKET	1 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-33-0001

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 20 OF 26

57

06/23/2016

8

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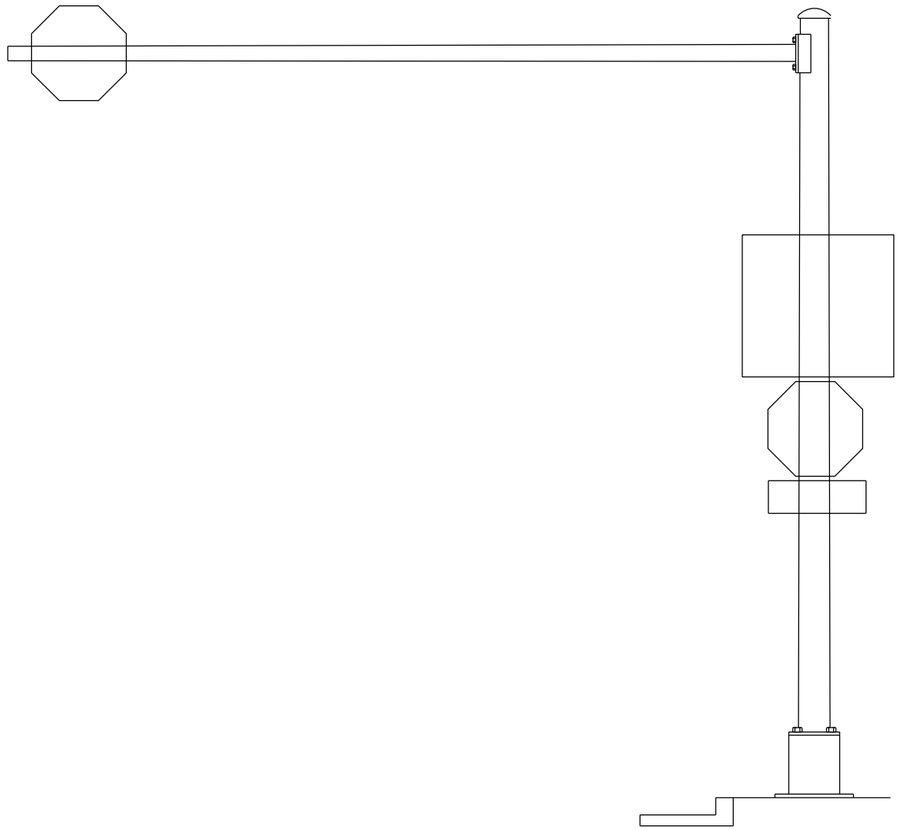
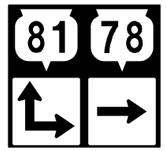
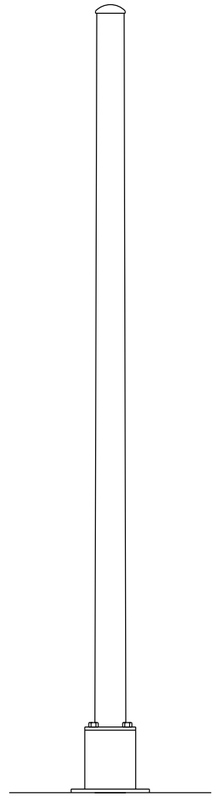
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 81
WORK RESTRICTIONS: NONE
TRAFFIC CONTROL: RIGHT SHOULDER CLOSURE PER SDD 15D28

STATE PROJECT NUMBER
5105-17-62

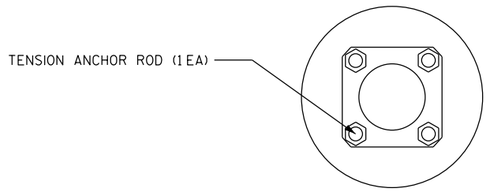


LOOKING SOUTH





LOOKING EAST



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	1 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-33-0002

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 21 OF 26

06/23/2016

8

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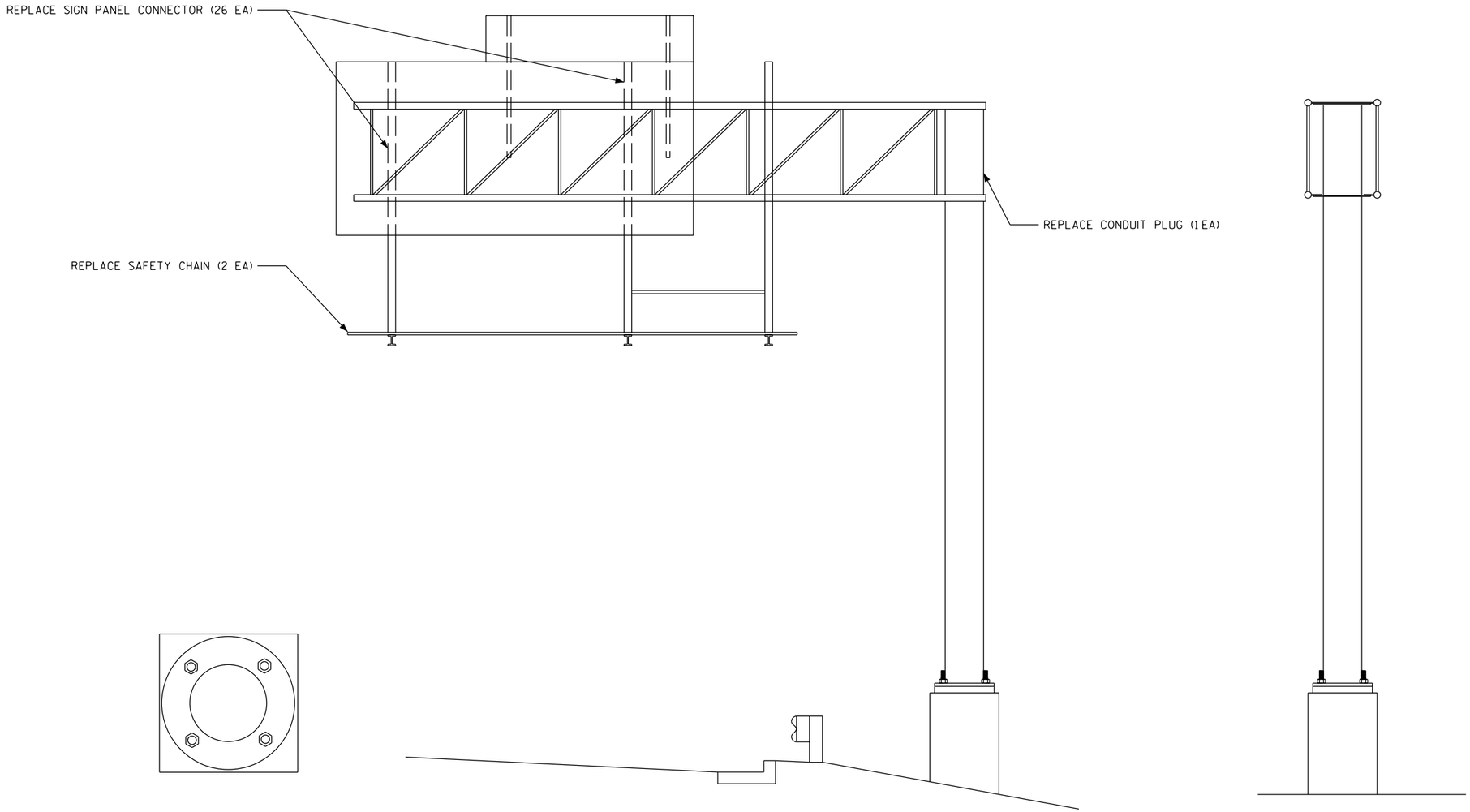
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: STH 81
WORK RESTRICTIONS: 5:00 AM TO 10:00 PM
TRAFFIC CONTROL: RIGHT LANE CLOSURE PER SDD 15D12 EXIT RAMP CLOSURE PER SDD 15D16

STATE PROJECT NUMBER
5105-17-62



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.20	REPLACE SIGN PANEL CONNECTOR	26 EA	SHEET 4
SPV.0060.31	REPLACE SAFETY CHAIN	2 EA	SHEET 5
SPV.0060.40	REPLACE CONDUIT PLUG	1 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-53-0012

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 22 OF 26

06/30/2016

8

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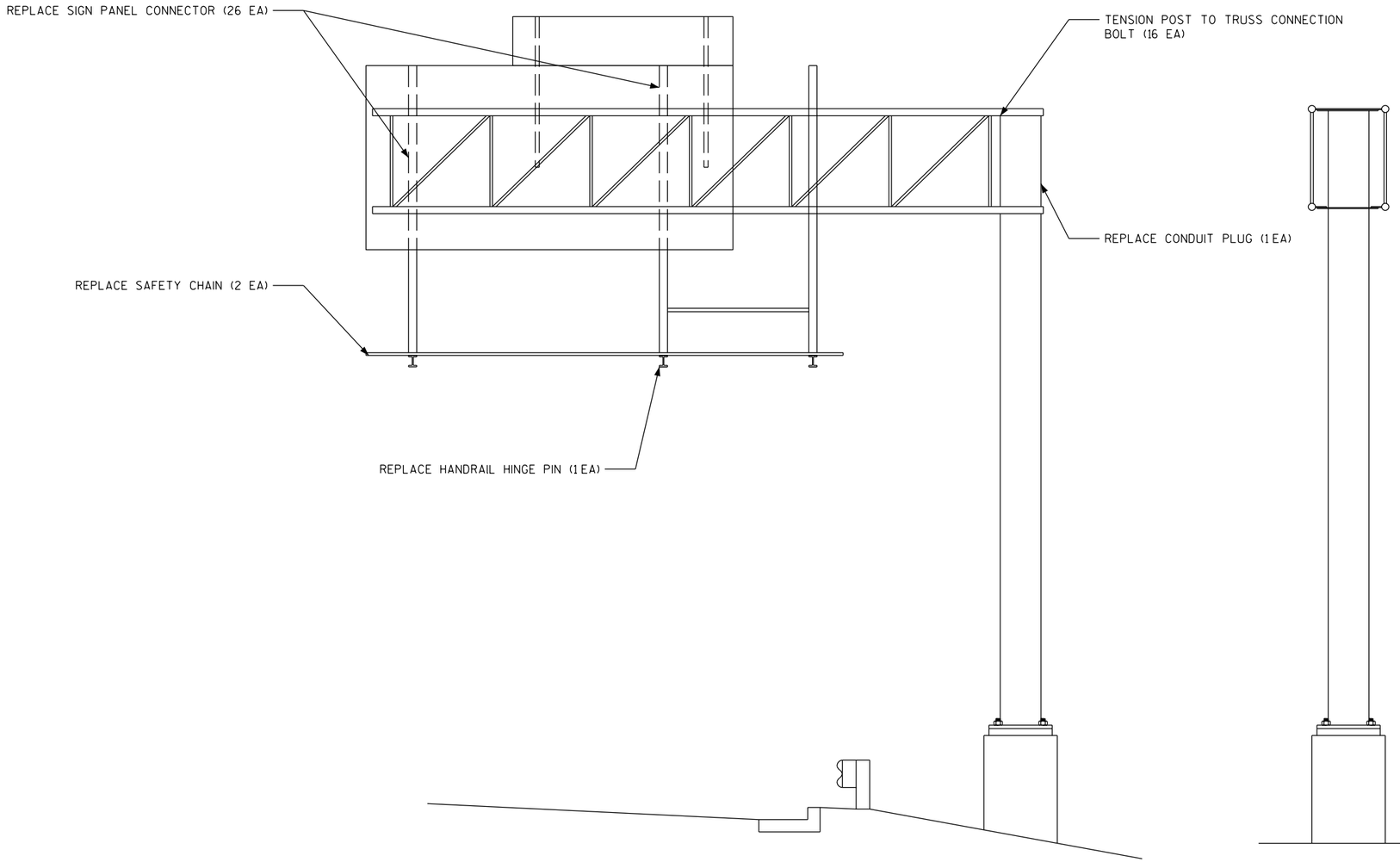
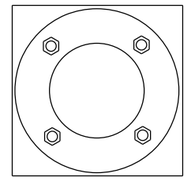
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: IH-43
WORK RESTRICTIONS: 5:00 AM TO 10:00 PM
TRAFFIC CONTROL: RIGHT LANE CLOSURE PER SDD 15D12 EXIT RAMP CLOSURE PER SDD 15D16

STATE PROJECT NUMBER
5105-17-62





ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET	ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.10	TENSION STRUCTURAL CONNECTION BOLT	16 EA	NONE	SPV.0060.40	REPLACE CONDUIT PLUG	1 EA	NONE
SPV.0060.20	REPLACE SIGN PANEL CONNECTOR	26 EA	SHEET 4				
SPV.0060.30	REPLACE HANDRAIL HINGE PIN	1 EA	SHEET 5				
SPV.0060.31	REPLACE SAFETY CHAIN	2 EA	SHEET 5				

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-53-0014

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 23 OF 26

60

06/30/2016

8

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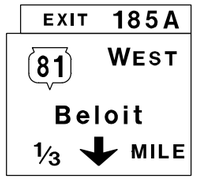
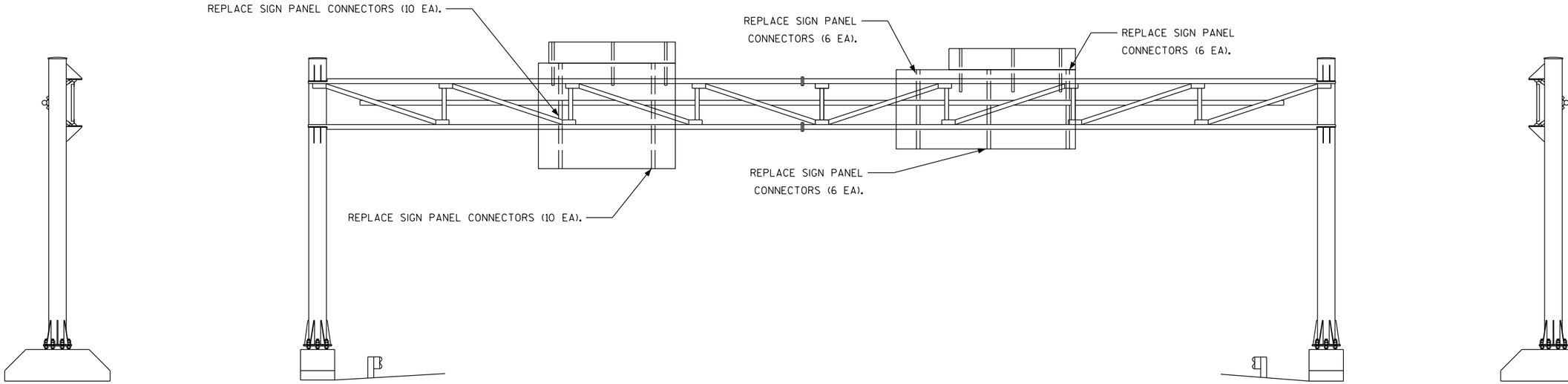
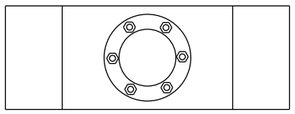
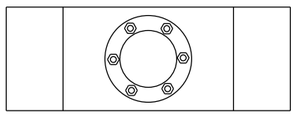
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: IH-39
WORK RESTRICTIONS: 5:00 AM TO 10:00 PM
TRAFFIC CONTROL: RIGHT AND LEFT LANE CLOSURE PER SDD 15D12

STATE PROJECT NUMBER
5105-17-62









ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.20	REPLACE SIGN PANEL CONNECTOR	38 EA	SHEET 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-53-0022

DRAWN BY BS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 24 OF 26

06/30/2016

8

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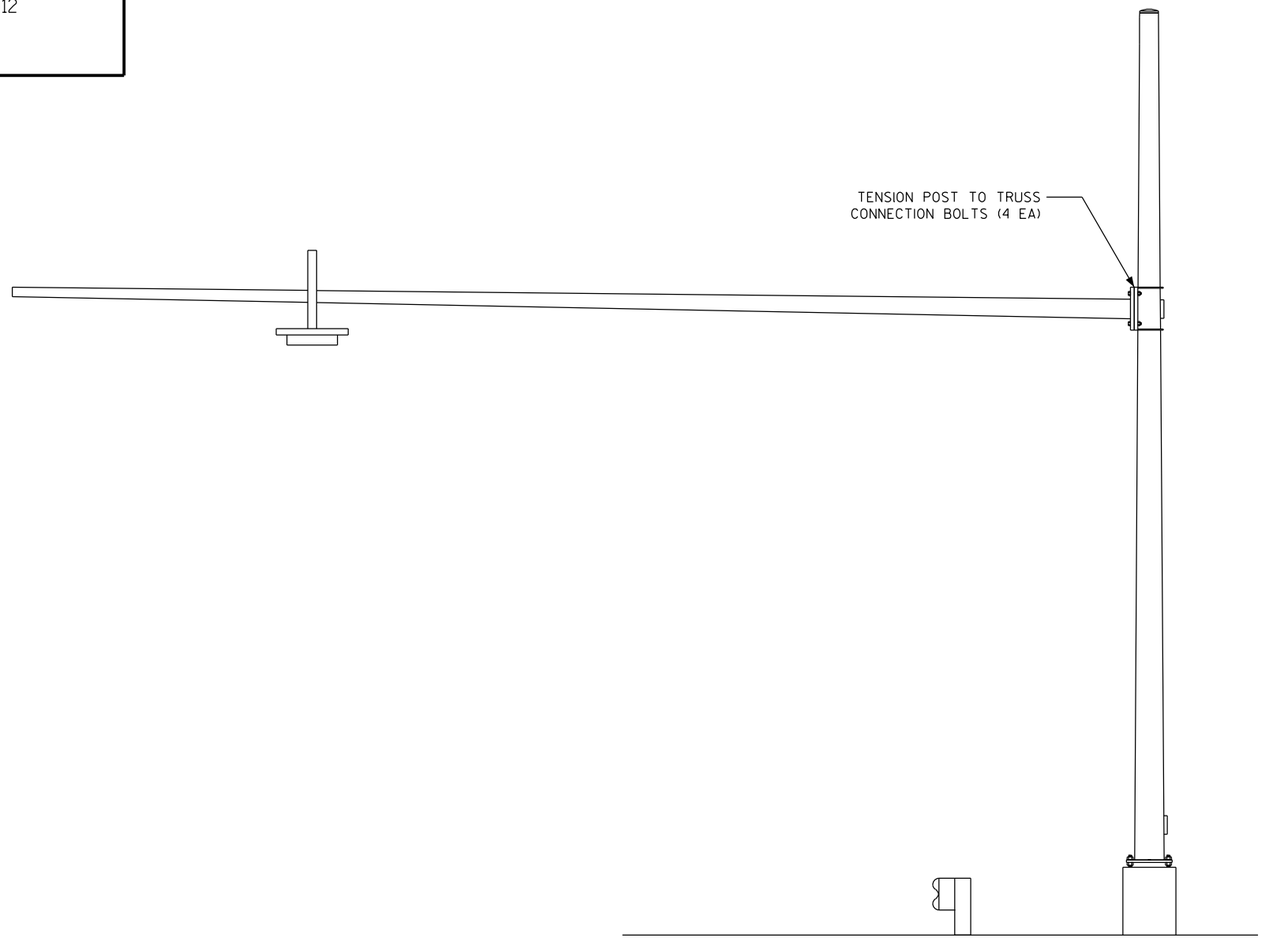
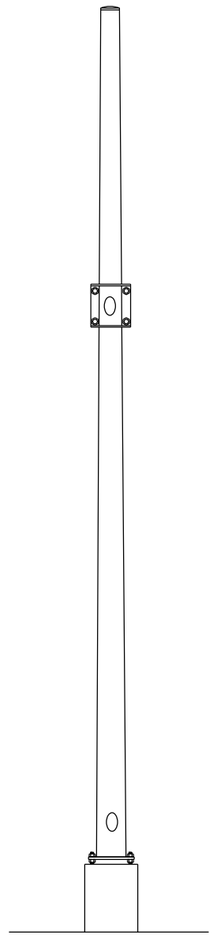
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: IH-39
WORK RESTRICTIONS: 5:00 AM TO 10:00 PM
TRAFFIC CONTROL: RIGHT LANE CLOSURE PER SDD 15D12

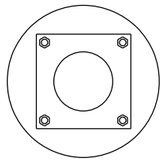
STATE PROJECT NUMBER
0072-04-70



LOOKING NORTH



LOOKING WEST



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.10	TENSION STRUCTURAL CONNECTION BOLT	4 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-53-0033

DRAWN BY RS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 25 OF 26

08/01/2016

8

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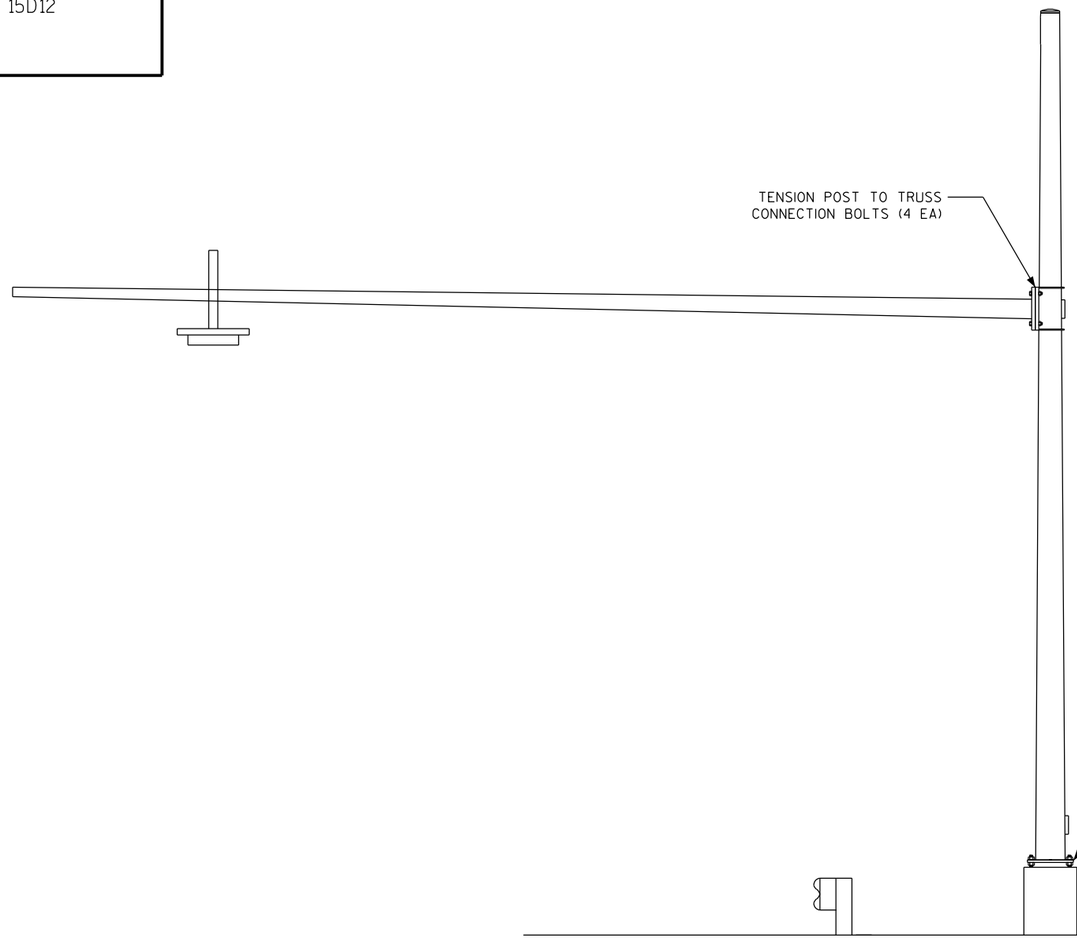
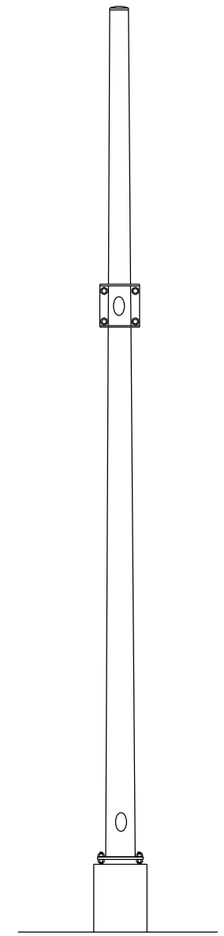
STRUCTURE SPECIFIC TRAFFIC CONTROL NOTES
HIGHWAY: IH-39
WORK RESTRICTIONS: 5:00 AM TO 10:00 PM
TRAFFIC CONTROL: RIGHT LANE CLOSURE PER SDD 15D12

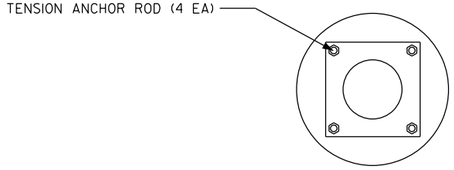
STATE PROJECT NUMBER
5105-17-62



LOOKING NORTH



LOOKING WEST



ITEM NO.	DESCRIPTION	QTY	DETAIL SHEET
SPV.0060.01	TENSION ANCHOR ROD	4 EA	NONE
SPV.0060.06	REMOVE GROUT PAD	1 EA	SHEET 1
SPV.0060.10	TENSION STRUCTURAL CONNECTION BOLT	4 EA	NONE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-53-0034

DRAWN BY RS | PLANS CK'D. TD

MAINTENANCE ITEMS

SHEET 26 OF 26

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08/01/2016

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Wisconsin Department of Transportation

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