WKE

FEBRUARY

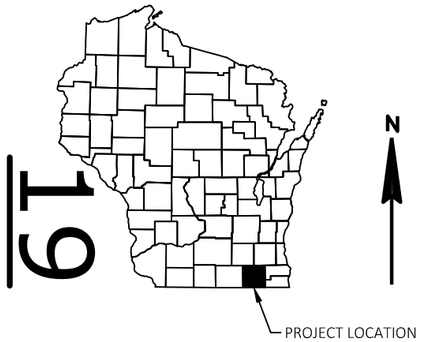
PROJECT ID: 3846-00-74

WITH: N/A

COUNTY: WALWORTH

ORDER OF SHEETS

TOTAL SHEETS = 94



DESIGN DESIGNATION 3846-00-04

A.A.D.T.	2026	=	109
A.A.D.T.	2046	=	126
D.H.V.		=	17
D.D.		=	62/38
T.		=	7.7%
DESIGN SPEED		=	30 MPH
ESALS		=	15,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T LINN - HILLSIDE ROAD

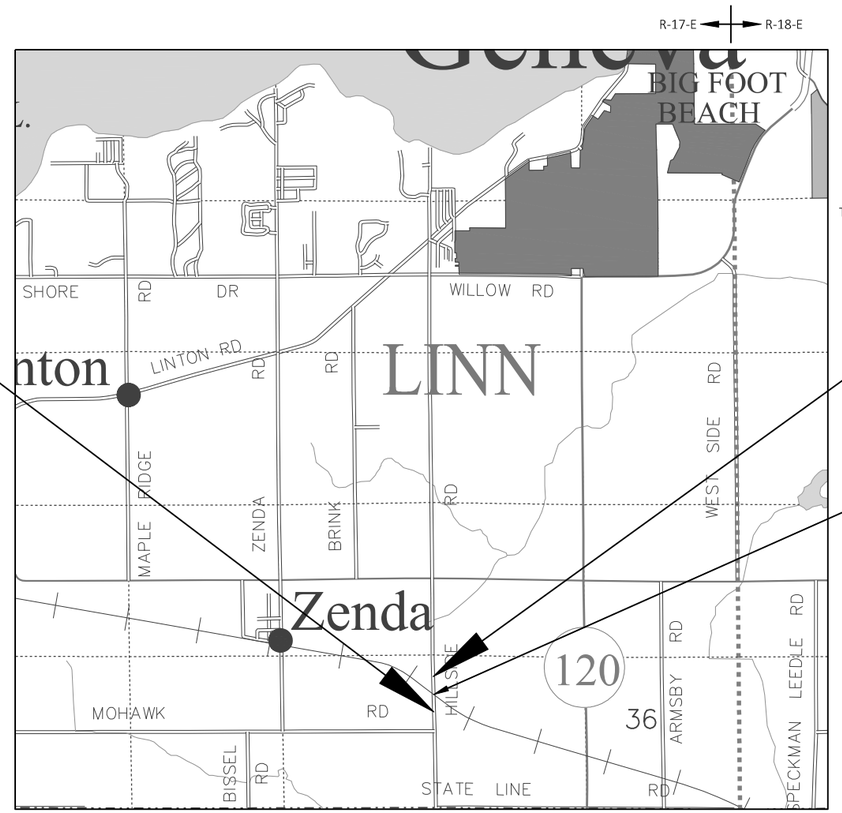
BRIDGE OVER CMSTPP RAILROAD P64-101

LOC STR

WALWORTH COUNTY

STATE PROJECT NUMBER
3846-00-74

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3846-00-74		



BEGIN PROJECT
STA. 12+85
Y = 304 482.520
X = 784 458.982

END PROJECT
STA. 18+75

STRUCTURE
B-64-0215

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.112 MI

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

ACCEPTED FOR

TOWN OF LINN

10/16/25 (Date)

(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: 10/13/25 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WESTBROOK ASSOCIATED ENGINEERS, INC.
Designer	WESTBROOK ASSOCIATED ENGINEERS, INC.
Project Manager	JOSEPH JELACIC, P.E.
Regional Examiner	SE REGION
Regional Supervisor	AMY TAETSCH, P.E.

APPROVED FOR THE DEPARTMENT

Digitally signed by Joseph C Jelacic
DN: C=US, E=Joseph.Jelacic@dot.wi.gov, O=WisDOT, OU=DTSD I.PPM, CN=Joseph C Jelacic
Date: 2025.10.21 10:49:24-05'00'

DATE: 10/21/25 Joseph C Jelacic (Signature)

E

2

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.

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.

THE 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.

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.

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

ANY AND ALL GRADED OR DISTURBED AREAS THAT WILL NOT BE FINISHED AND PERMANENTLY RESTORED WITHIN 7 CALENDAR DAYS SHALL BE SEEDED WITH TEMPORARY SEEDING AND MULCHED WITHIN 48 HOURS OF DISTURBANCE.

SLOPES STEEPER THAN 3:1 REQUIRE EROSION MAT.

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

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAW CUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

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.

THE 6-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED USING ONE (1) 4-INCH LOWER LAYER WITH 19 MM AGGREGATE AND ONE (1) 2-INCH UPPER LAYER WITH 12.5 MM AGGREGATE. THE PREFERRED LOWER LAYER IS 4-INCHES OF 3 LT 58-28 S. THE PREFERRED UPPER LAYER IS 2-INCHES OF 4 LT 58-28 S.

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.

WISCONSIN DNR LIAISON

CRAIG WEBSTER
SOUTH WEST REGION
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: (262) 574-2850
EMAIL: craig.webster@wisconsin.gov

COUNTY DIRECTOR PUBLIC WORKS

RICHARD HOUGH
WALWORTH COUNTY
W4097 COUNTY ROAD NN
ELKHORN, WI 53121
PHONE: (262) 903-8486
EMAIL: rhough@co.walworth.wi.us

CONSULTANT LIAISON

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EMAIL: apalmer@westbrookeng.com

TOWN OF LINN

JIM HURLEY
ADMINISTRATOR/TREASURER
W3728 FRANKLIN WALSH ST
ZENDA, WI 53195
PHONE: (262) 275-6300
EMAIL: admin@townoflinn.wi.gov

UTILITIES CONTACTS

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ELECTRIC
AUSTIN KROHN
400B KOOPMAN LANE
ELKHORN, WI 53121
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EMAIL: austinkrohn@alliantenergy.com

FRONTIER COMMUNICATIONS
COMMUNICATIONS
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
PHONE: (715) 847-1240
EMAIL: christopher.pollack@ftr.com

CHARTER COMMUNICATIONS
COMMUNICATIONS
DOMINIC KATCHA
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
PHONE: (414) 277-4020
EMAIL: Dominic.Katcha@charter.com

STANDARD ABBREVIATIONS

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

RUNOFF COEFFICIENT TABLE

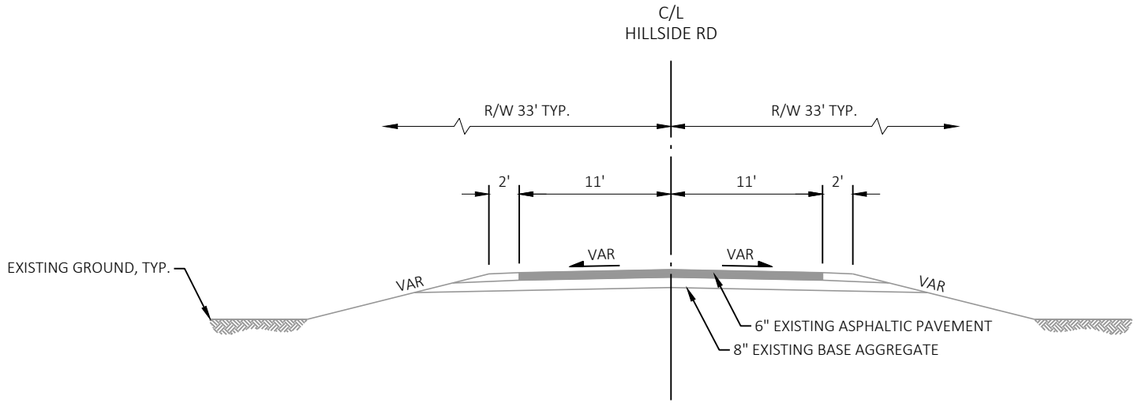
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 1.141 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.561 ACRES

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

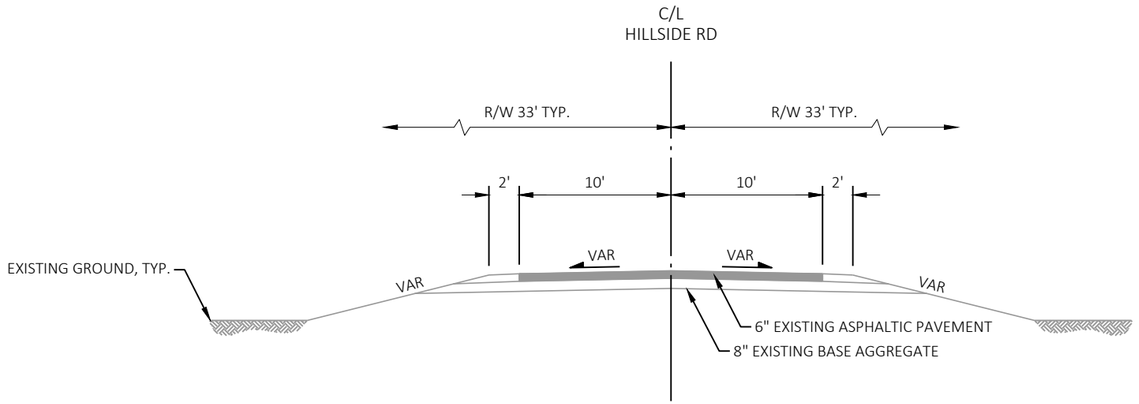
ORDER OF SECTION 2 DETAIL SHEETS

2



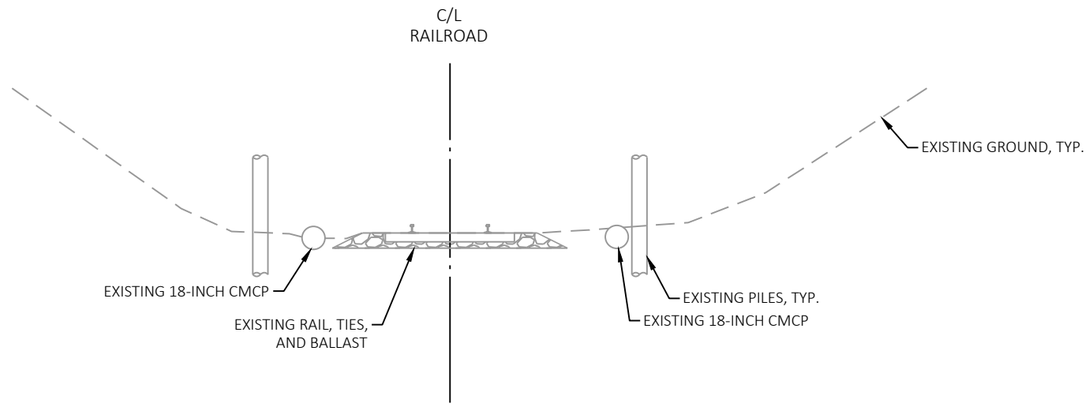
EXISTING TYPICAL SECTION - HILLSIDE RD

STA 12+85 - 13+90
STA 17+00 - 18+75



EXISTING TYPICAL SECTION - HILLSIDE RD

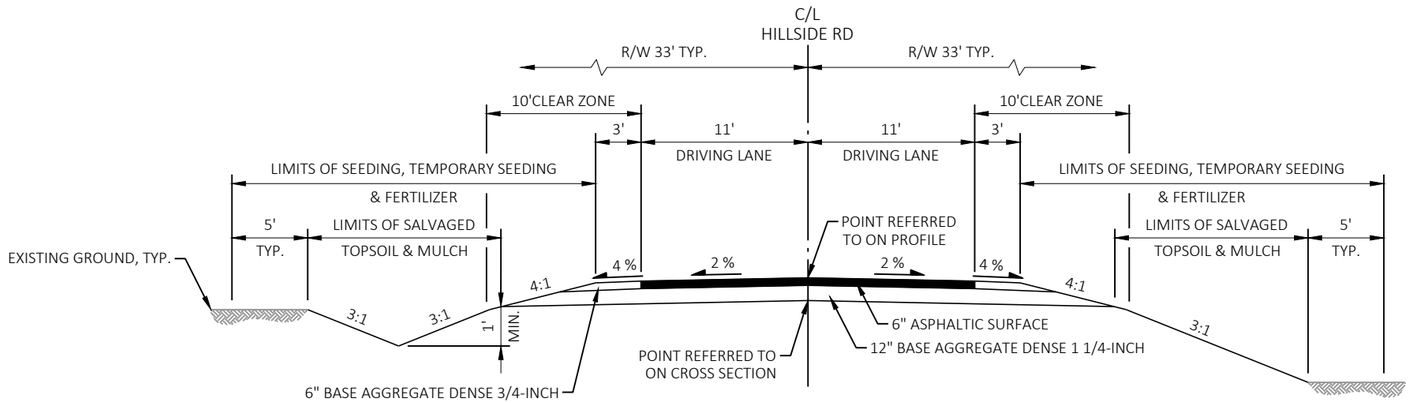
STA 13+90 - 17+00



EXISTING TYPICAL SECTION - RAILROAD

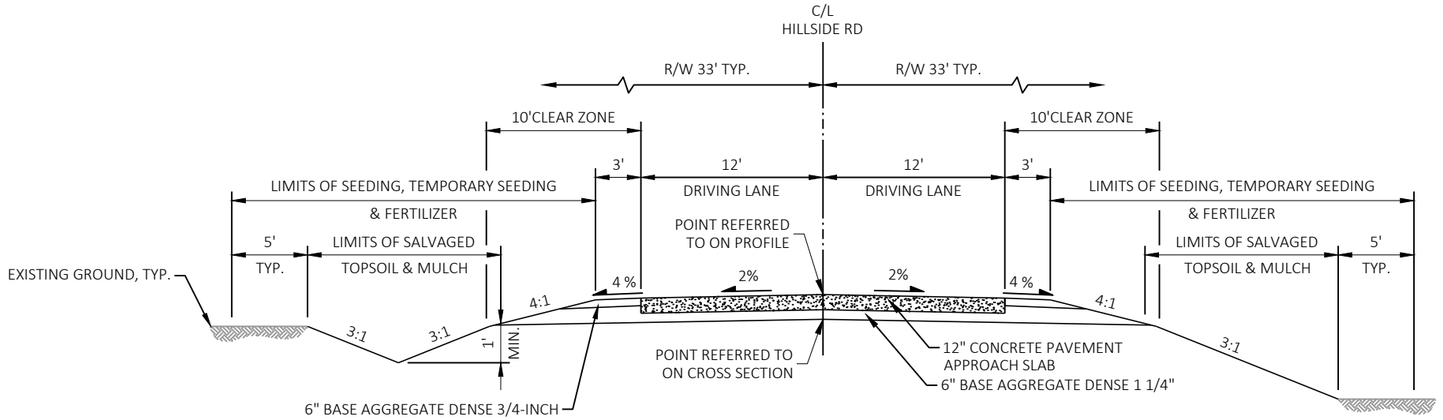
PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	EXISTING TYPICAL SECTIONS	SHEET 3	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\020301_TS.DWG
LAYOUT NAME - 020301_ts
PLOT DATE : 12/16/2025 12:56 PM PLOT BY : KYLE MAYBERRY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



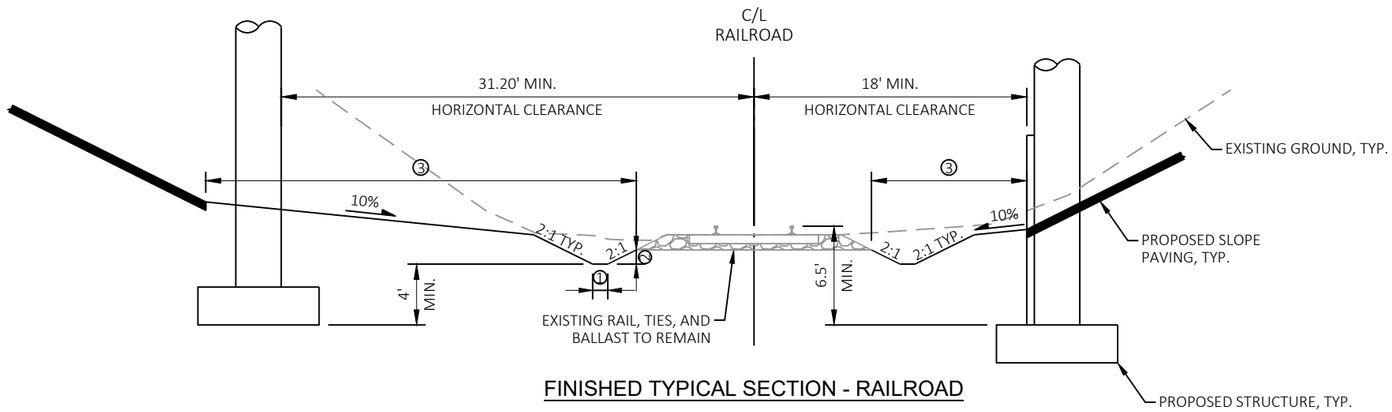
FINISHED TYPICAL SECTION - HILLSIDE ROAD

STA 12+85.00 - STA 14+29.74
STA 16+54.29 - STA 18+75.00



CONCRETE APPROACH SLAB TYPICAL SECTION

STA 14+29.74 - STA 14+54.41
STA 16+29.62 - STA 16+54.29



FINISHED TYPICAL SECTION - RAILROAD

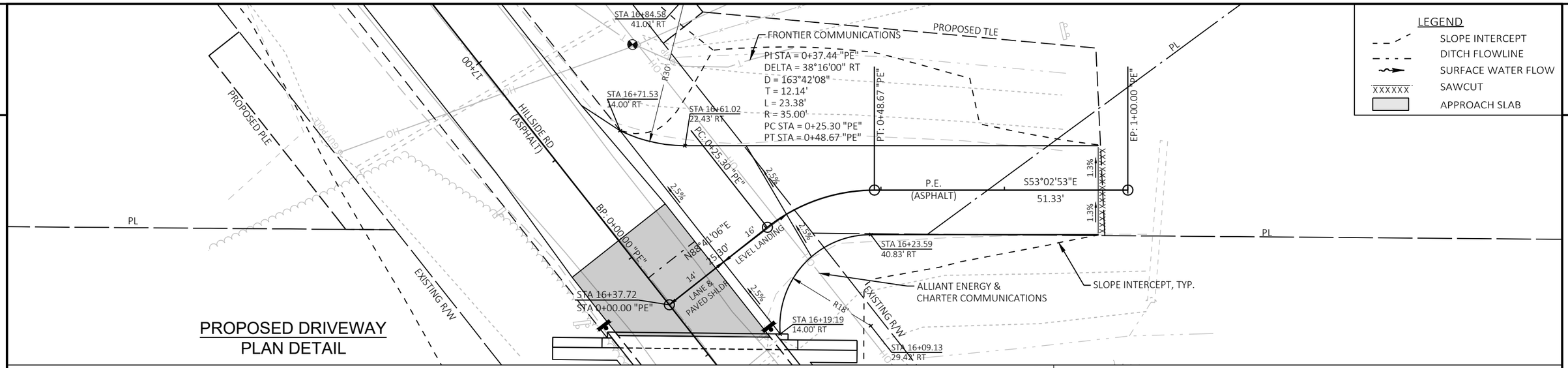
NOTES

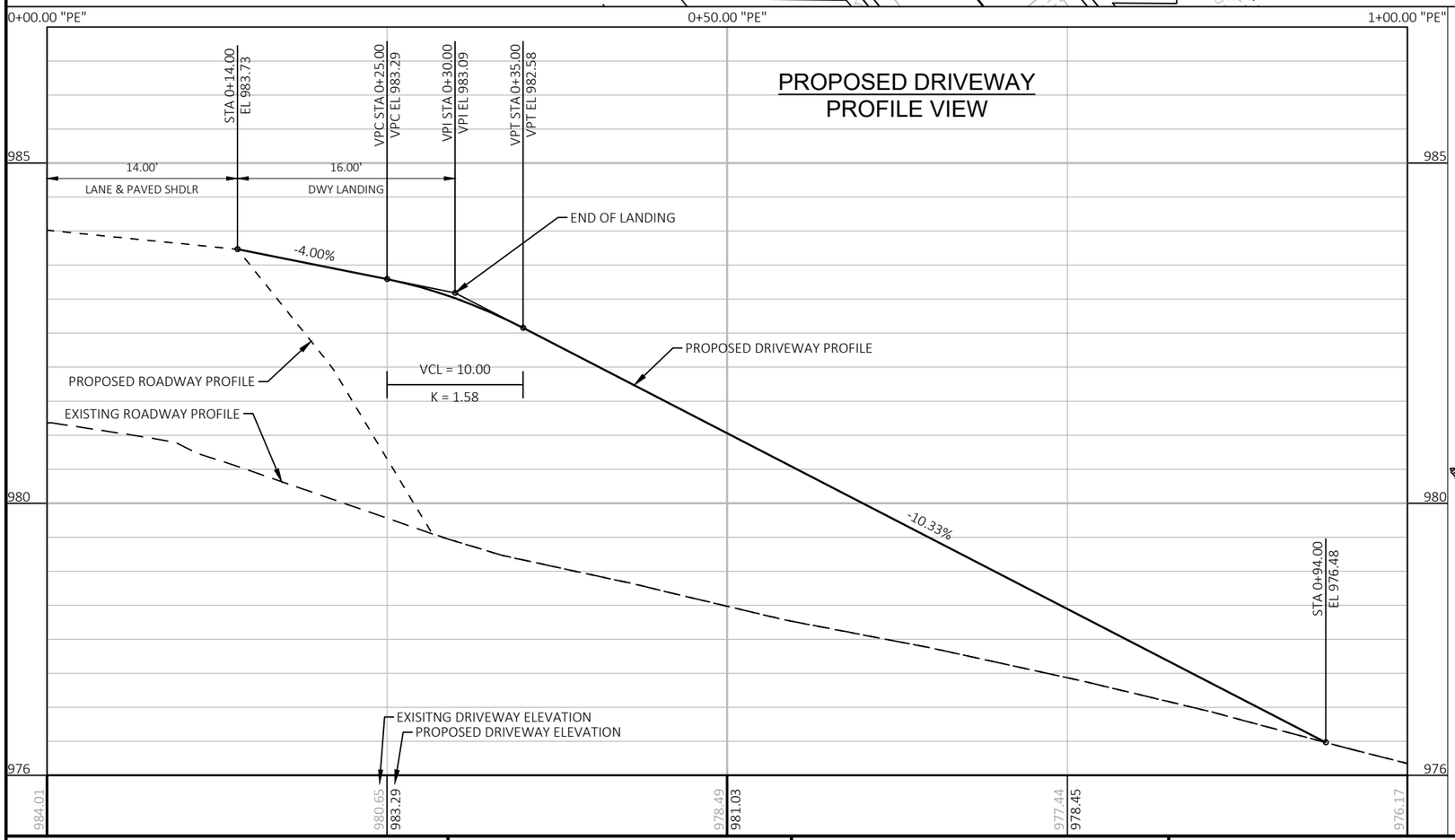
① VARIES. 1' TYP.

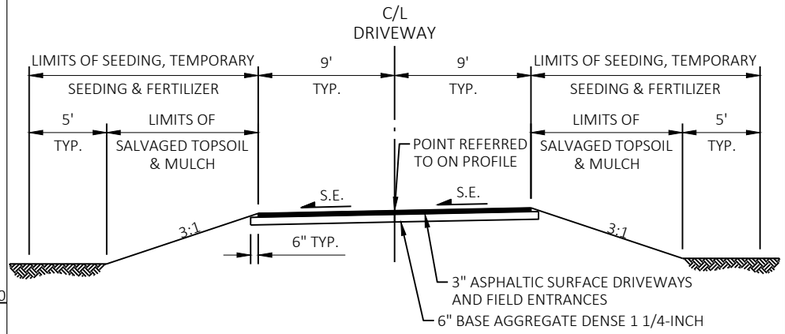
② VARIES. GRADE FOR POSITIVE DITCH DRAINAGE

③ LIMITS OF SEEDING, TEMPORARY SEEDING, FERTILIZER, SALVAGED TOPSOIL, MULCH & E-MAT

PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	PROPOSED TYPICAL SECTIONS	SHEET 4	E







SUPERELEVATION TABLE			
STATION	REMARK	LEFT LANE	RIGHT LANE
0+14 "PE"	MATCH PAVED SHOULDER	-2.50 %	2.50%
0+30 "PE"	END LEVEL LANDING	-2.50%	2.50%
0+94 "PE"	MATCH EXISTING P.E.	-1.30%	1.30%

PROPOSED DRIVEWAY
TYPICAL SECTION

PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	DRIVEWAY DETAILS	SHEET 5	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\021001_CD.DWG
LAYOUT NAME - 021001_cd
PLOT DATE : 10/10/2025 8:36 AM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

LEGEND: PERMANENT SIGNING

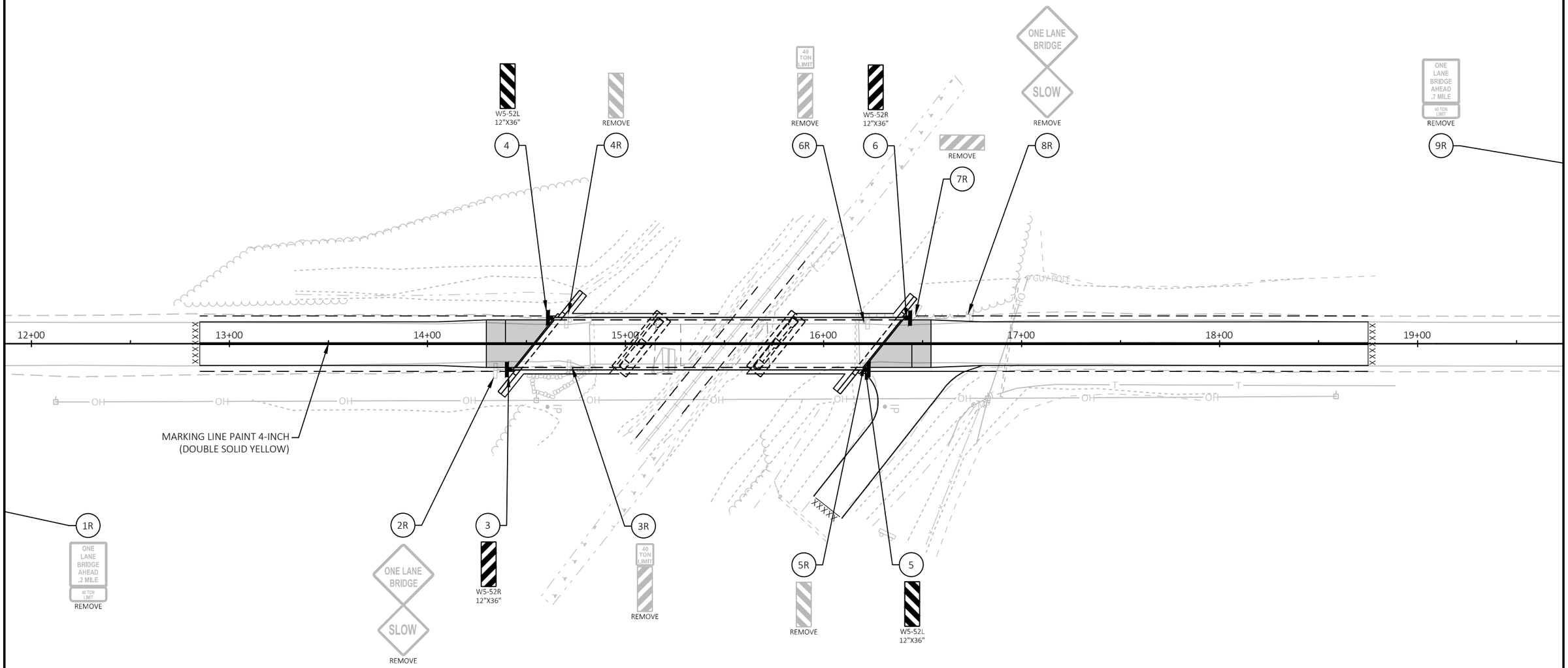
EXISTING SIGN

PROPOSED SIGN

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

N

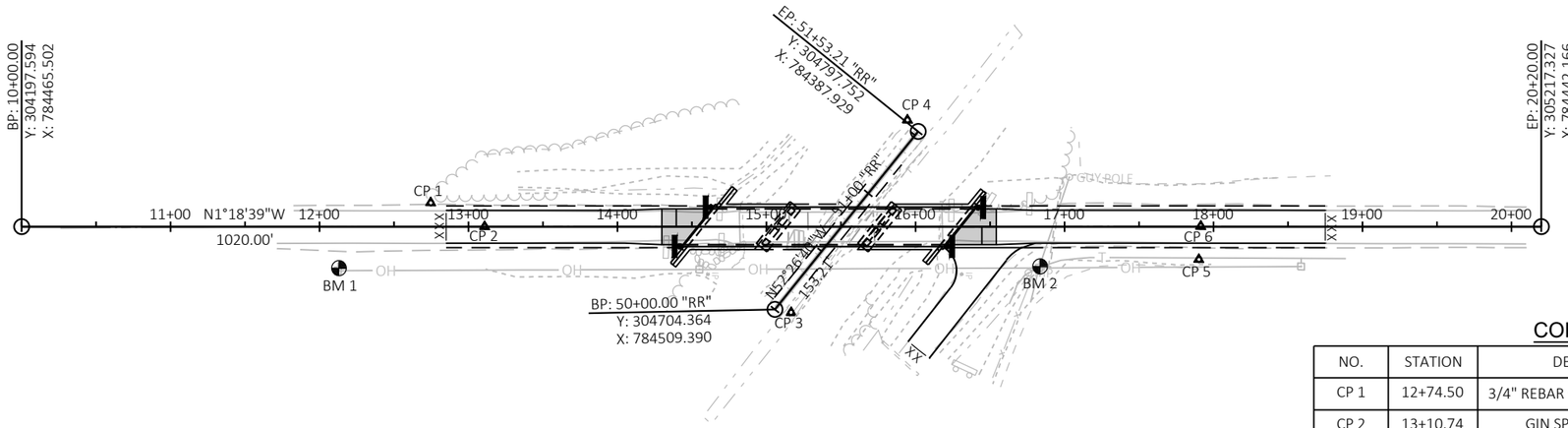
2



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

PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	PAVEMENT MARKING AND PERMANENT SIGNING	SHEET 6	E

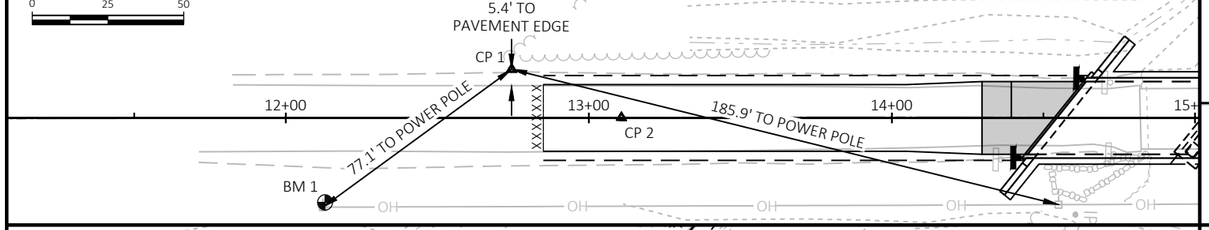
FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\023201_PS.DWG
LAYOUT NAME - 023201_ps
PLOT DATE : 10/10/2025 8:40 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:50 FT



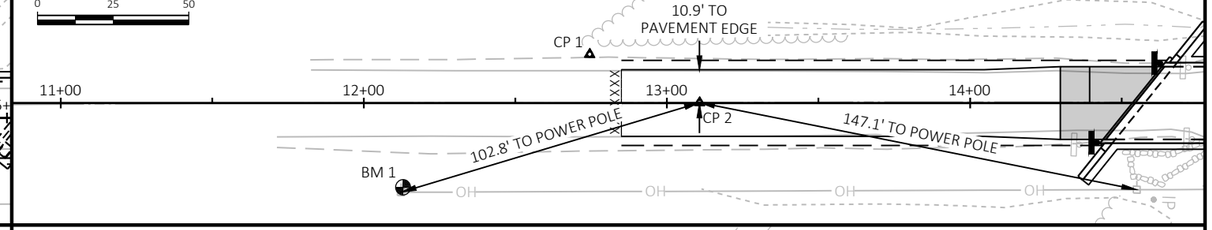
CONTROL POINTS

NO.	STATION	DESCRIPTION	Y	X
CP 1	12+74.50	3/4" REBAR W/ CAP SET, 16.0' LT	304 471.660	784 443.197
CP 2	13+10.74	GIN SPIKE SET, 0.1' LT	304 508.251	784 458.299
CP 3	15+16.50	60D NAIL SET, 57.5' RT	304 715.274	784 511.205
CP 4	15+94.53	60D NAIL SET, 71.5' LT	304 790.330	784 380.410
CP 5	17+90.17	3/4" REBAR W/ CAP SET, 21.9' RT	304 988.063	784 469.338
CP 6	17+91.48	GIN SPIKE SET, 0.3' LT	304 988.855	784 447.063

TIES TO CP 1



TIES TO CP 2



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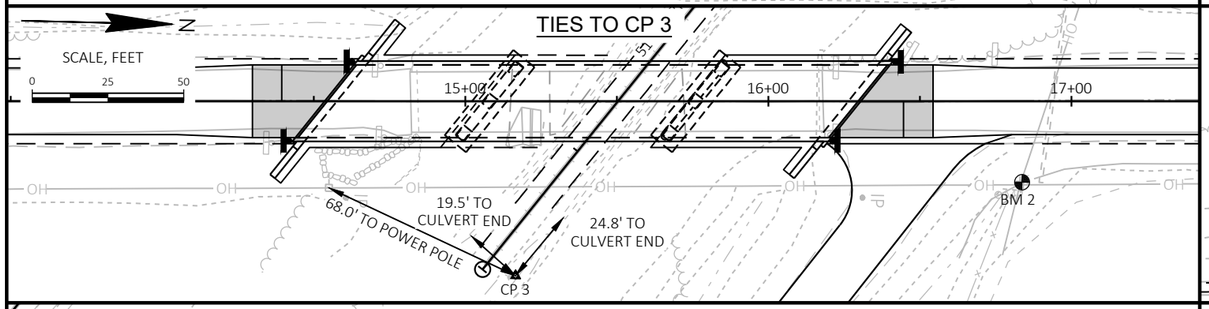
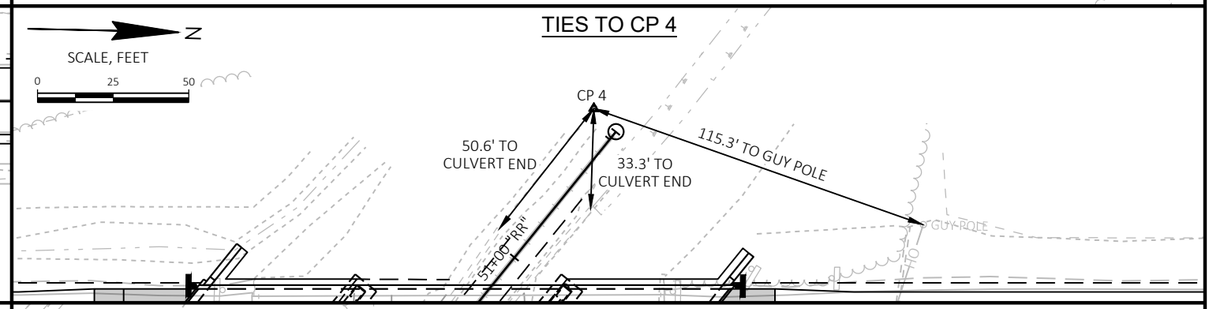
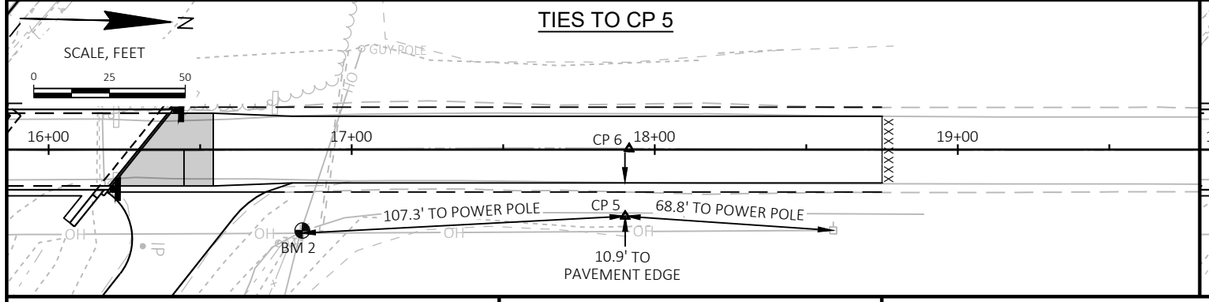


TIES TO CP 4



TIES TO CP 5



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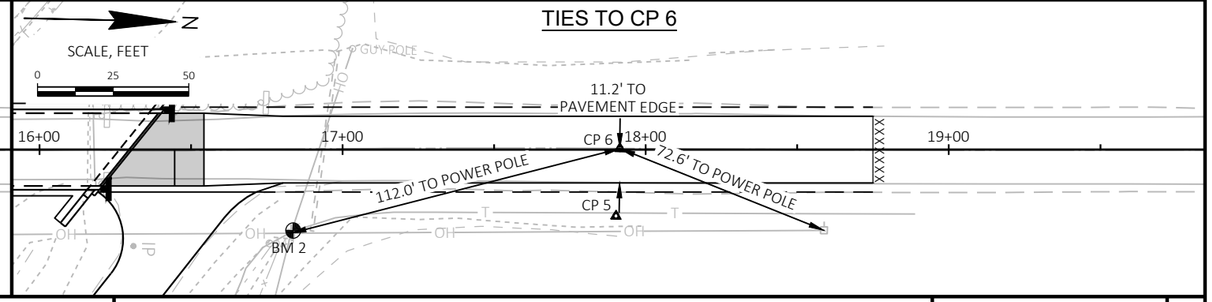


PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	ALIGNMENT DETAILS AND CONTROL POINTS	SHEET 7	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\027201_AD.DWG
LAYOUT NAME - 027201_ad
PLOT DATE : 10/10/2025 8:40 AM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : VARIES
WISDOT/CADDS SHEET 44

Estimate Of Quantities

3846-00-74

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	5.000	5.000
0004	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0006	203.0220	Removing Structure (structure) 01. P-64-101	EACH	1.000	1.000
0008	203.0330	Debris Containment (structure) 01. P-64-101	EACH	1.000	1.000
0010	205.0100	Excavation Common	CY	455.000	455.000
0012	206.1001	Excavation for Structures Bridges (structure) 01. B-64-215	EACH	1.000	1.000
0014	208.0100	Borrow	CY	609.000	609.000
0016	210.1500	Backfill Structure Type A	TON	370.000	370.000
0018	213.0100	Finishing Roadway (project) 01. 3846-00-74	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	100.000	100.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	460.000	460.000
0024	415.0410	Concrete Pavement Approach Slab	SY	132.000	132.000
0026	455.0605	Tack Coat	GAL	46.000	46.000
0028	465.0105	Asphaltic Surface	TON	307.000	307.000
0030	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	34.000	34.000
0032	502.0100	Concrete Masonry Bridges	CY	417.000	417.000
0034	502.3200	Protective Surface Treatment	SY	648.000	648.000
0036	503.0128	Prestressed Girder Type I 28-Inch	LF	863.000	863.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	36,800.000	36,800.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	38,870.000	38,870.000
0042	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	30.000	30.000
0044	506.4000	Steel Diaphragms (structure) 01. B-64-215	EACH	12.000	12.000
0046	511.1200	Temporary Shoring (structure) 01. B-64-215	SF	1,590.000	1,590.000
0048	513.4061	Railing Tubular Type M	LF	358.000	358.000
0050	516.0500	Rubberized Membrane Waterproofing	SY	14.000	14.000
0052	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0054	520.3524	Culvert Pipe Class III-B 24-Inch	LF	62.000	62.000
0056	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,730.000	1,730.000
0058	604.0500	Slope Paving Crushed Aggregate	SY	379.000	379.000
0060	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	170.000	170.000
0062	618.0100	Maintenance and Repair of Haul Roads (project) 01. 3846-00-74	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	624.0100	Water	MGAL	5.000	5.000
0068	625.0500	Salvaged Topsoil	SY	2,700.000	2,700.000
0070	627.0200	Mulching	SY	1,650.000	1,650.000
0072	628.1504	Silt Fence	LF	800.000	800.000
0074	628.1520	Silt Fence Maintenance	LF	1,290.000	1,290.000
0076	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0078	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0080	628.2008	Erosion Mat Urban Class I Type B	SY	1,050.000	1,050.000
0082	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0084	628.7555	Culvert Pipe Checks	EACH	13.000	13.000
0086	629.0210	Fertilizer Type B	CWT	2.500	2.500
0088	630.0130	Seeding Mixture No. 30	LB	200.000	200.000
0090	630.0200	Seeding Temporary	LB	130.000	130.000
0092	630.0500	Seed Water	MGAL	92.000	92.000
0094	633.5200	Markers Culvert End	EACH	2.000	2.000
0096	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0098	637.2230	Signs Type II Reflective F	SF	12.000	12.000

3846-00-74

Line	Item	Item Description	Unit	Total	Qty
0100	638.2602	Removing Signs Type II	EACH	9.000	9.000
0102	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0104	642.5001	Field Office Type B	EACH	1.000	1.000
0106	643.0300	Traffic Control Drums	DAY	70.000	70.000
0108	643.0420	Traffic Control Barricades Type III	DAY	3,151.000	3,151.000
0110	643.0705	Traffic Control Warning Lights Type A	DAY	6,302.000	6,302.000
0112	643.0900	Traffic Control Signs	DAY	2,466.000	2,466.000
0114	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0116	643.5000	Traffic Control	EACH	1.000	1.000
0118	645.0111	Geotextile Type DF Schedule A	SY	70.000	70.000
0120	646.1005	Marking Line Paint 4-Inch	LF	1,180.000	1,180.000
0122	650.4500	Construction Staking Subgrade	LF	414.000	414.000
0124	650.5000	Construction Staking Base	LF	494.000	494.000
0126	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0128	650.6501	Construction Staking Structure Layout (structure) 01. B-64-215	EACH	1.000	1.000
0130	650.9911	Construction Staking Supplemental Control (project) 01. 3846-00-74	EACH	1.000	1.000
0132	650.9920	Construction Staking Slope Stakes	LF	537.000	537.000
0134	690.0150	Sawing Asphalt	LF	62.000	62.000
0136	715.0502	Incentive Strength Concrete Structures	DOL	2,502.000	2,502.000
0138	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	40.000	40.000
0140	801.0117	Railroad Flagging Reimbursement	DOL	31,200.000	31,200.000
0142	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 13+50	EACH	1.000	1.000
0144	SPV.0165	Special 01. Temporary Shoring Railroad	SF	560.000	560.000

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

GRUBBING

STATION	TO	STATION	LOCATION	201.0205 STA
12+00	-	17+00	LT/RT	5
			TOTAL	5

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH	REMARKS
15+39	RAILROAD DITCH, LT/RT	1	SALVAGE FOR WSOR
15+61	RAILROAD DITCH, LT/RT	1	SALVAGE FOR WSOR
16+94	HILLSIDE RD, LT/RT	1	
	TOTAL	3	

EXCAVATION SUMMARY

DIVISION	FROM/TO STATION	205.0100 EXCAVATION COMMON (CY) (1) CUT (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)	208.0100 BORROW (CY)
SOUTH APPROACH	12+85 / 14+54.41	207	63	144	214	268	-124	0	124
NORTH APPROACH	16+29.62 / 18+75	203	91	112	316	397	-283	0	283
RAILROAD DITCH	50+06 / 51+29	43	0	43	0	0	43	43	0
DRIVEWAY	0+14 / 0+90	2	0	2	163	205	-202	0	202
GRAND TOTAL		455	154	301	693	870	-566	43	609

NOTES:
(1) EXCAVATION COMMON IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNSUABLE PAVEMENT MATERIAL INCLUDES EXISTING ASPHALT.
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.25
EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR
(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.

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	624.0100 WATER MGAL
12+85	-	14+54	SOUTH APPROACH	45	160	2.1
16+30	-	18+75	NORTH APPROACH	55	230	2.9
			TOTAL	100	390	5.0

* ADDITIONAL QUANTITIES FOUND ELSEWHERE IN PLANS

3

CONCRETE PAVEMENT APPROACH SLAB

STATION	TO	STATION	LOCATION	415.0410 SY
14+29.74	-	14+53.55	SOUTH APPROACH	66
16+30.47	-	16+54.29	NORTH APPROACH	66
			TOTAL	132

ASPHALTIC PAVEMENT

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
12+85	-	14+54	SOUTH APPROACH	18	120
16+30	-	18+75	NORTH APPROACH	28	187
			TOTAL	46	307

DRIVEWAY

STATION	LOCATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
16+38	RT	70	34
	TOTAL	70	34

* ADDITIONAL QUANTITIES FOUND ELSEWHERE IN PLANS

CULVERT PIPES SUMMARY

STATION	LOCATION	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.3524 CULVERT PIPE CLASS III-B 24-INCH LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	* JOINT TIES EACH	STEEL THICKNESS INCHES	** INLET ELEVATION	** OUTLET ELEVATION
16+93.57	HILLSIDE RD, LT/RT	2	62	1	6	0.064	976.17	975.12
	TOTAL	2	62	1				

* NON-BID ITEM. FOR INFORMATION ONLY
** PIPE INVERT AT END OF PIPE. FOR INFORMATION ONLY. FIELD VERIFY.

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 LF
13+00	LT	14
14+75	LT	7
15+04	LT	7
16+24	RT	16
15+01 "RR"	LT	8
15+29 "RR"	RT	8
15+64 "RR"	LT	6
15+93 "RR"	RT	6
	UNDISTRUBUTED	28
	TOTAL	100

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 EACH
16+94	RT	6
1+00 "PE"	LT	4
	UNDISTRUBUTED	3
	TOTAL	13

MOBILIZATIONS EROSION CONTROL

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

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
12+82	-	14+52	SOUTH APPROACH, RT	180	360
16+45	-	18+80	NORTH APPROACH, LT	245	490
16+68	-	18+80	NORTH APPROACH, RT	220	440
			UNDISTRIBUTED	155	---
			TOTAL	800	1,290

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

FINISHING ITEMS

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING 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
12+85	-	14+54	SOUTH APPROACH, LT	370	370	---	0.4	30	20	14
12+85	-	14+54	SOUTH APPROACH, RT	330	330	---	0.3	25	15	12
14+54	-	15+44	SOUTH RAILROAD GRADING	540	---	540	0.4	30	20	14
15+57	-	16+30	NORTH RAILROAD GRADING	300	---	300	0.2	15	10	7
16+30	-	18+75	NORTH APPROACH, LT	250	250	---	0.3	25	15	12
16+30	-	18+75	NORTH APPROACH, RT	170	170	---	0.2	20	15	9
0+14 "PE"	-	0+94 "PE"	DRIVEWAY, LT/RT	190	190	---	0.2	15	10	6
			UNDISTRIBUTED	550	340	210	0.5	40	25	18
			TOTAL	2,700	1,650	1,050	2.5	200	130	92

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
16+94	LT/RT	2
	TOTAL	2

3

SIGNING SUMMARY

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	SIGN DESCRIPTION
---	SOUTH APPROACH, RT	1R	---	---	---	1	1	ONE LANE BRIDGE AHEAD .2 MILE, 40 TON LIMIT
14+35	SOUTH APPROACH, RT	2R	W5-3, W54-56	---	---	1	1	ONE LANE BRIDGE, SLOW
14+41	SOUTH APPROACH, RT	3	W5-52R	1	3	---	---	BRIDGE HASH MARKS
14+73	SOUTH APPROACH, RT	3R	W5-52R	---	---	1	1	40 TON LIMIT, BRIDGE HASH MARKS
14+62	SOUTH APPROACH, LT	4	W5-52L	1	3	---	---	BRIDGE HASH MARKS
14+71	SOUTH APPROACH, LT	4R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
16+21	NORTH APPROACH, RT	5R	W5-52L	---	---	1	1	BRIDGE HASH MARKS
16+22	NORTH APPROACH, RT	5	W5-52L	1	3	---	---	BRIDGE HASH MARKS
16+21	NORTH APPROACH, LT	6R	W5-52R	---	---	1	1	40 TON LIMIT, BRIDGE HASH MARKS
16+43	NORTH APPROACH, LT	6	W5-52R	1	3	---	---	BRIDGE HASH MARKS
16+46	NORTH APPROACH, LT	7R	W5-52	---	---	1	2	ROTATED BRIDGE HASH MARKS
16+74	NORTH APPROACH, LT	8R	W5-3, W54-56	---	---	1	1	ONE LANE BRIDGE, SLOW
---	NORTH APPROACH, LT	9R	---	---	---	1	1	ONE LANE BRIDGE AHEAD .7 MILE, 40 TON LIMIT
			TOTAL	4	12	9	10	

TRAFFIC CONTROL

LOCATION	DURATION DAY	643.0300 TRAFFIC CONTROL DRUMS NO	DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO	DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO	DAY	643.0900 TRAFFIC CONTROL SIGNS NO	DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS NO	DAY	643.5000 TRAFFIC CONTROL EACH
SOUTH APPROACH	137	---	---	9	1,233	18	2,466	7	959	---	---	---
NORTH APPROACH	137	---	---	9	1,233	18	2,466	7	959	---	---	---
UNDISTRIBUTED	137	---	---	5	685	10	1,370	4	548	---	---	---
PROJECT	7	10	70	---	---	---	---	---	---	2	14	1
	TOTAL	10	70	23	3,151	46	6,302	18	2,466	2	14	1

MARKING LINE PAINT 4-INCH

STATION	TO	STATION	LOCATION	646.1005 LF	REMARKS
12+85	-	18+75	CENTERLINE	1,180	DOUBLE YELLOW
			TOTAL	1,180	

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 01. B-64-0215 EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01. 3864-00-74 EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
12+85	-	14+54	SOUTH APPROACH	169	169	---	---	169
16+30	-	18+75	NORTH APPROACH	245	245	---	---	245
50+06 "RR"	-	51+29 "RR"	RAILROAD	---	---	---	---	123
0+14 "PE"	-	0+94 "PE"	DRIVEWAY	---	80	---	---	---
			PROJECT	---	---	1	1	---
			TOTAL	414	494	1	1	537

* CATEGORY 0020

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
12+85	SOUTH APPROACH	22
18+75	NORTH APPROACH	22
0+94 "PE"	DRIVEWAY	18
	TOTAL	62

PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	MISCELLANEOUS QUANTITIES	SHEET 11	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\030201_MQ.DWG
LAYOUT NAME - 030202_mq
PLOT DATE : 10/16/2025 3:38 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 42

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	☒

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

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

NOTES:

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

ALL NEW RIGHT-OF-WAY AND PERMANENT EASEMENT MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

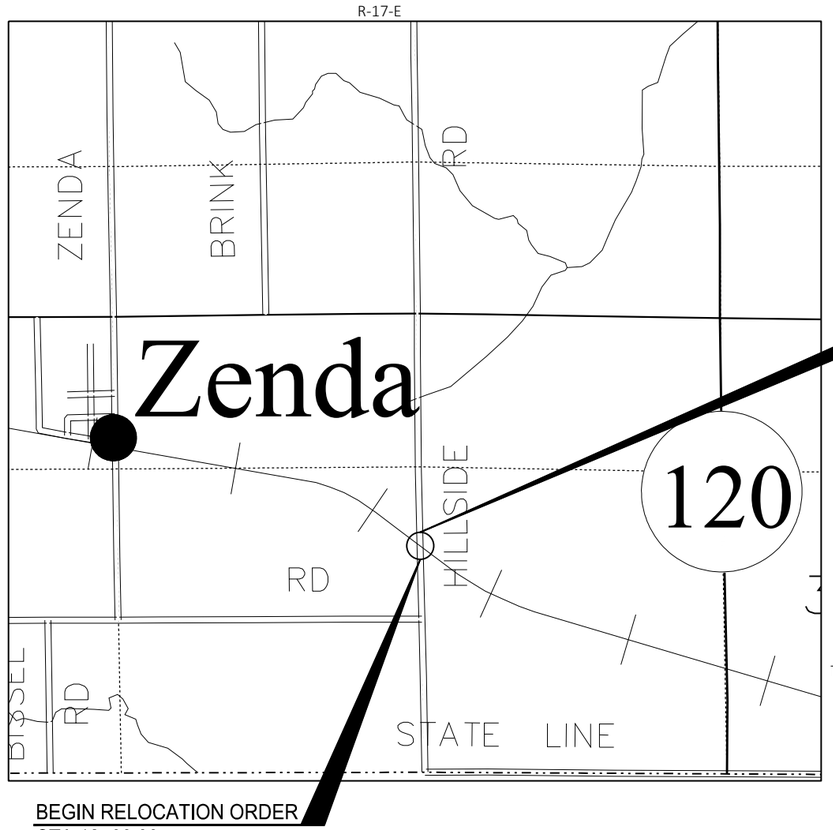
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE TOWN OF LINN.

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

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



LAYOUT
SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.086 MI

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
3846-00-04		
FEDERAL PROJECT NUMBER	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

T LINN - HILLSIDE ROAD
BRIDGE OVER CMSTPP RAILROAD P-64-0101

LOCAL STREET	WALWORTH COUNTY

CONSTRUCTION PROJECT NUMBER
3846-00-74

NOTES CONT'D:

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

ACCEPTED FOR TOWN OF LINN

DATE: 4/3/2025 Signed by: James Weiss

(SIGNATURE AND TITLE OF OFFICIAL)

REVISION DATE

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 East Hoxie St. | P.O. Box 429 | Spring Green, WI 53588
P: (608) 588-7866 | F: (608) 588-7954 | www.westbrookeng.com

WISCONSIN
NICHOLAS J. BREY
S-3145
LA VALLE
WI
LAND SURVEYOR

DATE: 03/28/2025 Nicholas J. Brey
(Professional Land Surveyor Signature)

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\RW\DWG\040101_RP.DWG
PLOT DATE : 3/28/2025 8:55 AM
PLOT BY : ERICA BAUER
PLOT NAME :

POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
100	13+55.00	1.26 LT	304 552.473	784 456.119
101	13+55.00	34.26 LT	304 551.718	784 423.127
102	13+55.00	55.00 LT	304 551.243	784 402.395
103	14+87.91	55.00 LT	304 684.119	784 399.354
104	14+71.26	34.24 LT	304 667.950	784 420.487
106	16+84.03	1.21 LT	304 881.413	784 448.648
107	16+84.03	34.21 LT	304 880.658	784 415.657
108	16+90.28	42.00 LT	304 886.730	784 407.721
109	17+35.00	42.00 LT	304 931.441	784 406.698
110	17+35.00	34.20 LT	304 931.620	784 414.499

POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
112	12+80.00	1.28 LT	304 477.492	784 457.821
113	12+80.00	31.72 RT	304 478.247	784 490.813
114	12+80.00	48.00 RT	304 478.619	784 507.084
115	14+47.61	48.00 RT	304 646.181	784 503.249
116	14+60.63	31.76 RT	304 658.834	784 486.711
118	16+80.00	1.21 LT	304 877.389	784 448.739
119	16+80.00	31.79 RT	304 878.144	784 481.731
120	16+80.00	42.00 RT	304 878.377	784 491.934
121	17+35.00	42.00 RT	304 933.363	784 490.676
122	17+35.00	31.80 RT	304 933.130	784 480.482

FOUND EXISTING MONUMENT TABLE			
POINT NUMBER	Y	X	DESCRIPTION
116	304 658.834	784 486.711	5/8" REBAR
1	304 829.177	784 482.867	PK NAIL

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

TLE TABLE		
POINT NUMBER	STATION	OFFSET
T1	15+94.10	77.93 RT
T2	16+25.00	100.00 RT

GN

EXISTING RIGHT-OF-WAY FOR HILLSIDE ROAD IS BASED ON THE SECTION LINE BETWEEN SECTIONS 34 & 35, T1N, R17E, TOWN OF LINN, WALWORTH COUNTY, WISCONSIN & PLAT OF SURVEY BY PETER J. NIELSON DATED SEPTEMBER 7, 2021.

NOTE:
STATION AND OFFSET INFORMATION IS FROM THE ROAD REFERENCE LINE.

4

4

FOUND CONCRETE MONUMENT WITH WALWORTH COUNTY BRASS CAP
Y = 303 484.457
X = 784 480.374

① THOMAS W. YORK AND CARTY R. YORK DOC NO. 905550

EXISTING R/W

SLOPE INTERCEPT, TYP.
DITCH FLOW LINE, TYP.
PROPOSED HE

SE 1/4 - NE 1/4 SEC 34

N1°18'04"W 1068.29'
MON - POINT

N1°18'04"W 1397.32'
MON - POINT

N1°18'04"W 2663.25'
MON - MON

N1°18'04"W 993.29'
MON - POINT

N1°18'04"W 1393.29'
MON - POINT

N1°18'39"W

12+00 13+00 14+00 15+00 16+00 17+00 18+00

33' 33'

STATE OF WISCONSIN, DEPARTMENT OF TRANSPORTATION DOC NO. 137289

② HILLSIDE FARMETTE, LLC. DOC NO. 493876

NE 1/4 - NE 1/4 SEC 34

PROPOSED PLE
PLE FOR DRAINAGE PURPOSES
℄ GUY POLE

END RELOCATION ORDER
STA 17+35.00
1,447.945' NORTH AND 31.687' WEST OF THE W 1/4 CORNER OF SECTION 35, T1N, R17E, TOWN OF LINN, WALWORTH COUNTY, WI
Y = 304 932.402
X = 784 448.687

FOUND CONCRETE MONUMENT WITH WALWORTH COUNTY BRASS CAP
Y = 306 147.022
X = 784 419.905

BEGIN RELOCATION ORDER
STA 12+80.00
992.794' NORTH AND 21.278' WEST OF THE W 1/4 CORNER OF SECTION 35, T1N, R17E, TOWN OF LINN, WALWORTH COUNTY, WI
Y = 304 477.251
X = 784 459.096

PROPOSED HE

EXISTING R/W

PROPOSED PLE

FRONTIER COMMUNICATIONS
ALLIANT ENERGY
PLE FOR DRAINAGE PURPOSES

PROPOSED TLE

NO RECORD OF EASEMENT FOR DRIVEWAY

SW 1/4 - NW 1/4 SEC 35

NW 1/4 - NW 1/4 SEC 35

③ STEVEN L. LOUDENBECK DOC NO. 1004499

④ STEVEN L. LOUDENBECK DOC NO. 1004499

⑤ SPECKMAN SEED FARMS, INC., A WISCONSIN CORPORATION DOC NO. 621514

STATE OF WISCONSIN, DEPARTMENT OF TRANSPORTATION DOC NO. 137289

133'

PL

TOWN OF LINN

SCHEDULE OF LANDS AND INTERESTS REQUIRED						
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W REQUIRED ACRES			TLE ACRES REQUIRED
			NEW	EXISTING	TOTAL	
1	THOMAS W. YORK & CARTY R. YORK	HE	0.059	---	0.059	---
2	HILLSIDE FARMETTE, LLC.	PLE	0.009	---	0.048	---
3	STEVEN L. LOUDENBECK	HE	0.065	---	0.065	---
4	STEVEN L. LOUDENBECK	TLE	---	---	---	0.011
5	SPECKMAN SEED FARMS, INC., A WISCONSIN CORPORATION	PLE & TLE	0.013	---	0.013	0.060

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

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
118-119	N88°41'21"E	33.00'
119-120	N88°41'21"E	10.21'
120-T2	S47°49'54"E	79.93'
T2-T1	S34°13'36"W	37.98'
T1-1	N52°34'51"W	59.15'
1-119	N1°18'04"W	48.90'

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	S88°41'21"W	33.00'
101-102	S88°41'21"W	20.74'
102-103	N1°18'39"W	132.91'
103-104	S52°34'51"E	26.61'
104-101	S1°18'04"E	116.26'
106-107	S88°41'21"W	33.00'
107-108	N52°34'51"W	9.99'
108-109	N1°18'39"W	44.72'
109-110	N88°41'21"E	7.80'
110-107	S1°18'04"E	50.97'
112-113	N88°41'21"E	33.00'
113-114	N88°41'21"E	16.28'
114-115	N1°18'39"W	167.61'
115-116	N52°34'51"W	20.82'
116-113	S1°18'04"E	180.63'
118-119	N88°41'21"E	33.00'
119-120	N88°41'21"E	10.21'
120-121	N1°18'39"W	55.00'
121-122	S88°41'21"W	10.20'
122-119	S1°18'04"E	55.00'

REVISION DATE	DATE 03/28/2025	SCALE, FEET 0 25 50	HWY: HILLSIDE RD	STATE R/W PROJECT NUMBER 3846-00-04	PLAT SHEET 4.02	
	GRID FACTOR N/A		COUNTY: WALWORTH	CONSTRUCTION PROJECT NUMBER 3846-00-74	PS&E SHEET 13	E

FILE NAME : 040102_RP.DWG
LAYOUT NAME - 040102_rp

PLOT DATE : 3/31/2025 7:49 AM PLOT BY : ERICA BAUER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 75

LEGEND

- - -	SLOPE INTERCEPT
- - · -	DITCH FLOWLINE
~→	SURFACE WATER FLOW
XXXXXX	SAWING ASPHALT
—	STREAM EDGE
•—•—•	SILT FENCE
▨	CONCRETE PAVEMENT APPROACH SLAB
⊥ ⊥	WETLANDS
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECK

BENCH MARKS

NO.	STATION	ELEV.	DESCRIPTION
BM 1	10+12.91	979.673	RAILROAD SPIKE IN POWER POLE, 27.86' RT
BM 2	14+83.65	977.654	RAILROAD SPIKE IN POWER POLE, 26.71' RT

STA. 13+50
REMOVE EXISTING STRUCTURE P-64-0101
136.0-FT OVERALL LENGTH AND
20.0-FT CLEAR ROADWAY WIDTH
NINE-SPAN TIMBER DECK GIRDER STRUCTURE

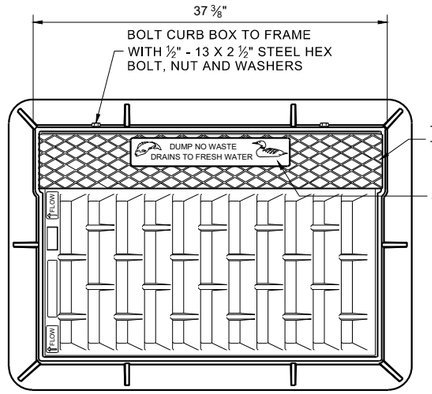
STA. 13+50
STRUCTURE B-64-0215 REQUIRED
163.9-FT OVERALL LENGTH AND
24.0-FT CLEAR ROADWAY WIDTH
THREE-SPAN PRESTRESSED GIRDER STRUCTURE

PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	PLAN & PROFILE	SHEET 14	E

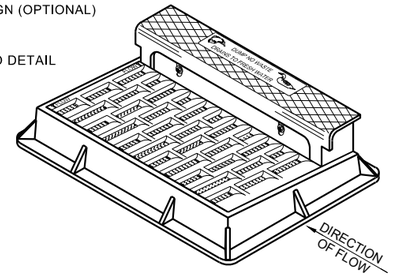
Standard Detail Drawing List

08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-22E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08D18-05	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A03-07	CONCRETE PAVEMENT SHOULDERS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D32-07	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

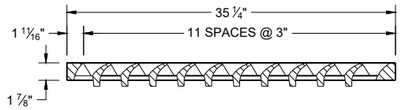
6

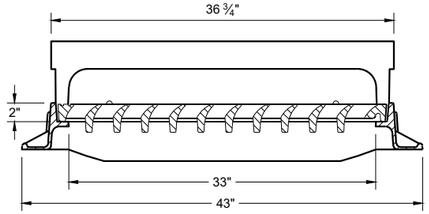


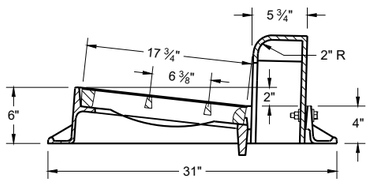
NOTE: EITHER CASTING IS ACCEPTABLE

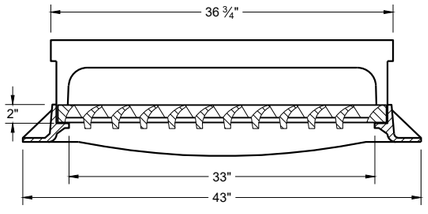


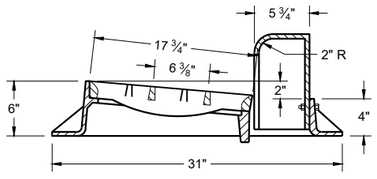
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







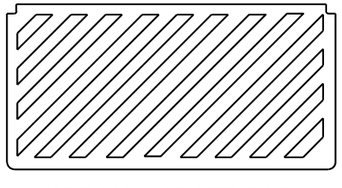




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

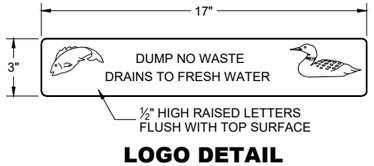
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



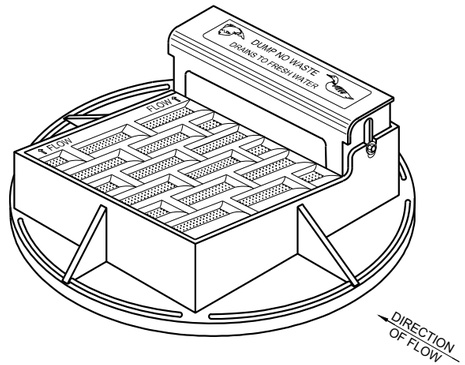
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

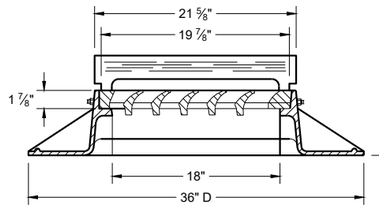


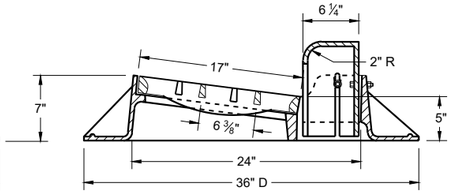
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





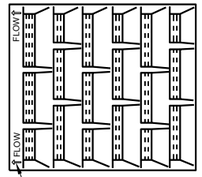
TYPE "A"

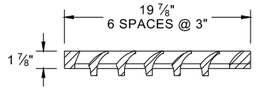
GENERAL NOTES

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.

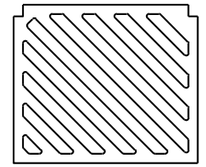
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.





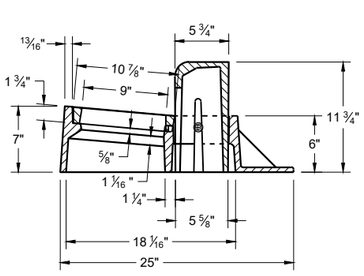
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



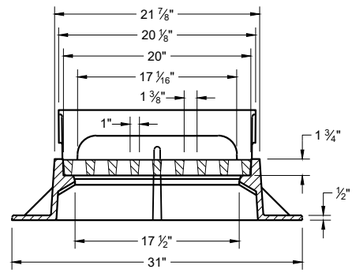
SPECIAL GRATE FOR TYPE "A" COVER

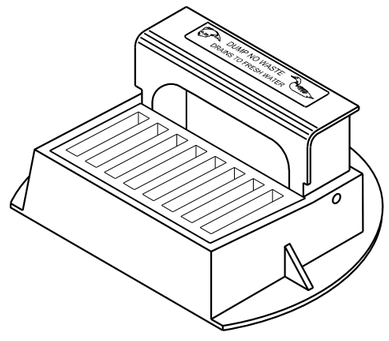
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

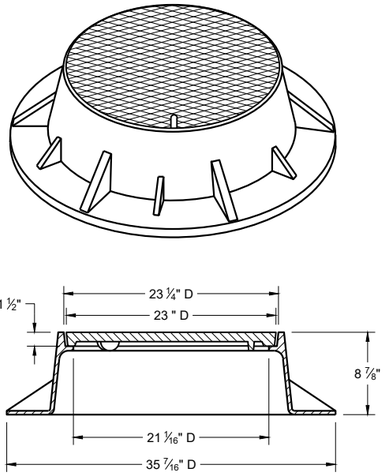
6
SDD 08A05-22a

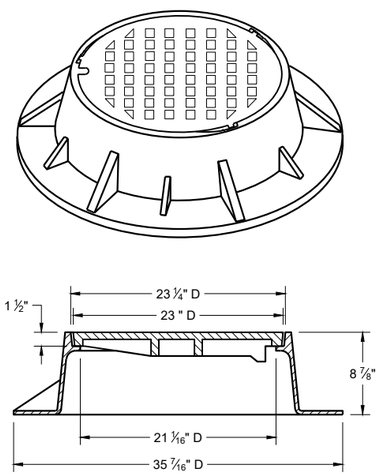
GENERAL NOTES

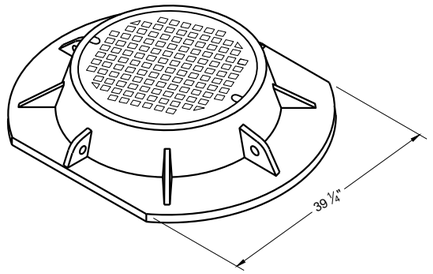
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

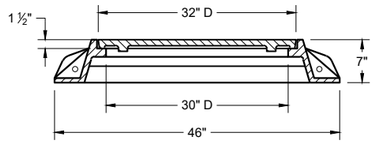
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

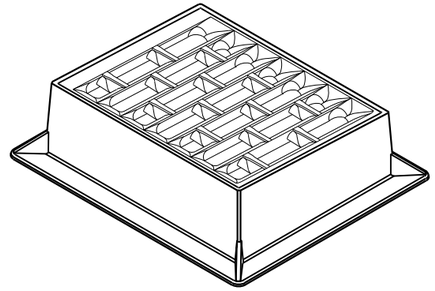


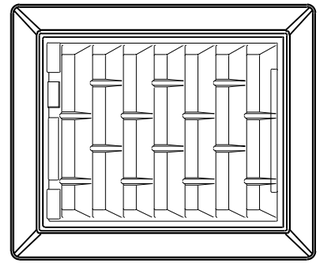


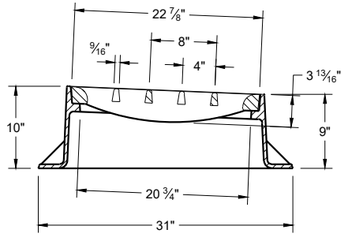


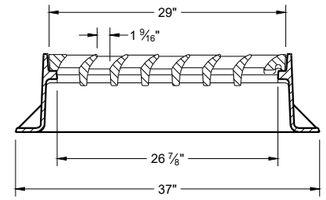


TYPE "K"

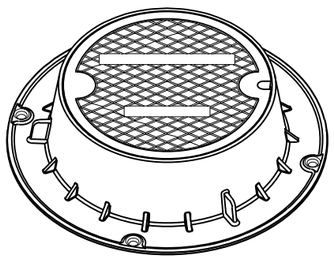


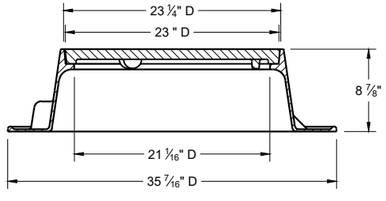






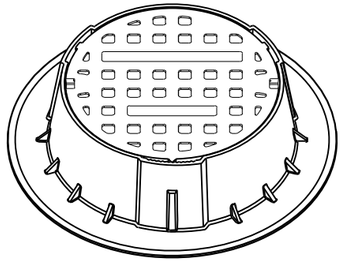
INLET COVER TYPE "BW"

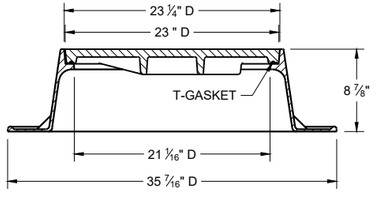




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

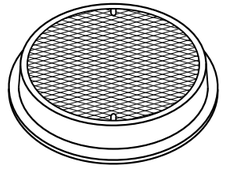


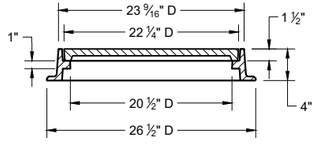


TYPE "J" SPECIAL

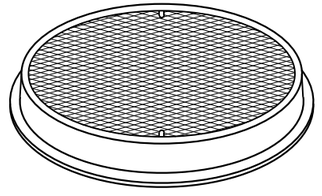
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

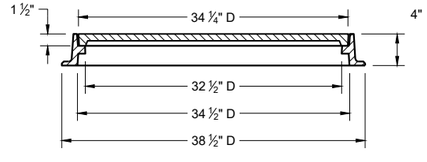
NOTE: EITHER CASTING IS ACCEPTABLE





TYPE "L"





TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

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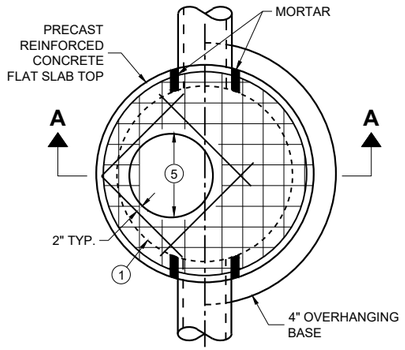
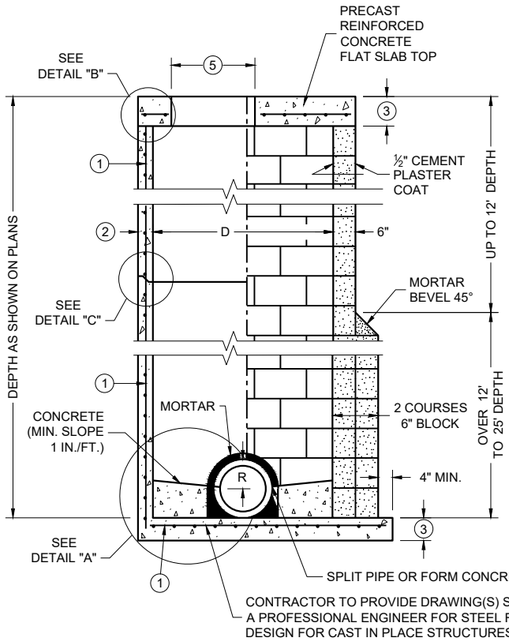


PLAN VIEW

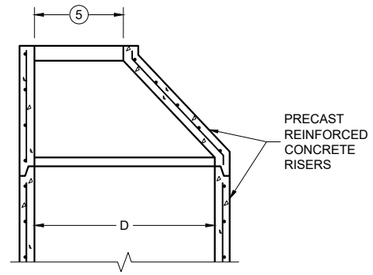
CIRCULAR OPENING



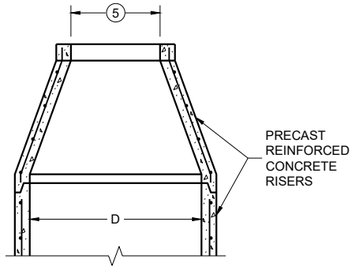
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

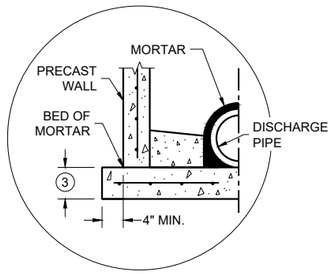
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



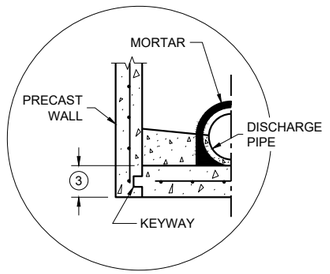
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

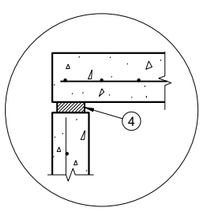


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

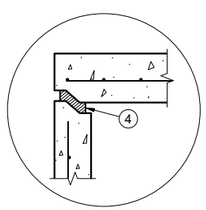


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

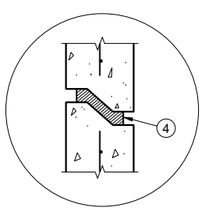
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

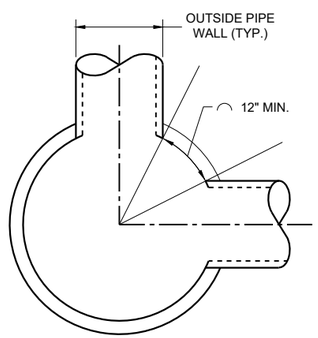
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

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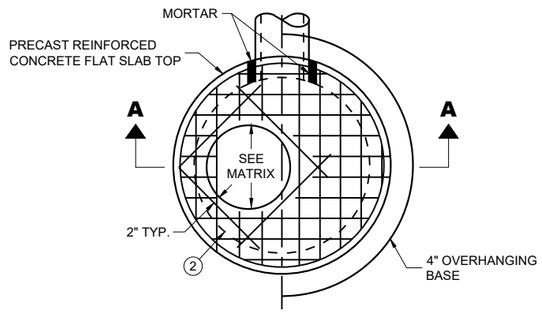
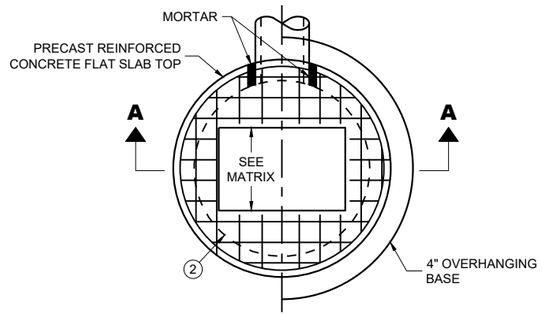
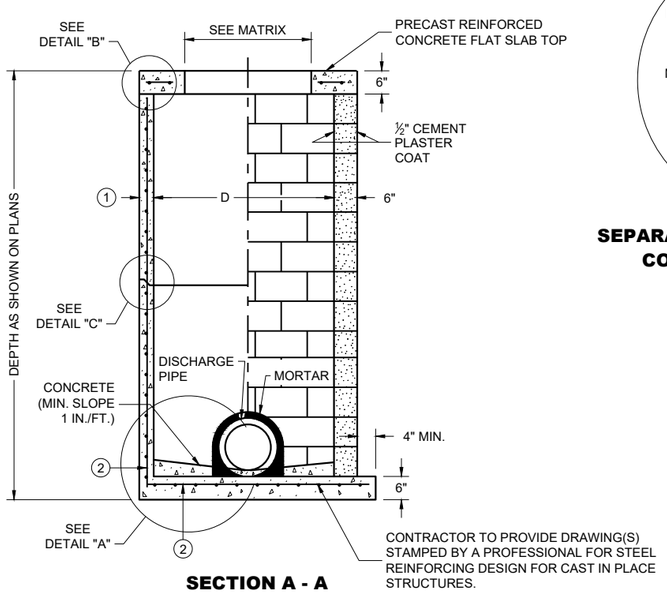


PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

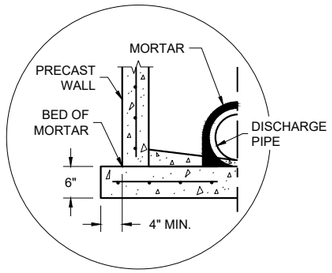
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

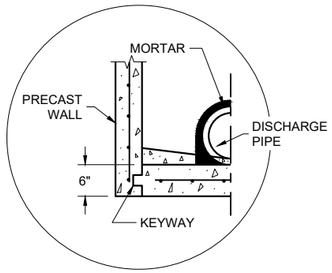
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

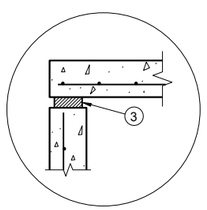


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

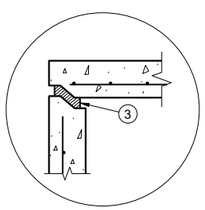


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

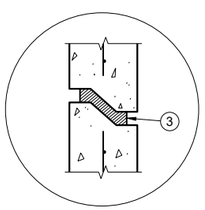
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

GENERAL NOTES

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

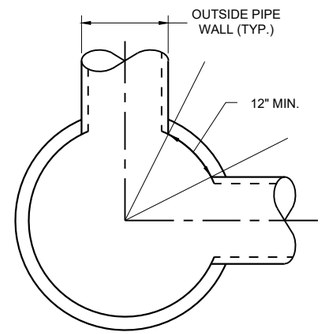
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

(2) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

INLETS 3-FT AND 4-FT DIAMETER

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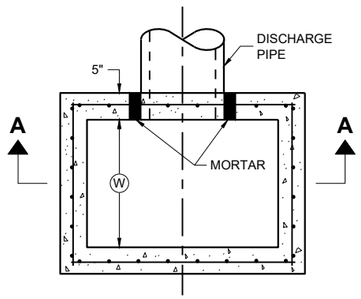
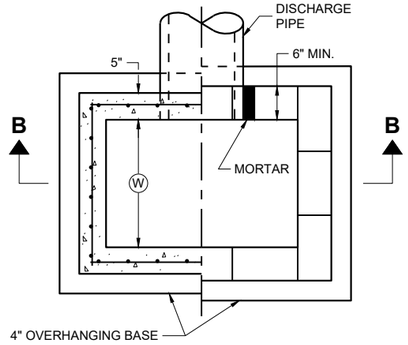
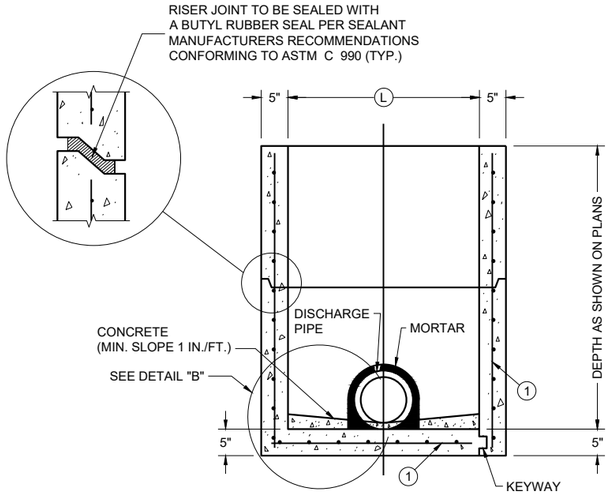


PLAN VIEW



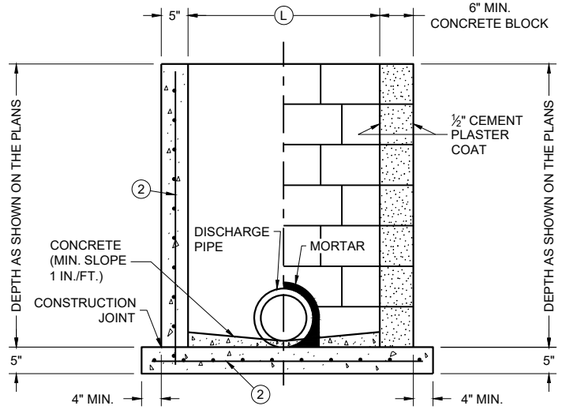
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

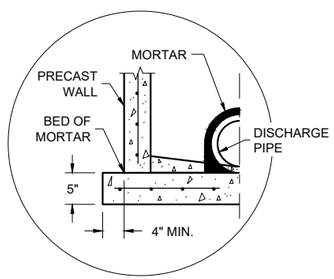
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

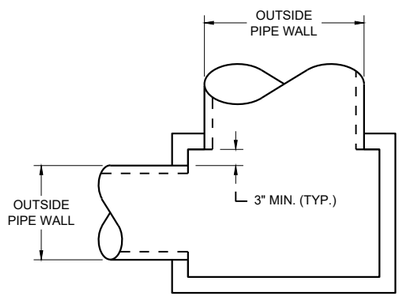
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

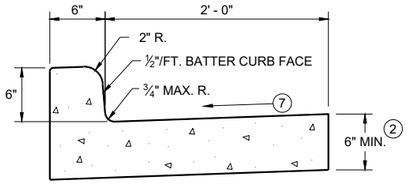
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

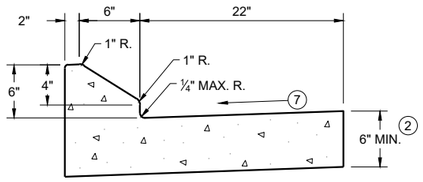
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

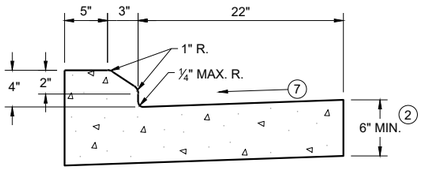
6
SDD 08C07-03



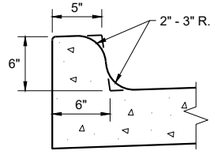
TYPES A (1) & D



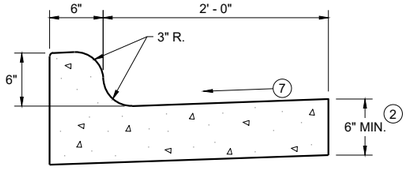
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

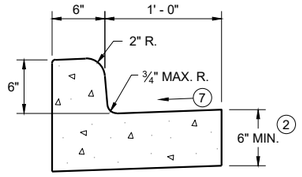


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



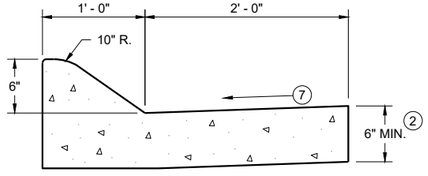
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

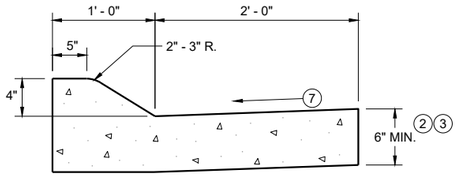


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

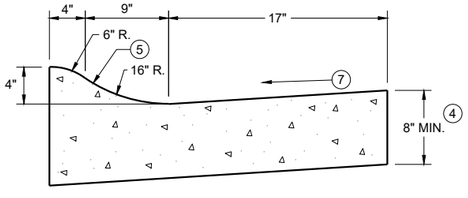


6" SLOPED CURB TYPES A (1) & D



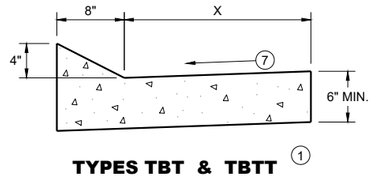
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T
CONCRETE CURB AND GUTTER 30"

TBT & TBTT	X
30"	22"
36"	28"

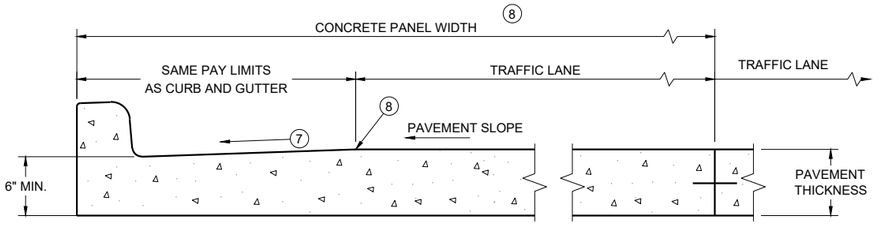


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

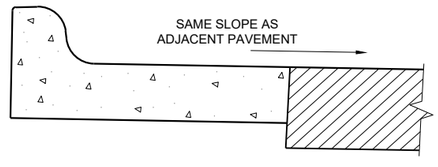
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

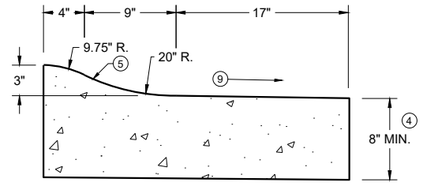
(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

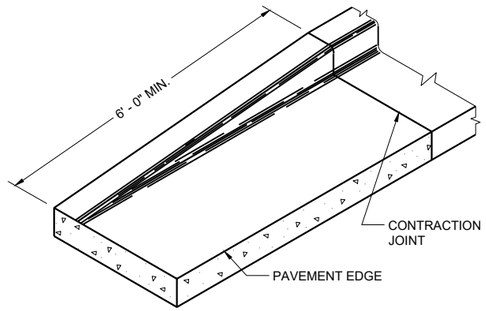
(9) SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



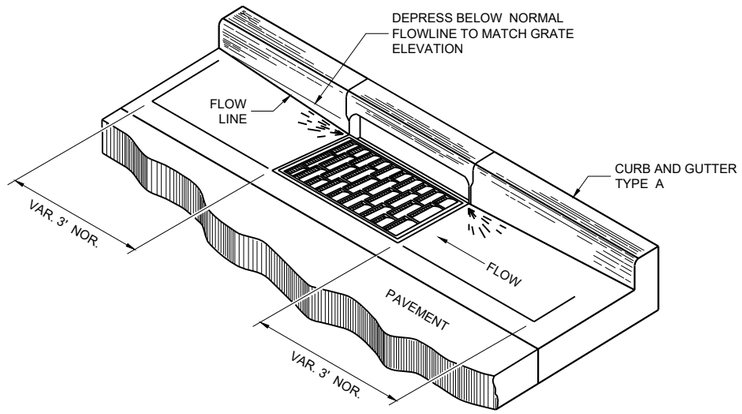
3" SLOPED CURB TYPES R (1) & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

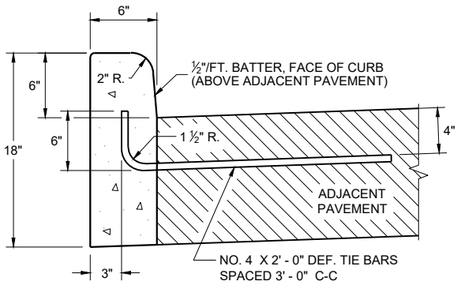
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

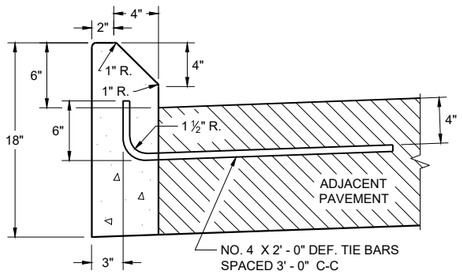
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

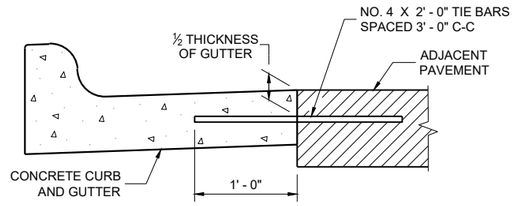


TYPES A (1) & D

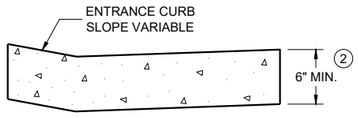


TYPES G (1) & J

CONCRETE CURB

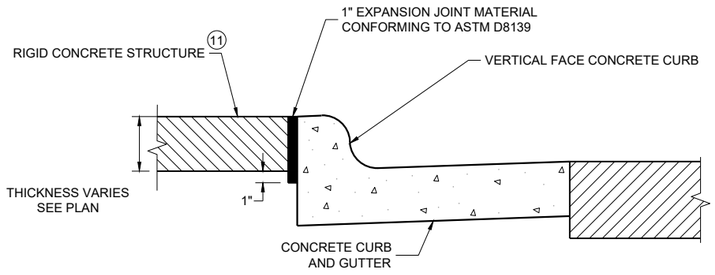


TYPICAL TIE BAR LOCATION (1)

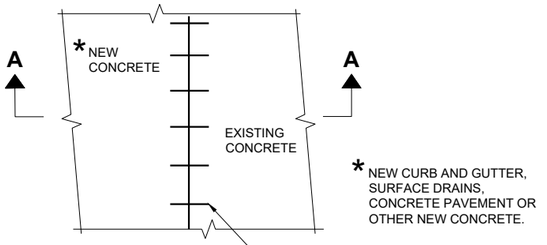


DRIVEWAY ENTRANCE CURB (10)

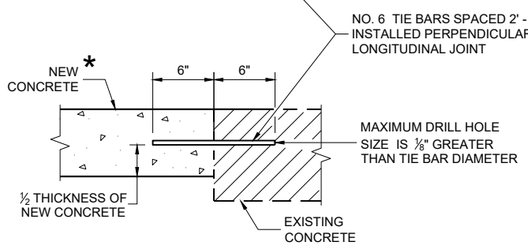
(WHEN DIRECTED BY THE ENGINEER)



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

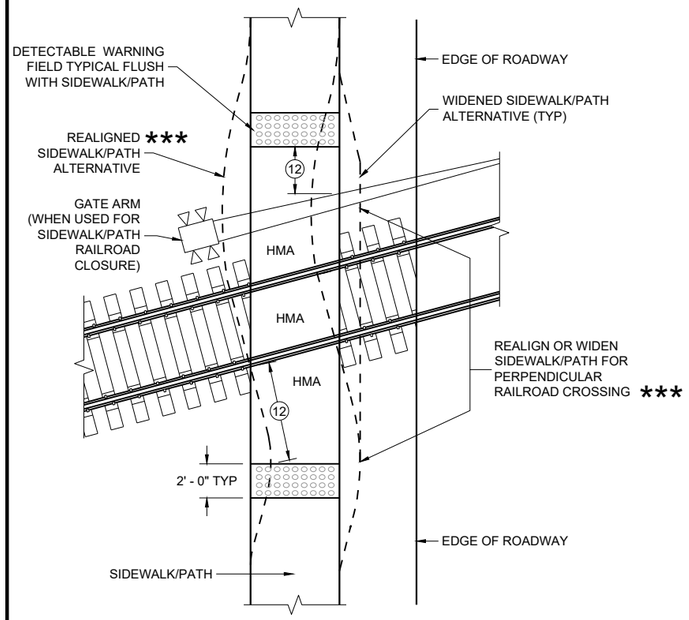
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

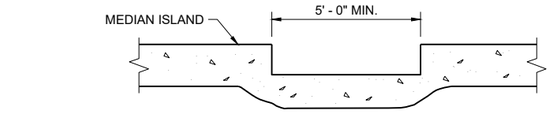
FHWA

6
SDD 08D01-24b

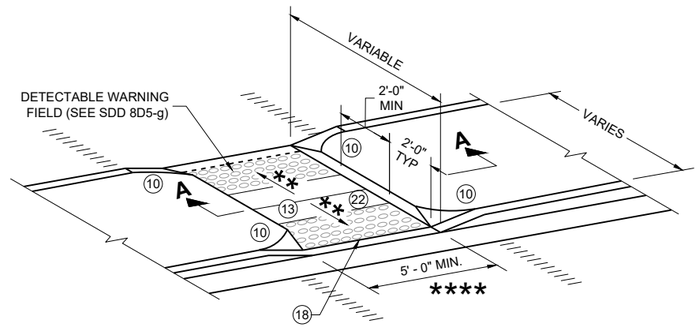


CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

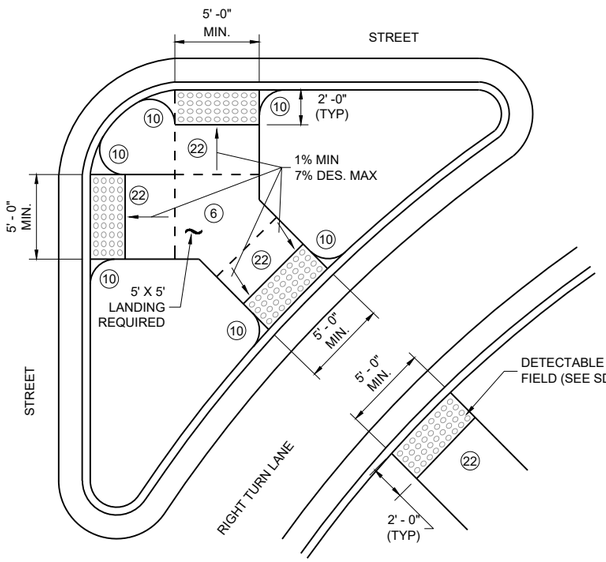
(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH, WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

(17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.

(18) WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.

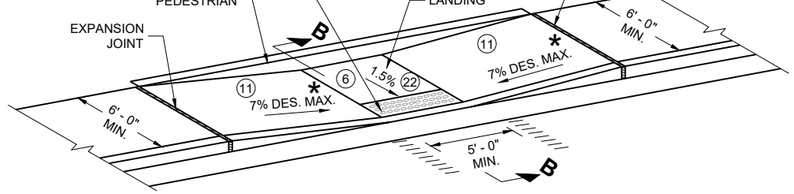
(22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.



CURB RAMP TYPE 6

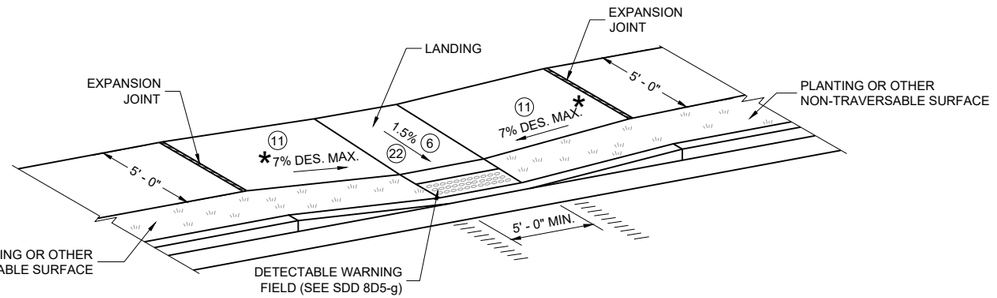
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

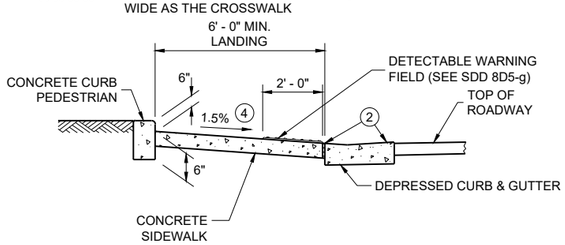


CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

LEGEND

═══	½" EXPANSION JOINT SIDEWALK
– – – –	CONTRACTION JOINT FIELD LOCATED
ıı ıı ıı ıı	PAVEMENT MARKING CROSSWALK (WHITE)
*	MAXIMUM 8.3%
**	1% MINIMUM (PROVIDE DRAINAGE)
***	DETAILS TO BE DETERMINED BY ENGINEER
****	FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK



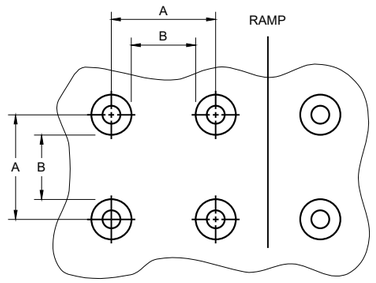
SECTION B - B FOR TYPE 7A

CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

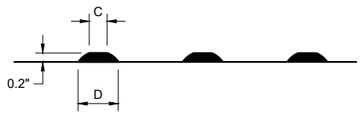
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

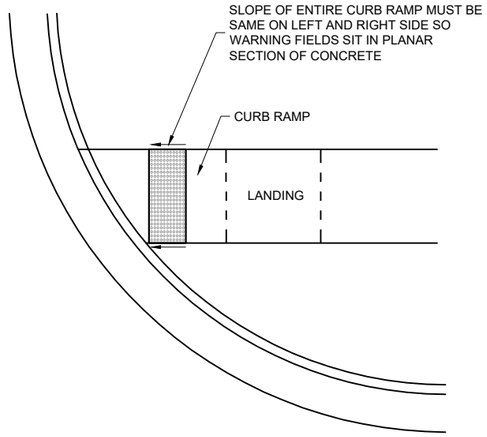
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

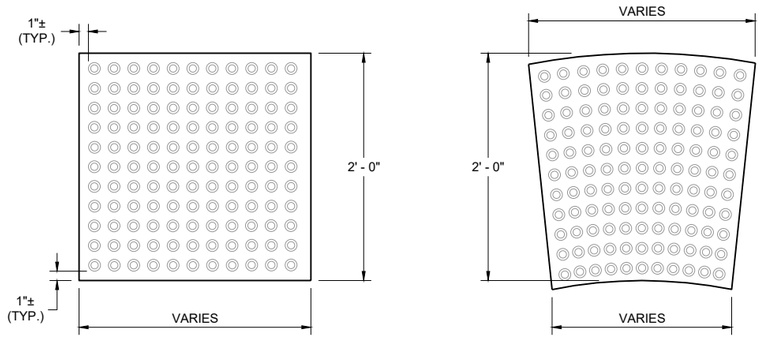
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

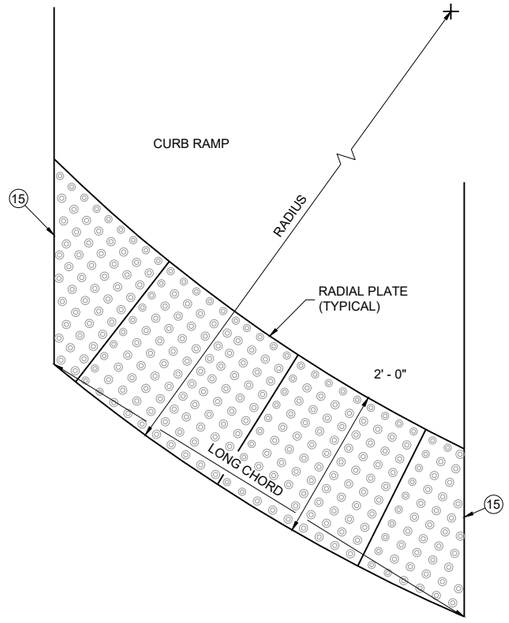
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



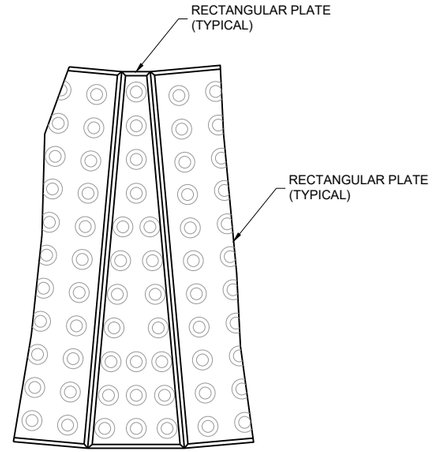
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

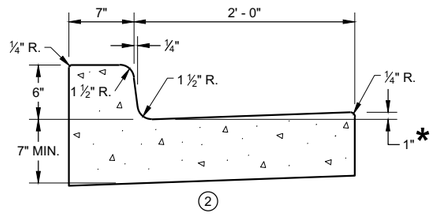
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 — DATE
/S/ Rodney Taylor — <position>

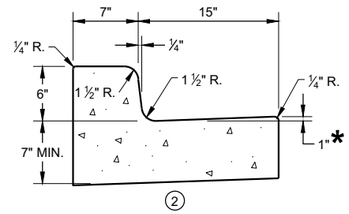
FHWA

6
SDD 08D05-22g

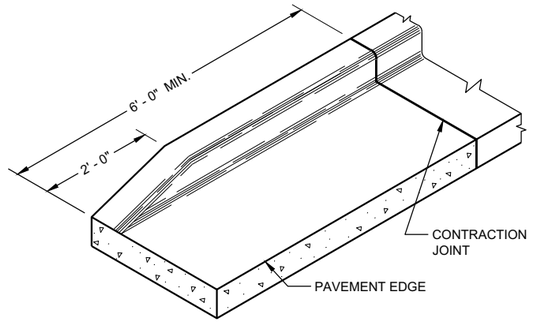


CONCRETE CURB AND GUTTER 31" ①

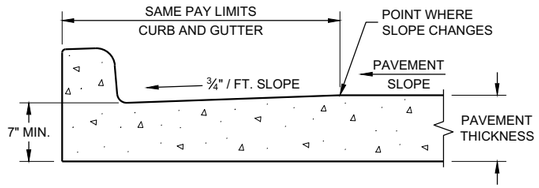
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



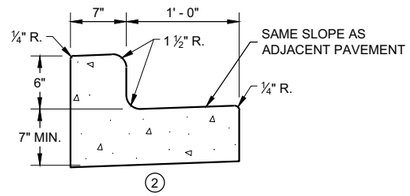
CONCRETE CURB AND GUTTER 22" ①



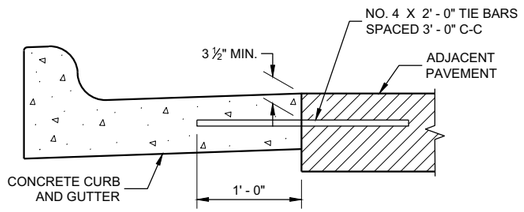
END SECTIONCURB AND GUTTER



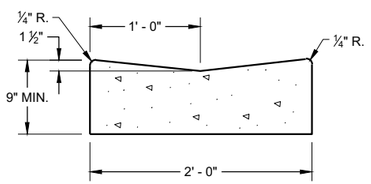
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



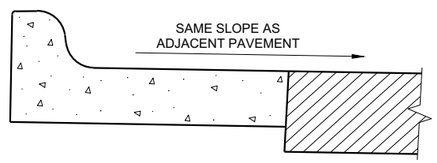
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

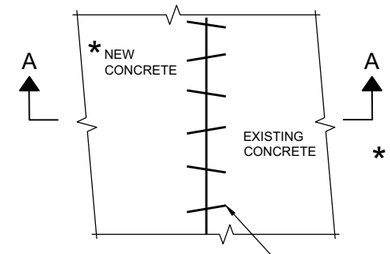
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

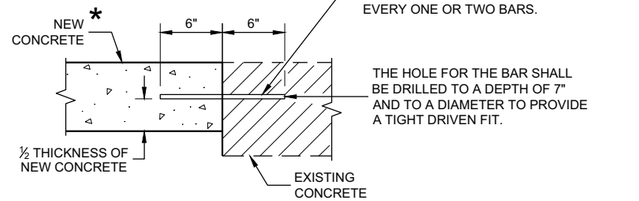
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



*EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.

PLAN VIEW



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

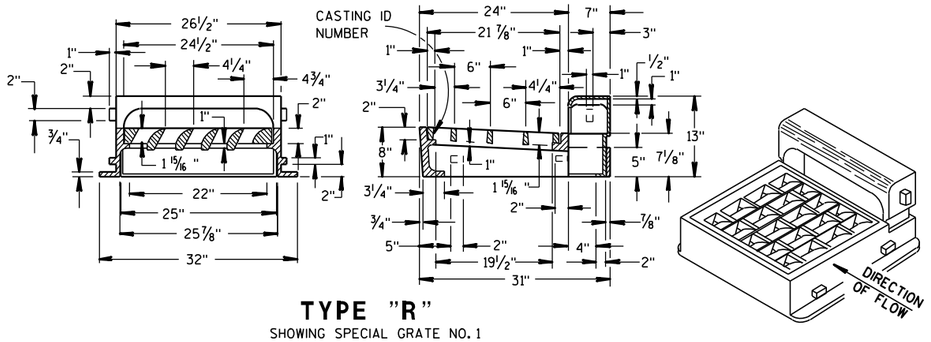
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

SDD 08D16 - 11

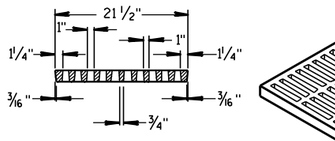
SDD 08D16 - 11

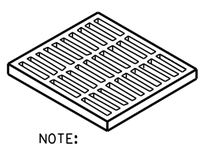
INLET COVERS



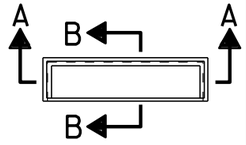
TYPE "R"

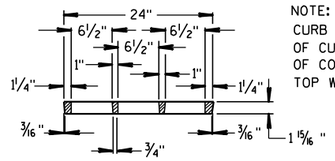
SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



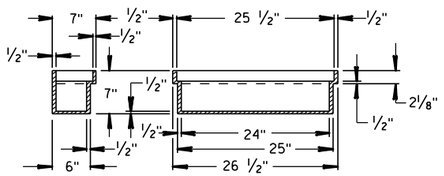


(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.





NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.



GRATE FOR TYPE "R" INLET COVER

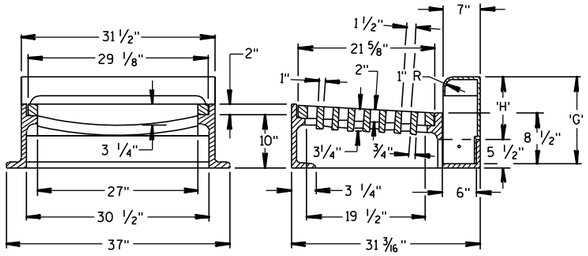
(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

SECTION B-B SECTION A-A

SPECIAL CURB PLUG "P"

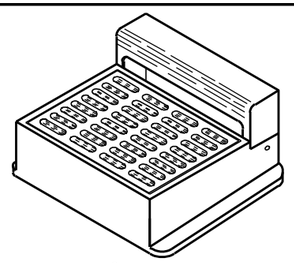
(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

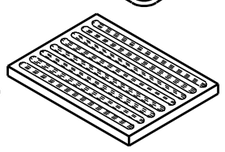
'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB



TYPE "W"

(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.

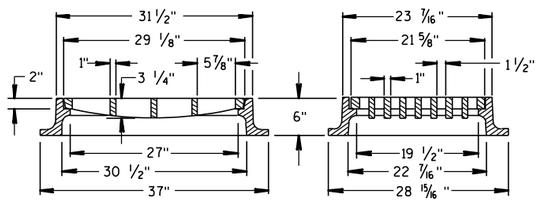




ALTERNATE GRATE

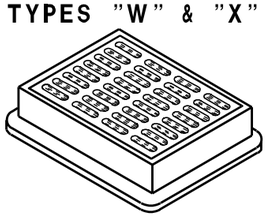
(FOR EXPRESSWAY RAMPS)

TYPES "W" & "X"

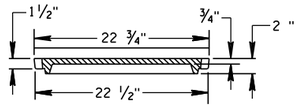


TYPE "X"

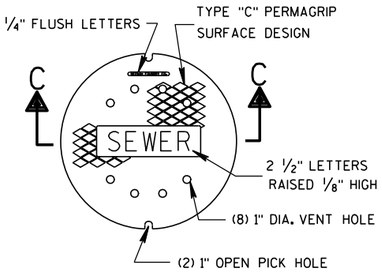
(APPROX. WEIGHT - 470 LBS.)

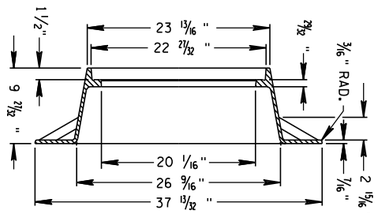


MANHOLE COVER



SECTION C-C





TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

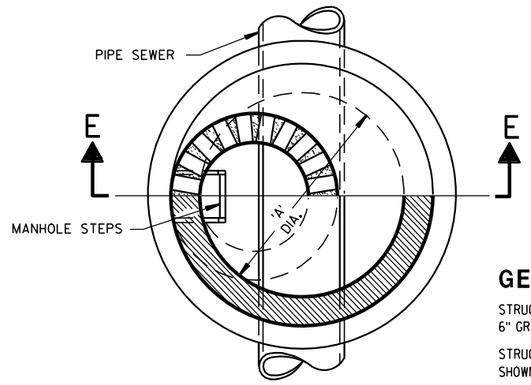
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

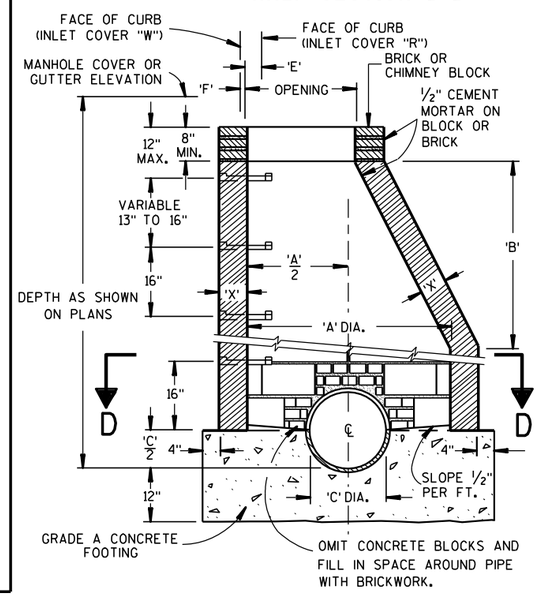
MANHOLE



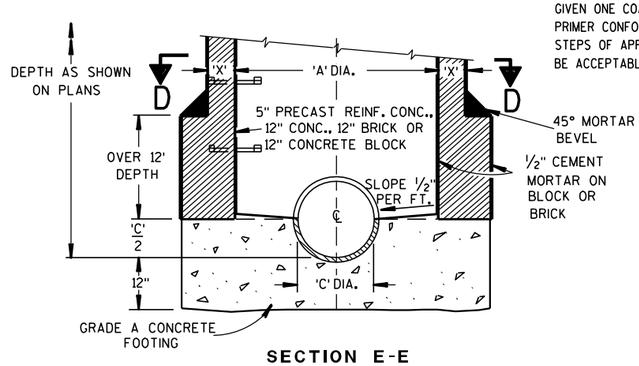
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

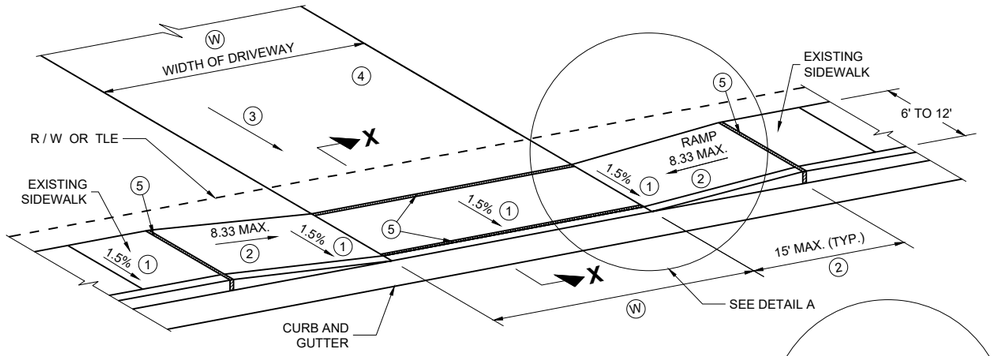
MANHOLES, MANHOLE & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

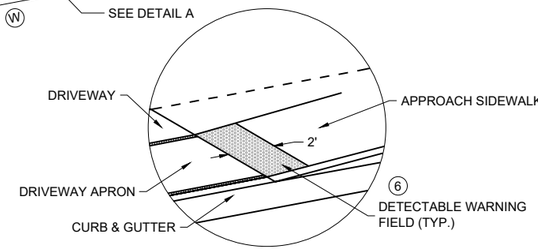
APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
FHWA

6

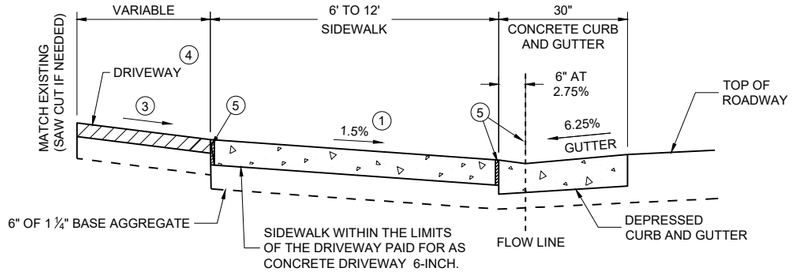
S.D.D. 8 D 17-6



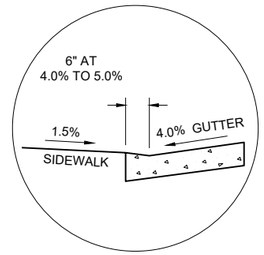
TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



DETAIL A



SECTION X - X



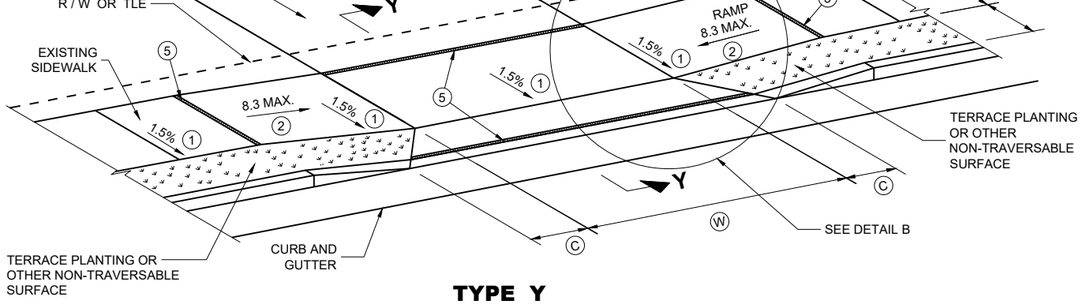
SECTION X - X
4% GUTTER SLOPE

Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

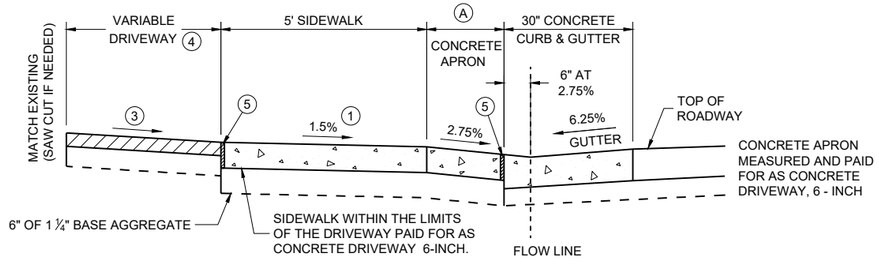
TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



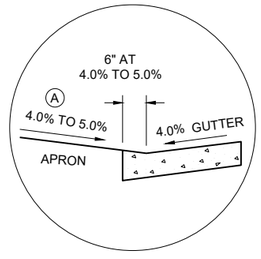
TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓐ:MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y



SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

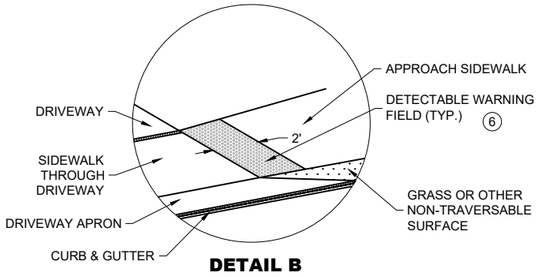
② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
* 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
* 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
* 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ 1/2" EXPANSION JOINT FILLER

⑥ DETECABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECTABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



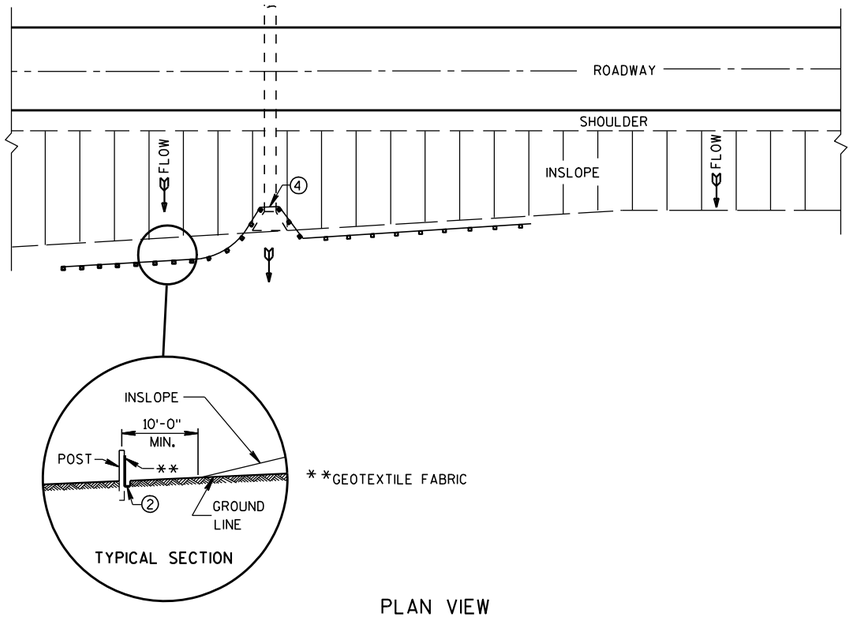
DETAIL B

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

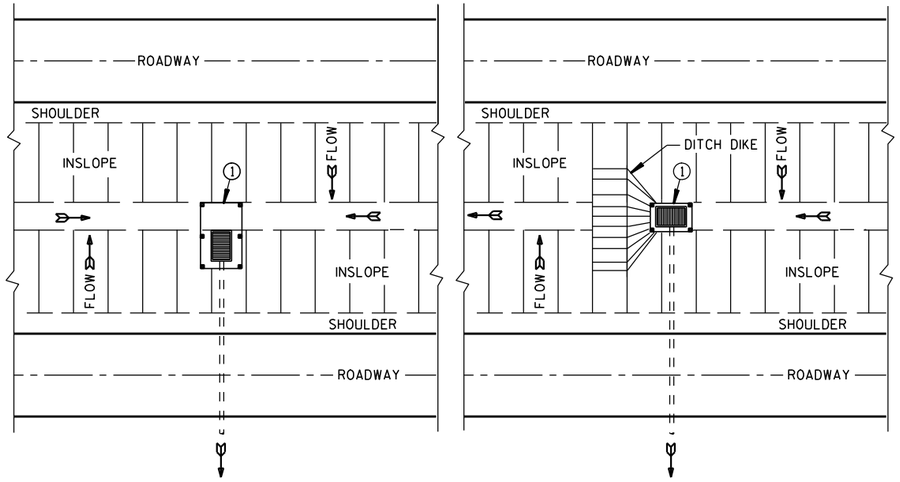
APPROVED
February 2025 (DATE)
/S/ Rodney Taylor

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



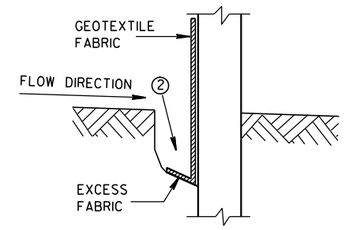
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

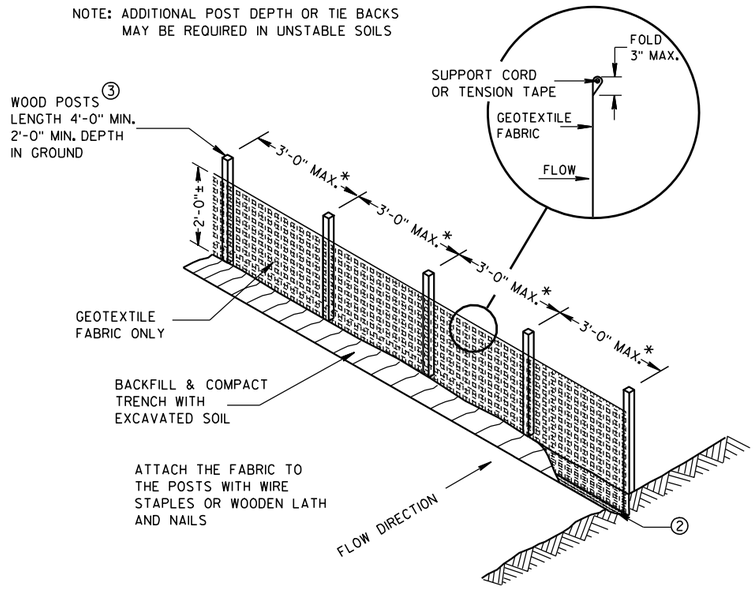
GENERAL NOTES

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

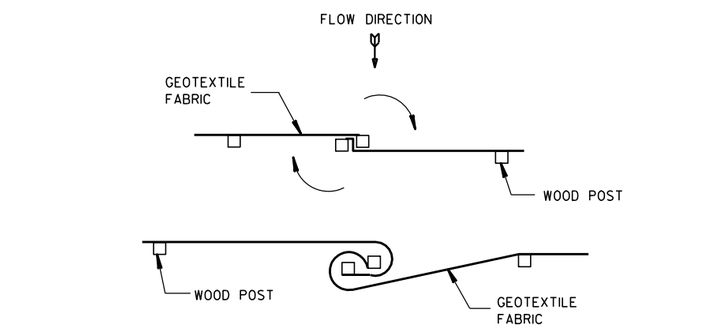
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



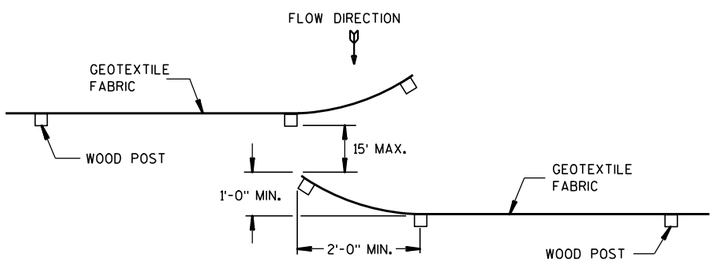
TRENCH DETAIL



SILT FENCE

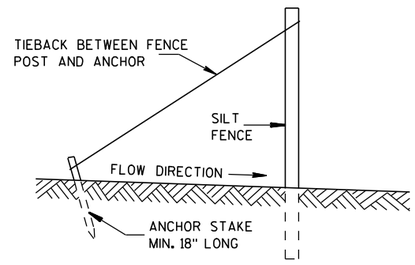


TWIST METHOD



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

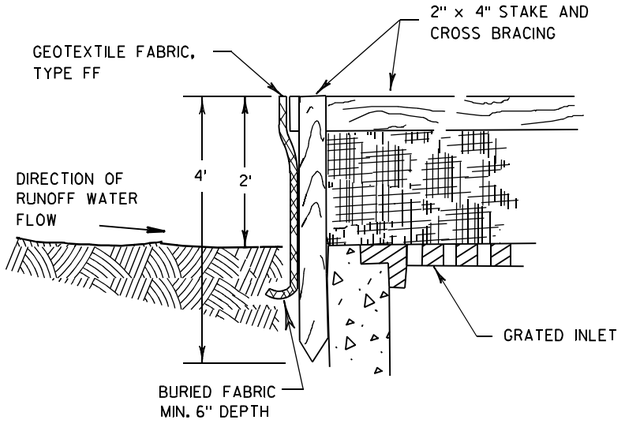
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

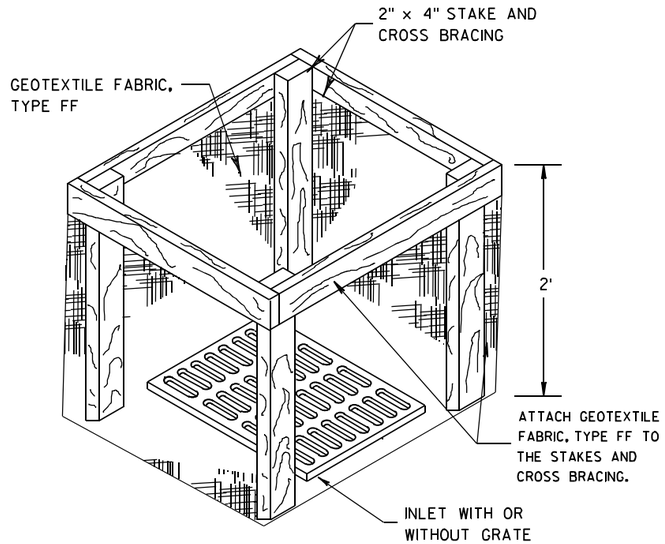
6

S.D.D. 8 E 9-6

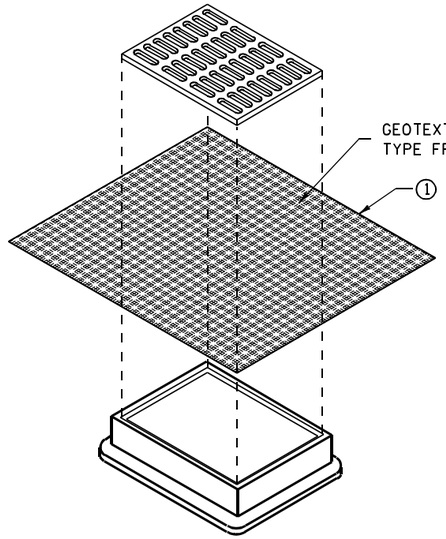
6

S.D.D. 8 E 9-6



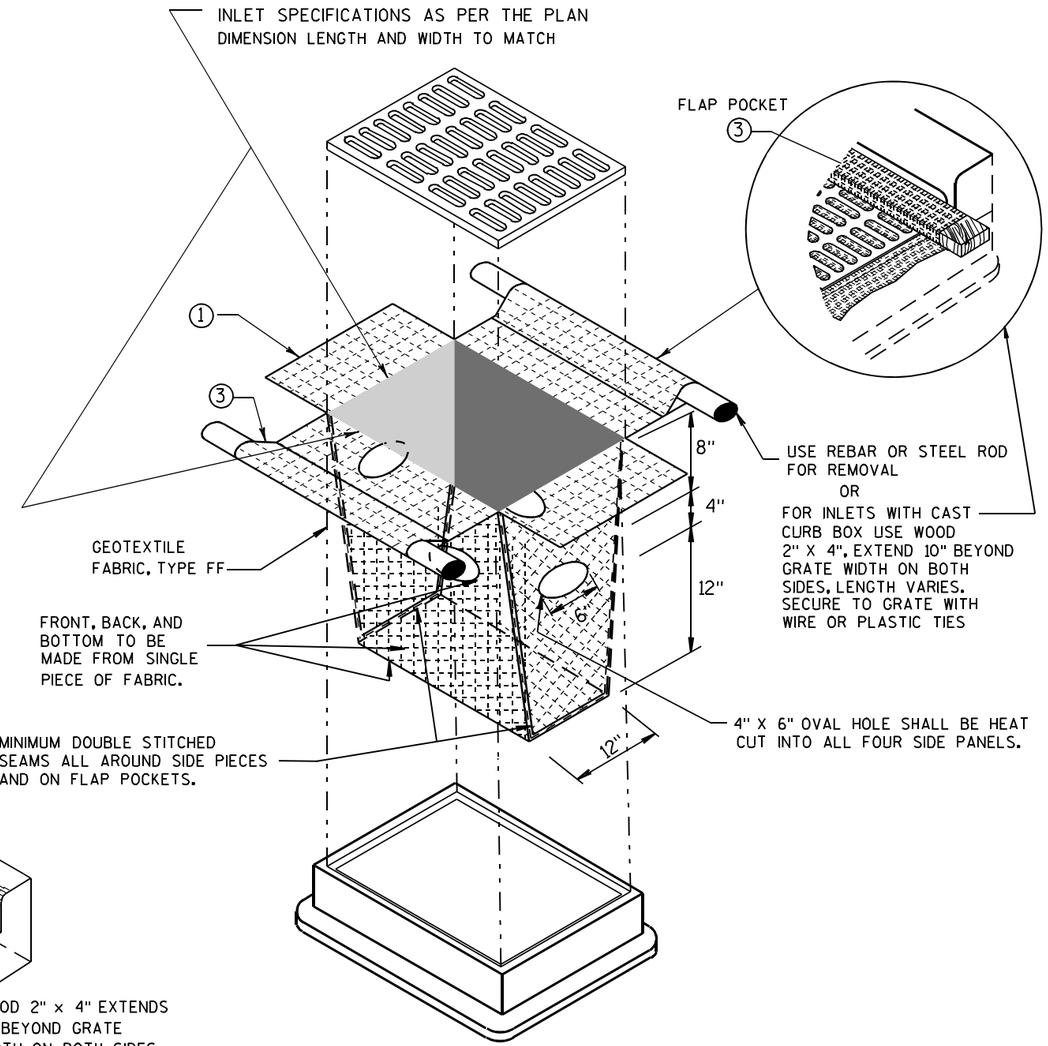


INLET PROTECTION, TYPE A



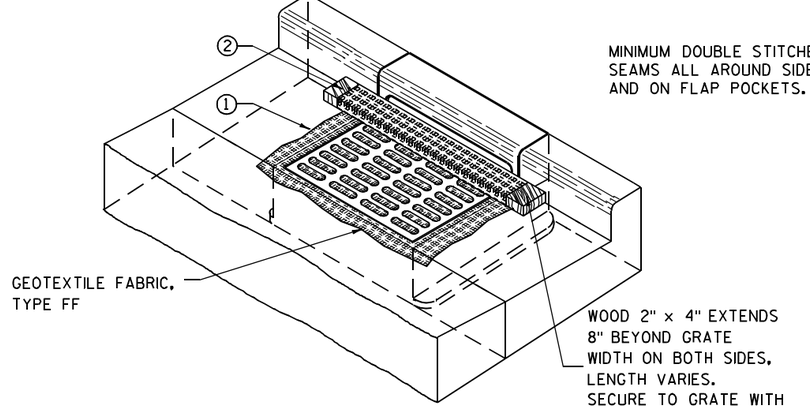
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

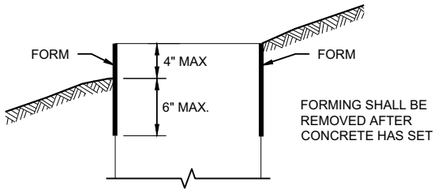
10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

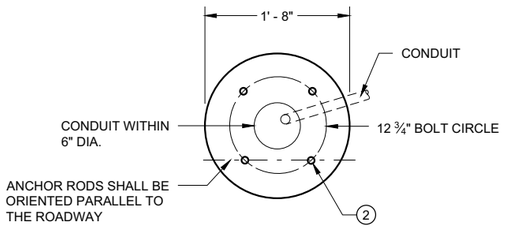
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

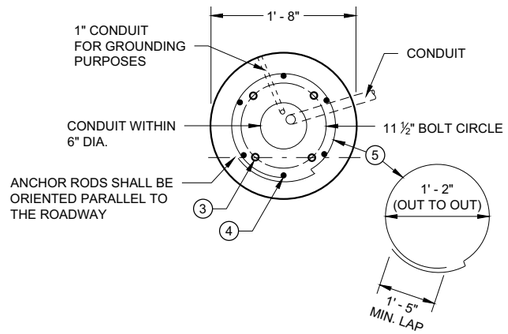
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

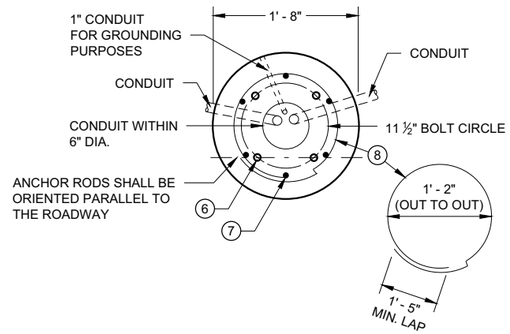
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

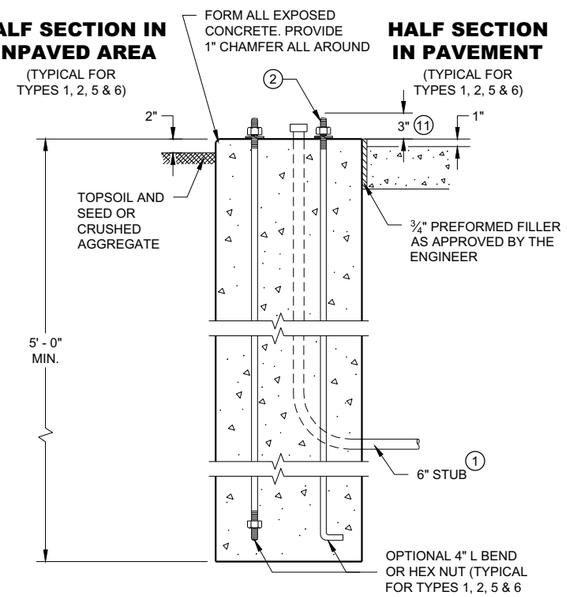
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

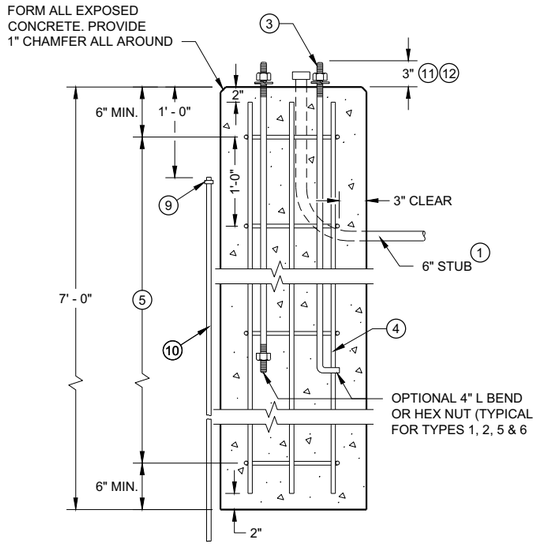
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

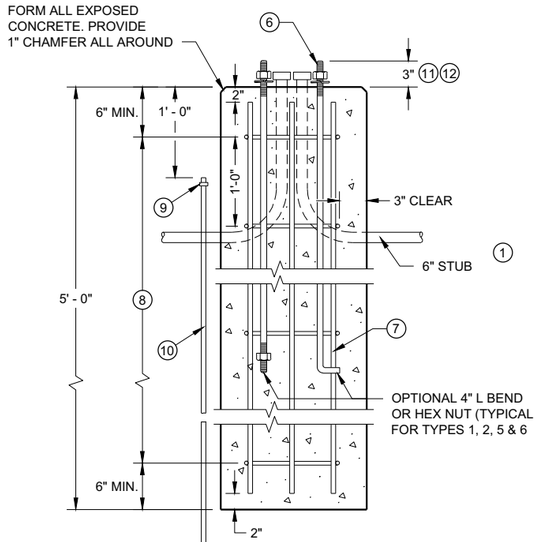
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

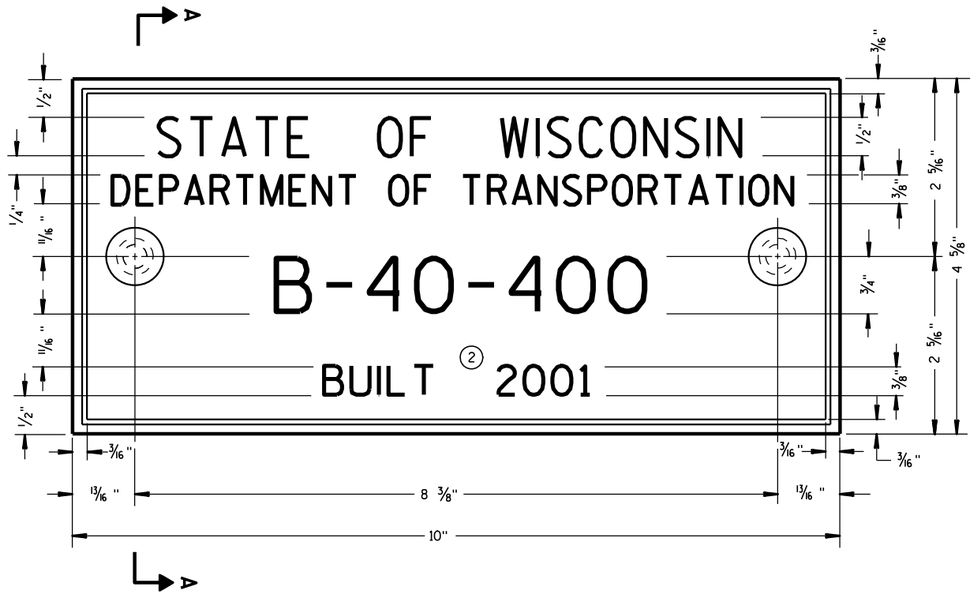
CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 30

FHWA



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

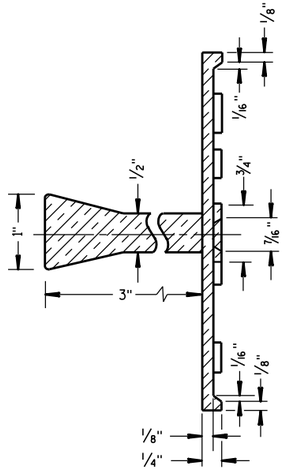
GENERAL NOTES

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

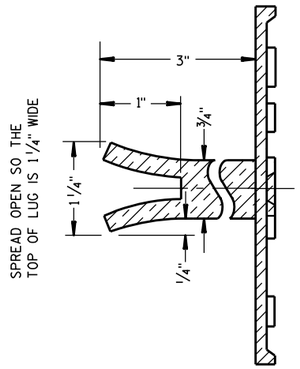
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

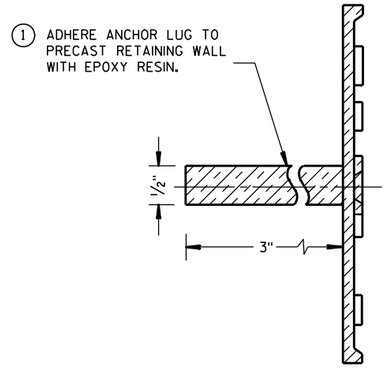
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

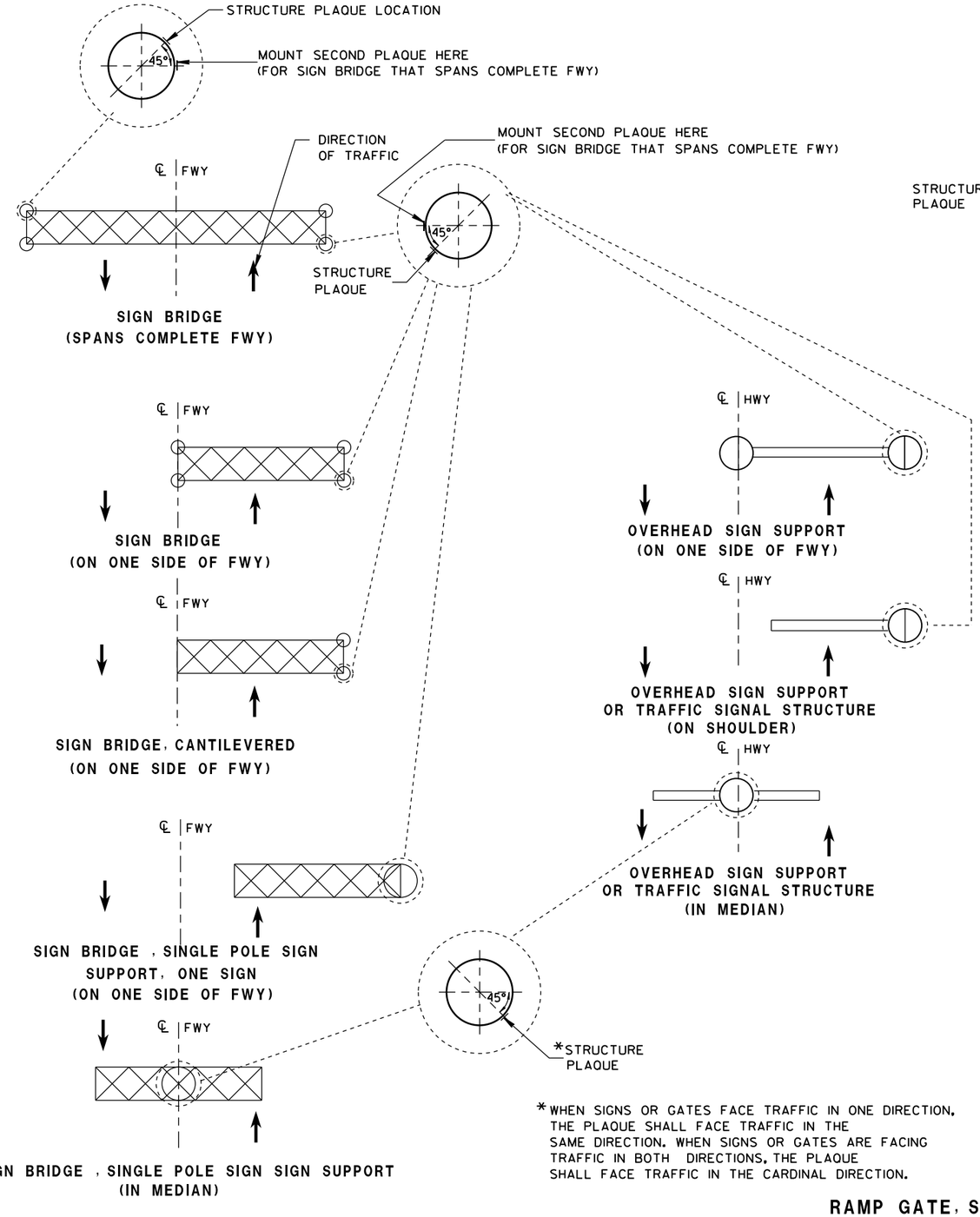
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

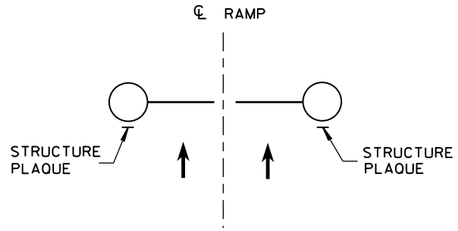
6

S.D.D. 12 A 3-10

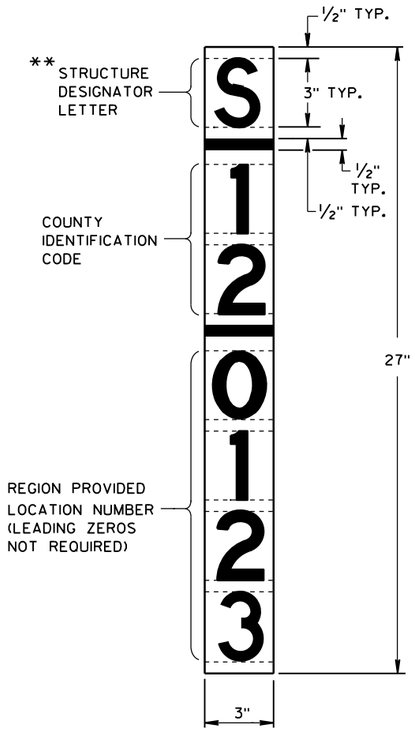


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

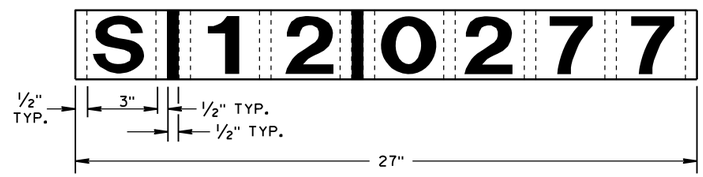
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 12 A 4-3

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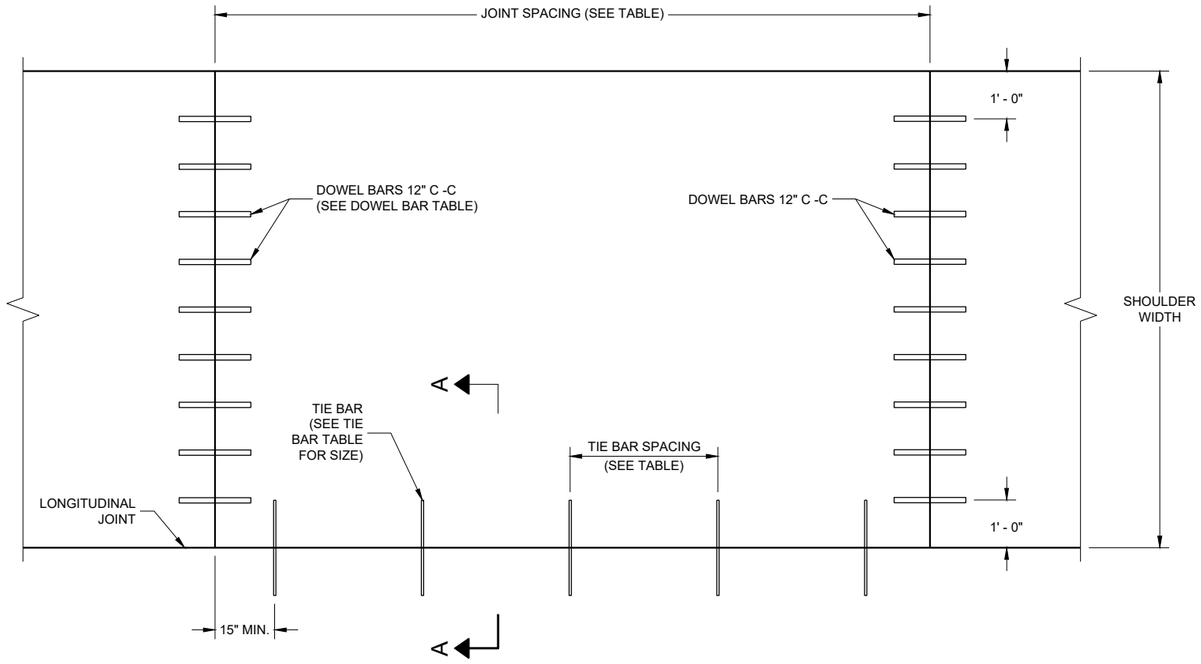
S.D.D. 12 A 4-3



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

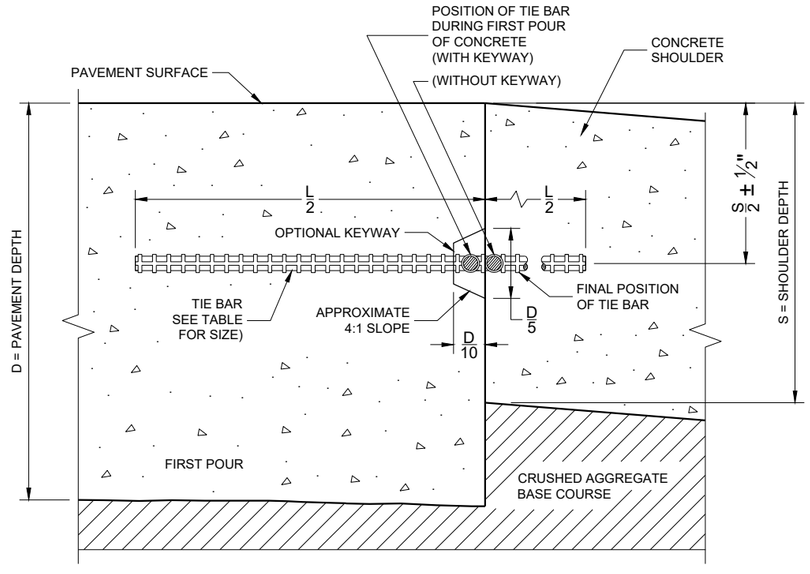
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A - A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
<10 ½"	NO. 4	30"	36"
>10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BATS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES.

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER ***	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12"
7", 7 ½"	1"	14"
8" & ABOVE	1 ¼"	15"

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Peter Kemp
PAVEMENT SUPERVIS

FHWA

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SDD 13A03 - 07

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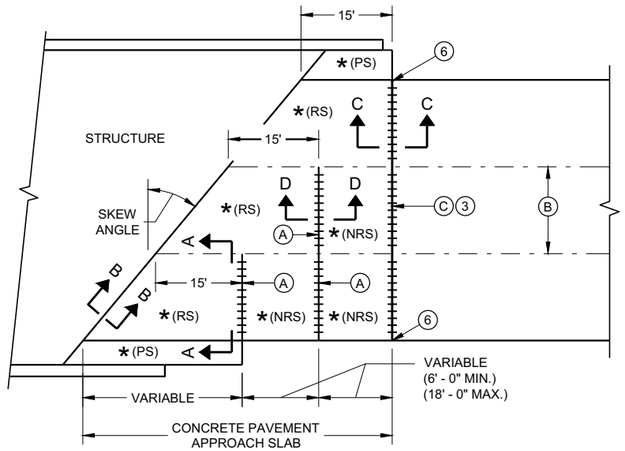
SDD 13A03 - 07



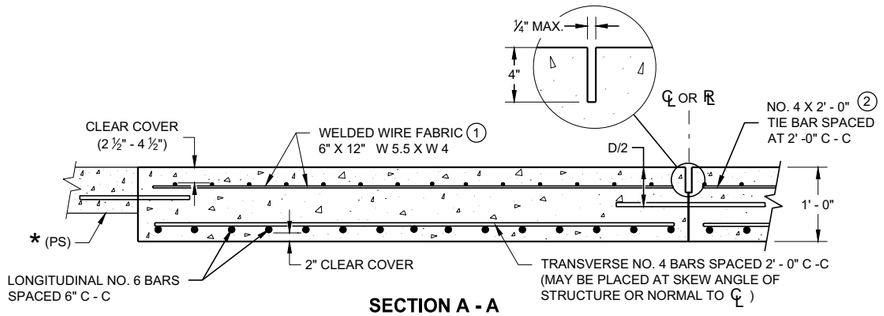
SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)

* (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

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.

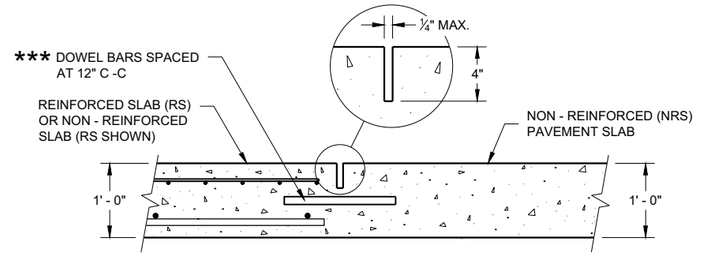
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

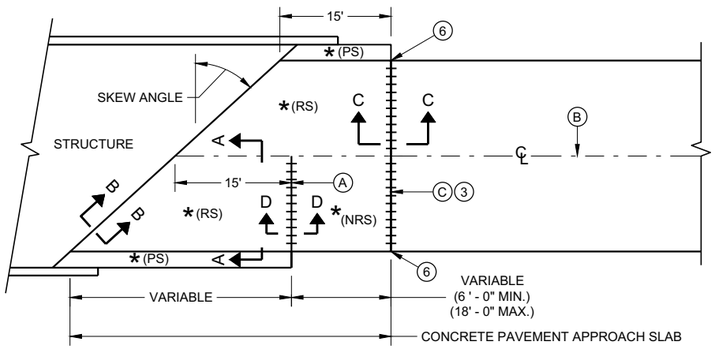
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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

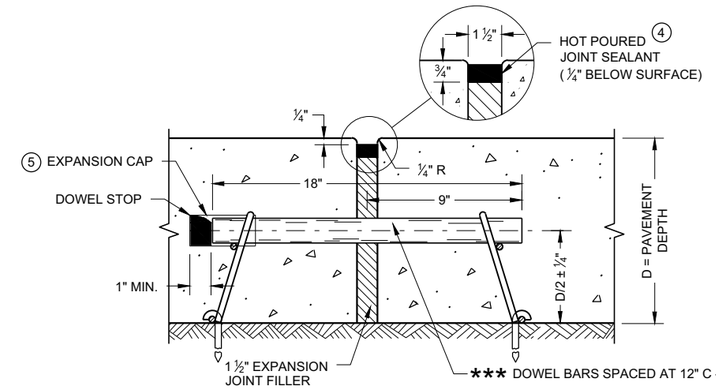


SECTION D - D
CONTRACTION JOINT

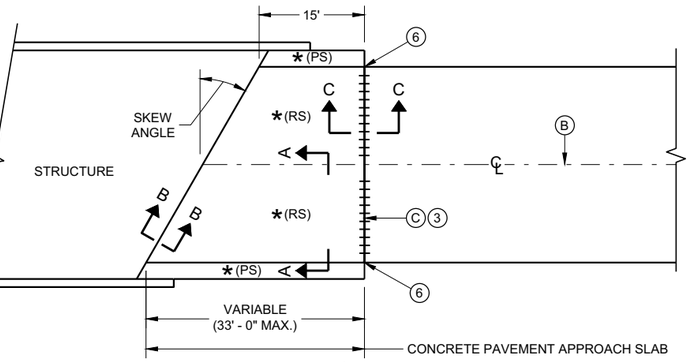


SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT

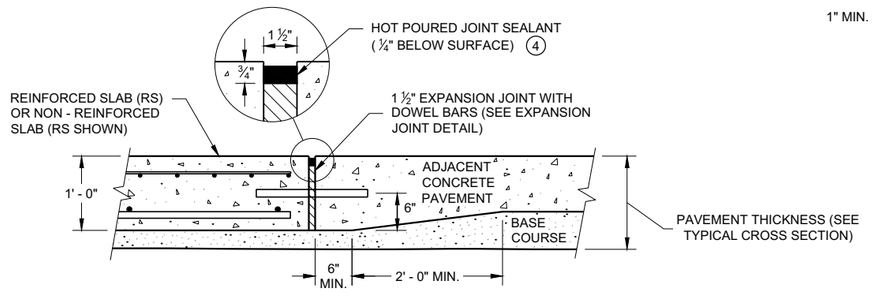


EXPANSION JOINT DETAIL



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

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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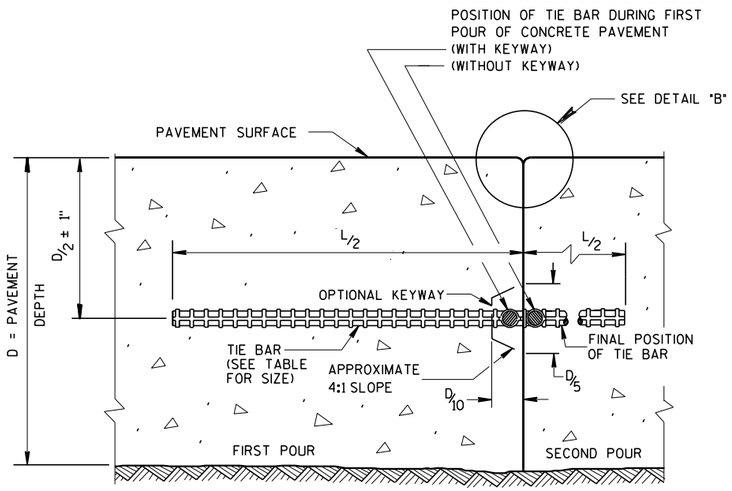
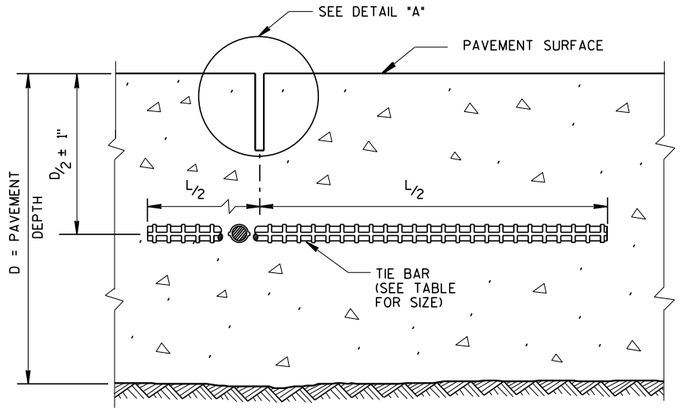
SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

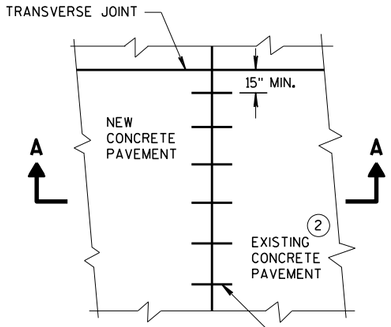
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

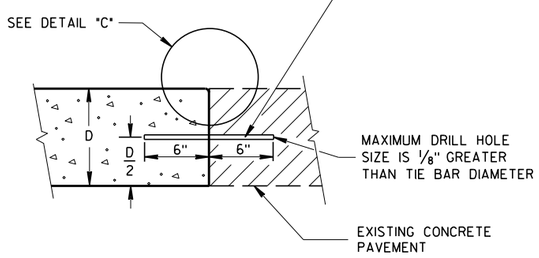
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

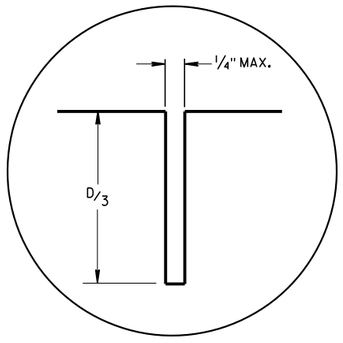


PLAN VIEW

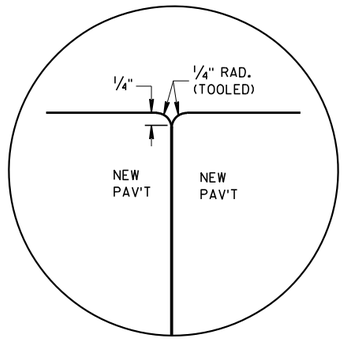


SECTION A-A

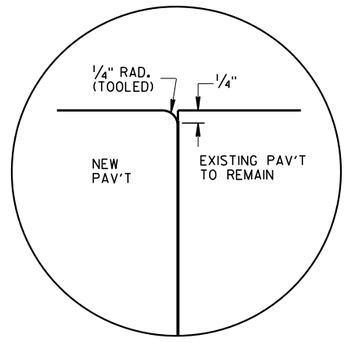
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



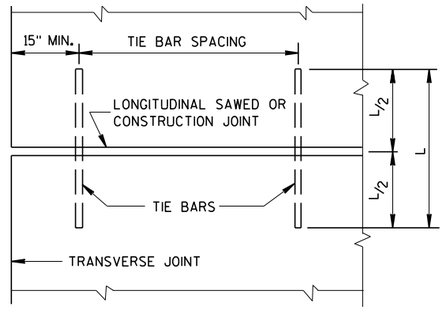
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp — PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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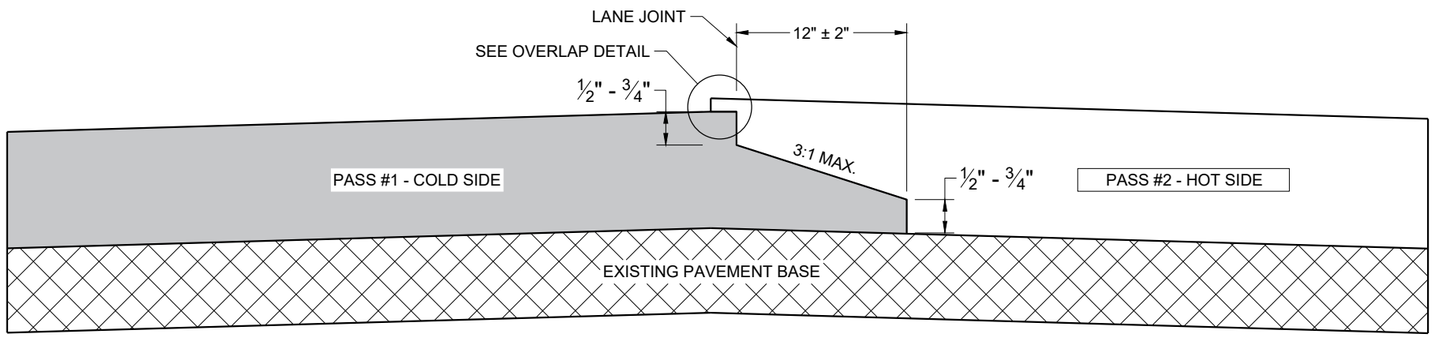
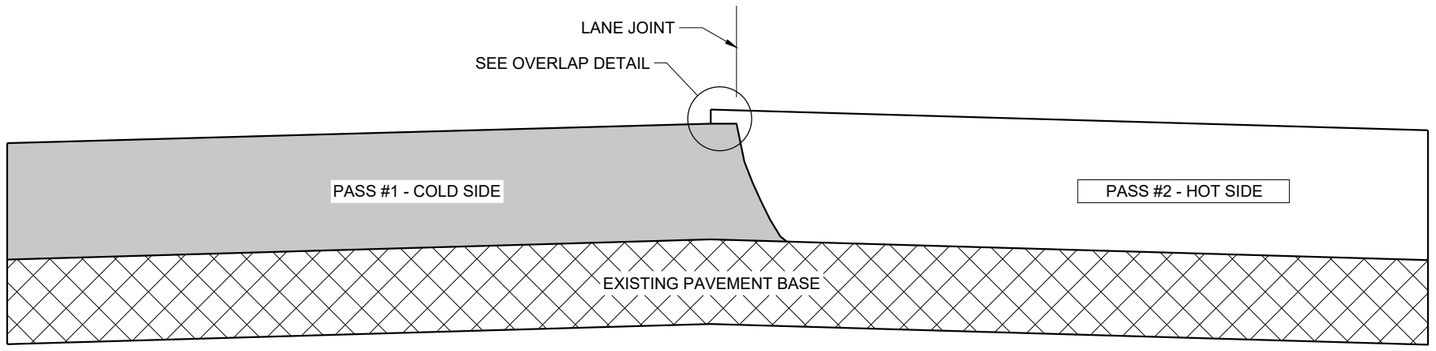
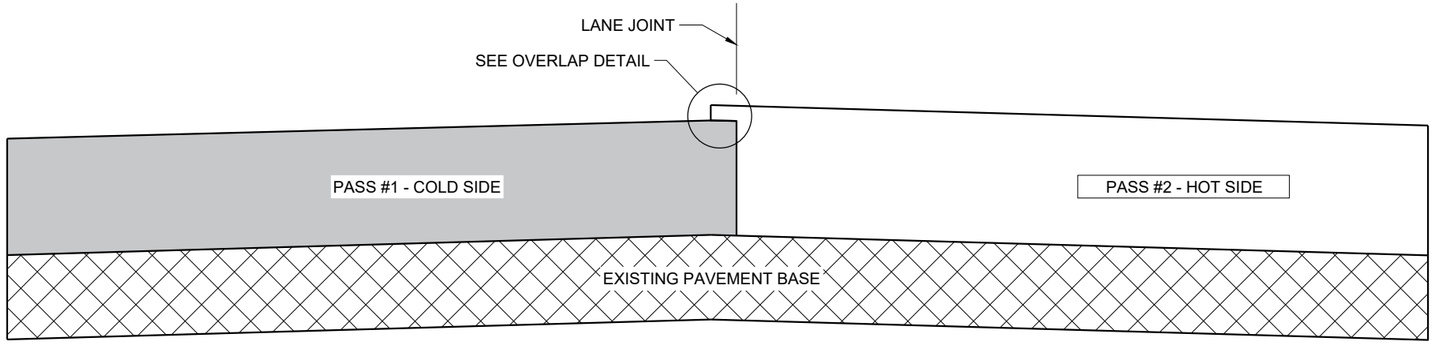
S.D.D. 13 C 1-19



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

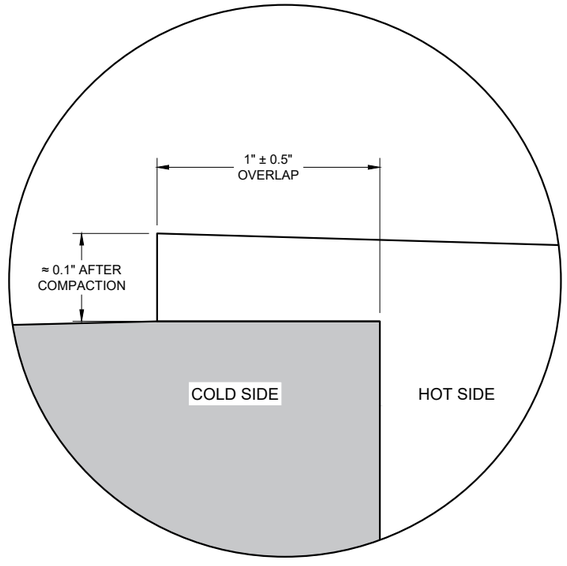
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

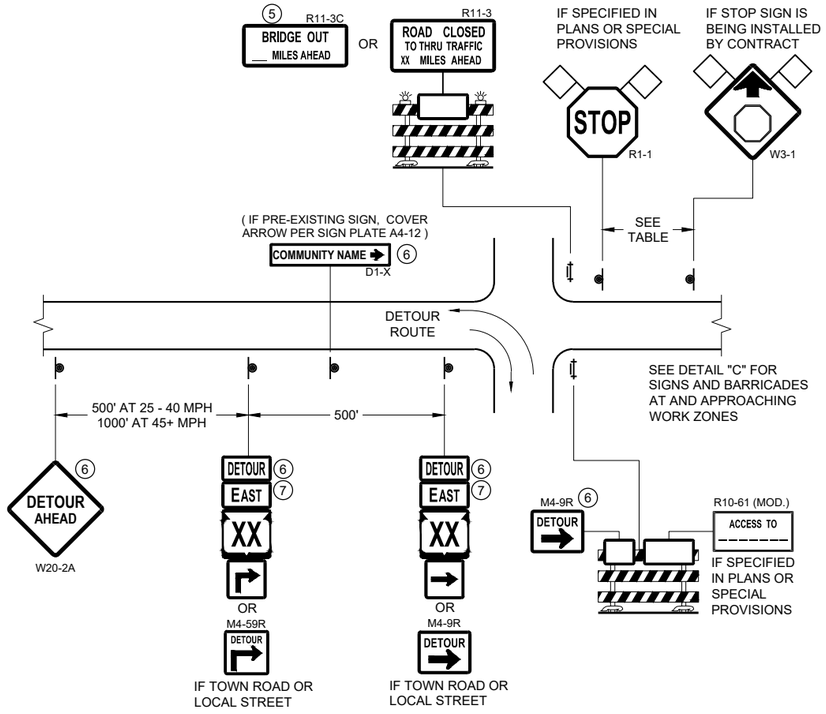
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

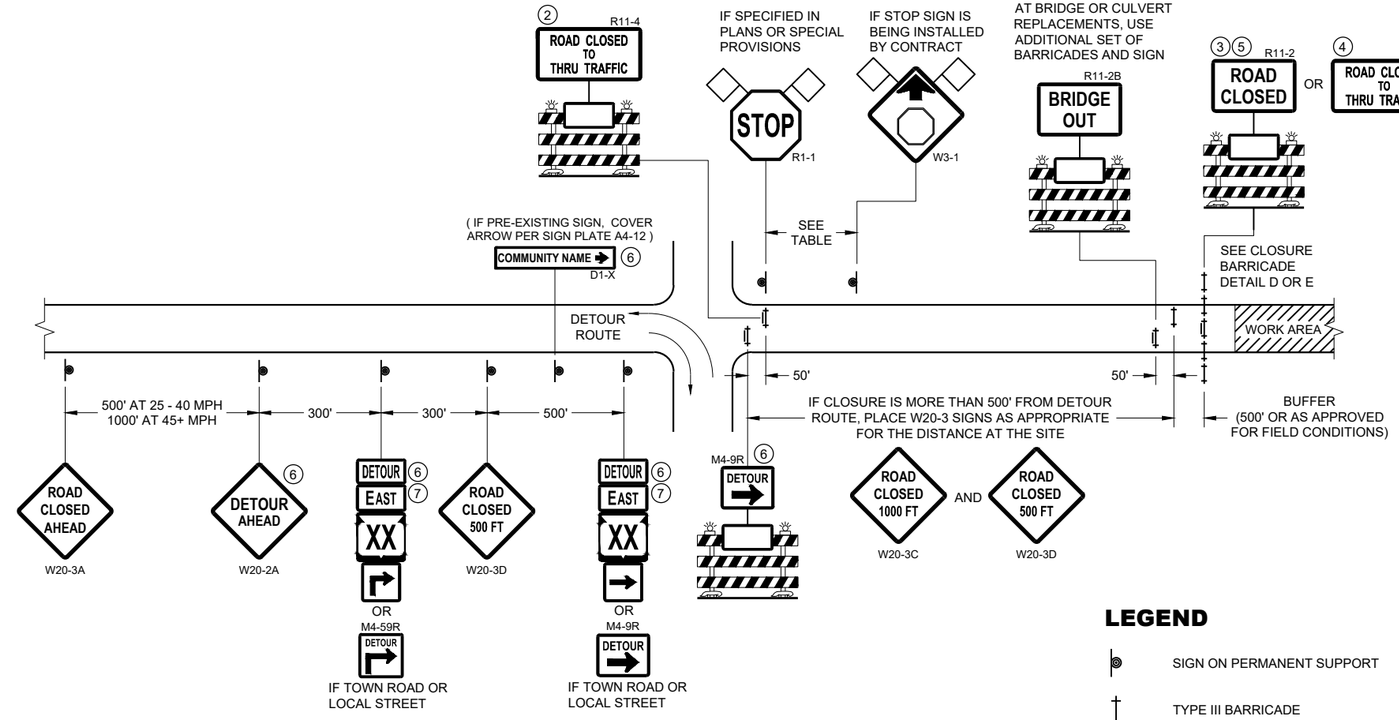
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



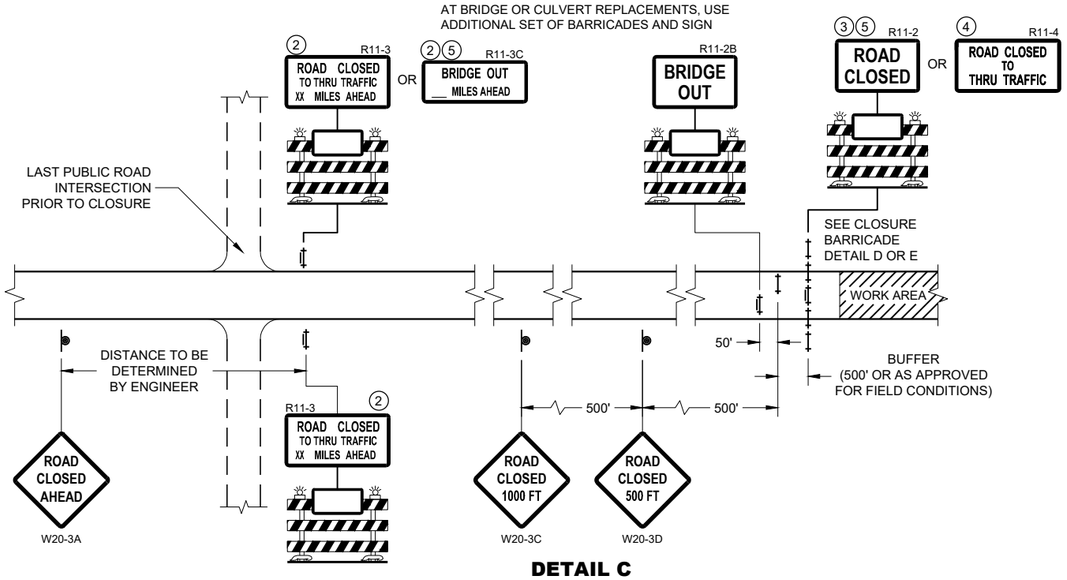
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

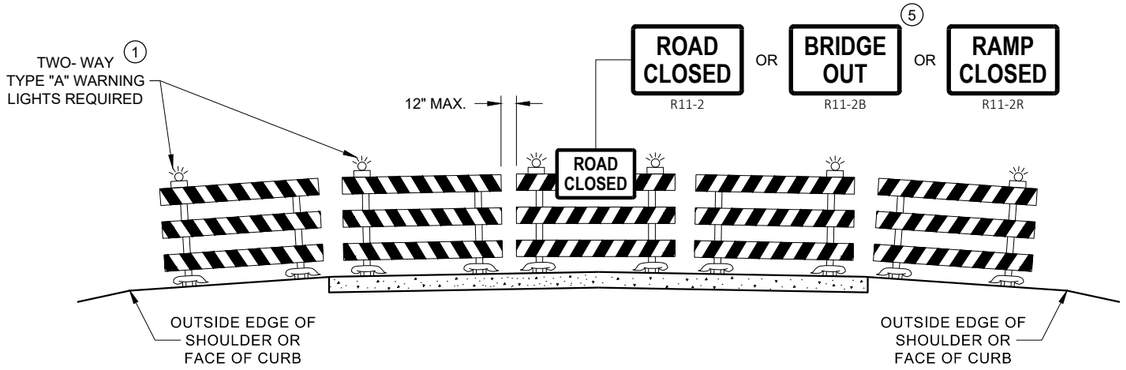
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

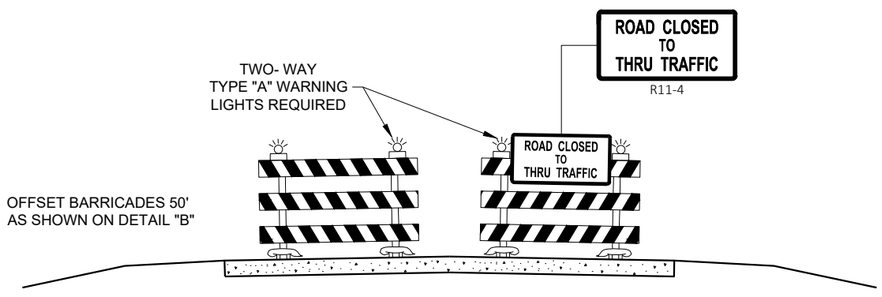
6

SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- OR XX — M1 - 6
- OR COUNTY X — M1 - 5A
- M05 - 1
- OR M06 - 1
- OR M06 - 1

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

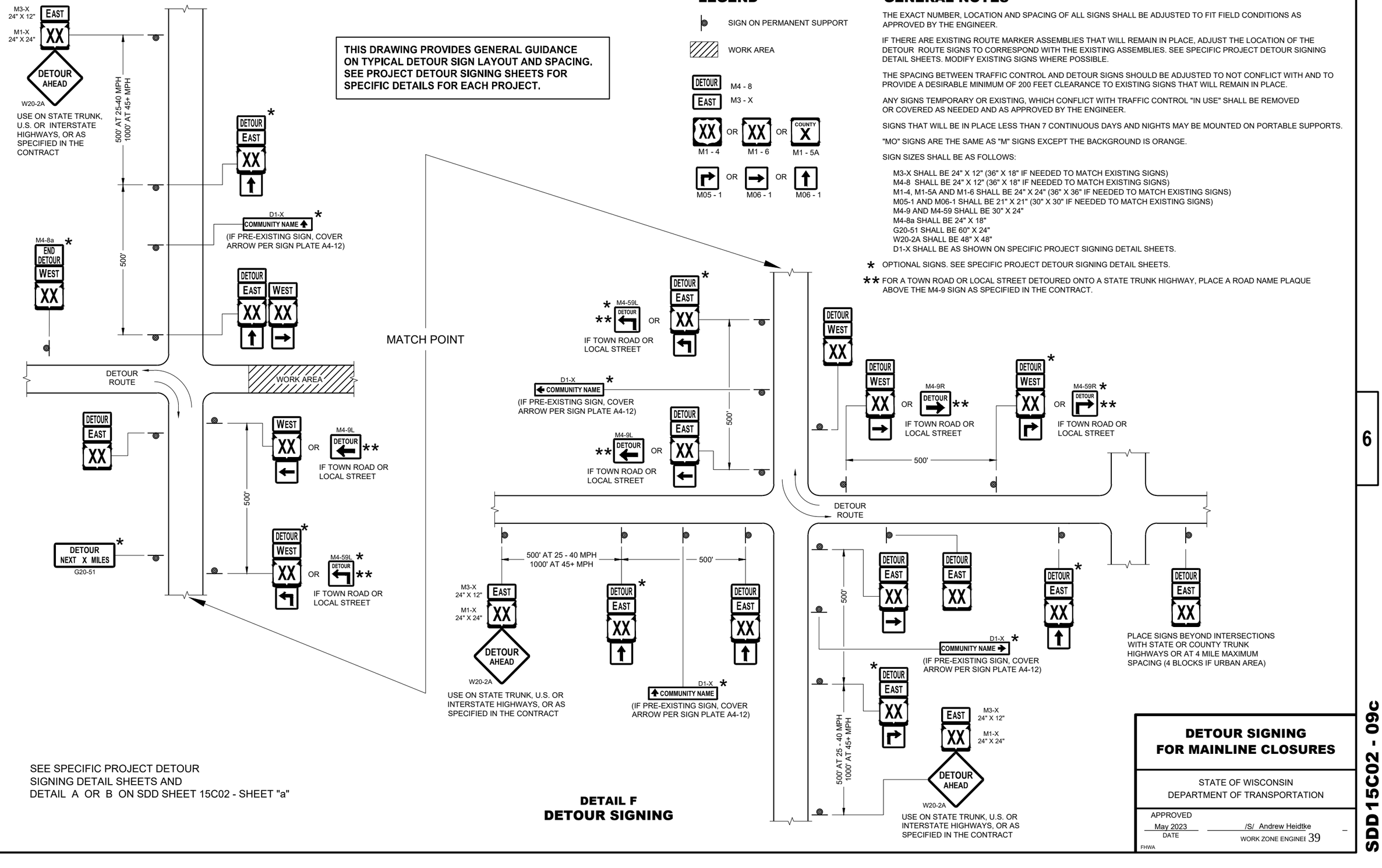
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- 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)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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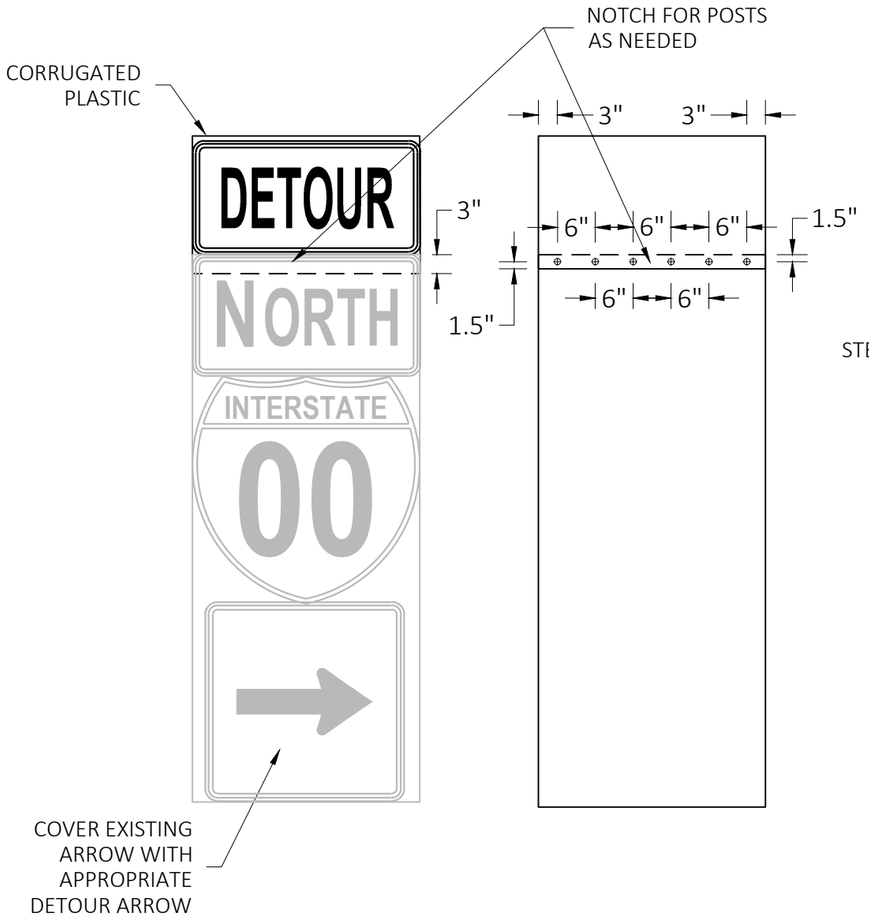
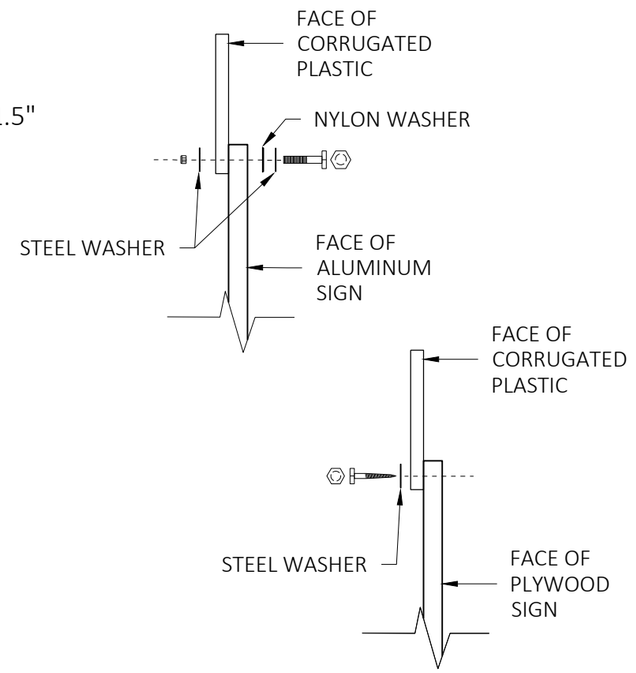
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
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

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVEL ENGINEER
FHWA

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SDD 15C02-09h

GENERAL NOTES

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

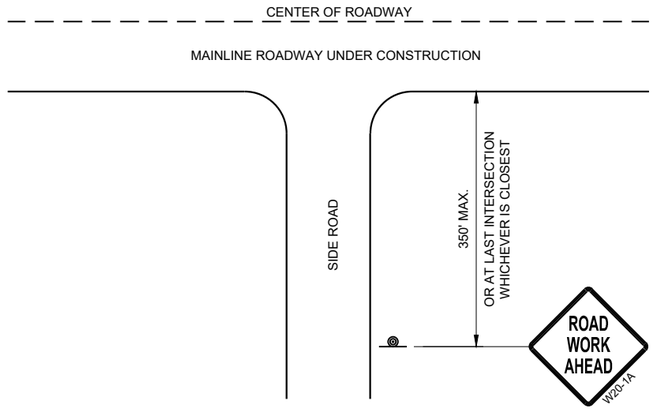
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



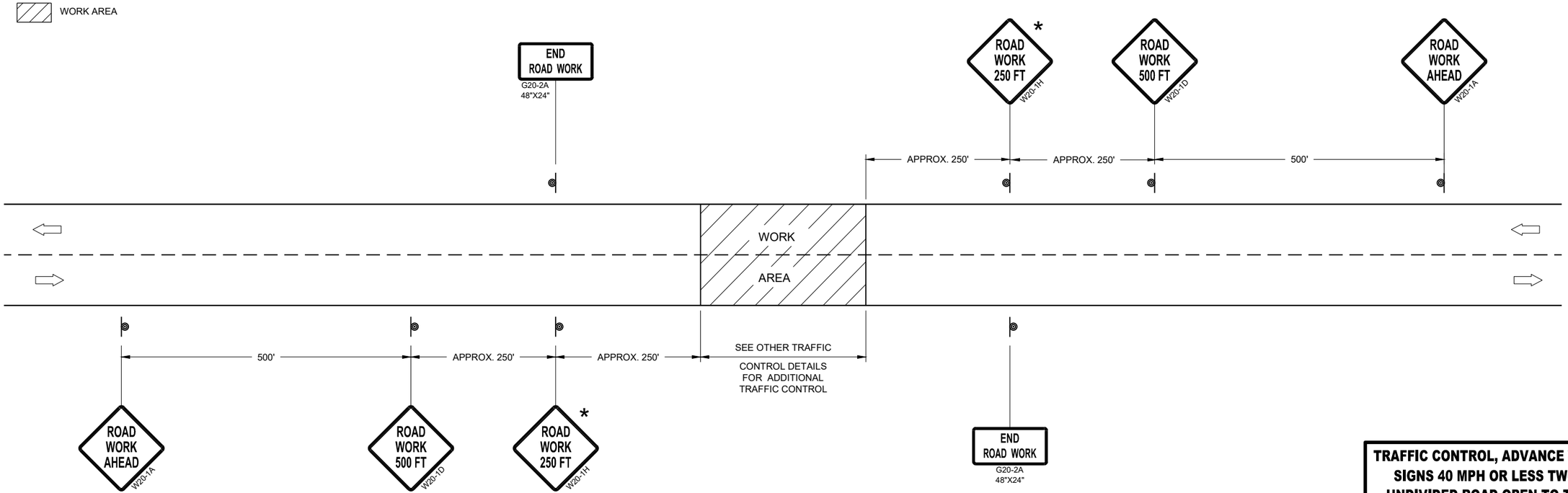
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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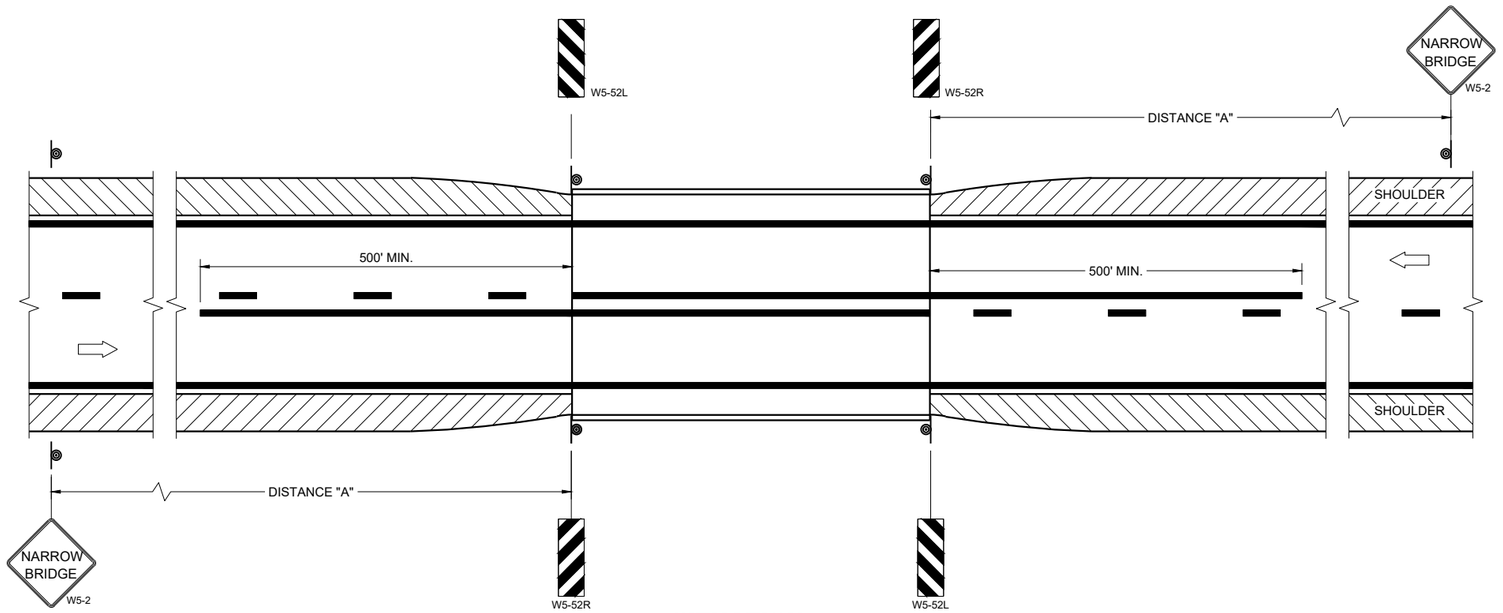
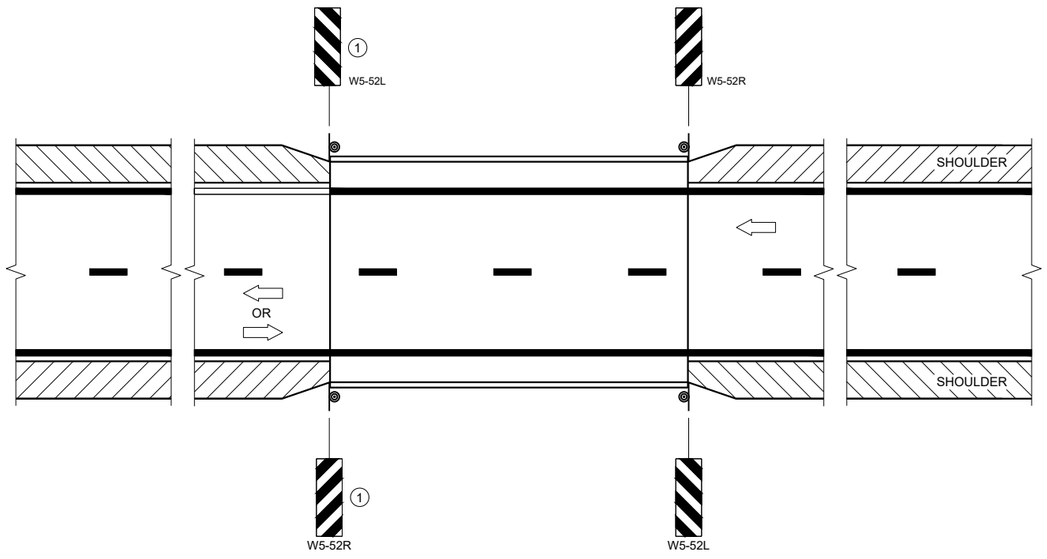
SDD 15C05 - 05



SITUATION 1

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



SITUATION 2

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

GENERAL NOTES

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

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

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

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

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

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 15C06-12

GENERAL NOTES

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

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

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

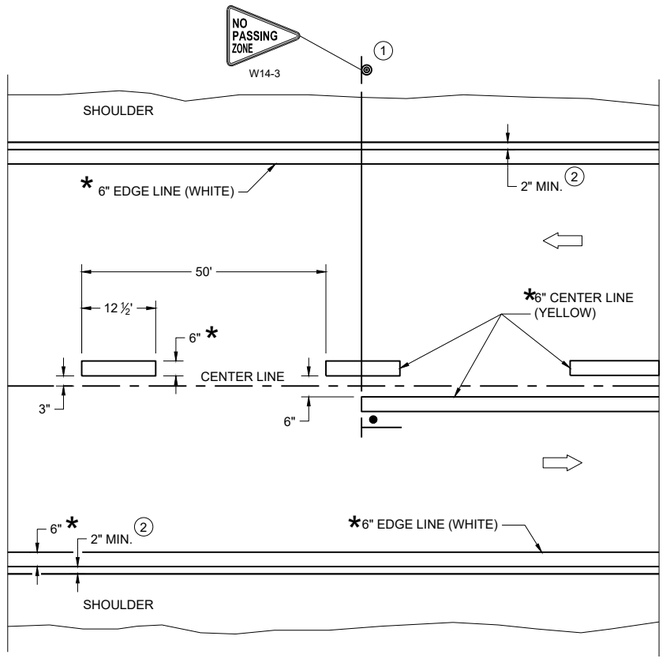
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

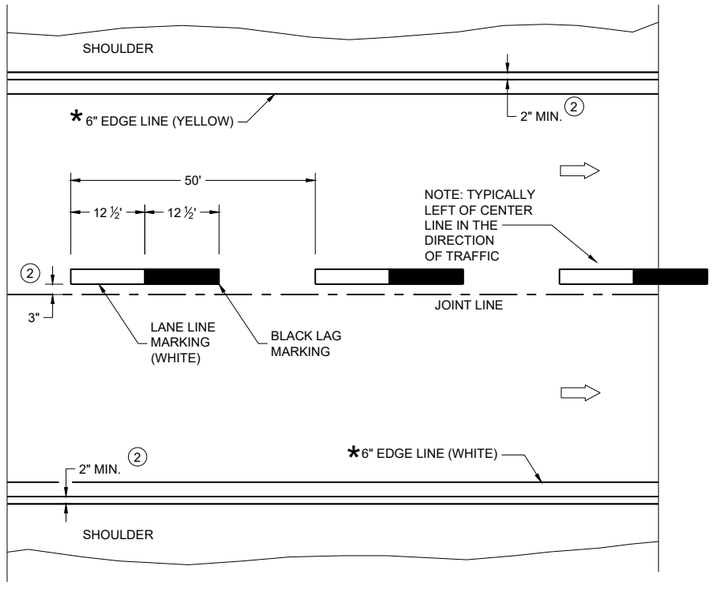
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

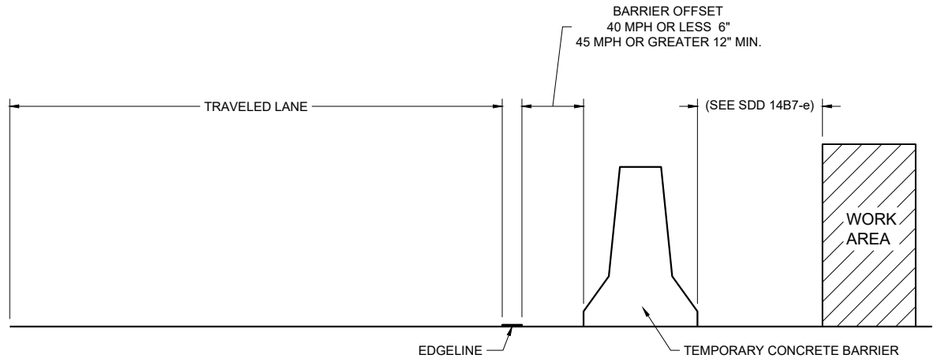
APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-24a

SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

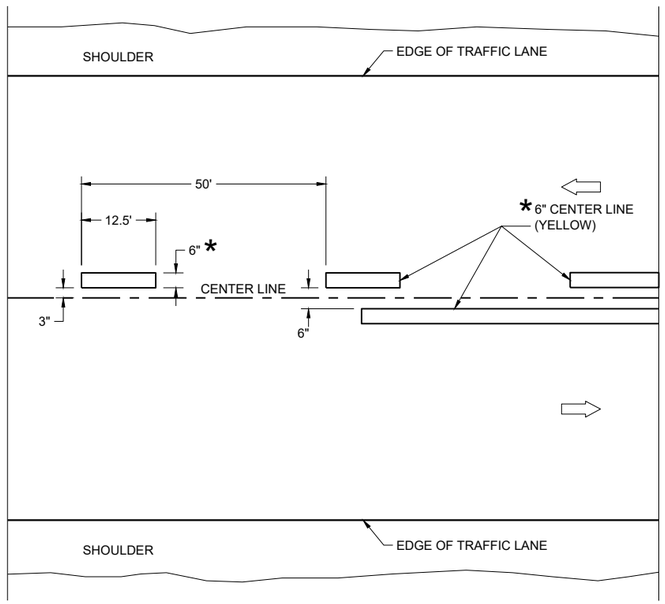
GENERAL NOTES

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

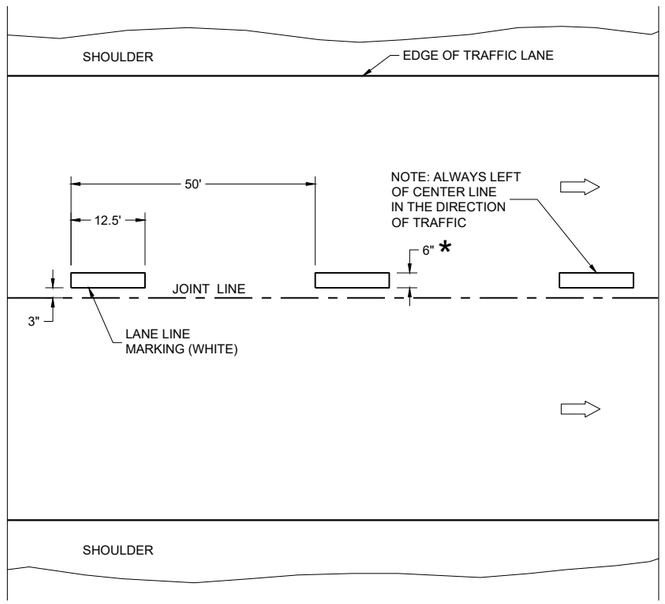
LEGEND

⇨ DIRECTION OF TRAFFIC

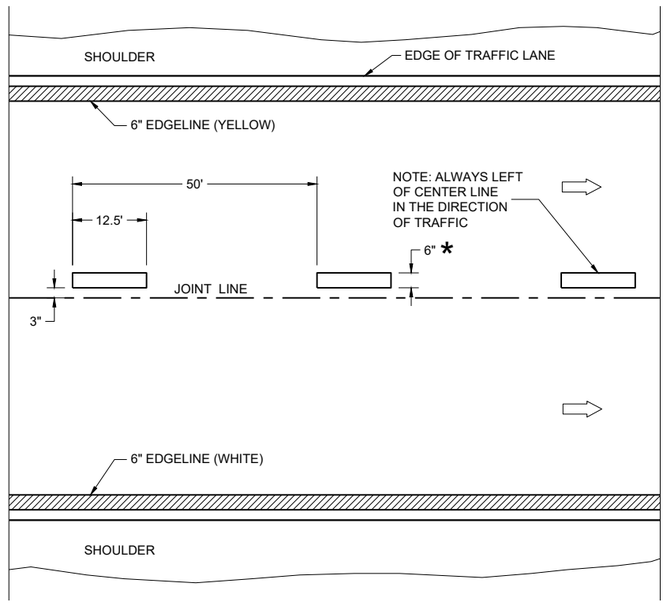
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

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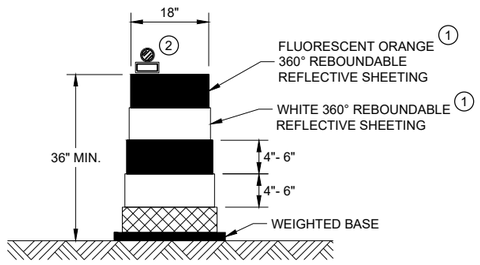
SDD 15C08-24b

6

SDD 15C08-24b

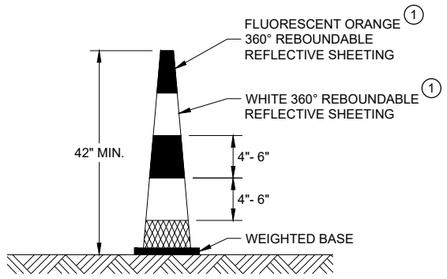
GENERAL NOTES

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

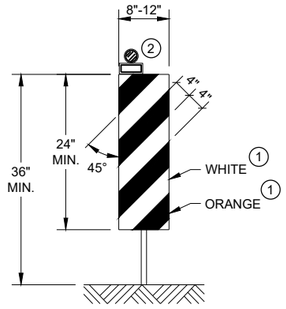
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

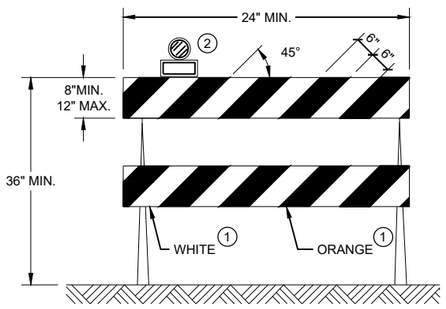
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



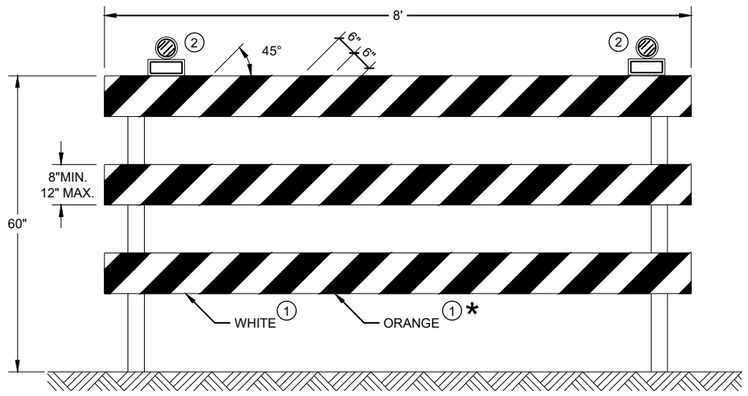
VERTICAL PANEL

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

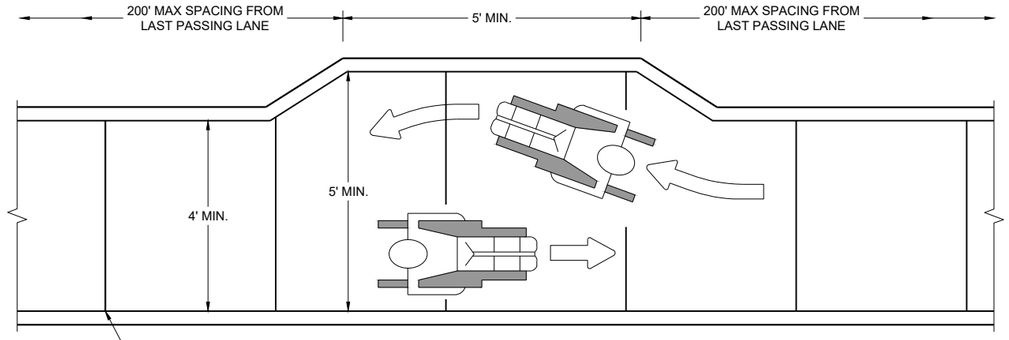
APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

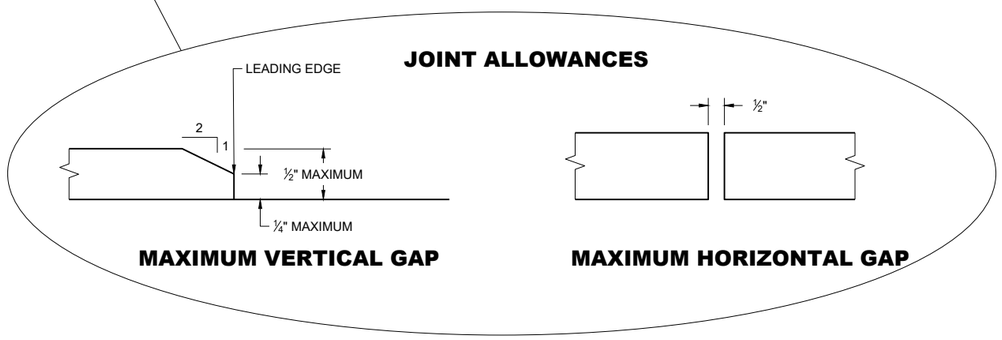
FHWA

6

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



NARROW SIDEWALK PASSING DETAIL



MAXIMUM VERTICAL GAP

MAXIMUM HORIZONTAL GAP

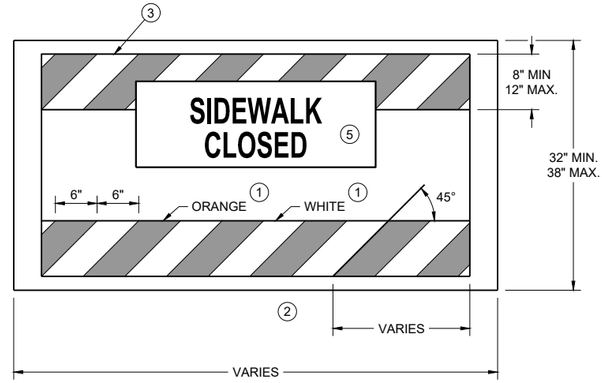
GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

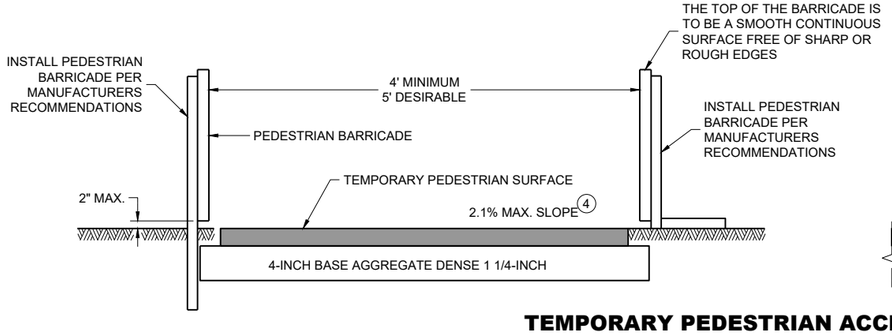
1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

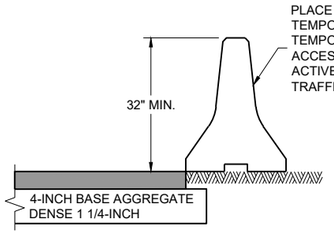
4. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
5. WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

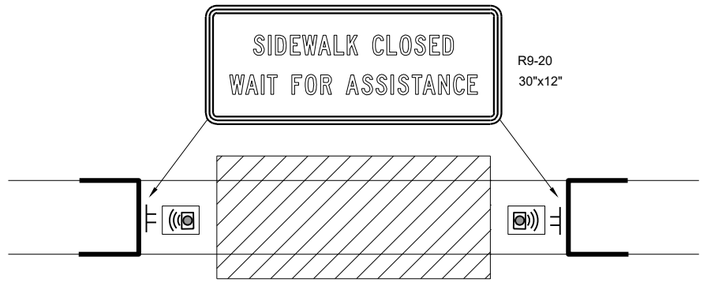


TEMPORARY PEDESTRIAN BARRICADE *



TEMPORARY PEDESTRIAN ACCESS





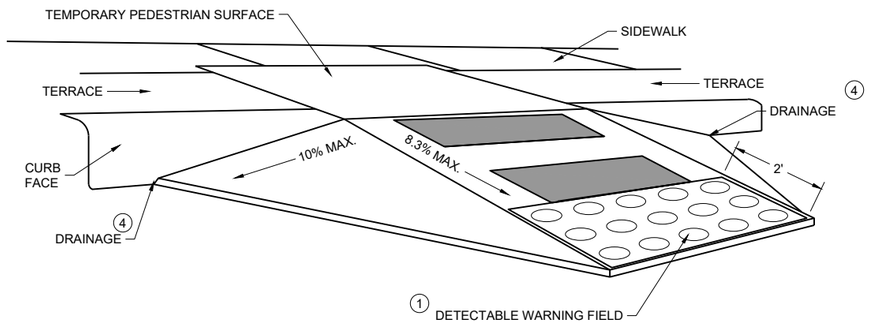
TEMPORARY PEDESTRIAN FLAGGING

LEGEND

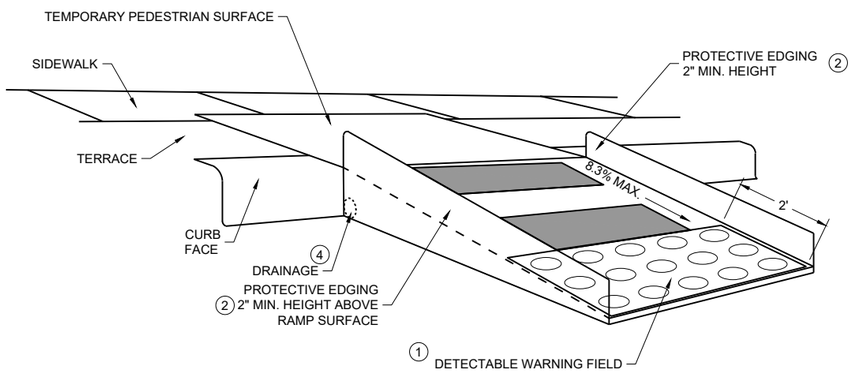
- TEMPORARY PEDESTRIAN BARRICADE
- AUDIBLE MESSAGE DEVICE
- TEMPORARY SIGN SUPPORT
- WORK AREA

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

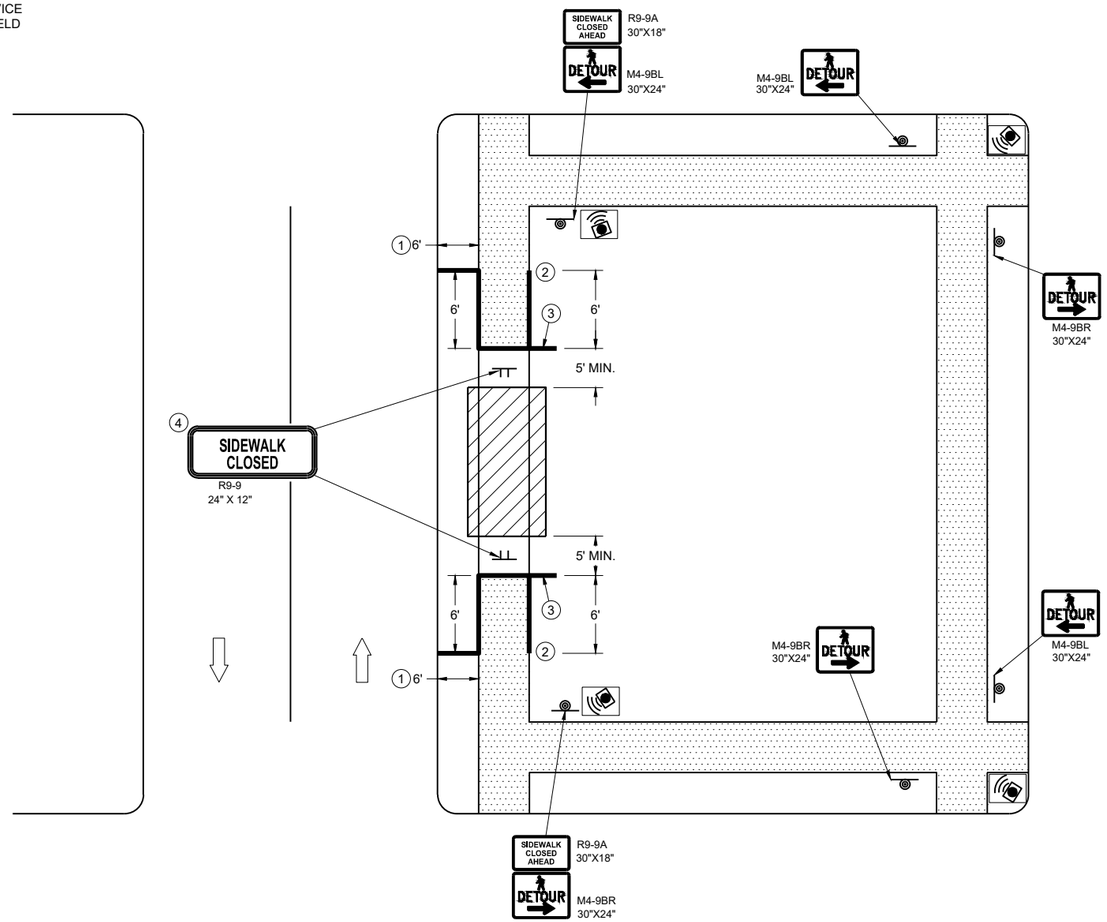
(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-12f

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

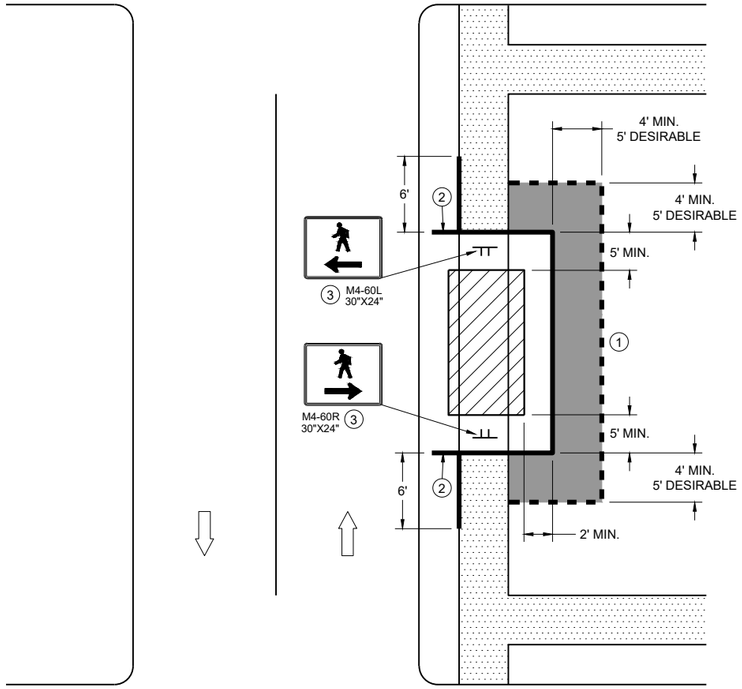
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

(1) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(2) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS
SINGLE SIDE

6

SDD 15D30-12g

6

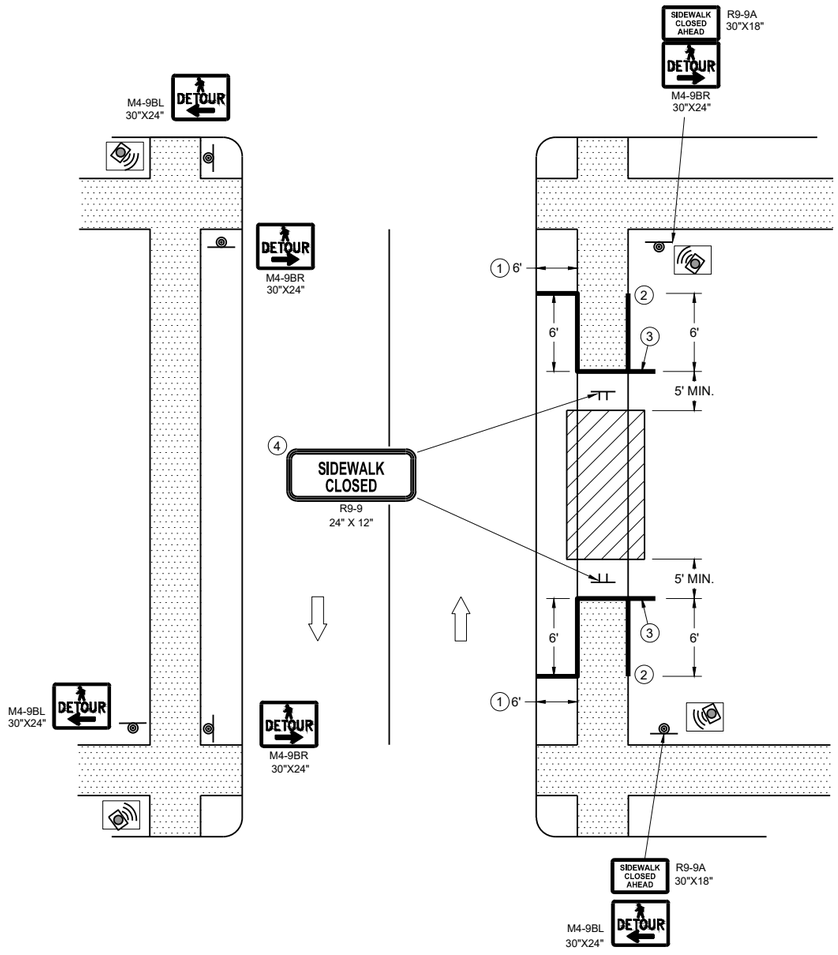
SDD 15D30-12g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

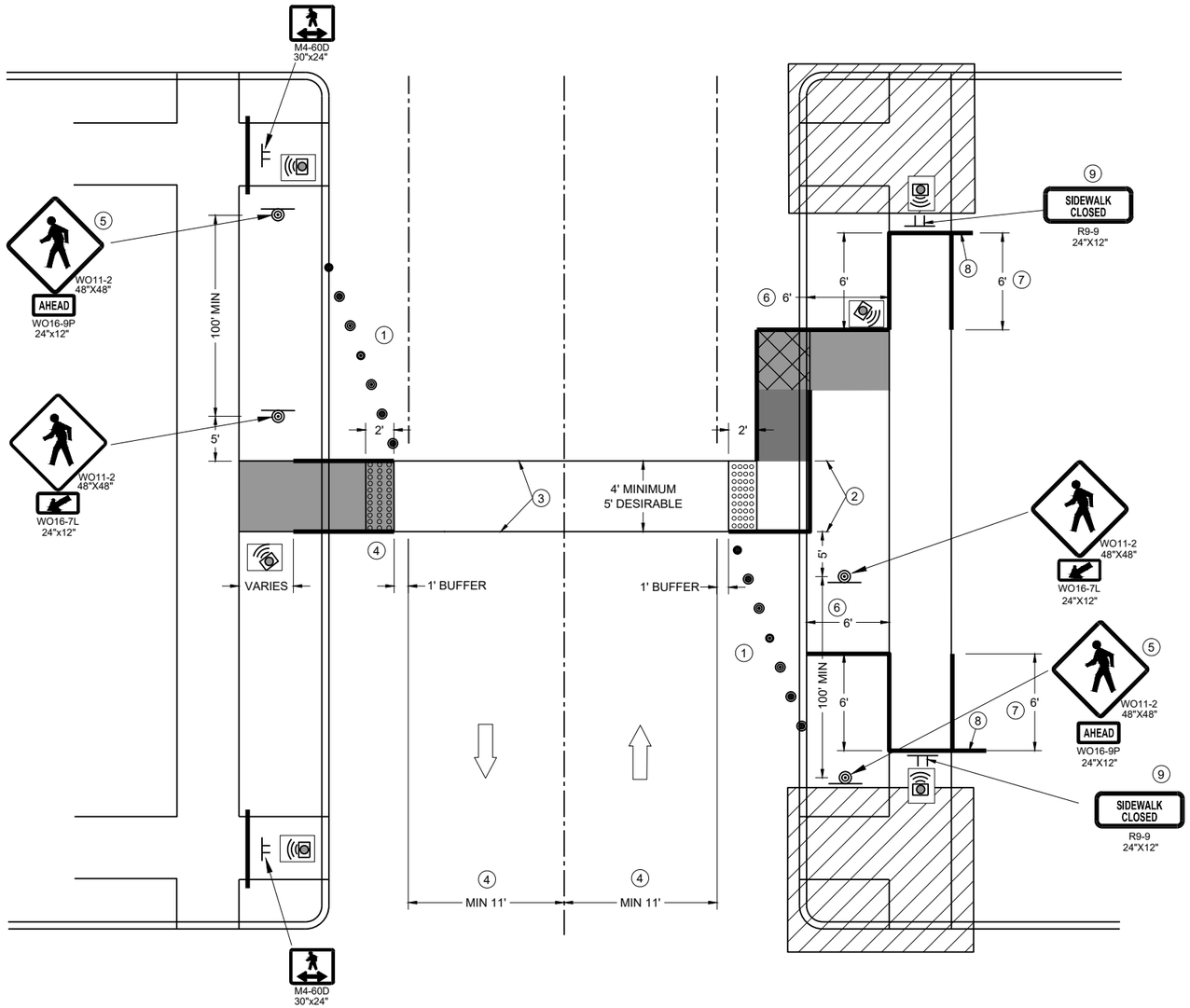
SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

1. SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
2. 4 FEET MINIMUM, 5 FEET DESIRABLE.
3. WHITE 6" TEMPORARY PAVEMENT MARKING.
4. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
5. IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
6. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
7. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
8. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
9. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

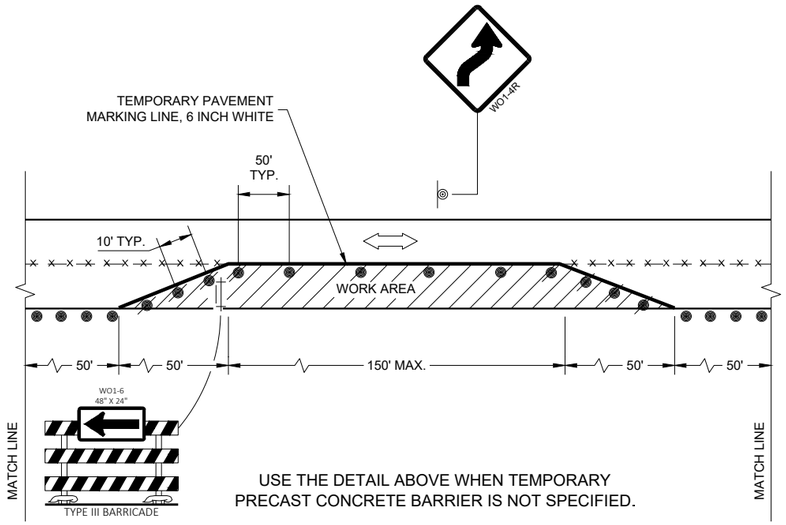
FHWA

6

SDD 15D30-12I

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

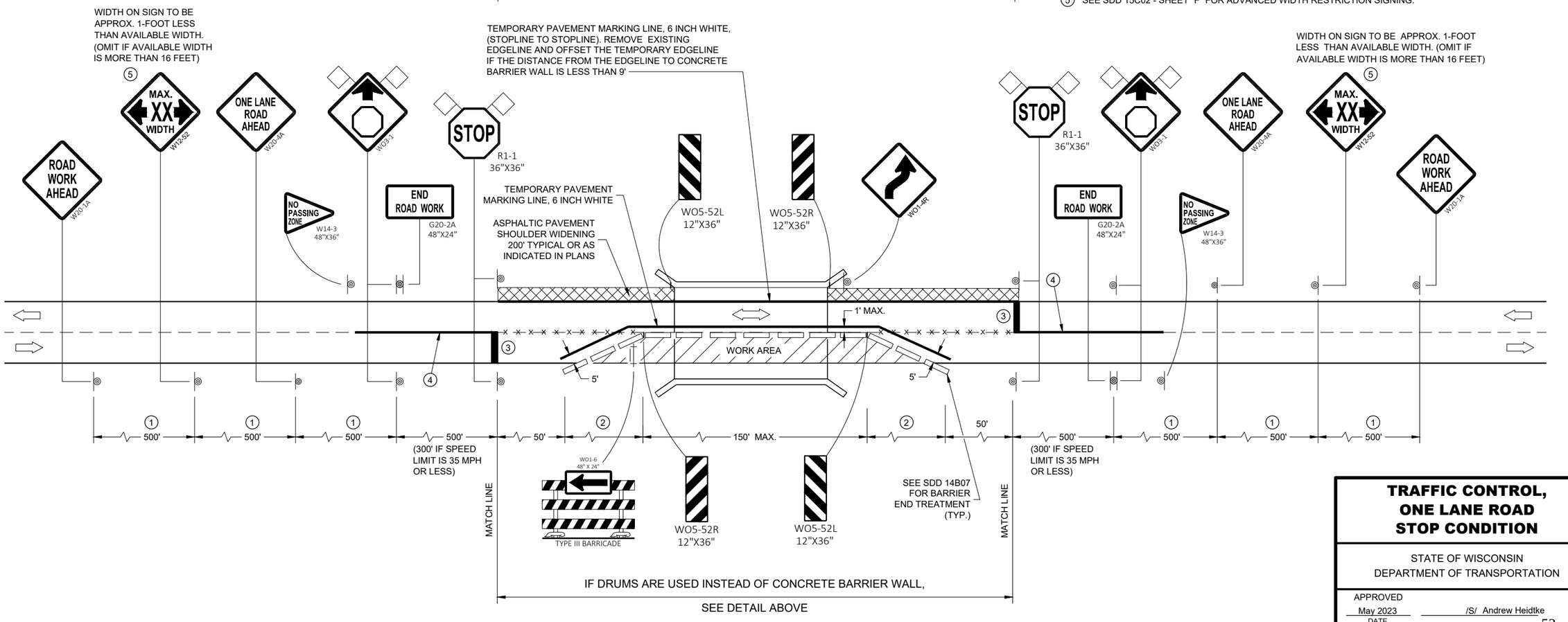
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
3. TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
4. 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW. WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
5. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION

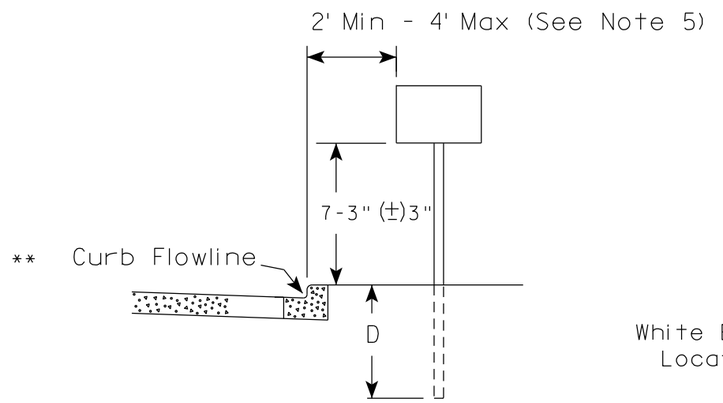
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

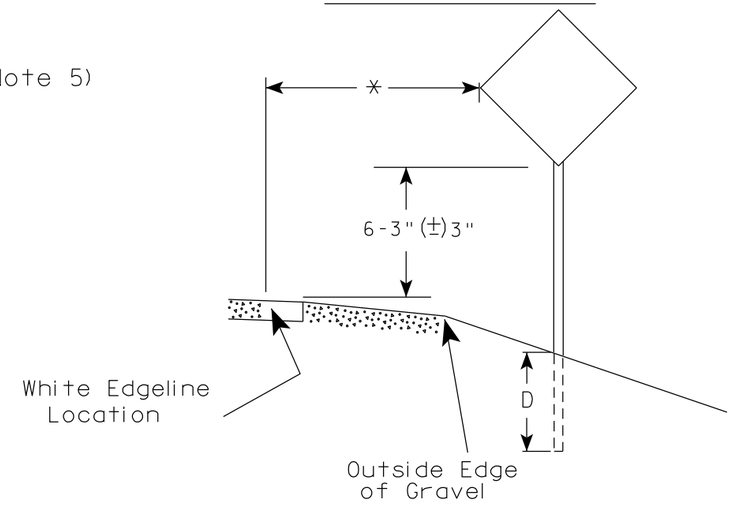
FHWA

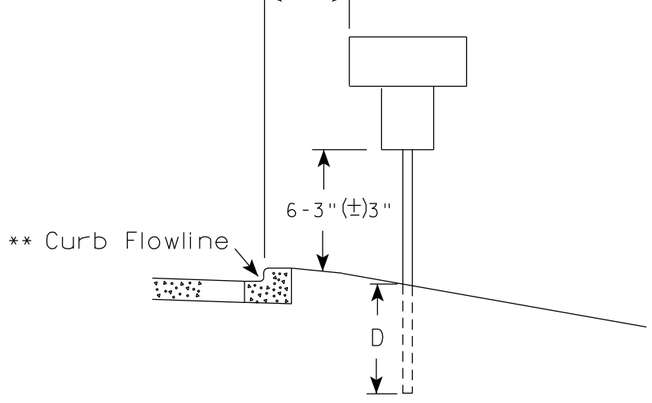
6
SDD 15D32-07

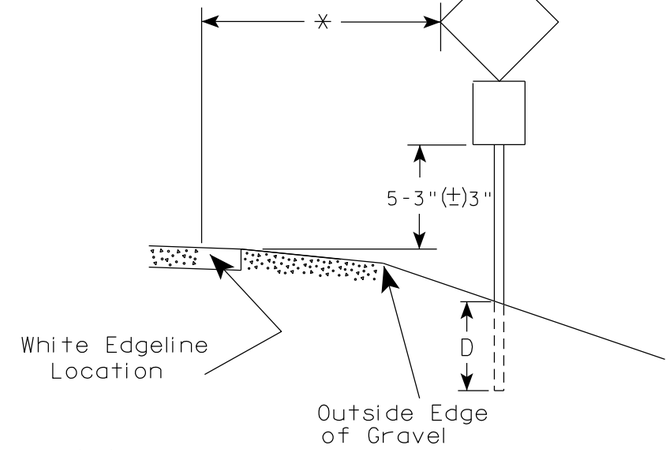
URBAN AREA



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.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

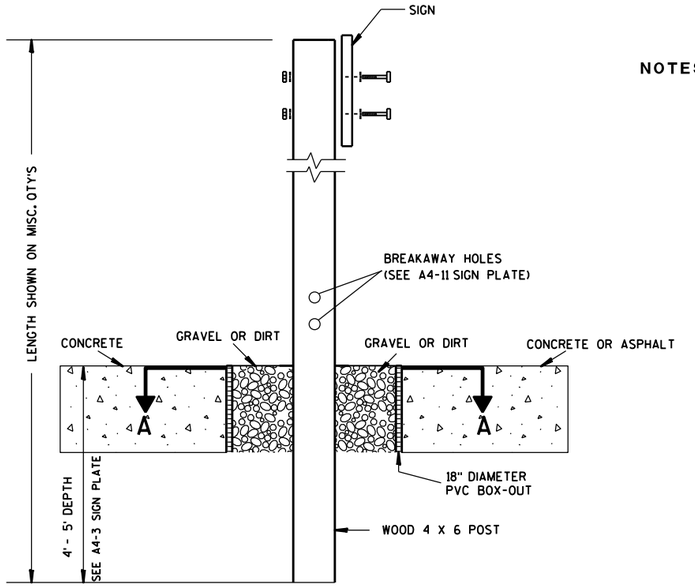
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

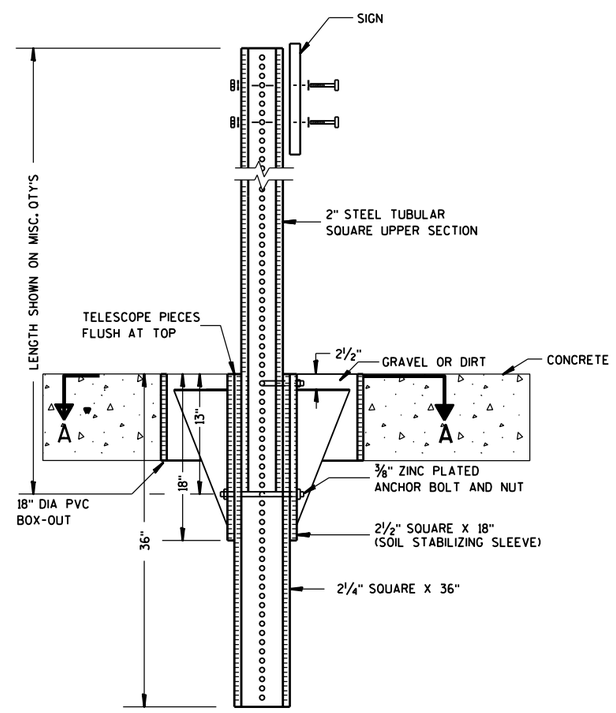
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 53	E



ELEVATION VIEW

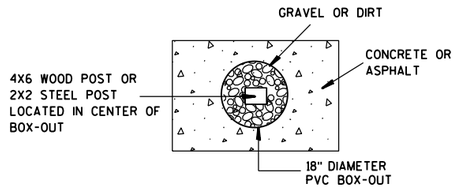
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

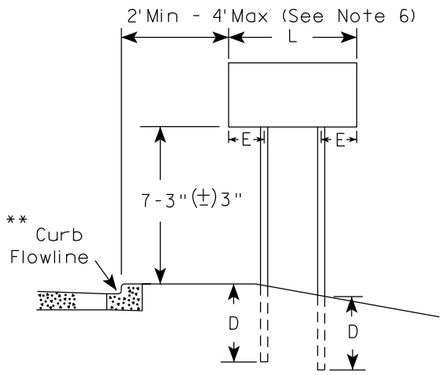
APPROVED Matthew R Rauch
for State Traffic Engineer

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

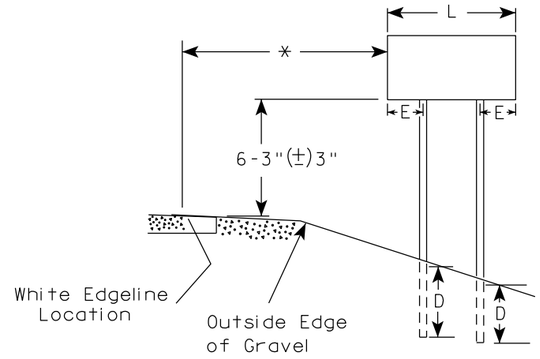
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

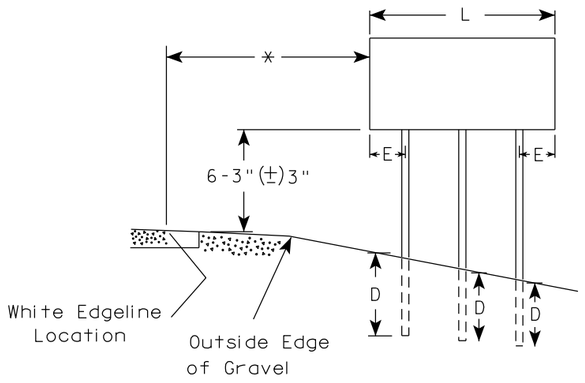
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

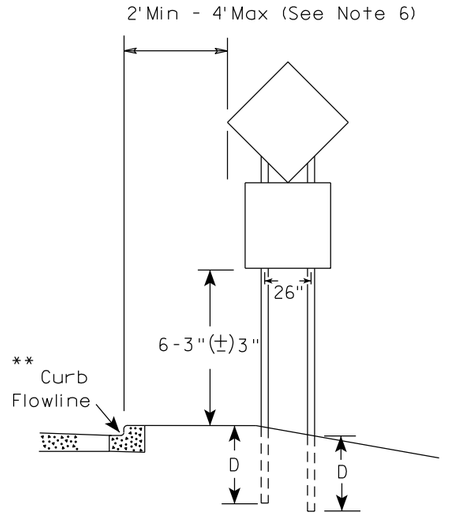
URBAN AREA



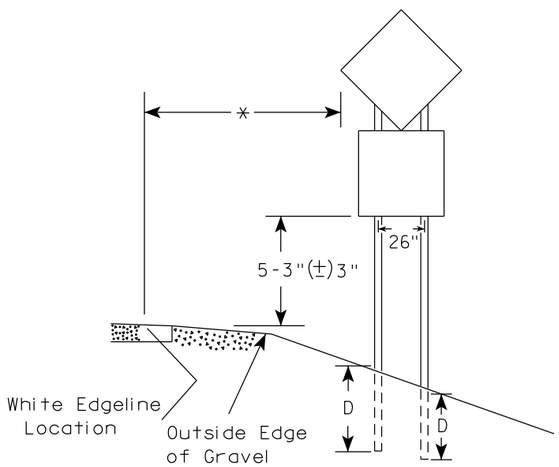
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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'

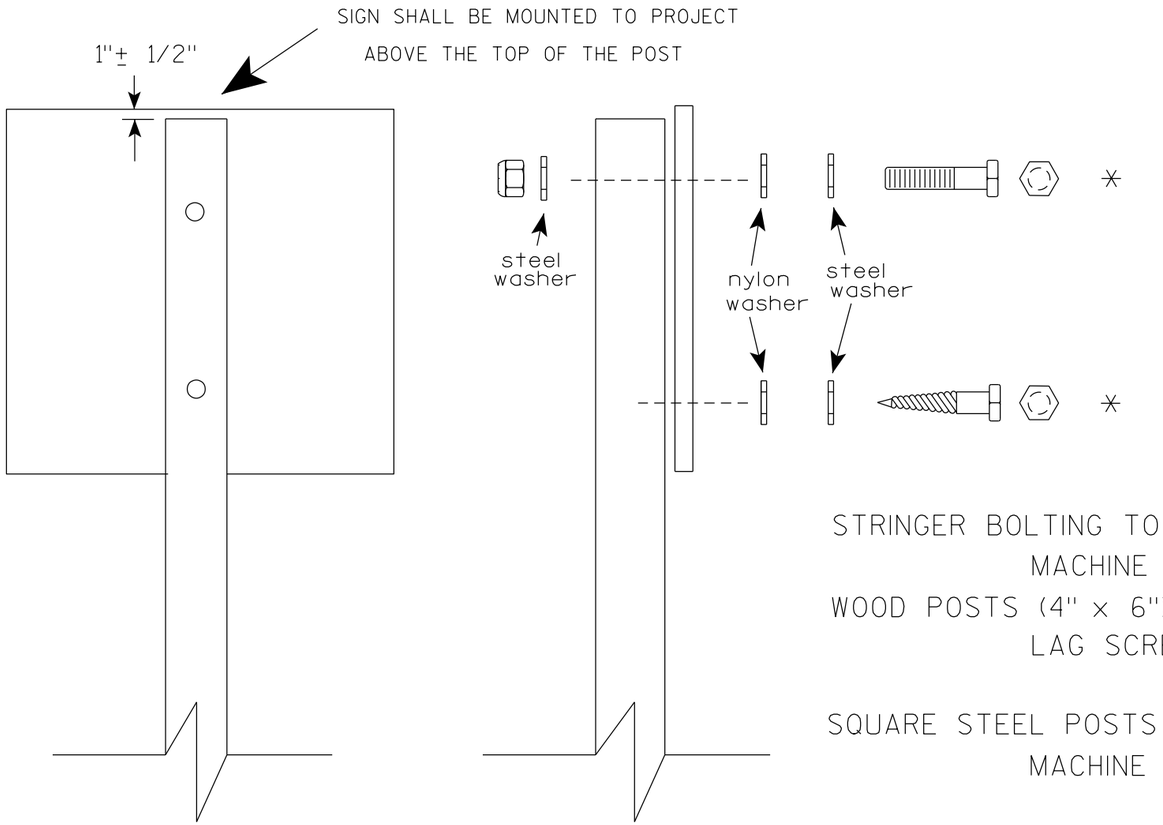
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 55	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

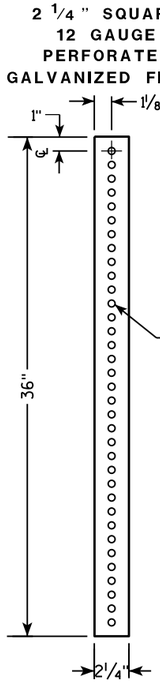
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

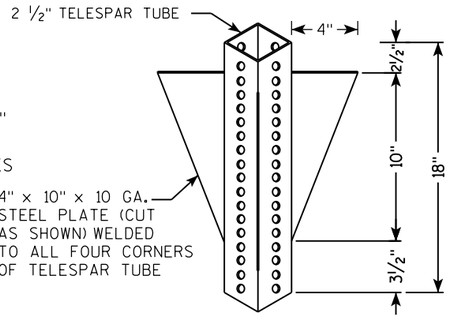
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

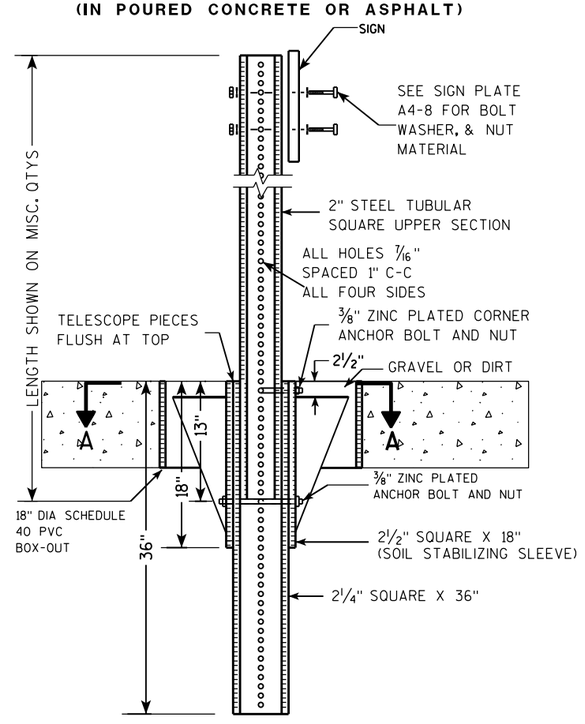
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



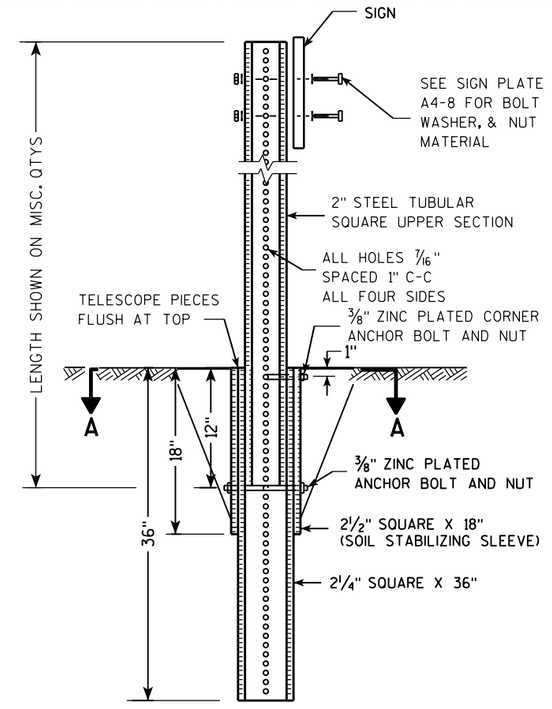
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

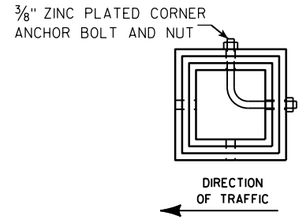


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

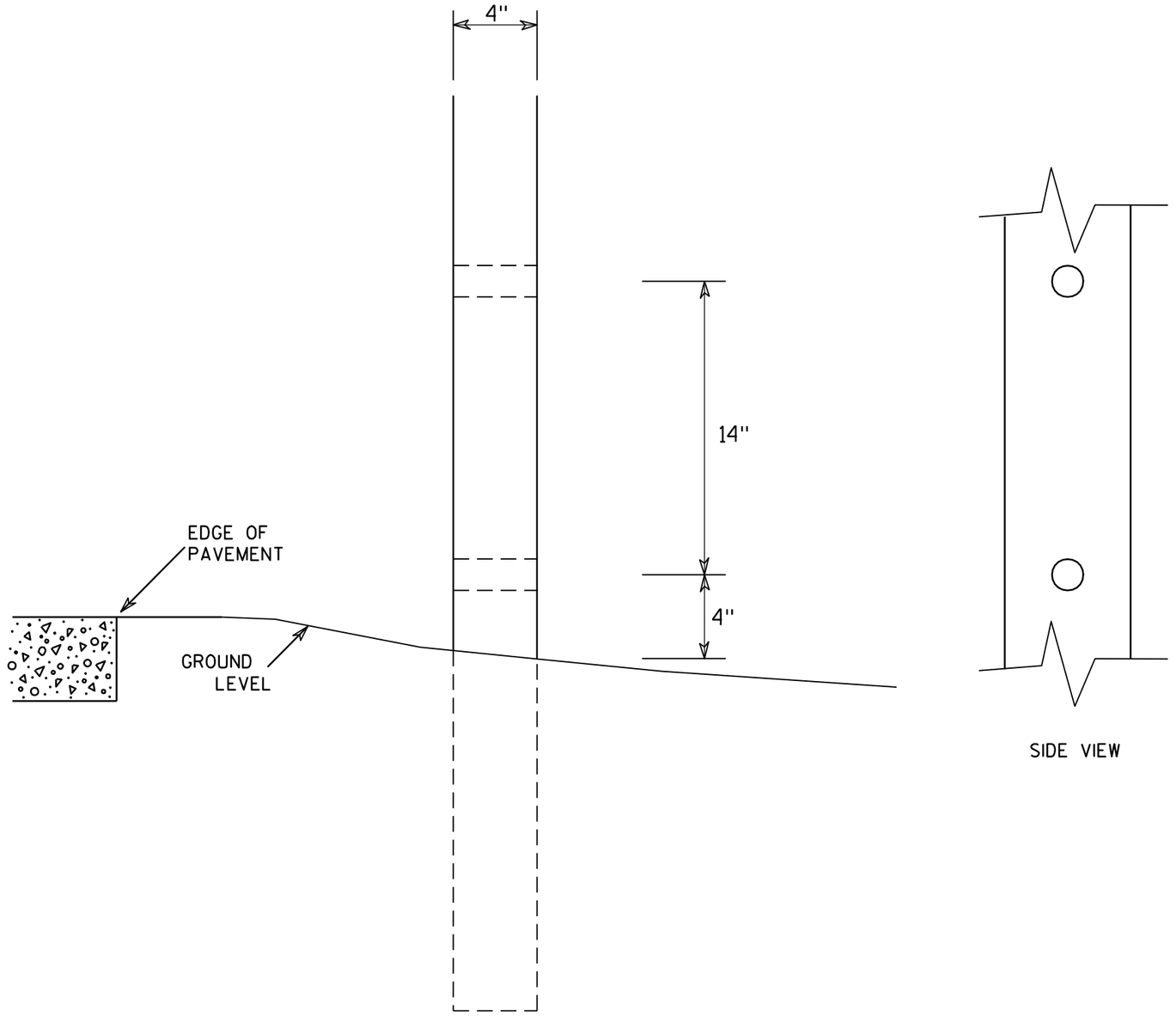
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 57 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

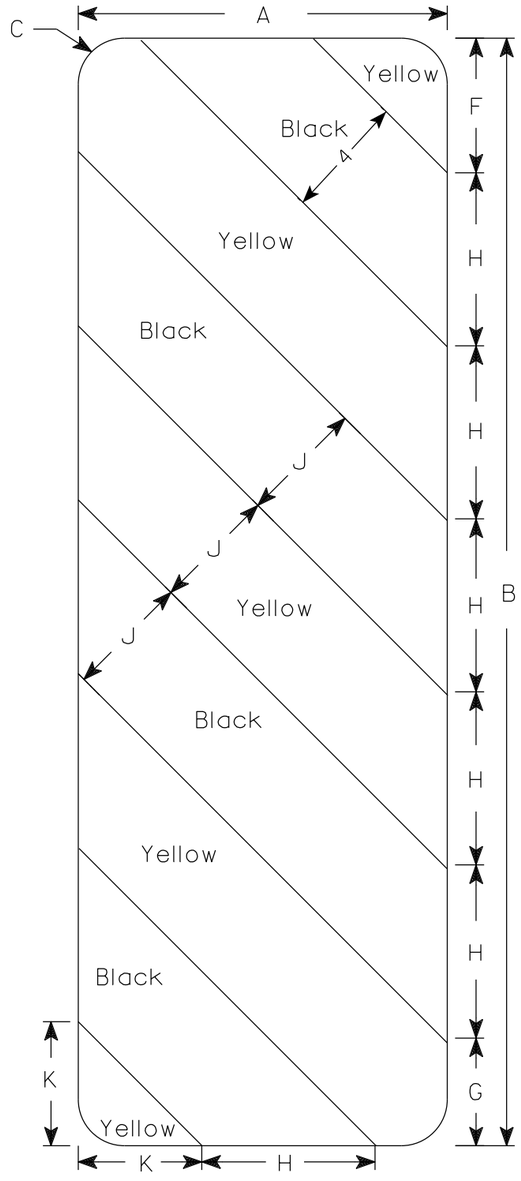
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

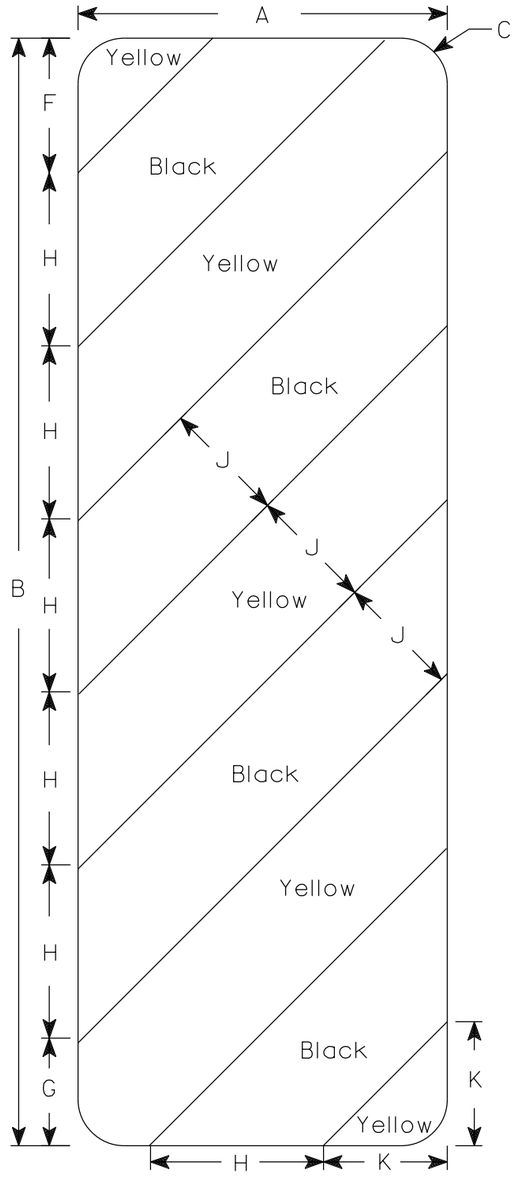
APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 58	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

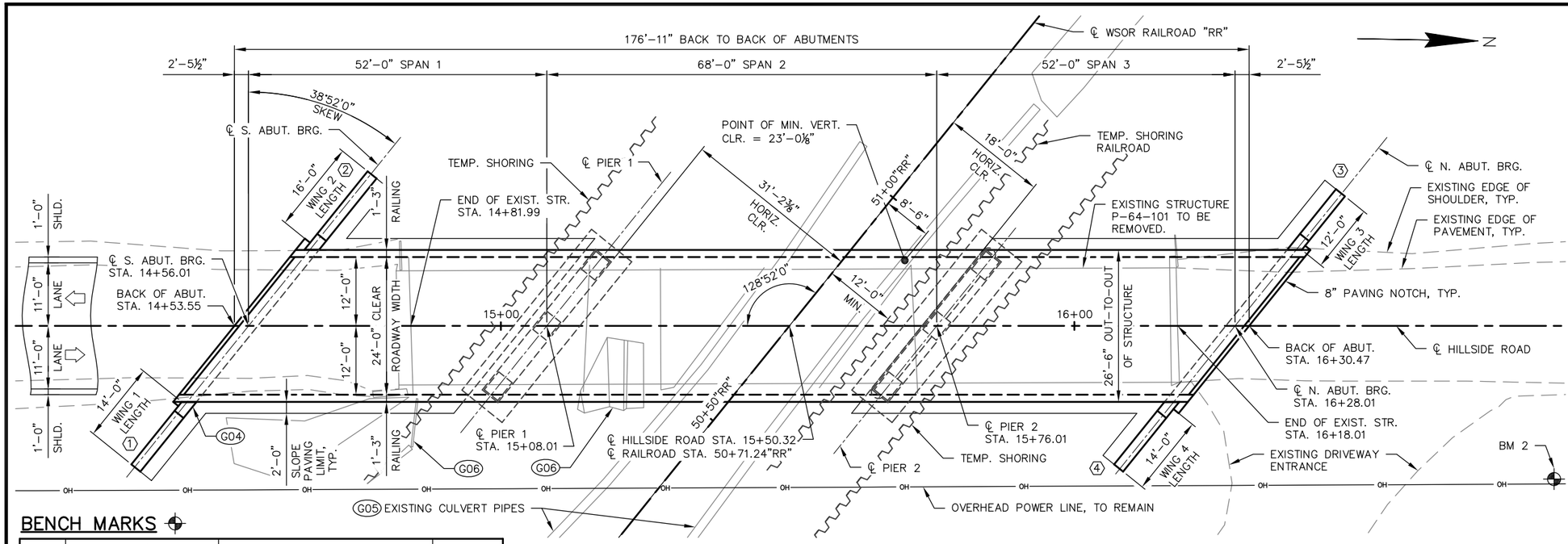
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 59 E

STATE PROJECT NUMBER
3846-00-74



PLAN B-64-215

(THREE SPAN 28-INCH PRESTRESSED GIRDERS)

BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM 1	12+12.91, 27.86' RT.	RAILROAD SPIKE IN POWER POLE	979.67
BM 2	16+83.65, 26.71' RT.	RAILROAD SPIKE IN POWER POLE	977.65

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

DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF=1.10
OPERATING RATING FACTOR	RF=1.43
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:

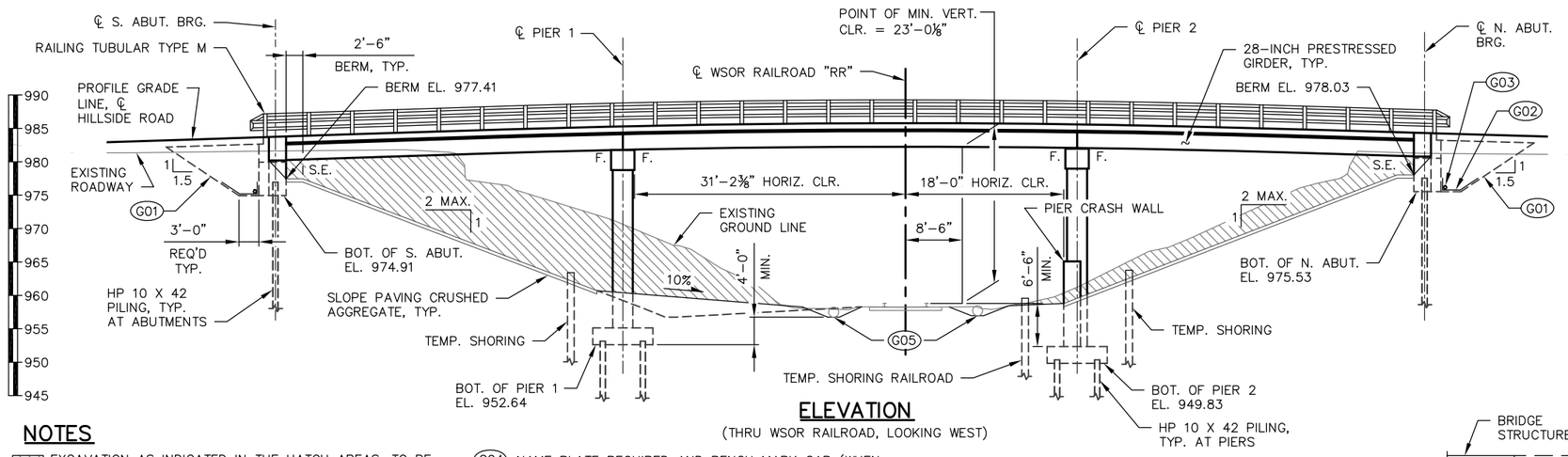
CONCRETE MASONRY, DECK	$f'c$ = 4,000 P.S.I.
ALL OTHER	$f'c$ = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 P.S.I.
28-INCH PRESTRESSED GIRDERS CONCRETE MASONRY	$f'c$ = 8,000 P.S.I.
STRANDS - 0.6" DIAMETER WITH AN ULTIMATE TENSILE STRENGTH OF	fu = 270,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE** AT S. ABUT. AND N. ABUT. AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 45 FT PILE LENGTHS AT S. ABUT. AND N. ABUT.

PIERS TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE** AT PIER 1 AND PIER 2 AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 45 FT PILE LENGTHS AT PIER 1 AND 35 FT PILE LENGTHS AT PIER 2.

**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.



ELEVATION

(THRU WSOR RAILROAD, LOOKING WEST)

NOTES

EXCAVATION AS INDICATED IN THE HATCH AREAS, TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-64-215".

(G01) BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-64-215". 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 "NORTH ABUTMENT" SHEET.

(G04) NAME PLATE REQUIRED AND BENCH MARK CAP (WHEN SUPPLIED). FOR LOCATION SEE "SOUTH ABUTMENT" SHEET.

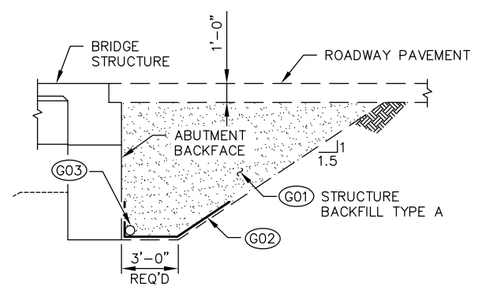
(G05) EXISTING 18" CMP CULVERTS ON NORTH AND SOUTH TRACKSIDE DITCHES, SHALL BE REMOVED SALVAGED AND STORED ON RAILROAD PROPERTY ADJACENT TO THE PROJECT SITE FOR RECLAIM BY WSOR. SEE ROADWAY PLANS FOR DETAILS, BID ITEM AND SIDE DITCH LAYOUT.

(G06) EXISTING TIMBER WALL NEAR S. ABUT. & PIER 1 TO BE REMOVED. COSTS ASSOCIATED WITH THE REMOVAL OF THE EXISTING TIMBER WALL SHALL BE INCLUDED IN THE BID ITEM "REMOVING STRUCTURE P-64-101"

⬡ INDICATES WING NUMBER

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, GENERAL NOTES AND QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. PIER 1
9. PIER 1 DETAILS
10. PIER 2
11. PIER 2 DETAILS
12. BEAM SEAT DETAIL
13. 28-INCH PRESTRESSED GIRDER
14. 28-INCH PRESTRESSED GIRDER DETAILS
15. INTERMEDIATE STEEL DIAPHRAGM
16. SUPERSTRUCTURE
17. SUPERSTRUCTURE DETAILS
18. ABUTMENT DIAPHRAGM REINFORCEMENT
19. PIER DIAPHRAGM REINFORCEMENT
20. SUPERSTRUCTURE REINFORCEMENT
21. RAILING TUBULAR TYPE M
22. SLOPE PAVING CRUSHED AGGREGATE



ABUTMENT BACKFILL DETAIL

(TYPICAL AT BOTH ABUTMENTS)

TRAFFIC DATA:

HILLSIDE ROAD

A.A.D.T. (2026)	109
A.A.D.T. (2046)	126
DESIGN SPEED	30 M.P.H.

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

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

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 JLR 12/04/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-64-215

HILLSIDE ROAD OVER WSOR RAILROAD

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	LINN

DESIGN SPEC. AASHTO LRFD DESIGN SPEC.

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

GENERAL PLAN

SHEET 1 OF 22

60

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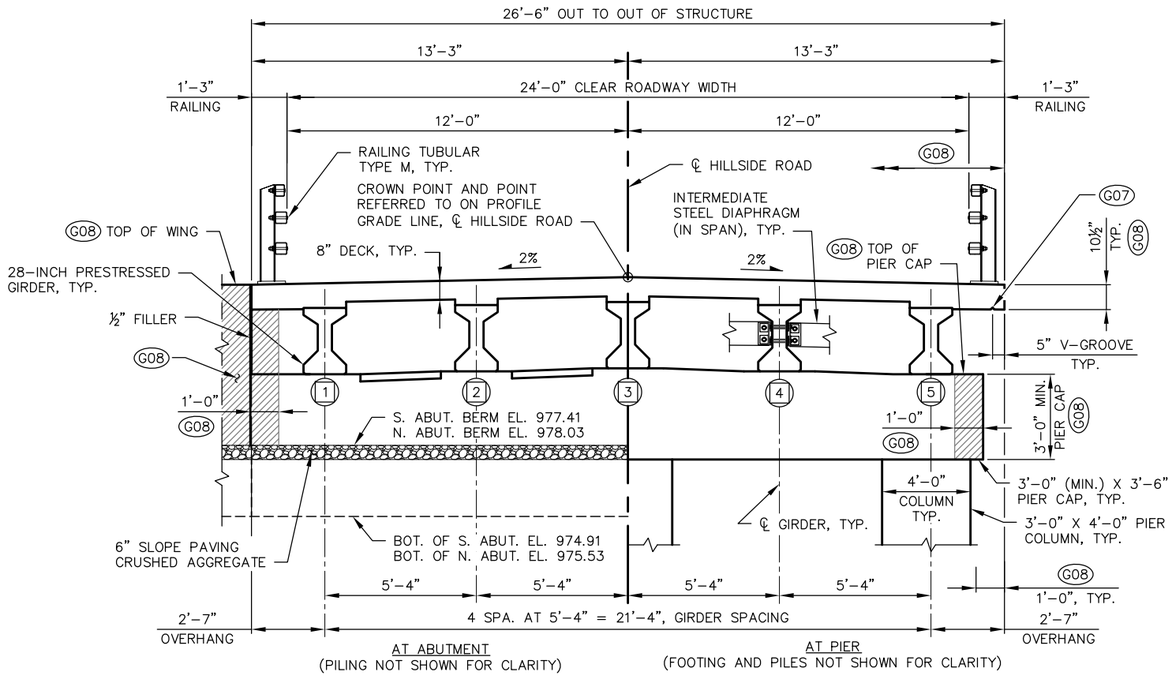
FILE: B640215_01_fsh.dwg
PLOT SCALE:

I.D. 3846-00-74

PLOT DATE: Dec 01, 2025



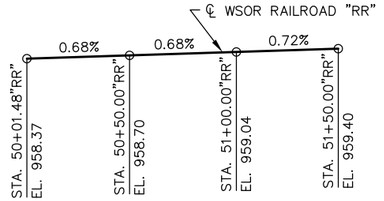
CROSS SECTION THRU ROADWAY
(LOOKING NORTH)

LEGEND

(G07) ¾" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM. V-GROOVES ARE REQUIRED.

(G08) COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO ENTIRE EXPOSED TOP OF DECK, INCLUDING THE DECK EDGES AND 1'-0" UNDER THE DECK, THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, THE FRONT FACE OF THE ABUTMENTS AND CONCRETE DIAPHRAGMS TO 1'-0" PAST THE EDGE OF DECK, THE PIER CAP EXTERIOR FACE AND THE TOP/SIDES OF THE PIER CAP TO 1'-0" PAST THE EDGE OF DECK.

(#) INDICATES GIRDER LINE DESIGNATION



PROFILE GRADE LINE, ℄ WSOR RAILROAD "RR"
(ELEVATIONS BASED ON TOP OF RAIL FIELD SURVEY)

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	S. ABUT.	PIER 1	PIER 2	N. ABUT.	SUPER.	TOTALS
203.0220	REMOVING STRUCTURE P-64-101	EACH	---	---	---	---	---	1
203.0330	DEBRIS CONTAINMENT P-64-101	EACH	---	---	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-64-215	EACH	---	---	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	190	---	---	180	---	370
502.0100	CONCRETE MASONRY BRIDGES	CY	37.6	75.0	106.1	36.1	162.4	417
502.3200	PROTECTIVE SURFACE TREATMENT	SY	22	3	3	21	599	648
503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	---	---	---	---	863	863
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2200	14730	17800	2070	---	36800
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1260	0	0	1040	36570	38870
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	5	10	10	5	---	30
506.4000	STEEL DIAPHRAGMS B-64-215	EACH	---	---	---	---	12	12
511.1200	TEMPORARY SHORING B-64-215	SF	---	640	950	---	---	1590
513.4061	RAILING TUBULAR TYPE M	LF	---	---	---	---	358	358
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	7	---	---	7	---	14
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	225	720	560	225	---	1730
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	183	---	---	196	---	379
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	85	---	---	85	---	170
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	35	---	---	35	---	70
SPV.0165	TEMPORARY SHORING RAILROAD	SF	---	---	560	---	---	560
(NON-BID ITEM)	FILLER	SIZE	---	---	---	---	---	½"

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.

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

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCLUDED WITH BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-64-215".

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

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

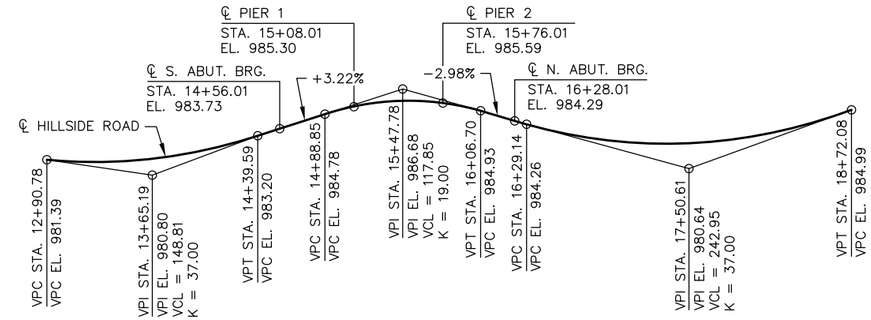
THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS AND PIERS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON THE "GENERAL PLAN" SHEET AND THE "SLOPE PAVING CRUSHED AGGREGATE" SHEET.

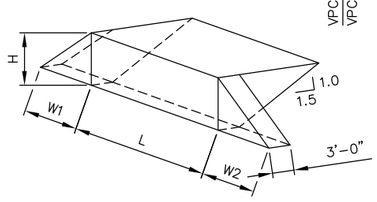
THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "28-INCH PRESTRESSED GIRDER DETAILS" SHEET.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING STRUCTURE P-64-101 IS A NINE SPAN TIMBER DECK GIRDER BRIDGE WITH AN OVERALL LENGTH OF 136.0-FT AND A TOTAL DECK WIDTH OF 20.4-FT. SUPERSTRUCTURE, TIMBER PIERS, TIMBER ABUTMENTS, AND ADJACENT TIMBER WALLS NEAR S. ABUT. & PIER 1 SHALL BE REMOVED IN ACCORDANCE WITH THE BID ITEM "REMOVING STRUCTURE P-64-101".

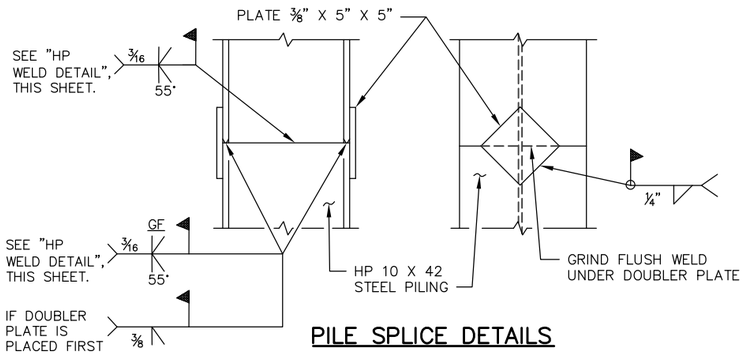


PROFILE GRADE LINE, ℄ HILLSIDE ROAD

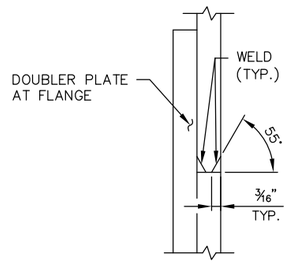


ABUTMENT BACKFILL DIAGRAM

L = OUT TO OUT OF ABUTMENT BODY (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
W1 = WING 1 LENGTH (FT)
W2 = WING 2 LENGTH (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3.0')(0.5)(W1+W2)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)



PILE SPLICE DETAILS



HP WELD DETAIL
(FLANGE SHOWN, WEB SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY CDS | PLANS CK'D ACK

CROSS SECTION, GENERAL NOTES AND QUANTITIES

SHEET 2 OF 22

61

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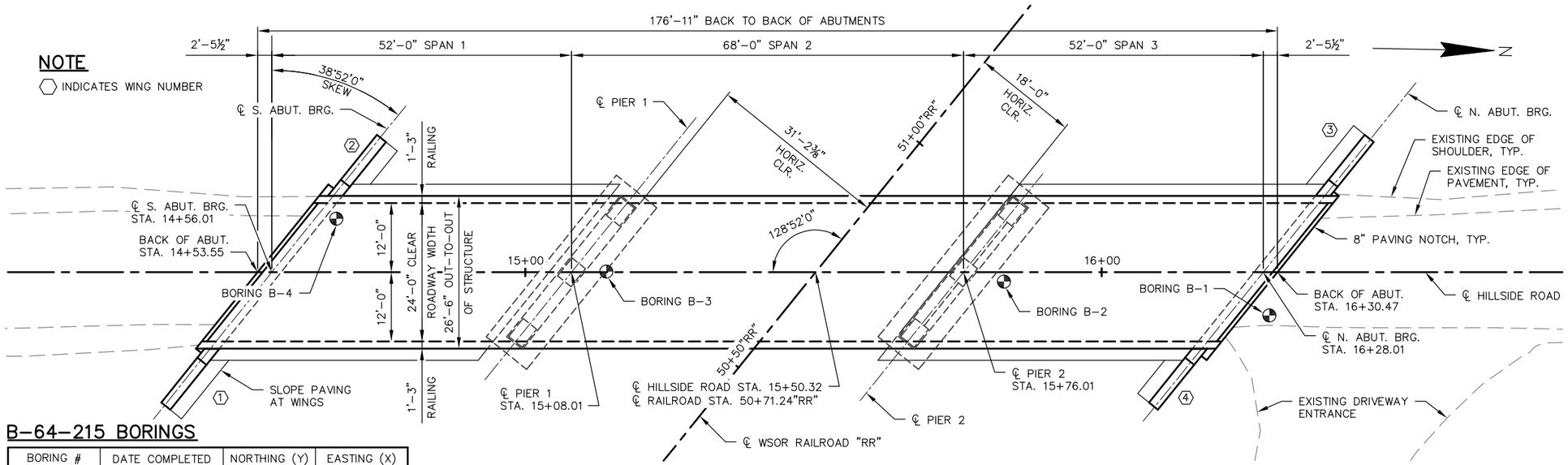
I.D. 3846-00-74

PLOT DATE: Dec 01, 2025

FILE: B640215_02_qnt.dwg
PLOT SCALE:

NOTE

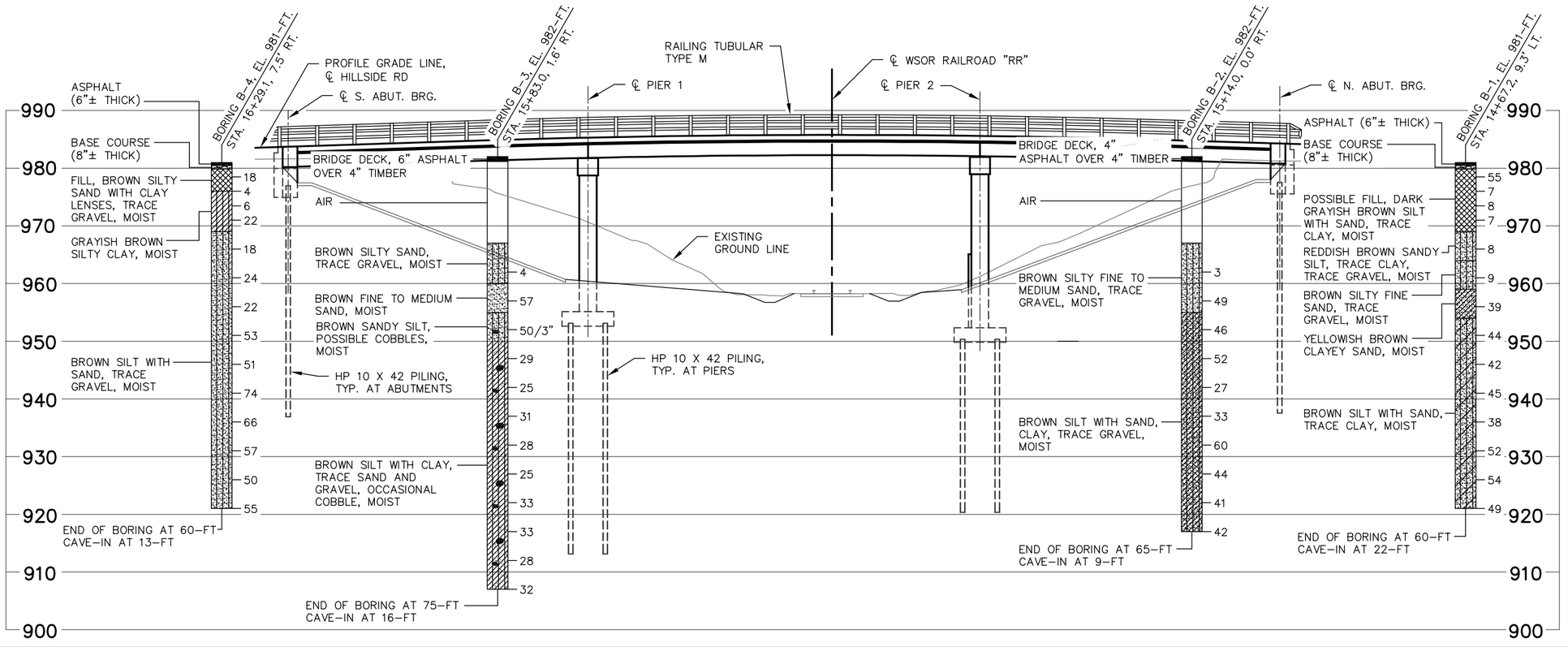
⬡ INDICATES WING NUMBER



PLAN B-64-215

B-64-215 BORINGS

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING B-1	8/29/2023	304664.5	784445.5
BORING B-2	9/21/2023	304711.5	784453.6
BORING B-3	9/20/2023	304780.5	784453.8
BORING B-4	8/30/2023	304826.7	784458.6
BORINGS COMPLETED BY: AMERICA'S DRILLING CO.			
SUBSURFACE INVESTIGATION REPORT: PROFESSIONAL SERVICE INDUSTRIES, INC.			
ALL COORDINATES REFERENCED TO WISCRS, WALWORTH COUNTY			



8

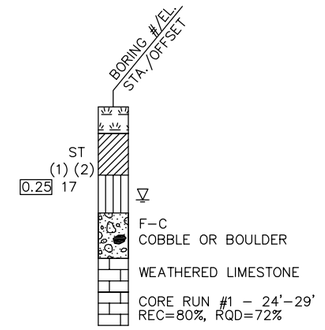
STATE PROJECT NUMBER

3846-00-74

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-64-215

DRAWN BY CDS | PLANS CK'D ACK

SUBSURFACE EXPLORATION

SHEET 3 OF 22

62

8

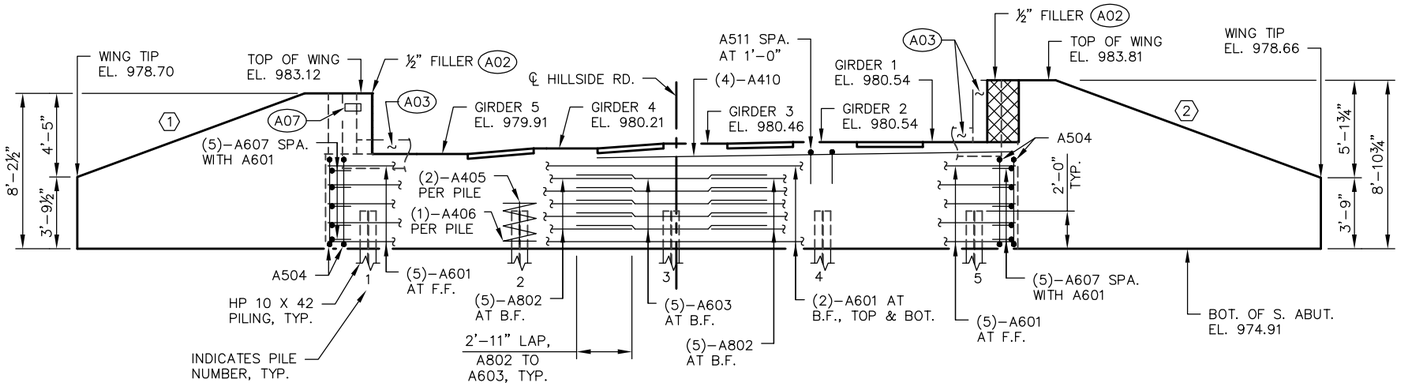
I.D. 3846-00-74

PLOT DATE: Aug 04, 2025

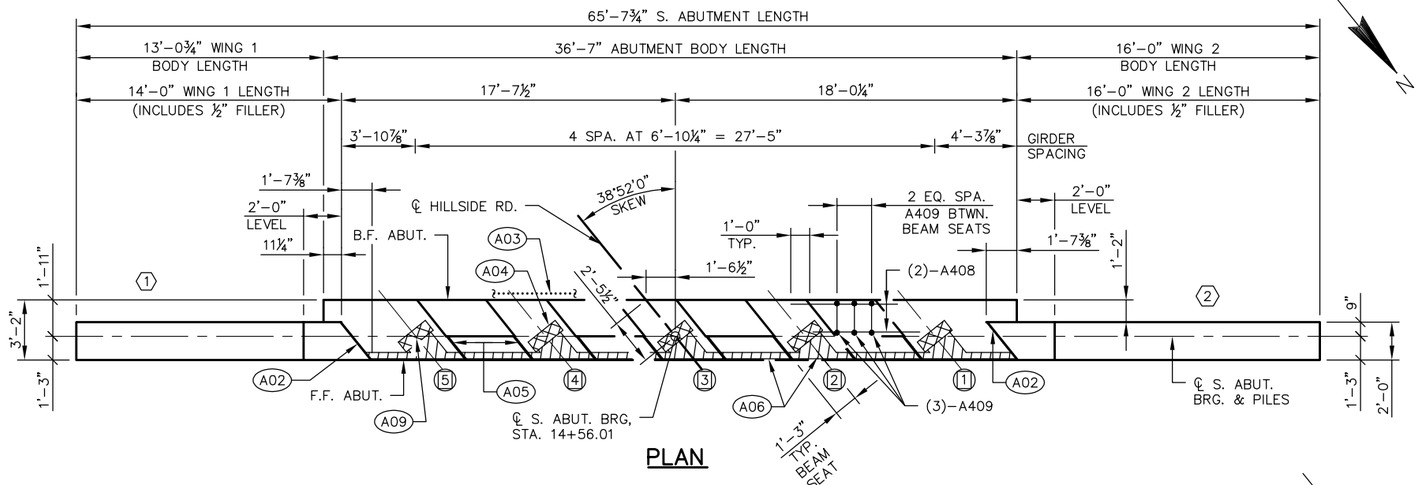
FILE: B640215_03_bor.dwg
PLOT SCALE:

STATE PROJECT NUMBER

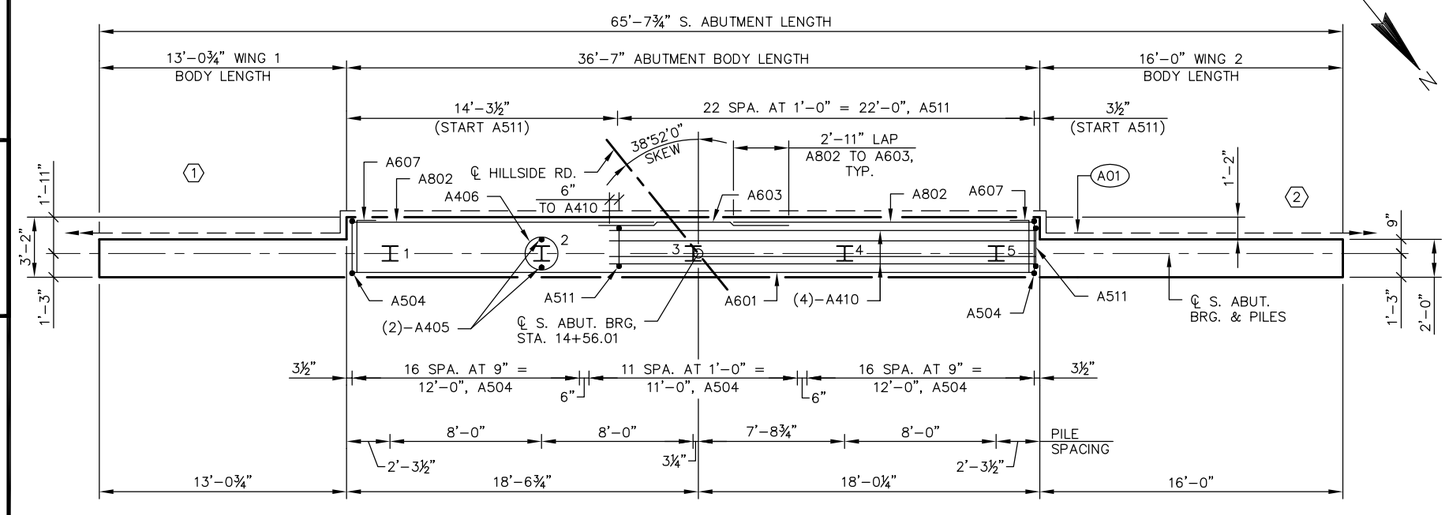
3846-00-74



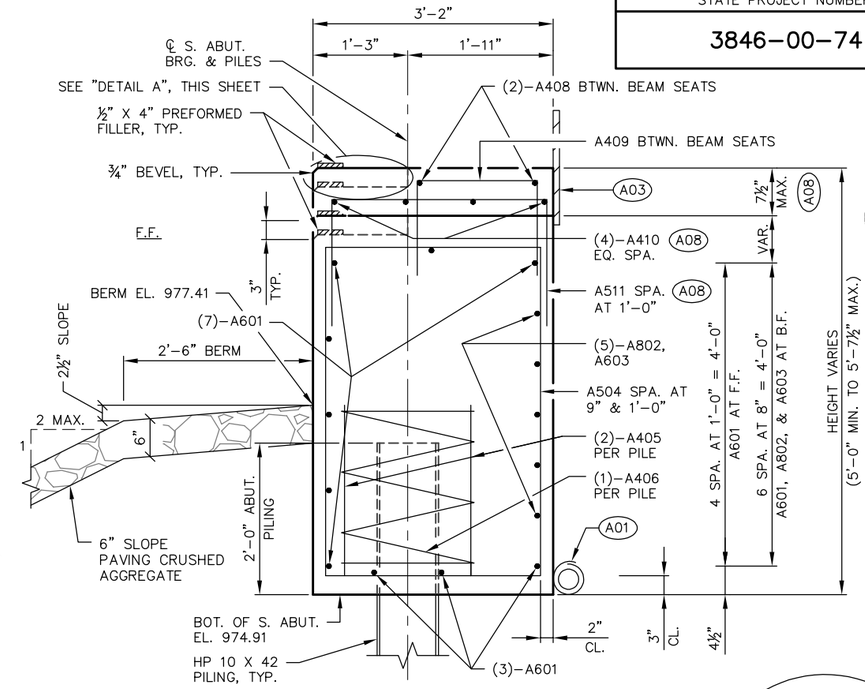
ELEVATION
(S. ABUT. LOOKING SOUTH)



PLAN



PILE PLAN



TYPICAL SECTION THRU SOUTH ABUTMENT
(LOOKING EAST)

NOTES

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

SOUTH 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 45 FT PILE LENGTHS AT THE SOUTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE 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 "NORTH ABUTMENT" 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 BEAM SEAT TO TOP OF WING.

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

(A04) ½" X 8" X 1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD, TYP. SEE "BEAM SEAT DETAILS" SHEET.

(A05) ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER, TYP.

(A06) ½" PREFORMED FILLER, TYP. SEE "BEAM SEAT DETAILS" SHEET.

(A07) NAME PLATE REQUIRED AND BENCH MARK CAP (WHEN SUPPLIED). SEE "NAME PLATE DETAILS", THIS SHEET.

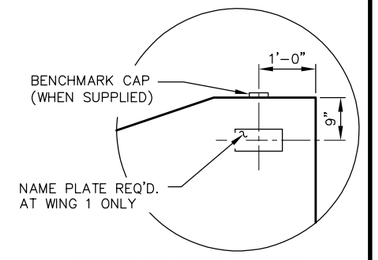
(A08) A410, A511 REQUIRED WHERE DIMENSION EXCEEDS 4"

(A09) SLOPING BEAM SEAT REQ. SEE "BEAM SEAT DETAILS" SHEET.

⬡ INDICATES WING NUMBER

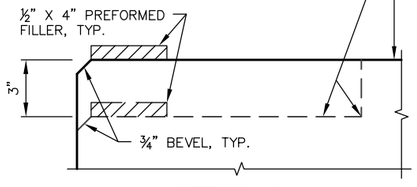
▢ INDICATES GIRDER LINE DESIGNATION

F.F. – FRONT FACE
B.F. – BACK FACE



NAME PLATE DETAIL

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP AND BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"



DETAIL A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

SOUTH ABUTMENT

SHEET 4 OF 22

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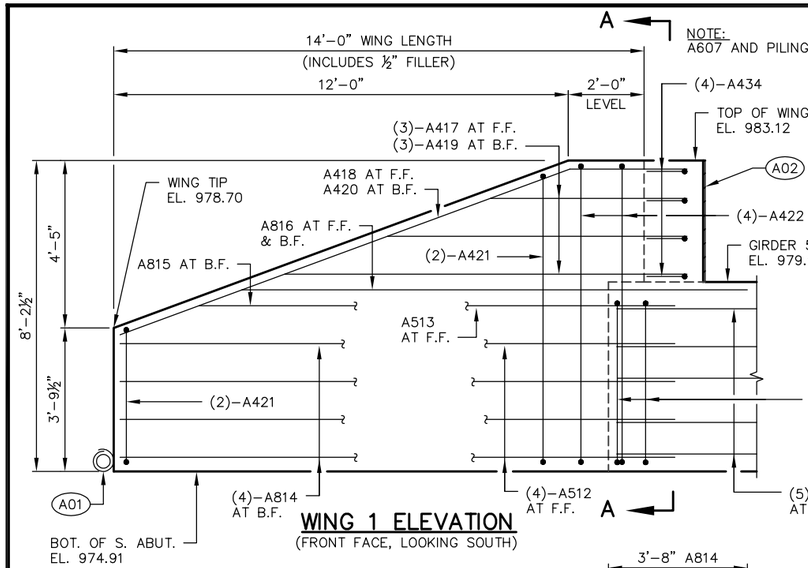
8

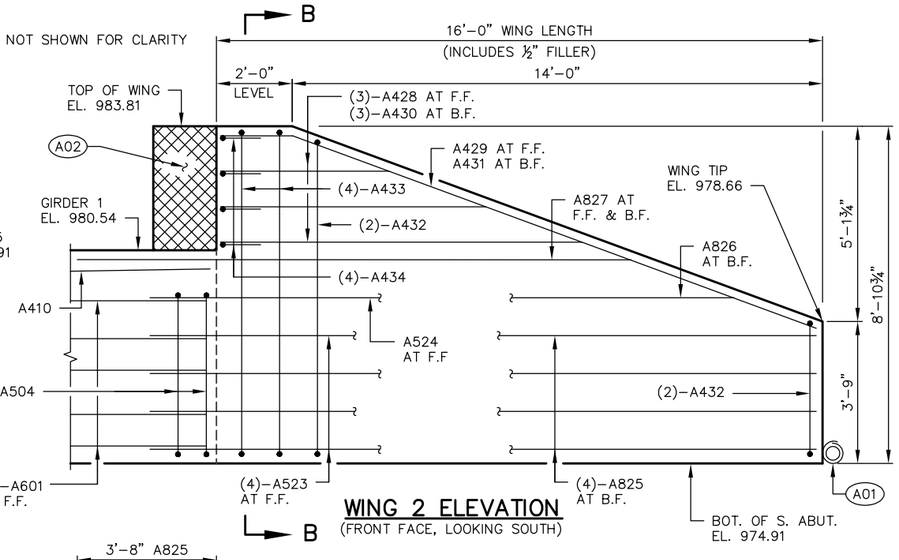
I.D. 3846-00-74

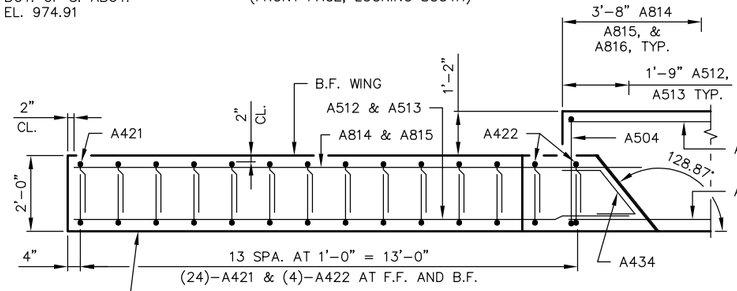
PLOT DATE: Aug 04, 2025

FILE: B640215_04-05_Sabut.dwg
PLOT SCALE:

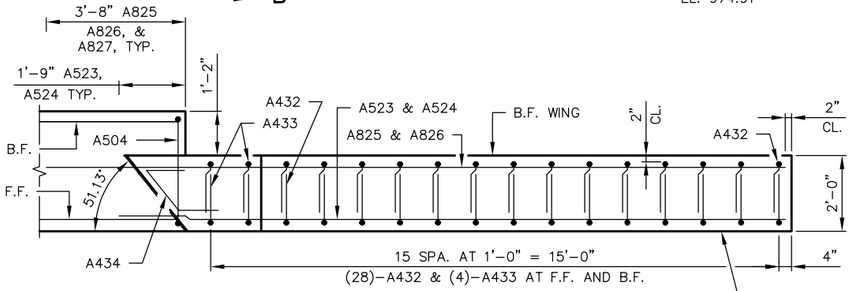


NOTE:
A607 AND PILING NOT SHOWN FOR CLARITY

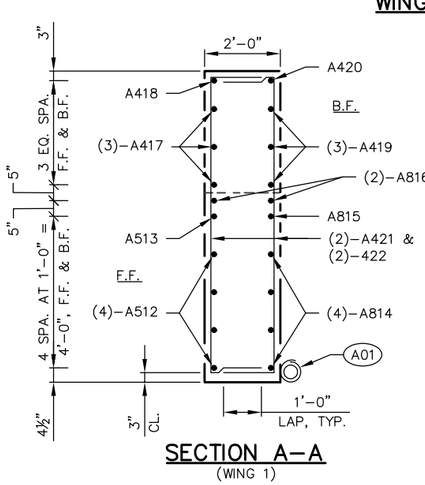




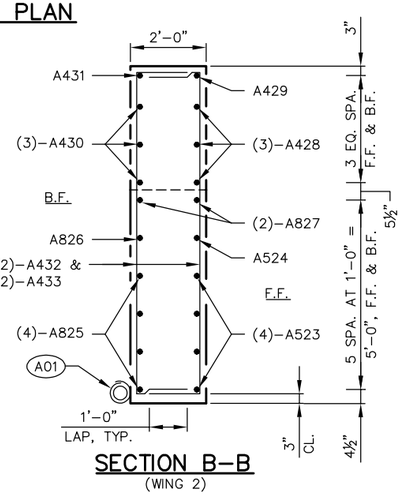
WING 1 PLAN



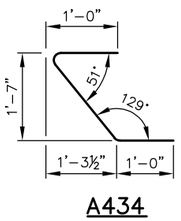
WING 2 PLAN



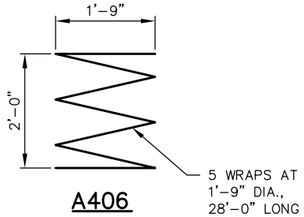
SECTION A–A
(WING 1)



SECTION B–B
(WING 2)



A434



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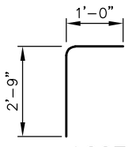

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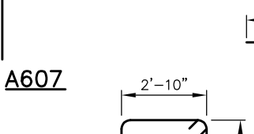

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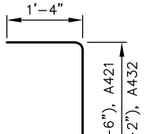
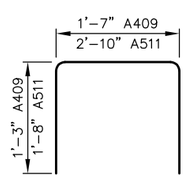
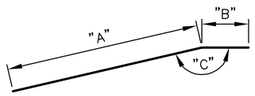


A422 & A433

A421 & A432



A409 & A511



A418, A420, A429, & A431

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
A418	12'-9"	2'-11"	159°
A420	12'-9"	1'-9"	159°
A429	14'-10"	1'-9"	159°
A431	14'-10"	2'-11"	159°

BILL OF BARS
SOUTH ABUTMENT

COATED = 1,260 LBS.
UNCOATED = 2,200 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
A601		10	36'-3"			BODY – F.F., TOP, & BOT.	HORIZ.
A802		10	16'-0"			BODY – B.F. ENDS	HORIZ.
A603		5	10'-1"			BODY – B.F. CENTER	HORIZ.
A504		46	15'-0"	X		BODY – STIRRUP	VERT.
A405		10	2'-3"			BODY – BOTTOM AT PILES	VERT.
A406		5	28'-0"	X		BODY – BOTTOM AT PILES	VERT.
A607		10	3'-7"	X		BODY – END L – BAR NEAR WINGS	HORIZ.
A408		8	5'-8"			BODY – TOP BTWN BEAM SEATS	HORIZ.
A409		12	3'-11"	X		BODY – TOP BTWN BEAM SEATS	VERT.
A410		4	22'-6"			BODY – TOP	HORIZ.
A511		23	5'-11"	X		BODY – TOP	VERT.
A512	4		14'-8"			WING 1 – F.F. – BODY	HORIZ.
A513	1		12'-9"			WING 1 – F.F. – BODY	HORIZ.
A814	4		16'-7"			WING 1 – B.F. – BODY	HORIZ.
A815	1		14'-8"			WING 1 – B.F. – BODY	HORIZ.
A816	2		13'-7"			WING 1 – F.F. & B.F. – BODY	HORIZ.
A417	3		8'-3"		⚠	WING 1 – F.F.	HORIZ.
A418	1		15'-8"	X		WING 1 – F.F. – TOP	HORIZ.
A419	3		7'-0"		⚠	WING 1 – B.F.	HORIZ.
A420	1		14'-6"	X		WING 1 – B.F. – TOP	HORIZ.
A421	24		8'-0"	X	⚠	WING 1 – STIRRUP	VERT.
A422	4		10'-3"	X		WING 1 – STIRRUP	VERT.
A523	4		17'-7"			WING 2 – F.F. – BODY	HORIZ.
A524	1		15'-7"			WING 2 – F.F. – BODY	HORIZ.
A825	4		19'-6"			WING 2 – B.F. – BODY	HORIZ.
A826	1		17'-6"			WING 2 – B.F. – BODY	HORIZ.
A827	2		14'-10"			WING 2 – F.F. & B.F. – BODY	HORIZ.
A428	3		7'-3"		⚠	WING 2 – F.F.	HORIZ.
A429	1		16'-7"	X		WING 2 – F.F. – TOP	HORIZ.
A430	3		8'-5"		⚠	WING 2 – B.F.	HORIZ.
A431	1		17'-9"	X		WING 2 – B.F. – TOP	HORIZ.
A432	28		8'-4"	X	⚠	WING 2 – STIRRUP	VERT.
A433	4		10'-11"	X		WING 2 – STIRRUP	VERT.
A434	8		3'-9"	X		WINGS 1 & 2 TOP STIRRUP	HORIZ.

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

F.F. – FRONT FACE
B.F. – BACK FACE

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.

SOUTH 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 45 FT PILE LENGTHS AT THE SOUTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE 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 "NORTH ABUTMENT" 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.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
A417	1 SERIES OF 3	5'–8" TO 10'–9"
A419	1 SERIES OF 3	4'–5" TO 9'–6"
A421	2 SERIES OF 12	5'–11" TO 10'–0"
A428	1 SERIES OF 3	4'–8" TO 9'–9"
A430	1 SERIES OF 3	5'–10" TO 10'–11"
A432	2 SERIES OF 14	5'–11" TO 10'–8"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–64–215

DRAWN BY ZDM | PLANS CK'D ACK

SOUTH ABUTMENT DETAILS

SHEET 5 OF 22

64

STATE PROJECT NUMBER
3846–00–74

8

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FILE: B640215_04–05_Sabut.dwg
PLOT SCALE:

I.D. 3846–00–74

PLOT DATE: Aug 04, 2025

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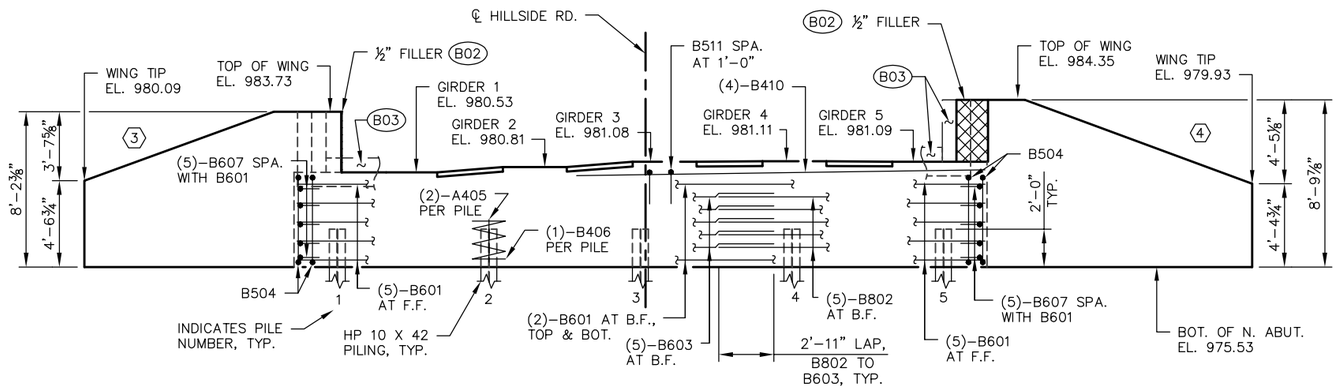
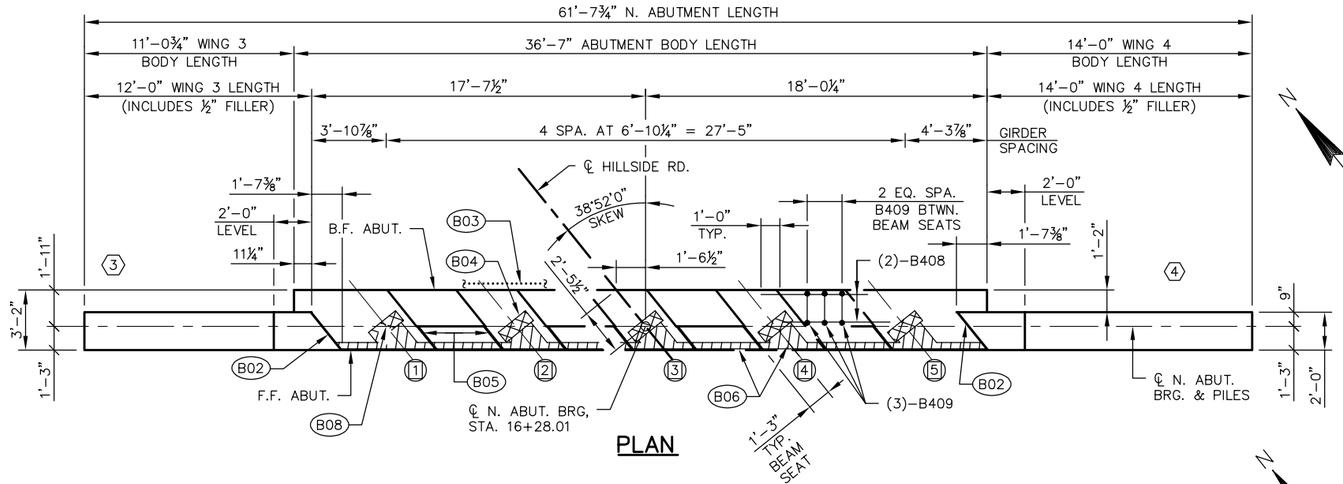
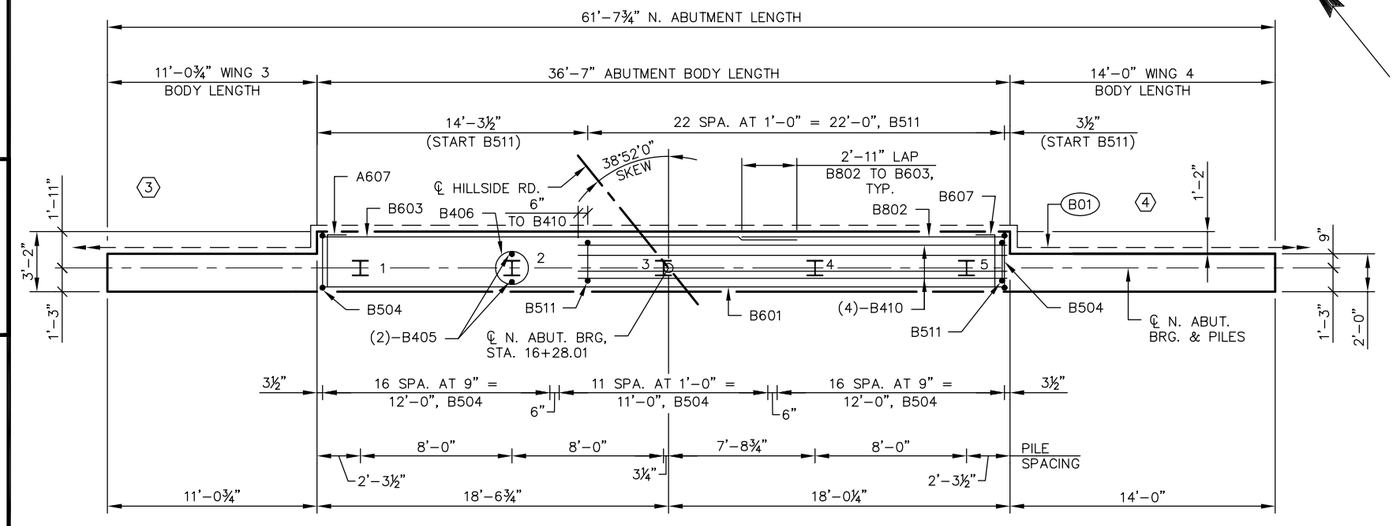


ELEVATION

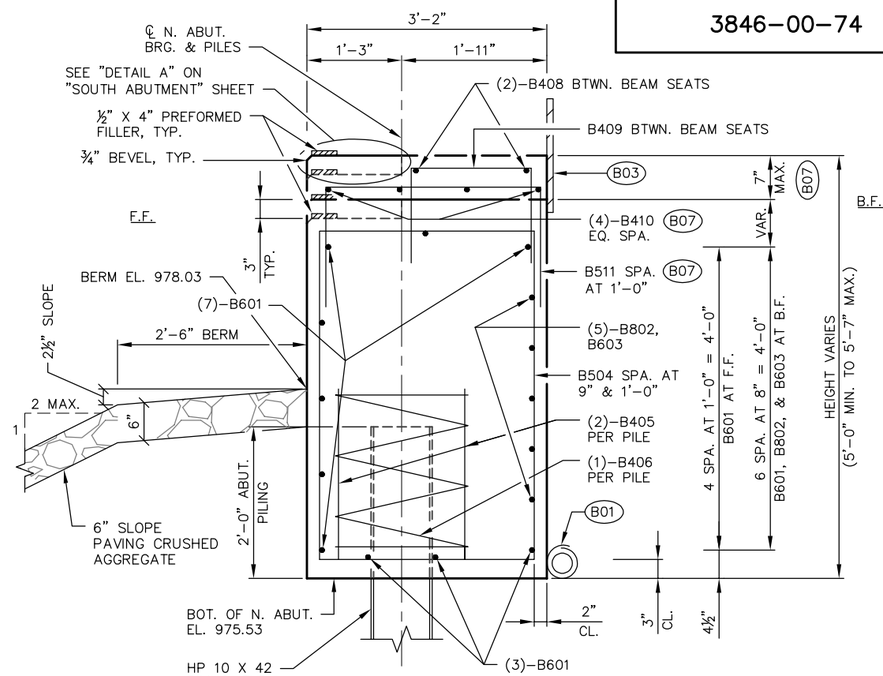
(N. ABUT. LOOKING NORTH)



PLAN



PILE PLAN



TYPICAL SECTION THRU NORTH ABUTMENT

(LOOKING WEST)

NOTES

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

NORTH 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 45 FT PILE LENGTHS AT THE NORTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE 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 THIS 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 BEAM SEAT TO TOP OF WING.

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

(B04) ½" X 8" X 1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD, TYP. SEE "BEAM SEAT DETAILS" SHEET.

(B05) ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER, TYP.

(B06) ½" PREFORMED FILLER, TYP. SEE "BEAM SEAT. DETAILS" SHEET.

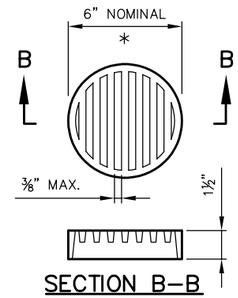
(B07) B410, B511 REQUIRED WHERE DIMENSION EXCEEDS 4"

(B08) SLOPING BEAM SEAT REQUIRED. SEE "BEAM SEAT DETAILS" SHEET.

⬡ INDICATES WING NUMBER

⬭ INDICATES GIRDER LINE DESIGNATION

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



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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

NORTH ABUTMENT

SHEET 6 OF 22

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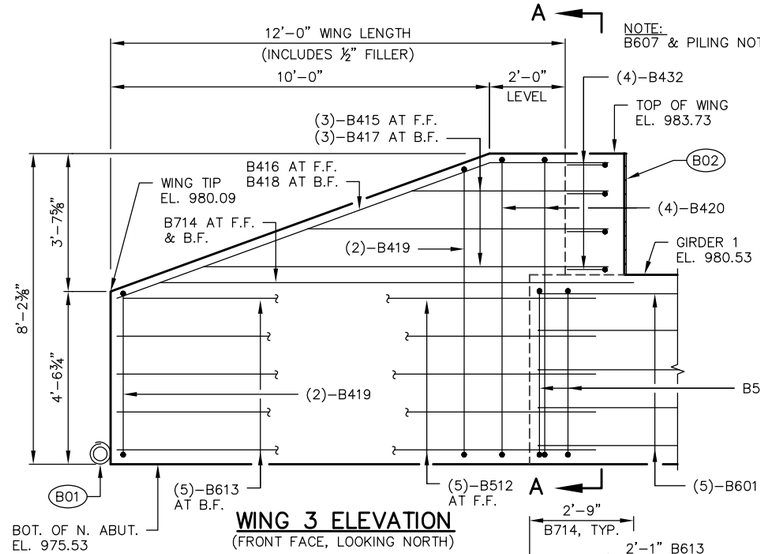
I.D. 3846-00-74

PLOT DATE: Aug 04, 2025

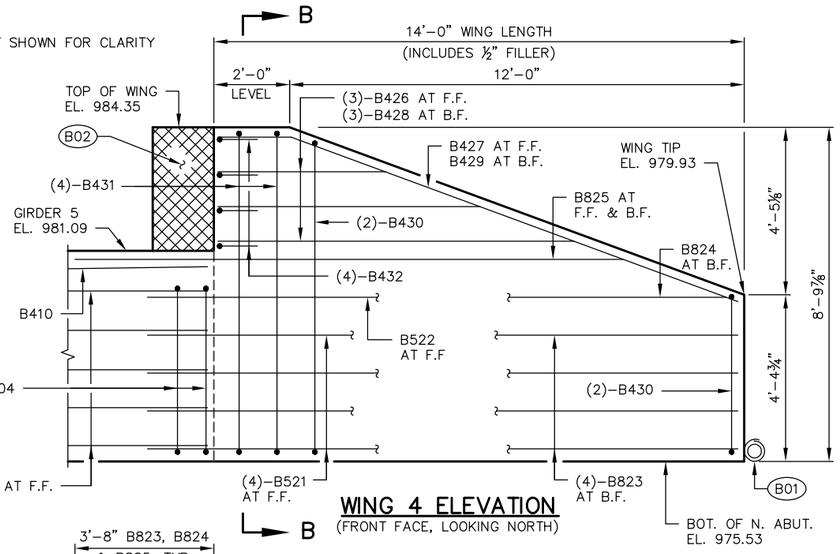
FILE: B640215_06-07_Nabut.dwg
PLOT SCALE:

STATE PROJECT NUMBER

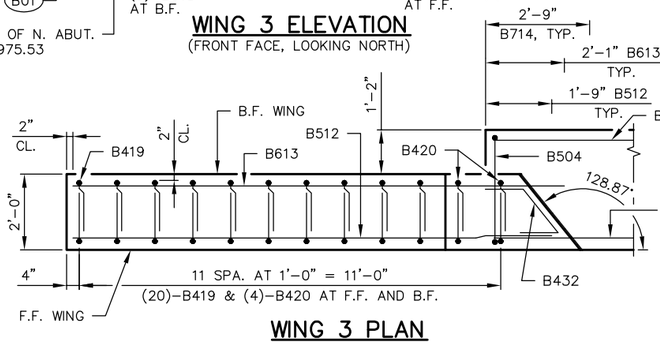
3846-00-74



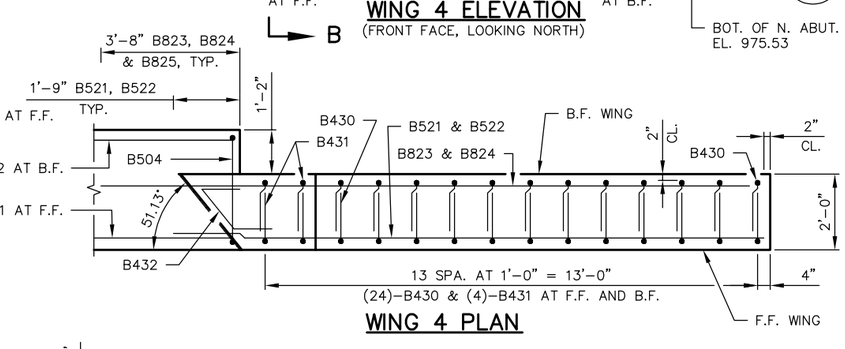
WING 3 ELEVATION
(FRONT FACE, LOOKING NORTH)



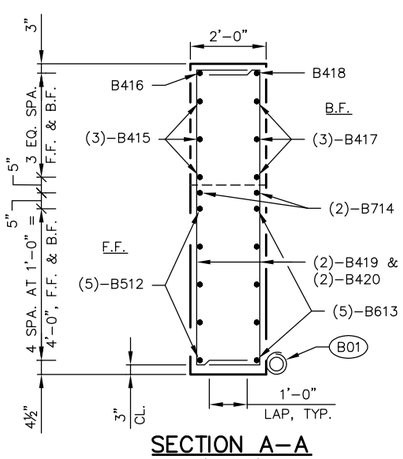
WING 4 ELEVATION
(FRONT FACE, LOOKING NORTH)



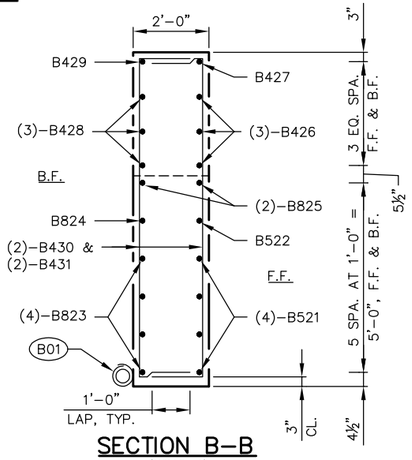
WING 3 PLAN



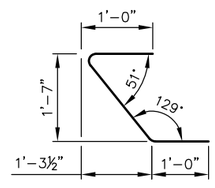
WING 4 PLAN



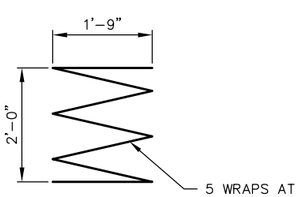
SECTION A–A
(WING 3)



SECTION B–B
(WING 4)



B432



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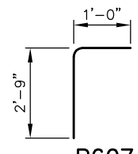

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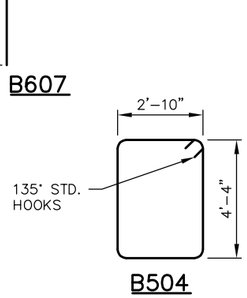

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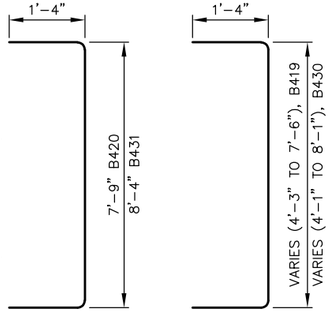
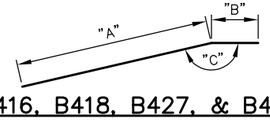


B420 & B431

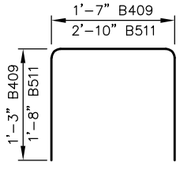
B419 & B430



B416, B418, B427, & B429

BAR BEND DIMENSIONS

MARK	"A"	"B"	"C"
B416	10'-7"	2'-11"	160°
B418	10'-7"	1'-9"	160°
B427	12'-9"	1'-9"	160°
B429	12'-9"	2'-11"	160°



B409 & B511

BILL OF BARS
NORTH ABUTMENT

COATED = 1,040 LBS.
UNCOATED = 2,070 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
B601		10	36'-3"			BODY – F.F., TOP, & BOT.	HORIZ.
B802		5	14'-0"			BODY – B.F. NEAR WING 4	HORIZ.
B603		5	25'-2"			BODY – B.F. CENTER – NEAR WING 3	HORIZ.
B504		46	15'-0"	X		BODY – STIRRUP	VERT.
B405		10	2'-3"			BODY – BOTTOM AT PILES	VERT.
B406		5	28'-0"	X		BODY – BOTTOM AT PILES	VERT.
B607		10	3'-7"	X		BODY – END L–BAR NEAR WINGS	HORIZ.
B408		8	5'-8"			BODY – TOP BTWN BEAM SEATS	HORIZ..
B409		12	3'-11"	X		BODY – TOP BTWN BEAM SEATS	VERT.
B410		4	22'-6"			BODY – TOP	HORIZ.
B511		23	5'-11"	X		BODY – TOP	VERT.
B512	5		12'-8"			WING 3 – F.F.– BODY	HORIZ.
B613	5		13'-0"			WING 3 – B.F. – BODY	HORIZ.
B714	2		12'-9"			WING 3 – F.F. & B.F. – BODY	HORIZ.
B415	3		8'-5"		⚠	WING 3 – F.F.	HORIZ.
B416	1		13'-6"	X		WING 3 – F.F. – TOP	HORIZ.
B417	3		7'-2"		⚠	WING 3 – B.F.	HORIZ.
B418	1		12'-4"	X		WING 3 – B.F. – TOP	HORIZ.
B419	20		8'-5"	X	⚠	WING 3 – STIRRUP	VERT.
B420	4		10'-3"	X		WING 3 – STIRRUP	VERT.
B521	4		15'-7"			WING 4 – F.F. – BODY	HORIZ.
B522	1		15'-4"			WING 4 – F.F. – BODY	HORIZ.
B823	4		17'-6"			WING 4 – B.F. – BODY	HORIZ.
B824	1		17'-3"			WING 4 – B.F. – BODY	HORIZ.
B825	2		14'-7"			WING 4 – F.F. & B.F. – BODY	HORIZ.
B426	3		7'-1"		⚠	WING 4 – F.F.	HORIZ.
B427	1		14'-6"	X		WING 4 – F.F. – TOP	HORIZ.
B428	3		8'-3"		⚠	WING 4 – B.F.	HORIZ.
B429	1		15'-8"	X		WING 4 – B.F. – TOP	HORIZ.
B430	24		8'-7"	X	⚠	WING 4 – STIRRUP	VERT.
B431	4		10'-10"	X		WING 4 – STIRRUP	VERT.
B432	8		3'-9"	X		WINGS 3 & 4 TOP STIRRUP	HORIZ.

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

F.F. – FRONT FACE
B.F. – BACK FACE

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.

NORTH 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 45 FT PILE LENGTHS AT THE NORTH ABUTMENT.

SEE "CROSS SECTION, GENERAL NOTES & QUANTITIES" SHEET FOR PILE 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 "NORTH ABUTMENT" 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.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
B415	1 SERIES OF 3	5'–11" TO 10'–10"
B417	1 SERIES OF 3	4'–8" TO 9'–7"
B419	2 SERIES OF 10	6'–9" TO 10'–0"
B426	1 SERIES OF 3	4'–7" TO 9'–6"
B428	1 SERIES OF 3	5'–9" TO 10'–8"
B430	2 SERIES OF 12	6'–7" TO 10'–7"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–64–215

DRAWN BY ZDM | PLANS CK'D ACK

NORTH ABUTMENT DETAILS

SHEET 7 OF 22

66

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I.D. 3846–00–74

PLOT DATE: Aug 04, 2025

FILE: B640215_06–07_Nabut.dwg
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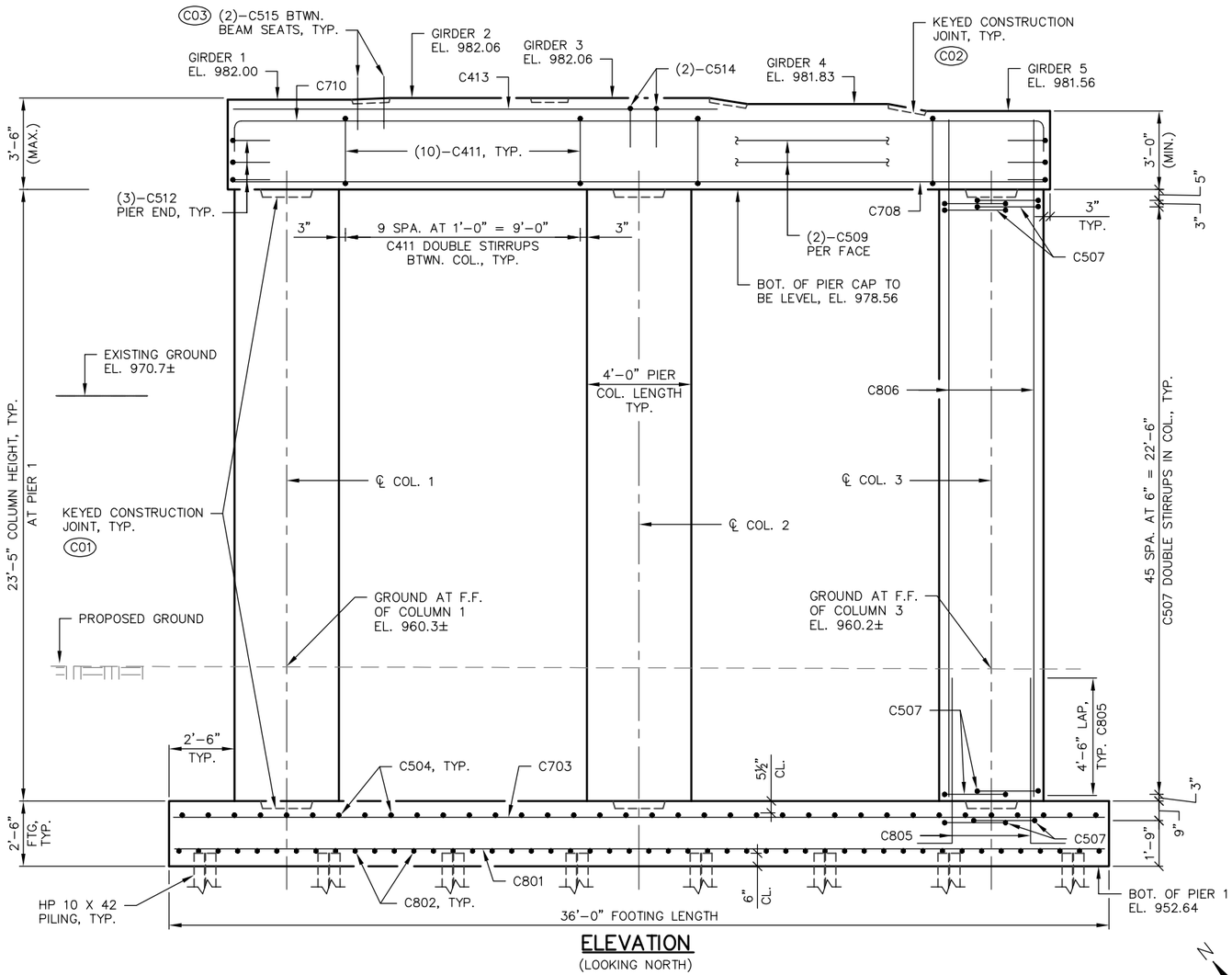
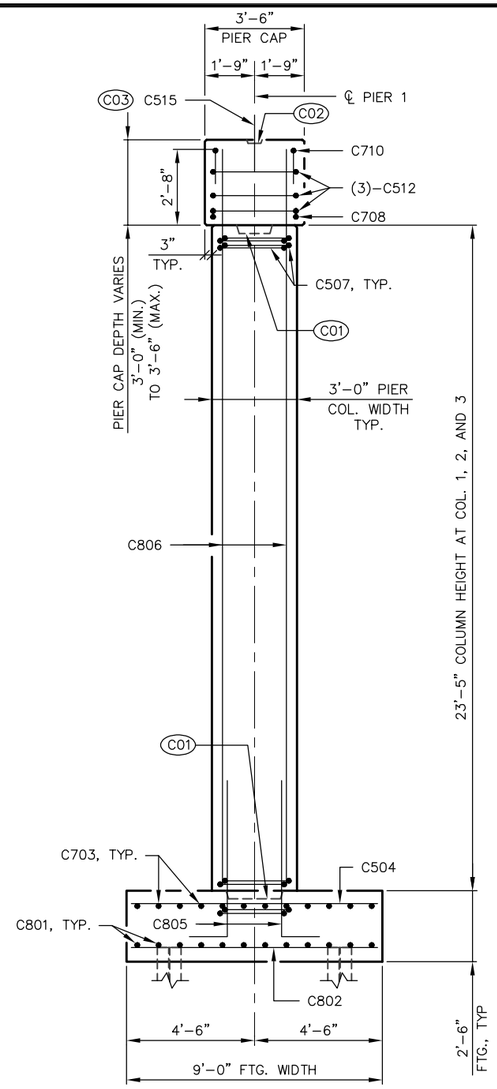
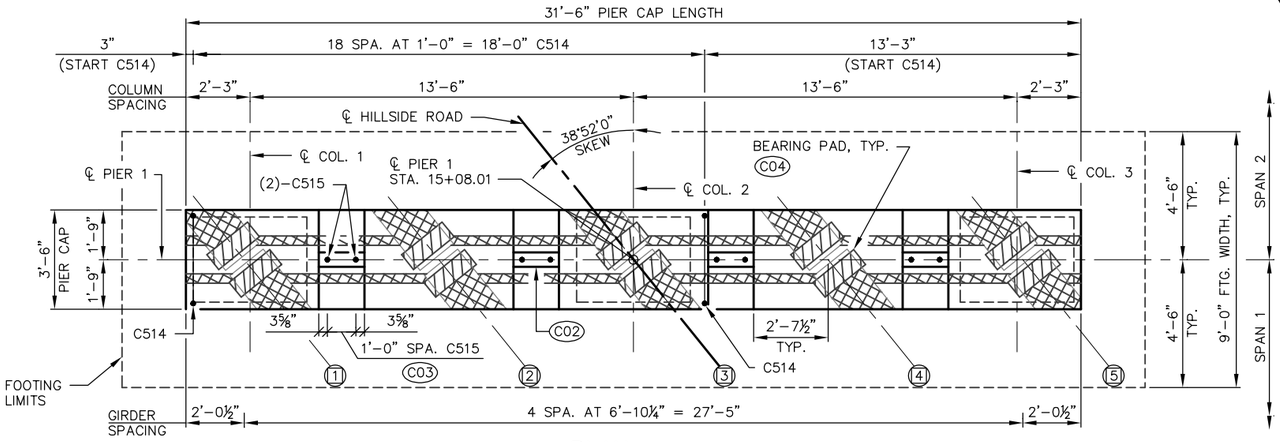


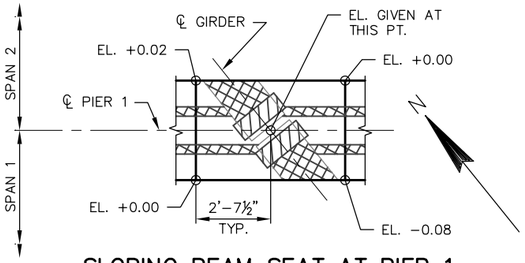
ELEVATION
(LOOKING NORTH)



END VIEW
(LOOKING WEST)



PLAN



SLOPING BEAM SEAT AT PIER 1
(SEE "BEAM SEAT DETAILS" SHEET FOR ADDITIONAL INFORMATION)

STATE PROJECT NUMBER

3846–00–74

NOTES

PIER 1 TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 45 FT PILE LENGTHS AT PIER 1.

FOR PILE SPLICE DETAILS SEE "CROSS SECTION, GENERAL NOTES AND QUANTITIES" SHEET.

(C01) KEYED CONSTRUCTION JOINT FOR ALL COLUMNS AND FOOTINGS FORMED BY BEVELED 1'–3" X 2'–0" X 4".

(C02) KEYED CONSTRUCTION JOINT BETWEEN BEAM SEATS FORMED BY BEVELED 2" x 6".

(C03) C515 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED BAR 1'–0".

(C04) ½" X 8" X 1'–10" NON–LAMINATED ELASTOMERIC BEARING PAD, TYP. SEE "BEAM SEAT" SHEET.

INDICATES GIRDER DESIGNATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–64–215

DRAWN BY ZDM | PLANS CK'D ACK

PIER 1

SHEET 8 OF 22

67

I.D. 3846–00–74

PLOT DATE: Aug 21, 2025

FILE: B640215_08–09_pier 1.dwg
PLOT SCALE:

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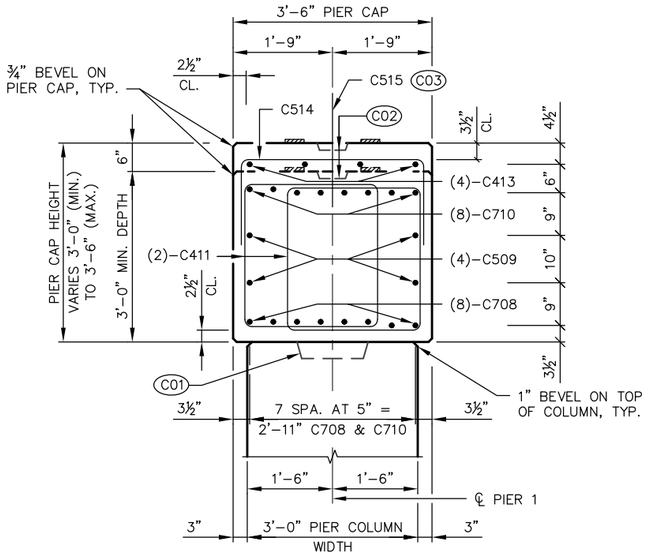
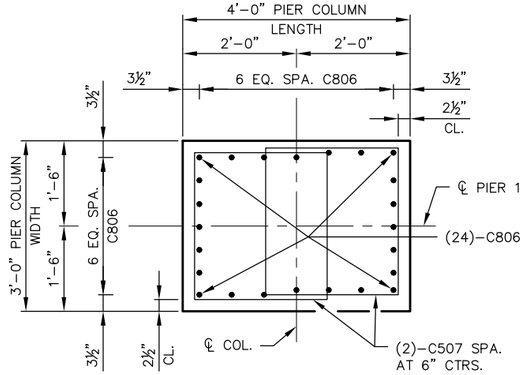
STATE PROJECT NUMBER

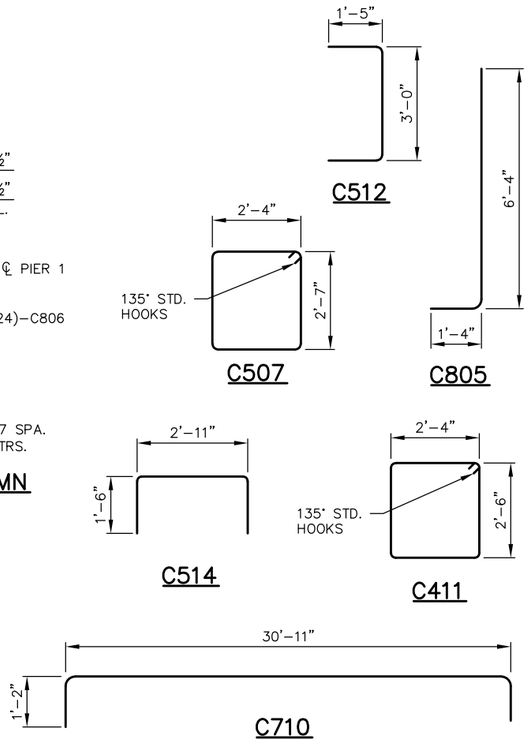
3846-00-74



TYPICAL SECTION THRU PIER CAP



TYPICAL SECTION THRU COLUMN



BILL OF BARS
PIER 1

UNCOATED = 14,730 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	LOCATION	
C801		12	35'-8"		FOOTING - BOT.	HORIZ.
C802		48	8'-8"		FOOTING - BOT.	HORIZ.
C703		12	35'-8"		FOOTING - TOP	HORIZ.
C504		36	8'-8"		FOOTING - TOP	HORIZ.
C805		72	7'-6"	X	FOOTING - DOWELS	VERT.
C806		72	26'-1"		COLUMN	VERT.
C507		288	10'-6"	X	COLUMN - STIRRUP	HORIZ.
C708		8	31'-1"		PIER CAP - BOTTOM LONGIT. REIN.	HORIZ.
C509		4	31'-1"		PIER CAP - SKIN REIN.	HORIZ.
C710		8	32'-11"	X	PIER CAP - TOP LONGIT. REIN.	HORIZ.
C411		40	10'-2"	X	PIER CAP - STIRRUP	VERT.
C512		6	5'-7"	X	PIER CAP - END STIRRUP	HORIZ.
C413		4	18'-6"		PIER CAP - TOP	HORIZ.
C514		19	5'-8"	X	PIER CAP - TOP STIRRUP	VERT.
C515		8	2'-0"		PIER CAP - DOWEL BAR	VERT.

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

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES

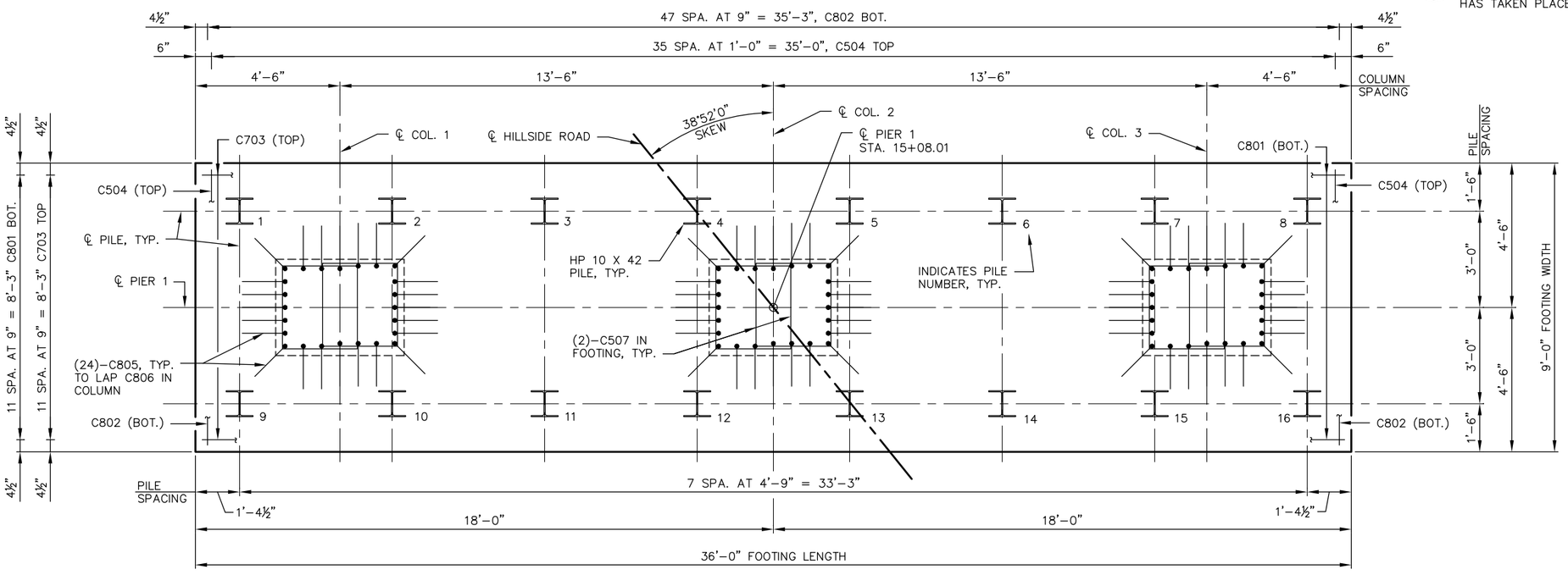
PIER 1 TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING DISTANCED OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 45 FT PILE LENGTHS AT PIER.

FOR PILE SPLICE DETAILS SEE "CROSS SECTION, GENERAL NOTES AND QUANTITIES" SHEET.

(C01) KEYED CONSTRUCTION JOINT FOR ALL COLUMNS AND FOOTINGS FORMED BY BEVELED 1'-3" X 2'-0" X 4".

(C02) KEYED CONSTRUCTION JOINT BETWEEN BEAM SEATS FORMED BY BEVELED 2" x 6".

(C03) C515 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED BAR 1'-0".



TYPICAL FOOTING REINFORCEMENT AND PILE PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

PIER 1 DETAILS

SHEET 9 OF 22

68

I.D. 3846-00-74

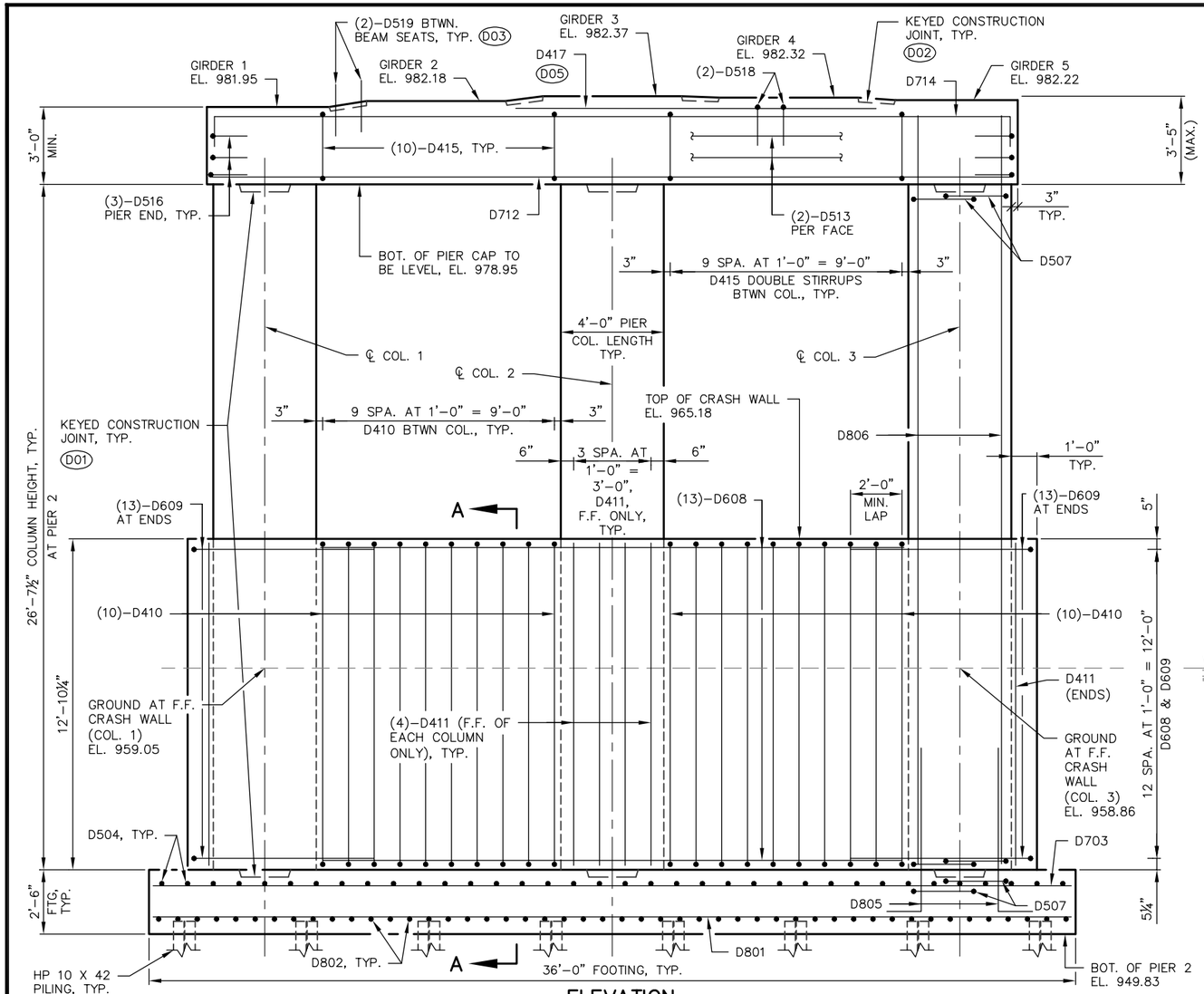
PLOT DATE: Aug 25, 2025

FILE: B640215_08-09_pier 1.dwg
PLOT SCALE:

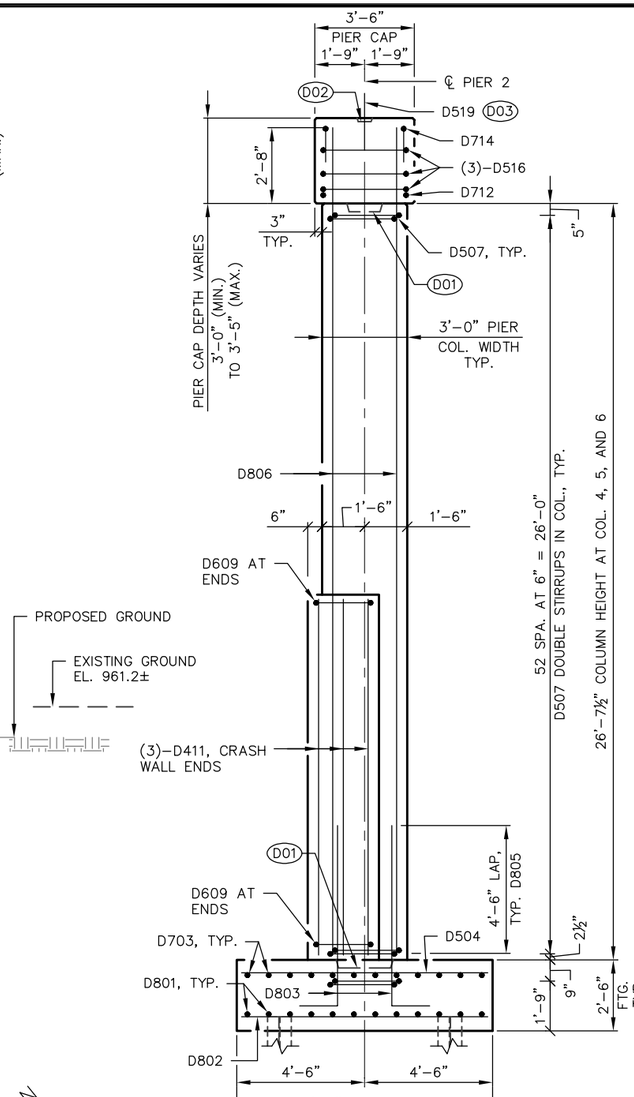
8

8

STATE PROJECT NUMBER
3846-00-74



ELEVATION
(LOOKING NORTH)



END VIEW
(LOOKING WEST)

NOTES

PIER 2 TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35 FT PILE LENGTHS AT PIER 2.

FOR PILE SPLICE DETAILS SEE "CROSS SECTION, GENERAL NOTES AND QUANTITIES" SHEET.

(D01) KEYED CONSTRUCTION JOINT FOR ALL COLUMNS AND FOOTINGS FORMED BY BEVELED 1'–3" X 2'–0" X 4".

(D02) KEYED CONSTRUCTION JOINT BETWEEN BEAM SEATS FORMED BY BEVELED 2" x 6".

(D03) D519 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED BAR 1'–0".

(D04) ½" X 8" X 1'–10" NON–LAMINATED ELASTOMERIC BEARING PAD, TYP. SEE "BEAM SEAT DETAILS" SHEET.

(D05) EXTEND D417 6" BEYOND ENDS OF D518

INDICATES GIRDER DESIGNATION

SECTION A–A
(CRASH WALL)
(LOOKING WEST)

PLAN

SLOPING BEAM SEAT AT PIER 2
(SEE "BEAM SEAT DETAILS" SHEET FOR ADDITIONAL INFORMATION)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–64–215

DRAWN BY ZDM | PLANS CK'D ACK

PIER 2

SHEET 10 OF 22

69

I.D. 3846–00–74

PLOT DATE: Aug 21, 2025

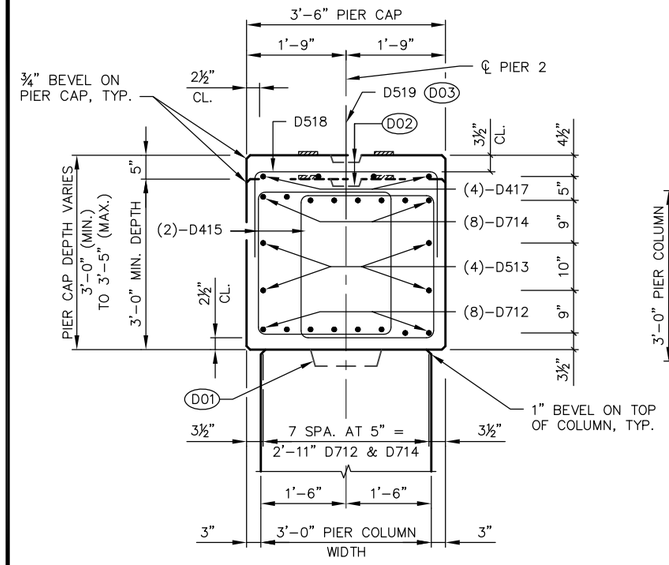
FILE: B640215_10–11_pier 2.dwg
PLOT SCALE:

8

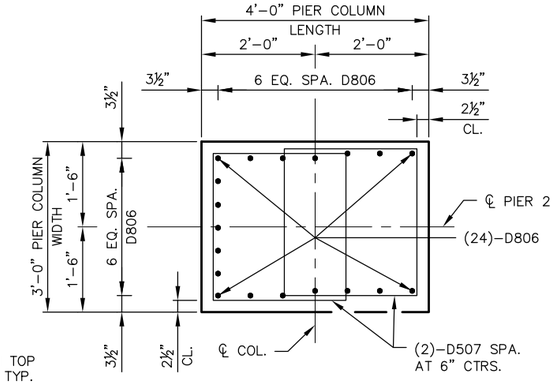
8

STATE PROJECT NUMBER

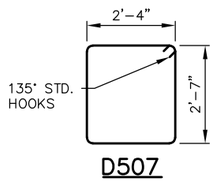
3846-00-74



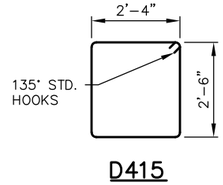
TYPICAL SECTION THRU PIER CAP



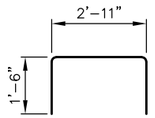
TYPICAL SECTION THRU COLUMN



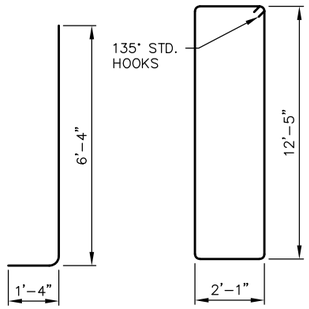
D507



D415

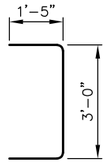


D518

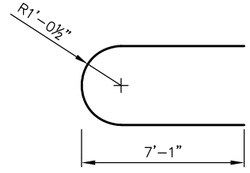


D805

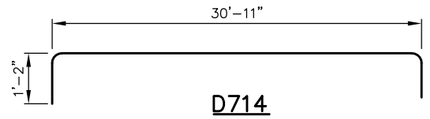
D410



D516



D609



D714

BILL OF BARS
PIER 2

UNCOATED = 17,800 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	LOCATION	
D801		12	35'-8"		FOOTING - BOT.	HORIZ.
D802		48	8'-8"		FOOTING - BOT.	HORIZ.
D703		12	35'-8"		FOOTING - TOP	HORIZ.
D504		36	8'-8"		FOOTING - TOP	HORIZ.
D805		72	7'-6"	X	FOOTING - DOWELS	VERT.
D806		72	29'-4"		COLUMN	VERT.
D507		324	10'-6"	X	COLUMN - STIRRUP	HORIZ.
D608		26	22'-8"		CRASH WALL - SIDES	HORIZ.
D609		26	17'-6"	X	CRASH WALL - ENDS	HORIZ.
D410		20	29'-6"	X	CRASH WALL - STIRRUP	VERT.
D411		18	12'-5"		CRASH WALL - COL. FACES & ENDS	VERT.
D712		8	31'-1"		PIER CAP - BOT. LONGIT. REIN.	HORIZ.
D513		4	31'-1"		PIER CAP - SKIN REINFORCEMENT	HORIZ.
D714		8	32'-11"	X	PIER CAP - TOP LONGIT. REIN.	HORIZ.
D415		40	10'-2"	X	PIER CAP - STIRRUP	VERT.
D516		6	5'-7"	X	PIER CAP - END STIRRUP	HORIZ.
D417		4	14'-0"		PIER CAP - TOP	HORIZ.
D518		14	5'-8"	X	PIER CAP - TOP	VERT.
D519		8	2'-0"		PIER CAP - DOWEL BAR	VERT.

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

ALL BAR BEND DIMENSIONS ARE OUT TO OUT OF BAR.

NOTES

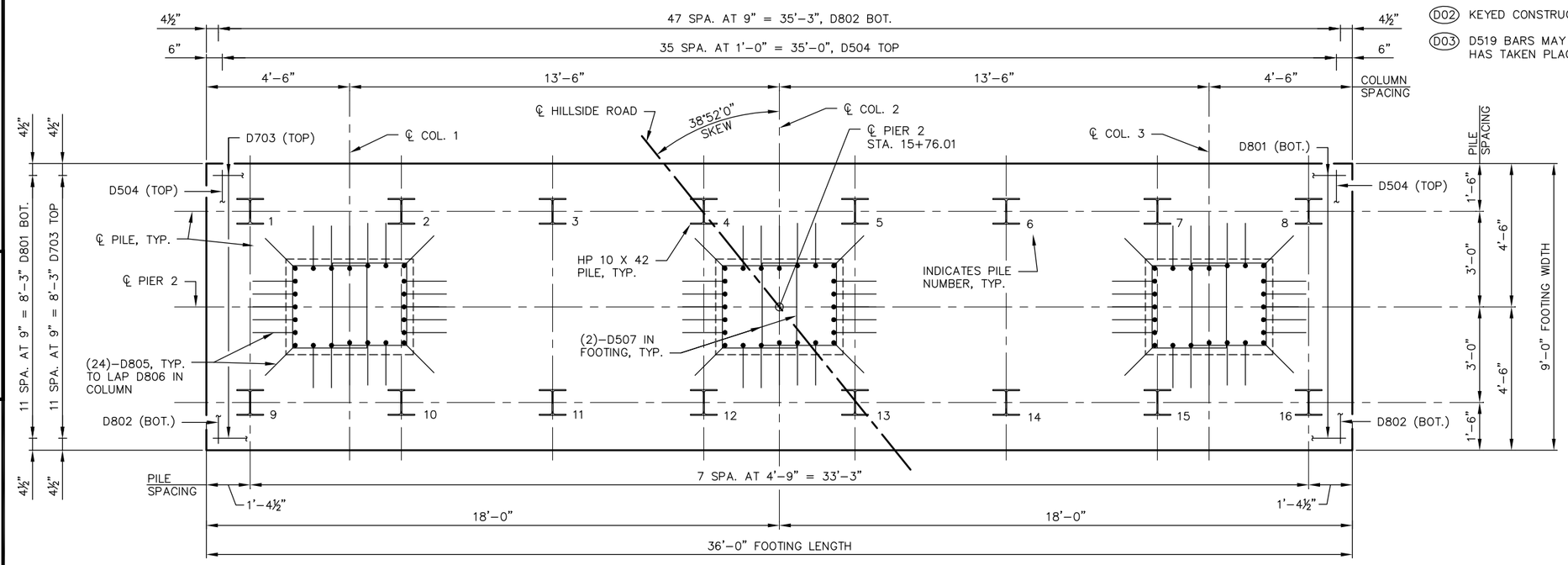
PIER 2 TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING DISTANCED OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 35 FT PILE LENGTHS AT PIER 2.

FOR PILE SPLICE DETAILS SEE "CROSS SECTION, GENERAL NOTES AND QUANTITIES" SHEET.

(D01) KEYED CONSTRUCTION JOINT FOR ALL COLUMNS AND FOOTINGS FORMED BY BEVELED 1'-3" X 2'-0" X 4".

(D02) KEYED CONSTRUCTION JOINT BETWEEN BEAM SEATS FORMED BY BEVELED 2" x 6".

(D03) D519 BARS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED BAR 1'-0".



TYPICAL FOOTING REINFORCEMENT AND PILE PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

PIER 2 DETAILS

SHEET 11 OF 22

70

8

8

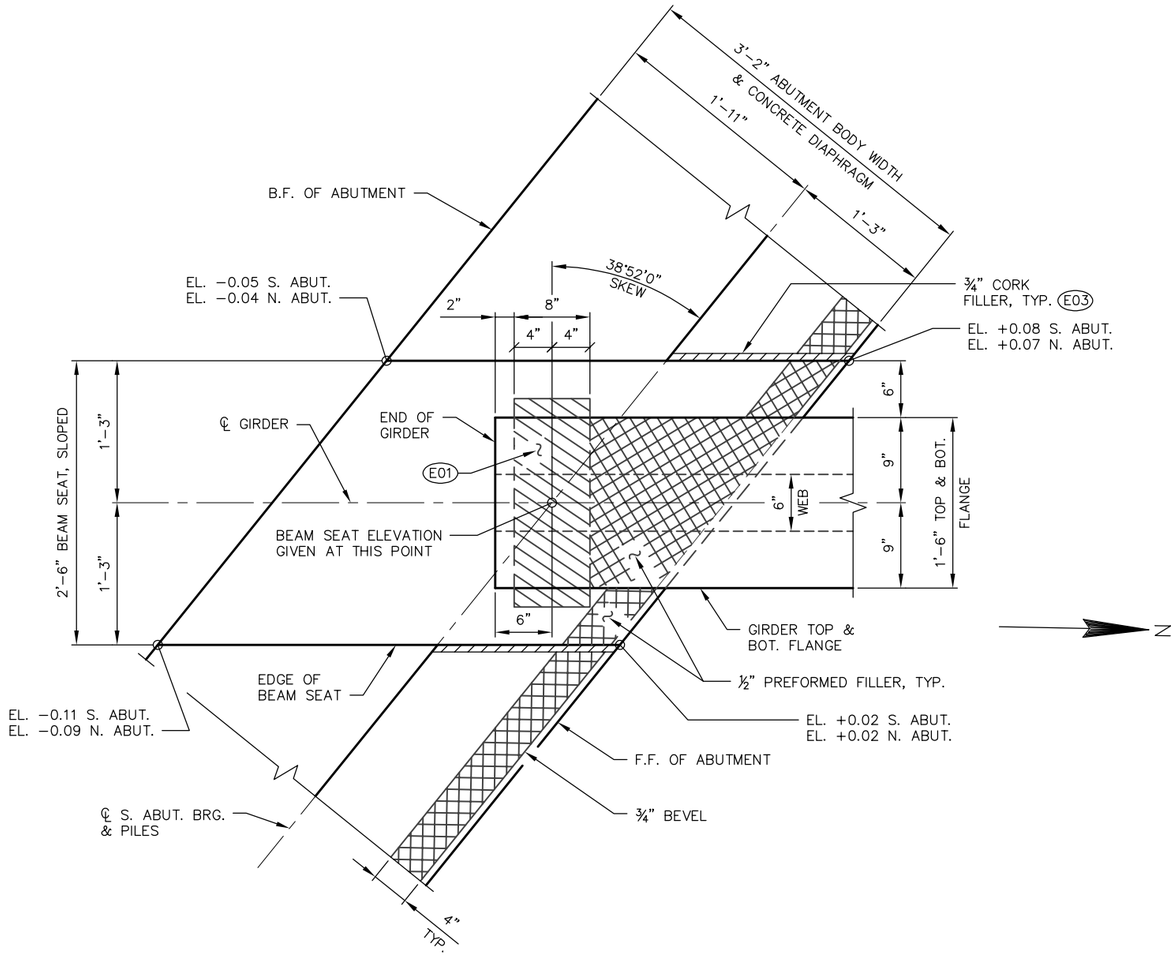
I.D. 3846-00-74

PLOT DATE: Aug 25, 2025

FILE: B640215_10-11_pier 2.dwg
PLOT SCALE:

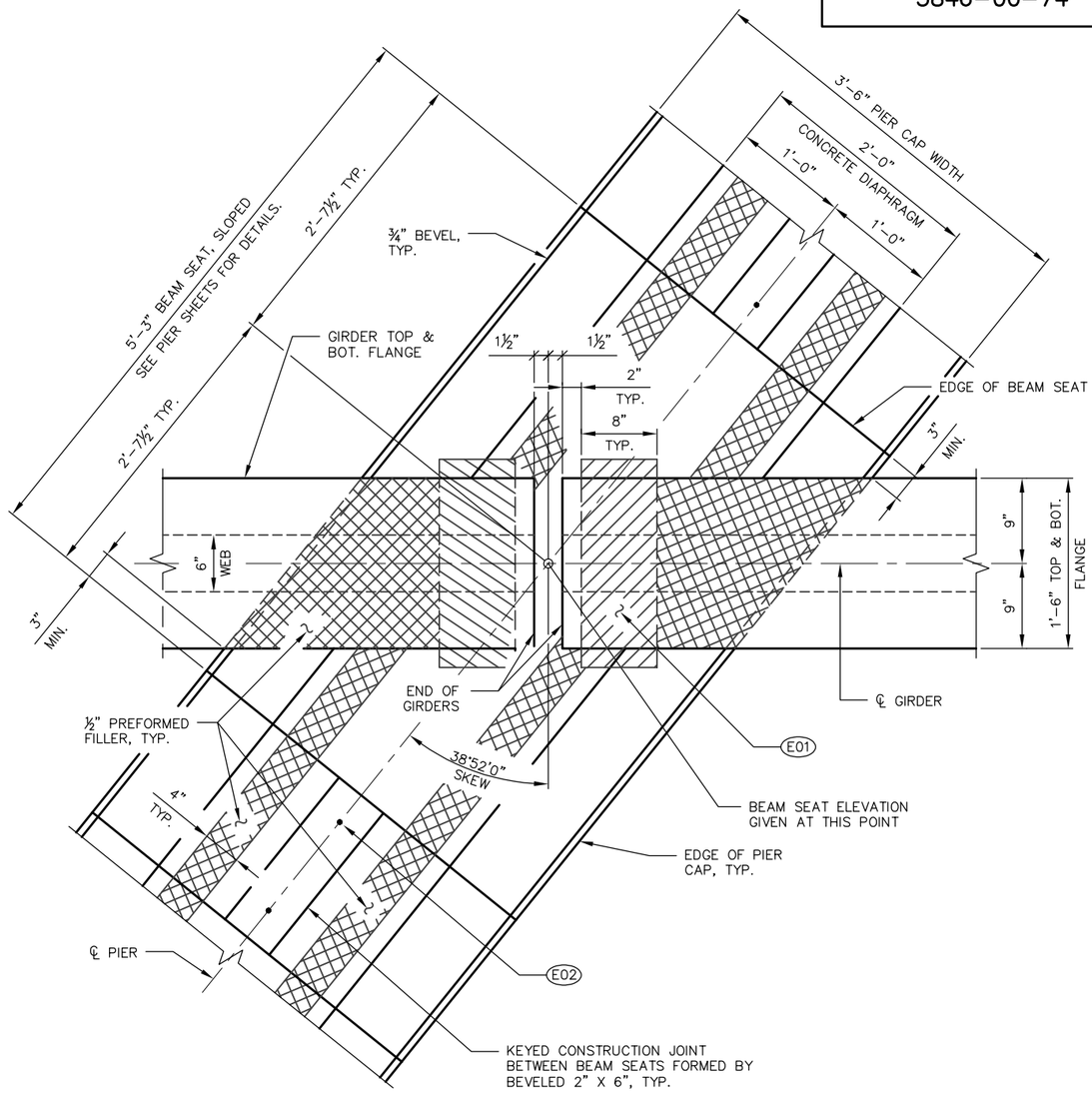
STATE PROJECT NUMBER

3846-00-74



ABUTMENT BEAM SEAT DETAIL

(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)



PIER BEAM SEAT DETAIL

(SLOPING BEAM SEATS AT PIERS ARE SHOWN ON PIER SHEETS)

NOTES

(E01) ½" X 8" X 1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD, TYP.

(E02) C515, D518 BETWEEN PIER BEAM SEATS, TYP. SEE SHEETS "PIER 1" & "PIER 2", RESPECTIVELY, FOR PLACEMENT.

(E03) ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

BEAM SEAT DETAIL

SHEET 12 OF 22

71

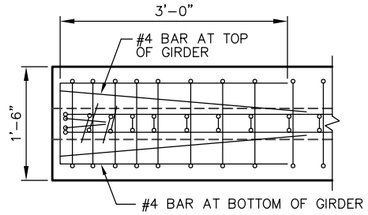
I.D. 3846-00-74

PLOT DATE: Aug 12, 2025

FILE: B640215_12_beam seat.dwg
PLOT SCALE:

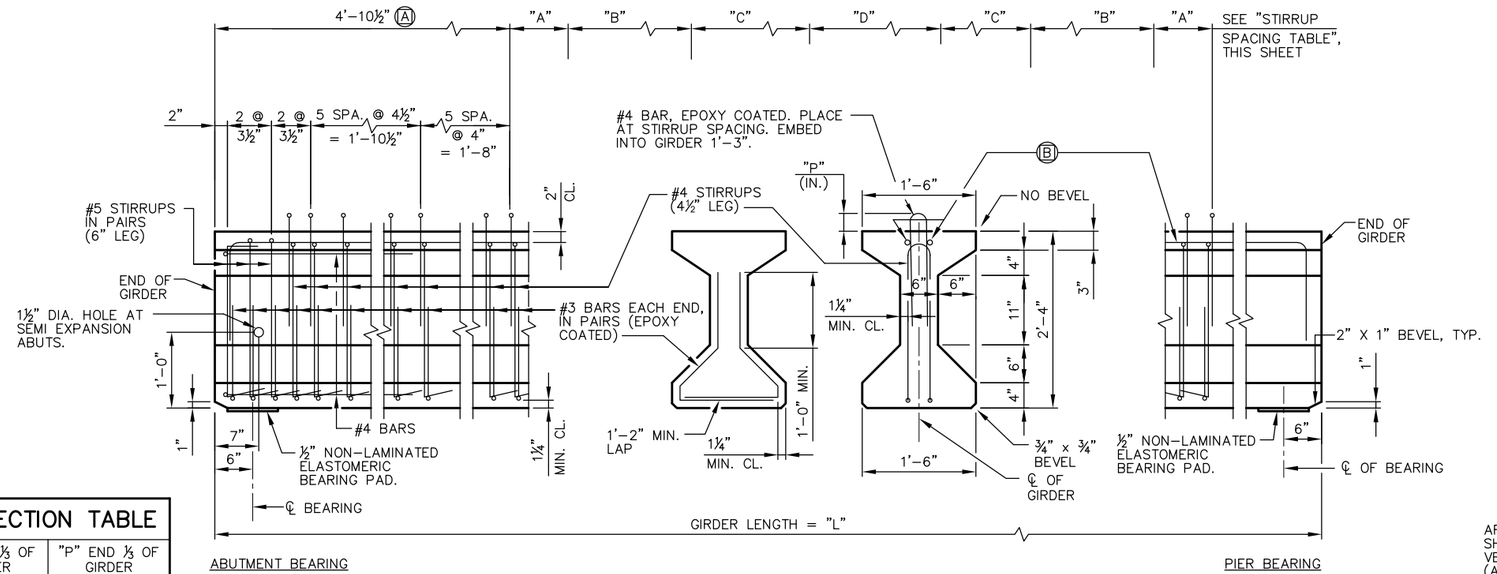
STATE PROJECT NUMBER

3846-00-74



PLAN VIEW OF GIRDER ENDS

STIRRUP SPACING TABLE						
SPAN	GIRDER	GIRDER LENGTH "L"	"A"	"B"	"C"	"D"
1	1-5	52'-4½"	3¾"	11 SPA. AT 1'-0" = 11'-0"	---	16 SPA. AT 1'-3" = 20'-0"
2	1-5	67'-9"	6½"	14 SPA. AT 8" = 9'-4"	6 SPA. AT 1'-0" = 6'-0"	21 SPA. AT 1'-3" = 26'-3"
3	1-5	52'-4½"	3¾"	11 SPA. AT 1'-0" = 11'-0"	---	16 SPA. AT 1'-3" = 20'-0"

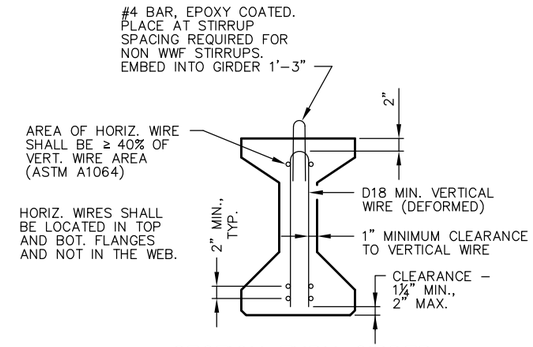


SIDE VIEW & TYPICAL SECTION IN SPAN

(STRANDS NOT SHOWN FOR CLARITY)

Ⓐ DETAIL TYP. AT EACH END

Ⓑ (2) – #7 BARS, FULL LENGTH, MIN. LAP = 3'-7" (SPANS 1, 2, & 3) BEND BARS TO BE 16 BAR DIAMETERS.



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS
ASTM A1064 (FY = 70 KSI)

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.4 OF STANDARD SPECIFICATIONS FOR GUIDANCE

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS, SEE "INTERMEDIATE STEEL DIAPHRAGM" SHEET.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DESIGN SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. – 7 – WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

SPAN 1 STIRRUP PROJECTION TABLE			
	"P" 1st ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER
GIRDER 1	7.00"	7.50"	7.00"
GIRDER 2	6.50"	6.50"	6.50"
GIRDER 3	6.50"	7.00"	7.00"
GIRDER 4	7.00"	7.00"	7.00"
GIRDER 5	7.50"	7.50"	7.50"

SPAN 2 STIRRUP PROJECTION TABLE					
	"P" 1st ⅕ OF GIRDER	"P" 2nd ⅕ OF GIRDER	"P" MID ⅕ OF GIRDER	"P" 4th ⅕ OF GIRDER	"P" END ⅕ OF GIRDER
GIRDER 1	7.75"	9.50"	10.00"	9.50"	8.00"
GIRDER 2	7.25"	8.50"	9.00"	8.50"	7.25"
GIRDER 3	7.25"	8.50"	9.00"	8.50"	7.25"
GIRDER 4	7.50"	8.50"	9.00"	8.50"	7.50"
GIRDER 5	8.50"	9.25"	9.50"	9.25"	7.75"

SPAN 3 STIRRUP PROJECTION TABLE			
	"P" 1st ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER
GIRDER 1	7.50"	7.50"	7.00"
GIRDER 2	7.00"	7.00"	6.50"
GIRDER 3	7.00"	7.00"	6.50"
GIRDER 4	7.00"	7.00"	6.50"
GIRDER 5	7.50"	8.00"	7.25"

GIRDER DATA																					
SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFLECTION (IN.)									CONC. STRGTH. f'c (psi)	DIA. OF STRAND (IN.)	DRAPED PATTERN							UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10			TOTAL NO. OF STRANDS	f'ci (psi) *	(IN.) "A"	"B" MIN	"B" MAX	"C"	TOTAL NO. OF STRANDS	f'ci (psi) *
1	1-5	52'-4½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8,000	0.6	---	---	–	–	–	–	8	6,800
2	1-5	67'-9"	0.5	0.9	1.3	1.5	1.5	1.5	1.3	0.9	0.5	8,000	0.6	---	---	–	–	–	–	16	6,800
3	1-5	52'-4½"	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.3	0.2	8,000	0.6	---	---	–	–	–	–	8	6,800

*MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY JDO | PLANS CK'D ACK

28-INCH PRESTRESSED GIRDER

SHEET 13 OF 22

72

I.D. 3846-00-74

PLOT DATE: Dec 01, 2025

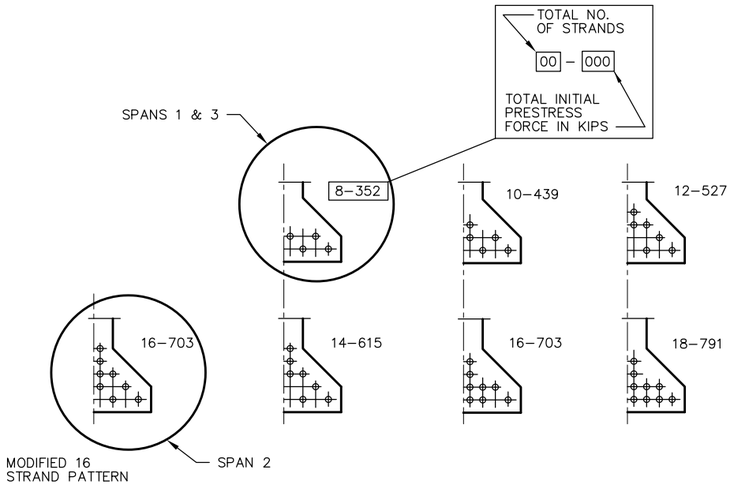
FILE: B640215_13-14_girder.dwg
PLOT SCALE:

8

8

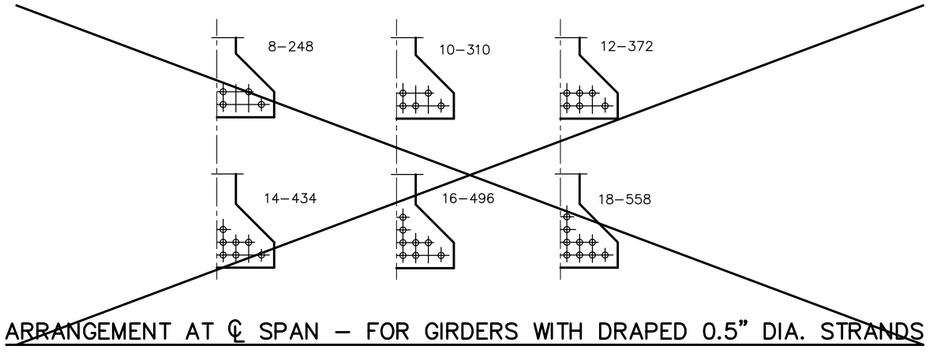
STATE PROJECT NUMBER

3846-00-74

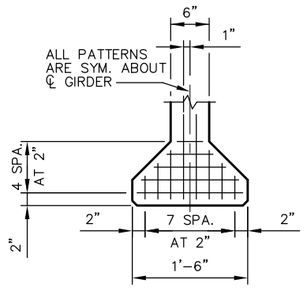


STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF 0.6" DIA. STRANDS

(0.5" DIA. STRANDS MAY ALSO BE USED)



ARRANGEMENT AT ℄ SPAN – FOR GIRDERS WITH DRAPED 0.5" DIA. STRANDS



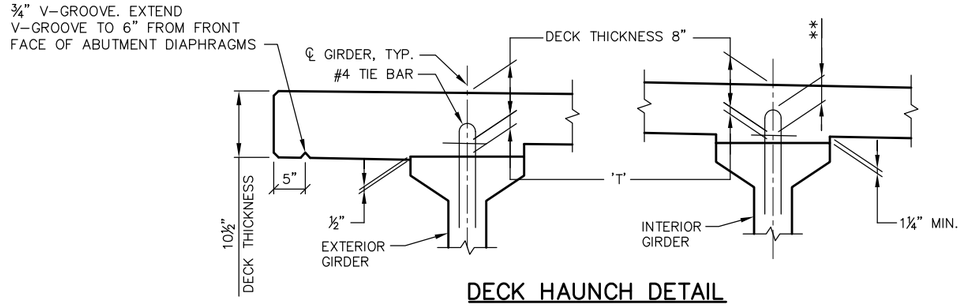
TYPICAL STRAND PATTERN

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.)*
1	1.2
2	2.8
3	1.2

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

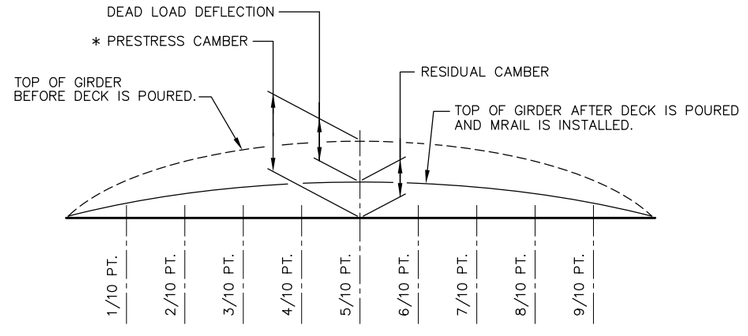
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEVATIONS OF TOP OF GIRDERS AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATION AT FINAL GRADE (SEE "SUPERSTRUCTURE DETAILS" SHEET)
− TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
− SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3.4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION AND CAMBER DIAGRAM

(SEE GIRDER DATA TABLE ON "28-INCH PRESTRESSED GIRDER" SHEET)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY JDO | PLANS CK'D ACK

28-INCH PRESTRESSED GIRDER DETAILS

SHEET 14 OF 22

73

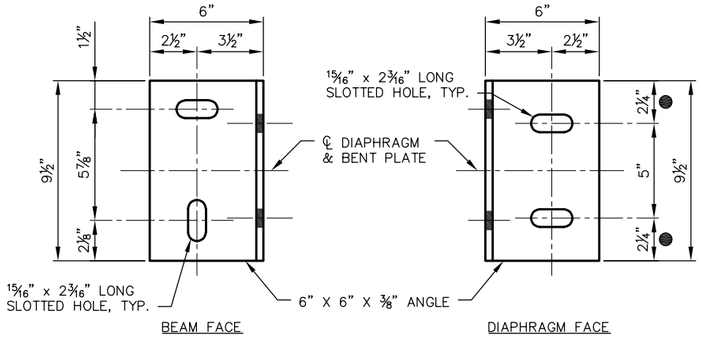
I.D. 3846-00-74

PLOT DATE: Dec 02, 2025

FILE: B640215_13-14_girder.dwg
PLOT SCALE:

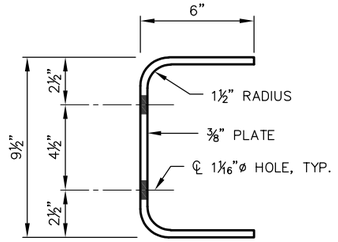
STATE PROJECT NUMBER

3846-00-74

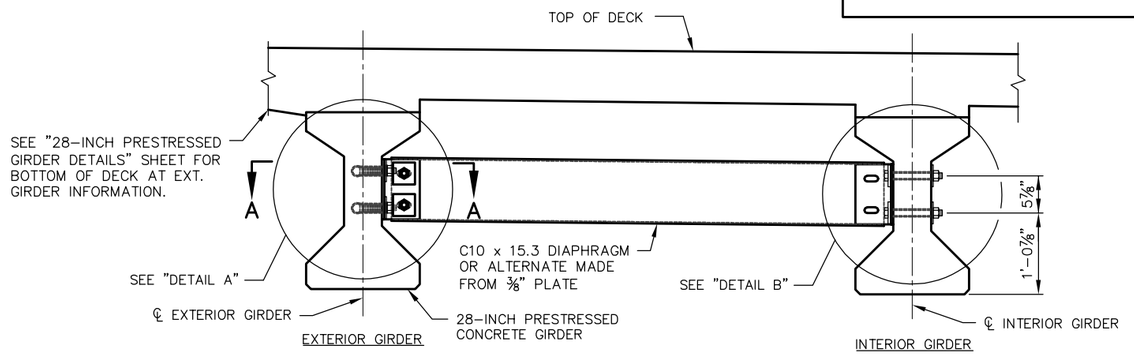


DIAPHRAGM SUPPORT

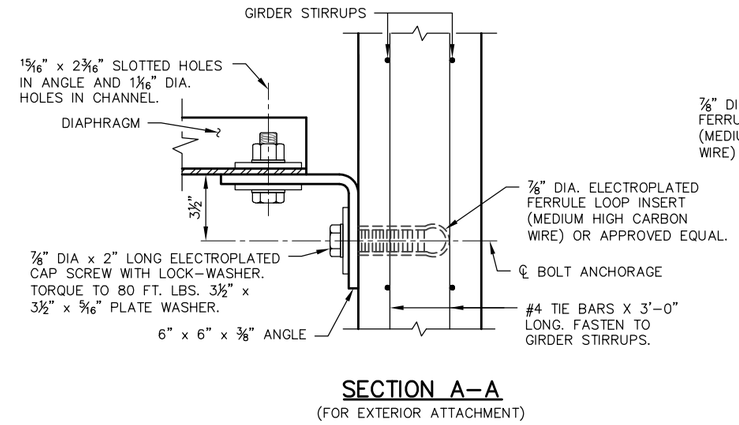
● DIMENSION CHANGES TO 2½" WHEN ALTERNATE PLATE DIAPHRAGM IS USED.



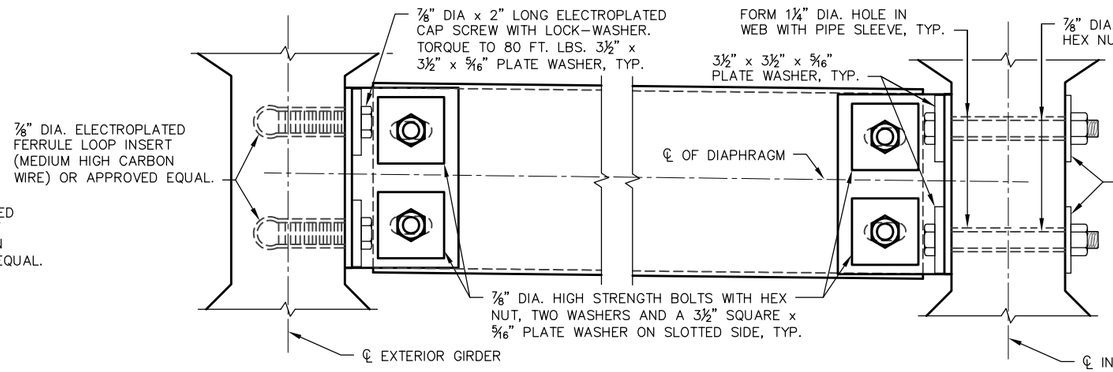
SECTION THROUGH ALTERNATE DIAPHRAGM



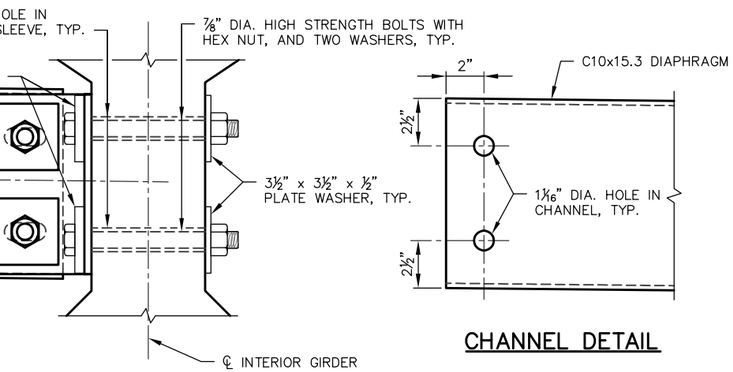
PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A
(FOR EXTERIOR ATTACHMENT)

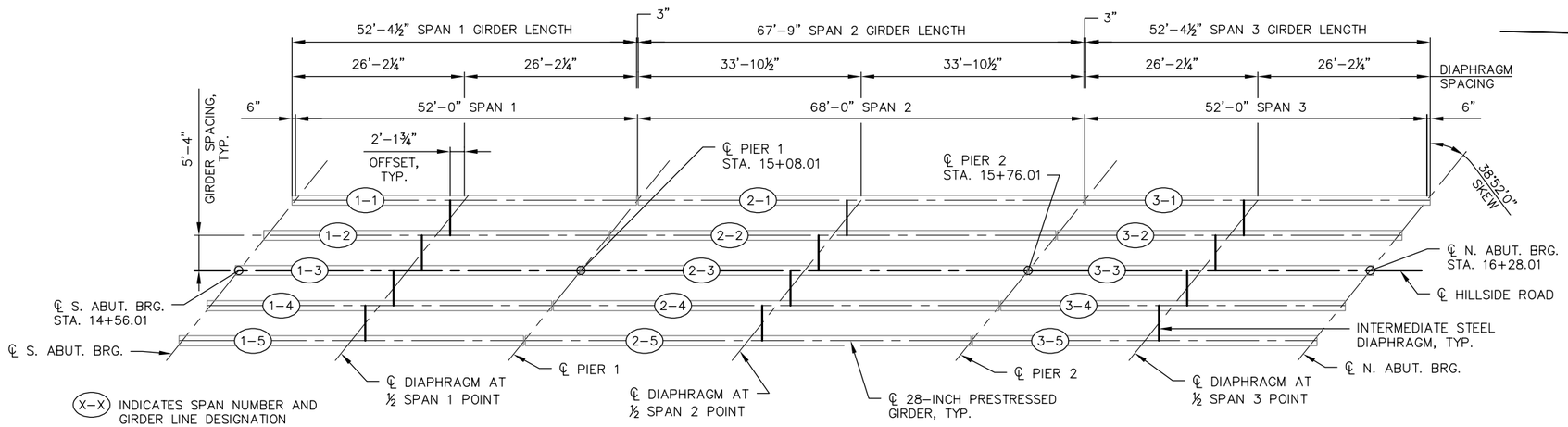


DETAIL A



DETAIL B

CHANNEL DETAIL



STEEL DIAPHRAGM LAYOUT PLAN

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-64-215", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

INTERMEDIATE STEEL DIAPHRAGM

SHEET 15 OF 22

74

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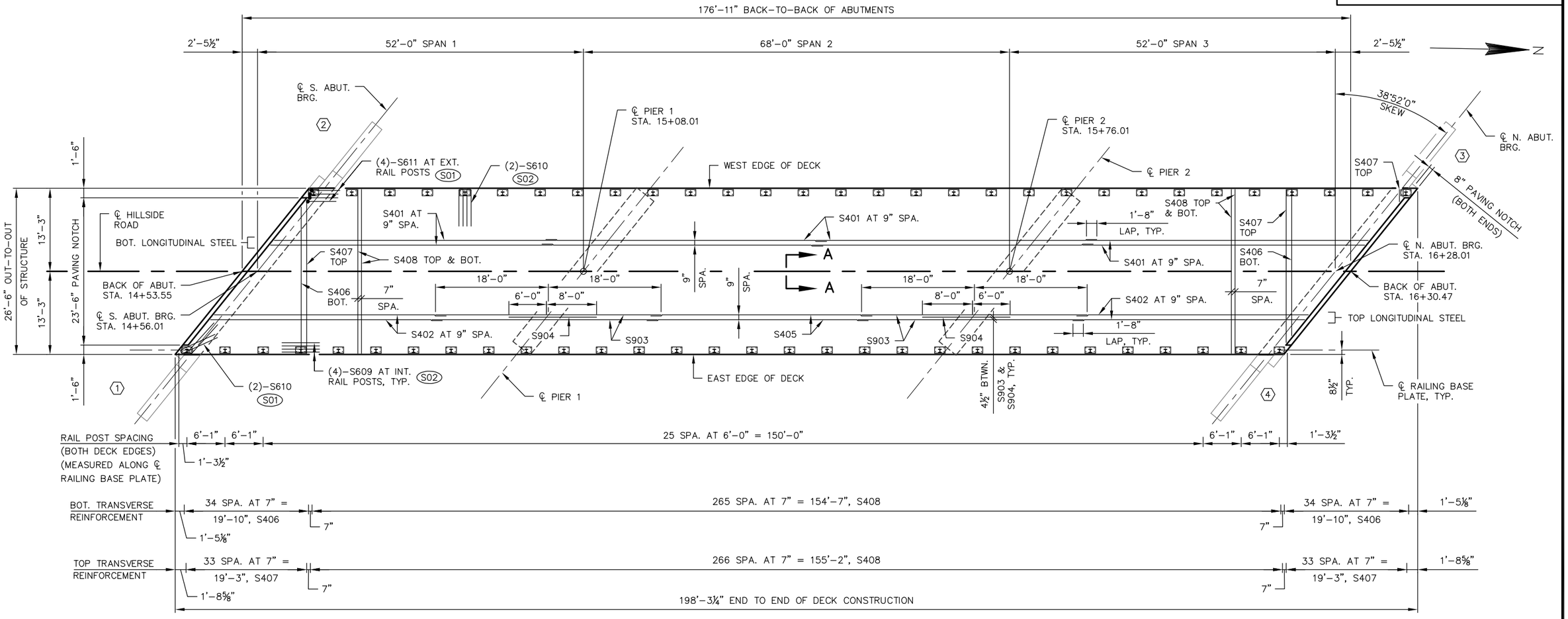
8

I.D. 3846-00-74

PLOT DATE: Aug 04, 2025

FILE: B640215_15_dia.dwg
PLOT SCALE:

STATE PROJECT NUMBER
3846-00-74



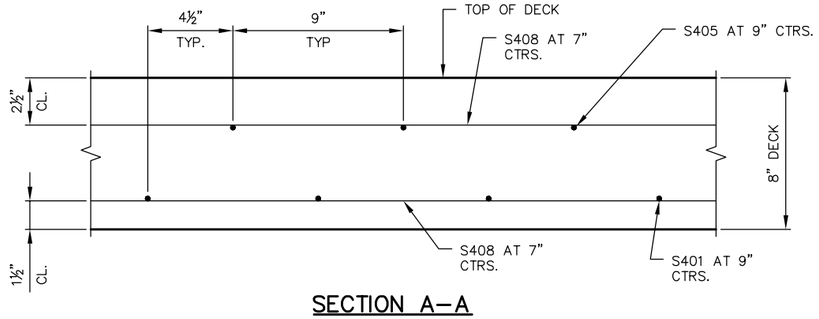
PLAN VIEW

NOTES

(S01) SEE "END POST DETAIL" ON THIS SHEET FOR ORIENTATION OF S610 & S611 BARS AT END POSTS.

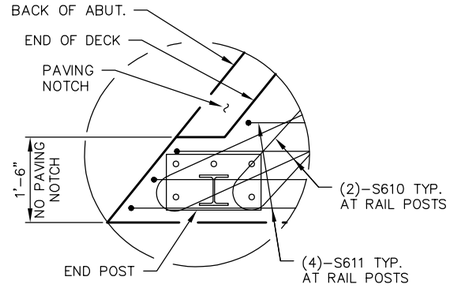
(S02) SEE "RAILING TUBULAR TYPE M" SHEET FOR PLACEMENT OF INTERIOR RAIL POST REINFORCEMENT.

⬡ INDICATES WING NUMBER



SECTION A-A

(IN SPAN 2 SHOWN, ALL SPANS SIMILAR)



END POST DETAIL

(WING 1 & 3 POST SHOWN, 2 & 4 SIMILAR)
(ONLY RAIL POST REINFORCEMENT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

SUPERSTRUCTURE

SHEET 16 OF 22

75

I.D. 3846-00-74

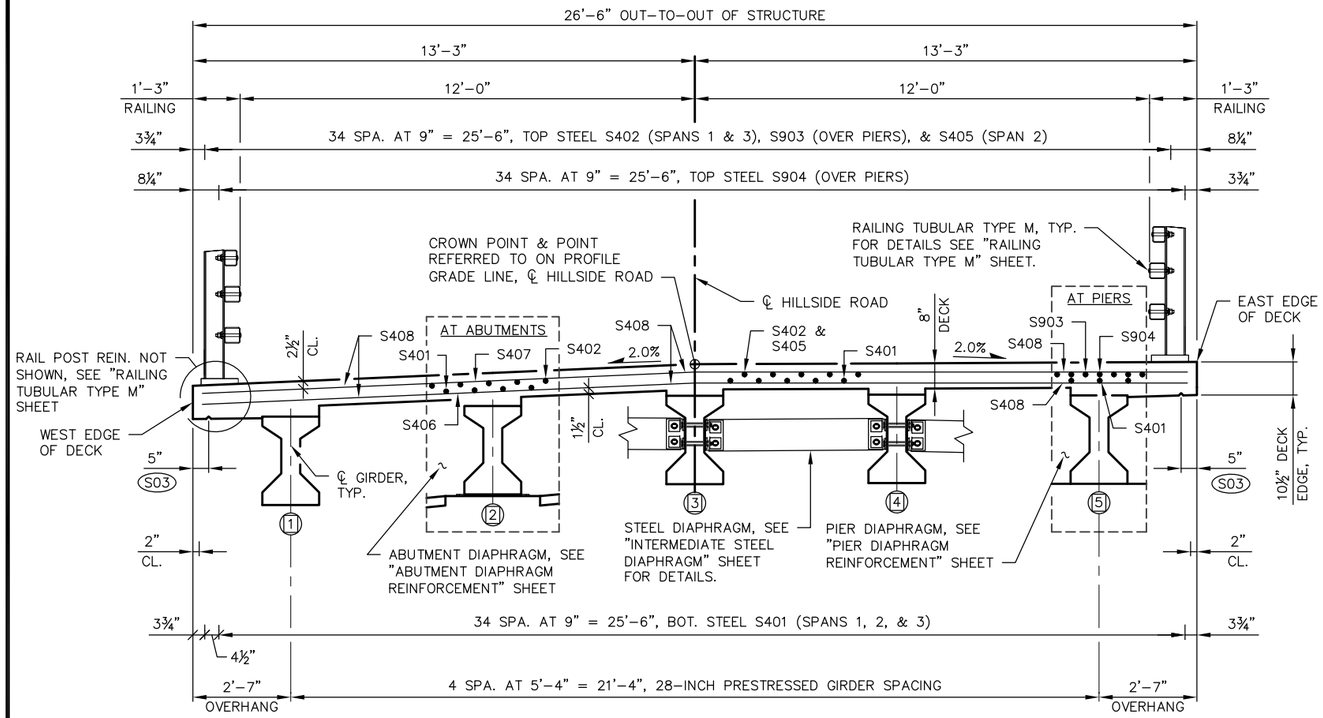
PLOT DATE: Aug 12, 2025

FILE: B640215_16-20_super.dwg
PLOT SCALE:

8

8

STATE PROJECT NUMBER
3846-00-74



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

NOTES

(S03) ¾" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGMS.

(1) INDICATES GIRDER LINE DESIGNATION

SPAN 1 – TOP OF DECK ELEVATIONS

	S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER 1
W. DECK EDGE	983.81	983.98	984.14	984.31	984.48	984.64	984.79	984.93	985.05	985.15	985.25
GIRDER 1	983.79	983.96	984.13	984.29	984.46	984.63	984.78	984.92	985.05	985.16	985.26
GIRDER 2	983.75	983.92	984.09	984.25	984.42	984.59	984.75	984.91	985.05	985.17	985.28
GIRDER 3 / CROWN POINT	983.73	983.89	984.06	984.23	984.39	984.56	984.73	984.89	985.04	985.18	985.30
GIRDER 4	983.48	983.65	983.81	983.98	984.15	984.31	984.48	984.65	984.81	984.96	985.09
GIRDER 5	983.24	983.41	983.57	983.74	983.91	984.07	984.24	984.41	984.58	984.74	984.88
E. DECK EDGE	983.12	983.29	983.46	983.62	983.79	983.96	984.12	984.29	984.46	984.62	984.77

SPAN 2 – TOP OF DECK ELEVATIONS

	PIER 1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	PIER 2
W. DECK EDGE	985.25	985.35	985.42	985.48	985.50	985.51	985.49	985.44	985.37	985.28	985.16
GIRDER 1	985.26	985.37	985.45	985.51	985.55	985.56	985.55	985.51	985.45	985.36	985.25
GIRDER 2	985.28	985.41	985.50	985.58	985.63	985.66	985.66	985.63	985.59	985.52	985.42
GIRDER 3 / CROWN POINT	985.30	985.44	985.55	985.64	985.71	985.75	985.77	985.76	985.73	985.67	985.59
GIRDER 4	985.09	985.25	985.37	985.48	985.56	985.62	985.65	985.66	985.64	985.60	985.54
GIRDER 5	984.88	985.05	985.20	985.32	985.41	985.48	985.53	985.56	985.56	985.53	985.48
E. DECK EDGE	984.77	984.95	985.10	985.23	985.34	985.42	985.47	985.50	985.51	985.49	985.45

SPAN 3 – TOP OF DECK ELEVATIONS

	PIER 2	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	N. ABUT.
W. DECK EDGE	985.16	985.05	984.93	984.80	984.65	984.49	984.34	984.18	984.03	983.87	983.73
GIRDER 1	985.25	985.15	985.03	984.90	984.76	984.60	984.45	984.29	984.14	983.98	983.83
GIRDER 2	985.42	985.33	985.23	985.11	984.98	984.83	984.68	984.52	984.37	984.21	984.06
GIRDER 3 / CROWN POINT	985.59	985.52	985.42	985.32	985.20	985.06	984.91	984.76	984.60	984.45	984.29
GIRDER 4	985.54	985.47	985.39	985.30	985.19	985.07	984.93	984.78	984.62	984.47	984.31
GIRDER 5	985.48	985.43	985.36	985.28	985.18	985.07	984.94	984.80	984.65	984.50	984.34
E. DECK EDGE	985.45	985.40	985.34	985.26	985.17	985.06	984.94	984.81	984.66	984.51	984.35

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY JDO | PLANS CK'D ACK

SUPERSTRUCTURE DETAILS

SHEET 17 OF 22

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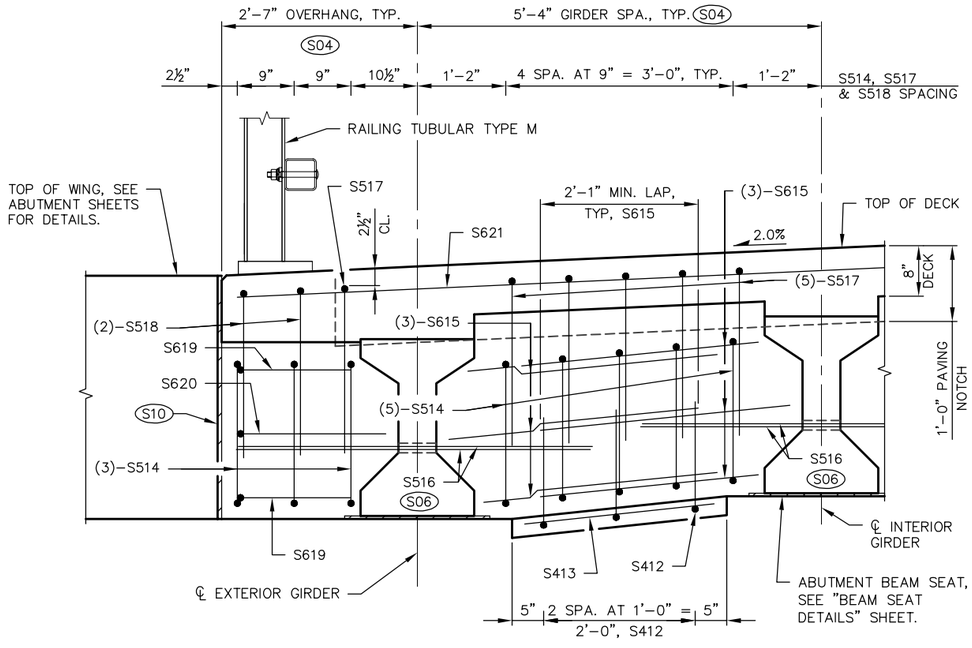
FILE: B640215_16-20_super.dwg
PLOT SCALE:

I.D. 3846-00-74

PLOT DATE: Dec 01, 2025

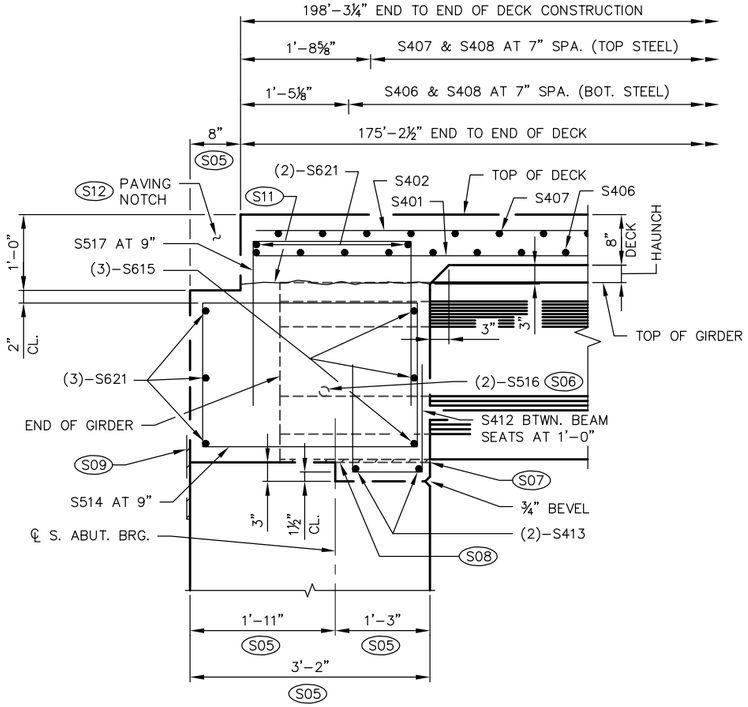
STATE PROJECT NUMBER

3846-00-74



DIAPHRAGM REINFORCEMENT AT ABUTMENT

(SOUTH ABUTMENT SHOWN LOOKING SOUTH, NORTH ABUTMENT SIMILAR)

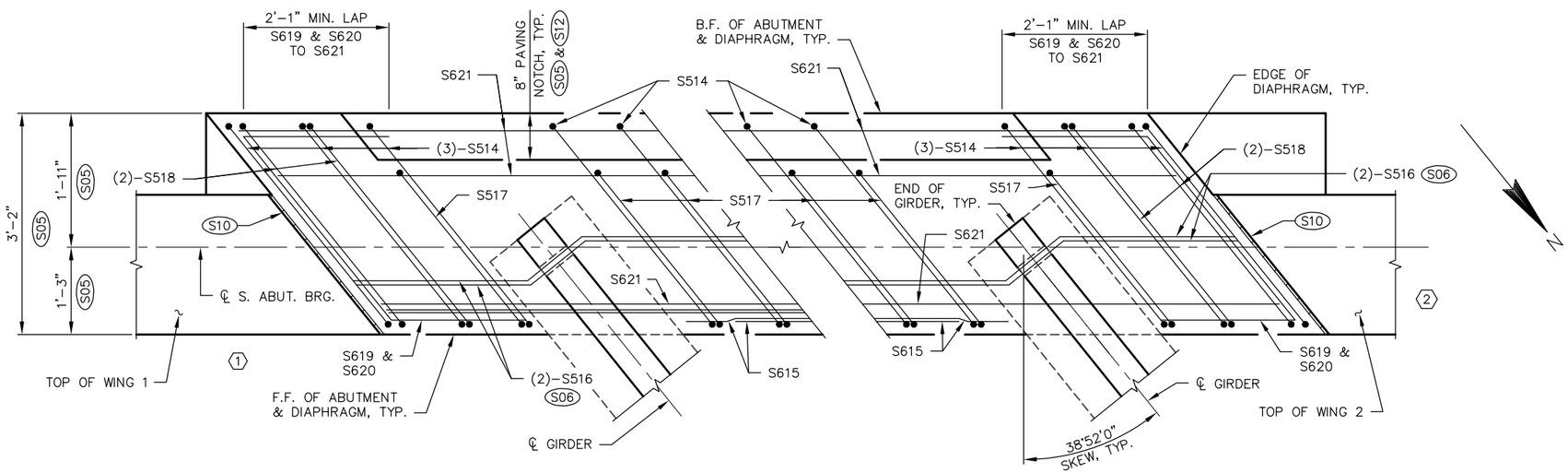


SECTION THRU DIAPHRAGM AT ABUTMENT

(SOUTH ABUTMENT SHOWN LOOKING WEST, NORTH ABUTMENT SIMILAR)

NOTES

- S04 DIMENSION IS TAKEN NORMAL TO ℄ OF GIRDERS.
- S05 DIMENSION IS TAKEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS (ABUTMENTS & PIERS).
- S06 1½" DIA. HOLE IN WEB FOR TWO S516 BARS TO BE PLACED SYM. ABOUT ℄ OF GIRDERS. FIELD BEND BARS ALONG SKEW.
- S07 ½" PREFORMED FILLER, TYP. SEE "BEAM SEAT DETAILS" SHEET.
- S08 ½" X 8" X 1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD, TYP. SEE "BEAM SEAT DETAILS" SHEET.
- S09 18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.), SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- S10 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.
- S11 OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- S12 APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH
- ⬡ INDICATES WING NUMBER



PLAN VIEW OF DIAPHRAGM AT WINGS

(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

ABUTMENT DIAPHRAGM REINFORCEMENT

SHEET 18 OF 22

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FILE: B640215_16-20_super.dwg
PLOT SCALE:

I.D. 3846-00-74

PLOT DATE: Aug 11, 2025

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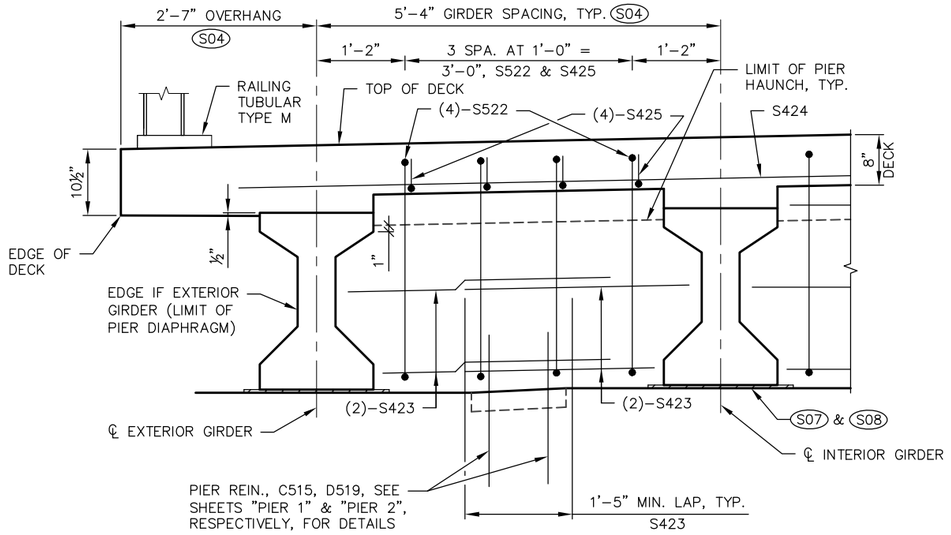
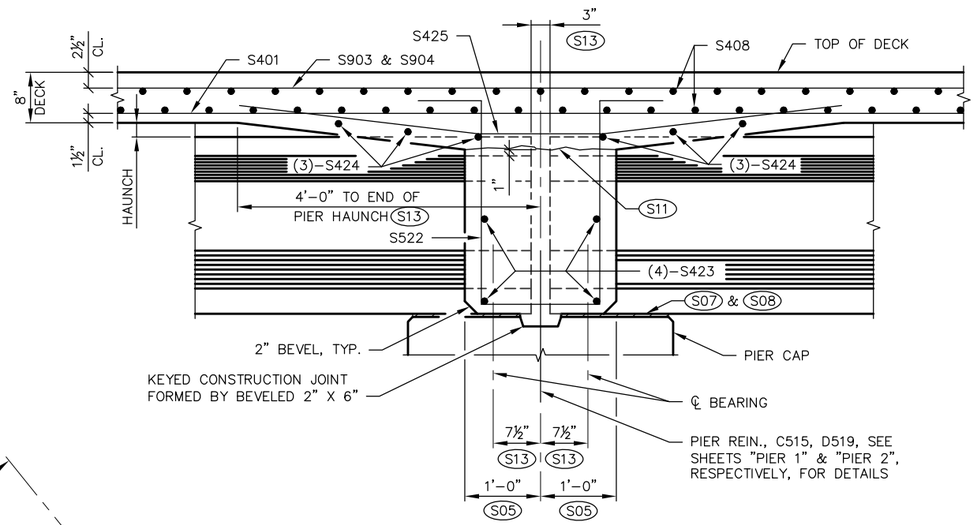
STATE PROJECT NUMBER

3846-00-74



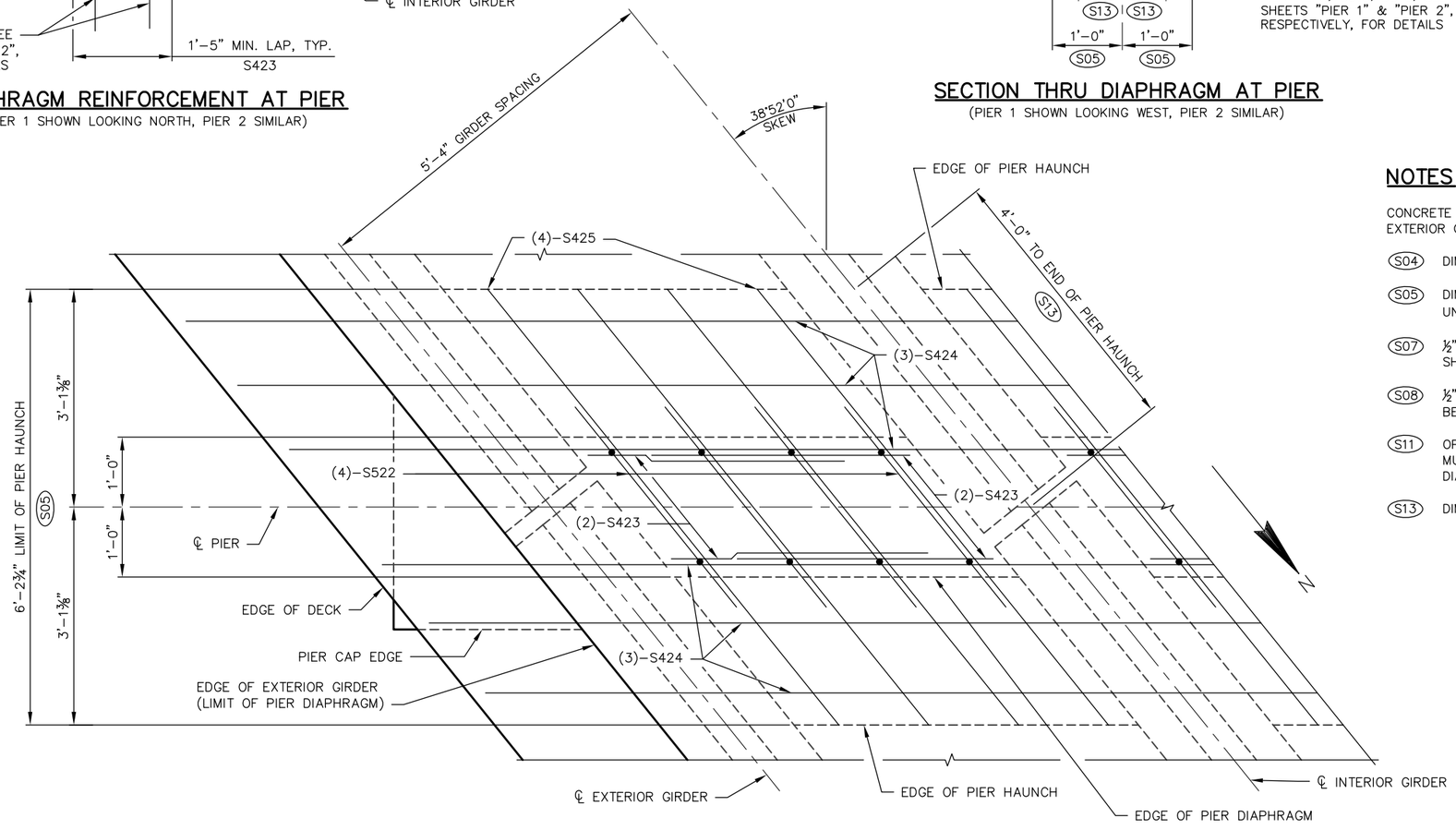
DIAPHRAGM REINFORCEMENT AT PIER

(PIER 1 SHOWN LOOKING NORTH, PIER 2 SIMILAR)



SECTION THRU DIAPHRAGM AT PIER

(PIER 1 SHOWN LOOKING WEST, PIER 2 SIMILAR)



PLAN VIEW OF DIAPHRAGM AT PIER

(PIER 1 SHOWN, PIER 2 SIMILAR)
(DECK REINFORCEMENT NOT SHOWN FOR CLARITY)

NOTES

CONCRETE DIAPHRAGM TO EXTEND BETWEEN OUTSIDE FACES OF EXTERIOR GIRDERS.

S04 DIMENSION IS TAKEN NORMAL TO ℄ OF GIRDERS.

S05 DIMENSION IS TAKEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS (ABUTMENTS & PIERS).

S07 ½" PREFORMED FILLER, TYP. SEE "BEAM SEAT DETAILS" SHEET.

S08 ½" X 8" X 1'-10" NON-LAMINATED ELASTOMERIC BEARING PAD, TYP. SEE "BEAM SEAT DETAILS" SHEET.

S11 OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

S13 DIMENSION IS TAKEN PARALLEL TO ℄ GIRDER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

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PIER DIAPHRAGM REINFORCEMENT

SHEET 19 OF 22

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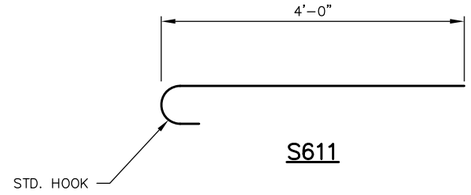
I.D. 3846-00-74

PLOT DATE: Dec 01, 2025

FILE: B640215_16-20_super.dwg
PLOT SCALE:

STATE PROJECT NUMBER
3846-00-74

S610



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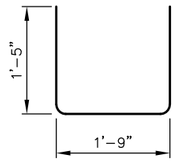
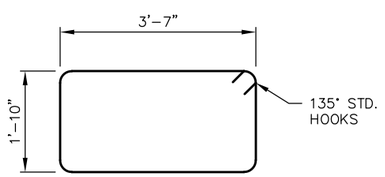
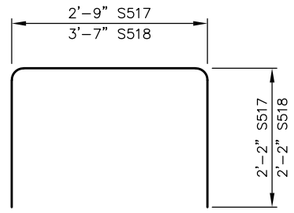


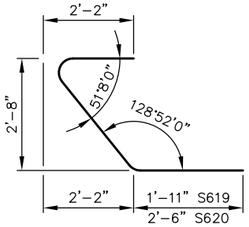
S412



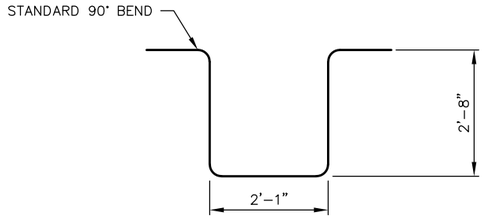
S514



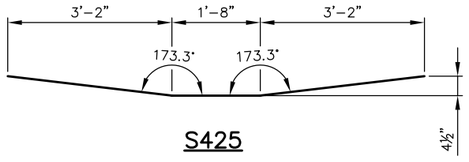
S517 & S518



S619 & S620



S522



S425

BILL OF BARS
SUPERSTRUCTURE

COATED = 36,570 LBS.

MARK	NUMBER COATED	NUMBER UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION	
S401	144		45'-0"			DECK – BOTTOM – ALL SPANS	LONGIT.
S402	70		37'-0"			DECK – TOP – SPAN 1 & 3	LONGIT.
S903	70		36'-0"			DECK – TOP – CONTINUITY AT PIERS	LONGIT.
S904	70		14'-0"			DECK – TOP – CONTINUITY AT PIERS	LONGIT.
S405	35		35'-4"			DECK – TOP – SPAN 2	LONGIT.
S406	70		13'-7"		◭	DECK – BOT. – ENDS	TRANS.
S407	68		12'-10"		◭	DECK – TOP – ENDS	TRANS.
S408	533		26'-2"			DECK – TOP & BOT.	TRANS.
S609	224		6'-0"			DECK – TOP AT INTERIOR RAIL POSTS	LONGIT.
S610	120		11'-6"	X		DECK – TOP AT RAIL POSTS	TRANS.
S611	16		4'-8"	X		DECK – TOP AT END RAIL POSTS	LONGIT.
S412	24		4'-5"	X		ABUT. – DIAPHRAGM BTWN. SEATS	VERT.
S413	16		3'-2"			ABUT. – DIAPHRAGM BTWN. SEATS	HORIZ.
S514	52		11'-6"	X		ABUT. – DIAPHRAGM	VERT.
S615	48		4'-0"			ABUT. – DIAPHRAGM AT F.F.	HORIZ.
S516	20		6'-0"			ABUT. – DIAPHRAGM – THRU GIRDER	HORIZ.
S517	44		6'-10"	X		ABUT. – DIAPHRAGM	VERT.
S518	8		7'-8"	X		ABUT. – DIAPHRAGM AT WINGS	VERT.
S619	8		7'-4"	X		ABUT. – DIAPHRAGM AT WINGS	HORIZ.
S620	4		7'-11"	X		ABUT. – DIAPHRAGM AT WINGS	HORIZ.
S621	10		33'-6"			ABUT. – DIAPHRAGM AT B.F & TOP	HORIZ.
S522	32		8'-7"	X		PIER – DIAPHRAGM	VERT.
S423	64		3'-8"			PIER – DIAPHRAGM – F.F. & B.F. – BOT.	HORIZ.
S424	12		33'-6"			PIER – DIAPHRAGM – TOP	HORIZ.
S425	32		8'-0"	X		PIER – DIAPHRAGM INTO DECK	LONGIT.

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.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
S406	2 SERIES OF 35	1'-3" TO 25'-11"
S407	2 SERIES OF 34	1'-2" TO 24'-5"

BUNDLE AND TAG EACH SERIES SEPARATELY.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

SUPERSTRUCTURE REINFORCEMENT

SHEET 20 OF 22

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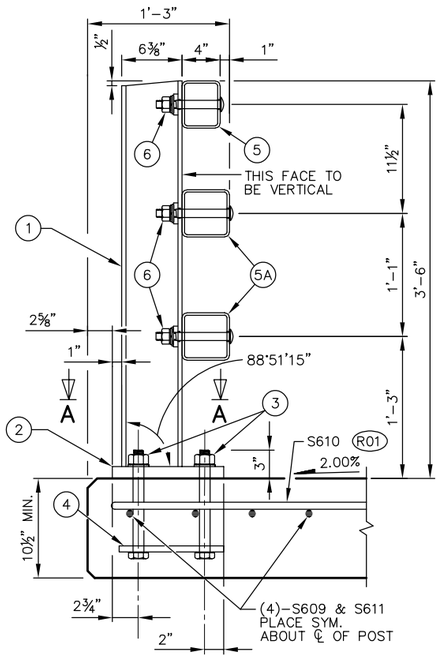
FILE: B640215_16-20_super.dwg
PLOT SCALE:

I.D. 3846-00-74

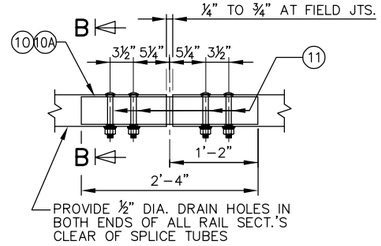
PLOT DATE: Aug 25, 2025

STATE PROJECT NUMBER

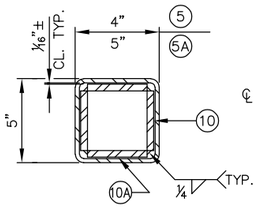
3846-00-74



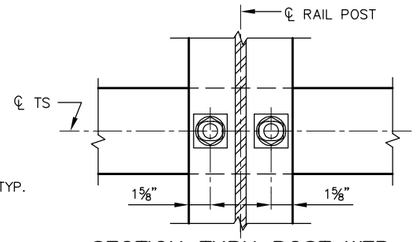
SECTION THRU RAILING ON DECK



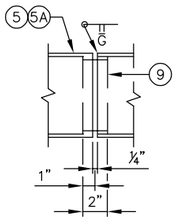
FIELD ERECTION JOINT DETAIL



SECTION B-B

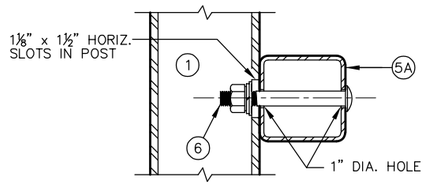


SECTION THRU POST WEB



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.

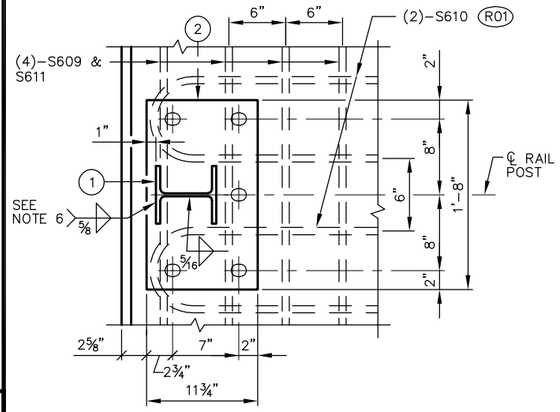
TYPICAL RAIL TO POST CONNECTIONS

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. 7/8" 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.)
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. 7/8" 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.

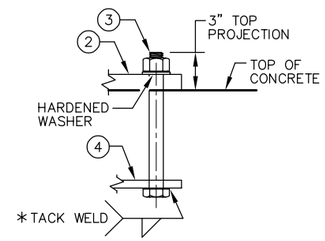
NOTES

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 ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
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.



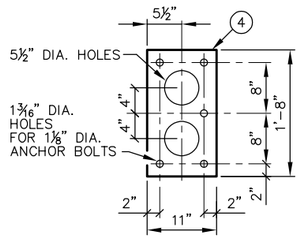
SECTION A-A

R01 TIE TO TOP MAT OF STEEL.



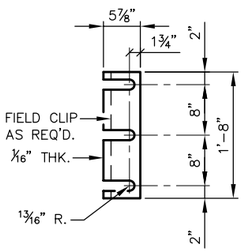
ANCHOR BOLTS

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

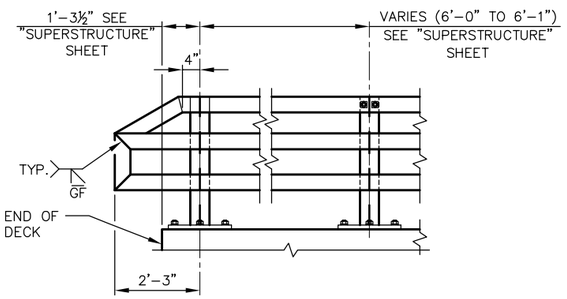


ANCHOR PLATE

AT RAIL TO DECK CONNECTION



POST SHIM DETAIL



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

RAILING TUBULAR TYPE M

SHEET 21 OF 22

80

FILE: B640215_21_mrail.dwg
PLOT SCALE:

I.D. 3846-00-74

PLOT DATE: Aug 12, 2025

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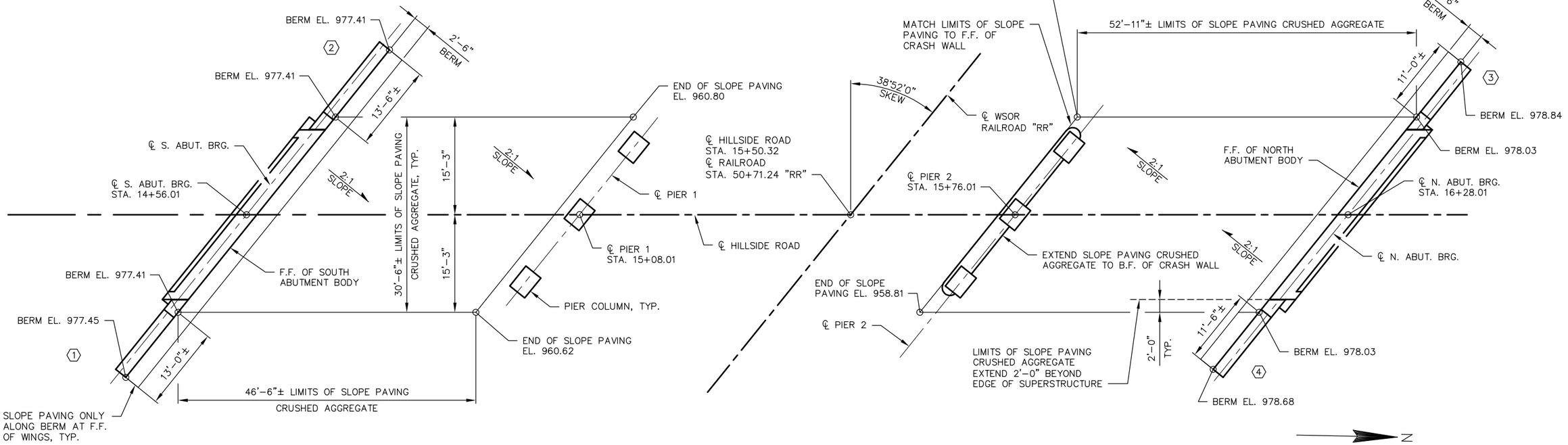
STATE PROJECT NUMBER
3846-00-74



PLAN VIEW SHOWING LIMITS OF SLOPE PAVING CRUSHED AGGREGATE

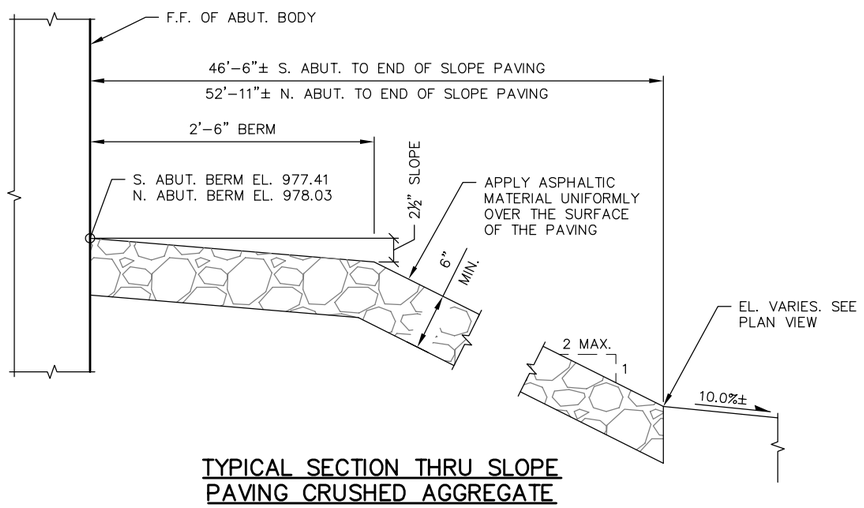
NOTES

BID ITEM SHALL BE "SLOPE PAVING CRUSHED AGGREGATE".

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

⬡ INDICATES WING NUMBER

F.F. – FRONT FACE
B.F. – BACK FACE



TYPICAL SECTION THRU SLOPE PAVING CRUSHED AGGREGATE

(ROUND STONE WILL NOT BE ACCEPTED)
(S. ABUT. SHOWN, N. ABUT. SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-215

DRAWN BY ZDM | PLANS CK'D ACK

SLOPE PAVING CRUSHED AGGREGATE

SHEET 22 OF 22

81

I.D. 3846-00-74

PLOT DATE: Aug 15, 2025

FILE: B640215_22_slope pav.dwg
PLOT SCALE:

8

8

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
12+85.00	0.00	54.57	10.00	8.14	0	0	0	0	0	0
13+00.00	15.00	55.07	10.00	8.60	30	6	5	30	6	18
13+50.00	50.00	40.19	10.00	21.15	88	19	28	30	41	52
14+00.00	50.00	22.06	10.00	38.58	58	19	55	30	110	22
14+30.00	30.00	8.32	10.00	79.08	17	11	65	30	191	-53
14+36.84	6.84	11.43	10.00	92.19	3	3	22	30	219	-81
14+54.41	17.57	22.77	5.00	27.94	11	5	39	30	268	-124
STRUCTURE B-64-0215										
			SOUTH APPROACH TOTAL		207	63	214			

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
STRUCTURE B-64-0215										
16+29.62	0.00	5.00	5.00	21.47	0	0	0	0	0	0
16+37.72	8.10	10.00	10.00	31.56	2	2	8	2	10	-10
16+47.18	9.46	10.00	10.00	57.69	4	4	16	6	30	-30
16+54.29	7.11	10.00	10.00	113.60	3	3	23	9	59	-59
16+71.52	17.23	10.00	10.00	78.48	6	6	61	15	135	-135
16+72.00	0.48	10.00	10.00	104.80	0	0	2	15	138	-138
16+94.00	22.00	10.00	10.00	76.95	8	8	74	23	231	-230
17+00.00	6.00	10.00	10.00	67.56	2	2	16	25	251	-250
17+50.00	50.00	12.66	10.00	26.76	21	19	87	46	360	-357
18+00.00	50.00	31.22	10.00	2.19	41	19	27	87	394	-369
18+50.00	50.00	46.08	10.00	0.00	72	19	2	159	397	-318
18+75.00	25.00	49.17	10.00	0.00	44	9	0	203	397	-283
			NORTH APPROACH TOTAL		203	91	316			

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
50+06.00	0.00	0.71	0.00	0.23	0	0	0	0	0	0
50+25.00	19.00	1.45	0.00	1.18	1	0	0	1	0	1
50+30.00	5.00	3.38	0.00	0.99	0	0	0	1	0	1
50+50.00	20.00	9.56	0.00	0.10	5	0	0	6	0	6
50+75.00	25.00	12.50	0.00	0.07	10	0	0	16	0	16
51+00.00	25.00	21.59	0.00	0.04	16	0	0	32	0	32
51+04.00	4.00	18.17	0.00	0.04	3	0	0	35	0	35
51+25.00	21.00	2.93	0.00	0.29	8	0	0	43	0	43
51+29.00	4.00	0.80	0.00	0.17	0	0	0	43	0	43
			RAILROAD DITCH GRADING TOTAL		43	0	0			

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 4
0+14.03	0.00	0.00	0.00	81.25	0	0	0	0	0	0
0+20.00	5.97	0.00	0.00	96.84	0	0	20	0	25	-25
0+30.00	10.00	0.00	0.00	119.29	0	0	40	0	75	-75
0+40.00	10.00	0.00	0.00	96.41	0	0	40	0	125	-125
0+50.00	10.00	0.00	0.00	66.60	0	0	30	0	163	-163
0+60.00	10.00	0.00	0.00	40.18	0	0	20	0	188	-188
0+70.00	10.00	0.00	0.00	15.88	0	0	10	0	201	-200
0+80.00	10.00	0.52	0.00	2.09	0	0	3	0	205	-204
0+90.00	10.00	9.90	0.00	0.17	2	0	0	2	205	-202
			DRIVEWAY TOTAL		2	0	163			
			PROJECT TOTAL		455	154	693			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	CUT - SALVAGED PAVT - (FILL * FILL FACTOR)

9

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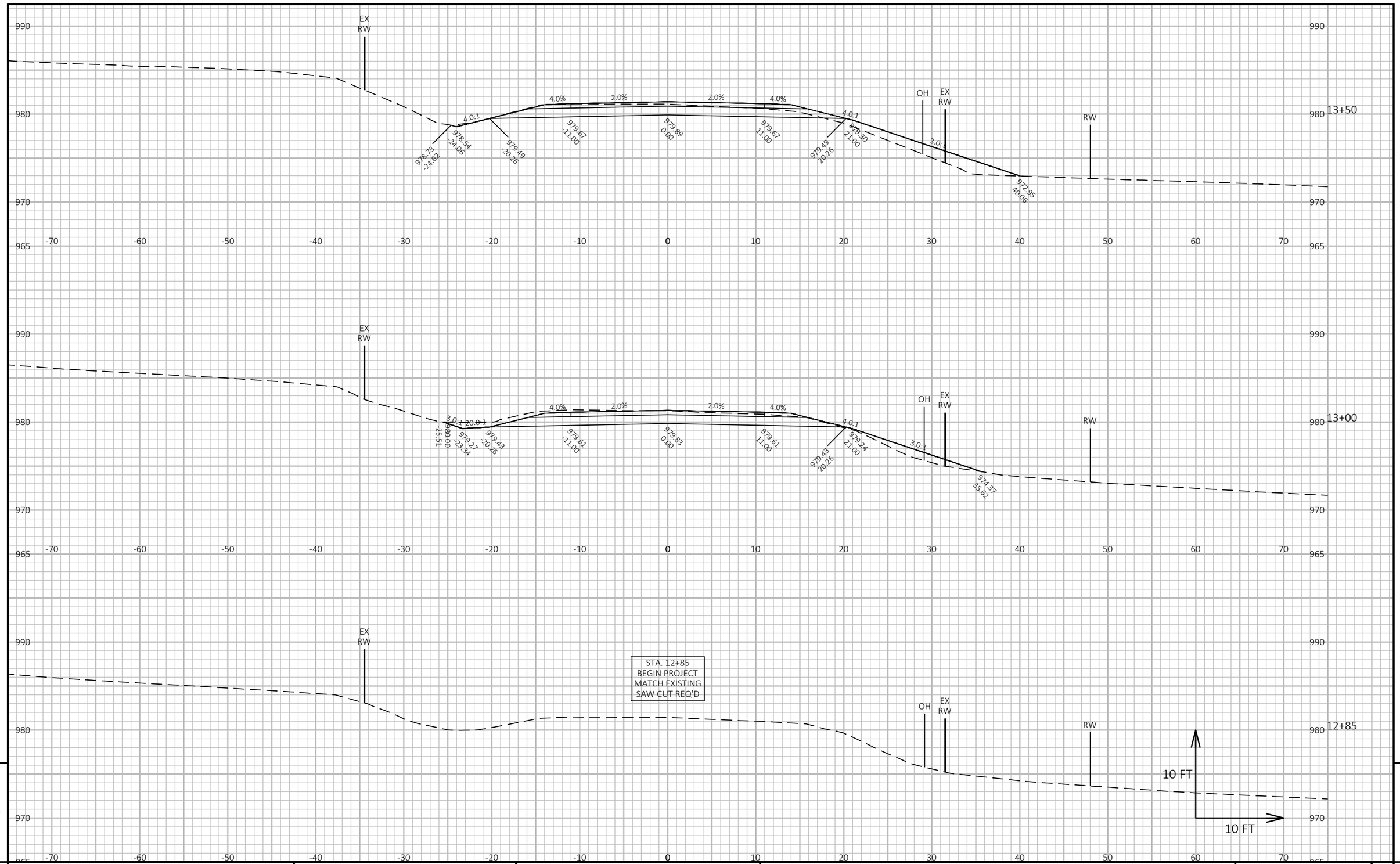
PROJECT NO: 3846-00-74 | HWY: HILLSIDE RD | COUNTY: WALWORTH | EARTHWORK DATA | SHEET 82 | E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090101_EW.DWG
LAYOUT NAME - 090101_ew

PLOT DATE : 10/10/2025 8:46 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

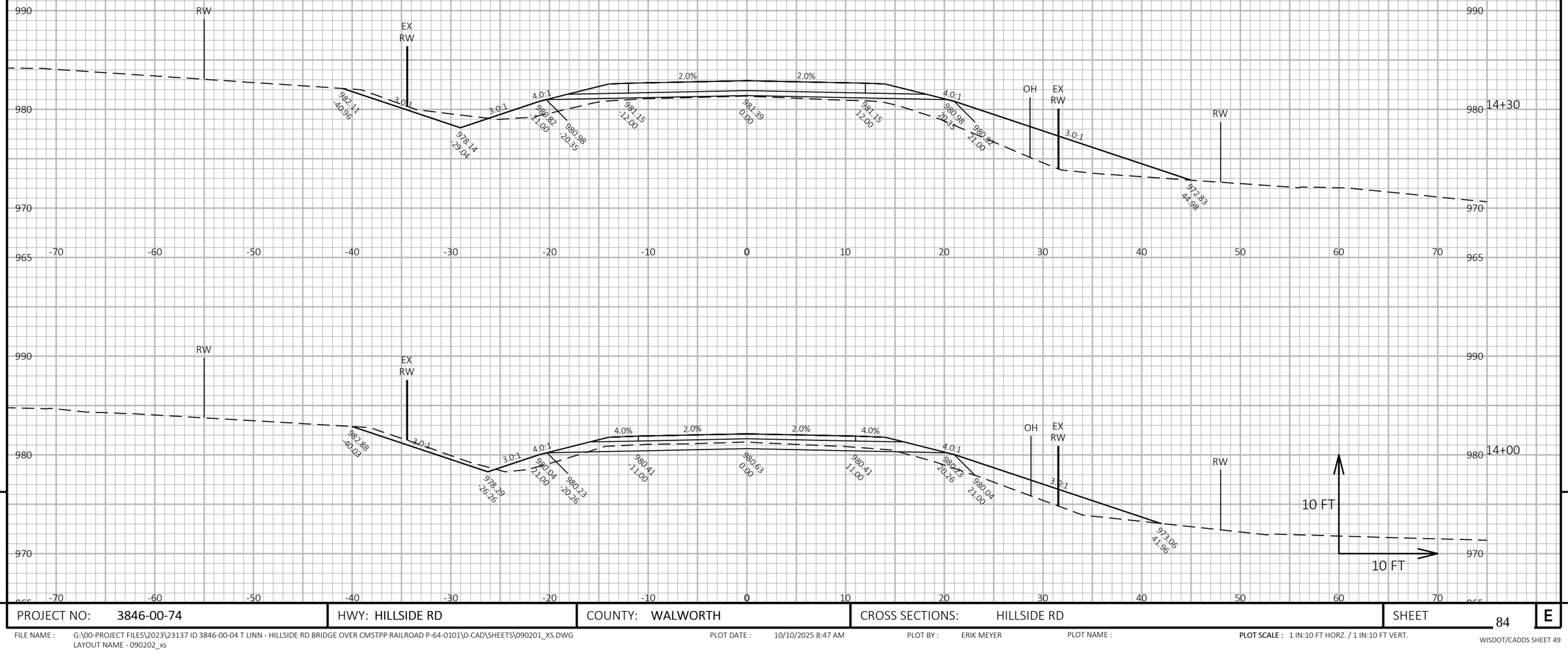


PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: HILLSIDE RD	SHEET 83 E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090201_xs

PLOT DATE : 10/10/2025 8:47 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

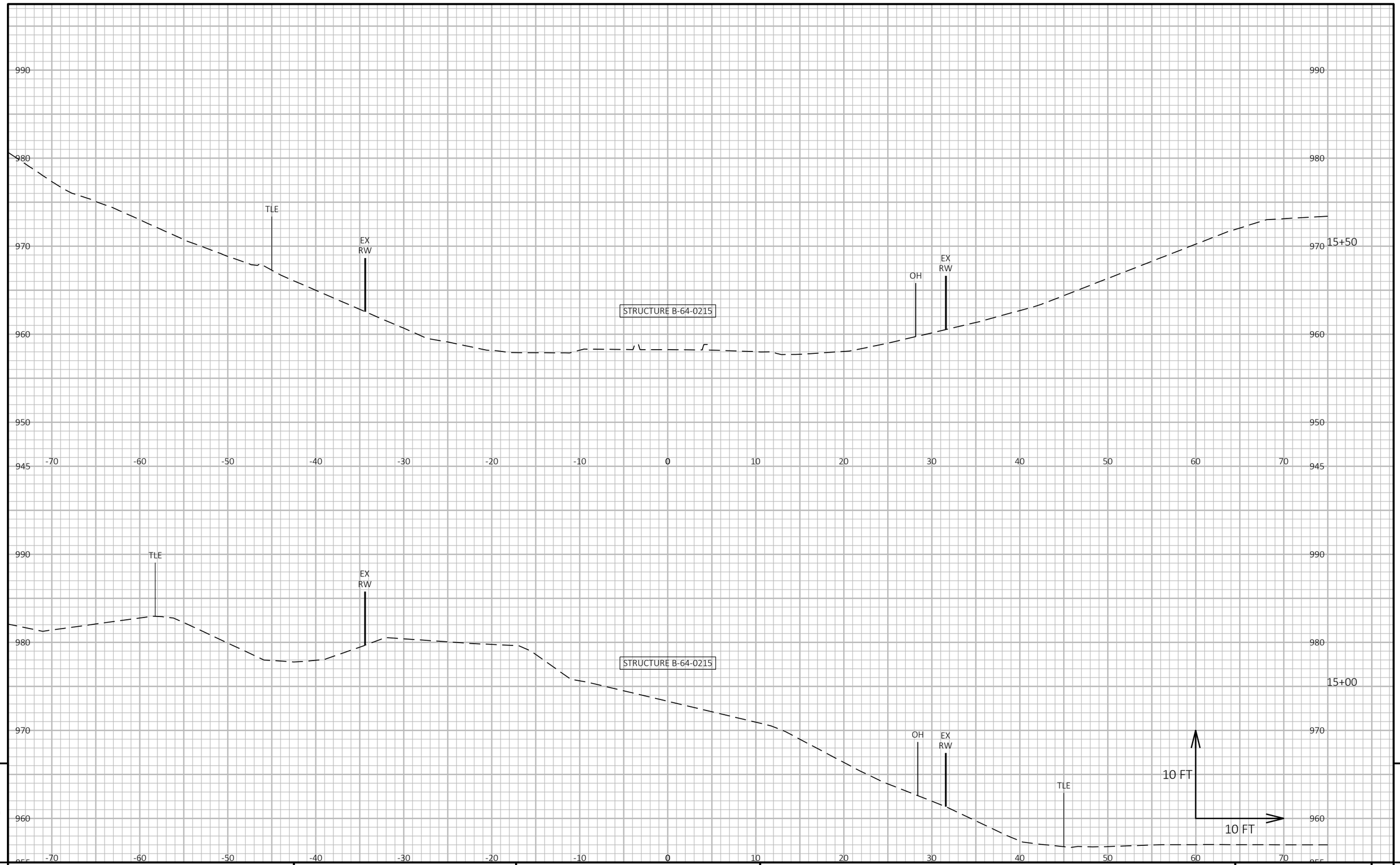


PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: HILLSIDE RD	SHEET 84	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 10/10/2025 8:47 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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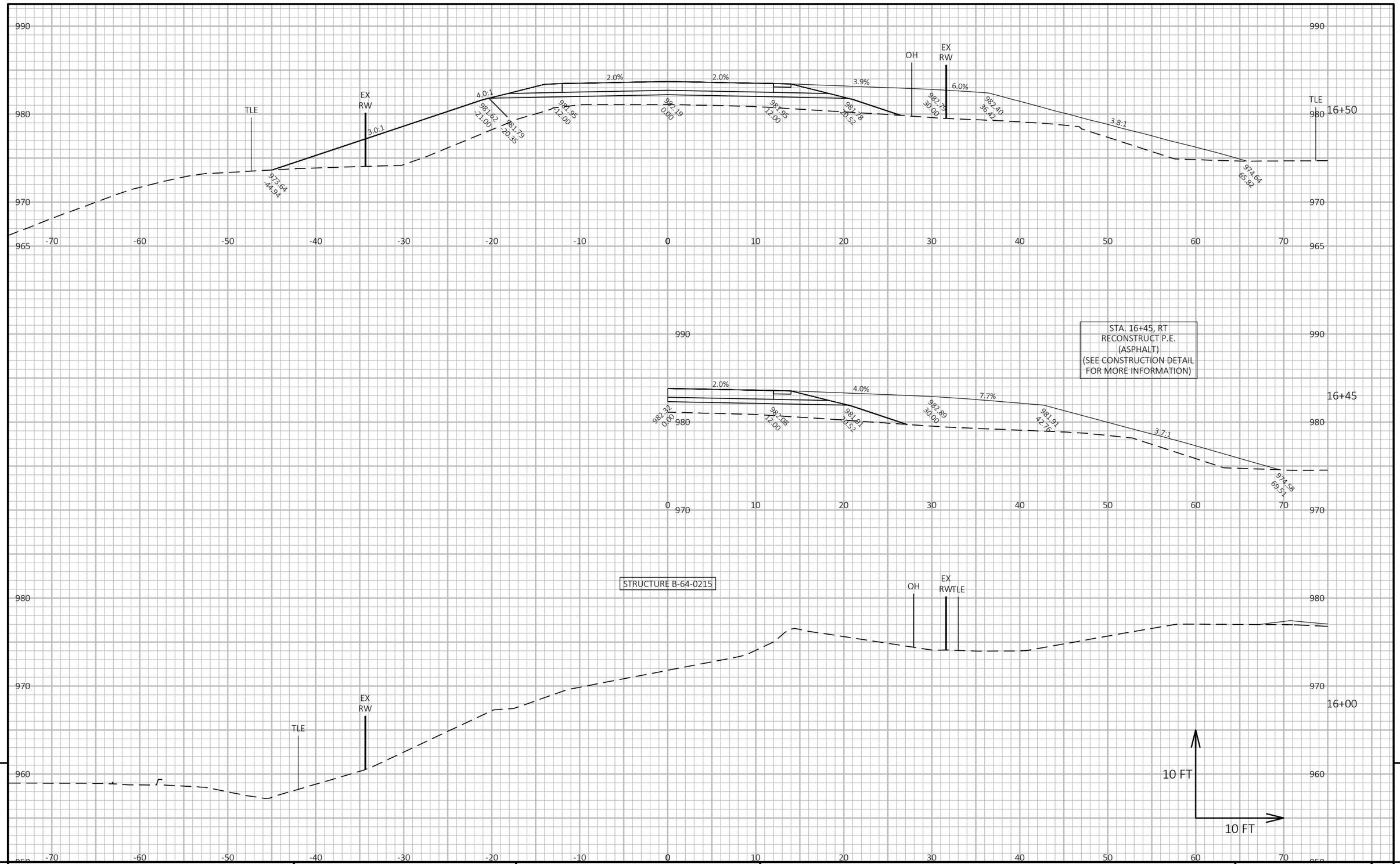
PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: HILLSIDE RD	SHEET 85	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090203_xs

PLOT DATE : 10/10/2025 8:47 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

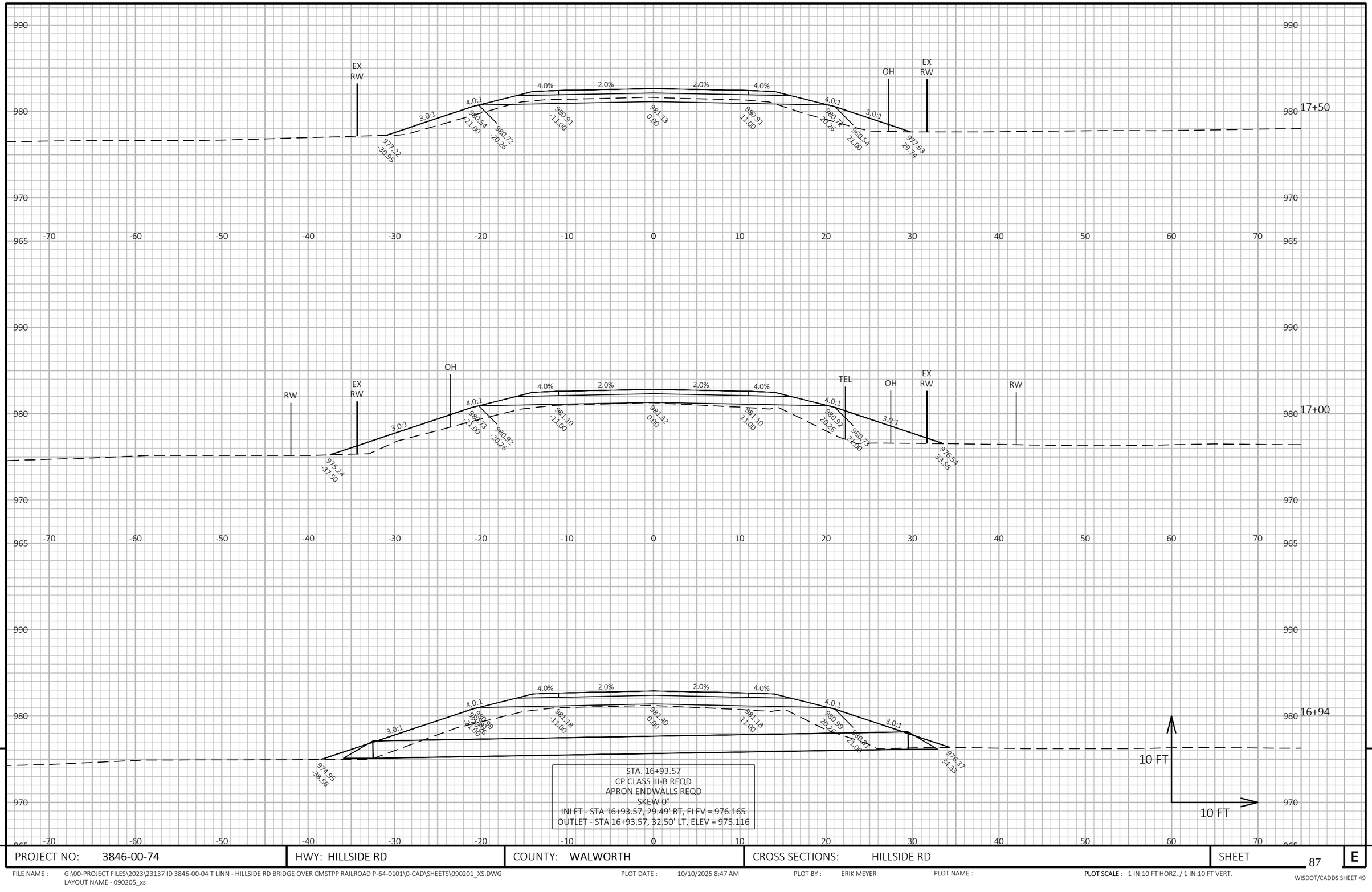


PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: HILLSIDE RD	SHEET 86	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090204_xs

PLOT DATE : 10/10/2025 8:47 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: HILLSIDE RD	SHEET 87	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090205_xs

PLOT DATE : 10/10/2025 8:47 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

STA. 18+75
END PROJECT
MATCH EXISTING
SAW CUT REQ'D

EX RW

EX RW

990
980
975

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

18+75

EX RW

EX RW

OH

4.0% 2.0% 2.0% 4.0%

982.34 -20.95
982.55 -11.00
982.77 0.00
982.55 11.00
982.49 20.78

18+50

EX RW

EX RW

OH

4.0% 2.0% 2.0% 4.0%

3.0:1 4.0:1 3.0:1

981.05 -20.72
981.20 -20.26
981.39 -11.00
981.61 0.00
981.39 11.00
981.20 20.26
981.02 21.00
979.79 24.69

18+00

10 FT
10 FT

9

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PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: HILLSIDE RD	SHEET 88	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090206_xs

PLOT DATE : 10/10/2025 8:47 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

990
980
970
960
950
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

12.0:1
977.20
977.41
-2.19
-89.69
2.0:1
960.63
-36.00
10.0%
958.28
-12.46
2.0:1
956.63
-9.16
2.0:1
957.81
-5.26
956.63
-7.76

50+25 "SS"

990
980
970
960
950
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

12.0:1
977.20
977.41
-2.19
-89.69
2.0:1
970.79
-56.66
78.5:1
970.55
-37.60
2.2:1
968.71
-53.61

BEGIN DITCHING
MATCH EXISTING

50+06 "SS"

10 FT
10 FT

9

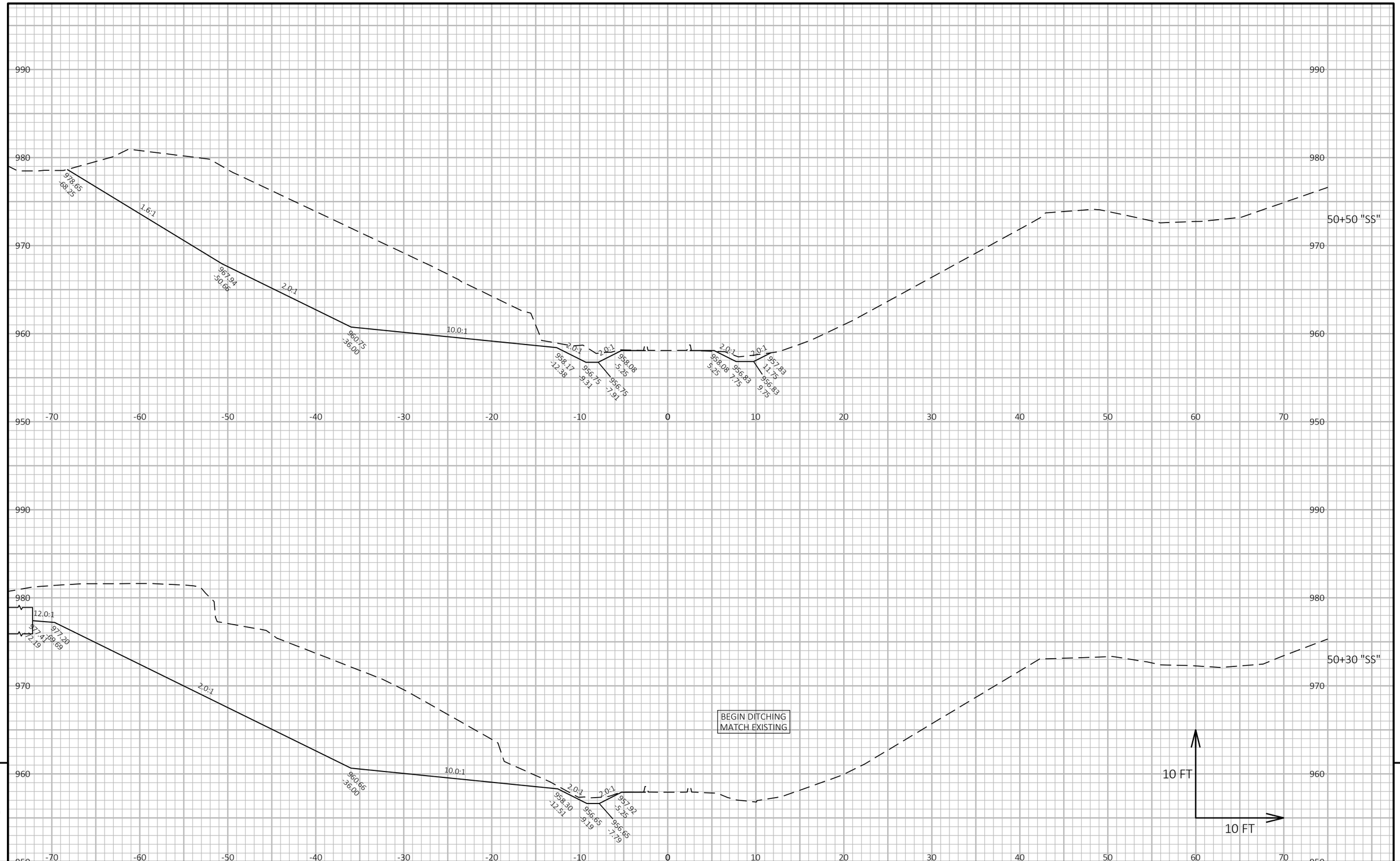
9

PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: RAILROAD GRADING	SHEET 89	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090207_XS.DWG
LAYOUT NAME - 090207_xs

PLOT DATE : 10/10/2025 8:48 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

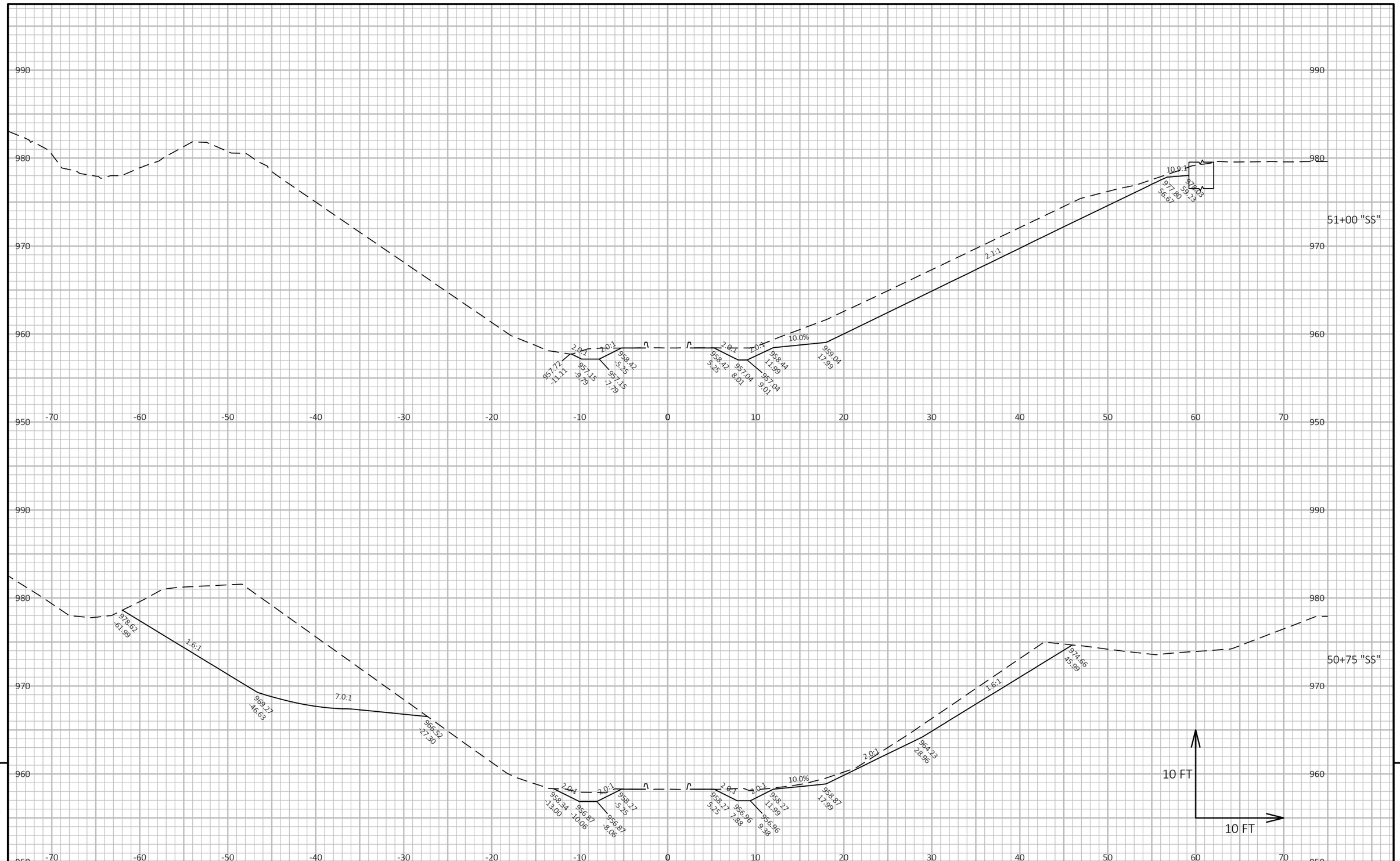


PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: RAILROAD GRADING	SHEET 90 E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090207_XS.DWG
LAYOUT NAME - 090208_xs

PLOT DATE : 10/10/2025 8:48 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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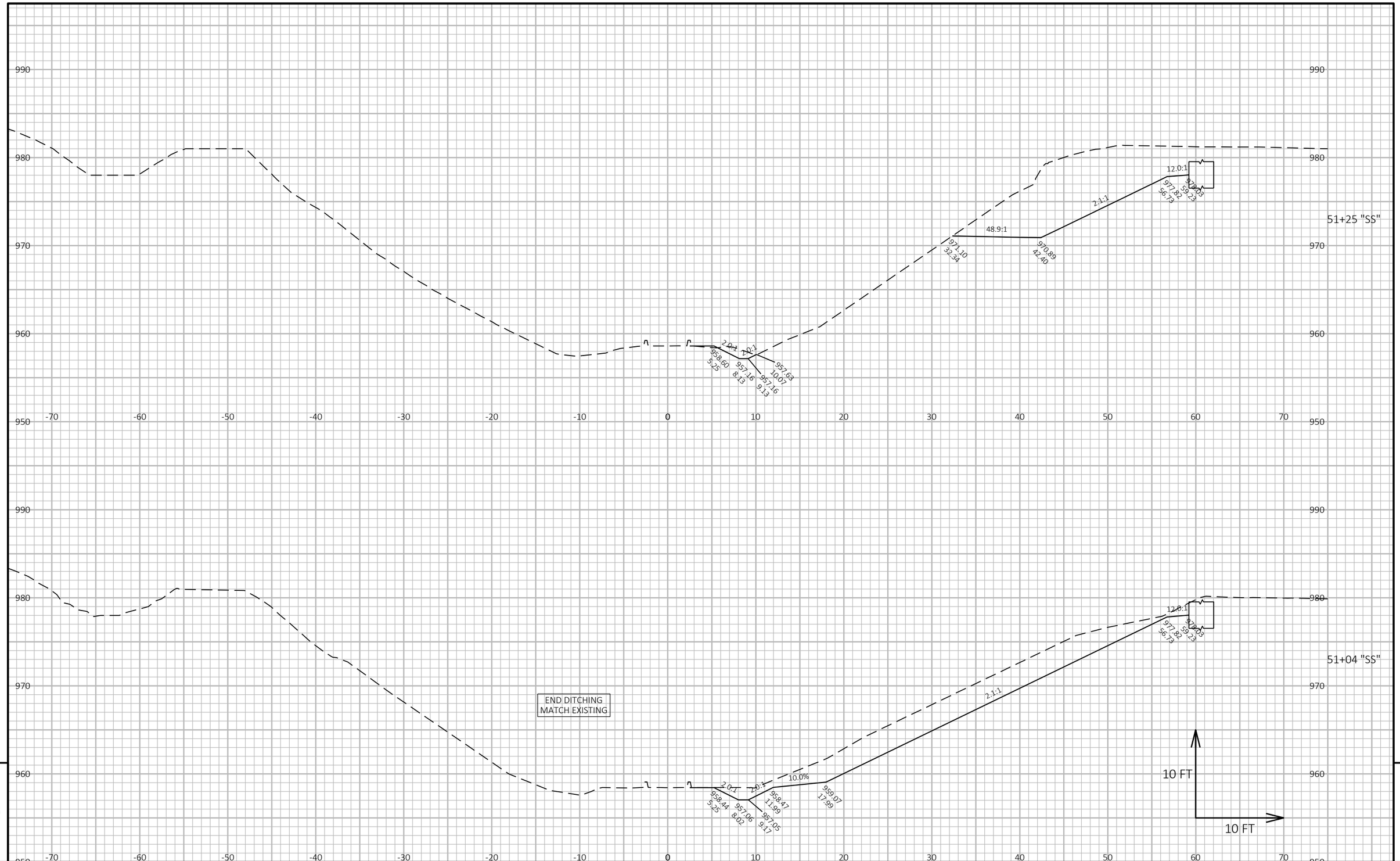
PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: RAILROAD GRADING	SHEET 91	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090207_XS.DWG
LAYOUT NAME - 090209_xs

PLOT DATE : 10/10/2025 8:48 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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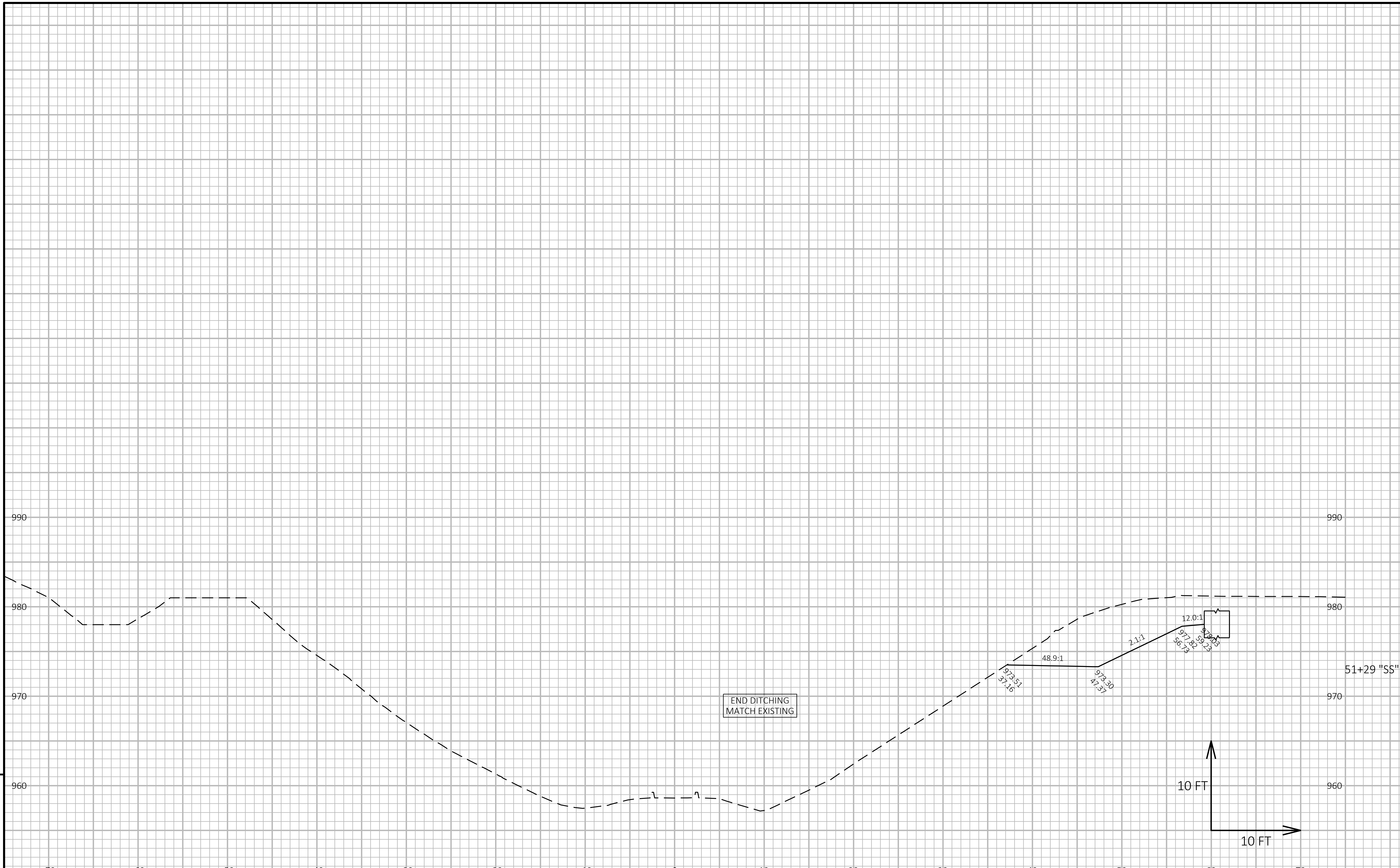
PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: RAILROAD GRADING	SHEET 92	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090207_XS.DWG
LAYOUT NAME - 090210_xs

PLOT DATE : 10/10/2025 8:48 AM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 3846-00-74	HWY: HILLSIDE RD	COUNTY: WALWORTH	CROSS SECTIONS: RAILROAD GRADING	SHEET 93	E

FILE NAME : G:\00-PROJECT FILES\2023\23137 ID 3846-00-04 T LINN - HILLSIDE RD BRIDGE OVER CMSTPP RAILROAD P-64-0101\0-CAD\SHEETS\090207_XS.DWG
LAYOUT NAME - 090211_xs

PLOT DATE : 10/10/2025 8:48 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov