

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY REHABILITATION-MAINTENANCE PROJECT

COON VALLEY - BANGOR

DUTCH CREEK BRIDGE B-32-15

STH 162

LA CROSSE COUNTY

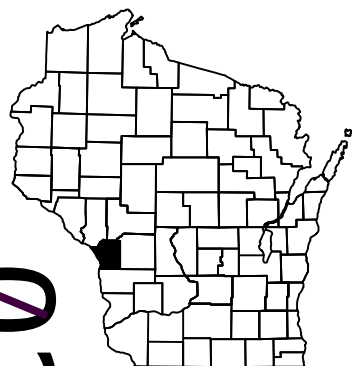
STATE PROJECT NUMBER
5820-00-60

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5820-00-60	WISC 2022483	1

ORDER OF SHEETS

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

TOTAL SHEETS = 38



02

DESIGN DESIGNATION

A.A.D.T. (2024)	=	1,900
A.A.D.T. (2044)	=	2,200
D.H.V.	=	6.2
D.D.	=	60/40
T.	=	7.4%
DESIGN SPEED	=	60 M.P.H.
ESALS	=	290,000

CONVENTIONAL SYMBOLS

PLAN

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

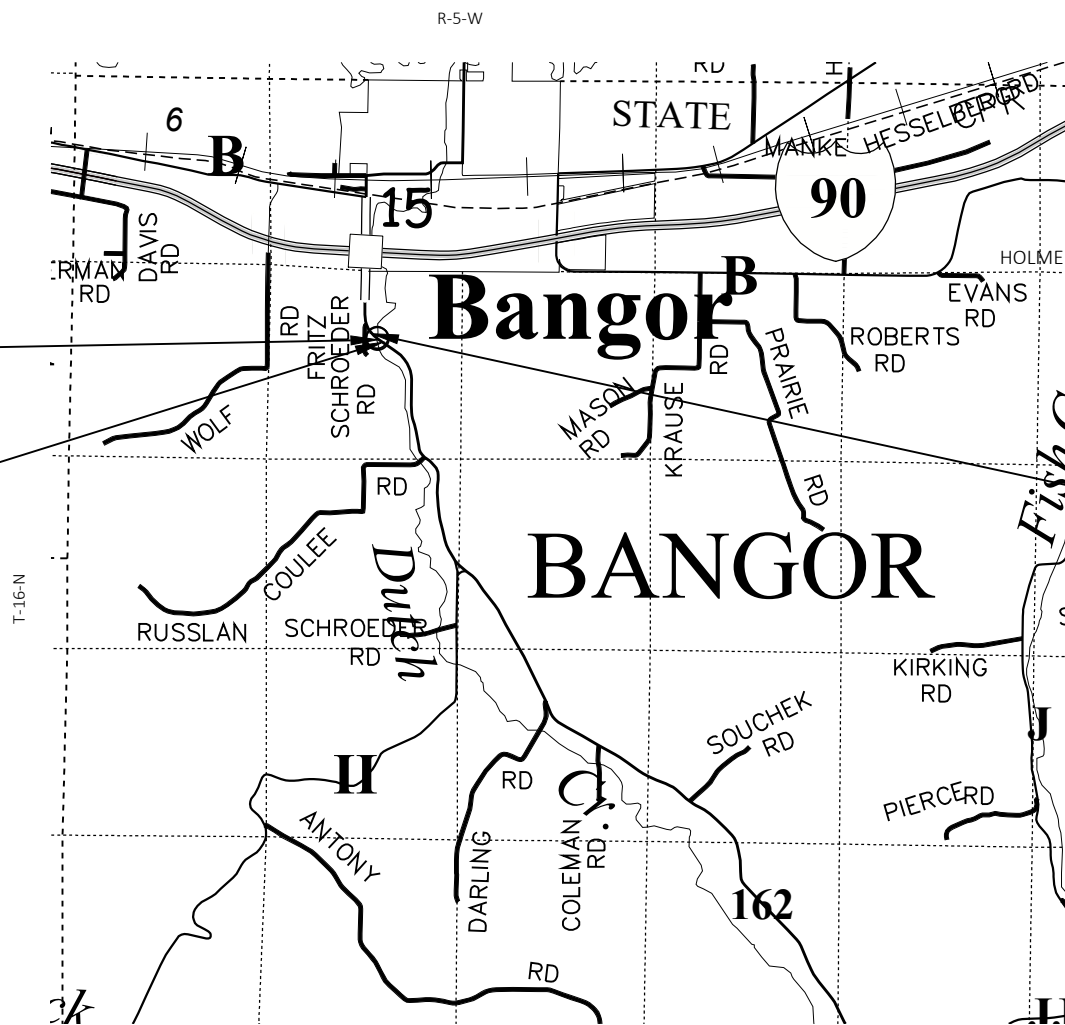
PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BRIDGE B-32-15

BEGIN PROJECT
STA 15+50
X: 511,891.374
Y: 156,232.481

END PROJECT
STA 18+39



TOTAL NET LENGTH OF CENTERLINE = 0.055 MILES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	KNIGHT ENGINEERING
Surveyor	KATHLEEN KLUDY, P.E.
Designer	PAUL VALENTI, P.E.
Project Manager	SW REGION
Regional Examiner	REINY YAHNKE, P.E.
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
DATE: 04/12/2022

E

STANDARD ABBREVIATIONS

AC	ACRE	LC.	LONG CHORD
AGG	AGGREGATE	LS	LUMP SUM
<	ANGLE	M.P.	MARKER POST
AE, AEW	APRON ENDWALL	MGAL	1000 GALLONS
ASPH.	ASPHALTIC	N.C.	NORMAL CROWN
A.D.T.	AVERAGE DAILY TRAFFIC	N	NORTH
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
B.F.	BACK FACE	NOR	NORMAL
BM	BENCHMARK	NO.	NUMBER
BTWN	BETWEEN	PAV'T	PAVEMENT
CTR.	CENTER	P.L.E.	PERMANENT LIMITED EASEMENT
C/L	CENTER LINE	P.C.	POINT OF CURVATURE
Δ	CENTRAL ANGLE OR DELTA	P.I.	POINT OF INTERSECTION
C.E.	COMMERCIAL ENTRANCE	P.T.	POINT OF TANGENCY
CONST.	CONSTRUCTION	PCC	PORTLAND CEMENT CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE	P.E.	PRIVATE ENTRANCE
CMP	CORRUGATED METAL PIPE	PGL	PROFILE GRADE LINE
CO.	COUNTY	P.L.	PROPERTY LINE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR.	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQD	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SYM	SYMMETRICAL
EXIST	EXISTING	T.	PERCENT TRUCKS
F.F.	FACE TO FACE	TEL.	TELEPHONE
FERT.	FERTILIZER	TEMP.	TEMPORARY
F.E.	FIELD ENTRANCE	T.L.E.	TEMPORARY LIMITED EASEMENT
F/L, F.L.	FLOW LINE	T.O.C.	TOP OF CURB
GALV.	GALVANIZE	TYP	TYPICAL
H.S.	HIGH STRENGTH	UNCL.	UNCLASSIFIED
CWT	HUNDRED WEIGHT	U.G.	UNDERGROUND (CABLE)
INL	INLET	VAR	VARIABLE
INTER.	INTERSECTION	V.C.	VERTICAL CURVE
IH	INTERSTATE HIGHWAY	V.P.C.	VERTICAL POINT OF CURVATURE
JT.	JOINT	V.P.I.	VERTICAL POINT OF INTERSECTION
LT	LEFT	V.P.T.	VERTICAL POINT OF TANGENCY
L.H.F.	LEFT HAND FORWARD	Wt.	WEIGHT
L.	LENGTH OF CURVE	W	WEST
L.F.	LINEAR FOOT(FEET)	WB	WESTBOUND

GENERAL NOTES

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

2 SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION.

UTILITY COMPANIES & PERSONNEL

CENTURYLINK - COMMUNICATION LINE
 ATTN: MONTY PARKER
 20 S WILSON AVE
 RICE LAKE, WI 54868
 PHONE: (715) 234-5528
 EMAIL: monty.parker@centurylink.com

BANGOR MUNICIPAL UTILITY - ELECTRICITY
 ATTN: RYAN PELOWSKI
 106 15TH AVENUE NORTH
 BANGOR, WI 54614
 PHONE: (608) 486-2151
 EMAIL: rpelowski@villageofbangor.com

CONTACTS

WISDOT

WISCONSIN DEPARTMENT OF TRANSPORTATION
 SOUTHWEST REGION - LA CROSSE OFFICE
 3550 MORMON COULEE RD
 LA CROSSE, WI 54601
 ATTN: PAUL VALENTI, P.E. PROJECT MANAGER
 PHONE: (608) 785-9053
 EMAIL: paul.valenti@dot.wi.gov

WISCONSIN DEPARTMENT OF TRANSPORTATION
 SOUTHWEST REGION - LA CROSSE OFFICE
 3550 MORMON COULEE RD
 LA CROSSE, WI 54601
 ATTN: KATHLEEN KLUDY, P.E. DESIGNER
 PHONE: (608) 785-9948
 EMAIL: kathleen.kludy@dot.wi.gov

DNR LIAISON

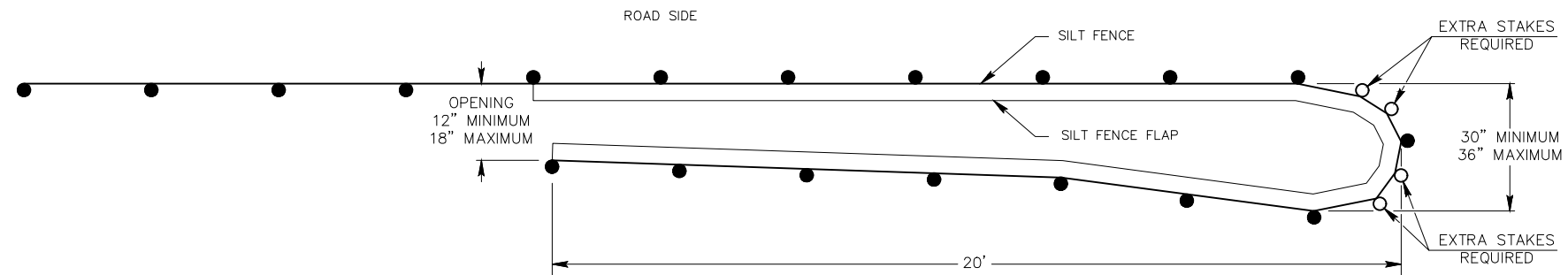
BUREAU OF ENVIRONMENTAL ANALYSIS & SUSTAINABILITY
 2984 SHAWANO AVE
 GREEN BAY, WI 54313-6727
 ATTN: JAY SCHIEFELBEIN (LA CROSSE COUNTY)
 PHONE: (920) 360-3784
 EMAIL: jeremiah.schiefelbein@wisconsin.gov



Dial 811 or (800)242-8511

www.DiggersHotline.com

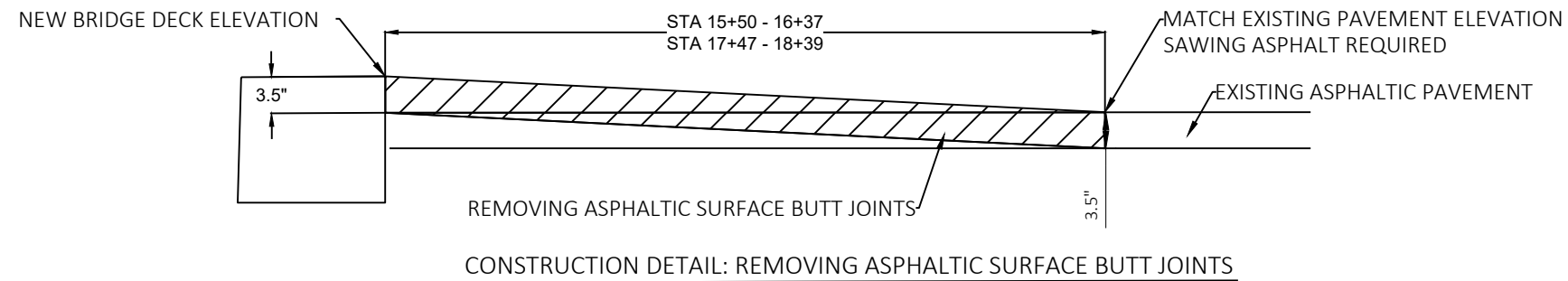
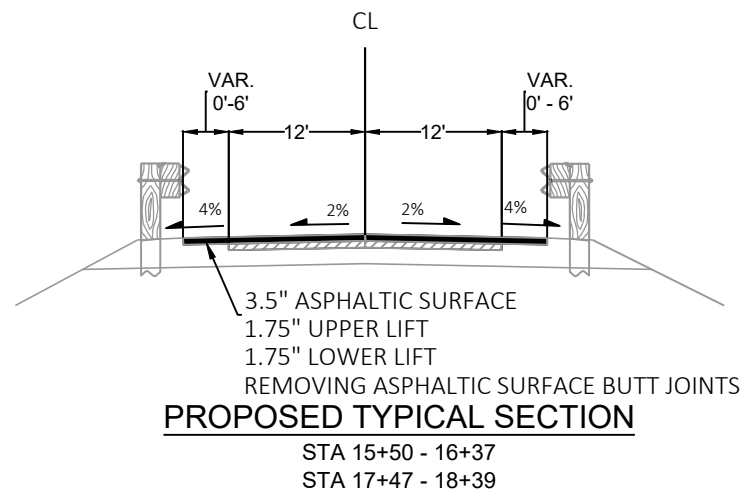
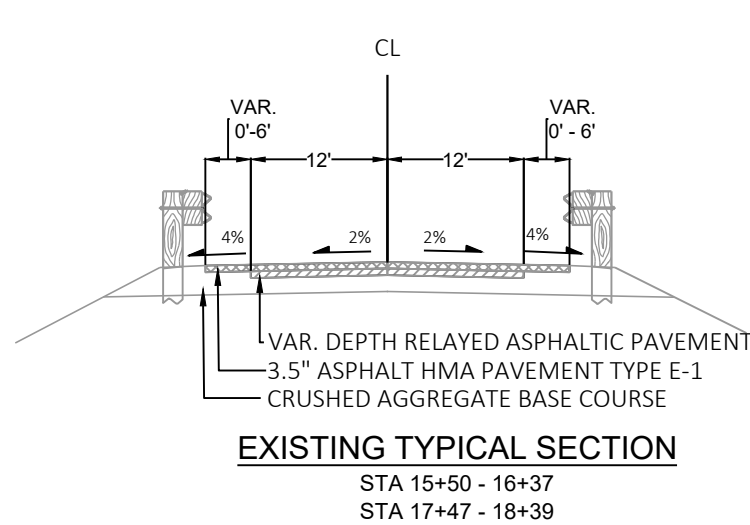
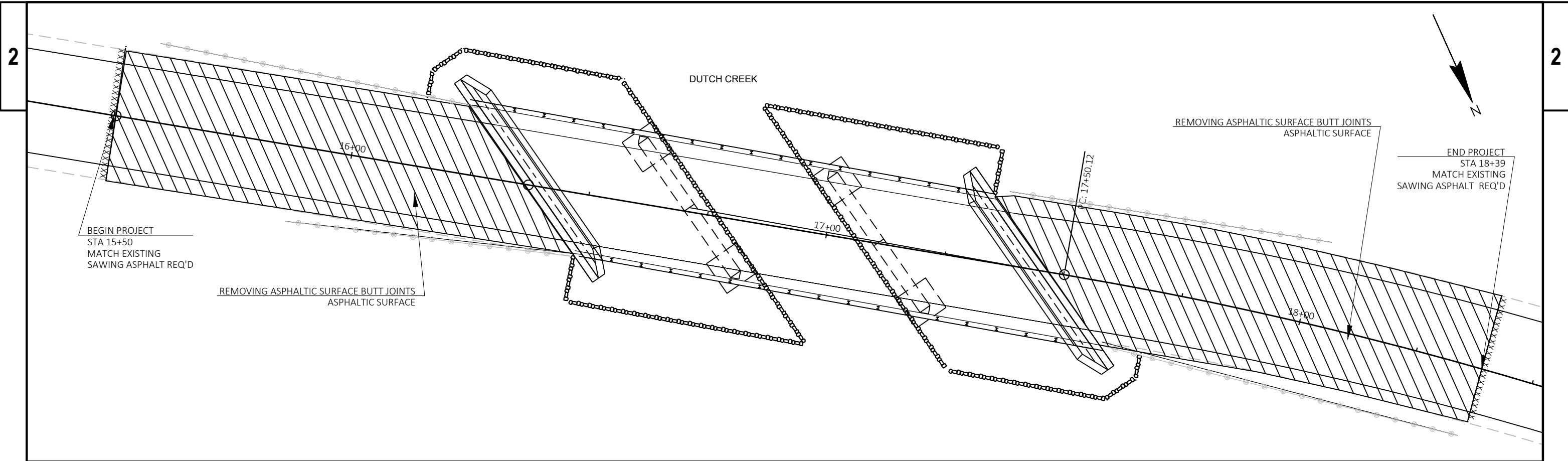
NOTES:
 SILT FENCE POST FOR TEMPORARY SMALL ANIMAL TURN-AROUND SHALL BE ON THE OUTSIDE OF THE TEMPORARY SMALL ANIMAL TURN-AROUND.
 TEMPORARY SMALL ANIMAL TURN-AROUND TO BE PAID FOR AS SILT FENCE.:
 EXTRA STAKES AS REQUIRED BELOW ARE INCIDENTAL TO SILT FENCE.

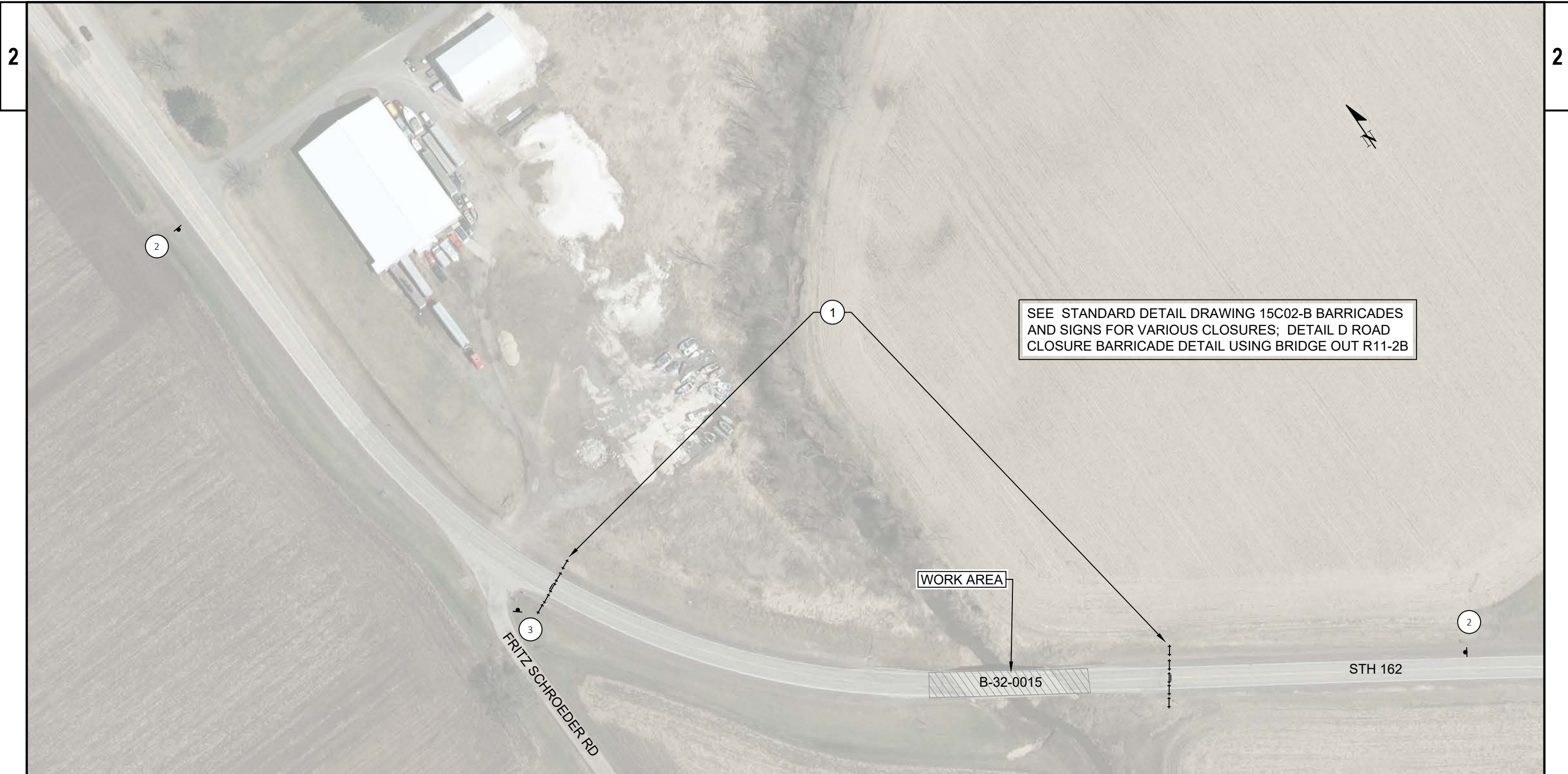


PLAN VIEW

TEMPORARY SMALL ANIMAL TURN-AROUND

- STA. 16+39-16+79 LT
- STA. 16+65-17+33 RT
- STA. 17+07-17+68 LT
- STA. 17+59-18+09 RT





SEE STANDARD DETAIL DRAWING 15C02-B BARRICADES AND SIGNS FOR VARIOUS CLOSURES; DETAIL D ROAD CLOSURE BARRICADE DETAIL USING BRIDGE OUT R11-2B

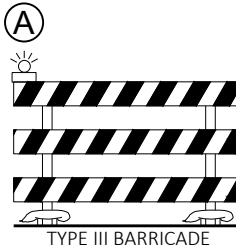
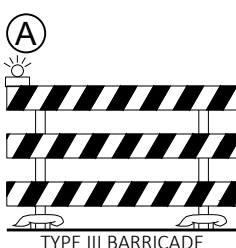
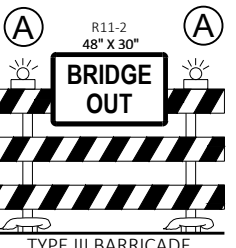
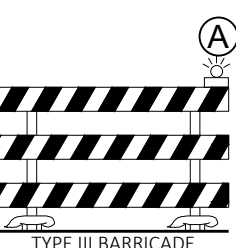
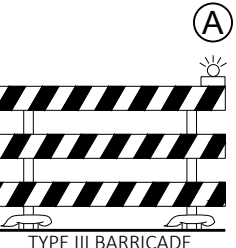


WORK AREA

B-32-0015

STH 162

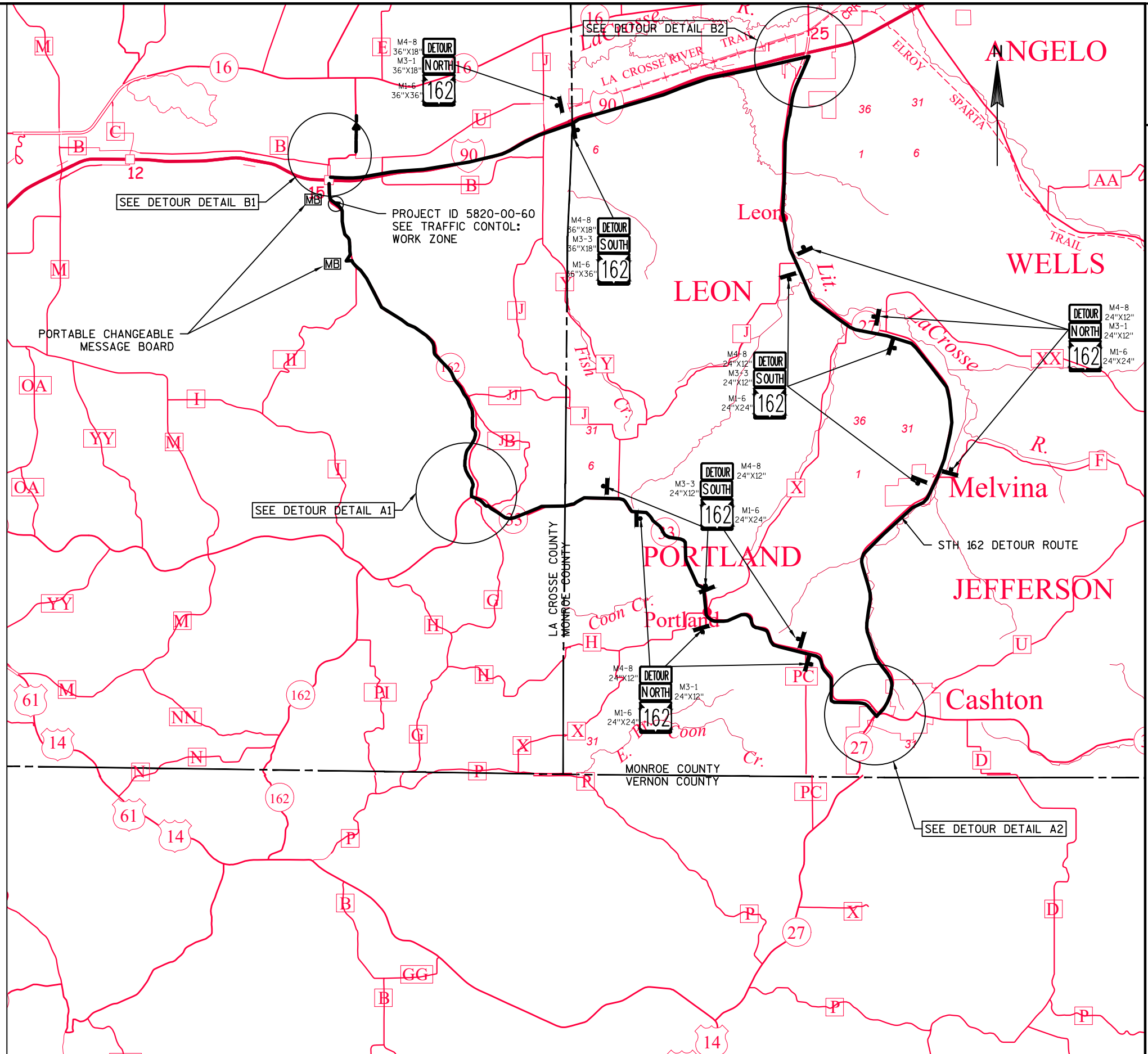
FRITZ SCHROEDER RD

LEGEND

- ①  TYPE III BARRICADE
-  TYPE III BARRICADE
-  TYPE III BARRICADE
-  TYPE III BARRICADE
-  TYPE III BARRICADE
-  ROAD CLOSED 500 FT
-  ROAD CLOSED AHEAD
- Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT
- ⋈ TYPE III BARRICADES
- ⋈ TYPE III BARRICADE WITH SIGN
- ⌚ POST MOUNTED SIGN

PORTABLE CHANGEABLE
MESSAGE BOARD SCHEDULE
PANEL 1
HWY 162
CLOSED

PANEL 2
STARTING
X/XX/XX



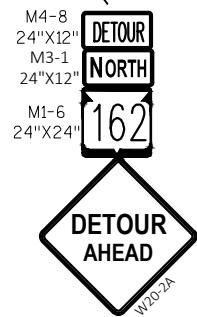
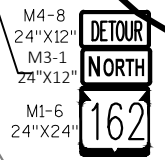
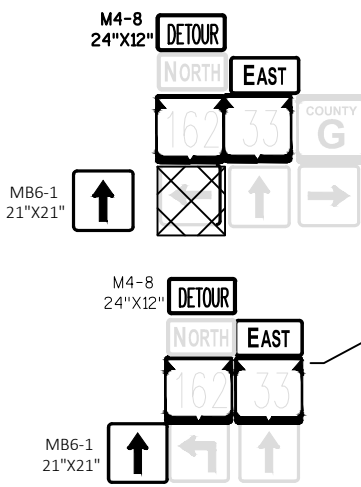
DETOUR OVERVIEW



JB

162

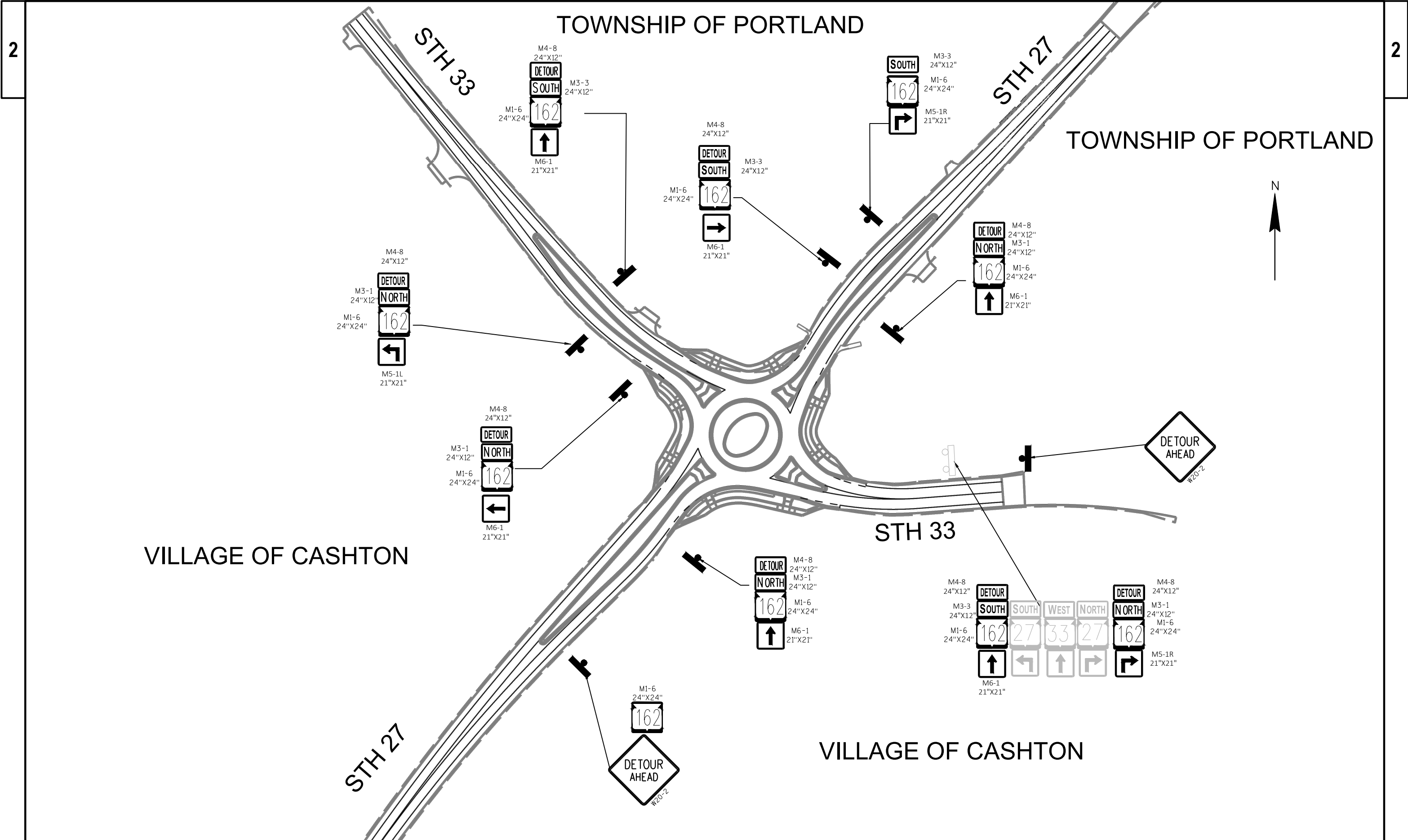
LA CROSSE COUNTY
MONROE COUNTY

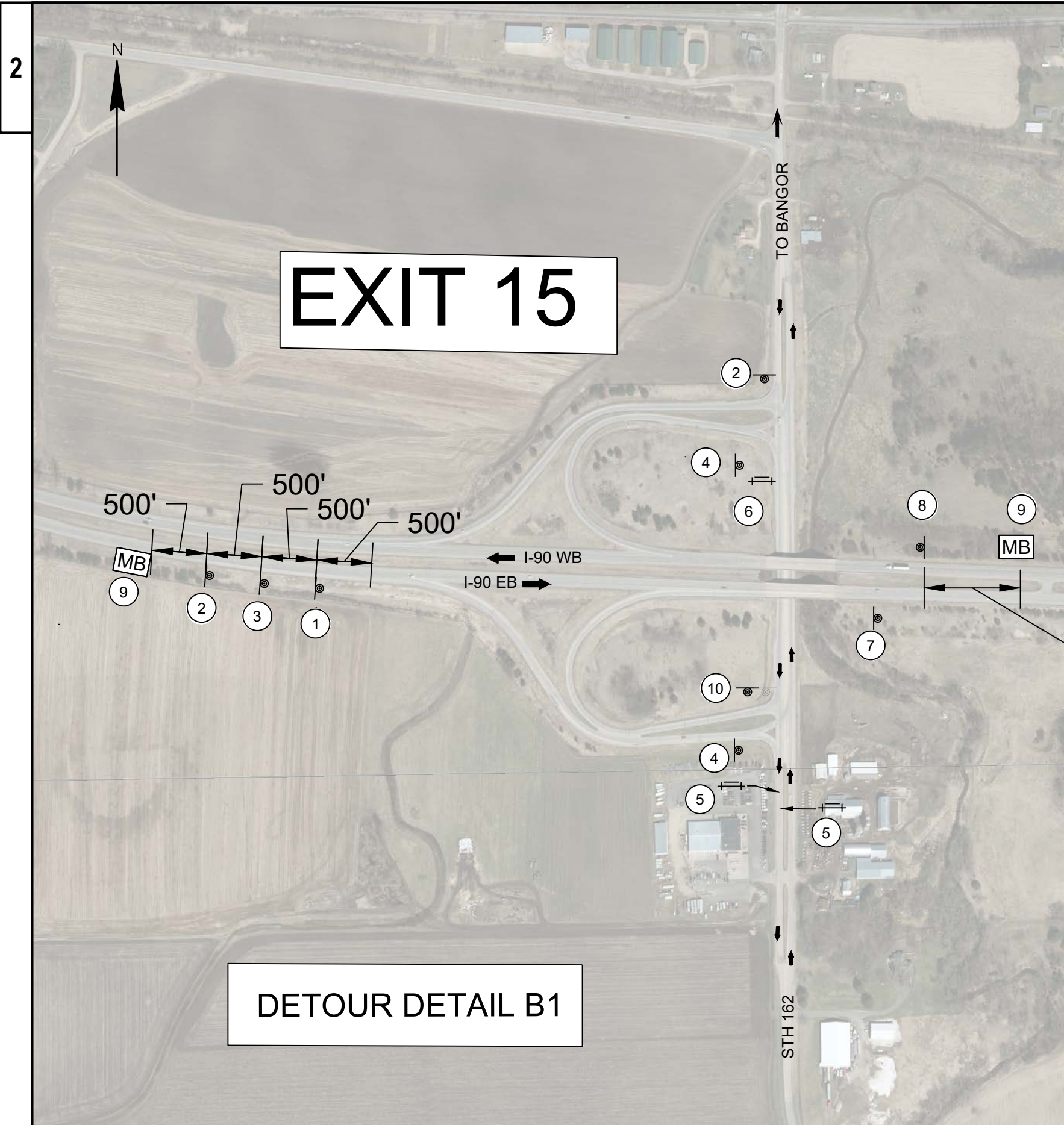


33 162

33

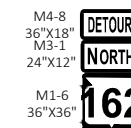
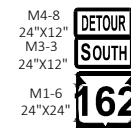
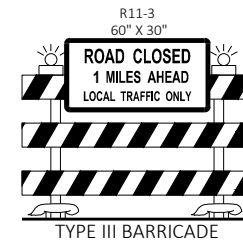
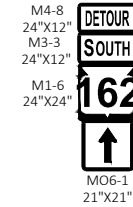
G



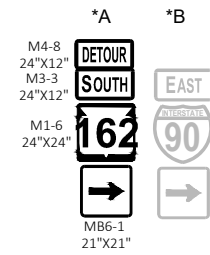


162 SOUTH
MIDDLE RIDGE
USE EXIT 25

STATIC FIXED MESSAGE IH 90W
(SEE SIGNING DETAILS)



PORTABLE CHANGEABLE
MESSAGE BOARD SCHEDULE
PANEL 1 HWY 162 SOUTH CLOSED
PANEL 2 STARTING X/XX/XX

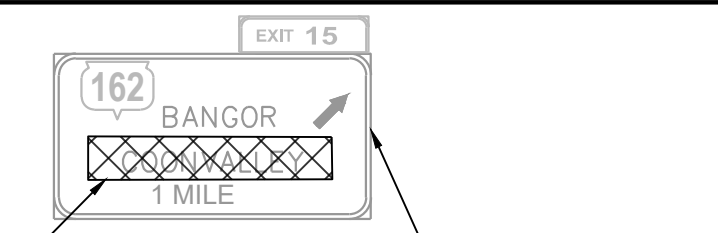


PLACE *A NEXT TO EXISTING POST WITH
IH 90 SIGNS *B

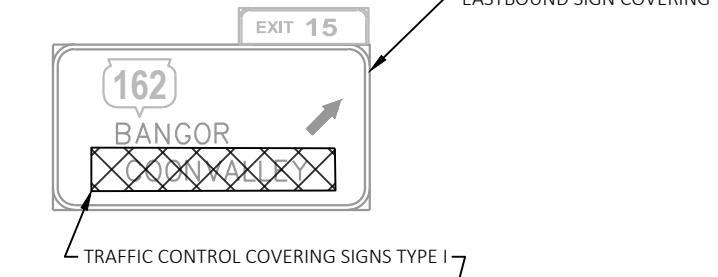


EXIT 15

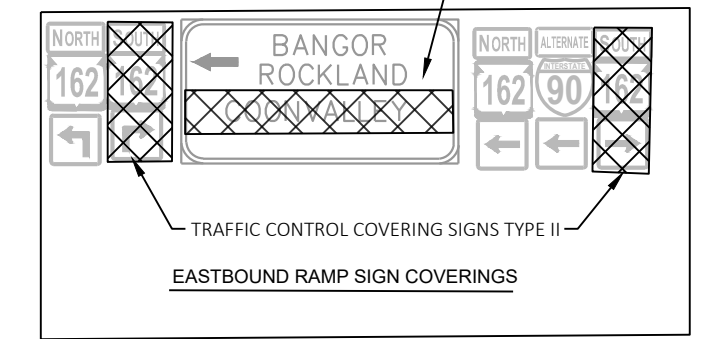
DETOUR DETAIL B1 COVERING SIGNS



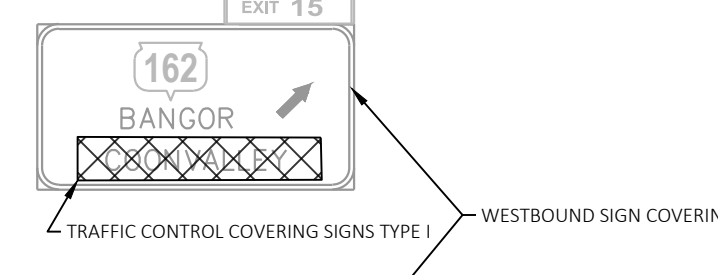
TRAFFIC CONTROL COVERING SIGNS TYPE I EASTBOUND SIGN COVERING



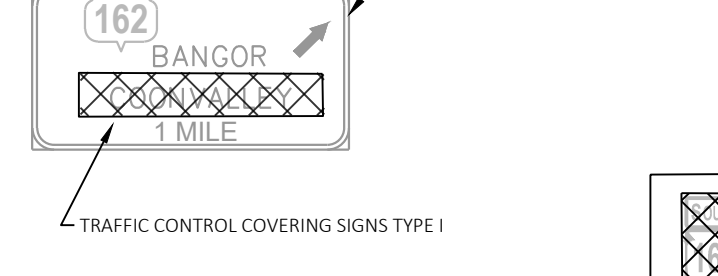
TRAFFIC CONTROL COVERING SIGNS TYPE I



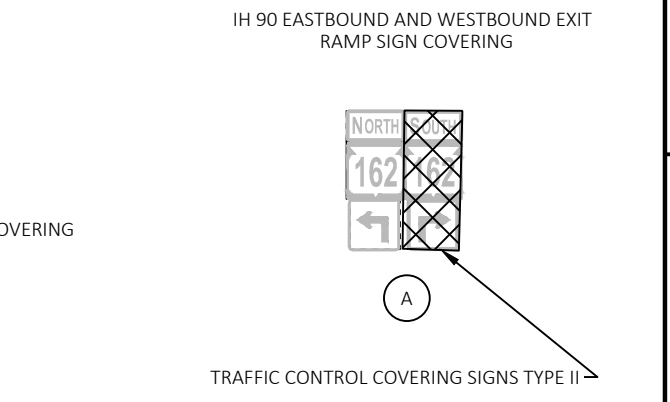
TRAFFIC CONTROL COVERING SIGNS TYPE II EASTBOUND RAMP SIGN COVERINGS



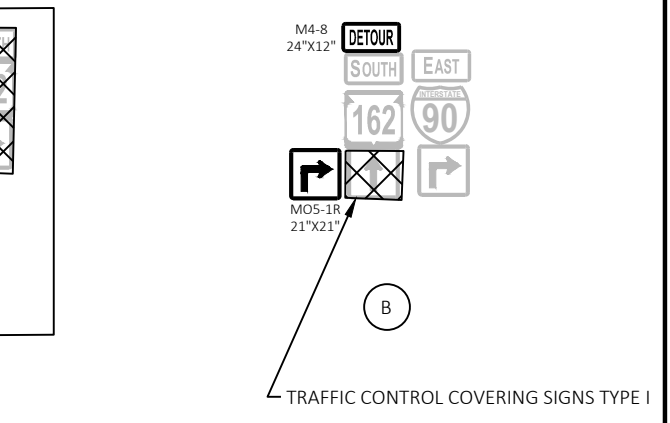
TRAFFIC CONTROL COVERING SIGNS TYPE I WESTBOUND SIGN COVERINGS



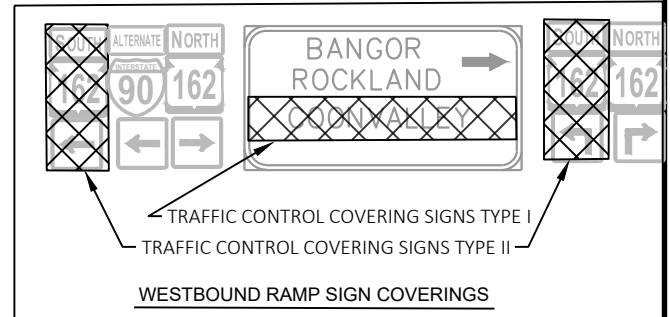
TRAFFIC CONTROL COVERING SIGNS TYPE I



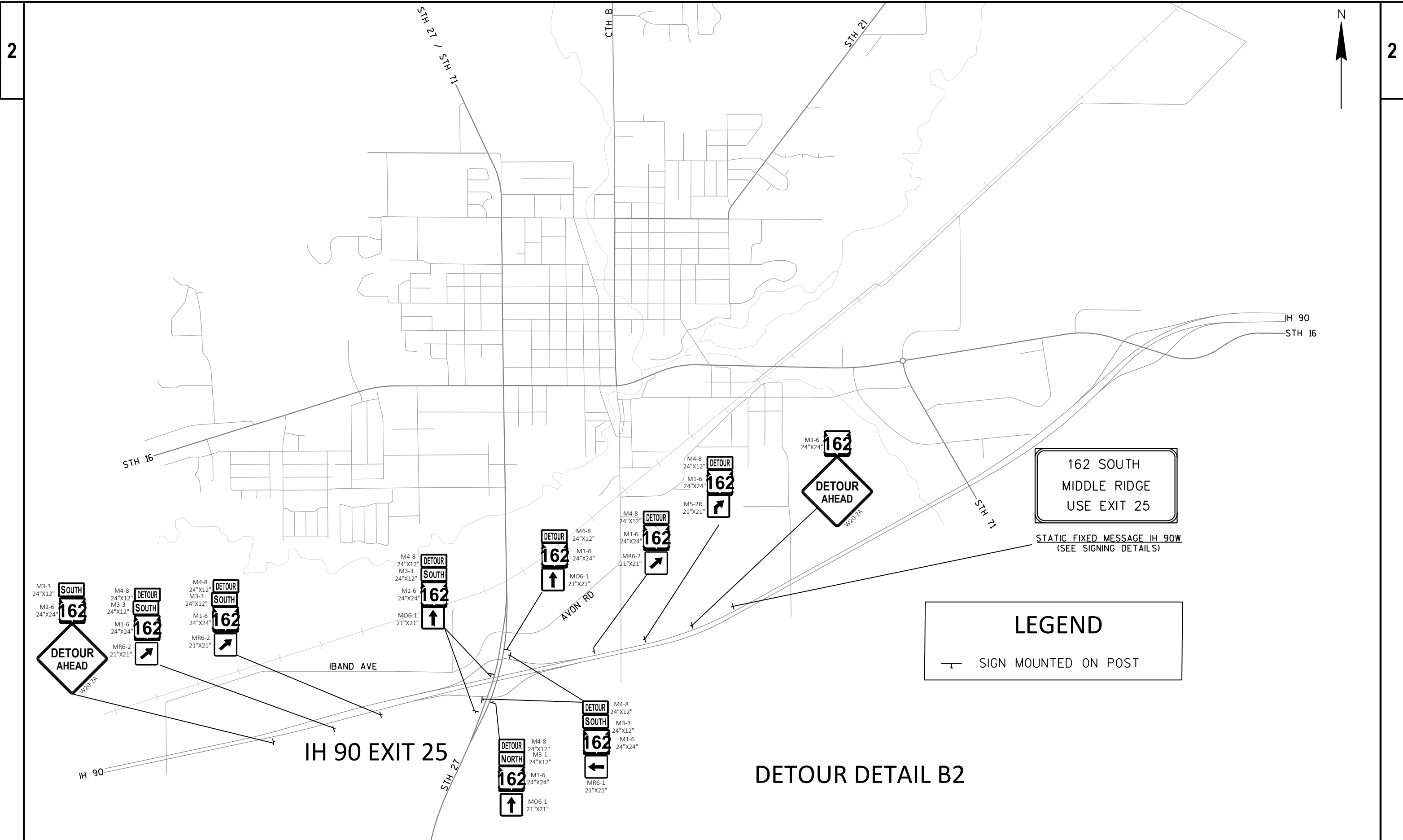
TRAFFIC CONTROL COVERING SIGNS TYPE II



TRAFFIC CONTROL COVERING SIGNS TYPE I



TRAFFIC CONTROL COVERING SIGNS TYPE I TRAFFIC CONTROL COVERING SIGNS TYPE II WESTBOUND RAMP SIGN COVERINGS



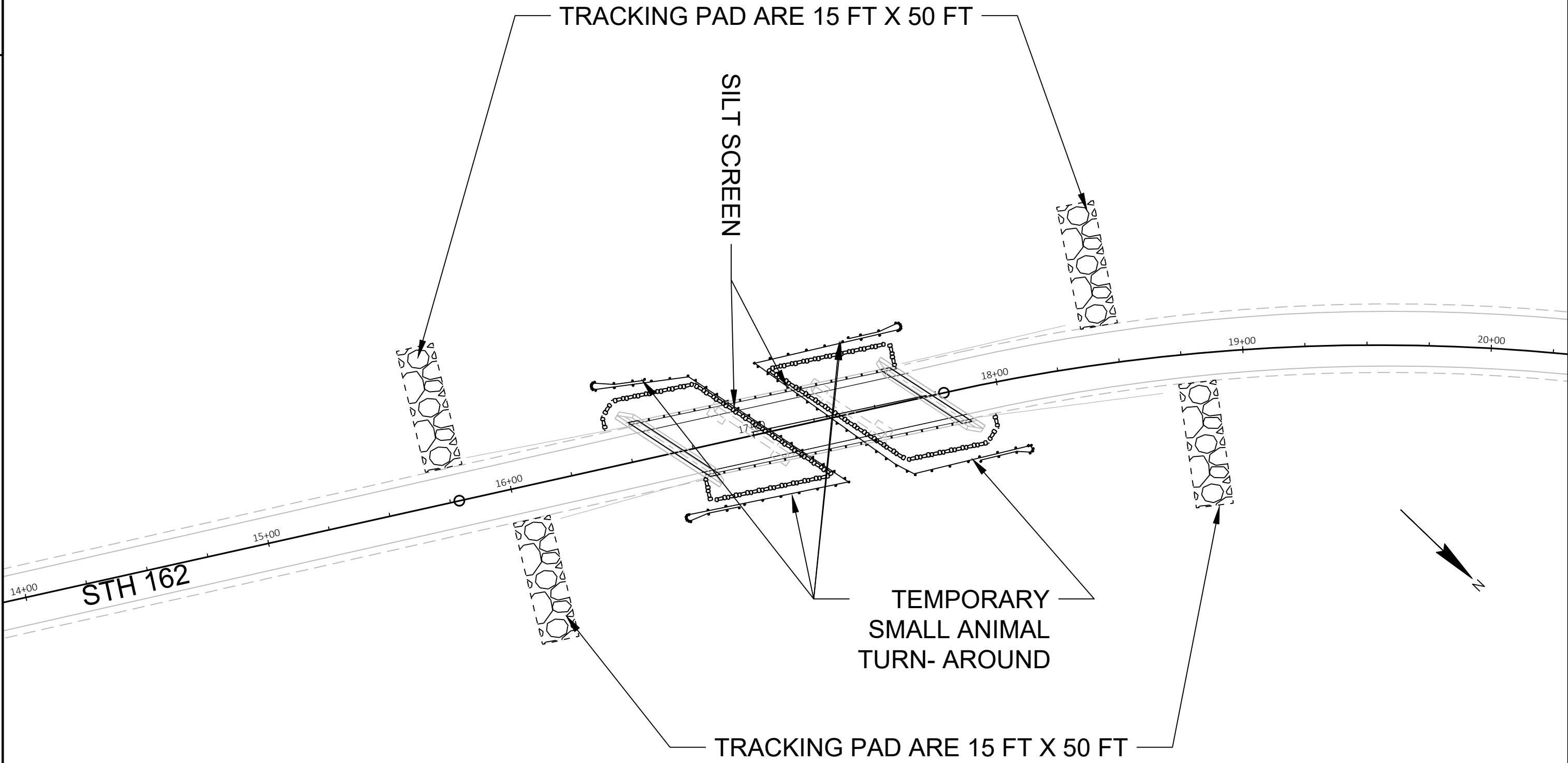
162 SOUTH
MIDDLE RIDGE
USE EXIT 25

STATIC FIXED MESSAGE IH 90W
(SEE SIGNING DETAILS)

LEGEND

— SIGN MOUNTED ON POST

DETOUR DETAIL B2



PROJECT NO: 5820-00-60	HWY: STH 162	COUNTY: LA CROSSE	EROSION CONTROL	SHEET	E
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Estimate Of Quantities

5820-00-60

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 01. B-32-15	EACH	1.000	1.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	539.000	539.000
0006	206.1000	Excavation for Structures Bridges (structure) 01. B-32-15	LS	1.000	1.000
0008	210.1500	Backfill Structure Type A	TON	120.000	120.000
0010	213.0100	Finishing Roadway (project) 01. 5820-00-60	EACH	1.000	1.000
0012	455.0605	Tack Coat	GAL	38.000	38.000
0014	465.0105	Asphaltic Surface	TON	106.000	106.000
0016	502.0100	Concrete Masonry Bridges	CY	10.000	10.000
0018	502.0717.S	Crack Sealing Epoxy	LF	135.000	135.000
0020	502.3101	Expansion Device 01. B-32-15	LF	80.000	80.000
0022	502.3200	Protective Surface Treatment	SY	299.000	299.000
0024	502.4108	Adhesive Anchors 1-inch	EACH	20.000	20.000
0026	502.4205	Adhesive Anchors No. 5 Bar	EACH	78.000	78.000
0028	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	3,570.000	3,570.000
0030	506.2610	Bearing Pads Elastomeric Laminated	EACH	10.000	10.000
0032	509.0301	Preparation Decks Type 1	SY	3.000	3.000
0034	509.0302	Preparation Decks Type 2	SY	1.000	1.000
0036	509.0500	Cleaning Decks	SY	299.000	299.000
0038	509.1000	Joint Repair	SY	34.000	34.000
0040	509.1500	Concrete Surface Repair	SF	663.000	663.000
0042	509.2000	Full-Depth Deck Repair	SY	2.000	2.000
0044	509.2500	Concrete Masonry Overlay Decks	CY	36.000	36.000
0046	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0048	517.3001.S	Structure Overcoating Cleaning and Priming (structure) 01. B-32-15	EACH	1.000	1.000
0050	517.4001.S	Containment and Collection of Waste Materials (structure) 01. B-32-15	EACH	1.000	1.000
0052	517.6001.S	Portable Decontamination Facility	EACH	1.000	1.000
0054	606.0300	Riprap Heavy	CY	324.000	324.000
0056	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5820-00-60	EACH	1.000	1.000
0058	619.1000	Mobilization	EACH	1.000	1.000
0060	625.0500	Salvaged Topsoil	SY	1,995.000	1,995.000
0062	627.0200	Mulching	SY	1,995.000	1,995.000
0064	628.1504	Silt Fence	LF	319.000	319.000
0066	628.1520	Silt Fence Maintenance	LF	638.000	638.000
0068	628.1550	Silt Screen	LF	155.000	155.000
0070	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0074	628.7560	Tracking Pads	EACH	4.000	4.000
0076	629.0210	Fertilizer Type B	CWT	1.000	1.000
0078	630.0120	Seeding Mixture No. 20	LB	66.000	66.000
0080	642.5001	Field Office Type B	EACH	1.000	1.000
0082	643.0300	Traffic Control Drums	DAY	140.000	140.000
0084	643.0420	Traffic Control Barricades Type III	DAY	196.000	196.000
0086	643.0705	Traffic Control Warning Lights Type A	DAY	196.000	196.000
0088	643.0900	Traffic Control Signs	DAY	4,621.000	4,621.000
0090	643.0910	Traffic Control Covering Signs Type I	EACH	10.000	10.000
0092	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000
0094	643.1000	Traffic Control Signs Fixed Message	SF	35.000	35.000
0096	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0098	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	14.000	14.000

Estimate Of Quantities

5820-00-60

Line	Item	Item Description	Unit	Total	Qty
0100	643.5000	Traffic Control	EACH	1.000	1.000
0102	645.0120	Geotextile Type HR	SY	486.000	486.000
0104	646.1020	Marking Line Epoxy 4-Inch	LF	1,156.000	1,156.000
0106	650.9910	Construction Staking Supplemental Control (project) 01. 5820-00-60	LS	1.000	1.000
0108	690.0150	Sawing Asphalt	LF	36.000	36.000
0110	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0112	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 16+91	EACH	1.000	1.000
0114	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	600.000	600.000
0116	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,200.000	1,200.000
0118	SPV.0060	Special 01. Removing Bearings B-32-15	EACH	10.000	10.000
0120	SPV.0060	Special 02. Railing Anchorage Replacement	EACH	2.000	2.000
0122	SPV.0090	Special 01. Flashing Stainless Steel	LF	216.000	216.000
0124	SPV.0090	Special 02. 02 Steel Railing Type W Rehabilitation	LF	216.000	216.000

ASPHALTIC PAVEMENT SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	15+50	-	16+47	STH 162	256	18	50	3.5" DEPTH
0010	17+47	-	18+39	STH 162	283	20	56	3.5" DEPTH
TOTAL 0010					539	38	106	

SALVAGED TOPSOIL, MULCH, FERTILIZER AND SEEDING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	REMARKS
0010	15+35	-	16+40	LT	585	585	0.25	20	
0010	15+97	-	16+75	RT	435	435	0.25	14	
0010	17+65	-	18+50	LT	475	475	0.25	16	
0010	17+98	-	18+88	RT	500	500	0.25	16	
TOTAL 0010					1,995	1,995	1	66	

628.7560

CATEGORY	STATION	LOCATION	628.7560 TRACKING PADS EACH	REMARKS
0010	15+50	LT	1	
0010	16+00	RT	1	
0010	18+65	LT	1	
0010	18+80	RT	1	
TOTAL 0010			4	

643.0300 TRAFFIC CONTROL DRUMS

CATEGORY	LOCATION	NO DRUMS	NO DAY	DAY	REMARKS
0010	STH 162 SB	10	7	70	SEE DETOUR OVERVIEW
0010	IH 90 WB	5	7	35	SEE DETOUR DETAIL B1
0010	IH 90 EB	5	7	35	SEE DETOUR DETAIL B 1
TOTAL 0010				140	

TRAFFIC CONTROL BARRICADE AND LIGHTS SUMMARY

CATEGORY	LOCATION	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	EACH	REMARKS
0010	CL	84	6	84	6	JUST SOUTH OF FRITX SCHROEDER RD
0010	CL	84	6	84	6	SOUTH OF STRUCTURE
0010	STH 162	28	2	28	2	SEE DETOUR DETAIL B1
TOTAL 0010		196		196		

646.1020 MARKING LINE EPOXY 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	SOLID WHITE LF	SOLID DOUBLE YELLOW LF	REMARKS
0010	15+50	-	18+39	LT & RT	578		EDGE LINE
0010	15+50	-	18+39	CL		578	CENTERLINE
TOTAL 0010					578	578	
TOTAL 0010					1,156		

SILT FENCE SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1550 SILT SCREEN LF	REMARKS
0010	16+39	-	16+79	LT	65	130		
0010	16+65	-	17+33	RT	93	186		
0010	16+79	-	17+33				77	
0010	17+07	-	17+59				78	
0010	17+07	-	17+68	LT	86	172		
0010	17+59	-	18+09	RT	75	150		
TOTAL 0010					319	638	155	

690.0150

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	REMARKS
0010	15+50	STH 162	18	BEGIN PROJECT
0010	18+39	STH 162	18	END PROJECT
TOTAL 0010			36	

TRAFFIC CONTROL SIGN SUMMARY

3

3

CATEGORY	LOCATION	643.0900			643.0910	643.0920	643.1000	643.1050			643.1051			REMARKS	SIGN NO.
		NO DAYS	NO SIGN	DAY	TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	TRAFFIC CONTROL SIGNS PCMS			TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS				
							DAY	NO DAYS	EACH	DAY	NO DAYS	EACH			
0010	LT	25	1	25									SEE TRAFFIC CONTROL: WORK ZONE	W20-3D	ROAD CLOSED 500 FT
0010	CL BARRICADE	25	1	25									JUST SOUTH OF FRITZ SCHROEDER RD	R11-2	BRIDGE OUT
0010	CL BARRICADE	25	1	25									SOUTH OF STRUCTURE	R11-2	BRIDGE OUT
0010	RT	25	1	25									SEE TRAFFIC CONTROL: WORK ZONE	W20-3D	ROAD CLOSED 500 FT
0010	VARIOUS	14	3	42			14	7	2				SEE DETOUR OVERVIEW		
0010	STH 27 LT	14	3	42									SEE DETOUR OVERVIEW	M4-8	DETOUR
0010	STH 27 LT	14	3	42									SEE DETOUR OVERVIEW	M3-1	NORTH
0010	STH 27 LT	14	3	42									SEE DETOUR OVERVIEW	M1-6	STH 162
0010	STH 27 RT	14	3	42									SEE DETOUR OVERVIEW	M4-8	DETOUR
0010	STH 27 RT	14	3	42									SEE DETOUR OVERVIEW	M3-3	SOUTH
0010	STH 27 RT	14	3	42									SEE DETOUR OVERVIEW	M1-6	STH 162
0010	STH 33 LT	14	3	42									SEE DETOUR OVERVIEW	M4-8	DETOUR
0010	STH 33 LT	14	3	42									SEE DETOUR OVERVIEW	M3-1	NORTH
0010	STH 33 LT	14	3	42									SEE DETOUR OVERVIEW	M1-6	STH 162
0010	STH 33 RT	14	3	42									SEE DETOUR OVERVIEW	M4-8	DETOUR
0010	STH 33 RT	14	3	42									SEE DETOUR OVERVIEW	M3-3	SOUTH
0010	STH 33 RT	14	3	42									SEE DETOUR OVERVIEW	M1-6	STH 162
0010	I-90 WB LT	25	1	25									SEE DETOUR OVERVIEW	M4-8	DETOUR
0010	I-90 WB LT	25	1	25									SEE DETOUR OVERVIEW	M3-1	NORTH
0010	I-90 WB LT	25	1	25									SEE DETOUR OVERVIEW	M1-6	STH 162
0010	I-90 EB RT	25	1	25									SEE DETOUR OVERVIEW	M4-8	DETOUR
0010	I-90 EB RT	25	1	25									SEE DETOUR OVERVIEW	M3-3	SOUTH
0010	I-90 EB RT	25	1	25									SEE DETOUR OVERVIEW	M1-6	STH 162
0010	STH 162 SB RT	25	1	75									SEE DETOUR DETAIL A1	M6-6RT	ARROWS - RT & AHEAD
0010	STH 162 SB RT	25	1	25									SEE DETOUR DETAIL A1	M1-6	STH 162
0010	STH 162 SB RT	25	1	25									SEE DETOUR DETAIL A1	M3-3	SOUTH
0010	STH 162 SB RT	25	1	25									SEE DETOUR DETAIL A1	M4-8	DETOUR
0010	STH 162 NB LT	25	1	25									SEE DETOUR DETAIL A1	M1-6	STH 162
0010	STH 162 NB LT	25	1	25									SEE DETOUR DETAIL A1	M3-1	NORTH
0010	STH 162 NB LT	25	1	25									SEE DETOUR DETAIL A1	M4-8	DETOUR
0010	STH 162 NB LT	25	1	25									SEE DETOUR DETAIL A1	R11-3	ROAD CLOSED 6.5 MILES AHEAD LOCAL TRAFFIC ONLY
0010	STH 33 WB LT	25	1	25									SEE DETOUR DETAIL A1	M6-6RT	ARROWS - RT & AHEAD
0010	STH 33 WB LT	25	1	25									SEE DETOUR DETAIL A1	M1-6	STH 162
0010	STH 33 WB LT	25	1	25									SEE DETOUR DETAIL A1	M3-3	SOUTH
0010	STH 33 WB LT	25	1	25									SEE DETOUR DETAIL A1	M4-8	DETOUR
SUBTOTAL PAGE 1				1,146	0	0	0	14		0					

TRAFFIC CONTROL SIGN SUMMARY CONT.

NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE I & II ARE FOR ONE CYCLE FOR ALL NECESSARY SIGNS.

CATEGORY	LOCATION	643.0900			643.0910		643.0920		643.1000		643.1050			643.1051			REMARKS	SIGN NO.
		TRAFFIC CONTROL SIGNS			TRAFFIC CONTROL COVERING SIGNS		TRAFFIC CONTROL COVERING SIGNS		TRAFFIC CONTROL SIGNS FIXED MESSAGE		TRAFFIC CONTROL SIGNS PCMS			TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS				
		NO DAYS	NO SIGN	DAY	TYPE I EACH	TYPE II EACH	SF	DAY	NO DAYS	EACH	DAY	NO DAYS	EACH					
0010	STH 162/STH 33 EB RT							1								SEE DETOUR DETAIL A1		
0010	STH 162/STH 33 EB RT							1								SEE DETOUR DETAIL A1		
0010	STH 162/STH 33 WB LT							1								SEE DETOUR DETAIL A1		
0010	STH 162/STH 33 EB RT	25	1	25												SEE DETOUR DETAIL A1	M6-6RT ARROWS - STRAIGHT AHEAD	
0010	STH 162/STH 33 EB RT	25	1	25												SEE DETOUR DETAIL A1	M4-8 DETOUR	
0010	STH 162/STH 33 EB RT	25	1	25												SEE DETOUR DETAIL A1	M6-6RT ARROWS - STRAIGHT AHEAD	
0010	STH 162/STH 33 EB RT	25	1	25												SEE DETOUR DETAIL A1	M4-8 DETOUR	
0010	STH 33 SB RT	25	2	50												SEE DETOUR DETAIL A2	W20-2 DETOUR AHEAD	
0010	STH 33 SB RT	25	2	50												SEE DETOUR DETAIL A2	M5-1L ARROW LEFT	
0010	STH 33 SB RT	25	2	50												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 33 SB RT	25	2	50												SEE DETOUR DETAIL A2	M3-1 NORTH	
0010	STH 33 SB RT	25	1	25												SEE DETOUR DETAIL A2	M5-1L ARROW LEFT	
0010	STH 33 SB RT	25	1	25												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 33 SB RT	25	1	25												SEE DETOUR DETAIL A2	M3-1 NORTH	
0010	STH 33 SB RT	25	1	25												SEE DETOUR DETAIL A2	M4-8 DETOUR	
0010	STH 27 NB RT	25	1	25												SEE DETOUR DETAIL A2	W20-2 DETOUR AHEAD	
0010	STH 27 NB RT	25	1	25												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 27 NB RT	25	1	25												SEE DETOUR DETAIL A2	M06-1 STRAIGHT ARROW	
0010	STH 27 NB RT	25	1	25												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 27 NB RT	25	1	25												SEE DETOUR DETAIL A2	M3-1 NORTH	
0010	STH 27 NB RT	25	1	25												SEE DETOUR DETAIL A2	M4-8 DETOUR	
0010	STH 27 NB LT	25	1	25												SEE DETOUR DETAIL A2	M06-1 STRAIGHT ARROW	
0010	STH 27 NB LT	25	1	25												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 27 NB LT	25	1	25												SEE DETOUR DETAIL A2	M3-1 NORTH	
0010	STH 27 NB LT	25	1	25												SEE DETOUR DETAIL A2	M4-8 DETOUR	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M05-1R ARROW RT	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M3-3 SOUTH	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M4-8 DETOUR	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	W20-2 DETOUR AHEAD	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M-1R ARROW RT	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M1-6 STH 162	
0010	STH 27 SB LT	25	1	25												SEE DETOUR DETAIL A2	M3-3 SOUTH	
SUBTOTAL PAGE 2				850	0	3	0	0	0									

TRAFFIC CONTROL SIGN SUMMARY CONT.

NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE I & II ARE FOR ONE CYCLE FOR ALL NECESSARY SIGNS.

CATEGORY	LOCATION	643.0900			643.0910		643.0920		643.1000		643.1050			643.1051			REMARKS	SIGN NO.		
		TRAFFIC CONTROL SIGNS			TRAFFIC CONTROL COVERING SIGNS TYPE I		TRAFFIC CONTROL COVERING SIGNS TYPE II		TRAFFIC CONTROL SIGNS FIXED MESSAGE		TRAFFIC CONTROL SIGNS PCMS			TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS				DAY	NO DAYS	EACH
		NO DAYS	NO SIGN	DAY	EACH	EACH	SF	DAY	NO DAYS	EACH	DAY	NO DAYS	EACH							
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	W20-2	DETOUR AHEAD		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M-1R	ARROW RT		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M1-6	STH 162		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M3-1	NORTH		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M5-1R	ARROW RT		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M1-6	STH 162		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M3-3	SOUTH		
0010	STH 33 NB RT	25	1	25												SEE DETOUR DETAIL A2	M4-8	DETOUR		
0010	STH 27 NB RT	25	3	75												SEE DETOUR OVERVIEW	M4-8	DETOUR		
0010	STH 27 NB RT	25	3	75												SEE DETOUR OVERVIEW	M3-1	NORTH		
0010	STH 27 NB RT	25	3	75												SEE DETOUR OVERVIEW	M1-6	STH 162		
0010	STH 27 SB LT	25	1	25												SEE DETOUR OVERVIEW	M4-8	DETOUR		
0010	STH 27 SB LT	25	1	25												SEE DETOUR OVERVIEW	M3-3	SOUTH		
0010	STH 27 SB LT	25	1	25												SEE DETOUR OVERVIEW	M1-6	STH 162		
0010	IH 90 EB				2											SEE DETOUR DETAIL B1 COVERING SIGNS				
0010	IH 90 EB RAMP				3	1										SEE DETOUR DETAIL B1 COVERING SIGNS				
0010	IH 90 WB				2											SEE DETOUR DETAIL B1 COVERING SIGNS				
0010	IH 90 WB RAMP				3	1										SEE DETOUR DETAIL B1 COVERING SIGNS				
0010	VARIOUS										14	7	2			SEE DETOUR DETAIL B1				
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	W20-2A	DETOUR AHEAD		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M3-3	SOUTH		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M1-6	STH 162		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M4-8	DETOUR		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M3-3	SOUTH		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M1-6	STH 162		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	MO6-1	ARROW		
0010	I-90 EB RT						21									SEE DETOUR DETAIL B1	MIDDLE RIDGE USE EXIT 25			
0010	I-90 EB EXIT 15 RAMP RT	25	1	25												SEE DETOUR DETAIL B1	M3-3	SOUTH		
0010	I-90 EB EXIT 15 RAMP RT	25	1	25												SEE DETOUR DETAIL B1	M1-6	STH 162		
0010	I-90 EB EXIT 15 RAMP RT	25	1	25												SEE DETOUR DETAIL B1	W20-3A	ROAD CLOSED AHEAD		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M4-8	DETOUR		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M3-3	SOUTH		
0010	I-90 EB RT	25	1	25												SEE DETOUR DETAIL B1	M1-6	STH 162		
SUBTOTAL PAGE 3				825	10	2	21	0			14									

TRAFFIC CONTROL SIGN SUMMARY CONT.

NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE I & II ARE FOR ONE CYCLE FOR ALL NECESSARY SIGNS.

CATEGORY	LOCATION	643.0900			643.0910		643.0920		643.1000	643.1050			643.1051			REMARKS	SIGN NO.
		TRAFFIC CONTROL SIGNS			TRAFFIC CONTROL COVERING SIGNS TYPE I		TRAFFIC CONTROL COVERING SIGNS TYPE II		TRAFFIC CONTROL SIGNS FIXED MESSAGE	TRAFFIC CONTROL SIGNS PCMS			TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS				
		NO DAYS	NO SIGN	DAY	EACH	EACH	SF	DAY	NO DAYS	EACH	DAY	NO DAYS	EACH				
0010	STH 162 SB LT	25	1	25											SEE DETOUR DETAIL B1	R11-3	ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	W20-2A	DETOUR AHEAD
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M3-3	SOUTH
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M3-3	SOUTH
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M06-1	ARROW
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M3-3	SOUTH
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 EB RT	25	1	25											SEE DETOUR DETAIL B2	MR6-2	ARROW
0010	I-90 EB EXIT 25 RAMP RT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	I-90 EB EXIT 25 RAMP RT	25	1	25											SEE DETOUR DETAIL B2	M3-3	SOUTH
0010	I-90 EB EXIT 25 RAMP RT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 EB EXIT 25 RAMP RT	25	1	25											SEE DETOUR DETAIL B2	M6-1	ARROW
0010	I-90 WB LT	25						14							SEE DETOUR DETAIL B2	MIDDLE RIDGE USE EXIT 25	
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	W20-2A	DETOUR AHEAD
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M3-3	SOUTH
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 WB LT	25	1	25											SEE DETOUR DETAIL B2	M05-2R	ARROW
0010	I-90 WB EXIT 25 RAMP LT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	I-90 WB EXIT 25 RAMP LT	25	1	25											SEE DETOUR DETAIL B2	M3-3	SOUTH
0010	I-90 WB EXIT 25 RAMP LT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	I-90 WB EXIT 25 RAMP LT	25	1	25											SEE DETOUR DETAIL B2	M6-1	ARROW
0010	STH 27 NB RT	25	1	25											SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 27 NB RT	25	1	25											SEE DETOUR DETAIL B2	M3-1	NORTH
0010	STH 27 NB RT	25	1	25											SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 27 NB RT	25	1	25											SEE DETOUR DETAIL B2	M06-1	ARROW
SUBTOTAL PAGE 4				800				14									

TRAFFIC CONTROL SIGN SUMMARY CONT.

NOTE: TRAFFIC CONTROL COVERING SIGNS TYPE I & II INCLUDE FOR ONE CYCLE FOR ALL NECESSARY SIGNS.

CATEGORY	LOCATION	643.0900			643.0910	643.0920	643.1000	643.1050			643.1051			REMARKS	SIGN NO.
		TRAFFIC CONTROL SIGNS			TRAFFIC CONTROL COVERING SIGNS TYPE I	TRAFFIC CONTROL COVERING SIGNS TYPE II	TRAFFIC CONTROL SIGNS FIXED MESSAGE	TRAFFIC CONTROL SIGNS PCMS			TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS				
		NO DAYS	NO SIGN	DAY	EACH	EACH	SF	DAY	NO DAYS	EACH	DAY	NO DAYS	EACH		
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M3-1	SOUTH
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M06-1	ARROW
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M06-1	ARROW
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M3-1	NORTH
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 27 NB RT	25	1	25									SEE DETOUR DETAIL B2	M06-1	ARROW
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M3-1	SOUTH
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 27 SB RT	25	2	50									SEE DETOUR DETAIL B2	M06-1	ARROW
0010	STH 27 SB RT	25	1	25									SEE DETOUR DETAIL B2	M3-1	SOUTH
0010	STH 27 SB RT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 27 SB RT	25	1	25									SEE DETOUR DETAIL B2	M06-1	ARROW
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M3-1	SOUTH
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M06-1	ARROW
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M3-1	SOUTH
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	STH 16 WB LT	25	1	25									SEE DETOUR DETAIL B2	M05-1L	ARROW
0010	IH 90 EB RT	25	1	25									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	IH 90 EB RT	25	1	25									SEE DETOUR DETAIL B2	M3-1	SOUTH
0010	IH 90 EB RT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
0010	IH 90 WB LT	25	1	25									SEE DETOUR DETAIL B2	M4-8	DETOUR
0010	IH 90 WB LT	25	1	25									SEE DETOUR DETAIL B2	M3-1	NORTH
0010	IH 90 WB LT	25	1	25									SEE DETOUR DETAIL B2	M1-6	STH 162
SUBTOTAL PAGE 5				1,000	0	0	0	0			0				
SUBTOTAL PAGE 1				1,146	0	0	0	14			0				
SUBTOTAL PAGE 2				850	0	3	0	0			0				
SUBTOTAL PAGE 3				825	10	2	21	0			0		14		
SUBTOTAL PAGE 4				800	0	0	14	0			0				
SUBTOTAL PAGE 5				1,000	0	0	0	0			0				
GRAND TOTAL QUANT				4,621	10	5	35	14			14				

PROJECT NO: 5820-00-60

HWY: STH 162

COUNTY: LA CROSSE

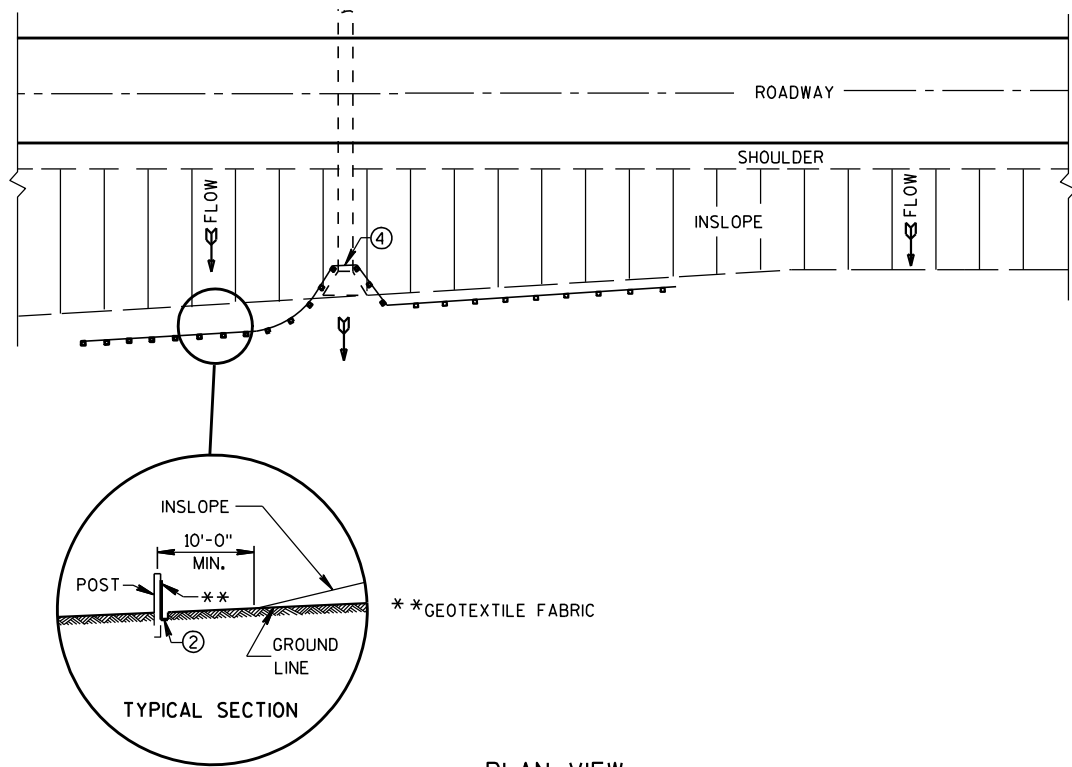
MISCELLANEOUS QUANTITIES

SHEET

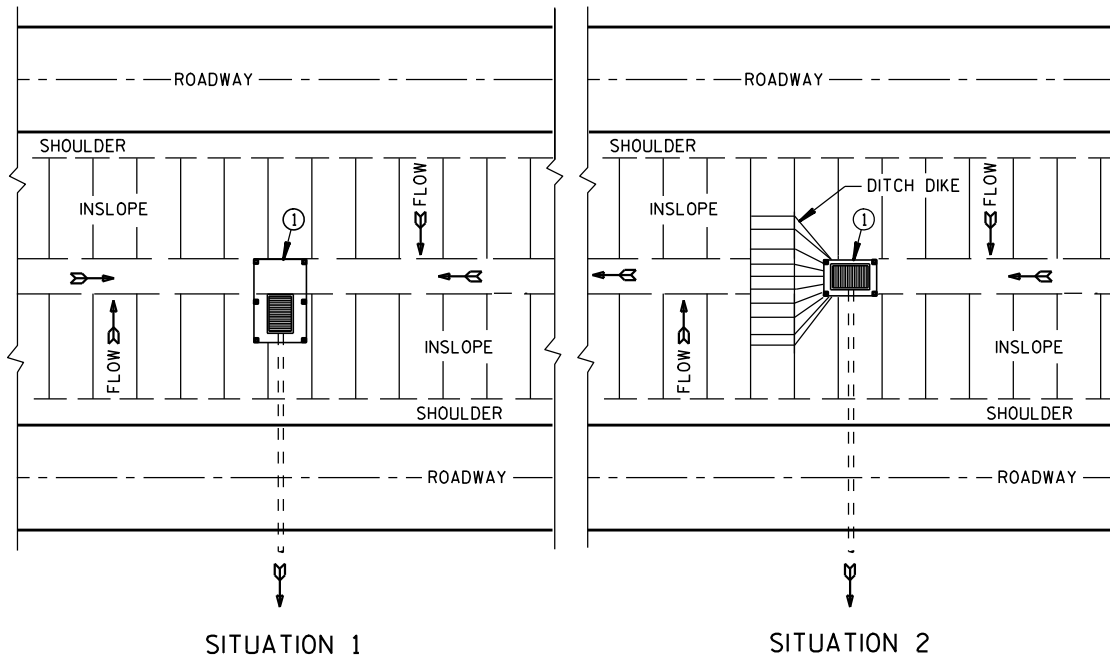
E

Standard Detail Drawing List

08E09-06	SILT FENCE
08E12-01	SILT SCREEN
08E14-01	TRACKING PAD
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

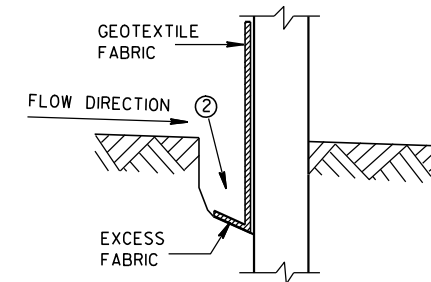


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

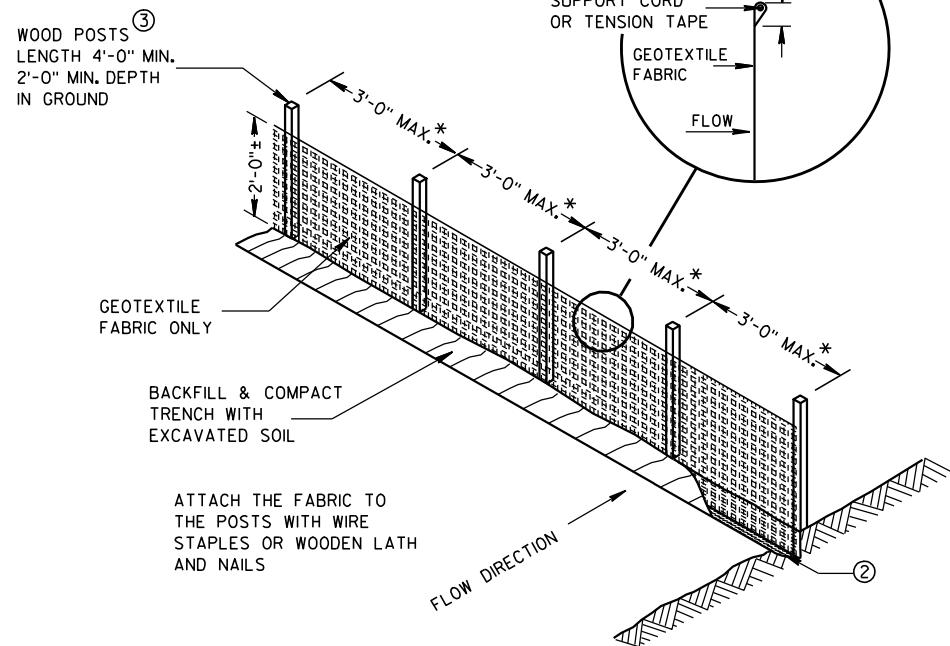
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



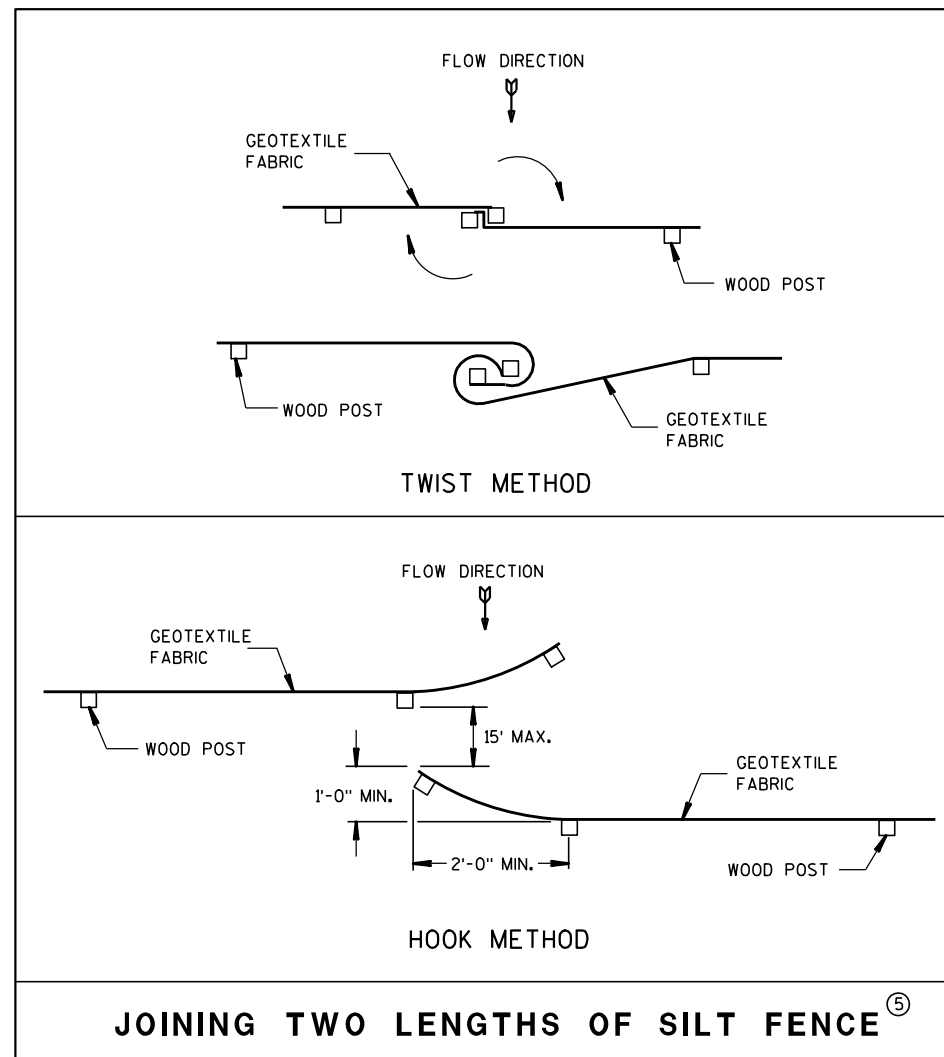
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

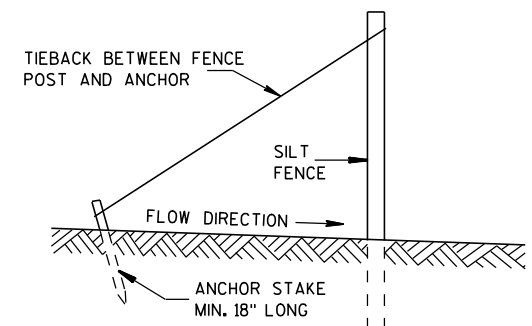


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

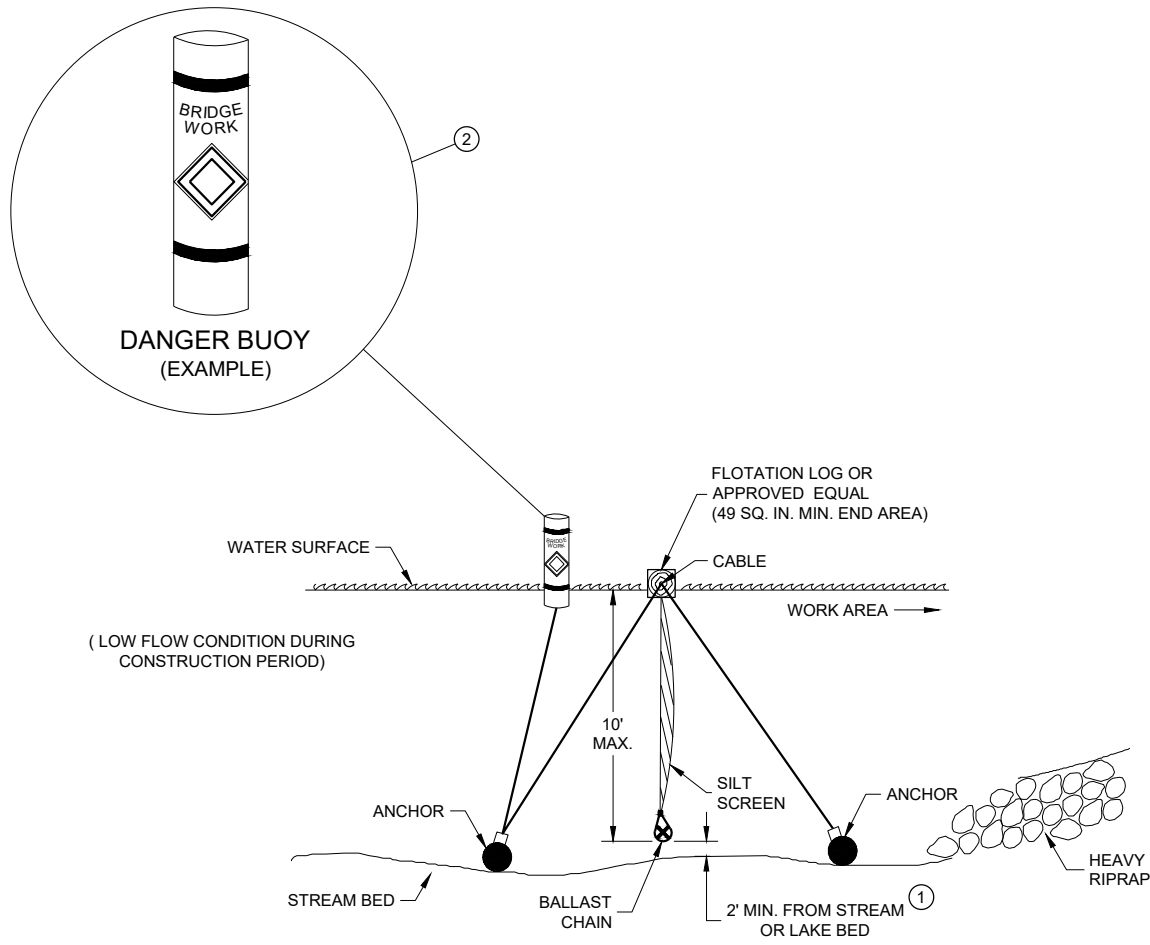
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

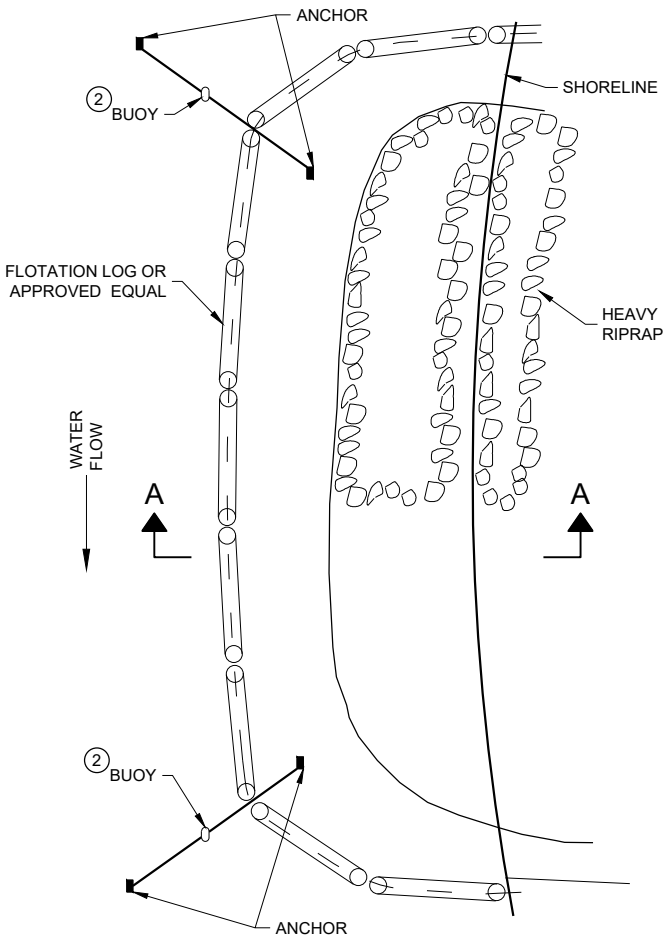
GENERAL NOTES

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 2' MINIMUM SHALL BE MAINTAINED DURING CONSTRUCTION PERIOD.
- ② USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



SECTION A - A



PLAN VIEW

SILT SCREEN PLACEMENT DETAIL

SILT SCREEN	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

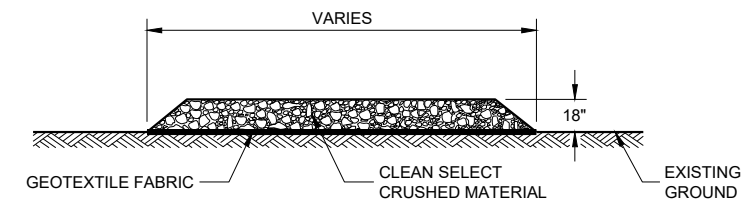
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

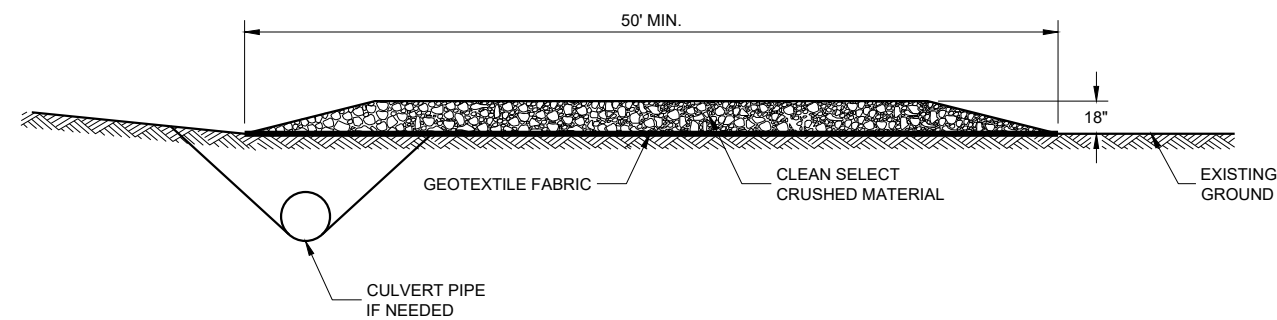
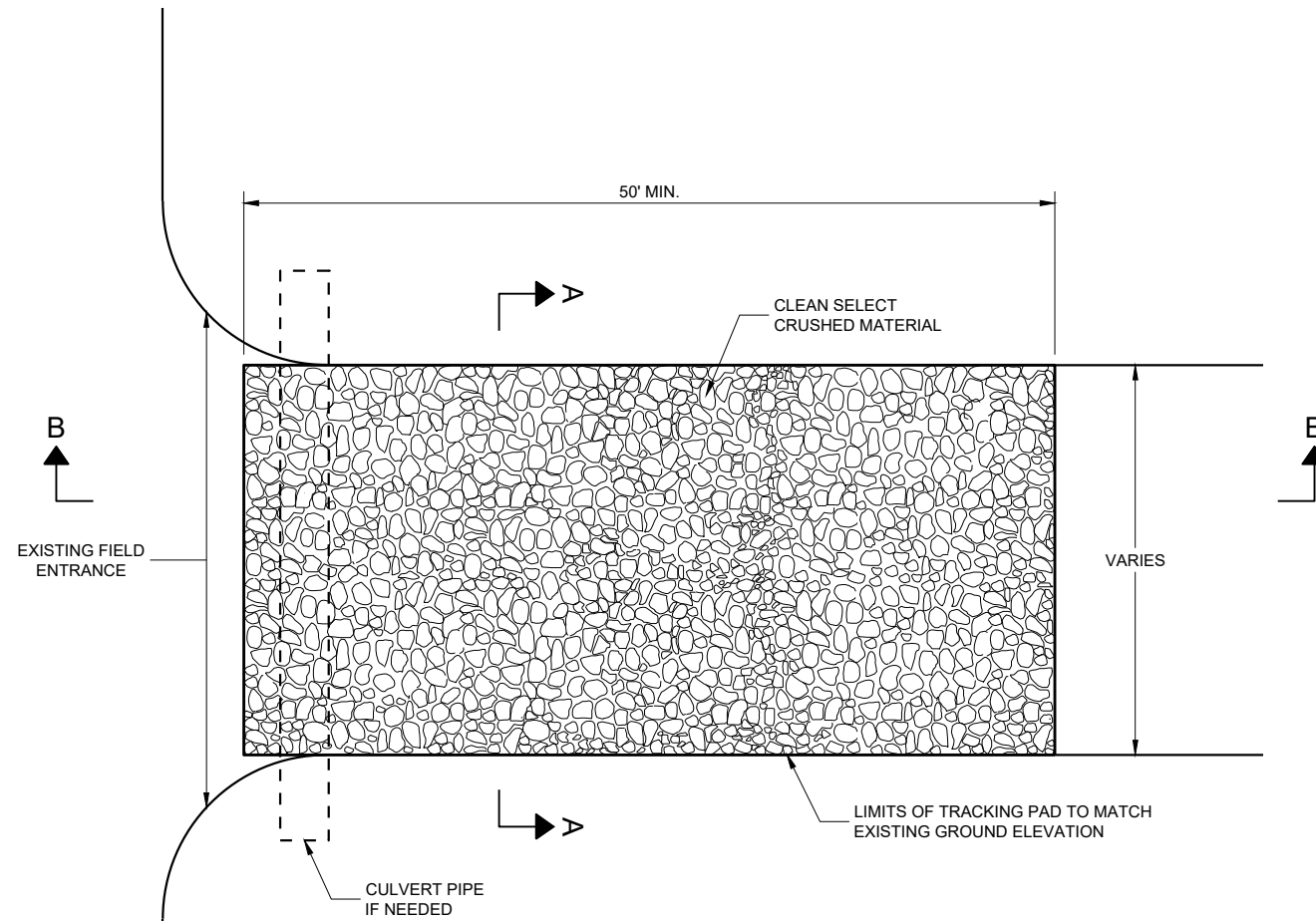
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A



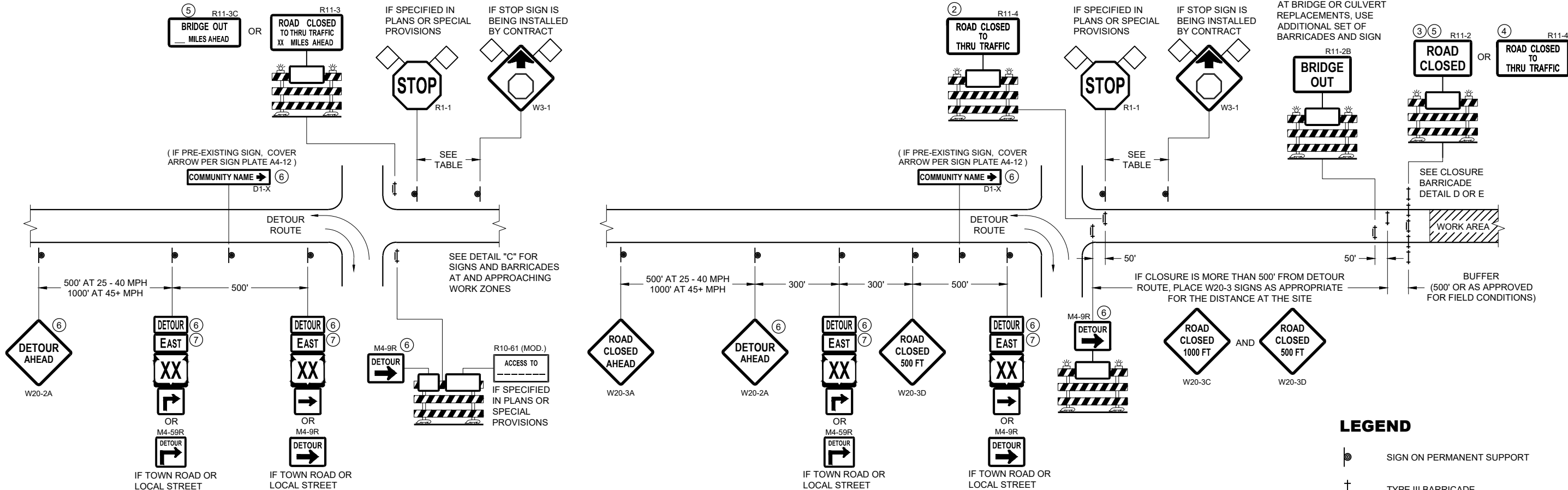
SECTION B - B

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

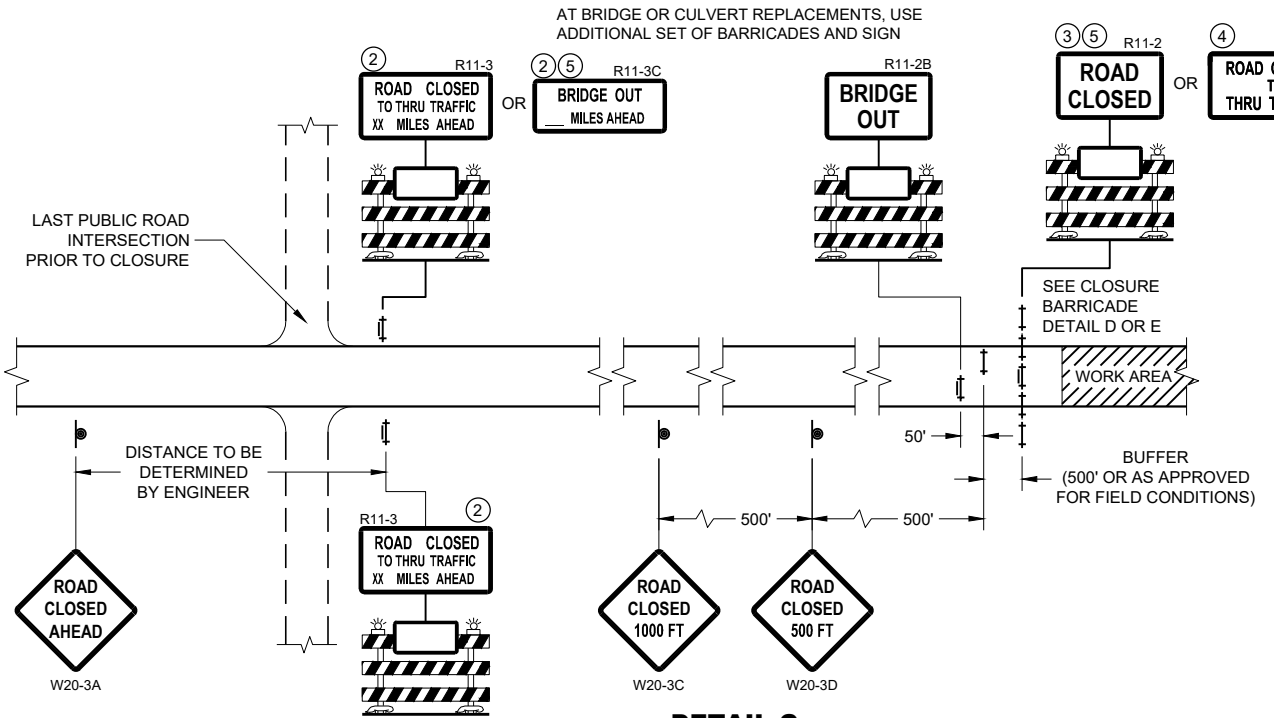
**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

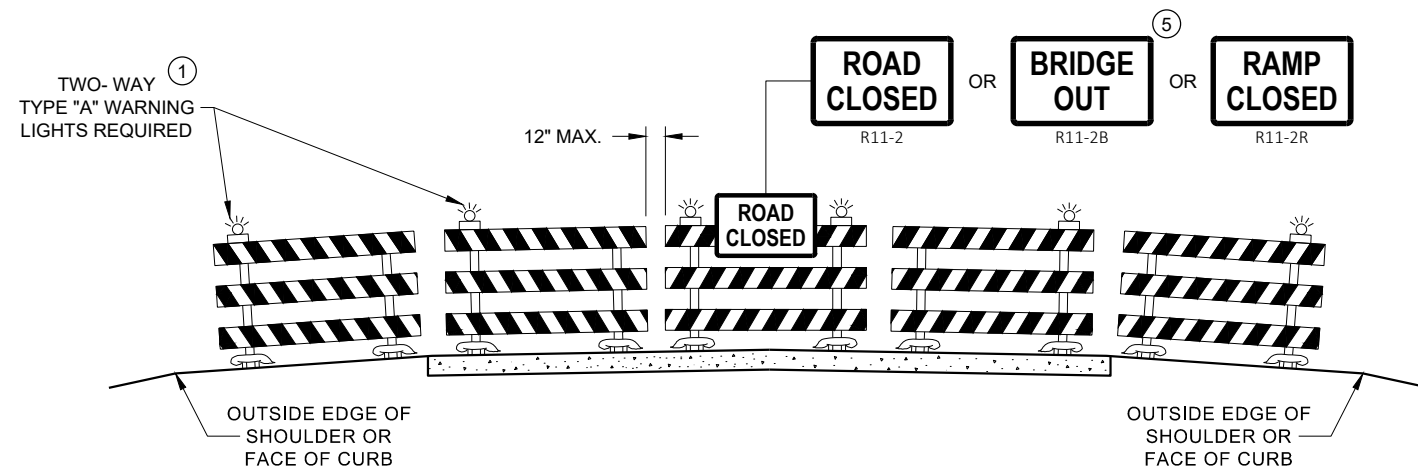
SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

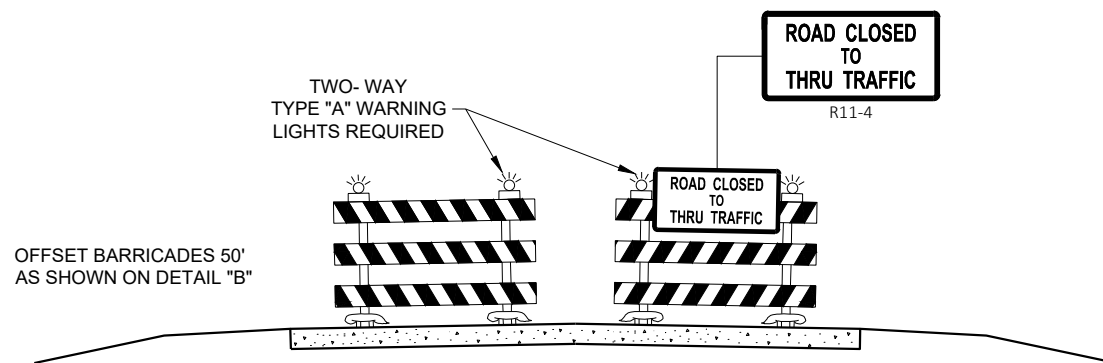
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

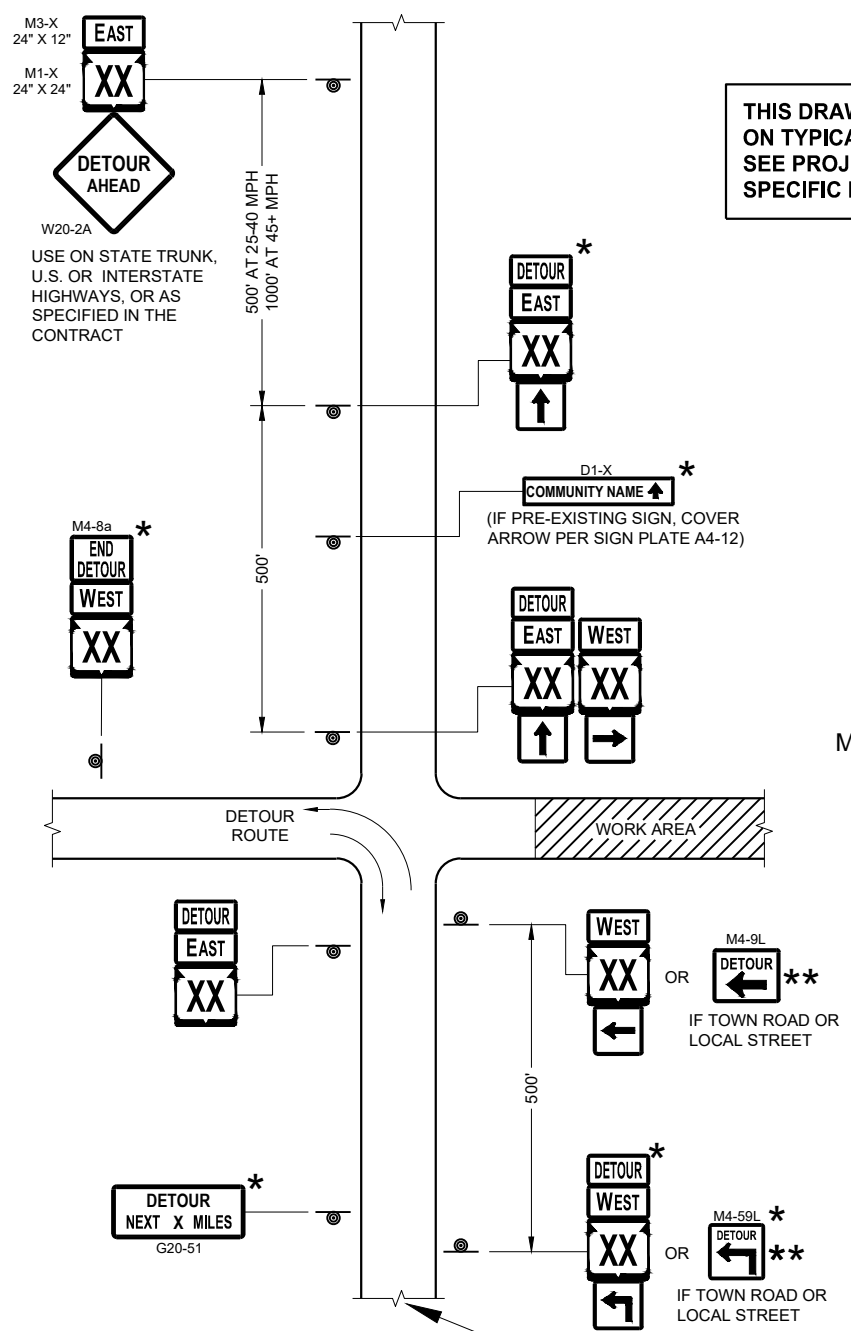
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24"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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

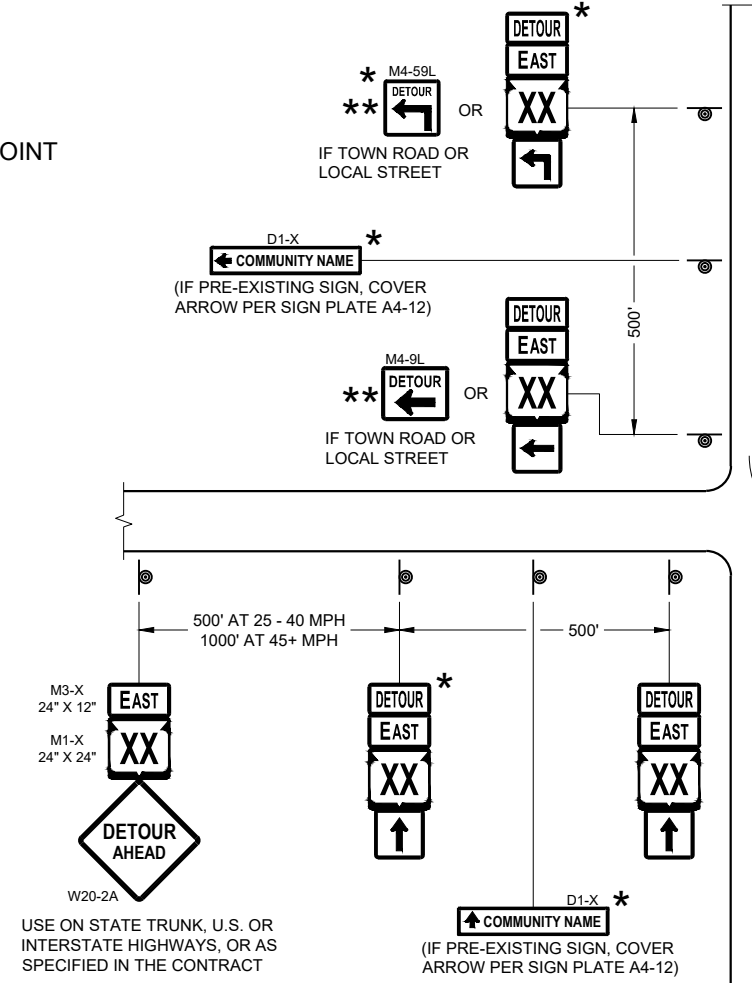
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

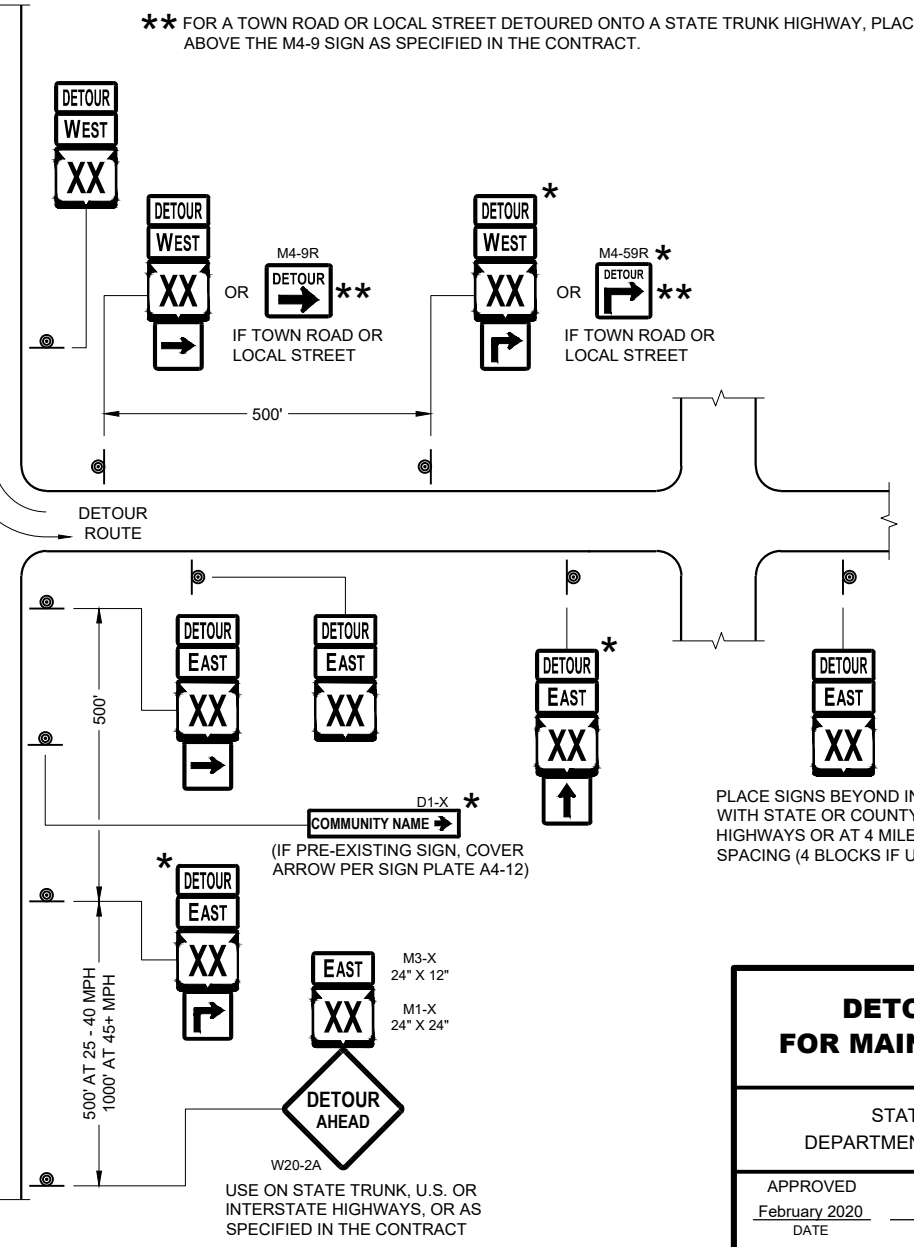
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



**DETAIL F
DETOUR SIGNING**



**DETOUR SIGNING
FOR MAINLINE CLOSURES**

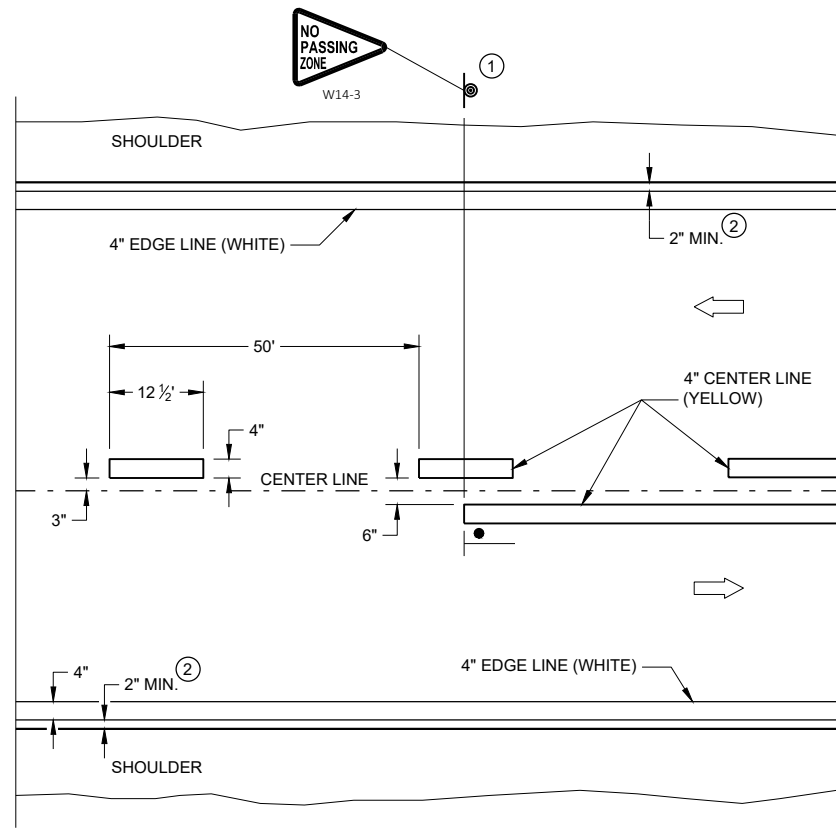
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

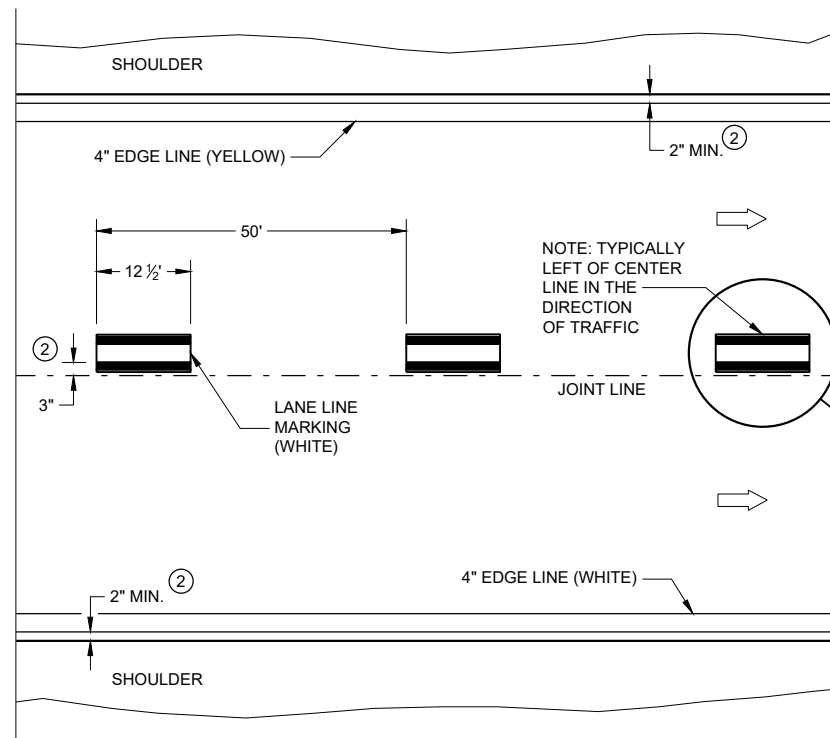
FHWA

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

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

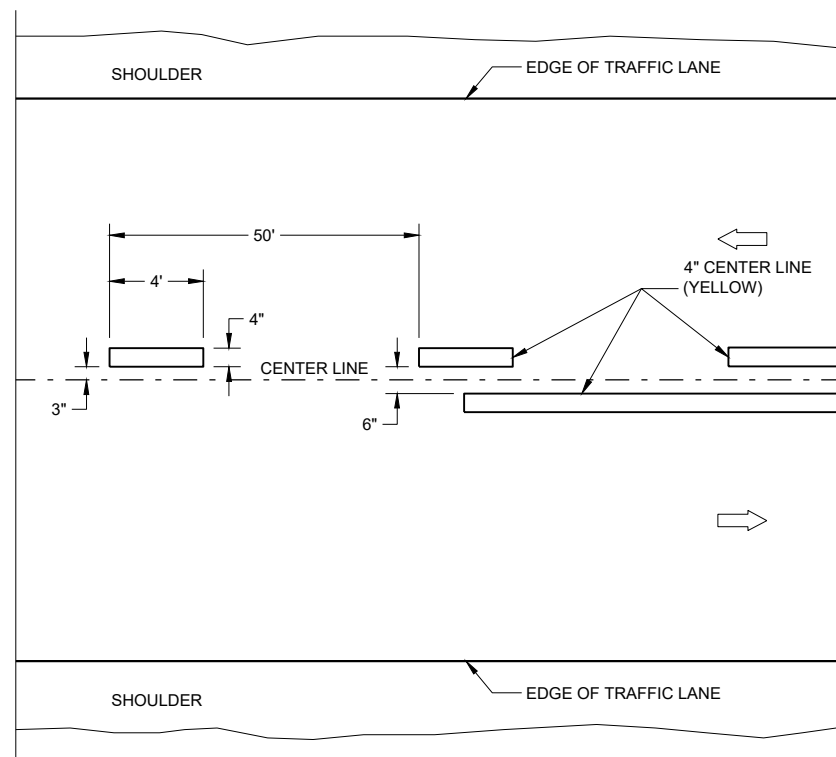


TWO WAY TRAFFIC

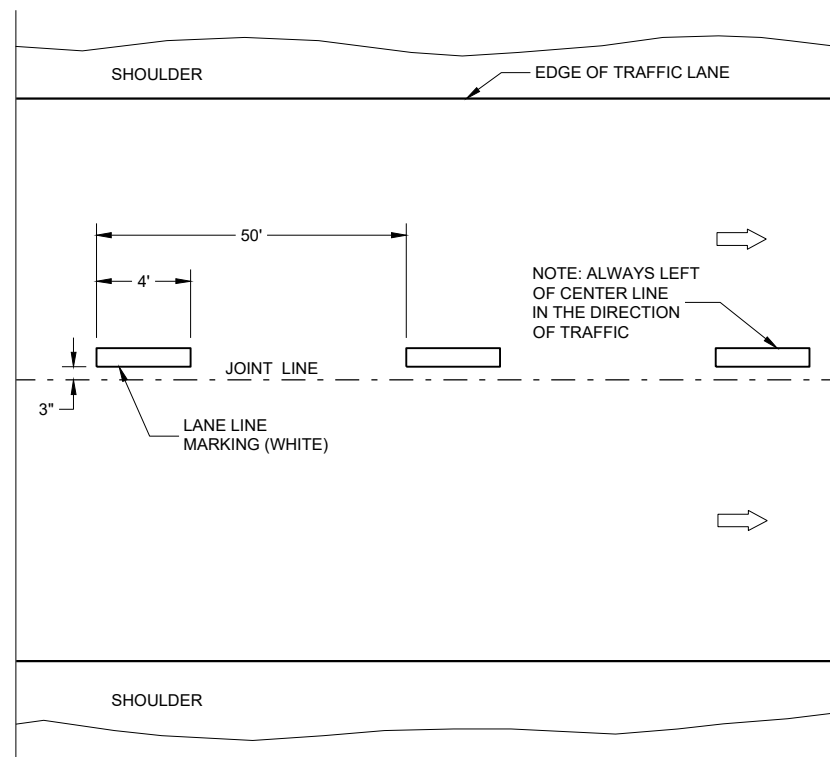


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

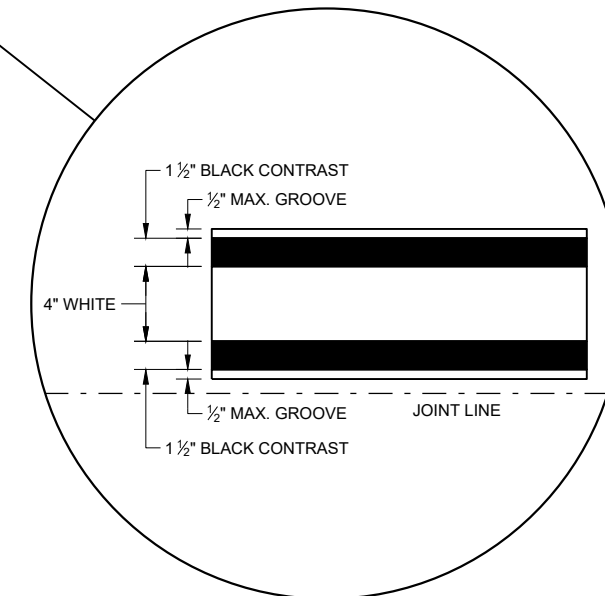
GENERAL NOTES

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

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

LEGEND

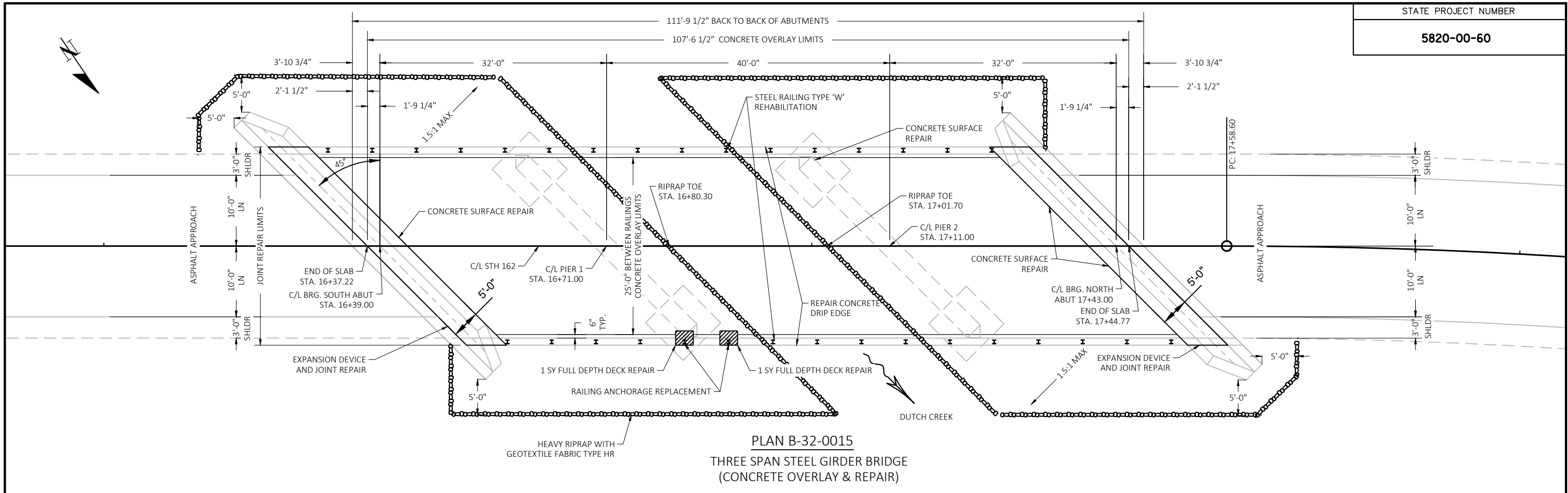
- |• "T" MARKING
- ⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



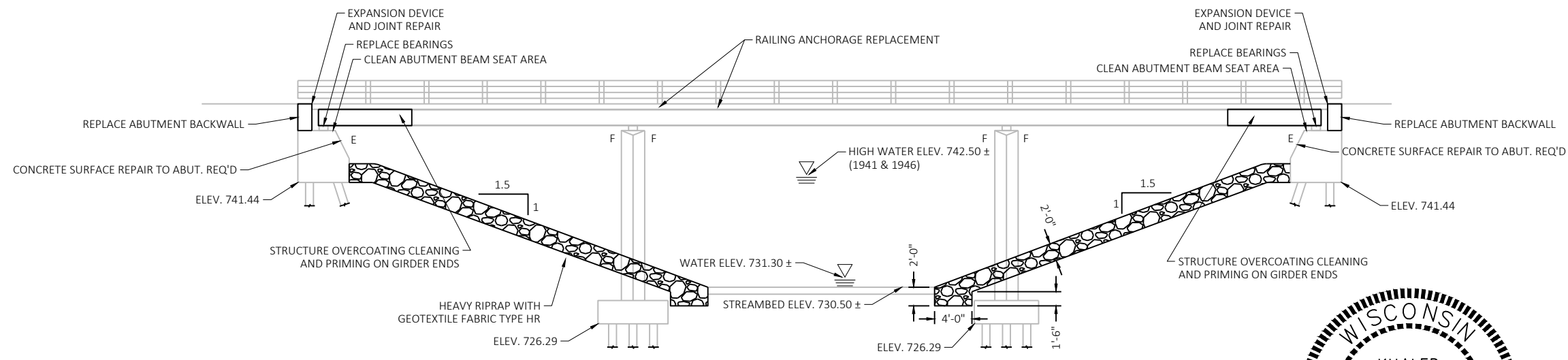
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER



PLAN B-32-0015
 THREE SPAN STEEL GIRDER BRIDGE
 (CONCRETE OVERLAY & REPAIR)



ELEVATION

BRIDGE OFFICE CONTACT
 AARON BONK (608) 261-0261
 CONSULTANT CONTACT:
 KHALED ABOUEID, PE (312) 577-3321

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY:
KNIGHT
 831 Critter Court
 Suite 400
 Onalaska, WI 54650
 Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 ACCEPTED *[Signature]* SDR **04/15/22**
 CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-32-0015

LOCATION STH 162 OVER DUTCH CREEK
 COUNTY LA CROSSE VILLAGE BANGOR

DESIGN SPEC. REHABILITATION N/A
 DESIGNED BY KA DESIGN CK'D. LS DRAWN BY CJO PLANS CK'D. LS

GENERAL PLAN SHEET 1 OF 9



4/13/2022

DESIGN DATA

LIVE LOAD:
 INVENTORY RATING: HS-21
 OPERATING RATING: HS-35
 WISCONSIN STANDARD PERMIT VEHICLE LOAD (Wis-SPV) = 180 KIPS

MATERIAL PROPERTIES
 CONCRETE MASONRY - OVERLAY F'C = 4,000 PSI
 - ALL OTHER F'C = 3,500 PSI

HIGH-STRENGTH BAR REINFORCEMENT
 AASHTO GRADE 60 FY = 60,000 PSI

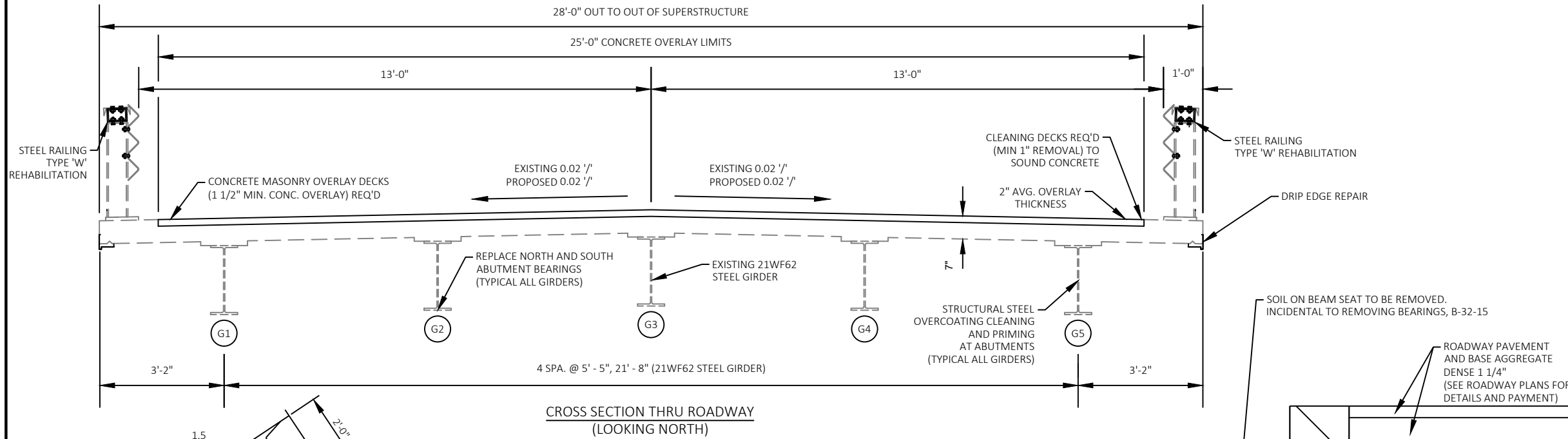
LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION
3. EXPANSION JOINTS
4. LAMINATED ELASTOMERIC BEARING DETAILS
5. PIER CONCRETE REPAIR
6. ABUTMENT CONCRETE REPAIR
7. BACKWALL REPLACEMENT
8. PAINTING DETAILS
9. RAILING AND DRIP EDGE REPAIR

TRAFFIC DATA
 ADT: 2,200 (2044)
 RDS: 60 MPH

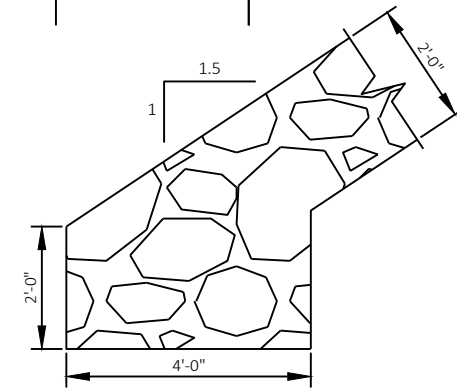
NOTES:

BRIDGE AND WATERLINE ELEVATIONS TAKEN FROM 1953 AS BUILT PLANS AND ARE FOR VERTICAL REFERENCE ONLY



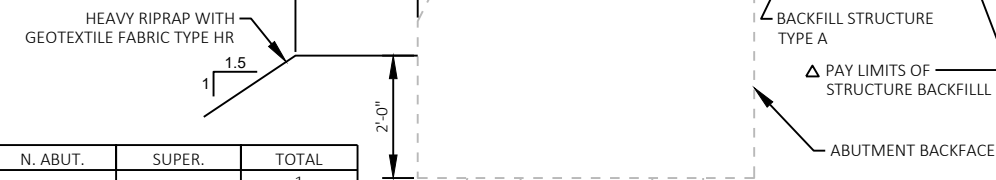
GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- DIMENSIONS SHOWN ARE BASED OFF OF ORIGINAL STRUCTURE PLANS, INSPECTION REPORTS & FIELD SURVEY.
- PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1 1/2" PLACED ABOVE THE DECK SURFACE AFTER CLEANING THE DECK. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.
- A MINIMUM OF 1" OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER BID ITEM "CLEANING DECKS".
- PREPARATION DECKS AND FULL DEPTH REPAIR SHALL BE DETERMINED BY FIELD ENGINEER AND TO BE FILLED WITH CONCRETE MASONRY OVERLAY DECKS.
- POST CLEANING DECKS, CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER, PAID FOR AS CRACK SEALING EPOXY.
- PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE NEW CONCRETE OVERLAY.
- WHERE ADHESIVE ANCHORS ARE SPECIFIED:
FOR ALL #5 BARS, EMBED 12"
FOR ALL #4 BARS, EMBED 10"
- THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- WHEN PLACING FRESH CONCRETE NEXT TO EXISTING, SANDBLAST EXISTING CONCRETE TO REMOVE SURFACE DEBRIS AND/OR PROTECTIVE COATINGS PRIOR TO PLACEMENT. WORK WILL BE CONSIDERED INCIDENTAL TO ITEM "CONCRETE MASONRY BRIDGES".
- UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-32-15 SHALL BE THE EXISTING GROUND LINE.
- THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMIT OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.
- THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS 1/2"-INCH TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.
- BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH REPAIR ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".



TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM DESCRIPTION	UNIT	S. ABUT.	PIER 1	PIER 2	N. ABUT.	SUPER.	TOTAL
203.0220	REMOVING STRUCTURE (B-32-15)	EACH	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-32-15)	LS	-	-	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	60	-	-	60	-	120
502.0100	CONCRETE MASONRY BRIDGES	CY	5	-	-	5	-	10
502.0717.S	CRACK SEALING EPOXY	LF	-	-	-	-	135	135
502.3101	EXPANSION DEVICE	LF	-	-	-	-	80	80
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	299	299
502.4108	ADHESIVE ANCHORS 1-INCH	EACH	10	-	-	10	-	20
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	39	-	-	39	-	78
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	890	-	-	890	1790	3570
506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	-	-	-	-	10	10
509.0301	PREPARATION DECKS TYPE 1	SY	-	-	-	-	3	3
509.0302	PREPARATION DECKS TYPE 2	SY	-	-	-	-	1	1
509.0500	CLEANING DECKS	SY	-	-	-	-	299	299
509.1000	JOINT REPAIR	SY	17	-	-	17	-	34
509.1500	CONCRETE SURFACE REPAIR	SF	29	-	33	171	430	663
509.2000	FULL-DEPTH DECK REPAIR	SY	-	-	-	-	2	2
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	2	-	-	2	32	36
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	-	-	7	-	14
517.3001.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-32-15	EACH	-	-	-	-	1	1
517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-32-15	EACH	-	-	-	-	-	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	-	-	-	-	1
606.0300	RIPRAP HEAVY	CY	162	-	-	162	-	324
645.0120	GEOTEXTILE TYPE HR	SY	243	-	-	243	-	486
SPV.0060.01	REMOVING BEARINGS, B-32-15	EACH	5	-	-	5	-	10
SPV.0060.02	RAILING ANCHORAGE REPLACEMENT	EACH	-	-	-	-	2	2
SPV.0090.01	FLASHING STAINLESS STEEL	LF	-	-	-	-	216	216
SPV.0090.02	STEEL RAILING TYPE W REHABILITATION	LF	-	-	-	-	216	216



BACKFILL STRUCTURE DETAIL TYPICAL AT BOTH ABUTMENTS

8

8

NO.	DATE	REVISION	BY
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STRUCTURE B-32-0015			
DRAWN BY CJO		PLANS CK'D. LS	
CROSS SECTION			SHEET 2 OF 9

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NOTES

ONE FIELD SPlice PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPlice. 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 AND SWEEP.

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

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

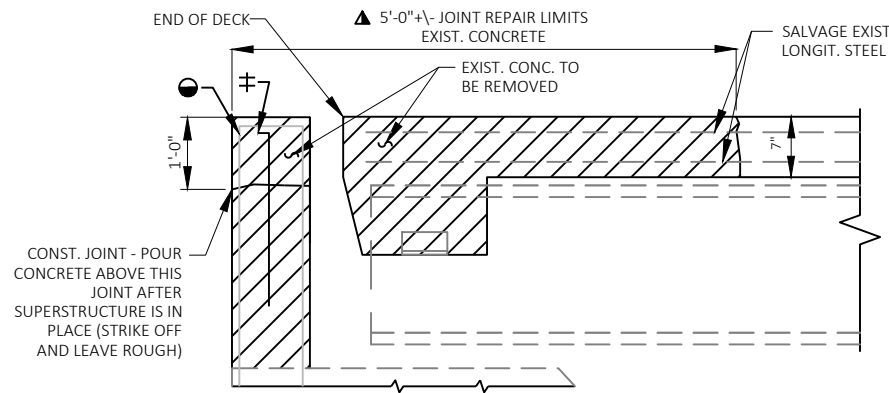
ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE"

SPlice LENGTHS FOR REINFORCEMENT ARE THE FOLLOWING: #6 BARS = 2'-3", #5 BARS = 1'-6", #4 BARS = 1'-3"

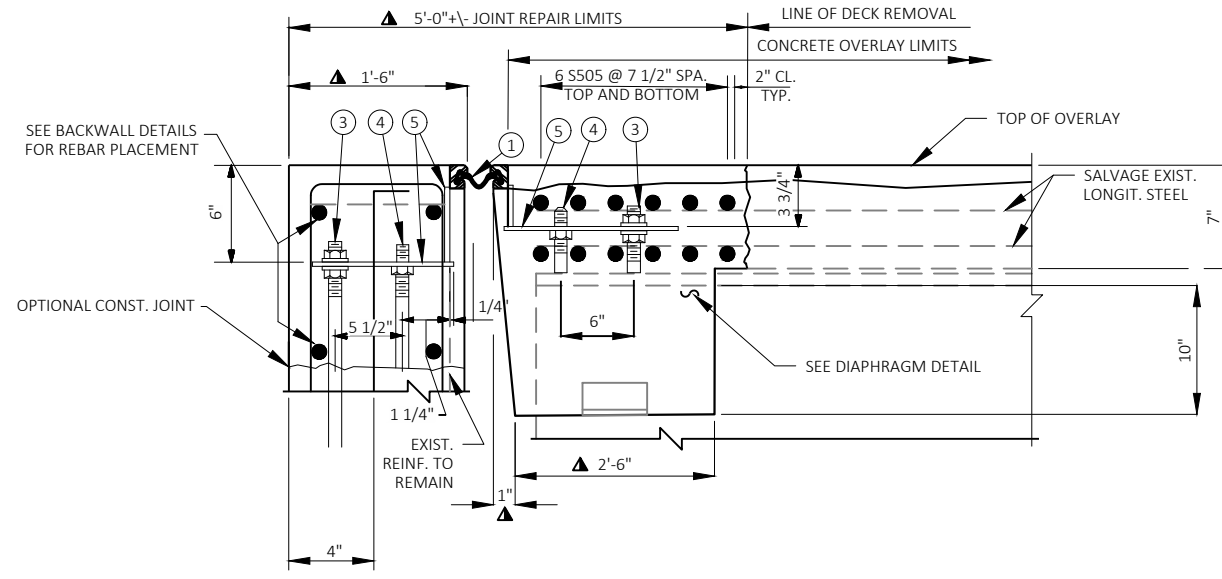
▲ DIMENSIONS GIVEN ARE NORMAL TO \perp OF SUBSTRUCTURE UNIT.

● EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. SALVAGE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY \oplus

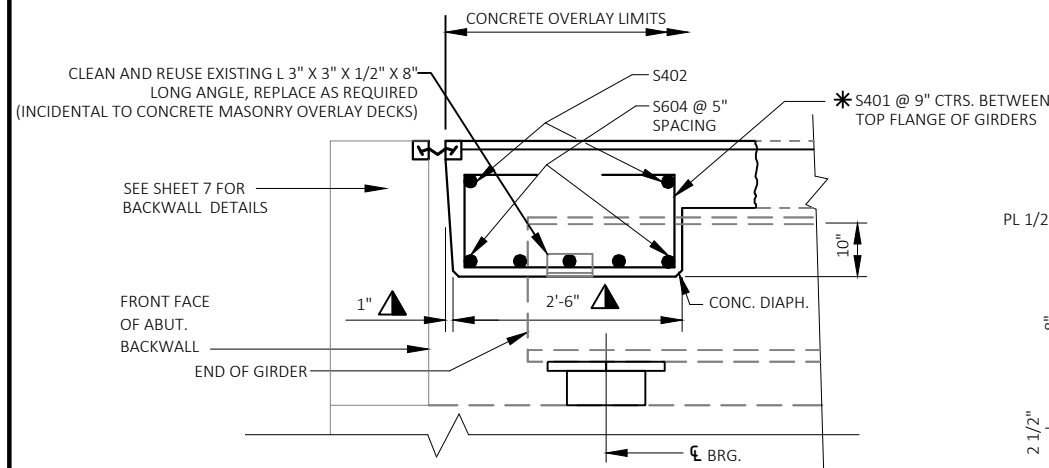
* BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO GIRDERS



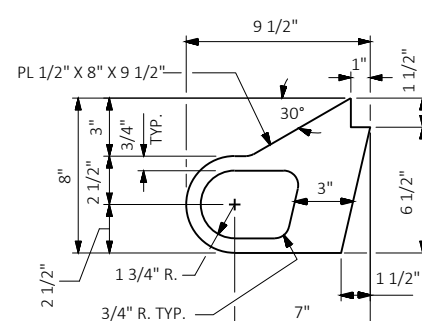
EXPANSION JOINT REMOVAL DETAIL



JOINT REPAIR SECTION THRU EXPANSION JOINT



DIAPHRAGM DETAIL



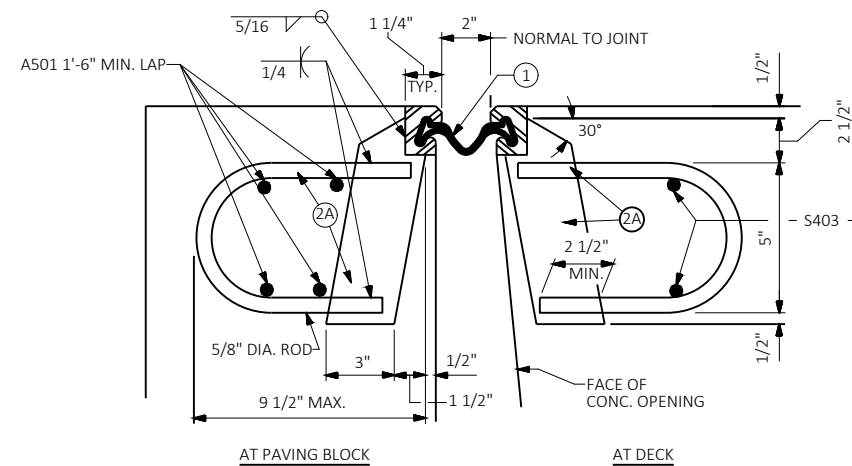
ALTERNATE STRIP SEAL ANCHOR

EXPANSION JOINT BILL OF BARS

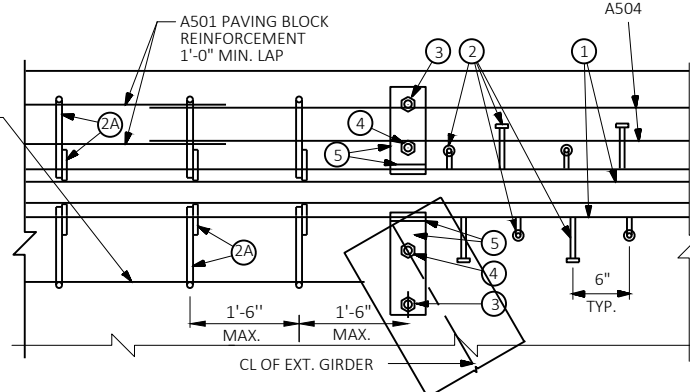
BAR MARK	NUMBER REQUIRED	LENGTH	BENT	COAT	LOCATION
S401	64	5'-3"	X	X	DIAPHRAGMS
S402	16	7'-2"		X	DIAPHRAGMS, BETWEEN BEAMS
S403	16	7'-4"		X	DIAPHRAGMS BLOCK HORIZ. EXTERIOR GIRDERS
S604	40	7'-2"		X	DIAPHRAGMS, BETWEEN BEAMS
S505	24	39'-2"		X	EXPANSION JOINTS, DECK ENDS

LEGEND

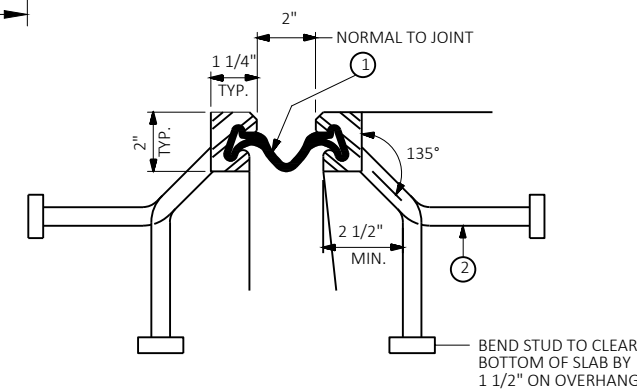
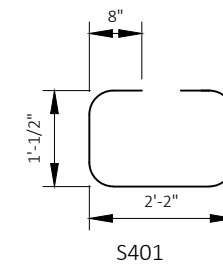
- ① NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS.
- ② STUDS 5/8" DIA. X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
- ②A 1/2" THICK ANCHOR PLATE WITH 5/8" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
- ③ 3/4" DIA. 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" DIA. 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. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" DIA. HOLE FOR NO. 3 & 1" DIA. HOLE FOR NO. 4.



SECTION THRU JOINT ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.



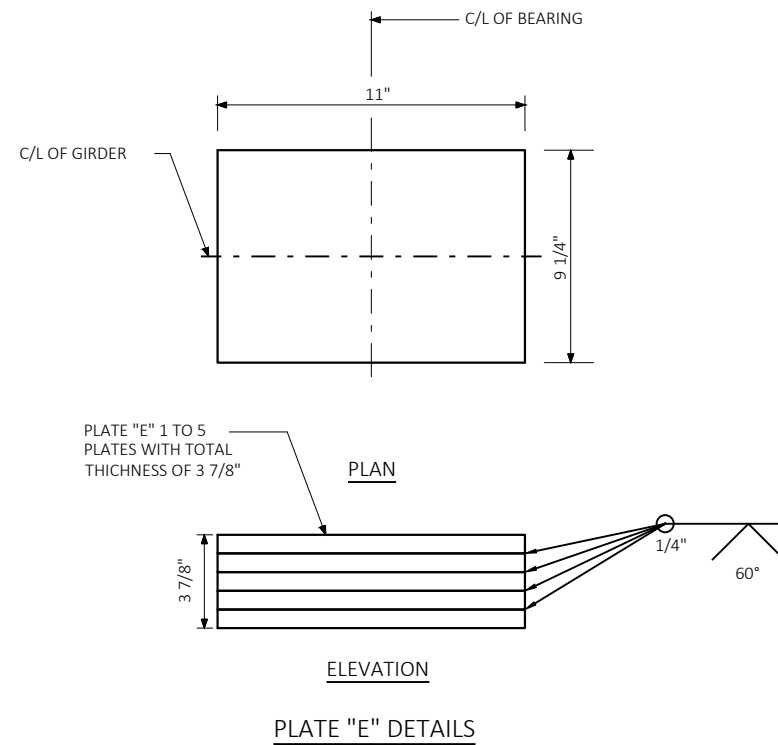
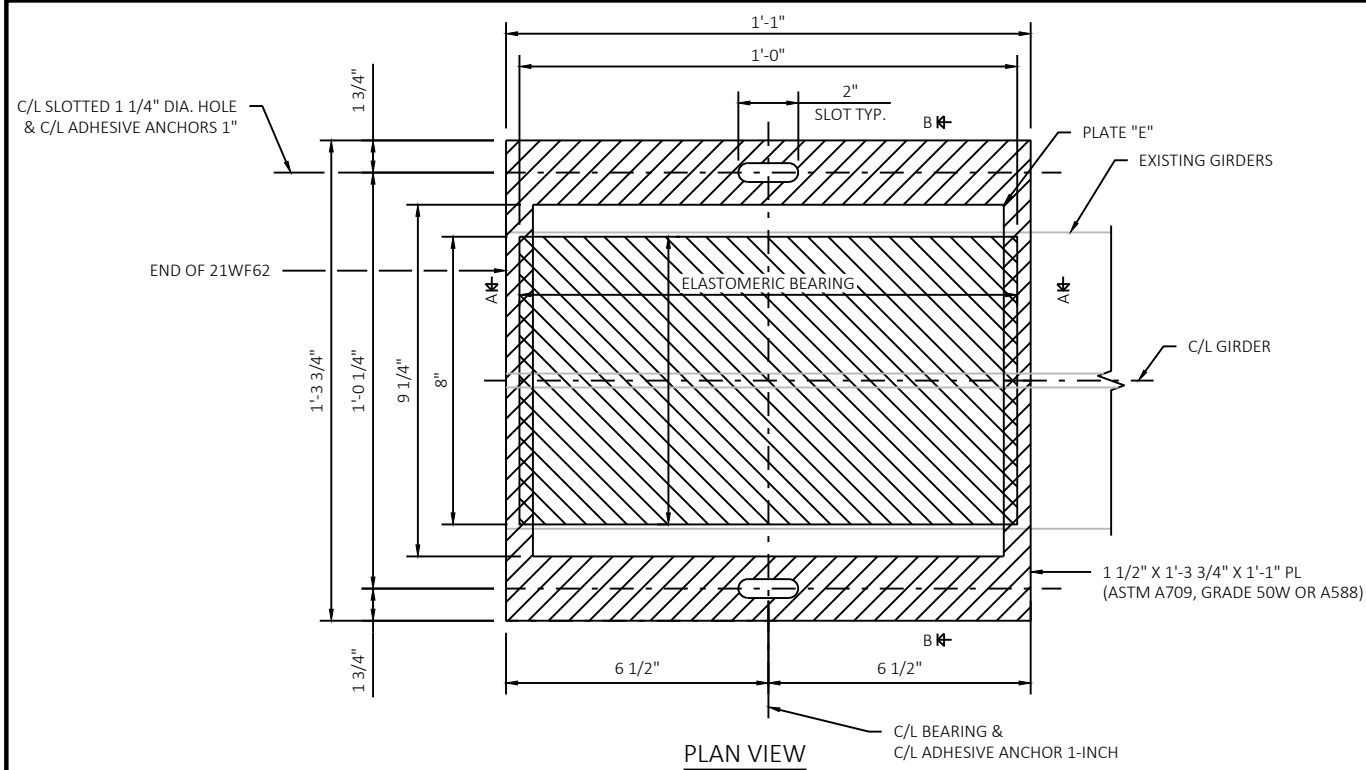
PART PLAN



SECTION THRU JOINT EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

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STRUCTURE		B-32-0015	
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CJO		LS	
EXPANSION JOINTS			SHEET 3 OF 9



BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.
GRIND EXIST. WELD THAT ATTACHED EXIST. SOLE PLATE TO EXIST. BOT. FLANGE.
GRIND AFFECTED AREAS SMOOTH.

ALL MATERIAL USED FOR BEARINGS, ANCHOR BOLTS & HEAVY HEX NUTS,
SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS
ELASTOMERIC LAMINATED", EACH.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

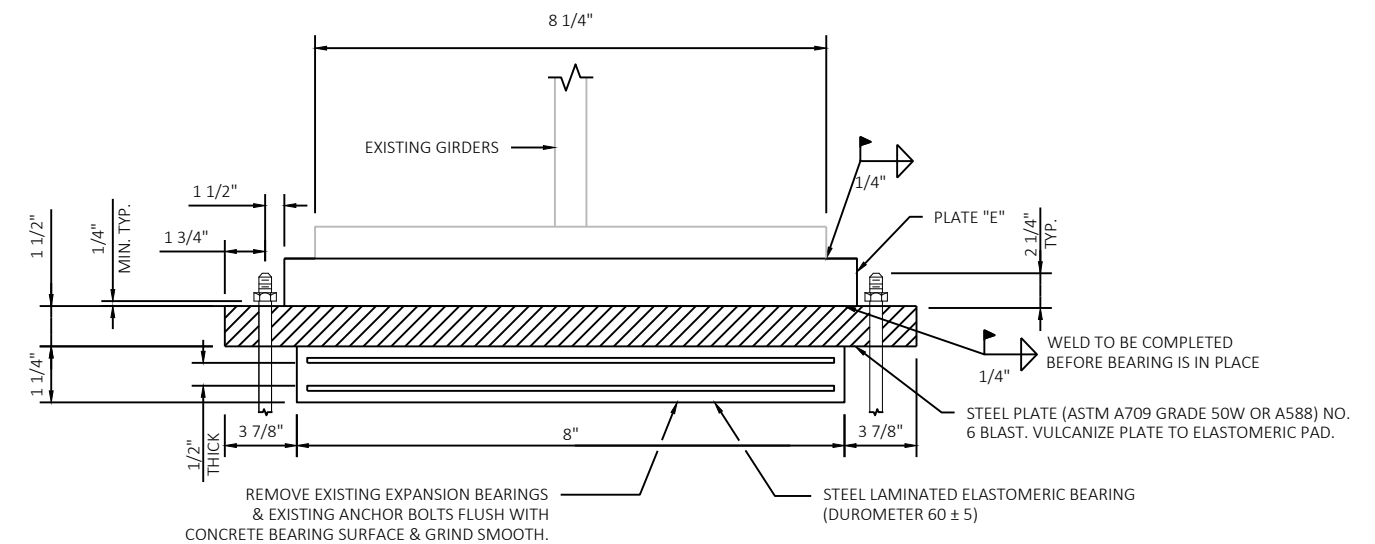
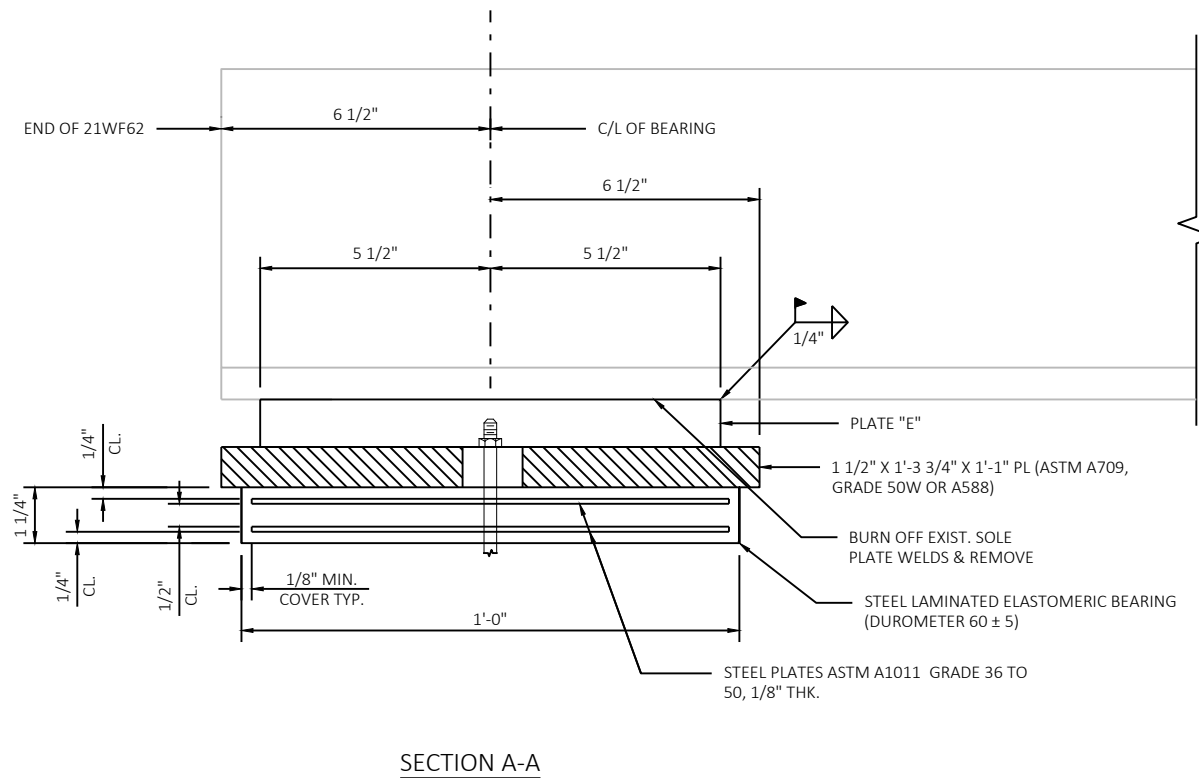
ANCHOR BOLTS AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH
ASTM A153, CLASS C.

ANCHOR BOLTS SHALL BE THREADED 2". PROVIDE ONE HEAVY HEX NUT PER BOLT.
BOLT LENGTH TO BE 11". PROJECT ANCHOR BOLTS 5" ABOVE CONCRETE.

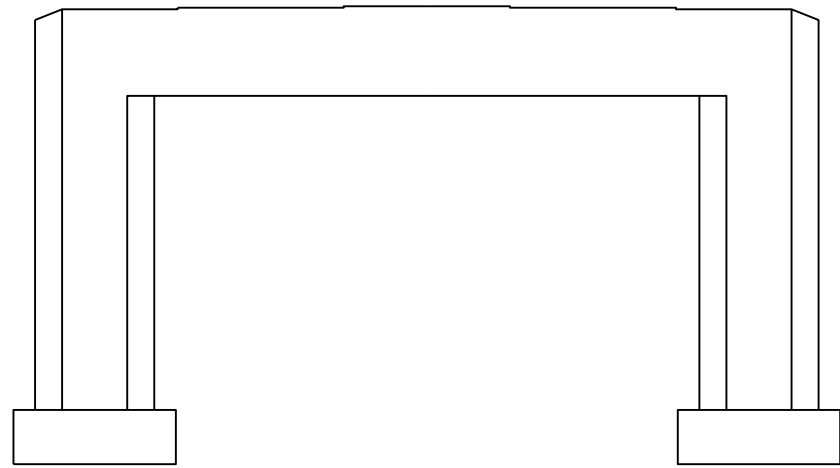
ANCHOR BOLTS AND NUTS SHALL CONFORM TO ASTM F1554 GRADE 55 OR
MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO
RESTRICT THE MAXIMUM TEMPERATURE REACHED BY THE SURFACES IN
CONTACT WITH ELASTOMER TO 200 F (93 C). TEMPERATURES SHALL BE
CONTROLLED BY TEMPERATURE INDICATING WAX PENCILS OR OTHER
SUITABLE MEANS APPROVED BY THE ENGINEER.

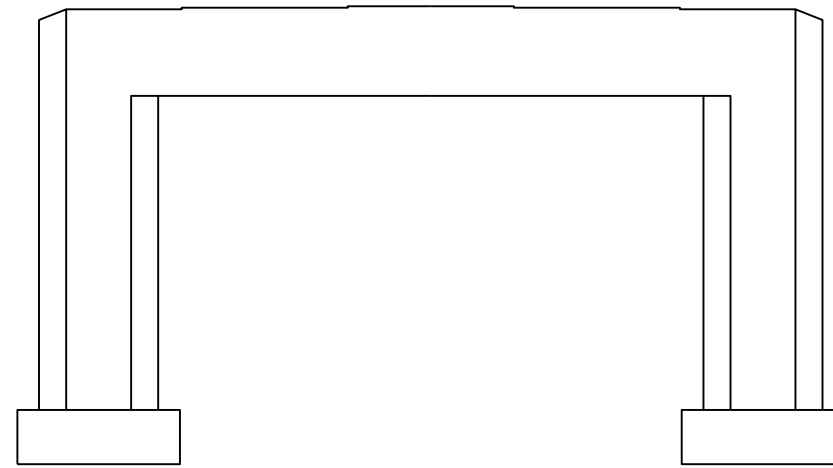
ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL
SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH,
STRAIGHT AND VERTICAL.



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DRAWN BY		CJO	PLANS CK'D. LS
LAMINATED ELASTOMERIC BEARING DETAILS			SHEET 4 OF 9

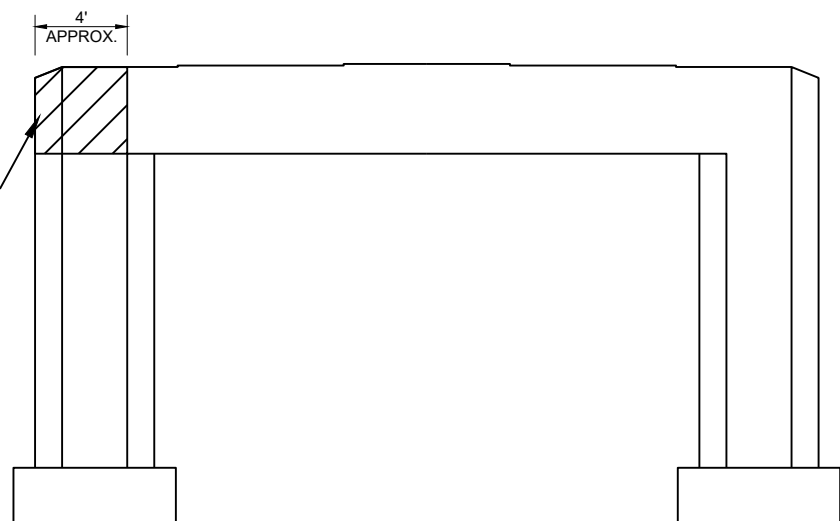


SOUTH FACE

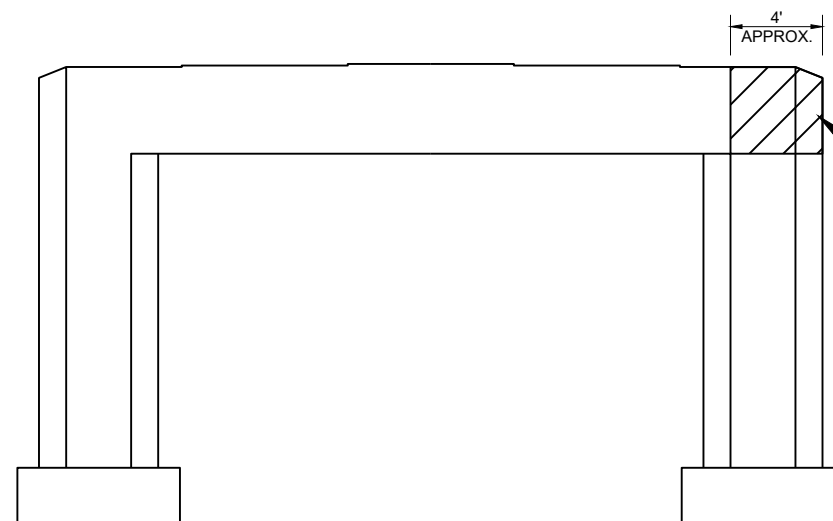


NORTH FACE

PIER 1 CONCRETE REPAIR



SOUTH FACE



NORTH FACE

PIER 2 CONCRETE REPAIR

16.5 SF CONCRETE SURFACE REPAIR

16.5 SF CONCRETE SURFACE REPAIR

4"
APPROX.

4"
APPROX.

8

8

LEGEND

 CONCRETE SURFACE REPAIR

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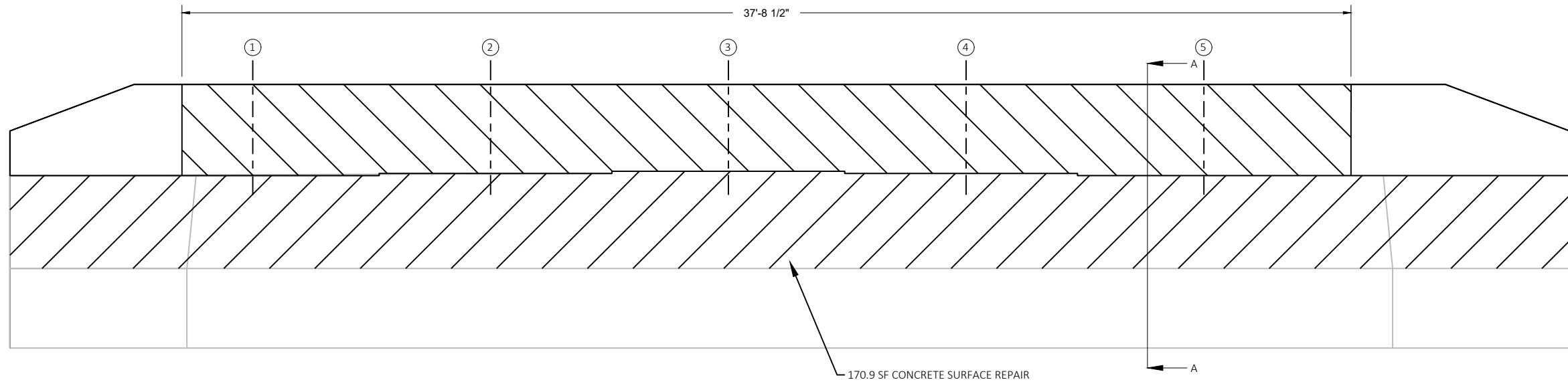
STRUCTURE B-32-0015

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PIER CONCRETE
REPAIR

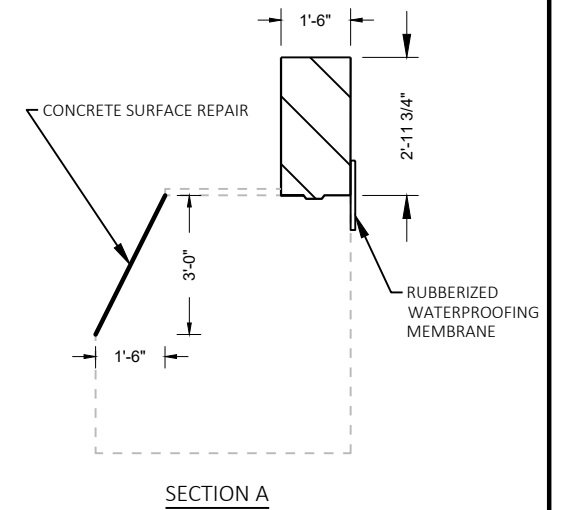
SHEET 5 OF 9

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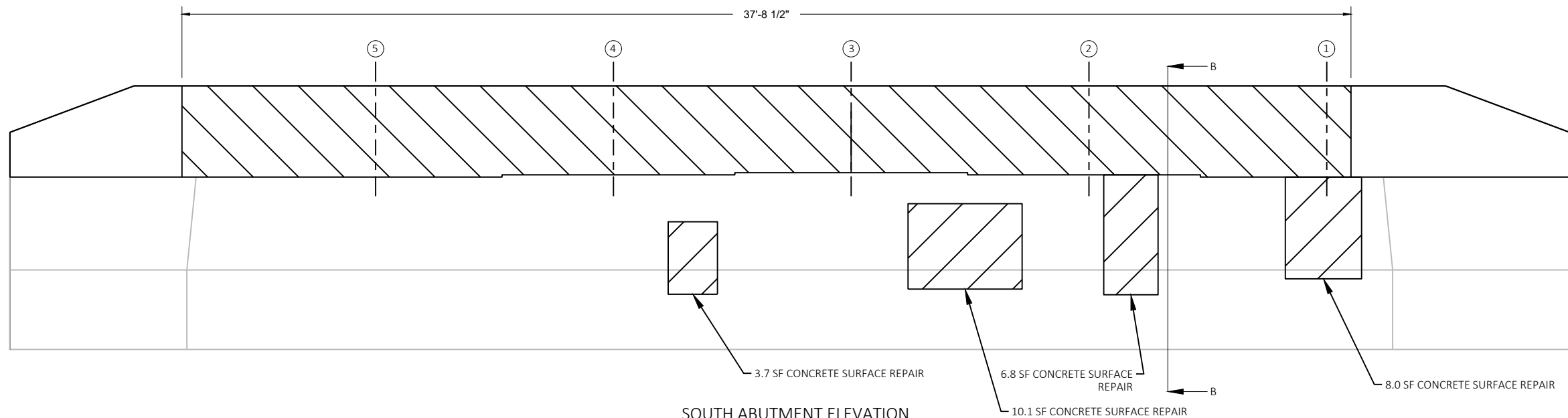


170.9 SF CONCRETE SURFACE REPAIR

NORTH ABUTMENT ELEVATION



SECTION A



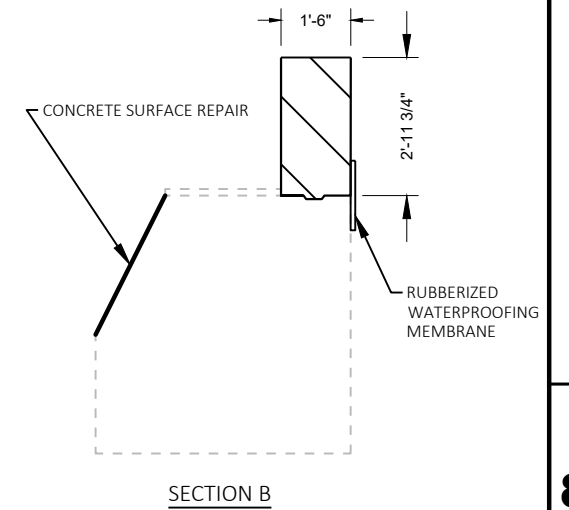
3.7 SF CONCRETE SURFACE REPAIR

6.8 SF CONCRETE SURFACE REPAIR

10.1 SF CONCRETE SURFACE REPAIR

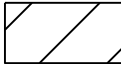

8.0 SF CONCRETE SURFACE REPAIR

SOUTH ABUTMENT ELEVATION



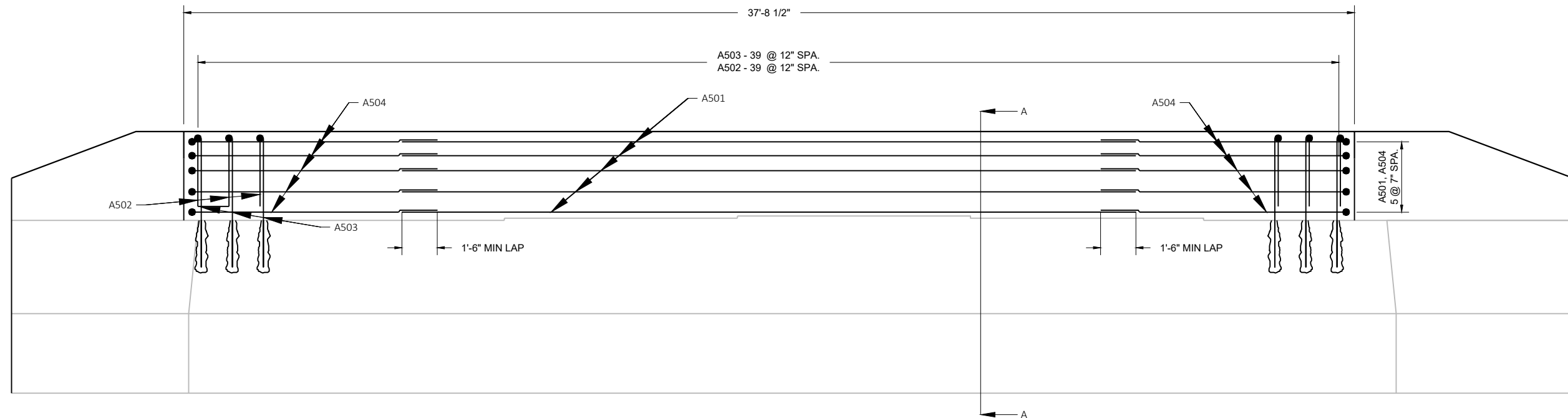
SECTION B

LEGEND

-  CONCRETE SURFACE REPAIR
-  CONCRETE REMOVAL

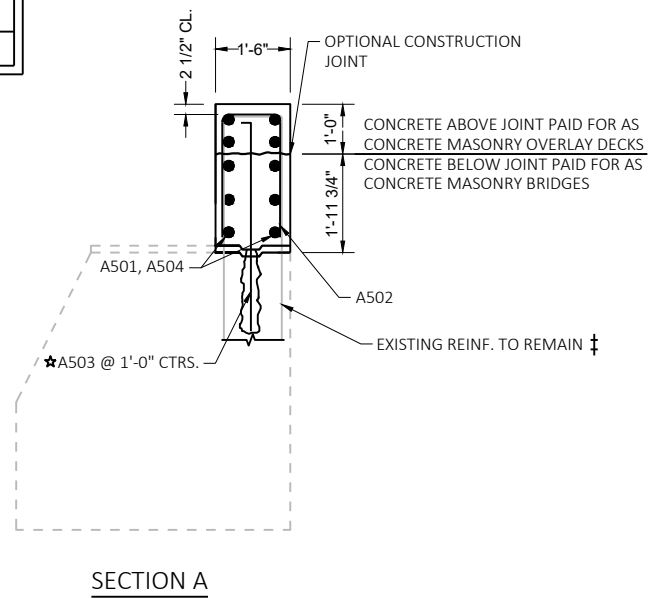
NO.	DATE	REVISION	BY
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STRUCTURE		B-32-0015	
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ABUTMENT CONCRETE REPAIR			SHEET 6 OF 9

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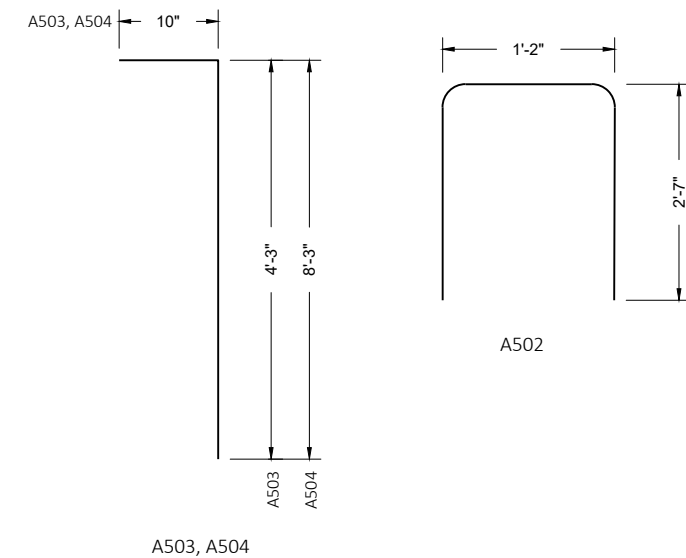
BAR MARK	NUMBER REQUIRED	LENGTH	BENT	COAT	LOCATION
A501	20	23'-11"		X	BACKWALL, TRANSVERSE
A502	78	6'-1"	X	X	BACKWALL, VERTICAL
★ A503	78	5'-0"	X	X	BACKWALL, VERTICAL
A504	40	9'-0"	X	X	BACKWALL, TRANSVERSE

SOUTH ABUTMENT ELEVATION
NORTH ABUTMENT SIMILAR



NOTES:

- ★ ADHESIVE ANCHORS NO. 5 BARS. EMBED A MINIMUM OF 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10° AS NECESSARY TO FIT.
- ‡ EXISTING BARS LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY: ★

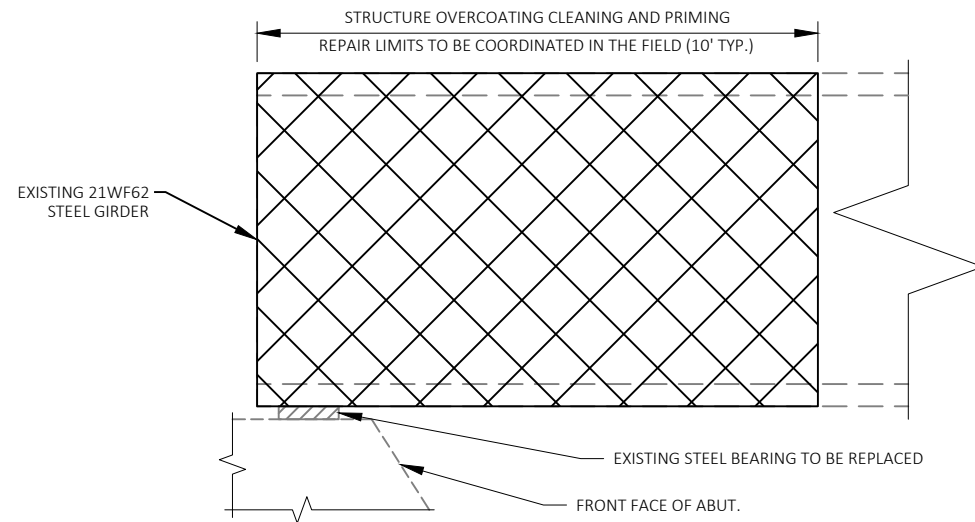


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BACKWALL REPLACEMENT			SHEET 7 OF 9

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GIRDER END PAINTING DETAIL
TYPICAL AT BOTH ABUTMENTS

NOTES

DRAWINGS SHALL NOT BE SCALED.
ALL EXPOSED STEEL ON GIRDERS AND DIAPHRAGMS TO BE CLEANED AND PAINTED.
PAINTING OF BEARING STEEL INCIDENTAL TO "BEARING PAD ELASTOMERIC LAMINATED"

LEGEND



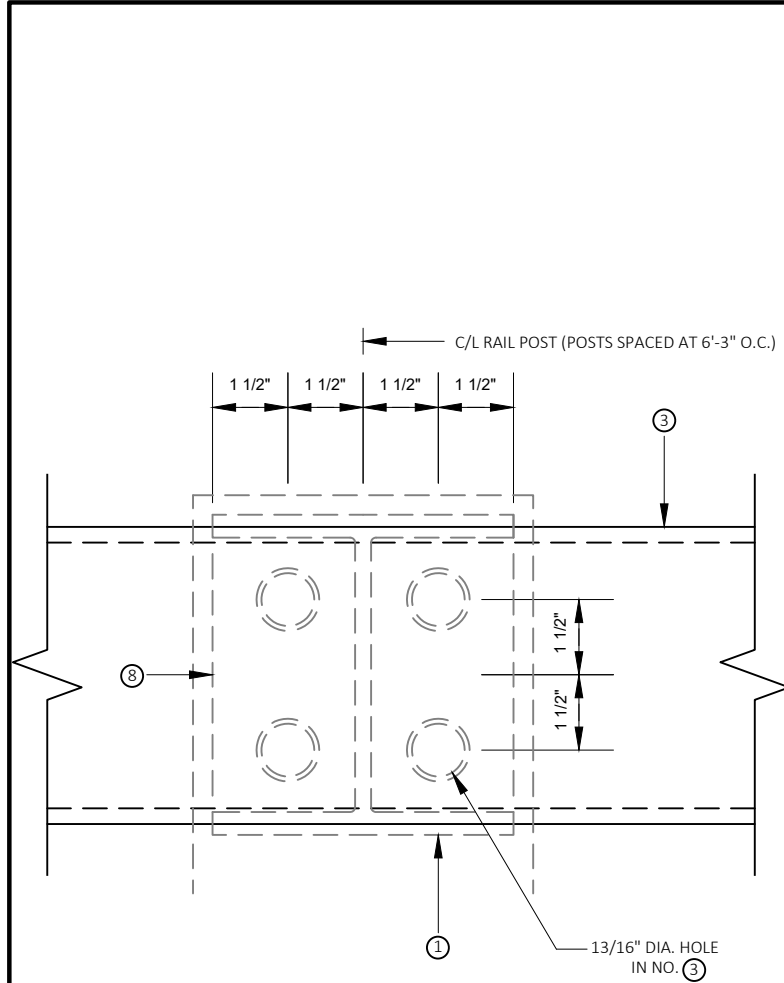
STRUCTURE OVERCOATING CLEANING AND PRIMING

8

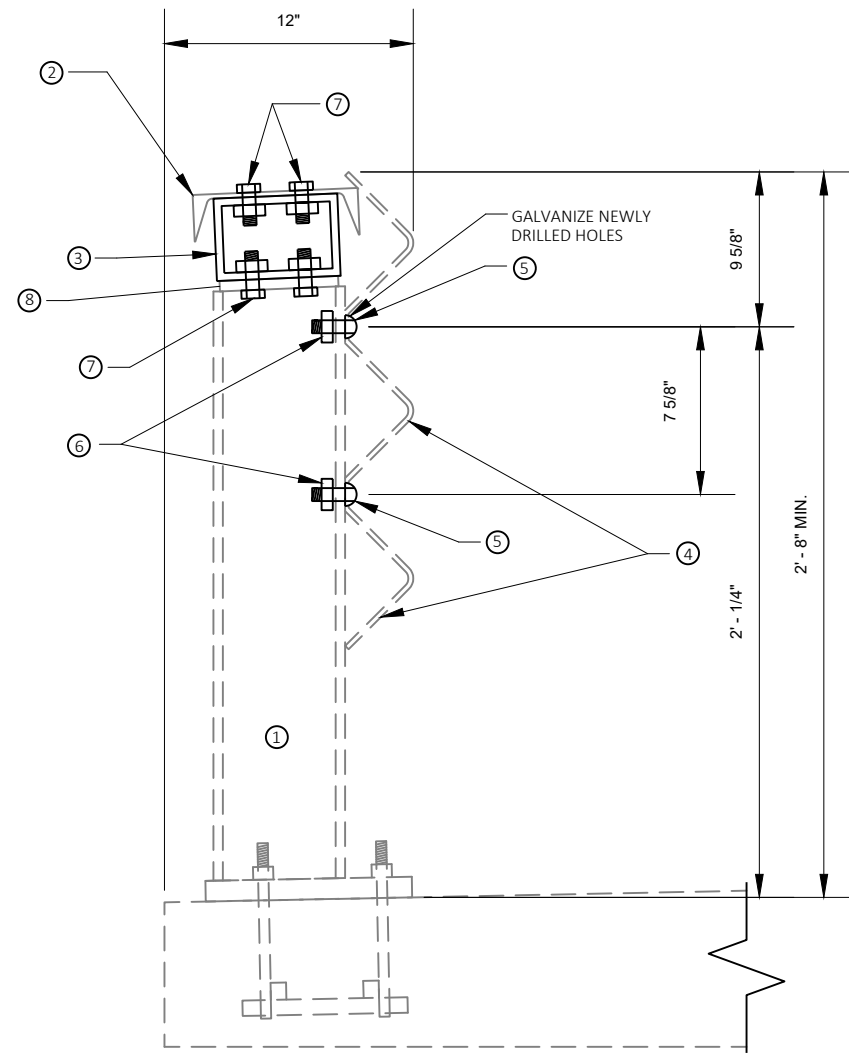
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NO.	DATE	REVISION	BY
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STRUCTURE		B-32-0015	
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PAINTING DETAILS			SHEET 8 OF 9

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CHANNEL MEMBER DETAIL
AT POST CONNECTION
EXISTING C8 X 11.5' NOT SHOWN FOR CLARITY



SECTION THRU RAILING

NOTES

ALL MATERIAL EXCEPT ANCHORAGE DETAIL NO. 5 SHALL BE GALVANIZED AFTER FABRICATION.

ALL MATERIAL USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

FILL BOLT SLOT OPENINGS IN POST SHIMS & PLATE NO. 10 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

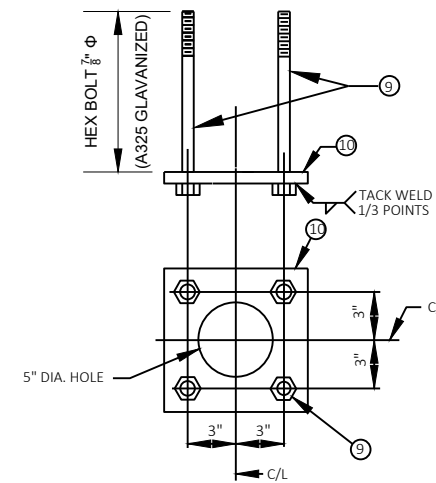
VERIFY ANCHORAGE POSITIONING IN FIELD.

POST BASE PLATES SHALL BE FLAT 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.

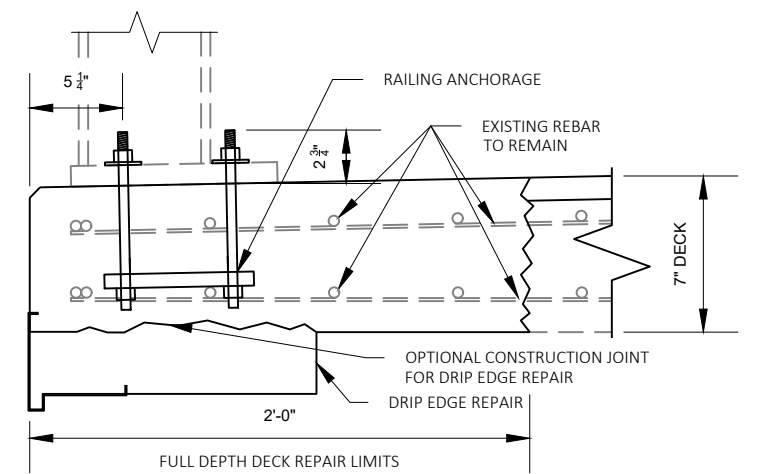
STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

LEGEND

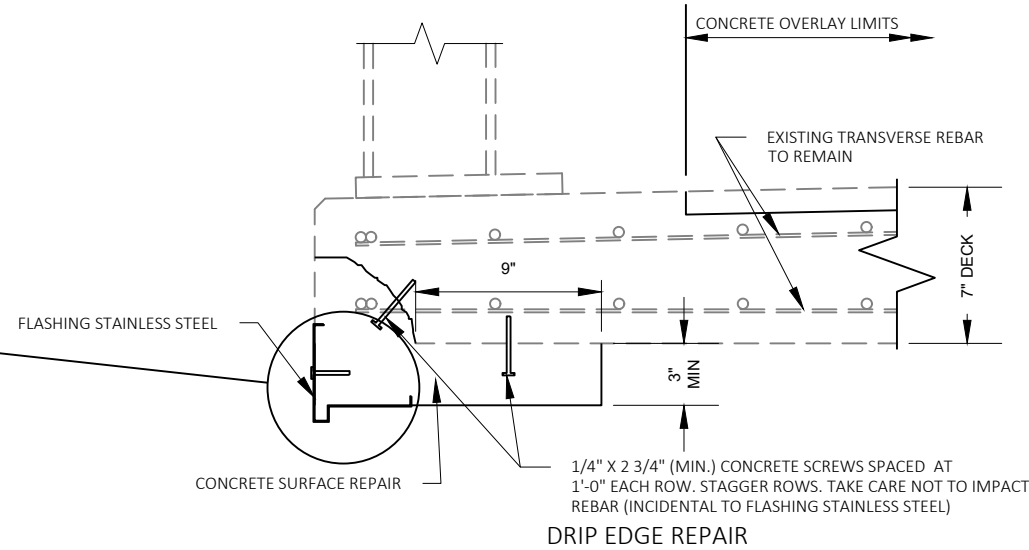
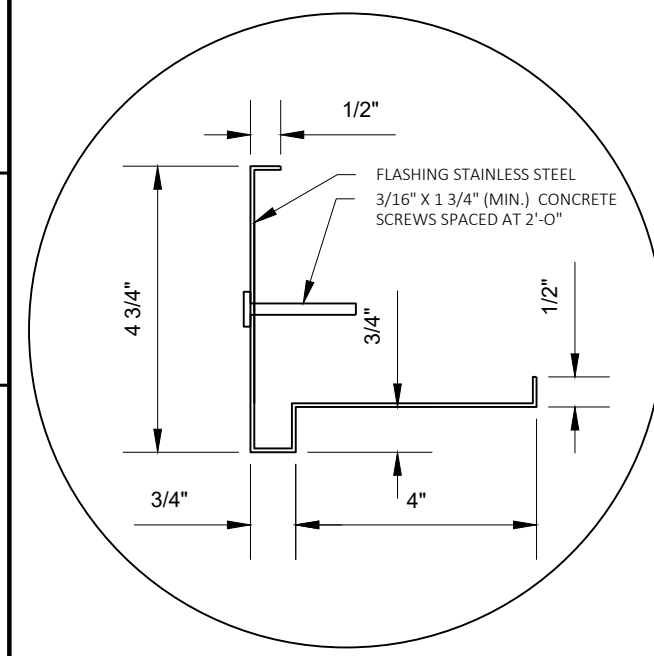
- ① EXISTING W6 X 25, DRILL 2 - 3/4" DIA. HOLES FOR BOLT NO. 7. GALVANIZE HOLES AFTER DRILLING.
- ② EXISTING C8 X 11.5, WITH 13/16" DIA. HOLES, ATTACH TO NO. 4 WITH BOLTS NO. 8.
- ③ STRUCTURAL TUBE 6" X 4" X 3/8" GALVANIZED, WITH 13/16" DIA. HOLES, 6" LONG, ATTACH TO NO. 2 WITH BOLTS NO. 7.
- ④ REINSTALL W-RAIL ATTACH TO NO. 1 WITH BOLTS NO. 6.
- ⑤ 1 3/4" X 3" MOUNTING BOLT WASHER, EIGHT GAGE GALVANIZED.
- ⑥ 5/8" DIA. BUTTON HEAD RAIL MOUNTING BOLT WITH ROUND WASHER AND NUT. 2 PER POST GALVANIZED.
- ⑦ 5/8" DIA. X 2" LG. HEX. BOLTS WITH NUT AND TWO WASHERS EACH GALVANIZED, 8 REQ'D PER POST. 16 PER POST IF THE POST HAS A SPLICE.
- ⑧ EXISTING PLATE 1/2" X 5 3/4" X 6" OR EXISTING PLATE 1/2" X 5 3/4" X 11 1/2" (AT FIELD SPLICE) WITH 1 1/4" DIA. HOLES FOR BOLTS NO. 7.
- ⑨ A325 - 7/8" HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 14" LONG AT END POSTS AND AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 15". USE 8" LONG AT ALL OTHER LOCATIONS. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO EXISTING PLATE. CHAMFER TOP OF BOLTS BEFORE THREADING.
- ⑩ 1/4" X 8" X 8" FLAT BAR WITH 15/16" DIA. HOLES FOR ANCHOR BOLTS NO. 9.



ANCHORAGE DETAIL



FULL DEPTH DECK REPAIR AND ANCHORAGE REPLACEMENT



DRIP EDGE REPAIR

NOTES

THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, 3/16" CONCRETE SCREWS, AND 1/4" CONCRETE SCREWS.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

EXTEND FLASHING TO B.F. OF ABUTMENT DIAPHRAGM.

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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-32-0015	
DRAWN BY		CJO	PLANS CK'D. LS
RAILING AND DRIP EDGE REPAIR			SHEET 9 OF 9



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