LAX

PROJECT ID: 5892-00-73

WITH: N/A

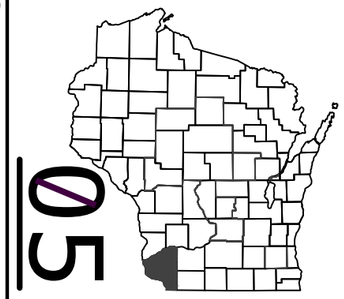
COUNTY: GRANT

AUGUST 2025

ORDER OF SHEETS

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

TOTAL SHEETS = 50



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T HICKORY GROVE, SLEEPY HOLLOW ROAD

SAUNDERS CREEK BRIDGE B-22-0315

LOC STR
GRANT COUNTY

STATE PROJECT NUMBER
5892-00-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5892-00-73	WISC 2025578	1

ACCEPTED FOR

TOWN OF HICKORY GROVE

4/16/2025 (Date) *Gary Northouse* (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WISCONSIN 53588
PHONE (608) 588-7866
FAX (608) 588-7954

WISCONSIN
AARON B. PALMER
E-35695
RICHLAND CENTER, WI
PROFESSIONAL ENGINEER

DATE: 4/16/25 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WESTBROOK ASSOCIATED ENGINEERS, INC.
Designer	WESTBROOK ASSOCIATED ENGINEERS, INC.
Project Manager	JOSH SCHOENMANN, P.E.
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, P.E.

APPROVED FOR THE DEPARTMENT

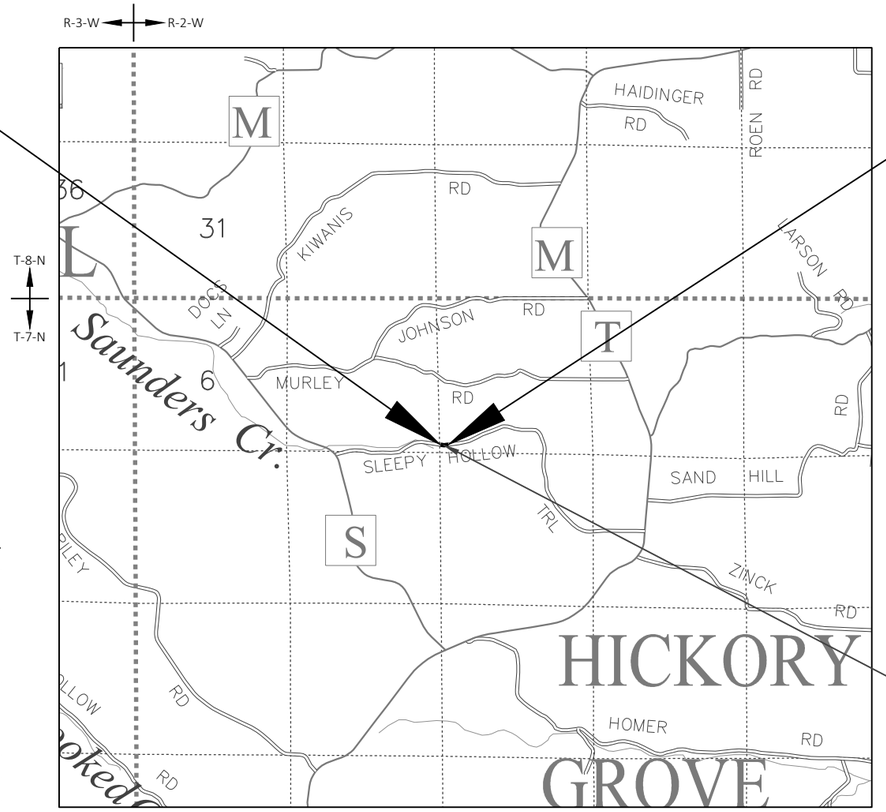
DATE: 4/18/25 (Signature)

E

BEGIN PROJECT
STA 13+31.23
Y: 617 406.236
X: 841 394.498

END PROJECT
STA 14+69.17

STRUCTURE B-22-0315
STA 14+00.00



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.026 MI

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

DESIGN DESIGNATION 5892-00-03

A.A.D.T.	2026	=	55
A.A.D.T.	2046	=	62
D.H.V.		=	8
D.D.		=	62/38
T.		=	7.7%
DESIGN SPEED		=	45 MPH
ESALS		=	8,100

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

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	MGAL	ONE THOUSAND GALLONS
AC	ACRE	ML OR M/L	MATCH LINE
AGG	AGGREGATE	NOM	NOMINAL
AH	AHEAD	NC	NORMAL CROWN
∠	ANGLE	NB	NORTHBOUND
AADT	ANNUAL AVERAGE DAILY TRAFFIC	NO	NUMBER
ASPH	ASPHALTIC	OD	OUTSIDE DIAMETER
BK	BACK	PAVT	PAVEMENT
BAD	BASE AGGREGATE DENSE	PC	POINT OF CURVATURE
BL OR B/L	BASE LINE	PI	POINT OF INTERSECTION
BM	BENCH MARK	PT	POINT OF TANGENCY
CL OR C/L	CENTER LINE	PCC	PORTLAND CEMENT CONCRETE
Δ	CENTRAL ANGLE OR DELTA	LB	POUND
CONC	CONCRETE	PSI	POUNDS PER SQUARE INCH
CONST	CONSTRUCTION	PE	PRIVATE ENTRANCE
CP	CONTROL POINT	PROJ	PROJECT
CO	COUNTY	PL	PROPERTY LINE
CTH	COUNTY TRUCK HIGHWAY	R	RADIUS
CY	CUBIC YARD	RL OR R/L	REFERENCE LINE
D	DEGREE OF CURVE	REQD	REQUIRED
DHV	DESIGN HOUR VOLUME	RT	RIGHT
DIA	DIAMETER	RHF	RIGHT HAND FORWARD
DD	DIRECTIONAL DISTRIBUTION	R/W	RIGHT OF WAY
DWY	DRIVEWAY	RD	ROAD
EA	EACH	RDWY	ROADWAY
EB	EASTBOUND	SHLDR	SHOULDER
EL OR ELEV	ELEVATION	SW	SIDEWALK
EMB	EMBANKMENT	SB	SOUTHBOUND
ESALS	EQUIVALENT SINGLE AXLE LOADS	SPECS	SPECIFICATIONS
EXC	EXCAVATION	SF	SQUARE FEET
EXIST	EXISTING	SY	SQUARE YARD
FERT	FERTILIZER	SDD	STANDARD DETAIL DRAWINGS
FL OR F/L	FLOW LINE	STH	STATE TRUNK HIGHWAY
FT	FOOT	STA	STATION
HES	HIGH EARLY STRENGTH	SE	SUPERELEVATION
CWT	HUNDRED WEIGHT	SL OR S/L	SURVEY LINE
IN DIA	INCH DIAMETER	TEMP	TEMPORARY
ID	INSIDE DIAMETER	T	TRUCKS (PERCENT OF)
IH	INTERSTATE HIGHWAY	TYP	TYPICAL
INV	INVERT	USH	UNITED STATES HIGHWAY
JT	JOINT	VAR	VARIABLE
LT	LEFT	VC	VERTICAL CURVE
LHF	LEFT HAND FORWARD	VPC	VERTICAL POINT OF CURVATURE
L	LENGTH OF CURVE	VPI	VERTICAL POINT OF INTERSECTION
LF	LINEAR FOOT	VPT	VERTICAL POINT OF TANGENCY
LC	LONG CHORD OF CURVE	W	WEST
LS	LUMP SUM	WB	WESTBOUND

WISCONSIN DNR LIAISON

ANDY BARTA
DNR SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERTY RD
FITCHBURG, WI 53711
PHONE: (608) 235-2955
EMAIL: andrew.barta@wisconsin.gov

DESIGN PROJECT MANAGER

JOSH SCHOENMANN, P.E.
SOUTHWEST REGION
2101 WRIGHT ST
MADISON, WI 53704
PHONE: (608) 235-2437
EMAIL: josh.schoenmann@dot.wi.gov

DESIGN CONSULTANT

AARON PALMER, P.E.
WESTBROOK ASSOCIATED ENGINEERS, INC.
619 EAST HOXIE ST
SPRING GREEN, WI 53588
PHONE: (608) 588-7866
EMAIL: apalmer@westbrookeng.com

TOWN OF HICKORY GROVE

GARY NORTHOUSE
TOWN OF HICKORY GROVE CHAIRMAN
14642 HOMER RD
FENNIMORE, WI 53809
PHONE: (608) 485-0851
EMAIL: garyrnot@gmail.com

UTILITIES CONTACTS

BRIGHTSPEED
COMMUNICATIONS
DOUG MCGOWAN
135 NORTH BONSON ST
PLATTEVILLE, WI 53818
PHONE: (980) 376-1578
EMAIL: DOUG.MCGOWAN1@BRIGHTSPEED.COM

SCENIC RIVERS ENERGY COOPERATIVE
ELECTRIC
CHAD OLMSTEAD
231 N SHERIDAN ST
LANCASTER, WI, 53813
PHONE: (608) 723-2121
EMAIL: COLMSTEAD@SREC.NET

GENERAL NOTES

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

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

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

APPLY TACK COAT BETWEEN LAYERS OF HMA PAVEMENT AT A RATE OF 0.05 GAL/SY.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

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

THE CONTRACTOR SHALL PREPARE AN EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND SUBMIT THE PLAN TO WISDOT AND WDNR FOR REVIEW AT LEAST 14 DAYS PRIOR TO THE PRECONSTRUCTION CONFERENCES.

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

BIODEGRADABLE NON-NETTED MATTING SHALL BE USED ALONG STREAM CORRIDORS.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

PRIOR TO PLACING THE NEW BASE AGGREGATE DENSE COURSE OR PAVED SHOULDERS EXISTING UNCOMPACTED SHOULDER MATERIAL SHALL BE REMOVED OR DEPOSITED ON THE OUTER PORTION OF THE EXISTING SHOULDER OR AS DIRECTED BY THE ENGINEER.

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

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

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

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

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

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

RUNOFF COEFFICIENT TABLE

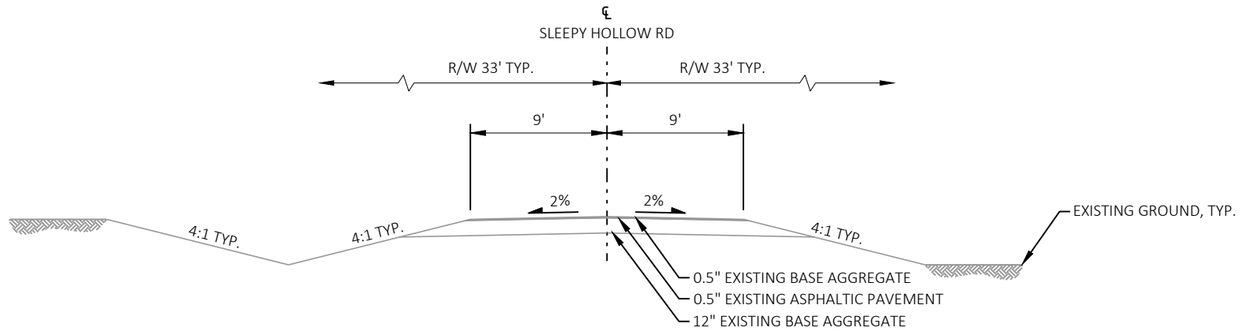
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIPTURF:	.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 SLOPETURF:			.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 = 0.209 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.114 ACRES

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

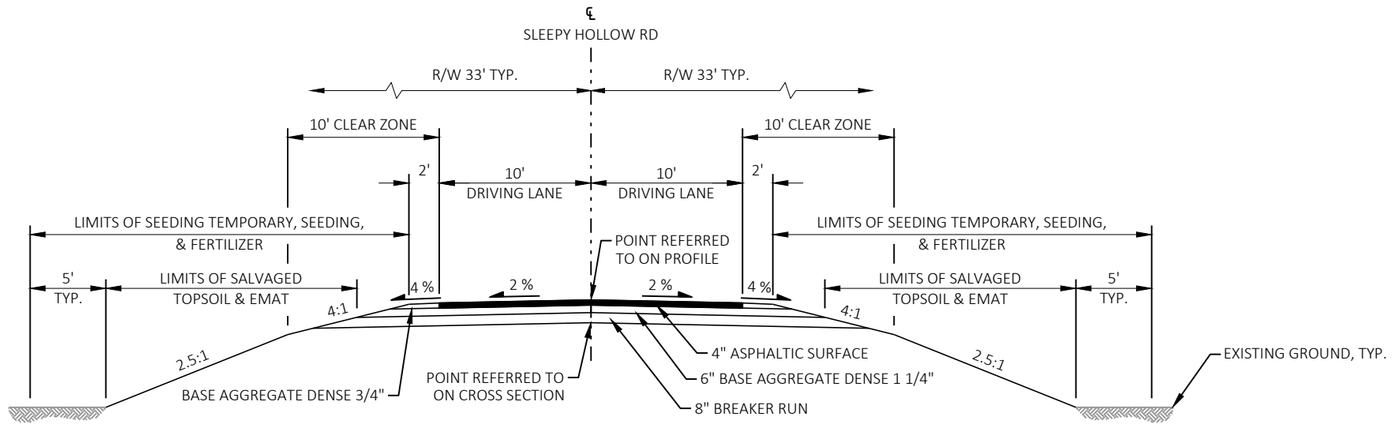
ORDER OF SECTION 2 DETAIL SHEETS

2



EXISTING TYPICAL SECTION

STA 13+31.23 - 14+69.17

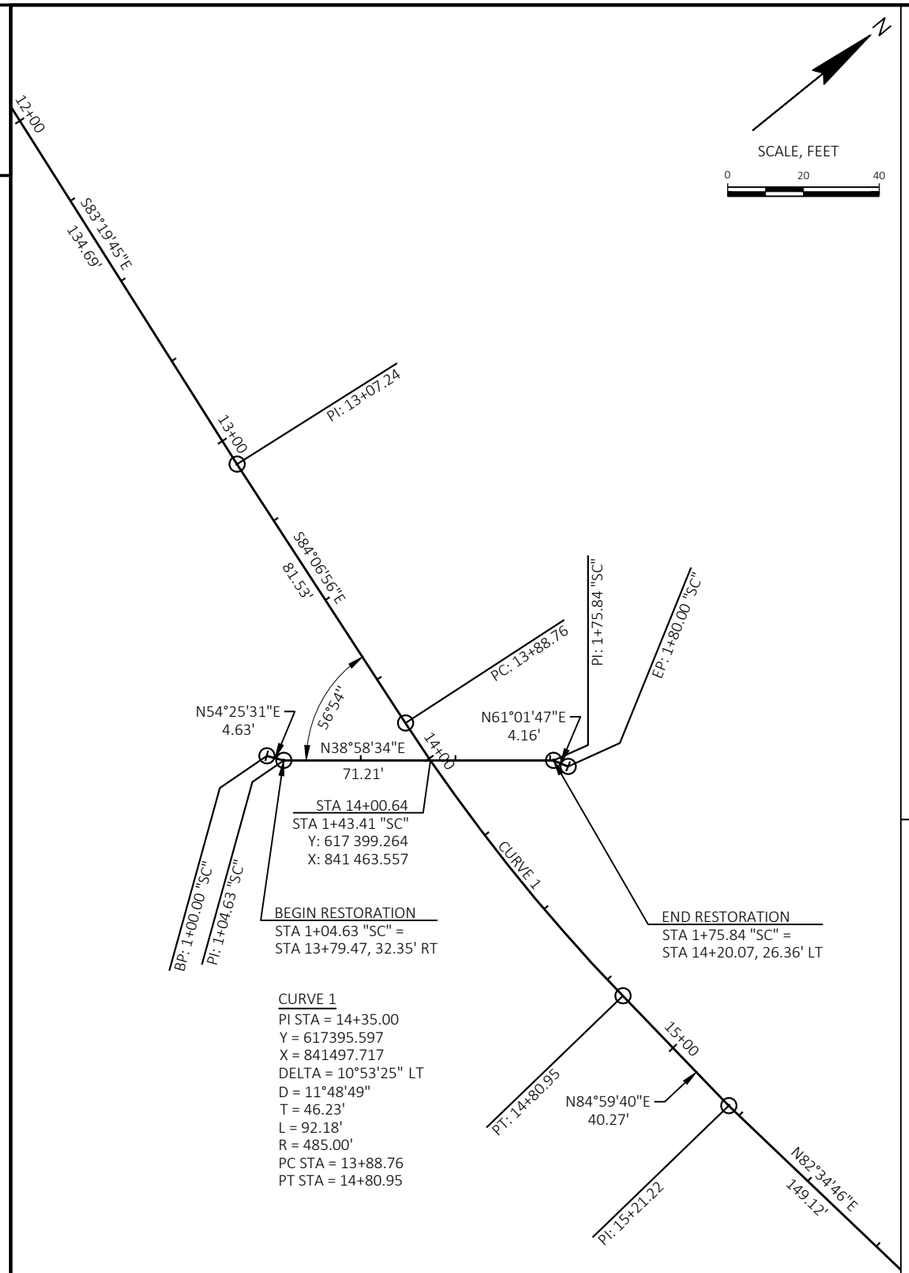


FINISHED TYPICAL SECTION

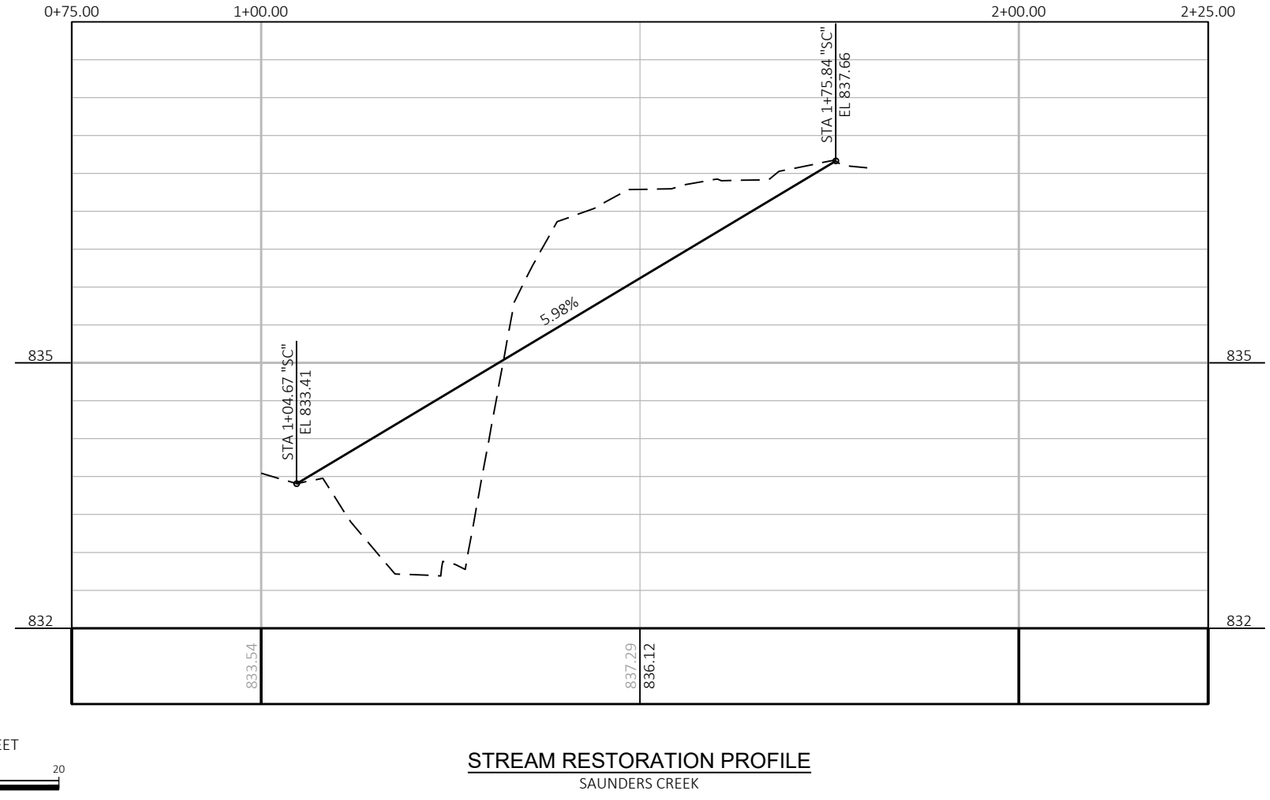
STA 13+31.23 - 13+60.99
STA 14+40.15 - 14+69.17

PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	TYPICAL SECTIONS	SHEET 3	E

FILE NAME : G:\00-PROJECT FILES\2024\24151 ID 5892-00-03 T HICKORY GROVE, SLEEPY HOLLOW RD SAUNDERS CREEK BRIDGE P-22-0938\0-CAD\SHEETS\020301_TS.DWG
LAYOUT NAME - 020301_ts
PLOT DATE : 6/13/2025 1:58 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

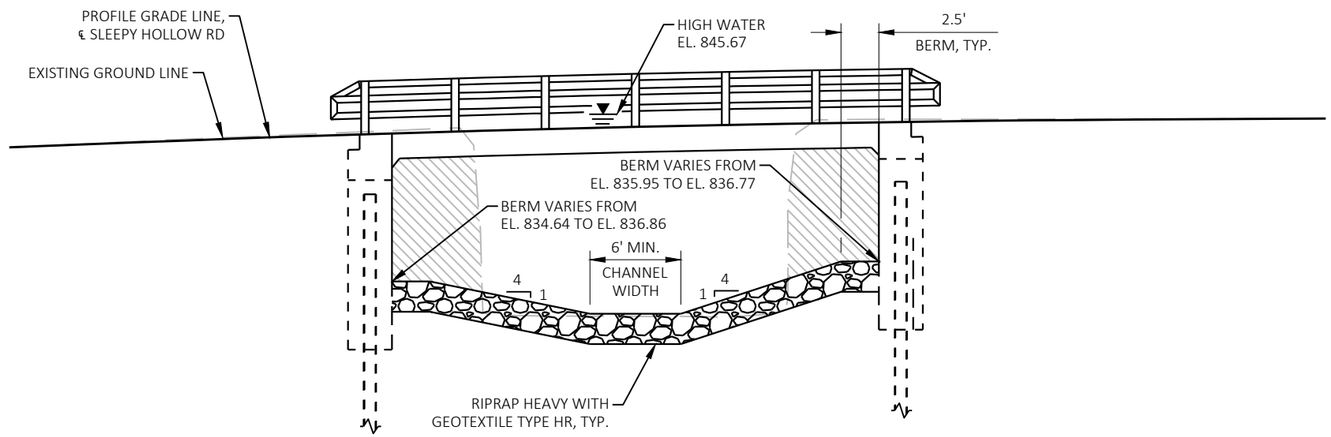


STREAM RESTORATION LAYOUT



STREAM RESTORATION PROFILE

SAUNDERS CREEK



SAUNDERS CREEK TYPICAL SECTION

LOOKING NORTH

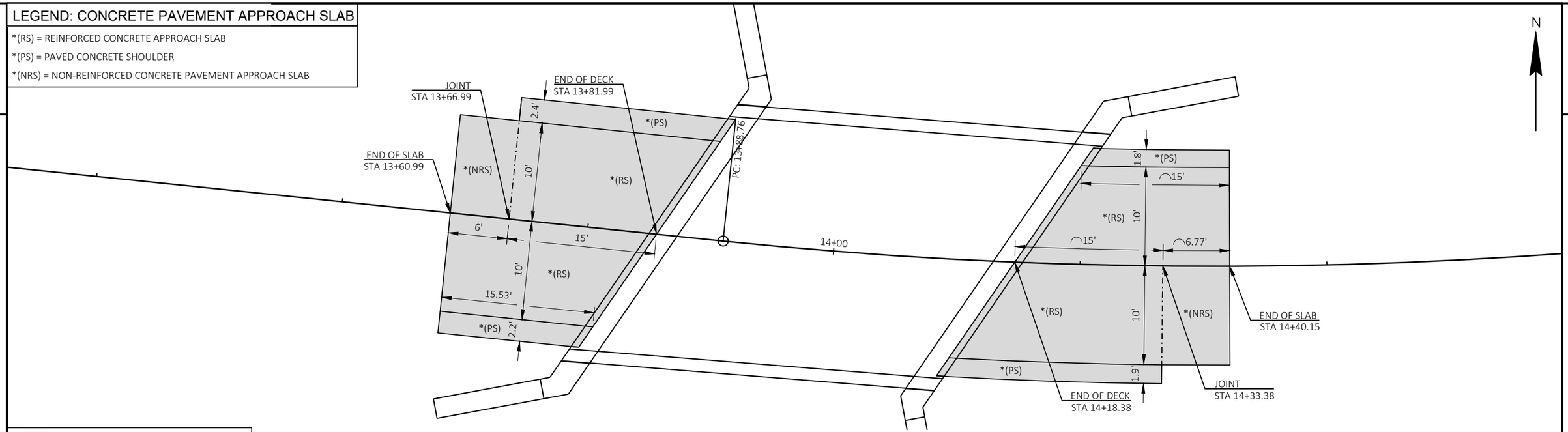
PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	CONSTRUCTION DETAILS	SHEET 4	E

LEGEND: CONCRETE PAVEMENT APPROACH SLAB

*(RS) = REINFORCED CONCRETE APPROACH SLAB

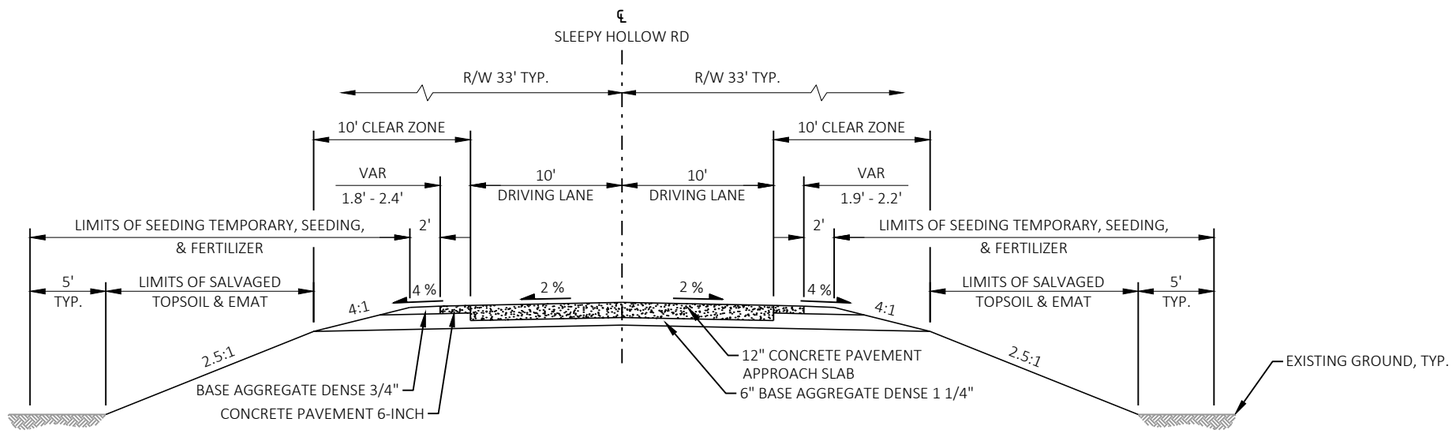
*(PS) = PAVED CONCRETE SHOULDER

*(NRS) = NON-REINFORCED CONCRETE PAVEMENT APPROACH SLAB



CONCRETE APPROACH SLAB LAYOUT

NOTE:
CONSTRUCT IN ACCORDANCE WITH SDD "CONCRETE PAVEMENT APPROACH SLAB" AND SDD "CONCRETE PAVEMENT SHOULDERS"



CONCRETE APPROACH SLAB TYPICAL SECTION

STA 13+60.99 - 14+40.15

PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	CONSTRUCTION DETAILS	SHEET 5	E

LEGEND: PERMANENT SIGNING

EXISTING SIGN

PROPOSED SIGN

0X — DENOTES SIGN NUMBER
WORK CODE: R=REMOVE
SIGN COUNT SEQUENCE

N

W5-52L 12"X36" — 3

REMOVE — 3R

REMOVE — 5R

W5-52R 12"X36" — 5

WEIGHT LIMIT 20 TONS — REMOVE — 6R

PI: 13+07.24

PC: 13+88.76

PT: 14+80.95

PI: 15+21.22

13+00

14+00

15+00

1R — WEIGHT LIMIT 20 TONS — REMOVE

2 — W5-52R 12"X36"

2R — REMOVE

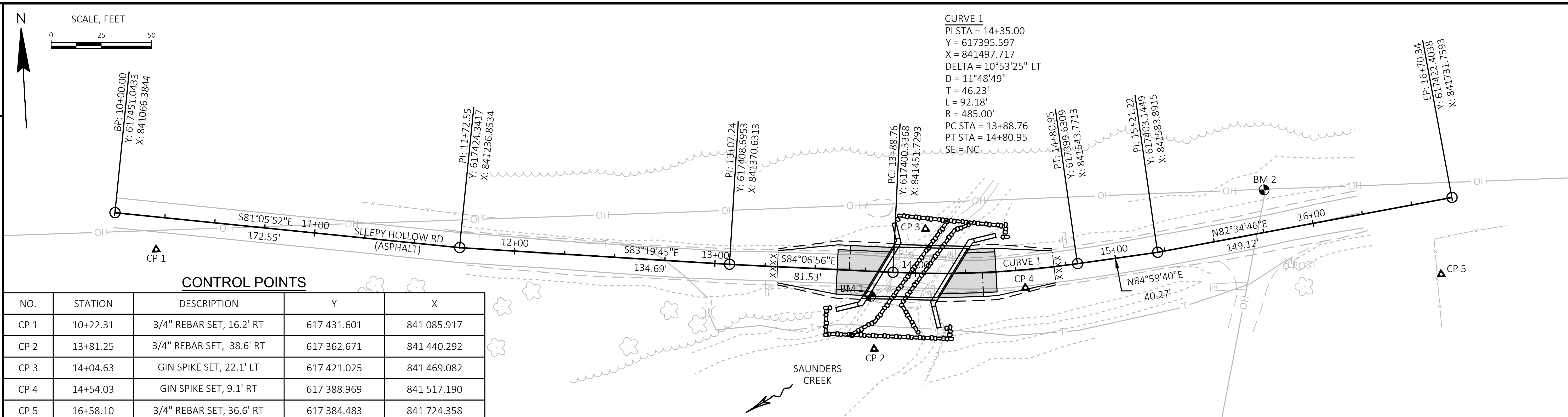
4R — REMOVE

4 — W5-52L 12"X36"

NOTE:
CONSTRUCT IN ACCORDANCE WITH SDD "SIGNING AND MARKING FOR TWO LANE BRIDGES" AND SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS"

PROJECT NO: 5892-00-73	HWY: SLEEPY HOLLOW ROAD	COUNTY: GRANT	PERMANENT SIGNING	SHEET 6	E

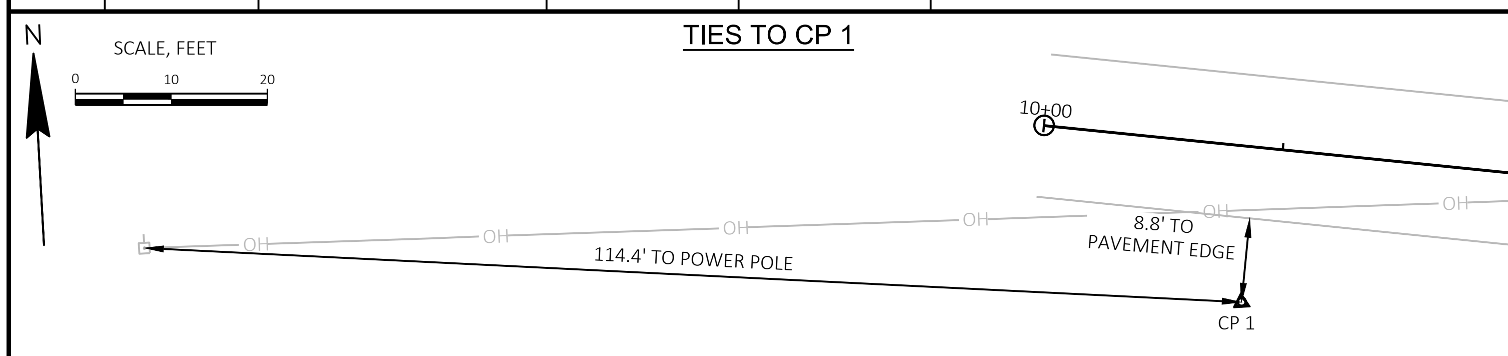
FILE NAME : G:\00-PROJECT FILES\2024\24151 ID 5892-00-03 T HICKORY GROVE, SLEEPY HOLLOW RD SAUNDERS CREEK BRIDGE P-22-0938\0-CAD\SHEETS\023201_PS.DWG
LAYOUT NAME - 023201_ps
PLOT DATE : 6/13/2025 2:36 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:20 FT



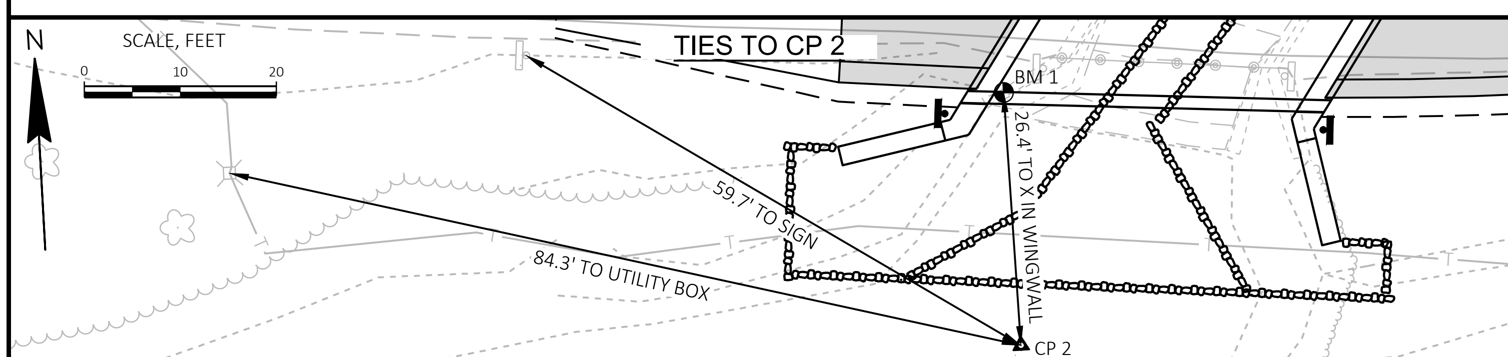
CONTROL POINTS

NO.	STATION	DESCRIPTION	Y	X
CP 1	10+22.31	3/4" REBAR SET, 16.2' RT	617 431.601	841 085.917
CP 2	13+81.25	3/4" REBAR SET, 38.6' RT	617 362.671	841 440.292
CP 3	14+04.63	GIN SPIKE SET, 22.1' LT	617 421.025	841 469.082
CP 4	14+54.03	GIN SPIKE SET, 9.1' RT	617 388.969	841 517.190
CP 5	16+58.10	3/4" REBAR SET, 36.6' RT	617 384.483	841 724.358

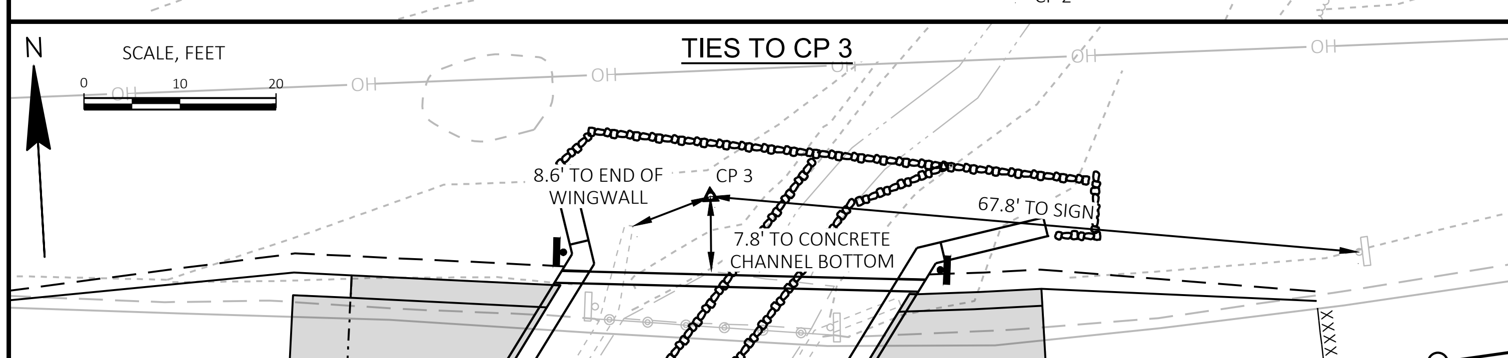
TIES TO CP 1



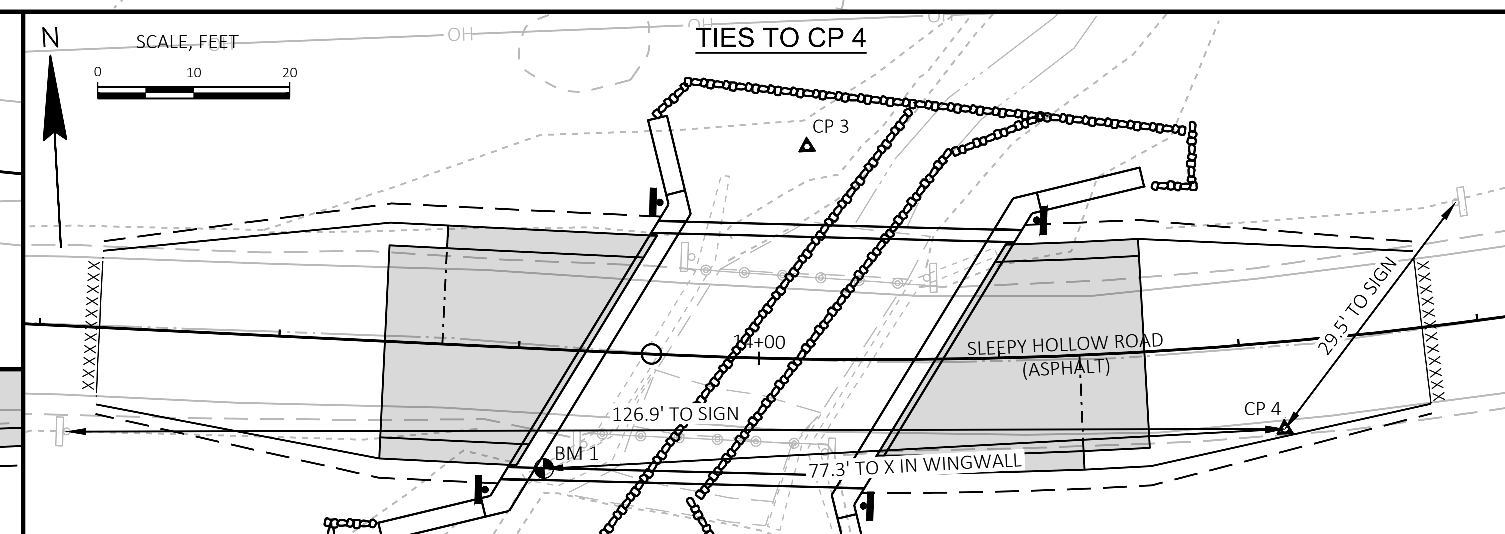
TIES TO CP 2



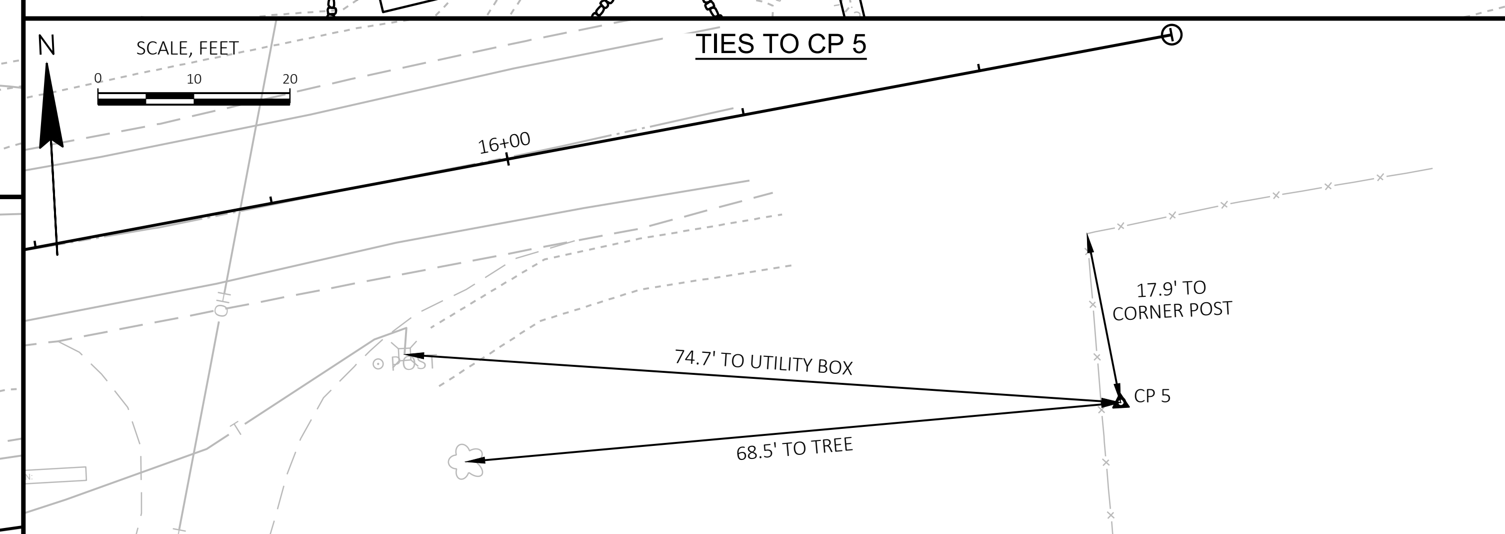
TIES TO CP 3



TIES TO CP 4



TIES TO CP 5



PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	ALIGNMENT DETAILS AND CONTROL POINTS	SHEET 7	E

FILE NAME : G:\00-PROJECT FILES\2024\24151 ID 5892-00-03 T HICKORY GROVE, SLEEPY HOLLOW RD SAUNDERS CREEK BRIDGE P-22-0938\0-CAD\SHEETS\027201_AD.DWG
LAYOUT NAME - 027201_ad
PLOT DATE : 3/3/2025 10:54 AM
PLOT BY : GAVIN WIPPERFURTH
PLOT NAME :
PLOT SCALE : VARIES

Estimate Of Quantities

5892-00-73

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0220	Removing Structure (structure) 01. P-22-938	EACH	1.000	1.000
0008	205.0100	Excavation Common	CY	128.000	128.000
0010	206.1001	Excavation for Structures Bridges (structure) 01. B-22-315	EACH	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	900.000	900.000
0014	213.0100	Finishing Roadway (project) 01. 5892-00-73	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	16.000	16.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	123.000	123.000
0020	311.0110	Breaker Run	TON	68.000	68.000
0022	415.0060	Concrete Pavement 6-Inch	SY	17.000	17.000
0024	415.0410	Concrete Pavement Approach Slab	SY	96.000	96.000
0026	455.0605	Tack Coat	GAL	8.000	8.000
0028	465.0105	Asphaltic Surface	TON	31.000	31.000
0030	502.0100	Concrete Masonry Bridges	CY	188.000	188.000
0032	502.3200	Protective Surface Treatment	SY	195.000	195.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	6,440.000	6,440.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,700.000	17,700.000
0038	513.4061	Railing Tubular Type M	LF	81.000	81.000
0040	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0042	550.0020	Pre-Boring Rock or Consolidated Materials	LF	70.000	70.000
0044	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	315.000	315.000
0046	606.0300	Riprap Heavy	CY	185.000	185.000
0048	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0050	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5892-00-73	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	2.200	2.200
0056	625.0500	Salvaged Topsoil	SY	170.000	170.000
0058	628.1504	Silt Fence	LF	90.000	90.000
0060	628.1520	Silt Fence Maintenance	LF	144.000	144.000
0062	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0066	628.2008	Erosion Mat Urban Class I Type B	SY	170.000	170.000
0068	628.7504	Temporary Ditch Checks	LF	24.000	24.000
0070	629.0210	Fertilizer Type B	CWT	0.500	0.500
0072	630.0130	Seeding Mixture No. 30	LB	20.000	20.000
0074	630.0200	Seeding Temporary	LB	15.000	15.000
0076	630.0500	Seed Water	MGAL	8.000	8.000
0078	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0080	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0082	638.2602	Removing Signs Type II	EACH	6.000	6.000
0084	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0086	642.5001	Field Office Type B	EACH	1.000	1.000
0088	643.0420	Traffic Control Barricades Type III	DAY	1,752.000	1,752.000
0090	643.0705	Traffic Control Warning Lights Type A	DAY	3,504.000	3,504.000
0092	643.0900	Traffic Control Signs	DAY	1,460.000	1,460.000
0094	643.5000	Traffic Control	EACH	1.000	1.000
0096	645.0111	Geotextile Type DF Schedule A	SY	68.000	68.000
0098	645.0120	Geotextile Type HR	SY	337.000	337.000

Estimate Of Quantities

5892-00-73

Line	Item	Item Description	Unit	Total	Qty
0100	650.4500	Construction Staking Subgrade	LF	100.000	100.000
0102	650.5000	Construction Staking Base	LF	100.000	100.000
0104	650.6501	Construction Staking Structure Layout (structure) 01. B-22-315	EACH	1.000	1.000
0106	650.7000	Construction Staking Concrete Pavement	LF	43.000	43.000
0108	650.9911	Construction Staking Supplemental Control (project) 01. 5892-00-73	EACH	1.000	1.000
0110	650.9920	Construction Staking Slope Stakes	LF	100.000	100.000
0112	690.0150	Sawing Asphalt	LF	30.000	30.000
0114	715.0502	Incentive Strength Concrete Structures	DOL	1,128.000	1,128.000
0116	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0118	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 14+00	EACH	1.000	1.000
0120	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0122	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0124	SPV.0060	Special 01. Stream Restoration Structure B-22-315	EACH	1.000	1.000

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

3

DIVISION	FROM/TO STATION	205.0100 EXCAVATION COMMON CY (1) CUT CY (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY (3)	AVAILABLE MATERIAL CY (4)	UNEXPANDED FILL CY	EXPANDED FILL CY (5) FACTOR 1.25	MASS ORDINATE +/- CY (6)	WASTE CY (7)
WEST APPROACH	13+31.23/13+81.27	66	0	66	2	3	64	64
EAST APPROACH	14+19.17/14+69.17	62	0	62	8	10	52	52
TOTAL		128	0	128	10	13	116	116

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

(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

CLEARING AND GRUBBING

STATION	TO	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
13+00	-	15+00	2	2
		TOTAL	2	2

BASE AGGREGATE DENSE

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100 WATER MGAL
13+31.23	-	13+81.23	WEST APPROACH	8	62	35	1.1
14+19.17	-	14+69.17	EAST APPROACH	8	61	33	1.1
			TOTAL	16	123	68	2.2

CONCRETE PAVEMENT

STATION	TO	STATION	LOCATION	415.0060 CONCRETE PAVEMENT 6-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY
13+60.99	-	13+81.99	WEST APPROACH	9	47
14+18.38	-	14+40.15	EAST APPROACH	8	49
			TOTAL	17	96

ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
13+31.23	-	13+60.99	WEST APPROACH	4	16
14+40.15	-	14+69.17	EAST APPROACH	4	15
			TOTAL	8	31

FINISHING ITEMS

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
13+31.23	-	13+72.74	WEST APPROACH, RT	23	23	0.1	3	2	1.3
13+31.23	-	13+89.83	WEST APPROACH, LT	32	32	0.1	3	2	1.5
14+09.96	-	14+69.17	EAST APPROACH, RT	68	68	0.1	6	4	2.6
14+28.96	-	14+69.17	EAST APPROACH, LT	10	10	0.1	2	1	0.7
			UNDISTRIBUTED	37	37	0.1	6	6	1.9
			TOTAL	170	170	0.5	20	15	8.0

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
13+23	-	13+57	WEST APPROACH, RT	40	80
14+46	-	14+74	EAST APPROACH, LT	32	64
			UNDISTRIBUTED	18	---
			TOTAL	90	144

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	4	3
TOTAL	4	3

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 TEMPORARY DITCH CHECKS LF
13+29	WEST APPROACH, RT	8
14+19	EAST APPROACH, LT	8
	UNDISTRIBUTED	8
	TOTAL	24

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

3

PERMANENT SIGNING

STATION	LOCATION	SIGN NUMBER	SIGN CODE	634.0612 POSTS WOOD 4X6-INCH X 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
13+28	WEST APPROACH, RT	1R	R12-1	---	---	1	1	WEIGHT LIMIT 20 TONS
13+72	WEST APPROACH, RT	2	W5-52R	1	3	---	---	BRIDGE HASH MARKS
13+82	WEST APPROACH, RT	2R	W5-52R	---	---	1	1	BRIDGE HASH MARKS
13+89	WEST APPROACH, LT	3	W5-52L	1	3	---	---	BRIDGE HASH MARKS
13+93	WEST APPROACH, LT	3R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
14+07	EAST APPROACH, RT	4R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
14+11	EAST APPROACH, RT	4	W5-52L	1	3	---	---	BRIDGE HASH MARKS
14+18	EAST APPROACH, LT	5R	W5-52R	---	---	1	1	BRIDGE HASH MARKS
14+29	EAST APPROACH, LT	5	W5-52R	1	3	---	---	BRIDGE HASH MARKS
14+74	EAST APPROACH, LT	6R	R12-1	---	---	1	1	WEIGHT LIMIT 20 TONS
			TOTAL	4	12	6	6	

TRAFFIC CONTROL

LOCATION	DURATION DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
WEST APPROACH	73	9	657	18	1,314	8	584	---
EAST APPROACH	73	9	657	18	1,314	8	584	---
UNDISTRIBUTED	73	6	438	12	876	4	292	---
PROJECT	---	---	---	---	---	---	---	1
	TOTAL	24	1,752	48	3,504	20	1,460	1

PLACE TRAFFIC CONTROL IN ACCORDANCE WITH SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION".
PLACEMENT SUBJECT TO ENGINEER APPROVAL.

3

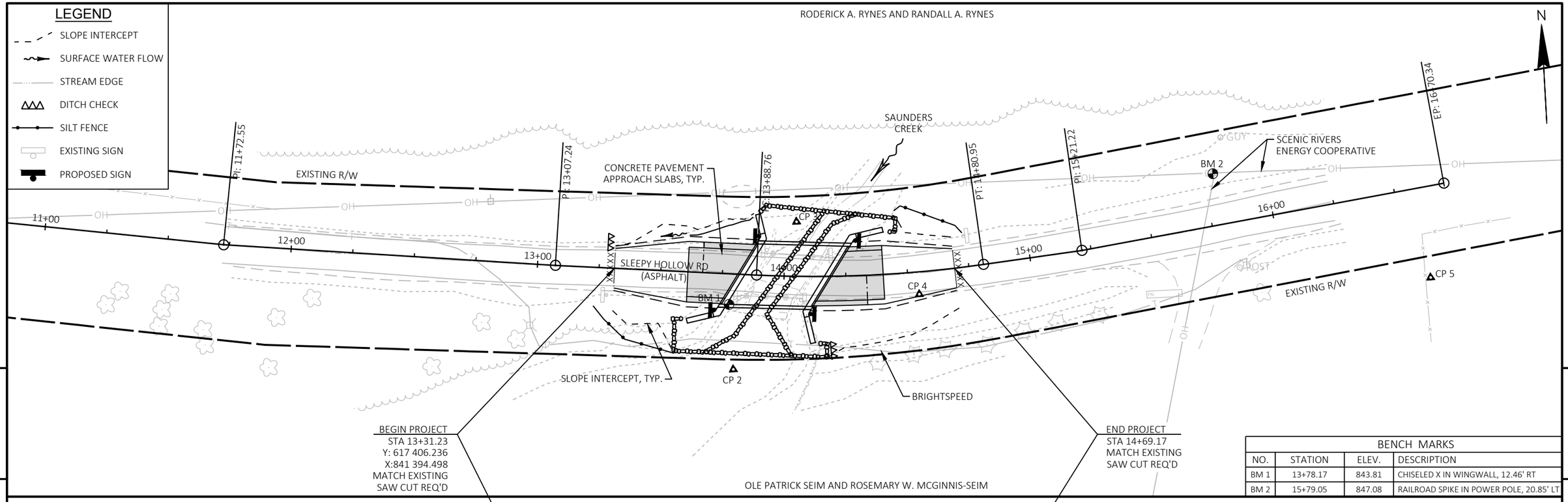
CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	* 650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-22-0315 EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5892-00-73 EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
13+31.23	-	13+81.23	EAST APPROACH	50	50	---	---	---	50
14+19.17	-	14+69.17	WEST APPROACH	50	50	---	---	---	50
13+60.99	-	13+81.99	EAST APPROACH	---	---	---	21	---	---
14+18.38	-	14+40.15	WEST APPROACH	---	---	---	22	---	---
			PROJECT	---	---	1	---	1	---
			TOTAL	100	100	1*	43	1	100

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
13+31	WEST APPROACH	15
14+69	EAST APPROACH	15
	TOTAL	30

* CATEGORY 0020



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5

PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	PLAN AND PROFILE	SHEET 12	E

FILE NAME : G:\00-PROJECT FILES\2024\24151 ID 5892-00-03 T HICKORY GROVE, SLEEPY HOLLOW RD SAUNDERS CREEK BRIDGE P-22-0938\0-CAD\SHEETS\050101_PP.DWG
LAYOUT NAME - 050101_pp

PLOT DATE : 4/18/2025 3:43 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

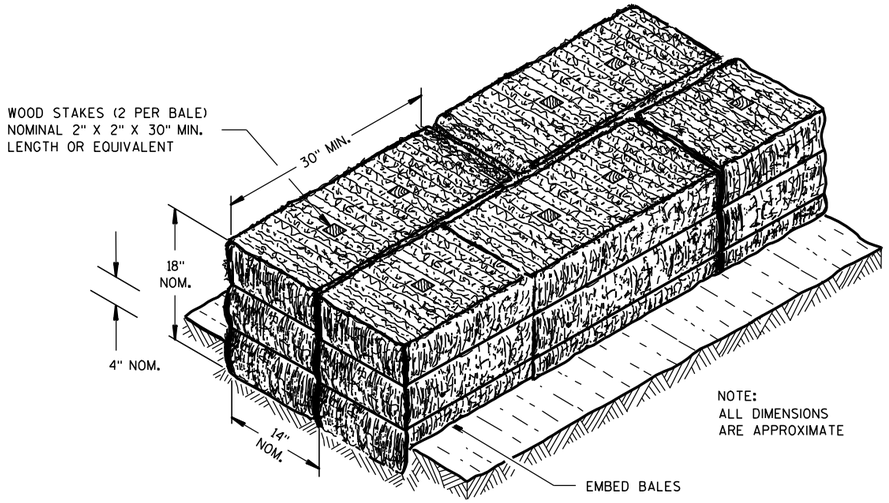
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

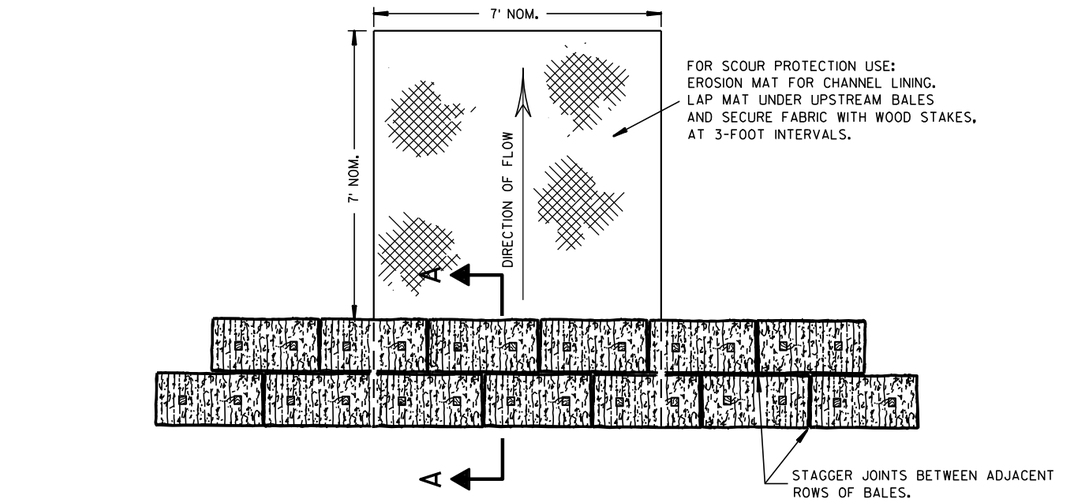
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

6

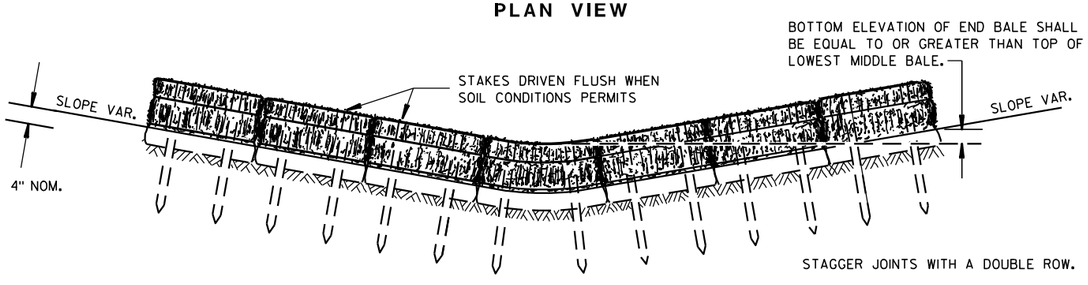
6



SECTION A-A



PLAN VIEW



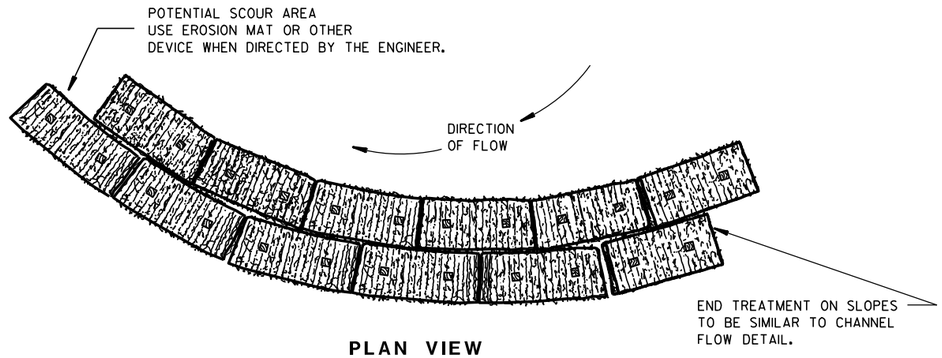
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

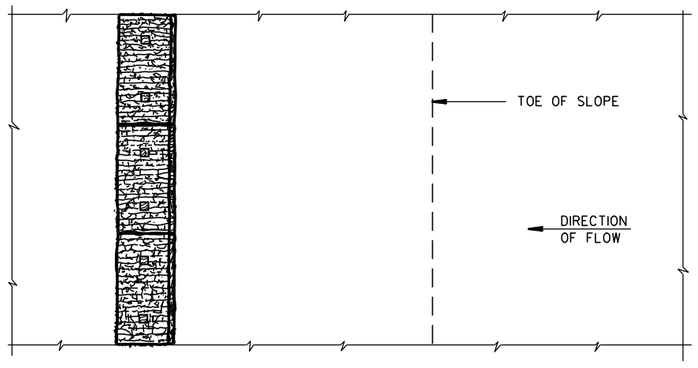
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

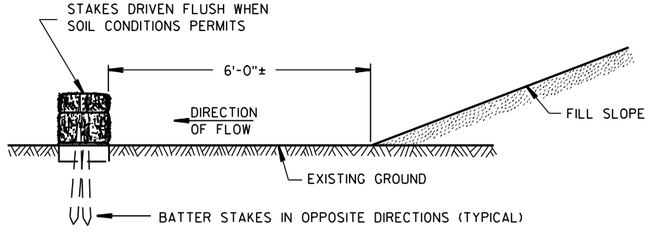


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

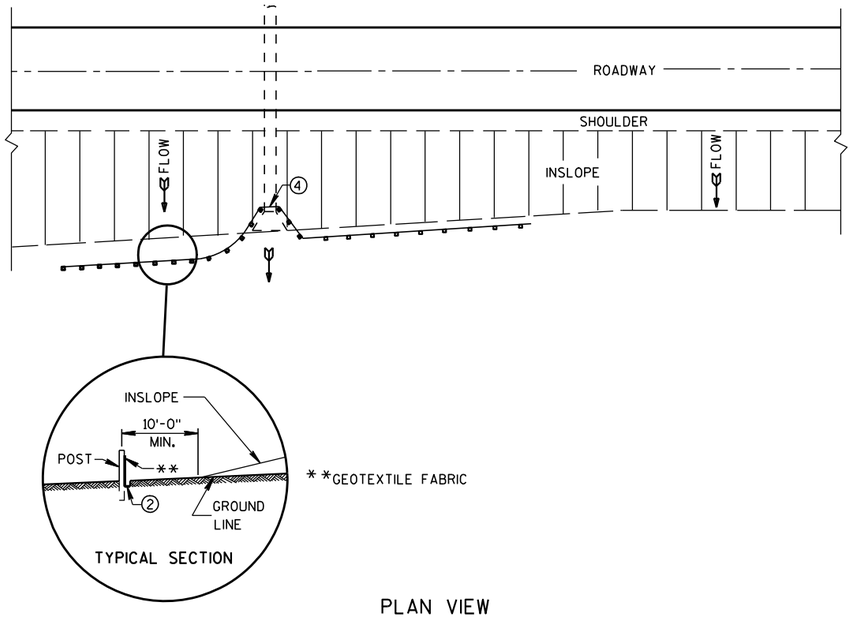
FHWA

6

S.D.D. 8 E 8-3

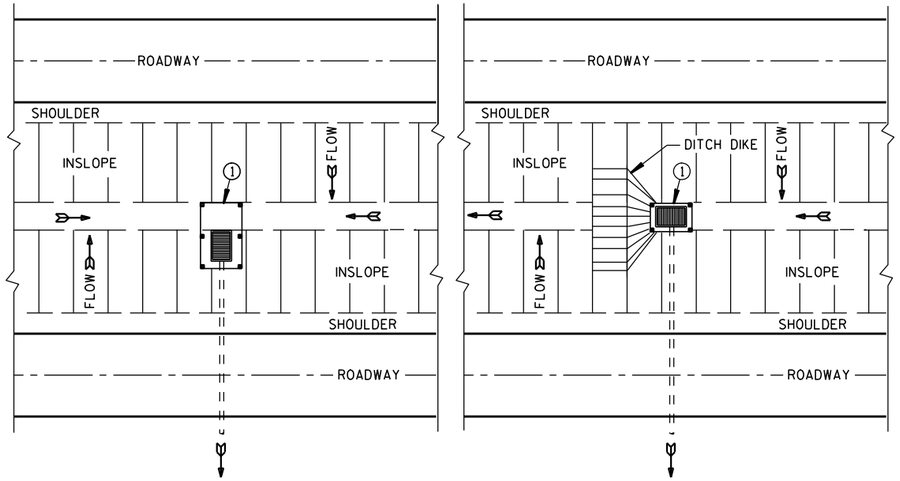
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



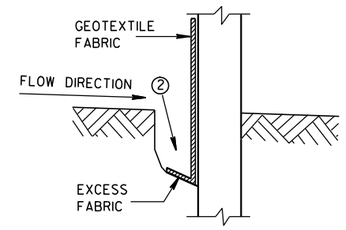
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

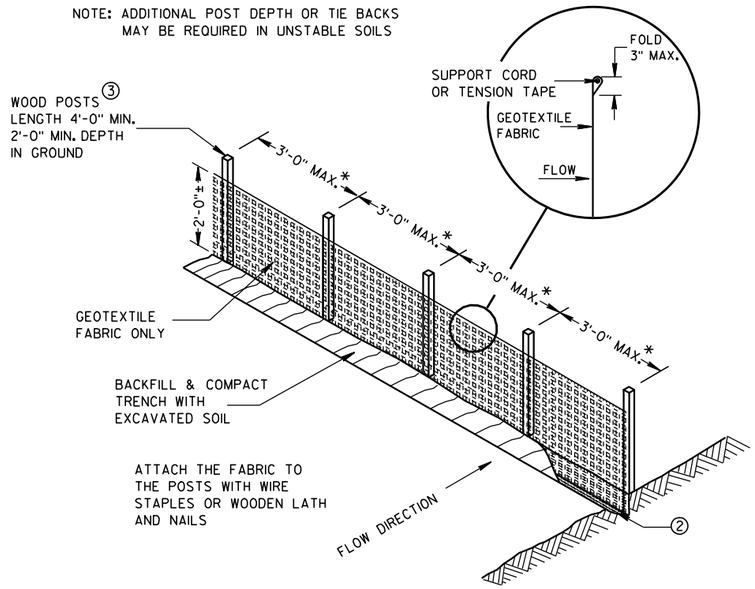
GENERAL NOTES

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

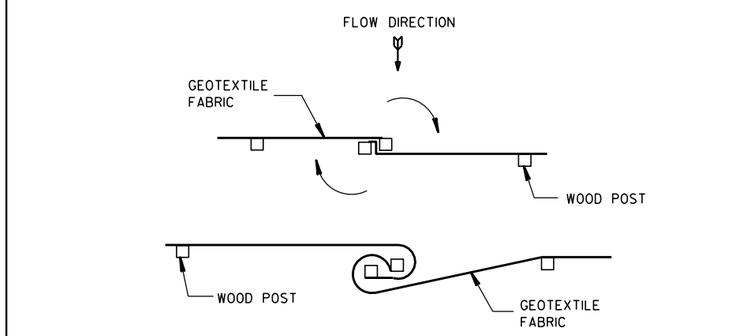
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



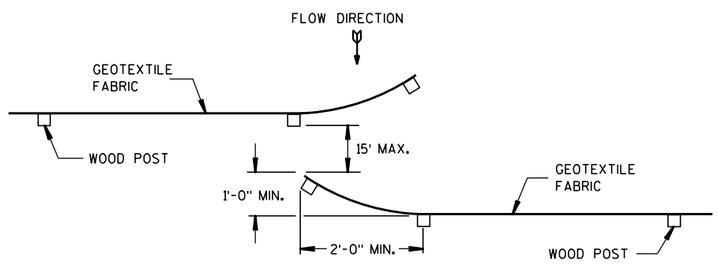
TRENCH DETAIL



SILT FENCE

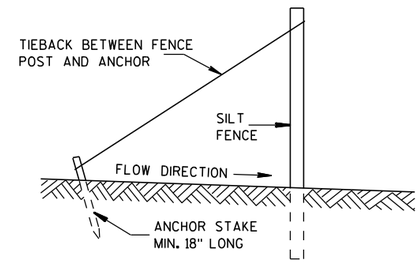


TWIST METHOD



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

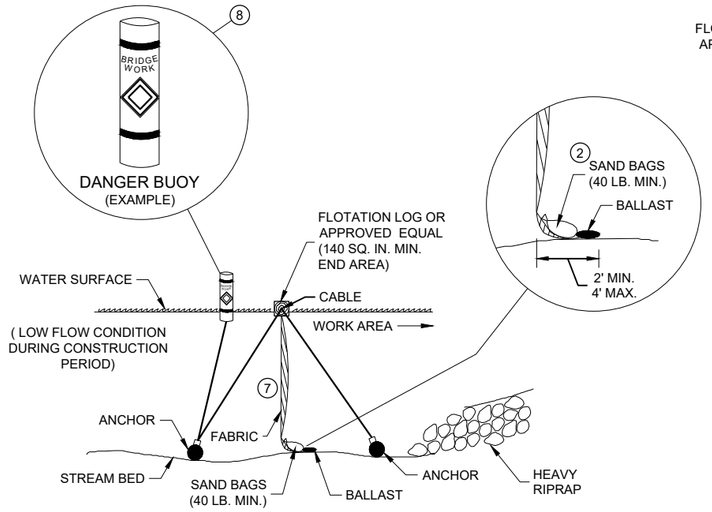
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

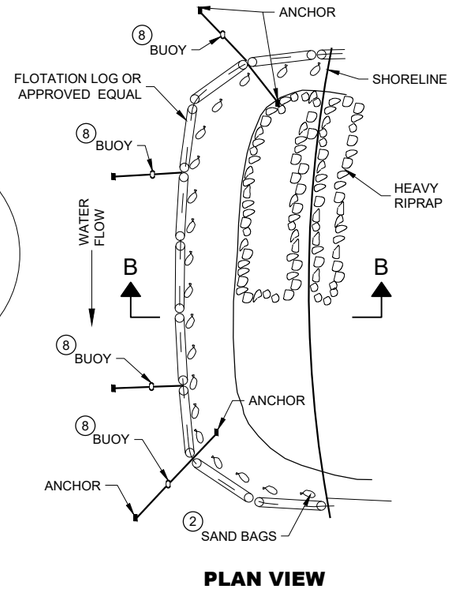
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

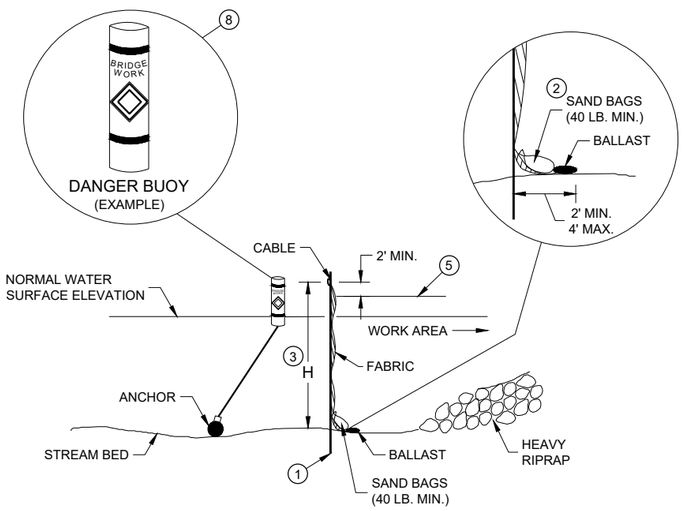


SECTION B - B

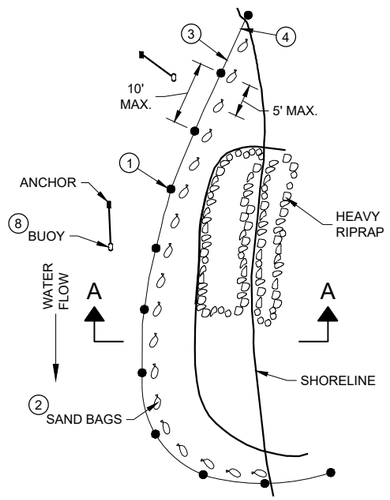


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

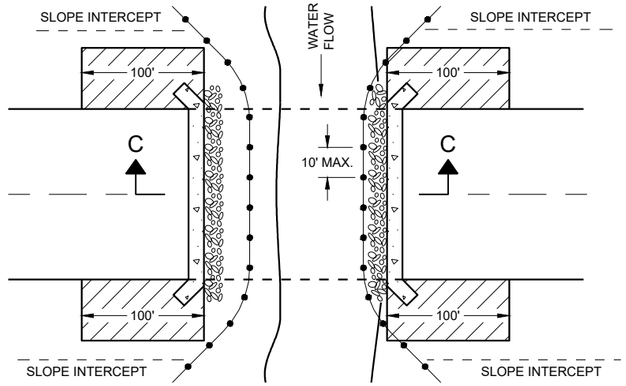
TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

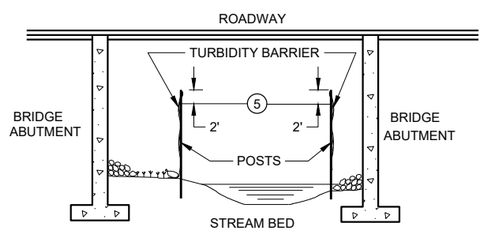
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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 DEVELOPMENT ENGINEER

FHWA

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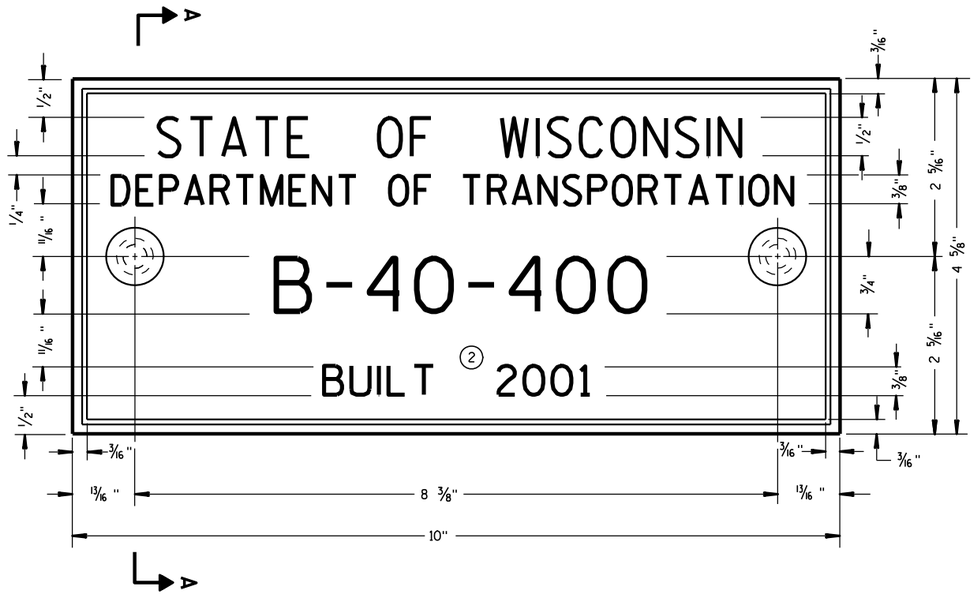
SDD 08E11 - 02



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

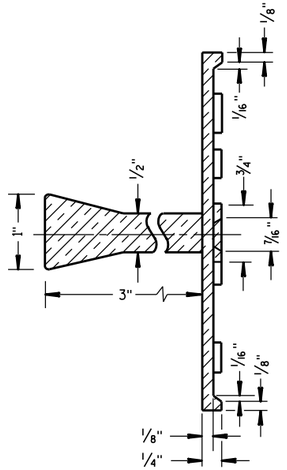
GENERAL NOTES

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.

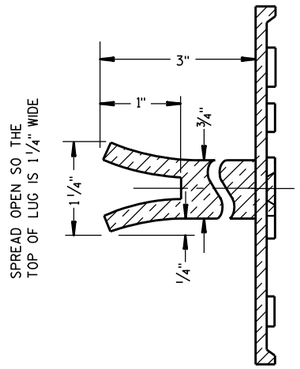
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

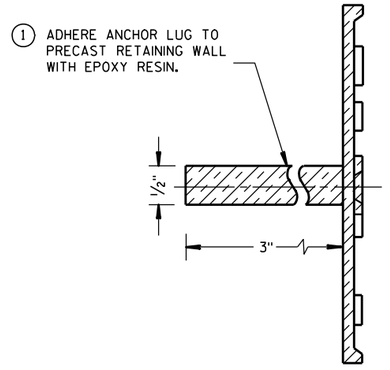
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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

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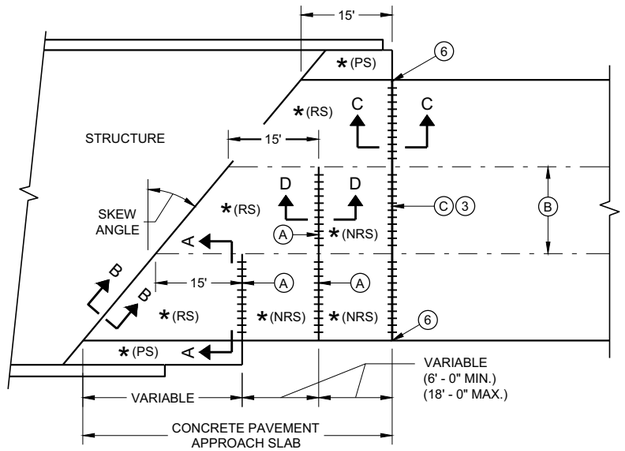
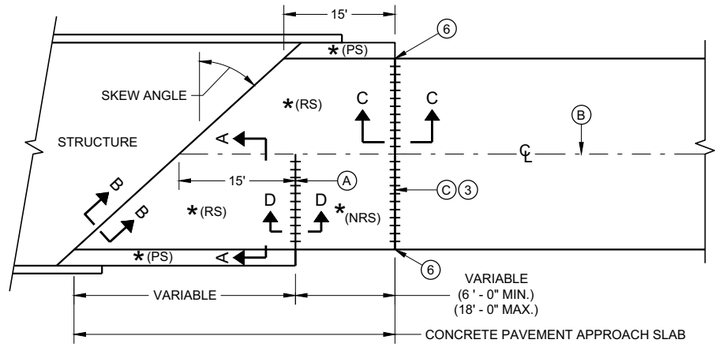
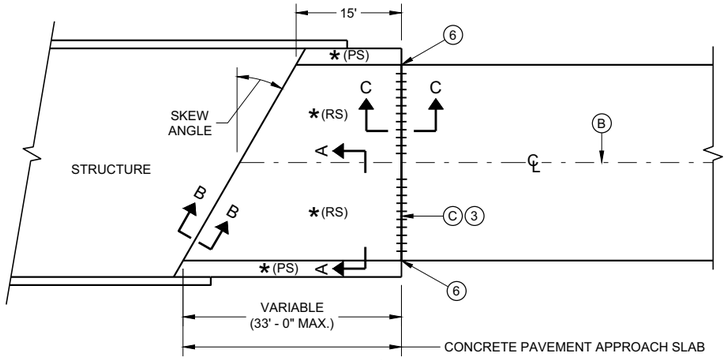
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

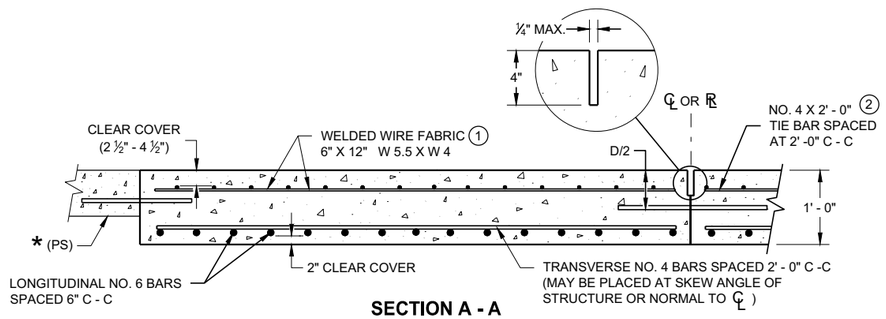
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

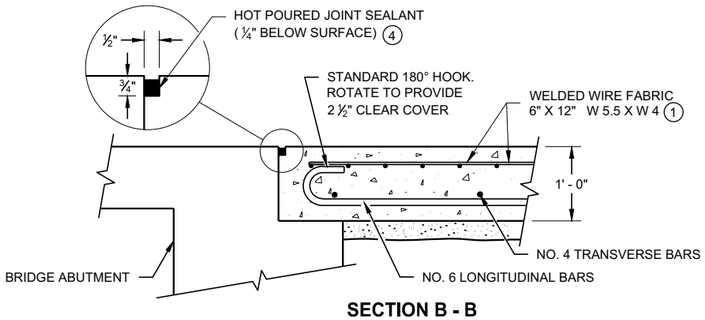
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

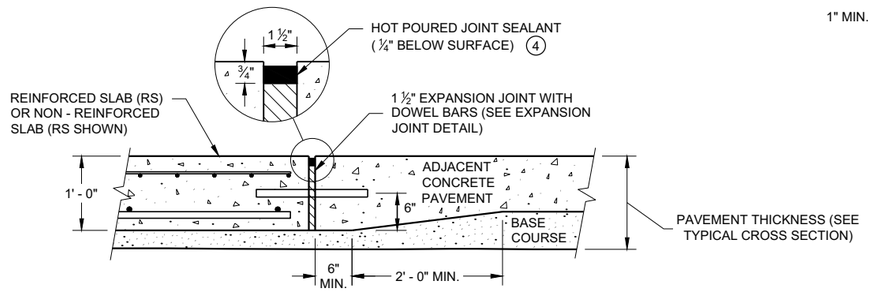
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

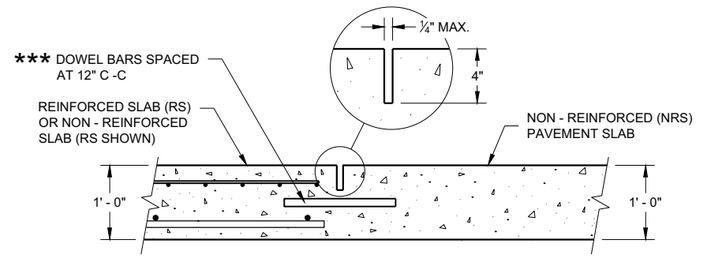
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

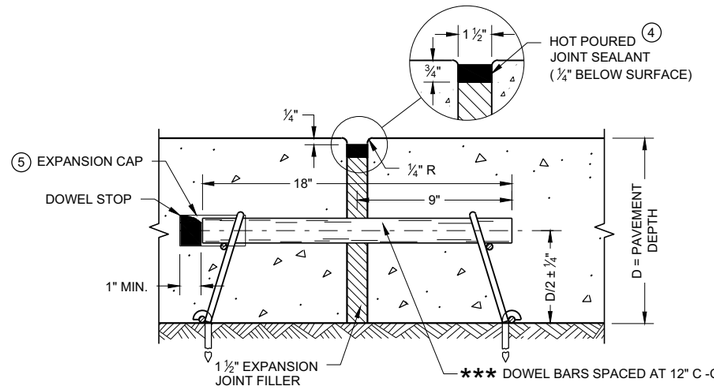
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

FHWA

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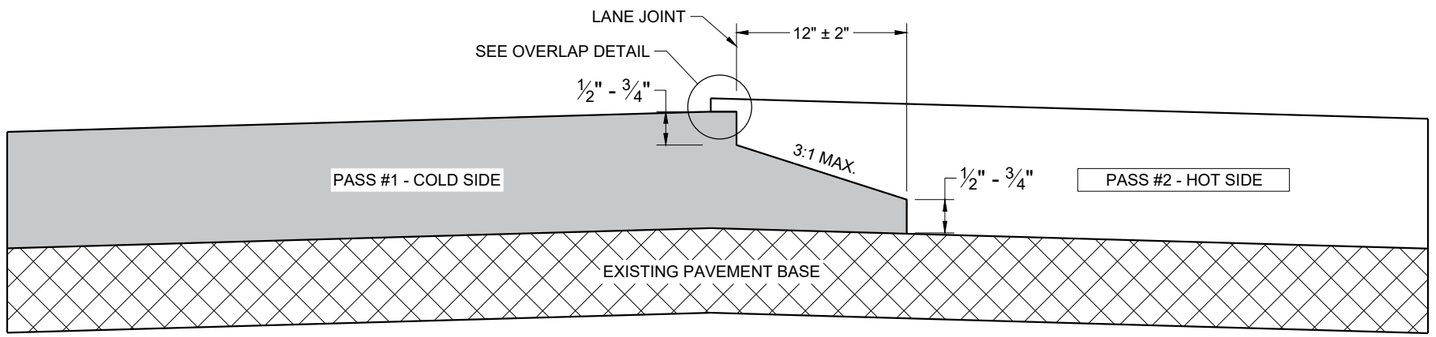
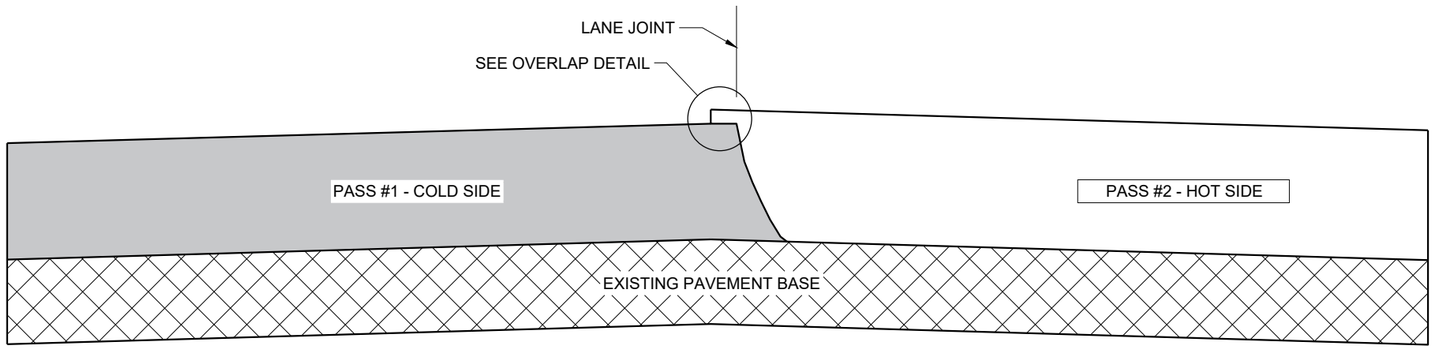
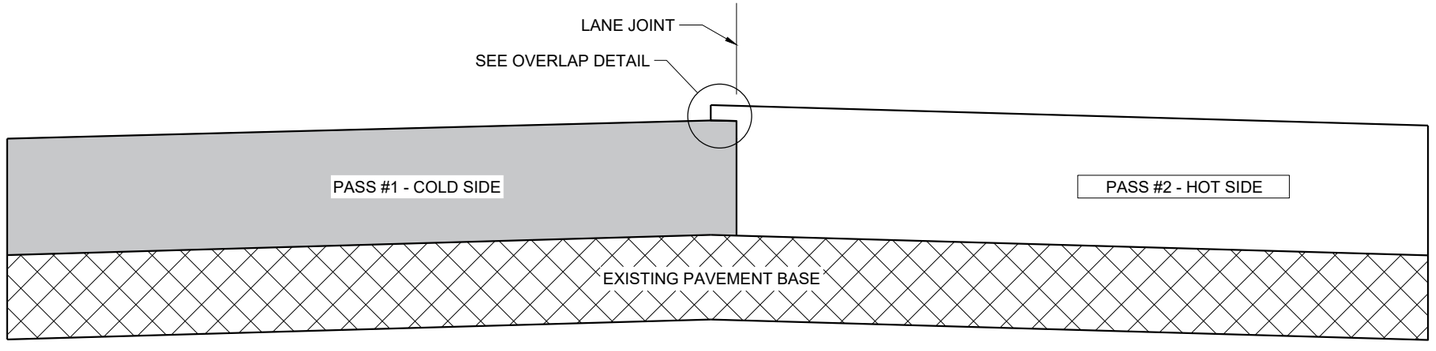
SDD 13B02 - 09a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

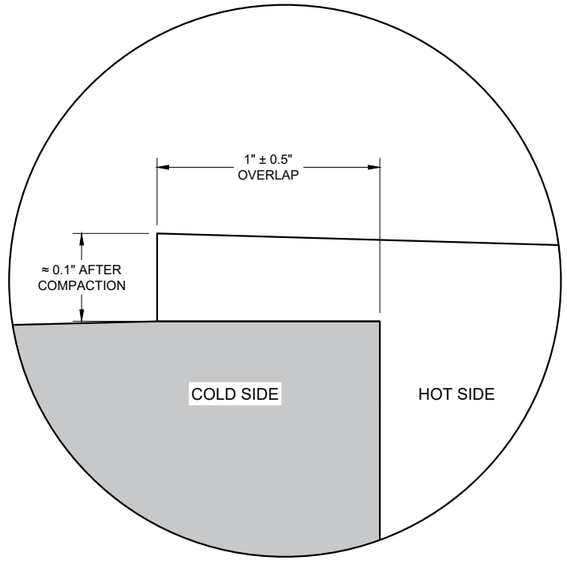
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

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SDD 13C19 - 03

SDD 13C19 - 03

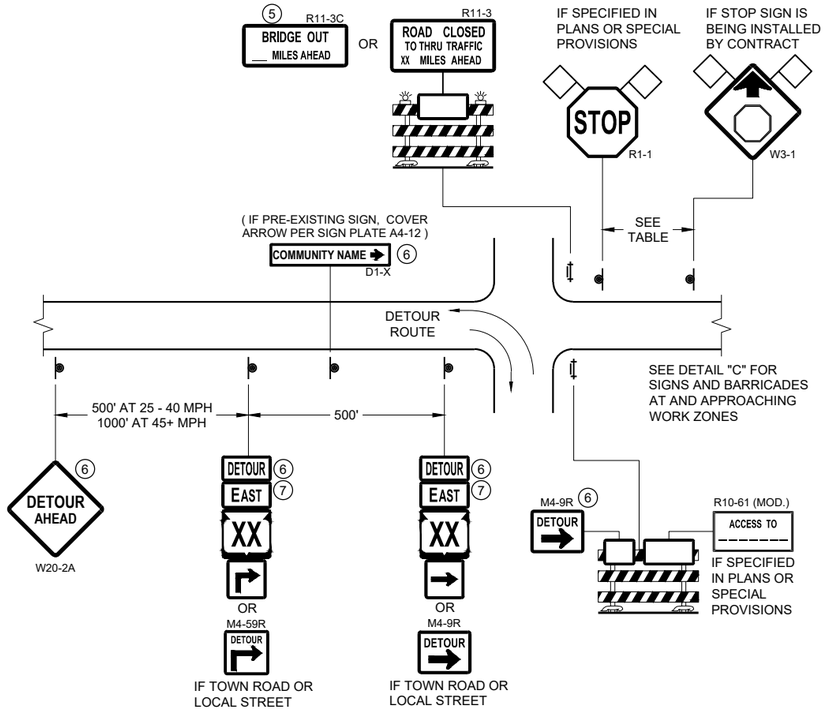
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

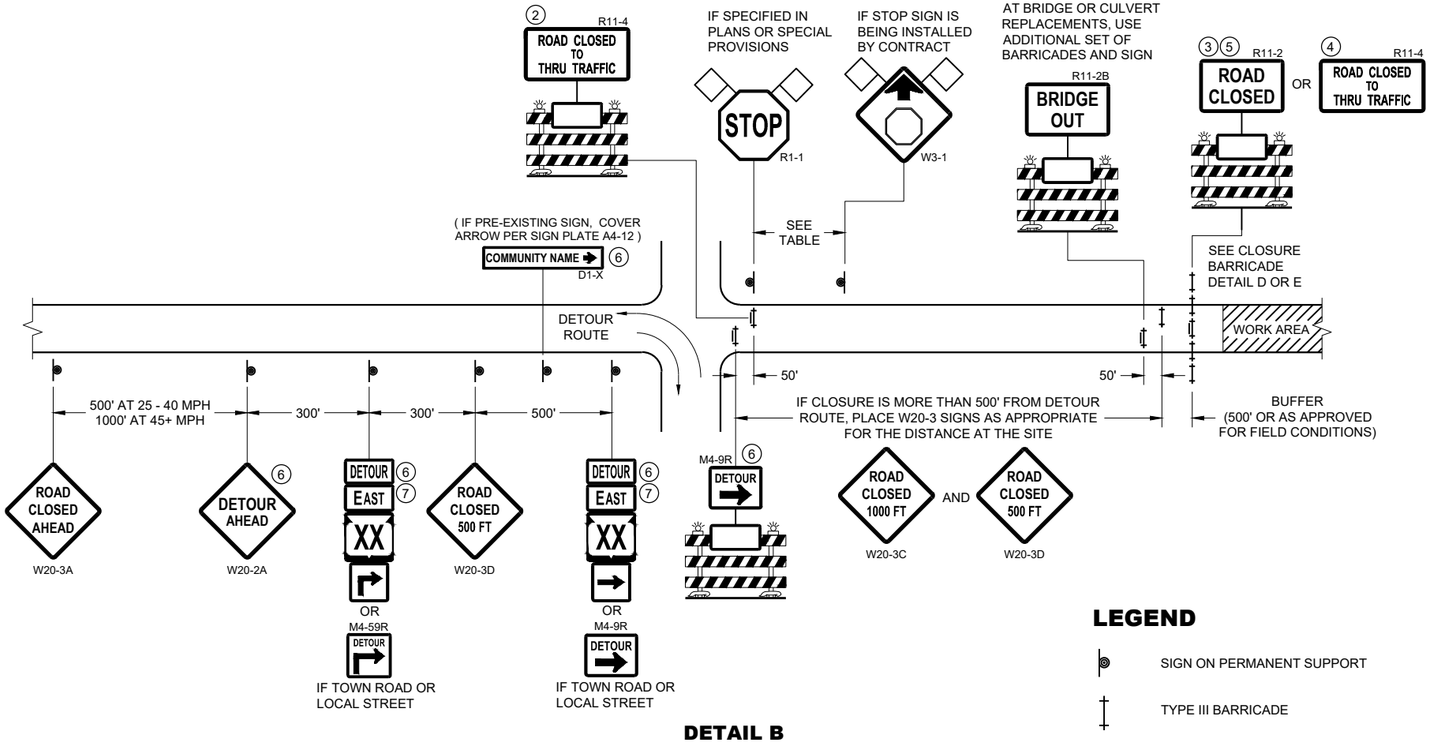
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



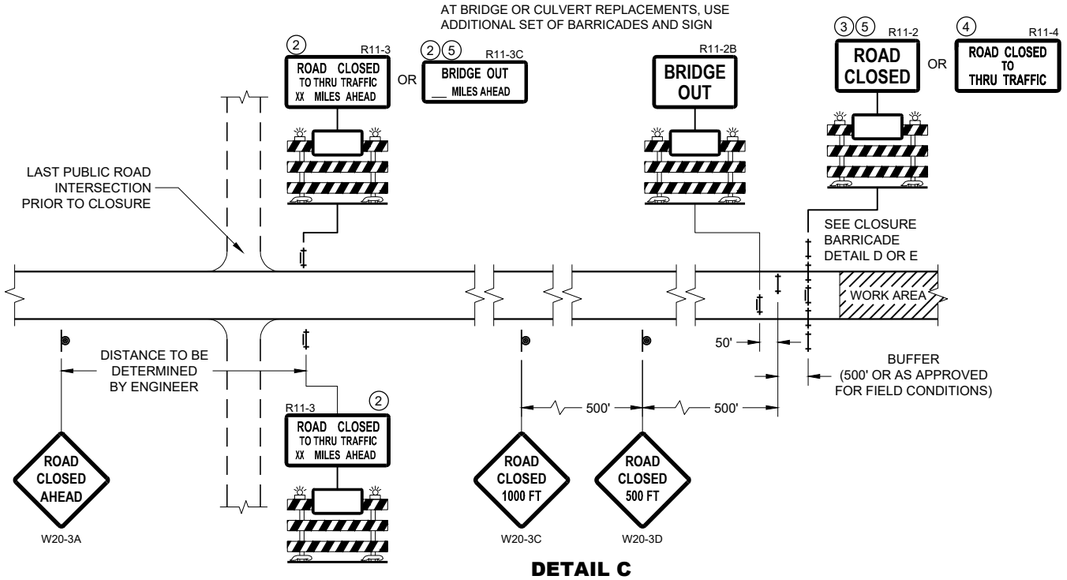
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



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

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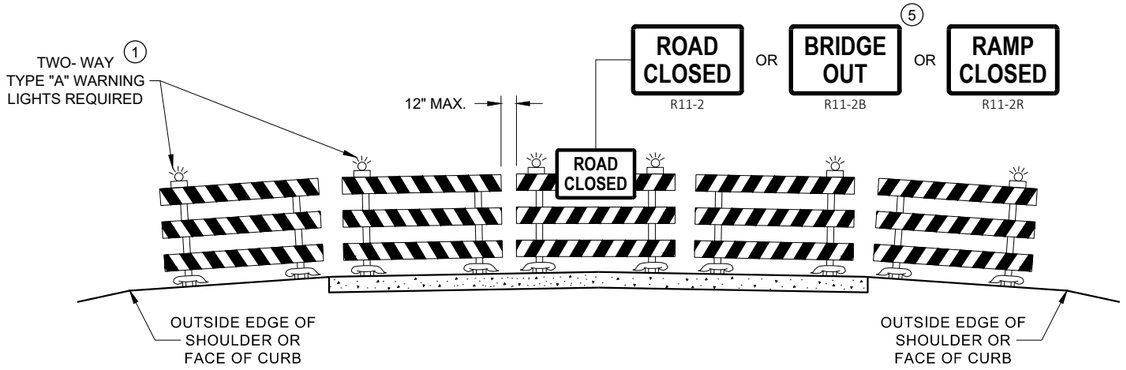
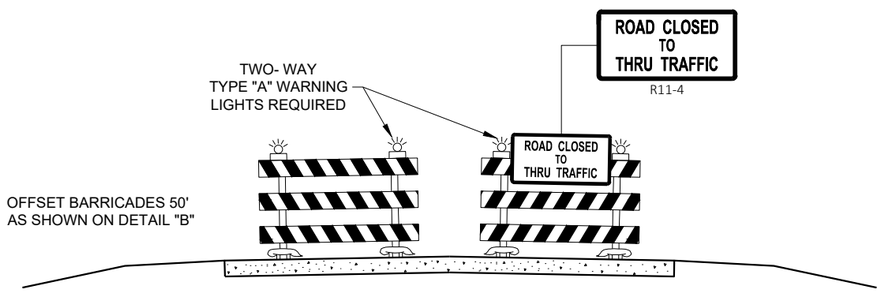
SDD 15C02 - 09a



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

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SDD 15C02 - 09b

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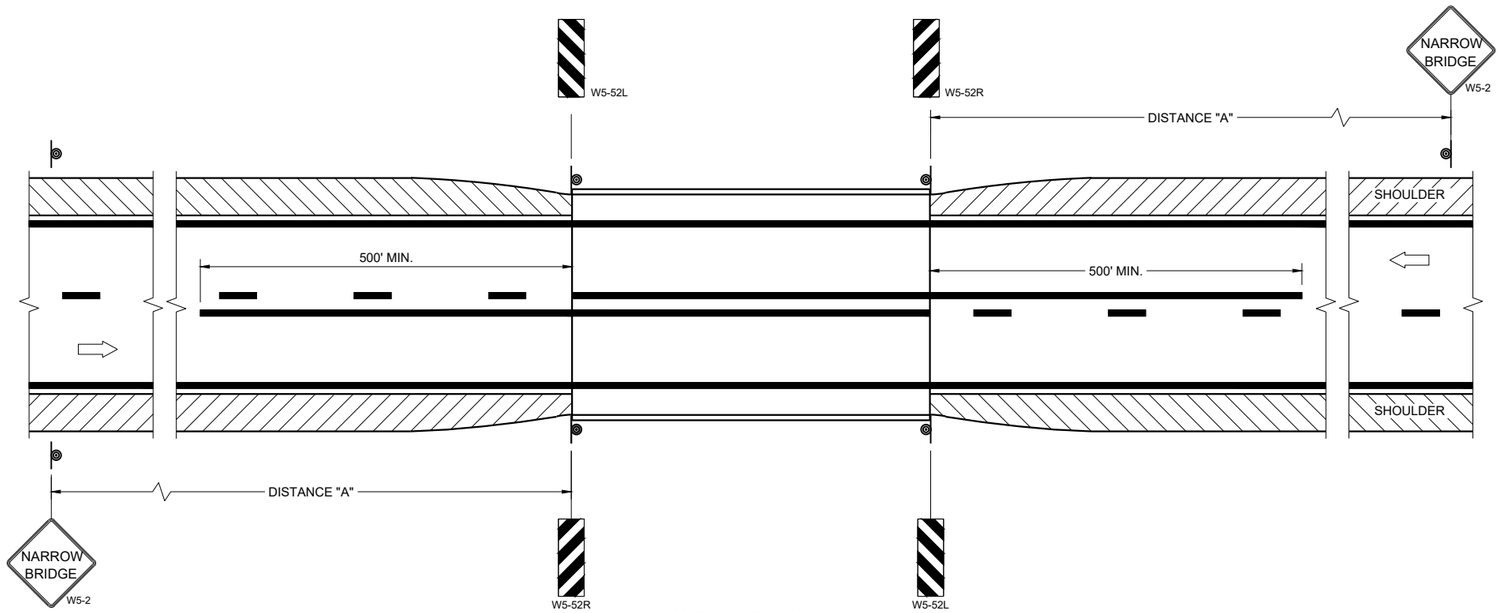
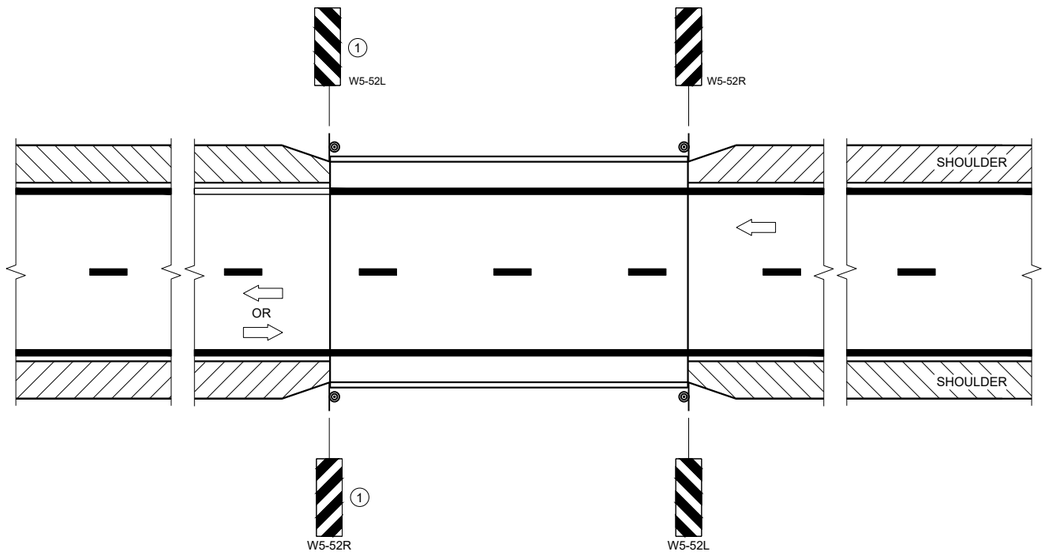
SDD 15C02 - 09b



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'

6

SDD 15C06-12

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

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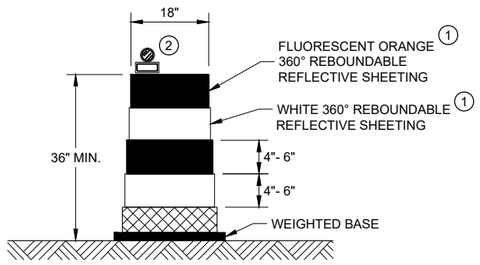
SDD 15C06-12

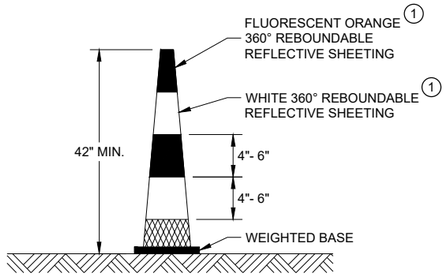
GENERAL NOTES

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

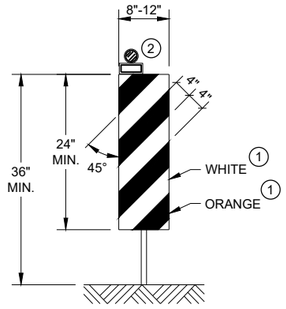
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

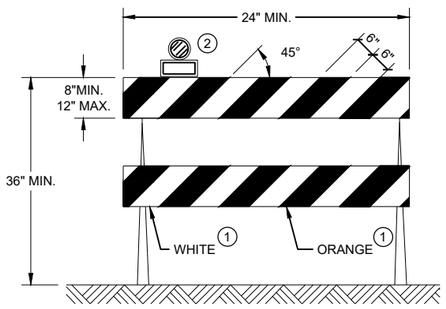
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



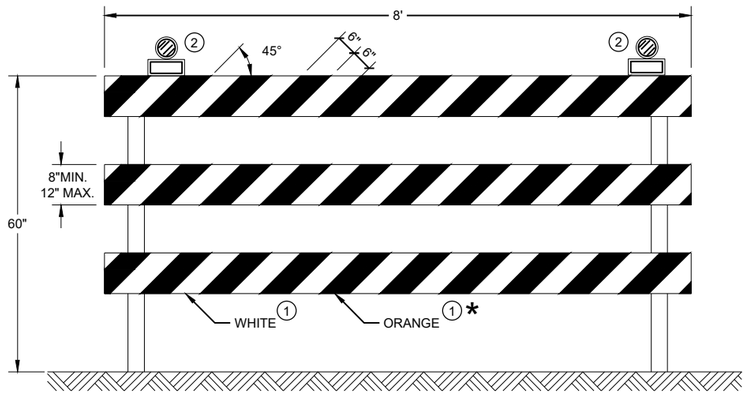
VERTICAL PANEL

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

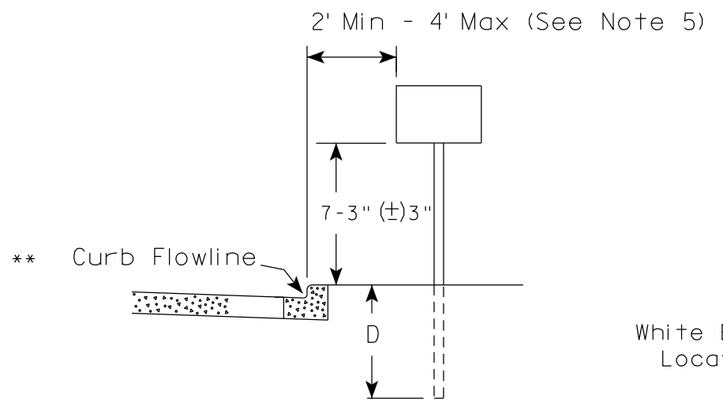
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

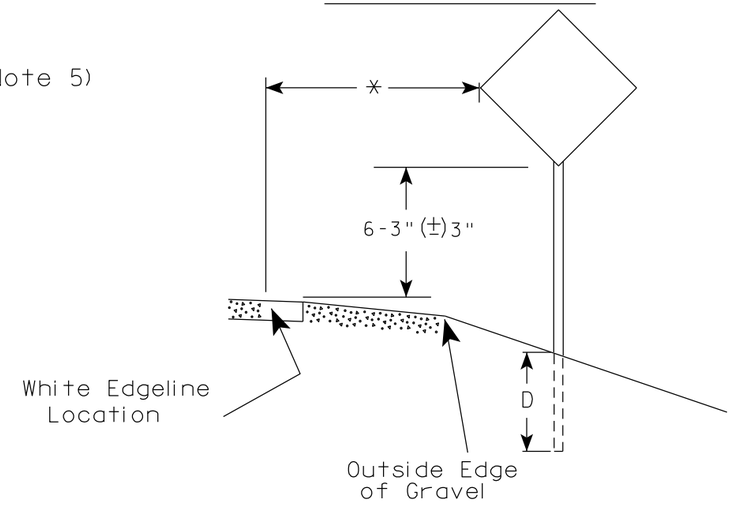
6

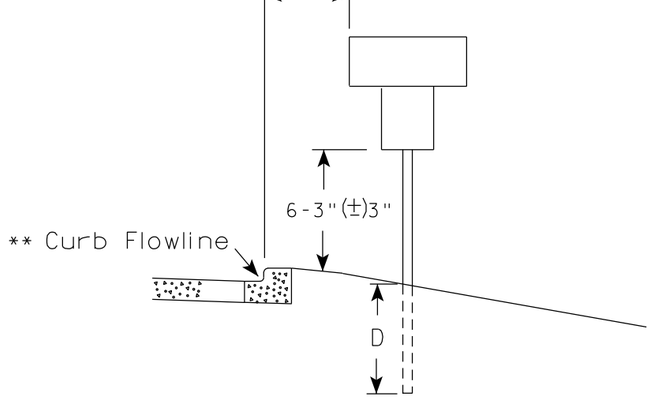
SDD 15C11 - 10b
SDD 15C11 - 10b

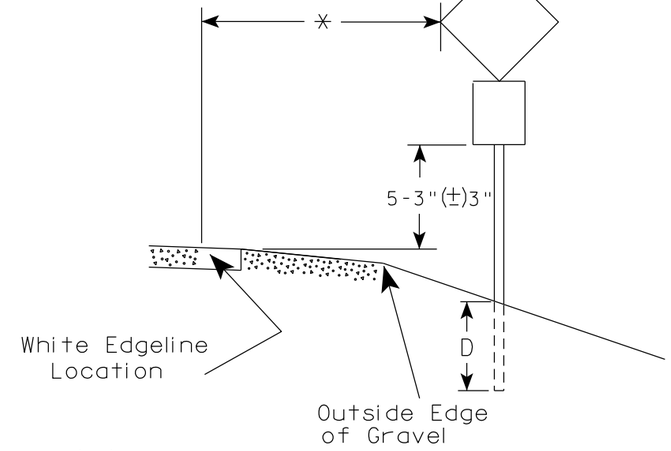
URBAN AREA



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'

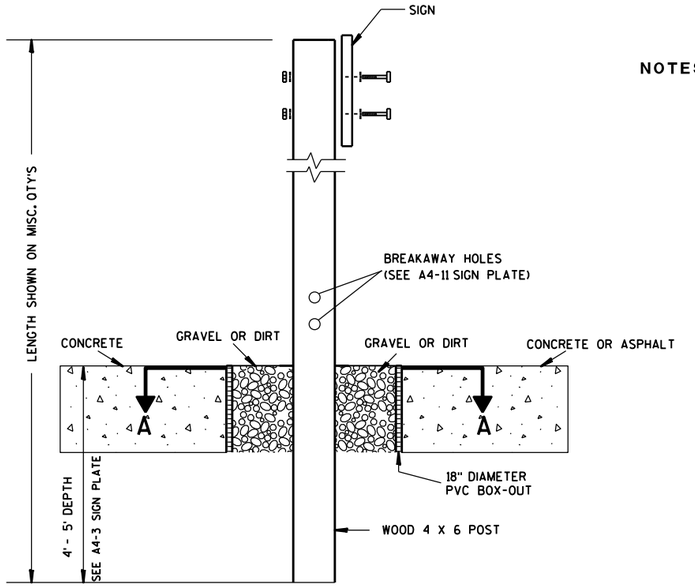
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

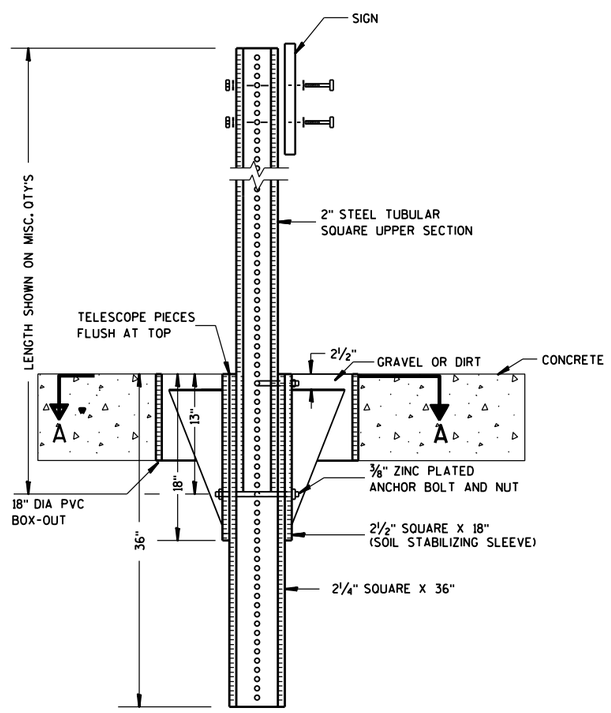
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	E



ELEVATION VIEW

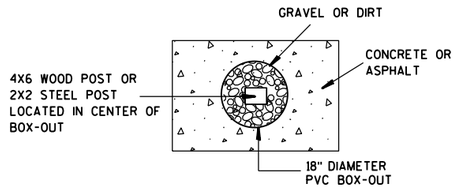
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

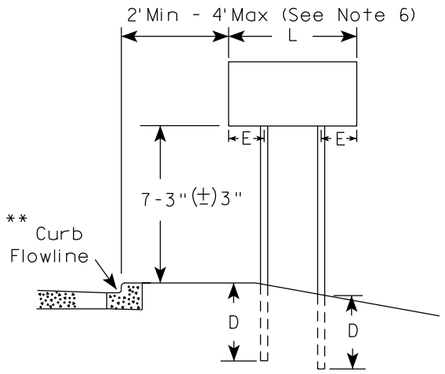
APPROVED Matthew R Rauch
for State Traffic Engineer

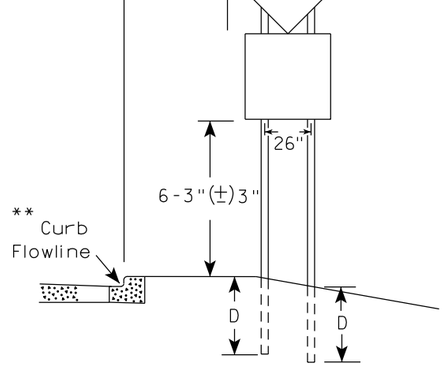
DATE 1/27/14 PLATE NO. A4-3B.1

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

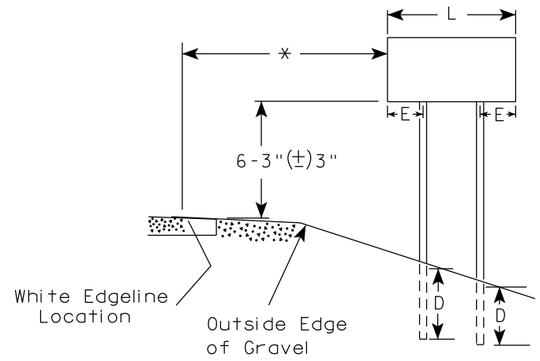
URBAN AREA

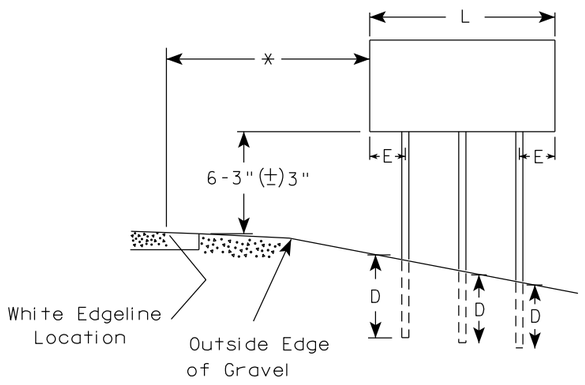


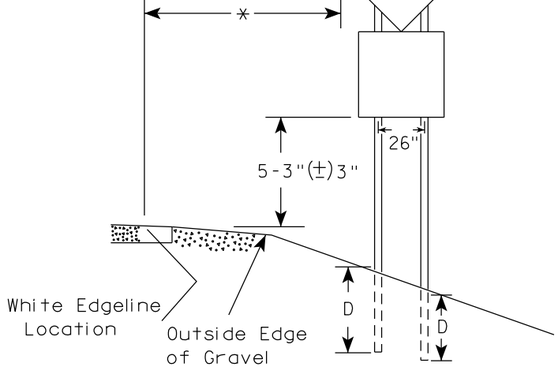


48" DIAMOND WARNING SIGN

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'

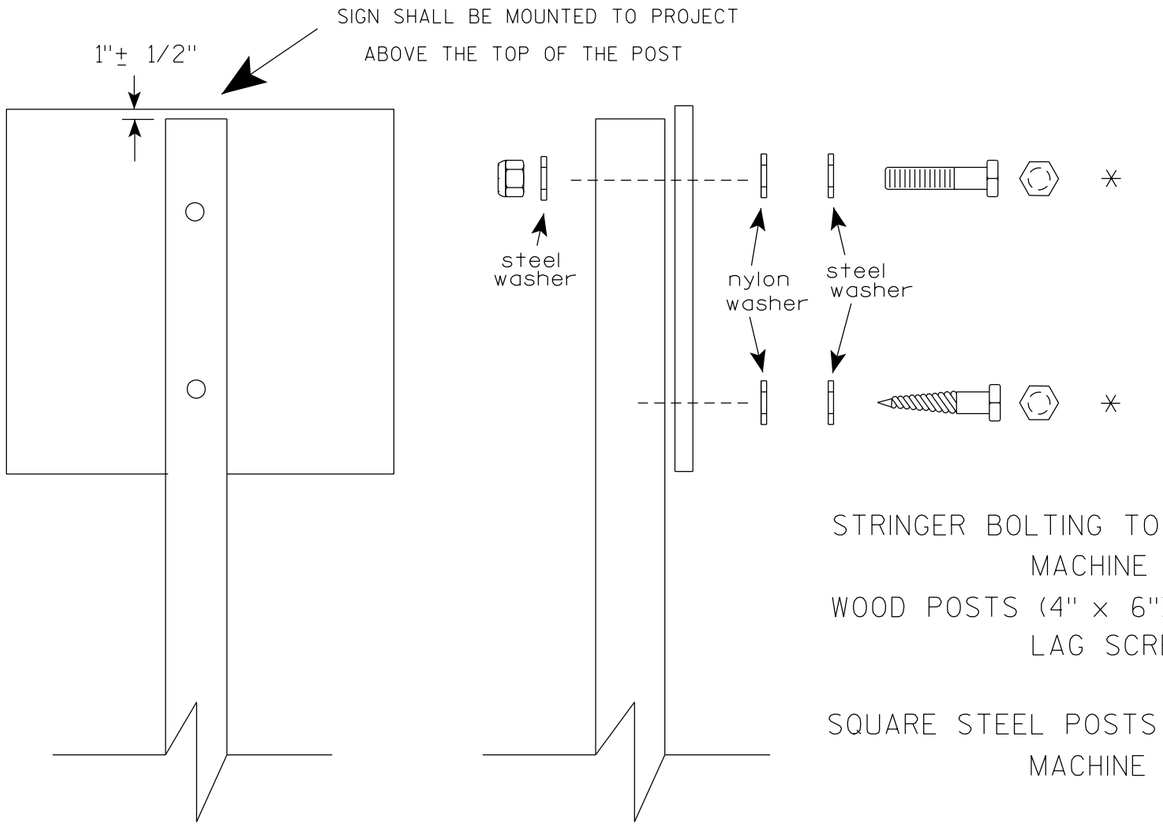
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 26	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:

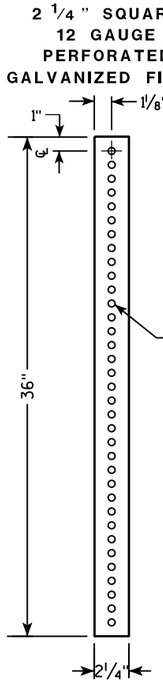
SHEET NO: 27 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

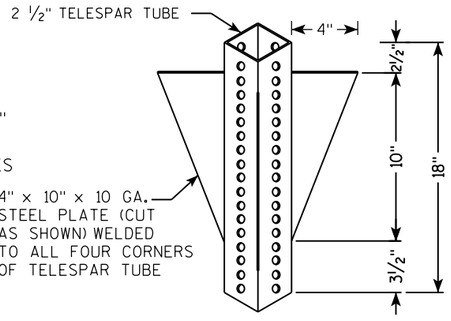
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

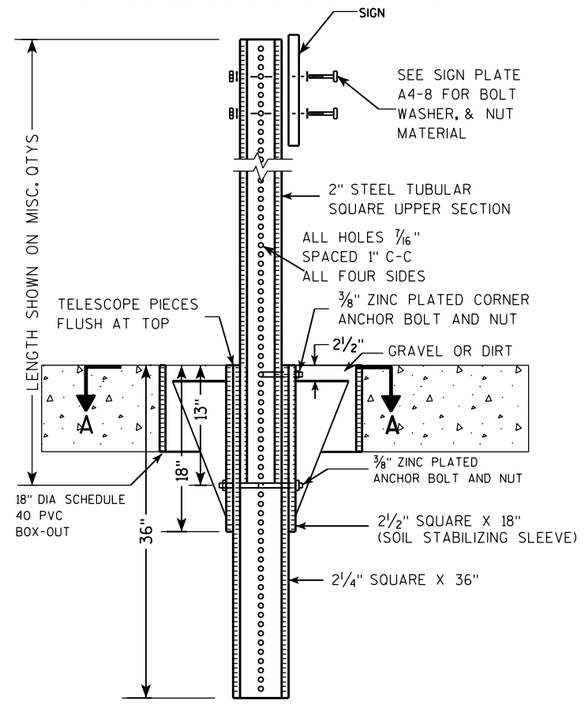
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



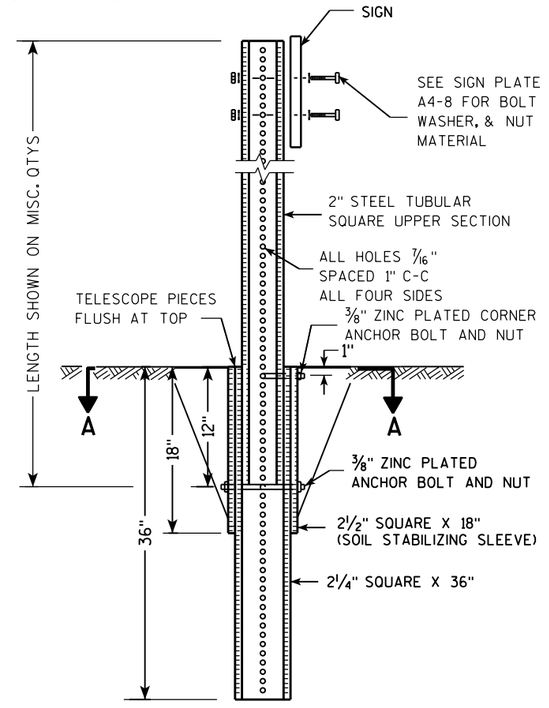
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

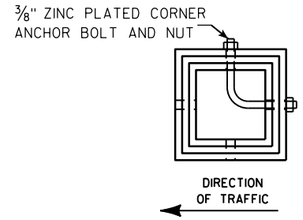


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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

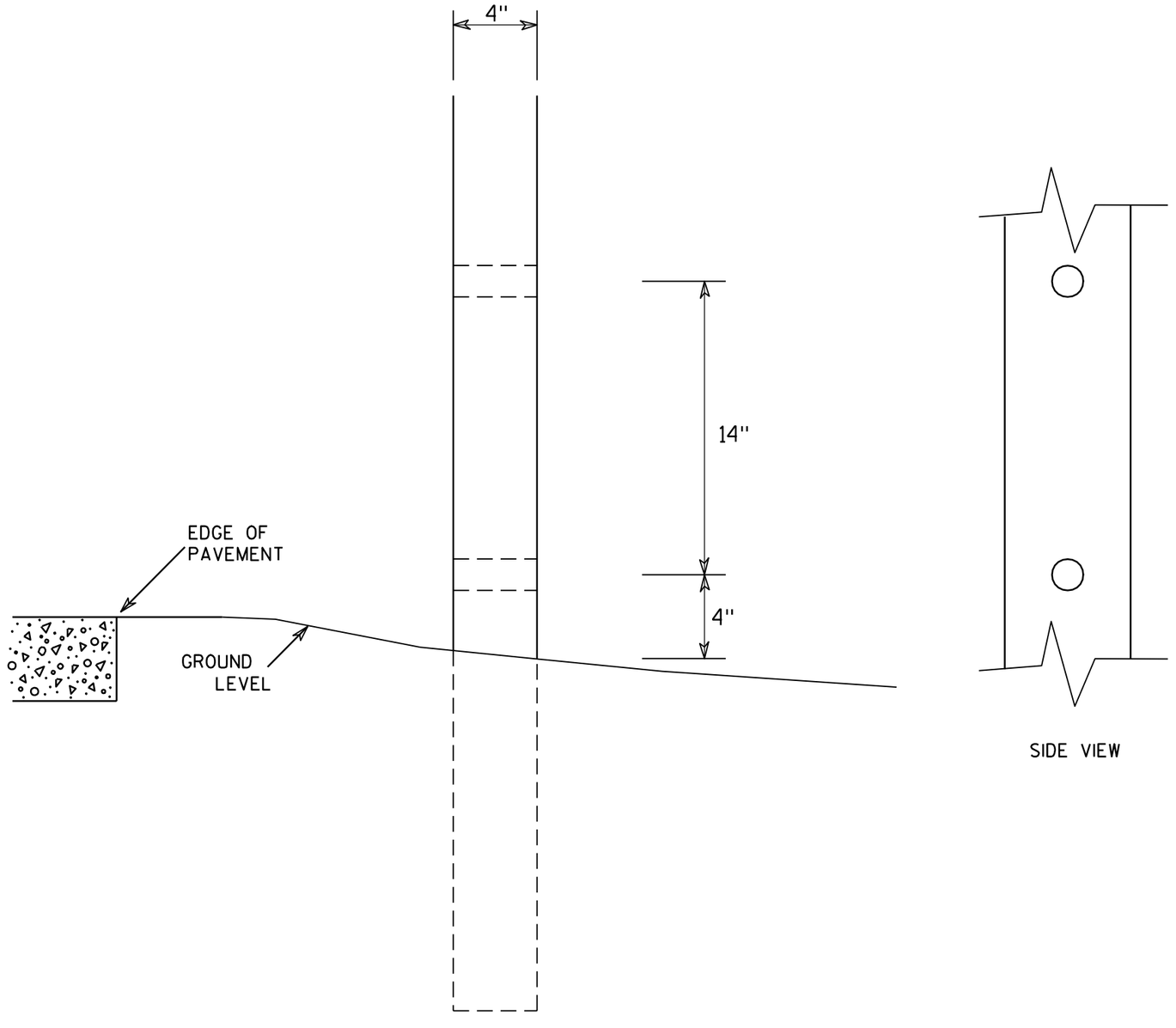
WISCONSIN DEPT OF TRANSPORTATION

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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

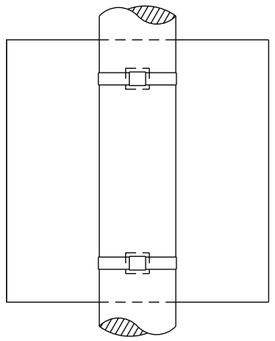
APPROVED Chester J Spang
for State Traffic Engineer

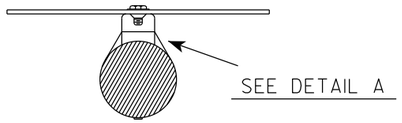
DATE 3/27/97 PLATE NO. A4-11.2

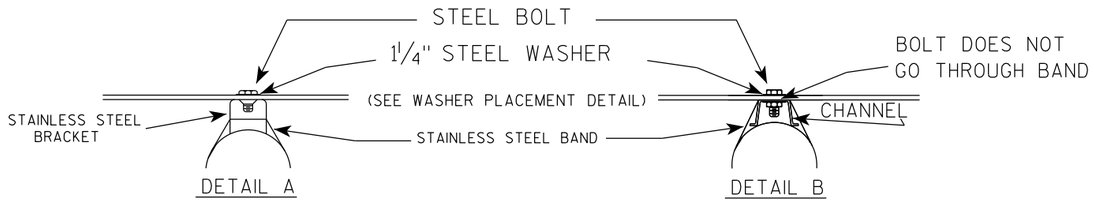
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 29	E

BANDING

SINGLE SIGN



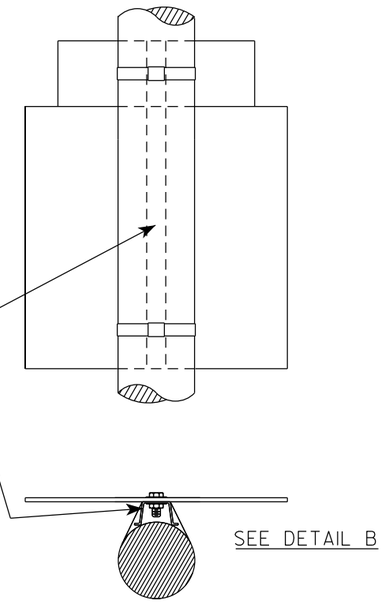




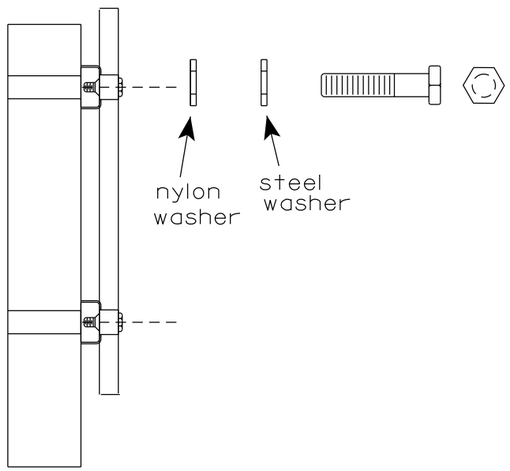
GENERAL NOTES

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

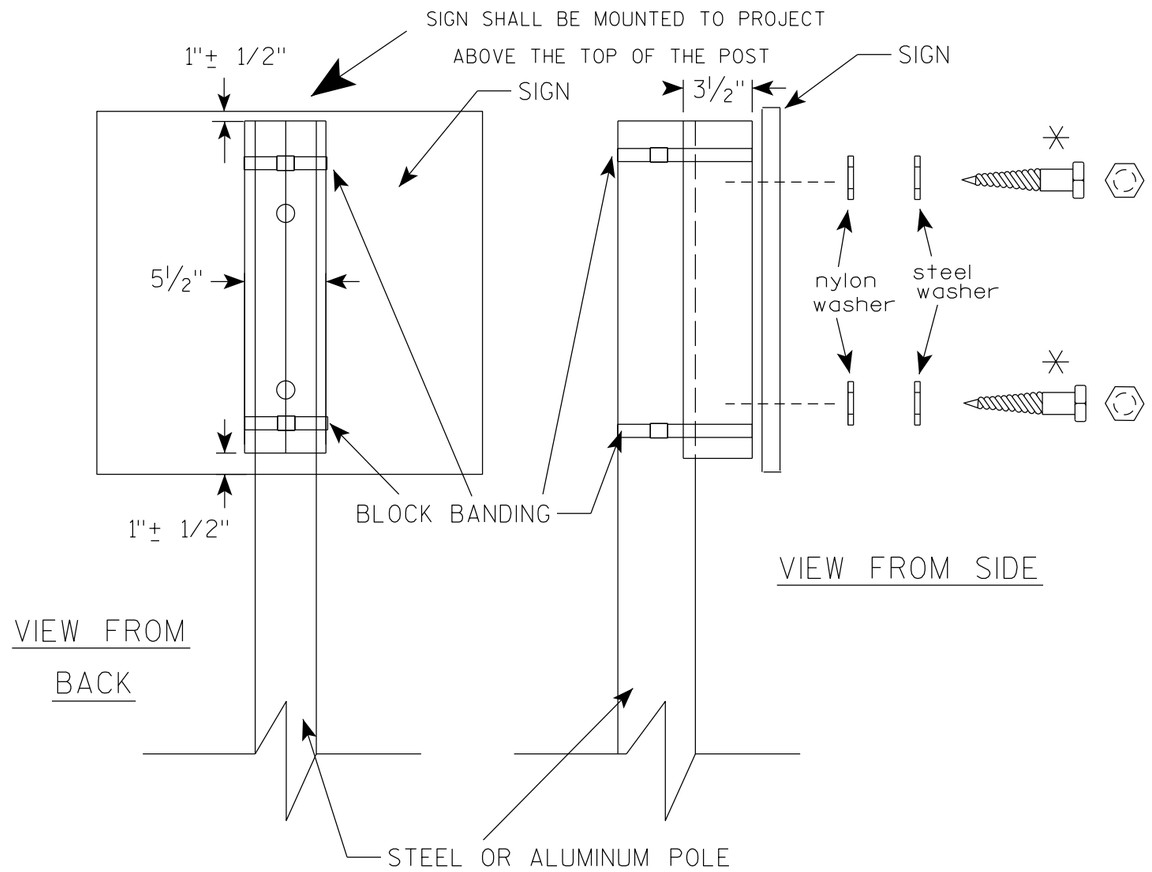
WISCONSIN DEPT OF TRANSPORTATION

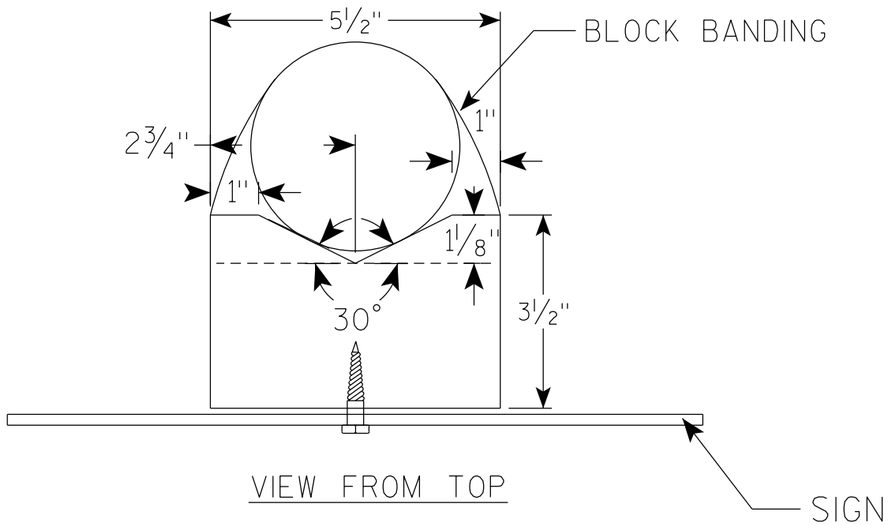
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 30	E

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





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)

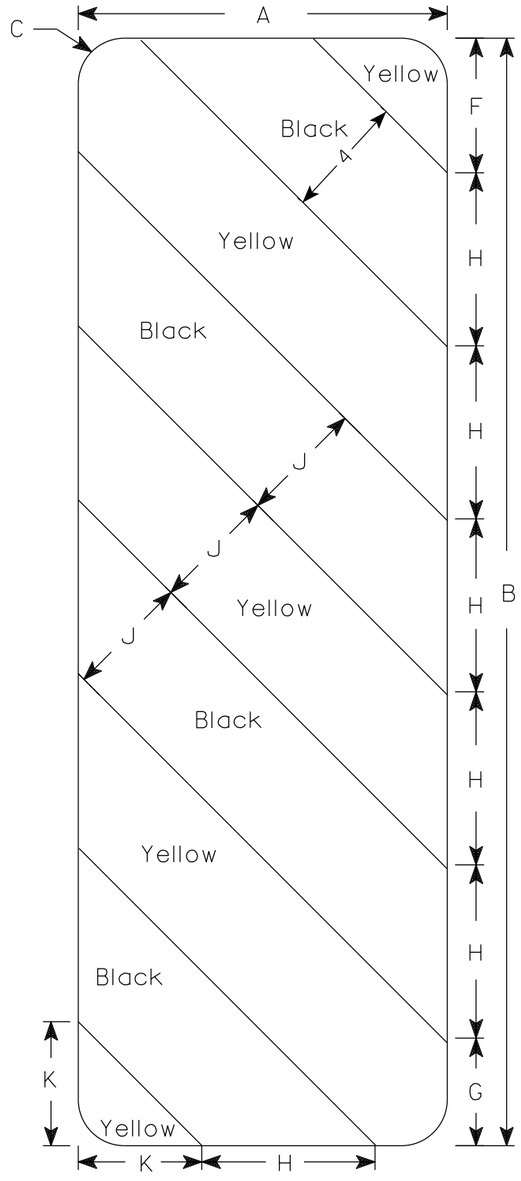
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

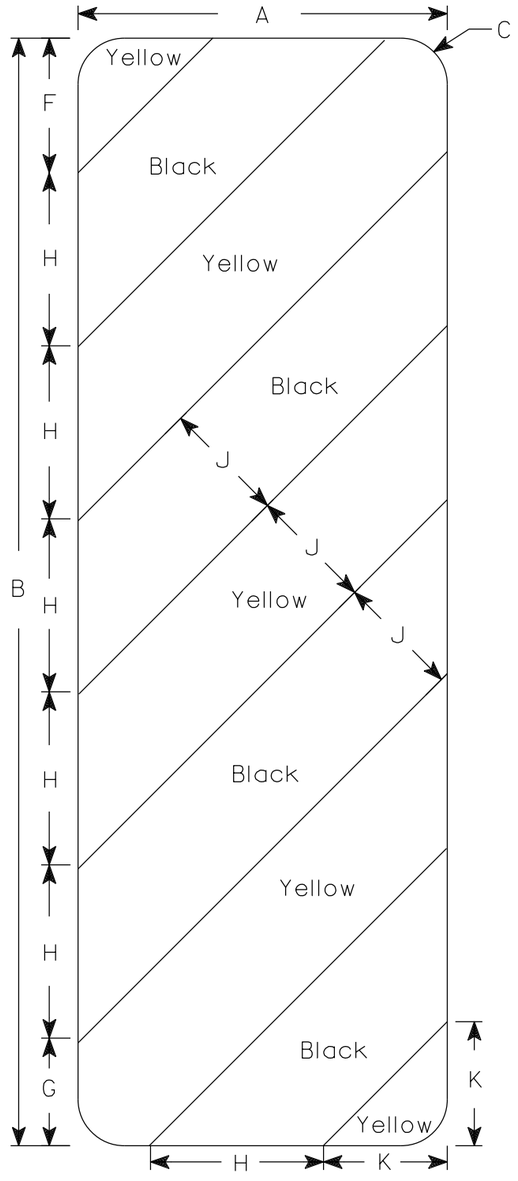
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 31 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

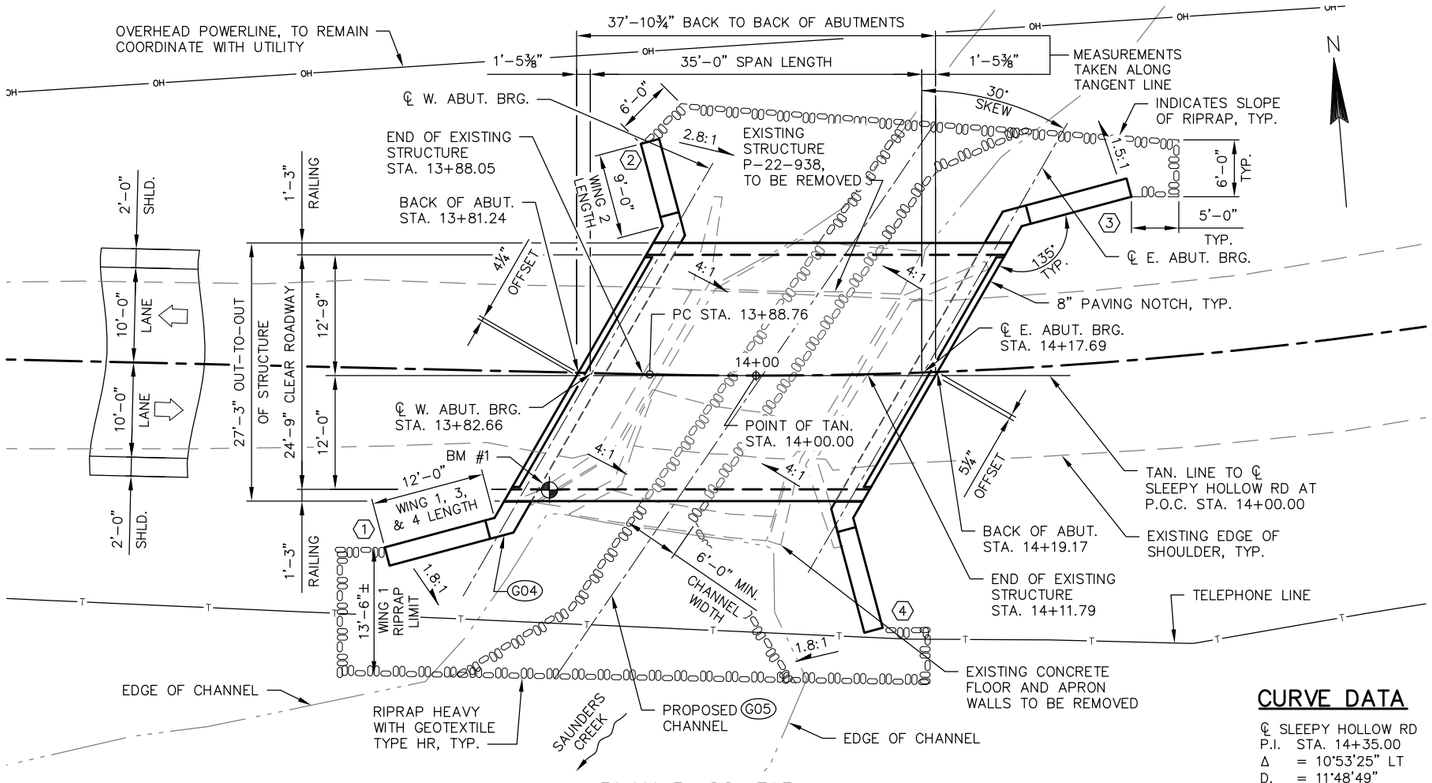
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

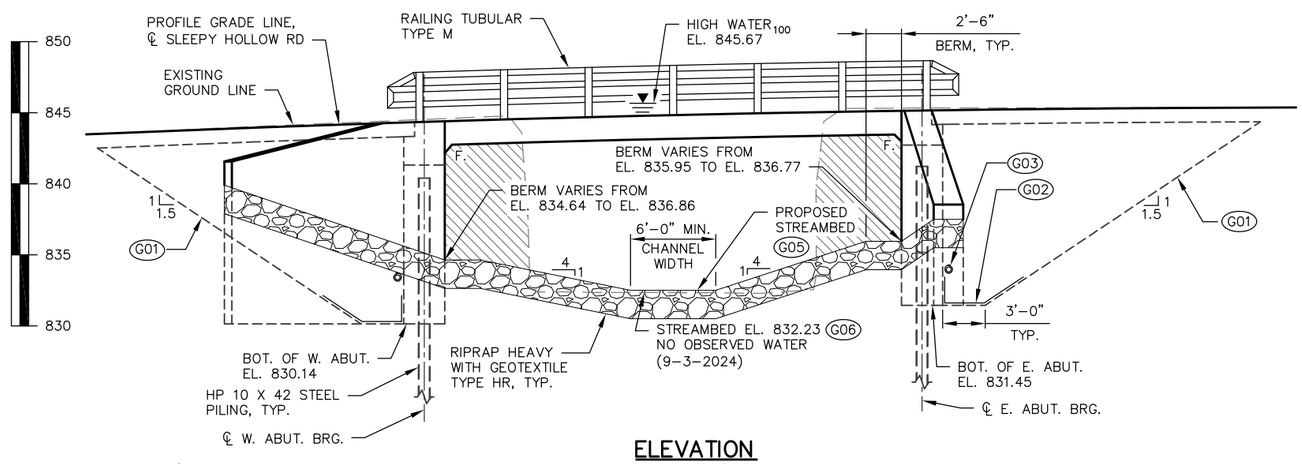
DATE 3/4/2024 PLATE NO. W5-52.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 32 E



PLAN B-22-315

(SINGLE SPAN CONCRETE FLAT SLAB BRIDGE)



ELEVATION

(THRU SAUNDERS CREEK, LOOKING NORTH)

BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM #1	13+78.17, 12.46' RT.	CHISELED X IN SW WING	843.81
BM #2	15+79.05, 20.85' LT.	RAILROAD SPIKE IN POWER POLE	847.08

HORIZONTAL DATUM AND ADJUSTMENT: NAD 83 (2011)
VERTICAL DATUM AND ADJUSTMENT: NAVD 88 (2012)
COORDINATE REFERENCE SYSTEM: WISCRS GRANT CO.

TRAFFIC DATA:

SLEEPY HOLLOW RD
A.A.D.T. (2026) ——— 55
A.A.D.T. (2046) ——— 62
DESIGN SPEED ——— 45 M.P.H.

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

CONSULTANT CONTACT
ANDY KNUTSON, P.E., S.E.
(608) 588-7866

NOTES

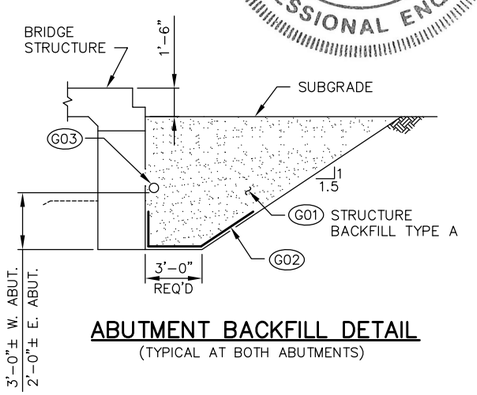
- EXCAVATION AS INDICATED IN THE HATCH AREAS, TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-22-315".
- (G01) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-22-315". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- (G02) "GEOTEXTILE TYPE DF SCHEDULE A" LIMITS. EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT FOR THE ENTIRE ABUTMENT BODY LENGTH.
- (G03) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED IN "WING 1 DETAILS" SHEET.
- (G04) NAME PLATE REQUIRED AND BENCH MARK CAP (WHEN SUPPLIED). FOR LOCATION SEE "WEST ABUTMENT" SHEET.
- (G05) SEE ROADWAY PLANS FOR STREAM RE-ALIGNMENT PLAN AND DETAILS.
- (G06) SAUNDERS CREEK DOES NOT ALWAYS MAINTAIN BASEFLOW AND MAY RUN DRY. IN-STREAM DISTURBANCE WINDOW APPLIES DURING BASEFLOW CONDITIONS. SEE DNR CONCURRENCE FOR FURTHER INFORMATION.
- ⬡ INDICATES WING NUMBER

CURVE DATA

℄ SLEEPY HOLLOW RD
P.I. STA. 14+35.00
Δ = 10°53'25" LT
D. = 11°48'49"
T. = 46.23'
R. = 485.00'
L. = 92.18'
P.C. STA. 13+88.76
P.T. STA. 14+80.95

LIST OF DRAWINGS

WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
2-27-25
PROFESSIONAL ENGINEER



ABUTMENT BACKFILL DETAIL

(TYPICAL AT BOTH ABUTMENTS)

STATE PROJECT NUMBER

5892-00-73

DESIGN DATA

LIVE LOAD:

DESIGN LOADING ——— HL-93
INVENTORY RATING FACTOR ——— RF=1.17
OPERATING RATING FACTOR ——— RF=1.52
WISCONSIN STANDARD PERMIT VEHICLE RATING (WIS.-SPV): ——— 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB ——— $f'c$ = 4,000 P.S.I.
ALL OTHER ——— $f'c$ = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT ——— fy = 60,000 P.S.I.

FOUNDATION DATA:

WEST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 STEEL PILING SEATED IN PREBORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 150 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 20 FT PILE LENGTHS AT W. ABUT.

EAST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE** AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 25 FT PILE LENGTHS AT E. ABUT.

**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 DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA:

100 YEAR DESIGN FREQUENCY:

Q_{100} ——— 1,760 C.F.S.
Q_{100} (THRU BRIDGE) ——— 1,618 C.F.S.
Q_{100} (ROAD) ——— 142 C.F.S.
DRAINAGE AREA ——— 2.2 SQ. MI.
BRIDGE WATER AREA ——— 183 SQ. FT.
BRIDGE VELOCITY ——— 8.86 F.P.S.
HIGH WATER$_{100}$ EL. ——— 845.67 FT.
OVERTOPPING Q FREQ. ——— 31 YRS
OVERTOPPING Q_{31} ——— 1,070 C.F.S.
OVERTOPPING EL. ——— 843.86 FT.
SCOUR CRITICAL CODE ——— 5
Q_2 ——— 158 C.F.S.
Q_2 ELEVATION ——— 841.74 FT.
Q_2 VELOCITY ——— 10.20 F.P.S.

NO.	DATE	REVISION	BY

WESTBROOK Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WI 53588
PHONE (608) 588-7866
FAX (608) 588-7954

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED EMK 05/29/25
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-22-315

SLEEPY HOLLOW RD OVER SAUNDERS CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
GRANT	HICKORY GROVE

DESIGN SPEC. AASHTO LRFD DESIGN SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDO	CDS	JDO	ACK

GENERAL PLAN

SHEET 1 OF 13

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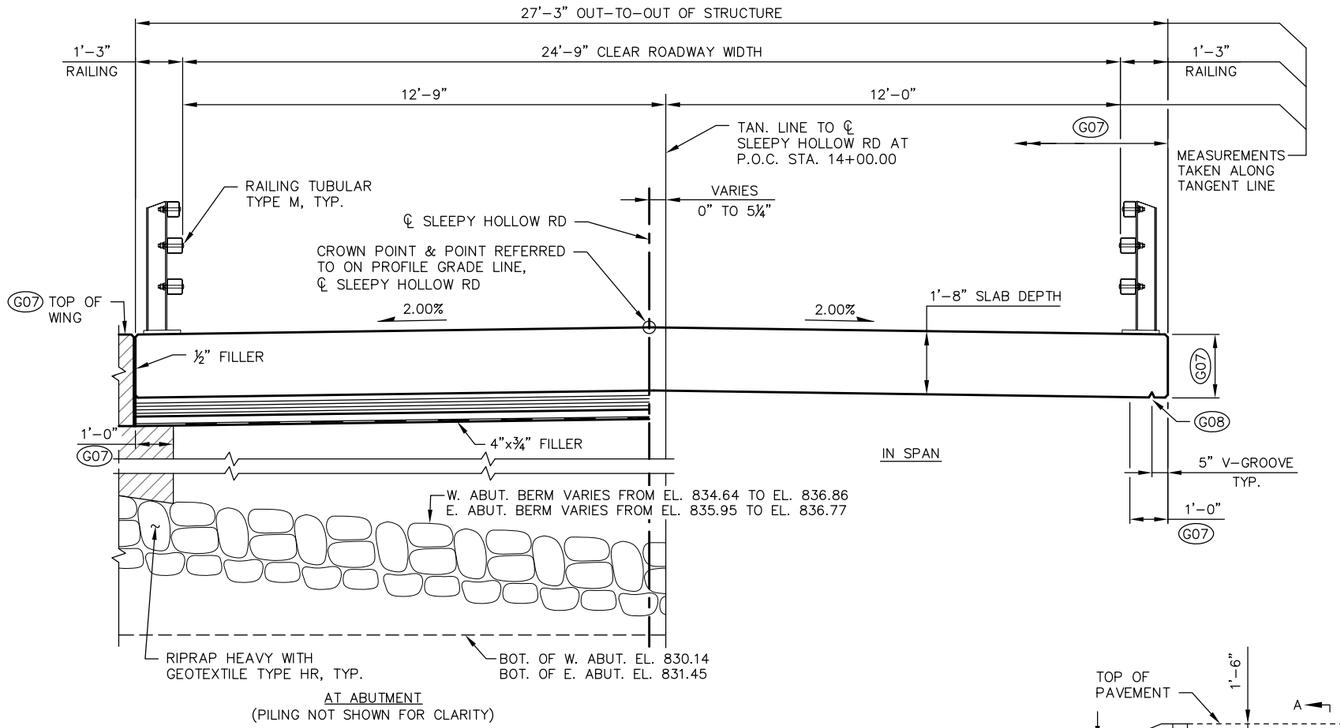
FILE: B220315_01_gen.dwg
PLOT SCALE:

I.D. 5892-00-73

PLOT DATE: Feb 25, 2025



AT ABUTMENT
(PILING NOT SHOWN FOR CLARITY)

CROSS SECTION THRU ROADWAY

(LOOKING EAST)

NOTES

(G07) COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO ENTIRE EXPOSED TOP OF SLAB, INCLUDING THE SLAB EDGES AND 1'-0" UNDER THE SLAB, THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE FRONT FACE OF THE ABUTMENTS TO 1'-0" PAST THE EDGE OF SLAB. ALSO APPLY PROTECTIVE SURFACE TREATMENT TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES.

(G08) ¾" V-GROOVE REQ'D. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTALS
203.0220	REMOVING STRUCTURE P-22-938	EACH	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-22-315	EACH	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	460	440	---	900
502.0100	CONCRETE MASONRY BRIDGES	CY	60.8	59.7	67.4	188
502.3200	PROTECTIVE SURFACE TREATMENT	SY	26	28	141	195
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3270	3170	---	6440
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2100	2180	13420	17700
513.4061	RAILING TUBULAR TYPE M	LF	---	---	81	81
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	7	---	14
550.0020	PRE-BORING ROCK OR CONSOLIDATE MATERIALS	LF	70	---	---	70
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	140	175	---	315
606.0300	RIPRAP HEAVY	CY	95	90	---	185
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	80	---	160
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	34	34	---	68
645.0120	GEOTEXTILE TYPE HR	SY	169	168	---	337
(NON-BID ITEM)	FILLER	SIZE				½" & ¾"

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

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WING FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCLUDED WITH "EXCAVATION FOR STRUCTURES BRIDGES B-22-315".

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 UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-22-315" SHALL BE THE EXISTING GROUND LINE.

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.

AT THE BACKFACE 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.

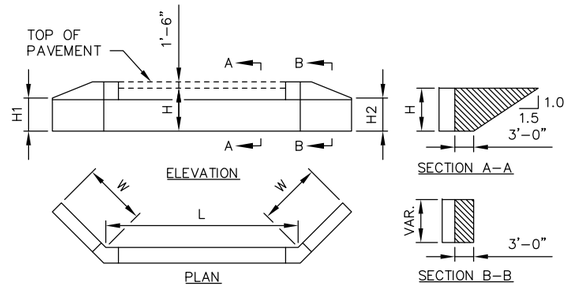
DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SHALLOW BEDROCK (LESS THAN 10-FT BELOW ABUTMENT) WAS ENCOUNTERED IN THE BORING FOR THE WEST ABUTMENT. A MINIMUM OF 3 FEET OF PRE-BORE AT THE ABUTMENT INTO SUITABLE BEDROCK IS REQUIRED IF THE MINIMUM OF 10-FEET OF PILE PENETRATION INTO NATURAL GROUND CANNOT BE ACHIEVED. THE CONTRACTOR AND THE CONSTRUCTION ENGINEER SHOULD ANTICIPATE VARIABLE PILE PENETRATION.

PILES PLACED IN PREBORED HOLES CORED INTO ROCK DO NOT REQUIRE DRIVING. PILES SHALL BE "FIRMLY SEATED ON ROCK AFTER PLACEMENT IN PREBORED HOLES.

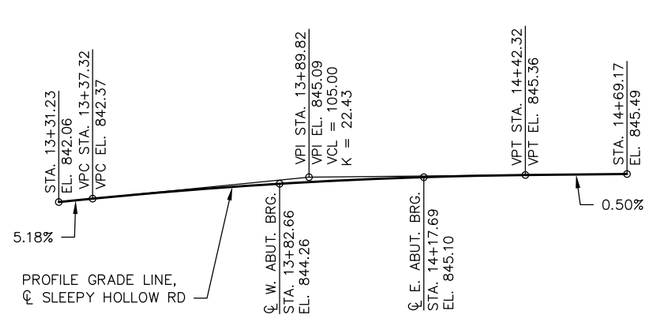
THE EXISTING CONCRETE FLOOR AND APRON WALLS UNDER THE EXISTING BRIDGE ARE TO BE REMOVED PER BID ITEM "REMOVING STRUCTURE P-22-938".

THE EXISTING STRUCTURE (P-22-938) IS A SINGLE SPAN STEEL GIRDER BRIDGE WITH A CONCRETE DECK AND WITH AN OVERALL LENGTH OF 22.7-FT AND A DECK WIDTH OF 17.5-FT AND IS TO BE REMOVED PER BID ITEM "REMOVING STRUCTURE P-22-938".

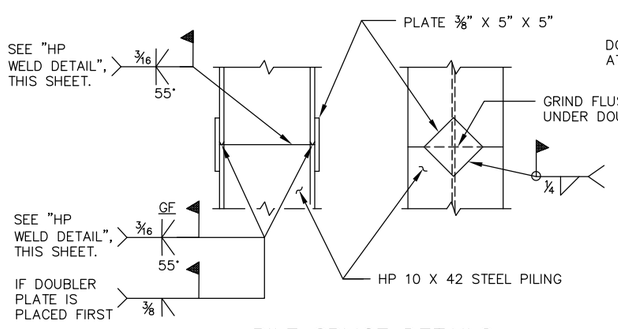


ABUTMENT BACKFILL DIAGRAM

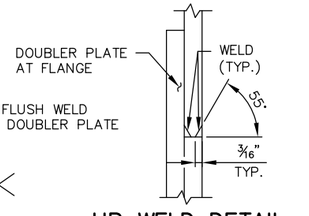
L = ABUTMENT BODY LENGTH AT BACKFACE (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
H1 = WING 1 HEIGHT AT TIP (FT)
H2 = WING 2 HEIGHT AT TIP (FT)
W = WING LENGTH (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(H1+H2+H+H)(W)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



PROFILE GRADE LINE, ℄ SLEEPY HOLLOW RD



PILE SPLICE DETAILS



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

STATE PROJECT NUMBER
5892-00-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

CROSS SECTION, GENERAL NOTES & QUANTITIES

SHEET 2 OF 13

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I.D. 5892-00-73

PLOT DATE: Jan 29, 2025

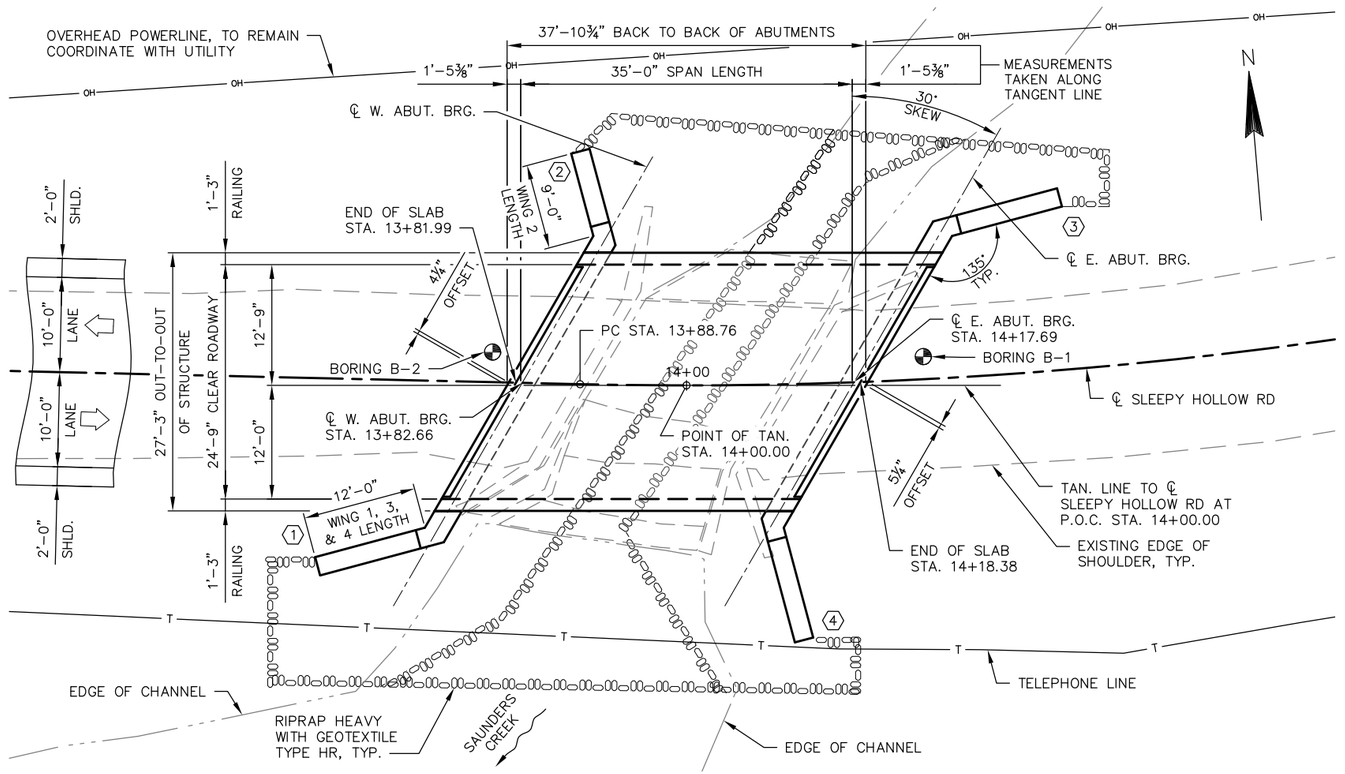
FILE: B220315_02_qty.dwg
PLOT SCALE:

B-22-315 BORINGS

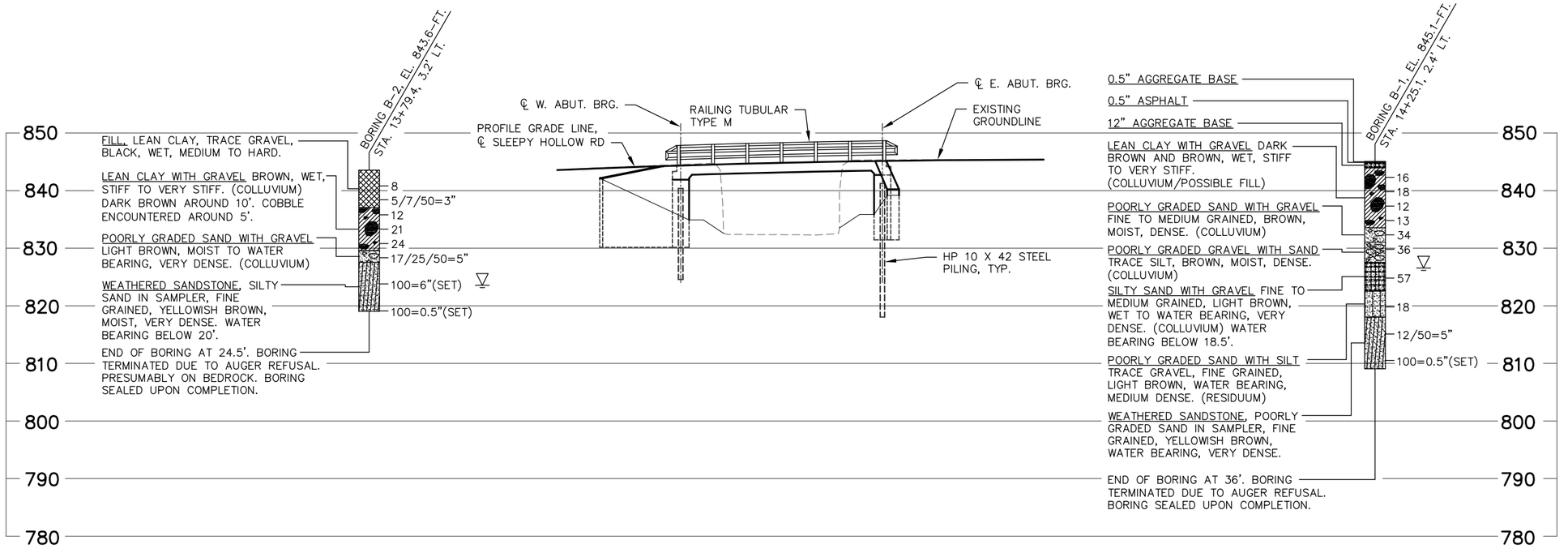
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING B-1	9/16/2024	617400.4	841488.1
BORING B-2	9/16/2024	617404.5	841442.8
BORINGS COMPLETED BY: CHOSEN VALLEY TESTING, INC.			
SUBSURFACE INVESTIGATION REPORT: CHOSEN VALLEY TESTING, INC.			
ALL COORDINATES REFERENCED TO WISCRS, GRANT COUNTY			

NOTE

⬡ INDICATES WING NUMBER



PLAN B-22-315



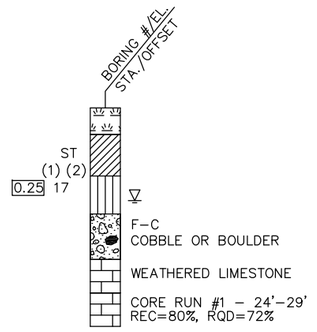
STATE PROJECT NUMBER

5892-00-73

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-22-315

DRAWN BY JDO | PLANS CK'D ACK

SUBSURFACE EXPLORATION

SHEET 3 OF 13

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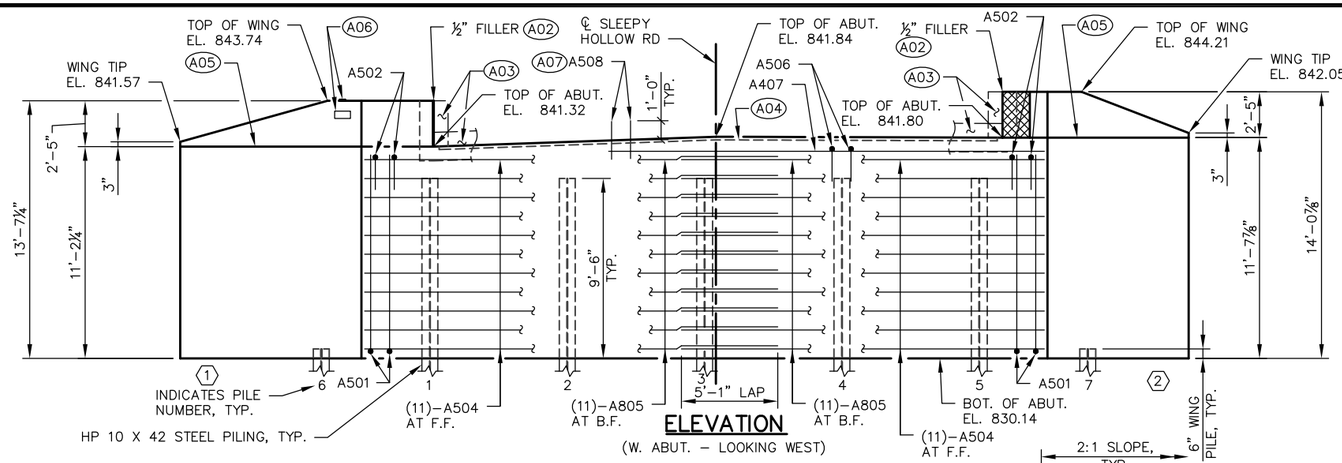
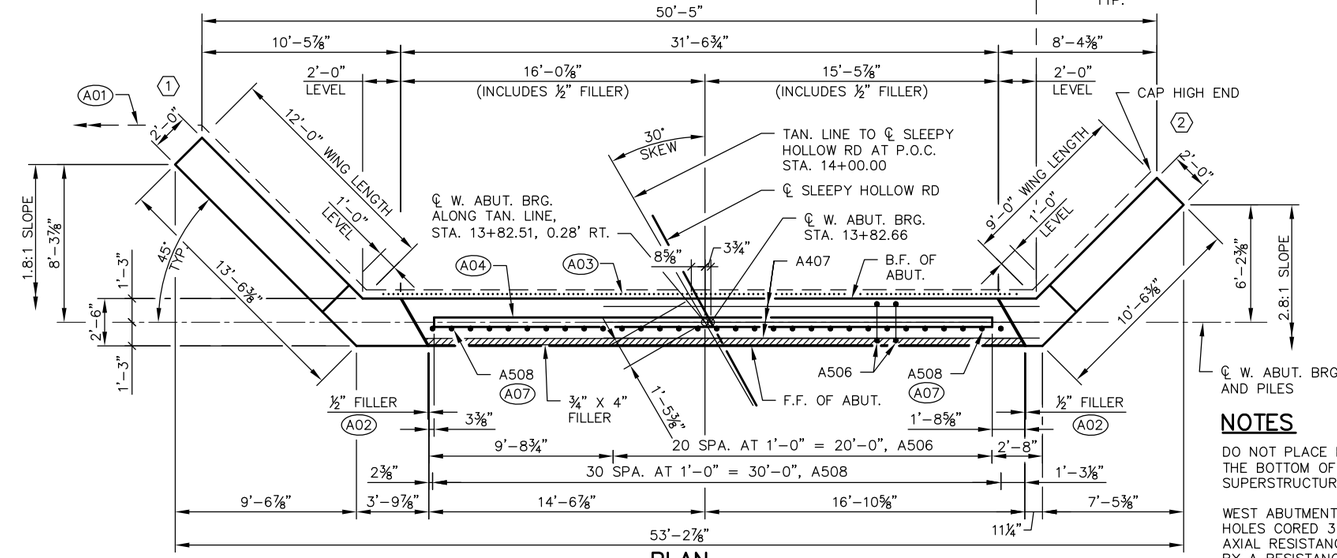
I.D. 5892-00-73 PLOT DATE: Feb 25, 2025

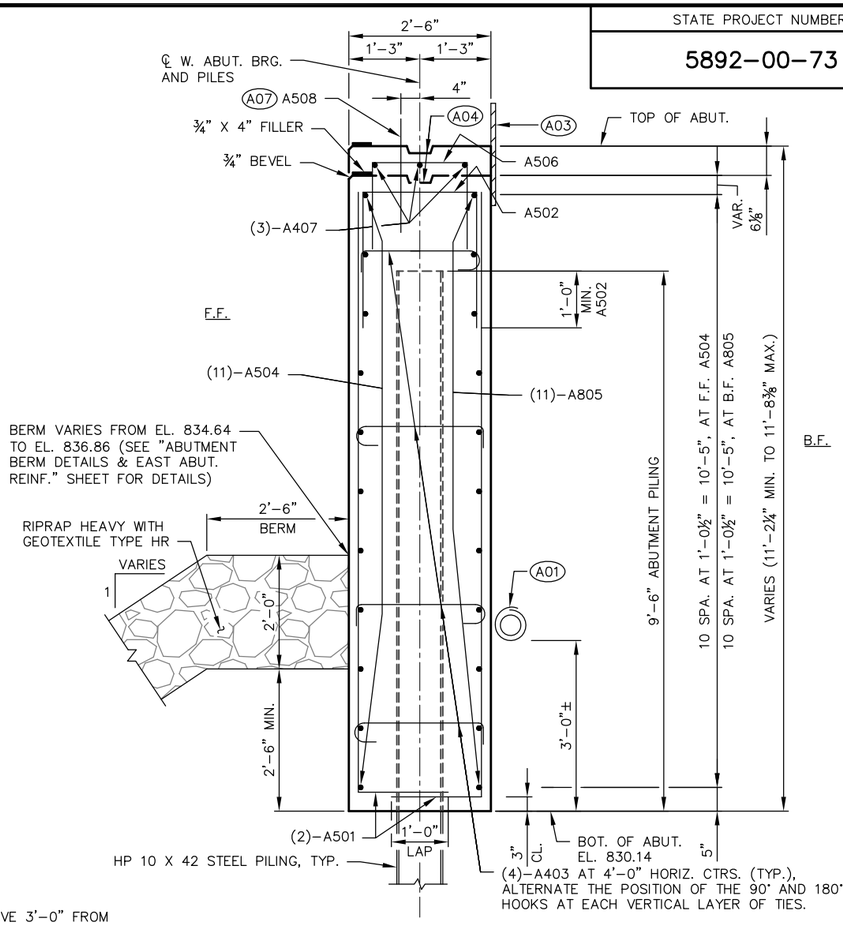
FILE: B220315_03_bor.dwg
PLOT SCALE:

STATE PROJECT NUMBER

5892-00-73







TYPICAL SECTION THRU WEST ABUTMENT

NOTES

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

WEST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 STEEL PILING SEATED IN PREBORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 150 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 20 FT PILE LENGTHS AT WEST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10 X 42 STEEL PILING SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 1 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

(A04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6

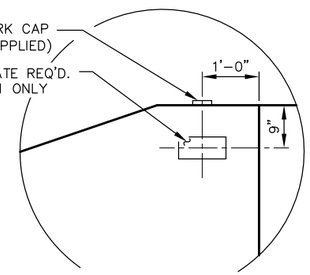
(A05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.

(A06) NAME PLATE & BENCHMARK CAP (WHEN SUPPLIED) AT WING 1 ONLY. SEE "NAME PLATE & BENCHMARK DETAIL", THIS SHEET.

(A07) A508 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO ABUTMENT BODY.

⬡ INDICATES WING NUMBER

F.F. - FRONT FACE
B.F. - BACK FACE



NAME PLATE & BENCHMARK DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

WEST ABUTMENT

SHEET 4 OF 13

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8

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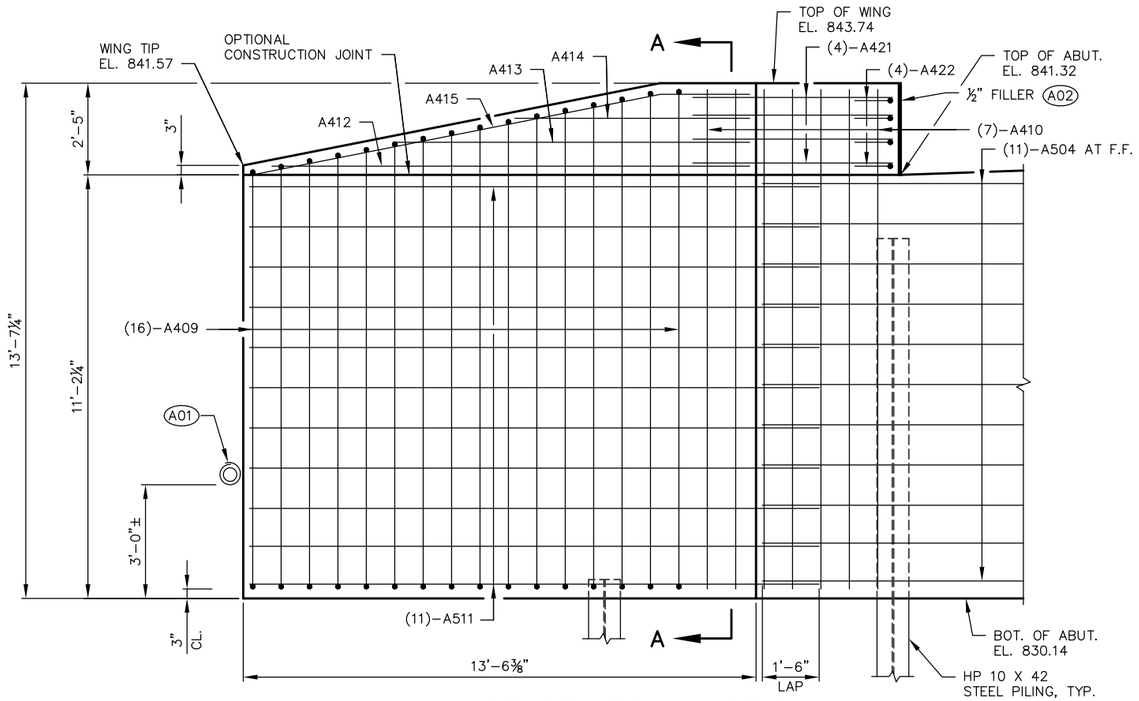
FILE: B220315_04_06_Wabut.dwg
PLOT SCALE:

I.D. 5892-00-73

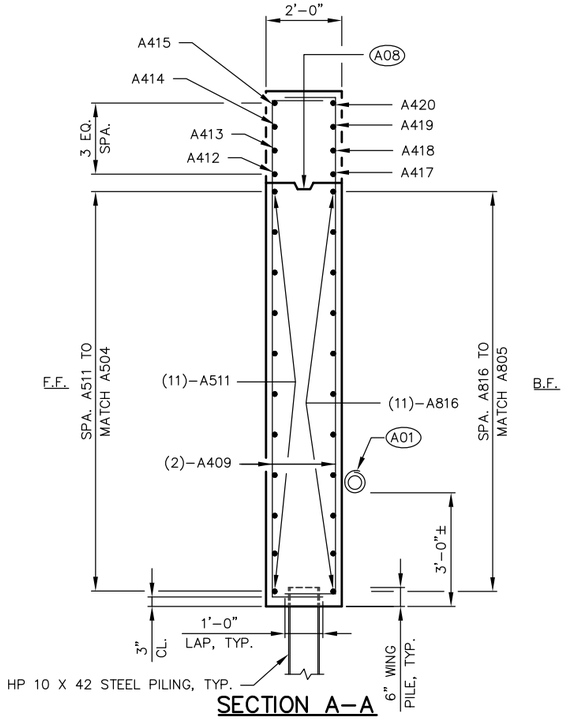
PLOT DATE: Feb 25, 2025

STATE PROJECT NUMBER

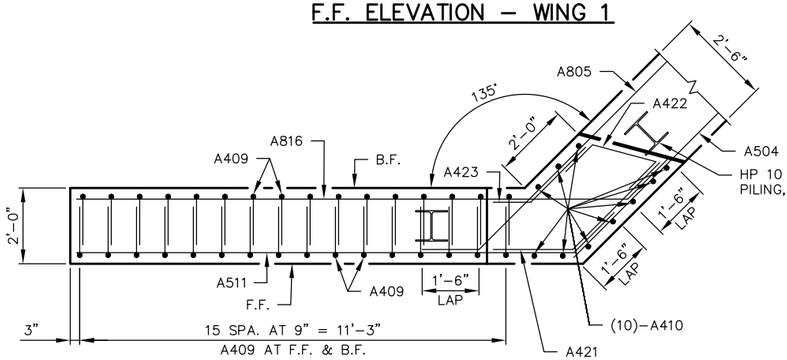
5892-00-73



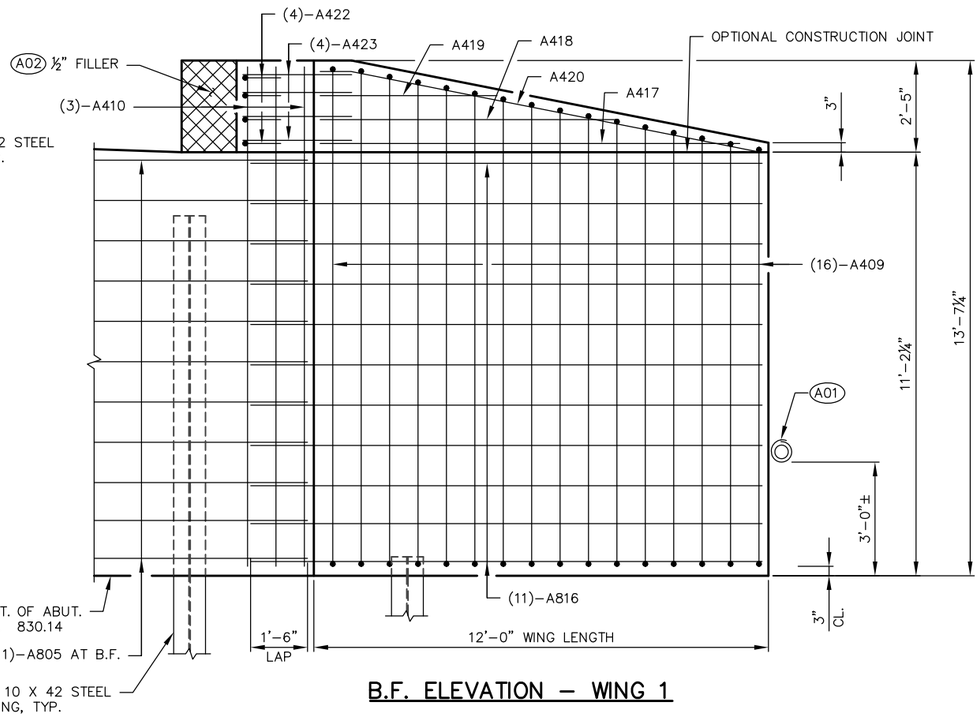
F.F. ELEVATION – WING 1



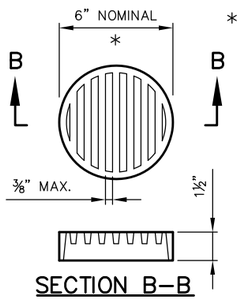
SECTION A–A



PLAN – WING 1



B.F. ELEVATION – WING 1



SECTION B–B

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

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.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

RODENT SHIELD DETAIL

NOTES

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

WEST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 STEEL PILING SEATED IN PREBORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 150 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 20 FT PILE LENGTHS AT WEST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10 X 42 STEEL PILING SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.) ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(A08) OPTIONAL CONSTRUCTION JOINT, SEAL B.F. WITH R.M.W. IF CONST. JOINT IS USED. COST INCLUDED WITH THE BID ITEM "CONCRETE MASONRY BRIDGES". PLACE ¾" "V" GROOVE ON F.F. OF WALL IF CONST. JT. IS USED.

F.F. – FRONT FACE
B.F. – BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

WING 1 DETAILS

SHEET 5 OF 13

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I.D. 5892-00-73

PLOT DATE: Feb 25, 2025

FILE: B220315_04_06_Wabut.dwg
PLOT SCALE:

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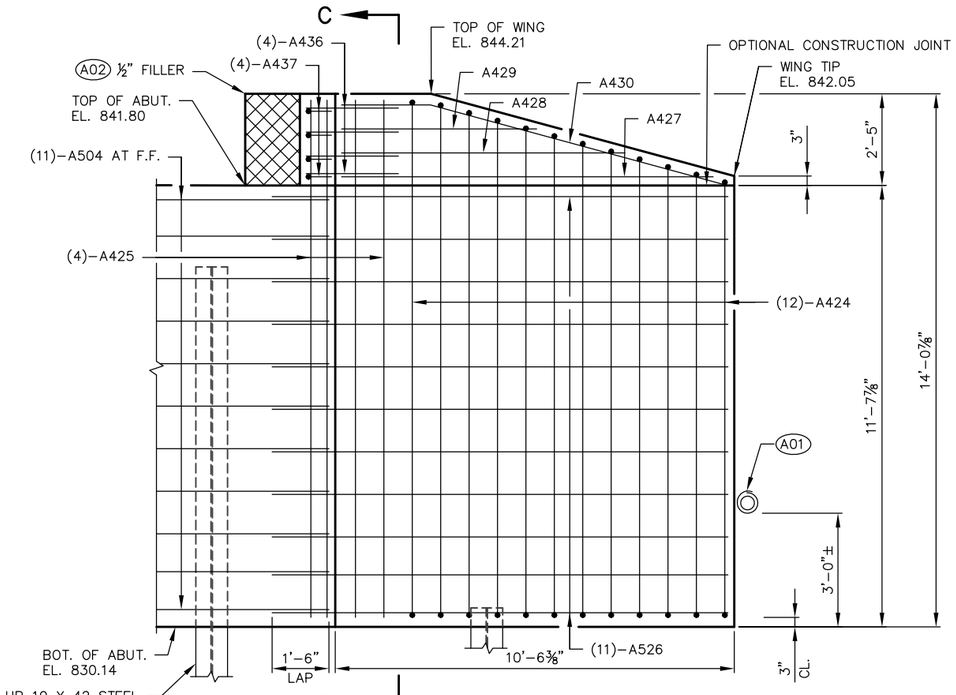
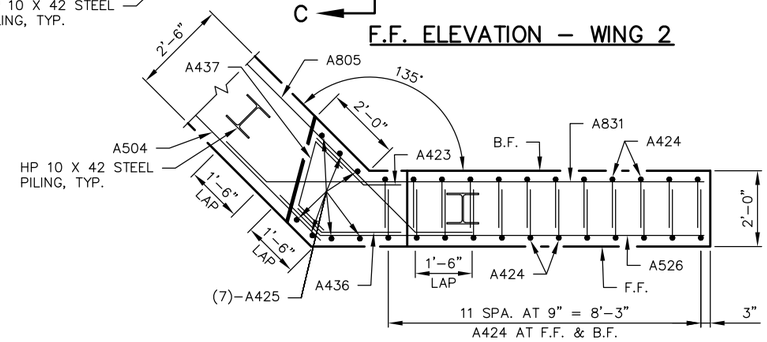


F.F. ELEVATION – WING 2



PLAN – WING 2

A501

A502 & A506

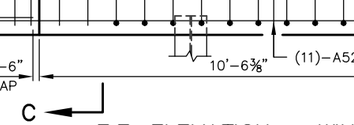
BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
A409	2 SERIES OF 16	13'–6" TO 15'–8"
A424	2 SERIES OF 12	14'–0" TO 16'–1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

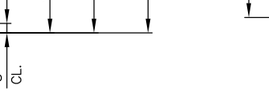
A422, & A437

A805, A511, A816, A526, & A831



A403

A409 & A424

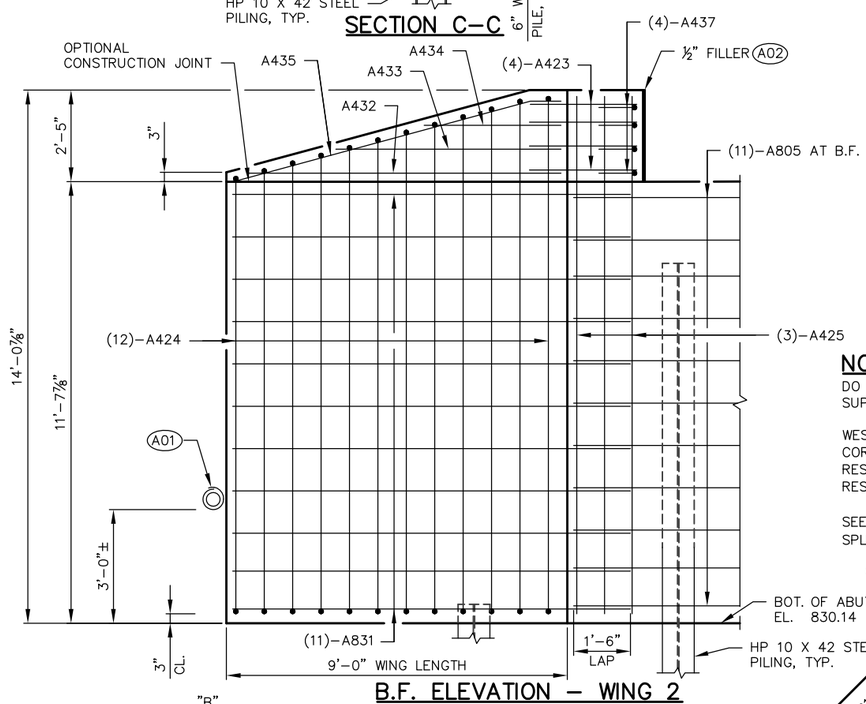


A415, A420, A430 & A435

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
A415	11'–0"	2'–4"	169°
A420	11'–0"	0'–9"	169°
A430	8'–0"	2'–4"	165°
A435	8'–0"	0'–9"	165°

A421, A423, & A436



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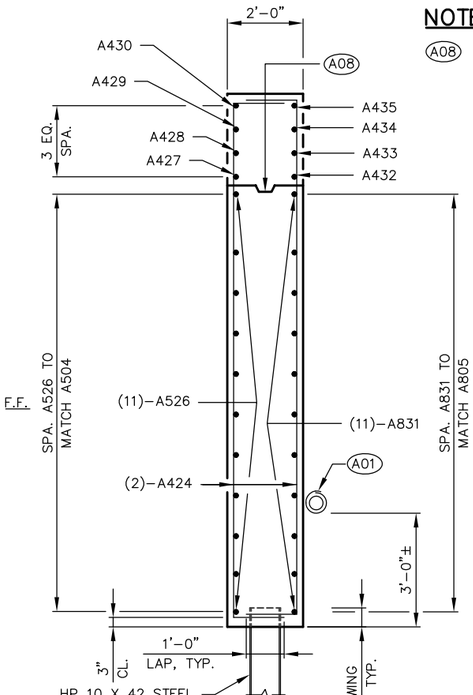

SECTION C–C

NOTE

(A08) OPTIONAL CONSTRUCTION JOINT, SEAL B.F. WITH R.M.W. IF CONST. JOINT IS USED. COST INCLUDED WITH THE BID ITEM "CONCRETE MASONRY BRIDGES". PLACE ¾" "V" GROOVE ON F.F. OF WALL IF CONST. JT. IS USED.

F.F. – FRONT FACE
B.F. – BACK FACE

STATE PROJECT NUMBER
5892–00–73

BILL OF BARS
WEST ABUTMENT

COATED = 2,100 LBS.
UNCOATED = 3,270 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
A501		72	12'–2"	X		BODY – STIRRUP – F.F. & B.F.	VERT.
A502		36	6'–9"	X		BODY – STIRRUP – TOP	VERT.
A403		36	3'–1"	X		BODY – TIES	HORIZ.
A504		22	19'–4"			BODY – F.F.	HORIZ.
A805		22	24'–2"	X		BODY – B.F.	HORIZ.
A506		21	5'–1"	X		BODY – STIRRUP – ADDITIONAL	VERT.
A407		3	23'–0"			BODY – TOP – ADDITIONAL	HORIZ.
A508	31		2'–0"			BODY – TOP DOWELS	VERT.
A409	32		14'–7"	X	⚠	WING 1 – STIRRUP – F.F. & B.F.	VERT.
A410	10		13'–2"			WING 1 – F.F. & B.F.	VERT.
A511	11		14'–9"	X		WING 1 – F.F.	HORIZ.
A412	1		12'–7"			WING 1 – F.F.	HORIZ.
A413	1		9'–4"			WING 1 – F.F.	HORIZ.
A414	1		6'–2"			WING 1 – F.F.	HORIZ.
A415	1		13'–4"	X		WING 1 – F.F. – TOP	HORIZ.
A816	11		16'–3"	X		WING 1 – B.F.	HORIZ.
A417	1		11'–0"			WING 1 – B.F.	HORIZ.
A418	1		7'–10"			WING 1 – B.F.	HORIZ.
A419	1		4'–8"			WING 1 – B.F.	HORIZ.
A420	1		11'–9"	X		WING 1 – B.F. – TOP	HORIZ.
A421	4		5'–6"	X		WING 1 – F.F. CORNER	HORIZ.
A422	4		4'–6"	X		WING 1 – TOP CORNER	HORIZ.
A423	8		2'–7"	X		WING 1 & 2 – B.F. CORNER	HORIZ.
A424	24		15'–1"	X	⚠	WING 2 – STIRRUP – F.F. & B.F.	VERT.
A425	7		13'–7"			WING 2 – F.F. & B.F.	VERT.
A526	11		11'–9"	X		WING 2 – F.F.	HORIZ.
A427	1		9'–10"			WING 2 – F.F.	HORIZ.
A428	1		7'–9"			WING 2 – F.F.	HORIZ.
A429	1		5'–4"			WING 2 – F.F.	HORIZ.
A430	1		10'–4"	X		WING 2 – F.F. – TOP	HORIZ.
A831	11		13'–3"	X		WING 2 – B.F.	HORIZ.
A432	1		8'–3"			WING 2 – B.F.	HORIZ.
A433	1		5'–11"			WING 2 – B.F.	HORIZ.
A434	1		3'–7"			WING 2 – B.F.	HORIZ.
A435	1		8'–9"	X		WING 2 – B.F. – TOP	HORIZ.
A436	4		2'–10"	X		WING 2 – F.F. CORNER	HORIZ.
A437	4		4'–2"	X		WING 2 – TOP CORNER	HORIZ.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE "BAR SERIES TABLE" FOR ACTUAL LENGTHS.

NOTES

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

WEST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 STEEL PILING SEATED IN PREBORED HOLES CORED 3 FEET MINIMUM INTO ROCK. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 150 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 20 FT PILE LENGTHS AT WEST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10 X 42 STEEL PILING SPLICE DETAILS.

(A01) PIPE UNDERDRAIN WRAPPED (6–INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 1 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6–INCH".

(A02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.) ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–22–315

DRAWN BY JDO | PLANS CK'D ACK

WING 2 DETAILS & WEST ABUT. REINFORCEMENT

SHEET 6 OF 13

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FILE: B220315_04_06_Wabut.dwg
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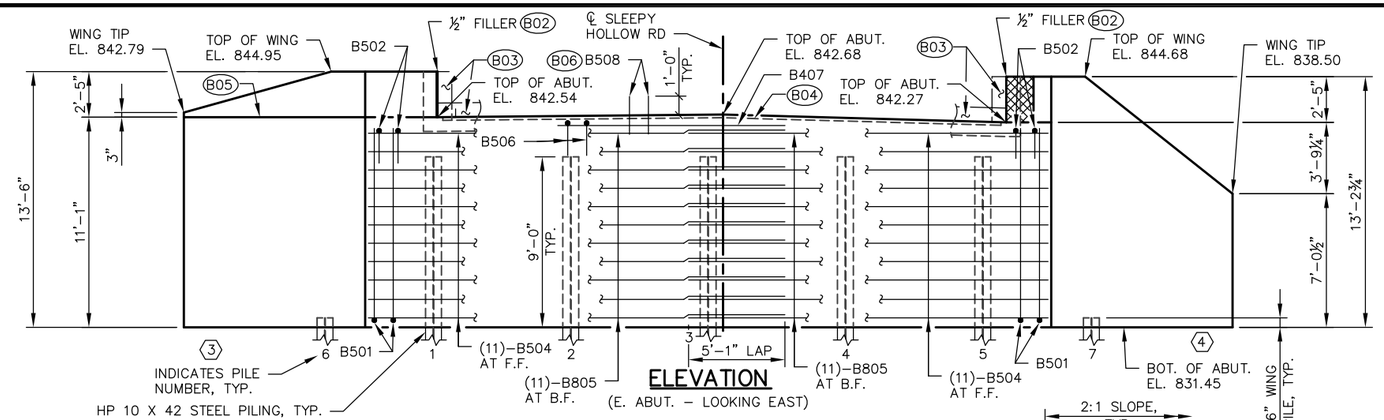
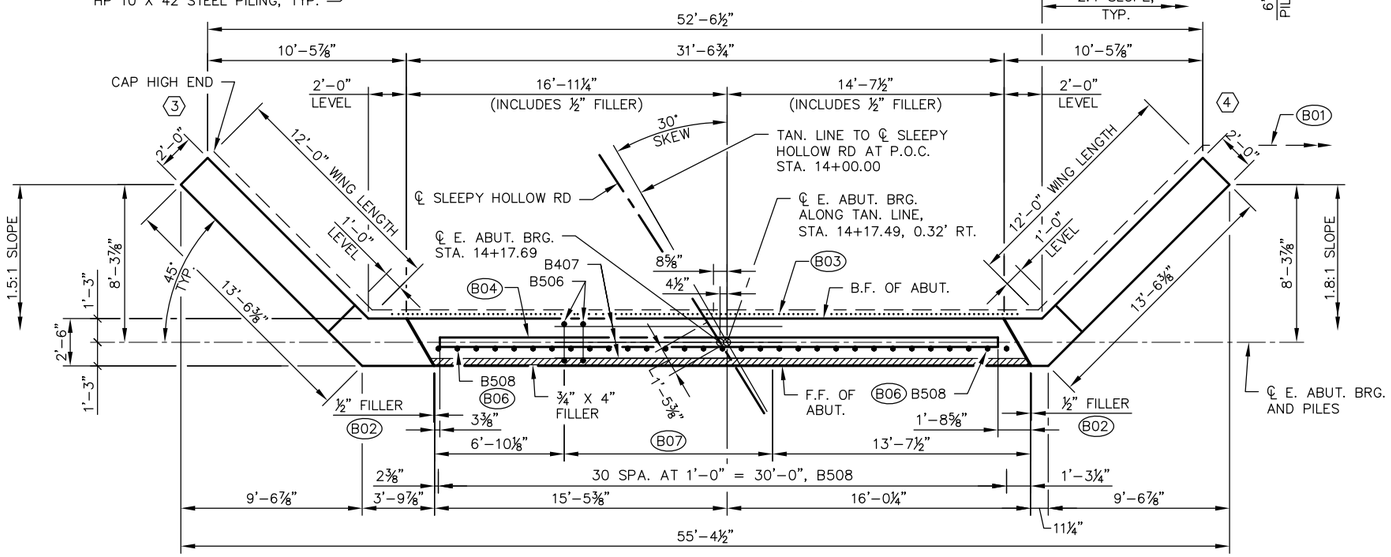
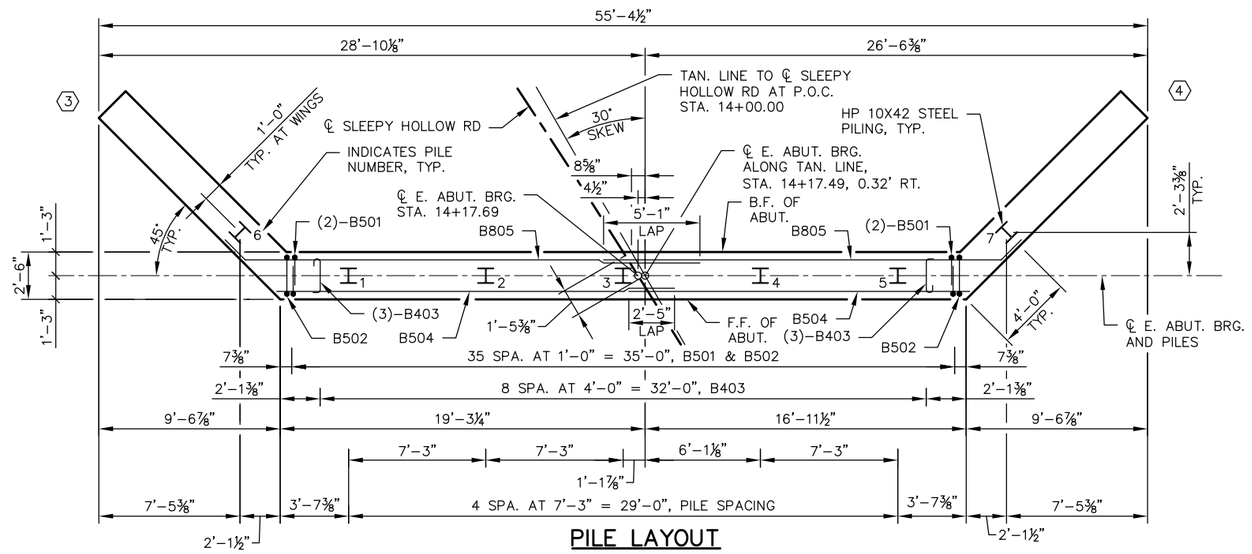
I.D. 5892–00–73

PLOT DATE: Feb 25, 2025

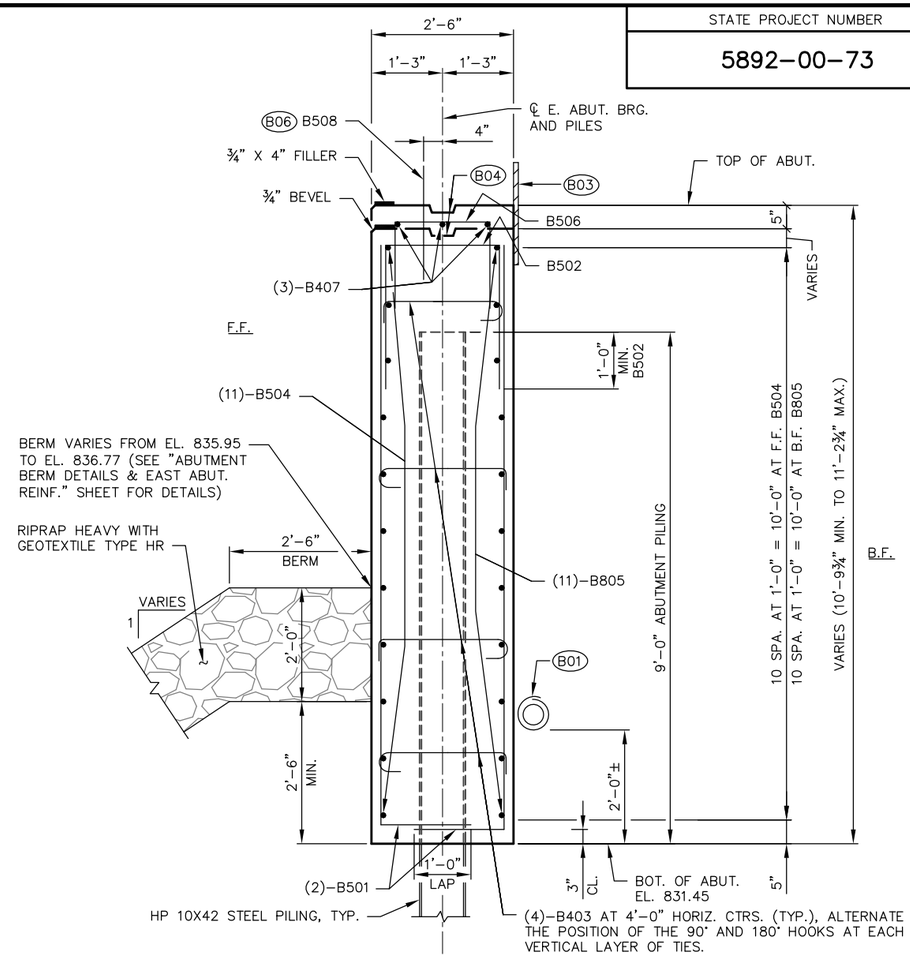




PLAN



PILE LAYOUT



TYPICAL SECTION THRU EAST ABUTMENT

NOTES

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

EAST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 25 FT PILE LENGTHS AT THE EAST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10 X 42 STEEL PILING SPLICE DETAILS.

(B01) PIPE UNDERDRAIN WRAPPED (6–INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 1 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6–INCH".

(B02) SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON–STAINING GRAY NON–BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). ½" FILLER TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.

(B04) KEYED CONST. JT. FORMED BY BEVELED 2 X 6

(B05) OPTIONAL KEYED CONST. JT. FORMED BY BEVELED 2 X 6, TYP.

(B06) B508 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'–0" INTO ABUTMENT BODY.

(B07) 11 SPA. AT 1'–0" = 11'–0", B506

⬡ INDICATES WING NUMBER

F.F. – FRONT FACE
B.F. – BACK FACE

STATE PROJECT NUMBER

5892–00–73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–22–315

DRAWN BY JDO | PLANS CK'D ACK

EAST ABUTMENT

SHEET 7 OF 13

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I.D. 5892–00–73

PLOT DATE: Jan 29, 2025

FILE: B220315_07_10_Eabut.dwg
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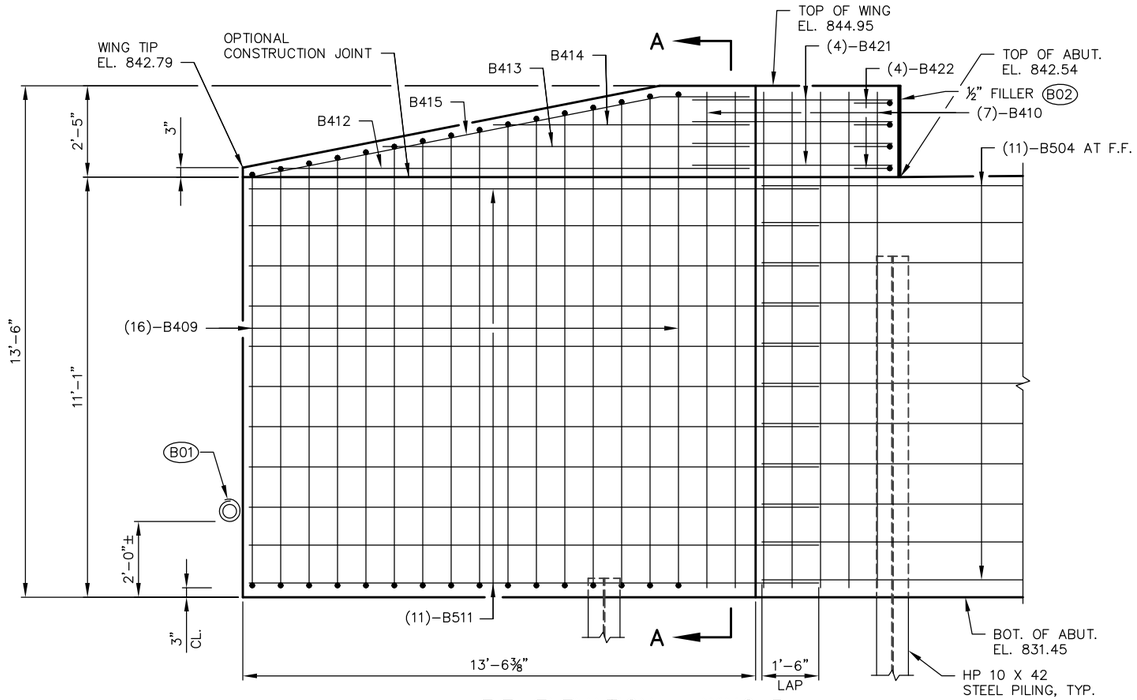
STATE PROJECT NUMBER

5892-00-73



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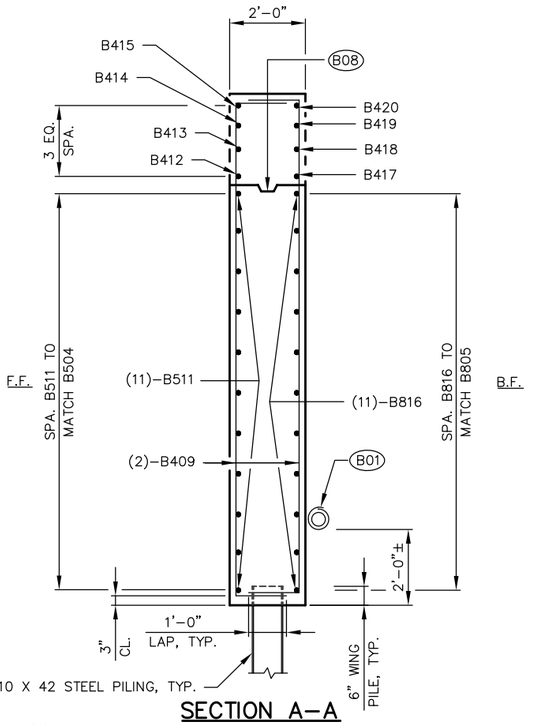
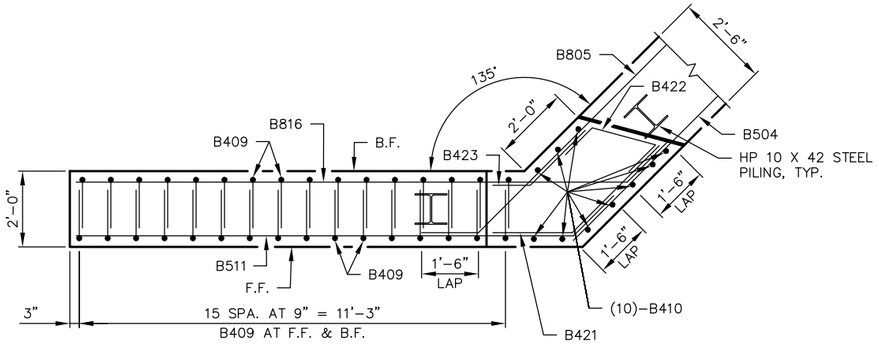
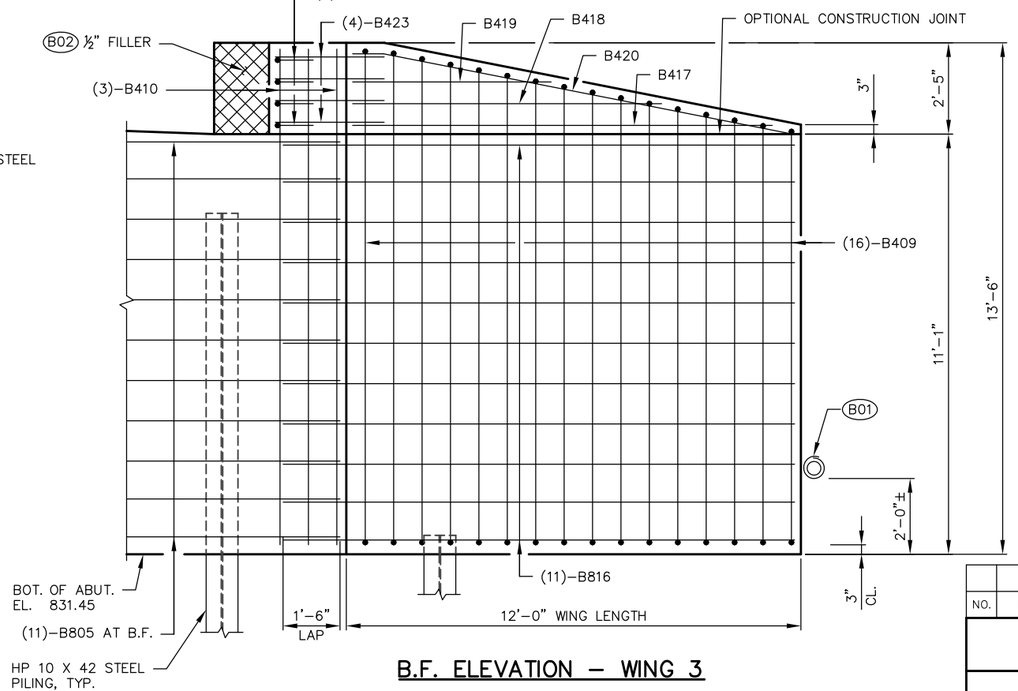


SECTION A–A



PLAN – WING 3



B.F. ELEVATION – WING 3

F.F. – FRONT FACE
B.F. – BACK FACE

NOTES

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

EAST ABUTMENT TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 25 FT PILE LENGTHS AT THE EAST ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR HP 10 X 42 STEEL PILING SPLICE DETAILS.

(B01) PIPE UNDERDRAIN WRAPPED (6–INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON "WING 1 DETAILS" SHEET. RODENT SHIELD SHALL BE INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6–INCH".

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–22–315

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WING 3 DETAILS

SHEET 8 OF 13

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8

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I.D. 5892–00–73

PLOT DATE: Jan 29, 2025

FILE: B220315_07_10_Eabut.dwg
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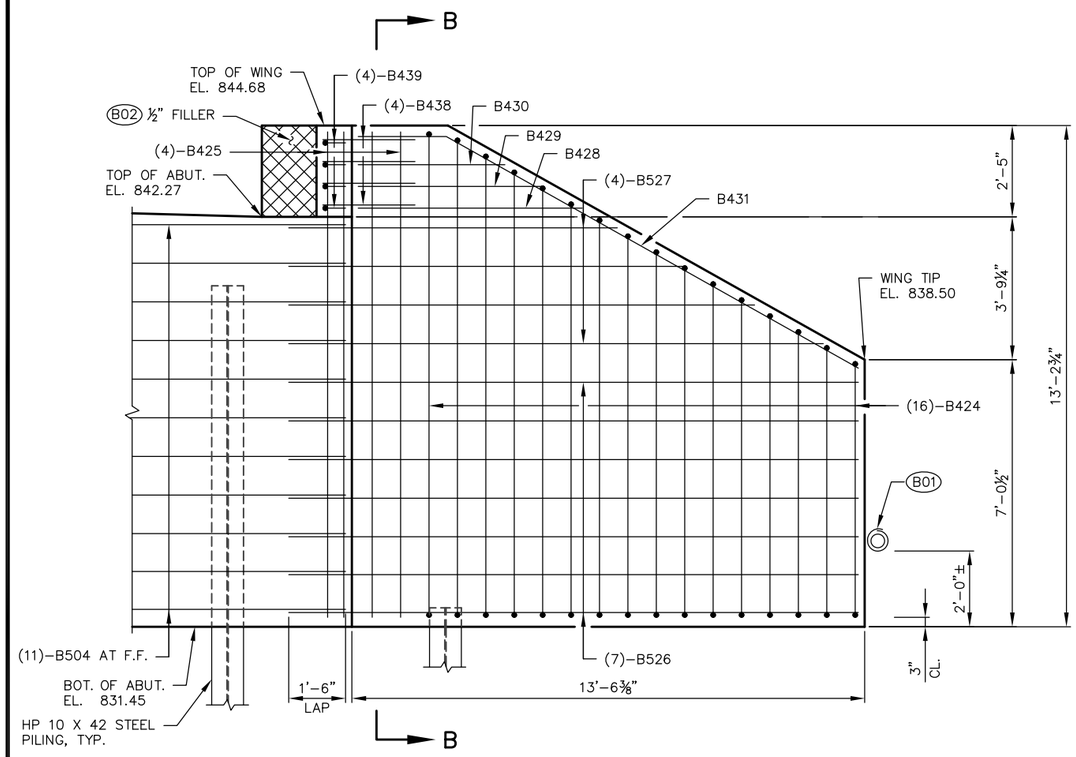
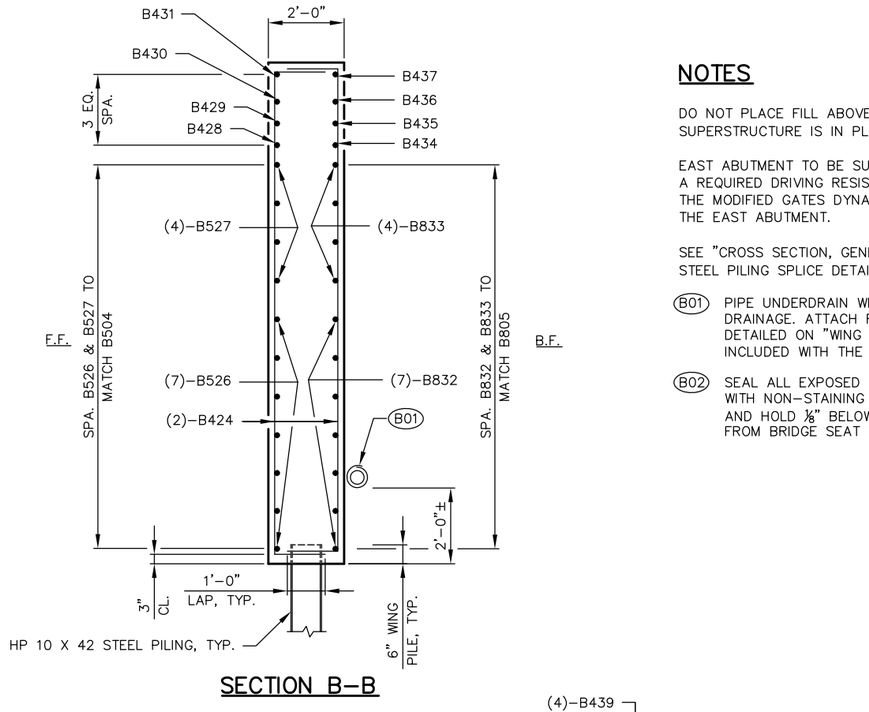


F.F. ELEVATION – WING 4



SECTION B–B

NOTES

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

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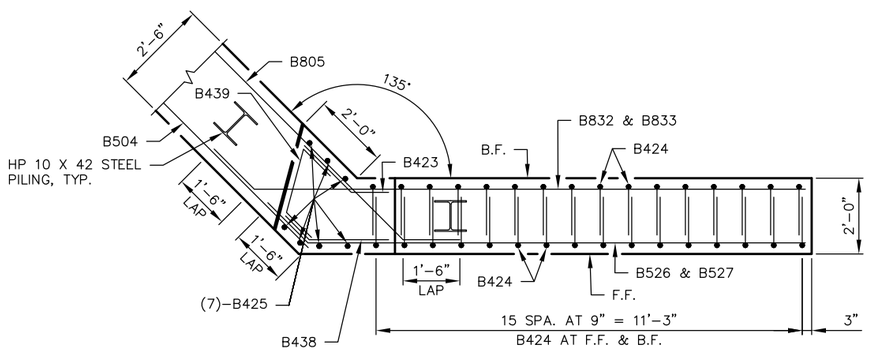
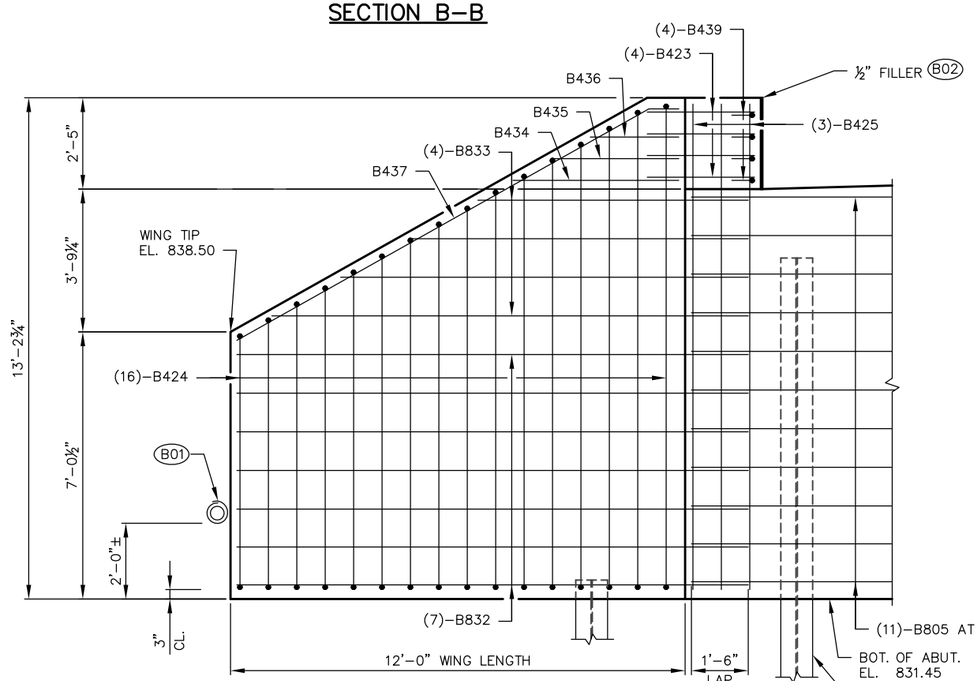


PLAN – WING 4



B.F. ELEVATION – WING 4

F.F. – FRONT FACE
B.F. – BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–22–315

DRAWN BY JDO | PLANS CK'D ACK

WING 4 DETAILS

SHEET 9 OF 13

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I.D. 5892–00–73

PLOT DATE: Jan 29, 2025

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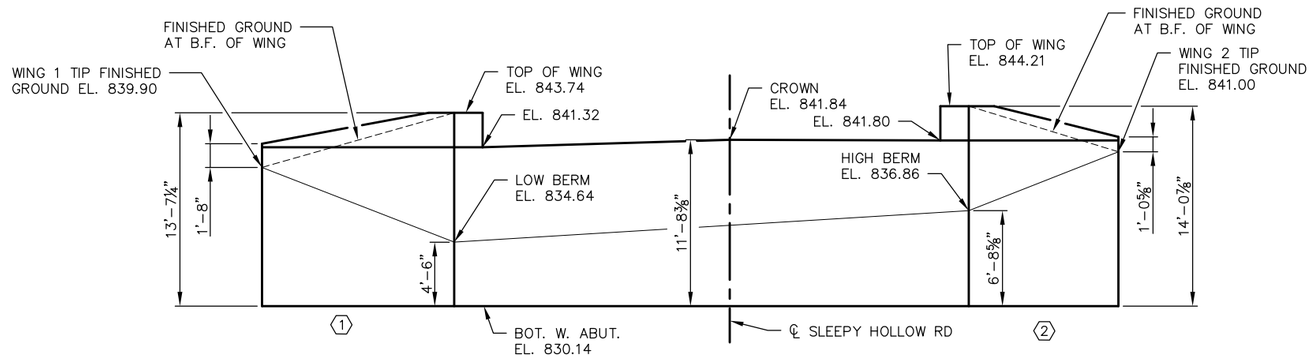
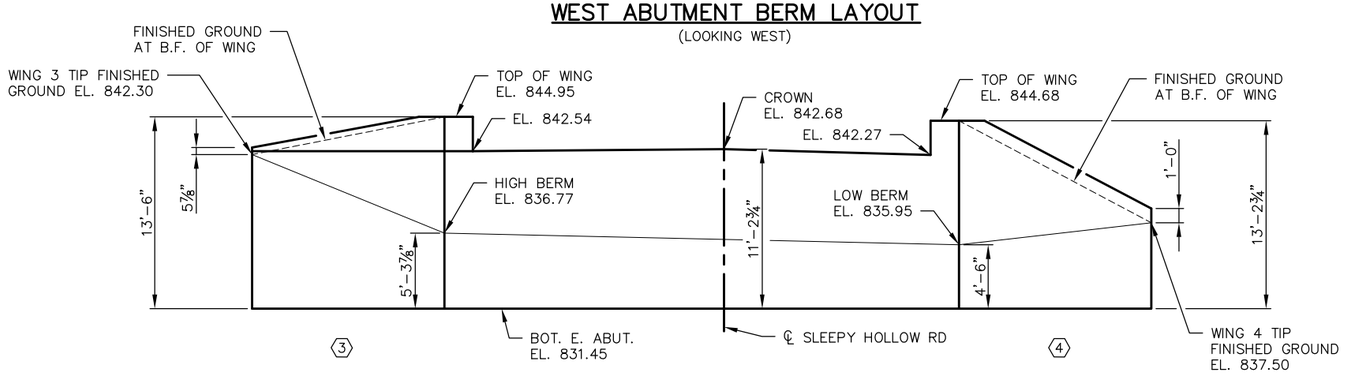


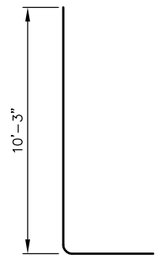
WEST ABUTMENT BERM LAYOUT

(LOOKING WEST)

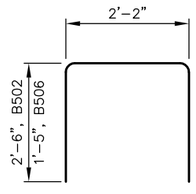


EAST ABUTMENT BERM LAYOUT

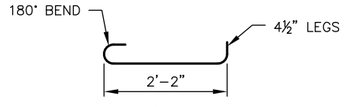
(LOOKING EAST)



B501



B502 & B506



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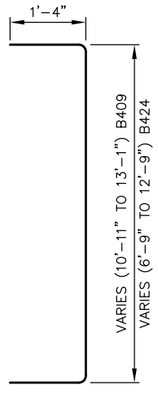
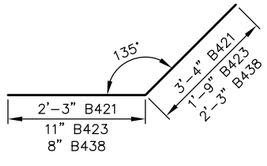
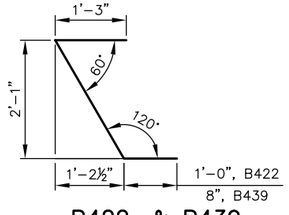


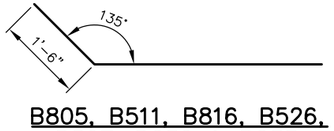
B409 & B424



B421, B423, & B438



B422, & B439

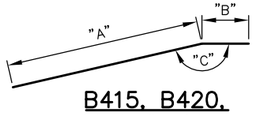


B805, B511, B816, B526, B527, B832 & B833

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
B409	2 SERIES OF 16	13'-5" TO 15'-7"
B424	2 SERIES OF 16	9'-3" TO 15'-3"
B527	1 SERIES OF 4	8'-8" TO 14'-0"
B833	1 SERIES OF 4	10'-2" TO 15'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY.



B415, B420, B431 & B437

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
B415	11'-0"	2'-4"	169°
B420	11'-0"	0'-9"	169°
B431	12'-5"	2'-3"	151°
B437	12'-5"	0'-9"	151°

F.F. – FRONT FACE
B.F. – BACK FACE

STATE PROJECT NUMBER

5892-00-73

BILL OF BARS
EAST ABUTMENT

COATED = 2,180 LBS.
UNCOATED = 3,170 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
B501		72	11'-9"	X		BODY – STIRRUP – F.F. & B.F.	VERT.
B502		36	6'-11"	X		BODY – STIRRUP – TOP	VERT.
B403		36	3'-1"	X		BODY – TIES	HORIZ.
B504		22	19'-4"			BODY – F.F.	HORIZ.
B805		22	24'-2"	X		BODY – B.F.	HORIZ.
B506		12	4'-9"	X		BODY – STIRRUP – ADDITIONAL	VERT.
B407		3	12'-0"			BODY – TOP – ADDITIONAL	HORIZ.
B508	31		2'-0"			BODY – TOP DOWELS	VERT.
B409	32		14'-6"	X	⚠	WING 3 – STIRRUP – F.F. & B.F.	VERT.
B410	10		13'-1"			WING 3 – F.F. & B.F.	VERT.
B511	11		14'-9"	X		WING 3 – F.F.	HORIZ.
B412	1		12'-7"			WING 3 – F.F.	HORIZ.
B413	1		9'-8"			WING 3 – F.F.	HORIZ.
B414	1		6'-9"			WING 3 – F.F.	HORIZ.
B415	1		13'-4"	X		WING 3 – F.F. – TOP	HORIZ.
B816	11		16'-3"	X		WING 3 – B.F.	HORIZ.
B417	1		11'-0"			WING 3 – B.F.	HORIZ.
B418	1		8'-1"			WING 3 – B.F.	HORIZ.
B419	1		5'-2"			WING 3 – B.F.	HORIZ.
B420	1		11'-9"	X		WING 3 – B.F. – TOP	HORIZ.
B421	4		5'-6"	X		WING 3 – F.F. CORNER	HORIZ.
B422	4		4'-6"	X		WING 3 – TOP CORNER	HORIZ.
B423	8		2'-7"	X		WINGS 3 & 4 – B.F. CORNER	HORIZ.
B424	32		12'-3"	X	⚠	WING 4 – STIRRUP – F.F. & B.F.	VERT.
B425	7		12'-9"			WING 4 – F.F. & B.F.	VERT.
B526	7		14'-9"	X		WING 4 – F.F.	HORIZ.
B527	4		11'-4"	X	⚠	WING 4 – F.F.	HORIZ.
B428	1		5'-10"			WING 4 – F.F.	HORIZ.
B429	1		4'-10"			WING 4 – F.F.	HORIZ.
B430	1		3'-10"			WING 4 – F.F.	HORIZ.
B431	1		14'-8"	X		WING 4 – F.F. TOP	HORIZ.
B832	7		16'-3"	X		WING 4 – B.F.	HORIZ.
B833	4		12'-10"	X	⚠	WING 4 – B.F.	HORIZ.
B434	1		4'-4"			WING 4 – B.F.	HORIZ.
B435	1		3'-4"			WING 4 – B.F.	HORIZ.
B436	1		2'-4"			WING 4 – B.F.	HORIZ.
B437	1		13'-2"	X		WING 4 – B.F. – TOP	HORIZ.
B438	4		2'-10"	X		WING 4 – F.F. CORNER	HORIZ.
B439	4		4'-2"	X		WING 4 – TOP CORNER	HORIZ.

THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE "BAR SERIES TABLE" FOR ACTUAL LENGTHS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

ABUTMENT BERM DETAILS & EAST ABUT. REINF.

SHEET 10 OF 13

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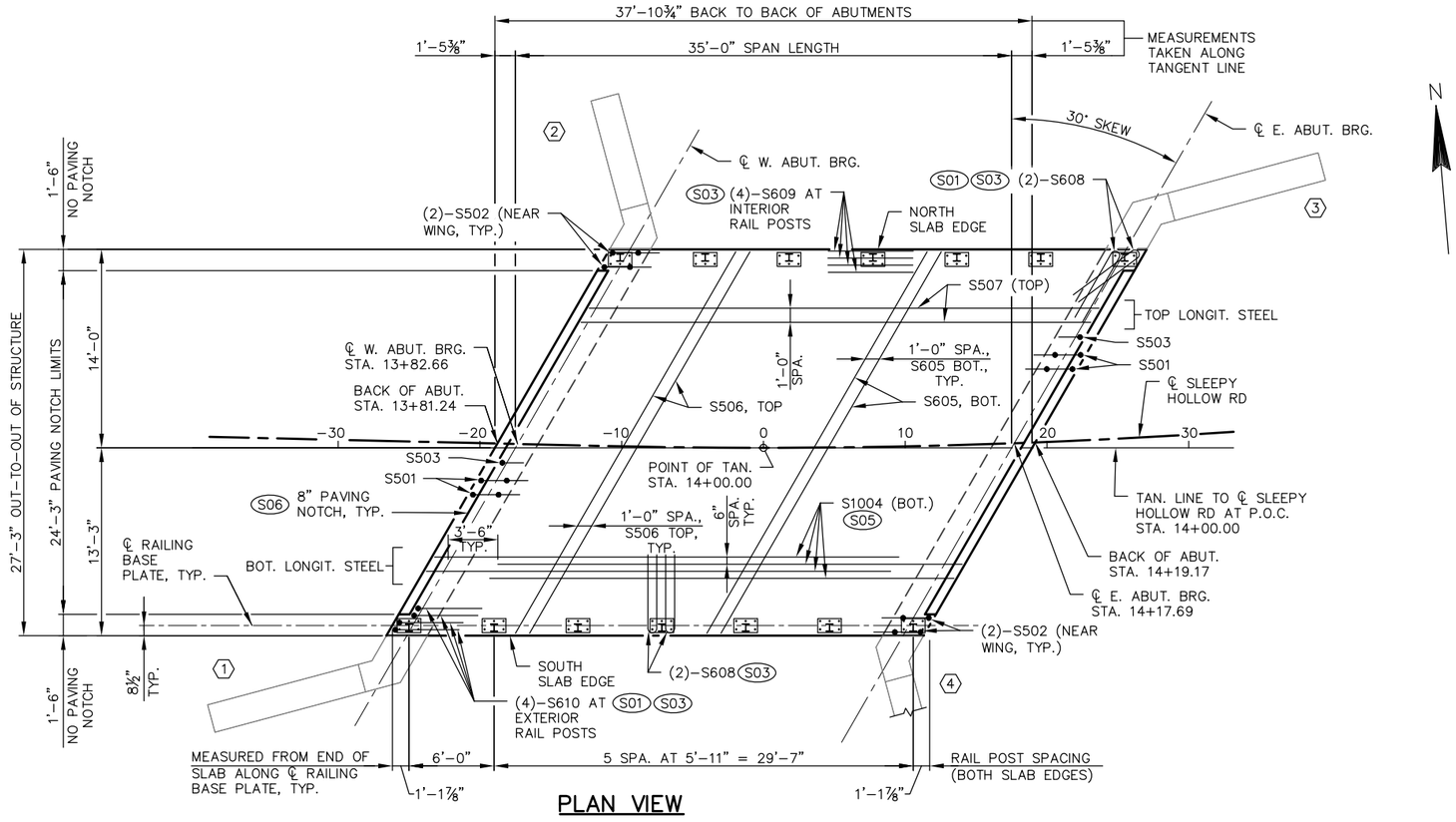
FILE: B220315_07_10_Eabut.dwg
PLOT SCALE:

I.D. 5892-00-73 PLOT DATE: Jan 28, 2025

STATE PROJECT NUMBER
5892-00-73



PLAN VIEW

NOTES

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

BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

RAILING TO BE INSTALLED ON THE SLAB AFTER FALSEWORK HAS BEEN RELEASED.

(S01) SEE "END POST DETAIL" THIS SHEET FOR ORIENTATION OF S608 & S610 BARS AT END POSTS AT EACH WING. ADJUST ORIENTATION OF S608 & S610 BARS TO ENSURE CLEAR COVER AT END OF SLAB AND PAVING NOTCH.

(S02) DIMENSION IS TAKEN ALONG TANGENT LINE OF ℄ SLEEPY HOLLOW RD.

(S03) SEE "RAILING TUBULAR TYPE M" SHEET FOR PLACEMENT OF RAIL POST REINFORCEMENT.

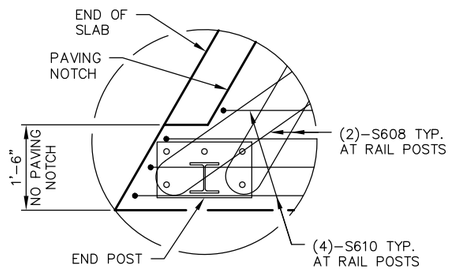
(S04) SEE "WEST ABUTMENT" SHEET FOR PLACEMENT OF A508 BARS & "EAST ABUTMENT" SHEET FOR PLACEMENT OF B508 BARS.

(S05) EXTEND ONE END OF THE S1004 BAR TO 2" CLEAR OF ONE BACK FACE OF ABUTMENT. ALTERNATE BETWEEN WEST AND EAST ABUTMENTS ACROSS ENTIRE SLAB.

(S06) APPLY PROTECTIVE SURFACE TREATMENT TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES.

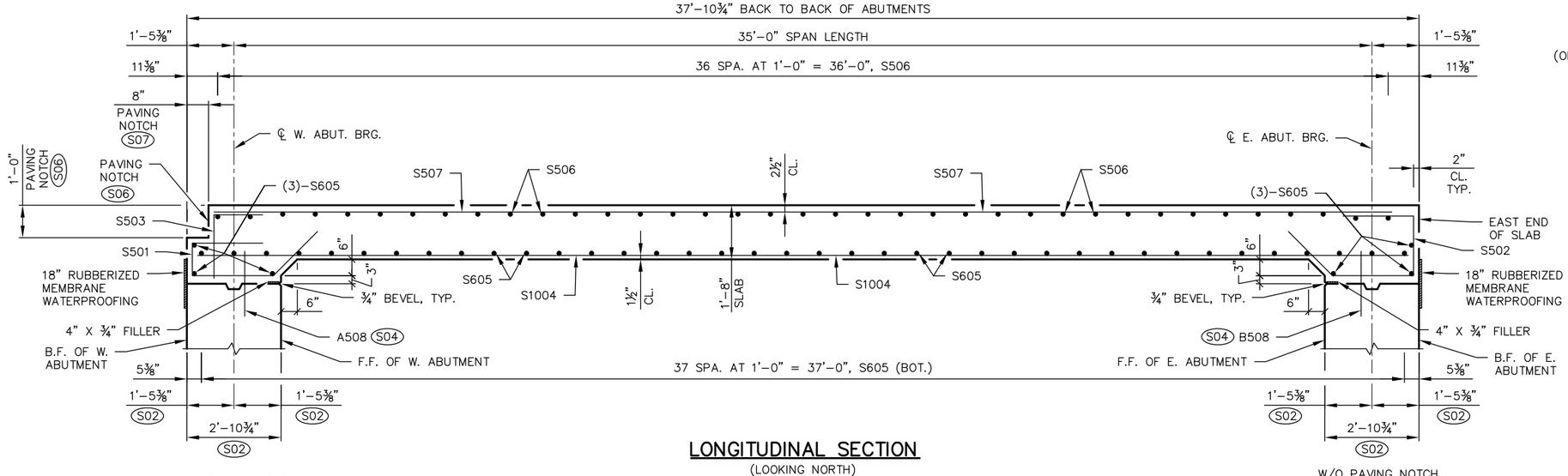
(S07) DIMENSION IS TAKEN ALONG ℄ ABUT. BRG.

⬡ INDICATES WING NUMBER



END POST DETAIL

(WING 1 POST SHOWN, ALL WINGS SIMILAR SIMILAR)
(ONLY RAIL POST REINFORCEMENT SHOWN FOR CLARITY)



LONGITUDINAL SECTION

(LOOKING NORTH)

F.F. – FRONT FACE
B.F. – BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

SUPERSTRUCTURE PLAN

SHEET 11 OF 13

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I.D. 5892-00-73

PLOT DATE: Jan 28, 2025

FILE: B220315_11_12_Super.dwg
PLOT SCALE:

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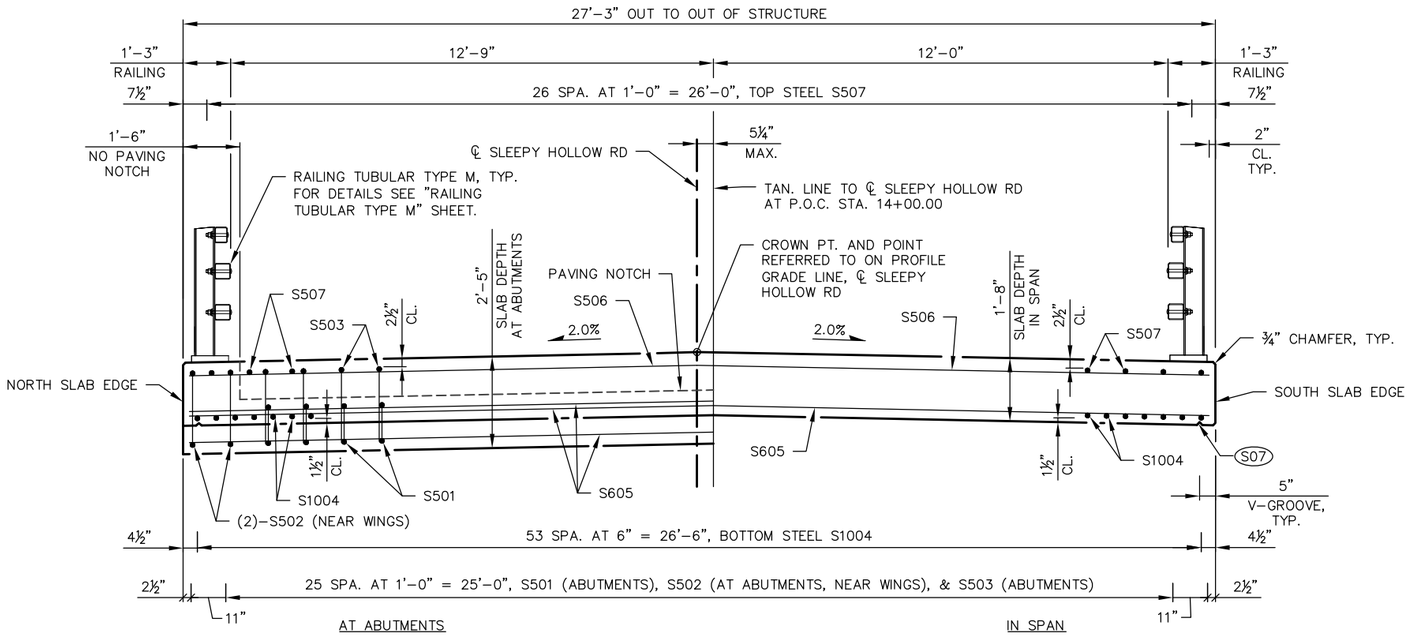
STATE PROJECT NUMBER
5892-00-73



CROSS SECTION THRU ROADWAY

(LOOKING EAST)

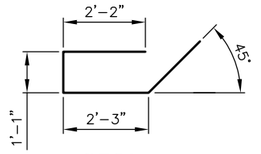
BILL OF BARS SUPERSTRUCTURE

COATED = 13,420 LBS.

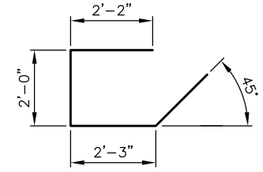
MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
S501	48		7'-2"	X		SLAB AT ABUTMENT – TIES	LONGIT.
S502	8		8'-1"	X		SLAB AT ABUTMENT WINGS – TIES	LONGIT.
S503	48		3'-5"	X		SLAB AT ABUTMENT – TIES (W/ S501)	LONGIT.
S1004	54		32'-9"			SLAB – BOTTOM	LONGIT.
S605	44		31'-0"			SLAB – BOTTOM & OVER ABUTMENTS	TRANS.
S506	37		31'-0"			SLAB – TOP	TRANS.
S507	27		35'-11"			SLAB – TOP	LONGIT.
S608	28		11'-6"	X		SLAB – TOP AT RAIL POSTS	TRANS.
S609	40		6'-0"			SLAB – TOP AT INTERIOR RAIL POSTS	LONGIT.
S610	16		4'-8"	X		SLAB – TOP AT EXTERIOR RAIL POSTS	LONGIT.

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

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.



S501



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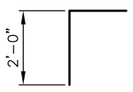

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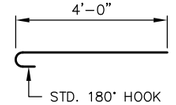
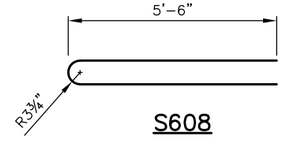


S610

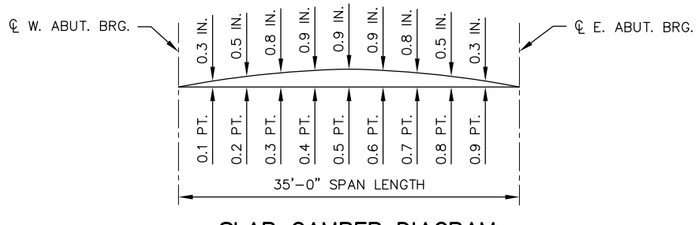


S608

SURVEY TOP OF SLAB ELEVATIONS

	℄ W. ABUT. BRG.	5/10 PT.	℄ E. ABUT. BRG.
NORTH SLAB EDGE			
℄ SLEEPY HOLLOW RD			
SOUTH SLAB EDGE			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND REFERENCE LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



SLAB CAMBER DIAGRAM

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.

NORTH DECK EDGE

SPAN PT	STA. ON ℄ SLEEPY HOLLOW RD	DISTANCE ALONG TANGENT LINE	OFFSET ALONG TANGENT LINE (LEFT)	EDGE OF DECK ELEVATION
℄ W. ABUT.	13+90.30	−9.42	14.00	844.21
0.1	13+93.91	−5.92	14.00	844.31
0.2	13+97.51	−2.42	14.00	844.40
0.3	14+01.12	1.08	14.00	844.49
0.4	14+04.72	4.58	14.00	844.57
0.5	14+08.32	8.08	14.00	844.65
0.6	14+11.92	11.58	14.00	844.72
0.7	14+15.53	15.08	14.00	844.78
0.8	14+19.13	18.58	14.00	844.85
0.9	14+22.72	22.08	14.00	844.90
℄ E. ABUT.	14+26.32	25.58	14.00	844.95

SOUTH DECK EDGE

SPAN PT	STA. ON ℄ SLEEPY HOLLOW RD	DISTANCE ALONG TANGENT LINE	OFFSET ALONG TANGENT LINE (RIGHT)	EDGE OF DECK ELEVATION
℄ W. ABUT.	13+75.16	−25.15	13.25	843.74
0.1	13+78.66	−21.65	13.25	843.86
0.2	13+82.16	−18.15	13.25	843.98
0.3	13+85.66	−14.65	13.25	844.09
0.4	13+89.15	−11.15	13.25	844.19
0.5	13+92.55	−7.65	13.25	844.28
0.6	13+95.96	−4.15	13.25	844.37
0.7	13+99.37	−0.65	13.25	844.47
0.8	14+02.77	2.85	13.25	844.54
0.9	14+06.18	6.35	13.25	844.61
℄ E. ABUT.	14+09.59	9.85	13.25	844.68

TOP OF SLAB ELEVATIONS

SPAN PT	NORTH SLAB EDGE	℄ SLEEPY HOLLOW RD	SOUTH SLAB EDGE
℄ W. ABUT.	844.21	844.26	843.74
0.1	844.31	844.37	843.86
0.2	844.40	844.47	843.98
0.3	844.49	844.57	844.09
0.4	844.57	844.66	844.19
0.5	844.65	844.74	844.28
0.6	844.72	844.83	844.37
0.7	844.78	844.90	844.47
0.8	844.85	844.97	844.54
0.9	844.90	845.04	844.61
℄ E. ABUT.	844.95	845.10	844.68

NOTES

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

(S07) ¾" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT BODY. V-GROOVES ARE REQUIRED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

SUPERSTRUCTURE REINFORCEMENT

SHEET 12 OF 13

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I.D. 5892-00-73

PLOT DATE: Jan 28, 2025

FILE: B220315_11_12_Super.dwg
PLOT SCALE:

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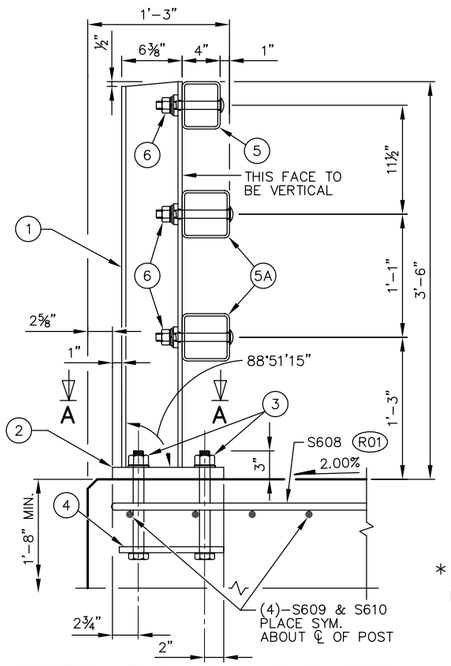
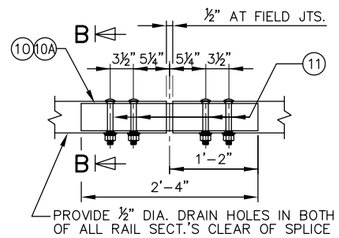
STATE PROJECT NUMBER

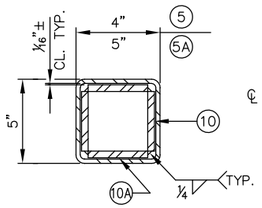
5892-00-73



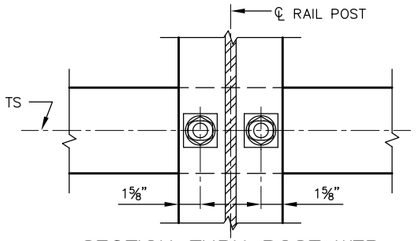
SECTION THRU RAILING ON DECK



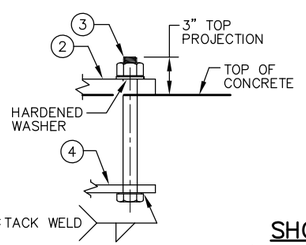
FIELD ERECTION JOINT DETAIL



SECTION B-B

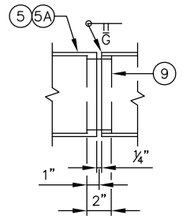


SECTION THRU POST WEB



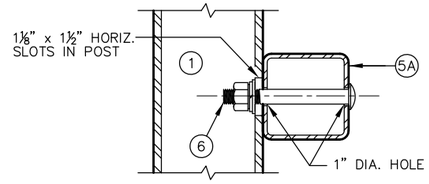
ANCHOR BOLTS

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



SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION THRU RAIL

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

TYPICAL RAIL TO POST CONNECTIONS

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 1¼" x 11¾" x 1'-8" WITH 1 7/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.

(3) ASTM A449 – 1⅛" 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 10¾" 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 CONSTRUCTABILITY.)

(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 1⅝" x 1⅝" MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)

(8) 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

(9) SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

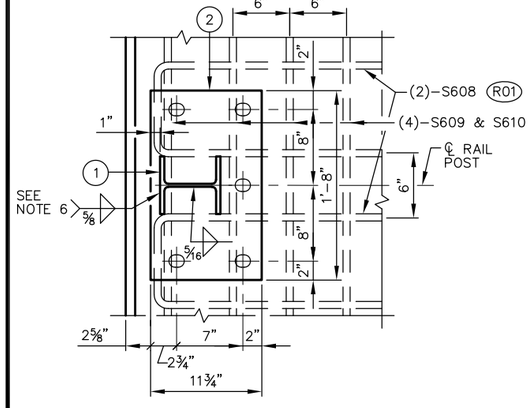
(10) ⅜" x 3⅝" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

(10A) ⅜" x 2⅝" x 2'-4" PLATE USED IN NO. 5, ⅜" x 3⅝" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

(11) ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER. USE 15/16" x 1¼" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND 15/16" x 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.

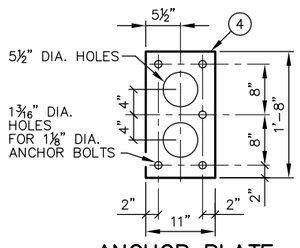
NOTES

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 1/8 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 S.S.P.C. SPECIFICATIONS.



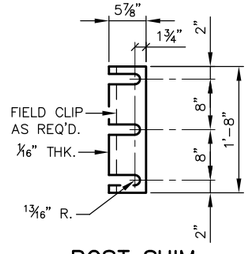
SECTION A-A

R01 TIE TO TOP MAT OF STEEL.

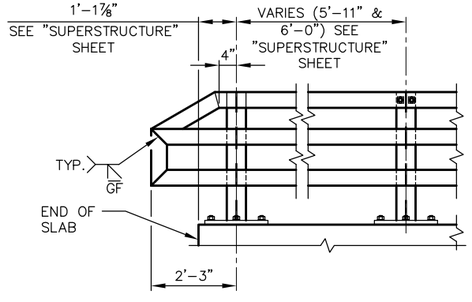


ANCHOR PLATE

AT RAIL TO DECK CONNECTION



POST SHIM DETAIL



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-22-315

DRAWN BY JDO | PLANS CK'D ACK

RAILING TUBULAR TYPE M

SHEET 13 OF 13

45

8

8

FILE: B220315_13_mrail.dwg
PLOT SCALE:

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	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
13+31.23	0.00	35.85	0.60	0.00	0	0	0	0	0	0
13+50.00	18.77	40.02	0.61	0.00	26	0	0	26	0	26
13+64.10	14.10	39.54	0.60	1.95	21	0	1	47	1	46
13+81.27	17.17	21.46	0.60	0.30	19	0	1	66	3	64
STRUCTURE B-22-0315										
			DIVISION 1 TOTAL		66	0	2			

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	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
STRUCTURE B-22-0315										
14+19.17	0.00	22.96	0.60	3.90	0	0	0	0	0	0
14+38.09	18.92	36.94	0.61	6.37	21	0	4	21	5	16
14+50.00	11.91	36.64	0.62	3.91	16	0	2	37	8	30
14+69.17	19.17	33.01	0.63	0.44	25	0	2	62	10	52
			DIVISION 2 TOTAL		62	0	8			
			PROJECT TOTAL		128	0	10			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	[(CUT) - (FILL*FILL FACTOR) - SALVAGED/UNUSABLE PAVEMENT MATERIAL)]
	PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

9

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PROJECT NO: 5892-00-73 | HWY: LOC STR | COUNTY: GRANT | EARTHWORK DATA | SHEET 46 | E

14+00.00

OH
EX RW
STRUCTURE B-22-0315
TEL
EX RW

13+50.00

EX RW
OH
7.5:1
845.31
-18.86
4.0%
841.25
-12.37
841.28
-10.75
2.0%
841.49
0.00
2.0%
841.28
10.66
4.0%
4.6:1
841.12
18.67
840.52
21.41
TEL
EX RW

13+31.23

EX RW
OH
STA. 13+31.23
BEGIN PROJECT
MATCH EXISTING
SAW CUT REQ'D
TEL
EX RW

10 FT
10 FT

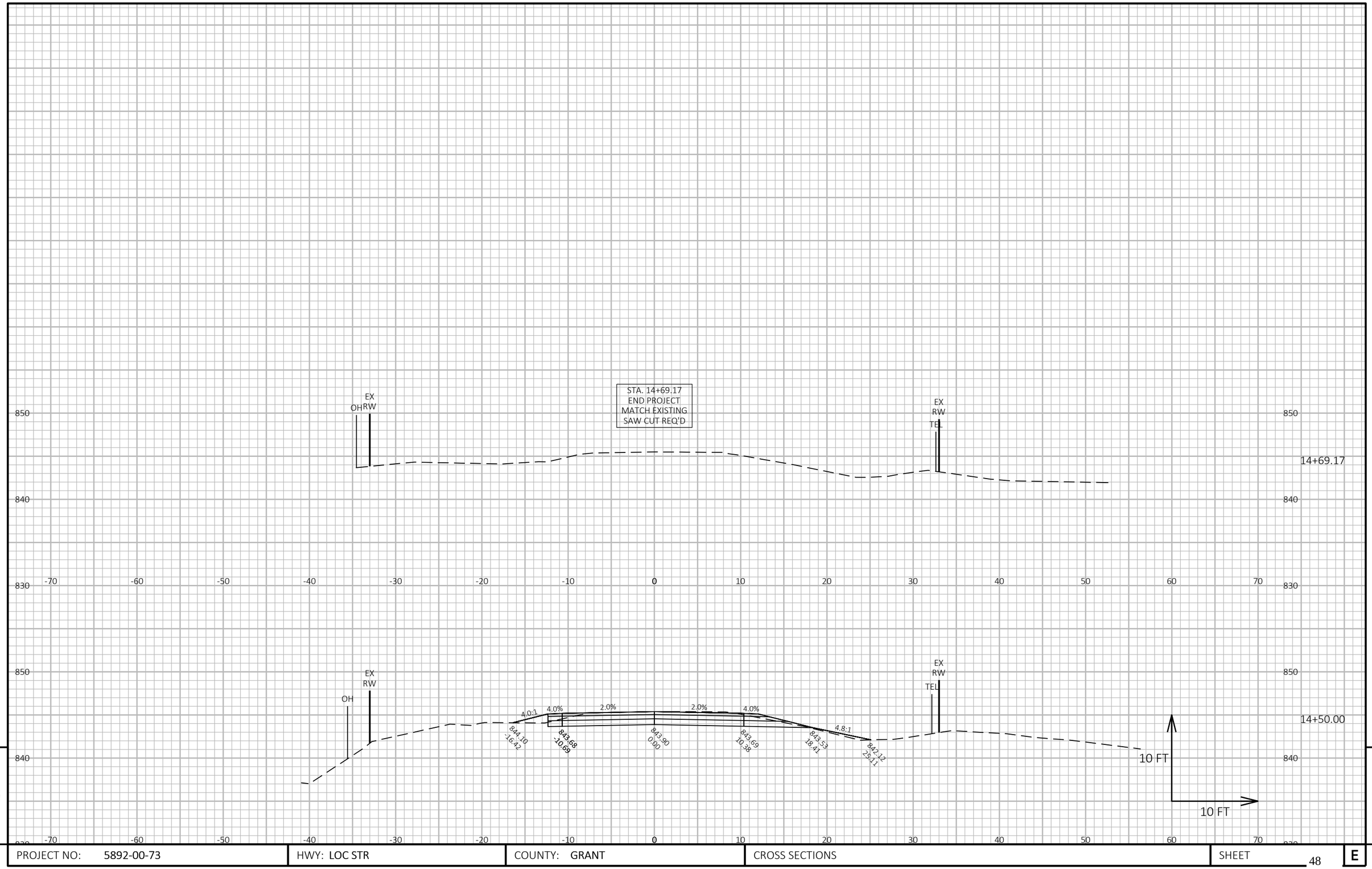
850
840
830
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9

PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	CROSS SECTIONS	SHEET 47	E

FILE NAME : G:\00-PROJECT FILES\2024\24151 ID 5892-00-03 T HICKORY GROVE, SLEEPY HOLLOW RD SAUNDERS CREEK BRIDGE P-22-0938\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090201_xs

PLOT DATE : 3/3/2025 11:03 AM PLOT BY : GAVIN WIPPERFURTH PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 5892-00-73	HWY: LOC STR	COUNTY: GRANT	CROSS SECTIONS	SHEET 48	E

FILE NAME : G:\00-PROJECT FILES\2024\24151 ID 5892-00-03 T HICKORY GROVE, SLEEPY HOLLOW RD SAUNDERS CREEK BRIDGE P-22-0938\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 3/3/2025 11:03 AM

PLOT BY : GAVIN WIPPERFURTH

PLOT NAME :

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

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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