EAU

PROJECT ID: 7027-00-72

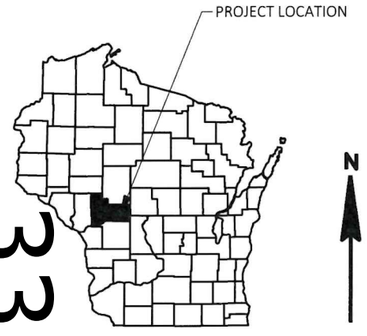
WITH: N/A

COUNTY: JACKSON

December 2024

ORDER OF SHEETS

TOTAL SHEETS = 42



DESIGN DESIGNATION

A.A.D.T.	2025	=	360
A.A.D.T.	2045	=	380
D.H.V.		=	38
D.D.		=	50/50
T.		=	10
DESIGN SPEED		=	40
ESALS		=	120,000

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 27 - MILLSTON

CLEAR CREEK BRIDGE B-27-0179

CTH O

JACKSON COUNTY

STATE PROJECT NUMBER
7027-00-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7027-00-72	WISC 2025124	1

BEGIN PROJECT
STA 8+50
Y = 55,646.442
X = 110,341.306

STRUCTURE B-27-0179
STA 10+00

END PROJECT
STA 11+50

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.057 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), JACKSON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR
JACKSON COUNTY HIGHWAY DEPARTMENT
DATE: 7-15-24 (Highway Commissioner Signature)

ORIGINAL PLANS PREPARED BY
SEH

WISCONSIN
JUSTIN SHAVLIK
45324-6
CHIPPEWA FALLS
WISCONSIN
07-08-2024
PROFESSIONAL ENGINEER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH
Designer	SEH
Project Manager	TOU YANG
Regional Examiner	TOU YANG
Regional Supervisor	TOU YANG

APPROVED FOR THE DEPARTMENT
DATE: 7/25/2024 (Signature)

E

FILE NAME : \\SEHINC.COM\PANZURA\PZPROJECTS\FJ\J\JACKH\172115\5-FINAL-DSGN\C3D-CTH O\SHEETS\010101-TI (TITLE SHEET).DWG

PLOT DATE : 5/31/2024 1:47 PM

PLOT BY : LAURA SCHIMMEL

PLOT NAME :

GENERAL NOTES

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

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

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

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

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SALVAGED TOPSOILED, FERTILIZED, SEEDED AND EMATTED.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

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

4" ASPHALTIC SURFACE SHALL BE CONSTRUCTED IN TWO 2" LAYERS.

WISDOT MONUMENTS WILL BE SUPPLIED BY THE STATE AND INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

UTILITY CONTACTS

BRIGHTSPEED - COMMUNICATION LINE
1905 WARD AVENUE
LA CROSSE, WI 54601
TELEPHONE: 980.376.1557
ATTENTION: BRIAN STELPLUGH
EMAIL: BRIAN.STELPLUGH@BRIGHTSPEED.COM

JACKSON ELECTRIC COOPERATIVE - ELECTRICITY
N6868 CO HWY F
BLACK RIVER FALLS, WI 54615
TELEPHONE: 715.284.5385
ATTENTION: ERIC STEIEN
EMAIL: ESTEIEN@JACKELEC.COM

DESIGN CONTACT
SEH
10 NORTH BRIDGE STREET
CHIPPEWA FALLS, WI 54729
TELEPHONE: 715.720.6279
ATTENTION: JUSTIN SHAVLIK
EMAIL: JSHAVLIK@SEHINC.COM

COUNTY CONTACT
JACKSON COUNTY HIGHWAY DEPARTMENT
119 HARRISON STREET
BLACK RIVER FALLS, WI 54615
TELEPHONE: 715.284.0233
ATTENTION: JAY BOREK
EMAIL: JAY.BOREK@CO.JACKSON.WI.US

TOWN CONTACT
TOWN OF MANCHESTER
W10904 VANCE ROAD
BLACK RIVER FALLS, WI 54615
TELEPHONE: 715.299.8625
ATTENTION: ED CHAMBERLAIN
EMAIL: CHAIRMANMANCHESTER@GMAIL.COM

WDNR CONTACT
DNR BLACK RIVER FALLS SERVICE CENTER
910 STATE HIGHWAY 54
BLACK RIVER FALLS, WI 54615
TELEPHONE: 715.213.9064
ATTENTION: BRAD BETTHAUSER
EMAIL: BRADLEY.BETTHAUSER@WISCONSIN.GOV

RUNOFF COEFFICIENT TABLE

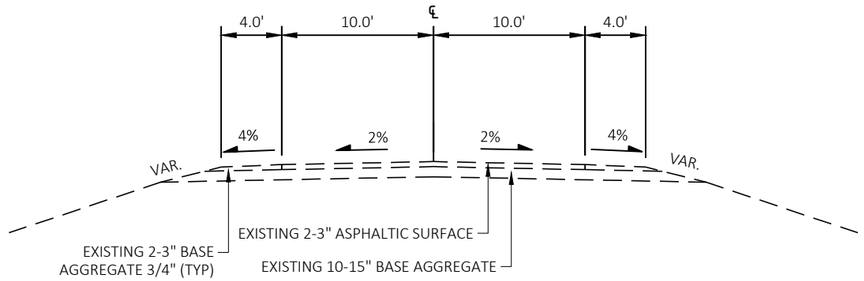
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 0.2 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.2 ACRES

BENCHMARK & CONTROL POINT TABLE

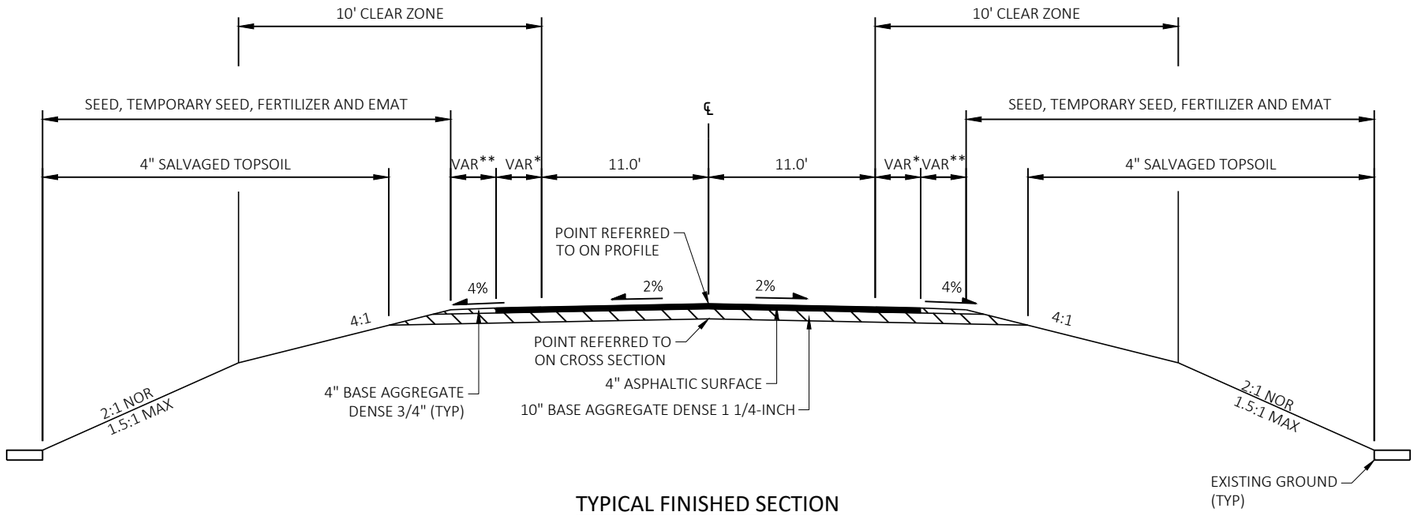
NO	STATION	Y COORDINATE	X COORDINATE	DESCRIPTION	ELEVATION
CP 1	560' WEST OF NW COR OF EXISTING STRUCTURE	55662.555	109913.913	3/8" SPIKE IN NORTH SHOULDER	853.433'
CP 2	STA 8+06.88, 14.27' LT	55660.747	110298.195	3/8" SPIKE IN NORTH SHOULDER	837.862'
CP 5	STA 11+25.22, 15.30' LT	55661.546	110616.534	3/8" SPIKE IN NORTH SHOULDER	835.068'
CP 6	450' EAST OF NE CORNER OF EXISTING STRUCTURE	55646.476	110955.601	3/8" SPIKE IN C/L OF ROAD	844.277'
BM 1	450' EAST OF NE CORNER OF EXISTING STRUCTURE	55685.217	110954.880	SPIKE IN PP	846.455'
BM 2	210' WEST OF NW CORNER OF EXISTING STRUCTURE	55684.032	110263.161	SPIKE IN PP	835.521'
BM 3	510' WEST OF NW CORNER OF EXISTING STRUCTURE	55684.095	109959.154	SPIKE IN PP	854.400'

2



TYPICAL EXISTING SECTION

STA 8+50 TO 9+83
STA 10+17 TO 11+50



TYPICAL FINISHED SECTION

STA 8+50 TO 9+74.75
STA 10+25.25 TO 11+50

*PAVED SHOULDER WIDTH VARIES FROM 0' AT PROJECT LIMITS TO 4.25' AT ENDS OF BRIDGE DECK

**UNPAVED SHOULDER WIDTH VARIES FROM 4' AT PROJECT LIMITS TO 2' AT ENDS OF BRIDGE DECK

PROJECT NO: 7027-00-72	HWY: CTH O	COUNTY: JACKSON	TYPICAL SECTIONS	SHEET 3	E

FILE NAME : \\SEHINC.COM\PANZURA\PZPROJECTS\FJ\J\JACKH\172115\5-FINAL-DSGN\C3D-CTH O\SHEETS\020301-TS (TYPICAL SECTIONS).DWG
LAYOUT NAME - 01-10ft
PLOT DATE : 7/15/2024 11:14 AM PLOT BY : LAURA SCHIMMEL PLOT NAME : PLOT SCALE : 1 IN:10 FT

Estimate Of Quantities

7027-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	3.000	3.000
0004	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. B-27-0179	EACH	1.000	1.000
0006	205.0100	Excavation Common	CY	204.000	204.000
0008	206.1001	Excavation for Structures Bridges (structure) 01. B-27-0179	EACH	1.000	1.000
0010	208.0100	Borrow	CY	422.000	422.000
0012	210.1500	Backfill Structure Type A	TON	414.000	414.000
0014	213.0100	Finishing Roadway (project) 01. 7027-00-72	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	44.000	44.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	521.000	521.000
0020	455.0605	Tack Coat	GAL	40.000	40.000
0022	465.0105	Asphaltic Surface	TON	152.000	152.000
0024	502.0100	Concrete Masonry Bridges	CY	180.000	180.000
0026	502.3200	Protective Surface Treatment	SY	235.000	235.000
0028	505.0400	Bar Steel Reinforcement HS Structures	LB	4,560.000	4,560.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	28,630.000	28,630.000
0032	513.4061	Railing Tubular Type M	LF	105.000	105.000
0034	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0036	550.2124	Piling CIP Concrete 12 3/4 X 0.25-Inch	LF	880.000	880.000
0038	606.0300	Riprap Heavy	CY	159.000	159.000
0040	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	146.000	146.000
0042	618.0100	Maintenance and Repair of Haul Roads (project) 01. 7027-00-72	EACH	1.000	1.000
0044	619.1000	Mobilization	EACH	1.000	1.000
0046	624.0100	Water	MGAL	6.000	6.000
0048	625.0500	Salvaged Topsoil	SY	999.000	999.000
0050	628.1504	Silt Fence	LF	615.000	615.000
0052	628.1520	Silt Fence Maintenance	LF	615.000	615.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.2027	Erosion Mat Class II Type C	SY	999.000	999.000
0060	628.6005	Turbidity Barriers	SY	130.000	130.000
0062	628.7504	Temporary Ditch Checks	LF	32.000	32.000
0064	629.0210	Fertilizer Type B	CWT	0.500	0.500
0066	630.0120	Seeding Mixture No. 20	LB	46.000	46.000
0068	630.0200	Seeding Temporary	LB	28.000	28.000
0070	630.0500	Seed Water	MGAL	29.000	29.000
0072	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0074	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0076	638.2602	Removing Signs Type II	EACH	6.000	6.000
0078	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0080	642.5001	Field Office Type B	EACH	1.000	1.000
0082	643.0420	Traffic Control Barricades Type III	DAY	1,242.000	1,242.000
0084	643.0705	Traffic Control Warning Lights Type A	DAY	1,932.000	1,932.000
0086	643.0900	Traffic Control Signs	DAY	966.000	966.000
0088	643.5000	Traffic Control	EACH	1.000	1.000
0090	645.0111	Geotextile Type DF Schedule A	SY	92.000	92.000
0092	645.0120	Geotextile Type HR	SY	226.000	226.000
0094	646.2020	Marking Line Epoxy 6-Inch	LF	1,200.000	1,200.000
0096	650.4500	Construction Staking Subgrade	LF	250.000	250.000
0098	650.5000	Construction Staking Base	LF	250.000	250.000

Estimate Of Quantities

7027-00-72

Line	Item	Item Description	Unit	Total	Qty
0100	650.6501	Construction Staking Structure Layout (structure) 01. B-27-0179	EACH	1.000	1.000
0102	650.9911	Construction Staking Supplemental Control (project) 01. 7027-00-72	EACH	1.000	1.000
0104	650.9920	Construction Staking Slope Stakes	LF	250.000	250.000
0106	690.0150	Sawing Asphalt	LF	42.000	42.000
0108	715.0502	Incentive Strength Concrete Structures	DOL	1,080.000	1,080.000
0110	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 10+00	EACH	1.000	1.000
0112	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0114	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0116	SPV.0090	Special 01. Removing Existing Timber Piling	LF	100.000	100.000

3

GRUBBING

STATION	LOCATION	201.0205 GRUBBING STA
CTH O		
8+50 - 11+50	LT & RT	3
ITEM TOTALS		3

EXCAVATION

STATION	LOCATION	205.0100 EXCAVATION COMMON CY	AVAILABLE MATERIAL CY	EXPANDED FILL CY	208.0100 BORROW CY
CTH O					
8+50 - 9+66	LT & RT	104	5	301	296
10+34 - 11+50	LT & RT	100	1	127	126
ITEM TOTALS		204	6	428	422

NOTES:
1) UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON EXCAVATION.
2) AVAILABLE MATERIAL DOES NOT INCLUDE UNUSABLE PAVEMENT EXCAVATION AND EXISTING BASE AGGREGATE VOLUME.
4) EXPANSION FACTOR = 1.25

BASE AGGREGATE DENSE

STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	624.0100 WATER MGAL
CTH O				
8+50 - 9+75	LT & RT	22	260	3
10+25 - 11+50	LT & RT	22	261	3
ITEM TOTALS		44	521	6

ASPHALTIC PAVEMENT ITEMS

STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
CTH O			
8+50 - 9+75	LT & RT	20	76
10+25 - 11+50	LT & RT	20	76
ITEM TOTALS		40	152

MOBILIZATIONS EROSION CONTROL

STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
CTH O		
8+50 - 11+50	2	2
ITEM TOTALS	2	2

3

SALVAGED TOPSOIL AND SEEDING

STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
CTH O						
8+50 - 9+75	LT & RT	569	0.4	26	16	16
10+25 - 11+50	LT & RT	430	0.1	20	12	13
ITEM TOTALS		999	0.5	46	28	29

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	628.6005 TURBIDITY BARRIERS SY	628.7504 TEMPORARY DITCH CHECKS LF	606.0300** RIPRAP HEAVY CY	645.0120** GEOTEXTILE TYPE HR SY
CTH O								
8+50 - 9+75	LT & RT	309	309	569	-	16	-	-
10+00	LT & RT	-	-		130	-	-	-
10+25 - 11+50	LT & RT	306	306	430	-	16	19	26
ITEM TOTALS		615	615	999	130	32	19	26

**ITEM LOCATED ELSEWHERE IN PLANS.

CONSTRUCTION STAKING

STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF
CTH O				
8+50 - 9+75	LT & RT	125	125	125
10+25 - 11+50	LT & RT	125	125	125
ITEM TOTALS		250	250	250

PERMANENT SIGNING

SIGN GROUP CODE	SIGN CODE	SIGN MESSAGE	TYPE II SIZE	634.0612 POSTS WOOD 4X6-INCH 12-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
CTH O								
1-1	W5-52L	CLEARANCE STRIPER	12" X 36"	1	3	1	1	REPLACE
1-2	W5-52R	CLEARANCE STRIPER	12" X 36"	1	3	1	1	REPLACE
1-3	W5-52R	CLEARANCE STRIPER	12" X 36"	1	3	1	1	REPLACE
1-4	W5-52L	CLEARANCE STRIPER	12" X 36"	1	3	1	1	REPLACE
-	R12-1	WEIGHT LIMIT 20 TONS	24" X 30"	-	-	1	1	REMOVE
-	R12-1	WEIGHT LIMIT 20 TONS	24" X 30"	-	-	1	1	REMOVE
ITEM TOTALS				4	12	6	6	

TRAFFIC CONTROL

STATION	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS EACH	643.0900 SIGNS DAY	CALENDAR DAYS
CTH O							
8+50 - 11+50	18	1242	28	1932	14	966	69
ITEM TOTALS		1242		1932		966	

MARKING LINE

STATION	LOCATION	646.2020 EPOXY 6-INCH LF	REMARKS
CTH O			
8+50 - 11+50	CL	600	DOUBLE YELLOW CENTERLINE
8+50 - 11+50	LT & RT	600	WHITE EDGELINE
ITEM TOTAL		1200	

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
CTH O		
8+50	LT & RT	21
11+50	LT & RT	21
ITEM TOTAL		42

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PROJECT NO: 7027-00-72	HWY: CTH O	COUNTY: JACKSON	MISCELLANEOUS QUANTITIES	SHEET 6	E

4

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

PURPOSE OF TLE IS FOR GRADING, UNLESS OTHERWISE NOTED.

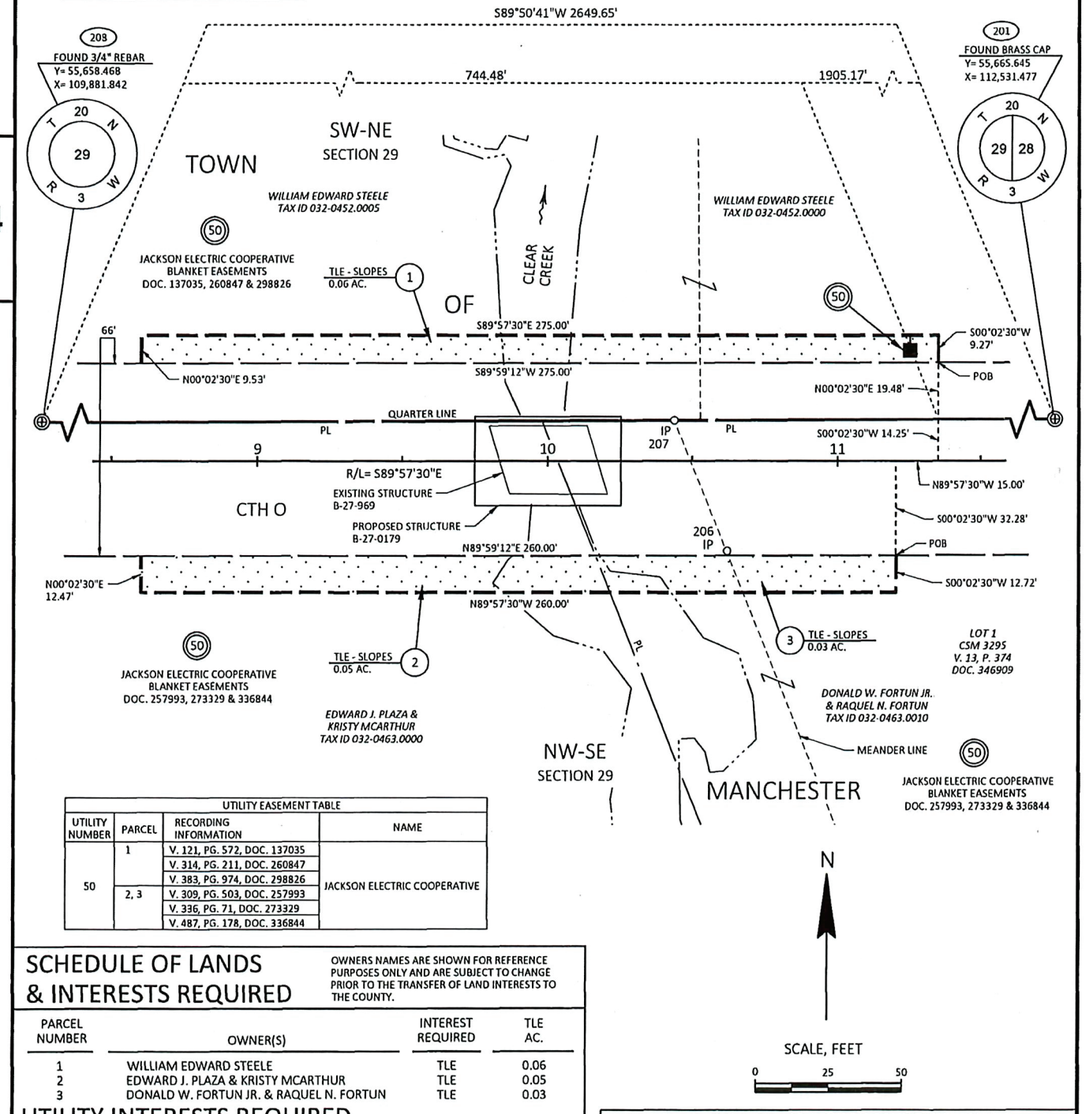
R/W PROJECT NUMBER: 7027-00-02	EXHIBIT NUMBER: 1

TLE ACQUISITION EXHIBIT
STH 27 - MILLSTON
CLEAR CREEK BRIDGE B-27-0179

CTH O — JACKSON COUNTY

THAT PART OF THE SW 1/4 OF THE NE 1/4, AND PART OF LOT 1, CSM 3295, V. 13, P. 374, DOC. 346909, LOCATED IN PART OF THE NW 1/4 OF THE SE 1/4, AND PART OF THE NW 1/4 OF THE SE 1/4, SECTION 29, T20N, R3W, TOWN OF MANCHESTER, JACKSON COUNTY, WISCONSIN.

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
206	55615.508	110553.407	3/4" REBAR
207	55660.276	110535.164	3/4" REBAR



UTILITY EASEMENT TABLE			
UTILITY NUMBER	PARCEL	RECORDING INFORMATION	NAME
50	1	V. 121, PG. 572, DOC. 137035	JACKSON ELECTRIC COOPERATIVE
		V. 314, PG. 211, DOC. 260847	
		V. 383, PG. 974, DOC. 298826	
	2, 3	V. 309, PG. 503, DOC. 257993	
		V. 336, PG. 71, DOC. 273329	
		V. 487, PG. 178, DOC. 336844	

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE AC.
1	WILLIAM EDWARD STEELE	TLE	0.06
2	EDWARD J. PLAZA & KRISTY MCARTHUR	TLE	0.05
3	DONALD W. FORTUN JR. & RAQUEL N. FORTUN	TLE	0.03

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
50	JACKSON ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

THIS EXHIBIT IS APPROVED FOR JACKSON COUNTY, WISCONSIN.

SIGNATURE: Jay Borek DATE: 4-8-24

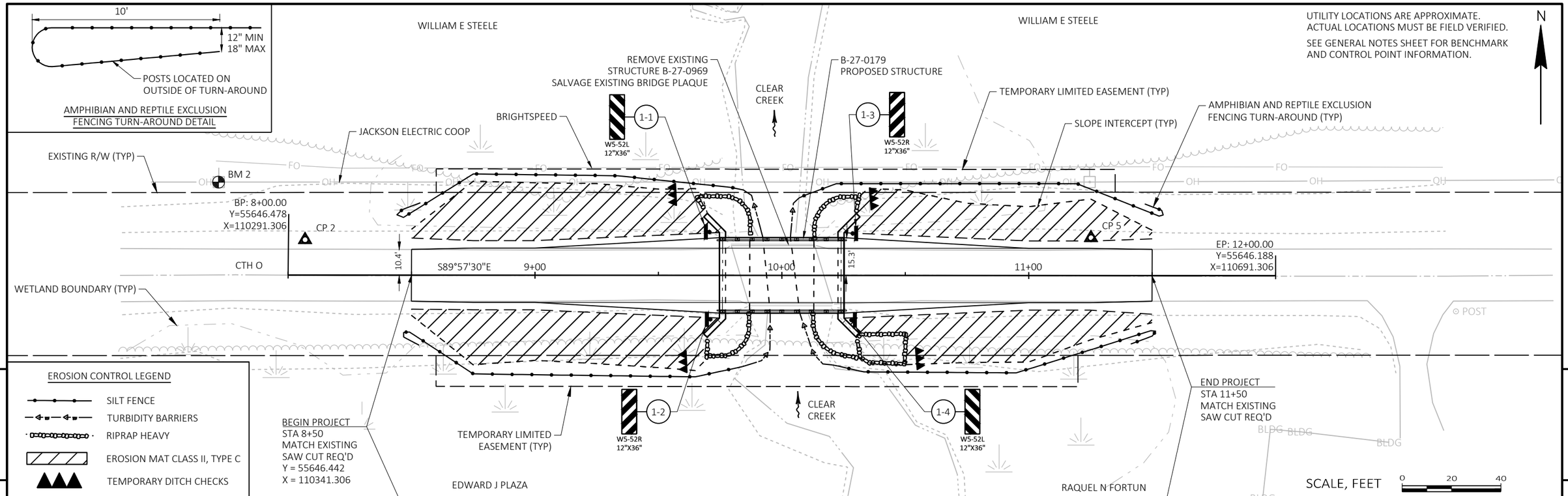
PRINT NAME: JAY BOREK

FILE NAME : 040101-TLE.DWG PLOT DATE : 4/8/2024 8:31 AM R/W PROJECT: 7027-00-02-4.01

AMPHIBIAN AND REPTILE EXCLUSION FENCING TURN-AROUND DETAIL

UTILITY LOCATIONS ARE APPROXIMATE.
ACTUAL LOCATIONS MUST BE FIELD VERIFIED.

SEE GENERAL NOTES SHEET FOR BENCHMARK AND CONTROL POINT INFORMATION.



EROSION CONTROL LEGEND

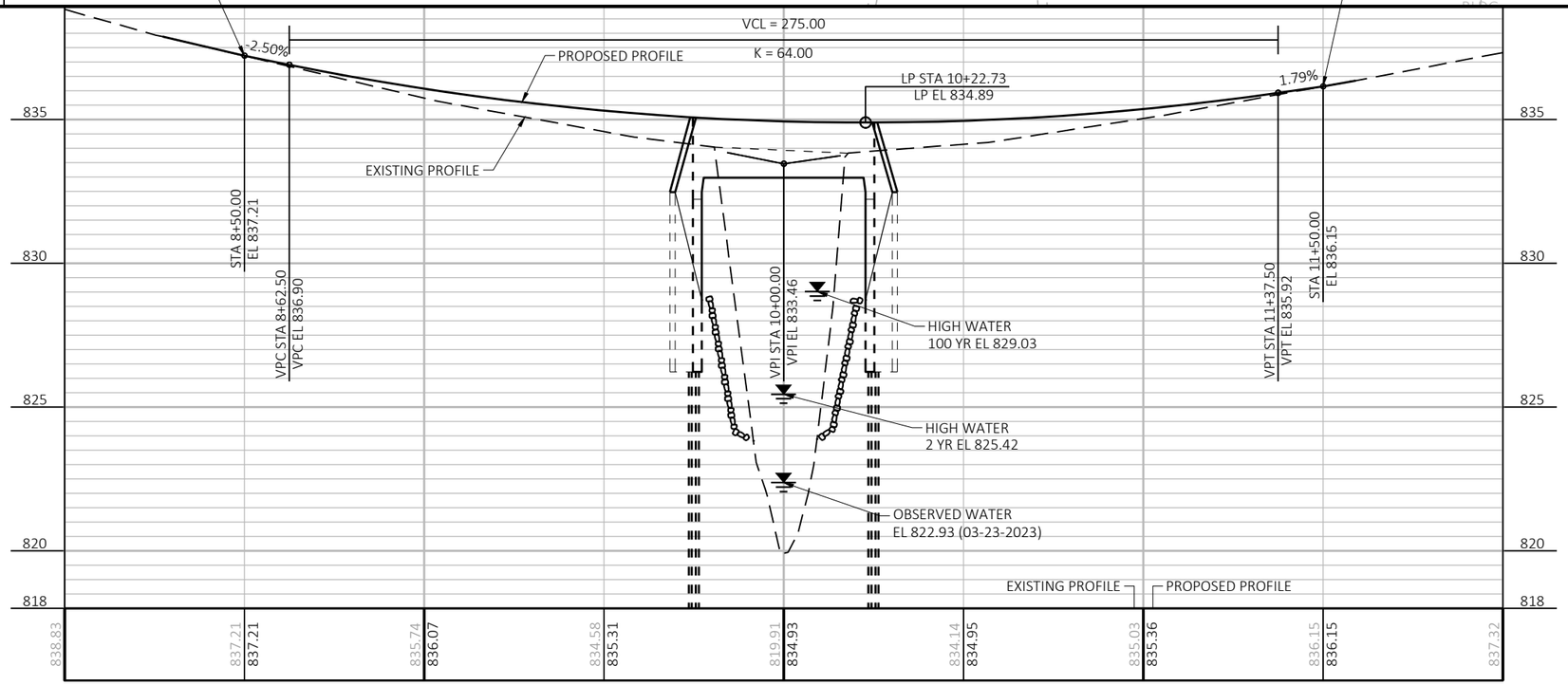
- SILT FENCE
- TURBIDITY BARRIERS
- RIPRAP HEAVY
- EROSION MAT CLASS II, TYPE C
- TEMPORARY DITCH CHECKS

EARTHWORK SUMMARY

STA 8+50 TO STA 9+75

CUT	104 CY
FILL	241 CY
FILL AR 1.25 EXP	301 CY
BORROW	296 CY

STA 10+00
STRUCTURE B-27-0179 REQ'D
PROPOSED SINGLE-SPAN
REINFORCED CONCRETE SLAB
50.5' OVERALL LENGTH
28.0' CLEAR ROADWAY WIDTH



EARTHWORK SUMMARY

STA 10+25 TO STA 11+50

CUT	100 CY
FILL	102 CY
FILL AR 1.25 EXP	127 CY
BORROW	126 CY

STA 10+00
REMOVE STRUCTURE B-27-0969 REQ'D
SINGLE-SPAN CONCRETE DECK GIRDER
33.0' OVERALL LENGTH
23.0' CLEAR ROADWAY WIDTH

PROJECT NO: 7027-00-72	HWY: CTH O	COUNTY: JACKSON	PLAN AND PROFILE: CTH O	SHEET 8 E

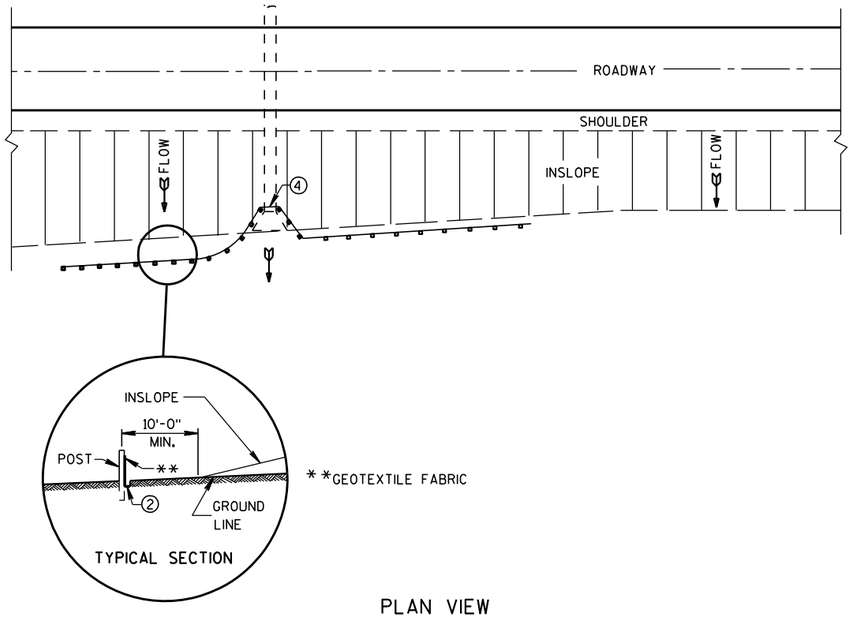
FILE NAME : \\SEHINC.COM\PANZURA\PZPROJECTS\FJ\J\JACKH\172115\5-FINAL-DSGN\C3D-CTH O\SHEETS\050101-PP (PLAN & PROFILE) 40MPH.DWG
LAYOUT NAME - PlanProf 1 IN 40 FT
PLOT DATE : 7/15/2024 11:16 AM PLOT BY : LAURA SCHIMMEL PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

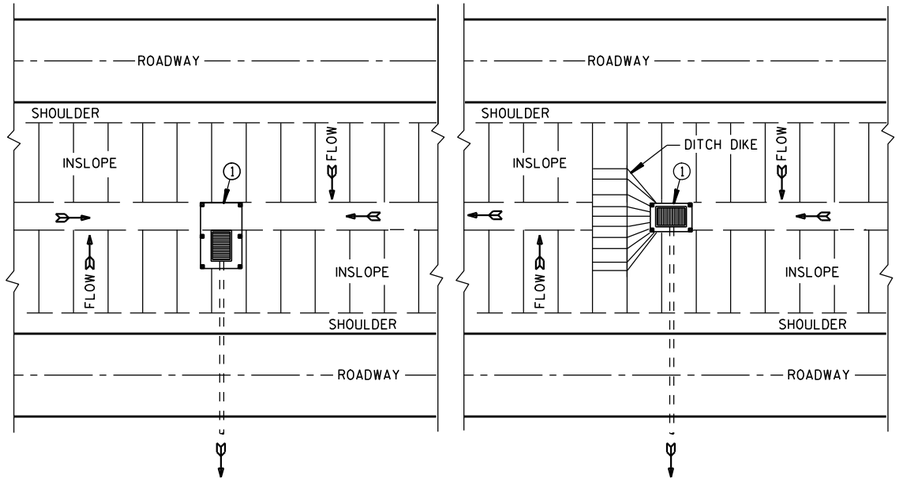
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

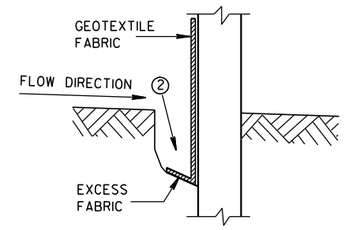
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

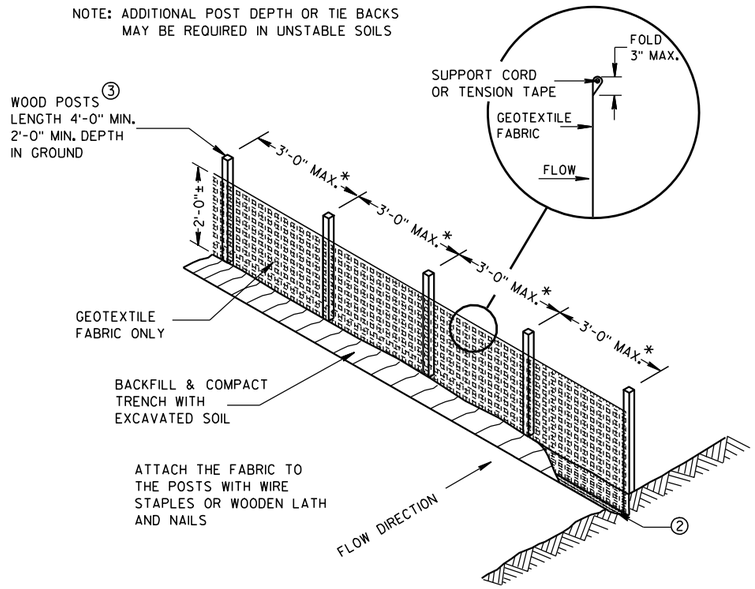
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

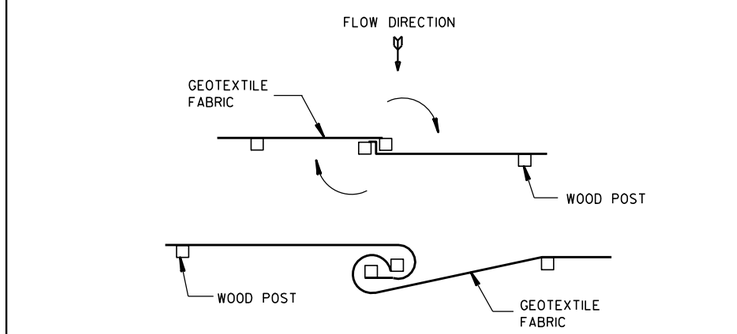
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



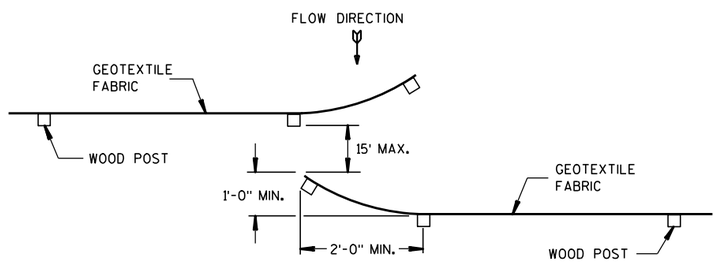
TRENCH DETAIL



SILT FENCE

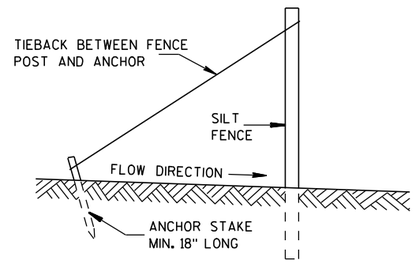


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

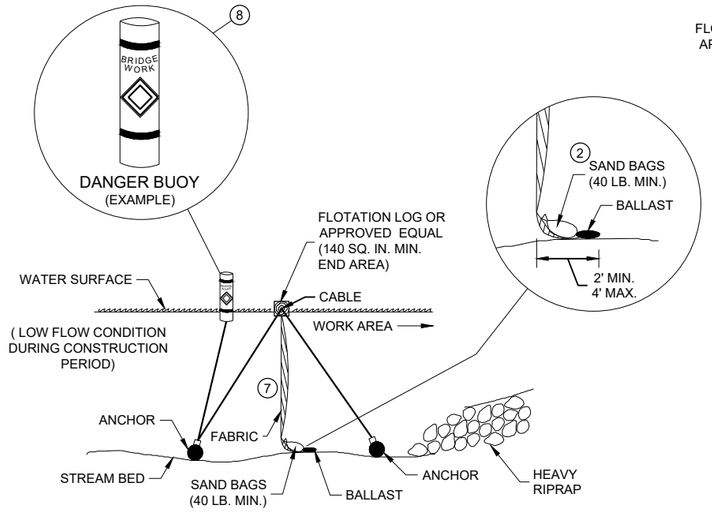
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

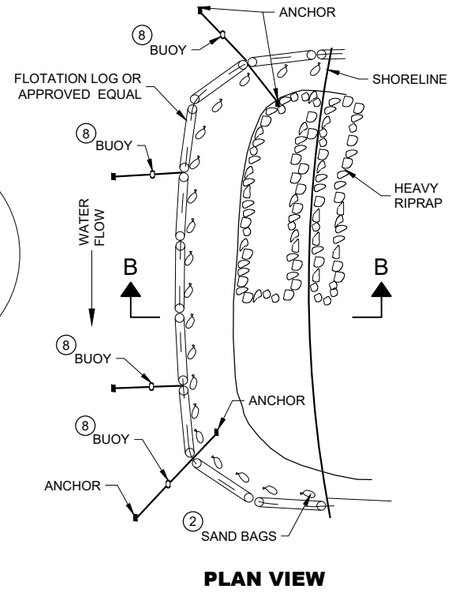
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

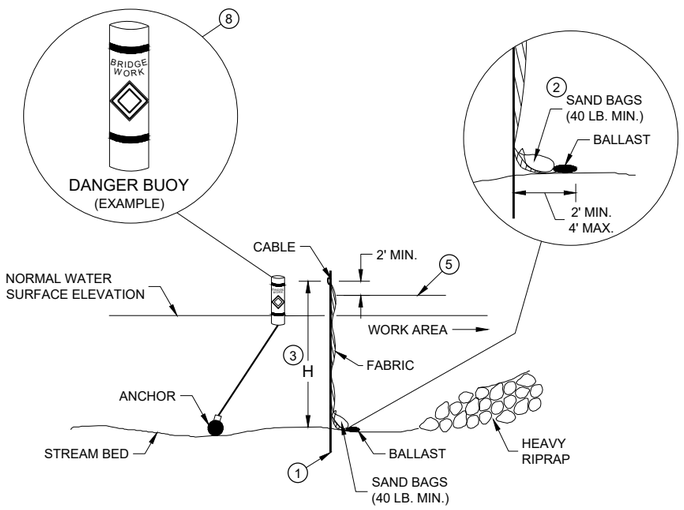


SECTION B - B

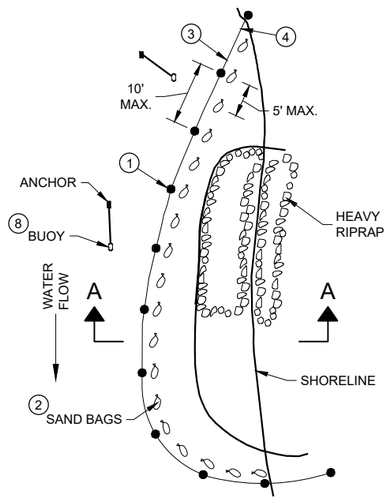


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

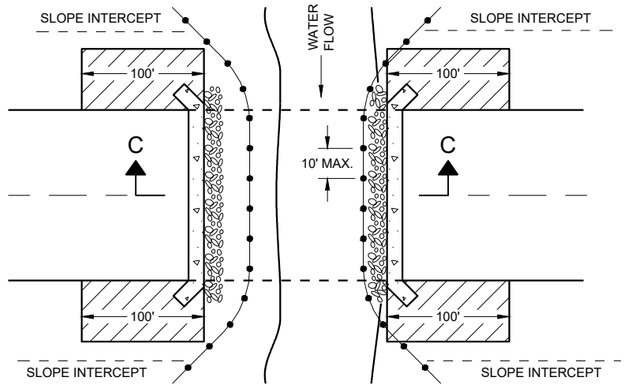
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(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.

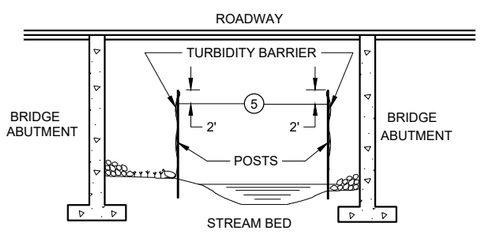
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(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 DEVELOI
ENGINEER

FHWA

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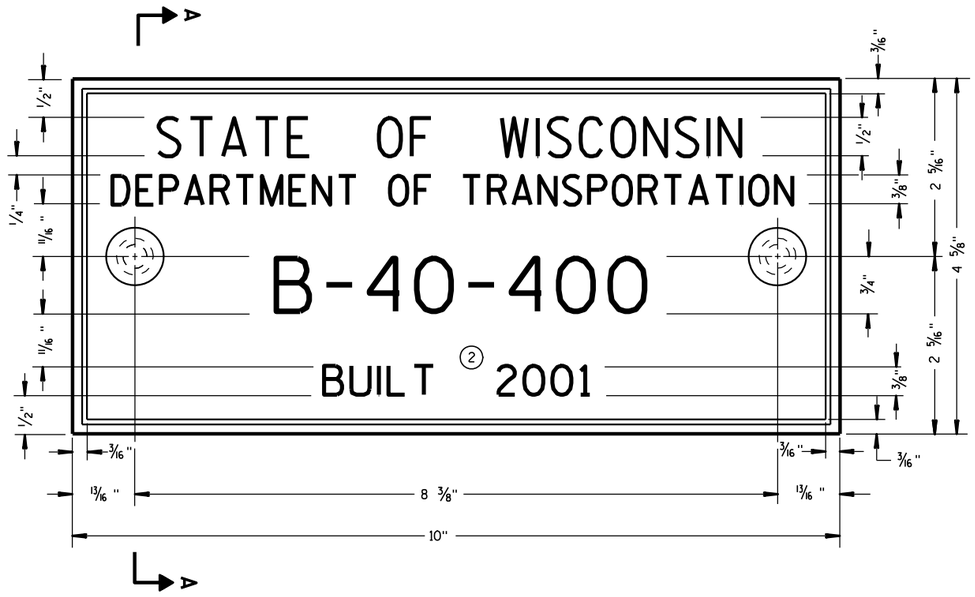
SDD 08E11 - 02



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

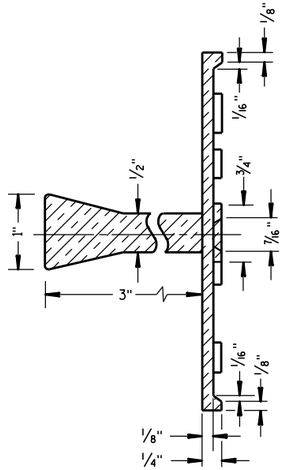
GENERAL NOTES

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.

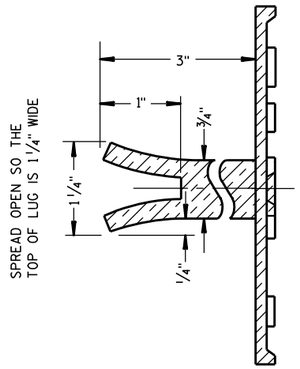
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

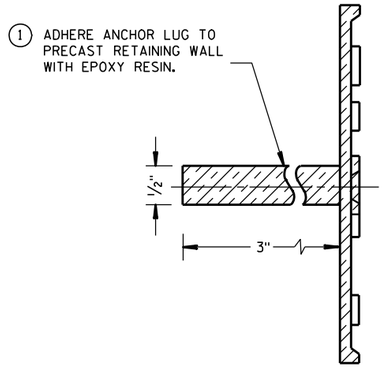
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

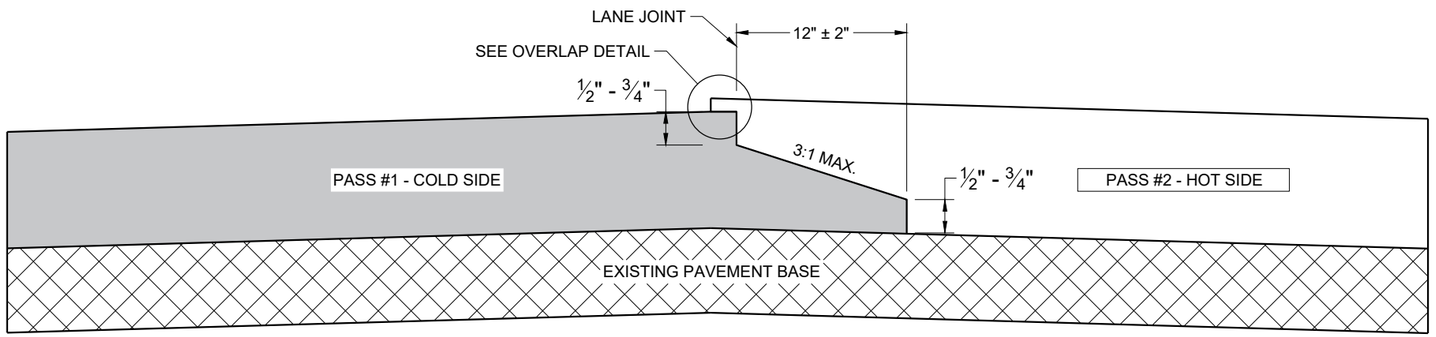
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

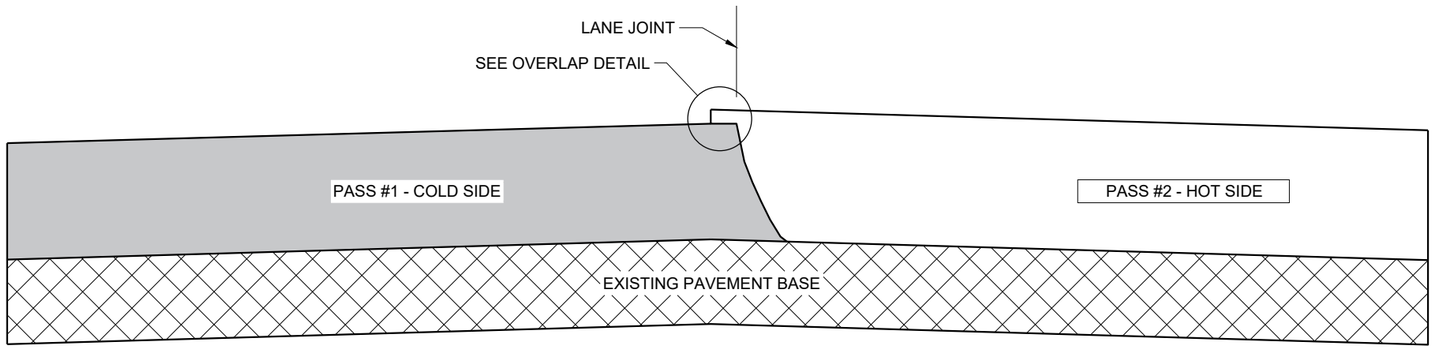
FHWA

6

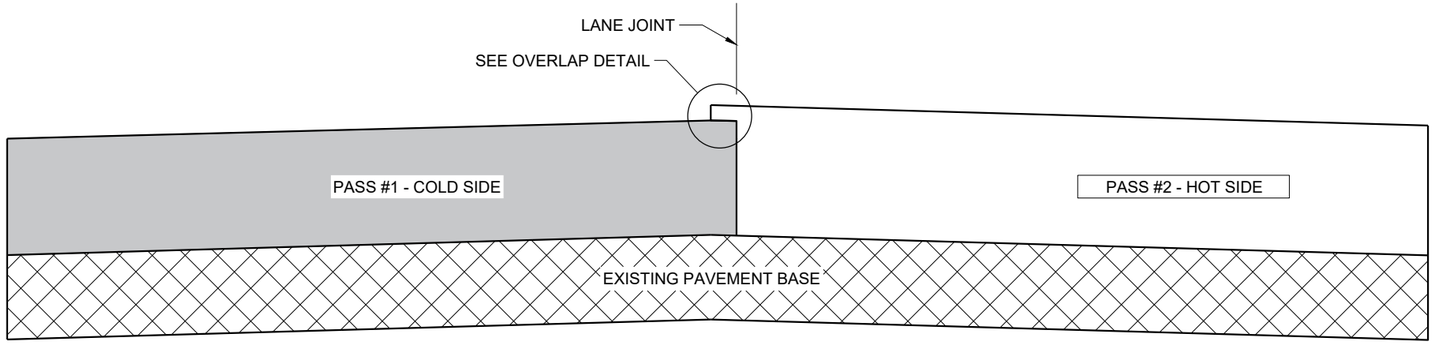
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

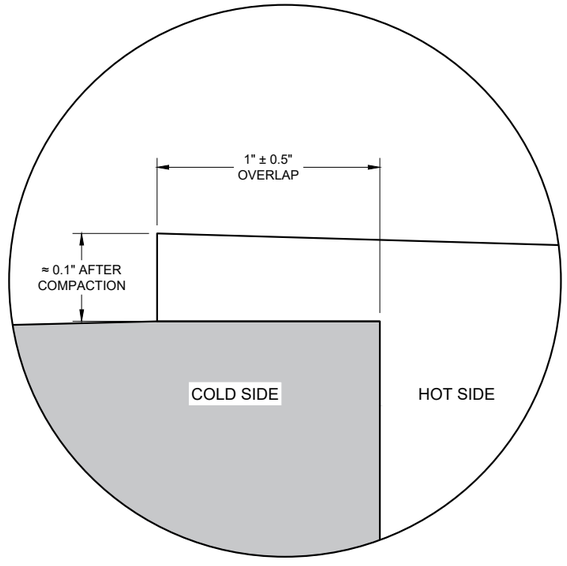
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

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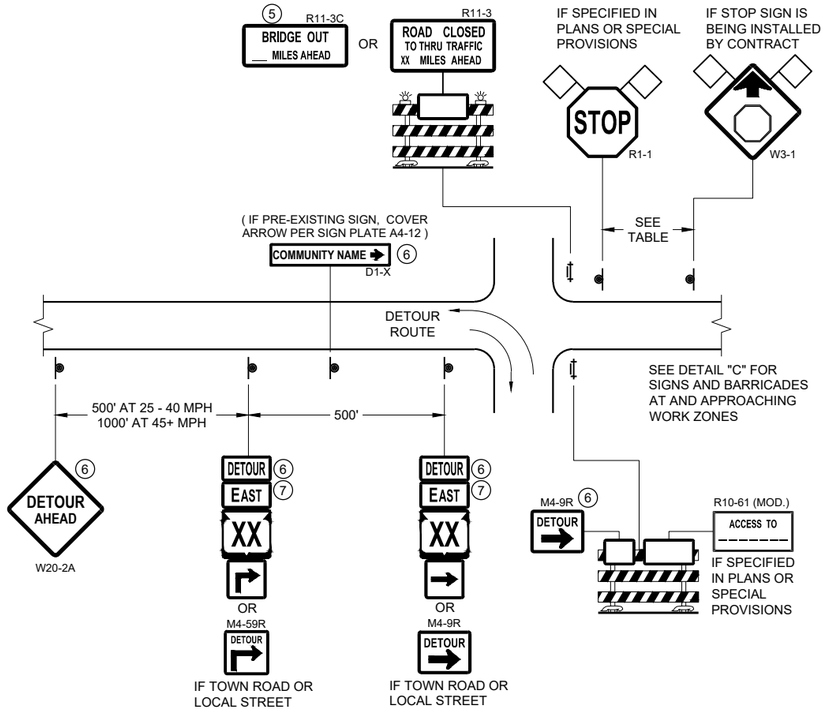
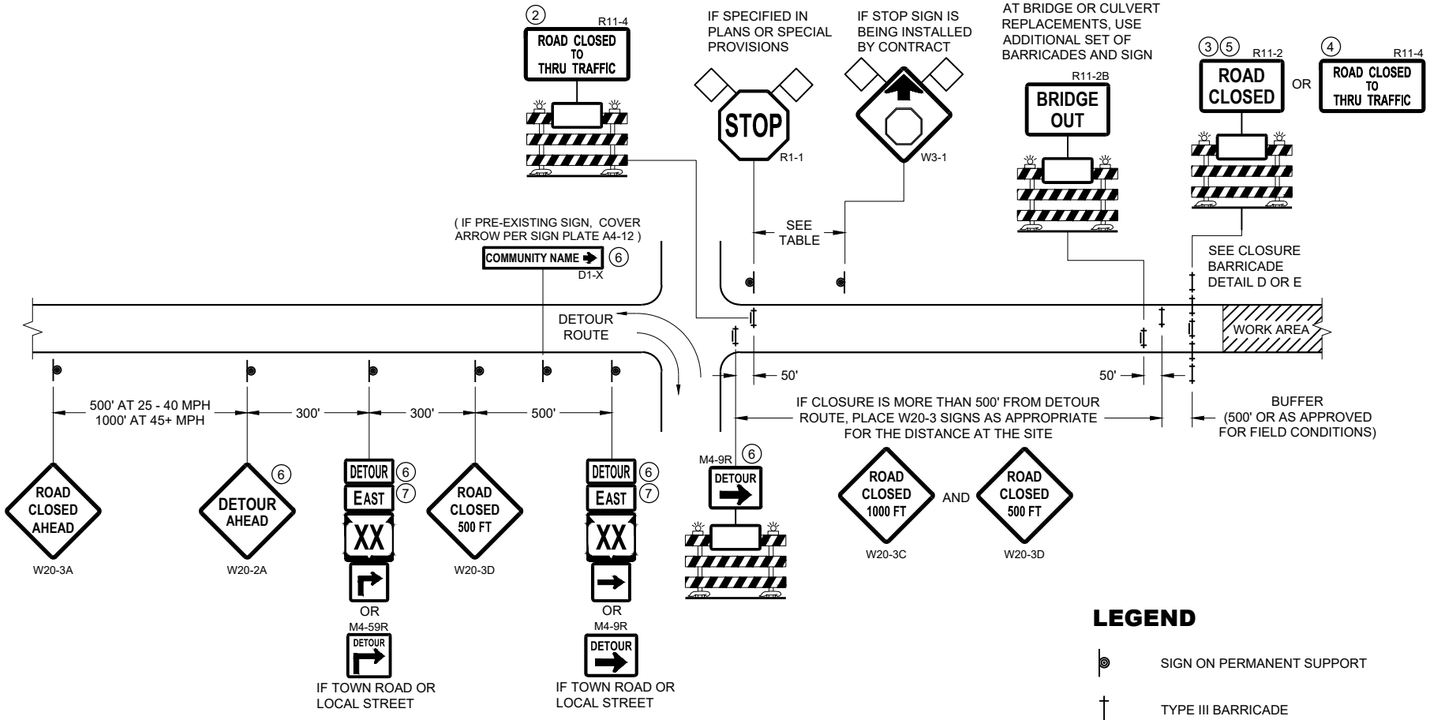
SDD 13C19 - 03



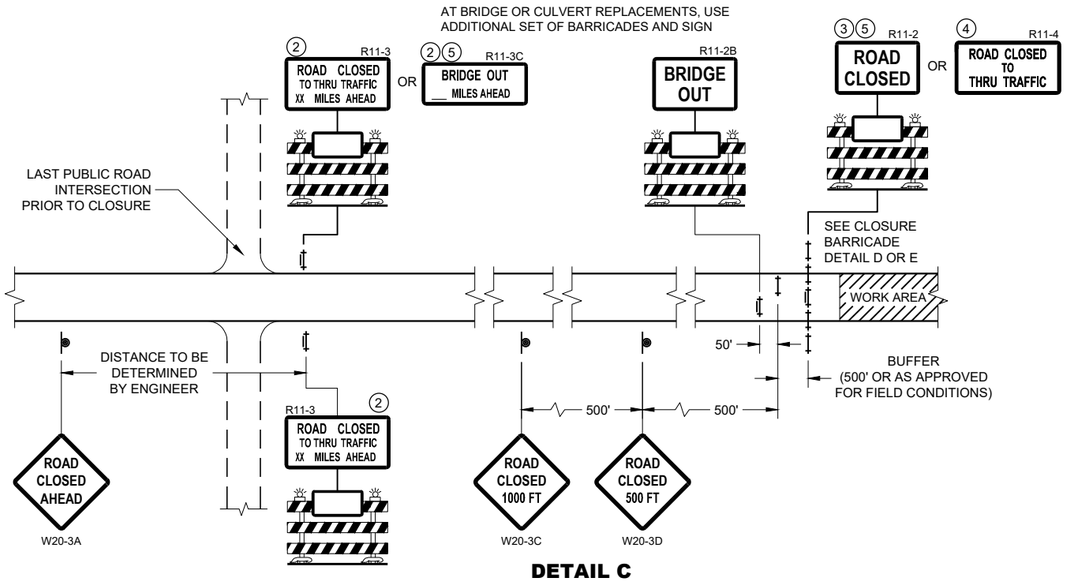
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

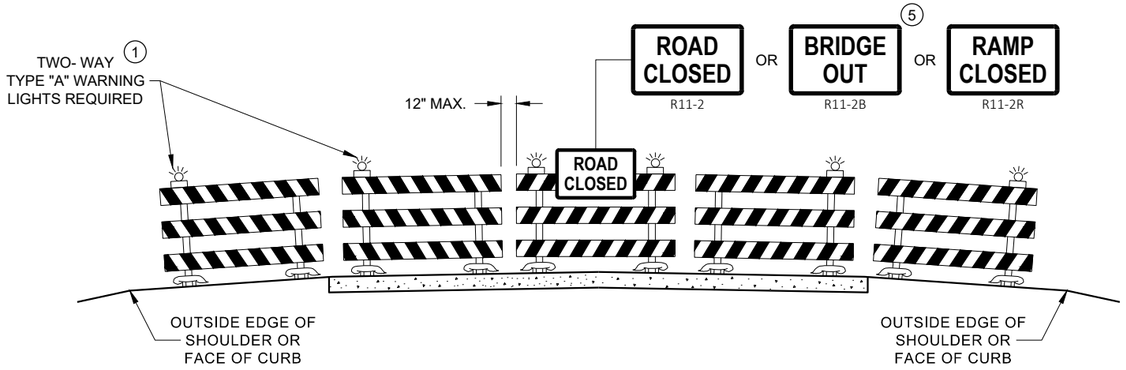
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

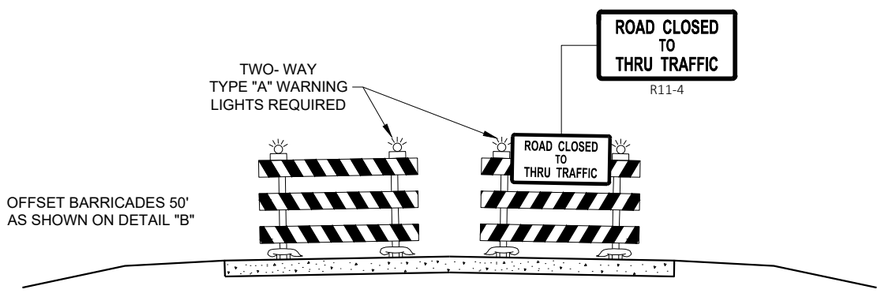
6

SDD 15C02 - 09a

SDD 15C02 - 09a



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

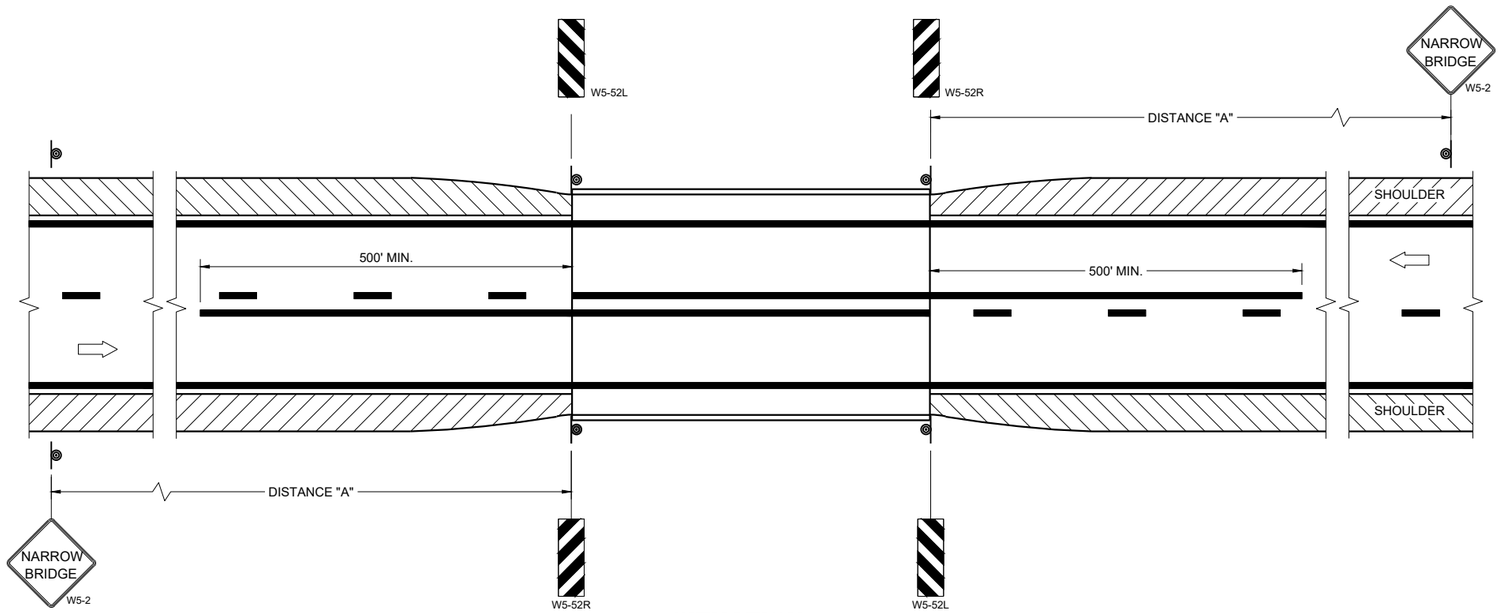
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

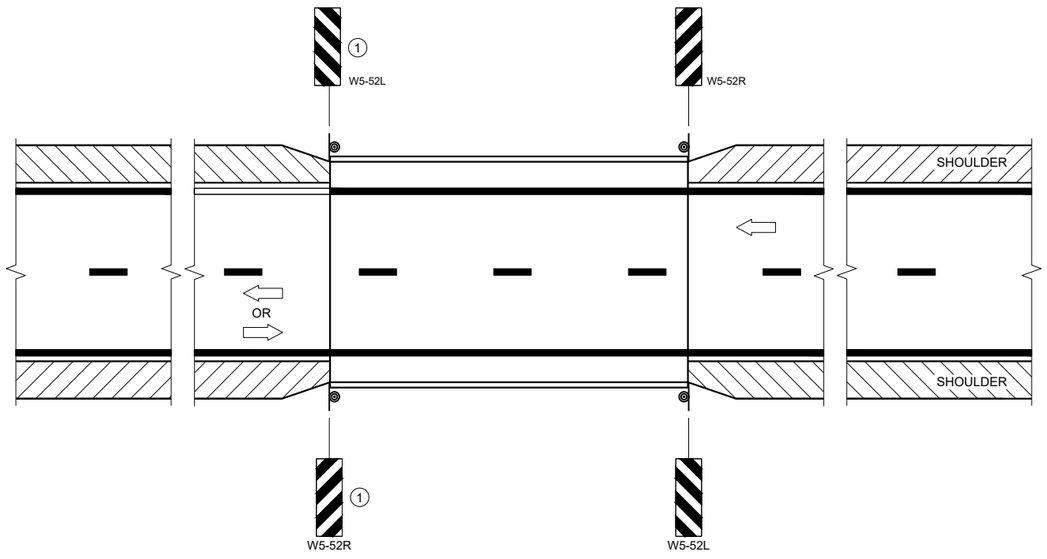
6

SDD 15C02 - 09b



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
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6
SDD 15C06-12

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

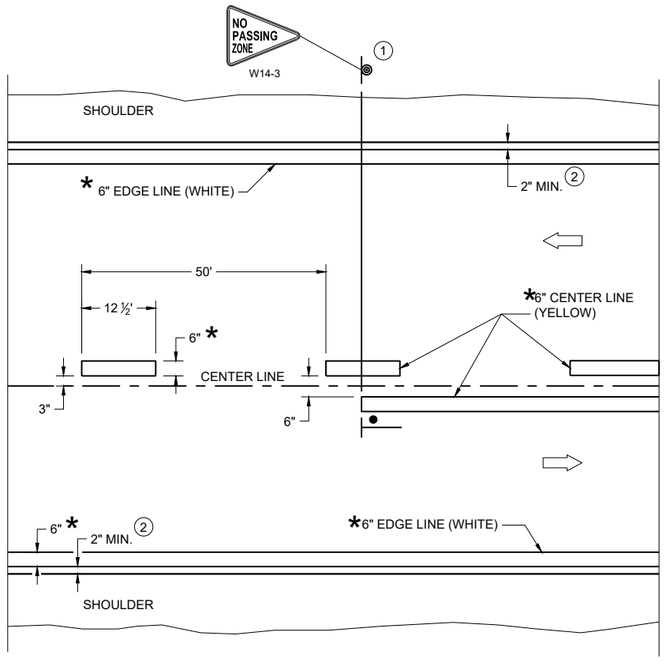
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

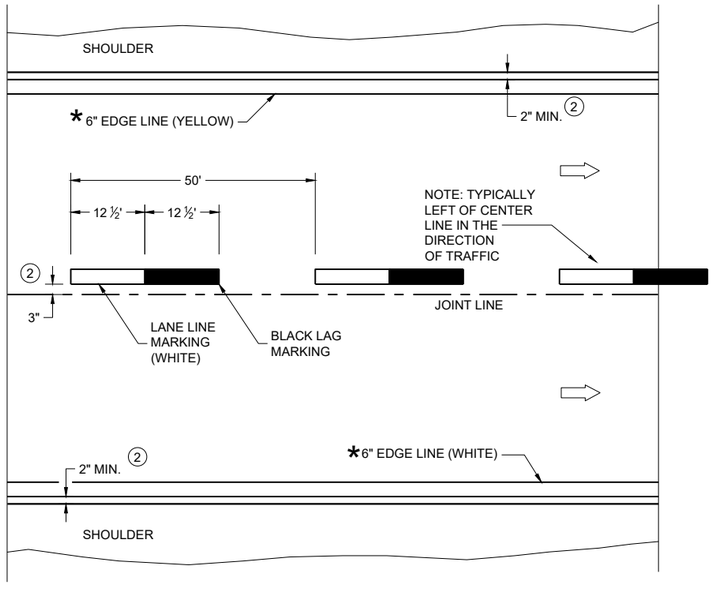
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

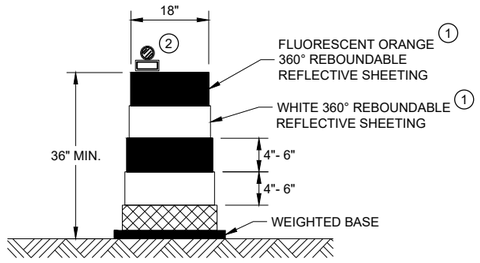
APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-23a

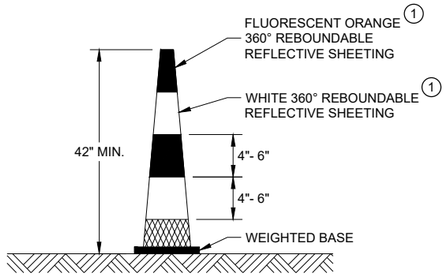
GENERAL NOTES

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.



DRUM

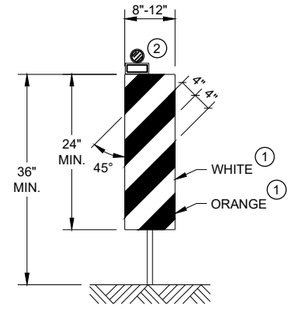
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

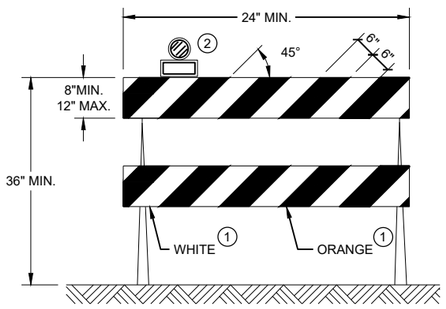
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



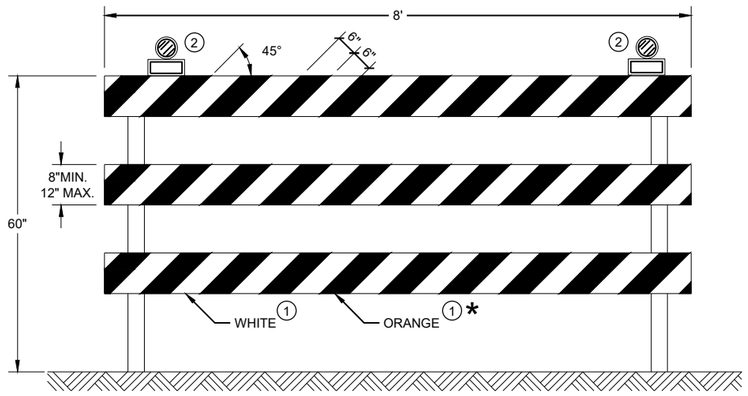
VERTICAL PANEL

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.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

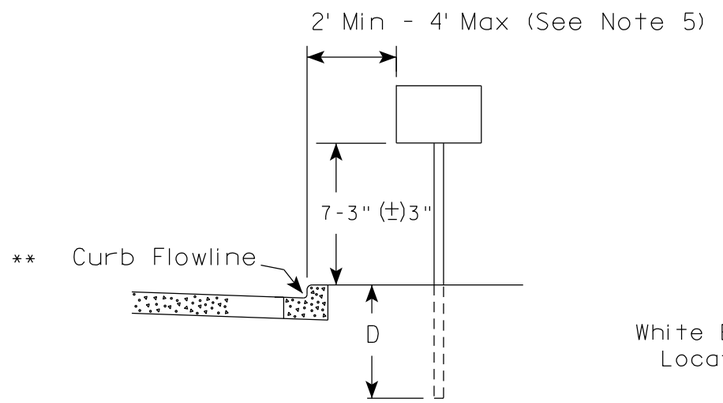
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

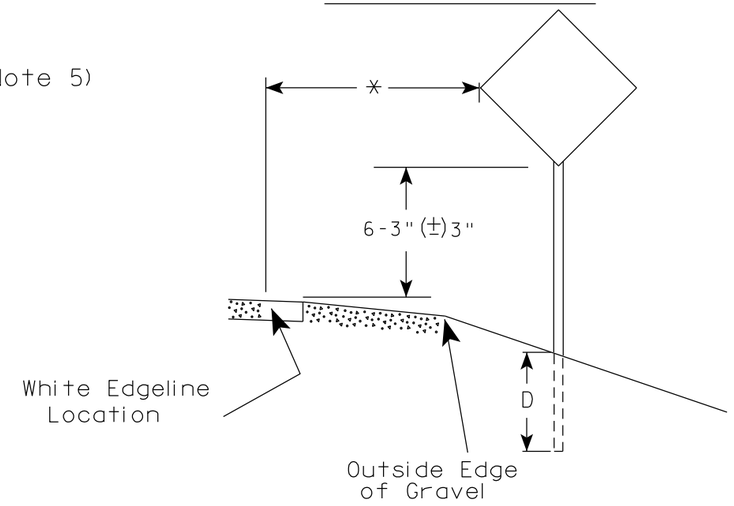
6

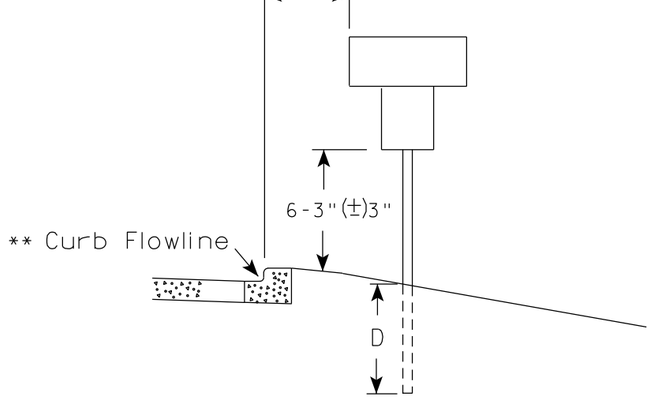
SDD 15C11 - 10b
SDD 15C11 - 10b

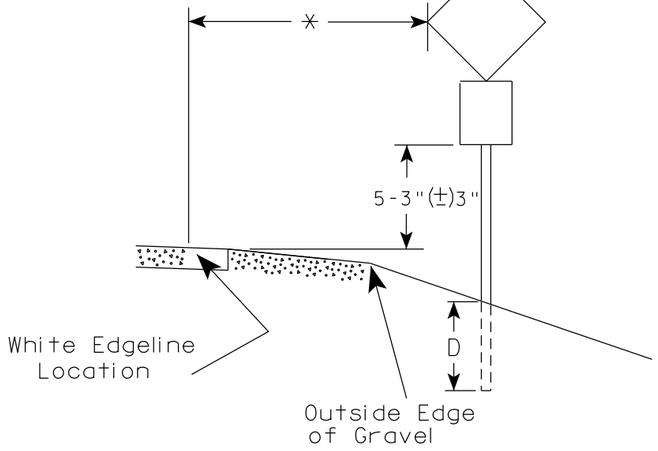
URBAN AREA



RURAL AREA (See Note 2)







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

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 directd by the Engineer.

POST EMBEDMENT DEPTH

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

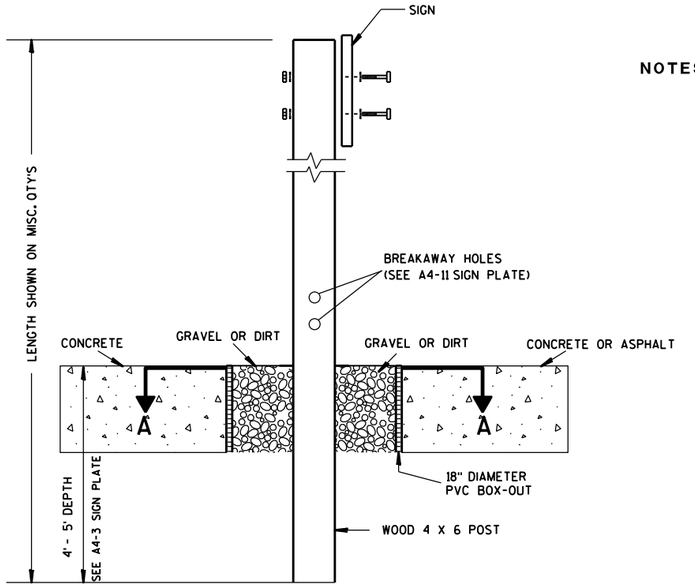
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

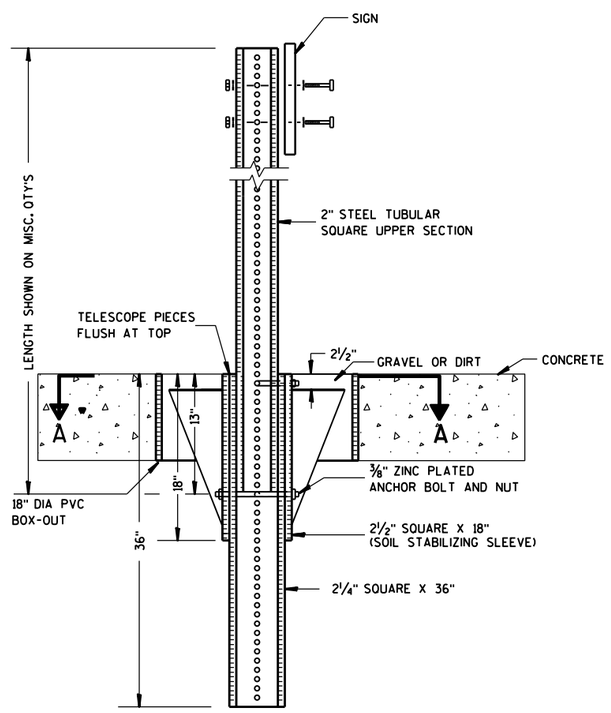
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 19	E



ELEVATION VIEW

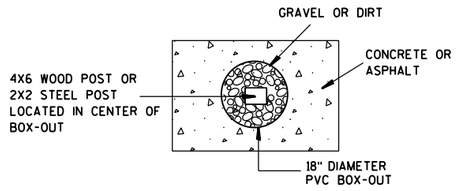
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

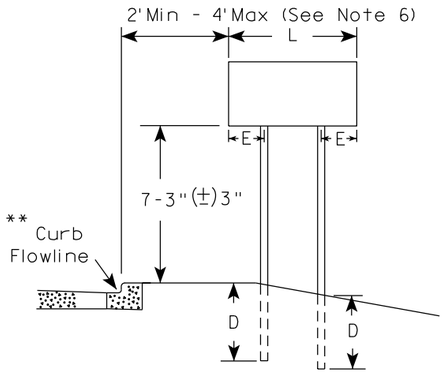
APPROVED Matthew R Rauch
for State Traffic Engineer

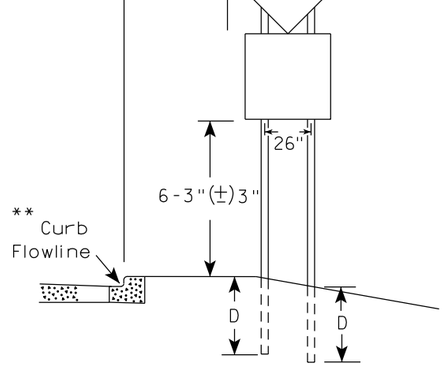
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

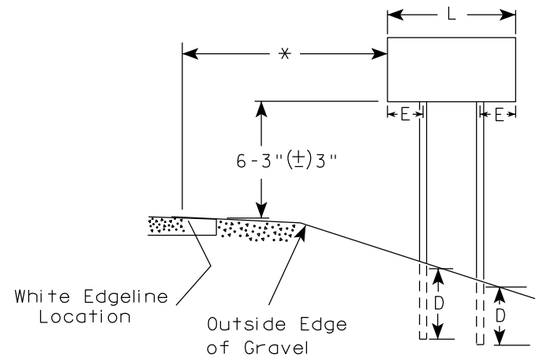
URBAN AREA

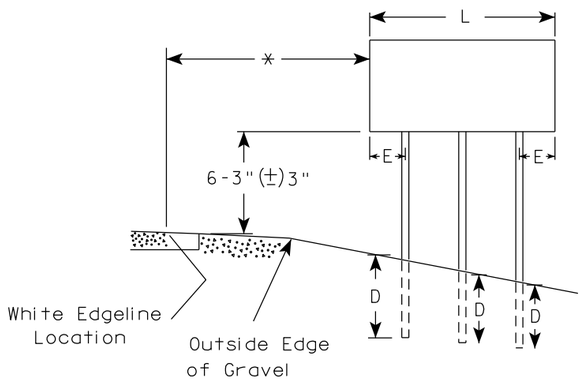


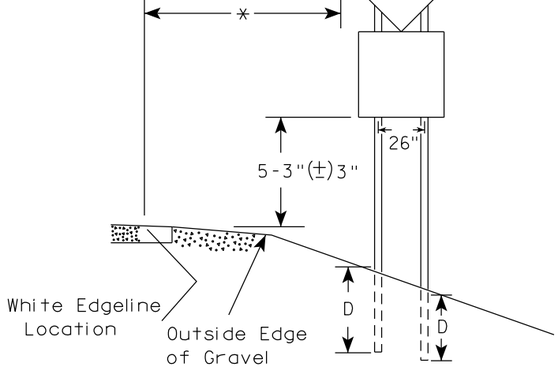


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







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"

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

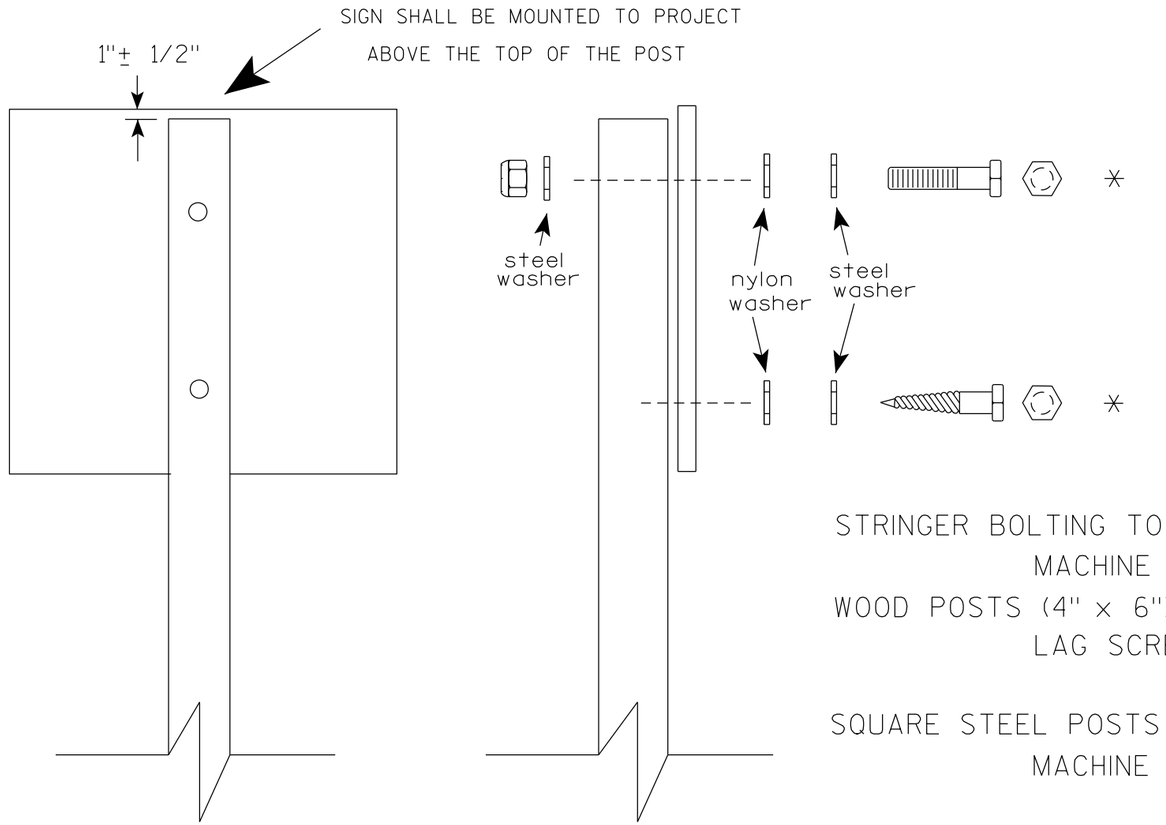
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 21	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

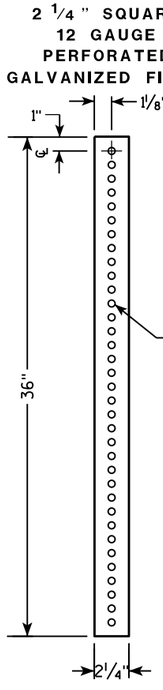
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

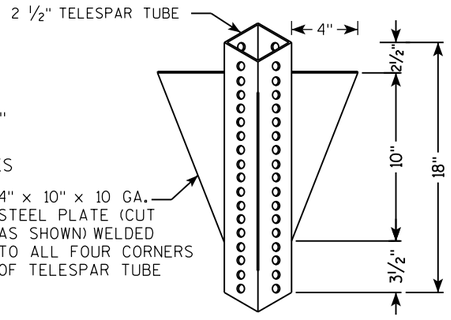
SHEET NO: 22 **E**

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

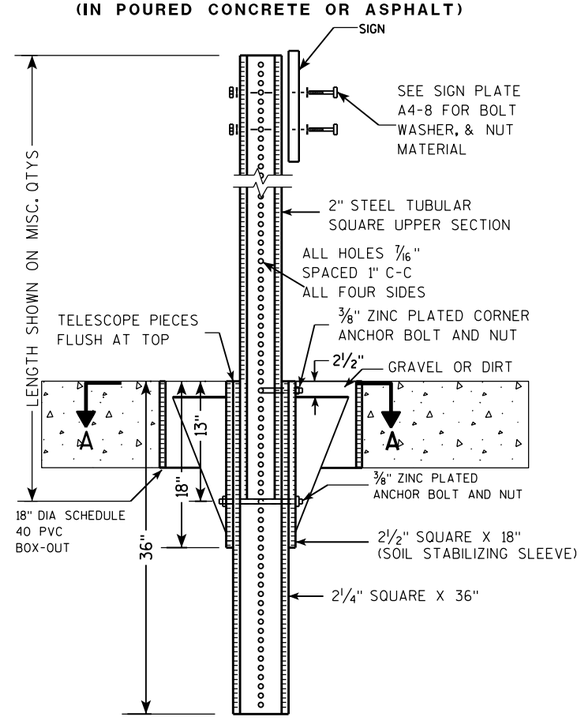
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



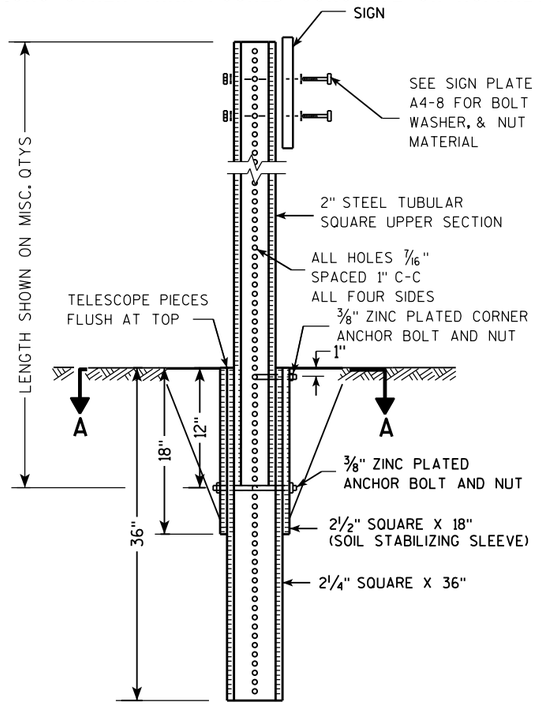
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

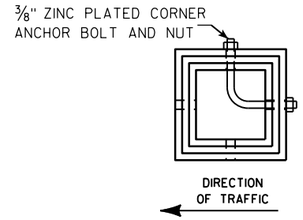


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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

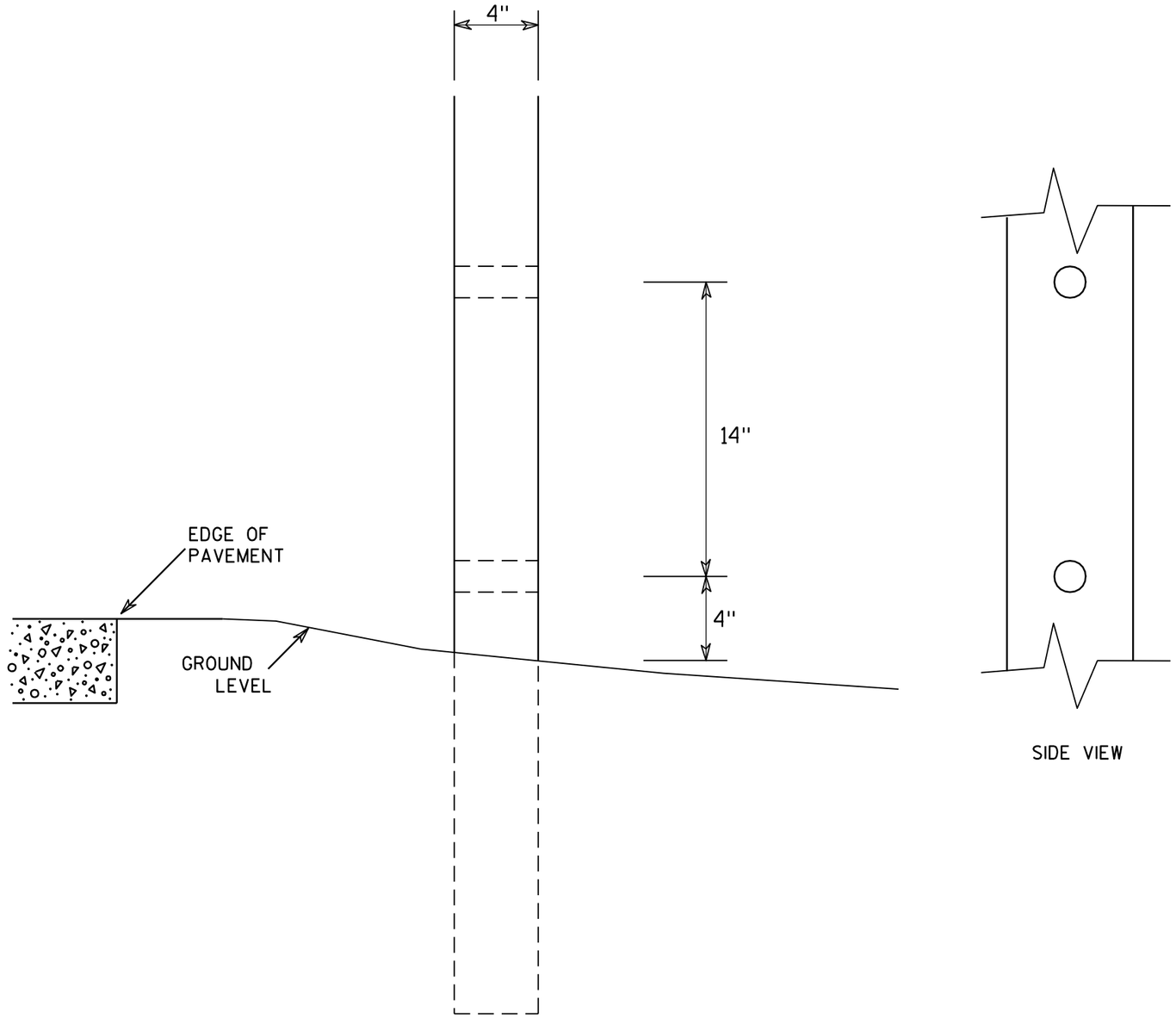
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

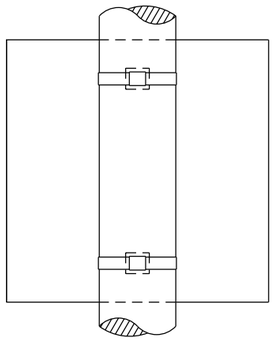
APPROVED Chester J Spang for State Traffic Engineer

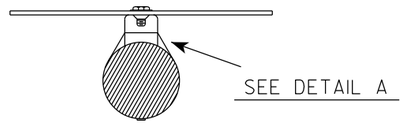
DATE 3/27/97 PLATE NO. A4-11.2

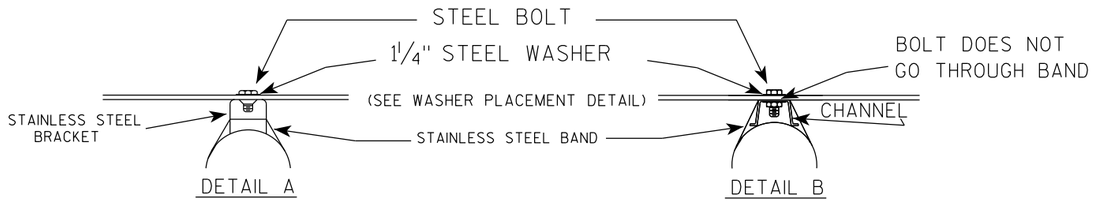
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	E

BANDING

SINGLE SIGN



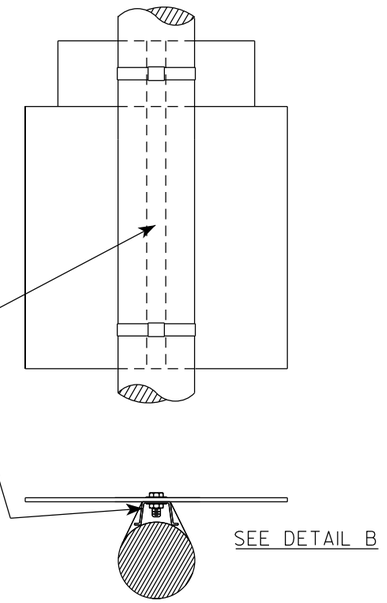




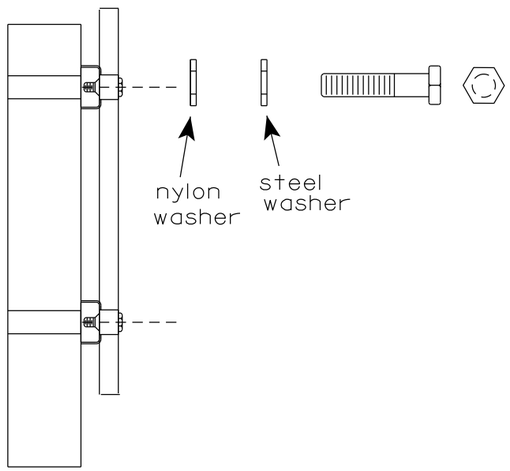
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" 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



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

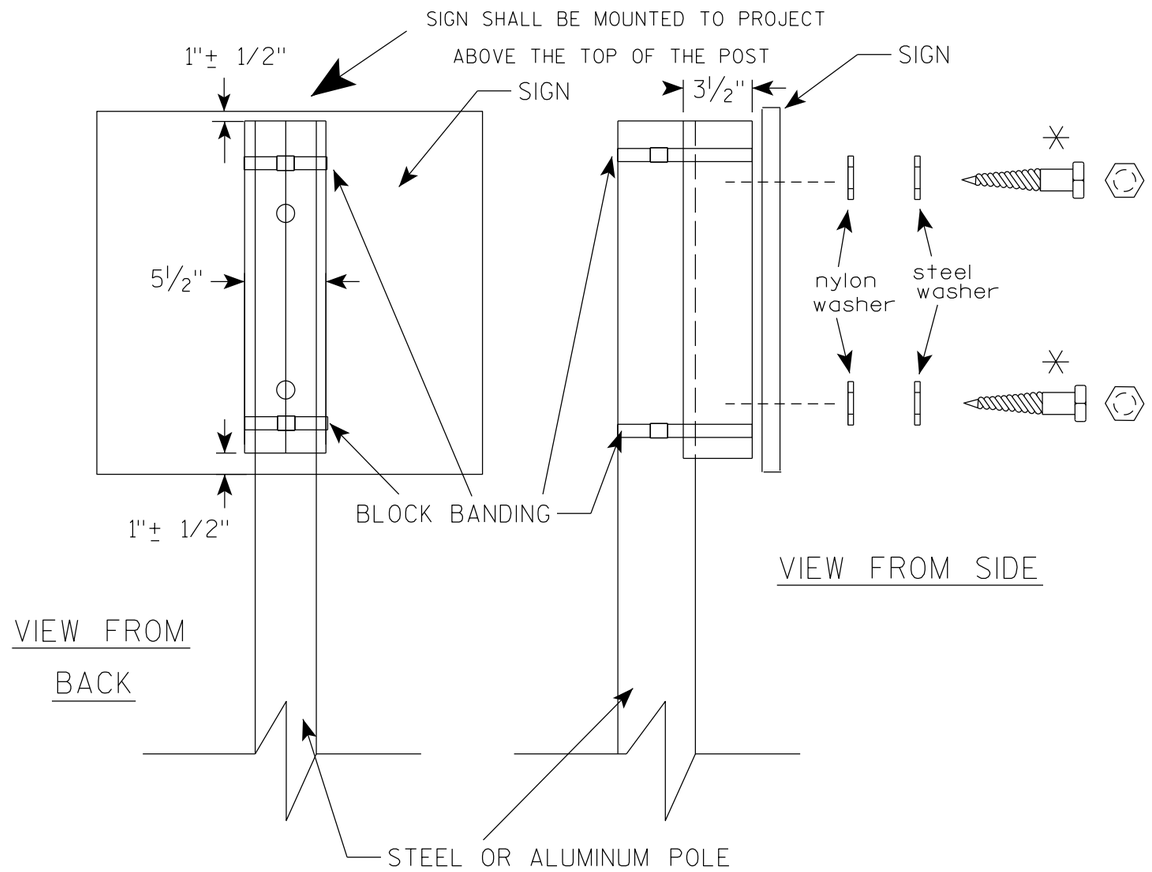
WISCONSIN DEPT OF TRANSPORTATION

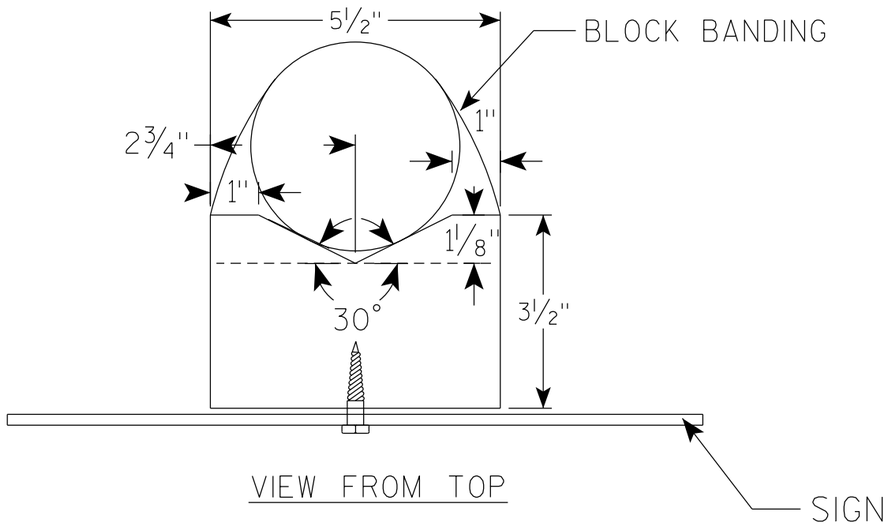
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 25	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42





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, ¾" 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 NORNALLY 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

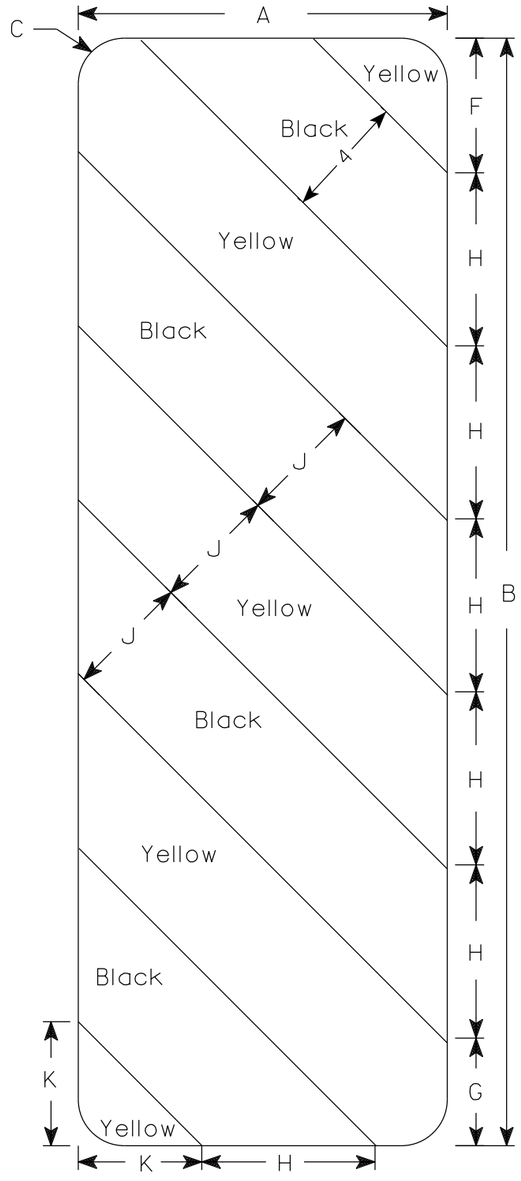
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

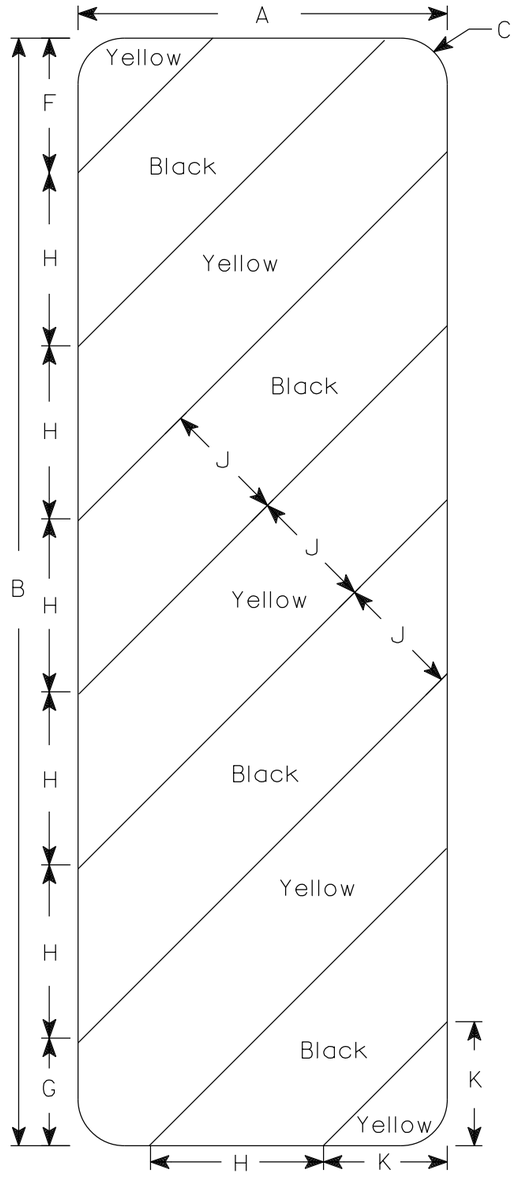
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 26 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

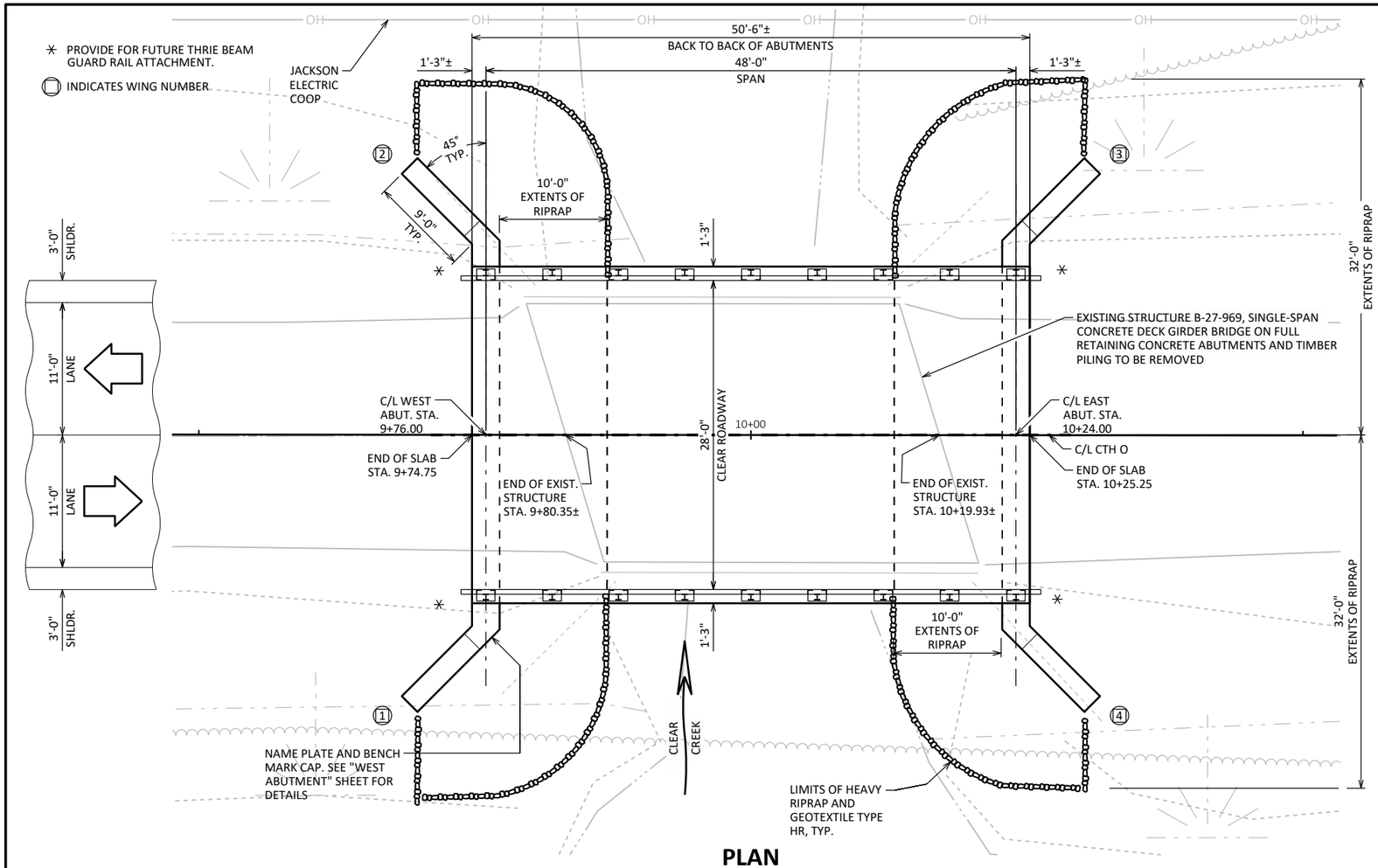
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 27 E

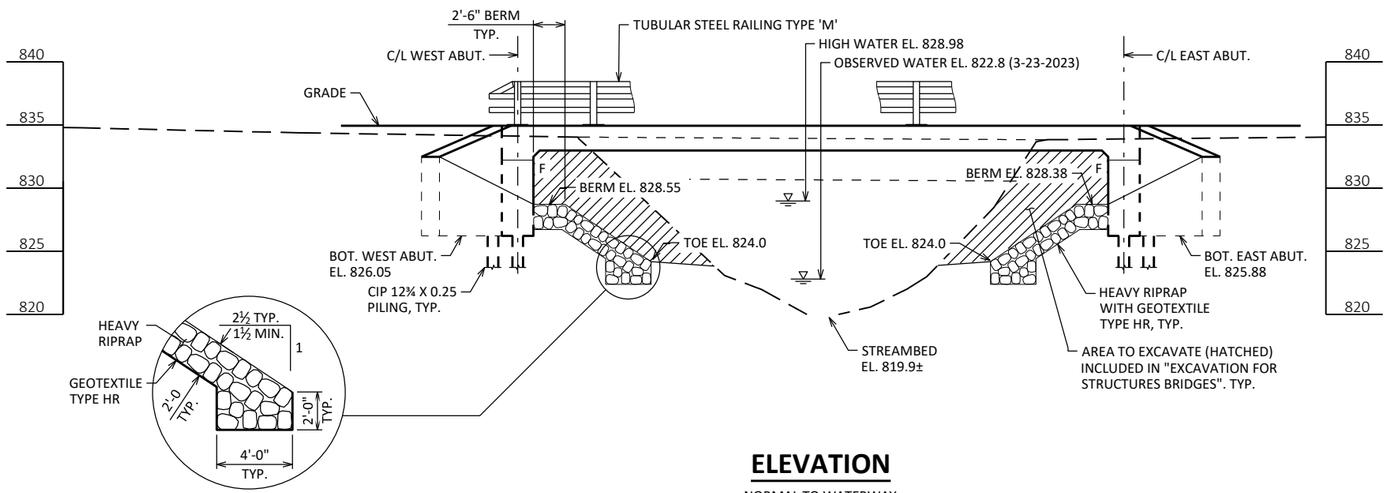
STATE PROJECT NUMBER

7027-00-72



PLAN

SINGLE SPAN FLAT SLAB



ELEVATION

NORMAL TO WATERWAY

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

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.08
OPERATING RATING FACTOR: RF = 1.40
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:
SUPERSTRUCTURE — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.

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

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON CIP 12¾ X 0.25 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS †† PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 55' LONG FOR THE WEST ABUTMENT.
ESTIMATED 55' LONG FOR THE EAST ABUTMENT.

†† 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

CTH O
ADT = 380 (2045)
R.D.S. = 40 M.P.H.

HYDRAULIC DATA

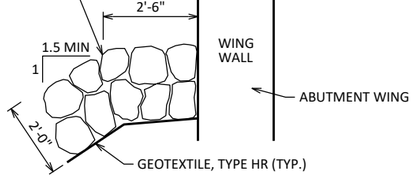
100 YEAR FREQUENCY

Q_{100} = 1,300C.F.S.
VEL. = 8.25 F.P.S.
HW_{100} = EL. 828.98
WATERWAY AREA = 158 SQ. FT.
DRAINAGE AREA = 24.4 SQ. MI.
ROADWAY OVERTOPPING = NA
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q_2 = 390 C.F.S.
VEL. = 5.61 F.P.S.
HW_2 = EL. 825.47

NOTE: PLACE HEAVY RIPRAP AS SHOWN IN WING ELEVATION DETAIL.



TYPICAL FILL SECTION AT WING

LIST OF DRAWINGS

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

STRUCTURE DESIGN CONTACTS:

MATT GUNDRY 715-720-6246
AARON BONK 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 [illegible] BRIDGE MANUAL.

WISCONSIN MATTHEW J. GUNDRY 36317 EAU CLAIRE WI PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

SEH
SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 08/19/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-27-179

CTH O OVER CLEAR CREEK

COUNTY	TOWN
JACKSON	MANCHESTER

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
MJG	HT	DMS	MJG

GENERAL PLAN

SHEET 1 OF 10
28

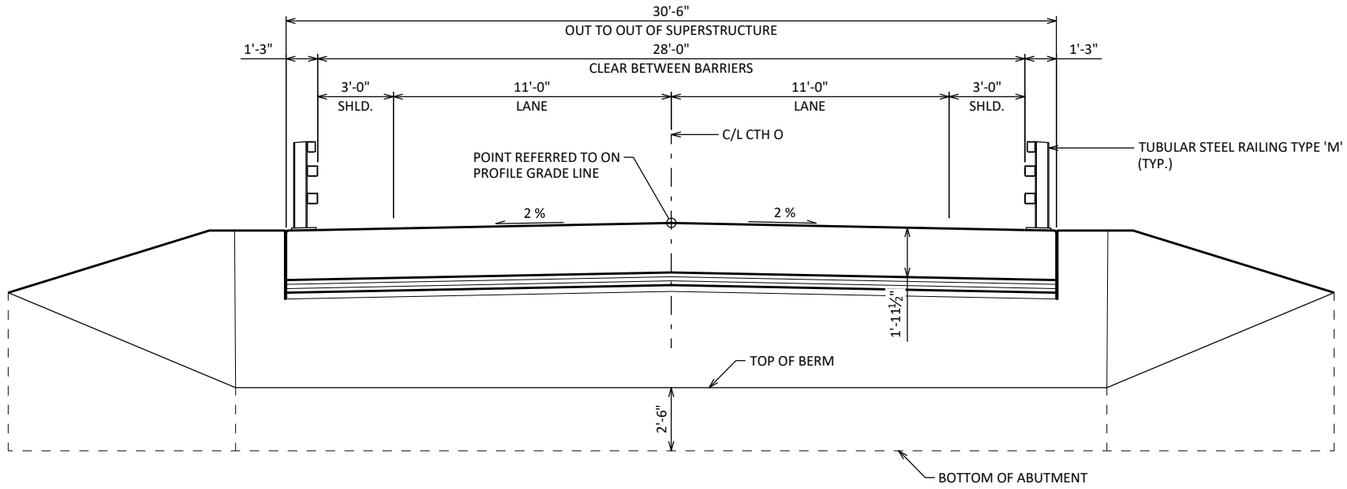
SCALE = 12

I.D. DATE:

8 8

STATE PROJECT NUMBER

7027-00-72



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-27-0179" 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.

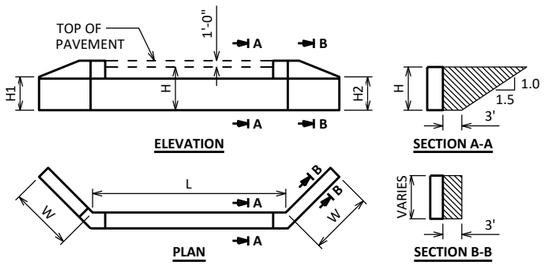
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO ENTIRE EXPOSED TOP OF SLAB, INCLUDING THE SLAB EDGE AND 1'-0" UNDER THE SLAB, THE TOP AND EXTERIOR EXPOSED FACE OF WINGS AND FRONT FACE OF ABUTMENT TO 1'-0" PAST THE EDGE OF SLAB.

BENCH MARK/CONTROL

NO.	STATION	DESCRIPTION	ELEV.
BM 1	STA 5+75±, 36'± LT	SPIKE IN POWER POLE	846.455
CP 2	STA 8+06.88, 14.27' LT	3/8" SPIKE IN SHLDR	837.862
CP 5	STA 11+25.22, 15.30' LT	3/8" SPIKE IN SHLDR	835.068

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)

PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES

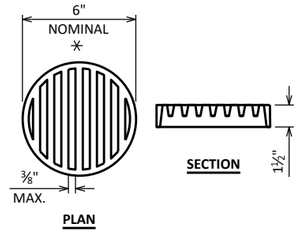
BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	WEST ABUT.	EAST ABUT.	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS B-27-0969	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-27-0179	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	---	207	207	414
502.0100	CONCRETE MASONRY BRIDGES	CY	116	32	32	180
502.3200	PROTECTIVE SURFACE TREATMENT	SY	201	17	17	235
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	---	2,280	2,280	4,560
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	25,530	1,550	1,550	28,630
513.4061	RAILING TUBULAR TYPE M	LF	105	---	---	105
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	---	6	6	12
550.2124	PILING CIP CONCRETE 12 3/4 X 0.25-INCH	LF	---	440	440	880
606.0300	RIPRAP HEAVY	CY	---	70	70	140
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	---	73	73	146
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	---	46	46	92
645.0120	GEOTEXTILE TYPE HR	SY	---	100	100	200
SPV.0090.01	REMOVING EXISTING TIMBER PILING	LF		50	50	100
	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.



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 COMMERCIALLY 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-27-179

DRAWN BY MJG | PLANS CK'D CBP

CROSS SECTION & QUANTITIES

SHEET 2
29

SCALE = 6.0

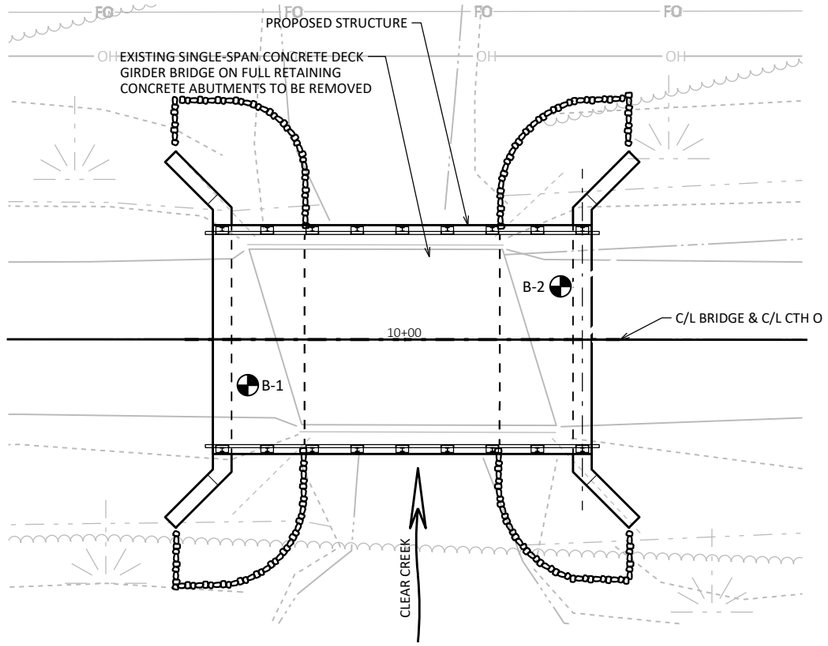
THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 1.0.0.0

8

8

STATE PROJECT NUMBER

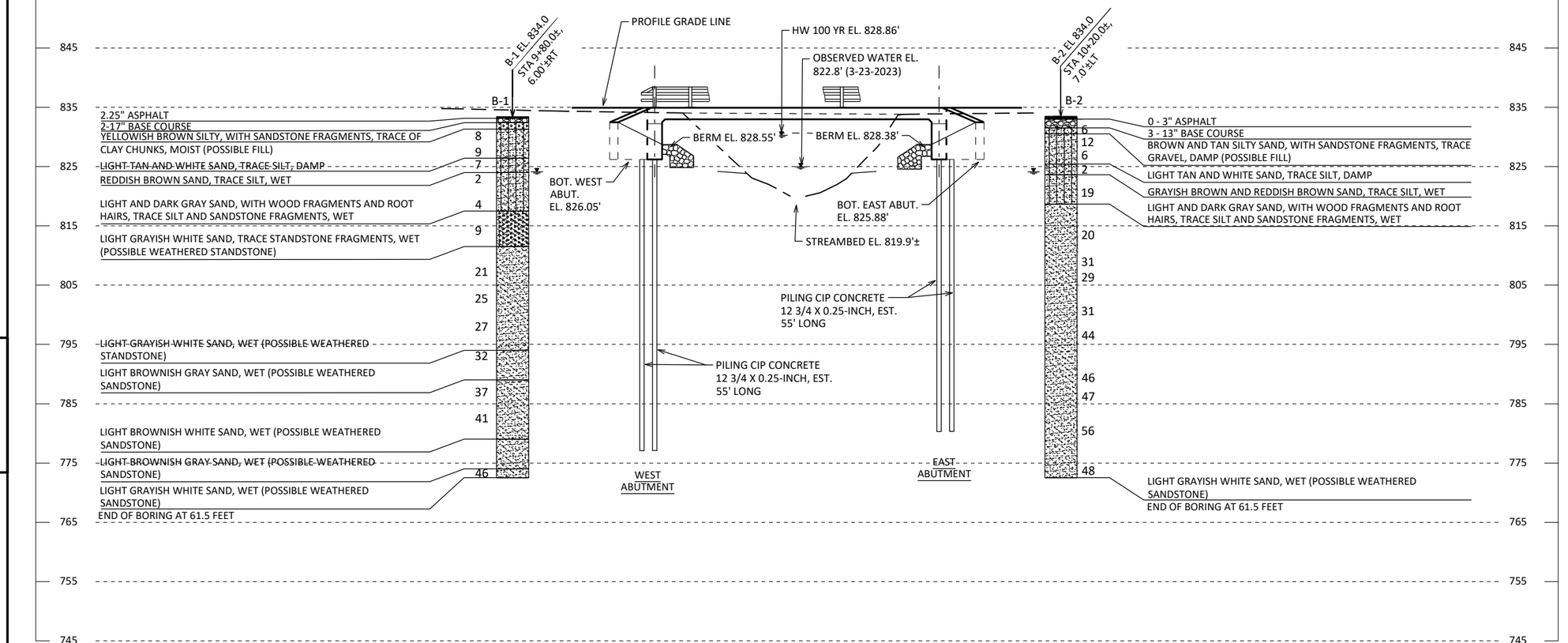
7027-00-72



SOIL BORINGS PERFORMED BY:

PROFESSIONAL SERVICE INDUSTRIES, INC.
12839 30TH AVENUE
CHIPPEWA FALLS, WI 54729

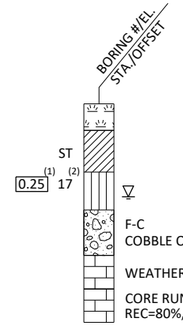
PHONE: (715) 738-2770
REPORT BY: KALIE M. RESS, GEOTECHNICAL ENGINEER
DATE: JUNE 6, 2023



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-27-179

DRAWN BY DMS | PLANS CK'D MJG

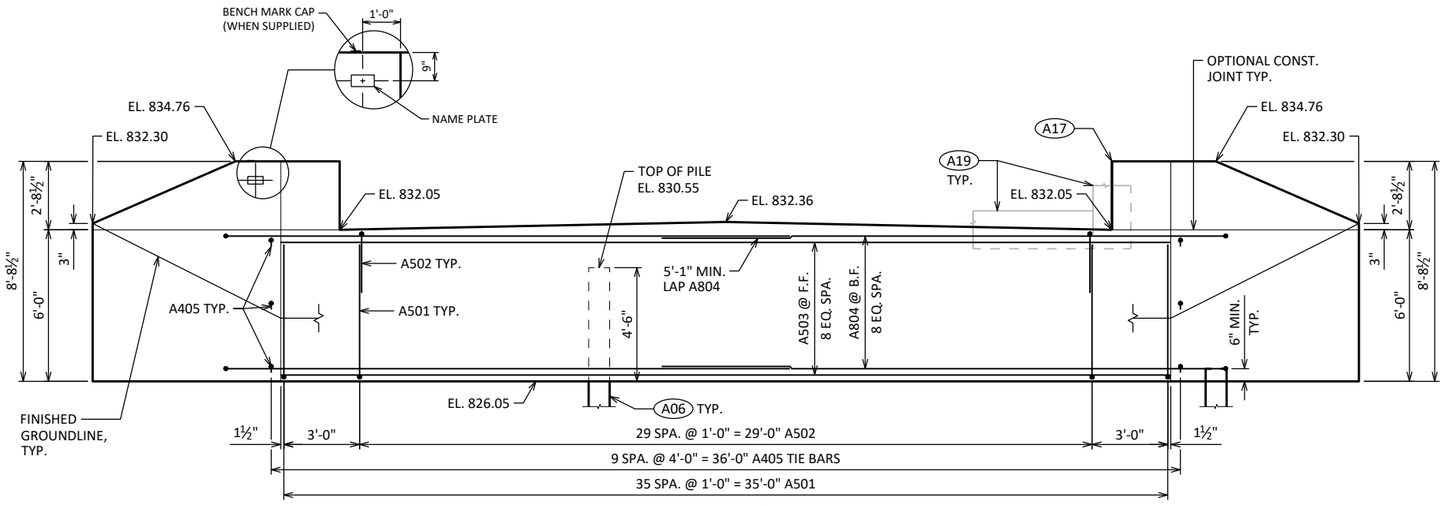
SUBSURFACE EXPLORATION

SHEET 3
30

SCALE = 6.0

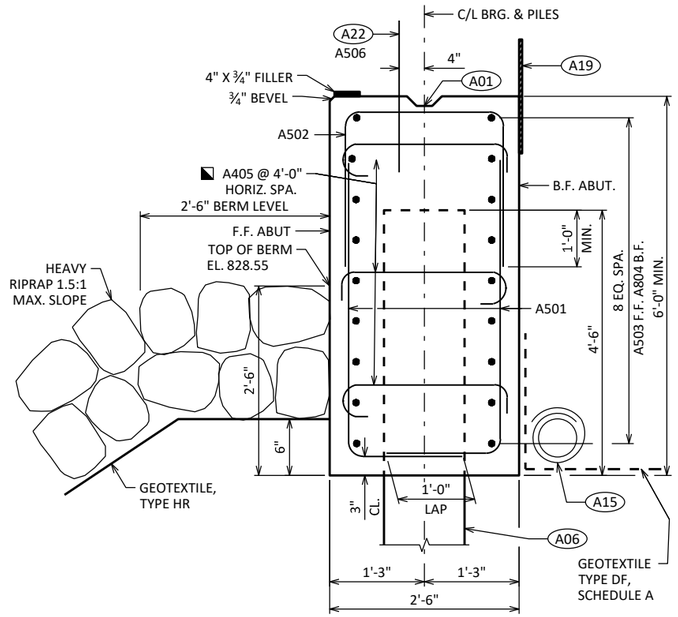
STATE PROJECT NUMBER

7027-00-72

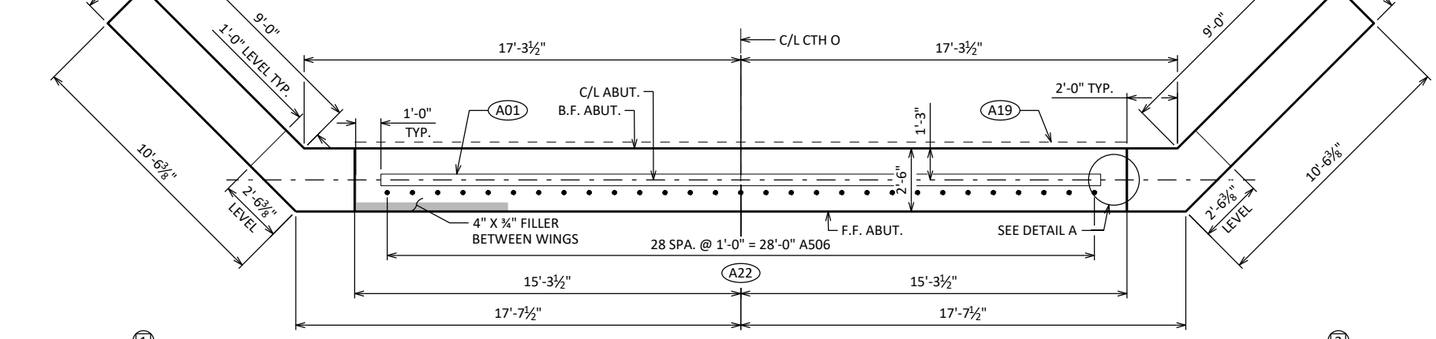


ELEVATION

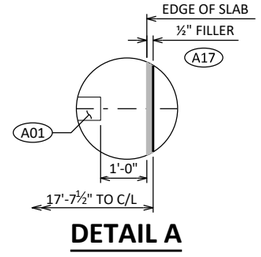
LOOKING DOWNSTATION



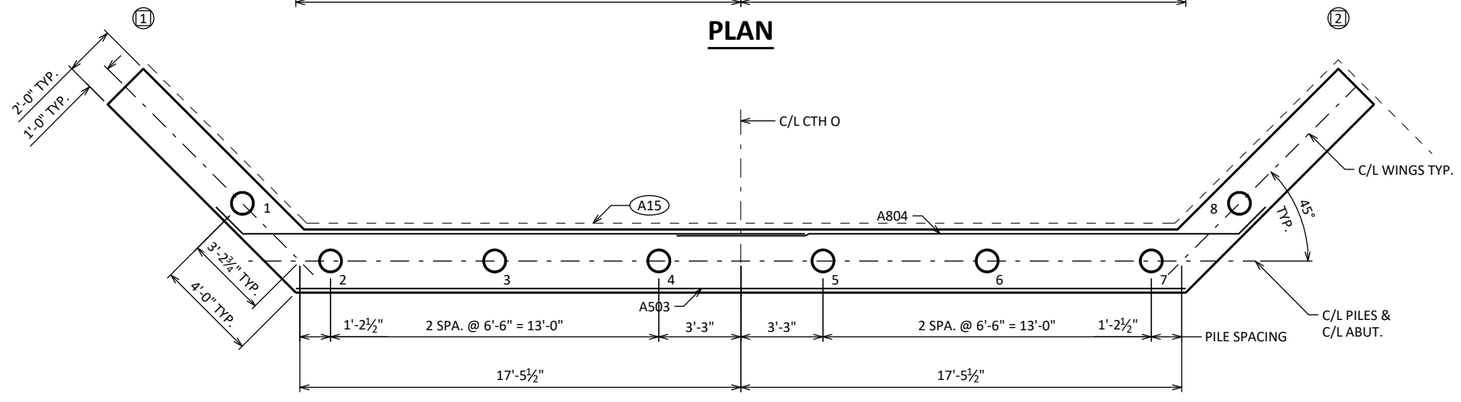
SECTION THRU BODY



PLAN



DETAIL A



PILE PLAN

A01 CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6.

A06 SUPPORT ABUTMENT ON CIP 12¾ X 0.25 PILING, ESTIMATED 55 FT LONG WITH A REQUIRED DRIVING RESISTANCE OF 160TONS PER PILE.

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A17 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" 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 A506 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-27-179

DRAWN BY MJG | PLANS CK'D CBP

WEST ABUTMENT

SHEET 4
31

SCALE =

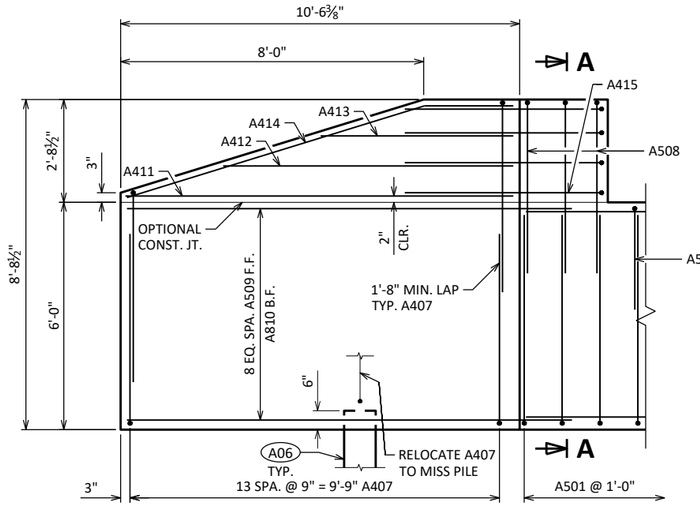
THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 1.0.0.0

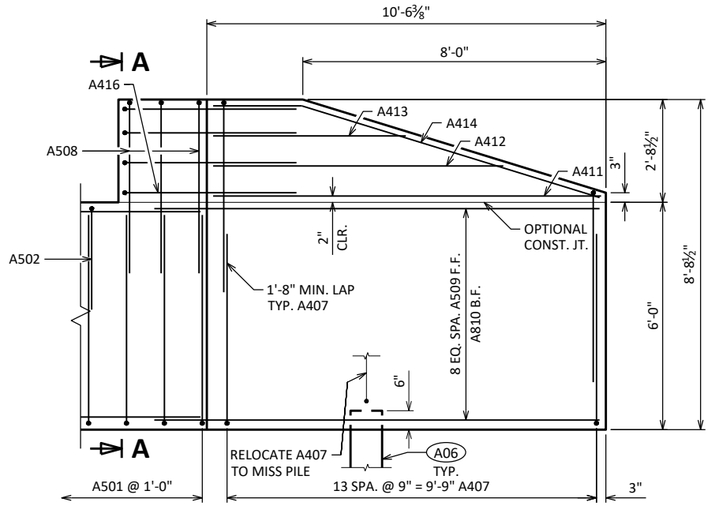
8

8

STATE PROJECT NUMBER

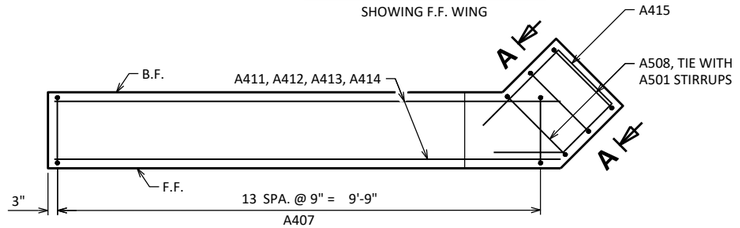
7027-00-72





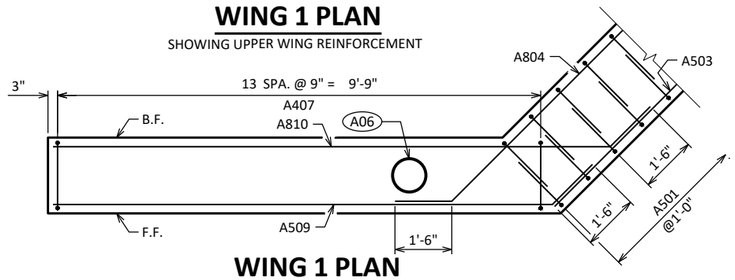
WING 1 ELEVATION

SHOWING F.F. WING



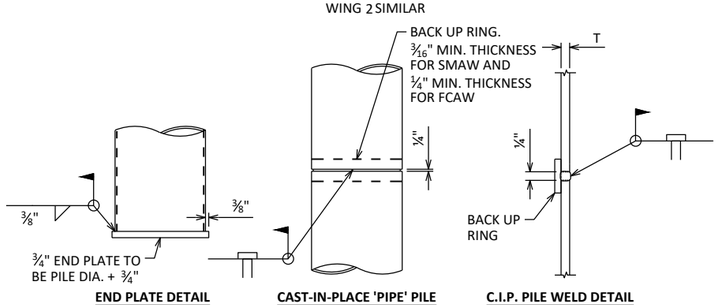
WING 1 PLAN

SHOWING UPPER WING REINFORCEMENT



WING 1 PLAN

SHOWING LOWER WING REINFORCEMENT
WING 2 SIMILAR

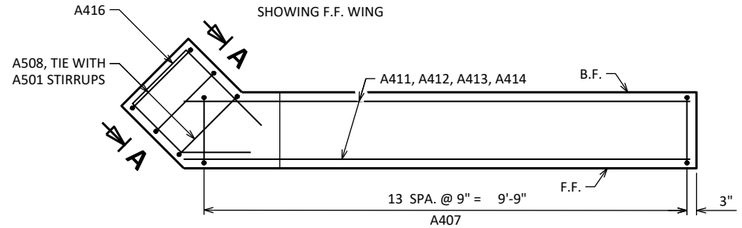


END PLATE DETAIL **CAST-IN-PLACE 'PIPE' PILE** **C.I.P. PILE WELD DETAIL**

CIP PILE DETAILS

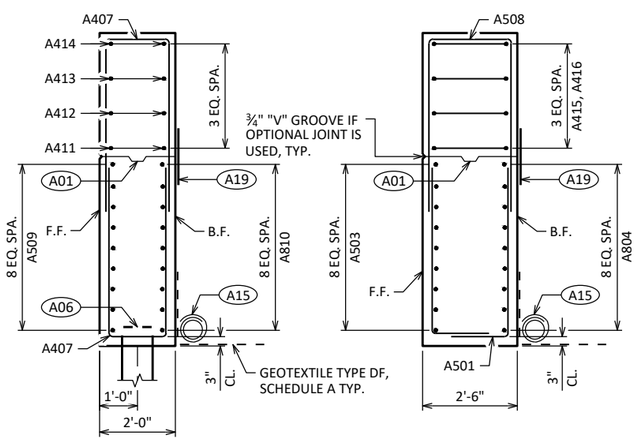
WING 2 ELEVATION

SHOWING F.F. WING



WING 2 PLAN

SHOWING UPPER WING REINFORCEMENT



SECTION THRU WING 1

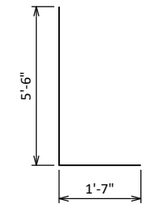
TYPICAL BOTH WINGS

SECTION A-A

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		72	7'-0"	X		ABUT BODY STIRRUPS
A502		30	7'-3"	X		ABUT BODY STIRRUPS - TOP U-BAR
A503		9	35'-3"			ABUT BODY HORIZ. - F.F.
A804		18	23'-7"	X		ABUT BODY HORIZ. - B.F.
A405		30	3'-0"	X		ABUT BODY TIE BARS
A506	X	29	2'-0"			ABUT BODY DOWEL BARS
A407	X	56	11'-6"	X		WING STIRRUPS
A508	X	6	10'-11"	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'-2"			WING UPPER HORIZ.
A412	X	4	7'-7"			WING UPPER HORIZ.
A413	X	4	5'-0"			WING UPPER HORIZ.
A414	X	4	9'-9"	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



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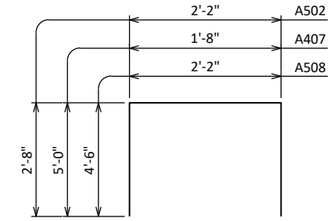
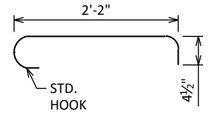


A502, A407, A508



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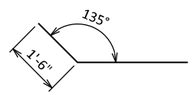
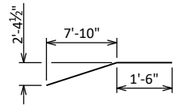
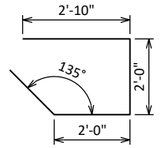


A804, A509, A810



A414



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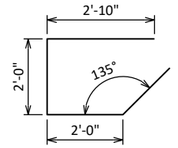


A416

(A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6. PROVIDE ¾" "V" GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.

(A06) SUPPORT ABUTMENT ON CIP 12¾ X 0.25 PILING, ESTIMATED 55' LONG WITH A REQUIRED DRIVING RESISTANCE OF 160TONS PER PILE.

(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-27-179

DRAWN BY MJG | PLANS CK'D CBP

WEST ABUTMENT DETAILS

SHEET 5
32

SCALE =

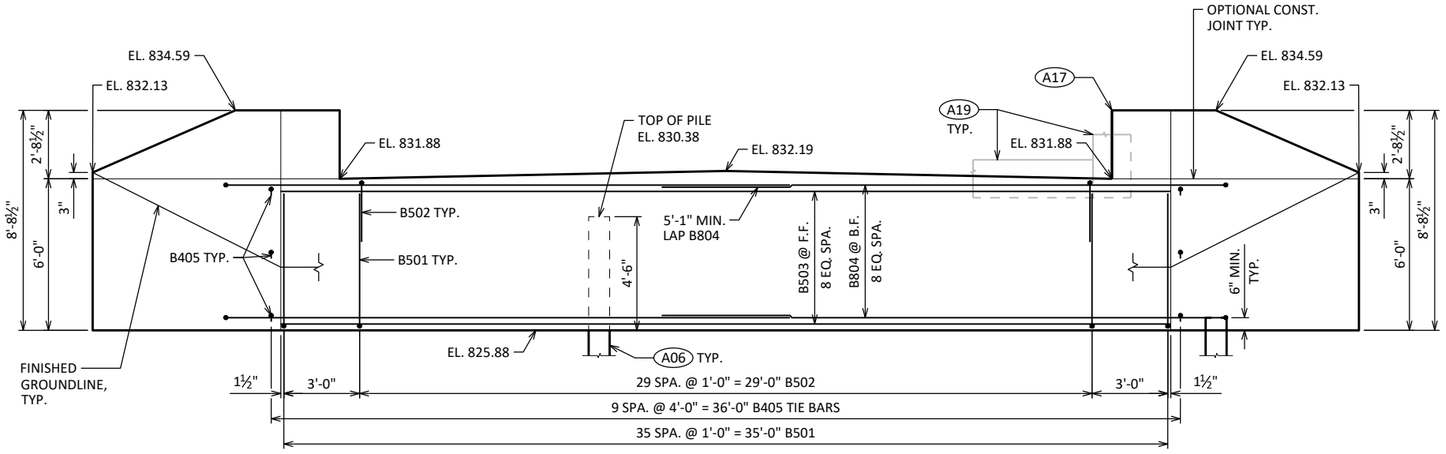
THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 1.0.0.0

8

8

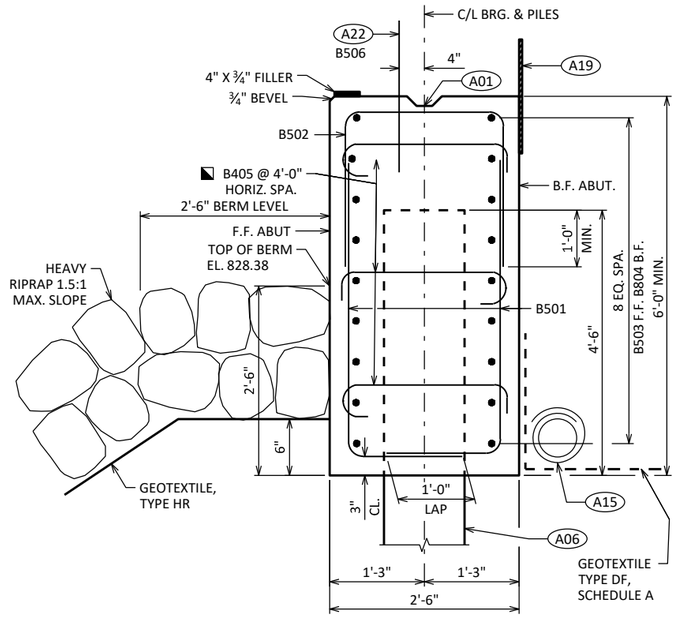
STATE PROJECT NUMBER

7027-00-72

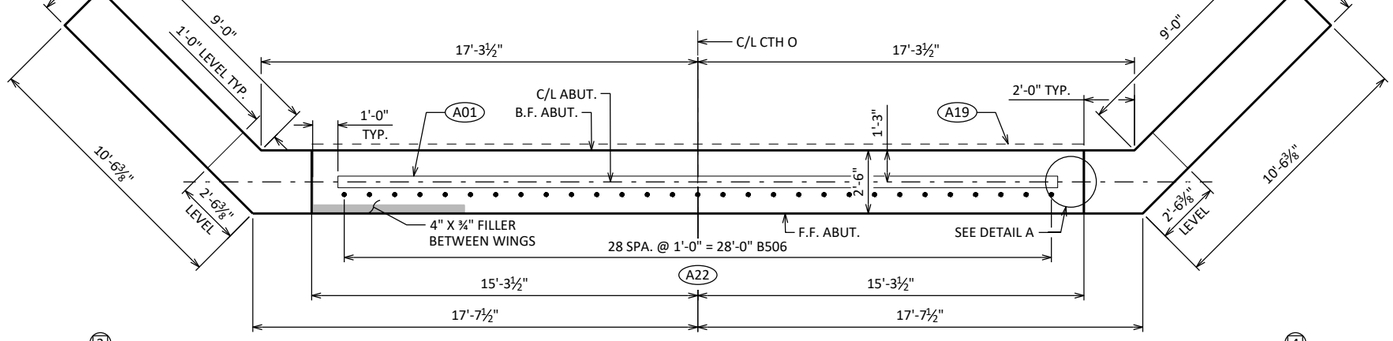


ELEVATION

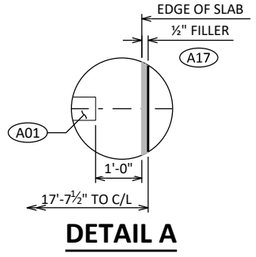
LOOKING UPSTATION



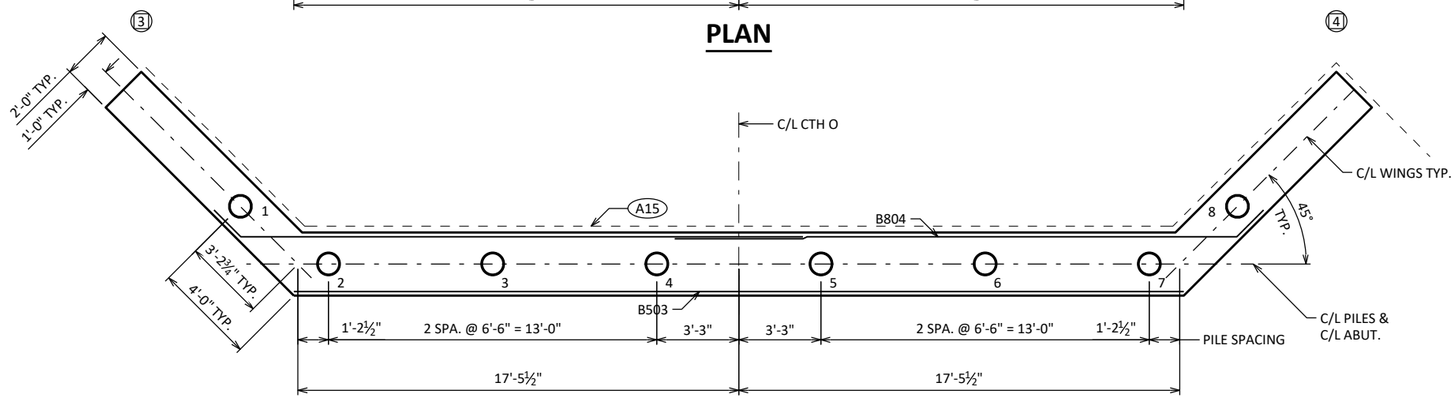
SECTION THRU BODY



PLAN



DETAIL A



PILE PLAN

A01 CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6.

A06 SUPPORT ABUTMENT ON CIP 12¾ X 0.25 PILING, ESTIMATED 55 FT LONG WITH A REQUIRED DRIVING RESISTANCE OF 160TONS PER PILE.

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

A17 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" 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-27-179

DRAWN BY MJG | PLANS CK'D CBP

EAST ABUTMENT

SHEET 6
33

SCALE =

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

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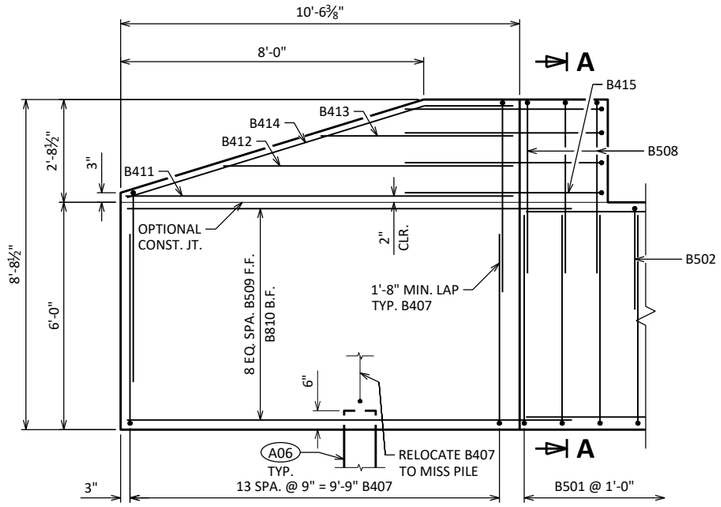
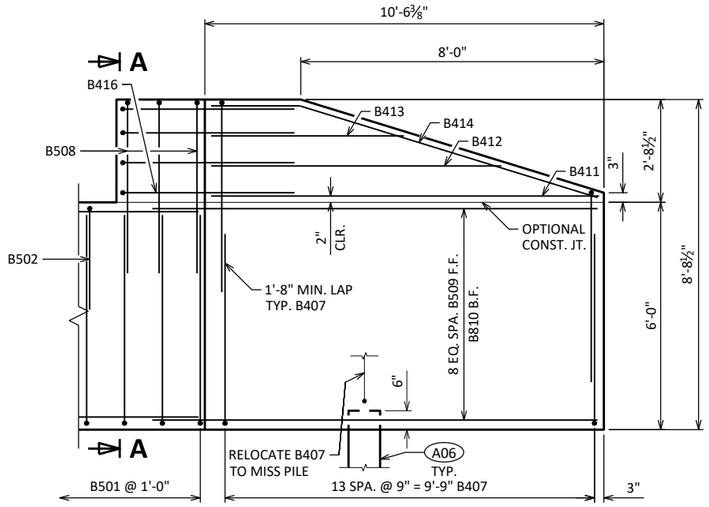
8

STATE PROJECT NUMBER

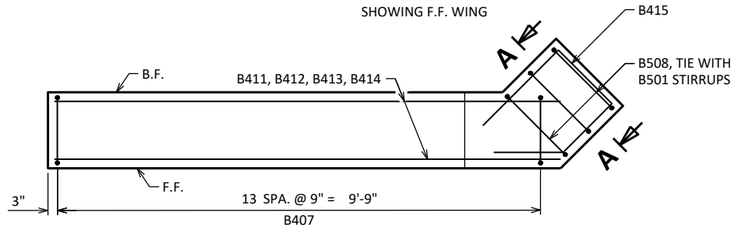
7027-00-72





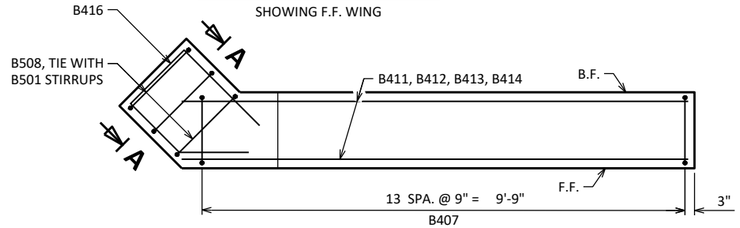
WING 3 ELEVATION

SHOWING F.F. WING



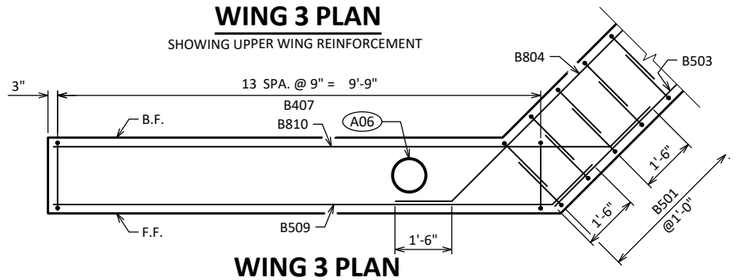
WING 4 ELEVATION

SHOWING F.F. WING



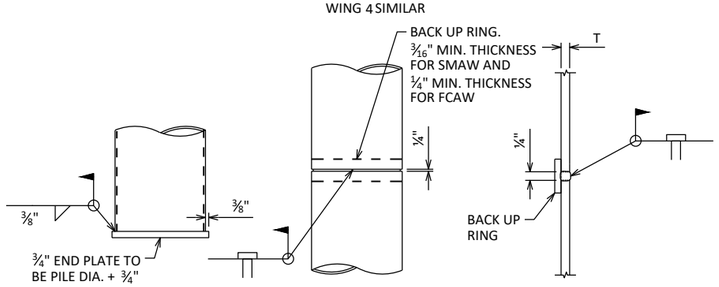
WING 3 PLAN

SHOWING UPPER WING REINFORCEMENT



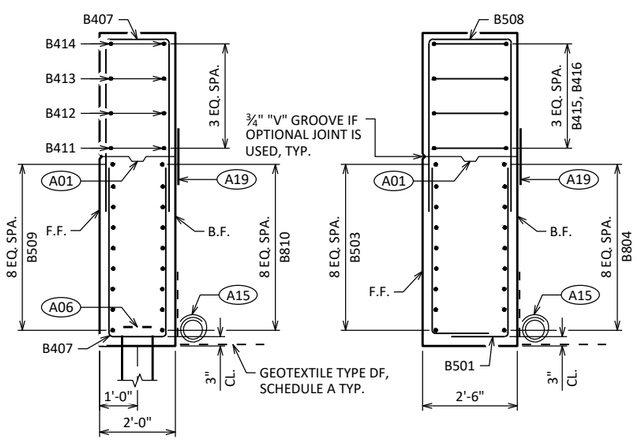
WING 3 PLAN

SHOWING LOWER WING REINFORCEMENT
WING 4 SIMILAR



END PLATE DETAIL **CAST-IN-PLACE 'PIPE' PILE** **C.I.P. PILE WELD DETAIL**

CIP PILE DETAILS



SECTION THRU WING 3

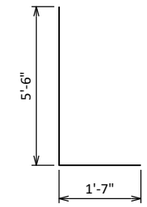
TYPICAL BOTH WINGS

SECTION A-A

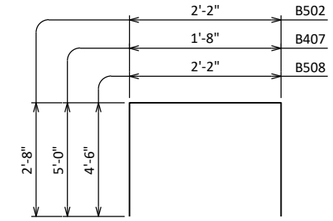
BILL OF BARS

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

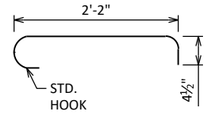
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		72	7'-0"	X		ABUT BODY STIRRUPS
B502		30	7'-3"	X		ABUT BODY STIRRUPS - TOP U-BAR
B503		9	35'-3"			ABUT BODY HORIZ. - F.F.
B804		18	23'-7"	X		ABUT BODY HORIZ. - B.F.
B405		30	3'-0"	X		ABUT BODY TIE BARS
B506	X	29	2'-0"			ABUT BODY DOWEL BARS
B407	X	56	11'-6"	X		WING STIRRUPS
B508	X	6	10'-11"	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'-2"			WING UPPER HORIZ.
B412	X	4	7'-7"			WING UPPER HORIZ.
B413	X	4	5'-0"			WING UPPER HORIZ.
B414	X	4	9'-9"	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



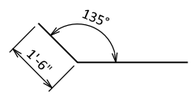
B501



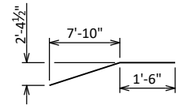
B502, B407, B508



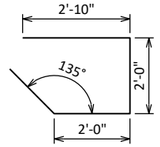
B405



B804, B509, B810



B414



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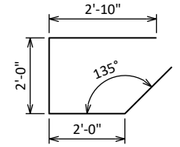


B416

(A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY A BEVELED 2X6. PROVIDE ¾" "V" GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.

(A06) SUPPORT ABUTMENT ON CIP 12¾ X 0.25 PILING, ESTIMATED 55' LONG WITH A REQUIRED DRIVING RESISTANCE OF 160TONS PER PILE.

(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-27-179

DRAWN BY MJG | PLANS CK'D CBP

EAST ABUTMENT DETAILS

SHEET 7
34

SCALE =

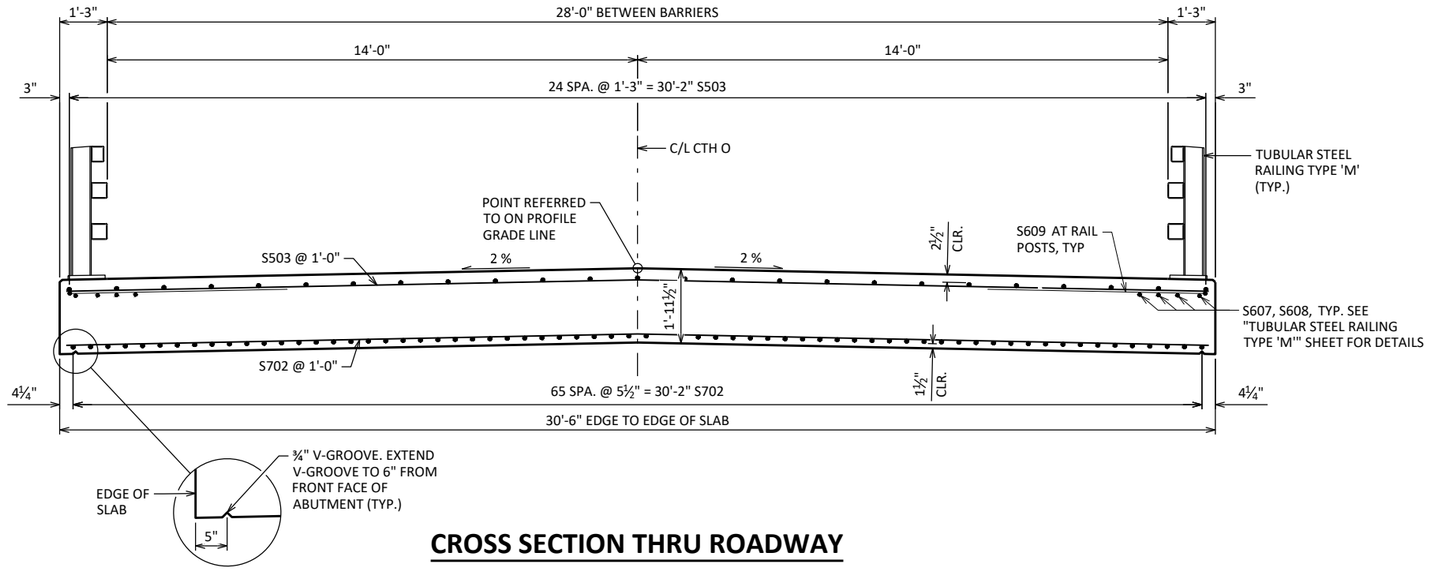
THIS SHEET WAS CREATED BY THE WISDOT BUREAU OF STRUCTURES STANDARD BRIDGE DESIGN TOOL VERSION 1.0.0.0

8

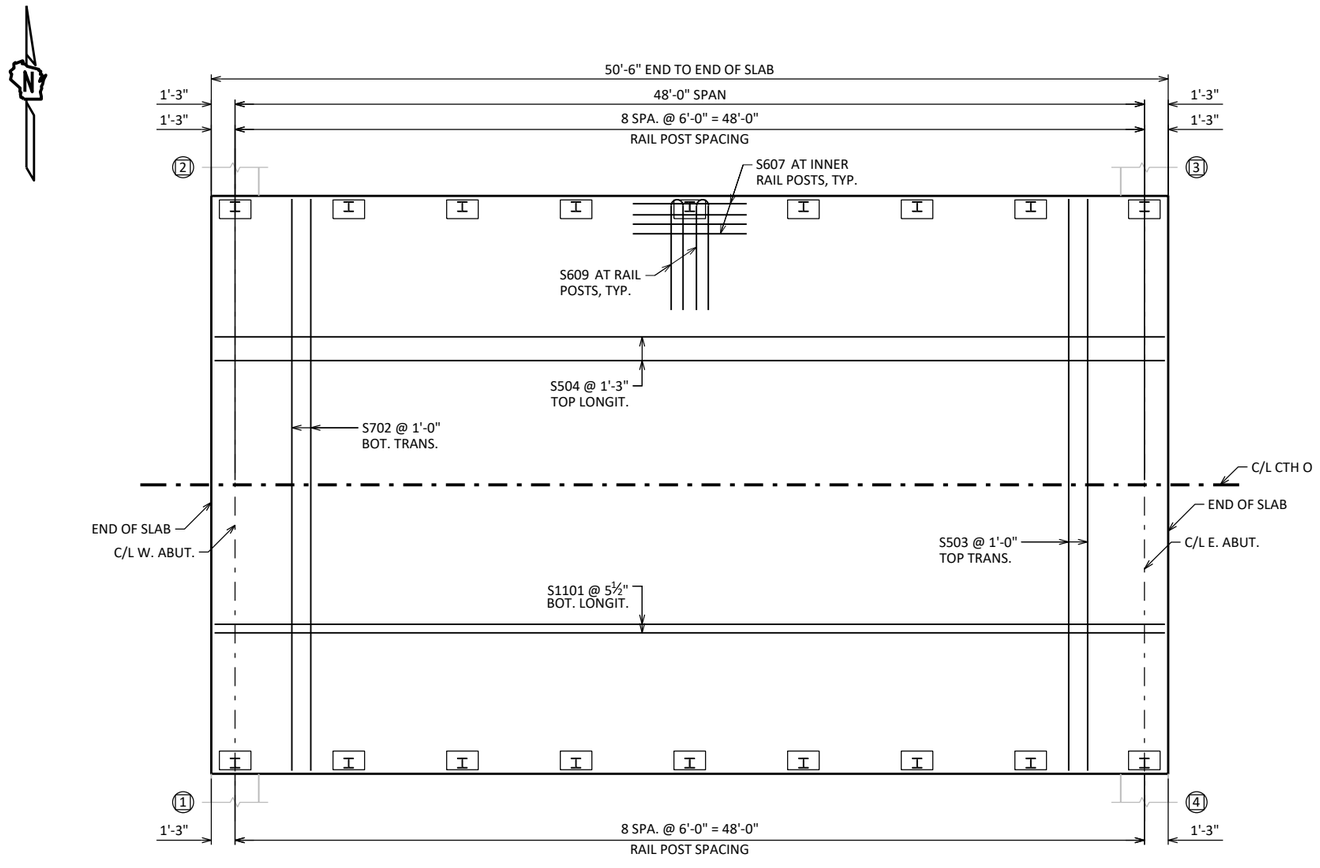
8

STATE PROJECT NUMBER

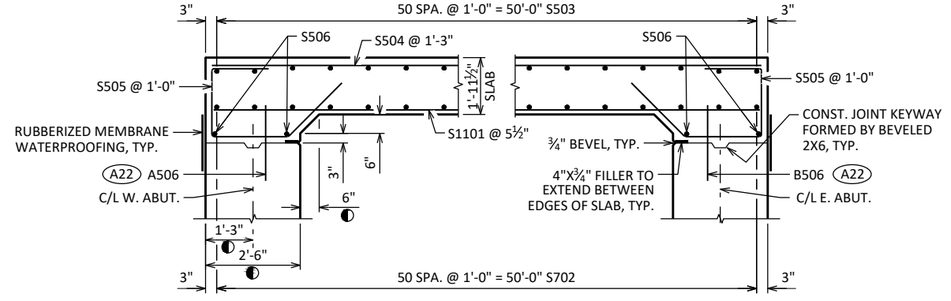
7027-00-72



CROSS SECTION THRU ROADWAY



PLAN

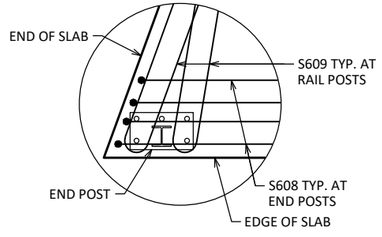


LONGITUDINAL SECTION

DIMENSIONS ARE GIVEN PARALLEL TO ℄ ROADWAY UNLESS OTHERWISE NOTED.

◐ MEASURED NORMAL TO THE ℄ 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-27-179

DRAWN BY MJG | PLANS CK'D CBP

SUPERSTRUCTURE

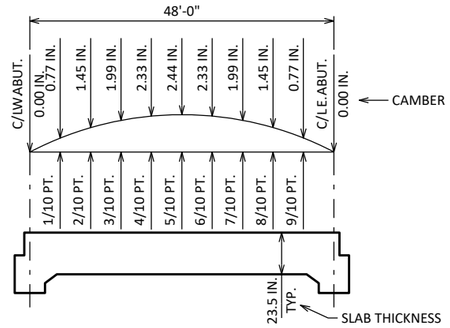
SHEET 8
35

SCALE =

8

8

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



CAMBER AND SLAB THICKNESS DIAGRAM

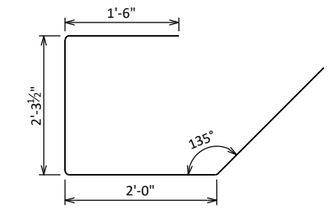
CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

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

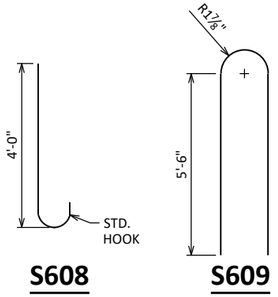
	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. W. 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. E. ABUT.
N. EDGE OF DECK	834.76	834.73	734.70	834.67	834.65	834.63	834.62	834.61	834.60	834.59	834.59
CROWN OR R/L	835.07	835.03	835.00	834.98	834.96	834.94	834.92	834.91	834.90	834.90	834.90
S. EDGE OF DECK	834.76	834.73	834.70	834.67	834.65	834.63	834.62	834.61	834.60	834.59	834.59



S505



S608 **S609**

STATE PROJECT NUMBER

7027-00-72

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
S1101	X	66	50'-2"			SLAB BOTTOM LONGITUDINAL
S702	X	51	30'-2"			SLAB BOTTOM TRANSVERSE
S503	X	51	30'-2"			SLAB TOP TRANSVERSE
S504	X	25	50'-2"			SLAB TOP LONGITUDINAL
S505	X	62	7'-7"	X		ABUTMENT DIAPHRAGM STIRRUPS
S506	X	4	30'-2"			ABUTMENT DIAPHRAGM LONGITUDINAL
S607	X	56	6'-0"			SLAB TOP LONGIT. UNDER RAIL POSTS
S608	X	16	4'-8"	X		SLAB TOP LONGIT. UNDER RAIL END POSTS
S609	X	36	12'-0"	X		SLAB TOP HOOKS UNDER RAIL POSTS

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	ABUTMENT	5/10 PT.	ABUTMENT
N. GUTTER			
CROWN OR R/L			
S. 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-27-179

DRAWN BY MJG | PLANS CK'D CBP

SUPERSTRUCTURE DETAILS

SHEET 9
36

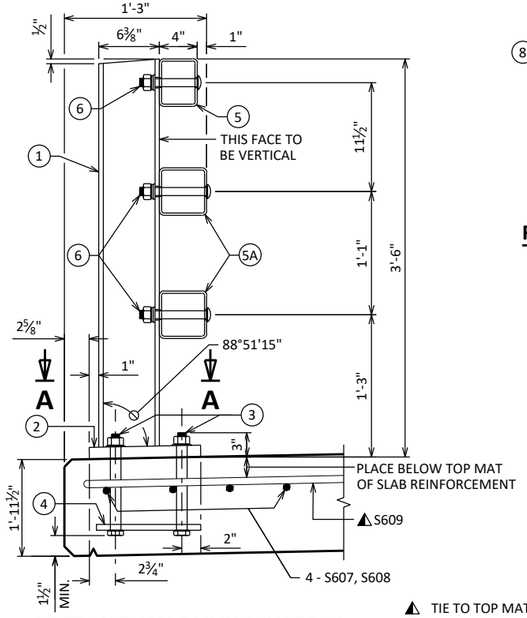
SCALE =

8

8

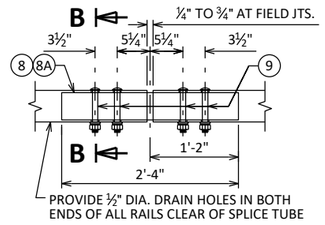
STATE PROJECT NUMBER

7027-00-72

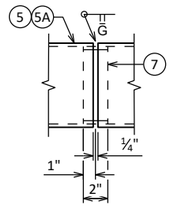


⚠ TIE TO TOP MAT OF STEEL.

SECTION THRU RAILING ON DECK

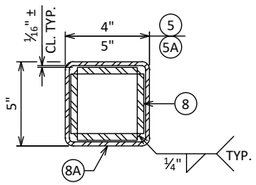


FIELD ERECTION JOINT DETAIL

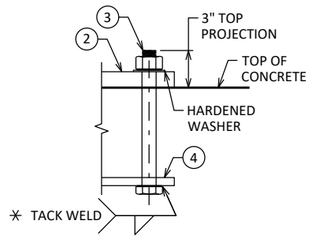


SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS

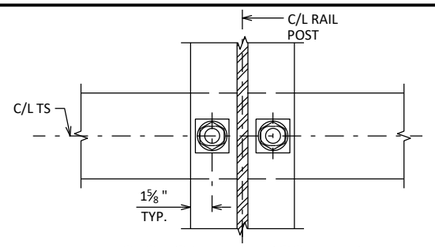


SECTION B-B

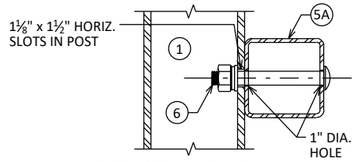


ANCHOR BOLTS

⚹ ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.



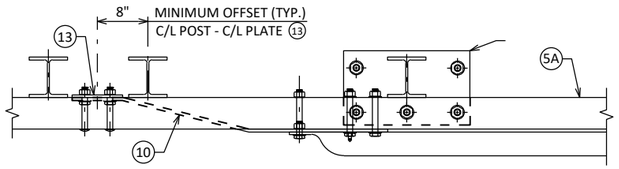
SECTION THRU POST WEB



SECTION THRU RAIL

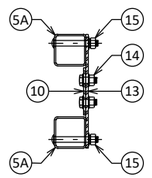
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



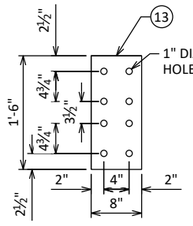
TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



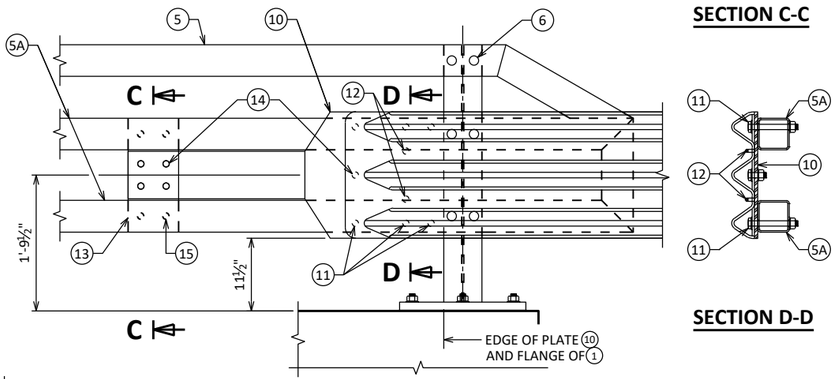
SECTION C-C

SECTION A-A



ANCHOR PLATE

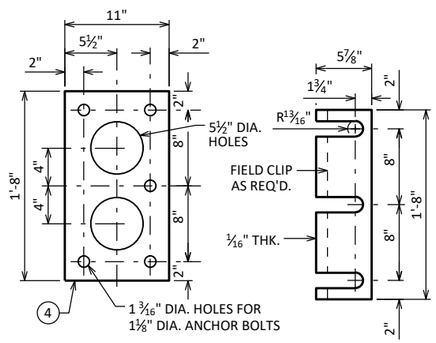
AT BEAM GUARD ATTACHMENT



DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT

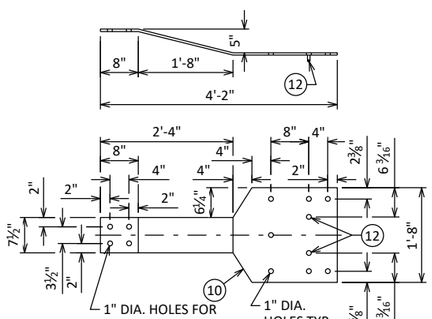
SECTION D-D



ANCHOR PLATE

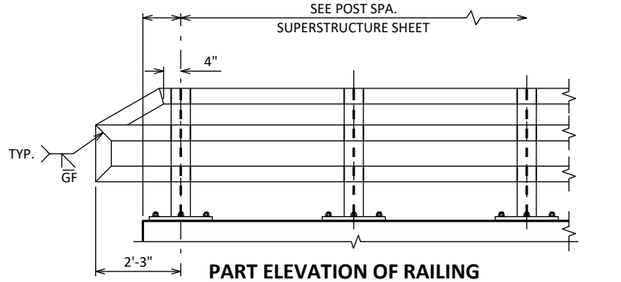
AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

LEGEND

1. W6 x 25 WITH 1⅛ " X 1½ " HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1 ¼" x 11 ¾" x 1'-8" WITH 1 7/16" OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
3. ASTM A449 - 1 ⅛" 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 ¾" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
4. ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
5. TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1 ⅝" X 1 ⅝" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
7. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
8. ⅜" X 3 ⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
8A. ⅜" X 2 ⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3 ⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
9. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16" x 1 ¼" LONGIT. SLOTTED HOLES IN PLATE NO. 10A AT FIELD JOINTS AND 15/16" X 2 ¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 8A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.
10. ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1 ½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
11. 1" DIA. HOLES IN PLATE NO. 10 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 10.
12. ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-27-179

DRAWN BY MJG | PLANS CK'D CBP

TUBULAR STEEL RAILING TYPE 'M'

SHEET 10
37

SCALE =

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

DIVISION - CTH O

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)				
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	UNUSABLE MATERIAL	AVAILABLE MATERIAL	EXPANDED FILL 1.25	MASS ORDINATE
		NOTE 1			NOTE 2		NOTE 3	NOTE 2	NOTE 3	NOTE 3	NOTE 4	NOTE 5
8+50.00	0.00	33.66	23.33	0.00	0	0	0	0	0	0	0	0
9+00.00	50.00	26.36	23.33	64.31	56	43	60	56	43	13	75	-62
9+50.00	50.00	16.43	23.33	79.27	40	43	133	96	86	10	241	-231
9+65.00	15.00	13.02	23.33	93.06	8	13	48	104	99	5	301	-296
10+35.00	0.00	7.70	23.33	64.77	0	0	0	104	99	5	301	-296
10+50.00	15.00	11.51	23.33	41.77	5	13	30	109	112	-3	339	-342
11+00.00	50.00	26.12	23.33	17.76	35	43	55	144	155	-11	408	-419
11+50.00	50.00	39.13	23.33	0.00	60	43	16	204	198	6	428	-422

Notes:

1) Unusable Pavement Material is included in Cut.

2) Excavation Common is the sum of the Cut column. Item number 205.0100

3) Does not include Unusable Pavement Excavation and Existing Base Aggregate volume.

4) Will be backfilled with Excavation Common or Borrow. Borrow item number 208.0100

5) Plus quantity indicates an excess of material. Minus indicates a shortage of material. Borrow item number 208.0100

6) Additional cut required within excavation for structures limits (Sta 9+65 to Sta 10+35). See structure plans for additional information.

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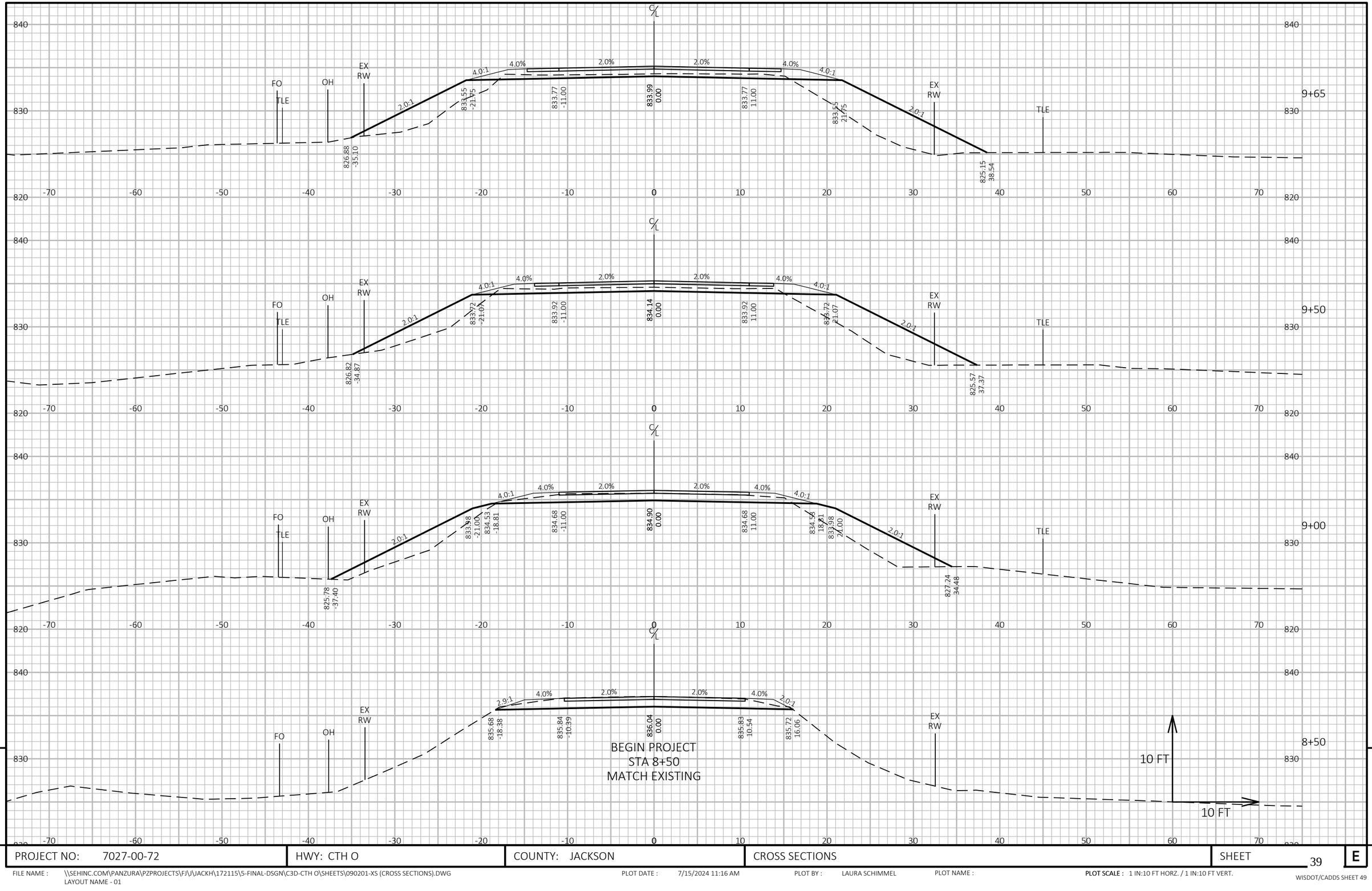
PROJECT NO: 7027-00-72	HWY: CTH O	COUNTY: JACKSON	EARTHWORK DATA	SHEET 38	E



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PROJECT NO: 7027-00-72	HWY: CTH O	COUNTY: JACKSON	CROSS SECTIONS	SHEET 39	E

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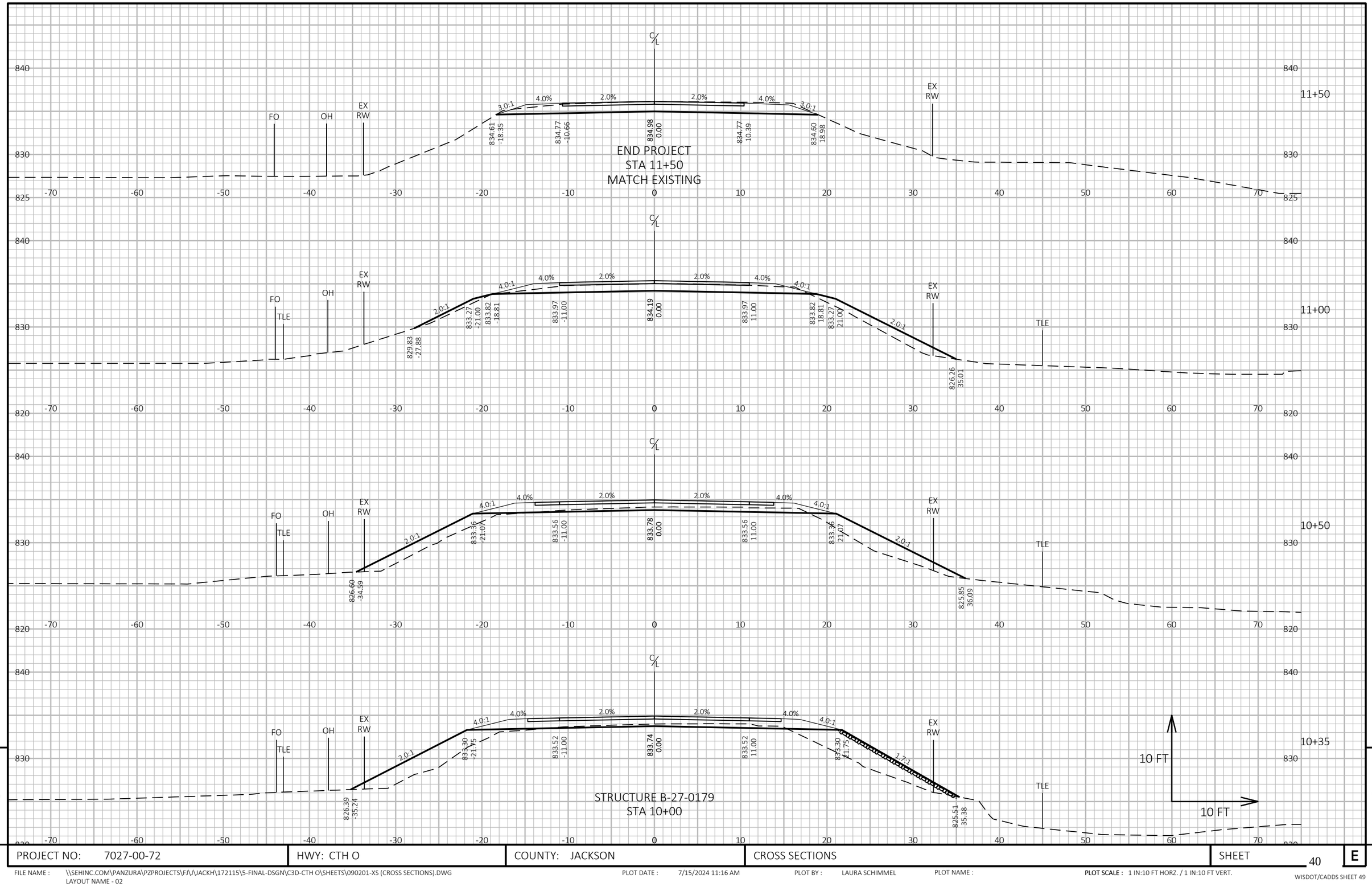
LAYOUT NAME - 01

PLOT DATE : 7/15/2024 11:16 AM PLOT BY : LAURA SCHIMMEL PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 7027-00-72	HWY: CTH O	COUNTY: JACKSON	CROSS SECTIONS	SHEET 40	E

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LAYOUT NAME - 02

PLOT DATE : 7/15/2024 11:16 AM PLOT BY : LAURA SCHIMMEL PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

http://www.dot.wisconsin.gov