

PROJECT ID:
WITH: N/A

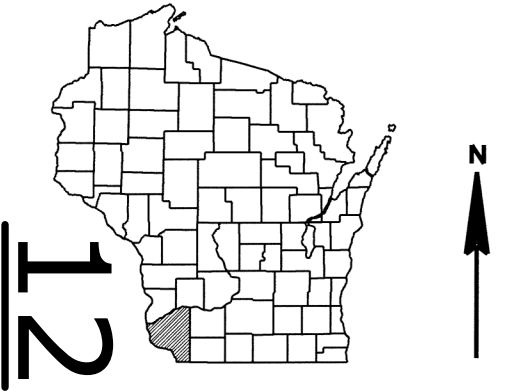
5985-00-77

COUNTY:
GRANT

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 Plat
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 = 52



DESIGN DESIGNATION

A.A.D.T.	2021	=	270
A.A.D.T.	2041	=	310
D.H.V.		=	11.8
D.D.		=	60/40
T.		=	14.0 %
DESIGN SPEED		=	20 MPH
ESALS		=	58,400

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

V OF POTOSI, BREWERY HOLLOW RD

POTOSI BRANCH BRIDGE, B-22-0295

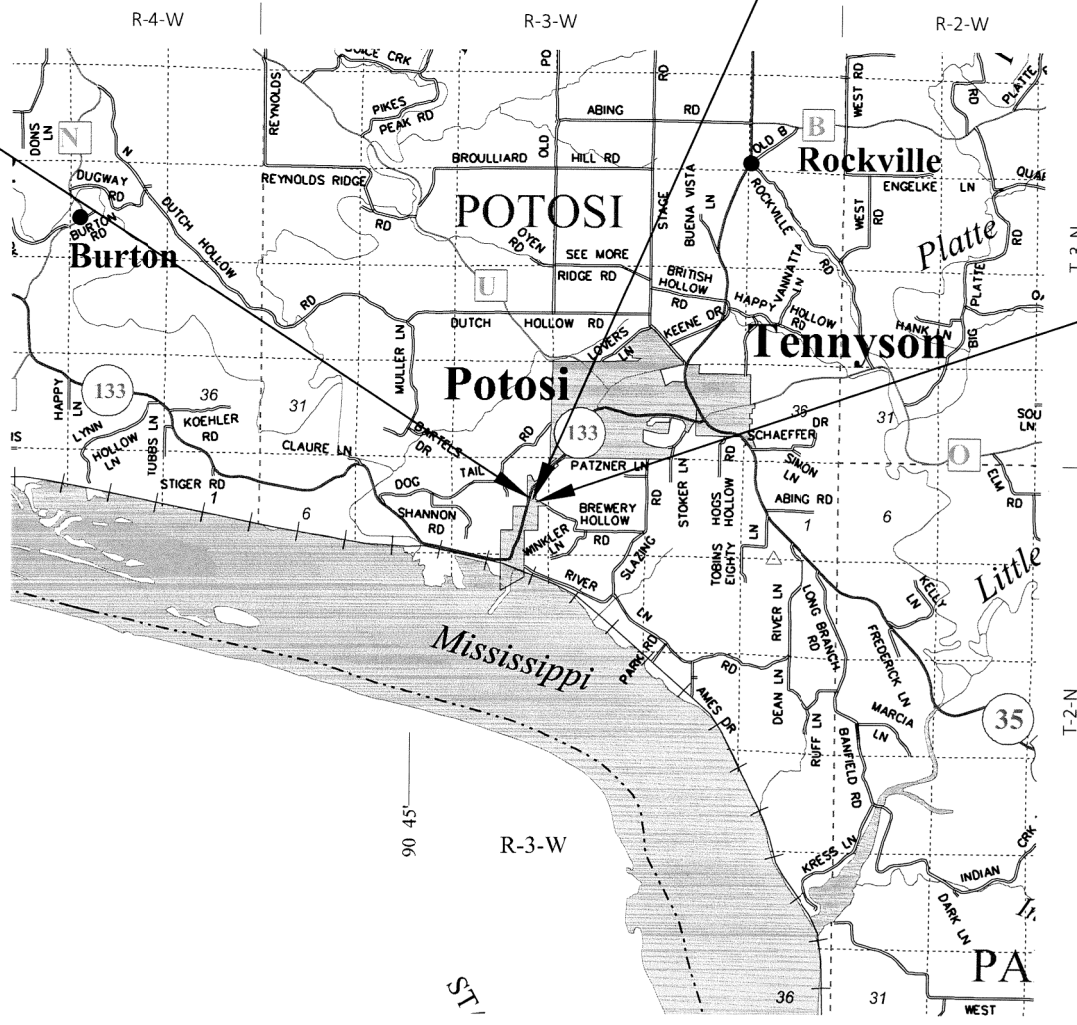
LOC STR
GRANT COUNTY

STATE PROJECT NUMBER
5985-00-77

STRUCTURE
B-22-0295

BEGIN PROJECT
STA 9+10
Y=461,105.03
X=815,071.03

END PROJECT
STA 11+10



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 0.038

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), GRANT 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 PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5985-00-77		

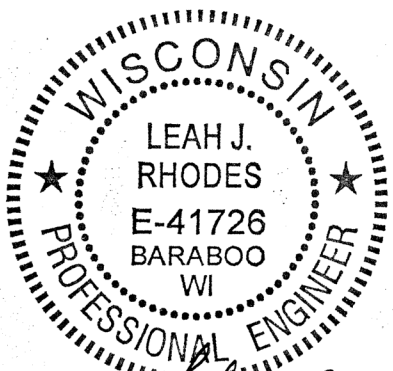
ACCEPTED FOR
VILLAGE OF POTOSI

7/10/20 Michael J. Whitaker
Date (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY



1702 PANKRATZ STREET, MADISON, WI 53704
(608) 242-7779 www.msa-ps.com



7/10/2020 Leah J. Rhodes
DATE (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	MSA PROFESSIONAL SERVICES, INC.
Regional Examiner	ALEIGHA BURG, P.E.
Regional Supervisor	OSCAR WINGER, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 7/13/2020 Aleigha Burg, P.E. (Signature)

STANDARD ABBREVIATIONS

AC	ACRE	F/L	FLOW LINE	SALV	SALVAGED
AGG	AGGREGATE	FT	FOOT	SAN	SANITARY SEWER
<	ANGLE	GN	GRID NORTH	SECT	SECTION
ASPH	ASPHALTIC	HR	HANDICAP RAMP	SHLDR	SHOULDER
AC	ASPHALT CEMENT	HT	HEIGHT	SW	SIDEWALK
ADT	AVERAGE DAILY TRAFFIC	CWT	HUNDREDWEIGHT	S	SOUTH
B & B	BALLED AND BURLAPPED	HYD	HYDRANT	SB	SOUTHBOUND
BM	BENCH MARK	IN DIA	INCH DIAMETER	SPECS	SPECIFICATIONS
CB	CATCH BASIN	INL	INLET	SQ	SQUARE
℄ OR C/L	CENTER LINE	ID	INSIDE DIAMETER	SF OR SQ FT	SQUARE FEET
C-C	CENTER TO CENTER	I	INTERSECTION ANGLE	SY	SQUARE YARD
CONC	CONCRETE	IE	INVERT ELEVATION	SSPRC	STORM SEWER
CO	COUNTY	IP	IRON PIPE OR PIN		PIPE REINFORCED CONCRETE
CTH	COUNTY TRUNK HIGHWAY	JCT	JUNCTION	STD	STANDARD
CY	CUBIC YARD	L	LENGTH OF CURVE	SDD	STANDARD DETAIL DRAWINGS
CULV	CULVERT	LF	LINEAR FOOT	STH	STATE TRUNK HIGHWAYS
CP	CULVERT PIPE	LC	LONG CHORD OF CURVE	STA	STATION
CPRC	CULVERT PIPE	LCB	LONG CHORD BEARING	SS	STORM SEWER
	REINFORCED CONCRETE	LS	LUMP SUM	T	TANGENT
C & G	CURB AND GUTTER	MH	MANHOLE	TEL	TELEPHONE
D	DEGREE OF CURVE	N	NORTH	TEMP	TEMPORARY
DHV	DESIGN HOUR VOLUME	Y	NORTH GRID COORDINATE	TLE	TEMPORARY LIMITED EASEMENT
DIA OR ϕ	DIAMETER	OE	OUTLET ELEVATION	T	TON
DIST	DISTRICT	OL	OUT LOT	TC	TOP OF CURB
DWY	DRIVEWAY	OD	OUTSIDE DIAMETER	TN	TOWN
E	EAST	OH	OVERHEAD LINES	TRANS	TRANSITION
X	EAST GRID COORDINATE	PAVT	PAVEMENT	T	TRUCKS (percent of)
EB	EASTBOUND	PLE	PERMANENT LIMITED EASEMENT	TYP	TYPICAL
ELEC	ELECTRIC	PC	POINT OF CURVATURE	UNCL	UNCLASSIFIED
EL OR ELEV	ELEVATION	PI	POINT OF INTERSECTION	USH	UNITED STATES HIGHWAY
EMB	EMBANKMENT	PT	POINT OF TANGENCY	VAR	VARIABLE
EW	ENDWALL	PCC	PORTLAND CEMENT CONCRETE	VERT	VERTICAL
ESALS	EQUIVALENT SINGLE	LB	POUND	VC	VERTICAL CURVE
	AXLE LOADS	PE	PRIVATE ENTRANCE	VOL	VOLUME
EXC	EXCAVATION	R OR RAD	RADIUS	WM	WATER MAIN
EBS	EXCAVATION BELOW	RR	RAILROAD	WV	WATER VALVE
	SUBGRADE	R	RANGE	W	WEST
EXIST	EXISTING	℄ OR R/L	REFERENCE LINE	WB	WESTBOUND
EXP	EXPANSION	REQD	REQUIRED	YD	YARD
F-F	FACE TO FACE	RT	RIGHT		
FERT	FERTILIZER	R/W	RIGHT-OF-WAY		
FE	FIELD ENTRANCE	RD	ROAD		

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: LEAH RHODES, PE
1702 PANKRATZ STREET
MADISON, WI 53704
608-355-8945
LRHODES@MSA-PS.COM

VILLAGE CONTACT

VILLAGE OF POTOSI
ATTN: MICHAEL WHITAKER, VILLAGE PRESIDENT
105 NORTH MAIN STREET
POTOSI, WI 53820
608-778-4272
POTOSIPRESIDENT@GMAIL.COM

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
ATTN: ANDY BARTA
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
608-235-2955
ANDREW.BARTA@WISCONSIN.GOV

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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.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 = 0.29 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.22 ACRES

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 3 LBS. PER 1000 SQUARE FEET.

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

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

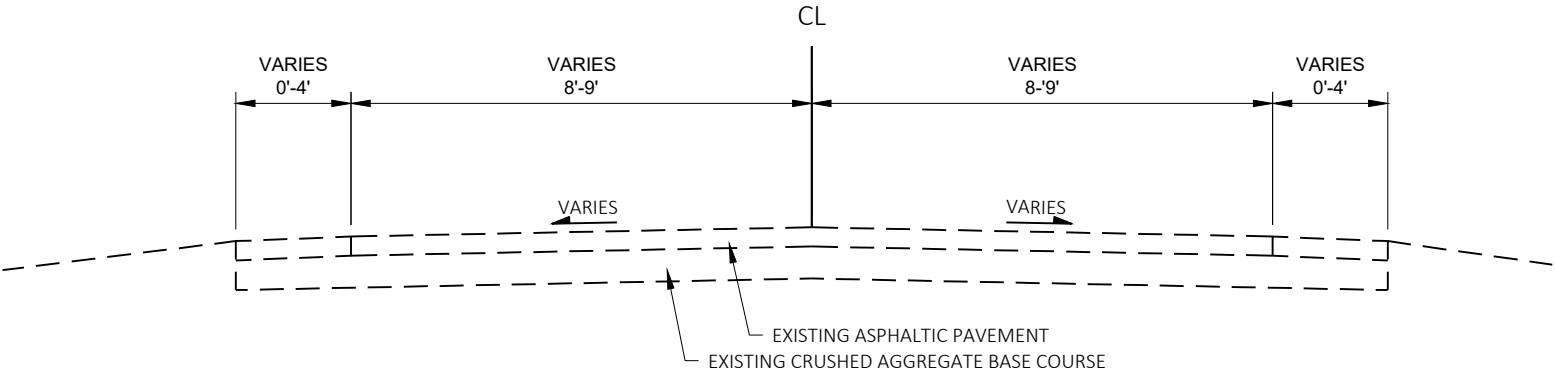
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (2012 ADJUSTED). BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

THE 4" ASPHALTIC SURFACE SHALL CONSIST OF A 1¾" UPPER LAYER WITH 12.5MM NOMINAL SIZE AGGREGATE AND A 2¼" LOWER LAYER WITH 19.0MM NOMINAL SIZE AGGREGATE.

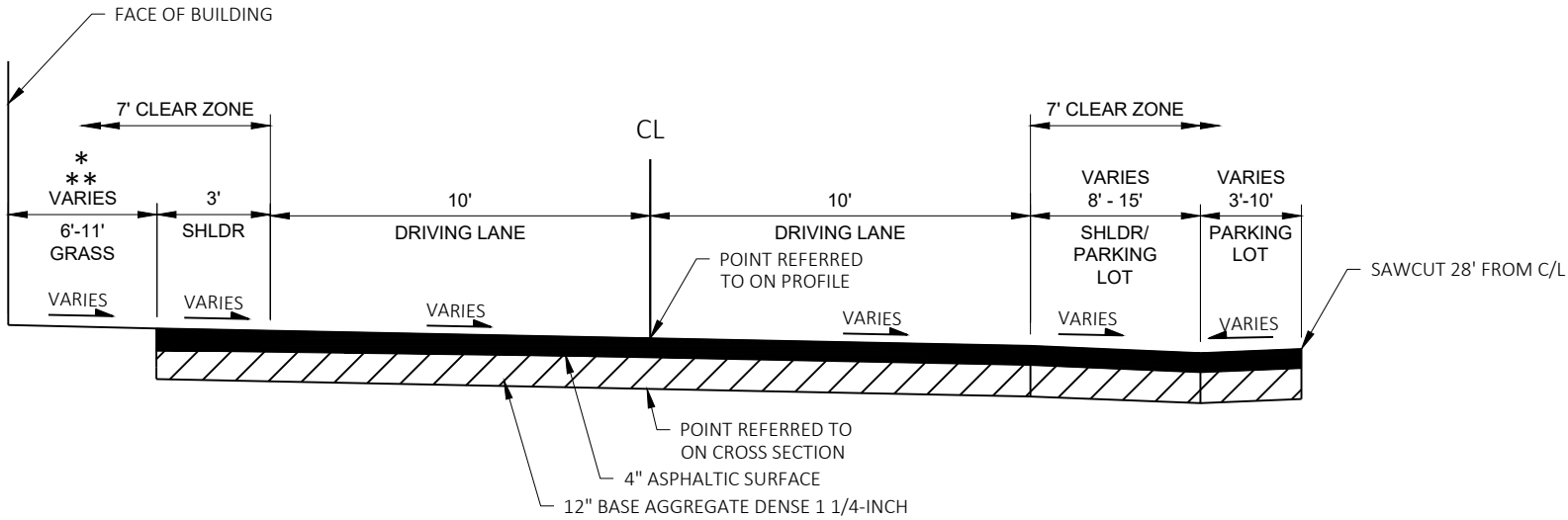
ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND SHALL BE PLACED PRIOR TO CONSTRUCTION OR BRIDGE REMOVAL. TURBIDITY BARRIER SHALL BE PLACED IMMEDIATELY FOLLOWING REMOVAL OF THE EXISTING BRIDGE FLOOR AND SHALL REMAIN IN PLACE UNTIL ABUTMENT FORMWORK IS REMOVED. HEAVY RIPRAP PLACEMENT SHALL OCCUR UNDER DRY CONDITIONS WHEN THE FLOOR SLAB IS REMOVED OR IT SHALL BE SEPARATED FROM THE STREAM BY TURBIDITY BARRIER.

NO WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS.



EXISTING TYPICAL SECTION

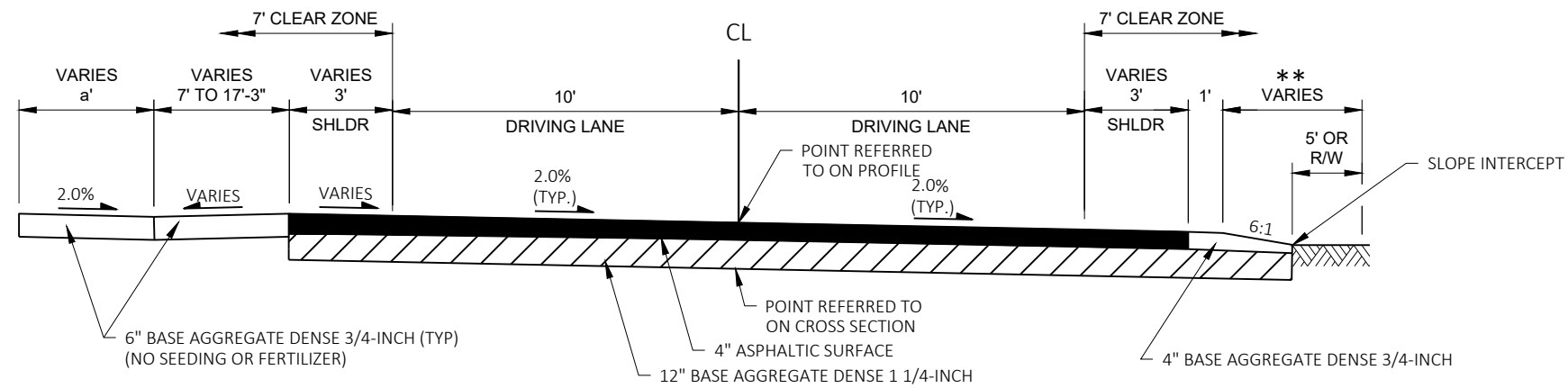


FINISHED TYPICAL SECTION

STA. 9+10 - STA. 9+60

LEGEND:

- * TOPSOIL AND EROSION MAT URBAN CLASS I TYPE B LIMITS
- ** SEEDING MIXTURE #20 & FERTILIZER TYPE B LIMITS

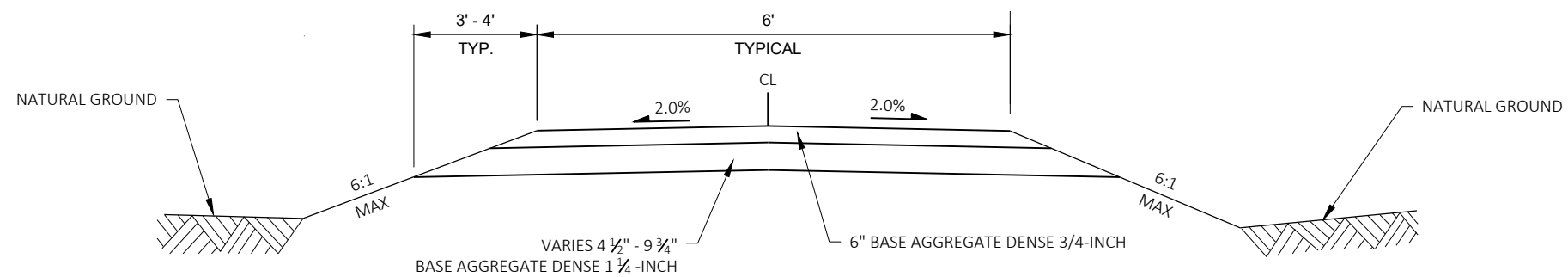


FINISHED TYPICAL SECTION

STA. 9+60 - STA. 9+86.75 a=3'
STA. 10+17.25 - STA. 11+10 a=0'

LEGEND:

** SEEDING MIXTURE #20 & FERTILIZER TYPE B LIMITS



TYPICAL SECTION THROUGH PRIVATE PEDESTRIAN PATH

STA. 10+60 RT

PROJECT NO: 5985-00-77

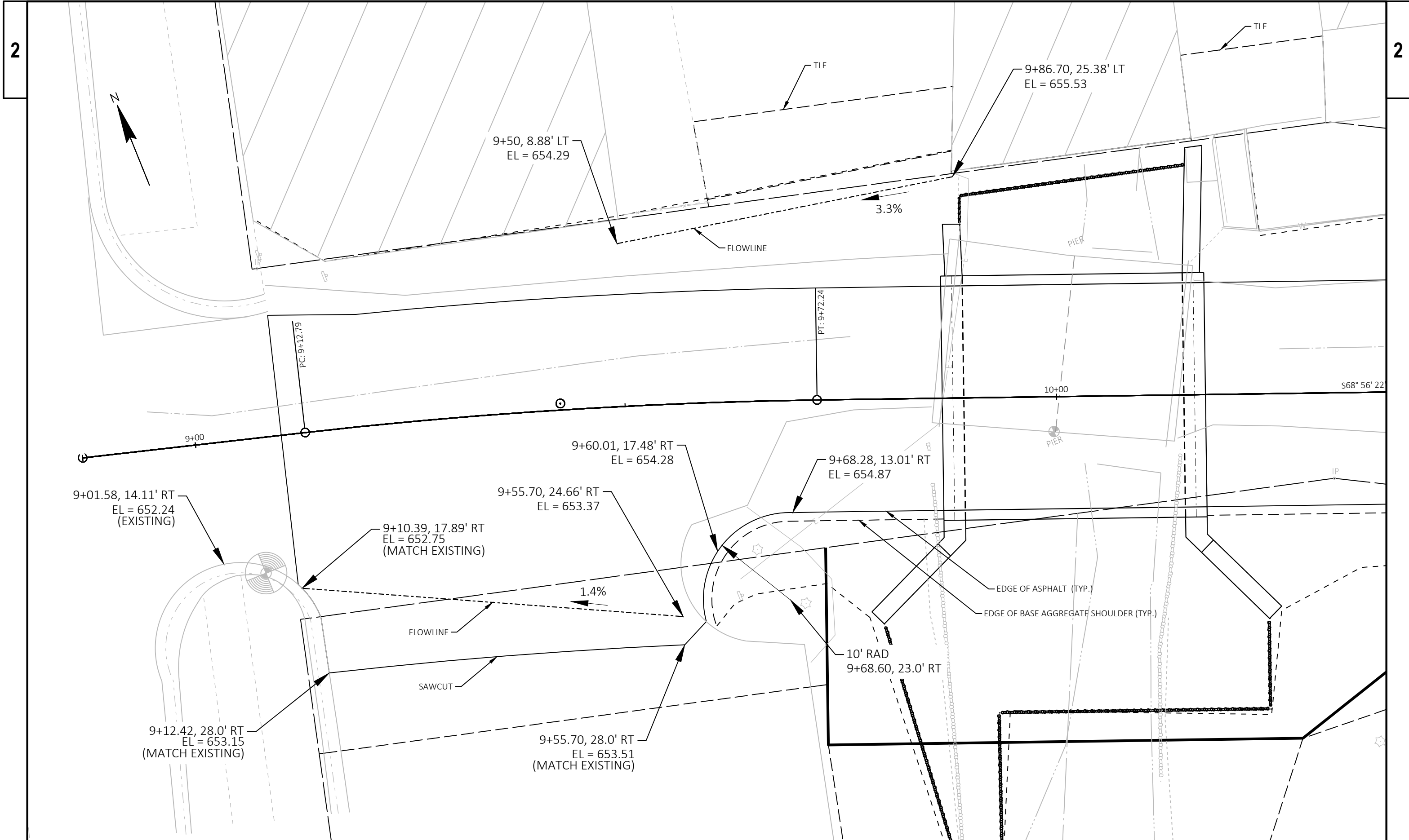
HWY: LOC STR

COUNTY: GRANT

TYPICAL SECTIONS

SHEET

E



PROJECT NO: 5985-00-77	HWY: LOC STR	COUNTY: GRANT	PAVING AND GRADING DETAILS	SHEET	E
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Estimate Of Quantities

5985-00-77					
Line	Item	Item Description	Unit	Total	Qty
0002	205.0100	Excavation Common	CY	211.000	211.000
0004	206.1000	Excavation for Structures Bridges (structure) 01. B-22-295	LS	1.000	1.000
0006	210.1500	Backfill Structure Type A	TON	495.000	495.000
0008	213.0100	Finishing Roadway (project) 01. 5985-00-77	EACH	1.000	1.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	57.000	57.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	398.000	398.000
0014	455.0605	Tack Coat	GAL	28.000	28.000
0016	465.0105	Asphaltic Surface	TON	125.000	125.000
0018	502.0100	Concrete Masonry Bridges	CY	131.000	131.000
0020	502.3200	Protective Surface Treatment	SY	90.000	90.000
0022	502.3210	Pigmented Surface Sealer	SY	45.000	45.000
0024	505.0400	Bar Steel Reinforcement HS Structures	LB	4,300.000	4,300.000
0026	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	13,290.000	13,290.000
0028	511.1200	Temporary Shoring (structure) 01. B-22-295	SF	470.000	470.000
0030	513.7021	Railing Steel Type C4	LF	61.000	61.000
0032	513.8021	Railing Steel Pedestrian Type C4	LF	57.000	57.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	16.000	16.000
0036	550.0020	Pre-Boring Rock or Consolidated Materials	LF	498.000	498.000
0038	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	540.000	540.000
0040	606.0300	Riprap Heavy	CY	155.000	155.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0044	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5985-00-77	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	9.000	9.000
0050	625.0100	Topsoil	SY	163.000	163.000
0052	628.1504	Silt Fence	LF	180.000	180.000
0054	628.1520	Silt Fence Maintenance	LF	180.000	180.000
0056	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0058	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0060	628.2008	Erosion Mat Urban Class I Type B	SY	163.000	163.000
0062	628.6005	Turbidity Barriers	SY	140.000	140.000
0064	629.0210	Fertilizer Type B	CWT	0.130	0.130
0066	630.0120	Seeding Mixture No. 20	LB	5.000	5.000
0068	630.0200	Seeding Temporary	LB	5.000	5.000
0070	630.0500	Seed Water	MGAL	5.000	5.000
0072	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	5.000	5.000
0074	637.2210	Signs Type II Reflective H	SF	6.250	6.250
0076	637.2230	Signs Type II Reflective F	SF	12.000	12.000

Estimate Of Quantities

5985-00-77					
Line	Item	Item Description	Unit	Total	Qty
0078	638.2602	Removing Signs Type II	EACH	1.000	1.000
0080	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0082	642.5001	Field Office Type B	EACH	1.000	1.000
0084	643.0420	Traffic Control Barricades Type III	DAY	1,600.000	1,600.000
0086	643.0705	Traffic Control Warning Lights Type A	DAY	2,400.000	2,400.000
0088	643.0900	Traffic Control Signs	DAY	800.000	800.000
0090	643.5000	Traffic Control	EACH	1.000	1.000
0092	645.0111	Geotextile Type DF Schedule A	SY	98.000	98.000
0094	645.0120	Geotextile Type HR	SY	260.000	260.000
0096	650.4500	Construction Staking Subgrade	LF	170.000	170.000
0098	650.5000	Construction Staking Base	LF	170.000	170.000
0100	650.6500	Construction Staking Structure Layout (structure) 01. B-22-295	LS	1.000	1.000
0102	650.9910	Construction Staking Supplemental Control (project) 01. 5985-00-77	LS	1.000	1.000
0104	650.9920	Construction Staking Slope Stakes	LF	170.000	170.000
0106	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	63.000	63.000
0108	690.0150	Sawing Asphalt	LF	96.000	96.000
0110	715.0502	Incentive Strength Concrete Structures	DOL	786.000	786.000
0112	999.1000.S	Seismograph	LS	1.000	1.000
0114	999.1500.S	Crack and Damage Survey	LS	1.000	1.000
0116	SPV.0105	Special 01. Removing Old Structure Over Waterway Special Station 10+00	LS	1.000	1.000

3

3

<div>EXCAVATION COMMON</div> <table><tr><th>STATION</th><th>TO</th><th>STATION</th><th>LOCATION</th><th>205.0100 EXCAVATION COMMON CY</th></tr><tr><td>9+10</td><td>-</td><td>9+86.75</td><td>MAINLINE</td><td>105</td></tr><tr><td>10+17.25</td><td>-</td><td>11+10</td><td>MAINLINE</td><td>106</td></tr><tr><td colspan="4">TOTAL</td><td>211</td></tr></table>					STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	9+10	-	9+86.75	MAINLINE	105	10+17.25	-	11+10	MAINLINE	106	TOTAL				211	<div>FINISHING ROADWAY</div> <table><tr><th>STATION</th><th>TO</th><th>STATION</th><th>LOCATION</th><th>213.0100.01 FINISHING ROADWAY (5985-00-77) EACH</th></tr><tr><td>9+10</td><td>-</td><td>11+10</td><td>PROJECT</td><td>1</td></tr><tr><td colspan="4">TOTAL</td><td>1</td></tr></table>					STATION	TO	STATION	LOCATION	213.0100.01 FINISHING ROADWAY (5985-00-77) EACH	9+10	-	11+10	PROJECT	1	TOTAL				1	<div>BASE AGGREGATE DENSE</div> <table><tr><th>STATION</th><th>TO</th><th>STATION</th><th>LOCATION</th><th>305.0110 BASE AGGREGATE DENSE 3/4-INCH TON</th><th>305.0120 BASE AGGREGATE DENSE 1 1/4- INCH TON</th><th>624.0100 WATER MGAL</th></tr><tr><td>9+10</td><td>-</td><td>9+86.75</td><td>MAINLINE</td><td>20</td><td>203</td><td>4</td></tr><tr><td>10+17.25</td><td>-</td><td>11+10</td><td>MAINLINE</td><td>37</td><td>195</td><td>5</td></tr><tr><td colspan="4">TOTAL</td><td>57</td><td>398</td><td>9</td></tr></table>							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+86.75	MAINLINE	20	203	4	10+17.25	-	11+10	MAINLINE	37	195	5	TOTAL				57	398	9	
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<div>ASPHALTIC SURFACE</div> <table><tr><th>STATION</th><th>TO</th><th>STATION</th><th>LOCATION</th><th>455.0605 TACK COAT GAL</th><th>465.0105 ASPHALTIC SURFACE TON</th></tr><tr><td>9+10</td><td>-</td><td>9+86.75</td><td>MAINLINE</td><td>15</td><td>67</td></tr><tr><td>10+17.25</td><td>-</td><td>11+10</td><td>MAINLINE</td><td>13</td><td>58</td></tr><tr><td colspan="4">TOTAL</td><td>28</td><td>125</td></tr></table>					STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	9+10	-	9+86.75	MAINLINE	15	67	10+17.25	-	11+10	MAINLINE	13	58	TOTAL				28	125	<div>SILT FENCE</div> <table><tr><th>STATION</th><th>TO</th><th>STATION</th><th>LOCATION</th><th>628.1504 SILT FENCE LF</th><th>628.1520 SILT FENCE MAINTENANCE LF</th><th>628.6005 TURBIDITY BARRIERS SY</th></tr><tr><td>9+58.46</td><td>-</td><td>9+86.75</td><td>MAINLINE, RT.</td><td>52</td><td>52</td><td>61</td></tr><tr><td>10+17.25</td><td>-</td><td>11+10</td><td>MAINLINE, RT.</td><td>93</td><td>93</td><td>52</td></tr><tr><td colspan="4"></td><td>35</td><td>35</td><td>27</td></tr><tr><td colspan="4">TOTAL</td><td>180</td><td>180</td><td>140</td></tr></table>							STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6005 TURBIDITY BARRIERS SY	9+58.46	-	9+86.75	MAINLINE, RT.	52	52	61	10+17.25	-	11+10	MAINLINE, RT.	93	93	52					35	35	27	TOTAL				180	180	140										
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				35	35	27																																																																										
TOTAL				180	180	140																																																																										
<div>EROSION CONTROL</div> <table><tr><th>STATION</th><th>TO</th><th>STATION</th><th>LOCATION</th><th>625.0100 TOPSOIL SY</th><th>628.2008 EROSION MAT URBAN CLASS I TYPE B SY</th><th>629.0210 FERTILIZER TYPE B CWT</th><th>630.0120 SEEDING MIXTURE NO. 20 LB</th><th>630.0200 SEEDING TEMPORARY LB</th><th>630.0500 SEED WATER MGAL</th></tr><tr><td>9+10</td><td>-</td><td>9+86.75</td><td>MAINLINE, LT.</td><td>45</td><td>45</td><td>0.03</td><td>1</td><td>-</td><td>1</td></tr><tr><td>9+58.46</td><td>-</td><td>9+86.75</td><td>MAINLINE, RT.</td><td>0</td><td>0</td><td>0.02</td><td>1</td><td>-</td><td>1</td></tr><tr><td>10+17.25</td><td>-</td><td>11+10</td><td>MAINLINE, RT.</td><td>85</td><td>85</td><td>0.05</td><td>2</td><td>-</td><td>2</td></tr><tr><td colspan="4">UNDISTRIBUTED</td><td>33</td><td>33</td><td>0.03</td><td>1</td><td>5</td><td>1</td></tr><tr><td colspan="4">TOTAL</td><td>163</td><td>163</td><td>0.13</td><td>5</td><td>5</td><td>5</td></tr></table>					STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	9+10	-	9+86.75	MAINLINE, LT.	45	45	0.03	1	-	1	9+58.46	-	9+86.75	MAINLINE, RT.	0	0	0.02	1	-	1	10+17.25	-	11+10	MAINLINE, RT.	85	85	0.05	2	-	2	UNDISTRIBUTED				33	33	0.03	1	5	1	TOTAL				163	163	0.13	5	5	5	<div>MOBILIZATIONS EROSION CONTROL</div> <table><tr><th>PROJECT</th><th>628.1905 MOBILIZATIONS EROSION CONTROL EACH</th><th>628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH</th></tr><tr><td>5985-00-77</td><td>2</td><td>2</td></tr><tr><td>TOTAL</td><td>2</td><td>2</td></tr></table>							PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	5985-00-77	2	2	TOTAL	2	2
STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL																																																																							
9+10	-	9+86.75	MAINLINE, LT.	45	45	0.03	1	-	1																																																																							
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10+17.25	-	11+10	MAINLINE, RT.	85	85	0.05	2	-	2																																																																							
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5985-00-77	2	2																																																																														
TOTAL	2	2																																																																														
PROJECT NO: 5985-00-77			HWY: LOC STR			COUNTY: GRANT			MISCELLANEOUS QUANTITIES			SHEET:		E																																																																		

SIGNING									
STATION	LOCATION	SIGN CODE	SIZE	634.0612	637.2210	637.2230	638.2602	638.3000	REMARKS
				POSTS WOOD 4X6-INCH X 12- FT EACH	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
9+17	LT.	R1-1	30"X30"	1	6.25	-	-	-	STOP SIGN
9+17	LT.	R1-1	-	-	-	-	1	1	EXISTING STOP SIGN
9+86	LT.	W5-52L	12"X36"	1	-	3	-	-	BRIDGE OBJECT MARKERS
9+86	RT.	W5-52R	12"X36"	1	-	3	-	-	BRIDGE OBJECT MARKERS
10+18	LT.	W5-52R	12"X36"	1	-	3	-	-	BRIDGE OBJECT MARKERS
10+18	RT.	W5-52L	12"X36"	1	-	3	-	-	BRIDGE OBJECT MARKERS
TOTAL				5	6.25	12	1	1	

TRAFFIC CONTROL								
LOCATION	CALENDAR DAYS	643.0420	643.0705	TRAFFIC CONTROL SIGNS EACH	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL SIGNS EACH	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL SIGNS EACH
		TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH					
BEGIN OF PROJECT/ STH 133	100	7	700	10	1,000	2	200	-
END OF PROJECT	100	7	700	10	1,000	2	200	-
WINKLER LANE	100	1	100	2	200	2	200	-
UNDISTRIBUTED	100	1	100	2	200	2	200	1
TOTAL			1,600		2,400		800	1

SAWING ASPHALT				
STATION	TO	STATION	LOCATION	690.0150
				SAWING ASPHALT LF
9+10	-	9+10	MAINLINE	32
9+12	-	9+59	MAINLINE, RT.	45
11+10	-	11+10	MAINLINE	19
TOTAL				96

CONSTRUCTION STAKING								
STATION	TO	STATION	LOCATION	650.4500	650.5000	650.6500.01	650.9910.01	650.9920
				CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STRUCTURE LAYOUT (B-22-0295) LS	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5985-00-77) LS	CONSTRUCTION STAKING SLOPE STAKES LF
9+10	-	9+86.75	MAINLINE	77	77	-	-	77
10+17.25	-	11+10	MAINLINE	93	93	-	-	93
				-	-	1	1	-
TOTAL				170	170	1	1	170

SEISMOGRAPH AND CRACK AND DAMAGE SURVEY			
LOCATION	999.1000.S	999.1500.S	
	SEISMOGRAPH LS	CRACK AND DAMAGE SURVEY LS	
BREWERY HOLLOW RD	1	1	
TOTAL	1	1	

CONVENTIONAL SYMBOLS			
SECTION LINE		PARCEL NUMBER	
QUARTER LINE		UTILITY NUMBER	
SIXTEENTH LINE			
NEW REFERENCE LINE		SECTION CORNER	
NEW R/W LINE			
EXISTING R/W LINE		NOTATION FOR COMBUSTIBLE FLUIDS	
PROPERTY LINE			
LOT, TIE, AND OTHER MINOR LINES		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)			
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			
TEMP. LIMITED EASEMENT AREA			
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)			
TRANSMISSION STRUCTURES			
BUILDING			
BUILDING (TO BE REMOVED)			
BRIDGE			

CONVENTIONAL UTILITY SYMBOLS		CURVE DATA ABBREVIATIONS	
WATER		LONG CHORD	LCH
GAS		LONG CHORD BEARING	LCB
TELEPHONE		RADIUS	R
OVERHEAD TRANSMISSION LINES		DEGREE OF CURVE	D
ELECTRIC		CENTRAL ANGLE	Δ/DELTA
CABLE TELEVISION		LENGTH OF CURVE	L
FIBER OPTIC		TANGENT	T
SANITARY SEWER		DIRECTION AHEAD	DA
STORM SEWER		DIRECTION BACK	DB
ELECTRIC TOWER			
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			

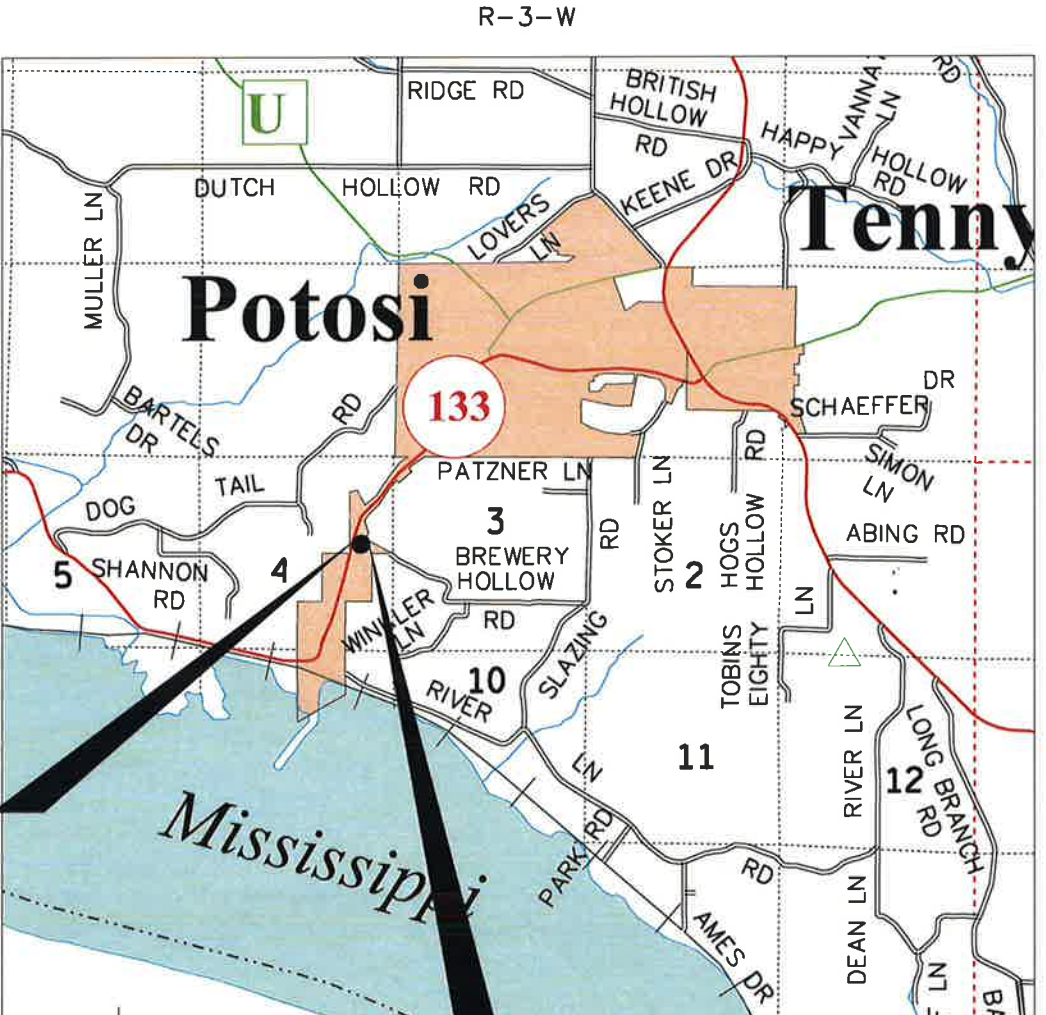
CONVENTIONAL ABBREVIATIONS			
ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), GRANT COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

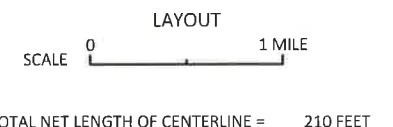
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.



BEGIN RELOCATION
ORDER STA.9+00.00
Y = 461,107.678
X = 815,061.387
APPROXIMATELY 533 FEET NORTH OF AND 1065 FEET WEST OF THE EAST 1/4 CORNER OF SECTION 4, T-2-N, R-3-W, VILLAGE OF POTOSI, GRANT COUNTY WI.

END RELOCATION
ORDER STA.11+10.00
Y = 461,036.198
X = 815,258.725
APPROXIMATELY 462 FEET NORTH OF AND 868 FEET WEST OF THE EAST 1/4 CORNER OF SECTION 4, T-2-N, R-3-W, VILLAGE OF POTOSI, GRANT COUNTY WI.



Linda K. Gerhard
Grant County Clerk
3-25-2020

R/W PROJECT NUMBER 5985-00-07	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT OF WAY REQUIRED FOR V OF POTOSI, BREWERY HOLLOW RD POTOSI BRANCH BRIDGE, B-22-0295		
LOCAL STREET		GRANT COUNTY

ACCEPTED FOR

VILLAGE of POTOSI

03/18/2020 (Date) *Bradley L. Tisdale* (VILLAGE PRESIDENT)

ORIGINAL PLAT PREPARED BY

MSA

ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL

1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 www.msa-ps.com
© MSA Professional Services, Inc.

WISCONSIN
BRADLEY L. TISDALE
S-2824
WAUNAKEE WI
LAND SURVEYOR

03/18/2020 (DATE) *Bradley L. Tisdale* (Professional Land Surveyor)

CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS
MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.



PROJECT LOCATION

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE VILLAGE.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQ FT REQUIRED			TLE SQ FT
			NEW	EXISTING	TOTAL	
1	GARY G. DAVID	TLE	--	--	--	456
2	BREWERY VENTURES, LLC	FEE/TLE	1260	--	1260	996
3	POTOSI BREWERY FOUNDATION, INC.	FEE/TLE	701	--	701	1466

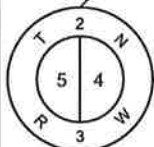
R/W POINT	STATION	OFFSET	Y	X
1	9+08.81	19.53 L	461,124.169	815,075.064
2	10+32.14	31.41 L	461,093.487	815,197.352
3	10+95.00	23.42 L	461,063.442	815,253.140
4	10+95.00	17.91 R	461,024.873	815,238.288
5	10+62.00	13.72 R	461,040.644	815,209.003
6	10+28.00	40.00 R	461,028.338	815,167.826
7	9+73.00	40.00 R	461,048.102	815,116.500
8	9+73.00	17.14 R	461,069.440	815,124.717
9	9+09.81	21.46 R	461,084.384	815,065.156

TLE POINT	STATION	OFFSET
T1	9+60.45	22.70 L
T2	9+59.04	32.60 L
T3	9+88.49	36.14 L
T4	9+88.17	26.03 L
T5	10+16.03	29.44 L
T6	10+14.90	39.37 L
T7	10+31.43	41.40 L
T8	10+31.64	31.35 L
T9	10+21.27	60.00 R
T10	9+99.47	60.00 R
T11	10+00.68	40.00 R
T12	9+75.77	60.00 R
T13	9+73.00	33.00 R
T14	9+10.20	37.20 R

Linda K. Seehard
Grant County Clerk
3-25-2020

LINE	BEARING	DISTANCE
RL1-1	N13°59'01"E	19.53'
1-2	S75°54'55"E	126.08'
2-3	S61°41'41"E	63.36'
3-RL2	S21°03'38"W	23.42'
RL2-4	S21°03'38"W	17.91'
4-5	N61°41'41"W	33.26'
5-6	S73°21'38"W	42.98'
6-7	N68°56'22"W	55.00'
7-8	N21°03'38"E	22.88'
8-9	N75°54'55"W	61.41'
9-RL1	N13°59'01"E	21.47'

FOUND 1" IP
Y = 460,530.619
X = 810,839.061



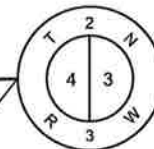
BEGIN RELOCATION
ORDER STA. 9+00.00
Y = 461,107.678
X = 815,061.387

STH 133 (MAIN STREET)

S89°31'37"W 5287.85'

S89°31'37"W 1060.90'

FOUND 3/4" IR
Y = 460,574.273
X = 816,126.730



BREWERY HOLLOW ROAD ALIGNMENT INFORMATION

PI = STA 9+00.00
Y = 461,107.678
X = 815,061.387

DA = S74°37'00"E

PI = STA 9+42.54
Y = 461,096.394
X = 815,102.403
Δ = 05°40'38"
D = 09°32'57"
T = 29.75'
L = 59.45'
R = 600.00'
PC = 9+12.79
PT = 9+72.24

DA = S68°56'22"E

PI = STA 11+10.00
Y = 461,036.198
X = 815,258.725

I, BRADLEY L. TISDALE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF POTOSI I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Bradley L. Tisdale* DATE: 03/18/20
PRINT NAME: BRADLEY L. TISDALE
REGISTRATION NUMBER: S-2824

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF POTOSI
SIGNATURE: *Matt W. [Signature]* DATE: 03/18/20
PRINT NAME: VILLAGE PRESIDENT

REVISION DATE	DATE	GRID FACTOR
	03/18/2020	

SCALE, FEET
0 20 40

HWY: BREWERY HOLLOW ROAD
COUNTY: GRANT

STATE R/W PROJECT NUMBER 5985-00-07
CONSTRUCTION PROJECT NUMBER 5985-00-77

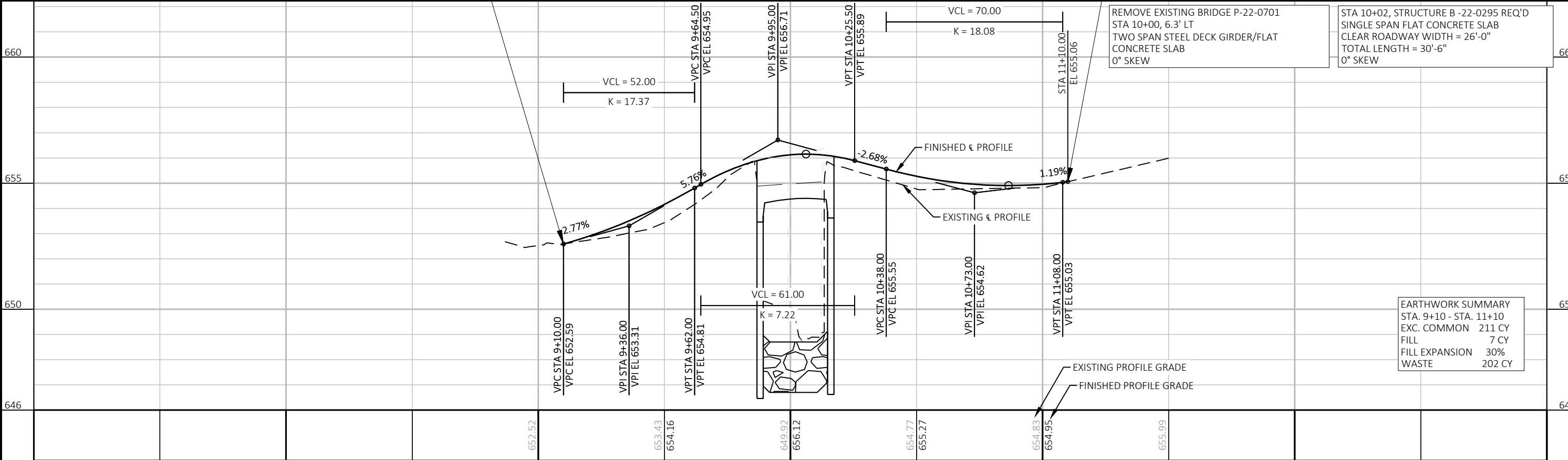
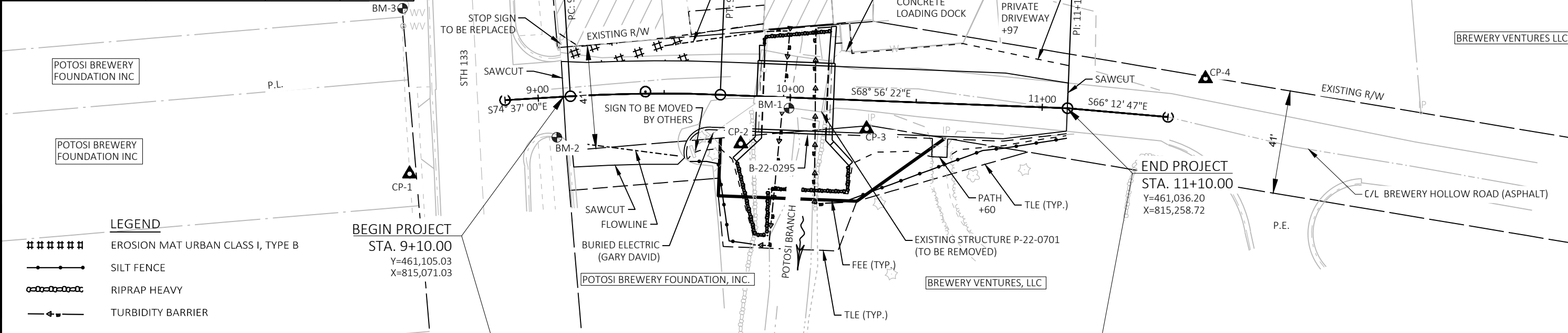
PLAT SHEET 4.02
PS&E SHEET

E

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	9+99.65, 4.0' RT	CHISLED "X" IN BACK OF CURB	656.54
2	9+06.44, 15.7' RT	CHISLED "X" IN BACK OF CURB	652.73
3	8+48.39, 39.0' LT	TAG BOLT ON FIRE HYDRANT	655.76

CONTROL POINTS				
NO.	STATION	DESCRIPTION	Y	X
1	8+47.19, 26.8' RT	12" NAIL	461095.78	815003.44
2	9+81.10, 19.0' RT	12" NAIL	4610644.75	815131.55
3	10+30.77, 11.2' RT	12" NAIL	461054.23	815180.75
4	11+61.03, 18.2' LT	12" NAIL	461029.64	815314.37

CURVE DATA
PI STA = 9+42.54
Y = 461096.394
X = 815102.403
DELTA = 5°40'38"
D = 9°32'57"
T = 29.75'
L = 59.45'
R = 600.00'
PC STA = 9+12.79
PT STA = 9+72.24



PROJECT NO:	5985-00-77	HWY:	LOC STR	COUNTY:	GRANT	PLAN AND PROFILE:	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



- 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 1½" X 1½" 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.

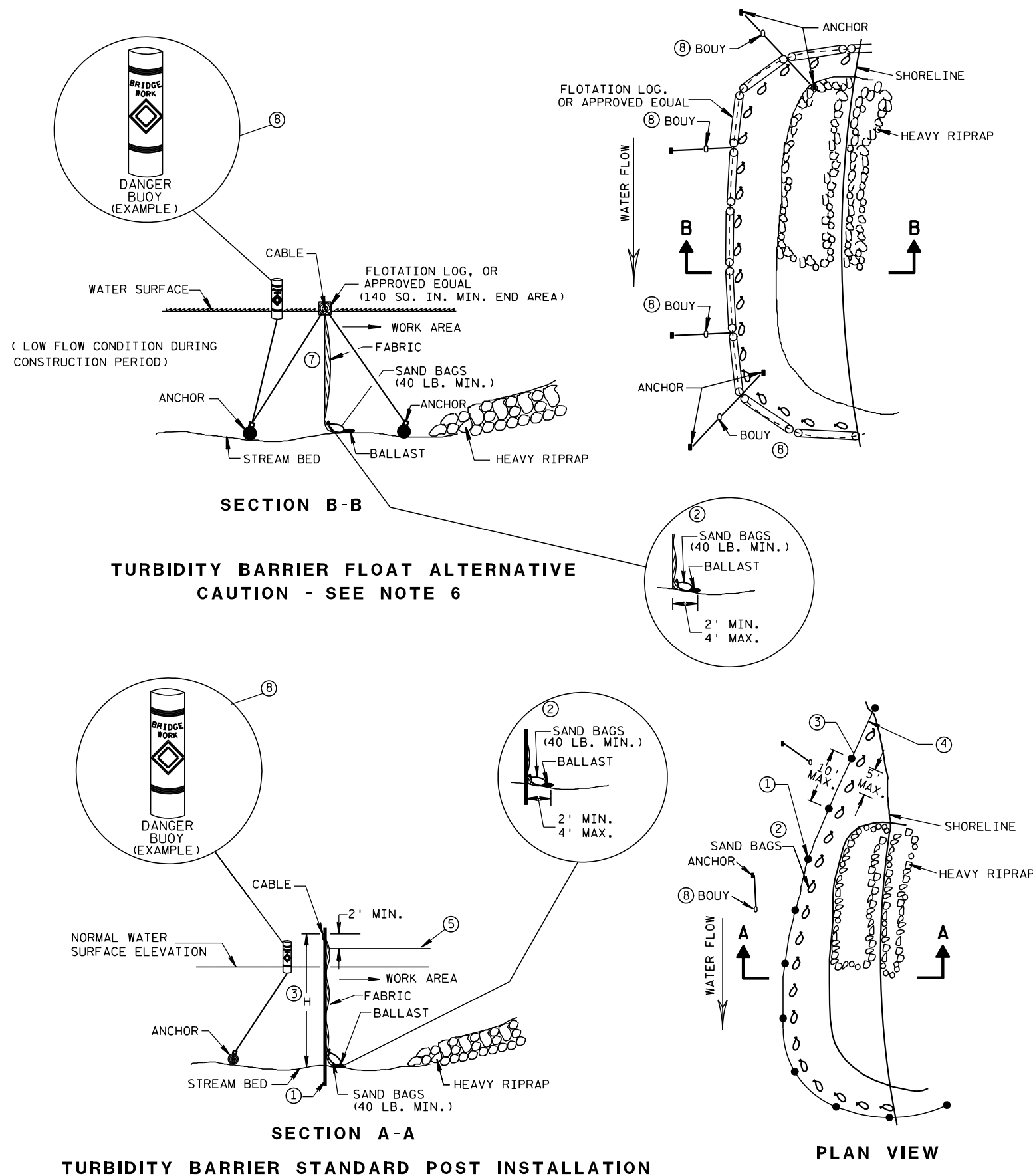


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

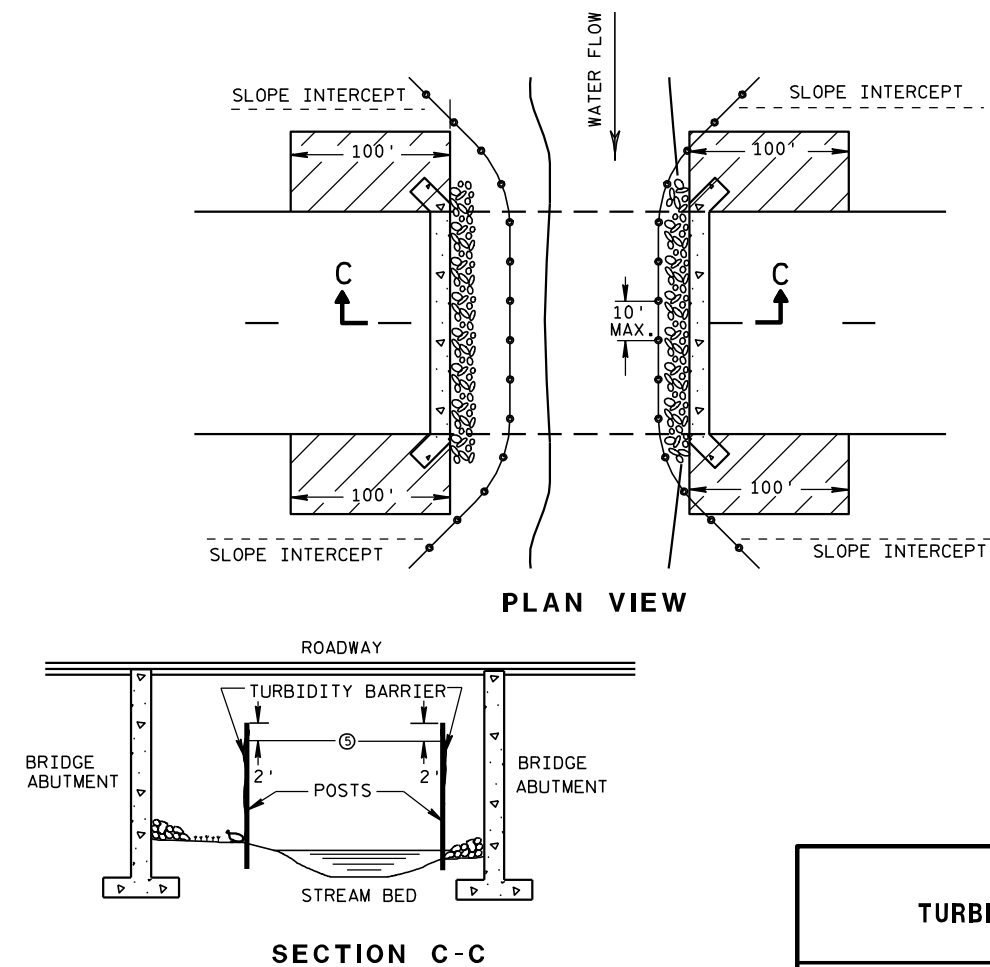


GENERAL NOTES

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

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 SANDBAGS 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 FT., 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 02 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 BED ROCK 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.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

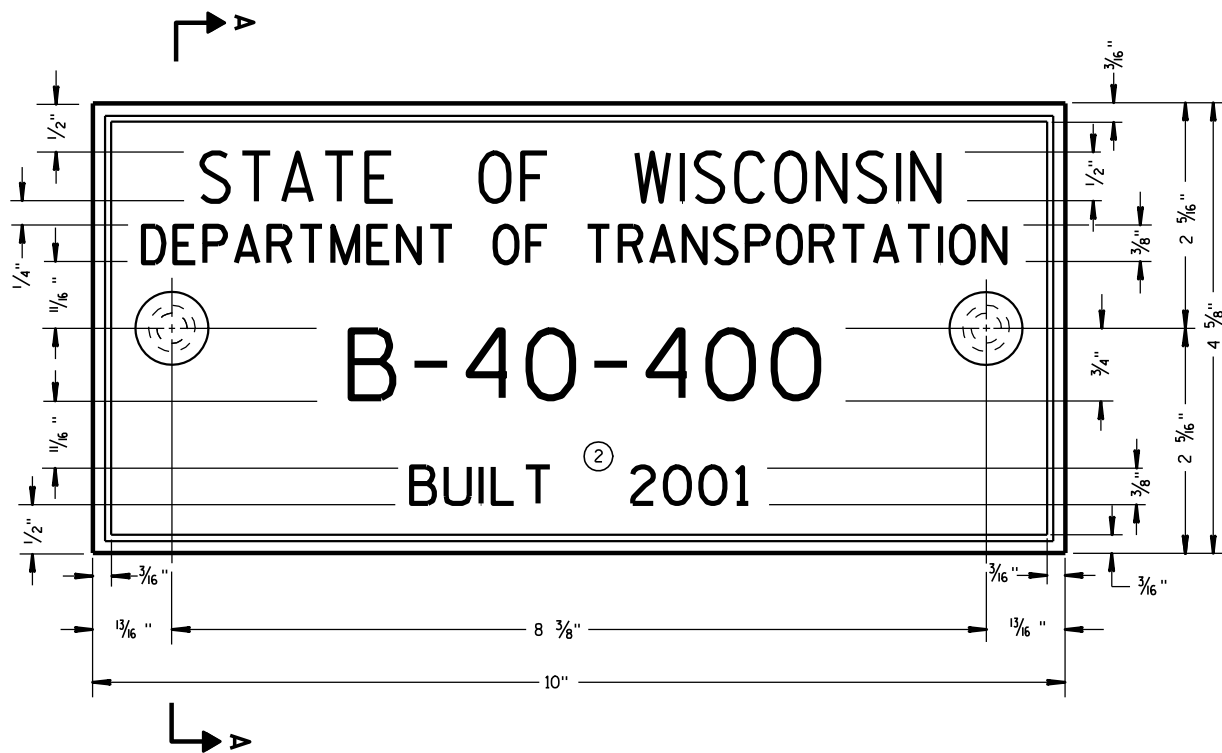
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

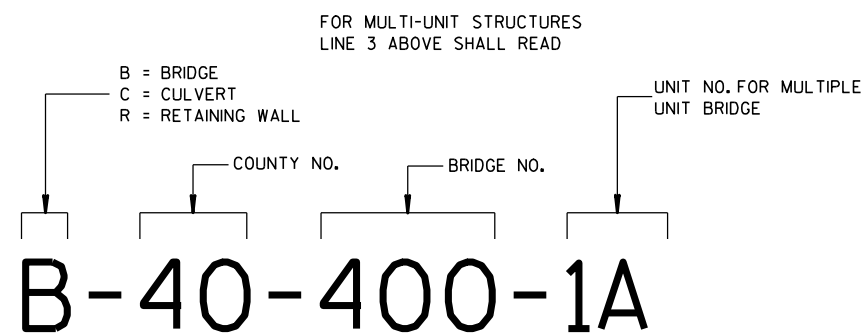
6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



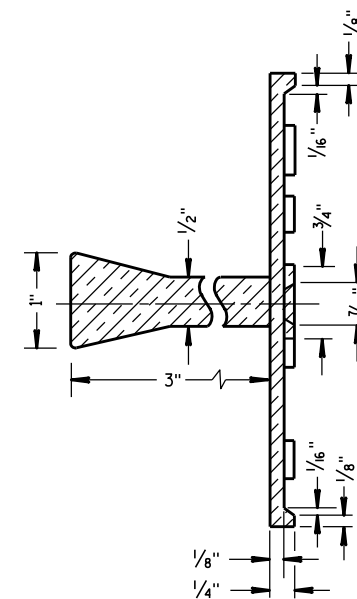
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

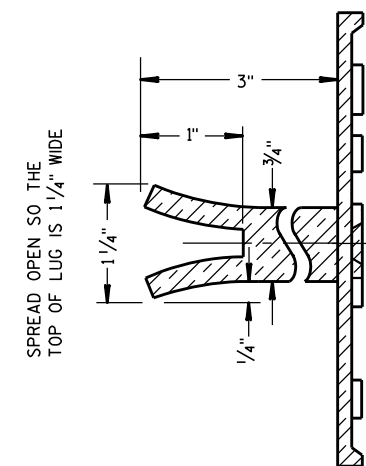
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

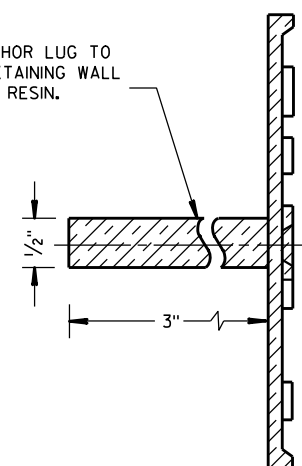


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

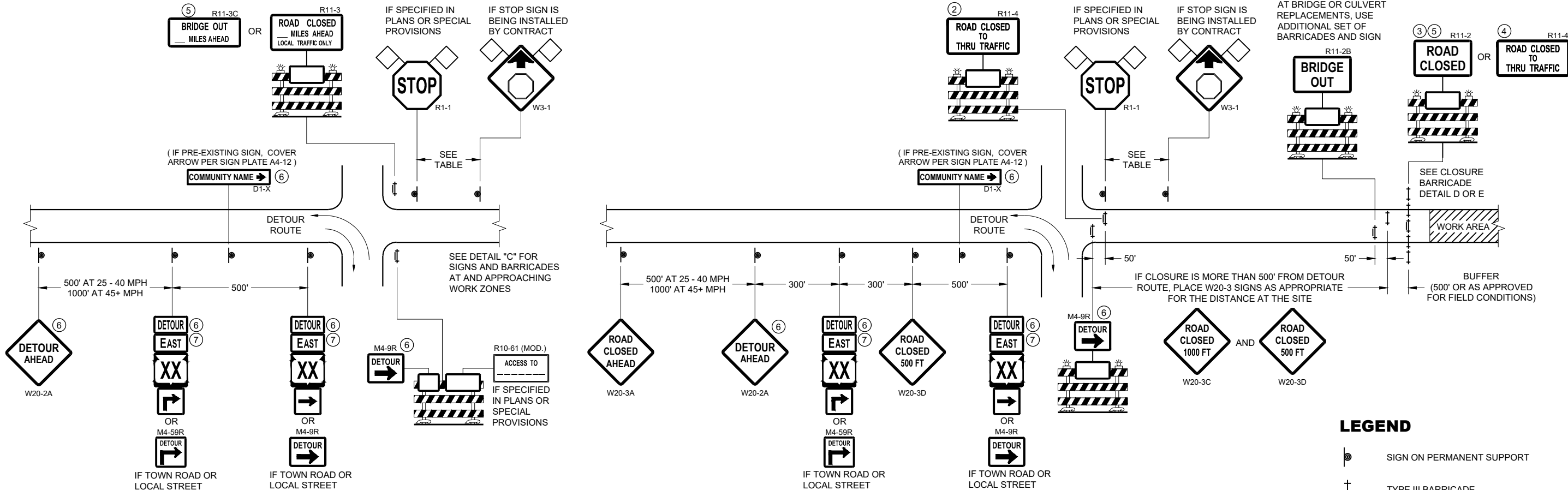
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

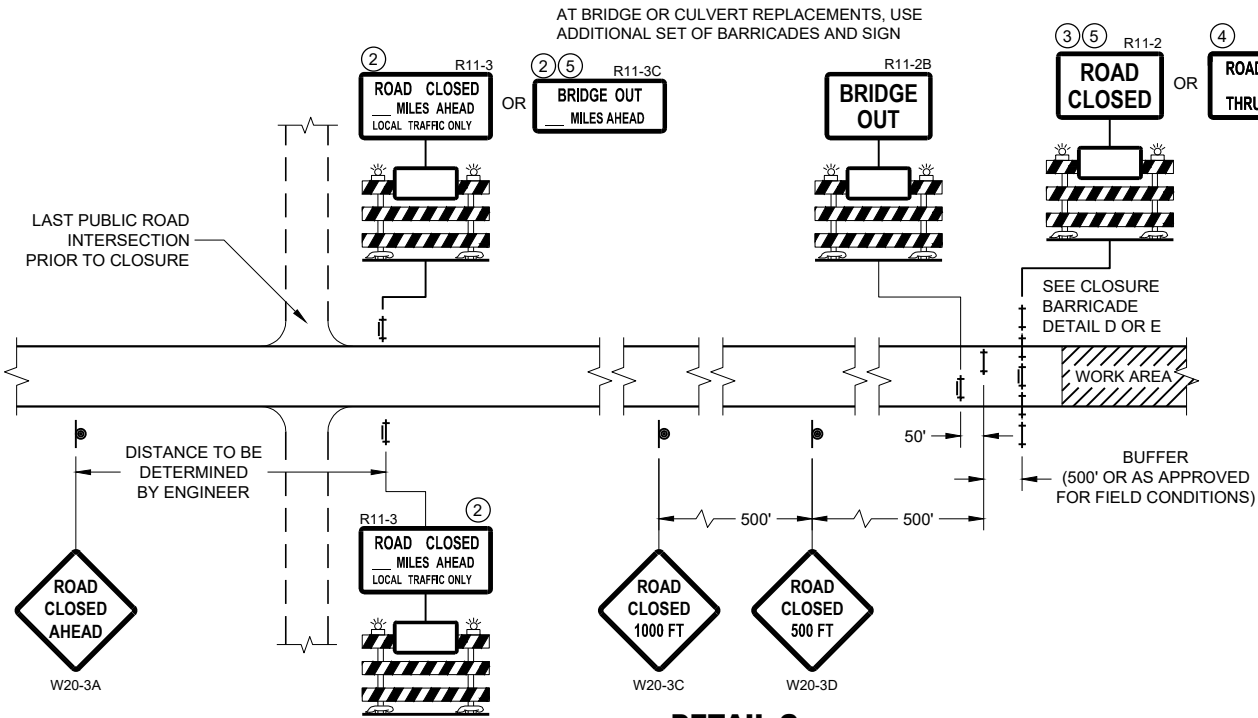


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



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

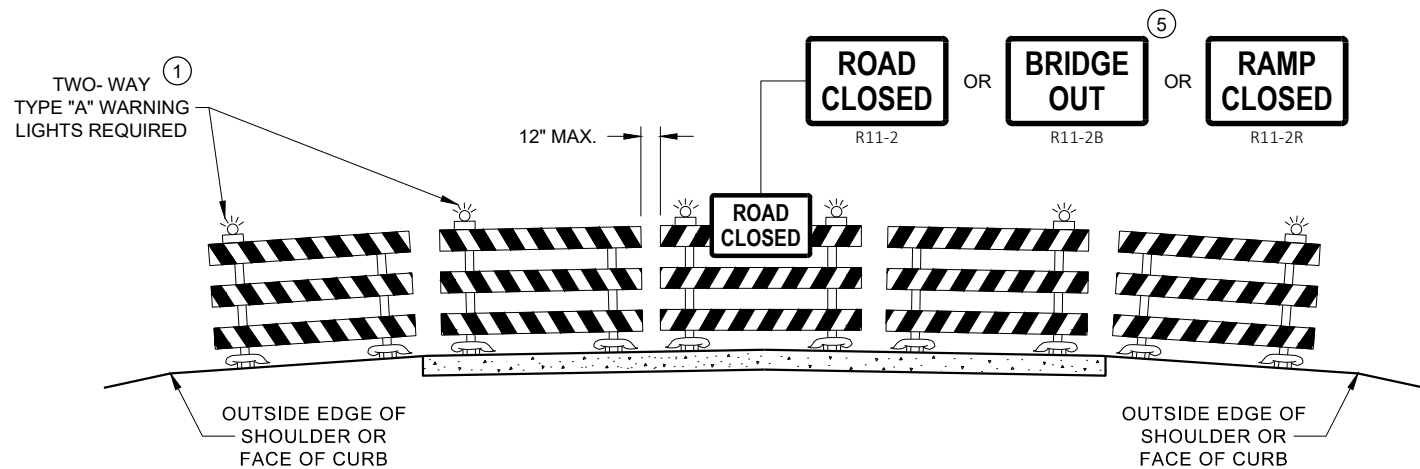
LEGEND

- 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

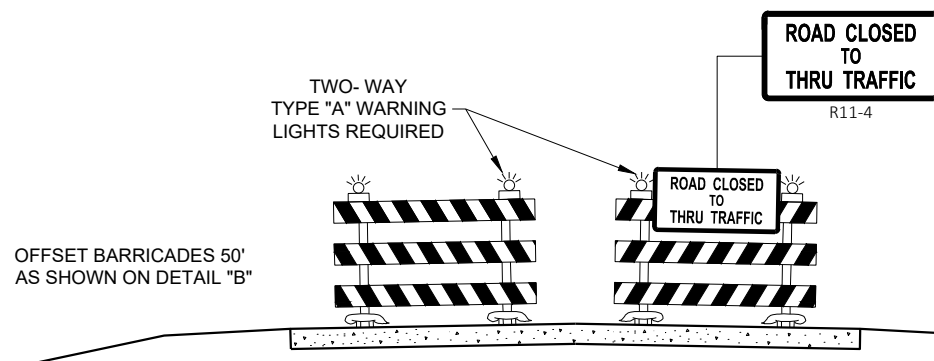
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

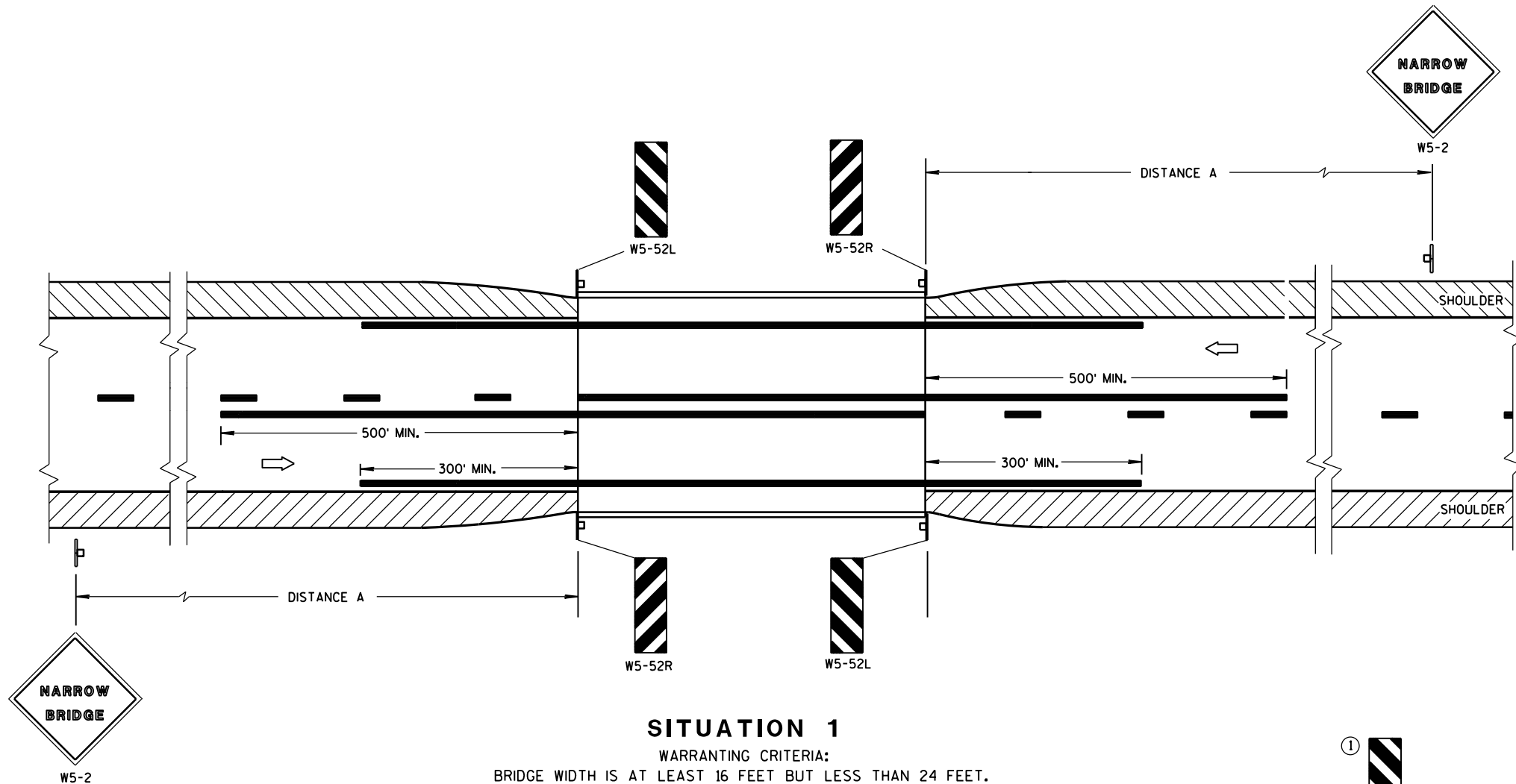
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SITUATION 1

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

DISTANCE TABLE

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

GENERAL NOTES

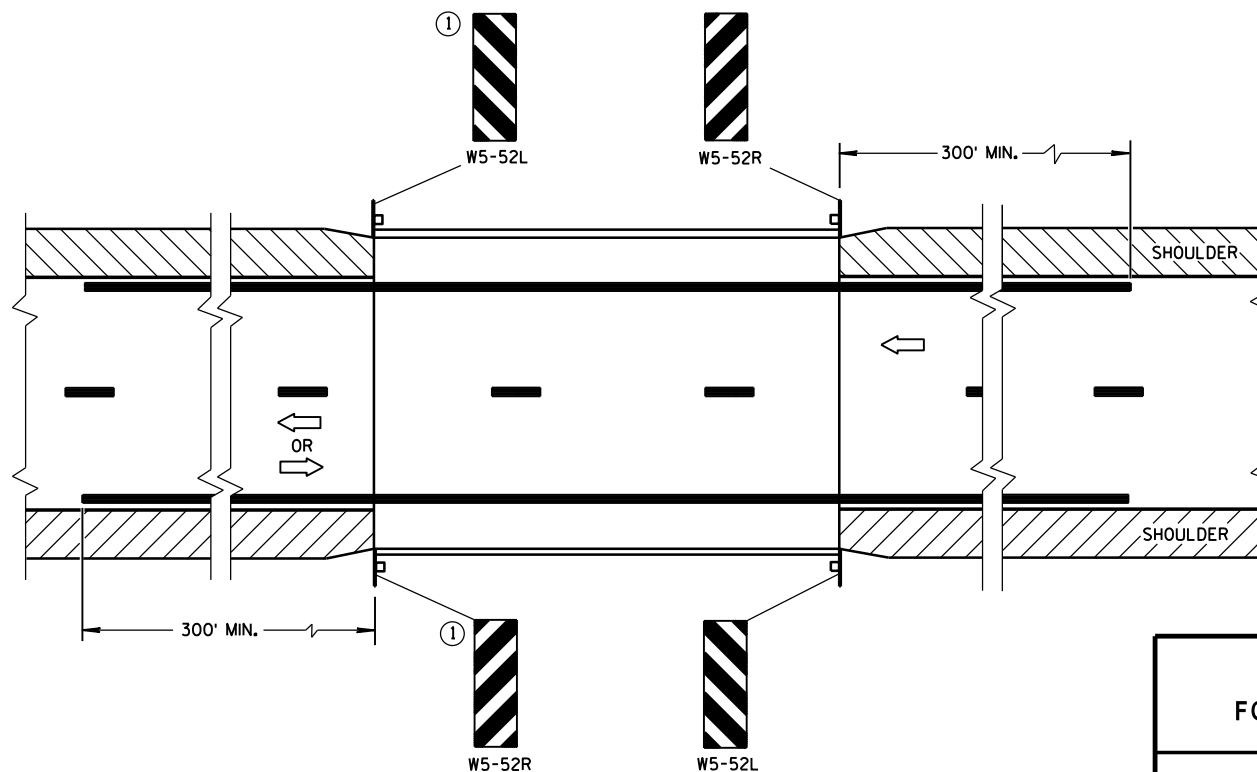
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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 2

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

SIGNING & MARKING FOR TWO LANE BRIDGES

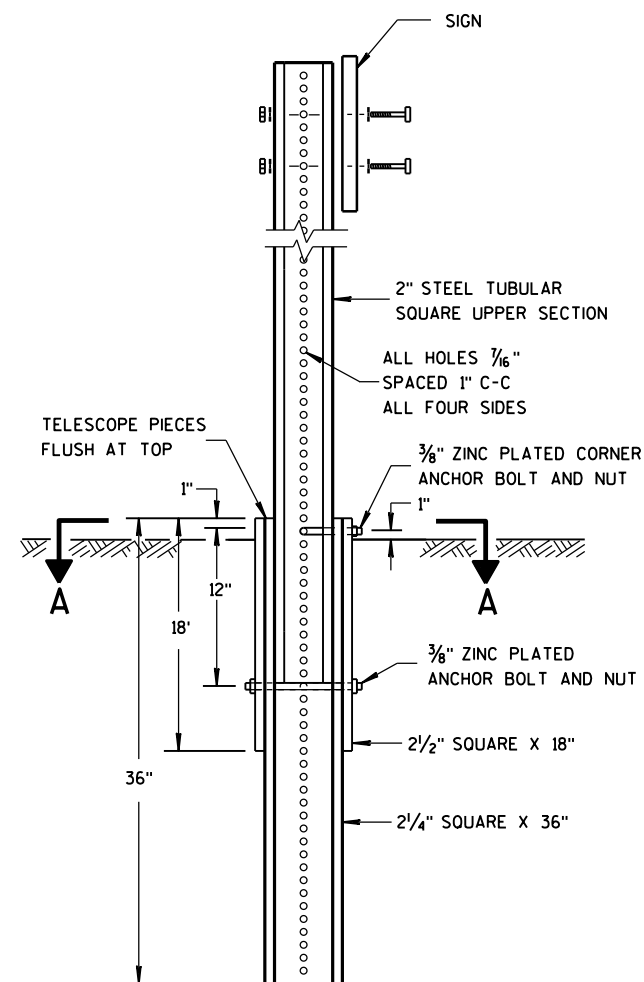
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

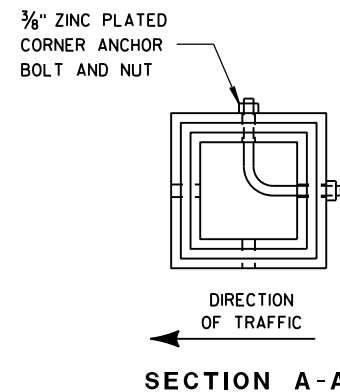


DETAIL OF TUBULAR
STEEL SIGN POST

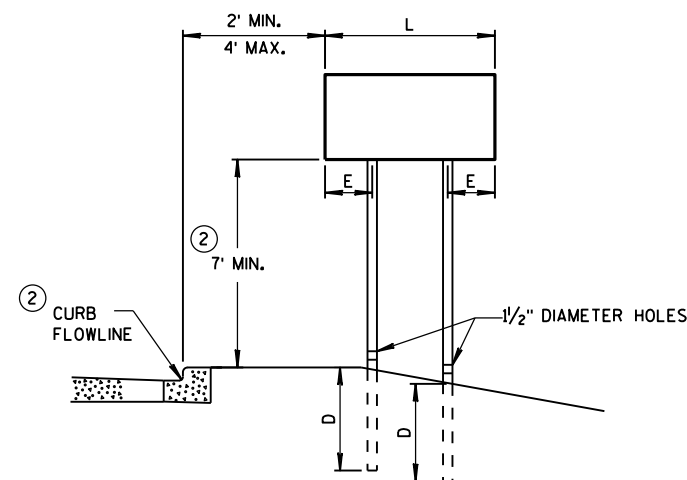
TUBULAR STEEL POSTS

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.



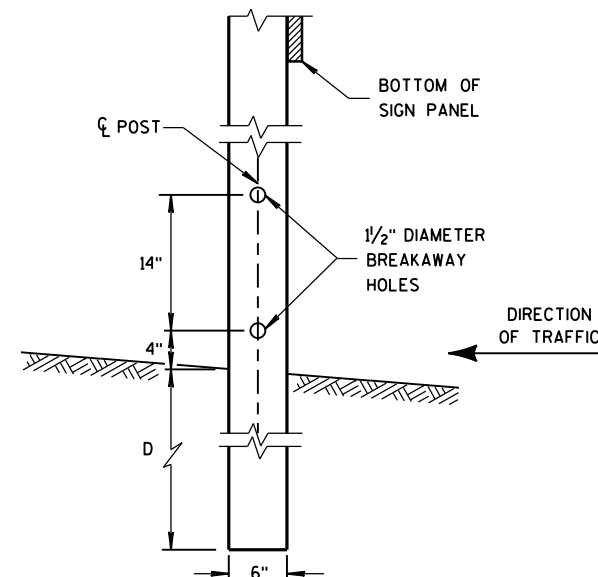
SECTION A-A



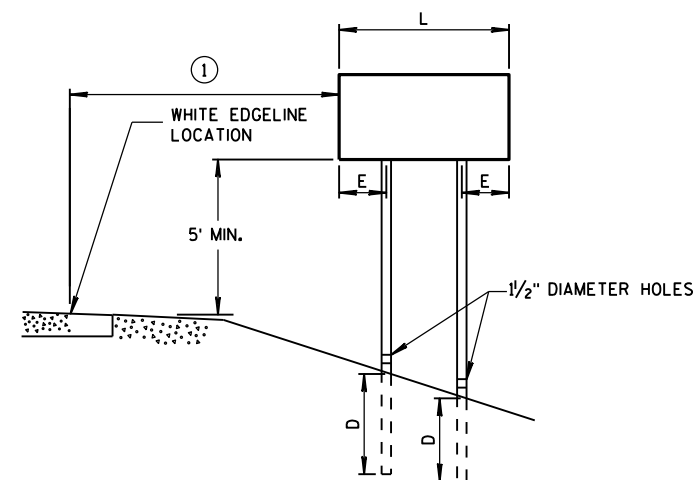
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

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

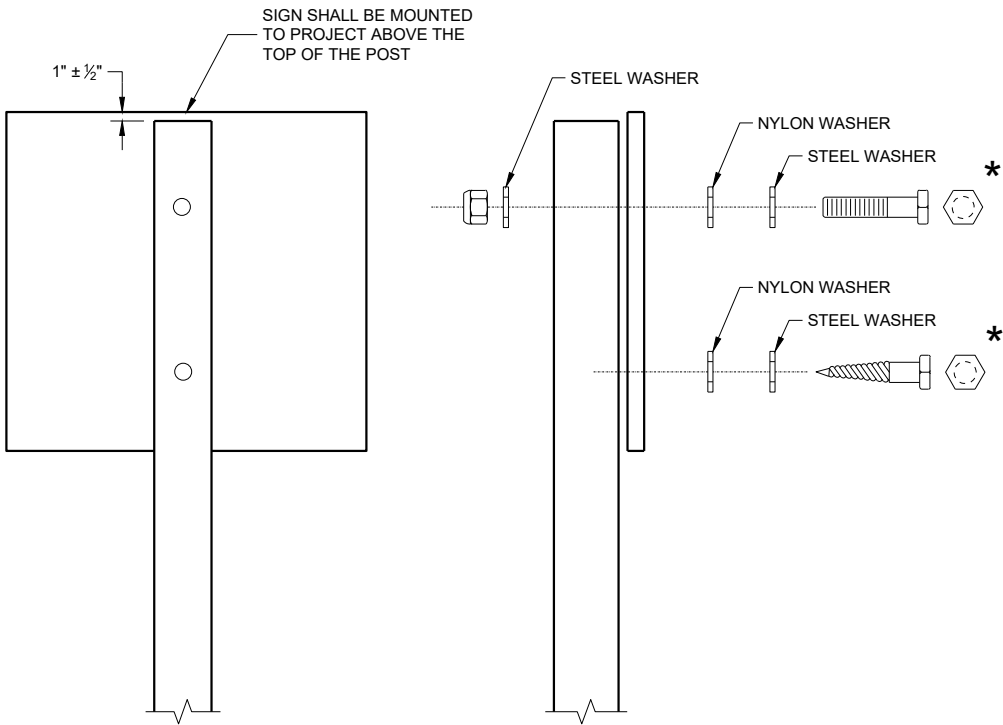
SEE NOTE ③

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.

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.

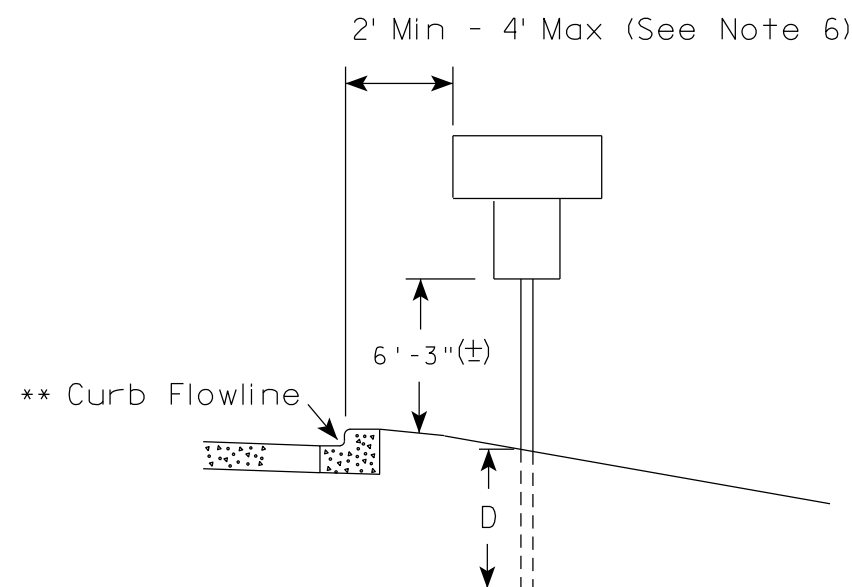
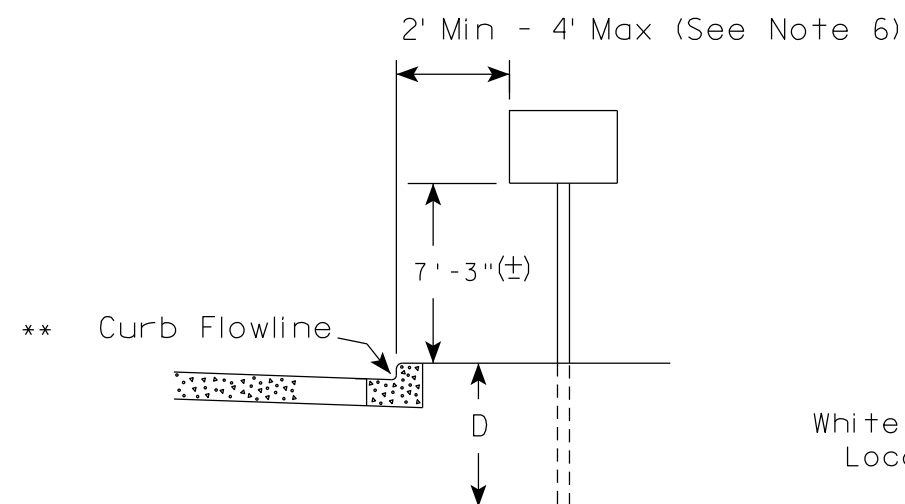
ATTACHMENT OF SIGNS
TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

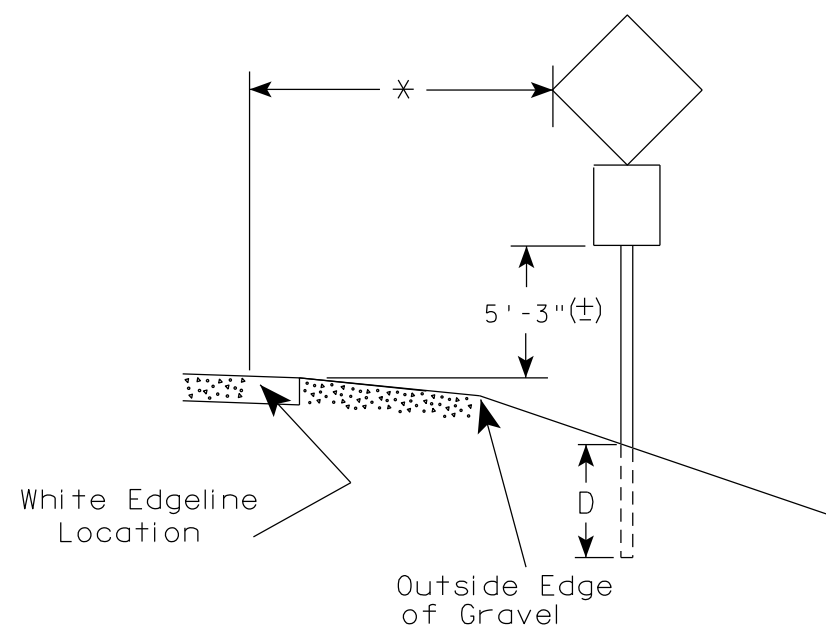
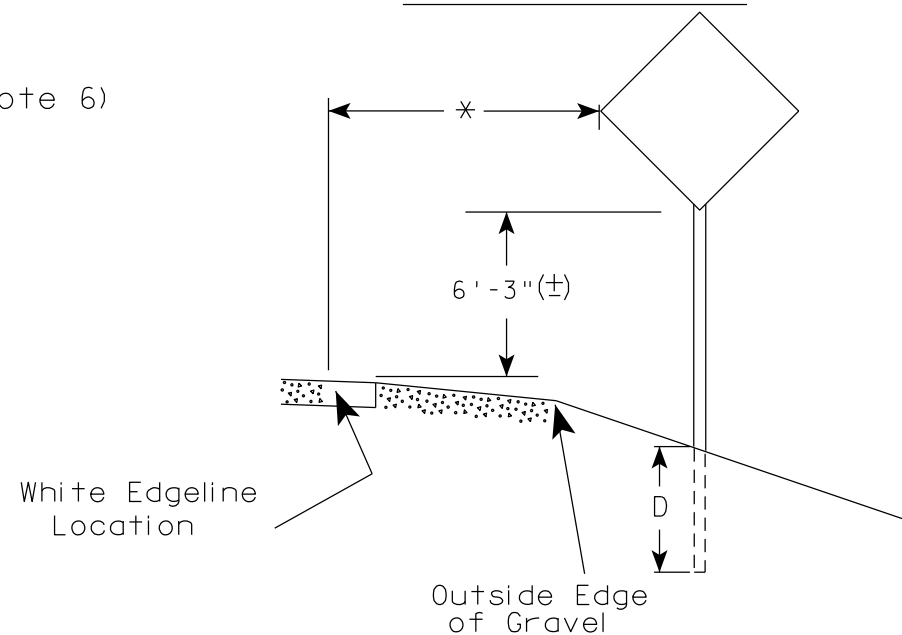
FHWA

URBAN AREA



✱✱ 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

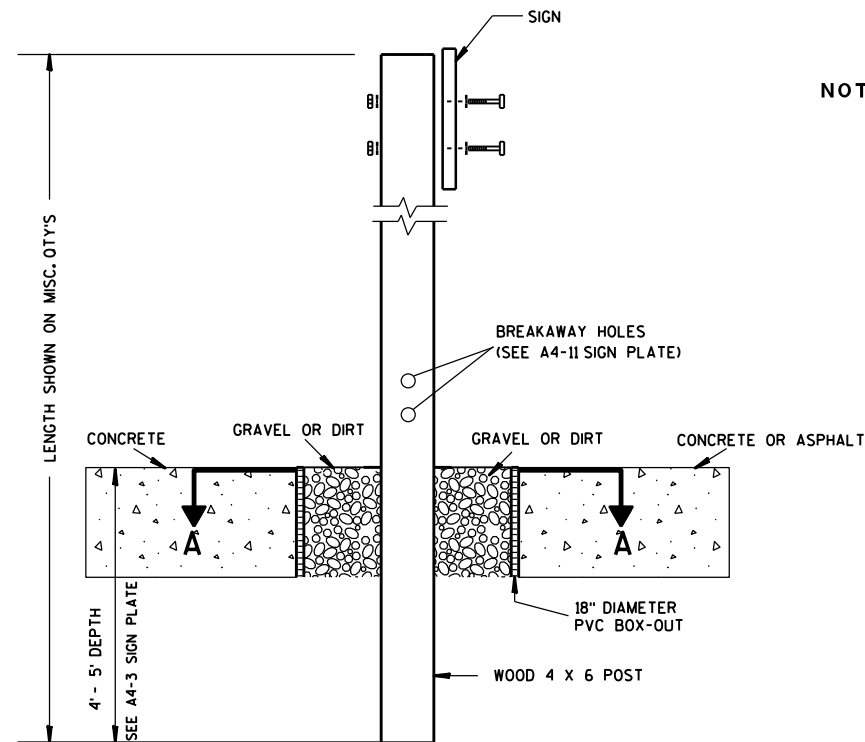
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (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.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

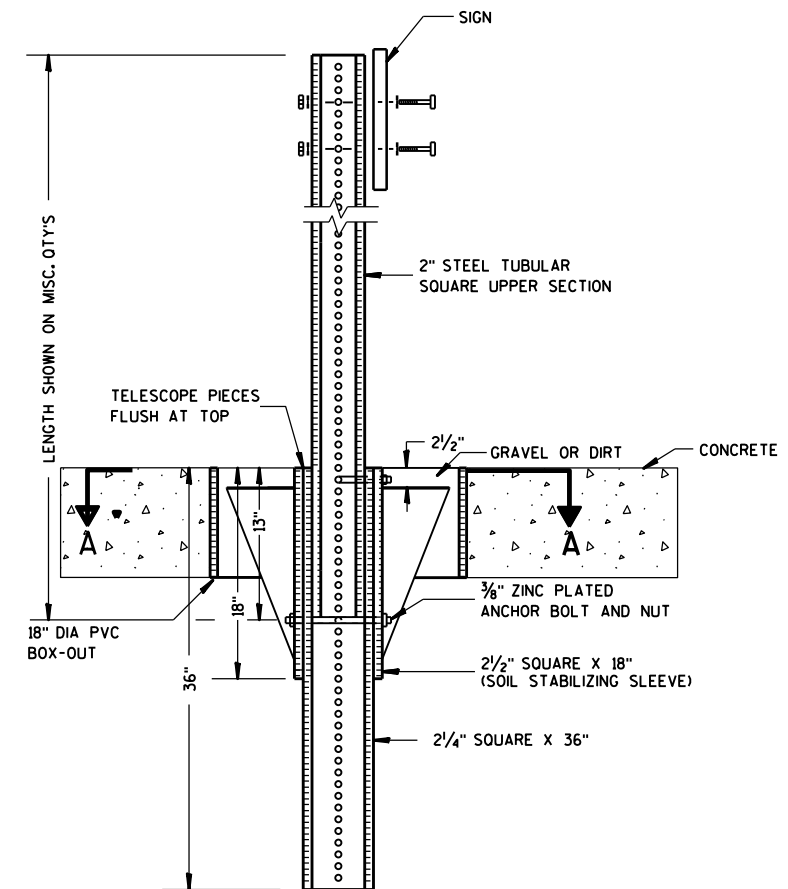
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

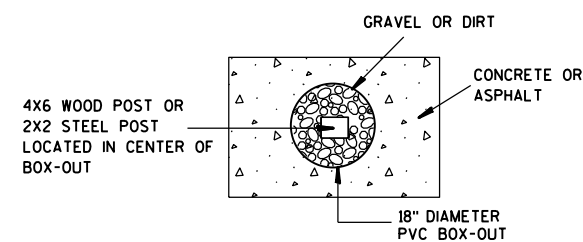
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

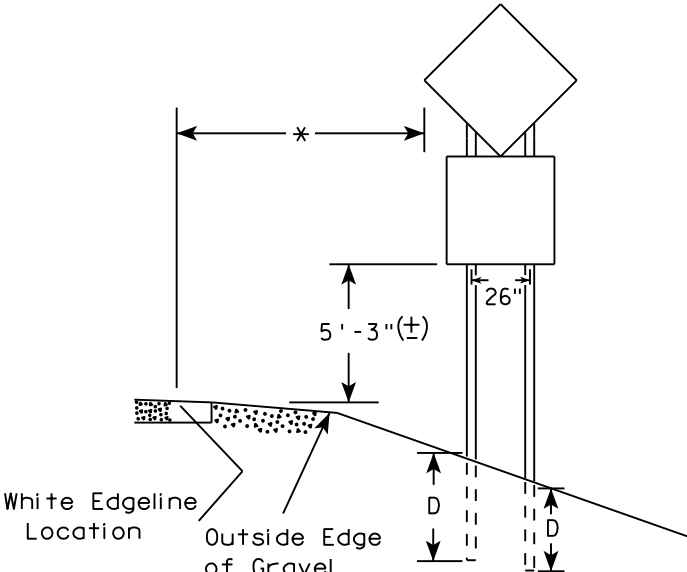
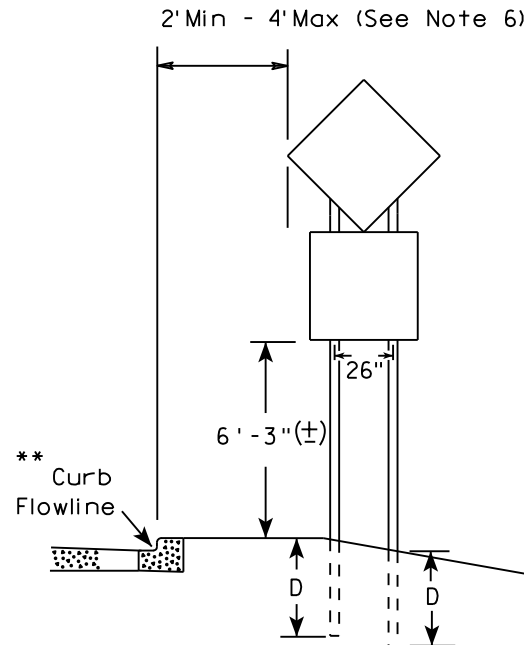
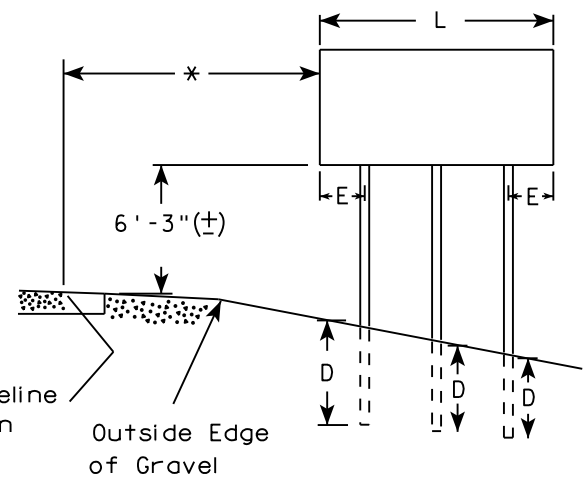
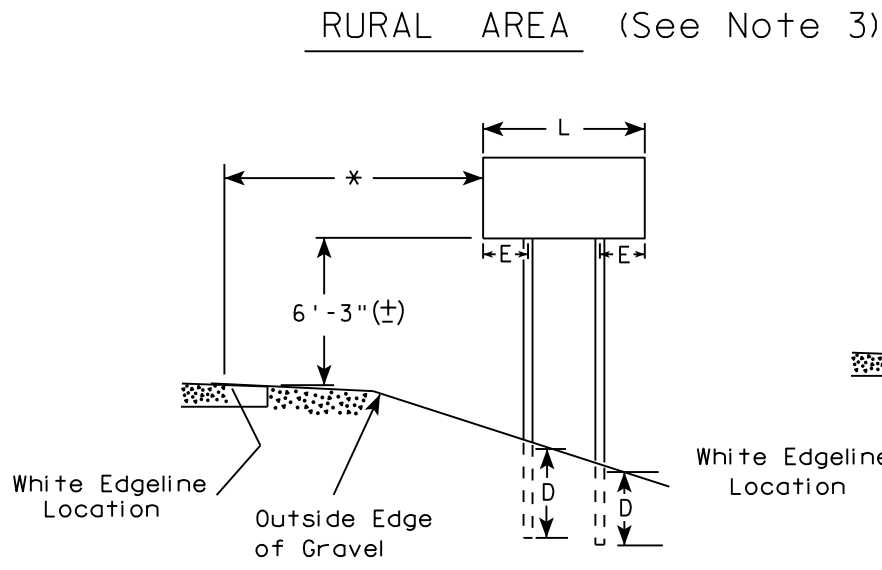
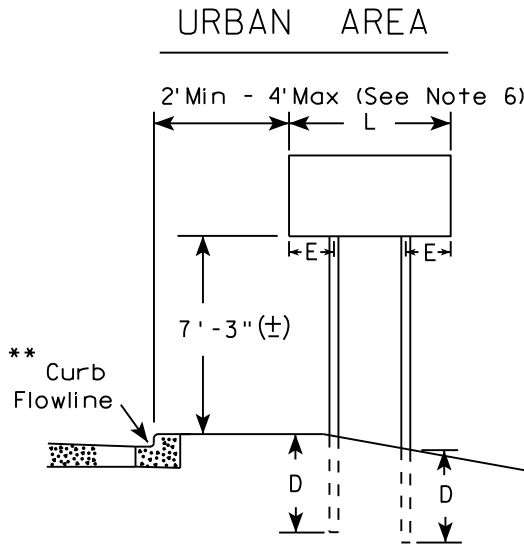
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

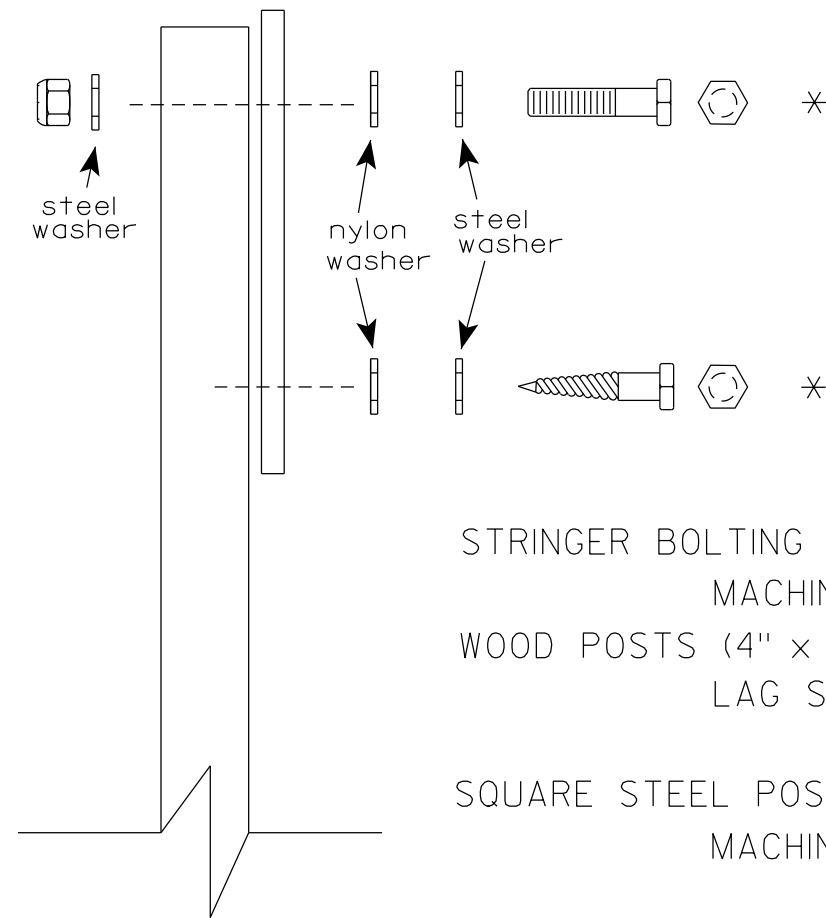
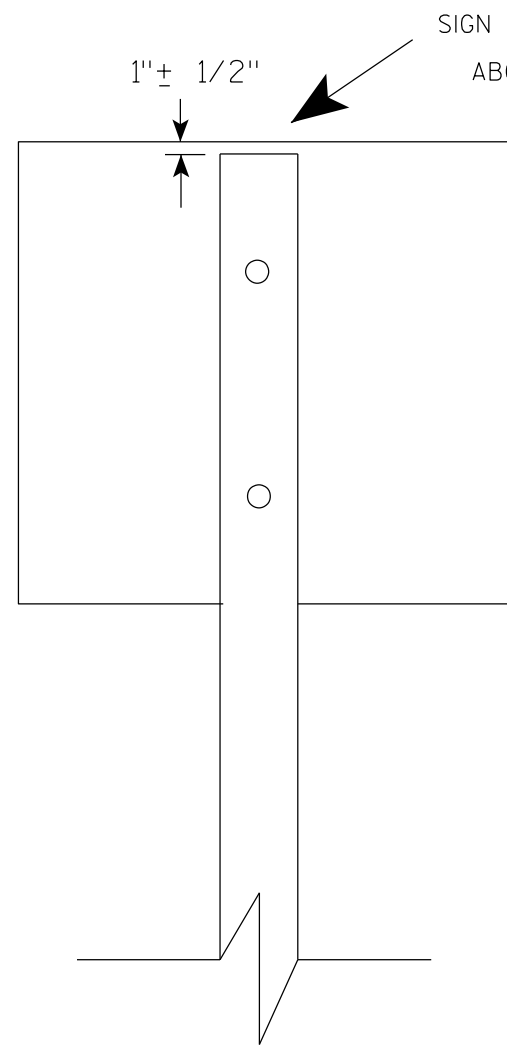
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

- 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" (±).

- * 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.



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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**

Technical drawing of a rectangular plate with the following specifications:

- Overall height: 36"
- Overall width: 2 1/4"
- Top edge offset: 1"
- Top edge offset: 1/8"
- Hole pattern: ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
- Additional text on the right: 4" ST AS TO OF

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

LENGTH SHOWN ON MISC. QTYS

TELESCOPE PIECES FLUSH AT TOP

18" DIA SCHEDULE 40 PVC BOX-OUT

36"

18"

13"

2 1/2"

2 1/4" SQUARE X 36"

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

3/8" ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES

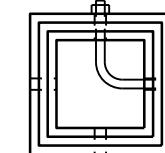
3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

[illegible]

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



DIRECTION
OF TRAFFIC

SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

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

PROJECT NO:

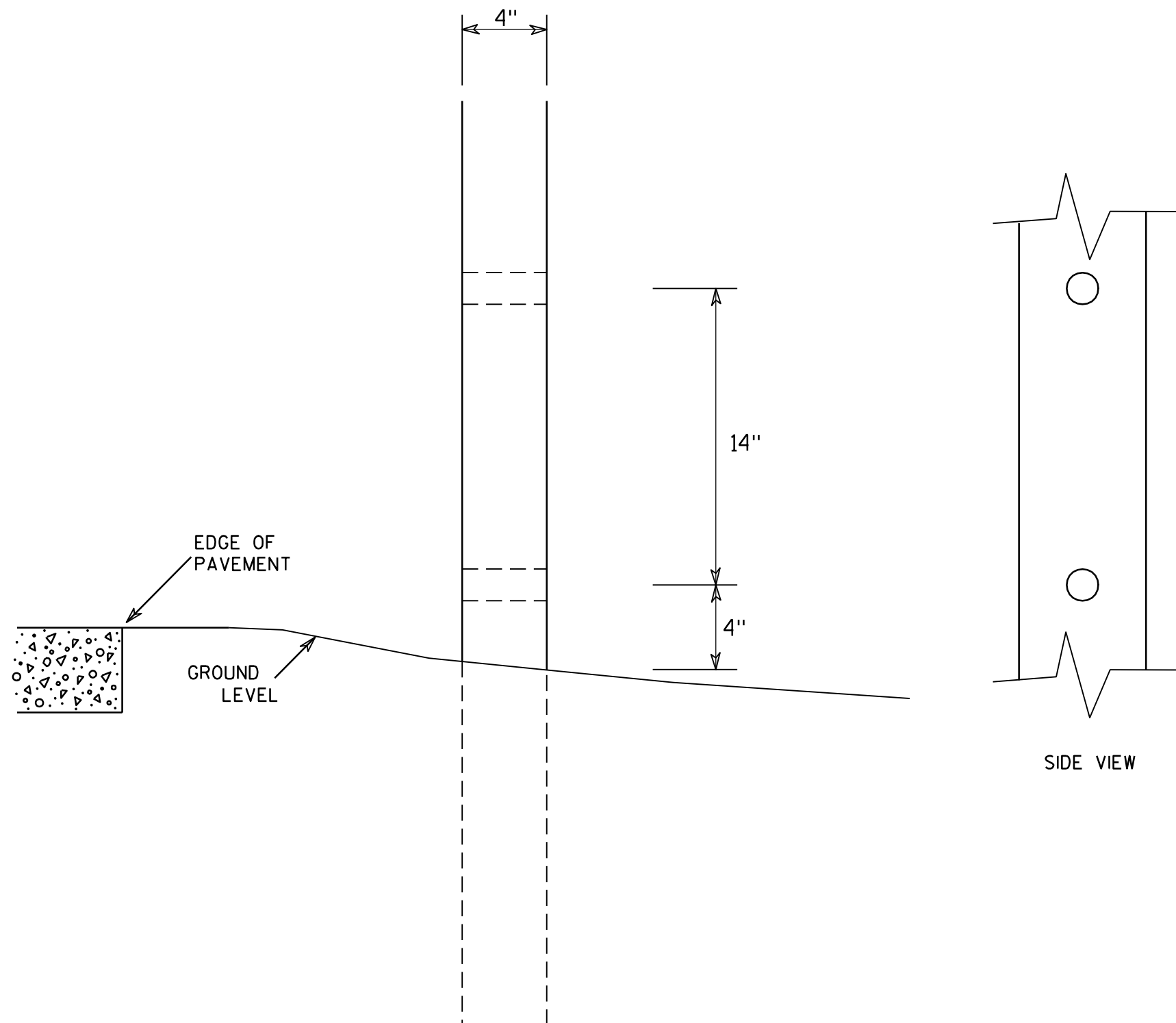
HWY:

COUNTY:

SHEET NO:

T

7



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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

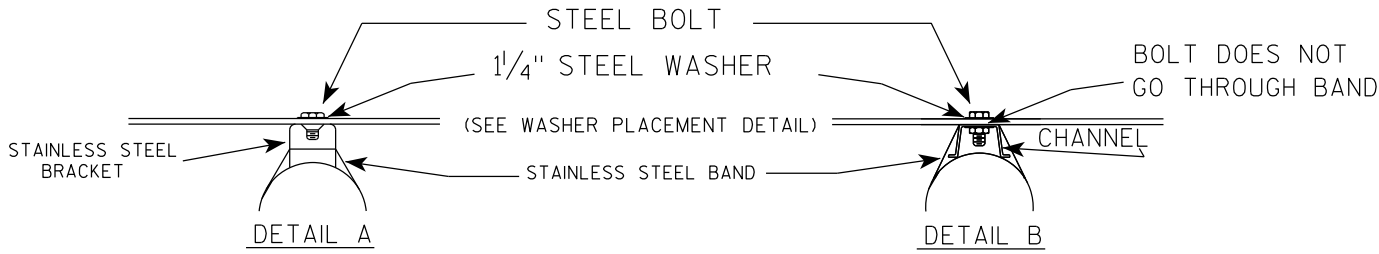
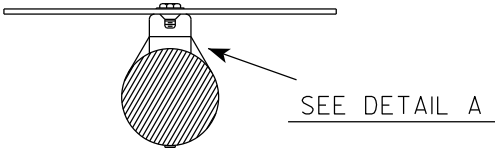
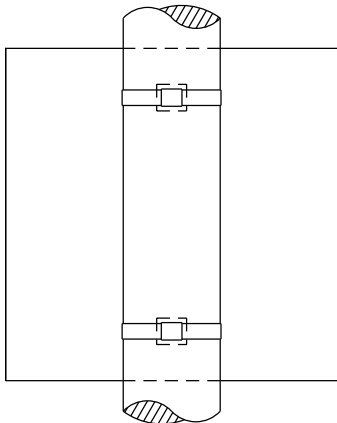
COUNTY:

SHEET NO:

E

BANDING

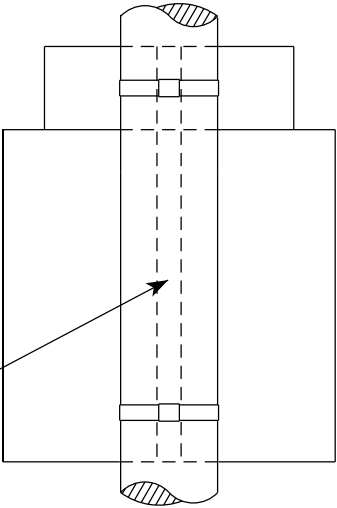
SINGLE SIGN



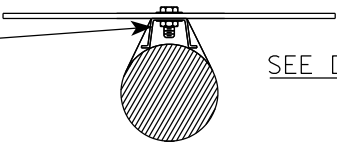
GENERAL NOTES

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 $\frac{3}{4}$ " 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

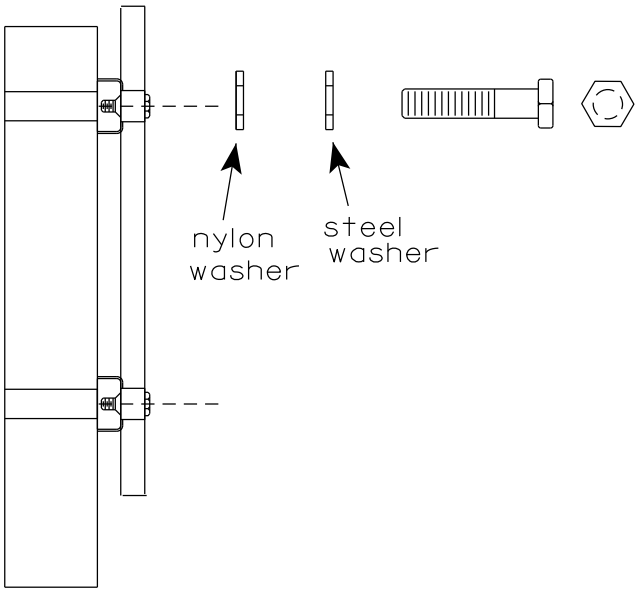
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



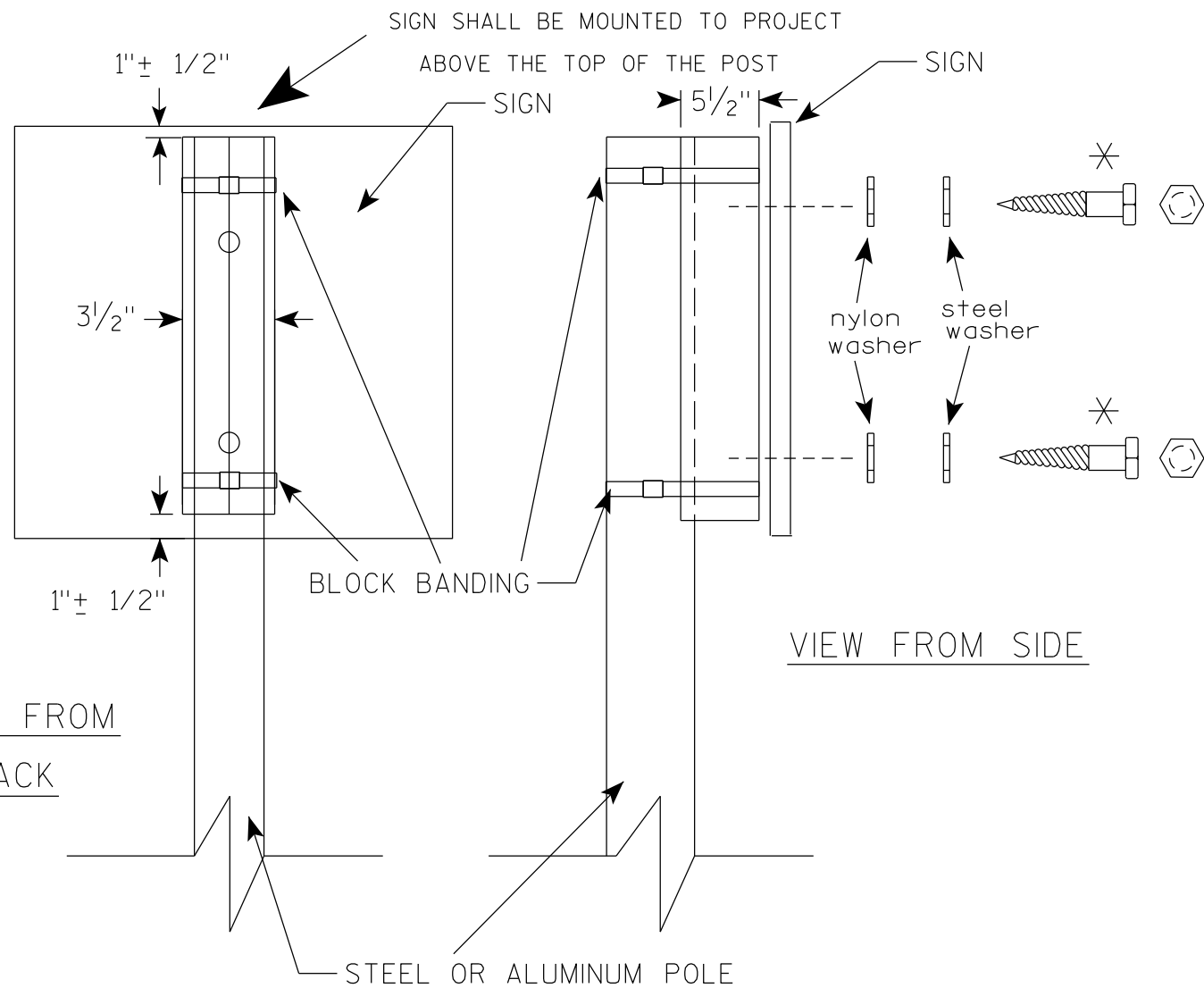
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

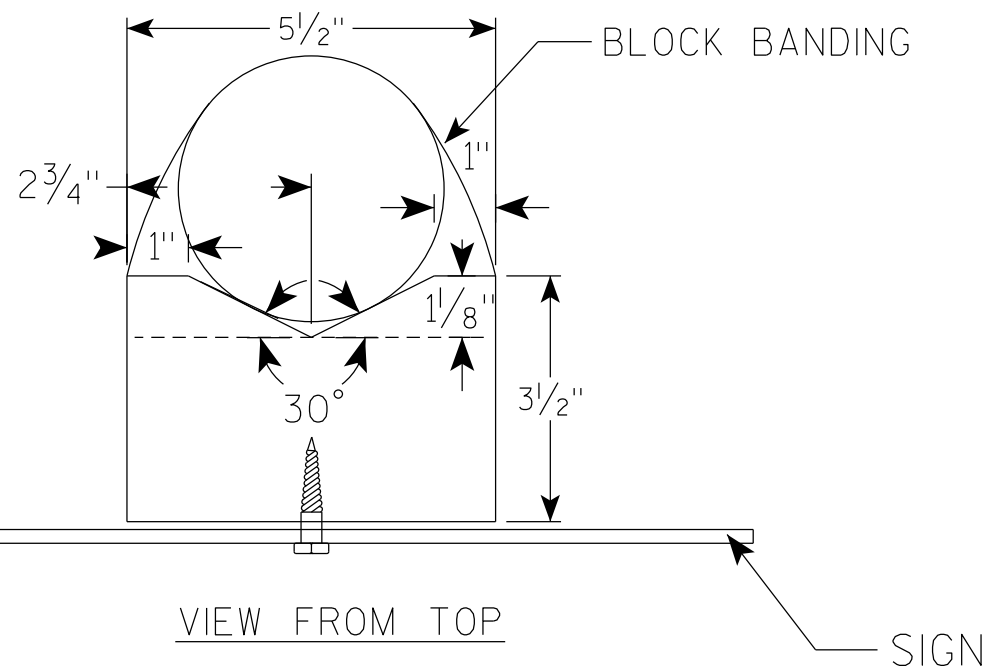
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM
BACK



VIEW FROM SIDE



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

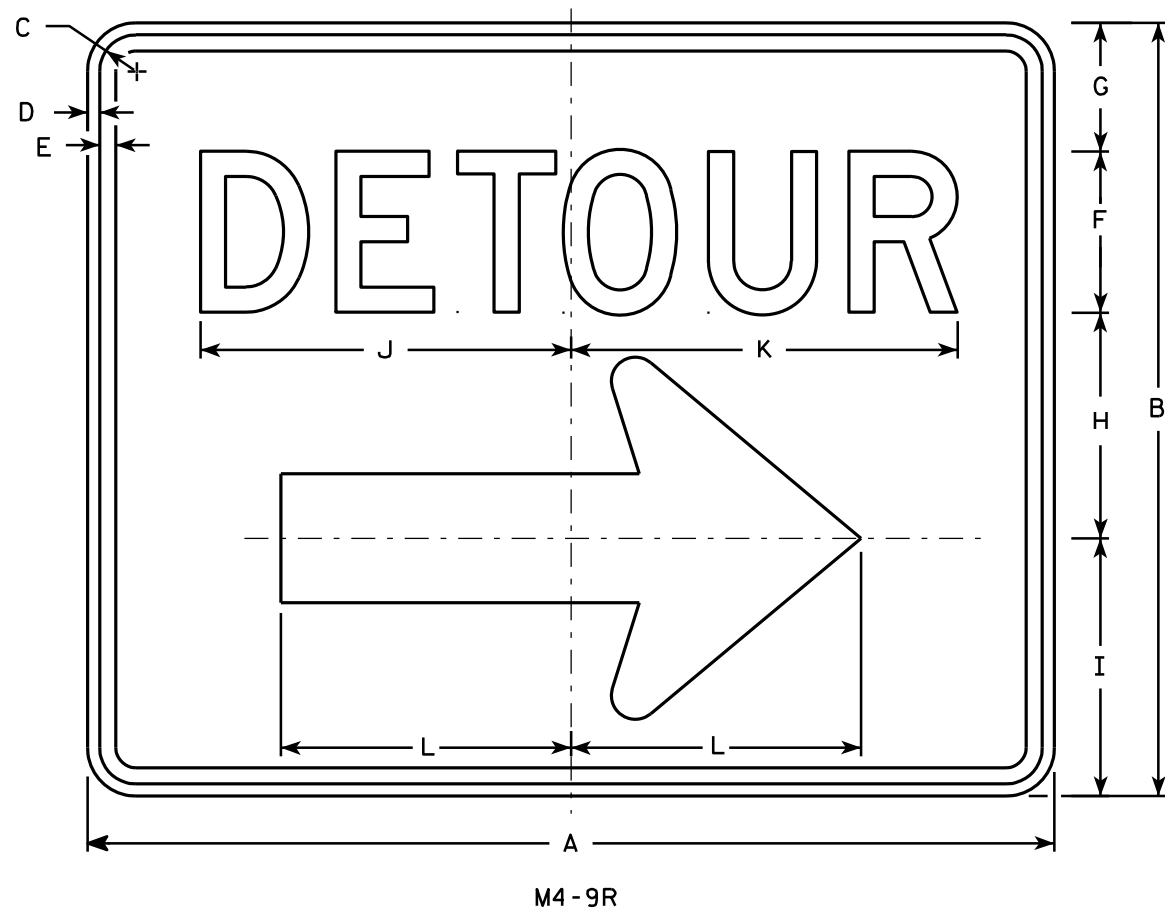
APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

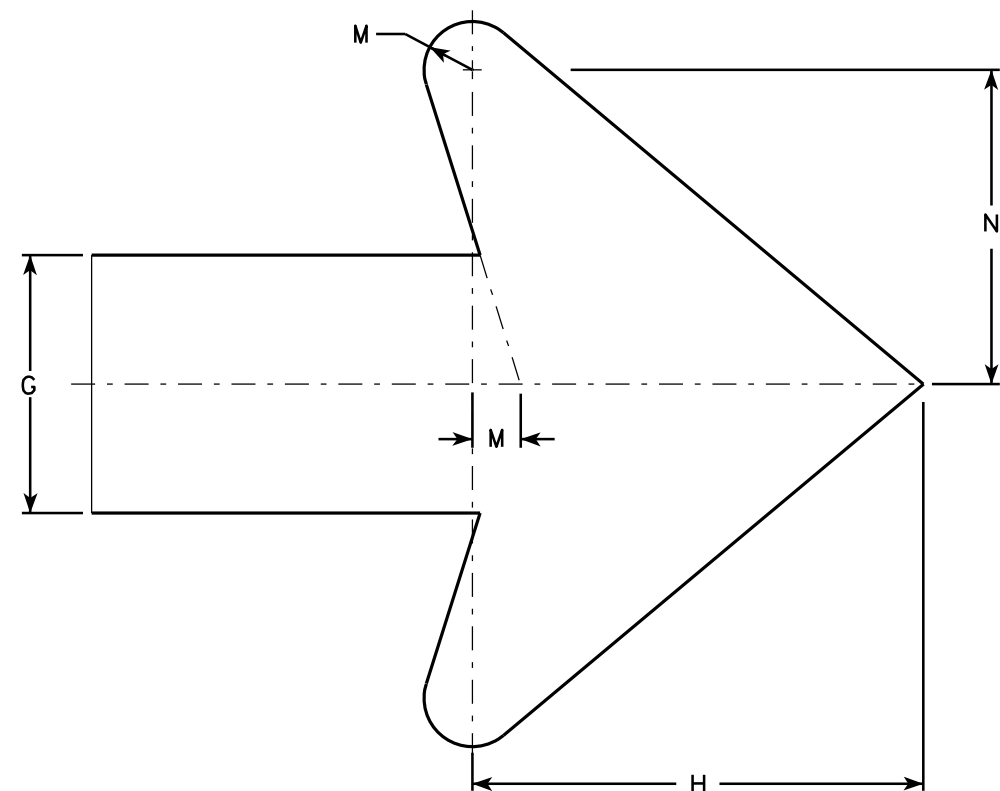
SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
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. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

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																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

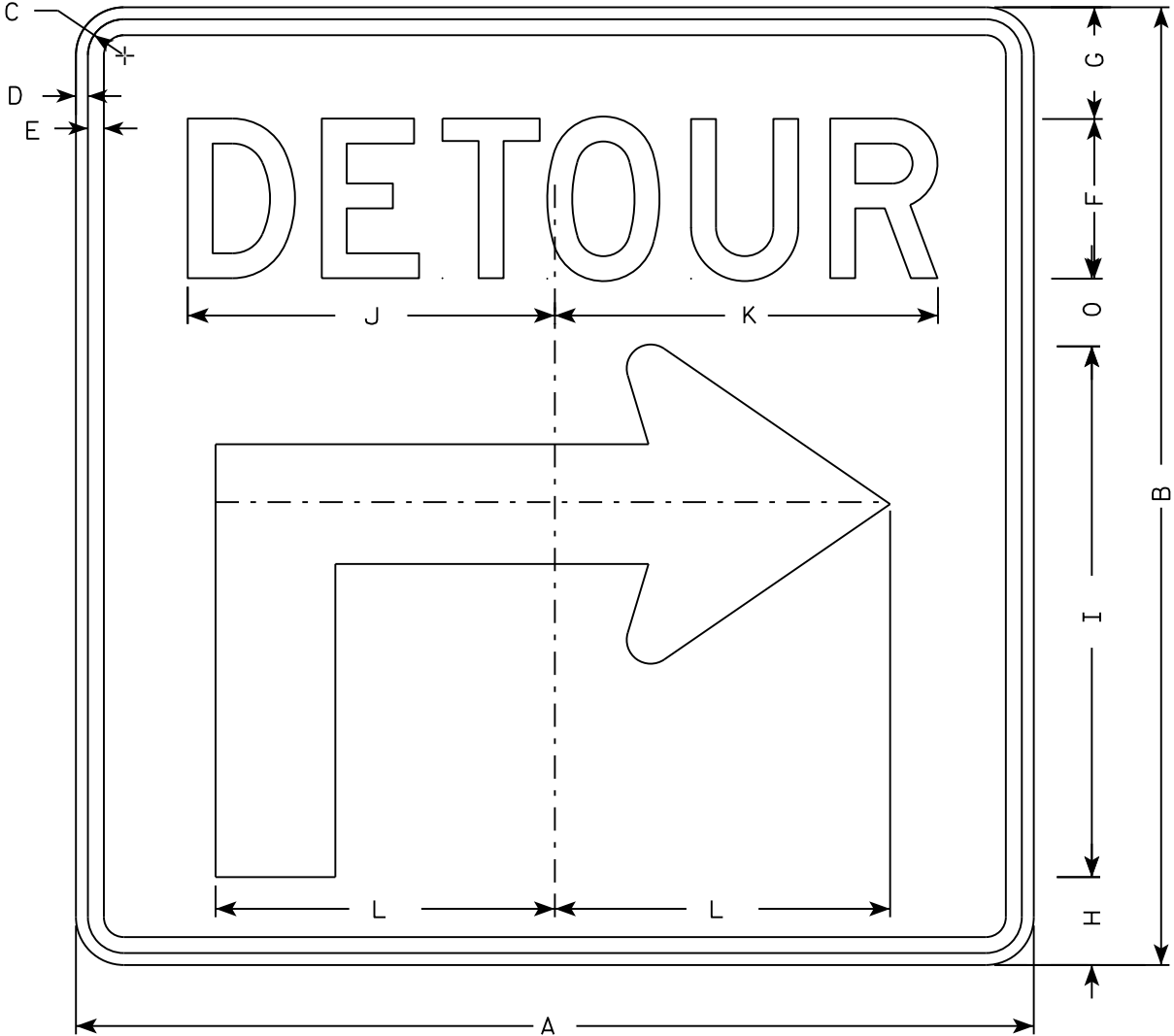
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

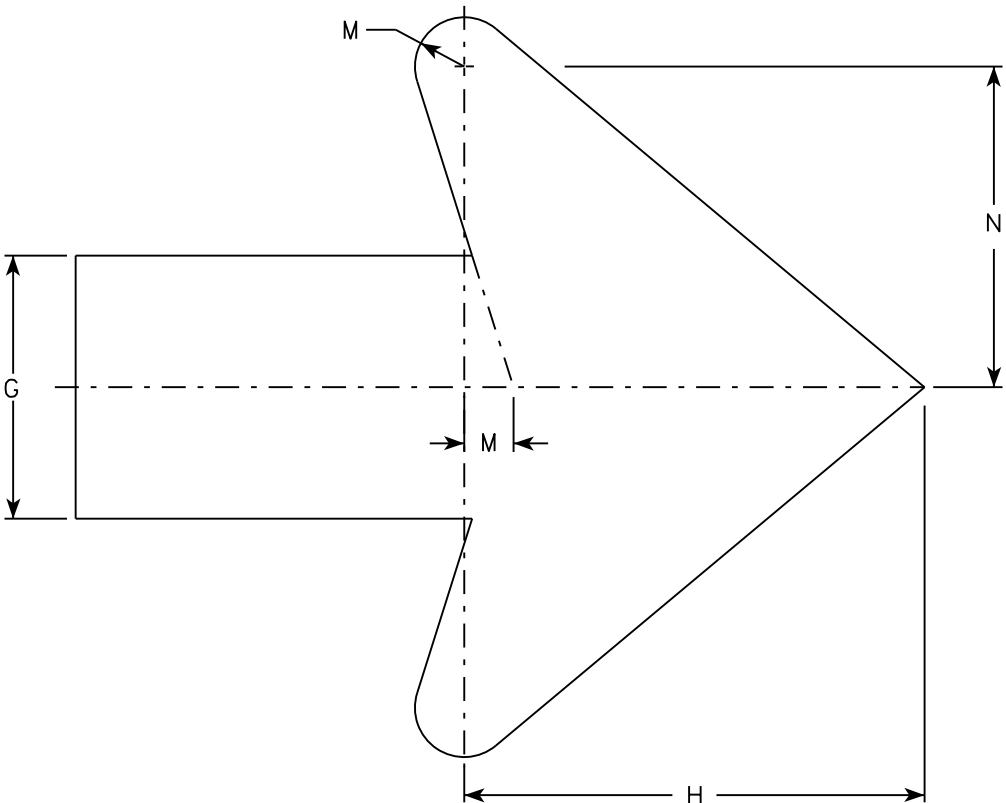
E



M4-59R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown when base material is metal.
- 5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

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																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

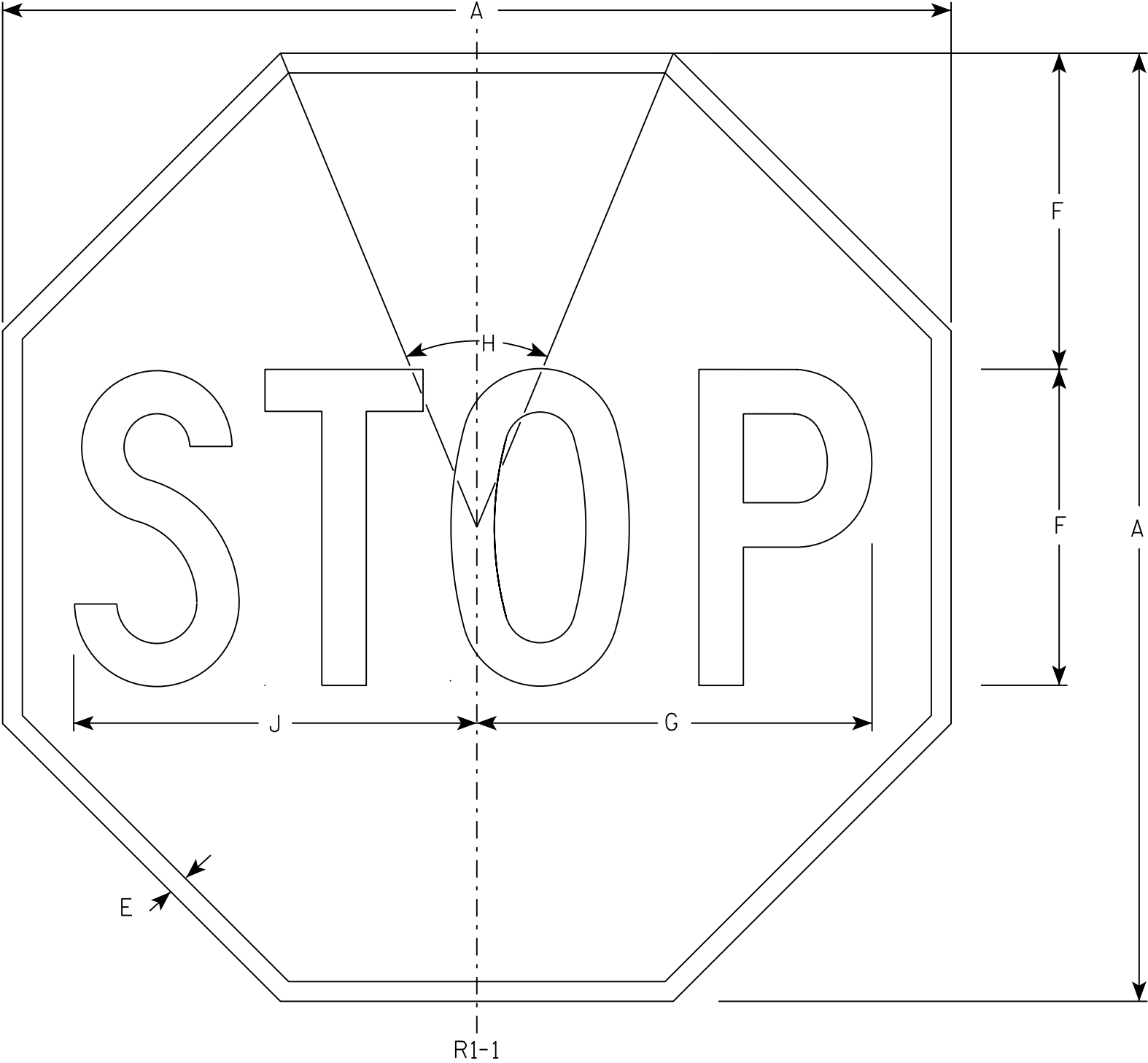
STANDARD SIGN
M4-59 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE NO. M4-59.1

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

7

R1-1

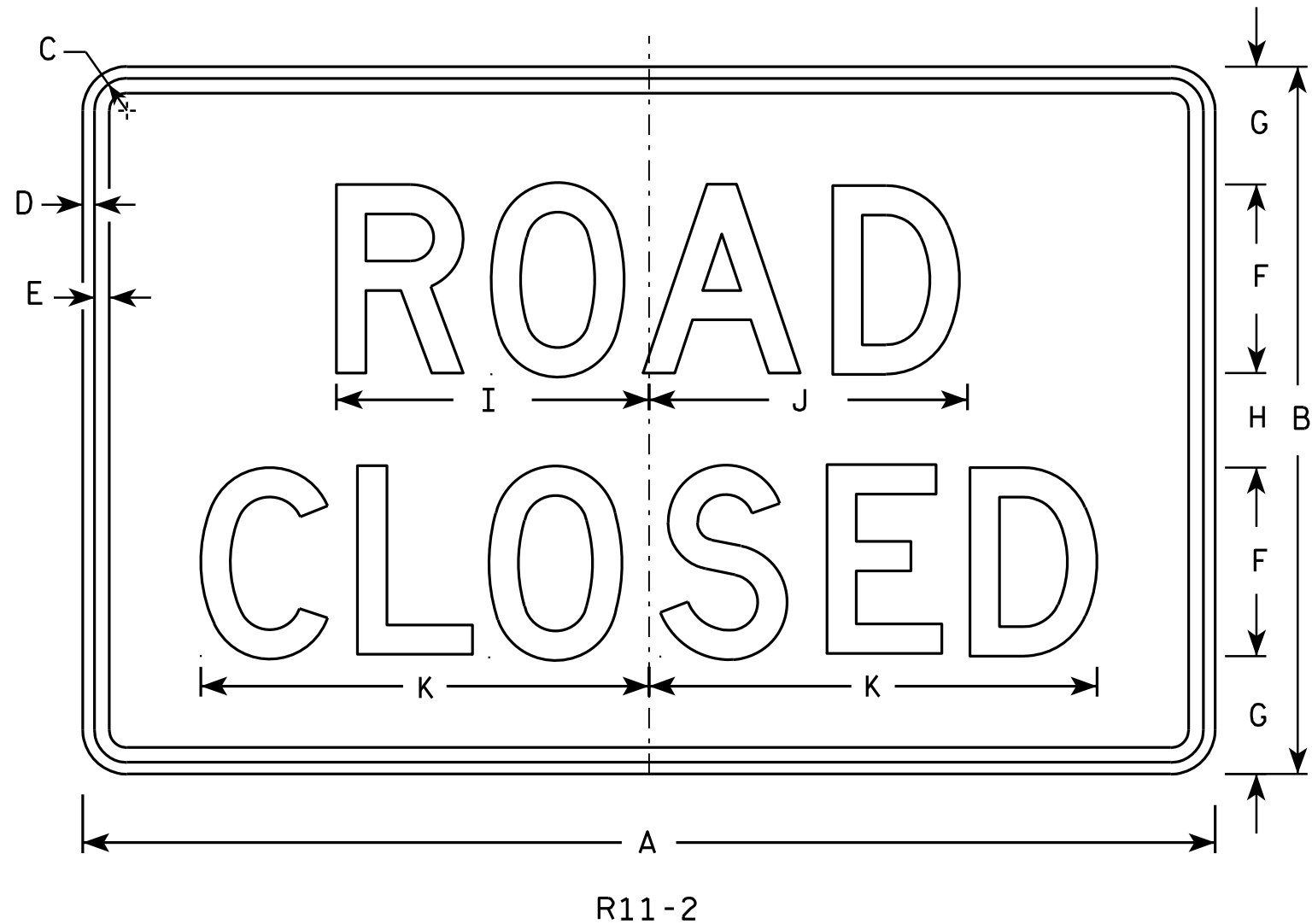
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

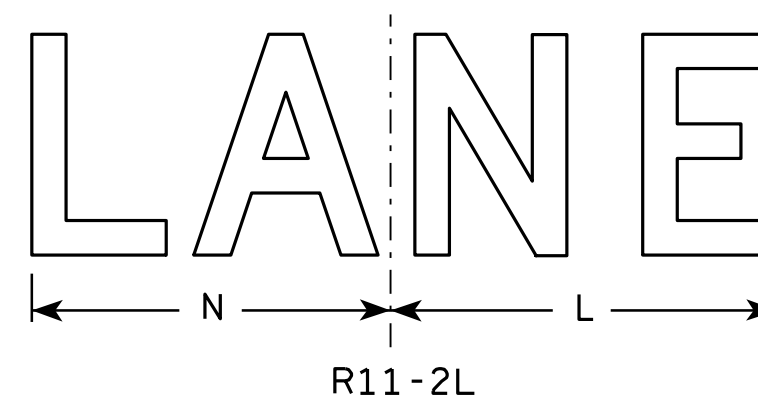
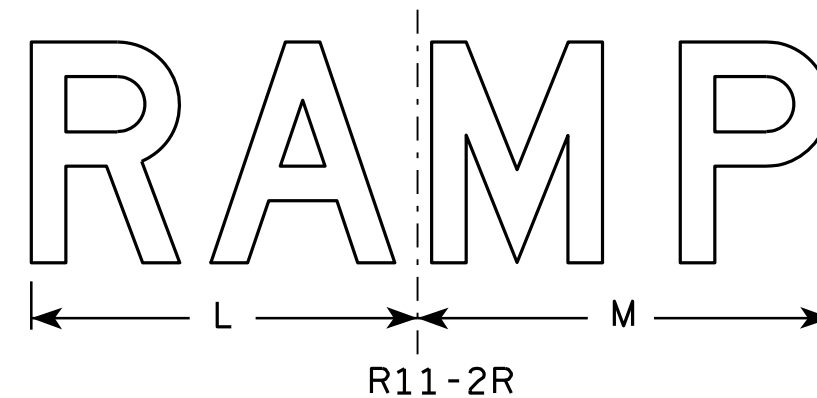
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



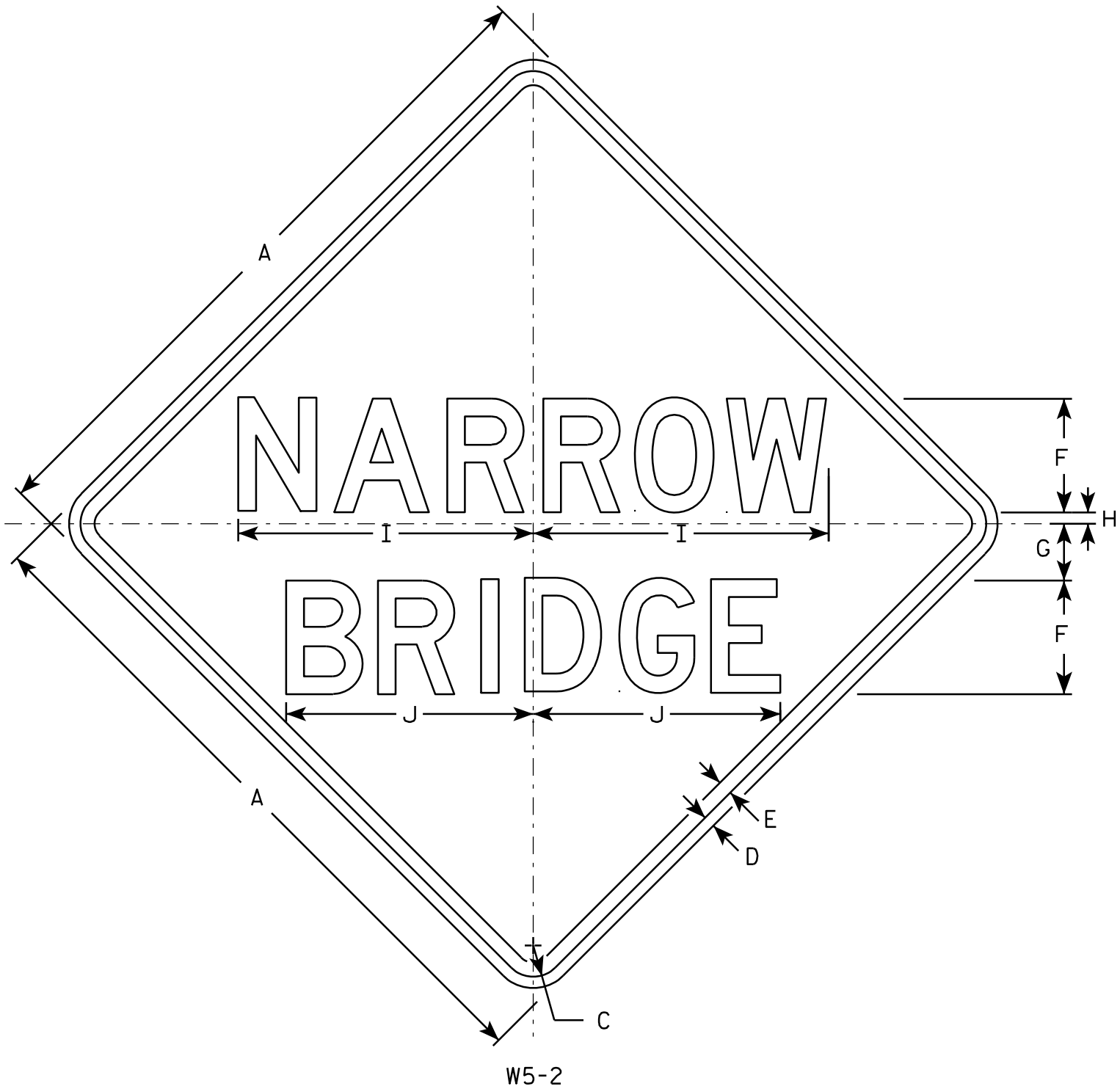
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
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. Modify the message as required.



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	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN	
R11-2	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
<small>APPROVED</small>	<i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>
<small>DATE</small> 4/1/11	<small>PLATE NO.</small> R11-2.10



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. Message Series - D
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.

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	30		1 3⁄8	1⁄2	5⁄8	5	2 1⁄2	1⁄2	13	10 7⁄8																	6.25
2S	36		1 5⁄8	5⁄8	3⁄4	6	3	3⁄4	15 5⁄8	13 1⁄8																	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	6	3	3⁄4	15 5⁄8	13 1⁄8																	9.0
3	36		1 5⁄8	5⁄8	3⁄4	6	3	3⁄4	15 5⁄8	13 1⁄8																	9.0
4	48		2 1⁄4	3⁄4	1	8	4	3⁄4	20 3⁄4	17 3⁄8																	16.0
5																											

STANDARD SIGN

W5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-2.8

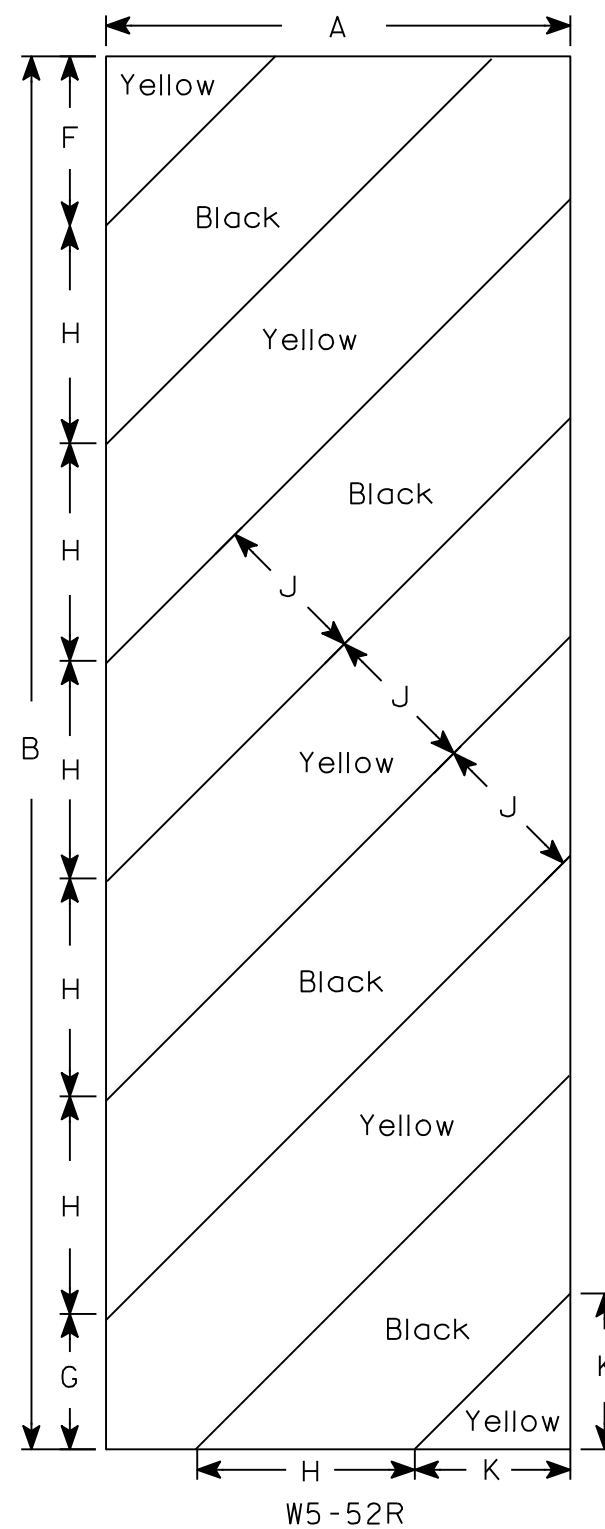
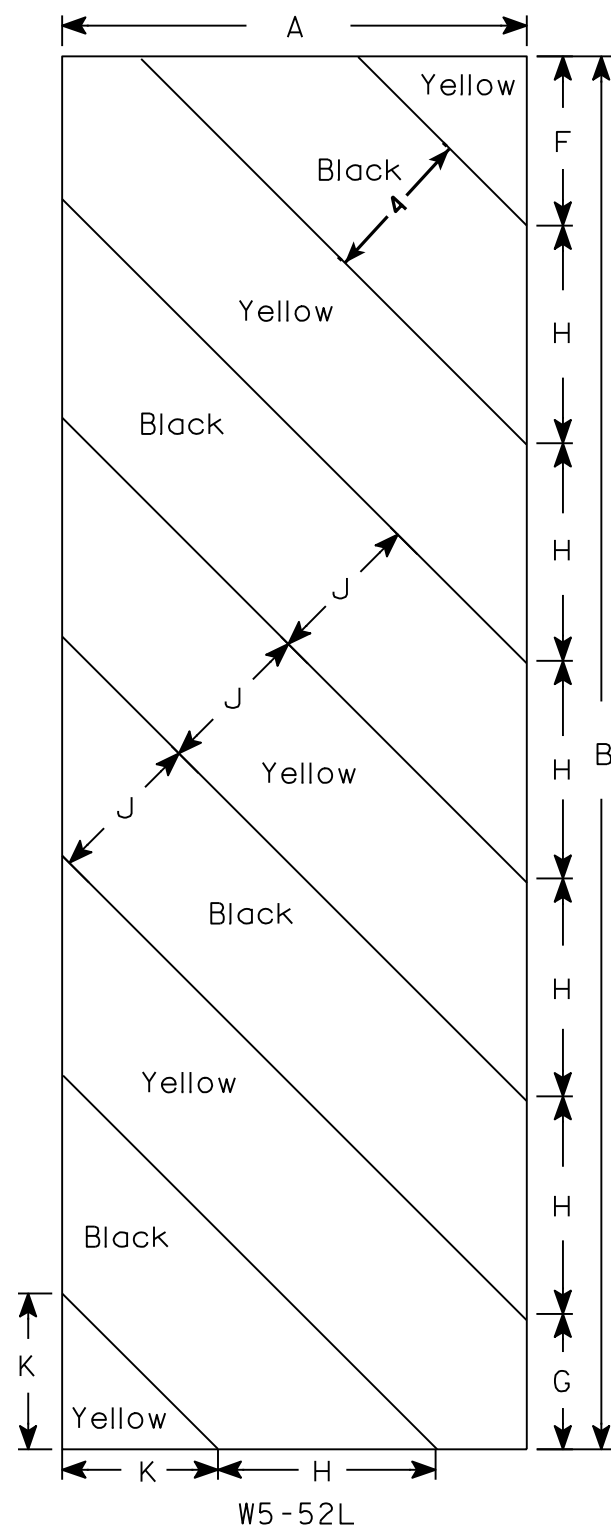
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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.

[illegible]

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

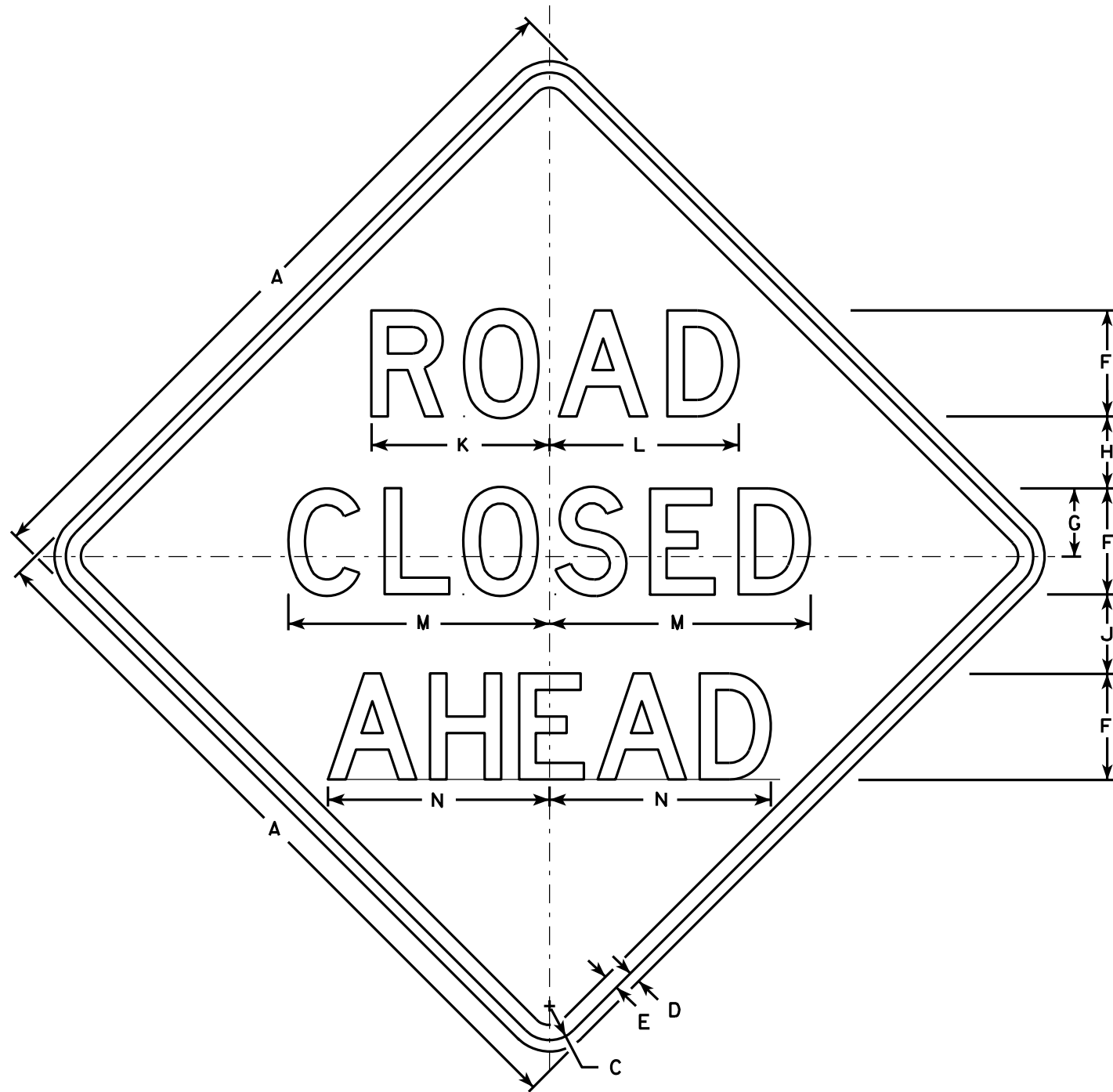
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

DESIGN DATA**LIVE LOAD:**

DESIGN LOADING : HL-93
 INVENTORY RATING FACTOR : 1.12
 OPERATIONAL RATING FACTOR : 1.45

TRAFFIC DATA:

A.A.D.T. (2021) = 270
 A.A.D.T. (2041) = 310
 R.D.S. = 20 MPH
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS.

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB $f'_c = 4,000$ P.S.I.
 ALL OTHER $f'_c = 3,500$ P.S.I.

HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 $f_y = 60,000$ P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE $10\frac{3}{4} \times 0.365$ -INCH. ESTIMATED PILE LENGTHS ARE 45'-0" FOR BOTH ABUTMENTS. ALL PILING SHALL BE PREBORED WITHOUT DRIVING TO 3'-0" MIN. INTO FIRM BEDROCK. SEAT PREBORED PILES BY TAPPING IN PLACE.

HYDRAULIC DATA:**100 YEAR FREQUENCY**

DRAINAGE AREA 1.8 SQ. MI.
 Q_{100} 820 C.F.S.
 VELOCITY 7.67 FT./SEC.
 WATERWAY AREA 107 SQ. FT.
 SCOUR CRITICAL CODE 8
 HIGH WATER 100 ELEVATION 653.65
 Q_2 120 C.F.S.
 Q_2 VELOCITY 3.08 FT./SEC.
 Q_2 ELEVATION 651.14

ROADWAY OVERFLOW DESIGN FREQUENCY

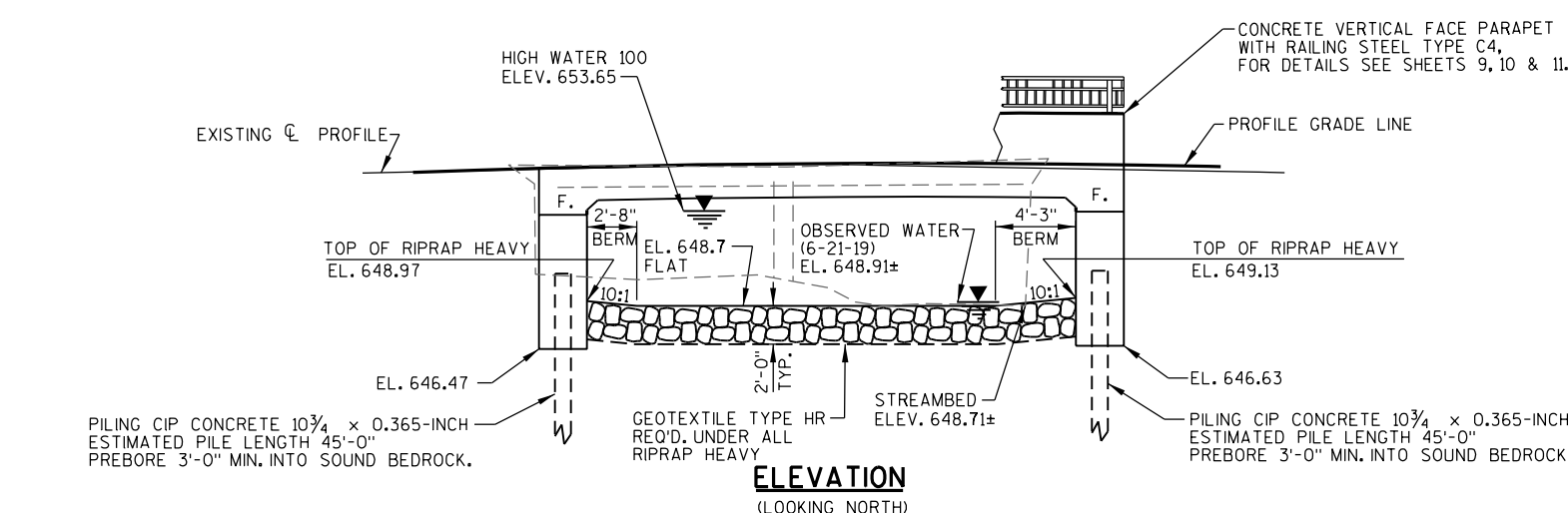
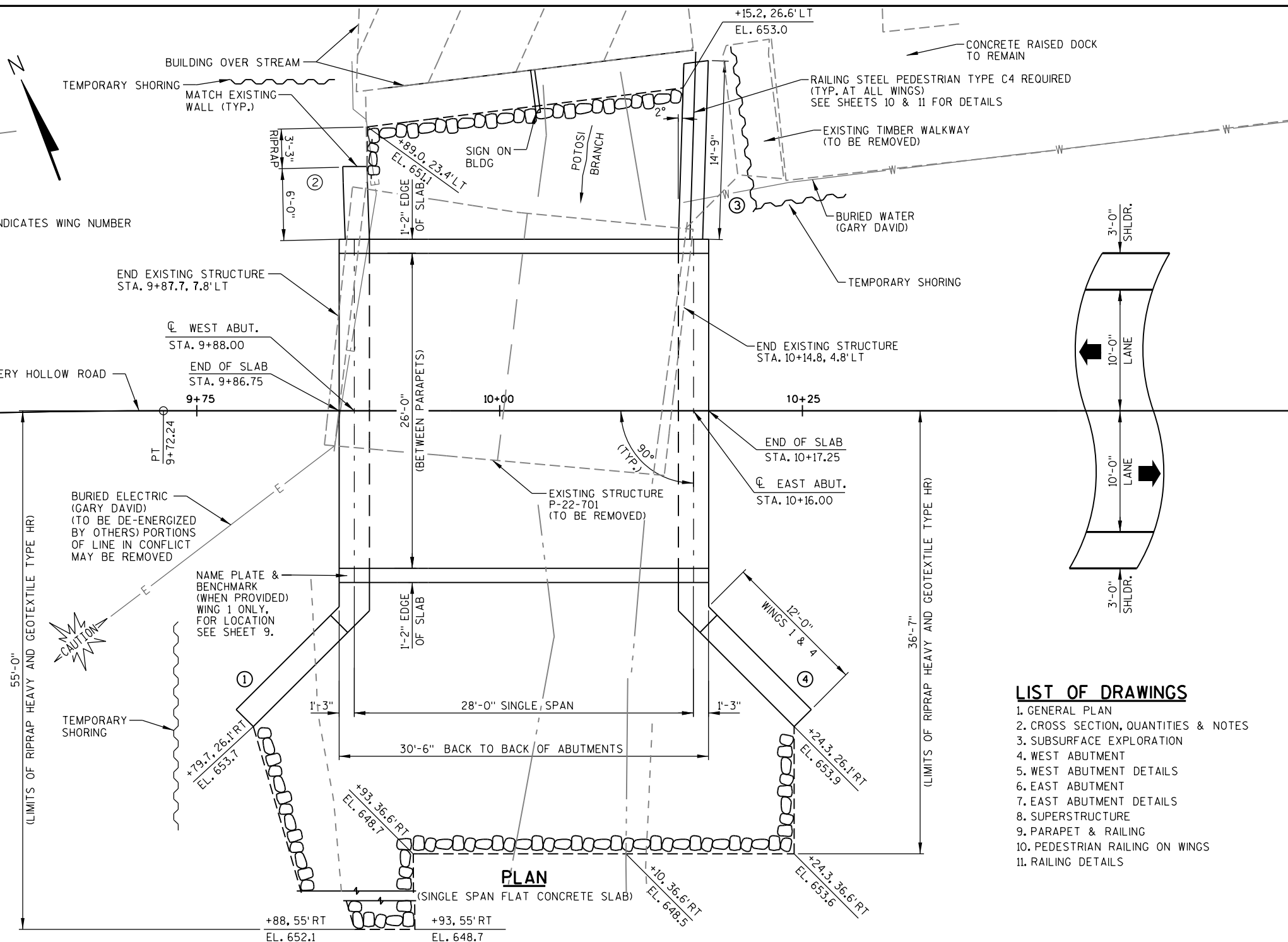
OVERTOPPING FREQUENCY > 100 YEARS

CONSULTANT DESIGN CONTACT:
 LEAH RHODES
 (608) 355-8945

BRIDGE OFFICE CONTACT:
 AARON BONK
 (608) 261-0261

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. PARAPET & RAILING
10. PEDESTRIAN RAILING ON WINGS
11. RAILING DETAILS



NO.	DATE	REVISION	BY
MSA ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL 1702 PANKRATZ STREET, MADISON WI 53704 (608) 242-7779 www.msa-ps.com <small>© MSA Professional Services, Inc.</small>			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 09/28/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-22-295			
BREWERY HOLLOW ROAD OVER POTOSI BRANCH			
COUNTY	GRANT	TOWN/CITY/VILLAGE	POTOSI
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	JZ	DESIGN CK'D.	
DRAWN BY	RLR	PLANS CK'D.	JZ
GENERAL PLAN			SHEET 1 OF 11

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 MARK SIGNIFIES THE BAR SIZE.

PLACE RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE LIMITS SHOWN ON SHEET 1 AND ON THE ABUTMENT SHEETS OR AS DIRECTED BY THE ENGINEER.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-22-295" FOR THE ABUTMENTS.

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

THIS STRUCTURE WILL REPLACE EXISTING STRUCTURE P-22-701, A PREVIOUSLY WIDENED 21FT. WIDE BY 28.5 FT. LONG, 2 SPAN BRIDGE. THE ORIGINAL NORTHERN PORTION IS A STEEL DECK GIRDER SYSTEM EMBEDDED WITH A CONCRETE DECK. THE SOUTHERN PORTION IS A FLAT CONCRETE SLAB. THE BRIDGE IS SUPPORTED ON FULL RETAINING CONCRETE ABUTMENTS AND A CONCRETE PIER. THE WATERWAY HAS A CONCRETE FLOOR LOCATED BELOW THE EAST SPAN. REMOVAL OF THIS CONCRETE FLOOR IS REQUIRED.

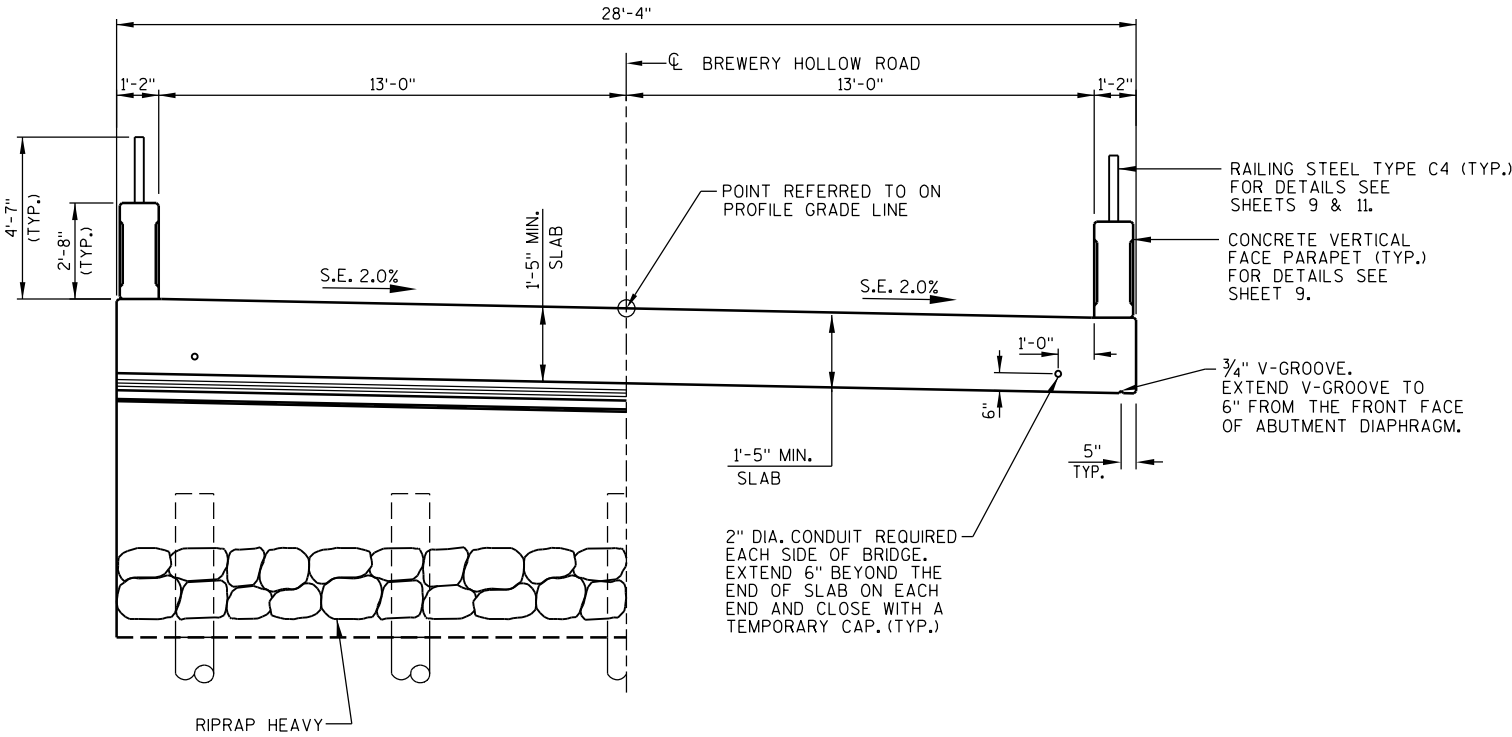
⑥ - BACKFILL PAY LIMITS, BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR. THE ESTIMATED QUANTITY IS BASED ON THE ABUTMENT BACKFILL DIAGRAM BELOW AND DOES NOT CONSIDER ANY REDUCTION IN BACKFILL VOLUME DUE TO TEMPORARY SHORING.

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

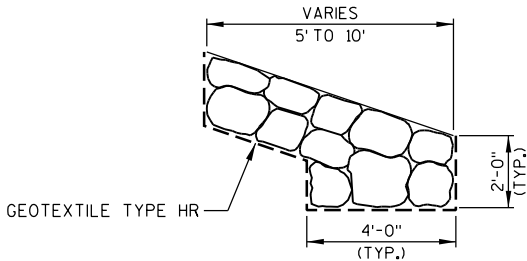
EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF SLAB.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO ALL FACES OF THE PARAPETS.



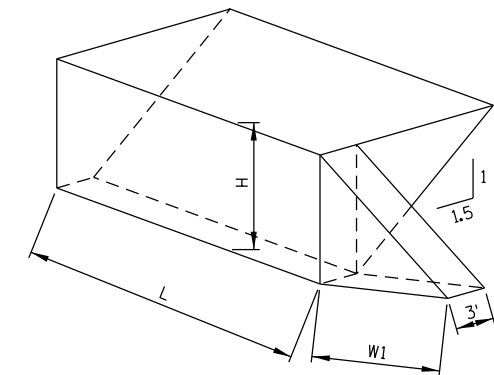
AT ABUTMENTS IN SPAN
CROSS SECTION THRU BRIDGE
(LOOKING EAST)



RIPRAP TOE IN DETAIL
STA. 9+93, 37' TO 55' RT

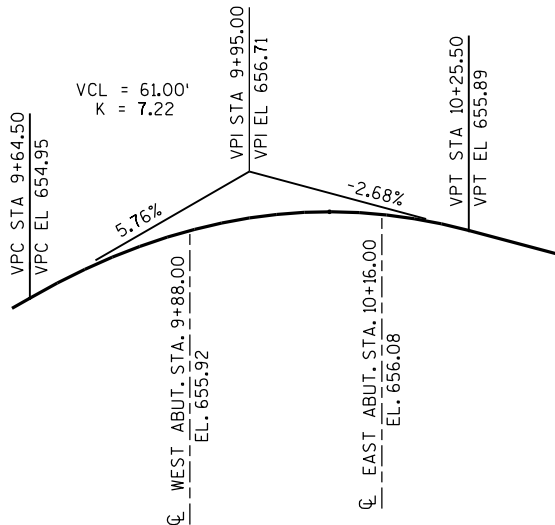
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	WEST ABUT.	EAST ABUT.	SUPER	TOTAL
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-22-295	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	215	280	-	495
502.0100	CONCRETE MASONRY BRIDGES	CY	34	41	56	131
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	90	90
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	45	45
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2150	2150	-	4300
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1290	1830	10170	13290
511.1200.01	TEMPORARY SHORING B-22-295	SF	220	250	-	470
513.7021	RAILING STEEL TYPE C4	LF	-	-	61	61
513.8021	RAILING STEEL PEDESTRIAN TYPE C4	LF	27	30	-	57
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	8	-	16
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	249	249	-	498
550.2106	PILING CIP CONCRETE 10 3/4 x 0.365-INCH	LF	270	270	-	540
606.0300	RIPRAP HEAVY	CY	82	73	-	155
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	65	75	-	140
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	46	52	-	98
645.0120	GEOTEXTILE TYPE HR	SY	138	122	-	260
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	-	-	63	63
SPV.0105.01	REMOVING OLD STRUCTURE OVER WATERWAY SPECIAL STATION 10+00	LS	-	-	1	1
NON-BID ITEMS						
	PREFORMED FILLER	SIZE				1/2" & 3/4"

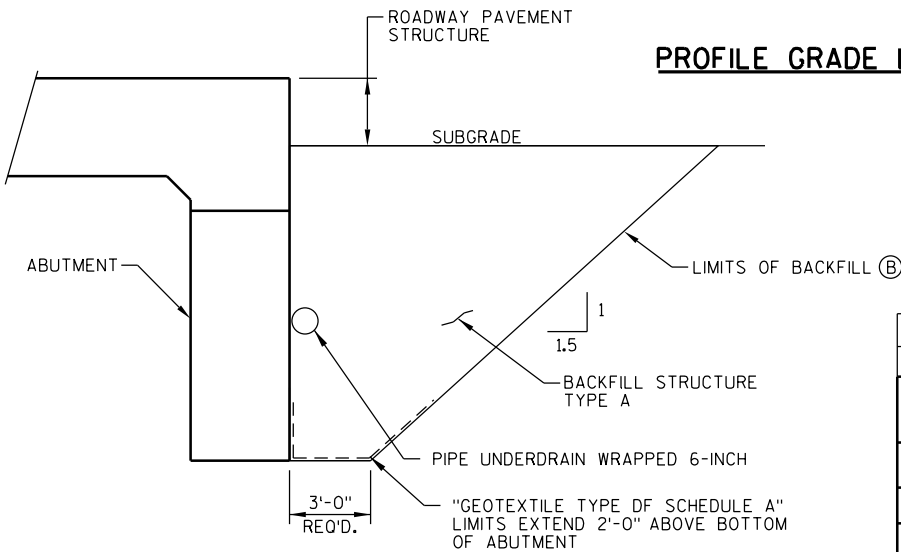


ABUTMENT BACKFILL DIAGRAM

L = OUT-TO-OUT OF ABUTMENT PLUS WING 2 OR 3 LENGTH (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
W1 = WING 1 OR 4 LENGTH (FT)
 $V_{CF} = (L \times 3.0') \times (H) + (L \times 0.5') \times (1.5H) \times (H) + (0.5') \times (H) \times (W1) \times (3.0')$
 $V_{TON} = V_{CF} / 27$



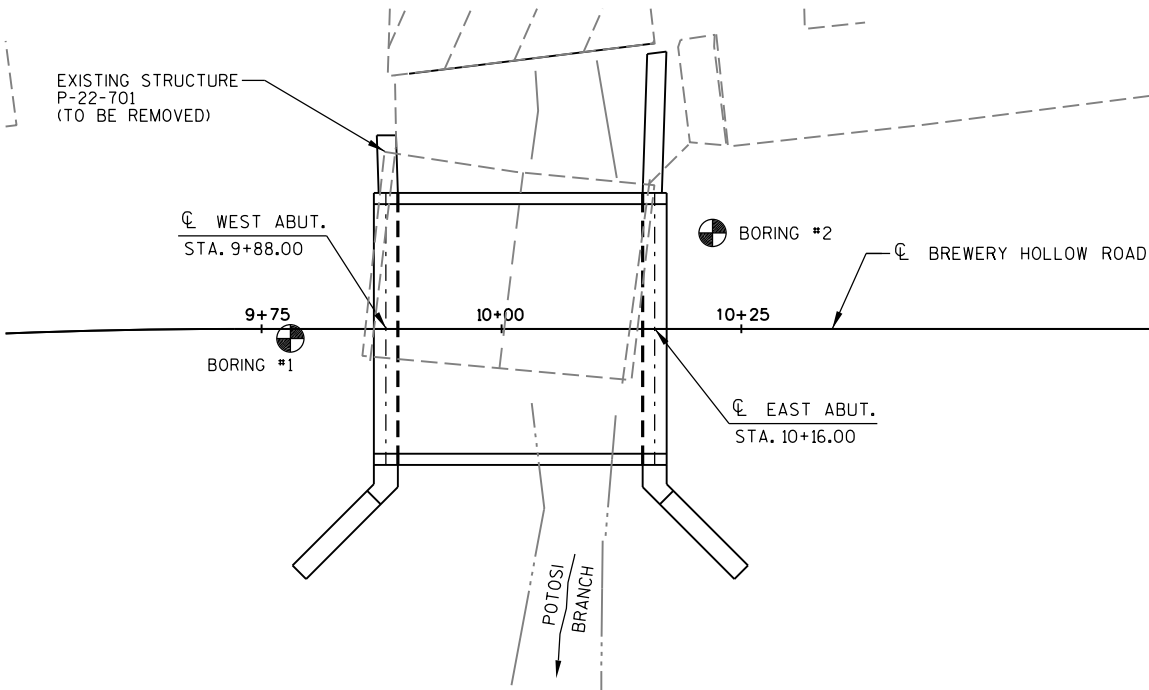
PROFILE GRADE LINE - BREWERY HOLLOW ROAD



STRUCTURE BACKFILL DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-22-295			
DRAWN BY RLR		PLANS CK'D. JZ	
CROSS SECTION, QUANTITIES & NOTES		SHEET 2 OF 11	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	9-18-2019	461,082.7	815,135.2
2	9-17-2019	461,077.2	815,180.2
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(11) GRANT COUNTY			



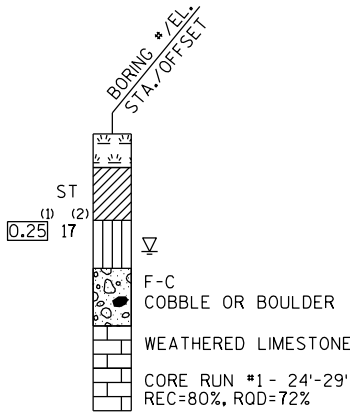
STATE PROJECT NUMBER

5985-00-77

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

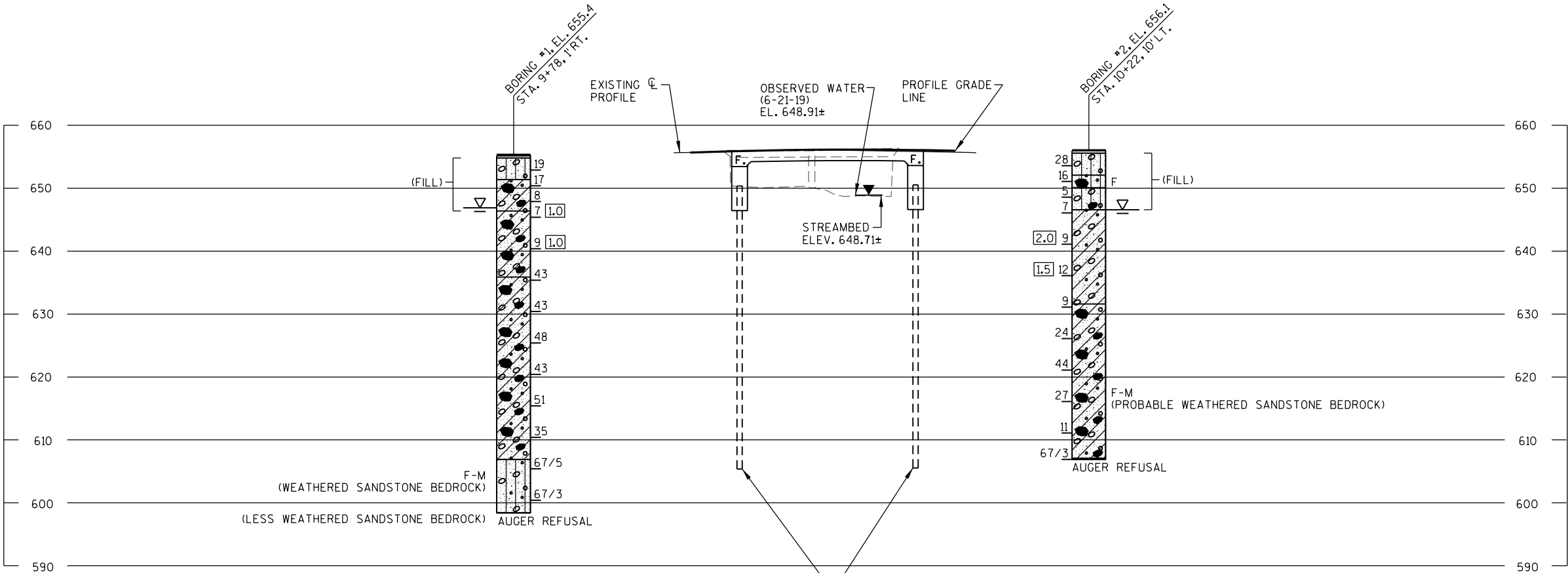
ABBREVIATIONS

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.

8



PIILING CIP CONCRETE 10 3/4" x 0.365-INCH
ESTIMATED PILE LENGTH 45'-0"
PREBORE 3'-0" MIN. INTO SOUND BEDROCK.

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-22-295	
DRAWN BY		RLR	PLANS CK'D. JZ
SUBSURFACE EXPLORATION		SHEET 3 OF 11	

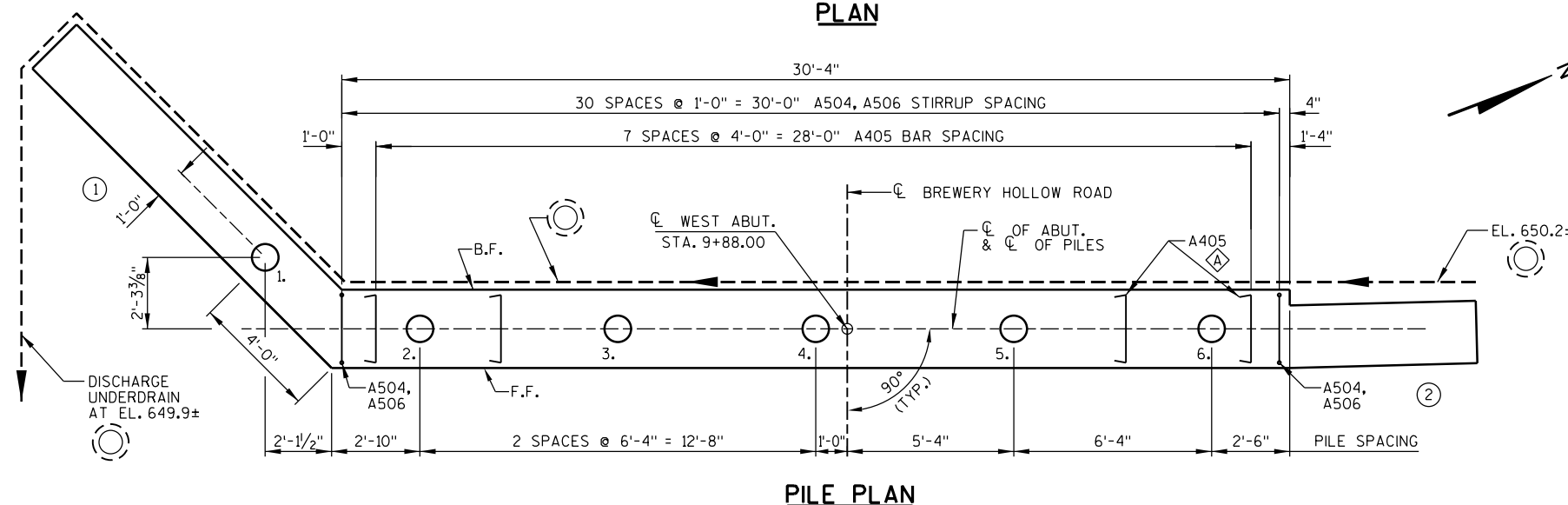
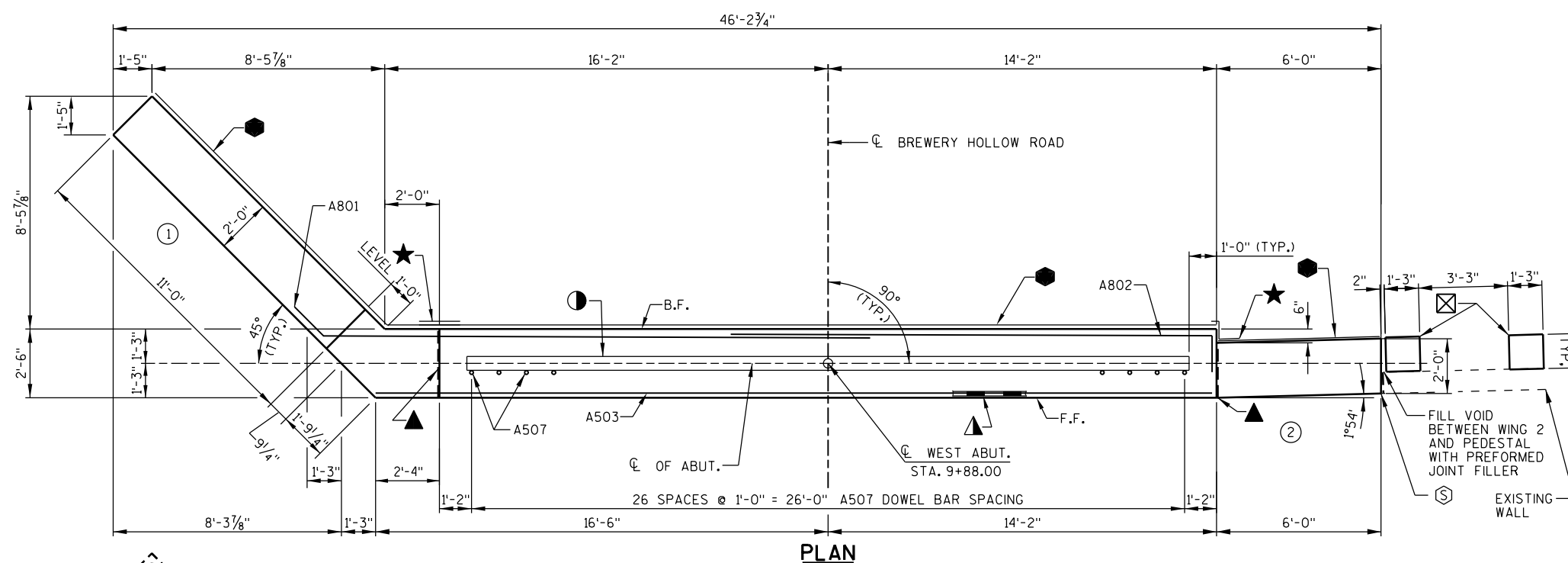
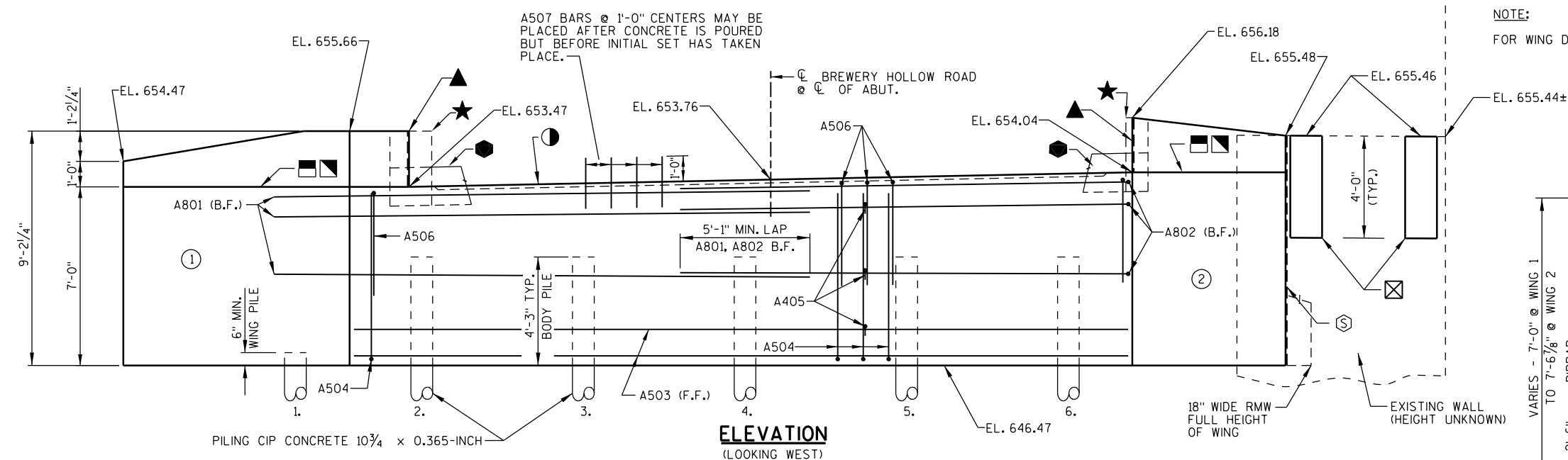
Varies - 7'-0" @ WING 1
 TO 7'-6 7/8" @ WING 2
 RIPRAP HEAVY
 2'-6"
 0'-2"
 GEOTEXTILE TYPE HR (TYP)
 EL. 648.97
 2'-8" BERM
 RIPRAP HEAVY
 10:1
 F.F.
 A507
 3/4" BEVEL
 1'-3"
 1'-3"
 11"
 4"
 CL OF ABUTMENT
 A503
 A506
 A801 @ WING 1
 A802 @ WING 2
 1'-0" MIN.
 A405
 B.F.
 3'-9" ±
 4'-3"
 (PILING)
 A405 TIE BARS @ 8 EQUAL SPACES
 A801, A802 B.F., A503 F.F.
 A504
 3" CL

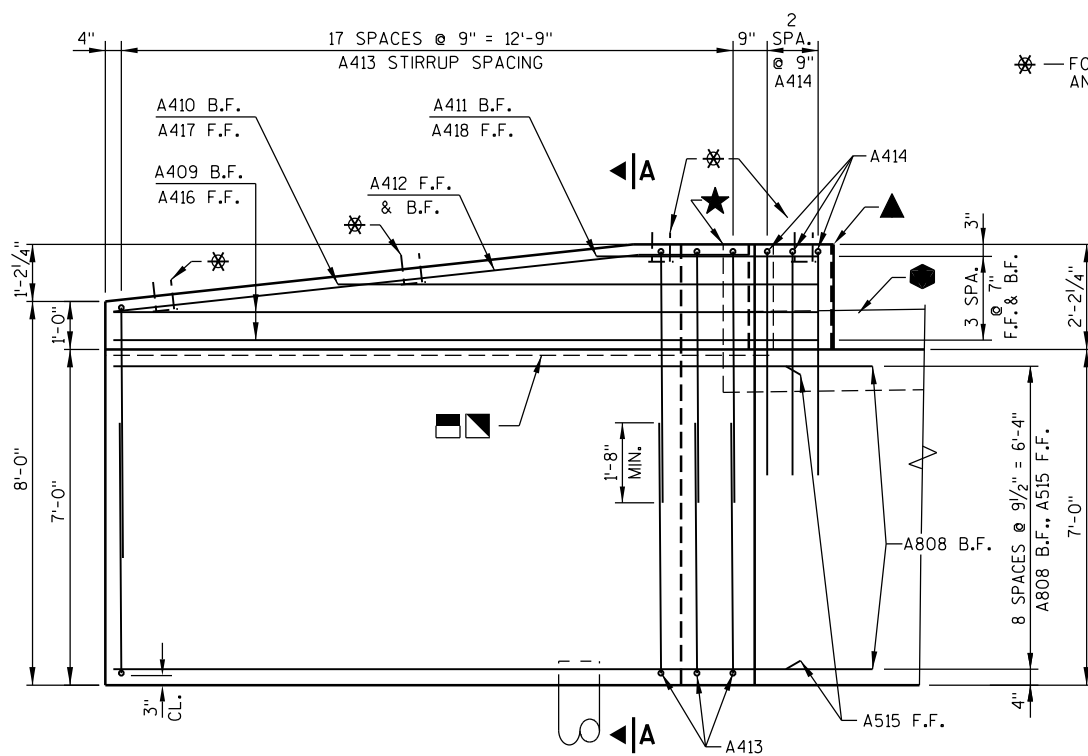
TYPICAL SECTION THRU ABUTMENT

-  — PEDESTRIAN RAIL POST PEDESTAL. CLEAN BACK FACE OF EXISTING WALL AND CAST CONCRETE PEDESTAL AGAINST EXISTING WALL. TOP TO BE LEVEL.
-  — ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES. DISPLACE BARS Laterally AS NEEDED AT CONFLICTS WITH PILES.
-  — KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2X6.
-  — FULL DEPTH SAWCUT EXISTING WALL FULL HEIGHT OF PROPOSED NEW WING TIP. PROVIDE SMOOTH SURFACE FULL THICKNESS OF EXISTING WALL. SAWCUT SHALL BE PARALLEL TO THE EDGE OF THE NEW SLAB. PRIOR TO POURING CONCRETE, PLACE 1" FILLER FULL HEIGHT BETWEEN EXISTING WALL AND NEW WING.
-  — 1/2" FILLER EXTEND AS SHOWN.
-  — SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
-  — 4"X 3/4" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
-  — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM 9" BELOW BRIDGE SEAT TO TOP OF WINGS.
-  — HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WING TIPS.
-  — OPTIONAL KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2 X 6. IF JOINT IS USED PLACE  ON B.F. OF WING. INCIDENTAL TO "CONCRETE MASONRY BRIDGES".
-  — 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONST. JOINT IS USED.
-  — PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. SEE DETAIL, SHEET 5.

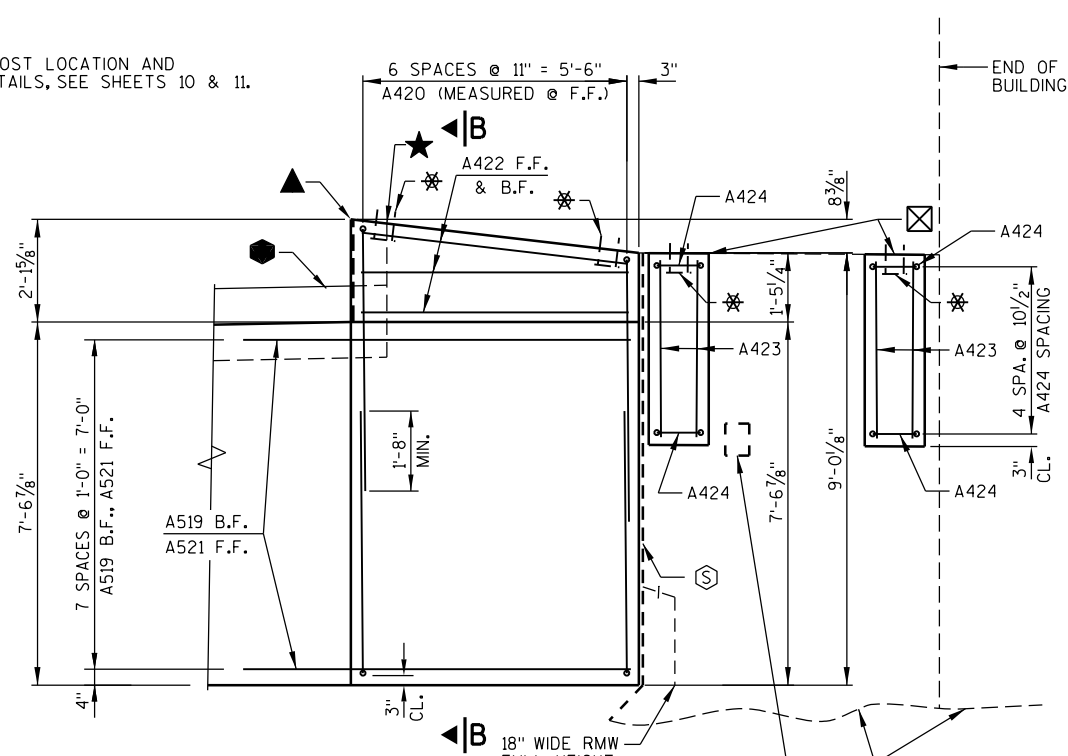
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-22-295	
		DRAWN BY	RLR
		PLANS CK'D.	JZ
WEST ABUTMENT		SHEET 4 OF 1	

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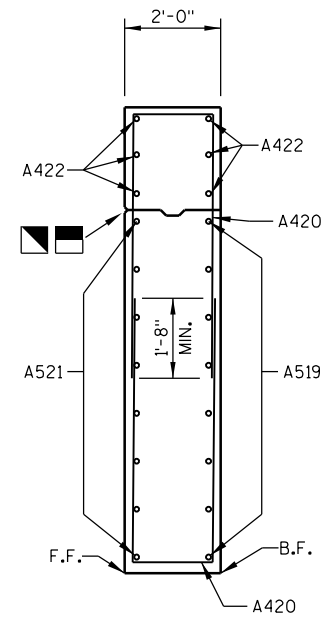




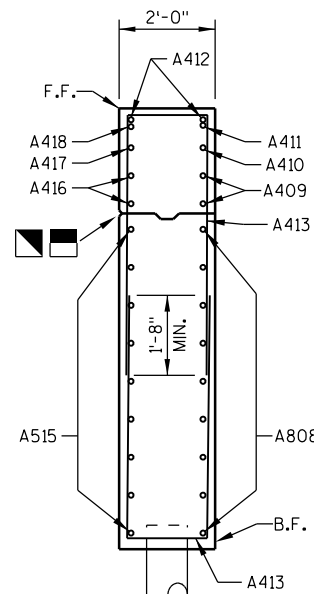
ELEVATION WING 1
(LOOKING AT F.F. OF WING)



ELEVATION WING 2
(LOOKING AT F.F. OF WING)



**SECTION B-B
THRU WING 2**



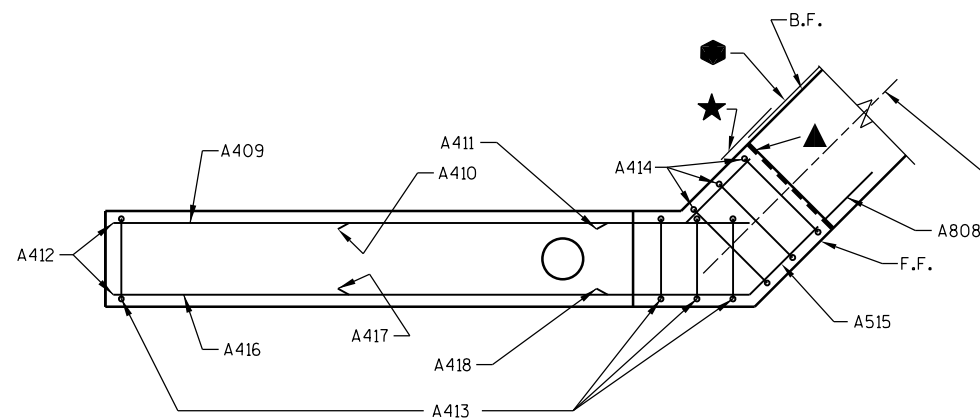
**SECTION A-A
THRU WING 1**

**COATED 1290 LBS.
UNCOATED 2150 LBS.**

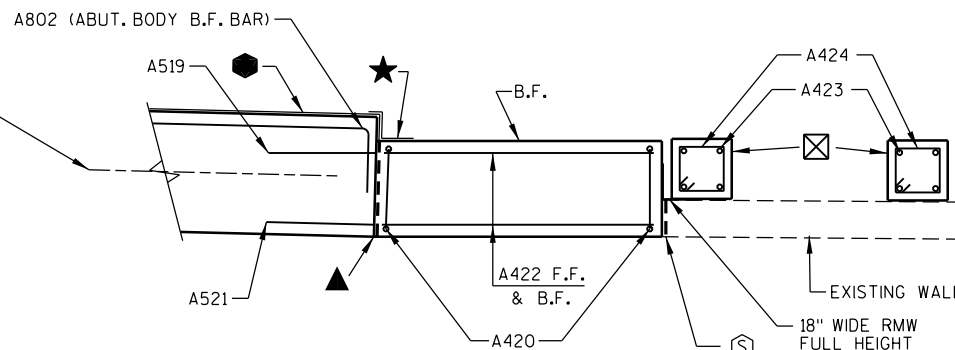
**BILL OF BARS
(WEST ABUTMENT)**

MARK	NUMBER COATED	REQUIRED UNCOATED	LENGTH	BENT	LOCATION
A801	-	9	21'-5"	X	ABUTMENT BODY - B.F. @ WING 1 - HORIZ.
A802	-	9	18'-8"	X	ABUTMENT BODY - B.F. @ WING 2 - HORIZ.
A503	-	9	30'-5"		ABUTMENT BODY - F.F. - HORIZ.
A504	-	62	8'-1"	X	ABUTMENT BODY - F.F. & B.F. - VERT.
A405	-	24	3'-0"	X	ABUTMENT BODY - TIES - HORIZ.
A506	-	31	10'-3"	X	ABUTMENT BODY - TOP - VERT.
A507	27	-	2'-0"		ABUTMENT BODY - TOP DOWEL - VERT.
A808	9	-	16'-1"	X	WING 1 - BOTTOM - B.F. - HORIZ.
A409	2	-	13'-9"	X	WING 1 - TOP - B.F. - HORIZ.
A410	1	-	9'-0"	X	WING 1 - TOP - B.F. - HORIZ.
A411	1	-	3'-8"	X	WING 1 - TOP - B.F. - HORIZ.
A412	2	-	13'-3"	X	WING 1 - TOP - F.F. & B.F. - HORIZ.
A413	36	-	12'-0"	X	WING 1 - STIRRUP - VERT.
A414	3	-	11'-4"	X	WING 1 - TOP - STIRRUP - VERT.
A515	9	-	14'-8"	X	WING 1 - BOTTOM - F.F. - HORIZ.
A416	2	-	15'-2"	X	WING 1 - TOP - F.F. - HORIZ.
A417	1	-	10'-6"	X	WING 1 - TOP - F.F. - HORIZ.
A418	1	-	5'-1"	X	WING 1 - TOP - F.F. - HORIZ.
A519	8	-	8'-1"		WING 2 - BOTTOM - B.F. - HORIZ.
A420	14	-	12'-6"	X	WING 2 - STIRRUP - VERT.
A521	8	-	8'-1"		WING 2 - BOTTOM - F.F. - HORIZ.
A422	6	-	5'-7"		WING 2 - TOP - F.F. & B.F. - HORIZ.
A423	8	-	3'-7"		PEDESTRIAN RAIL POST PEDESTAL - VERT.
A424	10	-	4'-2"	X	PEDESTRIAN RAIL POST PEDESTAL - HORIZ.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

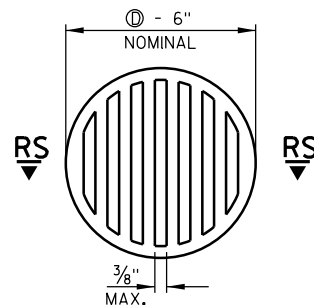


PLAN WING 1



PLAN WING 2

SEE LEGEND ON SHEET
4 FOR DESCRIPTION OF



SECTION RS-RS

RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

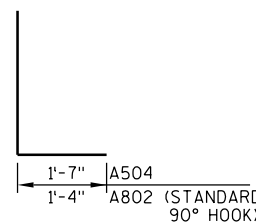
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER.

A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD, PIPE COUPLING AND SCREWS, SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

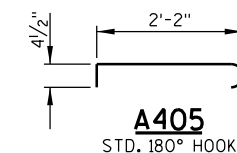
RODENT SHIELD

① - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

MARK	A	B
A801 A808 A515	1'-6"	45°
A409 A410 A411	1'-10"	45°
A412	2'-3"	6°
A416 A417 A418	2'-0"	45°

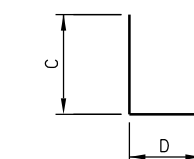


A802, A504

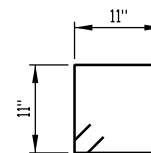


A405

STD. 180° HOOK

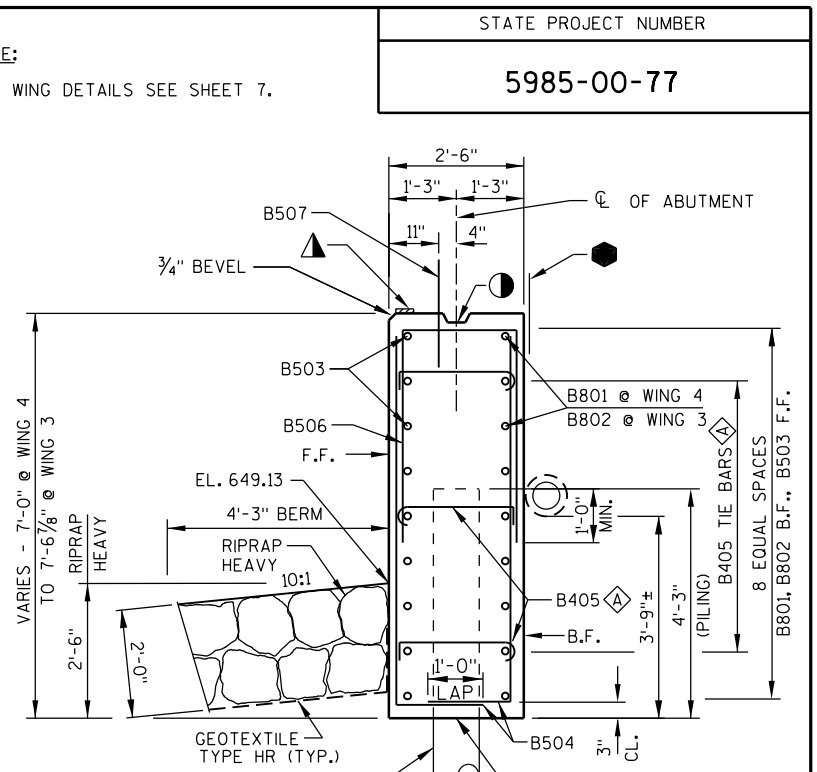
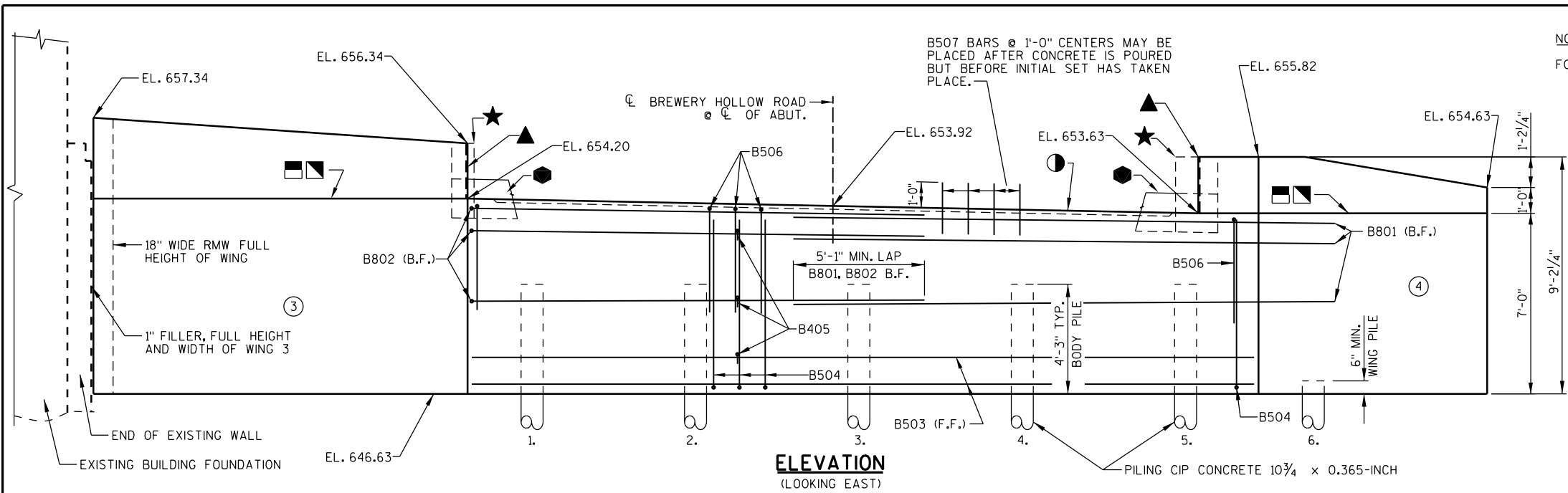


MARK	C	D
A506	4'-2"	2'-2"
A413	5'-3"	1'-8"
A414	4'-8"	2'-2"
A420	5'-6"	1'-8"



**A424
STIRRUP**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-22-295			
DRAWN BY RLR		PLANS CK'D. JZ	
WEST ABUTMENT DETAILS		SHEET 5 OF 11	

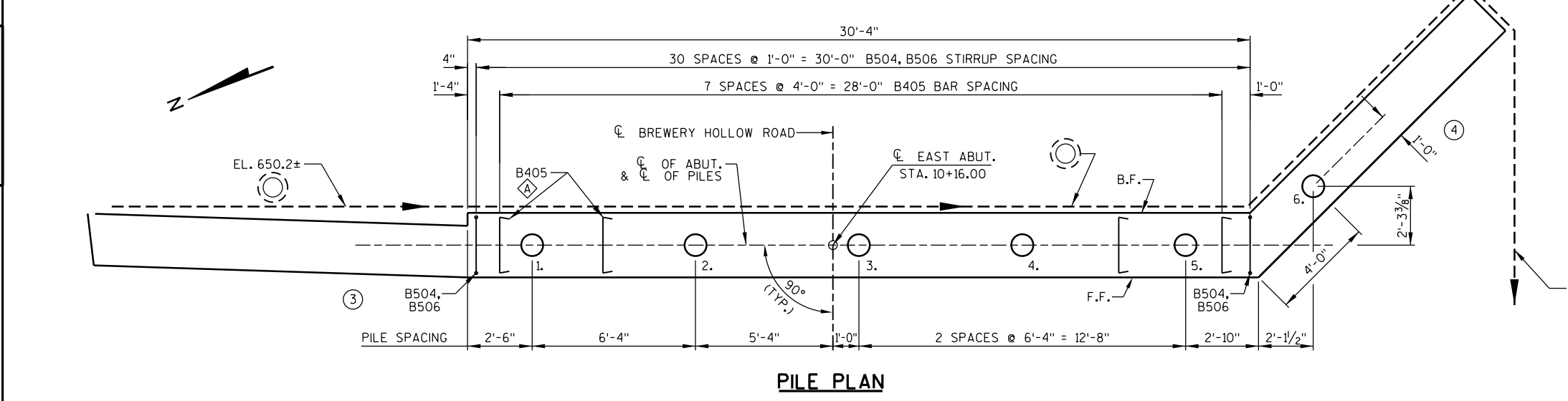
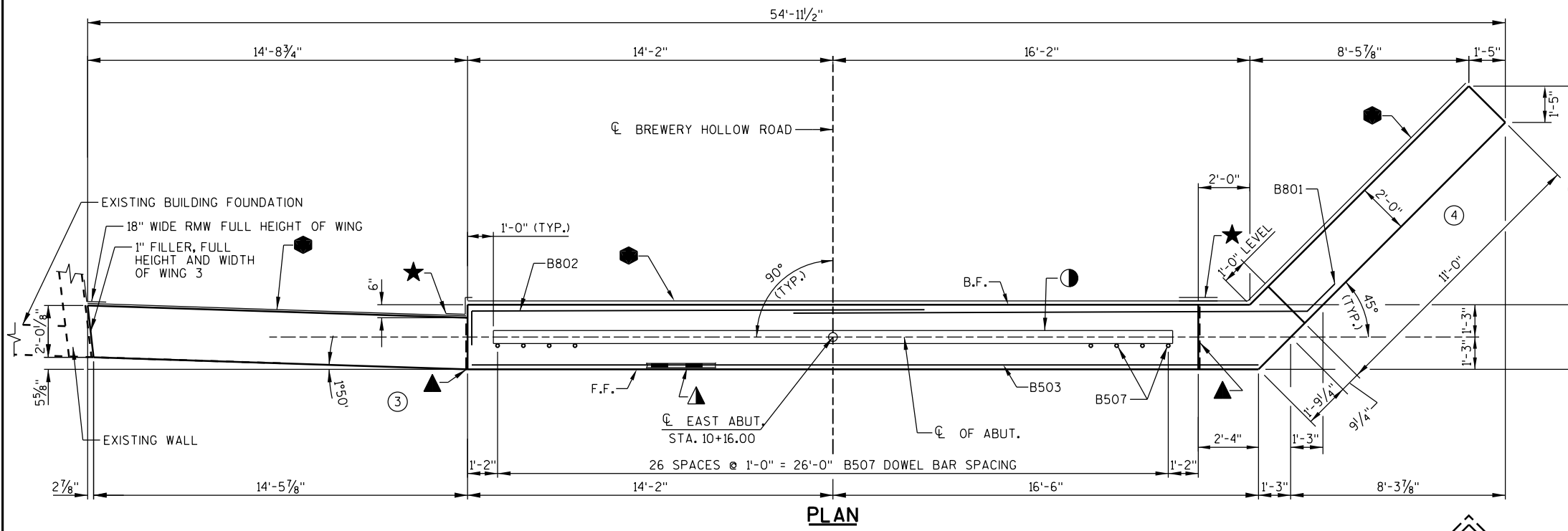


SUPPORT ABUTMENT AND WING 4 ON PILING CIP CONCRETE 10 3/4 X 0.365-INCH. ESTIMATED PILE LENGTHS ARE 45'-0\"/>

TYPICAL SECTION THRU ABUTMENT

LEGEND

- ◊ — ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES. DISPLACE BARS LATERALLY AS NEEDED AT CONFLICTS WITH PILES.
- — KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- ▲ — 1/2\"/>



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-22-295			
DRAWN BY RLR		PLANS CK'D. JZ	
EAST ABUTMENT			SHEET 6 OF 11



COATED 1830 LBS.
UNCOATED 2150 LBS.

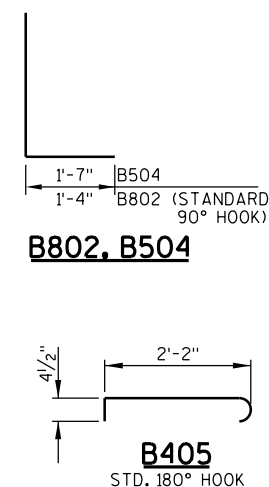
MARK	NUMBER COATED	REQUIRED UNCOATED	LENGTH	BENT	LOCATION
B801	-	9	21'-5"	X	ABUTMENT BODY - B.F. @ WING 4 - HORIZ.
B802	-	9	18'-8"	X	ABUTMENT BODY - B.F. @ WING 3 - HORIZ.
B503	-	9	30'-5"		ABUTMENT BODY - F.F. - HORIZ.
B504	-	62	8'-1"	X	ABUTMENT BODY - F.F. & B.F. - VERT.
B405	-	24	3'-0"	X	ABUTMENT BODY - TIES - HORIZ.
B506	-	31	10'-3"	X	ABUTMENT BODY - TOP - VERT.
B507	27	-	2'-0"		ABUTMENT BODY - TOP DOWEL - VERT.
B808	9	-	16'-1"	X	WING 4 - BOTTOM - B.F. - HORIZ.
B409	2	-	13'-9"	X	WING 4 - TOP - B.F. - HORIZ.
B410	1	-	9'-0"	X	WING 4 - TOP - B.F. - HORIZ.
B411	1	-	3'-8"	X	WING 4 - TOP - B.F. - HORIZ.
B412	2	-	13'-3"	X	WING 4 - TOP - F.F. & B.F. - HORIZ.
B413	36	-	12'-0"	X	WING 4 - STIRRUP - VERT.
B414	3	-	11'-4"	X	WING 4 - TOP - STIRRUP - VERT.
B515	9	-	14'-8"	X	WING 4 - BOTTOM - F.F. - HORIZ.
B416	2	-	15'-2"	X	WING 4 - TOP - F.F. - HORIZ.
B417	1	-	10'-6"	X	WING 4 - TOP - F.F. - HORIZ.
B418	1	-	5'-1"	X	WING 4 - TOP - F.F. - HORIZ.
B819	8	-	18'-6"		WING 3 - BOTTOM - B.F. & F.F. TOP - HORIZ.
B420	30	-	13'-6"	X	WING 3 - STIRRUP - VERT.
B521	7	-	16'-8"		WING 3 - BOTTOM - F.F. - HORIZ.
B422	4	-	14'-4"		WING 3 - TOP - B.F. - HORIZ.
B423	4	-	14'-2"		WING 3 - TOP - F.F. - HORIZ.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



PILE SPLICE DETAILS

MARK	A	B
B801 B808 B515	1'-6"	45°
B409 B410 B411	1'-10"	45°
B412	2'-3"	6°
B416 B417 B418	2'-0"	45°



MARK	C	D
B506	4'-2"	2'-2"
B413	5'-3"	1'-8"
B414	4'-8"	2'-2"
B420	6'-0"	1'-8"

NO.	DATE	REVISION	BY
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STRUCTURE		B-22-295	
DRAWN BY		RLR	PLANS CK'D. JZ
EAST ABUTMENT DETAILS		SHEET 7 OF 11	

GENERAL NOTES

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

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.

PARAPETS SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	SPAN POINT	NORTH SLAB EDGE	C/L BREWERY HOLLOW RD	SOUTH SLAB EDGE
WEST ABUT.	1.0			
	1.5			
EAST ABUT.	2.0			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS AND AT THE 0.5 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND C/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

TOP OF SLAB ELEVATIONS AND CAMBER VALUES

LOCATION	SPAN POINT	NORTH SLAB EDGE	C/L BREWERY HOLLOW RD	SOUTH SLAB EDGE	CAMBER VALUE (INCHES)
WEST ABUT.	1.0	656.18	655.92	655.67	0.0
	1.1	656.25	655.99	655.73	0.2
	1.2	656.30	656.04	655.79	0.3
	1.3	656.34	656.09	655.83	0.5
	1.4	656.38	656.12	655.86	0.6
	1.5	656.40	656.14	655.88	0.6
	1.6	656.41	656.15	655.89	0.6
	1.7	656.41	656.15	655.89	0.5
	1.8	656.40	656.14	655.88	0.3
	1.9	656.38	656.12	655.86	0.2
EAST ABUT.	2.0	656.34	656.08	655.83	0.0

NOTE: THE TOP OF SLAB ELEVATIONS AT EDGE OF SLAB ARE THE SAME AT THE TRAFFIC FACE OF THE PARAPET.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB OR C/L, FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE

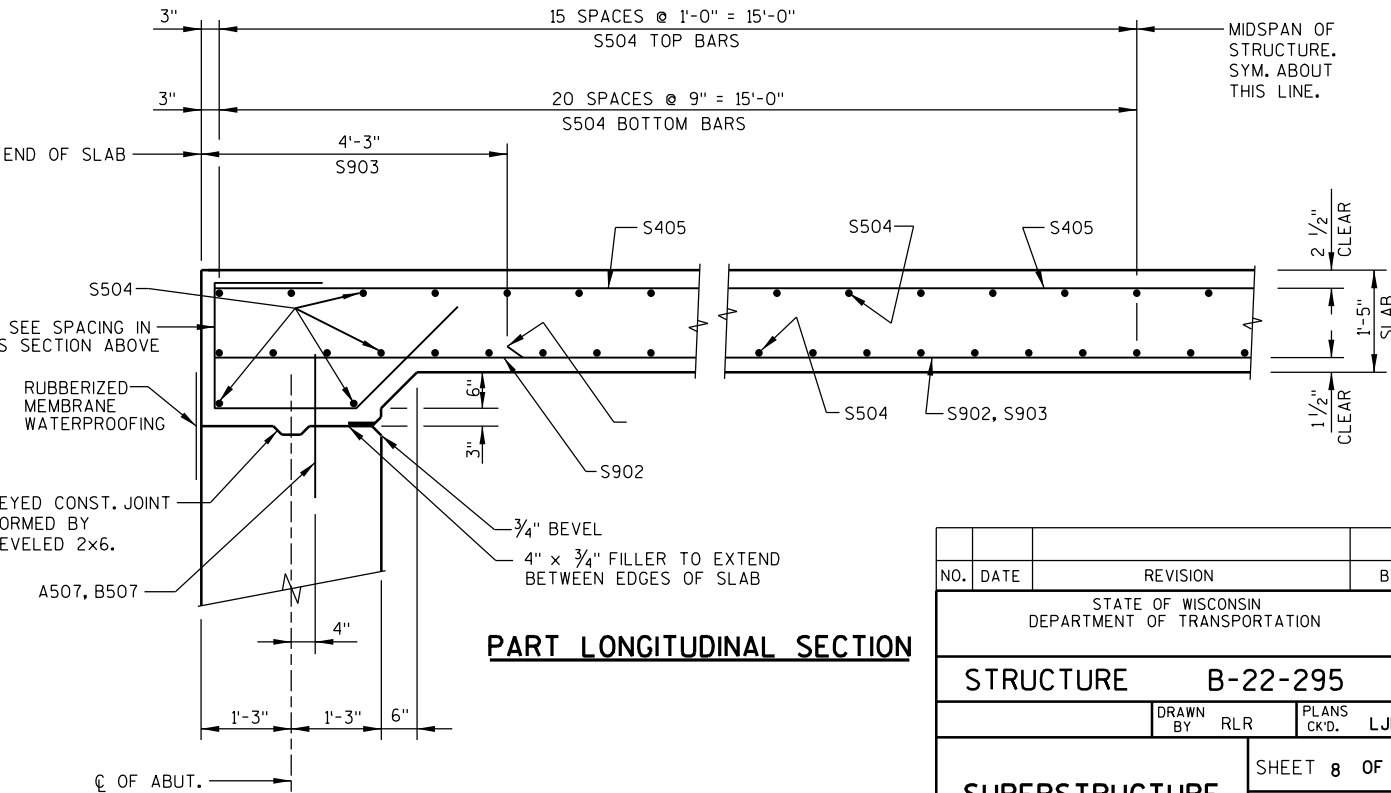
- SLAB THICKNESS

+ CAMBER

+ FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)

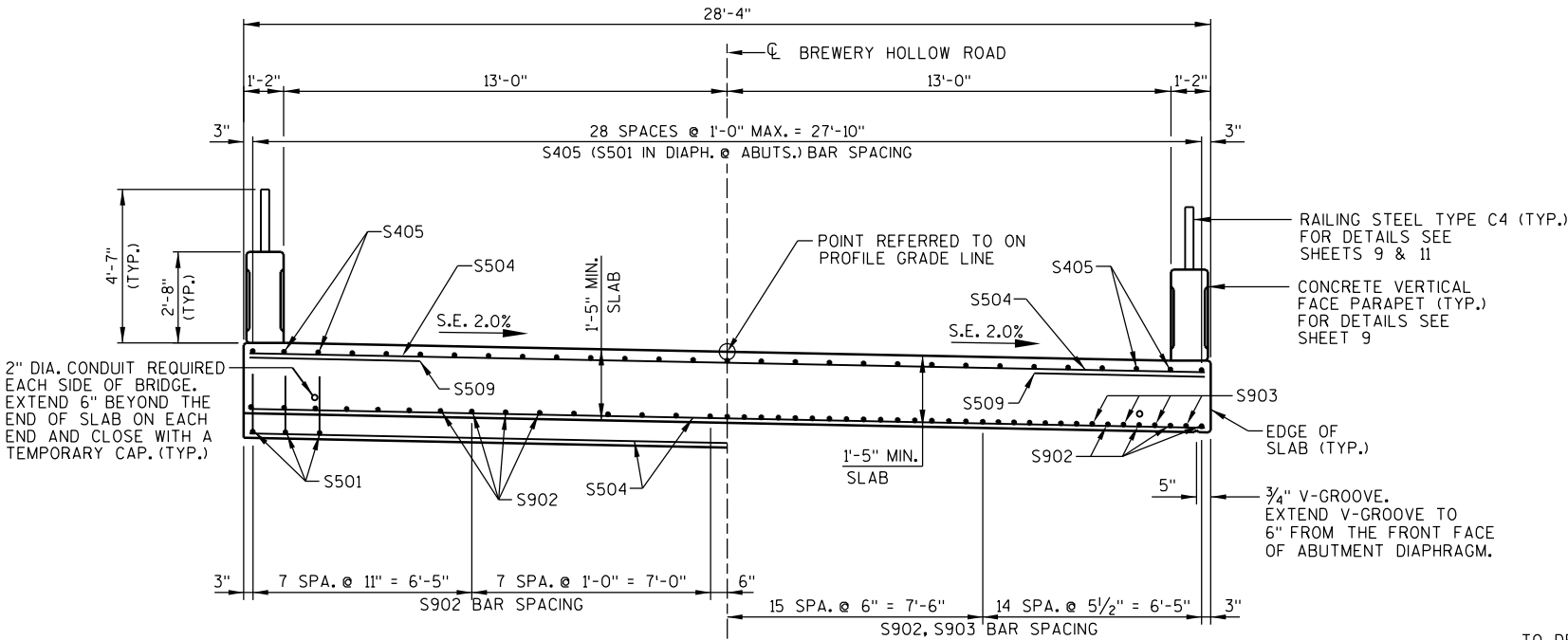
= TOP OF SLAB FALSEWORK ELEVATION

- SLAB THICKNESS EQUALS 17" AT CENTERLINE AND AT TRAFFIC FACE OF PARAPETS, 16.7" AT NORTH EDGE OF SLAB, AND 17.3" AT SOUTH EDGE OF SLAB DUE TO 1'-3" WIDE FLAT REGION BELOW PARAPETS.



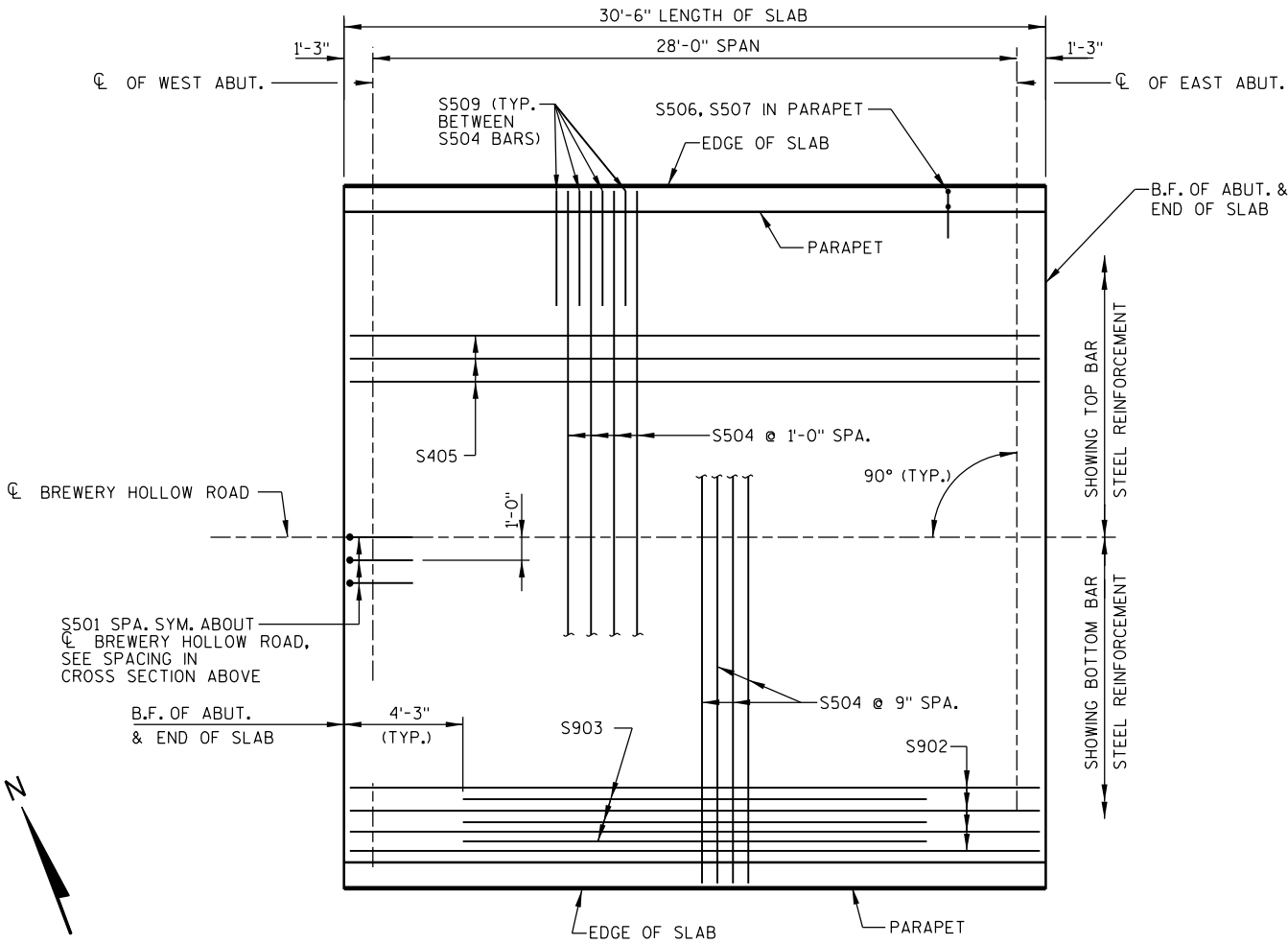
PART LONGITUDINAL SECTION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-22-295	
DRAWN BY		RLR	PLANS CK'D. LJR
SUPERSTRUCTURE		SHEET 8 OF 11	

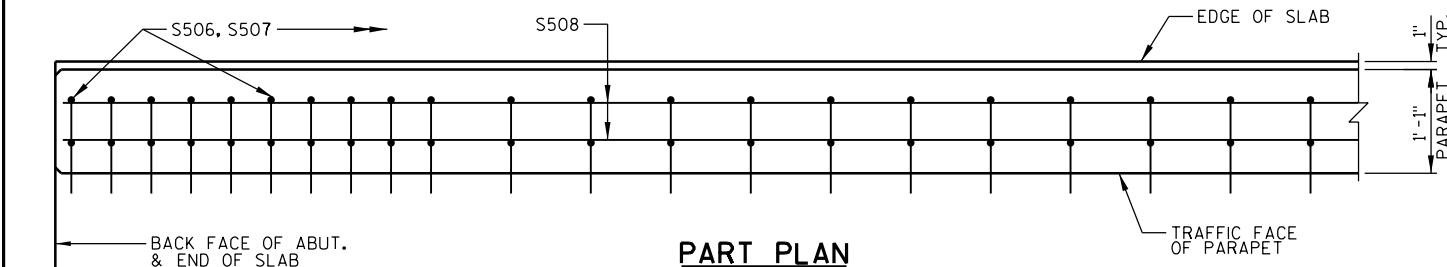


CROSS SECTION THRU BRIDGE

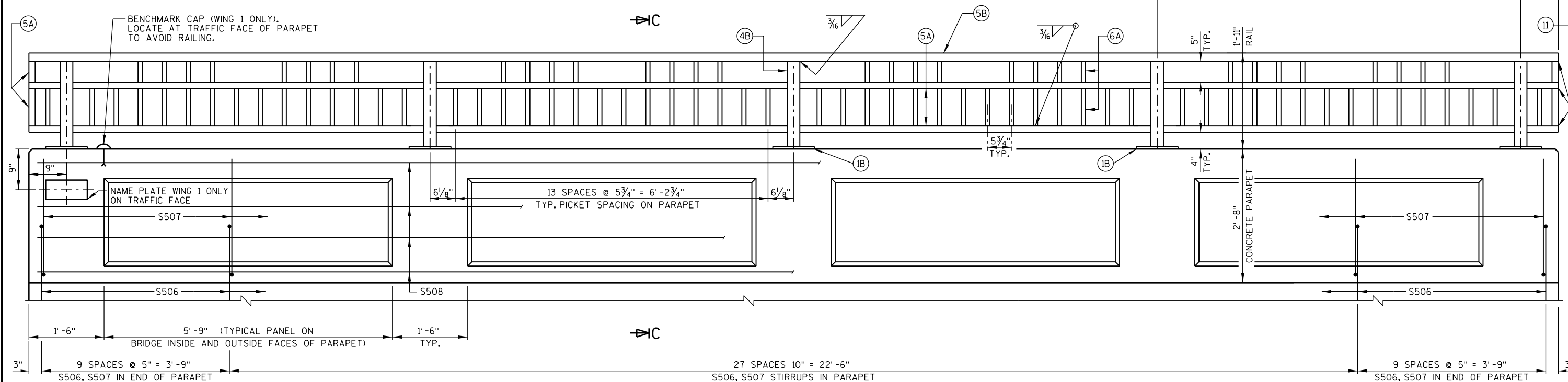
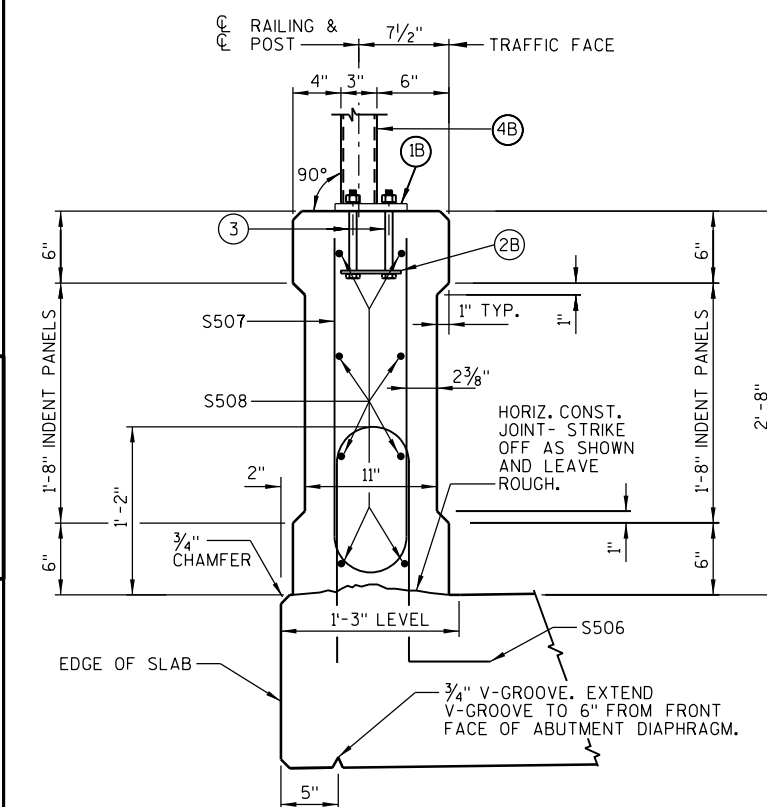
(LOOKING EAST)



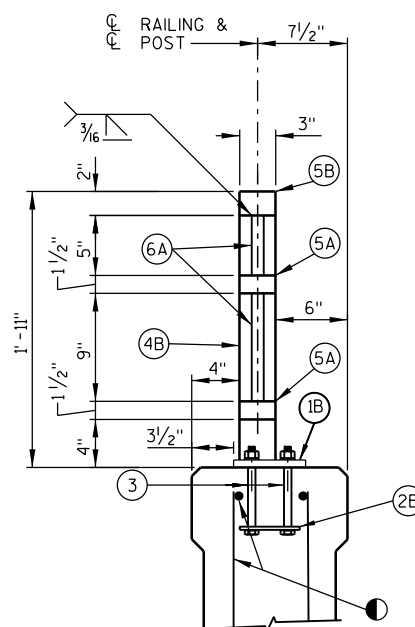
PLAN



PART PLAN

ELEVATION OF PARAPET
(LOOKING AT TRAFFIC FACE)

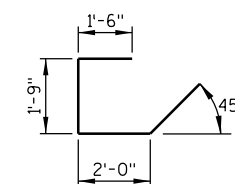
SECTION C-C THRU PARAPET ON BRIDGE

TYPICAL SECTION
THRU RAILING ON BRIDGE

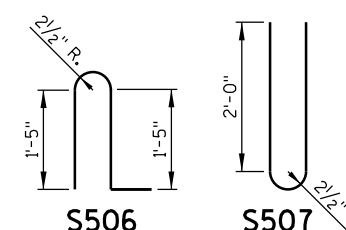
BILL OF BARS (COATED) 10,170 LBS.

MARK	NUMBER REQUIRED	LENGTH	BENT	DESCRIPTION
S501	58	7'-1"	X	ABUT. DIAPH. - STIRRUP - VERT.
S902	30	30'-2"		SLAB - BOTTOM - LONGIT.
S903	29	22'-0"		SLAB - BOTTOM - LONGIT.
S504	76	28'-0"		SLAB - TOP & BOTTOM - TRANS.
S405	29	30'-2"		SLAB - TOP - LONGIT.
S506	92	4'-4"	X	SLAB & PARAPET - STIRRUP - VERT.
S507	92	4'-9"	X	PARAPET - STIRRUP - TOP - VERT.
S508	16	30'-2"		PARAPET - LONGIT.
S509	60	5'-0"		SLAB - TOP - TRANS. AT PARAPETS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR REINFORCEMENT.



S501



S506

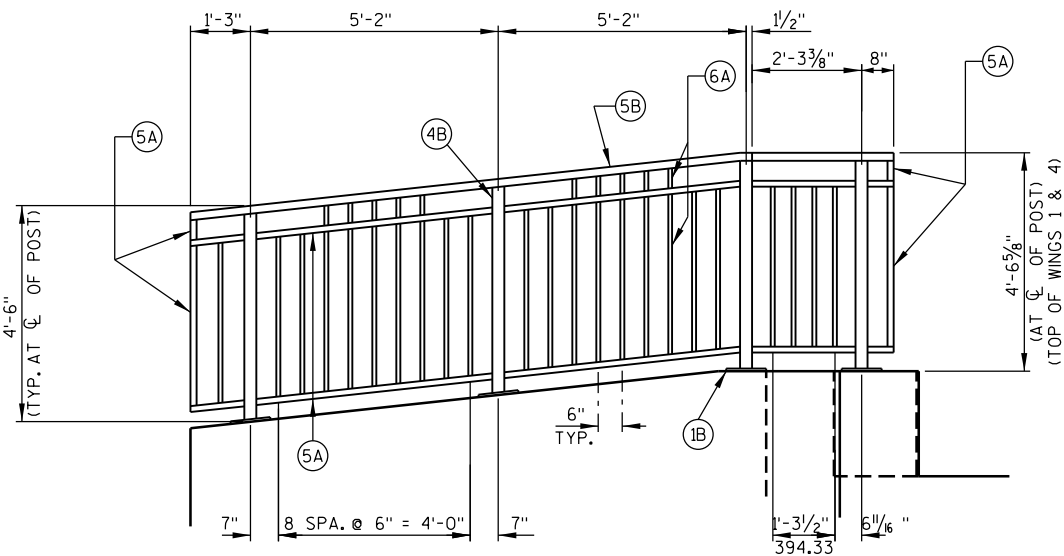
S507

STIRRUP RADII SHOWN ARE MEASURED
TO THE INSIDE OF THE BAR BEND.

NOTE:
FOR LEGEND AND RAILING
DETAILS, SEE SHEET 11.

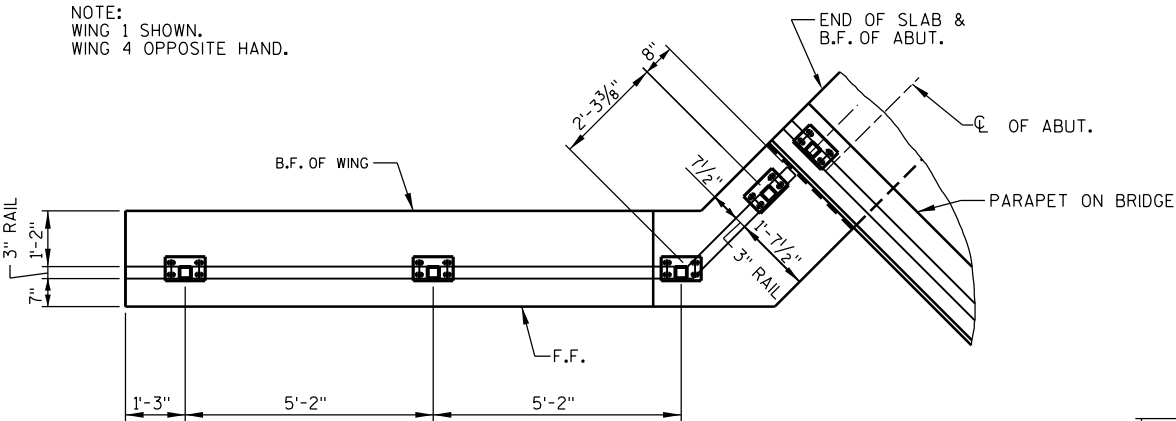
IF ADHESIVE ANCHORS ARE USED AS AN ALTERNATIVE
ANCHORAGE FOR RAIL POSTS, MAKE ADJUSTMENTS TO
BAR STEEL POSITIONS PRIOR TO CASTING CONCRETE
TO AVOID CONFLICTS WITH THE DRILLING OF ADHESIVE
ANCHORS.

NO.	DATE	REVISION	BY
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STRUCTURE		B-22-295	
DRAWN BY RLR		PLANS CK'D. LJR	
PARAPET & RAILING		SHEET 9 OF 11	

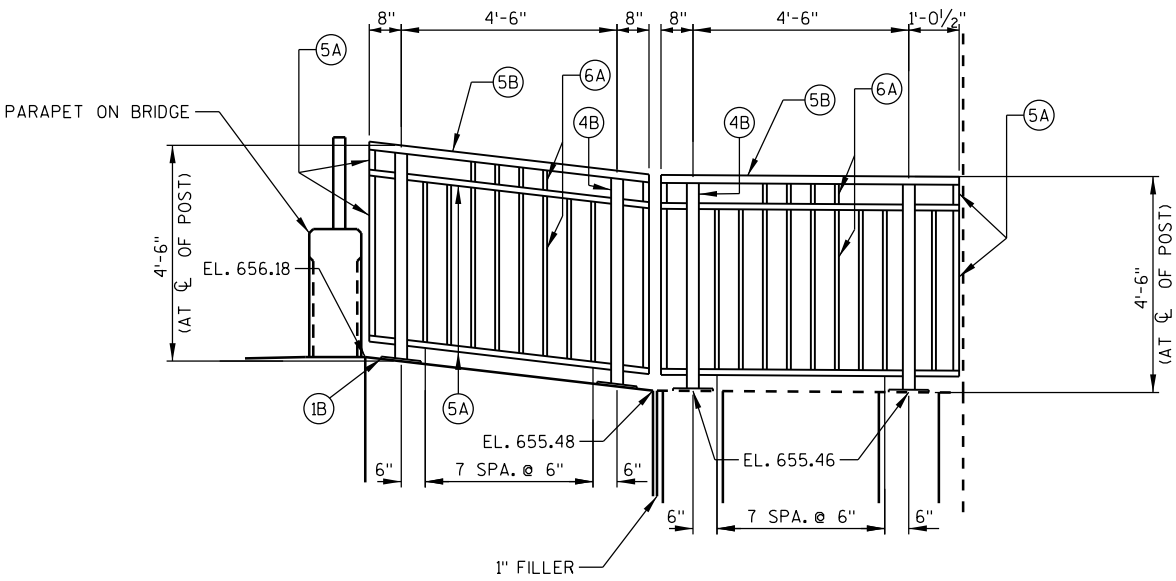


RAIL ELEVATION - WING 1
(LOOKING AT F.F. OF WING)

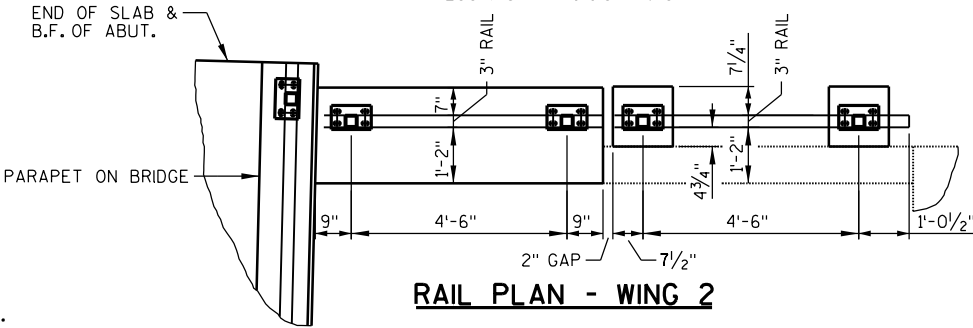
NOTE:
WING 1 SHOWN.
WING 4 OPPOSITE HAND.



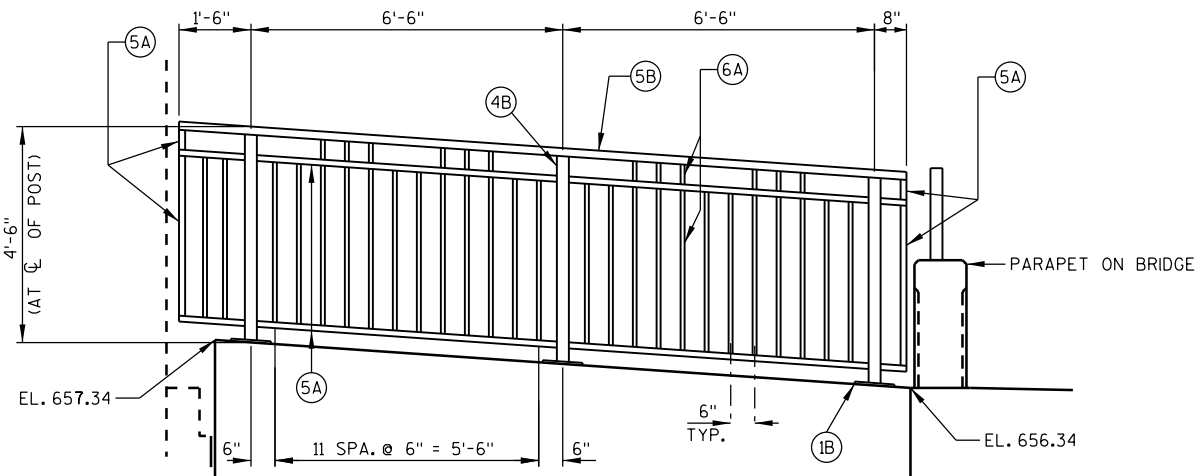
RAIL PLAN - WING 1



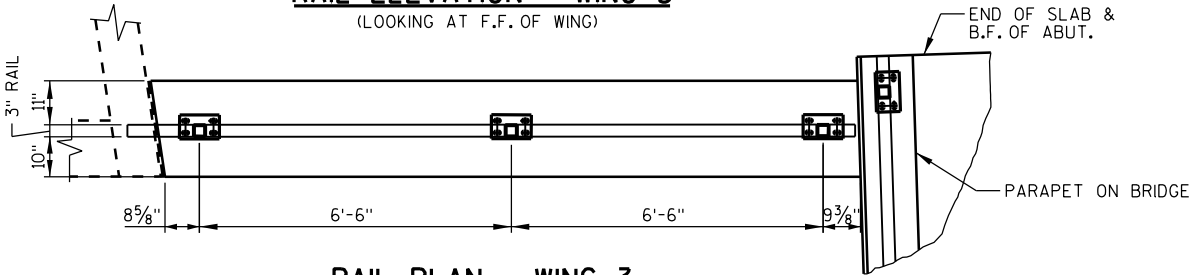
RAIL ELEVATION - WING 2
(LOOKING AT F.F. OF WING)



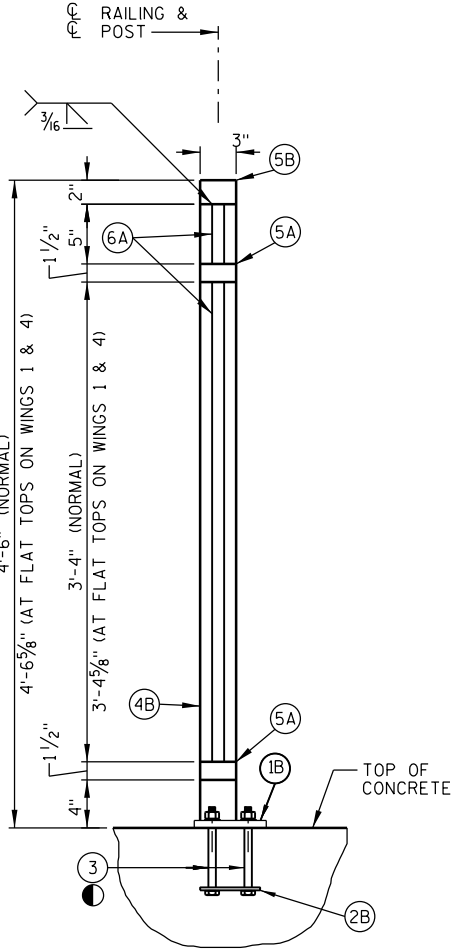
RAIL PLAN - WING 2



RAIL ELEVATION - WING 3
(LOOKING AT F.F. OF WING)



RAIL PLAN - WING 3

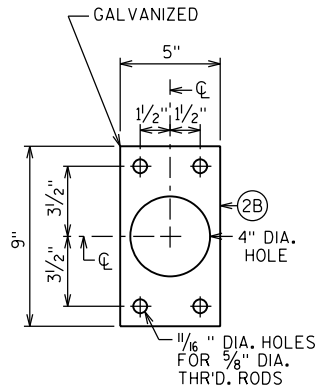


TYPICAL SECTION
THRU RAILING ON WINGS

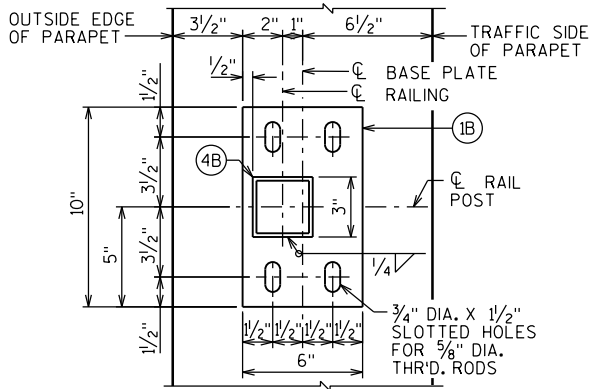
NOTE:
FOR LEGEND AND RAILING
DETAILS, SEE SHEET 11.

IF ADHESIVE ANCHORS ARE USED AS AN ALTERNATIVE ANCHORAGE FOR RAIL POSTS, MAKE ADJUSTMENTS TO BAR STEEL POSITIONS PRIOR TO CASTING CONCRETE TO AVOID CONFLICTS WITH THE DRILLING OF ADHESIVE ANCHORS.

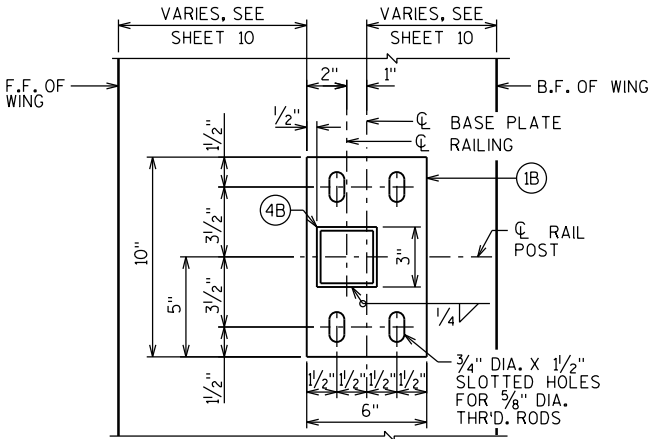
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-22-295	
DRAWN BY		RLR	PLANS CK'D. LJR
PEDESTRIAN RAILING ON WINGS		SHEET 10 OF 11	



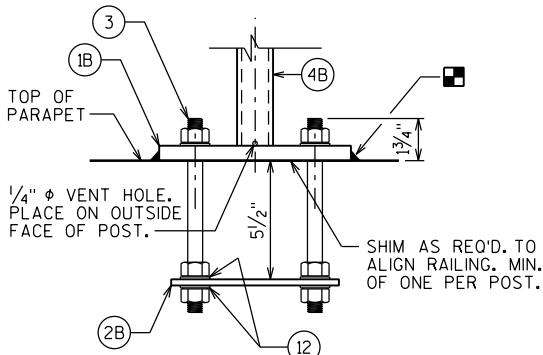
ANCHOR PLATE



TYPICAL RAIL POST
BASE PLATE ON PARAPET

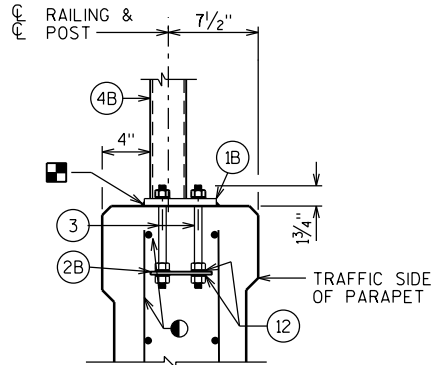


TYPICAL RAIL POST
BASE PLATE ON WING



ANCHORAGE FOR RAIL POSTS

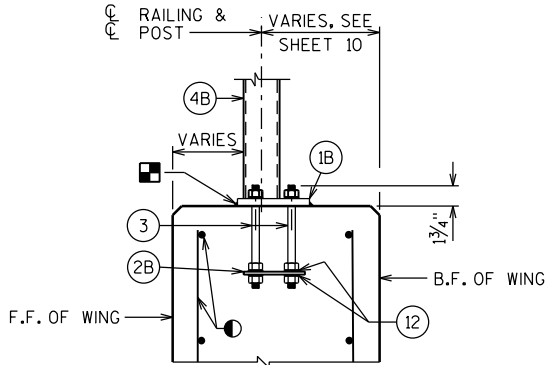
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



ANCHORAGE FOR
RAIL POST ON PARAPET

NOTE: ANCHOR PLATES NOT REQ'D. WHEN ADHESIVE ANCHORS ARE USED.

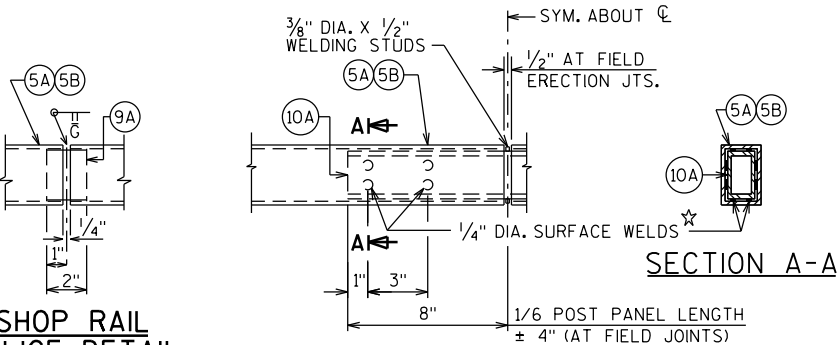
IF ADHESIVE ANCHORS ARE USED AS AN ALTERNATIVE ANCHORAGE FOR RAIL POSTS, MAKE ADJUSTMENTS TO BAR STEEL POSITIONS PRIOR TO CASTING CONCRETE TO AVOID CONFLICTS WITH THE DRILLING OF ADHESIVE ANCHORS.



ANCHORAGE FOR
RAIL POST ON WING

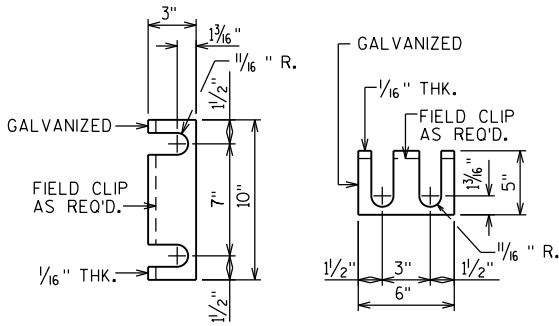
NOTE: ANCHOR PLATES NOT REQ'D. WHEN ADHESIVE ANCHORS ARE USED.

IF ADHESIVE ANCHORS ARE USED AS AN ALTERNATIVE ANCHORAGE FOR RAIL POSTS, MAKE ADJUSTMENTS TO BAR STEEL POSITIONS PRIOR TO CASTING CONCRETE TO AVOID CONFLICTS WITH THE DRILLING OF ADHESIVE ANCHORS.



FIELD ERECTION JOINT DETAIL

☆ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



RAIL POST SHIM DETAIL
(2 SETS PER POST)

LEGEND

- 1B) PLATE 5/8" X 6" X 10" WITH 3/4" X 1/2" SLOTTED HOLES.
- 2B) 1/4" X 5" X 9" ANCHOR PLATE WITH 1/16" DIA. HOLES FOR THR'D. RODS NO. 3.
- 3) 5/8" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 3/8"-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.
- 4B) STRUCTURAL TUBING 3" X 3" X 3/16". PLACE VERTICAL. WELD TO NO.1 & 5.
- 5A) STRUCTURAL TUBING 3" X 1/2" X 3/16" RAILS. WELD TO NO.1 & NO.4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 5B) STRUCTURAL TUBING 3" X 2" X 3/16" RAILS. WELD TO NO.1 & NO.4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 6A) BAR 1" X 1" PICKETS. WELD TO NO.5. PLACE VERTICAL.
- 9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- 10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.).
- 11) 3/16" CLOSURE PLATE, WELD & GRIND SMOOTH.
- 12) PLASTIC WASHERS USED TO SEPARATE STAINLESS STEEL WASHER & GALVANIZED STEEL ANCHOR PLATE.

RAILING NOTES

BID ITEM FOR RAILING ON PARAPETS SHALL BE "RAILING STEEL TYPE C4", WHICH SHALL INCLUDE GALVANIZING, PAINTING, AND ALL STEEL RAILING ITEMS SHOWN ON THIS SHEET AND ON SHEET 9.

BID ITEM FOR RAILING ON WINGWALLS SHALL BE "RAILING STEEL PEDESTRIAN TYPE C4", WHICH SHALL INCLUDE GALVANIZING, PAINTING, AND ALL STEEL RAILING ITEMS SHOWN ON THIS SHEET AND ON SHEET 10.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS, PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED BLACK FEDERAL STANDARD COLOR NO. 27038.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

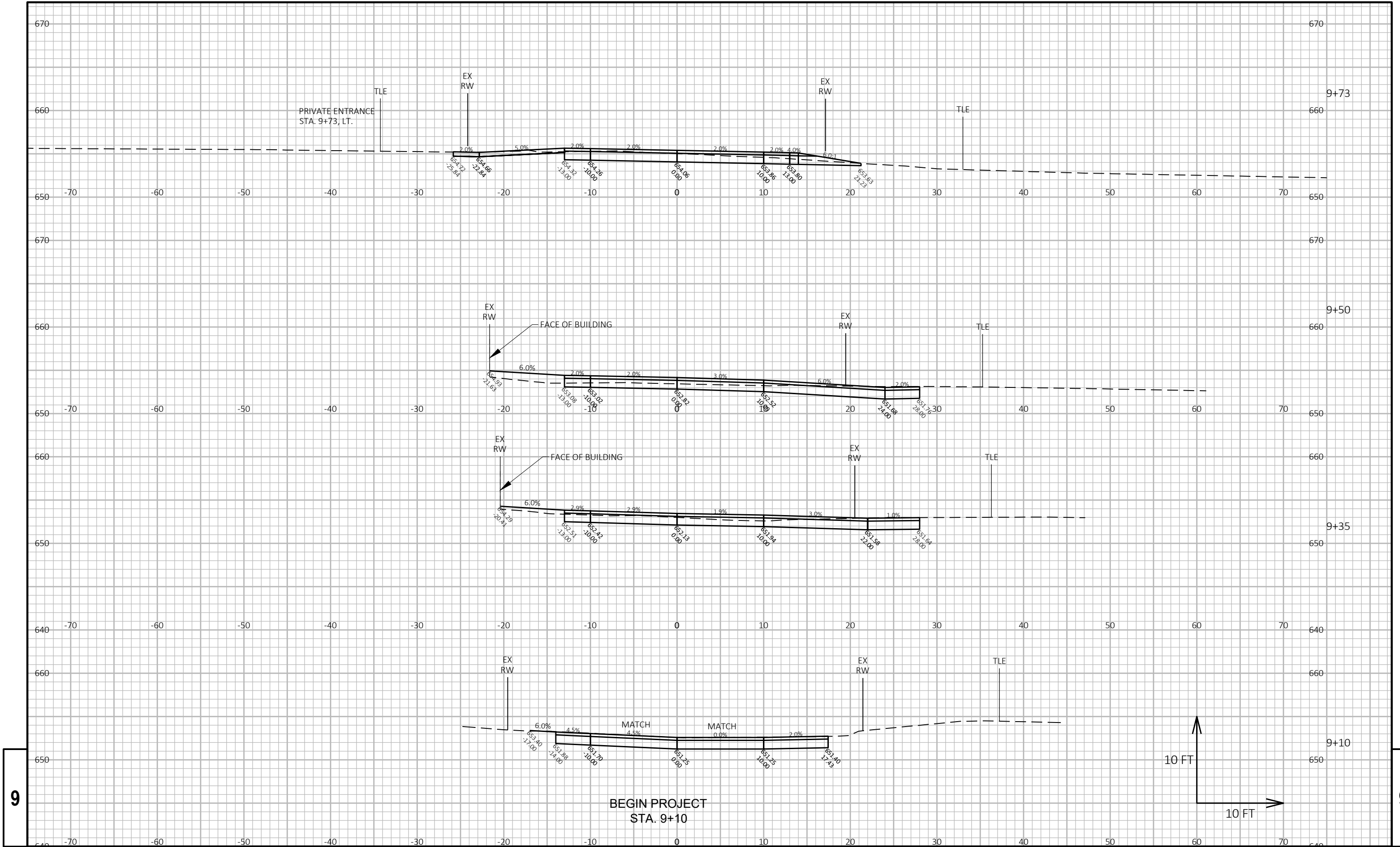
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 OR MORE POSTS.

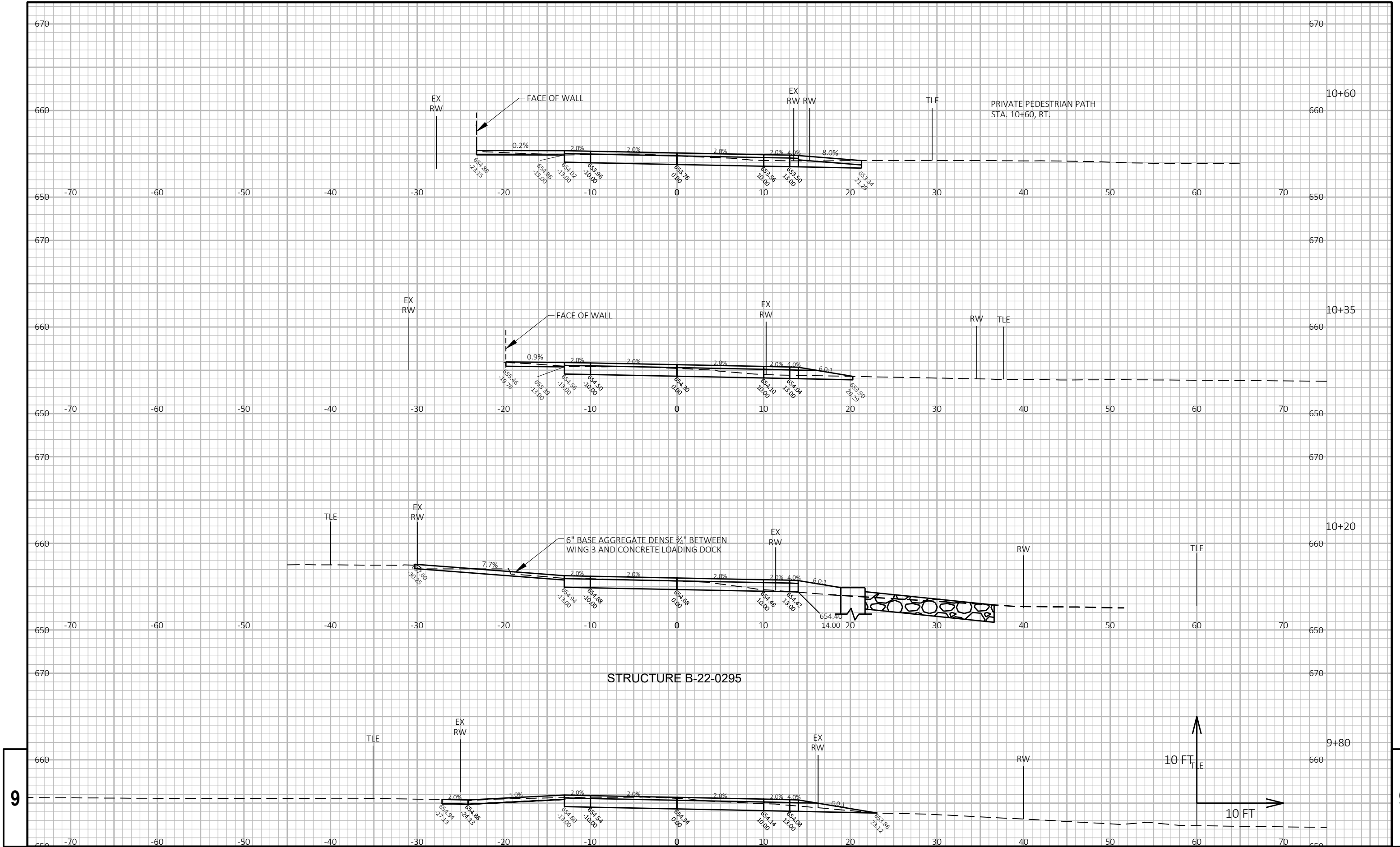
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

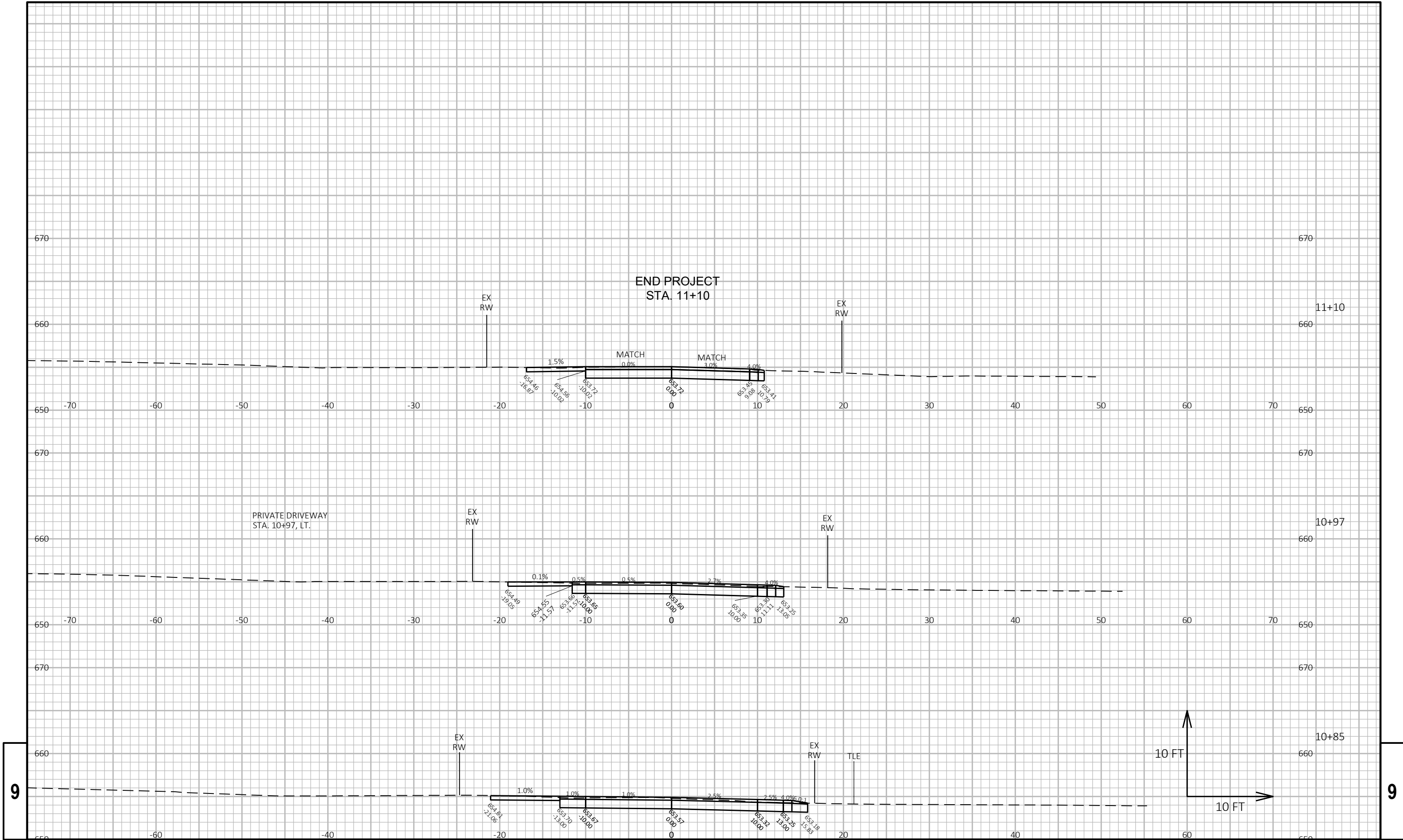
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-22-295	
DRAWN BY		RLR	PLANS CK'D. LJR
RAILING DETAILS		SHEET 11 OF 11	

PROJECT I.D. 5985-00-77 EARTHWORK SUMMARY

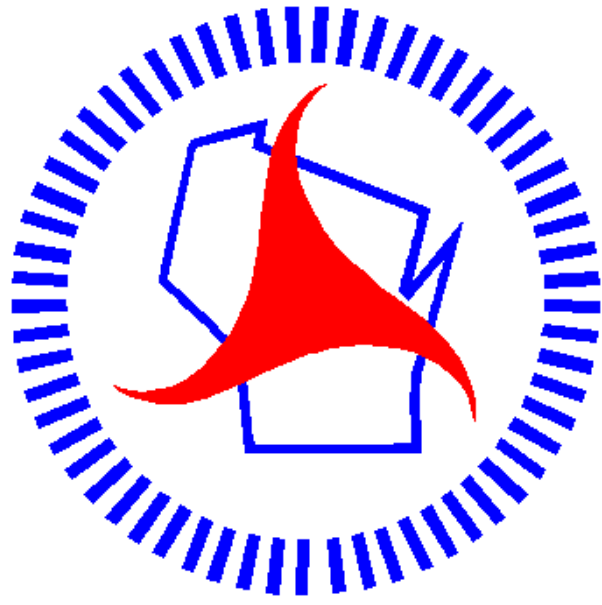
STA	EXCAVATION COMMON CY	FILL (1) CY	EXPANDED FILL (2) CY	WASTE CY
9+10.00	38.00	1.00	1.00	37.00
9+35.00	21.00	3.00	4.00	17.00
9+50.00	28.00	3.00	4.00	24.00
9+73.00	9.00	0.00	0.00	9.00
9+80.00	9.00	0.00	0.00	9.00
9+86.75				
STRUCTURE B-22-0295				
10+17.25	17.00	0.00	0.00	17.00
10+35.00	27.00	0.00	0.00	27.00
10+60.00	32.00	0.00	0.00	32.00
10+85.00	15.00	0.00	0.00	15.00
10+97.00	15.00	0.00	0.00	15.00
11+10.00				
SUBTOTALS				
E. APPROACH	105.00	7.00	9.00	96.00
W. APPROACH	106.00	0.00	0.00	106.00
TOTALS	211.00	7.00	9.00	202.00
(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY. (2) - FILL EXPANSION 30%				







PROJECT NO: 5985-00-77	HWY: LOC STR	COUNTY: GRANT	CROSS SECTIONS:	SHEET	E
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Wisconsin Department of Transportation

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