EAU JAN 2017

PROJECT ID: 1023-03-72

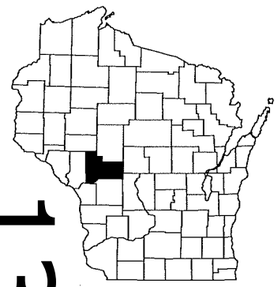
WITH:

COUNTY: JACKSON

13

ORDER OF SHEETS

TOTAL SHEETS = 148



N

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BLACK RIVER FALLS - TOMAH

3 BR/B27-0033/B27-0034/B27-0045

IH 94

JACKSON

STATE PROJECT NUMBER
1023-03-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1023-03-72	WISC 2017012	1

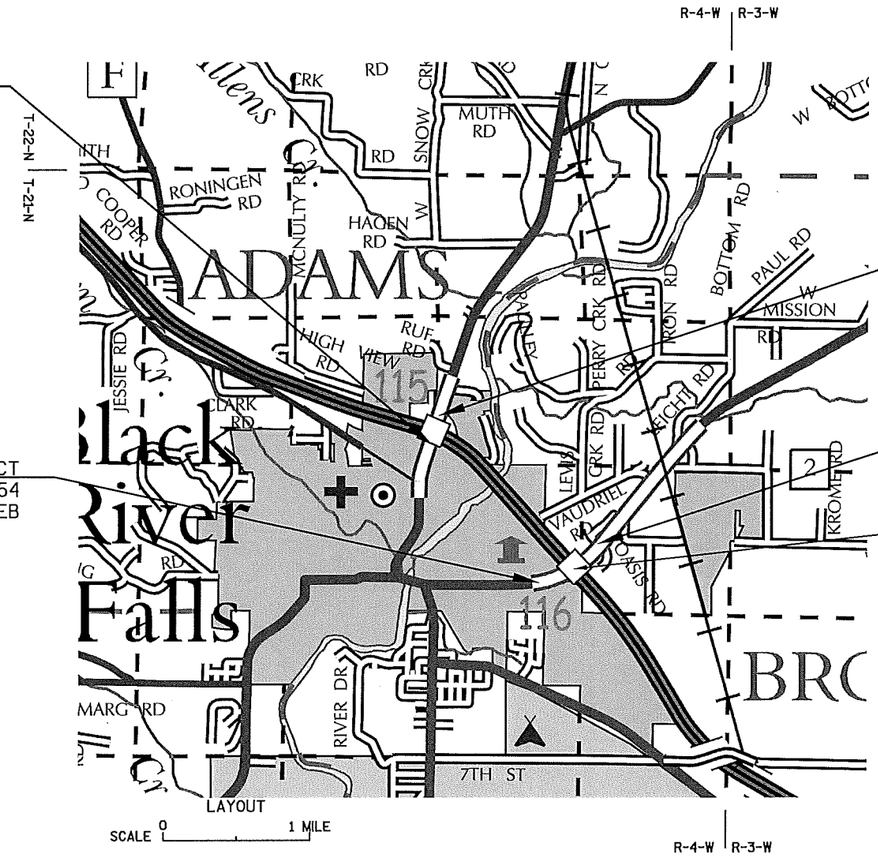
BEGIN PROJECT
USH 12 WB/STH 27 NB
STA. 31+59NB
STRUCTURE B-27-33
USH 12 EB/STH 27 SB
STA. 31+64SB
STRUCTURE B-27-34

BEGIN PROJECT
STH 54
STA. 58+50EB

END PROJECT
USH 12 WB/STH 27 NB
STA. 34+00NB
USH 12 EB/STH 27 SB
STA. 34+03SB

END PROJECT
STH 54
STA. 83+00EB

STRUCTURE B-27-45
STA 69+69.21EB TO 71+74.72EB



TOTAL NET LENGTH OF CENTERLINE = 0.00

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

DESIGN DESIGNATION IH 94			DESIGN DESIGNATION USH 12/STH 27			DESIGN DESIGNATION STH 54		
A.A.D.T.	2016	= 24,200	A.A.D.T.	2016	= 7,300	A.A.D.T.	2016	= 15,500
A.A.D.T.	2036	= 32,100	A.A.D.T.	2036	= 9,100	A.A.D.T.	2036	= 21,100
D.H.V.		= 4,530	D.H.V.		= 1,300	D.H.V.		= 3,000
D.D.		= 58/42	D.D.		= 58/42	D.D.		= 58/42
T.		= 30.8%	T.		= N/A	T.		= N/A
DESIGN SPEED		= 75 MPH	DESIGN SPEED		= 55 MPH	DESIGN SPEED		= 45 MPH
ESALS		= N/A	ESALS		= 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 (300EB)
- 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)
- OVERHEAD UTILITY (OH)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION - EAU CLAIRE
Designer	K. SPENCER-DOBSON
Project Manager	M. THORNSEN
Regional Examiner	C. KOSKI
Regional Supervisor	R. SHERMO

APPROVED FOR THE DEPARTMENT

DATE: 7/13/16 (Signature)

E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\010101-TI.DWG
LAYOUT NAME - ####

PLOT DATE : 7/13/2016 2:47 PM

PLOT BY : SPENCER-DOBSON, KEENPLOT NAME :

2

LIST OF STANDARD ABBREVIATIONS

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

UTILITIES

COMMUNICATION LINE

AT&T LEGACY
BRAD KEMPH
715-254-5238
COPY ALL CORRESPONDENCE TO:
BILL KOENIG (ENGINEER)
JMC ENGINEERS & ASSOCAITES
128 W SUNSET AVENUE
APPLETON, WI 54911
MOBILE PHONE: 608-628-0575
E-MAIL: WEKOENIG@ATT.NET

CENTURYLINK
24-HOUR EMERGENCY REPAIR
800-824-2877
DONNA SMOTHERS
835 RED IRON ROAD
BLACK RIVER FALLS, WI 54615
OFFICE PHONE: 715-248-4375
MOBILE PHONE: 715-797-4854
E-MAIL: DONNA.SMOTHERS@CENTURYLINK.COM

ELECTRICITY

BLACK RIVER FALLS - ELECTRICITY
KEVIN LA VALLEY
119 N WATER STREET
BLACK RIVER FALLS, WI 54615
OFFICE PHONE: 715-284-9463 EXT 222
MOBILE PHONE: 715-896-0511
E-MAIL: KLAVALLEY@WPPIENERGY.ORG

JACKSON ELECTRIC COOPERATIVE
ERIC STEIEN
PO BOX 546
BLACK RIVER FALLS, WI 54615
OFFICE PHONE: 715-284-5385
E-MAIL: ESTEIEN@JACKELEC.COM

GAS

WE ENERGIES
24-HOUR EMERGENCY (GAS)
800-261-5325
TRAVIS KAHL
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
OFFICE PHONE: 715-421-7256
MOBILE PHONE: 715-498-6180
E-MAIL: TRAVIS.KAHL@WE-ENERGIES.COM

WISCONSIN DNR - LIASON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
WEST CENTRAL REGION SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: (608) 785-9115
ATTN: KAREN KALVELAGE

GENERAL NOTES

HORIZONTAL CONTROL POINTS AND ANY OTHER SURVEY INFORMATION WILL BE PROVIDED BY NORTHWEST REGIONAL TECHNICAL SERVICES UPON REQUEST.

CURVE DATA IS BASED ON THE ARC DEFINITION.

A VERTICAL SAWCUT SHALL BE MADE THROUGH THE EXISTING PAVEMENT AT REMOVAL LIMITS.

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

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHINT THE FINISHED SHOULDER POINTS, SHALL BE SALVAGED TOPSOILED, SEED, AND MULCHED OR E-MATTED AS DIRECTED BY THE ENGINEER.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE COUNTY SURVEYOR REGARDING MONUMENT AND PROPERTY CORNER PRESERVATION.

THE LOCATIONS OF EXISTING AND PROPSED UTILITY INTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHE UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

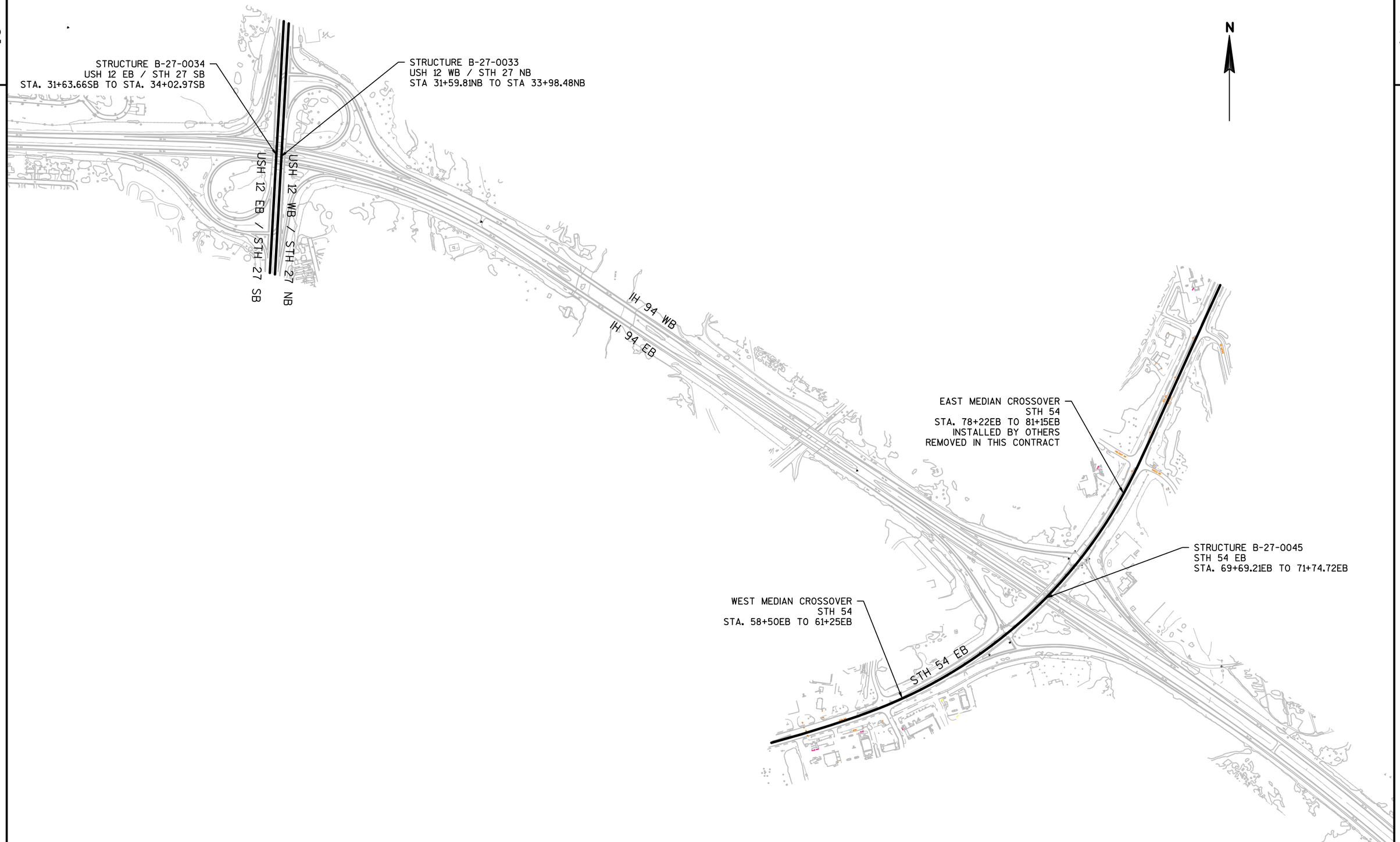
IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL DIGGERS HOTLINE PRIOR TO BEGINNING WORK OPERATIONS AND TO CONFIRM ALL UTILITY LOCATIONS.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF ITEMS OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED BY THE TON, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

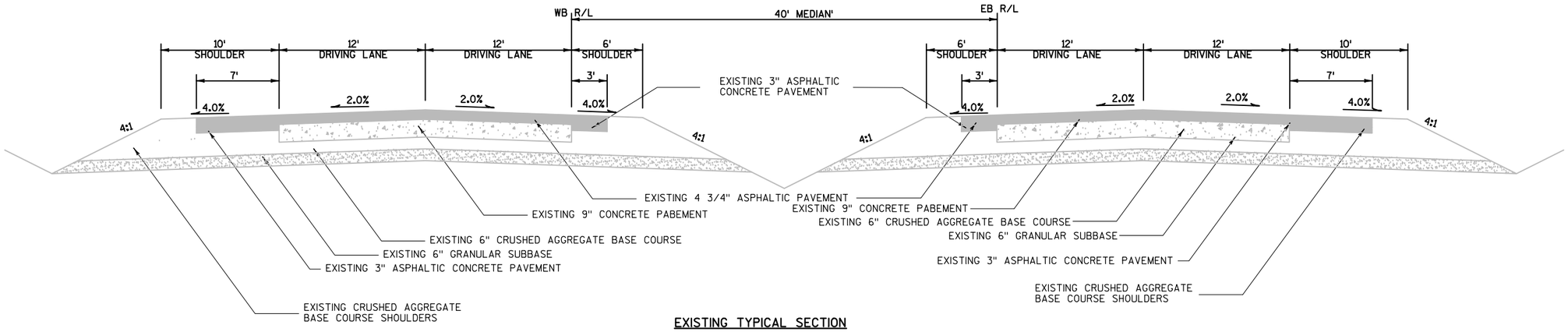
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

ORDER OF SECTION 2 SHEETS



2

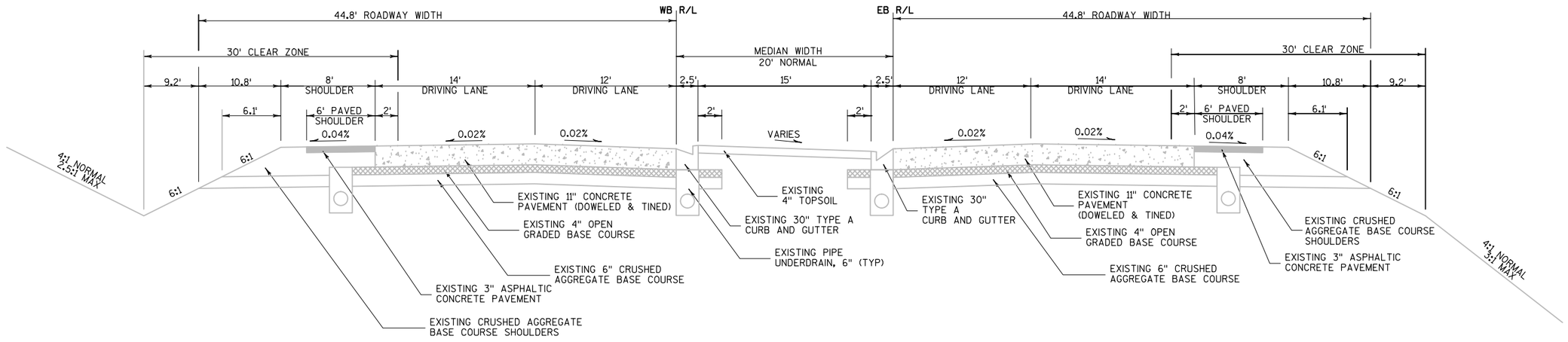
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	PROJECT OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION

USH 12 / STH 27

STA 20+50 TO STA 54+00



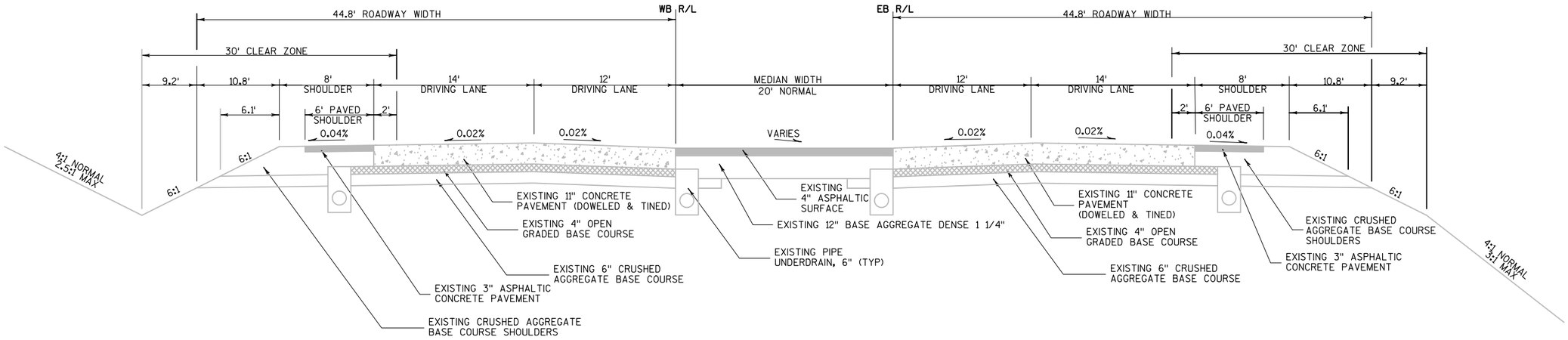
EXISTING TYPICAL SECTION

STH 54

STA 54+75 EB TO STA 78+22 EB

STA 81+15 EB TO STA 86+00 EB

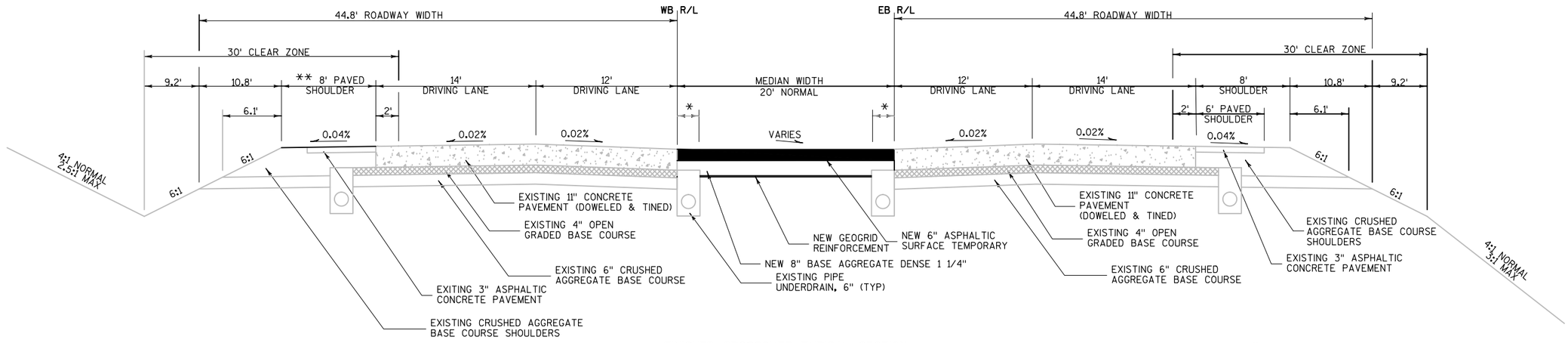
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 4	E



EXISTING TYPICAL SECTION

STH 54

STA 78+22 EB TO STA 81+15 EB



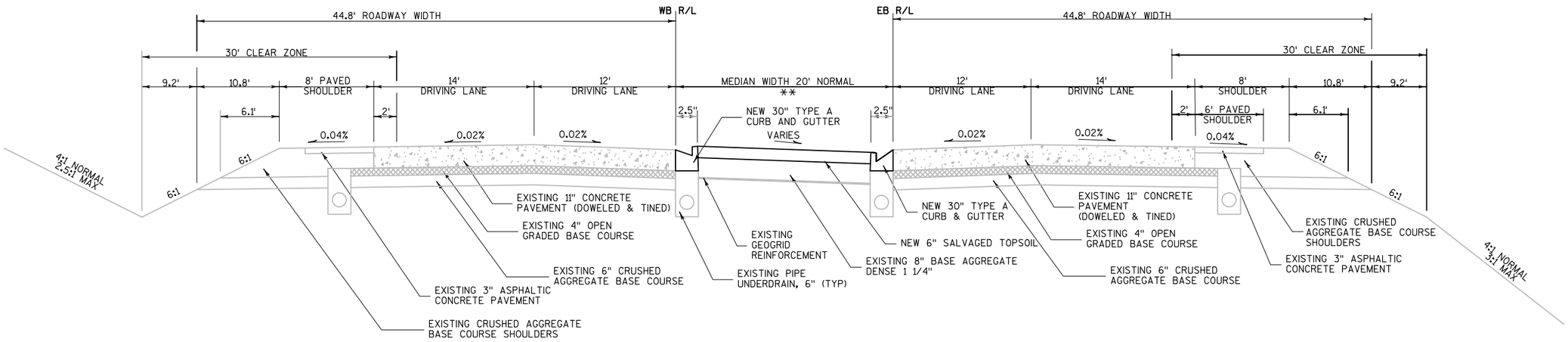
FINISHED CROSSOVER TYPICAL SECTION

STH 54

STA 58+50 EB TO STA 61+25 EB

* REMOVE EXISTING 30-INCH TYPE A CURB AND GUTTER ALONG BOTH SIDES OF THE CROSSOVER FROM STA 58+50EB TO STA 61+25EB.
BUTT NEW ASPHALTIC SURFACE DIRECTLY AGAINST EXISTING CONCRETE.

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 5	E

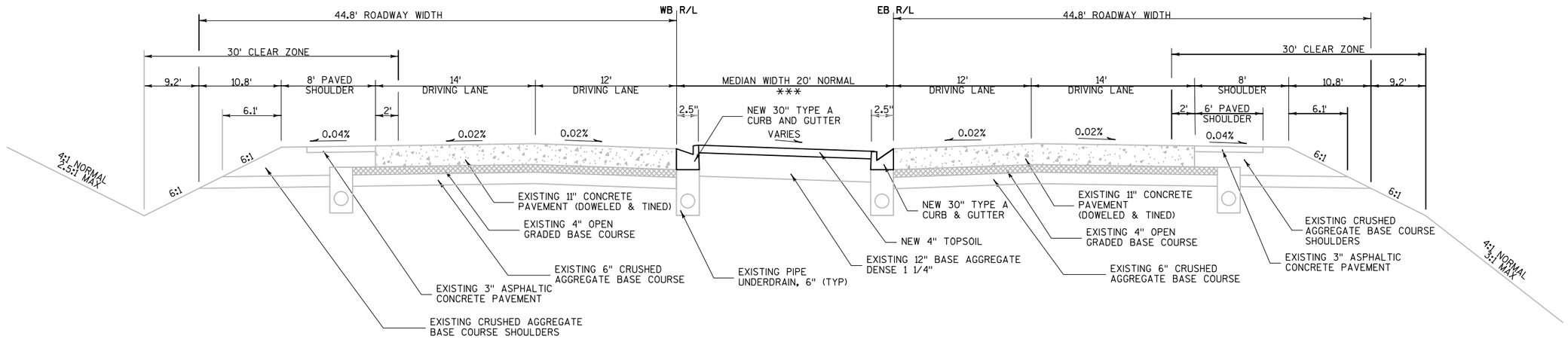


FINISHED TYPICAL SECTION

STH 54

STA 58+50 EB TO STA 61+25 EB

** REMOVE EXISTING EXISTING ASPHALTIC SURFACE TEMPORARY.
INSTALL 30-INCH TYPE A CURB AND GUTTER ALONG BOTH SIDES
OF THE CROSSOVER FROM STA 58+50EB TO STA 61+25EB.
FILL MEDIAN WITH 6" SALVAGED TOPSOIL. FINISH WITH FERTILIZER TYPE B,
SEEDING MIXTURE NO. 40, AND EROSION MAT URBAN CLASS I TYPE B.



FINISHED TYPICAL SECTION

STH 54

STA 78+22 EB TO STA 81+15 EB

*** REMOVE EXISTING EXISTING ASPHALTIC SURFACE, PAID FOR
UNDER REMOVING ASPHALTIC SURFACE..
INSTALL 30-INCH TYPE A CURB AND GUTTER ALONG BOTH SIDES
OF THE CROSSOVER FROM STA 78+22EB TO 81+15EB.
FILL MEDIAN WITH 4" TOPSOIL. FINISH WITH FERTILIZER TYPE B,
SEEDING MIXTURE NO. 40, AND EROSION MAT URBAN CLASS I TYPE B.

2

2

N

MCDONALD
ROAD

WEST CROSSOVER
STA. 58+50EB TO STA. 61+25EB

BEGIN CONSTRUCTION STH 54
STA. 58+00EB

EXISTING LIGHT POLE AND PULL BOX TO REMAIN

STH 54

55+00EB

UNDERGROUND ELECTRIC FROM STA. 57+95EB TO STA. 61+96EB
REMOVE CONDUIT AND WIRE BETWEEN EXISTING PULL BOXES.
REPLACE WITH CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
AND ELECTRIC WIRE LIGHTING 6 AWG.

PI STA = 68+63.74
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64
PT STA = 82+92.39

MCDONALD
ROAD

COMMERCE DRIVE

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54 LIGHTING PLAN	SHEET 7	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\023601-LP_NEW.DWG
LAYOUT NAME - 0502(13)-PN

PLOT DATE : 4/21/2016 4:26 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

SIGN WALL

WEST CROSSOVER
STA. 58+50EB TO 61+25EB

UNDERGROUND ELECTRIC FROM STA. 57+95EB TO STA. 61+96EB
REMOVE CONDUIT AND WIRE BETWEEN EXISTING PULL BOXES.
REPLACE WITH CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
AND ELECTRIC WIRE LIGHTING 6 AWG.

E

60+00EB

65+00EB

MH

STH 54

EXISTING LIGHT POLE AT STA. 60+63EB
REMOVE, SALVAGE, AND REINSTALL LIGHT POLE AND
TYPE 5 BASE.
PAID FOR UNDER SPV.0060.02 REMOVE, SALVAGE, AND
RELOCATE EXISTING LIGHTING EQUIPMENT
UTILITY OWNED BY THE CITY OF BLACK RIVER FALLS.
WORK COMPLETED BY THE CONTRACTOR.

EXISTING LIGHT POLE AT STA. 59+27EB
REMOVE, SALVAGE, AND REINSTALL LIGHT POLE AND
TYPE 5 BASE.
PAID FOR UNDER SPV.0060.02 REMOVE, SALVAGE, AND
RELOCATE EXISTING LIGHTING EQUIPMENT
UTILITY OWNED BY THE CITY OF BLACK RIVER FALLS.
WORK COMPLETED BY THE CONTRACTOR.

STH 54 EB TO IH 94 EB

PI STA = 68+63.74
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64
PT STA = 82+92.39

MH

COMMERCE DRIVE

SIGN

MH

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54 LIGHTING PLAN	SHEET 8	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - 0502(14)-PN
PLOT DATE : 7/14/2016 4:45 PM
PLOT BY : SPENCER-DOBSON, KEENPLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

IH 94 EB OFFRAMP TO STH 54

EXISTING SIGNAL STA. 66+46EB
REMOVE, SALVAGE, AND REINSTALL SIGNAL, TYPE 1 POLE, AND TYPE 1 BASE.
PAID FOR UNDER SPV.0060.04 REMOVE, SALVAGE, AND REINSTALL SIGNALS (IH 94 EB OFF-RAMP).
UTILITY OWNED BY WISCONSIN DOT.
WORK COMPLETED BY THE CONTRACTOR.

IH 94 EB

IH 94 WB

N

STRUCTURE LIMITS
B-27-0045
STA. 69+61.21EB

STH 54

65+00EB

70+00EB

STH 54

STH 54 WB TO IH 94 EB

STH 54 EB TO IH 94 EB

E.F.

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
SE = 0.035

SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR ADDITIONAL ELECTRICAL ITEMS ASSOCIATED WITH THE TEMPORARY TRAFFIC CONTROL SIGNALS.

IH 94

SIGN

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54 LIGHTING PLAN	SHEET 9	E

2

2

IH 94 WB

IH 94 WB ONRAMP FROM STH 54

EXISTING RAMP CLOSURE GATE SYSTEM STA. 73+84EB
REMOVE, SALVAGE, AND REINSTALL.
PAID FOR UNDER SPV.0060.01 REMOVE AND REINSTALL
RAMP CLOSURE GATE SOLAR 40 FOOT IH 94 WB ON-RAMP
UTILITY OWNED BY WISCONSIN DOT.
WORK COMPLETE BY THE CONTRACTOR.

STRUCTURE LIMITS
B-27-0045
STA. 71+74.72EB

STRUCTURE B-27-0045
SEE STRUCTURE PLANS
FOR WORK ON STRUCTURE.

STH 54

75+00EB

SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR
ADDITIONAL ELECTRICAL ITEMS ASSOCIATED WITH
THE TEMPORARY TRAFFIC CONTROL SIGNALS.

PI STA = 68+63.74
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64
PT STA = 82+92.39

IH 94

IH 94 WB OFFRAMP TO STH 54

SIGN

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54 LIGHTING PLAN	SHEET 10	E

2

2

EAST CROSSOVER
STA. 78+22EB TO STA. 81+15EB
CONSTRUCTED BY OTHERS

80+00EB

STH 54

END CONSTRUCTION
STA. 83+00EB

EXISTING LIGHT POLE AND PULL BOX TO REMAIN

PI STA = 68+63.74
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64
PT STA = 82+92.39

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54 LIGHTING PLAN	SHEET 11	E

2

2

HOLIDAY DRIVE

SIGN

END CONSTRUCTION
STA. 83+00EB

PCC: 82+92.39EB

PT: 85+19.27EB

INL

INL

INL

INL

85+00EB

STH 54

PI: 84+05.83EB

PI STA = 68+63.74
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64
PT STA = 82+92.39

OASIS ROAD

PI STA = 84+05.83EB
Y = 98473.612
X = 95173.497
DELTA = 1°08'04"
D = 0°30'00"
T = 113.44'
L = 226.89'
R = 11459.16'
PC STA = 82+92.39EB
PT STA = 85+19.27EB
SE = NC

SIGN

SIGN

SIGN

OASIS RD

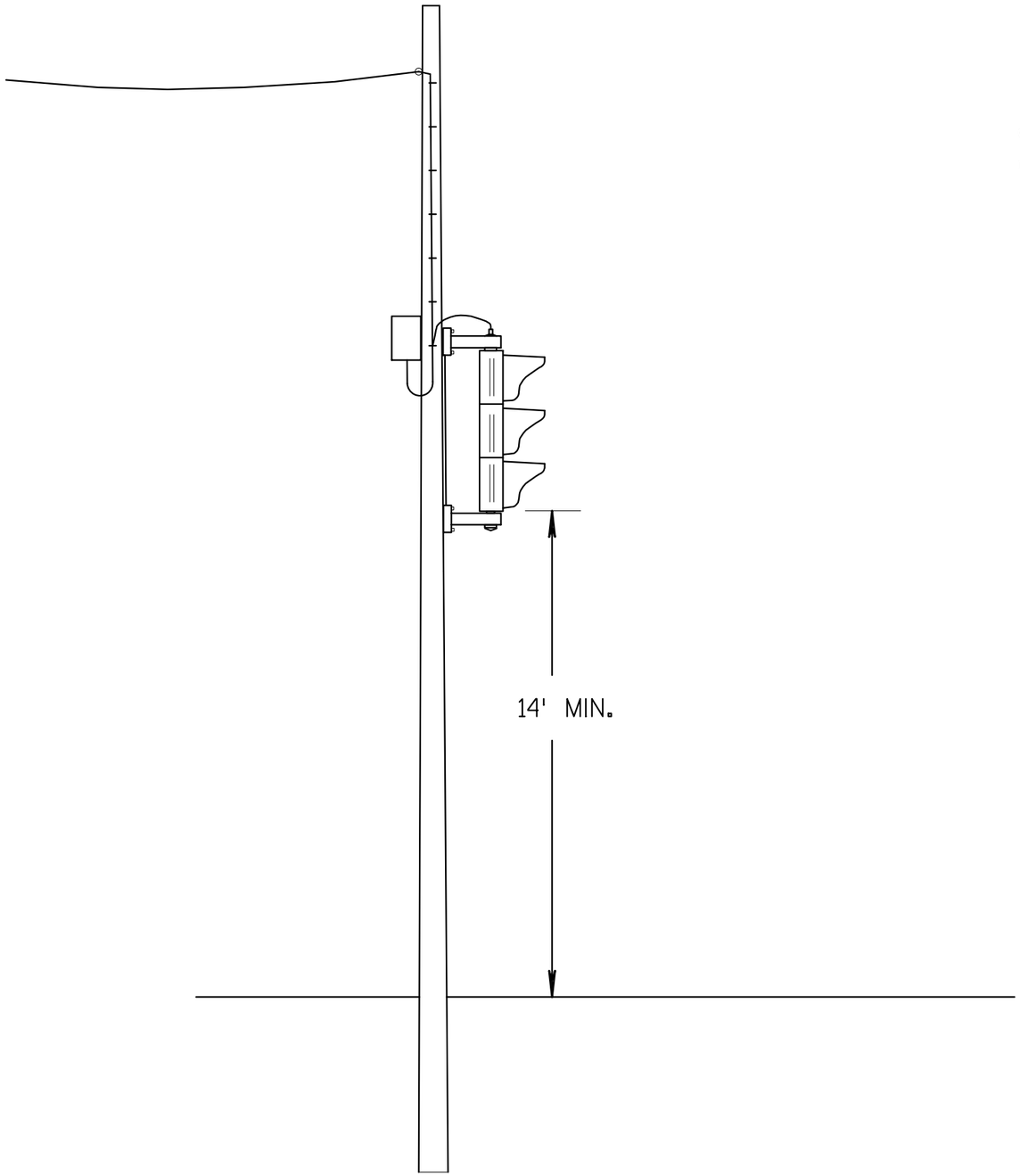
FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54 LIGHTING PLAN	SHEET 12	E

2

GENERAL NOTES

1. THE SIGNAL INDICATION ON WP5, AT THE STH 54 & IH 94 EAST RAMPS INTERSECTION, SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 14'.



SIGNAL HEAD MOUNTING HEIGHT FOR MEDIAN MOUNTED RIGHT TURN SIGNAL HEADS

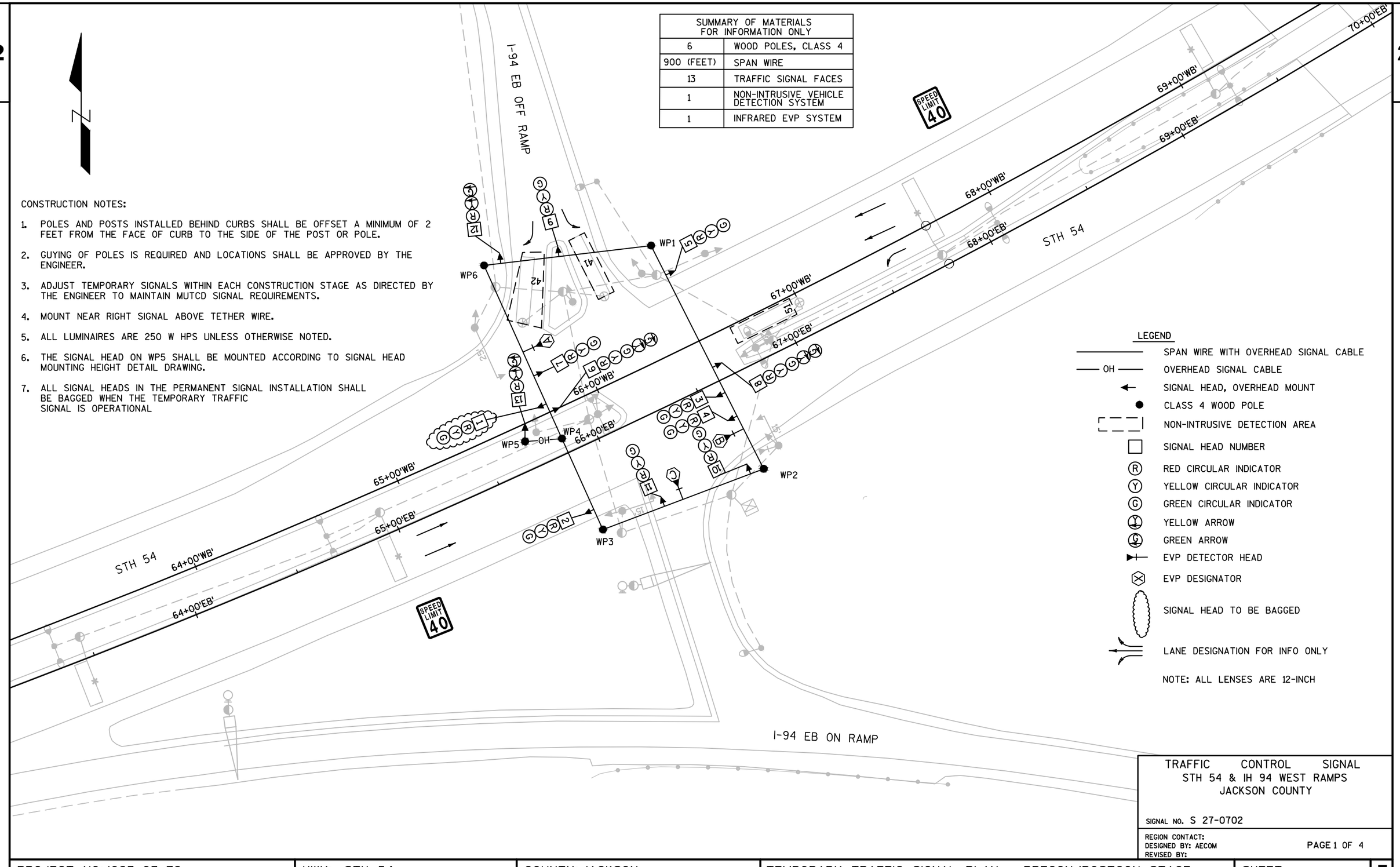
PROJECT NO:1023-03-72	HWY: STH 54	COUNTY:JACKSON	SIGNAL HEAD MOUNTING HEIGHT DETAIL	SHEET 13	E

2

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
6	WOOD POLES, CLASS 4
900 (FEET)	SPAN WIRE
13	TRAFFIC SIGNAL FACES
1	NON-INTRUSIVE VEHICLE DETECTION SYSTEM
1	INFRARED EVP SYSTEM

CONSTRUCTION NOTES:

1. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE.
5. ALL LUMINAIRES ARE 250 W HPS UNLESS OTHERWISE NOTED.
6. THE SIGNAL HEAD ON WP5 SHALL BE MOUNTED ACCORDING TO SIGNAL HEAD MOUNTING HEIGHT DETAIL DRAWING.
7. ALL SIGNAL HEADS IN THE PERMANENT SIGNAL INSTALLATION SHALL BE BAGGED WHEN THE TEMPORARY TRAFFIC SIGNAL IS OPERATIONAL



LEGEND

- SPAN WIRE WITH OVERHEAD SIGNAL CABLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- SIGNAL HEAD TO BE BAGGED
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 WEST RAMPS
JACKSON COUNTY

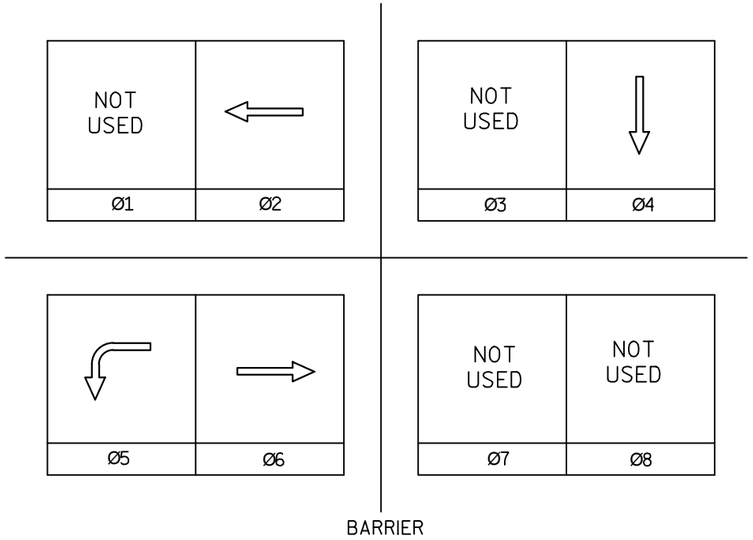
SIGNAL NO. S 27-0702

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 4

PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY TRAFFIC SIGNAL PLAN - PRECON/POSTCON STAGE	SHEET 14	E

	HEAD NUMBERS	FLASH
ø1		
ø2	5,6,7,8	R
ø3		
ø4	9,10,11,12,13	R
ø5	6,8	R
ø6	1,2,3,4	R
ø7		
ø8		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MAX	X
3				
4				X
5		2		X
6	X	2	MAX	X
7				
8				

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	41	51						
PHASE CALLED	4	5						
PHASE EXTENDED	4	5						
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	42							
PHASE CALLED	4							
PHASE EXTENDED	4							
DISCONNECT TIME								
CALLING DELAY	X							
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	
MOVEMENT	← ↰	→	↓	
DIRECTION	WB	EB	SB	
PHASES	2+5	6	4	

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

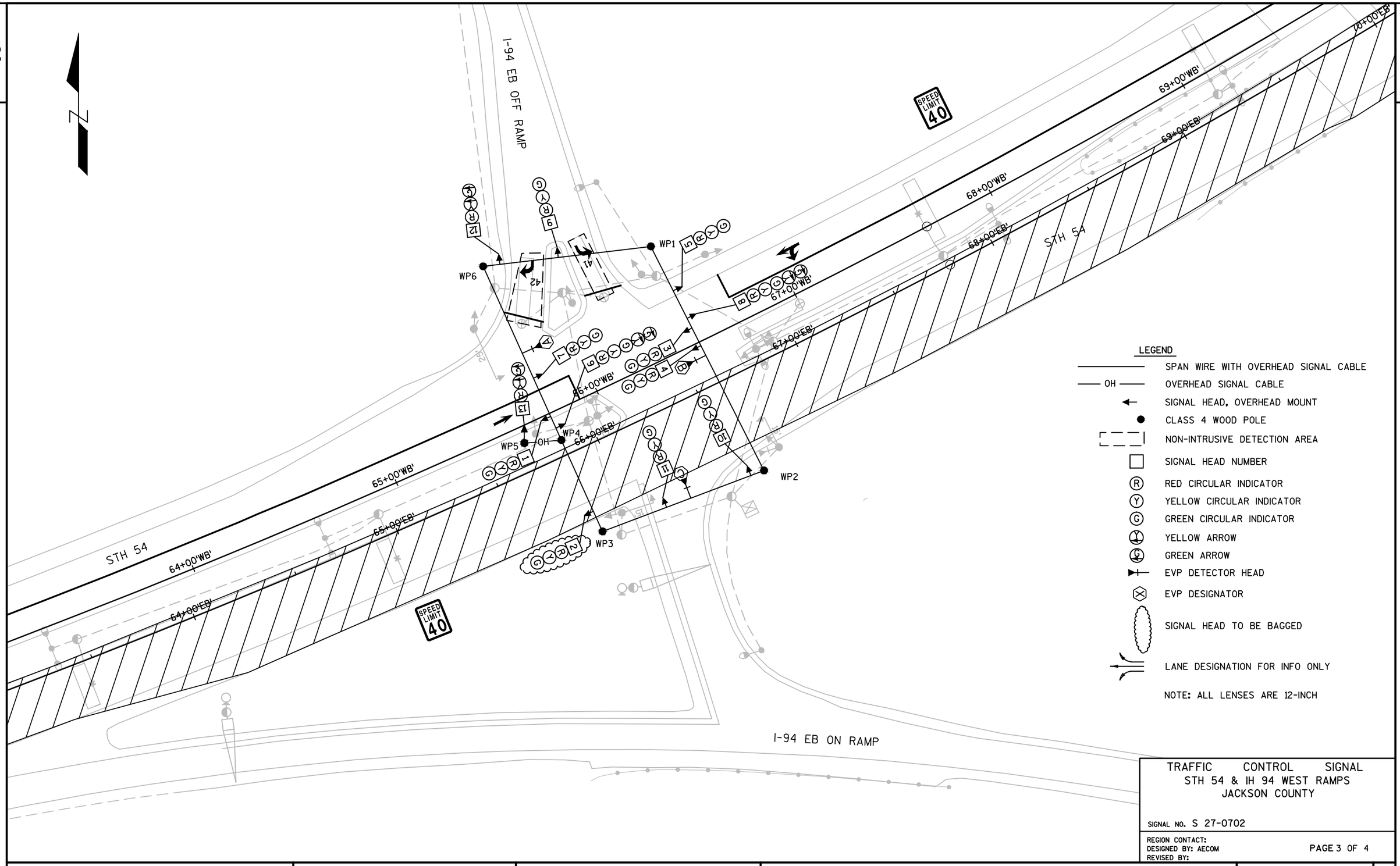
TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 WEST RAMPS
JACKSON COUNTY

SIGNAL NO. S 27-0702

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY SEQUENCE OF OPERATIONS - PRECON/POSTCON STAGE	SHEET 15	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60488853\900_WORK\910_CAD\TEMP SIG.DWG
LAYOUT NAME - TEMP SIG - SEQUENCE EB RAMPS-PRECON
PLOT DATE : 7/14/2016 9:49 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 WEST RAMPS
JACKSON COUNTY

SIGNAL NO. S 27-0702

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 4

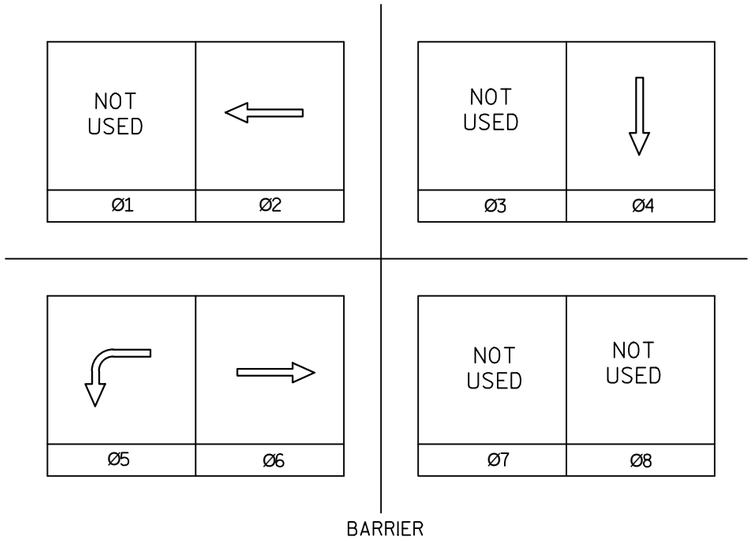
PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 16	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60488853\900_WORK\910_CAD\TEMP SIG.DWG
LAYOUT NAME - TEMP SIG - I-94 EB RAMPS STAGE 1

PLOT DATE : 7/14/2016 9:49 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME : PLOT SCALE : 40 FT:1 IN

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
ø1	5,6,7,8	
ø2		R
ø3	9,10,11,12,13	
ø4	6,8	R
ø5	1,2,3,4	
ø6		R
ø7		
ø8		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MAX	X
3				
4			MAX	X
5		2	MAX	X
6	X	2	MAX	X
7				
8				

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	41							
PHASE CALLED	4							
PHASE EXTENDED	4							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	42							
PHASE CALLED	4							
PHASE EXTENDED	4							
DISCONNECT TIME								
CALLING DELAY	X							
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	1	2	3	
MOVEMENT	←	→	↓	
DIRECTION	WB	EB	SB	
PHASES	2+5	6	4	

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 WEST RAMPS
JACKSON COUNTY

SIGNAL NO. S 27-0702

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 4

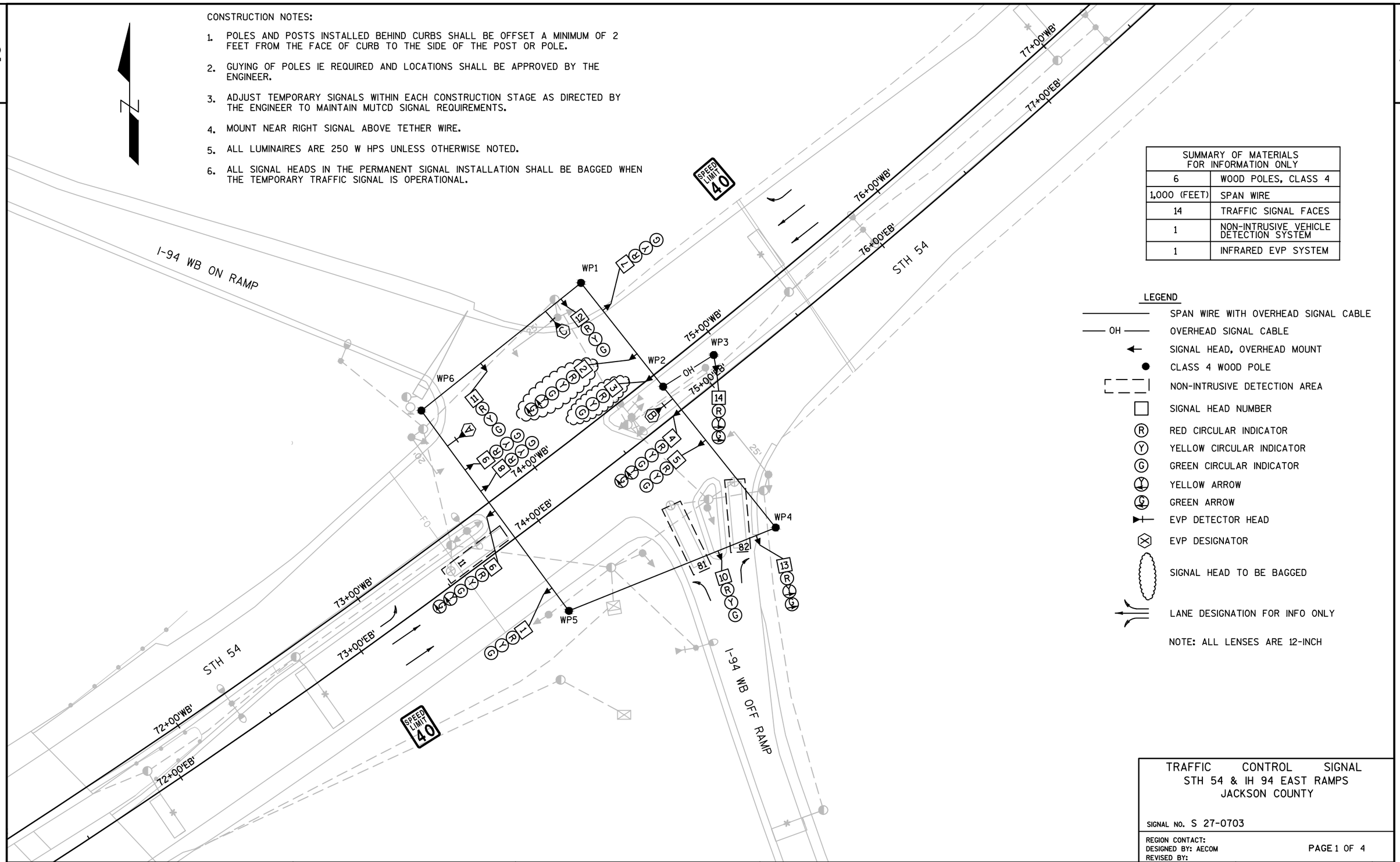
PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY SEQUENCE OF OPERATIONS - STAGE 1	SHEET 17	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60488853\900_WORK\910_CAD\TEMP SIG.DWG
LAYOUT NAME - TEMP SIG - SEQUENCE EB RAMPS - STAGE 1

PLOT DATE : 7/14/2016 9:49 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME : PLOT SCALE : **********

CONSTRUCTION NOTES:

1. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
2. GUYING OF POLES IE REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE.
5. ALL LUMINAIRES ARE 250 W HPS UNLESS OTHERWISE NOTED.
6. ALL SIGNAL HEADS IN THE PERMANENT SIGNAL INSTALLATION SHALL BE BAGGED WHEN THE TEMPORARY TRAFFIC SIGNAL IS OPERATIONAL.



SUMMARY OF MATERIALS FOR INFORMATION ONLY	
6	WOOD POLES, CLASS 4
1,000 (FEET)	SPAN WIRE
14	TRAFFIC SIGNAL FACES
1	NON-INTRUSIVE VEHICLE DETECTION SYSTEM
1	INFRARED EVP SYSTEM

LEGEND

- SPAN WIRE WITH OVERHEAD SIGNAL CABLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- SIGNAL HEAD TO BE BAGGED
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 EAST RAMPS
JACKSON COUNTY

SIGNAL NO. S 27-0703

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

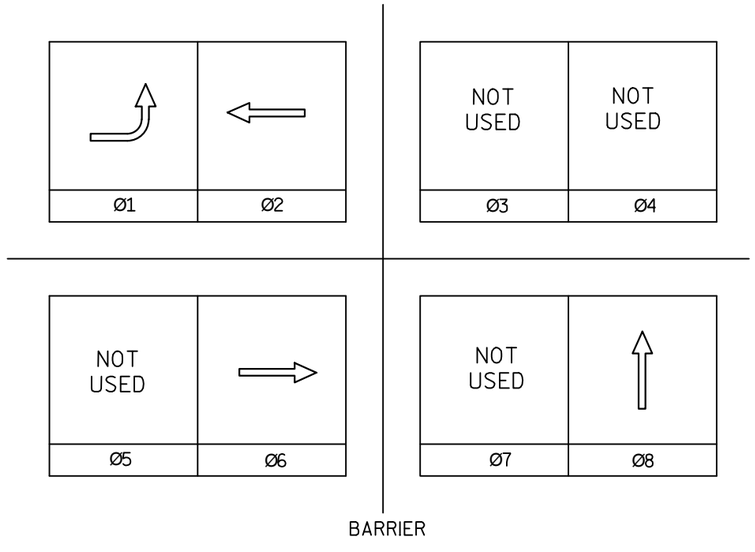
PAGE 1 OF 4

PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY TRAFFIC SIGNAL PLAN - PRECON/POSTCON STAGE	SHEET 18	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60488853\900_WORK\910_CAD\TEMP SIG.DWG
LAYOUT NAME - TEMP SIG - I-94 WB RAMPS PRECON

PLOT DATE : 7/14/2016 9:49 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
ø1	2,4,6	R
ø2	7,8,9	R
ø3		
ø4		
ø5		
ø6	1,2,3,4,5,6	R
ø7		
ø8	10,11,12,13,14	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1		2		X
2	X	6	MAX	X
3				
4				
5				
6	X	2	MAX	X
7				
8				X

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	82						
PHASE CALLED	1	8						
PHASE EXTENDED	1	8						
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	81							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	←	↱		↑
DIRECTION	WB	EB		NB
PHASES	2	1+6		8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 EAST RAMPS
JACKSON COUNTY

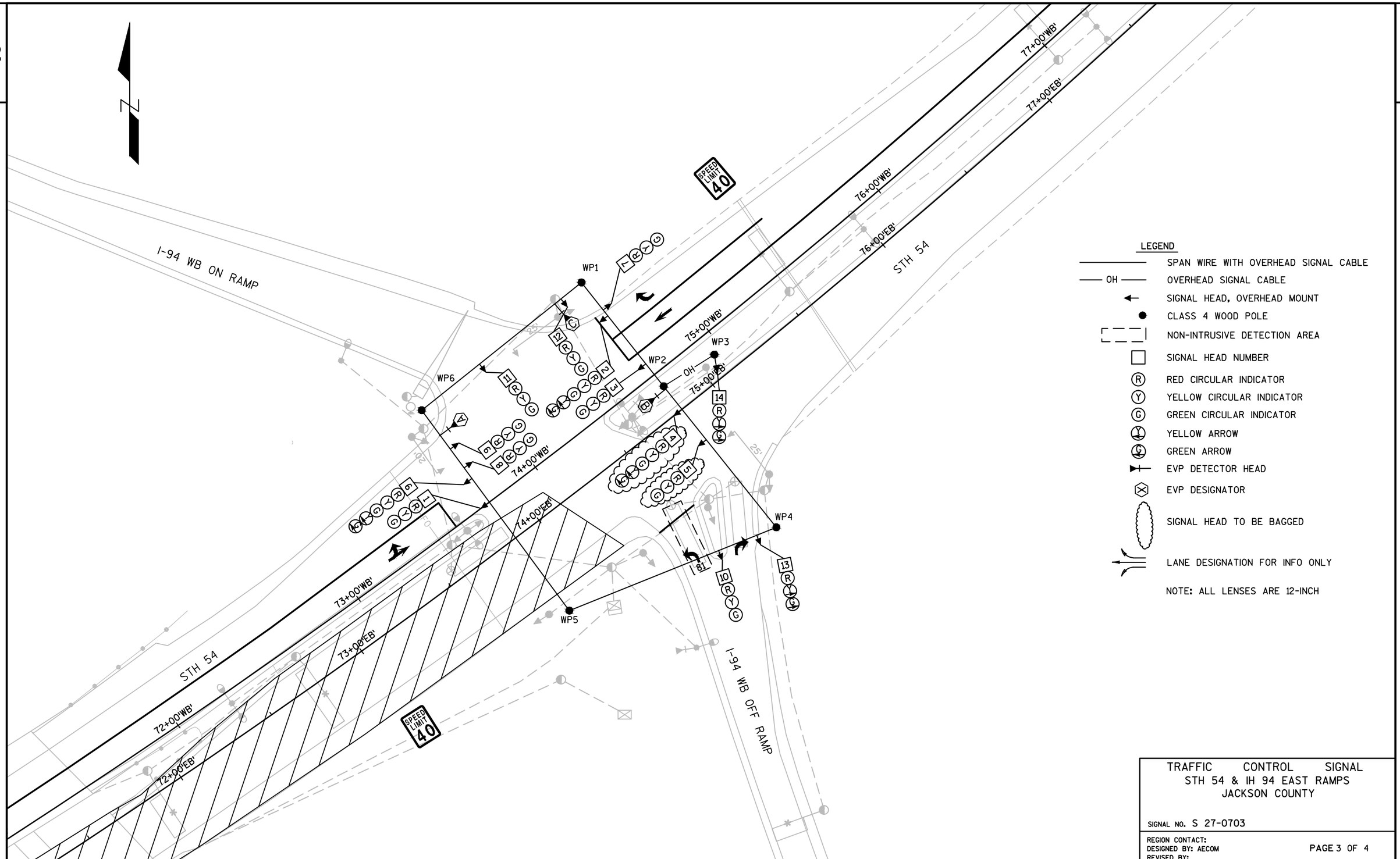
SIGNAL NO. S 27-0703

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY SEQUENCE OF OPERATIONS - PRECON/POSTCON STAGE	SHEET 19	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60488853\900_WORK\910_CAD\TEMP SIG.DWG
LAYOUT NAME - TEMP SIG - SEQUENCE WB RAMPS-PRECON
PLOT DATE : 7/14/2016 9:49 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



LEGEND

- SPAN WIRE WITH OVERHEAD SIGNAL CABLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- CLASS 4 WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- EVP DETECTOR HEAD
- EVP DESIGNATOR
- SIGNAL HEAD TO BE BAGGED
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 EAST RAMPS
JACKSON COUNTY

SIGNAL NO. S 27-0703

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

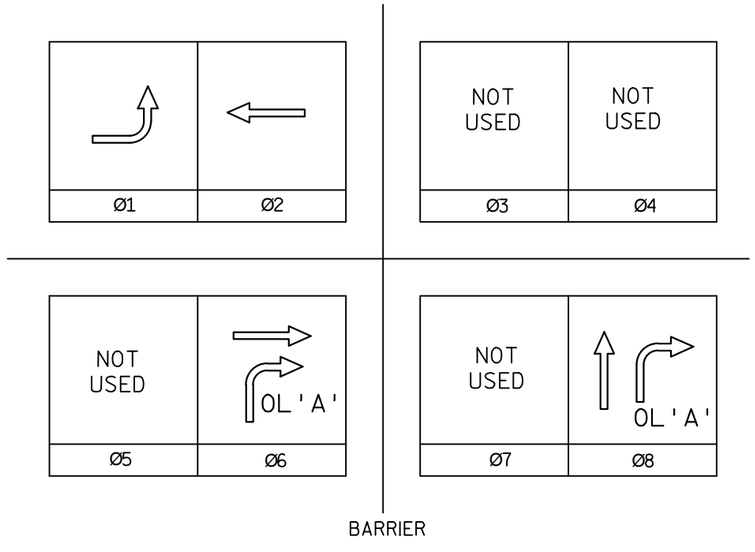
PAGE 3 OF 4

PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 20	E

FILE NAME : \\USMSN1FS001\PROD\DATA\PROJECTS\60488853\900_WORK\910_CAD\TEMP SIG.DWG
LAYOUT NAME - TEMP SIG - I-94 WB RAMPS STAGE 1

PLOT DATE : 7/14/2016 9:49 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
ø1	2,4,6	R
ø2	7,8,9	R
ø3		
ø4		
ø5		
ø6	1,2,3,4,5,6	R
ø7		
ø8	10,11,12	R
OL'A'	13,14	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W /Ø	PHASE RECALL	PHASE ACTIVE
1		6	MAX	X
2	X	6	MAX	X
3				
4				
5				
6	X	2	MAX	X
7				
8			MAX	X

OVERLAPS

O.L. "A" = Ø6 + Ø8
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR *(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR *(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR *(S)	81							
PHASE CALLED	8							
PHASE EXTENDED	8							
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR *(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT	←	↱		↑ ↱
DIRECTION	WB	EB		NB
PHASES	2	1+6		8+OLA

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
STH 54 & IH 94 EAST RAMPS
JACKSON COUNTY

SIGNAL NO. S 27-0703

REGION CONTACT:
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 4

PROJECT NO: 1023-03-72	HWY: STH 54	COUNTY: JACKSON	TEMPORARY SEQUENCE OF OPERATIONS - STAGE 1	SHEET 21	E

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

EAST TRAFFIC CONTROL COVERING SIGNS TYPE II

ROAD CLOSED

DETOUR ROUTE

INTERSTATE 94 — M1-1 24"X24"

DETOUR — M04-8 24"X12"

M06-1 21"X21"

EAST — M3-2 24"X12"

TO — M4-5 24"X12"

RAMP CLOSED AHEAD — W20-53-A — 48" X 48"

GENERAL NOTES

DETOUR SIGN ASSEMBLIES ARE TO BE INSTALLED ON THEIR OWN SUPPORT AND NOT TO BE USED AS SIGN COVERS UNLESS APPROVED BY THE ENGINEER OR NOTED IN THE PLAN.

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

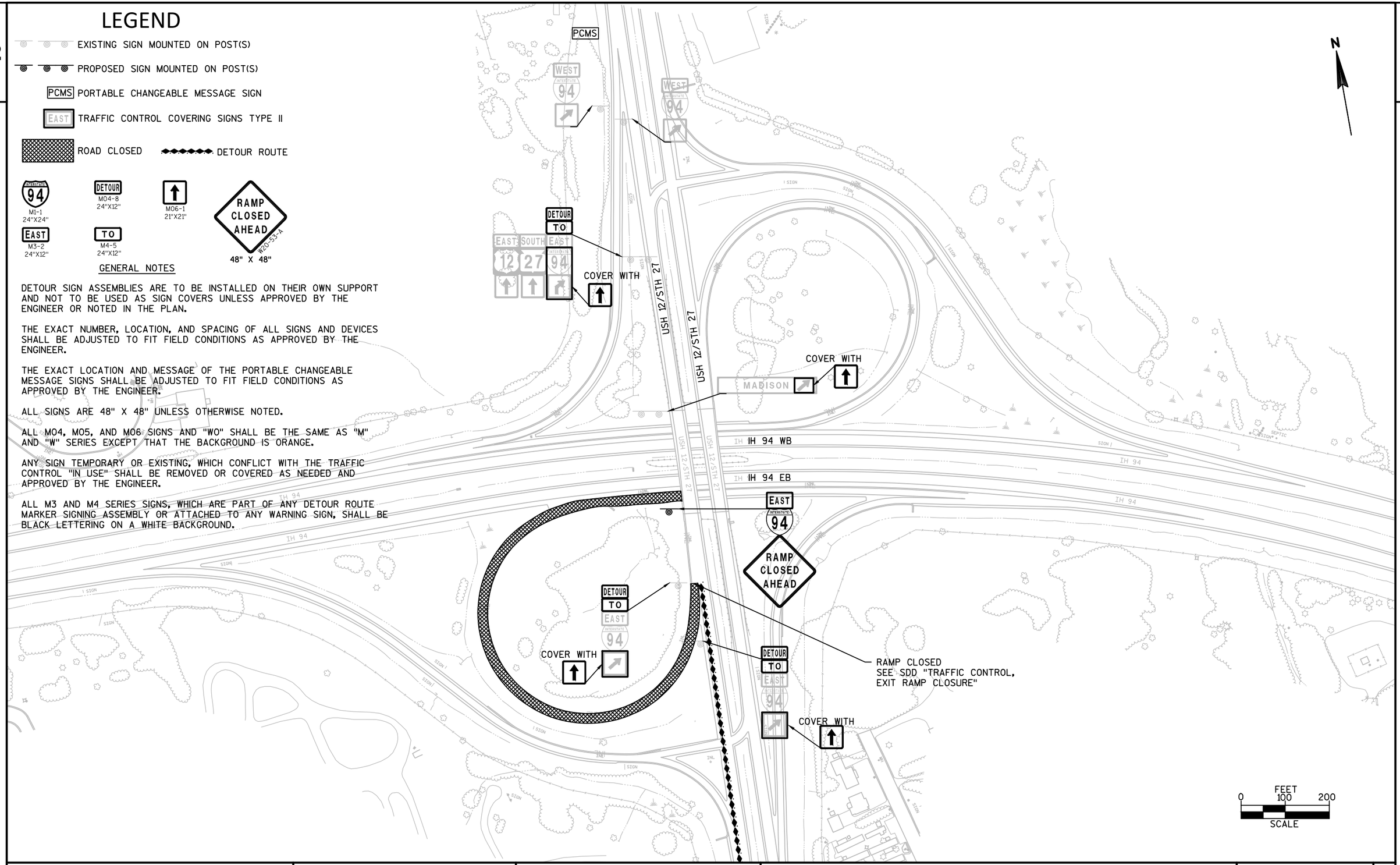
THE EXACT LOCATION AND MESSAGE OF THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

ALL M04, M05, AND M06 SIGNS AND "WO" SHALL BE THE SAME AS "M" AND "W" SERIES EXCEPT THAT THE BACKGROUND IS ORANGE.

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

ALL M3 AND M4 SERIES SIGNS, WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN, SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.



PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 EB LOOP RAMP	SHEET 22	E

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

EAST TRAFFIC CONTROL COVERING SIGNS TYPE II

ROAD CLOSED

DETOUR ROUTE

INTERSTATE 94 M1-1 24"X24"

DETOUR M04-8 24"X12"

M06-1 21"X21"

EAST M3-2 24"X12"

TO M4-5 24"X12"

GENERAL NOTES

DETOUR SIGN ASSEMBLIES ARE TO BE INSTALLED ON THEIR OWN SUPPORT AND NOT TO BE USED AS SIGN COVERS UNLESS APPROVED BY THE ENGINEER OR NOTED IN THE PLAN.

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

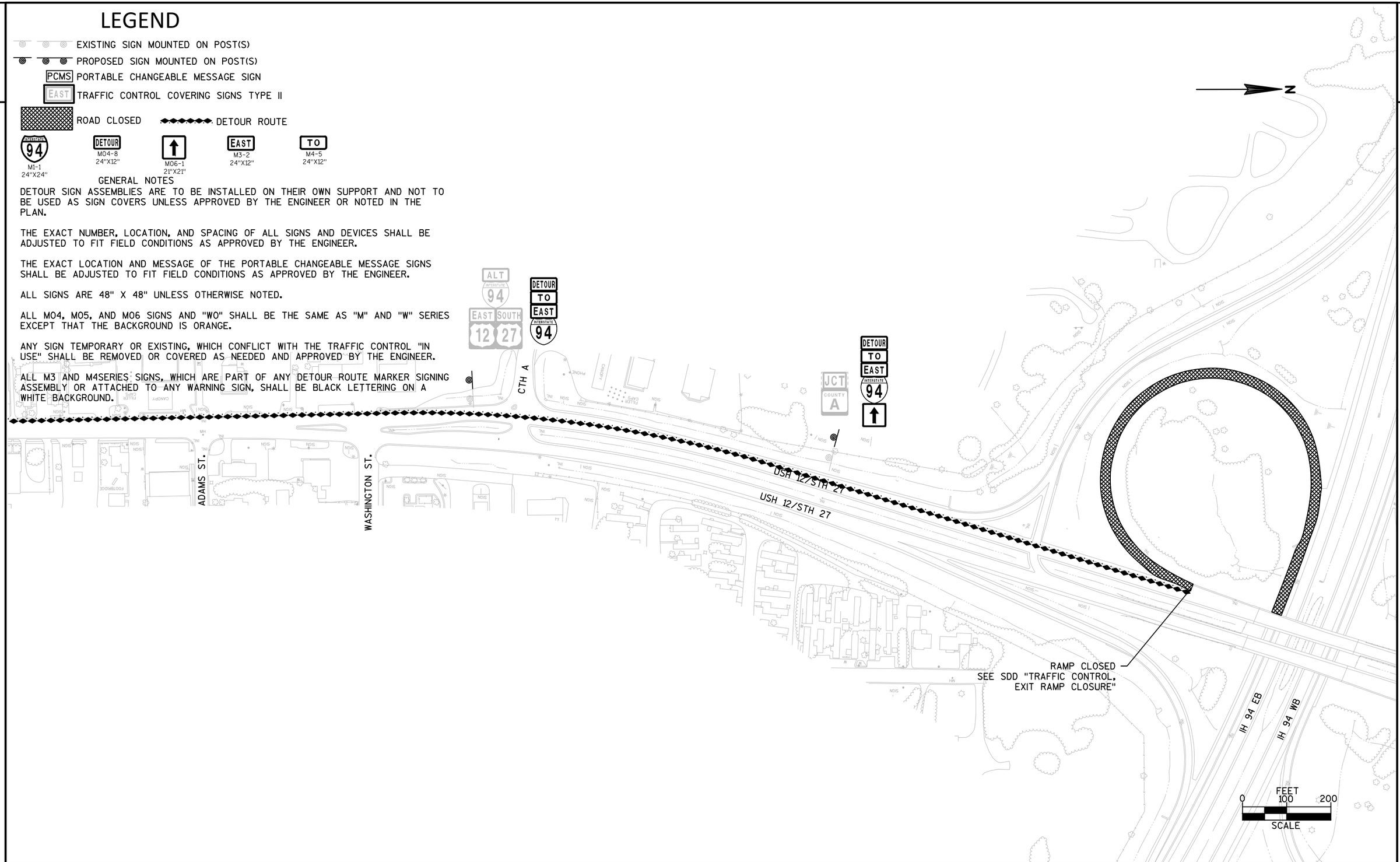
THE EXACT LOCATION AND MESSAGE OF THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

ALL M04, M05, AND M06 SIGNS AND "WO" SHALL BE THE SAME AS "M" AND "W" SERIES EXCEPT THAT THE BACKGROUND IS ORANGE.

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

ALL M3 AND M4SERIES SIGNS, WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN, SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

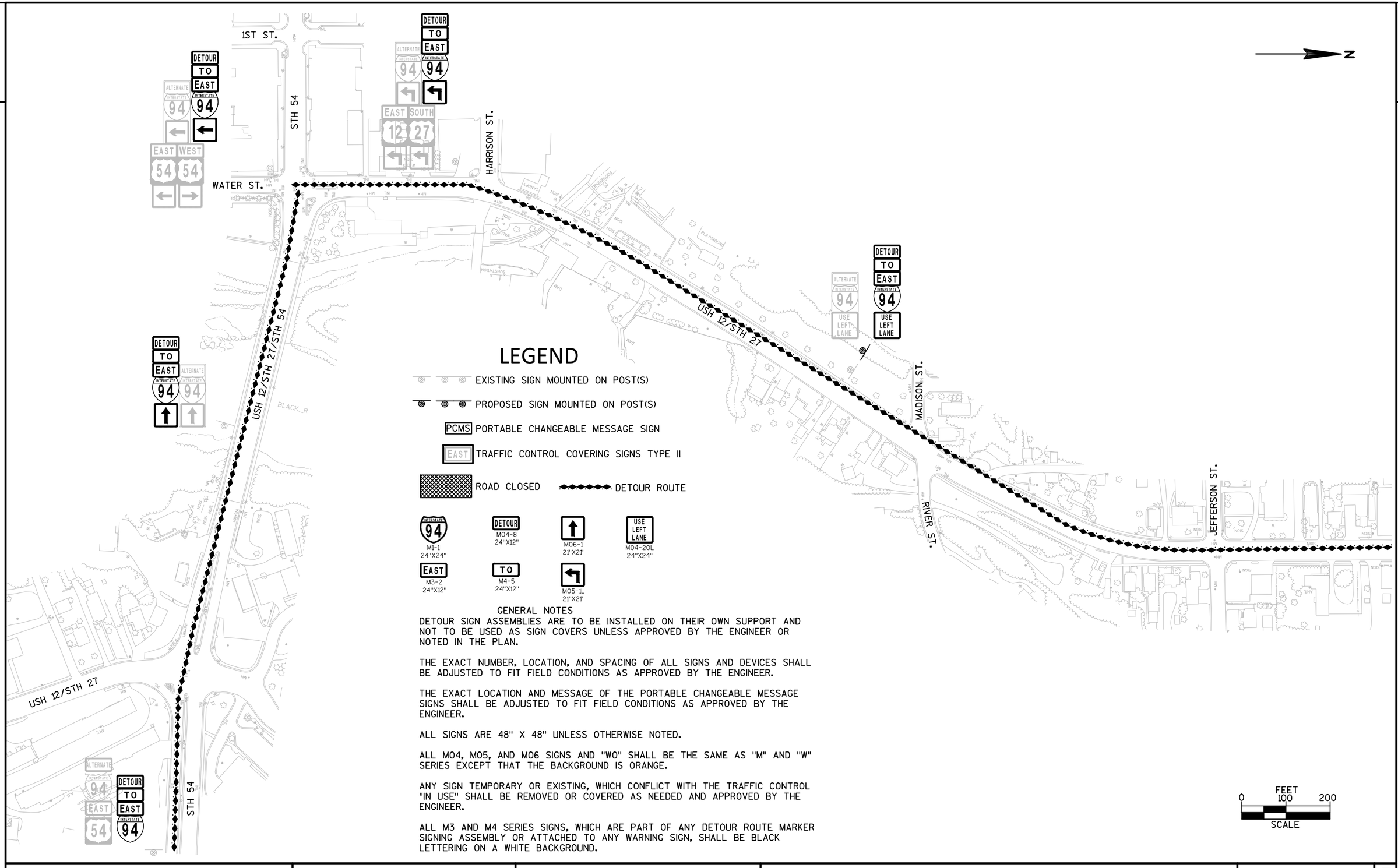


PROJECT NO:1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 WB LOOP RAMP	SHEET 23 E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\025001-TC-DETOUR.DWG
LAYOUT NAME - 0251

PLOT DATE : 7/26/2016 3:55 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42



GENERAL NOTES

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PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 EB LOOP RAMP	SHEET 24	E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

EAST TRAFFIC CONTROL COVERING SIGNS TYPE II

ROAD CLOSED

DETOUR ROUTE

END DETOUR
M04-8A
24"X18"

GENERAL NOTES

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STH 54

IH 94 EB

IH 94 WB

WISRAPIDS
EAUCLAIRE
MADISON

END DETOUR

WEST 94 EAST 54 EAST 94

EAST 94

HOLIDAY DR

CANOPY

FEET
0 100 200
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 EB LOOP RAMP	SHEET 25	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\025001-TC-DETOUR.DWG
LAYOUT NAME - 0252

PLOT DATE : 7/26/2016 3:59 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

EAST TRAFFIC CONTROL COVERING SIGNS TYPE II

ROAD CLOSED

DETOUR ROUTE

GENERAL NOTES

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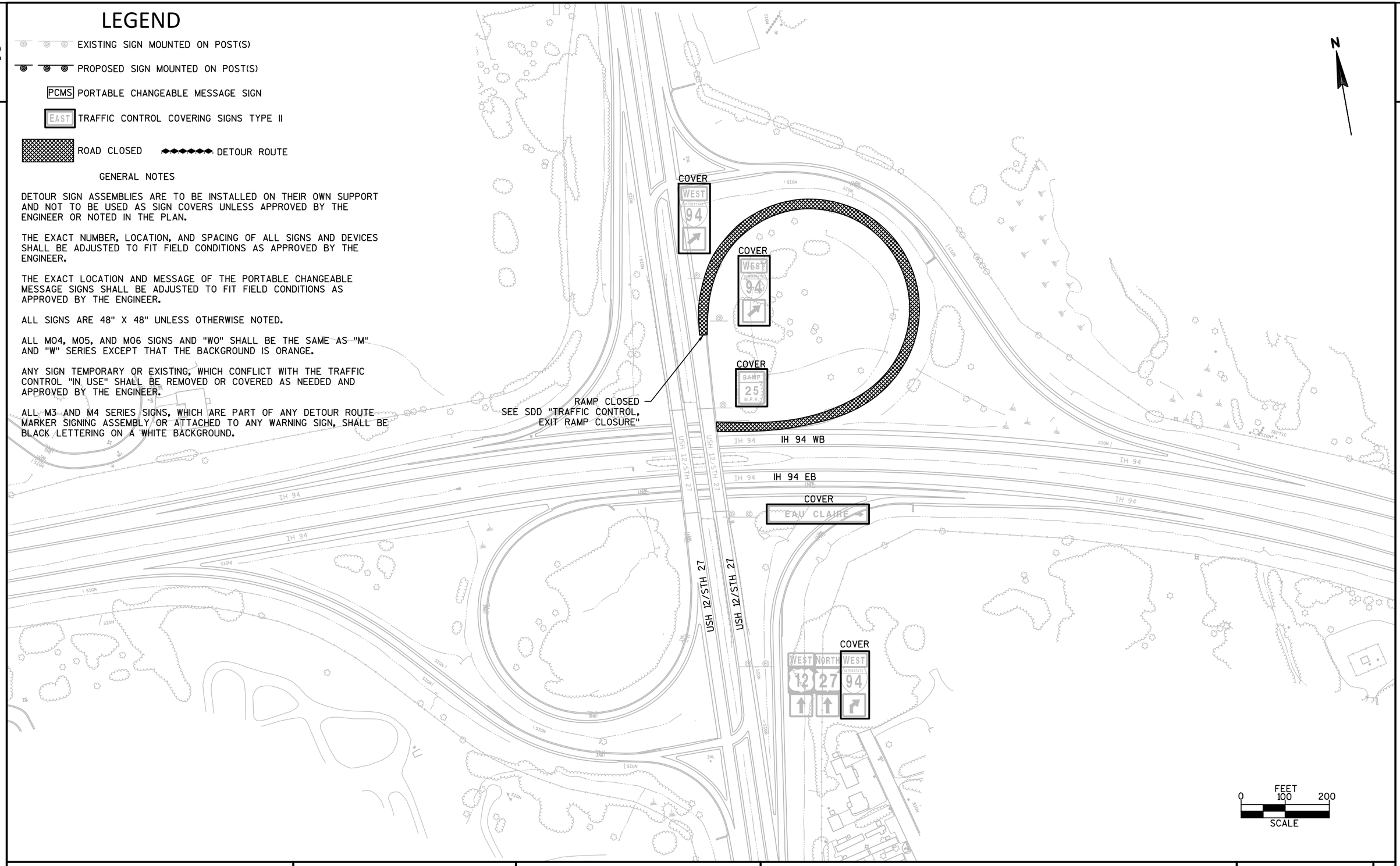

PROJECT NO:1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 WB LOOP RAMP	SHEET	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\025001-TC-DETOUR.DWG
LAYOUT NAME - 0251

PLOT DATE : 7/26/2016 4:02 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

EAST TRAFFIC CONTROL COVERING SIGNS TYPE II

ROAD CLOSED

DETOUR ROUTE

INTERSTATE 94 M1-1 24"X24"

DETOUR M04-8 24"X12"

M06-1 21"X21"

RAMP CLOSED AHEAD W20-53-A 48" X 48"

EAST M3-2 24"X12"

TO M4-5 24"X12"

M05-1L 21"X21"

WEST M3-4 24"X12"

16"X16" TRAFFIC CONTROL FLAGS

DETOUR AHEAD W20-2-A 48" X 48"

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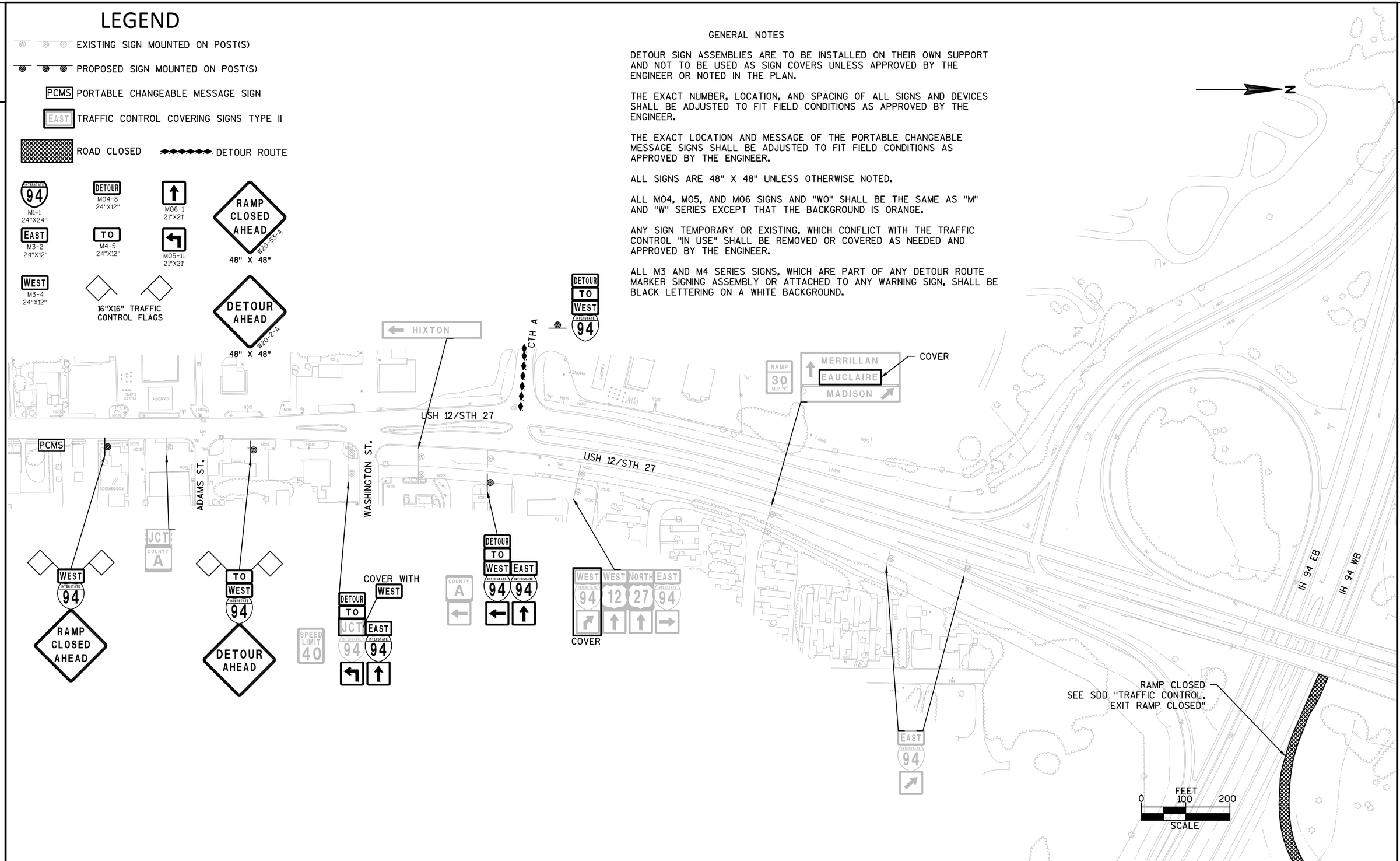


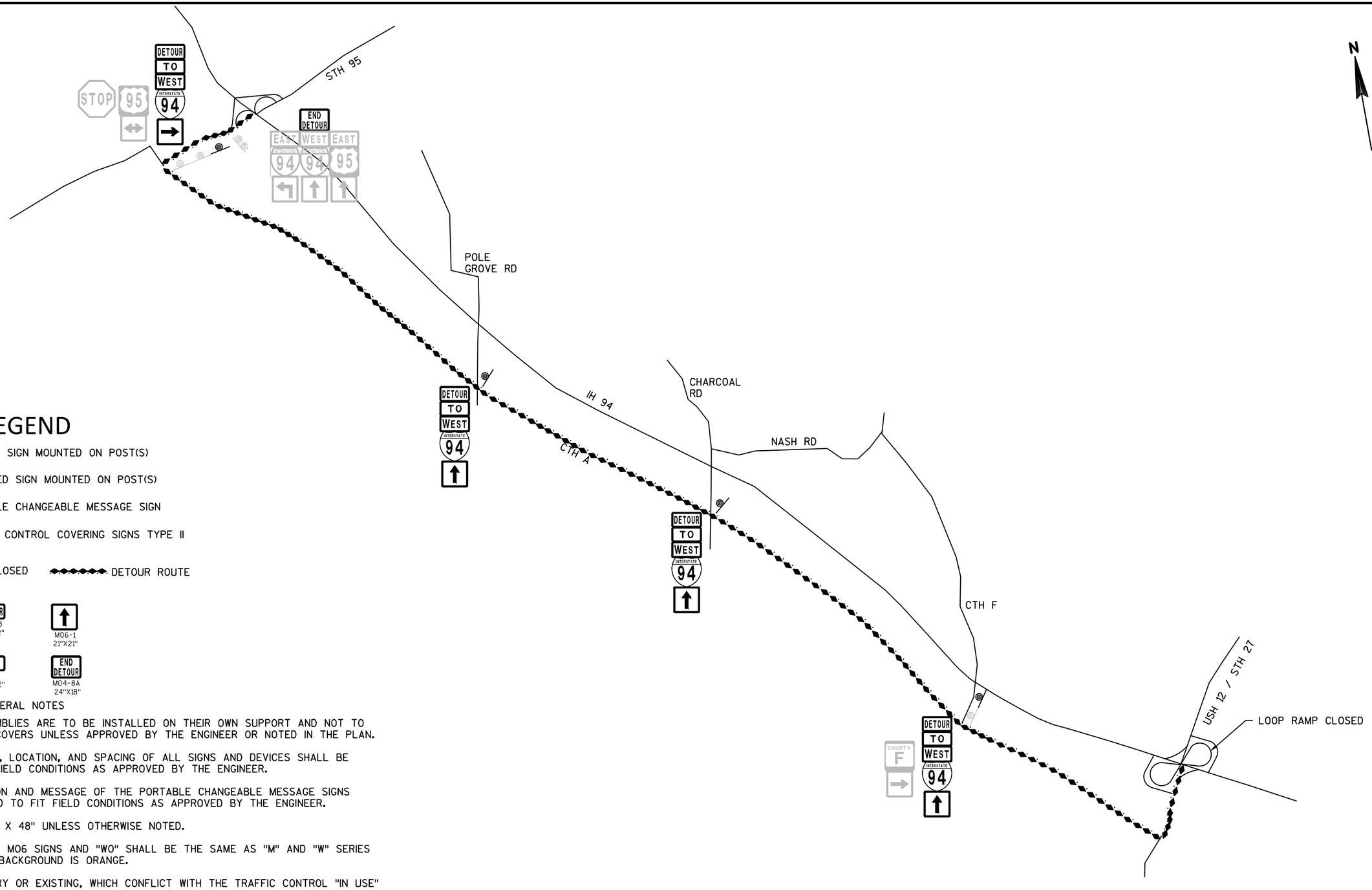
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 WB LOOP RAMP	SHEET 27	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\025001-TC-DETOUR.DWG
LAYOUT NAME - 0251

PLOT DATE : 7/26/2016 4:07 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2



LEGEND

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PROPOSED SIGN MOUNTED ON POST(S)

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

EAST TRAFFIC CONTROL COVERING SIGNS TYPE II

ROAD CLOSED

DETOUR ROUTE

INTERSTATE 94 — M1-1 24"X24"

DETOUR — M04-8 24"X12"

M06-1 21"X21"

WEST — M3-4 24"X12"

TO — M4-5 24"X12"

END DETOUR — M04-8A 24"X18"

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NOT TO SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL DETOUR PLAN - IH 94 WB LOOP RAMP	SHEET 28	E

1023-03-72

Line	Item	Item Description	Unit	Total	Qty
0010	203.0200	Removing Old Structure (station) 01. 32'JN'+79.49	LS	1.000	1.000
0020	203.0200	Removing Old Structure (station) 02. 69+71.99	LS	1.000	1.000
0030	204.0100	Removing Pavement	SY	317.000	317.000
0040	204.0110	Removing Asphaltic Surface	SY	651.000	651.000
0050	204.0150	Removing Curb & Gutter	LF	550.000	550.000
0060	204.0165	Removing Guardrail	LF	72.000	72.000
0070	204.0180	Removing Delineators and Markers	EACH	59.000	59.000
0080	204.0220	Removing Inlets	EACH	1.000	1.000
0090	205.0100	Excavation Common	CY	380.000	380.000
0100	206.1000	Excavation for Structures Bridges (structure) 01. B-27-33	LS	1.000	1.000
0110	206.1000	Excavation for Structures Bridges (structure) 02. B-27-45	LS	1.000	1.000
0120	210.1500	Backfill Structure Type A	TON	232.000	232.000
0130	213.0100	Finishing Roadway (project) 01. 1023-03-72	EACH	1.000	1.000
0140	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	60.000	60.000
0150	415.0410	Concrete Pavement Approach Slab	SY	317.000	317.000
0160	465.0125	Asphaltic Surface Temporary	TON	175.000	175.000
0170	502.0100	Concrete Masonry Bridges	CY	50.000	50.000
0180	502.3100	Expansion Device (structure) 01. B-27-33	LS	1.000	1.000
0190	502.3100	Expansion Device (structure) 02. B-27-45	LS	1.000	1.000
0200	502.3210	Pigmented Surface Sealer	SY	15.000	15.000
0210	502.4204	Adhesive Anchors No. 4 Bar	EACH	32.000	32.000
0220	502.4205	Adhesive Anchors No. 5 Bar	EACH	364.000	364.000
0230	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	7,515.000	7,515.000
0240	505.0904	Bar Couplers No. 4	EACH	14.000	14.000
0250	505.0905	Bar Couplers No. 5	EACH	13.000	13.000
0260	505.0906	Bar Couplers No. 6	EACH	5.000	5.000
0270	506.6000	Bearing Assemblies Expansion (structure) 01. B-27-45	EACH	1.000	1.000
0280	509.0301	Preparation Decks Type 1	SY	4.000	4.000
0290	509.0302	Preparation Decks Type 2	SY	1.000	1.000
0300	509.1000	Joint Repair	SY	60.000	60.000
0310	509.1500	Concrete Surface Repair	SF	83.000	83.000
0320	509.2000	Full-Depth Deck Repair	SY	1.000	1.000
0330	509.5100.S	Polymer Overlay	SY	2,514.000	2,514.000
0340	511.1200	Temporary Shoring (structure) 01. B-27-33	SF	110.000	110.000
0350	516.0500	Rubberized Membrane Waterproofing	SY	23.000	23.000
0360	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-27-33	LS	1.000	1.000
0370	517.1800.S	Structure Repainting Recycled Abrasive (structure) 02. B-27-34	LS	1.000	1.000

1023-03-72

Line	Item	Item Description	Unit	Total	Qty
0380	517.1800.S	Structure Repainting Recycled Abrasive (structure) 03. B-27-45	LS	1.000	1.000
0390	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-27-33	LS	1.000	1.000
0400	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-27-34	LS	1.000	1.000
0410	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-27-45	LS	1.000	1.000
0420	517.6001.S	Portable Decontamination Facility	EACH	3.000	3.000
0430	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,100.000	1,100.000
0440	603.8000	Concrete Barrier Temporary Precast Delivered	LF	2,450.000	2,450.000
0450	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,450.000	2,450.000
0460	611.0600	Inlet Covers Type A	EACH	1.000	1.000
0470	611.8120.S	Cover Plates Temporary	EACH	1.000	1.000
0480	611.9710	Salvaged Inlet Covers	EACH	1.000	1.000
0490	614.0010	Barrier System Grading Shaping Finishing	EACH	1.000	1.000
0500	614.2300	MGS Guardrail 3	LF	50.000	50.000
0510	614.2500	MGS Thrie Beam Transition	LF	40.000	40.000
0520	614.2610	MGS Guardrail Terminal EAT	EACH	1.000	1.000
0530	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1023-03-72	EACH	1.000	1.000
0540	619.1000	Mobilization	EACH	1.000	1.000
0550	625.0100	Topsoil	SY	410.000	410.000
0560	625.0500	Salvaged Topsoil	SY	1,450.000	1,450.000
0570	627.0200	Mulching	SY	1,000.000	1,000.000
0580	628.1104	Erosion Bales	EACH	50.000	50.000
0590	628.1504	Silt Fence	LF	1,000.000	1,000.000
0600	628.1520	Silt Fence Maintenance	LF	1,000.000	1,000.000
0610	628.1905	Mobilizations Erosion Control	EACH	7.000	7.000
0620	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0630	628.2008	Erosion Mat Urban Class I Type B	SY	860.000	860.000
0640	628.7015	Inlet Protection Type C	EACH	16.000	16.000
0650	628.7504	Temporary Ditch Checks	LF	400.000	400.000
0660	629.0210	Fertilizer Type B	CWT	3.000	3.000
0670	630.0120	Seeding Mixture No. 20	LB	50.000	50.000
0680	630.0140	Seeding Mixture No. 40	LB	30.000	30.000
0690	633.1100	Delineators Temporary	EACH	15.000	15.000
0700	642.5001	Field Office Type B	EACH	1.000	1.000
0710	643.0200.S	Traffic Control Surveillance and Maintenance (project) 01. 1023-03-72	DAY	72.000	72.000
0720	643.0300	Traffic Control Drums	DAY	12,654.000	12,654.000

1023-03-72

Line	Item	Item Description	Unit	Total	Qty
0730	643.0420	Traffic Control Barricades Type III	DAY	1,149.000	1,149.000
0740	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	40.000	40.000
0750	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	40.000	40.000
0760	643.0705	Traffic Control Warning Lights Type A	DAY	918.000	918.000
0770	643.0715	Traffic Control Warning Lights Type C	DAY	4,675.000	4,675.000
0780	643.0800	Traffic Control Arrow Boards	DAY	342.000	342.000
0790	643.0900	Traffic Control Signs	DAY	5,079.000	5,079.000
0800	643.0920	Traffic Control Covering Signs Type II	EACH	47.000	47.000
0810	643.1000	Traffic Control Signs Fixed Message	SF	224.000	224.000
0820	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	296.000	296.000
0830	643.2000	Traffic Control Detour (project) 01. 1023-03-72	EACH	1.000	1.000
0840	643.3000	Traffic Control Detour Signs	DAY	1,584.000	1,584.000
0850	645.0220	Geogrid Type SR	SY	35.000	35.000
0860	646.0106	Pavement Marking Epoxy 4-Inch	LF	2,755.000	2,755.000
0870	646.0600	Removing Pavement Markings	LF	1,185.000	1,185.000
0880	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	200.000	200.000
0890	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	4,620.000	4,620.000
0900	649.0506	Temporary Pavement Marking Removable Mask-Out Tape 6-Inch	LF	36,570.000	36,570.000
0910	649.1100	Temporary Pavement Marking Stop Line 18-Inch	LF	64.000	64.000
0920	649.2100	Temporary Raised Pavement Markers Type I	EACH	50.000	50.000
0930	650.5000	Construction Staking Base	LF	275.000	275.000
0940	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,050.000	1,050.000
0950	650.8500	Construction Staking Electrical Installations (project) 01. 1023-03-72	LS	1.000	1.000
0960	650.9910	Construction Staking Supplemental Control (project) 01. 1023-03-72	LS	1.000	1.000
0970	650.9920	Construction Staking Slope Stakes	LF	525.000	525.000
0980	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	401.000	401.000
0990	655.0625	Electrical Wire Lighting 6 AWG	LF	401.000	401.000
1000	661.0200	Temporary Traffic Signals for Intersections (location) 01. STH 54 & IH 94 East Ramps	LS	1.000	1.000
1010	661.0200	Temporary Traffic Signals for Intersections (location) 02. STH 54 & IH 94 West Ramps	LS	1.000	1.000
1020	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
1030	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
1040	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
1050	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
1060	SPV.0035	Special 01. Concrete Masonry Deck Patching	CY	2.000	2.000
1070	SPV.0060	Special 01. Remove And Reinstall Ramp Closure Gate	EACH	1.000	1.000

1023-03-72

Line	Item	Item Description	Unit	Total	Qty
		Solar 40 Foot IH 94 WB On-Ramp			
1080	SPV.0060	Special 02. Remove, Salvage, And Relocate Existing Lighting Equipment	EACH	2.000	2.000
1090	SPV.0060	Special 03. Bearing Maintenance B-27-45	EACH	7.000	7.000
1100	SPV.0060	Special 04. Remove, Salvage, And Reinstall Signals, IH 94 EB Off-Ramp	EACH	1.000	1.000
1110	SPV.0090	Special 01. Sawing Pavement Deck Preparation Areas	LF	80.000	80.000
1120	SPV.0105	Special 01. Temporary Non-Intrusive Vehicle Detection System STH 54 & IH 94 East Ramps	LS	1.000	1.000
1130	SPV.0105	Special 02. Temporary Non-Intrusive Vehicle Detection System STH 54 & IH 94 West Ramps	LS	1.000	1.000
1140	SPV.0105	Special 03. Temporary Infrared EVP System STH 54 & IH 94 East Ramps	LS	1.000	1.000
1150	SPV.0105	Special 04.Temporary Infrared EVP System STH 54 & IH 94 West Ramps	LS	1.000	1.000

3

REMOVING PAVEMENT

CATEGORY	STATION TO	STATION	LOCATION	204.0100 SY	REMARKS
0010	31+27NB	- 31+60NB	STRUCTURE B-27-0033	125	WEST APPROACH SLAB
0010	69+28EB	- 69+61EB	STRUCTURE B-27-0045	92	WEST APPROACH SLAB
0010	71+75EB	- 72+08EB	STRUCTURE B-27-0045	100	EAST APPROACH SLAB
			TOTAL 0010	317	

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION TO	STATION	LOCATION	204.0110 SY	REMARKS
0010	78+22EB	- 81+15EB	STH 54 EB	651	EXISTING EAST CROSSOVER
			TOTAL 0010	651	

REMOVING CURB & GUTTER

CATEGORY	STATION TO	STATION	LOCATION	204.0150 LF	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	275	WEST CROSSOVER, RIGHT
0010	58+50EB	- 61+25EB	STH 54 EB	275	WEST CROSSOVER, LEFT
			TOTAL 0010	550	

REMOVING GUARDRAIL

CATEGORY	STATION TO	STATION	LOCATION	204.0165 LF	REMARKS
0010	68+88EB	- 69+60EB	STH 54 EB, RIGHT	72	SOUTHWEST CORNER B-27-0045
			TOTAL 0010	72	

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION TO	STATION	LOCATION	204.0180 EACH	REMARKS
0010	78+22EB	- 81+15EB	STH 54 EB	59	FLEXULAR TUBULAR MARKERS AND BASES IN EAST CROSSOVER
			TOTAL 0010	59	

REMOVING INLETS

CATEGORY	STATION	LOCATION	204.0220 EACH	REMARKS
0010	80+10EB	STH 54 EB	1	INSTALLED BY OTHERS, EXISTING EAST CROSSOVER
		TOTAL 0010	1	

EXCAVATION COMMON

CATEGORY	STATION TO	STATION	LOCATION	205.0100 CY	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	380	WEST CROSSOVER
			TOTAL 0010	380	

FINISHING ROADWAY 1023-03-72

CATEGORY	STATION TO	STATION	LOCATION	213.0100 EACH
0010			PROJECT	1
			TOTAL 0010	1

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0120 TON	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	60	WEST CROSSOVER
			TOTAL 0010	60	

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	STATION TO	STATION	LOCATION	415.0410 SY	REMARKS
0010	31+27NB	- 31+60NB	STRUCTURE B-27-0033	125	WEST APPROACH SLAB
0010	69+28EB	- 69+61EB	STRUCTURE B-27-0045	92	WEST APPROACH SLAB
0010	71+75EB	- 72+08EB	STRUCTURE B-27-0045	100	EAST APPROACH SLAB
			TOTAL 0010	317	

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STATION TO	STATION	LOCATION	465.0125 TON	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	175	WEST CROSSOVER
			TOTAL 0010	175	

CONCRETE BARRIER TEMPORARY PRECAST

CATEGORY	STATION TO	STATION	LOCATION	603.8000 DELIVERED LF	603.8125 INSTALLED LF	REMARKS
0010			IH 94 EB UNDER USH 12/STH 27	250	250	DRIVING LANE CLOSED
0010			IH 94 EB UNDER USH 12/STH 27	250	250	PASSING LANE CLOSED
0010			IH 94 WB UNDER USH 12/STH 27	250	250	PASSING LANE CLOSED
0010			IH 94 WB UNDER USH 12/STH 27	250	250	DRIVING LANE CLOSED
0010			IH 94 EB UNDER STH 54	225	225	DRIVING LANE CLOSED
0010			IH 94 EB UNDER STH 54	225	225	PASSING LANE CLOSED
0010			IH 94 WB UNDER STH 54	225	225	PASSING LANE CLOSED
0010			IH 94 WB UNDER STH 54	225	225	DRIVING LANE CLOSED
0010			USH 12/STH 27 ON B-27-33	275	275	PASSING LANE CLOSED
0010			USH 12/STH 27 ON B-27-33	275	275	DRIVING LANE CLOSED
			TOTAL 0010	2450	2450	

CONCRETE CURB & GUTTER 30-INCH TYPE A

CATEGORY	STATION TO	STATION	LOCATION	601.0409 LF	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	275	WEST CROSSOVER, RIGHT
0010	58+50EB	- 61+25EB	STH 54 EB	275	WEST CROSSOVER, LEFT
0010	78+22EB	- 81+15EB	STH 54 EB	293	EAST CROSSOVER, RIGHT
0010	78+58EB	- 81+15EB	STH 54 EB	257	EAST CROSSOVER, LEFT
			TOTAL 0010	1100	

INLET COVERS TYPE A

CATEGORY	STATION	LOCATION	611.0600 EACH	REMARKS
0010	80+10EB	STH 54 EB	1	EAST CROSSOVER
		TOTAL 0010	1	

COVER PLATES TEMPORARY

CATEGORY	STATION	LOCATION	611.8120.S EACH	REMARKS
0010	60+29EB	STH 54 EB LEFT	1	WEST CROSSOVER
		TOTAL 0010	1	

SALVAGED INLET COVERS

CATEGORY	STATION	LOCATION	611.9710 EACH	REMARKS
0010	60+29EB	STH 54 EB LEFT	1	WEST CROSSOVER
		TOTAL 0010	1	

3

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION TO	STATION	LOCATION	614.0010 EACH	* FILL CY	* SALVAGED TOPSOIL SY	** FERTILIZER TYPE B CWT	** SEEDING MIX NO. 20 LB	** MULCHING SY
0010	68+21EB	- 69+61EB	STH 54 EB, RIGHT	1	331	1215	0.77	33	1215
			TOTAL 0010	1					

* ITEMS AND QUANTITIES FOR INFORMATION ONLY IN THIS TABLE.
** ITEMS SHOWN ELSEWHERE IN THE PLAN

MGS GUARDRAIL 3

CATEGORY	STATION TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	68+71EB	- 69+21EB	STH 54 EB, RIGHT	50	40	1	SOUTHWEST CORNER B-27-0045
			TOTAL 0010	50	40	1	

FINISHING ITEMS

CATEGORY	STATION TO	STATION	LOCATION	625.0100 TOPSOIL SY	* 625.0500 SALVAGED TOPSOIL SY	* 627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	* 629.0210 FERTILIZER TYPE B CWT	* 630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB
0010	58+50EB	- 61+25EB	STH 54 EB WEST CROSSOVER	0	450	--	450	1	--	15
0010	78+50EB	- 81+00EB	STH 54 EB EAST CROSSOVER	410	0	--	410	1	--	15
0010			UNDISTRIBUTED	0	1000	1000	--	1	50	--
			TOTAL 0010	410	1450	1000	860	3	50	30

* ITEMS SHOWN ELSEWHERE IN THE PLAN

EROSION CONTROL ITEMS

CATEGORY	STATION TO	STATION	LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH	628.7504 TEMPORARY DITCH CHECKS LF
0010			UNDISTRIBUTED	50	1000	1000	7	4	400
			TOTAL 0010	50	1000	1000	7	4	400

MAINTENANCE AND REPAIR OF HAUL ROADS 1023-03-72

CATEGORY	STATION TO	STATION	LOCATION	618.0100 EACH
0010			PROJECT	1
			TOTAL 0010	1

MOBILIZATION

CATEGORY	STATION TO	STATION	LOCATION	619.1000 EACH
0010			PROJECT	1
			TOTAL 0010	1

INLET PROTECTION TYPE C

CATEGORY	STATION	LOCATION	628.7015 EACH	REMARKS
0010	28+88SB	USH 12 EB/STH SB	1	ON-RAMP
0010	31+17SB	USH 12 EB/STH SB	1	LEFT
0010	55+32EB	STH 54 EB	2	LEFT
0010	57+81EB	STH 54 EB	1	LEFT
0010	62+86EB	STH 54 EB	1	LEFT
0010	64+86EB	STH 54 EB	1	LEFT
0010	67+00EB	STH 54 EB	2	LEFT
0010	70+89EB	STH 54 EB	2	LEFT
0010	73+77EB	STH 54 EB	1	LEFT
0010	76+00EB	STH 54 EB	1	LEFT
0010	78+00EB	STH 54 EB	1	LEFT
0010	82+56EB	STH 54 EB	2	LEFT
		TOTAL 0010	16	

3

DELINEATORS TEMPORARY

CATEGORY	STATION TO	STATION	LOCATION	633.1100 EACH	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	15	WEST CROSSOVER
			TOTAL 0010	15	

FIELD OFFICE TYPE B

CATEGORY	STATION TO	STATION	LOCATION	642.5001 EACH
0010			PROJECT	1
			TOTAL 0010	1

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION (WORK TYPE)	DAYS	643.0200 SURVEILLANCE AND MAINTENANCE NO.	643.0200 DAYS	643.0300 DRUMS NO.	643.0300 DAYS	643.0450 BARRICADES TYPE III NO.	643.0450 DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 DAYS	643.0800 ARROW BOARDS NO.	643.0800 DAYS	643.0900 SIGNS NO.	643.0900 DAYS	643.1051 SIGNS PCMS W/ CELLULAR COMMUNICATION NO.	643.1051 DAYS	643.3000 DETOUR SIGN NO.	643.3000 DAYS
0010	PROJECT WORK ZONE	72	1	72	0	0	0	0	0	0	0	0	0	0	0	0	4	288	0	0
0010	IH 94 LANE CLOSURES UNDER USH 12/STH 27 (PAINTING)	30	0	0	90	2700	2	60	0	0	31	930	2	60	26	780	0	0	0	0
0010	USH 12/STH 12 LANE CLOSURES (STRUCTURE REPAIRS)	17	0	0	79	1343	2	34	0	0	31	527	2	34	26	442	0	0	0	0
0010	USH 12/STH 12 LANE CLOSURES (OVERLAY)	6	0	0	51	306	4	24	8	48	14	84	2	12	23	138	0	0	0	0
0010	IH 94 LANE CLOSURES UNDER STH 54 (PAINTING)	20	0	0	90	1800	2	40	0	0	31	620	2	40	26	520	0	0	0	0
0010	STH 54 LANE CLOSURES (CROSSOVER CONSTRUCTION/REMOVAL)	29	0	0	124	3596	8	232	16	464	26	754	4	116	52	1508	0	0	0	0
0010	STH 54 LANE CLOSURE (SHOULDER WIDENING)	7	0	0	47	329	4	28	8	56	14	98	2	14	26	182	0	0	0	0
0010	STH 54 CROSSOVERS	30	0	0	78	2340	23	690	10	300	54	1620	2	60	48	1440	0	0	0	0
0010	STH 54 LANE CLOSURES (OVERLAY)	3	0	0	40	120	3	9	6	18	14	42	2	6	23	69	0	0	0	0
0010	IH 94 EB RAMP CLOSURE	4	0	0	15	60	4	16	4	16	0	0	0	0	0	0	1	4	198	792
0010	IH 94 WB RAMP CLOSURE	4	0	0	15	60	4	16	4	16	0	0	0	0	0	0	1	4	198	792
	TOTAL 0010		72		12654		1149		918		4675		342		5079		296		1584	

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS

CATEGORY	STATION TO	STATION	LOCATION	643.0500 POSTS EACH	643.0600 BASES EACH	REMARKS
0010	58+50EB	- 81+15EB	STH 54 EB	35	35	
0010			UNDISTRIBUTED	5	5	
			TOTAL 0010	40	40	

TRAFFIC CONTROL COVERING SIGNS TYPE II

CATEGORY	STATION TO	STATION	LOCATION	643.0920 EACH	REMARKS
0010			DETOUR ROUTE	16	IH 94 WB ON-RAMP FROM USH 12 WB/STH 27 NB
0010			DETOUR ROUTE	4	IH 94 EB ON-RAMP FROM USH 12 EB/STH 27 SB
0010			IH 94	4	EXIT RAMPS IN LANE CLOSURES
0010			USH 12/STH 27	23	EXIT RAMPS IN LANE CLOSURES
			TOTAL 0010	47	

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	WIDTH	HEIGHT	LOCATION	643.1000 SF	REMARKS
0010	14'-0"	4'-0"	IH 94 EB	56	PERIODIC LANE CLOSURES, WATCH FOR SLOW TRAFFIC
0010	14'-0"	4'-0"	IH 94 EB	56	PERIODIC LANE CLOSURES, WATCH FOR SLOW TRAFFIC
0010	14'-0"	4'-0"	IH 94 WB	56	PERIODIC LANE CLOSURES, WATCH FOR SLOW TRAFFIC
0010	14'-0"	4'-0"	IH 94 WB	56	PERIODIC LANE CLOSURES, WATCH FOR SLOW TRAFFIC
			TOTAL 0010	224	

TRAFFIC CONTROL DETOUR 1023-03-72

CATEGORY	STATION TO	STATION	LOCATION	643.2000 EACH	REMARKS
0010			USH 12 EB/STH 27 SB	0.5	LOOP ON-RAMP CLOSED TO IH 94 EB
0010			USH 12 WB/STH 27 NB	0.5	LOOP ON-RAMP CLOSED TO IH 94 WB
			TOTAL 0010	1	

3

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0106 LF	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	935	
0010	78+50EB	- 81+00EB	STH 54 EB	250	
0010	69+61EB	71+75EB	STH 54 EB	490	B-27-0045
0010	31+60NB	33+98NB	USH 12 WB / STH 27 NB	540	B-27-0033
0010	31+64SB	34+03SB	USH 12 EB / STH 27 SB	540	B-27-0034
			TOTAL 0010	2755	

REMOVING PAVEMENT MARKINGS

CATEGORY	STATION TO	STATION	LOCATION	646.0600 LF	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	935	WEST CROSSOVER
0010	78+50EB	- 81+00EB	STH 54 EB	250	EAST CROSSOVER
			TOTAL 0010	1185	

TEMPORARY PAVEMENT MARKING

CATEGORY	STATION TO	STATION	LOCATION	649.0400 REMOVABLE TAPE 4-INCH LF	649.0402 PAINT 4-INCH LF	649.2100 RAISED PAVEMENT MARKERS EACH	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	100	620	25	WEST CROSSOVER
0010	78+22EB	- 81+15EB	STH 54 EB	100	550	25	EAST CROSSOVER
0010	61+25EB	- 78+22EB	STH 54 EB	--	3450	--	DOUBLE CENTERLINE
			TOTAL 0010	200	4620	50	

TEMPORARY PAVEMENT MARKING REMOVABLE MASK-OUT TAPE 6-INCH

CATEGORY	STATION TO	STATION	LOCATION	649.0506 LF	REMARKS
0010			IH 94	16660	UNDER USH 12/STH 27
0010			IH 94	16660	UNDER STH 54
0010			USH 12/STH 27	2550	ON STRUCTURE B-27-33
0010			STH 54 EB LANE CLOSURE	700	ON STRUCTURE B-27-45
			TOTAL 0010	36570	

TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH

CATEGORY	STATION TO	STATION	LOCATION	649.1100 LF	REMARKS
0010			STH 54 EB	16	WEST INTERSECTION, EB TRAFFIC
0010			STH 54 EB	16	WEST INTERSECTION, WB TRAFFIC
0010			STH 54 EB	16	EAST INTERSECTION, EB TRAFFIC
0010			STH 54 EB	16	EAST INTERSECTION, WB TRAFFIC
			TOTAL 0010	64	

CONSTRUCTION STAKING

CATEGORY	STATION TO	STATION	LOCATION	650.5000 BASE LF	650.5500 CURB, GUTTER AND CURB & GUTTER LF	650.9920 SLOPE STAKES LF	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	275	550	275	WEST CROSSOVER
0010	78+50EB	- 81+00EB	STH 54 EB	0	500	250	EAST CROSSOVER
			TOTAL 0010	275	1050	525	

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 1023-03-72

CATEGORY	STATION TO	STATION	LOCATION	650.8500 LS	REMARKS
0010			STH 54 EB	0.33	RAMP GATE
0010			STH 54 EB	0.34	LIGHT POLES
0010			STH 54 EB	0.33	TRAFFIC SIGNAL
			TOTAL 0010	1	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 1023-03-72

CATEGORY	STATION TO	STATION	LOCATION	650.9910 LS
0010			PROJECT	1
			TOTAL 0010	1

3

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH

CATEGORY	STATION TO	STATION	LOCATION	652.0225 LF	REMARKS
0010	57+95EB	- 61+96EB	STH 54 EB	401	WEST CROSSOVER
			TOTAL 0010	401	

ELECTRICAL WIRE LIGHTING 6 AWG

CATEGORY	STATION TO	STATION	LOCATION	655.0625 LF	REMARKS
0010	57+95EB	- 61+96EB	STH 54 EB	401	WEST CROSSOVER
			TOTAL 0010	401	

REMOVE AND REINSTALL RAMP CLOSURE GATE SOLAR 40 FOOT IH 94 WB ON-RAMP

CATEGORY	STATION TO	STATION	LOCATION	SPV.0060.01 EACH	REMARKS
0010	73+84EB		STH 54 EB	1	NORTHEAST RAMP
			TOTAL 0010	1	

REMOVE, SALVAGE, AND RELOCATE EXISTING LIGHTING EQUIPMENT

CATEGORY	STATION TO	STATION	LOCATION	SPV.0060.02 EACH	REMARKS
0010	59+27EB		STH 54 EB	1	WEST CROSSOVER
0010	60+63EB		STH 54 EB	1	WEST CROSSOVER
			TOTAL 0010	2	

REMOVE, SALVAGE, AND REINSTALL SIGNALS, IH 94 EB OFF-RAMP

CATEGORY	STATION TO	STATION	LOCATION	SPV.0060.04 EACH	REMARKS
0010	66+46EB		STH 54 EB	1	NORTHWEST RAMP
			TOTAL 0010	1	

GEOGRID TYPE SR

CATEGORY	STATION TO	STATION	LOCATION	645.0220 SY	REMARKS
0010	58+50EB	- 61+25EB	STH 54 EB	35	WEST CROSSOVER
			TOTAL 0010	35	

3

3

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	661.0200.02 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.01 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM L.S.	SPV.0105.02 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM L.S.	SPV.0105.03 TEMPORARY INFRARED EVP SYSTEM L.S.	SPV.0105.04 TEMPORARY INFRARED EVP SYSTEM L.S.
STH 54 & IH 94 EAST RAMPS	1		1		1	
STH 54 & IH 94 WEST RAMPS		1		1		1
TOTAL	1	1	1	1	1	1

TEMPORARY TRAFFIC SIGNALS

IH 94 RAMPS & STH 54
PAGE 1 OF 1

IH 94 EB OFF RAMP TO
USH 12 EB / STH 27 SB

IH 94 EB OFF RAMP TO
USH 12 WB / STH 27 NB

USH 12 EB / STH 27 SB LOOP
RAMP TO IH 94 EB

INL

INL

N

EXISTING INLET AT STA. 28+85SB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

25+00SB

USH 12 EB / STH 27 SB

30+00SB

5

5

25+00NB

USH 12 WB / STH 27 NB

30+00NB

SIGN

SIGN

USH 12 WB / STH 27 NB TO IH 94 EB

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	USH 12 / STH 27	SHEET 40	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 0502(1)-PN

PLOT DATE : 4/22/2016 11:16 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME :

PLOT SCALE : 1 IN:40 FT

THE CONSTRUCTION LIMITS ON USH 12/STH 27 ARE THE SAME AS THE STRUCTURE LIMITS.

STRUCTURE B-27-0033 = USH 12 WB/STH 27 NB = STA. 31+59.81NB TO STA 33+98.48NB

STRUCTURE B-27-0034 = USH 12 EB/STH 27 SB = STA. 31+63.66SB TO STA. 34+02.97SB

EXISTING INLET AT STA. 31+17SB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

END CONSTRUCTION USH 12 EB/STH 27 SB
STA. 34+02.97SB

BEGIN CONSTRUCTION USH 12 EB/STH 27 SB
STA. 31+63.66SB

STRUCTURE B-27-0034
SEE STRUCTURE PLANS FOR WORK ON STRUCTURE.

+00SB

35+00SB

USH 12 EB / STH 27 SB

USH 12 WB / STH 27 NB

+00NB

35+00NB

STRUCTURE B-27-0033
SEE STRUCTURE PLANS FOR WORK ON STRUCTURE.

STA. 31+27NB TO STA. 31+60NB
REMOVE AND REPLACE EXISTING
CONCRETE APPROACH SLAB AS
REQUIRED FOR STRUCTURE WORK.

BEGIN CONSTRUCTION USH 12 WB/STH 27 NB
STA. 31+59.81NB

END CONSTRUCTION USH 12 WB/STH 27 NB
STA. 33+98.48NB

IH 94 EB

IH 94 WB

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	USH 12 / STH 27	SHEET 41	E

USH 12 EB / STH 27 SB TO IH 94 WB

N

USH 12 EB / STH 27 SB

40+00SB

5

5

USH 12 WB / STH 27 NB

40+00NB

USH 12 WB / STH 27 NB LOOP RAMP TO IH 94 WB

IH 94 WB OFF RAMP TO USH 12 EB / STH 27 SB

IH 94 WB OFF RAMP TO USH 12 WB / STH 27 NB

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	USH 12 / STH 27	SHEET 42	E

* AFTER EXCAVATION, CONSTRUCT CROSSOVER USING 6-INCH ASPHALTIC SURFACE TEMPORARY OVER 8-INCH BASE AGGREGATE DENSE 1 1/4" OVER GEOGRID REINFORCEMENT.

TO REMOVE THE CROSSOVER, REMOVE 6-INCH ASPHALTIC SURFACE TEMPORARY. FILL WITH 6-INCH SALVAGED TOPSOIL AND FINISH WITH FERTILIZER TYPE B, SEEDING MIXTURE NO. 40, AND EROSION MAT URBAN CLASS 1 MAT B.

N

MCDONALD ROAD

WEST CROSSOVER *
STA. 58+50EB TO STA. 61+25EB

UNDERGROUND ELECTRIC
CITY OF BLACK RIVER FALLS

BEGIN CONSTRUCTION STH 54
STA. 58+00EB

EXISTING INLETS AT STA. 55+32EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

5

STH 54

55+00EB

5

EXISTING INLET AT STA. 57+81EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
S.E. = 0.035

REMOVE EXISTING 30-INCH TYPE A CURB AND GUTTER FROM STA. 58+50EB TO STA. 61+25EB ON BOTH SIDES OF CROSSOVER. SALVAGE INLET COVER AT STA. 60+29EB AND COVER WITH A TEMPORARY COVER PLATE.

WHEN CROSSOVER IS REMOVED, INSTALL 30-INCH TYPE A CURB AND GUTTER FROM STA. 58+50EB TO STA. 61+25EB ON BOTH SIDES OF CROSSOVER.

MCDONALD ROAD

COMMERCE DRIVE

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54	SHEET 43	E

* AFTER EXCAVATION, CONSTRUCT CROSSOVER USING 6-INCH ASPHALTIC SURFACE TEMPORARY OVER 8-INCH BASE AGGREGATE DENSE 1 1/4" OVER GEOGRID REINFORCEMENT.

TO REMOVE THE CROSSOVER, REMOVE 6-INCH ASPHALTIC SURFACE TEMPORARY. FILL WITH 6-INCH SALVAGED TOPSOIL AND FINISH WITH FERTILIZER TYPE B, SEEDING MIXTURE NO. 40, AND EROSION MAT URBAN CLASS 1 MAT B.

UNDERGROUND ELECTRIC
CITY OF BLACK RIVER FALLS

* WEST CROSSOVER
STA. 58+50EB TO 61+25EB

EXISTING INLET AT STA. 62+86EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

UNDERGROUND ELECTRIC
CITY OF BLACK RIVER FALLS

60+00EB

65+00EB

STH 54

REMOVE EXISTING 30-INCH TYPE A CURB AND GUTTER FROM STA. 58+50EB TO STA. 61+25EB ON BOTH SIDES OF CROSSOVER. SALVAGE INLET COVER AT STA. 60+29EB AND COVER WITH A TEMPORARY COVER PLATE.

WHEN CROSSOVER IS REMOVED, INSTALL 30-INCH TYPE A CURB AND GUTTER FROM STA. 58+50EB TO STA. 61+25EB ON BOTH SIDES OF CROSSOVER.

STH 54 EB TO IH 94 EB

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
S.E. = 0.035

EXISTING INLET AT STA. 64+86EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

COMMERCE DRIVE

SIGN

MH

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54	SHEET 44	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 0502(14)-PN

PLOT DATE : 8/1/2016 3:46 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:40 FT

IH 94 EB OFFRAMP TO STH 54

IH 94 EB

IH 94 WB

STH 54

STH 54 WB TO IH 94 EB

STH 54 EB TO IH 94 EB

STA. 69+28EB TO STA. 69+61EB
REMOVE AND REPLACE EXISTING CONCRETE APPROACH
SLAB AS REQUIRED FOR STRUCTURE WORK.

UNDERGROUND ELECTRIC LOOP
WISCONSIN DOT

UNDERGROUND ELECTRIC
WISCONSIN DOT

UNDERGROUND ELECTRIC
WISCONSIN DOT

STRUCTURE LIMITS
B-27-0045
STA. 69+61.21EB

65+00EB

70+00EB

EXISTING INLET AT STA. 64+86EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

EXISTING INLET AT STA. 67+00EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

STRUCTURE B-27-0045
SEE STRUCTURE PLANS
FOR WORK ON STRUCTURE.

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
SE = 0.035

REMOVE EXISTING GUARDRAIL
STA. 68+76.06EB TO STA 69+61.21EB

STA. 68+21.21EB TO 69+61.21EB, RT
1 - MGS GUARDRAIL TERMINAL EAT REQ'S
MGS GUARDRAIL 3 REQ'D
MGS THRIE BEAM TRANSITION REQ'D

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54	SHEET 45	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 0502(15)-PN

PLOT DATE : 8/1/2016 3:50 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:40 FT

IH 94 WB

IH 94 WB ONRAMP FROM STH 54

SIGN

UNDERGROUND ELECTRIC LOOP
WISCONSIN DOT

EXISTING INLETS AT STA. 70+89EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

UNDERGROUND FIBER OPTICS
ATT

EXISTING INLET AT STA. 73+77EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

UNDERGROUND
ELECTRIC
WISCONSIN DOT

5

5

STRUCTURE B-27-0045
SEE STRUCTURE PLANS
FOR WORK ON STRUCTURE.

STH 54

75+00EB

UNDERGROUND ELECTRIC
WISCONSIN DOT

STRUCTURE LIMITS
B-27-0045
STA. 71+74.72EB

STA. 71+75EB TO STA. 72+08EB
REMOVE AND REPLACE EXISTING CONCRETE APPROACH
SLAB AS REQUIRED FOR STRUCTURE WORK.

UNDERGROUND
FIBER OPTICS
WISCONSIN DOT

EXISTING INLET AT STA. 76+00EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
S.E. = 0.035

IH 94 WB OFFRAMP TO STH 54

IH 94

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54	SHEET 46	E

* TO REMOVE THE CROSSOVER, REMOVE 4-INCH ASPHALTIC SURFACE PAID FOR AS "REMOVING ASPHALTIC SURFACE". FILL WITH 4-INCH TOPSOIL AND FINISH WITH FERTILIZER TYPE B, SEEDING MIXTURE NO. 40, AND EROSION MAT URBAN CLASS 1 MAT B.

N

UNDERGROUND ELECTRIC
WISCONSIN DOT

* EAST CROSSOVER
STA. 78+22EB TO STA. 81+15EB
CONSTRUCTED BY OTHERS
REMOVED IN THIS CONTRACT

EXISTING INLETS AT STA. 81+56EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

80+00EB

STH 54

EXISTING INLET AT STA. 78+00EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

WHEN CROSSOVER IS REMOVED, INSTALL
30-INCH TYPE A CURB AND GUTTER
FROM STA. 78+22EB TO STA. 81+15EB
LEFT AND STA. 78+58EB TO 81+15EB
RIGHT.

REMOVE TEMPORARY INLET COVER FROM
INLET AT STA. 80+10EB, PAID FOR AS
REMOVING INLETS. INSTALL NEW INLET
COVER TYPE A.

END CONSTRUCTION
STA. 83+00EB

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
S.E. = 0.035

FEET
0 50 100
SCALE

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54	SHEET 47	E

HOLIDAY DRIVE

HOLIDAY DR

SIGN

EXISTING INLETS AT STA. 82+56EB TO REMAIN
USE INLET PROTECTION TYPE C AS
NEEDED FOR EROSION CONTROL

END CONSTRUCTION
STA. 83+00EB

PT: 85+19.27EB

INL

INL

INL

INL

85+00EB

STH 54

PCC: 82+92.39EB

PI: 84+05.83EB

PI STA = 68+63.74EB
Y = 97147.887
X = 94089.409
DELTA = 45°34'38"
D = 1°30'19"
T = 1599.10'
L = 3027.75'
R = 3806.22'
PC STA = 52+64.64EB
PT STA = 82+92.39EB
S.E. = 0.035

OASIS
ROAD

OASIS RD

SIGN

SIGN

PI STA = 84+05.83EB
Y = 98473.612
X = 95173.497
DELTA = 1°08'04"
D = 0°30'00"
T = 113.44'
L = 226.89'
R = 11459.16'
PC STA = 82+92.39EB
PT STA = 85+19.27EB
SE = NC

SIGN

SIGN

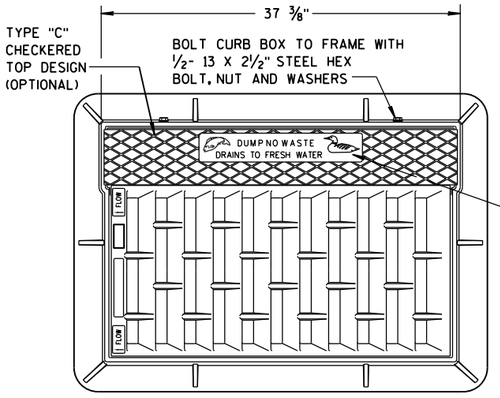
N

FEET
0 50 100
SCALE

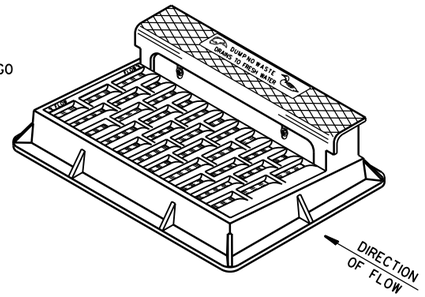
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	STH 54	SHEET 48	E

Standard Detail Drawing List

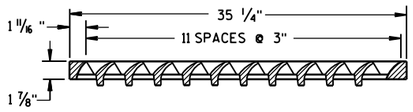
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-09	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A02-09	DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16C	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-16D	PAVEMENT MARKING (CLIMBING LANE & PASSING LANE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D03-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-06	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D34-02A	RAMP GATE SOLAR POWER
15D34-02B	RAMP GATE SOLAR POWER
15D34-02C	RAMP GATE SOLAR POWER
15D34-02D	RAMP GATE SOLAR POWER
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

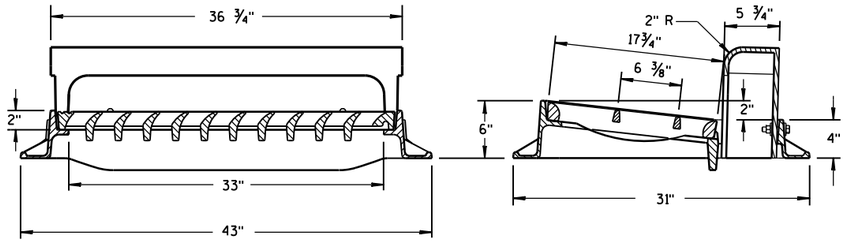


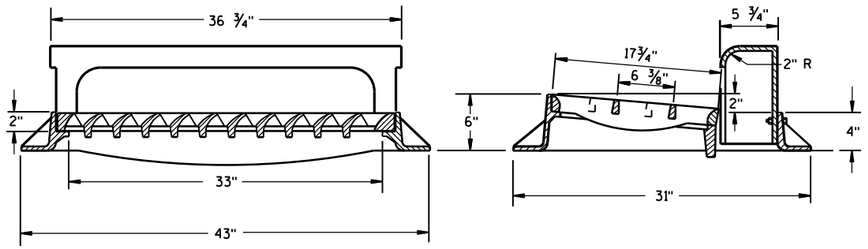
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

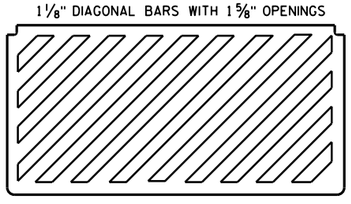






TYPE "H"

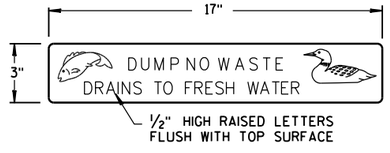
NOTE: EITHER CASTING IS ACCEPTABLE



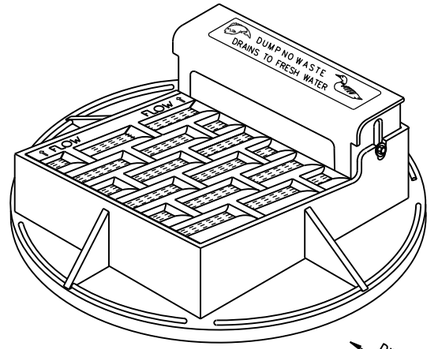
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

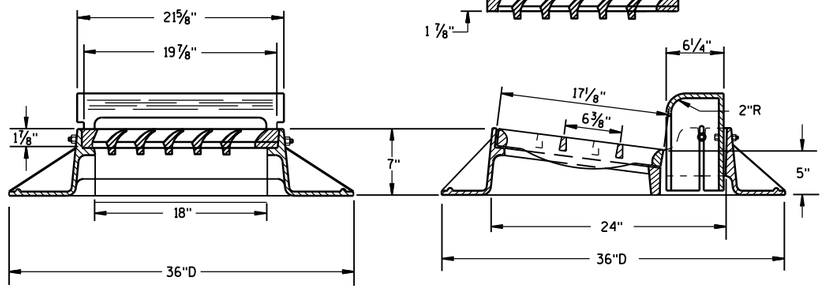


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



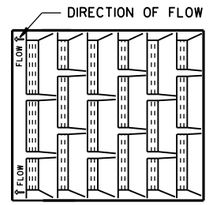
TYPE "A"

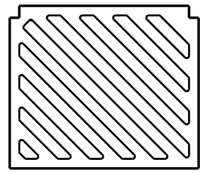
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

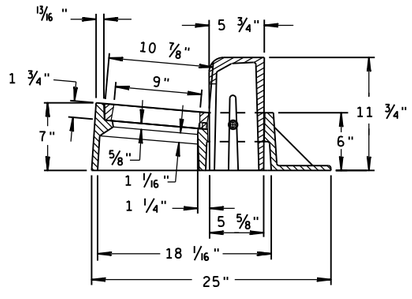


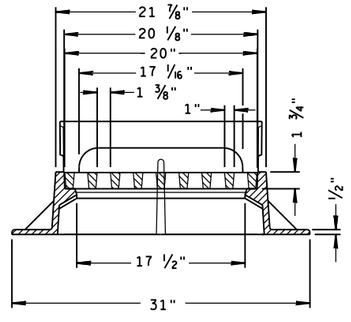


SPECIAL GRATE FOR TYPE "A" COVER

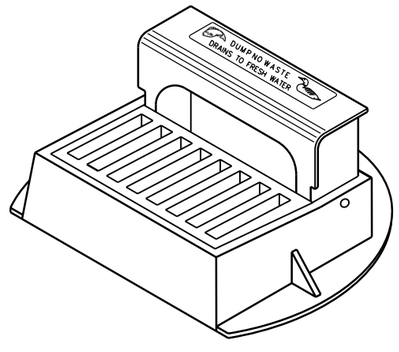
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



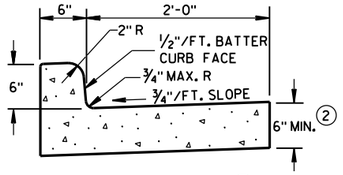
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

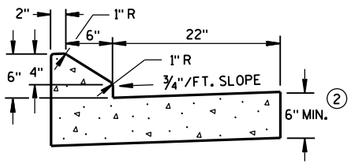
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

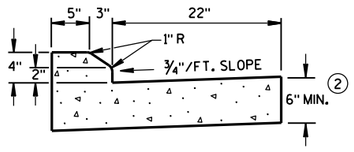
S.D.D. 8 A 5-19a



TYPES A & D ①

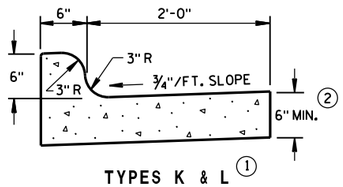


6" SLOPED CURB TYPES G & J ①

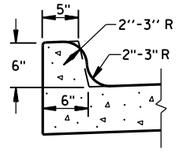


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

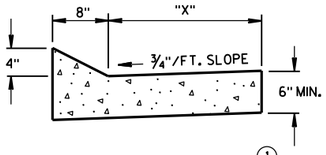


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

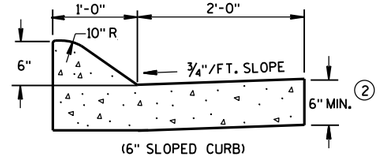
CONCRETE CURB & GUTTER 30"



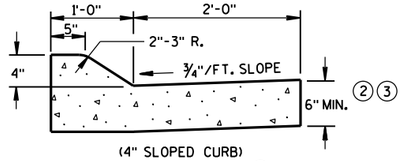
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

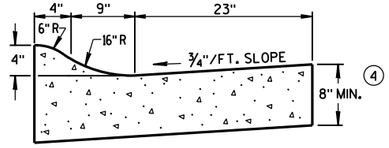


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

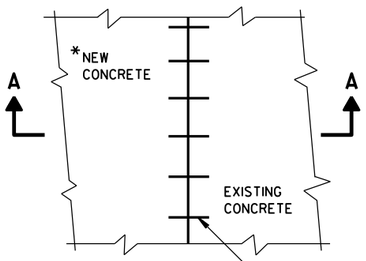
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

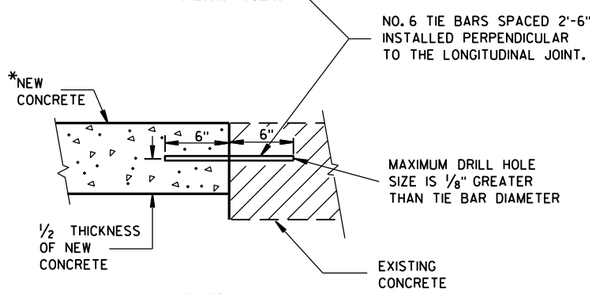
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



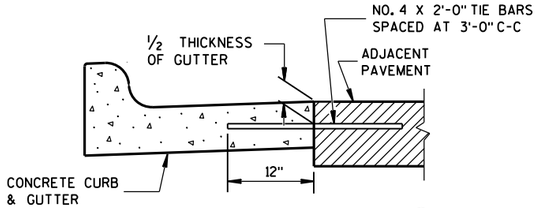
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

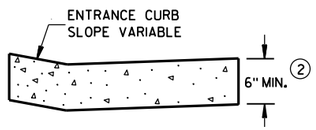


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

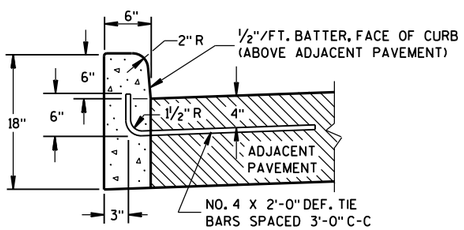


TYPICAL TIE BAR LOCATION ①

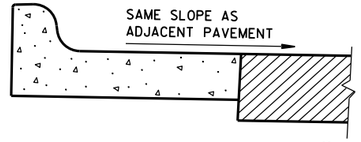


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

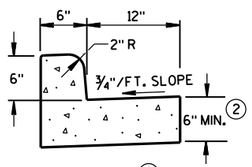


① TYPES A & D



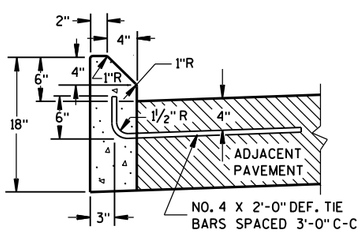
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



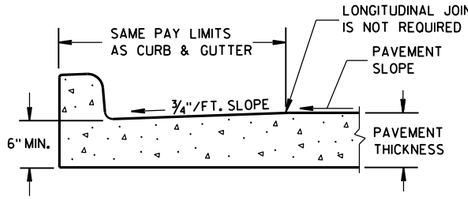
① TYPES A & D

CONCRETE CURB & GUTTER 18"

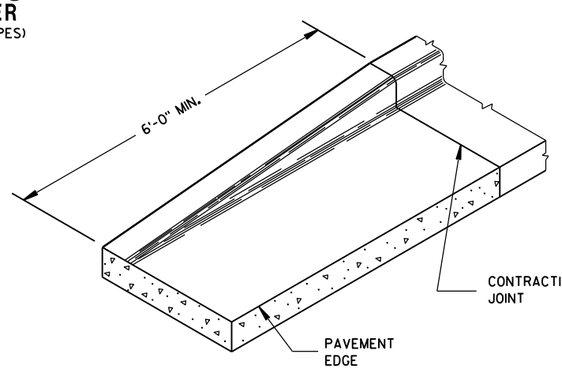


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

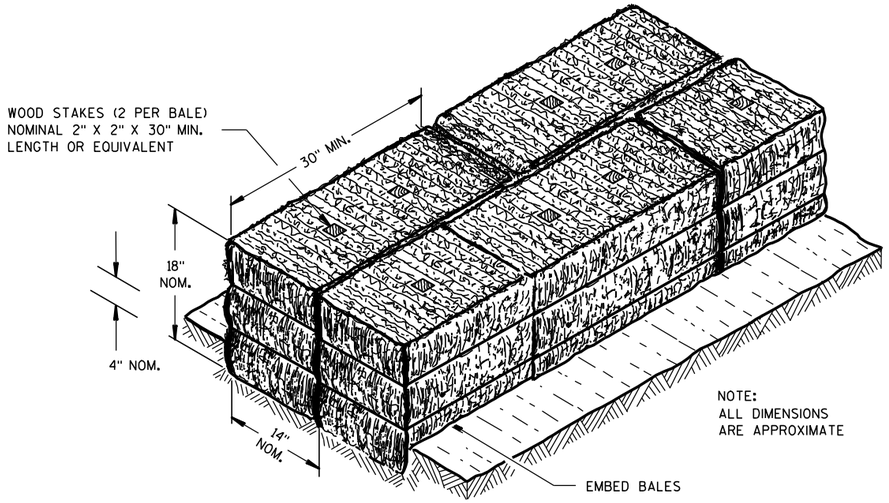
June, 2016 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

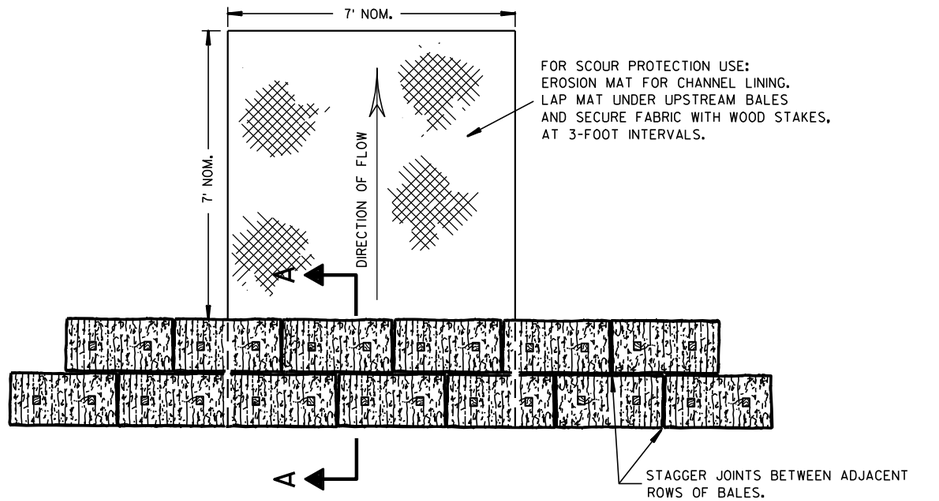
FHWA

6

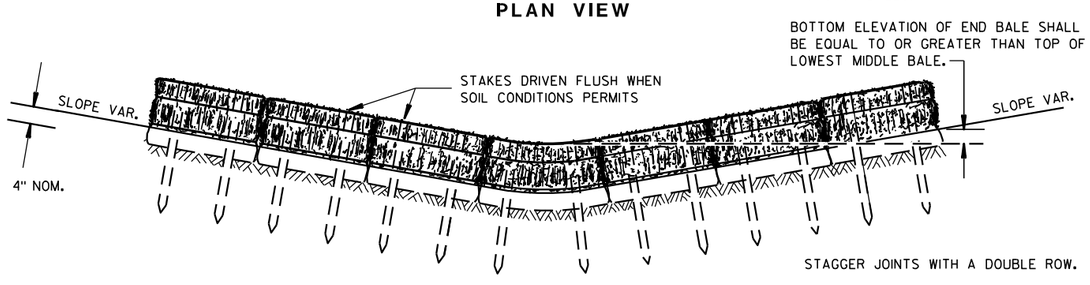
S.D.D. 8 D 1-19



SECTION A-A



PLAN VIEW



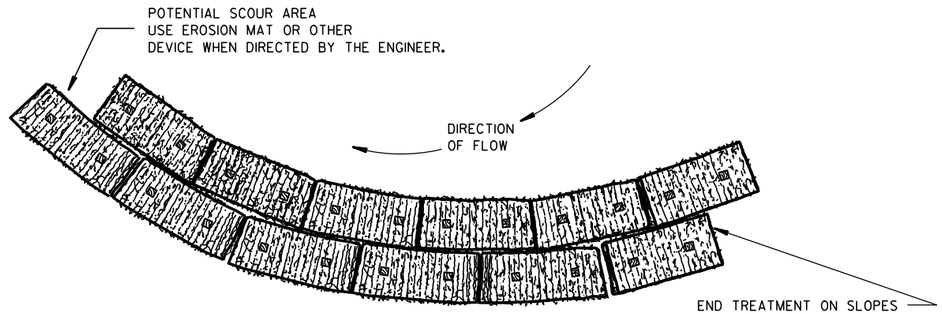
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

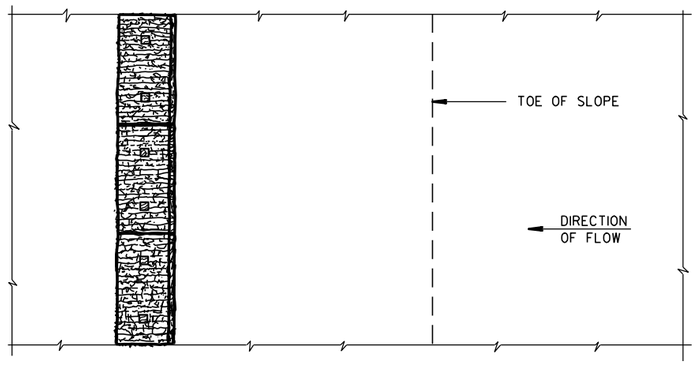
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

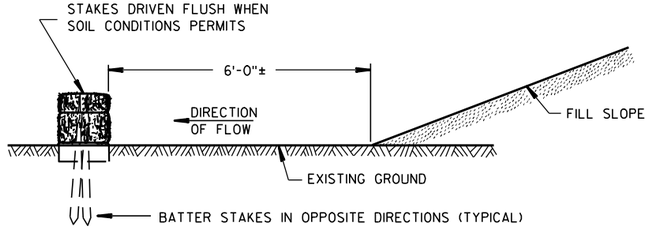


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

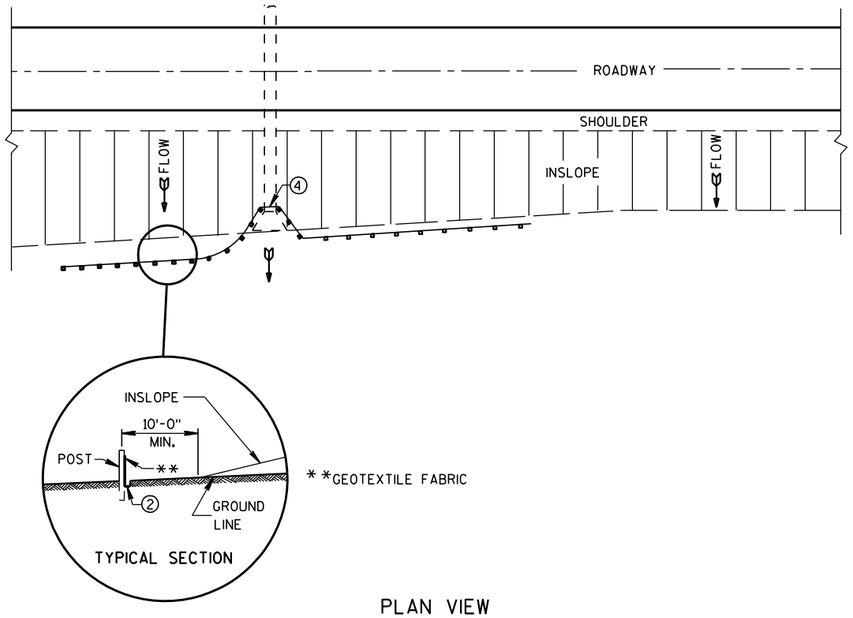
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

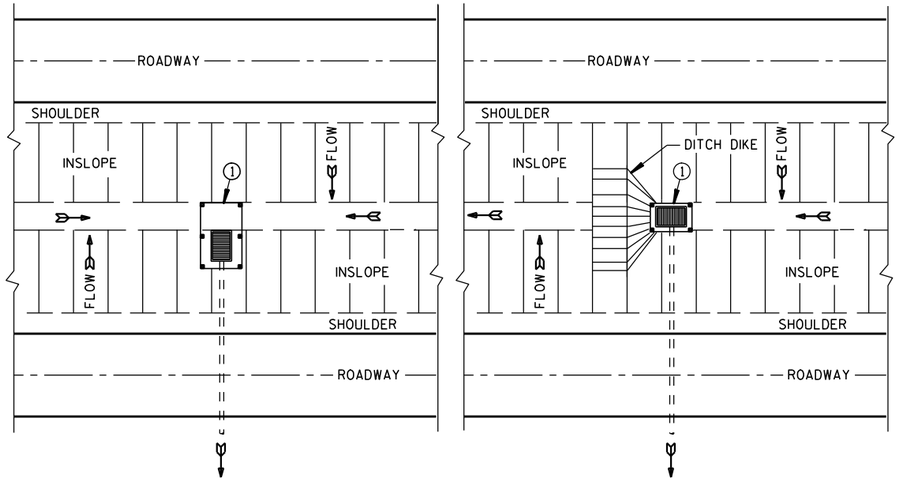
6

S.D.D. 8 E 8-3



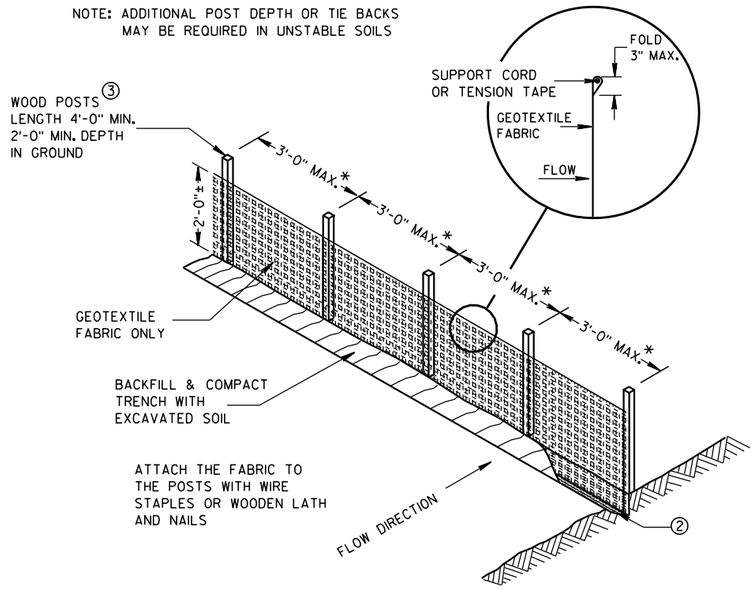
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE

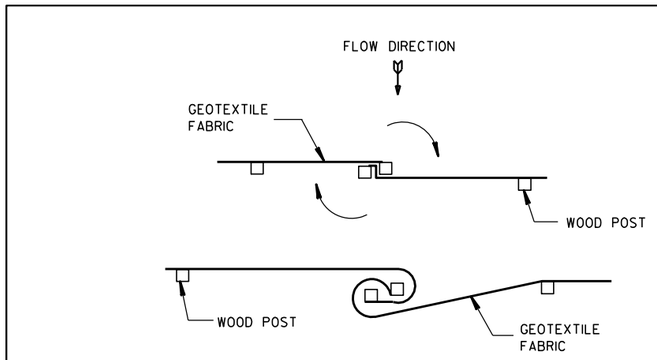


PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE

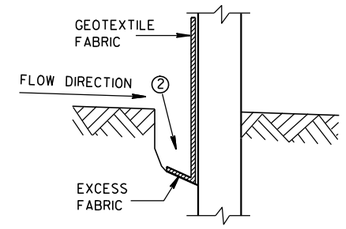


JOINING TWO LENGTHS OF SILT FENCE 5

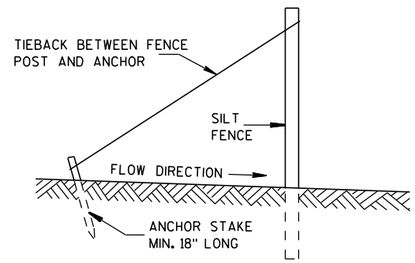
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 9-6

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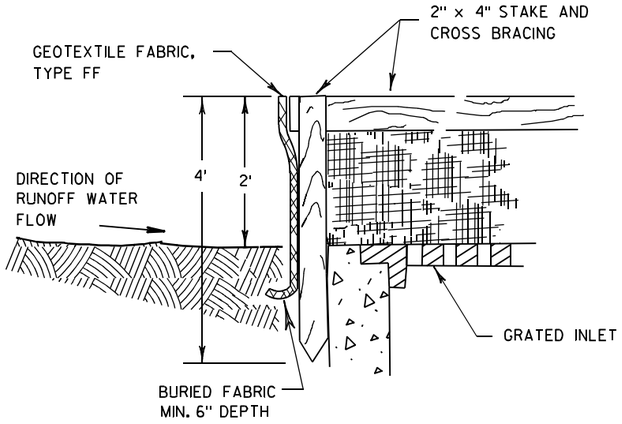
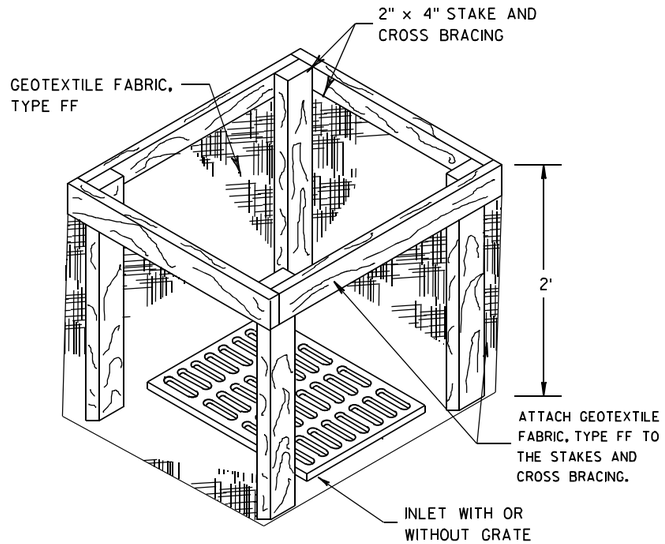
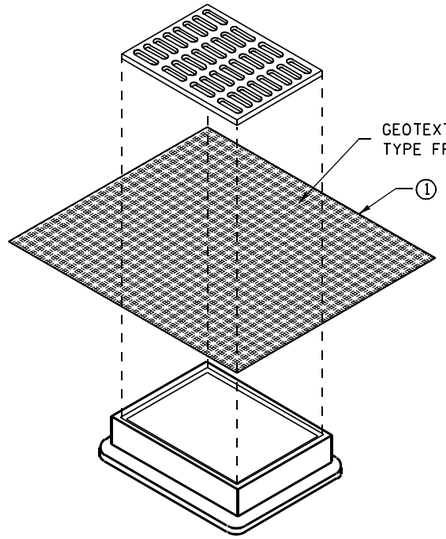
S.D.D. 8 E 9-6



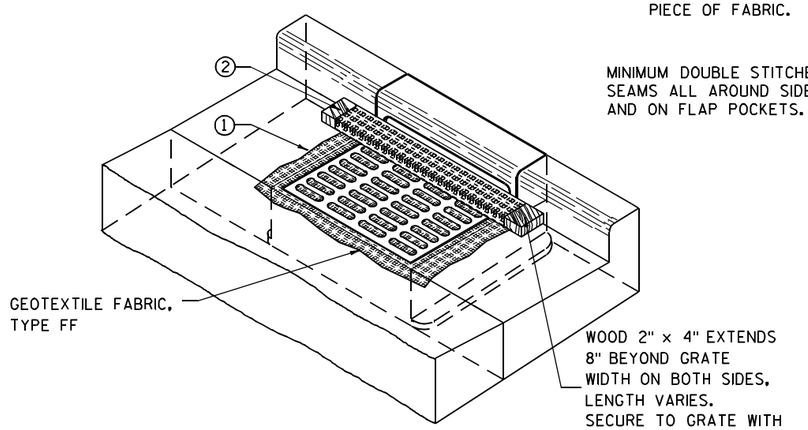


INLET PROTECTION, TYPE A

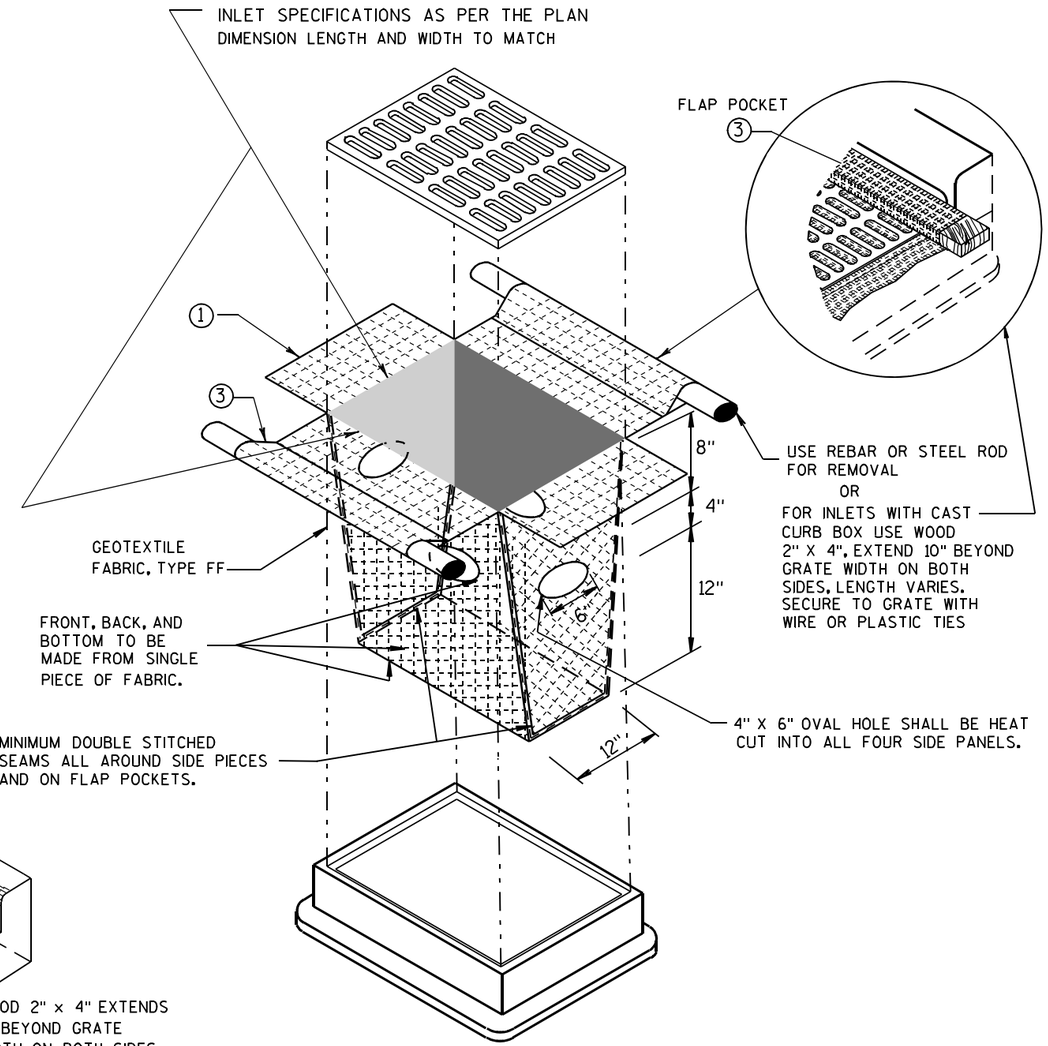


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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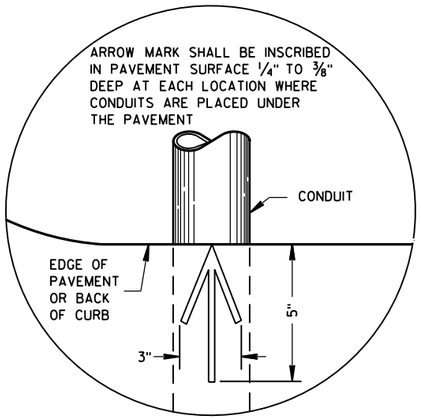
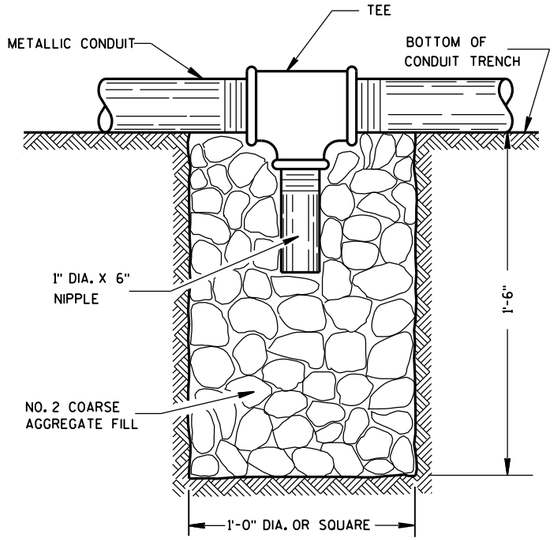
S.D.D. 8 E 10-2



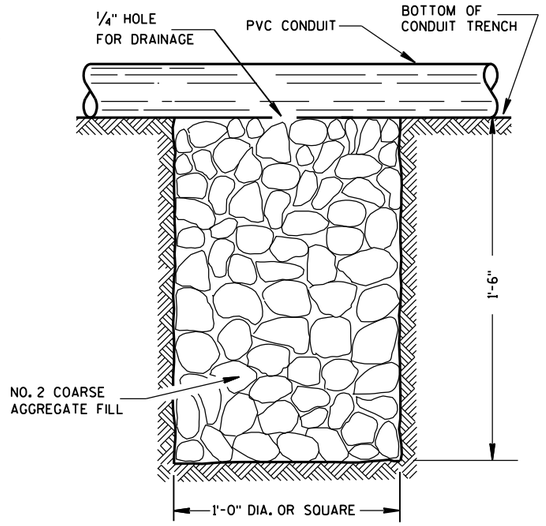
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

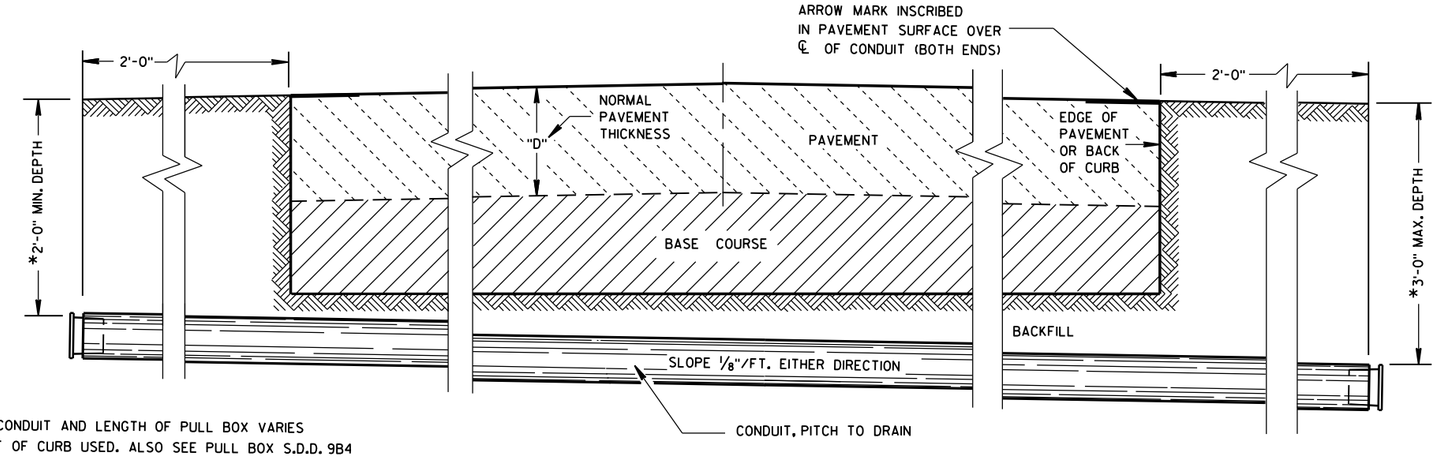
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 B 2-9

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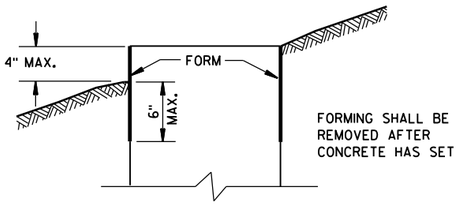
S.D.D. 9 B 2-9

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

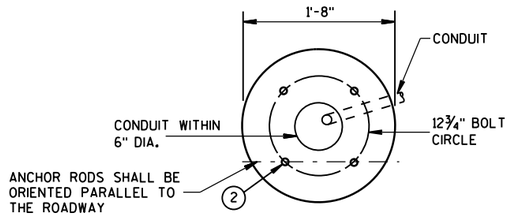
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

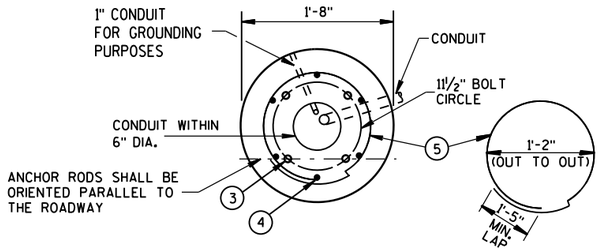
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

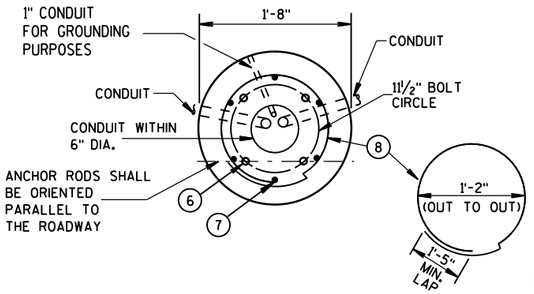
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



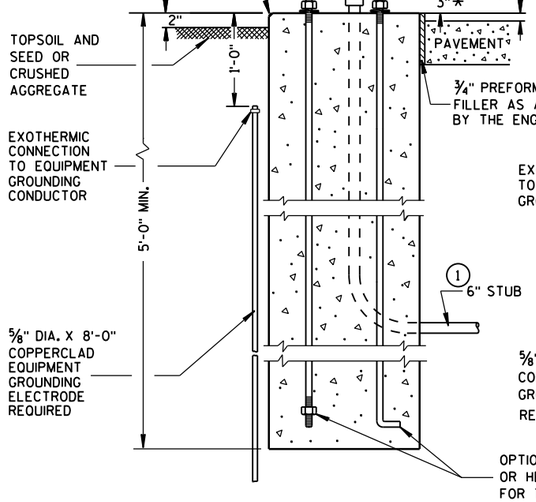




FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA

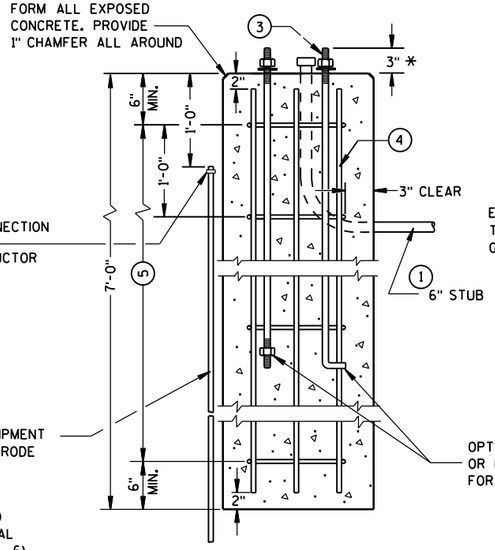
(TYPICAL FOR TYPES 1, 2, 5, & 6)



HALF SECTION IN PAVEMENT

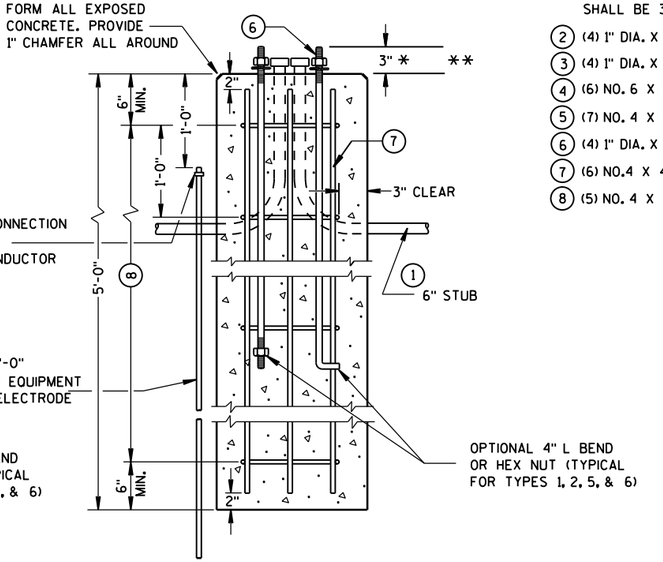
(TYPICAL FOR TYPES 1, 2, 5, & 6)

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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Sept. 2014 — DATE
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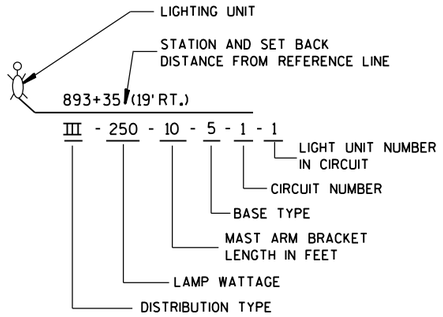
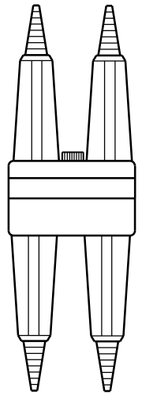
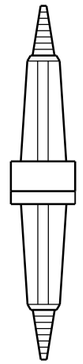


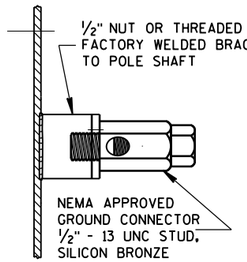
LIGHTING UNIT CODE
(TYPICAL)

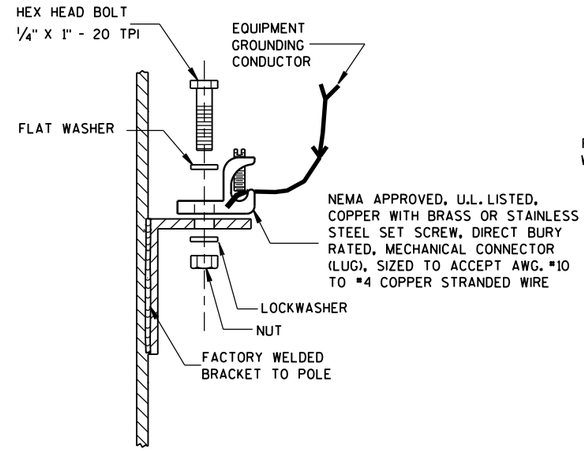


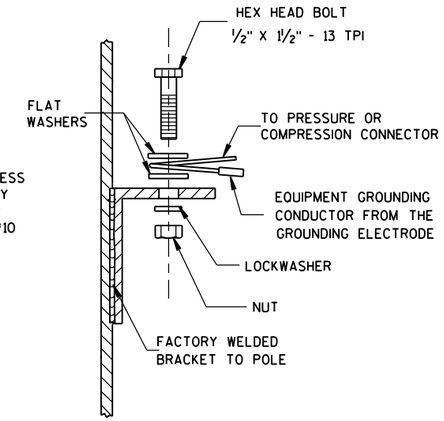
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



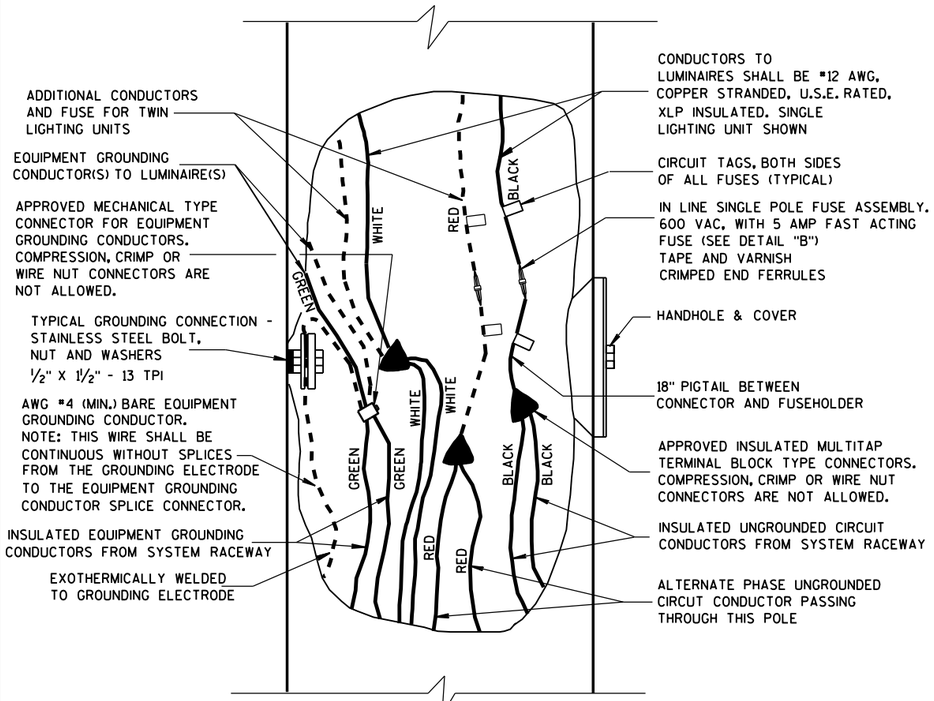
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



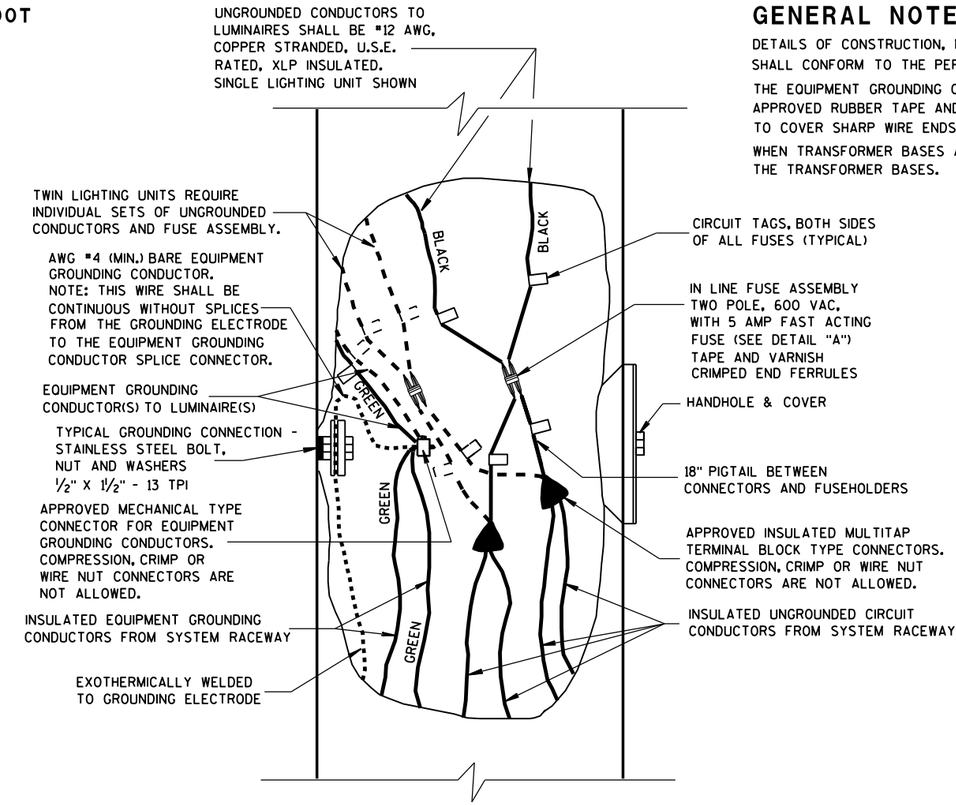




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
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APPROVED
Sept. 2014 — DATE
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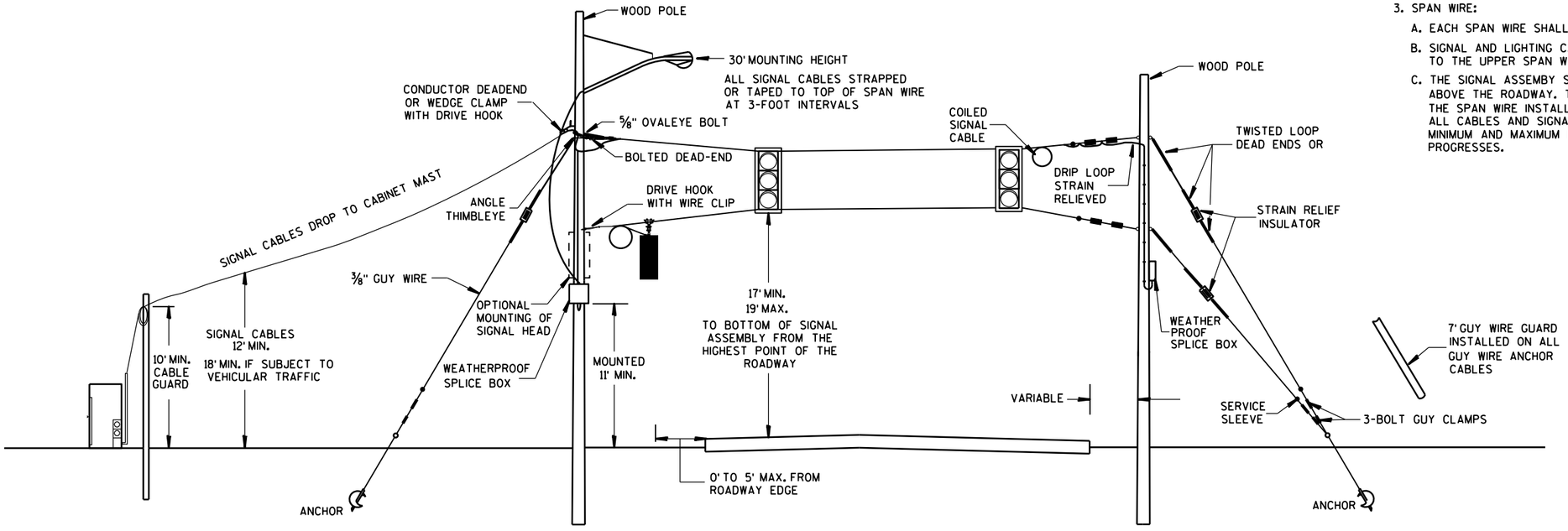
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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S.D.D. 9 G 1-4a

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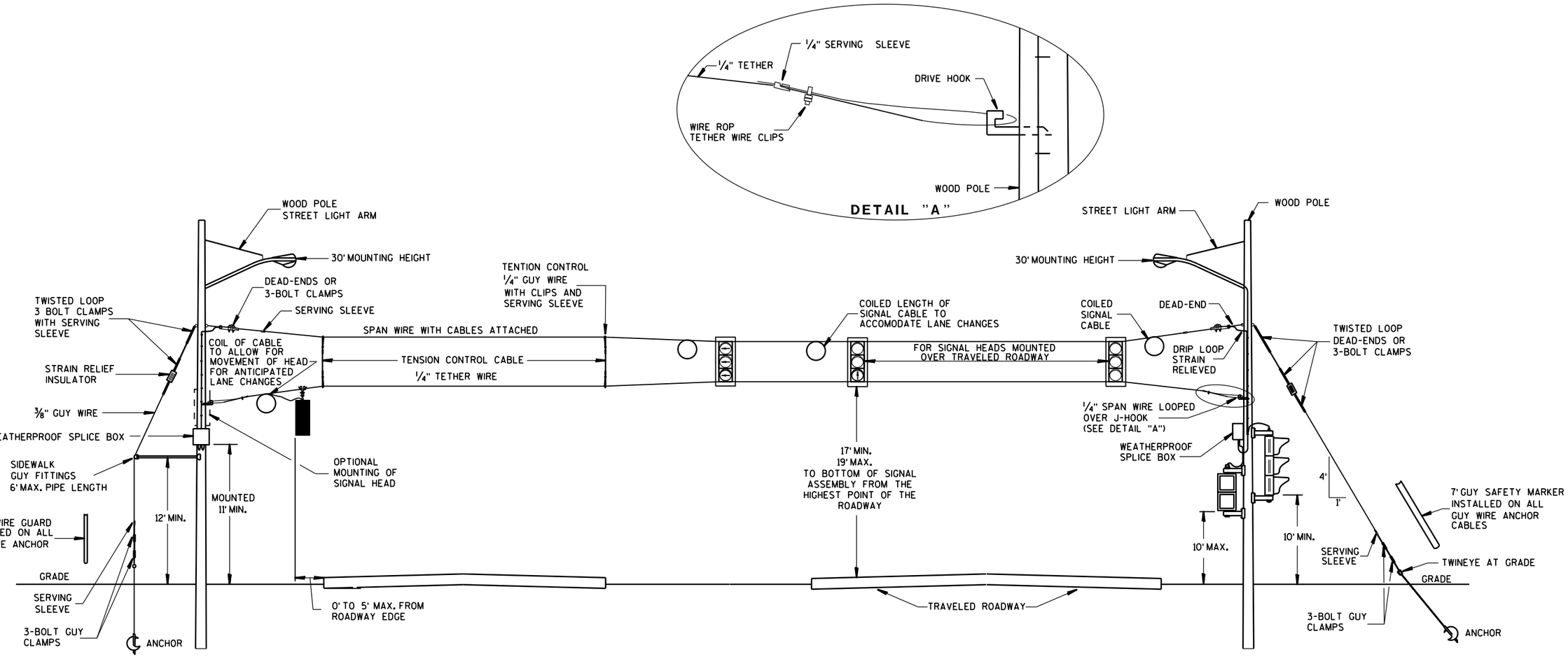
S.D.D. 9 G 1-4a



GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
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   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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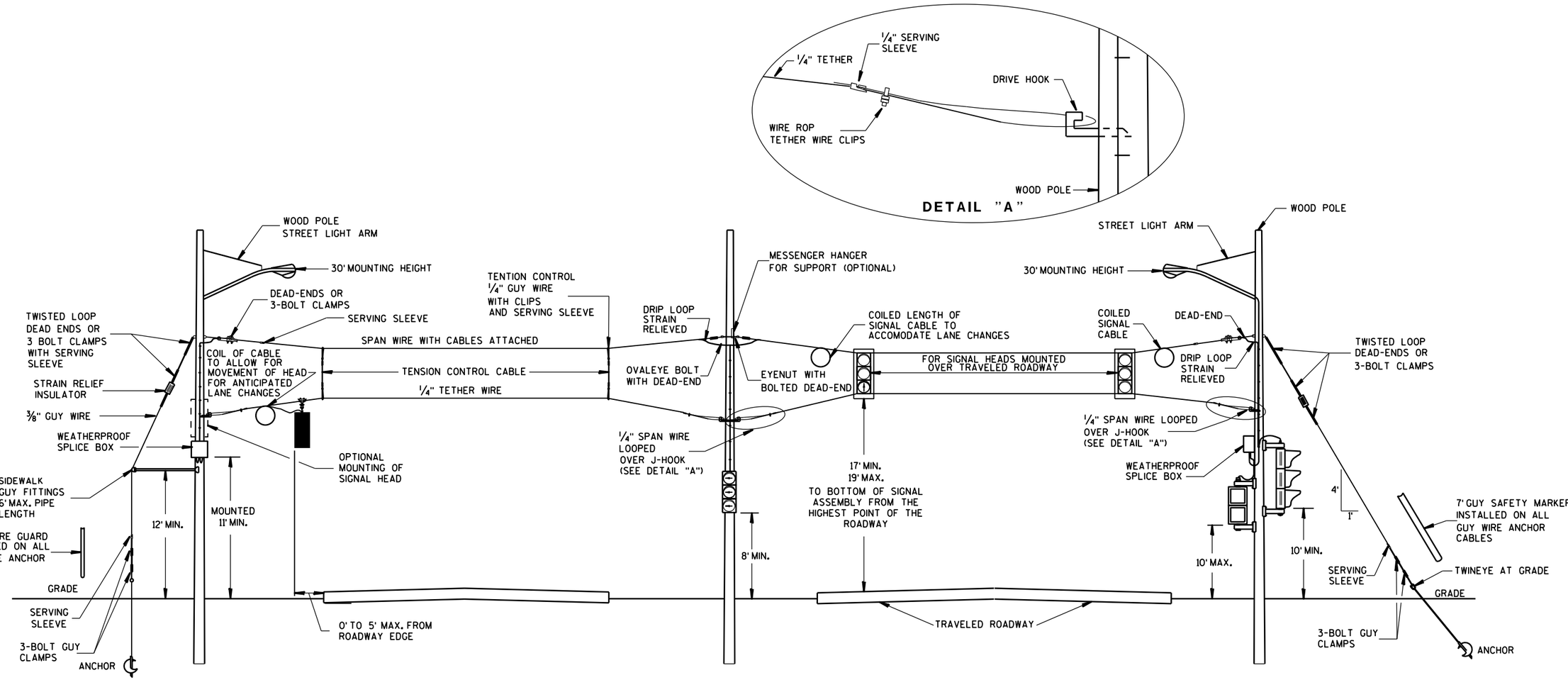
S.D.D. 9 G 1-4b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

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2. SIGNAL FACES:
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   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

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MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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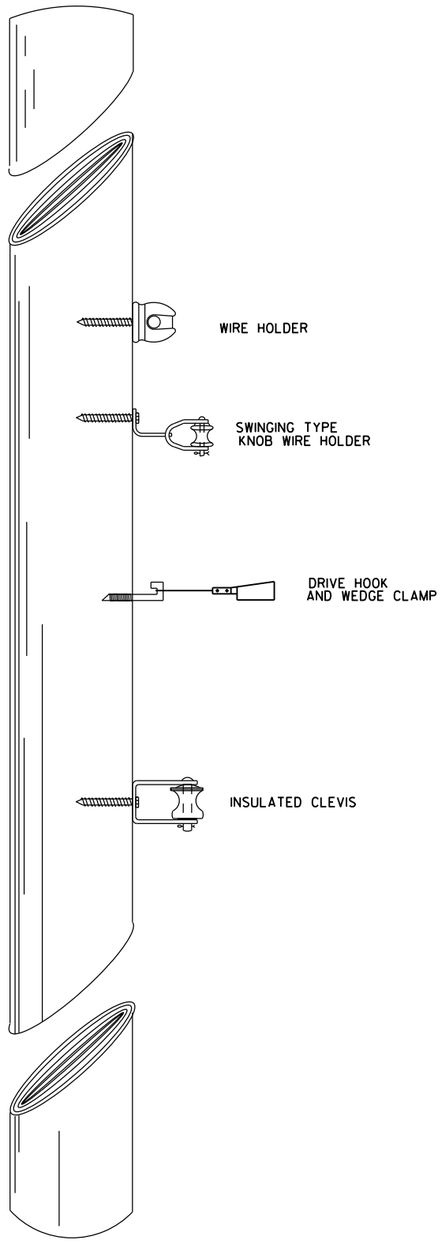
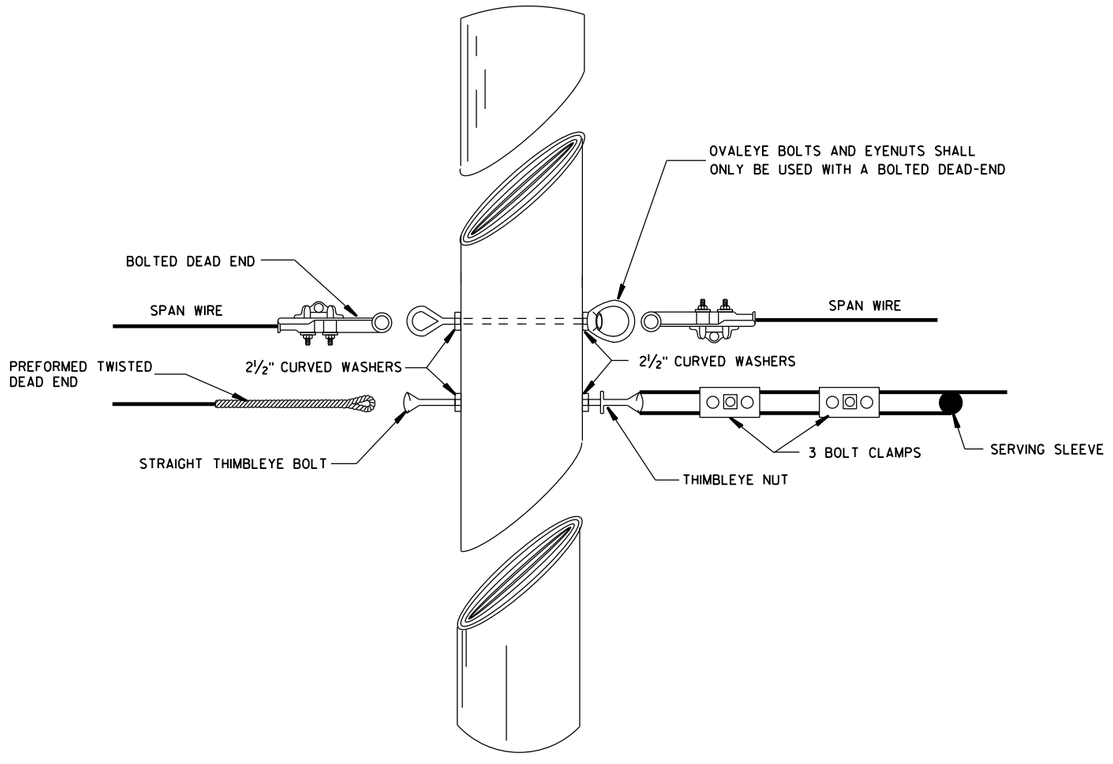
S.D.D. 9 G 1-4c



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 9 G 1-4d

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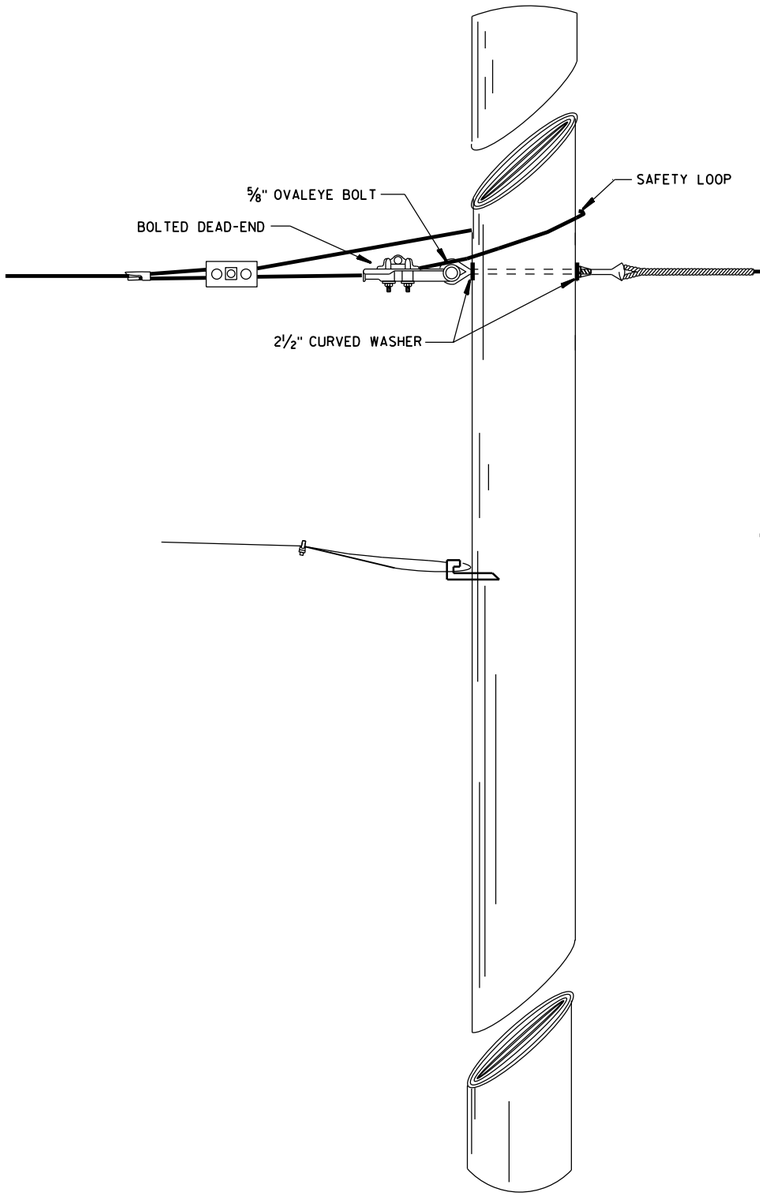
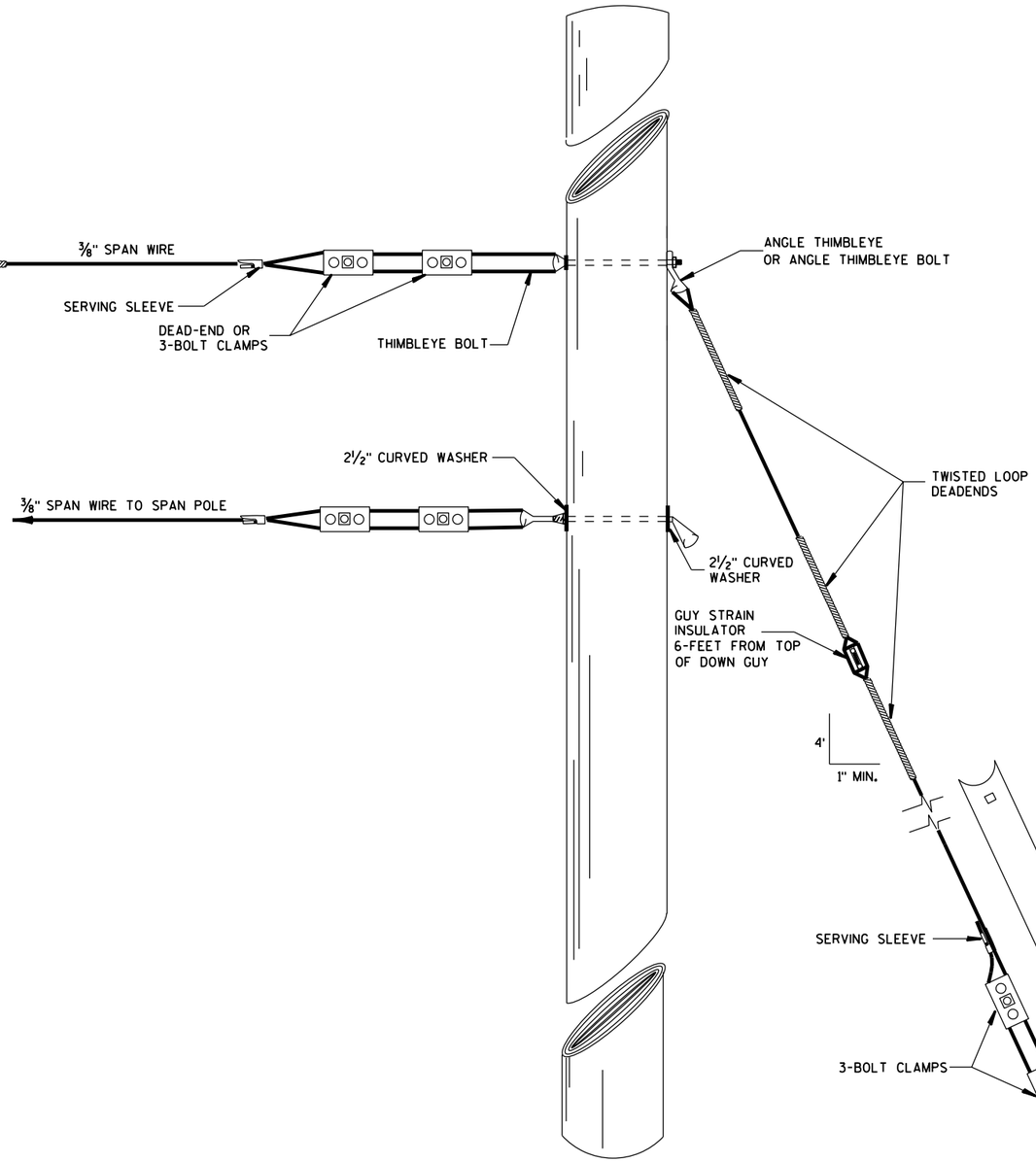
S.D.D. 9 G 1-4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
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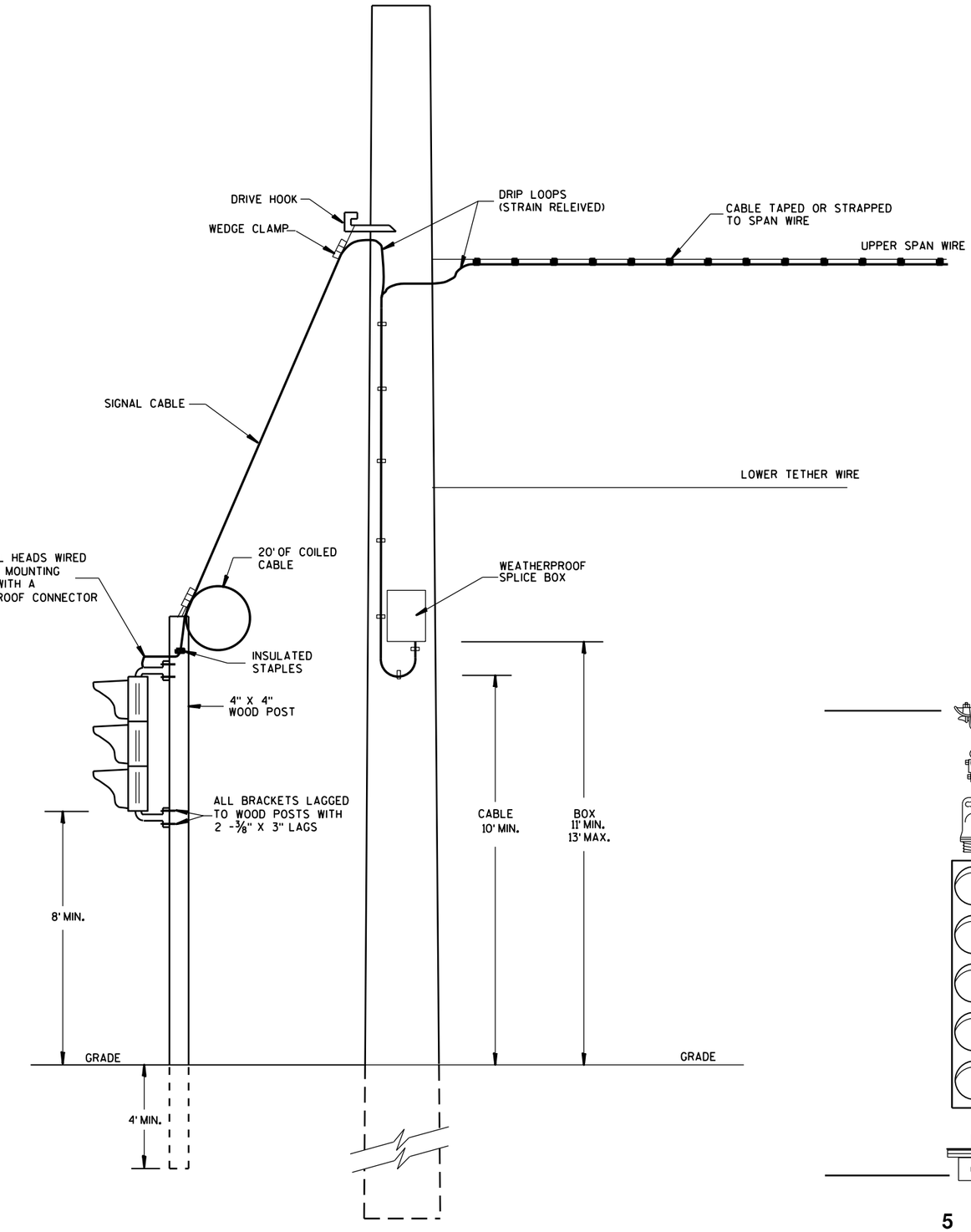
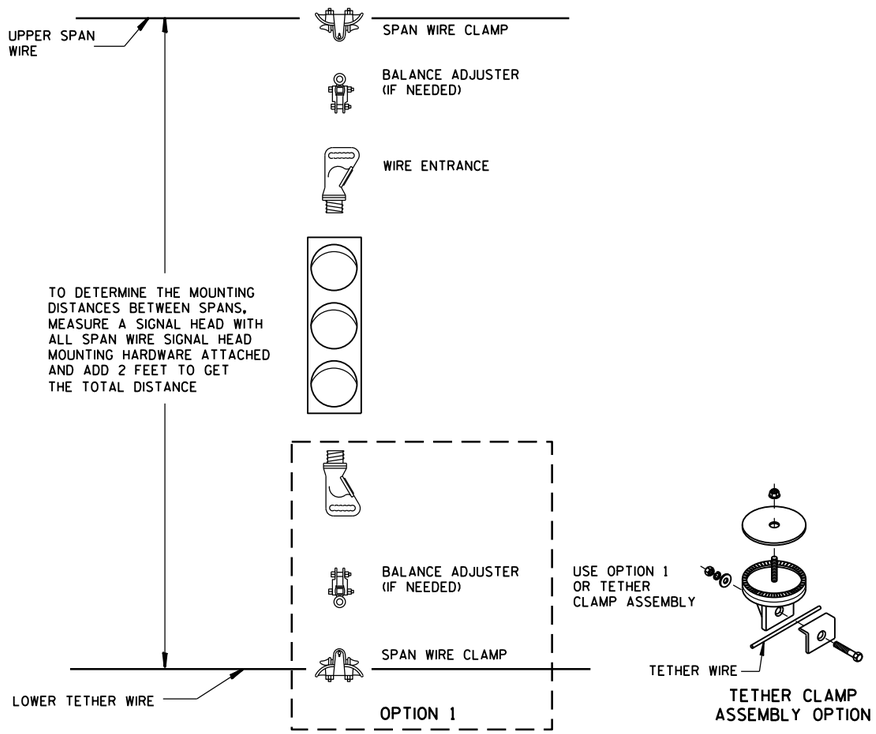
S.D.D. 9 G 1-4e

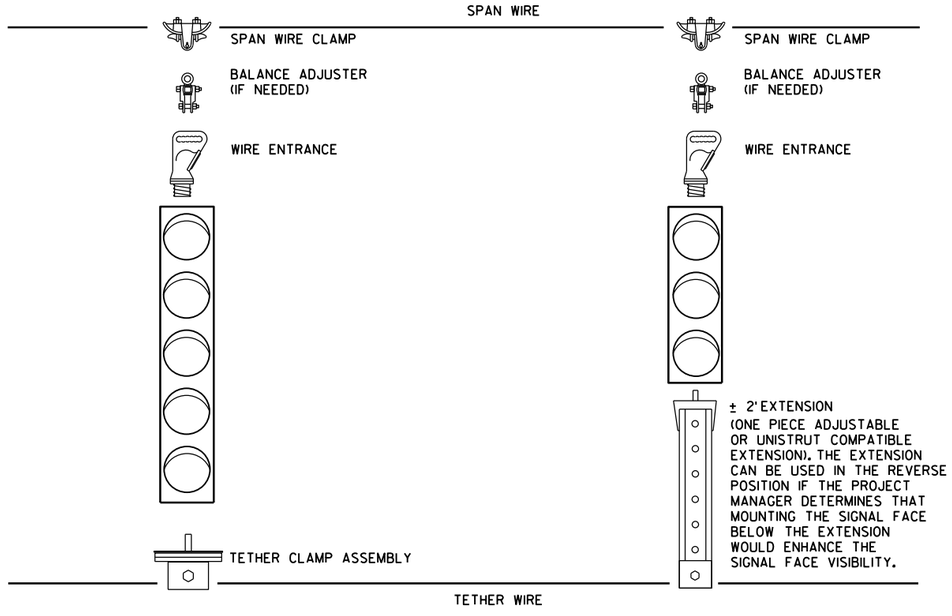


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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S.D.D. 9 G 1-4f

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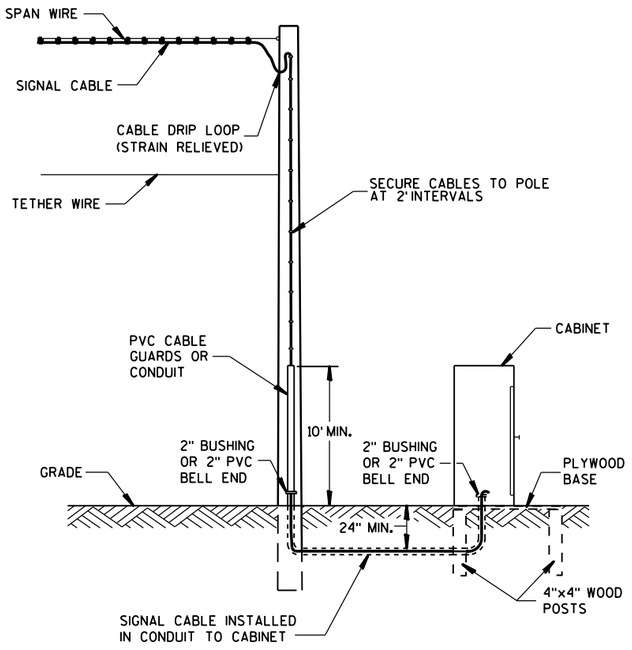
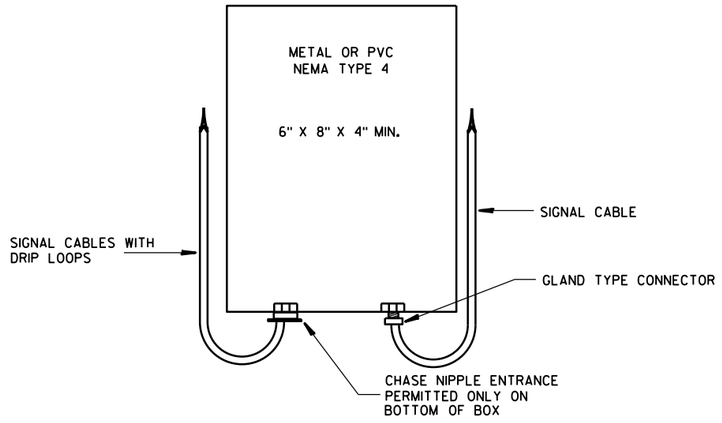
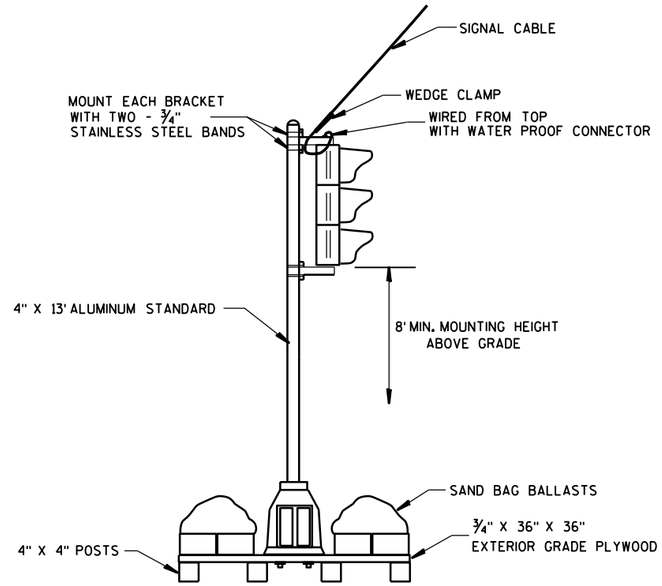
S.D.D. 9 G 1-4f

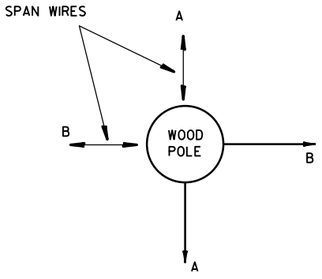




SPLICE BOX

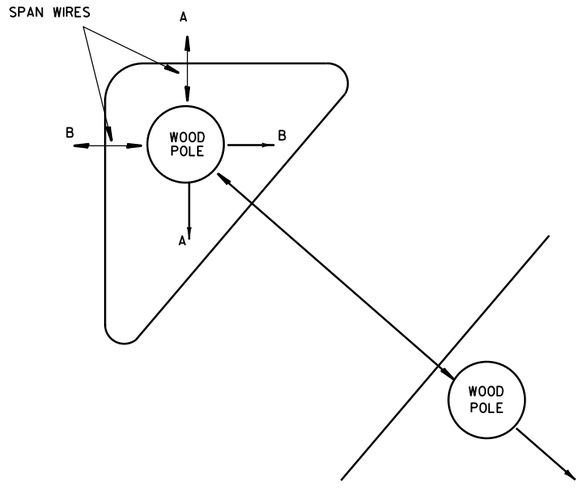


TYPICAL SKID TYPE TEMPORARY

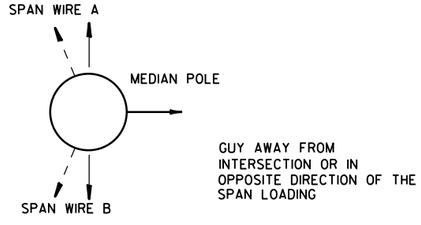


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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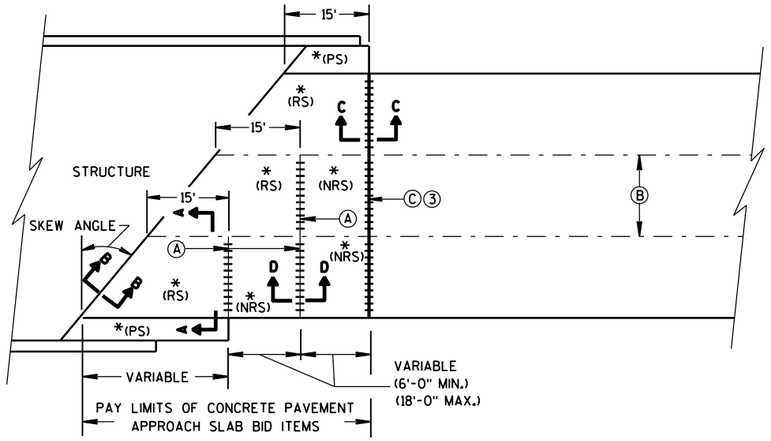
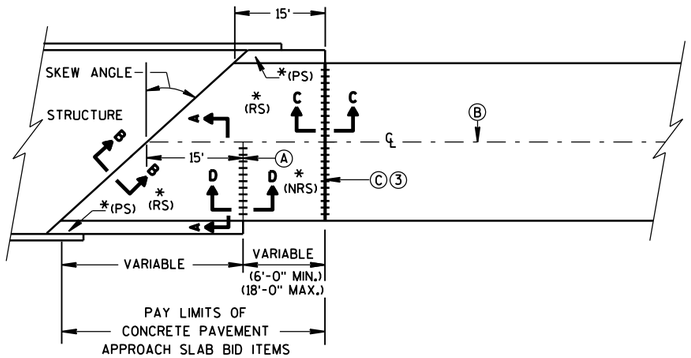
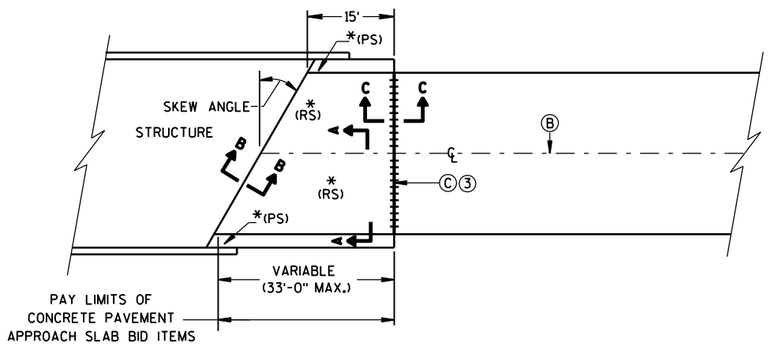
S.D.D. 9 G 1-4g



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

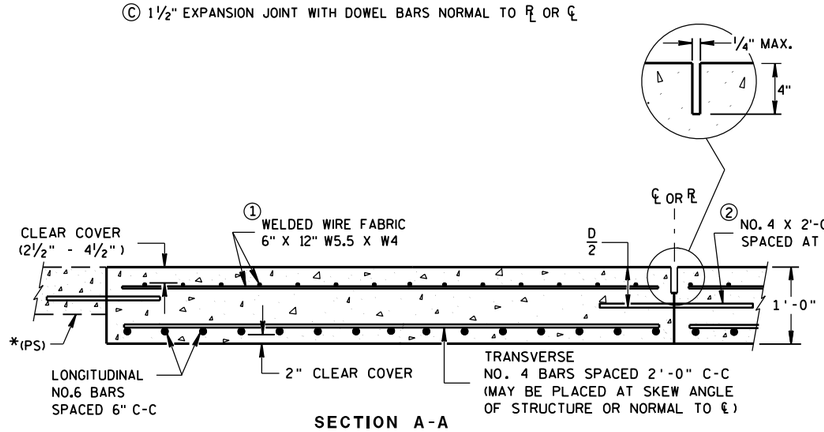
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

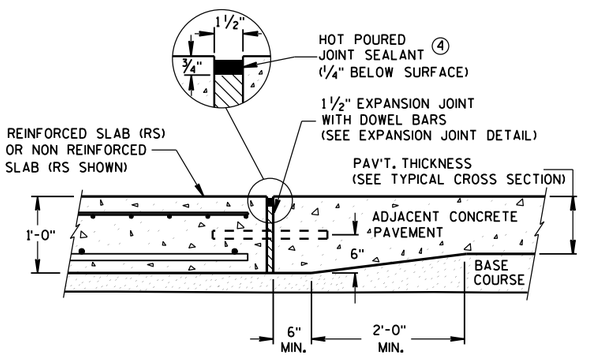
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

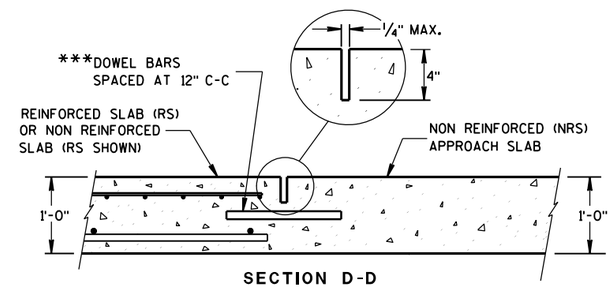
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

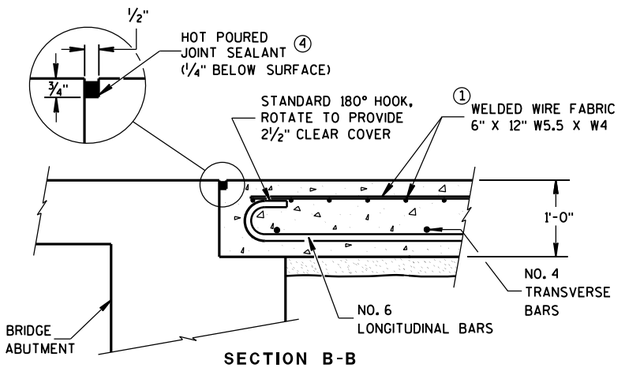
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

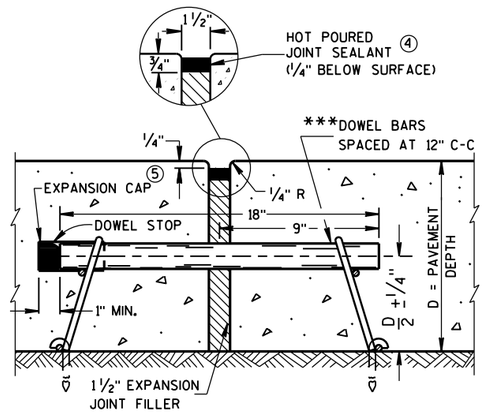
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

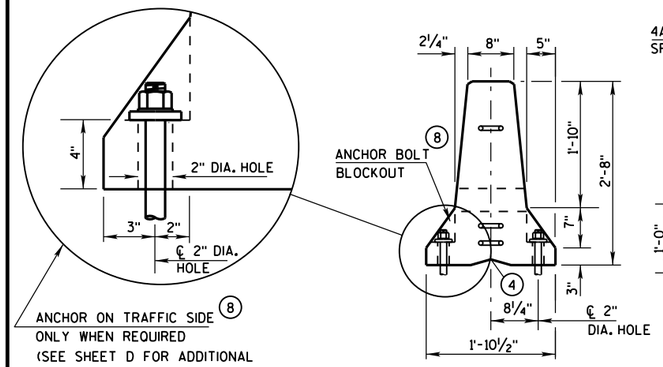
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

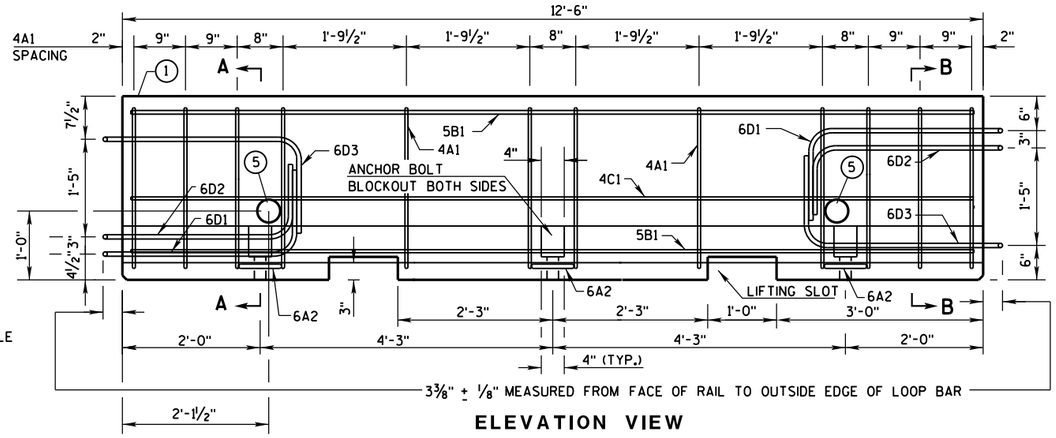
S.D.D. 13 B 2-8a

6

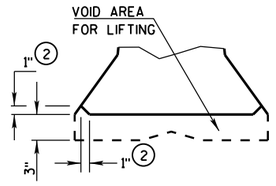
S.D.D. 13 B 2-8a



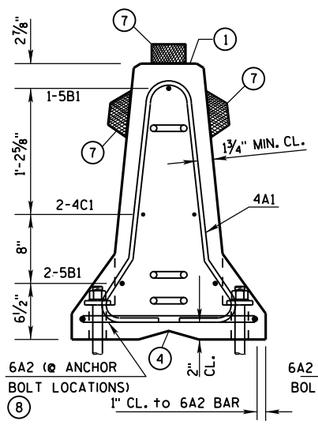
END VIEW



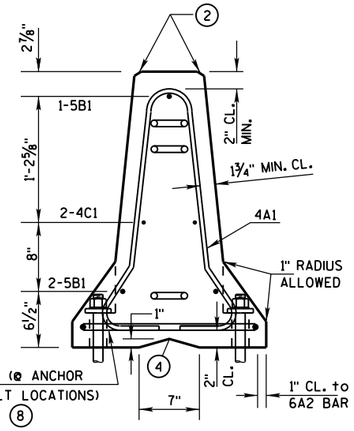
ELEVATION VIEW



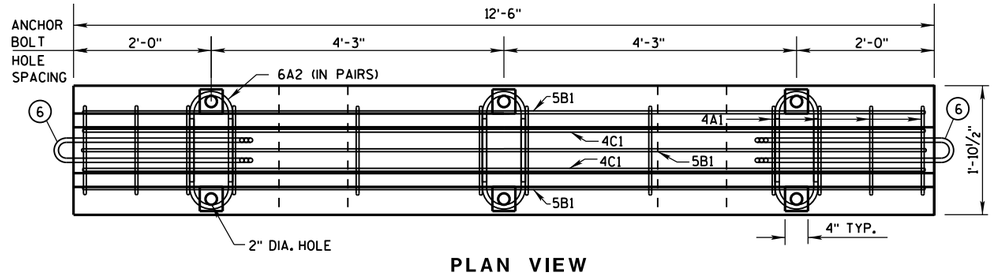
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

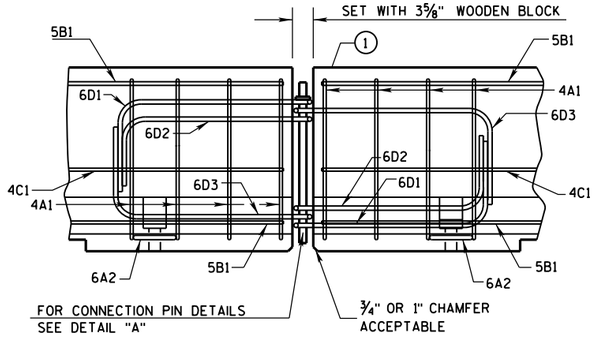
(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

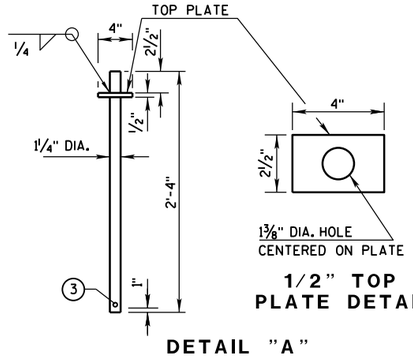
(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

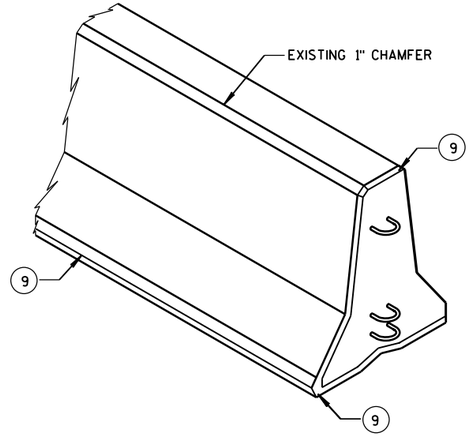


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

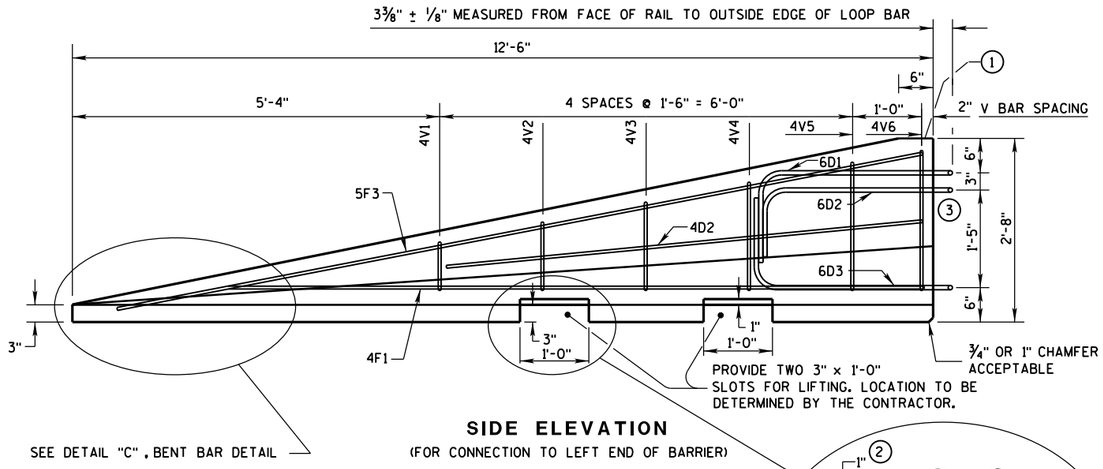
DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



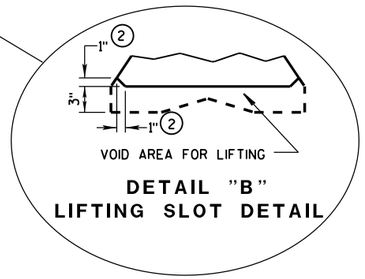
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

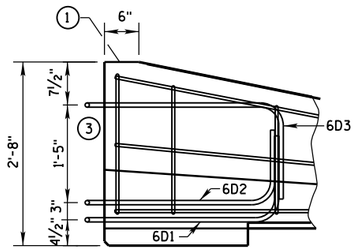
6
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



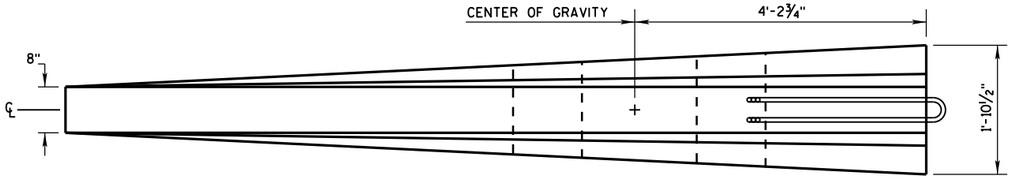
DETAIL "B"
LIFTING SLOT DETAIL



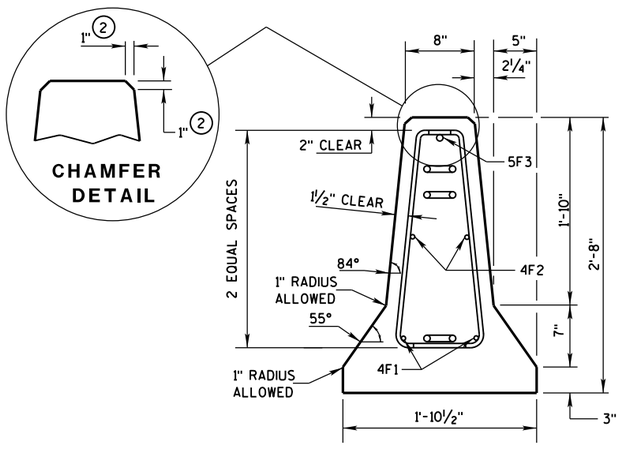
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

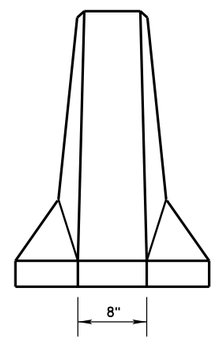
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



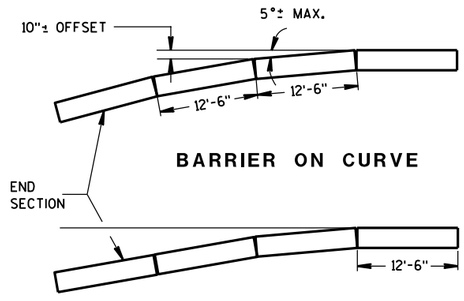
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

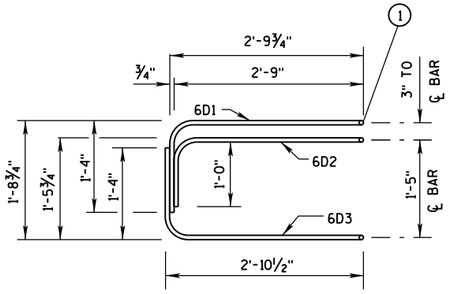
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 7-14b

BARRIER TAPER SECTION BILL OF MATERIALS

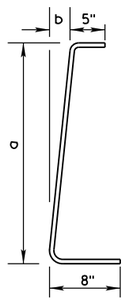
(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL

ELEVATION
LOOP BAR ASSEMBLY



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

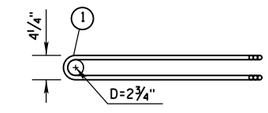
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

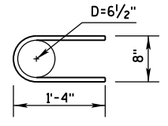
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

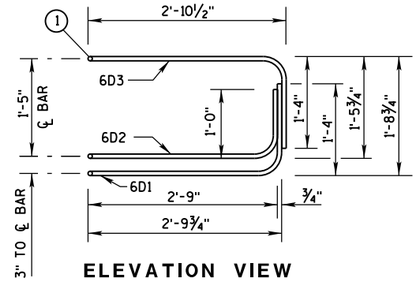
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



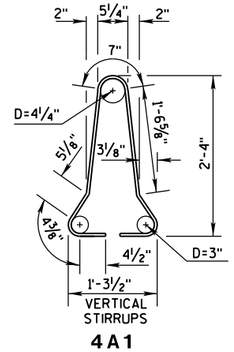
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



4A1

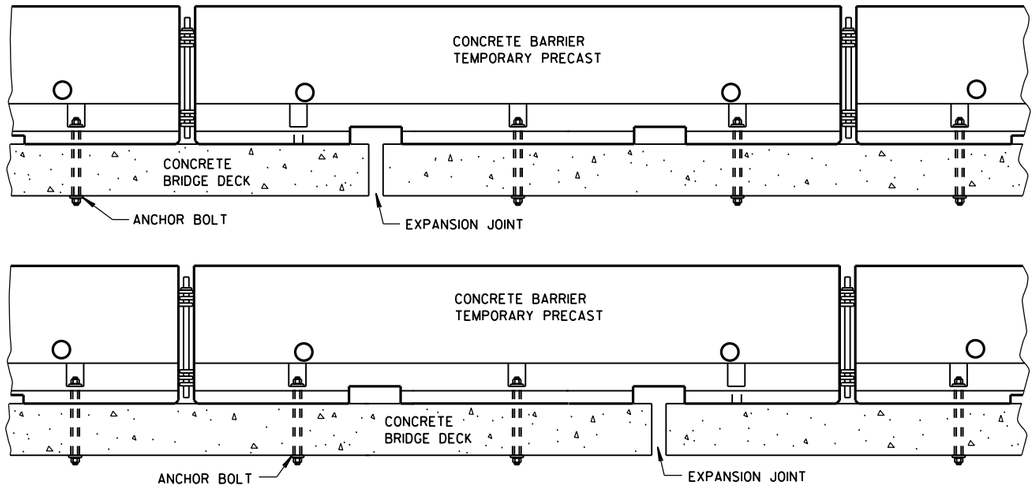
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

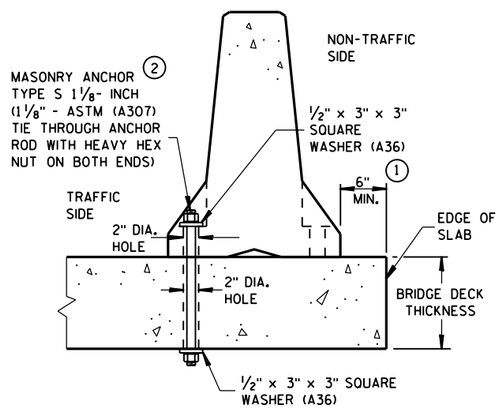
6

S.D.D. 14 B 7-14c



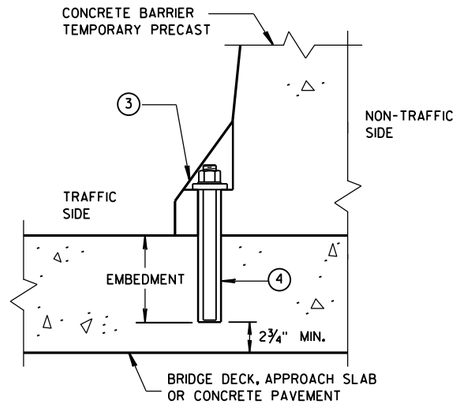
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT ②

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

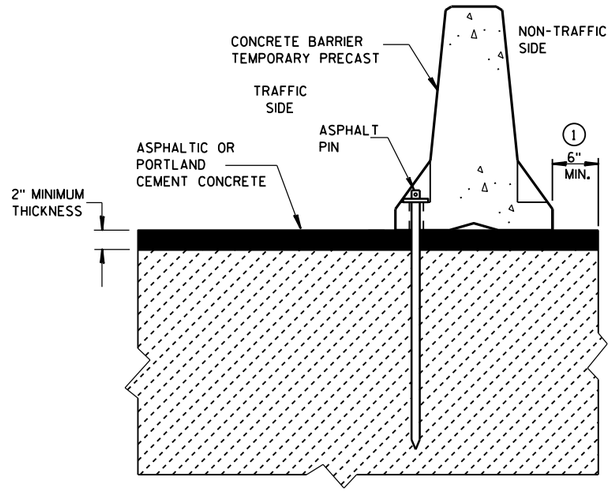
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

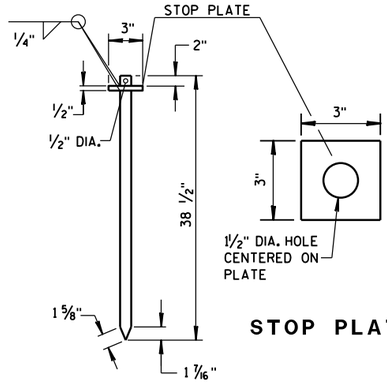
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

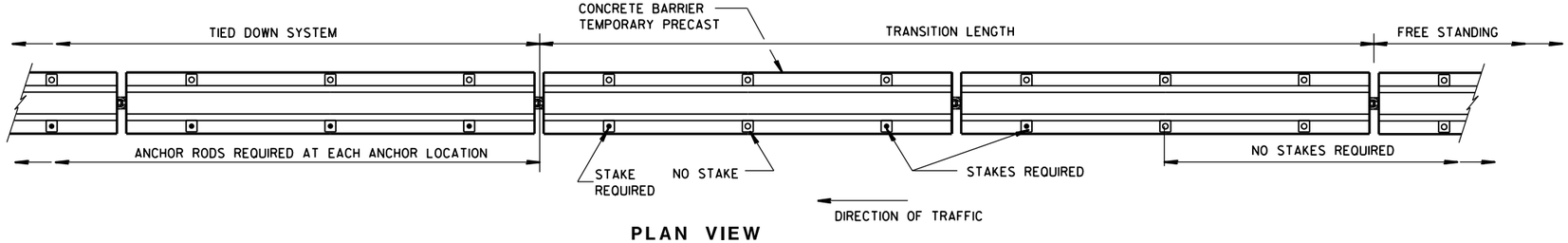
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

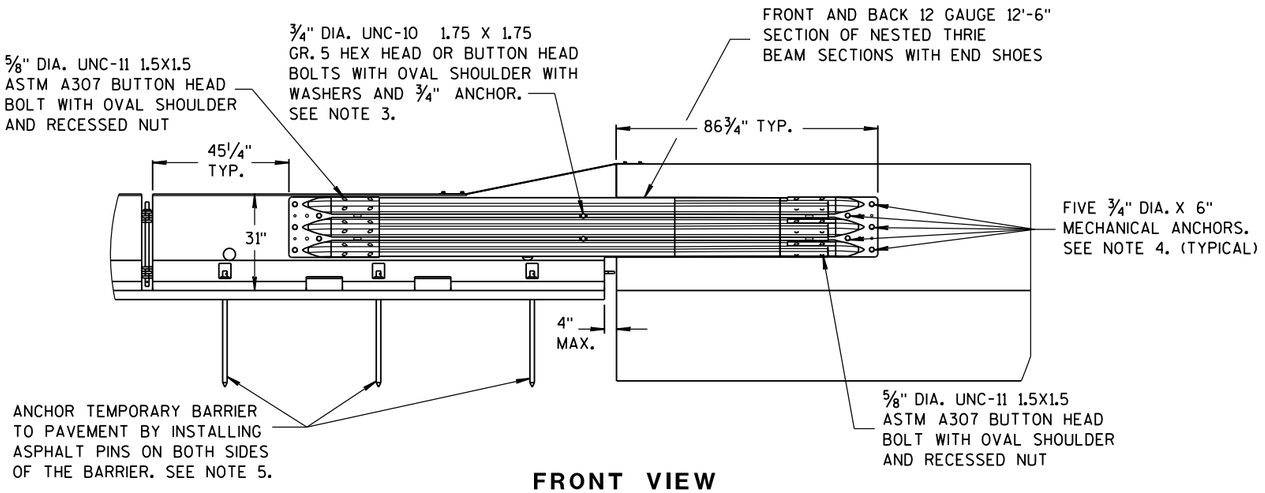
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

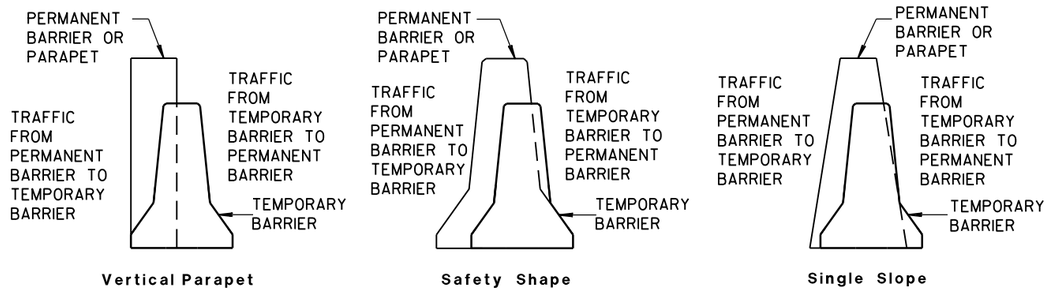
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14d



FRONT VIEW

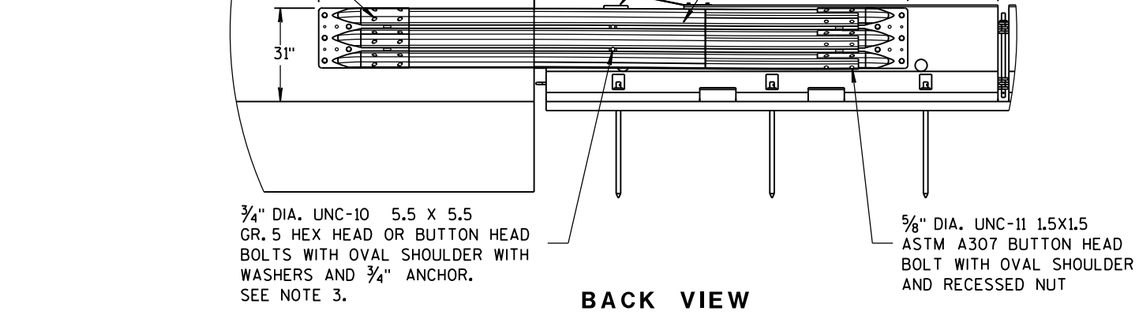


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

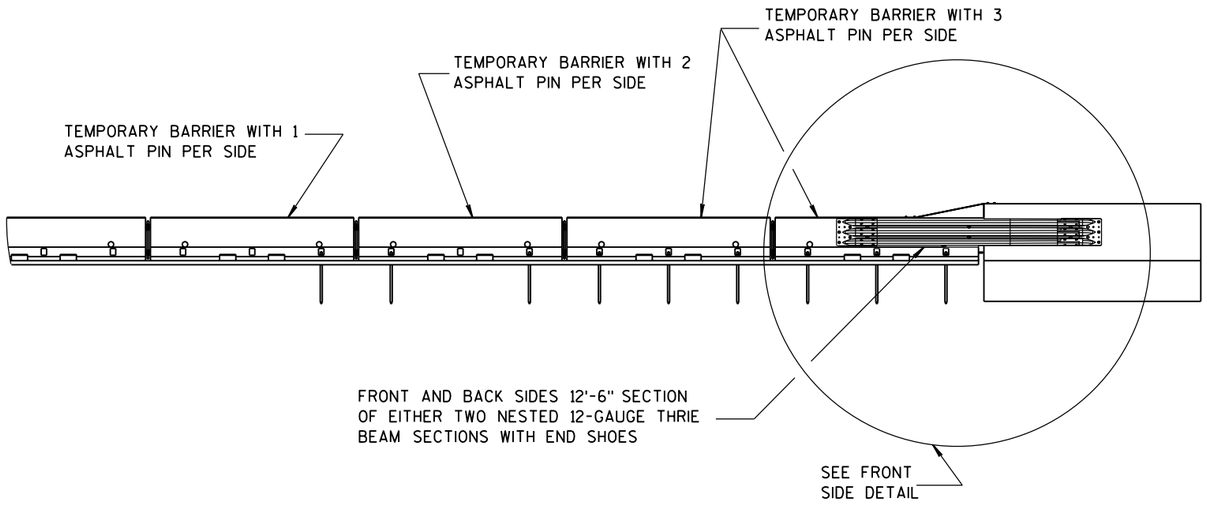
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

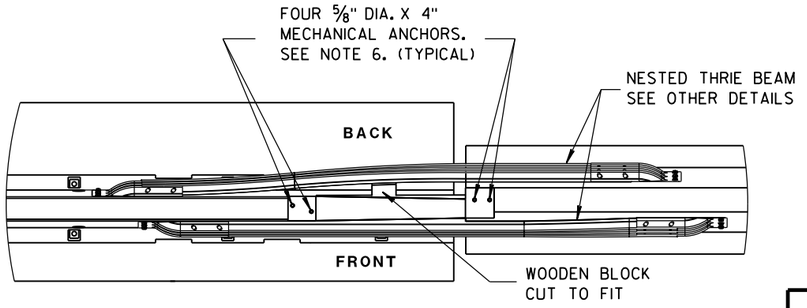
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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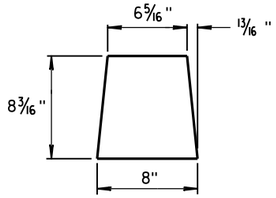
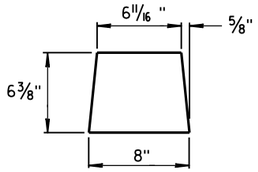
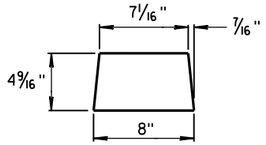
S.D.D. 14 B 7-14e



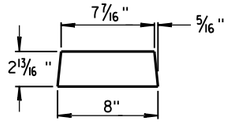
GUSSET 1



GUSSET 2

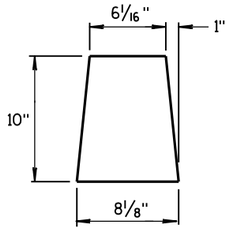


GUSSET 3

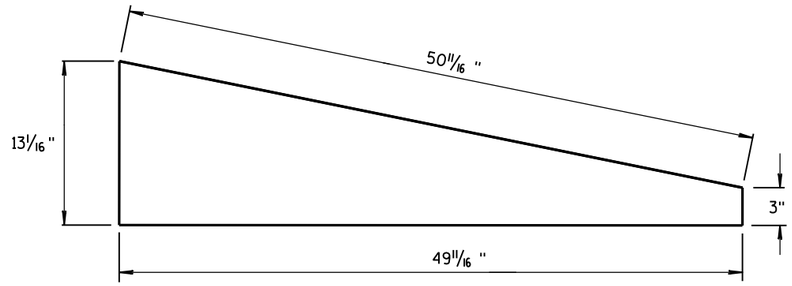


GUSSET 4

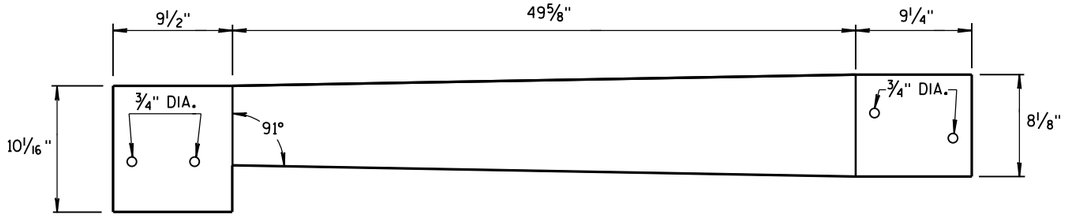
GUSSETS

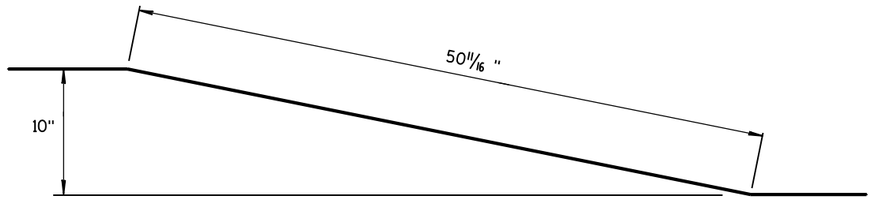


END PLATE



SIDE PLATE

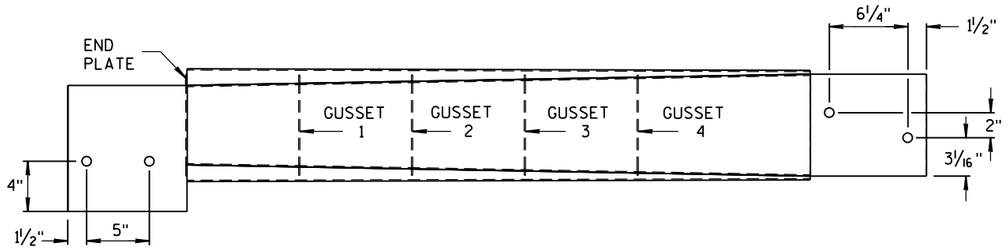


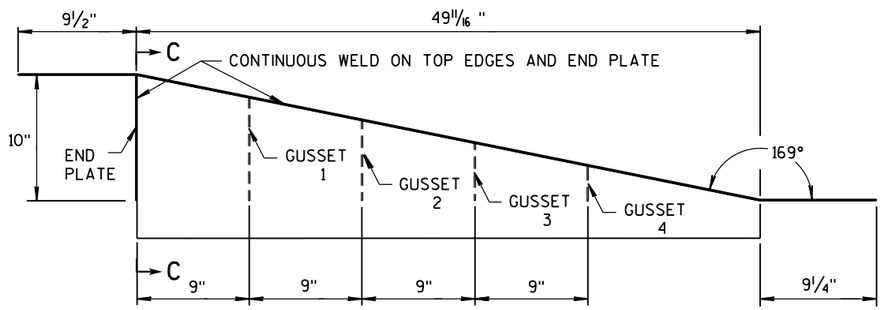


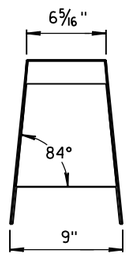
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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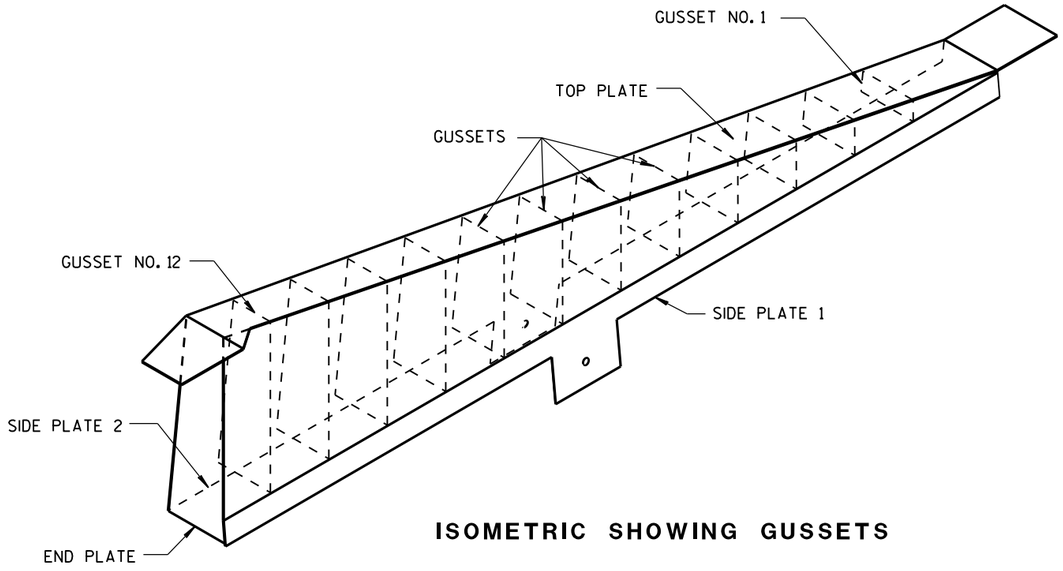
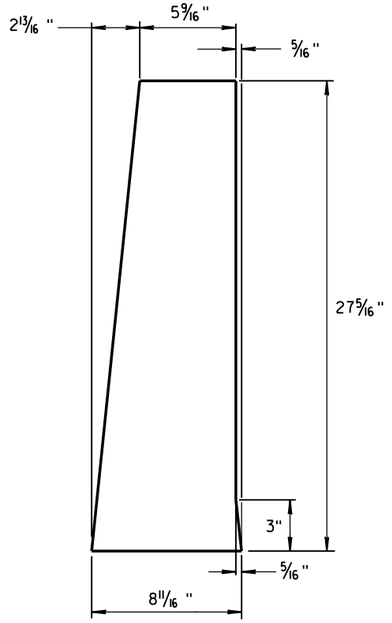
S.D.D. 14 B 7-14f

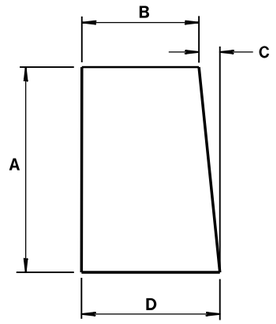


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



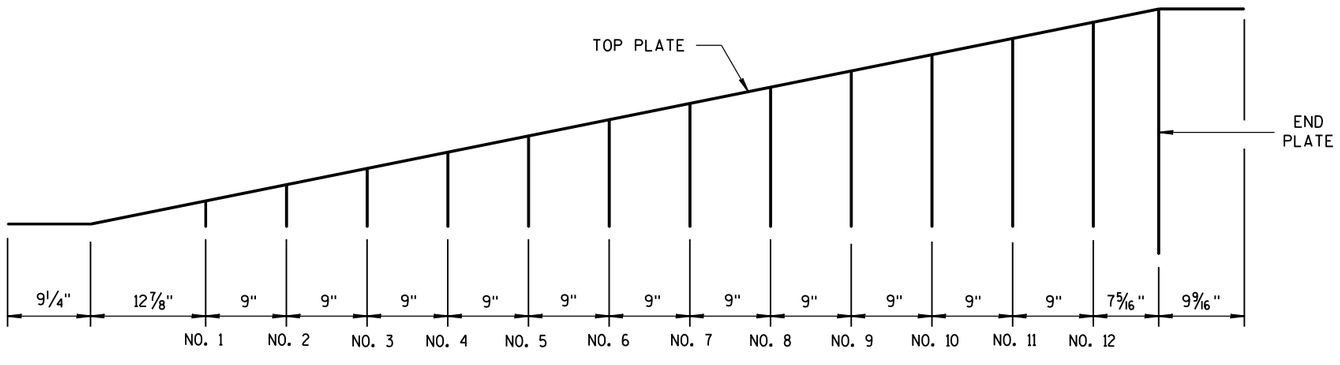
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

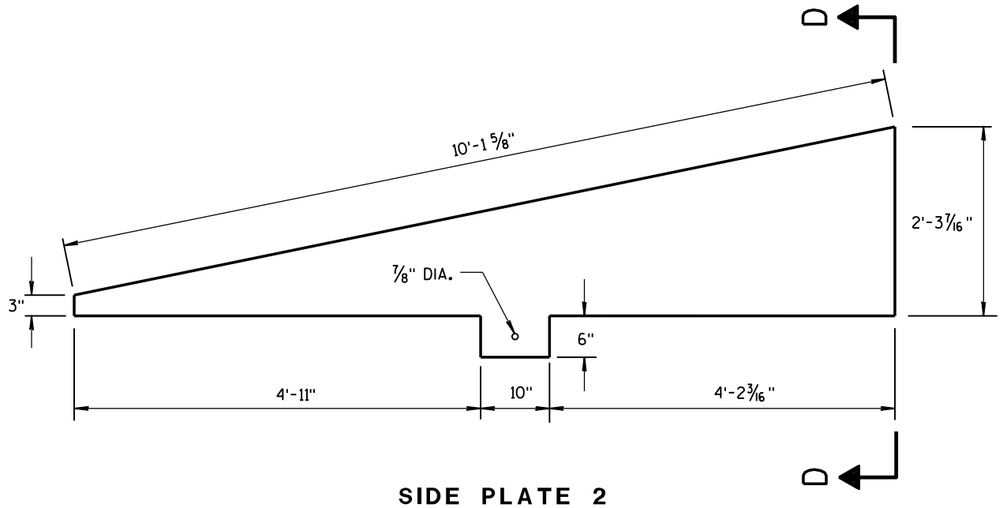
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

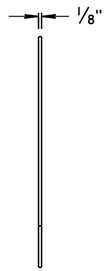
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

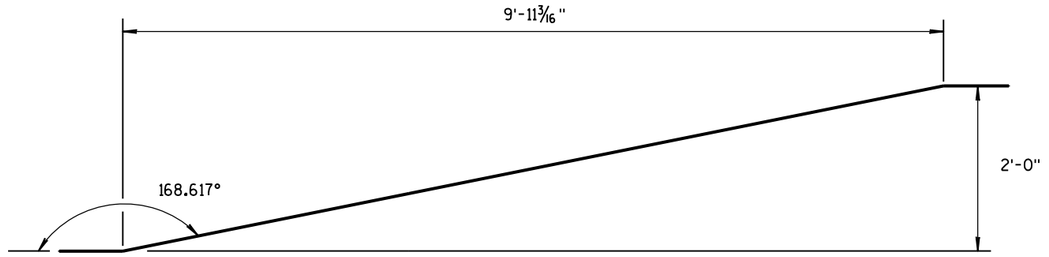
S.D.D. 14 B 7-14g



SIDE PLATE 2

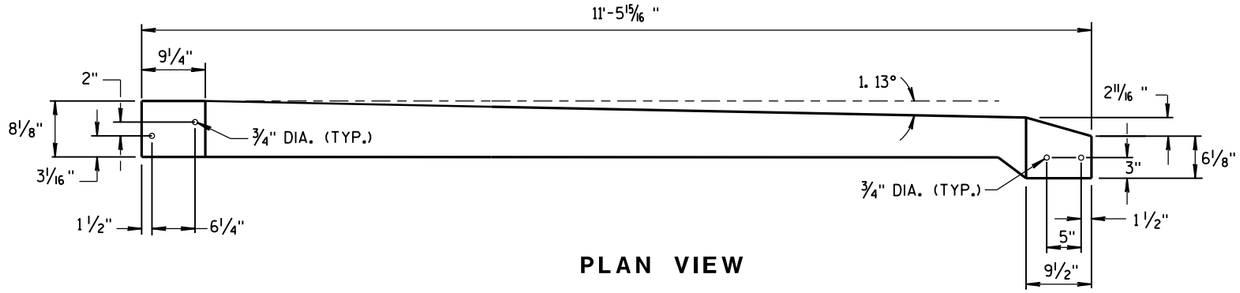


END VIEW



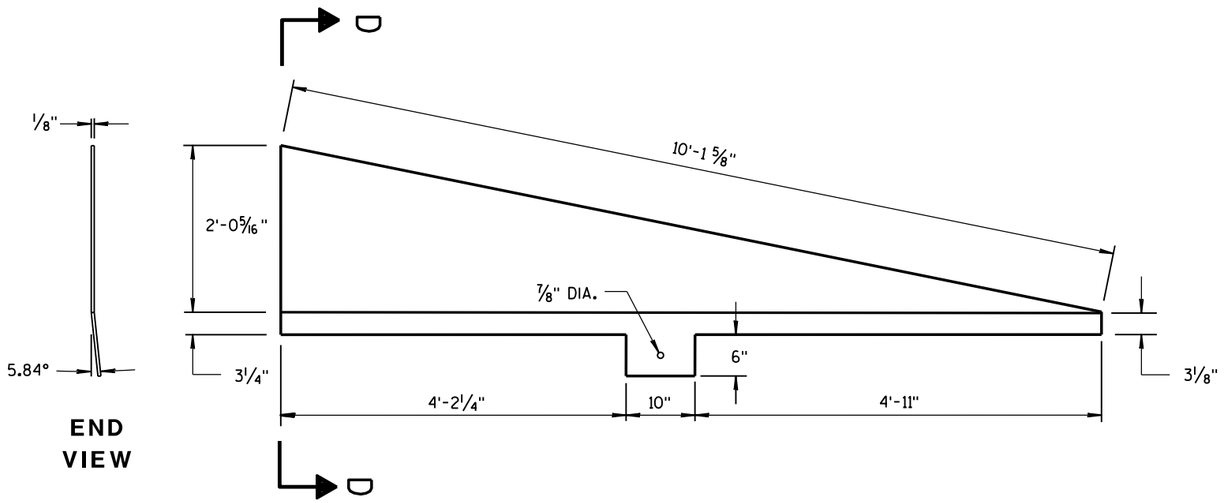
SIDE VIEW

TOP PLATE



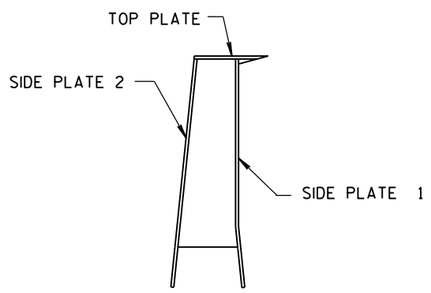
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h

① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

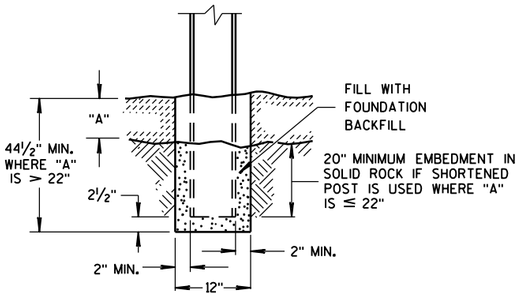
② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

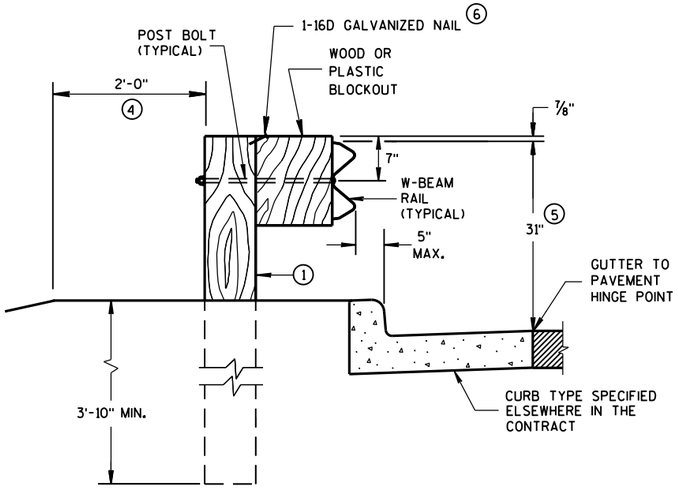
④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



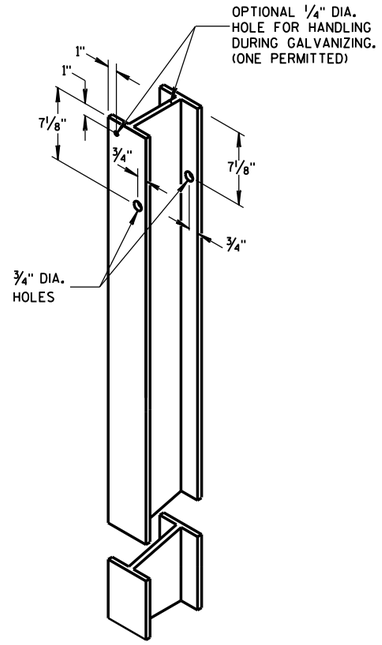
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



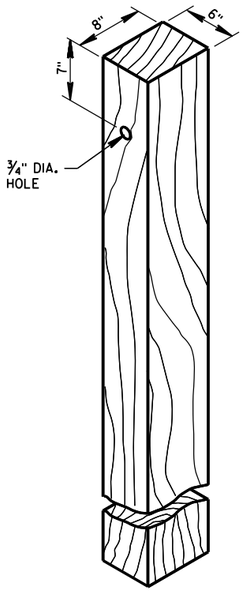
END VIEW
LOCATED ALONG A CURBED ROADWAY

END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION

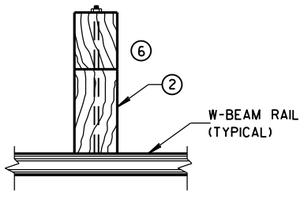
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



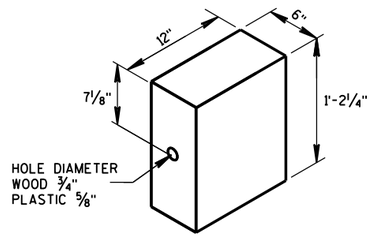
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



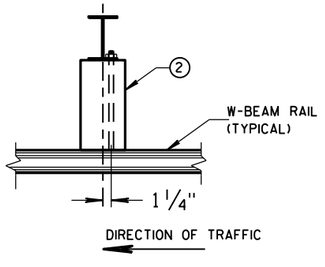
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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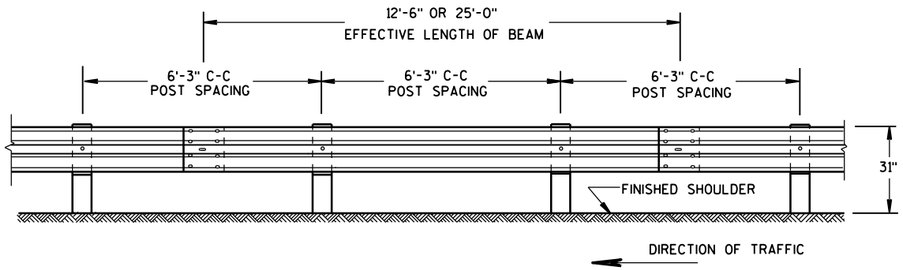
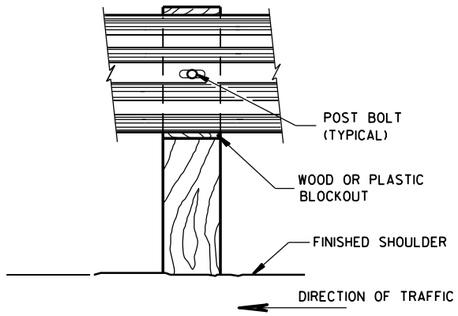
S.D.D. 14 B 42-4a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

7. PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

8. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

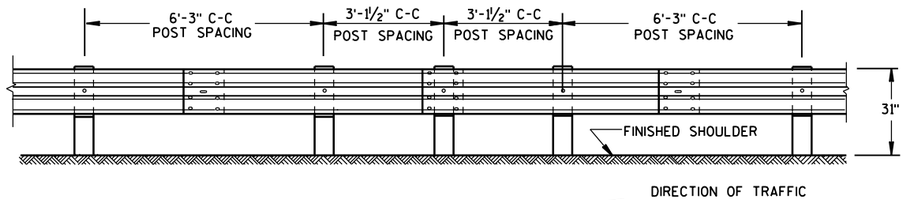
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

10. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

11. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

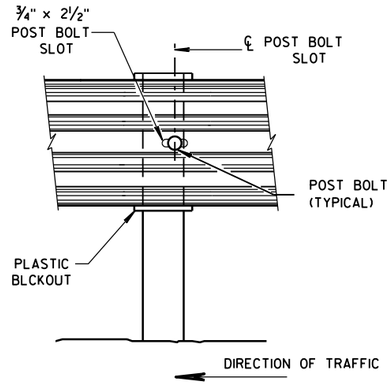
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

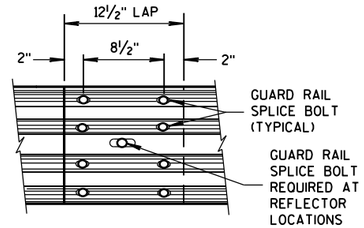


FRONT VIEW

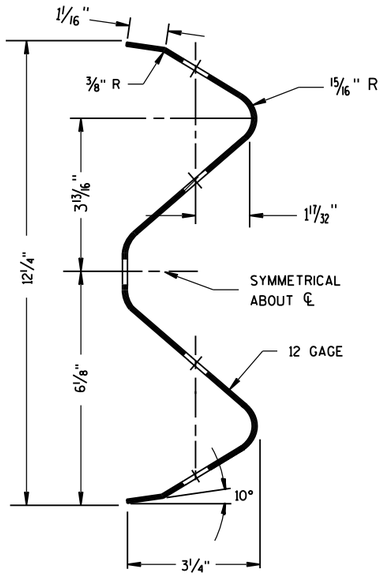
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



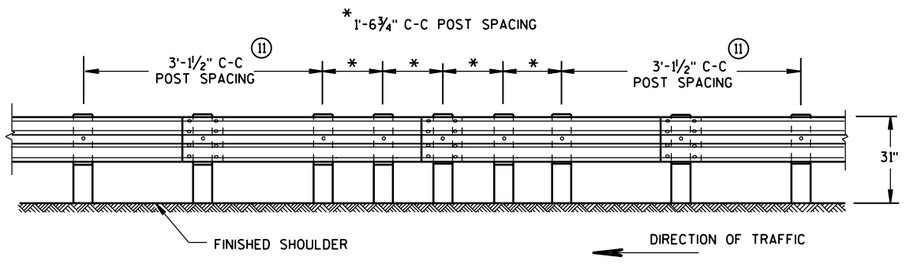
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

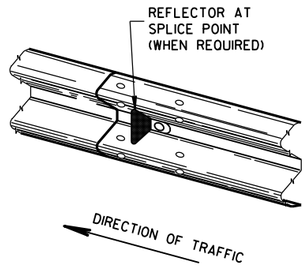


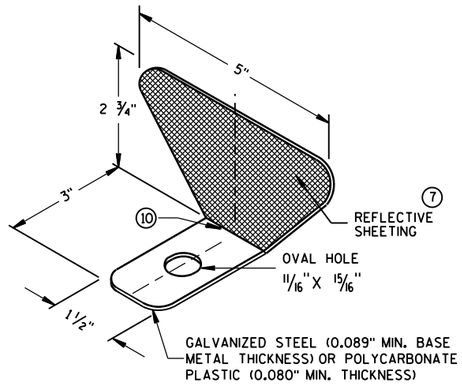
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (9)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (10)	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

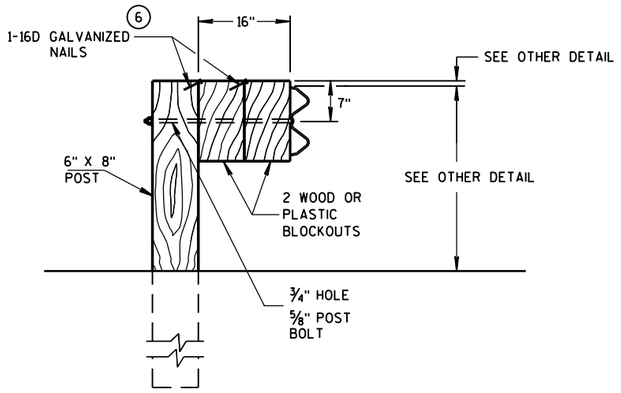
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 75

6

S.D.D. 14 B 42-4b

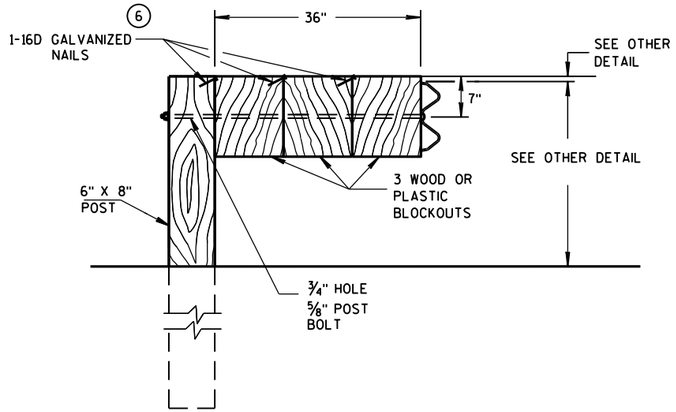
6

S.D.D. 14 B 42-4b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

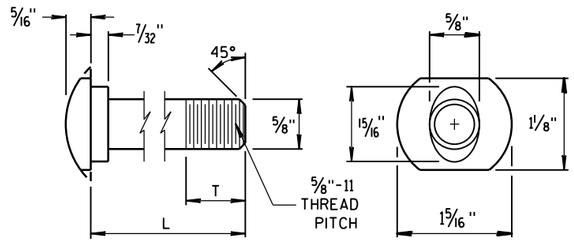


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

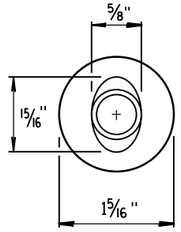
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

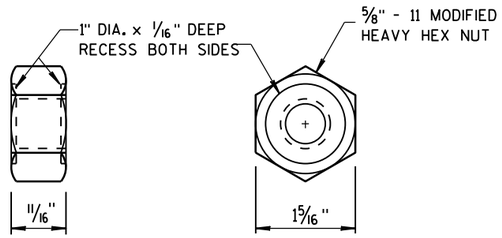


POST BOLT TABLE

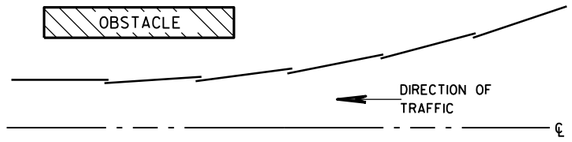
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

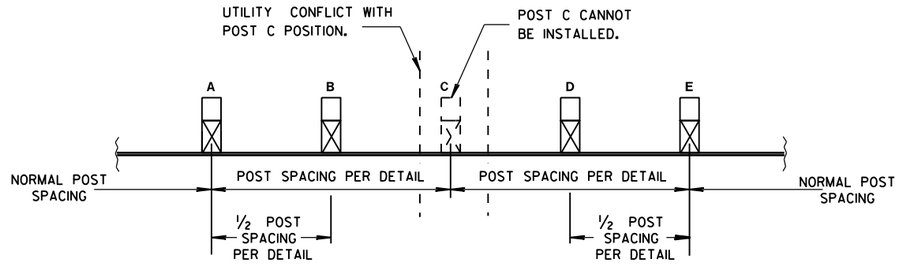


POST BOLT, SPLICE BOLT AND RECESS NUT

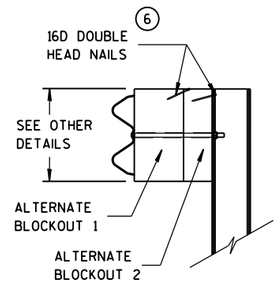


PLAN VIEW

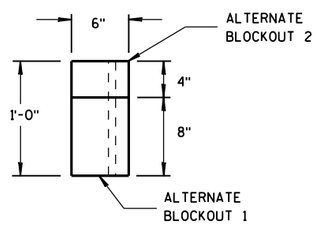
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-4c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

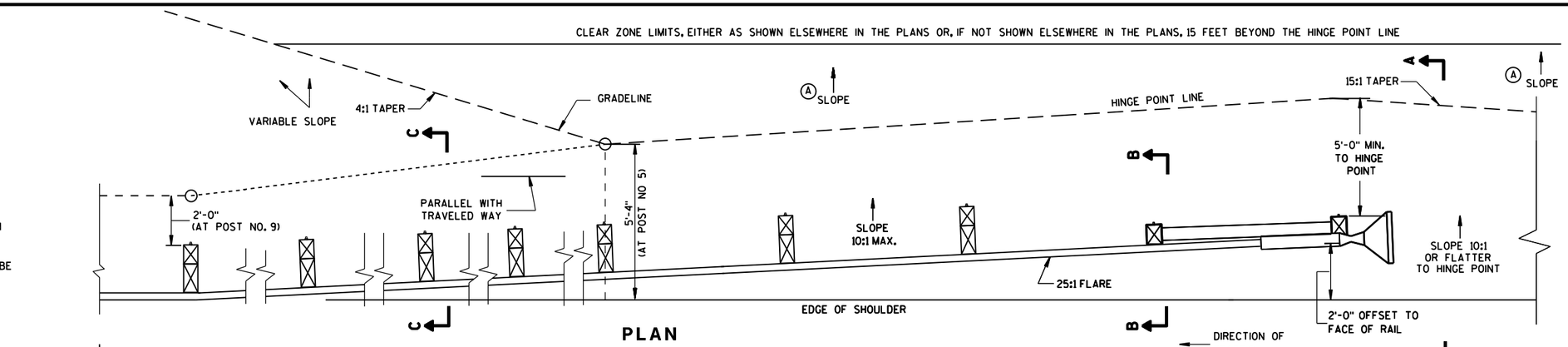
SEE SDD 14B42 FOR MORE INFORMATION.

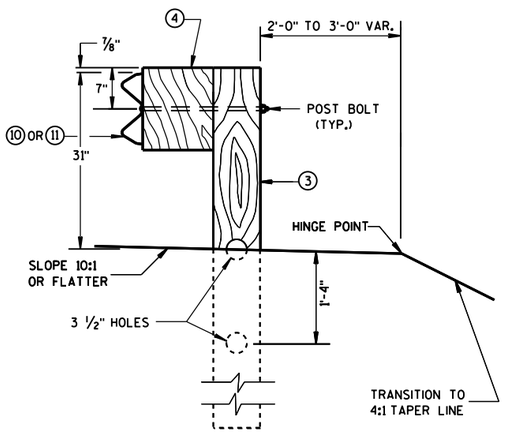
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

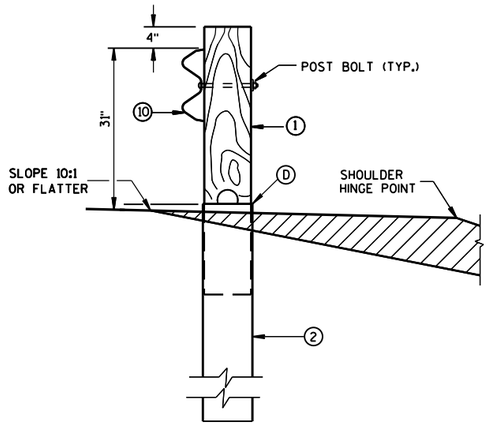
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

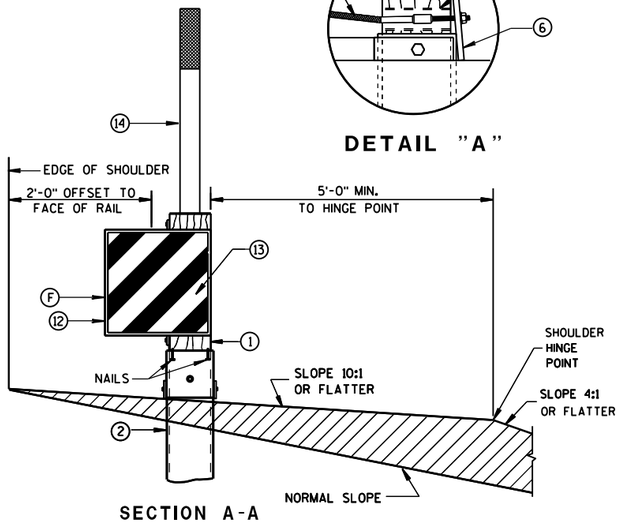




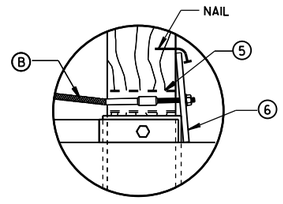
SECTION C-C
TYPICAL AT POST NOS. 3-9



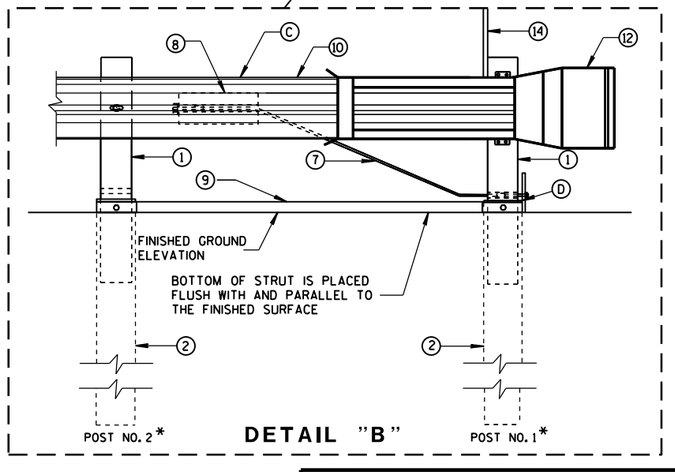
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



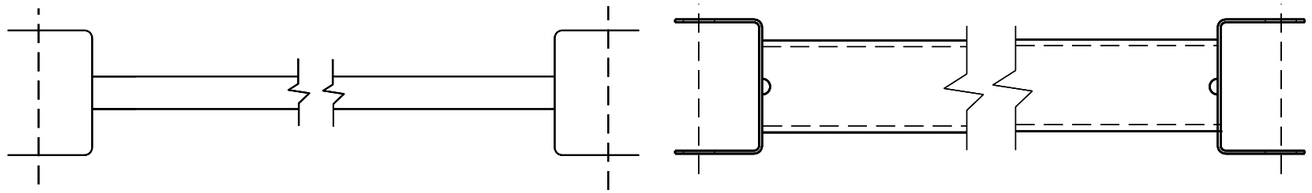
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 77

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

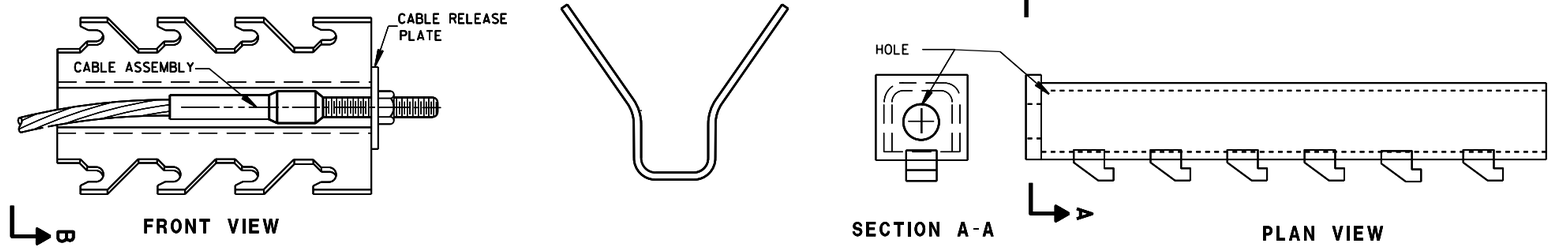


(9) (H)

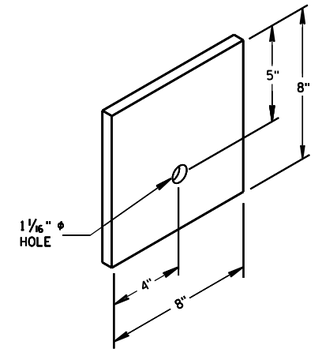
GENERIC GROUND STRUT

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)

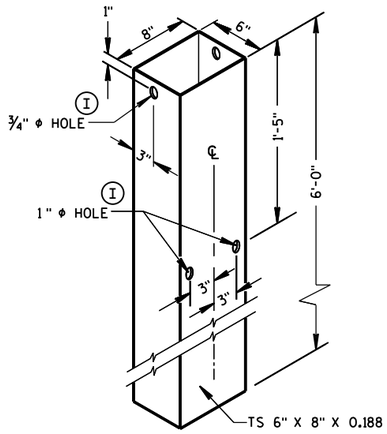


BEARING PLATE (6)

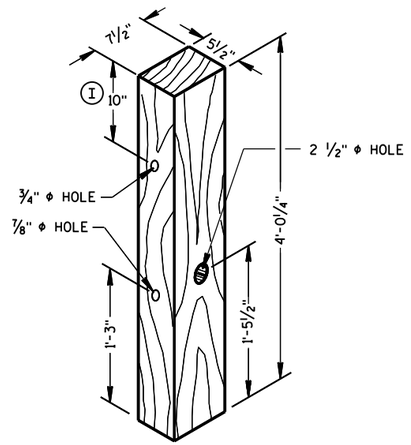
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 44-2b

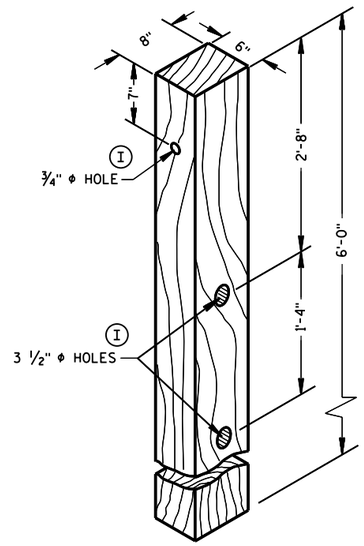


FOUNDATION TUBE (2)



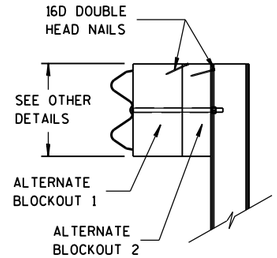
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

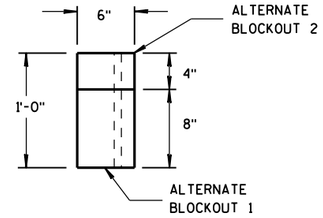


POSTS NUMBER 3-9

WOOD CRT POST (3)

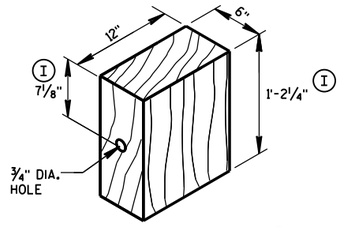


SIDE VIEW



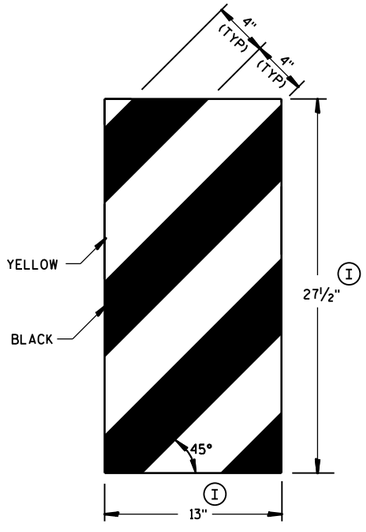
TOP VIEW

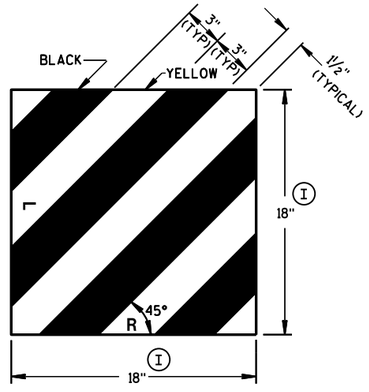
ALTERNATE WOOD BLOCKOUT DETAIL



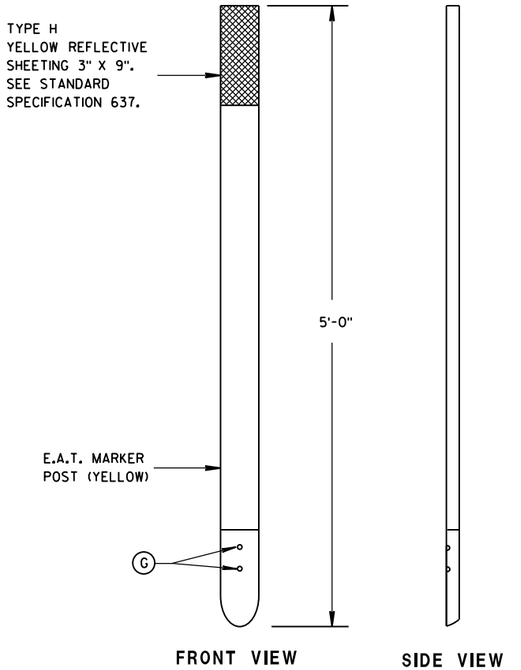
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





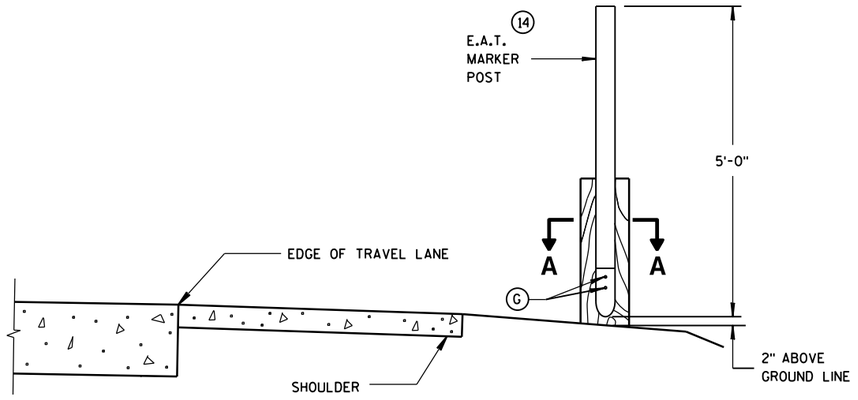
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

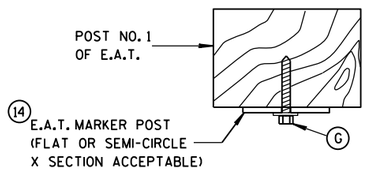
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

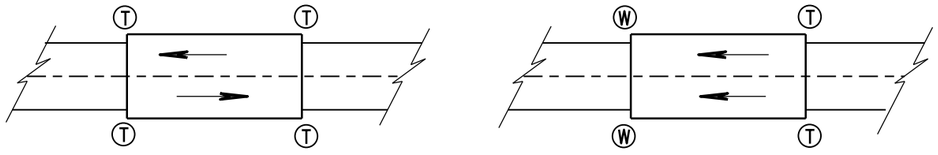
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

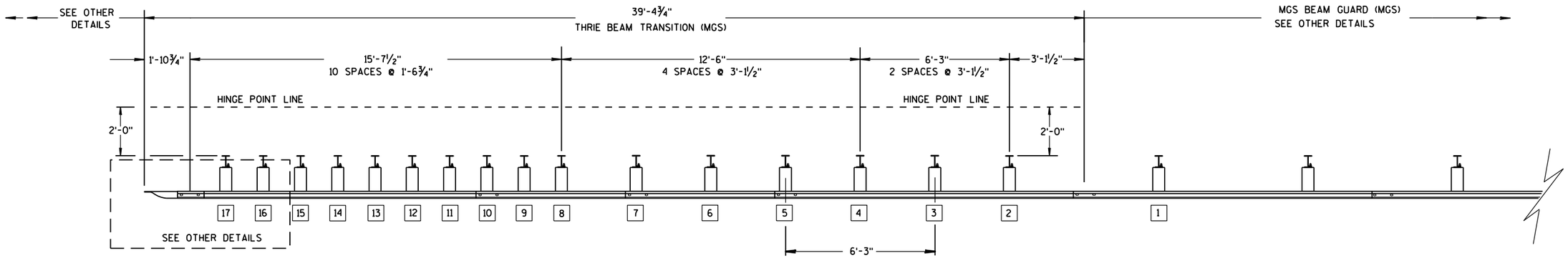
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

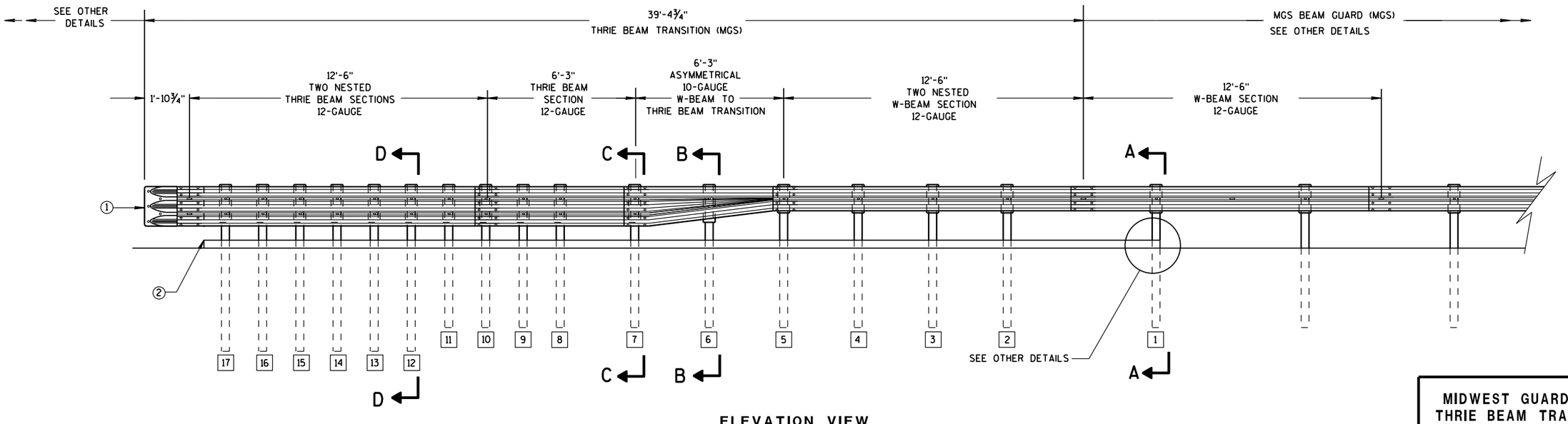
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4a

6

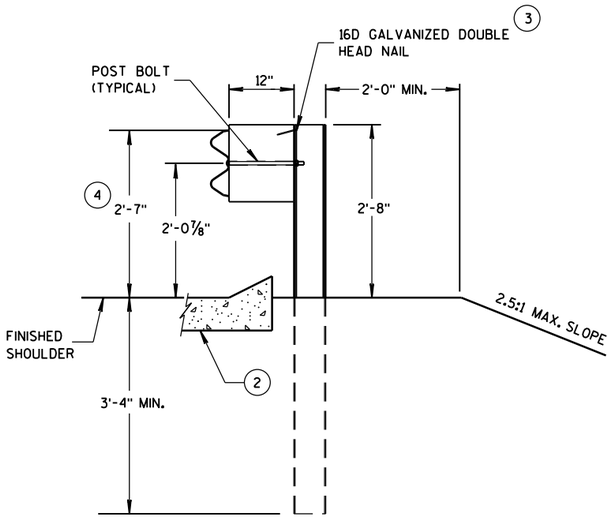
S.D.D. 14 B 45-4a

GENERAL NOTES

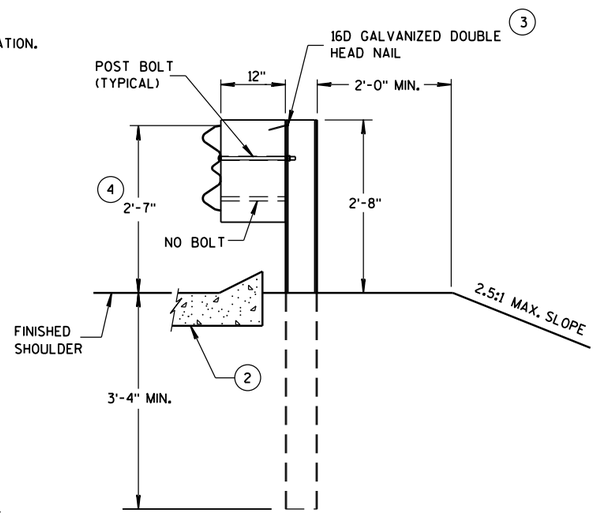
(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

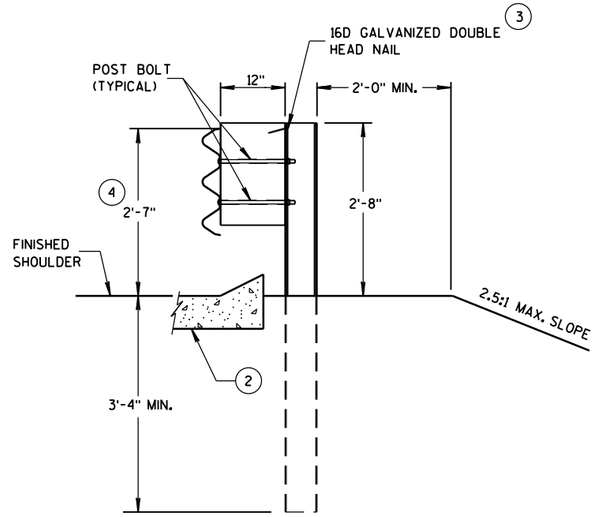
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



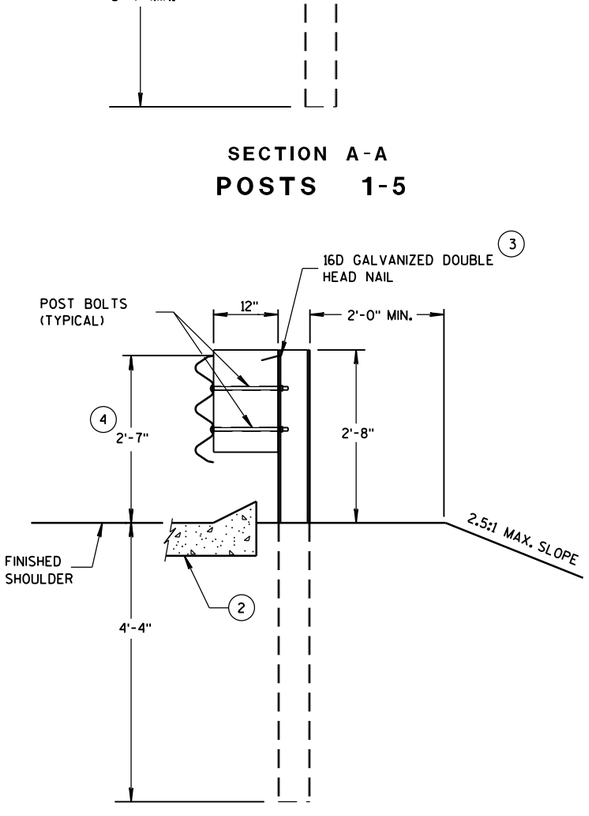
SECTION A-A
POSTS 1-5



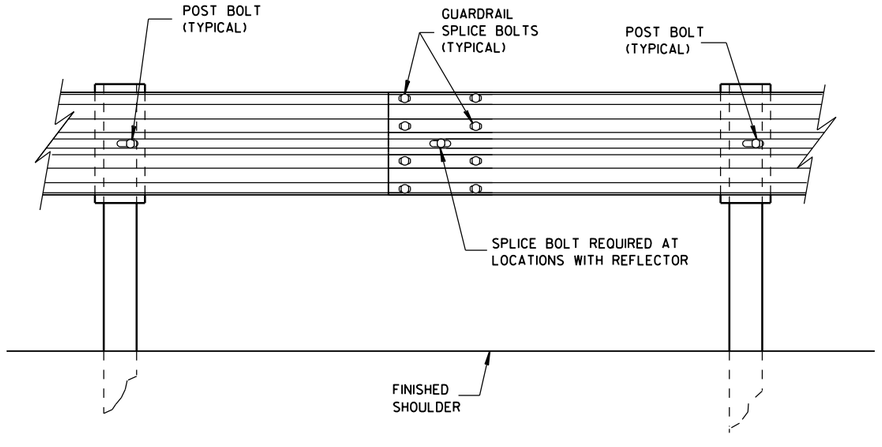
SECTION B-B
POST 6



SECTION C-C
POSTS 7-11



SECTION D-D
POSTS 12-17



SPLICE DETAIL

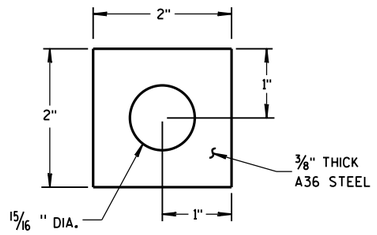
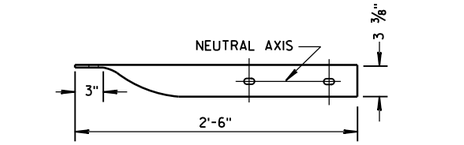
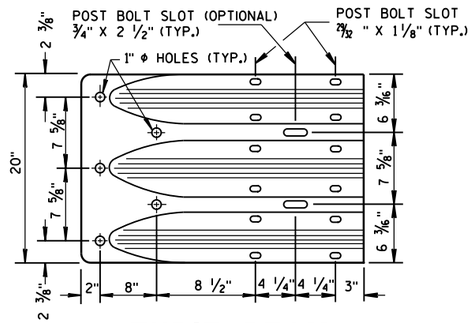
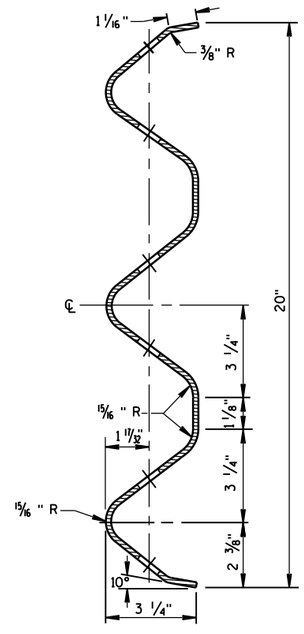


PLATE WASHER DETAIL





THRIE BEAM TERMINAL CONNECTOR



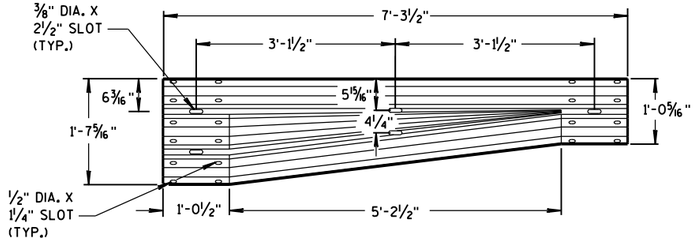
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

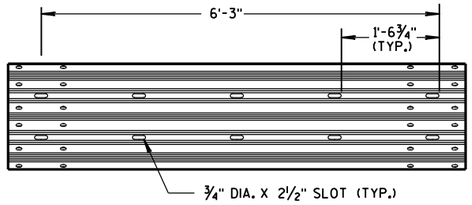
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

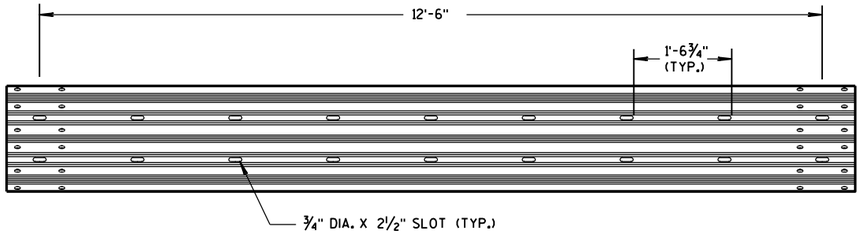
S.D.D. 14 B 45-4b



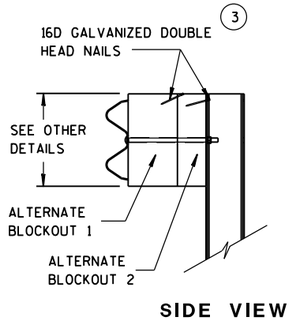
W-BEAM TO THRIE BEAM TRANSITION SECTION



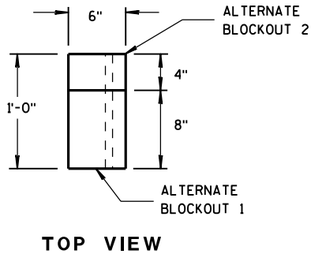
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

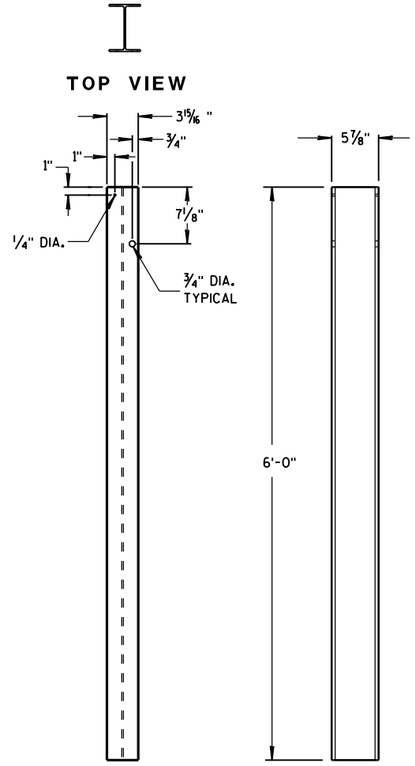


SIDE VIEW

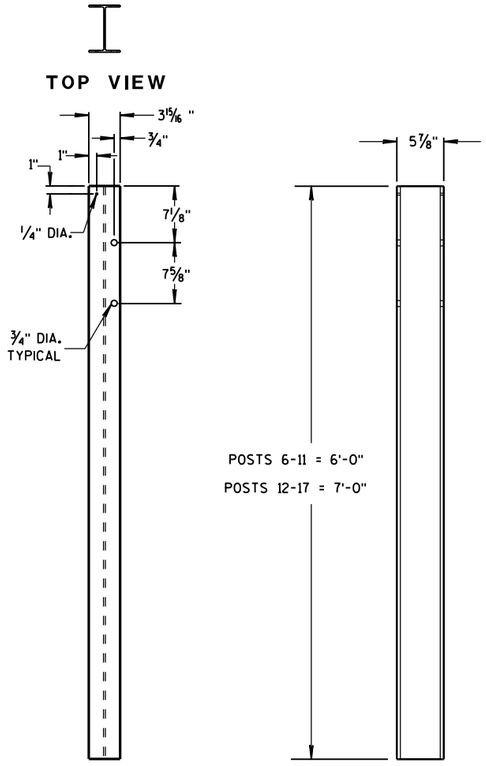


TOP VIEW

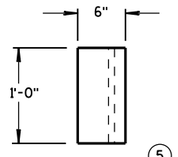
ALTERNATE WOOD BLOCKOUT DETAIL



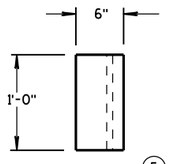
STEEL POSTS 1-5



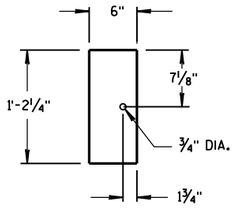
STEEL POSTS 6-17



TOP VIEW (5)

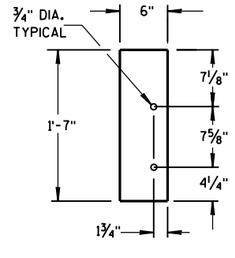


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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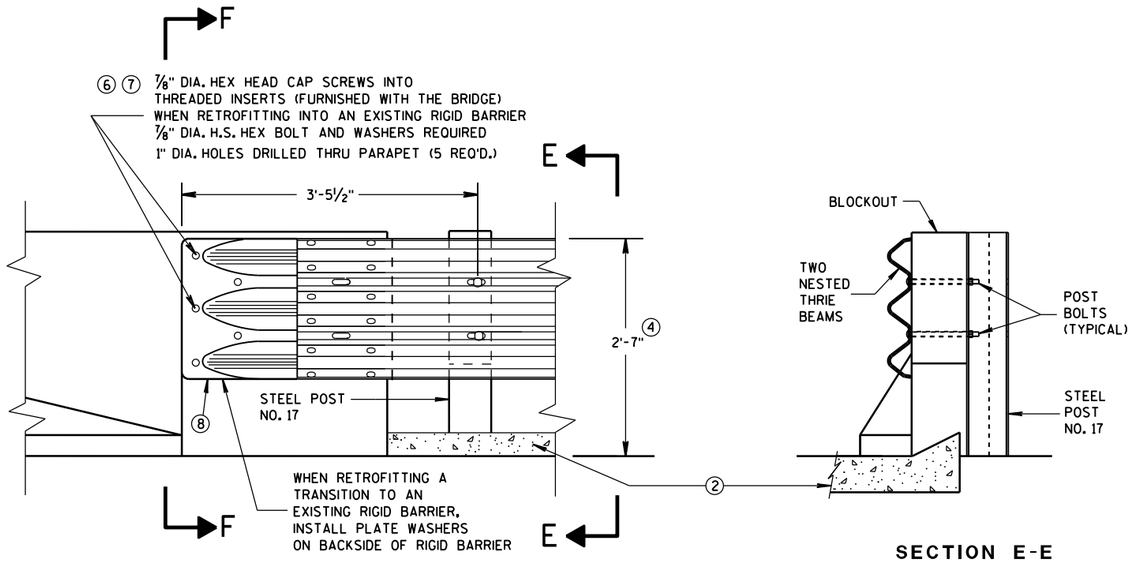
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

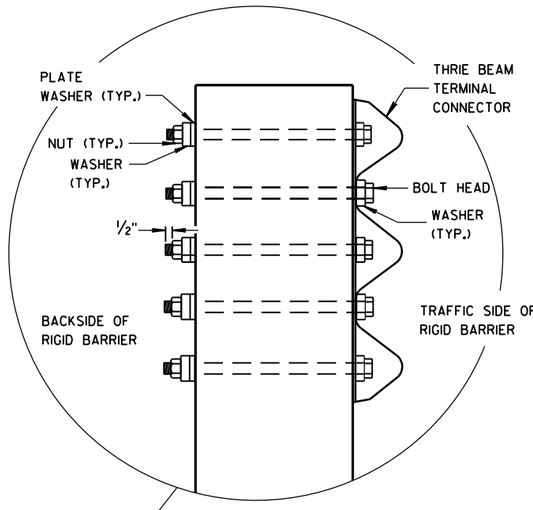
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

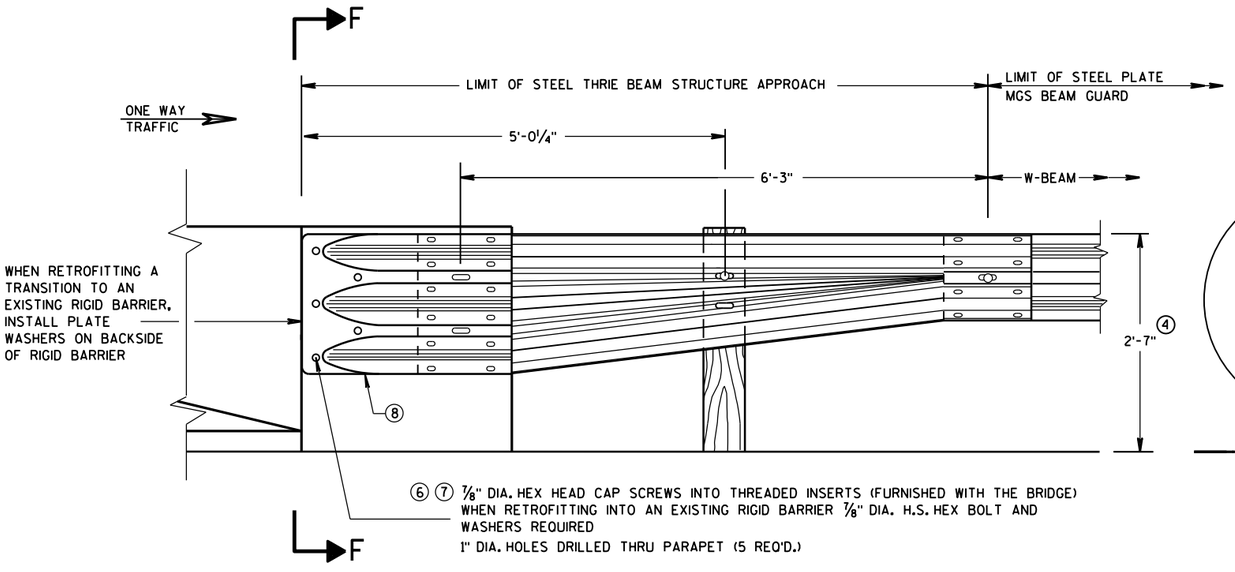
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

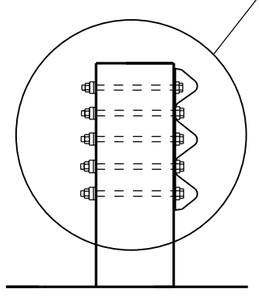
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

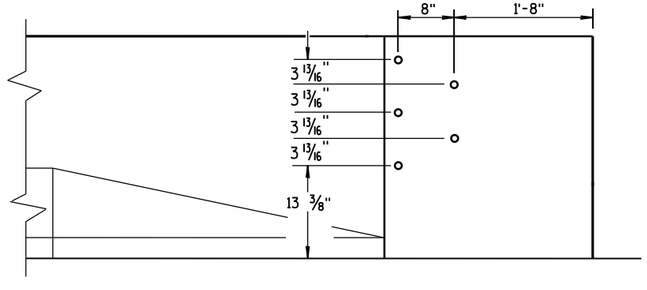




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

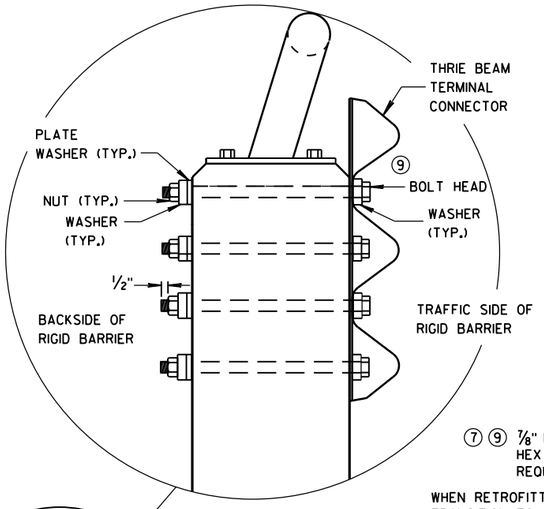
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

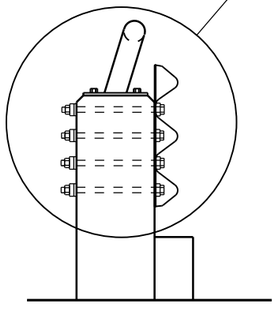
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

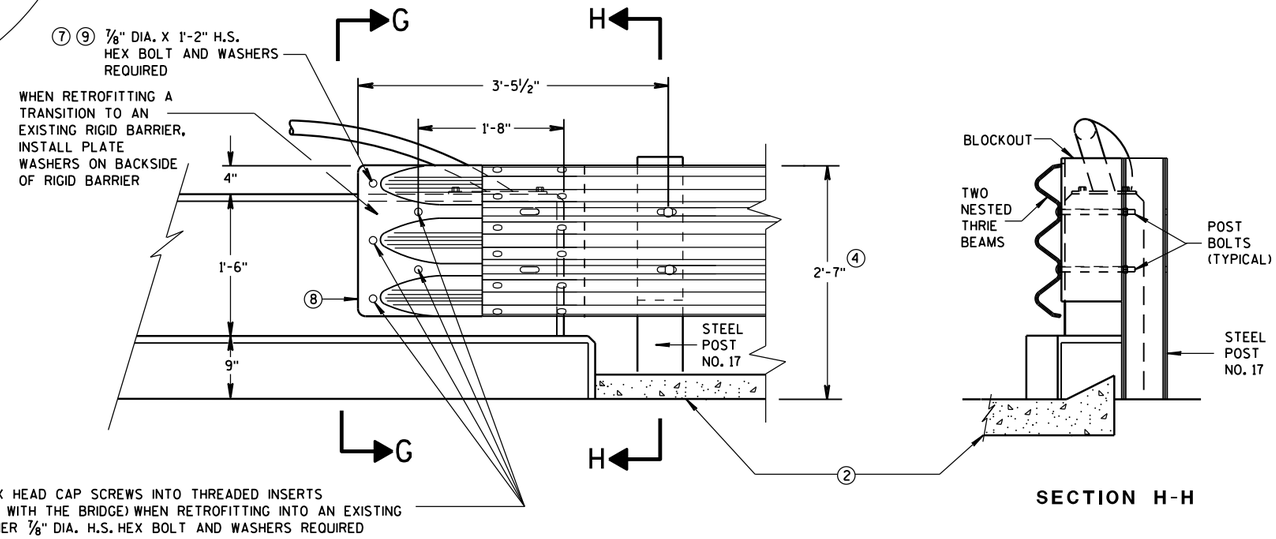
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





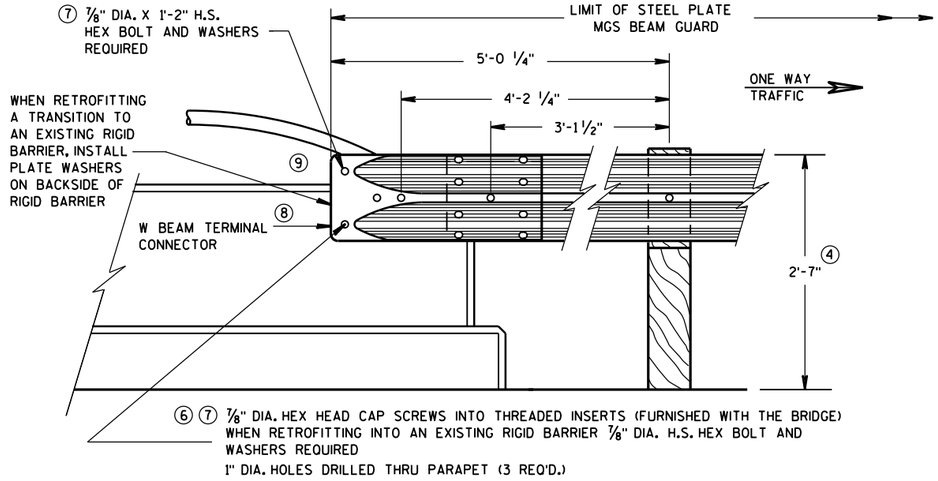
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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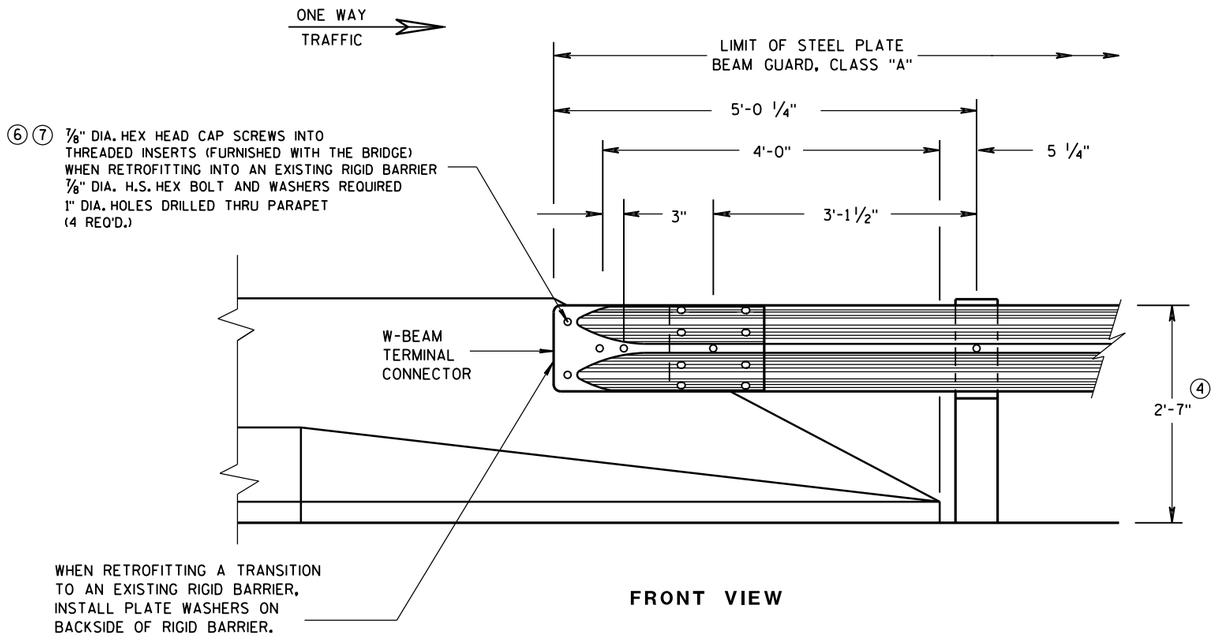


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

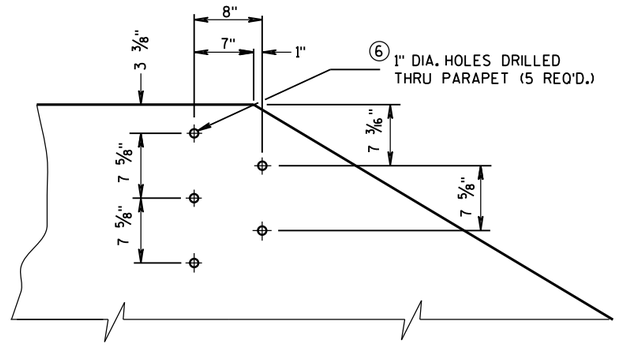
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

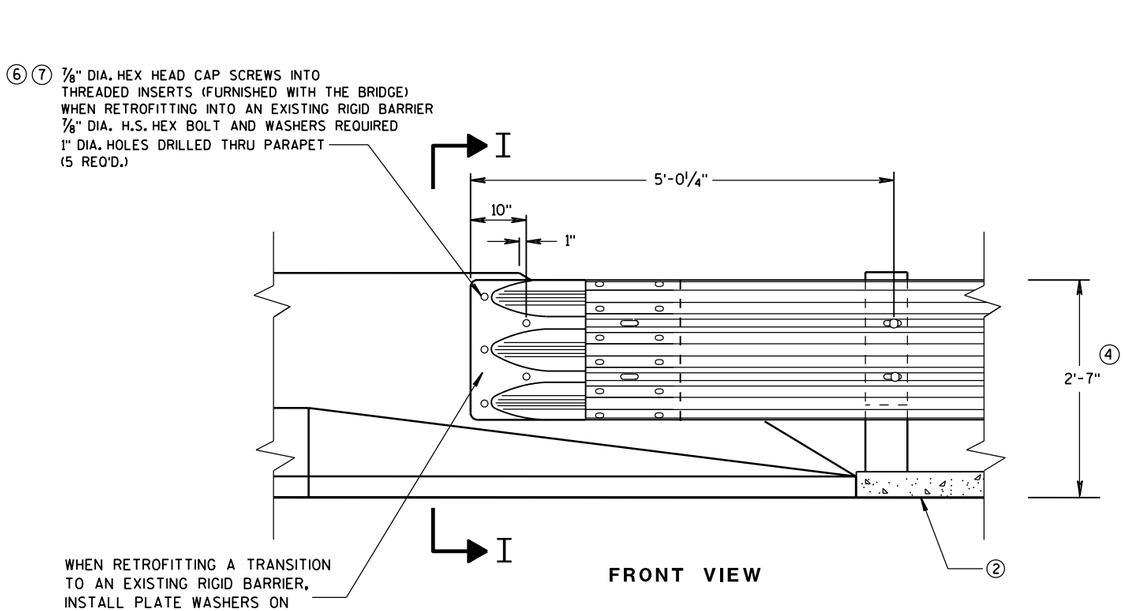
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

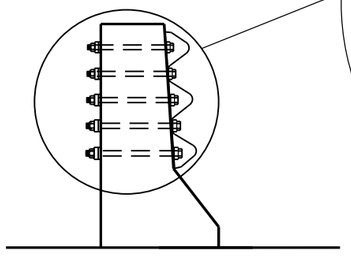
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



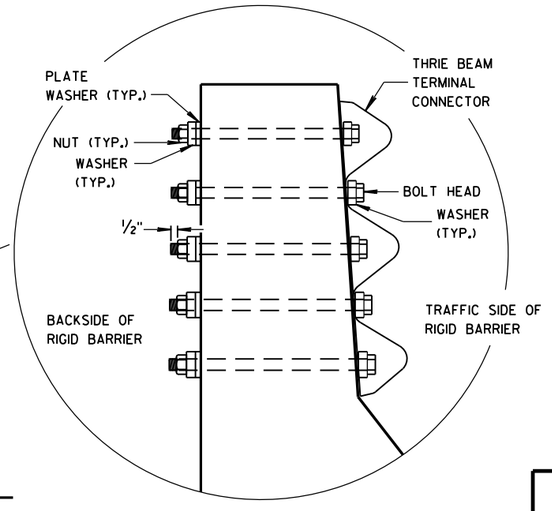
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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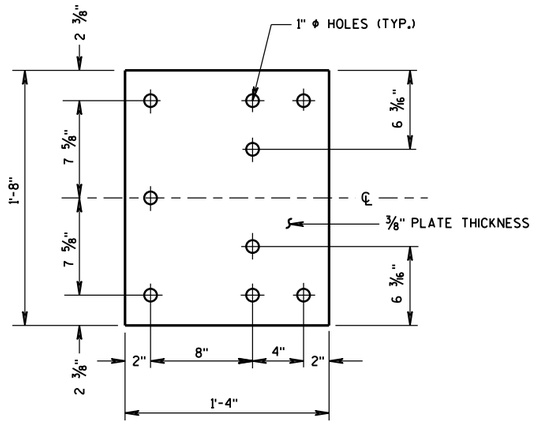
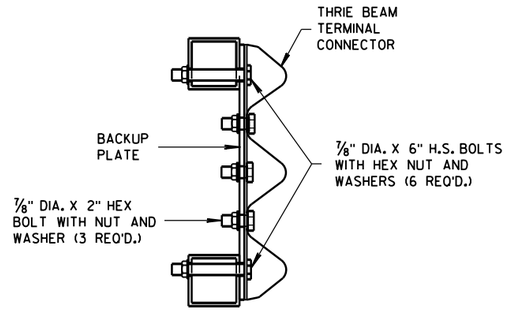
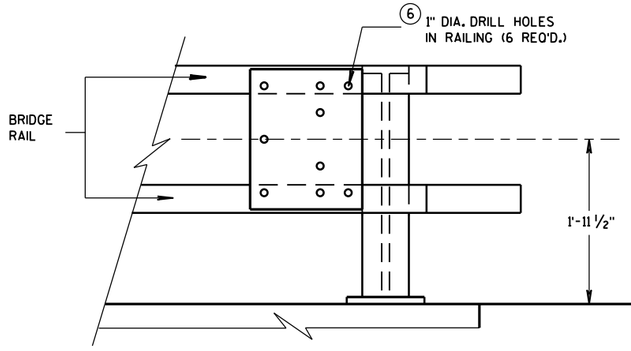
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

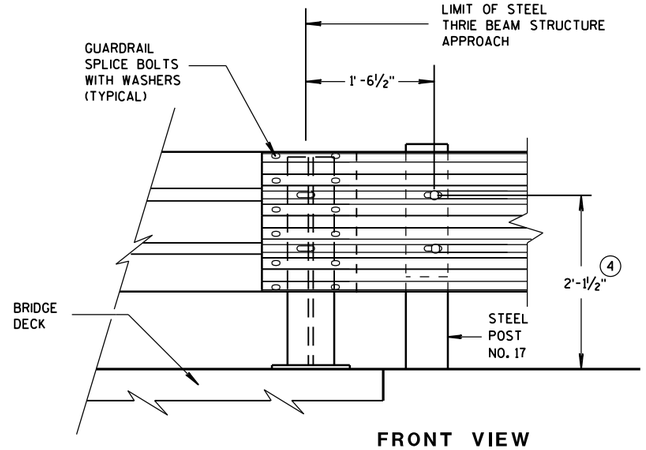


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

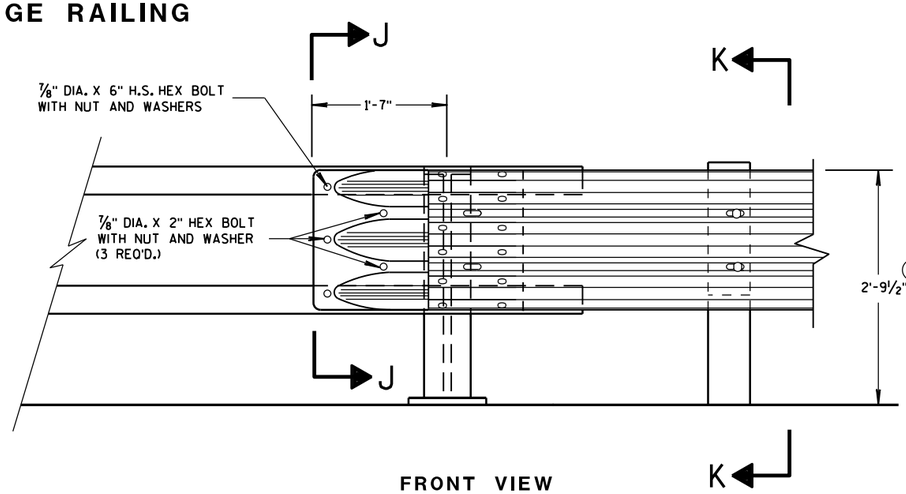
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

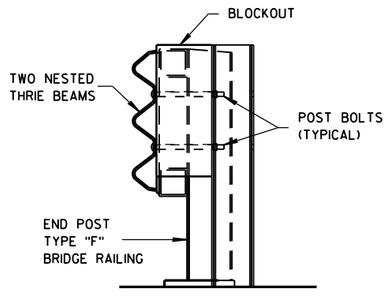


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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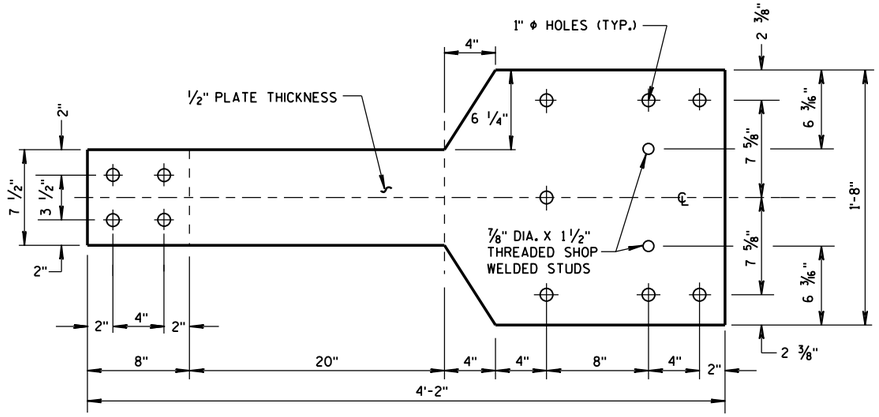
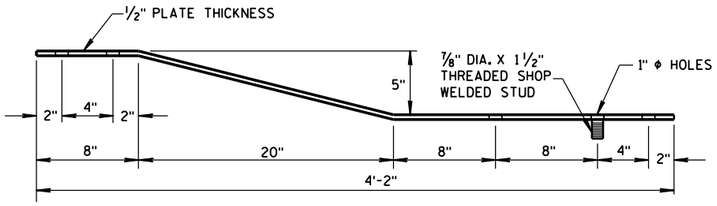
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

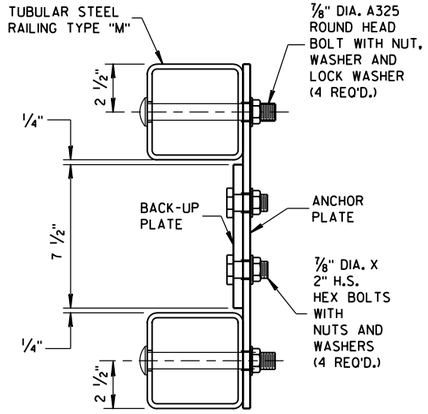


FRONT VIEW

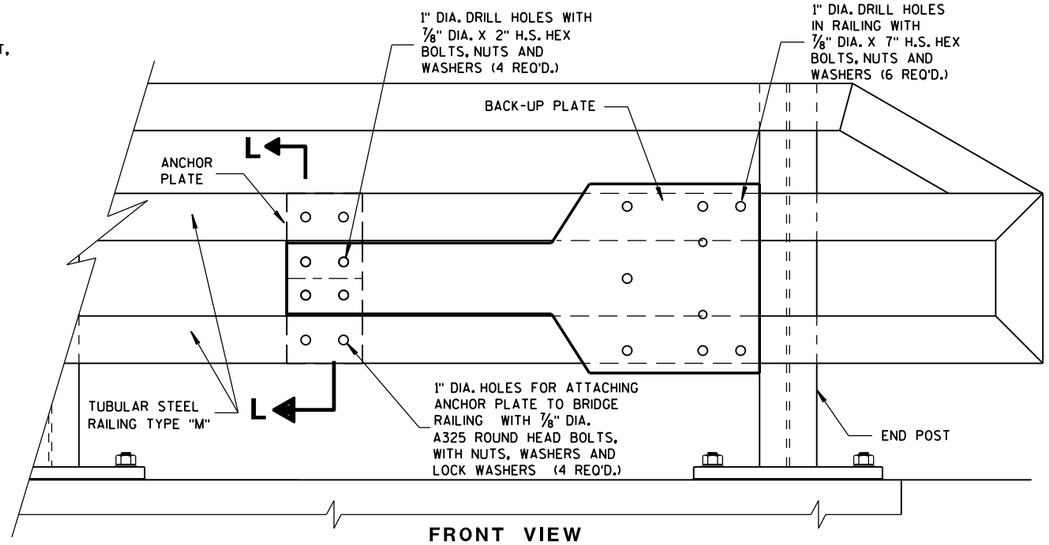


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

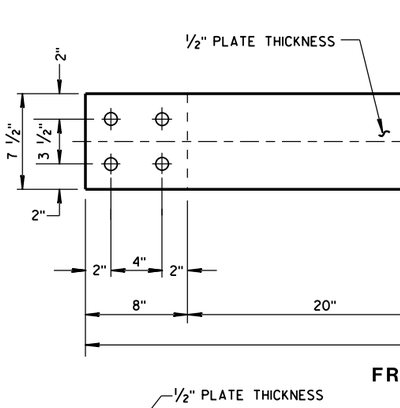


SECTION L-L



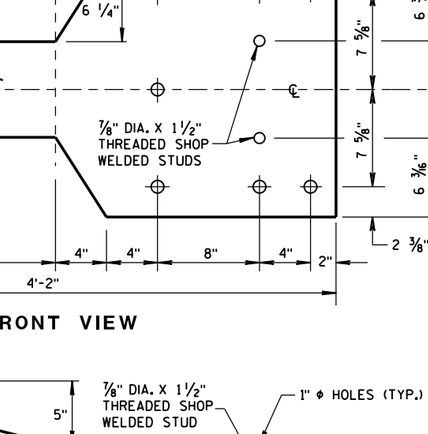
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

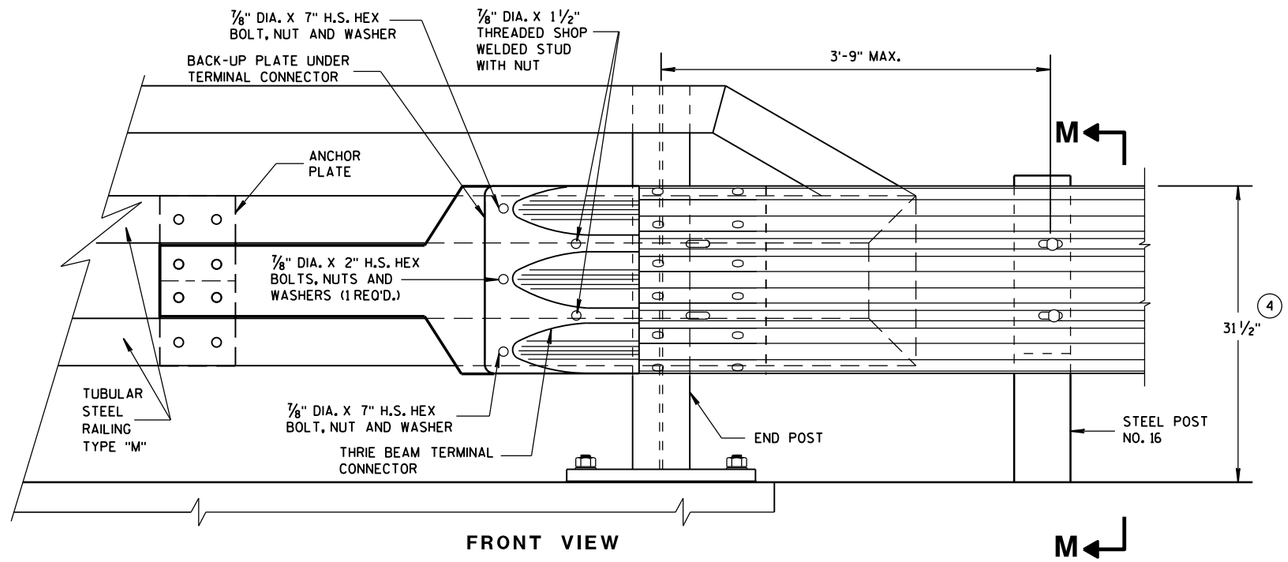


FRONT VIEW

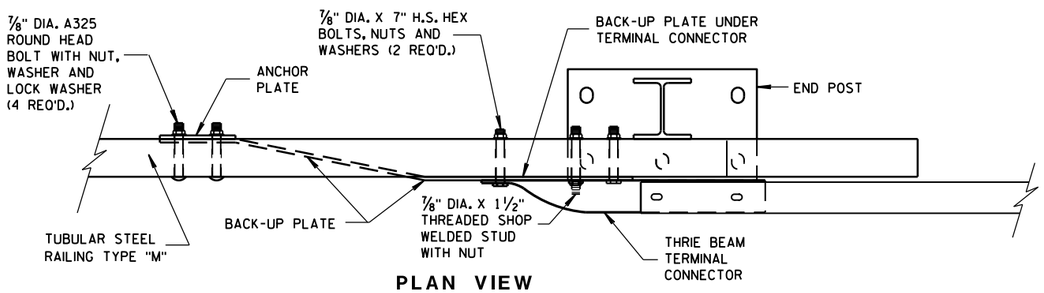
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 45-4h

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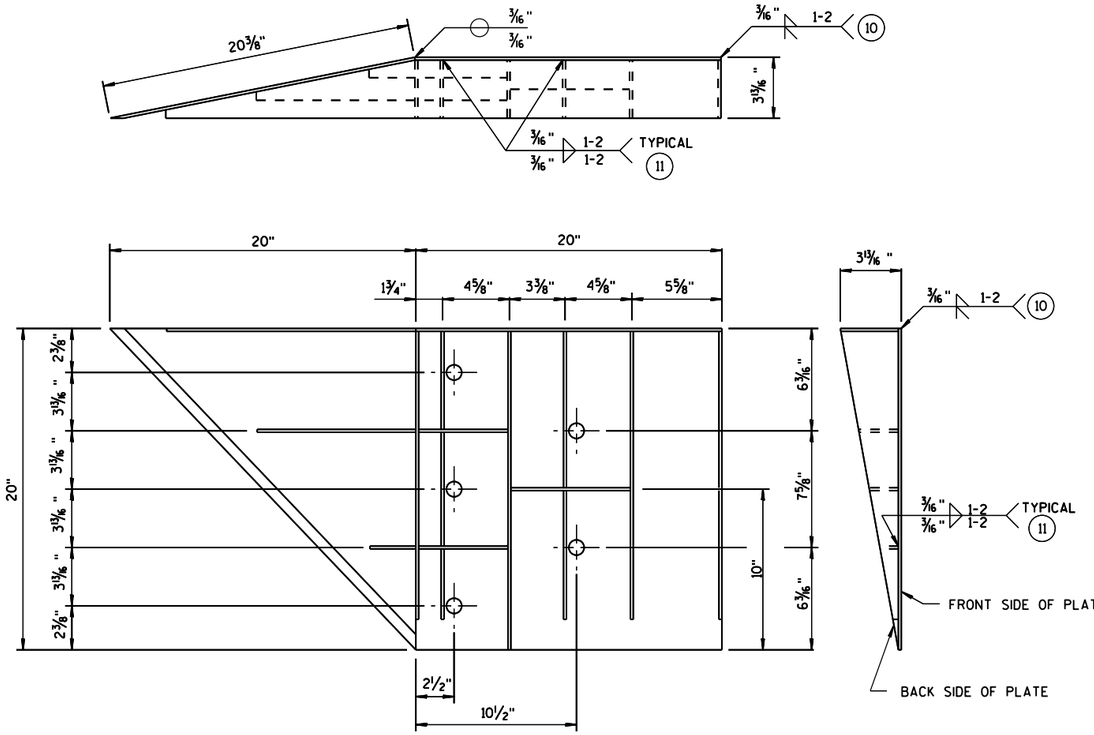
S.D.D. 14 B 45-4h



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

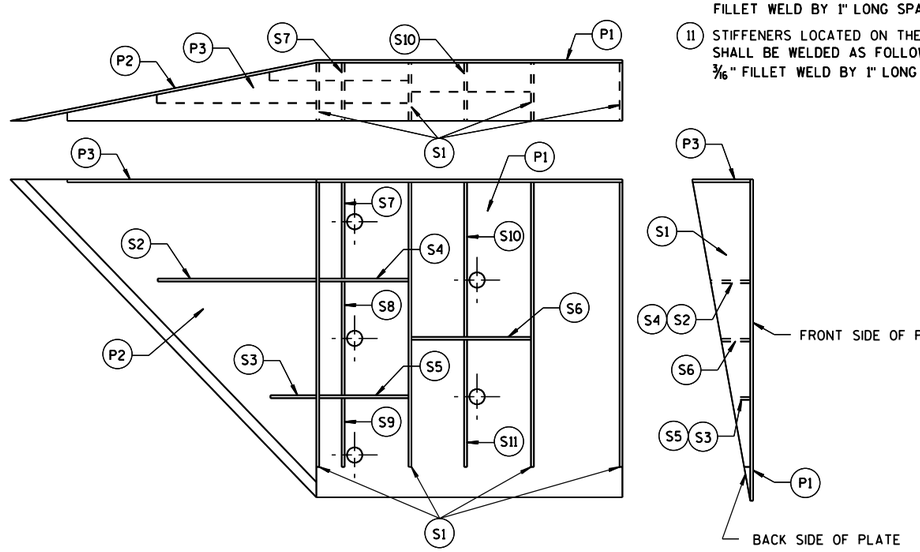


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 45-4i

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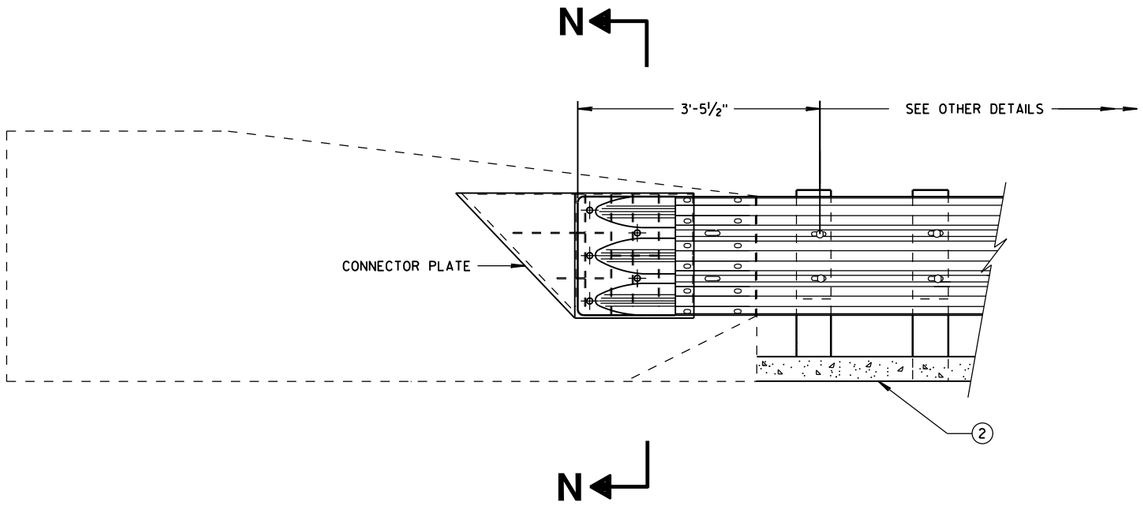
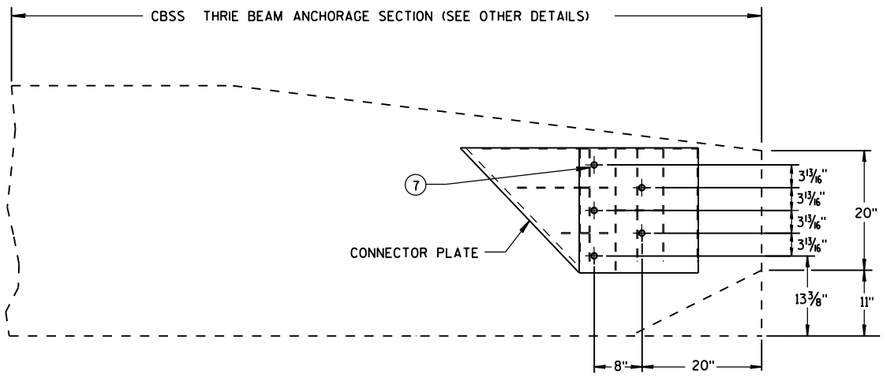
S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



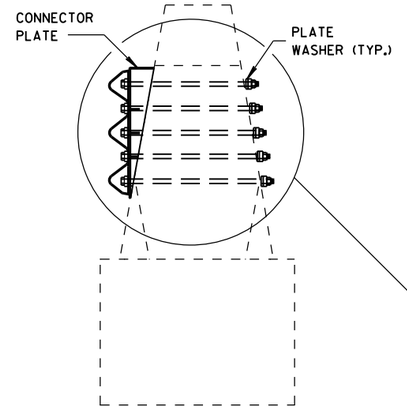
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

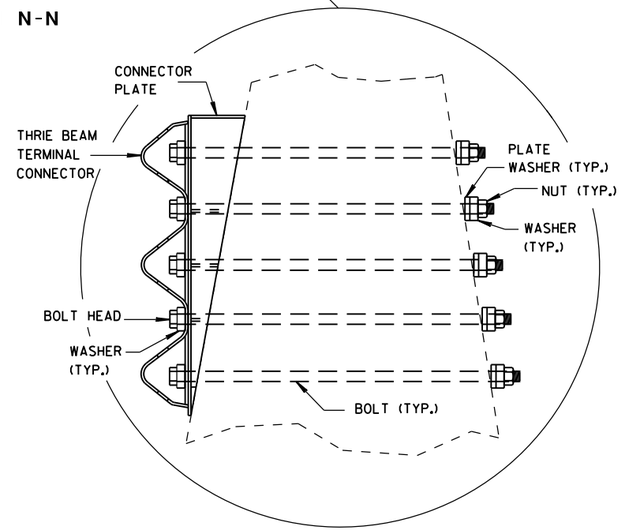
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS DEVELOPMENT ENGINEER
NT
FHWA

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S.D.D. 14 B 45-4j

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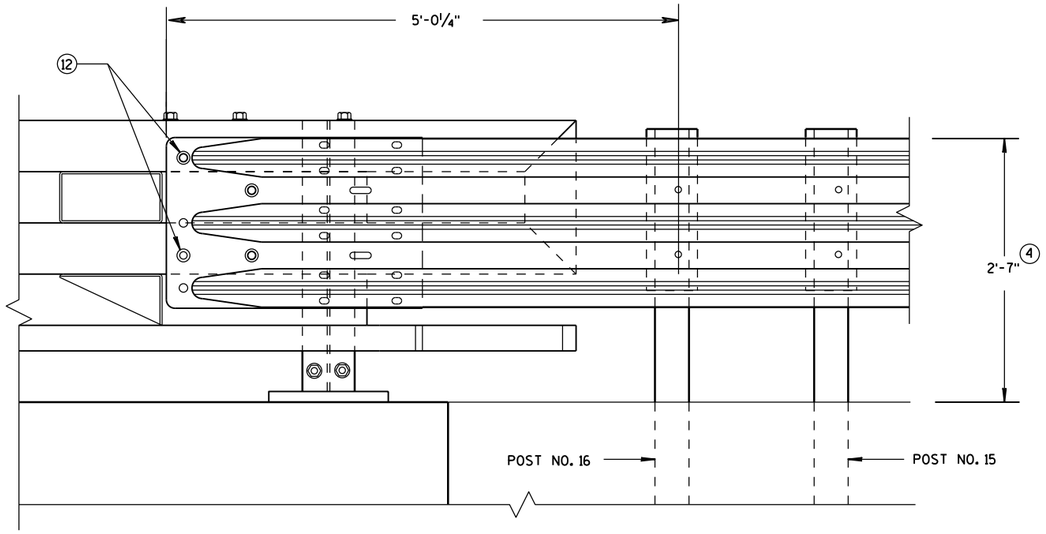
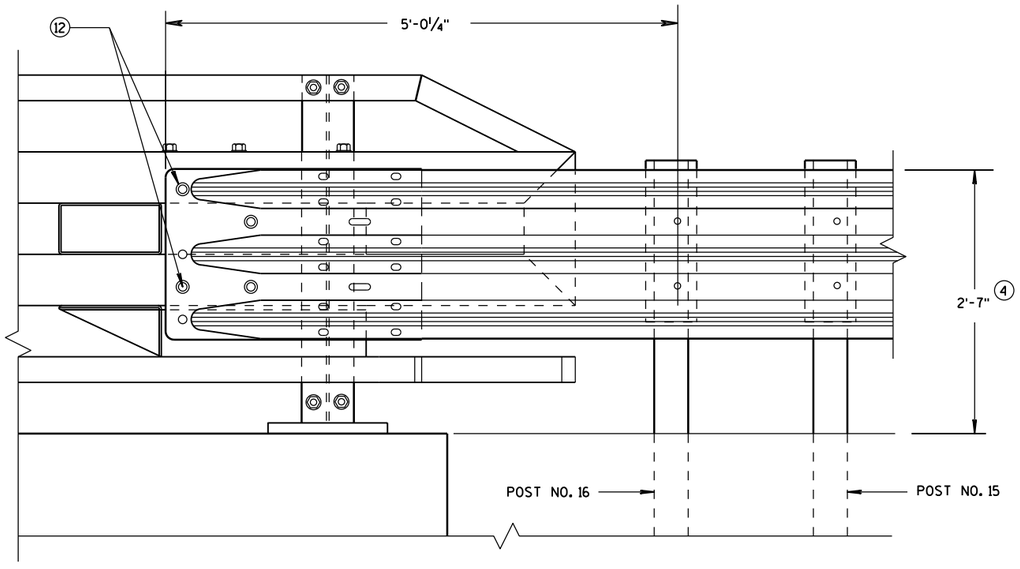
S.D.D. 14 B 45-4j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D 90 NT
ENGINEER

FHWA

6

S.D.D. 14 B 45-4k

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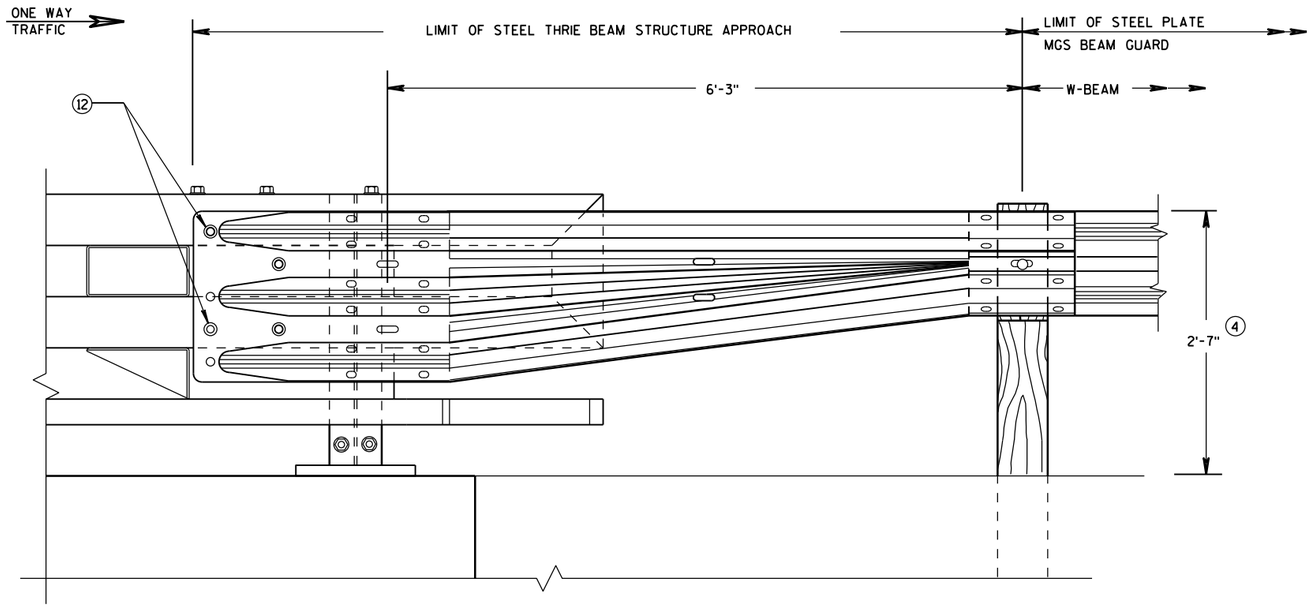
S.D.D. 14 B 45-4k



FRONT VIEW

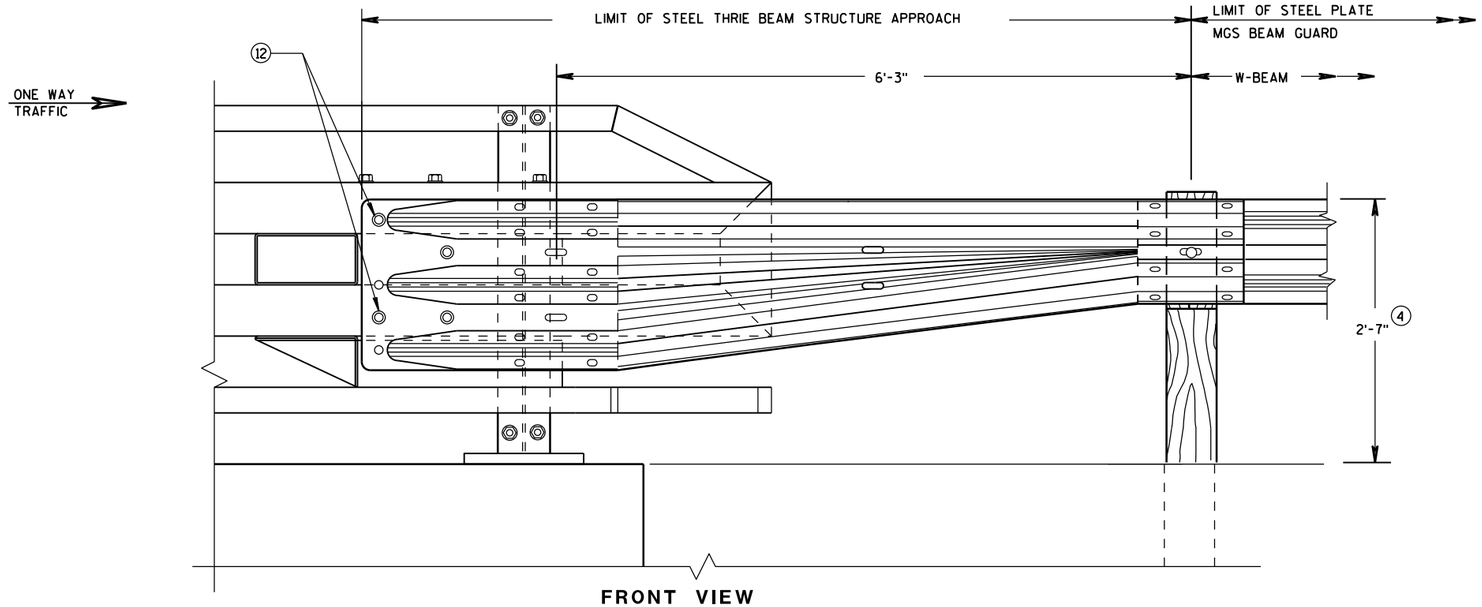
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
D 91 NT
FHWA

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S.D.D. 14 B 45-4L

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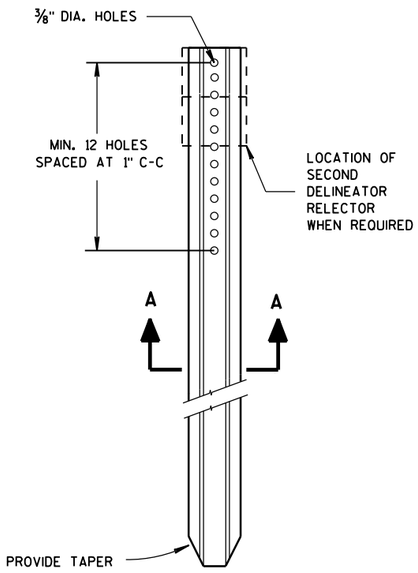
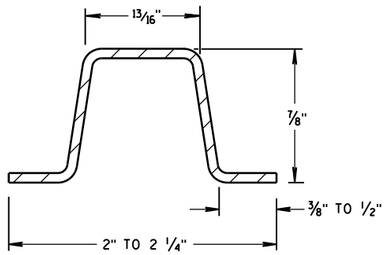
S.D.D. 14 B 45-4L

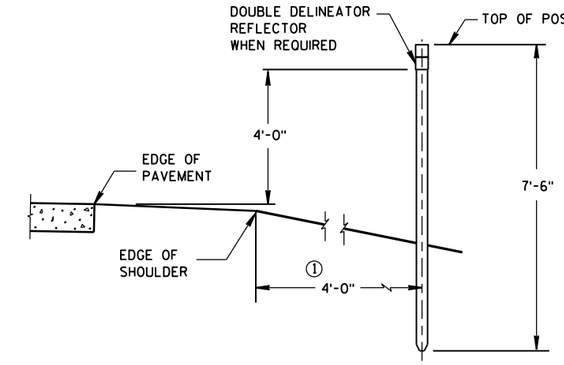


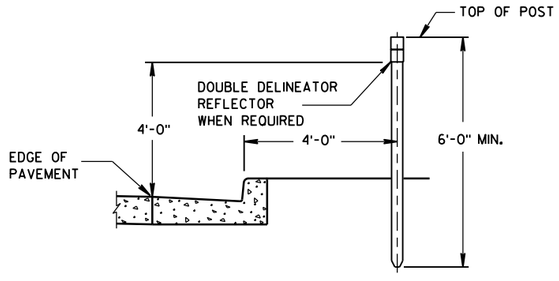
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



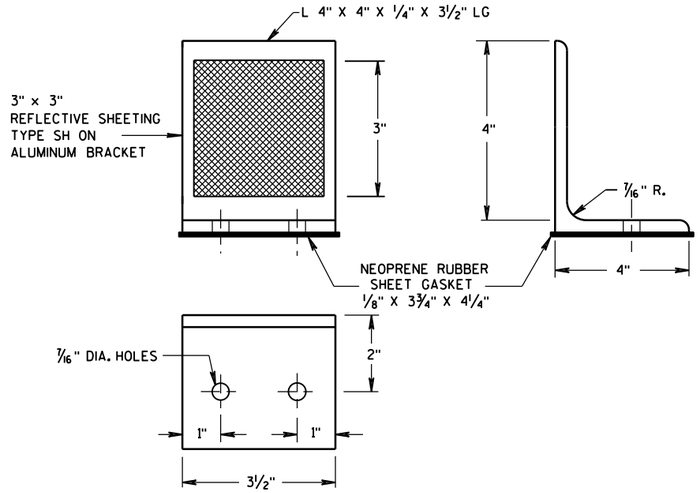


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

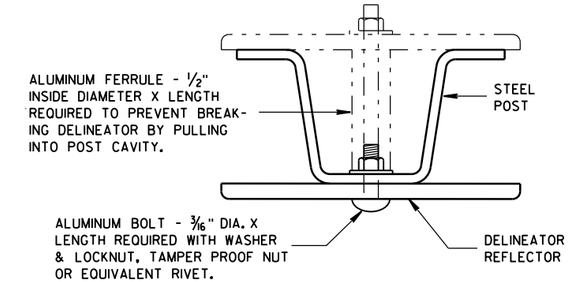
GENERAL NOTES

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

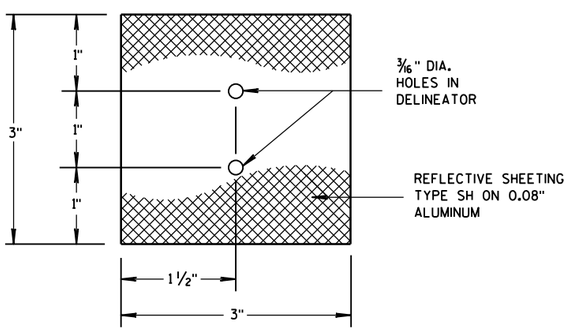
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



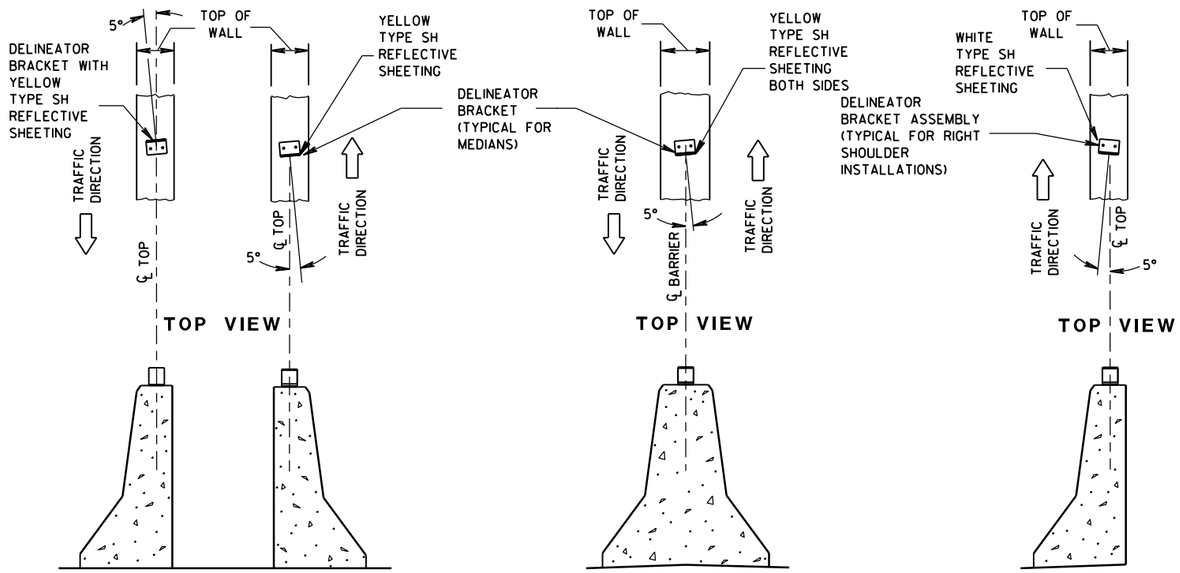
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR REFLECTOR

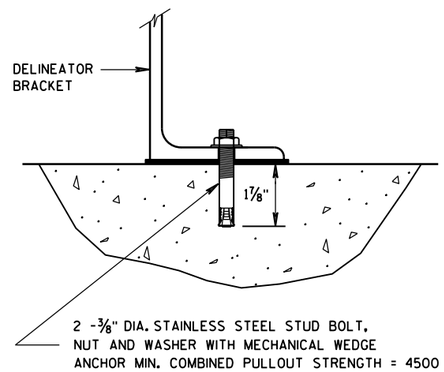


3"x 3" DELINEATOR REFLECTOR



DOUBLE BARRIERS IN MEDIAN | MEDIAN BARRIER | BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR REFLECTOR AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] ENGINEER
FHWA

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S.D.D. 15 A 2-9

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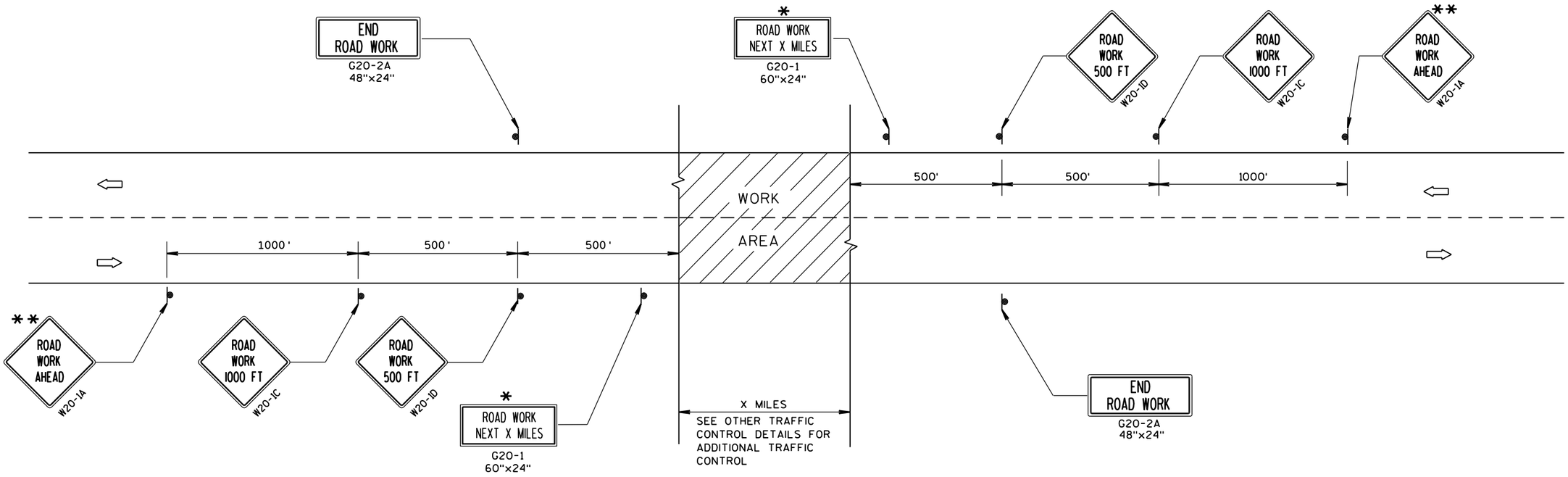
S.D.D. 15 A 2-9

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



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.

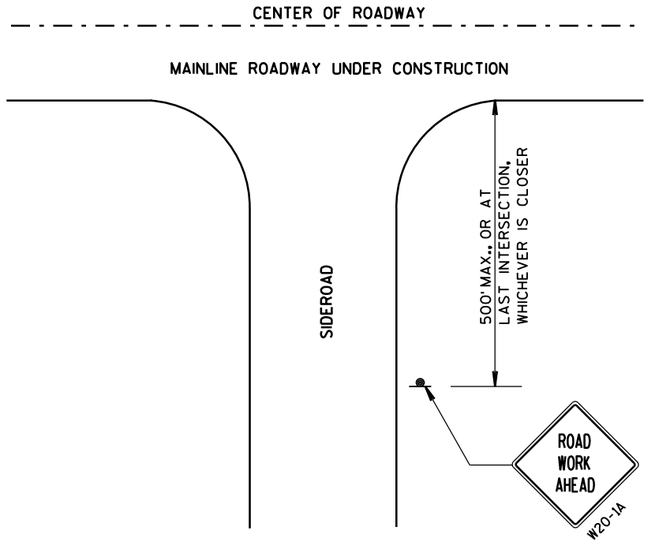
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

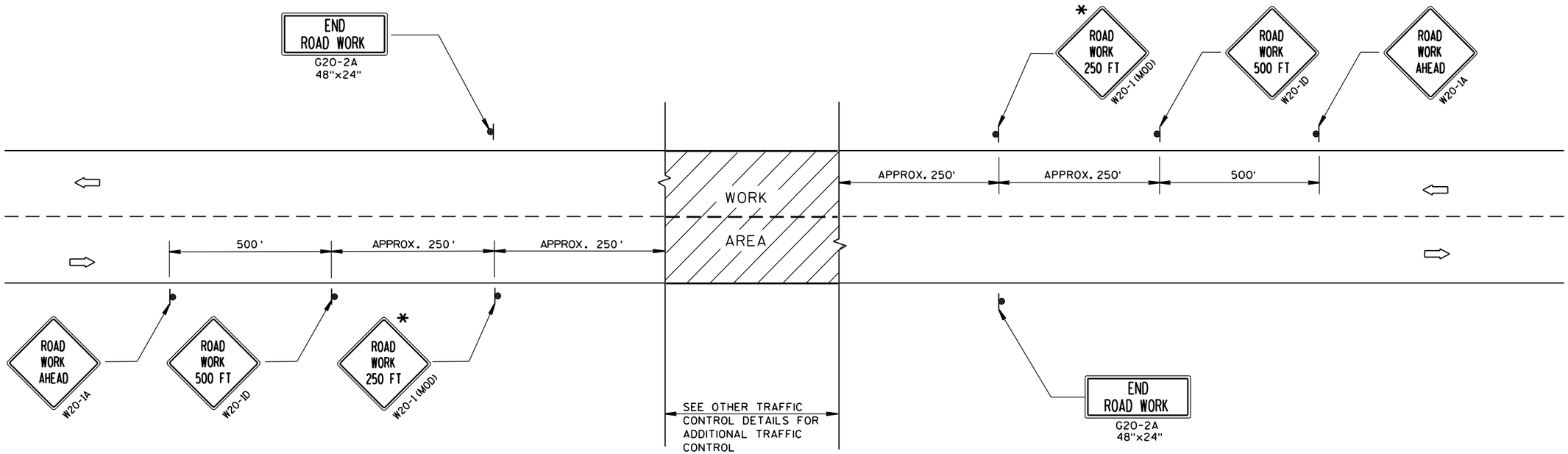
Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

6

S.D.D. 15 C 4-3

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

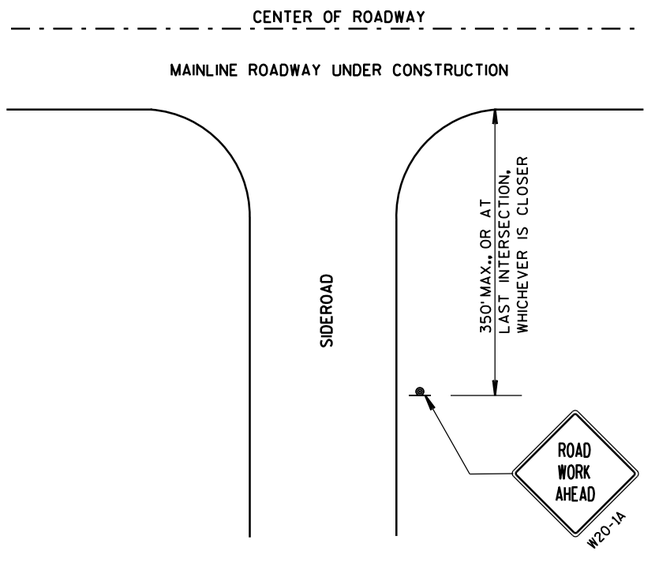
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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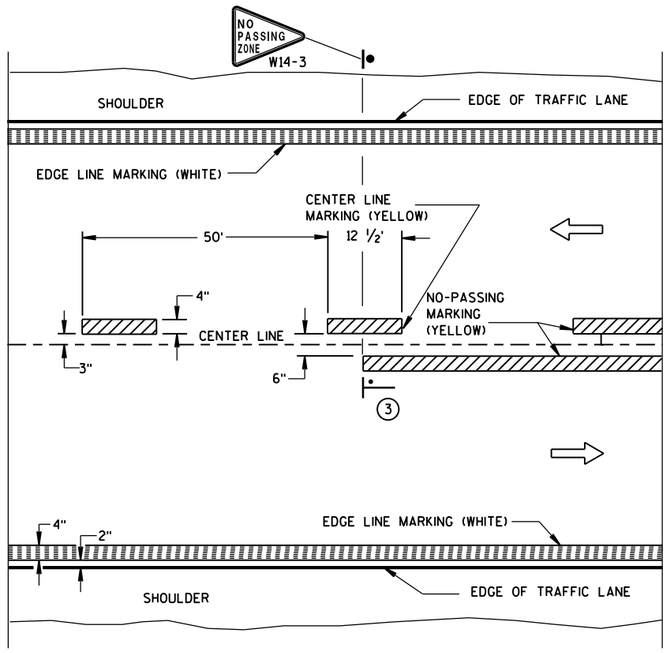
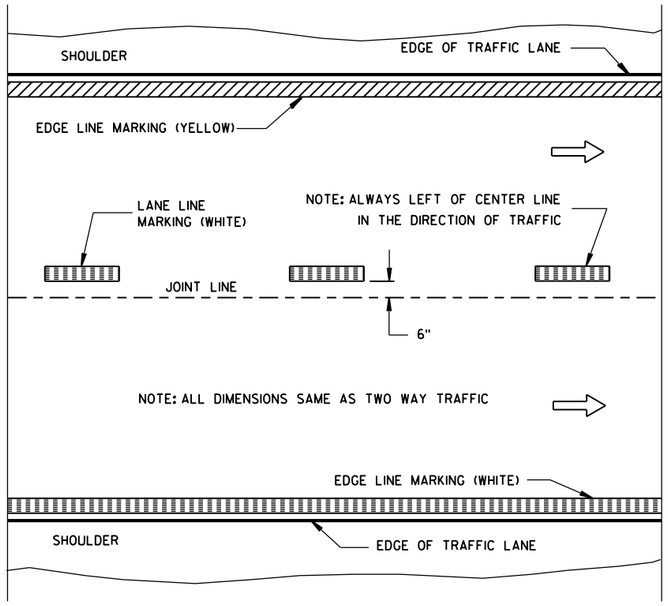
S.D.D. 15 C 5-3

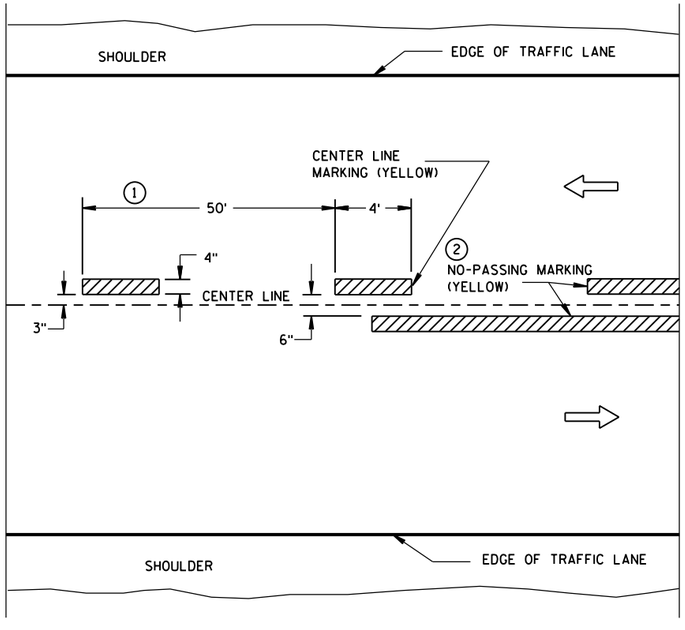


TWO WAY TRAFFIC

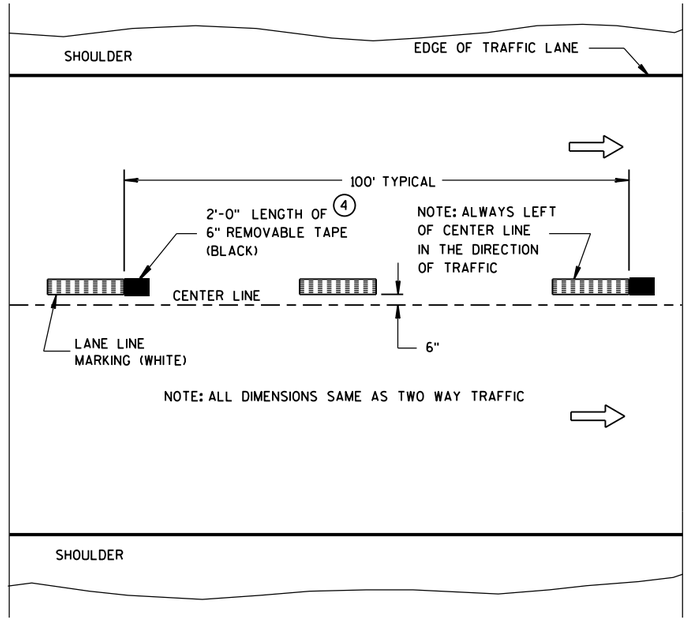


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

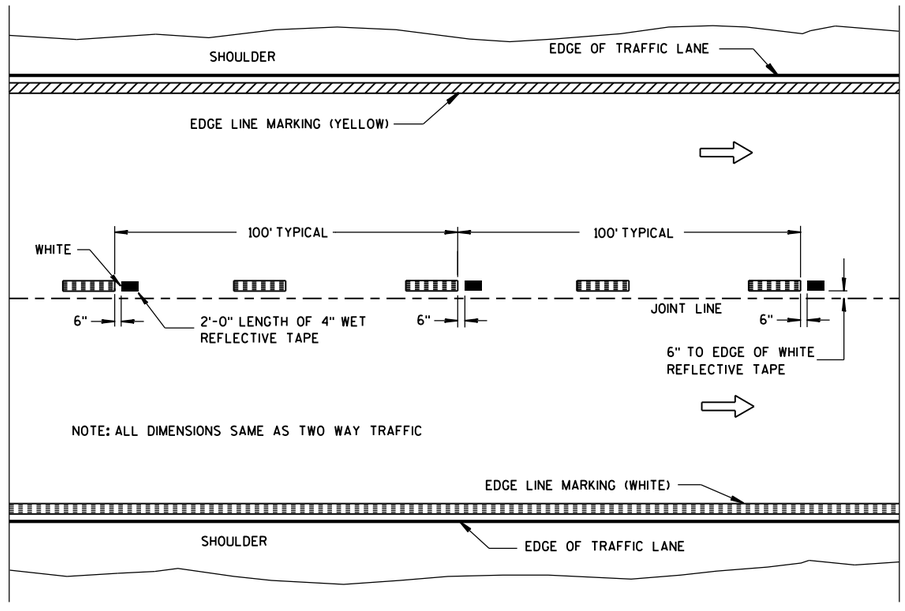
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E 95

FHWA

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S.D.D. 15 C 8-16a

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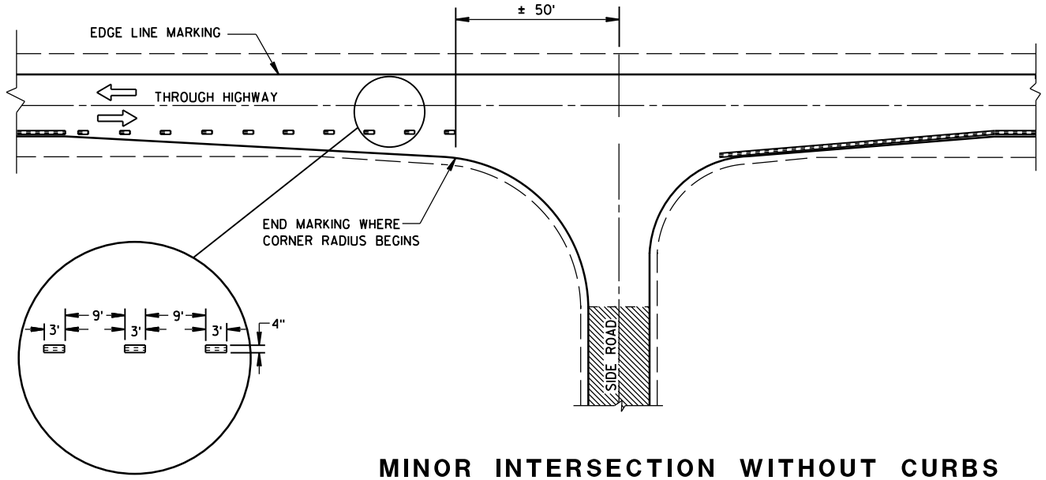
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

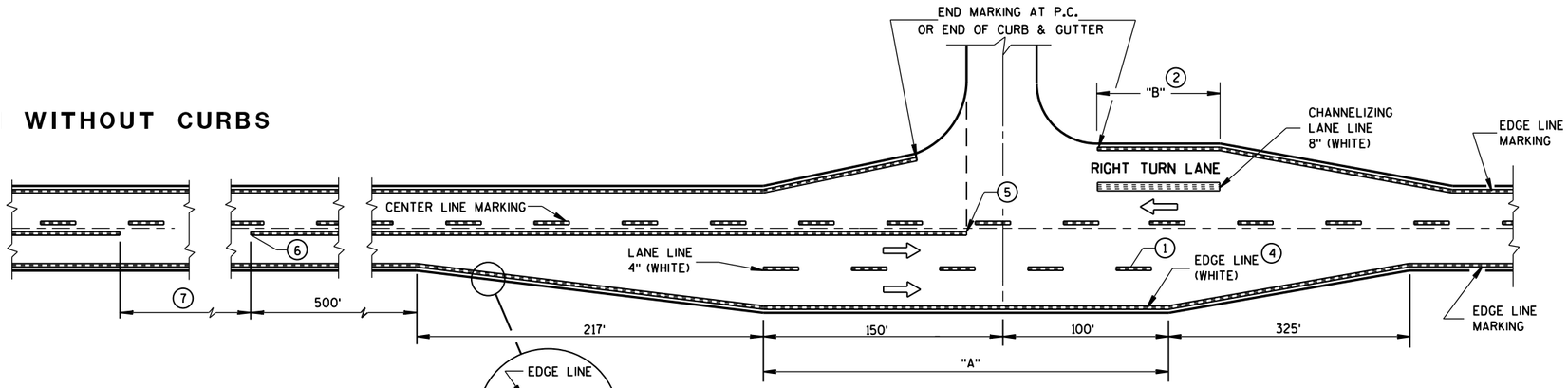
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

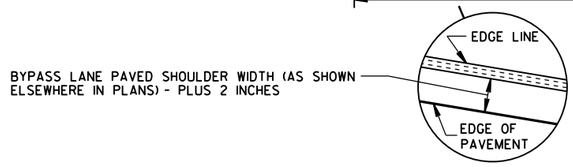
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

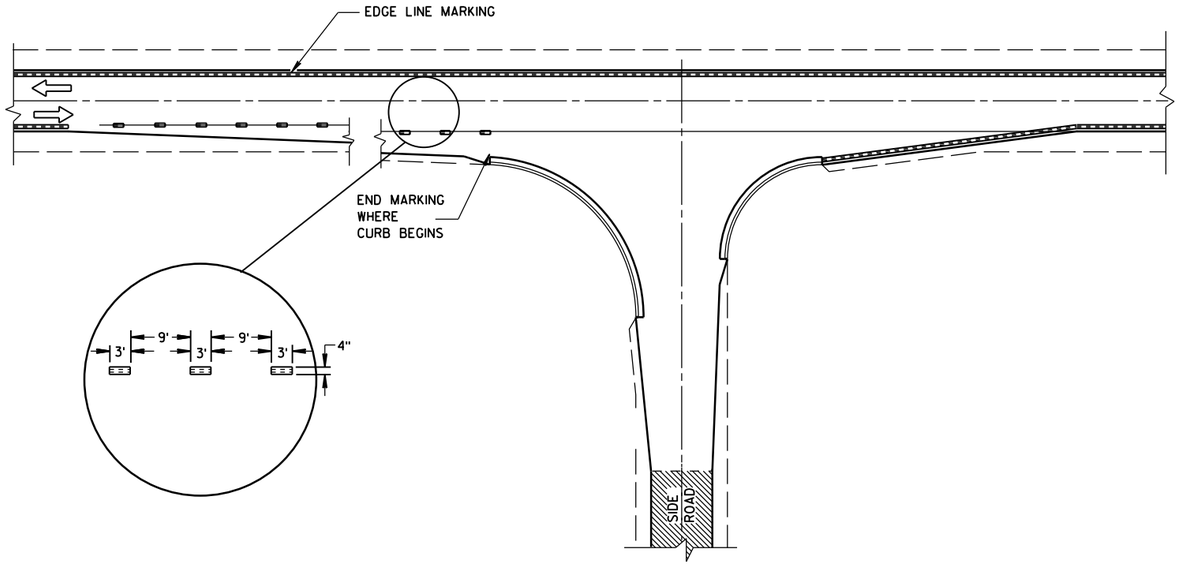
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





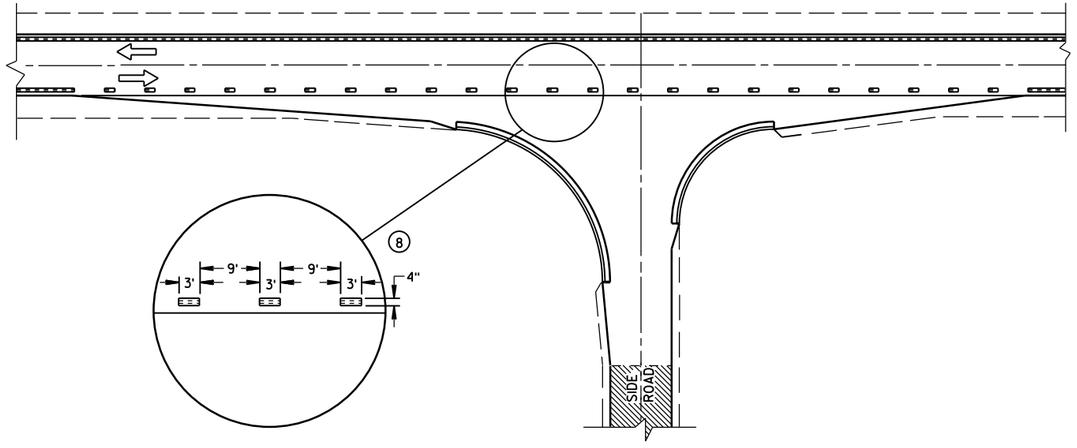
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

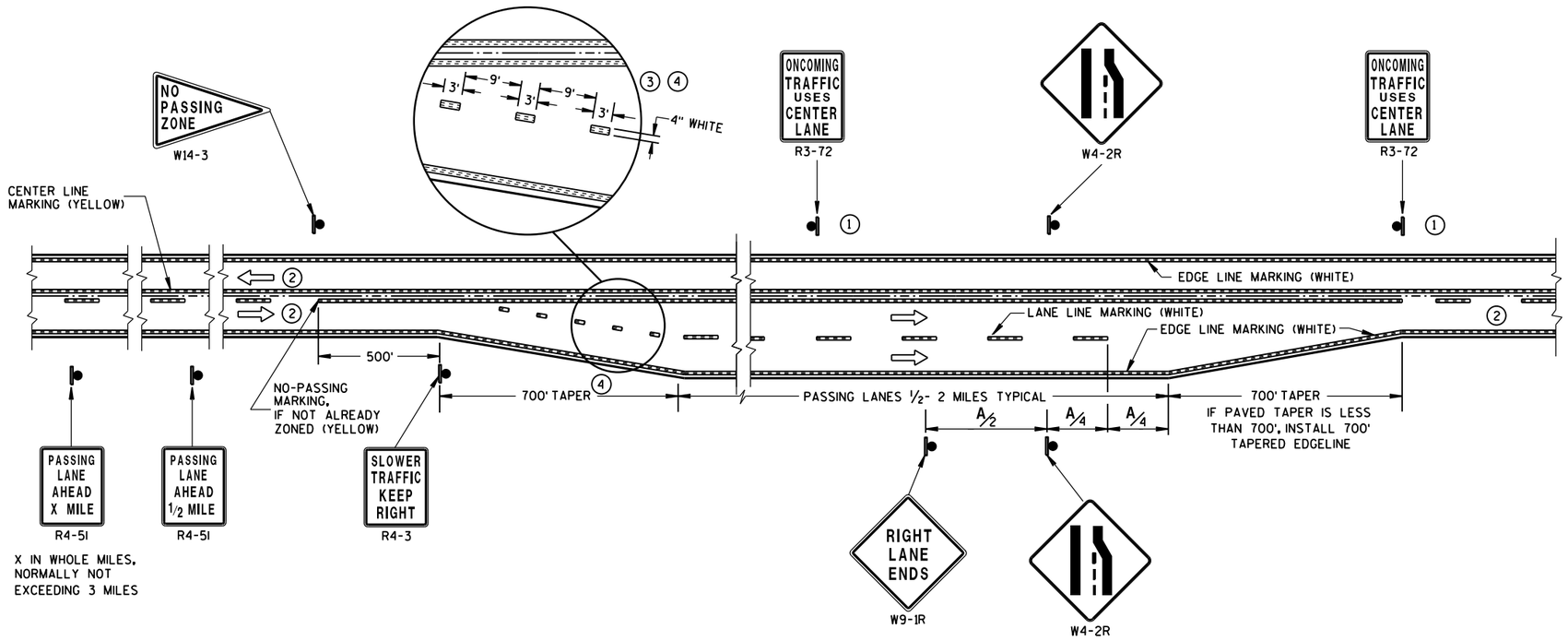
(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

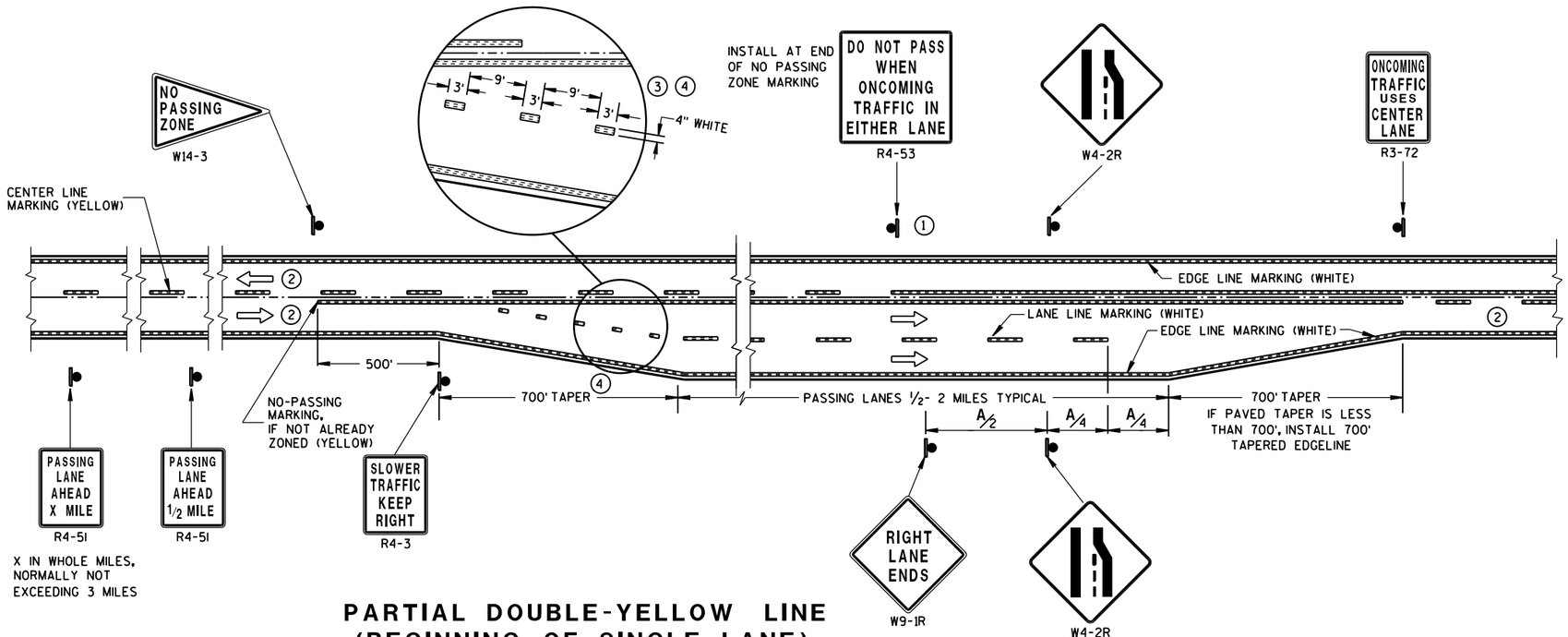
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b



SOLID DOUBLE-YELLOW LINE
(THROUGHOUT ENTIRE PASSING/CLIMBING LANE)



PARTIAL DOUBLE-YELLOW LINE
(BEGINNING OF SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3'LINE 9'GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

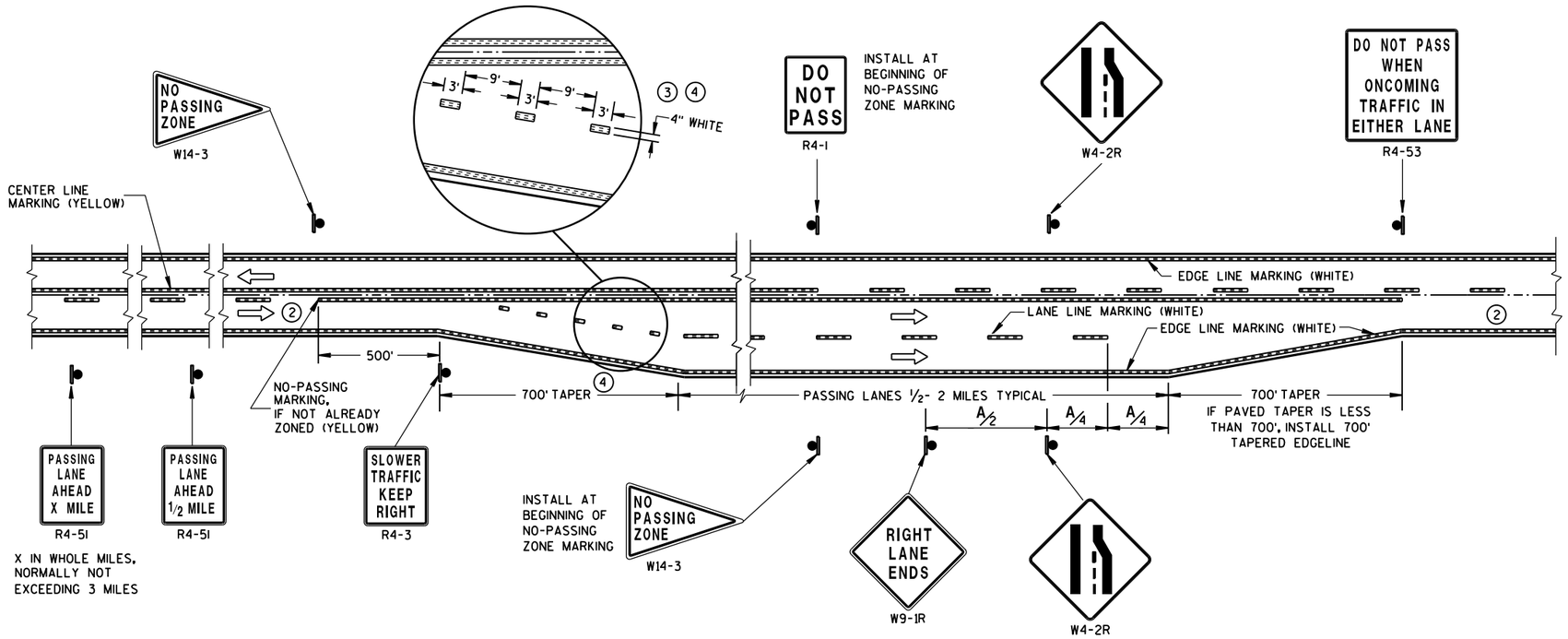
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

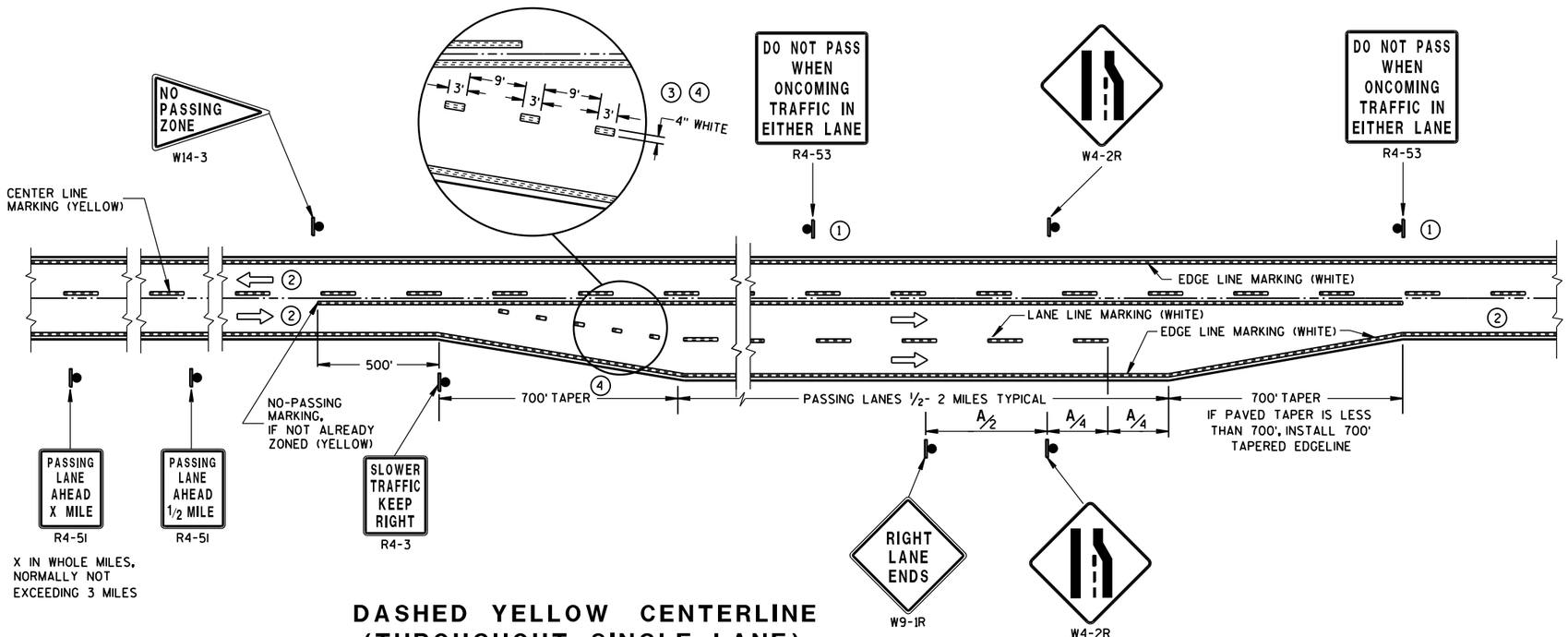
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16c



SOLID DOUBLE-YELLOW LINE (END OF SINGLE LANE)



DASHED YELLOW CENTERLINE (THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1/2 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING/CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

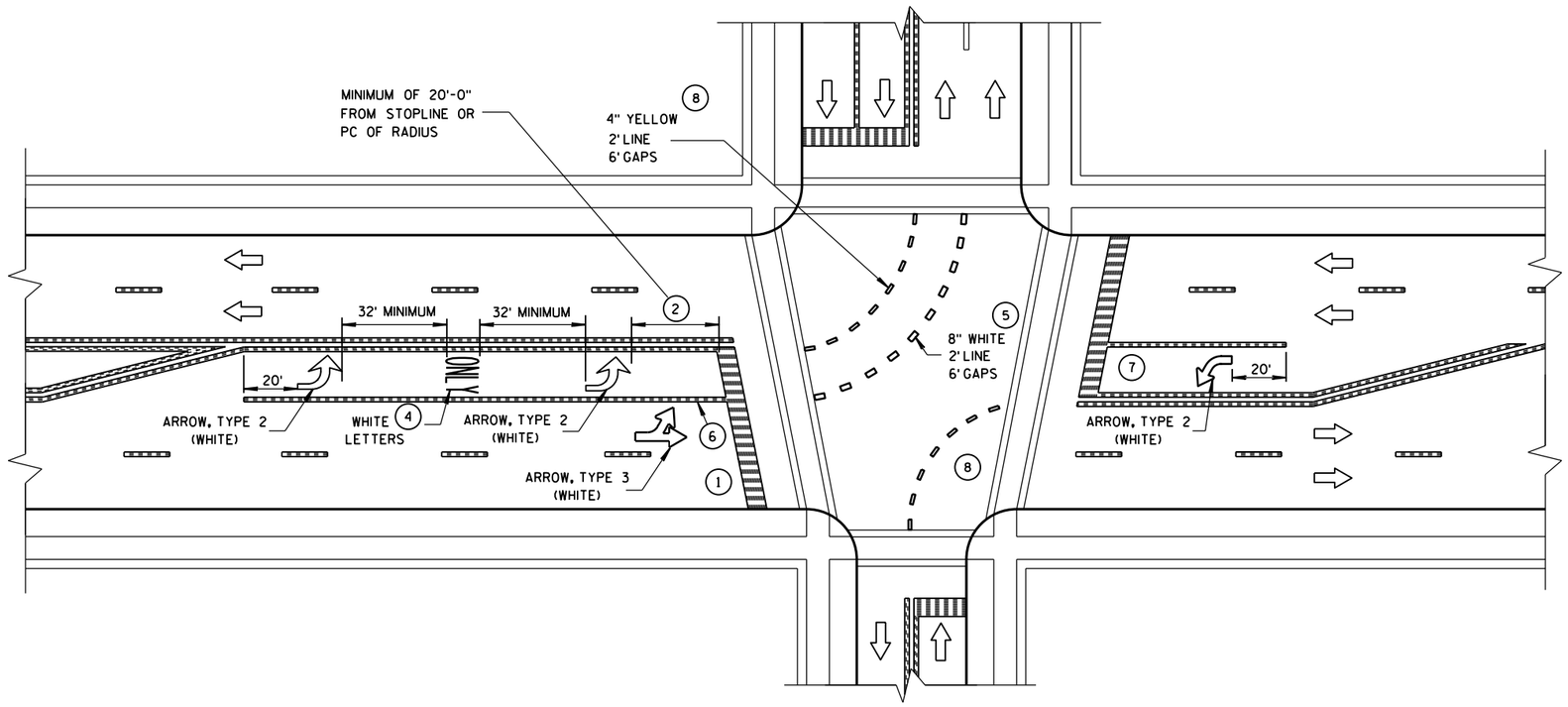
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	750
50	850
55	950

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

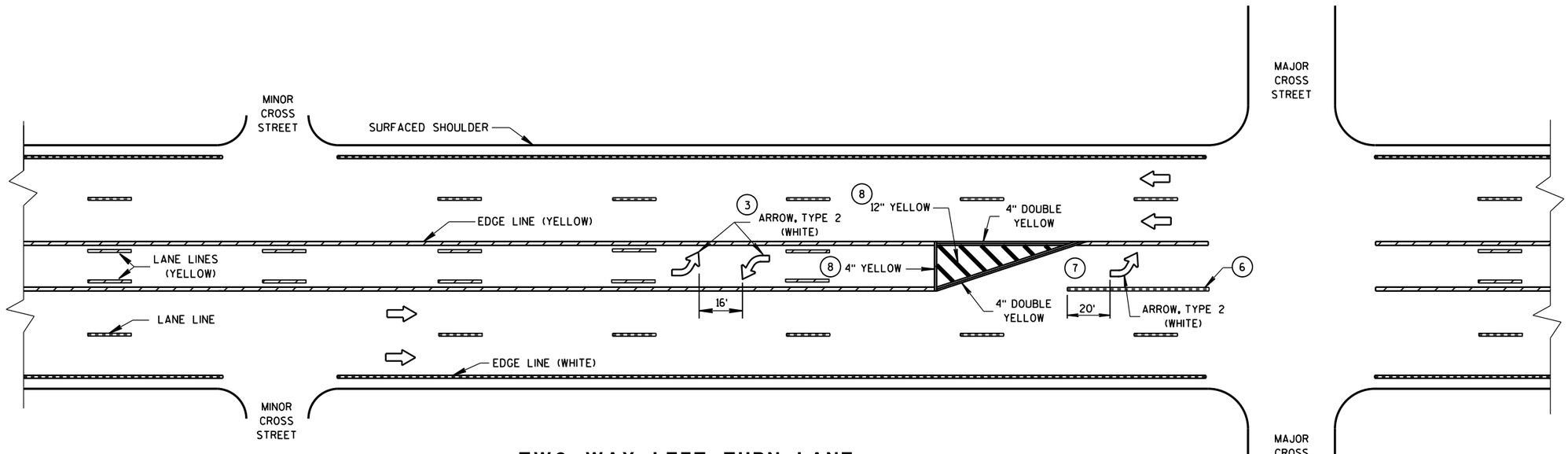
S.D.D. 15 C 8-16d
S.D.D. 15 C 8-16d



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



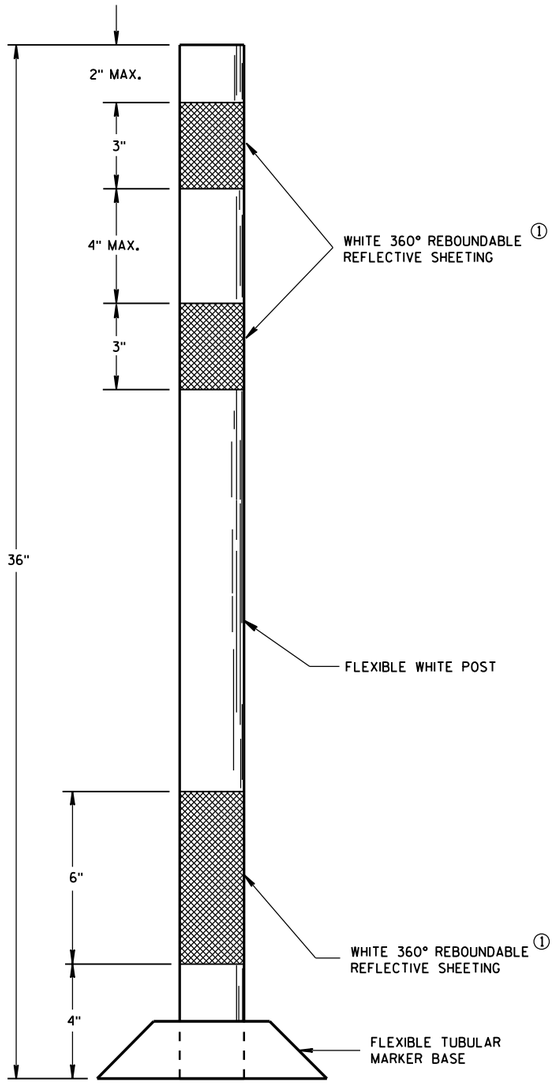
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

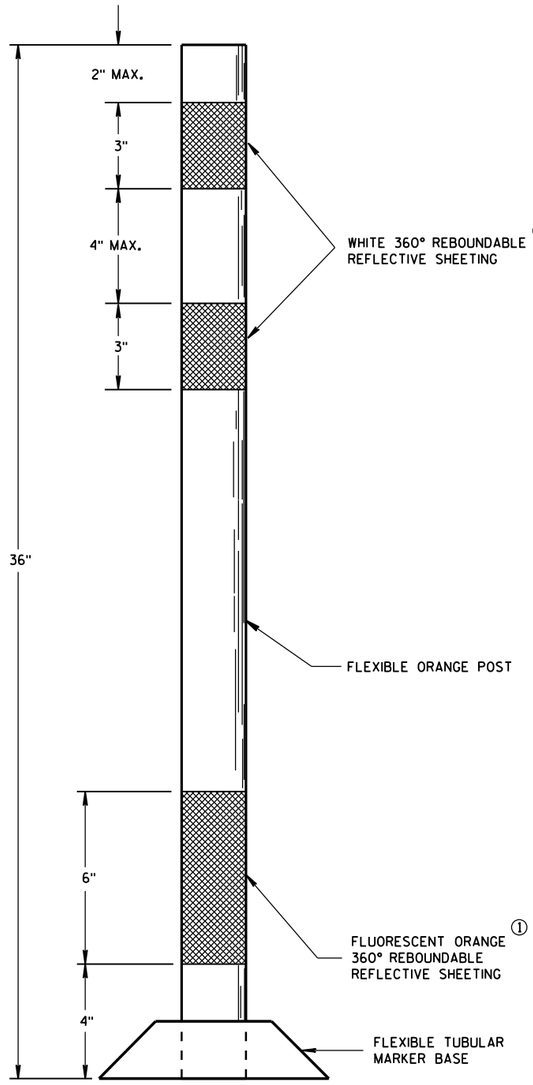
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-16e



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

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S.D.D. 15 C 11-6

S.D.D. 15 C 11-6

FLEXIBLE TUBULAR MARKER POST

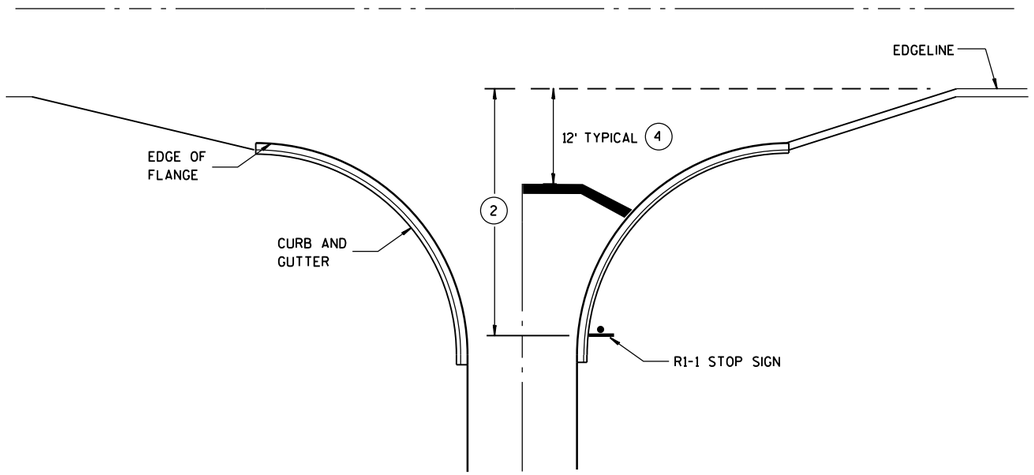
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

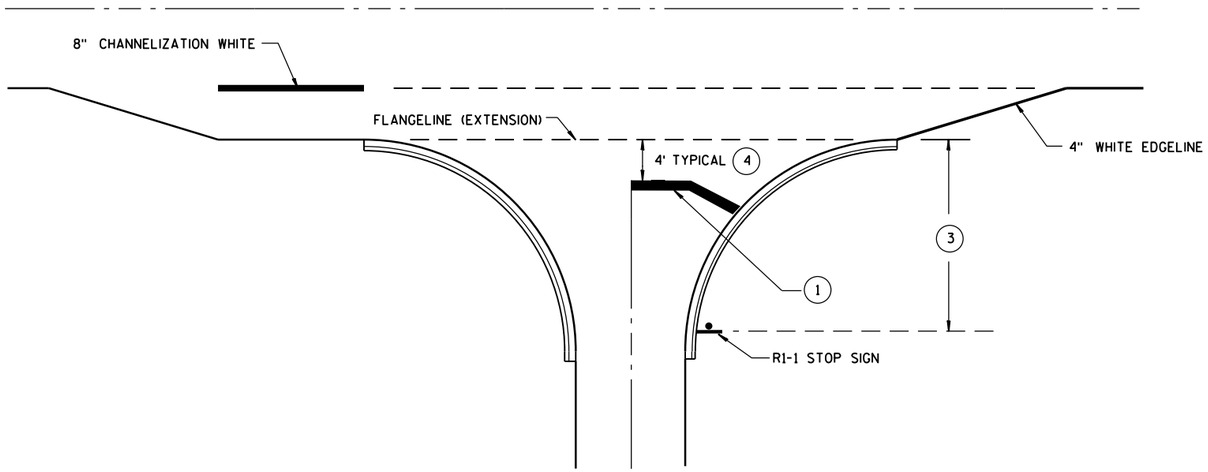
10-16-2015
DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

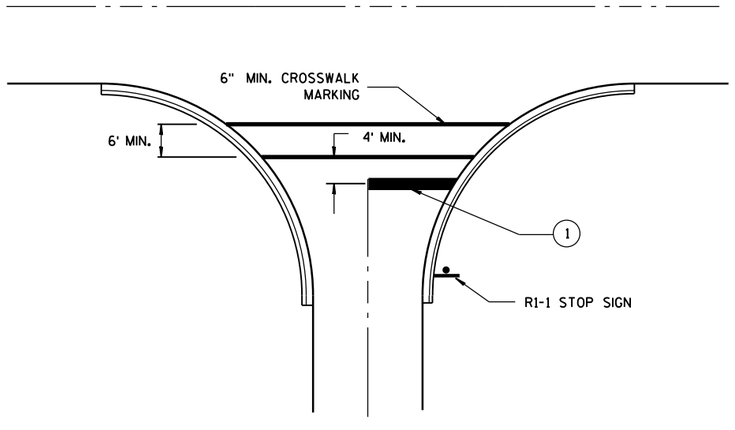
FHWA



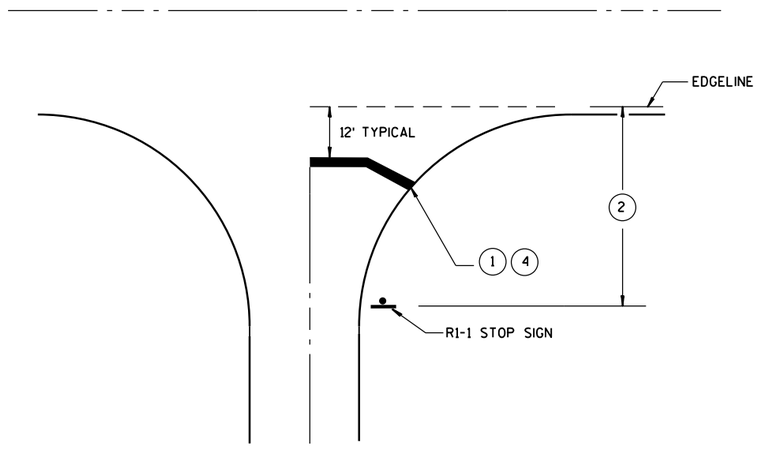
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] ENGINEER

FHWA

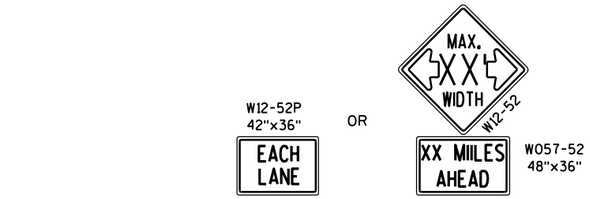
6

S.D.D. 15 C 33-2

LEGEND

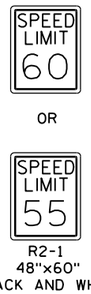
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

L, TAPER LENGTH (MPH)									
SPEED (MPH)	W, LATERAL OFFSET (FT)								
	10	11	12	13	14	15	16	17	18
45	450	495	540	585	630	675	720	765	810
50	500	550	600	650	700	750	800	850	900
55	550	605	660	715	770	825	880	935	990
60	600	660	720	780	840	900	960	1020	1080
65	650	715	780	845	910	975	1040	1105	1170
70	700	770	840	910	980	1050	1120	1190	1260



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).

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



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.

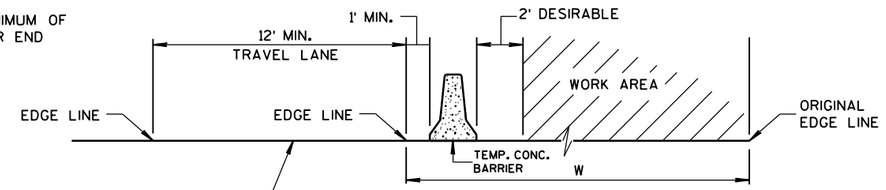
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

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.

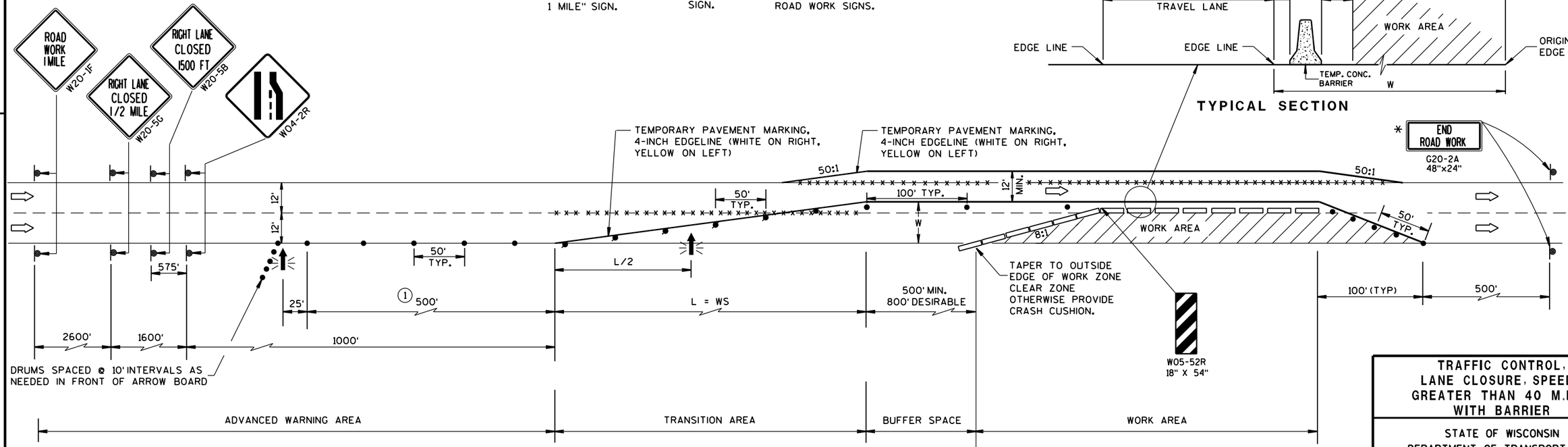
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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S.D.D. 15 D 3-3

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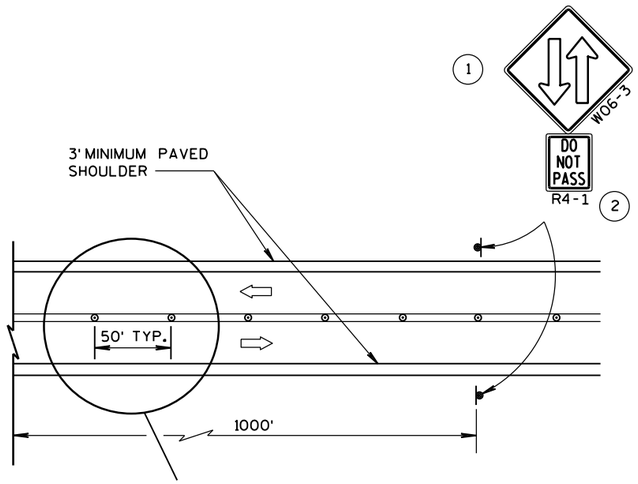
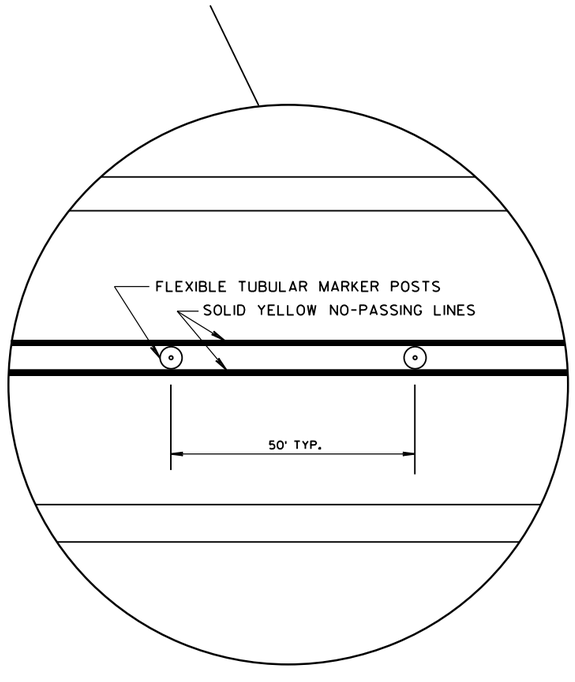
S.D.D. 15 D 3-3



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE 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.

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) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

(1)

W057-51
48"x24"

R4-1 (2)

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN

FHWA

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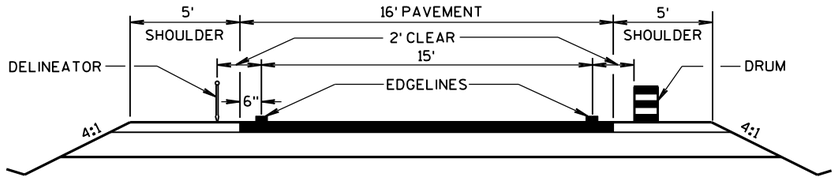
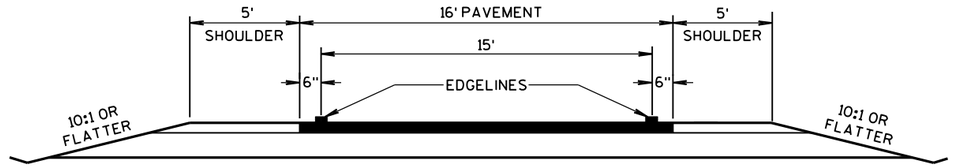
S.D.D. 15 D 6-3



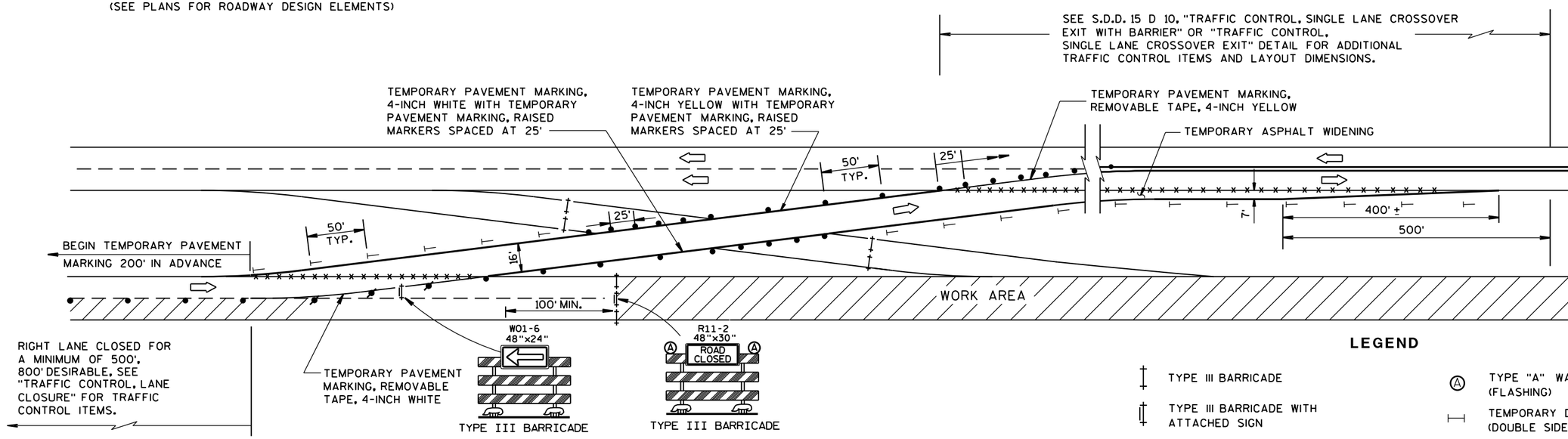
TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLANS FOR ROADWAY DESIGN ELEMENTS)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/ TUBULAR MARKER
- 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 PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

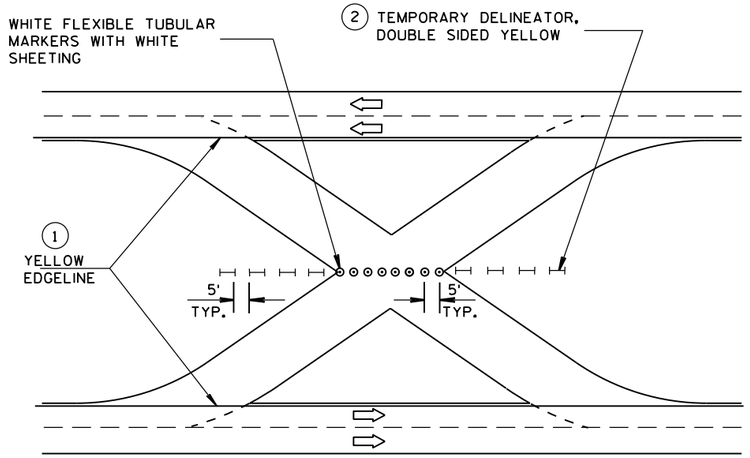
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE 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.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015 DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

6

S.D.D. 15 D 11-6

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.

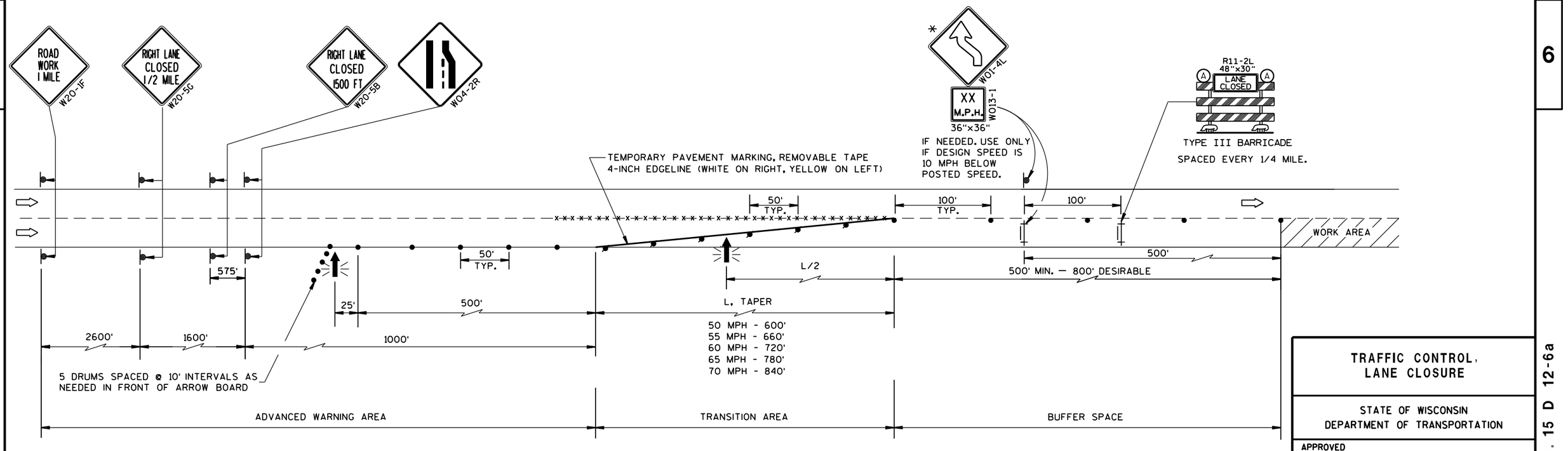
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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 SAFETY ENGINEER
FHWA

6

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

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.

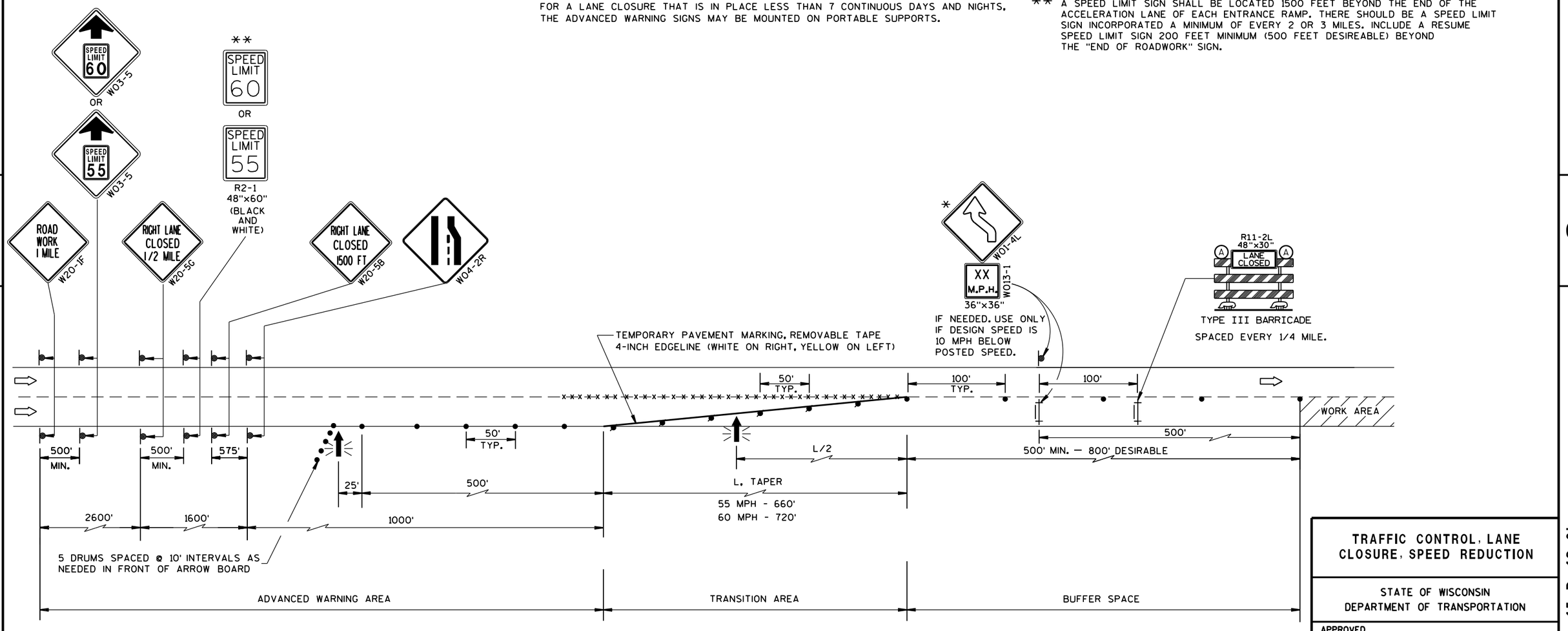
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 ZONE SAFETY ENGINEER
FHWA

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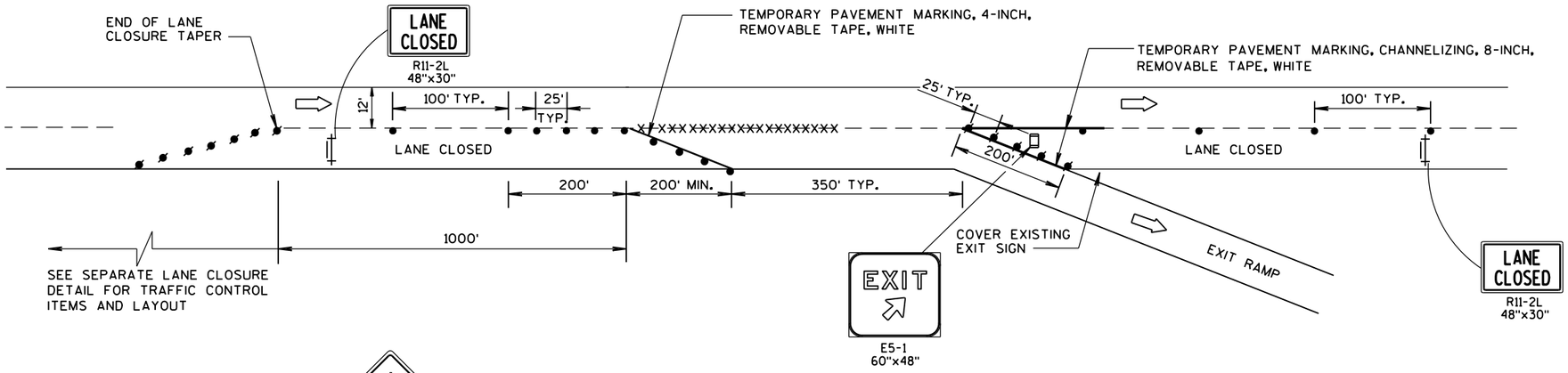
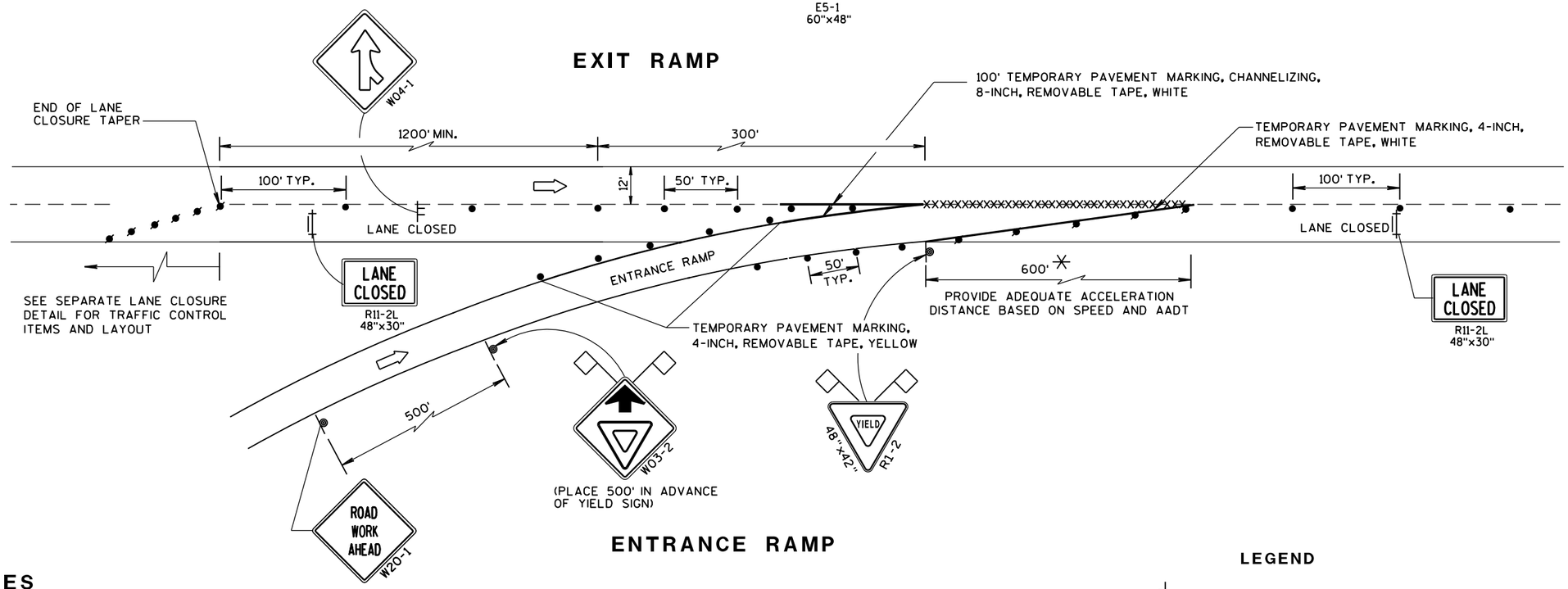
S.D.D. 15 D 12-6b



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

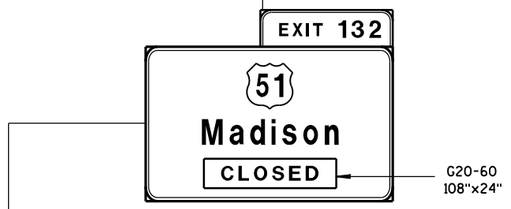
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

S.D.D. 15 D 15-2

S.D.D. 15 D 15-2

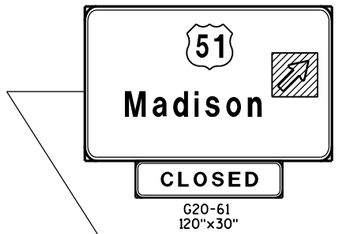
G20-60
108"x24"

OR



G20-60
108"x24"

PLACE SIGN G20-60 OVER MILEAGE
ON EXISTING E1-1A SIGN



COVER ARROW ON
EXISTING E4-1A
SIGN (COVERING
SIGNS TYPE I)

G20-61
120"x30"

TEMPORARY PAVEMENT MARKING
4" REMOVABLE TAPE, WHITE
(ACROSS THE RAMP OPENING)

END
ROAD WORK
*G20-2A
48"x24"

25' TYP.

100' MIN.

200'

EDGE OF SHOULDER

COVER EXISTING
EXIT SIGN

ROAD
WORK
AHEAD
*W20-1A

RAMP
CLOSED
AHEAD
W20-53A

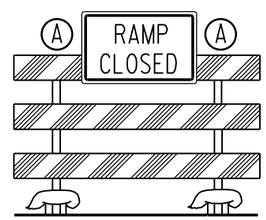
RAMP
CLOSED
1000 FT
W20-53C

1500'

1500'

1000'

R11-2R
48" X 30"
MOUNTED ON
TYPE III BARRICADE



RAMP WILL
BE CLOSED
(TIME)
BEGINNING
(DATE)

**R11-51
48"X48"
(OR SPECIAL SIGN IF INDICATED IN PLAN)

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 FIC
SAFETY ENGI
FHWA

6

S.D.D. 15 D 16-3

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S.D.D. 15 D 16-3

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.

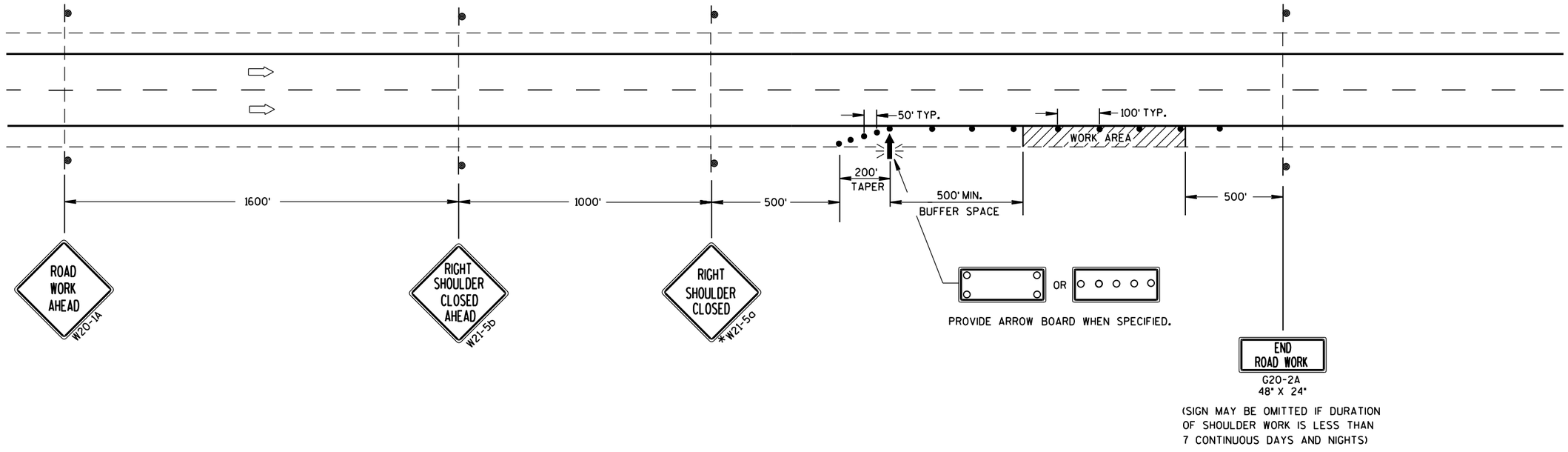
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

6

S.D.D. 15 D 27-3

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
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE

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.

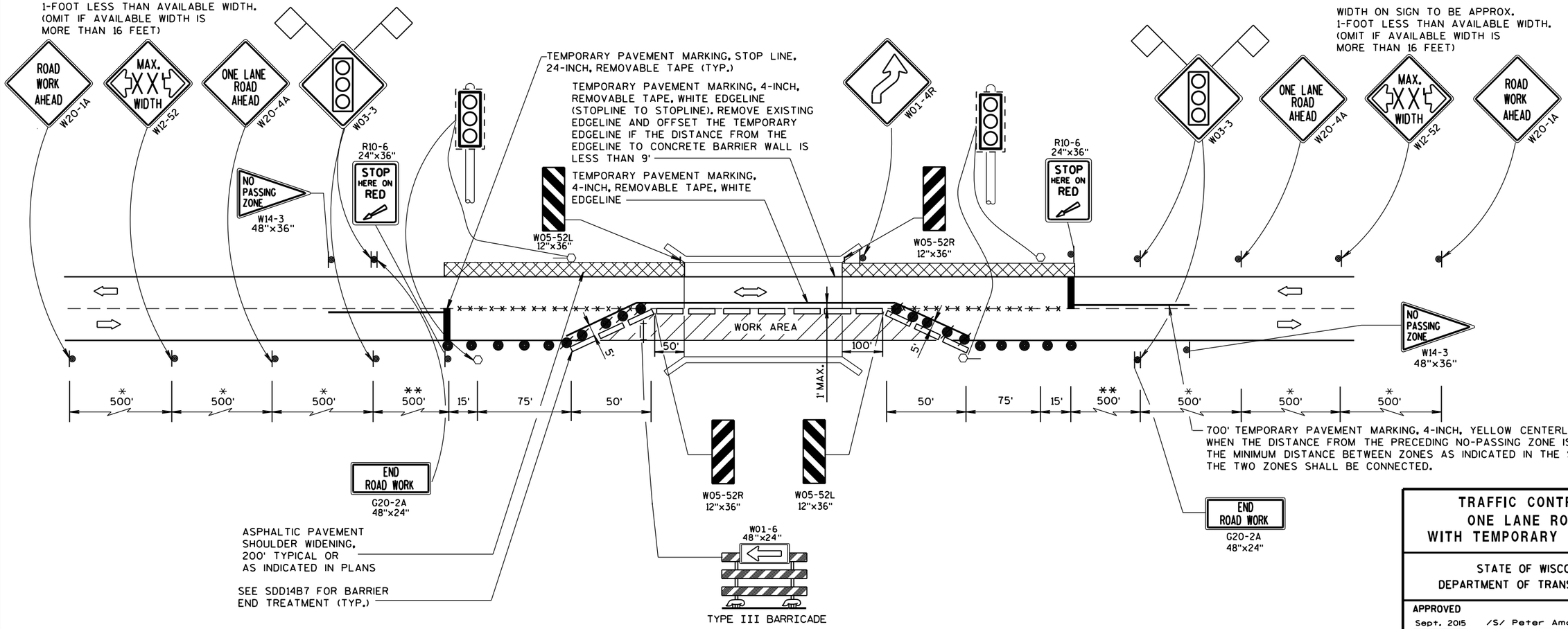
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.



TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI

FHWA

6

S.D.D. 15 D 33-4

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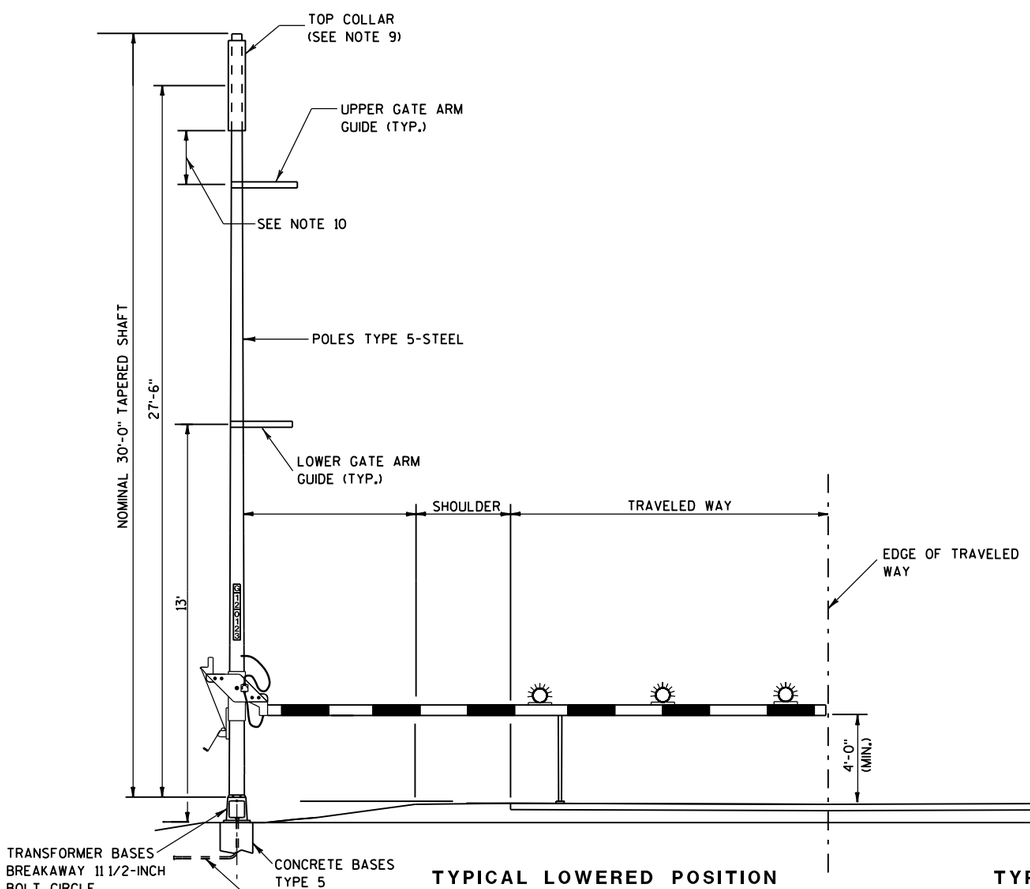
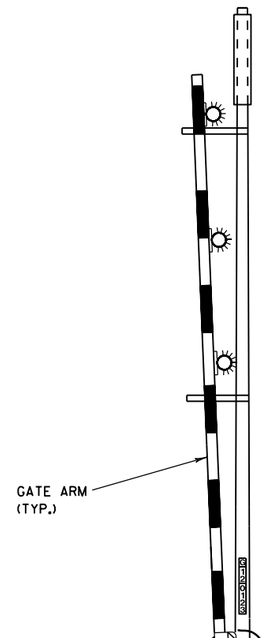
S.D.D. 15 D 33-4



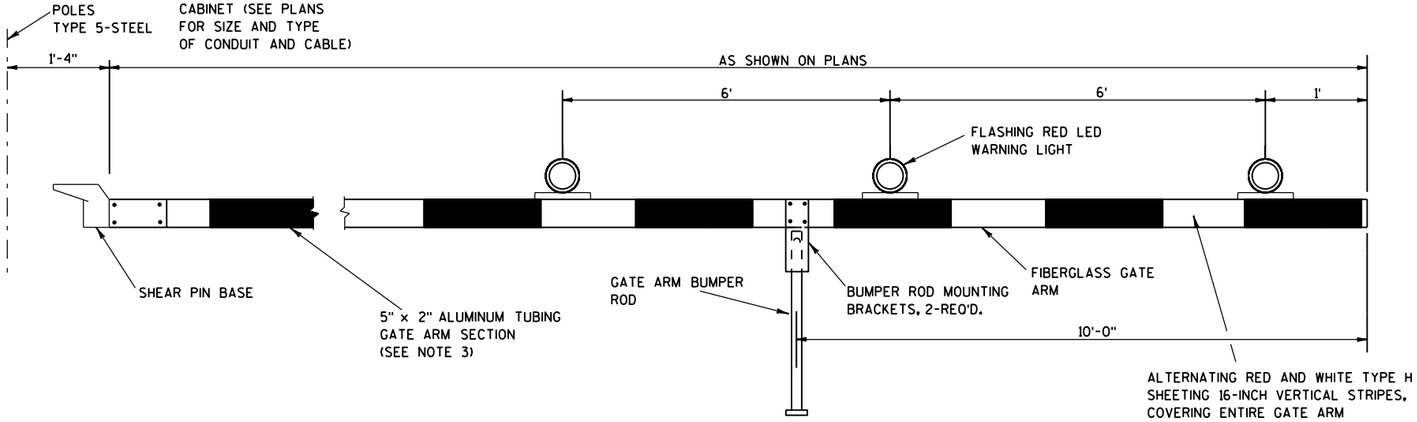
TYPICAL LOWERED POSITION

TYPICAL RAISED POSITION



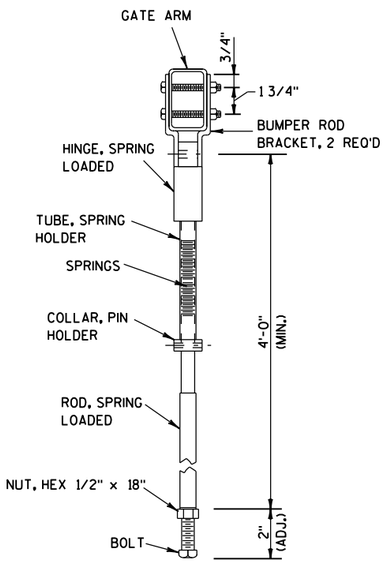
GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.

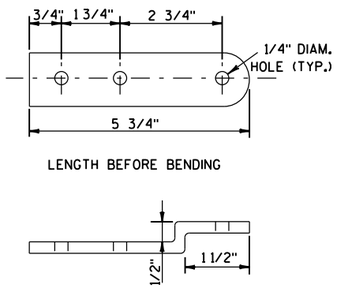


GATE DETAIL

(SOLAR POWER OPTION)



GATE ARM BUMPER ROD DETAIL



BUMPER ROD MOUNTING
BRACKET DETAIL

RAMP GATE
SOLAR POWER

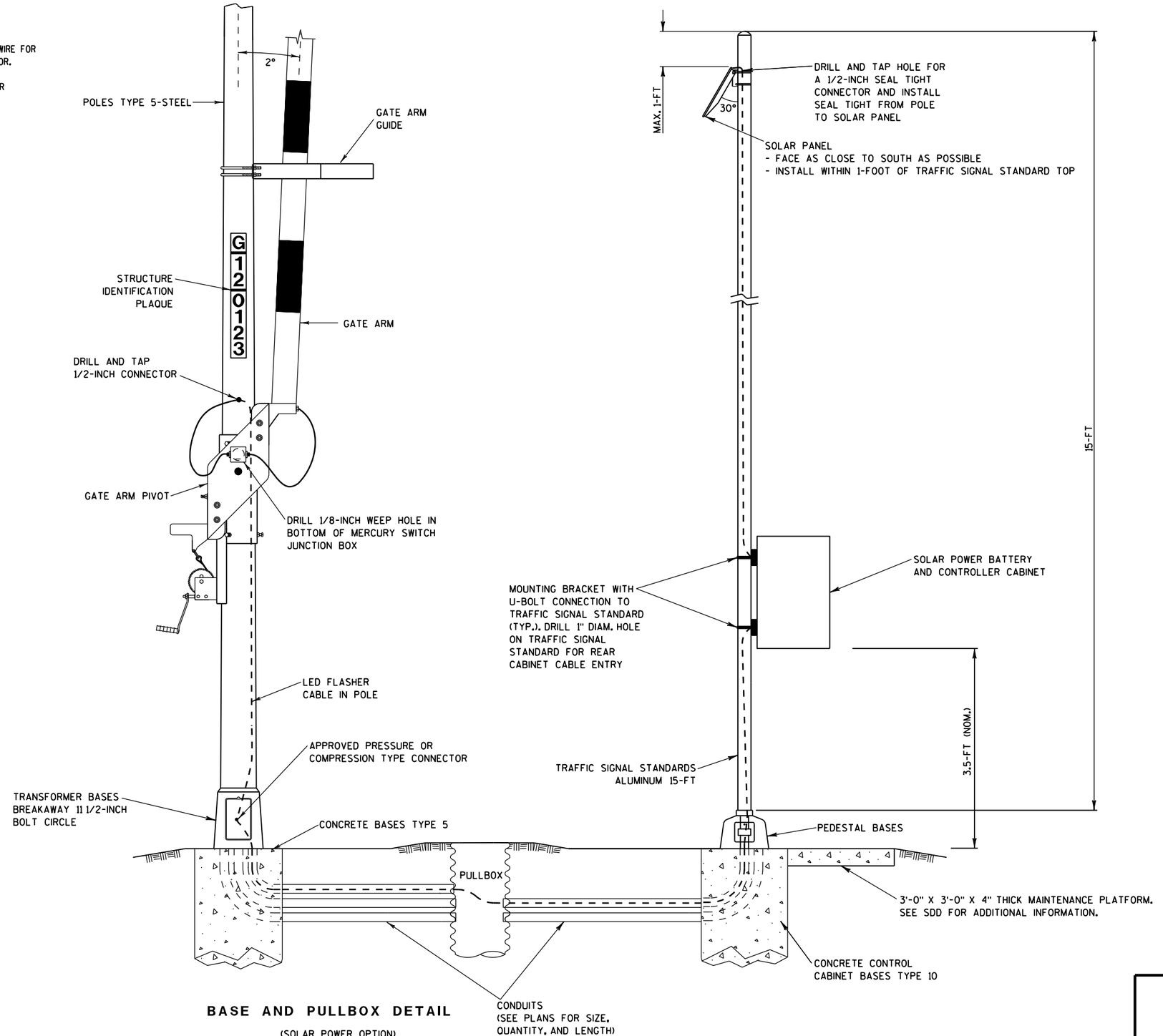
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 34-2a

WIRING NOTES

1. WIRING FROM SOLAR PANEL TO CABINET SHALL BE BLUE #10 XLP WIRE FOR POSITIVE CONDUCTOR AND WHITE #10 XLP FOR NEGATIVE CONDUCTOR.

2. WIRING FROM CABINET TO GATE ARM SHALL BE WHITE #10 XLP FOR COMMON, RED #10 XLP FOR FLASHER CIRCUIT 1, AND BLUE #10 XLP FOR FLASHER CIRCUIT 2.



BASE AND PULLBOX DETAIL

(SOLAR POWER OPTION)

6

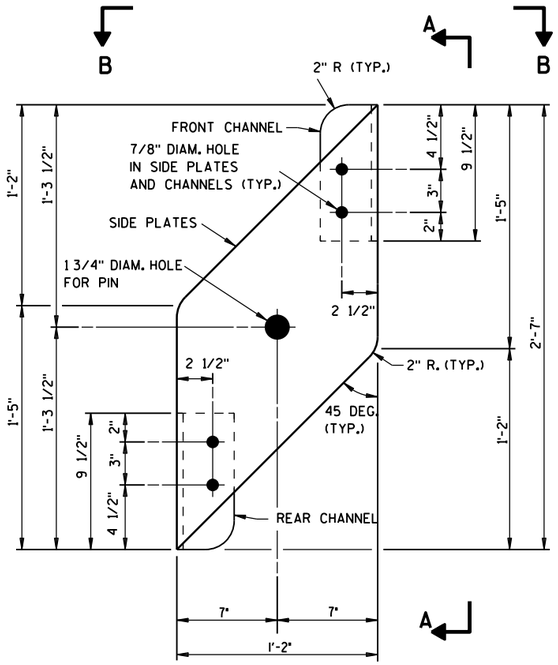
S.D.D. 15 D 34-2b

6

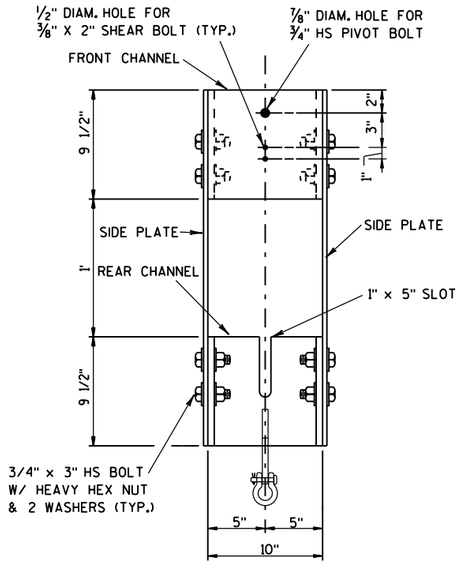
S.D.D. 15 D 34-2b

RAMP GATE
SOLAR POWER

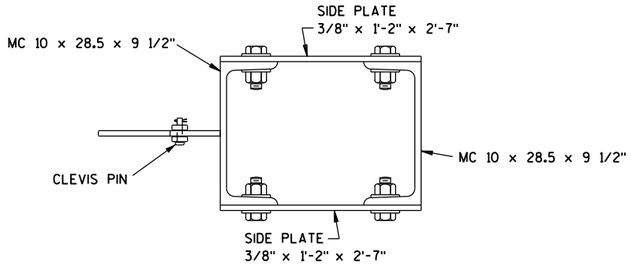
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



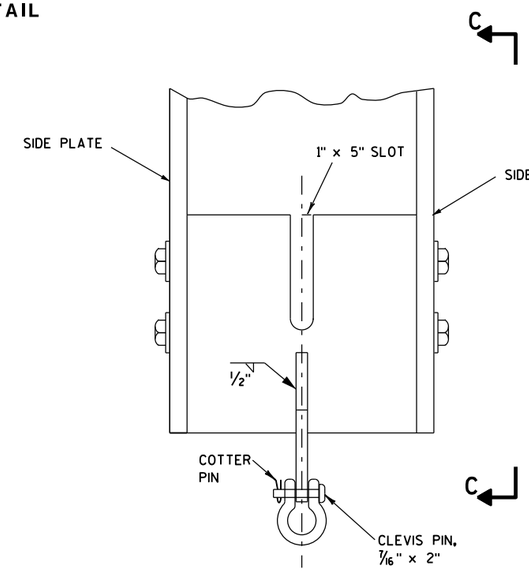
SIDE PLATE DETAIL



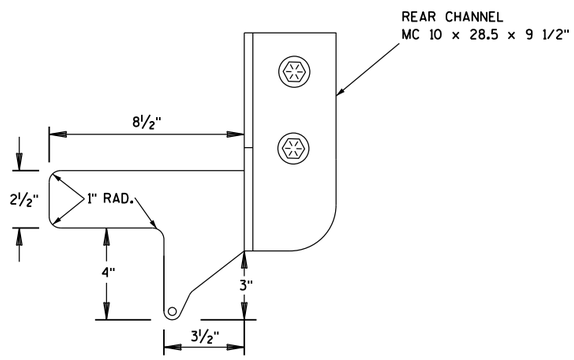
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE
SOLAR POWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 34-2c

6

S.D.D. 15 D 34-2c

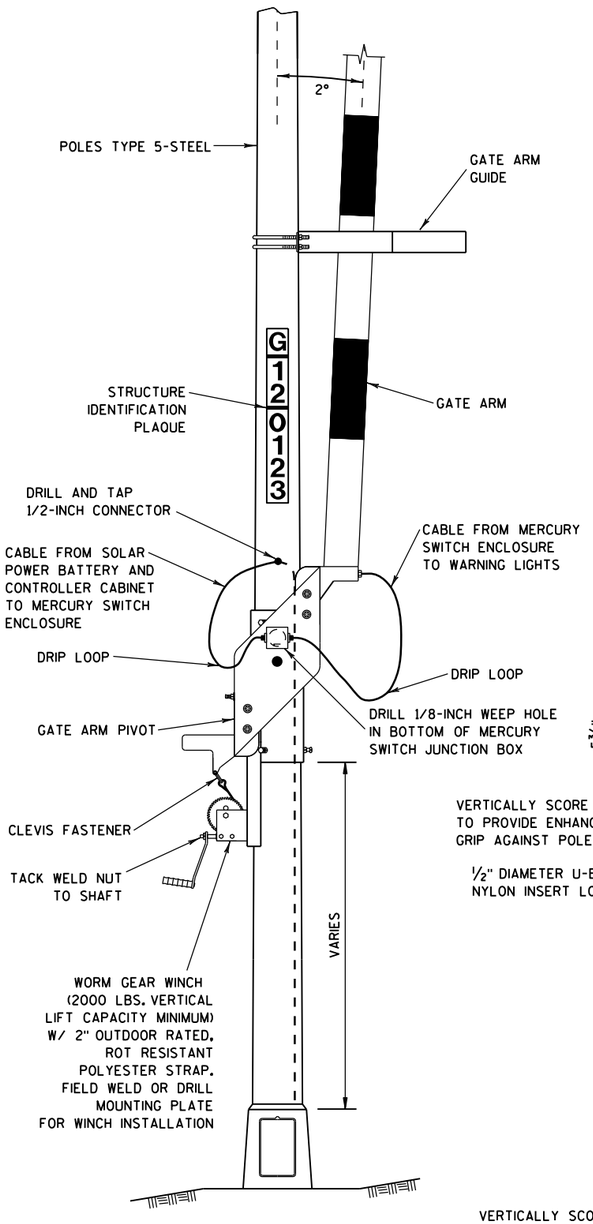
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL.

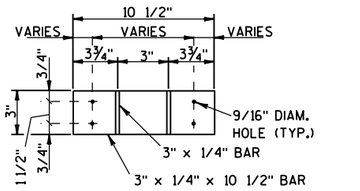
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

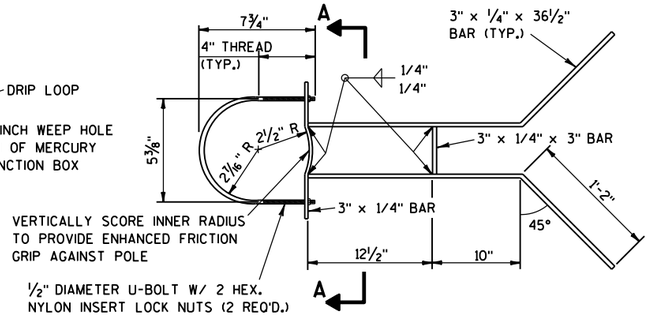
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF 1/2" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



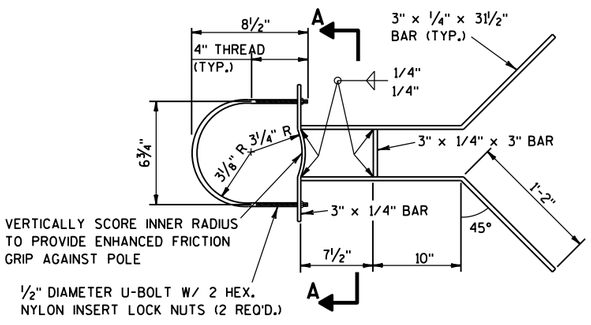
GATE PIVOT ASSEMBLY



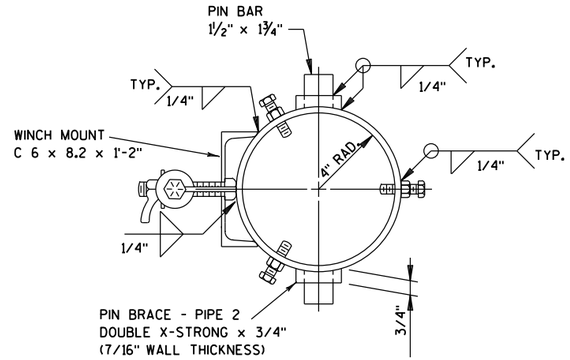
SECTION A-A
U-BOLTS NOT SHOWN



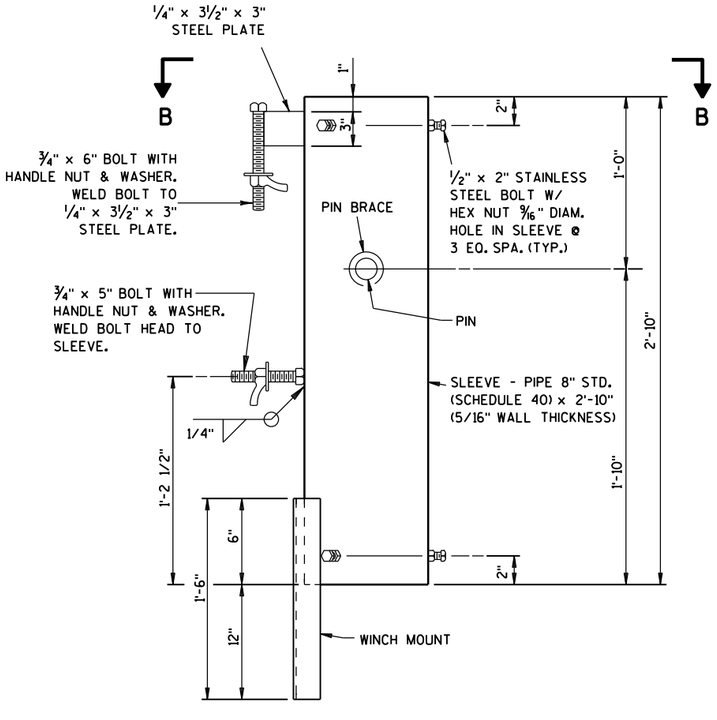
UPPER GATE ARM GUIDE DETAIL



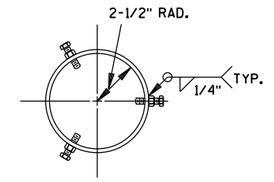
LOWER GATE ARM GUIDE DETAIL



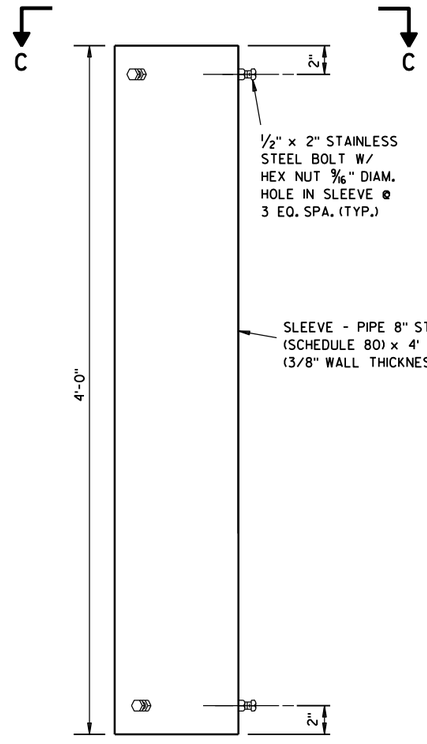
SECTION B-B



PIVOT SLEEVE DETAIL



SECTION C-C



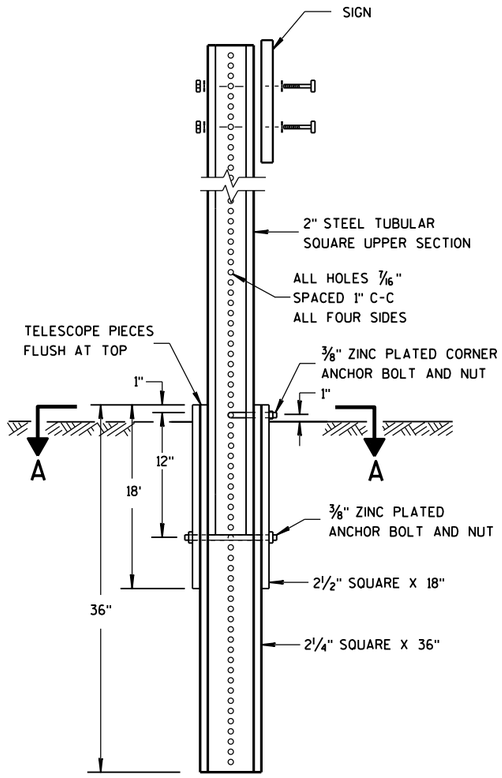
TOP COLLAR

RAMP GATE
SOLAR POWER

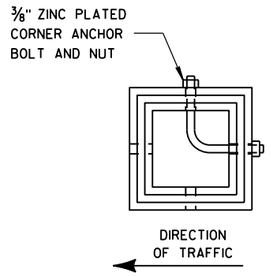
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRCIAL
FHWA

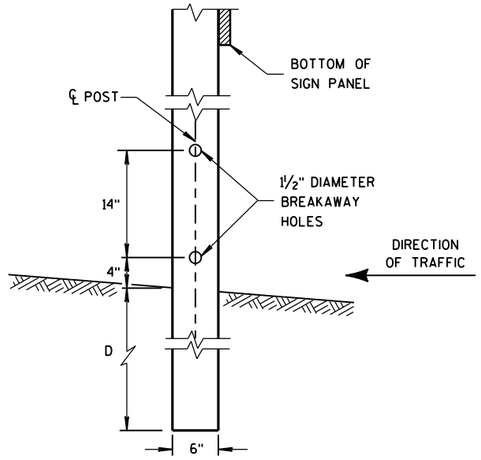
6
S.D.D. 15 D 34-2d



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



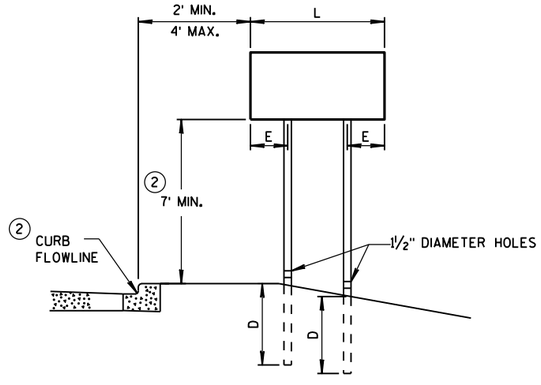
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

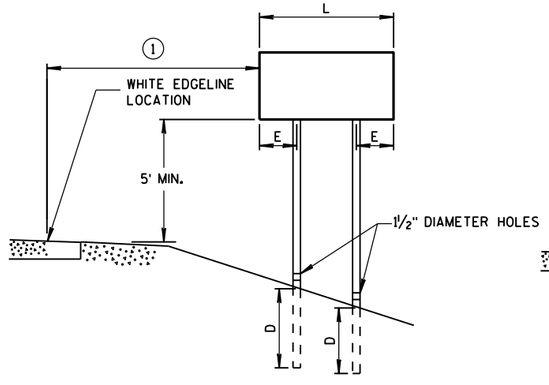
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

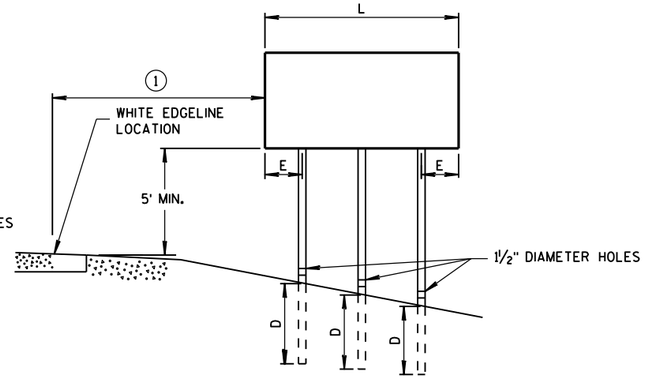
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

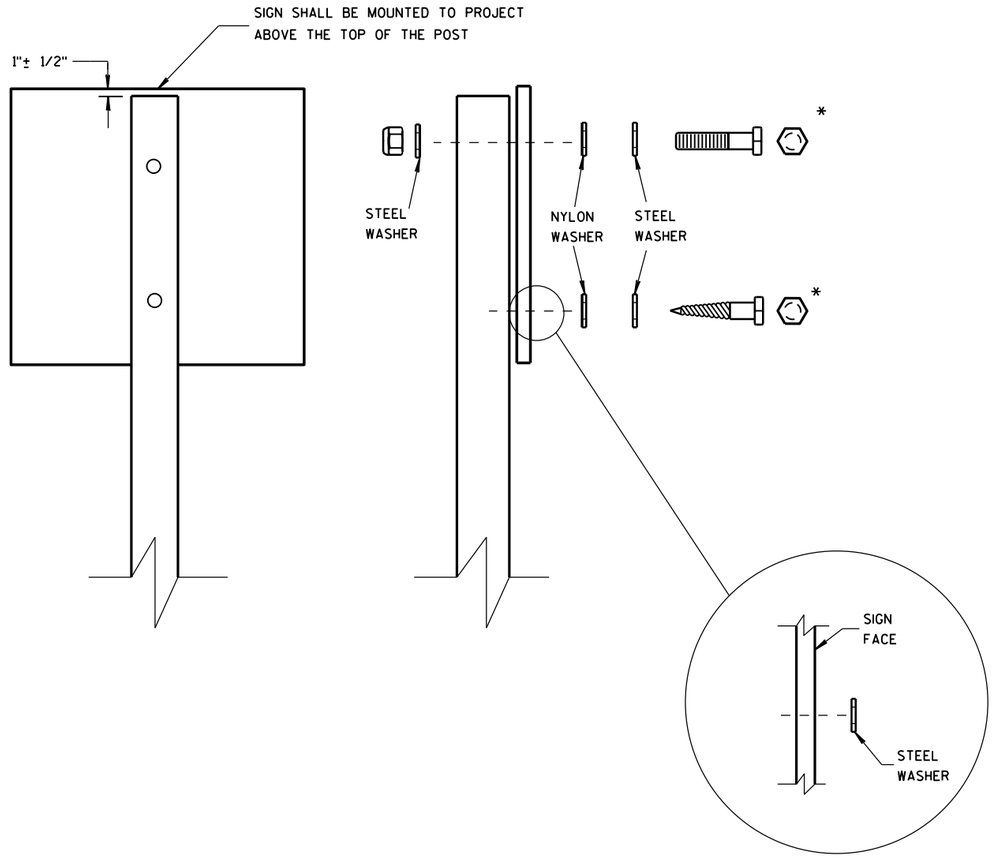
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-1a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

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

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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 FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015
DATE

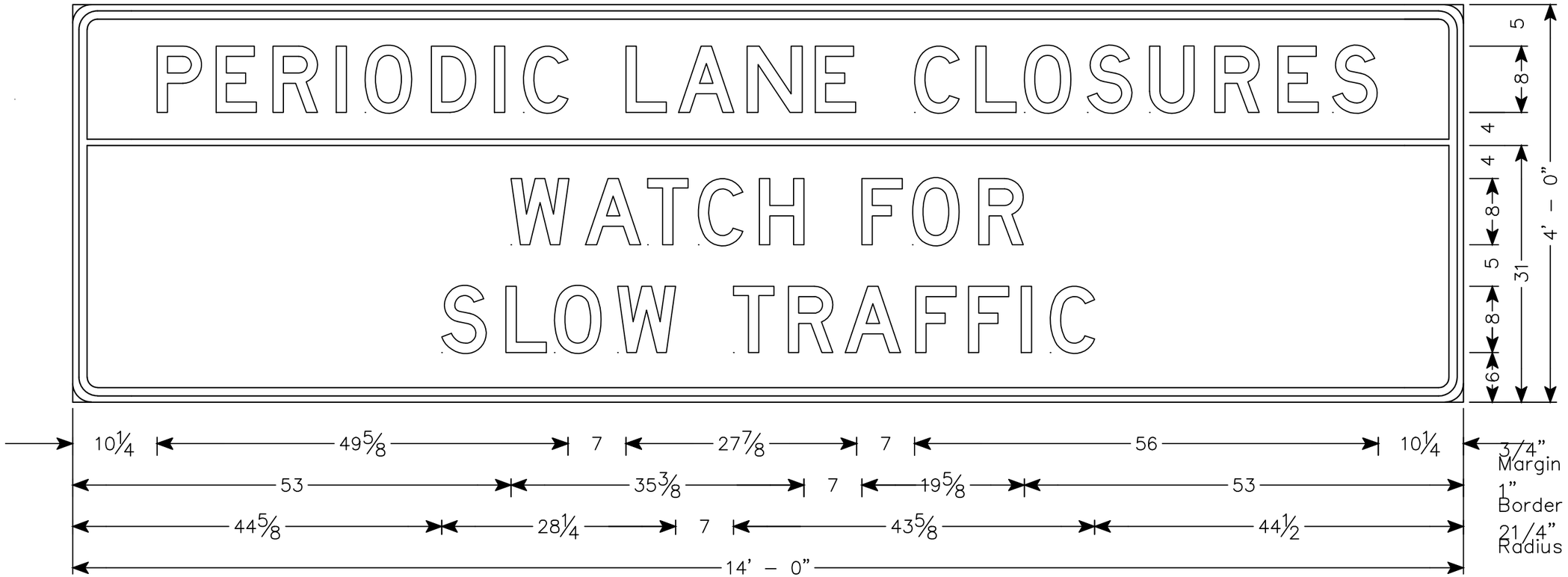
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

SIGN

NOTES

1. All Signs Type II – Reflective – reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background – Orange except as noted
   Message – Black
3. Message Series – D

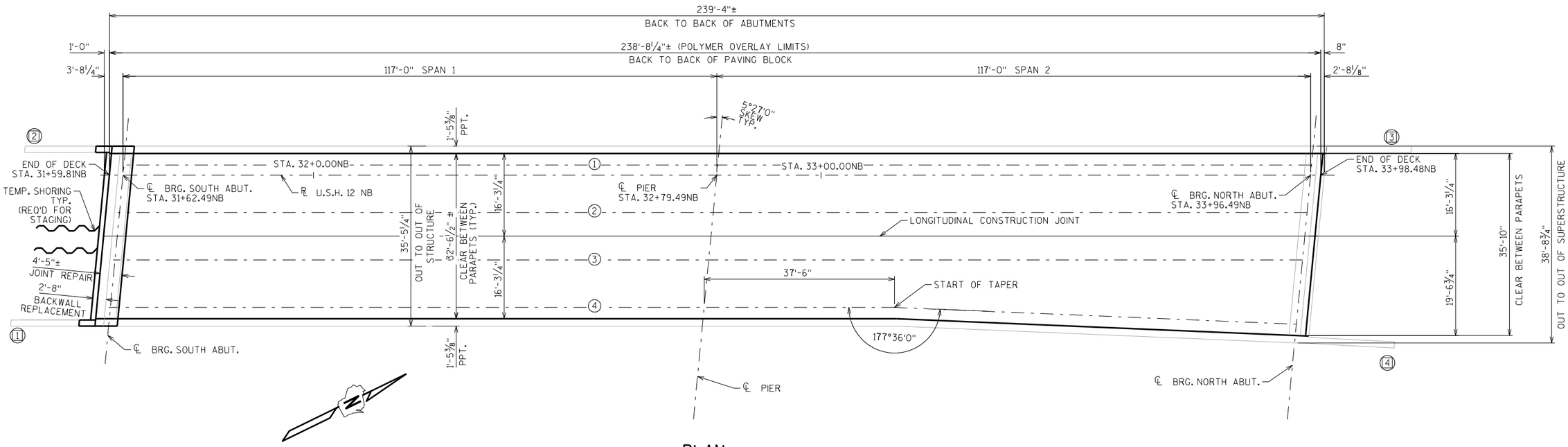


PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	TEMPORARY SIGING	SHEET 117	E

STATE PROJECT NUMBER
1023-03-72

(2) INDICATES WING NUMBER

(1) INDICATES GIRDER NUMBER



PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS AND THE EXISTING METRIC REHABILITATION PLANS.

PAINT COLOR SYSTEM TO BE GRAY, FEDERAL COLOR #26293 OR A SIMILIAR COLOR APPROVED BY THE ENGINEER. ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED. THESE SURFACES INCLUDE, BUT ARE NOT LIMITED TO GIRDERS, DIAPHRAGMS, AND BEARING CONNECTIONS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE NEW PARAPET SECTIONS, INCLUDING PARAPETS ON ABUTMENT WINGS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECFICIATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACES BEFORE APPLICATION. WORK SHALL BE INCIDENTAL TO THE BID ITEM "JOINT REPAIR."

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURAL BACKFILL TYPE A.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP MINIMUM SAWCUT.

ROUGHEN SURFACE OF CONCRETE ¼" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE

STAGE 1 AND STAGE 2 DESIGNATIONS FOR CONSTRUCTION ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT INDICATIVE OF THE ORDER IN WHICH WORK MUST BE PERFORMED. FIELD ENGINEER WILL DETERMINE ORDER IN WHICH WORK WILL BE PERFORMED.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING; HS-17
OPERATIONAL RATING; HS-28
WISCONSIN STADNARD PERMIT VEHICLE LOAD = 200 KIP

MATERIAL PROPERTIES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I.
CONCRETE MASONRY DECK PATCHING — f'c = 4,000 P.S.I.
CONCRETE MASONRY ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC VOLUME

USH 12/STH 27
ADT = 2640 (2013)
RDS = 55 MPH

IH-94
ADT = 27970 (2013)
RDS = 70 MPH

LIST OF DRAWINGS

STRUCTURES DESIGN CONTACTS:

NICK RICE (608) 266-5092
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher AMB 10/12/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-27-33

USH 12/STH 27 OVER IH-94

COUNTY	TOWN ~~CITY/VILLAGE~~
JACKSON	ADAMS

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
REL	NAR	REL	APC

GENERAL PLAN

SHEET 1 OF 8

118

I.D. 1023-03-02A

DATE: FEB 2015

SCALE = 10

8

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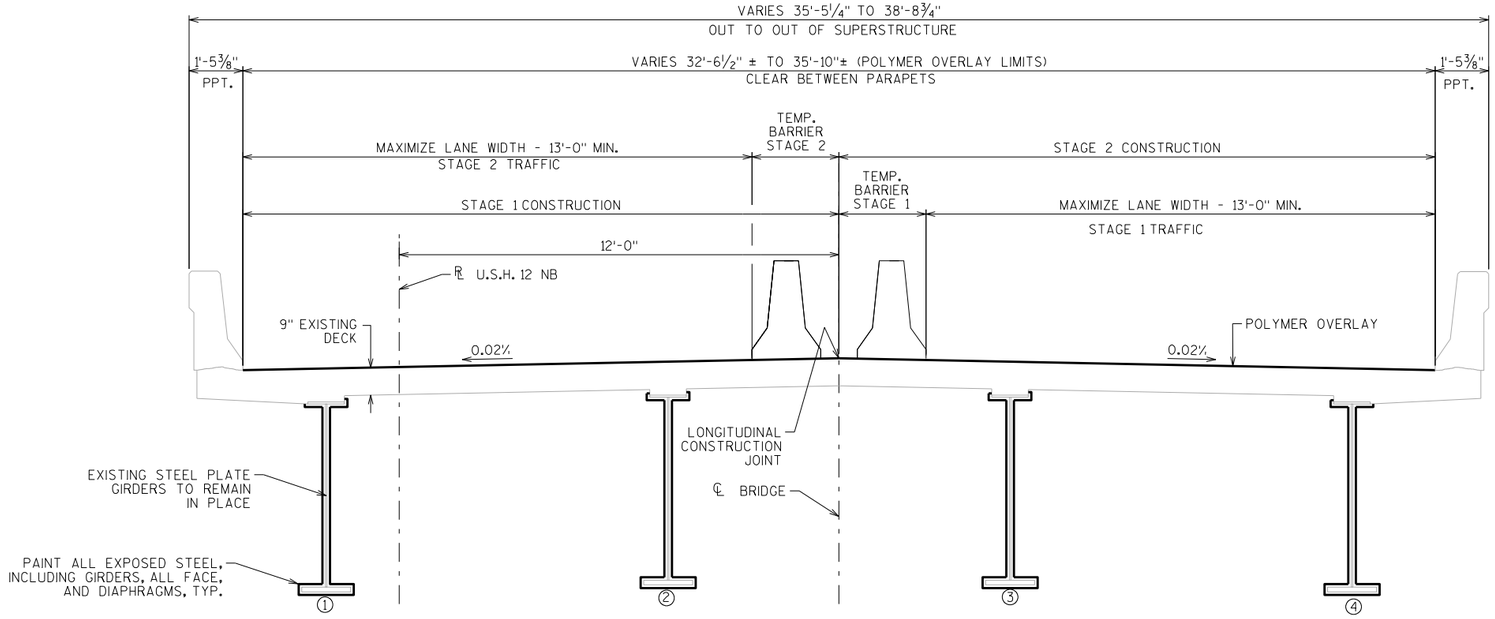
STATE PROJECT NUMBER
1023-03-72



CROSS SECTION THROUGH BRIDGE LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0200	REMOVING OLD STRUCTURE STA. 32'JN'+79.49	LS	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-27-33	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	60
502.0100	CONCRETE MASONRY BRIDGES	CY	18
502.3100	EXPANSION DEVICE B-27-33	LS	1
502.3210	PIGMENTED SURFACE SEALER	SY	6
502.4205	ADHESIVE ANCHORS NO. 5 BARS	EACH	132
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2455
505.0904	BAR COUPLERS NO. 4	EACH	14
505.0905	BAR COUPLERS NO. 5	EACH	13
505.0906	BAR COUPLERS NO. 6	EACH	5
◆ 509.0301	PREPARATION DECKS TYPE 1	SY	1
509.1000	JOINT REPAIR	SY	18
⊠ 509.1500	CONCRETE SURFACE REPAIR	SF	3
509.5100.S	POLYMER OVERLAY	SY	880
511.1200	TEMPORARY SHORING B-27-33	SF	110
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-27-33	LS	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-27-33	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0035	CONCRETE MASONRY DECK PATCHING	CY	1
SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	16
	NON-BID ITEMS		
	BRIDGE SEAT PROTECTION		

◆ PREPARATION DECKS TYPE 1 QUANTITY AND EXACT LOCATION TO BE VERIFED IN THE FIELD BY THE ENGINEER

⊠ CONCRETE SURFACE REPAIR AT SOUTH ABUTMENT. QUANTITY AND EXACT LOCATION TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

CROSS SECTION AND QUANTITIES

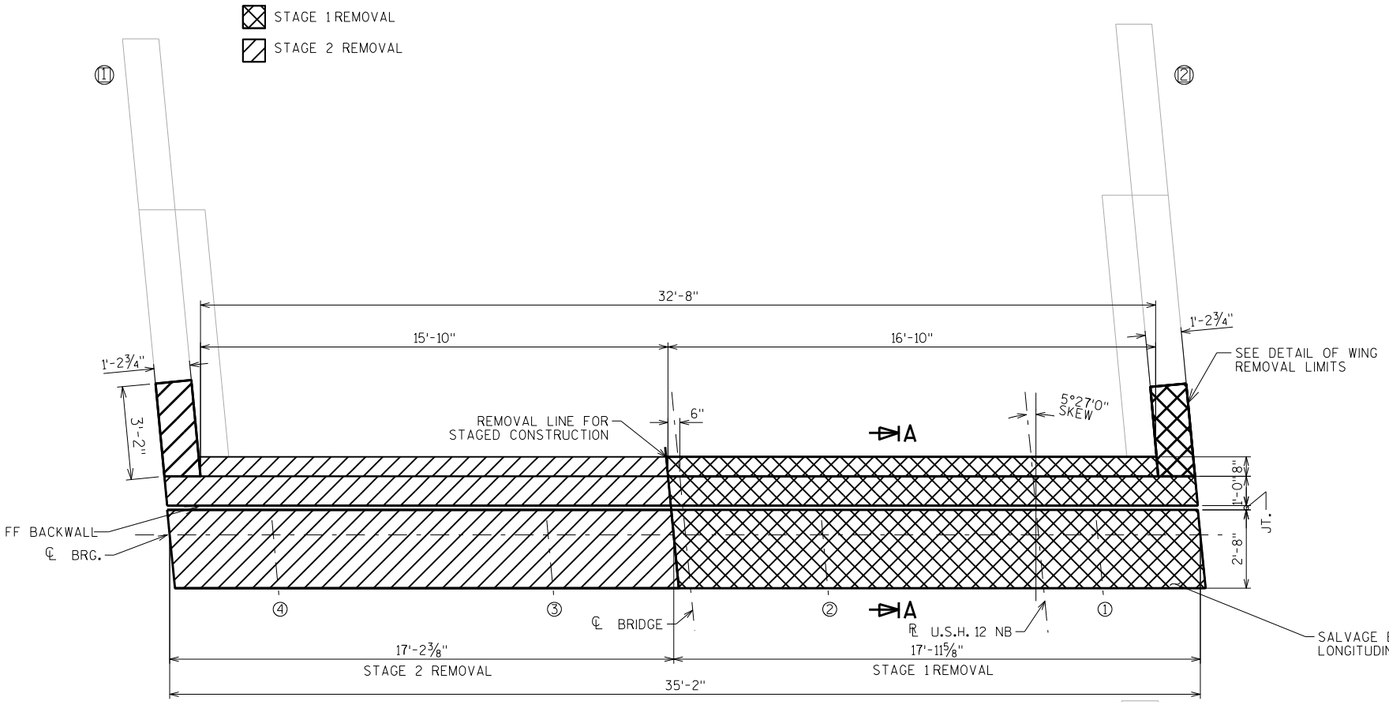
SHEET 2

119

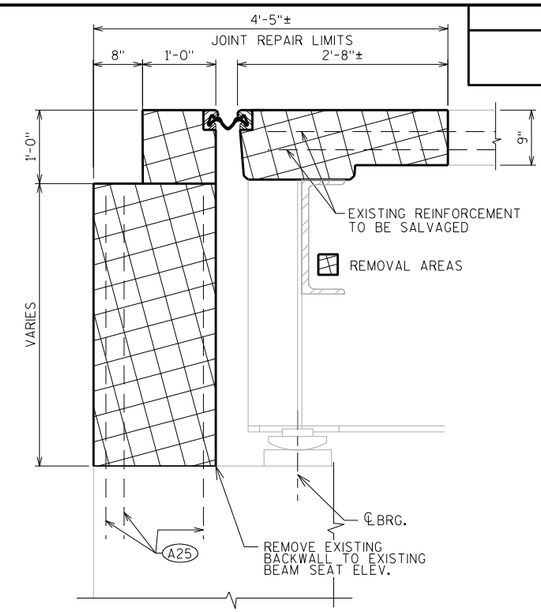
SCALE = 10

STATE PROJECT NUMBER

1023-03-72

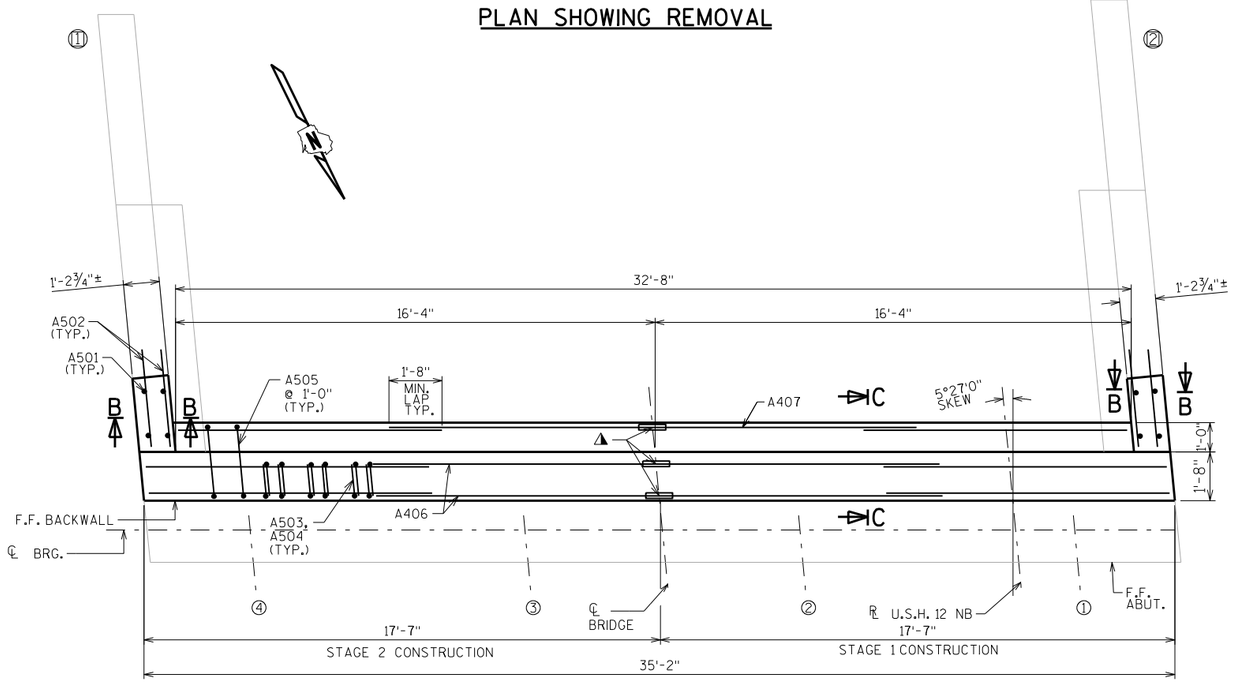


PLAN SHOWING REMOVAL



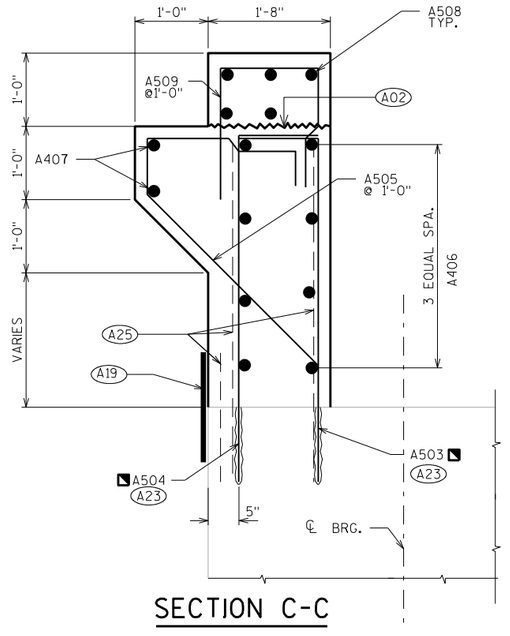
SECTION A-A - REMOVAL LIMITS

THROUGH EXISTING BACKWALL AND DECK



PLAN

⑪ INDICATES WING NUMBER



SECTION C-C

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

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

(A23) ADHESIVE ANCHORS NO. 5 BARS, EMBED 12" IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

△ BAR COUPLERS USED. BAR LENGHTS COMPUTED TO ℄ BRIDGE AND SHALL BE MODIFIED TO BAR COUPLER MANUFACTURER'S RECOMMENDATIONS

◪ NEW ADHESIVE ANCHORS MUST BE SPACED A MINIMUM OF 3¾" AND A MAXIMUM OF 6" FROM EXISTING REINFORCING STEEL. FIELD ADJUST AS NECESSARY TO FIT FIELD CONDITIONS AT THE DISCRETION OF THE FIELD ENGINEER.

FOR DETAILS AND SECTIONS, SEE SOUTH ABUTMENT DETAILS SHEET.
FOR PAVING BLOCK STEEL, SEE JOINT REPAIR SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

SOUTH ABUTMENT

SHEET 3

120

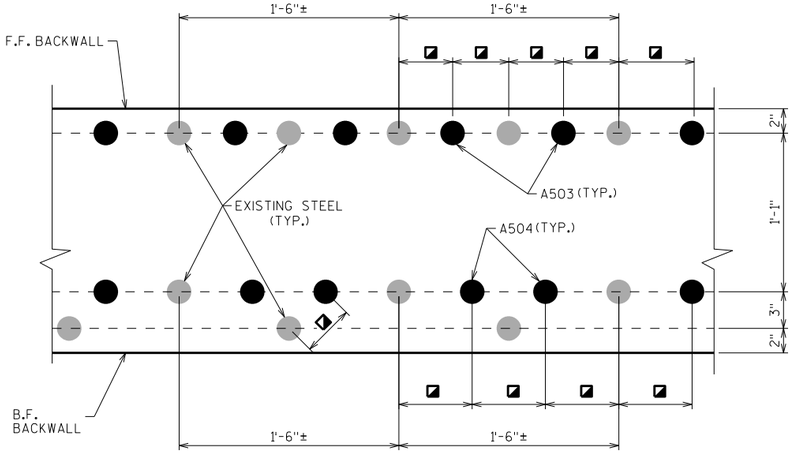
SCALE = 2.5

8

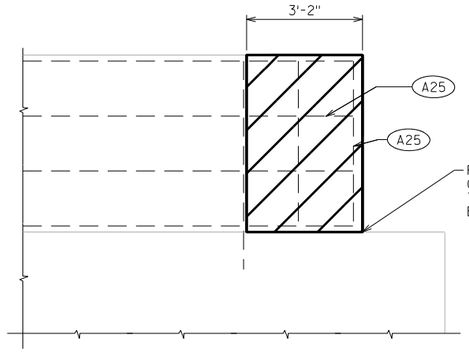
8

STATE PROJECT NUMBER

1023-03-72



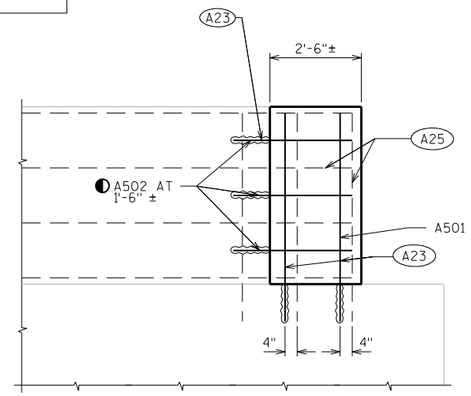
BACKWALL REINFORCING - PLAN VIEW



WING ELEVATION

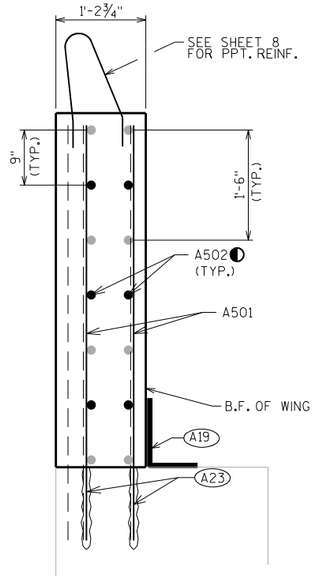
LIMITS OF REMOVAL
(PARAPET NOT SHOWN FOR CLARITY)

IF FEWER THAN HALF OF EXISTING BARS IN BACKWALL ARE SALAVAGED DURING CONCRETE REMOVAL, CONTACT BOS BEFORE PROCEEDING.



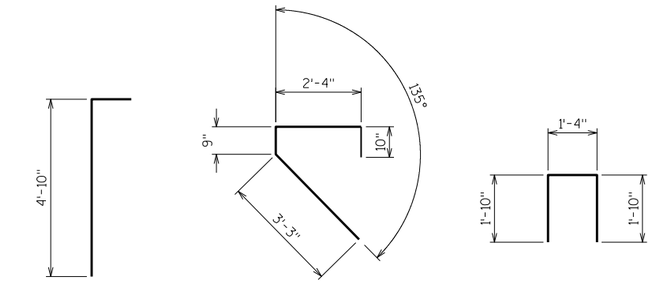
WING ELEVATION

(PARAPET NOT SHOWN FOR CLARITY)



SECTION B-B

(PARAPET NOT SHOWN FOR CLARITY)



A503, A504 A505 A509

BILL OF BARS

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

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
(A23)	A501	X	8	5'-10"			WING WALL VERT
(A23)	A502	X	12	3'-4"			WING WALL HORIZ
(A23)	A503	X	46	5'-10"	X		BACKWALL VERT
(A23)	A504	X	46	5'-10"	X		BACKWALL VERT
	A505	X	33	7'-0"	X		CORBEL STIRRUP
◭	A406	X	32	9'-8"			BACKWALL HORIZ
◭	A407	X	8	9'-2"			CORBEL HORIZ
◭	A508	X	30	7'-0"			PAVING BLOCK HORIZ
	A509	X	35	4'-9"	X		PAVING BLOCK STIRRUP

◭ BAR COUPLERS USED. BAR LENGTHS COMPUTED TO ℄ OF BRIDGE & SHALL BE MODIFIED TO BAR COUPLER MANUFACTURER'S RECOMMENDATIONS

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

(A23) ADHESIVE ANCHORS NO. 5 BARS, EMBED 12" IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

◪ NEW ADHESIVE ANCHORS IN BACKWALL MUST BE SPACED A MINIMUM OF 3¾" AND A MAXIMUM OF 6" FROM ANY EXISTING REINFORCING STEEL. FIELD ADJUST AS NECESSARY TO FIT FIELD CONDITIONS AT THE DISCRETION OF THE FIELD ENGINEER.

◐ PLACE ADHESIVE ANCHORS BETWEEN EXISTING SALVAGED STEEL AT APPROXIMATELY 18" O.C.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

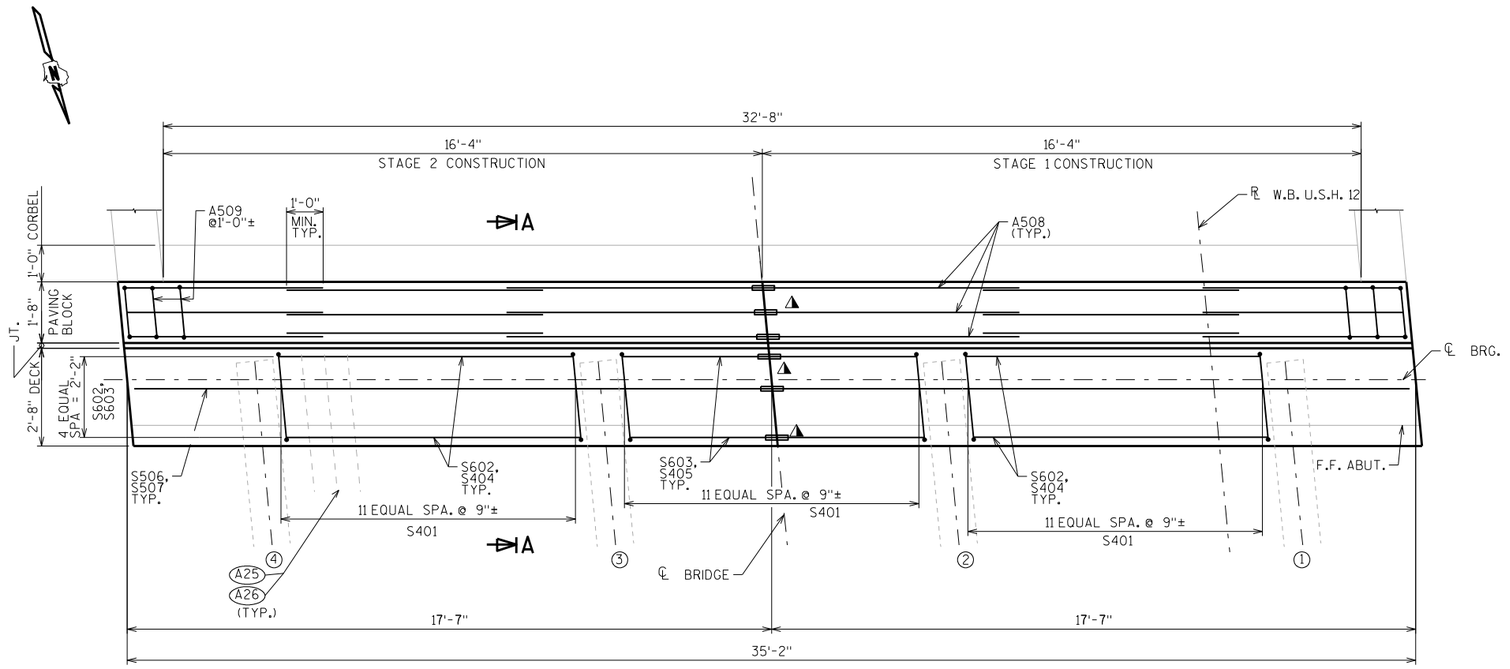
SOUTH ABUTMENT DETAILS

SHEET 4

121

SCALE = 2

STATE PROJECT NUMBER
1023-03-72



PLAN - DECK AT SOUTH ABUTMENT

STEEL COVER PLATES CAPABLE OF SUPPORTING TRAFFIC SHALL BE PLACED OVER JOINT REPAIR WORK WHEN CONTRACTOR IS NOT ACTIVELY WORKING ON THE JOINT REPAIR. PLATES ARE ONLY REQUIRED WITHIN 18'-0" LATERALLY OF THE CLOSEST LIVE LANE OF TRAFFIC AND SHALL BE INCEDENTAL TO THE BID ITEM "JOINT REPAIR."

SEE EXPANSION DEVICE SHEET FOR SECTIONS AND DETAILS.
SEE PARAPET LF SHEET FOR SECTIONS AND DETAILS.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED 12" IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

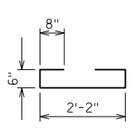
(A26) IF EXISTING LONGITUDINAL BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH "MASONRY ANCHORS TYPE L #5 BAR" EMBEDDED 1'-3" MIN. USE #5 COATED REBAR. THIS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "REMOVING OLD STRUCTURE."

BILL OF BARS

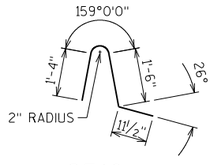
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	36	4'-2"	X		JT. DIAPHRAGM STIRRUPS
	S602	X	10	8'-0"			JT. DIAPHRAGM BOT. BTWN G1&G2, G3&G4
◭	S603	X	10	4'-0"			JT. DIAPHRAGM BOT. BTWN G2&G3
	S404	X	4	8'-0"			JT. DIAPHRAGM TOP BTWN G1&G2, G3&G4
◭	S405	X	4	4'-0"			JT. DIAPHRAGM TOP BTWN G2&G3
◭	S506	X	8	17'-5"			DECK BOT.
◭	S507	X	8	17'-5"			DECK TOP
	S408	X	4	8'-0"			EXPANSION DEVICE BTWN G1&G2, G3&G4
◭	S409	X	4	4'-0"			EXPANSION DEVICE BTWN G2&G3
	S510	X	8	4'-3"	X		PARAPET VERT.
	S511	X	8	4'-10"	X		PARAPET STIRRUP
(A23)	S512	X	10	3'-6"			PARAPET HORIZONTAL

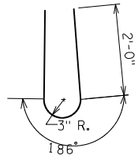
◭ BAR COUPLERS USED. BAR LENGTHS COMPUTED TO ℄ OF LONGITUDINAL JOINT & SHALL BE MODIFIED TO BAR COUPLER MANUFACTURER'S RECOMMENDATIONS.



S401



S510



S511

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

JOINT REPAIR

SHEET 5

122

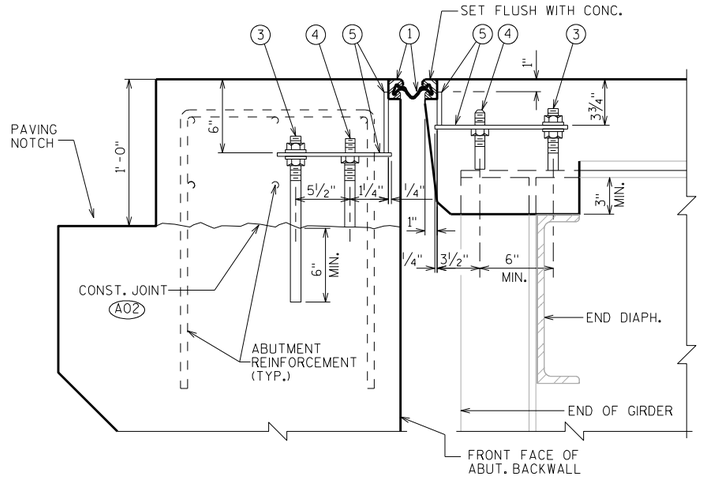
SCALE = 2

8

8

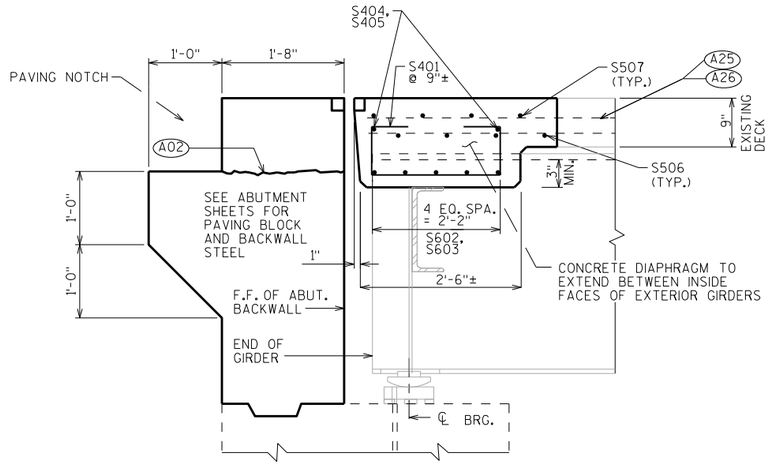
STATE PROJECT NUMBER

1023-03-72



SECTION THRU JOINT AT STEEL GIRDER

NORMAL TO ℄ SUBSTRUCTURE



SECTION A-A

TYP. DECK AND DIAPH. AT ABUT.

LEGEND

(1) NEOPRENE STRIP SEAL (4- INCH) & STEEL EXTRUSIONS.

(2) STUDS $\frac{5}{8}$"Φ X $6\frac{3}{8}$" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) $\frac{1}{2}$" THICK ANCHOR PLATE WITH $\frac{5}{8}$"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) $\frac{3}{4}$" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) $\frac{3}{4}$"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" X $\frac{1}{2}$" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE $1\frac{1}{2}$" Φ HOLE FOR NO. 3 & 1" Φ HOLE FOR NO. 4.

(6) GALVANIZED PLATE $\frac{3}{8}$" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7

(7) $\frac{3}{4}$"Φ X $1\frac{1}{2}$" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUTNERSUNK HOLES. RECESS $\frac{1}{16}$" BELOW PLATE SURFACE.

(8) $\frac{3}{4}$"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

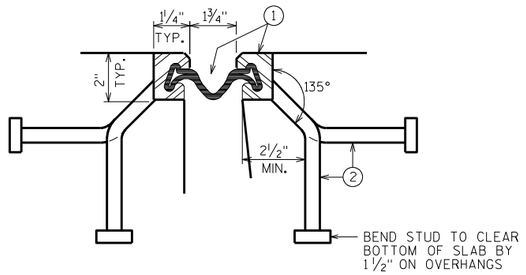
(9) $\frac{3}{4}$"Φ X $2\frac{1}{4}$" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR #7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

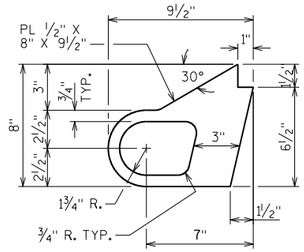
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING LONGITUDINAL BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH "MASONRY ANCHORS TYPE L #5 BAR" EMBEDDED 1'-3" MIN. USE #5 COATED REBAR. THIS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "REMOVING OLD STRUCTURE."

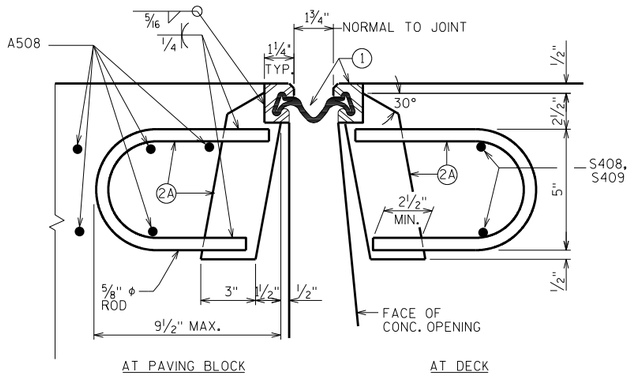


SECTION THRU JOINT

EXTERIOR GIRDER CENTER TO EDGE OF SLAB & AT PARAPETS

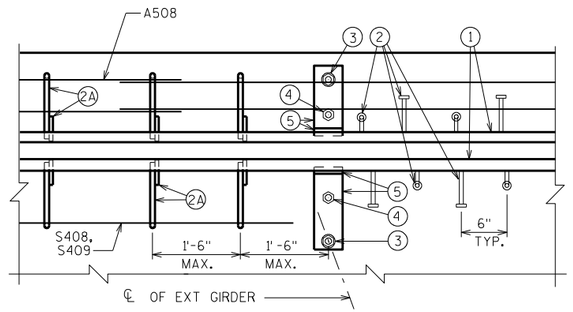


ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING, OR GALVANIZING. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-27-33".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

EXPANSION DEVICE

SHEET 6

123

SCALE = 1

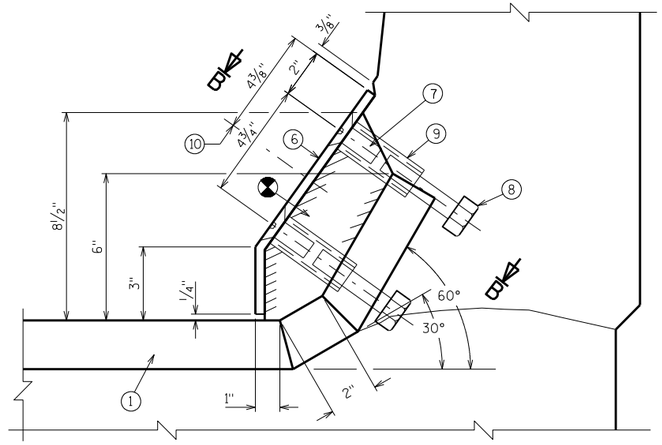
JT400SS
10-08

8

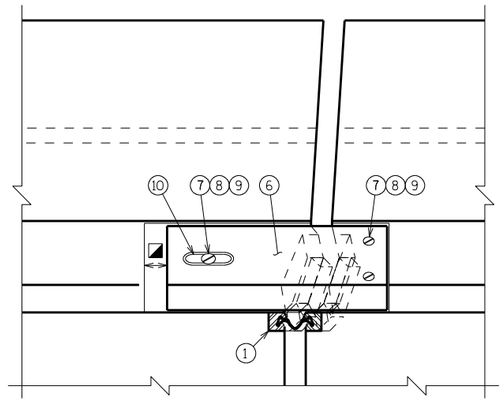
8

STATE PROJECT NUMBER

1023-03-72

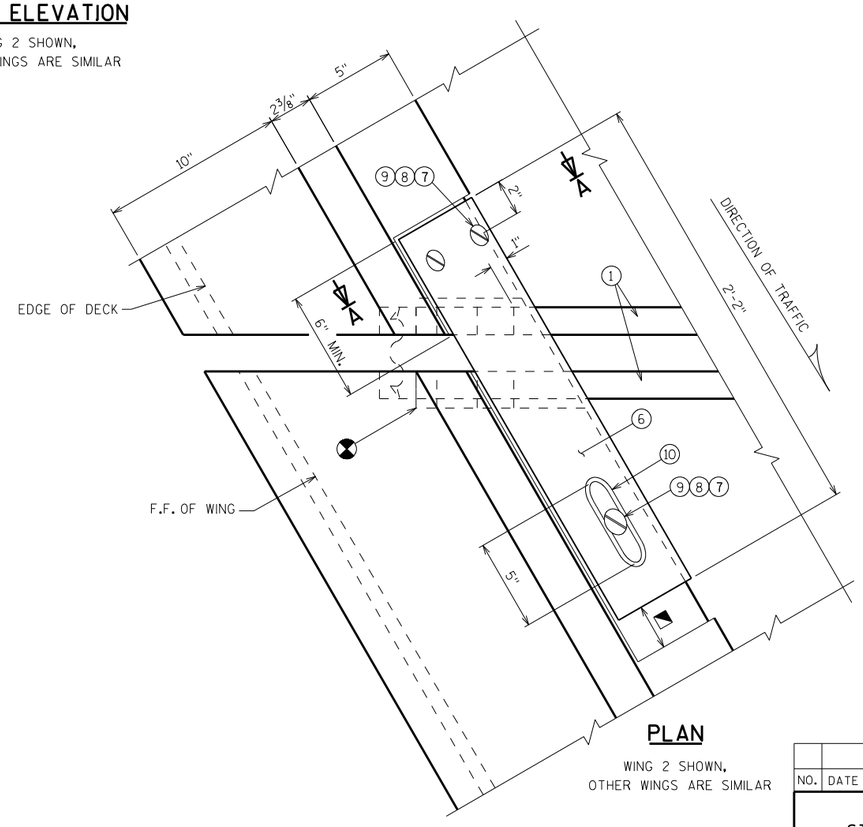


SECTION A-A



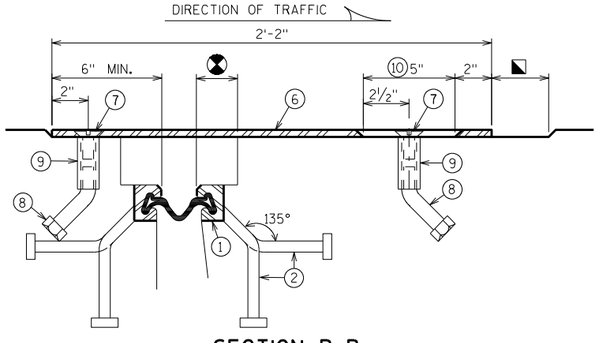
INSIDE ELEVATION

WING 2 SHOWN,
OTHER WINGS ARE SIMILAR



PLAN

WING 2 SHOWN,
OTHER WINGS ARE SIMILAR



SECTION B-B

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

COVER PLATE DETAILS

SHEET 7

124

8

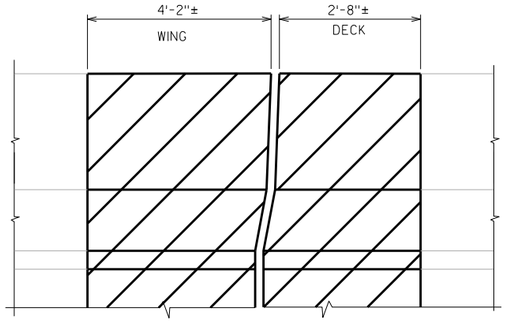
8

SCALE = 1

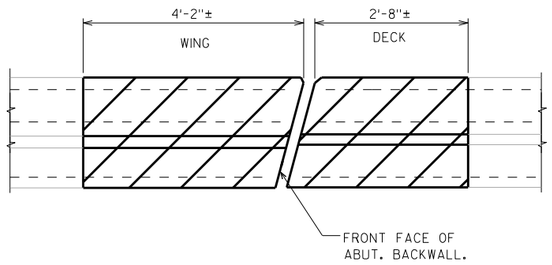
10-08

STATE PROJECT NUMBER

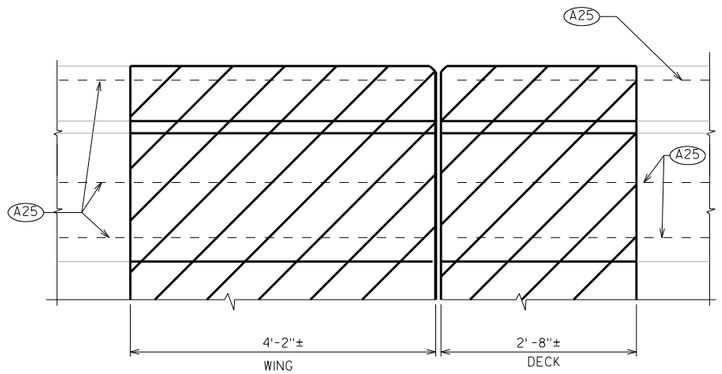
1023-03-72



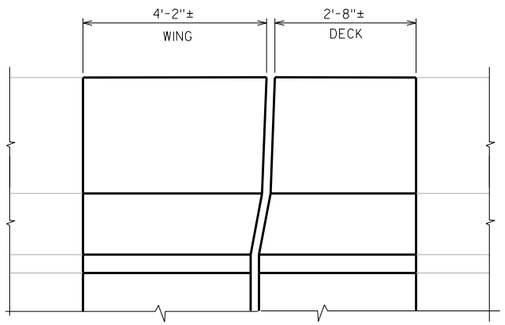
INSIDE ELEVATION - LIMITS OF REMOVAL



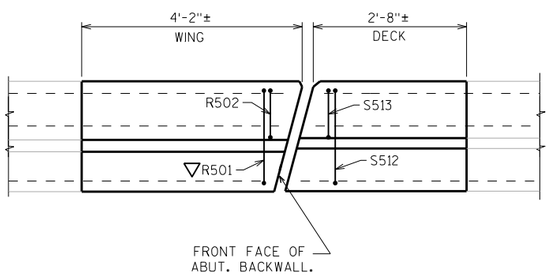
PLAN - LIMITS OF REMOVAL



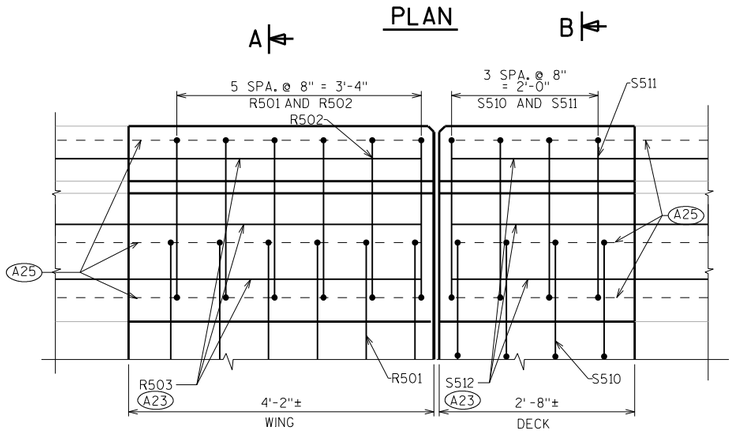
OUTSIDE ELEVATION - LIMITS OF REMOVAL



INSIDE ELEVATION



PLAN

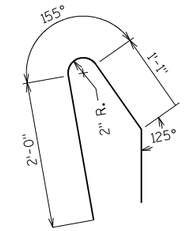


OUTSIDE ELEVATION

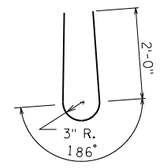
BILL OF BARS

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

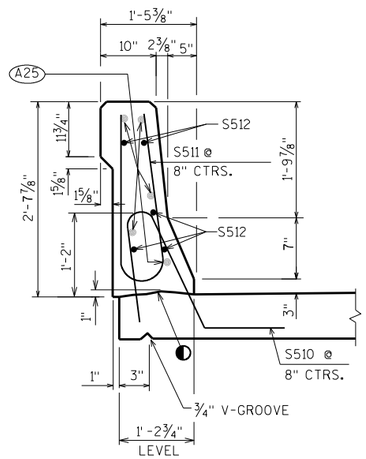
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	R501	X	12	4'-7"	X		PARAPET VERT.
	R502	X	12	4'-10"	X		PARAPET VERT.
A23	R503	X	10	5'-0"			PARAPET HORIZ. ON WING



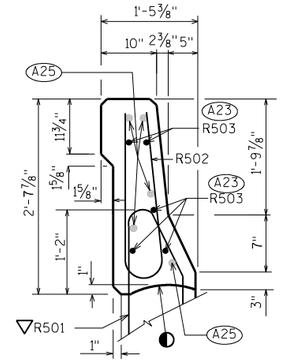
R501



R502



SECTION B-B



SECTION A-A

A23 ADHESIVE ANCHORS NO. 5 BARS, EMBED 12" IN CONCRETE.

A25 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-33

DRAWN BY REL | PLANS CK'D. APC

SLOPED FACE PARAPET LF

SHEET 8

125

SCALE = 1

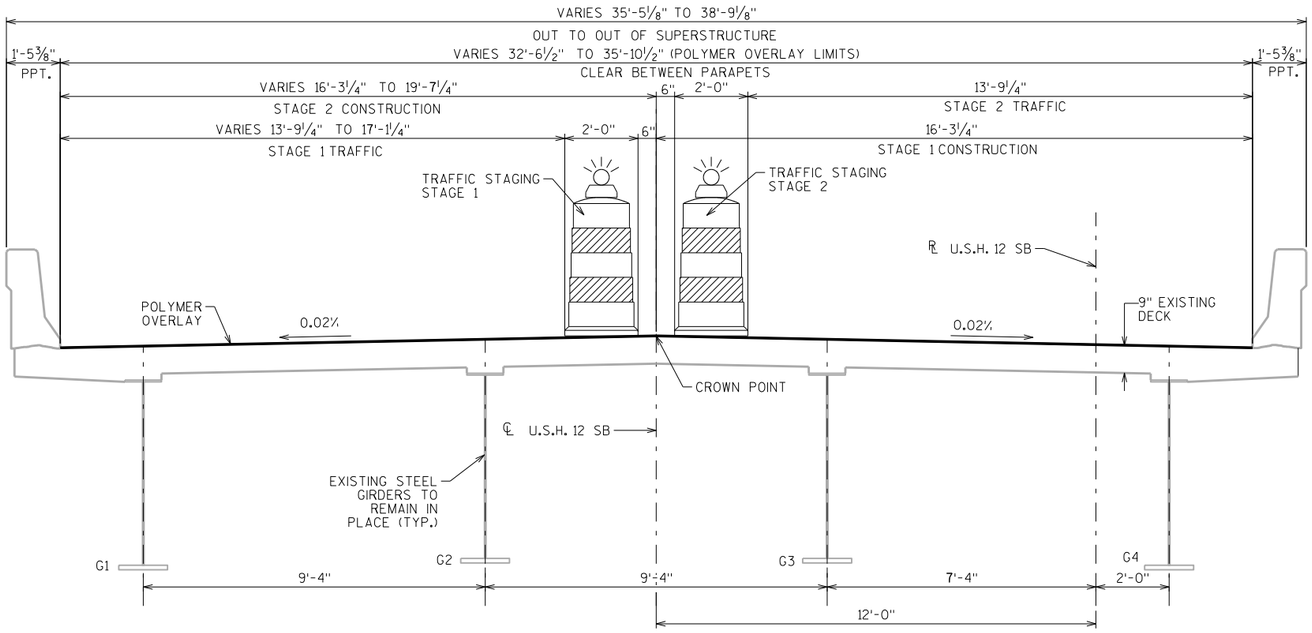
LFWIN
1-14

8

8

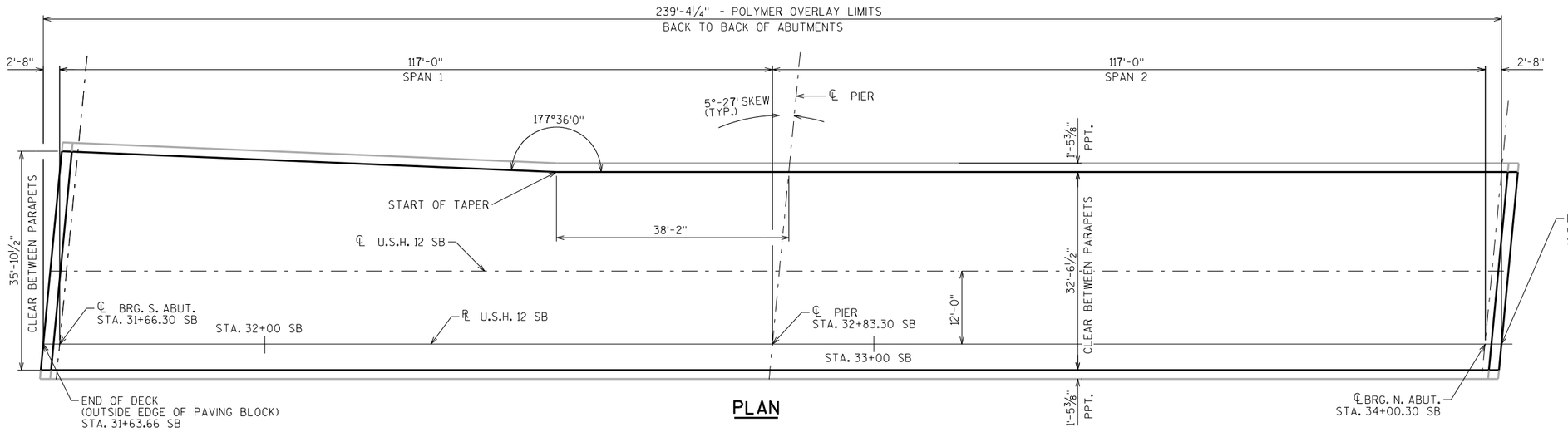
STATE PROJECT NUMBER

1023-03-72



CROSS SECTION THRU BRIDGE

(LOOKING NORTH)



PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS AND THE EXISTING METRIC REHAB PLANS.

STAGE 1 AND STAGE 2 DESIGNATIONS FOR CONSTRUCTION ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT INDICATIVE OF THE ORDER IN WHICH WORK MUST BE PERFORMED. FIELD ENGINEER WILL DETERMINE ORDER IN WHICH WORK SHALL BE PERFORMED

PAINT COLOR SYSTEM TO BE GRAY, FEDERAL COLOR #26293 OR A SIMILAR COLOR APPROVED BY THE ENGINEER. PAINT ENTIRE SUPERSTRUCTURE.

AREAS OF "PREPARATION DECKS TYPE I" SHALL BE DETERMINED BY FIELD ENGINEER

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-17
OPERATIONAL RATING: HS-28
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 202.2 KIPS

TRAFFIC VOLUME

USH 12/STH 27	IH 94
A.D.T. = 2640 (2013)	A.D.T. = 27970 (2013)
R.D.S. = 55 MPH	R.D.S. = 70 MPH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.5100.S	POLYMER OVERLAY	SY	881
517.1800.S	STRUCTURAL REPAINTING RECYCLED ABRASIVE B-27-34	LS	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1

LIST OF DRAWINGS

1. POLYMER OVERLAY

STRUCTURES DESIGN CONTACTS:
RITA LEDERLE (608) 261-6113
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 10/12/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-27-34

USH 12/STH 27 OVER IH-94

COUNTY	TOWN
JACKSON	ADAMS

DESIGN SPEC. REHABILITATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
REL	JJS	REL	JJS

POLYMER OVERLAY

SHEET 1 OF 1

126

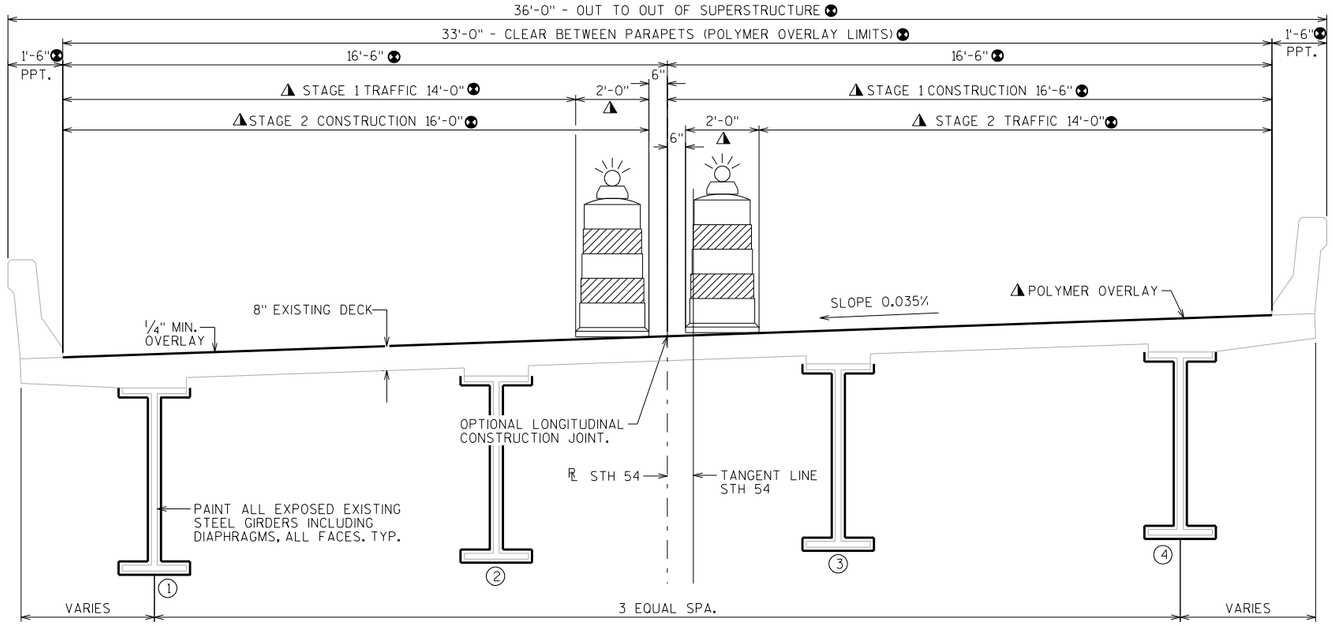
I.D. 1023-03-02B

DATE: NOV 2014

SCALE = 10

8

8



CROSS SECTION THROUGH ROADWAY

(LOOKING EAST)

MEASURED RADIALLY

DESIGN DATA

LIVE LOAD:

INVENTORY RATING: HS-18
OPERATING RATING: HS-30
MAXIMUM STANDARD PERMIT VEHICLE LOAD =135 (KIPS)

MATERIAL PROPERTIES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I.
CONCRETE MASONRY DECK PATCHING — f'c = 4,000 P.S.I.
CONCRETE MASONRY ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

TRAFFIC DATA

STH 54	IH 94
A.D.T. = 13,110 (2013)	A.D.T. = 26,150 (2013)
R.D.S. = 45 MPH	R.D.S. = 70 MPH

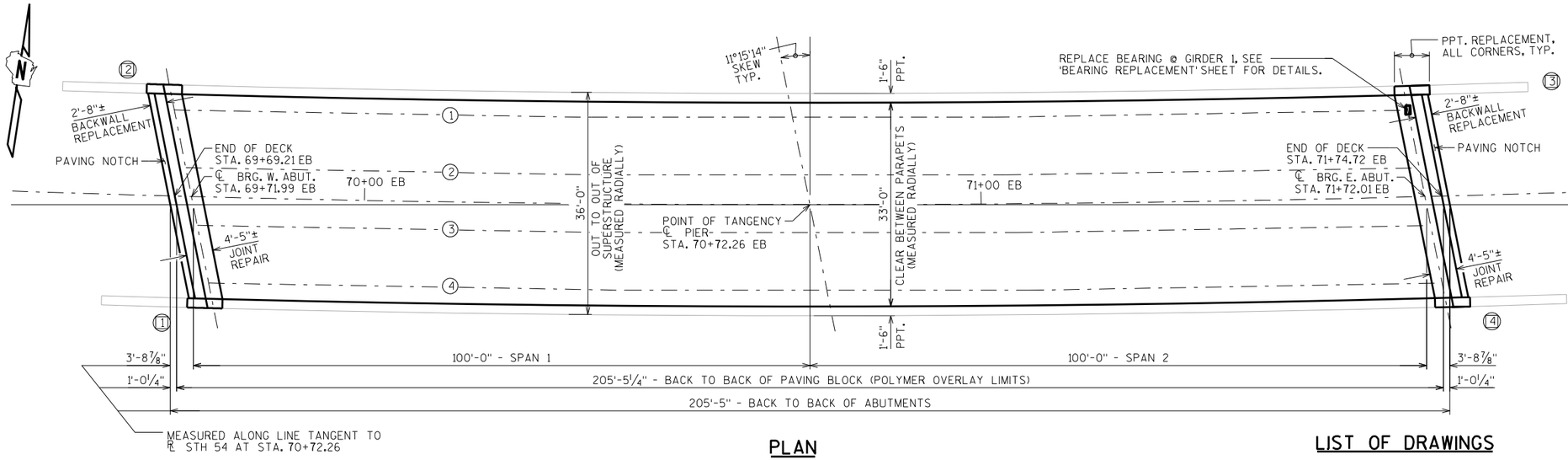
CURVE DATA

STH 54

P.I. = 66+42.01
Δ = 48°-53'-15"
D = 1°-30' L.T.
T = 1736.22'
L = 3259.17'
R = 3819.72'
S.E. = .035%

STATE PROJECT NUMBER

1023-03-72



PLAN

INDICATES WING NUMBER
INDICATES GIRDER NUMBER
POLYMER OVERLAY TO BE STAGED

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:

MAX KULICK (608) 261-6108
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher 10/12/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-27-45

STH 54 OVER IH 94

COUNTY	TOWN/~~CITY/VILLAGE~~
JACKSON	BROCKWAY

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
REL	MJK	REL	MJK/EMK

GENERAL PLAN

SHEET 1 OF 13

127

I.D. 1023-03-02C

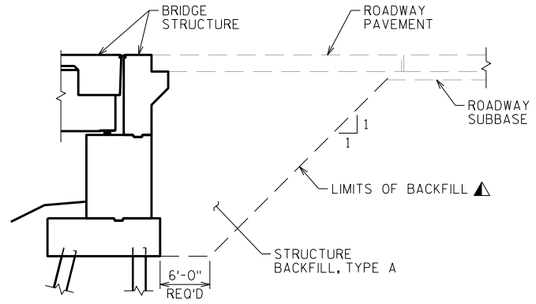
DATE: MAR 2015

SCALE = 10

8

8

STATE PROJECT NUMBER
1023-03-72



TYPICAL SECTION THRU ABUTMENT

(A3 ABUTMENT WITHOUT STRUCTURAL APPROACH)

◭ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
	203.0200	REMOVING OLD STRUCTURE STA. 69+71.99	LS	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-27-45	LS	1
	210.1500	BACKFILL STRUCTURE TYPE A	TON	172
◈	502.0100	CONCRETE MASONRY BRIDGES	CY	32
	502.3100	EXPANSION DEVICE B-27-45	LS	1
	502.3210	PIGMENTED SURFACE SEALER	SY	9
	502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	32
	502.4205	ADHESIVE ANCHOR NO. 5 BAR	EACH	232
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5060
	506.6000	BEARING ASSEMBLIES EXPANSION B-27-45	EACH	1
■	509.0301	PREPARATION DECKS TYPE 1	SY	2
■	509.0302	PREPARATION DECKS TYPE 2	SY	1
	509.1000	JOINT REPAIR	SY	42
◐■	509.1500	CONCRETE SURFACE REPAIR	SF	80
	509.2000	FULL-DEPTH DECK REPAIR	SY	1
◭	509.5100.S	POLYMER OVERLAY	SY	753
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	15
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-27-45	LS	1
	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-27-45	LS	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
☆	SPV.0035	CONCRETE MASONRY DECK PATCHING	CY	1
	SPV.0060	BEARING MAINTENANCE B-27-45	EACH	7
	SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	64
		NON-BID ITEMS		
		BRIDGE SEAT PROTECTION	LS	1

■ QUANTITIES AND EXACT LOCATIONS TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

◈ BID ITEM INCLUDES CONCRETE FOR JOINT REPAIR.

◐ AT EAST ABUTMENT BODY, CONCRETE SURFACE REPAIR TO EXTEND A MINIMUM OF 6" ON EITHER SIDE OF LARGE CRACK, AS DIRECTED BY FIELD ENGINEER.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE NEWLY CAST PORTIONS OF THE FRONT FACE AND THE TOP OF THE PARAPET, INCLUDING PARAPETS ON ABUTMENT WINGS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES. POWER WASH AND ADEQUATELY DRY SURFACE BEFORE APPLICATION. WORK SHALL BE INCIDENTAL TO THE BID ITEM "JOINT REPAIR."

PAINT COLOR SYSTEM TO BE GRAY, FEDERAL COLOR #26293 OR A SIMILAR COLOR APPROVED BY THE ENGINEER. ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED. THESE SURFACES INCLUDE, BUT ARE NOT LIMITED TO GIRDERS, DIAPHRAGMS, AND BEARING CONNECTIONS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND EXISTING DECK REPLACEMENT PLANS.

AT THE BACKFACE OF ABUTMENT, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP MINIMUM SAW CUT.

ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM AT ALL AREAS WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY."

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY SAWCUT.

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

◭ POLYMER OVERLAY TO BE STAGED.

STAGE 1 AND STAGE 2 DESIGNATIONS FOR CONSTRUCTION ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT INDICATIVE OF THE ORDER IN WHICH WORK MUST BE PERFORMED. FIELD ENGINEER WILL DETERMIN ORDER IN WHICH WORK SHALL BE PERFORMED.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

QUANTITIES & NOTES

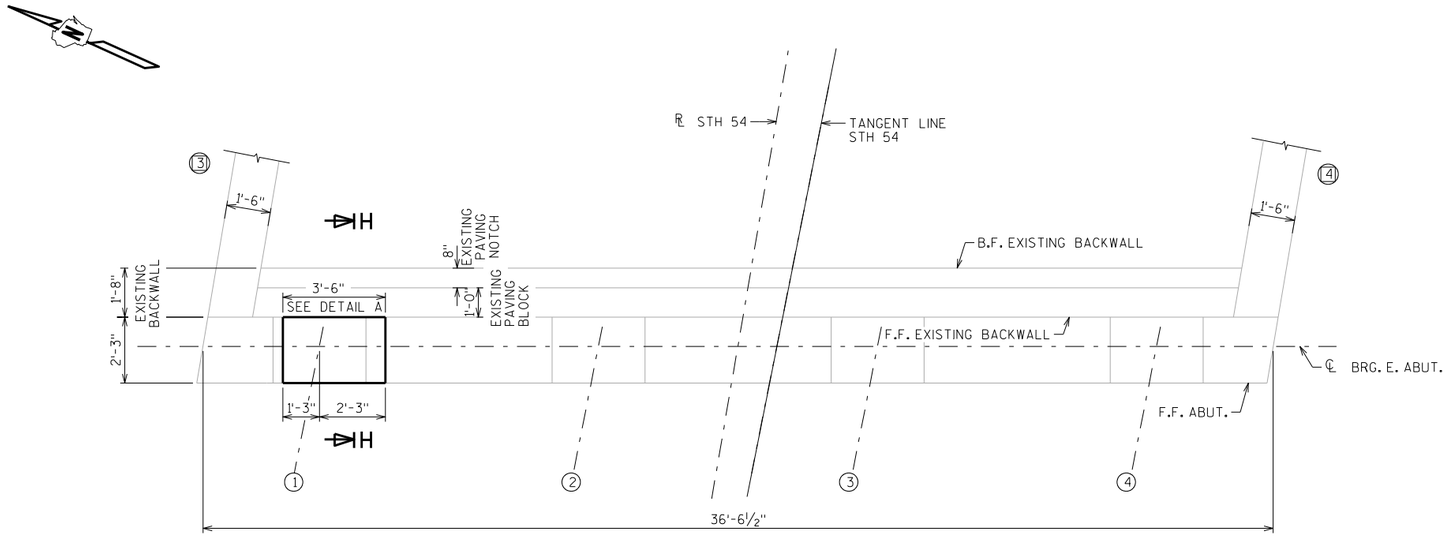
SHEET 2

128

SCALE = 2

STATE PROJECT NUMBER

1023-03-72



PLAN

BEAM SEAT REPAIR NOTES

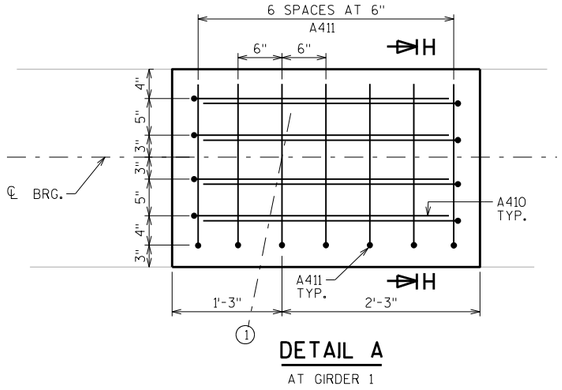
◪ DEPTH OF REPAIR MUST EXTEND DOWN TO SOUND CONCRETE OR 5", WHICHEVER IS GREATER.

IF SOUND CONCRETE IS MORE THAN 5" BELOW TOP OF BEAM SEAT, LENGTH OF A410 BARS MUST BE CHANGED TO MAINTAIN 12" MIN EMBEDMENT AND 2½" CLEAR COVER ON TOP.

FINAL ELEVATION OF REPAIRED BEAM SEAT MUST MATCH EXISTING BEAM SEAT ELEVATION. WHERE THE REPAIR EXTENDS SLIGHTLY BEYOND THE EXISTING BEAM SEAT LOCATION, IT WILL BE PERMITTED FOR THE ENTIRE REPAIR AREA TO HAVE THE SAME ELEVATION AS THE EXISTING BEAM SEAT.

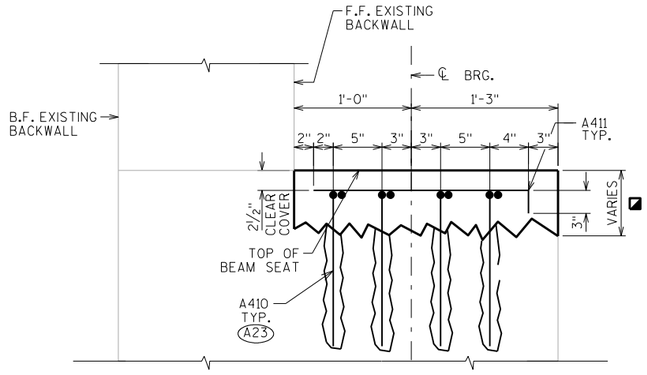
REPAIR BEAM SEATS WHILE GIRDERS ARE LIFTED AND BEARINGS ARE REMOVED FOR BEARING MAINTENANCE. LIFTING OF THE GIRDERS AND BEARING REMOVAL IS INCIDENTAL TO THE BID ITEM "BEARING MAINTENANCE B-27-45."

COMPLETE BEAM SEAT REPAIRS PRIOR TO BACKWALL REMOVAL AND REPLACEMENT



DETAIL A

AT GIRDER 1



SECTION H-H

A23 ADHESIVE ANCHORS NO. 4 BARS, EMBED 1'-0" MIN. IN CONCRETE.

◯ INDICATES GIRDER NUMBER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

EAST ABUTMENT BEAM SEAT REPAIR

SHEET 3

129

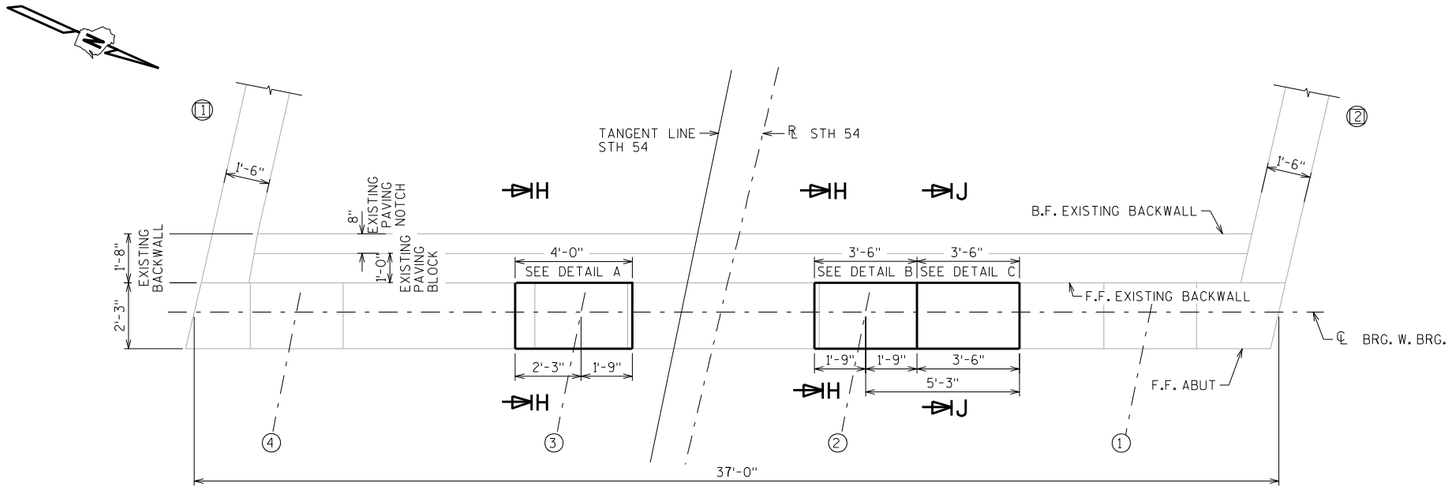
SCALE = 2.5

8

8

STATE PROJECT NUMBER

1023-03-72



PLAN

BEAM SEAT REPAIR NOTES

◪ DEPTH OF REPAIR MUST EXTEND DOWN TO SOUND CONCRETE OR 5", WHICHEVER IS GREATER.

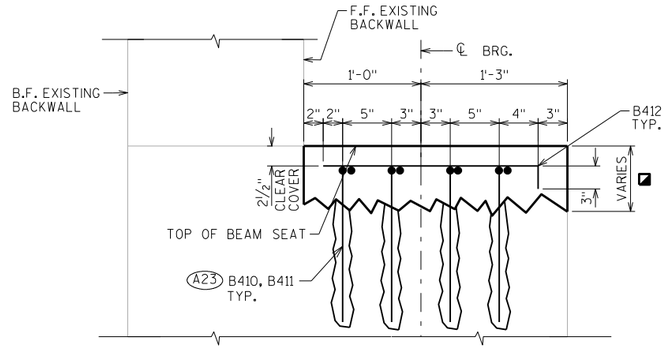
IF SOUND CONCRETE IS MORE THAN 5" BELOW TOP OF BEAM SEAT, LENGTH OF B410 AND B411 BARS MUST BE CHANGED TO MAINTAIN 12" MIN EMBEDMENT AND 2½" CLEAR COVER ON TOP.

FINAL ELEVATION OF REPAIRED BEAM SEAT MUST MATCH EXISTING BEAM SEAT ELEVATION. WHERE THE REPAIR EXTENDS SLIGHTLY BEYOND THE EXCISING BEAM SEAT LOCATION, IT WILL BE PERMITTED FOR THE ENTIRE REPAIR AREA TO HAVE THE SAME ELEVATION AS THE EXISTING BEAM SEAT.

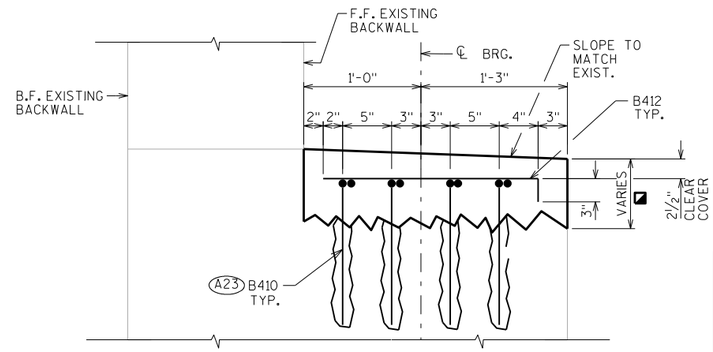
FINAL ELEVATION OF THE REPAIRED AREA ADJACENT TO THE BEAM SEAT MUST MATCH THE EXISTING SLOPE OF THAT AREA.

REPAIR BEAM SEATS WHILE GIRDERS ARE LIFTED AND BEARINGS ARE REMOVED FOR BEARING MAINTENANCE. LIFTING OF THE GIRDERS AND BEARING REMOVAL IS INCIDENTAL TO THE BID ITEM "BEARING MAINTENANCE B-27-45."

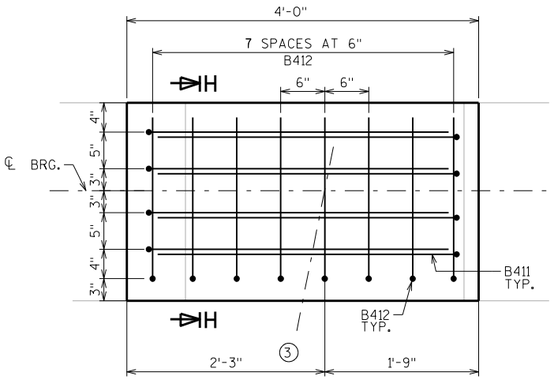
COMPLETE BEAM SEAT REPAIRS PRIOR TO BACKWALL REMOVAL AND REPLACEMENT.



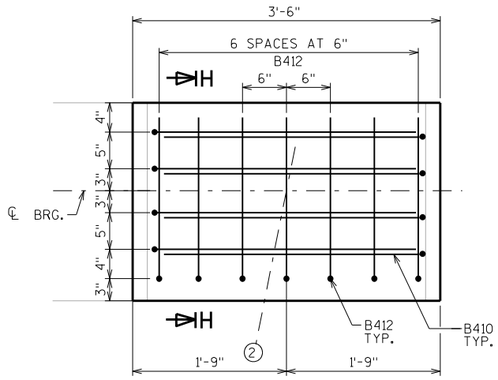
SECTION H-H



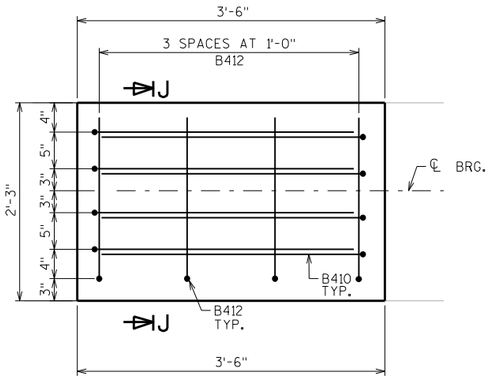
SECTION J-J



DETAIL A
AT GIRDER 3



DETAIL B
AT GIRDER 2



DETAIL C
ADJACENT TO GIRDER 2

○ INDICATES GIRDER NUMBER

A23 ADHESIVE ANCHORS NO. 4 BARS, EMBED 1'-0" MIN. IN CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

WEST ABUTMENT BEAM SEAT REPAIR

SHEET 4

130

SCALE = 2.5

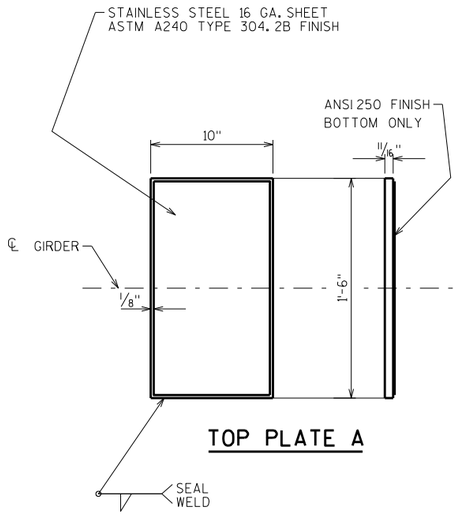
8

8

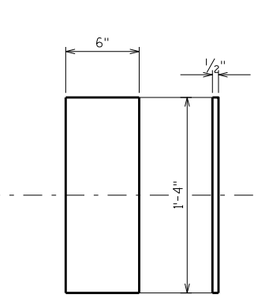
REPLACE BEARING GIRDER 1, EAST ABUTMENT

STATE PROJECT NUMBER

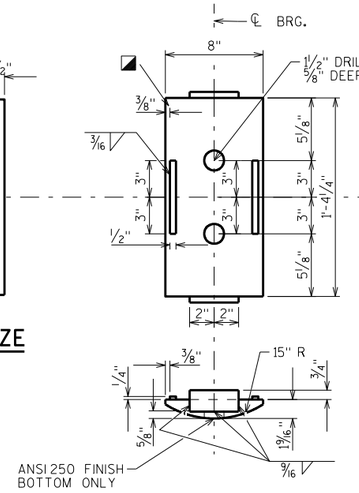
1023-03-72



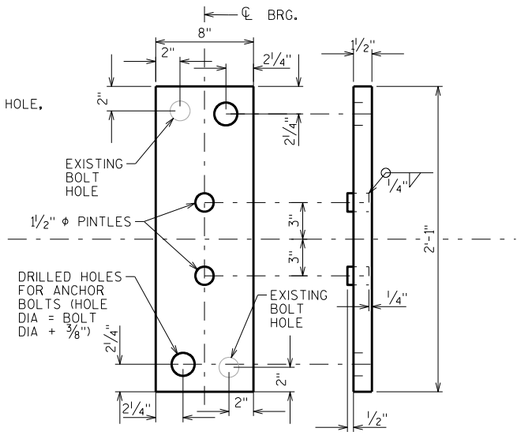
TOP PLATE A



LUBRICATED BRONZE
PLATE B



ROCKER PLATE C



MASONRY PLATE D

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING (EXCEPT ANCHOR HOLES IN MASONRY PLATE D).

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH 1'-10 FOR 1½" ϕ BOLTS. PROJECT ANCHOR BOLTS 3¾" ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES ⅛". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS BUT EXCLUDING ANCHOR BOLTS, PINTLES, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-27-45", EACH.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED.

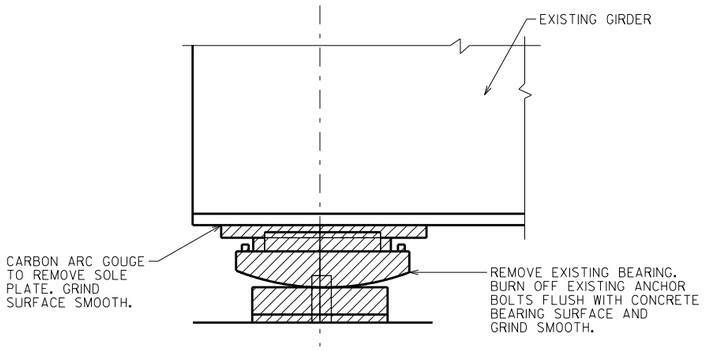
AT INSTALLATION, ENSURE SLIDING FACE OF THE TOP PLATE A AND THE SLIDING FACE OF PLATE B HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

PROVIDE ⅛" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

IF REQUIRED, PLACE SHIM PLATES BETWEEN BEARING PAD AND MASONRY PLATE "D". PLATES SHALL HAVE THE SAME DIMENSIONS AS MASONRY PLATE "D".

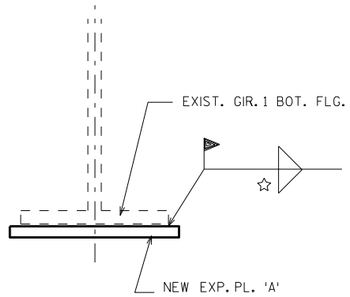
REPLACE BEARING AFTER BEAM SEAT HAS BEEN REPAIRED AND WHILE THE BRIDGE IS RAISED FOR WORK UNDER BID ITEM "BEARING MAINTENANCE B-27-45." THE COST OF LIFTING THE BRIDGE IS INCIDENTAL TO THE BID ITEM "BEARING MAINTENANCE B-27-45." THE COST OF REMOVING THE EXISTING BEARING AT GIRDER LINE 1 ON THE EAST ABUTMENT IS INCIDENTAL TO THE BID ITEM "BEARING ASSEMBLIES EXPANSION B-27-45."

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.



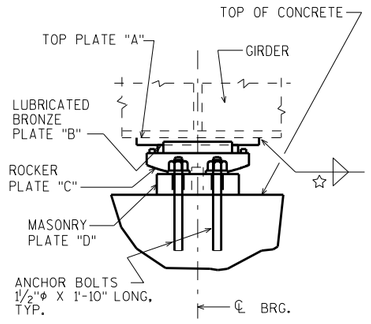
EXPANSION BEARING REMOVAL

(GIRDER 1 @ EAST ABUTMENT)



BEARING REPLACEMENT DETAIL

(GIRDER 1 @ EAST ABUTMENT)



BEARING ASSEMBLY

(GIRDER 1 @ EAST ABUTMENT)

☆TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	ǂ MIN. SIZE OF FILLET WELD
TO ½" INCLUSIVE	3/16"
OVER ½" TO ¾"	¼"
OVER ¾" TO 1½"	△ 5/16"
OVER 1½" TO 2¼"	△ ⅜"
OVER 2¼" TO 6"	△ ½"

ǂ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

BEARING REPLACEMENT

SHEET 5

131

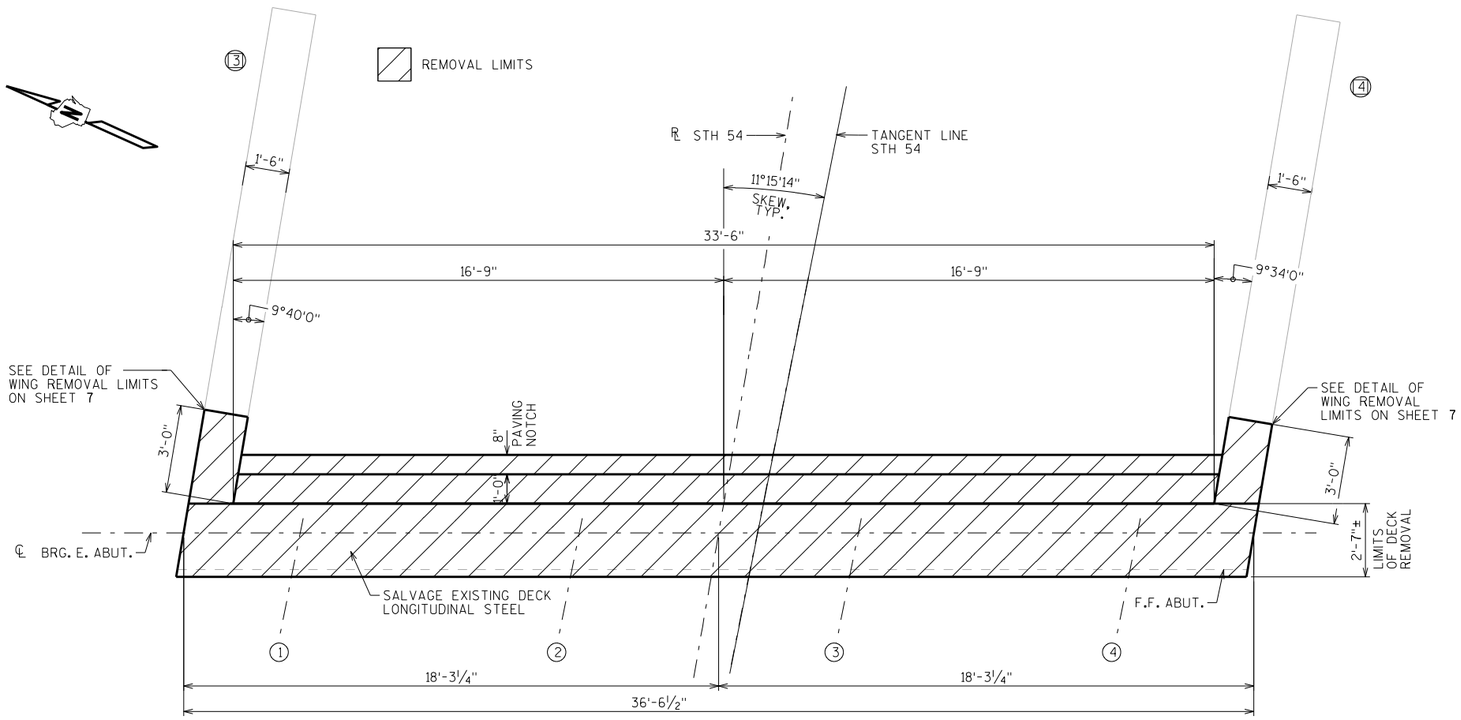
SCALE = 0.5

8

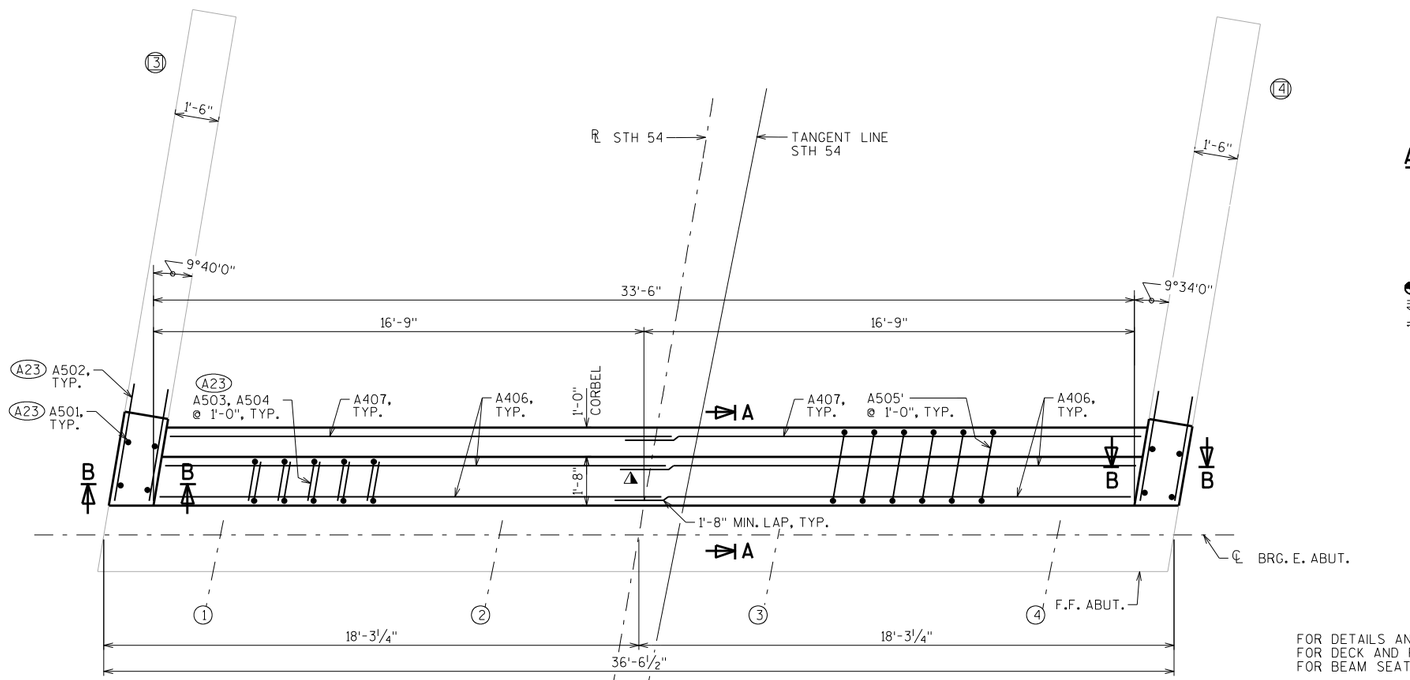
8

STATE PROJECT NUMBER

1023-03-72



PLAN - SHOWING REMOVAL



PLAN

◯ INDICATES GIRDER NUMBER
▢ INDICATES WING NUMBER

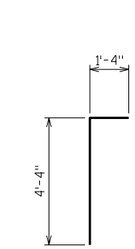
BILL OF BARS

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

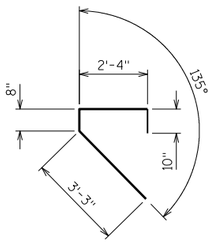
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
(A23)	A501	X	8	6'-1"			WING 3&4 VERTICAL
(A23)	A502	X	18	3'-10"			WING 3&4 HORIZONTAL
(A23)	A503	X	35	5'-7"	X		BACKWALL VERTICAL
(A23)	A504	X	35	5'-7"	X		BACKWALL VERTICAL
	A505	X	35	6'-10"	X		CORBEL STIRRUP
	A406	X	20	17'-10"			BACKWALL HORIZONTAL
	A407	X	4	17'-10"			CORBEL HORIZONTAL
	A508	X	30	6'-8"			PAVING BLOCK HORIZONTAL
	A509	X	35	4'-9"	X		PAVING BLOCK STIRRUP
(A23) ◓	A410	X	8	4'-3"	X		BEAM SEAT REPAIR
	A411	X	7	1'-11"	X		BEAM SEAT REPAIR

◓ BAR DIMENSIONS ARE BASED ON ASSUMED REPAIR DEPTH OF 5". IF REPAIR EXTENDS DEEPER THAN 5" AS DETERMINED BY THE FIELD ENGINEER, ADJUST LENGTH OF BAR AS NEEDED.

(A23) ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0" IN CONCRETE.



A503, A504



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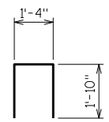
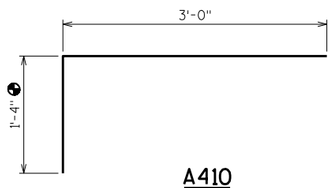
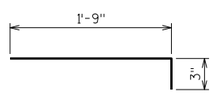


A509



A410



A411

FOR DETAILS AND SECTIONS, SEE ABUTMENT DETAIL SHEET 7
FOR DECK AND PAVING BLOCK STEEL, SEE JOINT REPAIR SHEET 10
FOR BEAM SEAT REPAIR STEEL, SEE BEAM SEAT REPAIR SHEET 3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

EAST ABUTMENT

SHEET 6

132

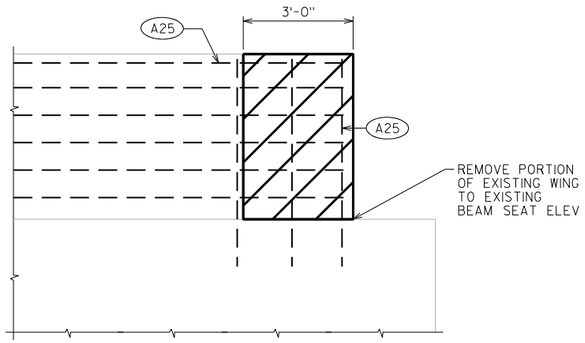
SCALE = 2.5

8

8

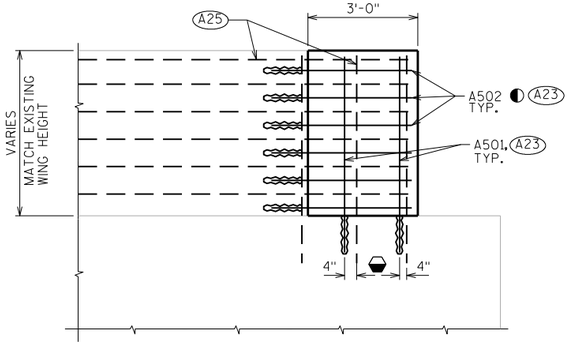
STATE PROJECT NUMBER

1023-03-72



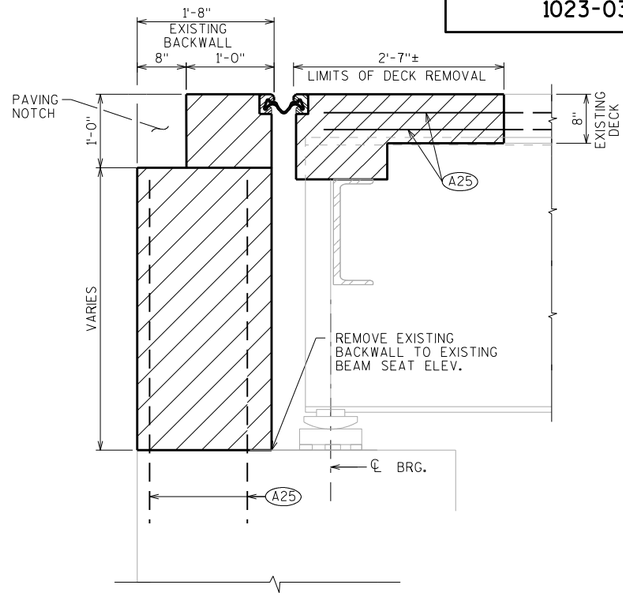
WING ELEVATION

LIMITS OF REMOVAL
PARAPET NOT SHOWN FOR CLARITY



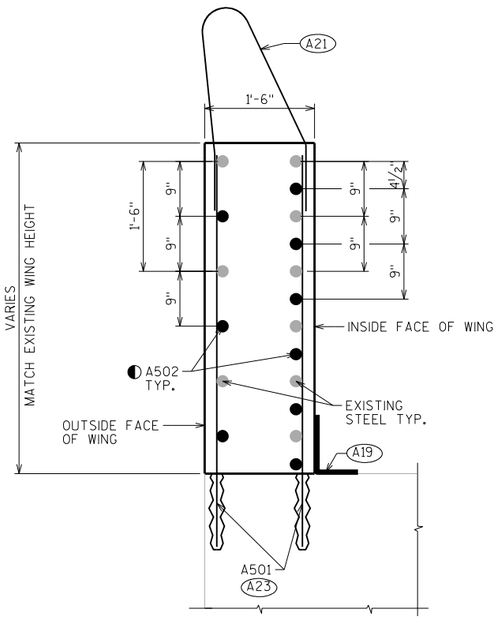
WING ELEVATION

PARAPET NOT SHOWN FOR CLARITY



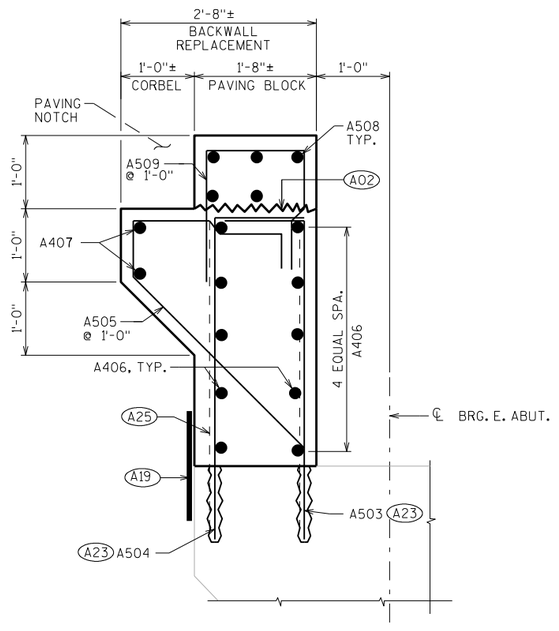
REMOVAL LIMITS

THROUGH EXISTING BACKWALL AND DECK



SECTION B-B

PARAPET NOT SHOWN FOR CLARITY



SECTION A-A

◐ PLACE ADHESIVE ANCHORS BETWEEN EXISTING SALVAGED STEEL AT APPROXIMATELY 9" O.C. ON INSIDE FACE OF WING AND 18" O.C. AT OUTSIDE FACE OF WING

⬬ PLACE ADHESIVE ANCHORS 4 INCHES FROM EXISTING SALVAGED STEEL. ENSURE PROPER COVER IS MAINTAINED

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

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

(A21) FOR PARAPET BARS, SEE SHEET 13

(A23) ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0" IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

EAST ABUTMENT DETAILS

SHEET 7

133

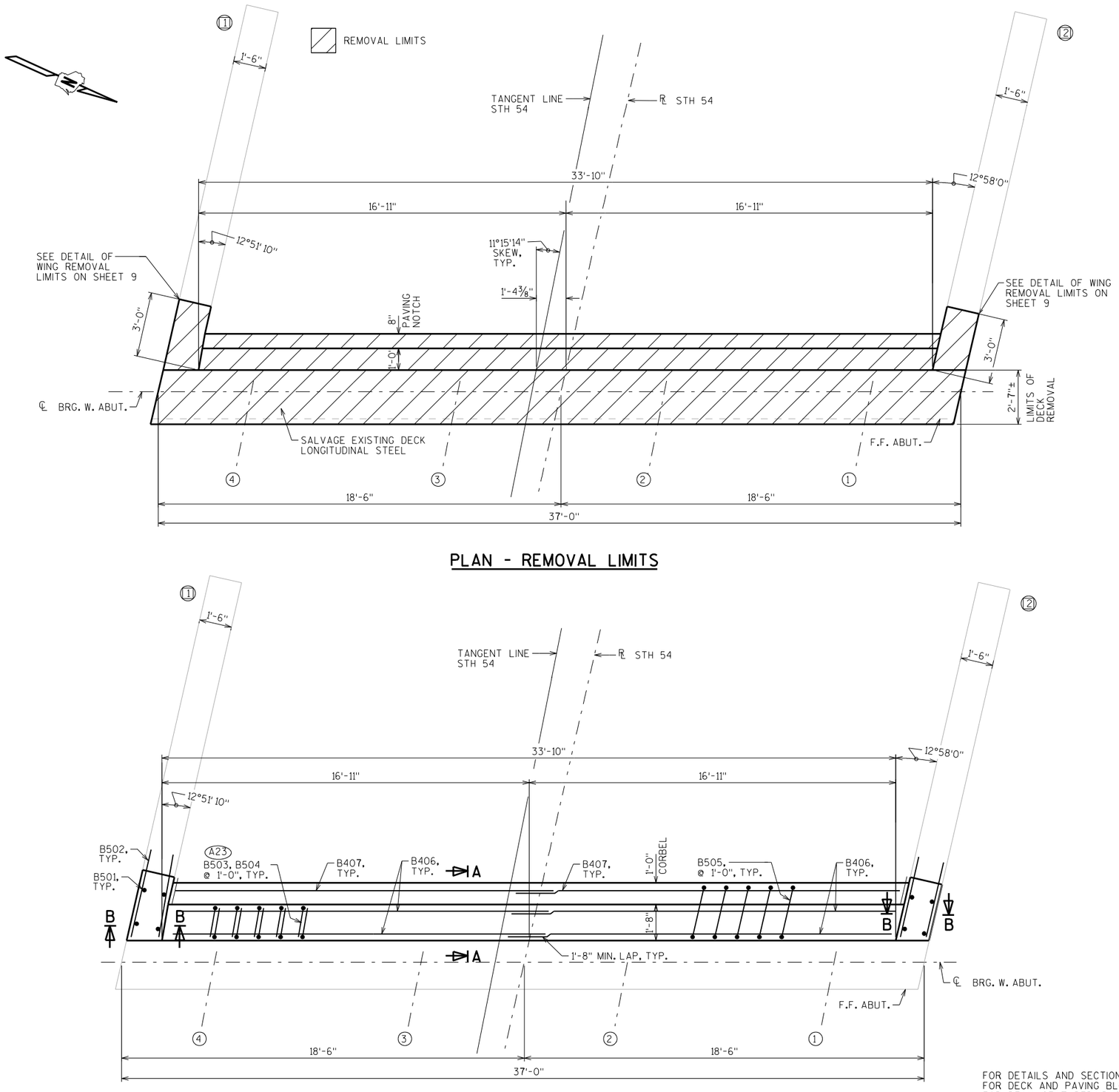
8

8

SCALE = 2

STATE PROJECT NUMBER

1023-03-72



PLAN - REMOVAL LIMITS

PLAN

◯ INDICATES GIRDER NUMBER
▢ INDICATES WING NUMBER

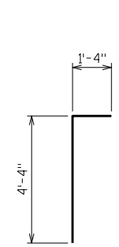
BILL OF BARS

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

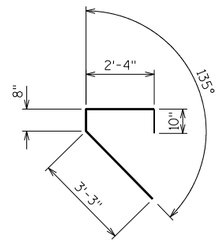
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A23	B501	X	8	6'-1"			WING 1&2 VERTICAL
A23	B502	X	18	3'-10"			WING 1&2 HORIZONTAL
A23	B503	X	35	5'-7"	X		BACKWALL VERTICAL
A23	B504	X	35	5'-7"	X		BACKWALL VERTICAL
	B505	X	35	6'-10"	X		CORBEL STIRRUP
	B406	X	20	17'-10"			BACKWALL HORIZONTAL
	B407	X	4	17'-10"			CORBEL HORIZONTAL
	B508	X	30	6'-8"			PAVING BLOCK HORIZONTAL
	B509	X	35	4'-9"	X		PAVING BLOCK STIRRUP
A23 ◓	B410	X	16	4'-3"	X		BEAM SEAT REPAIR
A23 ◓	B411	X	8	4'-9"	X		BEAM SEAT REPAIR
	B412	X	19	1'-11"	X		BEAM SEAT REPAIR

◓ BAR DIMENSIONS ARE BASED ON ASSUMED REPAIR DEPTH OF 5". IF REPAIR EXTENDS DEEPER THAN 5" AS DETERMINED BY THE FIELD ENGINEER, ADJUST LENGTH OF BAR AS NEEDED.

A23 ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0" IN CONCRETE.



B503, B504



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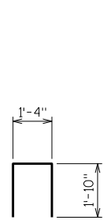

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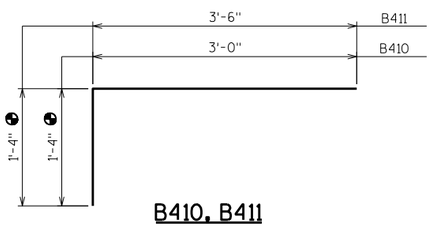
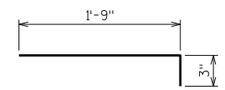


B410, B411



B412

FOR DETAILS AND SECTIONS, SEE ABUTMENT DETAIL SHEET 9
FOR DECK AND PAVING BLOCK STEEL, SEE JOINT REPAIR SHEET 10
FOR BEAM SEAT REPAIR STEEL, SEE BEAM SEAT REPAIR SHEET 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

WEST ABUTMENT

SHEET 8

134

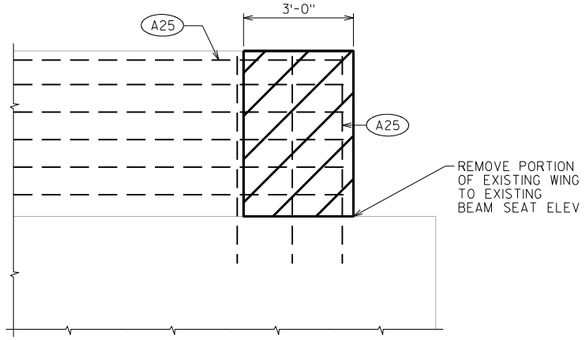
SCALE = 2.5

8

8

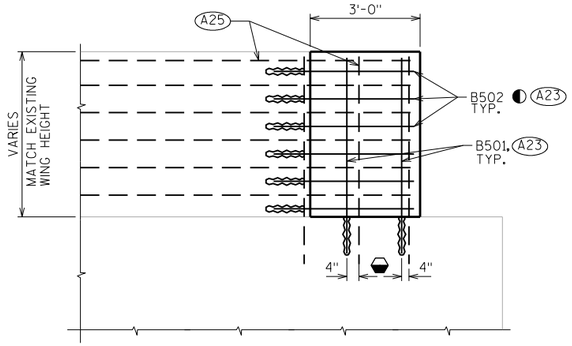
STATE PROJECT NUMBER

1023-03-72



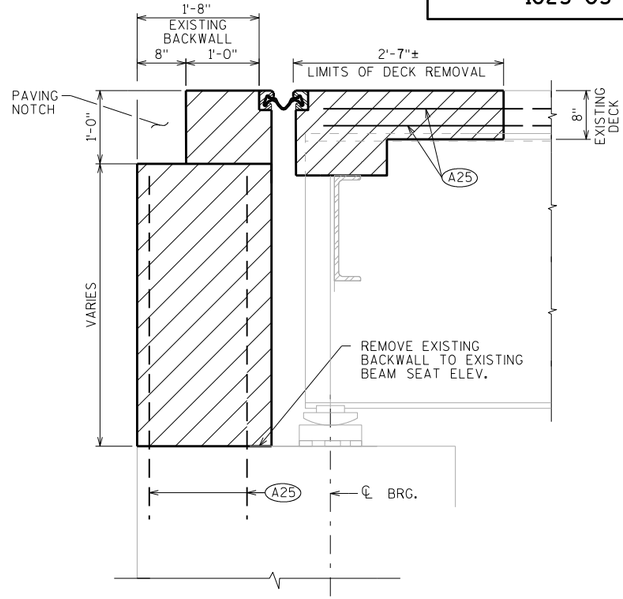
WING ELEVATION

LIMITS OF REMOVAL
PARAPET NOT SHOWN FOR CLARITY



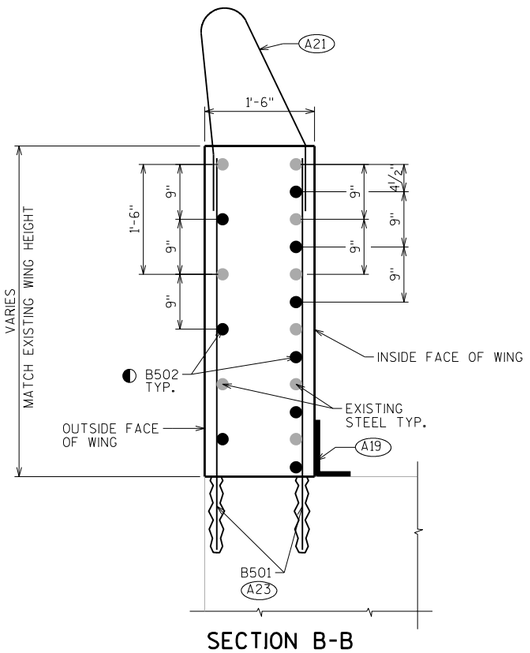
WING ELEVATION

PARAPET NOT SHOWN FOR CLARITY



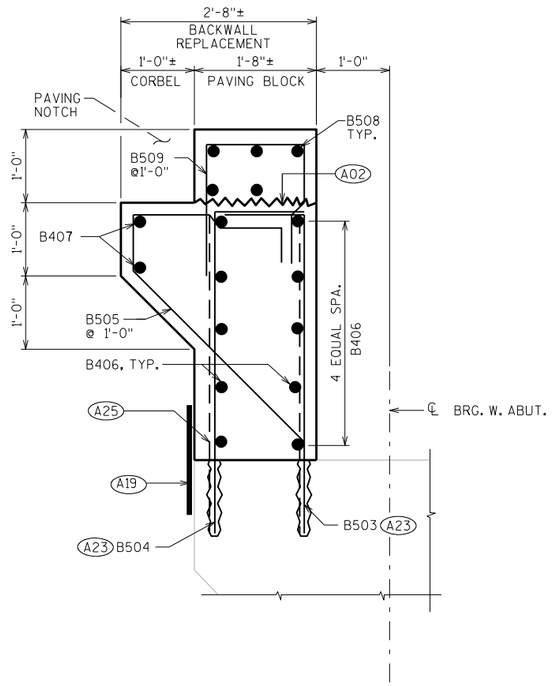
REMOVAL LIMITS

THROUGH EXISTING BACKWALL AND DECK



SECTION B-B

PARAPET NOT SHOWN FOR CLARITY



SECTION A-A

◐ PLACE ADHESIVE ANCHORS BETWEEN EXISTING SALVAGED STEEL AT APPROXIMATELY 9" O.C. ON INSIDE FACE OF WING AND 18" O.C. AT OUTSIDE FACE OF WING

⬬ PLACE ADHESIVE ANCHORS 4 INCHES FROM EXISTING SALVAGED STEEL. ENSURE PROPER COVER IS MAINTAINED

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

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

(A21) FOR PARAPET BARS, SEE SHEET 13

(A23) ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0" IN CONCRETE.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

WEST ABUTMENT DETAILS

SHEET 9

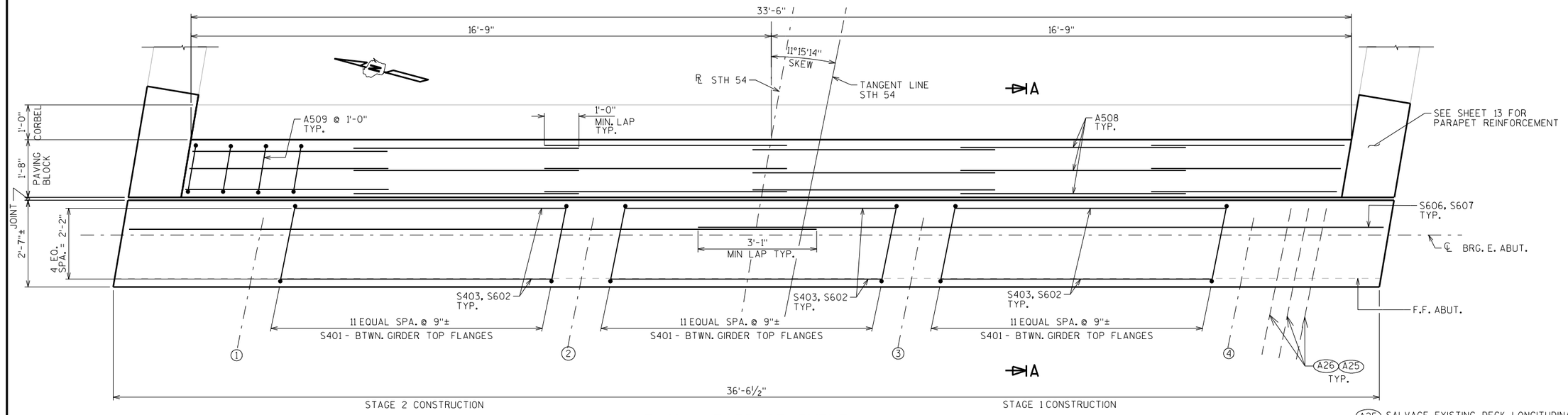
135

8

8

SCALE = 2

STATE PROJECT NUMBER
1023-03-72

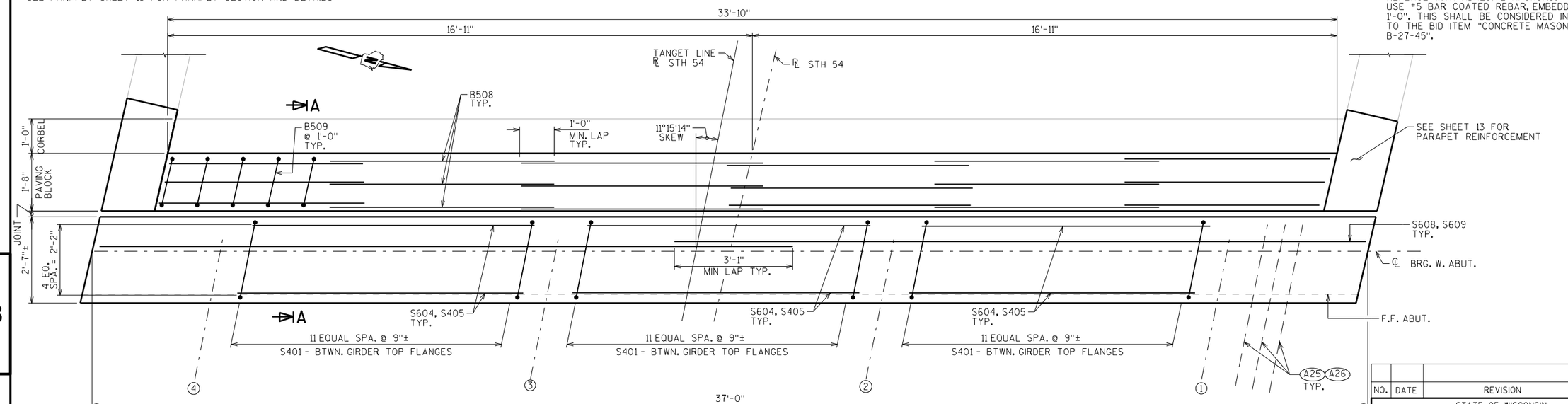


PLAN - EAST ABUTMENT

SEE JOINT DETAIL SHEET 11 FOR JOINT SECTION, DETAILS AND BILL OF BARS
SEE PARAPET SHEET 13 FOR PARAPET SECTION AND DETAILS

(A25) SALVAGE EXISTING DECK LONGITUDINAL BARS AND EXTEND FULL LENGTH INTO NEW WORK

(A26) IF EXISTING BARS ARE SEVERELY CORRORDED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORS. USE #5 BAR COATED REBAR, EMBEDDED 1'-0". THIS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES B-27-45".



PLAN - WEST ABUTMENT

○ INDICATES GIRDER NUMBER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

JOINT REPAIR

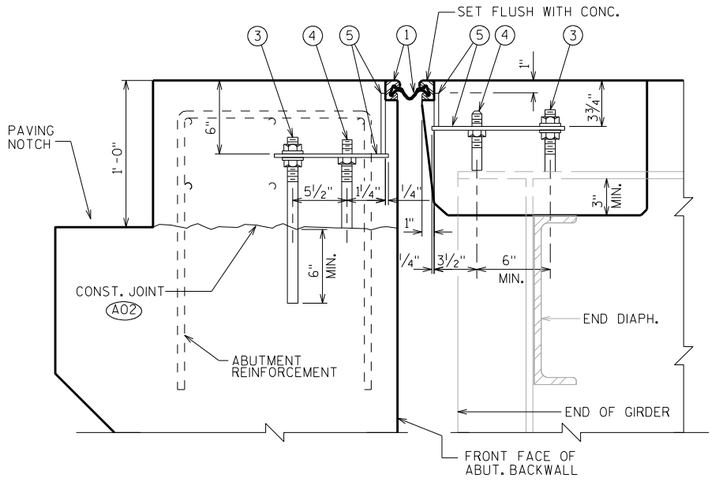
SHEET 10

136

SCALE = 1.5

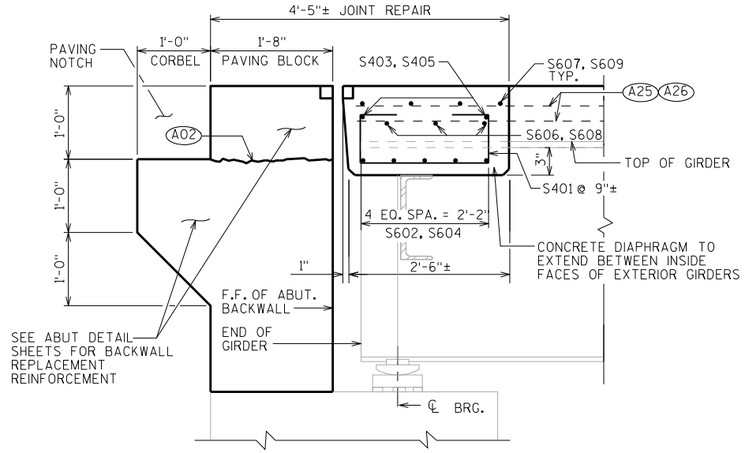
STATE PROJECT NUMBER

1023-03-72



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



SECTION A-A

LEGEND

① NEOPRENE STRIP SEAL (4- INCH) & STEEL EXTRUSIONS. SEE TEMPERATURE TABLE FOR JOINT OPENING

② STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.

(2A) 1/2" THICK ANCHOR PLATE WITH 5/8"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

③ 3/4" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

④ 3/4"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

⑤ FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. FIELD OR SHOP WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" Φ HOLE FOR NO. 3 & 1" Φ HOLE FOR NO. 4.

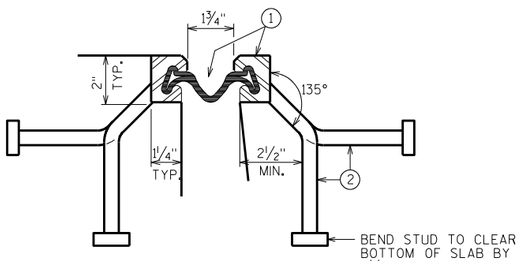
⑥ GALVANIZED PLATE 3/8" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7

⑦ 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUTNERSUNK HOLES. RECESS 1/16" BELOW PLATE SURFACE.

⑧ 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

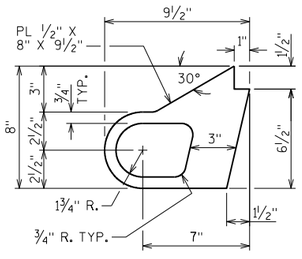
⑨ 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

⑩ 1" X 5" SLOTTED COUNTERSUNK HOLE FOR #7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB & AT PARAPETS

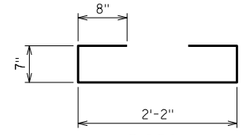


ALTERNATE STRIP SEAL ANCHOR

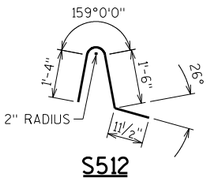
BILL OF BARS

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

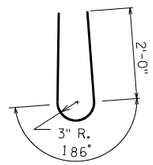
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S401	X	72	4'-4"	X		JOINT DIAPHRAGM STIRRUP BTWN GIRDER TOP FLANGES
	S602	X	15	7'-10"			JOINT DIAPHRAGM BOTTOM EAST ABUT..
	S403	X	6	7'-10"			JOINT DIAPHRAGM TOP EAST ABUT.
	S604	X	15	8'-0"			JOINT DIAPHRAGM BOTTOM WEST ABUT.
	S405	X	6	8'-0"			JOINT DIAPHRAGM TOP WEST ABUT.
	S606	X	6	20'-0"			DECK BOTTOM, EAST ABUTMENT
	S607	X	8	20'-0"			DECK TOP, EAST ABUTMENT
	S608	X	6	20'-2"			DECK BOTTOM, WEST ABUTMENT
	S609	X	8	20'-2"			DECK TOP, WEST ABUTMENT
	S410	X	6	7'-10"			EXPANSION DEVICE EAST ABUT.
	S411	X	6	8'-0"			EXPANSION DEVICE WEST ABUT.
	S512	X	16	4'-2"	X		PARAPET STIRRUPS
	S513	X	16	4'-10"	X		PARAPET STIRRUPS
(A23)	S514	X	20	3'-8"			PARAPET HORIZONTAL



S401



S512



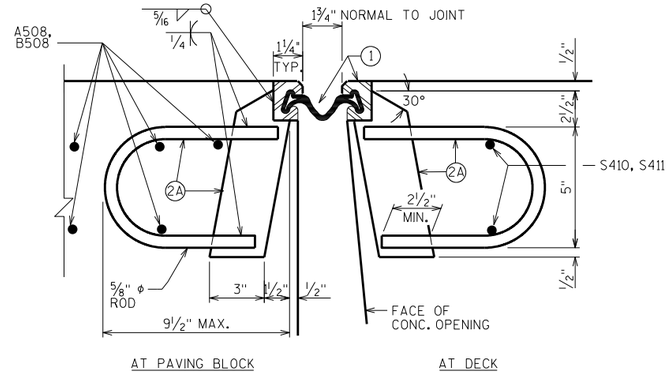
S513

(A02) CONSTRUCTION JOINT: POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE CONCRETE IS IN PLACE. STRIKE OFF AND LEAVE ROUGH.

(A23) ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0" IN CONCRETE.

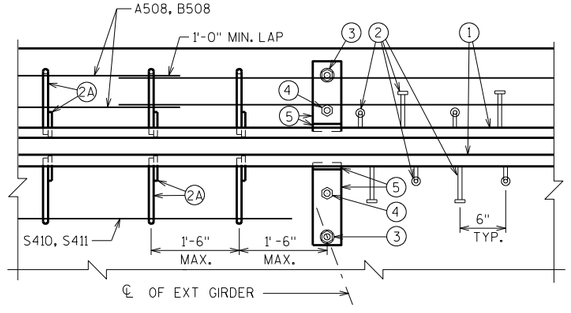
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, REPLACE WITH ADHESIVE ANCHORS. USE #5 BAR COATED REBAR, EMBEDDED 12". THIS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES B-27-45."



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



PART PLAN

GENERAL NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING, OR GALVANIZING. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-27-45".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

EXPANSION DEVICE

SHEET 11

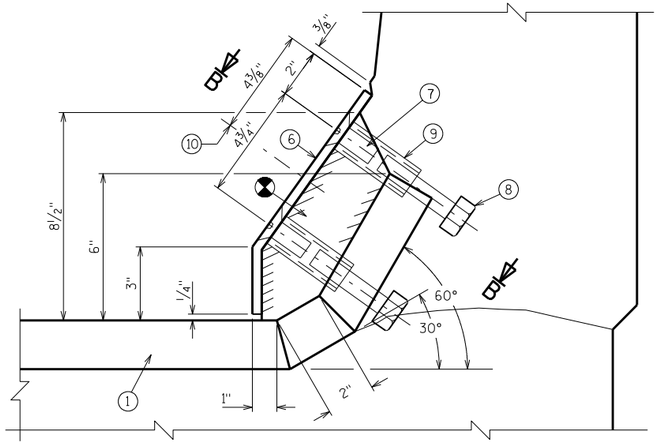
137

SCALE = 1

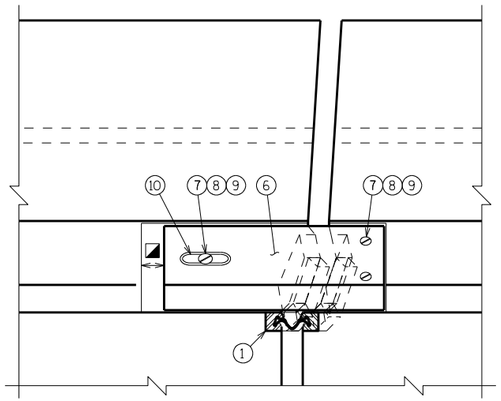
8

8

STATE PROJECT NUMBER
1023-03-72

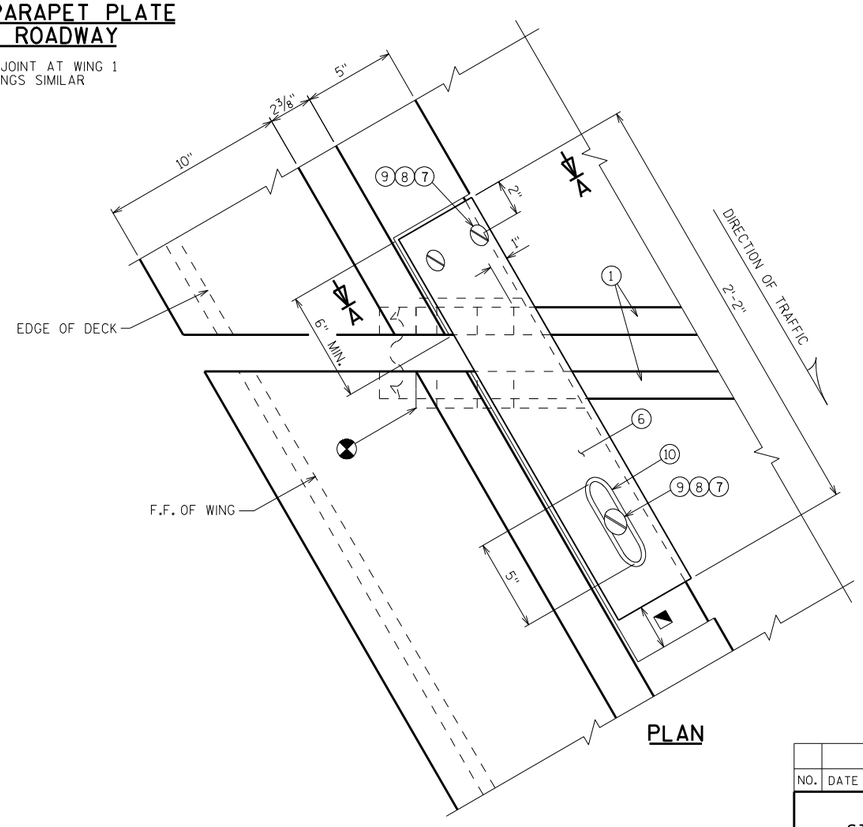


SECTION A-A

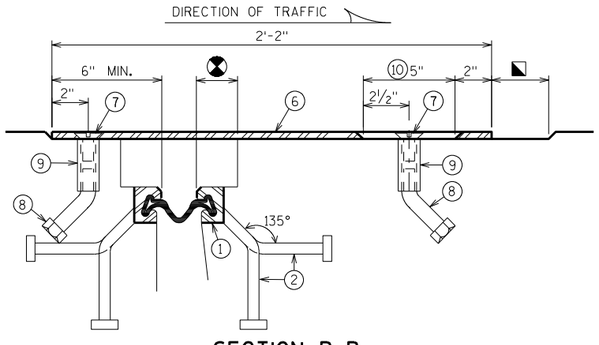


VIEW OF PARAPET PLATE FROM ROADWAY

SHOWING JOINT AT WING 1
OTHER WINGS SIMILAR



PLAN



SECTION B-B

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

COVER PLATE DETAILS

SHEET 12

138

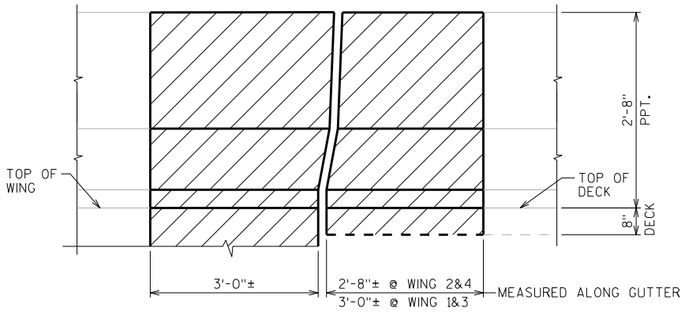
SCALE = 1

8

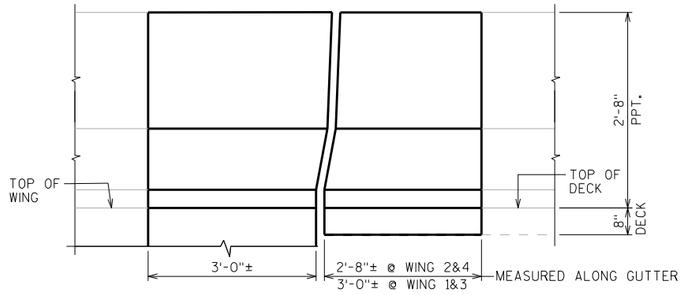
8

STATE PROJECT NUMBER

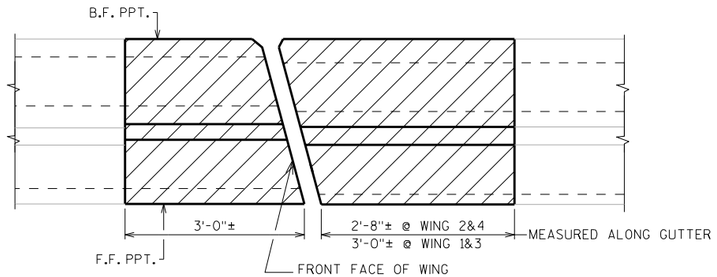
1023-03-72



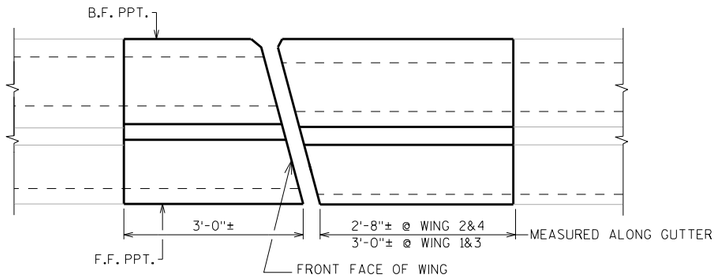
EXISTING INSIDE ELEVATION - LIMITS OF REMOVAL



INSIDE ELEVATION



EXISTING PLAN - LIMITS OF REMOVAL

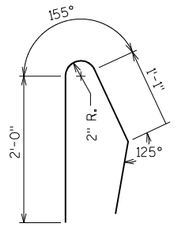


PLAN

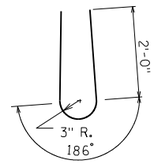
BILL OF BARS

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

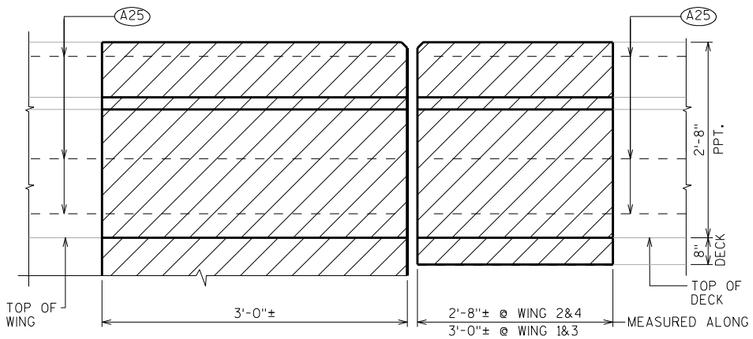
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	R501	X	20	4'-7"	X		PARAPET VERT.
	R502	X	20	4'-10"	X		PARAPET VERT.
A23	R503	X	20	3'-10"			PARAPET HORIZ. ON WING



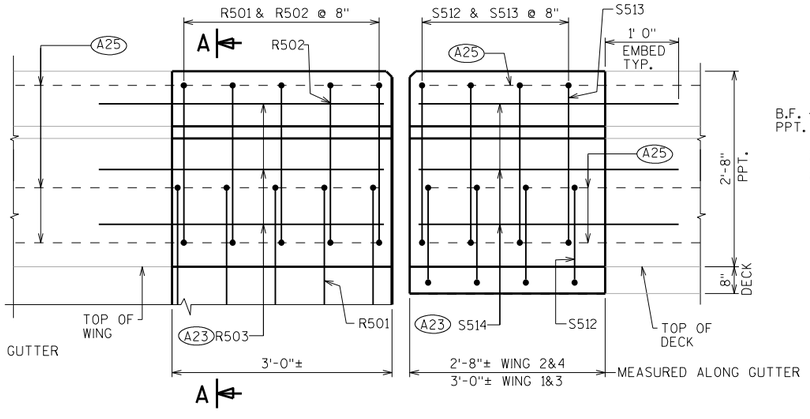
R501



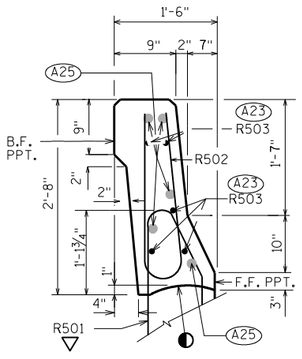
R502



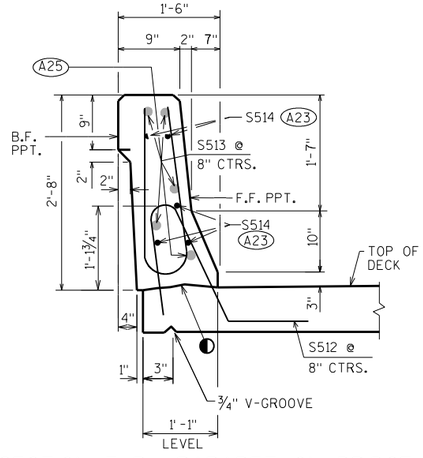
OUTSIDE ELEVATION - LIMITS OF REMOVAL



OUTSIDE ELEVATION



SECTION A



SECTION THRU PARAPET ON BRIDGE

A23 ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0" IN CONCRETE.

A25 SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-45

DRAWN BY REL | PLANS CK'D. MJK/EMK

SLOPED FACE PARAPET B

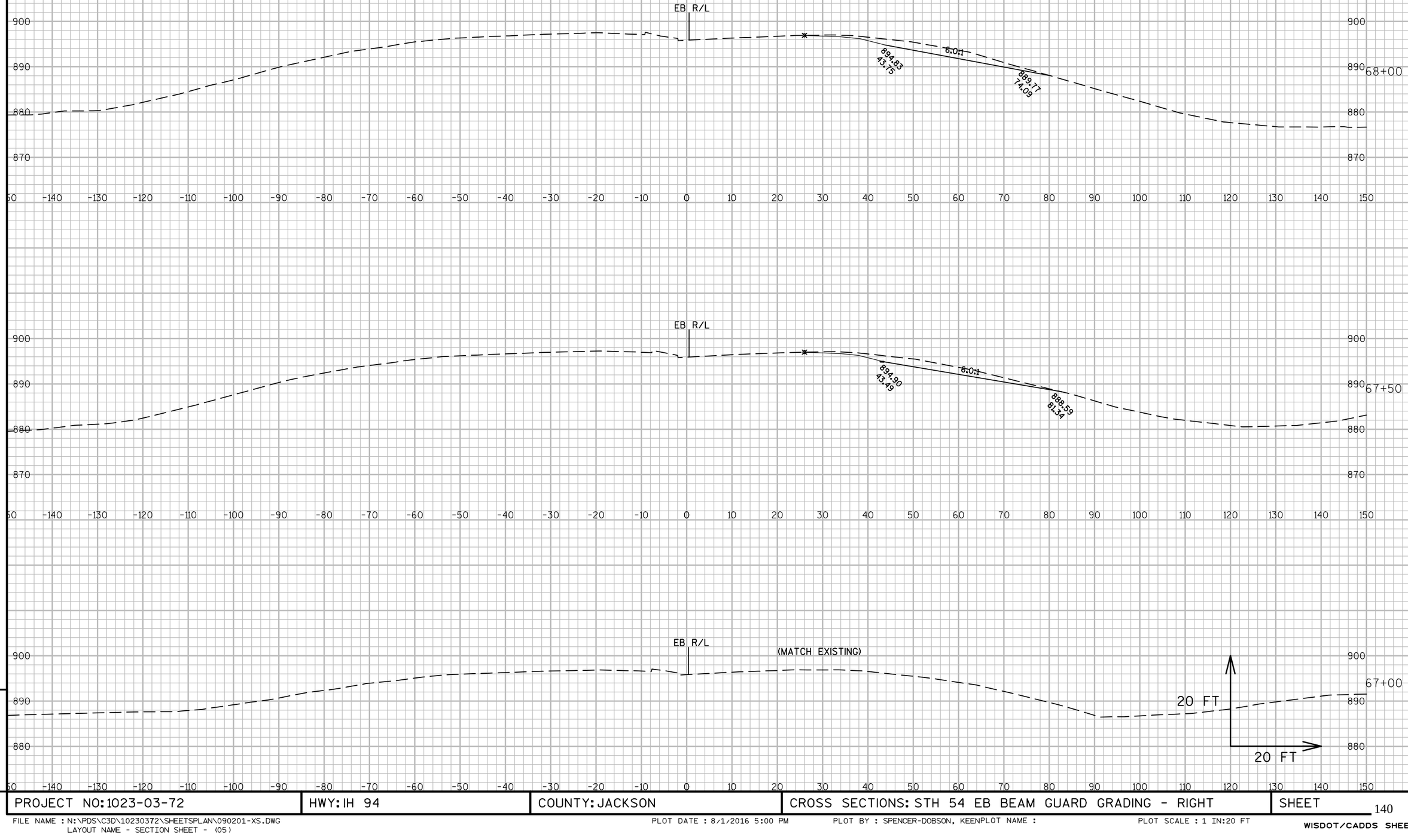
SHEET 13

139

SCALE = 1.0

8

8



9

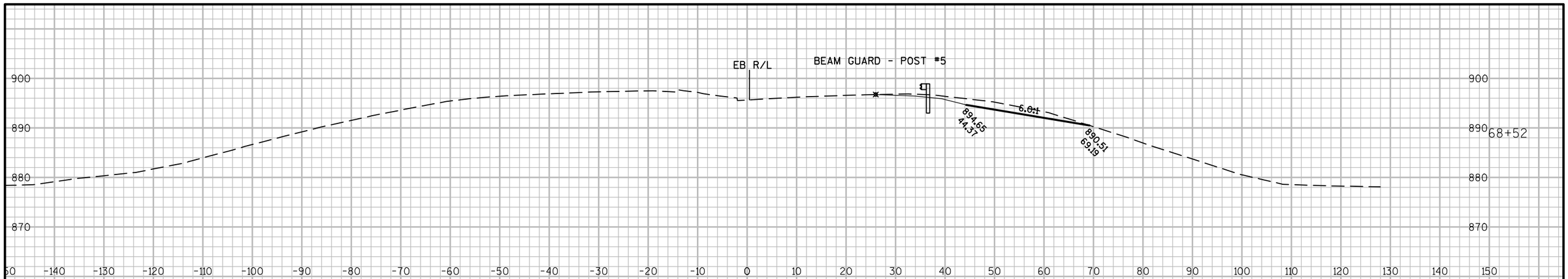
9

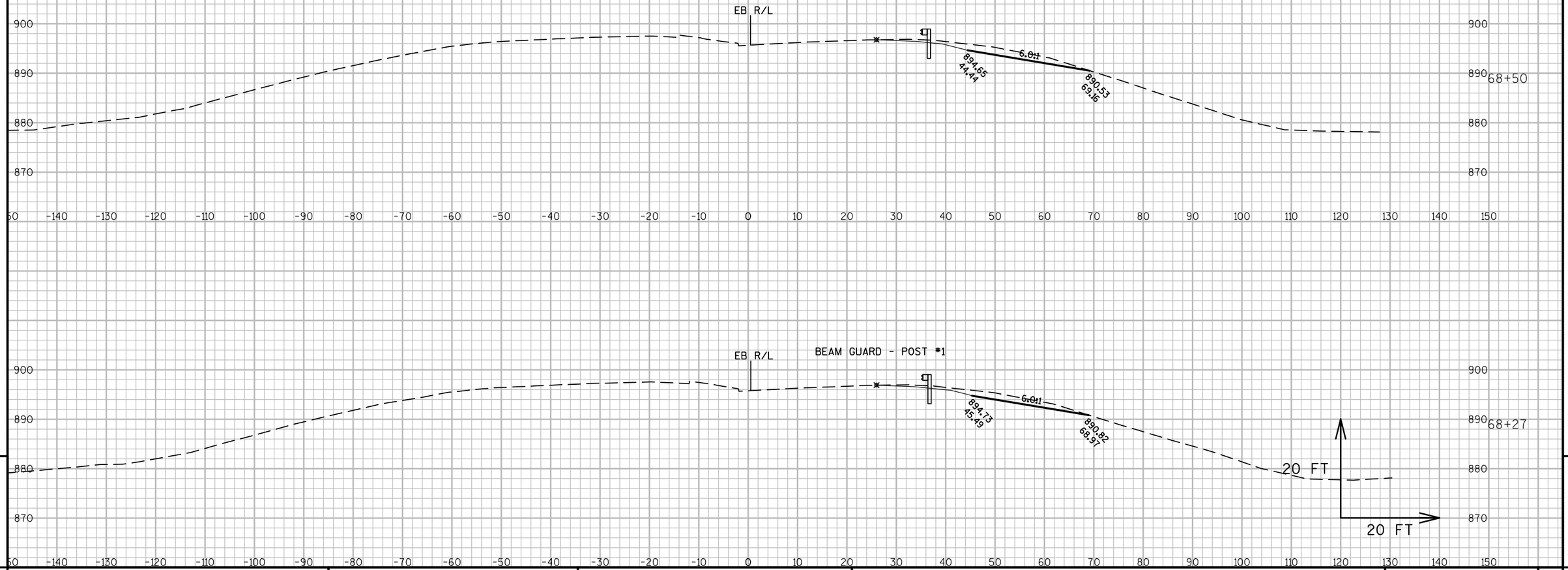
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 EB BEAM GUARD GRADING - RIGHT	SHEET 140	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - SECTION SHEET - (05)

PLOT DATE : 8/1/2016 5:00 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





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9

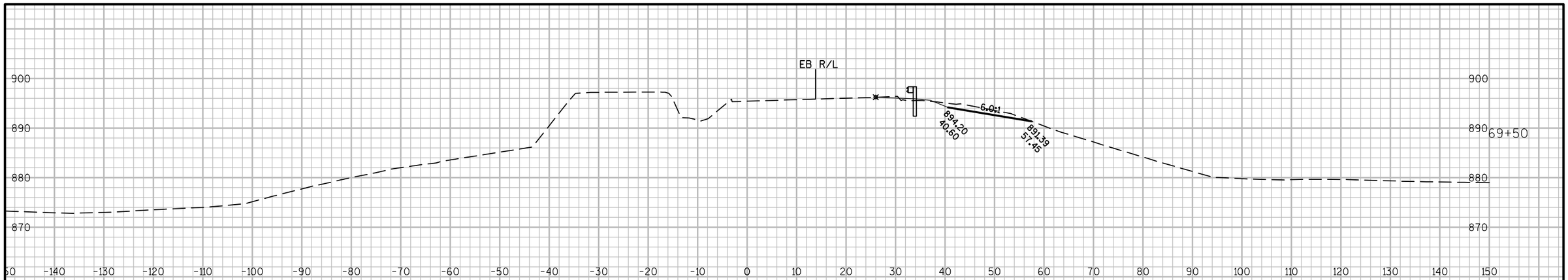
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 EB BEAM GUARD GRADING - RIGHT	SHEET 141	E

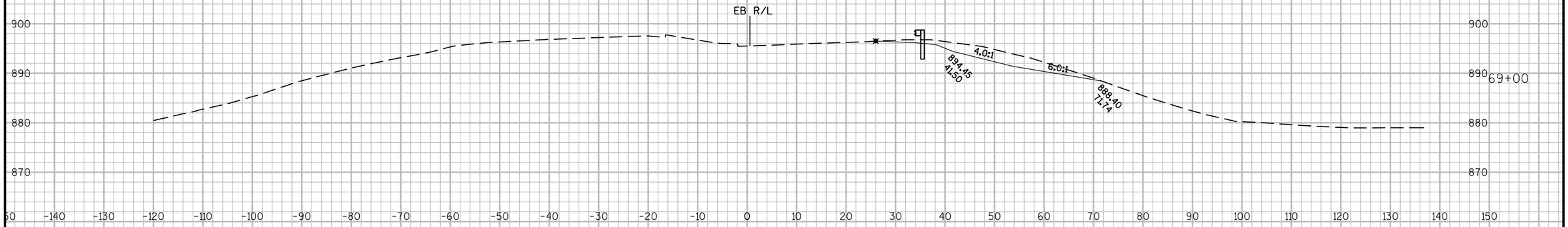
FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - SECTION SHEET - (06)

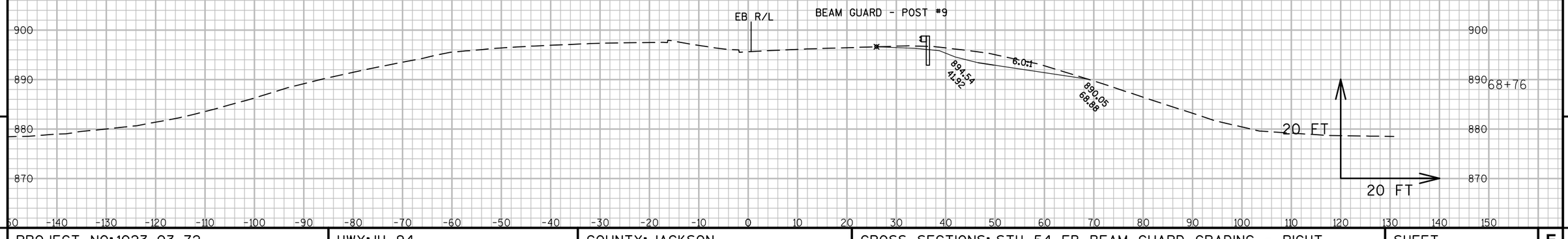
PLOT DATE : 8/1/2016 4:54 PM

PLOT BY : SPENCER-DOBSON, KEENPLOT NAME :

PLOT SCALE : 1 IN:20 FT





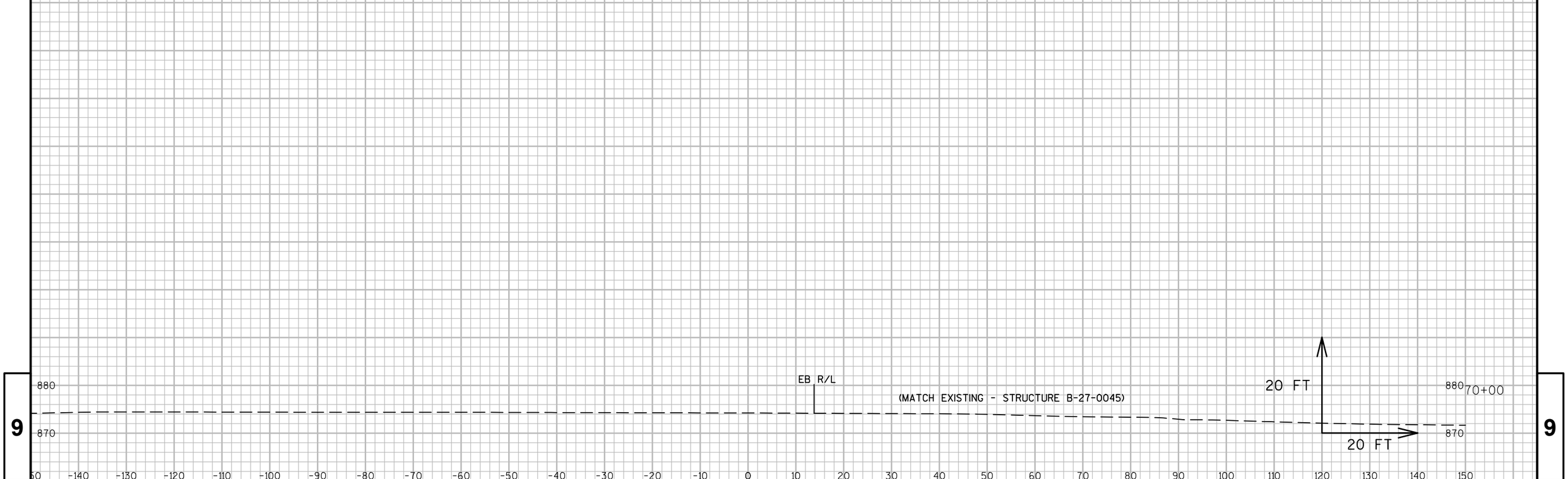


9

9

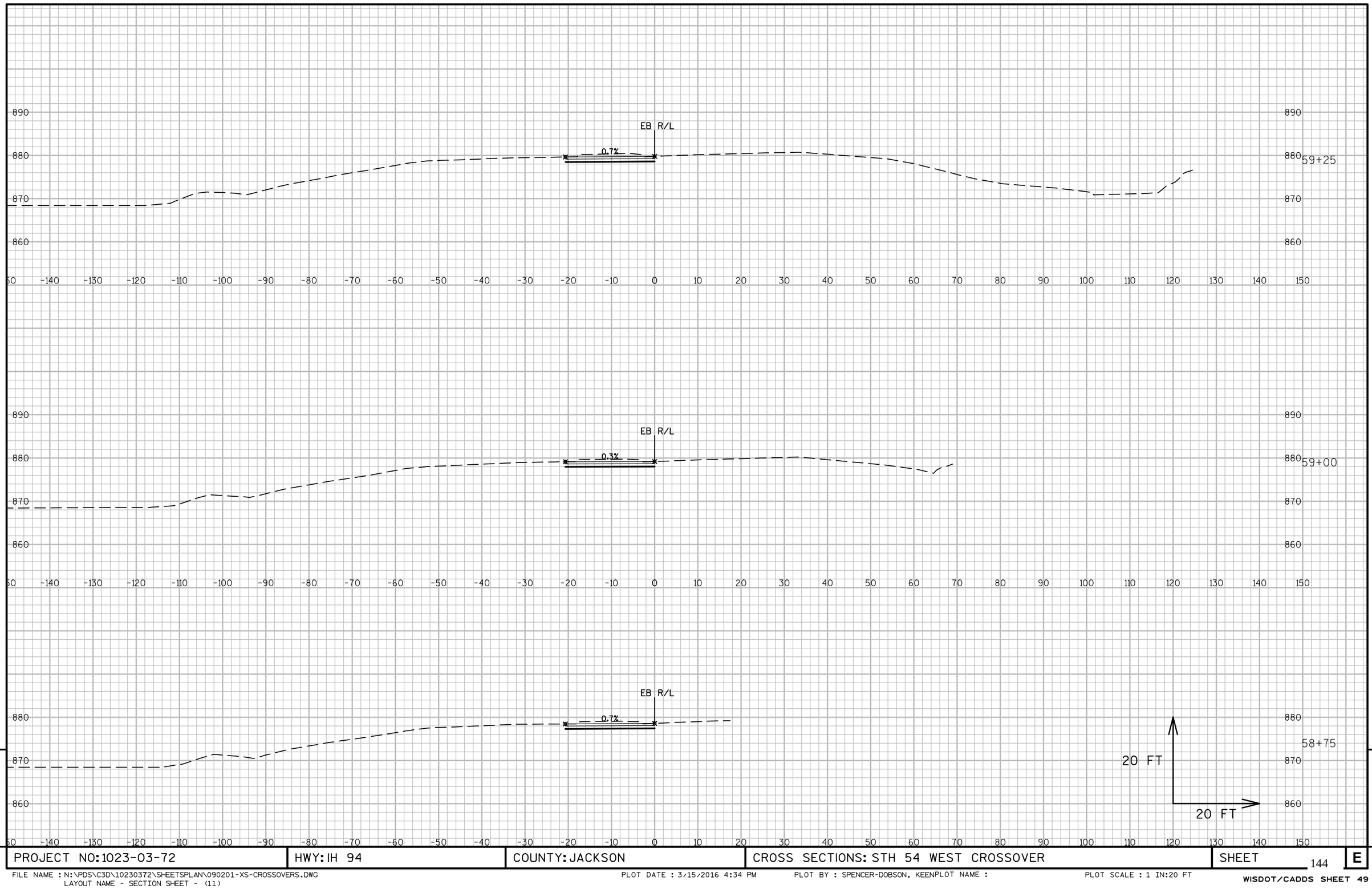
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 EB BEAM GUARD GRADING - RIGHT	SHEET 142	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - SECTION SHEET - (07)
PLOT DATE : 8/1/2016 5:03 PM
PLOT BY : SPENCER-DOBSON, KEENPLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 EB BEAM GUARD GRADING - RIGHT	SHEET 143	E



9

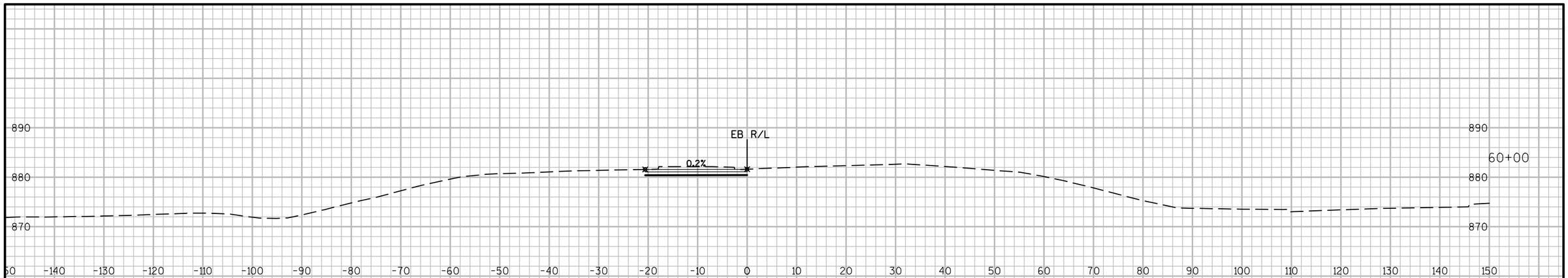
9

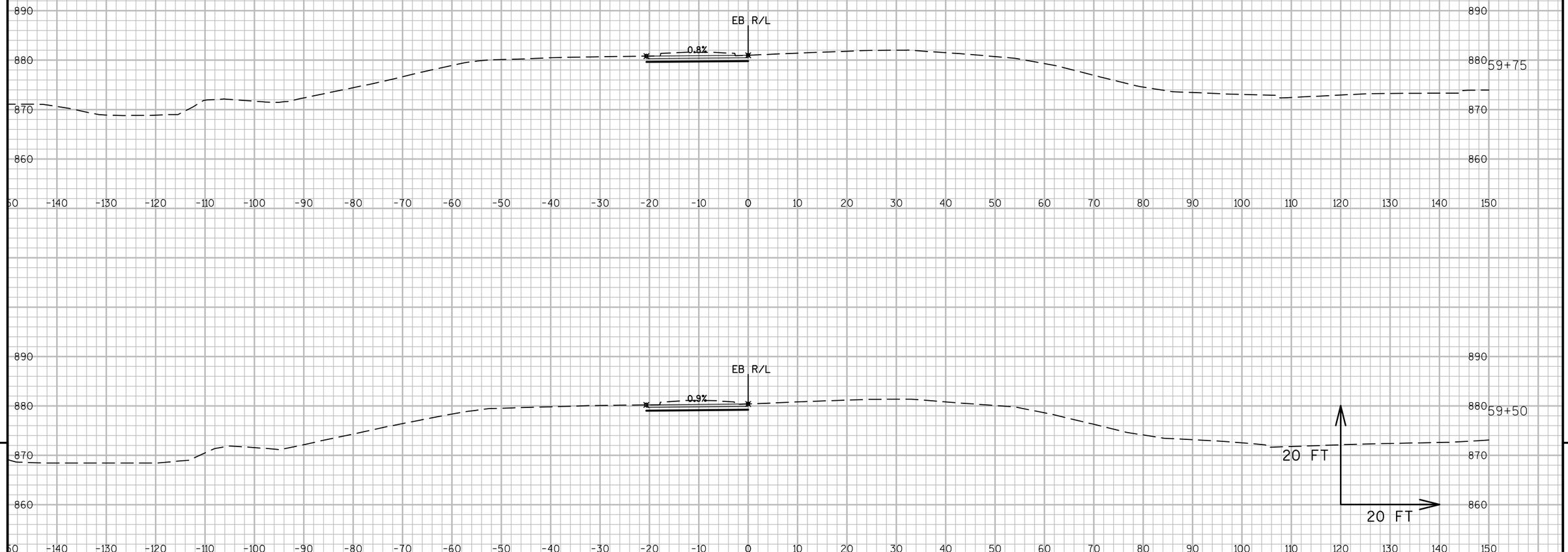
PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 WEST CROSSOVER	SHEET 144	E

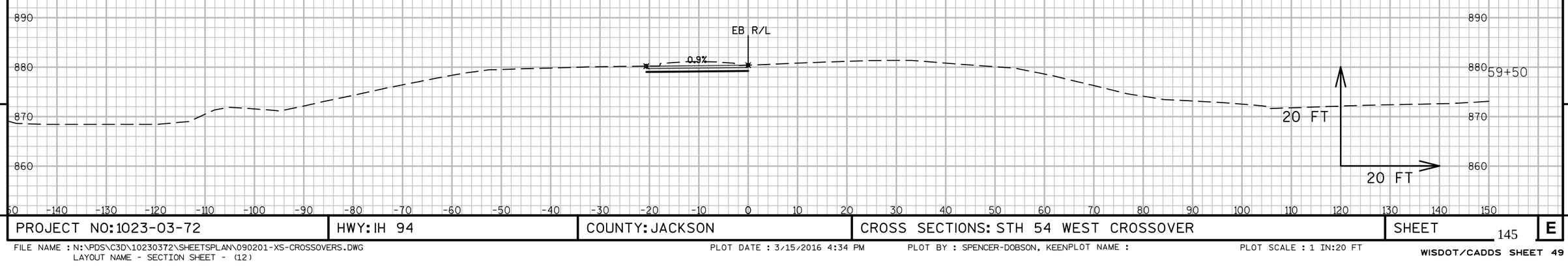
FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS-CROSSOVERS.DWG
LAYOUT NAME - SECTION SHEET - (11)

PLOT DATE : 3/15/2016 4:34 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







9

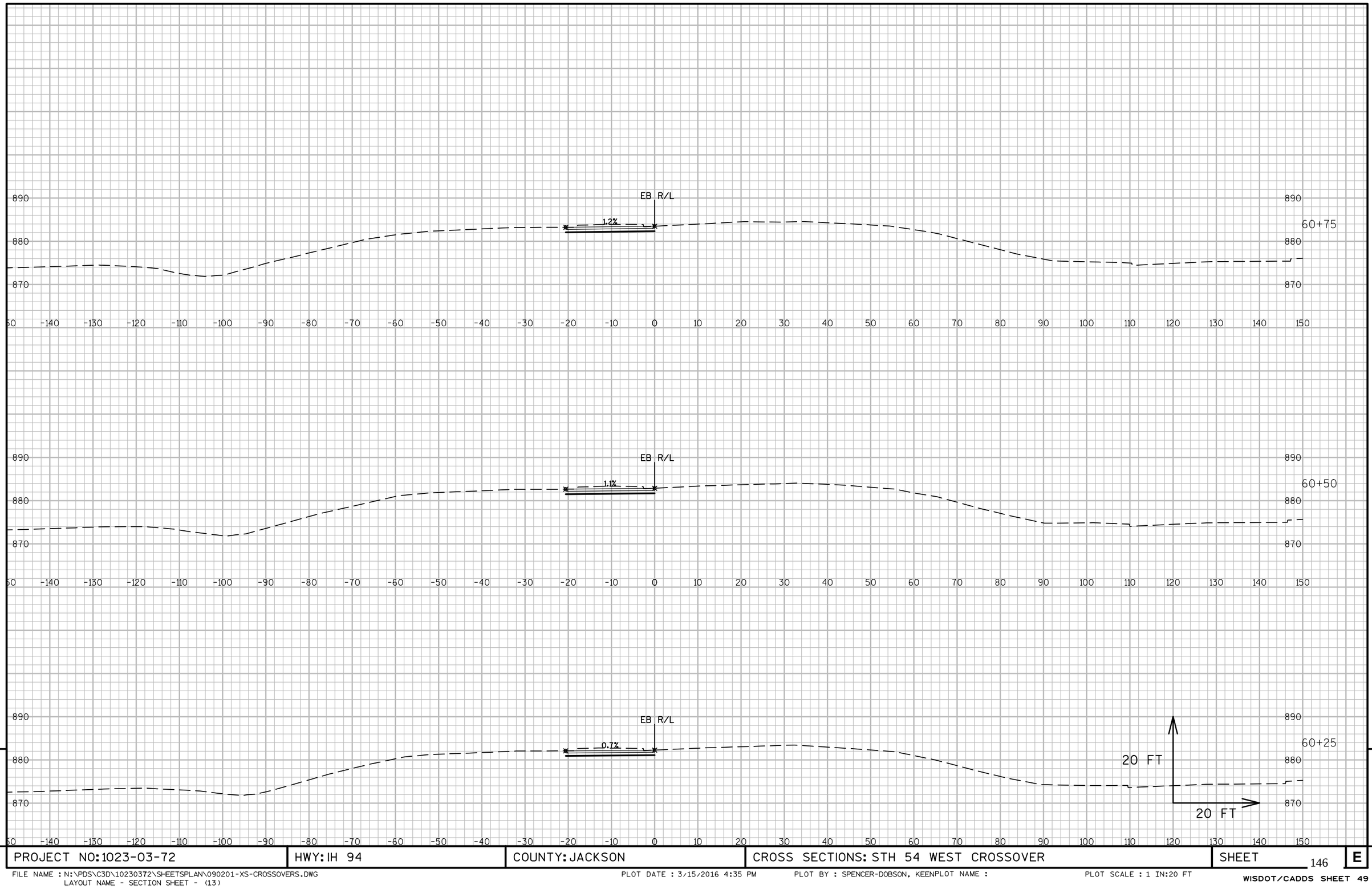
9

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 WEST CROSSOVER	SHEET 145	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS-CROSSOVERS.DWG
LAYOUT NAME - SECTION SHEET - (12)

PLOT DATE : 3/15/2016 4:34 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



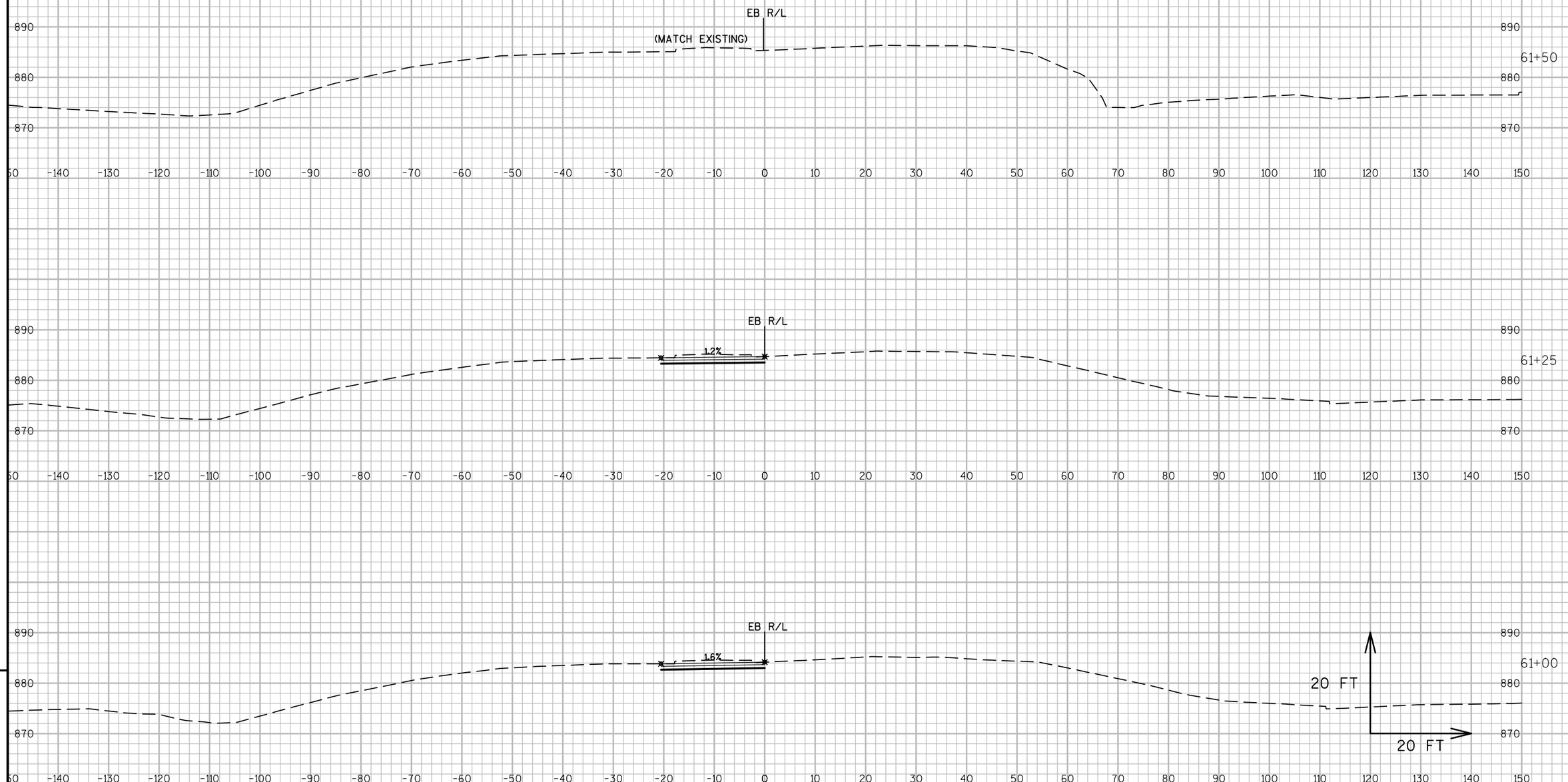
9

9

PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 WEST CROSSOVER	SHEET 146	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS-CROSSOVERS.DWG
LAYOUT NAME - SECTION SHEET - (13)

PLOT DATE : 3/15/2016 4:35 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 1023-03-72	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: STH 54 WEST CROSSOVER	SHEET 147	E

FILE NAME : N:\PDS\C3D\10230372\SHEETSPLAN\090201-XS-CROSSOVERS.DWG
LAYOUT NAME - SECTION SHEET - (14)

PLOT DATE : 3/15/2016 4:36 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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