

LAX  
PROJECT ID:  
WITH: N/A

5385-00-70

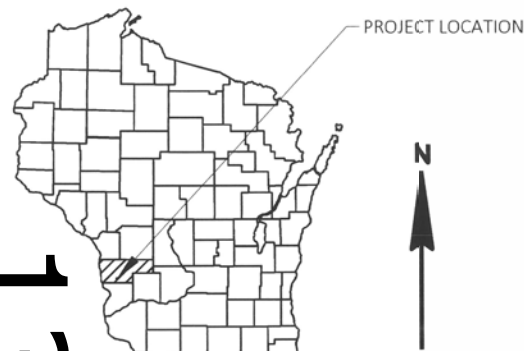
COUNTY:  
VERNON

DECEMBER 2021

ORDER OF SHEETS

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

TOTAL SHEETS = 44



13

DESIGN DESIGNATION

A.A.D.T. (2022)	=	47
A.A.D.T. (2042)	=	51
D.H.V.	=	N/A
D.D.	=	50/50
T.	=	10.0%
DESIGN SPEED	=	25 MPH
ESALS	=	7,300

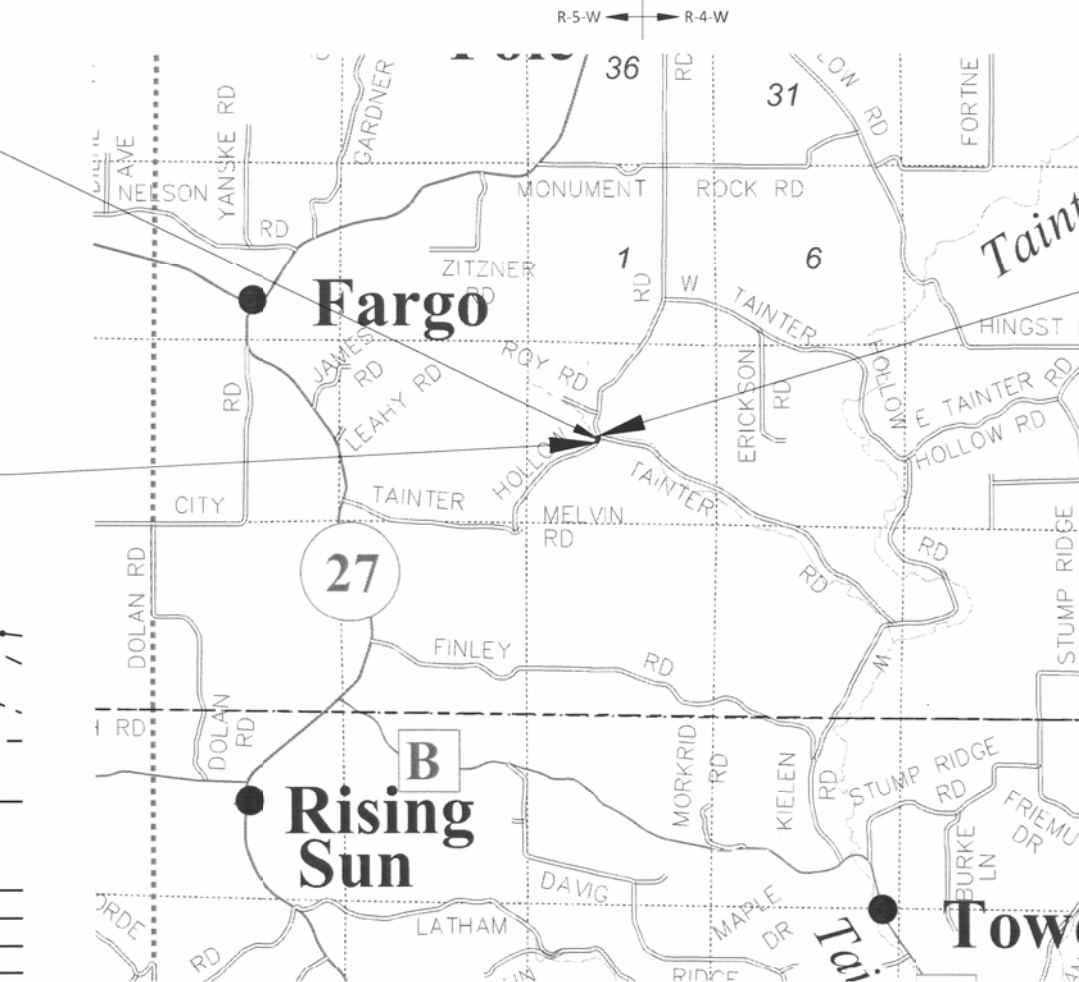
CONVENTIONAL SYMBOLS

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	
OVERHEAD	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BEGIN PROJECT  
STA 9+10.00  
Y= 108,601.896  
X= 693,606.526

STRUCTURE B-62-262



LAYOUT  
SCALE 0 1 MI  
TOTAL NET LENGTH OF CENTERLINE = 0.027 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON 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

PLAN OF PROPOSED IMPROVEMENT

TOWN OF FRANKLIN, TAINTER HOLLOW RD  
BR TAINTER CREEK BRIDGE, B-62-0262

LOC STR  
VERNON COUNTY

STATE PROJECT NUMBER  
5385-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5385-00-70	WISC 2022073	1

ACCEPTED FOR VERNON COUNTY  
DATE: 7-1-21 *Phil Hewitt*  
(Signature)  
*Way Commissioner*  
(Title of Official)

ACCEPTED FOR TOWN OF FRANKLIN  
DATE: 7-1-21 *Ben Zuh*  
(Signature)  
*Town Chair*  
(Title of Official)

ORIGINAL PLANS PREPARED BY  
**CORRE**  
  
ERIC T. PRICE  
E-39027  
MADISON WI  
  
DATE: 7/27/21  
(Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION  
PREPARED BY  
Surveyor: CORRE INC  
Designer: CORRE INC  
Project Manager: ALEIGHA BURG  
Regional Examiner: SW REGION  
Regional Supervisor: OSCAR WINGER

APPROVED FOR THE DEPARTMENT  
DATE: 7/28/2021 *Aleighta Burg, P.E.*  
(Signature)

GENERAL NOTES

CURVE DATA IS BASED ON THE ARC DEFINITION.

BEARINGS SHOWN ON THE PLANS ARE GRID/GROUND/PROJECT BEARINGS TO THE NEAREST SECOND.

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

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO BRIDGE REMOVAL.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS OUTSIDE OF NORMAL CONSTRUCTION LIMITS.

ALL PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

WETLANDS EXIST WITHIN THE PROJECT LIMITS. DO NOT OPERATE MACHINERY OUTSIDE OF THE SLOPE INTERCEPTS.

3.5 INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED IN 2 EQUAL LIFTS.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/INCH.

DNR CONTACT

DEPARTMENT OF NATURAL RESOURCES  
DNR SERVICE CENTER  
3550 MORMON COULEE RD  
LA CROSSE, WI 54601

ATTN: MS. KAREN KALVELAGE  
TELEPHONE: (608) 785-9115  
E-MAIL: KAREN.KALVELAGE@WISCONSIN.GOV

COUNTY CONTACT

VERNON COUNTY HIGHWAY COMMISSIONER  
1335 RAILROAD STREET  
VIROQUA, WI 54665

ATTN: MR. PHIL HEWITT  
TELEPHONE: (608) 637-5452  
E-MAIL: PHIL.HEWITT@VERNONCOUNTY.ORG

UTILITY CONTACT

\*VERNON COMMUNICATIONS COOP  
103 N MAIN ST  
PO BOX 20  
WESTBY, WI 54667

ATTN: MR. SCOTT FREDERICK  
TELEPHONE: (608) 634-7434  
E-MAIL: SFREDERICK@VERNONCOM.COOP

CONSULTANT CONTACT

CORRE, INC.  
6510 GRAND TETON PLAZA  
SUITE 314  
MADISON, WI 53719

ATTN: MR. ERIC PRICE, P.E.  
TELEPHONE: (608) 826-6146  
E-MAIL: EPRICE@CORREINC.COM

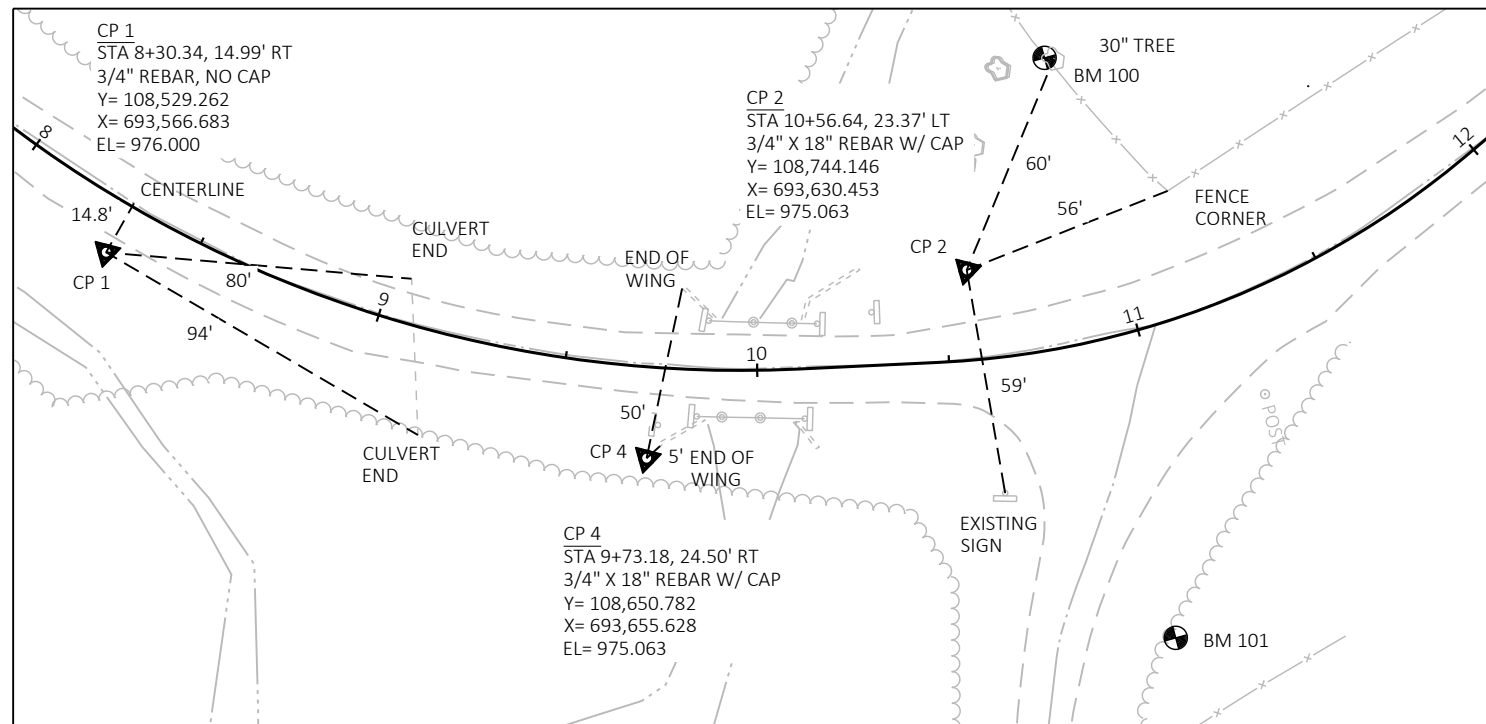
\*DENOTES DIGGERS HOTLINE MEMBER



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

www.DiggersHotline.com

CONTROL POINT TIES

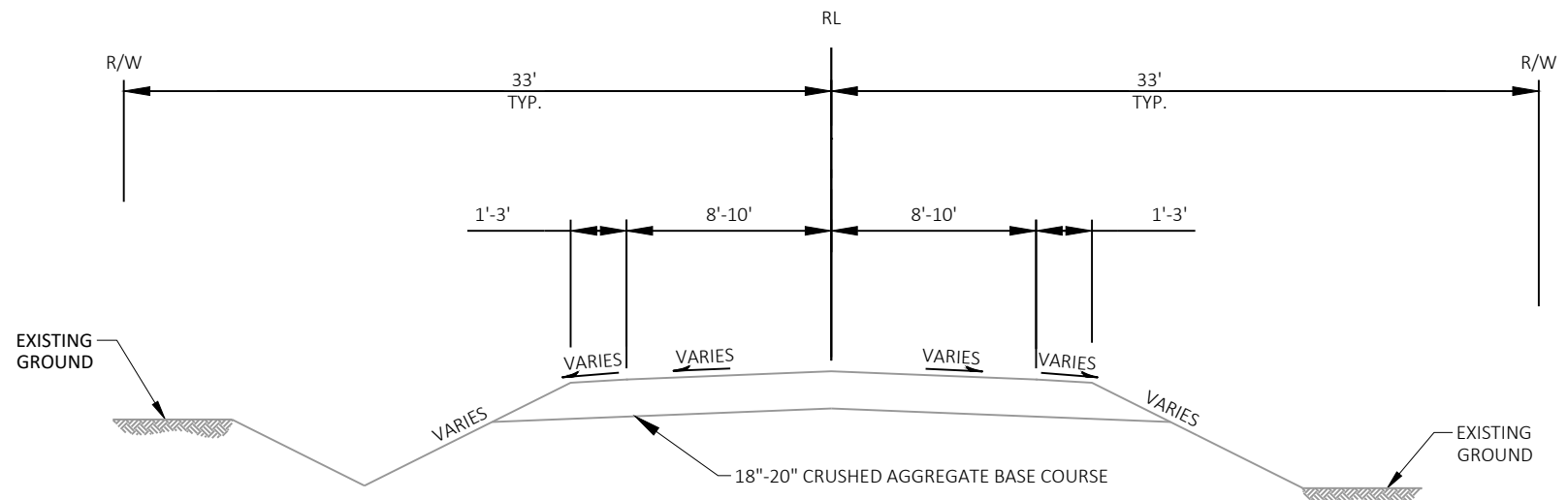


RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

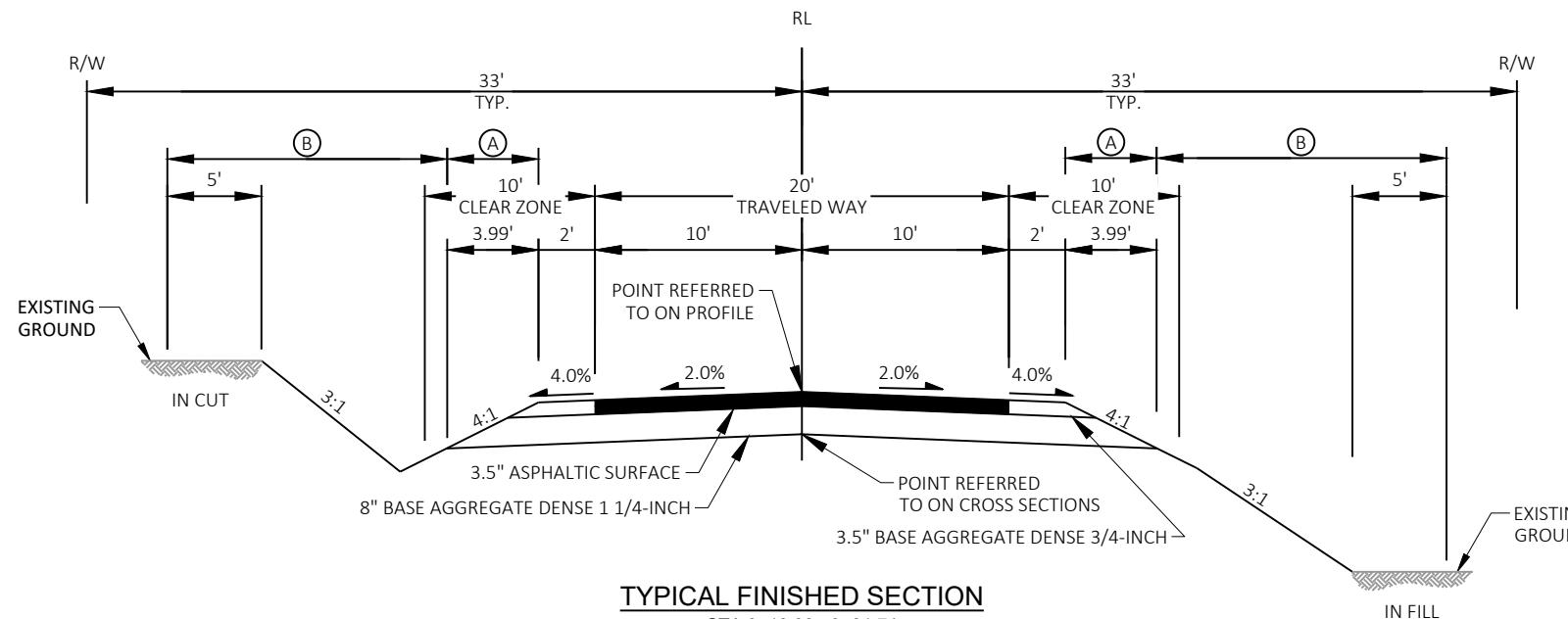
TOTAL PROJECT AREA = 0.21 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.05 ACRES



**TYPICAL EXISTING SECTION**

STA 9+10.00 - 9+88.5±  
STA 10+12.7± - 10+50.00



**TYPICAL FINISHED SECTION**

STA 9+10.00 - 9+81.74  
STA 10+18.26 - 10+50.00

**LEGEND**

(A) FERTILIZER TYPE B; SEEDING MIXTURE NO. 20

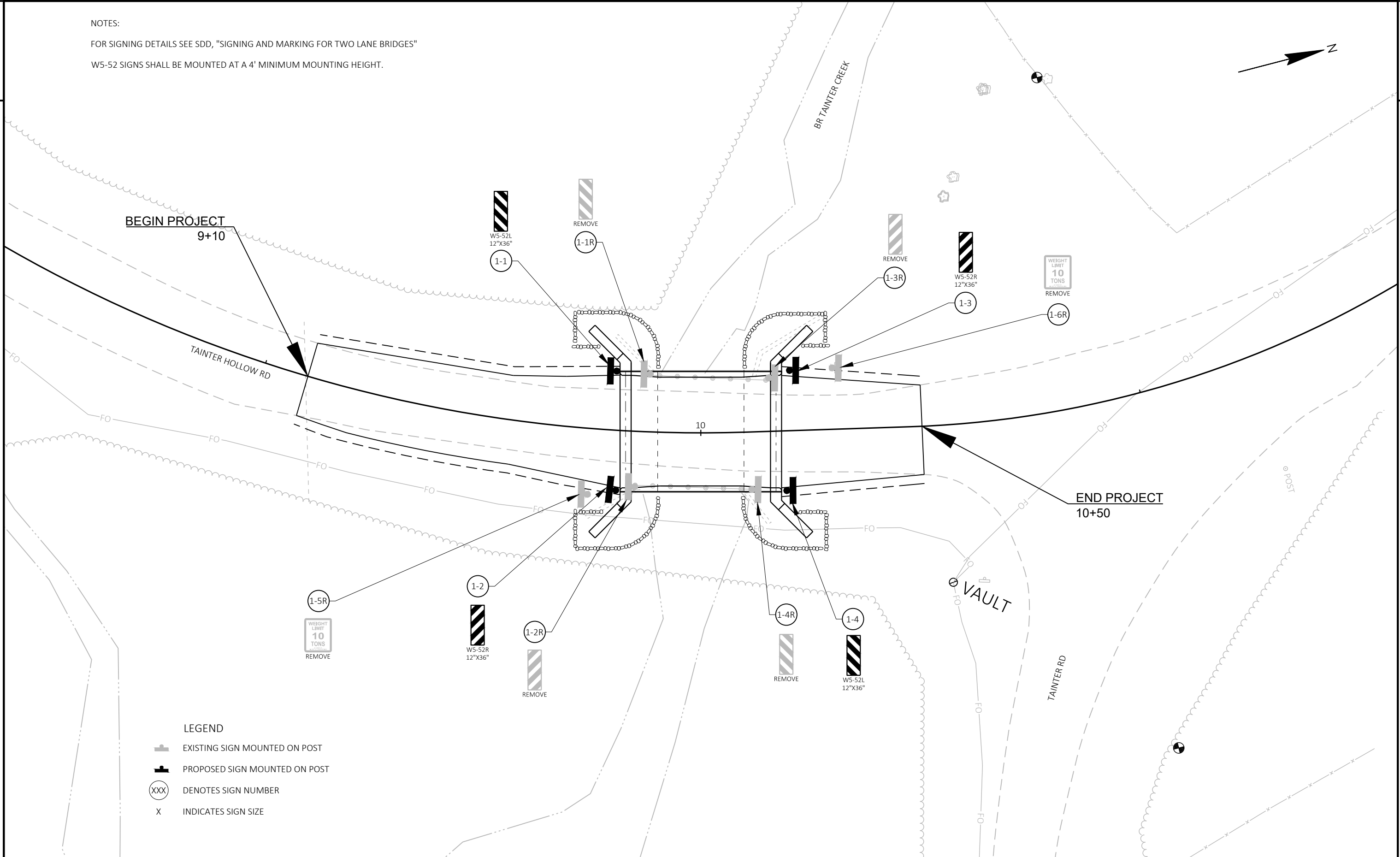
(B) SALVAGED TOPSOIL; MULCHING; FERTILIZER TYPE B; SEEDING MIXTURE NO. 20

**NOTES**

INSTALL EROSION MAT URBAN CLASS I TYPE B AS DIRECTED BY THE ENGINEER.





NOTES:

FOR SIGNING DETAILS SEE SDD, "SIGNING AND MARKING FOR TWO LANE BRIDGES"  
W5-52 SIGNS SHALL BE MOUNTED AT A 4' MINIMUM MOUNTING HEIGHT.



BEGIN PROJECT  
9+10

END PROJECT  
10+50

- LEGEND
-  EXISTING SIGN MOUNTED ON POST
  -  PROPOSED SIGN MOUNTED ON POST
  -  DENOTES SIGN NUMBER
  -  INDICATES SIGN SIZE



Estimate Of Quantities

5385-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0205	Grubbing	STA	1.000	1.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-62-911	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	110.000	110.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-62-262	LS	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	450.000	450.000
0014	213.0100	Finishing Roadway (project) 01. 5385-00-70	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	12.000	12.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	127.000	127.000
0020	455.0605	Tack Coat	GAL	18.000	18.000
0022	465.0105	Asphaltic Surface	TON	48.000	48.000
0024	502.0100	Concrete Masonry Bridges	CY	150.000	150.000
0026	502.3200	Protective Surface Treatment	SY	100.000	100.000
0028	502.3210	Pigmented Surface Sealer	SY	36.000	36.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	4,580.000	4,580.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	16,890.000	16,890.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0036	550.0020	Pre-Boring Rock or Consolidated Materials	LF	182.000	182.000
0038	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	260.000	260.000
0040	606.0300	Riprap Heavy	CY	130.000	130.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	190.000	190.000
0044	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5385-00-00	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	3.000	3.000
0050	625.0100	Topsoil	SY	66.000	66.000
0052	625.0500	Salvaged Topsoil	SY	329.000	329.000
0054	627.0200	Mulching	SY	329.000	329.000
0056	628.1504	Silt Fence	LF	623.000	623.000
0058	628.1520	Silt Fence Maintenance	LF	623.000	623.000
0060	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0062	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0064	628.2008	Erosion Mat Urban Class I Type B	SY	66.000	66.000
0066	628.6005	Turbidity Barriers	SY	160.000	160.000
0068	629.0210	Fertilizer Type B	CWT	0.500	0.500
0070	630.0120	Seeding Mixture No. 20	LB	11.000	11.000
0072	630.0200	Seeding Temporary	LB	11.000	11.000
0074	630.0500	Seed Water	MGAL	7.000	7.000
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0078	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0080	638.2602	Removing Signs Type II	EACH	6.000	6.000
0082	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,360.000	1,360.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	1,904.000	1,904.000
0090	643.0900	Traffic Control Signs	DAY	1,224.000	1,224.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	98.000	98.000
0096	645.0120	Geotextile Type HR	SY	170.000	170.000
0098	650.4500	Construction Staking Subgrade	LF	102.000	102.000

Estimate Of Quantities

5385-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	650.5000	Construction Staking Base	LF	102.000	102.000
0102	650.6500	Construction Staking Structure Layout (structure) 01. B-62-262	LS	1.000	1.000
0104	650.9910	Construction Staking Supplemental Control (project) 01. 5385-00-70	LS	1.000	1.000
0106	650.9920	Construction Staking Slope Stakes	LF	102.000	102.000
0108	715.0502	Incentive Strength Concrete Structures	DOL	900.000	900.000
0110	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0112	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	700.000	700.000
0114	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	800.000	800.000

DIVISION	FROM/TO STATION (1)	LOCATION	205.0100 COMMON EXCAVATION (2)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (5)	AVAILABLE MATERIAL (6)	UNEXPANDED FILL	EXPANDED FILL (7)	MASS ORDINATE +/- (8)	WASTE
			CUT (3)	EBS EXCAVATION (4)				FACTOR 1.25		
TAINTER HOLLOW ROAD	9+10 TO 9+78.7 10+21.4 TO 10+50		63 47	0 0	0 0	63 47	7 0	9 0	54 47	54 47
TOTAL			110	0	0	110	7	9	101	101
TOTAL COMMON EXC			110							

**NOTES:**

- (1) LIMITS ACCOUNTY FOR 3' WIDTH OF BACKFILL STRUCTURE TYPE A BEHIND EACH ABUTMENT. SEE BRIDGE PLANS
- (2) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (3) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- (4) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
- (5) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (6) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (7) EXPANDED FILL FACTOR = 1.25
- (8) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

**BASE AGGREGATE ITEMS**

**SILT FENCE & TURBIDITY BARRIER**

**CLEARING & GRUBBING**

STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
9+00	-	10+00	LT	1	1
				<u>1</u>	<u>1</u>

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
9+10	-	9+82	MAINLINE	8	85	2
10+18	-	10+50	MAINLINE	4	42	1
				<u>12</u>	<u>127</u>	<u>3</u>

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6005 TURBIDITY BARRIERS SY
9+10	-	9+82	RT	196	196	--
9+10	-	9+82	LT	100	100	--
		9+91	BR TAINTER CREEK	--	--	80
		10+08	BR TAINTER CREEK	--	--	80
10+18	-	10+50	RT	182	182	--
10+18	-	10+50	LT	145	145	--
				<u>623</u>	<u>623</u>	<u>160</u>

**LANDSCAPING ITEMS**

**ASPHALT ITEMS**

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
9+10	-	9+82	RT			--	104	104	--	--	--	0.10	3	3	2
9+10	-	9+82	LT			--	79	79	--	--	--	0.10	3	3	2
10+18	-	10+50	RT			--	44	44	--	--	--	0.10	2	2	1
10+18	-	10+50	LT			--	36	36	--	--	--	0.10	1	1	1
UNDISTRIBUTED (25%)						66	66	66	5	5	66	0.10	2	2	1
						<u>66</u>	<u>329</u>	<u>329</u>	<u>5</u>	<u>5</u>	<u>66</u>	<u>0.50</u>	<u>11</u>	<u>11</u>	<u>7</u>



3

**SIGNING ITEMS**

STATION	SIGN ID	LOCATION	SIGN CODE	SIZE	634.0612	637.2230	638.2602	638.3000	REMARKS
					POSTS WOOD 4X6-INCH X 12- FT EACH	SIGNS TYPE II REFLECTIVE F SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
9+79	1-1	TANTER HOLLOW RD LT	W5-52L	12" X 36"	1	3.00	--	--	BRIDGE MARKER LEFT
9+87	1-1R	TANTER HOLLOW RD LT			--	--	1	1	
9+81	1-2	TANTER HOLLOW RD RT	W5-52R	12" X 36"	1	3.00	--	--	BRIDGE MARKER RIGHT
9+85	1-2R	TANTER HOLLOW RD RT			--	--	1	1	
10+19	1-3	TANTER HOLLOW RD LT	W5-52R	12" X 36"	1	3.00	--	--	BRIDGE MARKER RIGHT
10+16	1-3R	TANTER HOLLOW RD LT			--	--	1	1	
10+19	1-4	TANTER HOLLOW RD RT	W5-52L	12" X 36"	1	3.00	--	--	BRIDGE MARKER LEFT
10+12	1-4R	TANTER HOLLOW RD RT			--	--	1	1	
9+72	1-5R	TANTER HOLLOW RD RT			--	--	1	1	WEIGHT LIMIT 10 TONS
10+30	1-6R	TANTER HOLLOW RD LT			--	--	1	1	WEIGHT LIMIT 10 TONS
					<u>4</u>	<u>12.00</u>	<u>6</u>	<u>6</u>	

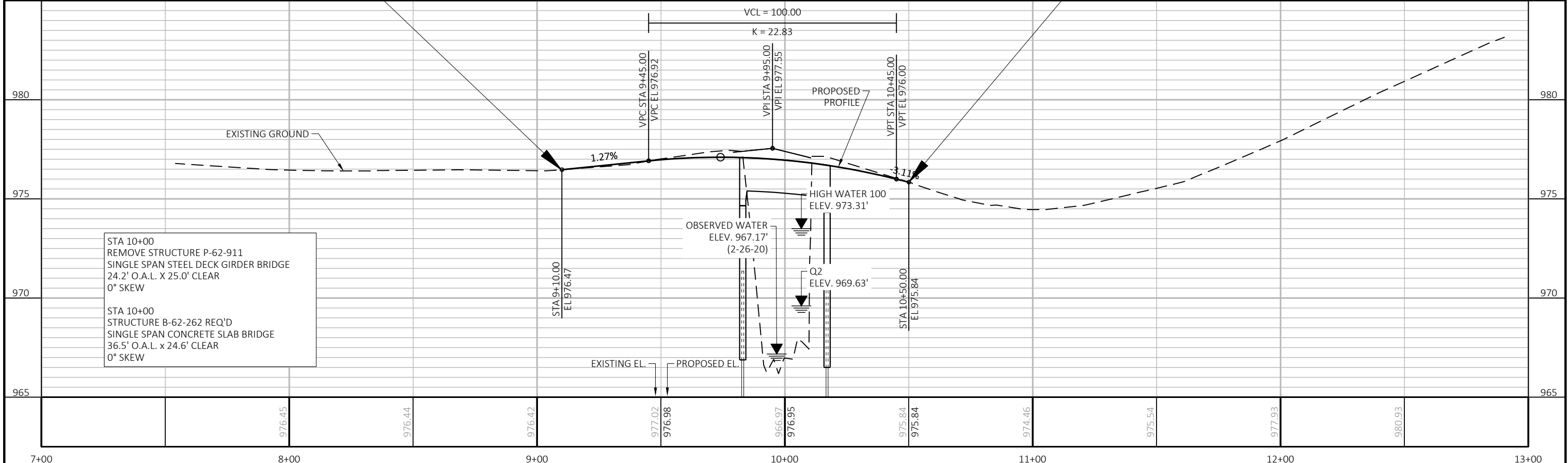
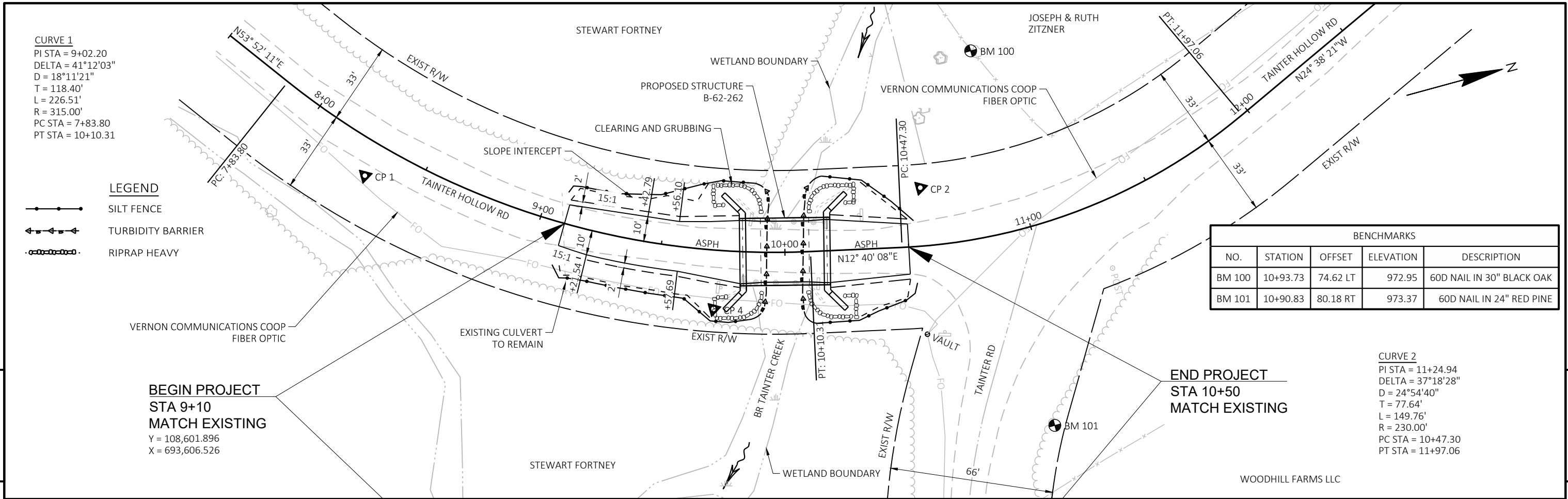
**TRAFFIC CONTROL ITEMS**

LOCATION	643.0420	643.0705	643.0900	643.5000
	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL EACH
PROJECT	1,360	1,904	1,224	1
	<u>1,360</u>	<u>1,904</u>	<u>1,224</u>	<u>1</u>

3

**CONSTRUCTION STAKING ITEMS**

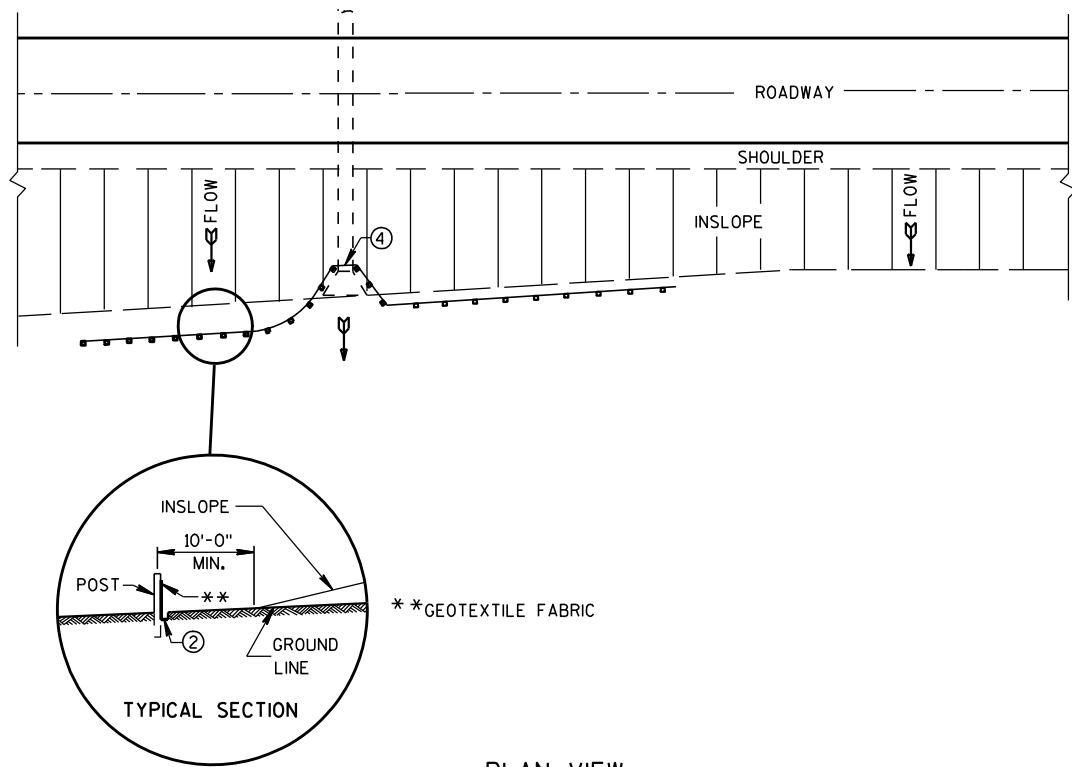
STATION	TO	STATION	LOCATION	650.4500	650.5000	CAT0020 650.6500.01	650.9910	650.9920
				CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING LAYOUT B-62-0262 LS	CONSTRUCTION STAKING CONTROL 5385-00-70 LS	CONSTRUCTION STAKING SLOPE STAKES LF
9+10	-	9+81	MAINLINE	71	71	--	--	71
10+19	-	10+50	MAINLINE	31	31	--	--	31
PROJECT				--	--	1	1	--
				<u>102</u>	<u>102</u>	<u>1</u>	<u>1</u>	<u>102</u>



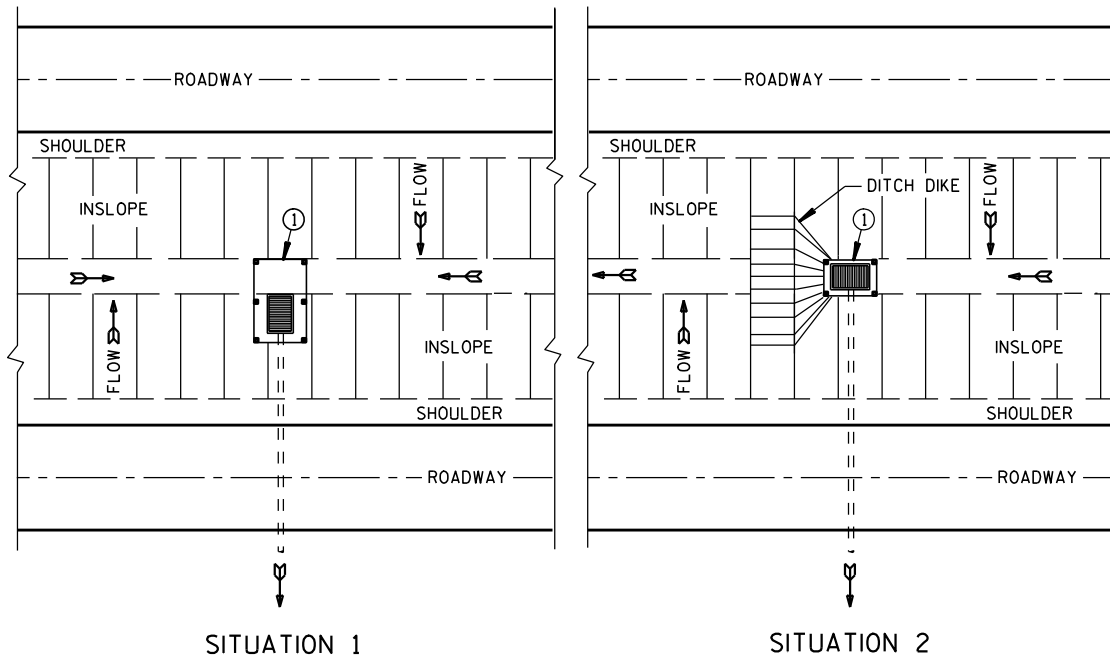
PROJECT NO: 5385-00-70	HWY: TAINTER HOLLOW RD	COUNTY: VERNON	PLAN AND PROFILE: TAINTER HOLLOW RD	SCALE, FEET	SHEET	E
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## Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

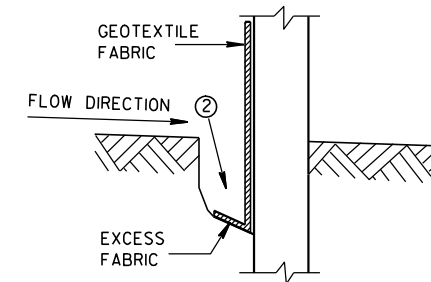


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

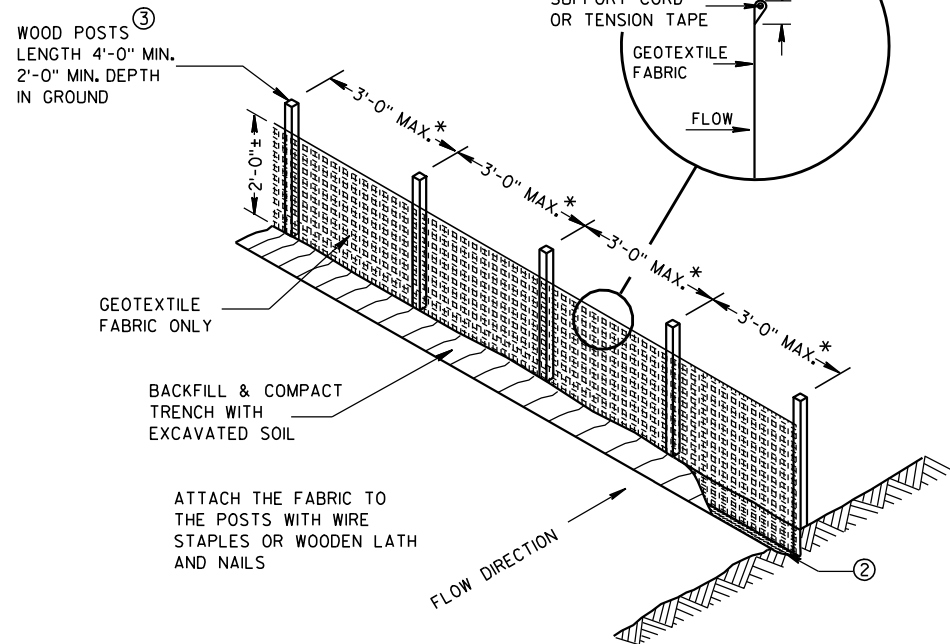
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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.

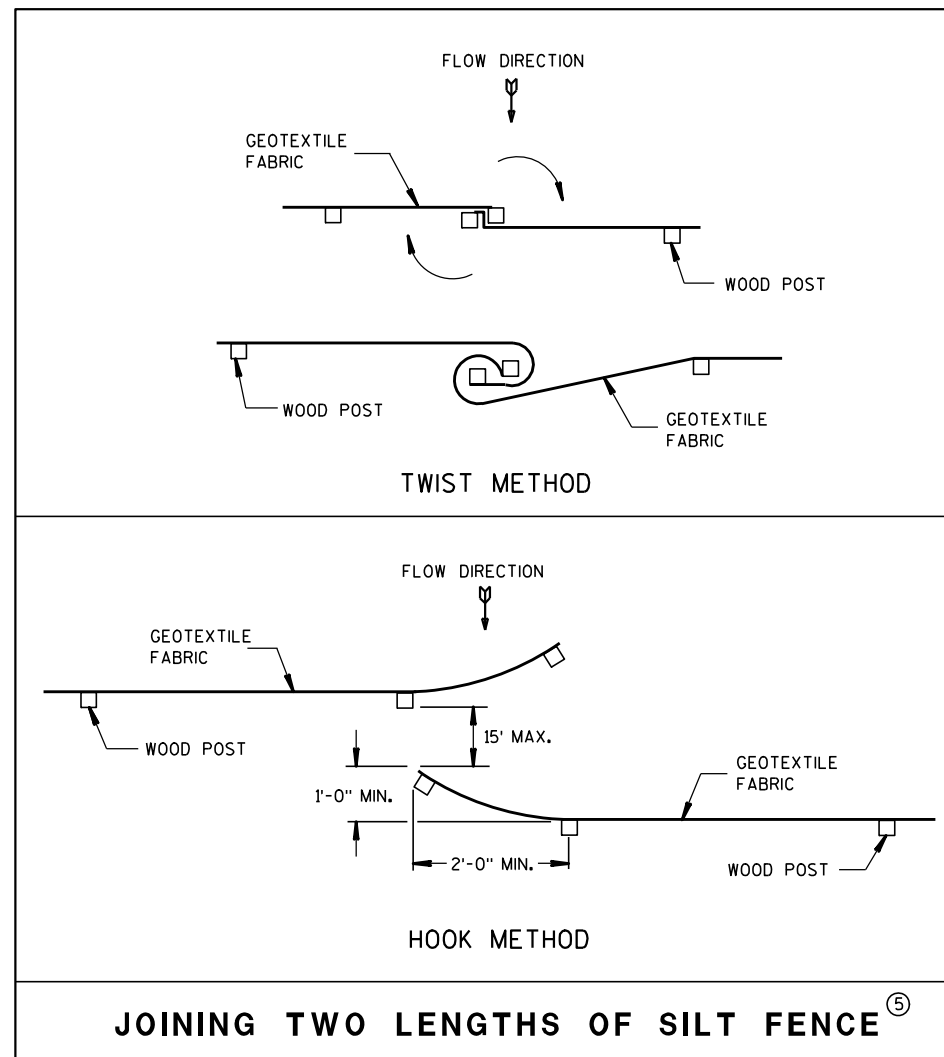


TRENCH DETAIL

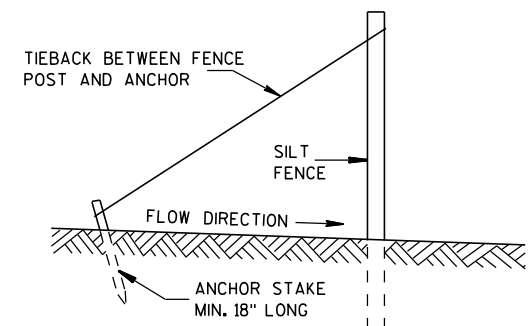
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

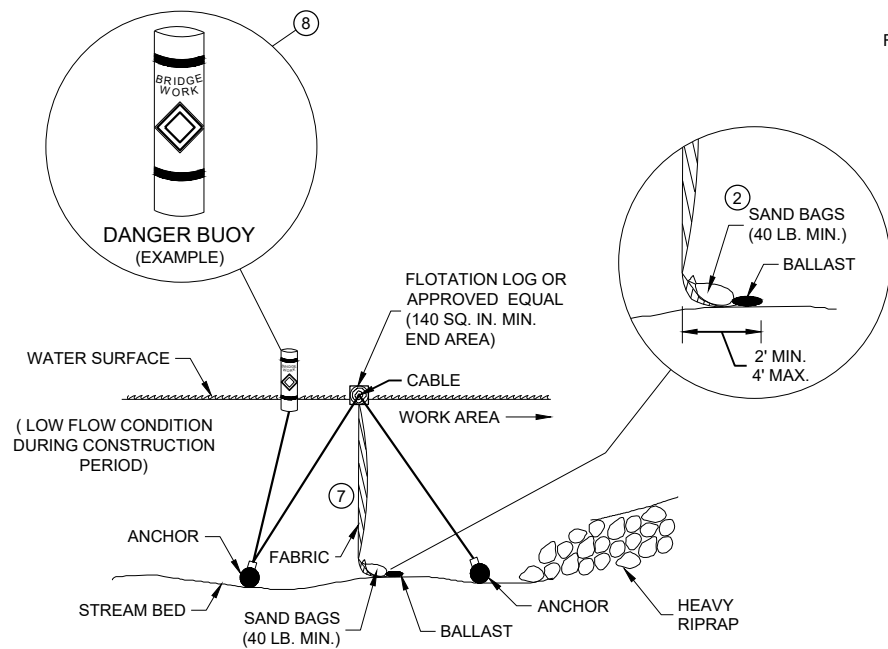


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

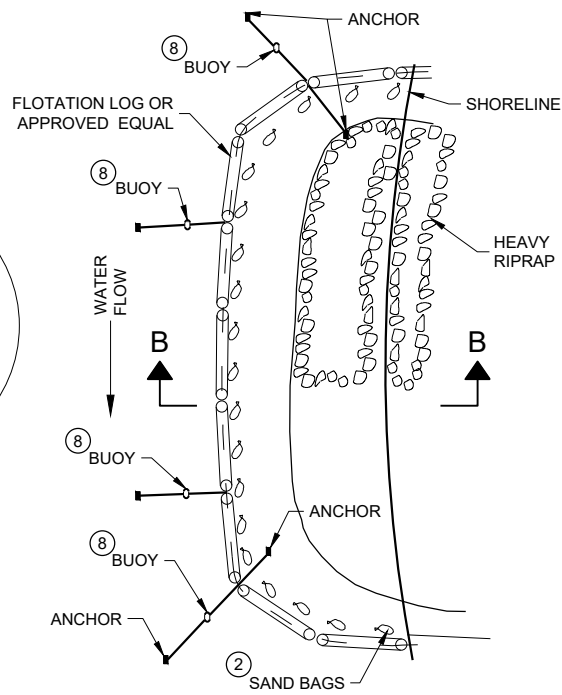
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

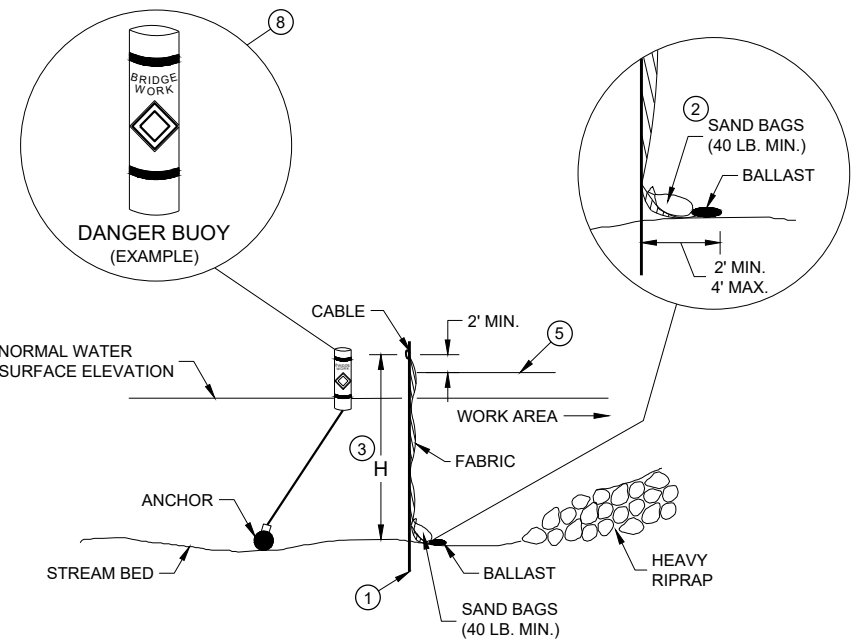


**SECTION B - B**

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

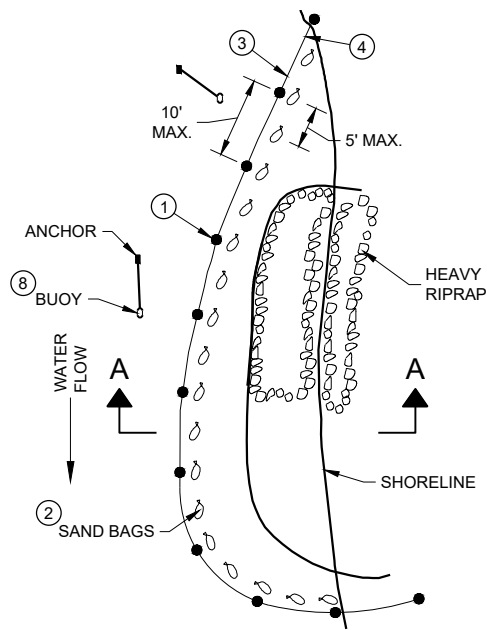


**PLAN VIEW**



**SECTION A - A**

**TURBIDITY BARRIER - STANDARD POST INSTALLATION**



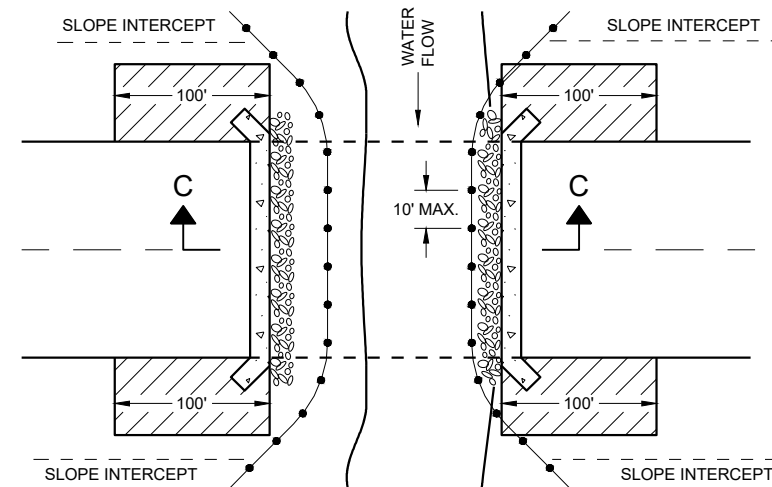
**PLAN VIEW**

**GENERAL NOTES**

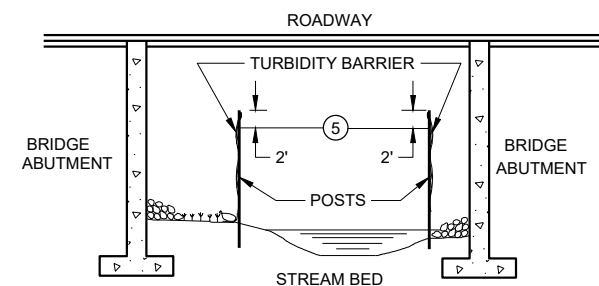
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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**

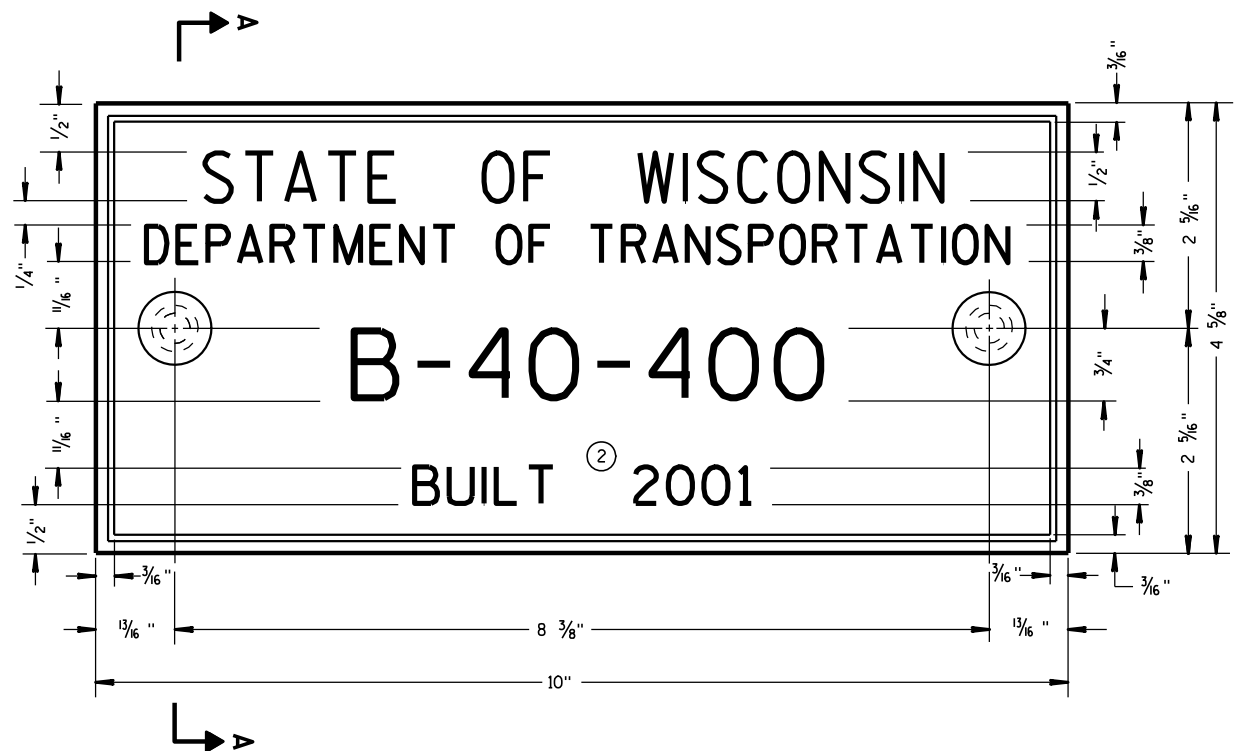
**TURBIDITY BARRIER DETAIL SHOWING  
TYPICAL PLACEMENT AT STRUCTURES**

**TURBIDITY BARRIER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA



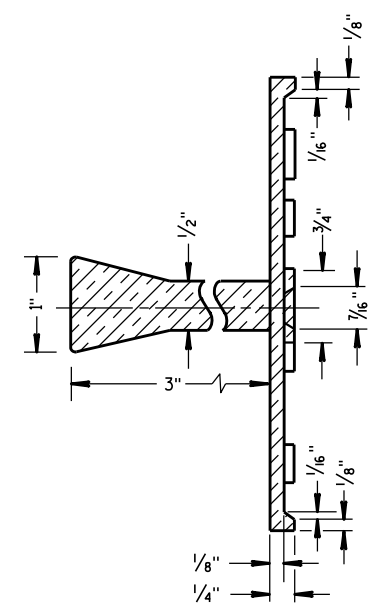
**TYPICAL NAME PLATE**  
(BRIDGES, CULVERTS, AND RETAINING WALLS)

**GENERAL NOTES**

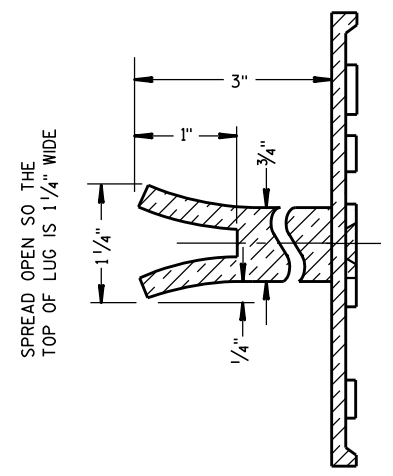
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.



**SECTION A-A**



SPREAD OPEN SO THE TOP OF LUG IS 1 1/4" WIDE

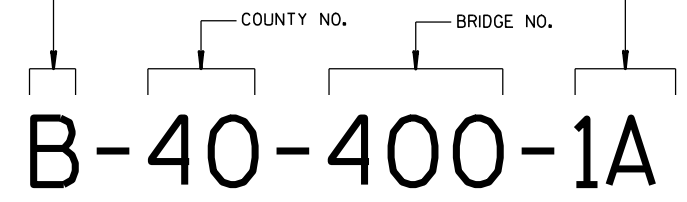
**ALTERNATE LUG**

6

6

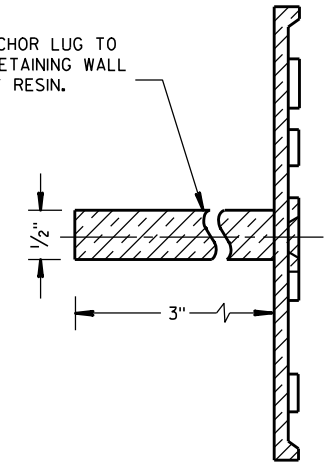
FOR MULTI-UNIT STRUCTURES  
LINE 3 ABOVE SHALL READ

- B = BRIDGE
- C = CULVERT
- R = RETAINING WALL
- UNIT NO. FOR MULTIPLE UNIT BRIDGE



**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

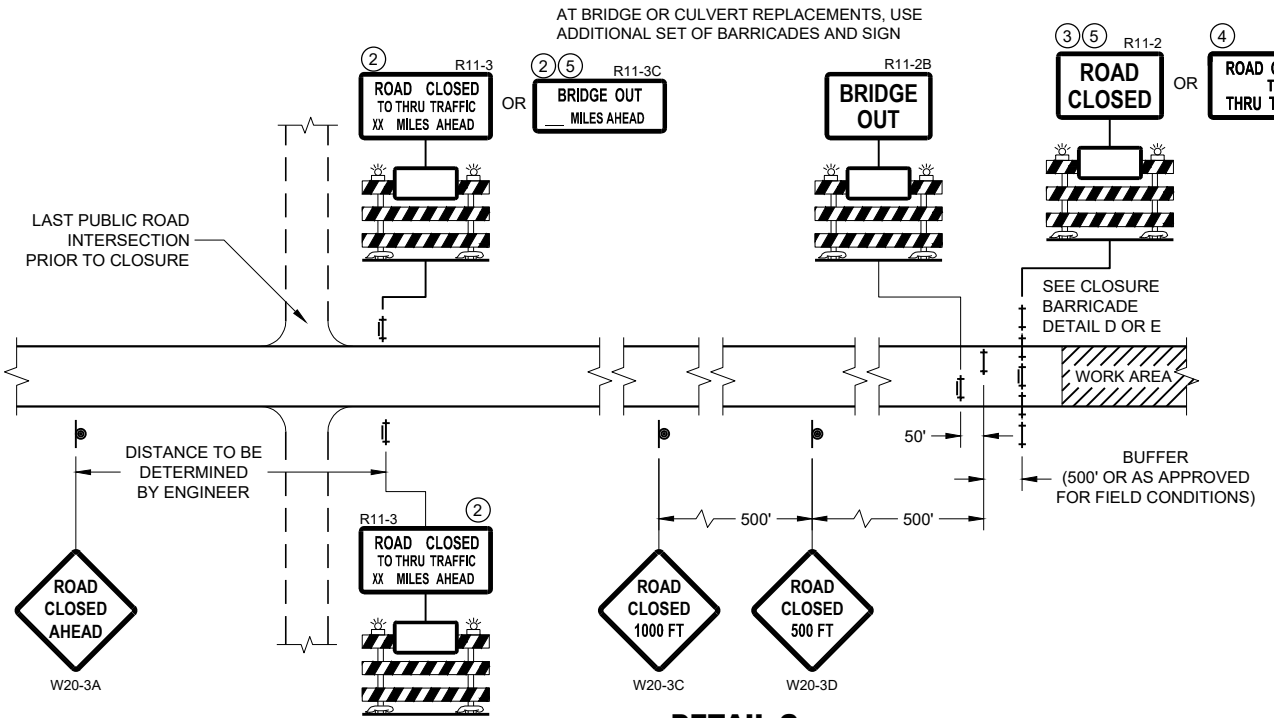
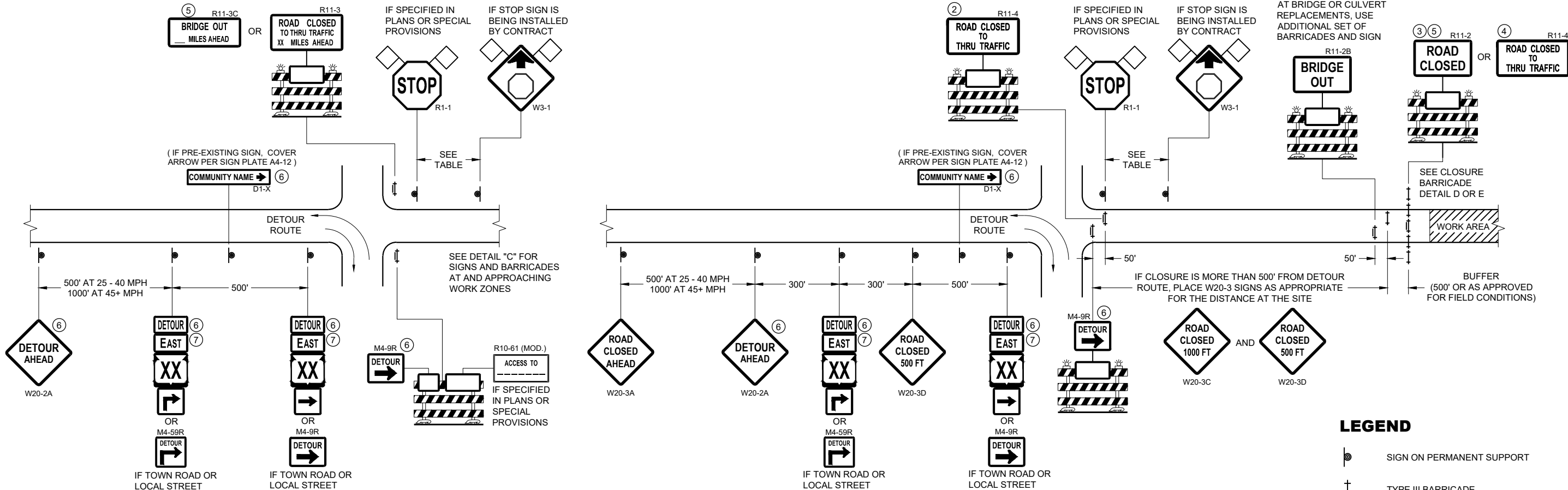


**ALTERNATE LUG**  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

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



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

**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)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- M05 - 1 OR M06 - 1

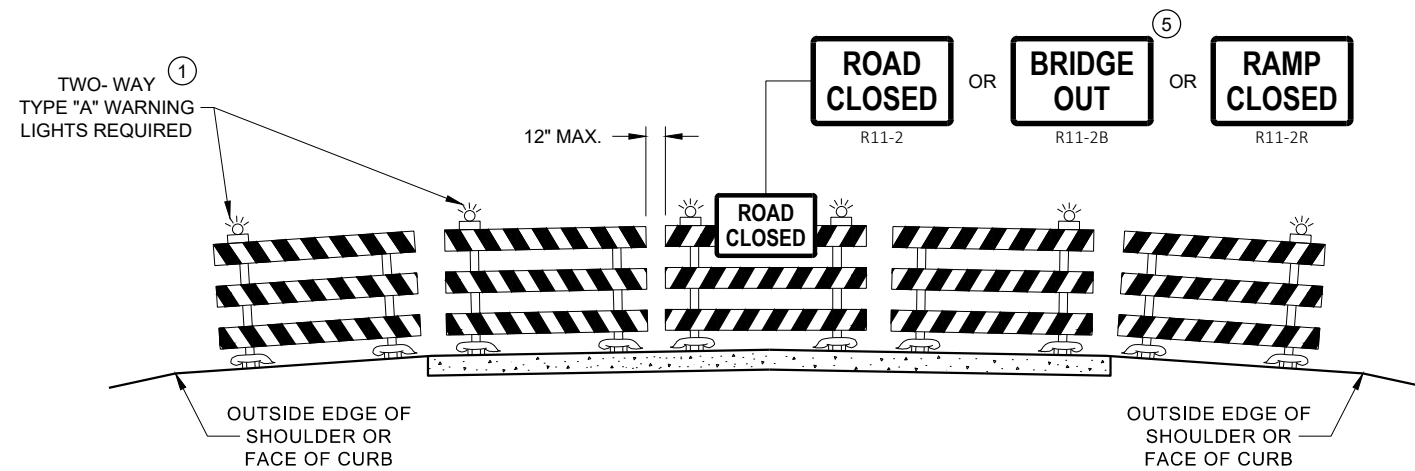
SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

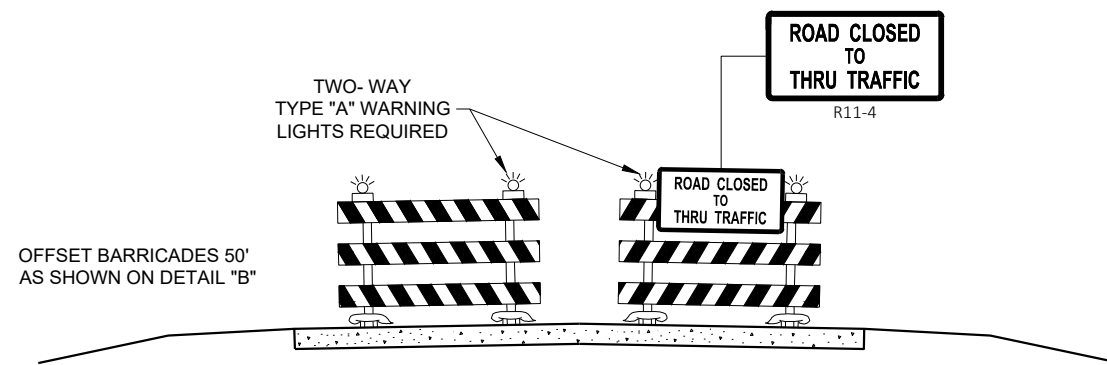
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**GENERAL NOTES**

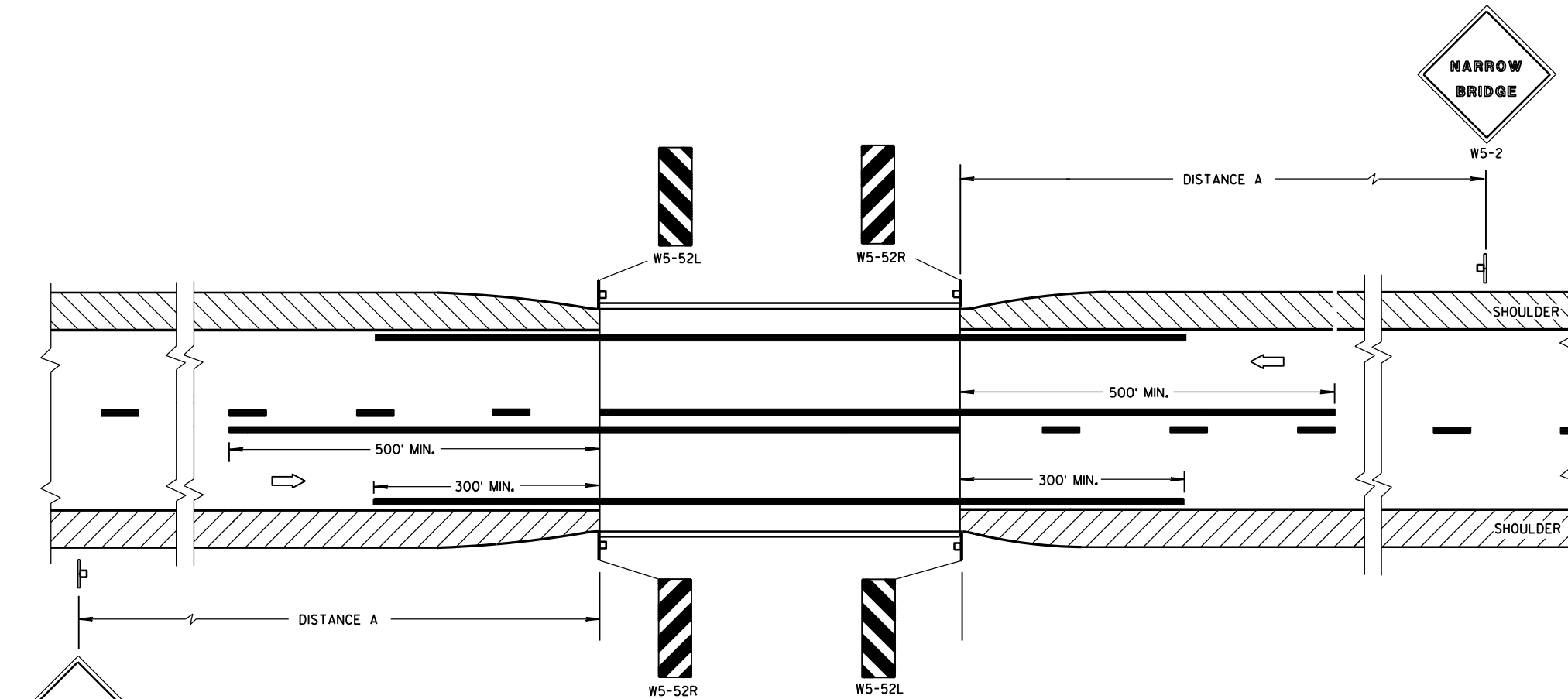
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

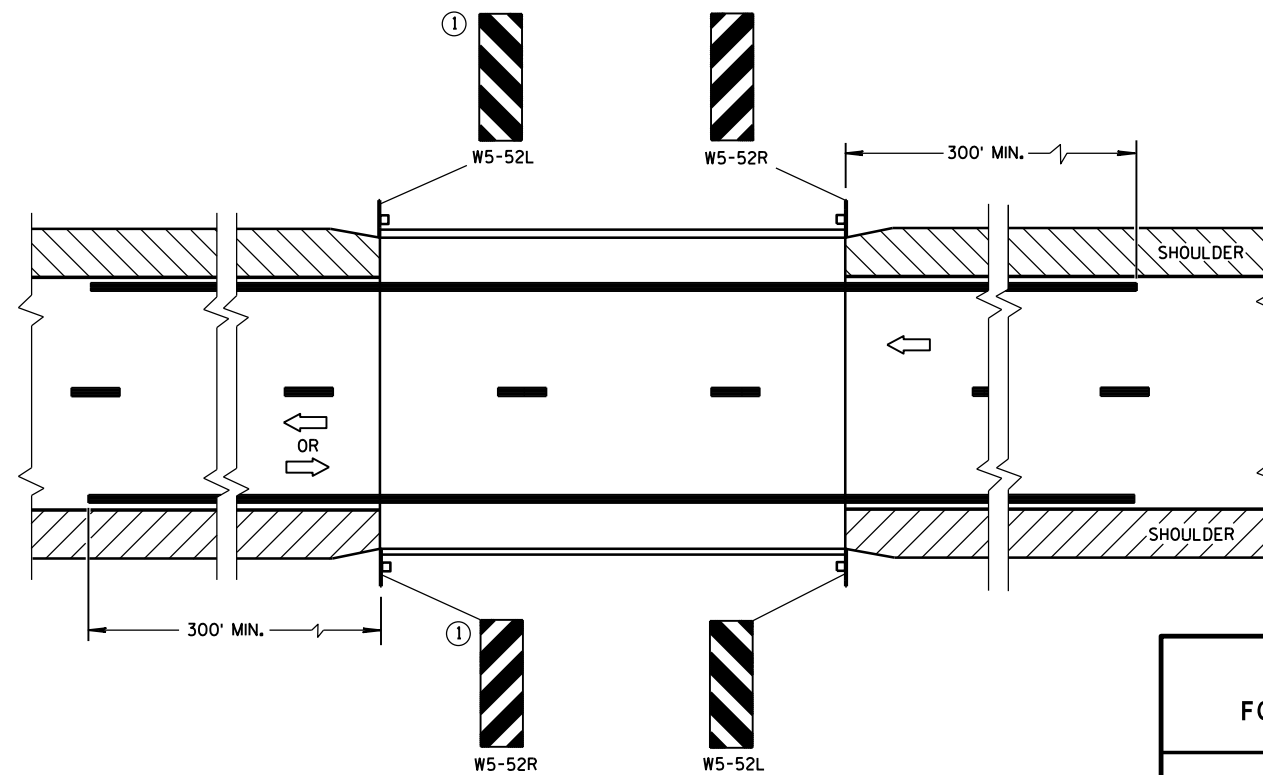
① OMIT ON ONE-WAY TRAVELLED WAYS.

➡ DIRECTION OF TRAFFIC



**SITUATION 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.

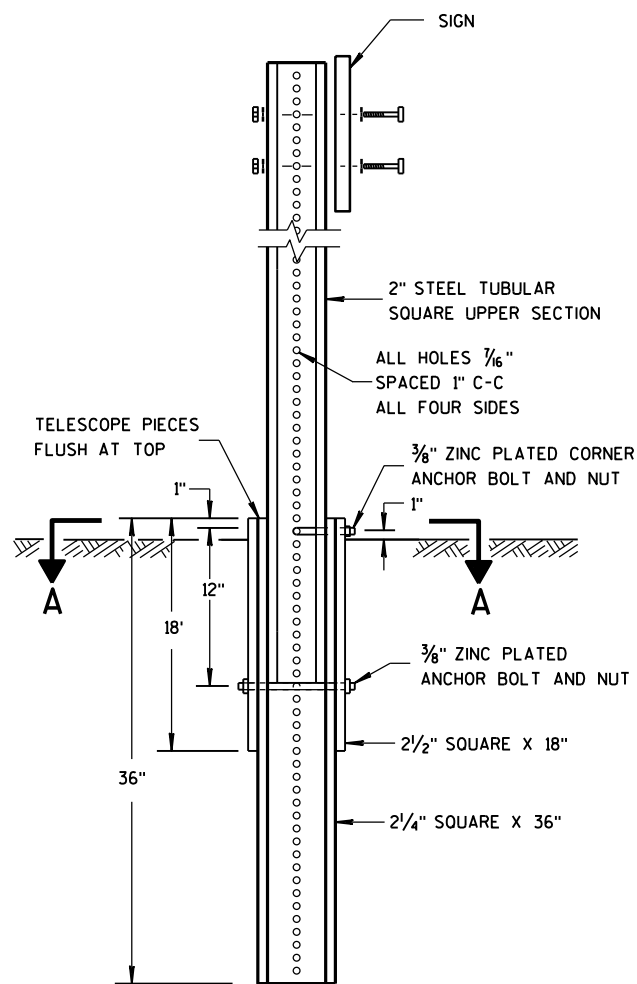
**DISTANCE TABLE**

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

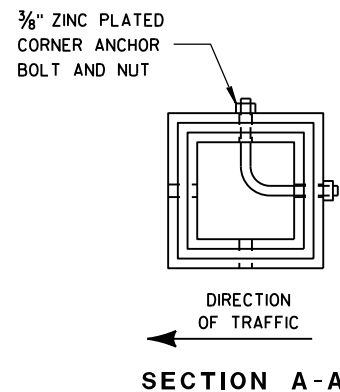
**SIGNING & MARKING FOR TWO LANE BRIDGES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

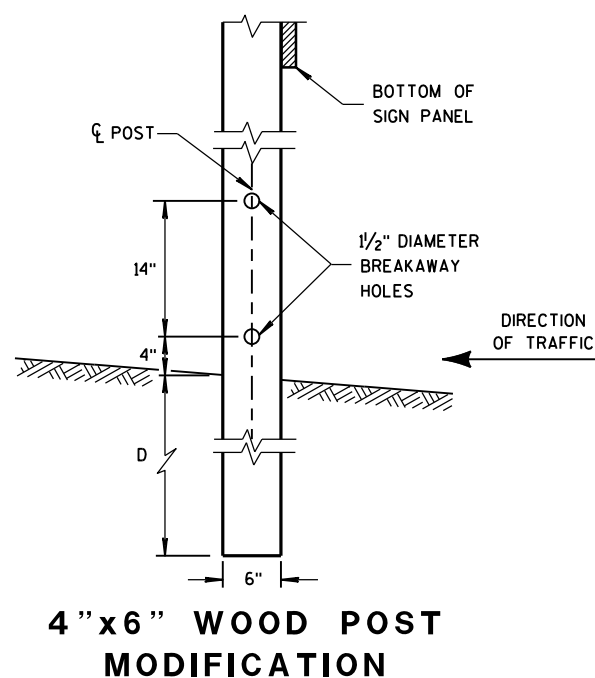
APPROVED  
June 2017 /S/ Matthew R. Rauch  
DATE STATE SIGNING AND MARKING ENGINEER  
FHWA



**DETAIL OF TUBULAR STEEL SIGN POST**



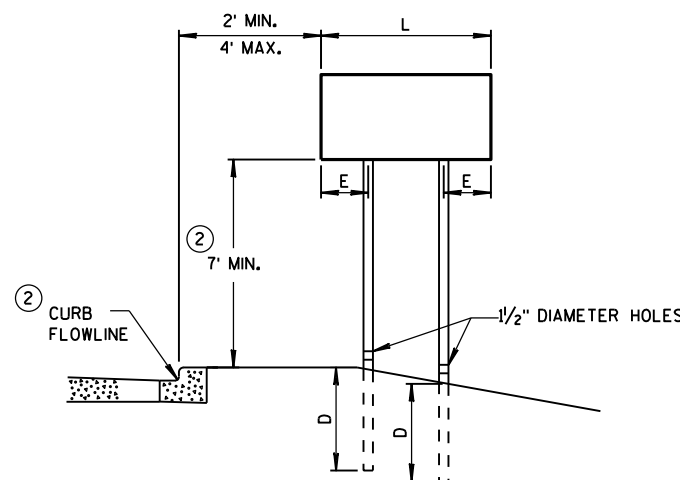
**SECTION A-A**



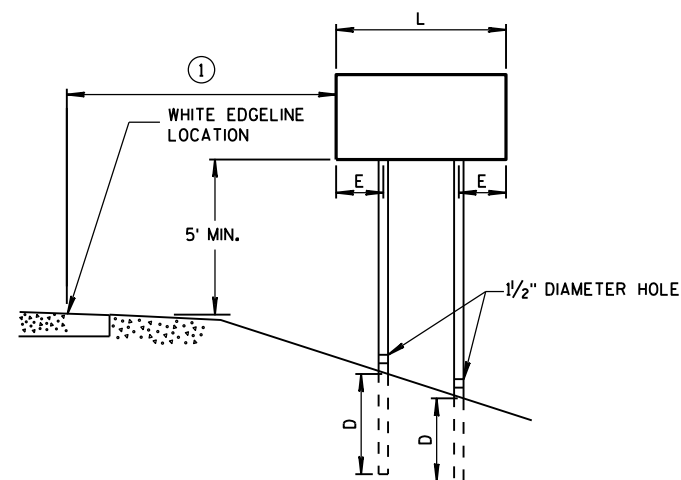
**4" X 6" WOOD POST MODIFICATION**

**GENERAL NOTES**

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



**URBAN AREA**



**RURAL AREA**

**POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS**

**TUBULAR STEEL POSTS**

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

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

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

**WOOD POST EMBEDMENT DEPTH**

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

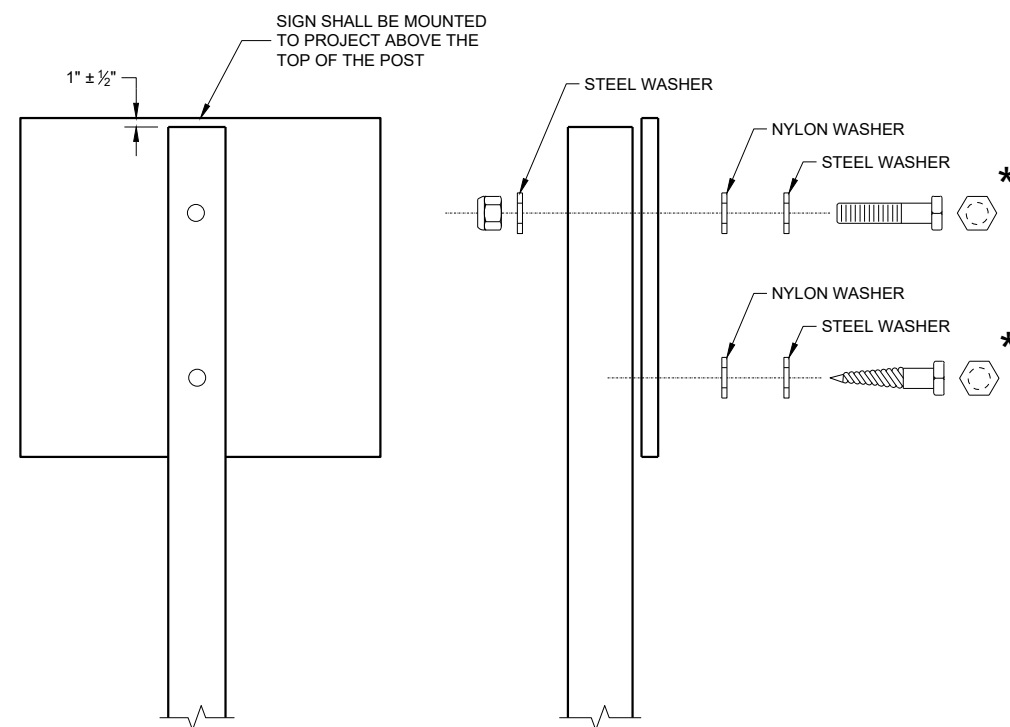
**4" X 6" WOOD POST**

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

SEE NOTE ③

**TEMPORARY TRAFFIC CONTROL SIGN MOUNTING**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



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

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POST (4" x 6")

- LAG SCREWS - 3/8" x 3"
- MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")

- MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
- RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -

- 1 1/4" O.D. x 3/8" I.D. x 1/16" STEEL
- 1 1/4" O.D. x 3/8" I.D. x 0.080 NYLON

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

**ATTACHMENT OF SIGNS TO POSTS**

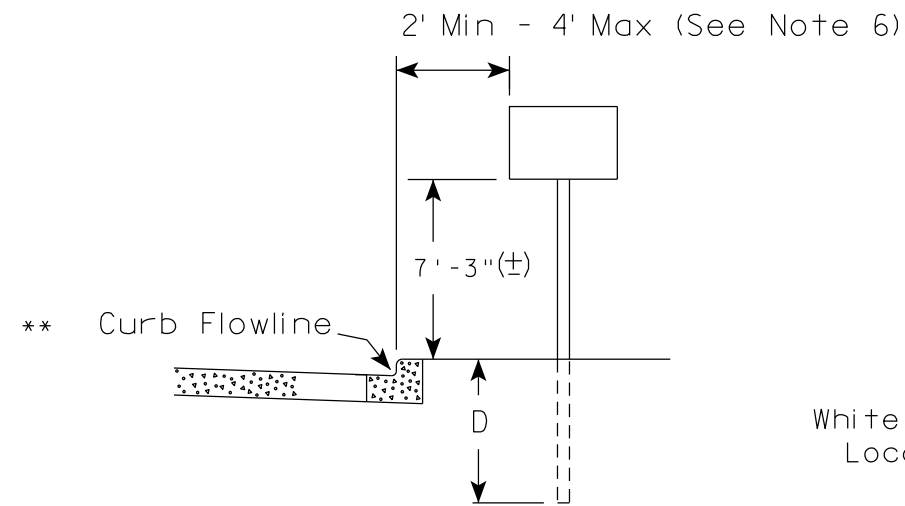
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2017 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

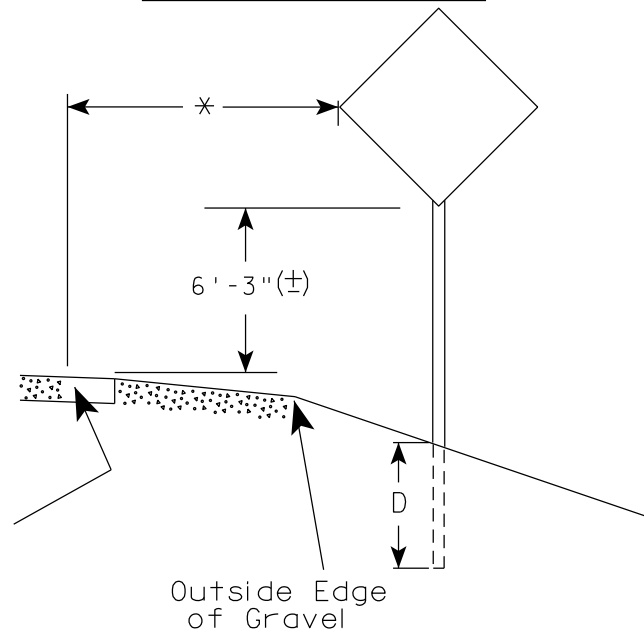
FHWA

URBAN AREA

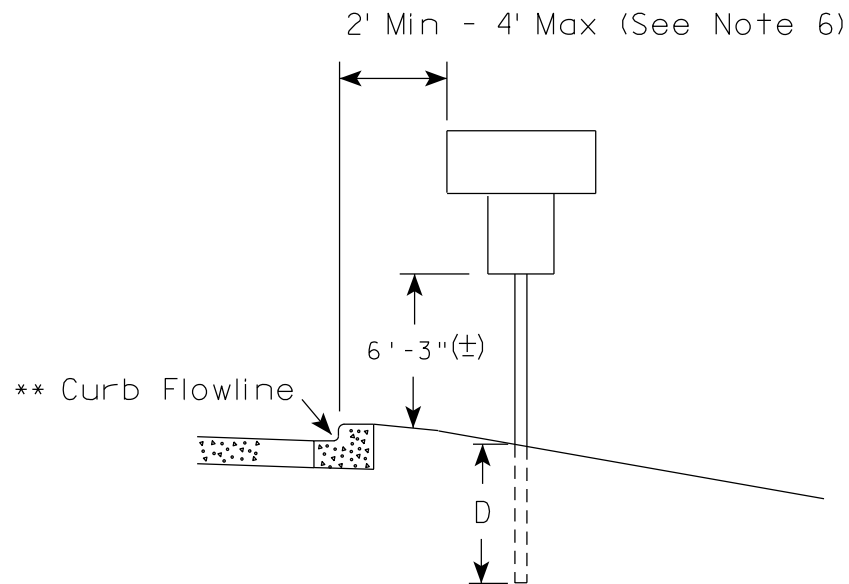
RURAL AREA (See Note 2)



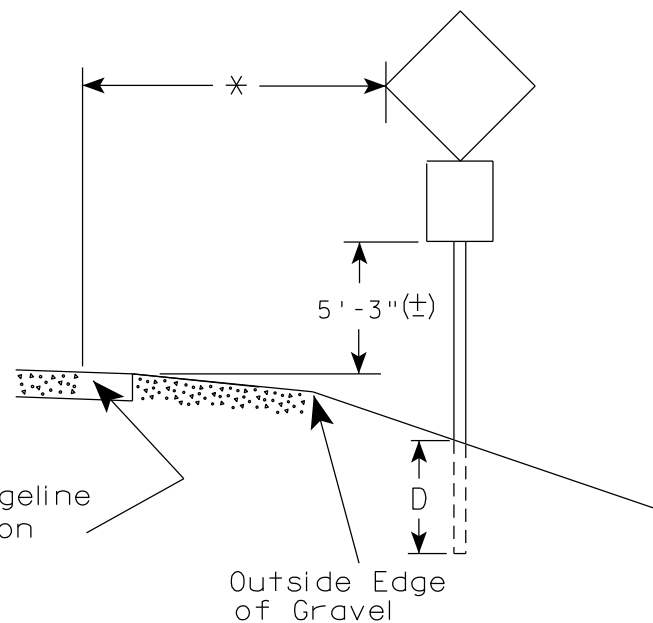
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

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

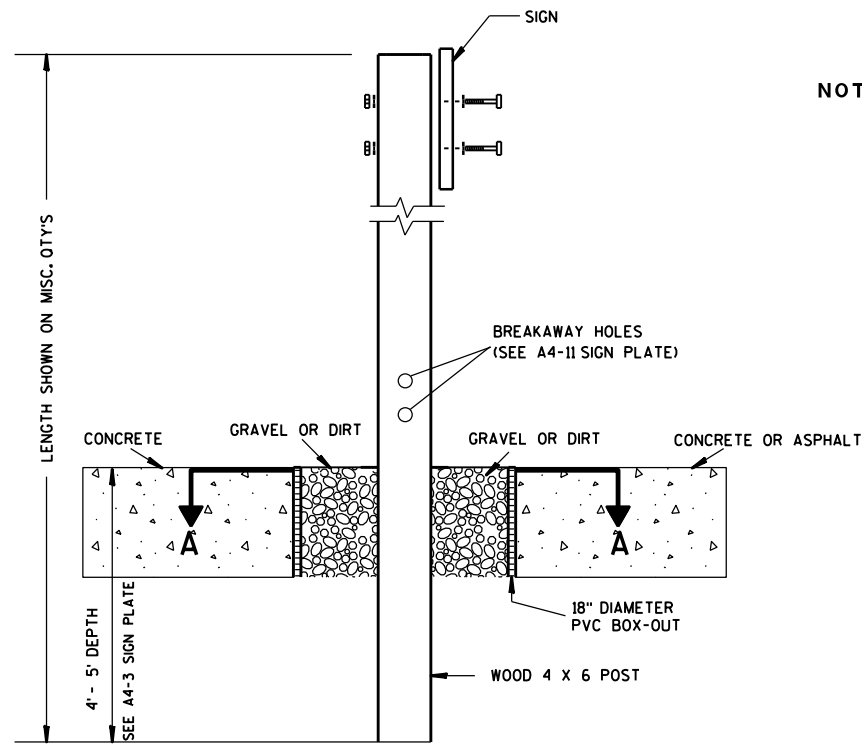
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

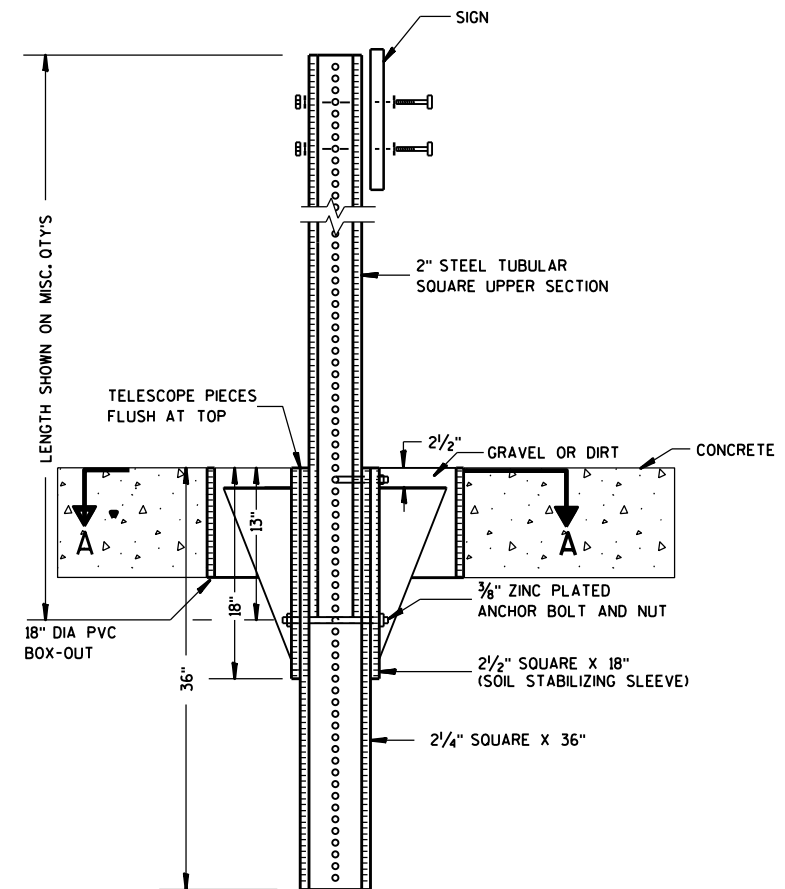
DATE 5/13/2020 PLATE NO. A4-3.22



**ELEVATION VIEW**

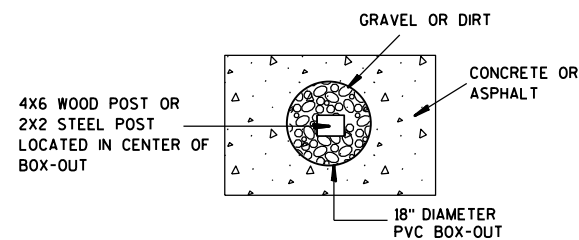
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

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



**ELEVATION VIEW**

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



**PLAN VIEW**

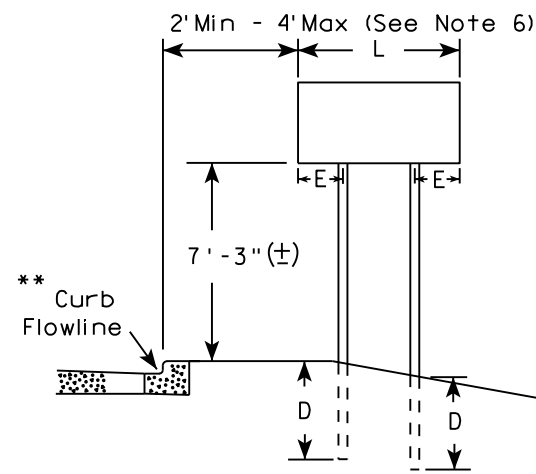
**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

<b>SIGN POST BOX-OUTS A4-3B</b>	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

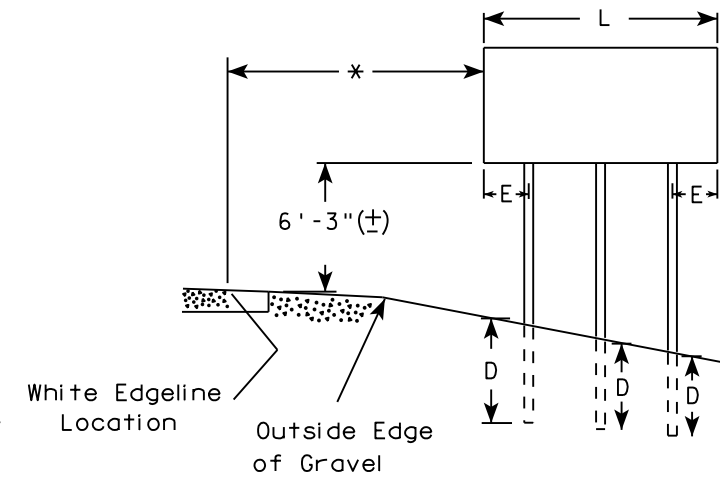
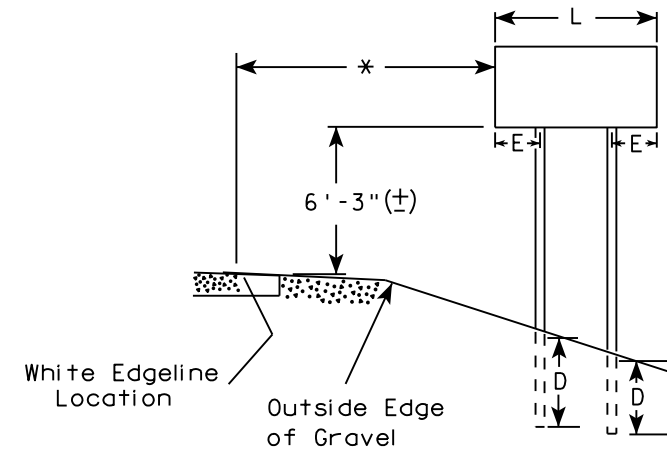
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

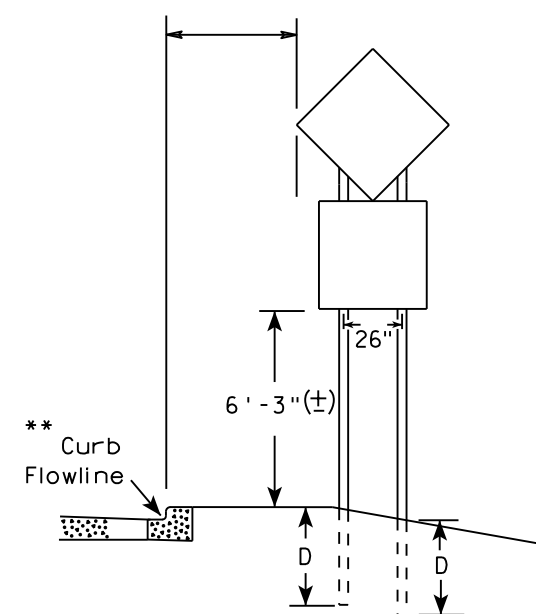
URBAN AREA



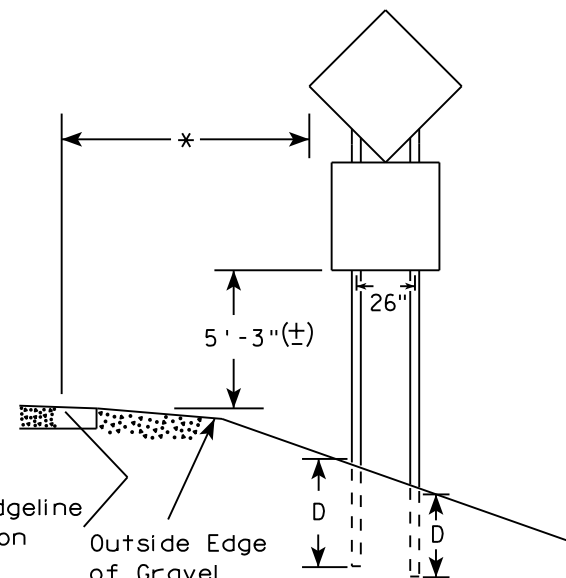
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

\*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

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

\*\*\*

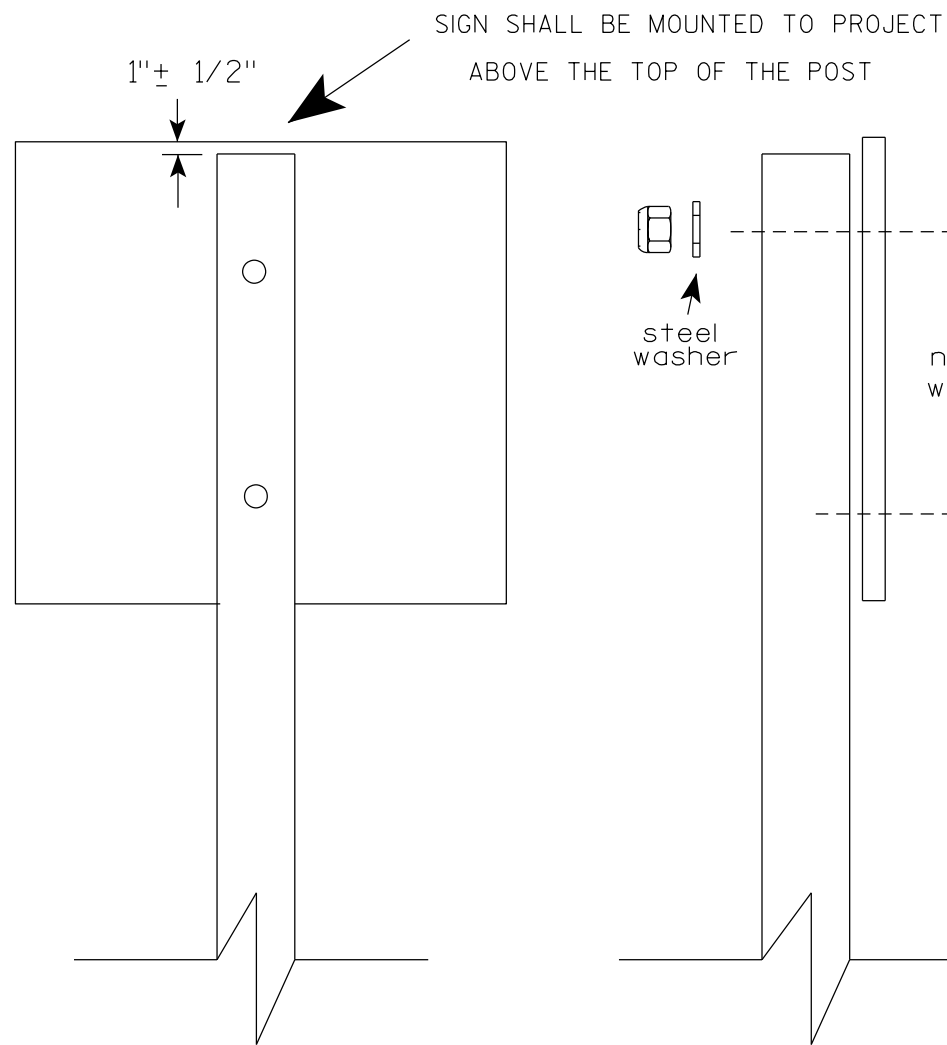
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION  
 APPROVED *Matthew R. Rauch*  
 For State Traffic Engineer  
 DATE 8/21/17 PLATE NO. A4-4.15



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

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

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

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

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

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)  
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS  
TO POSTS

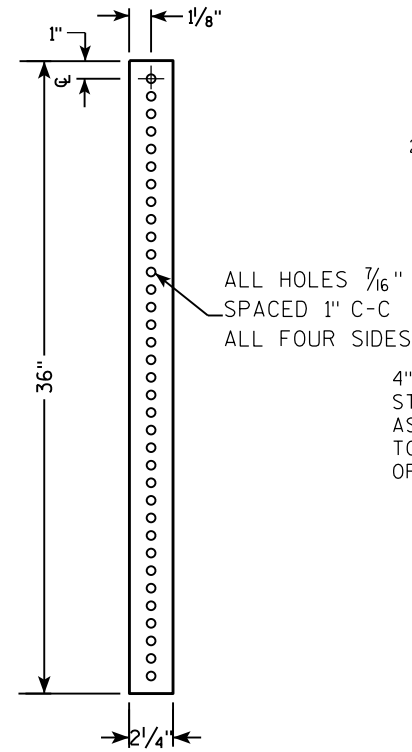
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

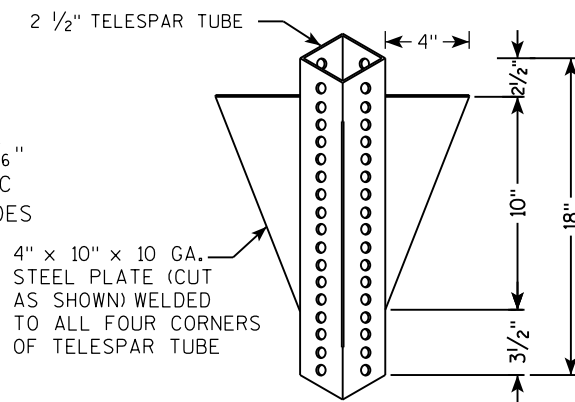
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

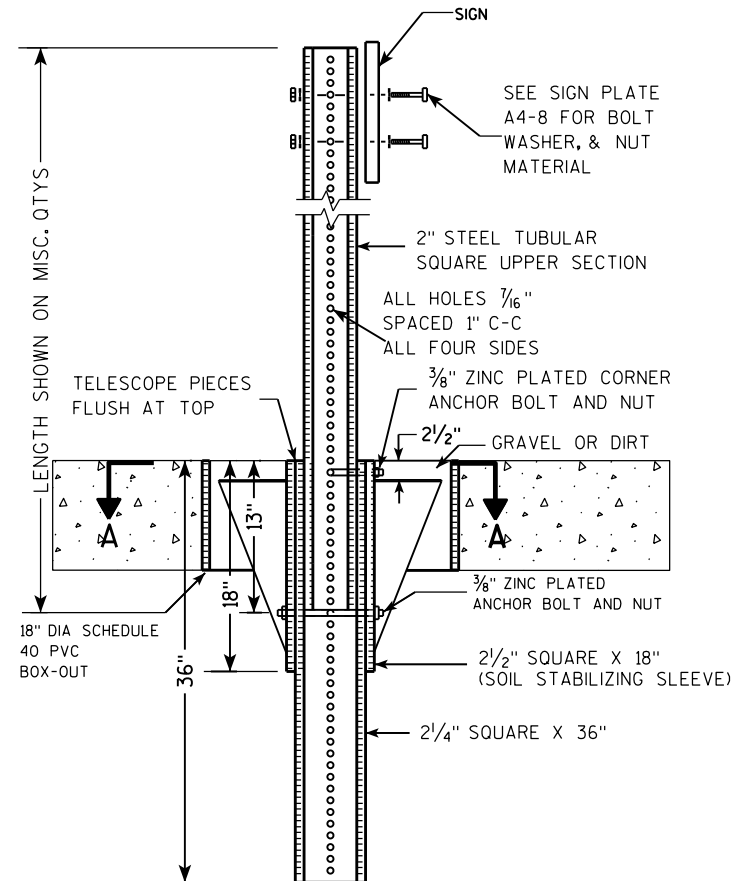
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



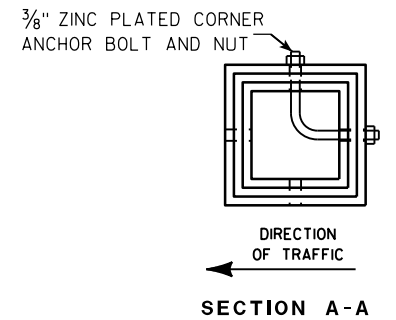
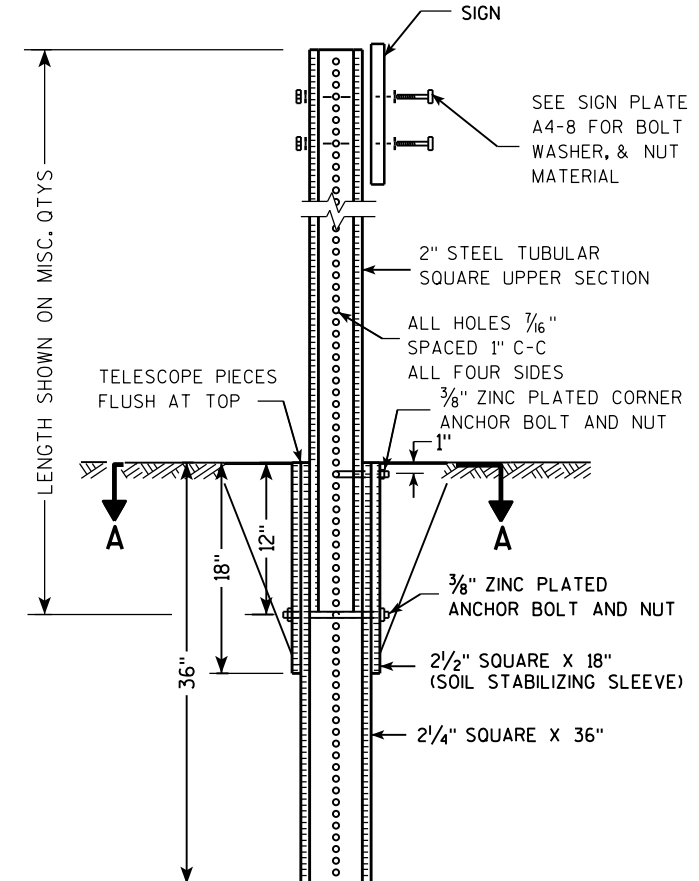
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



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



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



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

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

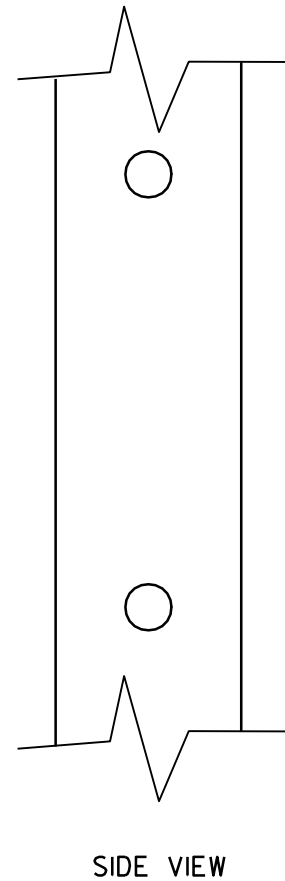
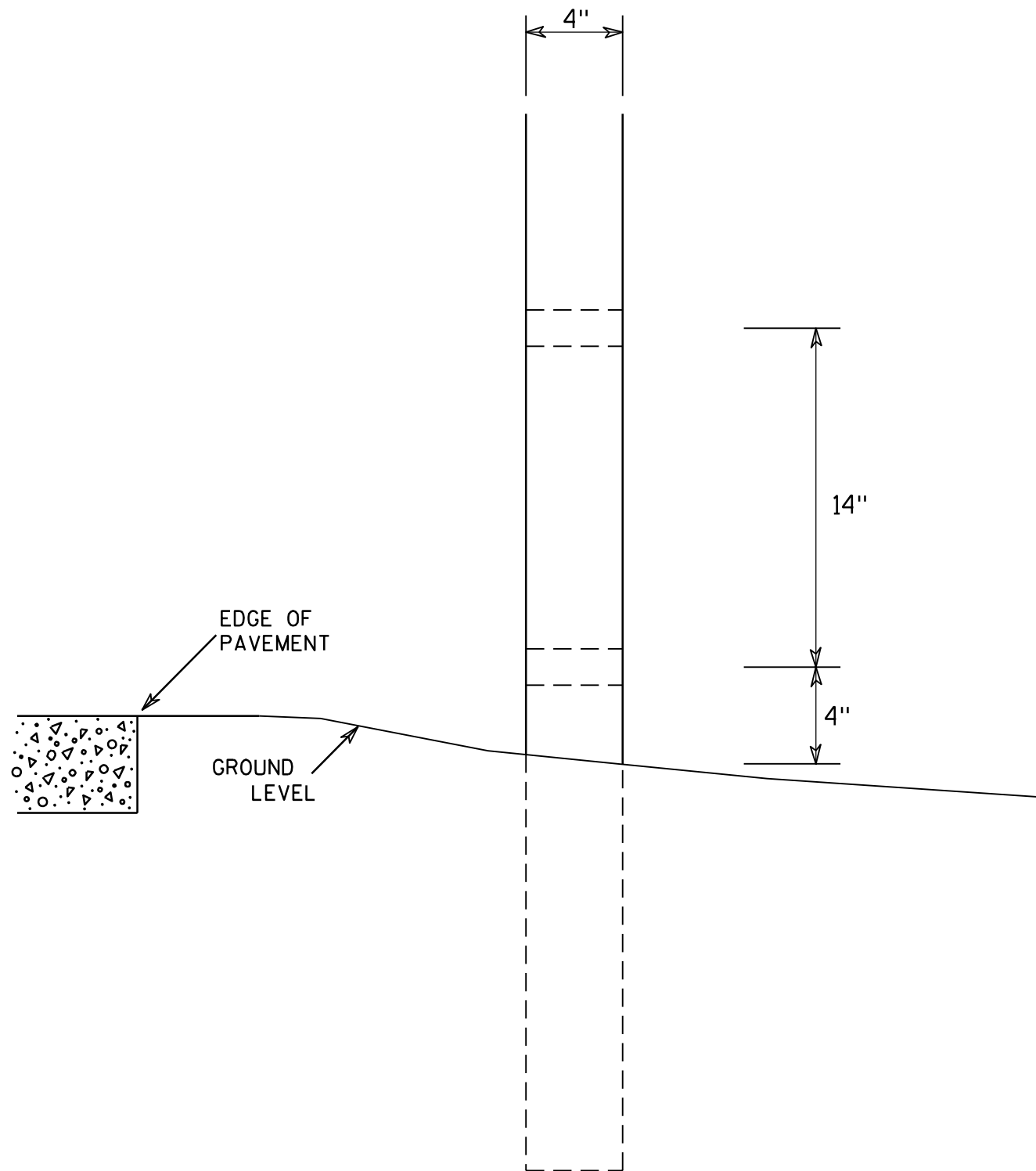
**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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





GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

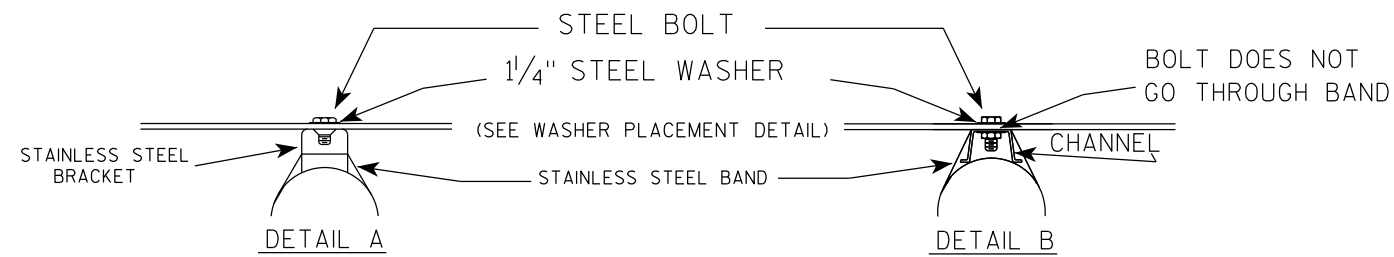
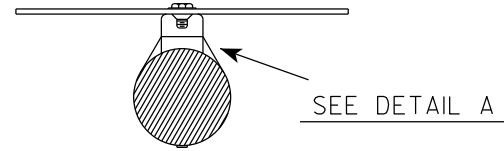
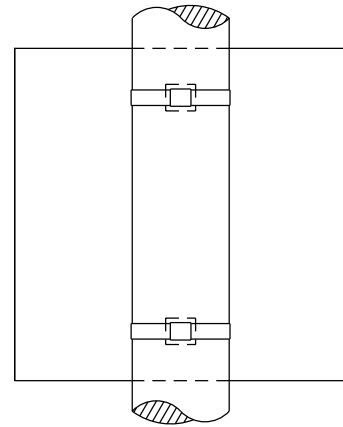
7

7

<b>4 X 6 WOOD POST MODIFICATIONS</b>	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

# BANDING

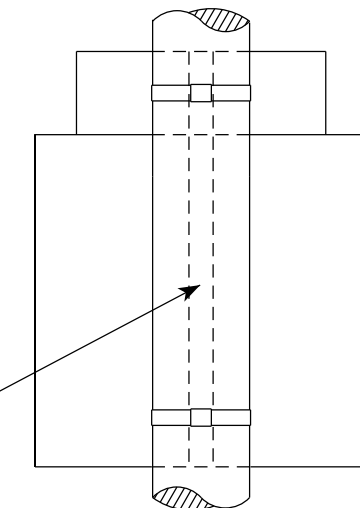
SINGLE SIGN



## GENERAL NOTES

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

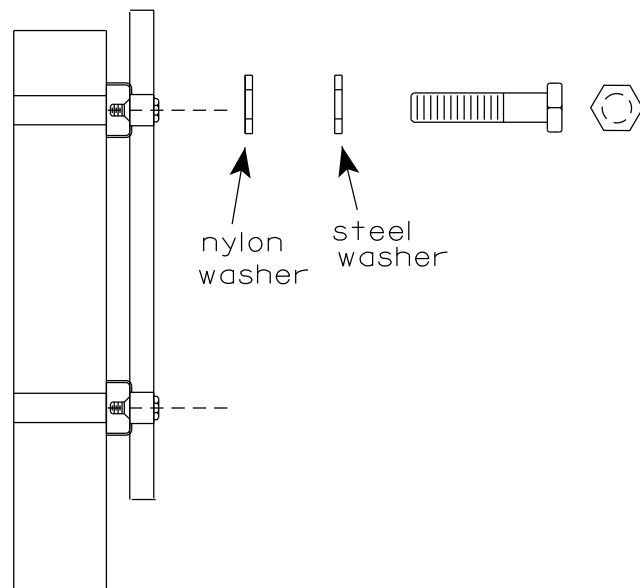
"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



WASHER PLACEMENT



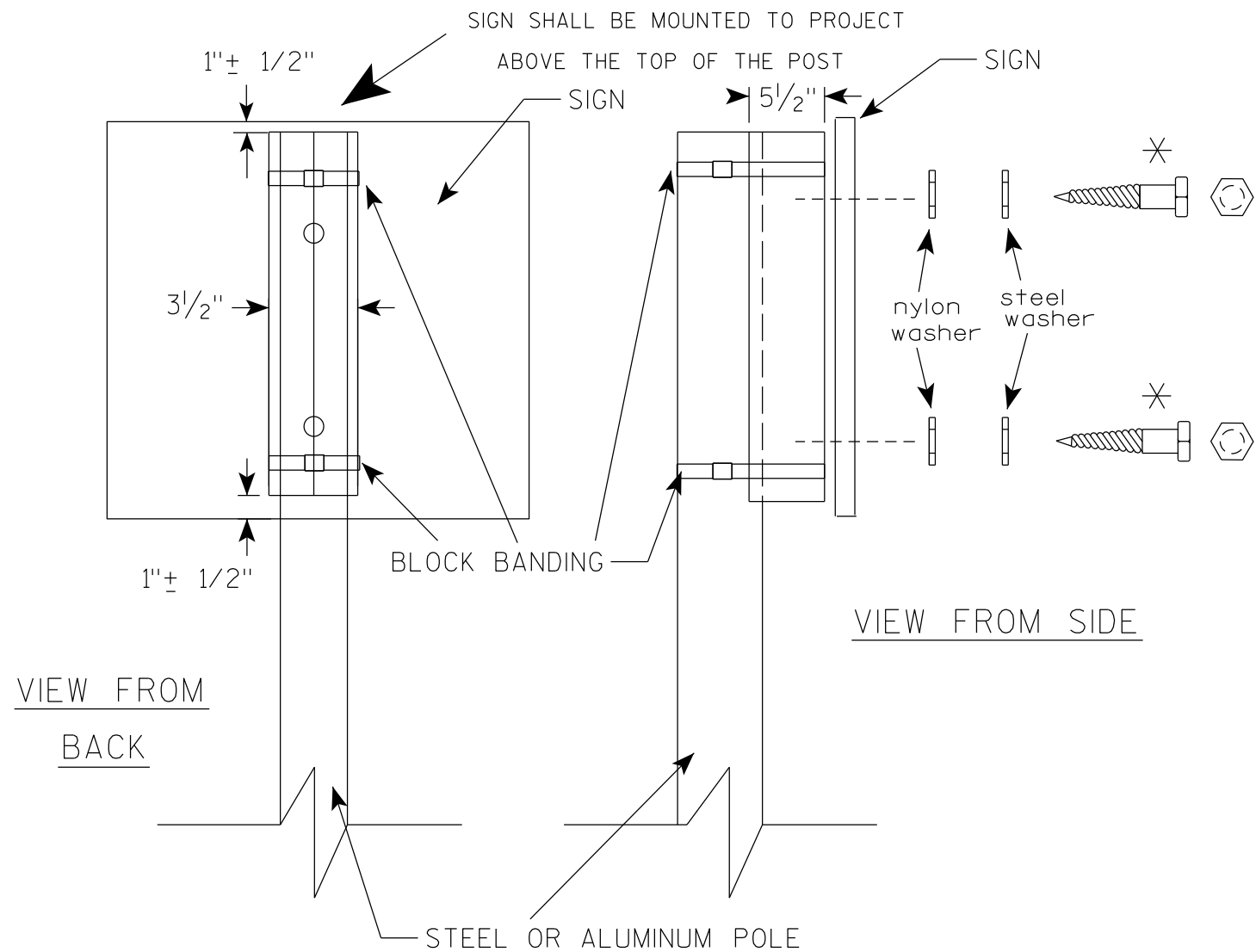
WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

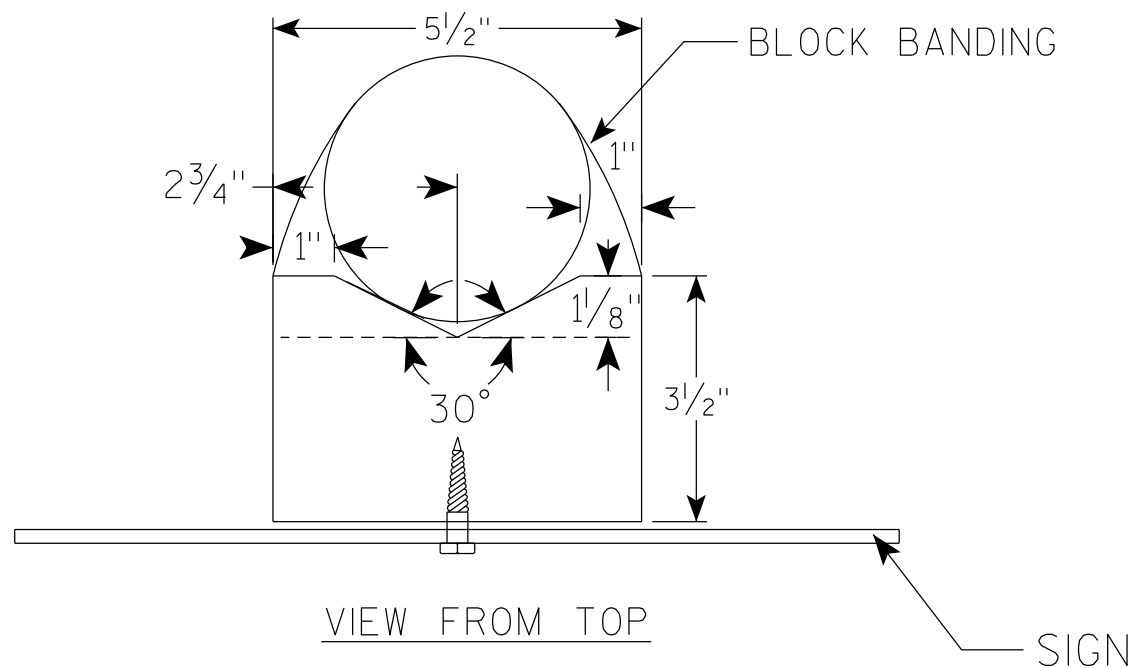
DATE 6/10/19 PLATE NO. A5-9.4



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, 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

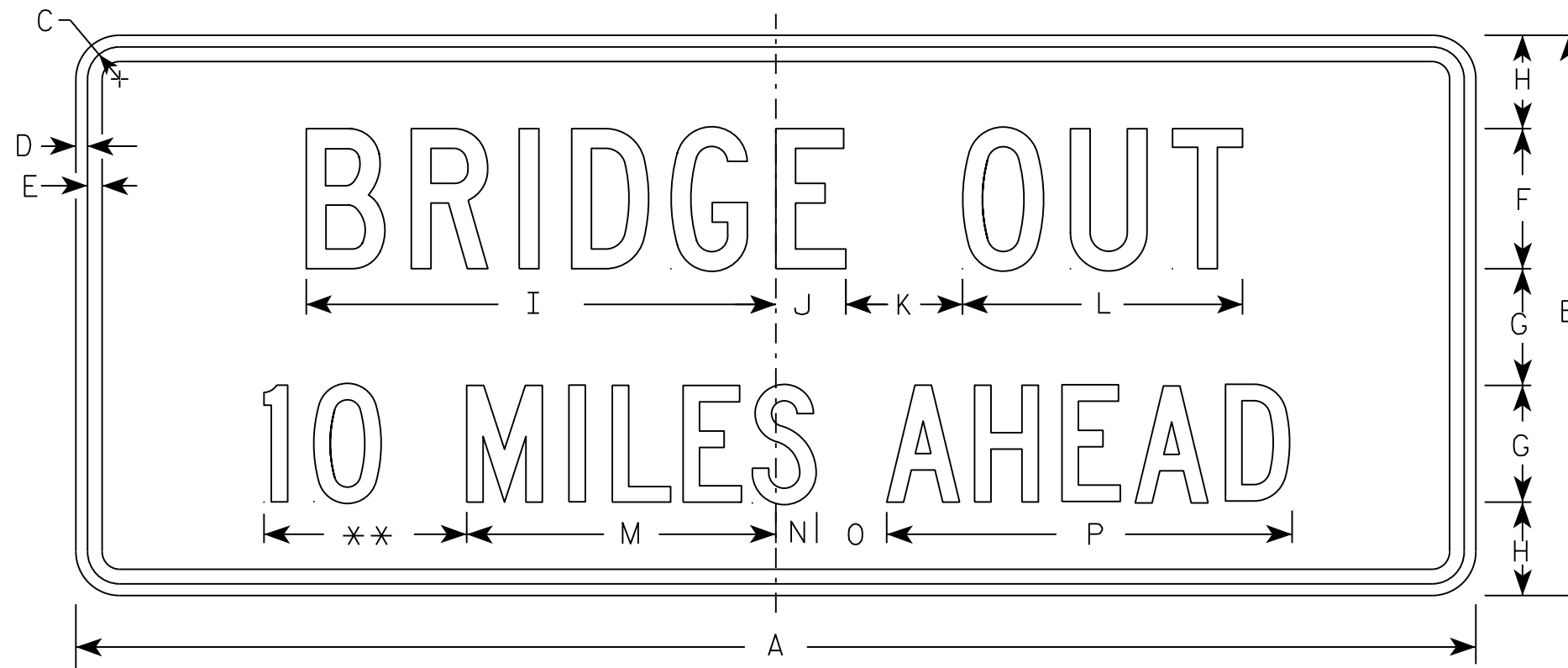
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL ( V-BLOCK OPTION )	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2

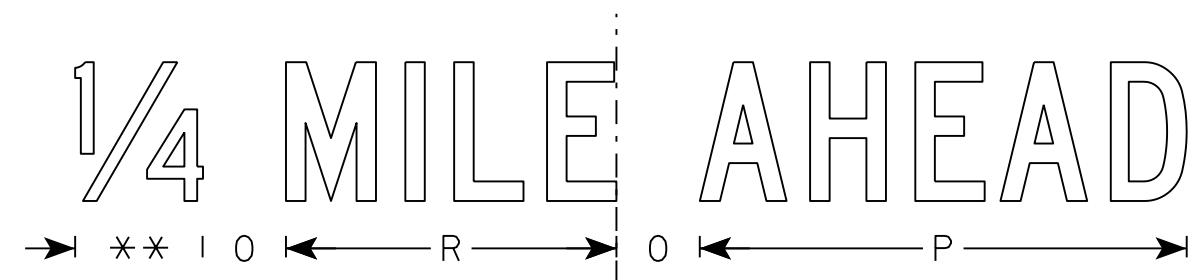
NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

\*\* See Note 5



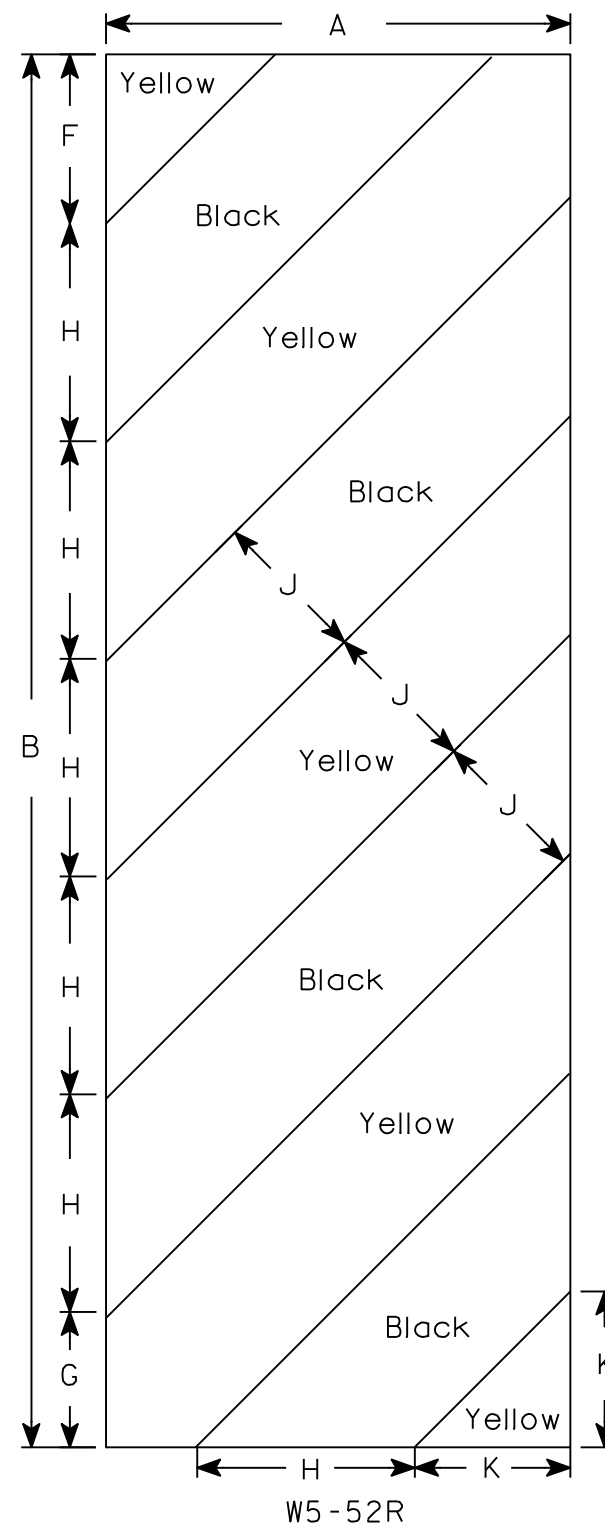
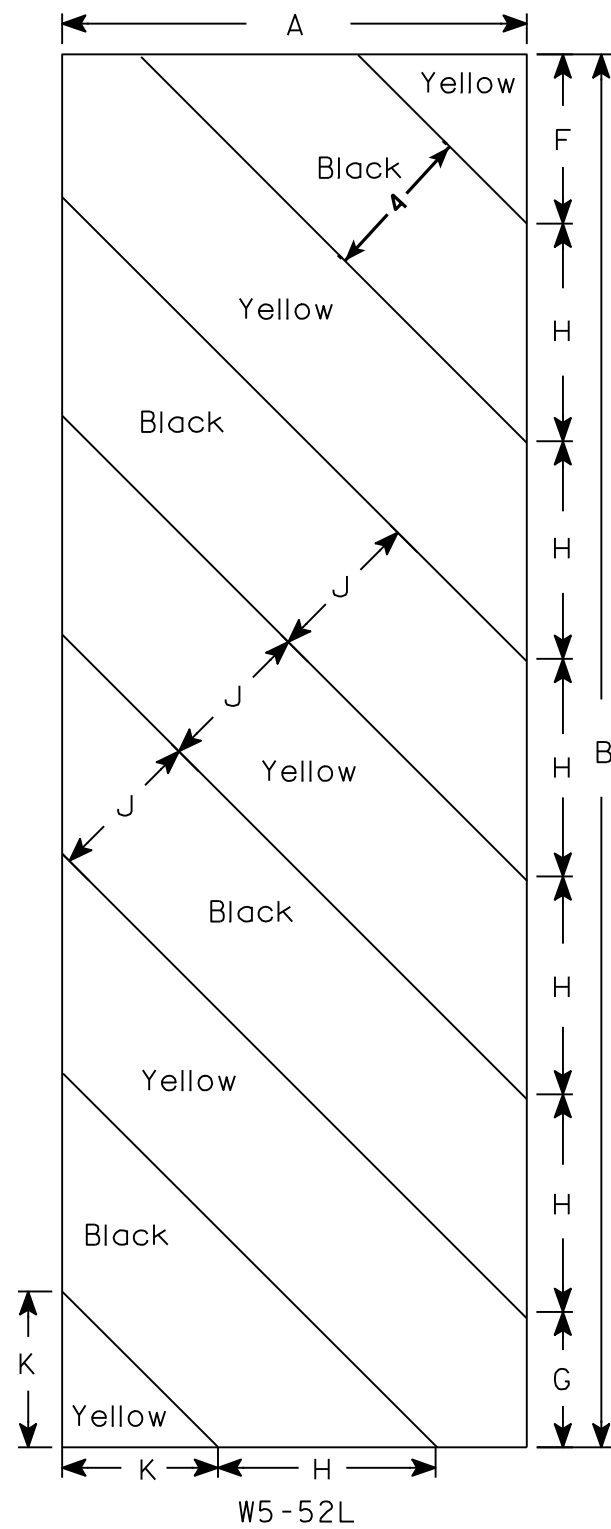
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8								3.75	
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8								10.0	
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8								10.0	
3																											
4																											
5																											

STANDARD SIGN  
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3C.3



NOTES

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

7

7

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

STANDARD SIGN  
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

**DESIGN DATA**

LIVE LOAD: \_\_\_\_\_  
 DESIGN LOADING \_\_\_\_\_ HL-93  
 INVENTORY RATING FACTOR \_\_\_\_\_ 1.25  
 OPERATIONAL RATING FACTOR \_\_\_\_\_ 1.62  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) \_\_\_\_\_ 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

**MATERIAL PROPERTIES**

CONCRETE MASONRY, SUPERSTRUCTURE \_\_\_\_\_  $f'_c = 4,000$  PSI  
 ALL OTHER \_\_\_\_\_  $f'_c = 3,500$  PSI  
 HIGH STRENGTH BAR STEEL REINFORCEMENT \_\_\_\_\_  $f_y = 60,000$  PSI

**TRAFFIC DATA**

ADT (2022) = 47  
 ADT (2042) = 51  
 DESIGN SPEED = 25 MPH

**FOUNDATION DATA**

ABUTMENTS TO BE SUPPORTED ON HP 10-INCH X 42 LB STEEL PILING AND PRE-BORED A MINIMUM OF 3' INTO BEDROCK OR CONSOLIDATED MATERIAL. ESTIMATED 20' LONG AT BOTH ABUTMENTS.

PRE-BORING SHALL BE REQ'D TO A MINIMUM ELEVATION OF 953.9 AT THE SOUTH ABUTMENT AND 953.5 AT THE NORTH ABUTMENT.

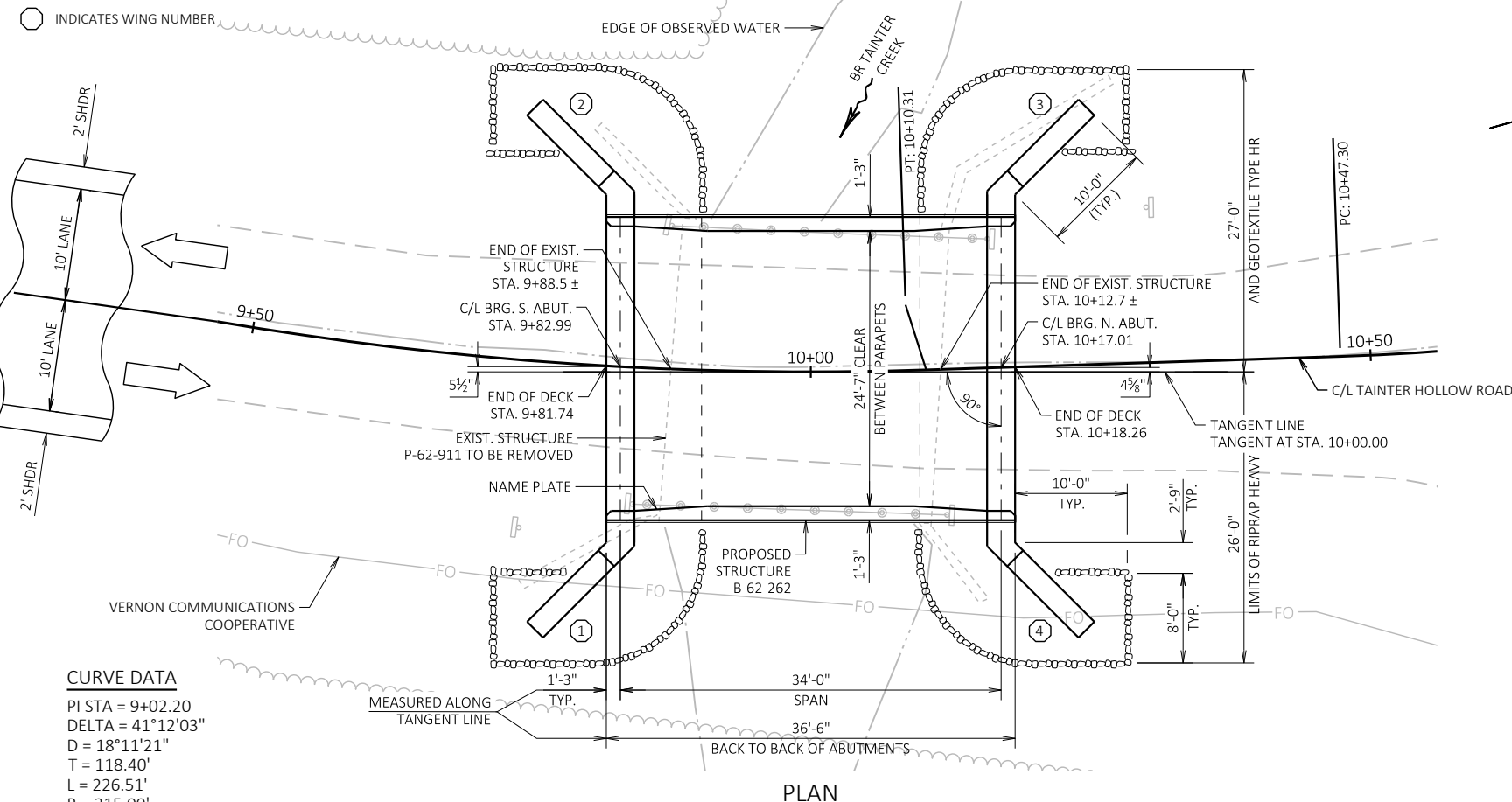
**HYDRAULIC DATA**

**100 YEAR FREQUENCY**  
 $Q_{100} = 895$  C.F.S.  
 VEL. = 6.6 F.P.S.  
 HW<sub>100</sub> = EL. 973.31  
 WATERWAY AREA = 135 SQ. FT.  
 DRAINAGE AREA = 2.6 SQ. MI.  
 SCOUR CRITICAL CODE = 5  
 OVERTOPPING FREQUENCY = N/A

**2 YEAR FREQUENCY**  
 $Q_2 = 150$  C.F.S.  
 VEL. = 3.0 F.P.S.  
 HW<sub>2</sub> = EL. 969.63

**LIST OF DRAWINGS**

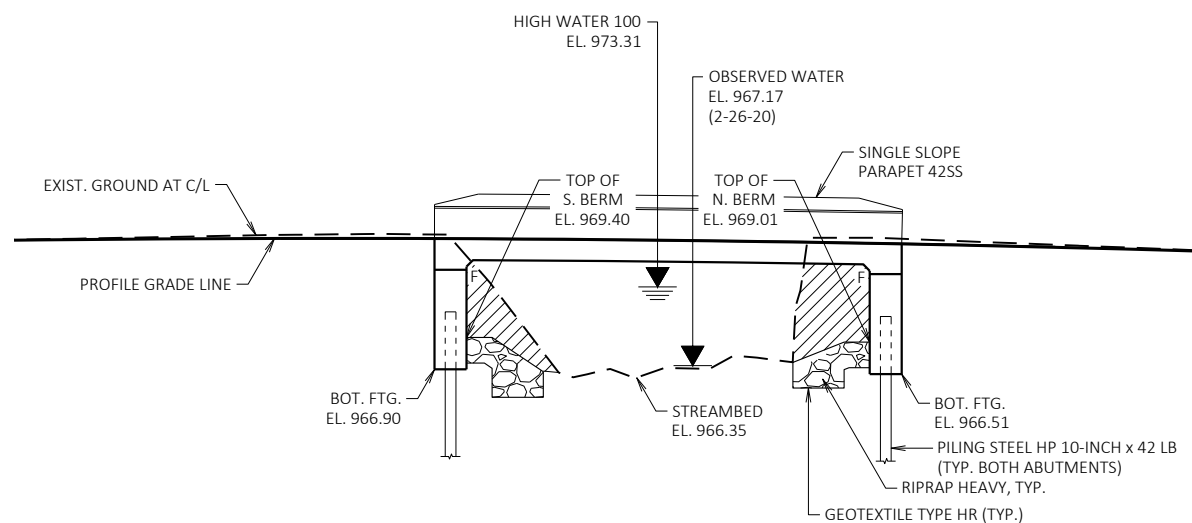
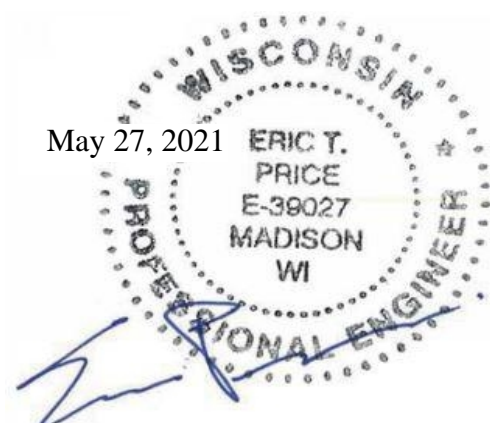
1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. SINGLE SLOPE PARAPET 42SS



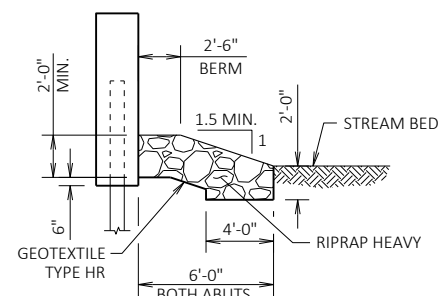
**CURVE DATA**  
 PI STA = 11+24.94  
 DELTA = 37°18'28"  
 D = 24°54'40"  
 T = 77.64'  
 L = 149.76'  
 R = 230.00'  
 PC STA = 10+47.30  
 PT STA = 11+97.06

**CURVE DATA**  
 PI STA = 9+02.20  
 DELTA = 41°12'03"  
 D = 18°11'21"  
 T = 118.40'  
 L = 226.51'  
 R = 315.00'  
 PC STA = 7+83.80  
 PT STA = 10+10.31

**PLAN**  
 (SINGLE SPAN CONCRETE FLAT SLAB BRIDGE)



**ELEVATION**  
 (LOOKING WEST)



**RIPRAP DETAIL**

BENCHMARKS				
POINT	STATION	OFFSET	ELEVATION	DESCRIPTION
100	10+93.73	74.62 LT	972.95	60D NAIL IN 30" BLACK OAK
101	10+90.83	80.18 RT	973.37	60D NAIL IN 24" RED PINE

AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES B-62-262"

**BRIDGE OFFICE CONTACT**  
 AARON BONK, P.E.  
 TELEPHONE: (608) 261-0261

**CONSULTANT CONTACT**  
 ERIC PRICE, P.E.  
 TELEPHONE: (608) 826-6146

NO.	DATE	REVISION	BY

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

ACCEPTED *[Signature]* SDR **08/24/21**  
 CHIEF STRUCTURES DESIGN ENGINEER DATE

**STRUCTURE B-62-262**

TAINTER HOLLOW ROAD OVER BR TAINTER CREEK

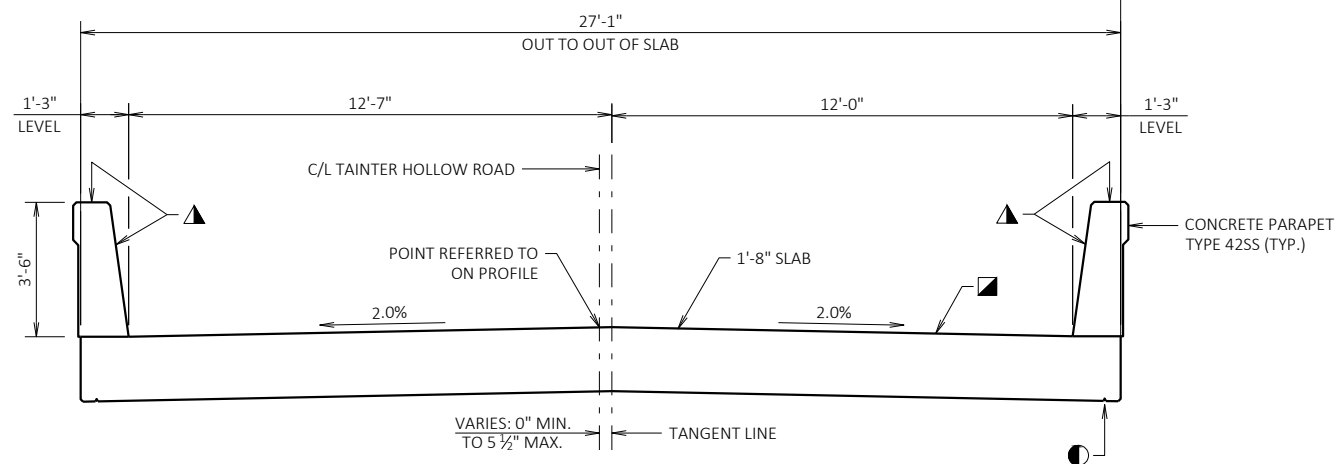
COUNTY VERNON TOWN/ETH/VILLAGE FRANKLIN

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	ETP	DESIGN CK'D.	BH	DRAWN BY	PKF	PLANS CK'D.	ETP
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**GENERAL PLAN**

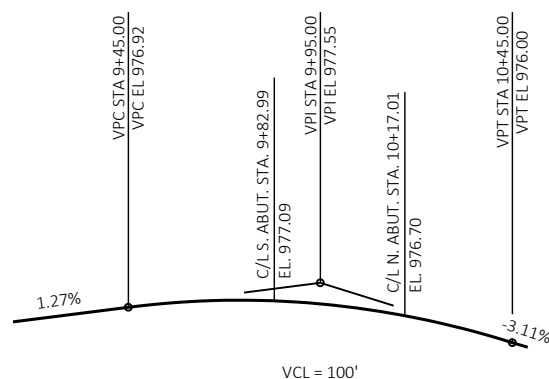
SHEET 1 OF 10



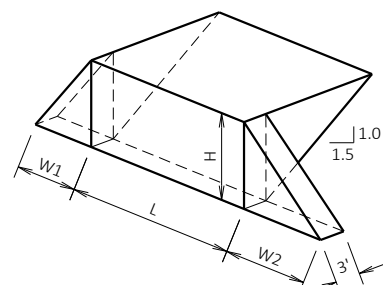
**CROSS SECTION THRU BRIDGE**  
(LOOKING NORTH)

**LEGEND**

- 3/4" V-GROOVE REQ'D. EXTEND 6" FROM F.F. OF ABUTMENT BODY.
- COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.
- ▲ COAT WITH "PIGMENTED SURFACE SEALER" AS PER THE STANDARD SPECIFICATIONS.



**PROFILE GRADE LINE**  
(TAINTER HOLLOW ROAD)

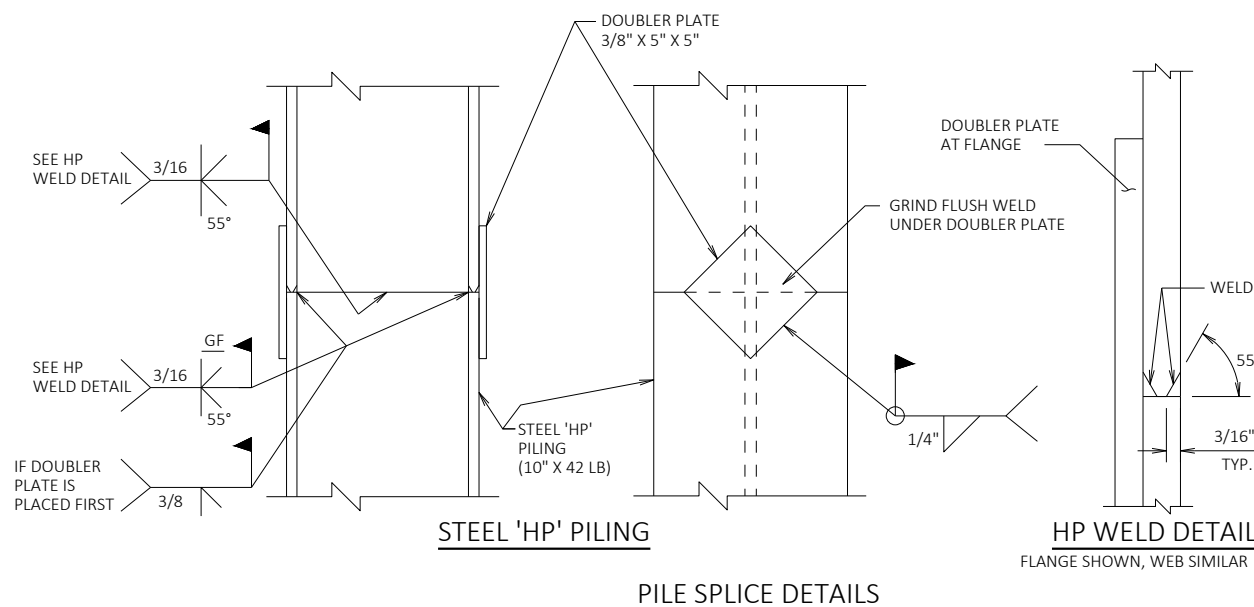


**ABUTMENT BACKFILL DIAGRAM**

- L = LENGTH OF ABUTMENT BODY BETWEEN WINGS AT B.F. (FT)
- H = AVERAGE ABUTMENT FILL HEIGHT (FT)
- W1 = WING 1 LENGTH (FT)
- W2 = WING 2 LENGTH (FT)
- EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
- $V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3.0' \times 0.5)(W1+W2)(H)$
- $V_{CY} = V_{CF} (EF) / 27$
- $V_{TON} = V_{CF} (2.0)$

**TOTAL ESTIMATED QUANTITIES**

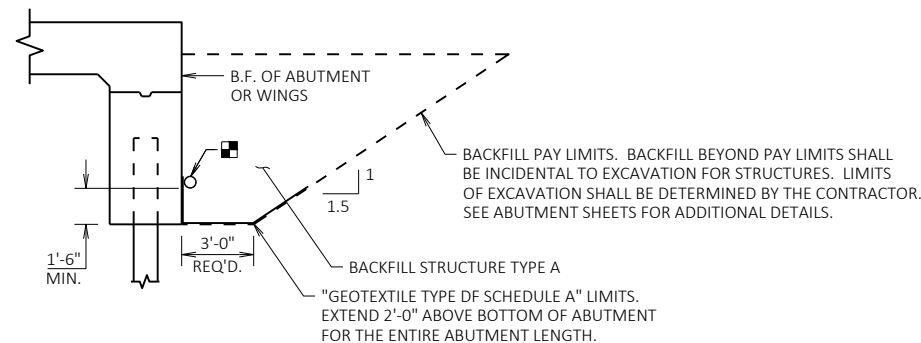
BID NUMBER	BID ITEM	UNIT	SOUTH ABUT	NORTH ABUT	SUPER	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-62-911	EACH	----	----	----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-62-262	LS	----	----	----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	225	225	----	450
502.0100	CONCRETE MASONRY BRIDGES	CY	37	37	76	150
502.3200	PROTECTIVE SURFACE TREATMENT	SY	----	----	100	100
502.3210	PIGMENTED SURFACE SEALER	SY	----	----	36	36
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,290	2,290	----	4,580
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,590	1,590	13,710	16,890
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	6	----	12
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	91	91	----	182
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	130	130	----	260
606.0300	RIPRAP HEAVY	CY	65	65	----	130
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	95	----	190
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	49	49	----	98
645.0120	GEOTEXTILE TYPE HR	SY	85	85	----	170
NON-BID ITEMS						
	FILLER	SIZE	----	----	----	1/2" & 3/4"



**STEEL 'HP' PILING**

**PILE SPLICE DETAILS**

**HP WELD DETAIL**  
FLANGE SHOWN, WEB SIMILAR



**STRUCTURE BACKFILL LIMITS**

- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-62-262" SHALL BE THE EXISTING GROUNDLINE.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE ENTIRE INSIDE FACE AND TOP SURFACE OF THE PARAPETS ON THE SUPERSTRUCTURE.

THE EXISTING STRUCTURE P-62-911, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE, 24.2 FT. LONG WITH A 25.0 FT. CLEAR ROADWAY WIDTH.

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 LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

DO NOT PLACE FILL ABOVE 3'-0" FROM THE BOTTOM OF ABUTMENT UNTIL THE SUPERSTRUCTURE IS IN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**STRUCTURE B-62-262**

DRAWN BY PKF PLANS CK'D. ETP

**CROSS SECTION & QUANTITIES**

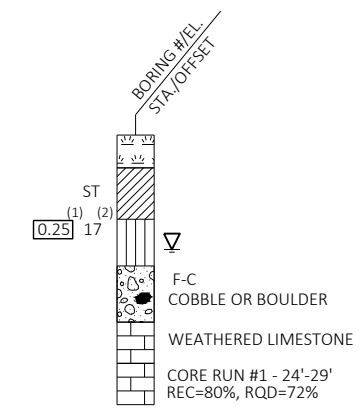
SHEET 2 OF 10



MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



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

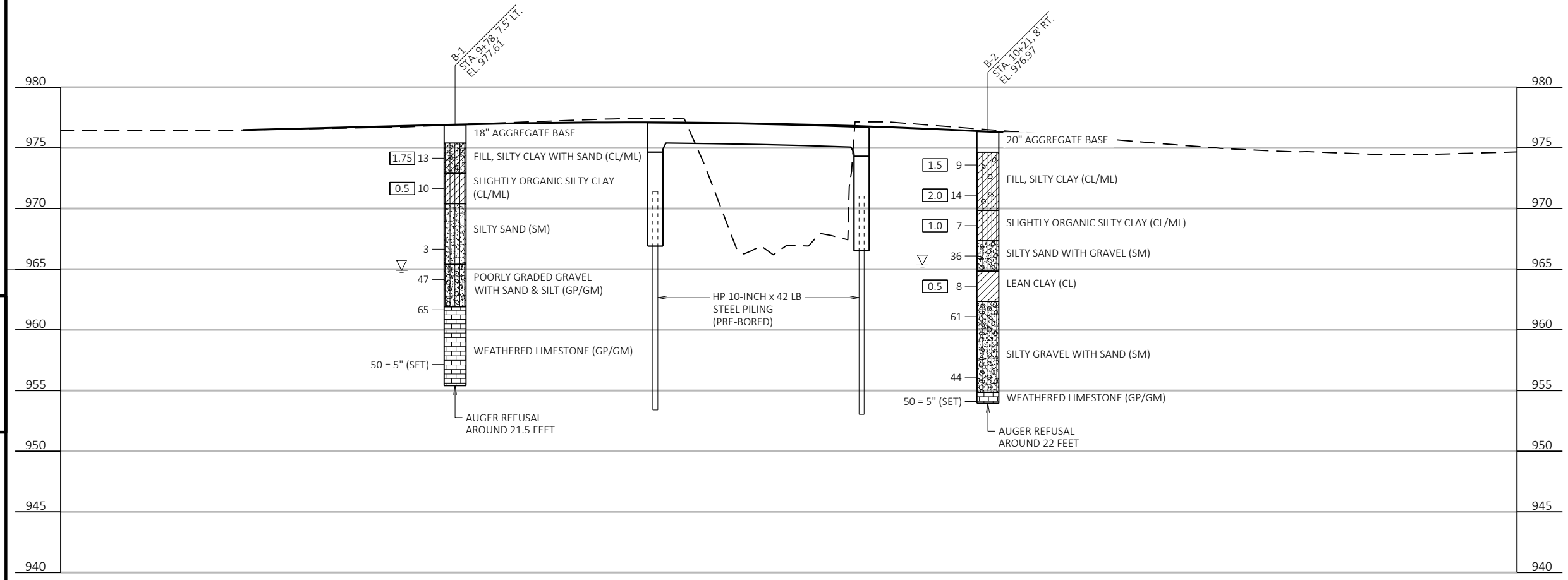
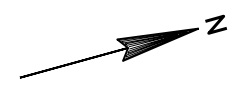
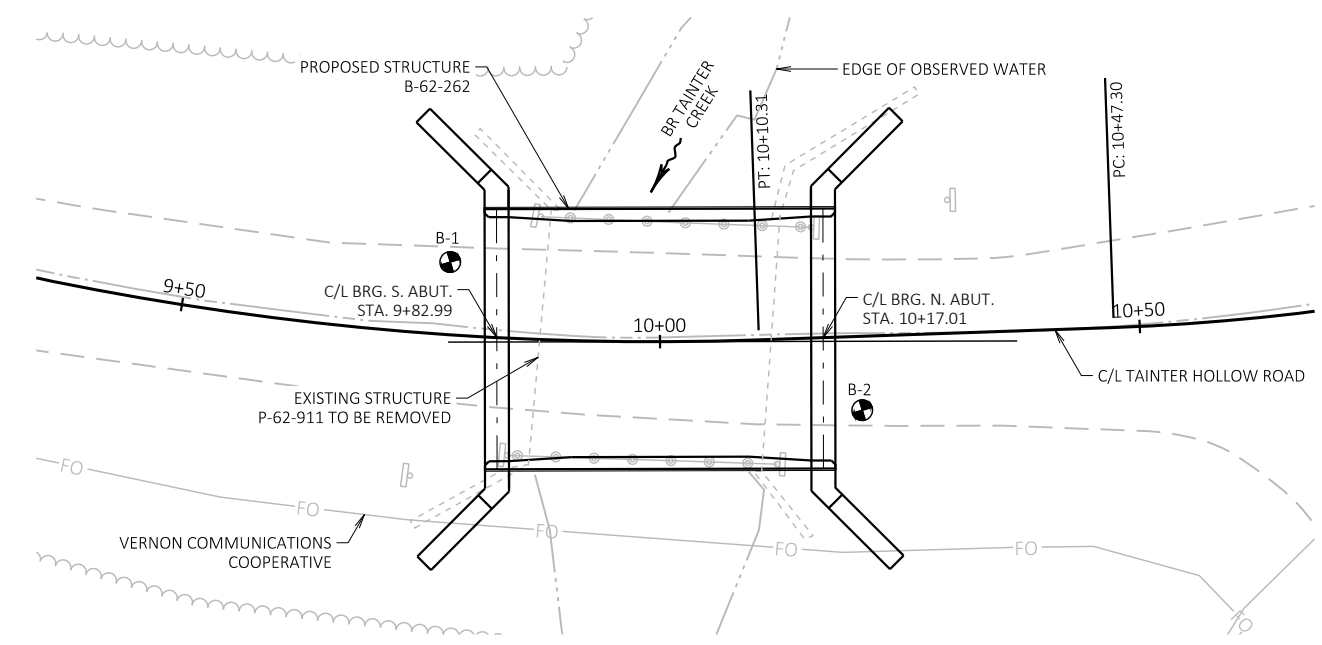
- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

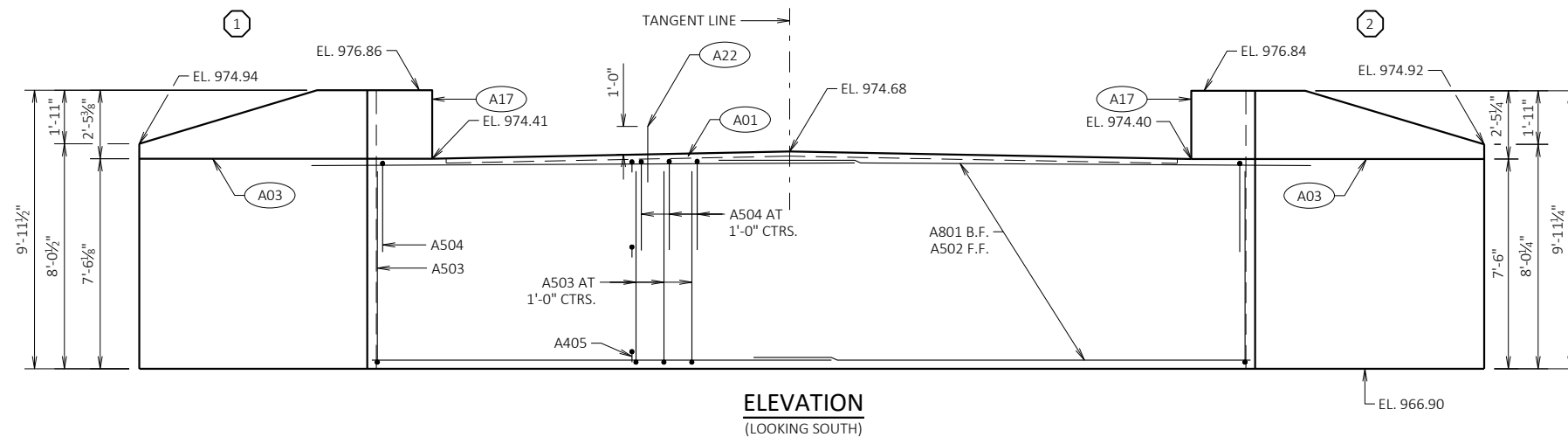
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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.

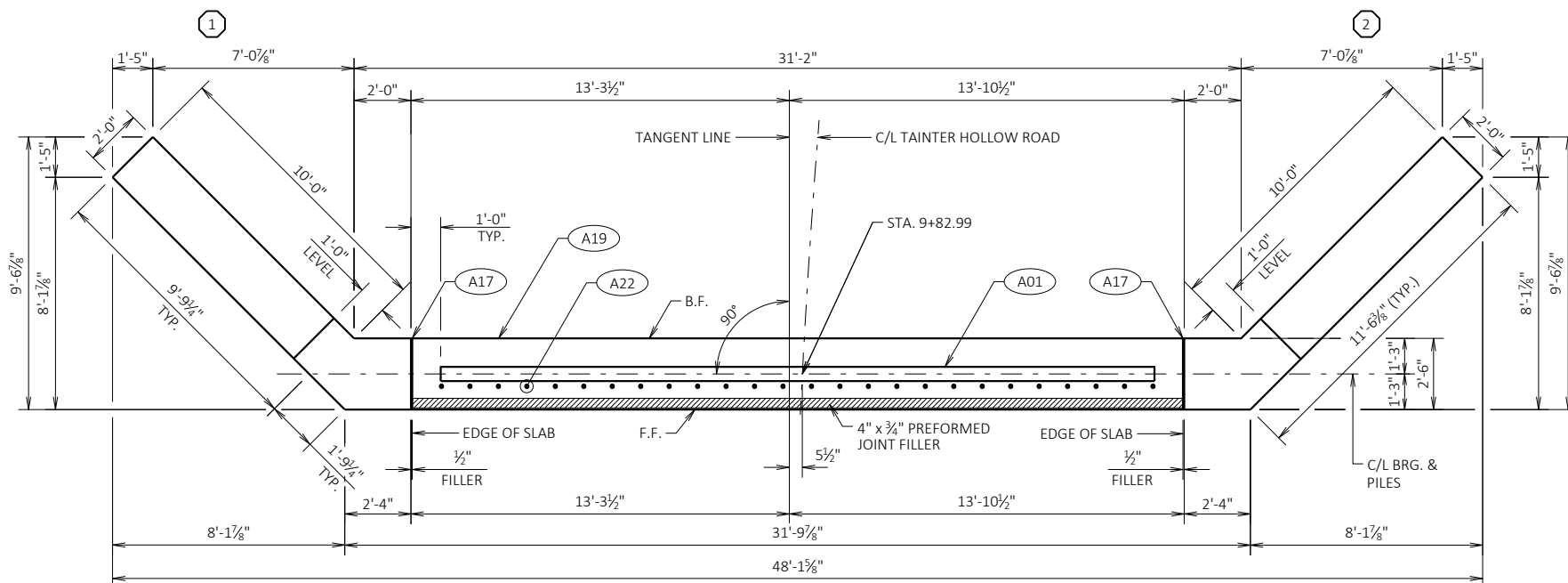


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-62-262</b>			
DRAWN BY PKF		PLANS CK'D. ETP	
<b>SUBSURFACE EXPLORATION</b>			SHEET 3 OF 10

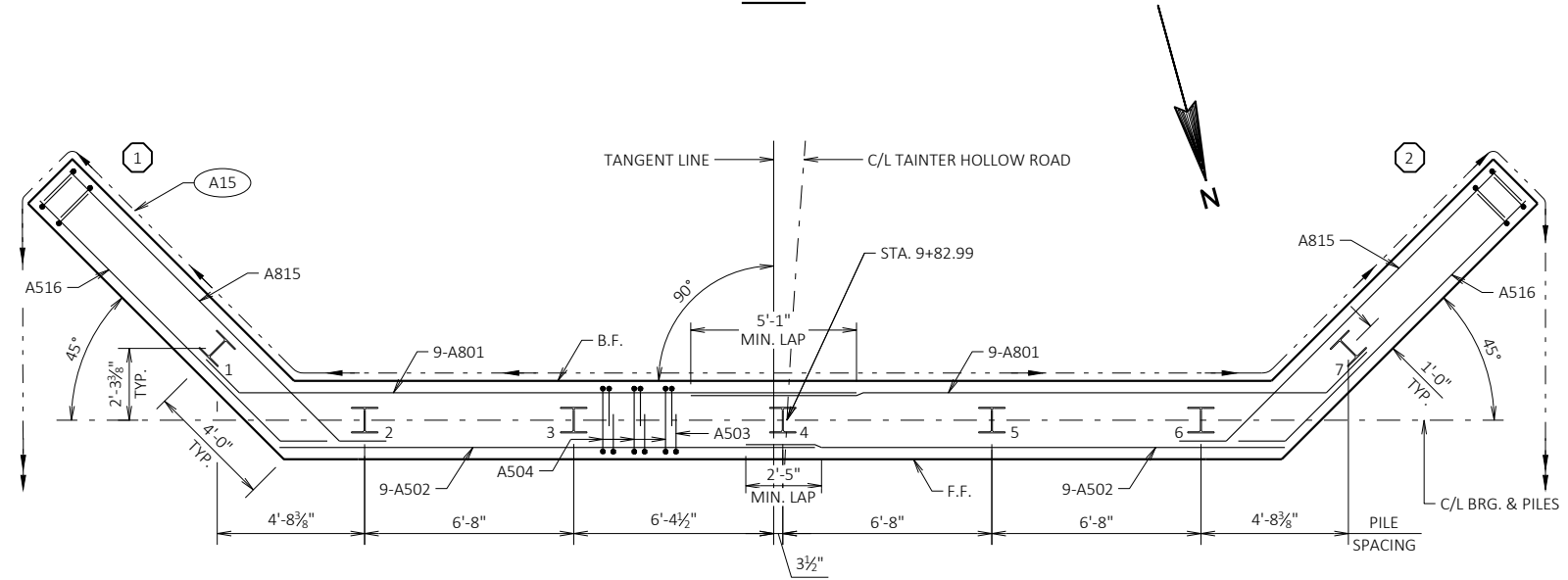




**ELEVATION**  
(LOOKING SOUTH)



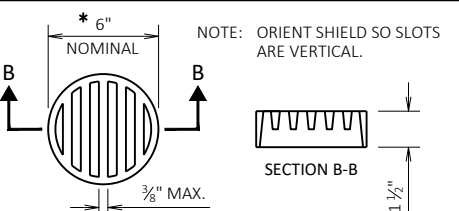
**PLAN**



**PILE PLAN**

**LEGEND**

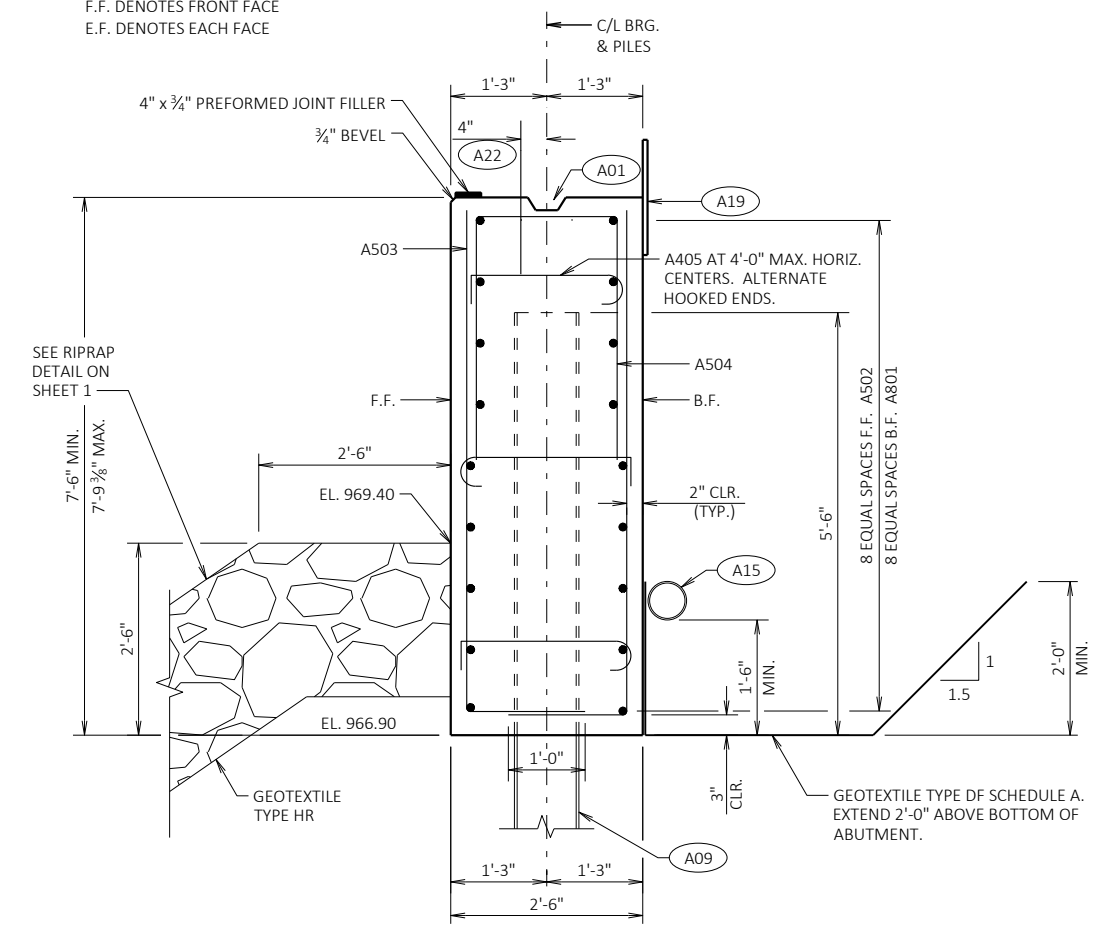
- INDICATES WING NUMBER
  - A01 KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".
  - A03 OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2"x6". SEAL JOINT ON B.F. WITH RUBBERIZED MEMBRANE WATERPROOFING IF USED (COST INCIDENTAL TO CONCRETE MASONRY BRIDGES).
  - A09 SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB AND PRE-BORED A MINIMUM OF 3' INTO BEDROCK OR CONSOLIDATED MATERIAL. PRE-BORING SHALL BE REQ'D TO A MINIMUM ELEVATION OF 953.9 FEET. BACKFILL IN ACCORDANCE WITH SECTION 550.3.9.3 OF THE STANDARD SPECIFICATIONS.
  - A15 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".
  - A17 1/2" FILLER: 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.)
  - A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
  - A22 AS10 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- B.F. DENOTES BACK FACE  
F.F. DENOTES FRONT FACE  
E.F. DENOTES EACH FACE



**RODENT SHIELD DETAIL**

\* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

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

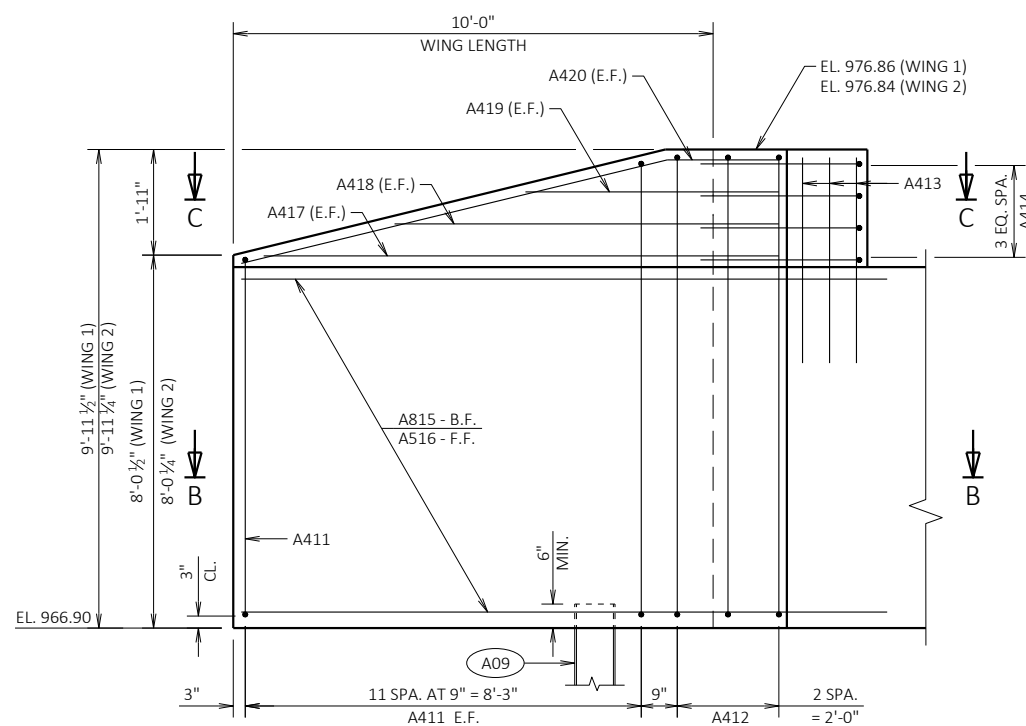


**SECTION THRU BODY**

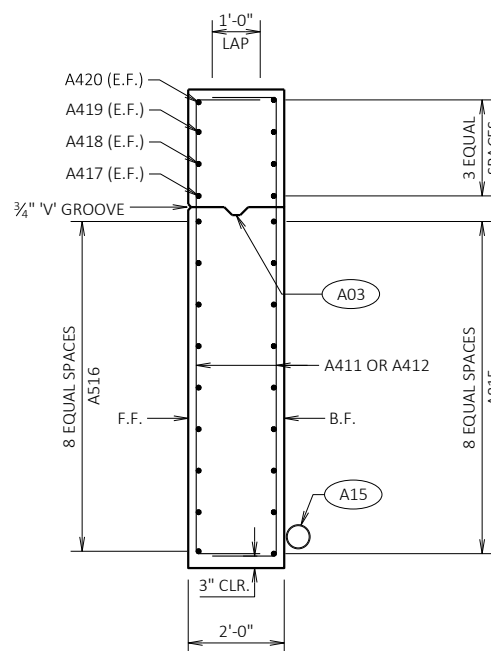
DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-62-262</b>			
DRAWN BY PKF		PLANS CK'D. ETP	
<b>SOUTH ABUTMENT</b>			SHEET 4 OF 10





ELEVATION - WINGS 1 & 2



SECTION THRU WING

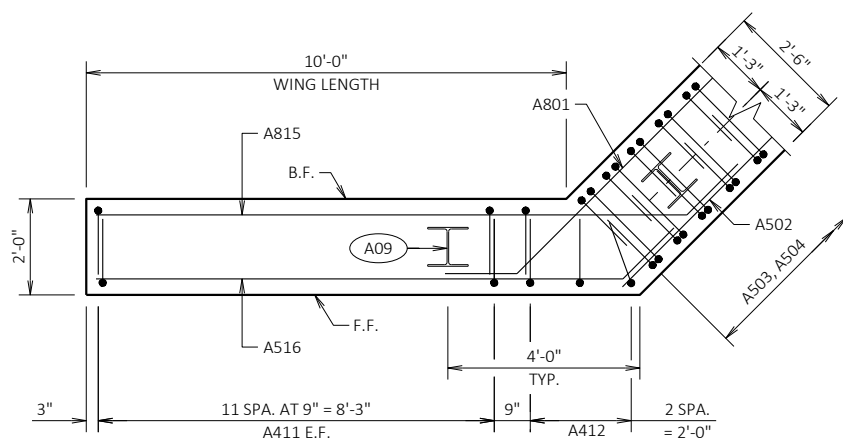
BILL OF BARS - SOUTH ABUTMENT

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
<b>NON-COATED BARS</b>					
					TOTAL WEIGHT = 2,290 LBS
A801	18	22'-1"	X		BODY - B.F. HORIZ.
A502	18	17'-2"			BODY - F.F. HORIZ.
A503	64	8'-7"	X		BODY - E.F. VERT.
A504	32	8'-3"	X		BODY - TOP VERT.
A405	27	3'-0"	X		BODY - TIES TRANS.
<b>COATED BARS</b>					
					TOTAL WEIGHT = 1,590 LBS
A510	26	2'-0"			BODY - TOP VERT.
A411	48	11'-0"	X	X	WINGS - E.F. VERT.
A412	8	12'-0"	X		WINGS - E.F. VERT.
A413	14	3'-3"			WINGS - TOP VERT.
A414	8	9'-7"	X		WINGS - CORNERS HORIZ.
A815	18	14'-5"	X		WINGS - B.F. HORIZ.
A516	18	12'-9"	X		WINGS - F.F. HORIZ.
A417	4	11'-2"			WINGS - E.F. HORIZ.
A418	4	8'-11"			WINGS - E.F. HORIZ.
A419	4	5'-9"			WINGS - E.F. HORIZ.
A420	4	11'-4"	X		WINGS - E.F. HORIZ.

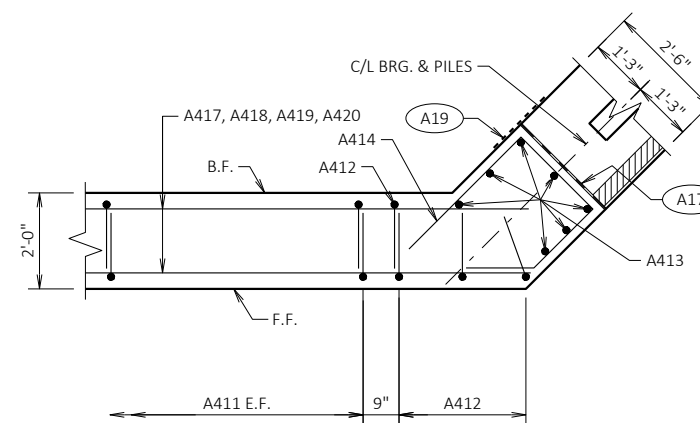
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.  
 DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D.	LENGTH
A411	4 SERIES OF 12	10'-1" TO 11'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.



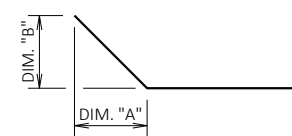
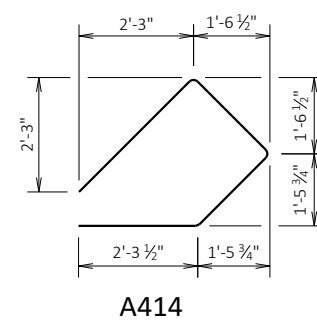
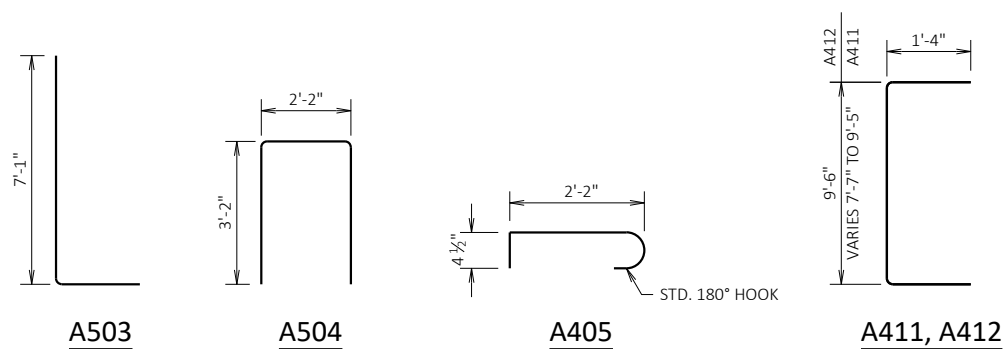
SECTION B-B



SECTION C-C

LEGEND

(AXX) FOR SYMBOL DESCRIPTIONS SEE SHEET 4.



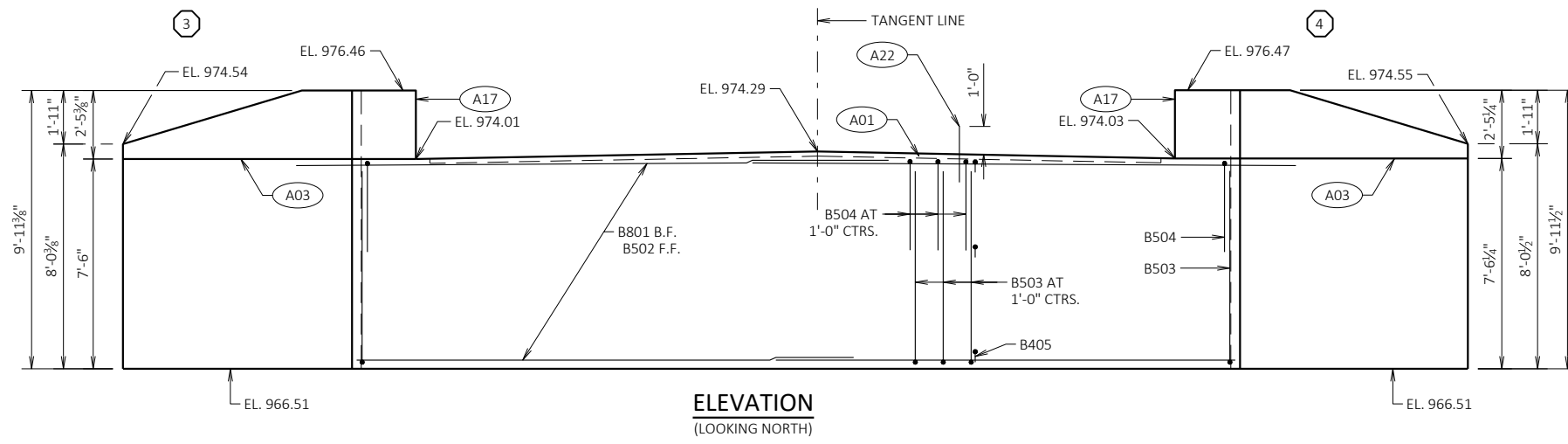
BAR	DIM. "A"	DIM. "B"
A801	1'-0 3/4"	1'-0 3/4"
A815	1'-0 3/4"	1'-0 3/4"
A516	1'-0 3/4"	1'-0 3/4"
A420	8'-10"	1'-11"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-262			
DRAWN BY PKF		PLANS CK'D. ETP	
SOUTH ABUTMENT DETAILS			SHEET 5 OF 10

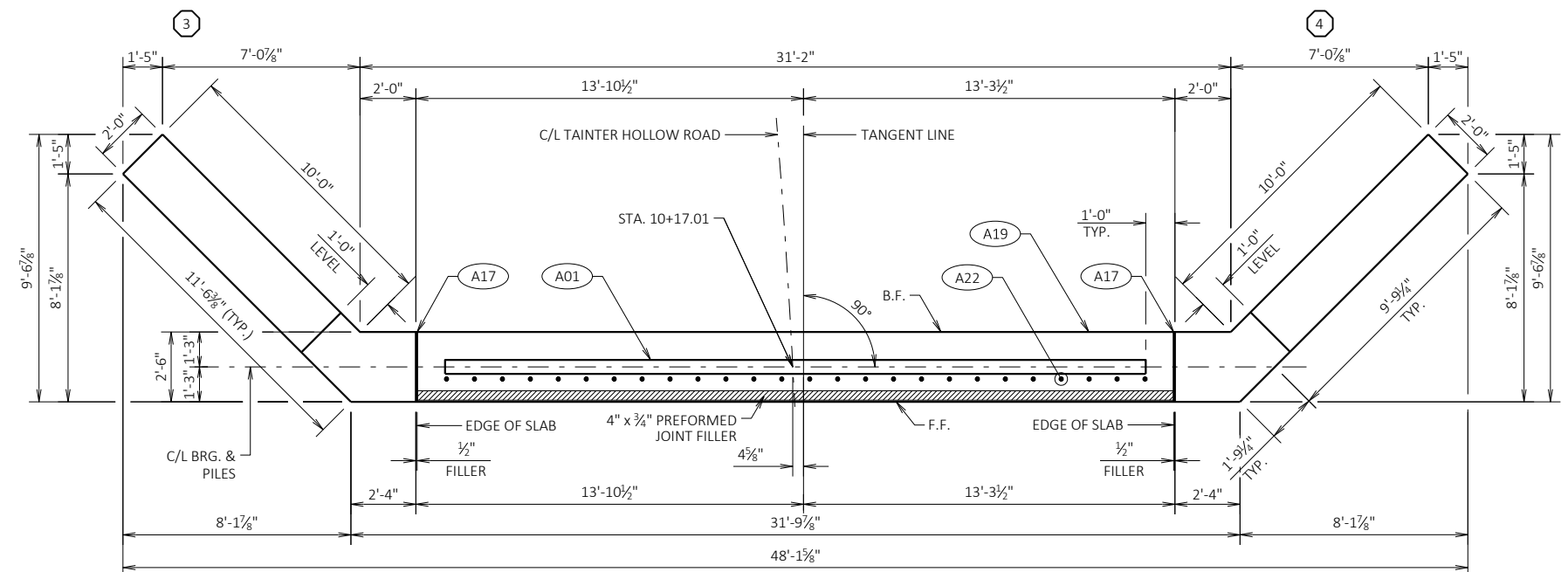


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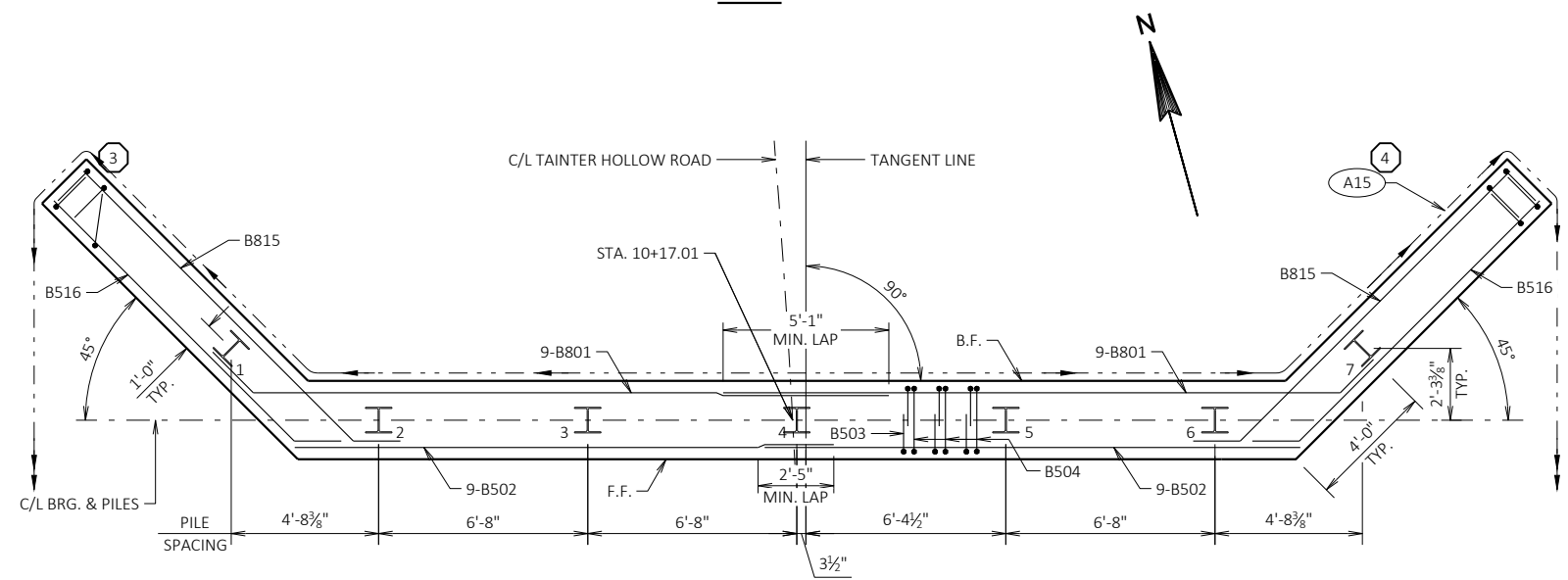
8



**ELEVATION**  
(LOOKING NORTH)



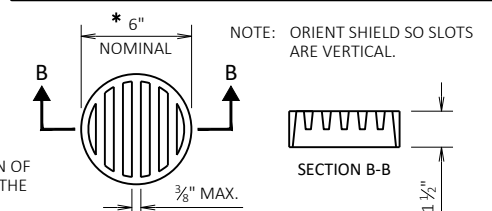
**PLAN**



**PILE PLAN**

**LEGEND**

- INDICATES WING NUMBER
  - (A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".
  - (A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2"x6". SEAL JOINT ON B.F. WITH RUBBERIZED MEMBRANE WATERPROOFING IF USED (COST INCIDENTAL TO CONCRETE MASONRY BRIDGES).
  - (A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB AND PRE-BORED A MINIMUM OF 3' INTO BEDROCK OR CONSOLIDATED MATERIAL. PRE-BORING SHALL BE REQ'D TO A MINIMUM ELEVATION OF 953.5 FEET. BACKFILL IN ACCORDANCE WITH SECTION 550.3.9.3 OF THE STANDARD SPECIFICATIONS.
  - (A15) 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".
  - (A17) 1/2" FILLER: 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.)
  - (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
  - (A22) B510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- B.F. DENOTES BACK FACE  
F.F. DENOTES FRONT FACE  
E.F. DENOTES EACH FACE

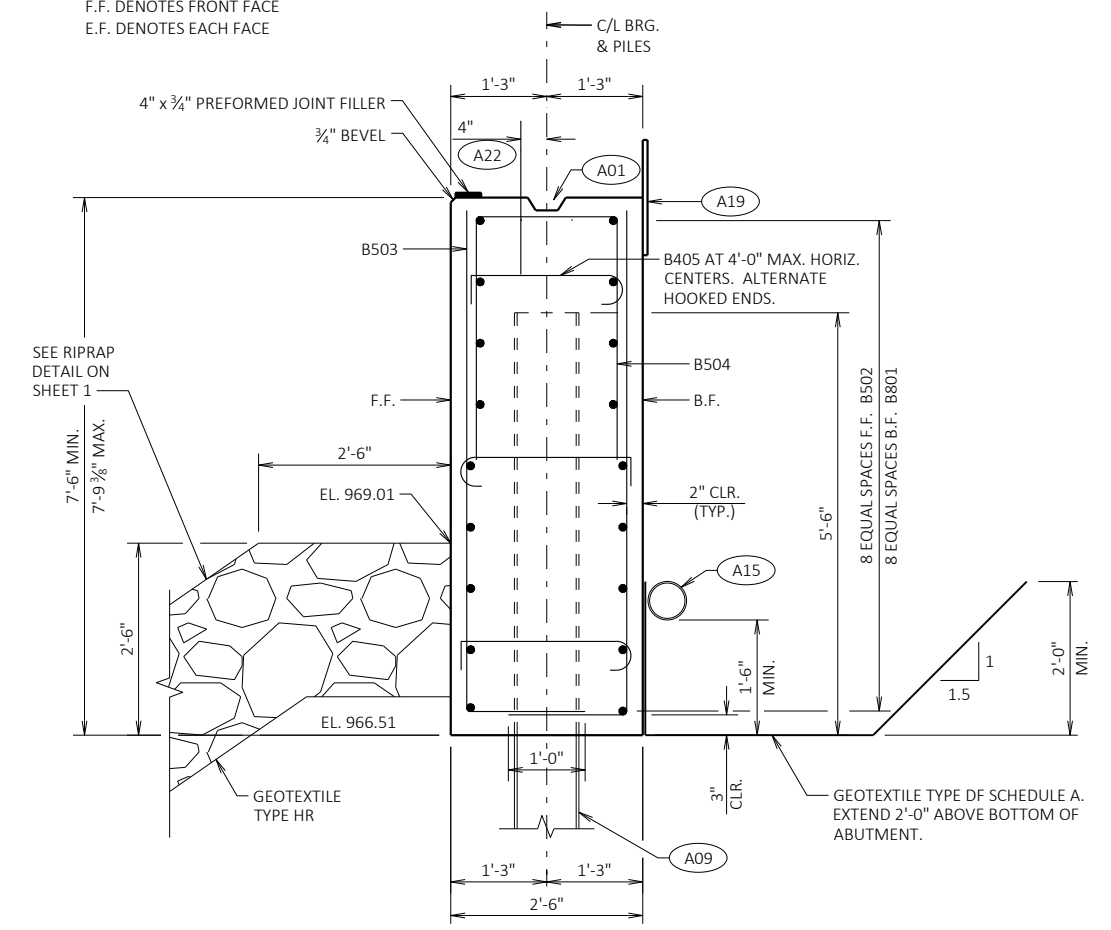


**RODENT SHIELD DETAIL**

\* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

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

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

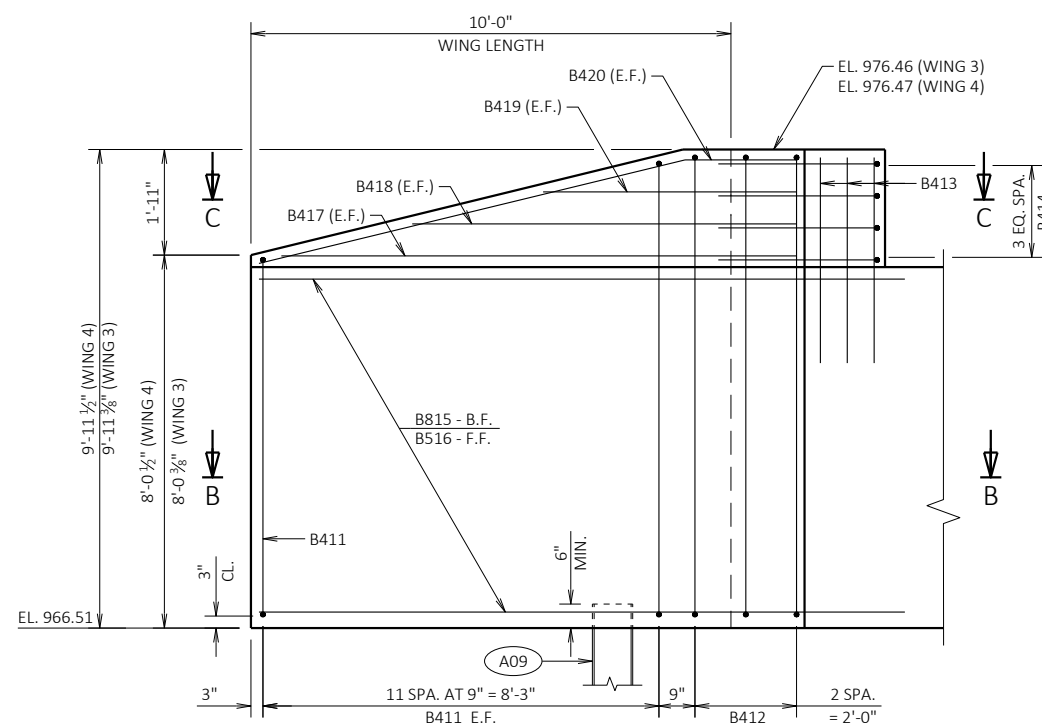


**SECTION THRU BODY**

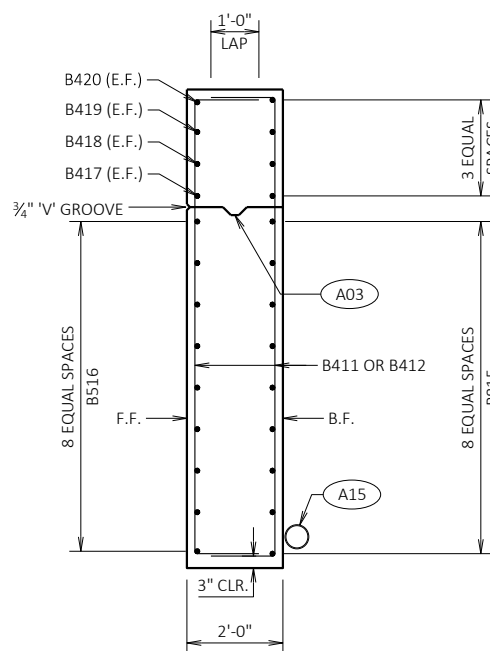
DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-62-262</b>			
DRAWN BY		PKF	PLANS CK'D. ETP
<b>NORTH ABUTMENT</b>			SHEET 6 OF 10





ELEVATION - WINGS 3 & 4



SECTION THRU WING

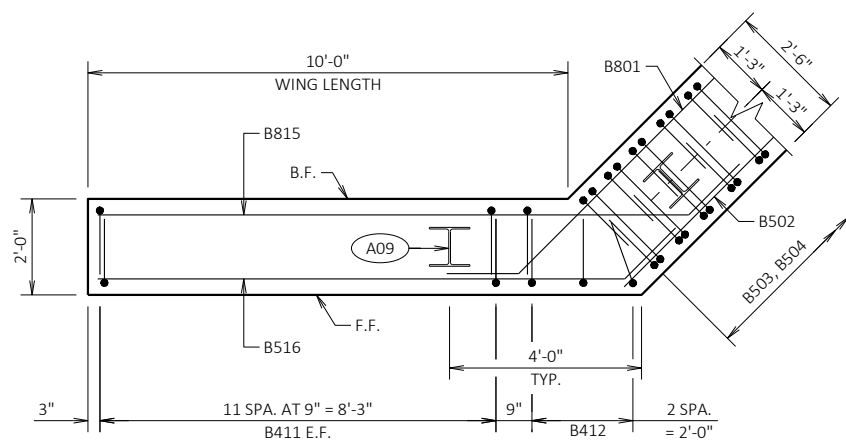
**BILL OF BARS - NORTH ABUTMENT**

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
<b>NON-COATED BARS</b> TOTAL WEIGHT = 2,290 LBS					
B801	18	22'-1"	X		BODY - B.F. HORIZ.
B502	18	17'-2"			BODY - F.F. HORIZ.
B503	64	8'-7"	X		BODY - E.F. VERT.
B504	32	8'-3"	X		BODY - TOP VERT.
B405	27	3'-0"	X		BODY - TIES TRANS.
<b>COATED BARS</b> TOTAL WEIGHT = 1,590 LBS					
B510	26	2'-0"			BODY - TOP VERT.
B411	48	11'-0"	X	X	WINGS - E.F. VERT.
B412	8	12'-0"	X		WINGS - E.F. VERT.
B413	14	3'-3"			WINGS - TOP VERT.
B414	8	9'-7"	X		WINGS - CORNERS HORIZ.
B815	18	14'-5"	X		WINGS - B.F. HORIZ.
B516	18	12'-9"	X		WINGS - F.F. HORIZ.
B417	4	11'-2"			WINGS - E.F. HORIZ.
B418	4	8'-11"			WINGS - E.F. HORIZ.
B419	4	5'-9"			WINGS - E.F. HORIZ.
B420	4	11'-4"	X		WINGS - E.F. HORIZ.

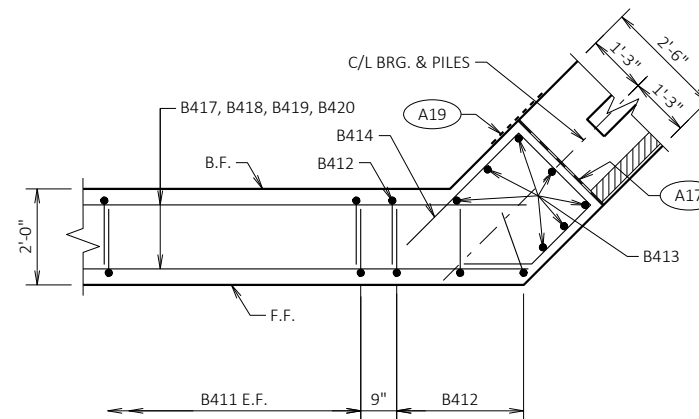
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.  
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D.	LENGTH
B411	4 SERIES OF 12	10'-1" TO 11'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.



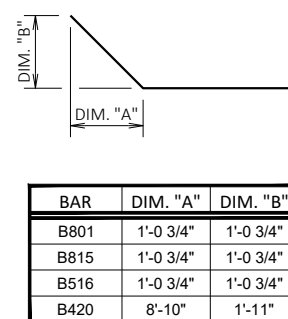
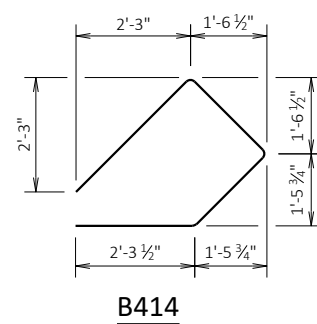
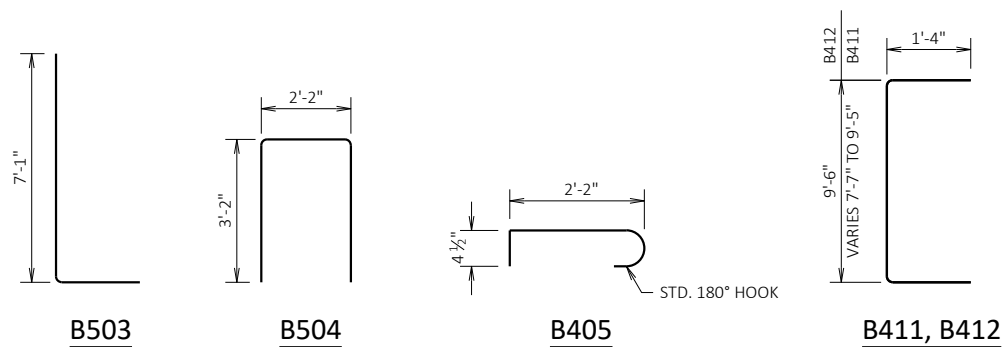
SECTION B-B



SECTION C-C

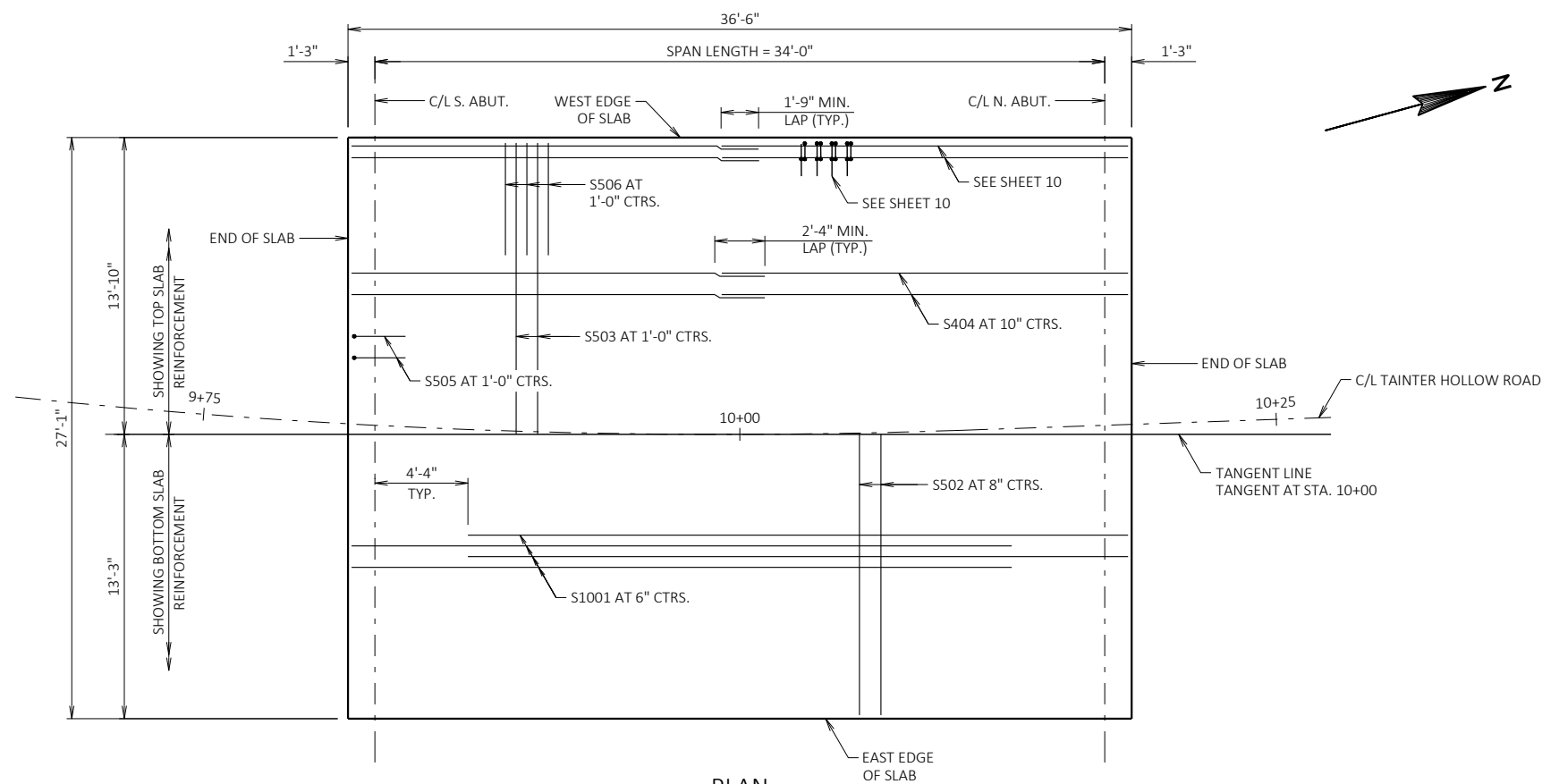
**LEGEND**

(AXX) FOR SYMBOL DESCRIPTIONS SEE SHEET 6.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-62-262</b>			
DRAWN BY PKF		PLANS CK'D. ETP	
<b>NORTH ABUTMENT DETAILS</b>			SHEET 7 OF 10





**NOTES**

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

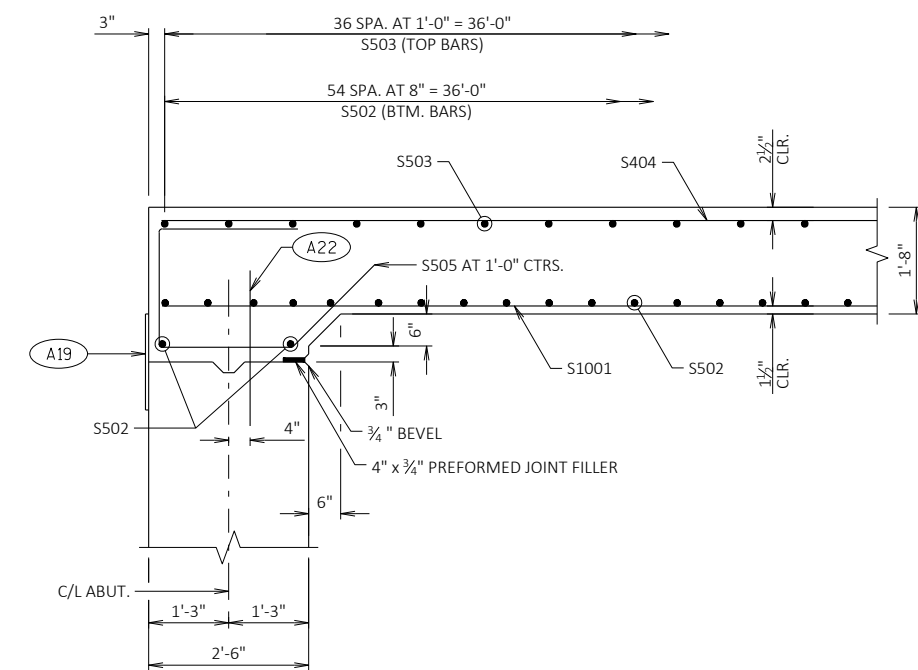
TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE C/L OF SUBSTRUCTURE UNITS.

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

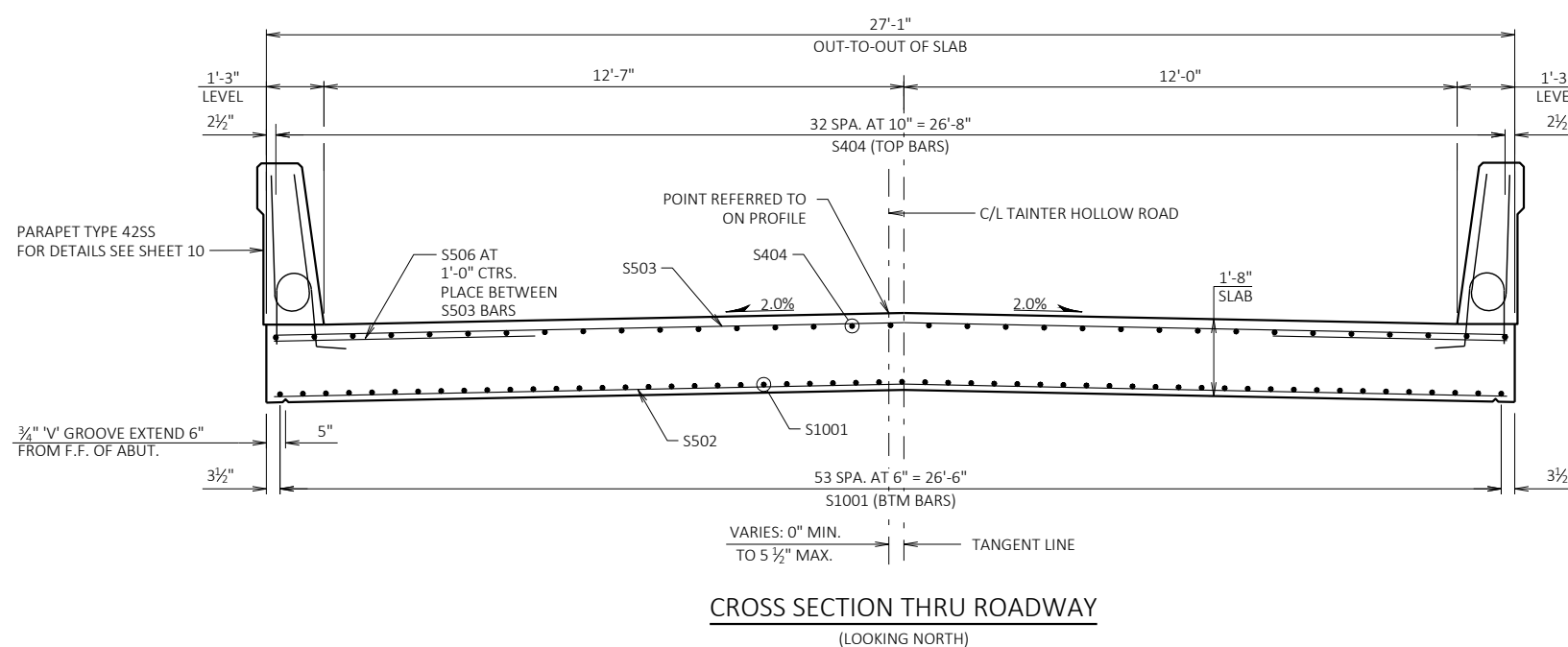
PARAPETS SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

**LEGEND**

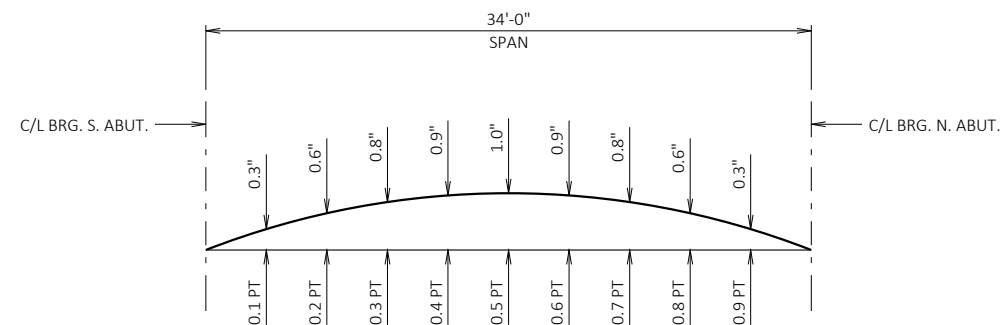
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A22) A510 OR B510 BARS AT 1'-0" CTRS. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.



PARTIAL LONGITUDINAL SECTION



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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-62-262</b>			
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<b>SUPERSTRUCTURE</b>			SHEET 8 OF 10



### CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

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

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

LESS TOP OF SLAB ELEVATION AT FINAL GRADE  
 PLUS SLAB THICKNESS  
 PLUS CAMBER  
 PLUS FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)

EQUALS TOP OF SLAB FALSEWORK ELEVATION.

### TOP OF DECK ELEVATIONS

LOCATION	C/L OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L OF N. ABUT.
WEST EDGE OF SLAB	976.84	976.82	976.80	976.77	976.74	976.70	976.66	976.62	976.57	976.51	976.46
TANGENT LINE / CROWN	977.10	977.08	977.05	977.02	976.99	976.96	976.91	976.87	976.82	976.77	976.71
EAST EDGE OF SLAB	976.86	976.84	976.81	976.78	976.75	976.72	976.67	976.63	976.58	976.53	976.47

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

### SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	S. ABUT.	0.5	N. ABUT.
WEST EDGE OF SLAB			
CROWN			
EAST EDGE OF SLAB			

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

### BILL OF BARS - SUPERSTRUCTURE

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 13,710 LBS
S1001	54	30'-9"			SLAB - BTM	LONGIT.
S502	59	26'-9"			SLAB - BTM	TRANS.
S503	37	26'-9"			SLAB - TOP	TRANS.
S404	66	19'-3"			SLAB - TOP	LONGIT.
S505	56	8'-3"	X		SLAB - AT ABUTMENTS	VERT.
S506	72	5'-0"			SLAB - EDGES	TRANS.
S510	58	4'-5"	X		PARAPETS	VERT.
S511	58	6'-8"	X		PARAPETS	VERT.
S512	44	2'-9"	X		PARAPETS	VERT.
S513	68	4'-4"	X		PARAPETS	VERT.
S514	20	6'-5"	X		PARAPETS	VERT.
S515	24	6'-6"	X		PARAPETS	VERT.
S516	4	10'-6"	X		PARAPETS	HORIZ.
S517	20	19'-0"			PARAPETS	HORIZ.
S518	24	5'-5"	X	X	PARAPETS	VERT.
S519	8	10'-5"	X		PARAPETS	HORIZ.
S520	6	18'-6"			PARAPETS	HORIZ.

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

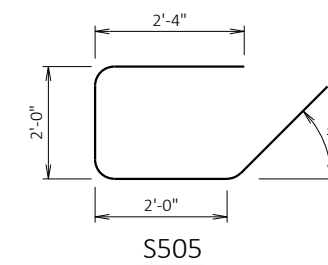
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

SEE SHEET 10 FOR PARAPET REINFORCEMENT.

### BAR SERIES TABLE

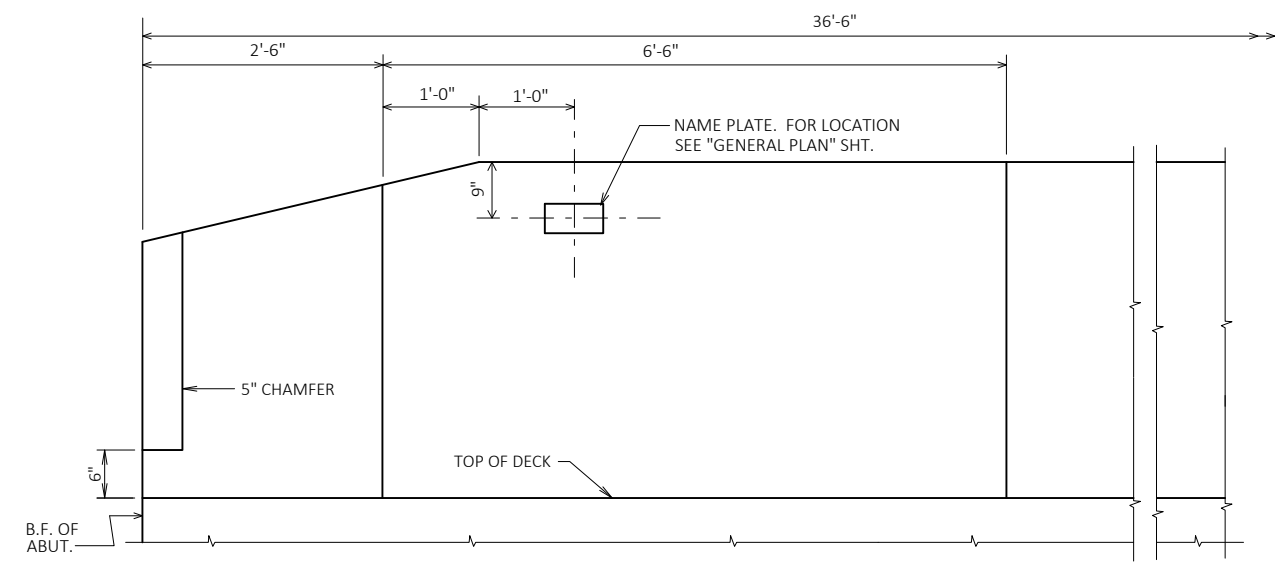
BAR MARK	NO. REQ'D.	LENGTH
S518	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

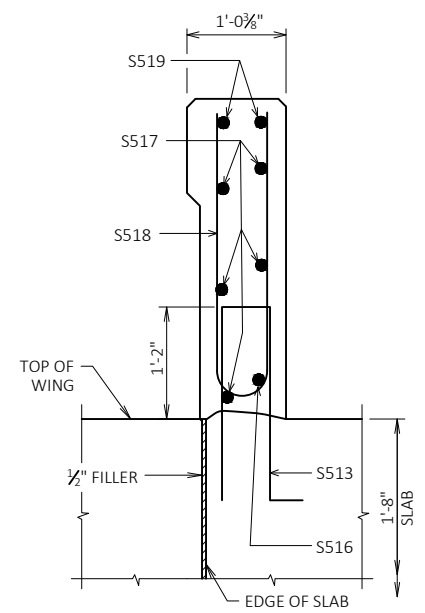


NO.	DATE	REVISION	BY
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STRUCTURE B-62-262			
DRAWN BY PKF		PLANS CK'D. ETP	
SUPERSTRUCTURE DETAILS			SHEET 9 OF 10

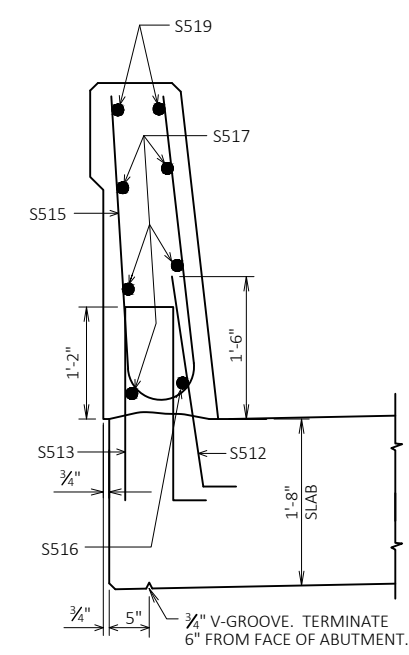




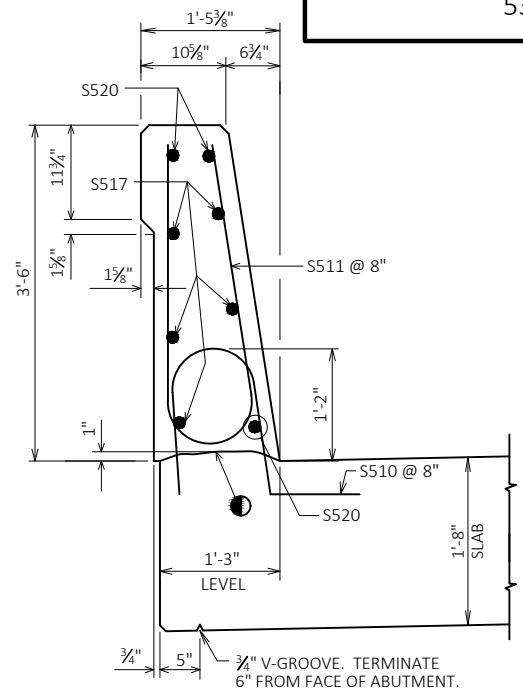
INSIDE ELEVATION



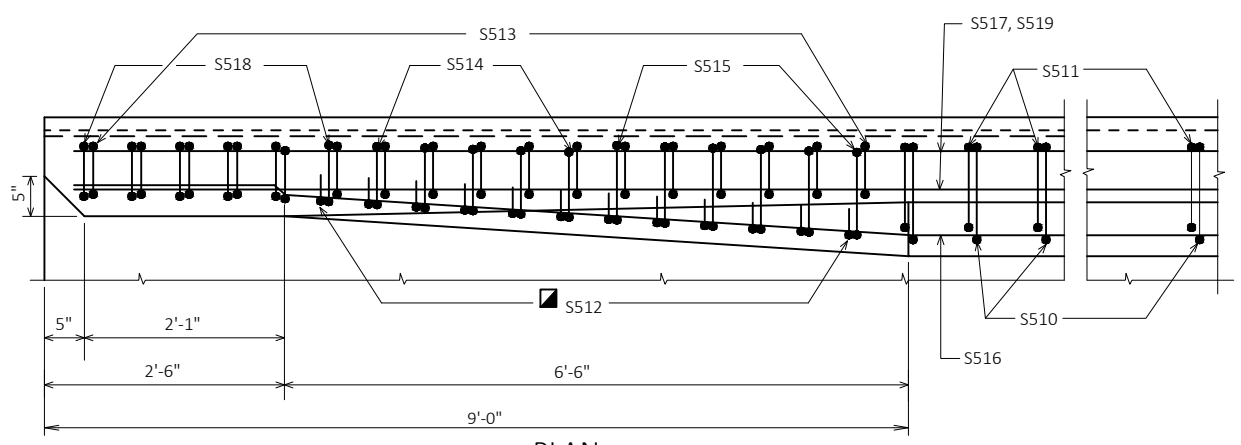
SECTION A



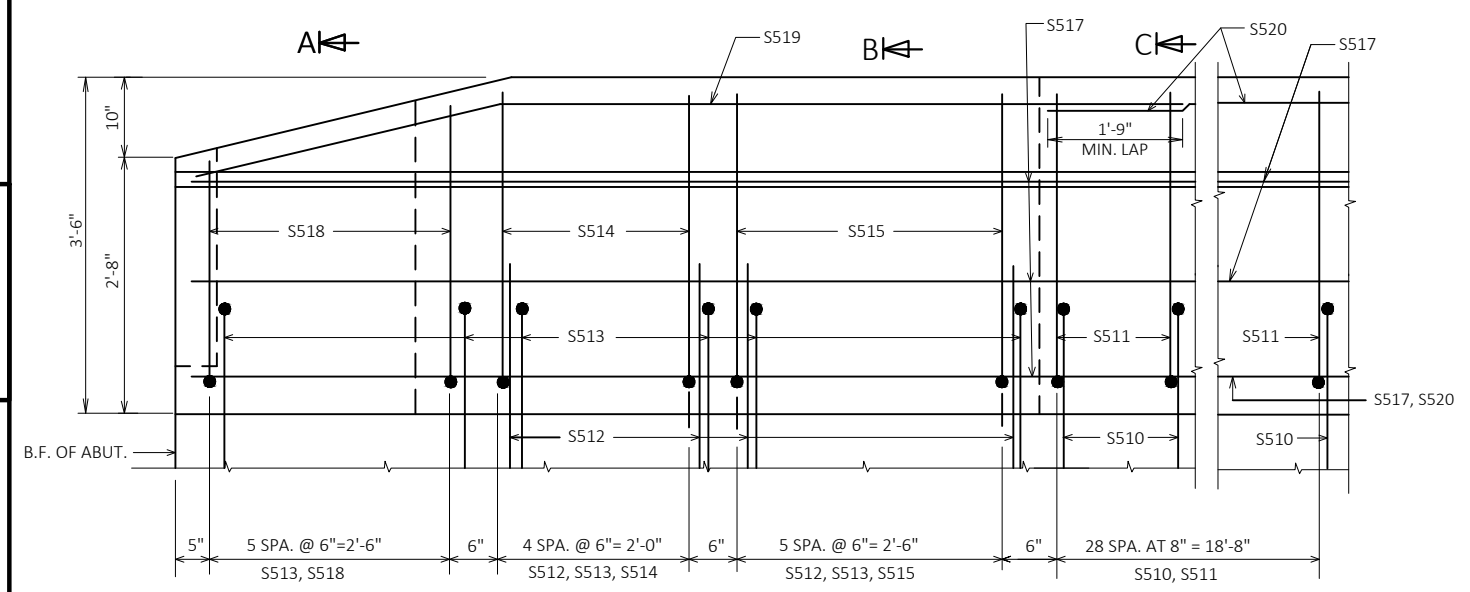
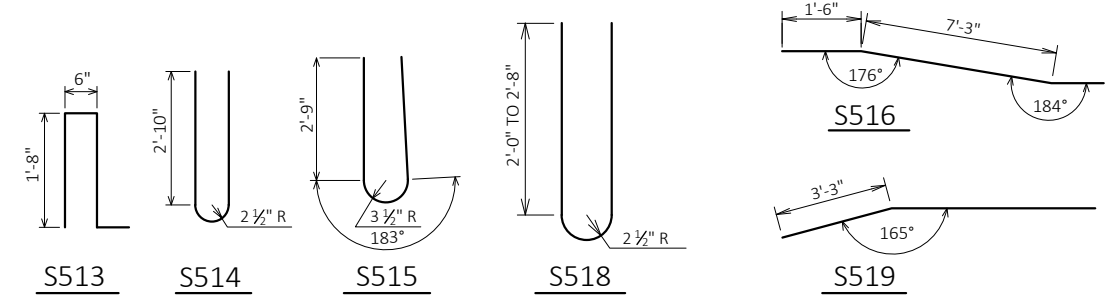
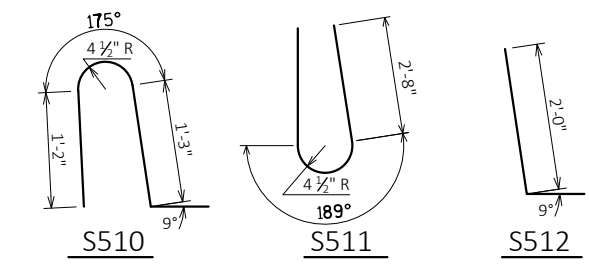
SECTION B



SECTION C



PLAN



OUTSIDE ELEVATION

● CONST. JOINT - STRIKE OFF AS SHOWN.

■ S512 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE S512 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

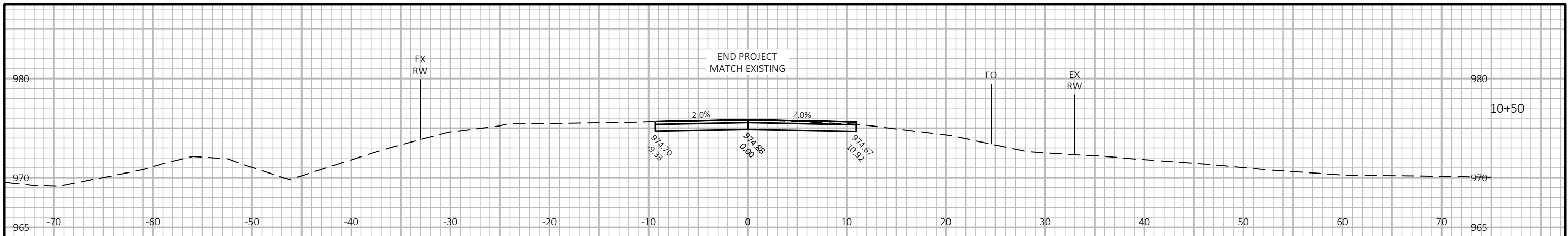
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-62-262</b>			
DRAWN BY PKF		PLANS CK'D. ETP	
SINGLE SLOPE PARAPET 42SS			SHEET 10 OF 10





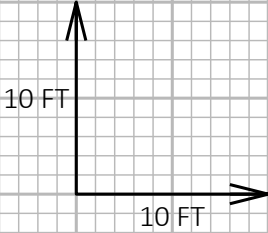




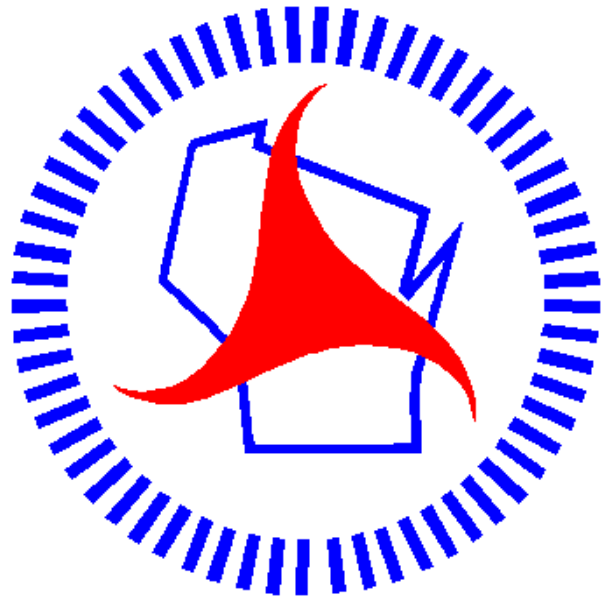


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PROJECT NO: 5385-00-70	HWY: TAINTER HOLLOW RD	COUNTY: VERNON	CROSS SECTIONS: TAINTER HOLLOW RD	SHEET	E
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