

GENERAL NOTES

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

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

BEARINGS REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), CLARK COUNTY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOIL, FERTILIZED, SEEDED, AND COVERED WITH EROSION MAT URBAN CLASS I TYPE B.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. DO NOT OPERATE EQUIPMENT OUTSIDE OF THE SLOPE INTERCEPTS. DO NOT STORE OR STOCKPILE MATERIALS IN WETLANDS

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

THE WISCONSIN DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR A MONUMENT WHICH SHALL BE SET IN THE STRUCTURE AS DESIGNATED BY ENGINEER.

THE TOWN OF LOYAL WILL MAINTAIN THE BIRD NETTING BETWEEN SEPTEMBER 1ST AND APRIL 14TH.

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	OFF	OFFSET
AGG	AGGREGATE	PC	POINT OF CURVATURE
ET AL	AND OTHERS	PI	POINT OF INTERSECTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	PT	POINT OF TANGENCY
BF	BACK FACE	POL	POINT ON LINE
BM	BENCHMARK	PE	PRIVATE ENTRANCE
C/L OR &	CENTERLINE	PL	PROPERTY LINE
△	CENTRAL ANGLE OR DELTA	PSI	POUNDS/SQUARE INCH
CLR	CLEAR	PROP	PROPOSED
CONC	CONCRETE	R	RADIUS
CONST	CONSTRUCTION	RR	RAILROAD
COR	CORNER	REBAR	REINFORCEMENT BAR
CMP	CORRUGATED METAL PIPE	REQ'D	REQUIRED
CTH	COUNTY TRUNK HIGHWAY	RT	RIGHT
CR	CREEK	RHF	RIGHT-HAND FORWARD
CFS	CUBIC FEET/SECOND	R/W	RIGHT-OF-WAY
CULV	CULVERT	RD	ROAD
D	DEGREE OF CURVE	SEC	SECTION
DHV	DESIGN HOUR VOLUME	S	SOUTH
DIA	DIAMETER	SE	SOUTHEAST
E	EAST	SW	SOUTHWEST
EL	ELEVATION	STH	STATE TRUNK HIGHWAY
EST	ESTIMATED	STA	STATION
FPS	FEET PER SECOND	SE	SUPER ELEVATION
FE	FIELD ENTRANCE	T	TANGENT
FT	FOOT (FEET)	TEL	TELEPHONE
FTG	FOOTING	TEMP	TEMPORARY
FDN	FOUNDATION	TI	TEMPORARY INTEREST
FF	FRONT FACE	TLE	TEMPORARY LIMITED EASEMENT
IP	IRON PIN	TL OR T/L	TRANSIT LINE
LT	LEFT	T	TRUCKS
LHF	LEFT-HAND FORWARD	TYP	TYPICAL
L	LENGTH OF CURVE	U/G	UNDERGROUND
LF	LINEAR FOOT	USH	UNITED STATES HIGHWAY
MAX	MAXIMUM	VAR	VARIABLE
MI	MILE	V	VELOCITY
MIN	MINIMUM	VPC	VERTICAL POINT OF CURVATURE
NC	NORMAL CROWN	VPI	VERTICAL POINT OF INTERSECTION
N	NORTH	VPT	VERTICAL POINT OF TANGENCY
NE	NORTHEAST	W	WEST
NW	NORTHWEST	YB	YARD

DNR CONTACT

BLACK RIVER FALLS DNR SERVICE CENTER
910 HWY 54 E
BLACK RIVER FALLS, WI 54615
ATTN: BRAD BETTHAUSER
PH: (715) 213-9064
EMAIL: bradley.betthauer@wisconsin.gov

DESIGN CONSULTANT CONTACT

CEDAR CORPORATION
604 WILSON AVENUE
MENOMONIE, WI 54751
ATTN: TROY L. PETERSON, P.E.
PH: (715) 235-9081
EMAIL: troy.peterson@cedarcorp.com

MUNICIPALITY

TOWN OF LOYAL
W3412 CHICKADEE ROAD
LOYAL, WI 54446
ATTN: JESSE ZVOLENA, TOWN CHAIRMAN
PH: (715) 613-9013
EMAIL: jfzvolena@gmail.com

UTILITY CONTACTS

COMMUNICATION
FRONTIER COMMUNICATIONS
PEARCE SERVICES - PRIMARY CONTACT
5119 STATE HIGHWAY 70 W
EAGLE RIVER, WI 54521
ATTN: HARMINDER SINGH - ENGINEERING SUPERVISOR
PH: (763) 317-8159
EMAIL: hsingh@Pearce-Services.com

FRONTIER COMMUNICATIONS - SECONDARY CONTACT

5119 STATE HIGHWAY 70 W
EAGLE RIVER, WI 54521
ATTN: MIKE MYSZKA - NETWORK ENGINEER
PH: (715) 370-1685
EMAIL: michael.a.myszka@ftr.com

FRONTIER COMMUNICATIONS - FIELD CONTACT

521 NORTH 4TH STREET
WAUSAU, WI 54403
ATTN: CHRISTOPHER POLLACK
PH: (715) 847-1240
EMAIL: christopher.pollack@ftr.com

ELECTRIC

CLARK ELECTRIC COOPERATIVE
1209 W DALL-BERG RD / P.O. BOX 190
GREENWOOD, WI 54437
ATTN: KENT WEIGEL, LINE SUPERINTENDENT
PH: (715) 267-7955
EMAIL: kweigel@cecoop.com

DIGGERS HOTLINE

Dial **811** or (800)242-8511

www.DiggersHotline.com

**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS.

BENCHMARKS & CONTROL POINTS						
NO.	STATION	OFFSET	DESCRIPTION	ELEV.	EASTING	NORTHING
BM 1	11+69.51	29.7	LT	COTTON SPINDLE	1,222.75	719150.371
BM 2	9+79.79	10.2	LT	SURVEY MARKER	1,224.26	718960.643
BM 3	7+93.63	36.7	LT	COTTON SPINDLE	1,218.74	718774.498
CP 100	7+51.06	14.0	RT	CP NAIL	1,222.12	718731.896
CP 101	12+96.78	15.0	LT	CP NAIL	1,224.30	719277.634
CP 3038	10+95.05	31.8	RT	3/4 REBAR	1,220.75	719075.870

RUNOFF COEFFICIENT TABLE

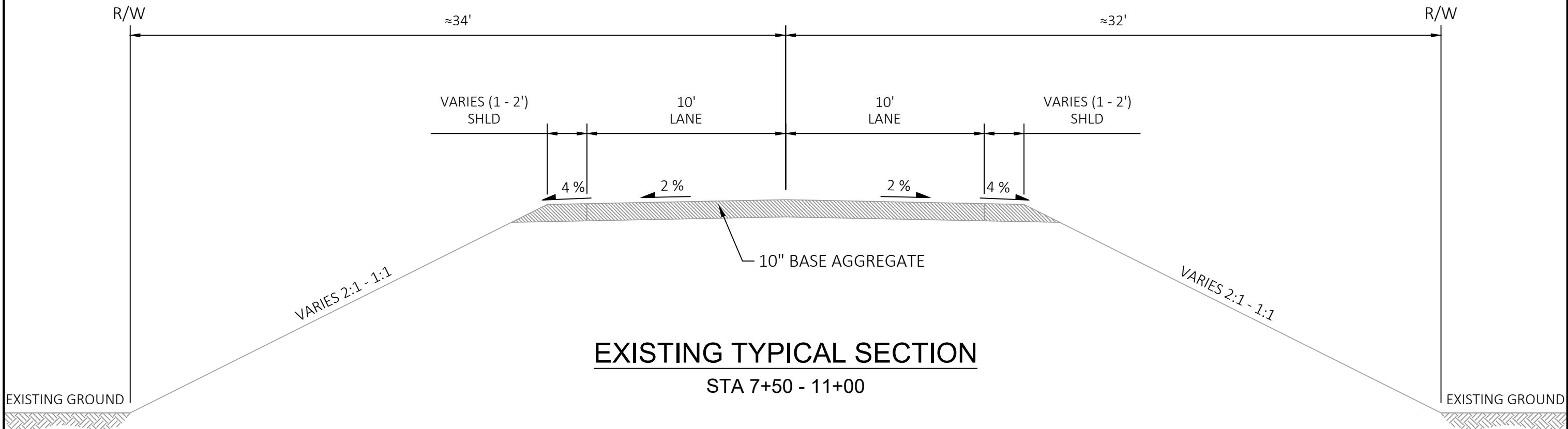
LAND USE:	HYDROLOGIC SOIL GROUP								
	A			B			C		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
ROW CROPS	0 - 2	.16	.22	.12	.20	.27	.15	.24	.33
	.22	.30	.38	.26	.34	.44	.30	.37	.50
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37
SIDE SLOPE TURF			.25			.27		.28	
			.32			.34		.36	
PAYMENT:									
ASPHALT:									
CONCRETE:									
BRICK:									
DRIVES, WALKS:									
ROOFS:									
GRAVEL ROADS, SHOULDERS:									

TOTAL PROJECT AREA = 0.53 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.40 ACRES

2

2



PROJECT NO: 7846-00-01

HWY: SPENCER ROAD

COUNTY: CLARK

EXISTING TYPICAL SECTION

SHEET

E

FILE NAME: I:\CLIENTS-MENO\W\W3900 WDOT NW REGION-EAU CLAIRE\038 7846-00-01 T LOYAL SPENCER RD ROCK CREEK BRIDGE P-10-0156 LOCAL STREET CLARK CO\04 CADD\78460071\SHETSPLAN\020301-TS.DWG
LAYOUT NAME - 020301-ts

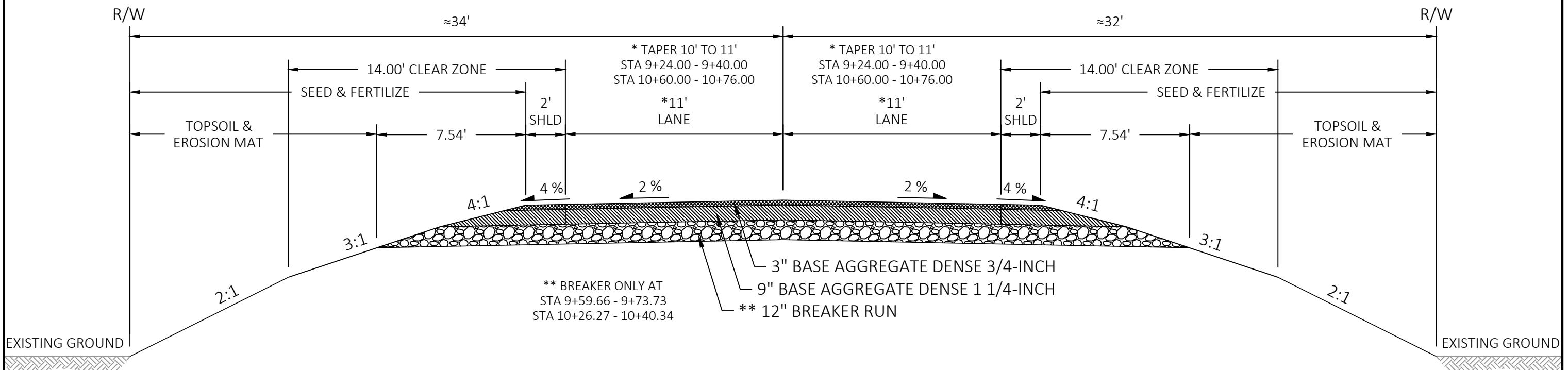
PLOT DATE: 10/27/2025 8:22 AM

PLOT BY: JORDAN DISTERHAFT

PLOT NAME:

PLOT SCALE: 1 IN:5 FT

WISDOT/CADD'S SHEET 42

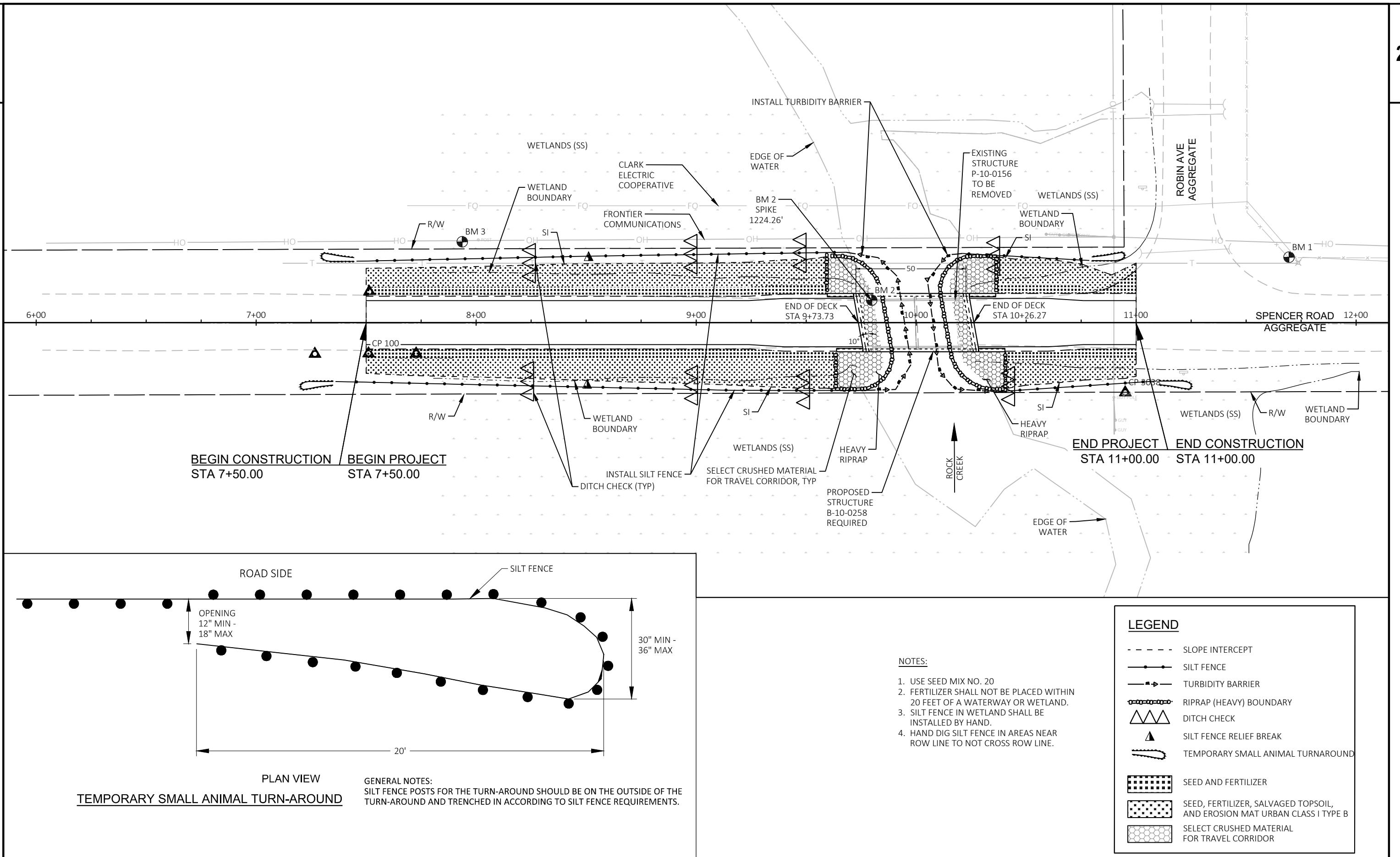


FINISHED TYPICAL SECTION

STA 7+50.00 - 9+73.73
STA 10+26.27 - 11+00.00

2

2



PROJECT NO: 7846-00-01

HWY: SPENCER ROAD

COUNTY: CLARK

EROSION CONTROL

SHEET

E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION-EAU CLAIRE\038 7846-00-01 T LOYAL SPENCER RD ROCK CREEK BRIDGE P-10-0156 LOCAL STREET CLARK CO\04 CADD\78460071\Sheets\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 10/28/2025 7:24 AM

PLOT BY : JORDAN DISTERHA

PLOT SCALE : 1 IN:40 FT

WISDOT/CARDS SHEET 43

7846-00-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-10-0156	EACH	1.000	1.000
0004	205.0100	Excavation Common	CY	256.000	256.000
0006	205.0505.S	Excavation, Hauling, and Disposal of Creosote Contaminated Soil and Management of Contaminated Groundwater	TON	300.000	300.000
0008	206.1001	Excavation for Structures Bridges (structure) 01. B-10-0258	EACH	1.000	1.000
0010	208.0100	Borrow	CY	244.000	244.000
0012	210.1500	Backfill Structure Type A	TON	272.000	272.000
0014	213.0100	Finishing Roadway (project) 01. 7846-00-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	137.000	137.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	533.000	533.000
0020	311.0110	Breaker Run	TON	50.000	50.000
0022	502.0100	Concrete Masonry Bridges	CY	182.000	182.000
0024	502.3200	Protective Surface Treatment	SY	205.000	205.000
0026	505.0400	Bar Steel Reinforcement HS Structures	LB	3,140.000	3,140.000
0028	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	25,740.000	25,740.000
0030	506.0105	Structural Steel Carbon	LB	485.000	485.000
0032	513.4061	Railing Tubular Type M	LF	153.000	153.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0036	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	275.000	275.000
0038	606.0300	Riprap Heavy	CY	160.000	160.000
0040	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
0042	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7846-00-71	EACH	1.000	1.000
0044	619.1000	Mobilization	EACH	1.000	1.000
0046	624.0100	Water	MGAL	11.000	11.000
0048	625.0100	Topsoil	SY	865.000	865.000
0050	628.1504	Silt Fence	LF	695.000	695.000
0052	628.1520	Silt Fence Maintenance	LF	695.000	695.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.2008	Erosion Mat Urban Class I Type B	SY	622.000	622.000
0060	628.6005	Turbidity Barriers	SY	200.000	200.000
0062	628.7504	Temporary Ditch Checks	LF	80.000	80.000
0064	628.7570	Rock Bags	EACH	2.000	2.000
0066	629.0210	Fertilizer Type B	CWT	0.860	0.860
0068	630.0120	Seeding Mixture No. 20	LB	16.000	16.000
0070	630.0500	Seed Water	MGAL	10.000	10.000
0072	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0074	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0076	638.2602	Removing Signs Type II	EACH	4.000	4.000
0078	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0080	642.5001	Field Office Type B	EACH	1.000	1.000
0082	643.0420	Traffic Control Barricades Type III	DAY	480.000	480.000
0084	643.0705	Traffic Control Warning Lights Type A	DAY	960.000	960.000
0086	643.0900	Traffic Control Signs	DAY	720.000	720.000
0088	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0090	643.5000	Traffic Control	EACH	1.000	1.000
0092	645.0111	Geotextile Type DF Schedule A	SY	40.000	40.000
0094	645.0120	Geotextile Type HR	SY	295.000	295.000
0096	650.4500	Construction Staking Subgrade	LF	32.000	32.000

Estimate Of Quantities

7846-00-71

Line	Item	Item Description	Unit	Total	Qty
0098	650.5000	Construction Staking Base	LF	298.000	298.000
0100	650.6501	Construction Staking Structure Layout (structure) 01. B-10-0258	EACH	1.000	1.000
0102	650.9911	Construction Staking Supplemental Control (project) 01. 7846-00-71	EACH	1.000	1.000
0104	650.9920	Construction Staking Slope Stakes	LF	596.000	596.000
0106	715.0502	Incentive Strength Concrete Structures	DOL	1,100.000	1,100.000
0108	999.2005.S	Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0110	SPV.0195	Special 01. Select Crushed Material for Travel Corridor	TON	135.000	135.000

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)			FACTOR 1.25				
DIVISION 1										
SPENCER ROAD	7+50 - 9+73.73	SPENCER ROAD	170	170	305	381	-211	0	211	
DIVISION 1 SUBTOTAL			170	170	305	381	-211			
DIVISION 2										
SPENCER ROAD	10+26.27 - 11+00	SPENCER ROAD	86	86	95	119	-33		33	
DIVISION 2 SUBTOTAL			86	86	95	119	-33		244	
GRAND TOTAL			256	256	400	500	-244	0	244	
TOTAL COMMON EXC			256							

HAZ MAT

205.0505.S

EXCAVATION, HAULING, AND DISPOSAL
OF CREOSOTE CONTAMINATED SOIL
AND MANAGEMENT OF
CONTAMINATED GROUNDWATER

CATEGORY	STATION	LOCATION	TON	REMARKS
0010	10+00	EXISTING STRUCTURE	300	
	TOTAL 0010		300	

MISCELLANEOUS

619.1000 642.5001 213.0100.01
FINISHING
ROADWAY
FIELD OFFICE (PROJECT) (01.
7846-00-71)

CATEGORY	STATION	TO	STATION	LOCATION	MOBILIZATION	FIELD OFFICE	TYPE B	REMARKS
					EACH	EACH	EACH	
0010	7+50	-	11+00	PROJECT	1	1	1	
	TOTAL 0010				1	1	1	

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AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110	305.0120	311.0110	624.0100	REMARKS
					BASE	AGGREGATE	DENSE 1 1/4-	DENSE 3/4-INCH	
					AGGREGATE	DENSE 3/4-INCH	INCH	TON	
					DENSE 3/4-INCH	INCH	TON	TON	
0010	7+50.00	-	9+73.73	SPENCER ROAD	100	399	25	8	
0010	10+26.27	-	11+00.00	SPENCER ROAD	37	134	25	3	
				TOTAL 0010	137	533	50	11	

HAUL ROADS

618.0100.01
MAINTENANCE
AND REPAIR OF
HAUL ROADS
(PROJECT) (01.
7846-00-71)

CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS	
0030	7+50	-	11+00	PROJECT	1		
				TOTAL 0030	1		

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	628.1504	628.1520	628.1905	628.1910	628.6005	628.7504	628.7570	REMARKS
					SILT FENCE	MAINTENANCE	MOBILIZATIONS	EMERGENCY	TURBIDITY	TEMPORARY		
					LF	LF	EROSION	EROSION	BARRIERS	DITCH CHECKS	ROCK BAGS	
					EACH	EACH	EACH	EACH	SY	LF	EACH	
0010	7+50.00	-	9+73.73	SPENCER ROAD	515	515	1	1	100	60	2	
0010	10+26.27	-	11+00.00	SPENCER ROAD	180	180	1	1	100	20	0	
				TOTAL 0010	695	695	2	2	200	80	2	

RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0100	628.2008	629.0210	630.0120	630.0500	REMARKS
					TOPSOIL	EROSION MAT	URBAN CLASS I	FERTILIZER TYPE	SEEDING	
					SY	SY	TYPE B	B	MIXTURE NO. 20	
					SY	SY	CWT	LB	SEED WATER	
0010	7+50.00	-	9+73.73	SPENCER ROAD	681	485	0.43	12	8	
0010	10+26.27	-	11+00.00	SPENCER ROAD	184	137	0.43	3	2	
				TOTAL 0010	865	622	0.86	16	10	

PROJECT NO: 7846-00-01

HWY: SPENCER ROAD

COUNTY: CLARK

MISCELLANEOUS QUANTITIES

SHEET

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TYPE II SIGNING

CATEGORY	STATION	SIDE	SIGN CODE	WXH	LOCATION	634.0612	637.2230	638.2602	638.3000	REMOVING SMALL SIGN SUPPORTS	REMARKS
						POSTS WOOD 4X6-INCH X 12- FT	SIGNS TYPE II REFLECTIVE F	REMOVING SIGNS TYPE II			
0010	9+56.66	LT	W5-52L	12X36	SPENCER ROAD	1	3	1	1	BRIDGE HASH MARKS	
0010	9+63.80	RT	W5-52L	12X36	SPENCER ROAD	1	3	1	1	BRIDGE HASH MARKS	
0010	10+36.20	LT	W5-52L	12X36	SPENCER ROAD	1	3	1	1	BRIDGE HASH MARKS	
0010	10+40.34	RT	W5-52L	12X36	SPENCER ROAD	1	3	1	1	BRIDGE HASH MARKS	
					TOTAL 0010	4	12	4	4		

TRAFFIC CONTROL

CATEGORY	LOCATION	DAYS	643.0420	643.0705	643.0900	643.1000	643.5000	REMARKS
			TRAFFIC CONTROL BARRICADES	TRAFFIC CONTROL WARNING	TRAFFIC LIGHTS TYPE A	TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL SIGNS FIXED MESSAGE	
0010	SPENCER ROAD	7	-	-	-	36	-	7-DAY ADVANCED WARNING (G20-57C)
0010	SPENCER ROAD	60	480	960	720	-	1	
		TOTAL 0010	480	960	720	36	1	

STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.6501.01	650.9911.01	650.9920	REMARKS
					CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	(STRUCTURE) (01. B-10-0258)	CONTROL (PROJECT) (01. 7846-00-71)	
0010	7+50.00	-	9+73.73	SPENCER ROAD	16	224	1	1	448	
0010	10+26.27	-	11+00.00	SPENCER ROAD	16	74	-	-	148	
			TOTAL 0010		32	298	1	1	596	

BIRD DETERRENT

999.2005.S
MAINTAINING BIRD DETERRENT SYSTEM (STATION) (01. 10+00)
CATEGORY STATION TO STATION LOCATION EACH REMARKS
0010 7+50 - 11+00 PROJECT 1
TOTAL 0010 1

PROJECT NO: 7846-00-01

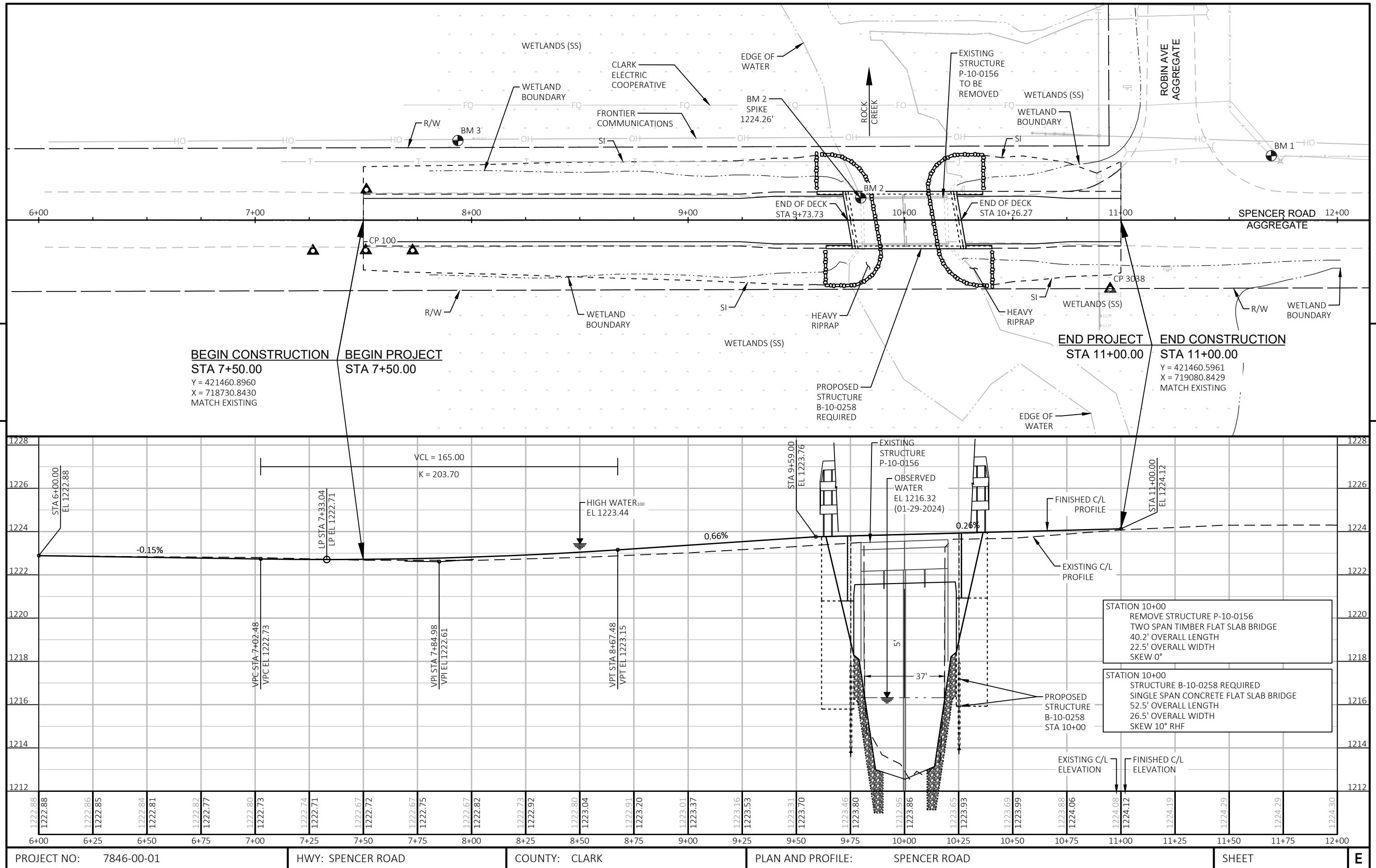
HWY: SPENCER ROAD

COUNTY: CLARK

MISCELLANEOUS QUANTITIES

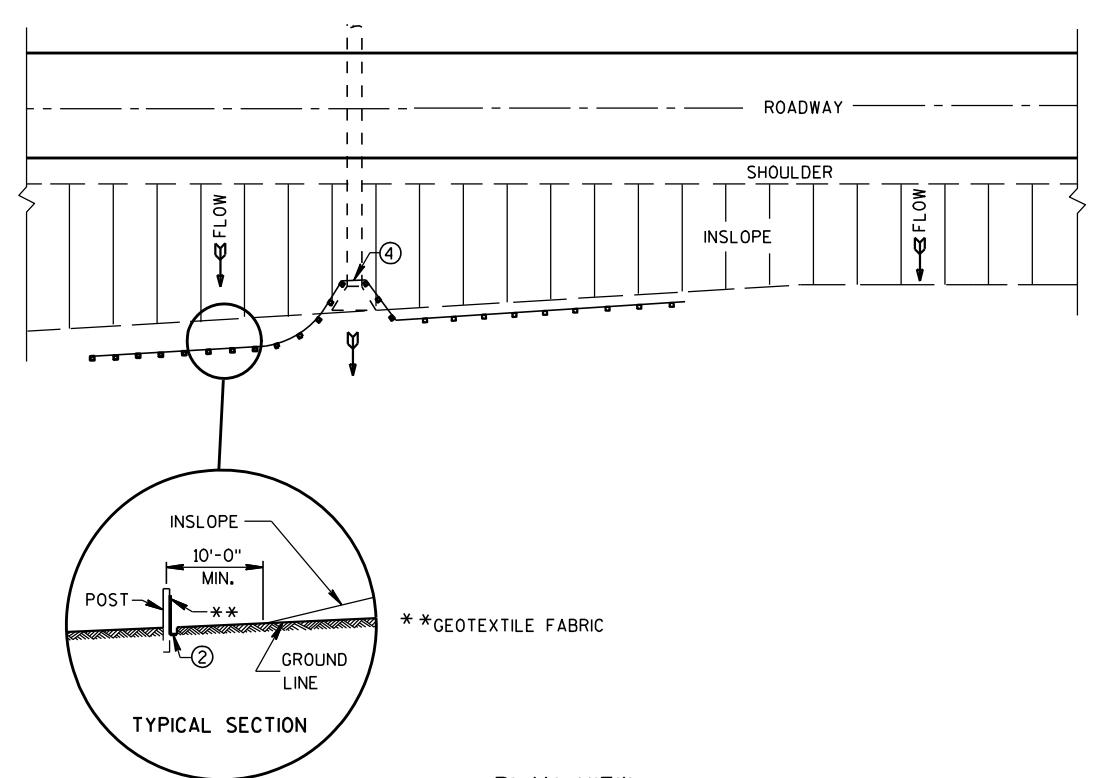
SHEET

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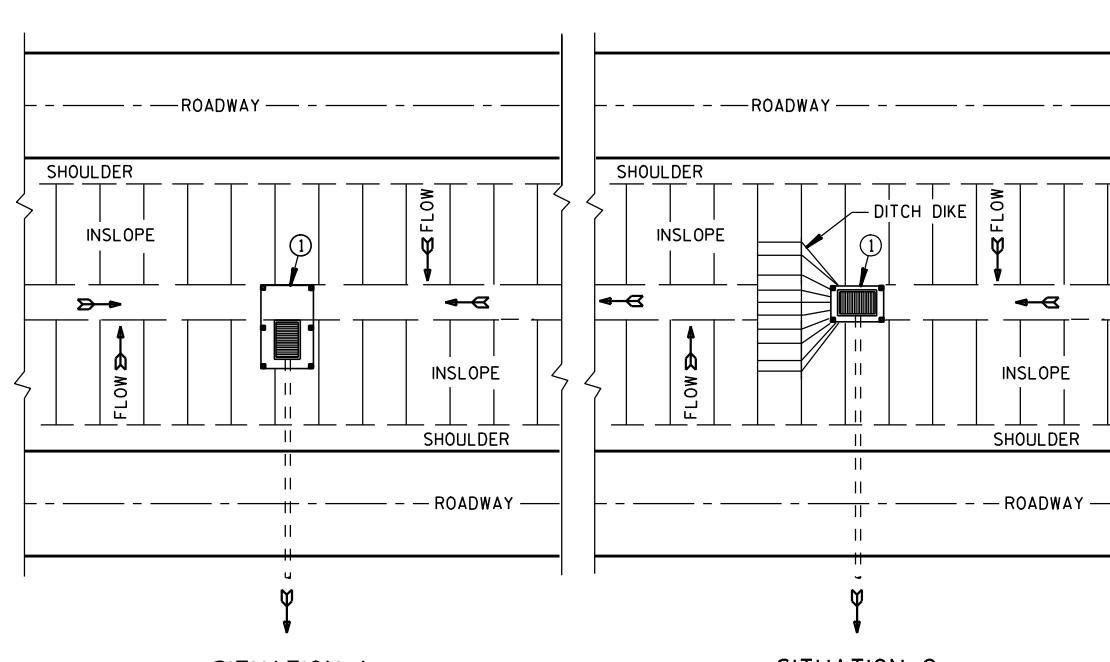


Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

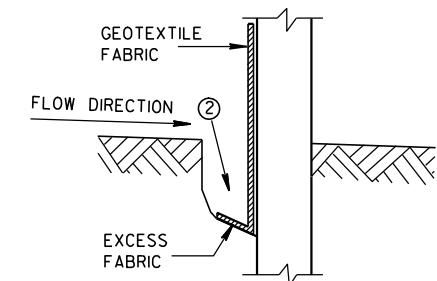


SILT FENCE AT MEDIAN SURFACE DRAINS

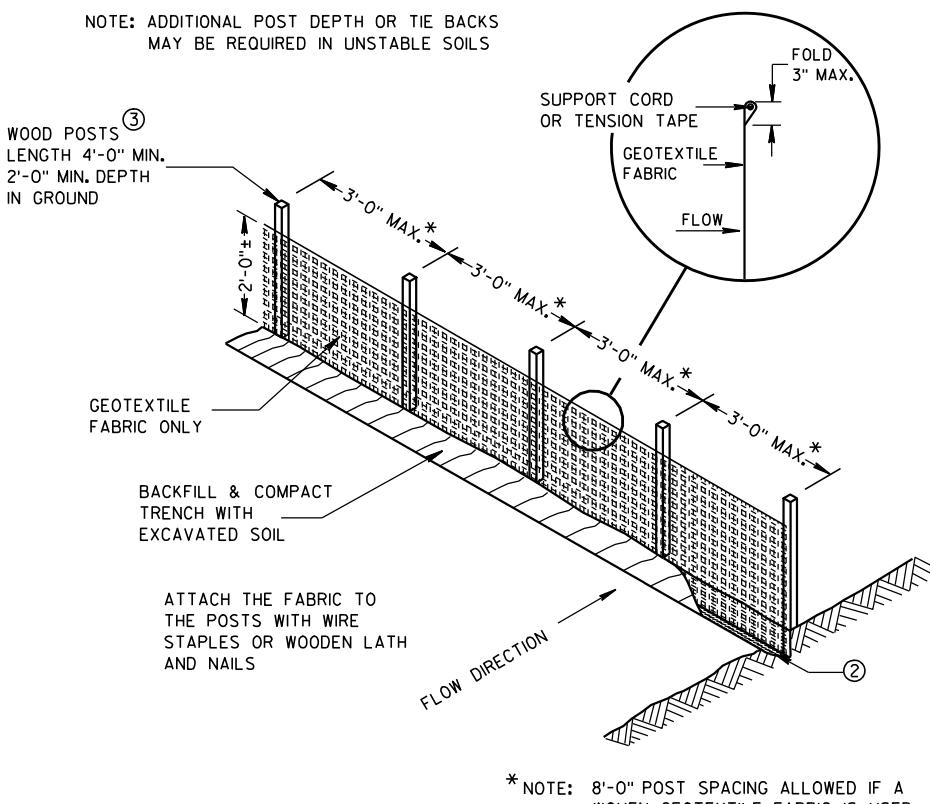
GENERAL NOTES

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

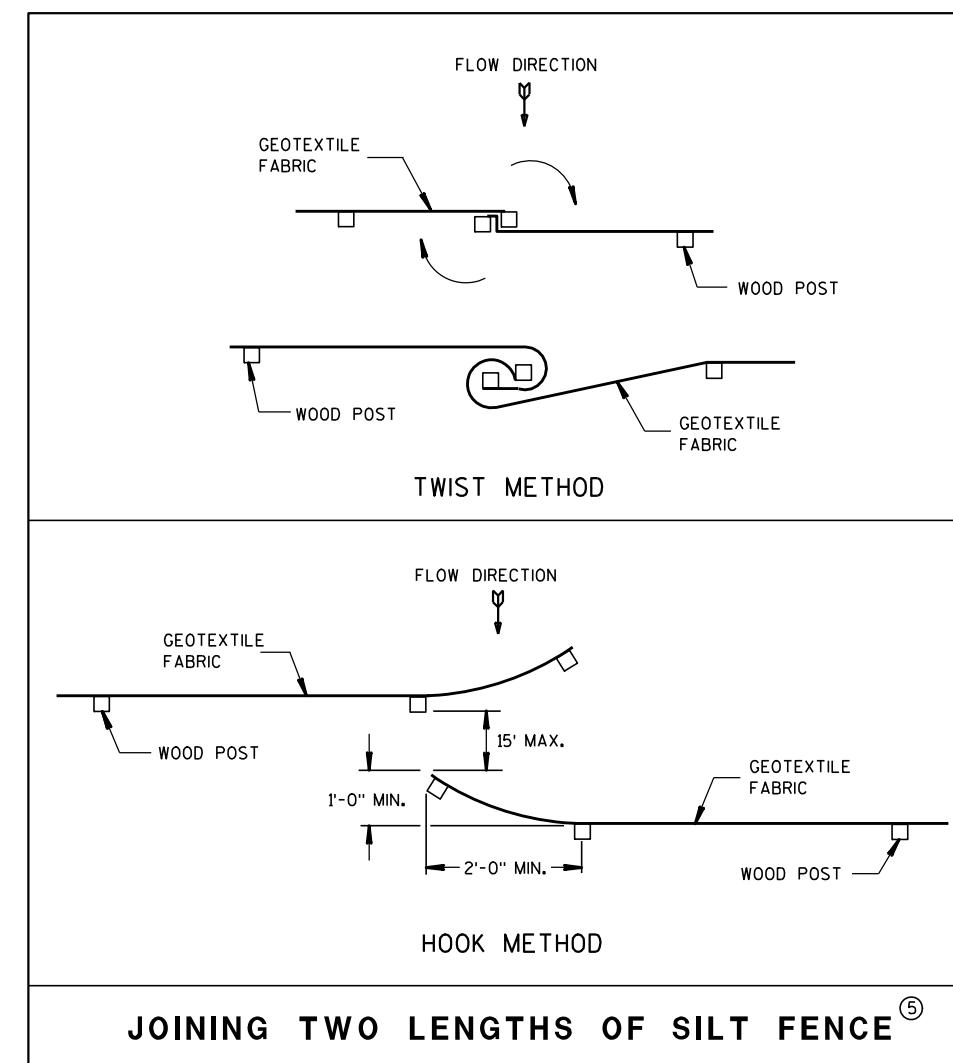
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1/8" X 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.



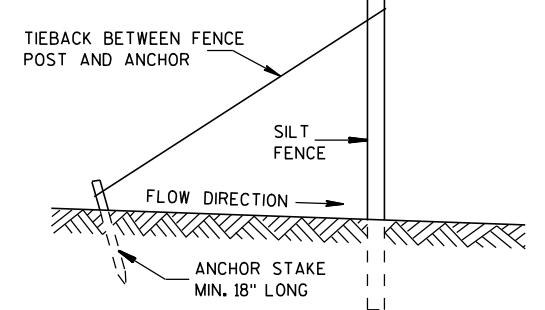
TRENCH DETAIL



SILT FENCE

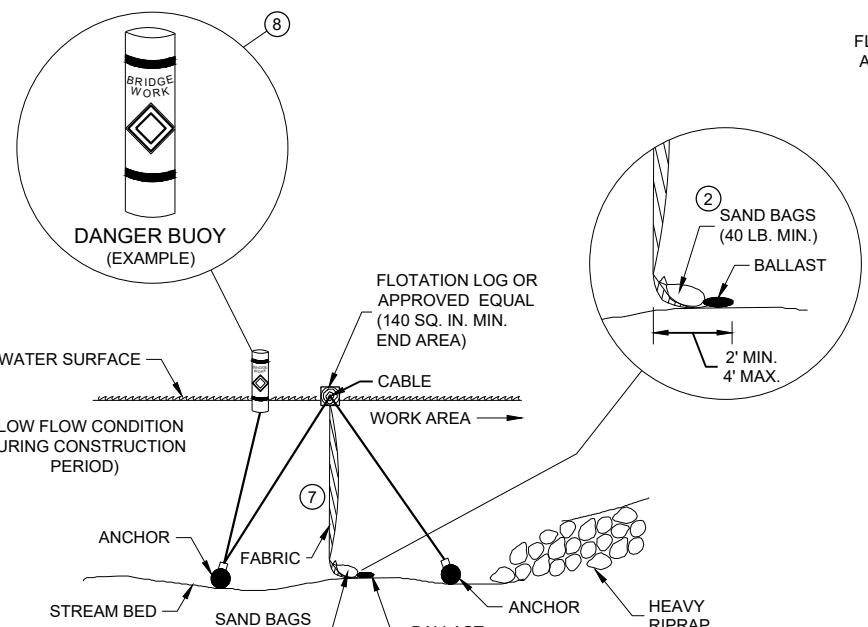


JOINING TWO LENGTHS OF SILT FENCE^⑤



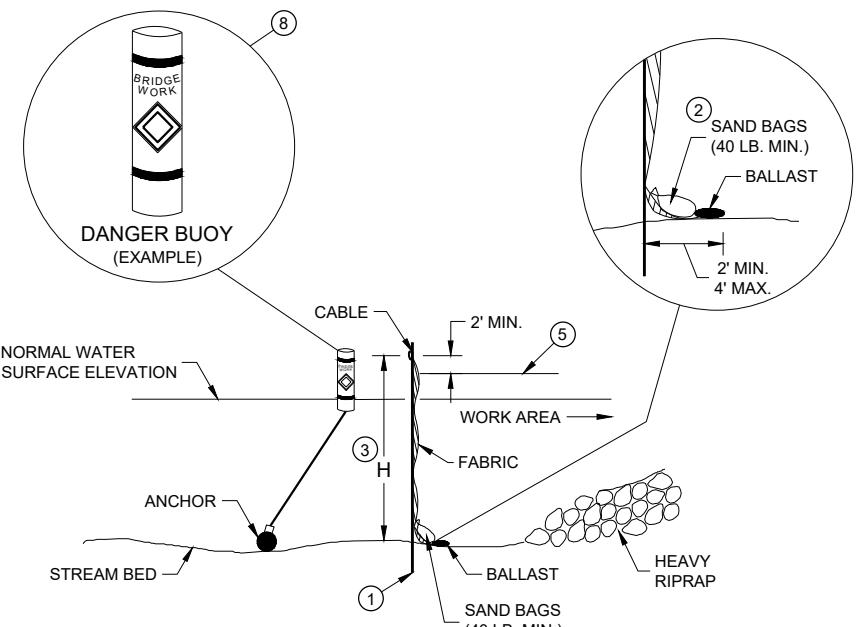
SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER FHWA



SECTION B - B

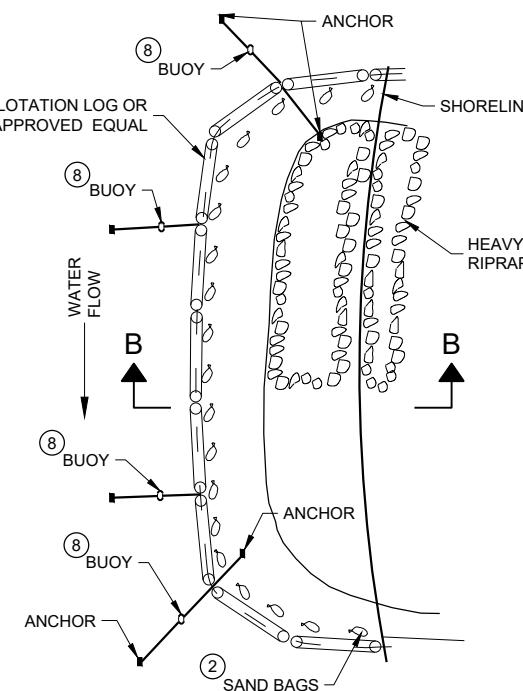
**TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6**



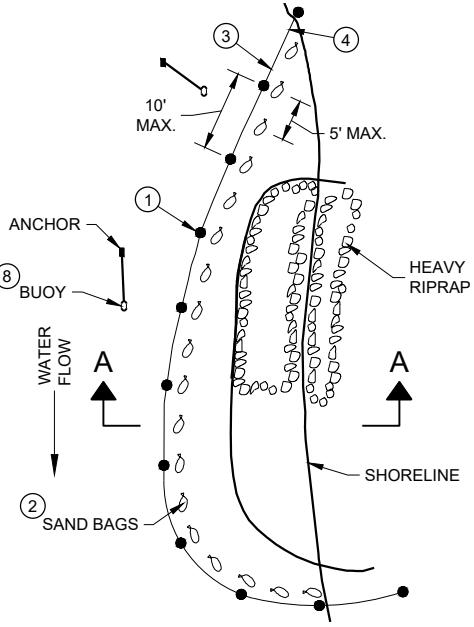
SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS



PLAN VIEW



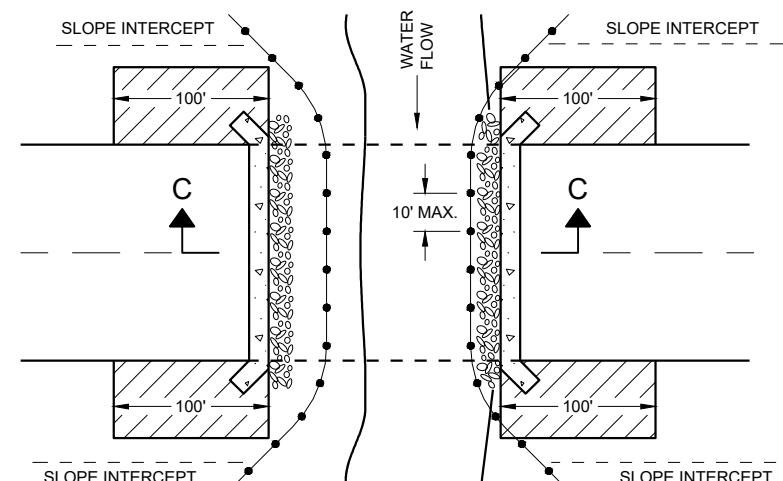
PLAN VIEW

GENERAL NOTES

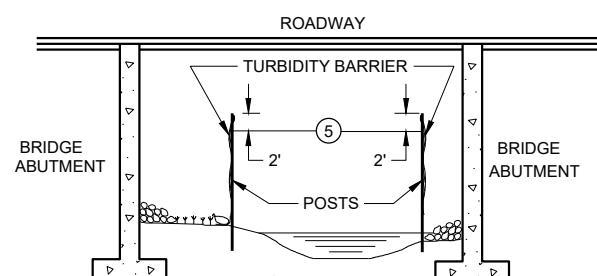
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
 - ② SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
 - ③ WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
 - ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
 - ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
 - ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
 - ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
 - ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

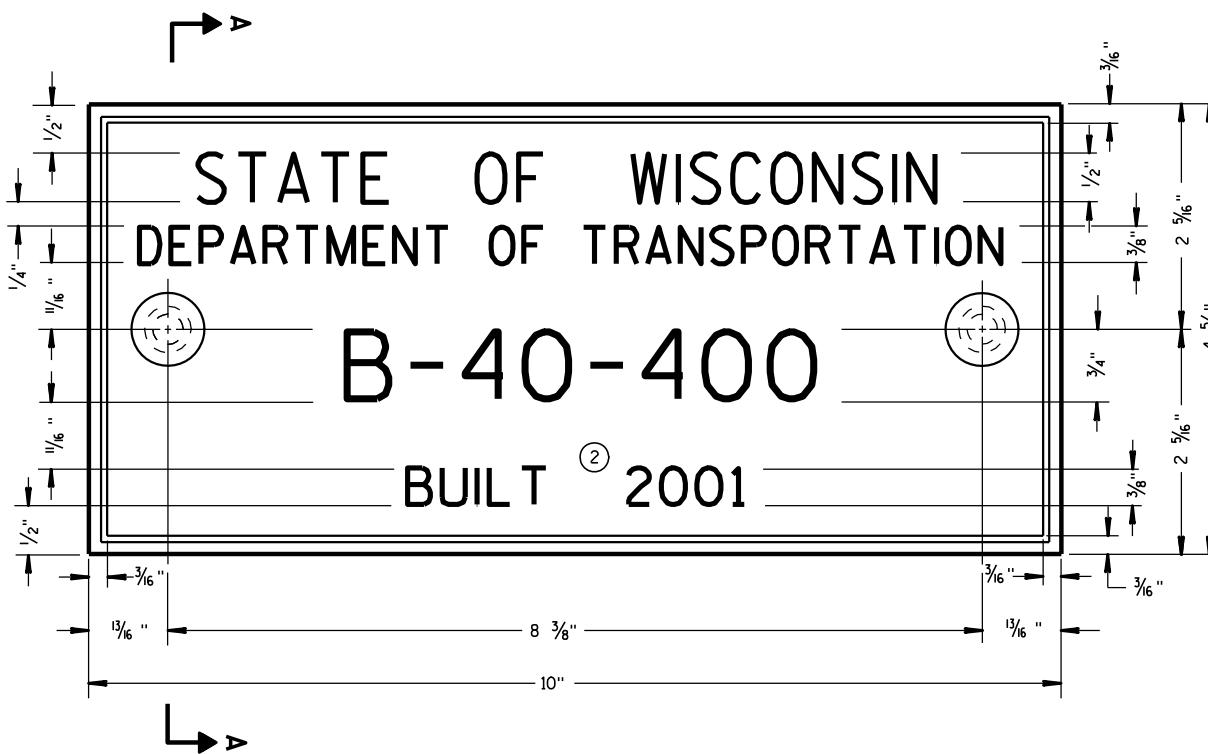
APPROVED
6/4/02
DATE /S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT
ENGINEER

GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

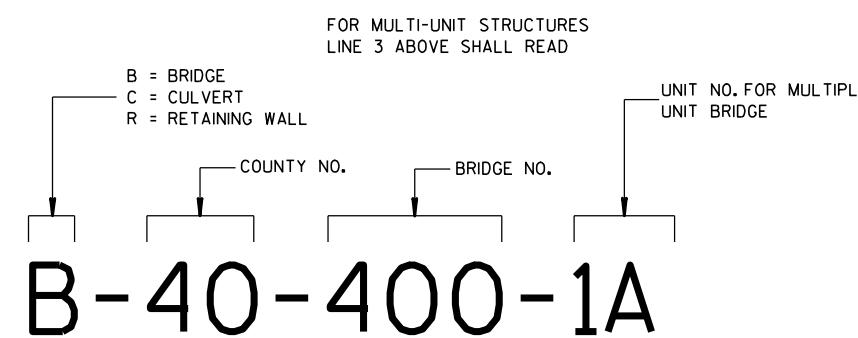
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



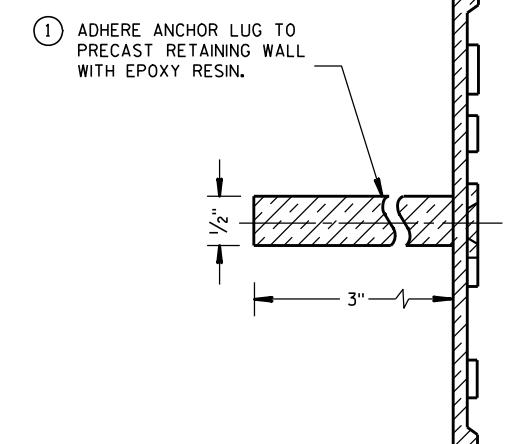
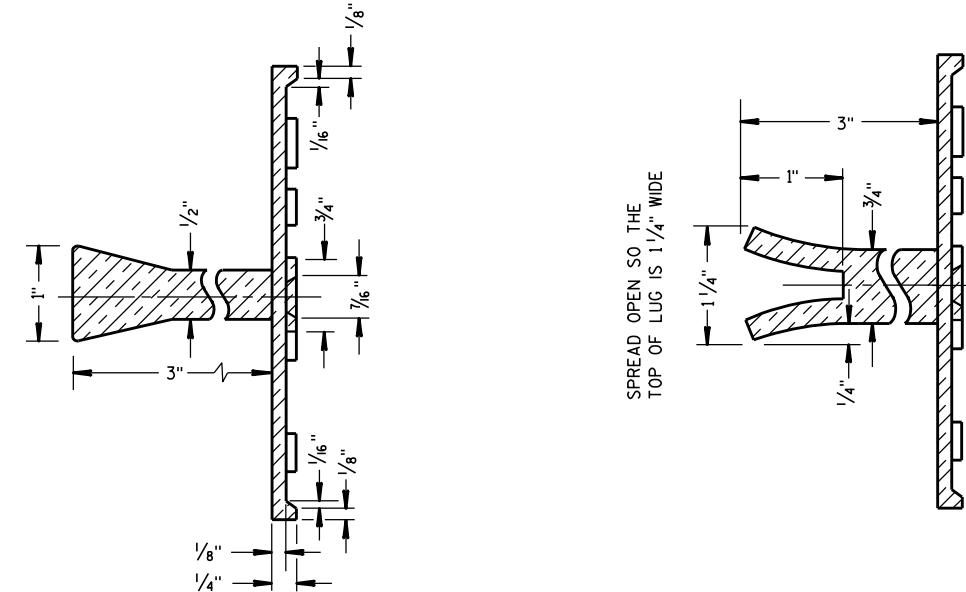
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

6



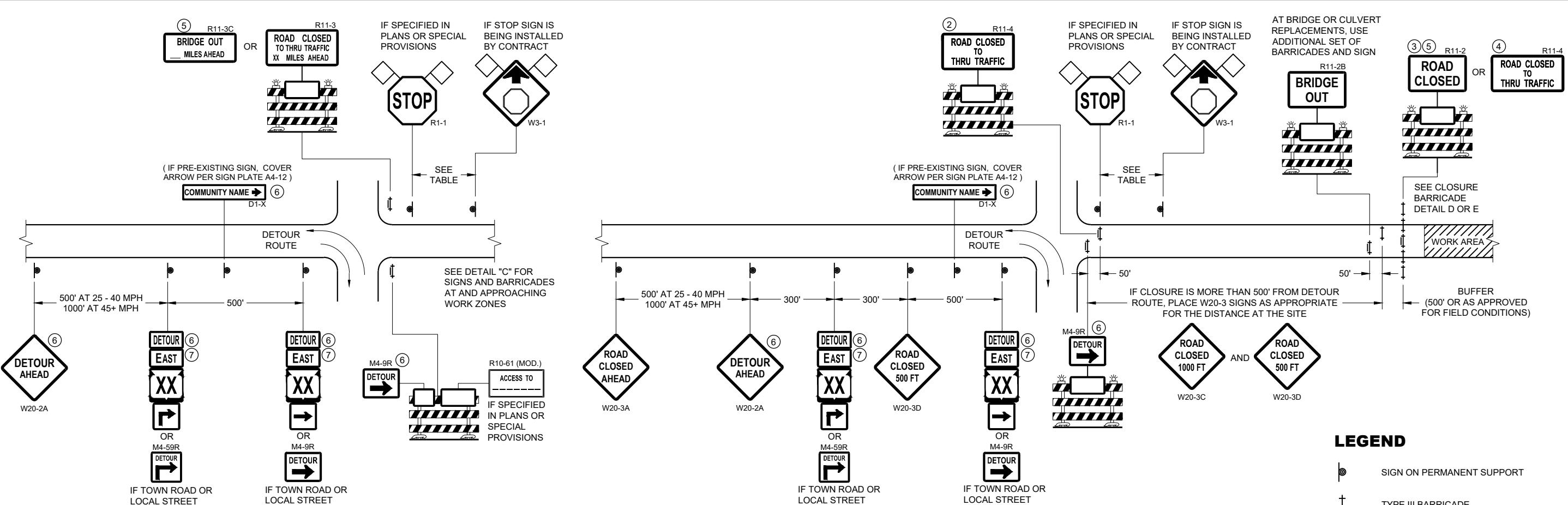
NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

S.D.D. 12 A 3-10



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 3/26/10 /S/ Scot Becker DATE CHIEF STRUCTURAL DEVELOPMENT ENGINEER FHWA

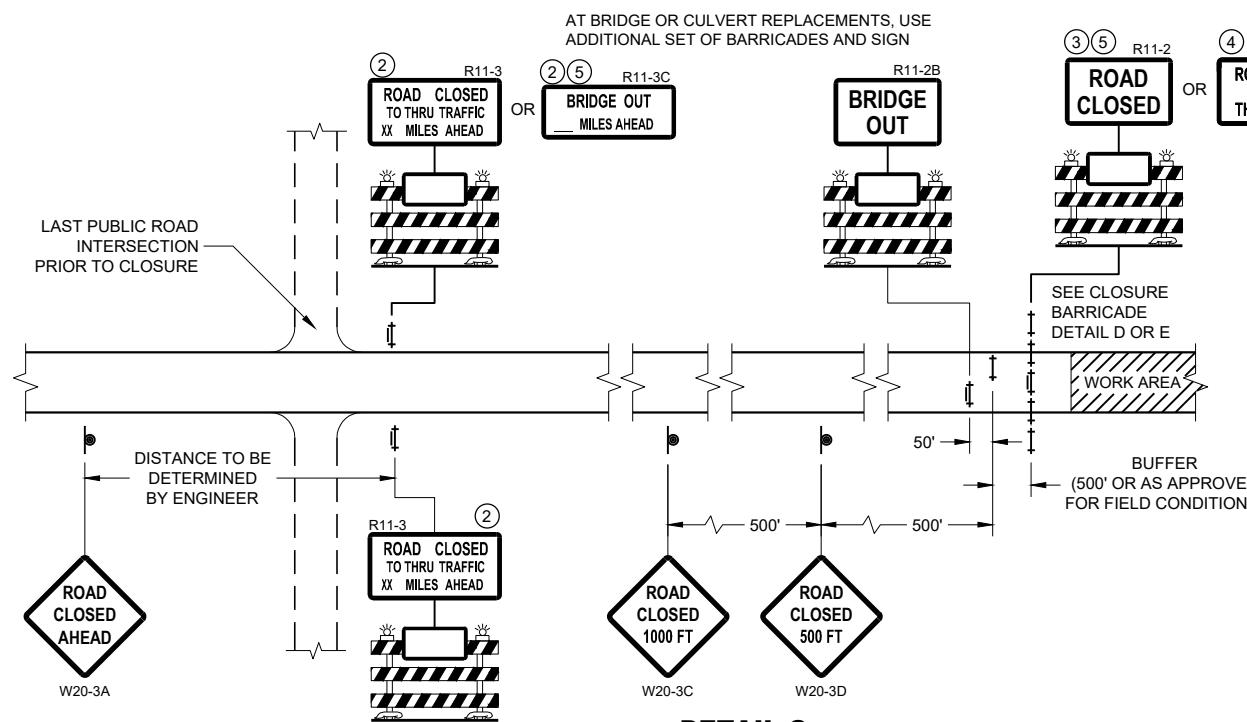


DETAIL A MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO $\frac{1}{2}$ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN $\frac{1}{2}$ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidke
DATE
WORK ZONE ENGINEER
FHWA

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)

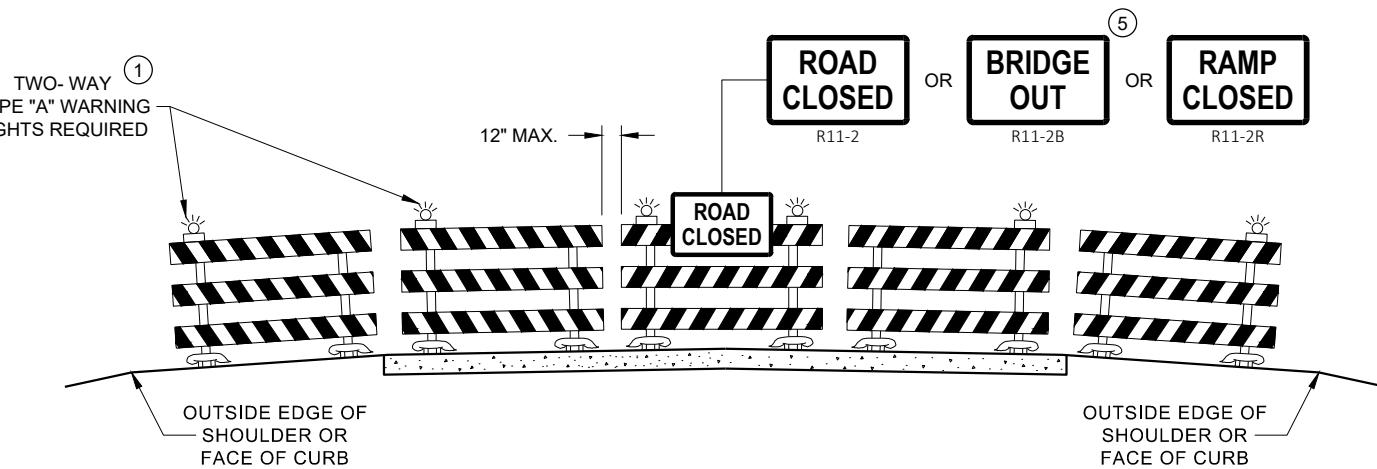
M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)

M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)

M05 - 1 AND M06 - 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.

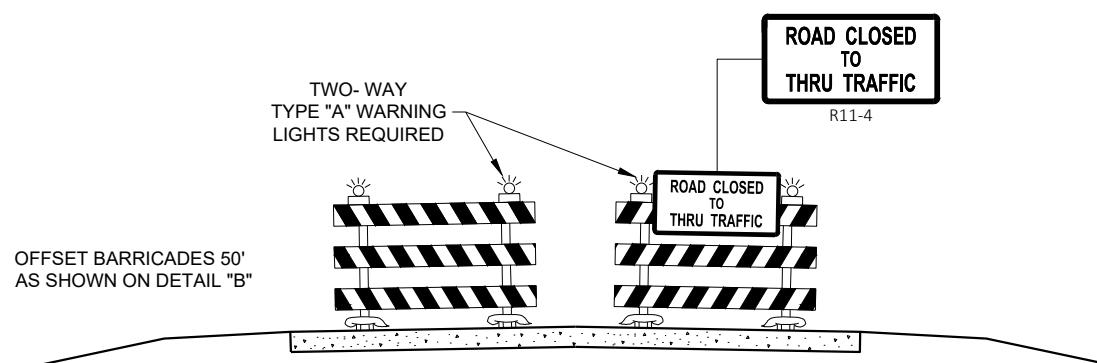
R1 - 1 SHALL BE 36" X 36"



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW

6

6



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SDD 15C02 - 09b

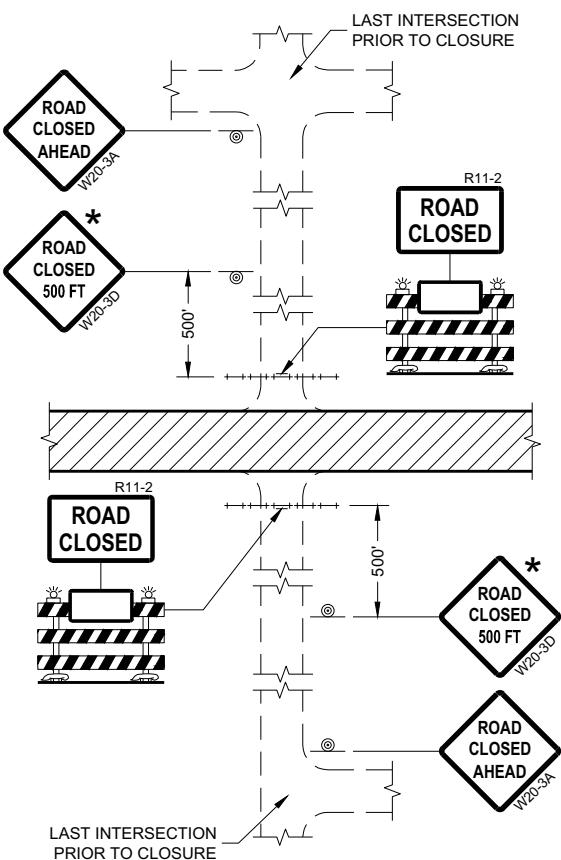
SEE SDD 15C2 - SHEET "a" FOR LEGEND

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

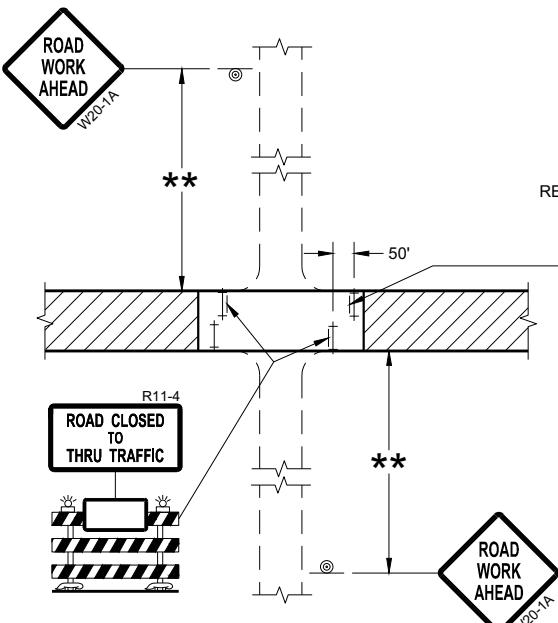
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
FHWA
WORK ZONE ENGINEER

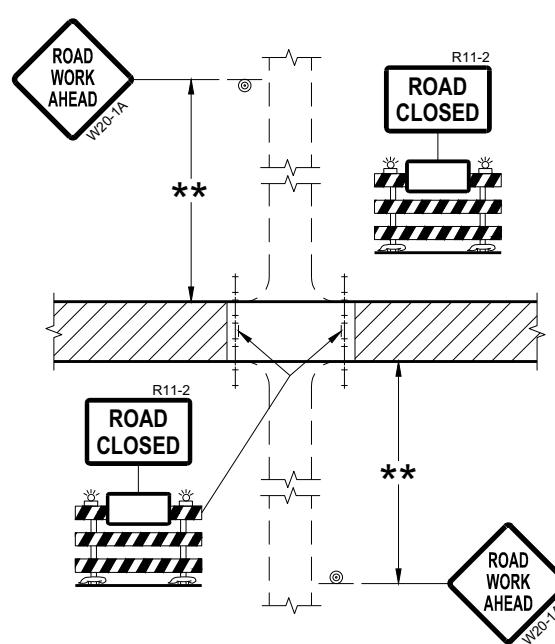
SDD 15C02 - 09b



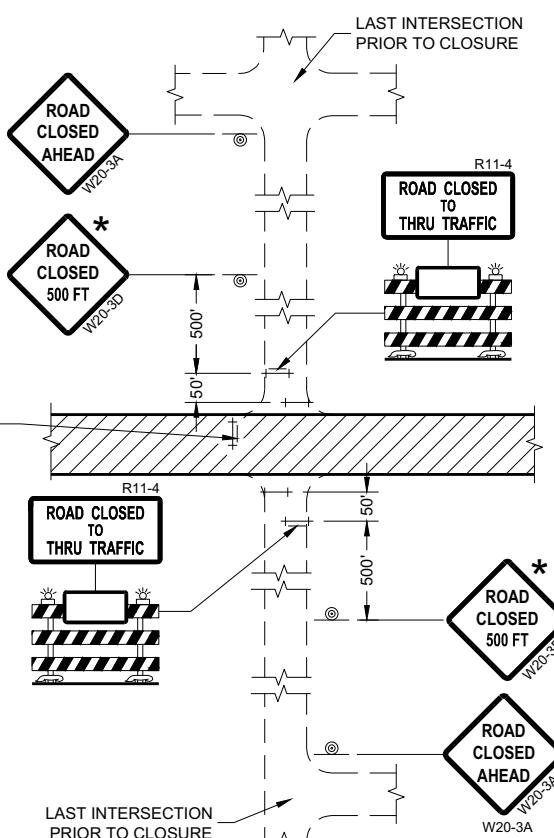
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- ± TYPE III BARRICADE
- || TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

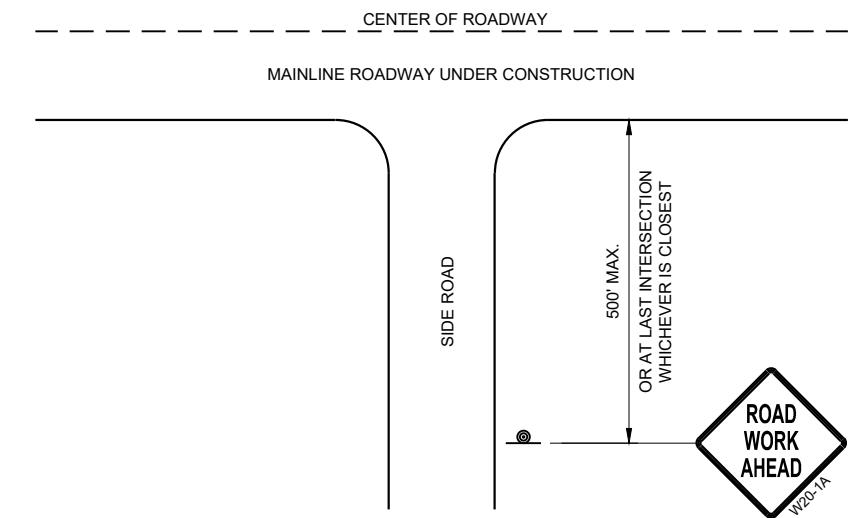
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

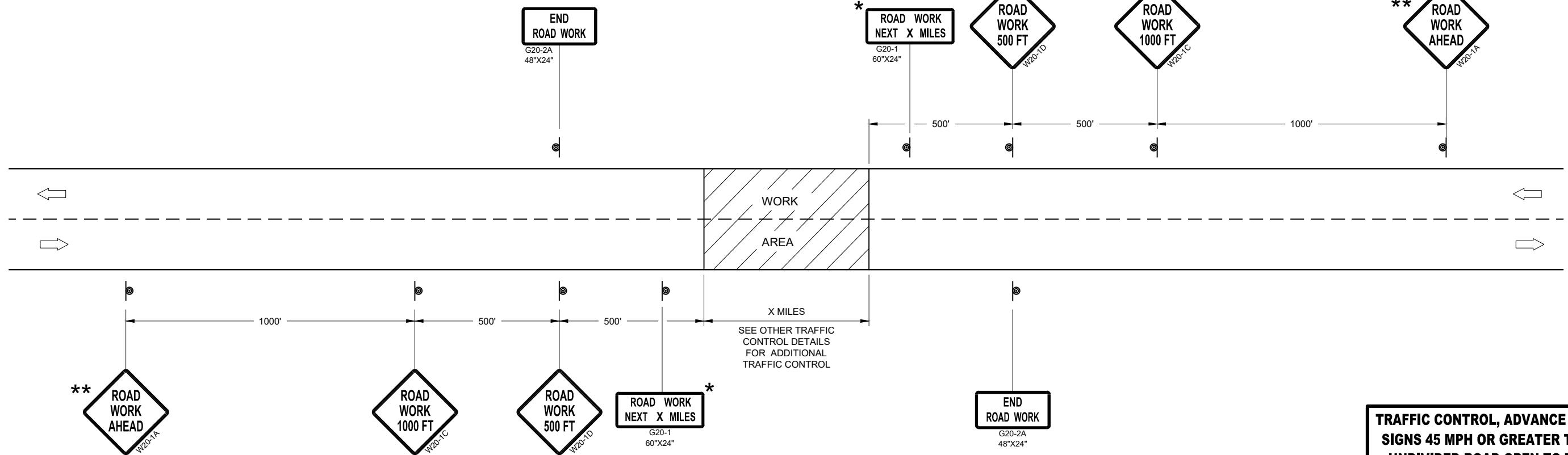
GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.
 THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
 ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
 SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
 IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.
 * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
 ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

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

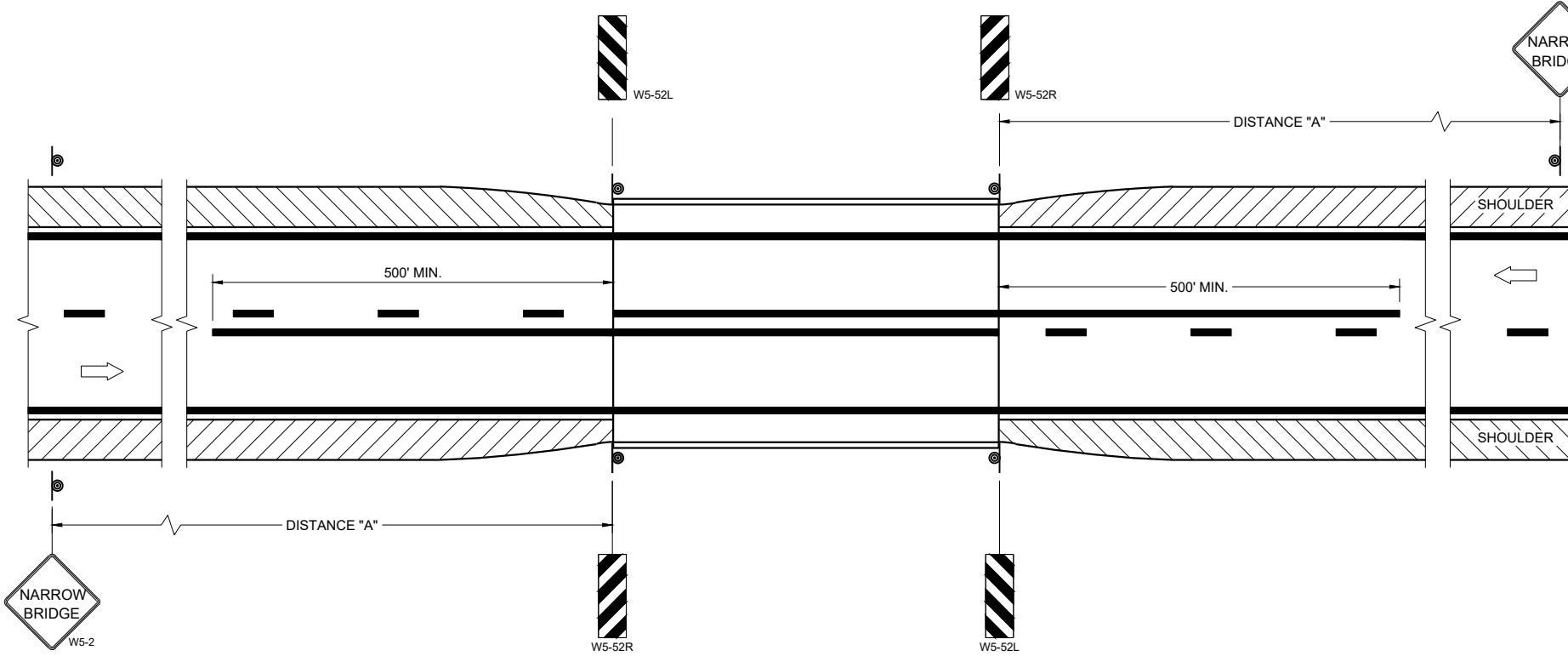


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

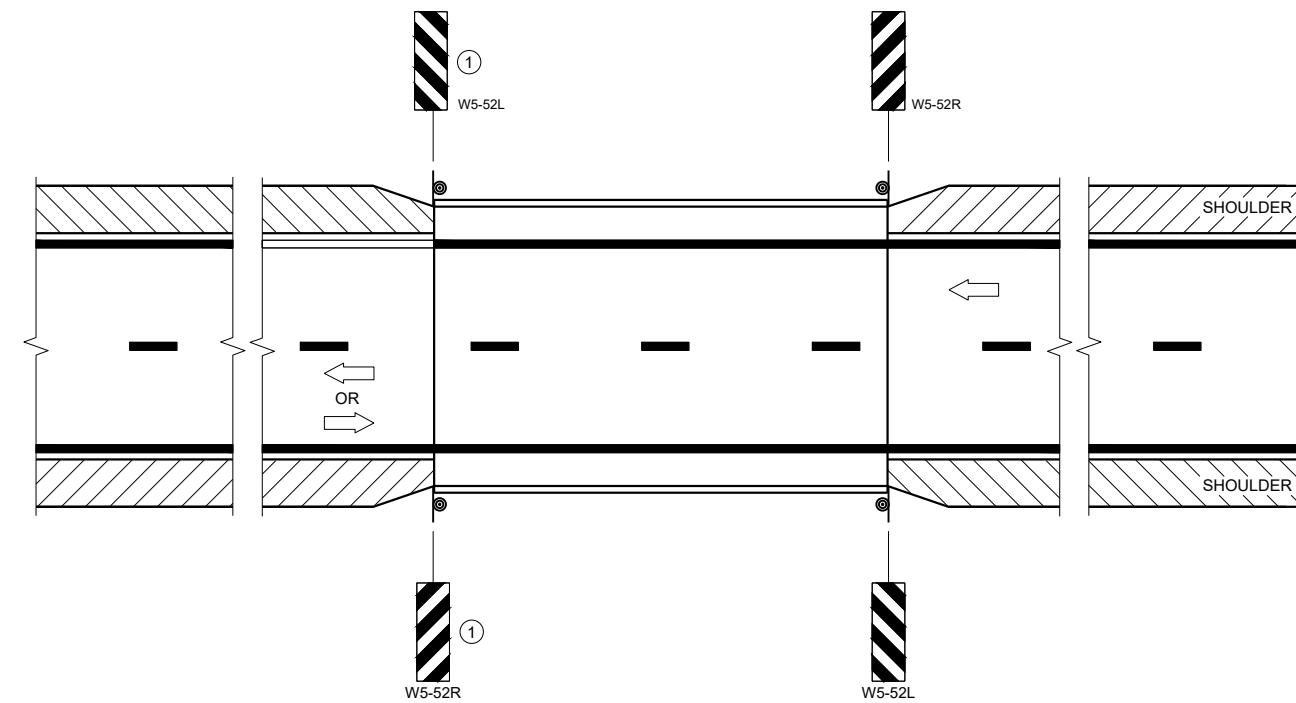
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SITUATION 1

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



SITUATION 2

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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

Ⓐ SIGN ON PERMANENT SUPPORT

→ DIRECTION OF TRAFFIC

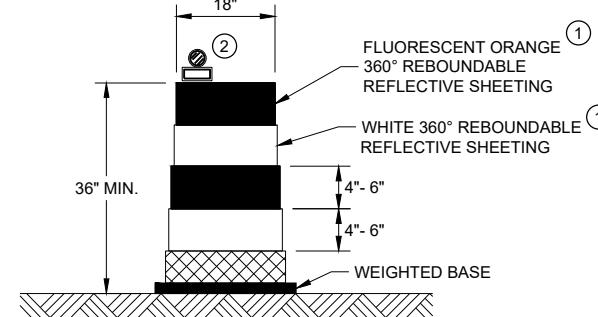
DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

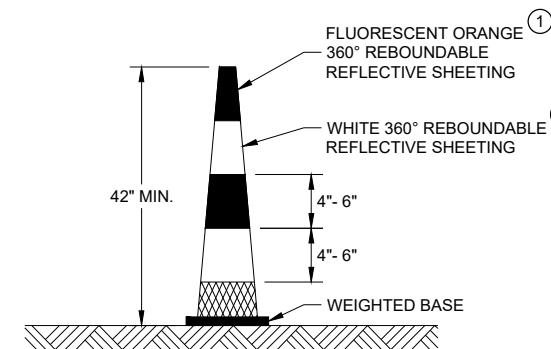
SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE
Statewide Pavement Marking Engineer
FHWA

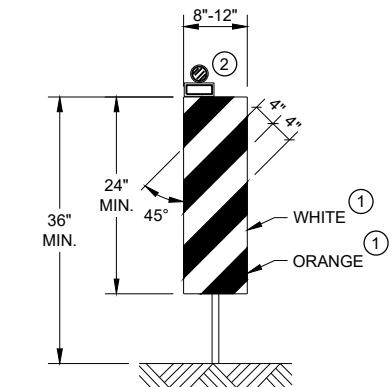
**DRUM**

BALLAST WIDTHS
RANGE FROM 24"-36"

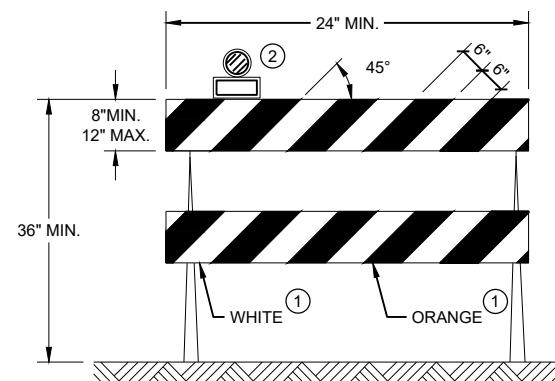
**42" CONE**

DO NOT USE IN TAPERS
½ SPACING OF DRUMS

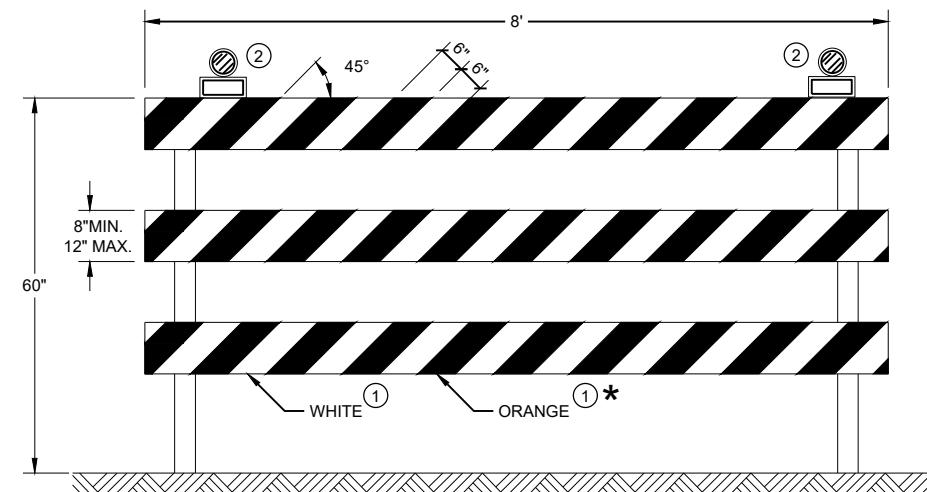
BALLAST WIDTHS
RANGE FROM 14"-20"

**VERTICAL PANEL**

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

**TYPE II BARRICADE**

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

**TYPE III BARRICADE**

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

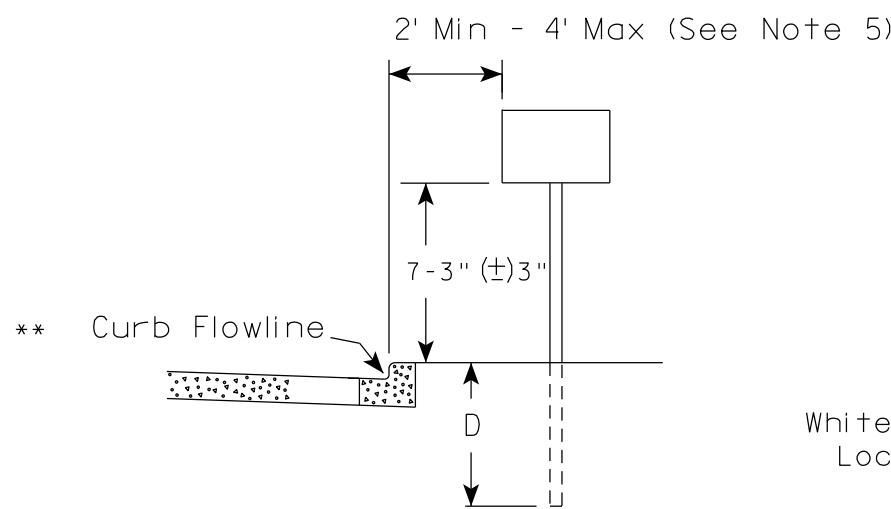
CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
--

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

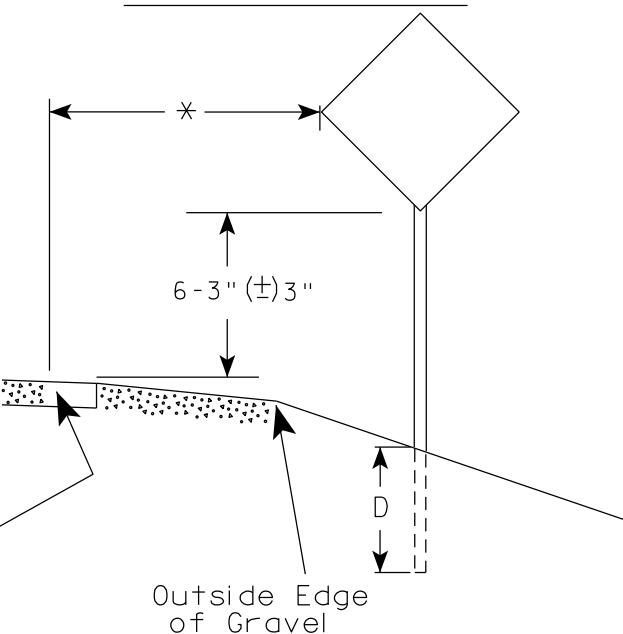
APPROVED
November 2022 /S/ Andrew Heidke
DATE
FHWA

WORK ZONE ENGINEER

URBAN AREA



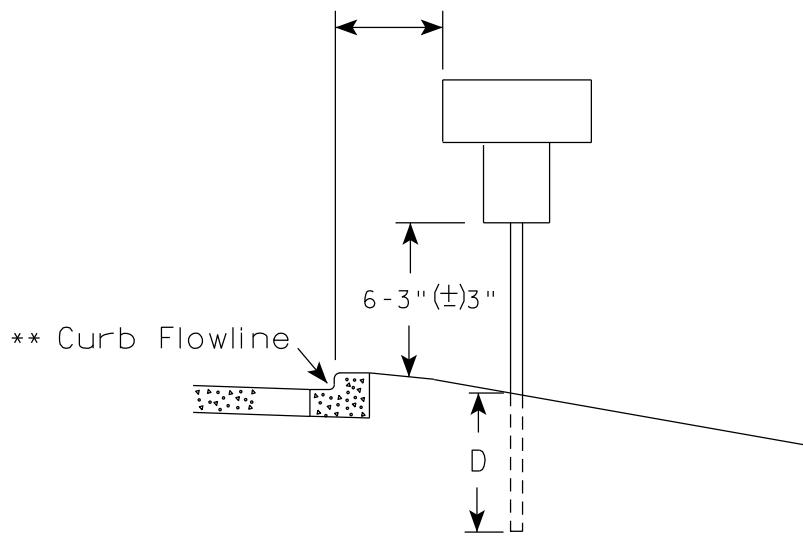
RURAL AREA (See Note 2)



GENERAL NOTES

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

2' Min - 4' Max (See Note 5)



White Edgeline Location



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

POST EMBEDMENT DEPTH

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew P. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

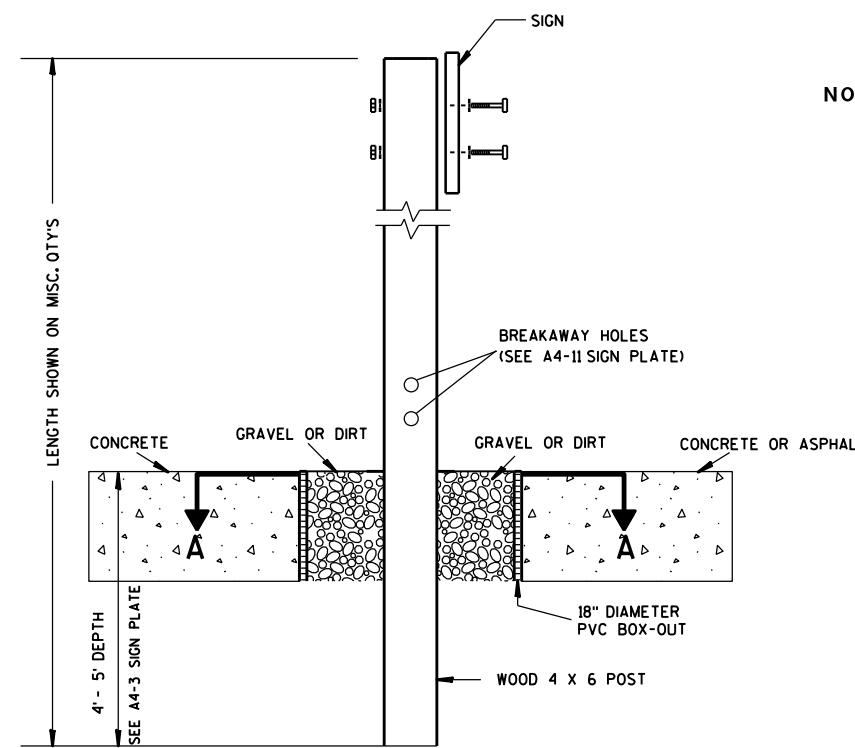
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

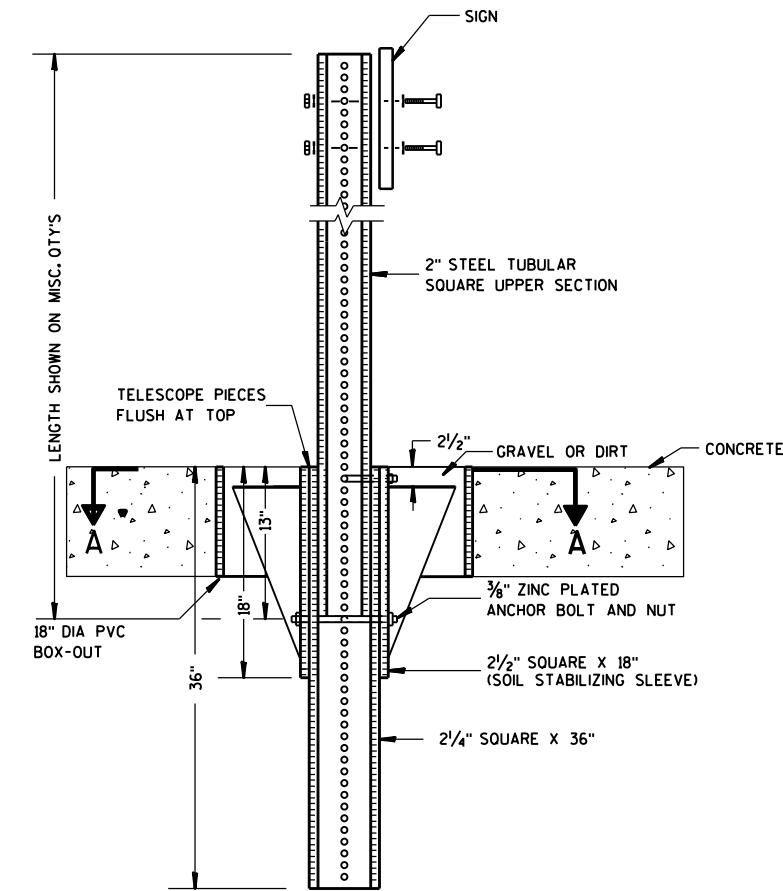
E



ELEVATION VIEW

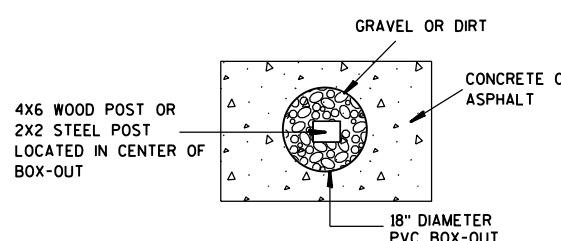
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



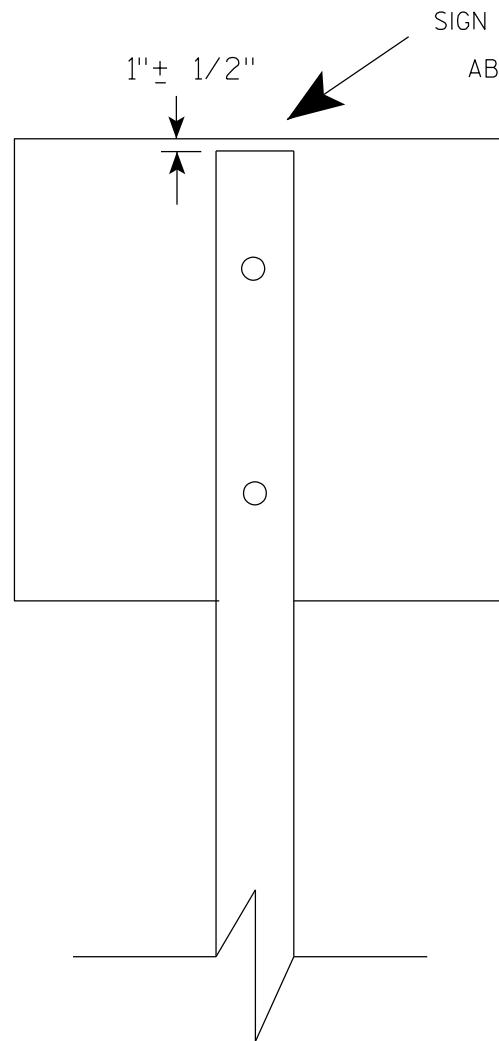
PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

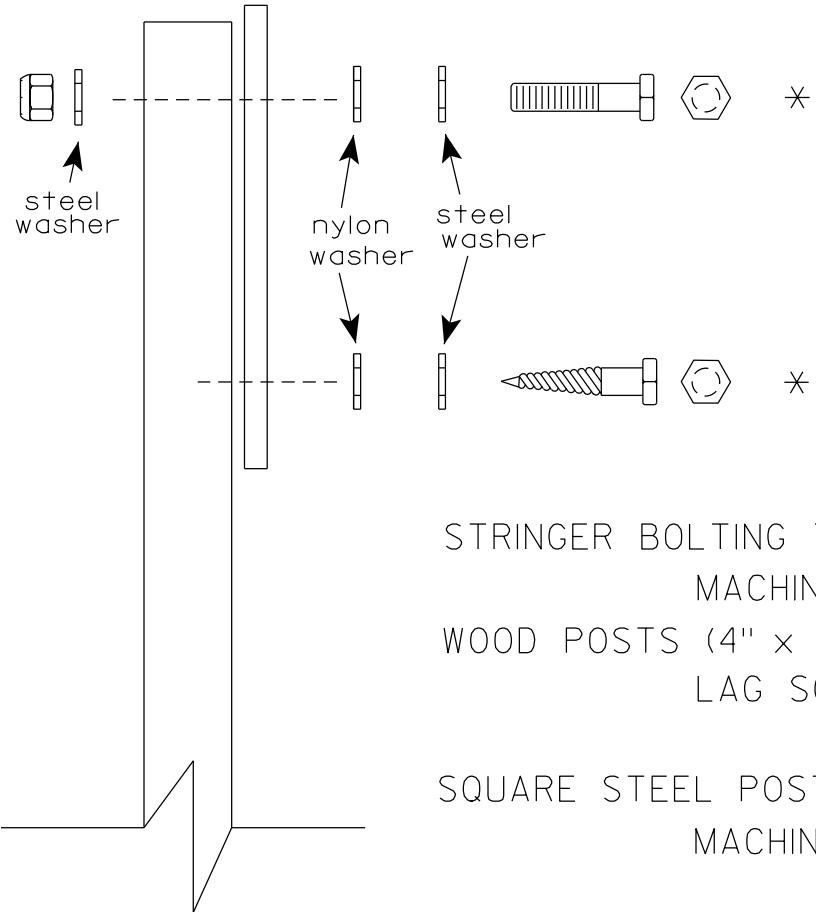
**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew P. Rauch
for State Traffic Engineer
DATE 1/27/14 PLATE NO. A4-3B.1



SIGN SHALL BE MOUNTED TO PROJECT
ABOVE THE TOP OF THE POST



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL

O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL

1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

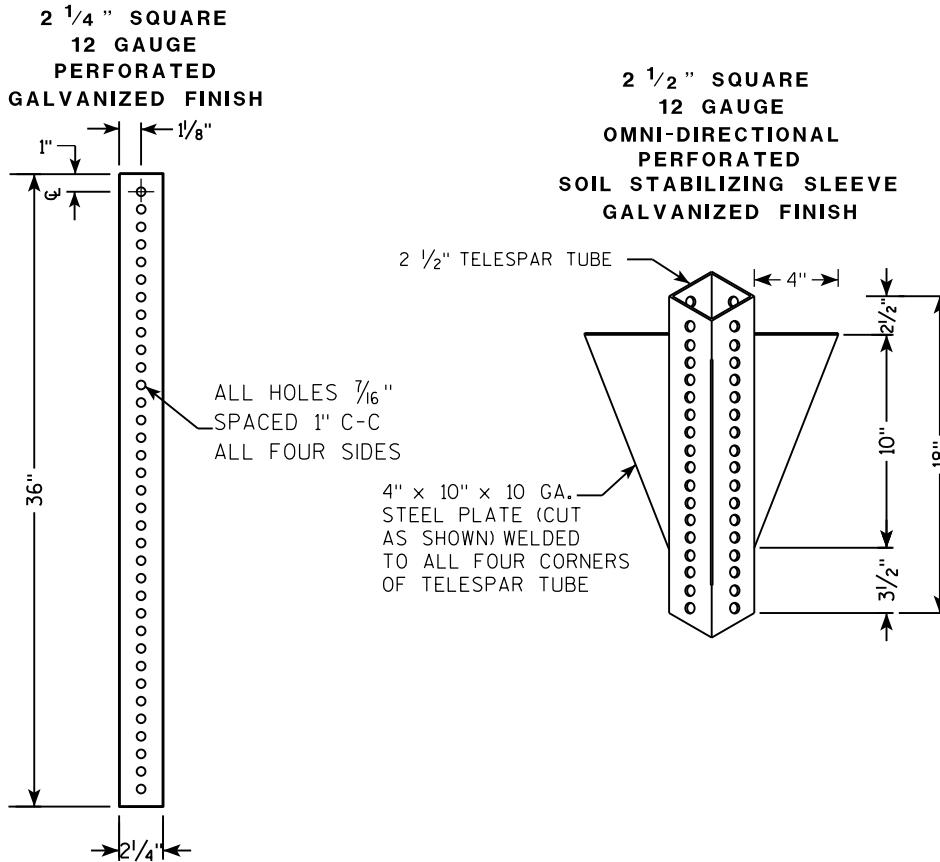
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

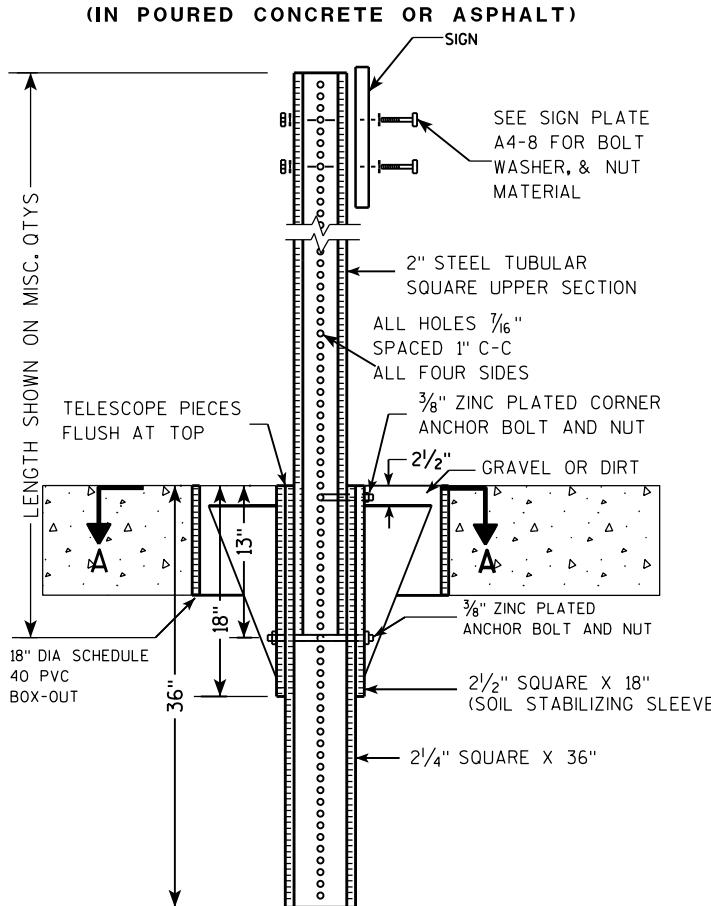
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

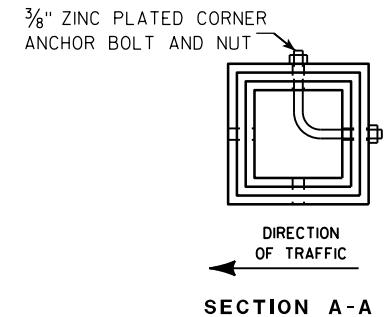
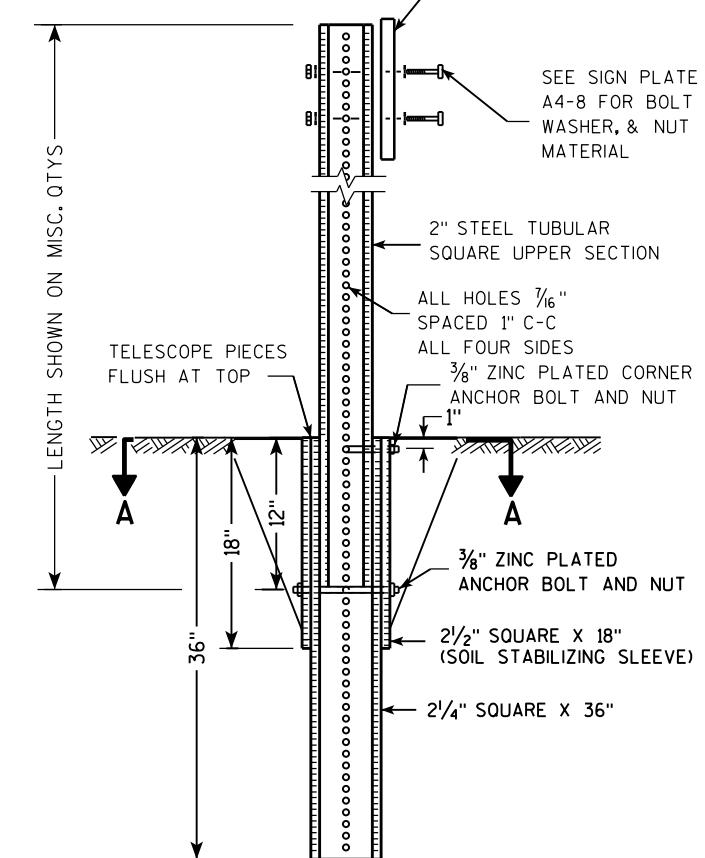
**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew P. Rauch

for State Traffic Engineer

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

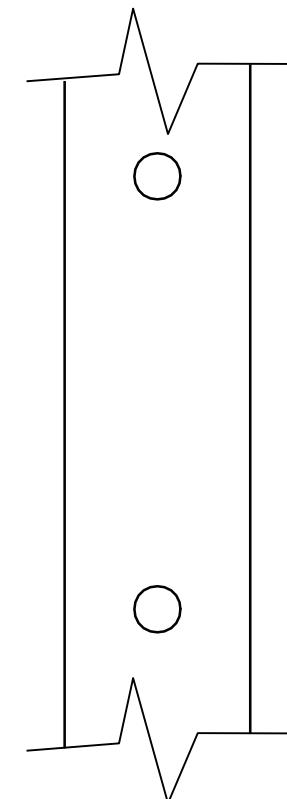
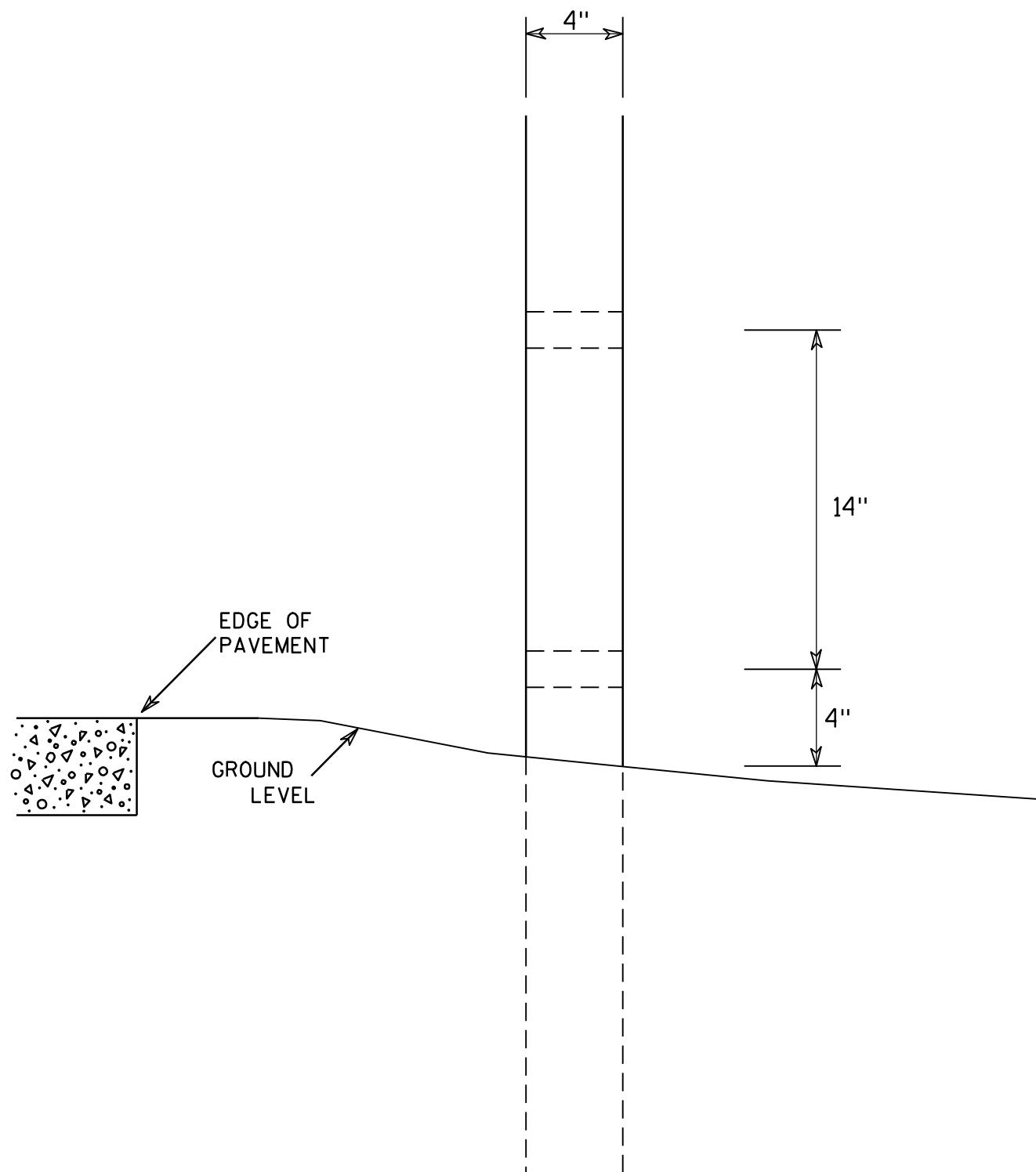
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two $1\frac{1}{2}$ " diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST
MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Cheska J. Sprey
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

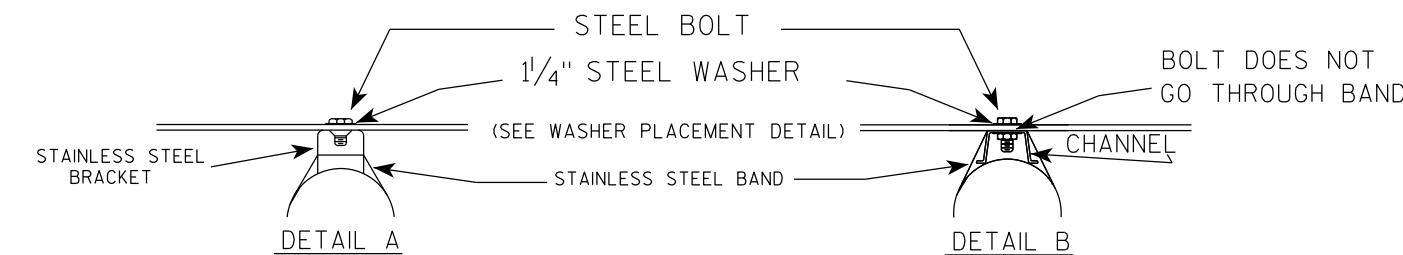
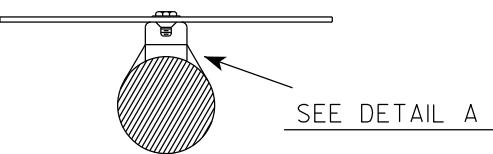
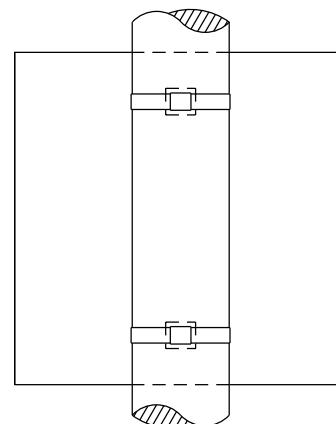
E

BANDING

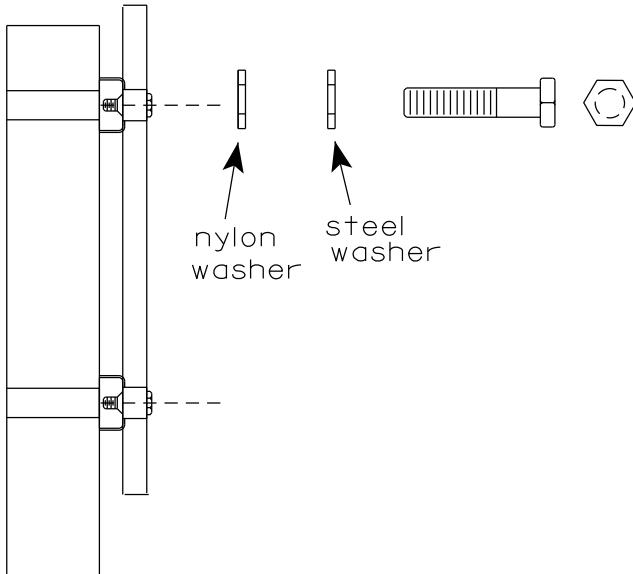
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

SINGLE SIGN

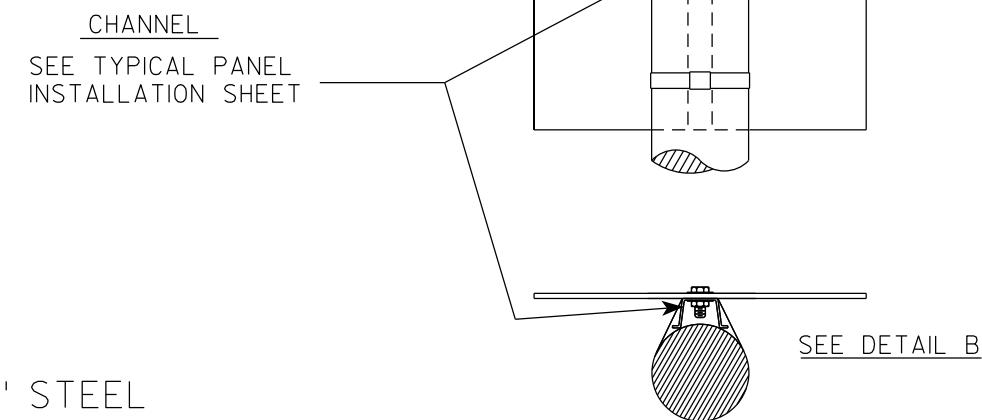


WASHER PLACEMENT



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

"J" ASSEMBLY

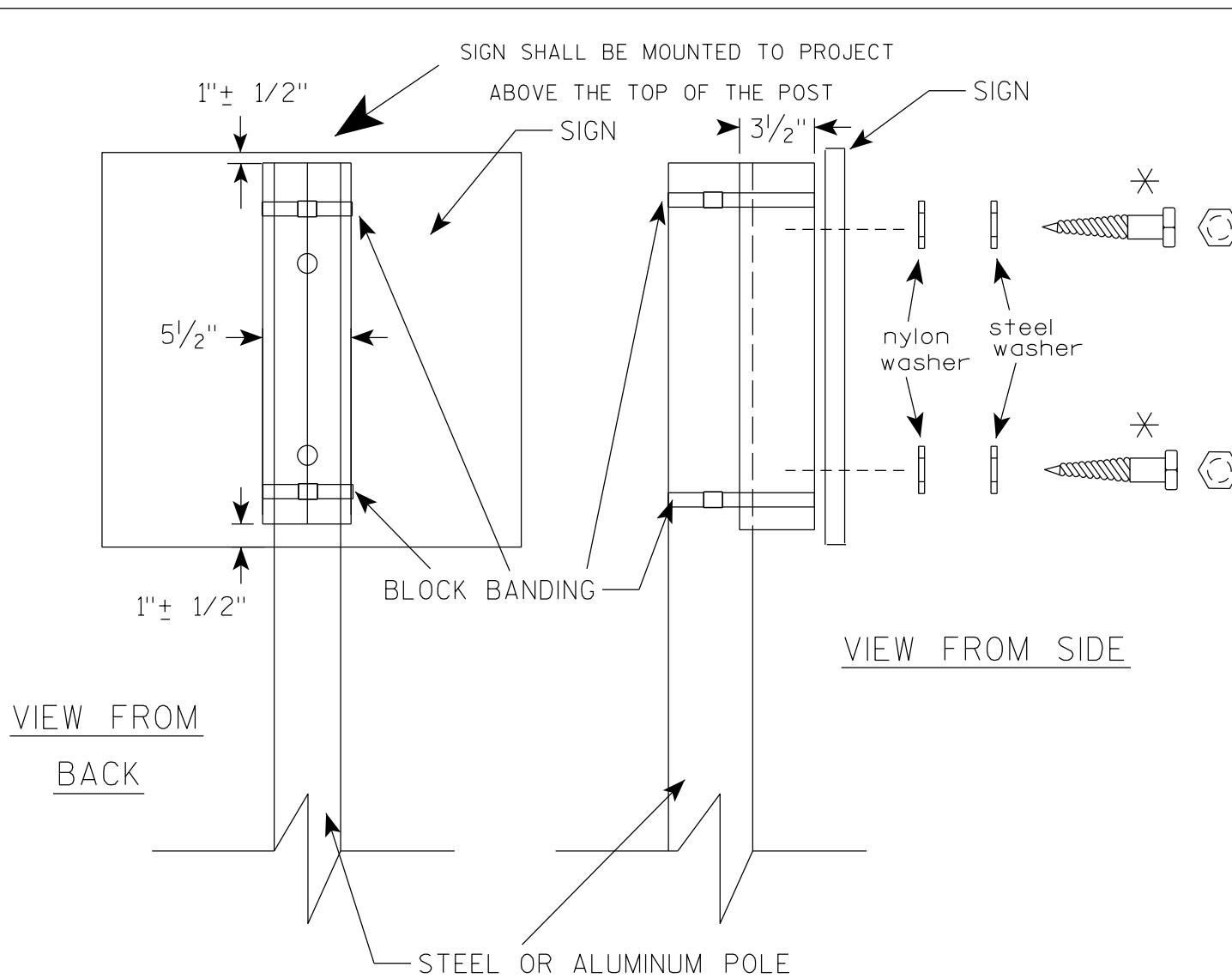


STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

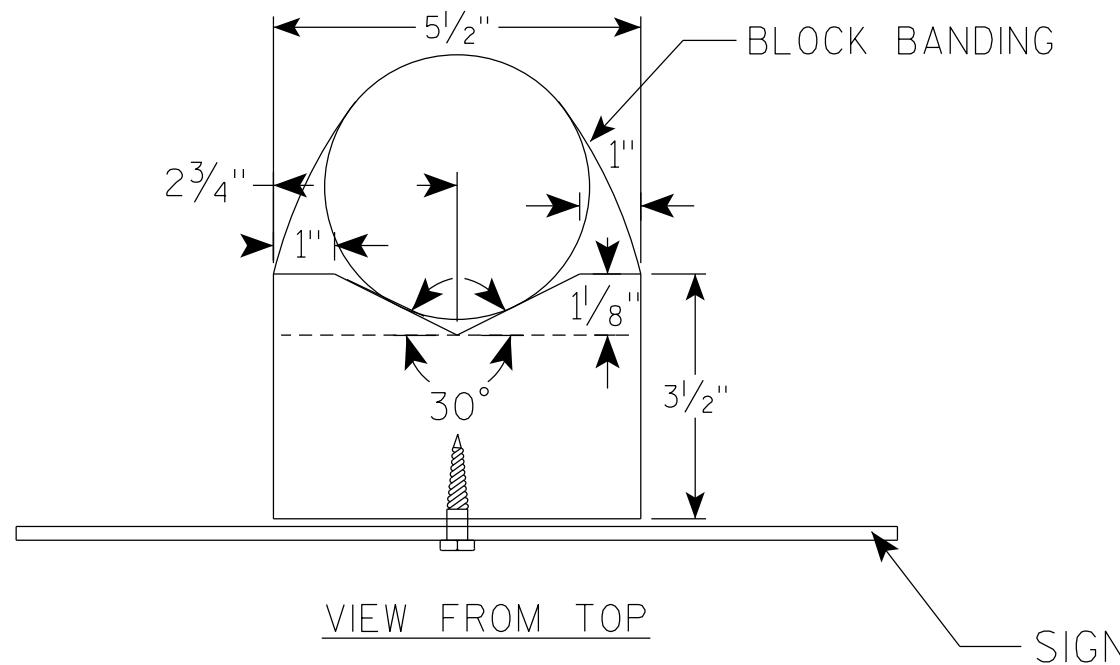
 for State Traffic Engineer
 DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

※ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "



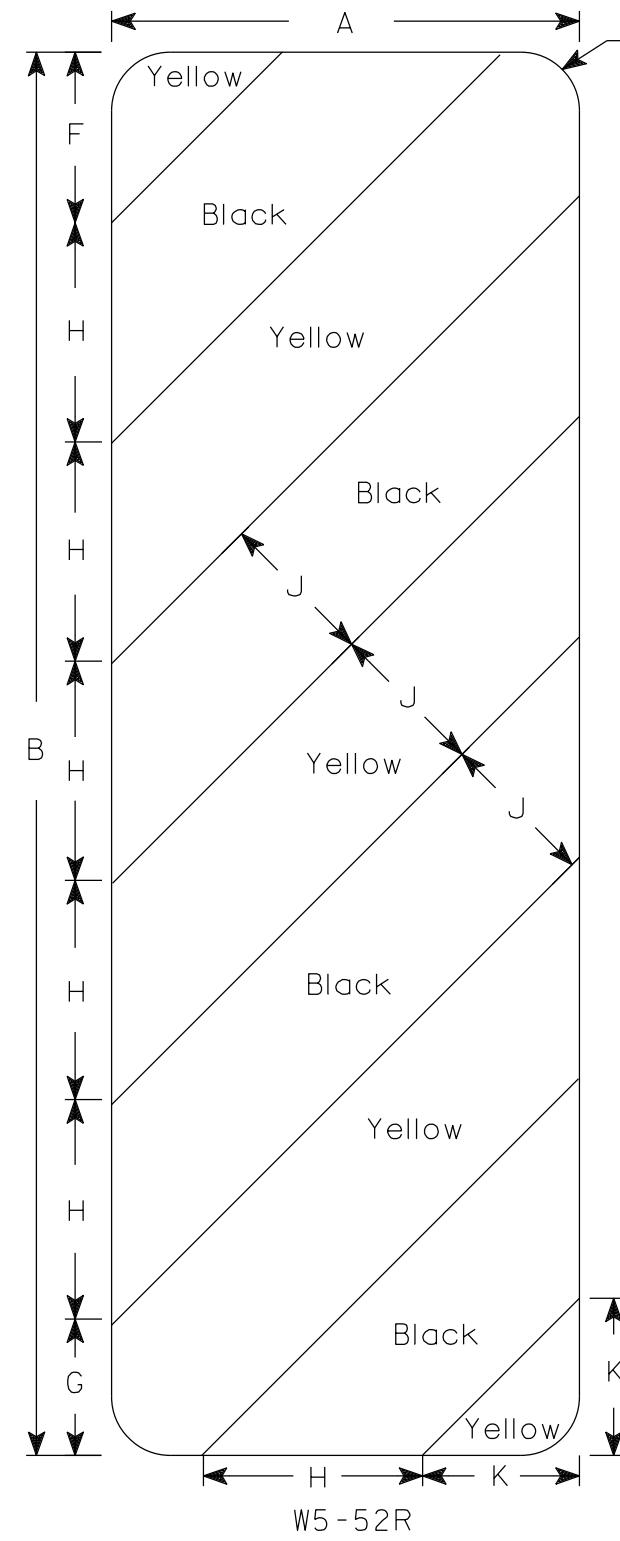
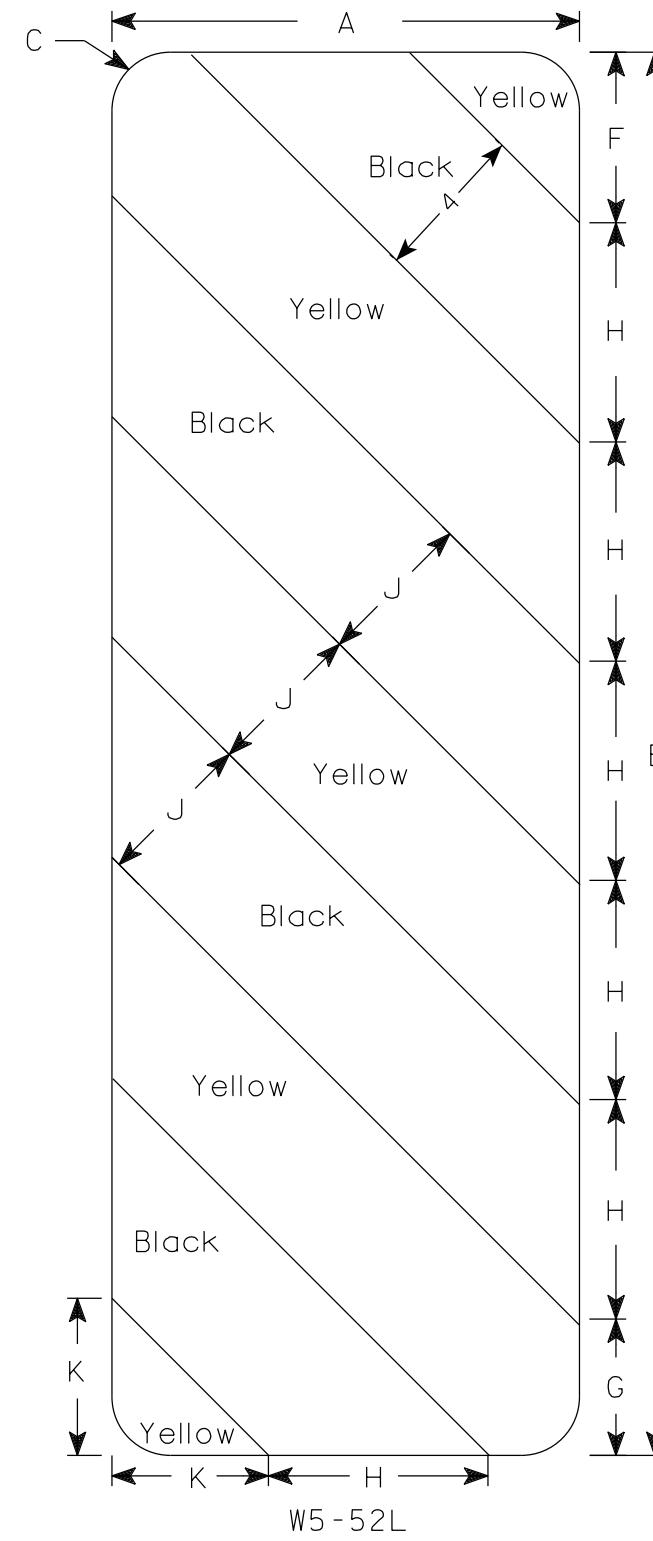
BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4															3.0	
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4															3.0	
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16															6.75	
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

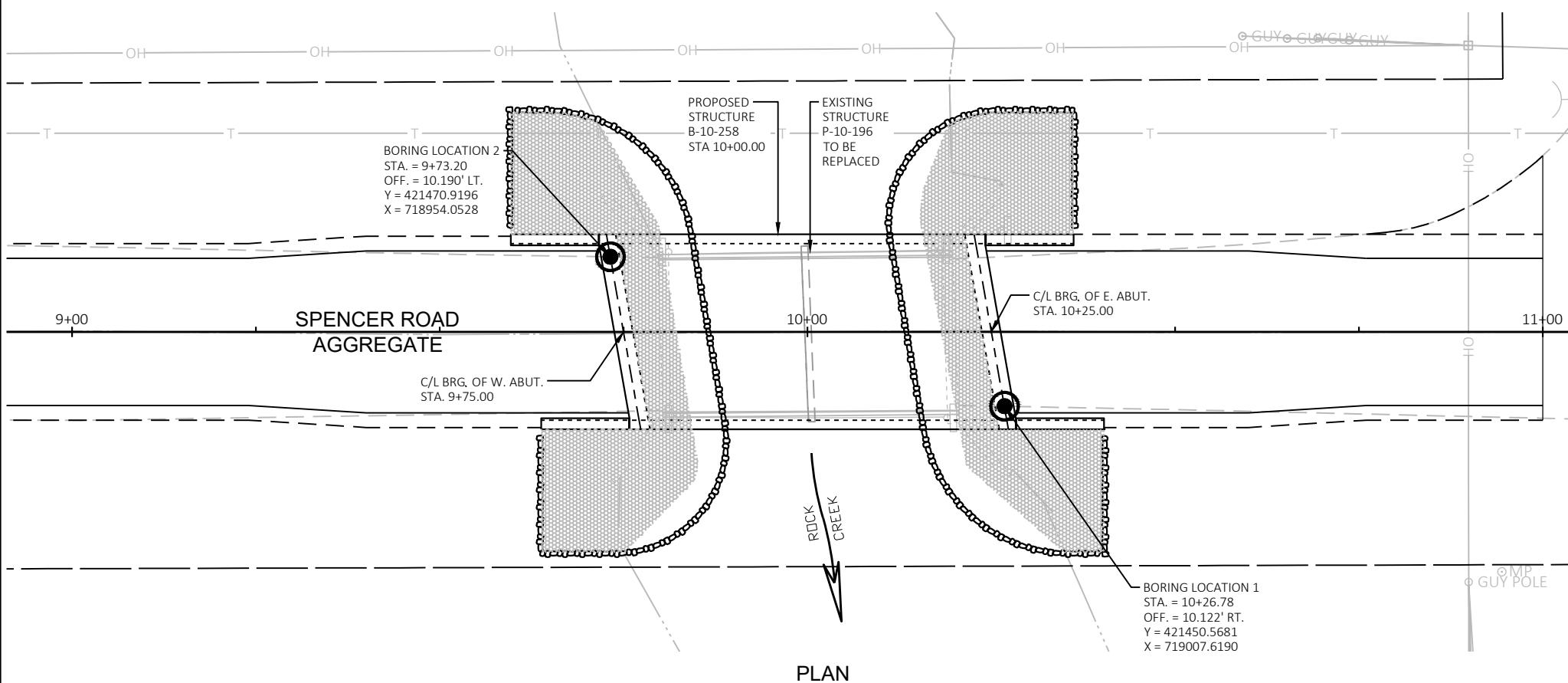
APPROVED *Matthew R Rauch*

For State Traffic Engineer

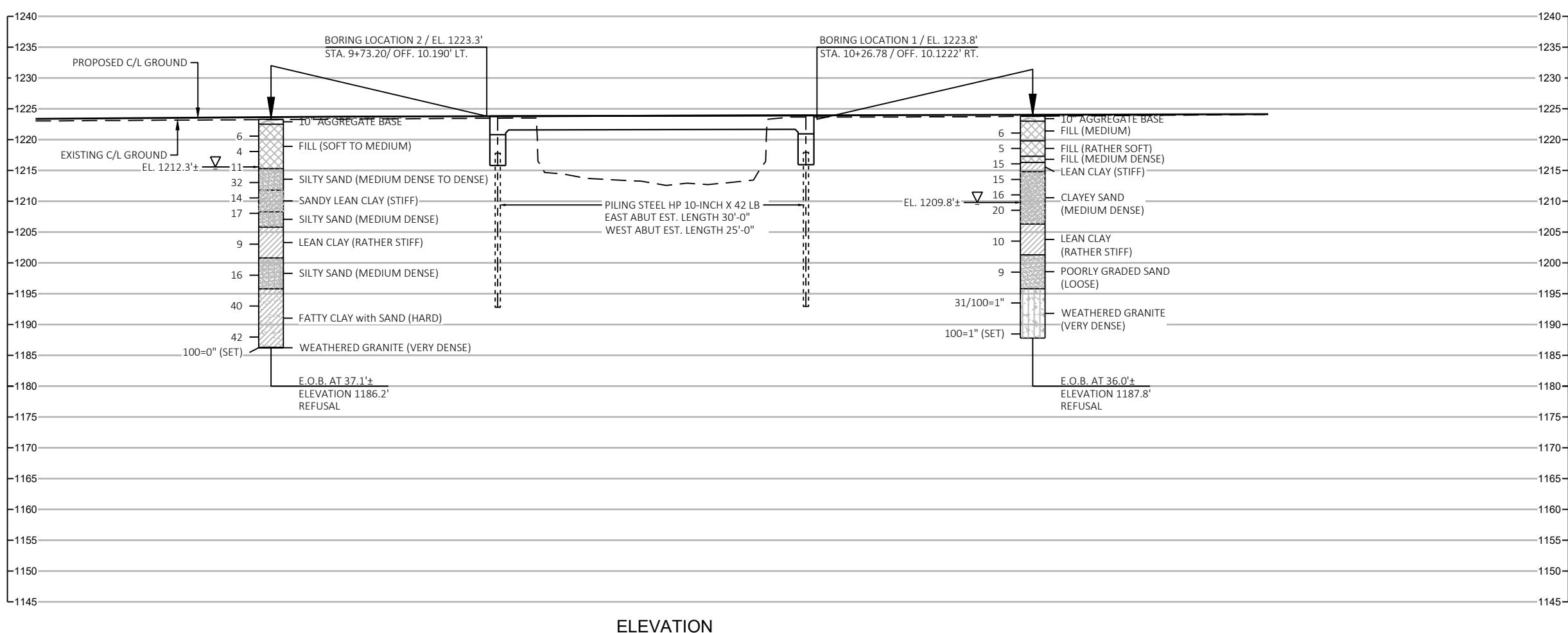
DATE 3/4/2024 PLATE NO. W5-52.10

SHEET NO:

E



PLAN



ELEVATION

SUBSURFACE NOTES

THE SUBSURFACE INFORMATION
PRESENTED HEREIN IS AN
ABBREVIATED VERSION OF THE
INFORMATION PRESENTED IN THE
GEOTECHNICAL ENGINEERING
REPORT. REVIEW THE APPROPRIATE
GEOTECHNICAL REPORT AND SOIL
BORING LOGS FOR ADDITIONAL
SUBSURFACE INFORMATION.

BORINGS & REPORT COMPLETED BY:

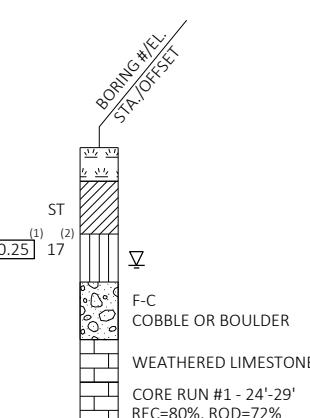
CHOSN VALLEY TESTING, INC.
1019 SECOND AVENUE SW
ONALASKA, WI 54650
(608) 782-5505

BORINGS PERFORMED ON:

10/28/2024 - B1

MATERIAL SYMBOLS

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSE)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

10 5.177 5.177

REVISION
STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

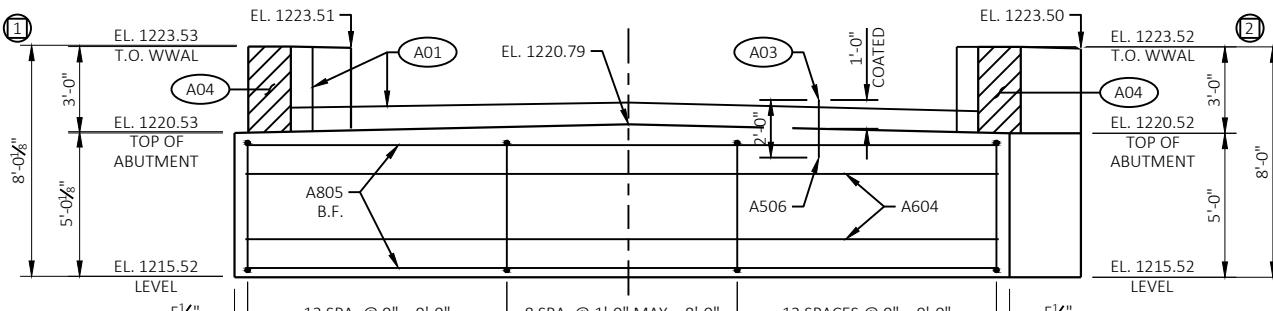
STRUCTURE B-10-258

	DRAWN BY	NUT	PLANS CK'D	TIP
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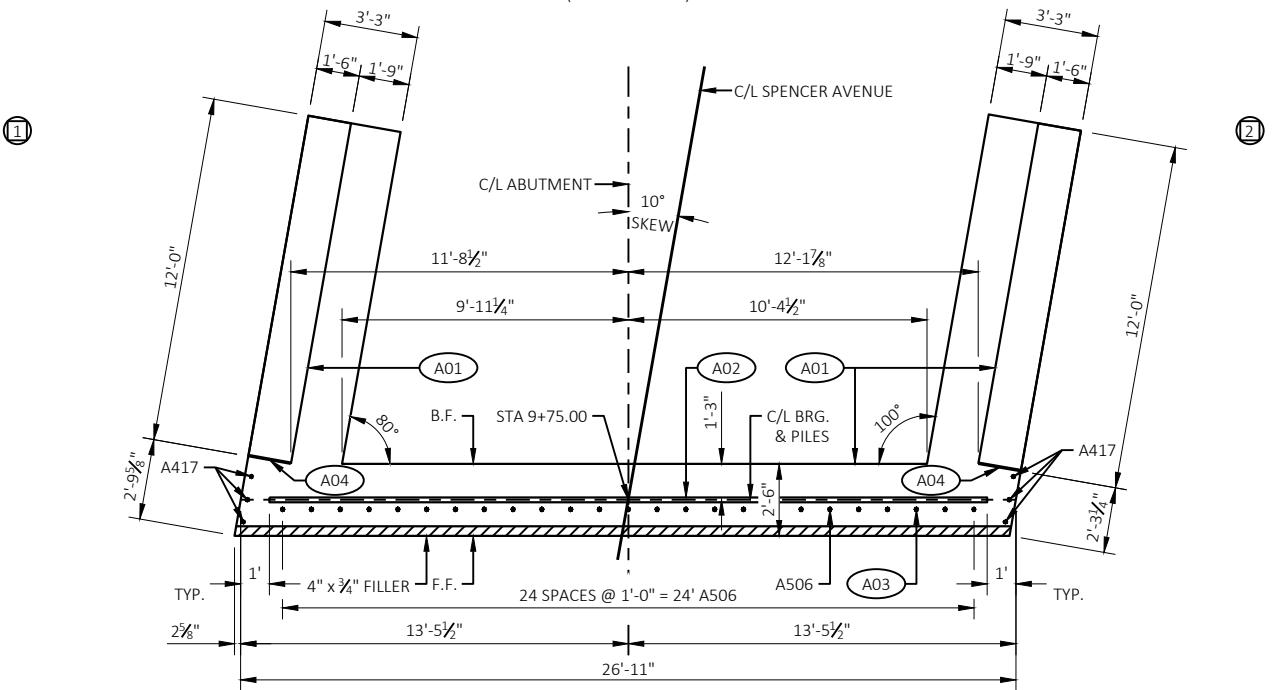
SUBSURFACE EXPLORATION

LIFEFACE SHEET 3 OF

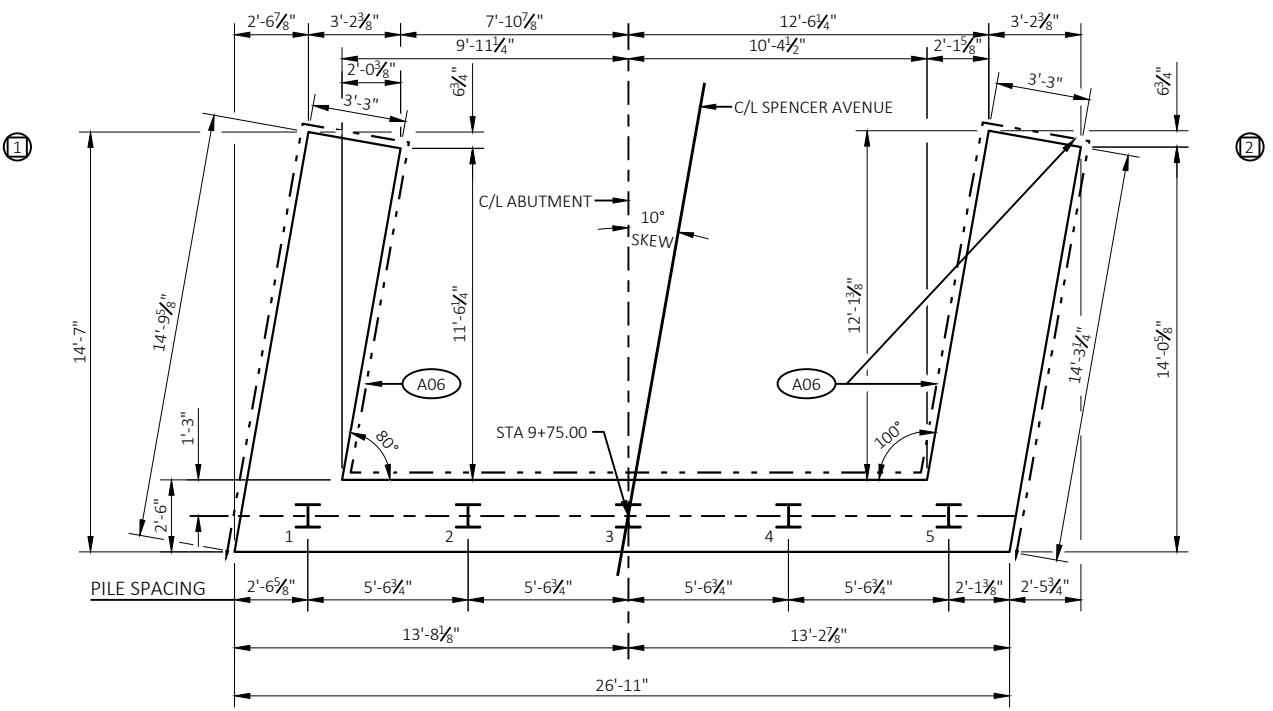
CALE =



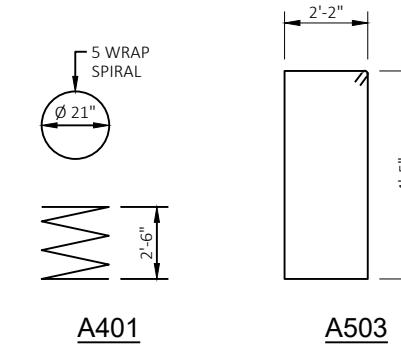
EL E V A T I O N (LOOKING WEST)



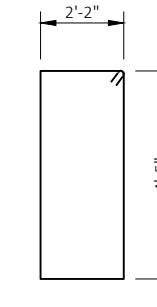
PLAN



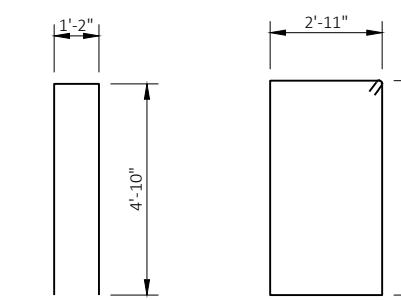
PILE PLAN



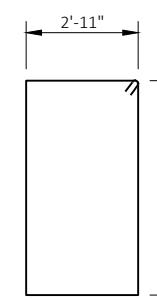
A401



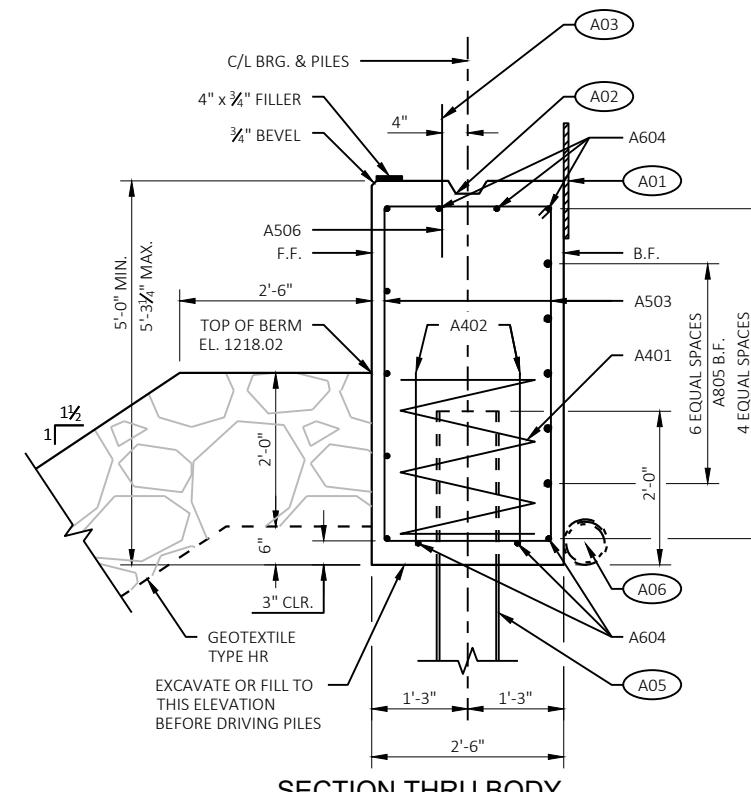
A503



A609



A510



SECTION THRU BODY

BILL OF BARS

1570# UNCOATED 1700# COATED

BAR MARK		COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A401			5	28 - 0	X	BODY - ONE PER PILE	
A402			10	2 - 3		BODY - TWO PER PILE	
A503			33	13 - 10	X	BODY - STIRRUPS	
A604			11	26 - 7		BODY - HORIZ.	
A805			7	28 - 2		BODY - HORIZ. B.F.	
A506		X	25	2 - 0		BODY - VERT. DOWELS	
A607		X	4	11 - 8		WING 1 & 2 - HORIZ. TOP	
A408		X	14	11 - 8		WING 1 & 2 - HORIZ.	
A609		X	34	10 - 6	X	WING 1 & 2 - VERT. TOP	
A510		X	26	15 - 8	X	WING 1 & 2 - VERT. BASE	
A511		X	6	13 - 7		WING 1 BASE HORIZ. F.F.	
A512		X	6	13 - 7		WING 2 BASE HORIZ. F.F.	
A613		X	6	13 - 11		WING 1 BASE HORIZ. B.F.	
A614		X	6	13 - 11		WING 2 BASE HORIZ. B.F.	
A615		X	2	13 - 11		WING 1 BASE HORIZ. TOP	
A616		X	2	13 - 11		WING 2 BASE HORIZ. TOP	
A417			6	4 - 7		BODY VERTICAL ENDS	

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

LEGEND

- A01** INDICATES WING NUMBER
 - A02** 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
 - A03** KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
 - A04** BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
 - A05** SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
 - A06** STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 25'-0".
 - A07** PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES			

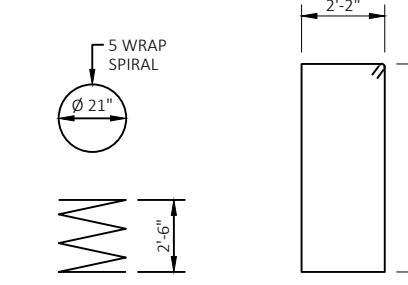
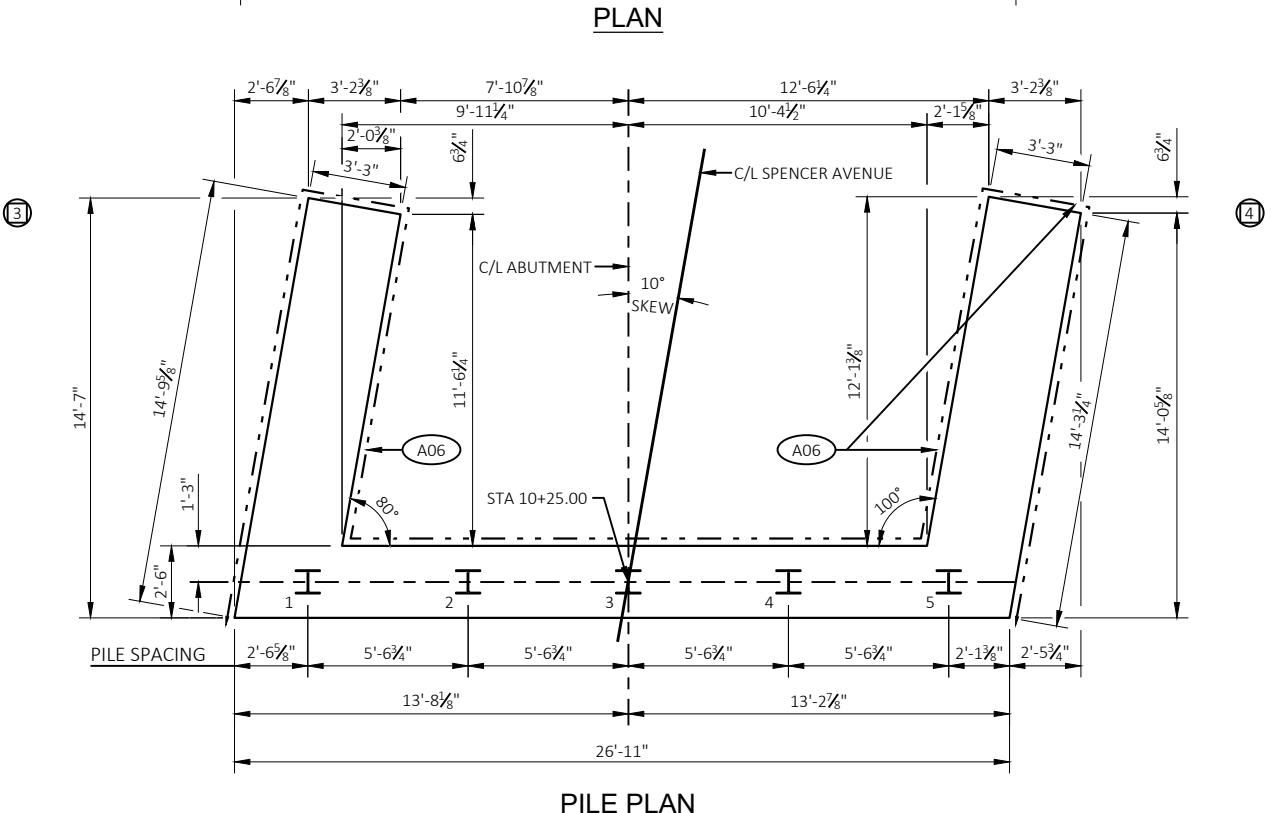
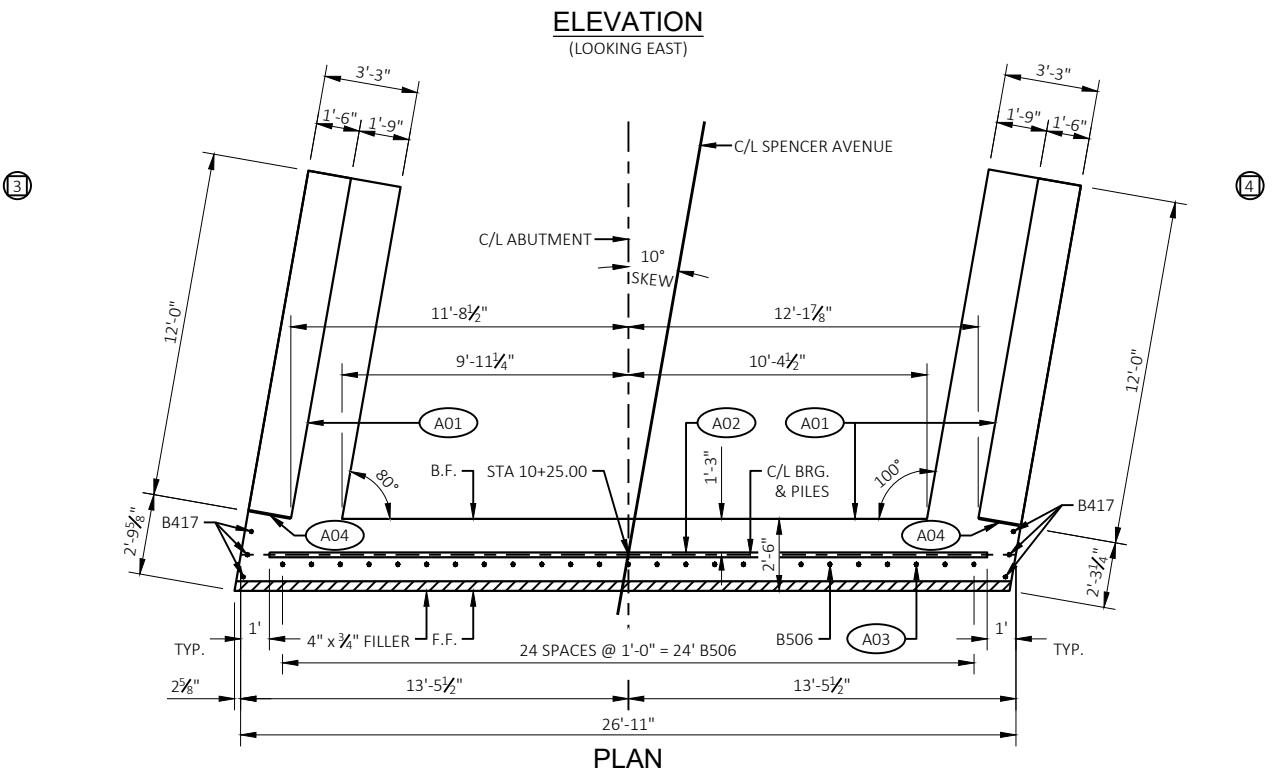
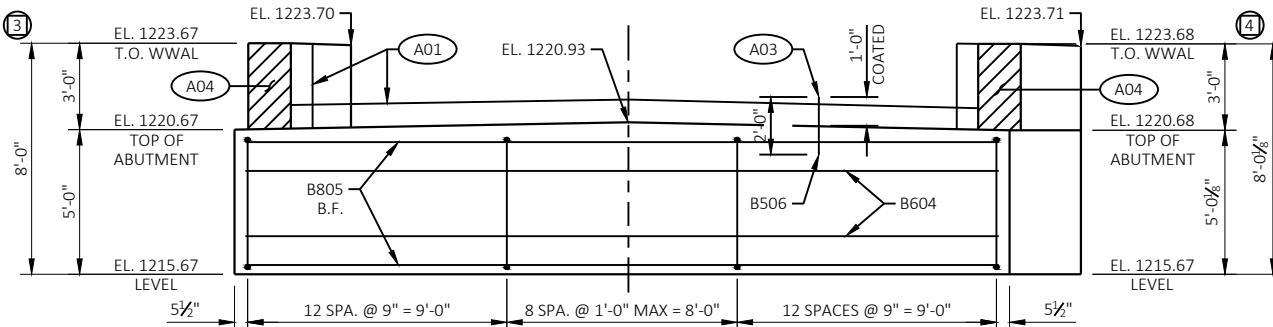
STRUCTURE B-10-258

DRAWN BY NIT PLANS CK'D T

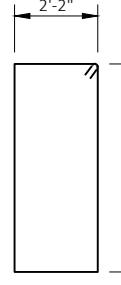
SHEET 4 OF 9

WEST ABUTMENT

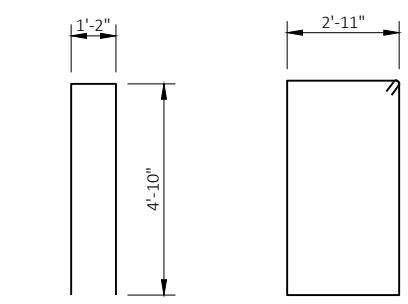
WEST AFRICAN



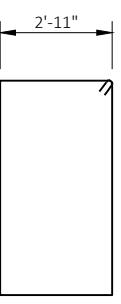
B401



B503



B609



B510



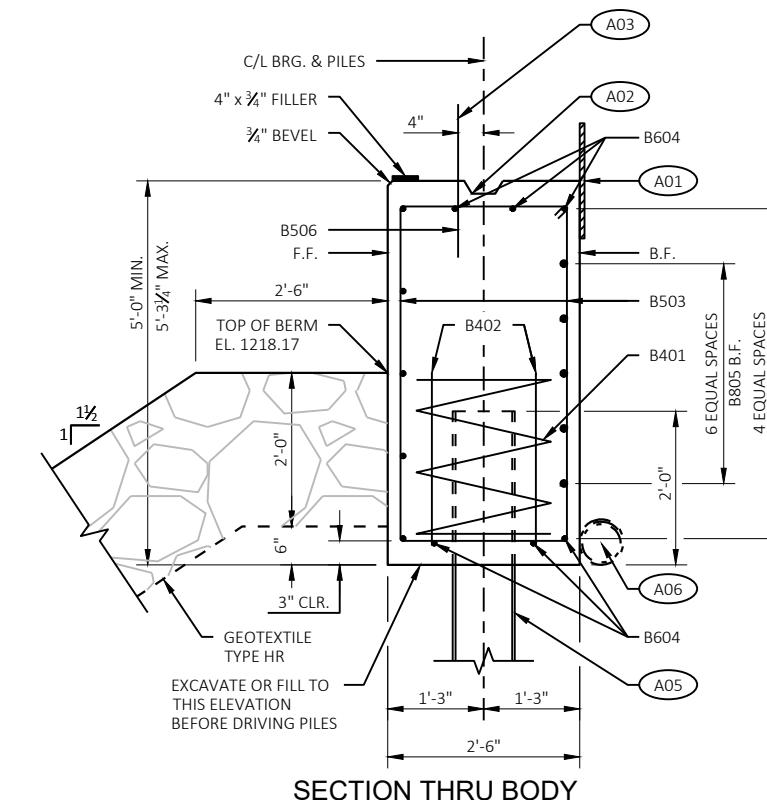
B805

BILL OF BARS

1570# UNCOATED 1700# COATED

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401		5	28 - 0	X		BODY - ONE PER PILE
B402		10	2 - 3			BODY - TWO PER PILE
B503		33	13 - 10	X		BODY - STIRRUPS
B604		11	26 - 7			BODY - HORIZ.
B805		7	28 - 2			BODY - HORIZ. B.F.
B506	X	25	2 - 0			BODY - VERT. DOWELS
B607	X	4	11 - 8			WING 3 & 4 - HORIZ. TOP
B408	X	14	11 - 8			WING 3 & 4 - HORIZ.
B609	X	34	10 - 6	X		WING 3 & 4 - VERT. TOP
B510	X	26	15 - 8	X		WING 3 & 4 - VERT. BASE
B511	X	6	13 - 7			WING 3 BASE HORIZ. F.F.
B512	X	6	13 - 7			WING 4 BASE HORIZ. F.F.
B613	X	6	13 - 11			WING 3 BASE HORIZ. B.F.
B614	X	6	13 - 11			WING 4 BASE HORIZ. B.F.
B615	X	2	13 - 11			WING 3 BASE HORIZ. TOP
B616	X	2	13 - 11			WING 4 BASE HORIZ. TOP
B417		6	4 - 7			BODY VERTICAL ENDS

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.



LEGEND

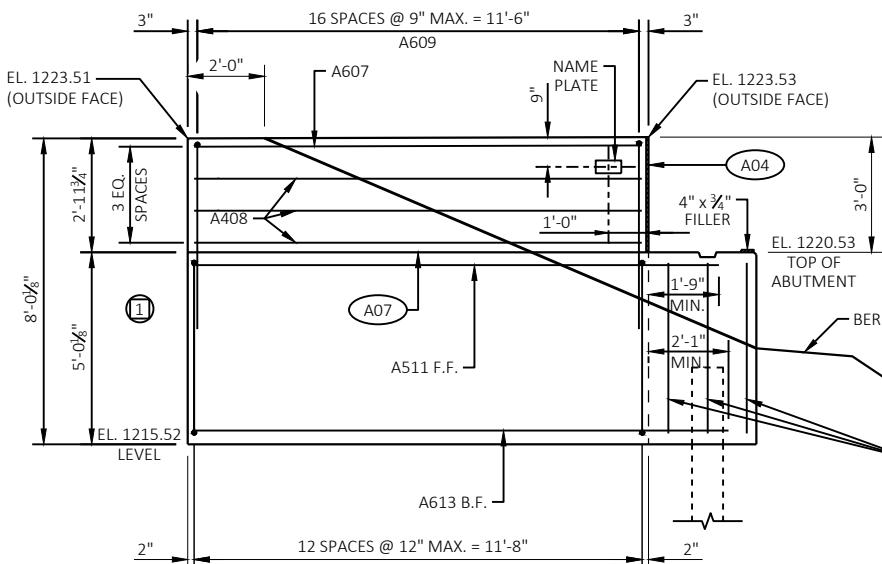
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	18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
	KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
	BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.
	SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
	STEEL PILING HP 10 X 42 WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 30'-0".
	PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY
			STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

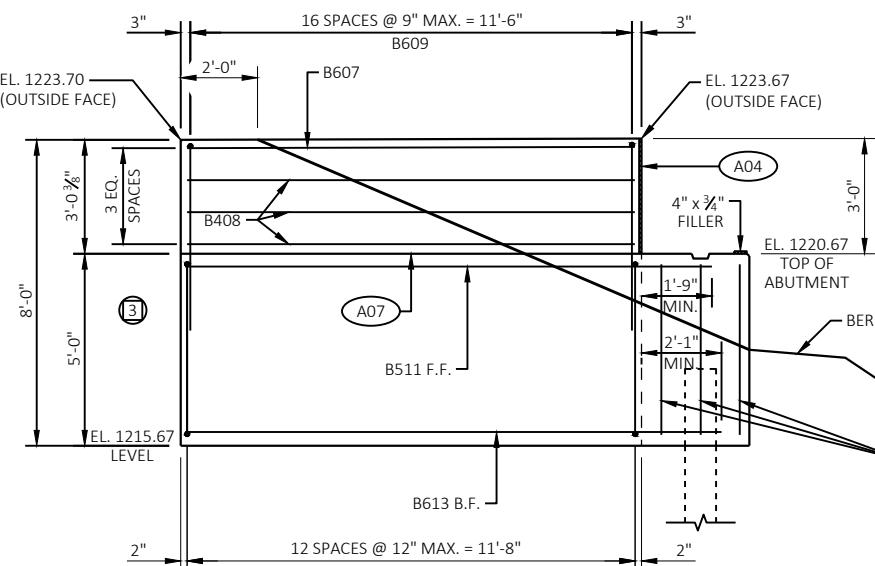
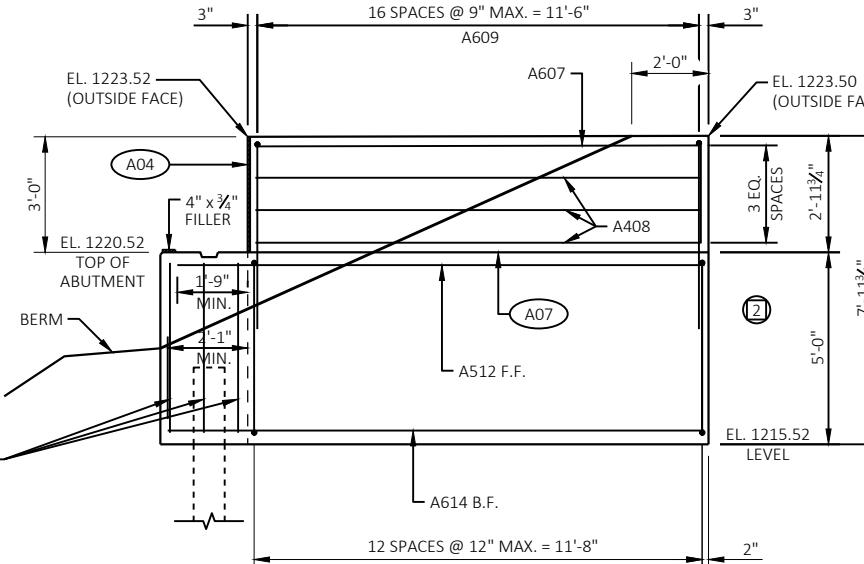
STRUCTURE B-10-258

DRAWN BY	PLANS CK'D	TLP

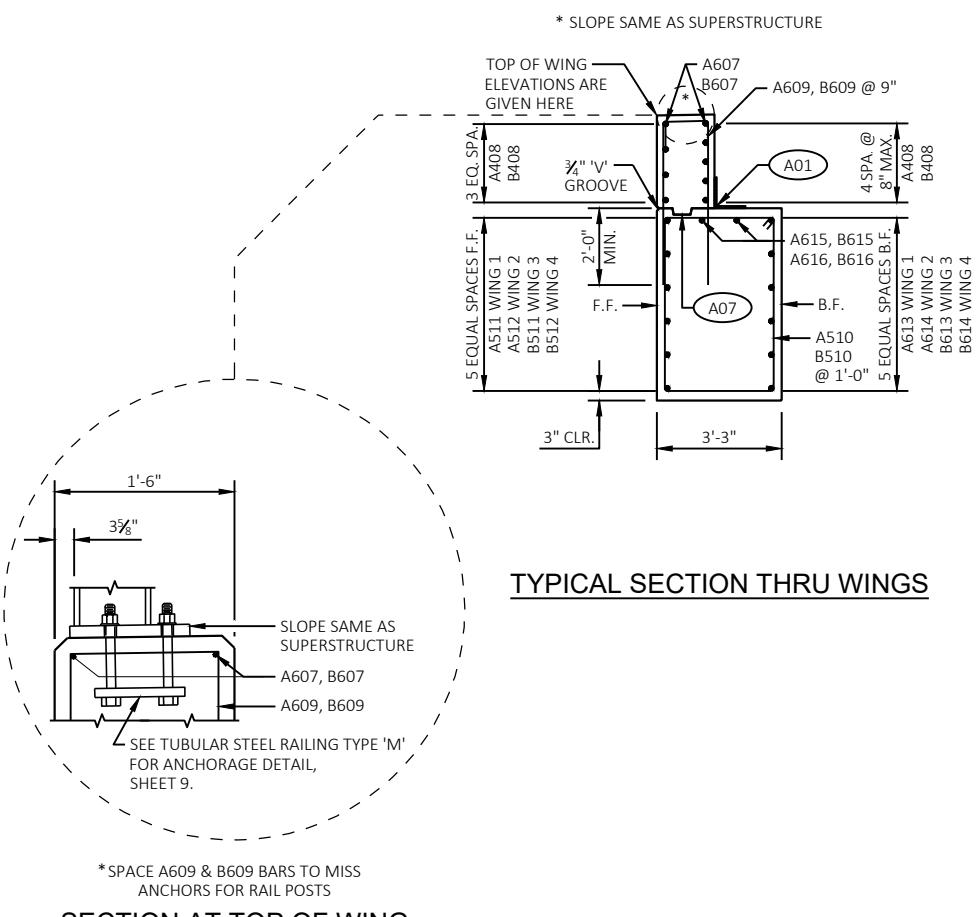
SHEET 5 OF 9	
EAST ABUTMENT	SCALE =



WEST ABUTMENT WINGS



EAST ABUTMENT WINGS



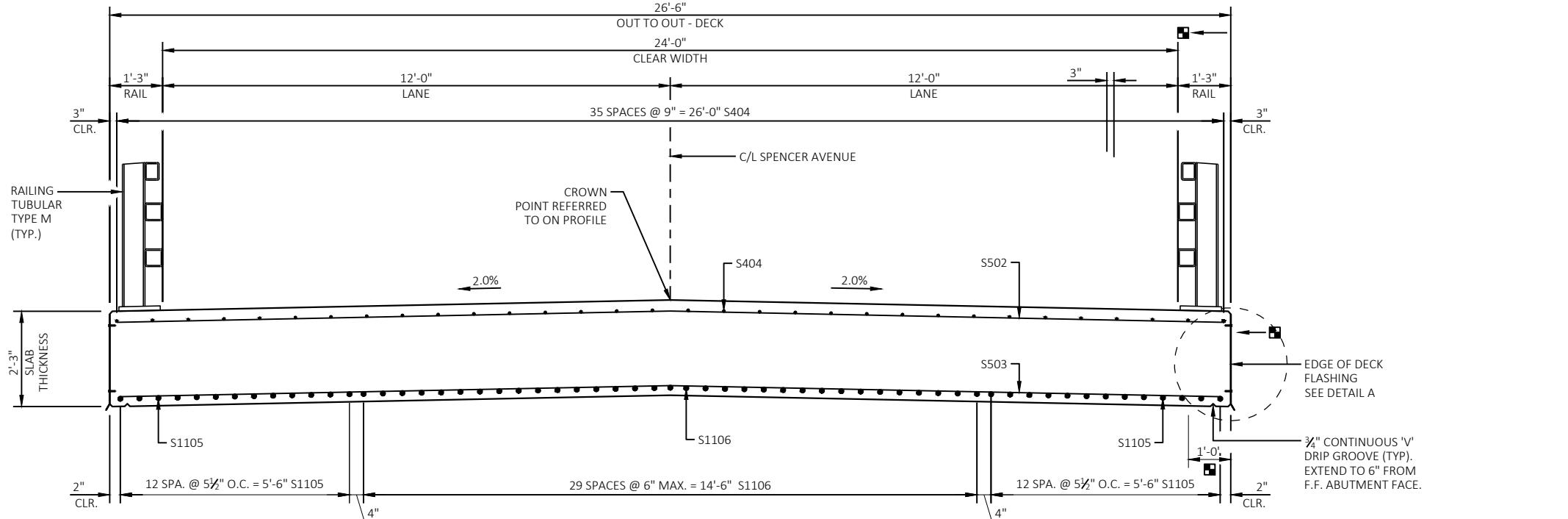
SECTION AT TOP OF WING

NOTE: B.F. = BACK FACE
F.F. = FRONT FACE

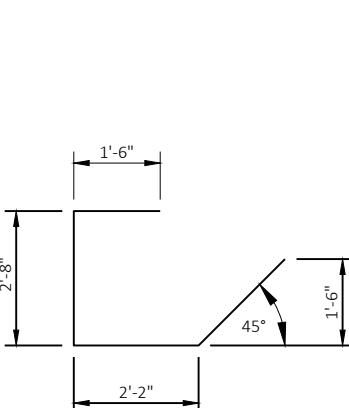
LEGEND

- (1) INDICATES WING NUMBER
- (A01) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- (A04) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE. EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE).
- (A07) OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6. (18" R.M.W. AT B.F. AND 3/4" 'V' GROOVE AT F.F. OF WING WALL IF JOINT IS USED).

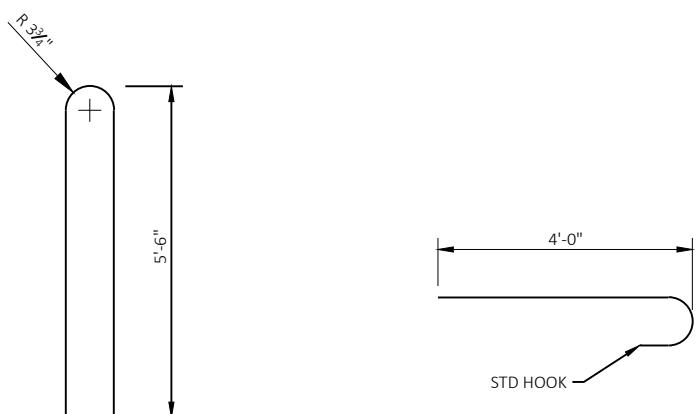
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-258			
DRAWN BY	NJT	PLANS CK'D	TLP
ABUTMENT DETAILS			
SHEET 6 OF 9		SCALE =	



CROSS SECTION THRU ROADWAY



S501



S607

S608

TOP OF DECK ELEVATIONS

LOCATION	WEST ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	EAST ABUT.
NORTH EDGE OF DECK	1293.53	1293.54	1293.56	1293.57	1293.58	1293.60	1293.61	1293.62	1293.63	1293.65	1293.66
C/L OF BRIDGE DECK	1293.79	1293.80	1293.82	1293.83	1293.85	1293.86	1293.87	1293.89	1293.90	1293.92	1293.93
SOUTH EDGE OF DECK	1293.54	1293.55	1293.57	1293.58	1293.59	1293.61	1293.62	1293.63	1293.64	1293.66	1293.67

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

BILL OF BARS

2234OH COATED

BAR MARK	COAT.	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	56	8 - 2	X		AT END OF DECK
S502	X	59	26 - 6			SLAB, TOP, TRANSVERSE
S503	X	81	26 - 6			SLAB, BOTTOM, TRANSVERSE
S404	X	36	52 - 2			SLAB, TOP, LONGITUDINAL
S1105	X	26	52 - 2			SLAB, BOTTOM, LONG. EXTERIOR
S1106	X	30	52 - 2			SLAB, BOTTOM, LONGITUDINAL
S607	X	36	11 - 2	X		AT RAIL POSTS
S608	X	16	4 - 8	X		AT END RAIL POSTS
S609	X	56	6 - 0			AT INTERIOR RAIL POSTS

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

GENERAL NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS TO BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE C/L OF SUBSTRUCTURE UNITS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTIONS ONLY EQUAL APPROXIMATELY 1/3 OF CAMBER VALUES SHOWN.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATION AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER, TAKE ELEVATIONS ALONG GUTTER LINES, AND CROWN OR C/L.

DECK FLASHING NOTES

THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK AND 3/16-INCH CONCRETE SCREWS.

FLASHING SHALL BE INSTALLED AFTER PROTECTIVE SURFACE TREATMENT APPLICATION.

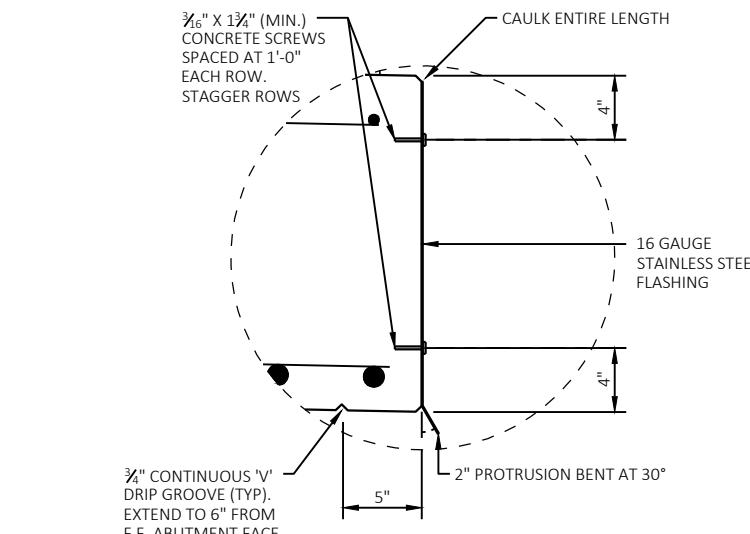
CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

EXTEND FLASHING TO BACK FACE OF ABUTMENT DIAPHRAGM.

TOP OF FLASHING TO BEING APPROXIMATELY 1-INCH BELOW TOP OF DECK/SLAB SURFACE.

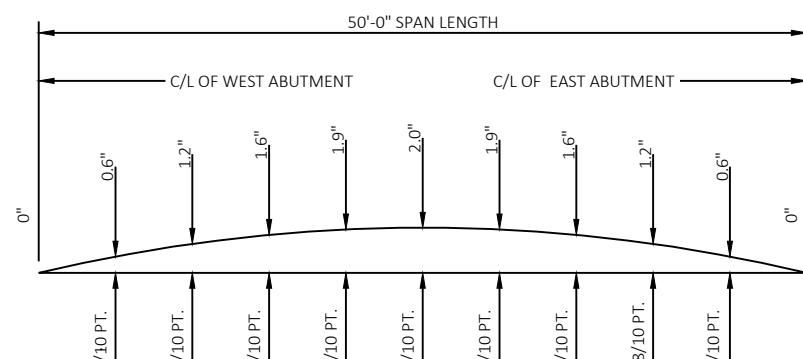
PROVIDE 2-INCH MINIMUM FLASHING OVERLAP, FASTEN WITH 3/16 x 2-INCH (MIN.) CONCRETE SCREWS. CAULK SHALL BE NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER.

THE FLASHING IS TO BE A CONSTANT HEIGHT BASED ON THE THINNEST SLAB DEPTH OVER THE BRIDGE LENGTH.



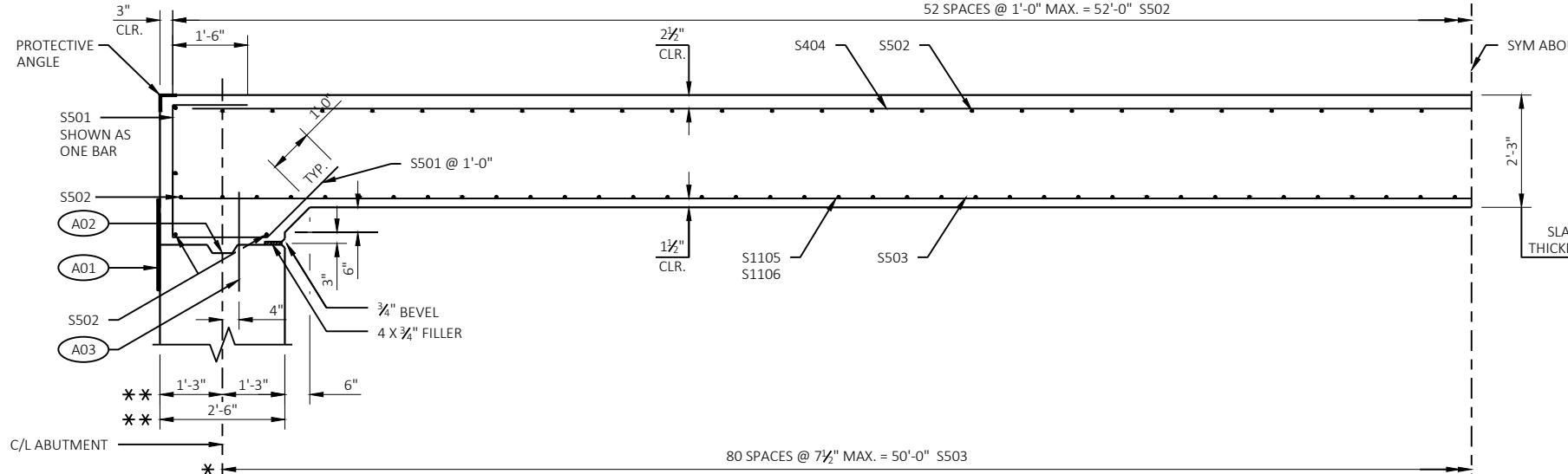
DETAIL A

RAILING NOT SHOWN FOR CLARITY

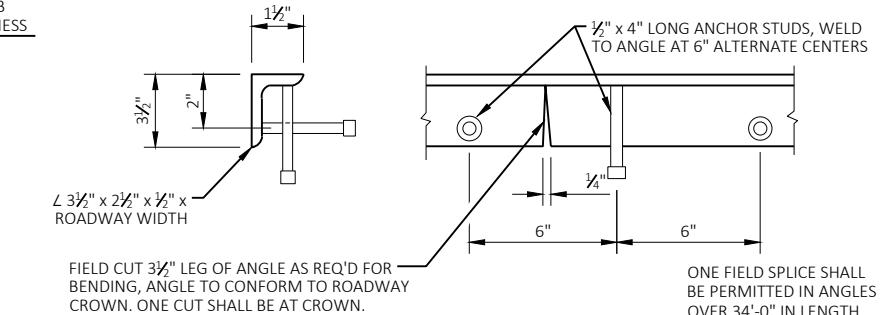


CAMBER DIAGRAM

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-258			
DRAWN BY	NJT	PLANS CK'D	TLP
SHEET 7 OF 9			
SUPERSTRUCTURE			
SCALE =			

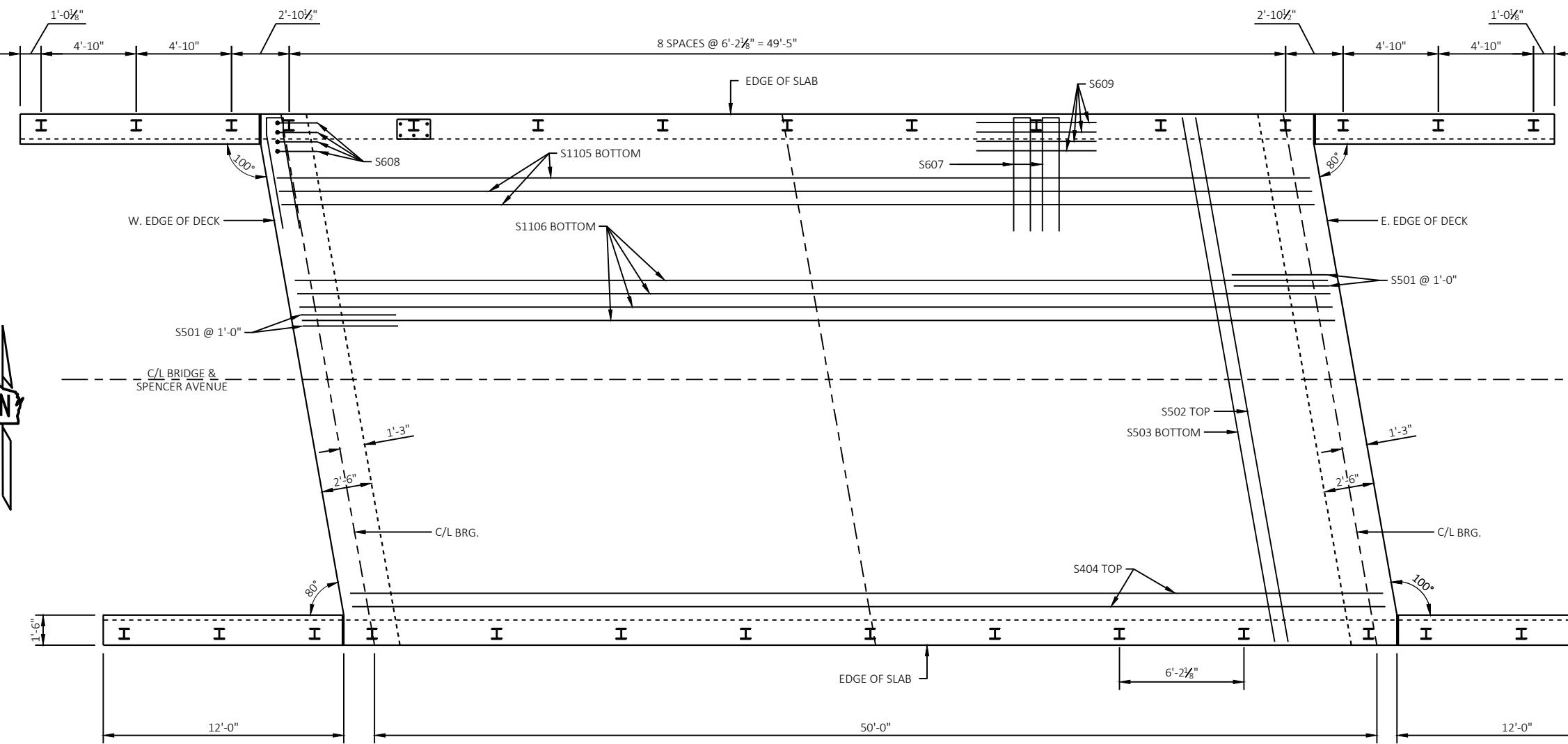


PART LONGITUDINAL SECTION



PROTECTION ANGLE ARMOR

SANDBLAST PROTECTION ANGLE AFTER FABRICATION PER NOTES. AFTER BLAST CLEANING, THE PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.



SURVEY TOP OF SLAB ELEVATIONS

LOCATION	C/L WEST ABUT.	5/10 PT	C/L EAST ABUT.
NORTH EDGE OF DECK			
CROWN			
SOUTH EDGE OF DECK			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS, THE C/L OF PIERS AND AT 5/10 PTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG OUTER LINES AND CROWN OR R/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

LEGEND

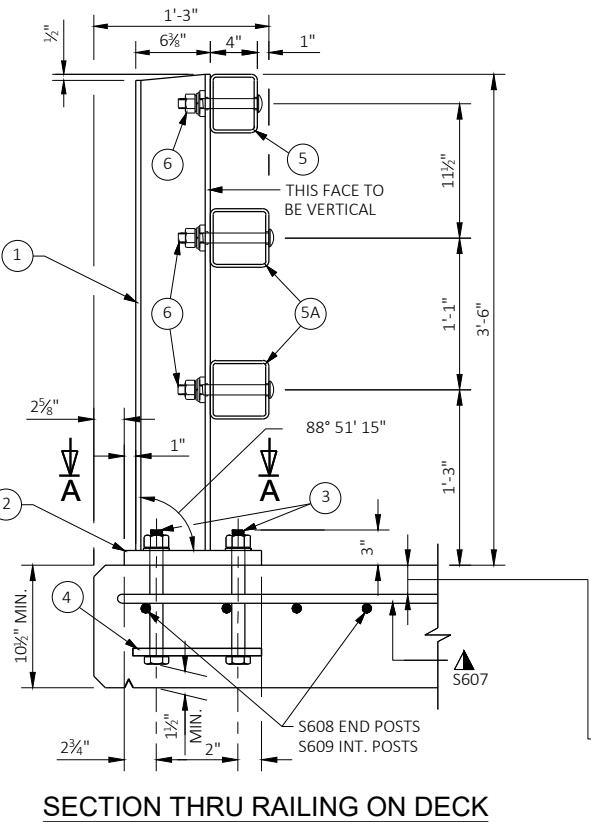
(square)	INDICATES WING NUMBER
(circle)	A01 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.). SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
(square)	A02 KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2 X 6.
(circle)	A03 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-258			
DRAWN BY NJT PLANS CK'D TLP			
SUPERSTRUCTURE DETAILS SHEET 8 OF 9			
SCALE =			

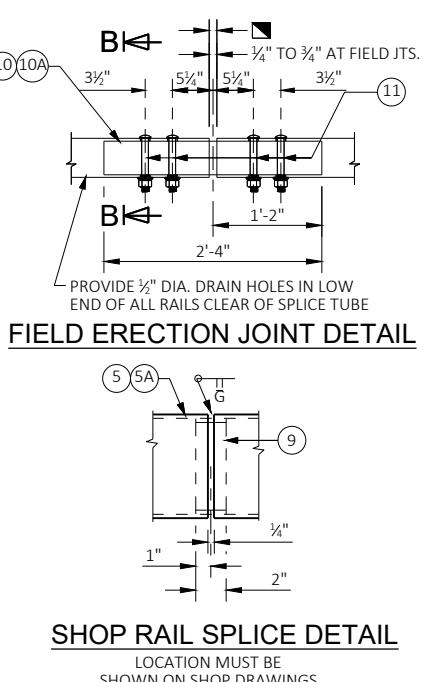
PLAN

LEGEND

- ① W6 x 25 WITH $1\frac{1}{8}$ " x $1\frac{1}{8}$ " HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE $1\frac{1}{8}$ " x $11\frac{1}{4}$ " x $1\frac{1}{8}$ " WITH $1\frac{1}{16}$ " x $1\frac{1}{8}$ " SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - $1\frac{1}{8}$ " DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" & PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE $1\frac{9}{16}$ " LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS $> 16"$ USE $1\frac{3}{4}$ " LONG. USE $10\frac{1}{4}$ " LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
- ④ $\frac{3}{8}$ " x 11 " x $1\frac{1}{8}$ " ANCHOR PLATE (GALVANIZED) WITH $1\frac{1}{16}$ " DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑦ $\frac{1}{2}$ " THICK BACK-UP PLATE WITH 2 - $\frac{7}{16}$ " x $1\frac{1}{8}$ " THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- ⑧ $1\frac{1}{8}$ " DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR $\frac{3}{8}$ " DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- ⑨ SPLICE SLEEVE FABRICATED FROM $\frac{1}{4}$ " PLATE. PROVIDE "SLIDING FIT".
- ⑩ $\frac{3}{8}$ " x $3\frac{1}{8}$ " x $2\frac{1}{4}$ " PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑪ $\frac{3}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE $1\frac{1}{16}$ " x $1\frac{1}{8}$ " LONGIT. SLOTTED HOLES AT FIELD JOINTS AND $1\frac{1}{16}$ " x $2\frac{1}{4}$ " MIN. LONGITUDINAL SLOTTED HOLES AT EXPOSED JOINTS IN PLATE NO. 10A.
- ⑫ $\frac{3}{16}$ " DIA. x $1\frac{1}{8}$ " LONG THREADED SHOP WELDED STUDS (2 REQ'D.).
- ⑬ $\frac{3}{16}$ " x 8 " x $1\frac{1}{8}$ " PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- ⑭ $\frac{3}{8}$ " DIA. x 2 " LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- ⑮ $1\frac{1}{8}$ " DIA. HOLES IN TUBES NO. 5A FOR $\frac{3}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.



SECTION THRU RAILING ON DECK

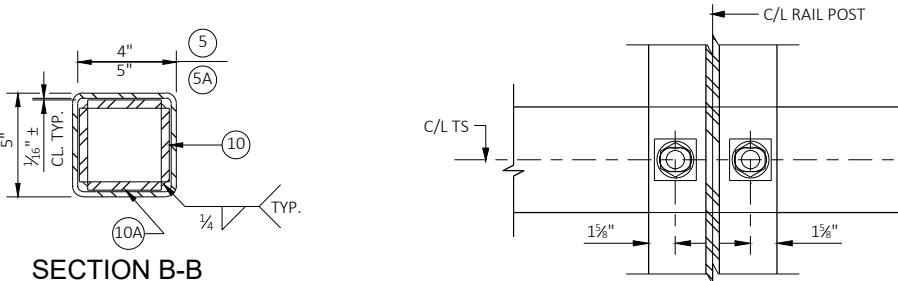


FIELD ERECTION JOINT DETAIL



SHOP RAIL SPLICE DETAIL

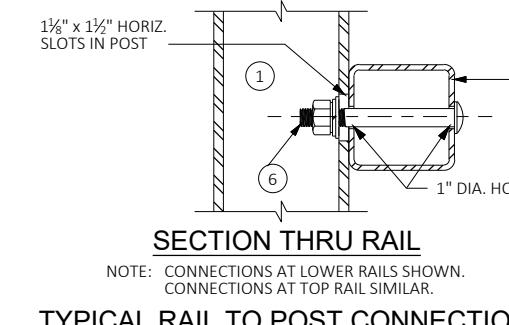
2 1/2" FOR SLABS ON GIRDERS; FOR OTHER STRUCTURES, PLACE BELOW TOP MAT SLAB REINFORCEMENT.



SECTION B-B



SECTION THRU POST WEB

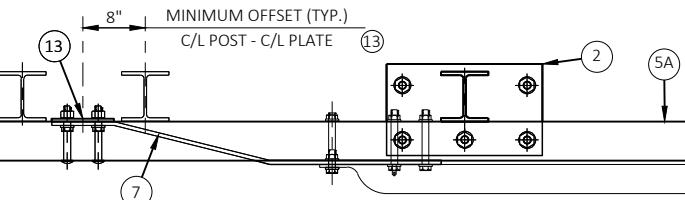


SECTION THRU RAIL

NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

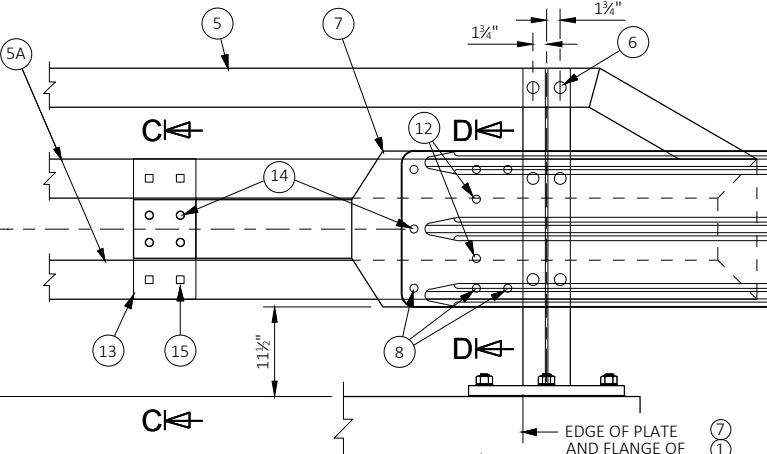


TYPICAL RAIL TO POST CONNECTIONS



TOP VIEW AT END POST

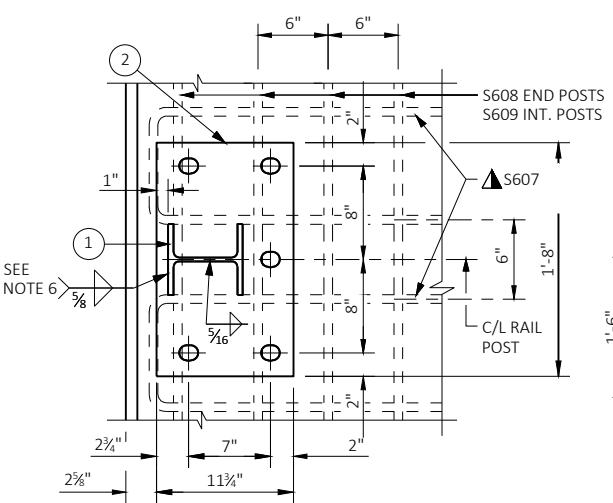
THRIE BEAM RAIL ATTACHMENT



SECTION C-C



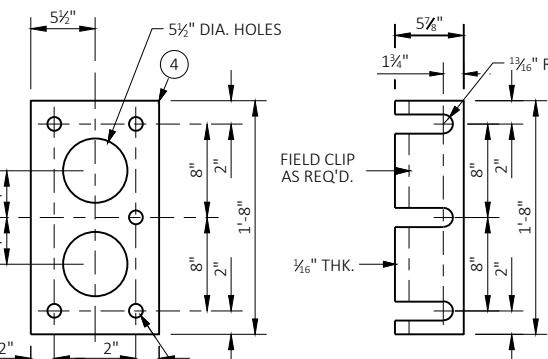
SECTION D-D



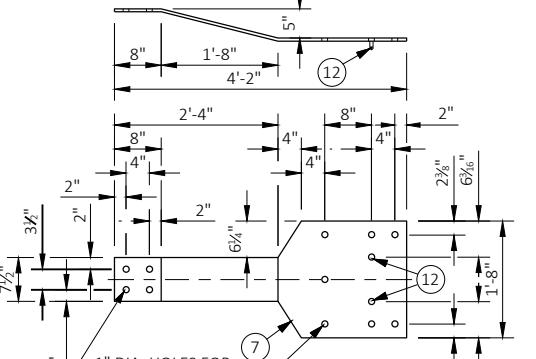
SECTION A-A



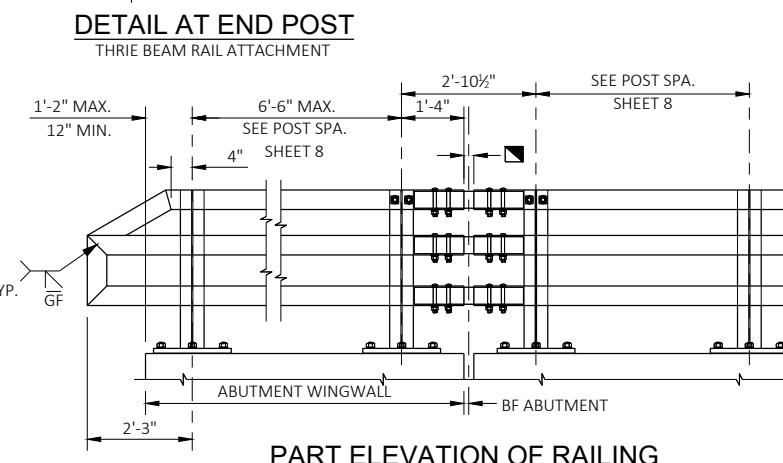
ANCHOR PLATE AT BEAM GUARD ATTACHMENT



POST SHIM DETAIL



BACK-UP PLATE DETAIL AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-10-258" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 ksi. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL $\frac{1}{2}$ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. 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 CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

▲ TIE TO TOP MAT OF STEEL.

* FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

■ RDWY. OPENING OR $2\frac{1}{2}$ " MIN. FOR STRIP SEAL EXP. JOINT & $\frac{1}{2}$ " OPENING FOR A1 ABUTMENT.

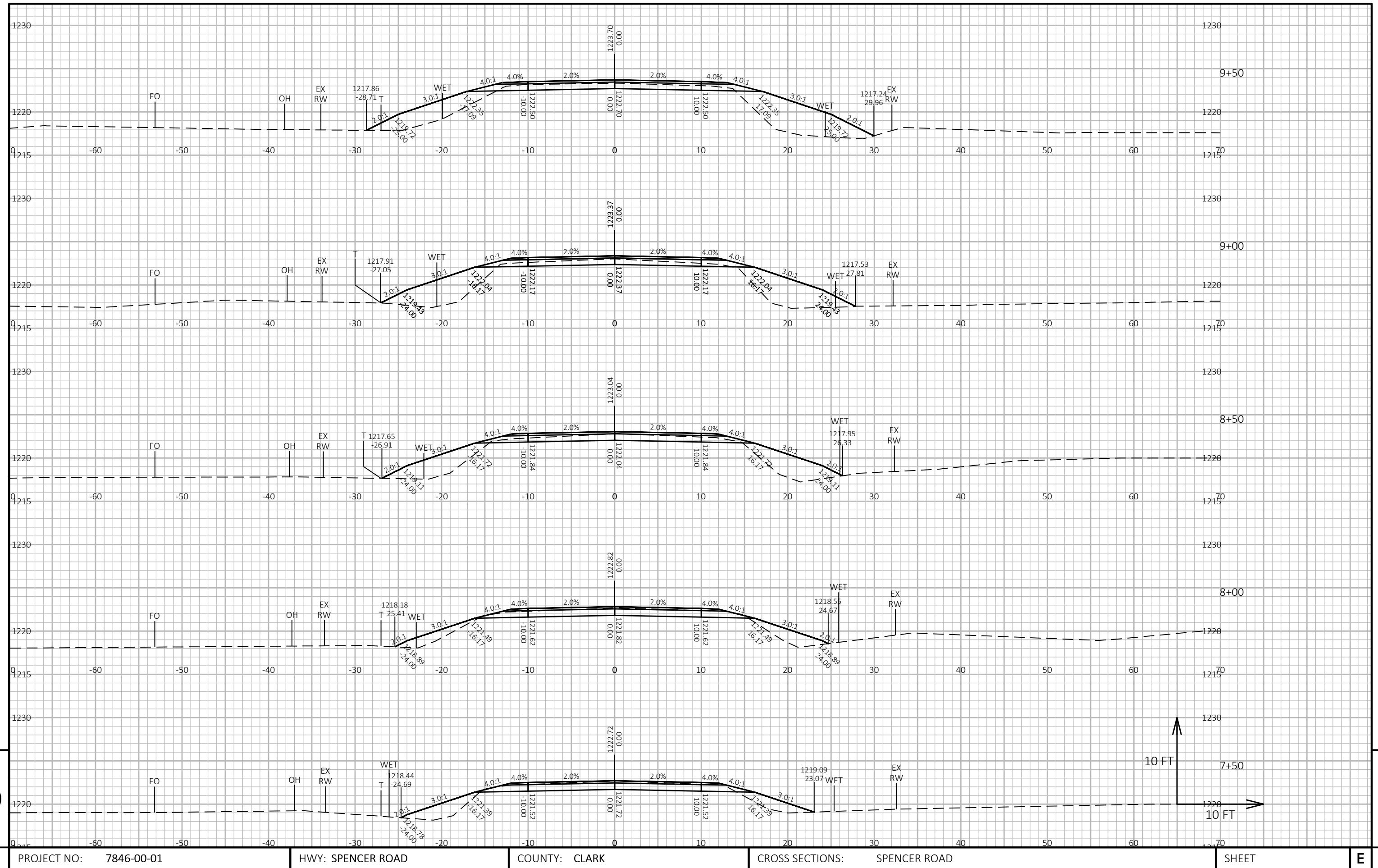
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-10-258			
DRAWN BY	NJT	PLANS CK'D	TLP
RAILING TUBULAR TYPE M			
SHEET 9 OF 9			

DIVISION -1- SPENCER ROAD

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
					NOTE 1	NOTE 3	1.00	1.25	NOTE 8
07+50	750.00	0.00	23.23	18.19	0	0	0	0	0
08+00	800.00	50.00	21.99	16.68	42	32	42	40	2
08+50	850.00	50.00	16.36	39.62	36	52	78	105	-27
09+00	900.00	50.00	12.45	56.92	27	89	105	216	-111
09+50	950.00	50.00	15.55	61.73	26	110	131	354	-223
09+57.60	957.60	7.60	16.44	54.24	5	16	136	374	-238
09+63.81	963.81	6.21	45.46	0.00	7	6	143	381	-238
09+71.61	971.61	7.80	103.25	0.00	21	0	164	381	-217
09+75	975.00	3.39	0.00	0.00	6	0	170	381	-211
			Total			305			

DIVISION -2- SPENCER ROAD

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
					NOTE 1	NOTE 3	1.00	1.25	NOTE 8
10+25	1025.00	0.00	0.00	0.00	0	0	0	0	0
10+28.41	1028.41	3.41	84.37	0.00	5	0	5	0	5
10+36.19	1036.19	7.78	45.44	0.00	19	0	24	0	24
10+42.40	1042.40	6.22	28.61	59.25	9	7	33	9	24
10+50	1050.00	7.60	19.94	61.19	7	17	40	30	10
11+00	1100.00	50.00	29.82	15.01	46	71	86	119	-33
			Total			95			





PROJECT NO: 7846-00-01

HWY: SPENCER ROAD

COUNTY: CLARK

CROSS SECTIONS: SPENCER ROAD

SHEET

E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION-EAU CLAIRE\038 7846-00-01 T LOYAL SPENCER RD ROCK CREEK BRIDGE P-10-0156 LOCAL STREET CLARK CO\04 CADD\78460071\SheetsPlan\090201-XS.DWG
LAYOUT NAME - XS-2

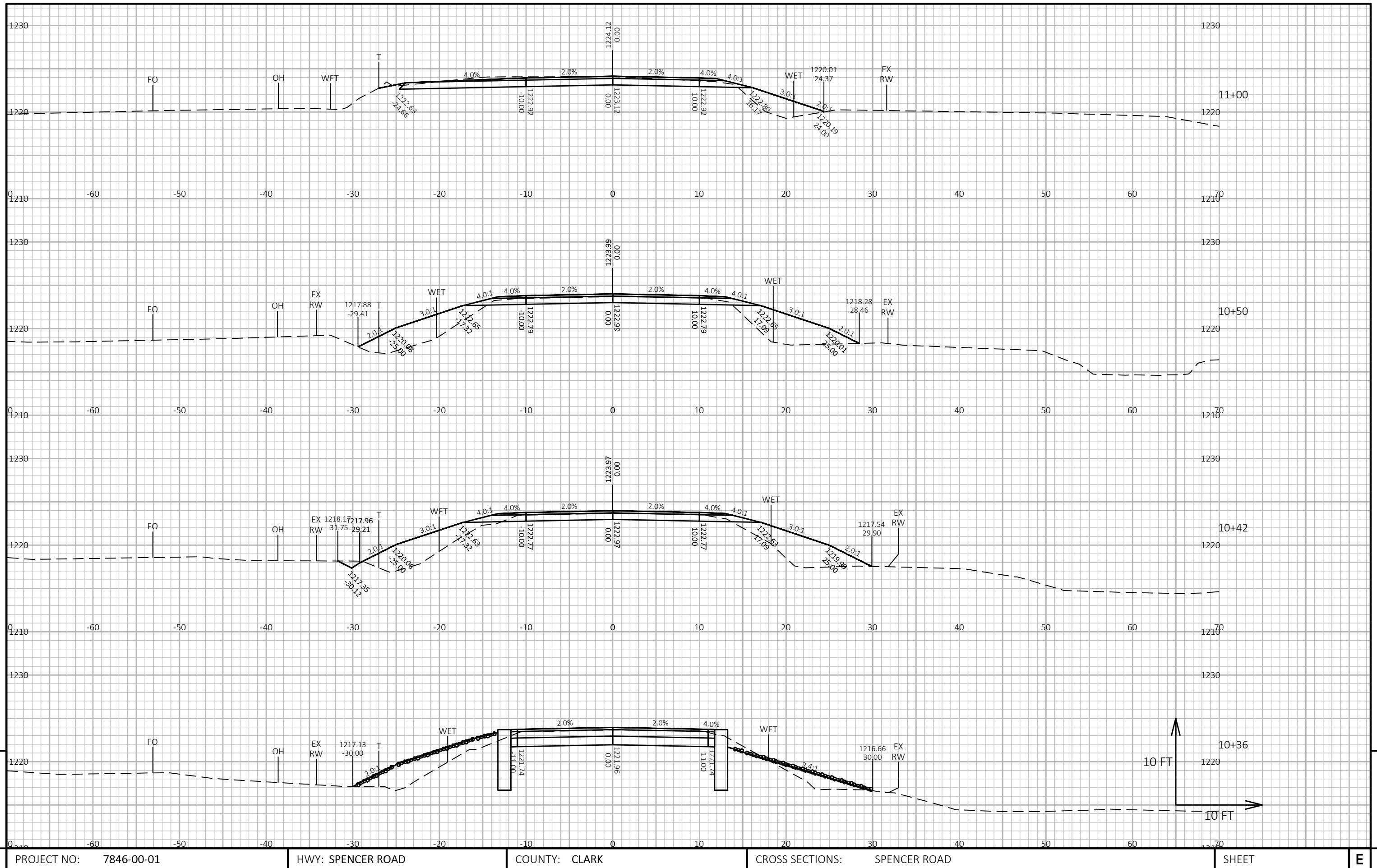
PLOT DATE : 10/27/2025 9:57 AM

PLOT BY : JORDAN DISTERHA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

EDOT/CADRS SHEET 49



PROJECT NO: 7846-00-01

HWY: SPENCER ROAD

COUNTY: CLARK

CROSS SECTIONS: SPENCER ROAD

SHEET

E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION-EAU CLAIRE\038 7846-00-01 T LOYAL SPENCER RD ROCK CREEK BRIDGE P-10-0156 LOCAL STREET CLARK CO\04 CADD\78460071\SheetsPlan\090201-XS.DWG
LAYOUT NAME - XS-3

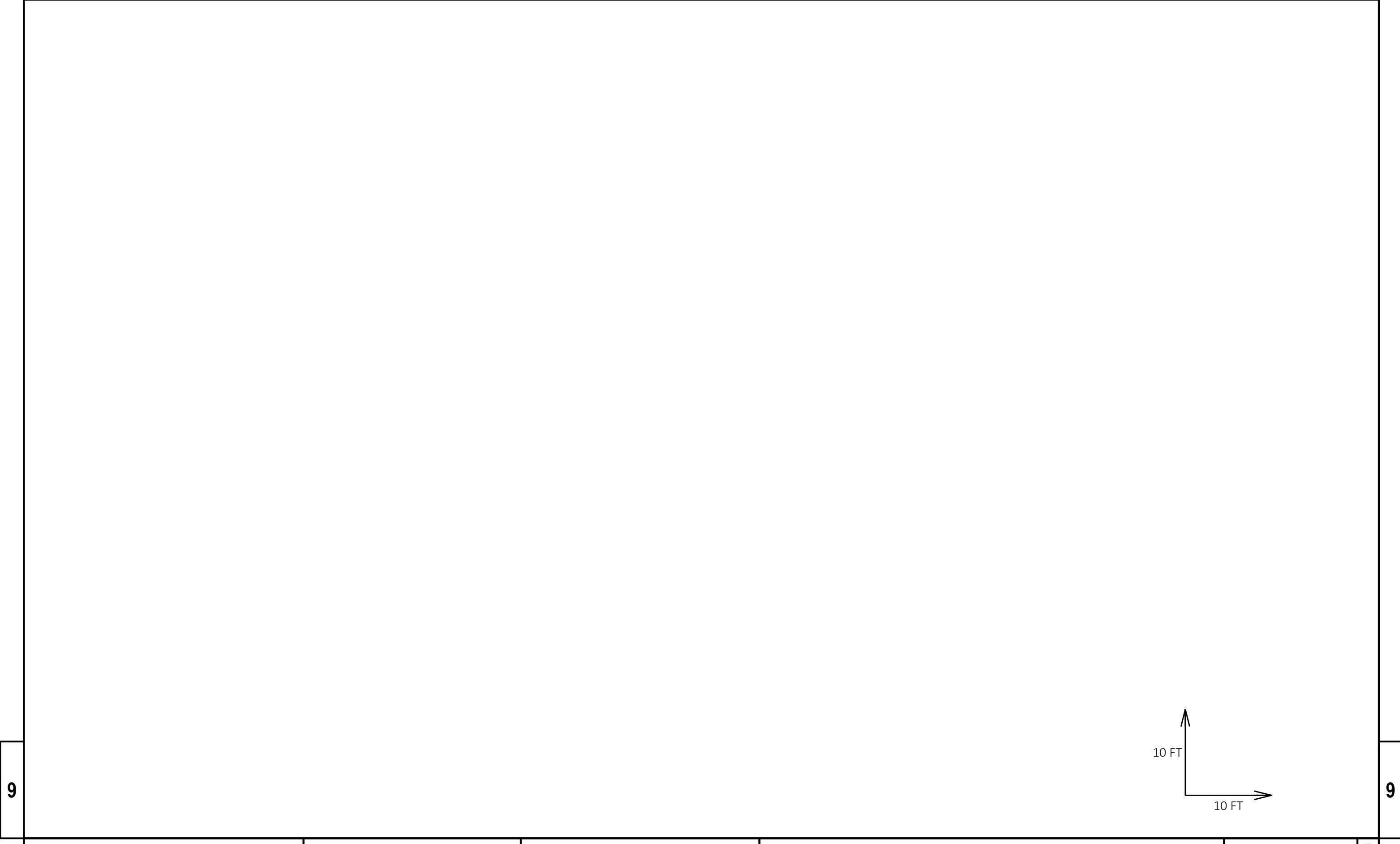
PLOT DATE : 10/27/2025 9:57 AM

PLOT BY : JORDAN DISTERHA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

1/ISDOT/CADD\$ SHEET 49



PROJECT NO: 7846-00-01

HWY: SPENCER ROAD

COUNTY: CLARK

CROSS SECTIONS: SPENCER ROAD

SHEET

E

FILE NAME : I:\CLIENTS-MENO\W\W3900 WDOT NW REGION-EAU CLAIRE\038 7846-00-01 T LOYAL SPENCER RD ROCK CREEK BRIDGE P-10-0156 LOCAL STREET CLARK CO\04 CADD\78460071\SHETSPLAN\090201-XS.DWG
LAYOUT NAME - XS-4

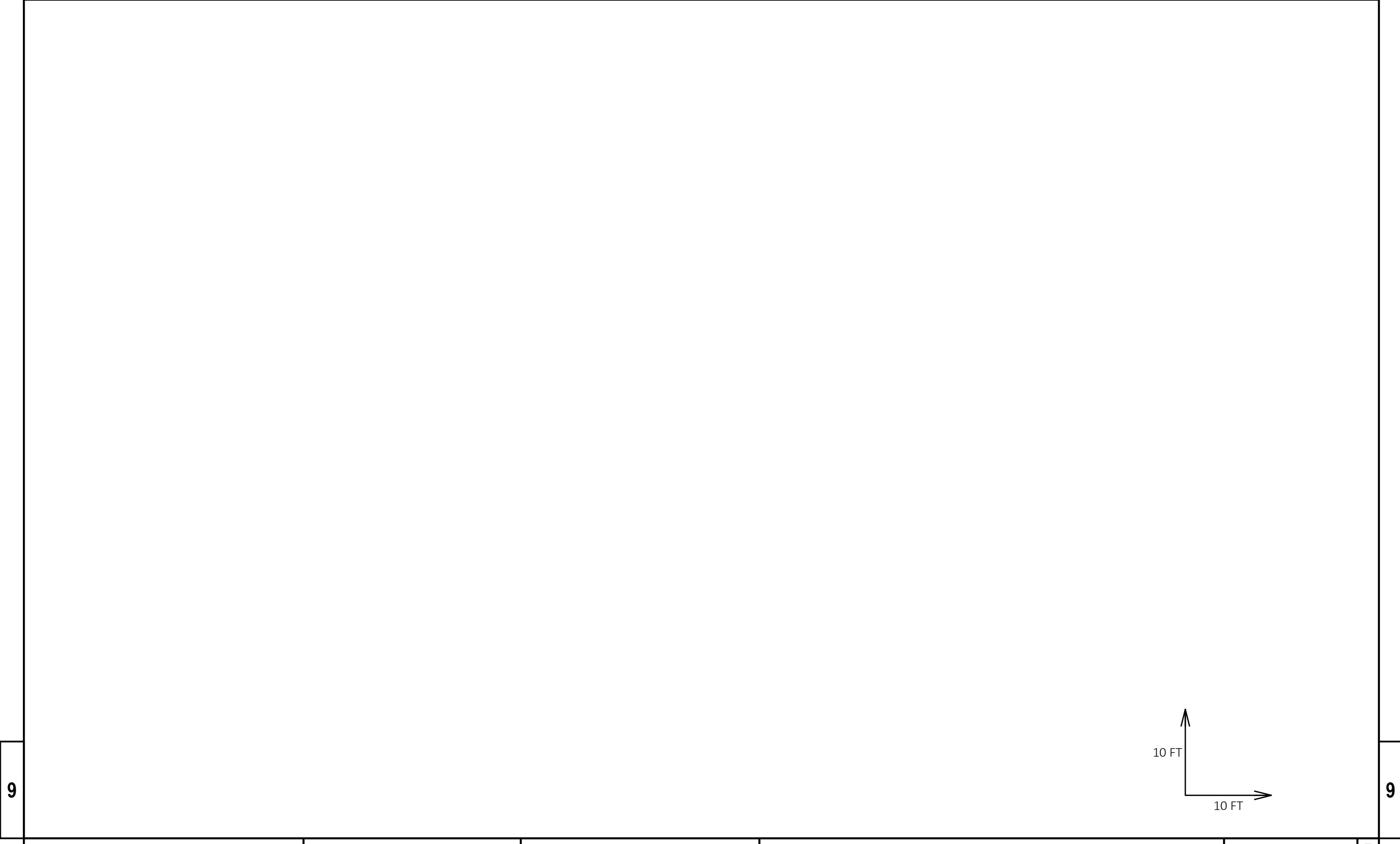
PLOT DATE : 10/27/2025 9:57 AM

PLOT BY : JORDAN DISTERHAFT

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD'S SHEET 49



PROJECT NO: 7846-00-01

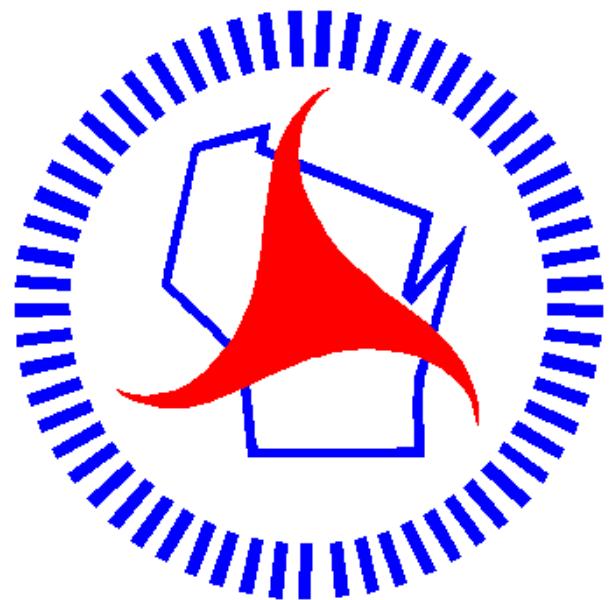
HWY: SPENCER ROAD

COUNTY: CLARK

CROSS SECTIONS: SPENCER ROAD

SHEET

E



Wisconsin Department of Transportation

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