

WIS

PROJECT ID:
WTH: 6952-01-71

6952-01-70

COUNTY:

WOOD

FEBRUARY 2025
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 = 50



DESIGN DESIGNATION

A.A.D.T.	2025	=	49
A.A.D.T.	2045	=	72
D.H.V.		=	20
D.D.		=	62/38
T.		=	12%
DESIGN SPEED		=	45 MPH
ESALS		=	24,309

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

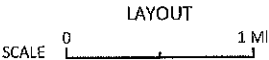
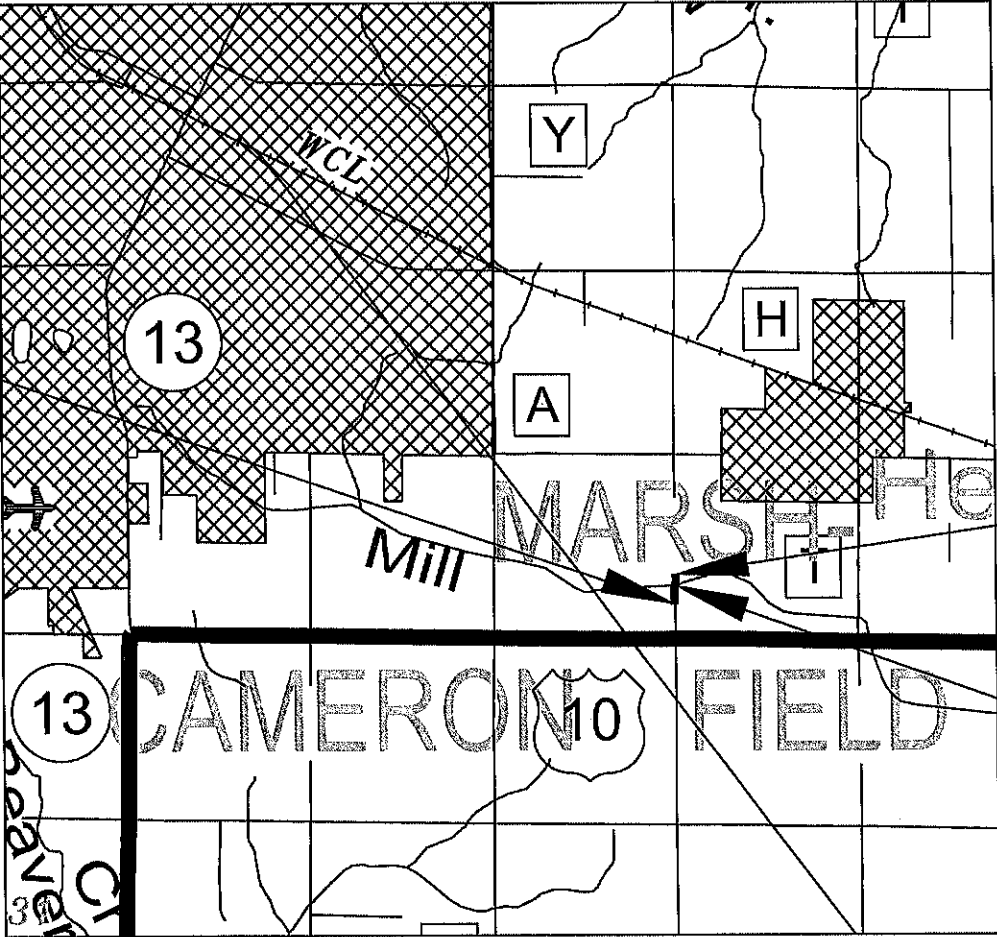
T MARSHFIELD, STADT ROAD

MILL CREEK BRIDGE, B-71-0205

LOCAL STREET
WOOD COUNTY

STATE PROJECT NUMBER
6952-01-70

R-3-E



TOTAL NET LENGTH OF CENTERLINE = 0.028 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WOOD 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 (1991). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18

STATE PROJECT

6952-01-70

6952-01-71

FEDERAL PROJECT

PROJECT

WISC 2025348

WISC 2025349

CONTRACT

1

ACCEPTED FOR
WOOD COUNTY

Date: 12/13/24
ROLAND HAWK, PE, COMMISSIONER

Brandon Whipple, Engineer for
ORIGINAL PLANS PREPARED BY

Mead & Hunt

1702 Lawrence Dr
De Pere, WI 54115
phone: 920-496-0500
meadhunt.com



DATE: 12/13/2024
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MEAD & HUNT, INC
Designer	MEAD & HUNT, INC
Project Manager	JASON SCHAEFFER
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT
DATE: 12/13/24
(Signature)

E

UTILITIES CONTACTS

MARSHFIELD UTILITIES
ELECTRIC
KAMREN SEEFLUTH
2000 S CENTRAL
MARSHFIELD, WI 54449
PHONE: 715-898-2143
EMAIL: KAMREN.SEEFLUTH@MARSHFIELDUTILITIES.ORG

TDS TELECOM - VESPER
COMMUNICATION LINE
KEVIN SCHEUNEMANN
P.O. BOX 125
VESPER, WI 54489
PHONE: 715-569-4824
EMAIL: KEVIN.SCHEUNEMANN@TDSTELECOM.COM

SPECTRUM/ASTREA
COMMUNICATIONS
BRAD WEBER
105 KENT STREET
IRON MOUNTAIN, MI 49801
PHONE: 906-282-3819
EMAIL: ASTREACONSTRUCTION@ASTREACONNECT.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
EROSION CONTROL
TRAFFIC CONTROL

WISDOT PROJECT MANAGER

JASON SCHAEFFER
WISDOT NORTH CENTRAL REGION OFFICE
1681 SECOND AVE SOUTH
WISCONSIN RAPIDS, WI 54495
PHONE: 715-421-7309
EMAIL: JASON.SCHAEFFER@DOT.WI.GOV

COUNTY HIGHWAY COMMISSIONER

ROLAND HAWK, PE
WOOD COUNTY
555 17TH AVE N
WISCONSIN RAPIDS, WI 54495
PHONE: 715-421-8875
EMAIL: ROLAND.HAWK@WOODCOUNTYWI.GOV

TOWN OF MARSHFIELD

ALLEN BREU
TOWN CHAIRPERSON
11075 STADT ROAD
MARSHFIELD, WI 54449
PHONE: 715-387-4222
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DESIGN CONSULTANT



MEAD & HUNT, INC.
1702 LAWRENCE DR
DE PERE, WI 54115
ATTN: ANGELA KERRIGAN, P.E.
PHONE: 920-593-6840
EMAIL: ANGIE.KERRIGAN@MEADHUNT.COM

WISCONSIN DNR LIAISON

BRAD BETTHAUSER
WDNR WEST CENTRAL REGION
910 STH 54
BLACK RIVER FALLS, WI 54615
PHONE: 715-213-9064
EMAIL: BRADLEY.BETTHAUSER@WISCONSIN.GOV

GENERAL NOTES

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

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

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

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

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

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

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

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

BEARINGS SHOWN ON THE PLAN ARE GROUND BEARINGS TO THE NEAREST SECOND.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

RUNOFF COEFFICIENT TABLE

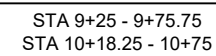
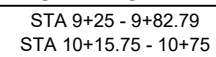
LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIPTURF:	.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 SLOPETURF:			.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 = 0.346 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.274 ACRES

DIGGERSHOTLINE

Dial 811 or (800)242-8511

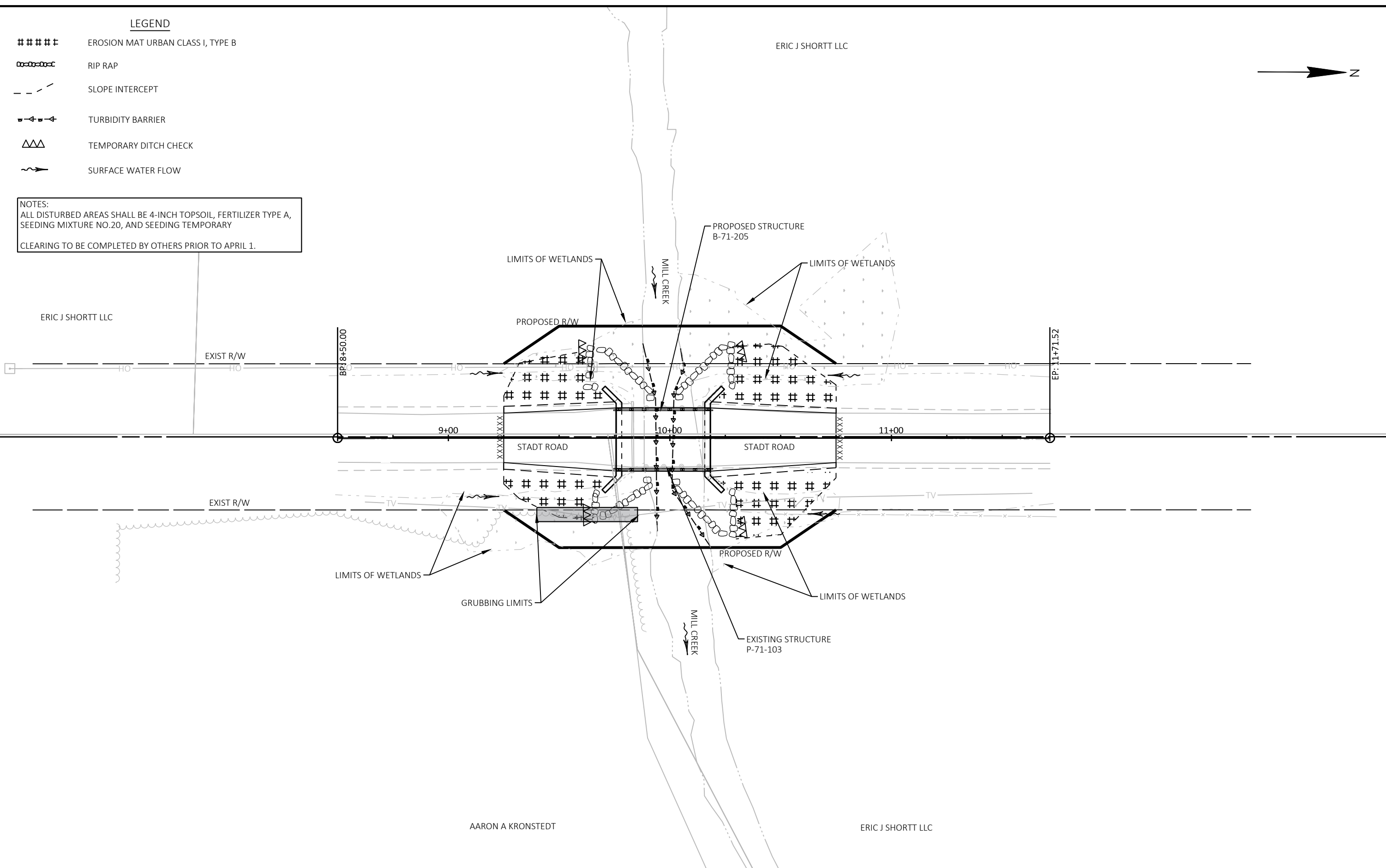
www.DiggersHotline.com

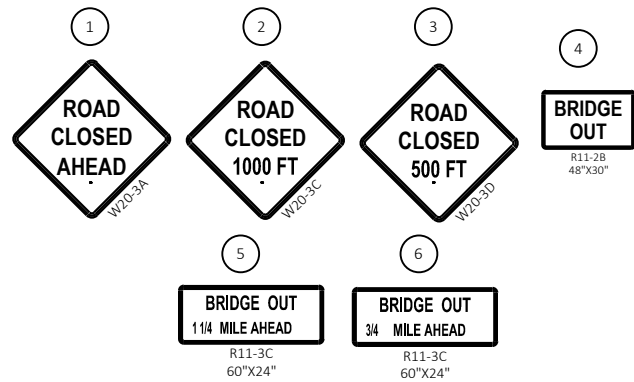
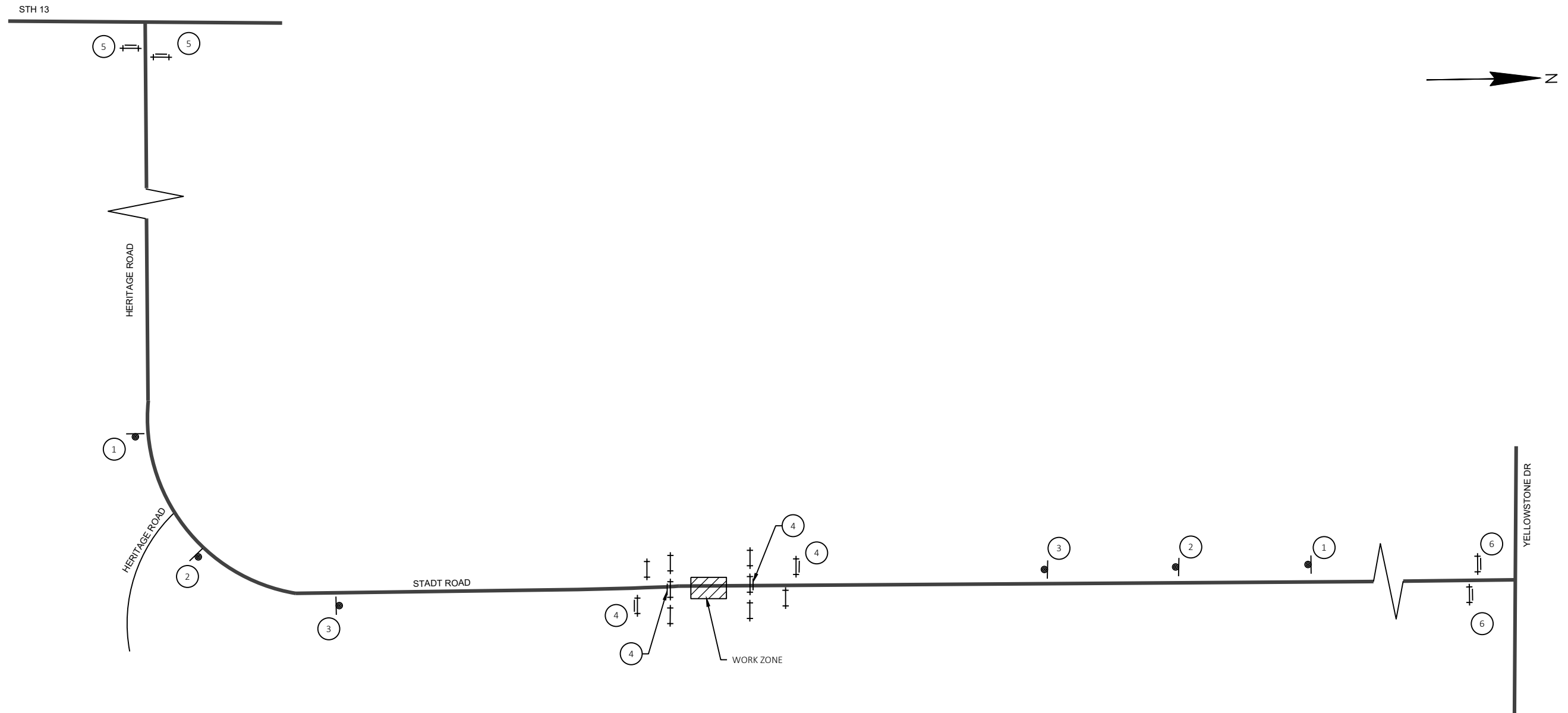


LEGEND

- ##### EROSION MAT URBAN CLASS I, TYPE B
- RIP RAP
- - - SLOPE INTERCEPT
- TURBIDITY BARRIER
- △△△ TEMPORARY DITCH CHECK
- ~> SURFACE WATER FLOW

NOTES:
ALL DISTURBED AREAS SHALL BE 4-INCH TOPSOIL, FERTILIZER TYPE A,
SEEDING MIXTURE NO.20, AND SEEDING TEMPORARY
CLEARING TO BE COMPLETED BY OTHERS PRIOR TO APRIL 1.





- LEGEND**
- TYPE III BARRICADE
 - TYPE III BARRICADE WTH ATTACHED SIGN
 - SIGN ON PERMANENT SUPPORT
 - WORK AREA

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

Estimate Of Quantities By Plan Sets

6952-01-70					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	1.000	1.000
0004	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-71-0103	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	119.000	119.000
0010	205.0505.S	Excavation, Hauling, and Disposal of Creosote Contaminated Soil and Management of Contaminated Groundwater	TON	195.000	195.000
0012	206.1001	Excavation for Structures Bridges (structure) 01. B-71-0205	EACH	1.000	1.000
0016	208.0100	Borrow	CY	275.000	275.000
0018	210.1500	Backfill Structure Type A	TON	374.000	374.000
0020	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6952-01-70	EACH	1.000	1.000
0024	213.0100	Finishing Roadway (project) 01. 6952-01-70	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	16.000	16.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	252.000	252.000
0032	455.0605	Tack Coat	GAL	21.000	21.000
0034	465.0105	Asphaltic Surface	TON	70.000	70.000
0036	502.0100	Concrete Masonry Bridges	CY	143.000	143.000
0038	502.3200	Protective Surface Treatment	SY	191.000	191.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	4,300.000	4,300.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	20,090.000	20,090.000
0044	513.4061	Railing Tubular Type M	LF	90.000	90.000
0046	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0048	550.0020	Pre-Boring Rock or Consolidated Materials	LF	253.000	253.000
0050	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	301.000	301.000
0052	606.0300	Riprap Heavy	CY	184.000	184.000
0054	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	142.000	142.000
0056	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6952-01-70	EACH	1.000	1.000
0060	619.1000	Mobilization	EACH	0.530	0.530
0062	624.0100	Water	MGAL	2.000	2.000
0064	625.0100	Topsoil	SY	430.000	430.000
0070	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0074	628.2008	Erosion Mat Urban Class I Type B	SY	430.000	430.000
0076	628.6005	Turbidity Barriers	SY	265.000	265.000
0078	628.7504	Temporary Ditch Checks	LF	20.000	20.000
0080	629.0205	Fertilizer Type A	CWT	0.400	0.400
0082	630.0120	Seeding Mixture No. 20	LB	13.000	13.000
0084	630.0200	Seeding Temporary	LB	13.000	13.000
0086	630.0500	Seed Water	MGAL	10.000	10.000
0088	633.0100	Delineator Posts Steel	EACH	8.000	8.000
0090	633.5100	Markers ROW	EACH	8.000	8.000
0092	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0094	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0096	638.2602	Removing Signs Type II	EACH	4.000	4.000
0098	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0100	642.5001	Field Office Type B	EACH	0.530	0.530
0102	643.0420	Traffic Control Barricades Type III	DAY	854.000	854.000
0104	643.0705	Traffic Control Warning Lights Type A	DAY	976.000	976.000
0106	643.0900	Traffic Control Signs	DAY	854.000	854.000
0108	643.5000	Traffic Control	EACH	0.530	0.530
0110	645.0111	Geotextile Type DF Schedule A	SY	88.000	88.000

Estimate Of Quantities By Plan Sets

6952-01-70					
Line	Item	Item Description	Unit	Total	Qty
0112	645.0120	Geotextile Type HR	SY	386.000	386.000
0114	650.4500	Construction Staking Subgrade	LF	108.000	108.000
0116	650.5000	Construction Staking Base	LF	108.000	108.000
0118	650.6501	Construction Staking Structure Layout (structure) 01. B-71-0205	EACH	1.000	1.000
0122	650.9911	Construction Staking Supplemental Control (project) 01. 6952-01-70	EACH	1.000	1.000
0126	650.9920	Construction Staking Slope Stakes	LF	108.000	108.000
0128	690.0150	Sawing Asphalt	LF	44.000	44.000
0130	715.0502	Incentive Strength Concrete Structures	DOL	420.000	420.000
0132	999.2005.S	Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0136	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	150.000	150.000
0138	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000

EXCAVATION COMMON

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	208.0100 BORROW
			CUT (2)				FACTOR 1.25		
MAINLINE	9+25 - 10+75	STADT RD	119	43	76	281	184	-275	275
TOTAL COMMON EXCAVATION			119	TOTAL =					275

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.25
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

GRUBBING

201.0205				
STATION	TO	STATION	LOCATION	STA
9+40	-	10+85	STADT RD, RT	1
TOTAL 0010				1

BASE AGGREGATE DENSE

				305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL
STATION	TO	STATION	LOCATION			
9+25	-	9+76	STADT RD, LT & RT	8	123	1
10+18	-	10+75	STADT RD, LT & RT	8	129	1
TOTAL 0010				16	252	2

ASPHALTIC SURFACE

455.0605 TACK 465.0105				
STATION	TO	STATION	LOCATION	
9+25	-	9+76	STADT RD, SOUTH	10
10+18	-	10+75	STADT RD, NORTH	11
TOTAL 0010				21

LANDSCAPING

				625.0100 TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
STATION	TO	STATION	LOCATION						
9+25	-	9+76	STADT RD, LT & RT	180	180	0.2	6	6	4
10+18	-	10+75	STADT RD, LT & RT	250	250	0.2	7	7	6
TOTAL 0010				430	430	0.4	13	13	10

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905	628.1910
	EACH	EMERGENCY EACH
STADT ROAD	5	2
TOTAL 0010	5	2

TURBIDITY BARRIERS

628.6005		
STATION	LOCATION	SY
9+93	STADT ROAD	125
10+01	STADT ROAD	140
TOTAL 0010		265

TEMPORARY DITCH CHECKS

628.7504		
STATION	LOCATION	LF
9+59	STADT RD, LT	5
9+61	STADT RD, RT	5
10+32	STADT RD, LT	5
10+32	STADT RD, RT	5
TOTAL 0010		20

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.6501.01	650.9911.01	650.9920
					SUBGRADE LF	BASE LF	STRUCTURE LAYOUT (STRUCTURE) (01. B-71-205) EACH	SUPPLEMENTAL CONTROL (PROJECT) (01. 6951-01-70) EACH	SLOPE STAKES LF
0010	9+25	-	9+76	STADT ROAD	51	51	-	-	51
0010	10+18	-	10+75	STADT ROAD	57	57	-	-	57
0020		10+00		STADT ROAD	-	-	1	-	-
0010		PROJECT		STADT ROAD	-	-	-	1	-
TOTAL					108	108	1	1	108

SIGNING

STATION	LOCATION	634.0614	637.2230	638.2602	638.3000	REMARKS
		POSTS WOOD 4X6- INCH X 14-FT EACH	SIGNS TYPE II REFLECTIVE F SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
9+73	STADT RD, LT	1	3	-	-	W5-52L
9+73	STADT RD, RT	1	3	-	-	W5-52R
9+82	STADT RD, LT	-	-	1	1	EX W5-52L
9+82	STADT RD, RT	-	-	1	1	EX W5-52R
10+16	STADT RD, LT	-	-	1	1	EX W5-52L
10+16	STADT RD, RT	-	-	1	1	EX W5-52R
10+20	STADT RD, LT	1	3	-	-	W5-52L
10+20	STADT RD, RT	1	3	-	-	W5-52R
TOTAL 0010		4	12	4	4	

TRAFFIC CONTROL

PROJECT	643.0420		643.0705		643.0900		643.5000	REMARKS
	BARRICADES TYPE III EACH	DAY	WARNING LIGHTS TYPE A EACH	DAY	SIGNS EACH	DAY	TRAFFIC CONTROL EACH	
6952-01-70	14	854	16	976	14	854	0.53	61 DAYS
TOTAL 0010		854	976		854		0.53	

SAWING ASPHALT

STATION	LOCATION	690.0550
		LF
9+25	STADT RD	22
10+75	STADT RD	22
TOTAL 0010		44

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE		SECTION CORNER MONUMENT		R/W POINT	
SIXTEENTH LINE		GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	
NEW REFERENCE LINE		SIXTEENTH CORNER MONUMENT			
NEW R/W LINE		SIGN		OFF-PREMISE SIGN	
EXISTING R/W OR HE LINE					
PROPERTY LINE					
LOT, TIE & OTHER MINOR LINES					
SLOPE INTERCEPT					
CORPORATE LIMITS					
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		ELECTRIC POLE		COMPENSABLE	NON-COMPENSABLE
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		TELEPHONE POLE			
TEMPORARY LIMITED EASEMENT AREA		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		ACCESS RESTRICTED BY ACQUISITION			
TRANSMISSION STRUCTURES		NO ACCESS (BY STATUTORY AUTHORITY)			
BUILDING		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
BRIDGE		NO ACCESS (NEW HIGHWAY)			
CULVERT		PARCEL NUMBER		UTILITY NUMBER	
		PARALLEL OFFSETS			

WATER	_____	W
GAS	_____	G
TELEPHONE	_____	T
OVERHEAD TRANSMISSION LINES	_____	OH
ELECTRIC	_____	E
CABLE TELEVISION	_____	TV
FIBER OPTIC	_____	FO
SANITARY SEWER	_____	SAN
STORM SEWER	_____	SS
ELECTRIC TOWER	_____	<input checked="" type="checkbox"/>

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

		<u>CURVE DATA ABBREVIATION</u>	
		LONG CHORD	LCH
		LONG CHORD BEARING	LCB
		RADIUS	R
		DEGREE OF CURVE	D
		CENTRAL ANGLE	Δ/D
		LENGTH OF CURVE	L
		TANGENT	T
		DIRECTION AHEAD	DA
		DIRECTION BACK	DB

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ / DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

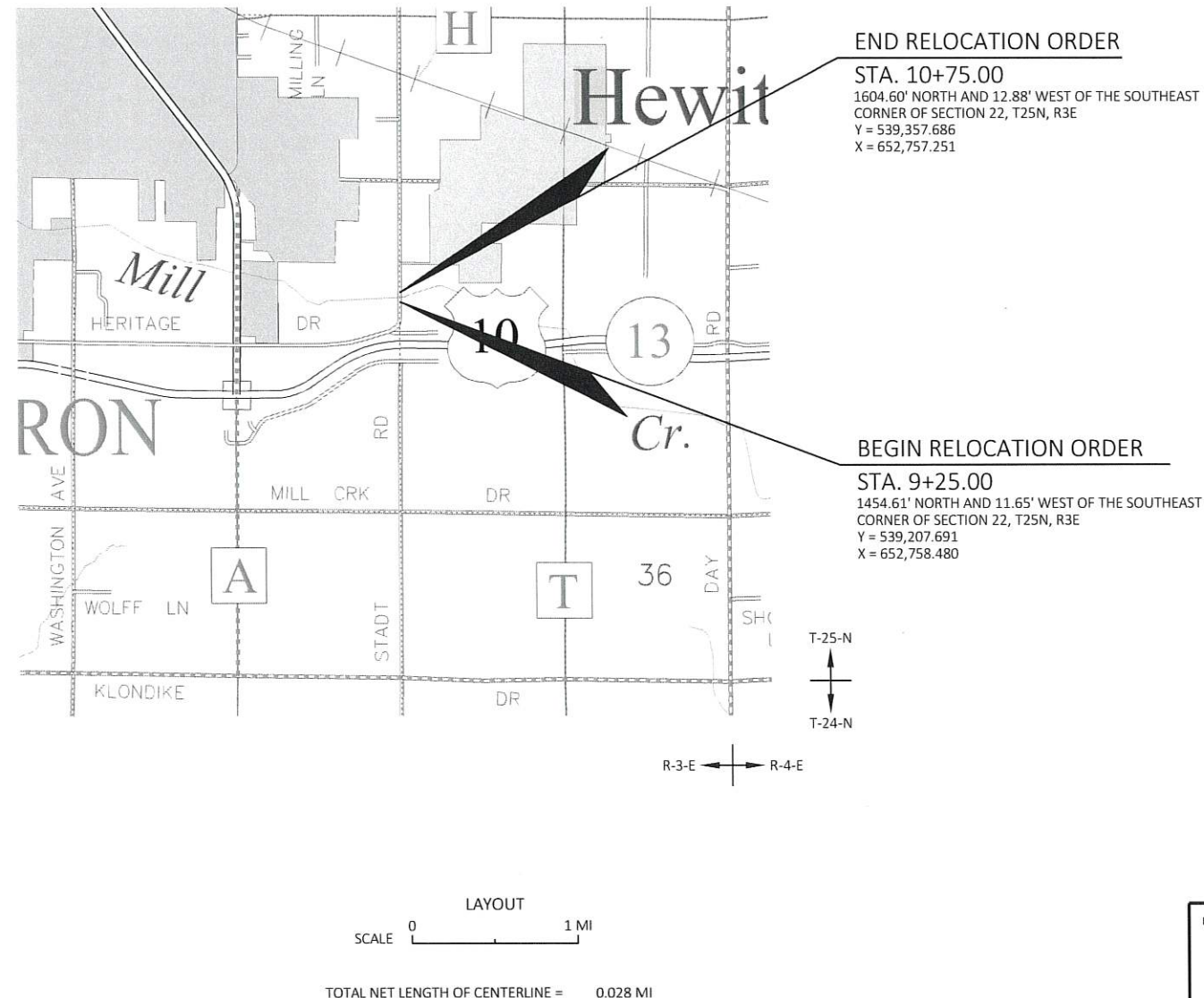
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS),
WOOD COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES,
GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

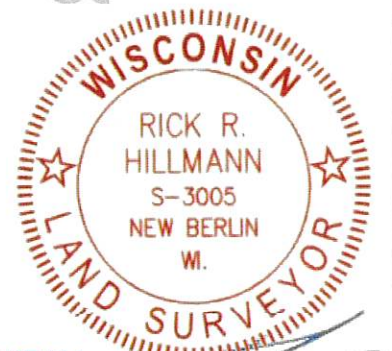
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE DETAIL PAGES.



**Mead
& Hunt**



9/17/24

DATE: _____ (Signature) _____

TOWN OF MARSHFIELD

APPROVED FOR TOWN OF MARSHFIELD

DATE: 10-1-24 [Signature]
(Signature)

R/W PROJECT NUMBER 6952-01-00	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	2
PLAT OF RIGHT OF WAY REQUIRED FOR T MARSHFIELD, STADT ROAD MILL CREEK BRIDGE, P-71-0103		
LOCAL STREET	WOOD COUNTY	
CONSTRUCTION PROJECT NUMBER 6952-01-70		

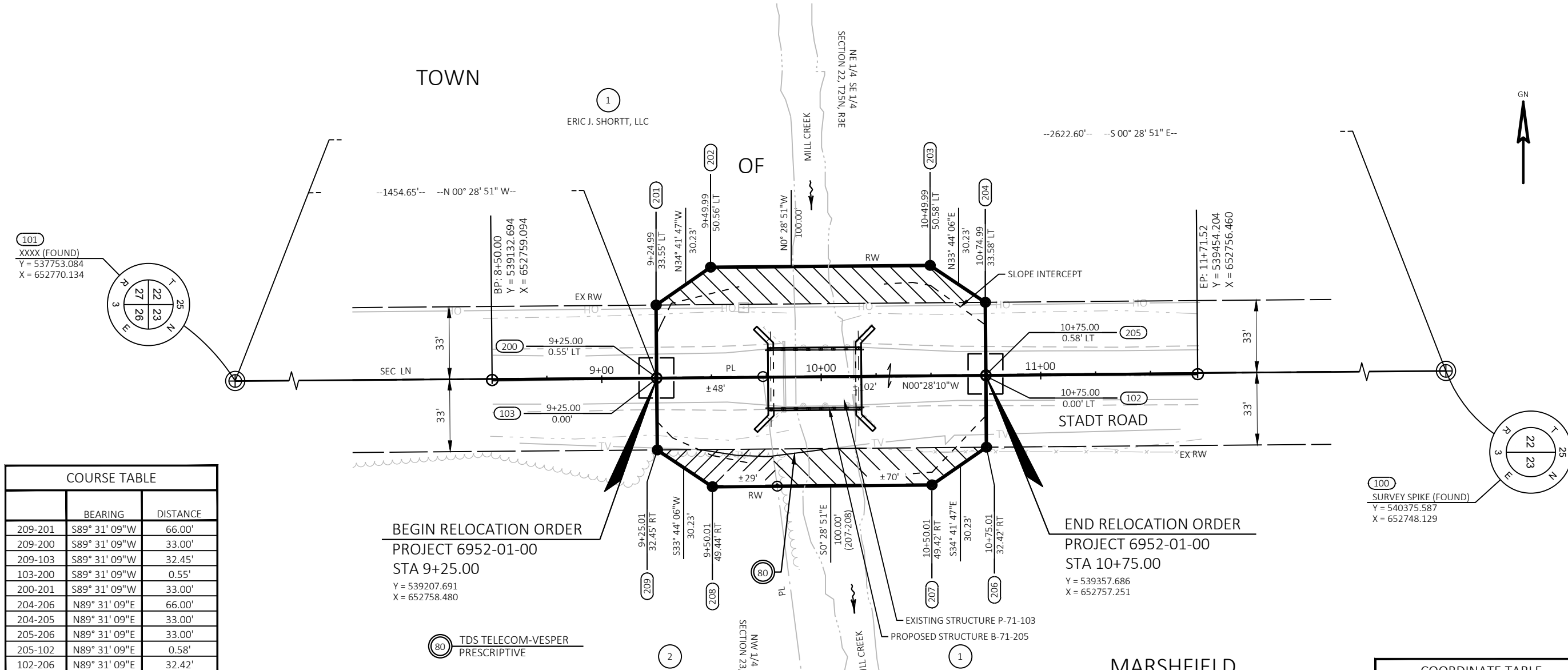
FILE NAME : X:\2314800\231483.01\TECH\CAD\69520100\SHEETSPLAN\040101 RP.DWG

PLOT DATE : 9/17/2024 9:04 AM

PLOT BY : JEFF BREU

PLOT NAME :

BASIS OF EXISTING R/W
STADT ROAD: 4-ROD CHAPTER 82.31(1) WISCONSIN STATUTES.



COURSE TABLE		
	BEARING	DISTANCE
209-201	S89° 31' 09"W	66.00'
209-200	S89° 31' 09"W	33.00'
209-103	S89° 31' 09"W	32.45'
103-200	S89° 31' 09"W	0.55'
200-201	S89° 31' 09"W	33.00'
204-206	N89° 31' 09"E	66.00'
204-205	N89° 31' 09"E	33.00'
205-206	N89° 31' 09"E	33.00'
205-102	N89° 31' 09"E	0.58'
102-206	N89° 31' 09"E	32.42'

UTILITY SCHEDULE OF INTERESTS REQUIRED		
UTILITY NUMBER	OWNERS	INTEREST REQUIRED
80	TDS TELECOM - VESPER	RELEASE OF RIGHTS

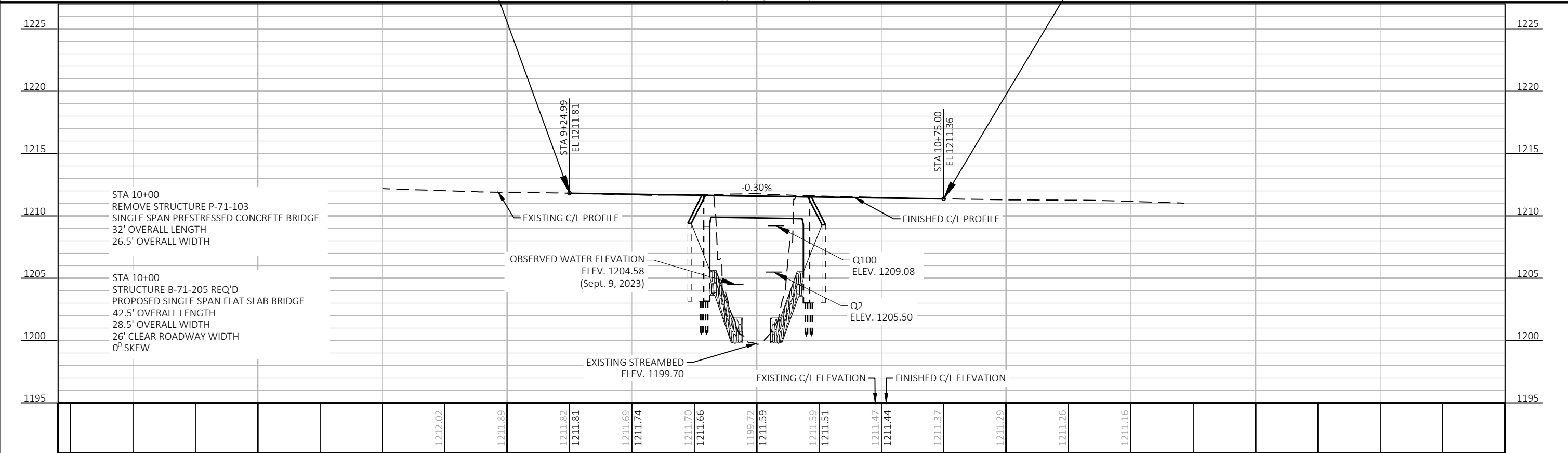
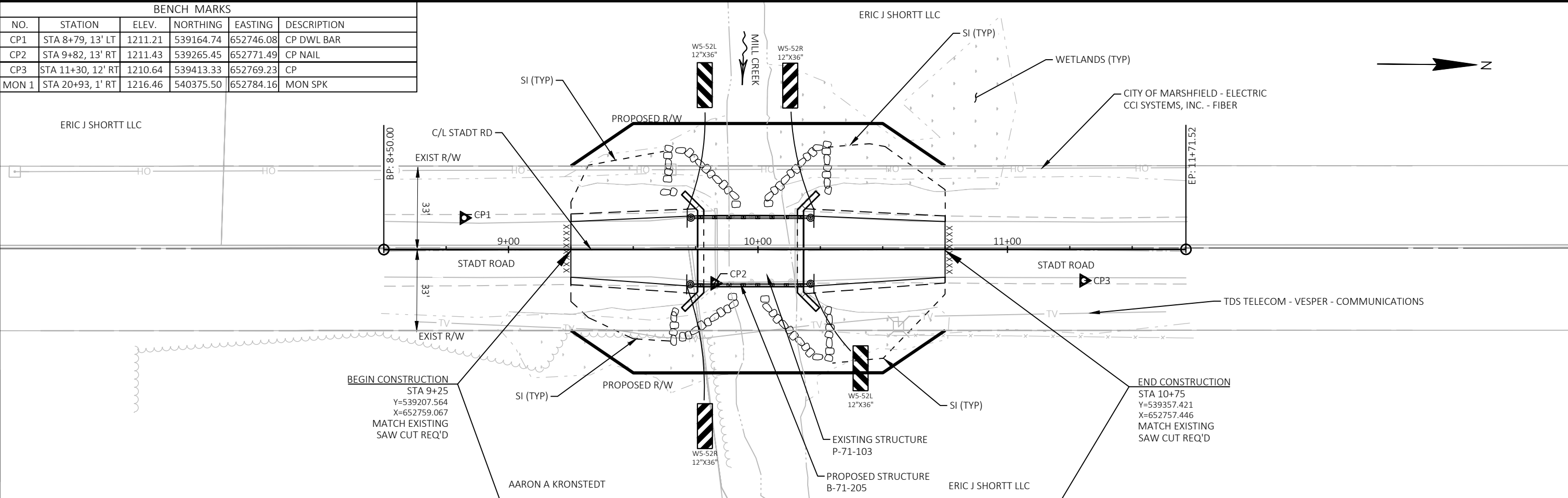
SCHEDULE OF LANDS & INTERESTS REQUIRED					
PARCEL NUMBER	OWNER (S)	INTEREST'S REQUIRED	R/W AC REQUIRED		
			NEW	EXISTING	TOTAL
1	ERIC J. SHORTT, LLC	FEE	0.082	0.189	0.271
2	AARON A. KRONSTEDT	FEE	0.016	0.038	0.054

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

COORDINATE TABLE		
POINT	Y	X
102	539,357.686	652,757.251
103	539,207.691	652,758.480
200	539,207.687	652,757.929
201	539,207.410	652,724.930
202	539,232.266	652,707.721
203	539,332.263	652,706.882
204	539,357.405	652,723.671
205	539,357.681	652,756.670
206	539,357.958	652,789.669
207	539,333.102	652,806.878
208	539,233.105	652,807.717
209	539,207.964	652,790.928

REVISION DATE	DATE	SCALE, FEET 0 25 50	HWY: LOCAL STREET	STATE R/W PROJECT NUMBER 6952-01-00	PLAT SHEET 4.02
	GRID FACTOR N/A		COUNTY: WOOD	CONSTRUCTION PROJECT NUMBER 6952-01-70	PS&E SHEET

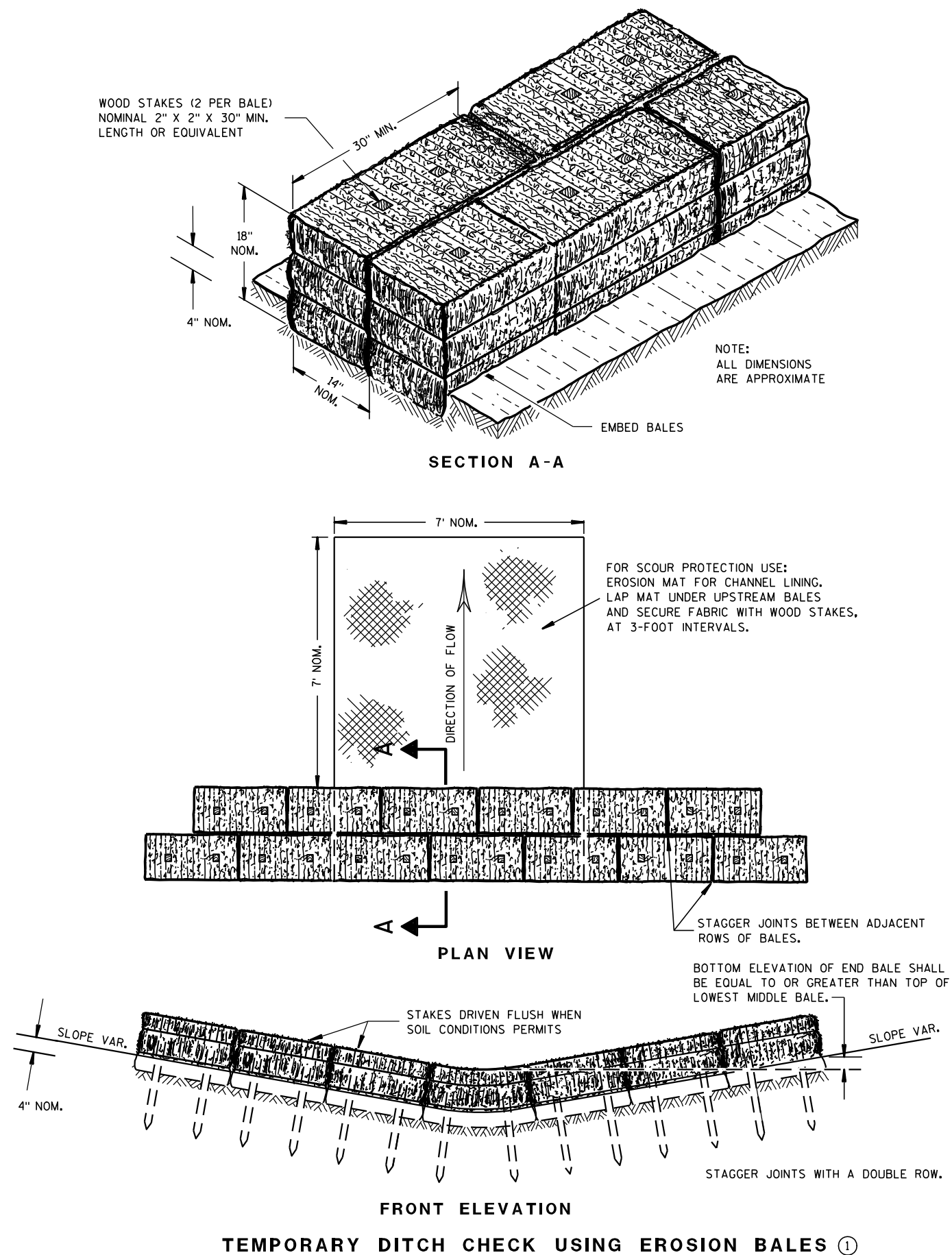
BENCH MARKS					
NO.	STATION	ELEV.	NORTHING	EASTING	DESCRIPTION
CP1	STA 8+79, 13' LT	1211.21	539164.74	652746.08	CP DWL BAR
CP2	STA 9+82, 13' RT	1211.43	539265.45	652771.49	CP NAIL
CP3	STA 11+30, 12' RT	1210.64	539413.33	652769.23	CP
MON 1	STA 20+93, 1' RT	1216.46	540375.50	652784.16	MON SPK



PROJECT NO:	6952-01-70	HWY: LOCAL STREET	COUNTY: WOOD	PLAN AND PROFILE:	STADT RD OVER MILL CREEK	SHEET	E
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Standard Detail Drawing List

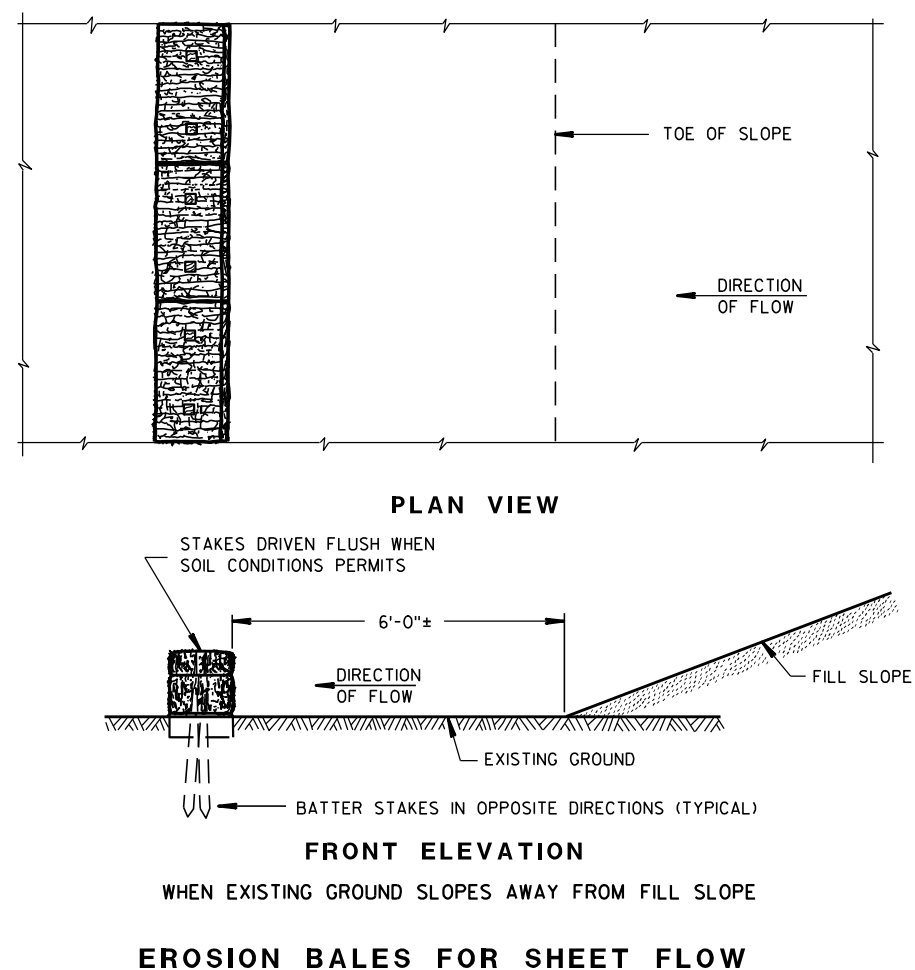
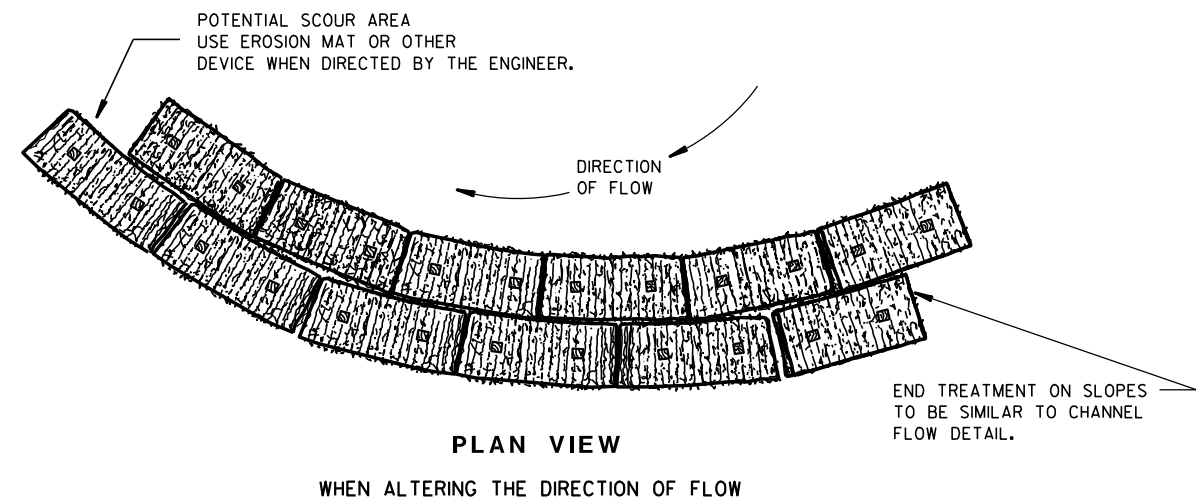
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



GENERAL NOTES

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

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

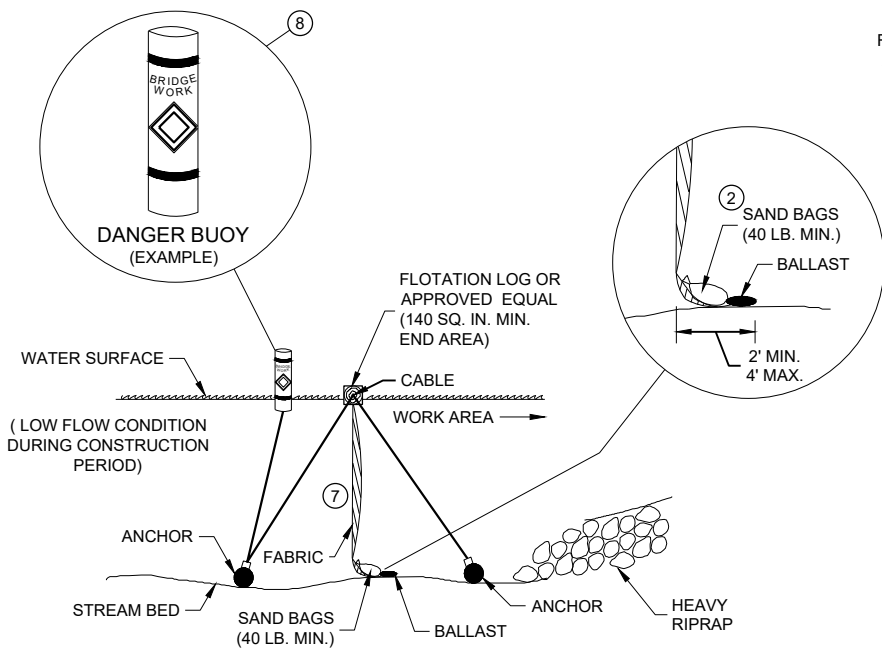
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

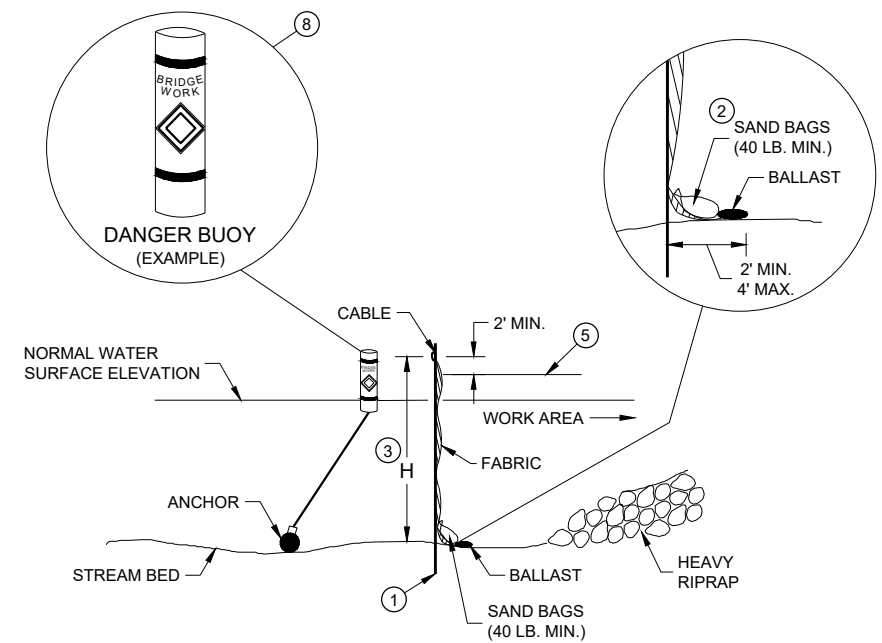
6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



SECTION B - B

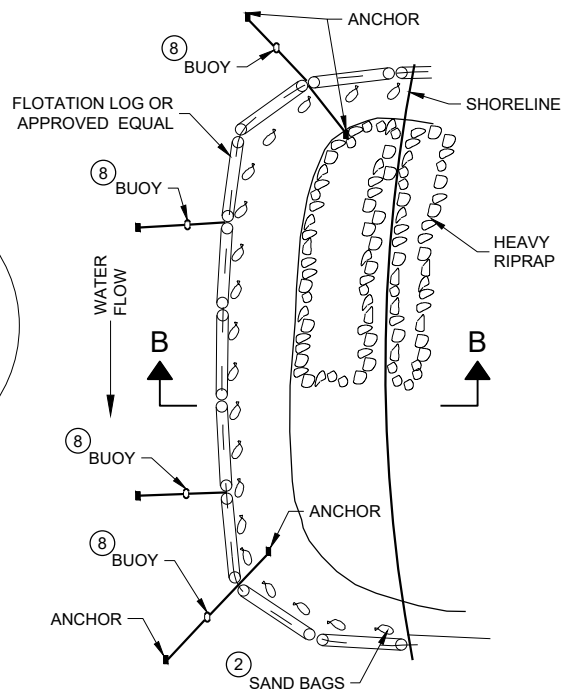
TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



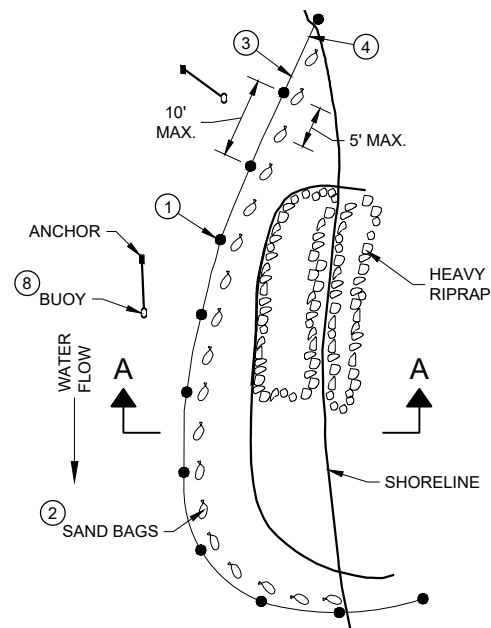
SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS



PLAN VIEW



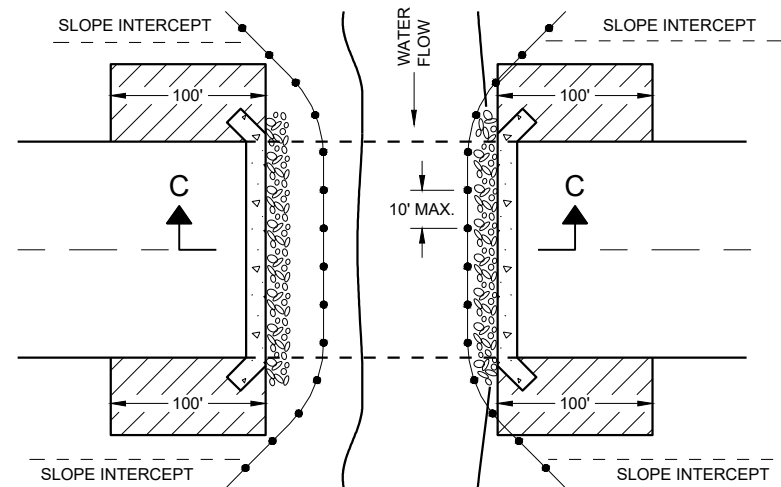
PLAN VIEW

GENERAL NOTES

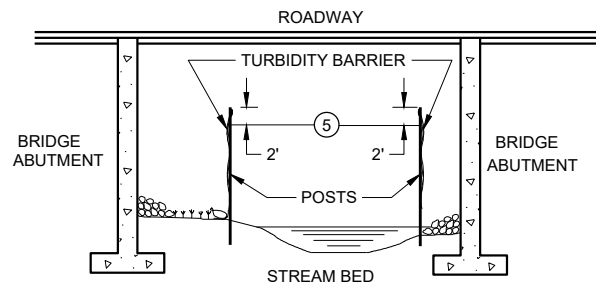
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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



PLAN VIEW



SECTION C - C

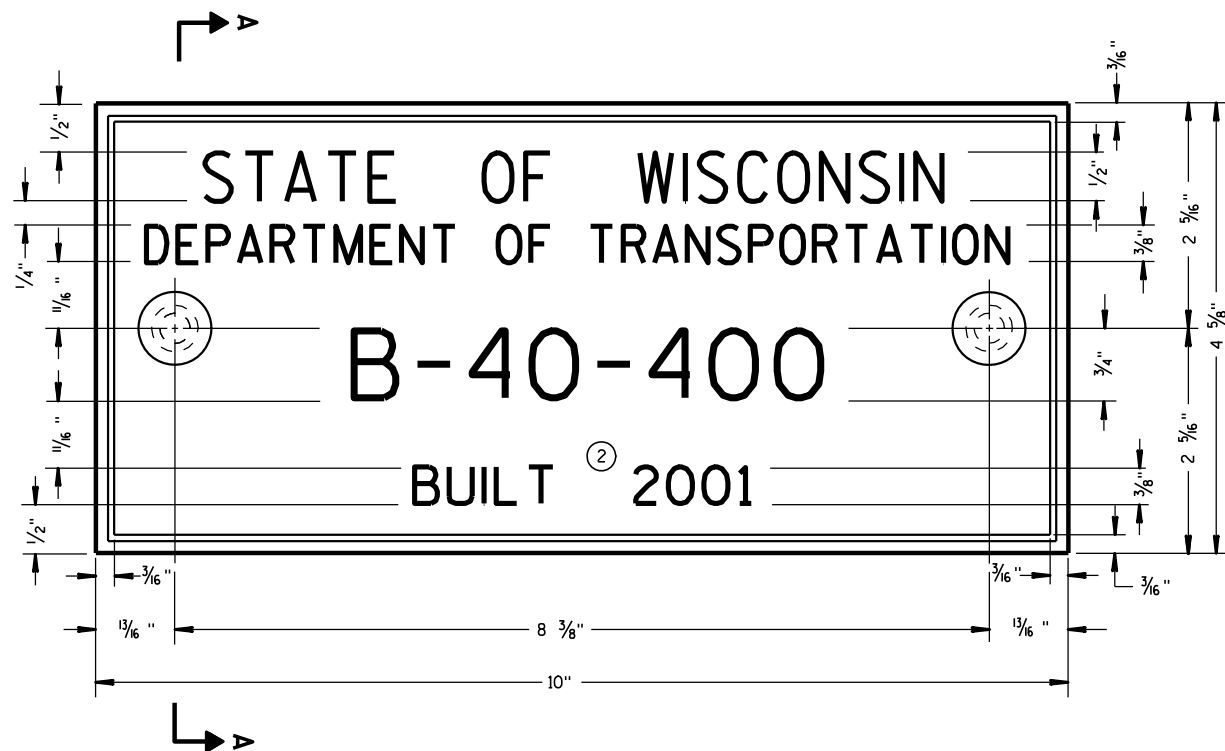
TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

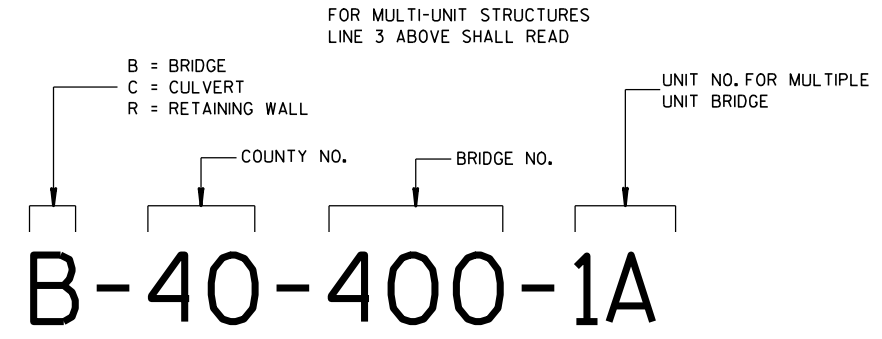
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



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



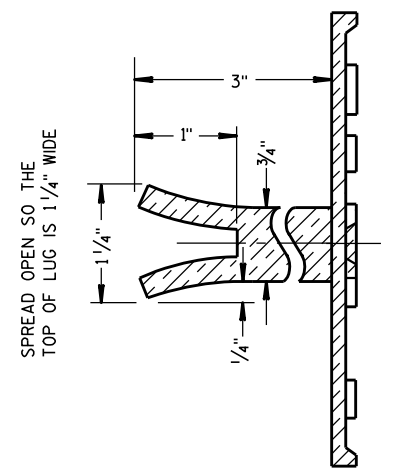
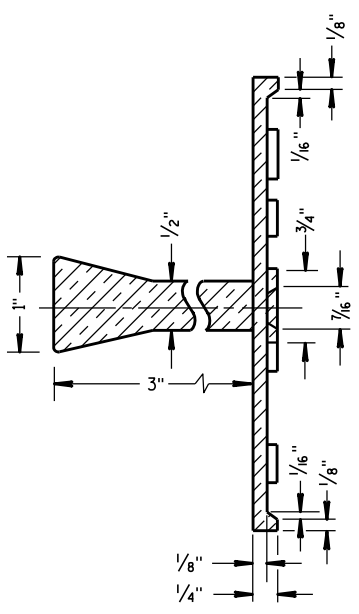
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

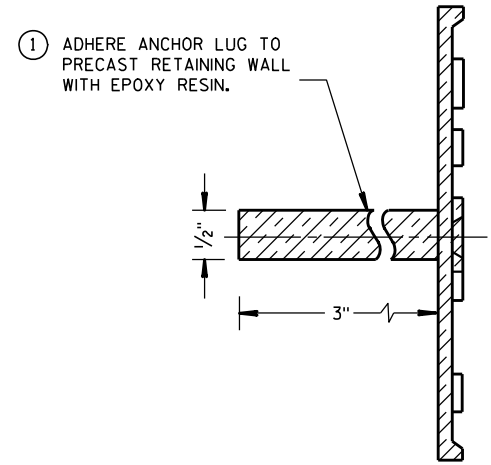
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

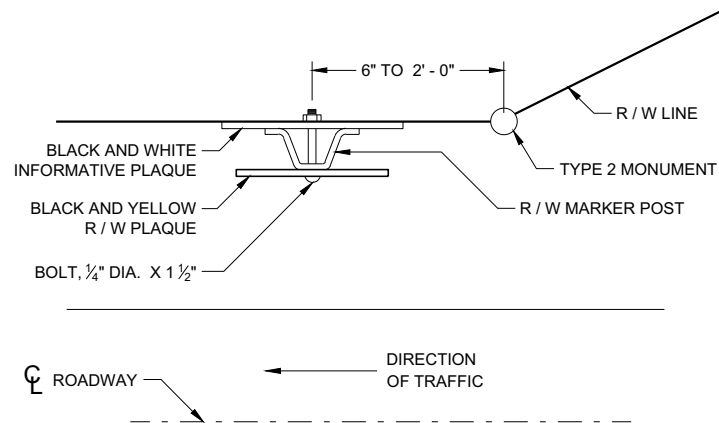


ALTERNATE LUG

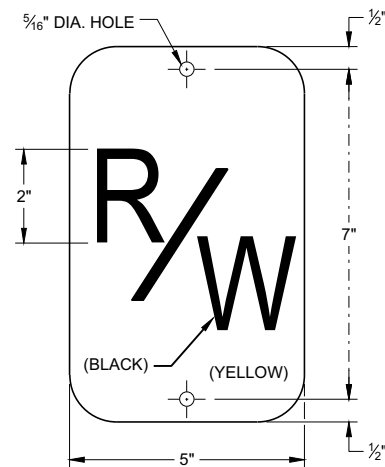


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

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

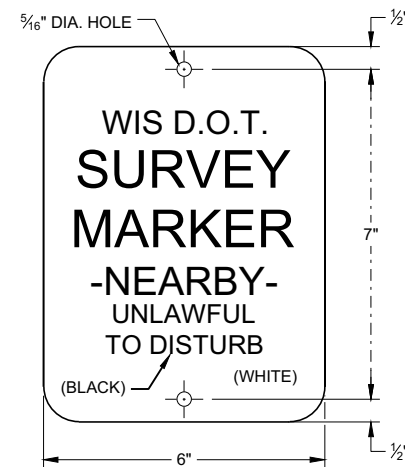


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

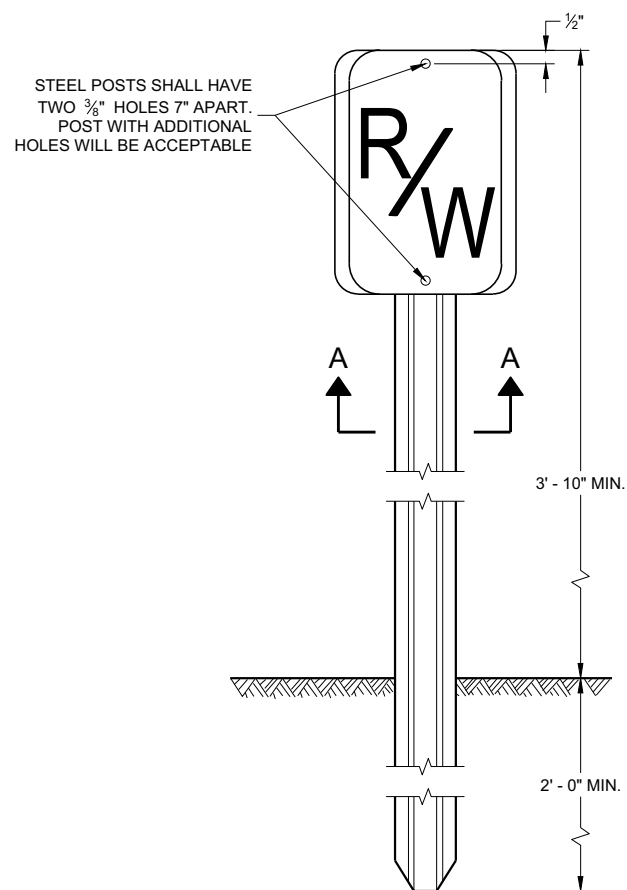
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

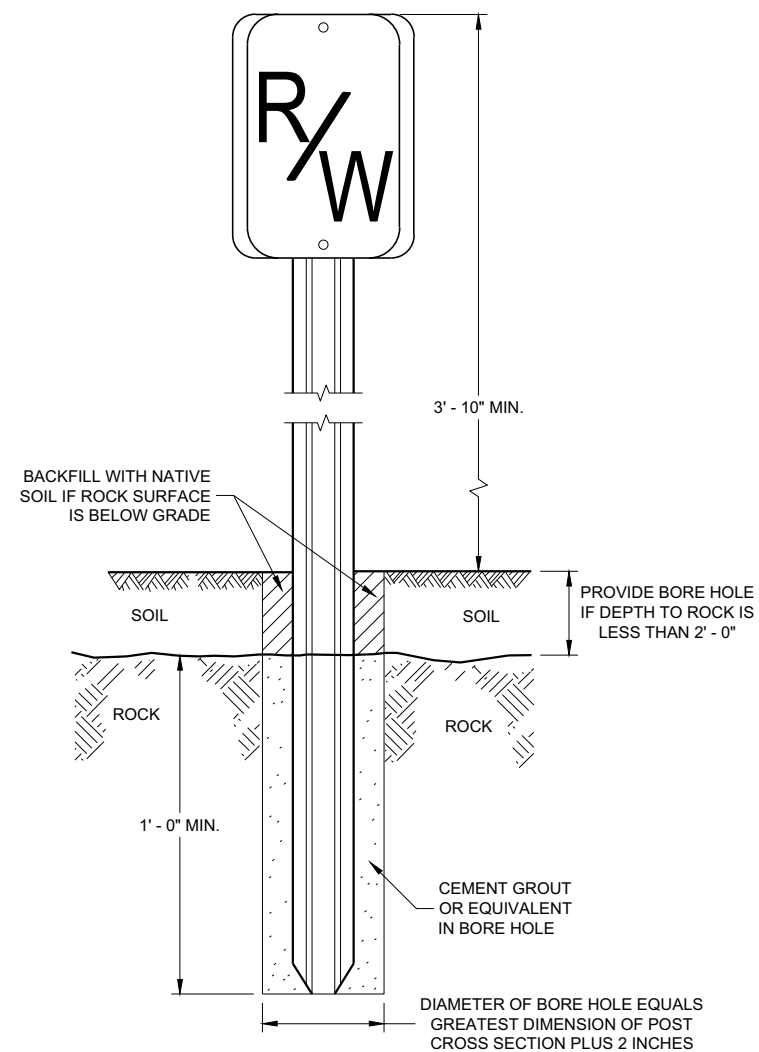
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

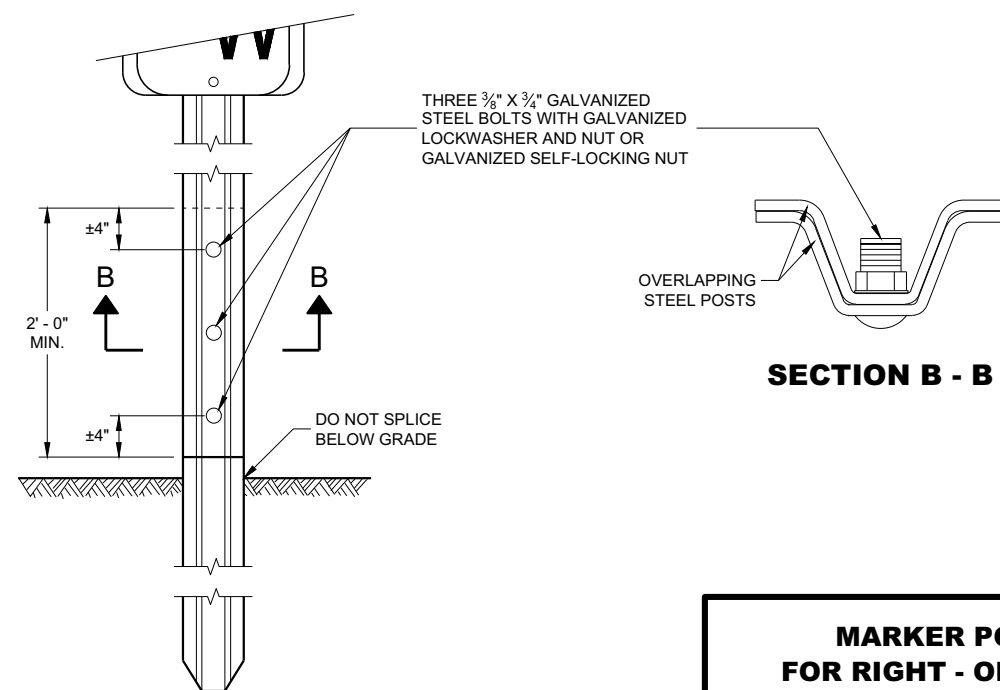
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



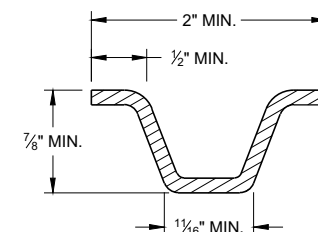
**FRONT VIEW
STEEL MARKER POST**



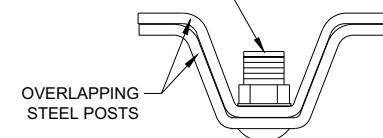
**FRONT VIEW
ROCK INSTALLATION ①**



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



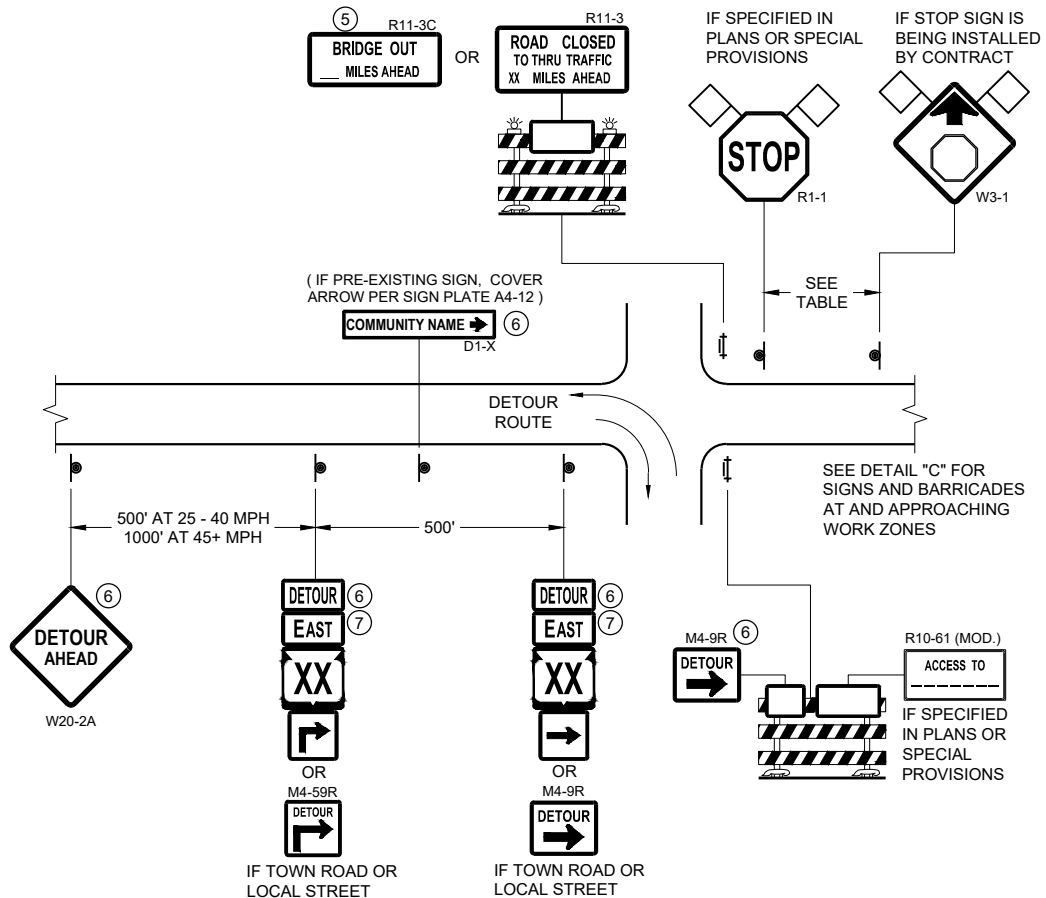
SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

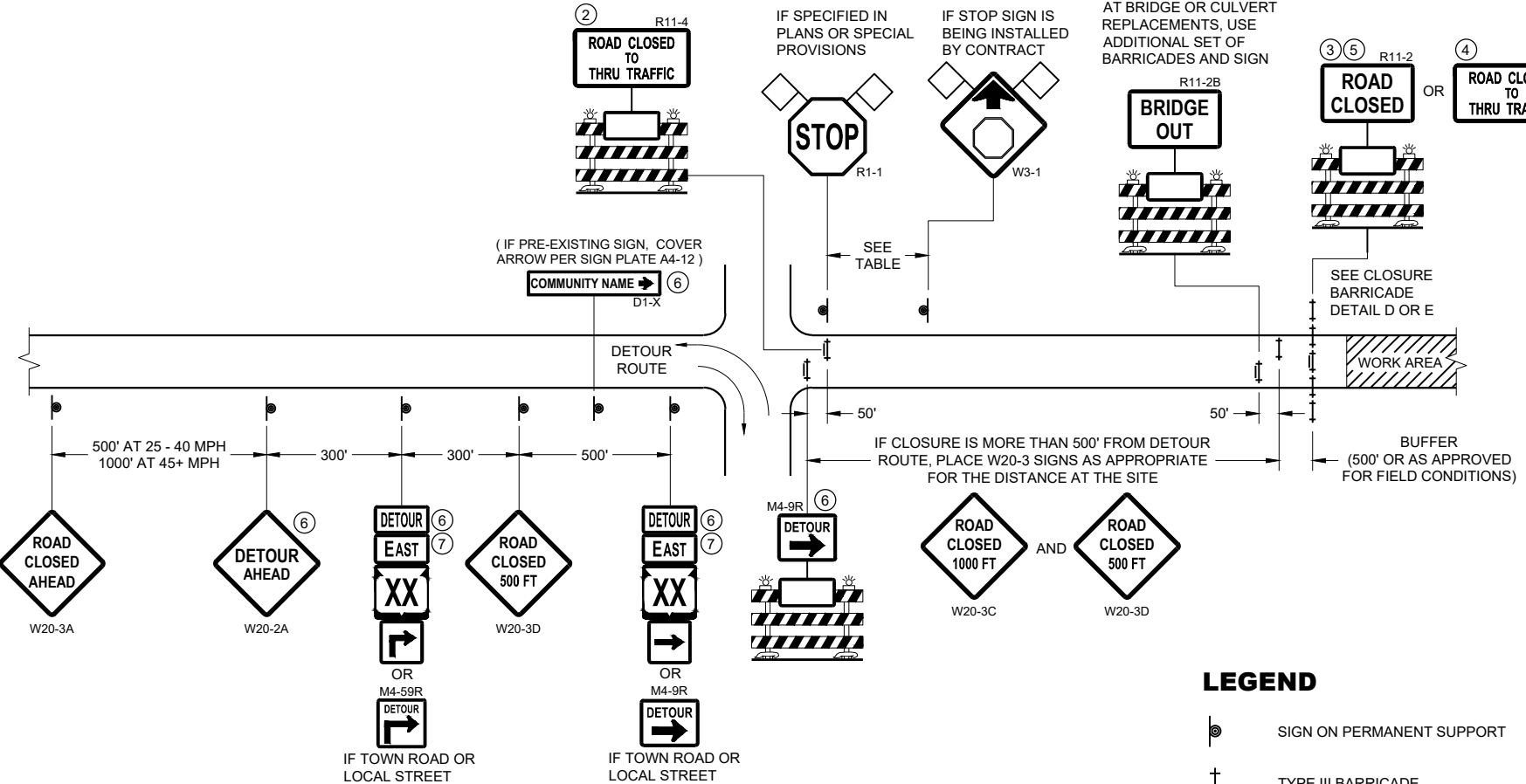
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016
DATE
/S/ Ray Kumapayi
CHIEF SURVEYING AND MAPPING
ENGINEER

FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



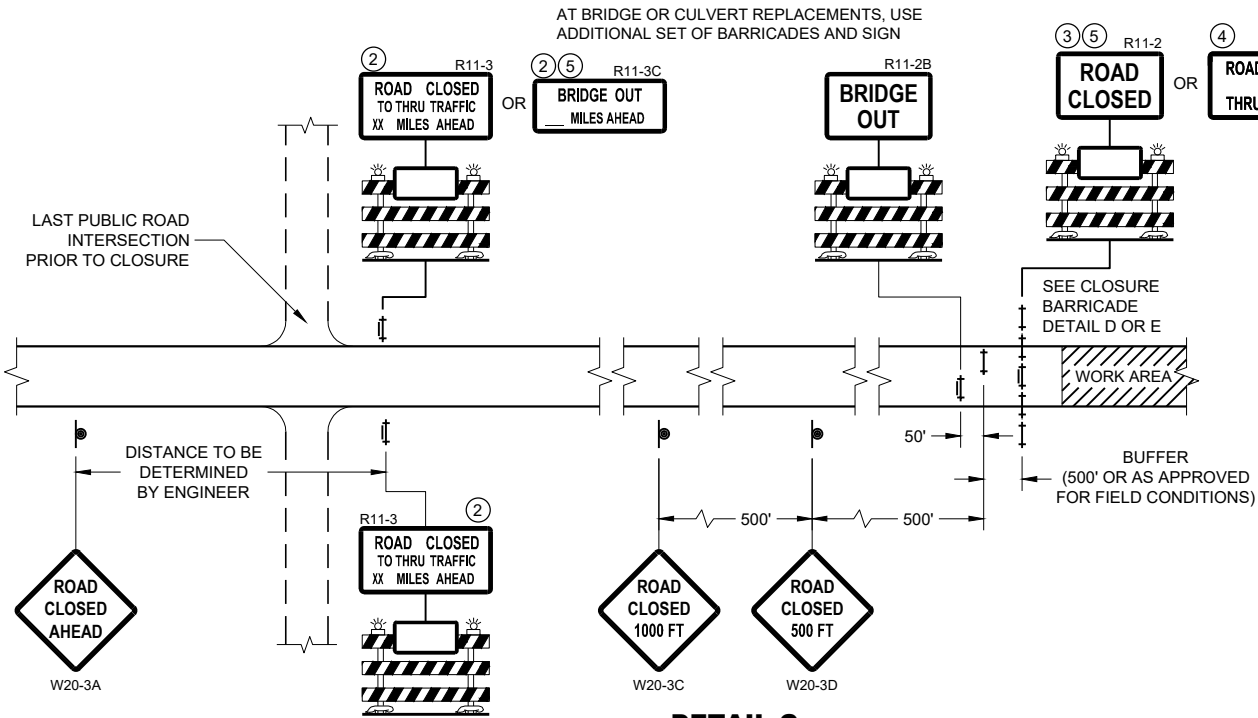
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

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

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



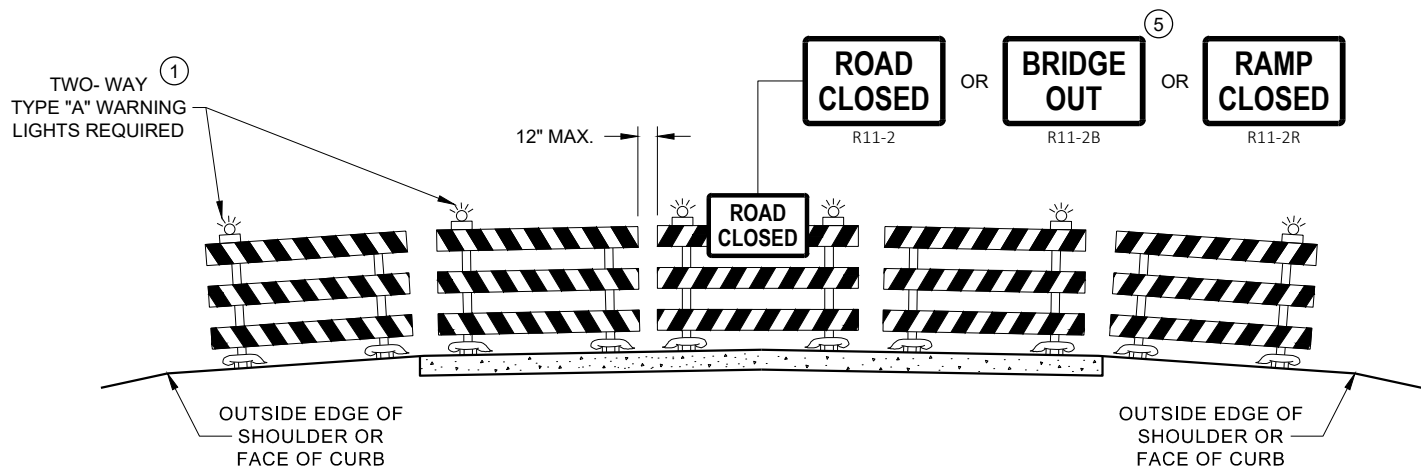
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

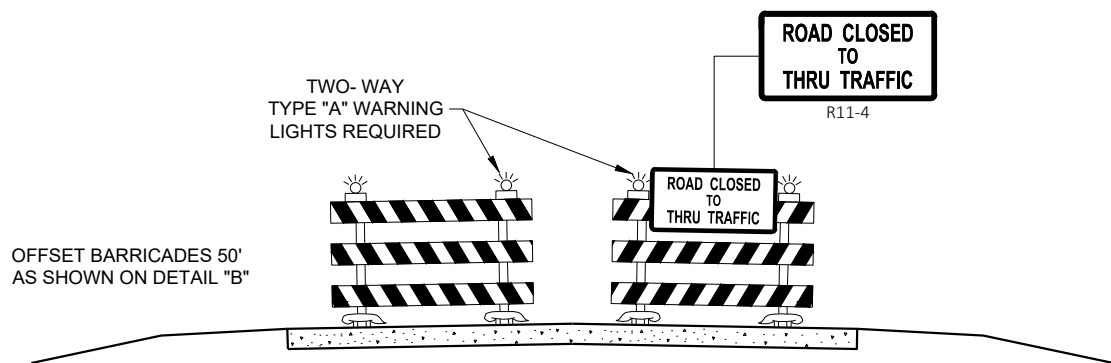
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

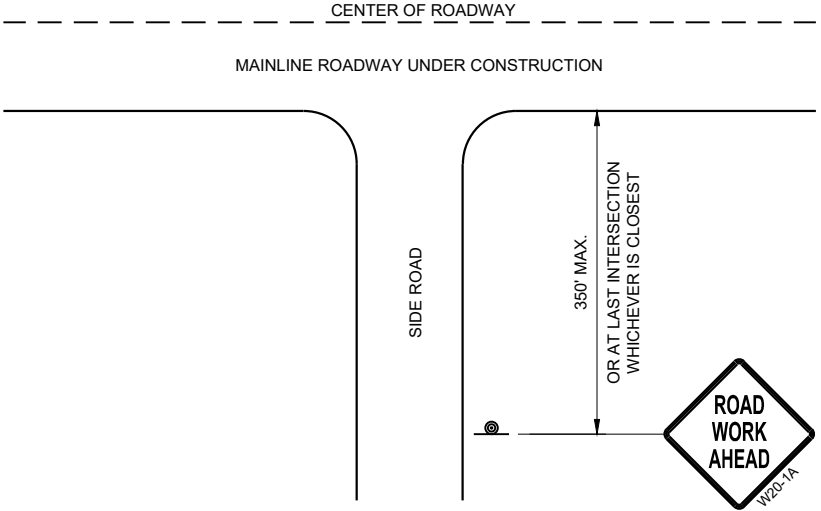
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

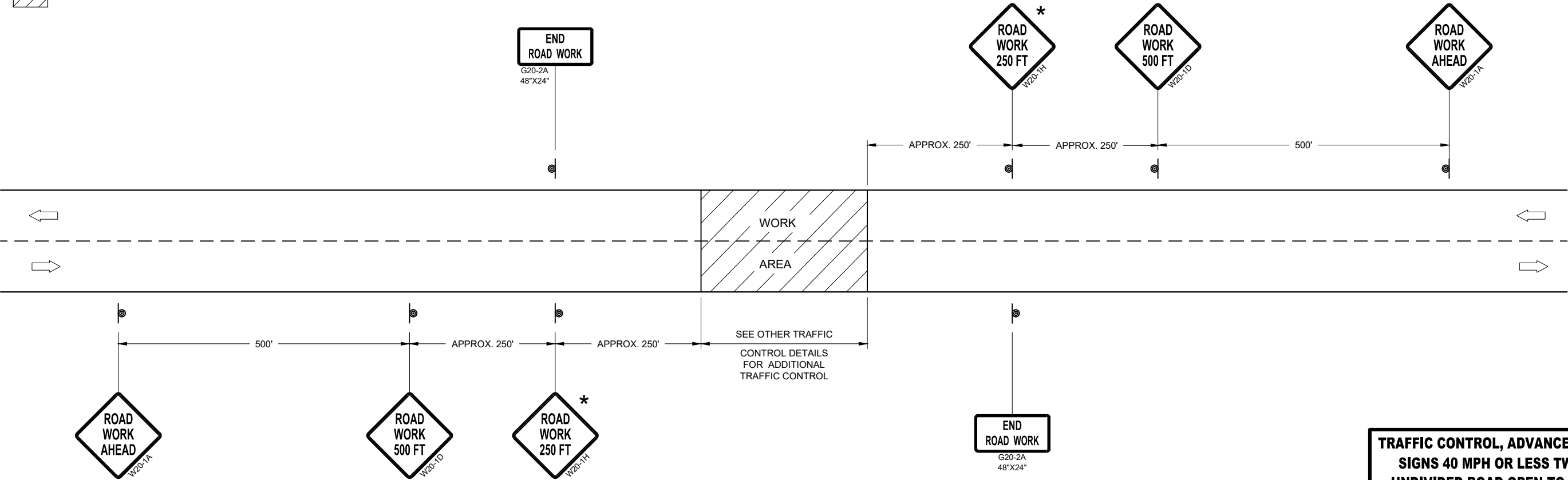
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

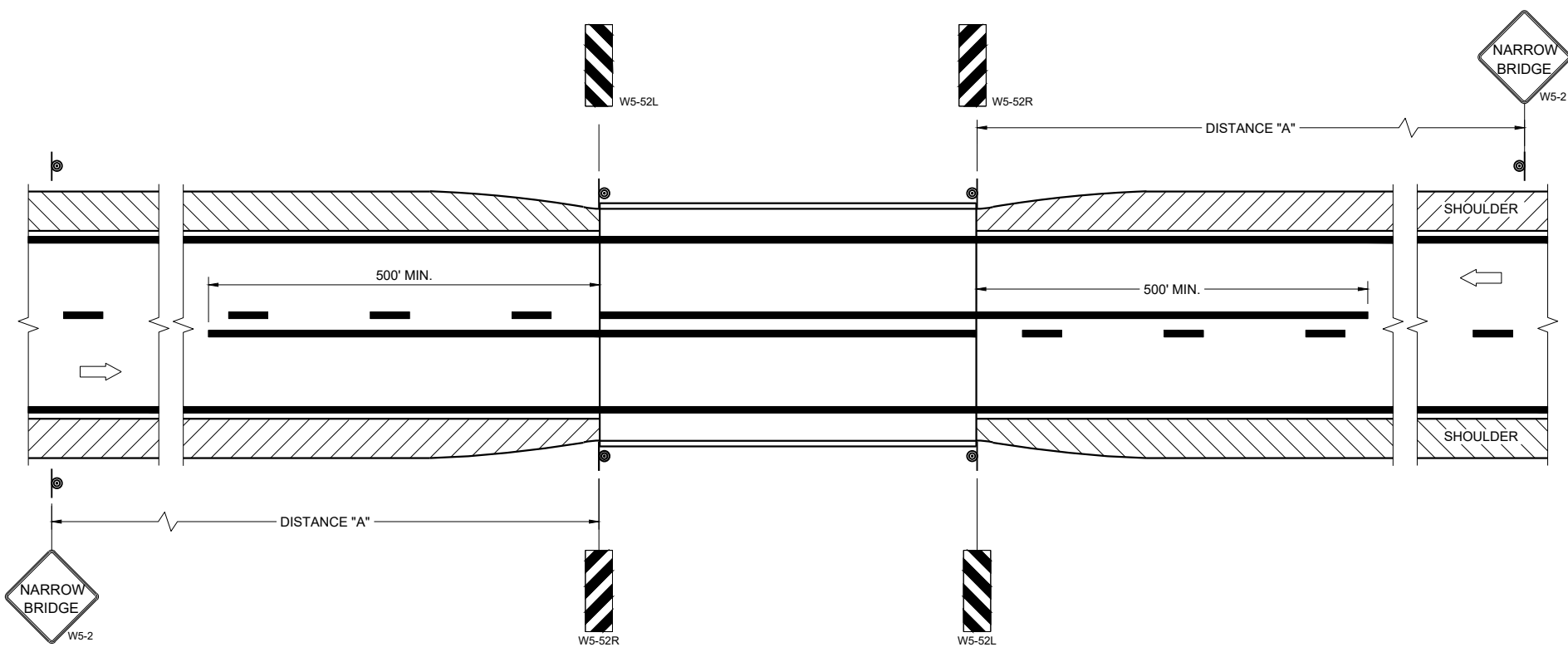


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

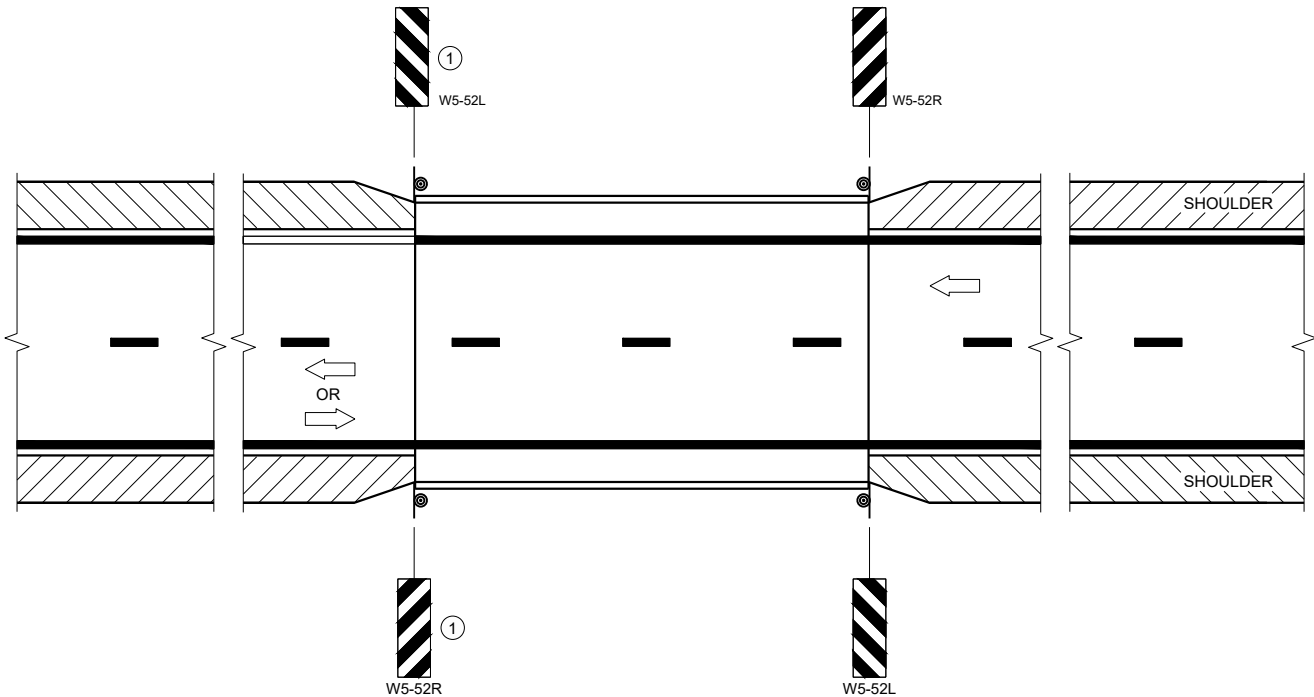
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SITUATION 1
WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

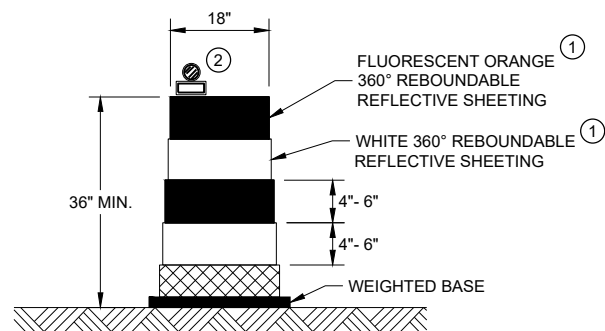
DISTANCE TABLE

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

**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

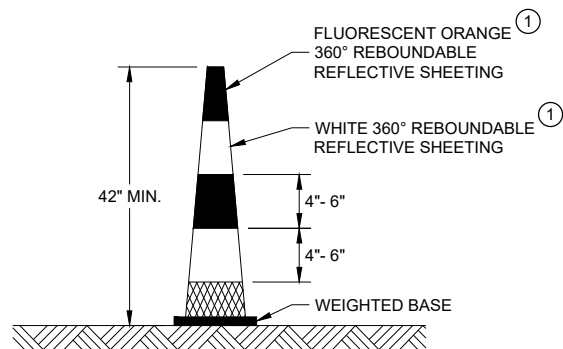
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



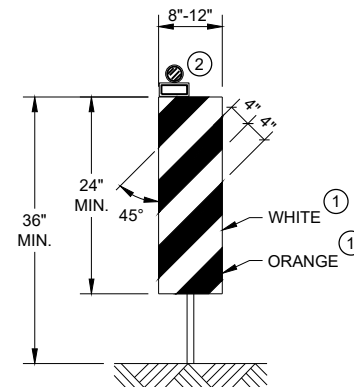
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



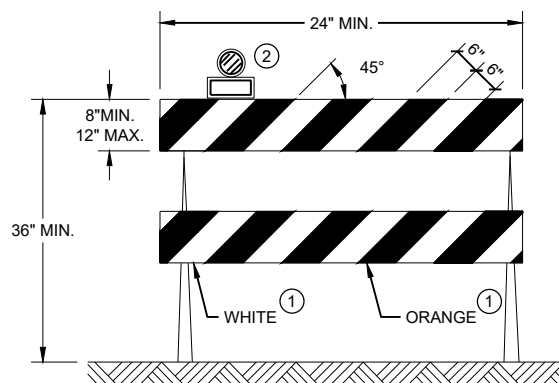
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



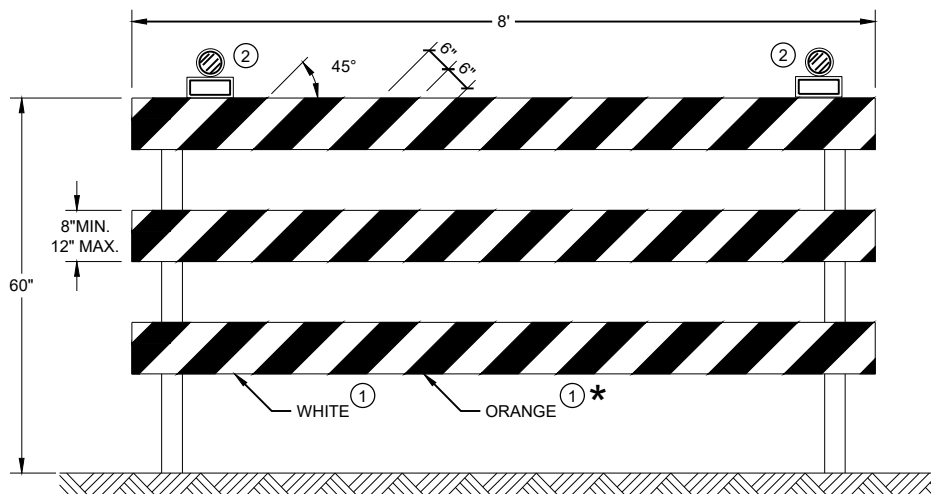
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

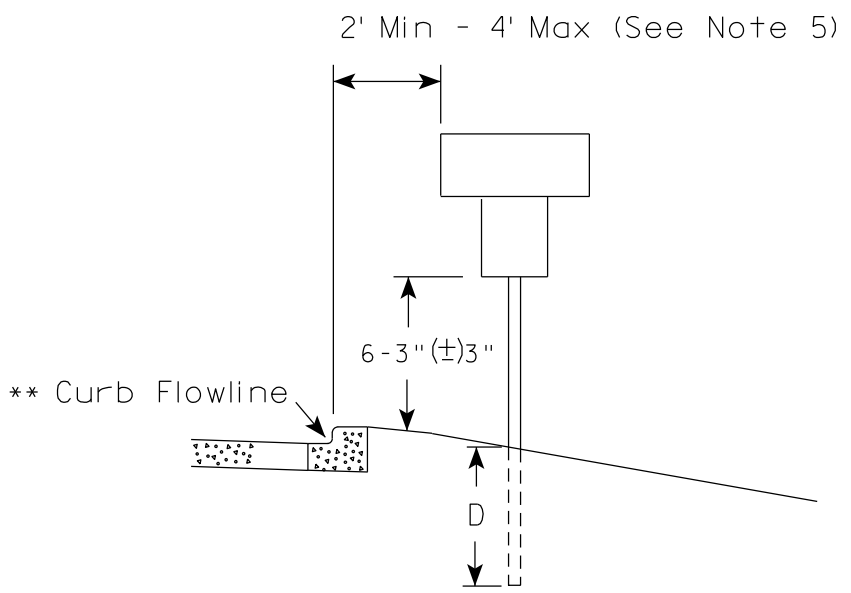
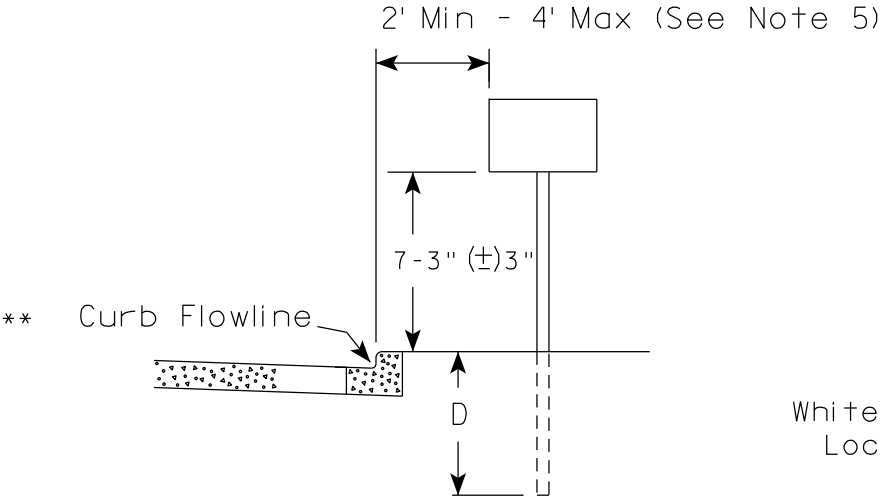
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

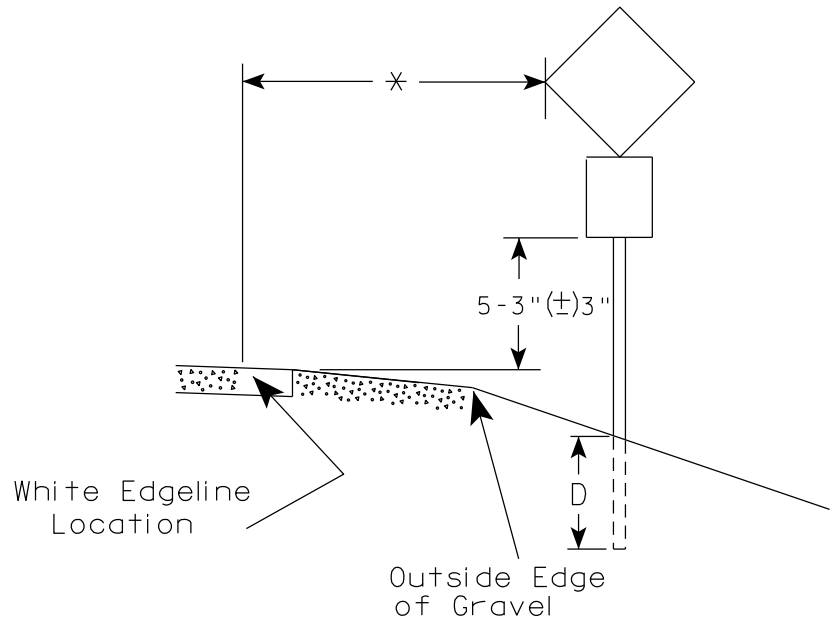
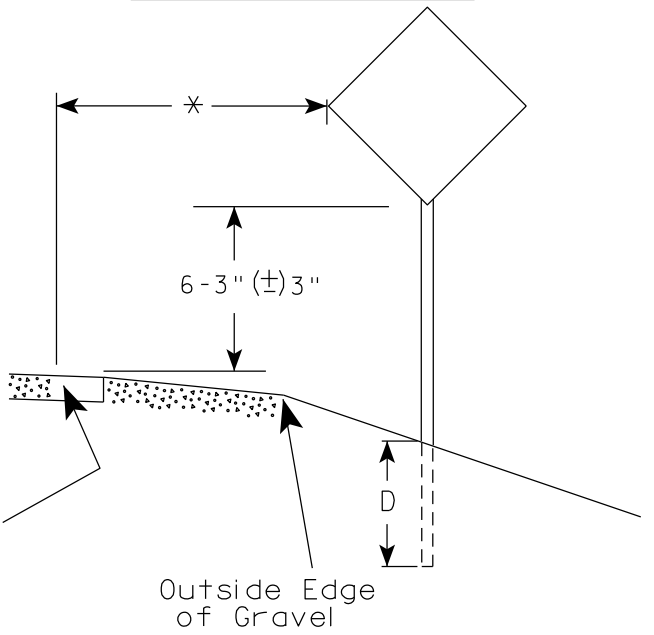
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

URBAN AREA



RURAL AREA (See Note 2)



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

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

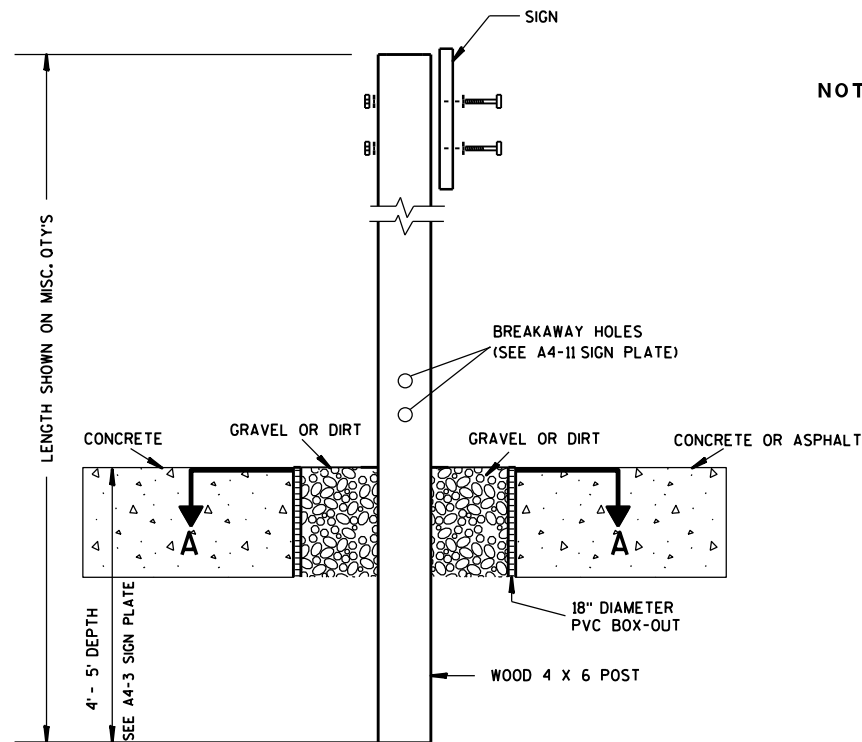
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

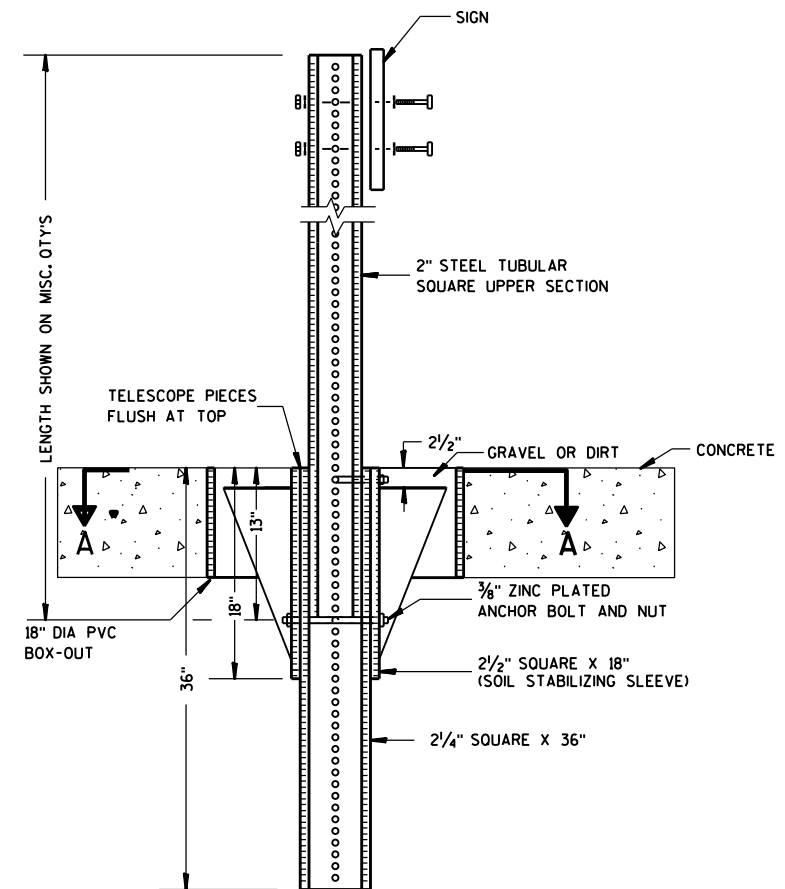
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

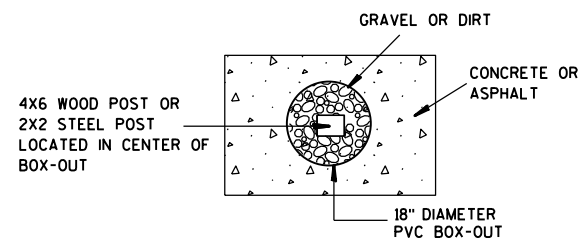
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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:

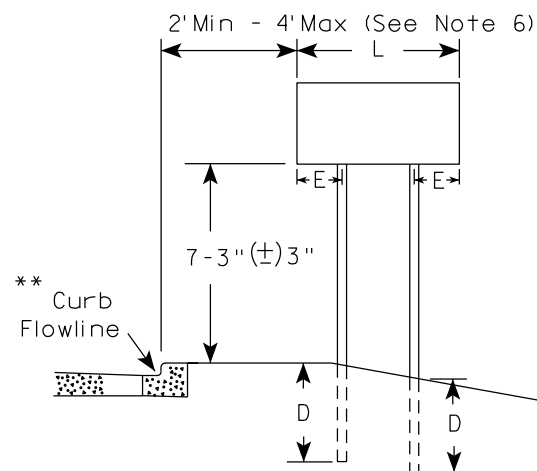
HWY:

COUNTY:

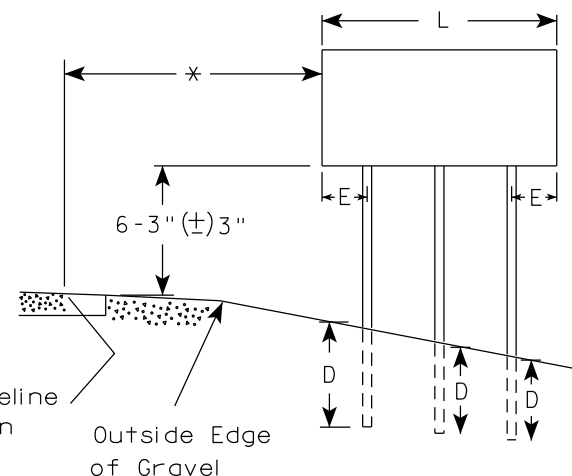
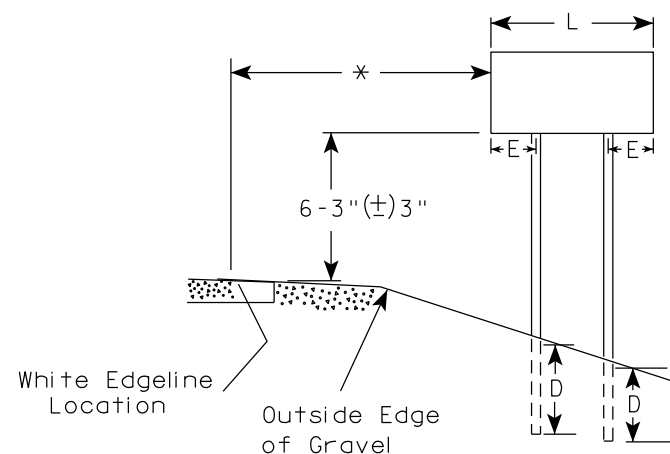
SHEET NO:

E

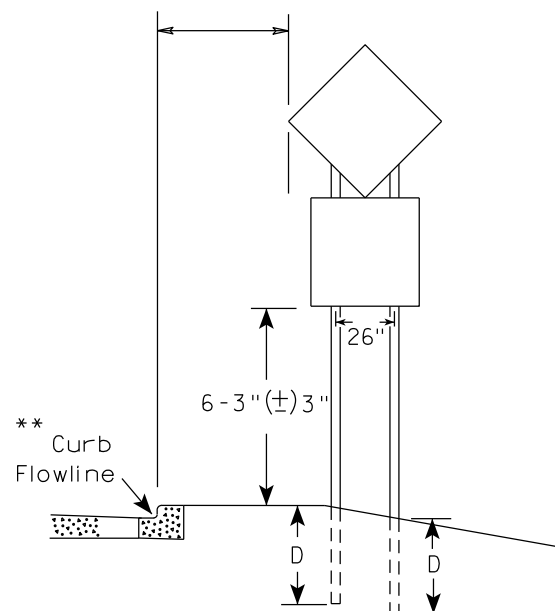
URBAN AREA



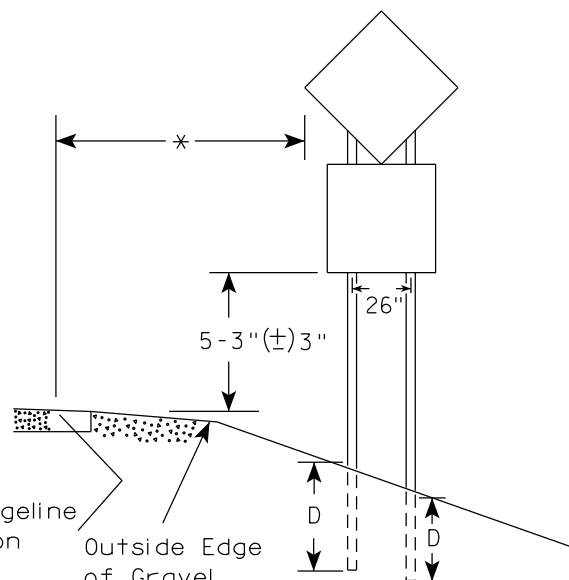
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

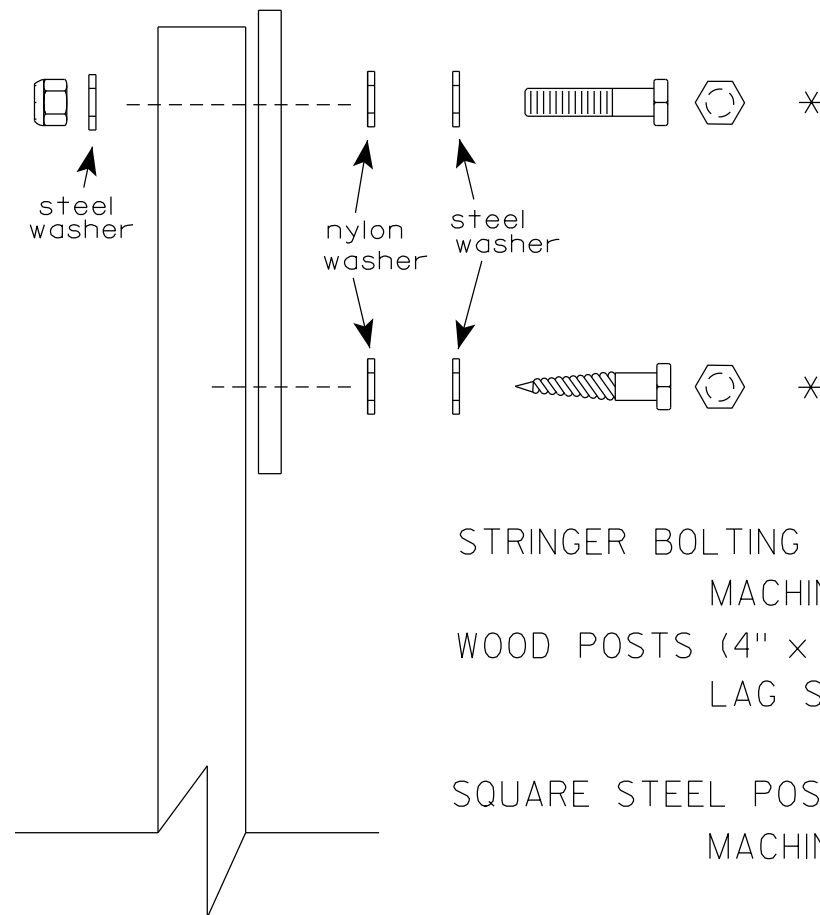
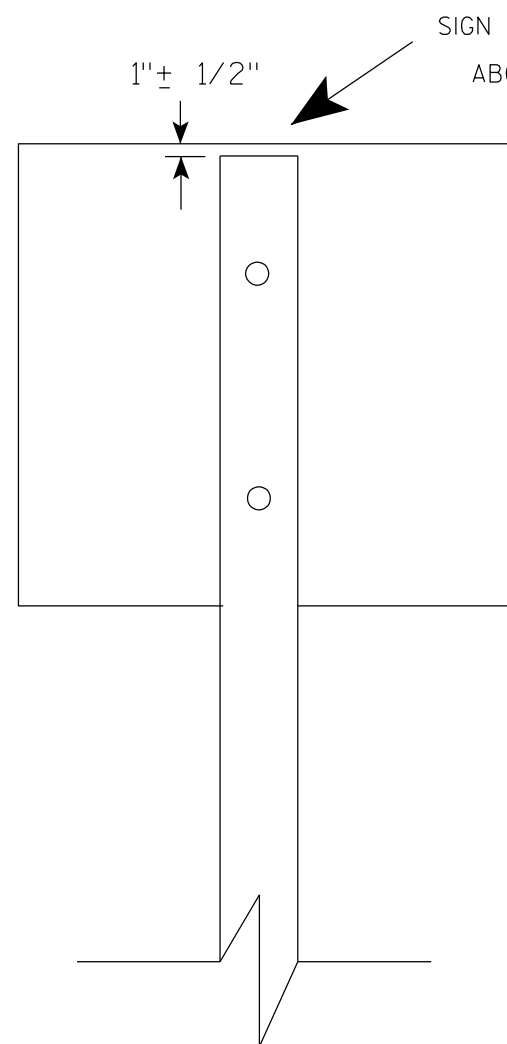
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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.

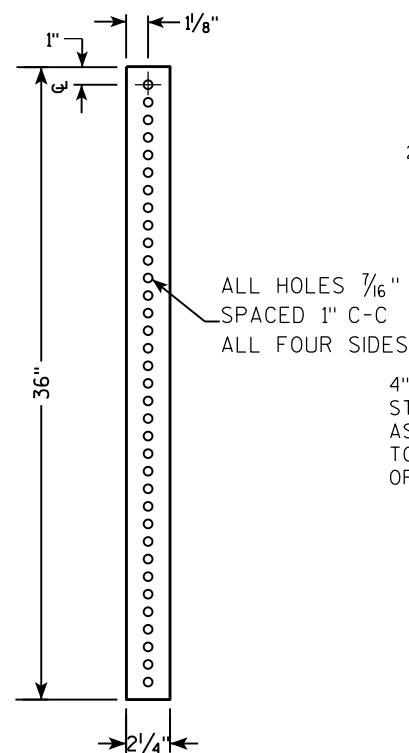
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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

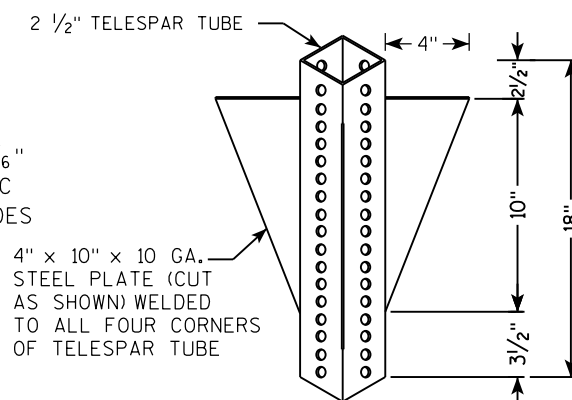
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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



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



TECHNICAL DRAWING OF A SIGN POST ASSEMBLY.

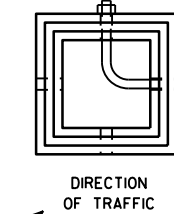
Labels and Dimensions:

- 18" DIA SCHEDULE 40 PVC BOX-OUT** (Bottom section)
- 36"** (Height of the PVC box-out)
- 13"** (Width of the sign plate)
- 18"** (Width of the soil stabilizing sleeve)
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**
- 2 1/4" SQUARE X 36"** (Main post section)
- 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**
- 2 1/2" GRAVEL OR DIRT**
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**
- SIGN** (Top section)
- TELESCOPE PIECES FLUSH AT TOP**

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the tubular section.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Located at the base of the upper section.
- 1"**: Dimension for the offset of the anchor bolt.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Located at the base of the lower section.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The lower section of the post.
- 2 1/4" SQUARE X 36"**: The base plate or foundation.
- SIGN**: The sign plate at the top.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to the sign plate specifications.
- LENGTH SHOWN ON MISC. QTY'S**: Dimension line on the left indicating the total length.
- Dimensions**:
 - 36" (Total length)
 - 18" (Upper section length)
 - 12" (Lower section length)

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



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:

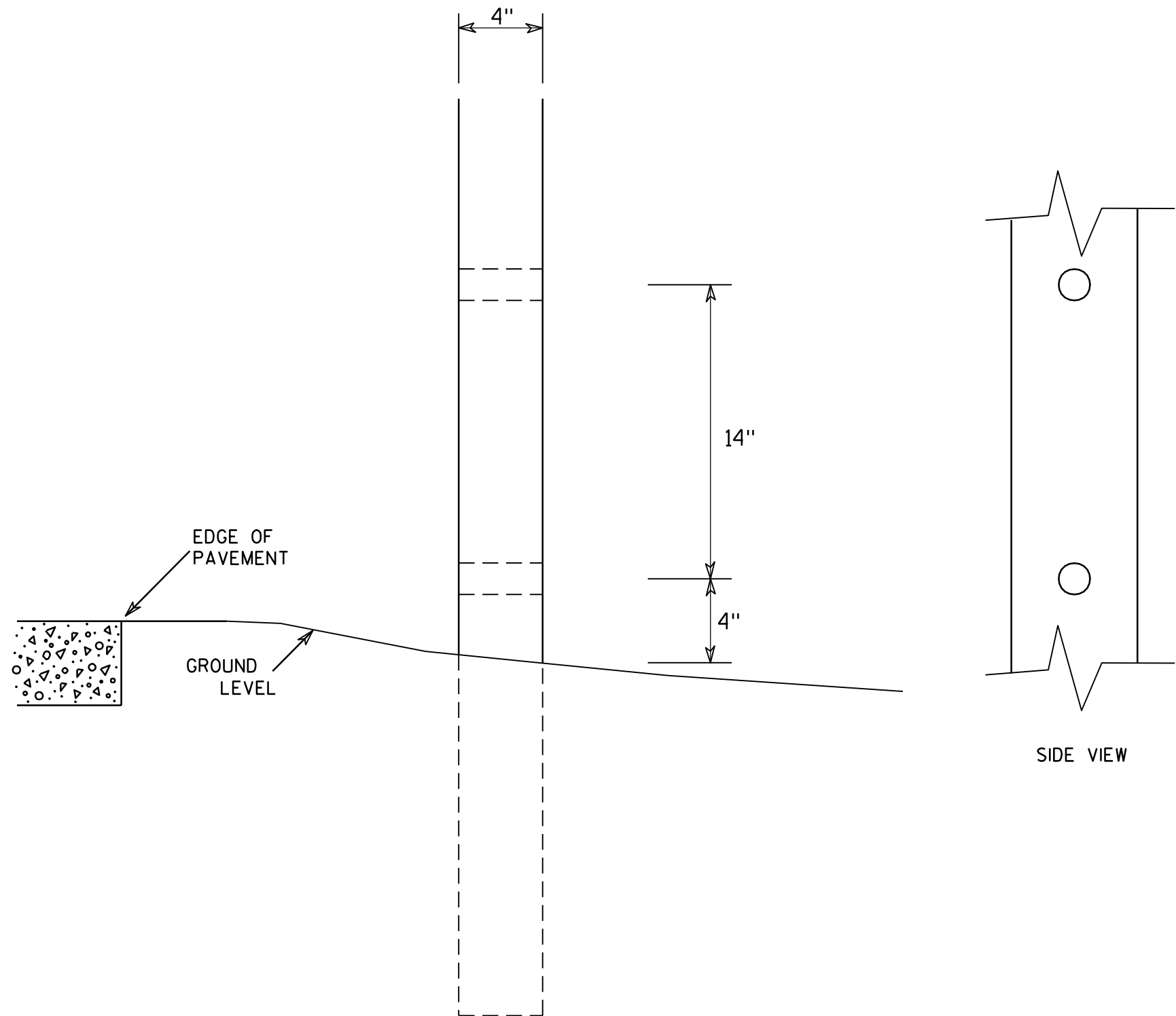
HWY:

COUNTY:

SHEET NO:

E

7



GENERAL NOTES

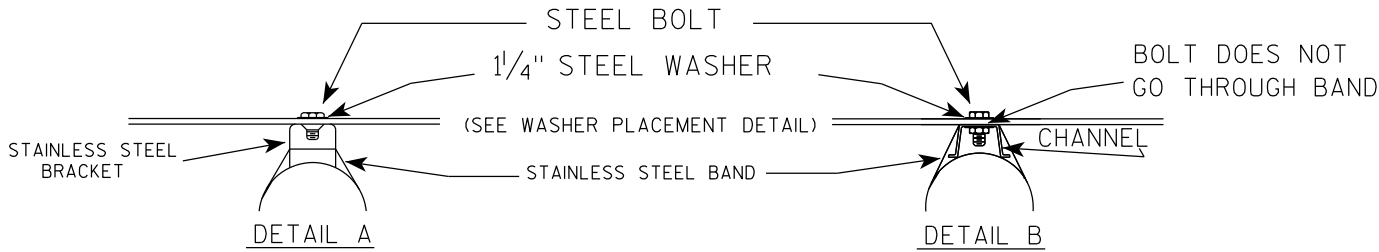
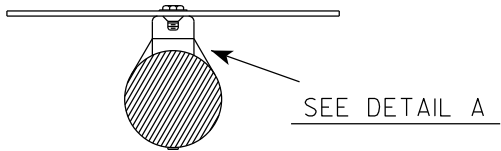
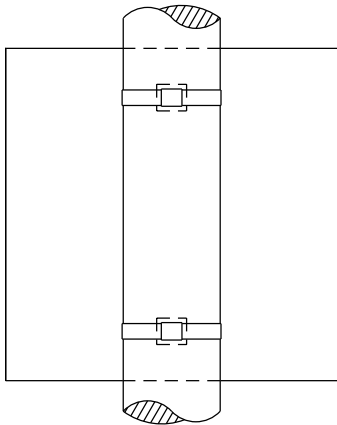
1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

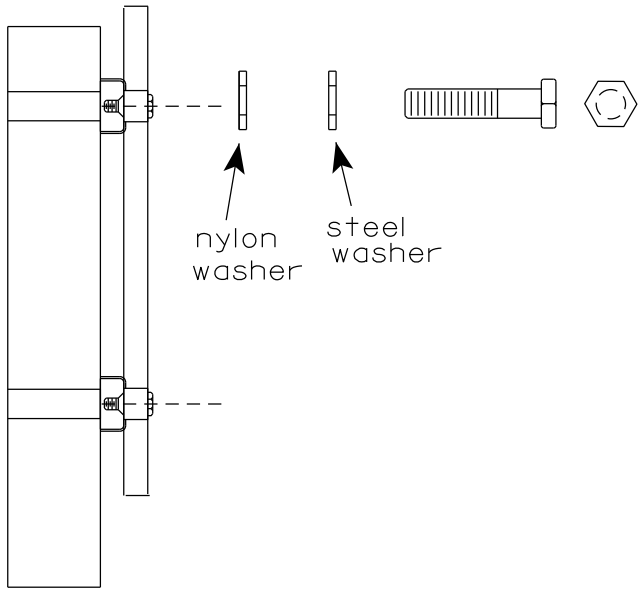
4 X 6 WOOD POST MODIFICATIONS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J. Spang</i> for State Traffic Engineer
DATE 3/27/97	PLATE NO. A4-11.2

BANDING

SINGLE SIGN



WASHER PLACEMENT

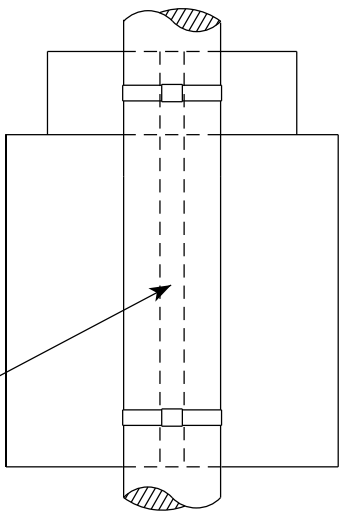


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

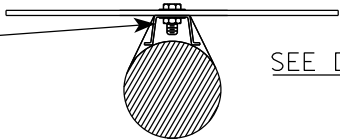
GENERAL NOTES

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

"J" ASSEMBLY



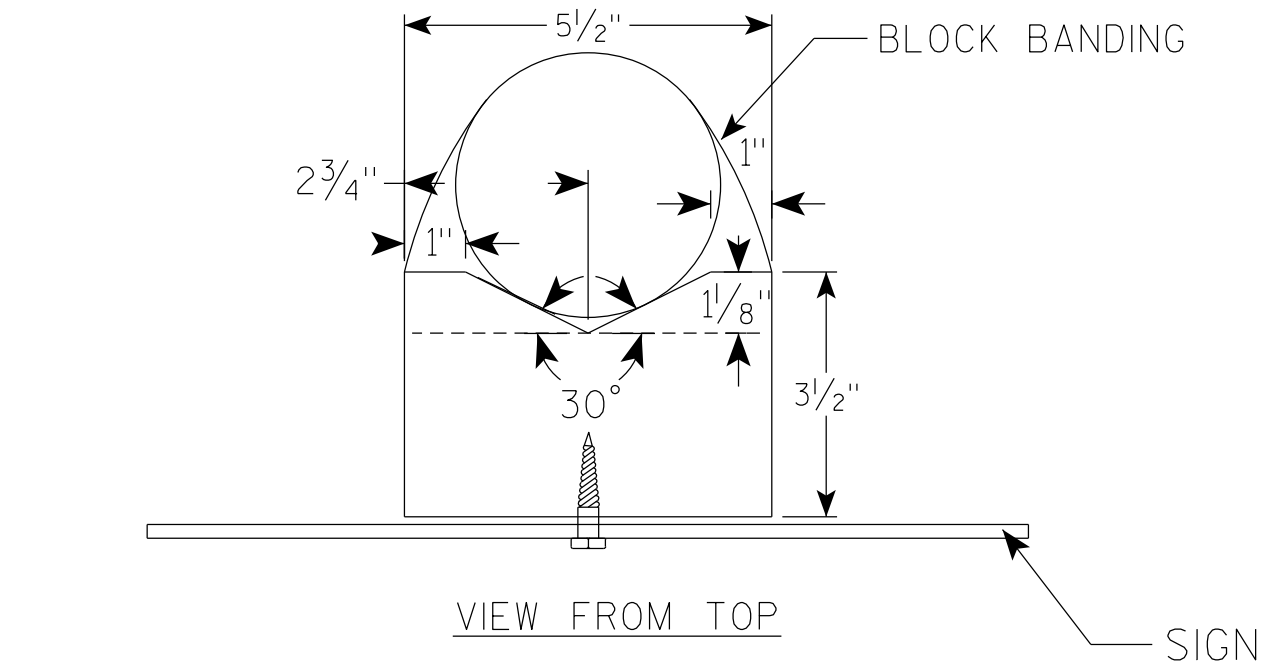
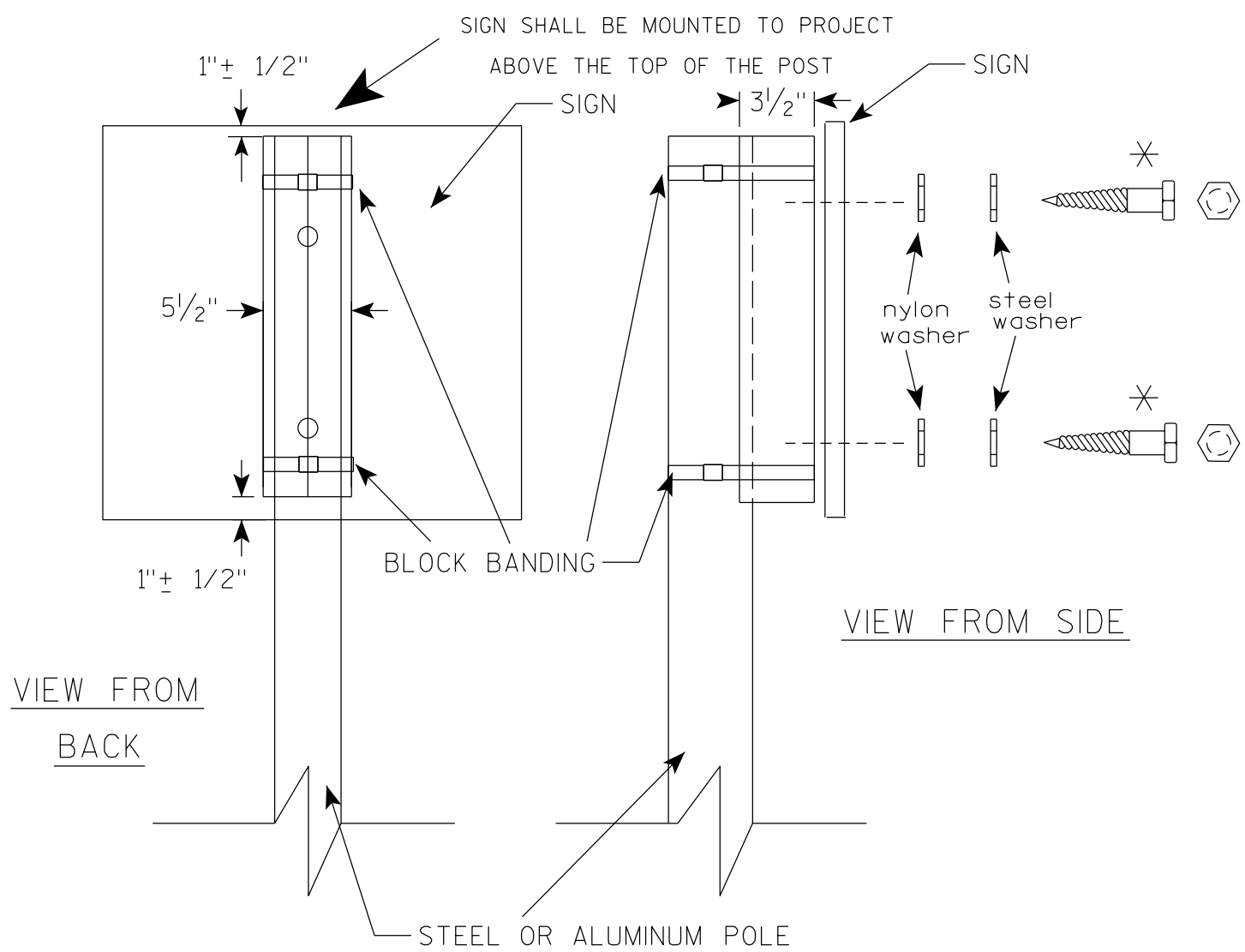
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

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

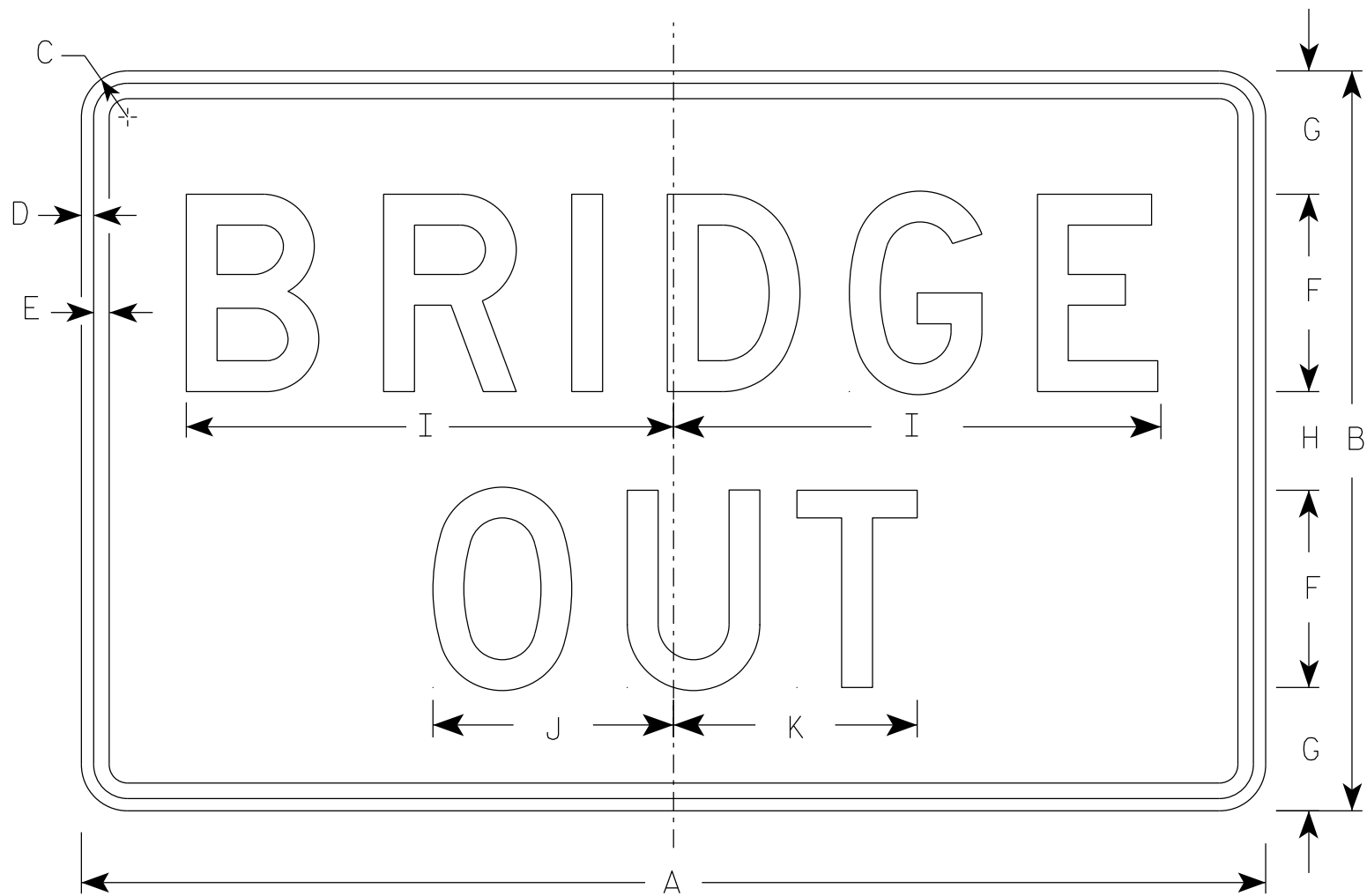


GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " 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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3



R11-2B

NOTES

- 1. Sign is Type II - Type H Reflective
- 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.

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 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

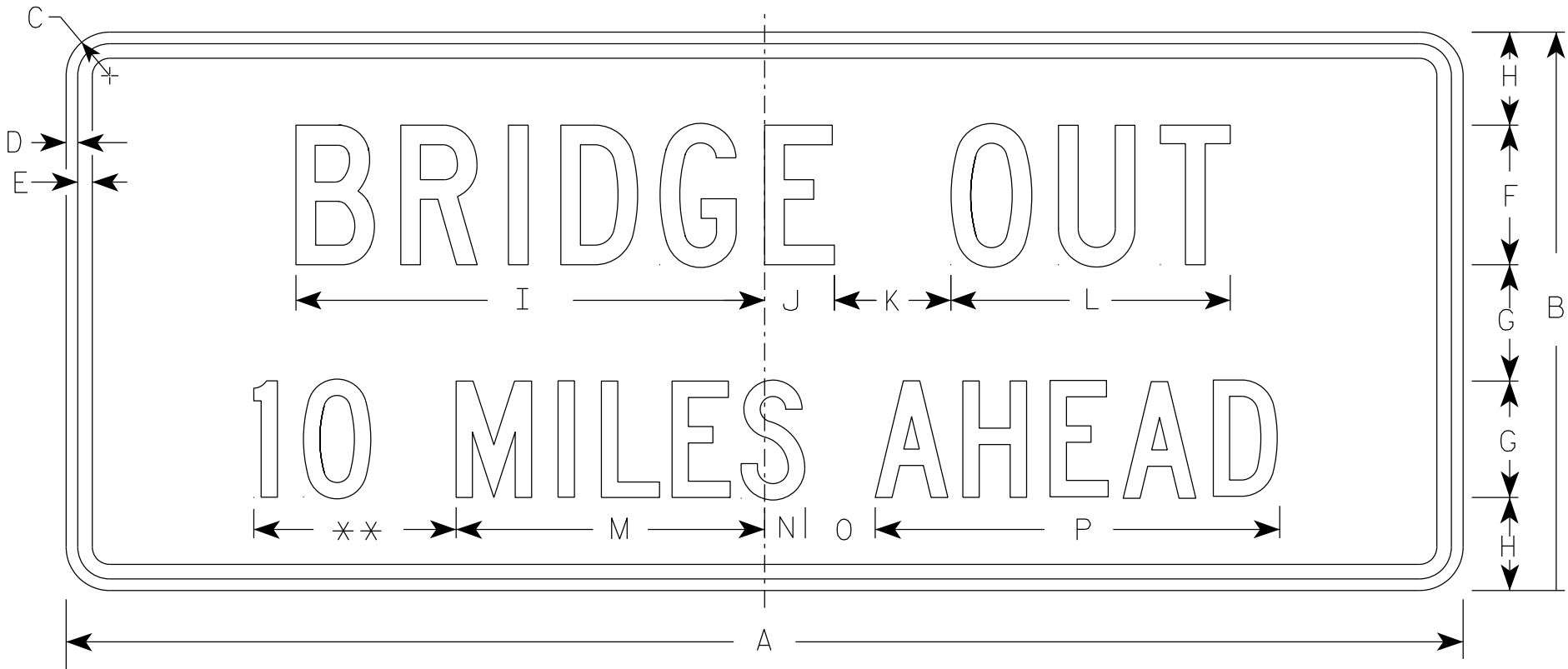
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2B.3

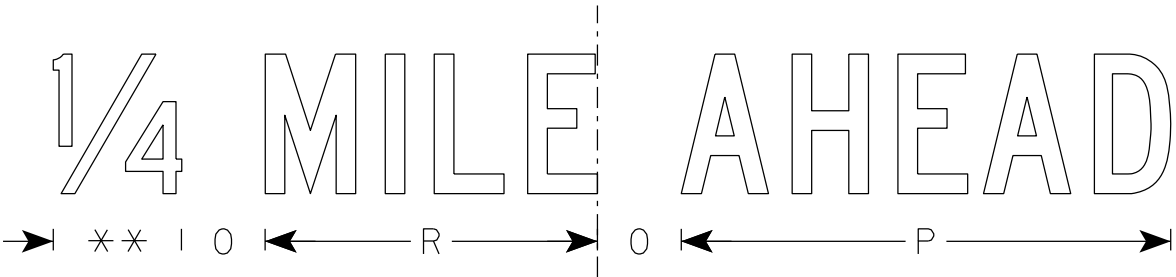
NOTES

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



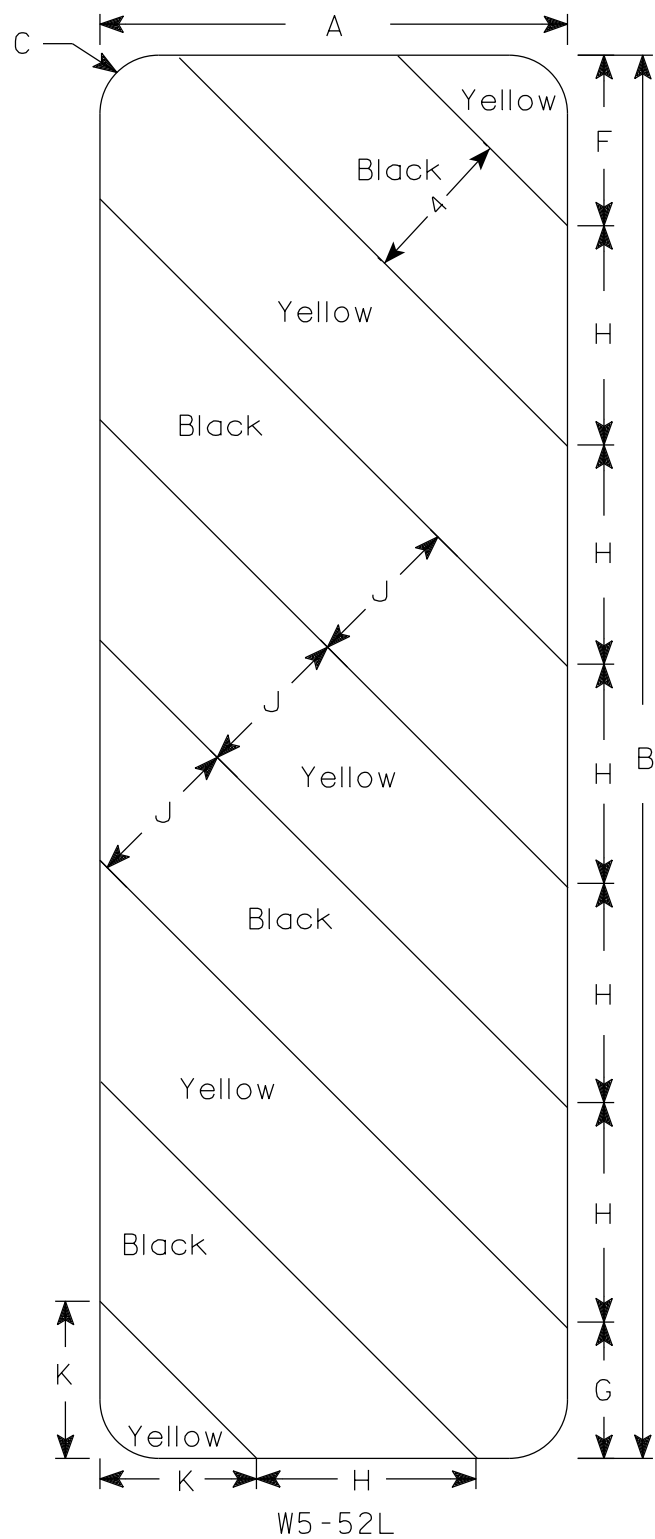
R11-3C

** See Note 5

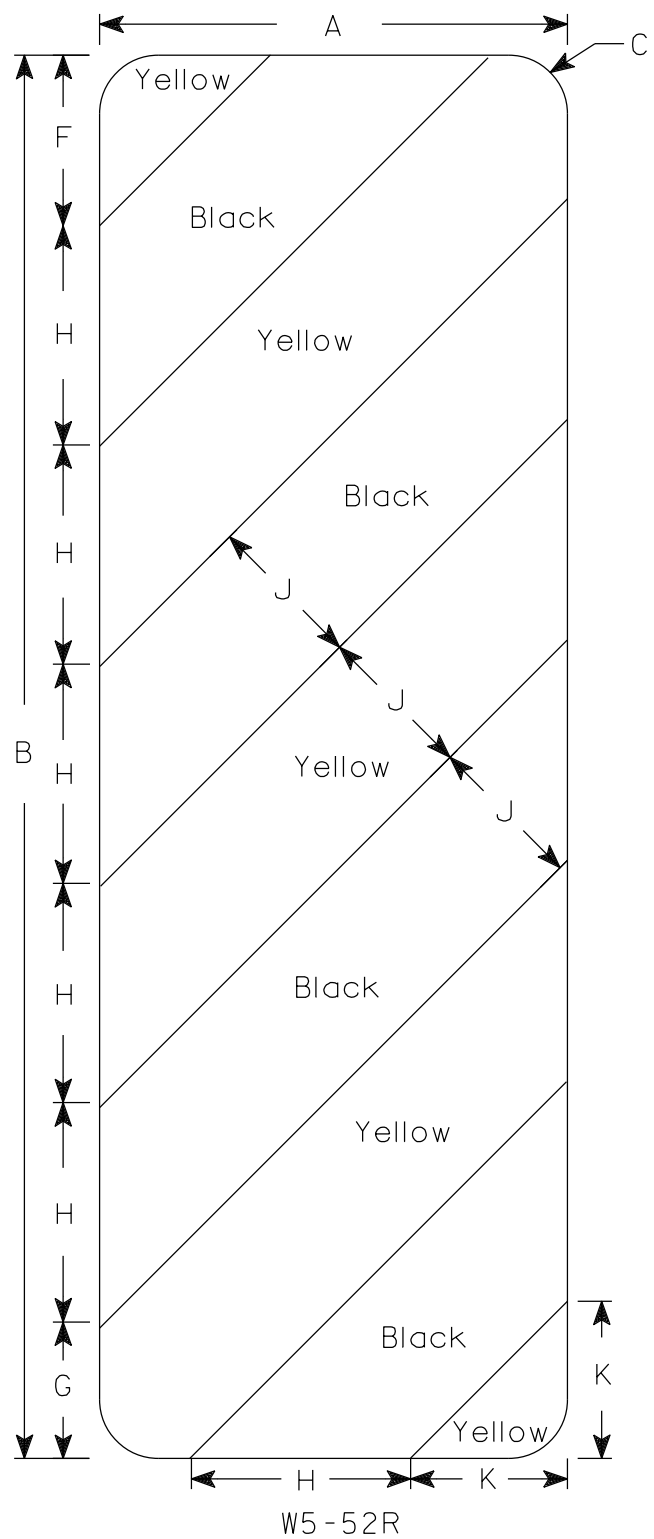


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 1/2	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 7/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17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

STANDARD SIGN R11-3C	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 2/5/24	PLATE NO. R11-3C.4



W5-52L



W5-52R

NOTES

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

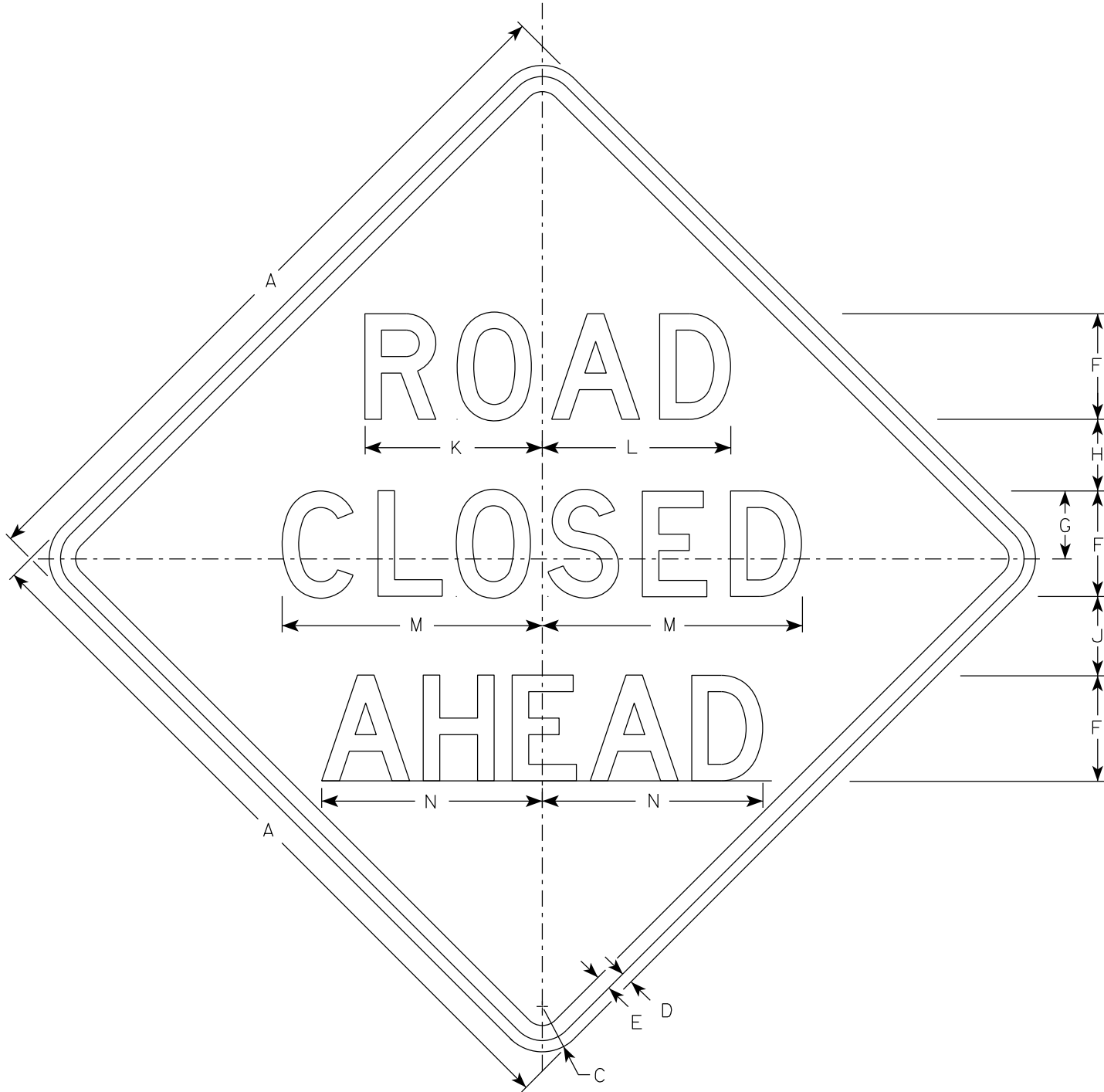
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 5/16																6.75
4													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

STANDARD SIGN
W5-52L & W5-52R

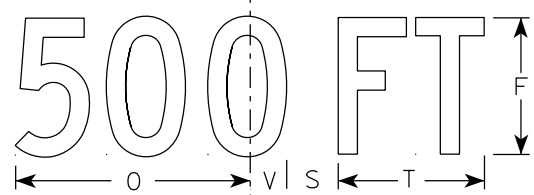
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

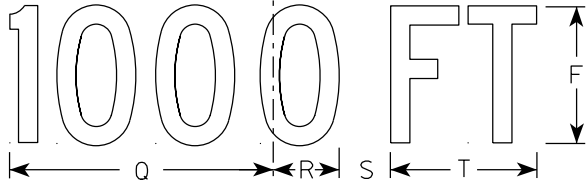
DATE 3/4/2024 PLATE NO. W5-52.10



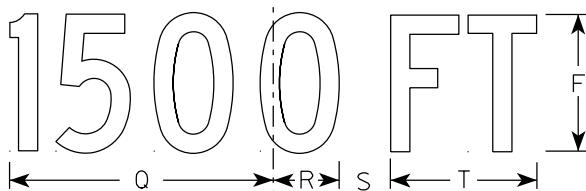
W20-3A



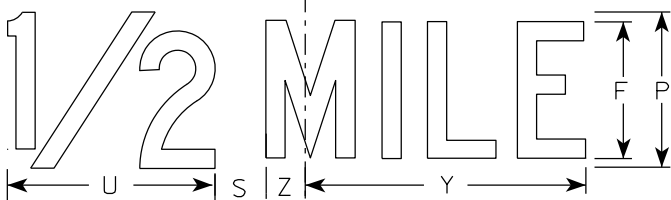
W20-3D



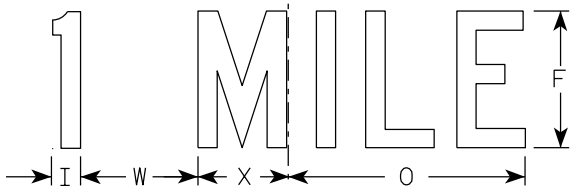
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
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.

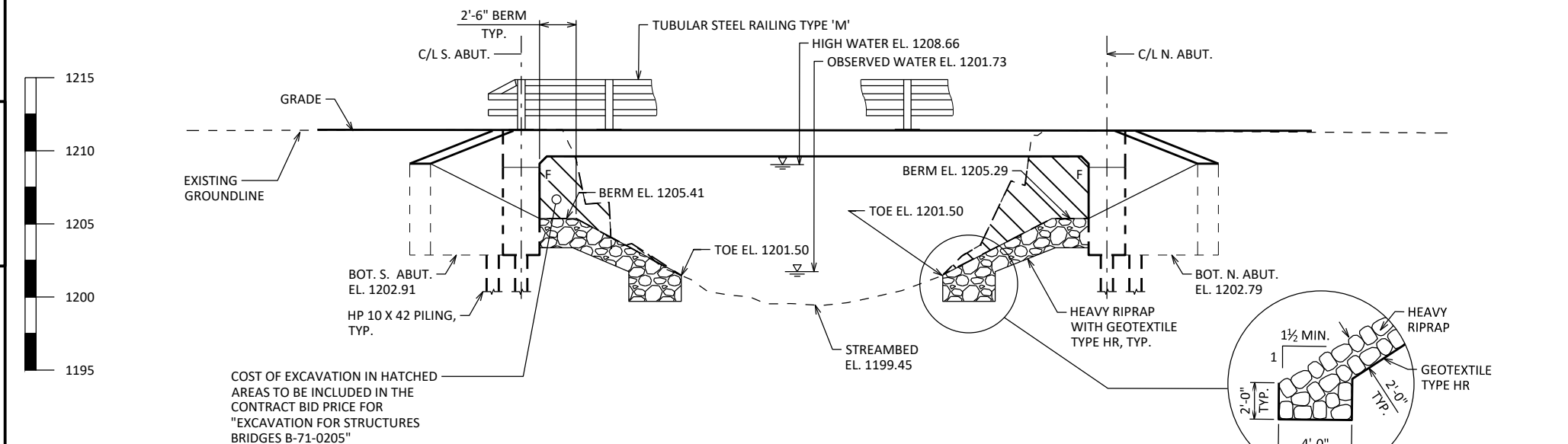
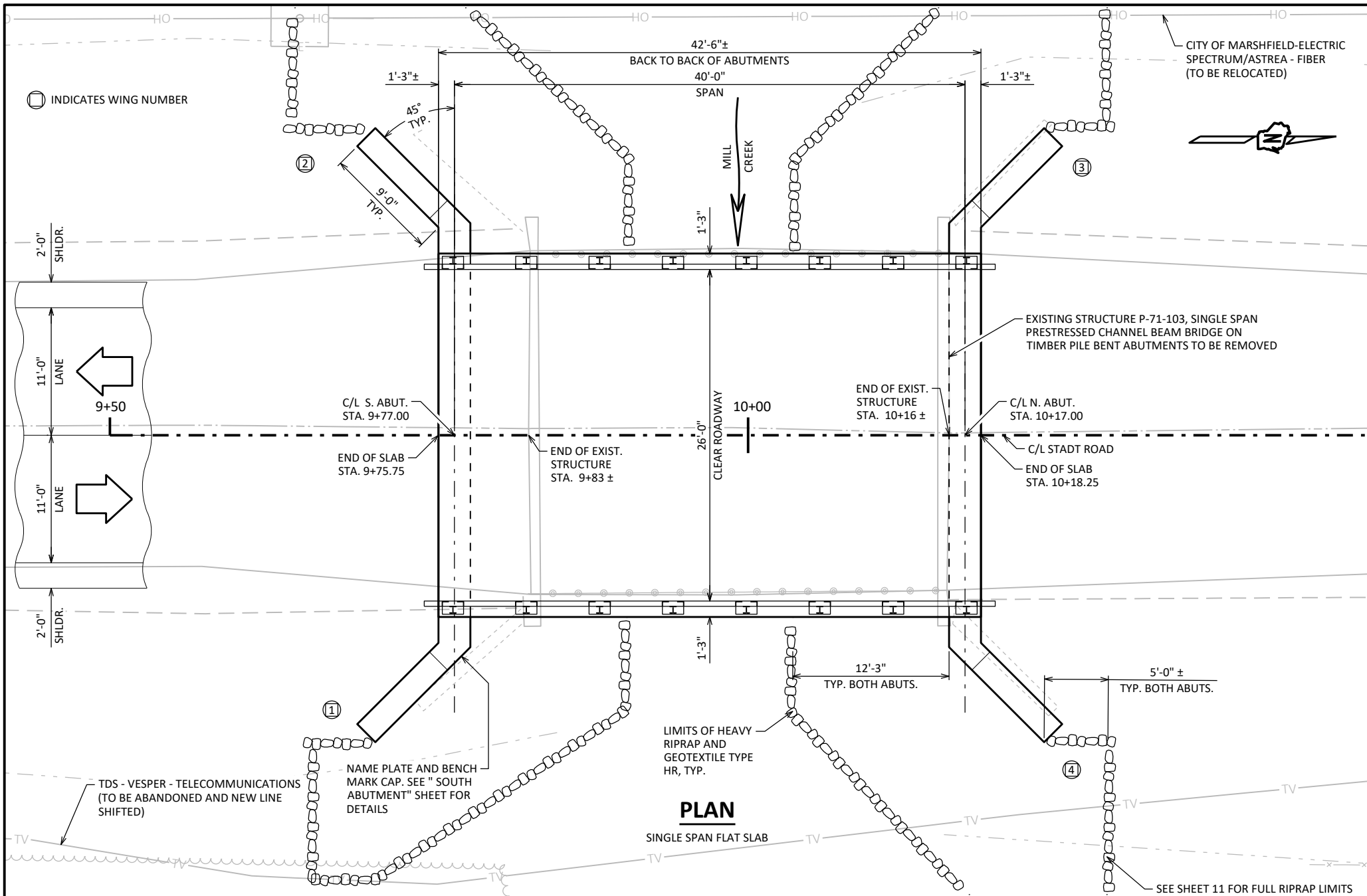
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	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		3	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		3	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		3	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 1/10/2024 PLATE NO. W20-3.8



THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 1.0.0.0

STATE PROJECT NUMBER

6952-01-70

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.10
OPERATING RATING FACTOR: RF = 1.42
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: _____ f'c = 4,000 P.S.I.
SUPERSTRUCTURE _____ f'c = 3,500 P.S.I.
ALL OTHER _____
BAR STEEL REINFORCEMENT: _____ fy = 60,000 P.S.I.
GRADE 60

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 PILING FIRMLY SEATED IN PRE-BORED HOLES DRILLED A MINIMUM OF 3'-0" INTO WEATHERED BEDROCK AND GNEISS. ESTIMATED PILE TIP ELEVATION IS 1181 FT AT SOUTH ABUTMENT AND 1188.5 FT AT NORTH ABUTMENT. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF THE PILES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 27 FT LONG AT SOUTH ABUTMENT AND 19 FT LONG AT NORTH ABUTMENT.

TRAFFIC VOLUME

STADT ROAD
ADT = 72 (2045)
R.D.S. = 45 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY

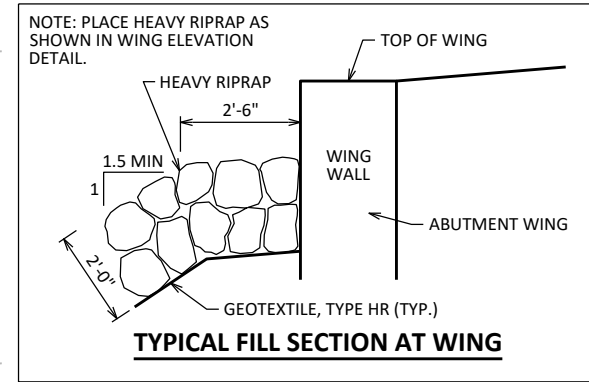
Q₁₀₀ = 1780 C.F.S.
VEL. = 9.44 F.P.S.
HW₁₀₀ = EL. 1208.66
WATERWAY AREA = 188.53 SQ. FT.
DRAINAGE AREA = 10.0 SQ. MI.
ROADWAY OVERTOPPING = NA
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY

Q₂ = 411 C.F.S.
VEL. = 3.34 F.P.S.
HW₂ = EL. 1205.36

LIST OF DRAWINGS

- GENERAL PLAN
- CROSS SECTION & QUANTITIES
- SUBSURFACE EXPLORATION
- SOUTH ABUTMENT
- SOUTH ABUTMENT DETAILS
- NORTH ABUTMENT
- NORTH ABUTMENT DETAILS
- SUPERSTRUCTURE
- SUPERSTRUCTURE DETAILS
- TUBULAR STEEL RAILING TYPE 'M'
- RIPRAP EXTENTS



TYPICAL FILL SECTION AT WING

STRUCTURE DESIGN CONTACTS:

CONSULTANT: MATT BUCKLI
BUREAU OF STRUCTURES: AARON BONK

608-443-0441
608-261-0261

THESE PLANS ARE BASED UPON STANDARD BRIDGE PLANS DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION THROUGH THE USE OF THE WISDOT STANDARD BRIDGE DESIGN TOOL. THE UNDERSIGNED DESIGNER CERTIFIES THE ACCURACY OF THE BRIDGE TYPE, SIZE AND LOCATION, HYDRAULICS AND FOUNDATION SUPPORT, AND INFORMATION IN THE PLANS THAT IS NOT PART OF THE STANDARD PLANS SUPPLIED BY THE DEPARTMENT. THE DESIGNER FURTHER CERTIFIES THAT USE OF THE STANDARD BRIDGE DESIGN TOOL FOR DEVELOPMENT OF THIS PLAN IS CONSISTENT WITH THE GUIDANCE PROVIDED IN THE WISDOT BRIDGE MANUAL.



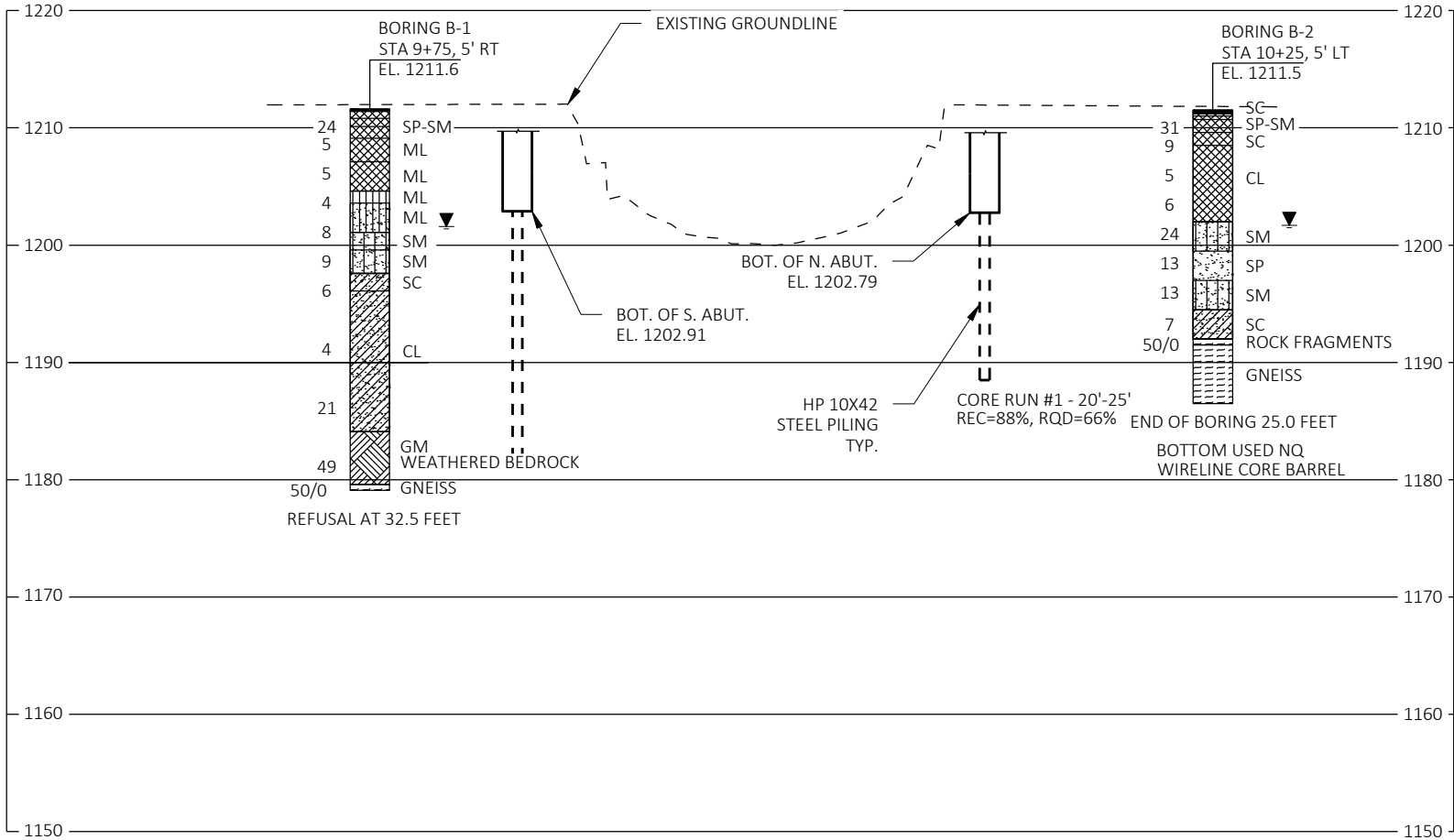
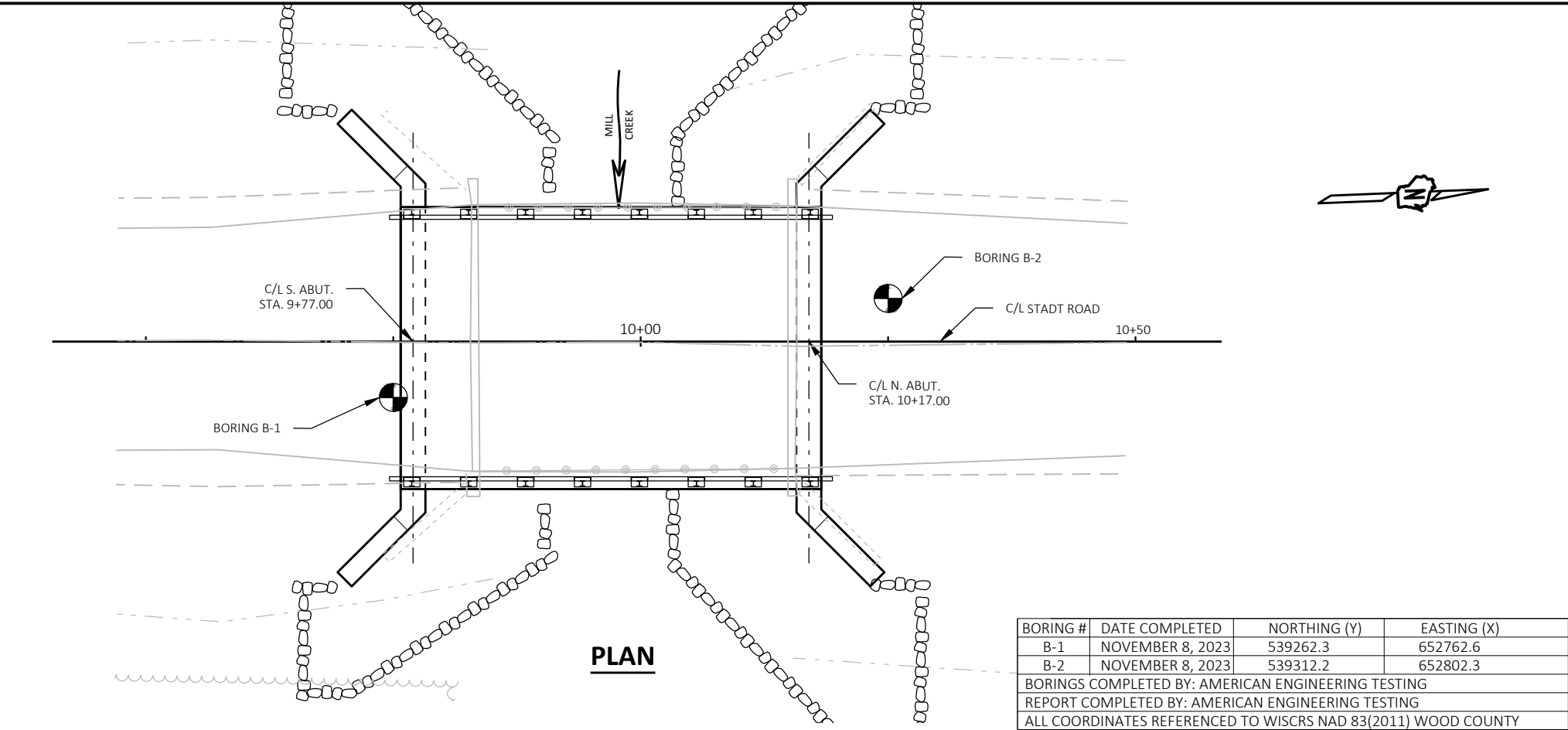
NO.	DATE	REVISION	BY
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Mead & Hunt		Mead & Hunt, Inc. 2440 Deming Way Middleton, WI 53562 608.273.6380 www.meadhunt.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		SDR	11/05/24 DATE
STRUCTURE B-71-205			
STADT ROAD OVER MILL CREEK			
COUNTY	WOOD	TOWN	MARSHFIELD
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	DESIGNED CK'D	RCP	DRAWN BY
MJB	CK'D	RCP	MJB
GENERAL PLAN			SHEET 1 OF 11

I.D. 6952-01-00

DATE: DEC 2023

SCALE = 10



STATE PROJECT NUMBER
6952-01-70

MATERIAL SYMBOLS

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

LEGEND OF BORING

⁽¹⁾ UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)
⁽²⁾ UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

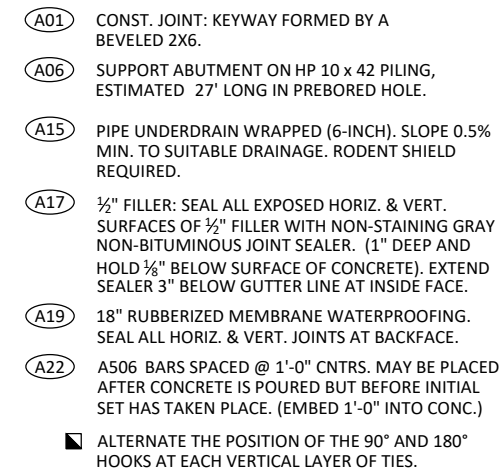
GROUND WATER ELEVATION
▽ AT TIME OF DRILLING
▼ END OF DRILLING
▼ AFTER DRILLING

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

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-205			
DRAWN BY MJB		PLANS CK'D RCP	
SUBSURFACE EXPLORATION		SHEET 3	

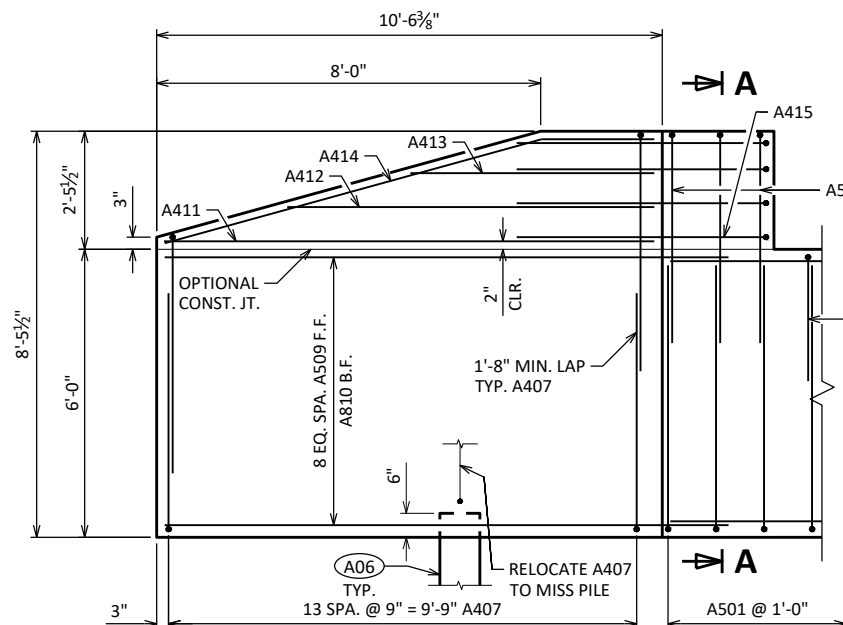
SCALE =1/5.0



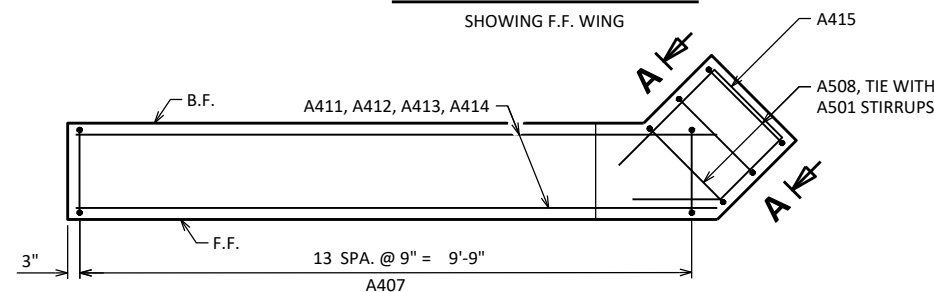
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-71-205	
		DRAWN BY	PLANS CK'D
		JLA	RCP
SOUTH ABUTMENT		SHEET 4	

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

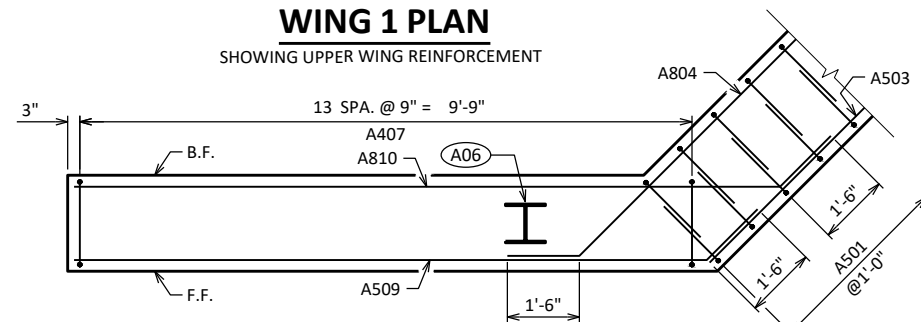
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		68	7'-0"	X		ABUT BODY STIRRUPS
A502		28	7'-1"	X		ABUT BODY STIRRUPS - TOP U-BAR
A503		9	33'-3"			ABUT BODY HORIZ. - F.F.
A804		18	22'-7"	X		ABUT BODY HORIZ. - B.F.
A405		27	3'-0"	X		ABUT BODY TIE BARS
A506	X	27	2'-0"			ABUT BODY DOWEL BARS
A407	X	56	11'-4"	X		WING STIRRUPS
A508	X	6	10'-7"	X		WING CORNER STIRRUPS
A509	X	18	11'-9"	X		WING LOWER HORIZ - F.F.
A810	X	18	13'-3"	X		WING LOWER HORIZ. - B.F.
A411	X	4	10'-1"			WING UPPER HORIZ.
A412	X	4	7'-6"			WING UPPER HORIZ.
A413	X	4	5'-0"			WING UPPER HORIZ.
A414	X	4	9'-8"	X		WING TOP HORIZ.
A415	X	4	8'-3"	X		WING 1 UPPER HORIZ. CORNER
A416	X	4	8'-3"	X		WING 2 UPPER HORIZ. CORNER



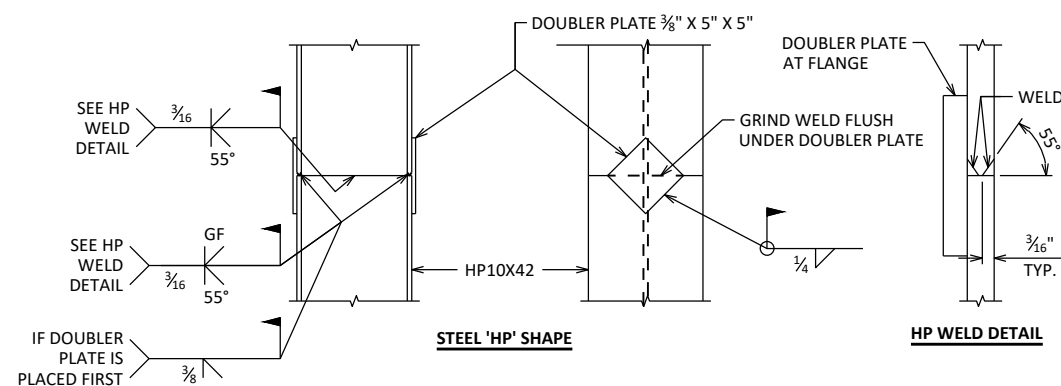
SHOWING F.F. WING



SHOWING UPPER WING REINFORCEMENT

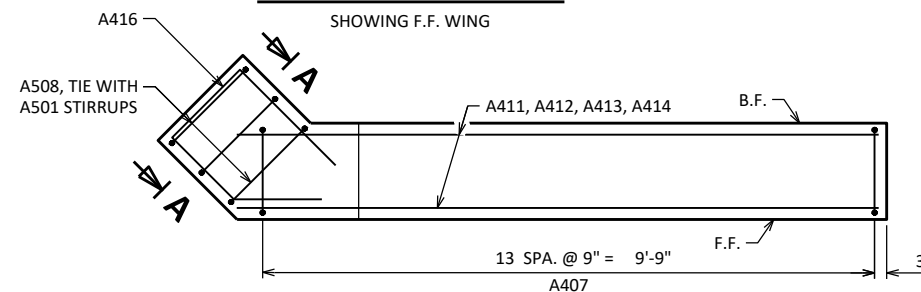


SHOWING LOWER WING REINFORCEMENT
WING 2 SIMILAR

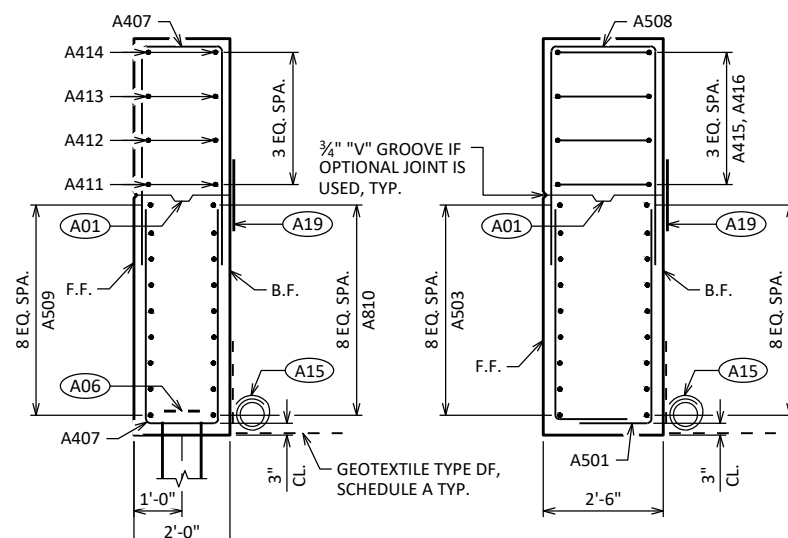


'HP' PILE DETAILS

SHOWING F.F. WING



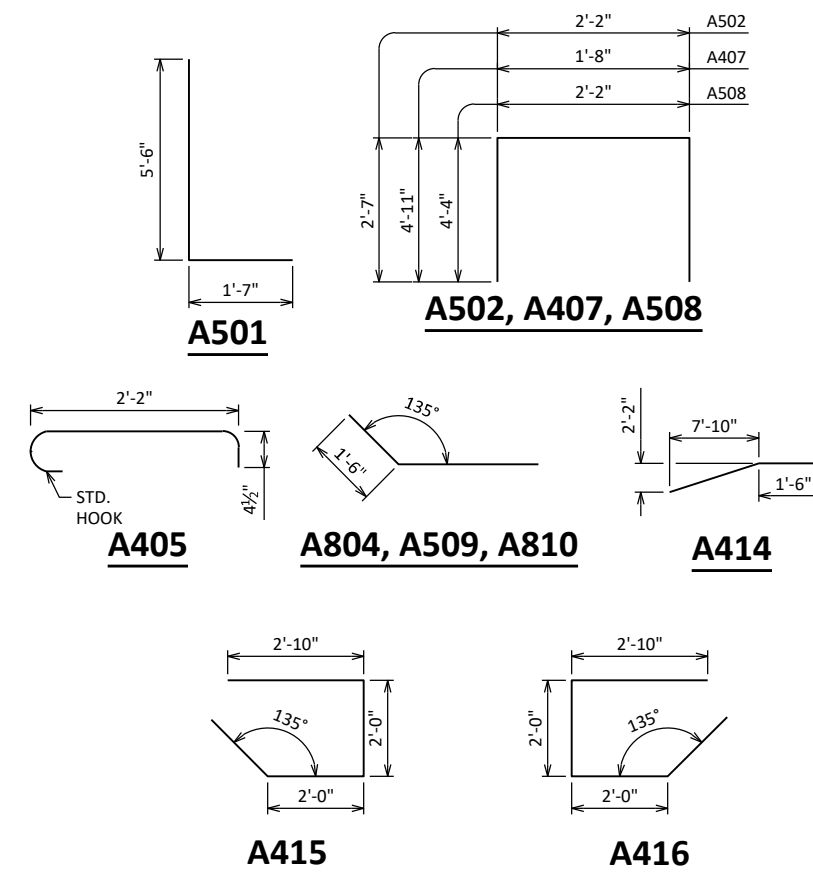
SHOWING UPPER WING REINFORCEMENT



TYPICAL BOTH WINGS

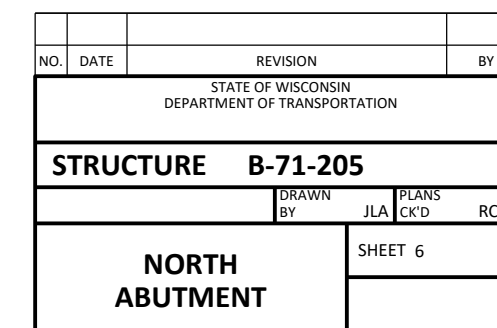
SECTION A-A

- A01** OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6. PROVIDE $\frac{3}{4}$ " "V" GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.
- A06** SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 27' LONG IN PRE-BORED HOLE.
- A15** PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A19** 18" RUBBERIZED MEMBRANE WATERPROOFING, ONLY IF OPTIONAL CONSTRUCTION JOINT IS USED. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY STRUCTURES".



NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE B-71-205					
		DRAWN BY	JLA	PLANS CK'D	RCP
SOUTH ABUTMENT DETAILS				SHEET 5	

SCALE -



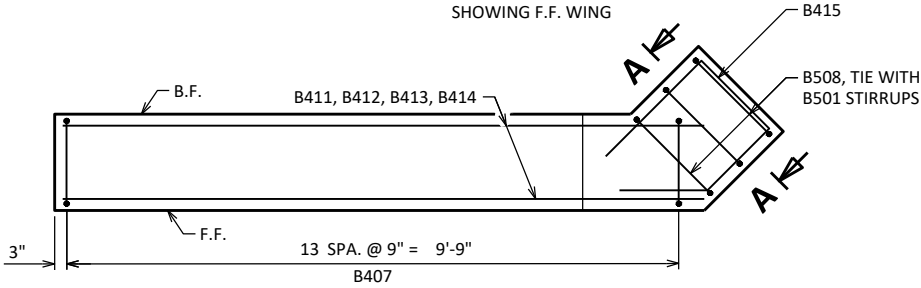
BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		68	7'-0"	X		ABUT BODY STIRRUPS
B502		28	7'-1"	X		ABUT BODY STIRRUPS - TOP U-BAR
B503		9	33'-3"			ABUT BODY HORIZ. - F.F.
B804		18	22'-7"	X		ABUT BODY HORIZ. - B.F.
B405		27	3'-0"	X		ABUT BODY TIE BARS
B506	X	27	2'-0"			ABUT BODY DOWEL BARS
B407	X	56	11'-4"	X		WING STIRRUPS
B508	X	6	10'-7"	X		WING CORNER STIRRUPS
B509	X	18	11'-9"	X		WING LOWER HORIZ. - F.F.
B810	X	18	13'-3"	X		WING LOWER HORIZ. - B.F.
B411	X	4	10'-1"			WING UPPER HORIZ.
B412	X	4	7'-6"			WING UPPER HORIZ.
B413	X	4	5'-0"			WING UPPER HORIZ.
B414	X	4	9'-8"	X		WING TOP HORIZ.
B415	X	4	8'-3"	X		WING 3 UPPER HORIZ. CORNER
B416	X	4	8'-3"	X		WING 4 UPPER HORIZ. CORNER

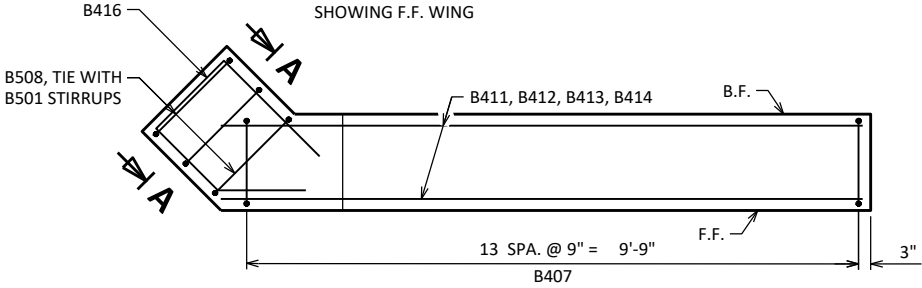
WING 3 ELEVATION

SHOWING F.F. WING



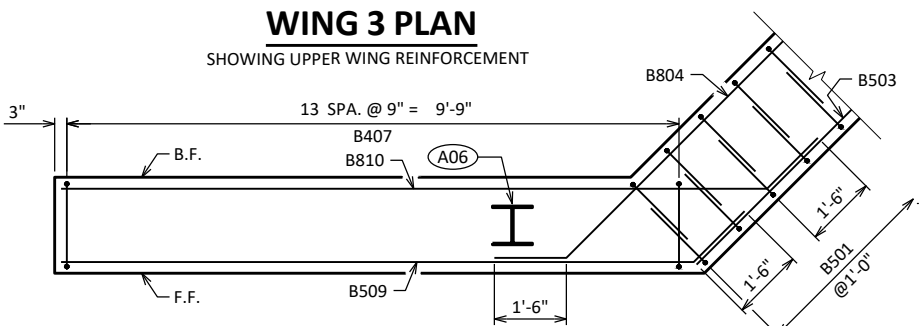
WING 4 ELEVATION

SHOWING F.F. WING



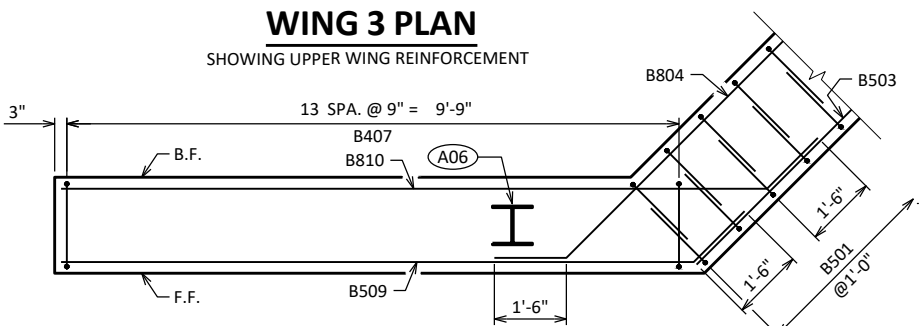
WING 3 PLAN

SHOWING UPPER WING REINFORCEMENT



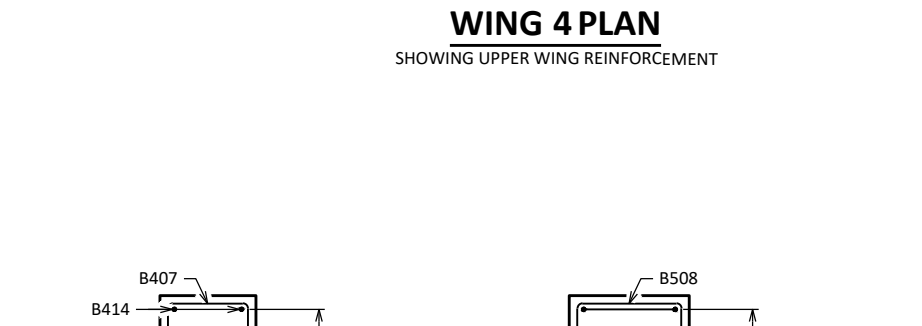
WING 3 PLAN

SHOWING LOWER WING REINFORCEMENT
WING 4 SIMILAR



WING 4 PLAN

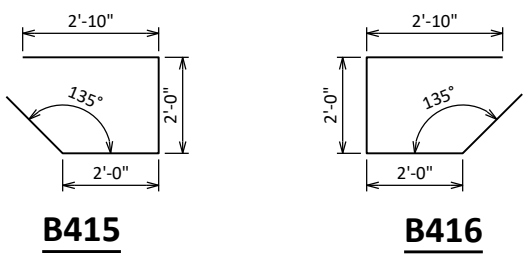
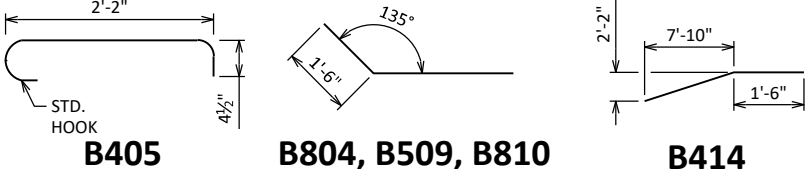
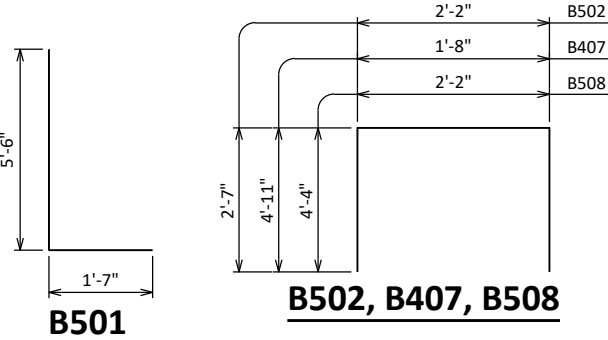
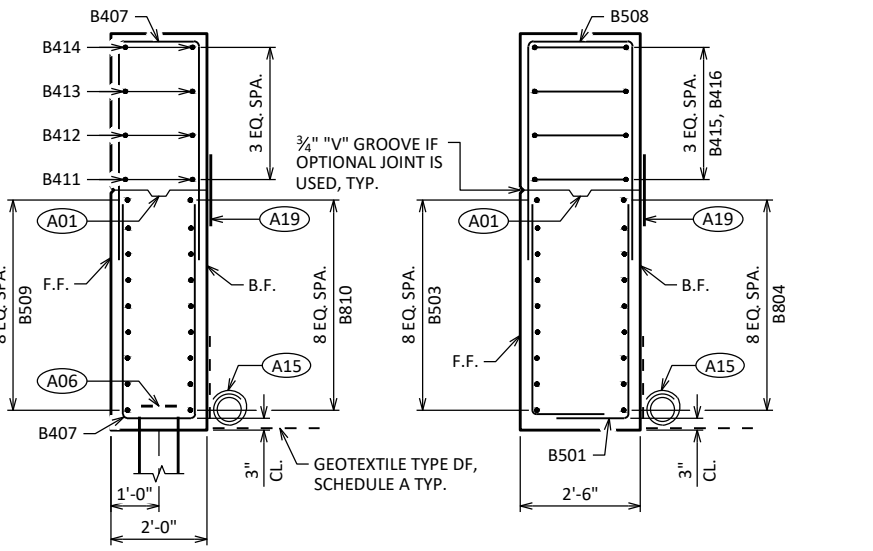
SHOWING UPPER WING REINFORCEMENT



SECTION THRU WING 3

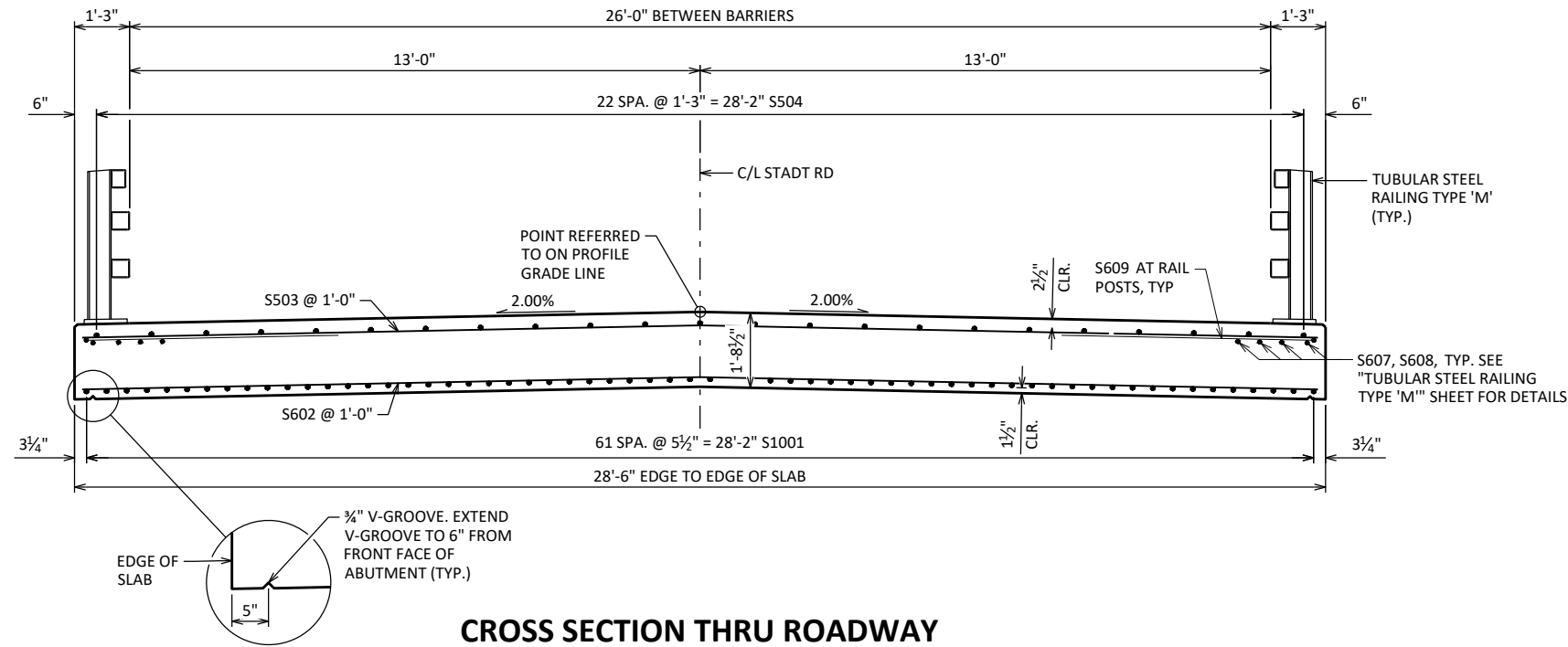
TYPICAL BOTH WINGS

SECTION A-A

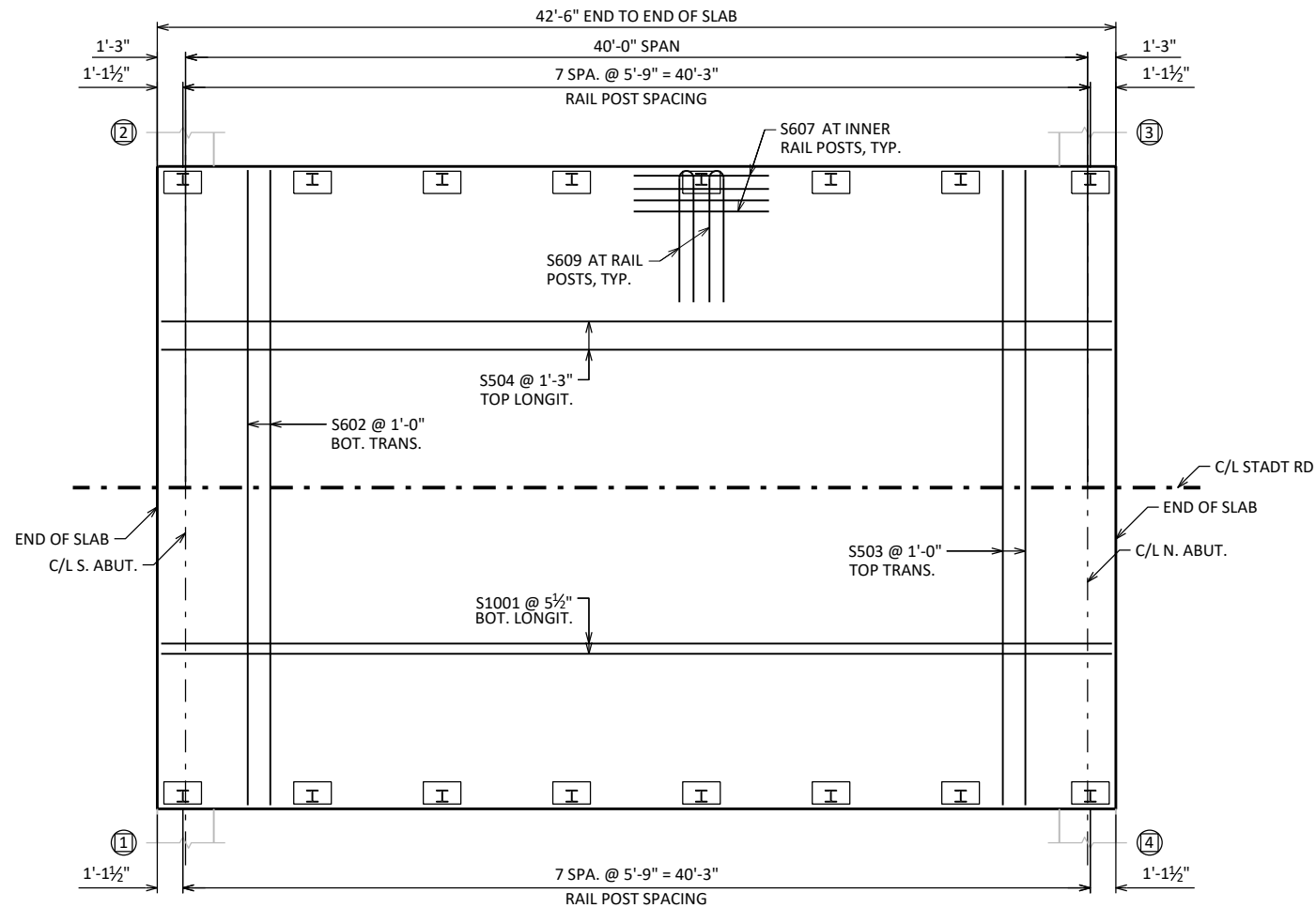


- A01 OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6. PROVIDE 3/4" "V" GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.
- A06 SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 19' LONG IN PRE-BORED HOLE.
- A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A19 18" RUBBERIZED MEMBRANE WATERPROOFING, ONLY IF OPTIONAL CONSTRUCTION JOINT IS USED. COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY STRUCTURES".

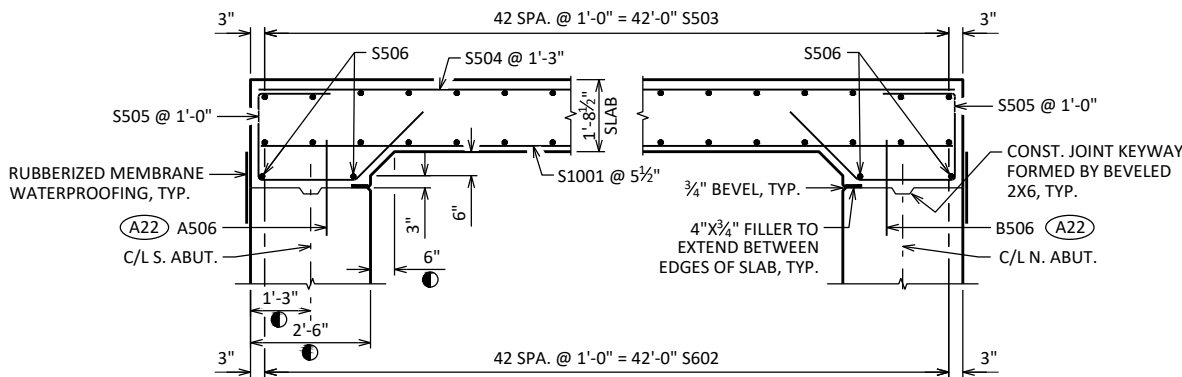
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-205			
DRAWN BY		JLA	PLANS CK'D RCP
NORTH ABUTMENT DETAILS		SHEET 7	



CROSS SECTION THRU ROADWAY



PLAN

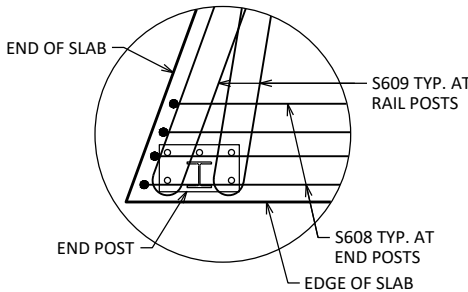


LONGITUDINAL SECTION

DIMENSIONS ARE GIVEN PARALLEL TO ϵ ROADWAY UNLESS OTHERWISE NOTED.

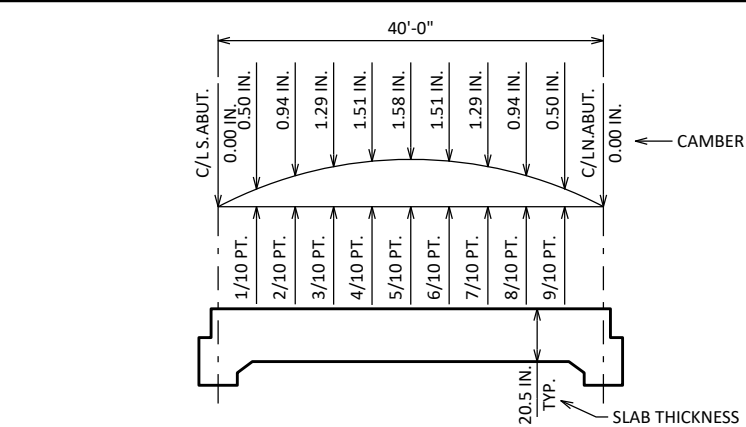
MEASURED NORMAL TO THE ϵ OF ABUTMENT. DIMENSIONS ARE TYPICAL FOR BOTH ABUTMENTS.

A22 A506, B506 BARS SPACED @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)



END POST DETAILS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-205			
DRAWN BY		JLA	PLANS CK'D RCP
SUPERSTRUCTURE		SHEET 8	



CAMBER AND SLAB THICKNESS DIAGRAM

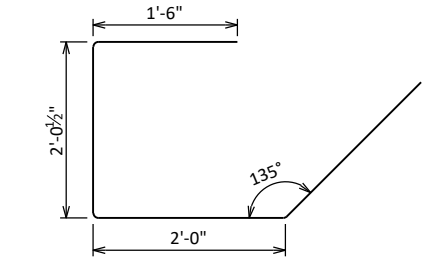
CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

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

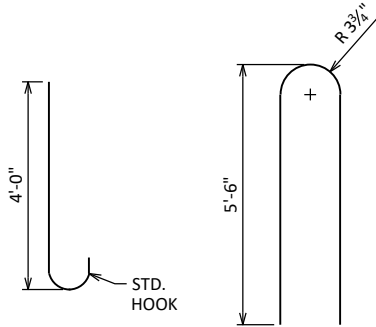
LESS	TOP OF SLAB ELEVATION AT FINAL GRADE
PLUS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. N. ABUT.
W. EDGE OF DECK	1211.37	1211.36	1211.35	1211.33	1211.32	1211.31	1211.30	1211.29	1211.27	1211.26	1211.25
CROWN OR R/L	1211.65	1211.64	1211.63	1211.62	1211.61	1211.59	1211.58	1211.57	1211.56	1211.55	1211.53
E. EDGE OF DECK	1211.37	1211.36	1211.35	1211.33	1211.32	1211.31	1211.30	1211.29	1211.27	1211.26	1211.25



S505



S608

S609

STATE PROJECT NUMBER

6952-01-70

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1001	X	62	42'-2"			SLAB BOTTOM LONGITUDINAL
S602	X	43	28'-2"			SLAB BOTTOM TRANSVERSE
S503	X	43	28'-2"			SLAB TOP TRANSVERSE
S504	X	23	42'-2"			SLAB TOP LONGITUDINAL
S505	X	58	7'-4"	X		ABUTMENT DIAPHRAGM STIRRUPS
S506	X	4	28'-2"			ABUTMENT DIAPHRAGM LONGITUDINAL
S607	X	48	6'-0"			SLAB TOP LONGIT. UNDER RAIL POSTS
S608	X	16	4'-8"	X		SLAB TOP LONGIT. UNDER RAIL END POSTS
S609	X	32	11'-5"	X		SLAB TOP HOOKS UNDER RAIL POSTS

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	ABUTMENT	5/10 PT.	ABUTMENT
W. GUTTER			
CROWN OR R/L			
E. GUTTER			

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

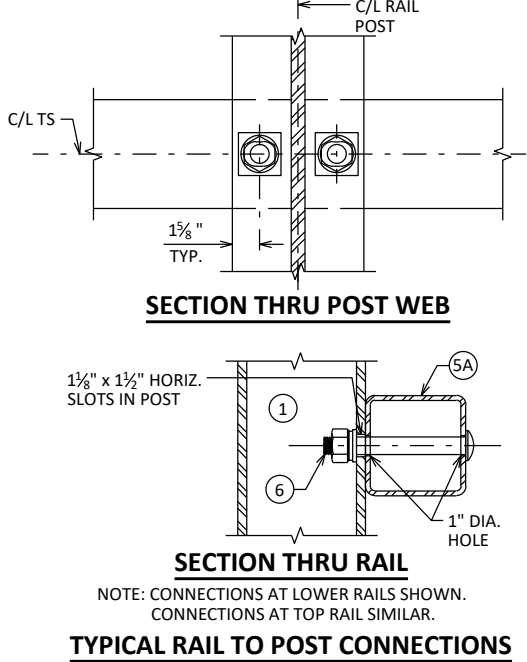
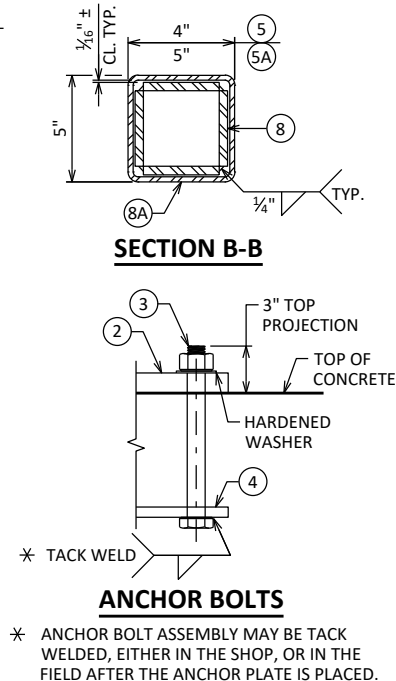
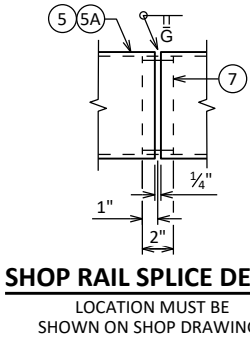
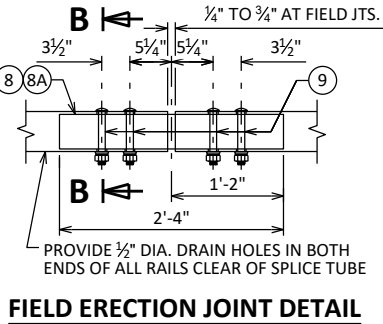
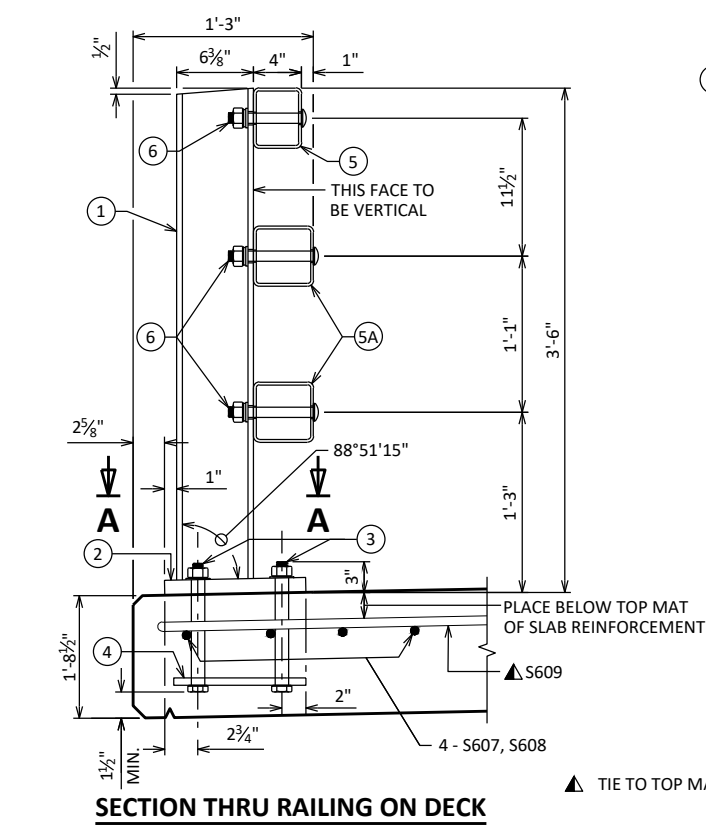
NOTES

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

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.

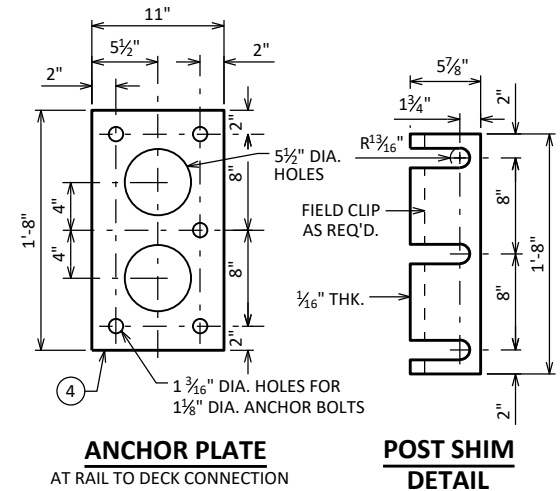
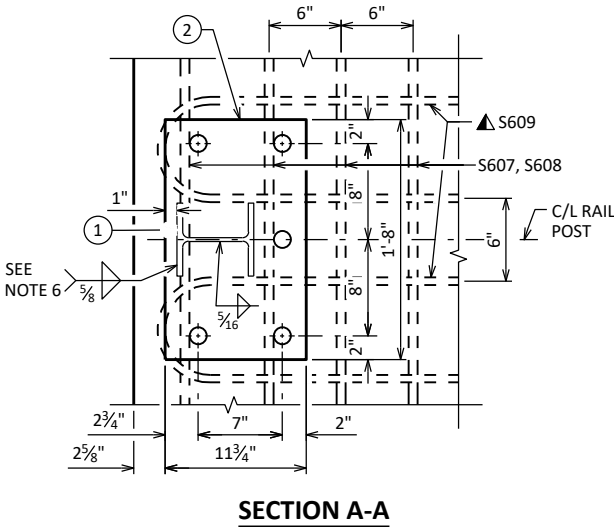
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-205			
		DRAWN BY	PLANS CK'D RCP
SUPERSTRUCTURE DETAILS		SHEET 9	

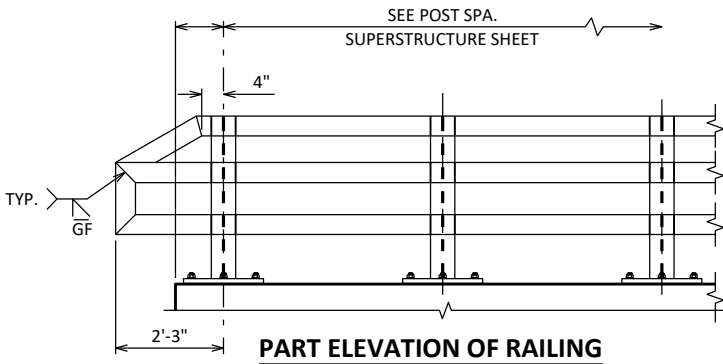


TYPICAL RAIL TO POST CONNECTIONS

- LEGEND**
- W6 x 25 WITH 1 1/8" x 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
 - PLATE 1 1/4" x 11 3/4" x 1'-8" WITH 1 1/16" OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
 - ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
 - 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
 - TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
 - TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
 - 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" x 1 5/8" x 1 5/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
 - SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
 - 3/8" x 3 5/8" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
 - 3/8" x 2 5/8" x 2'-4" PLATE USED IN NO. 5, 3/8" x 3 5/8" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
 - 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 5/16" x 1 1/4" LONGIT. SLOTTED HOLES IN PLATE NO. 10A AT FIELD JOINTS AND 1 5/16" x 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 8A. PROVIDE 1 5/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.



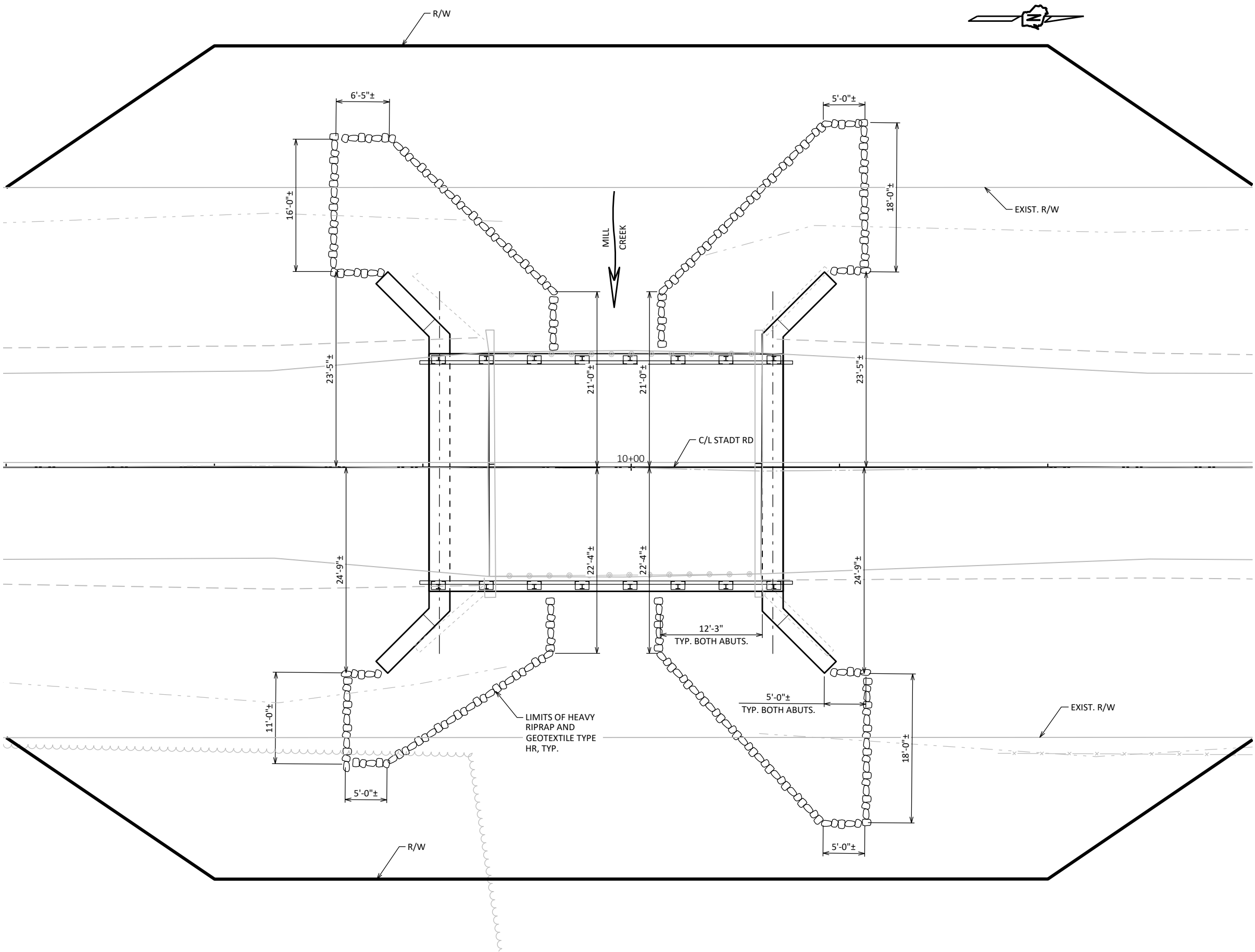
POST SHIM DETAIL



GENERAL NOTES

- BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/2 TURN.
- RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
- ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.

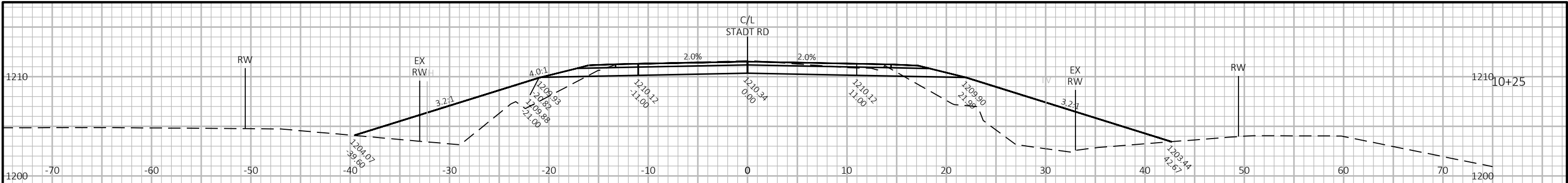
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-205			
DRAWN BY		JLA	PLANS CK'D RCP
TUBULAR STEEL RAILING TYPE 'M'		SHEET 10	



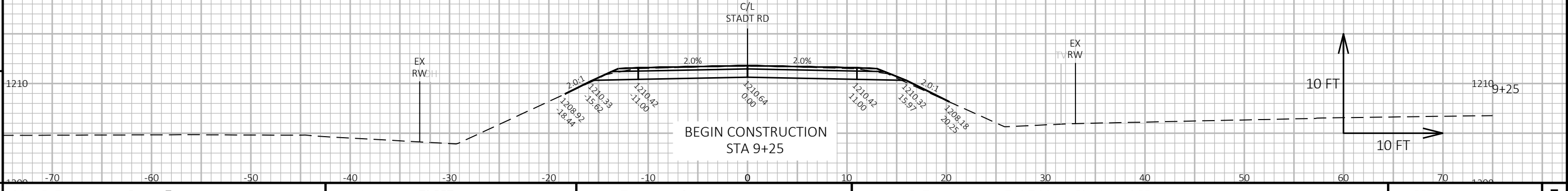
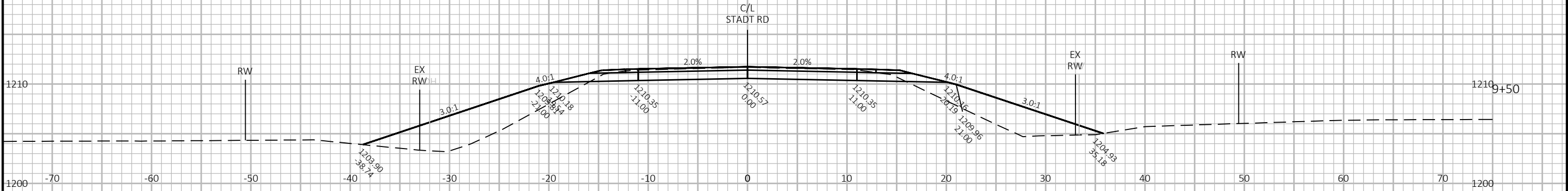
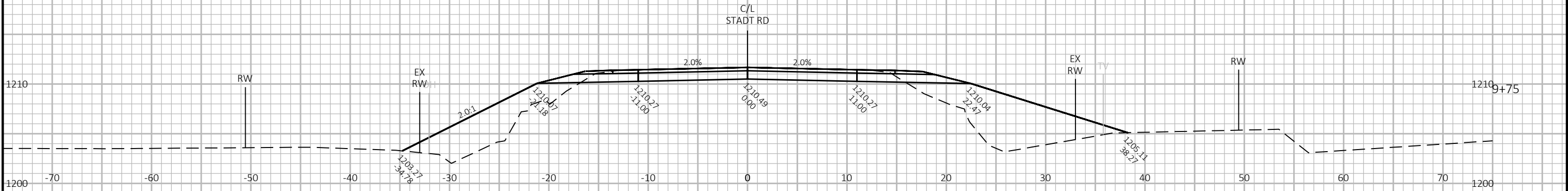
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-205			
DRAWN BY		JLA	PLANS CK'D RCP
RIPRAP EXTENTS		SHEET 11	

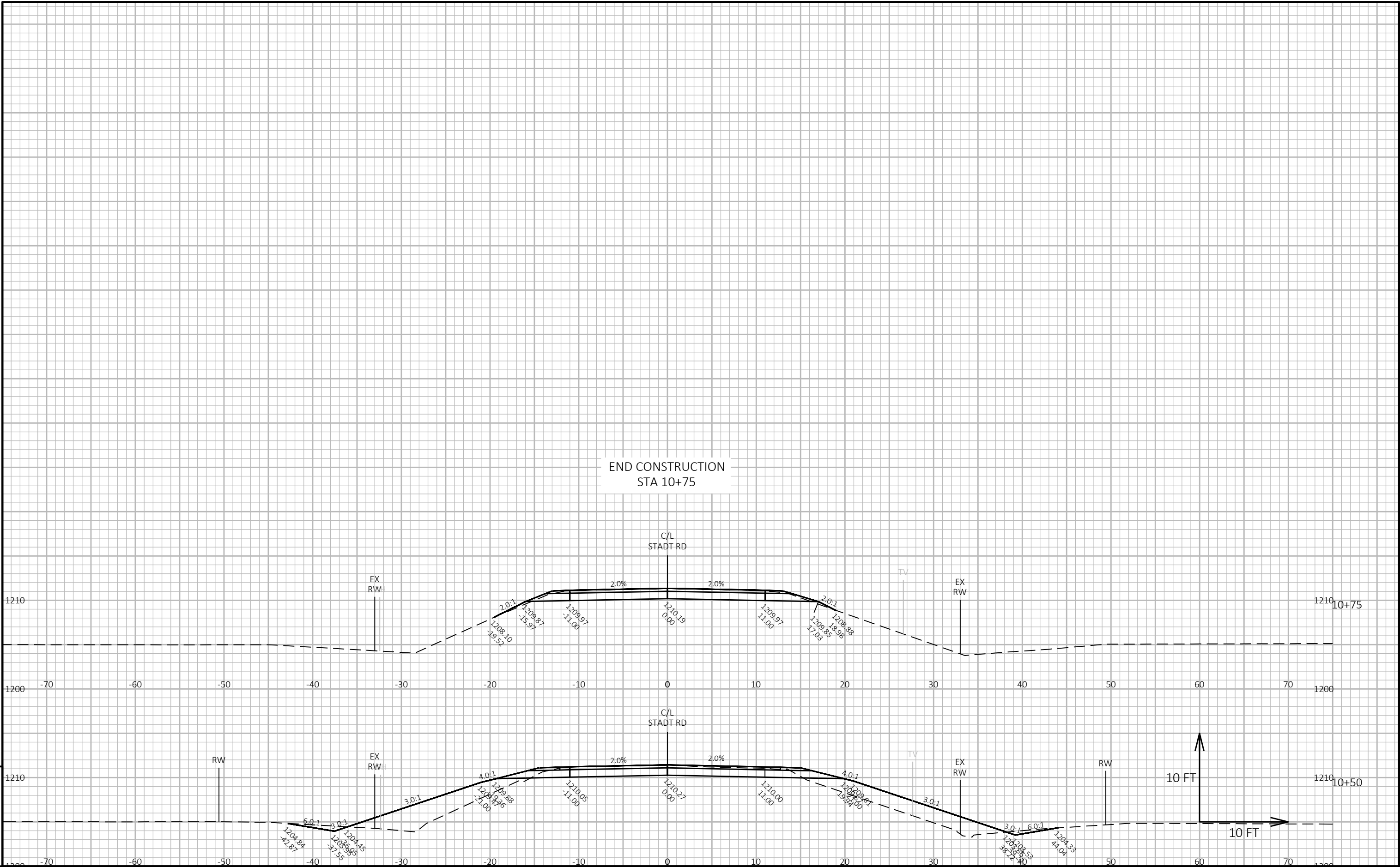
STADTRD									
STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
9+25.00	30.87	5.52	0.76	0	0	0	0	0	0
9+50.00	31.39	12.68	85.26	29	8	40	29	50	-29
9+75.00	35.48	14.20	94.53	31	12	83	60	154	-114
9+78.25	36.07	0.00	95.13	4	1	11	64	168	-125
10+18.23	32.57	0.00	101.17	0	0	0	64	0	-125
10+25.00	31.81	13.88	126.57	8	2	29	72	36	-155
10+50.00	34.42	12.53	63.86	31	12	88	103	146	-246
10+75.00	0.00	5.59	0.00	16	8	30	119	184	-275
				119	43	281			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]



CONSTRUCT STRUCTURE B-71-205





Notes



Wisconsin Department of Transportation

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through innovation and exceptional service.

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WIS

PROJECT ID:
WTH: 6952-01-70

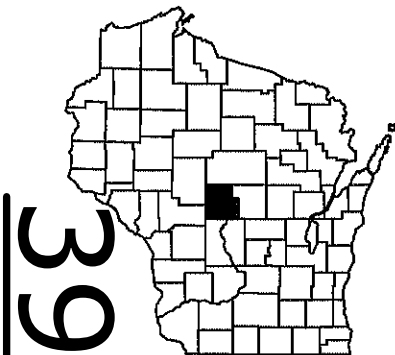
6952-01-71

COUNTY: WOOD

FEBRUARY 2025
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 = 48



DESIGN DESIGNATION

A.A.D.T.	2025	=	43
A.A.D.T.	2045	=	63
D.H.V.		=	18
D.D.		=	62/38
T.		=	12%
DESIGN SPEED		=	40 MPH
ESALS		=	24,309

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

T MARSHFIELD, STADT ROAD

MCMILLAN CREEK BRIDGE, P-71-0927

LOCAL STREET
WOOD COUNTY

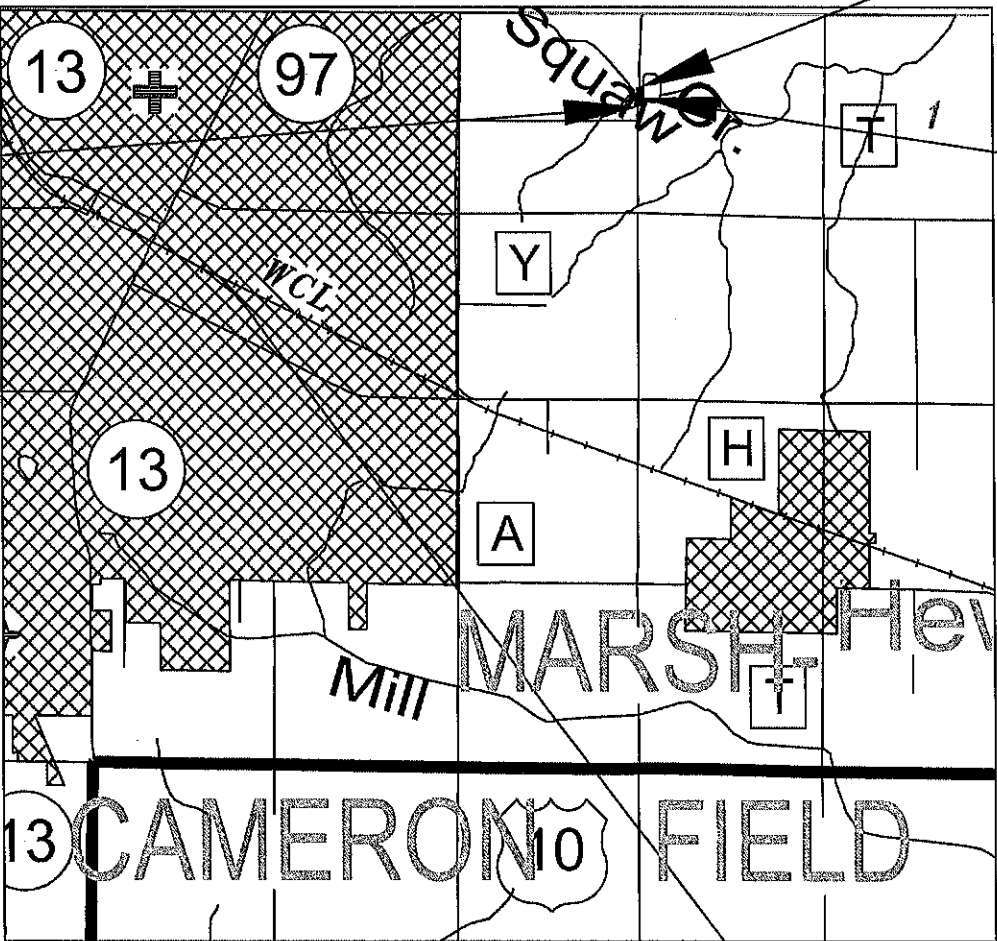
STATE PROJECT NUMBER
6952-01-71

R-3-E

END PROJECT

STA 11+00
Y=557014.987
X=652812.278

STRUCTURE B-71-0206
STA 9+73.67 - STA 10+16.33



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.038 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN
COORDINATE REFERENCE SYSTEM (WISCRS), WOOD 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 (1991). GPS DERIVED
ELEVATIONS ARE BASED ON GEOID 18

STATE PROJECT

6952-01-71

6952-01-70

FEDERAL PROJECT

PROJECT

WISC 2025349

WISC 2025348

CONTRACT

1

ACCEPTED FOR
WOOD COUNTY

Date 10/20/24
ROLAND HAWK, PE, COMMISSIONER

ORIGINAL PLANS PREPARED BY

Mead & Hunt

1702 Lawrence Dr
De Pere, WI 54115
phone: 920-496-0500
meadhunt.com



DATE: 10/25/2024
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MEAD & HUNT, INC
Designer	MEAD & HUNT, INC
Project Manager	JASON SCHAEFFER
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT
DATE: 10/28/2024
(Signature)

E

UTILITIES CONTACTS

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EMAIL: KAMREN.SEEFLUTH@MARSHFIELDUTILITIES.ORG

FRONTIER COMMUNICATIONS - NORTHERN
COMMUNICATIONS
CHRIS POLLACK
521 N 4TH STREET
WAUSAU, WI 54401
PHONE: 715-847-1240
EMAIL: CHRISTOPHER.POLLACK@FTR.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
EROSION CONTROL
TRAFFIC CONTROL

DESIGN PROJECT MANAGER

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ALLEN BREU
TOWN CHAIRPERSON
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DESIGN CONSULTANT


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DE PERE, WI 54115
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WISCONSIN DNR LIAISON

BRAD BETTHAUSER
WDNR WEST CENTRAL REGION
910 STH 54
BLACK RIVER FALLS, WI 54615
PHONE: 715-213-9064
EMAIL: BRADLEY.BETTHAUSER@WISCONSIN.GOV

GENERAL NOTES

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

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

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

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

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

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO BRIDGE REMOVAL. SILT FENCE IN WETLAND AREAS SHALL BE PLACED AT THE SLOPE INTERCEPT TO PREVENT DISTURBANCE OF WETLANDS.

THE PROPOSED SHOULDER WIDTH SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH. PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTIONS.

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

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

BEARINGS SHOWN ON THE PLAN ARE GROUND BEARINGS TO THE NEAREST SECOND.

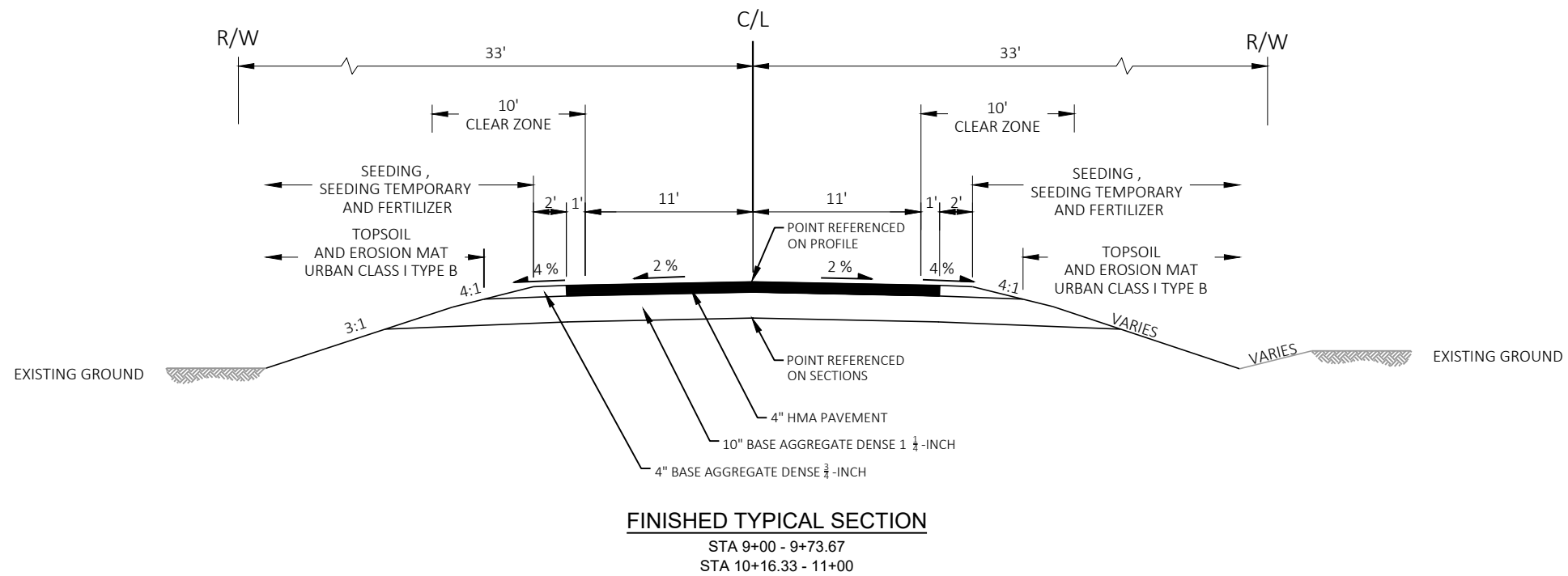
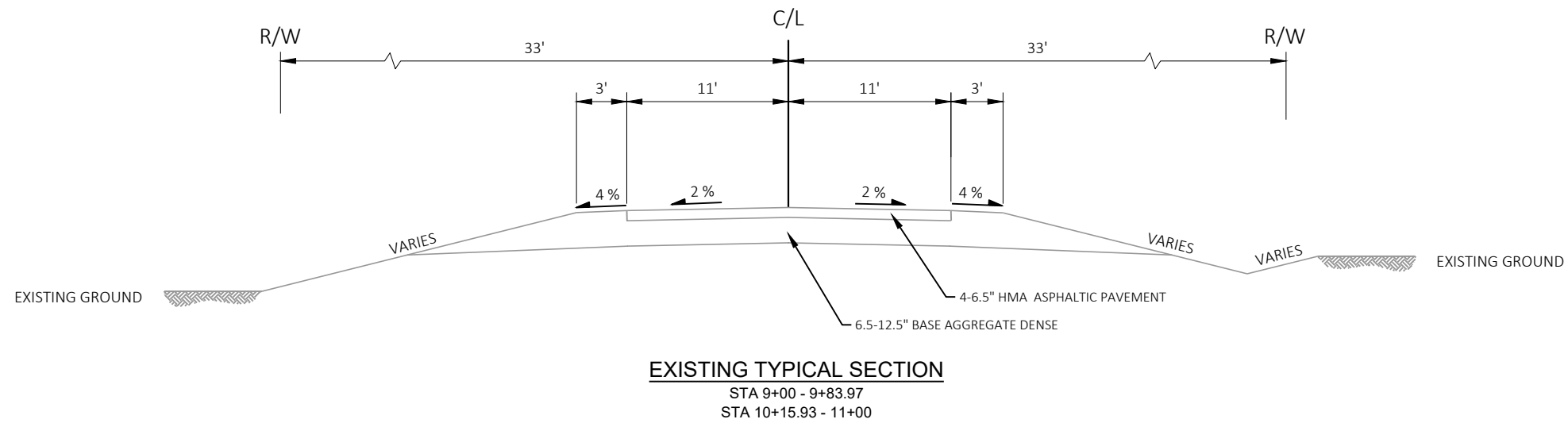
DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

RUNOFF COEFFICIENT TABLE

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	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 STRIPTURF:	.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 SLOPETURF:			.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 = 0.303 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.251 ACRES

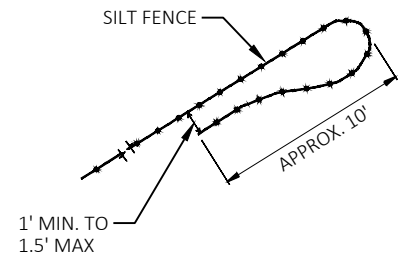
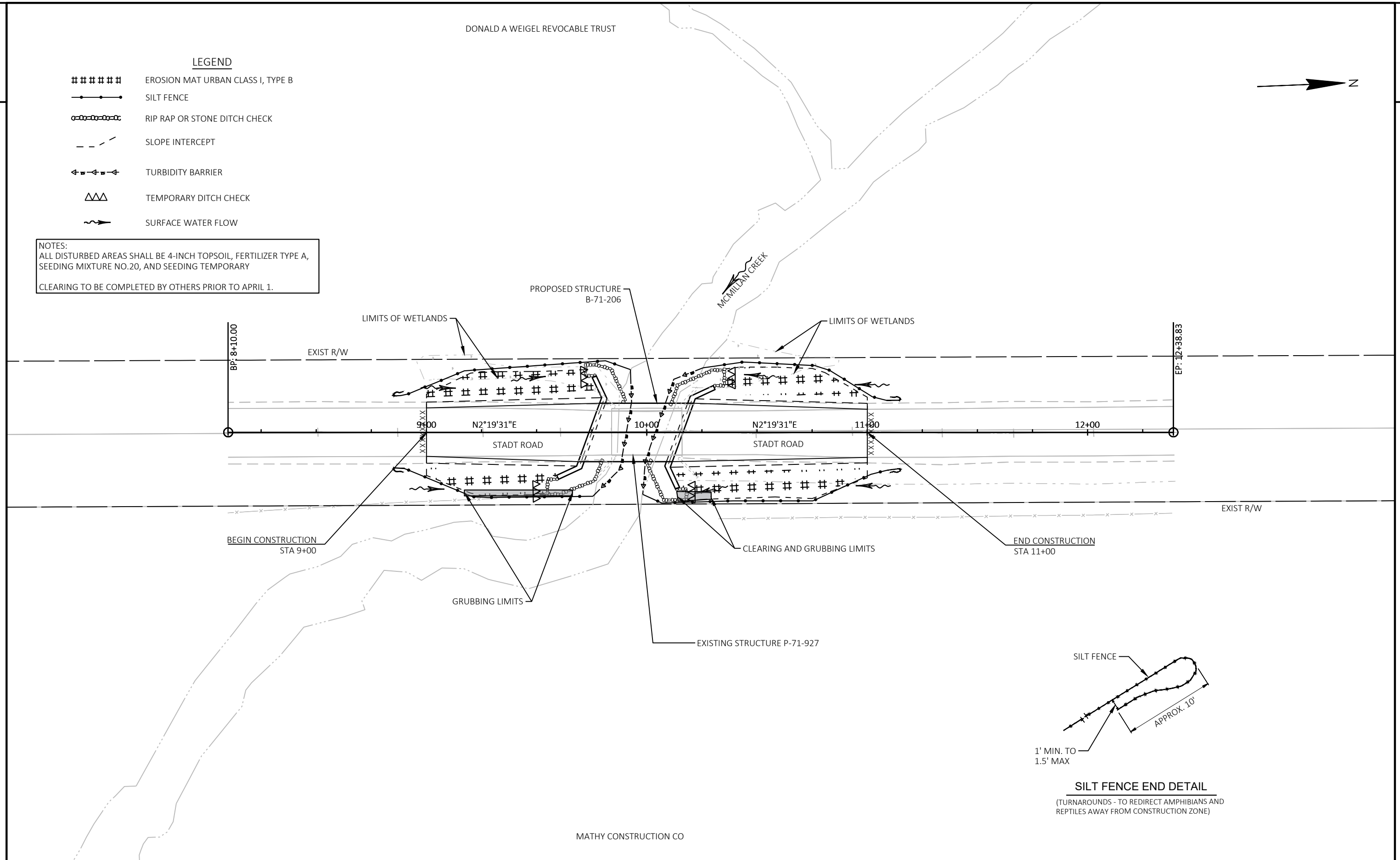

Dial  or (800)242-8511
www.DiggersHotline.com



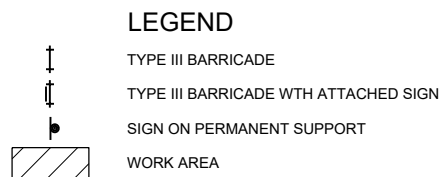
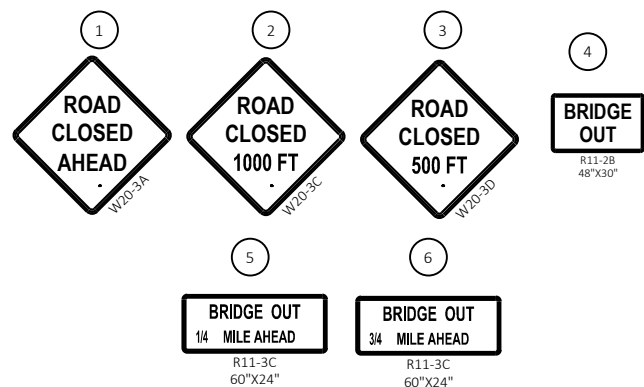
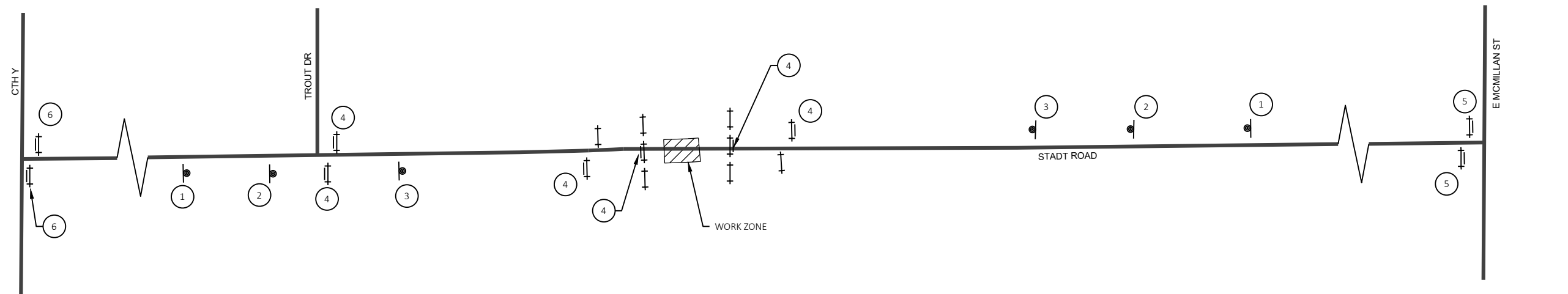
LEGEND

- ##### EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- - - SLOPE INTERCEPT
- TURBIDITY BARRIER
- △△△ TEMPORARY DITCH CHECK
- ~> SURFACE WATER FLOW

NOTES:
ALL DISTURBED AREAS SHALL BE 4-INCH TOPSOIL, FERTILIZER TYPE A,
SEEDING MIXTURE NO.20, AND SEEDING TEMPORARY
CLEARING TO BE COMPLETED BY OTHERS PRIOR TO APRIL 1.



SILT FENCE END DETAIL
(TURNAROUNDS - TO REDIRECT AMPHIBIANS AND REPTILES AWAY FROM CONSTRUCTION ZONE)



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

Estimate Of Quantities By Plan Sets

6952-01-71					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	2.000	2.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-71-0927	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	158.000	158.000
0014	206.1001	Excavation for Structures Bridges (structure) 01. B-71-0206	EACH	1.000	1.000
0016	208.0100	Borrow	CY	69.000	69.000
0018	210.1500	Backfill Structure Type A	TON	374.000	374.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6952-01-71	EACH	1.000	1.000
0026	213.0100	Finishing Roadway (project) 01. 6952-01-71	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	20.000	20.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	340.000	340.000
0032	455.0605	Tack Coat	GAL	30.000	30.000
0034	465.0105	Asphaltic Surface	TON	96.000	96.000
0036	502.0100	Concrete Masonry Bridges	CY	139.000	139.000
0038	502.3200	Protective Surface Treatment	SY	182.000	182.000
0040	505.0400	Bar Steel Reinforcement HS Structures	LB	4,340.000	4,340.000
0042	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	19,270.000	19,270.000
0044	513.4061	Railing Tubular Type M	LF	90.000	90.000
0046	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0050	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	840.000	840.000
0052	606.0300	Riprap Heavy	CY	104.000	104.000
0054	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0058	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6952-01-71	EACH	1.000	1.000
0060	619.1000	Mobilization	EACH	0.470	0.470
0062	624.0100	Water	MGAL	4.000	4.000
0064	625.0100	Topsoil	SY	640.000	640.000
0066	628.1504	Silt Fence	LF	450.000	450.000
0068	628.1520	Silt Fence Maintenance	LF	450.000	450.000
0070	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0074	628.2008	Erosion Mat Urban Class I Type B	SY	640.000	640.000
0076	628.6005	Turbidity Barriers	SY	195.000	195.000
0078	628.7504	Temporary Ditch Checks	LF	30.000	30.000
0080	629.0205	Fertilizer Type A	CWT	0.400	0.400
0082	630.0120	Seeding Mixture No. 20	LB	20.000	20.000
0084	630.0200	Seeding Temporary	LB	20.000	20.000
0086	630.0500	Seed Water	MGAL	7.000	7.000
0092	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0094	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0096	638.2602	Removing Signs Type II	EACH	4.000	4.000
0098	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0100	642.5001	Field Office Type B	EACH	0.470	0.470
0102	643.0420	Traffic Control Barricades Type III	DAY	976.000	976.000
0104	643.0705	Traffic Control Warning Lights Type A	DAY	1,220.000	1,220.000
0106	643.0900	Traffic Control Signs	DAY	976.000	976.000
0108	643.5000	Traffic Control	EACH	0.470	0.470
0110	645.0111	Geotextile Type DF Schedule A	SY	88.000	88.000
0112	645.0120	Geotextile Type HR	SY	245.000	245.000
0114	650.4500	Construction Staking Subgrade	LF	157.000	157.000
0116	650.5000	Construction Staking Base	LF	157.000	157.000

Estimate Of Quantities By Plan Sets

6952-01-71					
Line	Item	Item Description	Unit	Total	Qty
0120	650.6501	Construction Staking Structure Layout (structure) 01. B-71-0206	EACH	1.000	1.000
0124	650.9911	Construction Staking Supplemental Control (project) 01. 6952-01-71	EACH	1.000	1.000
0126	650.9920	Construction Staking Slope Stakes	LF	157.000	157.000
0128	690.0150	Sawing Asphalt	LF	44.000	44.000
0130	715.0502	Incentive Strength Concrete Structures	DOL	3,840.000	3,840.000
0134	999.2005.S	Maintaining Bird Deterrent System (station) 02. 10+00	EACH	1.000	1.000
0136	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0138	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000

EXCAVATION COMMON

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	208.0100 BORROW	
			CUT (2)				FACTOR 1.25			
MAINLINE	9+00 - 11+00	STADT RD	158	61	97	133	166	-69	69	
TOTAL COMMON EXCAVATION			158	TOTAL =						69

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.42
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

GRUBBING

201.0205				
STATION	TO	STATION	LOCATION	STA
9+00	-	9+73	STADT RD, SOUTH	1
10+16	-	11+00	STADT RD, NORTH	1
TOTAL 0010				2

BASE AGGREGATE DENSE

				305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL
STATION	TO	STATION	LOCATION			
9+00	-	9+74	STADT RD, LT & RT	10	153	2
10+16	-	11+00	STADT RD, LT & RT	10	187	2
TOTAL 0010				20	340	4

ASPHALTIC SURFACE

				455.0605 TACK COAT GAL	465.0105 TON
STATION	TO	STATION	LOCATION		
9+00	-	9+74	STADT RD, SOUTH	14	45
10+16	-	11+00	STADT RD, NORTH	16	51
TOTAL 0010				30	96

MOBILIZATIONS EROSION CONTROL

		628.1905 EACH	628.1910 EMERGENCY EACH
LOCATION			
STADT ROAD		5	2
TOTAL 0010		5	2

TURBIDITY BARRIERS

		628.6005 SY
STATION	LOCATION	
9+90	STADT RD	95
10+03	STADT RD	100
TOTAL 0010		195

TEMPORARY DITCH CHECKS

		628.7504
STATION	LOCATION	LF
9+50	STADT RD, RT	5
9+71	STADT RD, LT	5
10+21	STADT RD, RT	10
10+38	STADT RD, LT	10
TOTAL 0010		30

SIGNING

		634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
STATION	LOCATION					
9+66	STADT RD, LT	1	3	-	-	W5-52L
9+77	STADT RD, RT	1	3	-	-	W5-52R
9+84	STADT RD, LT & RT	-	-	2	2	W5-52L & W5-52R
10+10	STADT RD, RT	1	3	-	-	W5-52R
10+16	STADT RD, LT & RT	-	-	2	2	W5-52L & W5-52R
10+23	STADT RD, LT	1	3	-	-	W5-52L
TOTAL 0010		4	12	4	4	

CONSTRUCTION STAKING

		650.4500	650.5000	650.6501.01 STRUCTURE LAYOUT (STRUCTURE) (01. B-71- 0206) EACH	650.9911.01 SUPPLEMENTAL CONTROL (PROJECT) (01. 6952-01-71) EACH	650.9920 SLOPE STAKES LF
CATEGORY	STATION	TO	STATION	LOCATION	SUBGRADE LF	BASE LF
0010	9+00	-	9+73	STADT RD	73	73
0010	10+16	-	11+00	STADT RD	84	84
0020		10+00		STADT RD	-	-
0010		PROJECT		STADT RD	-	-
TOTAL					157	157

LANDSCAPING

		625.0100	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
STATION	TO	STATION	LOCATION	TOPSOIL SY			
9+00	-	9+74	STADT RD, LT & RT	305	305	0.2	10
10+16	-	11+00	STADT RD, LT & RT	335	335	0.2	10
TOTAL 0010				640	640	0.4	20

SILT FENCE

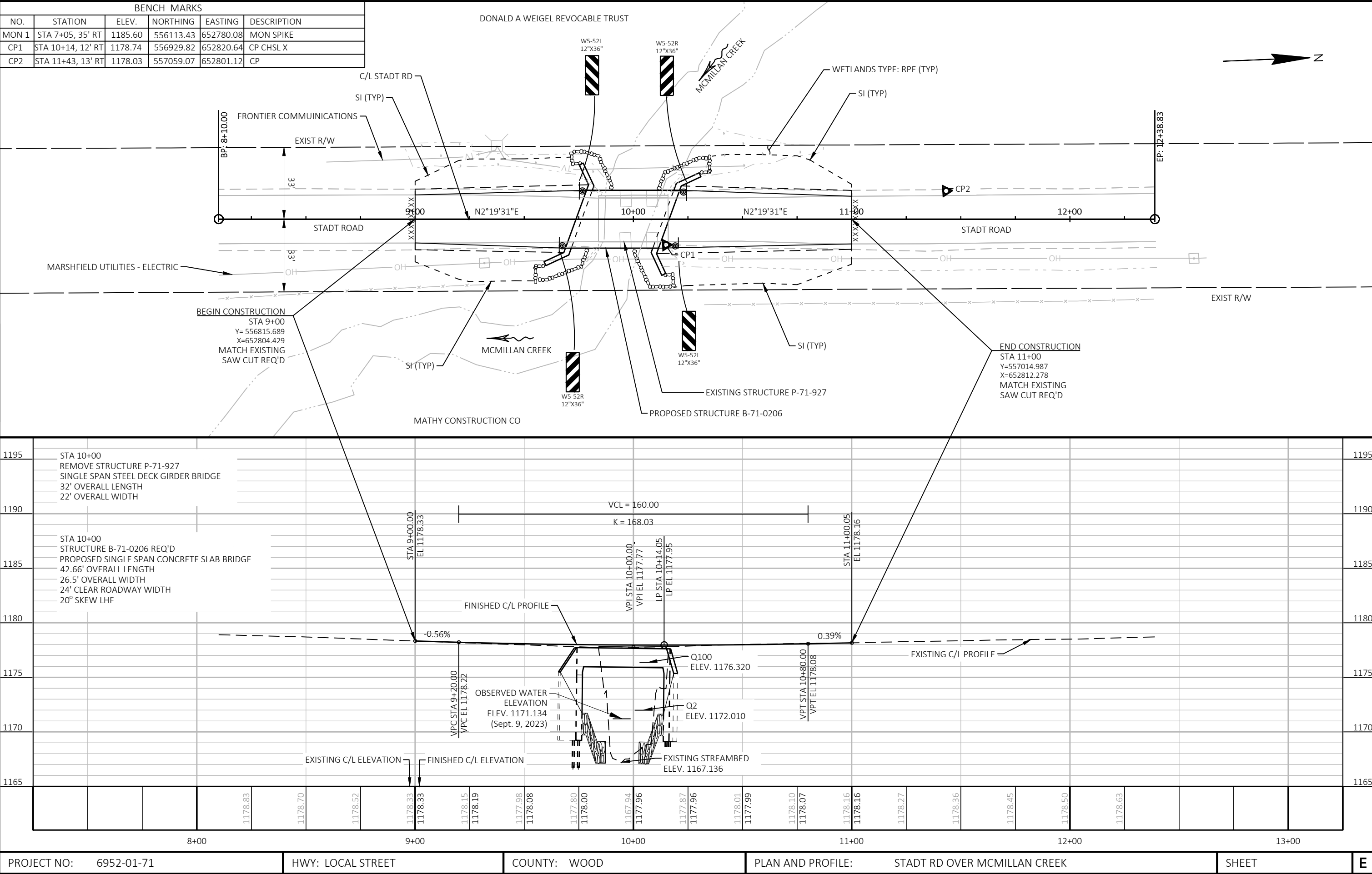
		628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
STATION	TO	STATION	LOCATION
8+85	-	9+75	STADT RD, RT
8+85	-	9+92	STADT RD, LT
10+00	-	11+15	STADT RD, RT
10+25	-	11+15	STADT RD, LT
TOTAL 0010		450	450

TRAFFIC CONTROL

		643.0420	643.0705	643.0900	643.5000 TRAFFIC CONTROL EACH	REMARKS
PROJECT	BARRICADES TYPE III EACH	DAY	WARNING LIGHTS TYPE A EACH	DAY	SIGNS EACH	
6952-01-71	16	976	20	1,220	16	61 DAYS
TOTAL 0010		976		1,220	976	1

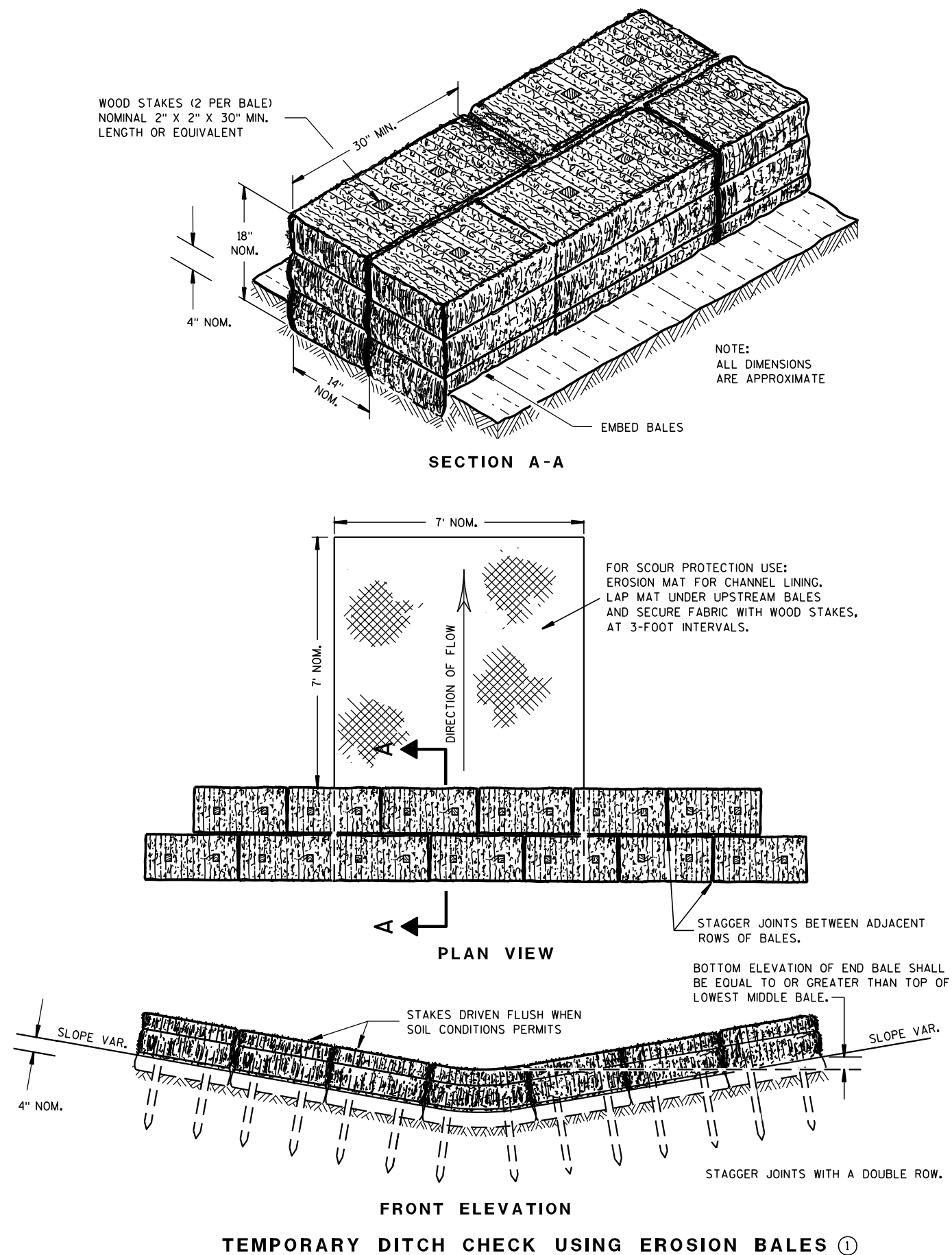
SAWING ASPHALT

		690.0150
STATION	LOCATION	LF
9+00	STADT RD	22
11+00	STADT RD	22
TOTAL 0010		44



Standard Detail Drawing List

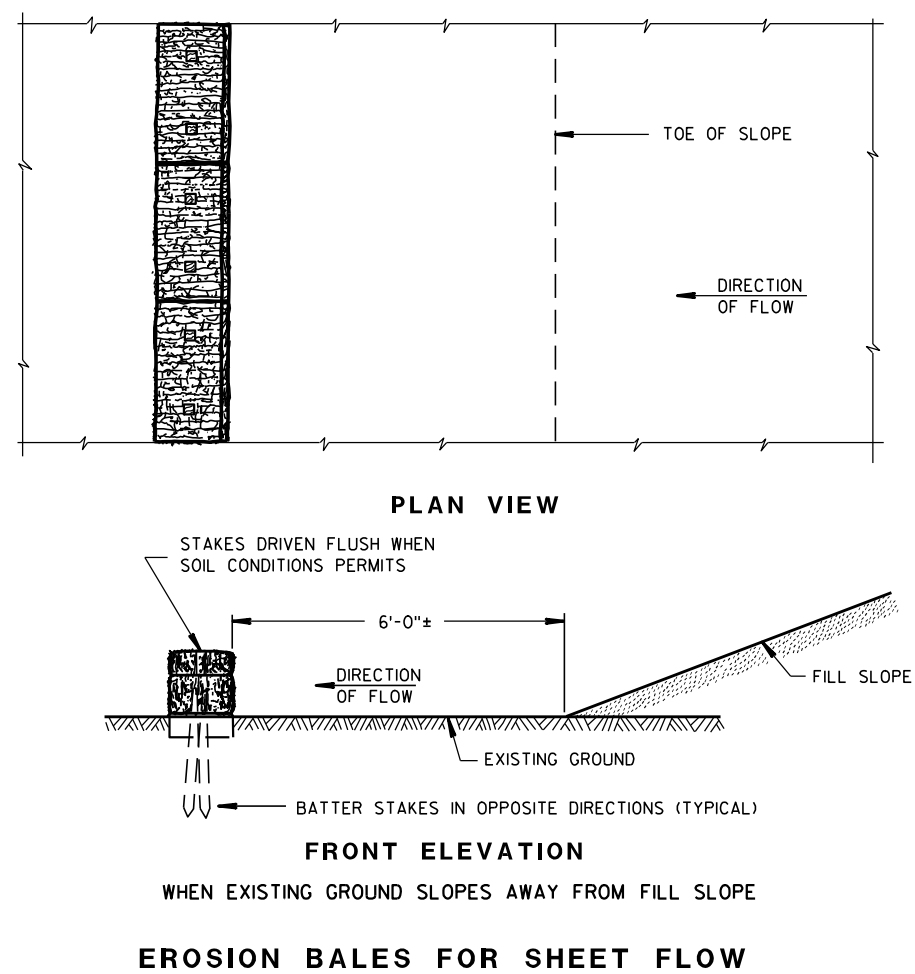
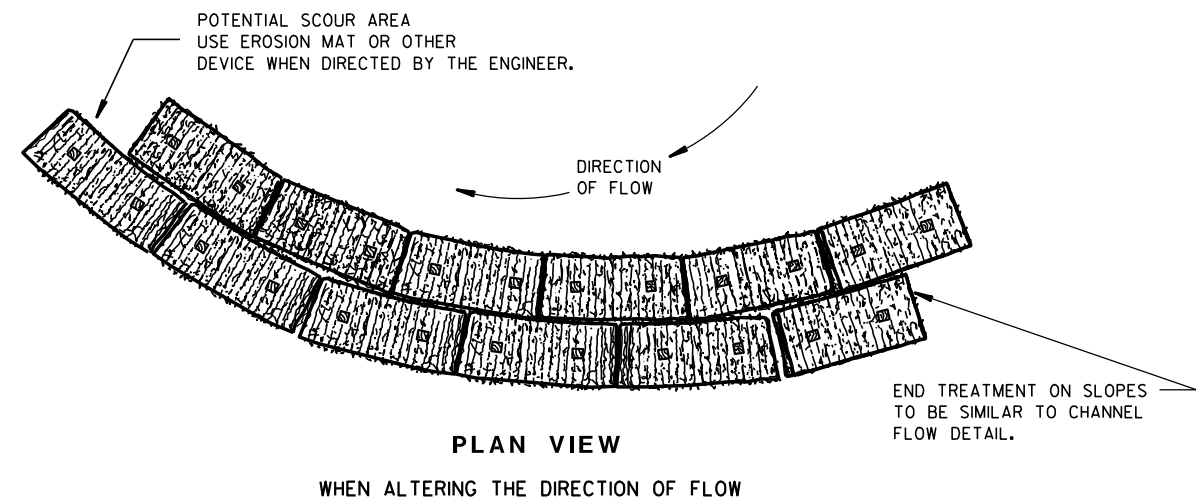
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

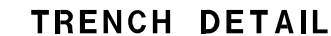
6/04/02
DATE

FHWA

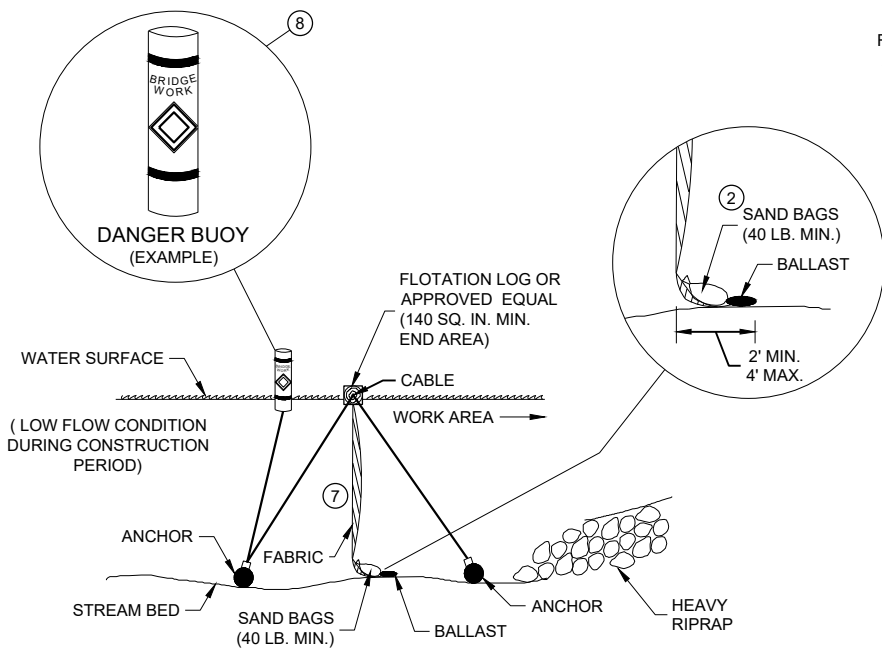
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



- 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.

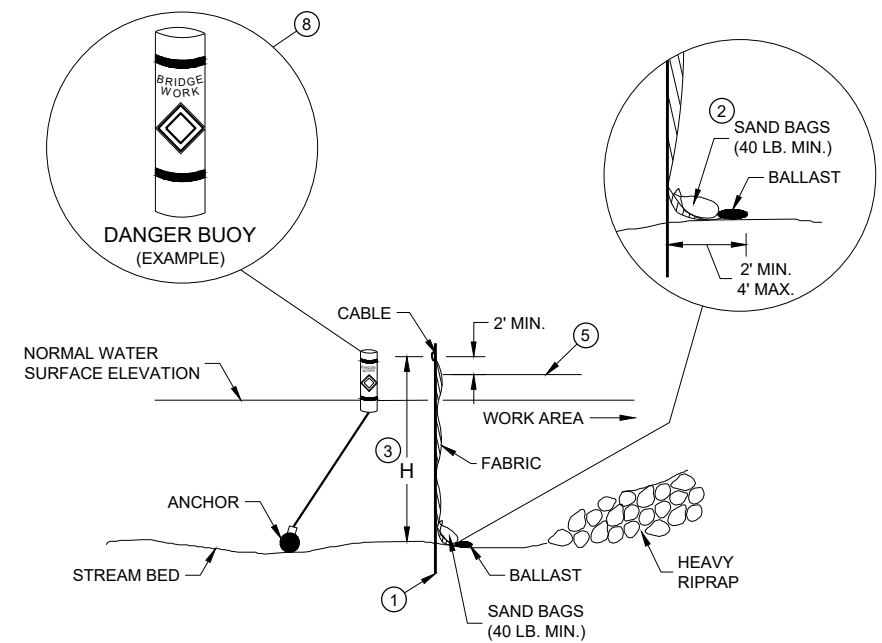


<div>SILT FENCE</div>	
<div>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</div>	
<div>APPROVED</div>	
<div>4-29-05</div>	<div>/S/ Beth Cannestra</div>
<div>DATE</div>	<div>CHIEF ROADWAY DEVELOPMENT ENGINEER</div>
<div>FHWA</div>	



SECTION B - B

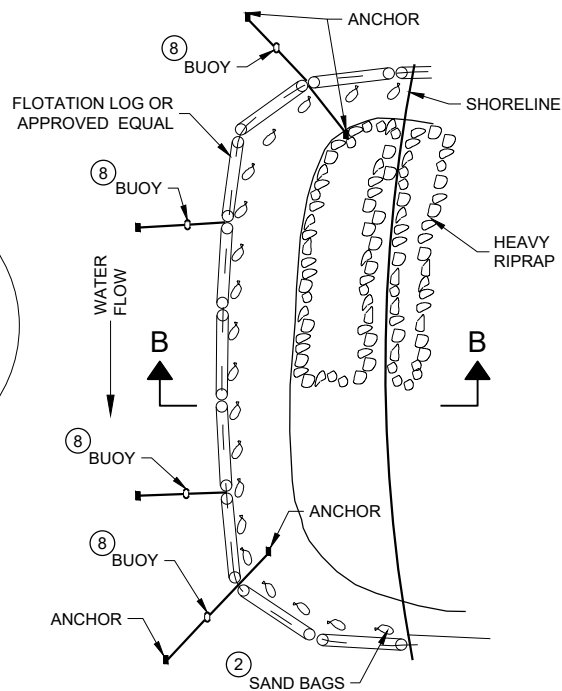
TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



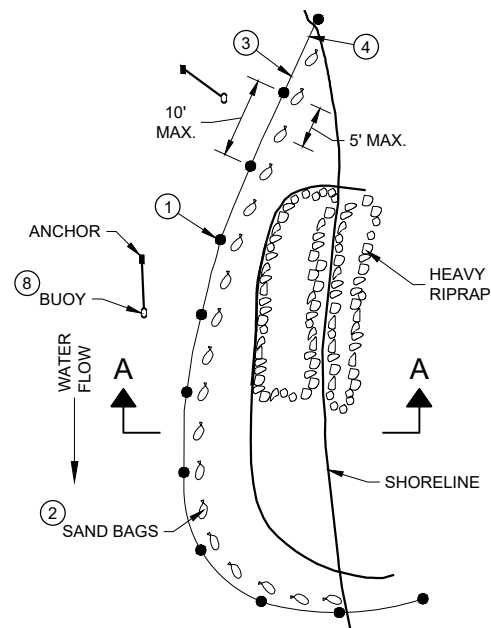
SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS



PLAN VIEW



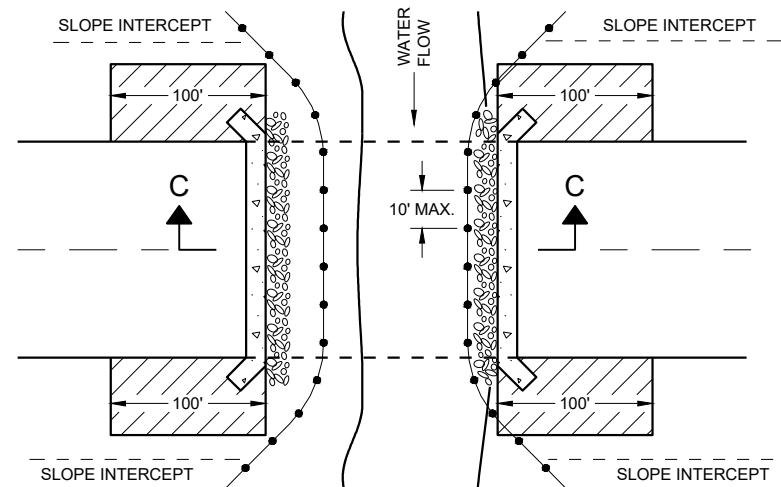
PLAN VIEW

GENERAL NOTES

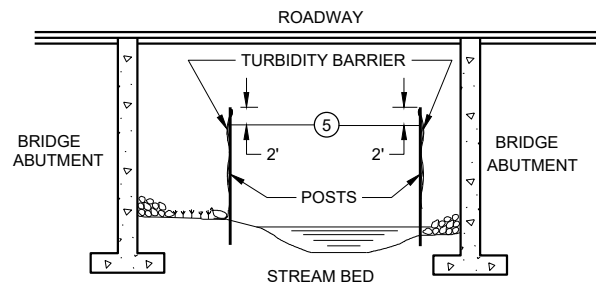
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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



PLAN VIEW



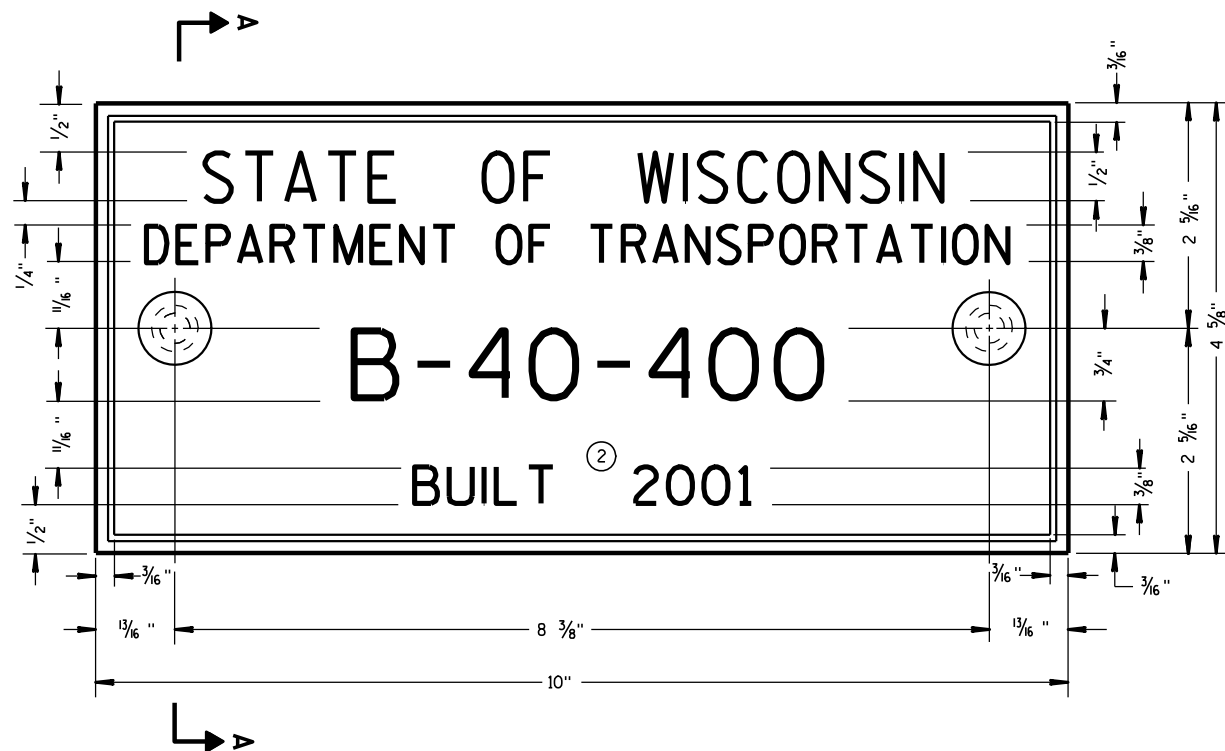
SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING
TYPICAL PLACEMENT AT STRUCTURES

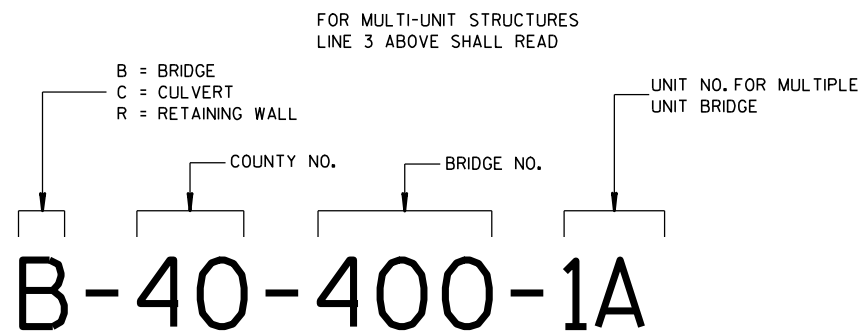
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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



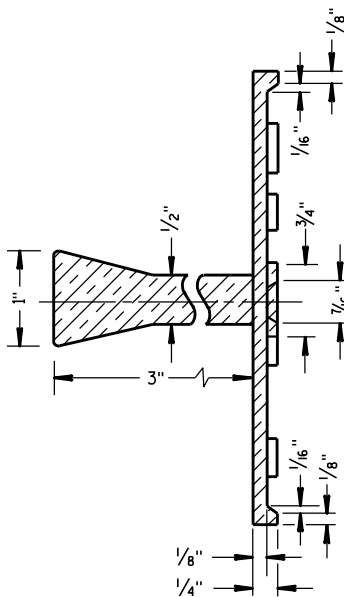
NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

GENERAL NOTES

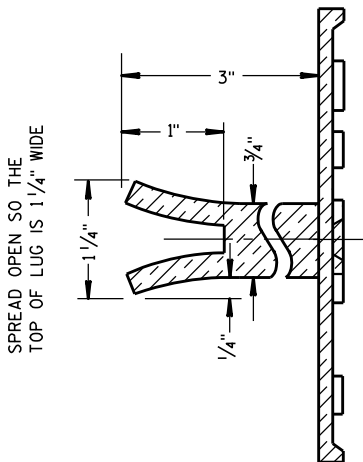
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

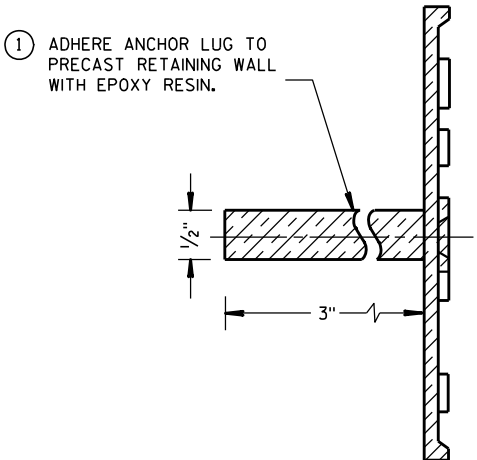
- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A

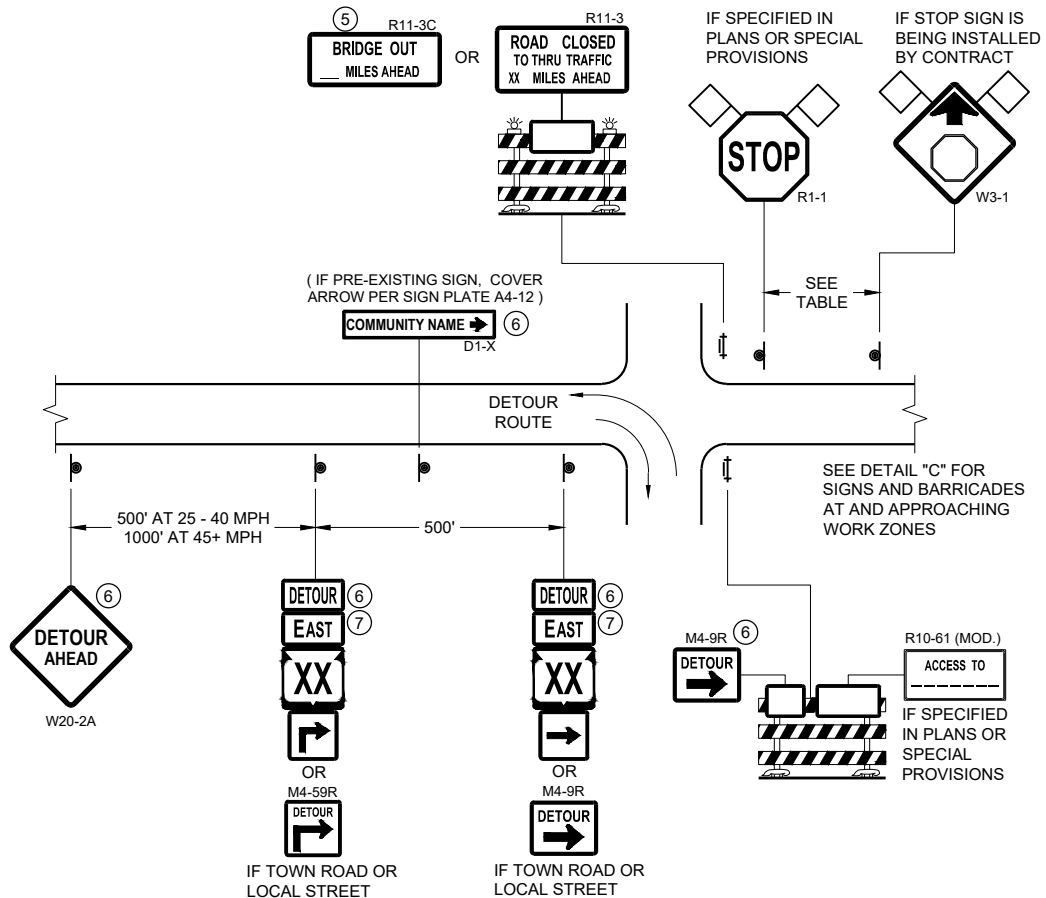


ALTERNATE LUG

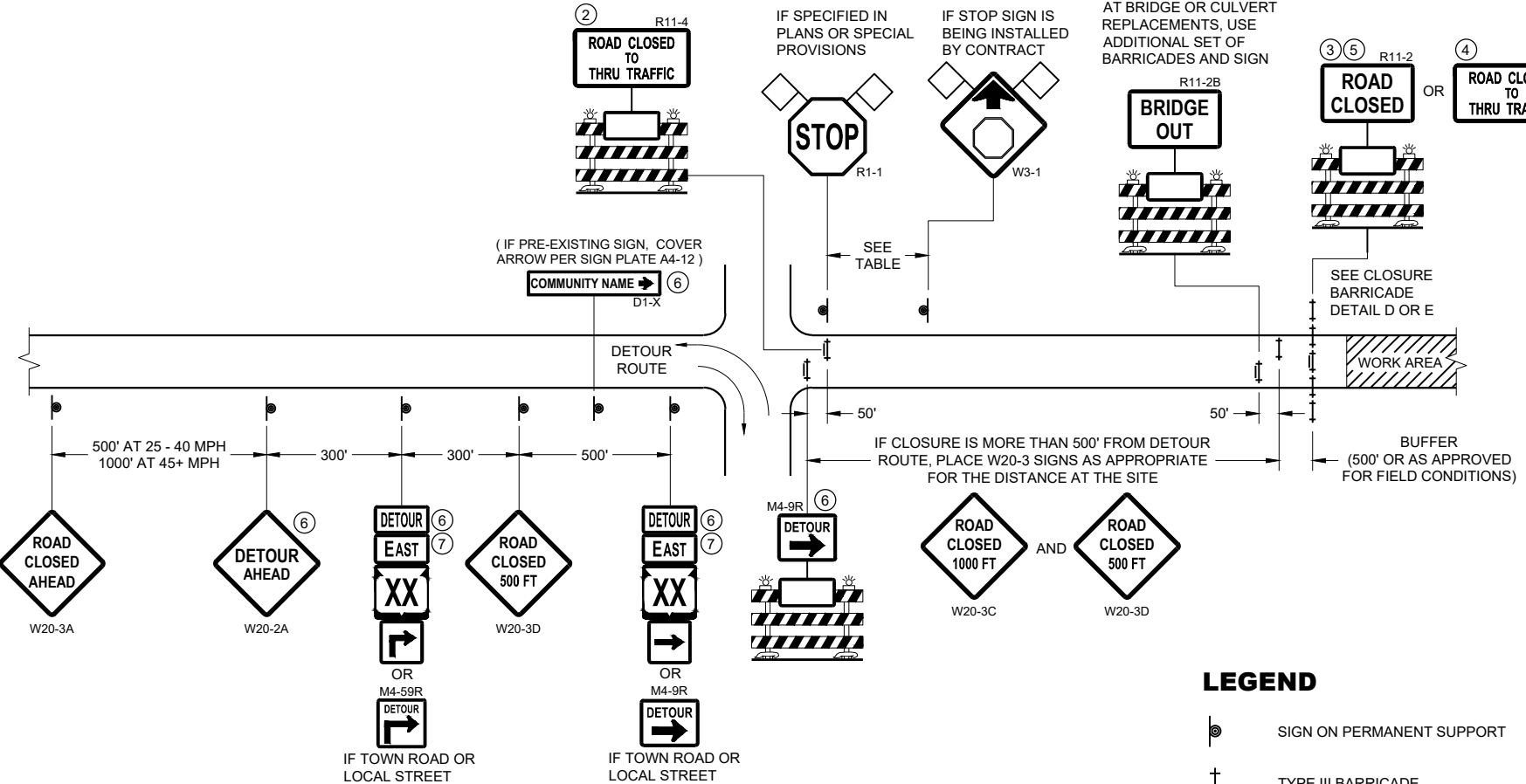


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

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



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



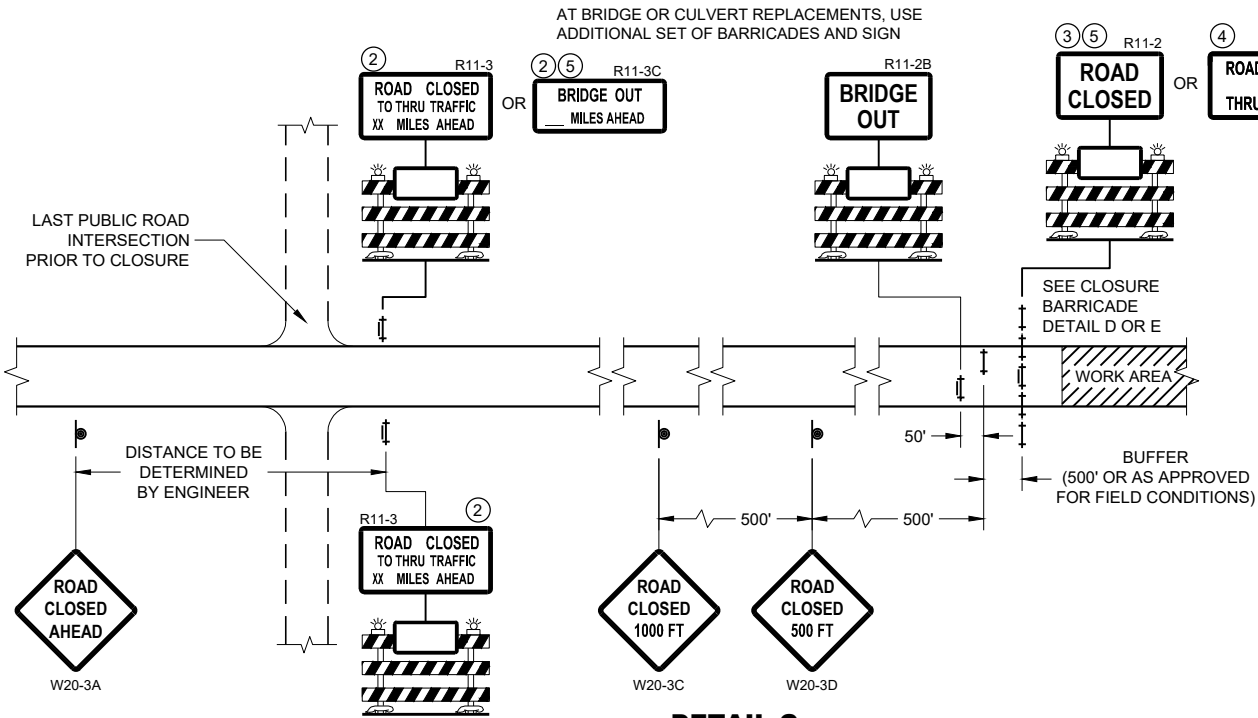
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

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

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

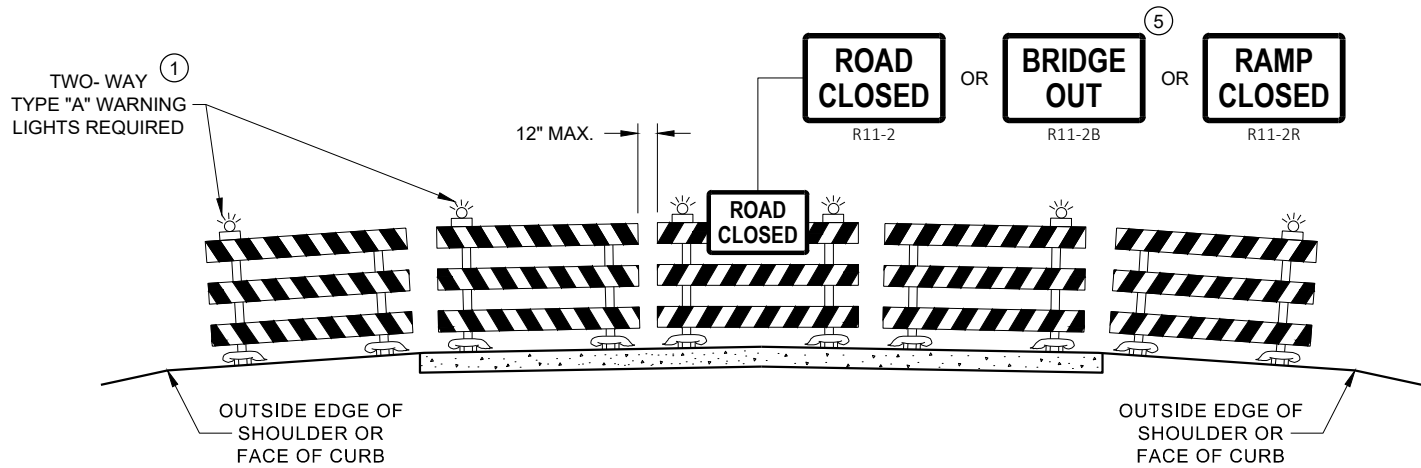


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

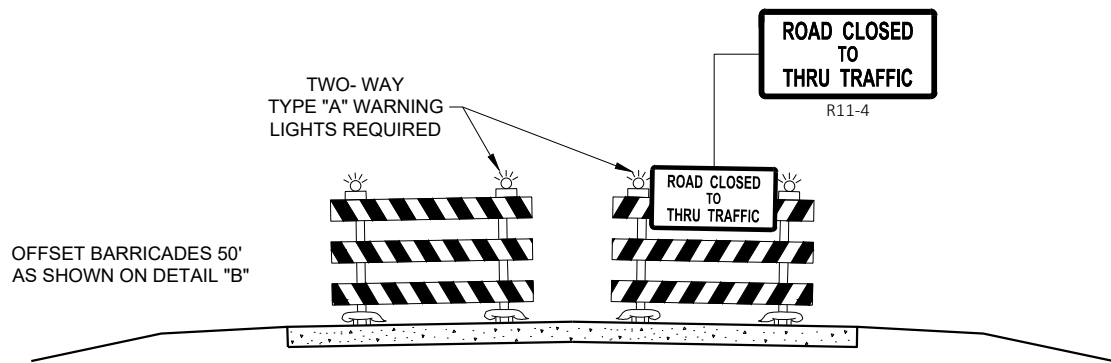
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

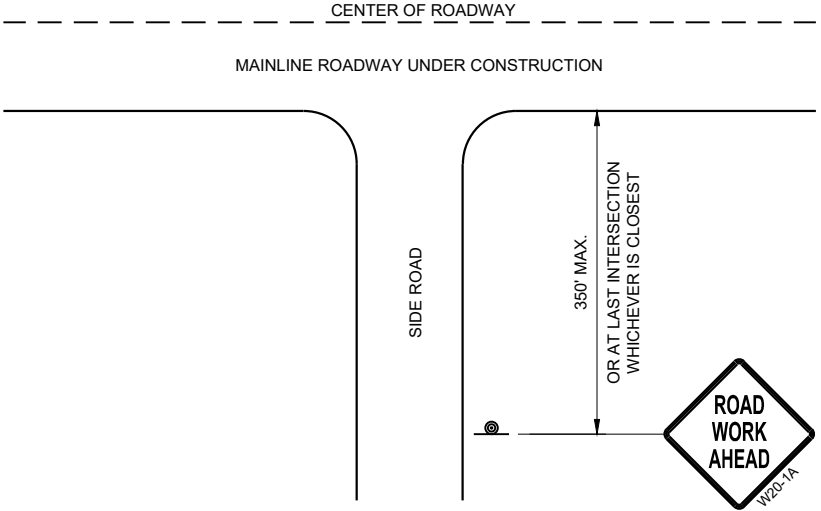
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

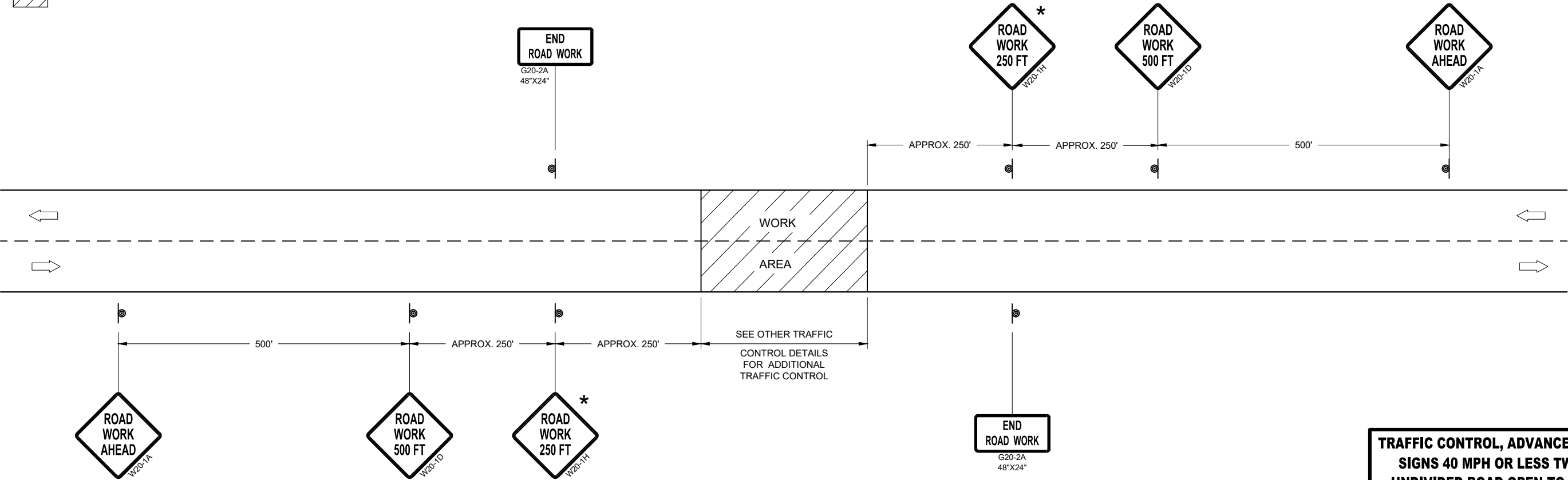
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

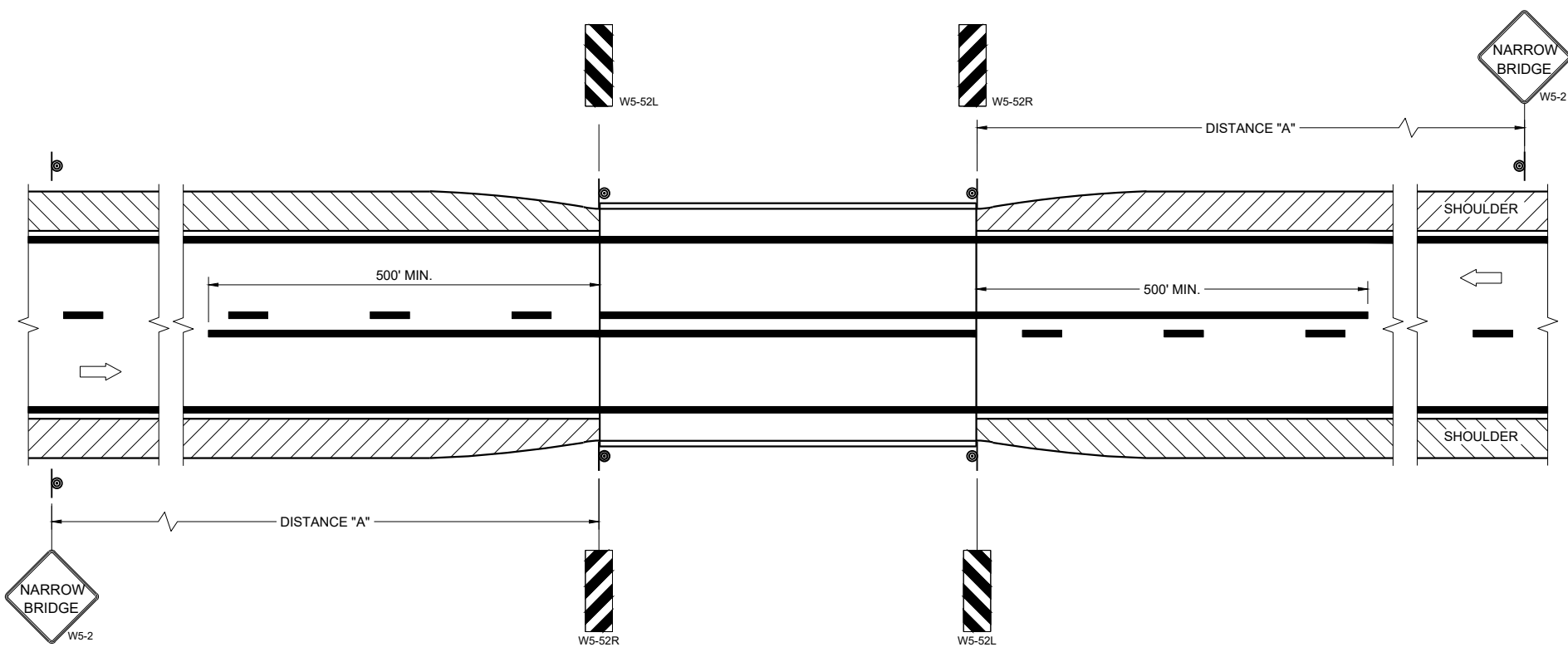


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

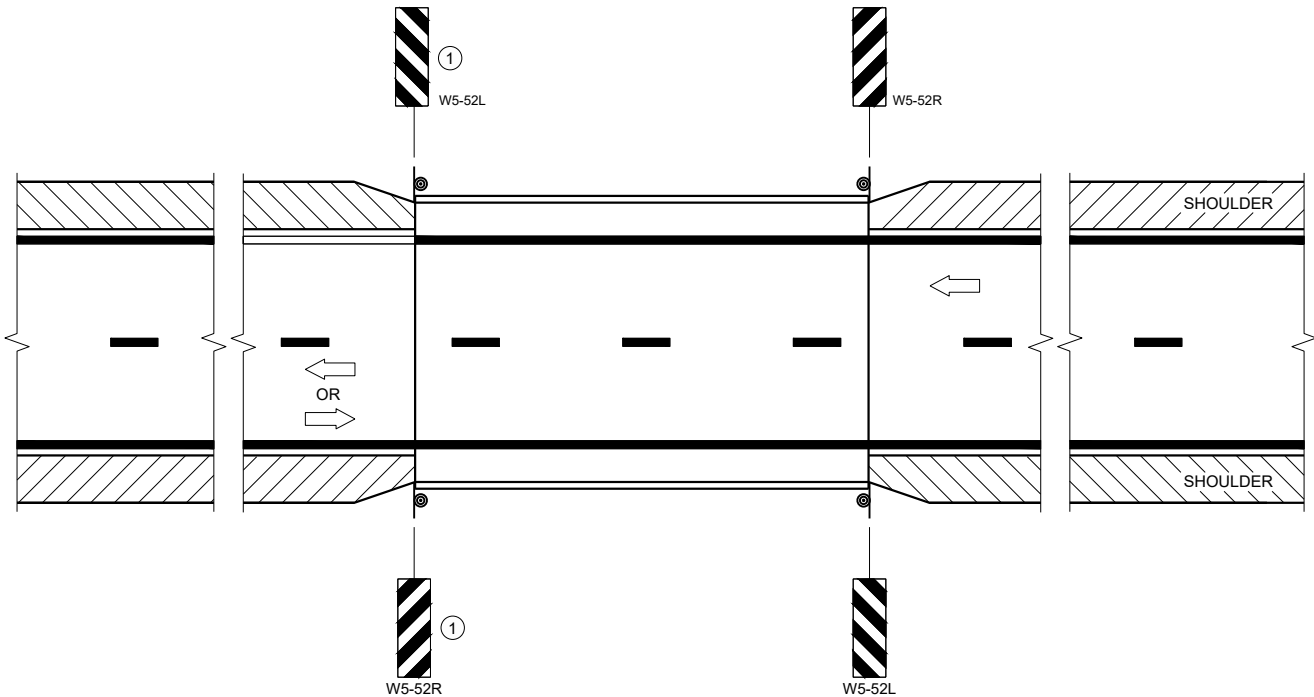
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SITUATION 1
WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

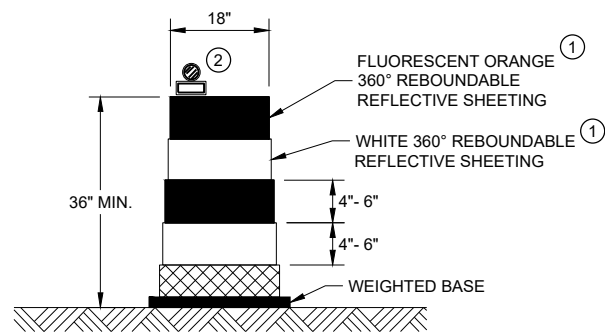
DISTANCE TABLE

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

**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

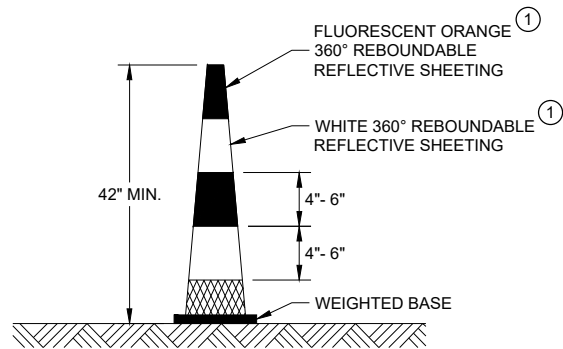
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



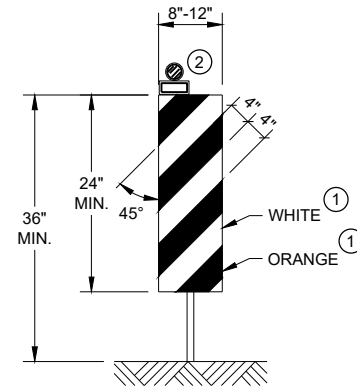
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



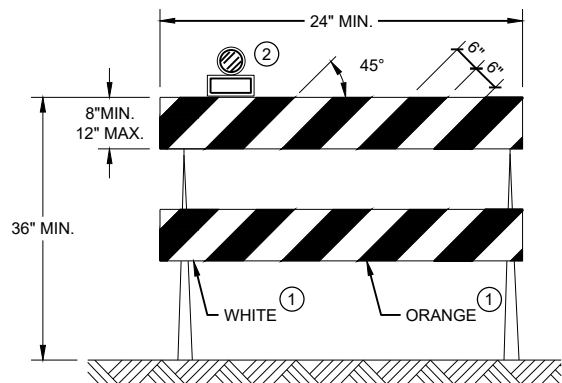
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



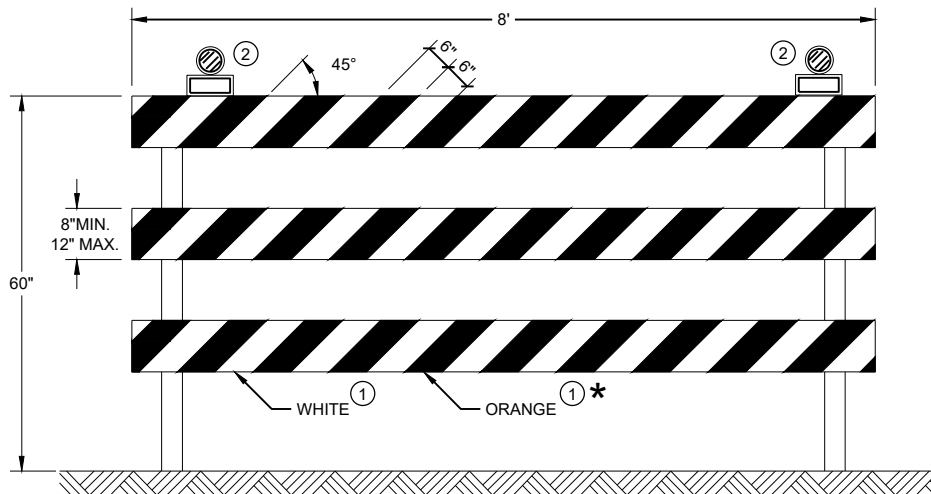
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

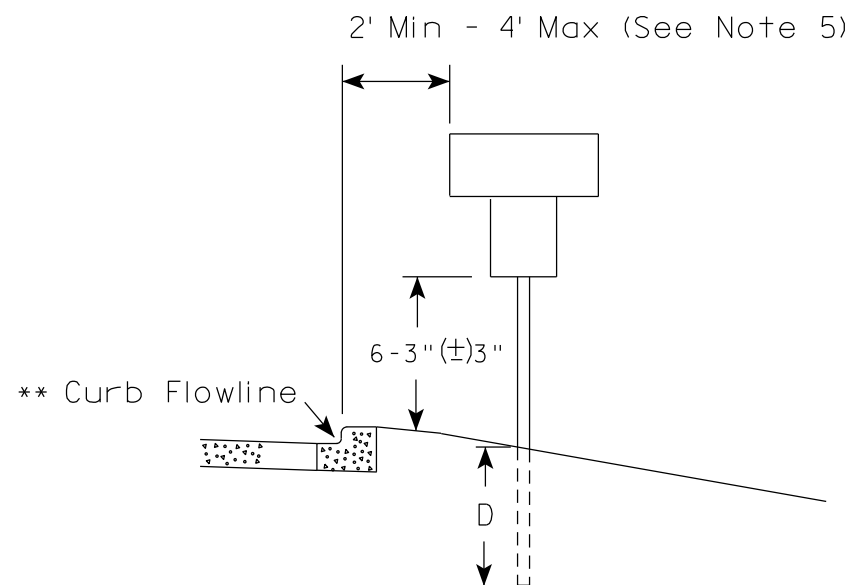
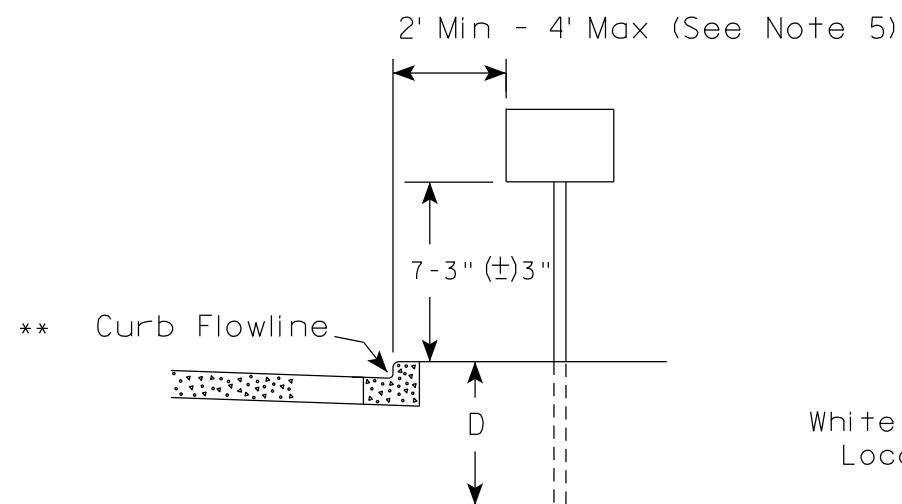
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

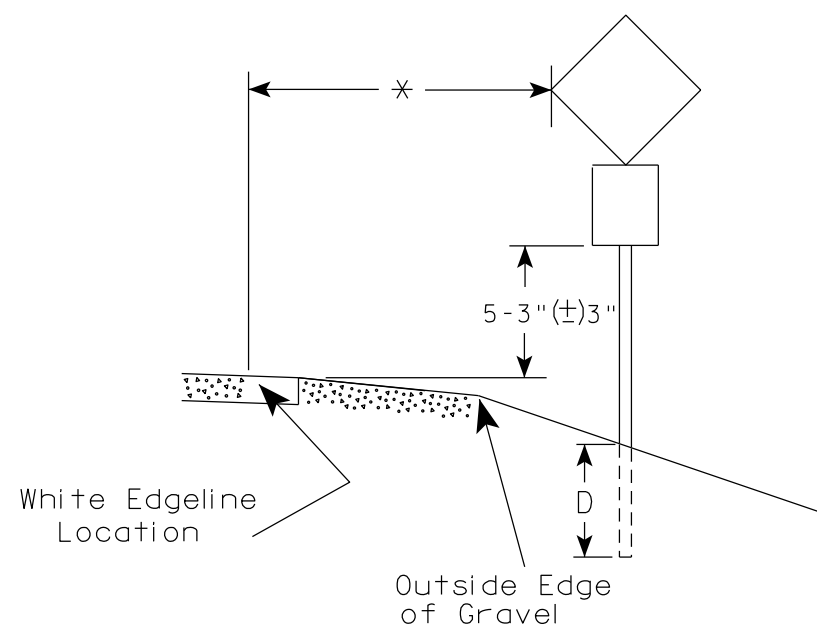
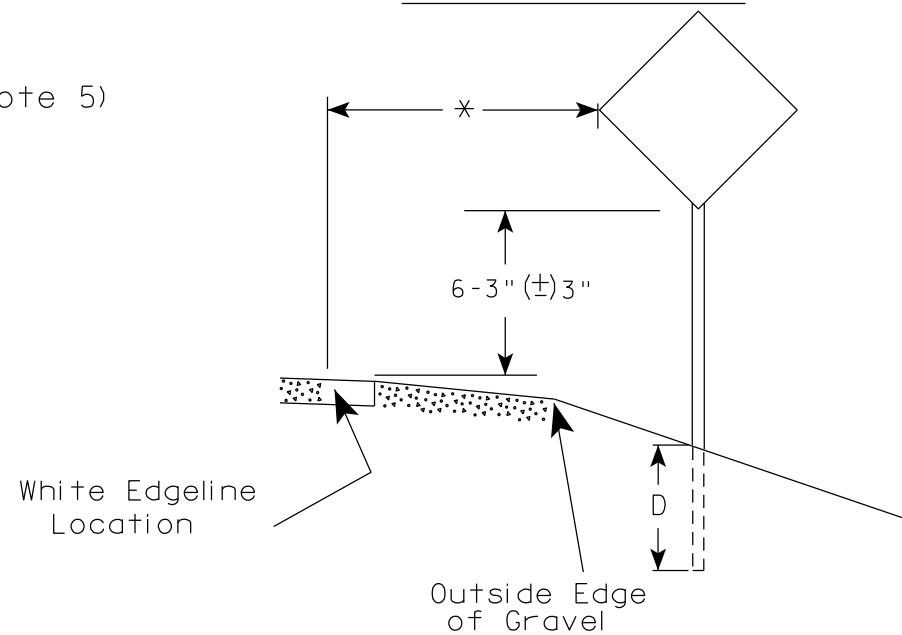
FHWA

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.

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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

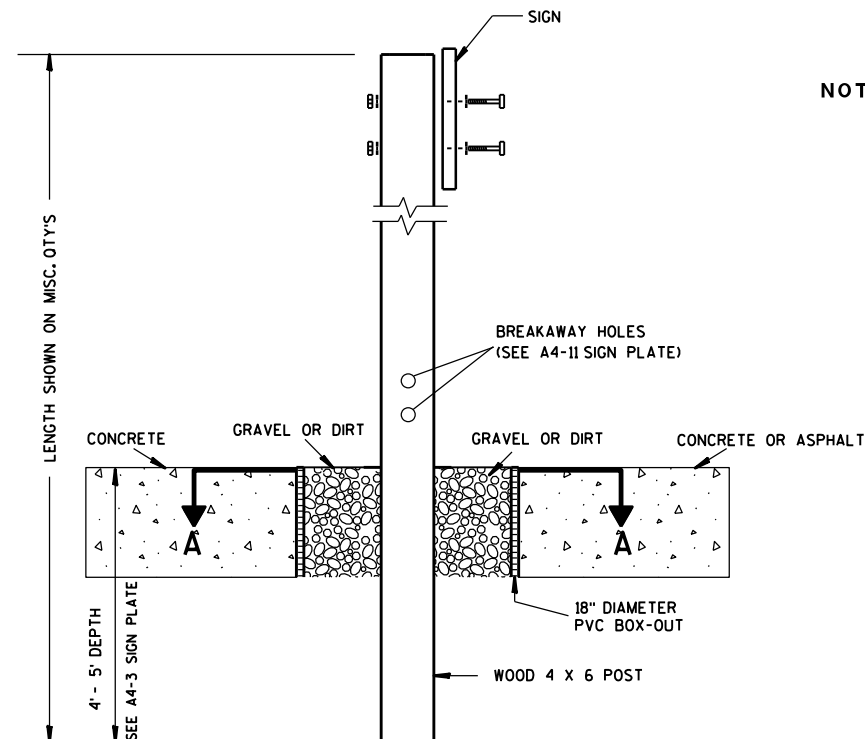
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

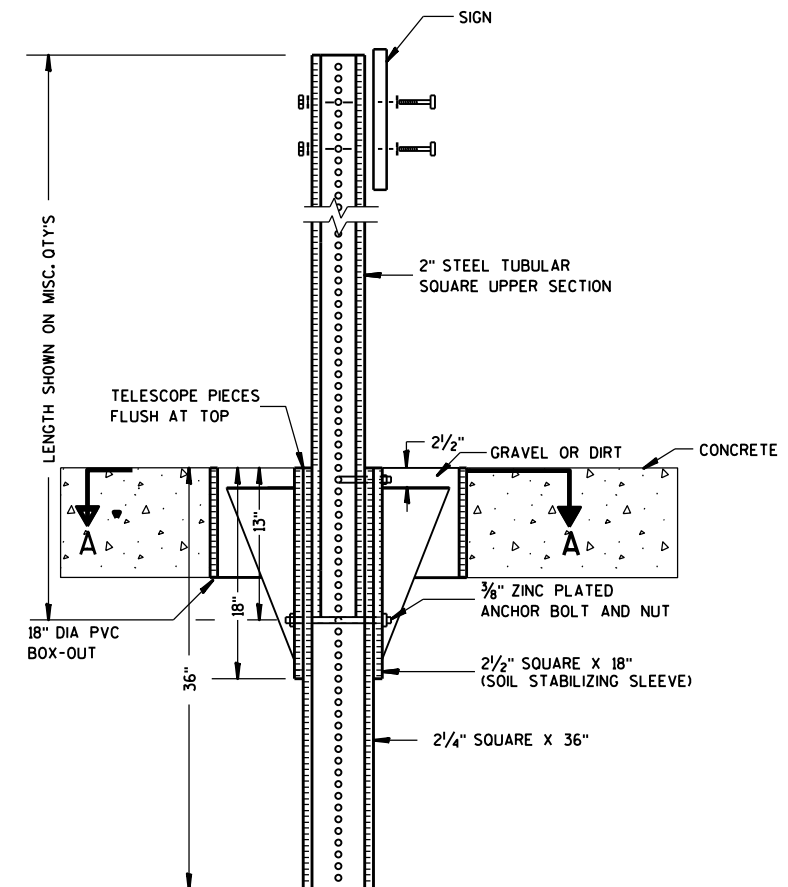
E



ELEVATION VIEW

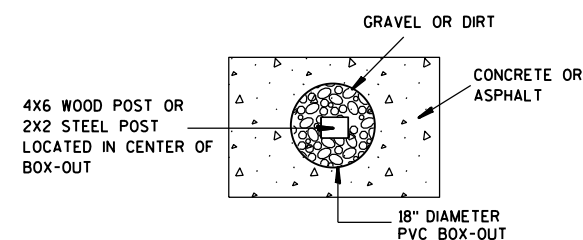
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

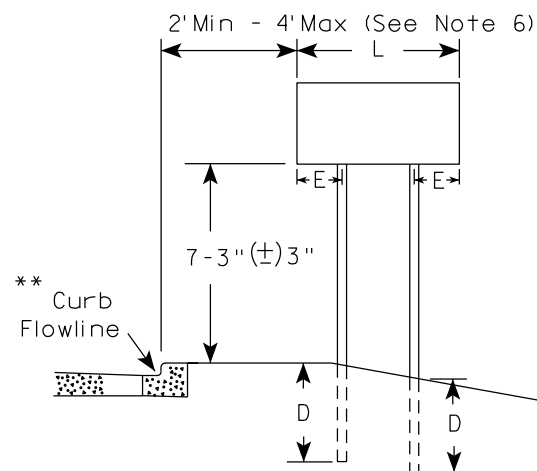
HWY:

COUNTY:

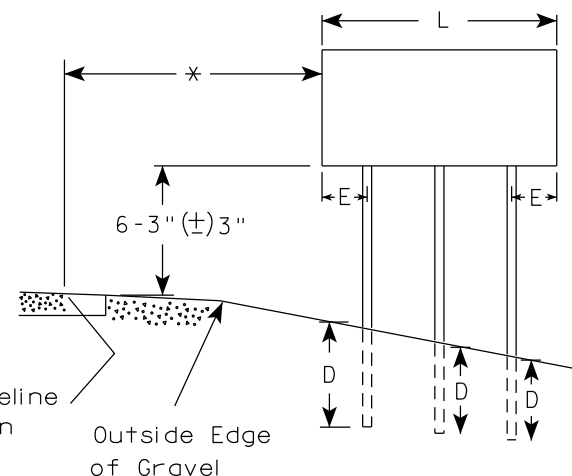
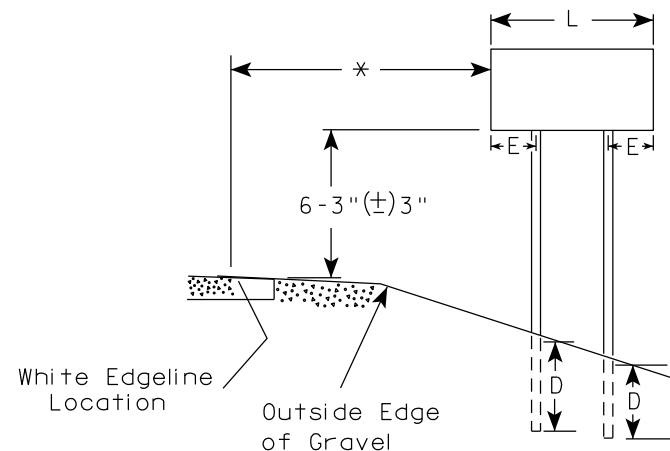
SHEET NO:

E

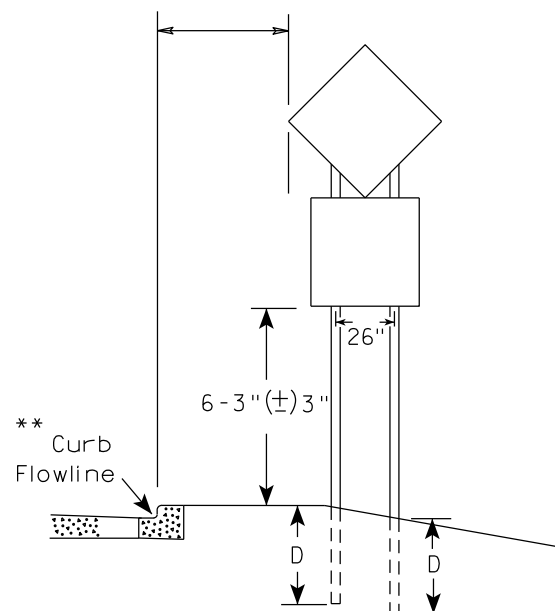
URBAN AREA



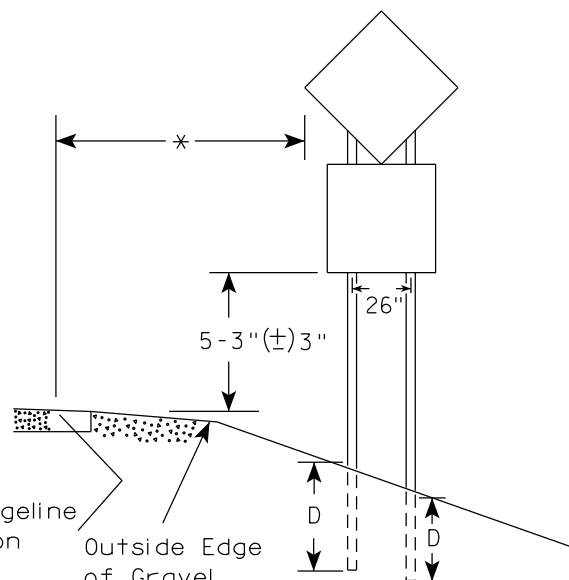
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

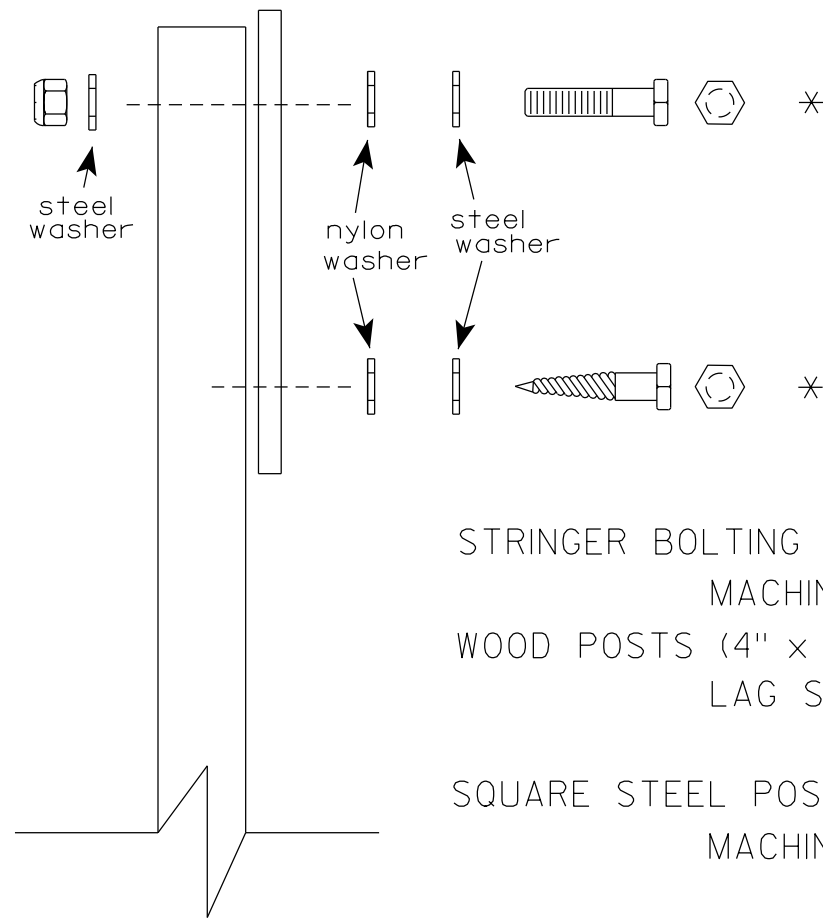
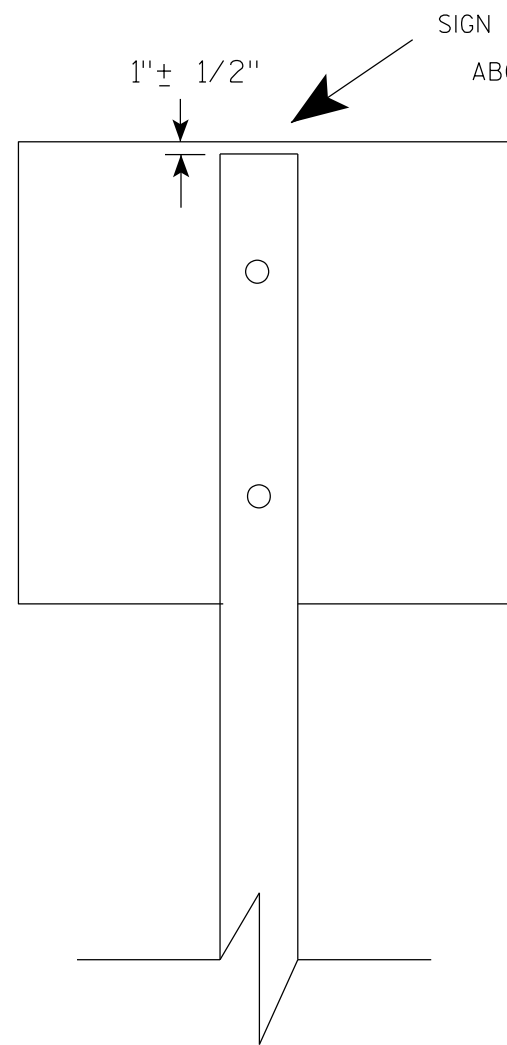
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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**

1"

$\frac{1}{8}"$

ALL HOLES $\frac{7}{16}"$
SPACED 1" C-C
ALL FOUR SIDES

4" x 10" x 10 GA. — 
STEEL PLATE (CUT
AS SHOWN) WELDED
TO ALL FOUR CORNERS
OF TELESPAR TUBE

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

LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 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
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 2" STEEL TUBULAR SQUARE UPPER SECTION
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2 1/2" GRAVEL OR DIRT
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S

SIGN

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

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

TELESCOPE PIECES FLUSH AT TOP

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 $\frac{1}{2}$ " SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 $\frac{1}{4}$ " SQUARE X 36"

36"

18"

12"

A

B

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

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:

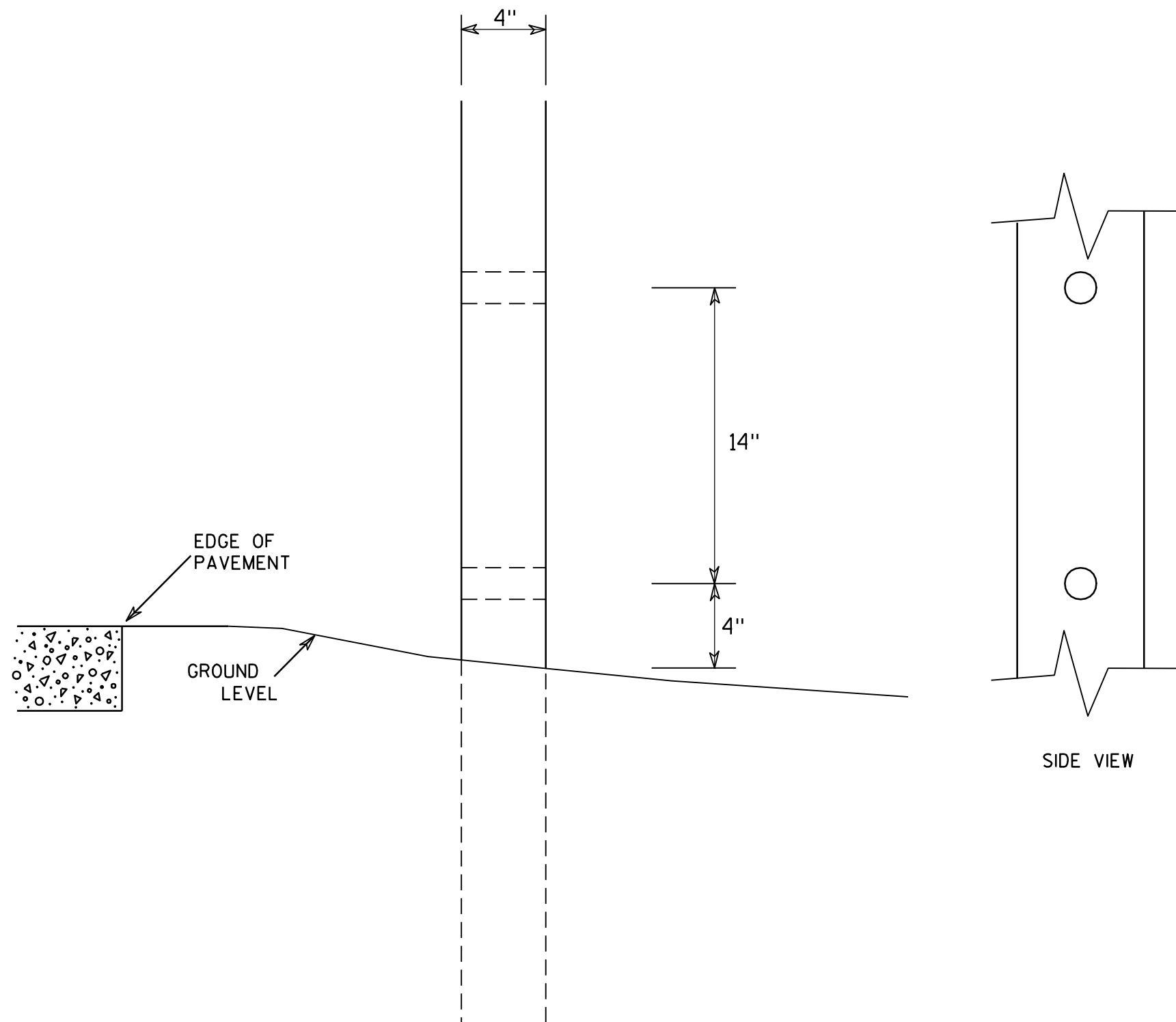
HWY:

COUNTY:

SHEET NO:

E

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:

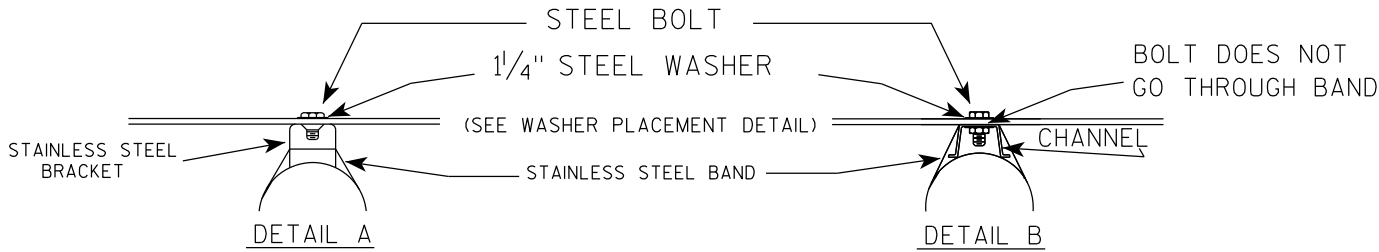
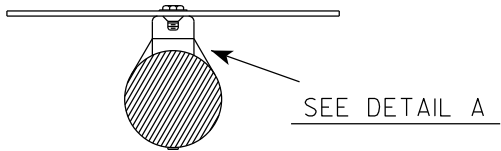
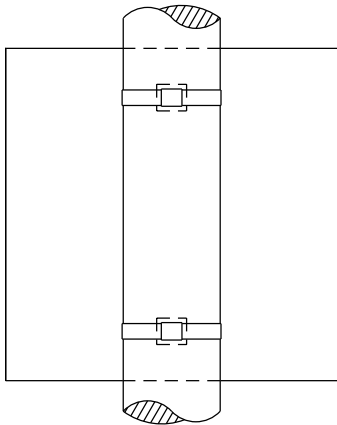
COUNTY:

SHEET NO:

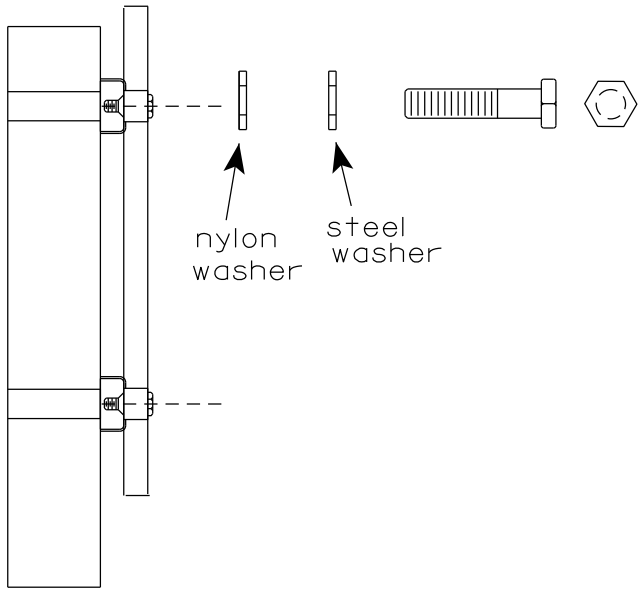
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

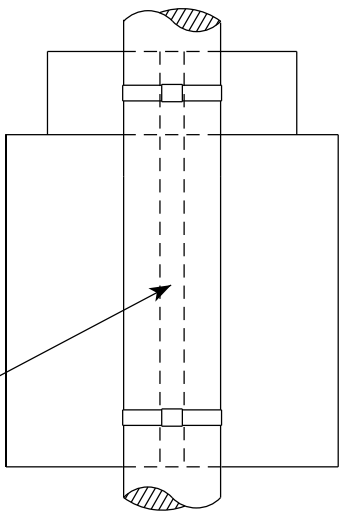


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

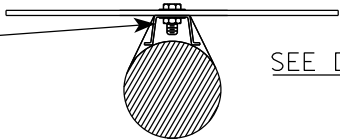
GENERAL NOTES

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

"J" ASSEMBLY



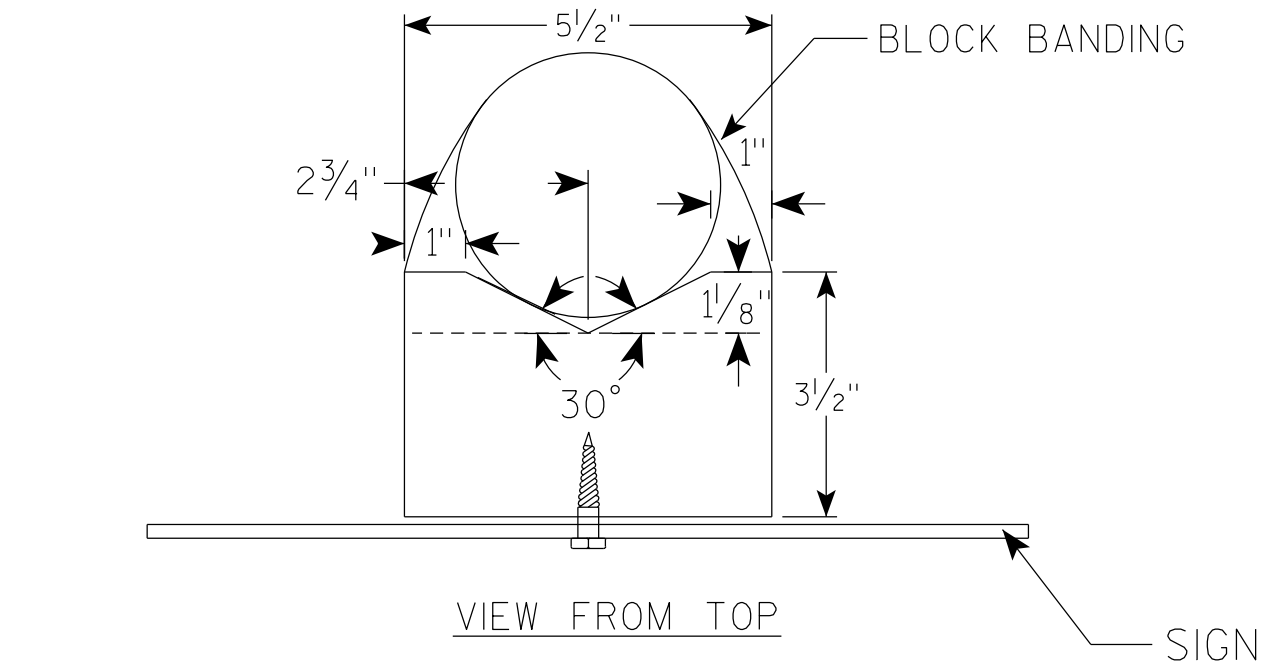
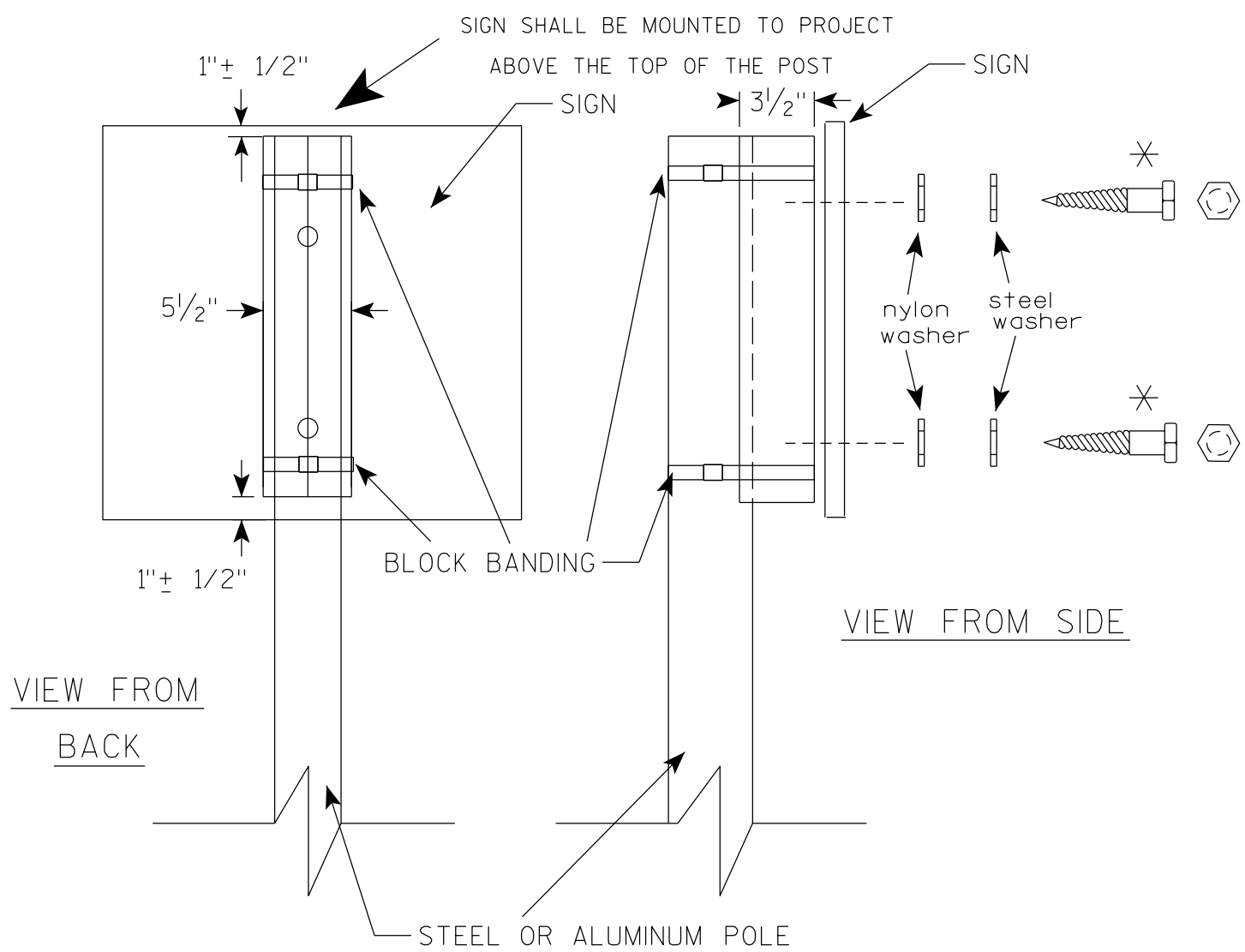
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

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

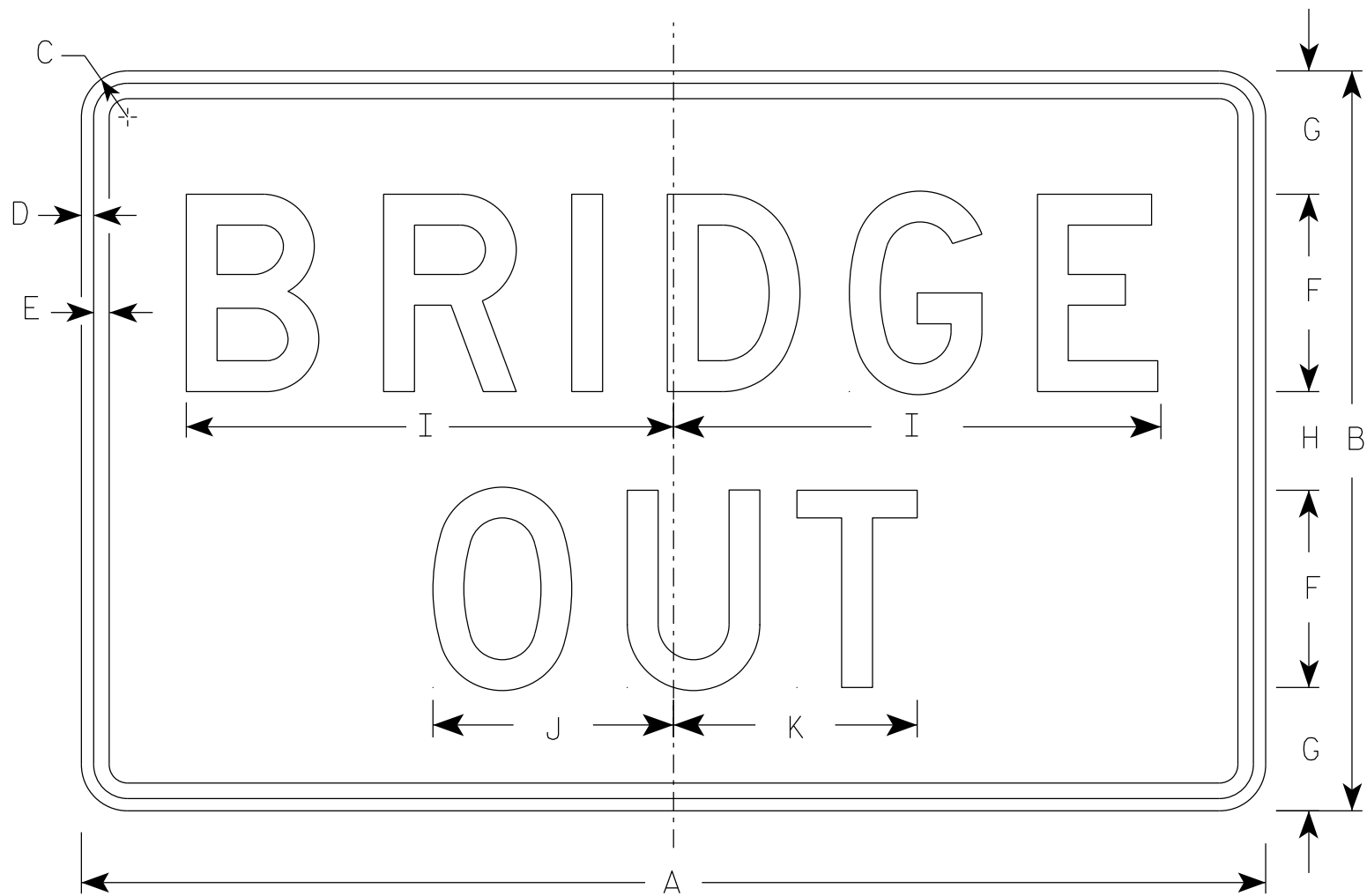


GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " 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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3



R11-2B

NOTES

- 1. Sign is Type II - Type H Reflective
- 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.

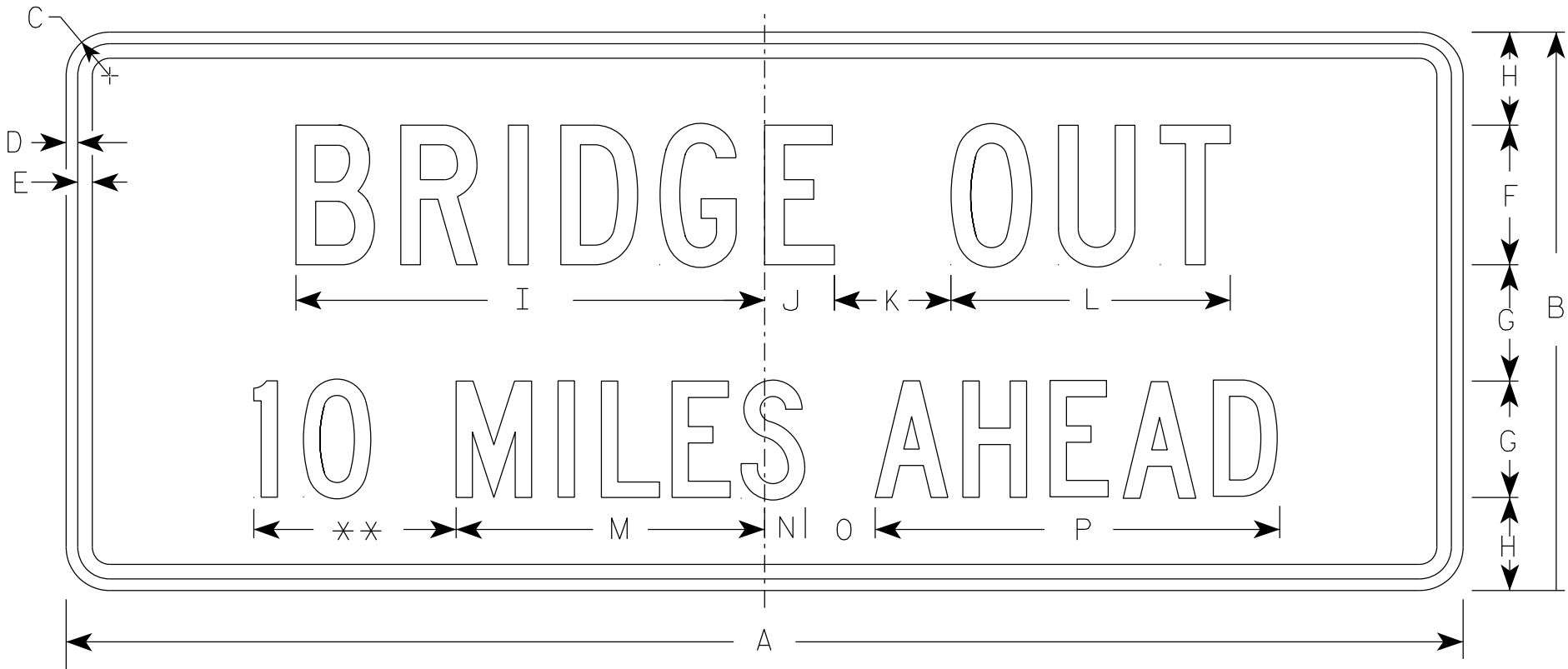
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

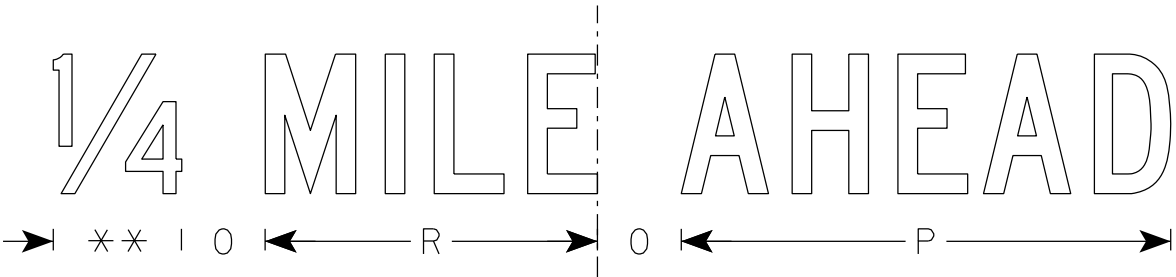
Background - White

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



R11-3C

** See Note 5



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

STANDARD SIGN
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

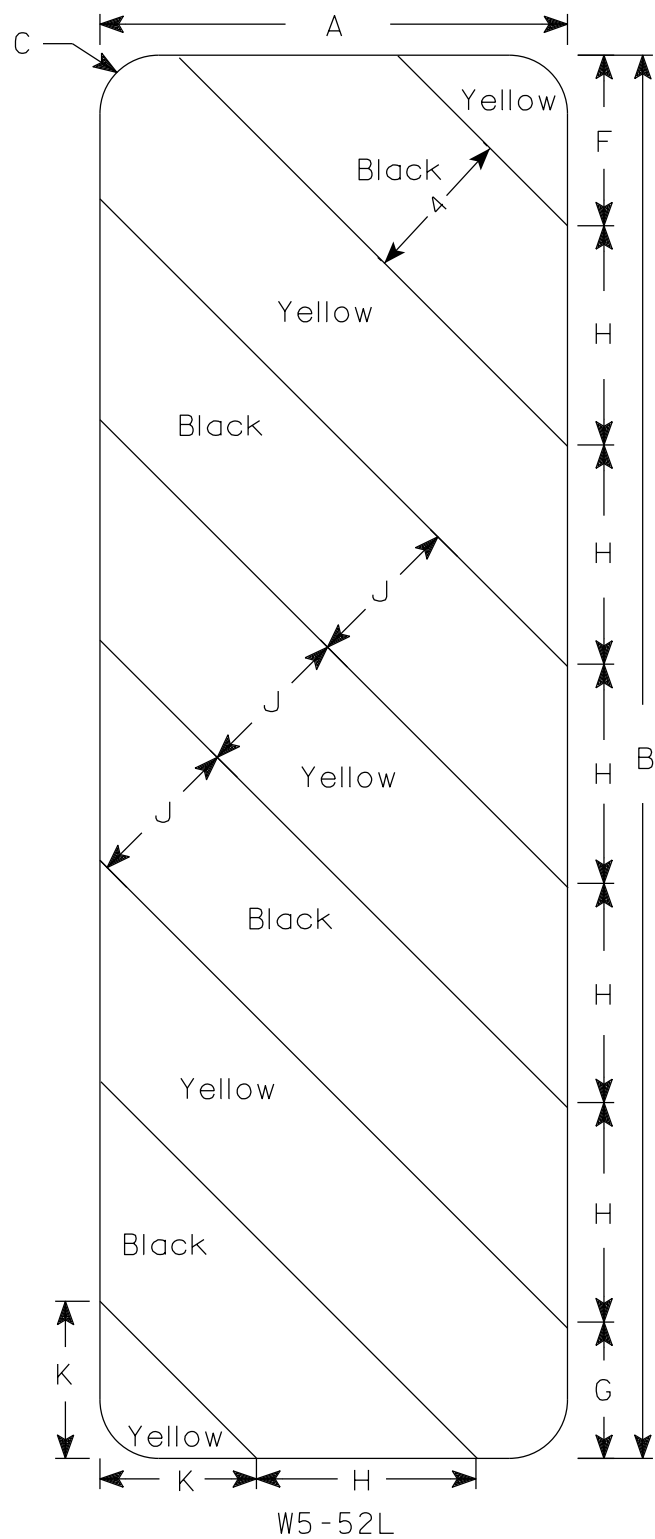
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3C.4

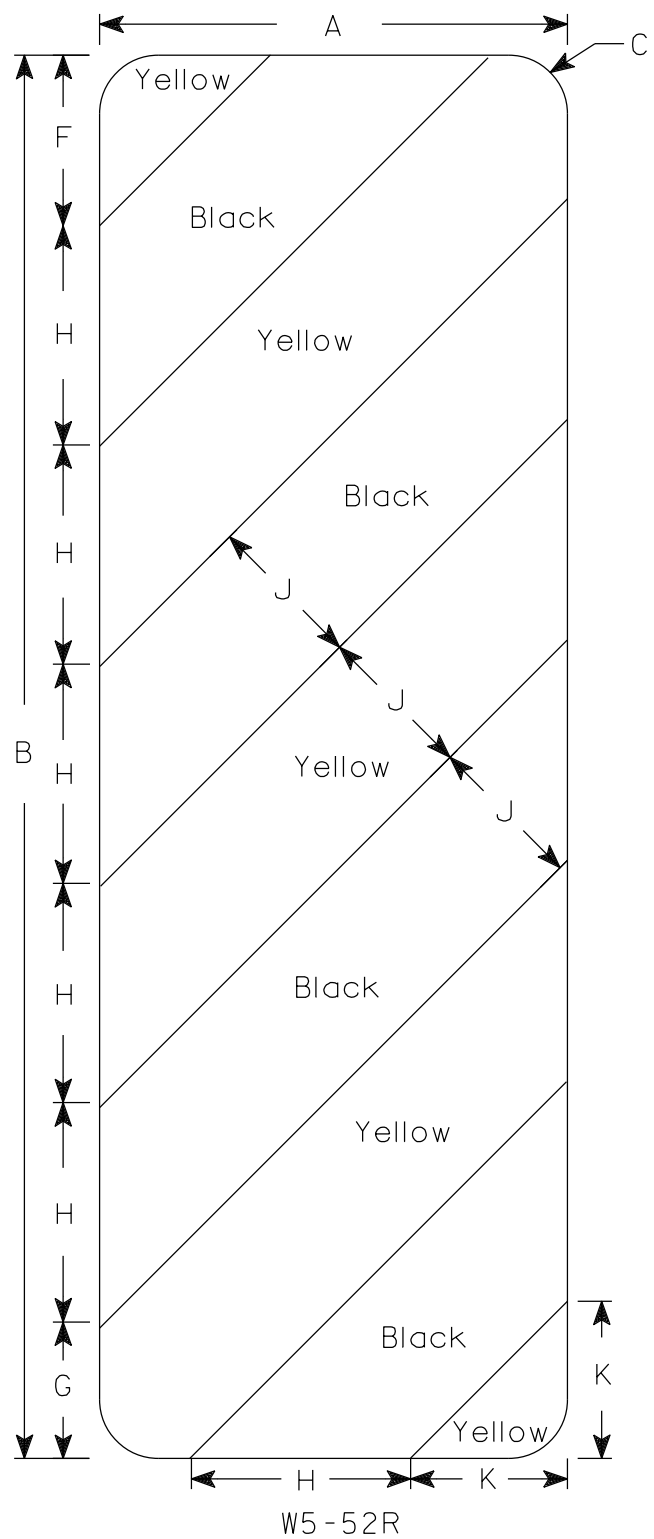
PROJECT NO:

SHEET NO:

E



W5-52L



W5-52R

NOTES

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

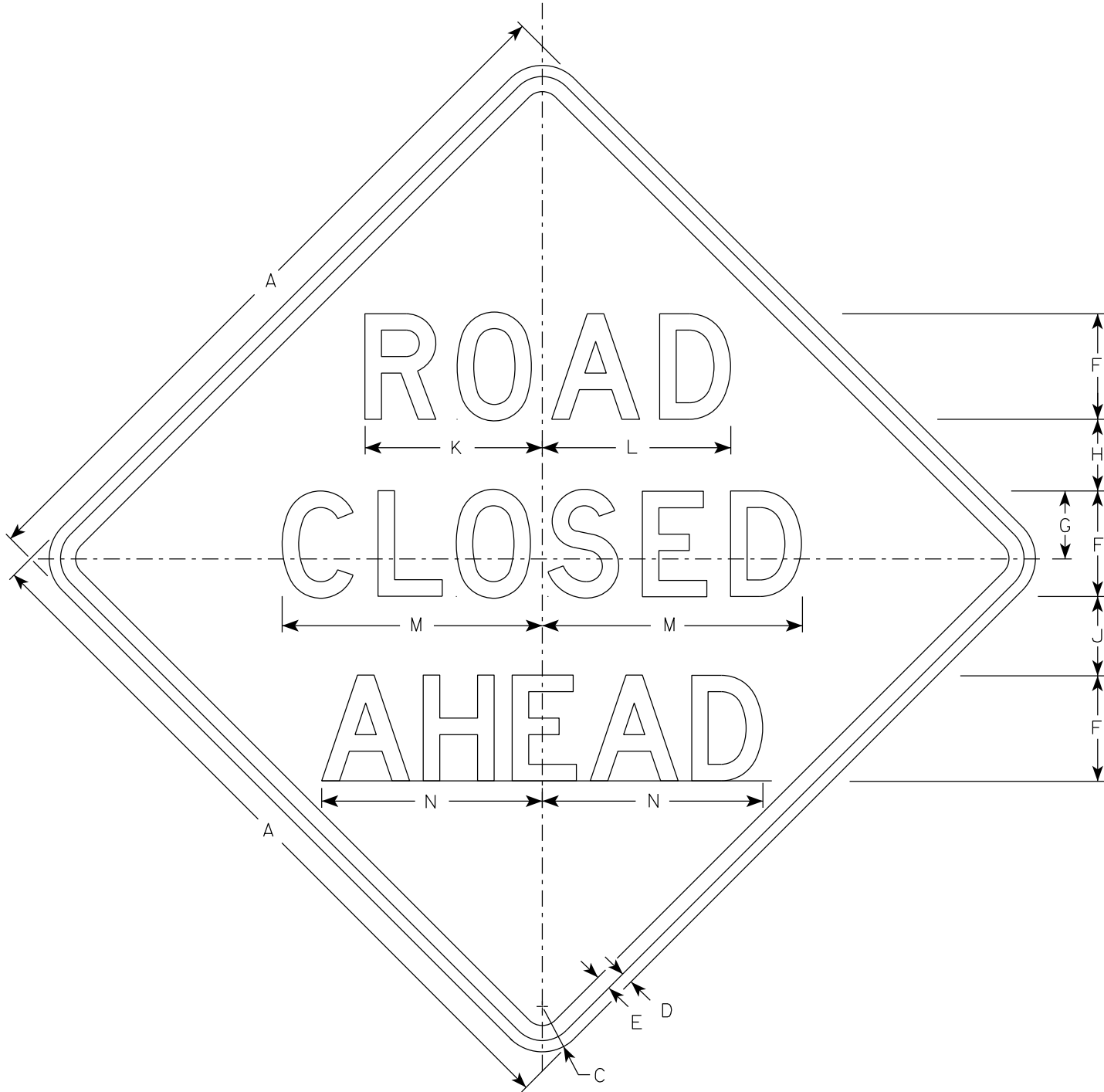
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4													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

STANDARD SIGN
W5-52L & W5-52R

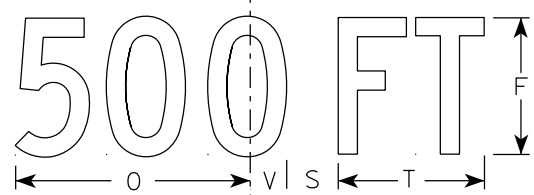
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

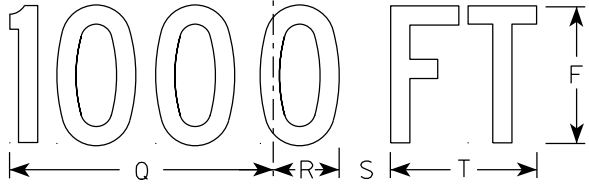
DATE 3/4/2024 PLATE NO. W5-52.10



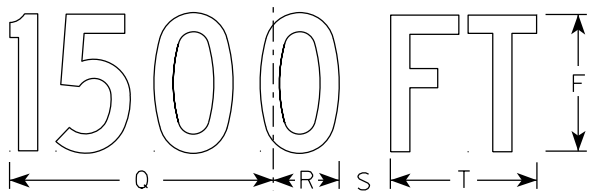
W20-3A



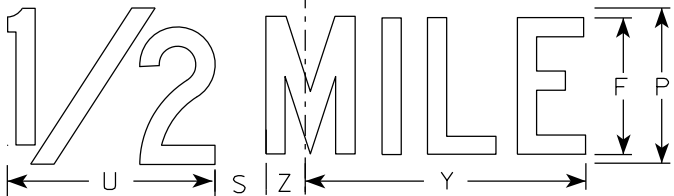
W20-3D



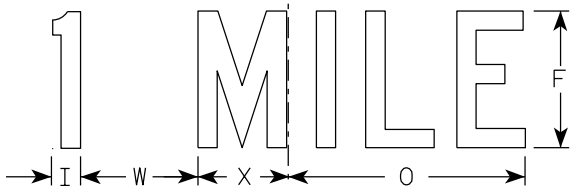
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
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		2 1/4	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		3	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		3	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		3	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		3	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		3	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 1/10/2024 PLATE NO. W20-3.8

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.10
OPERATING RATING FACTOR: RF = 1.42
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: _____ f'c = 4,000 P.S.I.
SUPERSTRUCTURE _____ f'c = 3,500 P.S.I.
ALL OTHER _____

BAR STEEL REINFORCEMENT: _____ fy = 60,000 P.S.I.
GRADE 60 _____

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS †† PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 60 FEET LONG.

†† THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

STADT ROAD
ADT = 63 (2045)
R.D.S. = 40 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q₁₀₀ = 1520 C.F.S.
VEL. = 6.70 F.P.S.
HW₁₀₀ = EL. 1176.85
WATERWAY AREA = 228 SQ. FT.
DRAINAGE AREA = 5.4 SQ. MI.
ROADWAY OVERTOPPING = NA
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY

Q₂ = 344 C.F.S.
VEL. = 3.9 F.P.S.
HW₂ = EL. 1171.72

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. TUBULAR STEEL RAILING TYPE 'M'

STRUCTURE DESIGN CONTACTS:

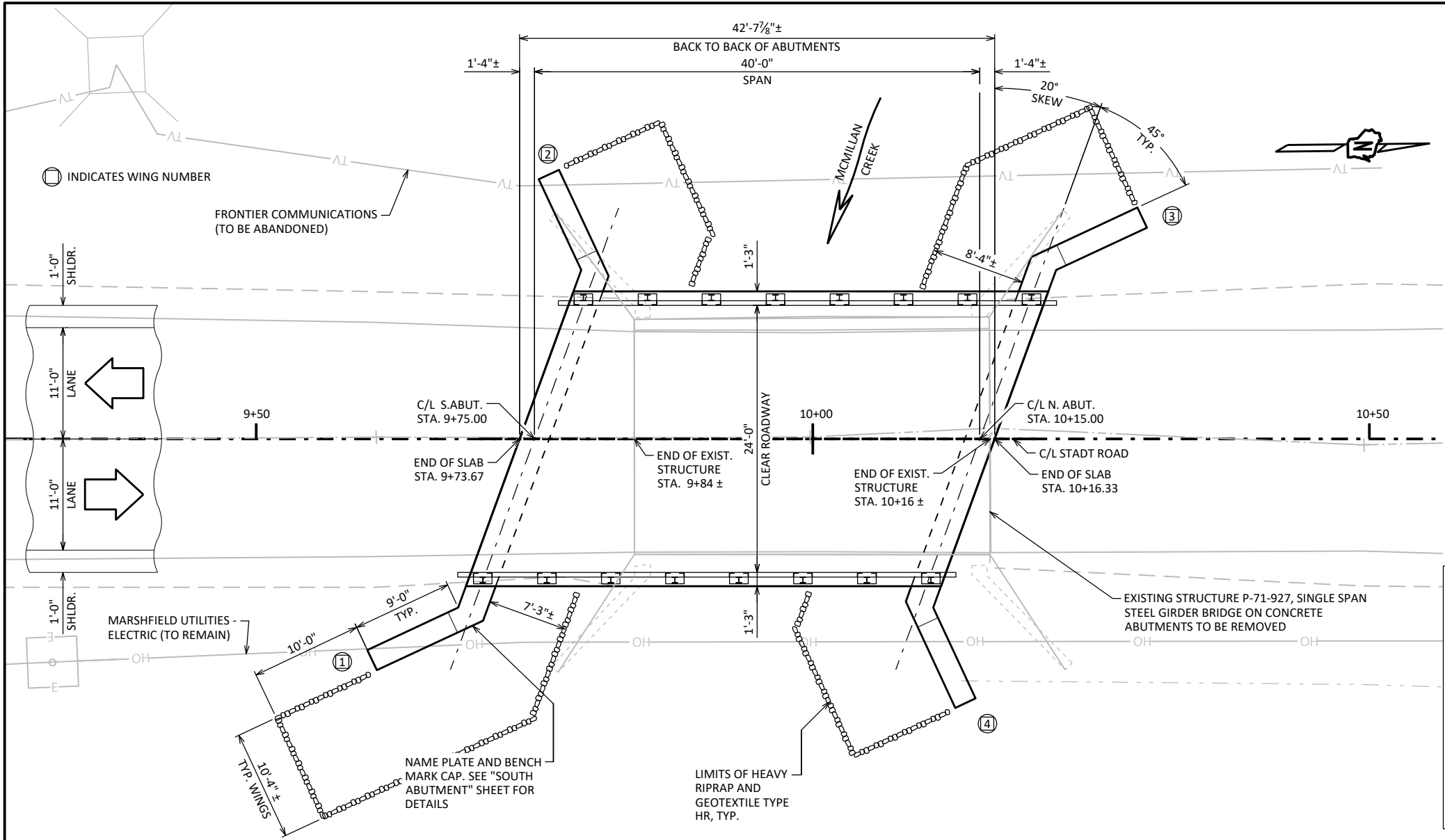
CONSULTANT: MATT BUCKLI
BUREAU OF STRUCTURES: AARON BONK

608-443-0441
608-261-0261

THESE PLANS ARE BASED UPON STANDARD BRIDGE PLANS DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION THROUGH THE USE OF THE WISDOT STANDARD BRIDGE DESIGN TOOL. THE UNDERSIGNED DESIGNER CERTIFIES THE ACCURACY OF THE BRIDGE TYPE, SIZE AND LOCATION, HYDRAULICS AND FOUNDATION SUPPORT, AND INFORMATION IN THE PLANS THAT IS NOT PART OF THE STANDARD PLANS SUPPLIED BY THE DEPARTMENT. THE DESIGNER FURTHER CERTIFIES THAT USE OF THE STANDARD BRIDGE DESIGN TOOL FOR DEVELOPMENT OF THIS PLAN IS CONSISTENT WITH THE GUIDANCE PROVIDED IN THE WISDOT BRIDGE MANUAL.

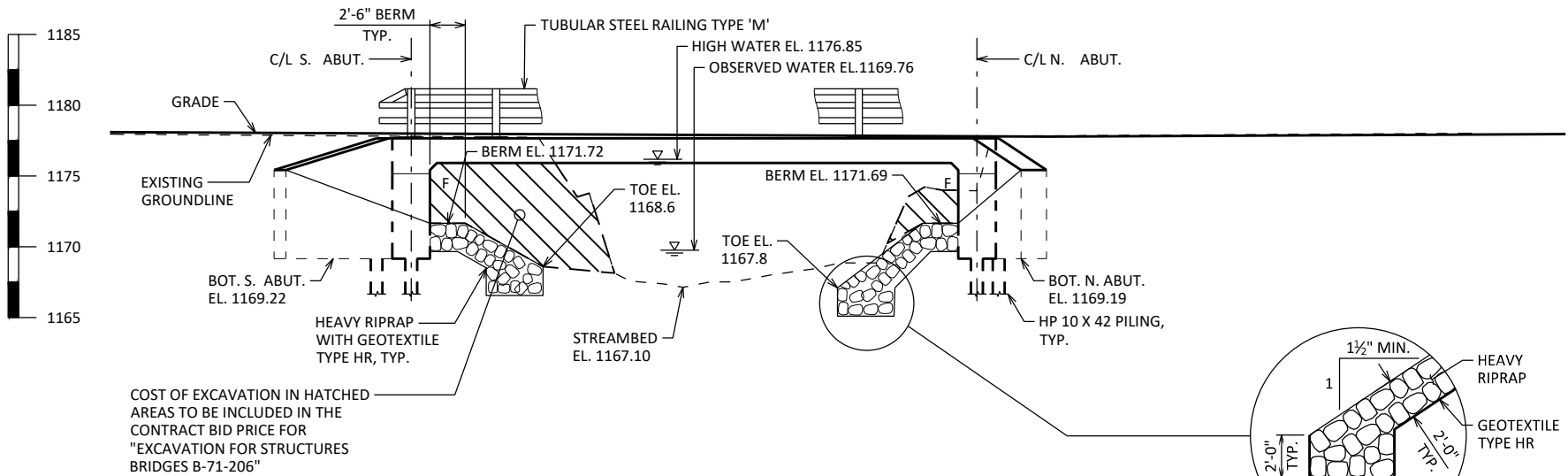


NO.	DATE	REVISION	BY
Mead & Hunt Mead & Hunt, Inc. 2440 Deming Way Middleton, WI 53562 608.273.6380 www.meadhunt.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	SDR 11/05/24		DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-71-206			
STADT ROAD OVER MCMILLAN CREEK			
COUNTY	WOOD	TOWN	MARSHFIELD
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION			
DESIGNED BY	DESIGNED CK'D	RCP	DRAWN BY
MJB	CK'D	RCP	MJB
PLANS CK'D			RCP
GENERAL PLAN			SHEET 1 OF 10



PLAN

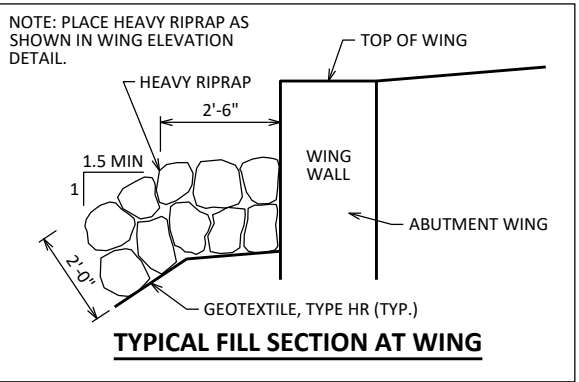
SINGLE SPAN FLAT SLAB



ELEVATION

NORMAL TO WATERWAY

COST OF EXCAVATION IN HATCHED AREAS TO BE INCLUDED IN THE CONTRACT BID PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-71-206"



TYPICAL FILL SECTION AT WING

INDICATES WING NUMBER

FRONTIER COMMUNICATIONS (TO BE ABANDONED)

MARSHFIELD UTILITIES - ELECTRIC (TO REMAIN)

EXISTING STRUCTURE P-71-927, SINGLE SPAN STEEL GIRDER BRIDGE ON CONCRETE ABUTMENTS TO BE REMOVED

LIMITS OF HEAVY RIPRAP AND GEOTEXTILE TYPE HR, TYP.

NAME PLATE AND BENCH MARK CAP. SEE "SOUTH ABUTMENT" SHEET FOR DETAILS

END OF SLAB STA. 9+73.67

C/L S.ABUT. STA. 9+75.00

END OF EXIST. STRUCTURE STA. 10+16 ±

C/L N. ABUT. STA. 10+15.00
END OF SLAB STA. 10+16.33

CLEAR ROADWAY

42'-7 7/8" ±
BACK TO BACK OF ABUTMENTS
40'-0" SPAN

8'-4" ±

1'-4" ±

20° SKEW

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

1'-4" ±

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-71-206 " SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL 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.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

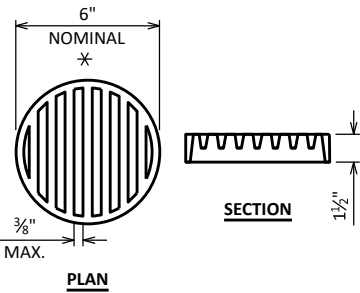
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

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

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO ENTIRE EXPOSED TOP OF SLAB, INCLUDING THE SLAB EDGE AND 1'-0" UNDER THE SLAB, THE TOP AND EXTERIOR EXPOSED FACE OF WINGS AND FRONT FACE OF ABUTMENT TO 1'-0" PAST THE EDGE OF SLAB.

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
CP1	10+14, 12' RT	CHISELED X IN WINGWALL	1178.74
CP2	11+43, 13' LT	CONTROL POINT	1178.03



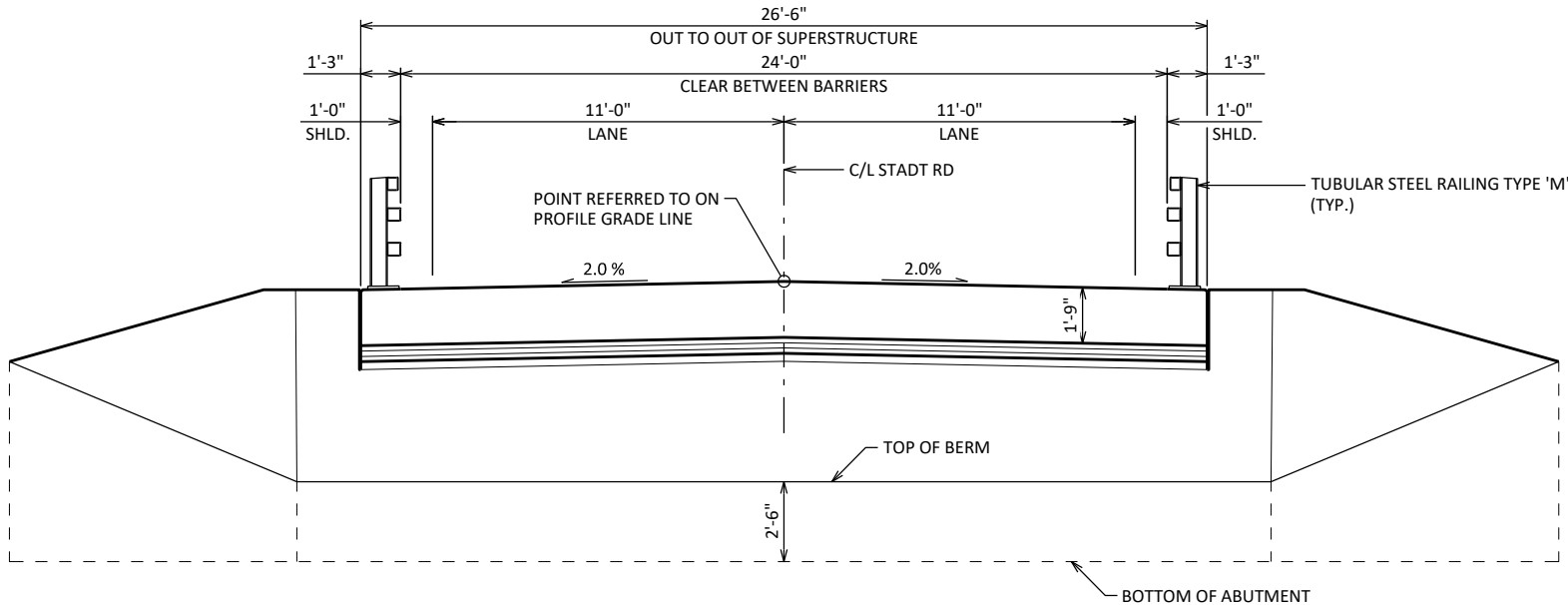
RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

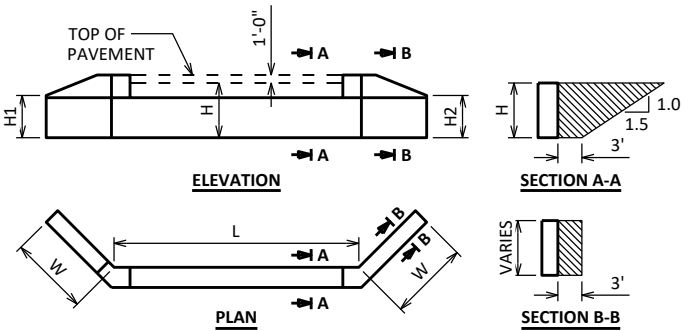
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY		MJB	PLANS CK'D RCP
CROSS SECTION & QUANTITIES		SHEET 2	



CROSS SECTION THRU ROADWAY

LOOKING UPSTATION
(PILING NOT SHOWN FOR CLARITY)

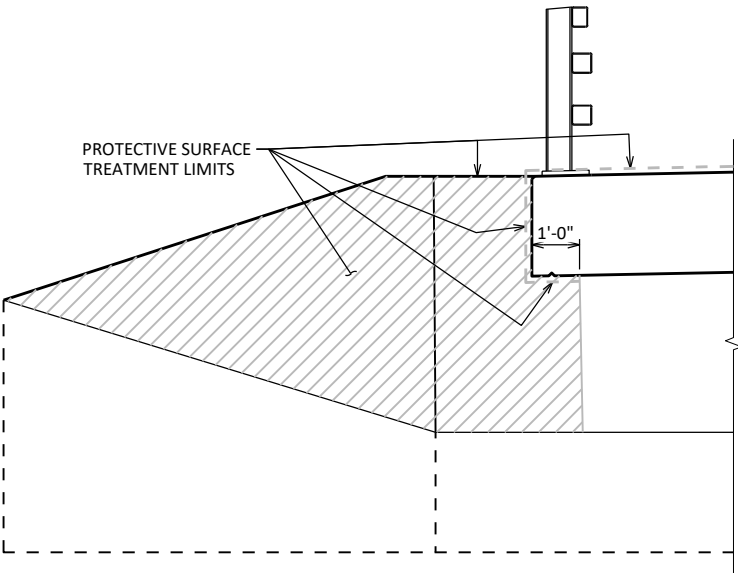


ABUTMENT BACKFILL DIAGRAM

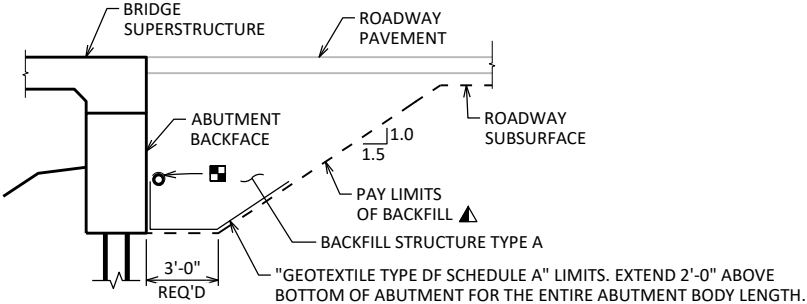
- L = ABUTMENT BODY LENGTH AT BACKFACE (FT)
- H = AVERAGE ABUTMENT FILL HEIGHT (FT)
- H1 = WING 1 HEIGHT AT TIP (FT)
- H2 = WING 2 HEIGHT AT TIP (FT)
- W = WING LENGTH (FT)
- EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
- $V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(H1+H2+H+H)(W)$
- $V_{CY} = V_{CF}(EF)/27$
- $V_{TON} = V_{CY}(2.0)$

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	S. ABUT.	N. ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS P-71-927	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-71-206	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	187	187	374
502.0100	CONCRETE MASONRY BRIDGES	CY	77	31	31	139
502.3200	PROTECTIVE SURFACE TREATMENT	SY	148	17	17	182
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	2,170	2,170	4,340
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	16,170	1,550	1,550	19,270
513.4061	RAILING TUBULAR TYPE M	LF	90	---	---	90
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	6	6	12
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	---	420	420	840
606.0300	RIPRAP HEAVY	CY	---	54	50	104
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	70	70	140
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	44	44	88
645.0120	GEOTEXTILE TYPE HR	SY	---	127	118	245
NON-BID ITEMS						
	FILLER	SIZE	---	---	---	½", ¾"



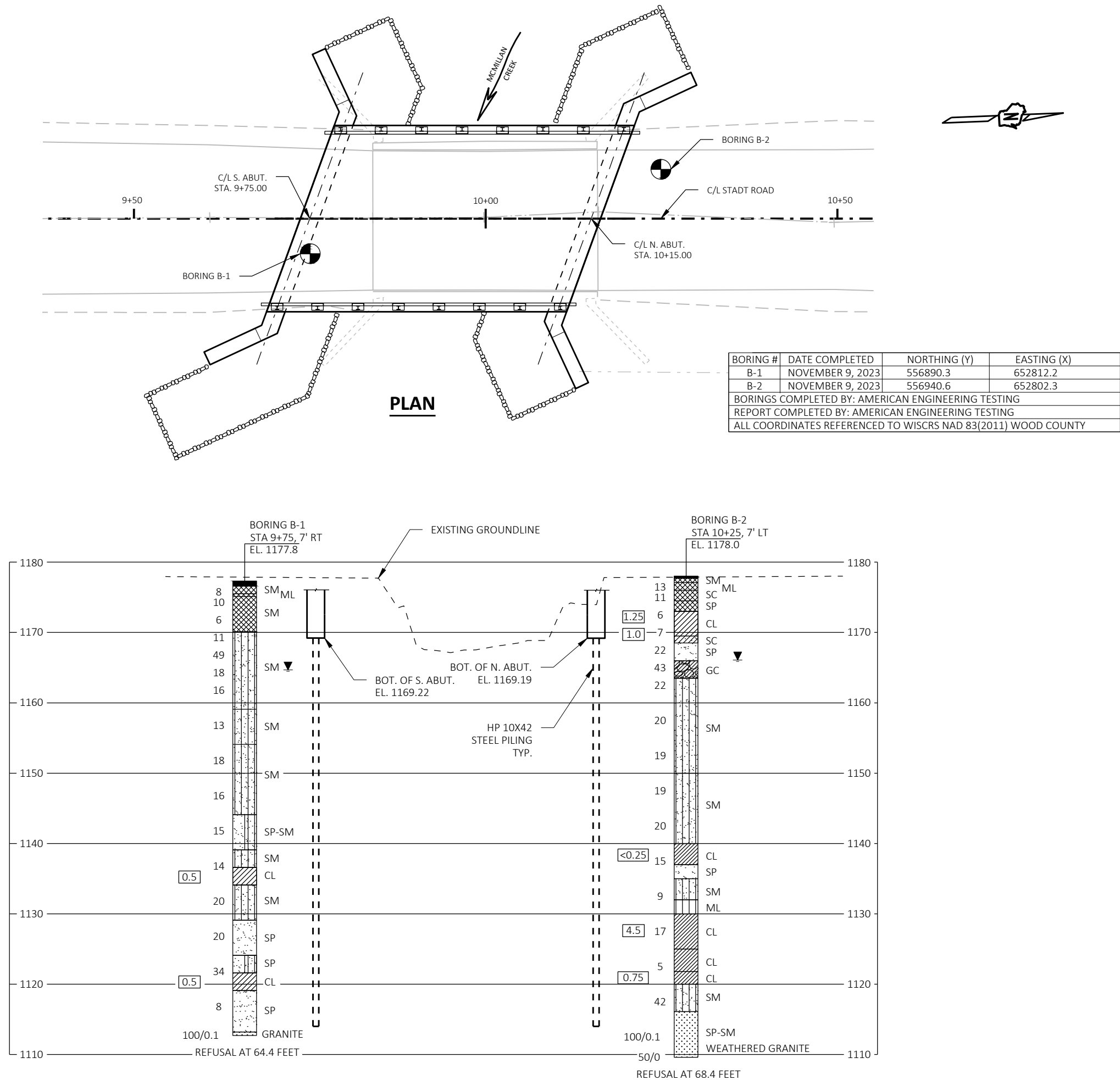
PROTECTIVE SURFACE TREATMENT DETAILS



TYPICAL SECTION THRU ABUTMENT

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

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



STATE PROJECT NUMBER

6952-01-71

MATERIAL SYMBOLS

ASPHALT

CONCRETE

SAND

BOULDERS OR COBBLES

SHALE

TOPSOIL

FILL

CLAY

LIMESTONE

SANDSTONE

PEAT

GRAVEL

SILT

BEDROCK (UNKNOWN)

IGNEOUS/META

LEGEND OF BORING

BORING #/EL. STA./OFFSET

ST

0.25

17

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, RQD=72%

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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY		MJB	PLANS CK'D RCP
SUBSURFACE EXPLORATION		SHEET 3	

SCALE =1/5.0

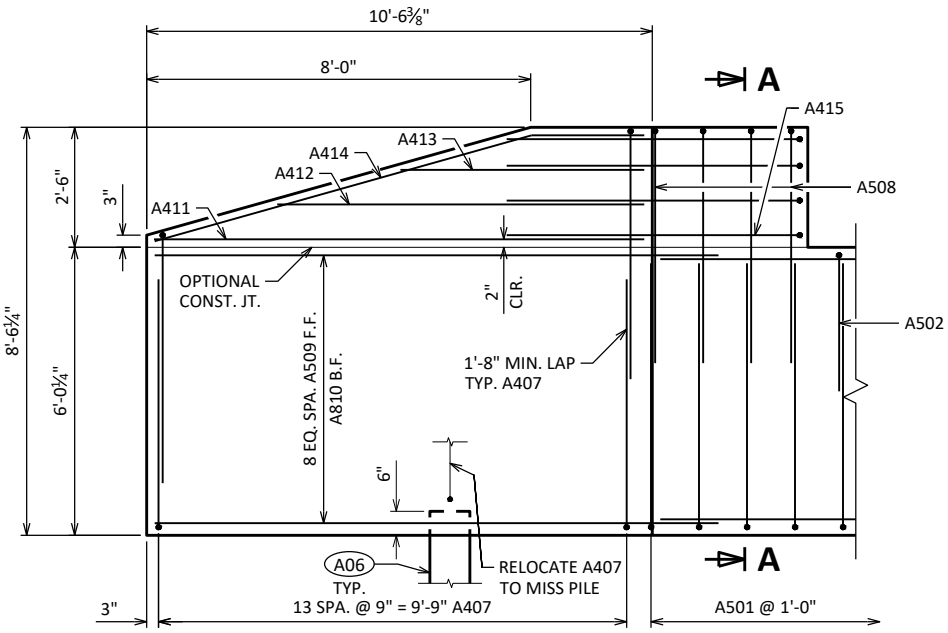


- | | | | |
|--|------|-------------|---------------|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-71-206 | | | |
| | | DRAWN
BY | PLANS
CK'D |
| | | JLA | RCR |
| SOUTH
ABUTMENT | | SHEET 4 | |
| | | | |

BILL OF BARS

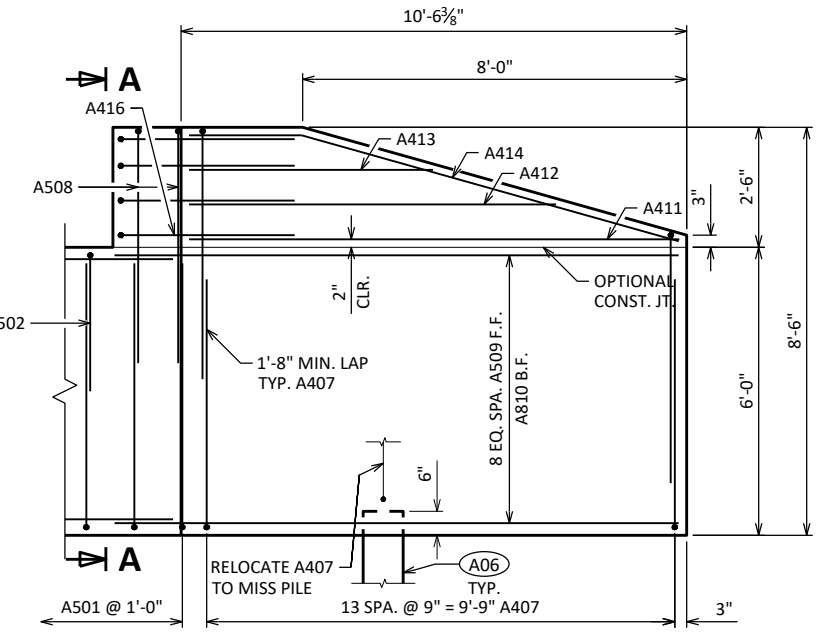
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		68	7'-0"	X		ABUT BODY STIRRUPS
A502		29	7'-7"	X		ABUT BODY STIRRUPS - TOP U-BAR
A503		9	32'-11"			ABUT BODY HORIZ. - F.F.
A804		18	22'-5"	X		ABUT BODY HORIZ. - B.F.
A405		27	3'-0"	X		ABUT BODY TIE BARS
A506	X	27	2'-0"			ABUT BODY DOWEL BARS
A407	X	56	11'-10"	X		WING STIRRUPS
A508	X	6	11'-7"	X		WING CORNER STIRRUPS
A509	X	18	11'-9"	X		WING LOWER HORIZ. - F.F.
A810	X	18	13'-3"	X		WING LOWER HORIZ. - B.F.
A411	X	4	10'-1"			WING UPPER HORIZ.
A412	X	4	7'-7"			WING UPPER HORIZ.
A413	X	4	5'-0"			WING UPPER HORIZ.
A414	X	4	9'-8"	X		WING TOP HORIZ.
A415	X	4	9'-4"	X		WING 1 UPPER HORIZ. CORNER
A416	X	4	7'-6"	X		WING 2 UPPER HORIZ. CORNER



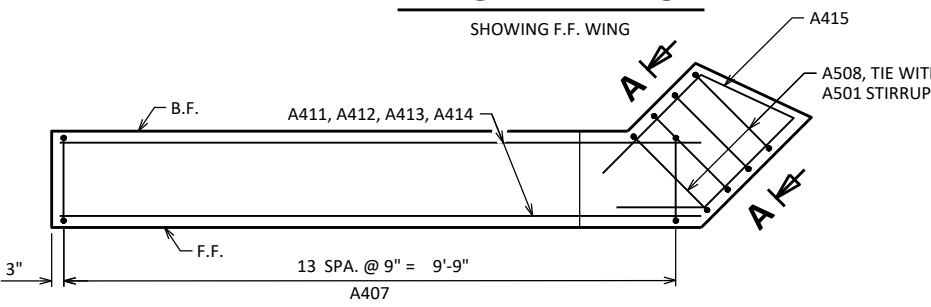
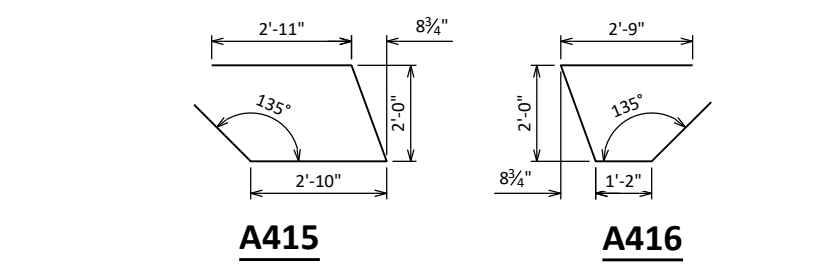
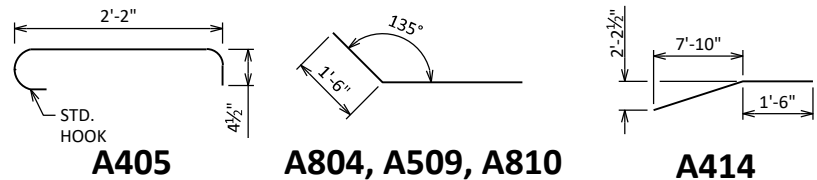
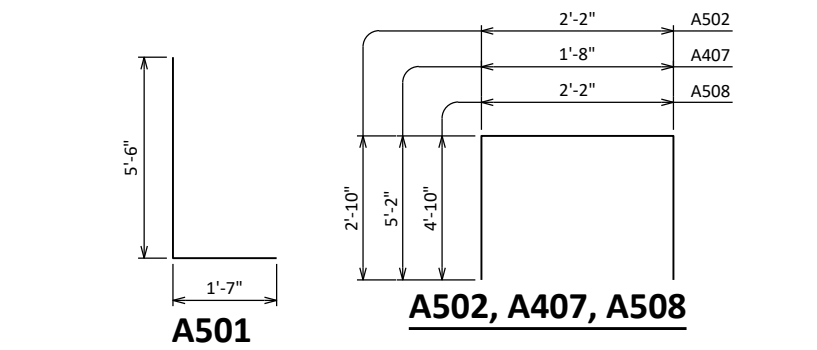
WING 1 ELEVATION

SHOWING F.F. WING



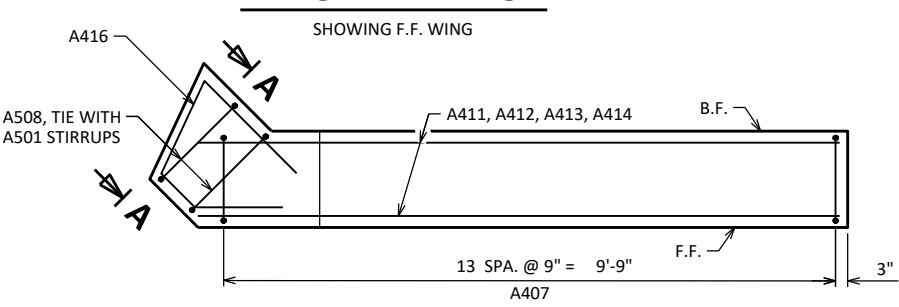
WING 2 ELEVATION

SHOWING F.F. WING



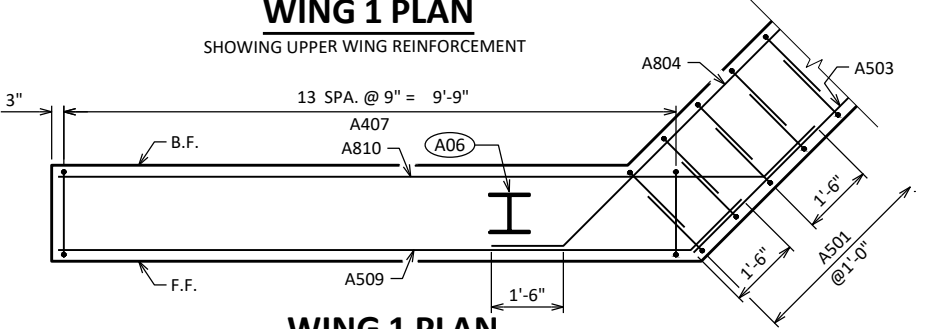
WING 1 PLAN

SHOWING UPPER WING REINFORCEMENT



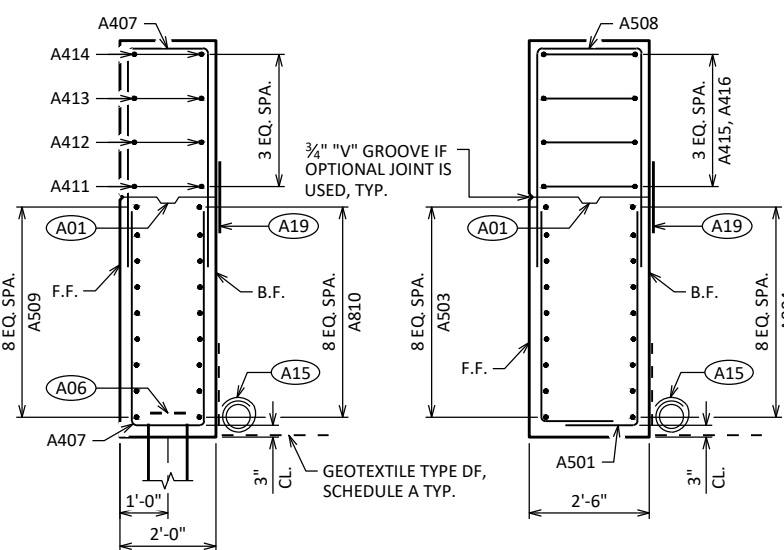
WING 2 PLAN

SHOWING UPPER WING REINFORCEMENT



WING 1 PLAN

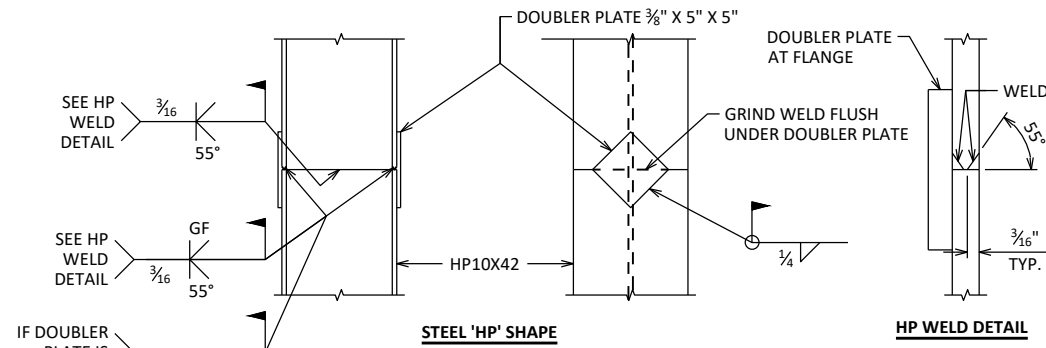
SHOWING LOWER WING REINFORCEMENT
WING 2 SIMILAR



SECTION THRU WING 1

TYPICAL BOTH WINGS

SECTION A-A

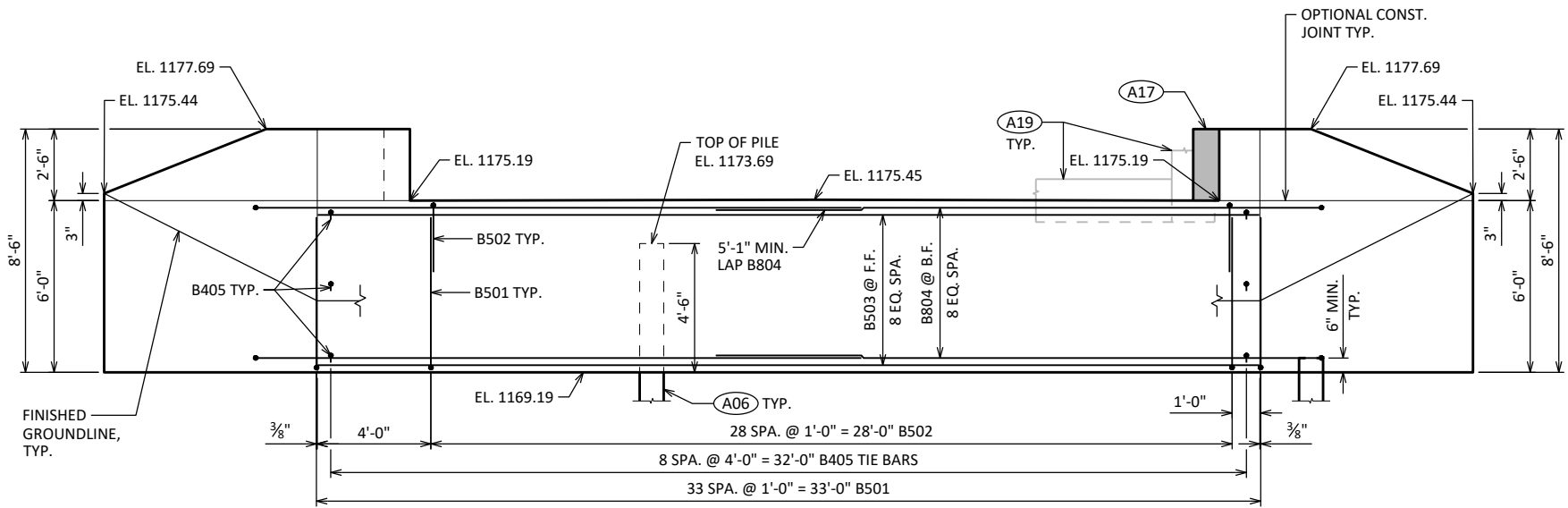


'HP' PILE DETAILS

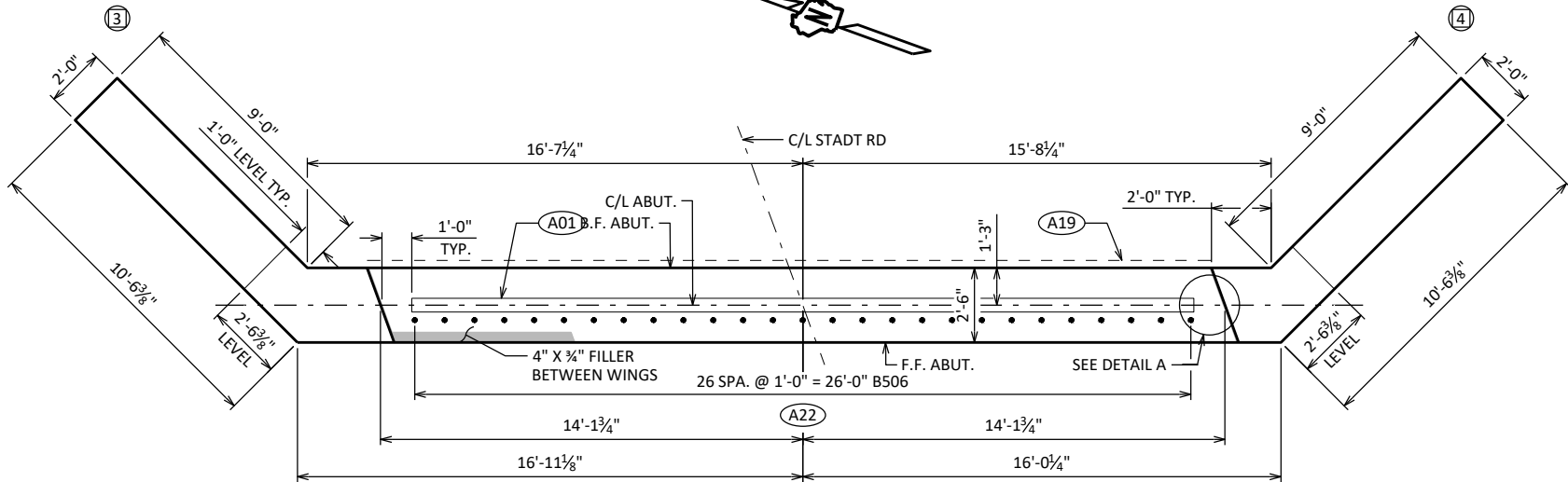
THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 1.0.0.0

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY		JLA	PLANS CK'D RCP
SOUTH ABUTMENT DETAILS		SHEET 5	

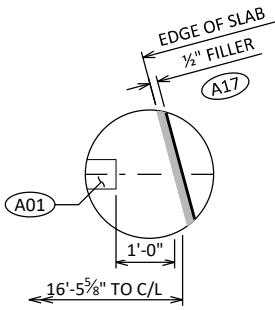
SCALE =



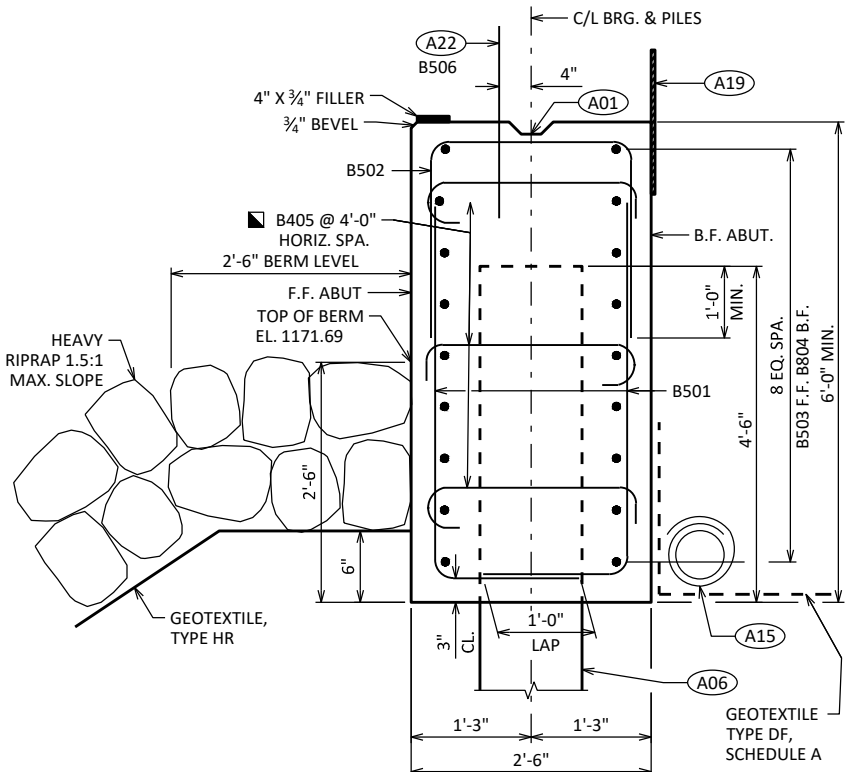
ELEVATION
LOOKING UPSTATION



PLAN



DETAIL A



SECTION THRU BODY

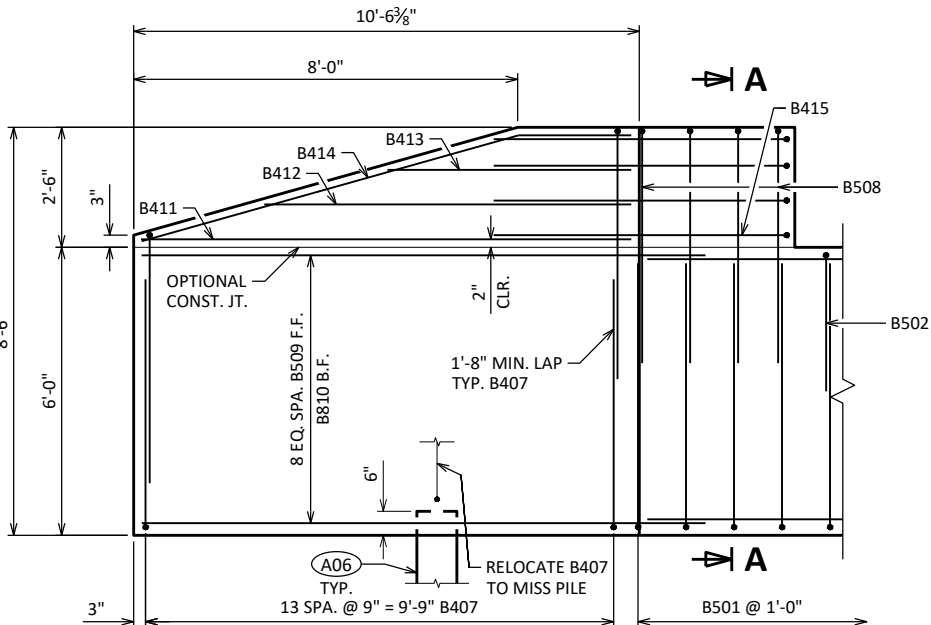
- A01 CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6.
- A06 SUPPORT ABUTMENT ON HP 10 x 42 PILING, ESTIMATED 60' LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17 1/2" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 3/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- A22 B506 BARS SPACED @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY		JLA	PLANS CK'D RCP
NORTH ABUTMENT		SHEET 6	

BILL OF BARS

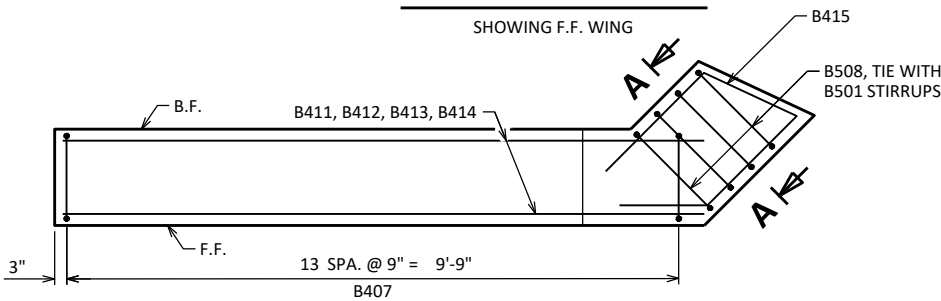
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		68	7'-0"	X		ABUT BODY STIRRUPS
B502		29	7'-7"	X		ABUT BODY STIRRUPS - TOP U-BAR
B503		9	32'-11"			ABUT BODY HORIZ. - F.F.
B804		18	22'-5"	X		ABUT BODY HORIZ. - B.F.
B405		27	3'-0"	X		ABUT BODY TIE BARS
B506	X	27	2'-0"			ABUT BODY DOWEL BARS
B407	X	56	11'-10"	X		WING STIRRUPS
B508	X	6	11'-7"	X		WING CORNER STIRRUPS
B509	X	18	11'-9"	X		WING LOWER HORIZ. - F.F.
B810	X	18	13'-3"	X		WING LOWER HORIZ. - B.F.
B411	X	4	10'-1"			WING UPPER HORIZ.
B412	X	4	7'-7"			WING UPPER HORIZ.
B413	X	4	5'-0"			WING UPPER HORIZ.
B414	X	4	9'-8"	X		WING TOP HORIZ.
B415	X	4	9'-4"	X		WING 3 UPPER HORIZ. CORNER
B416	X	4	7'-6"	X		WING 4 UPPER HORIZ. CORNER



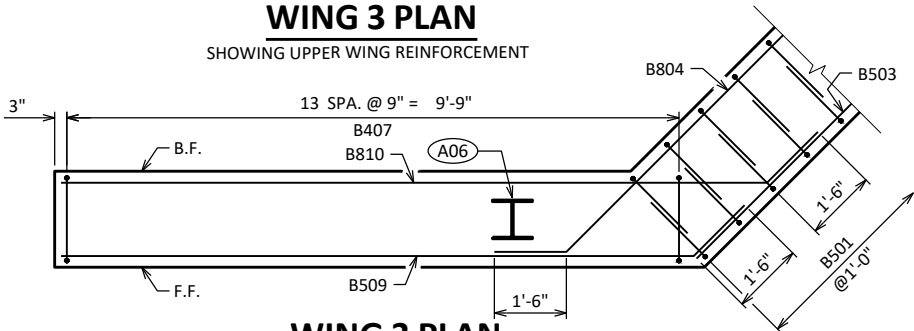
WING 3 ELEVATION

SHOWING F.F. WING



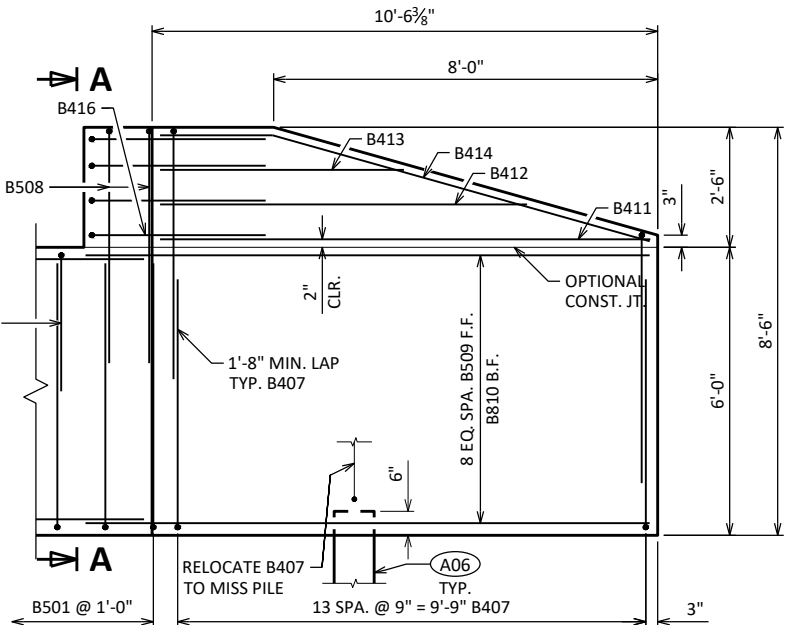
WING 3 PLAN

SHOWING UPPER WING REINFORCEMENT



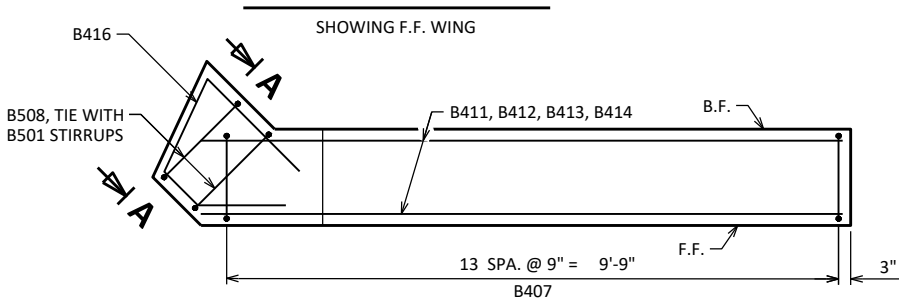
WING 3 PLAN

SHOWING LOWER WING REINFORCEMENT
WING 4 SIMILAR



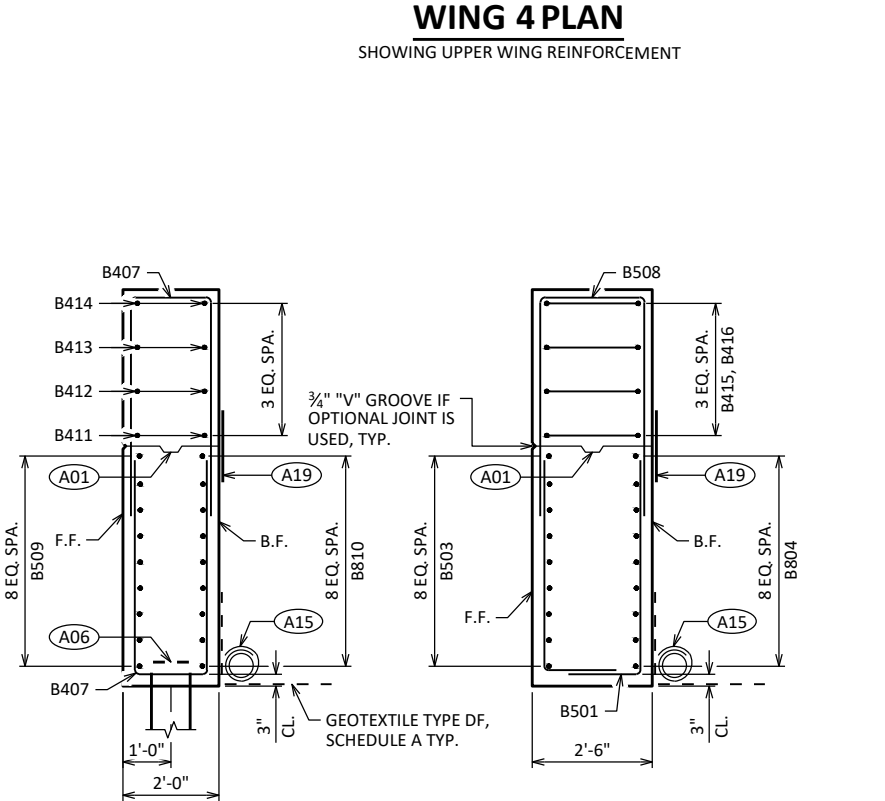
WING 4 ELEVATION

SHOWING F.F. WING



WING 4 PLAN

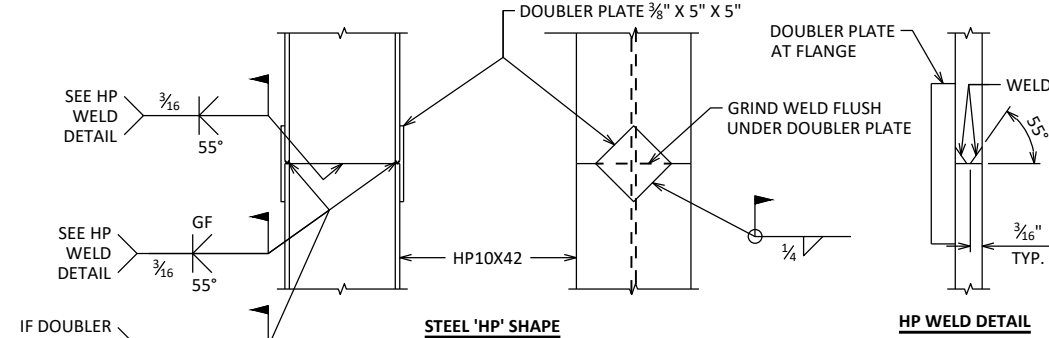
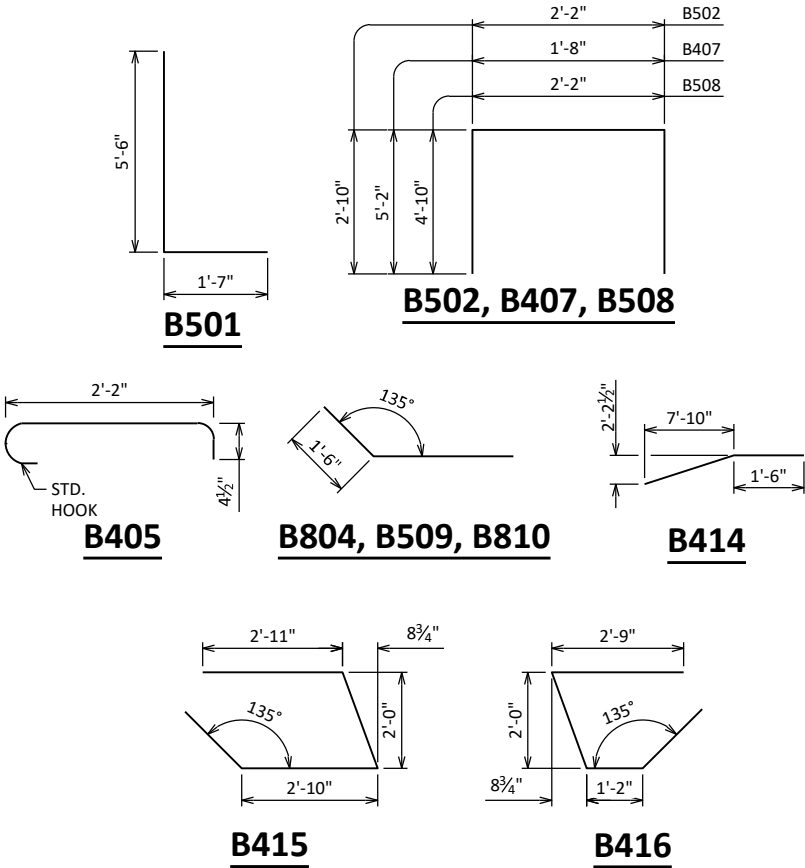
SHOWING UPPER WING REINFORCEMENT



SECTION THRU WING 3

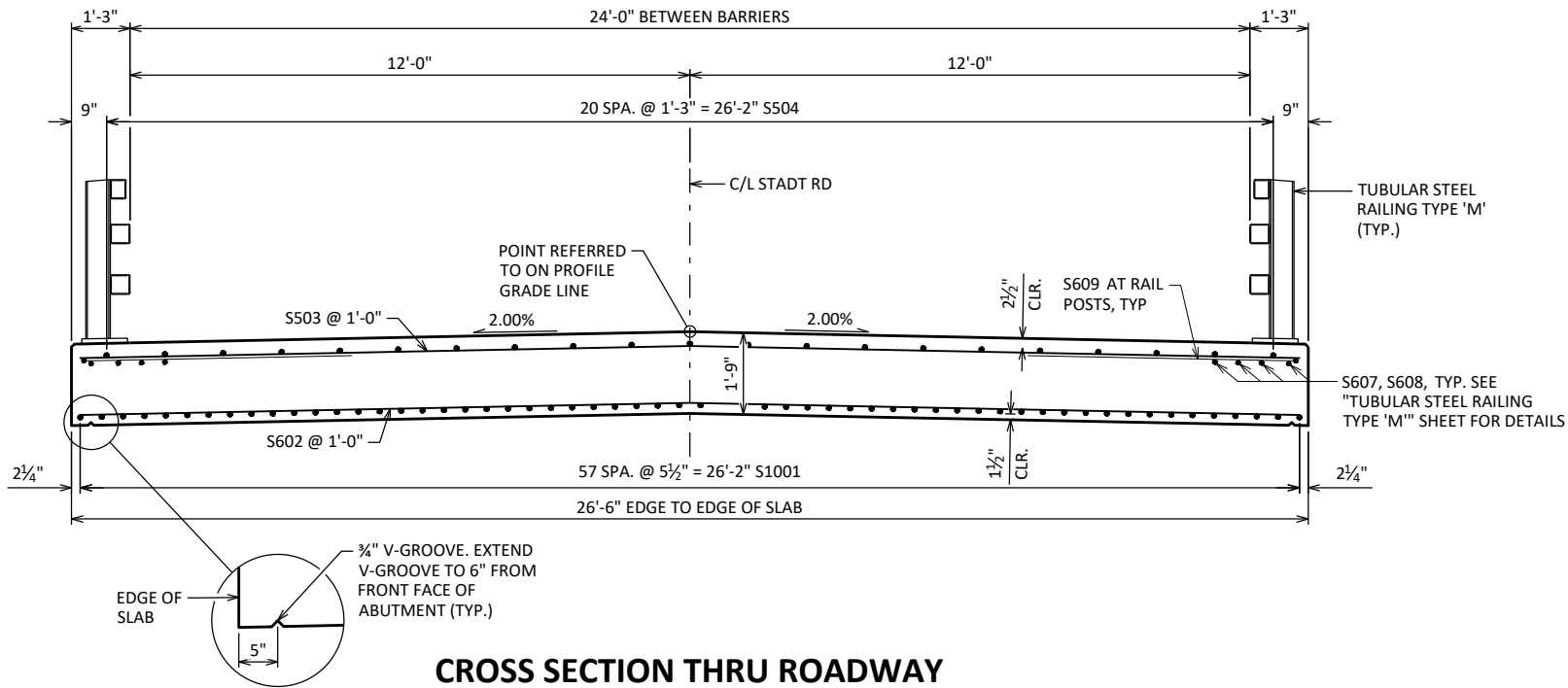
TYPICAL BOTH WINGS

SECTION A-A

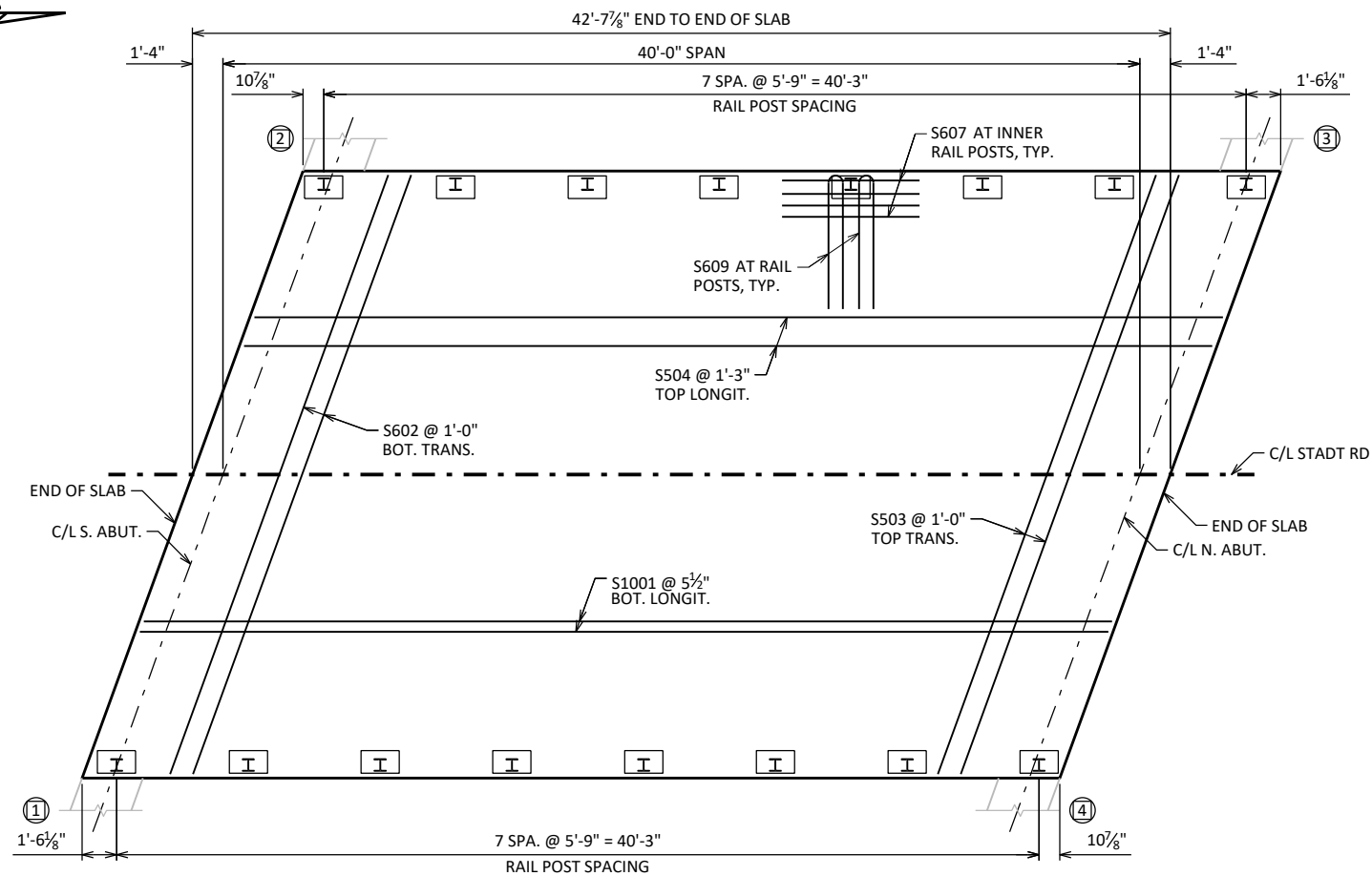


'HP' PILE DETAILS

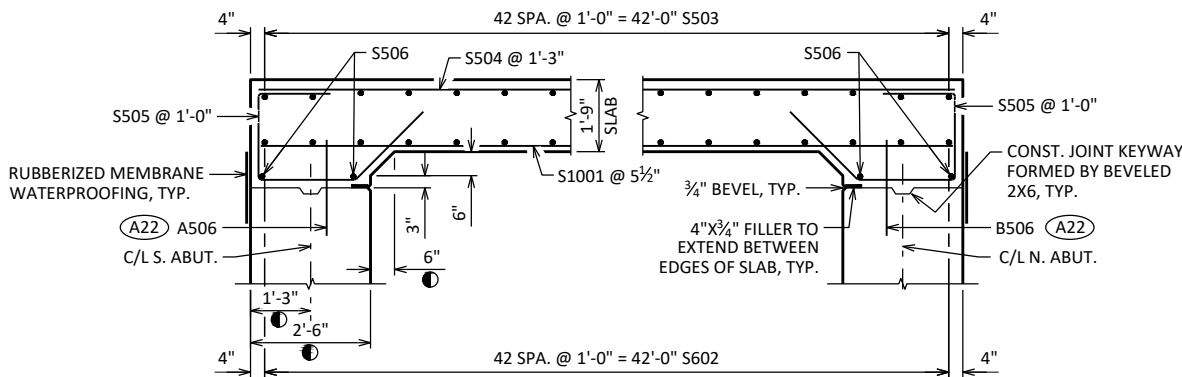
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY		JLA	PLANS CK'D RCP
NORTH ABUTMENT DETAILS		SHEET 7	



CROSS SECTION THRU ROADWAY



PLAN

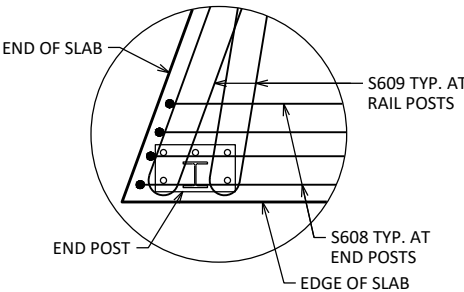


LONGITUDINAL SECTION

DIMENSIONS ARE GIVEN PARALLEL TO ϵ ROADWAY UNLESS OTHERWISE NOTED.

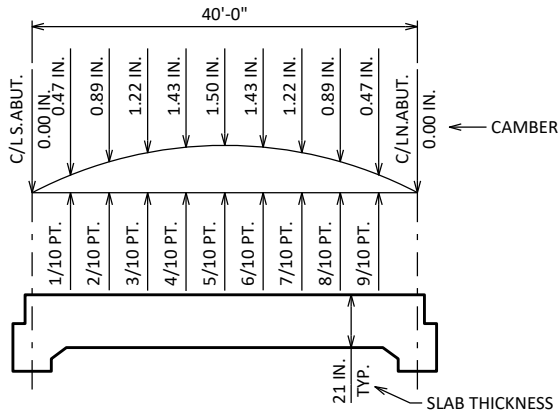
MEASURED NORMAL TO THE ϵ OF ABUTMENT. DIMENSIONS ARE TYPICAL FOR BOTH ABUTMENTS.

(A22) A506, B506 BARS SPACED @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)



END POST DETAILS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY JLA		PLANS CK'D RCP	
SUPERSTRUCTURE		SHEET 8	



CAMBER AND SLAB THICKNESS DIAGRAM

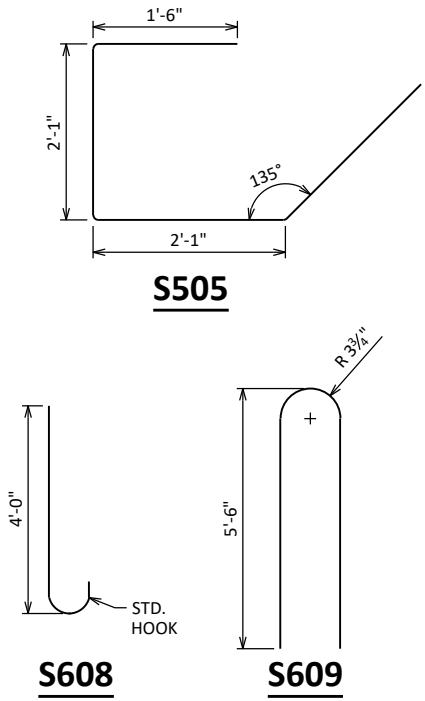
CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

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

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

TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. N. ABUT.
W. EDGE OF DECK	1177.72	1177.71	1177.70	1177.70	1177.69	1177.69	1177.69	1177.69	1177.69	1177.69	1177.69
CROWN OR R/L	1177.99	1177.98	1177.98	1177.97	1177.96	1177.96	1177.96	1177.95	1177.95	1177.95	1177.95
E. EDGE OF DECK	1177.74	1177.73	1177.72	1177.71	1177.71	1177.70	1177.70	1177.69	1177.69	1177.69	1177.69



BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1001	X	58	42'-3"			SLAB BOTTOM LONGITUDINAL
S602	X	43	27'-10"			SLAB BOTTOM TRANSVERSE
S503	X	43	27'-10"			SLAB TOP TRANSVERSE
S504	X	21	42'-3"			SLAB TOP LONGITUDINAL
S505	X	54	7'-5"	X		ABUTMENT DIAPHRAGM STIRRUPS
S506	X	4	27'-10"			ABUTMENT DIAPHRAGM LONGITUDINAL
S607	X	48	6'-0"			SLAB TOP LONGIT. UNDER RAIL POSTS
S608	X	16	4'-8"	X		SLAB TOP LONGIT. UNDER RAIL END POSTS
S609	X	32	11'-5"	X		SLAB TOP HOOKS UNDER RAIL POSTS

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	ABUTMENT	5/10 PT.	ABUTMENT
W. GUTTER			
CROWN OR R/L			
E. GUTTER			

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

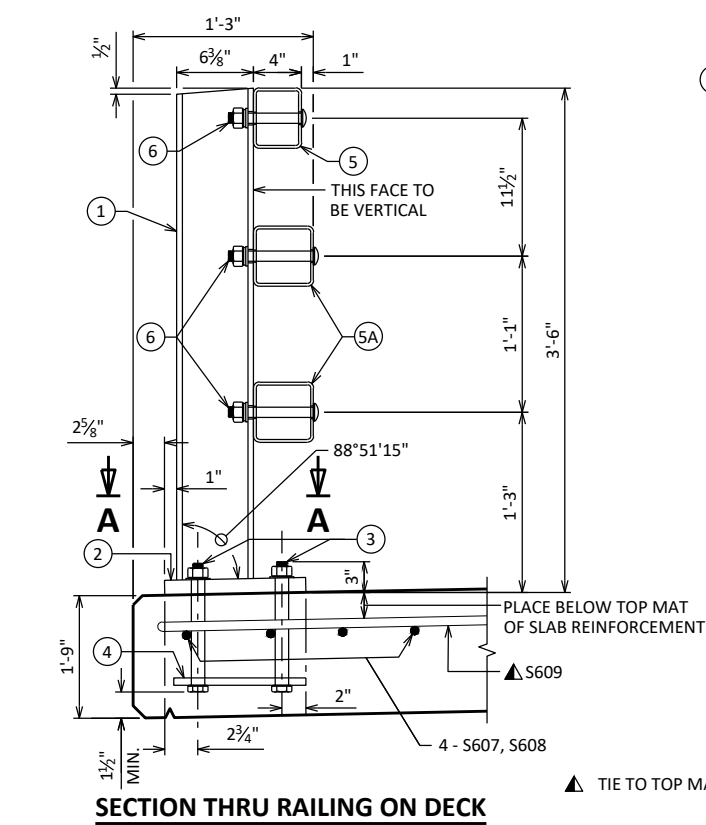
NOTES

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

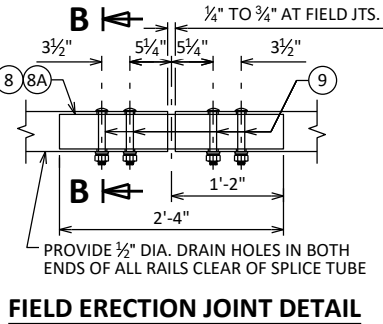
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

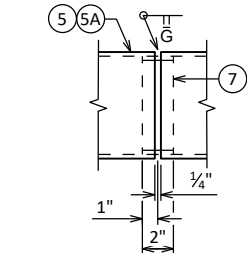
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY		JLA	PLANS CK'D RCP
SUPERSTRUCTURE DETAILS		SHEET 9	



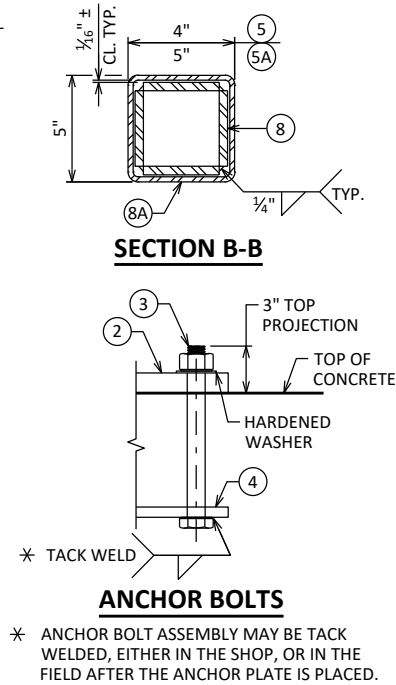
SECTION THRU RAILING ON DECK



FIELD ERECTION JOINT DETAIL

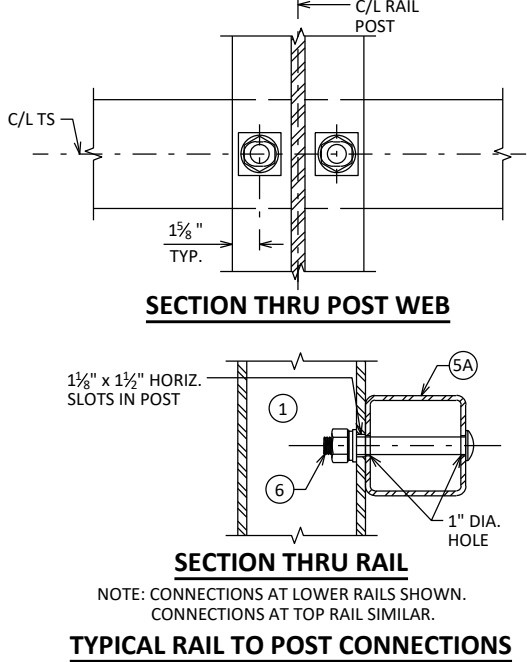


SHOP RAIL SPLICE DETAIL
LOCATION MUST BE SHOWN ON SHOP DRAWINGS



SECTION B-B

ANCHOR BOLTS



SECTION THRU POST WEB

SECTION THRU RAIL

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

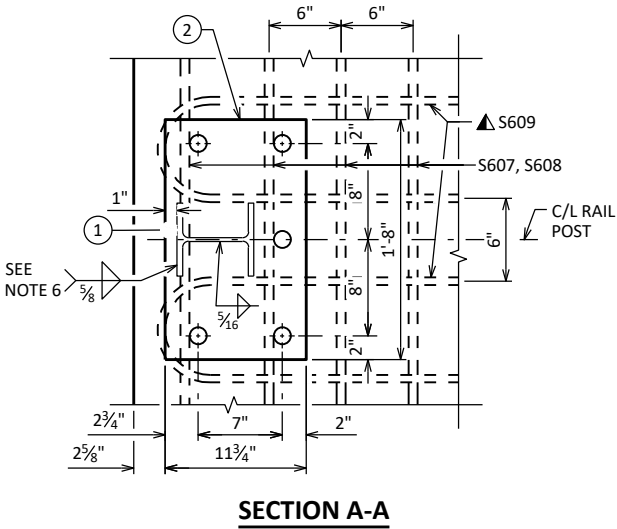
TYPICAL RAIL TO POST CONNECTIONS

LEGEND

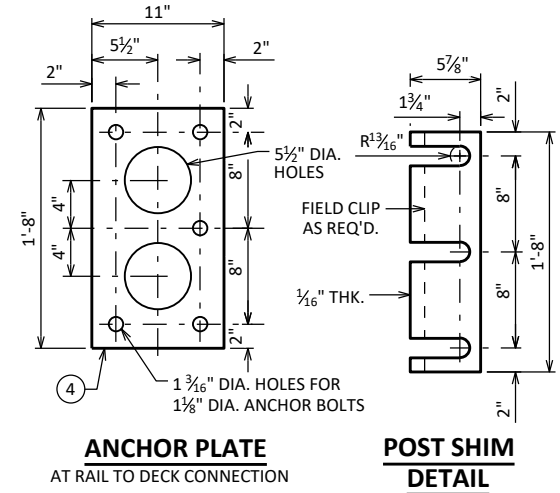
- W6 x 25 WITH 1 1/8" x 1 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- PLATE 1 1/4" x 11 3/4" x 1'-8" WITH 1 1/16" OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ASTM A449 - 1 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
- 5/8" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" x 1 5/8" x 1 5/8" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
- SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- 3/8" x 3 5/8" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- 3/8" x 2 5/8" x 2'-4" PLATE USED IN NO. 5, 3/8" x 3 5/8" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- 7/8" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 5/16" x 1 1/4" LONGIT. SLOTTED HOLES IN PLATE NO. 10A AT FIELD JOINTS AND 1 5/16" x 2 1/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 8A. PROVIDE 1 5/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.

GENERAL NOTES

- BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.
- RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
- ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.



SECTION A-A

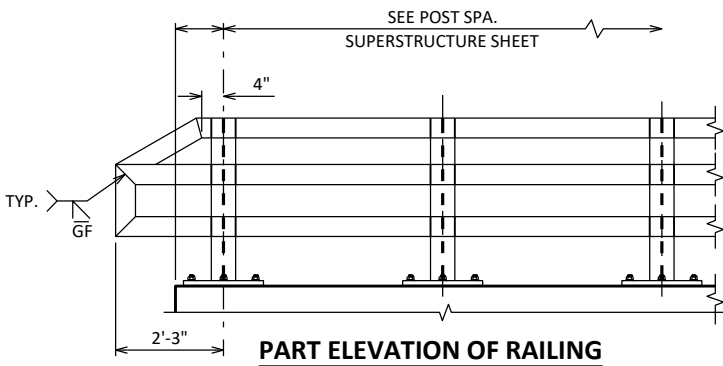


ANCHOR PLATE

AT RAIL TO DECK CONNECTION

POST SHIM

DETAIL

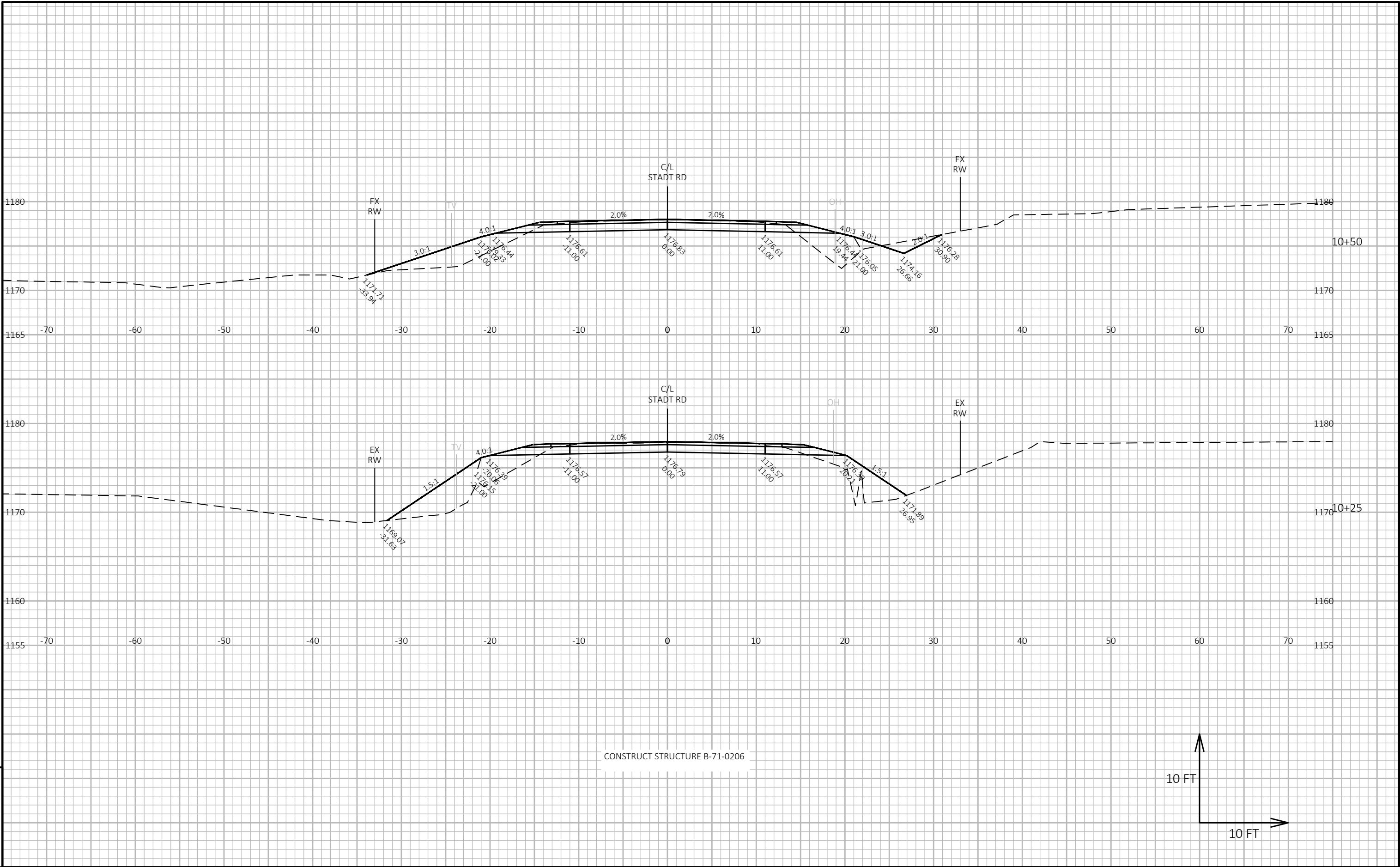


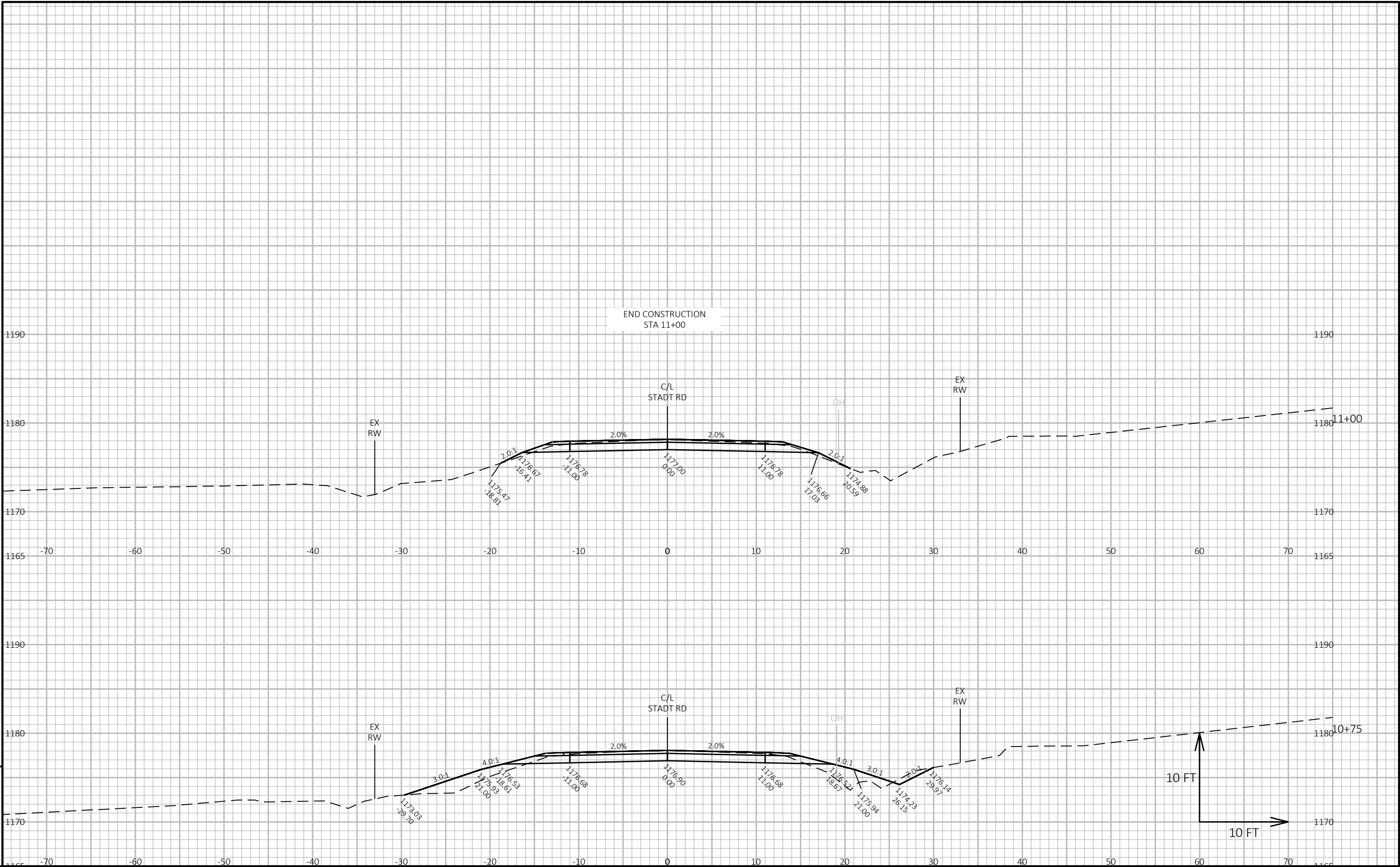
PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-71-206			
DRAWN BY JLA		PLANS CK'D RCP	
TUBULAR STEEL RAILING TYPE 'M'		SHEET 10	

STADTRD									
STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
9+00.00	26.83	11.00	0.53	0	0	0	0	0	0
9+25.00	28.76	11.77	28.13	26	11	13	26	16	-1
9+50.00	30.05	12.53	36.91	27	11	30	53	54	-23
9+75.00	12.90	4.75	8.88	20	8	21	73	80	-37
10+24.41	0.00	13.05	0.00	0	0	0	73	80	-37
10+25.00	29.32	13.04	55.63	0	0	1	73	81	-38
10+50.00	32.00	12.33	26.72	28	12	38	101	129	-70
10+75.00	31.32	11.63	22.00	29	11	23	130	158	-81
11+00.00	28.49	5.27	1.56	28	8	11	158	171	-74
				158	61	137			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: $[(\text{CUT} - \text{SALVAGED PAVT} - \text{EXPANDED MARSH EXC} - \text{EXPANDED EBS}) - ((\text{FILL} - \text{REDUCED MARSH IN FILL} - \text{REDUCED EBS IN FILL} - \text{EXPANDED ROCK}) * \text{FILL FACTOR})]$
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: $[\text{CUT} - \text{SALVAGED PAVT} - ((\text{FILL} - \text{REDUCED MARSH IN FILL} - \text{REDUCED EBS IN FILL} - \text{EXPANDED ROCK}) * \text{FILL FACTOR})]$
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: $[(\text{CUT} - \text{SALVAGED PAVT} - \text{EXPANDED MARSH EXC} - \text{EXPANDED EBS}) - ((\text{FILL} - \text{EXPANDED ROCK}) * \text{FILL FACTOR})]$
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: $[\text{CUT} - \text{SALVAGED PAVT} - ((\text{FILL} - \text{EXPANDED ROCK}) * \text{FILL FACTOR})]$





Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>