MAD

PROJECT ID: 5992-11-11

WITH: N/A

COUNTY: DANE

DECEMBER 2023

ORDER OF SHEETS

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

TOTAL SHEETS = 266



N

DESIGN DESIGNATION

A.A.D.T.	20__	=	N.A.
A.A.D.T.	20__	=	N.A.
D.H.V.		=	N.A.
D.D.		=	N.A.
T.		=	N.A.
DESIGN SPEED		=	N.A.
ESALS		=	N.A.

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

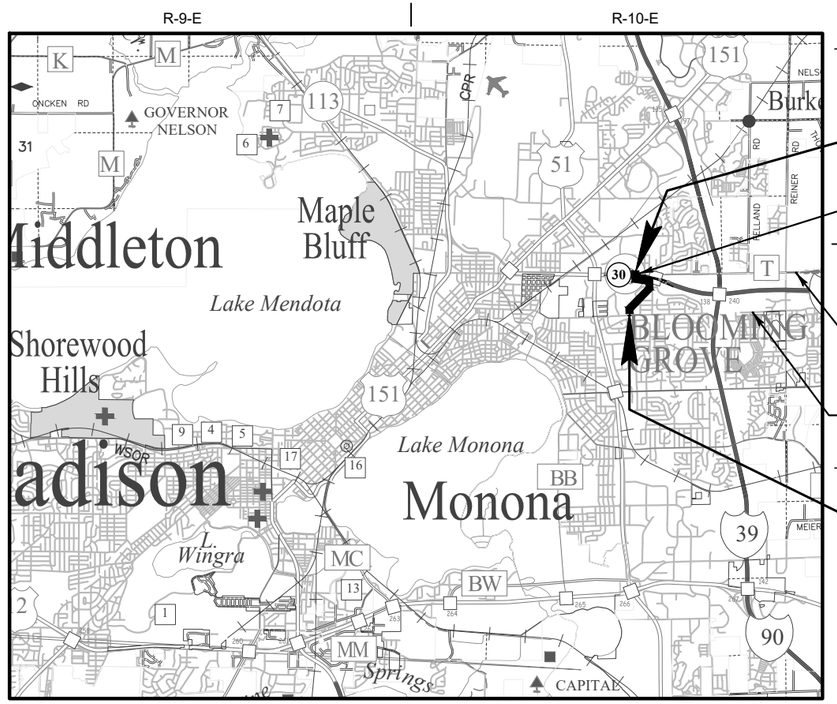
C OF MADISON, AUTUMN RIDGE PATH

MILWAUKEE STREET TO ZIEGLER ROAD

NON HWY
DANE COUNTY

STATE PROJECT NUMBER
5992-11-11

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5992-11-11	WISC 2024060	1



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.690 MI

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

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

ACCEPTED FOR

CITY OF MADISON

Date 7-26-23 City Engineer
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

Short Elliott Hendrickson Inc.
6808 Odana Road, Suite 200
Madison, WI 53719-1137
608.620.6199 main | 888.908.8166 fax
800.732.4362 toll free | www.sehinc.com
Building a Better World for All of Us™

WISCONSIN
JEREMY J TOMESH
E-398986
LA CROSSE
WI
PROFESSIONAL ENGINEER

7/24/2023 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH
Designer	SEH
Project Manager	LORRAINE BETZEL
Regional Examiner	SW REGION
Regional Supervisor	KYLE KEMP

APPROVED FOR THE DEPARTMENT

DATE: 7/28/23 Lorraine Betzel (Signature)

E

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
AECPCS	APRON ENDWALL FOR CULVERT PIPE CORRUGATED STEEL
ASPH	ASPHALTIC
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BM	BENCH MARK
BR	BRIDGE
CE	COMMERCIAL ENTRANCE
C/L	CENTER LINE
Δ	CENTRAL ANGLE OR DELTA
COB	CENTER OF BARRIER
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CR	CREEK
CY	CUBIC YARD
C&G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DG	DITCH GRADE
DWY	DRIVEWAY
X	EAST GRID COORDINATE
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EOR	END POINT OF RADIUS
EL	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FC	FACE OF CURB
FF	FACE TO FACE
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FO	FIBER OPTIC
CWT	HUNDREDWEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE ON PIN
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MH	MANHOLE
MOR	MID POINT OF RADIUS
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PE	PRIVATE ENTRANCE
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS
REQ'D	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RDWY	ROADWAY
R/L	REFERENCE LINE
SALV	SALVAGED
SAN	SANITARY SEWER
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SE	SUPERELEVATION RATE
TC	TOP OF CURB
T OR TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
Y	NORTH GRID COORDINATE
YD	YARD

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 13.8 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.0 ACRES

DNR AREA LIAISON:

DNR SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
TELEPHONE: 608.228.7927
ATTENTION: ERIC HEGGELUND
EMAIL: ERIC.HEGGELUND@WISCONSIN.GOV

WISDOT CONTACT:

WISCONSIN DEPT OF TRANSPORTATION
SOUTHWEST REGION
2101 WRIGHT ST.
MADISON, WI 53704-2583
TELEPHONE: 608.246.3279
ATTENTION: LORRAINE BETZEL
EMAIL: LORRAINE.BETZEL@DOT.WI.GOV

DESIGN CONTACT:

SHORT ELLIOTT HENDRICKSON INC.
6808 ODANA ROAD, SUITE 200
MADISON, WI 53719-1137
TELEPHONE: 608.769.9840
ATTENTION: JEREMY TOMESH
EMAIL: JTOMESH@SEHINC.COM

UTILITY CONTACT LIST:

AT&T LEGACY - COMMUNICATION LINE
KENNETH NINE
110 N. MAIN STREET
CULVER, IN 46511
PHONE: (574) 904-6336
EMAIL: KNINE@JMCEAINC.COM

AT&T WISCONSIN - COMMUNICATION LINE
MATTHEW VACHALIK
411 7TH STREET
RACINE, WI 53403
PHONE:(262) 707-6216
EMAIL: MV5616@ATT.COM

CHARTER - COMMUNICATION LINE
SEAN POTTER
2701 DANIELS ST
MADISON, WI 53718
PHONE: (608) 287-9606
EMAIL: SEAN.POTTER@CHARTER.COM

WINDSTREAM KDL, LLC - COMMUNICATION LINE
LORI KETTER
969 WAUBE LANE
GREENBAY, WI 54304
PHONE:(920) 410-6902
EMAIL: LORI.KETTER@WINDSTREAM.COM

CITY OF MADISON ENGINEERING - SEWER
WAYNE BROWN
1600 EMIL ST
MADISON, WI 53713
PHONE: (608) 266-4087
EMAIL: WBROWN@CITYOFMADISON.COM

MADISON WATER UTILITY - WATER
ADAM WIEDERHOEFT
119 E OLIN AVENUE
MADISON, WI 53713-1431
PHONE: (608) 266-9121
EMAIL: AWIEDERHOEFT@MADISONWATER.ORG

CITY OF MADISON ENGINEERING - COMMUNICATIONS
CHAD VEINOT
215 MARTIN LUTHER KING JR. BLVD., STE 100
MADISON, WI 53701-2986
PHONE:(608) 267-1960
EMAIL: CVEINOT@CITYOFMADISON.COM

CITY OF MADISON ENGINEERING - LIGHTING
CHAD VEINOT
215 MARTIN LUTHER KING JR. BLVD., STE 100
MADISON, WI 53701-2986
PHONE:(608) 267-1960
EMAIL: CVEINOT@CITYOFMADISON.COM

MADISON GAS & ELECTRIC - ELECTRICTY
MARK BOHM
PO BOX 1231
MADISON, WI 53701
PHONE: (608) 252-4730
EMAIL: MBOHM@MGE.COM

MADISON GAS & ELECTRIC - GAS
ROGER AHLES
623 RAILROAD STREET
MADISON, WI 53701
PHONE:(608) 252-5682
EMAIL: RAHLES@MGE.COM

WI DOA DET - COMMUNICATION LINE
TODD PALMER
5830 FEMRITE DR
MADISON, WI 53718
PHONE: (608) 224-4010
EMAIL: TODDA.PALMER@WISCONSIN.GOV

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

GENERAL NOTES:

1. NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2. 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.
3. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
4. INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.
5. WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.
6. BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP.
7. CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 4-INCH TYPICAL DEPTH.
8. TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
9. THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
10. ASPHALTIC AND CONCRETE SURFACES SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
11. DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED AND SEEDED.
12. FERTILIZER SHALL NOT BE USED NEAR NAVIGABLE WATERWAYS OR WETLANDS.
13. A CONVERSION FACTOR OF 2.0 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 1 1/4-INCH.
17. A CONVERSION FACTOR OF 2.1 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 3/4-INCH.
18. HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

ORDER OF SECTION 2 SHEETS

GENERAL NOTES AND CONTACTS
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
CURB RAMP DETAILS
EROSION CONTROL PLAN
LIGHTING PLAN
TRAFFIC CONTROL

2

N

BEGIN PROJECT
STA 10+00'ST'

10'ST'
12'ST'
14'ST'
16'ST'
18'ST'
20'ST'
22'ST'
24'ST'
26'ST'

END OF EXISTING FOOT PATH

END CONSTRUCTION
SOUTH SEGMENT
STA 27+05'ST'

EXISTING FOOT PATH
(EASLEY LN TO STEIN AVE)

BEGIN CONSTRUCTION
NORTH SEGMENT
STA 98+81'NT'

100'NT
102'NT
104'NT
106'NT
108'NT
110'NT
112'NT
114'NT
116'NT
118'NT
120'NT
122'NT
124'NT

S-13-111 REQUIRED
SEE STRUCTURE PLANS

B-13-898 REQUIRED
SEE STRUCTURE PLANS

S-13-112 REQUIRED
SEE STRUCTURE PLANS

END PROJECT
STA 126+21'NT'

HIESTAND PARK

HIESTAND WOODS
(NATURE PRESERVE)

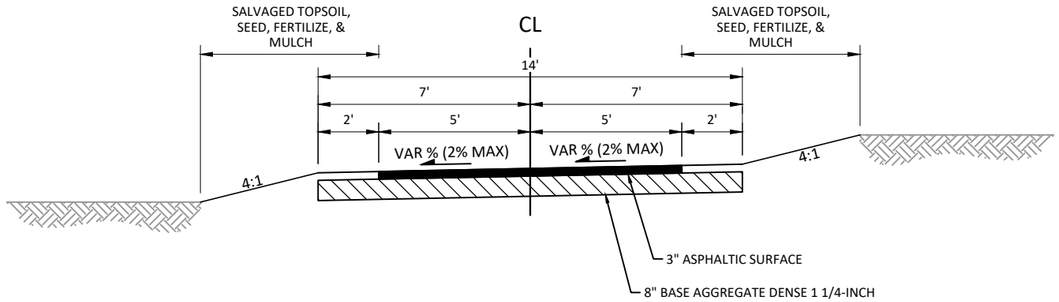
HIESTAND PARK

PORTLAND PKWY
MILWAUKEE ST
DIAMOND DR
DIAMOND DR
HAMLET CIR
LEVINE CT
ESTHER CT
MC CANN RD
DELLA CT
STEIN AVE
SINYKIN CIR
MILWAUKEE ST
BOYNTON PL
HAMLET PL
EASLEY LN
SWANTON RD
VIOLET CIR
WALKER DR
N THOMPSON DR
STH 30
COMMERCIAL AVE
STH 30 EB
STH 30 WB
COMMERCIAL AVE
BRANDIE RD
ZIEGLER RD
REDLAND DR
BEWICK DR
PULLEY DR
N THOMPSON DR

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3 E

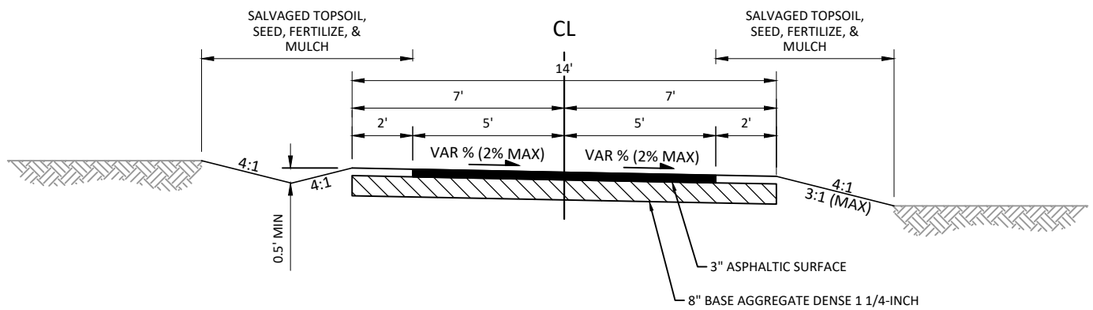
FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\020201_PO (PROJECT OVERVIEW).DWG
PLOT DATE : 7/29/2023 11:20 AM
PLOT BY : SEH
LAYOUT NAME : 01
PLOT SCALE : 1.0 IN = 250.0 FT
WISDOT/CADDS SHEET 42

2



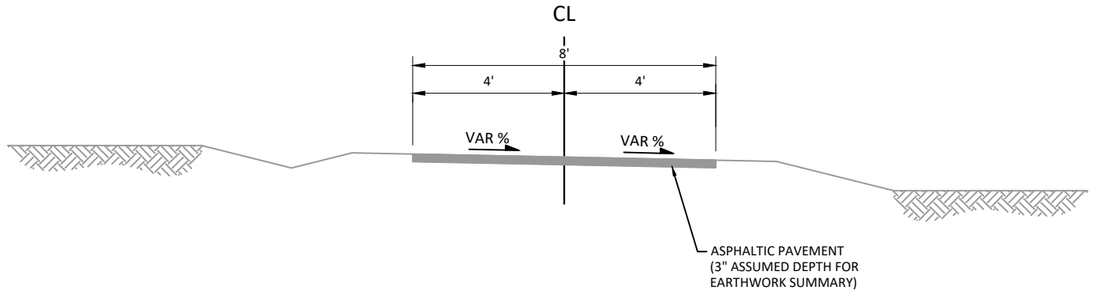
FINISHED TYPICAL SECTION

SOUTH TRAIL STA 10+00'ST' - 27+05'ST'



FINISHED TYPICAL SECTION

NORTH TRAIL STA 99+96'NT' - 117+33'NT'
NORTH TRAIL STA 124+56'NT' - 126+21'NT'
NORTH TRAIL CONNECTOR STA 1+00'NC' - 1+53'NC'

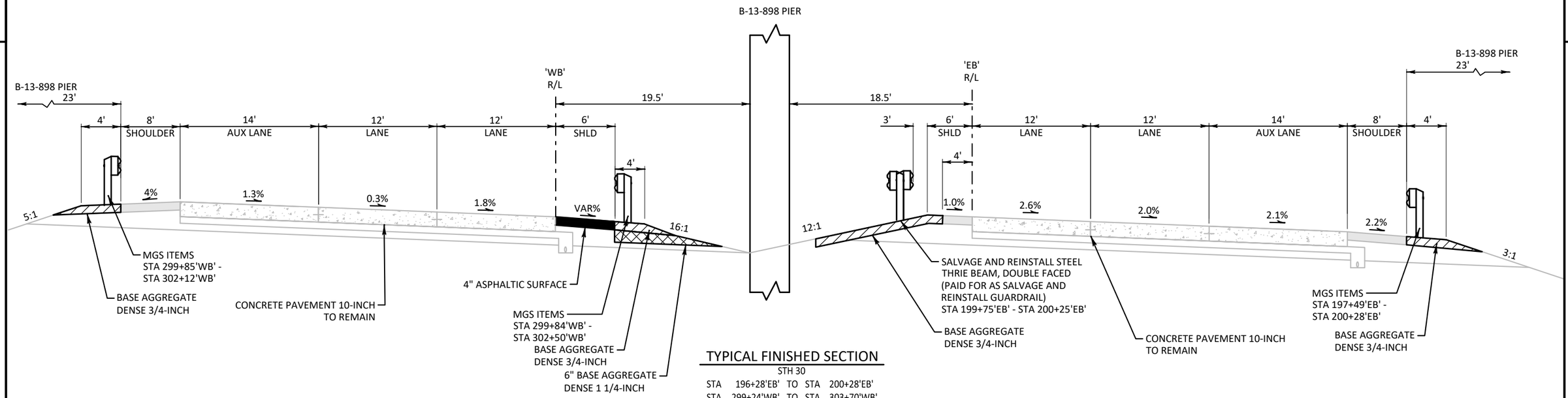


EXISTING TYPICAL SECTION

SOUTH TRAIL STA 10+00'ST' - 19+34'ST'
SOUTH TRAIL STA 24+48'ST' - 26+90'ST'

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TYPICAL SECTIONS	SHEET 4 E

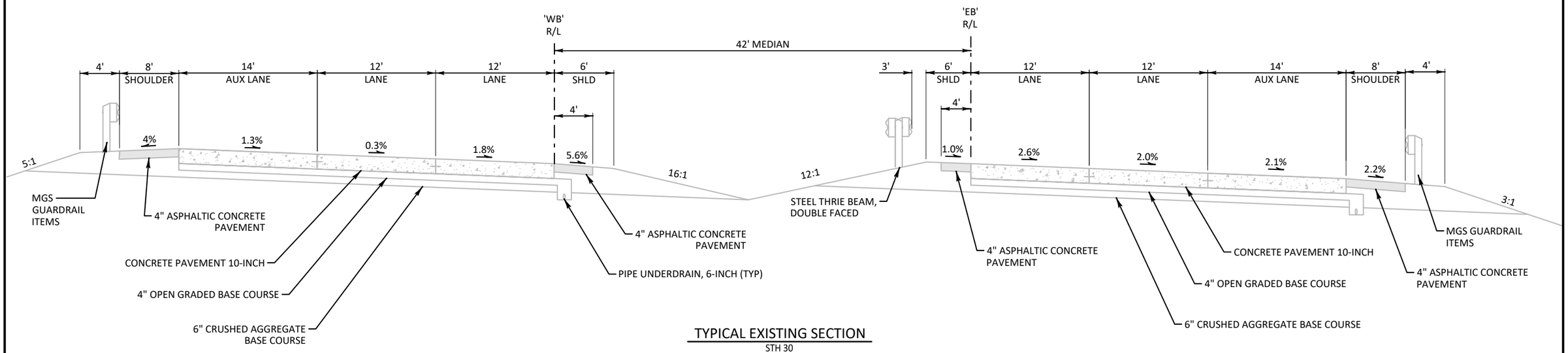
2



TYPICAL FINISHED SECTION

STH 30

STA 196+28'EB' TO STA 200+28'EB'
STA 299+24'WB' TO STA 303+70'WB'



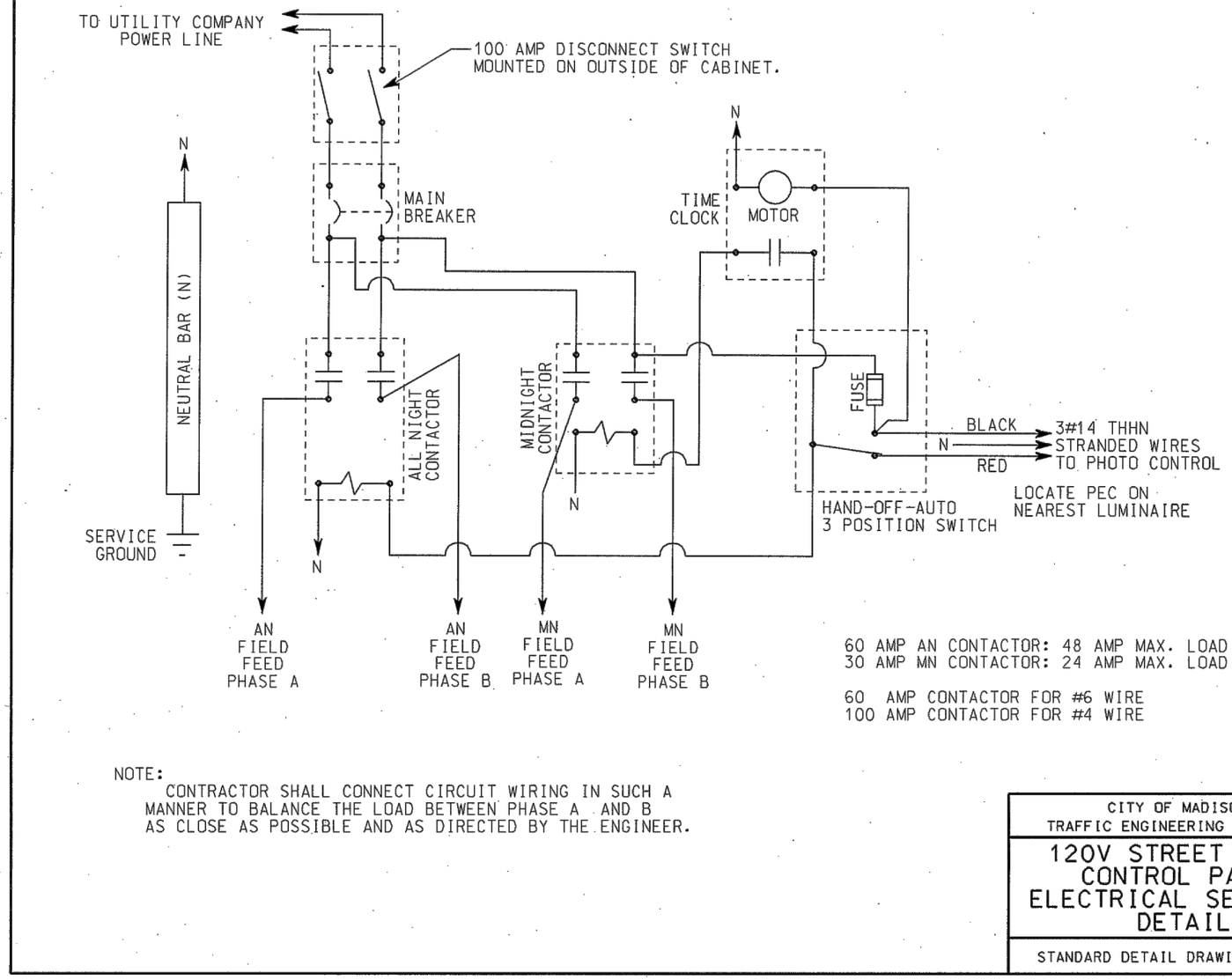
TYPICAL EXISTING SECTION

STH 30

STA 196+28'EB' TO STA 200+28'EB'
STA 299+24'WB' TO STA 303+70'WB'

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TYPICAL SECTIONS	SHEET 5 E

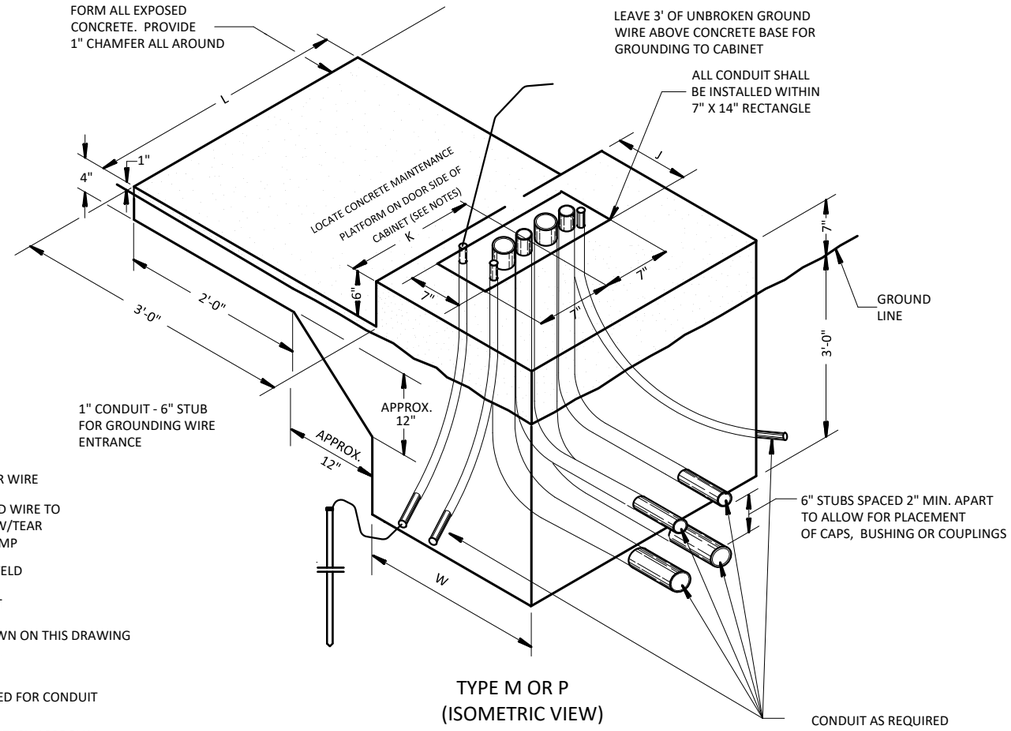
2



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 6	E

2

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	L	W	J	K	
TYPE M	40"	30"	12"	20"	1.132
TYPE P	48"	30"	16"	24"	1.549
TYPE M MODIFIED	-	-	-	-	-
TYPE P MODIFIED	-	-	-	-	-
TYPE OTHER	-				-



TYPE M OR P
(ISOMETRIC VIEW)

6.10

GENERAL NOTES

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

ALL CONDUIT SHALL BE PVC, SCHEDULE 40

DEPTH OF CONDUIT EXITING THE BASE SHALL MATCH THE DEPTH SPECIFIED FOR CONDUIT INSTALLATION.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

MAINTENANCE PLATFORM SHALL NOT BE INSTALLED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

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

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MINIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUITS SHALL EXIT THE BASE IN THE DIRECTION OF THE STRUCTURE IT IS TERMINATING INTO.

MAINTENANCE PLATFORM SIZE MAY VARY ON ACCOUNT OF CONDITIONS. VERIFY THE MAINTENANCE PLATFORM SIZE WITH ENGINEER PRIOR TO POURING BASE.

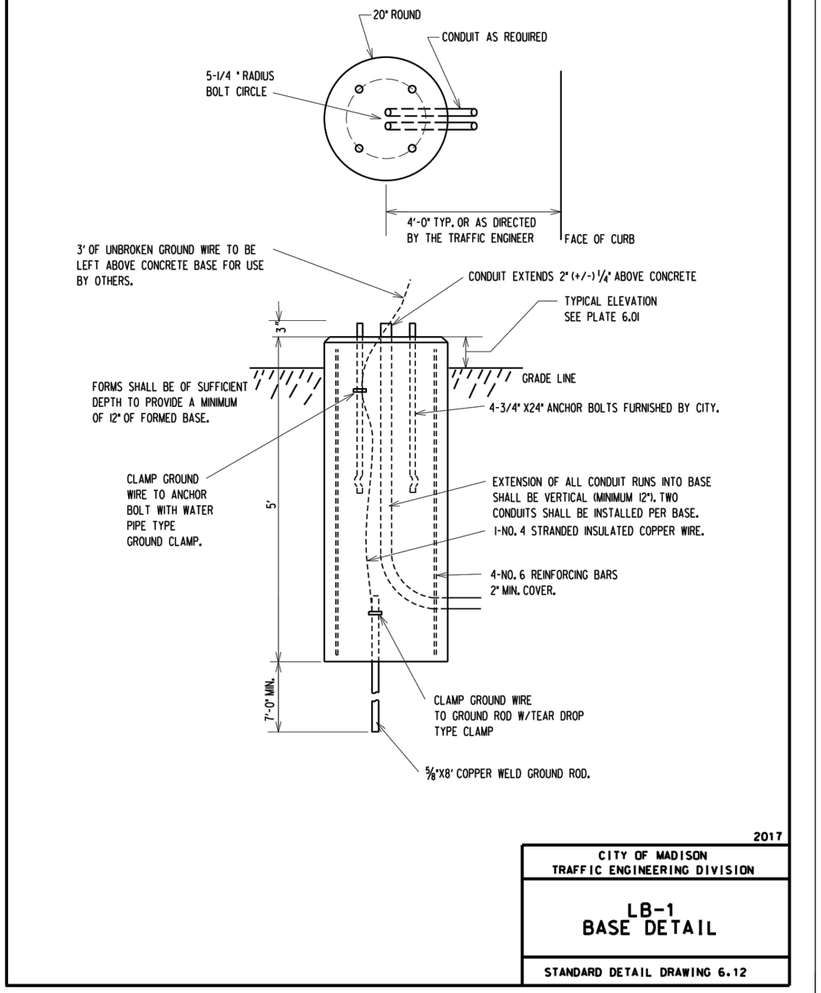
CONCRETE CONTROL CABINET BASES

REV. JAN 2019

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

TYPE "M" AND "P" CONTROLLER BASE DETAIL

STANDARD DETAIL DRAWING 6.10



2017

CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

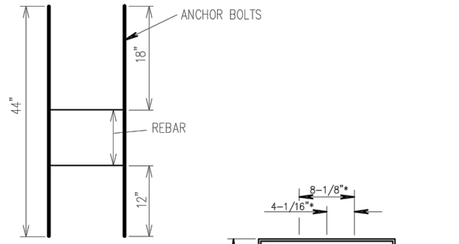
LB-1
BASE DETAIL

STANDARD DETAIL DRAWING 6.12

6.12

ANCHOR BOLT CAGE DETAIL

HORIZONTAL REBAR SHALL BE TACK WELDED OR WIRED TO ANCHOR BOLTS TO FORM ANCHOR BOLT CAGE BEFORE POURING CONCRETE.



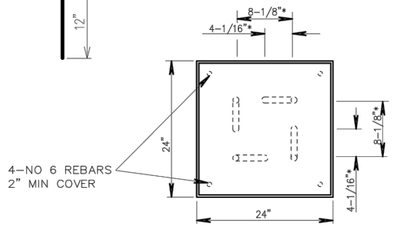
*IF ANOTHER BOLT CIRCLE IS REQUIRED, INSTEAD OF THE 11.5" BOLT CIRCLE SHOWN, THE FOLLOWING DIMENSIONS SHOULD BE USED

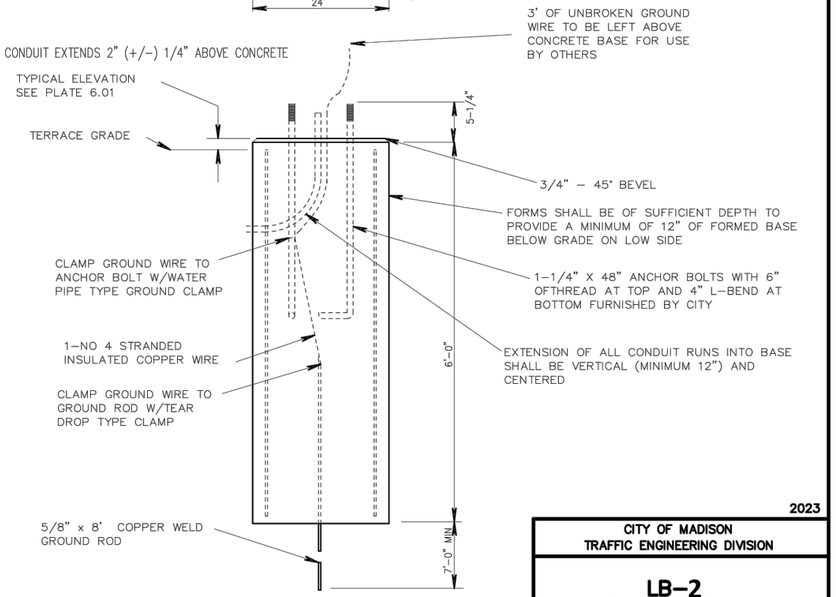
12-1/2" BOLT CIRCLE

CENTER TO BOLT 4-7/16"
BOLT TO BOLT 8-7/8"

15" BOLT CIRCLE

CENTER TO BOLT 5-1/4"
BOLT TO BOLT 10-1/2"





2023

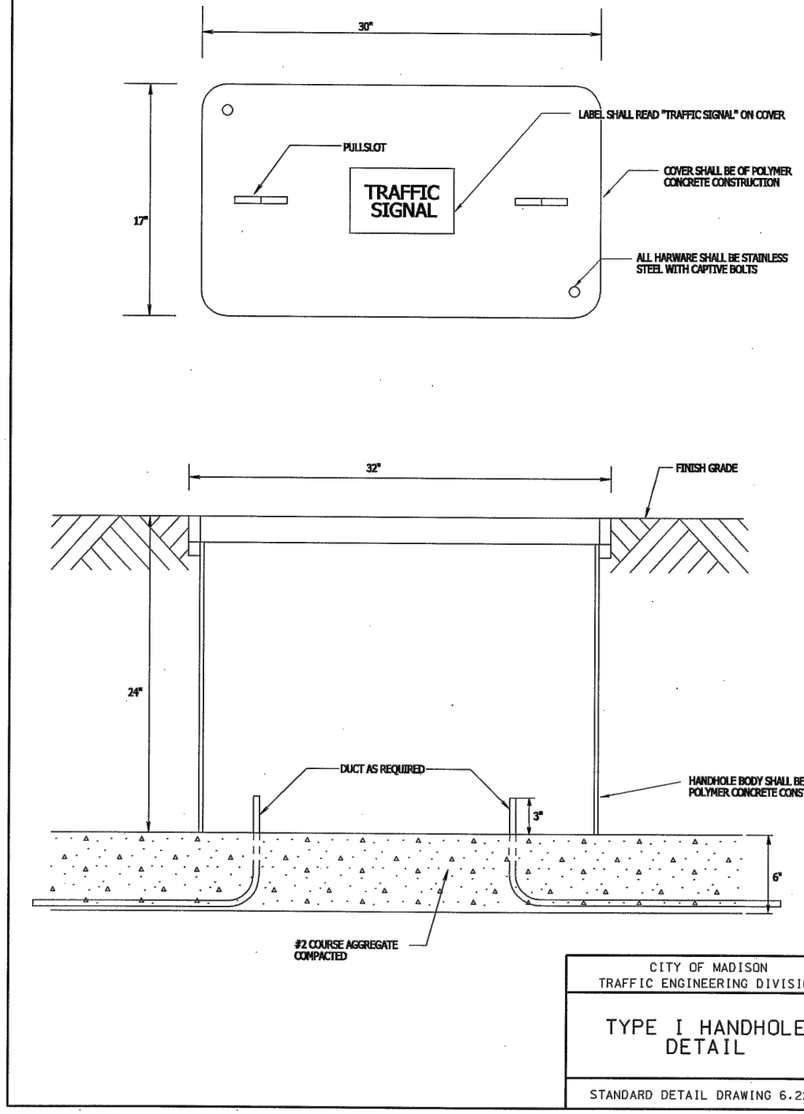
CITY OF MADISON
TRAFFIC ENGINEERING DIVISION

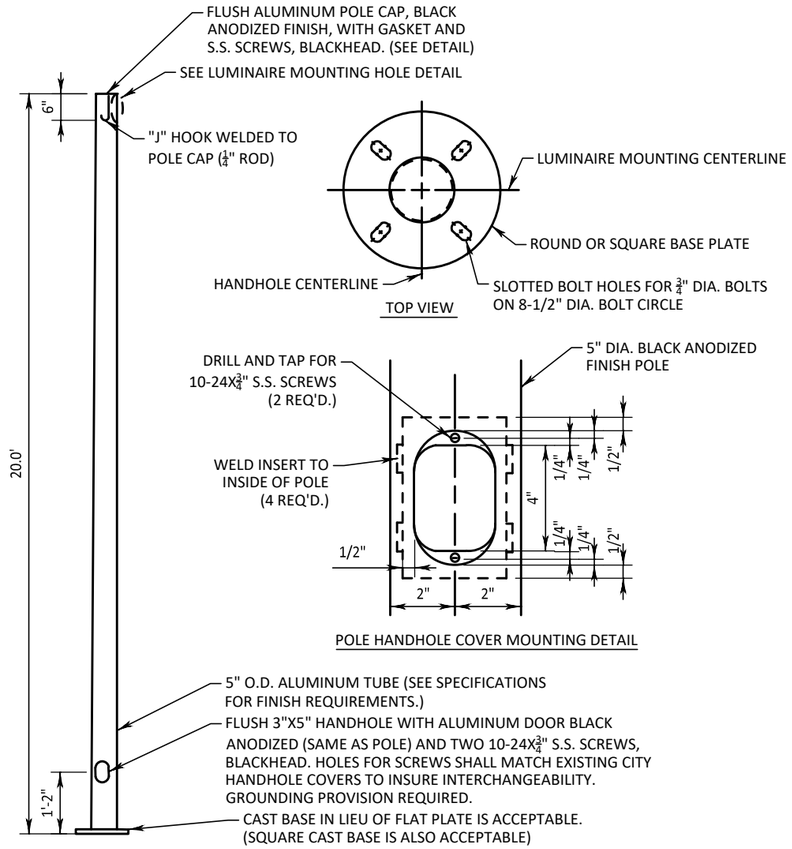
LB-2
BASE DETAIL

STANDARD DETAIL DRAWING 6.19

6.19

2

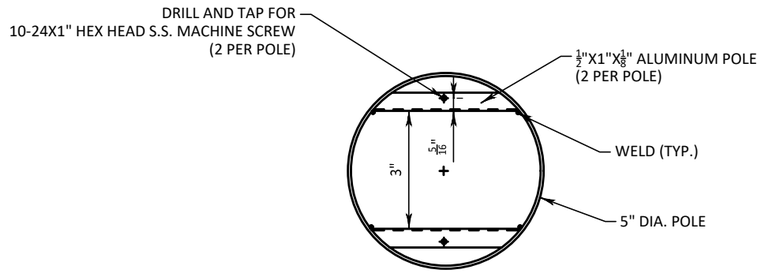

30"
17"
PULL SLOT
TRAFFIC SIGNAL
LABEL SHALL READ "TRAFFIC SIGNAL" ON COVER
COVER SHALL BE OF POLYMER CONCRETE CONSTRUCTION
ALL HARWARE SHALL BE STAINLESS STEEL WITH CAPTIVE BOLTS
32"
FINISH GRADE
24"
DUCT AS REQUIRED
HANDHOLE BODY SHALL BE OF POLYMER CONCRETE CONSTRUCTION
3"
6"
#2 COURSE AGGREGATE COMPACTED
2004
CITY OF MADISON
TRAFFIC ENGINEERING DIVISION
TYPE I HANDHOLE DETAIL
STANDARD DETAIL DRAWING 6.22
6.22



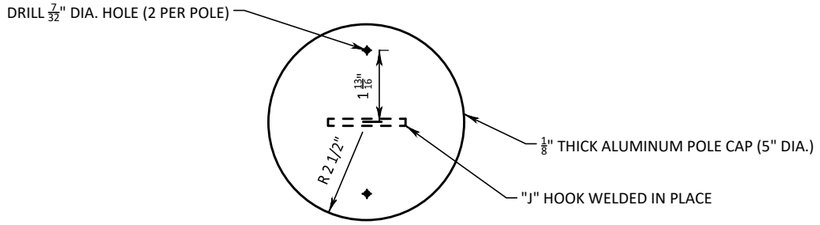
POLE HANDHOLE COVER MOUNTING DETAIL

S.S. = STAINLESS STEEL

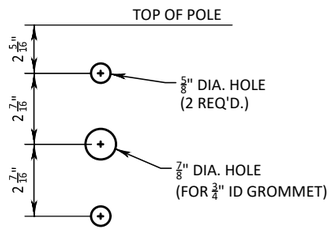
ALUMINUM LIGHT POLE BIKE PATH	DWG. NO. SK0101
CITY OF MADISON, WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRAFFIC ENGINEERING	1 OF 2
	CTY
	2-13-01



POLE CAP MOUNTING DETAIL



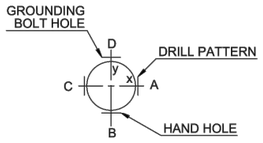
POLE CAP DETAIL



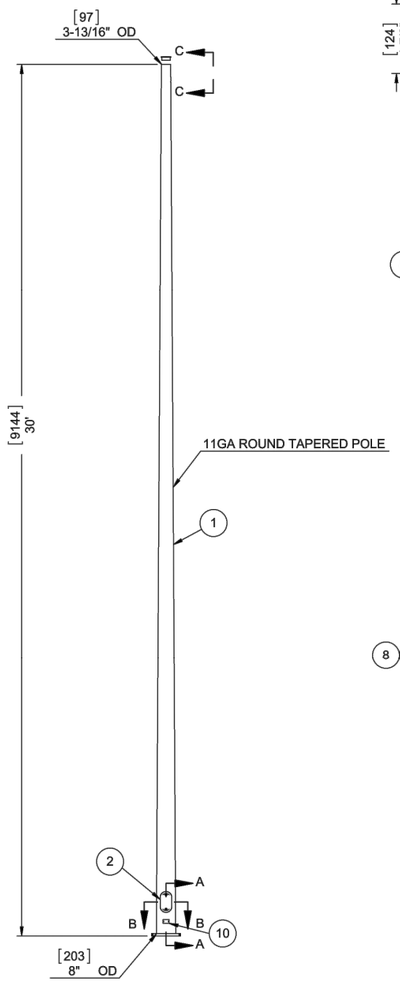
COOPER TALON FIXTURE MOUNTING HOLE DETAIL

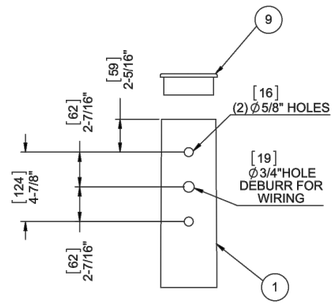
ALUMINUM LIGHT POLE BIKE PATH	DWG. NO. SK0101
CITY OF MADISON, WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRAFFIC ENGINEERING	2 OF 2
	CTY
	2-13-01

2

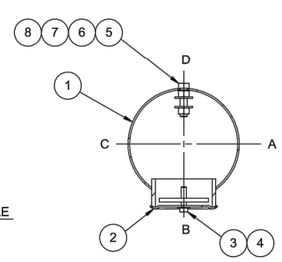


ORIENTATION

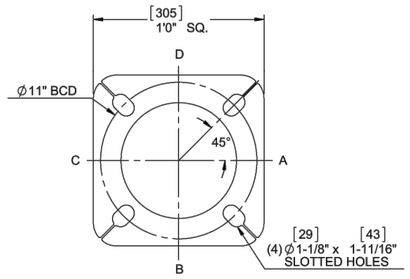




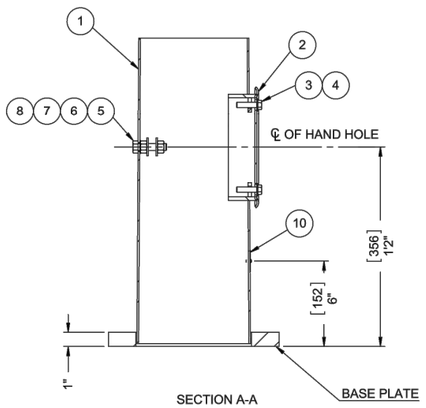
VIEW C-C
DRILL PATTERN
ON FACE A



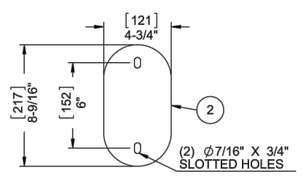
SECTION B-B



(BASE PLATE)



SECTION A-A



(CUSTOM FLAT
HAND HOLE COVER)

ITEM NO.	QTY	PART NUMBER	DESCRIPTION	MATERIAL	UNIT WEIGHT	TOTAL WEIGHT
1	1		30' ROUND TAPERED POLE C/W DRILL PATTERN, SUBASSEMBLY	SEE DWG 19-SL-030-01261-S	246.7	246.7
				PRODUCT WEIGHT (lb) =		246.7
2	1	P20-ST-A4X7-01	HAND HOLE COVER, OVAL, TWO HOLES, 4X7, THK=0.12"	ASTM A572 GR44	1.2	1.2
3	2	H10-SS-0.375X1.50-F	BOLT HEX, 3/8" x 1.50", STAINLESS STEEL, FULL THREAD	18-8 / TYPE316 SS	0.1	0.2
4	2	H70-SS-0.375	WASHER, FLAT, 3/8", STAINLESS STEEL	18-8 / TYPE316 SS	0.0	0.0
5	1		BOLT HEX, 1/2" x 2.00", FULL THREAD	ASTM A325	0.2	0.2
6	2		NUT, HEX, 1/2"	ASTM A563	0.0	0.0
7	2		WASHER, FLAT, 1/2"	ASTM F436	0.0	0.0
8	1		WASHER, SERRATED, 1/2"	18-8 / TYPE316 SS	0.0	0.0
9	1	P12-01-PL00-B01	END CAP, JMA ROUND STYLE , FOR 4" OD	PLASTIC	0.2	0.2
10	1		ID TAG 2.5" x 1.5", ALUMINIUM	ALUMINUM	0.0	0.0
					KIT WEIGHT (lb)	1.8

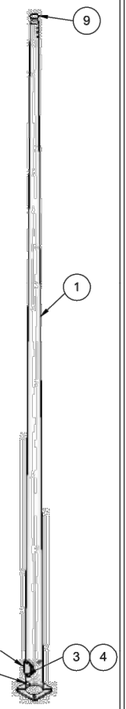
SO 40990

NOTES:

1. DESIGN BY OTHERS.
2. ALL UNITS IN IMPERIAL UNLESS OTHERWISE STATED.
3. STAMP BASE PLATE BOTH SIDES "NP YY" (YY=YEAR).
4. SHIP HARDWARE ACCESSORIES IN ATTACHED BAG.
5. STEEL SILICON CONTENT:
   - SHAFT: Si < 0.04%
   - PARTS: Si < 0.04% OR 0.15% < Si < 0.22%
6. WELDING: CSA W59, W47.1
7. ANCHOR BOLTS: Ø1", GRADE 400 (Fy=58 Ksi) (SUPPLIED BY OTHERS).
8. ID TAG WITH ENGRAVED LETTERS FILLED w/ BLACK INK:
   "NP YYYY" (YYYY=YEAR),
   "XX - ZZGA" (XX=POLE HEIGHT - ZZ SHAFT GA)
9. FINISH: SEE TABLE 1

TABLE 1

SO LINE #	QTY	FINISH	SHAFT THICKNESS
4	20	GALV ONLY	11 GA
10	40	GALV & POWDER COATED BLACK RAL 9004	11 GA



ISO VIEW

REV.	DESCRIPTION	DATE	DRAWN	APPRD
A	ISSUED FOR APPROVAL	DEC 02, 2019	RS	HM

ENGINEERING SEAL



DEC 03, 2019

RELEASED DATE:	DEC 02, 2019
DRAWN BY:	RS
CHECKED BY:	BJ
APPROVED BY:	HM

SPECIFICATION



NOVA POLE

CITY OF MADISON

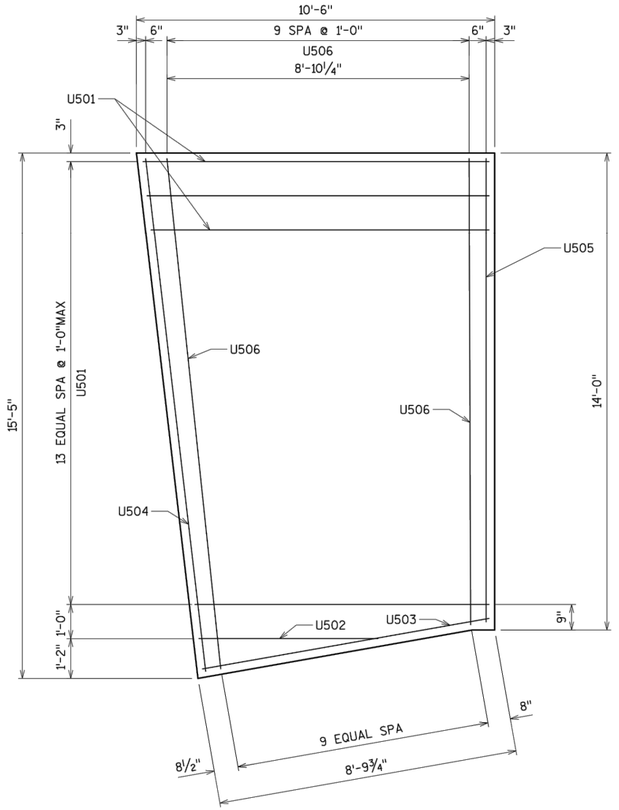
30' ROUND TAPERED POLE

c/w DRILL PATTERN, 11" BCD

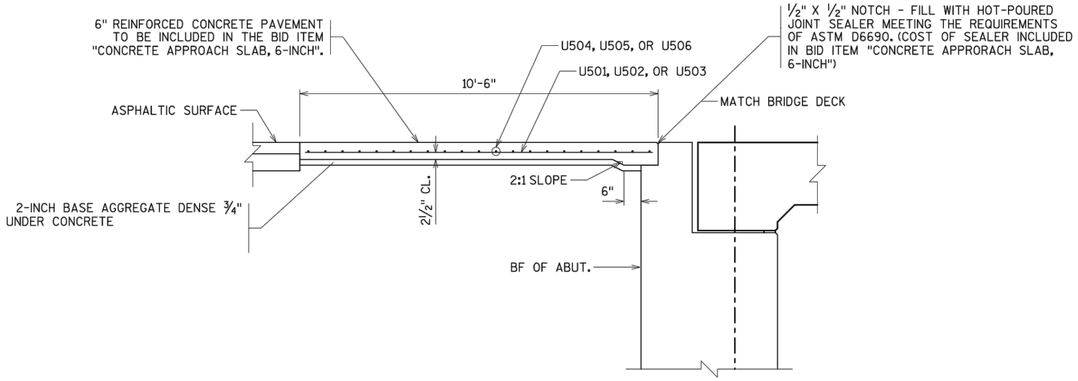
SPEC #	-	JOB #	SIZE	SCALE	
REF #	-	35040	B	NTS	SHEET 1 OF 1
PRODUCT #		DWG #			REV.
		19-SL-030-01261-F			A

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File Name: 19-SL-030-01261-F saved: 12/2/2019



PLAN



ELEVATION

ALL BAR STEEL REINFORCEMENT SHOWN IN THIS BILL SHALL BE EPOXY COATED.

LENGTH SHOWN FOR BAR IS AN AVG. LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS.

SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

ABUTMENT ONE APPROACH SLAB

ABUTMENT 2 SIMILAR

NOTES

APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH PRIOR TO POURING CONCRETE APPROACH SLAB.

APPLY PROTECTIVE SURFACE TREATMENT TO TOP OF CONCRETE SLAB.

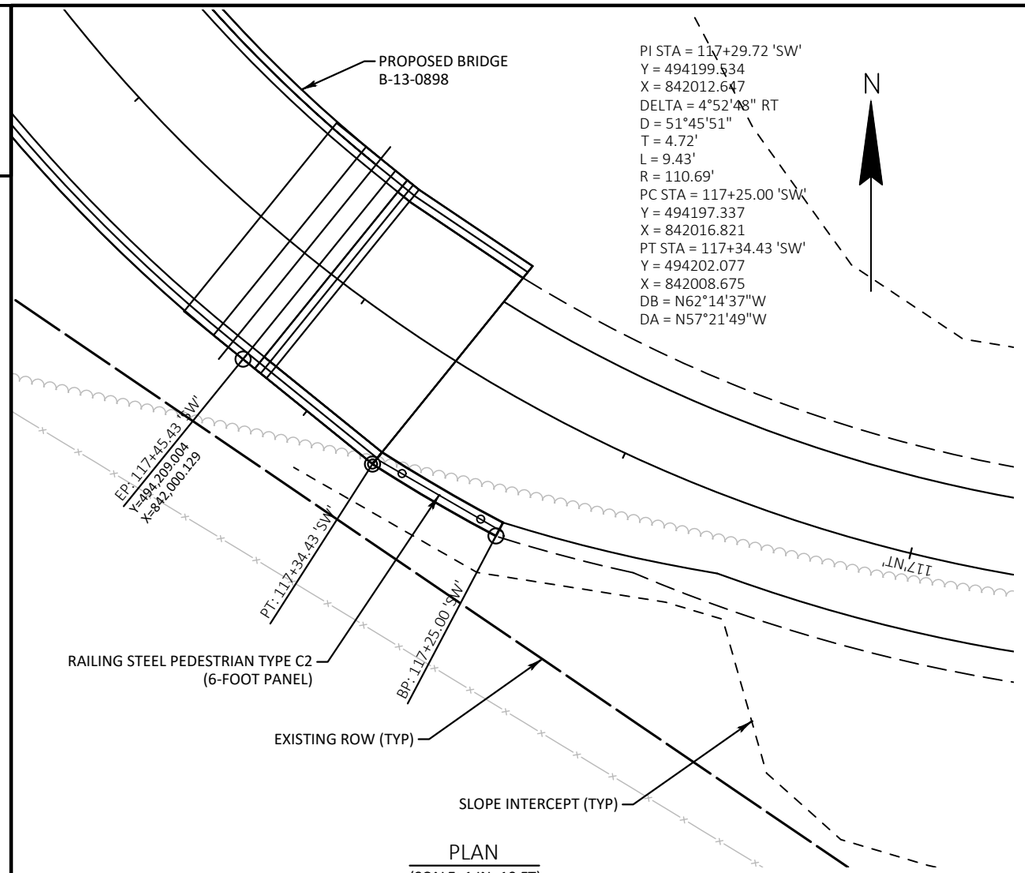
1/2" FILLER BETWEEN CONCRETE APPROACH SLAB AND WING. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

BILL OF BARS — NORTH & SOUTH APPROACH PANELS

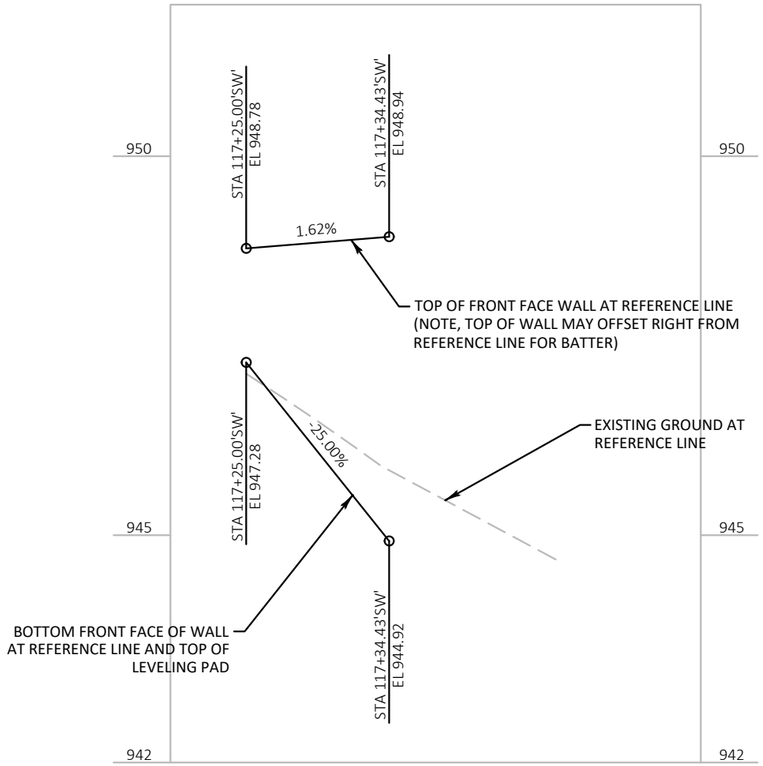
BAR MARK	S APPR PANEL NO REQ'D	N APPR PANEL NO REQ'D	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
U501	15	15	9 - 4	X		APPROACH SLAB LONGIT.
U502	1	1	5 - 1			APPROACH SLAB LONGIT.
U503	1	1	8 - 6			APPROACH SLAB LONGIT.
U504	1	1	15 - 2			STEM VERTICAL
U505	1	1	13 - 7			CAP TIE
U506	10	10	12 1	X		STEM VERTICAL

BAR SERIES TABLE

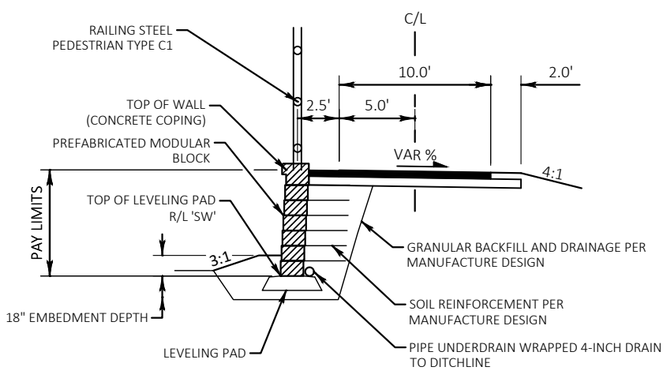
MARK	NO. REQ'D.	LENGTH (FT-IN)
U501	2 SERIES OF 15	8-7 TO 10-1
U506	2 SERIES OF 10	13-8 TO 15-0



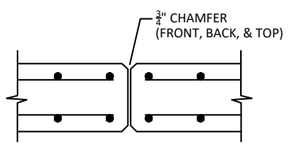
PLAN
(SCALE: 1 IN=10 FT)



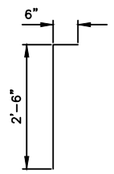
PROFILE ELEVATION
(SCALE: HORZ, 1 IN=10 FT, VERT, 1 IN=5FT)



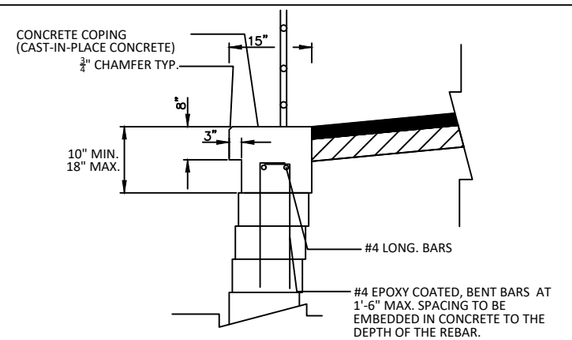
TYPICAL SECTION
(SCALE: NTS)



COPING CONTRACTION
JOINT DETAIL



BENT #4 BAR



CONCRETE COPING DETAIL

CONCRETE MASONRY (GRADE A) F'C = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT AASHTO GRADE 60 FY = 60,000 PSI

CONSTRUCT COPING CONTRACTION JOINTS SPACED AT A MAXIMUM OF 10-FT.

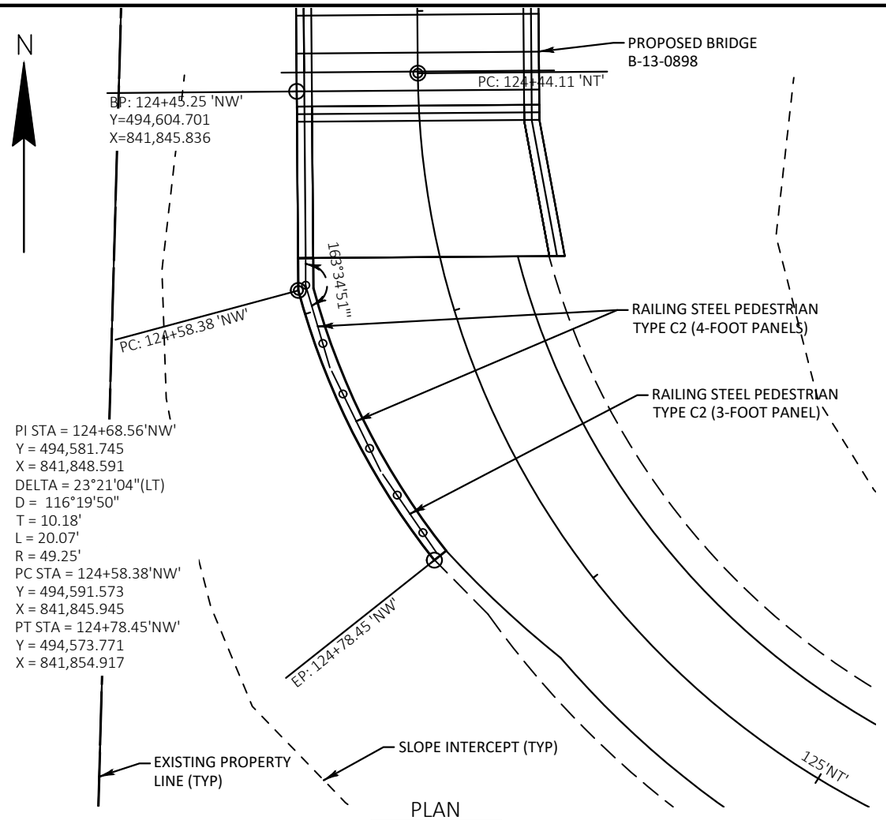
DO NOT RUN BAR STEEL THRU CONTRACTION JOINTS.

JOINTS TO EXTEND THE FULL DEPTH OF THE COPING.

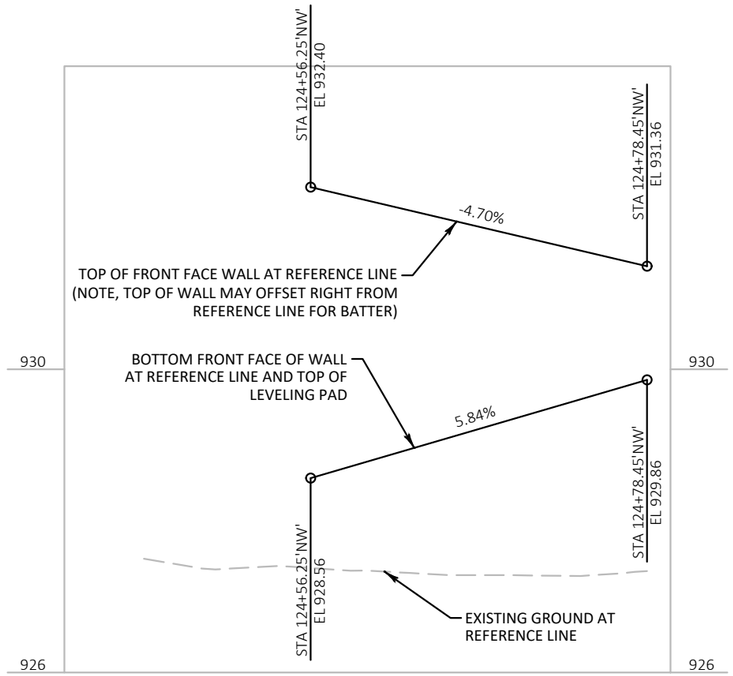
CONCRETE COPING ITEMS INCIDENTAL TO WALL CONSTRUCTION.

FACE OF WALL TO BE SPLIT FACE BLOCK AND COLORED TAN. COLOR AND TEXTURE TO BE APPROVED BY THE CITY OF MADISON.

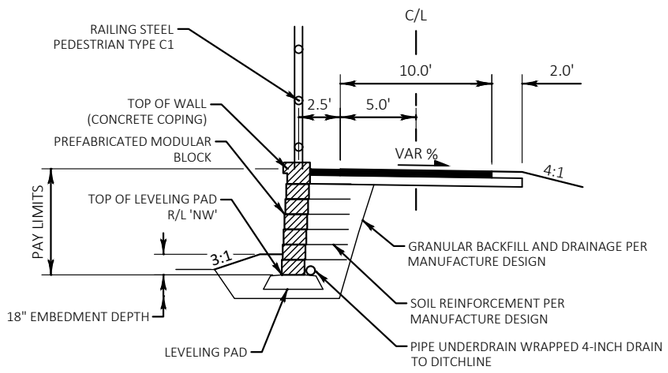
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	WALL MODULAR BLOCK GRAVITY LANDSCAPE STATION 117+35'SW'	SHEET 13 E



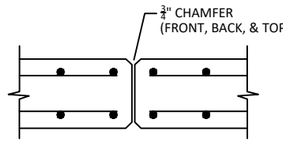
PLAN
(SCALE: 1 IN=10 FT)



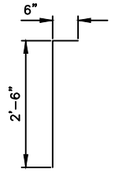
PROFILE ELEVATION
(SCALE: HORZ, 1 IN=10 FT, VERT, 1 IN=5FT)



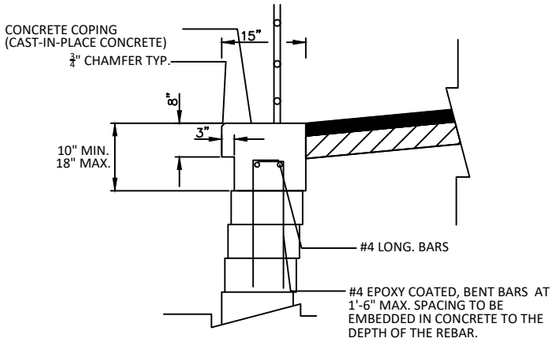
TYPICAL SECTION
(SCALE: NTS)



COPING CONTRACTION
JOINT DETAIL



BENT #4 BAR



CONCRETE COPING DETAIL

CONCRETE MASONRY (GRADE A) F'C = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT AASHTO GRADE 60 FY = 60,000 PSI

CONSTRUCT COPING CONTRACTION JOINTS SPACED AT A MAXIMUM OF 10-FT.

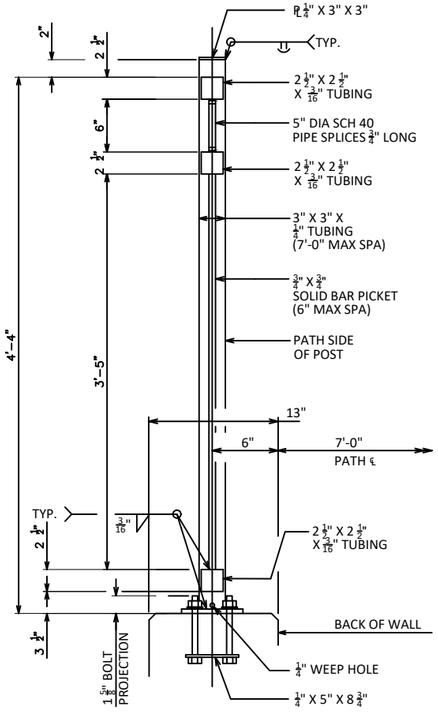
DO NOT RUN BAR STEEL THRU CONTRACTION JOINTS.

JOINTS TO EXTEND THE FULL DEPTH OF THE COPING.

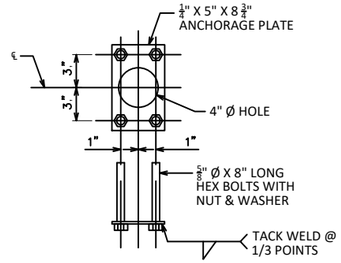
CONCRETE COPING ITEMS INCIDENTAL TO WALL CONSTRUCTION.

FACE OF WALL TO BE SPLIT FACE BLOCK AND COLORED TAN. COLOR AND TEXTURE TO BE APPROVED BY THE CITY OF MADISON.

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	WALL MODULAR BLOCK GRAVITY LANDSCAPE STATION 124+60'NW'	SHEET 14	E

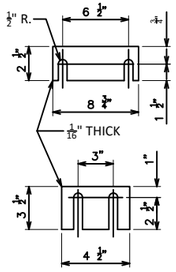


TYP SECTION THRU RAILING



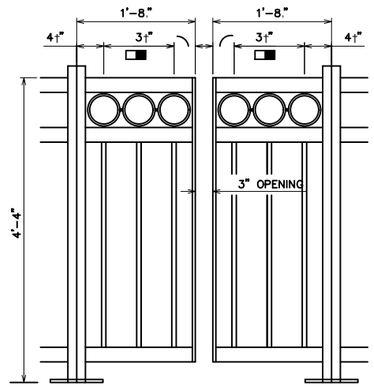
ANCHORAGE DETAIL

DRILLED ANCHORS WILL NOT BE PERMITTED

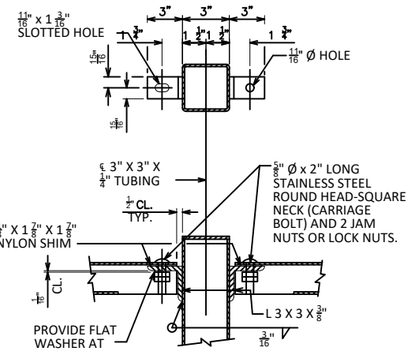


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



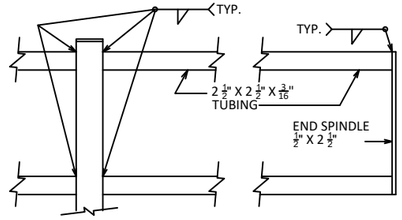
3'-7 1/2" OVERHANG PANEL



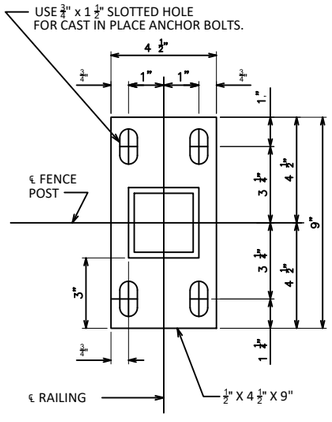
BOTTOM VIEW RAIL NOTCH

NYLON SHIM

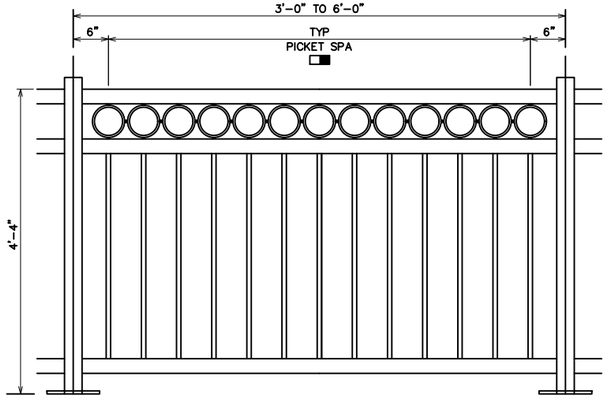
TYP RAIL CONNECTION DETAIL AT TOP AND BOTTOM RAILS



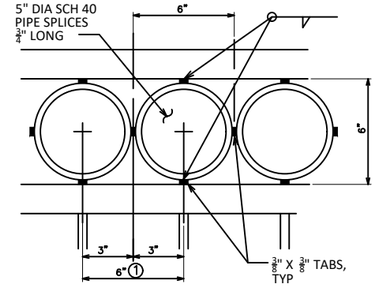
TYP AT OVERHANG DETAIL AT TOP AND BOTTOM RAILS



BASE PLATE

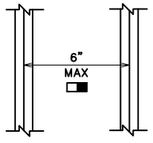


3'-0", 4'-0" & 6'-0" PANELS



TYP PIPE SPLICE DETAIL

① PICKETS TO BE CENTERED WITH PIPE CIRCLES



TYPICAL PICKET SPACING ALL PANELS

NOTES

BID ITEM SHALL BE "RAILING STEEL PEDESTRIAN TYPE C1" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

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.

RAILS AND POSTS TO BE ASTM A500, GRADE B. BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

PICKET SPACING TO BE ADJUSTED TO KEEP PICKET CENTERED UNDER CIRCLE.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS VERTICAL.

ALL POST SPA ARE TAKEN HORIZ ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

RAILING IS TO BE GALVANIZED AND PAINTED.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH TIE COAT AND TOPCOAT (SEE SPECIFICAITONS). COLOR SHALL BE FEDERAL STANDARD 595B, COLOR 27038 (BLACK).

RAILING MEASURED ALONG C/L POSTS.

■■ = 6" MAX PICKET SPACING. PICKETS ARE TO ALIGN WITH THE CENTER OF THE PIPE CIRCLE ABOVE.

2

Y = 493914.192
X = 843387.575
DELTA = 46°23'35" LT
D = 63°39'41"
T = 38.57'
L = 72.87'
R = 90.00'
PC STA = 1+00.00 'NC'
Y = 493892.39
X = 843355.76
PT STA = 1+72.87 'NC'
Y = 493952.27
X = 843393.73

THOMPSON DR EB EXIT RAMP

EP: 1+72.87 'NC'

END CONSTRUCTION
STA 1+70.47'NC'
MATCH EXISTING

MG&E ELEC
DISTRIBUTION (TYP)

PRC: 103+77.13 'NT'

BP: 1+00.00 'NC'

TRAIL CONNECTOR

2'
5'
5'
2'

R15'

SLOPE INTERCEPTS (TYP)

WI DOA DET - COM LINE (TYP)

LEVEL LANDING REQ'D
(2% MAXIMUM IN ANY DIRECTION)

AT&T LEGACY (JOINT W/ WISDOT
ITS) - COM LINE (TYP)

STA 1+16'NC'
16' CPRC CLASS IV 12-INCH
2 AEW CPRC 12-INCH

R15'

STA 103+27.35 (NORTH TRAIL) =
STA 1+00.00 (TRAIL CONNECTOR)

MG&E GAS (TYP)

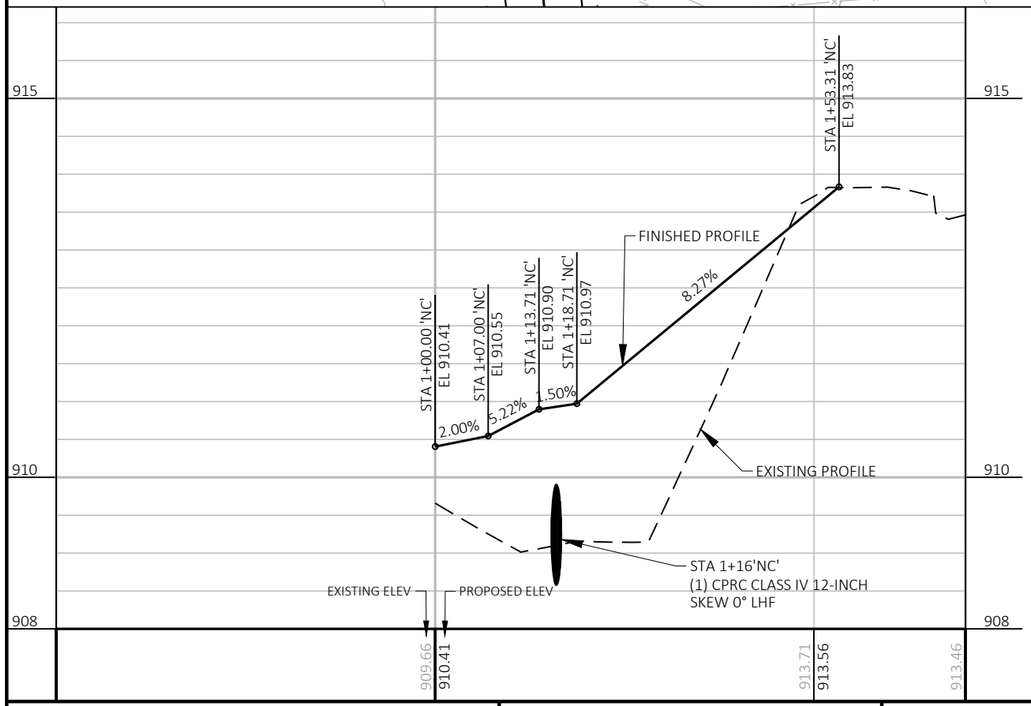
MAD ENG - SANITARY
SEWER (TYP)

103'NT

N THOMPSON DR

EXISTING RW (TYP)

N



NOTES:
SEE TYPICAL SECTIONS FOR PAVEMENT DETAILS

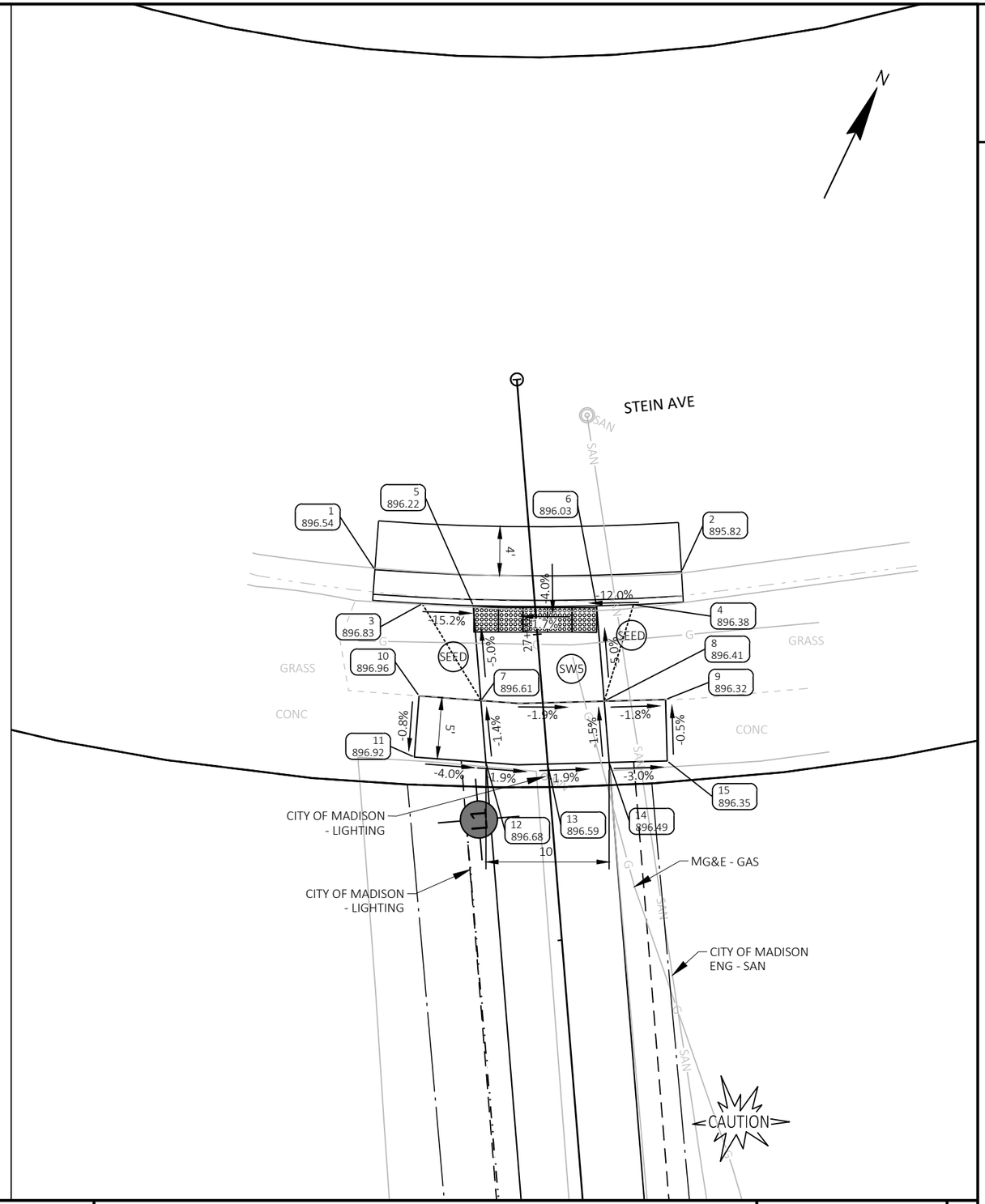
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAIL CONNECTOR DETAIL: N THOMPSON DR	SHEET 16	E

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES AND LENGTHS AND MATCH POINTS TO PRIOR RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATION TO FIT FIELD CONSTRUCTION.
3. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
4. ALL STATION AND OFFSET INFORMATION REFERENCE SOUTH TRAIL R/L

LEGEND

(X)	CURB RAMP TYPE
(SW5)	CONCRETE SIDEWALK 5-INCH
(SEED)	SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH
(X)	PONT NUMBER

STEIN AVE - S CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	27+06.30	12.77' LT	896.54	492949.30	842262.96
2	27+04.17	12.12' RT	895.82	492959.97	842285.54
3	27+03.24	9.14' LT	896.83	492948.48	842267.63
4	27+01.78	8.00' RT	896.38	492955.83	842283.18
5	27+02.75	5.00' LT	896.22	492950.13	842271.46
6	27+01.92	5.00' RT	896.03	492954.45	842280.52
7	26+94.99	5.00' LT	896.61	492943.43	842275.36
8	26+94.13	5.00' RT	896.41	492947.72	842284.43
9	26+93.86	10.00' RT	896.32	492950.00	842288.89
10	26+95.77	10.00' LT	896.96	492941.59	842270.64
11	26+90.84	10.78' LT	896.92	492936.93	842272.46
12	26+89.93	5.00' LT	896.68	492939.05	842277.90
13	26+89.39	0.00' LT	896.59	492941.11	842282.49
14	26+89.13	5.00' RT	896.49	492943.39	842286.95
15	26+88.87	9.73' RT	896.35	492945.55	842291.17



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CURB RAMP DETAIL: STEIN AVE - S	SHEET 17	E

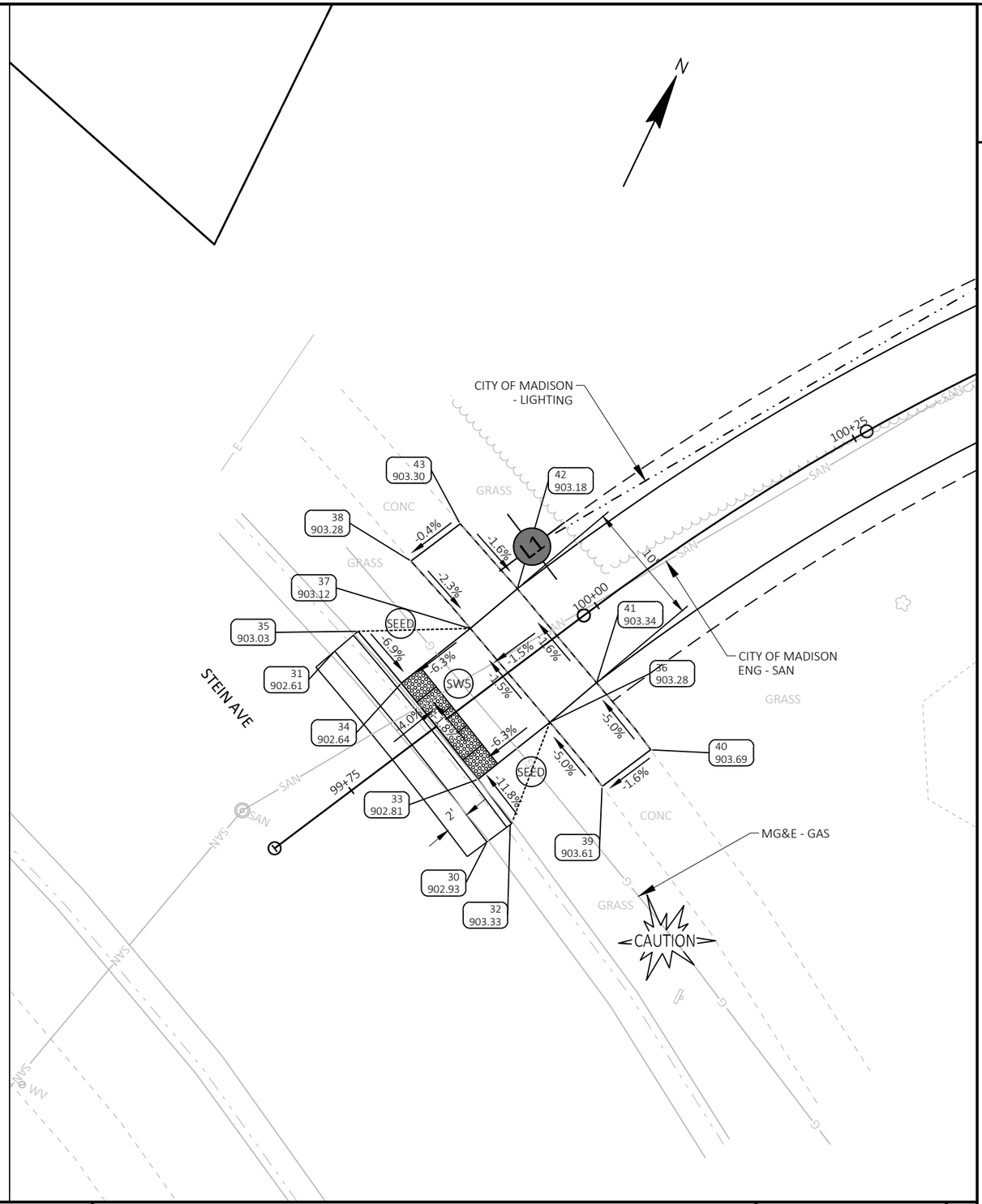
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NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES AND LENGTHS AND MATCH POINTS TO PRIOR RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATION TO FIT FIELD CONSTRUCTION.
3. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
4. ALL STATION AND OFFSET INFORMATION REFERENCE NORTH TRAIL R/L

LEGEND

X	CURB RAMP TYPE
SW5	CONCRETE SIDEWALK 5-INCH
SEED	SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH
X	PONT NUMBER

STEIN AVE - N CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
30	99+81.30	9.99' RT	902.93	493583.67	843234.70
31	99+80.73	9.87' LT	902.61	493592.31	843216.81
32	99+83.74	9.89' RT	903.33	493585.89	843235.74
33	99+83.79	5.47' RT	902.81	493587.96	843231.84
34	99+83.52	4.53' LT	902.64	493592.33	843222.84
35	99+83.23	10.02' LT	903.03	493594.60	843217.82
36	99+91.23	5.28' RT	903.28	493594.65	843235.10
37	99+90.66	4.71' LT	903.12	493598.75	843225.96
38	99+90.11	12.00' LT	903.28	493601.62	843219.24
39	99+91.51	12.00' RT	903.61	493591.81	843241.19
40	99+96.45	12.00' RT	903.69	493596.20	843243.46
41	99+96.21	5.00' RT	903.34	493599.20	843237.14
42	99+95.67	5.00' LT	903.18	493603.33	843228.01
43	99+95.13	12.00' LT	903.30	493606.08	843221.55



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CURB RAMP DETAIL: STEIN AVE - N	SHEET 18	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\021301-CR (CURB RAMP) -.DWG
LAYOUT NAME - Stein N

PLOT DATE : 10/11/2023 11:57 AM PLOT BY : SAVANNAH STEHN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

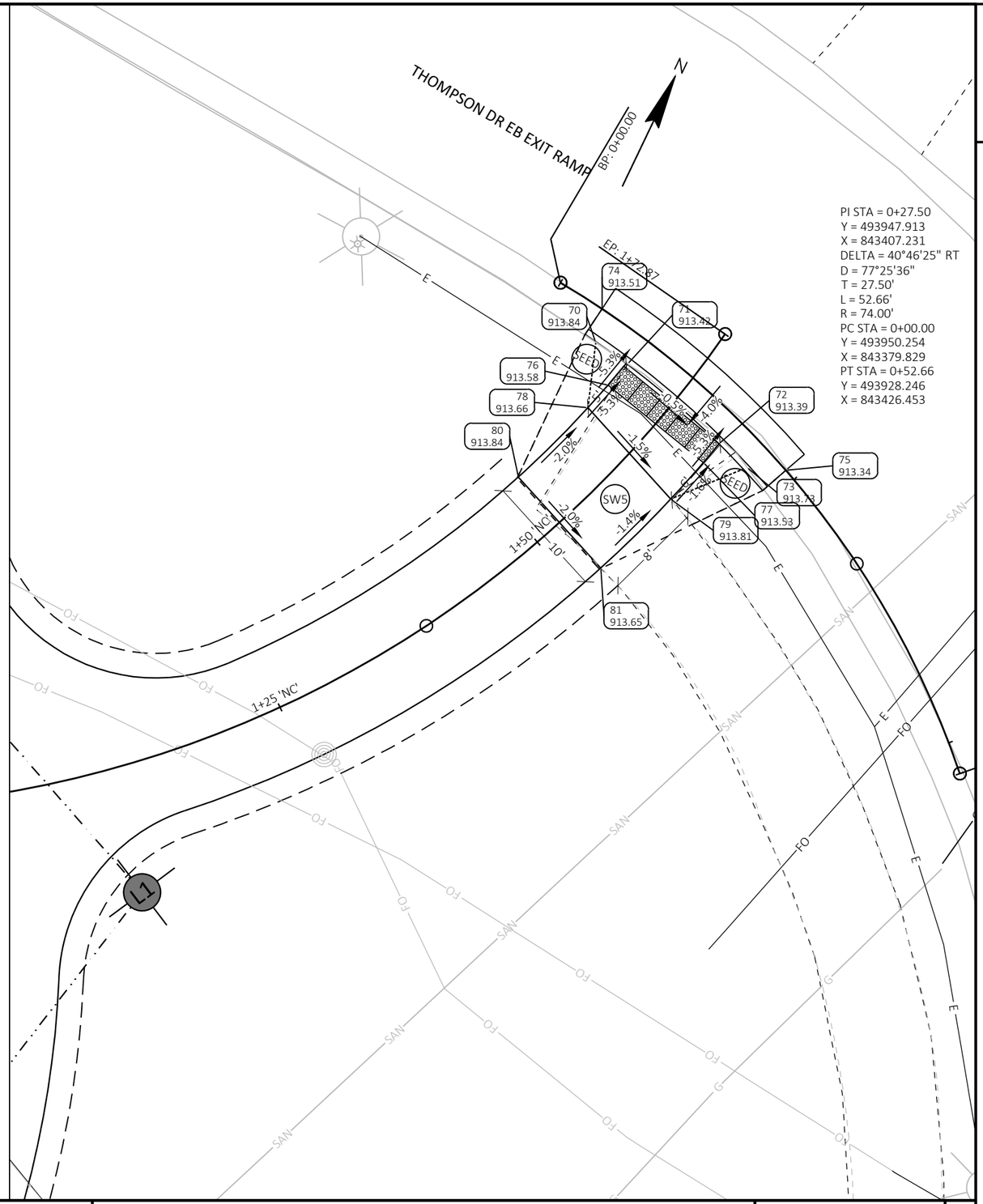
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NOTES:
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2. THE ENGINEER MAY ADJUST ELEVATION TO FIT FIELD CONSTRUCTION.
3. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
4. ALL STATION AND OFFSET INFORMATION REFERENCE NORTH TRAIL R/L

LEGEND

X	CURB RAMP TYPE
SW5	CONCRETE SIDEWALK 5-INCH
SEED	SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH
X	PONT NUMBER

THOMPSON DR - S CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
70	0+05.13	2.56' RT	913.84	493947.11	843384.53
71	0+08.37	2.46' RT	913.42	493946.66	843387.62
72	0+18.61	2.50' RT	913.39	493944.01	843397.15
73	0+21.69	2.18' RT	913.73	493943.26	843400.06
74	0+04.00	0.00'	913.51	493949.81	843383.80
75	0+24.00	0.00'	913.34	493944.40	843403.00
76	0+08.14	4.80' RT	913.58	493944.41	843386.96
77	0+18.82	4.49' RT	913.53	493942.06	843396.68
78	0+07.88	7.26' RT	913.66	493942.04	843386.25
79	0+19.04	8.47' RT	913.81	493938.25	843395.54
80	0+06.39	15.17' RT	913.84	493934.49	843383.57
81	0+19.01	16.48' RT	913.65	493930.71	843392.83



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CURB RAMP DETAIL: STEIN AVE - N	SHEET 19	E

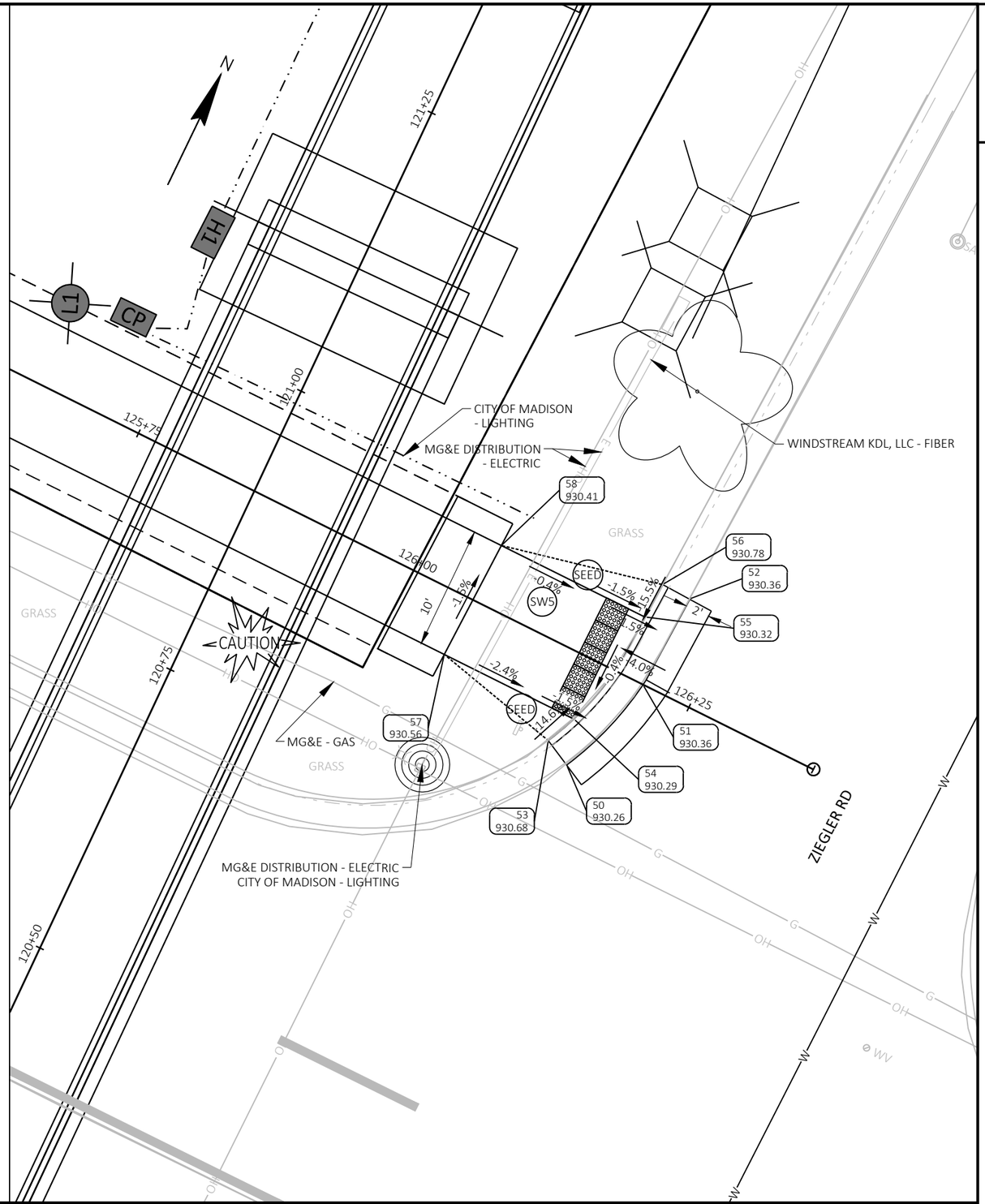
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NOTES:
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2. THE ENGINEER MAY ADJUST ELEVATION TO FIT FIELD CONSTRUCTION.
3. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
4. ALL STATION AND OFFSET INFORMATION REFERENCE NORTH TRAIL R/L

LEGEND

X	CURB RAMP TYPE
SW5	CONCRETE SIDEWALK 5-INCH
SEED	SALVAGED TOPSOIL, FERTILIZE, SEED & MULCH
X	PONT NUMBER

ZIEGLER RD - CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
50	126+18.20	8.62' RT	930.26	494541.39	841996.83
51	126+20.83	0.00'	930.36	494549.97	841999.59
52	126+21.10	7.91' LT	930.36	494557.87	841999.98
53	126+15.96	7.50' RT	930.68	494542.54	841994.61
54	126+17.05	5.00' RT	930.29	494545.02	841995.73
55	126+18.55	5.00' LT	930.32	494555.00	841997.39
56	126+18.64	7.99' LT	930.78	494557.99	841997.52
57	126+05.27	5.00' RT	930.56	494545.20	841983.96
58	126+05.49	5.00' LT	930.41	494555.20	841984.33



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CURB RAMP DETAIL: ZIEGLER RD	SHEET 20	E

2

PORTLAND PKWY

MILWAUKEE ST

BEGIN PROJECT
STA 10+00'ST'

SLOPE INTERCEPT (TYP)

CITY OF MADISON PARKS
HIESTAND PARK

10'ST'

11'ST'

12'ST'

13'ST'

14'ST'

15'ST'

MATCH LINE 15+00'ST'

N

CITY OF MADISON PARKS
HIESTAND PARK

EROSION CONTROL NOTES:

PLACE SALVAGED TOPSOIL, SEED, FERTILIZER AND MULCH WITHIN ANY SURFACE SLOPE INTERCEPT AREAS THAT DO NOT USE EROSION MAT.

DO NOT DRIVE EQUIPMENT OR STORE EQUIPMENT OR MATERIALS IN WETLANDS OR WATERWAYS.

PLACE SILT FENCE TWO FEET FROM THE SLOPE INTERCEPT WHERE APPROPRIATE.

MATCH LINE 15+00'ST'

16'ST'

17'ST'

18'ST'

19'ST'

20'ST'

21'ST'

SLOPE INTERCEPT (TYP)

CITY OF MADISON PARKS
HIESTAND PARK

CITY OF MADISON PARKS
HIESTAND PARK

HIESTAND PARK

DAVID E POTTER &
CATHERINE A POTTER

MATCH LINE 21+00'ST'

CITY OF MADISON

ERIC S PEDERSEN &
BRITTANY S PEDERSEN

N

EROSION CONTROL LEGEND

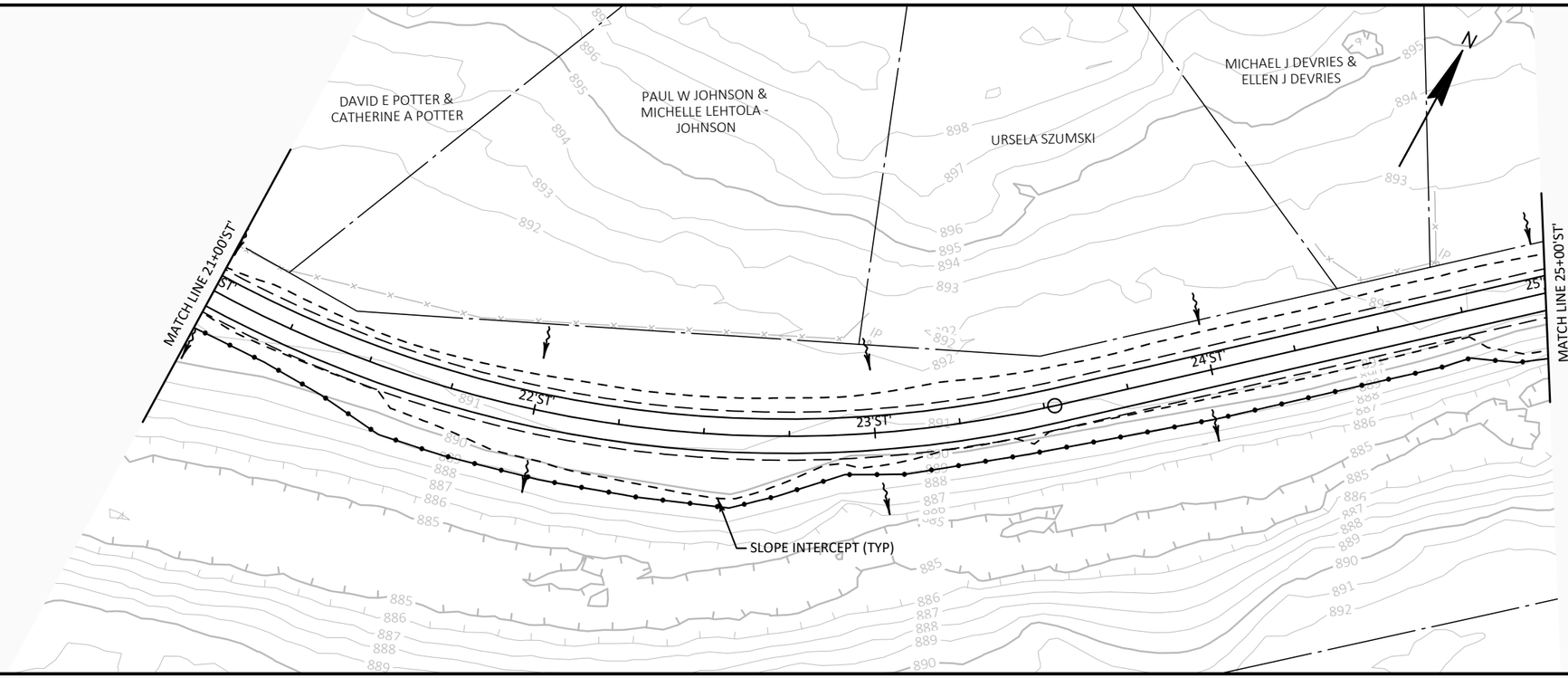
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION A OR C
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

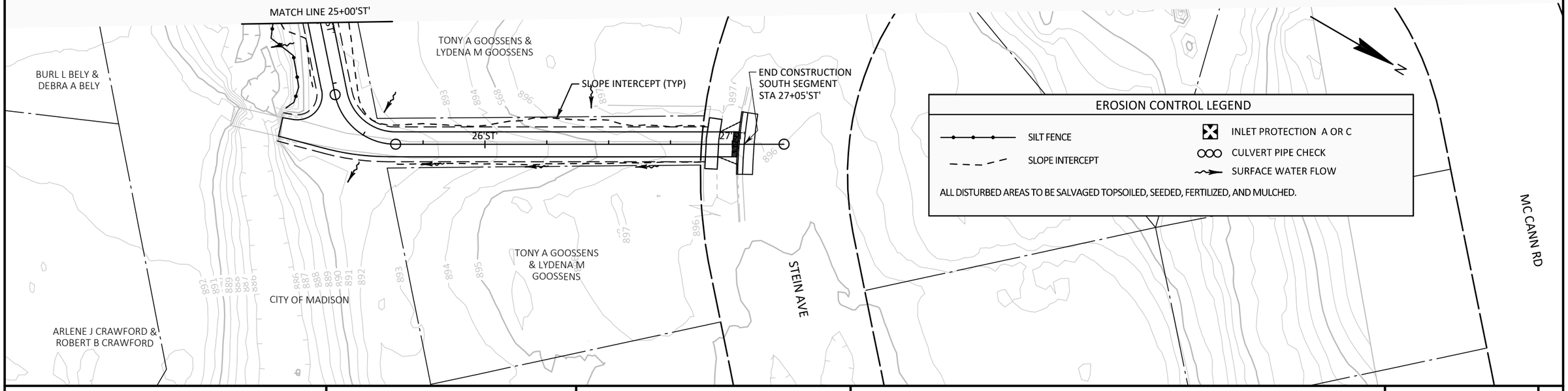
ALL DISTURBED AREAS TO BE SALVAGED TOPSOILED, SEEDED, FERTILIZED, AND MULCHED.

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EROSION CONTROL	SHEET 21	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 02 Typ Sec & Details\022000_ec (Erosion Control).dwg
PLOT DATE : 10/11/2023 12:35 PM
PLOT BY : SEH
LAYOUT NAME : 01
PLOT SCALE : 1.0 IN = 40.0 FT
WISDOT/CADDS SHEET 42

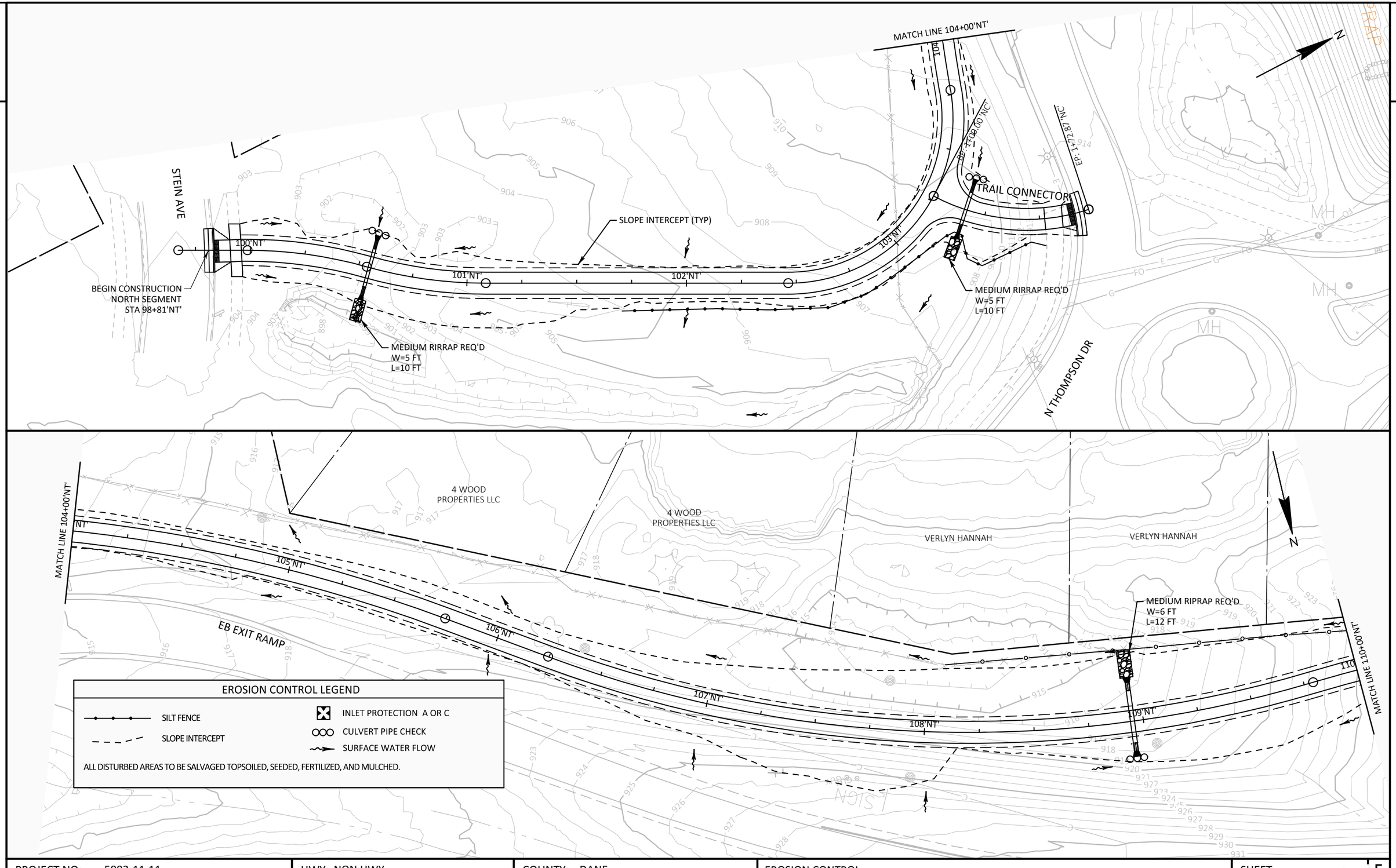
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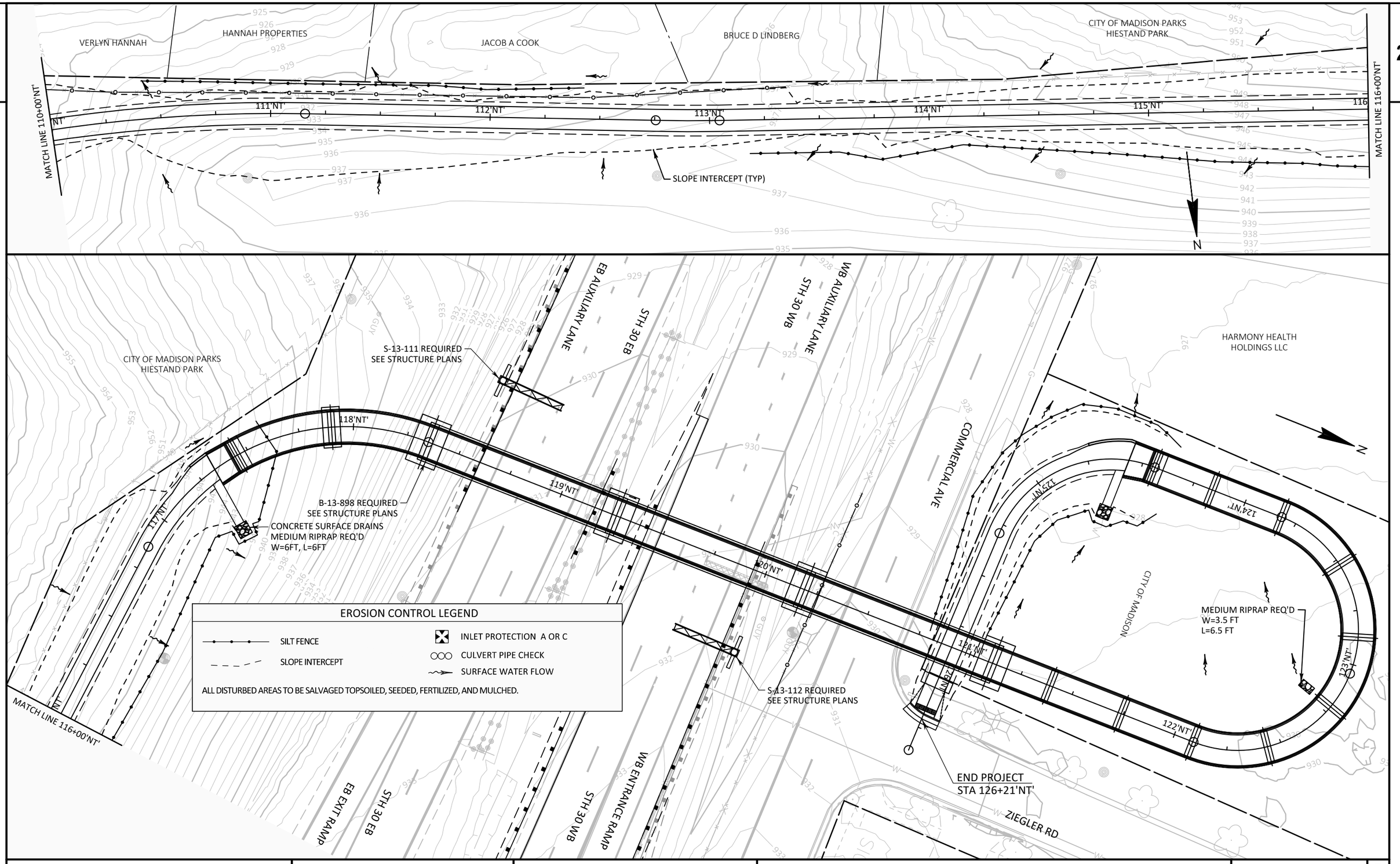
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EROSION CONTROL	SHEET 22 E

2



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EROSION CONTROL	SHEET 23 E

2



EROSION CONTROL LEGEND

- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION A OR C
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

ALL DISTURBED AREAS TO BE SALVAGED TOPSOILED, SEEDED, FERTILIZED, AND MULCHED.

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EROSION CONTROL	SHEET 24 E

2

2

EROSION CONTROL LEGEND

- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION A OR C
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

ALL DISTURBED AREAS TO BE SALVAGED TOPSOILED, SEEDED, FERTILIZED, AND MULCHED.

N

CITY OF MADISON

ZIEGLER RD

CONCRETE SURFACE DRAINS
MEDIUM RIPRAP REQ'D
W=6FT, L=6FT

125'NT

121'NT

126'NT

MADISON POINTE
HEALTH HOLDINGS LLC

INLET PROTECTION TYPE C
REQ'D ON CURB INLET

COMMERCIAL AVE

COMMERCIAL AVE

120'NT

WB AUXILIARY LANE

STH 30 WB

WB ENTRANCE RAMP

STH 30 WB

INLET PROTECTION TYPE A
REQ'D ON MEDIAN INLET

119'NT

STH 30 EB

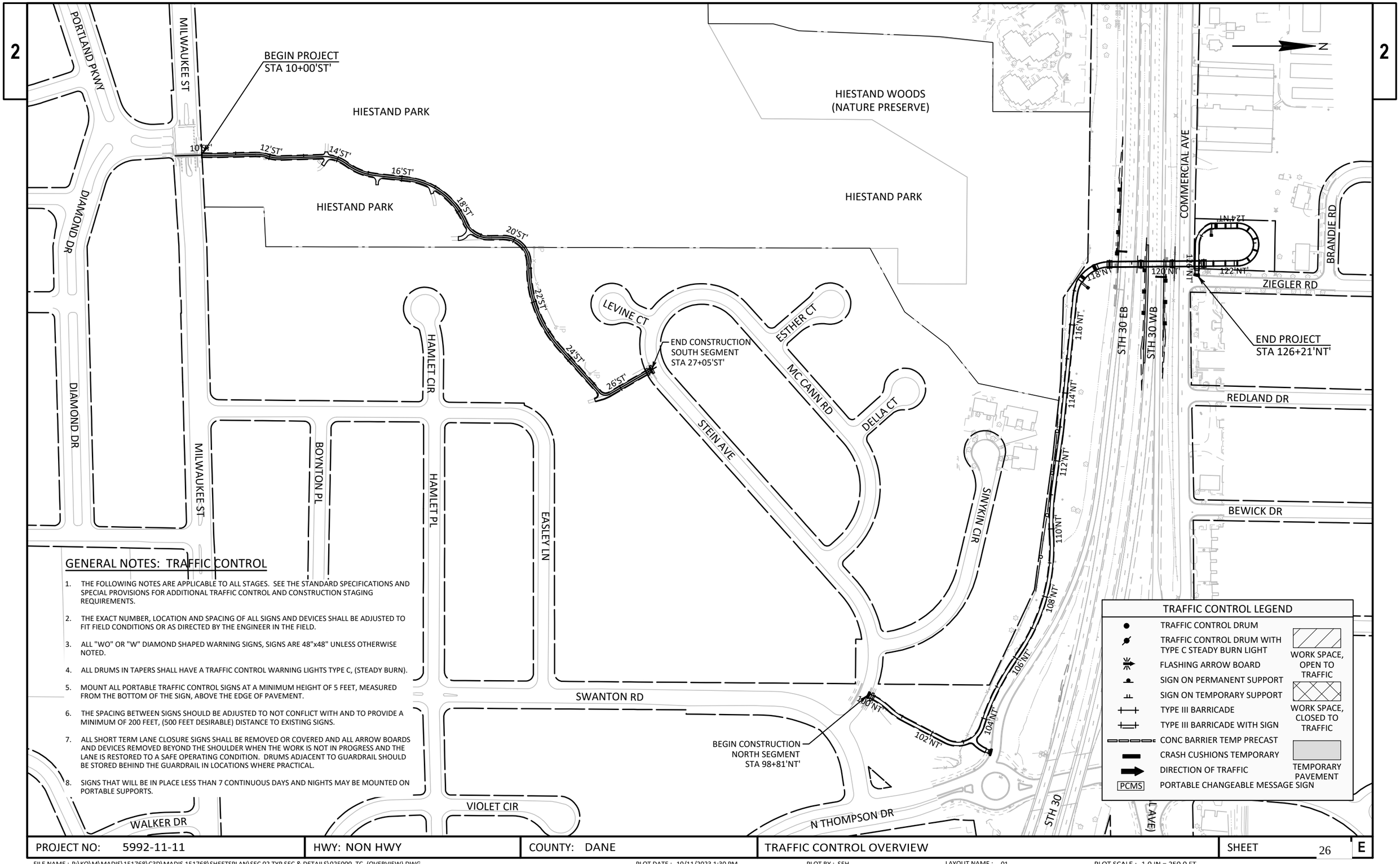
EB AUXILIARY LANE

STH 30 EB

EB EXIT RAMP

128'NT

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EROSION CONTROL	SHEET 25 E



GENERAL NOTES: TRAFFIC CONTROL

1. THE FOLLOWING NOTES ARE APPLICABLE TO ALL STAGES. SEE THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL AND CONSTRUCTION STAGING REQUIREMENTS.
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. ALL "WO" OR "W" DIAMOND SHAPED WARNING SIGNS, SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
4. ALL DRUMS IN TAPERS SHALL HAVE A TRAFFIC CONTROL WARNING LIGHTS TYPE C, (STEADY BURN).
5. MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.
6. THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
7. ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROW BOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION. DRUMS ADJACENT TO GUARDRAIL SHOULD BE STORED BEHIND THE GUARDRAIL IN LOCATIONS WHERE PRACTICAL.
8. SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL LEGEND

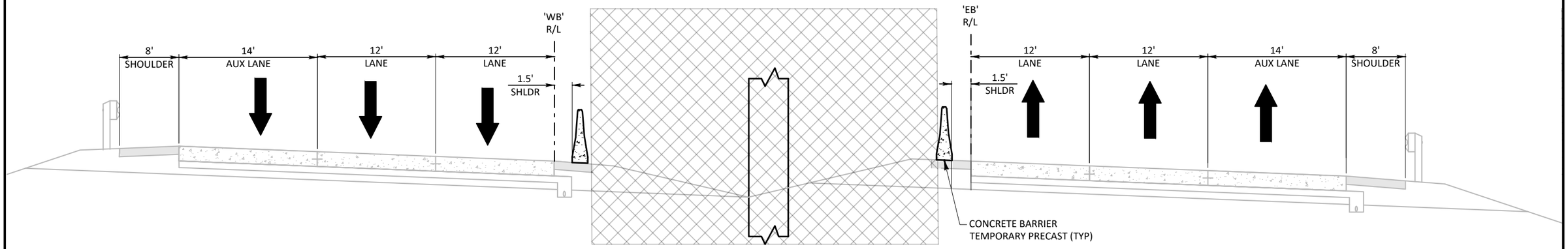
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- WORK SPACE, OPEN TO TRAFFIC
- WORK SPACE, CLOSED TO TRAFFIC
- TEMPORARY PAVEMENT

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL OVERVIEW	SHEET 26 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000_TC_(OVERVIEW).DWG
PLOT DATE : 10/11/2023 1:30 PM
PLOT BY : SEH
LAYOUT NAME : 01
PLOT SCALE : 1.0 IN = 250.0 FT
WISDOT/CADDS SHEET 42

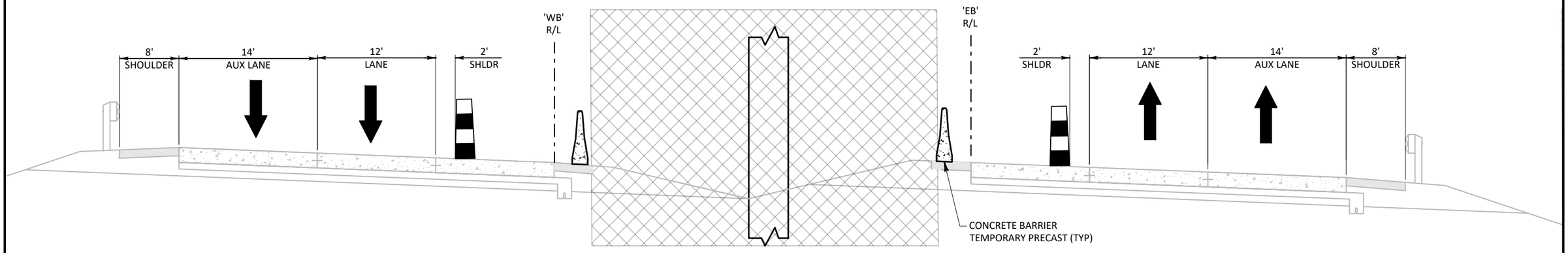
2

B-13-898 PIER



TRAFFIC CONTROL TYPICAL SECTION - STH 30 STAGE 1

CONSTRUCT B-13-898 MEDIAN PIER



TRAFFIC CONTROL TYPICAL SECTION - STH 30 STAGE 1 (OFF-PEAK HOURS)

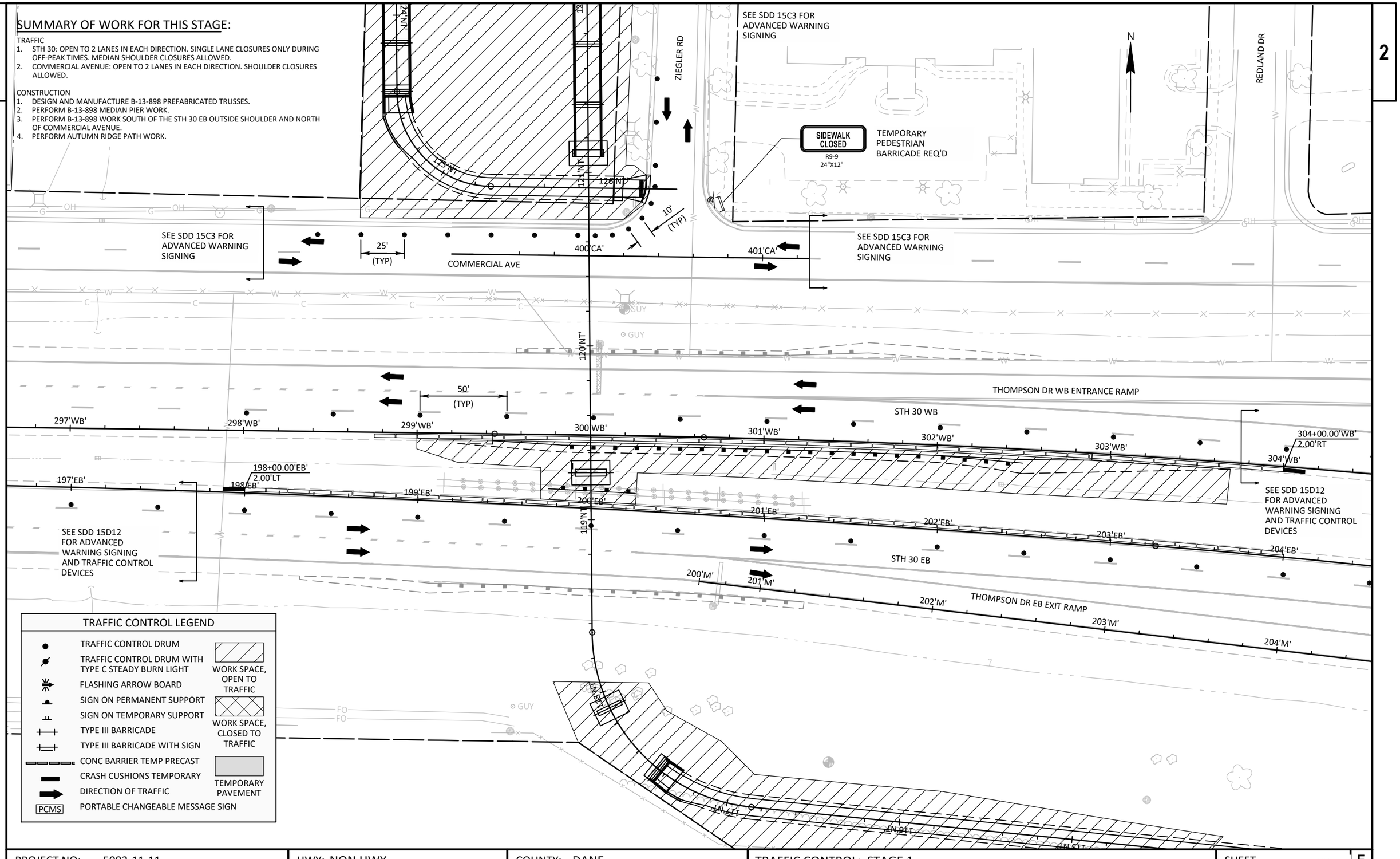
CONSTRUCT B-13-898 MEDIAN PIER

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL TYPICALS - STAGE 1	SHEET 27 E

SUMMARY OF WORK FOR THIS STAGE:

TRAFFIC
1. STH 30: OPEN TO 2 LANES IN EACH DIRECTION. SINGLE LANE CLOSURES ONLY DURING OFF-PEAK TIMES. MEDIAN SHOULDER CLOSURES ALLOWED.
2. COMMERCIAL AVENUE: OPEN TO 2 LANES IN EACH DIRECTION. SHOULDER CLOSURES ALLOWED.

CONSTRUCTION
1. DESIGN AND MANUFACTURE B-13-898 PREFABRICATED TRUSSES.
2. PERFORM B-13-898 MEDIAN PIER WORK.
3. PERFORM B-13-898 WORK SOUTH OF THE STH 30 EB OUTSIDE SHOULDER AND NORTH OF COMMERCIAL AVENUE.
4. PERFORM AUTUMN RIDGE PATH WORK.



TRAFFIC CONTROL LEGEND

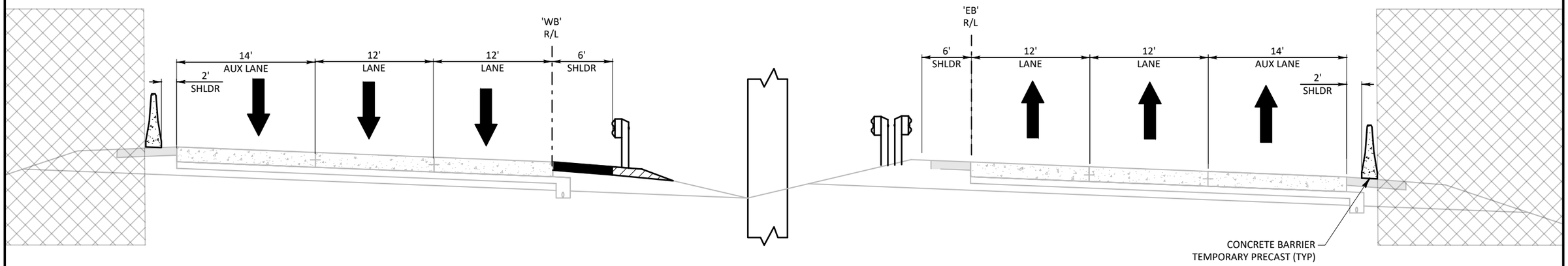
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- WORK SPACE, OPEN TO TRAFFIC
- WORK SPACE, CLOSED TO TRAFFIC
- TEMPORARY PAVEMENT

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL: STAGE 1	SHEET 28 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 02 Typ Sec & Details\025000_tc_(Stage 1).dwg
PLOT DATE : 10/12/2023 10:19 AM
PLOT BY : SEH
LAYOUT NAME : 02
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

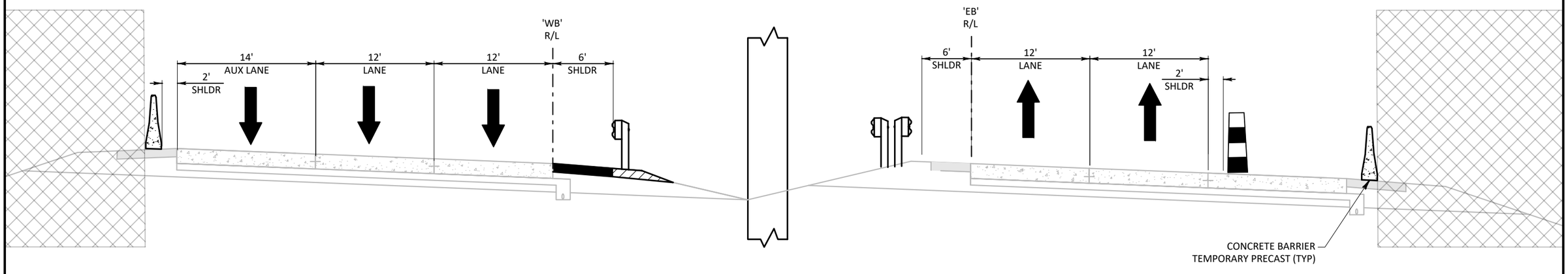
2

B-13-898 PIER



TRAFFIC CONTROL TYPICAL SECTION - STH 30 STAGE 2

CONSTRUCT B-13-898 OUTSIDE SHOULDER PIERS



TRAFFIC CONTROL TYPICAL SECTION - STH 30 STAGE 2 (OFF-PEAK HOURS)

CONSTRUCT B-13-898 OUTSIDE SHOULDER PIERS

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL TYPICALS - STAGE 2	SHEET 29	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 02 TYP SEC & DETAILS\025000_TC_(STAGING TYPICALS).DWG PLOT DATE : 7/29/2023 11:38 AM PLOT BY : SEH LAYOUT NAME : 02 PLOT SCALE : 1.0 IN = 10.0 FT

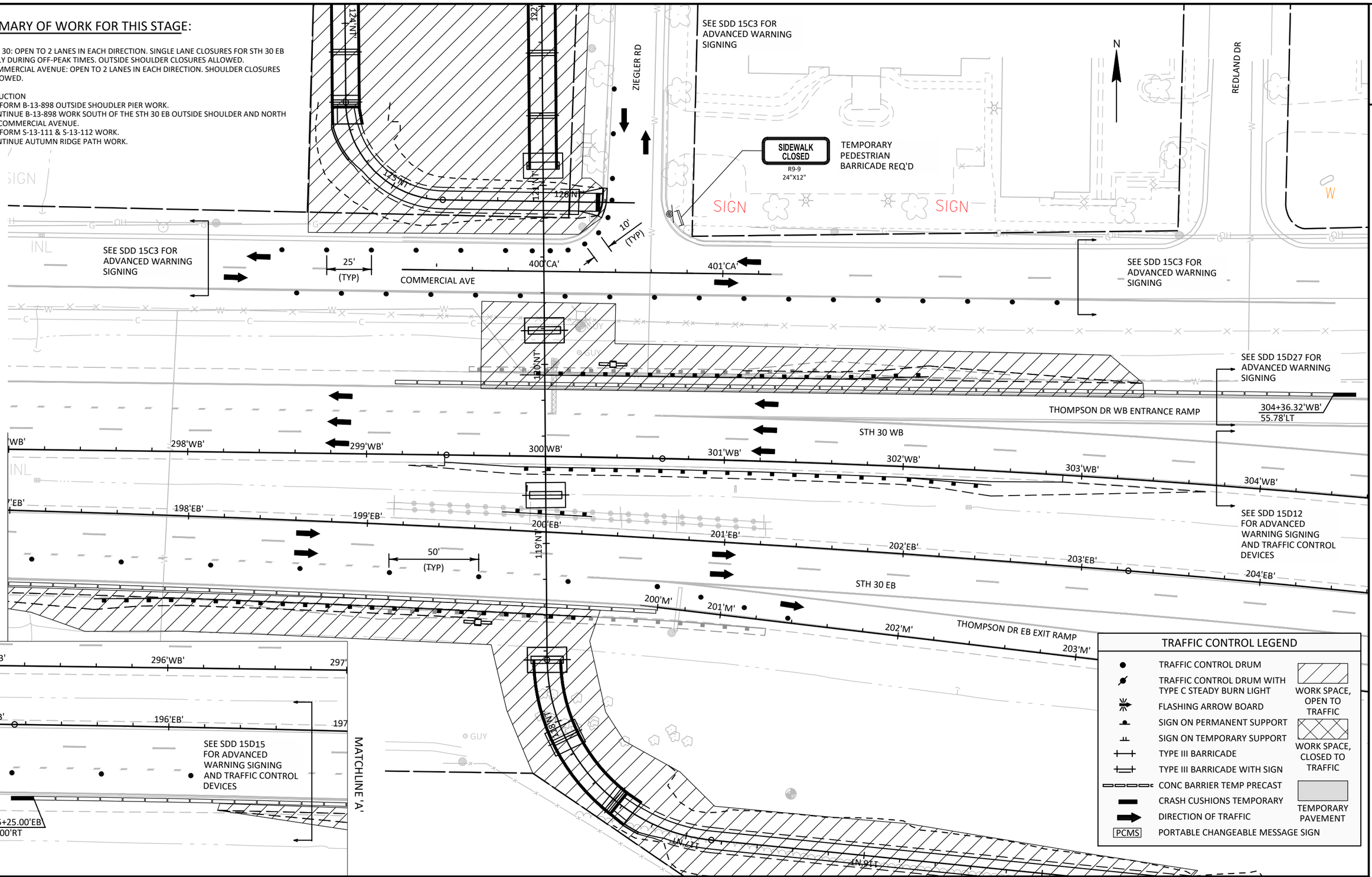
WISDOT/CADDS SHEET 42

2

SUMMARY OF WORK FOR THIS STAGE:

TRAFFIC
1. STH 30: OPEN TO 2 LANES IN EACH DIRECTION. SINGLE LANE CLOSURES FOR STH 30 EB ONLY DURING OFF-PEAK TIMES. OUTSIDE SHOULDER CLOSURES ALLOWED.
2. COMMERCIAL AVENUE: OPEN TO 2 LANES IN EACH DIRECTION. SHOULDER CLOSURES ALLOWED.

CONSTRUCTION
1. PERFORM B-13-898 OUTSIDE SHOULDER PIER WORK.
2. CONTINUE B-13-898 WORK SOUTH OF THE STH 30 EB OUTSIDE SHOULDER AND NORTH OF COMMERCIAL AVENUE.
3. PERFORM S-13-111 & S-13-112 WORK.
4. CONTINUE AUTUMN RIDGE PATH WORK.

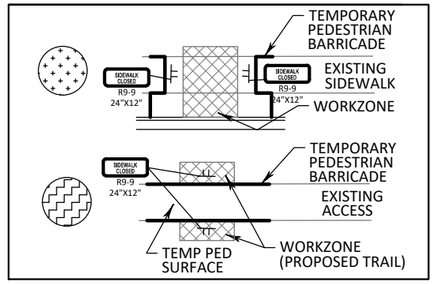


TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- WORK SPACE, OPEN TO TRAFFIC
- WORK SPACE, CLOSED TO TRAFFIC
- TEMPORARY PAVEMENT

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL: STAGE 2	SHEET 30 E

TRAFFIC CONTROL PED ACCOMODATION LEGEND



NOTE: SEE SDD 15D30 , TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION, FOR ADDITIONAL TEMPORARY PEDESTRIAN ACCOMMODATIONS AND SIDEWALK DIVERSION DETAILS.

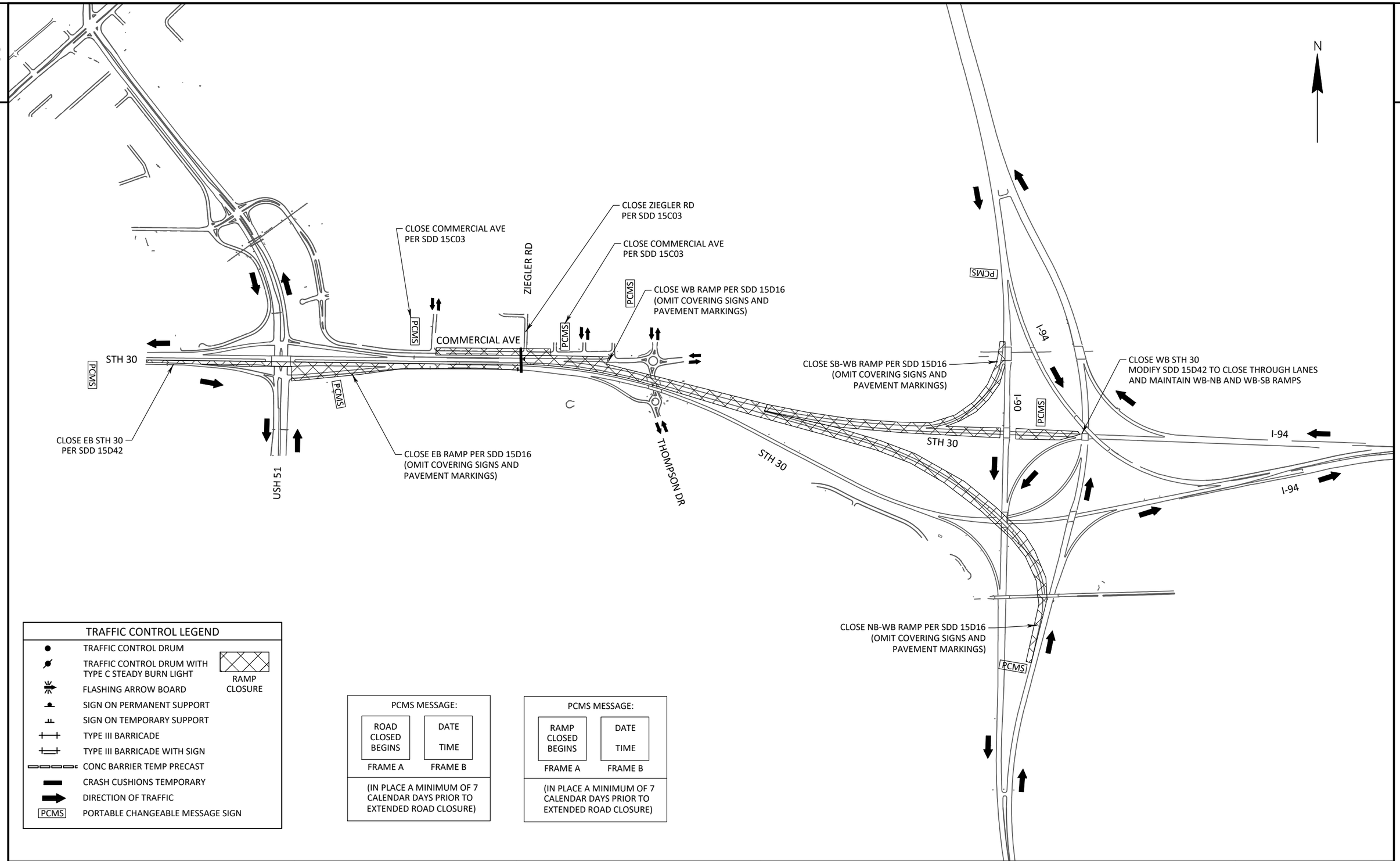
TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK SPACE, OPEN TO TRAFFIC
- WORK SPACE, CLOSED TO TRAFFIC
- TEMPORARY PAVEMENT

PORTLAND PKWY
MILWAUKEE ST
DIAMOND DR
EXISTING BUS STOP
HIESTAND PARK
HIESTAND WOODS (NATURE PRESERVE)
10'ST'
12'ST'
14'ST'
16'ST'
18'ST'
20'ST'
22'ST'
24'ST'
26'ST'
HAMLET CIR
MILO LN
BOYNTON PL
HAMLET PL
EASLEY LN
LEVINE CT
ESTHER CT
MC CANN RD
DELLA CT
STEIN AVE
SINYKIN CIR
SWANTON RD
WALKER DR
N THOMPSON DR
COMMERCIAL AVE
BRANDIE RD
ZIEGLER RD
REDLAND DR
BEWICK DR
PULLEY DR
STH 30 EB
STH 30 WB
STH 30
CTH T (COMMERCIAL AVE)
124'NT'
122'NT'
120'NT'
118'NT'
116'NT'
114'NT'
112'NT'
110'NT'
108'NT'
106'NT'
104'NT'
102'NT'
100'NT'
SIDEWALK CLOSED R9-9 24"X12"
SIDEWALK CLOSED AHEAD R9-9A 30"X18"
SIDEWALK CLOSED R9-10 24"X12"
SIDEWALK CLOSED R9-11L 24"X12"
SIDEWALK CLOSED R9-11R 24"X12"

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL - PEDESTRIAN ACCOMODATIONS (STAGE 1)	SHEET 31 E

2



TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- CONC BARRIER TEMP PRECAST
- CRASH CUSHIONS TEMPORARY
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

RAMP CLOSURE

PCMS MESSAGE:

ROAD CLOSED BEGINS	DATE / TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO EXTENDED ROAD CLOSURE)

PCMS MESSAGE:

RAMP CLOSED BEGINS	DATE / TIME
FRAME A	FRAME B

(IN PLACE A MINIMUM OF 7 CALENDAR DAYS PRIOR TO EXTENDED ROAD CLOSURE)

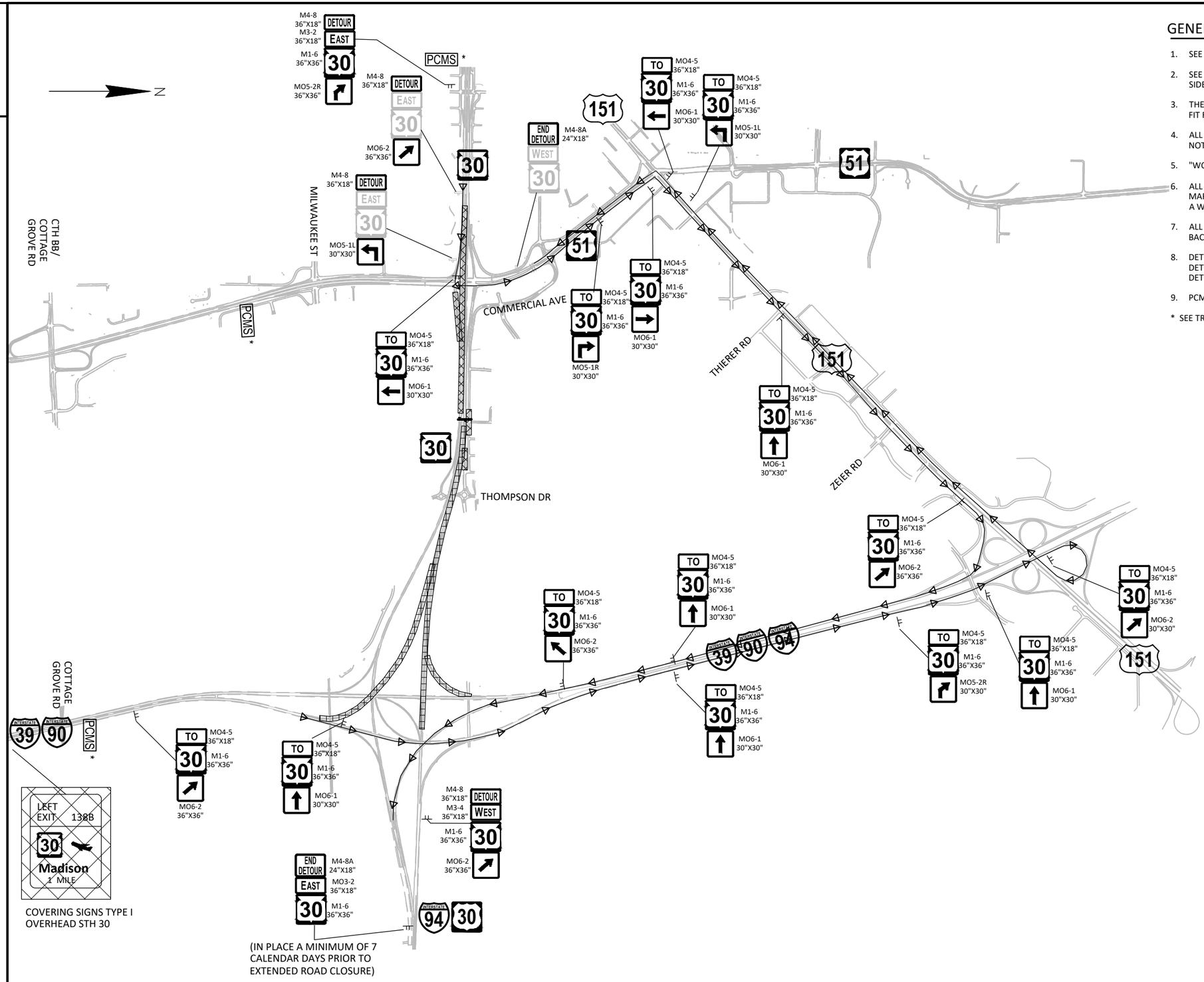
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL: FULL CLOSURE DETAIL	SHEET 32 E

2

GENERAL NOTES: TRAFFIC CONTROL AND DETOURS

1. SEE THE TRAFFIC CONTROL PLAN FOR APPLICATION OF THE DETOUR.
2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN.
3. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
4. ALL "WO" OR "W" DIAMOND SHAPED WARNING SIGNS, SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.
5. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.
6. ALL M3 SERIES SIGNS (NORTH, EAST, SOUTH, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.
7. ALL MO5 AND MO6 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.
8. DETOUR SIGNS SHALL BE PLACED A MINIMUM OF 7 CALENDAR DAYS PRIOR TO THE START OF THE DETOUR AND COVERED UNTIL NEEDED. THE COVERED DETOUR SIGNS ARE INCIDENTAL TO THE ITEM DETOUR SIGNS.
9. PCMS SHALL BE IN PLACE A MINIMUM OF 7 DAYS PRIOR TO CONSTRUCTION.

* SEE TRAFFIC CONTROL FULL CLOSURE DETAIL SHEET FOR PLACEMENT OF PCMS BOARDS



TRAFFIC CONTROL LEGEND

- DETOUR ROUTE
- ROADWAY/RAMP CLOSURE
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN ON POST OR PORTABLE SUPPORT
- EXISTING SIGN SUPPORT

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	TRAFFIC CONTROL: FULL CLOSURE DETOUR	SHEET 33 E

2

PORTLAND PKWY

MILWAUKEE ST

L999 STA10+03, OFFSET 8' R
20-FT POLE, ORIENTATE OVER PATH
ALL NIGHT, LC1-1

1 - 2" PVC (TYPICAL UNLESS NOTED OTHERWISE)

L1000 STA11+77, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC1-1

L1001 STA13+57, OFFSET 9' L
20-FT POLE
ALL NIGHT, LC1-1

HIESTAND PARK

N

10'ST'

11'ST'

12'ST'

13'ST'

14'ST'

15'ST'

CP LC1

2 - 3" PVC

MG&E - GAS (TYP)

MGE SERVICE CONNECTION

MG&E - ELEC DISTRIBUTION (TYP)

MATCH LINE 15+00'ST'

LEGEND: PATHWAY LIGHTING

CP	STREET LIGHT CONTROL CABINET
H1	ELECTRICAL HANDHOLE TYPE 1
L1	LIGHTING UNIT (LB-1 BASE, POLE 20-FT, ALUMINUM BLACK, LED LUMINAIRE)
L8	LIGHTING UNIT (LB-8 BASE, POLE 30-FT, 11 GAUGE, LED LUMINAIRE)
	2 INCH PVC (SCHEDULE 40) CONDUIT

HIESTAND PARK

2

L1003 STA16+88.5, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC1-1

HIESTAND PARK

N

L1002 STA15+20, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC1-1

16'ST'

17'ST'

18'ST'

19'ST'

20'ST'

21'ST'

L1004 STA18+80, OFFSET 12' R
20-FT POLE
ALL NIGHT, LC1-1

L1005 STA 20+20, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC1-1

HIESTAND PARK

AT&T WI - TELEPHONE (TYP)

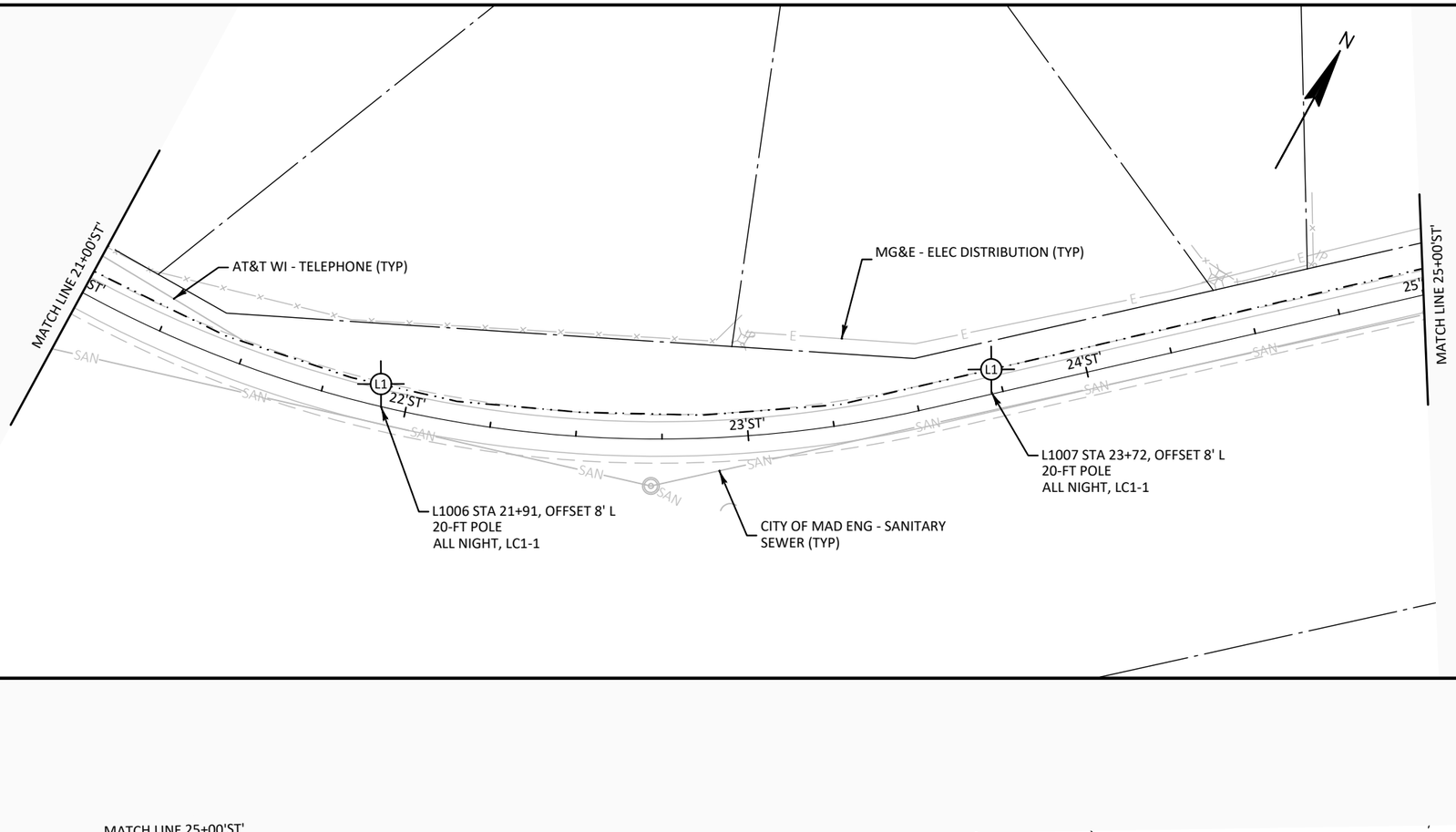
MATCH LINE 15+00'ST'

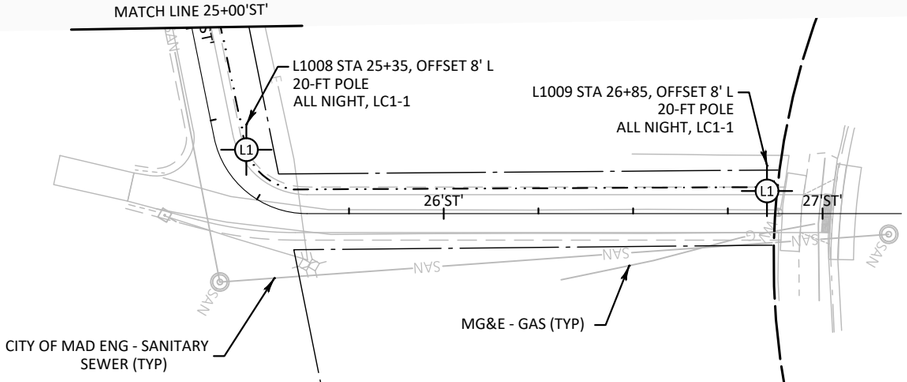
MATCH LINE 21+00'ST'

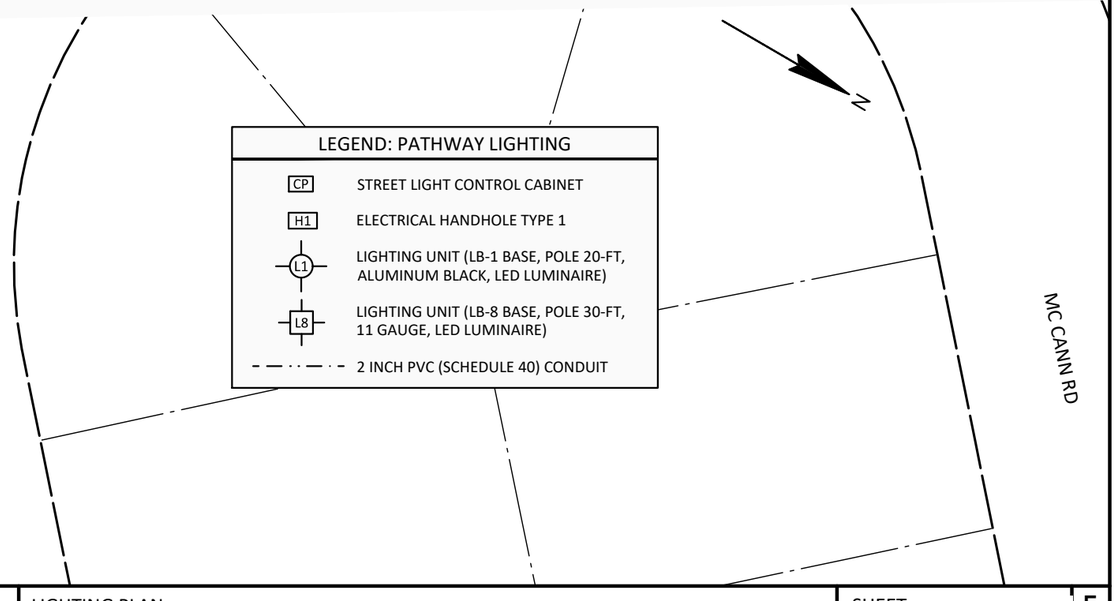
HIESTAND PARK

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	LIGHTING PLAN	SHEET 34 E

2







PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	LIGHTING PLAN	SHEET 35 E

2

MATCH LINE 104+00'NT'

STEIN AVE

L1010 STA 100+00, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

1 - 2" PVC (TYPICAL UNLESS NOTED OTHERWISE)

100'NT'

101'NT'

L1011 STA 101+59, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

102'NT'

103'NT'

MG&E - ELEC DISTRIBUTION (TYP)

AT&T LEGACY (JOINT W/ WISDOT ITS) - COM LINE (TYP)

TRAIL CONNECTOR

L1012 STA 103+19, OFFSET 12' R
20-FT POLE
ALL NIGHT, LC2-1

MG&E - GAS (TYP)

CITY OF MAD ENG - SANITARY SEWER (TYP)

MG&E - GAS (TYP)

WI DOA DET - COM LINE (TYP)

N THOMPSON DR

LEGEND: PATHWAY LIGHTING

- CP — STREET LIGHT CONTROL CABINET
- H1 — ELECTRICAL HANDHOLE TYPE 1
- L1 — LIGHTING UNIT (LB-1 BASE, POLE 20-FT, ALUMINUM BLACK, LED LUMINAIRE)
- L8 — LIGHTING UNIT (LB-8 BASE, POLE 30-FT, 11 GAUGE, LED LUMINAIRE)
- 2 INCH PVC (SCHEDULE 40) CONDUIT

MATCH LINE 104+00'NT'

105'NT'

EB EXIT RAMP

L1013 STA 104+84, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

<Custom Label Text:Label_Text>

MG&E - ELEC DISTRIBUTION (TYP)

106'NT'

MG&E - ELEC DISTRIBUTION (TYP)

WI DOA DET - COM LINE (TYP)

AT&T LEGACY (JOINT W/ WISDOT ITS) - COM LINE (TYP)

L1014 STA 106+59, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

107'NT'

108'NT'

109'NT'

L1015 STA 107+25, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

MATCH LINE 110+00'NT'

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	LIGHTING PLAN	SHEET 36 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 02 Typ Sec & Details\023600_lp (Ltg Plan).dwg PLOT DATE : 7/29/2023 12:02 PM PLOT BY : SEH LAYOUT NAME : 03 PLOT SCALE : 1.0 IN = 40.0 FT

2

MATCH LINE 110+00'NT'

L1016 STA 110+12, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

L1017 STA 111+86, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

L1018 STA 113+61, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

L1019 STA 115+37, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

AT&T LEGACY (JOINT W/ WISDOT ITS) - COM LINE (TYP)

WI DOA DET - COM LINE (TYP)

MG&E - ELEC DISTRIBUTION (TYP)

MATCH LINE 116+00'NT'

MG&E - ELEC DISTRI

N

2

EB AUXILIARY LANE

STH 30 EB

STH 30 WB

WB AUXILIARY LANE

MG&E - ELEC DISTRIBUTION (TYP), WINDSTREAM KDL, LLC – FIBER OPTIC (TYP), SPECTRUM- COM LINE (TYP)

N

HH1

SL10231 STA 118+25, OFFSET 15' L
30-FT, 11 GAUGE POLE
ALL NIGHT, LC2-1

2 - 2" CONDUITS FROM HH1 TO HH2 INSTALLED BELOW BRIDGE DECK. SEE STRUCTURE NOTES FOR DETAILS.

L1020 STA 117+12, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-1

AT&T LEGACY (JOINT W/ WISDOT ITS) - COM LINE (TYP)

WI DOA DET - COM LINE (TYP)

MG&E - ELEC DISTRIBUTION (TYP)

MATCH LINE 116+00'NT'

LEGEND: PATHWAY LIGHTING

CP	STREET LIGHT CONTROL CABINET
H1	ELECTRICAL HANDHOLE TYPE 1
L1	LIGHTING UNIT (LB-1 BASE, POLE 20-FT, ALUMINUM BLACK, LED LUMINAIRE)
L8	LIGHTING UNIT (LB-8 BASE, POLE 30-FT, 11 GAUGE, LED LUMINAIRE)
	2 INCH PVC (SCHEDULE 40) CONDUIT

EB EXIT RAMP

STH 30 EB

STH 30 WB

WB ENTRANCE RAMP

COMMERCIAL AVE

MG&E - ELEC DISTRIBUTION (TYP)

MGE SERVICE CONNECTION

MG&E - ELEC DISTRIBUTION (TYP)

MG&E - GAS (TYP)

AT&T WI – FIBER OPTIC (TYP)

ZIEGLER RD

CITY OF MAD ENG - SANITARY SEWER (TYP)

MG&E - ELEC DISTRIBUTION (TYP), CHARTER - COM LINE (TYP)

1 - 2" PVC (TYPICAL UNLESS NOTED OTHERWISE)

L1022 STA 124+47, OFFSET 8' R
20-FT POLE
ALL NIGHT, LC2-3

L1021 STA 125+65, OFFSET 8' L
20-FT POLE
ALL NIGHT, LC2-3

HH2

SL10230 STA 121+36, OFFSET 15' L
30-FT 11 GAUGE POLE
ALL NIGHT, LC2-2

SL10229 STA 122+65, OFFSET 27' L
30-FT, 11 GAUGE POLE
ALL NIGHT, LC2-2

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	LIGHTING PLAN	SHEET 37 E

5992-11-11

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	1,223.000	1,223.000
0004	201.0220	Grubbing	ID	1,223.000	1,223.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	204.0110	Removing Asphaltic Surface	SY	200.000	200.000
0010	204.0150	Removing Curb & Gutter	LF	52.000	52.000
0012	204.0155	Removing Concrete Sidewalk	SY	32.000	32.000
0014	204.0170	Removing Fence	LF	50.000	50.000
0016	204.0195	Removing Concrete Bases	EACH	2.000	2.000
0018	205.0100	Excavation Common	CY	1,886.000	1,886.000
0020	206.1001	Excavation for Structures Bridges (structure) 01. B-13-898	EACH	1.000	1.000
0022	208.0100	Borrow	CY	347.000	347.000
0024	209.1500	Backfill Granular Grade 1	TON	192.000	192.000
0026	210.1500	Backfill Structure Type A	TON	239.000	239.000
0028	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5992-11-11	EACH	1.000	1.000
0030	213.0100	Finishing Roadway (project) 01. 5992-11-11	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	268.000	268.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,685.000	2,685.000
0036	465.0105	Asphaltic Surface	TON	789.000	789.000
0038	502.0100	Concrete Masonry Bridges	CY	1,235.000	1,235.000
0040	502.3101	Expansion Device	LF	84.000	84.000
0042	502.3200	Protective Surface Treatment	SY	1,127.000	1,127.000
0044	505.0400	Bar Steel Reinforcement HS Structures	LB	19,050.000	19,050.000
0046	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	139,160.000	139,160.000
0048	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	9.000	9.000
0050	506.8006.S	Prefabricated Steel Truss Pedestrian Bridge LRFD (structure) 01. B-13-898	EACH	1.000	1.000
0052	511.1200	Temporary Shoring (structure) 01. B-13-898	SF	1,076.000	1,076.000
0054	513.4091	Railing Tubular Screening	LF	552.000	552.000
0056	513.8006	Railing Steel Pedestrian Type C1	LF	921.000	921.000
0058	514.0445	Floor Drains Type GC	EACH	1.000	1.000
0060	514.2608	Downspout 8-Inch	LF	35.000	35.000
0062	514.2625	Downspout 6-Inch	LF	8.000	8.000
0064	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0066	517.0500	Painting Epoxy System Steel Truss (structure) 01. B-13-898	EACH	1.000	1.000
0068	517.1010.S	Concrete Staining (structure) 01. B-13-898	SF	7,635.000	7,635.000
0070	517.1050.S	Architectural Surface Treatment (structure) 01. B-13-898	SF	5,817.000	5,817.000
0072	522.0412	Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF	34.000	34.000
0074	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	24.000	24.000
0076	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	4.000	4.000
0078	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0080	531.1100	Concrete Masonry Ancillary Structures Type NS	CY	18.000	18.000
0082	531.1160	Steel Reinforcement HS Coated Ancillary Structures Type NS	LB	2,075.000	2,075.000
0084	531.2042	Drilling Shaft 42-Inch	LF	29.000	29.000
0086	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	2,310.000	2,310.000
0088	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	72.000	72.000
0090	602.0410	Concrete Sidewalk 5-Inch	SF	706.000	706.000
0092	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	80.000	80.000
0094	602.3010	Concrete Surface Drains	CY	4.000	4.000
0096	603.8000	Concrete Barrier Temporary Precast Delivered	LF	2,200.000	2,200.000
0098	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,200.000	2,200.000

5992-11-11

Line	Item	Item Description	Unit	Total	Qty
0100	606.0200	Riprap Medium	CY	21.100	21.100
0102	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	140.000	140.000
0104	614.0010	Barrier System Grading Shaping Finishing	EACH	3.000	3.000
0106	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0108	614.2300	MGS Guardrail 3	LF	300.000	300.000
0110	614.2610	MGS Guardrail Terminal EAT	EACH	1.000	1.000
0112	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
0114	616.0404	Fence Chain Link Salvaged 4-FT	LF	626.000	626.000
0116	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5992-11-11	EACH	1.000	1.000
0118	619.1000	Mobilization	EACH	1.000	1.000
0120	624.0100	Water	MGAL	29.700	29.700
0122	625.0500	Salvaged Topsoil	SY	7,400.000	7,400.000
0124	627.0200	Mulching	SY	9,220.000	9,220.000
0126	628.1504	Silt Fence	LF	3,150.000	3,150.000
0128	628.1520	Silt Fence Maintenance	LF	3,150.000	3,150.000
0130	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0132	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0134	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0136	628.7015	Inlet Protection Type C	EACH	2.000	2.000
0138	628.7555	Culvert Pipe Checks	EACH	22.000	22.000
0140	628.7560	Tracking Pads	EACH	4.000	4.000
0142	629.0210	Fertilizer Type B	CWT	3.000	3.000
0144	630.0140	Seeding Mixture No. 40	LB	130.000	130.000
0146	630.0500	Seed Water	MGAL	180.000	180.000
0148	638.2101	Moving Signs Type I	EACH	4.000	4.000
0150	638.2102	Moving Signs Type II	EACH	4.000	4.000
0152	638.4100	Moving Structural Steel Sign Supports	EACH	2.000	2.000
0154	642.5201	Field Office Type C	EACH	1.000	1.000
0156	643.0300	Traffic Control Drums	DAY	16,854.000	16,854.000
0158	643.0420	Traffic Control Barricades Type III	DAY	3,942.000	3,942.000
0160	643.0705	Traffic Control Warning Lights Type A	DAY	8,082.000	8,082.000
0162	643.0715	Traffic Control Warning Lights Type C	DAY	1,680.000	1,680.000
0164	643.0800	Traffic Control Arrow Boards	DAY	1,122.000	1,122.000
0166	643.0900	Traffic Control Signs	DAY	10,464.000	10,464.000
0168	643.1050	Traffic Control Signs PCMS	DAY	56.000	56.000
0170	643.5000	Traffic Control	EACH	1.000	1.000
0172	644.1430	Temporary Pedestrian Surface Plate	SF	160.000	160.000
0174	644.1810	Temporary Pedestrian Barricade	LF	320.000	320.000
0176	645.0120	Geotextile Type HR	SY	46.000	46.000
0178	645.0130	Geotextile Type R	SY	26.000	26.000
0180	646.5220	Marking Symbol Epoxy	EACH	10.000	10.000
0182	650.4500	Construction Staking Subgrade	LF	7,267.000	7,267.000
0184	650.5000	Construction Staking Base	LF	7,267.000	7,267.000
0186	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	72.000	72.000
0188	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0190	650.6501	Construction Staking Structure Layout (structure) 01. B-13-898	EACH	1.000	1.000
0192	650.6501	Construction Staking Structure Layout (structure) 02. S-13-111	EACH	1.000	1.000
0194	650.6501	Construction Staking Structure Layout (structure) 03. S-13-112	EACH	1.000	1.000
0196	650.9000	Construction Staking Curb Ramps	EACH	5.000	5.000

5992-11-11

Line	Item	Item Description	Unit	Total	Qty
0198	650.9500	Construction Staking Sidewalk (project) 01. 5992-11-11	EACH	1.000	1.000
0200	650.9911	Construction Staking Supplemental Control (project) 01. 5992-11-11	EACH	1.000	1.000
0202	650.9920	Construction Staking Slope Stakes	LF	7,267.000	7,267.000
0204	652.0125	Conduit Rigid Metallic 2-Inch	LF	300.000	300.000
0206	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	3,759.000	3,759.000
0208	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	58.000	58.000
0210	653.0220	Junction Boxes 18x6x6-Inch	EACH	4.000	4.000
0212	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. LC1	EACH	1.000	1.000
0214	656.0201	Electrical Service Meter Breaker Pedestal (location) 02. LC2	EACH	1.000	1.000
0216	690.0150	Sawing Asphalt	LF	154.000	154.000
0218	690.0250	Sawing Concrete	LF	20.000	20.000
0220	715.0502	Incentive Strength Concrete Structures	DOL	7,410.000	7,410.000
0222	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	800.000	800.000
0224	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	475.000	475.000
0226	SPV.0060	Special 01. Adjust Water Valve Box Sections	EACH	1.000	1.000
0228	SPV.0060	Special 02. Adjusting Sanitary Manhole Cover	EACH	3.000	3.000
0230	SPV.0060	Special 03. LED Luminaire and Mounting Bracket Type 1	EACH	27.000	27.000
0232	SPV.0060	Special 04. Pole Aluminum 20-Foot Street Light (Black)	EACH	24.000	24.000
0234	SPV.0060	Special 05. Pole 30-Foot 11 Gauge (Black)	EACH	3.000	3.000
0236	SPV.0060	Special 06. Lighting Control Cabinet	EACH	2.000	2.000
0238	SPV.0060	Special 09. Handhole Type 1	EACH	2.000	2.000
0240	SPV.0060	Special 10. Concrete Base Type LB-1	EACH	24.000	24.000
0242	SPV.0060	Special 11. Concrete Base Type LB-2	EACH	3.000	3.000
0244	SPV.0060	Special 12. Concrete Base Type P	EACH	2.000	2.000
0246	SPV.0090	Special 01. Salvage and Reinstall Guardrail	LF	513.000	513.000
0248	SPV.0090	Special 02. Furnish and Install 3 #4 and 1 #8 Wires	LF	4,766.000	4,766.000
0250	SPV.0165	Special 01. Wall Modular Block Gravity Landscape Station 117+35'SW'	SF	26.000	26.000
0252	SPV.0165	Special 02. Wall Modular Block Gravity Landscape Station 124+60'NW'	SF	59.000	59.000
0254	SPV.0180	Special 01. Concrete Approach Slab 6-Inch	SY	35.000	35.000

ALL ITEMS ARE PART OF CATEGORY 0040 UNLESS OTHERWISE NOTED

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CLEARING & GRUBBING-01

STATION	OFFSET	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
20+26 'ST'	1.768' RT	4	4	BOX ELDER
20+42 'ST'	-11.170' LT	4	4	BOX ELDER
20+43 'ST'	-11.743' LT	5	5	BOX ELDER
20+45 'ST'	-5.000' LT	6	6	BOX ELDER
20+49 'ST'	-2.479' LT	5	5	BOX ELDER
20+66 'ST'	-1.049' LT	4	4	BLACK WALNUT
20+71 'ST'	-6.102' LT	4	4	BOX ELDER
20+73 'ST'	-6.021' LT	5	5	BOX ELDER
20+90 'ST'	8.519' RT	21	21	COTTONWOOD
20+91 'ST'	-2.663' LT	13	13	COTTONWOOD
20+94 'ST'	-2.008' LT	7	7	COTTONWOOD
20+99 'ST"	-6.046' LT	7	7	COTTONWOOD
21+76 'ST'	4.560' RT	27	27	COTTONWOOD
21+77 'ST'	1.635' RT	22	22	COTTONWOOD
21+90 'ST'	6.422' RT	30	30	COTTONWOOD
21+95 'ST'	8.506' RT	17	17	COTTONWOOD
21+99 'ST'	-5.637' LT	26	26	COTTONWOOD
22+00 'ST'	5.269' RT	18	18	COTTONWOOD
22+17 'ST'	9.202' RT	4	4	BOX ELDER
22+25 'ST'	1.258' RT	32	32	COTTONWOOD
22+39 'ST'	2.845' RT	30	30	COTTONWOOD
22+64 'ST'	10.489' RT	26	26	COTTONWOOD
22+72 'ST'	-1.489' LT	26	26	COTTONWOOD
22+72 'ST'	8.992' RT	8	8	BLACK WALNUT
22+96 'ST'	-1.082' LT	18	18	COTTONWOOD
23+22 'ST'	3.927' RT	28	28	COTTONWOOD
23+25 'ST'	5.982' RT	9	9	MULBERRY
23+28 'ST'	3.152' RT	5	5	BOX ELDER
23+35 'ST'	1.124' RT	10	10	BLACK CHERRY
23+38 'ST'	4.844' RT	6	6	MULBERRY
23+45 'ST'	1.859' RT	6	6	MULBERRY
23+49 'ST'	-5.568' LT	17	17	COTTONWOOD
23+59 'ST'	1.105' RT	4	4	BUCKTHORN
23+66 'ST'	2.270' RT	22	22	COTTONWOOD
23+67 'ST'	-1.141' LT	5	5	BUCKTHORN
23+73 'ST'	6.537' RT	4	4	BUCKTHORN
23+78 'ST'	-6.201' LT	21	21	COTTONWOOD
23+90 'ST'	-0.455' LT	4	4	BUCKTHORN
24+05 'ST'	-2.853' LT	8	8	MULBERRY
24+11 'ST'	7.966' RT	21	21	COTTONWOOD
24+17 'ST'	6.601' RT	9	9	MULBERRY
24+23 'ST'	3.525' RT	11	11	COTTONWOOD
24+39 'ST'	6.294' RT	12	12	BLACK CHERRY
24+44 'ST'	-1.817' LT	26	26	COTTONWOOD
24+53 'ST'	-2.164' LT	4	4	WHITE CEDAR
24+63 'ST'	-2.203' LT	28	28	COTTONWOOD
24+63 'ST'	3.219' RT	23	23	COTTONWOOD
24+65 'ST'	1.709' RT	6	6	MULBERRY
24+68 'ST'	0.602' RT	14	14	COTTONWOOD
24+73 'ST'	-9.991' LT	9	9	MULBERRY
24+73 'ST'	6.712' RT	18	18	COTTONWOOD
24+77 'ST'	-7.338' LT	4	4	BUCKTHORN
24+78 'ST'	2.256' RT	5	5	BUCKTHORN
25+00 'ST'	6.344' RT	7	7	BLACK WALNUT
25+00 'ST'	-9.493' LT	6	6	HACKBERRY
25+08 'ST'	-2.901' LT	4	4	MULBERRY
25+18 'ST'	-0.353' LT	8	8	MULBERRY
01 TOTAL		733	733	

CLEARING & GRUBBING-02

STATION	OFFSET	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
25+22 'ST'	5.454' RT	11	11	BLACK WALNUT
25+36 'ST'	7.995' RT	8	8	MULBERRY
100+04 'NT'	-5.145' LT	16	16	SIBERIAN ELM
100+16 'NT'	-7.861' LT	6	6	MULBERRY
100+17 'NT'	-9.625' LT	11	11	SILVER MAPLE
100+25 'NT'	-9.581' LT	6	6	SILVER MAPLE
100+26 'NT'	7.145' RT	19	19	SIBERIAN ELM
100+27 'NT'	-8.816' LT	6	6	SILVER MAPLE
100+27 'NT'	-10.186' LT	13	13	SILVER MAPLE
100+29 'NT'	-7.169' LT	9	9	SILVER MAPLE
100+53 'NT'	1.493' RT	7	7	SIBERIAN ELM
100+59 'NT'	-4.549' LT	8	8	SIBERIAN ELM
100+59 'NT'	-5.915' LT	4	4	SIBERIAN ELM
100+60 'NT'	-6.401' LT	7	7	SIBERIAN ELM
100+96 'NT'	14.554' RT	15	15	SIBERIAN ELM
100+96 'NT'	11.928' RT	10	10	SIBERIAN ELM
114+10 'NT'	-8.840' LT	6	6	BUCKTHORN
114+17 'NT'	-7.230' LT	4	4	BLACK LOCUST
114+18 'NT'	-3.215' LT	5	5	BUCKTHORN
114+20 'NT'	-6.935' LT	4	4	BUCKTHORN
114+21 'NT'	-9.394' LT	9	9	BLACK LOCUST
114+36 'NT'	-2.792' LT	4	4	EURASIAN HONEYSUCKLE
114+76 'NT'	-6.842' LT	6	6	BUCKTHORN
114+98 'NT'	-5.750' LT	6	6	BLACK LOCUST
115+09 'NT'	-7.057' LT	5	5	BLACK LOCUST
115+28 'NT'	-10.600' LT	6	6	BUCKTHORN
115+35 'NT'	-16.407' LT	12	12	BLACK LOCUST
115+49 'NT'	-16.345' LT	6	6	BUCKTHORN
115+56 'NT'	-8.120' LT	8	8	BUCKTHORN
115+58 'NT'	-17.194' LT	4	4	BOX ELDER
115+99 'NT'	-15.680' LT	7	7	BOX ELDER
116+06 'NT'	-8.616' LT	4	4	BUCKTHORN
116+10 'NT'	-16.763' LT	4	4	BUCKTHORN
116+22 'NT'	-9.424' LT	13	13	BLACK LOCUST
116+31 'NT'	-11.335' LT	16	16	BLACK LOCUST
116+42 'NT'	-19.617' LT	11	11	BLACK LOCUST
116+58 'NT'	-5.500' LT	17	17	BLACK LOCUST
116+63 'NT'	-19.347' LT	12	12	BLACK LOCUST
116+67 'NT'	-6.960' LT	4	4	BLACK LOCUST
116+71 'NT'	-17.831' LT	5	5	BUCKTHORN
116+88 'NT'	-5.581' LT	15	15	BLACK LOCUST
117+14 'NT'	-8.551' LT	17	17	BLACK LOCUST
117+15 'NT'	-3.120' LT	5	5	BUCKTHORN
117+24 'NT'	-9.232' LT	5	5	BUCKTHORN
117+92 'NT'	8.029' RT	13	13	BLACK LOCUST
117+94 'NT'	3.385' RT	11	11	BLACK LOCUST
117+95 'NT'	-2.225' LT	11	11	BLACK LOCUST
117+99 'NT'	-6.086' LT	10	10	BLACK LOCUST
117+99 'NT'	0.744' RT	10	10	BLACK LOCUST
118+00 'NT'	-7.445' LT	8	8	BLACK LOCUST
118+04 'NT'	-6.128' LT	8	8	BLACK LOCUST
118+05 'NT'	-9.876' LT	14	14	BLACK LOCUST
118+10 'NT'	4.974' RT	14	14	BLACK LOCUST
118+16 'NT'	0.778' RT	6	6	BLACK LOCUST
118+17 'NT'	-3.882' LT	9	9	BLACK LOCUST
02 TOTAL		490	490	
PROJECT TOTAL		1223	1223	

ALL ITEMS ARE PART OF CATEGORY 0040 UNLESS OTHERWISE NOTED

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY
299+24 'WB' - 303+70 'WB'	LT & RT	200
PROJECT TOTAL		200

REMOVING CONCRETE ITEMS

STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY
27+05 'ST'	LT/RT	16	11
99+83 'NT'	LT/RT	20	13
126+20 'NT'	LT/RT	16	8
ITEM TOTALS		52	32

PREPARE FOUNDATION FOR ASPHALTIC PAVING (5992-11-11)

STATION	211.0101 EACH
PROJECT LENGTH	1
PROJECT TOTAL	1

FINISHING ROADWAY

STATION	213.0100 EACH
PROJECT LENGTH	1
PROJECT TOTAL	1

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EARTHWORK SUMMARY

SUBSTAGE	STATION	LOCATION	205.0100 EXCAVATION COMMON (1) CUT (2) CY	SALVAGED/ UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5) FACTOR 1.25	MASS ORDINATE +/- (6)	208.0100 BORROW CY
1	10+00 'ST' - 26+85 'ST'	SOUTH TRAIL 'ST'	893	69	824	32	40	784	0
	100+00 'NT' - 117+45 'NT'	NORTH TRAIL 'NT'	988	0	988	1447	1809	-821	0
	124+44 'NT' - 126+00 'NT'	NORTH TRAIL 'NT' (N OF HWY 30)	3	0	3	212	265	-262	0
	1+07 'NC' - 1+53 'NC'	CONNECTOR PATH 'NC'	2	0	2	40	50	-48	0
	PROJECT TOTAL		1886	69	1817	1731	2164	-347	347

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT . ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.25 DEPENDING ON SELECTIONS:

(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE STAGE. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE STAGE. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE STAGE.
(7) THE CUT AND FILL VALUES WERE OBTAINED FROM A SURFACE TO SURFACE VOLUMN COMPUTATION.

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
10+00 'ST'	-	27+05 'ST'	LT/RT	-	1,260	13
99+96 'NT'	-	126+21 'NT'	LT/RT	-	1,250	13
117+33'NT'	-	117+42'NT'	LT & RT	73	-	0.8
124+47'NT'	-	124+56'NT'	LT & RT	75	-	0.8
196+28 'EB'	-	199+64 'EB'	RT	31	-	0.3
299+24 'WB'	-	303+70 'WB'	RT	31	120	1.5
301+10 'WB'	-	303+31 'WB'	LT	55	-	0.6
1+07 'NC'	-	1+53 'NC'	LT/RT	4	45	0.5
4+00'TD'	-	24+00'TD'	RT	-	10	0.1
PROJECT TOTAL				268	2,685	29.7

ASPHALTIC PAVEMENT

STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON
10+00 'ST' - 27+05 'ST'	LT/RT	350
99+96 'NT' - 117+33 'NT'	LT/RT	340
124+56 'NT' - 126+21 'NT'	LT/RT	30
299+24 'WB' - 303+70 'WB'	RT	60
1+07'NC' - 1+53'NC'	LT/RT	8
4+00'TD' - 24+00'TD'	LT	1
PROJECT TOTAL		789

CRASH CUSHIONS

STAGE	STATION	LOCATION (END OF CBTP)	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH LF	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
1	198+00'EB'	2.00' LT	1	2	OM-3C (WO5-58M)	TL-3	UNIDIRECTIONAL	RT	TEMPORARY CONCRETE BARRIER IN MEDIAN
1	304+00'WB'	2.00' RT	1	2	OM-3C (WO5-58M)	TL-3	UNIDIRECTIONAL	RT	TEMPORARY CONCRETE BARRIER IN MEDIAN
2	195+25'EB'	41.00' RT	1	2	OM-3R (WO5-58)	TL-3	UNIDIRECTIONAL	LT	TEMPORARY CONCRETE BARRIER ON SHOULDER
2	304+36.32'WB'	55.78' LT	1	2	OM-3R (WO5-58)	TL-3	UNIDIRECTIONAL	LT	TEMPORARY CONCRETE BARRIER ON SHOULDER
	PROJECT TOTAL		4						

CONCRETE ITEMS

STATION	TO	STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
26+89 'ST'	-	27+02 'ST'	LT/RT	16	181	20
99+84 'NT'	-	99+96 'NT'	LT/RT	20	192	20
126+00 'NT'	-	126+18 'NT'	LT/RT	16	198	20
4+00'TD'	-	24+00'TD'	RT	20	135	20
PROJECT TOTAL				72	706	80

TEMPORARY ITEMS

STATION TO STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	REMARKS
198+00 'EB' - 204+00 'EB'	LT	600	600	STAGE 1
298+75 'WB' - 304+00 'WB'	RT	525	525	STAGE 1
195+25 'EB' - 200+64 'EB'	LT	550	550	STAGE 2
299+16 'WB' - 304+36 'WB'	RT	525	525	STAGE 2
PROJECT TOTAL		2200	2200	

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FENCING ITEMS

STATION	LOCATION	204.0170 REMOVING FENCE LF	616.0404 FENCE CHAIN LINK SALVAGED 4-FT LF
102+87'NT' - 103+19'NT'	LT/RT	50	-
108+09 'NT' - 113+35'NT'	LT/RT	-	526
399+50'CA' - 400+50'CA'	LT/RT	-	100
PROJECT TOTAL		50	626

GUARDRAIL ITEMS

STATION TO STATION	LOCATION	SPV.0090.01 SALVAGE AND REINSTALL GUARDRAIL LF	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
*197+47 'EB' - 200+81 'EB'	RT	212.5	62.5	-	-
**199+75 'EB' - 200+25 'EB'	LT	100	-	-	-
299+84 'WB' - 302+50 'WB'	RT	-	212.5	1	1
304+00 'WB'	RT	-	-	-	-
*299+85 'WB' - 302+12 'WB'	LT	200	25	-	-
PROJECT TOTAL		513	300	1	1

*PAY ITEM INCLUDES TWO MGS EAT SYSTEMS AND TWO TYPE 2 TERMINALS

**EXISTING MEDIAN DOUBLE FACED THRIE MEASURED ALONG EACH OF THE RAILS.

MOBILIZATION

STATION	619.1000 EACH
PROJECT LENGTH	1
PROJECT TOTAL	1

MOBILIZATIONS EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
5992-11-11	8	6
PROJECT TOTAL	8	6

MOVING SIGNS

STATION	LOCATION	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	REMARKS
200+75 'EB'	RT	2	-	SIGN BRIDGE
300+05 'EB'	LT	2	1	SIGN BRIDGE
400+27 'CA'	RT	-	3	STOP/STREET SIGNS
PROJECT TOTAL		4	4	

ALL ITEMS ARE PART OF CATEGORY 0040 UNLESS OTHERWISE NOTED

BARRIER SYSTEM GRADING, SHAPING, AND FINISHING

LOCATION	EXCAVATION COMMON** CY	BORROW** CY	SALVAGED TOPSOIL** SY	FERTILIZER TYPE B** CWT	SEEDING** LB	SEED WATER** MGAL	MULCHING** SY	614.0010 EACH
197+47 'EB' - 200+81 'EB', RT	10	20	150	0.06	2.8	4	150	1
299+84 'WB' - 302+50 'WB', RT	6	15	150	0.06	2.8	4	150	1
299+85 'WB' - 302+12 'WB', LT	10	20	150	0.06	2.8	4	150	1
PROJECT TOTAL		55	450	0.2	8	12	450	3

** ITEMS AND QUANTITIES LISTED ARE FOR BID INFORMATION ONLY

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TOPSOIL, MULCHING AND SEEDING

STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL
10+00 'ST' - 13+58 'ST'	RT	122	221	0.01	1	4
10+00 'ST' - 13+59 'ST'	LT	152	252	0.03	1	4
13+73 'ST' - 26+90 'ST'	LT	792	1158	0.27	12	18
13+78 'ST' - 26+89 'ST'	RT	570	905	0.03	1	13
99+95 'NT' - 117+28 'NT'	LT	1841	1841	0.86	35	42
99+97 'NT' - 103+14 'NT'	RT	284	372	0.12	5	9
103+43 'NT' - 117+18 'NT'	RT	1784	2166	0.88	38	41
124+44 'NT' - 126+16 'NT'	RT	204	252	0.10	4	5
124+45 'NT' - 126+19 'NT'	LT	155	204	0.07	3	4
UNDISTRIBUTED (25%)		1496	1850	0.62	30	40
PROJECT TOTAL		7400	9220	3.00	130	180

EROSION CONTROL ITEMS

CATEGOR'	STATION	LOCATION	602.3010 CONCRETE SURFACE DRAINS CY	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	645.0120 GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY	REMARKS
0040	10+00 'ST' - 13+52 'ST'	LT	-	-	352	352	-	-	-	-	-	-	
	13+77 'ST' - 19+28 'ST'	LT	-	-	554	554	-	-	-	-	-	-	
	19+67 'ST' - 25+36 'ST'	RT	-	-	566	566	-	-	-	-	-	-	
	100+55 'NT'	LT/RT	-	-	-	-	-	-	7	-	-	-	
	101+71 'NT' - 103+16 'NT'	RT	-	-	157	157	-	-	-	-	-	-	
	108+95 'NT'	RT	-	-	-	-	-	-	8	-	-	-	
	110+42 'NT' - 112+43 'NT'	LT	-	-	203	203	-	-	-	-	-	-	
	113+18 'NT' - 117+09 'NT'	RT	-	-	395	395	-	-	-	-	-	-	
	117+32'NT'	RT	1.7	2.0	-	-	-	-	-	-	8	14	
	122+81.66'NT'	RT	-	2.5	-	-	-	-	-	-	6	-	
	124+58'NT'	LT	1.3	2.0	-	-	-	-	-	-	8	12	
	134+36 'NT' - 120+79 'NT'	RT	-	-	182	182	-	-	-	-	-	-	
	134+36 'NT' - 121+08 'NT'	LT	-	-	104	104	-	-	-	-	-	-	
	1+16'NC'	RT	-	2.8	-	-	-	-	2	-	-	-	TRAIL CONNECTOR
	COMMERCIAL AVE	LT	-	-	-	-	-	1	-	-	-	-	
	STH 30 WB MEDIAN	RT	-	-	-	-	1	-	-	-	-	-	
	UNDISTRIBUTED (25%)		1.0	3.0	637	637	1	1	5	4	6	-	
	CATEGORY 0040 TOTALS		**4.0**	**12.3**	**3150**	**3150**	**2**	**2**	**22**	**4**	**28**	**26**	
0050	100+55 'NT'	LT/RT	-	2.8	-	-	-	-	-	-	6	-	
	108+95 'NT'	LT/RT	-	4.0	-	-	-	S	-	-	8	-	
	UNDISTRIBUTED (25%)		0	2	0	0	-	0	0	0	4	-	
	CATEGORY 0050 TOTALS		**0**	**8.8**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	
	PROJECT TOTAL		**4.0**	**21.1**	**3150**	**3150**	**2**	**2**	**22**	**4**	**46**	**26**	

3

TRAFFIC CONTROL ITEMS

STAGE	PROJECT LOCATION	APPROX. SERVICE PERIOD DAYS	QTY.	643.0300 TRAFFIC CONTROL DRUMS DAY	QTY.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	QTY.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	QTY.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	QTY.	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	QTY.	*643.0900 TRAFFIC CONTROL SIGNS DAY	QTY.	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY
0	PROJECT LENGTH	7	0	0	0	0	0	0	0	0	0	0	0	0	8	56
1	PROJECT LENGTH	129	70	9,030	17	2,193	34	4,386	12	1,548	4	516	24	3,096	0	0
2	PROJECT LENGTH	99	74	7,326	17	1,683	36	3,564	12	24	6	594	39	3,861	0	0
3	PROJECT LENGTH	3	166	498	22	66	44	132	36	108	4	12	94	282	0	0
	TOTAL			16,854		3,942		8,082		1,680		1,122		7,239		56

*ADDITIONAL ITEMS SHOWN ELSEWHERE IN PLANS

3

ALL ITEMS ARE PART OF CATEGORY 0040 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL PEDESTRIAN ACCESS

STAGE	PROJECT LOCATION	APPROX. SERVICE PERIOD DAYS	QTY	*643.0900 TRAFFIC CONTROL SIGNS DAY	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
1	PROJECT LENGTH	129	25	3,225	160	320
	TOTAL			3,225	160	320

*ADDITIONAL ITEMS SHOWN ELSEWHERE IN PLANS

CONSTRUCTION STAKING

STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-13-0898) EACH	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT (S-13-0111) EACH	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT (S-13-0112) EACH	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500 CONSTRUCTION STAKING SIDEWALK (5992-11-11) EACH	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5992-11-11) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
10+00 'ST' - 27+05 'ST'	LT/RT	3410	3410	16	-	-	-	-	1	-	-	3410
98+81 'NT'	LT/RT	-	-	-	-	-	-	-	1	-	-	-
99+84 'NT' - 99+96 'NT'	LT/RT	-	-	20	-	-	-	-	-	-	-	-
99+96 'NT' - 117+33 'NT'	LT/RT	3474	3474	-	-	-	-	-	-	-	-	3474
100+55 'NT'	LT/RT	-	-	-	1	-	-	-	-	-	-	-
108+95 'NT'	LT/RT	-	-	-	1	-	-	-	-	-	-	-
124+56 'NT' - 126+21 'NT'	LT/RT	330	330	16	-	-	-	-	1	-	-	330
1+00 'NC' - 1+53 'NC'	LT/RT	53	53	-	-	-	-	-	-	-	-	53
1+16'NC'	LT/RT	-	-	-	1	-	-	-	2	-	-	-
4+00'TD' - 24+00'TD'	RT	-	-	20	-	-	-	-	-	-	-	-
PROJECT LENGTH	LT/RT	-	-		-	1	1	1	-	1	1	-
PROJECT TOTAL		7267	7267	72	3	1	1	1	5	1	1	7267

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET 44	E

ALL ITEMS ARE PART OF CATEGORY 0040 UNLESS OTHERWISE NOTED

FIELD OFFICE TYPE C

STATION	642.5201 EACH
PROJECT LENGTH	1
PROJECT TOTAL	1

PAVEMENT MARKING SYMBOLS

STATION	LOCATION	646.5220 MARKING SYMBOL EPOXY EACH	REMARKS
STA 27+05 'ST' - 99+80 'NT'	LT	5	SEE SDD 15C29-08B, SHARROW
STA 27+05 'ST' - 99+80 'NT'	RT	5	SEE SDD 15C29-08B, SHARROW
PROJECT TOTAL		10	

SAWING

STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
13+55 'ST'	RT	9	-
13+66 'ST'	LT	9	-
15+30 'ST'	RT	7	-
17+03 'ST'	RT	8	-
18+60 'ST'	RT	11	-
25+34 'ST'	RT	8	-
27+03 'ST'	LT & RT	32	5
99+83 'NT'	LT & RT	24	5
126+19 'NT'	LT & RT	22	5
14+00'TD'	RT	24	5
PROJECT TOTAL		154	20

SPECIAL ITEMS: CATEGORY 0040

STATION	LOCATION	SPV.0180.01 CONCRETE PAVEMENT APPROACH SLAB SY
117+33 - 117+42'NT'	LT & RT	17
124+47 - 124+56'NT'	LT & RT	18
PROJECT TOTAL		35

WALL MODULAR BLOCK GRAVITY LANDSCAPE

STATION	LOCATION	SPV.0165.01 SF	SPV.0165.02 SF	513.8006 RAILING STEEL PEDESTRIAN TYPE C1 LF
01. STA 117+35'SW'	LT	26	-	10
02. STA 124+60'NW'	RT	-	59	21
PROJECT TOTAL		26	59	31

CULVERT PIPE ITEMS: CATEGORY 0050

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	522.0412 CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	522.0418 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE (%)	REMARKS
100+54 'NT'	LT/RT	1	-	-	-	-	-	-		EXISTING 12-INCH CPRC
100+55 'NT'	LT/RT	-	18	-	2	-	901.28	901.10	1.00%	
108+95 'NT'	LT/RT	-	-	24	-	2	918.78	917.81	4.04%	
1+16 'NC'	LT/RT	-	16	-	2	-	908.91	908.59	2.00%	NORTH TRAIL CONNECTOR
PROJECT TOTAL		1	34	24	4	2				

MAINTENANCE AND REPAIR OF
HAUL ROADS (5992-11-11): CATEGORY 0060

STATION	618.0100 EACH
PROJECT LENGTH	1
PROJECT TOTAL	1

SPECIAL ITEMS: CATEGORY 0060

STATION	LOCATION	SPV.0060.01 ADJUST WATER VALVE BOX SECTIONS EACH	SPV.0060.02 ADJUSTING SANITARY MANHOLE COVERS EACH
22+72 'ST'	RT	-	1
26+88 'ST'	LT/RT	1	-
101+34 'NT'	LT/RT	-	1
102+84 'NT'	RT	-	1
PROJECT TOTAL		1	3

STREET LIGHTING CONDUIT (MADISON)

			652.0235	652.0225	SPV.0090.02 *	
			CONDUIT RIGID NONMETALLIC SCHEDULE 40		FURNISH AND INSTALL 3 #4 AND 1 #8 WIRES	
			3-INCH	2-INCH		
CATEGORY	From	To	LF	LF	LF	Comments
0050	LC1	MGE	18	18	-	STUB FOR FUTURE USE
	LC1	L999	-	6	6	
	LC1	L1000	-	178	178	
	L1000	L1001	-	178	178	
	L1001	L1002	-	175	175	
	L1002	L1003	-	175	175	
	L1003	L1004	-	200	200	
	L1004	L1005	-	150	150	
	L1005	L1006	-	180	180	
	L1006	L1007	-	185	185	
	L1007	L1008	-	161	161	
	L1008	L1009	-	150	150	
	LC2	MGE	40	-	-	
	LC2	HH2	-	10	10	
	HH2	SL10230	-	27	27	
	SL10230	SL10229	-	140	140	
	LC2	L1021	-	5	5	
	L1021	L1022	-	120	120	
	HH2	HH1	-	-	320	WIRING OVER BRIDGE
	HH1	SL10231	-	11	11	
	L1020	L1019	-	120	120	
	L1019	L1018	-	175	175	
	L1018	L1017	-	175	175	
	L1017	L1016	-	175	175	
	L1016	L1015	-	180	180	
	L1015	L1014	-	190	190	
	L1014	L1013	-	165	165	
	L1013	L1012	-	175	175	
	L1012	L1011	-	170	170	
	L1011	L1010	-	165	165	
	PROJECT TOTAL		58	3759	4061	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

HANDHOLES (MADISON-LIGHTING - CATEGORY 0050)

					SPV.0060.09
STATION	OFFSET	DESCRIPTION	HANDHOLE TYPE 1 EACH	COMMENTS	
STA 118+37	12' L	HH1	1		
STA 125+72	17' L	HH2	1		
PROJECT TOTAL			2		

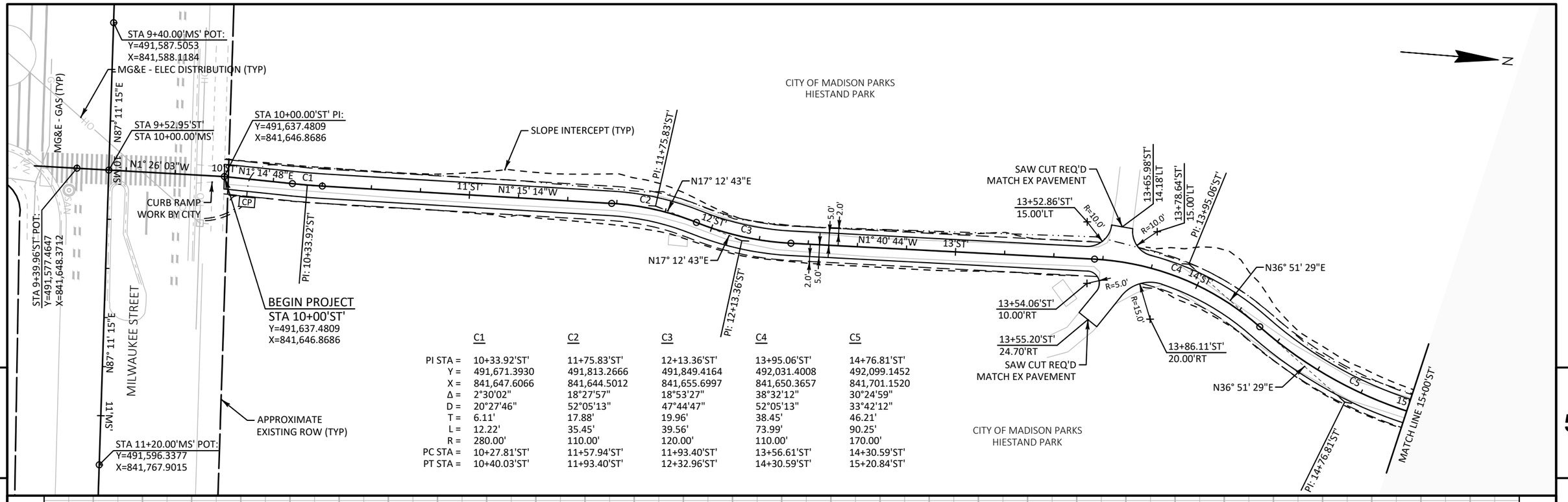
LIGHTING CONTROL CABINET ITEMS

			SPV.0060.06 LIGHTING CONTROL CABINET	656.0201 ELECTRICAL SERVICE METER BREAKER PEDESTALS	656.0201
				01. LC1	02. LC2
CATEGORY	DESCRIPTION	LOCATION	EACH	EACH	EACH
0050	LC1	MILWAUKEE ST & PORTLAND PARKWAY	1	1	
	LC2	COMMERCIAL AVENUE & ZIEGLER ROAD	1		1
	PROJECT TOTAL		2	1	1

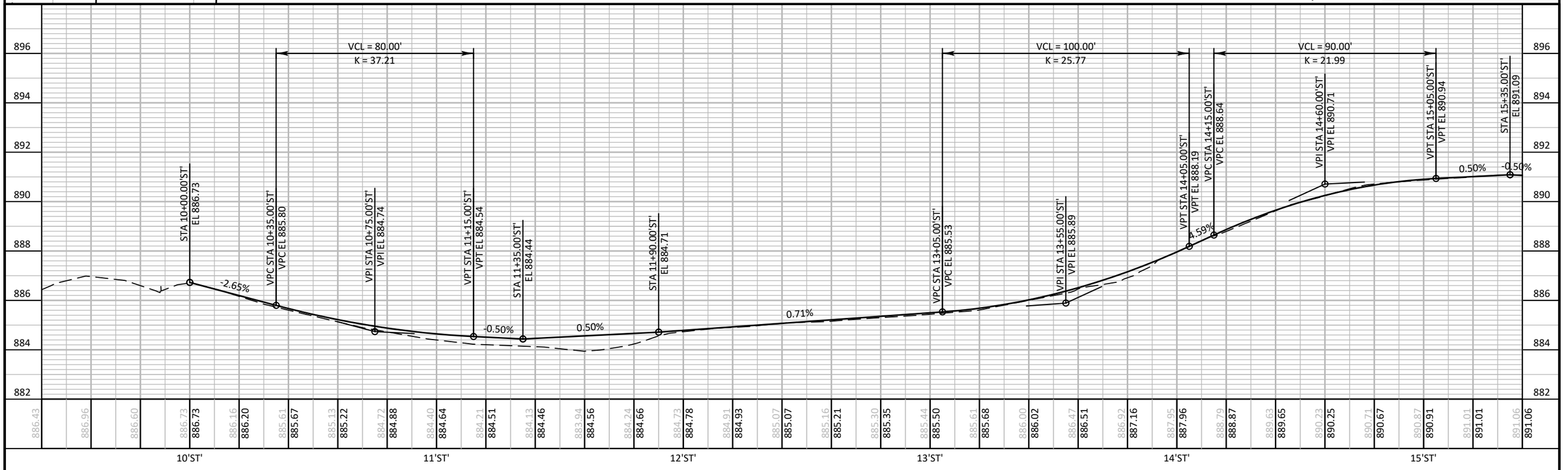
STREET LIGHT BASES (CATEGORY 0050)

STATION	OFFSET	DESCRIPTION	SPV.0060.12 CONCRETE BASE TYPE P (EACH)	SPV.0060.10 CONCRETE BASE TYPE LB-1 (EACH)	SPV.0060.11 CONCRETE BASE TYPE LB-2 (EACH)	SPV.0060.05 POLE 30-FOOT 11 GAUGE (BLACK) (EACH)	SPV.0060.04 POLE ALUMINUM 20-FOOT STREET LIGHT (BLACK) (EACH)	SPV.0060.03 LED LUMINAIRE AND MOUNTING BRACKET TYPE 1 (EACH)	SPV.0090.02 * FURNISH AND INSTALL 3 #4 AND 1#8 WIRES (LF)
STA 10+03	9'R	LC1	1						
STA 10+03	8'R	L999		1			1	1	25
STA 11+77	8'L	L1000		1			1	1	25
STA 13+57	9'L	L1001		1			1	1	25
STA 15+20	8'L	L1002		1			1	1	25
STA 16+88.5	8'L	L1003		1			1	1	25
STA 18+80	12'R	L1004		1			1	1	25
STA 20+20	8'L	L1005		1			1	1	25
STA 21+91	8'L	L1006		1			1	1	25
STA 23+72	8'L	L1007		1			1	1	25
STA 25+35	8'L	L1008		1			1	1	25
STA 26+85	8'L	L1009		1			1	1	25
STA 125+70	8'L	LC2	1						
STA 100+00	8'L	L1010		1			1	1	25
STA 101+59	8'L	L1011		1			1	1	25
STA 103+19	12'R	L1012		1			1	1	25
STA 104+84	8'L	L1013		1			1	1	25
STA 106+59	8'L	L1014		1			1	1	25
STA 107+25	8'L	L1015		1			1	1	25
STA 110+12	8'L	L1016		1			1	1	25
STA 111+86	8'L	L1017		1			1	1	25
STA 113+61	8'L	L1018		1			1	1	25
STA 115+37	8'L	L1019		1			1	1	25
STA 117+12	8'L	L1020		1			1	1	25
STA 125+65	8'L	L1021		1			1	1	25
STA 124+47	8'R	L1022		1			1	1	25
STA 122+65	27'L	SL10229			1	1		1	35
STA 121+36	15'L	SL10230			1	1		1	35
STA 118+25	15'L	SL10231			1	1		1	35
		PROJECT TOTAL	2	24	3	3	24	27	705

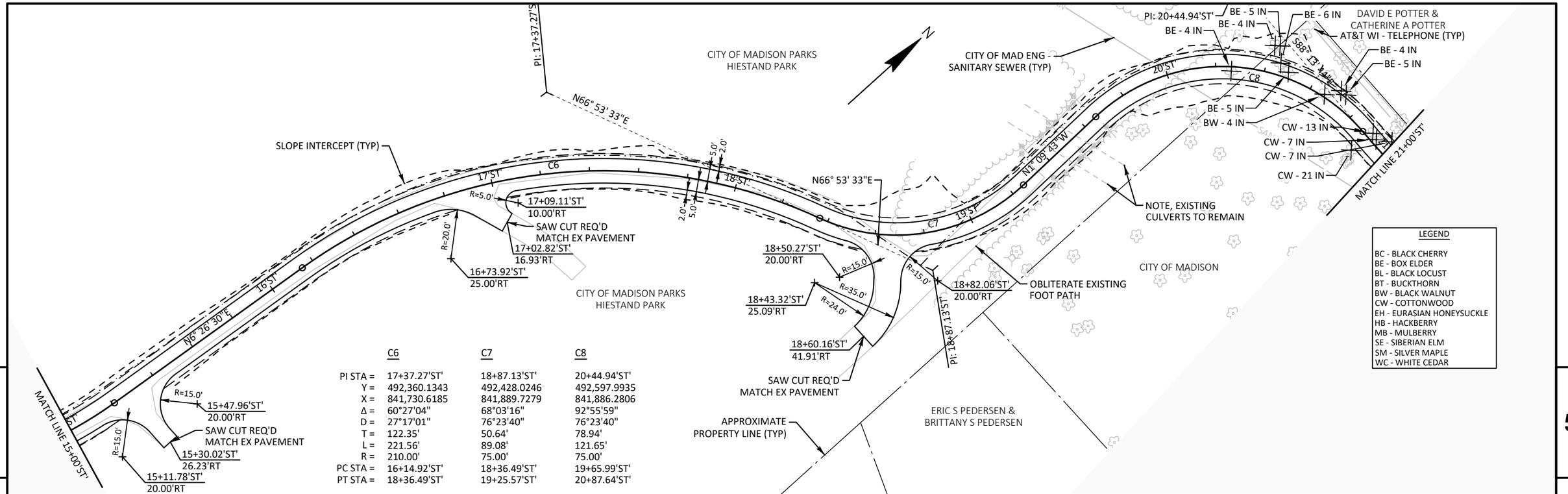
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE



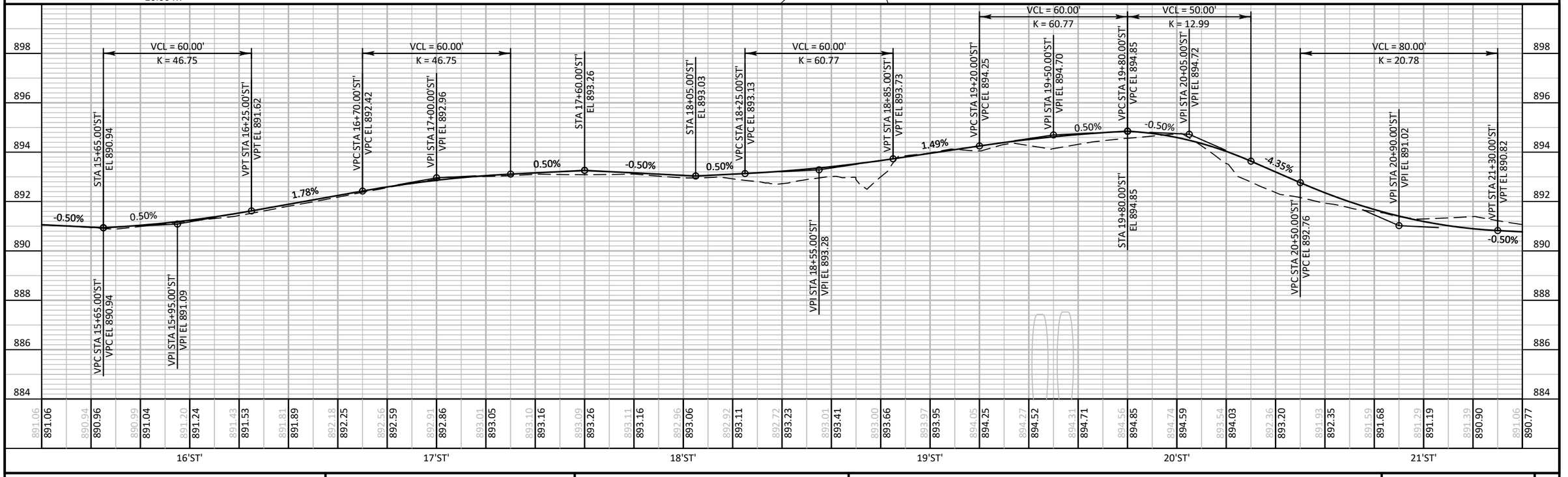
	C1	C2	C3	C4	C5
PI STA =	10+33.92'ST'	11+75.83'ST'	12+13.36'ST'	13+95.06'ST'	14+76.81'ST'
Y =	491,671.3930	491,813.2666	491,849.4164	492,031.4008	492,099.1452
X =	841,647.6066	841,644.5012	841,655.6997	841,650.3657	841,701.1520
Δ =	2°30'02"	18°27'57"	18°53'27"	38°32'12"	30°24'59"
D =	20°27'46"	52°05'13"	47°44'47"	52°05'13"	33°42'12"
T =	6.11'	17.88'	19.96'	38.45'	46.21'
L =	12.22'	35.45'	39.56'	73.99'	90.25'
R =	280.00'	110.00'	120.00'	110.00'	170.00'
PC STA =	10+27.81'ST'	11+57.94'ST'	11+93.40'ST'	13+56.61'ST'	14+30.59'ST'
PT STA =	10+40.03'ST'	11+93.40'ST'	12+32.96'ST'	14+30.59'ST'	15+20.84'ST'



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN AND PROFILE SOUTH TRAIL SEGMENT	SHEET 48 E



	C6	C7	C8
PI STA =	17+37.27'ST'	18+87.13'ST'	20+44.94'ST'
Y =	492,360.1343	492,428.0246	492,597.9935
X =	841,730.6185	841,889.7279	841,886.2806
Δ =	60°27'04"	68°03'16"	92°55'59"
D =	27°17'01"	76°23'40"	76°23'40"
T =	122.35'	50.64'	78.94'
L =	221.56'	89.08'	121.65'
R =	210.00'	75.00'	75.00'
PC STA =	16+14.92'ST'	18+36.49'ST'	19+65.99'ST'
PT STA =	18+36.49'ST'	19+25.57'ST'	20+87.64'ST'



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN AND PROFILE SOUTH TRAIL SEGMENT	SHEET 49 E

DAVID E POTTER &
CATHERINE A POTTER

PAUL W JOHNSON &
MICHELLE LEHTOLA -
JOHNSON

URSELA SZUMSKI

MICHAEL J DEVRIES &
ELLEN J DEVRIES

TONY A GOOSSENS &
LYDENA M GOOSSENS

TONY A GOOSSENS
& LYDENA M
GOOSSENS

CITY OF MADISON

CITY OF MADISON

STEIN AVE

MATCH LINE 21+00 ST'

AT&T WI - TELEPHONE (TYP)

APPROXIMATE
PROPERTY LINE (TYP)

APPROXIMATE
EXISTING ROW (TYP)

	C9	C10
PI STA =	22+27.10'ST'	25+50.07'ST'
Y =	492,591.2430	492,814.9773
X =	842,104.5744	842,355.8806
Δ =	43°26'58"	78°30'51"
D =	16°22'13"	229°10'59"
T =	139.46'	20.43'
L =	265.42'	34.26'
R =	350.00'	25.00'
PC STA =	20+87.64'ST'	25+29.64'ST'
PT STA =	23+53.06'ST'	25+63.90'ST'

STA 26+88'ST', 0' RT
ADJUSTING WATER
VALVES REQ'D

END CONSTRUCTION
SOUTH SEGMENT
STA 27+05'ST'

STA 26+80.00'ST' POT:
Y=492,932.9852
X=842,287.2193

MG&E - GAS (TYP)

CITY OF MAD ENG - SANITARY
SEWER (TYP)

LEGEND

BC - BLACK CHERRY
BE - BOX ELDER
BL - BLACK LOCUST
BT - BUCKTHORN
BW - BLACK WALNUT
CW - COTTONWOOD
EH - EURASIAN HONEYSUCKLE
HB - HACKBERRY
MB - MULBERRY
SE - SIBERIAN ELM
SM - SILVER MAPLE
WC - WHITE CEDAR

CW - 27 IN
CW - 22 IN
CW - 17 IN
CW - 26 IN
BE - 4 IN
CW - 32 IN
CW - 30 IN
CW - 30 IN
CW - 18 IN
CW - 18 IN
SLOPE INTERCEPT (TYP)
CW - 17 IN
BT - 4 IN
BT - 5 IN
CW - 21 IN
BT - 4 IN
MG&E - ELEC DISTRIBUTION (TYP)
MB - 8 IN
CW - 11 IN
CW - 28 IN
CW - 14 IN
MB - 9 IN
CW - 18 IN
BT - 4 IN
HB - 6 IN
MB - 8 IN
BT - 5 IN
BW - 7 IN
MB - 4 IN
MB - 8 IN
BW - 11 IN
CW - 28 IN
MB - 9 IN
BE - 5 IN
BC - 10 IN
MB - 6 IN
MB - 6 IN
CW - 26 IN
BW - 8 IN
CW - 22 IN
BT - 4 IN
CW - 21 IN
MB - 9 IN
BC - 12 IN
CW - 26 IN
WC - 4 IN
CW - 23 IN
MB - 6 IN

S68° 13' 44"E

N48° 19' 18"E

N30° 11' 33"W

R=100.0'

R=10.0'

C9

C10

22'ST

23'ST

24'ST

25'ST

26'ST

2.0'
5.0'
5.0'
2.0'

25+61.36'ST'
5.16'RT
25+51.36'ST'
8.26'RT

25+26.71'ST'
15.00'RT
25+33.86'ST'
24.85'RT
25+43.34'ST'
14.18'RT

PI: 22+27.10'ST'

PI: 25+50.07'ST'

STA 22+72'ST', 14' RT
ADJUSTING SANITARY SEWER
MANHOLE COVERS REQ'D

SAW CUT REQ'D MATCH EX PAVEMENT

CITY OF MAD ENG - SANITARY SEWER (TYP)

CITY OF MAD ENG - SANITARY SEWER (TYP)

VCL = 100.00'
K = 22.68

VCL = 30.00'
K = 6.80

STA 22+75.00'ST'
EL 890.10

STA 23+50.00'ST'
EL 890.47

VPC STA 25+10.00'ST'
VPC EL 891.28

VPI STA 25+60.00'ST'
VPI EL 891.53

VPT STA 26+10.00'ST'
VPT EL 893.99

VPC STA 26+45.00'ST'
VPC EL 895.71

VPI STA 26+60.00'ST'
VPI EL 896.44

VPT STA 26+75.00'ST'
VPT EL 896.52

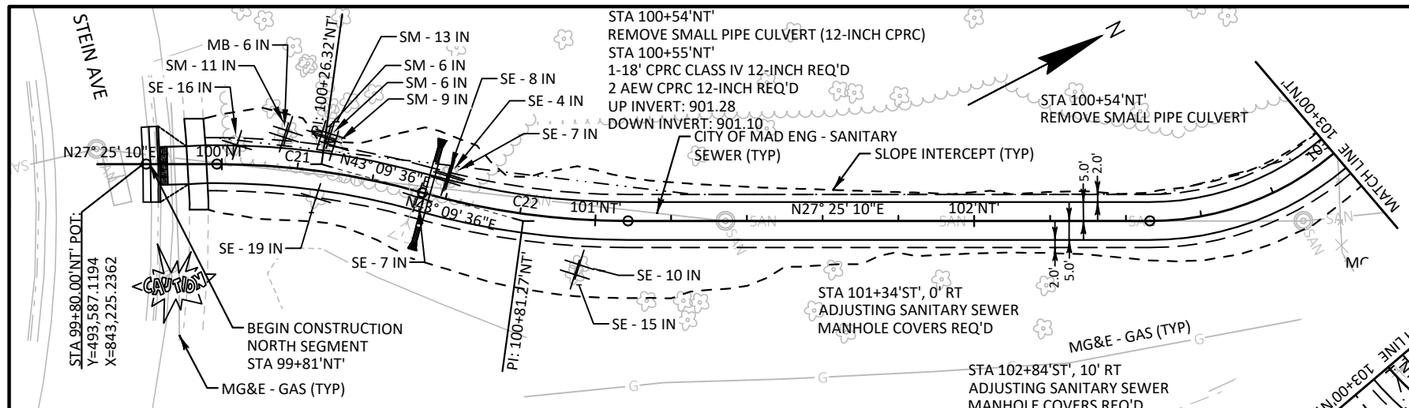
STA 26+89.40'ST'
EL 896.59

STA 27+02.70'ST'
EL 896.10

STA 26+94.40'ST'
EL 896.52

-0.50%
0.50%
0.50%
4.91%
0.50%
-1.50%
-5.00%

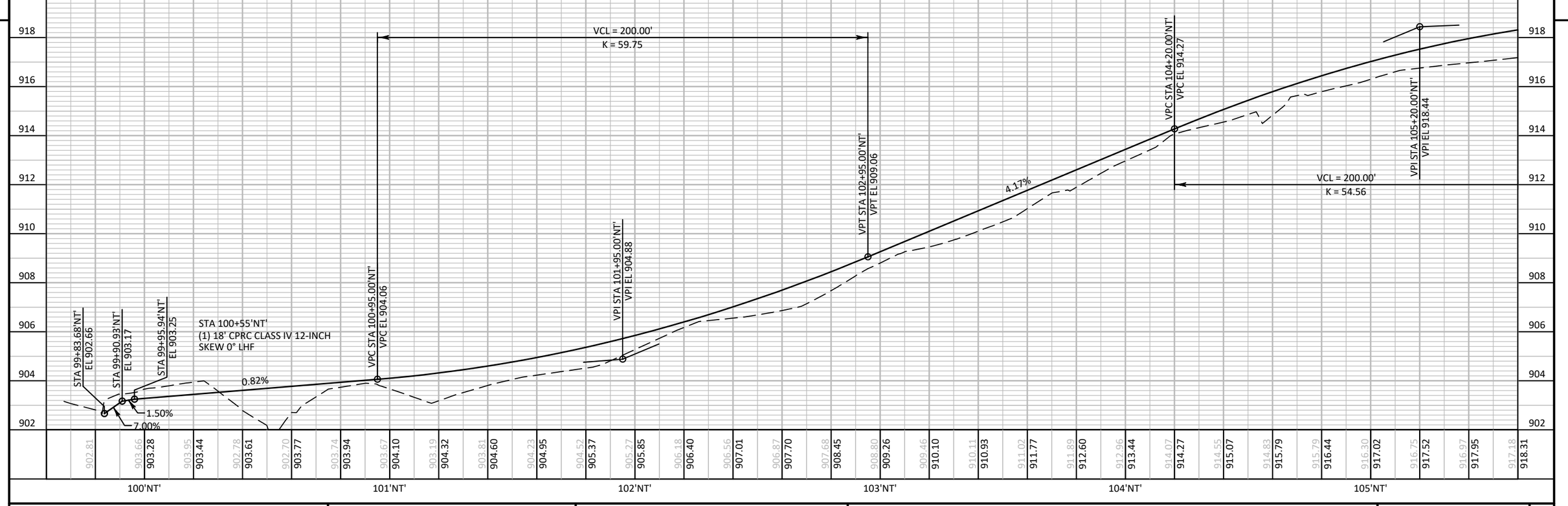
| | | |



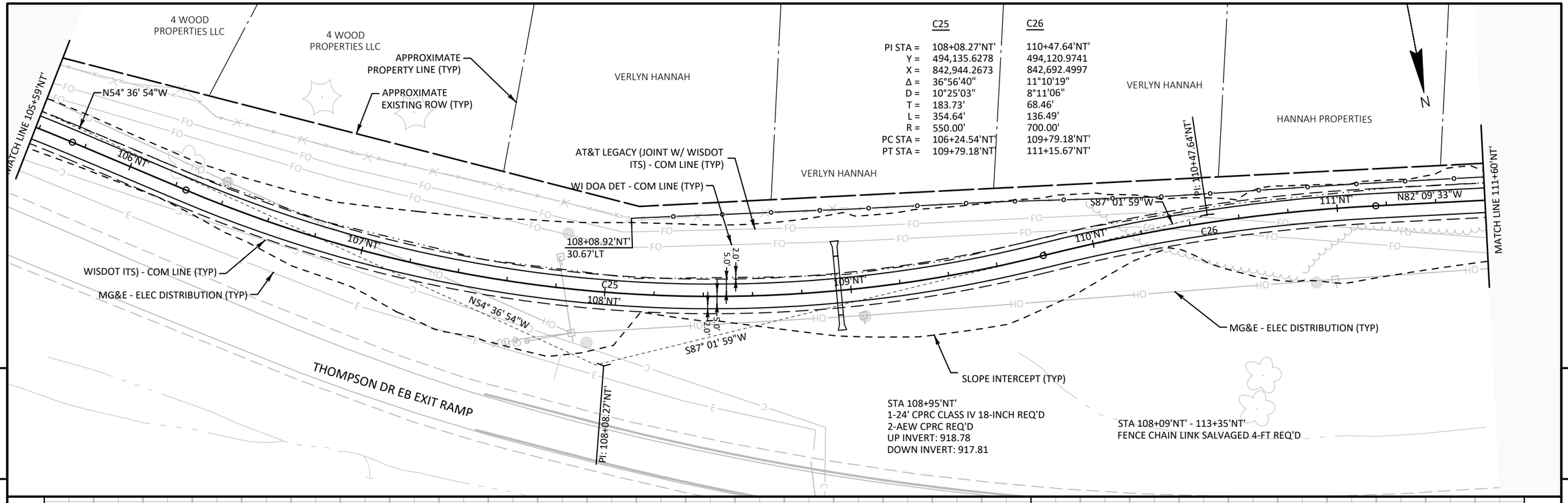
	C21	C22	C23
PI STA =	100+26.32'NT'	100+81.27'NT'	103+35.61'NT'
Y =	493,628.2381	493,668.5714	493,894.6477
X =	843,246.5680	843,284.3906	843,401.6752
Δ =	15°44'26"	15°44'26"	99°58'04"
D =	28°38'52"	28°38'52"	76°23'40"
T =	27.65'	27.65'	89.33'
L =	54.94'	54.94'	130.86'
R =	200.00'	200.00'	75.00'
PC STA =	99+98.68'NT'	100+53.62'NT'	102+46.28'NT'
PT STA =	100+53.62'NT'	101+08.57'NT'	103+77.13'NT'

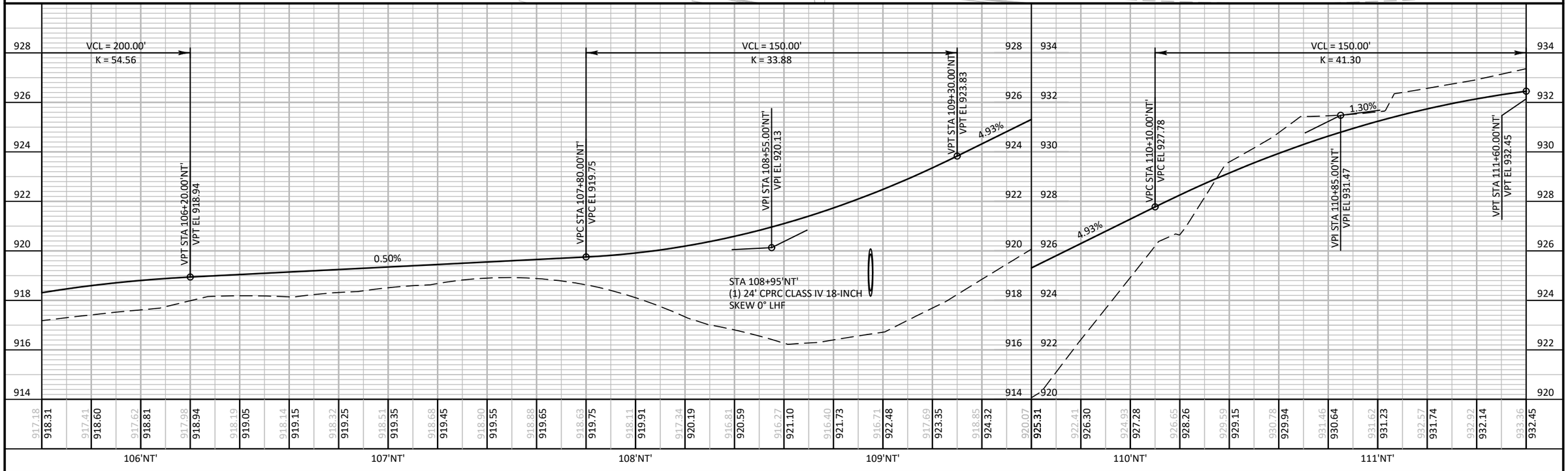
LEGEND

BC - BLACK CHERRY
BE - BOX ELDER
BL - BLACK LOCUST
BT - BUCKTHORN
BW - BLACK WALNUT
CW - COTTONWOOD
EH - EURASIAN HONEYSUCKLE
HB - HACKBERRY
MB - MULBERRY
SE - SIBERIAN ELM
SM - SILVER MAPLE
WC - WHITE CEDAR



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN AND PROFILE NORTH TRAIL SEGMENT	SHEET 51 E

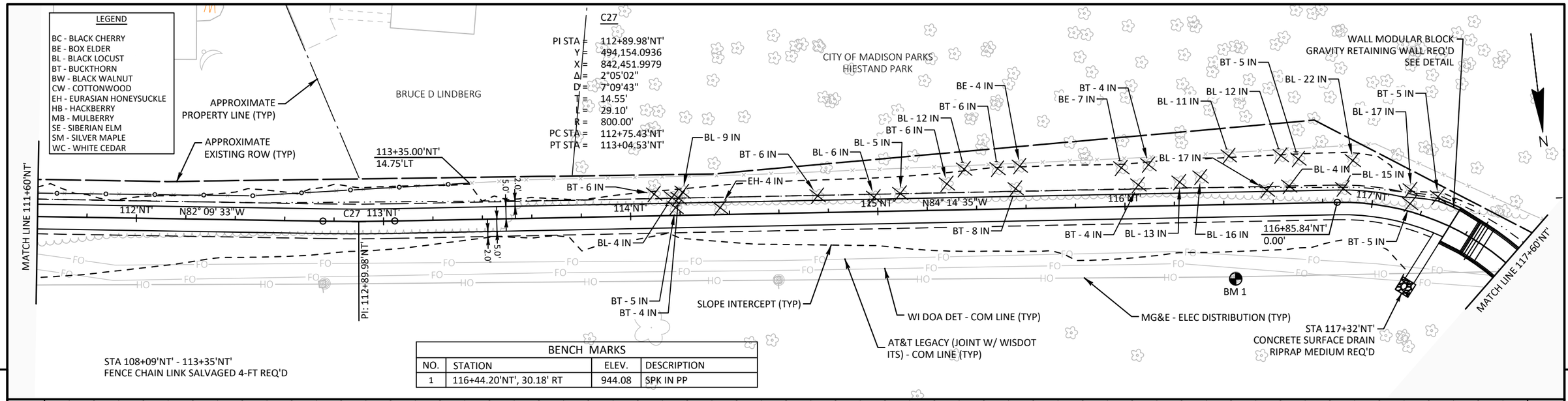




PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN AND PROFILE NORTH TRAIL SEGMENT	SHEET 52 E

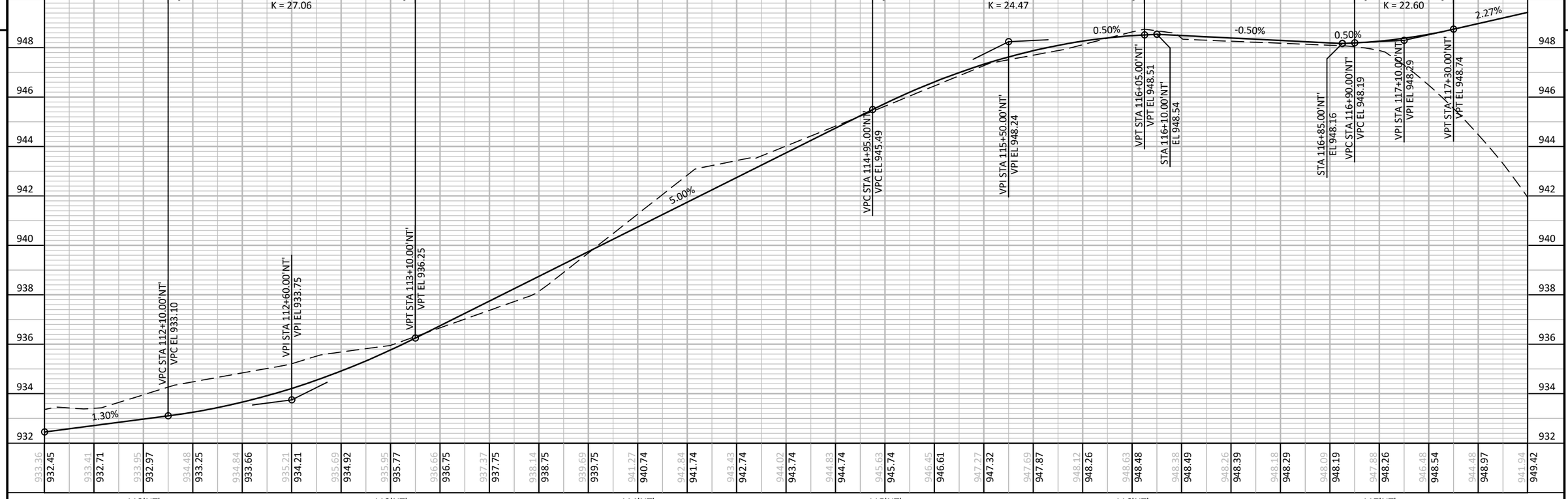
FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 05 Plan & Profile\050100_pp (PnP - Autumn Ridge Trail).dwg
LAYOUT NAME - 05
PLOT DATE : 7/29/2023 12:22 PM
PLOT BY : SEH
LAYOUT NAME : 05
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



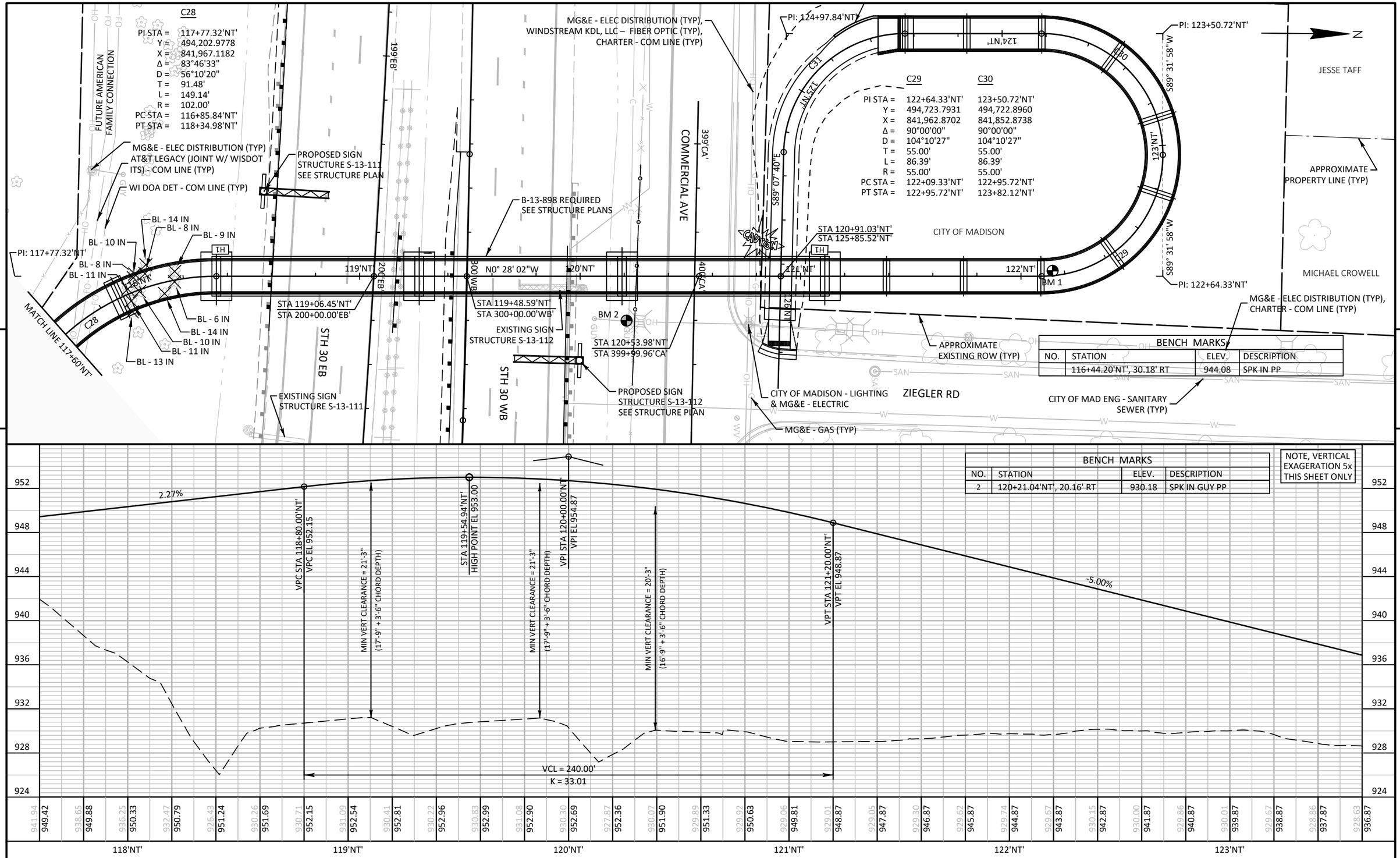
STA 108+09'NT' - 113+35'NT'
FENCE CHAIN LINK SALVAGED 4-FT REQ'D

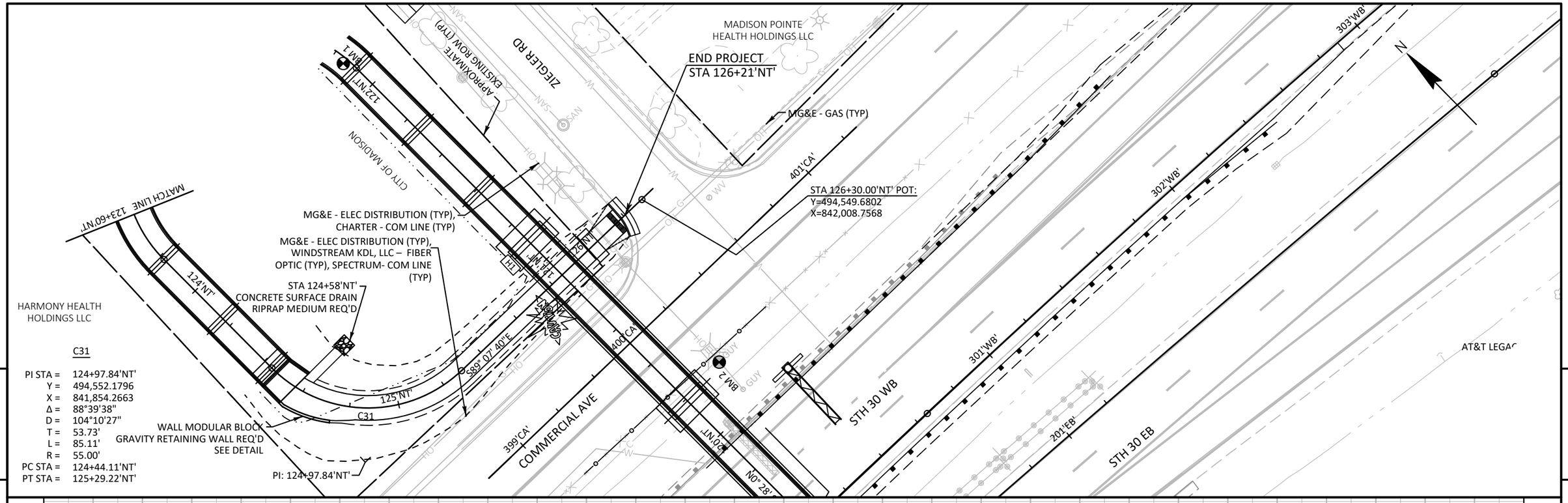
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	116+44.20'NT', 30.18' RT	944.08	SPK IN PP

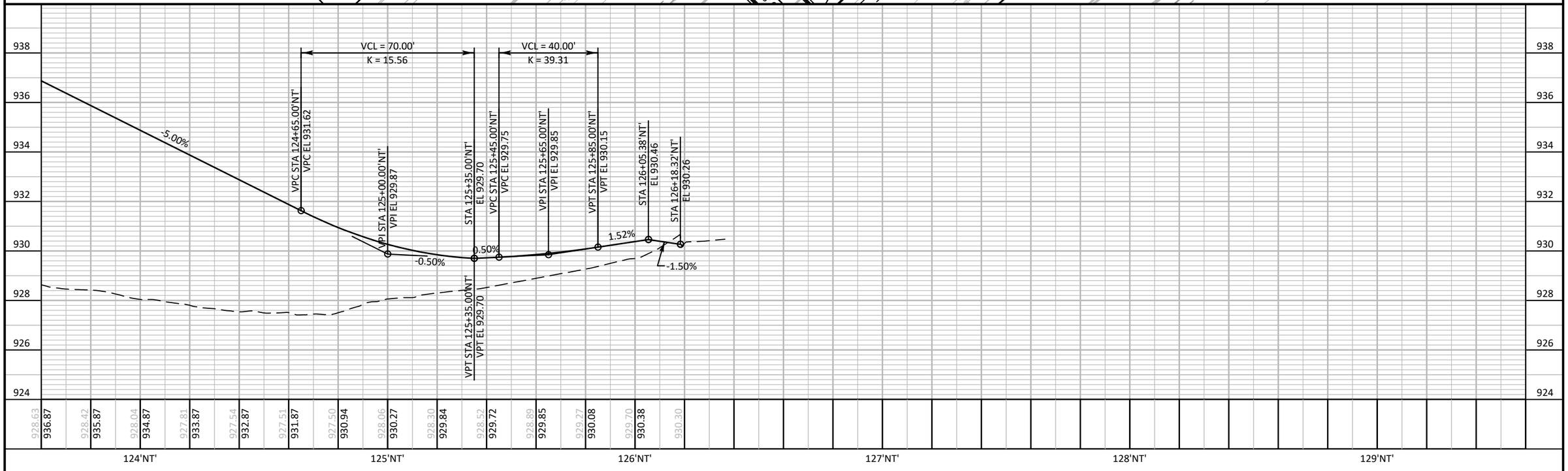


PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN AND PROFILE NORTH TRAIL SEGMENT	SHEET 53 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 05 Plan & Profile\050100_pp (PnP - Autumn Ridge Trail).dwg
LAYOUT NAME - 06
PLOT DATE : 10/12/2023 12:01 PM
PLOT BY : SEH
LAYOUT NAME : 06
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

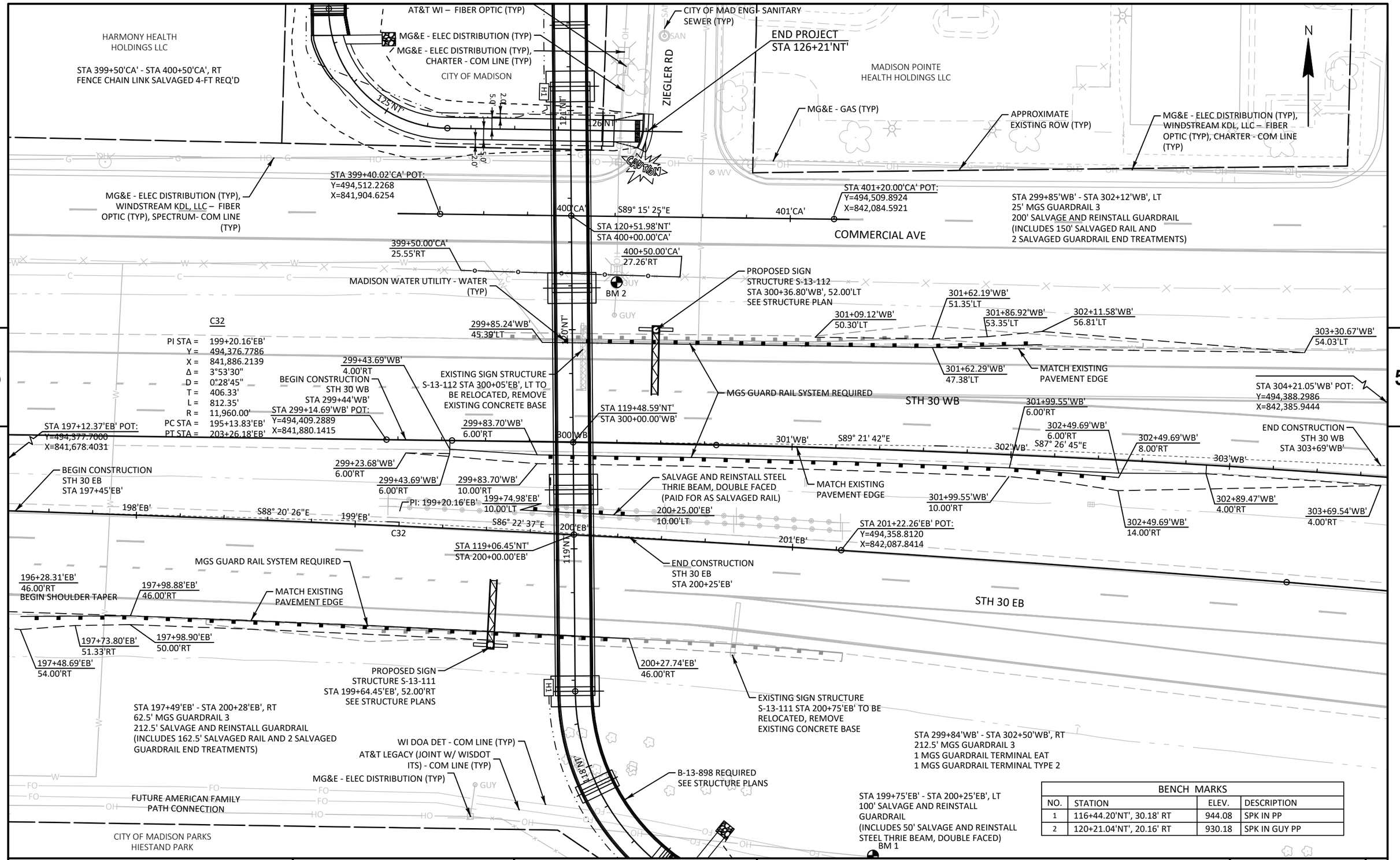

C28
PI STA = 117+77.32'NT'
Y = 494,202.9778
X = 841,967.1182
Δ = 83°46'33"
D = 56°10'20"
T = 91.48'
L = 149.14'
R = 102.00'
PC STA = 116+85.84'NT'
PT STA = 118+34.98'NT'
FUTURE AMERICAN FAMILY CONNECTION
MG&E - ELEC DISTRIBUTION (TYP)
AT&T LEGACY (JOINT W/ WISDOT ITS) - COM LINE (TYP)
WI DOA DET - COM LINE (TYP)
PROPOSED SIGN STRUCTURE S-13-111 SEE STRUCTURE PLAN
B-13-898 REQUIRED SEE STRUCTURE PLANS
MG&E - ELEC DISTRIBUTION (TYP), WINDSTREAM KDL, LLC – FIBER OPTIC (TYP), CHARTER - COM LINE (TYP)
PI: 124+97.84'NT'
PI: 123+50.72'NT'
PI: 122+64.33'NT'
PI: 117+77.32'NT'
C29
C30
PI STA = 122+64.33'NT' 123+50.72'NT'
Y = 494,723.7931 494,722.8960
X = 841,962.8702 841,852.8738
Δ = 90°00'00" 90°00'00"
D = 104°10'27" 104°10'27"
T = 55.00' 55.00'
L = 86.39' 86.39'
R = 55.00' 55.00'
PC STA = 122+09.33'NT' 122+95.72'NT'
PT STA = 122+95.72'NT' 123+82.12'NT'
CITY OF MADISON
JESSE TAFF
MICHAEL CROWELL
APPROXIMATE PROPERTY LINE (TYP)
APPROXIMATE EXISTING ROW (TYP)
MG&E - ELEC DISTRIBUTION (TYP), CHARTER - COM LINE (TYP)
CITY OF MADISON - LIGHTING & MG&E - ELECTRIC
MG&E - GAS (TYP)
CITY OF MAD ENG - SANITARY SEWER (TYP)
ZIEGLER RD
COMMERCIAL AVE
STH 30 EB
STH 30 WB
EXISTING SIGN STRUCTURE S-13-111
EXISTING SIGN STRUCTURE S-13-112
PROPOSED SIGN STRUCTURE S-13-112 SEE STRUCTURE PLAN
STA 119+06.45'NT' STA 200+00.00'EB'
STA 119+48.59'NT' STA 300+00.00'WB'
STA 120+53.98'NT' STA 399+99.96'CA'
STA 120+91.03'NT' STA 125+85.52'NT'
N0° 28' 02"W
S89° 31' 58"W
S89° 07' 40"E
BM 1
BM 2
MATCH LINE 117+60'NT'
BL - 14 IN
BL - 8 IN
BL - 9 IN
BL - 10 IN
BL - 11 IN
BL - 6 IN
BL - 13 IN
199'EB'
200'EB'
300'WB'
399'CA'
400'CA'
119'NT'
120'NT'
121'NT'
122'NT'
123'NT'
124'NT'
125'NT'
26'NT'
C31
C32
C33
C34
C35
C36
C37
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C70





PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN AND PROFILE NORTH TRAIL SEGMENT	SHEET 55 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 05 Plan & Profile\050100_pp (PnP - Autumn Ridge Trail).dwg
LAYOUT NAME - 08
PLOT DATE : 10/11/2023 11:53 PM
PLOT BY : SEH
LAYOUT NAME : 08
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	116+44.20'NT', 30.18' RT	944.08	SPK IN PP
2	120+21.04'NT', 20.16' RT	930.18	SPK IN GUY PP

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	PLAN: STH 30	SHEET 56 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SheetsPlan\SEC 05 Plan & Profile\050200_pn (Plan STH 30).dwg PLOT DATE : 10/12/2023 11:13 AM PLOT BY : SEH LAYOUT NAME : 09 PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

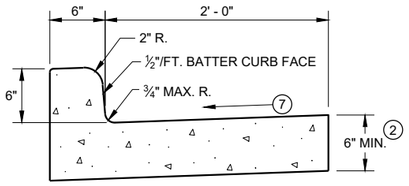
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-09A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-09B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B47-05A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09D	ON RAMP LANE CLOSURE
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

6

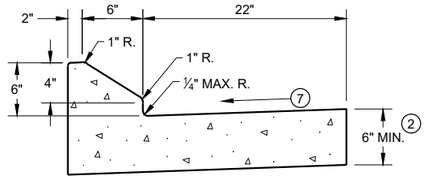
Standard Detail Drawing List

15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C29-08B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15D12-11A	TRAFFIC CONTROL, LANE CLOSURE
15D12-11B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-11C	TRAFFIC CONTROL, DYNAMIC LATE MERGE SYSTEM
15D12-11D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D12-11E	TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM
15D15-07A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D42-01	TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE

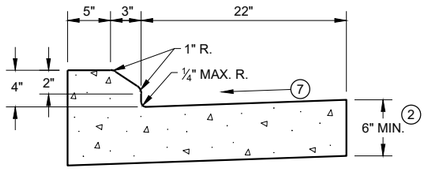
6



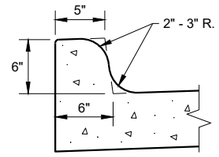
TYPES A (1) & D



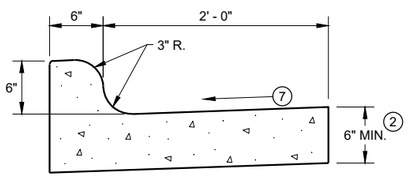
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

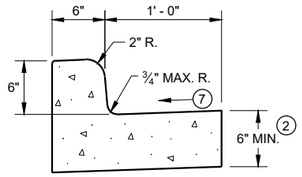


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



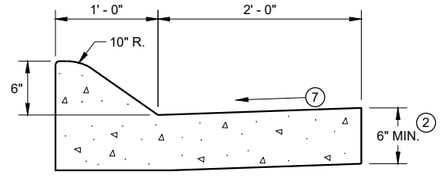
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

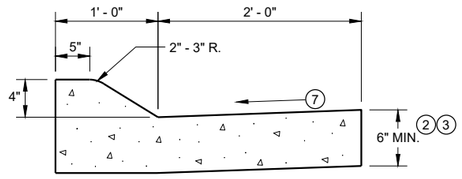


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

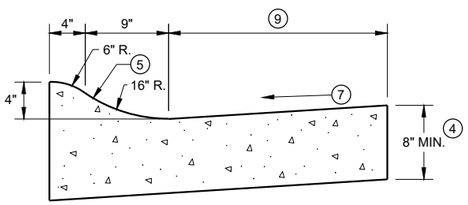


6" SLOPED CURB TYPES A (1) & D



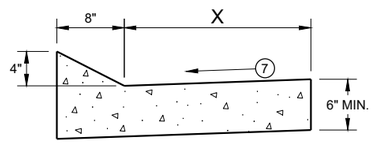
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

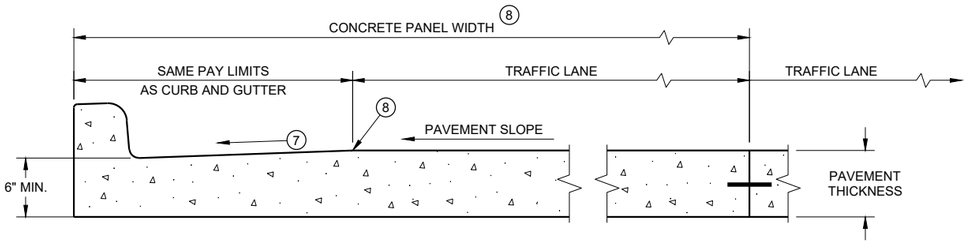


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

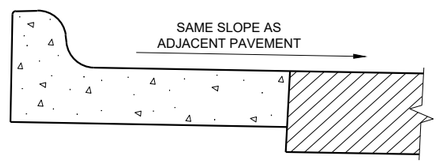
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

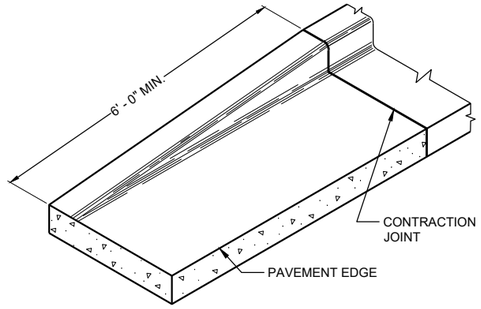
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

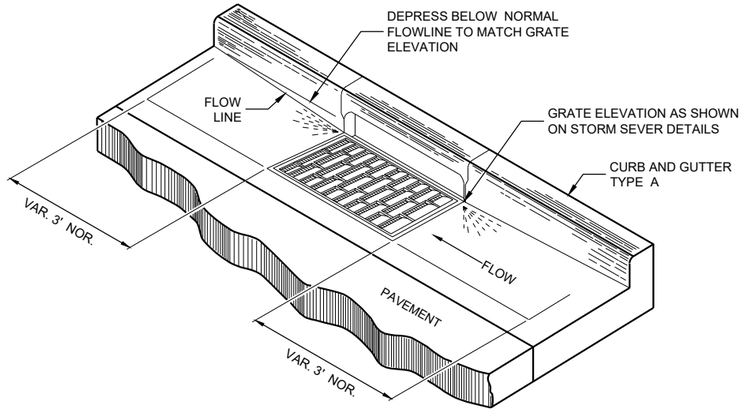
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 23a



END SECTIONCURB 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.

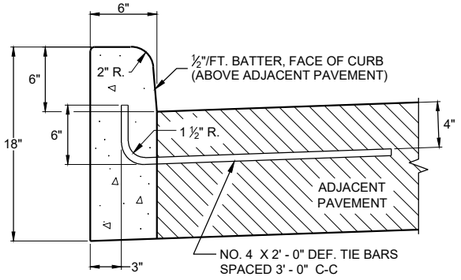
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

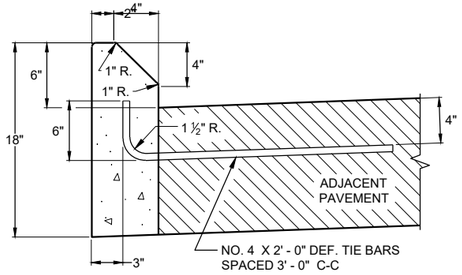
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

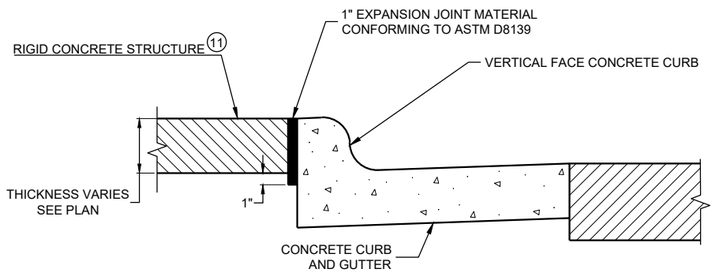


TYPES A (1) & D

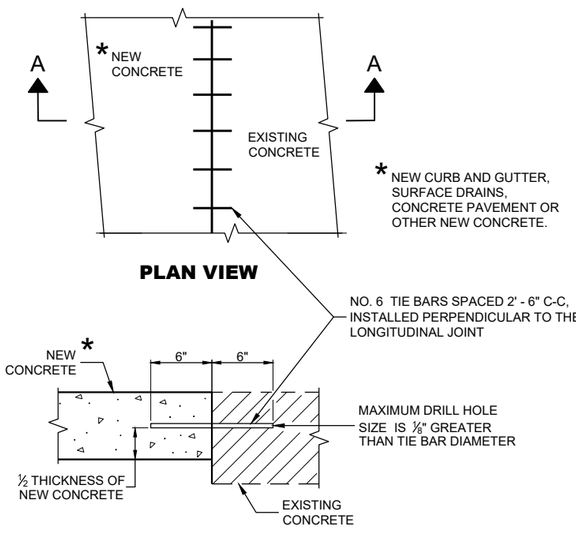


TYPES G (1) & J

CONCRETE CURB



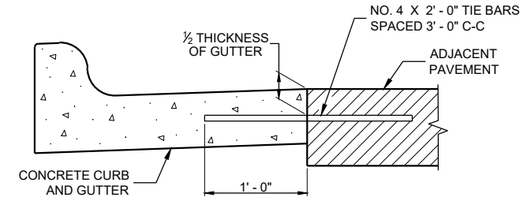
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



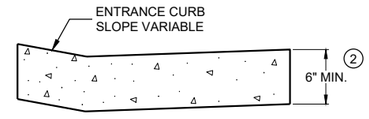
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD08D01 - 23b

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.

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

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

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

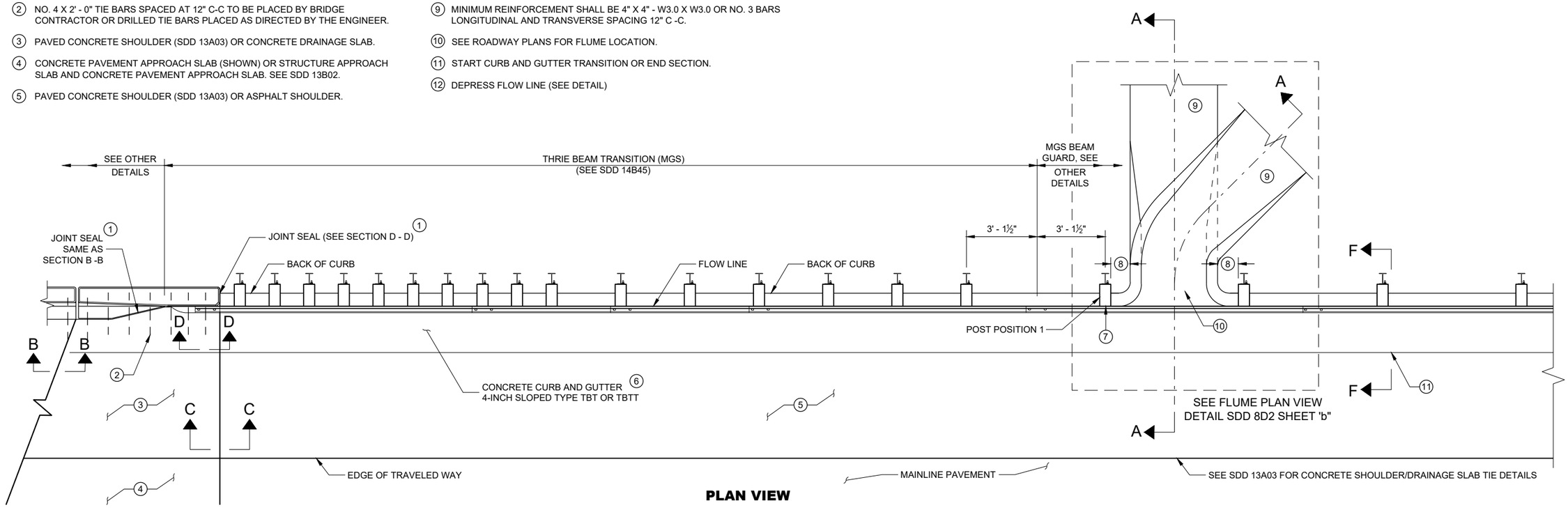
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

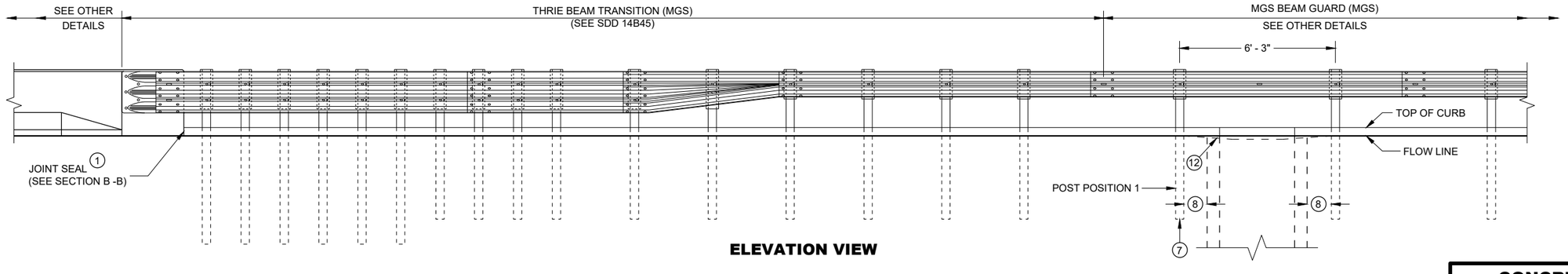
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



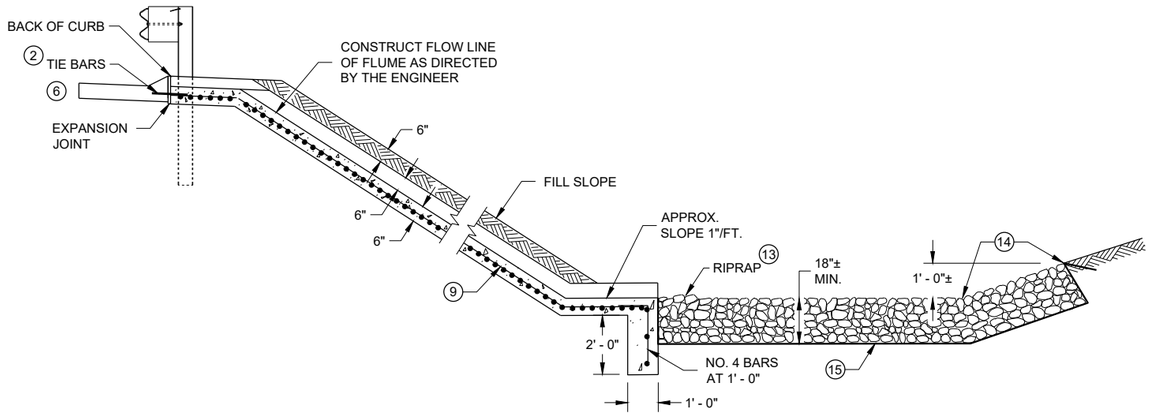
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

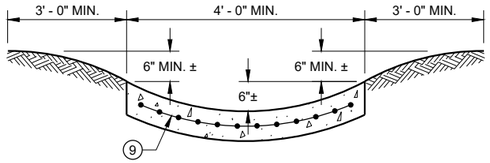
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

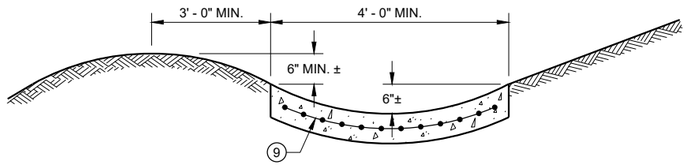
SDD 08D02 - 08a



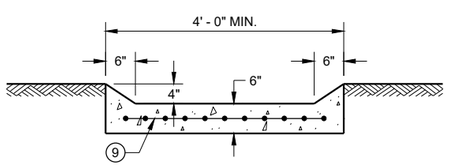
SECTION A - A



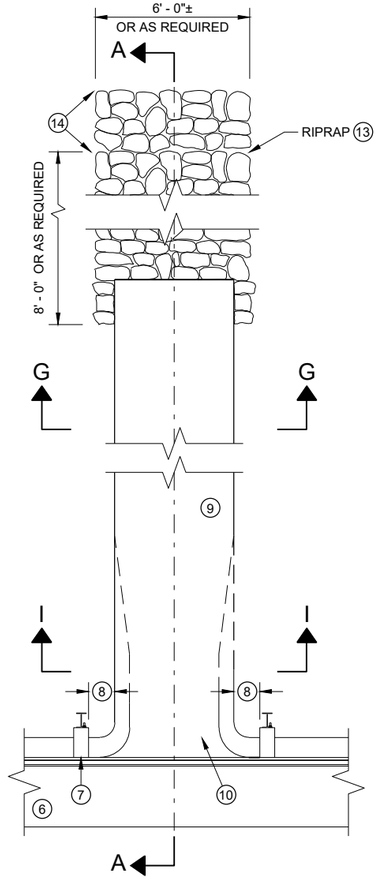
SECTION G - G



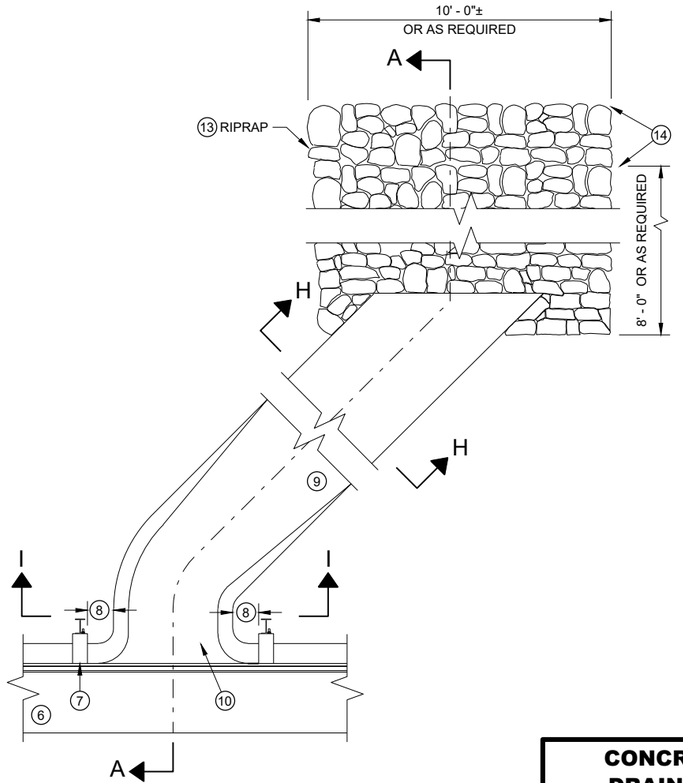
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

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

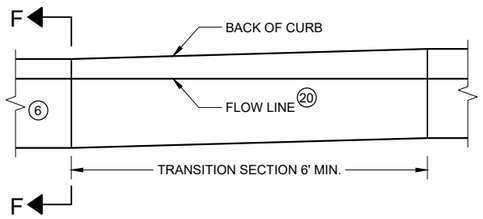
1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

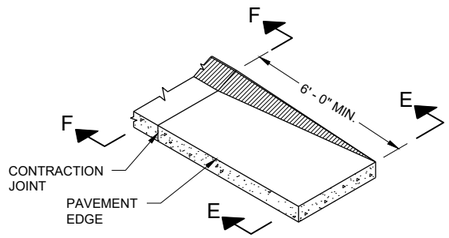
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

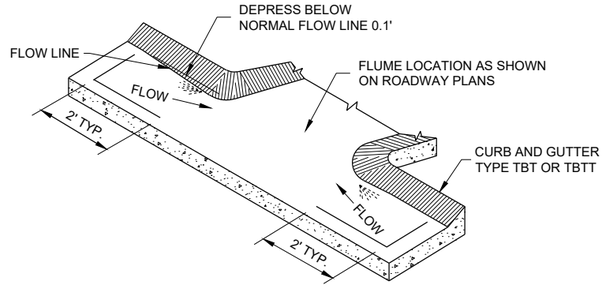
SDD 08D02 - 08b



CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

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.

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

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

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

(9) MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

(11) START CURB AND GUTTER TRANSITION OR END SECTION.

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(14) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(15) GEOTEXTILE TYPE HR.

(16) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

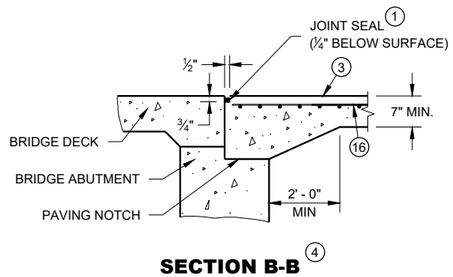
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(18) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

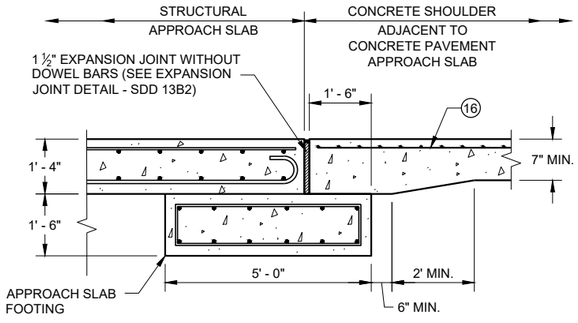
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(20) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

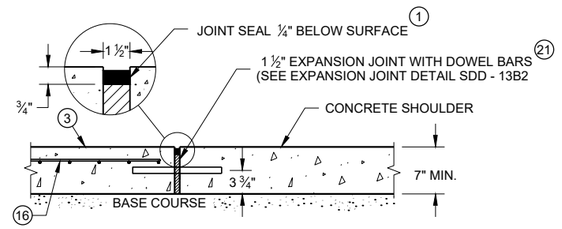
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



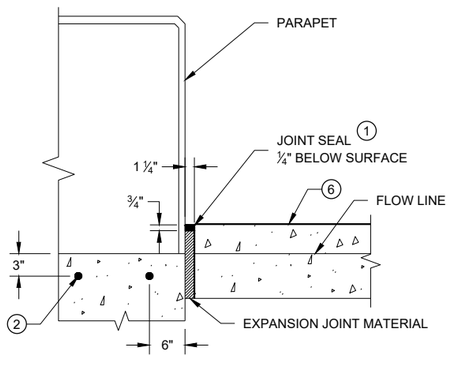
SECTION B-B (4)



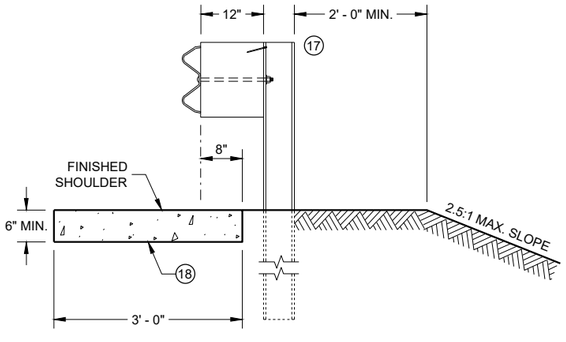
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



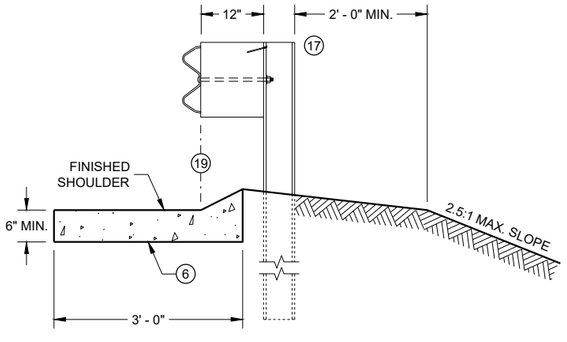
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

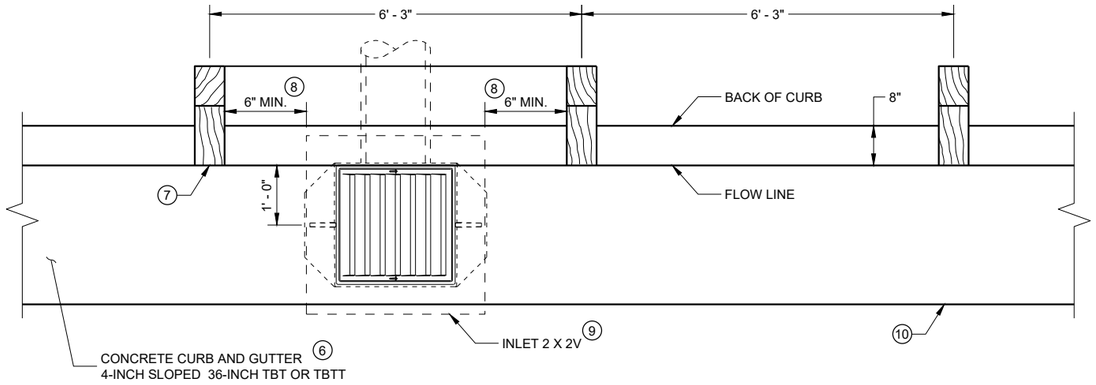
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

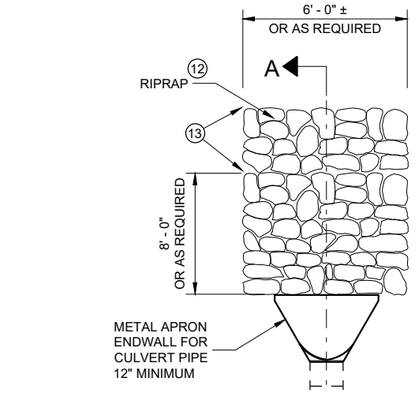
SDD 08D02 - 08c

6



INLET PLAN VIEW

(NOTE: RAIL NOT SHOWN FOR CLARITY)

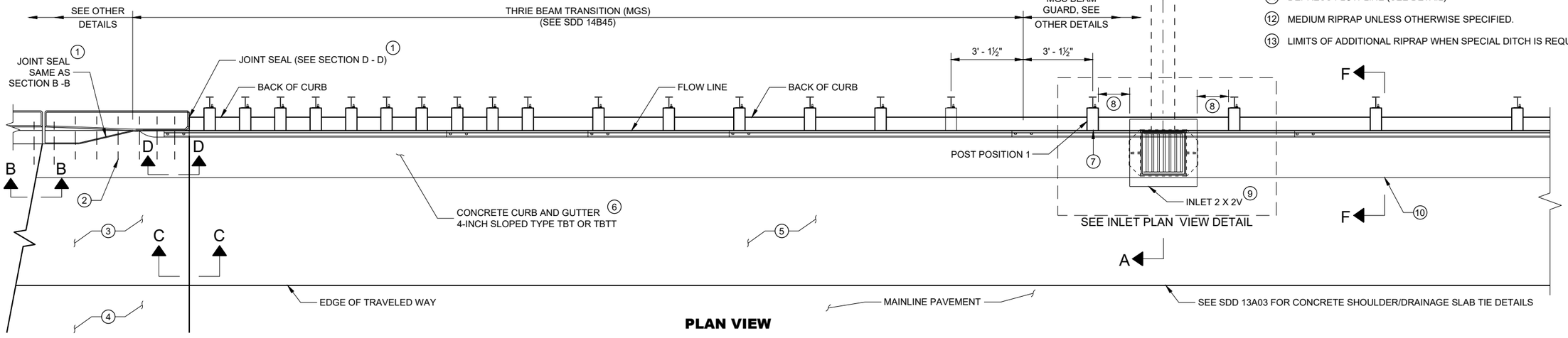


GENERAL NOTES

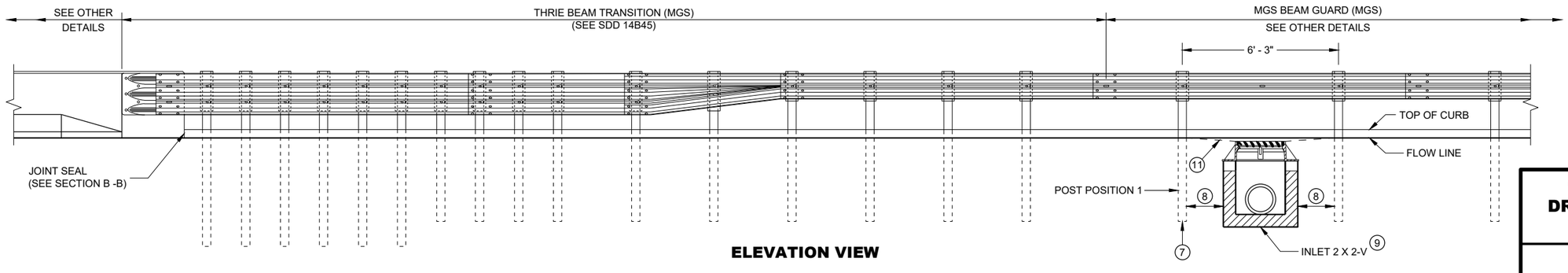
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ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
9. SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
10. START CURB AND GUTTER TRANSITION OR END SECTION.
11. DEPRESS FLOW LINE (SEE DETAIL)
12. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
13. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



PLAN VIEW



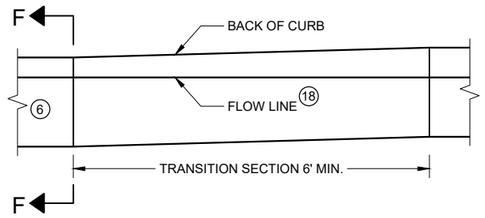
ELEVATION VIEW

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

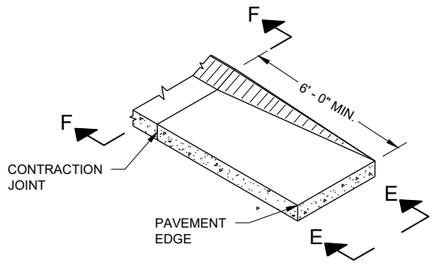
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D03 - 09a

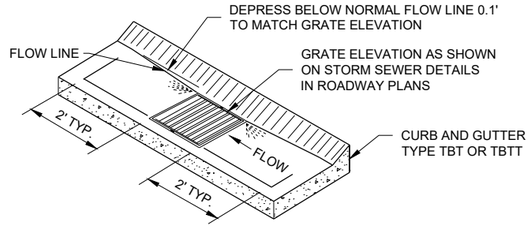
SDD 08D03 - 09a



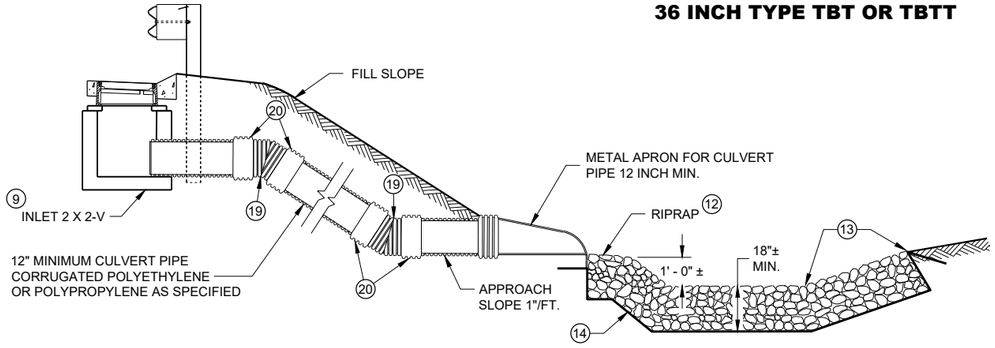
CURB AND GUTTER TRANSITION SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



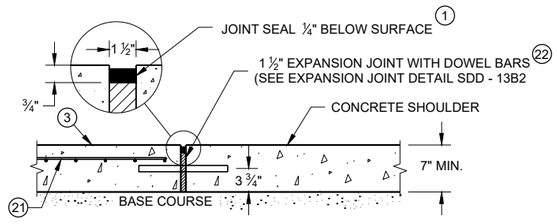
CURB AND GUTTER END SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION AT INLETS CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

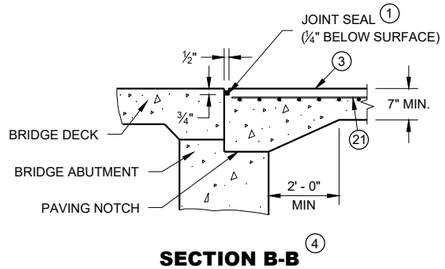


SECTION A - A

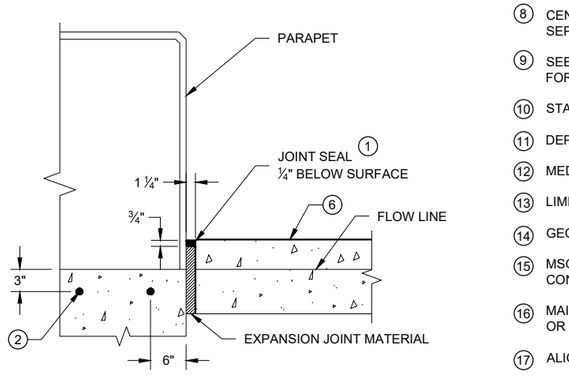


SECTION C - C

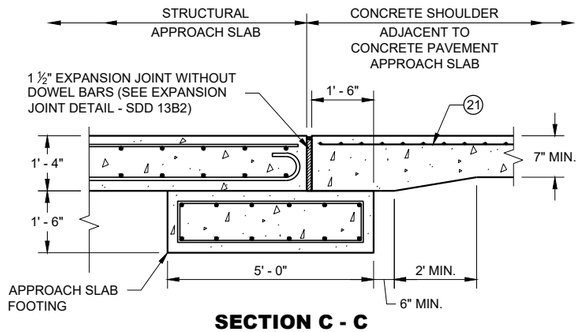
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION B-B 4

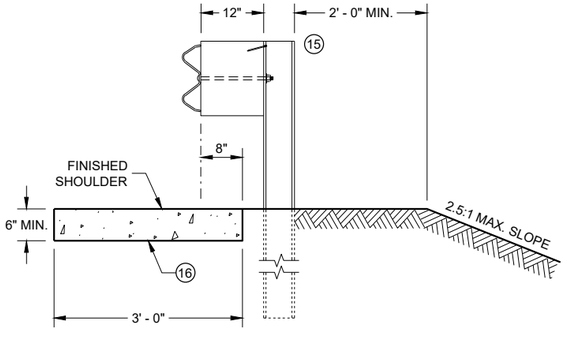


SECTION D - D

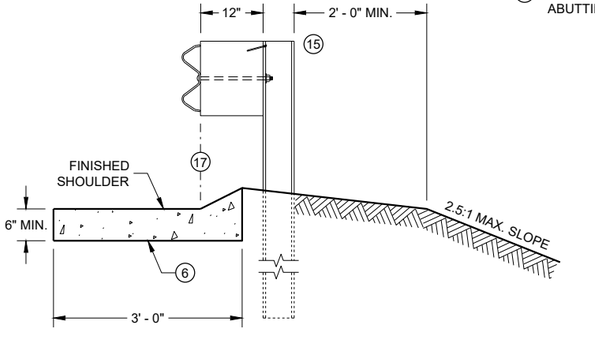


SECTION C - C

JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



SECTION E - E



SECTION F - F

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.

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

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

(2) NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.

(9) SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.

(10) START CURB AND GUTTER TRANSITION OR END SECTION.

(11) DEPRESS FLOW LINE (SEE DETAIL)

(12) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(13) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(14) GEOTEXTILE TYPE HR.

(15) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(16) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

(17) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(18) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

(19) MANUFACTURER SUPPLIED BEND.

(20) MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.

(21) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

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

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

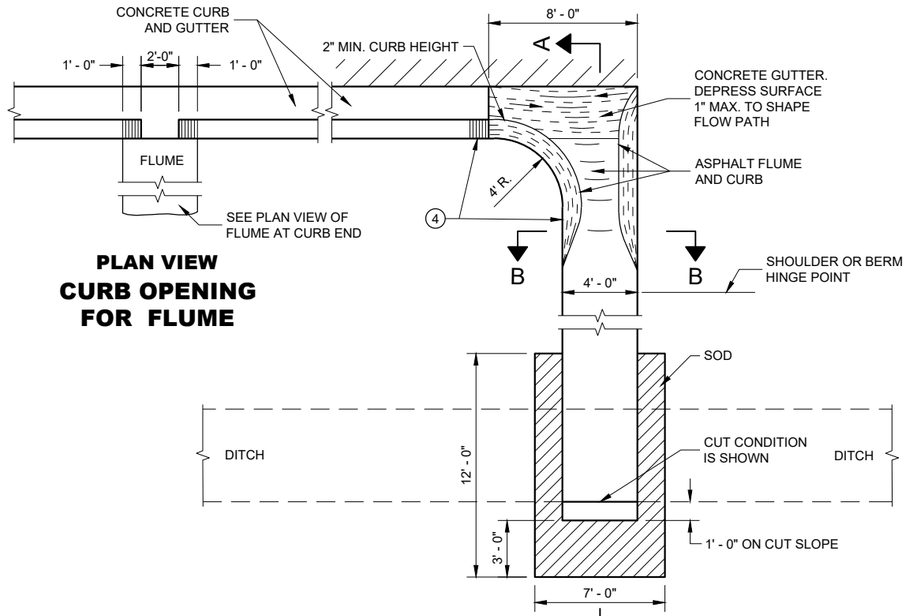
FHWA

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SDD 08D03 - 09b

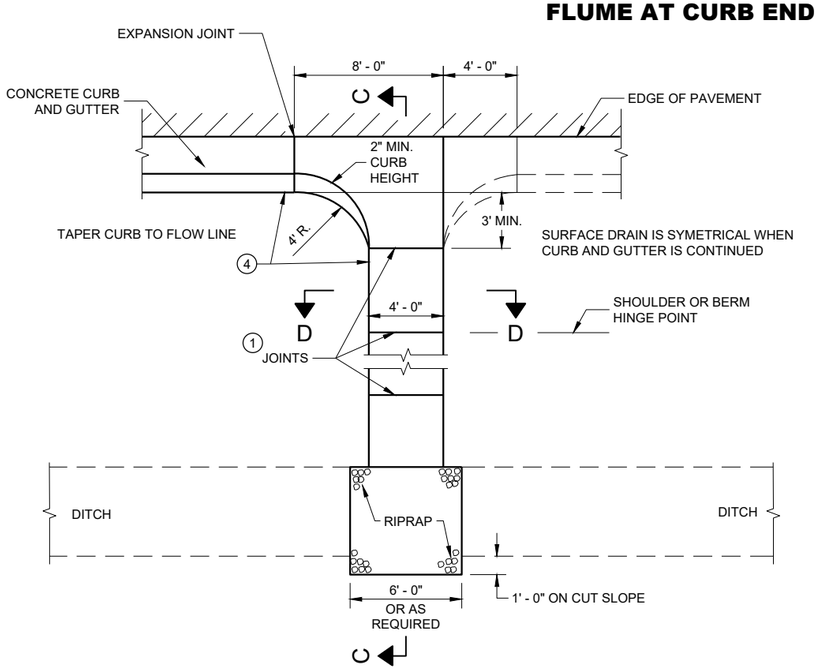
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



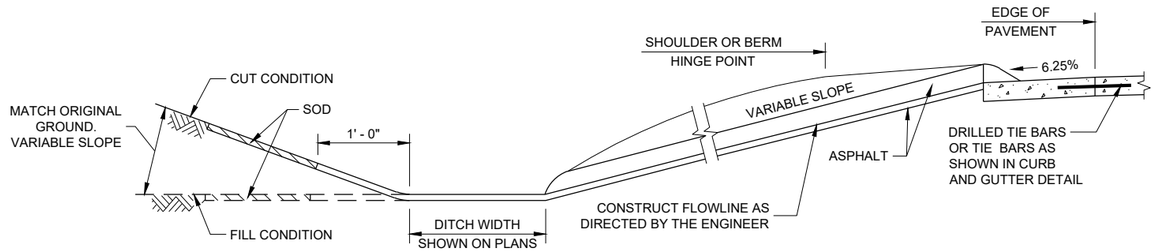
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

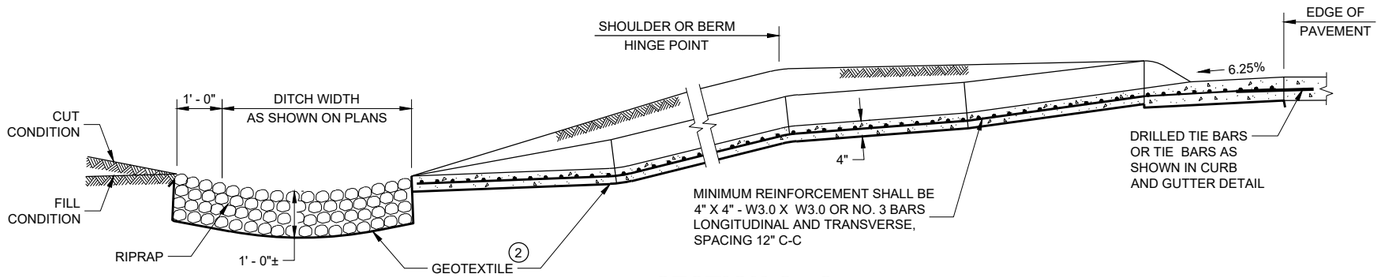
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

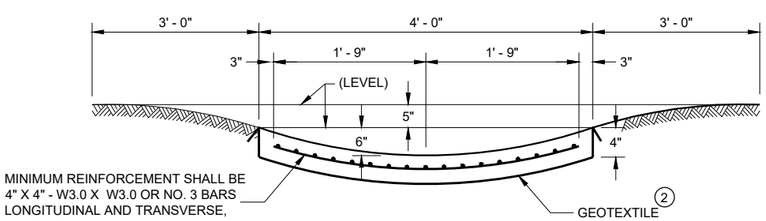


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

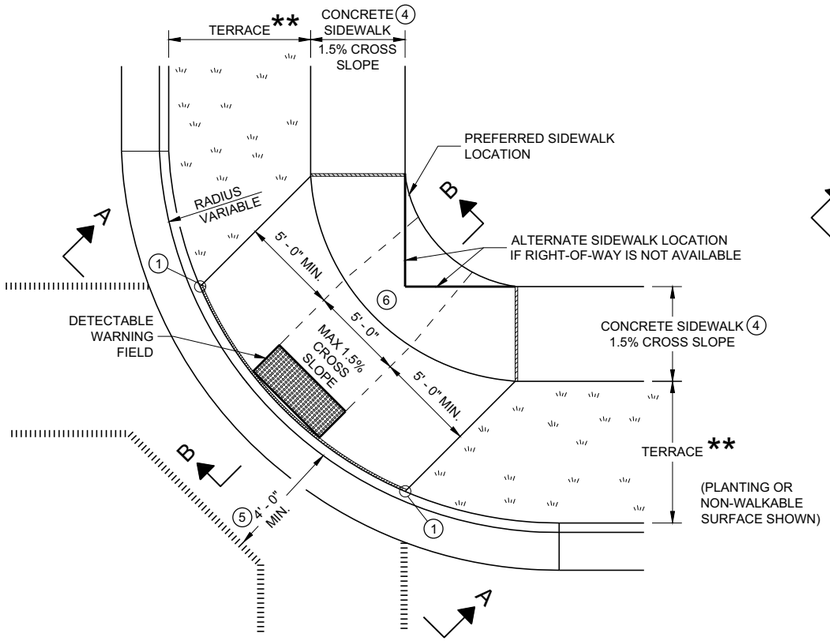
FHWA

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SDD 08D04 - 07

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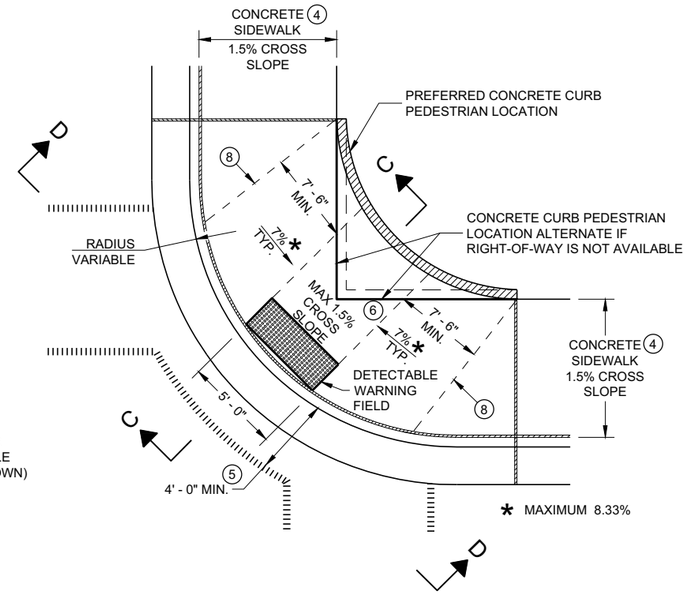
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

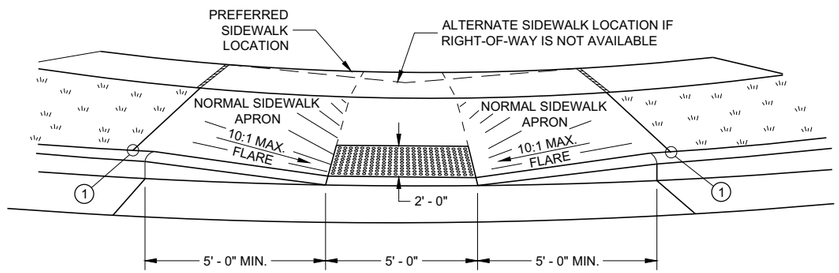
(CENTER OF CORNER RADIUS)



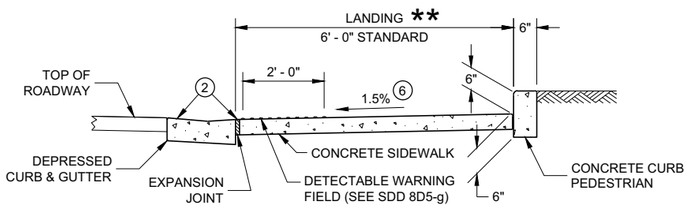
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

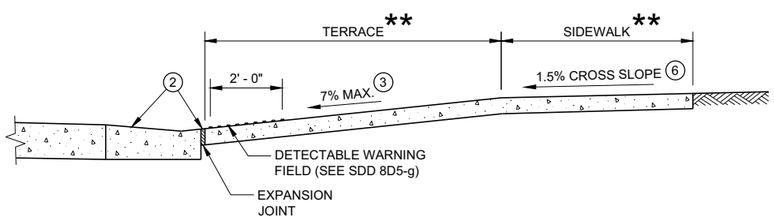


VIEW A - A FOR TYPE 1

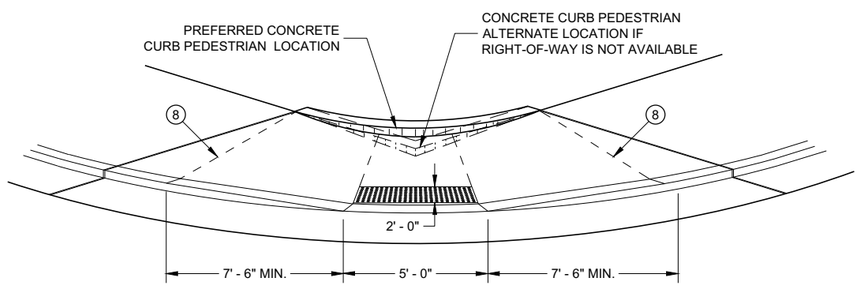


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

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

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

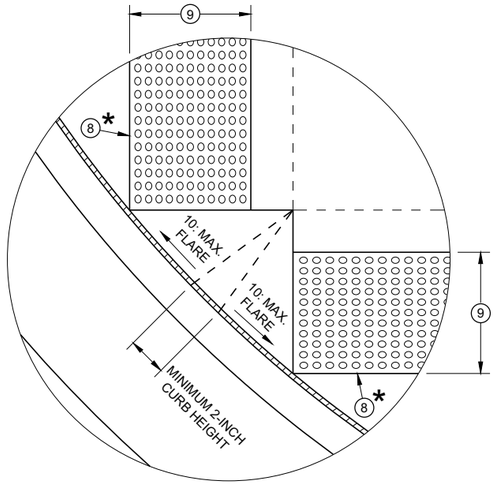
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

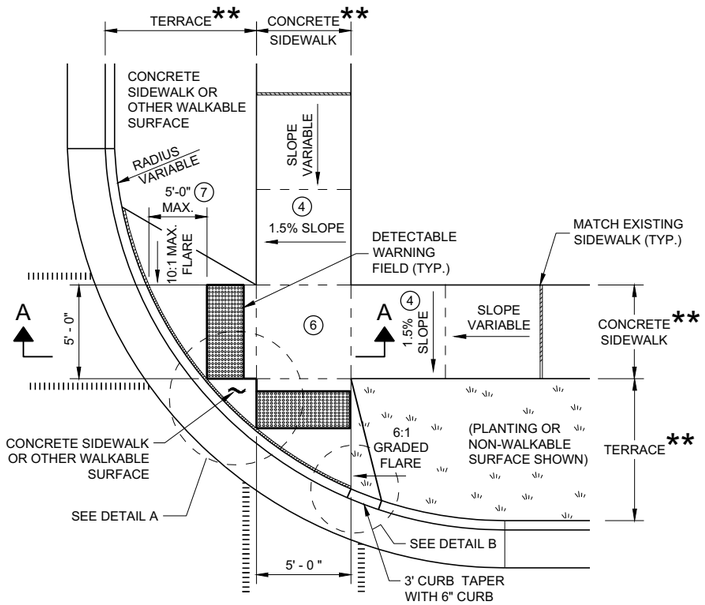
STATE OF WISCONSIN
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SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

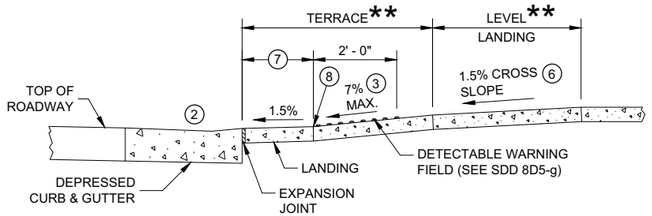
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

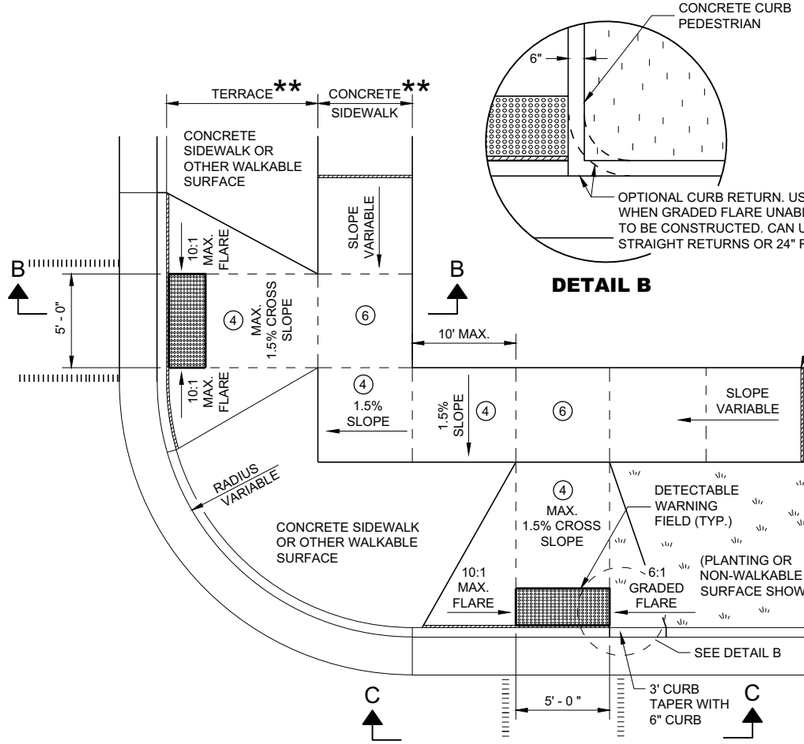
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

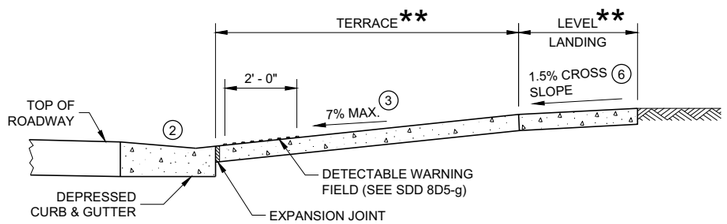
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

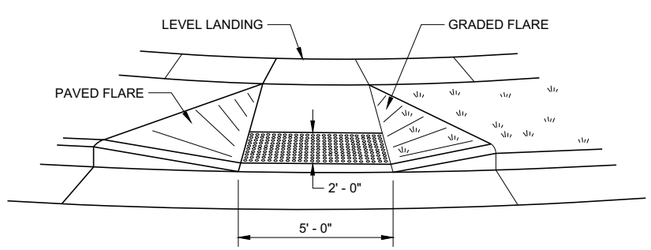


DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

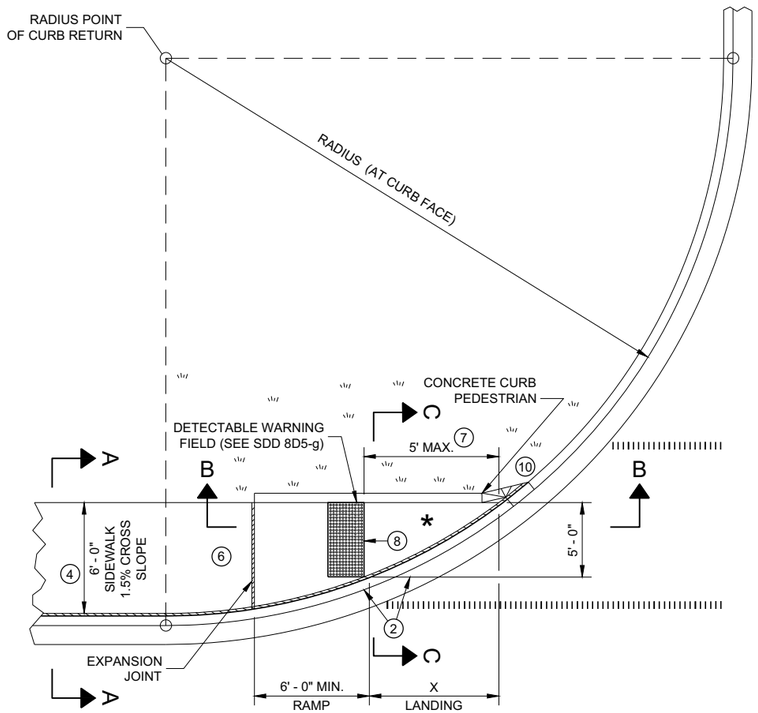
STATE OF WISCONSIN
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SDD 08D05 - 20b

6

SDD 08D05 - 20b

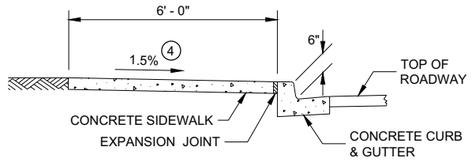


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

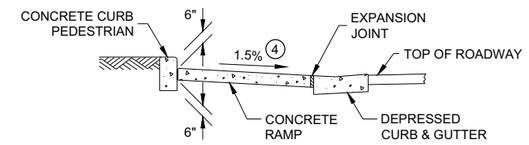
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

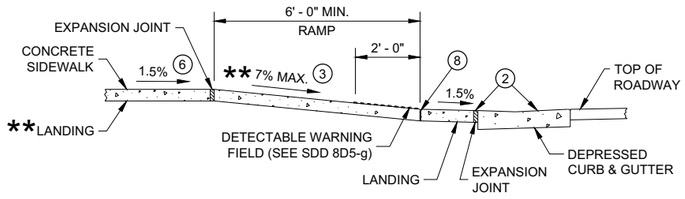
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



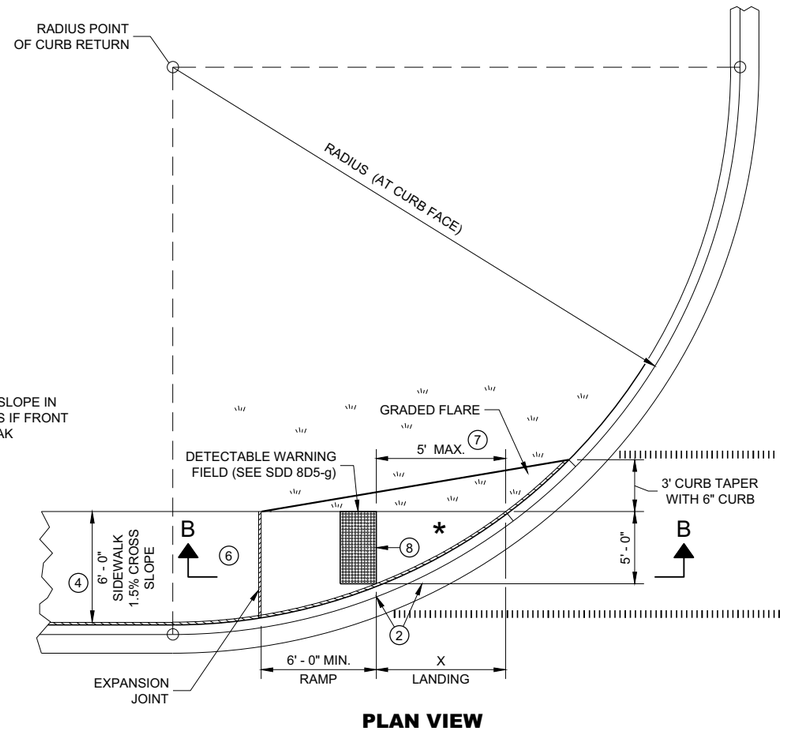
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

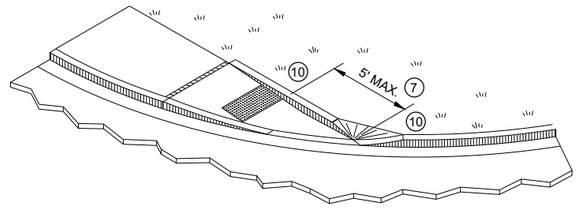
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

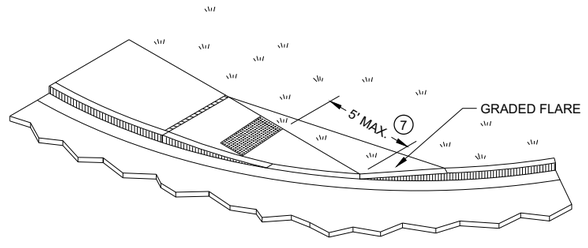


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



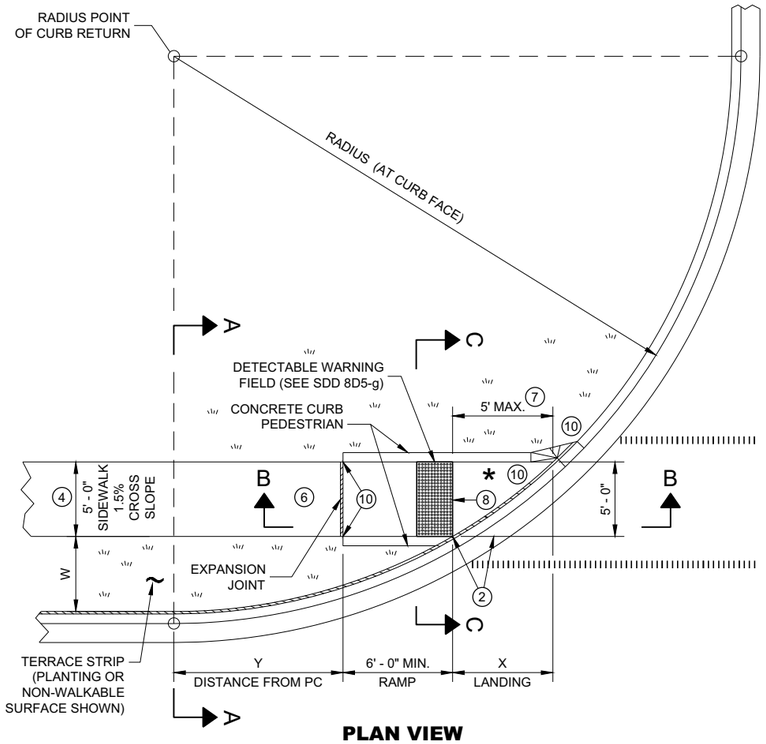
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c



PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

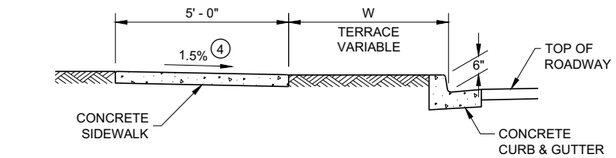
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

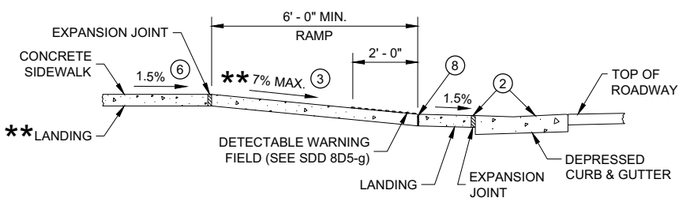
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

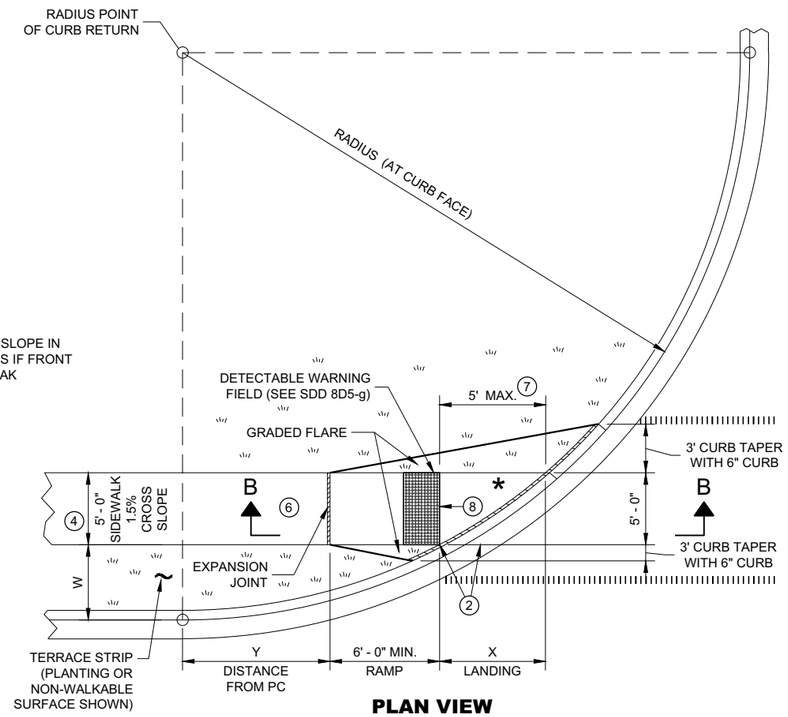


SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

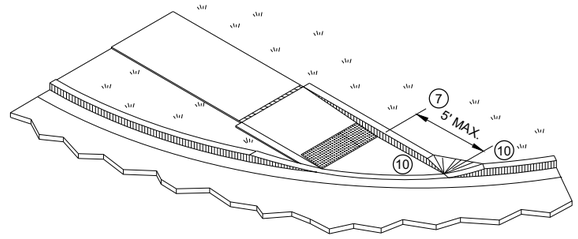
SECTION B - B FOR TYPE 4B AND TYPE 4B1



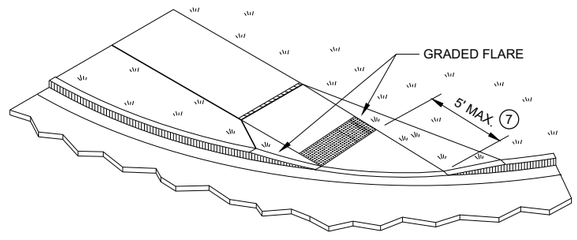
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



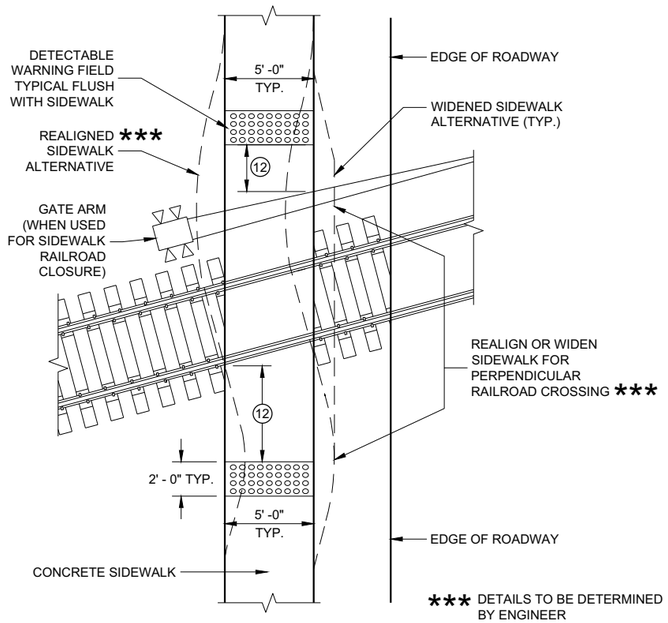
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

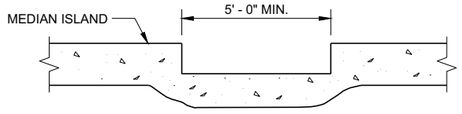
6

SDD 08D05 - 20d

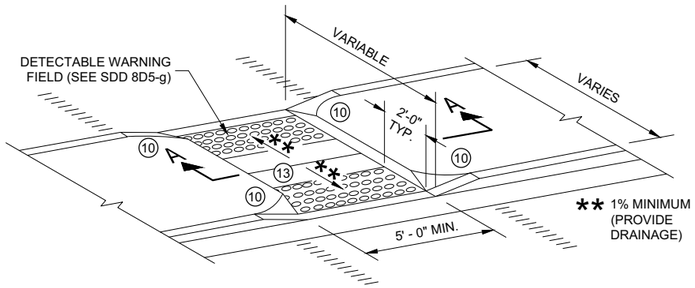


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



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 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%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

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

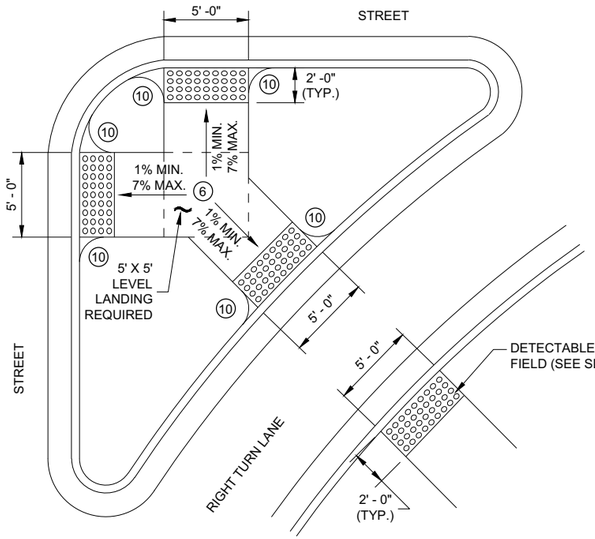
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET 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.

LEGEND

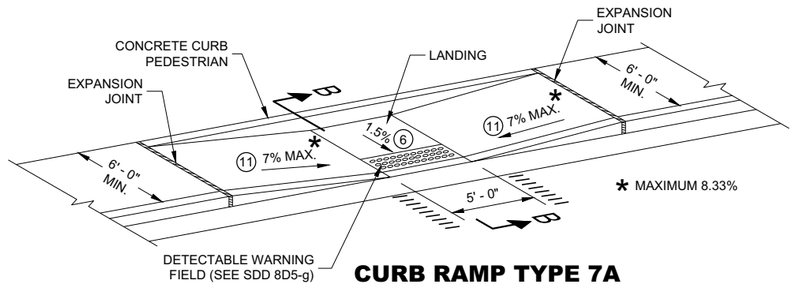
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

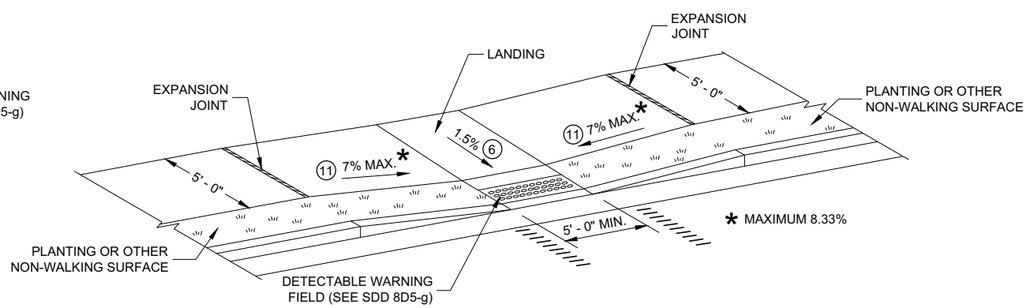
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

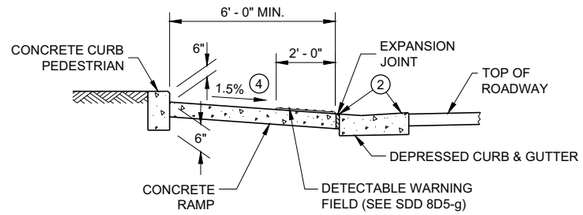
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

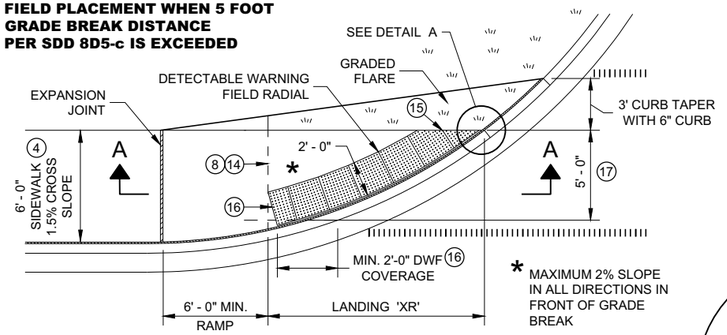
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

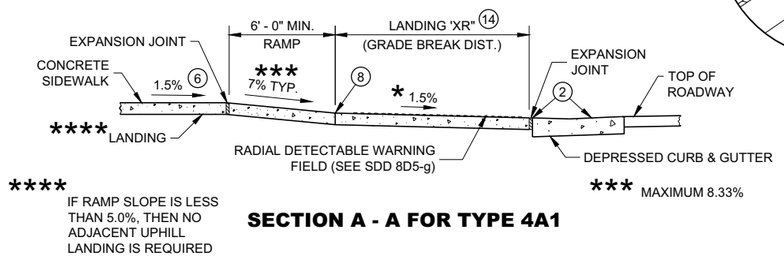
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

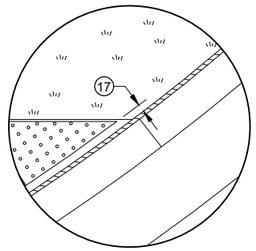
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

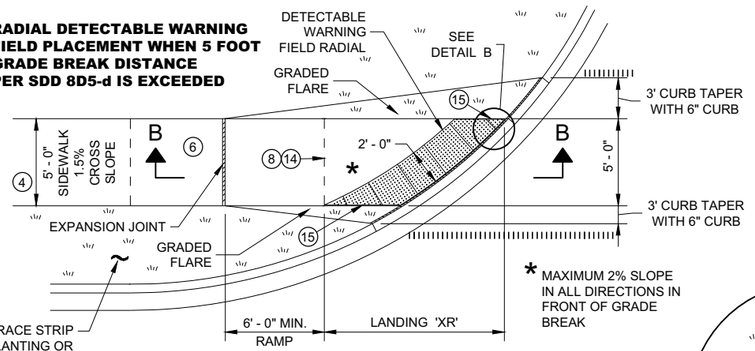
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

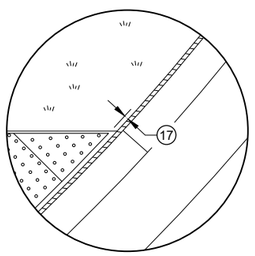
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



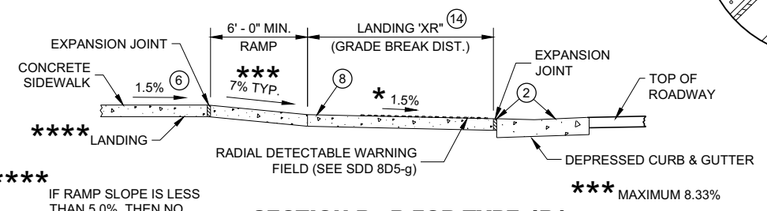
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

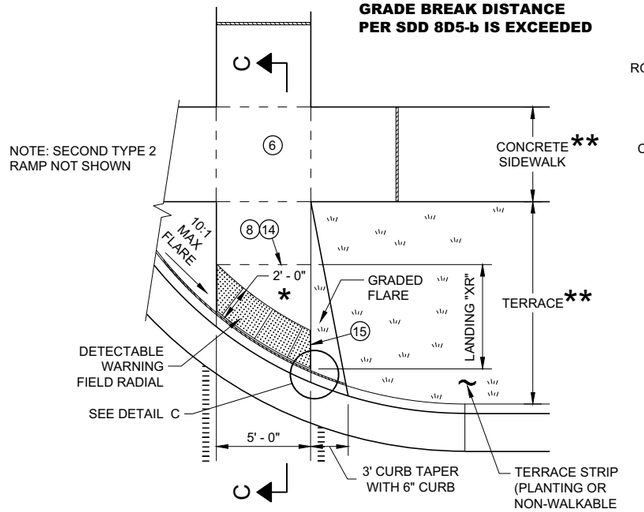


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

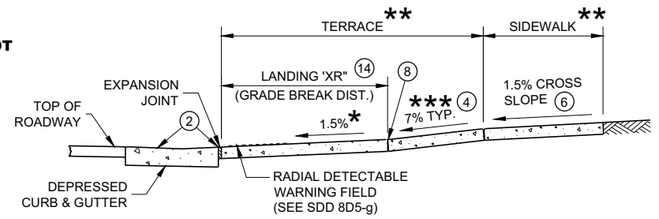


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

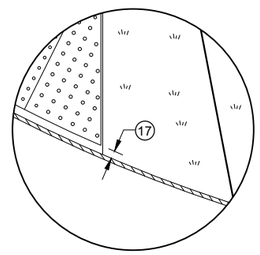


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

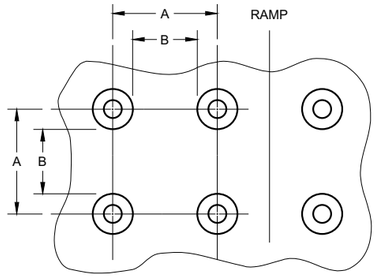
CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

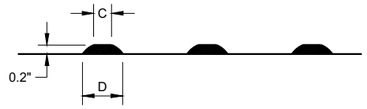
SDD 08D05 - 20f

	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.

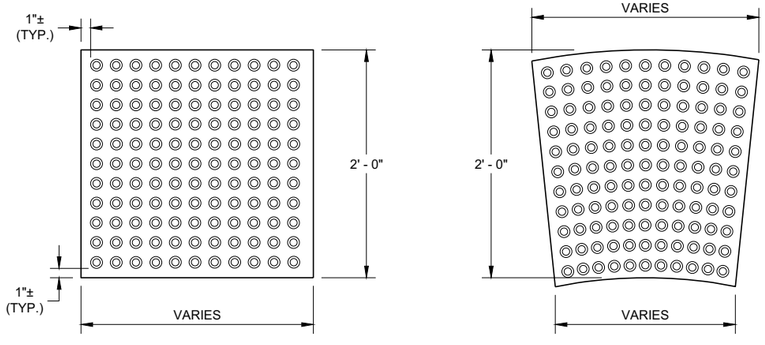


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

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.

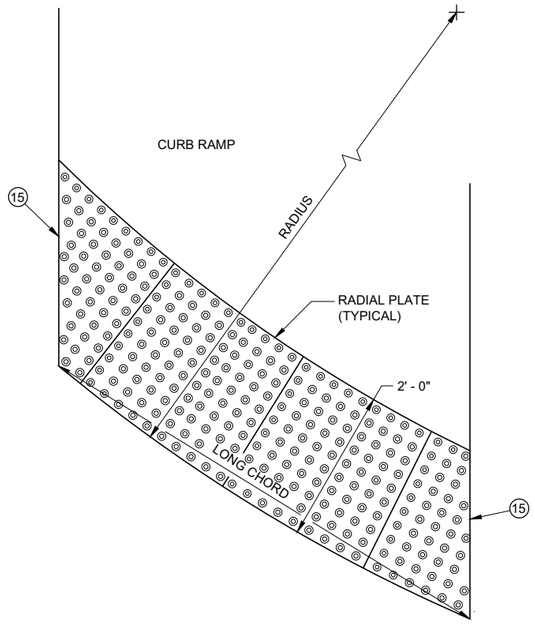
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

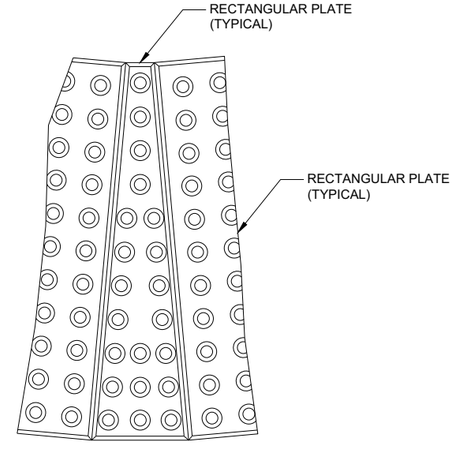
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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.



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
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

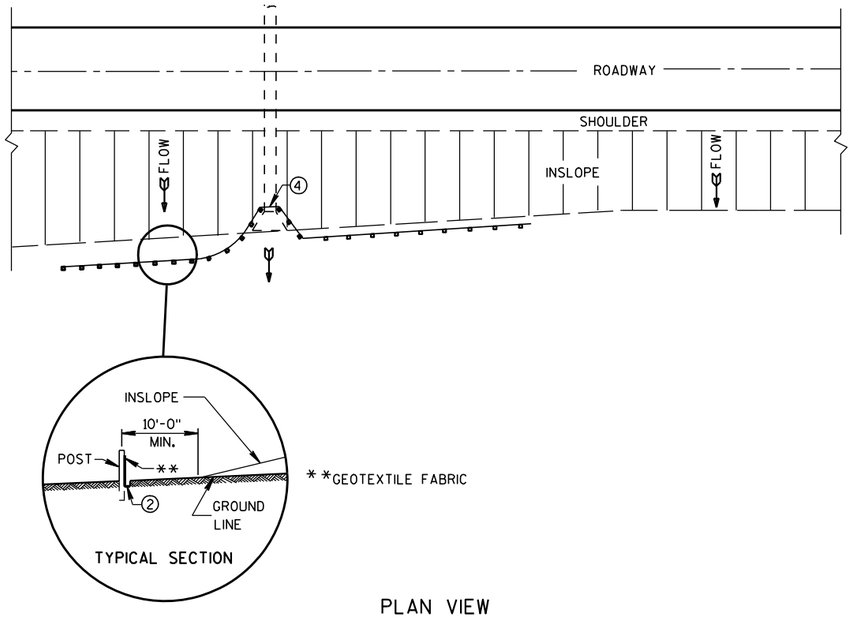
FHWA

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SDD 08D05 - 20g

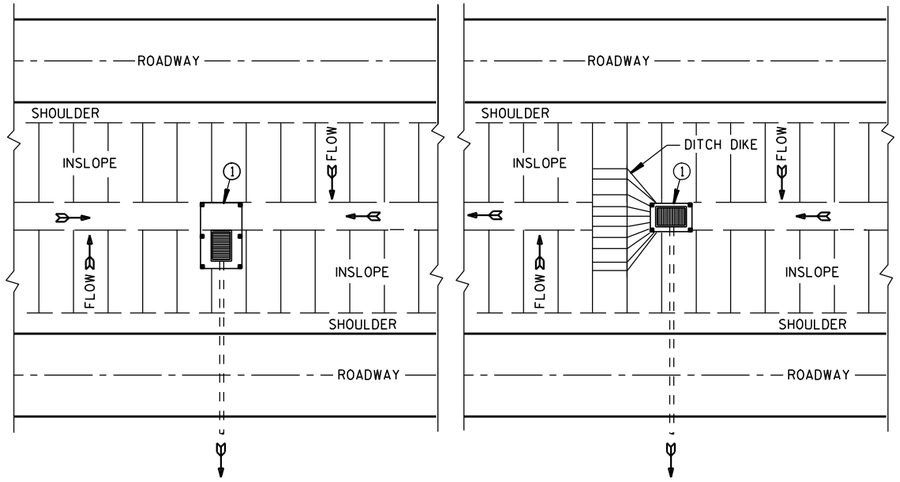
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SDD 08D05 - 20g



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



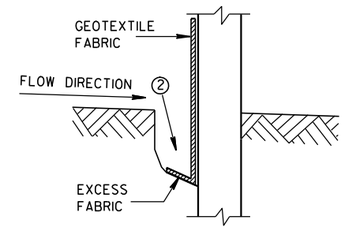
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

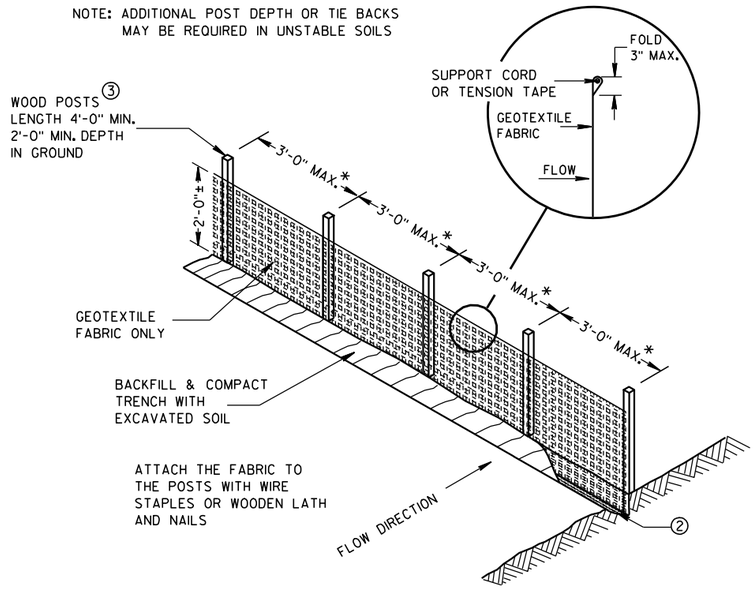
GENERAL NOTES

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

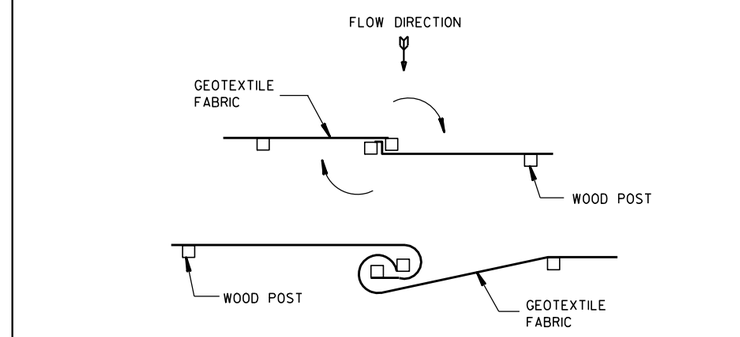
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



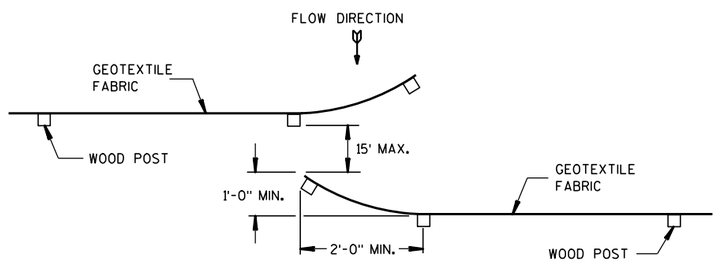
TRENCH DETAIL



SILT FENCE

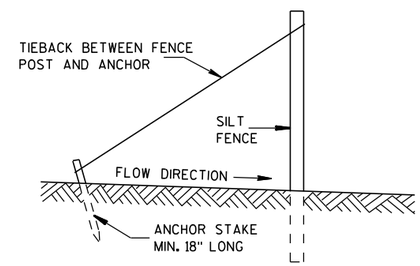


TWIST METHOD



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

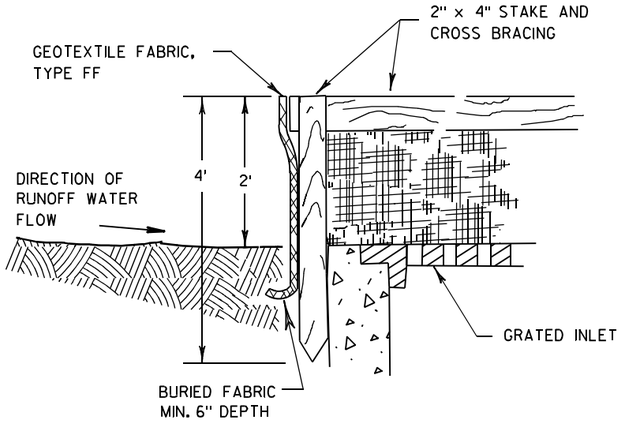
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

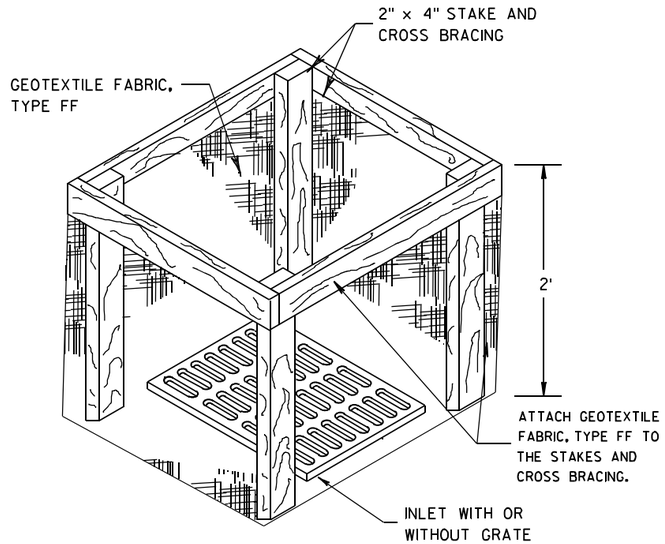
6

S.D.D. 8 E 9-6

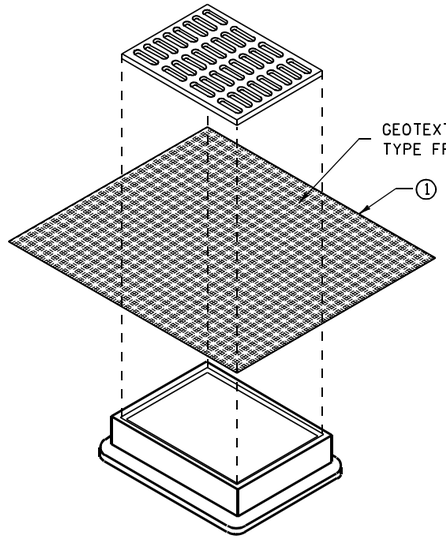
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S.D.D. 8 E 9-6



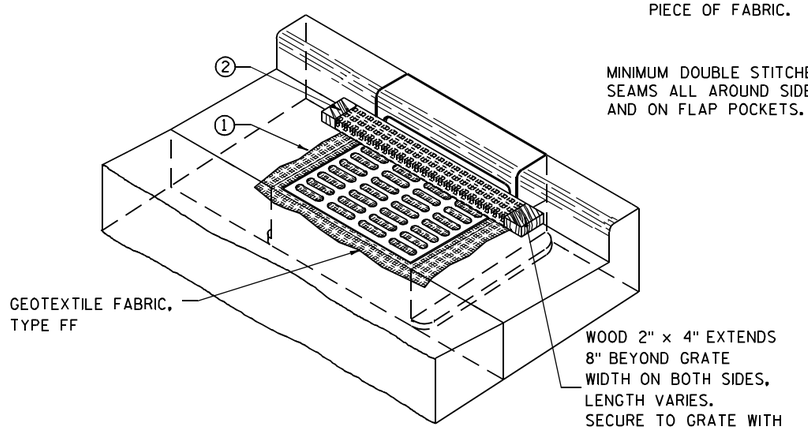


INLET PROTECTION, TYPE A

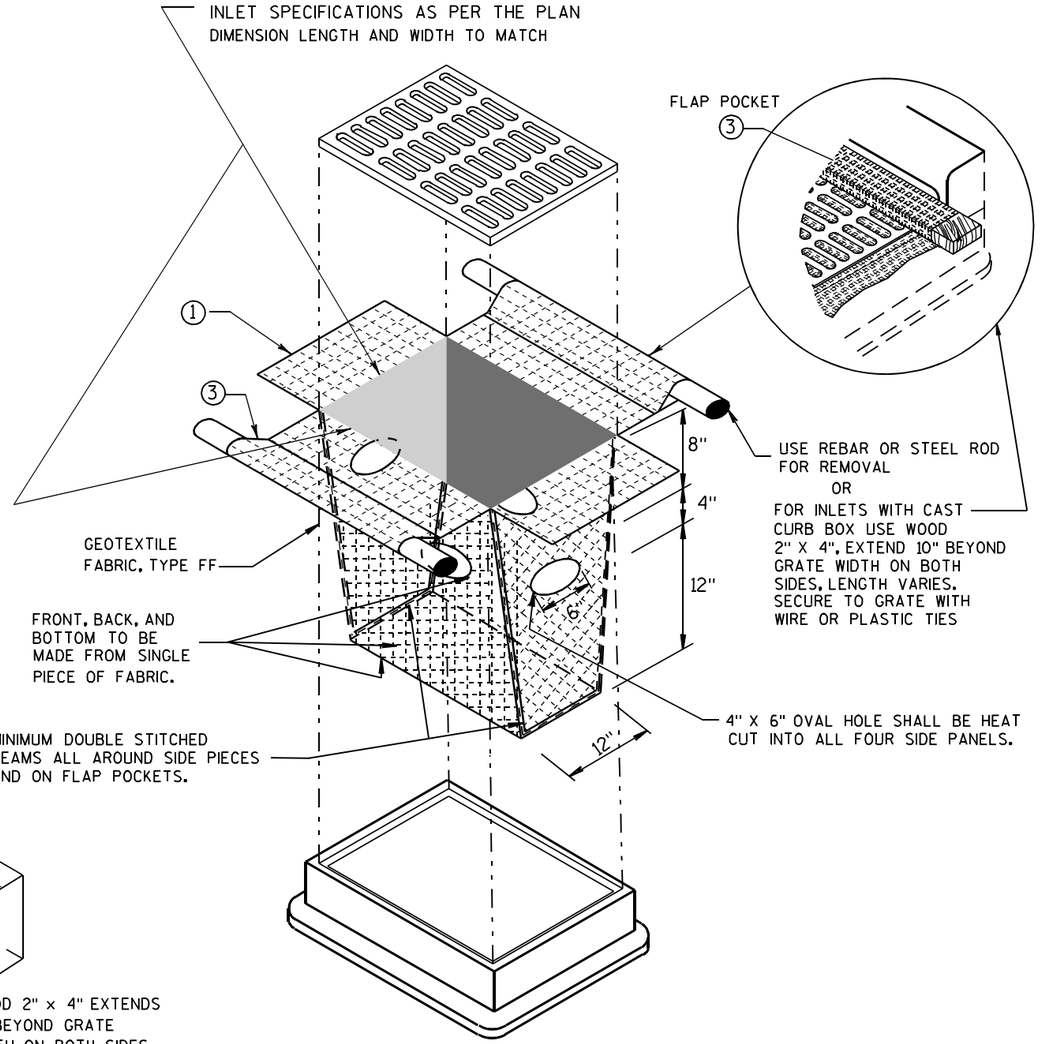


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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

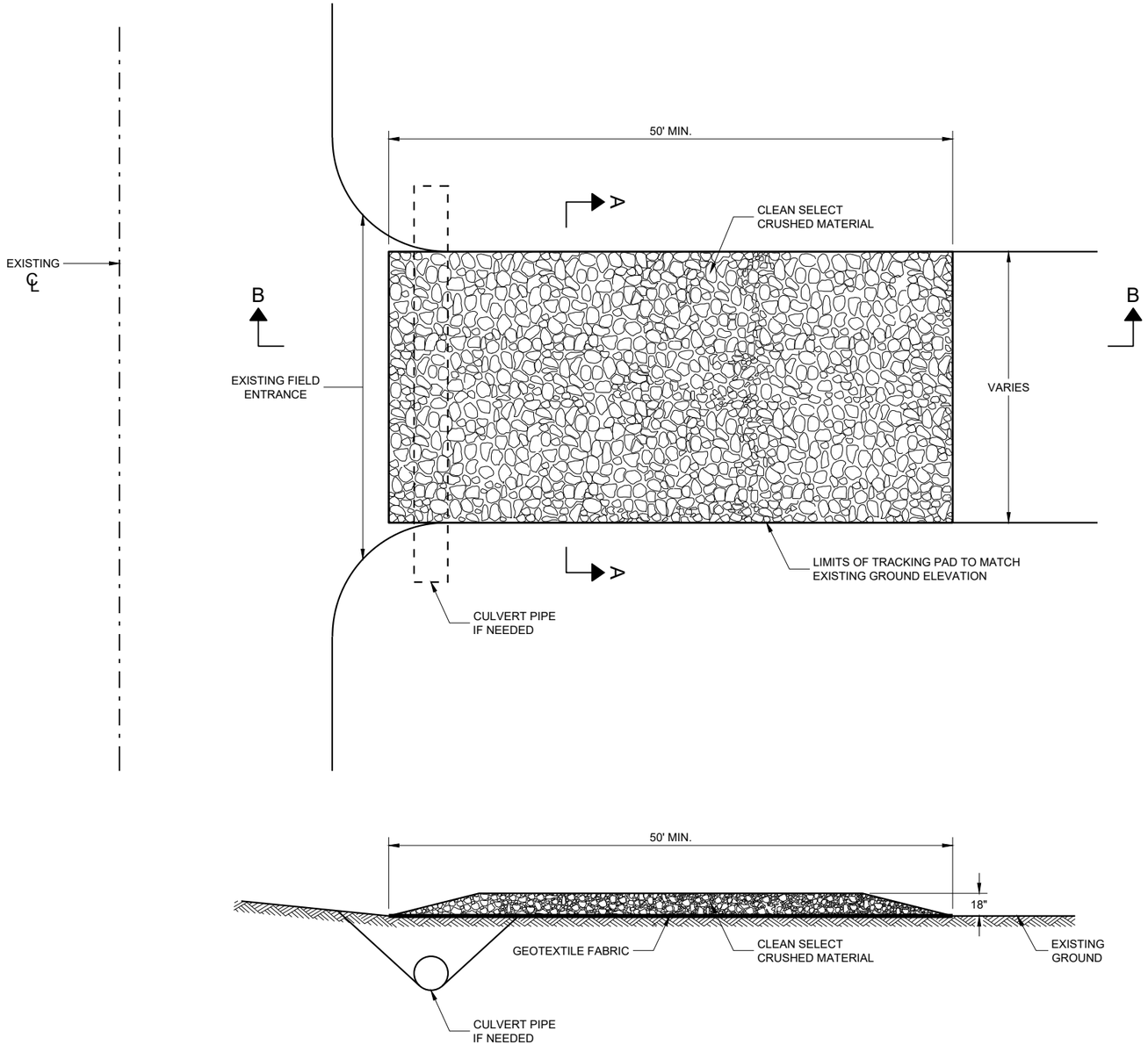
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



SECTION B - B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

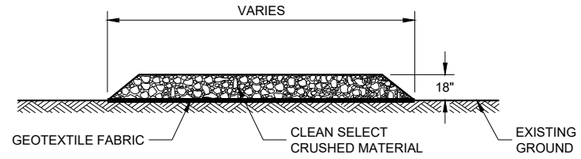
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

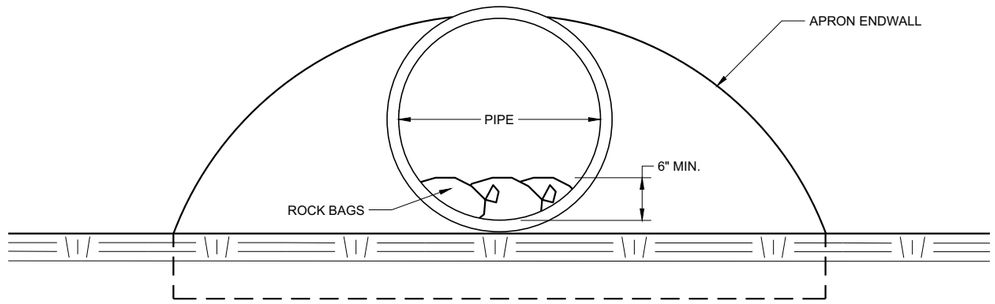
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

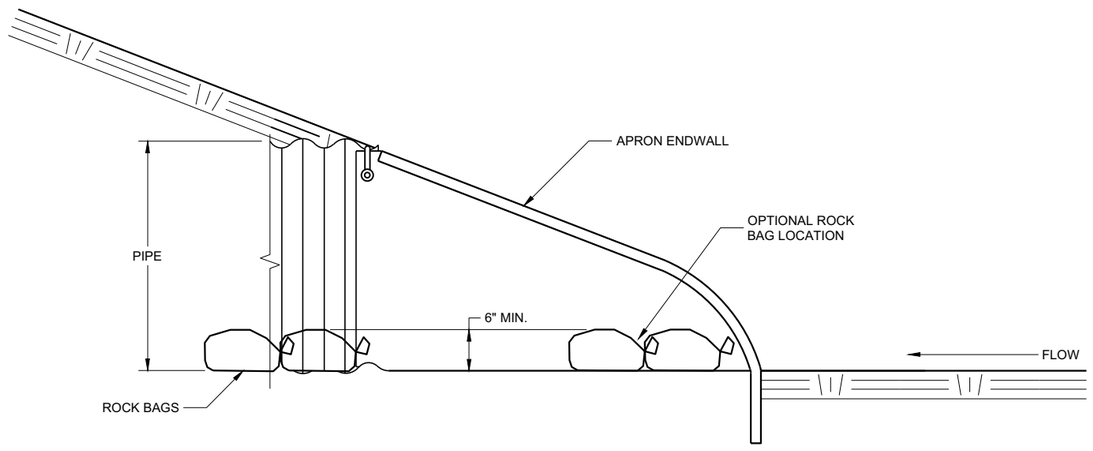
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SDD 08E14 - 01



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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SDD 08E15 - 01

METAL APRON ENDWALLS

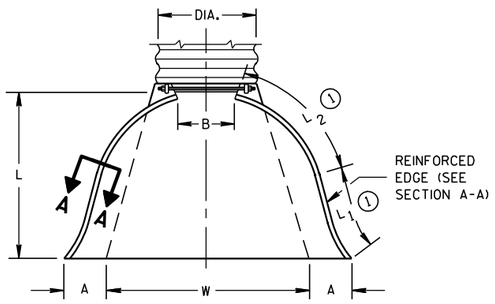
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

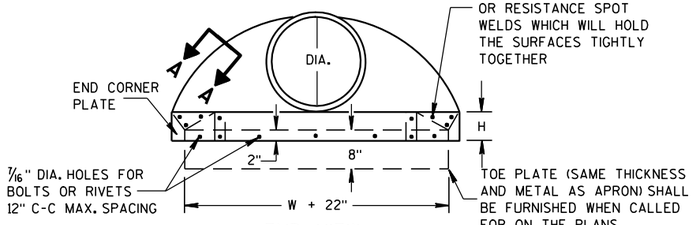
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

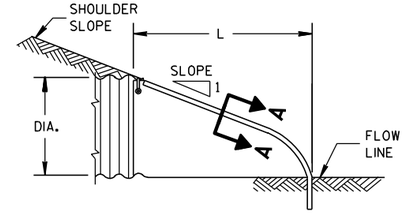
*MINIMUM
**MAXIMUM



PLAN VIEW

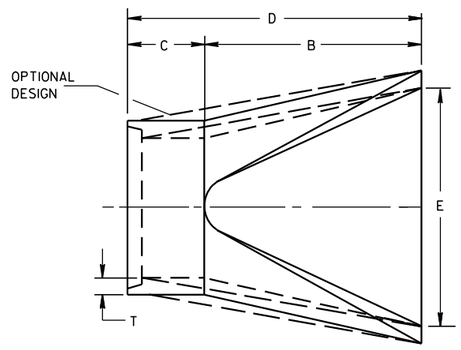


END VIEW

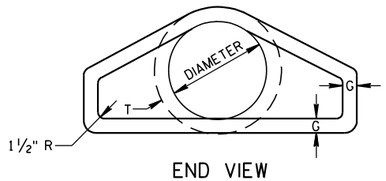


SIDE ELEVATION

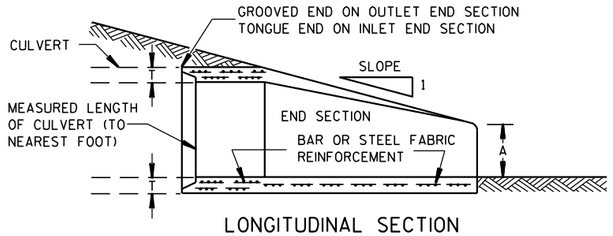
METAL ENDWALLS



PLAN

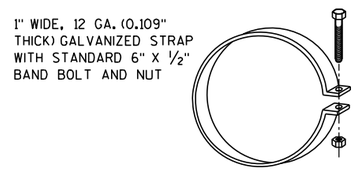


END VIEW



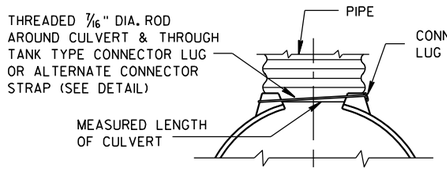
LONGITUDINAL SECTION

CONCRETE ENDWALLS

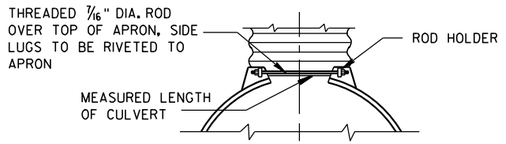


ALTERNATE FOR TYPE 1 CONNECTION

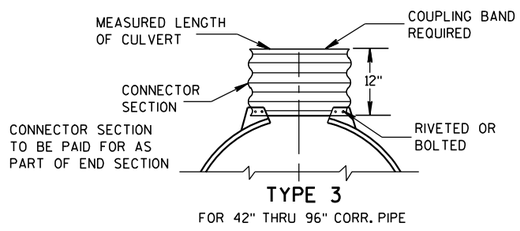
END SECTION CONNECTOR STRAP



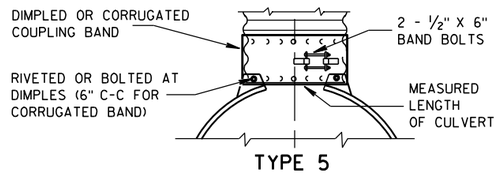
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

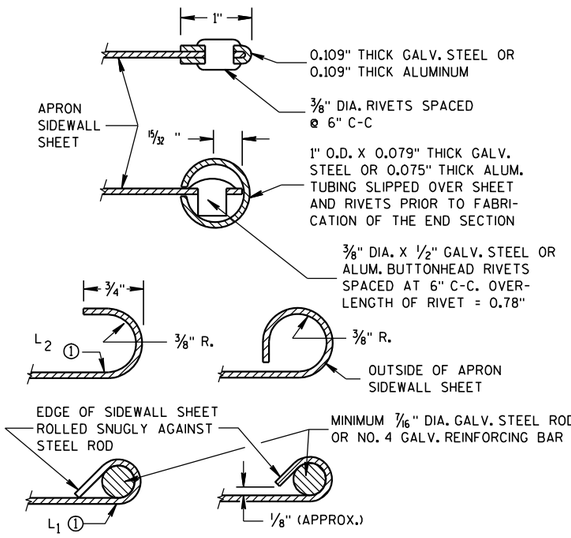
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

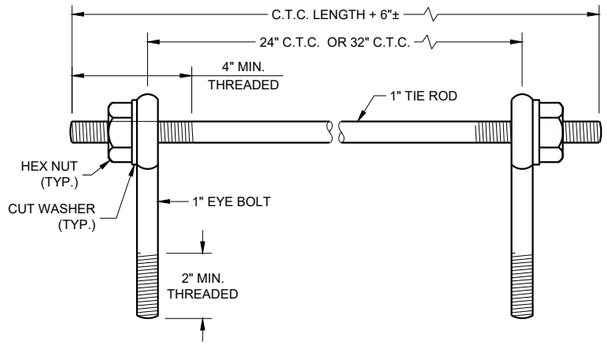
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

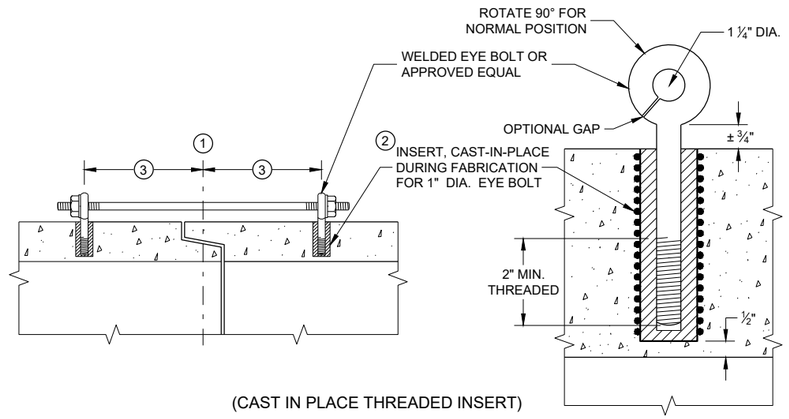
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

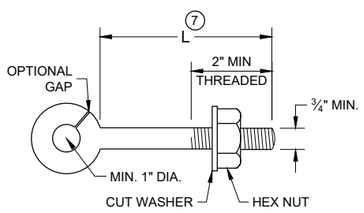
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

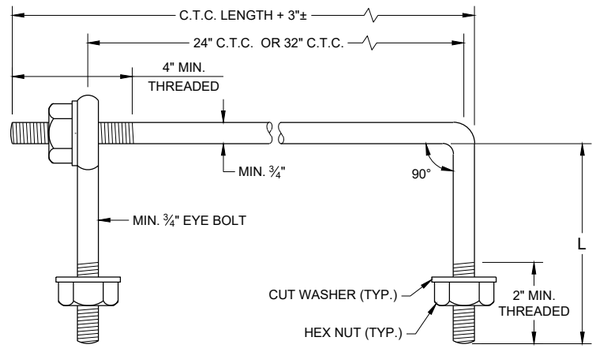
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

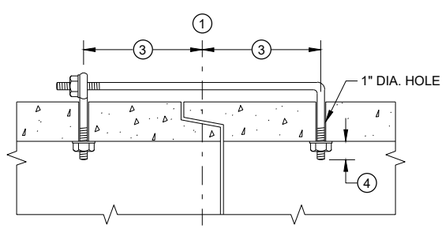


EYE BOLT (7)

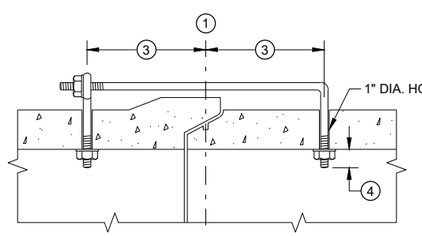
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

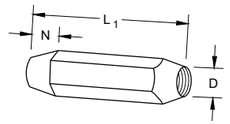
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

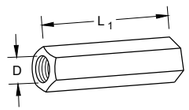
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



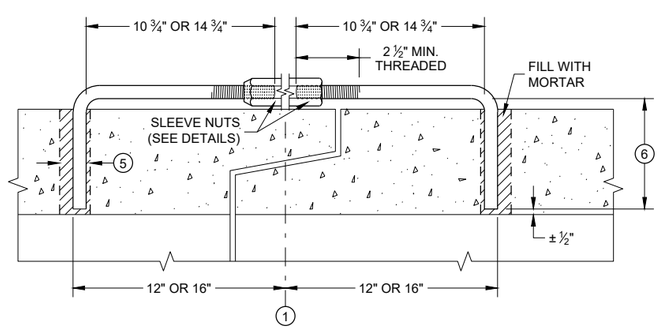
TAPERED



PLAIN

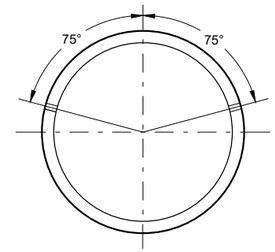
RIGHT AND LEFT THREADS

SLEEVE NUTS



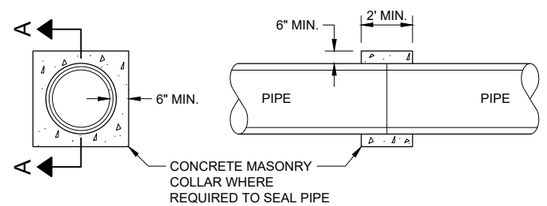
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

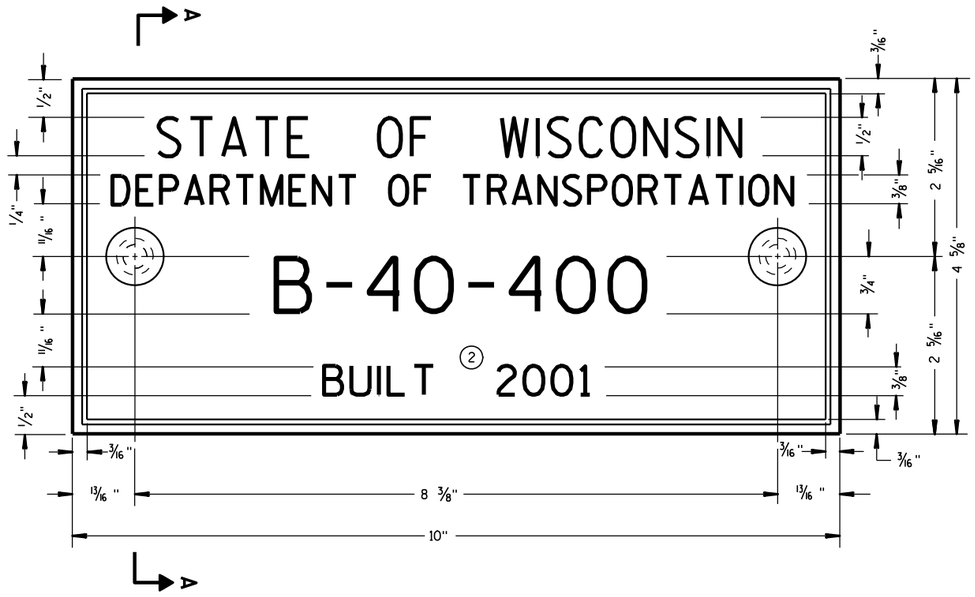
APPROVED
November 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



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

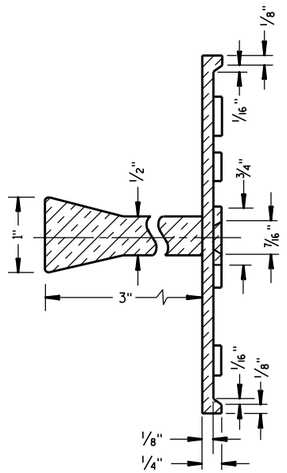
GENERAL NOTES

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.

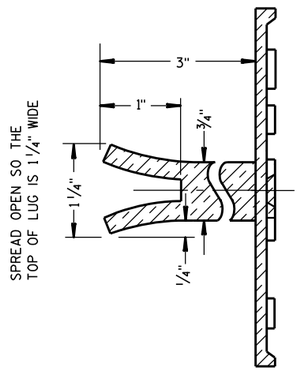
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(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

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

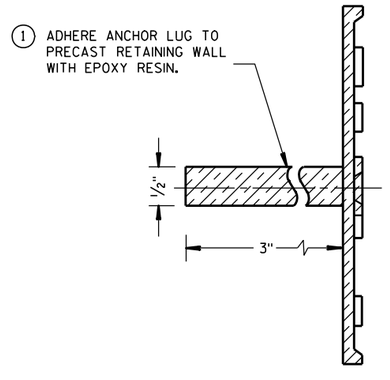
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

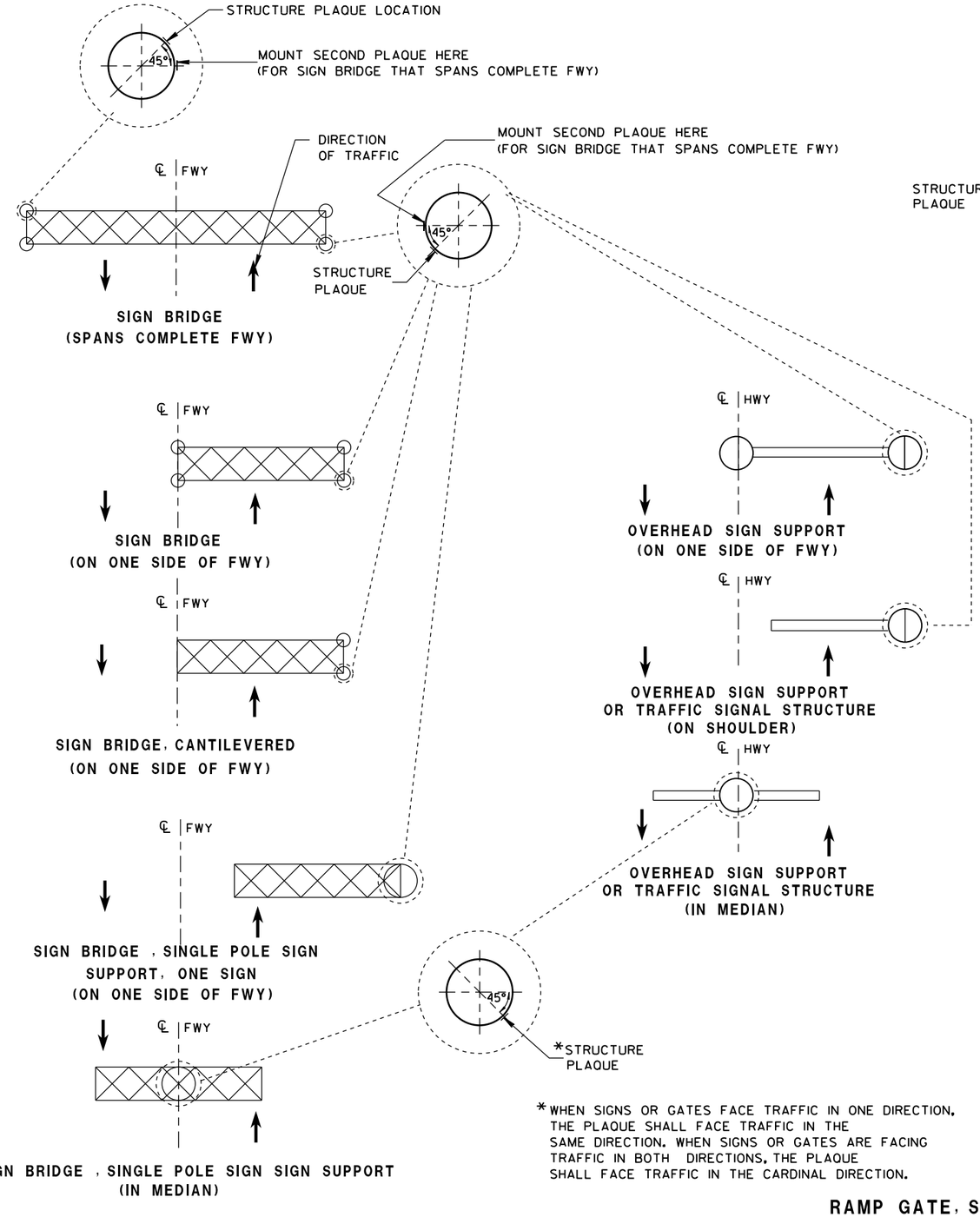
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

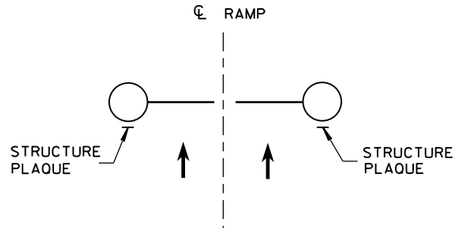
6

S.D.D. 12 A 3-10

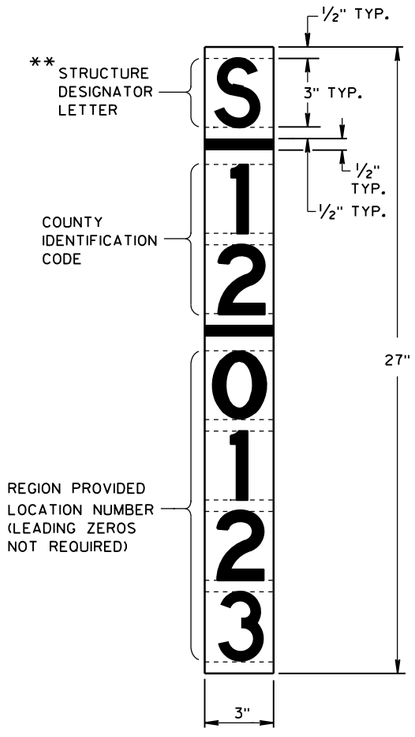


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

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



**RAMP GATE
(ACROSS FWY ON-RAMP)**



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.

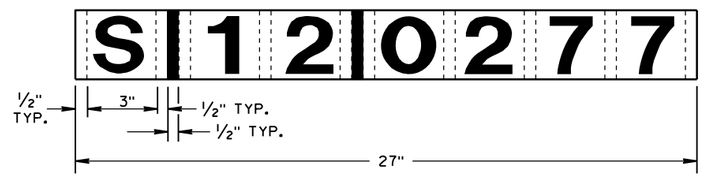
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

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

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

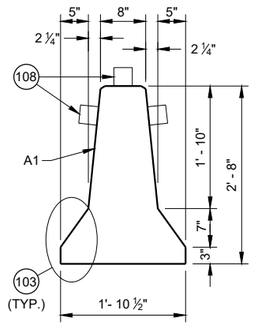
STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

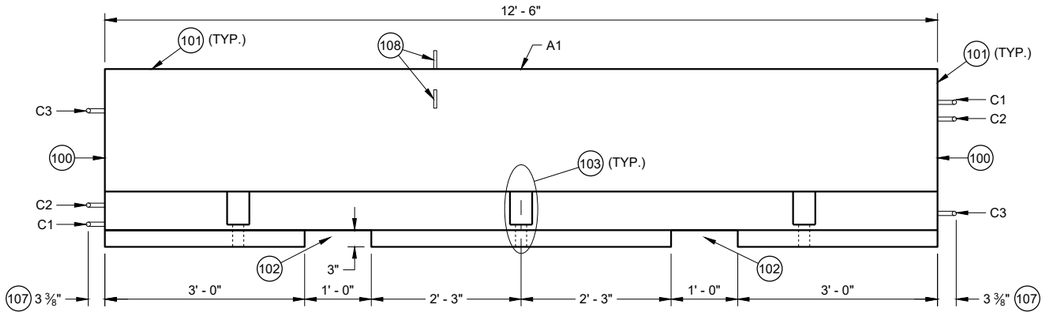
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

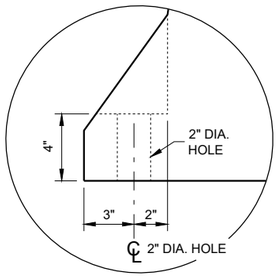
(104) 1 ¼" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

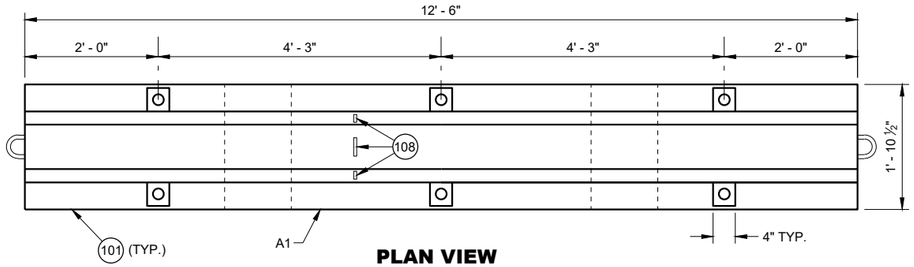
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

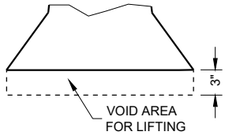


ANCHOR BLOCK DETAIL

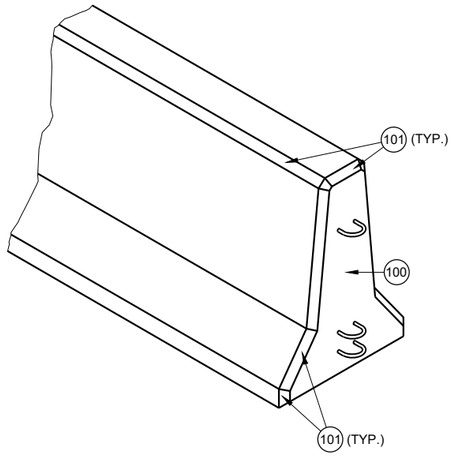


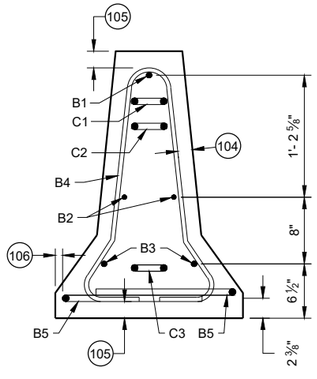
PLAN VIEW

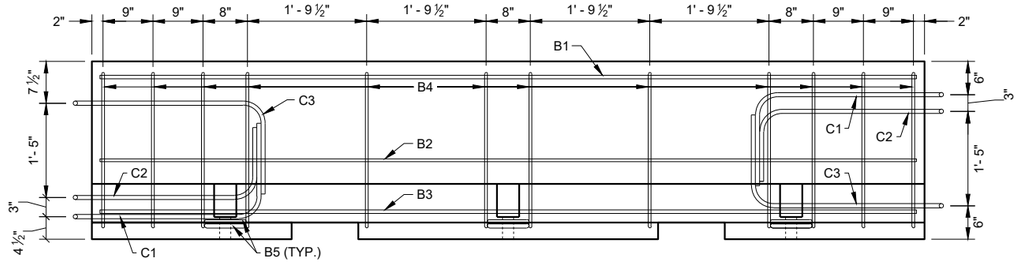
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

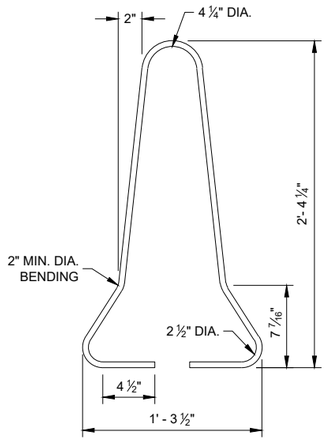
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

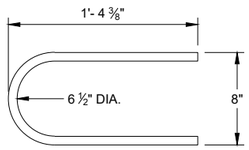
SDD 14B07-16a

6

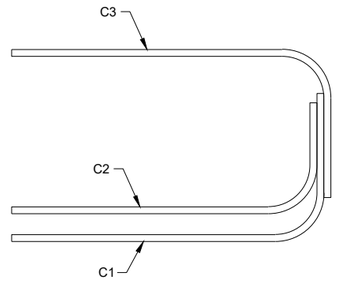
SDD 14B07-16a



B4 BAR DETAIL

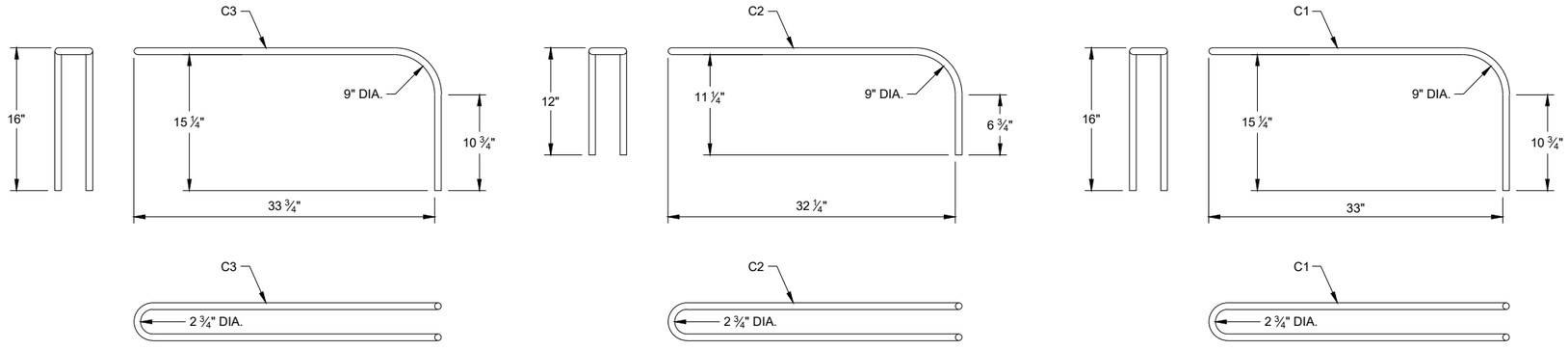


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



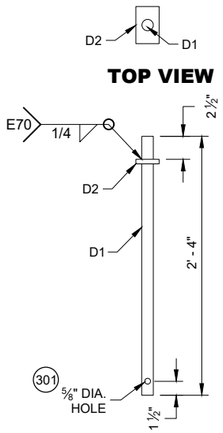
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

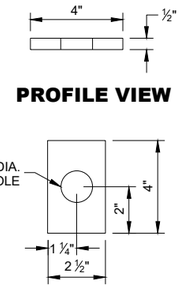
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SDD 14B07-16b

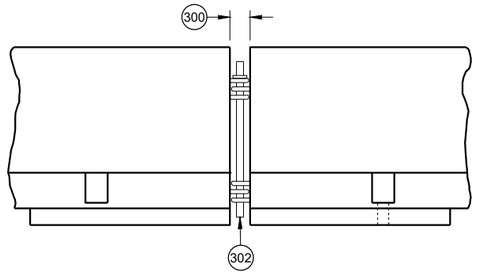


PROFILE VIEW

CONNECTOR PIN ASSEMBLY



TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

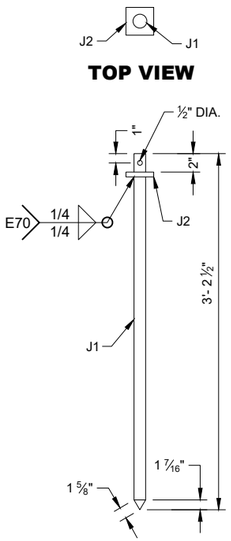
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

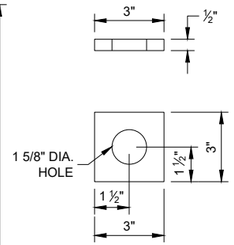
308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.

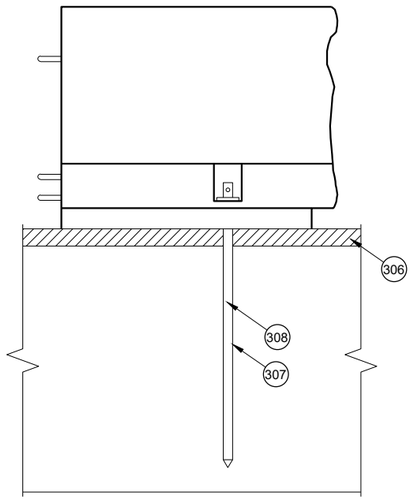


PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

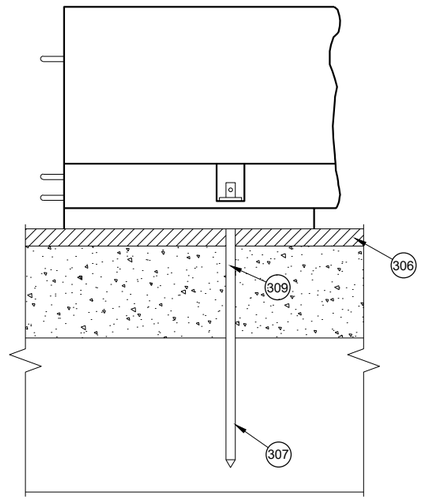


TOP VIEW J2



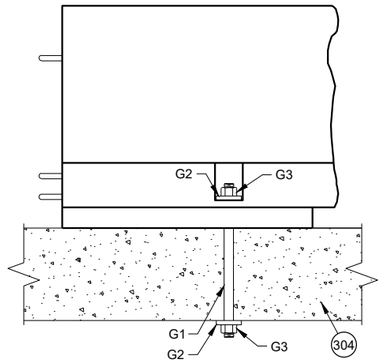
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



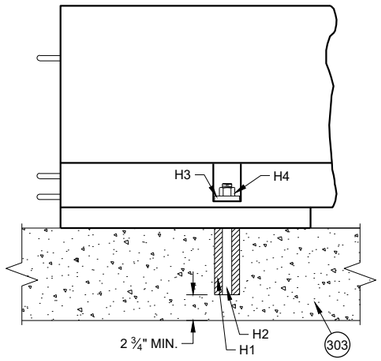
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

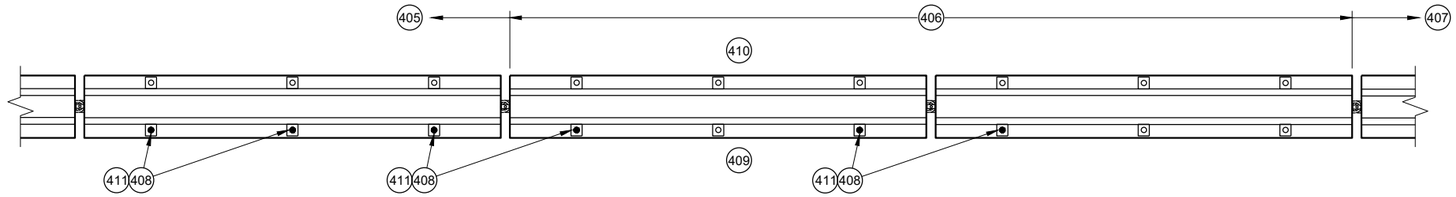
THROUGH BOLT ANCHOR INSTALLATION 305



SIDE VIEW

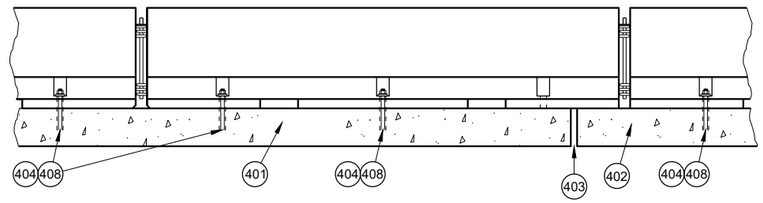
ADHESIVE ANCHOR INSTALLATION 305

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



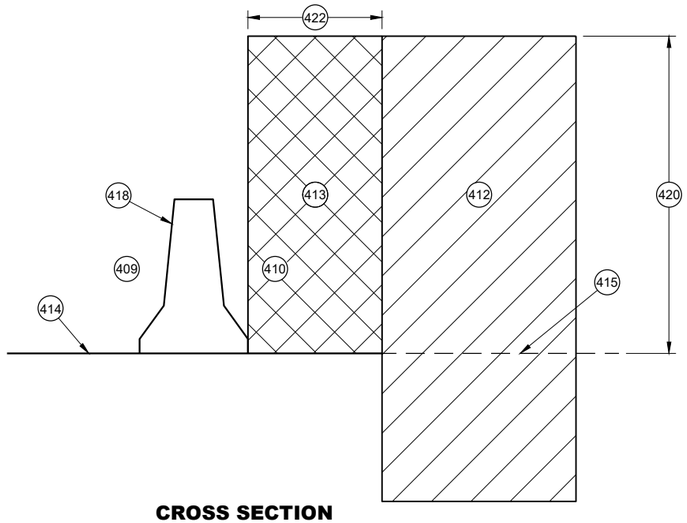
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



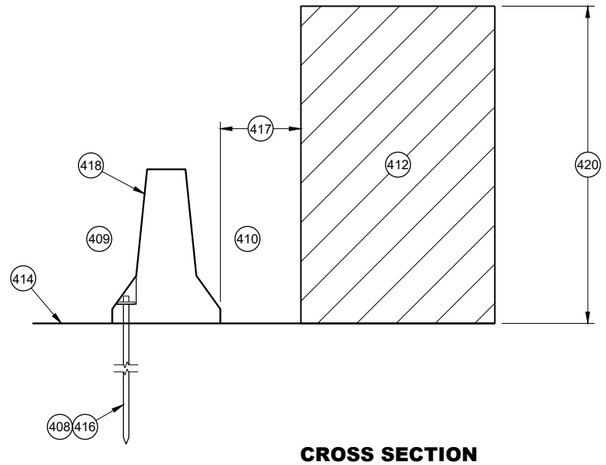
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



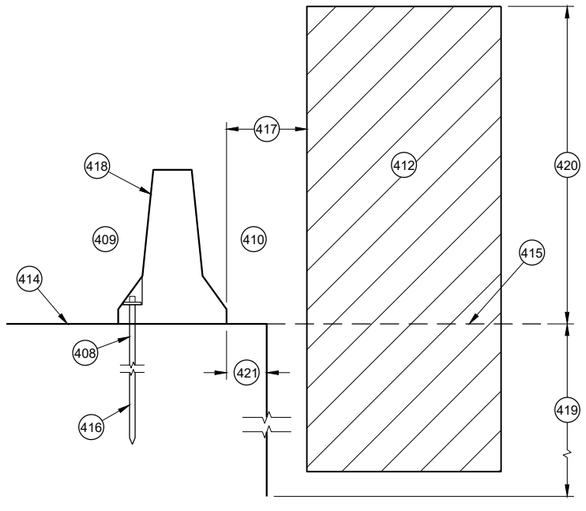
CROSS SECTION

FREE STANDING BARRIER



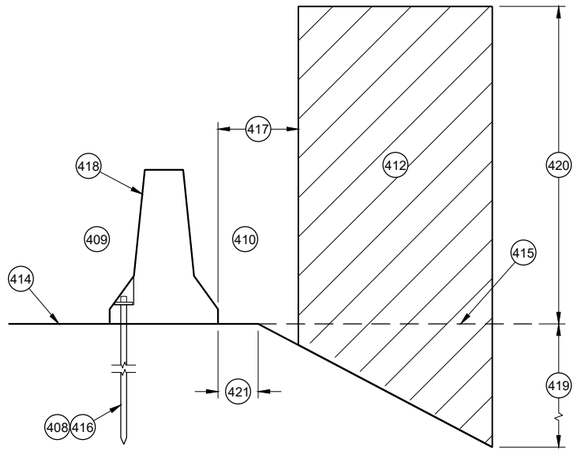
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

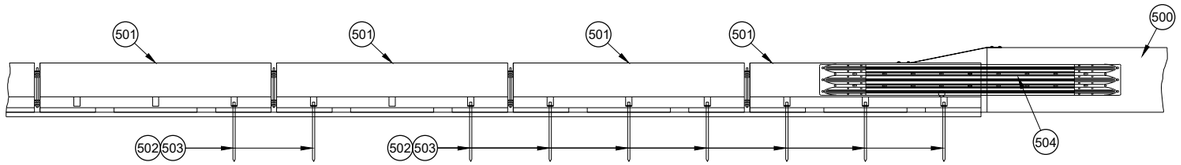
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

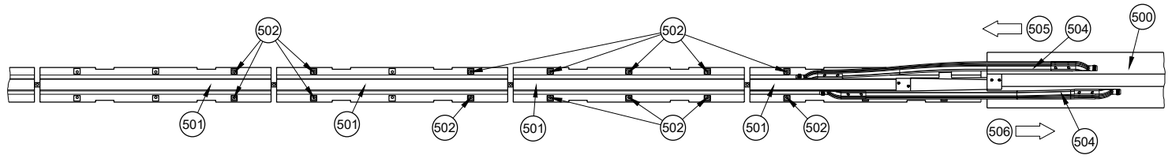
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

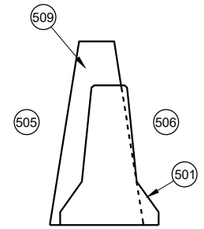
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



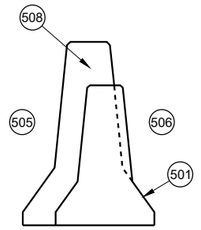
PROFILE VIEW



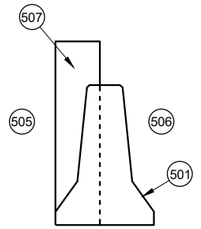
PLAN VIEW
TRANSITION TO RIGID BARRIER



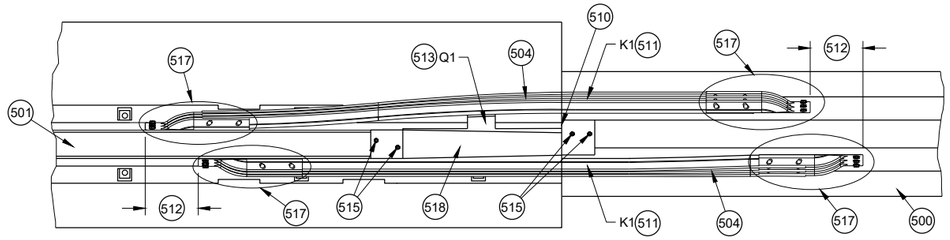
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



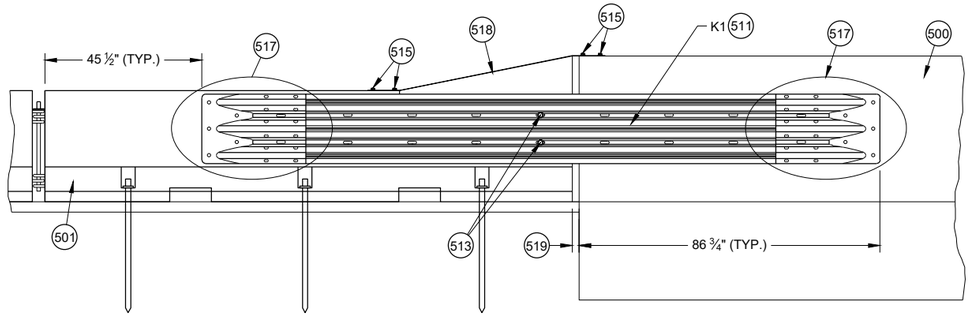
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



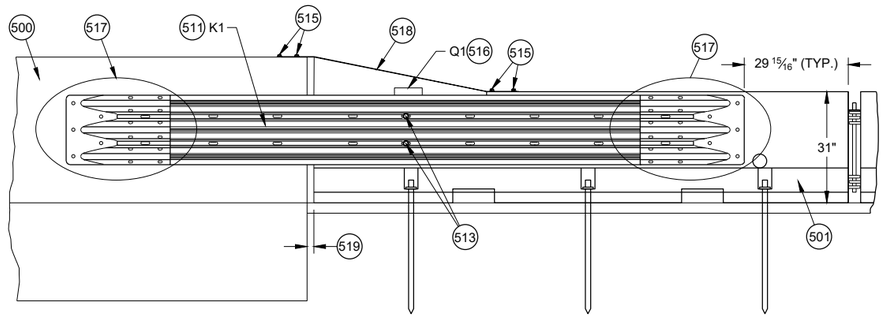
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



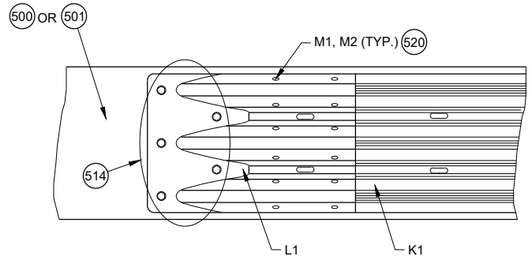
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER

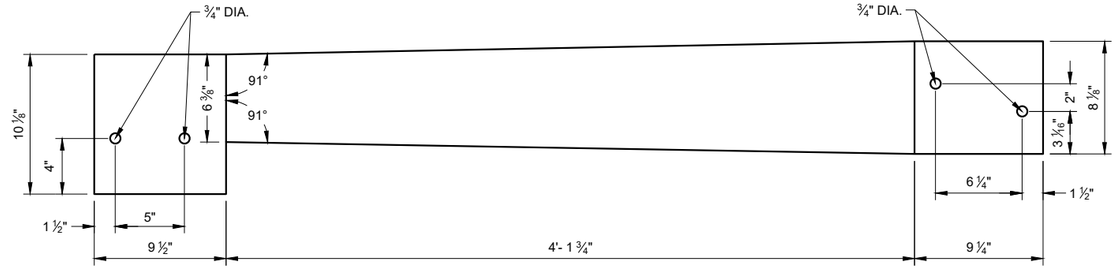


(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

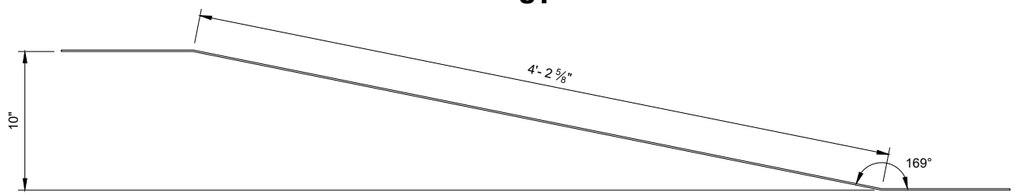
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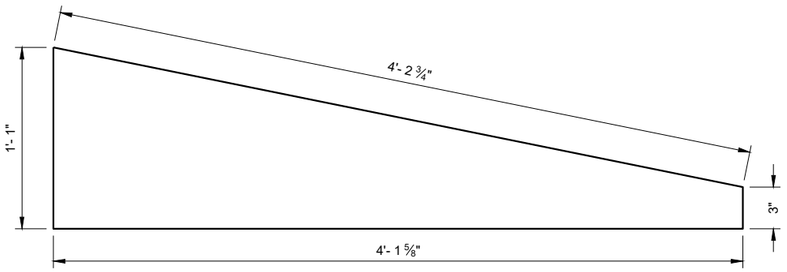
TOP VIEW

S1



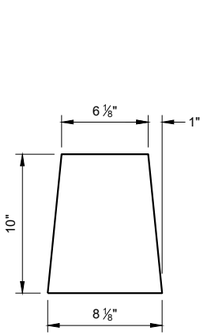
ELEVATION VIEW

S1

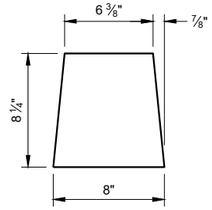


SIDE VIEW

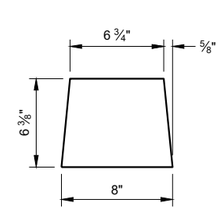
S3



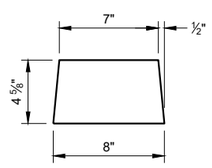
S2



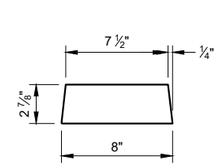
S4



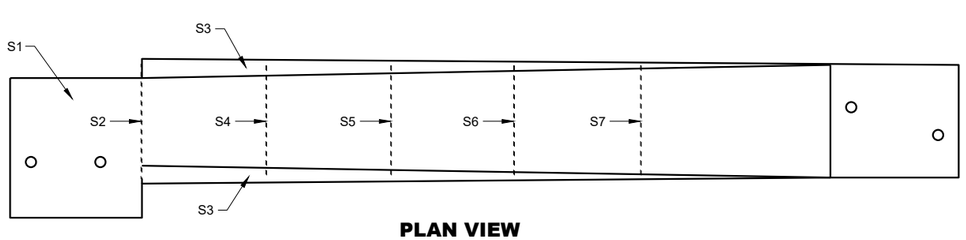
S5



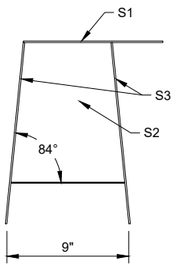
S6



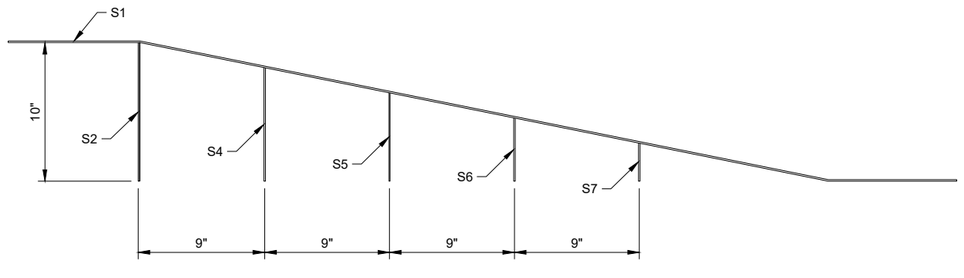
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

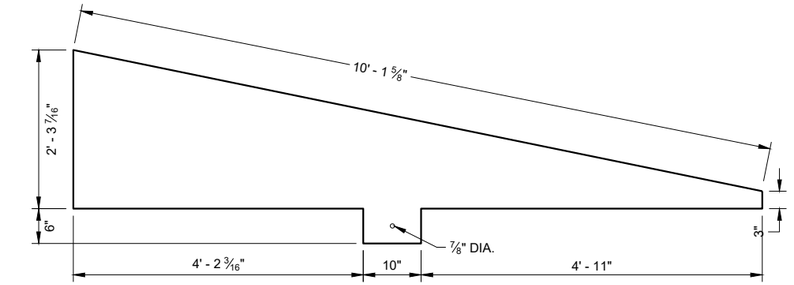
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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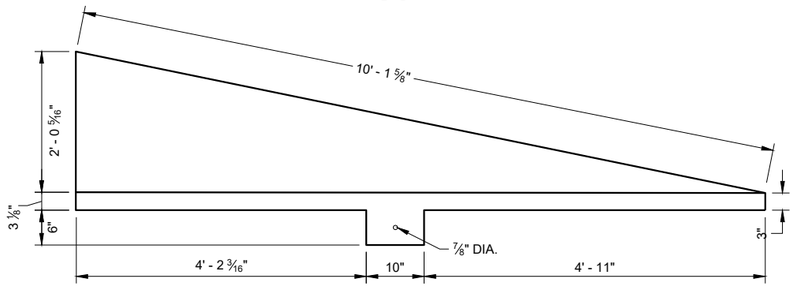
SDD 14B07-16f



SIDE VIEW
T4



END VIEW



SIDE VIEW
T3

END VIEW

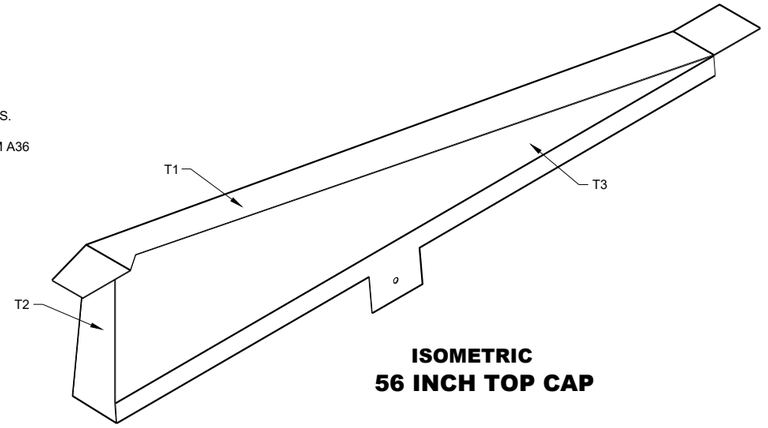
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

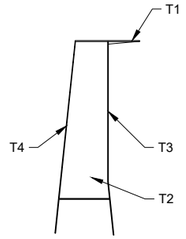
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

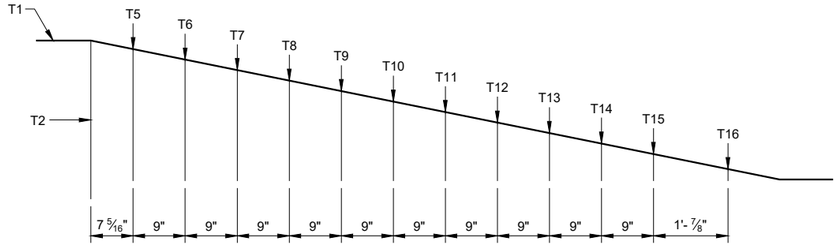
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



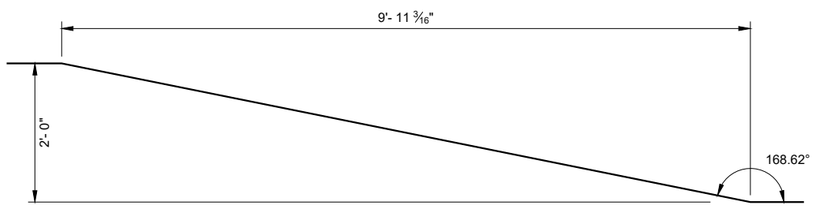
ISOMETRIC
56 INCH TOP CAP



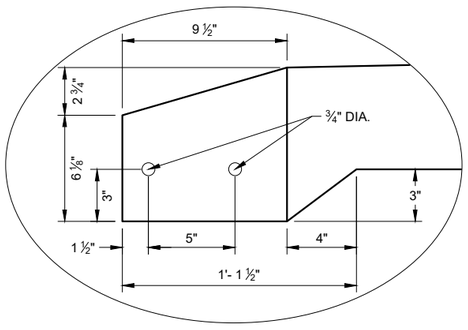
END VIEW
56 INCH TOP CAP



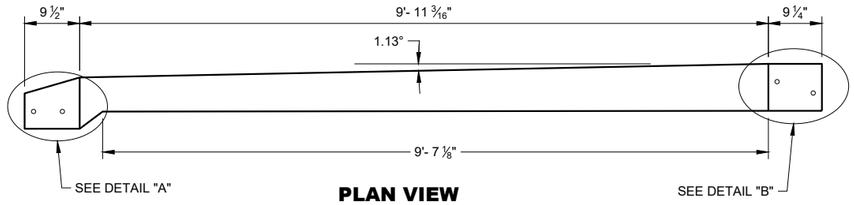
SIDE VIEW (700)
56 INCH TOP CAP



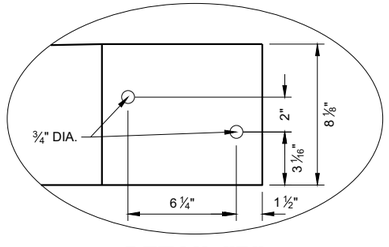
SIDE VIEW
TOP PLATE T1



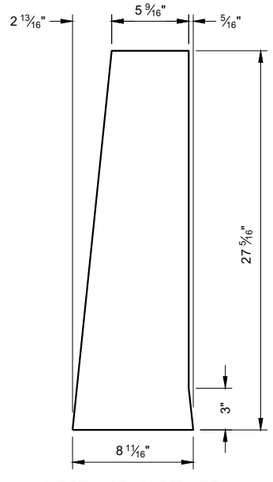
DETAIL "A"



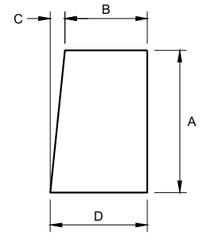
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

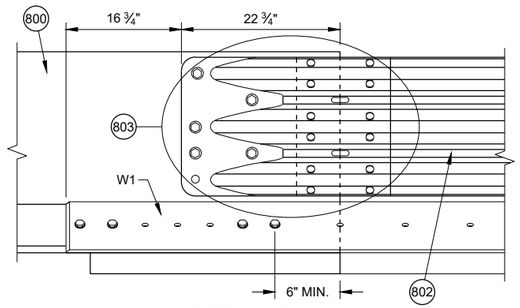
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 1/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

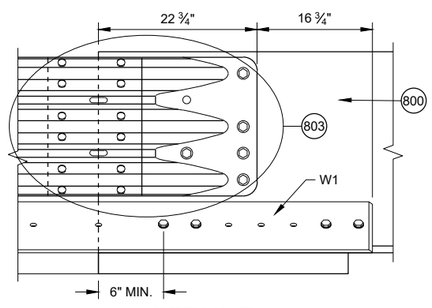
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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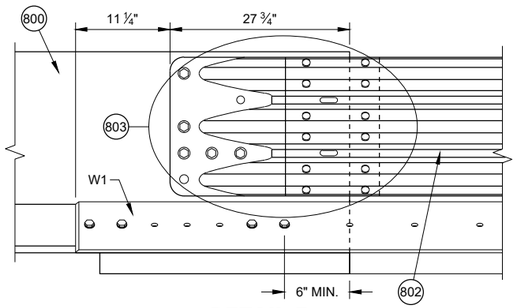
SDD 14B07-16g



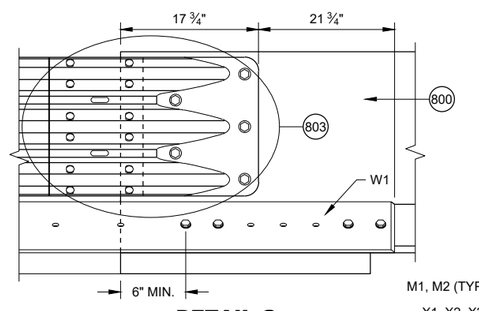
DETAIL D



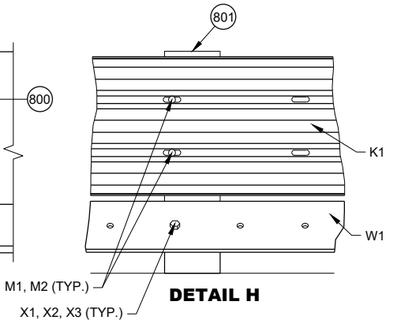
DETAIL E



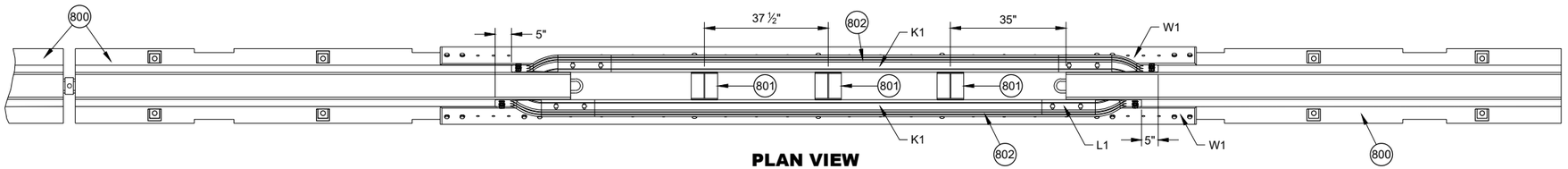
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

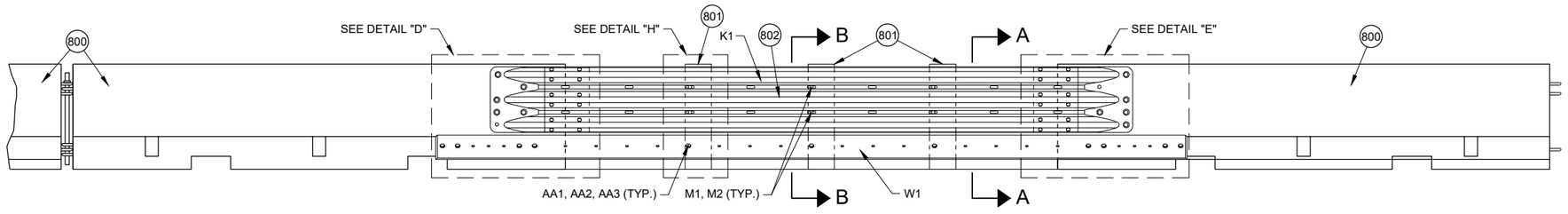
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

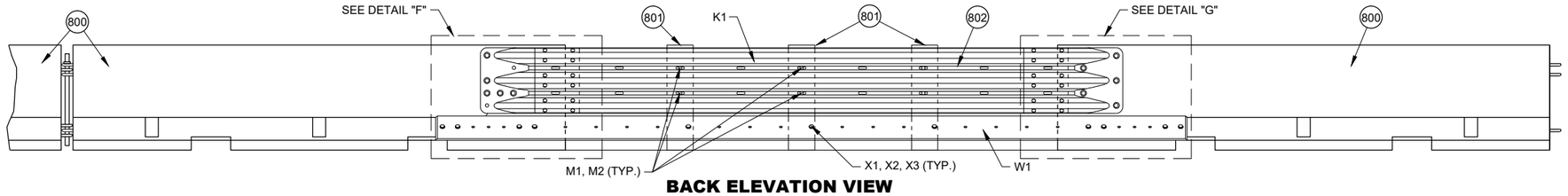
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



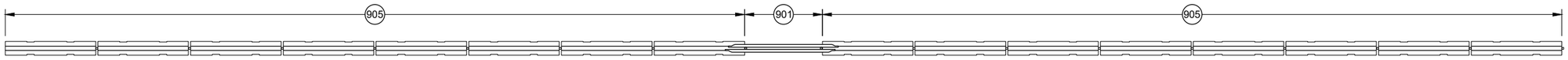
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

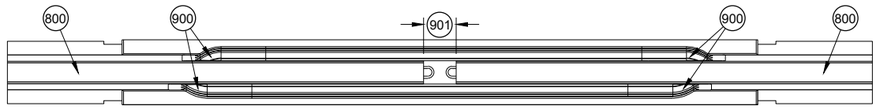
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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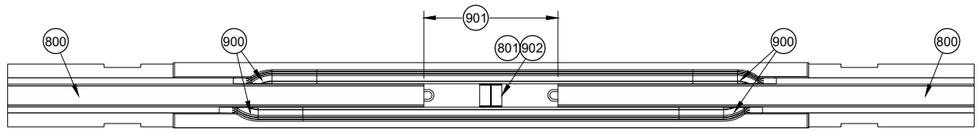
PLAN VIEW
GAP WITHIN SPACING



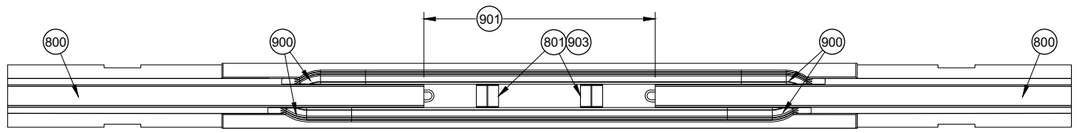
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

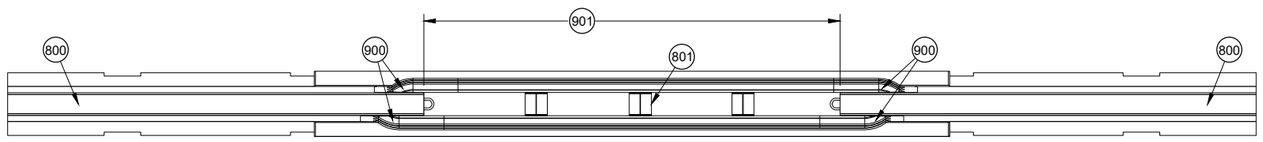
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

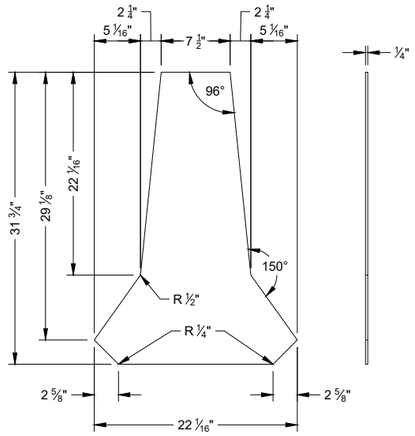


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

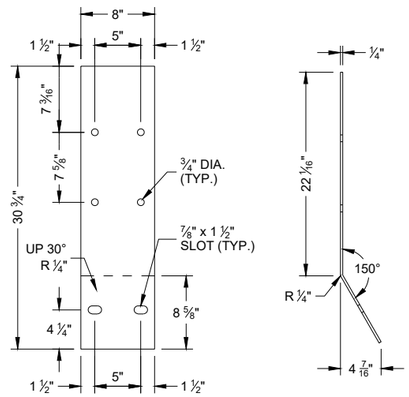
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16i



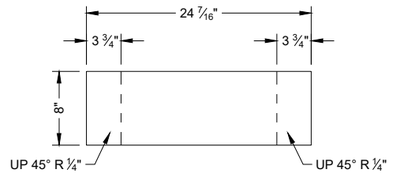
PROFILE VIEW SIDE VIEW

STIFFENER ASSEMBLY CENTER PANEL U1

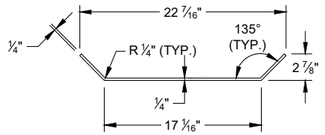


FLAT PATTERN SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

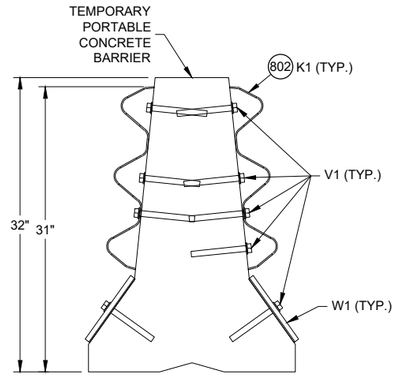


FLAT PATTERN

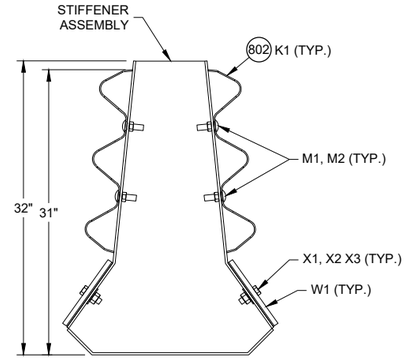


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

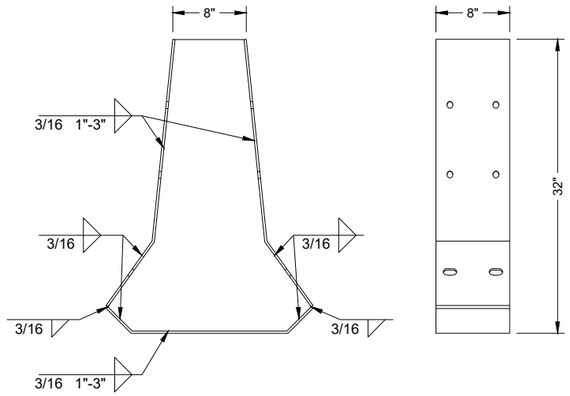


SECTION A - A



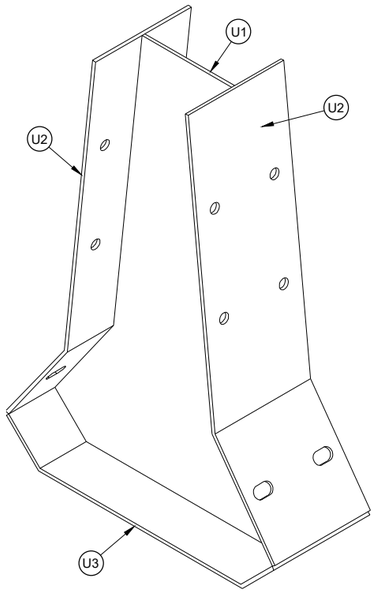
SECTION B - B

PLAN VIEW



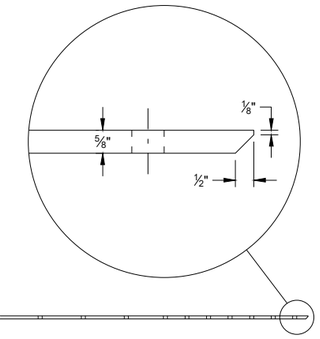
PROFILE VIEW

SIDE VIEW

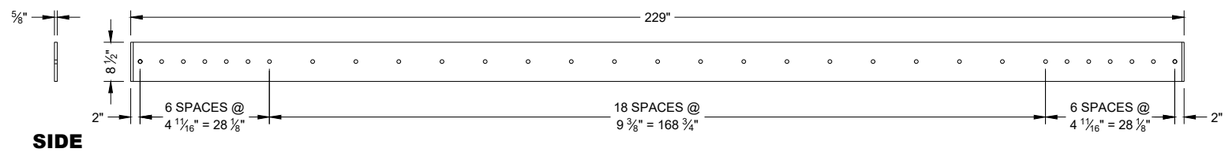


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

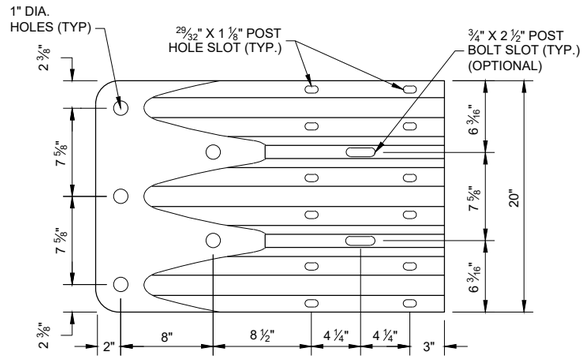
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

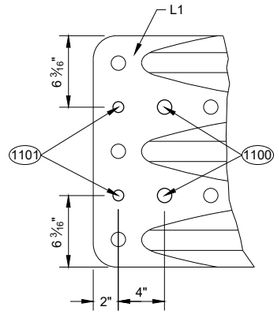
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

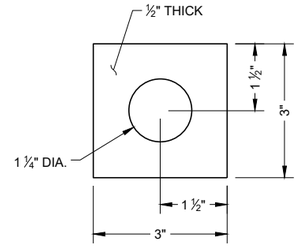


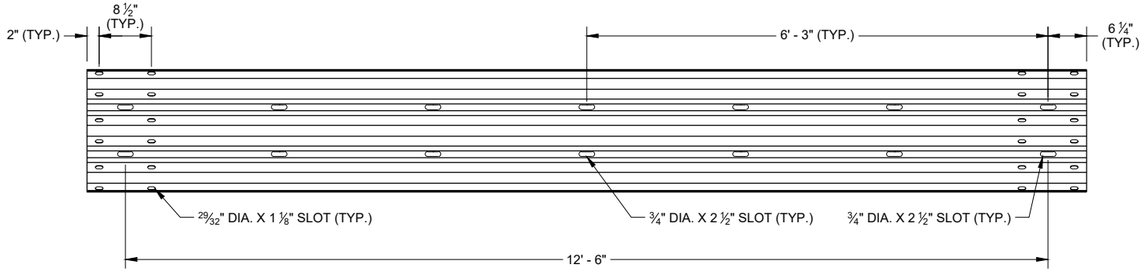
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

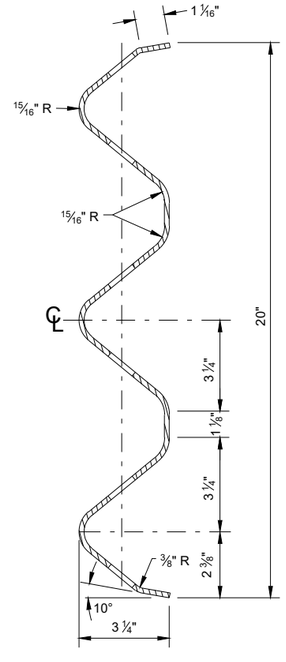
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



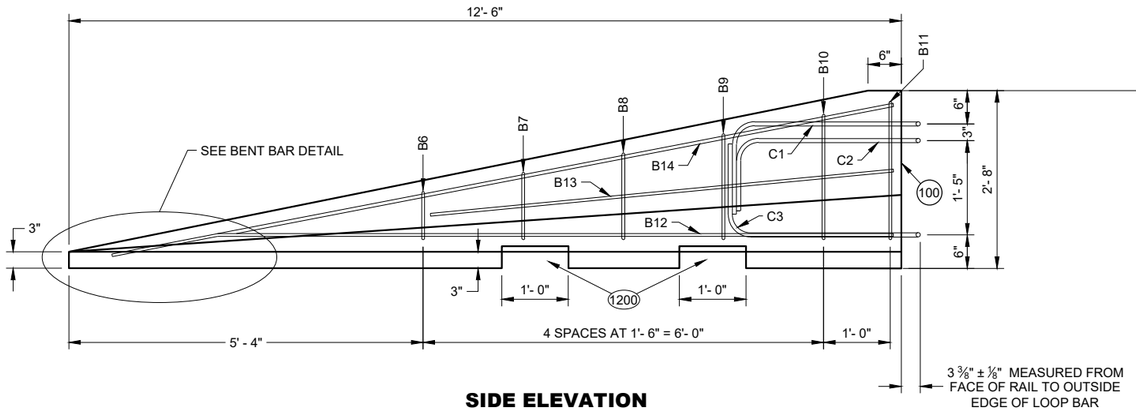
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

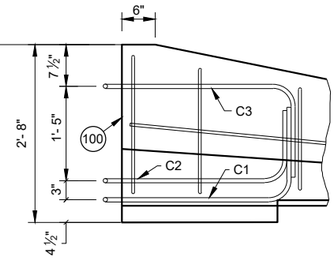
STATE OF WISCONSIN
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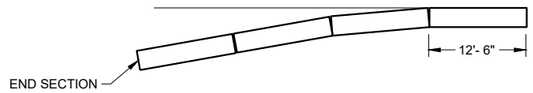
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

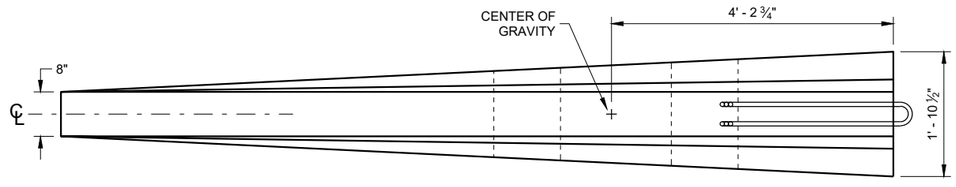
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

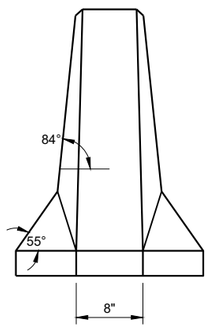


FLARE AT BARRIER END

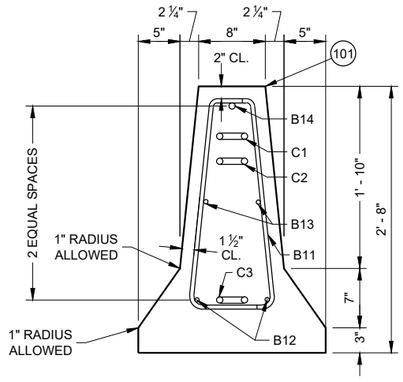
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

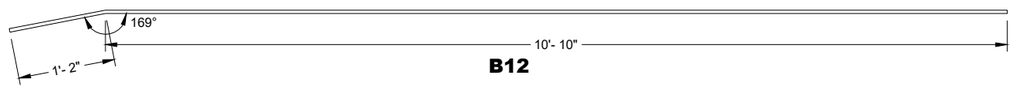


FRONT ELEVATION

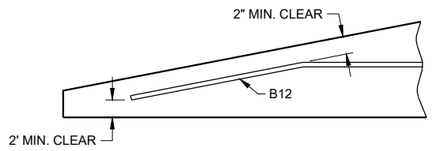


END SECTION

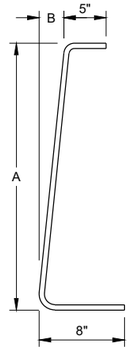
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

6

SDD 14B07-16m

6

SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

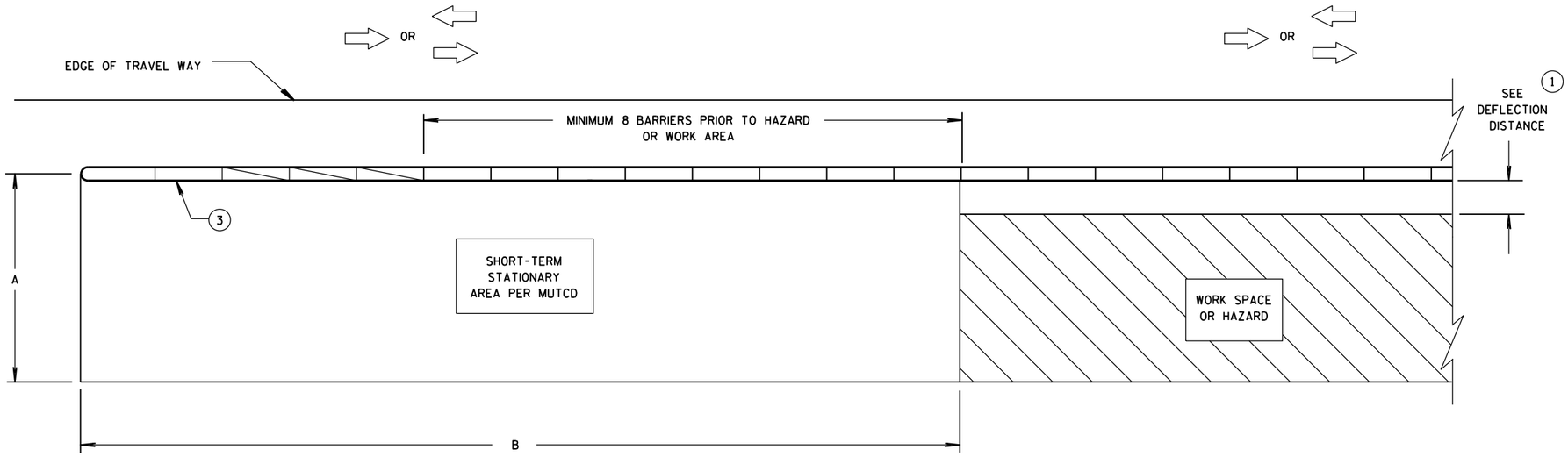
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B07-16n



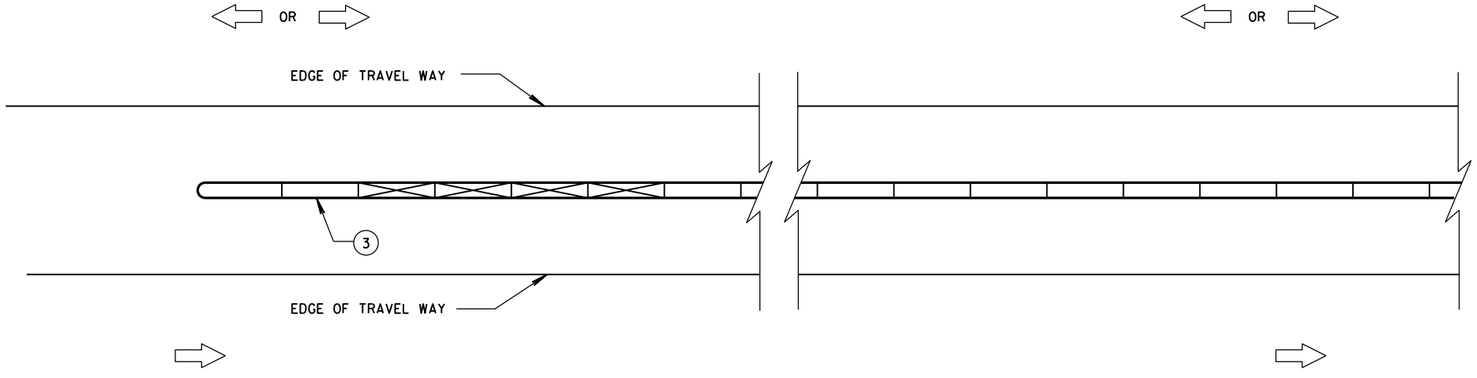
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

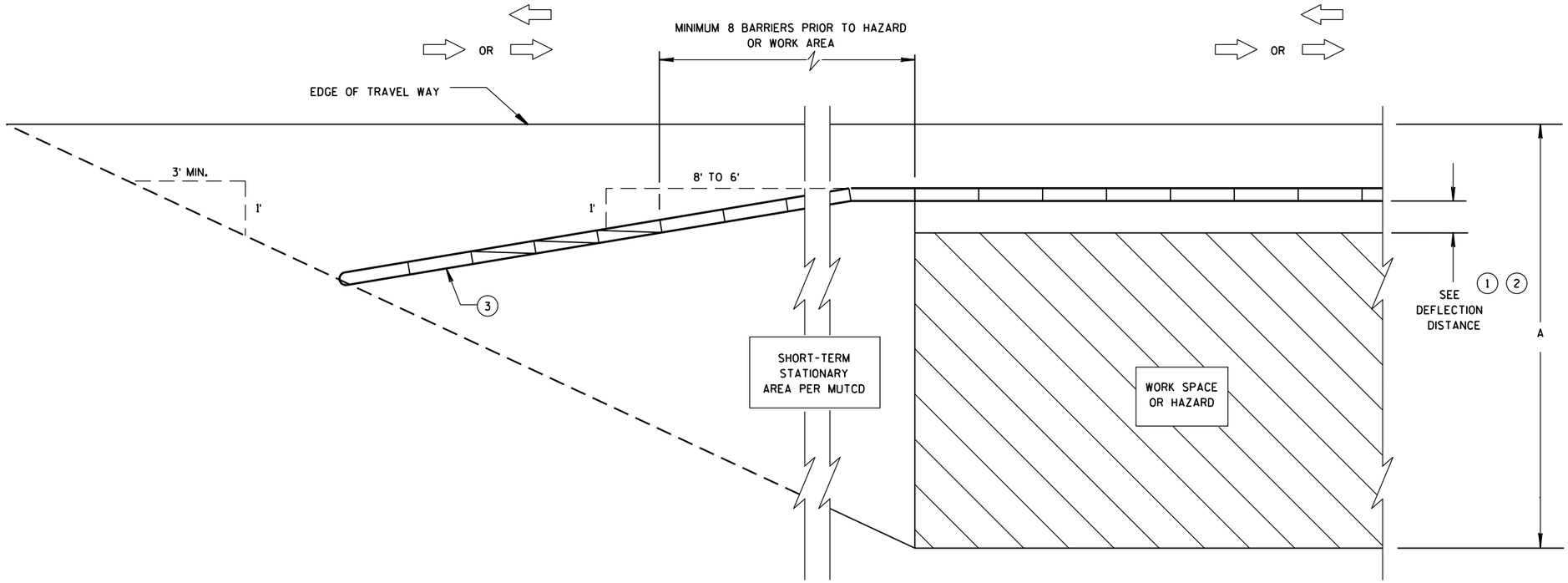
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

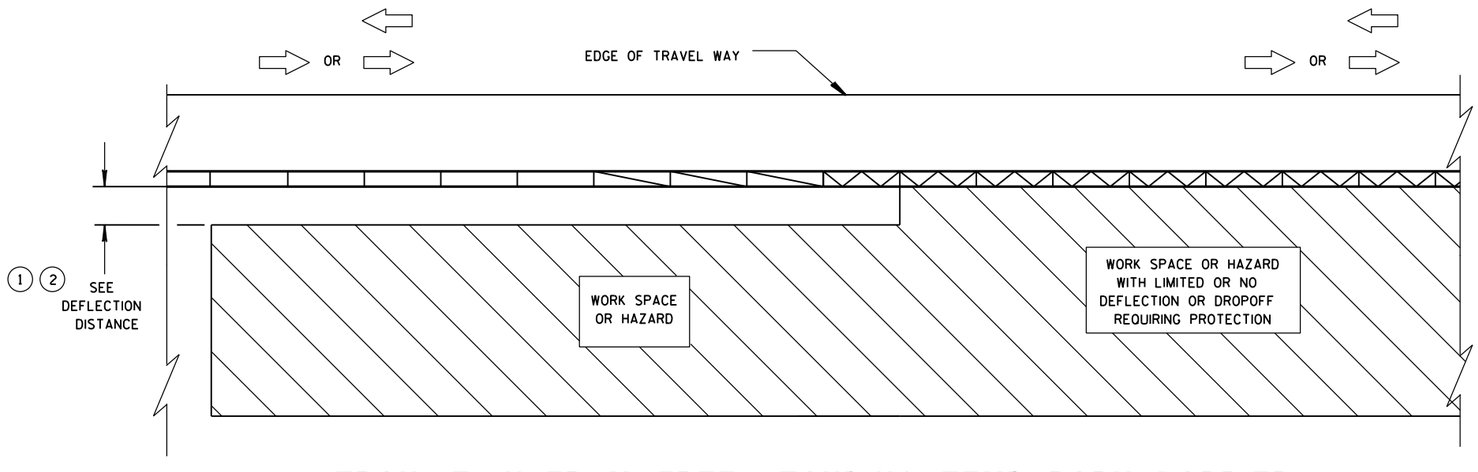
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S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

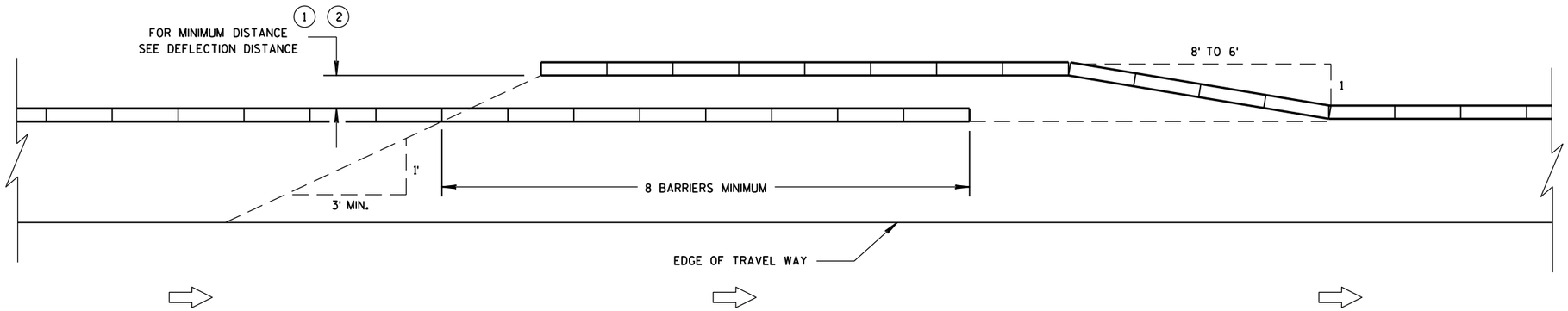
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

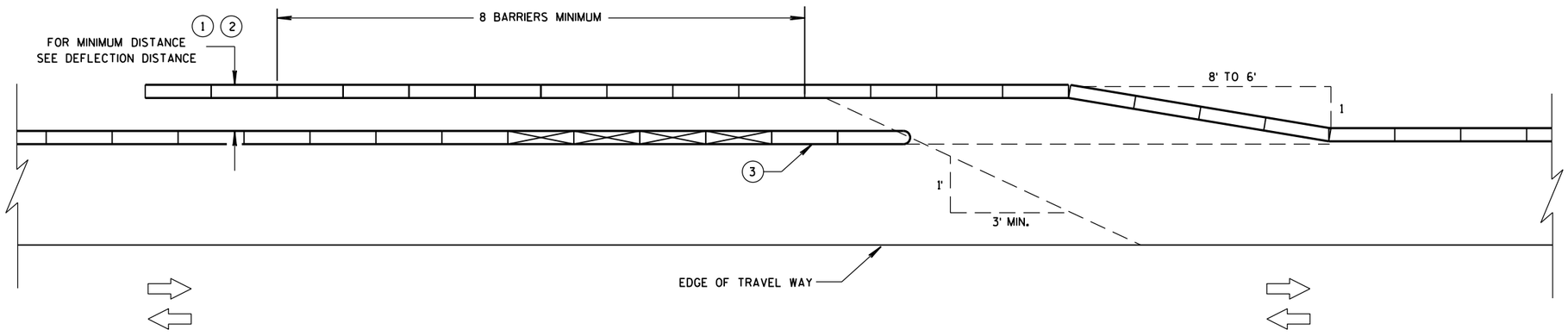
STATE OF WISCONSIN
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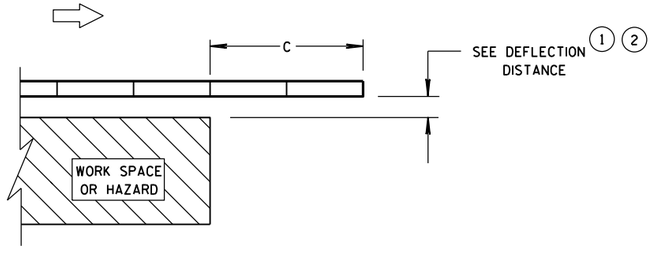
S.D.D. 14 B 8-2b



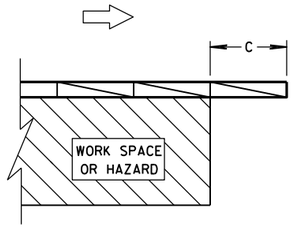
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

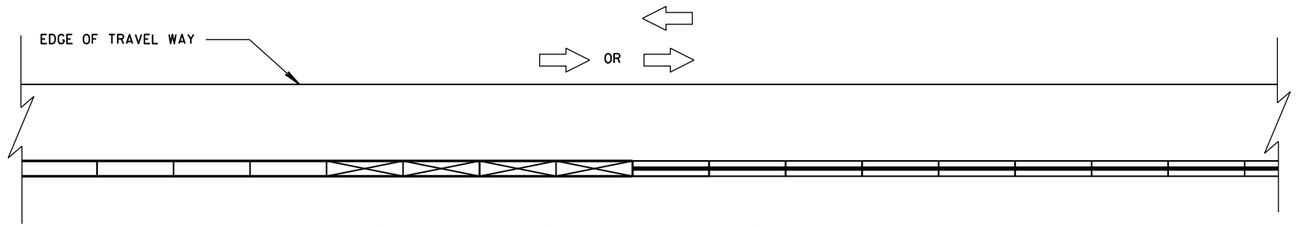
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

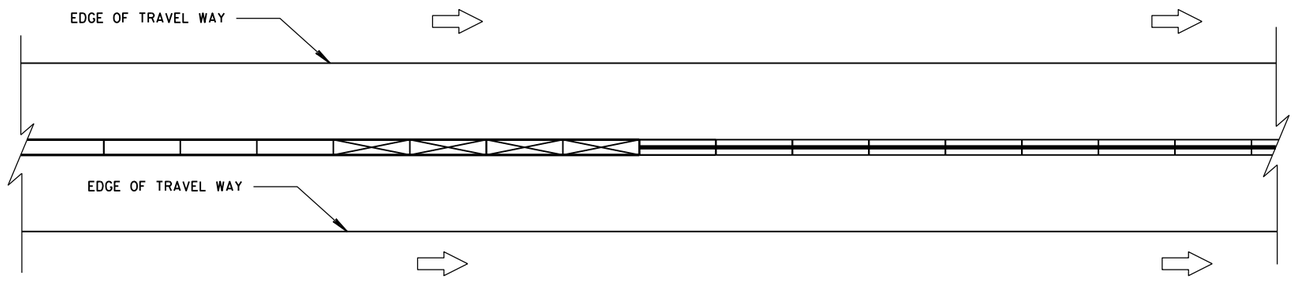
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CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

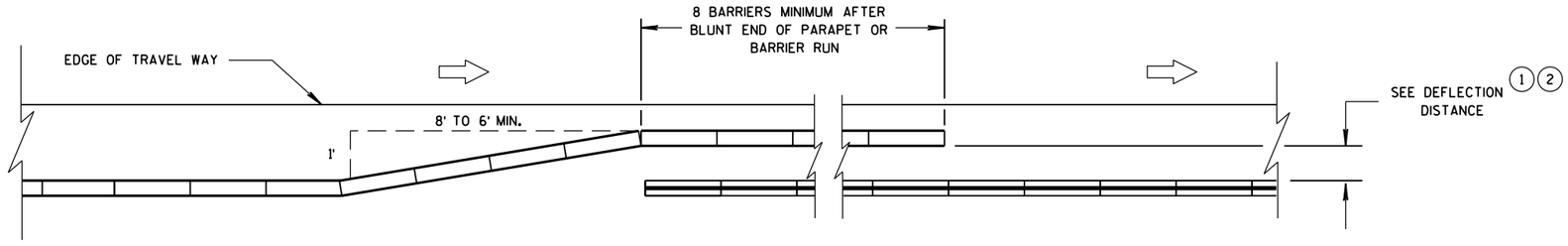
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

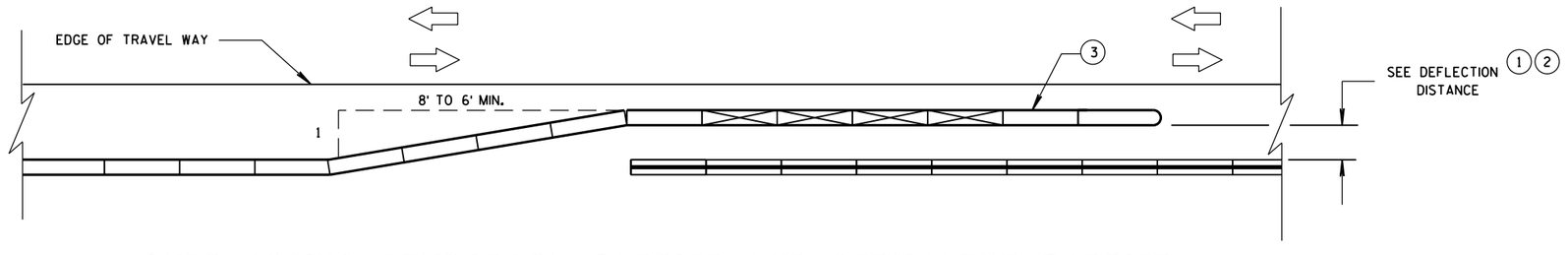
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
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LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

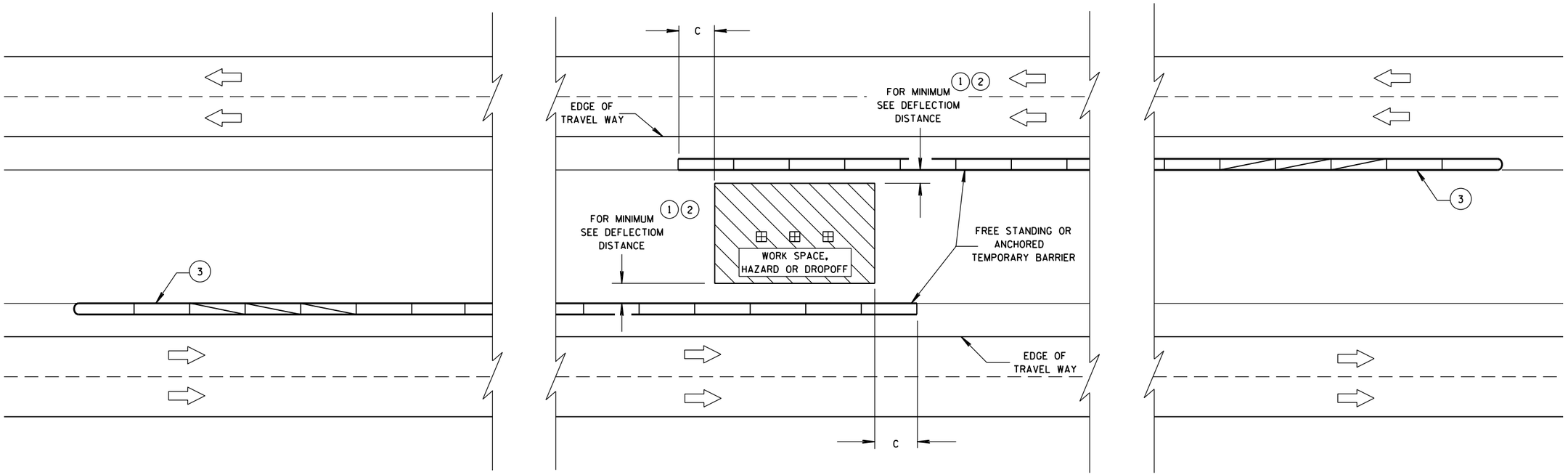
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINNER
FHWA

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S.D.D. 14 B 8-2e

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

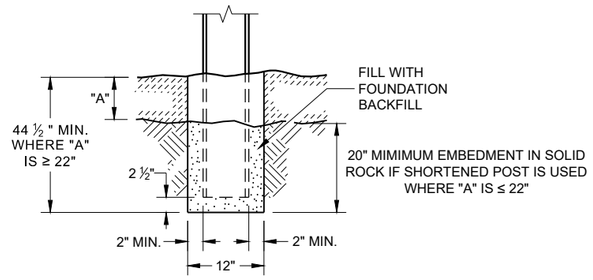
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

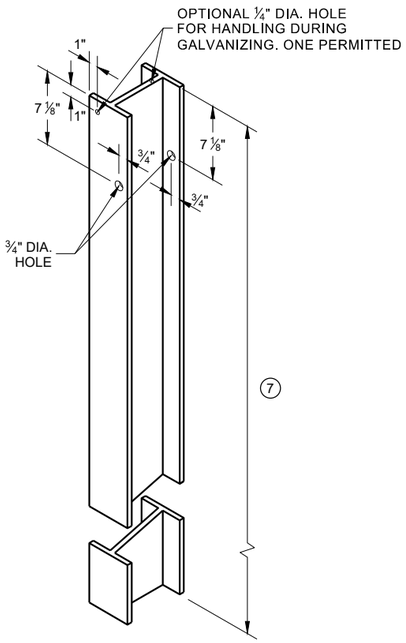
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

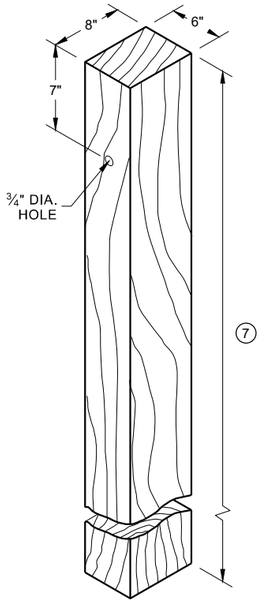
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



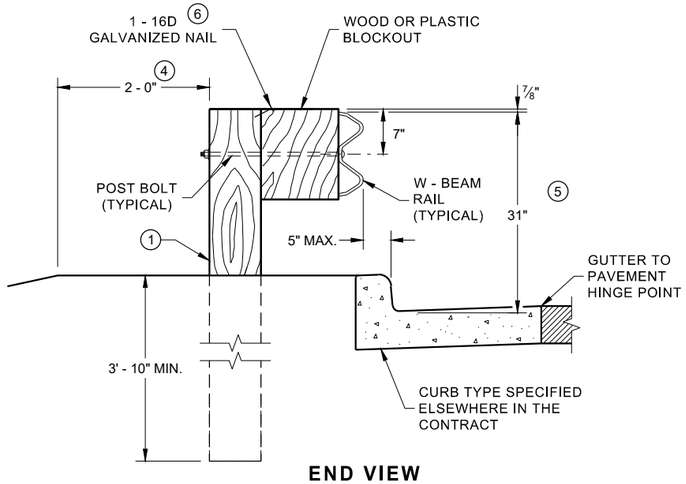
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



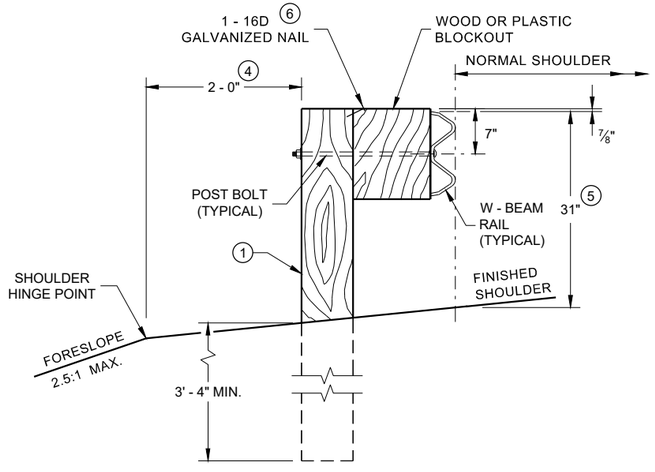
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



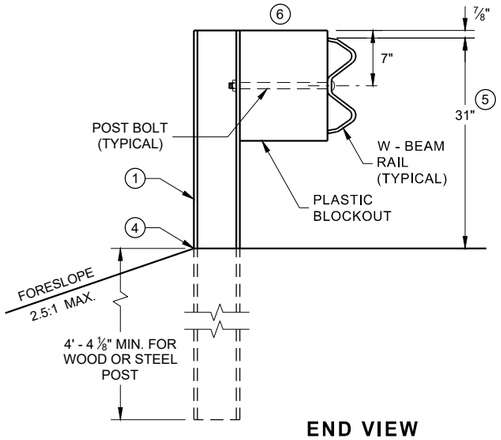
WOOD POST (6" X 8") NOMINAL (1)



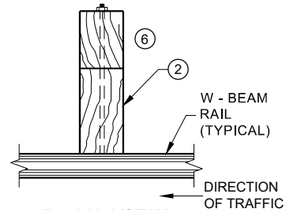
END VIEW
LOCATED ALONG A CURBED ROADWAY



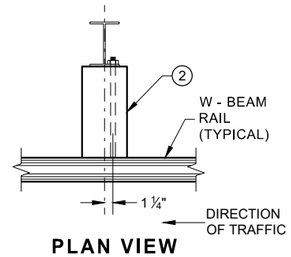
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



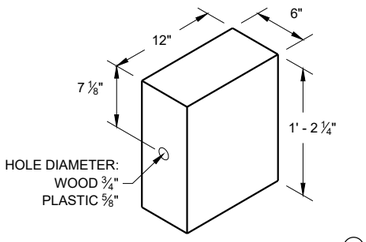
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

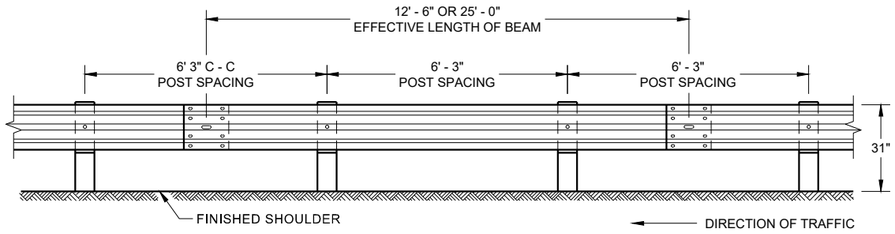
STATE OF WISCONSIN
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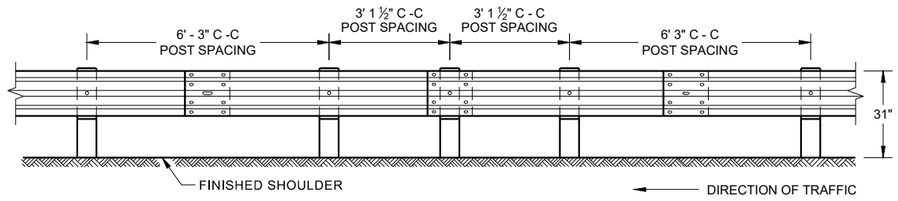
SDD 14B42 - 07a

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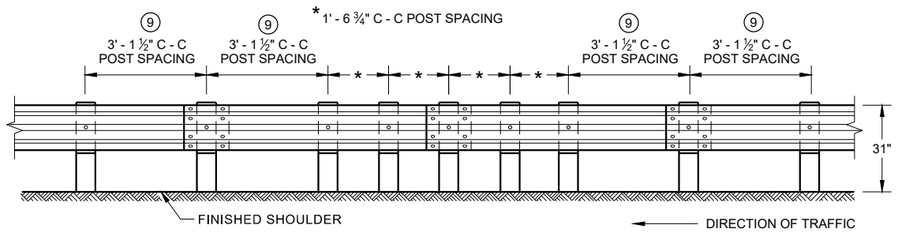
SDD 14B42 - 07a



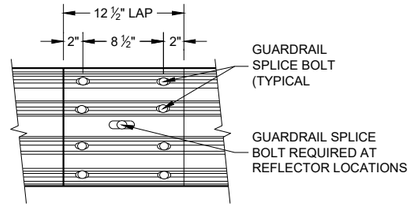
FRONT VIEW
POST SPACING STANDARD INSTALLATION



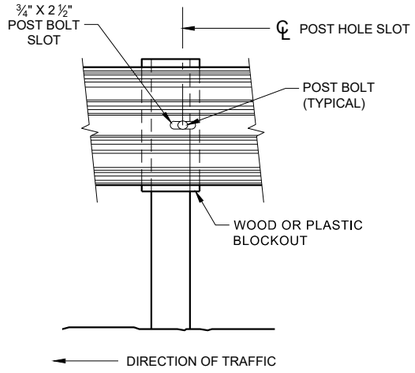
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



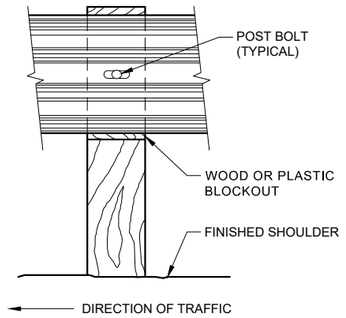
FRONT VIEW
QUARTER POST SPACING (QS)



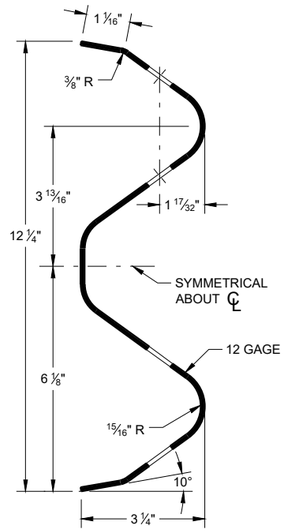
FRONT VIEW
MID-SPAN BEAM SPLICE



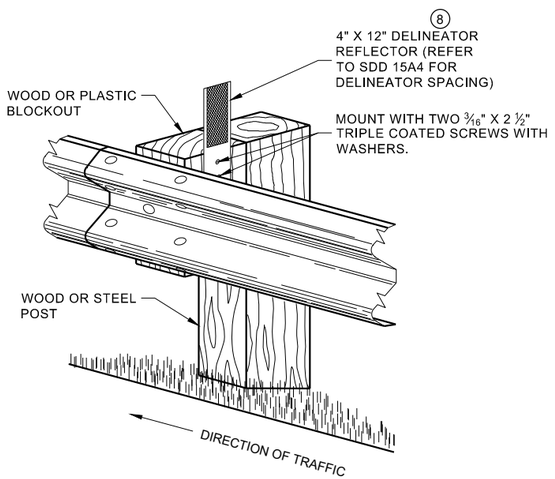
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

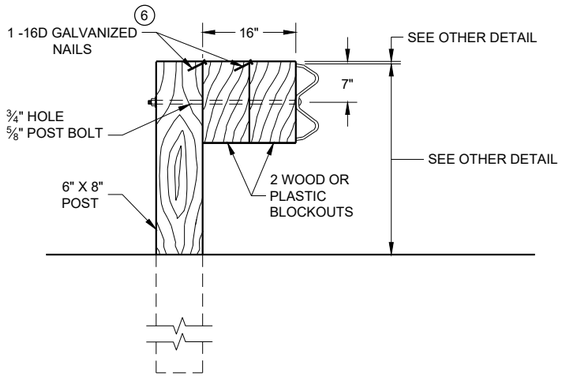
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

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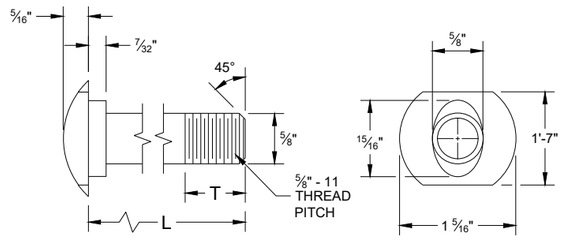


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

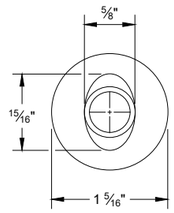
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

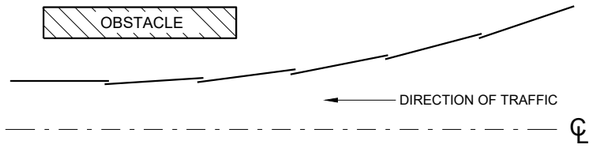


POST BOLT TABLE

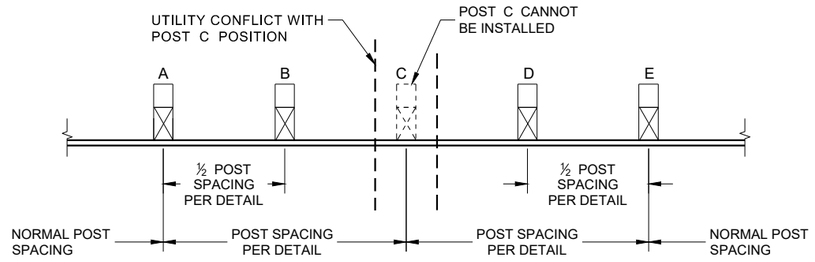
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



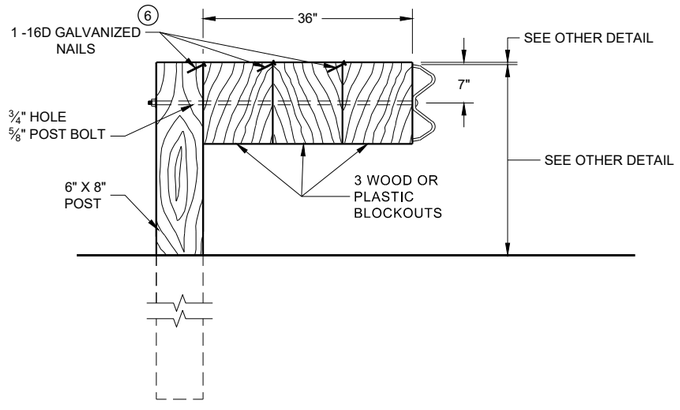
ALTERNATE BOLT HEAD



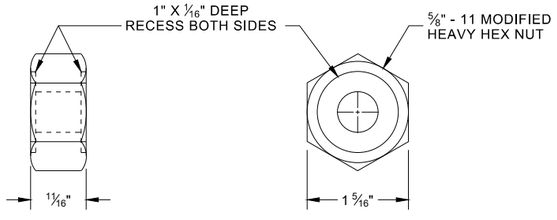
PLAN VIEW
BEAM LAPPING DETAIL



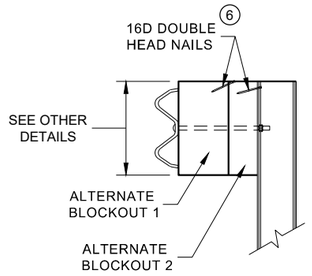
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



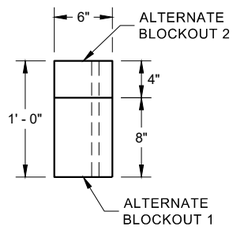
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

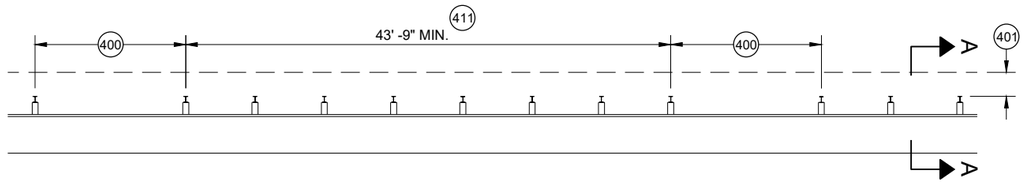
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

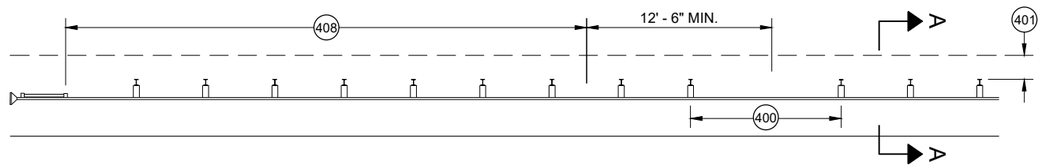
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

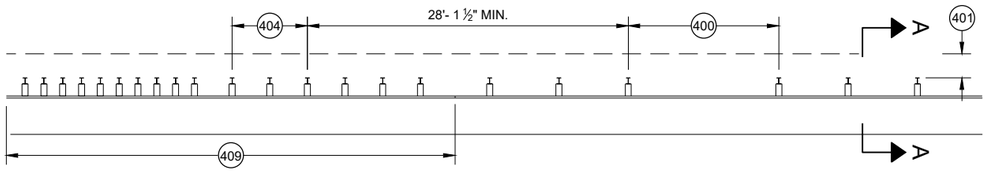
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



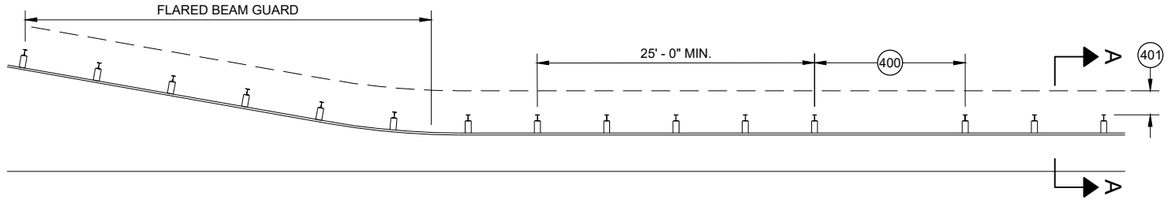
MISSING POST IN MGS GUARDRAIL



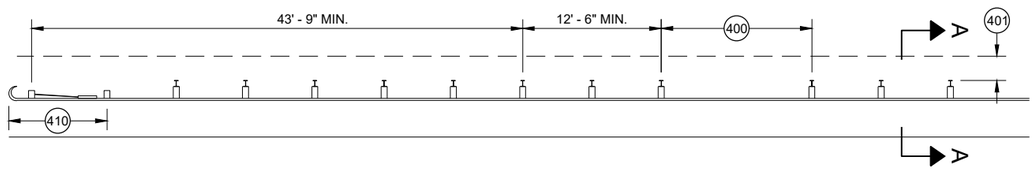
MISSING POST IN MGS GUARDRAIL NEAR EAT



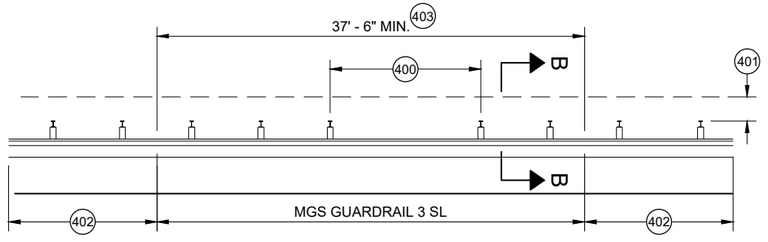
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

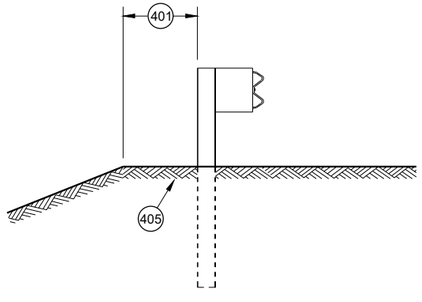


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

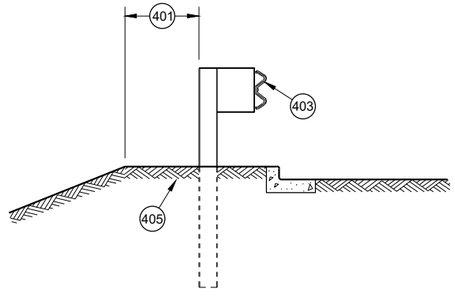


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

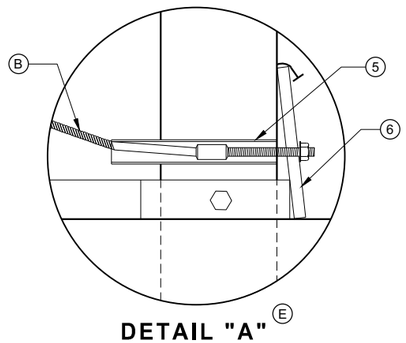
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

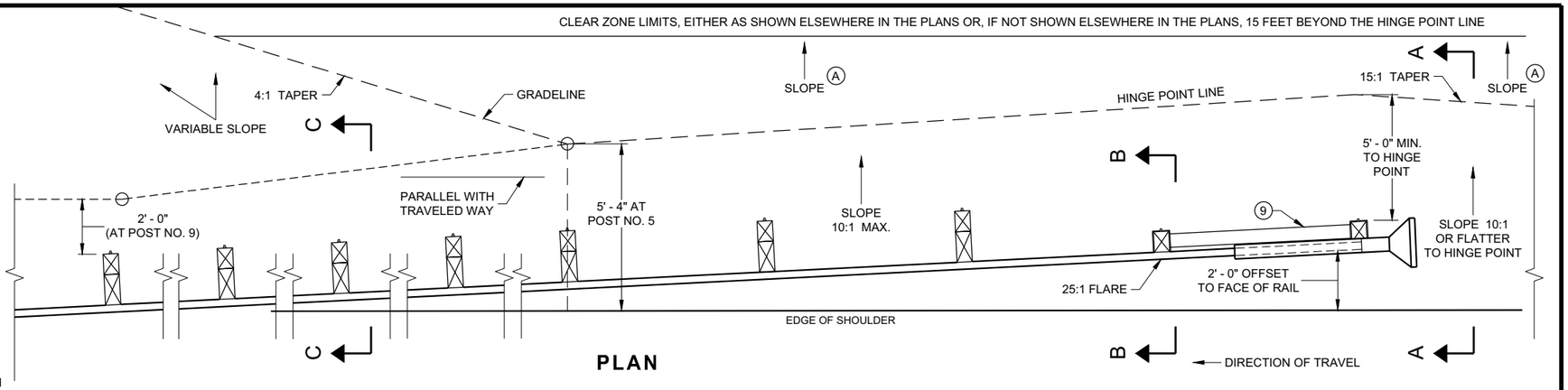
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

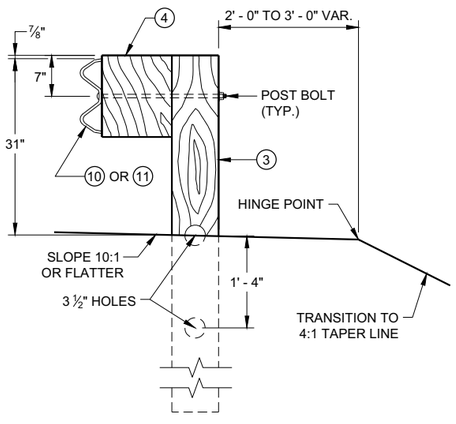
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

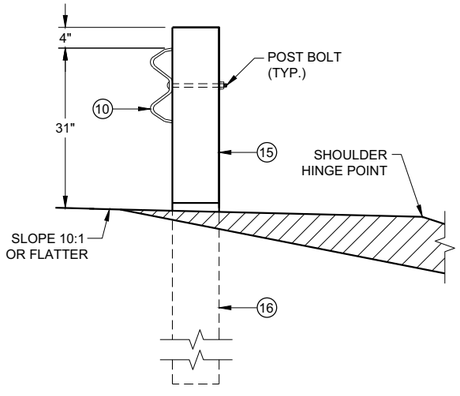


DETAIL "A" (E)

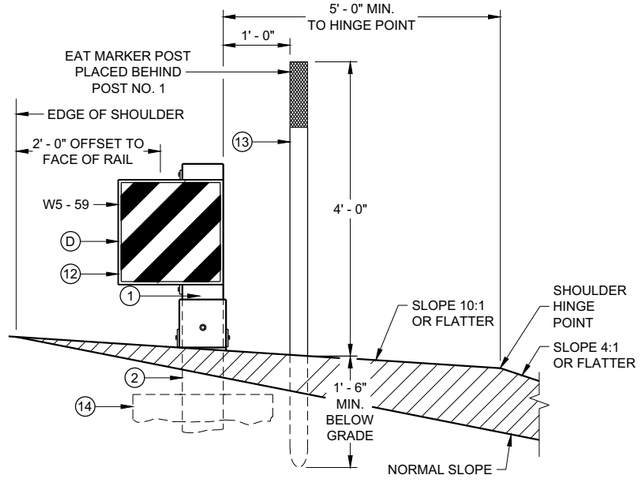




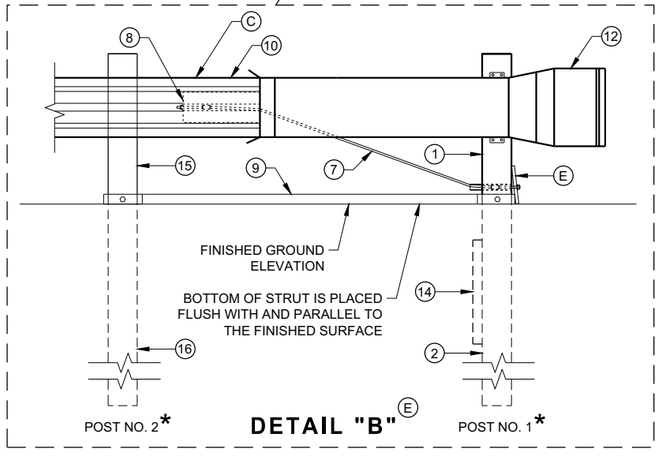
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



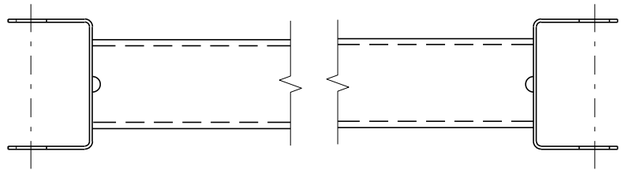
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

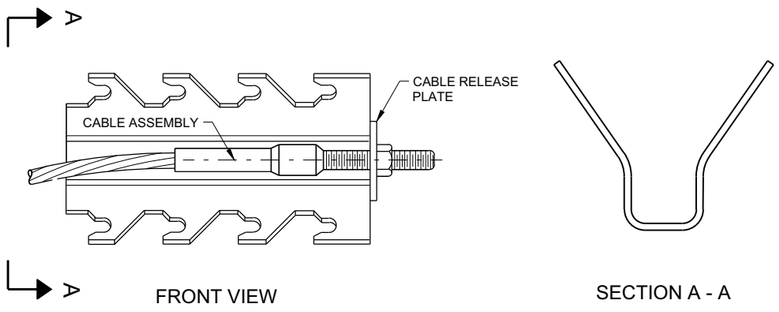
SDD 14B44 - 04a



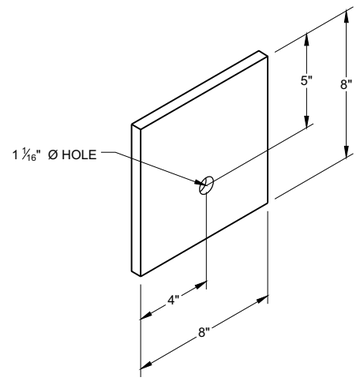
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
(1)	UPPER POST NO. 1 6" X 6" TUBE
(2)	LOWER POST NO. 1
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	IMPACT HEAD
(13)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
(14)	SOIL PLATE
(15)	UPPER POST NO. 2
(16)	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

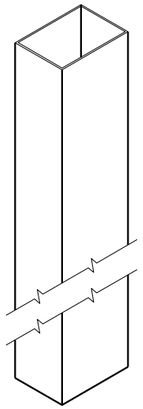
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SDD 14B44 - 04b

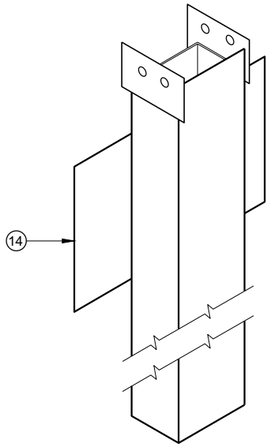
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

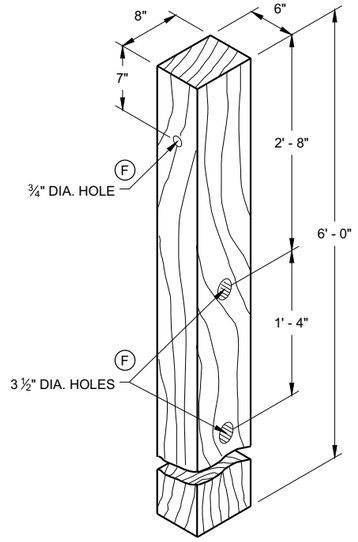
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



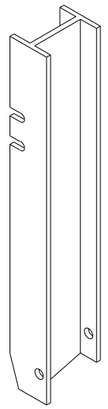
UPPER POST NO. 1 (1) (E)



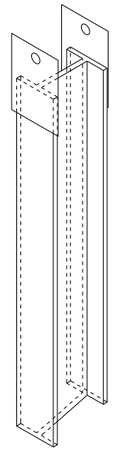
LOWER POST NO. 1 (2) (E)



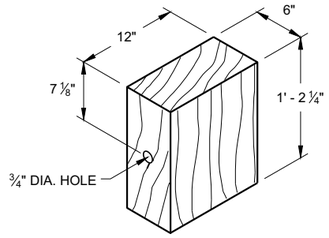
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



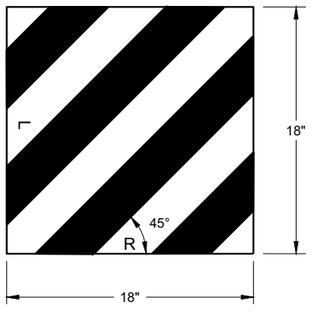
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

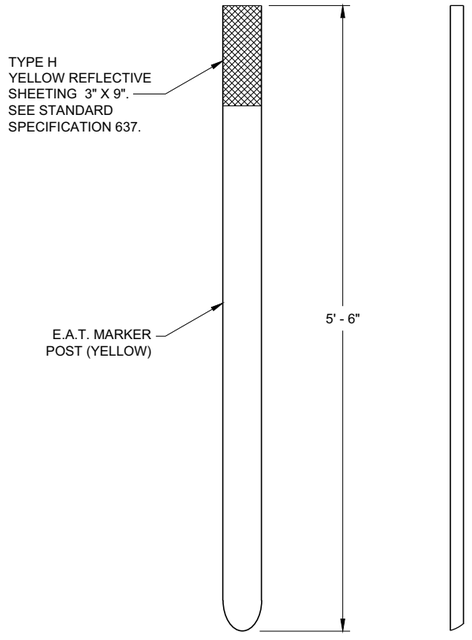


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



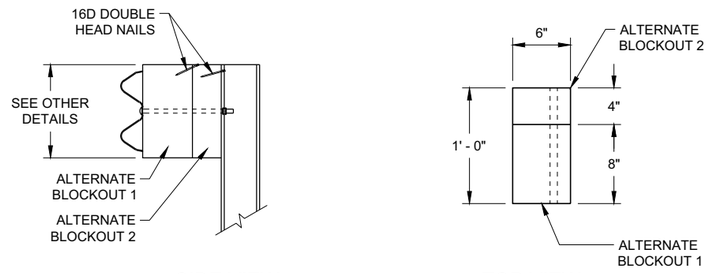
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

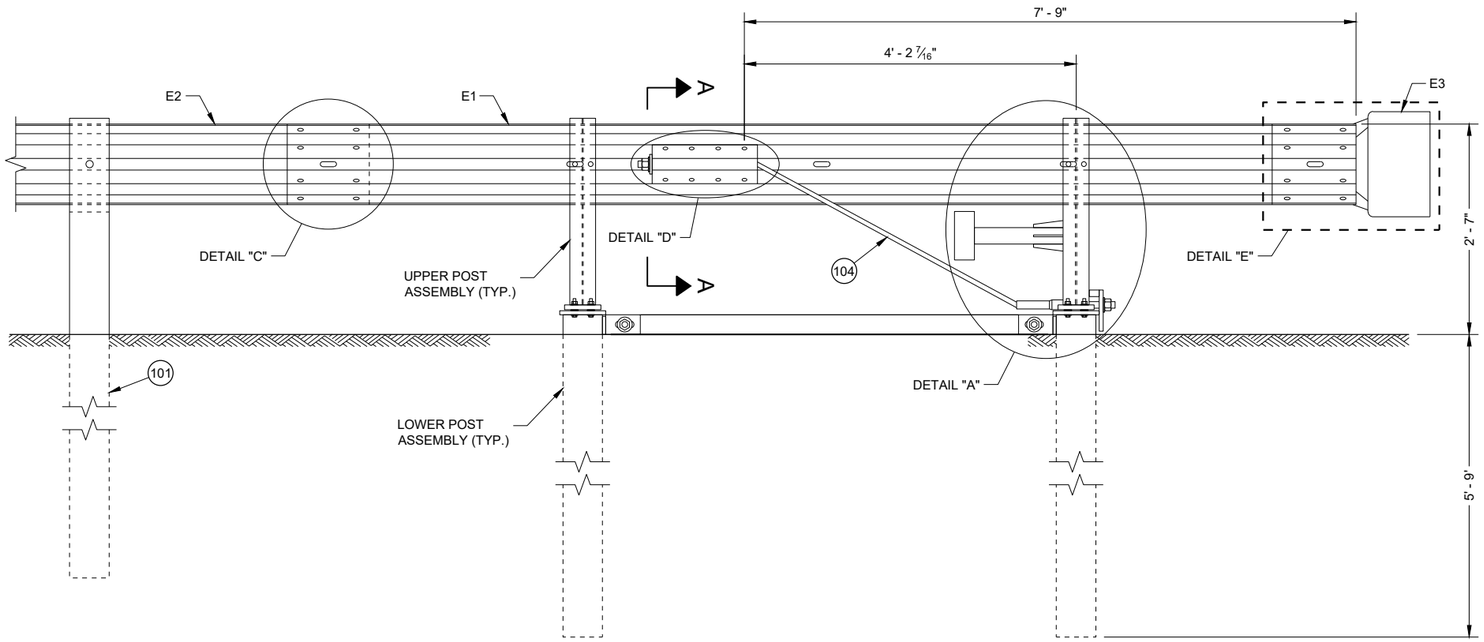
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

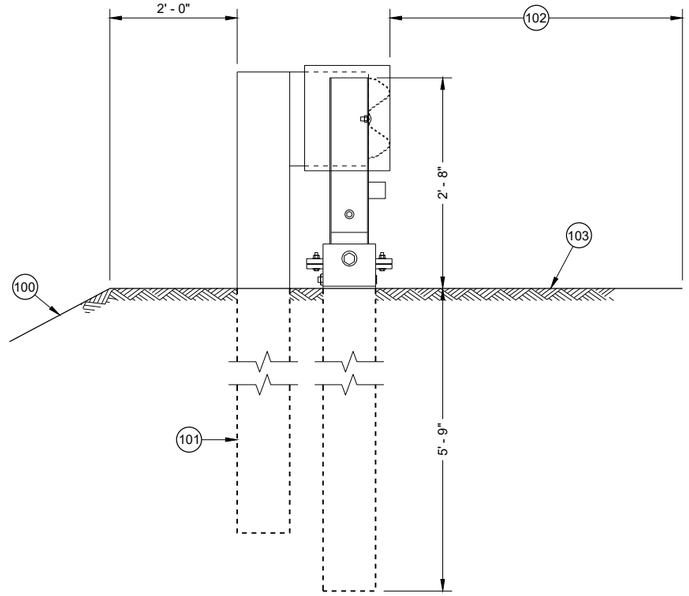
FHWA

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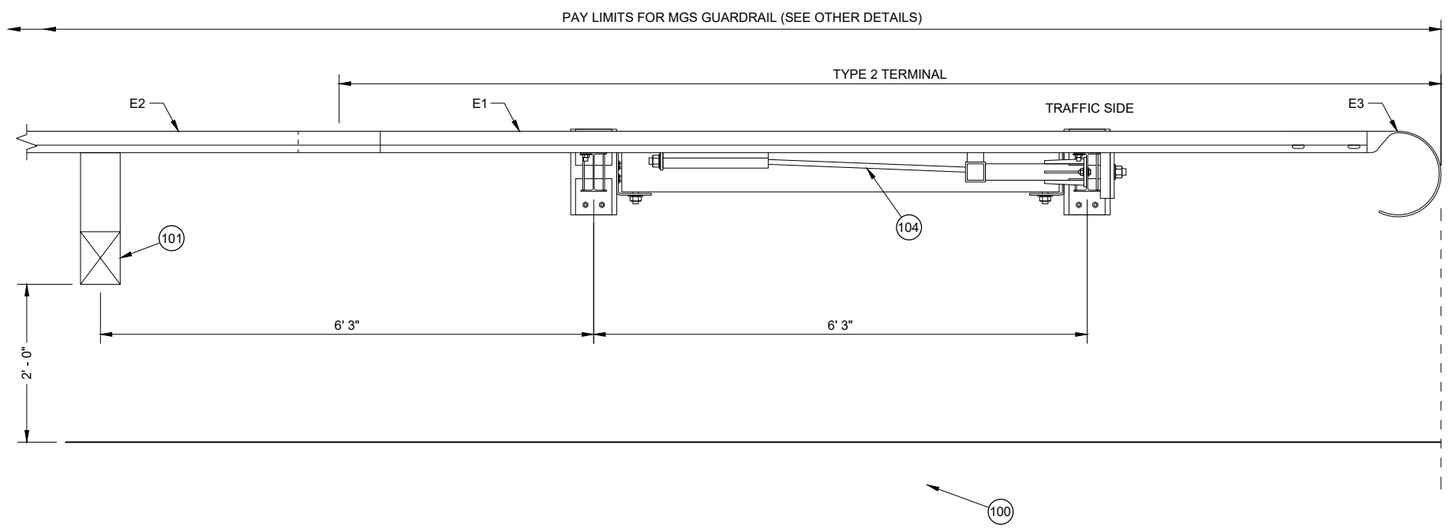
SDD 14B44 - 04c
SDD 14B44 - 04c



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

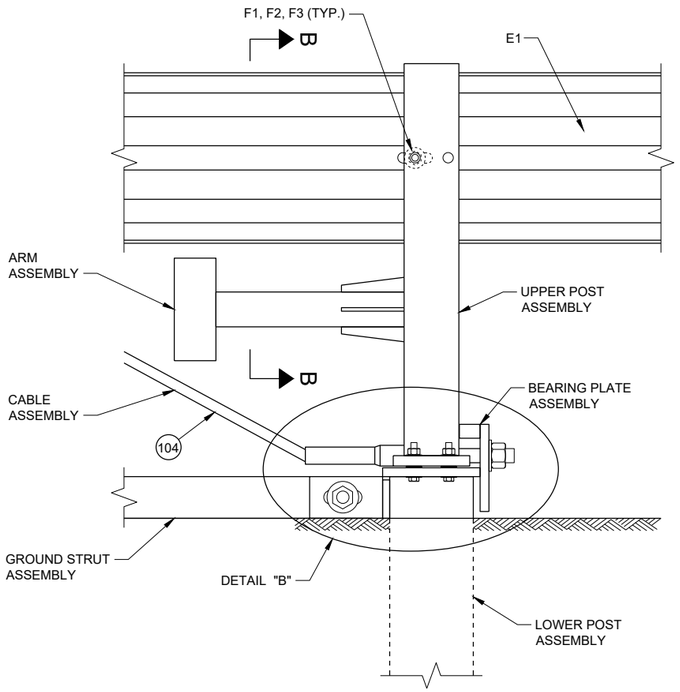
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

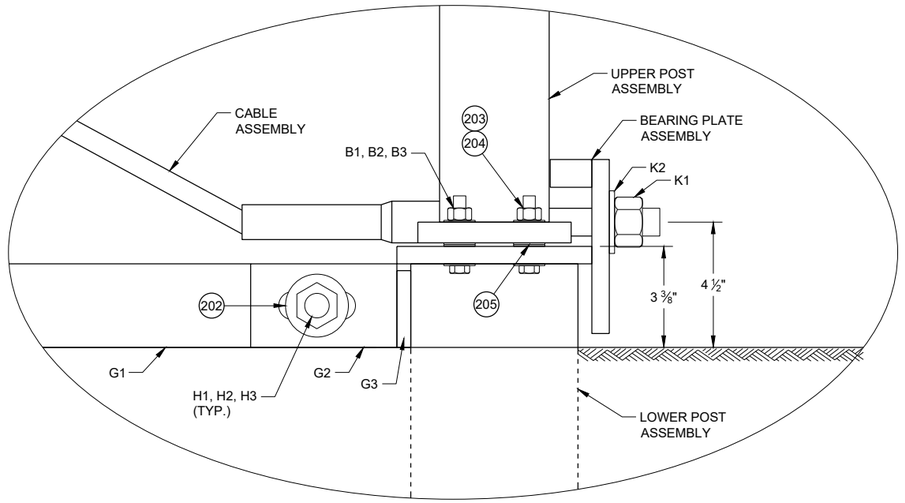
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

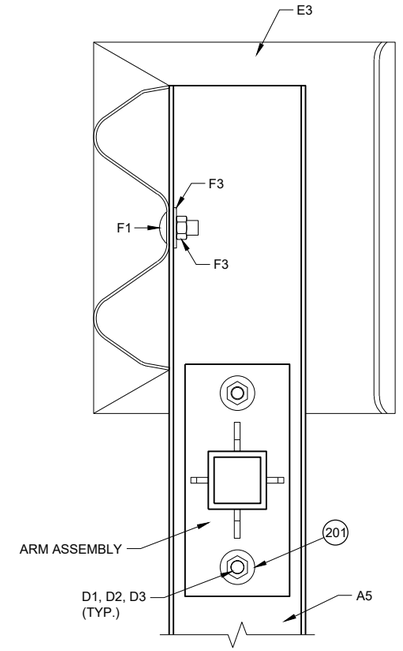
SDD 14B47 - 05a



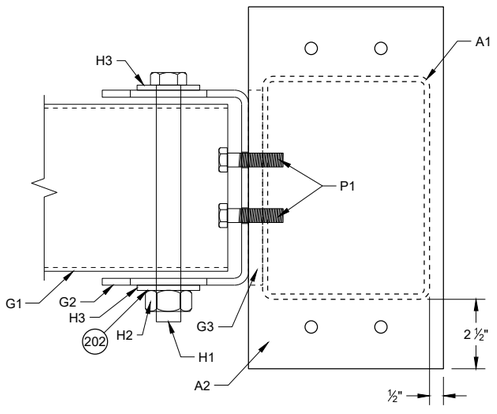
DETAIL "A"



DETAIL "B"

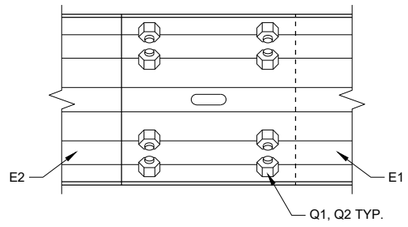


SECTION B - B



TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "C"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

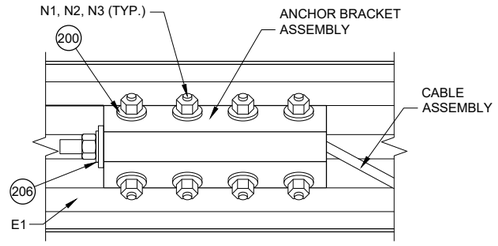
202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

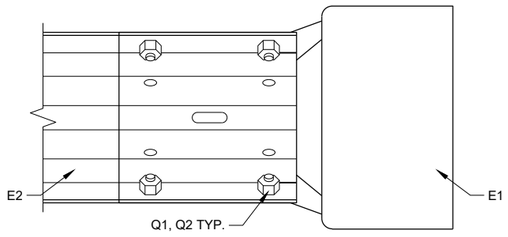
204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.



DETAIL "D"



DETAIL "E"

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

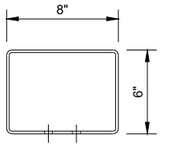
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

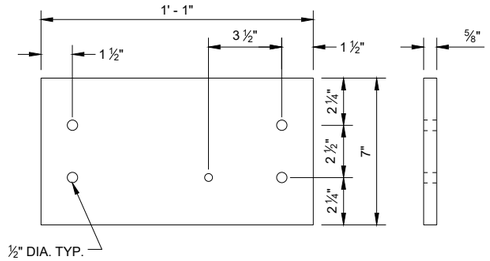
SDD 14B47 - 05b

GENERAL NOTES

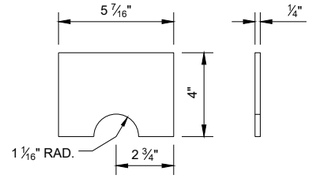
(300) TAP FOR 1/2" AFTER GALVANIZATION



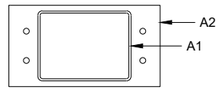
TOP VIEW



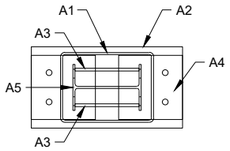
LOWER PLATE (A2)

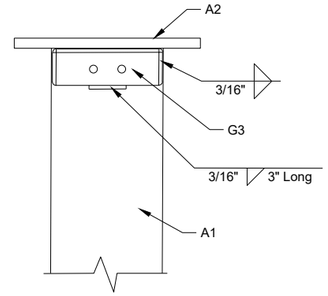


POST GUSSET (A3)

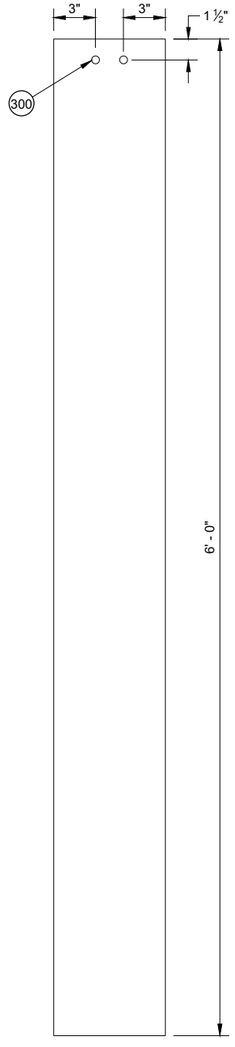


PLAN VIEW



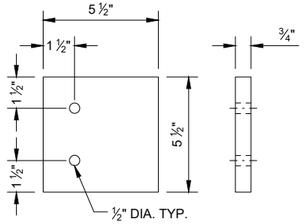


WELDING DETAIL
G3 AND A1

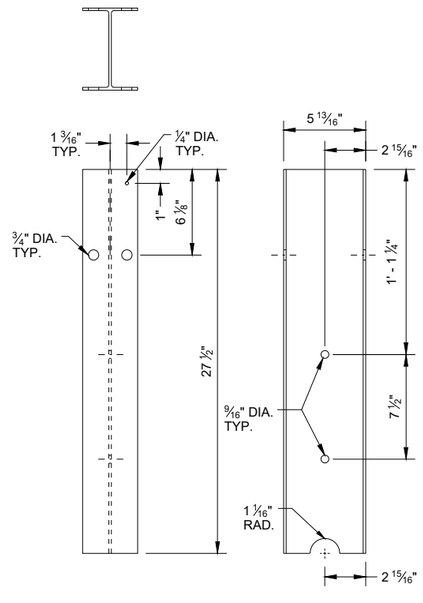


SIDE VIEW

FOUNDATION
TUBE (A1)

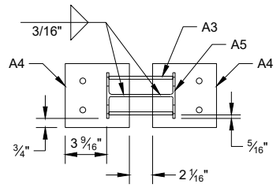


UPPER PLATE (A4)

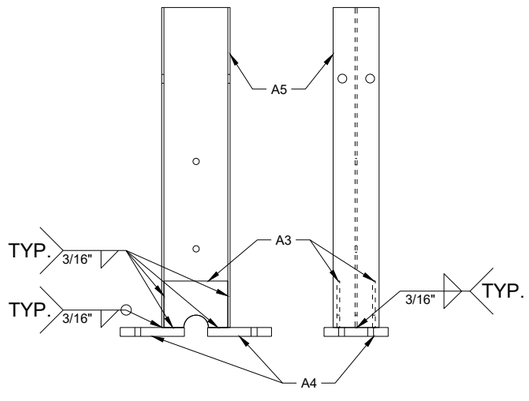


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

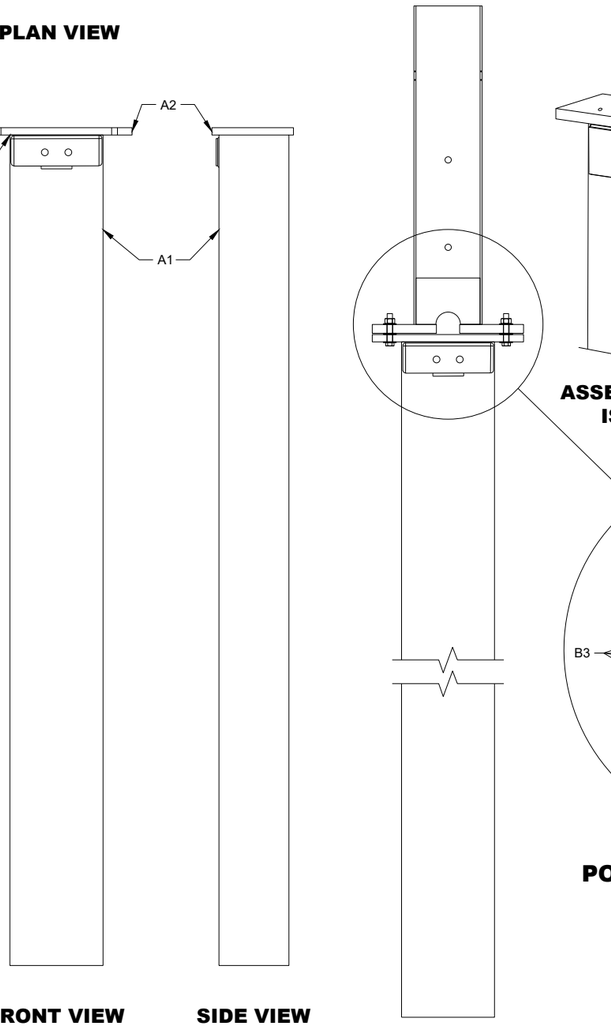


PLAN VIEW



SIDE VIEW FRONT VIEW

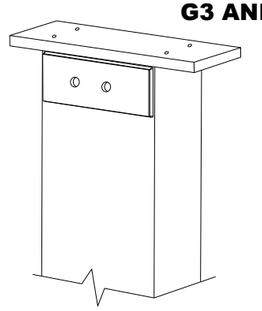
UPPER POST ASSEMBLY



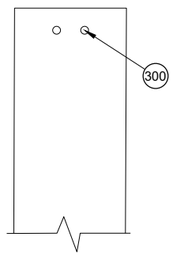
FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY

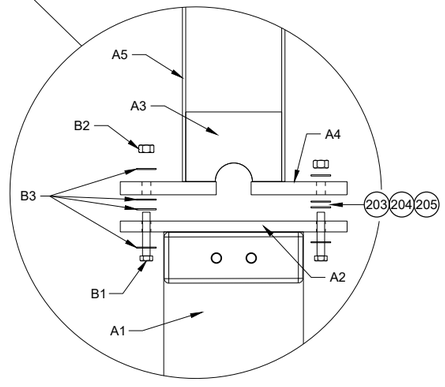
ASSEMBLED POST



ASSEMBLY DETAIL
ISOMETRIC



A1



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

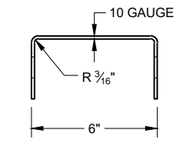
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

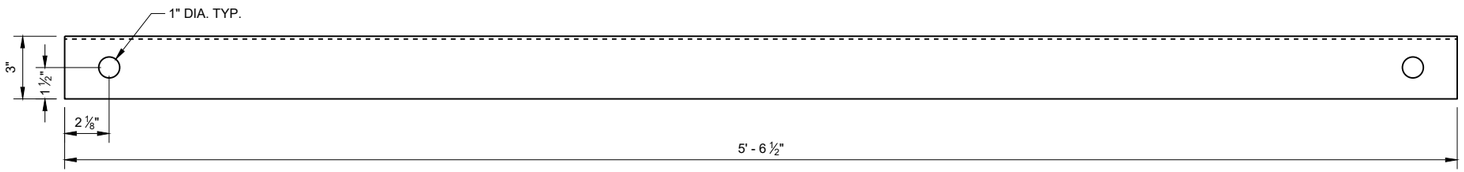
SDD14B47 - 05c

6

SDD14B47 - 05c

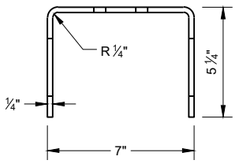


SIDE VIEW

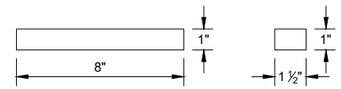


FRONT VIEW

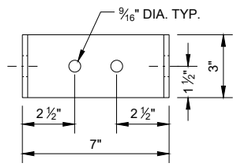
GROUND STRUT CHANNEL (G1)



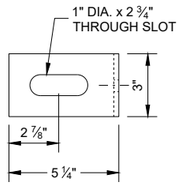
TOP VIEW



BEARING PLATE FLANGE (L2)

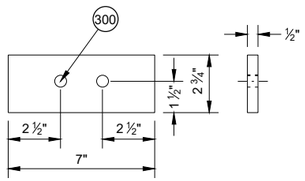


FRONT VIEW

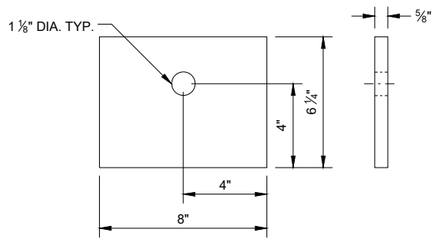


SIDE VIEW

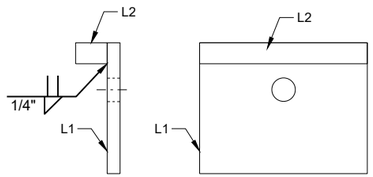
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

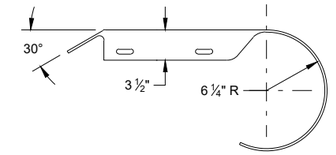


BEARING PLATE (L1)

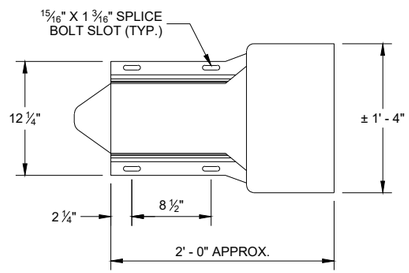


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

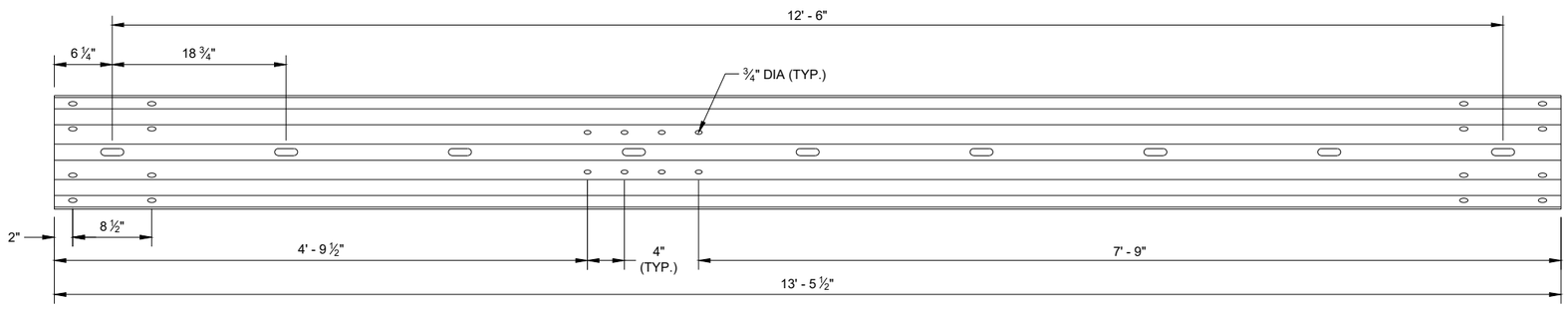


PLAN VIEW

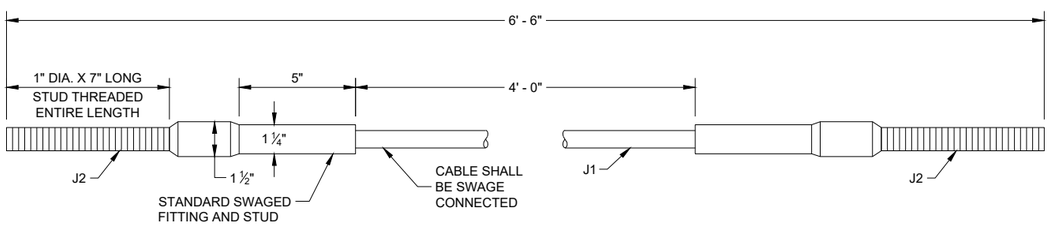


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



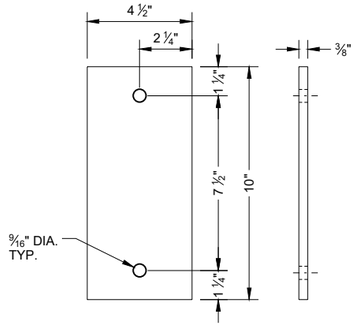
CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

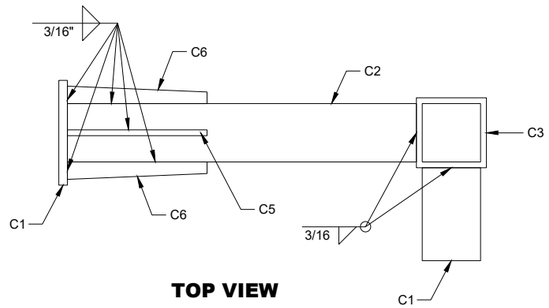
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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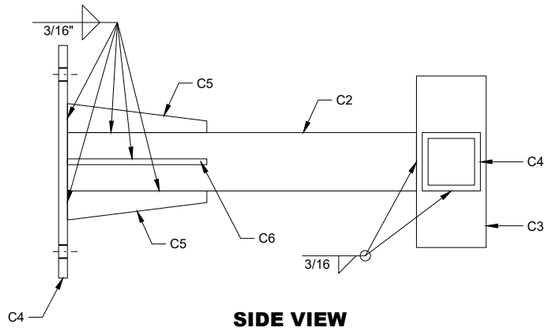
SDD 14B47 - 05d
SDD 14B47 - 05d



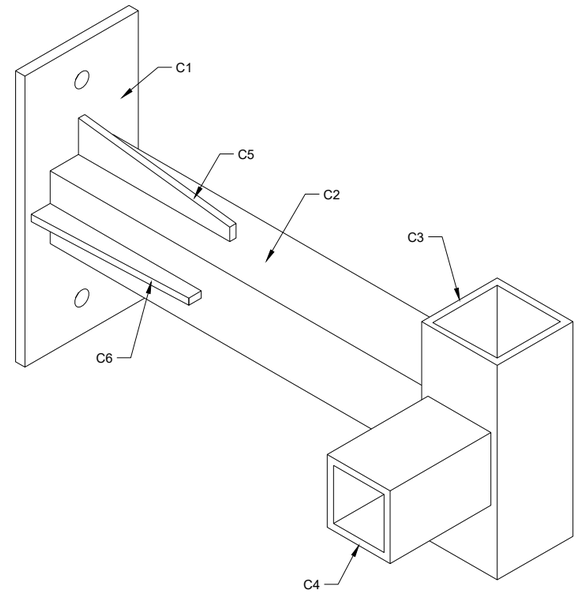
ARM PLATE (C1)



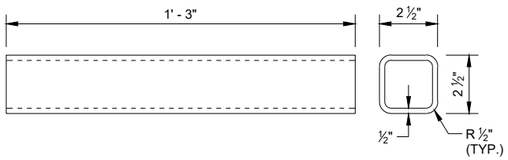
TOP VIEW
ARM ASSEMBLY



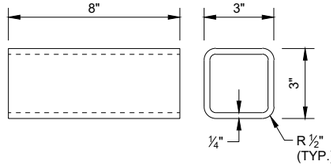
SIDE VIEW
ARM ASSEMBLY



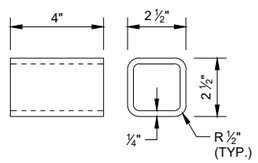
ISOMETRIC VIEW
ARM ASSEMBLY



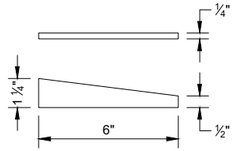
ARM TUBE 1 (C2)



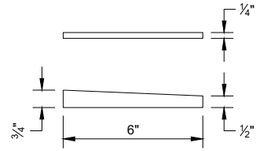
ARM TUBE 2 (C3)



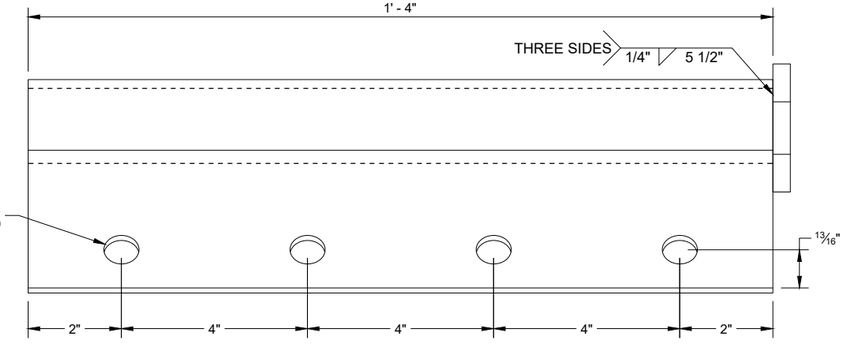
ARM TUBE 3 (C4)

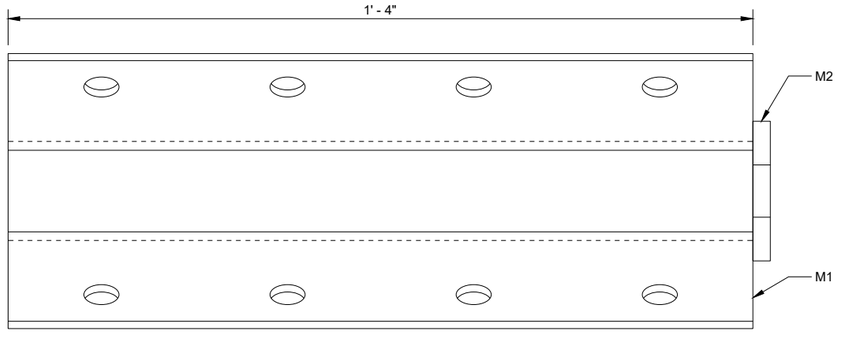


ARM GUSSET PLATE 1 (C5)

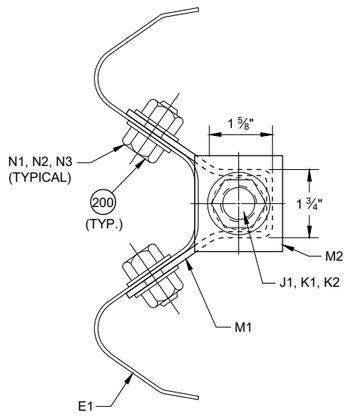


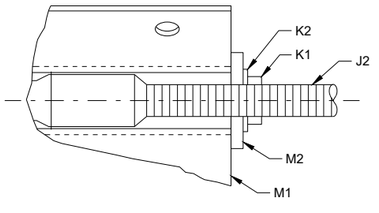
ARM GUSSET PLATE 2 (C6)



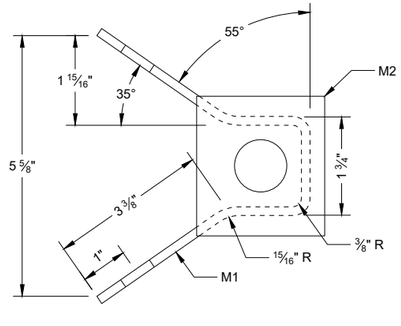


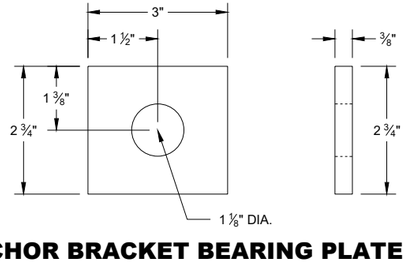
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD14B47 - 05e

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI, w6x9 or w6x8.5	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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SDD 14B47 - 05f

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

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SDD 14B47 - 05g

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

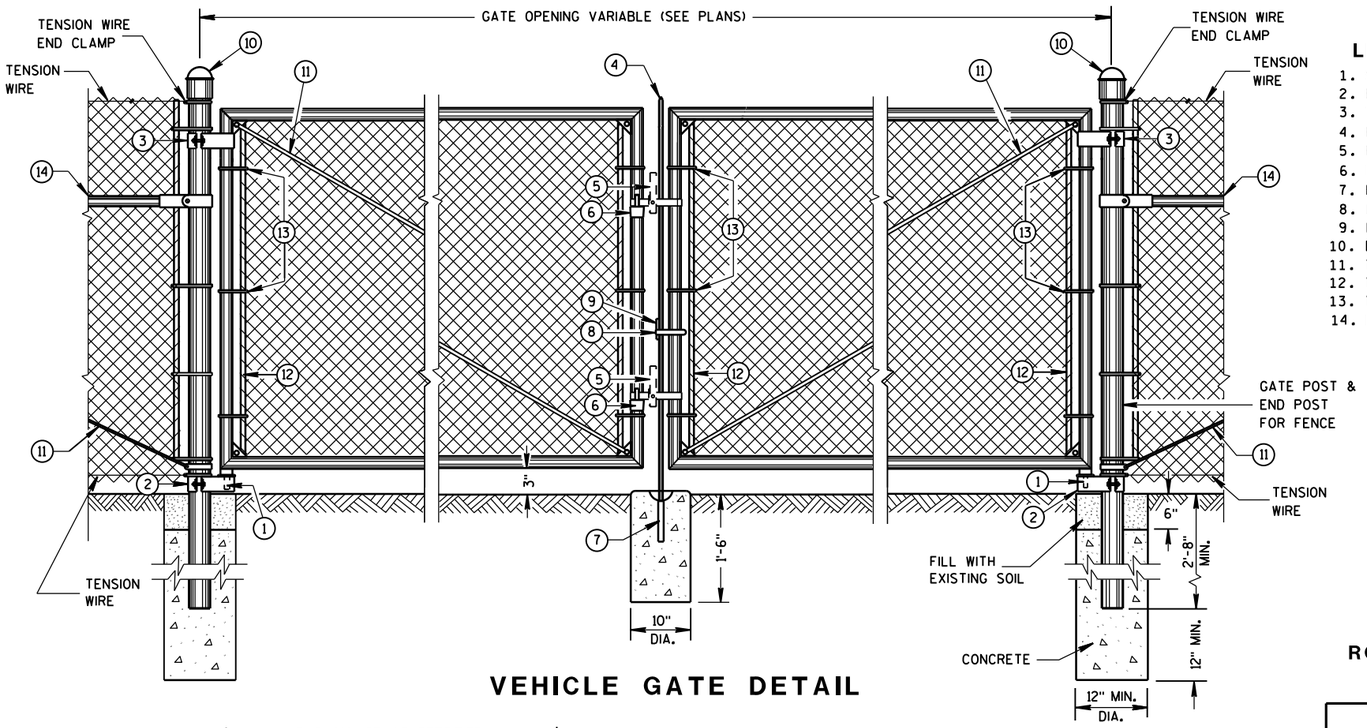
APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

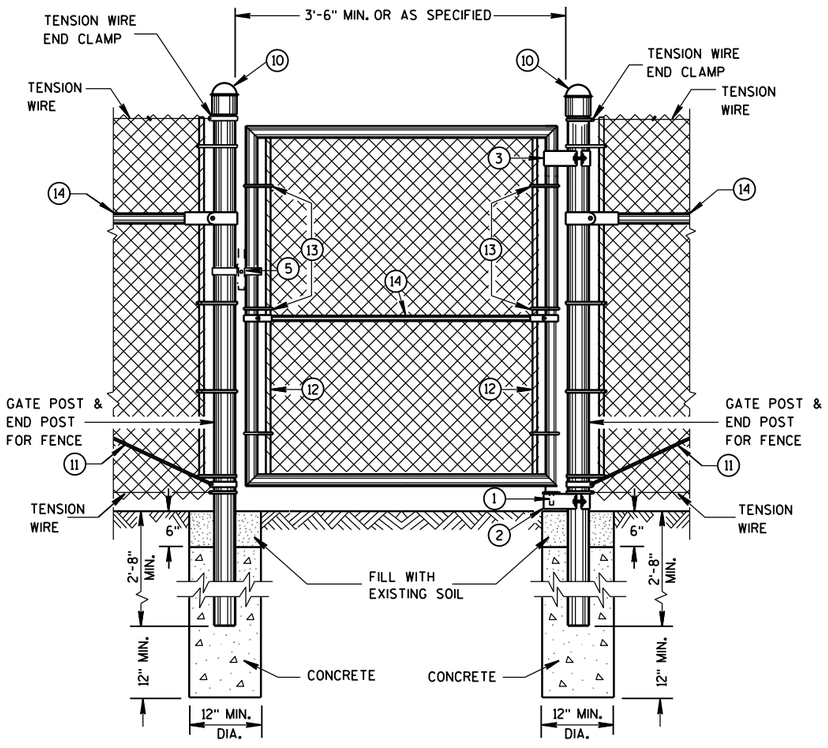
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SDD 14B47 - 05g



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

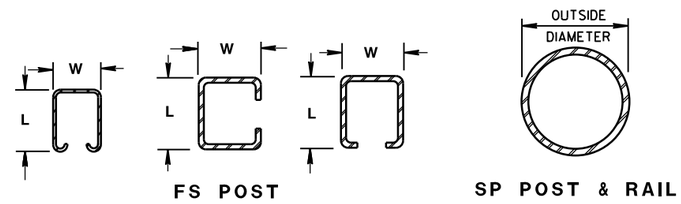
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

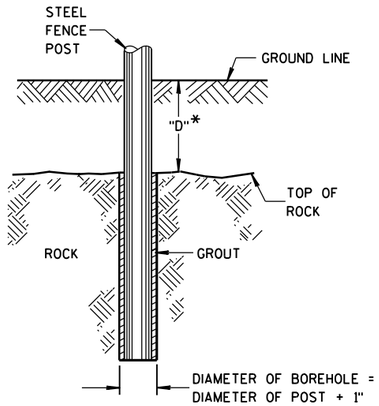
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

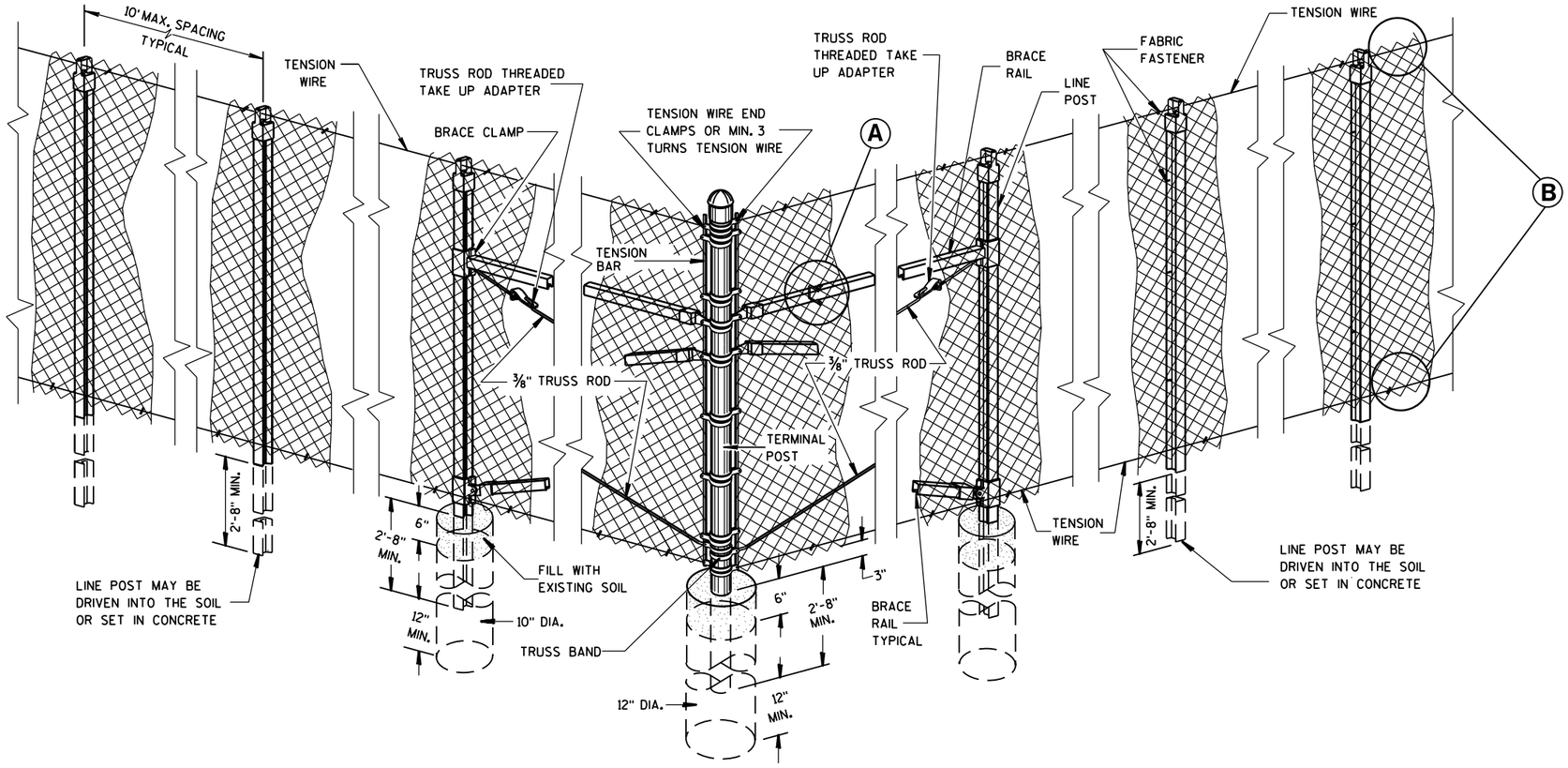
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S.D.D. 15 B 3-15a

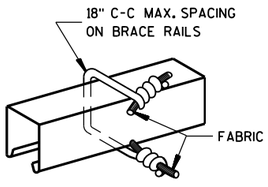


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



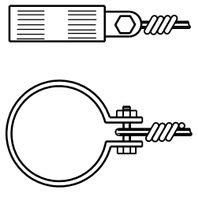
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



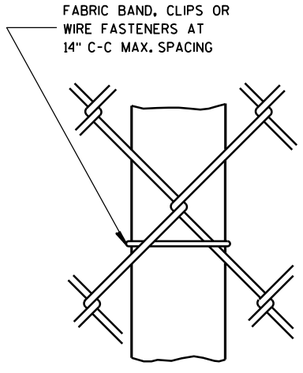
BRACE RAIL

FABRIC FASTENER

Ⓐ



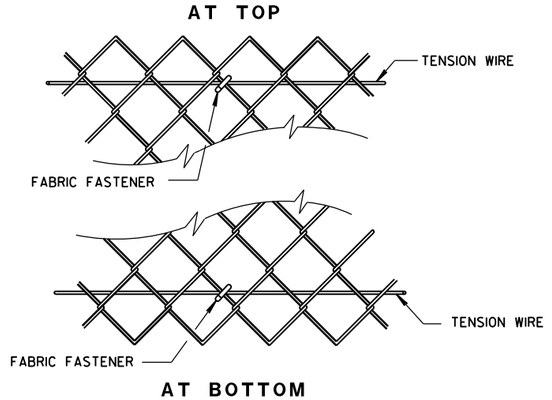
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

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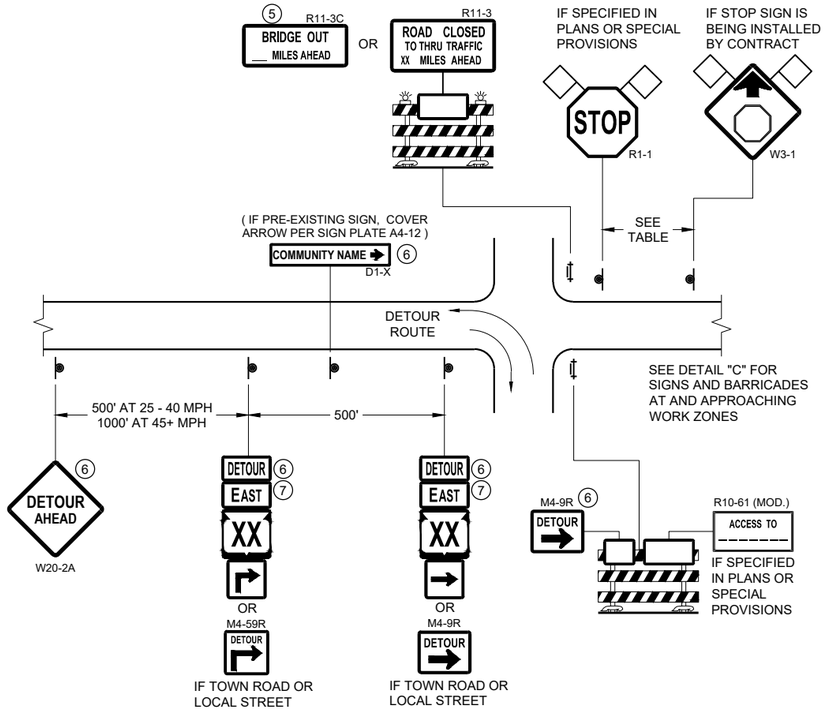
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

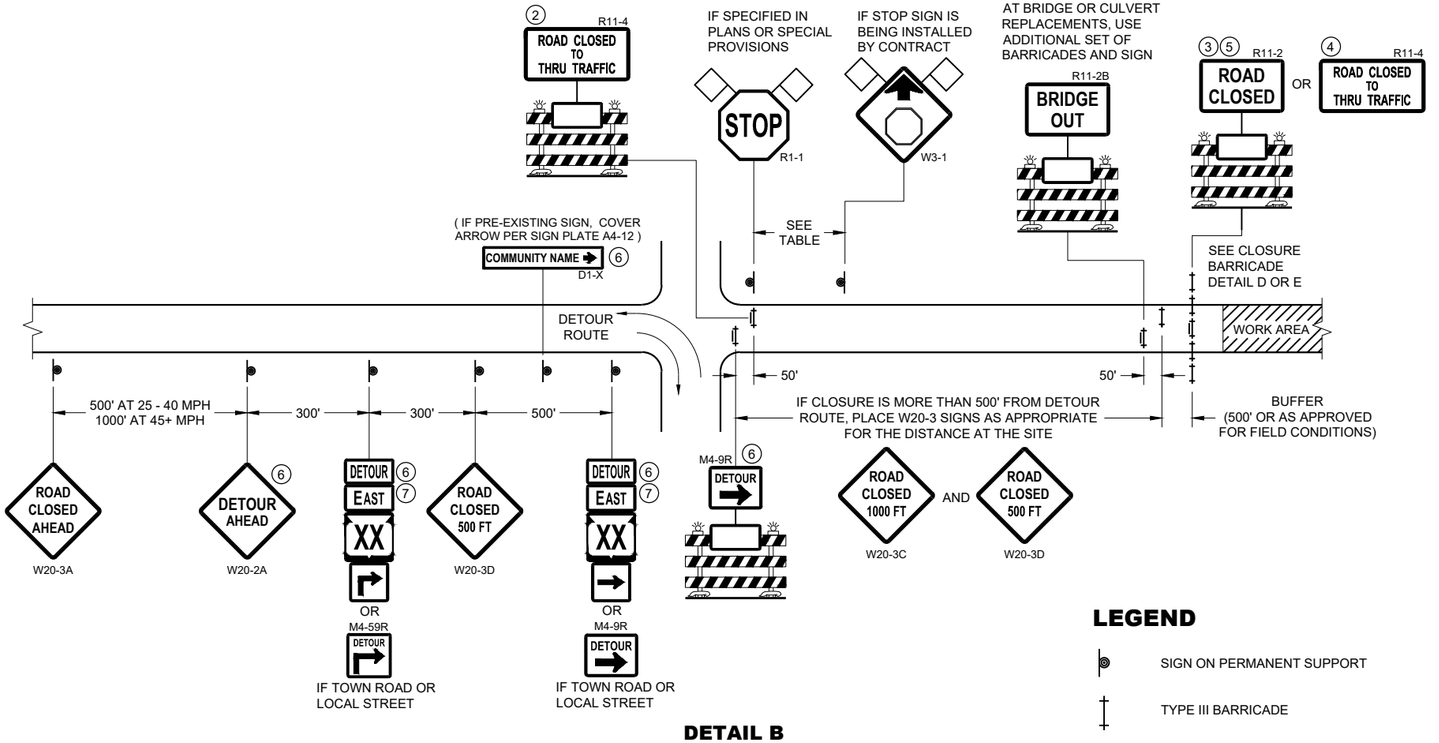
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S.D.D. 15 B 3-15b



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

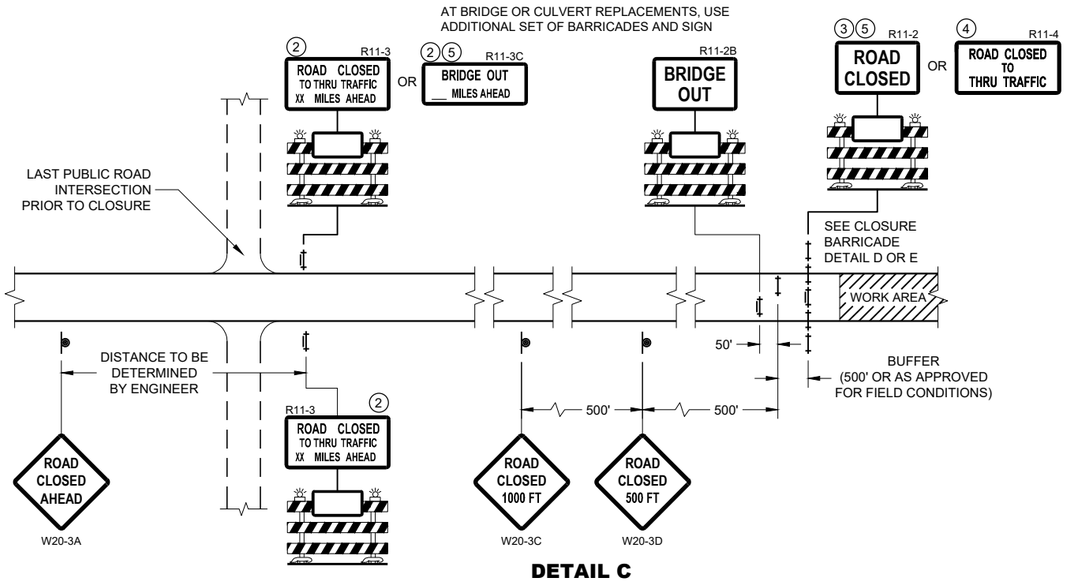


DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

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



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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

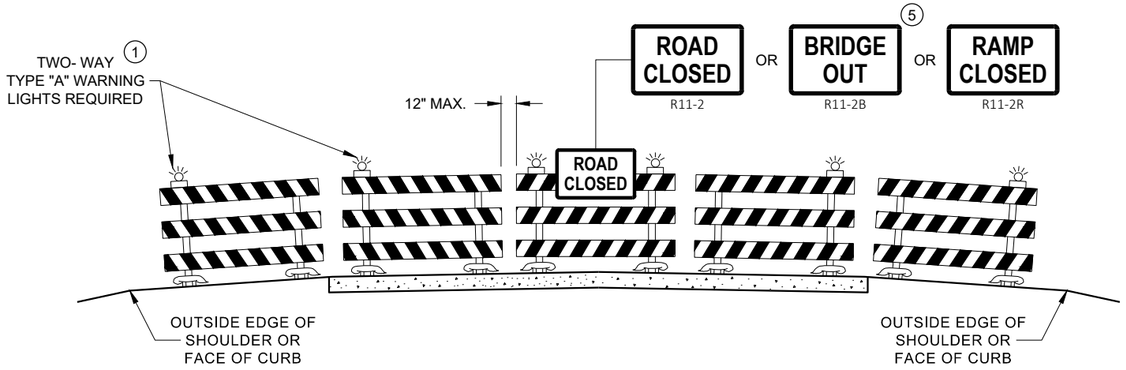
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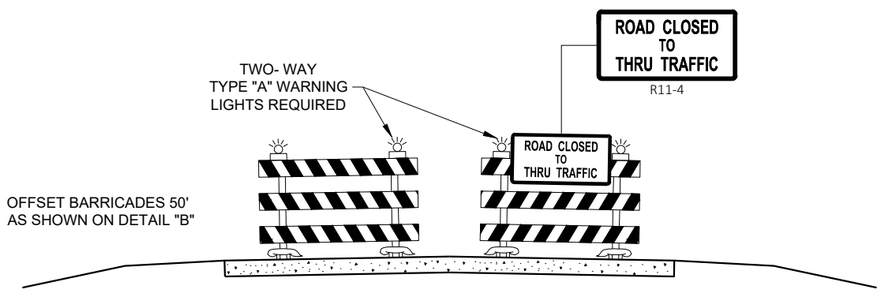
SDD 15C02 - 09a

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SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

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SDD 15C02 - 09b

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.

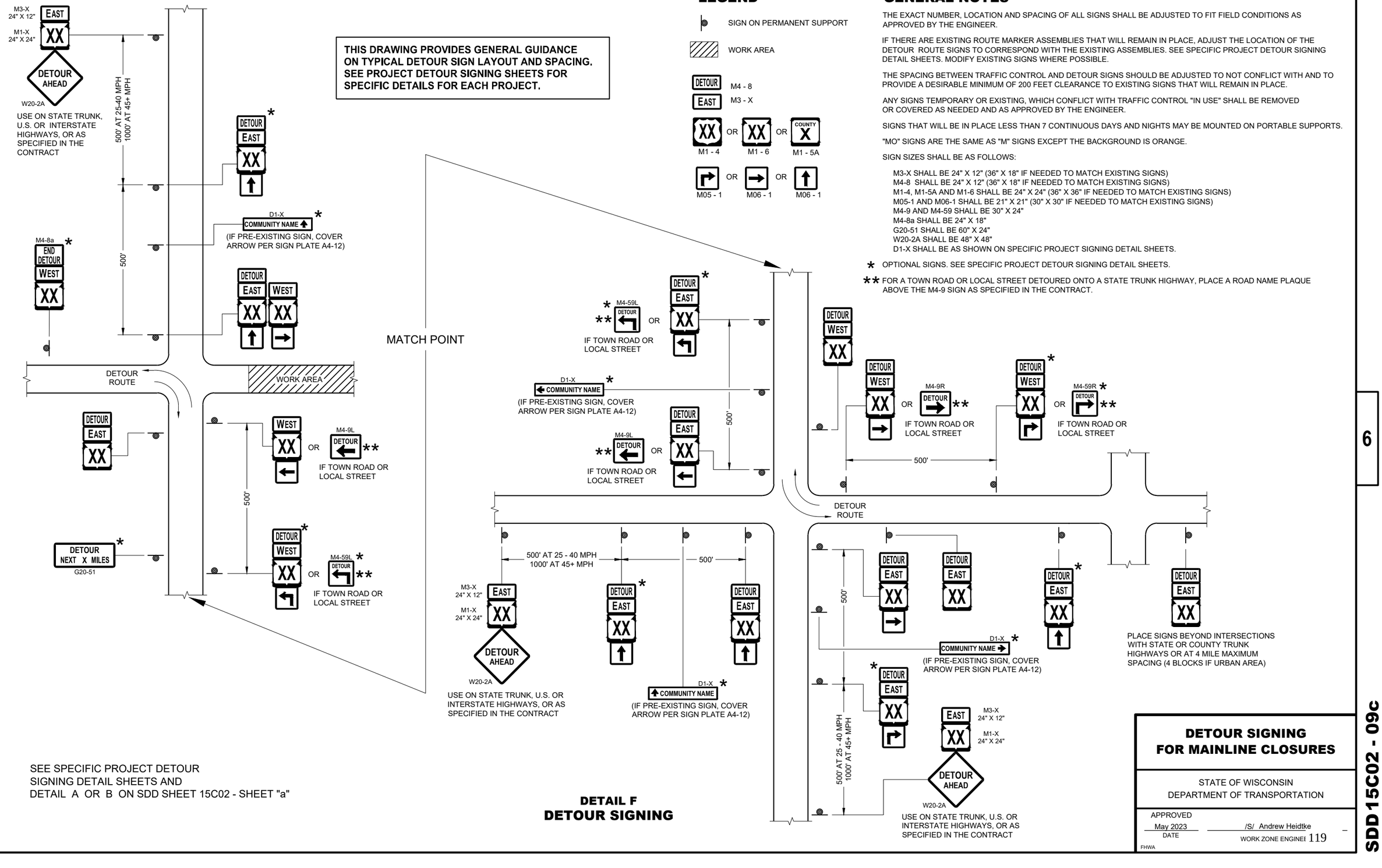
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

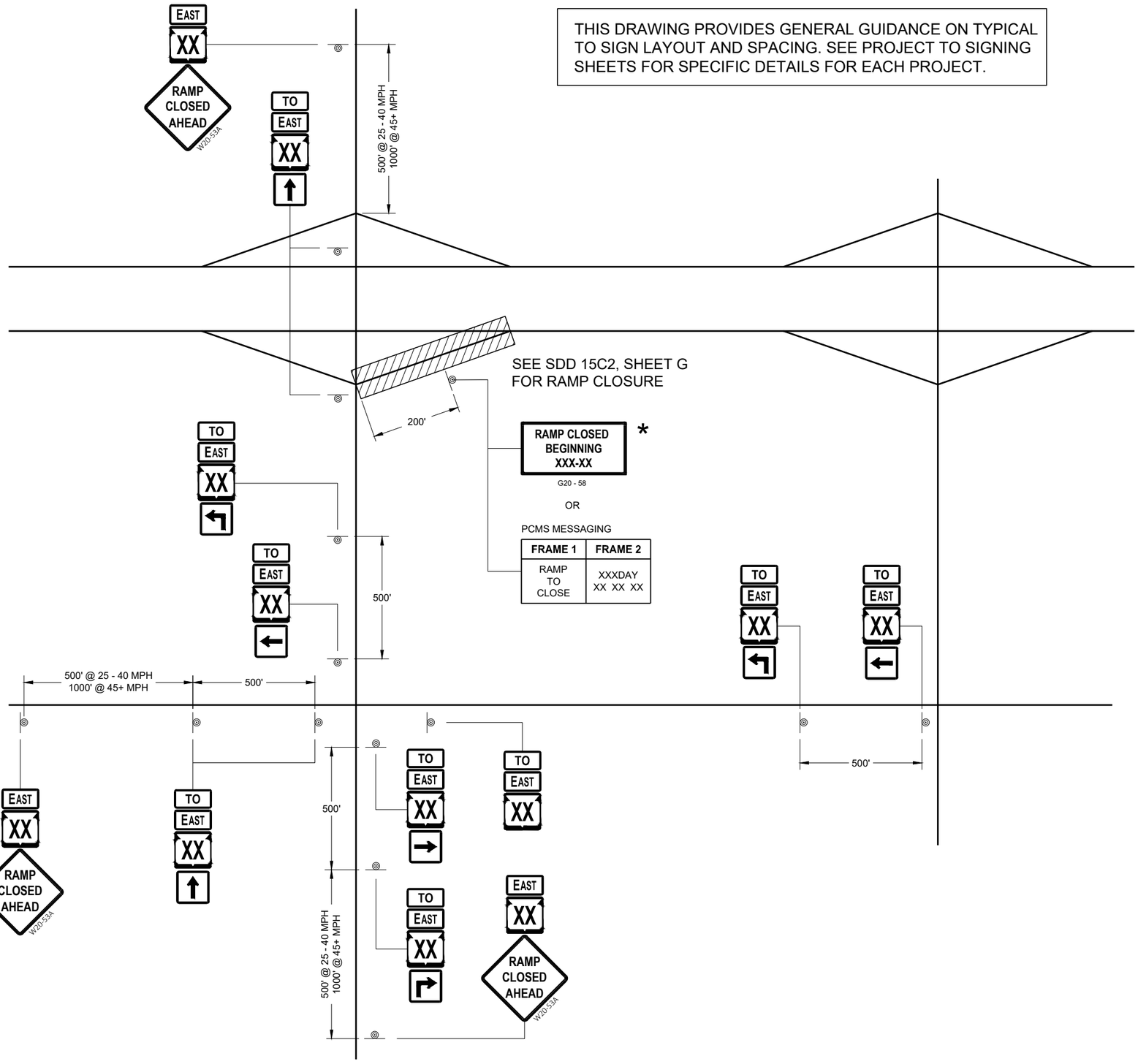
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C02 - 09c



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

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

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 ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 SHALL 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 FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

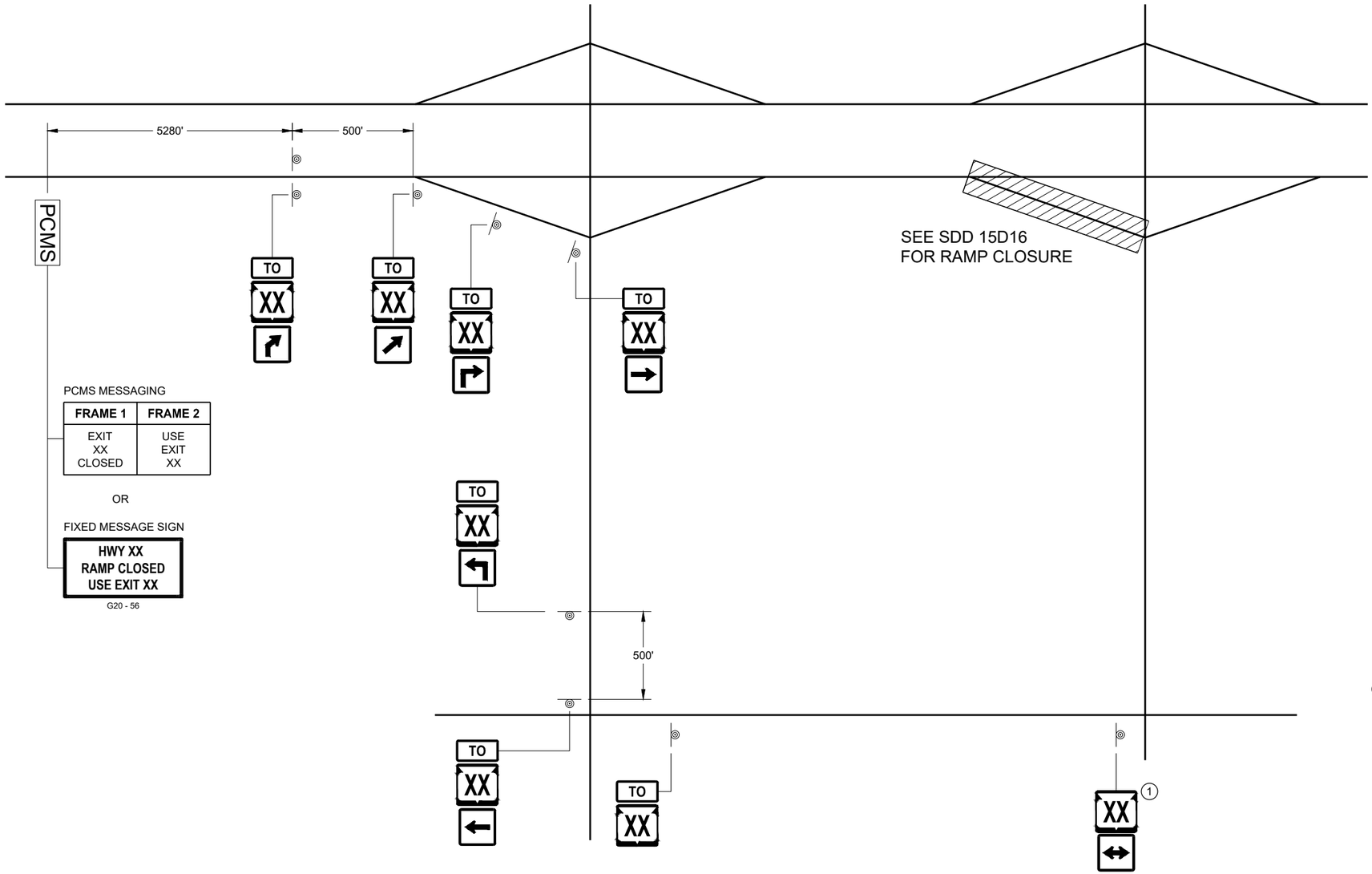
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
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SDD 15C02 - 09d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 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 SHALL 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 FOLLOW:
- MO4 - 5 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, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP
LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

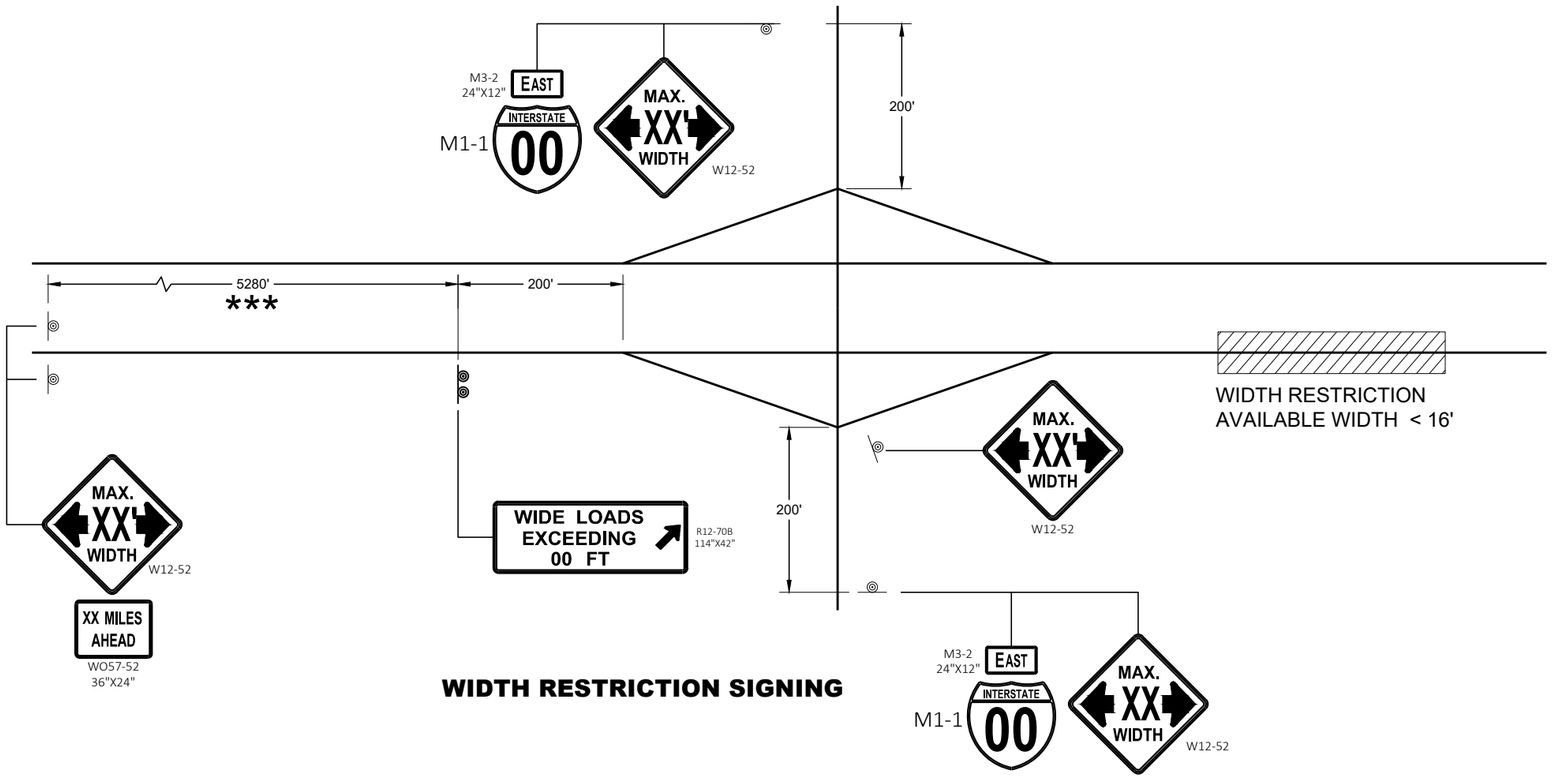
FHWA

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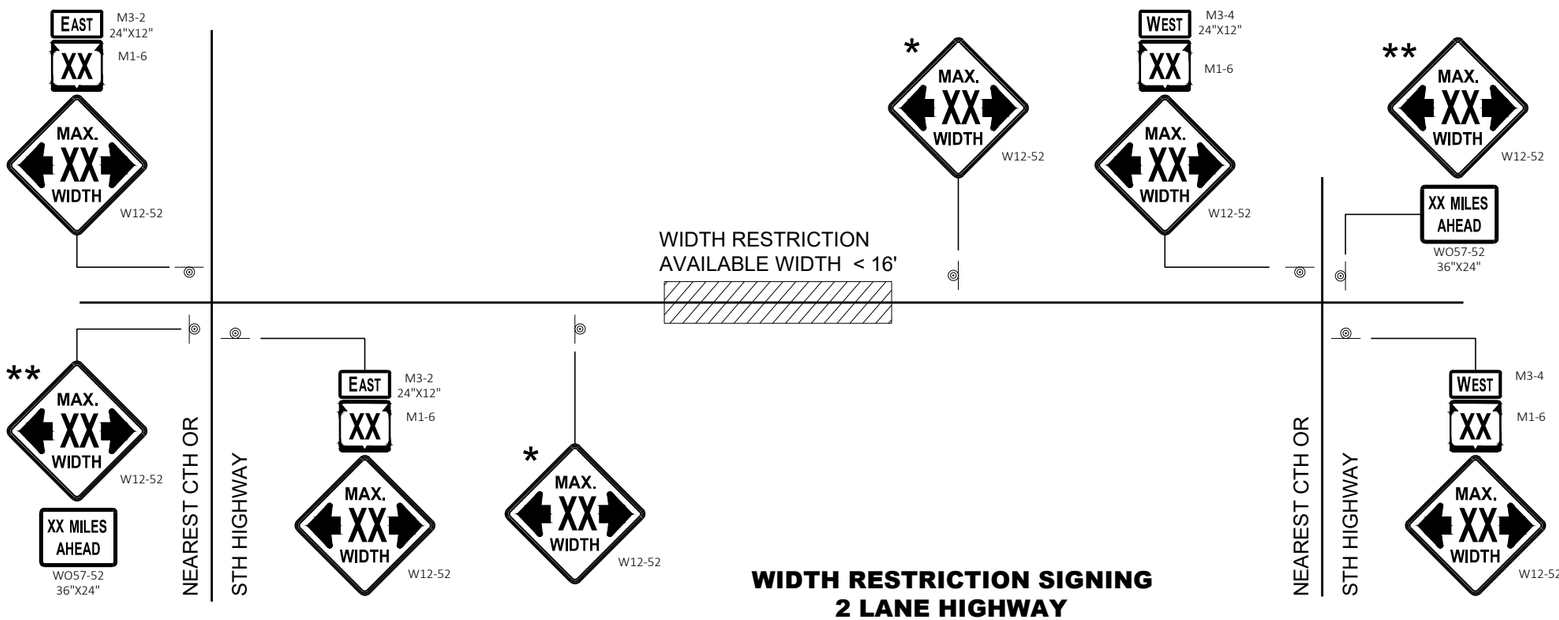
SDD 15C02 - 09e

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SDD 15C02 - 09e



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

THE SPACING BETWEEN 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION 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.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

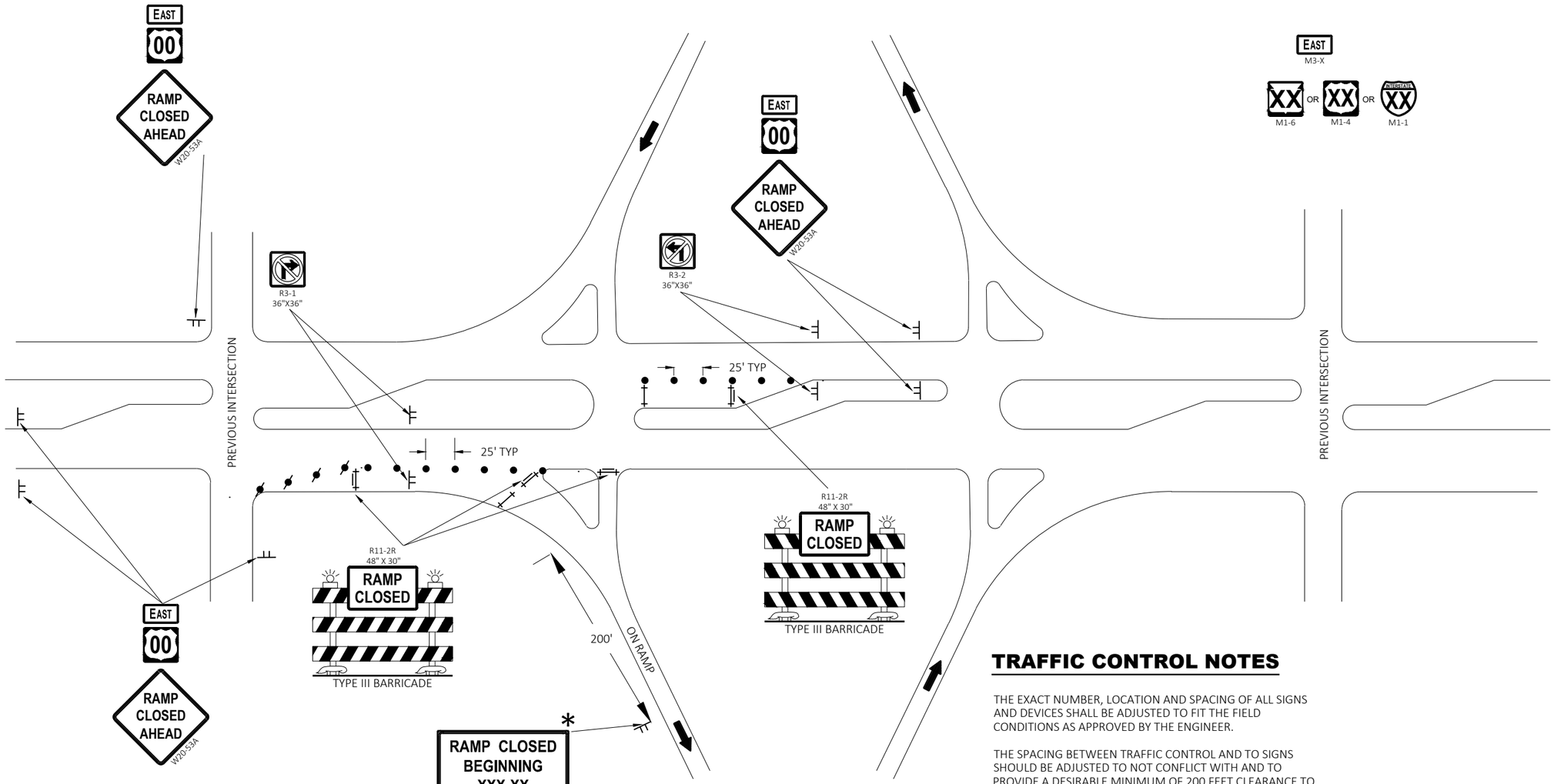
FHWA

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SDD 15C02 - 09f

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SDD 15C02 - 09f



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C02-09g

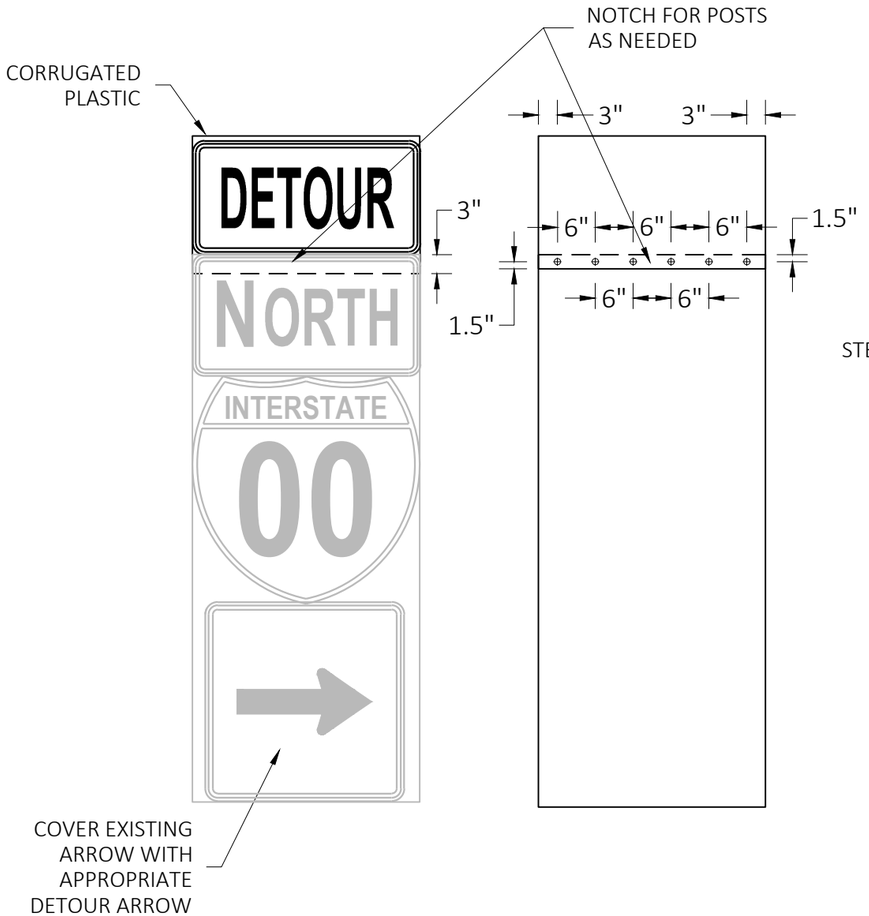
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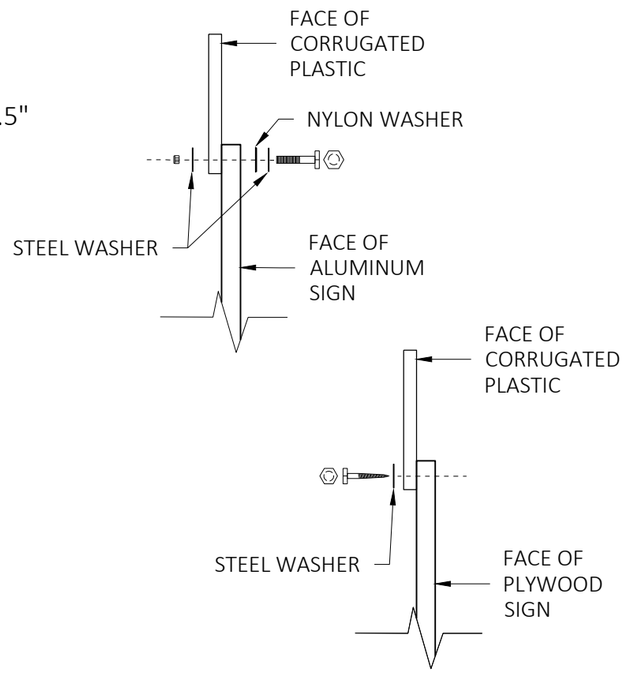
SDD 15C02-09g

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

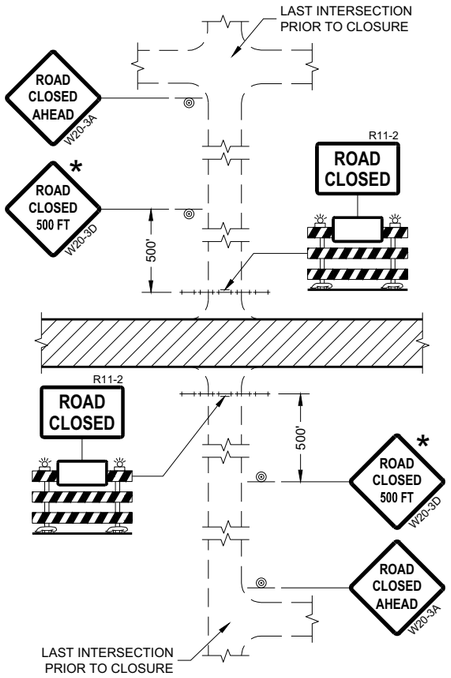
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

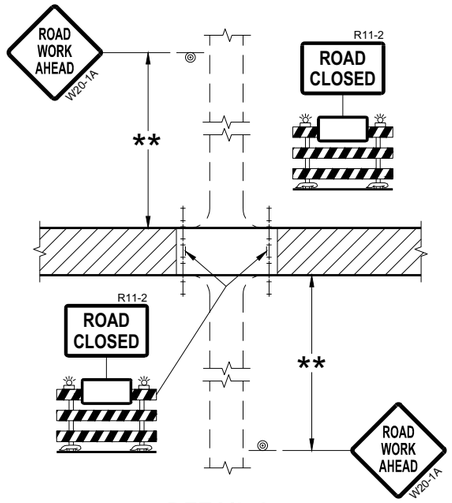
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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SDD 15C02-09h



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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.

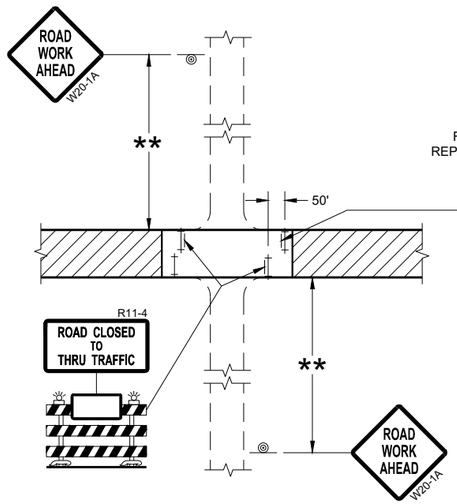
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

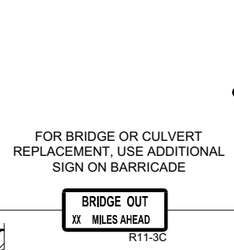
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

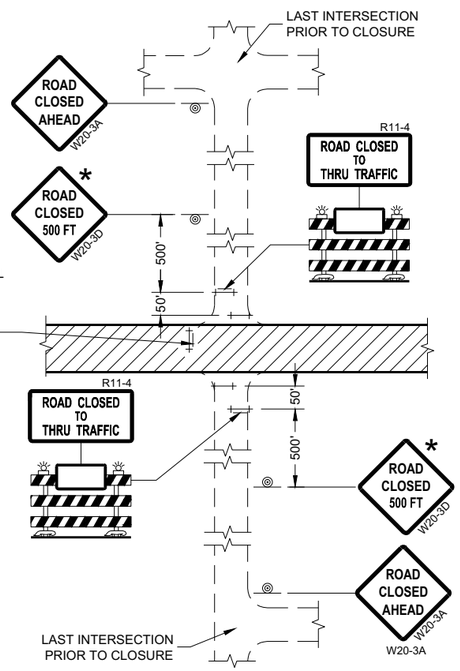
* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

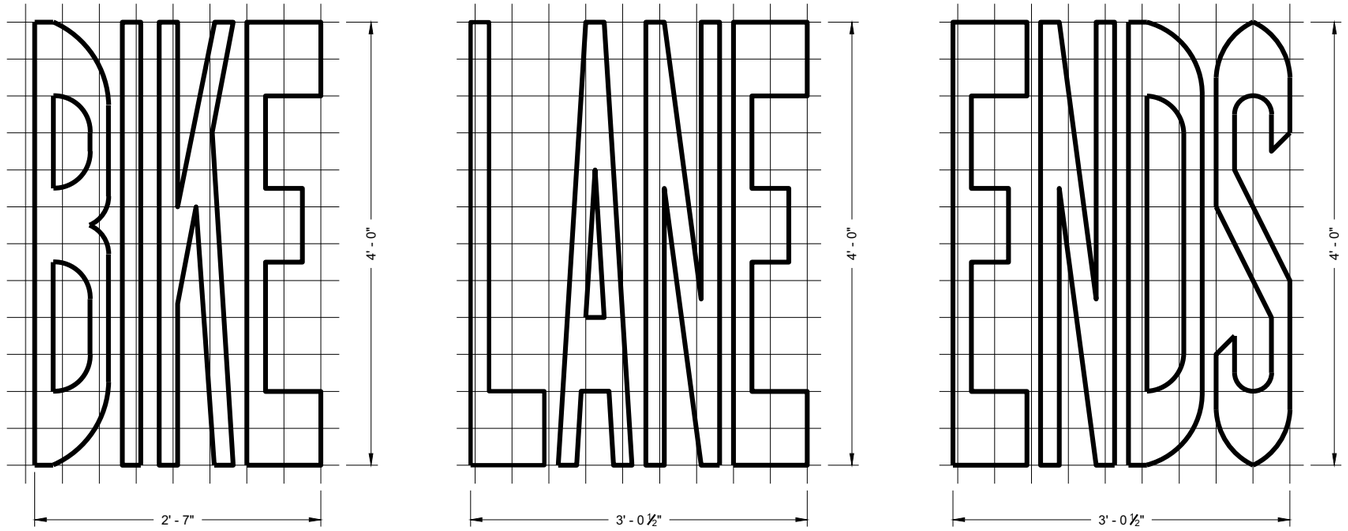
FHWA

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SDD 15C03 - 05

SDD 15C03 - 05

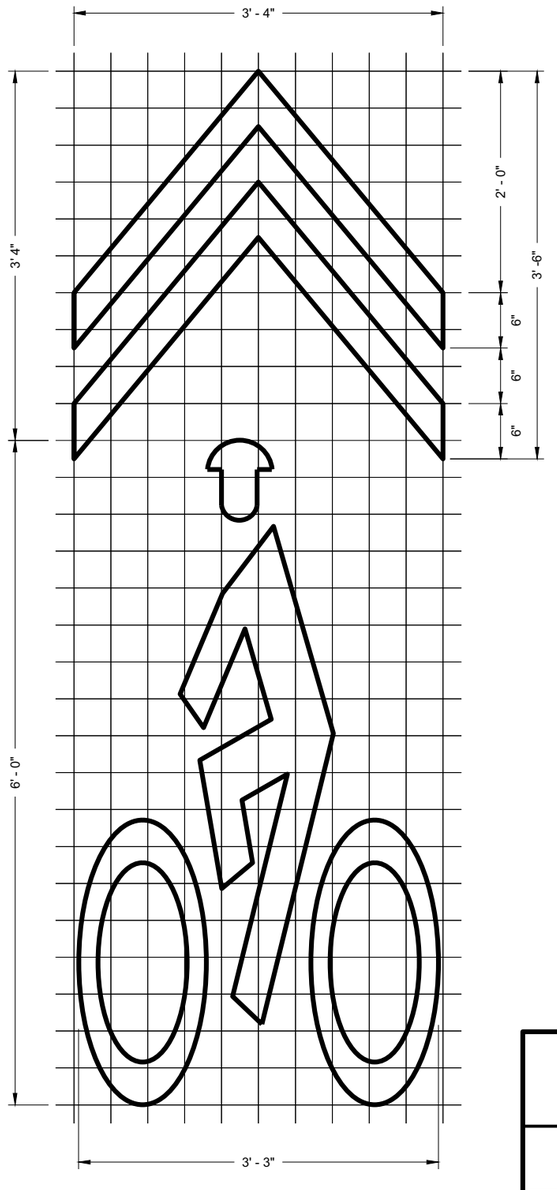
SDD 15C7-e Pavement Marking For Bike Lanes

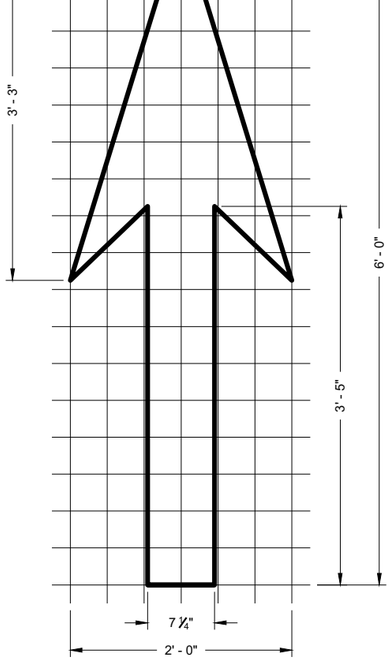


BIKE LANE WORDS

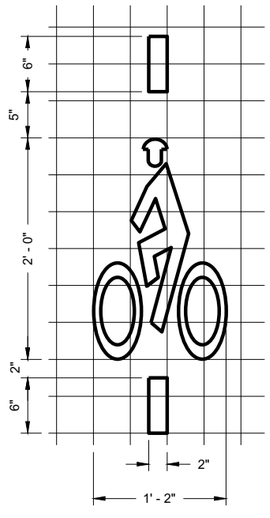
GENERAL NOTES

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

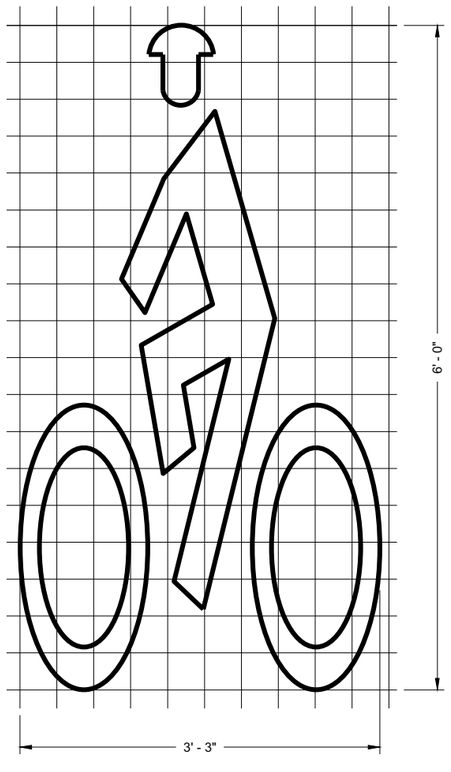




BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C07 - 15e

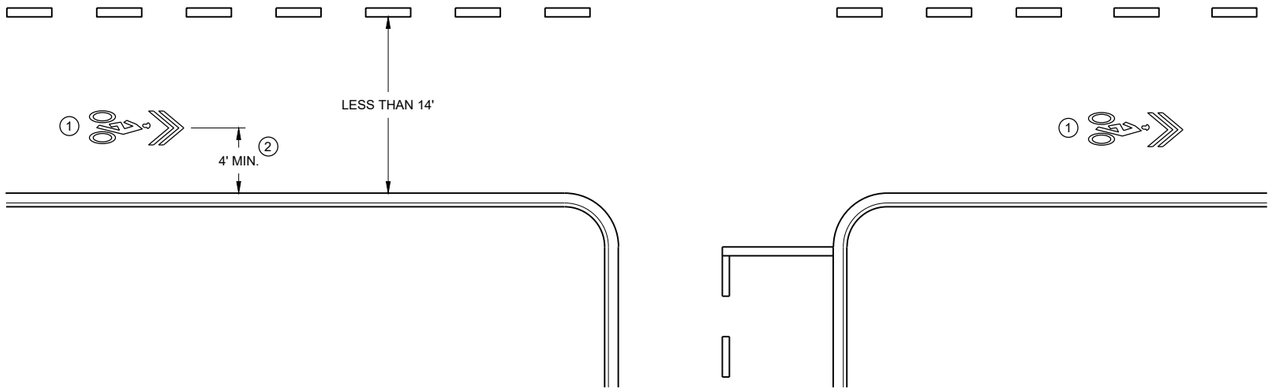
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SDD15C07 - 15e

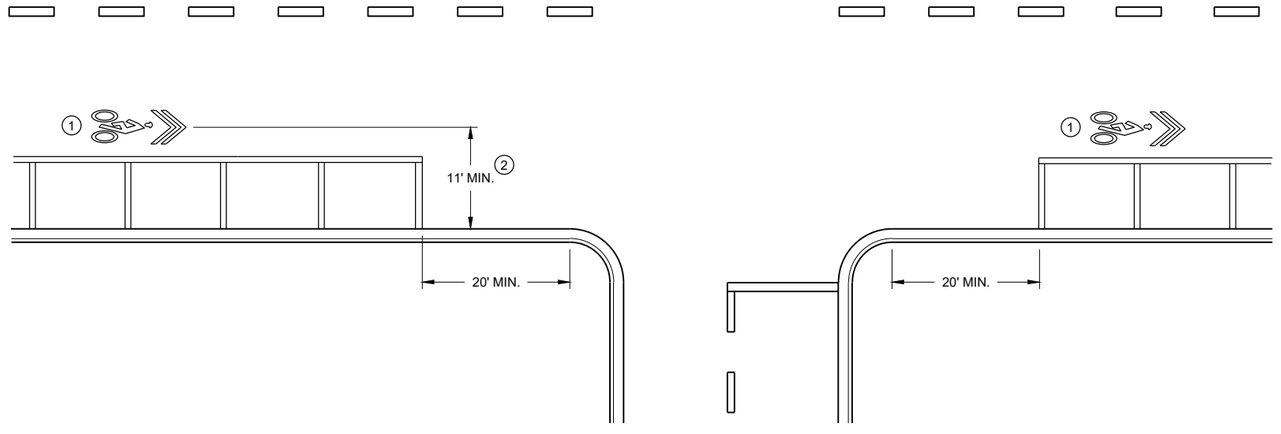
GENERAL NOTES

(1) MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.

(2) OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C29-08b

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

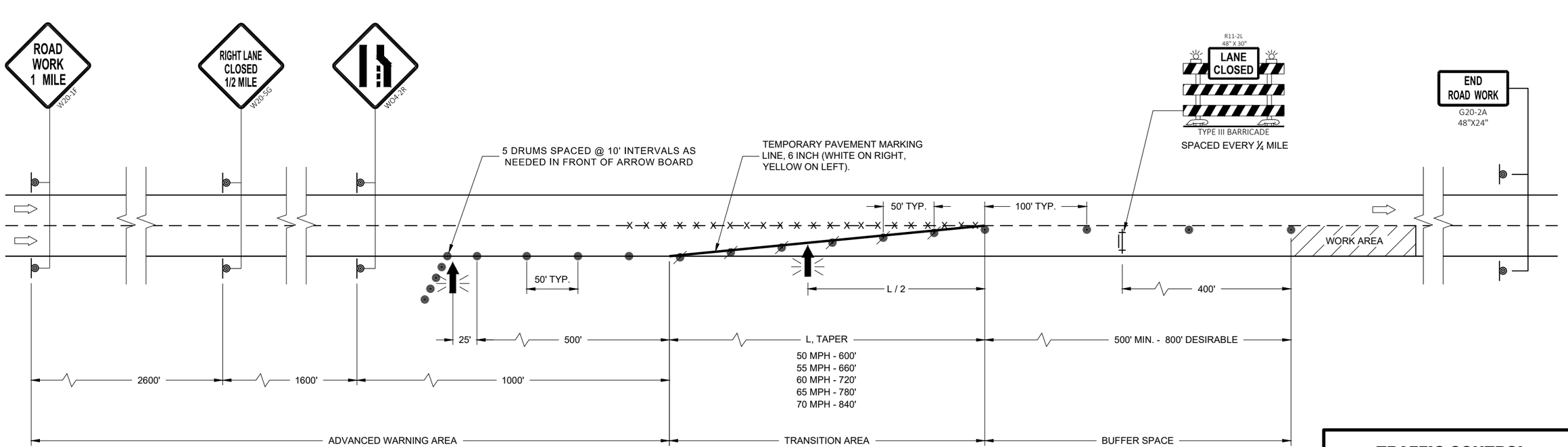
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



6

SDD 15D12 - 11a

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SDD15D12 - 11a

TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

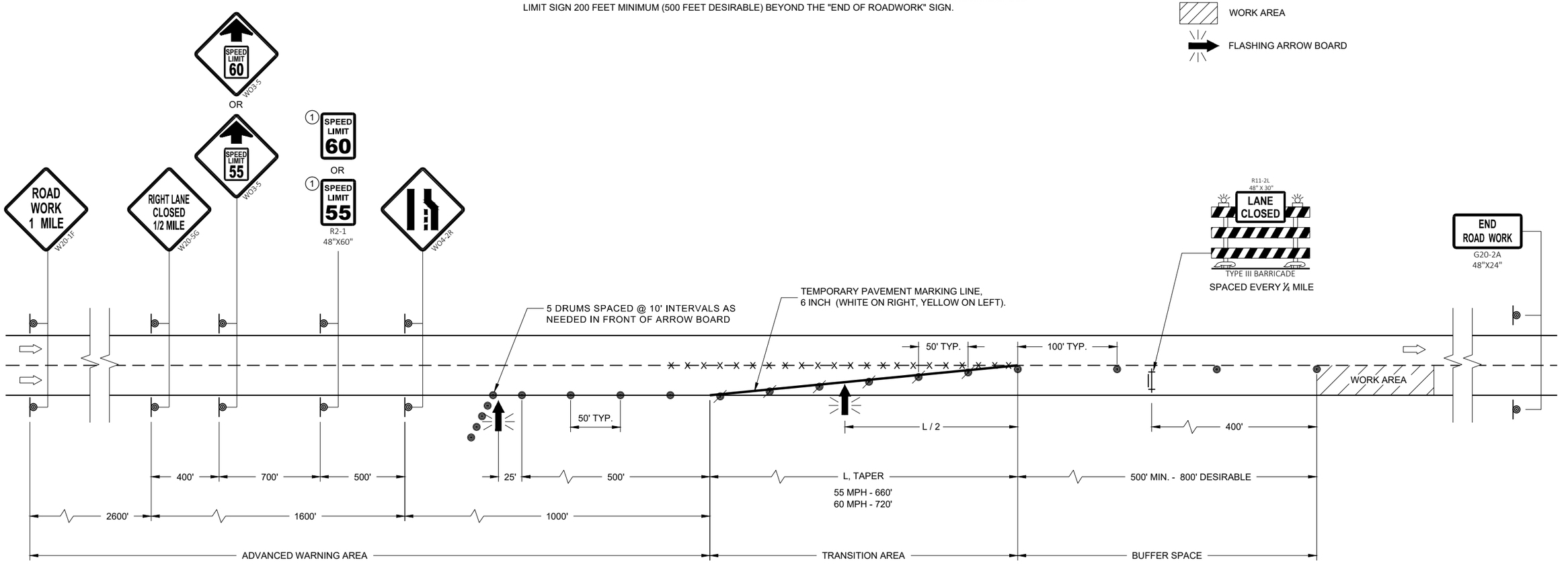
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15D12 - 11b

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SDD 15D12 - 11b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- (S) — PORTABLE TRAFFIC SENSOR (PTS)
- FBS — FLASHING BEACON SIGNS

STOPPED OR SLOW TRAFFIC WHEN FLASHING
WO8-76
96" x 48"

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

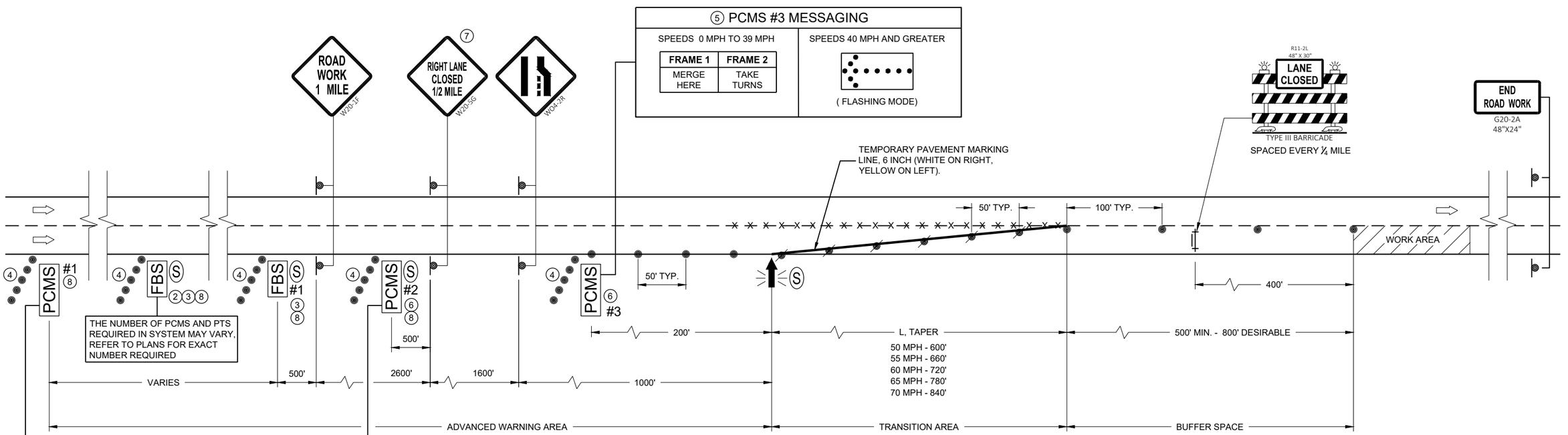
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION. ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON PCMS, FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

1. IF THERE ARE MORE THAN TWO LANES, CHANGE FRAME 2 OF THE PCMS TO STATE "USE ALL LANES".
2. PLACE FLASHING BEACON SIGNS EVERY ONE MILE BETWEEN PCMS #1 AND FBS #1. THE NUMBER OF FBS MAY BE MORE THAN SHOWN ON THIS DETAIL.
3. FOR THREE LANE CONFIGURATION, PLACE FBS ON BOTH SIDES OF ROADWAY. CHANGE PCMS #1 FRAME 2 MESSAGE TO "USE ALL LANES".
4. 5 DRUMS SPACED @ 10' INTERVALS AS NEEDED.
5. PCMS SHALL FOLLOW ARROW BOARD STANDARDS WHEN DISPLAYING FLASHING FOUR CORNER CAUTION MODE OR FLASHING ARROW MERGE MODE.
6. TO MINIMIZE OBSTRUCTION OF THE ARROW BOARD BY THE PCMS, OFFSET THE PCMS AS NEEDED FROM THE EDGE LINE
7. IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.
8. IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE PCMS AND FBS ON THE SAME SIDE OF THE ROADWAY.



TRAFFIC CONTROL, DYNAMIC LATE MERGE SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Erin Schwark
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 11c

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- (S) PORTABLE TRAFFIC SENSOR (PTS)
- FBS FLASHING BEACON SIGN

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

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

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS

AND NIGHTS.
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

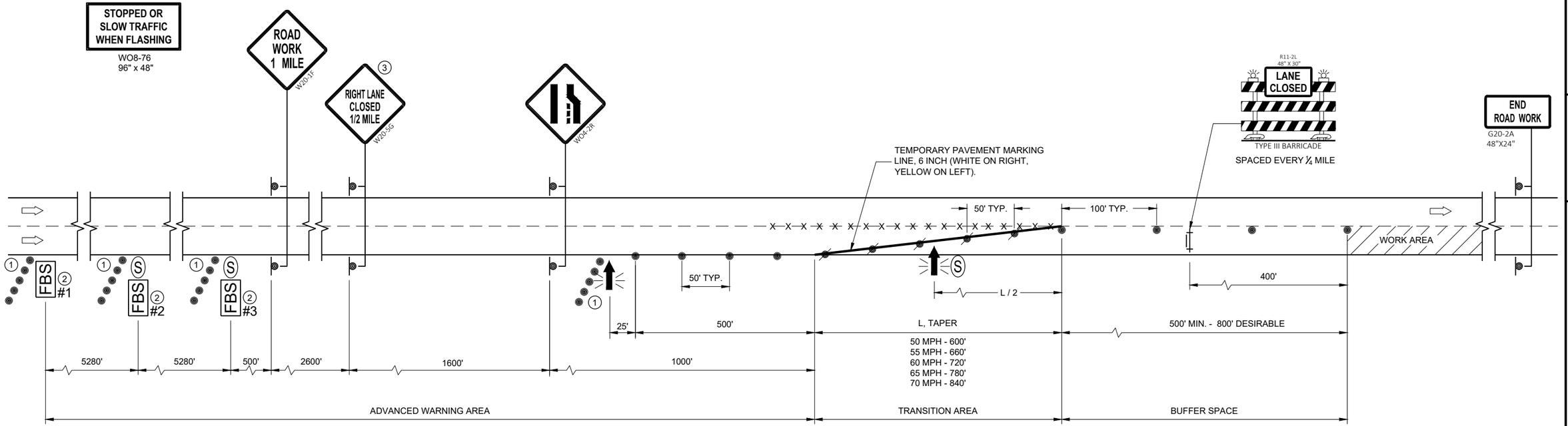
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

① 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.

② IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.

③ IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Erin Schwark
WORK ZONE ENGINEE

FHWA

6

SDD 15D12 - 11d

6

SDD 15D12 - 11d

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- (S) — PORTABLE TRAFFIC SENSOR (PTS)

GENERAL NOTES

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

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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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

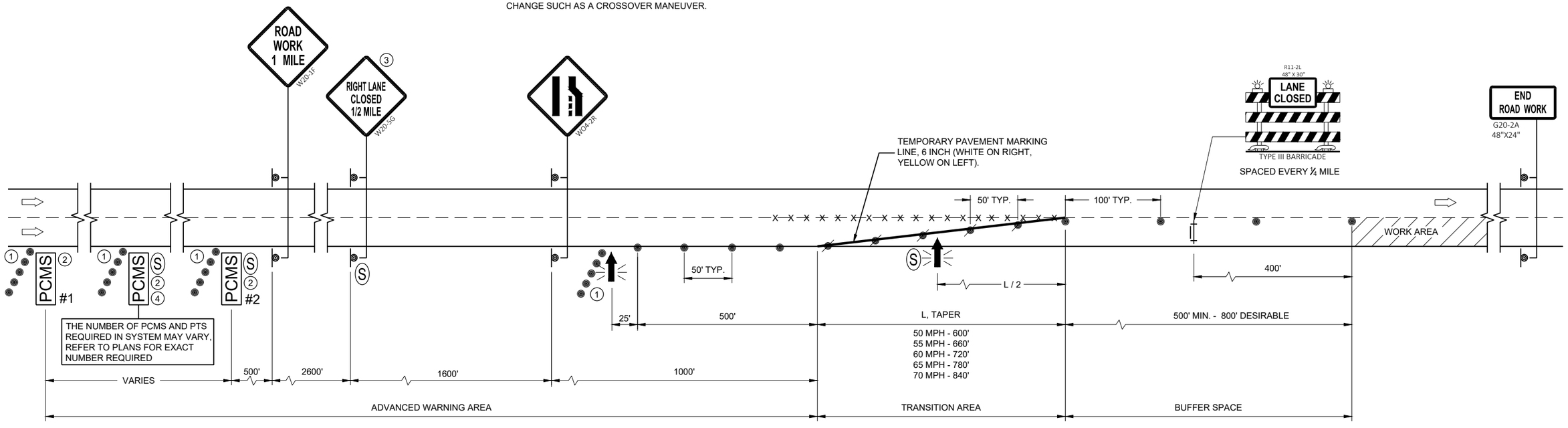
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CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON PCMS, ARROW BOARD OR OTHER TRAILER DEVICES.

1. 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
2. IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE PCMS ON BOTH SIDES OF THE ROADWAY.
3. IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.
4. PLACE PCMS EVERY ONE MILE BETWEEN PCMS #1 AND PCMS #2, OR AS THE ENGINEER DIRECTS. THE NUMBER OF PCMS MAY BE MORE THAN SHOWN ON THIS DETAIL.
5. PCMS SHALL FOLLOW ARROW BOARD STANDARDS WHEN DISPLAYING FLASHING FOUR CORNER CAUTION MODE OR FLASHING ARROW MERGE MODE.



5 PCMS MESSAGING

SPEEDS 0 MPH TO 19 MPH		SPEEDS 20 MPH TO 39 MPH		SPEEDS 40 MPH AND GREATER
FRAME 1	FRAME 2	FRAME 1	FRAME 2	
STOPPED TRAFFIC AHEAD	EXPECT DELAYS	SLOW TRAFFIC AHEAD	PREPARE TO STOP	(FLASHING CAUTION MODE)

TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Erin Schwark — WORK ZONE ENGINEER
FHWA

6 SDD 15D12 - 11e

6 SDD 15D12 - 11e

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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 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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

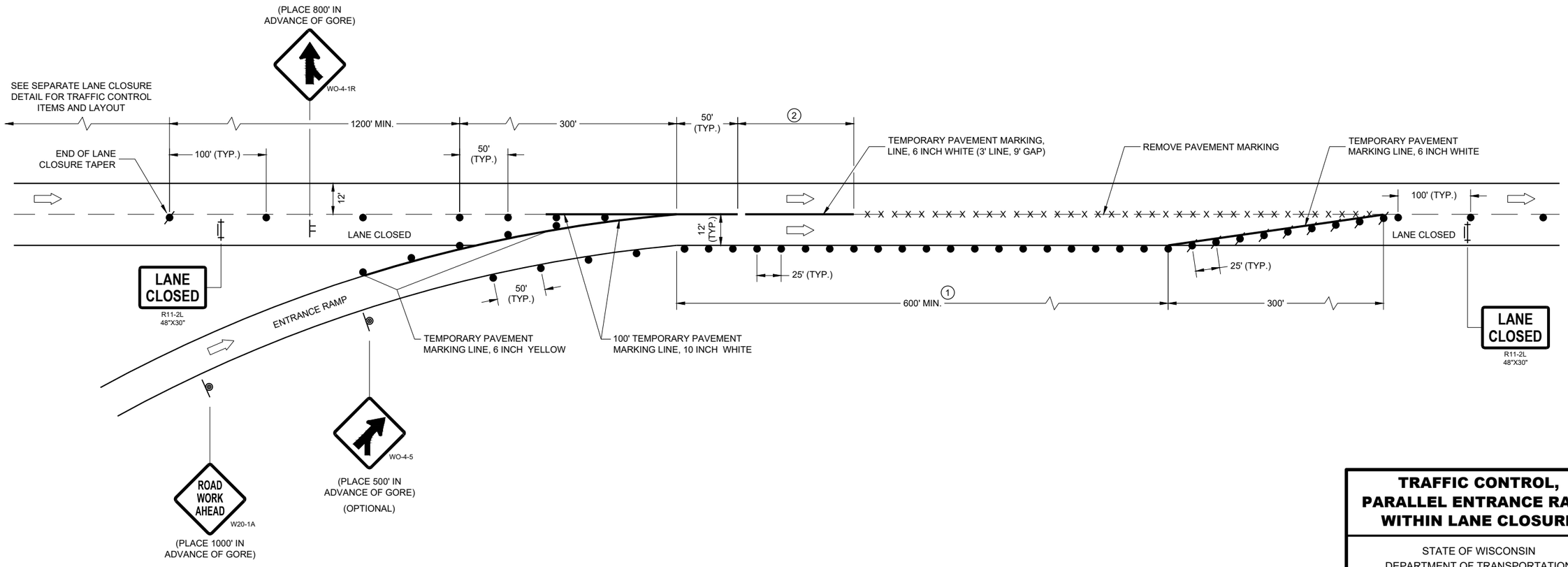
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D15-07a

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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 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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

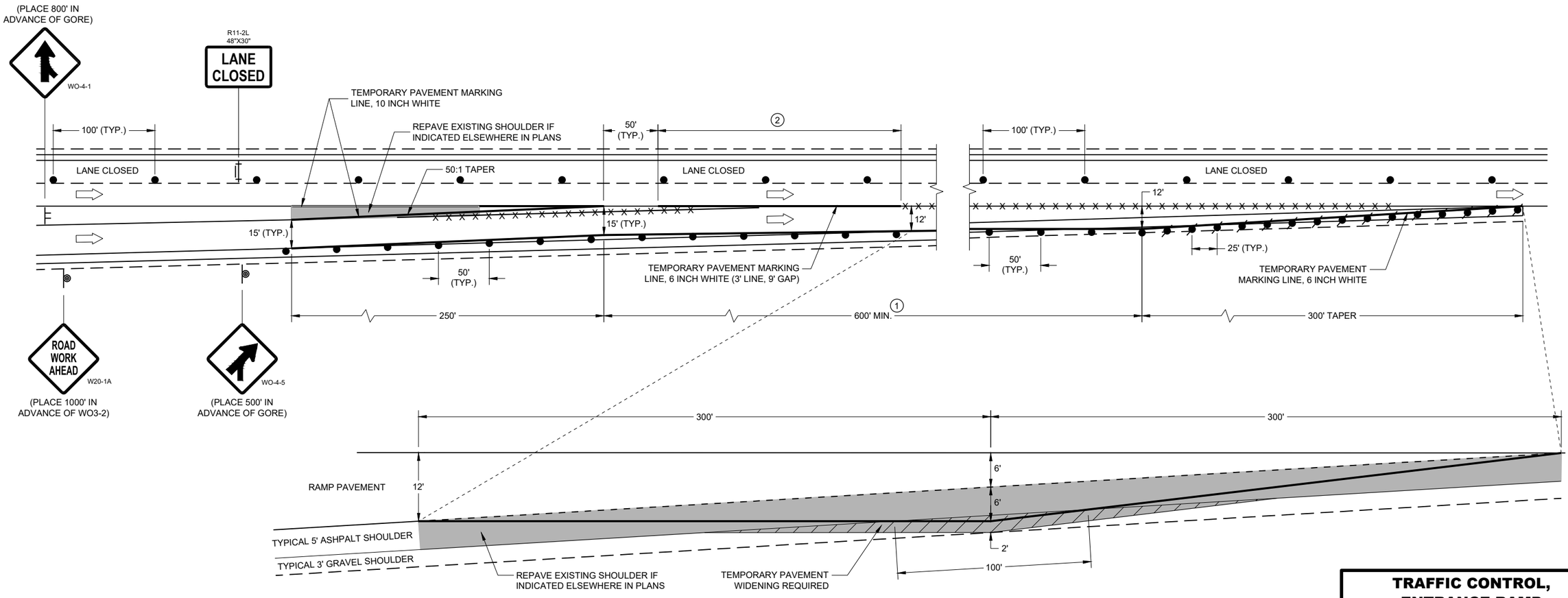
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REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15D15-07b

6

SDD 15D15-07b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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 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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

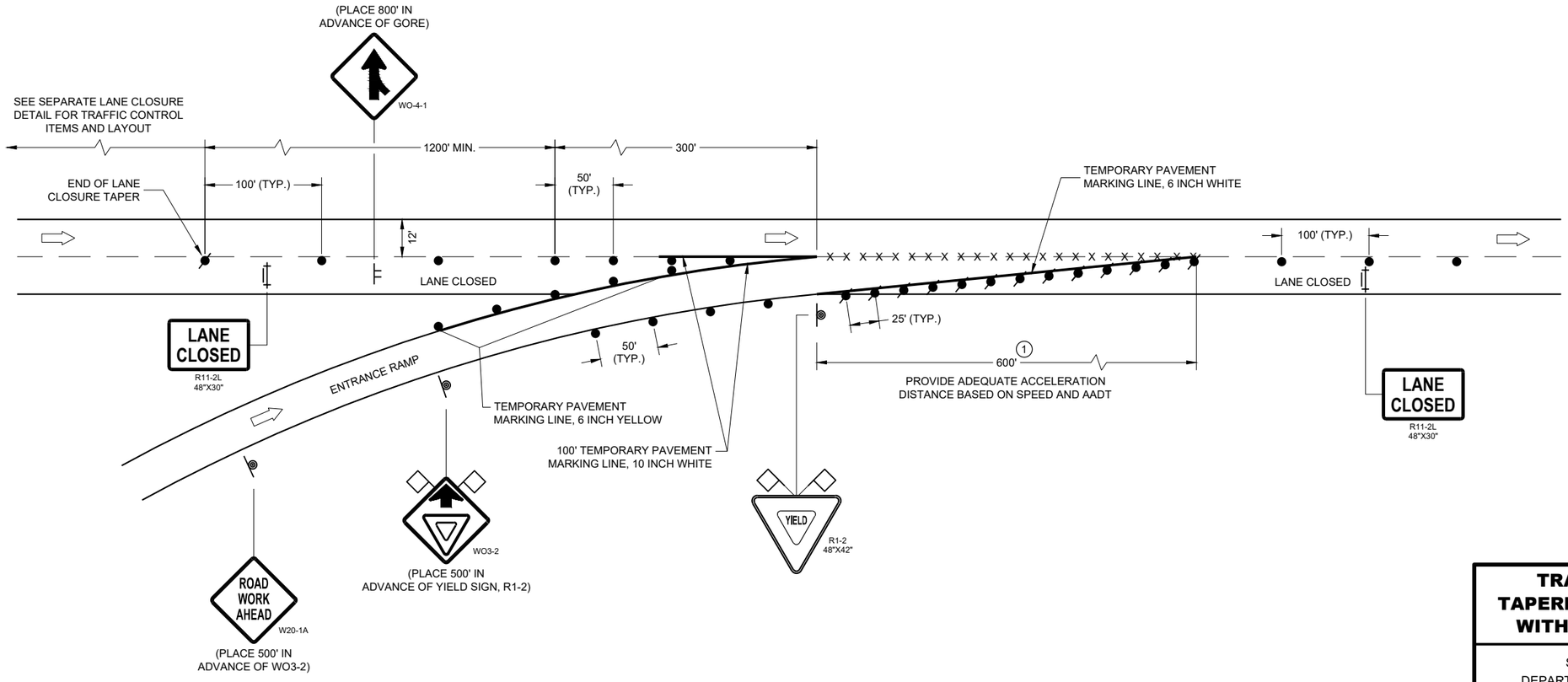
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D15-07c

6

SDD 15D15-07c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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 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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

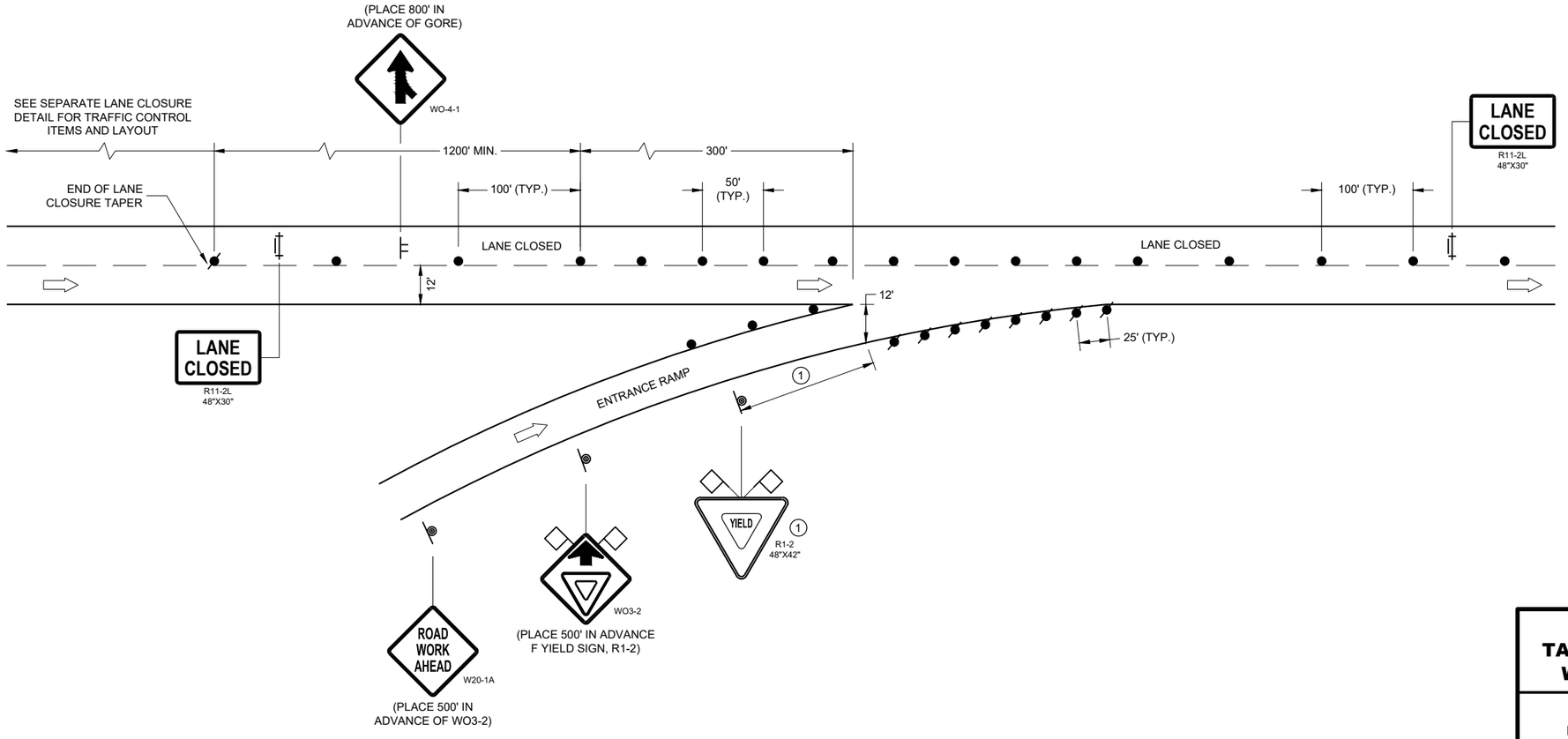
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D15-07d

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SDD 15D15-07d

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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 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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

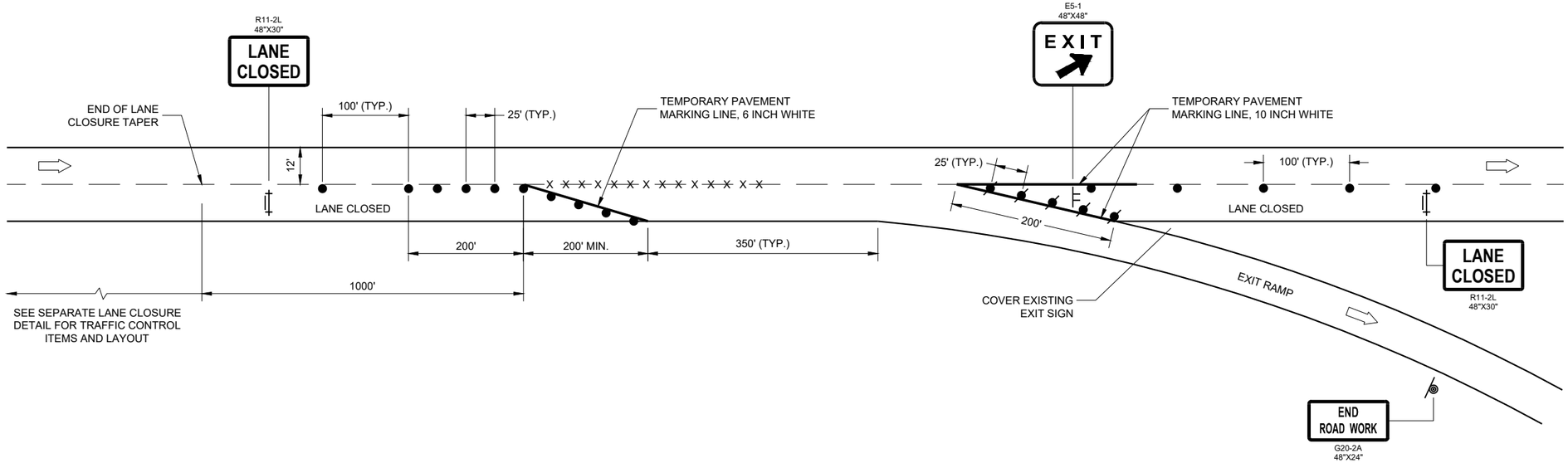
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

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.

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.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D15-07e
SDD 15D15-07e

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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 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.

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

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.

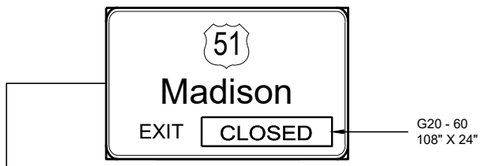
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

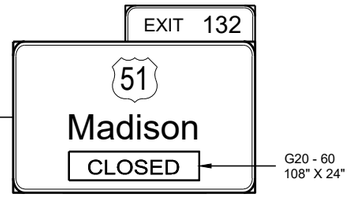
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR

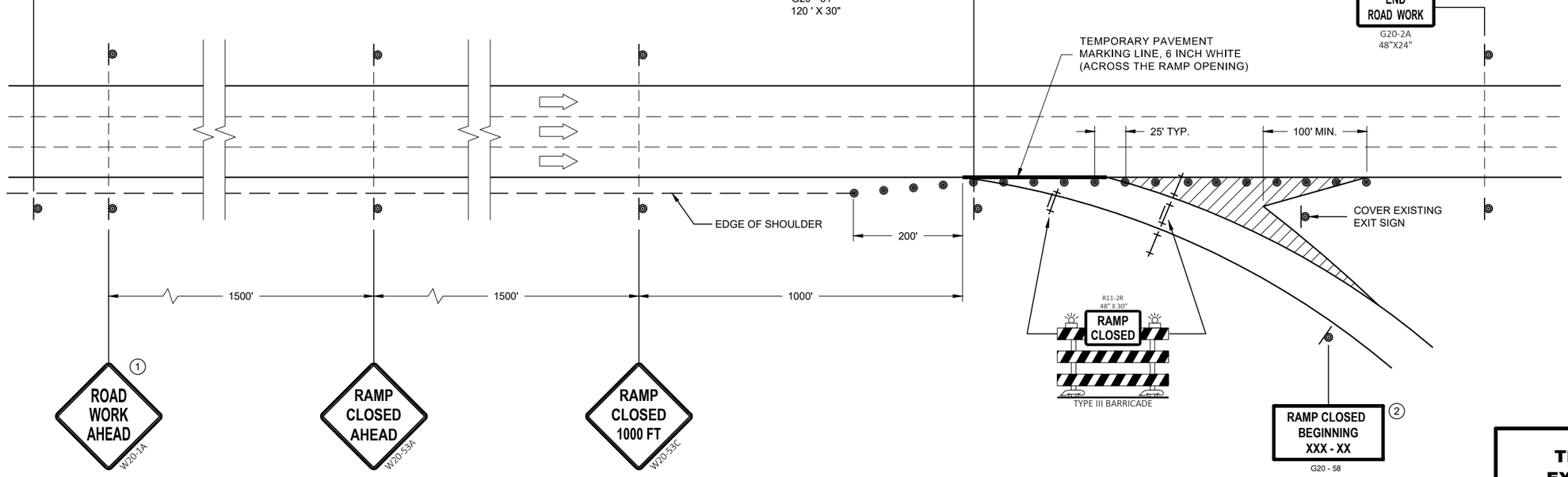


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



G20 - 61
120 ' X 30"

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 15D16-06

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

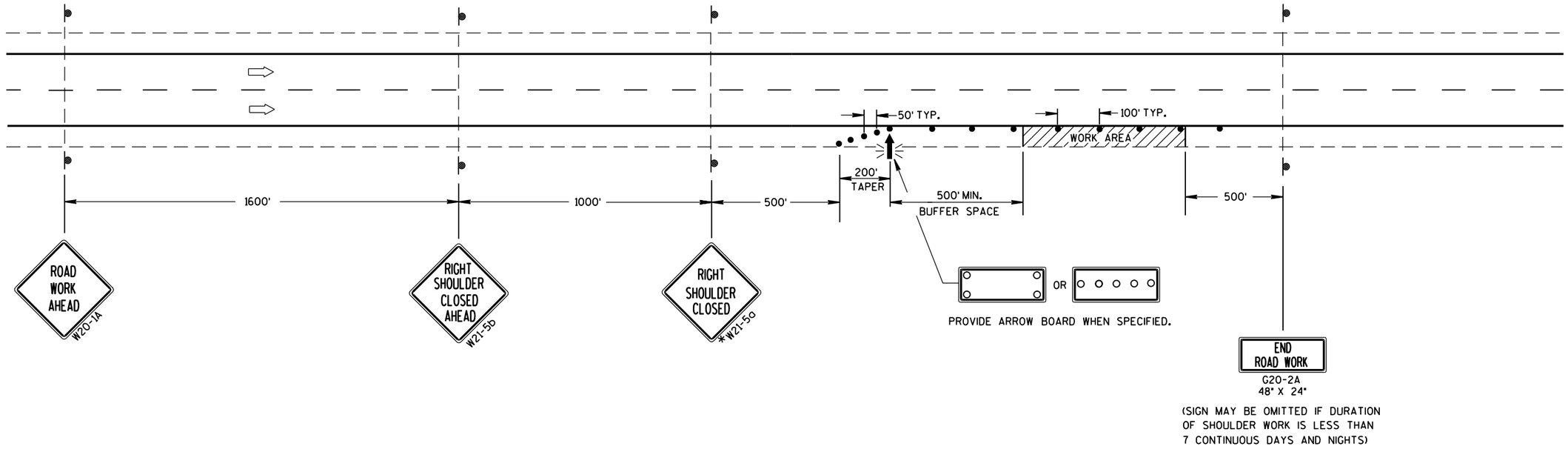
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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GENERAL NOTES

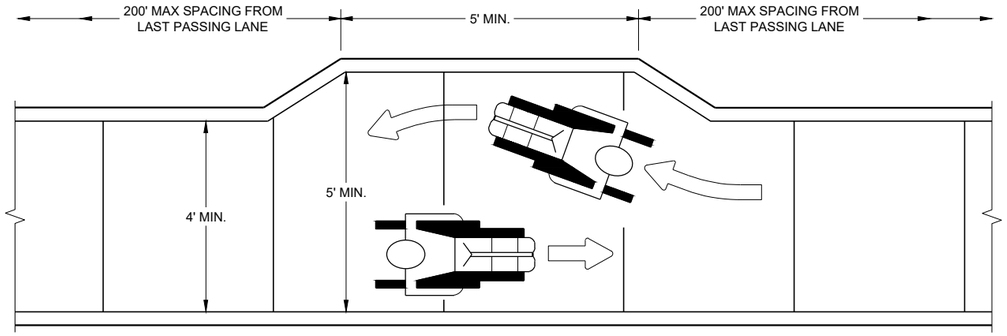
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

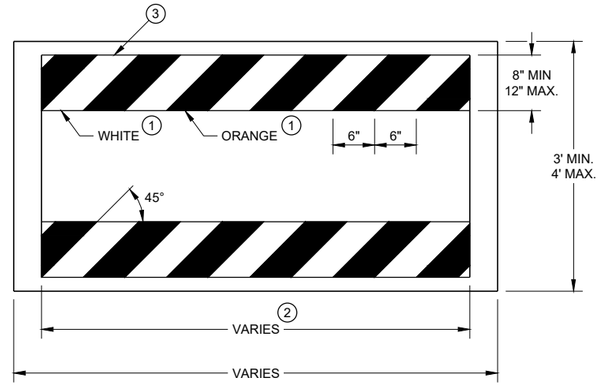
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

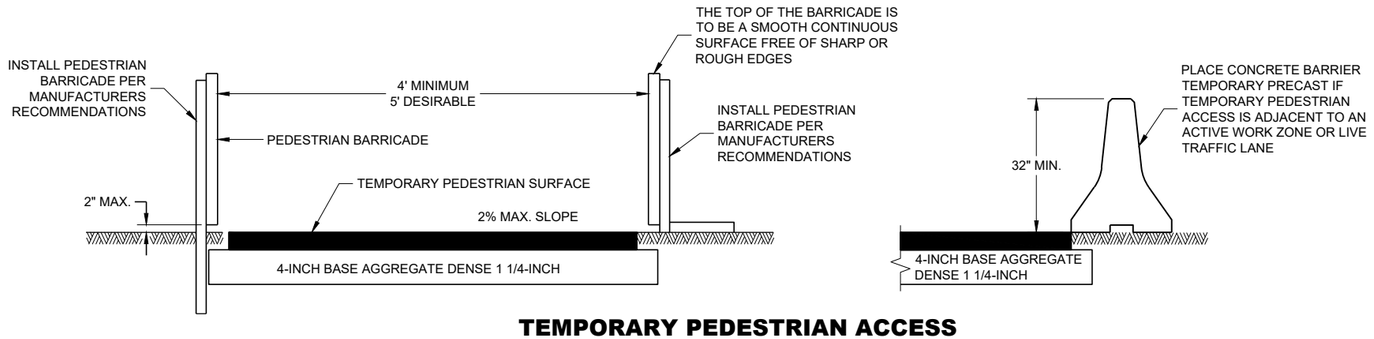
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY PEDESTRIAN ACCESS

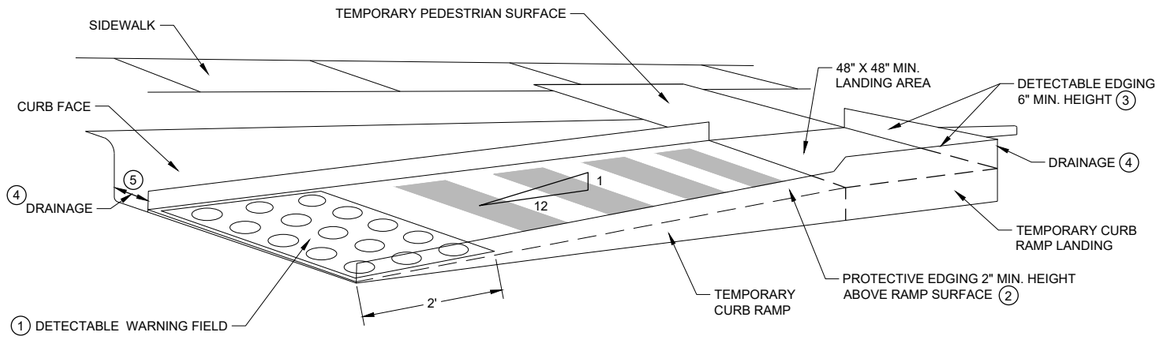
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SDD 15D30 - 09a

SDD 15D30 - 09a

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



PERSPECTIVE VIEW

GENERAL NOTES

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) 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.

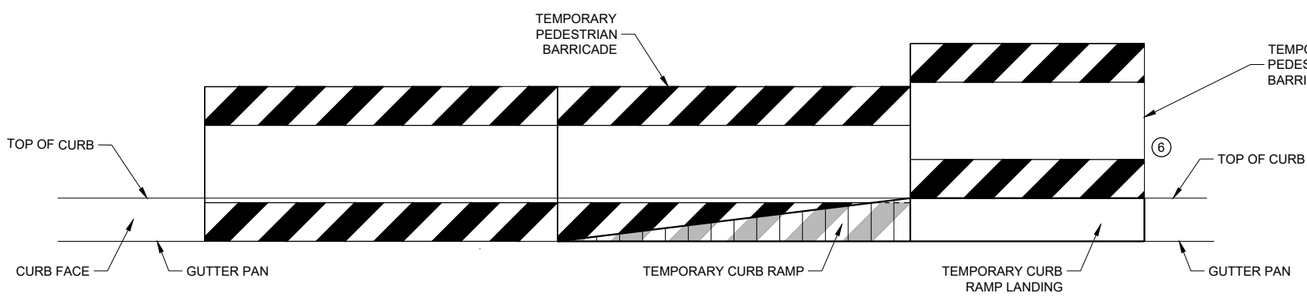
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

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

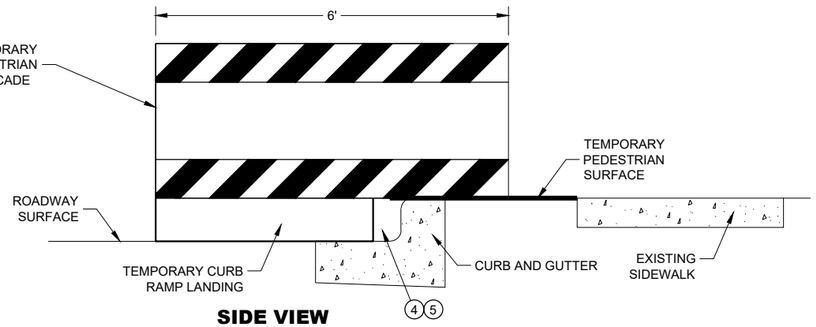
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

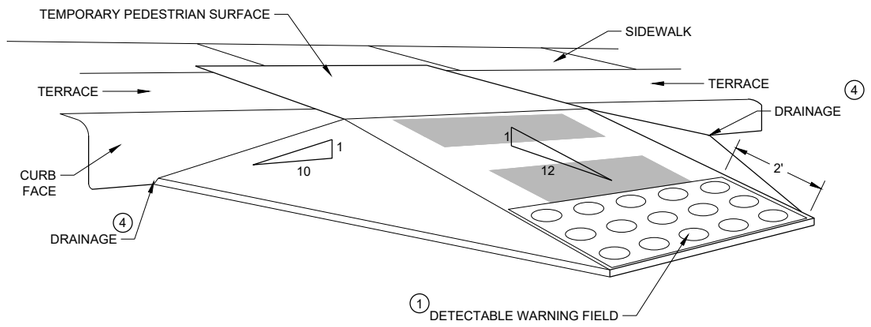
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

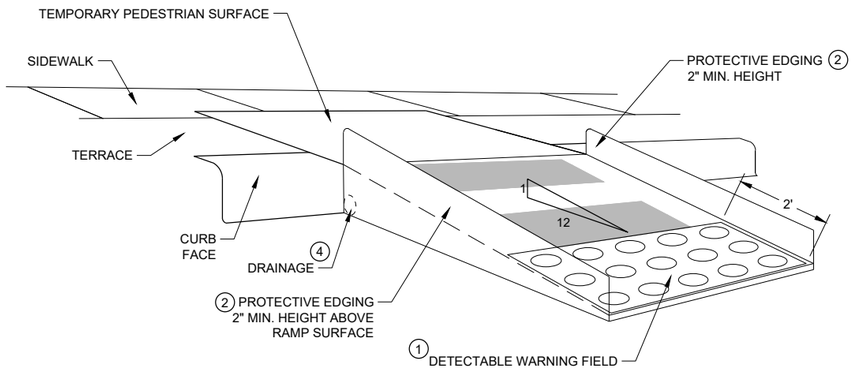
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D30 - 09b



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 1:50 (2%) 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.

GENERAL NOTES

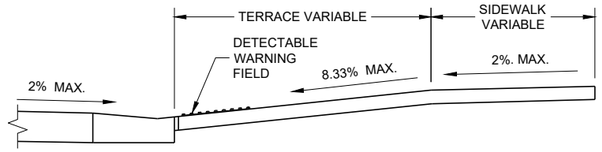
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

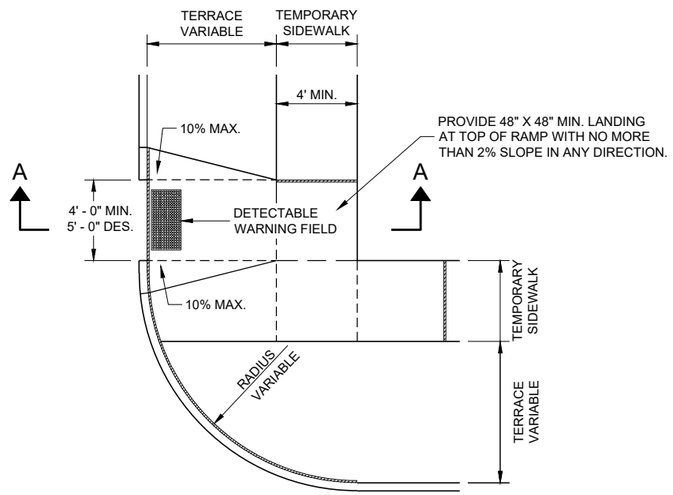
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



SECTION A - A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

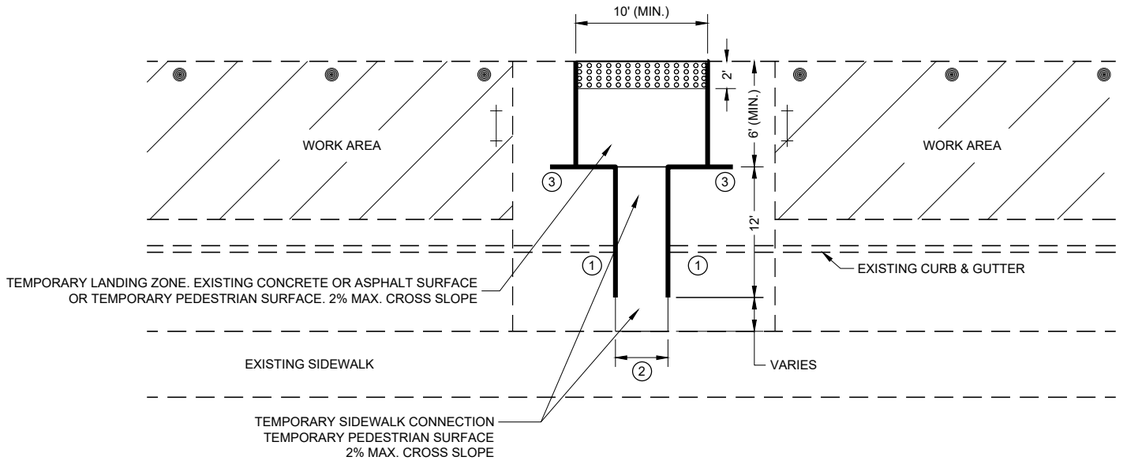
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

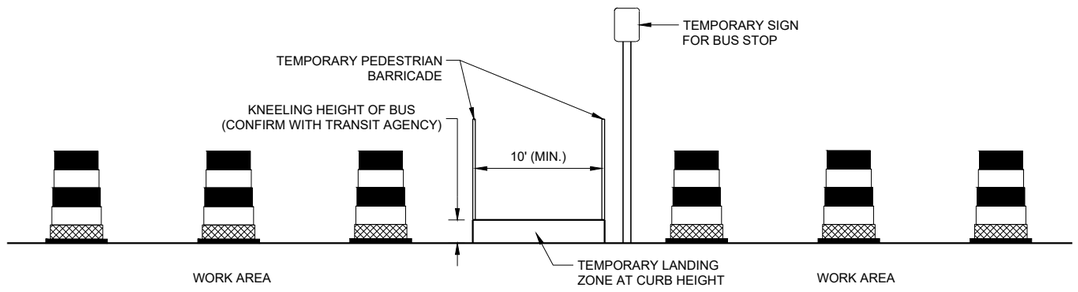
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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SDD 15D30-09d



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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.

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

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".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

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

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

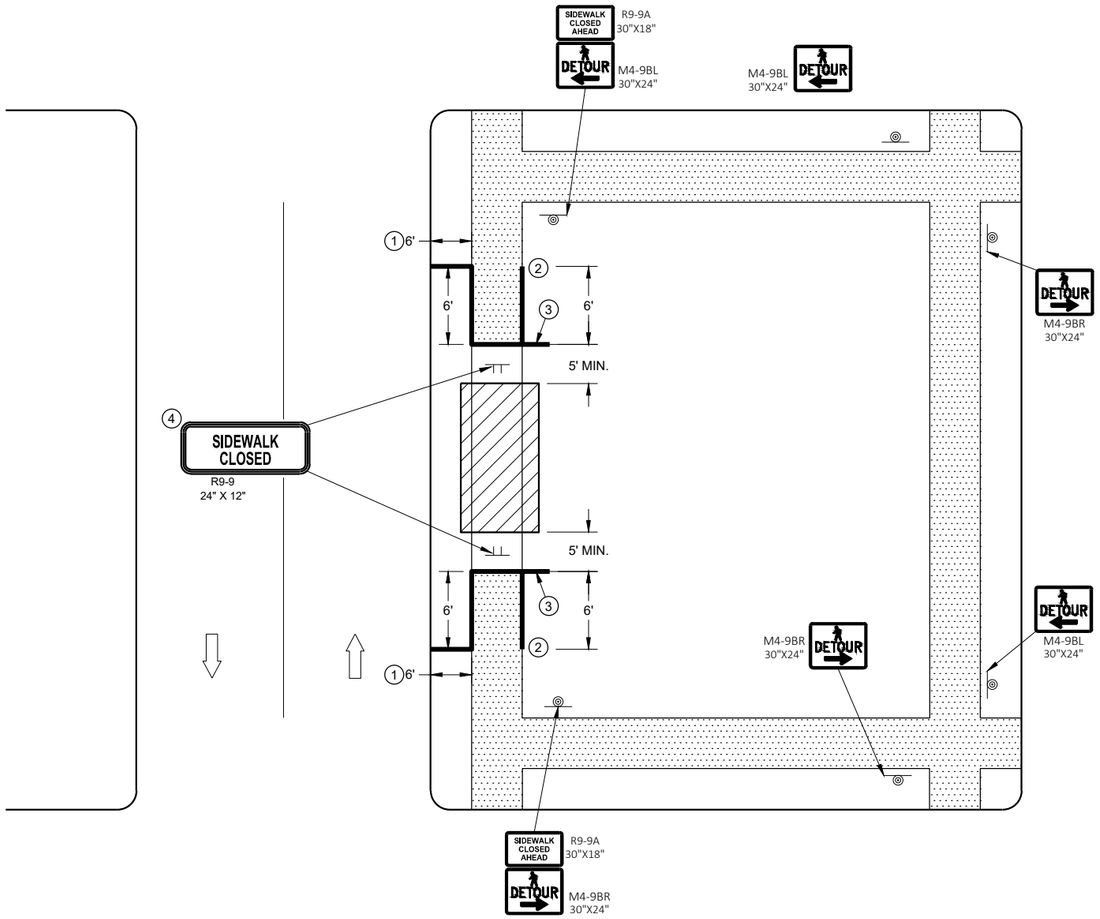
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SDD 15D30 - 09e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

LEGEND

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



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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

6

SDD 15D30 - 09f

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

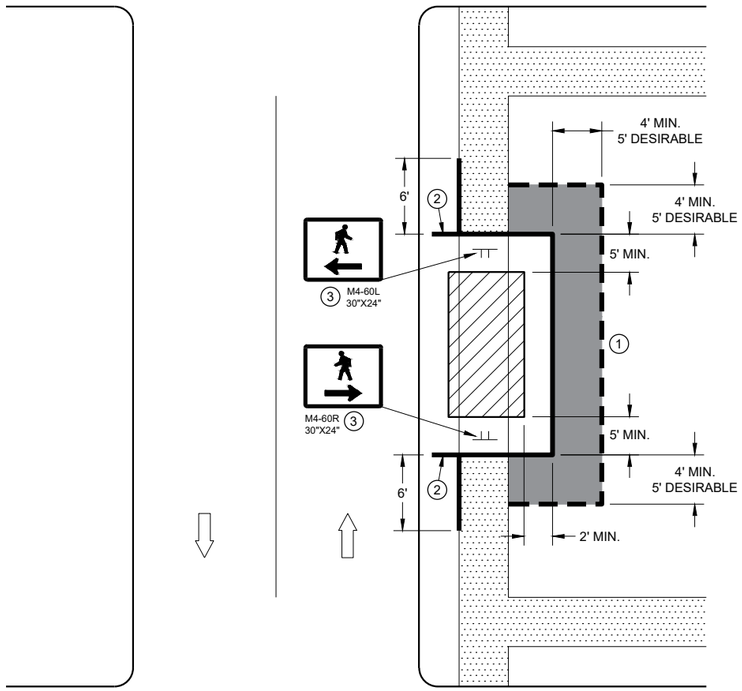
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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 DIVERSION
SINGLE SIDE

6

SDD 15D30 - 09g

6

SDD15D30 - 09g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

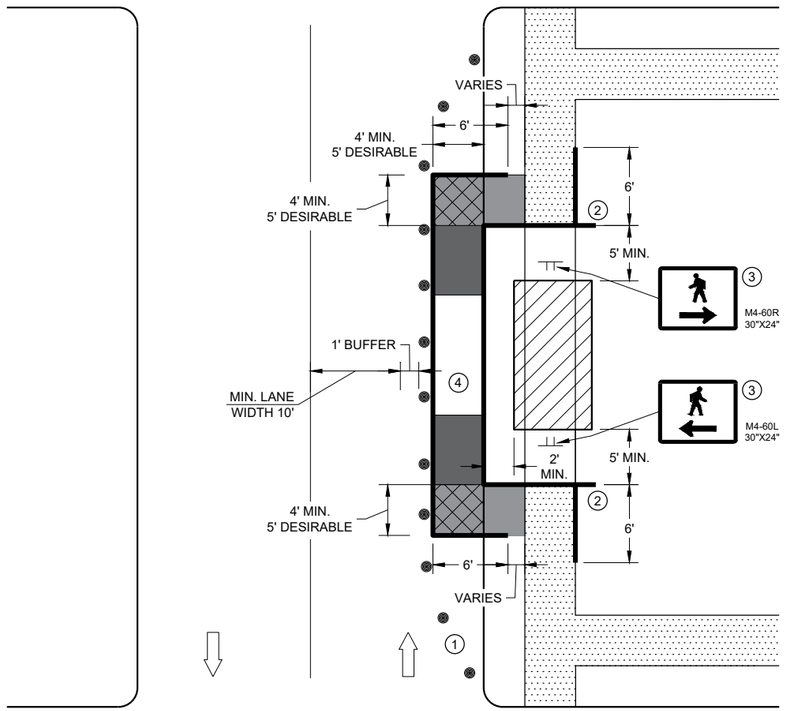
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.

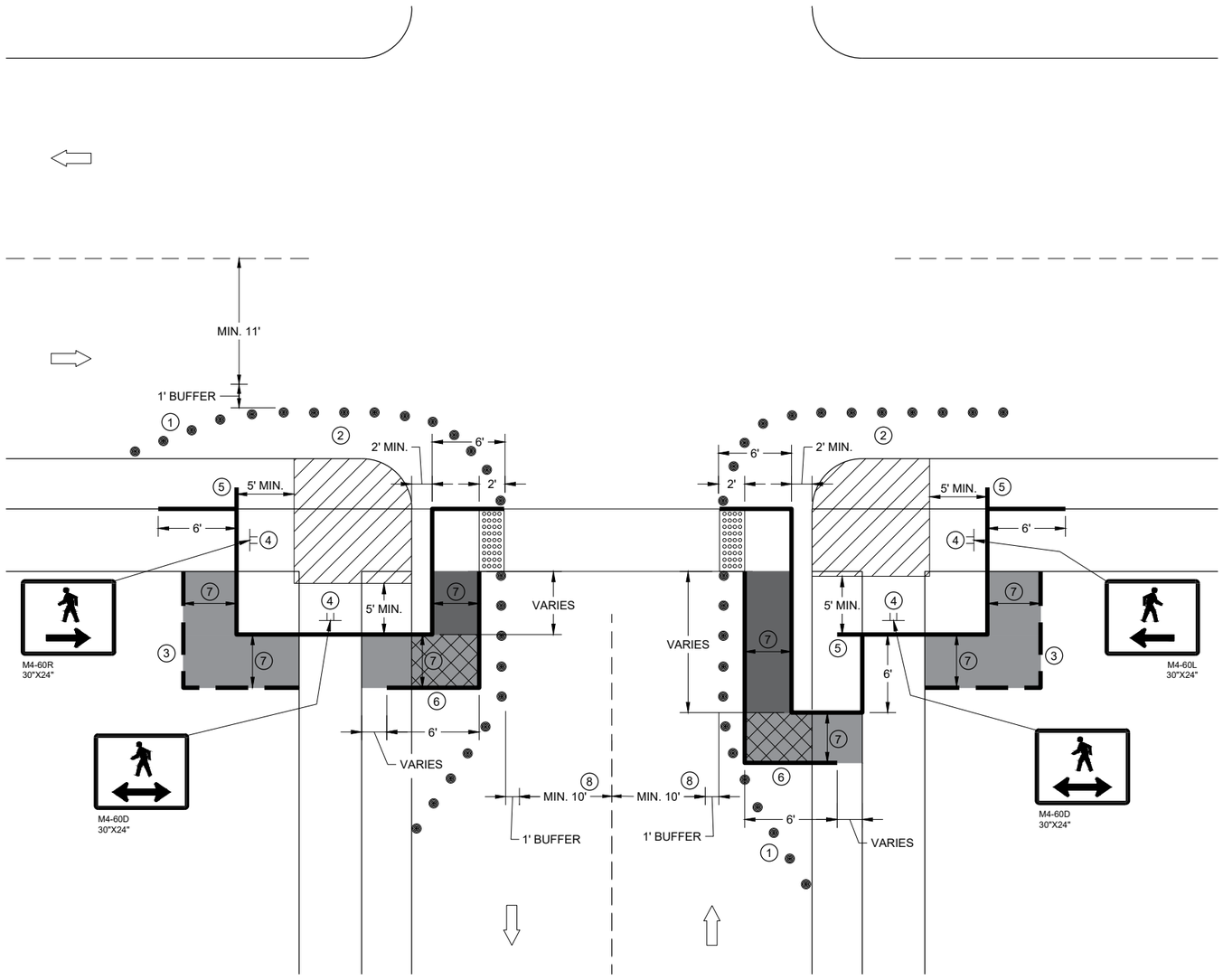


SIDEWALK DIVERSION, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6

SDD 15D30 - 09h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

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

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS

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

(4) MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.

(5) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.

(6) IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.

(7) 4 FEET MINIMUM, 5 FEET DESIRABLE

(8) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

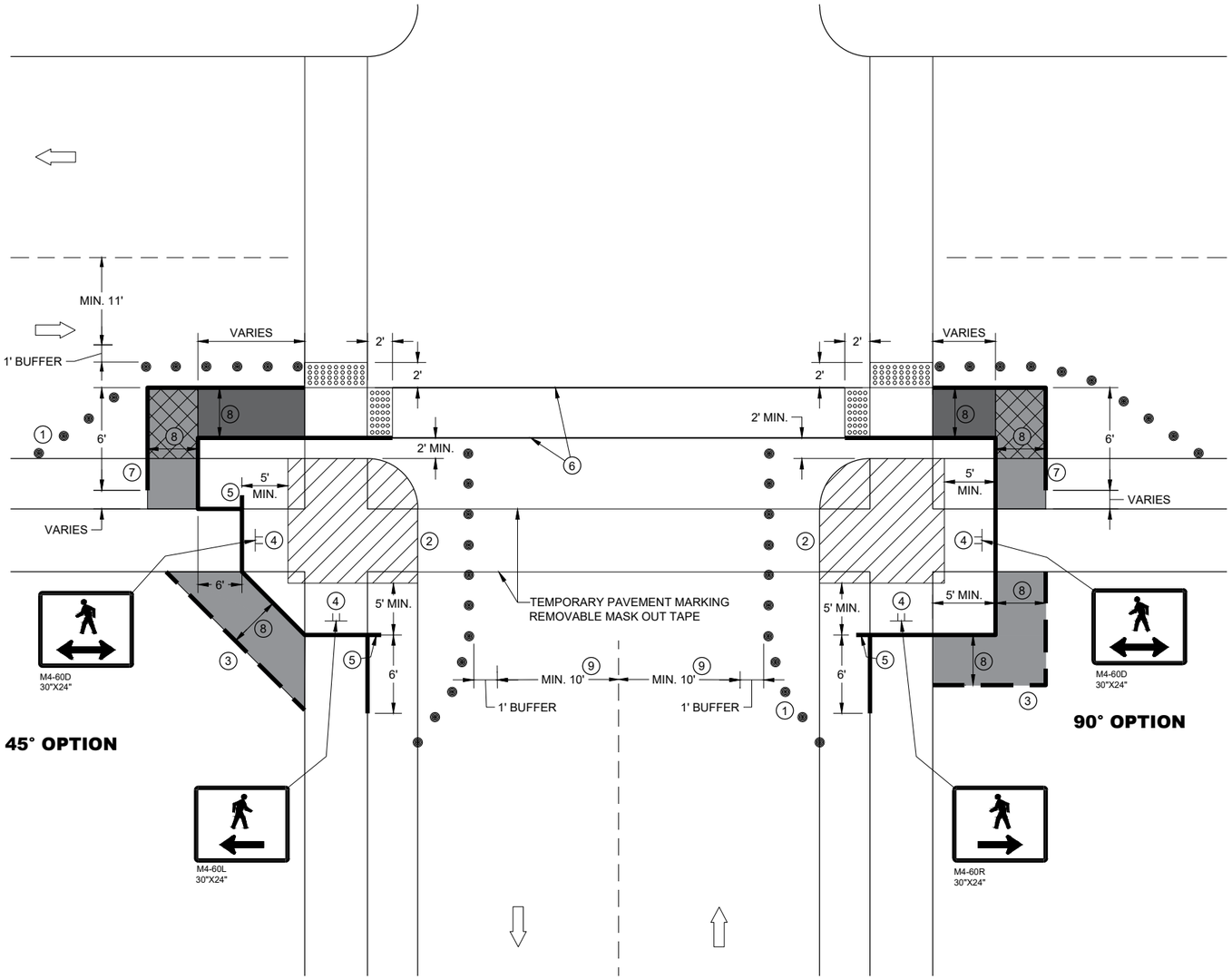
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09i

6



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

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

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. WHITE 6" TEMPORARY PAVEMENT MARKING
7. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
8. 4 FEET MINIMUM, 5 FEET DESIRABLE
9. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

6

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

SDD 15D30 - 09j

LEGEND

SIGN ON PERMANENT SUPPORT

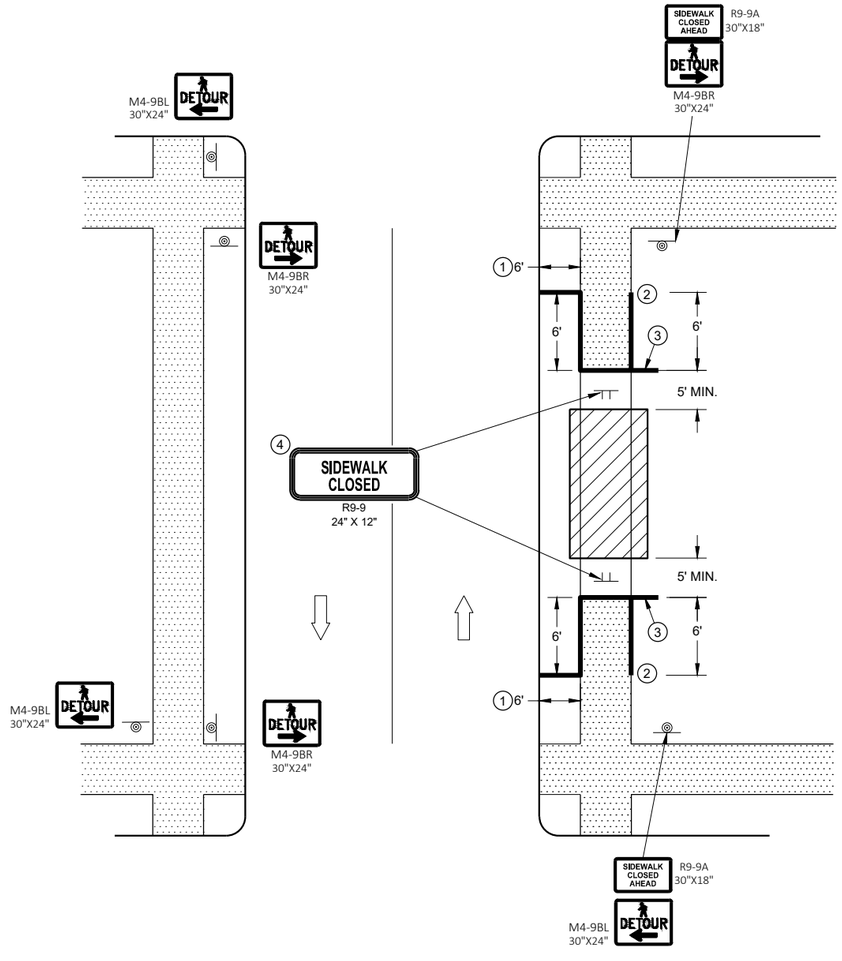
SIGN ON TEMPORARY SUPPORT

UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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.

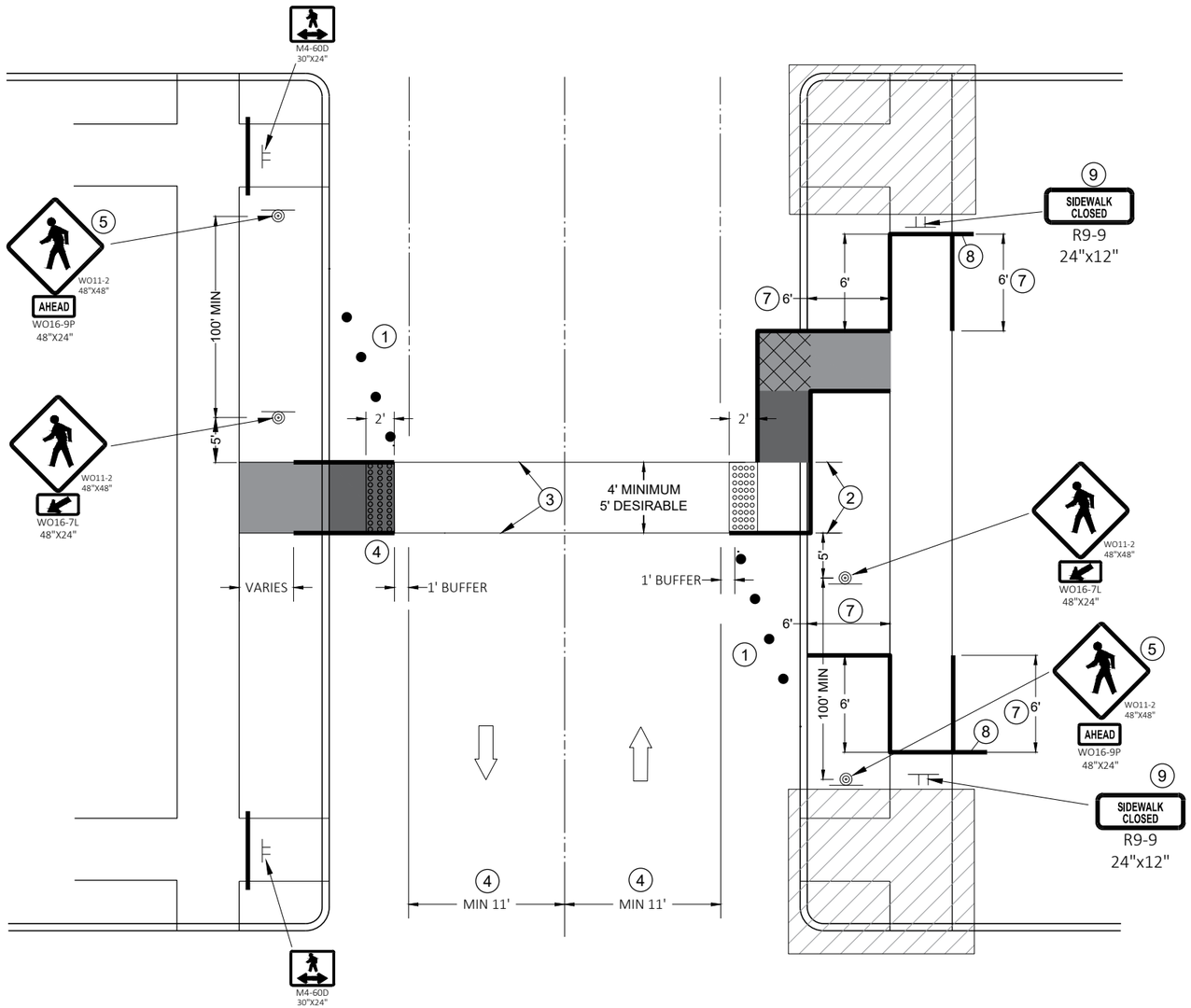
PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

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

6

SDD 15D30 - 09k



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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

(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

6

SDD 15D30 - 09L

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

RIGHT CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR)

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS PART OF A DAYTIME ONLY OPERATION.

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

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

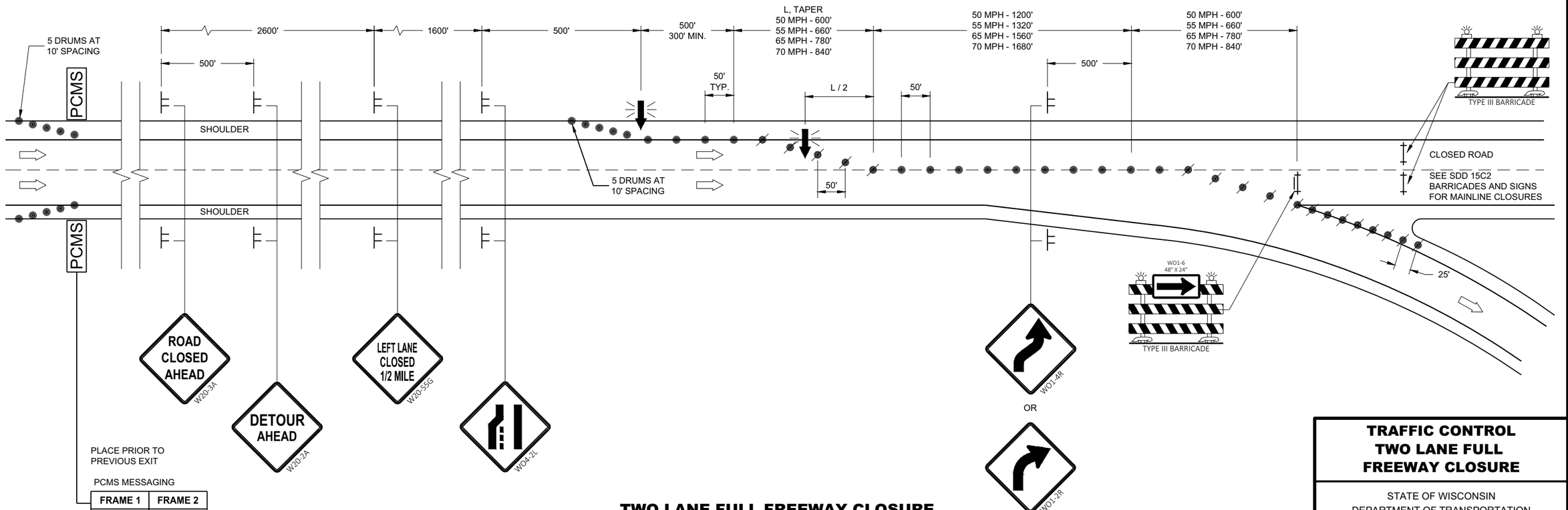
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP REINFORCE THE DRUM LINE.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

REFER TO DETOUR ROUTES FOR TRAFFIC GUIDANCE SIGNING.

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.



PLACE PRIOR TO PREVIOUS EXIT

PCMS MESSAGING

FRAME 1	FRAME 2
FREEWAY CLOSED	EXIT AHEAD

TWO LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL TWO LANE FULL FREEWAY CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

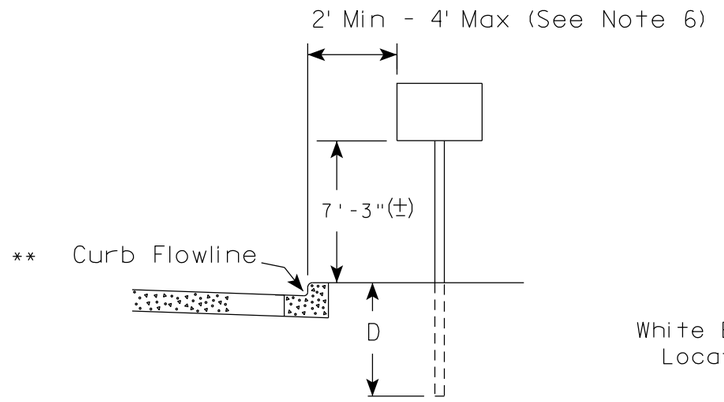
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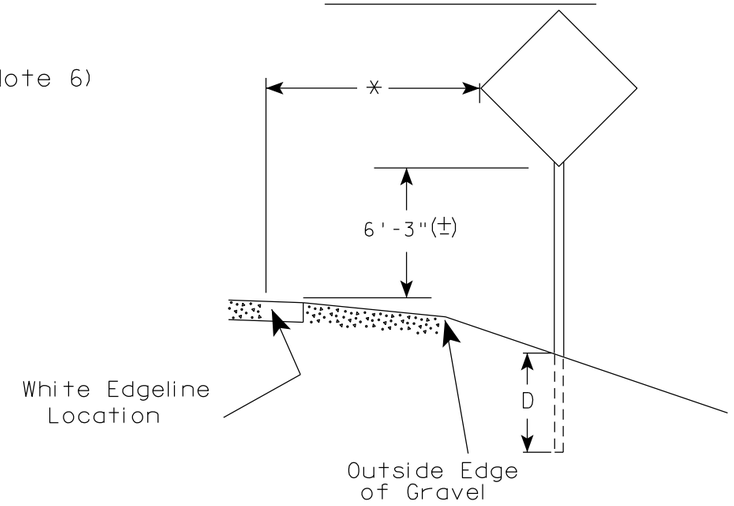
SDD 15D42 - 01

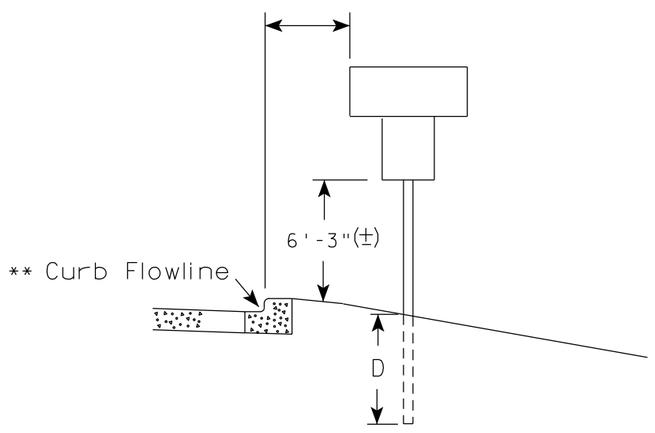
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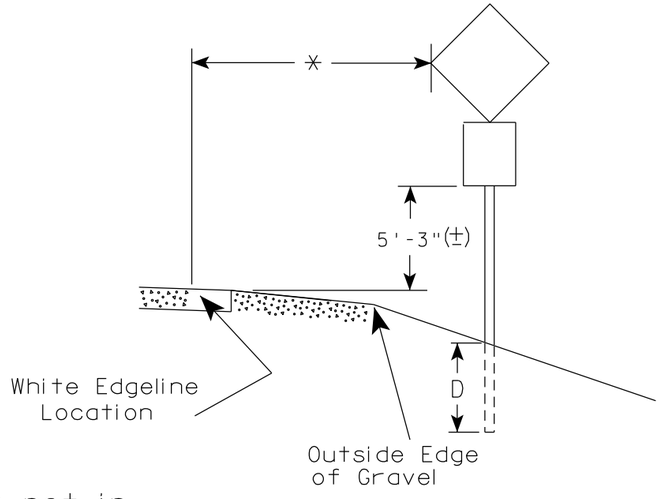
URBAN AREA



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" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

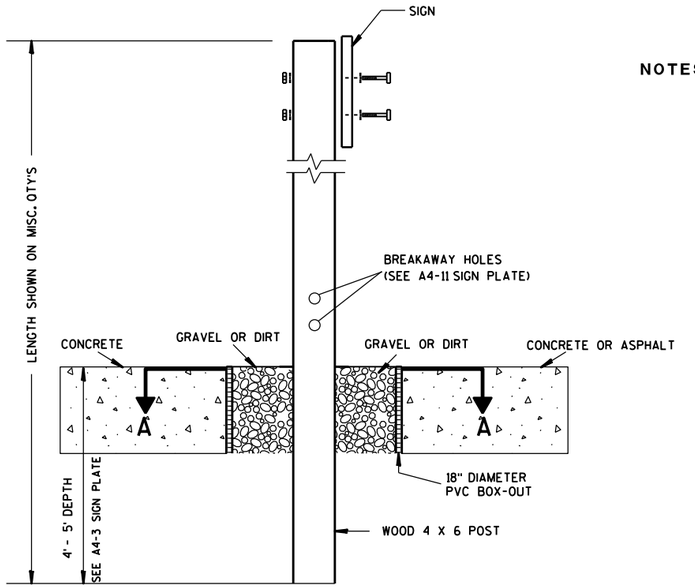
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

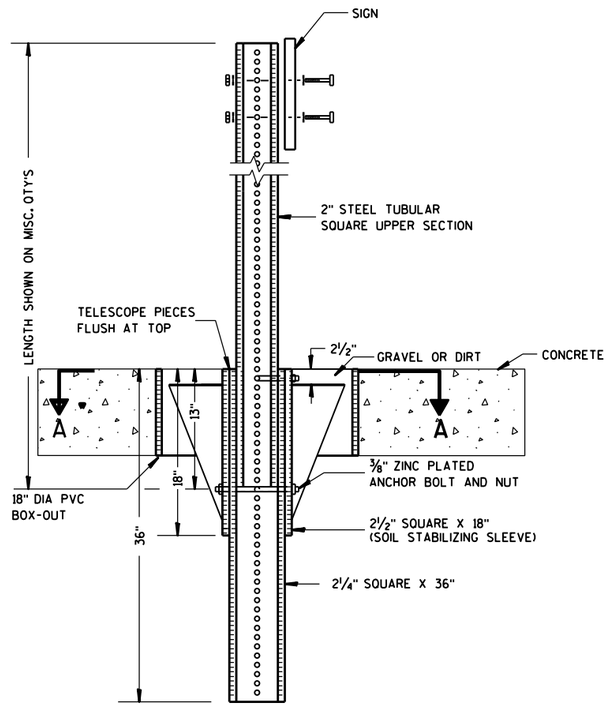
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	E



ELEVATION VIEW

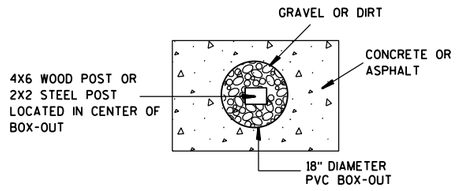
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

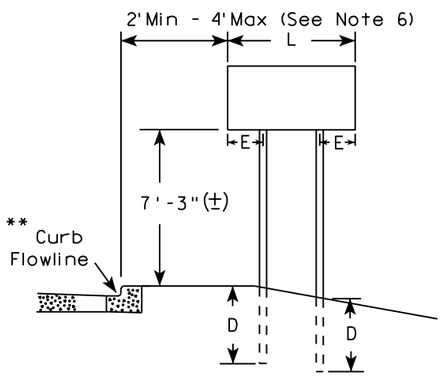
APPROVED Matthew R Rauch
for State Traffic Engineer

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

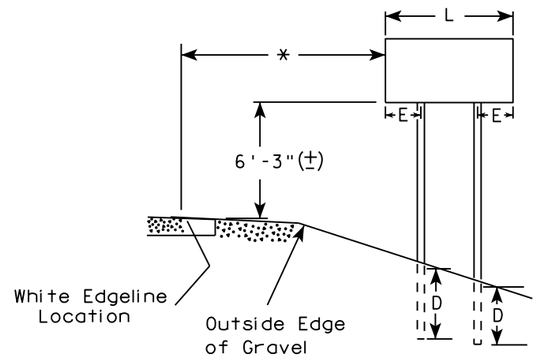
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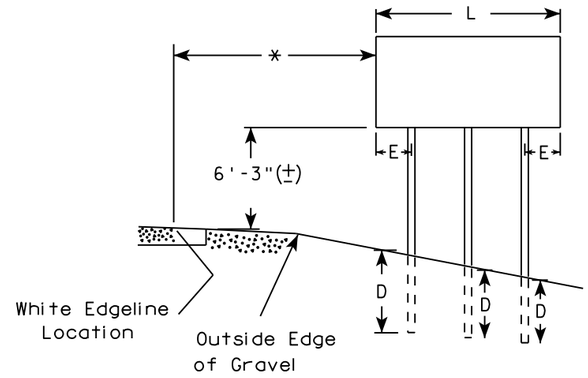
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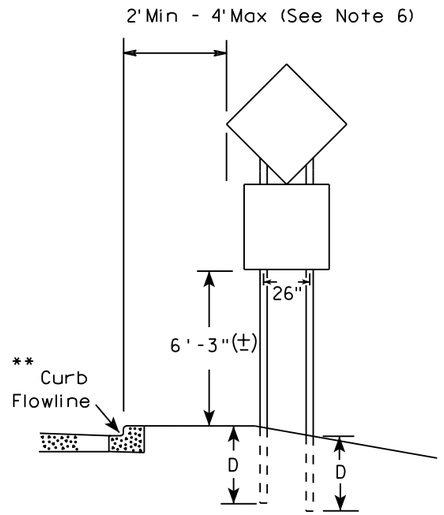
URBAN AREA



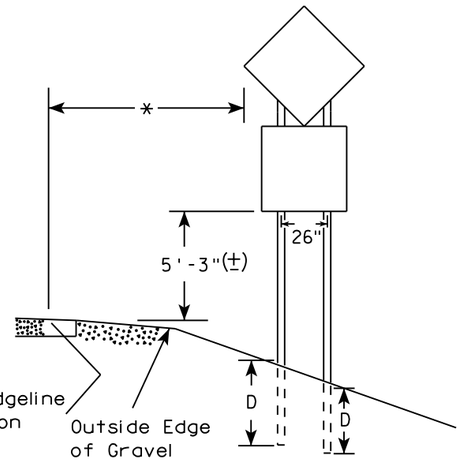
RURAL AREA (See Note 3)







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

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

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

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

POST EMBEDMENT DEPTH

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

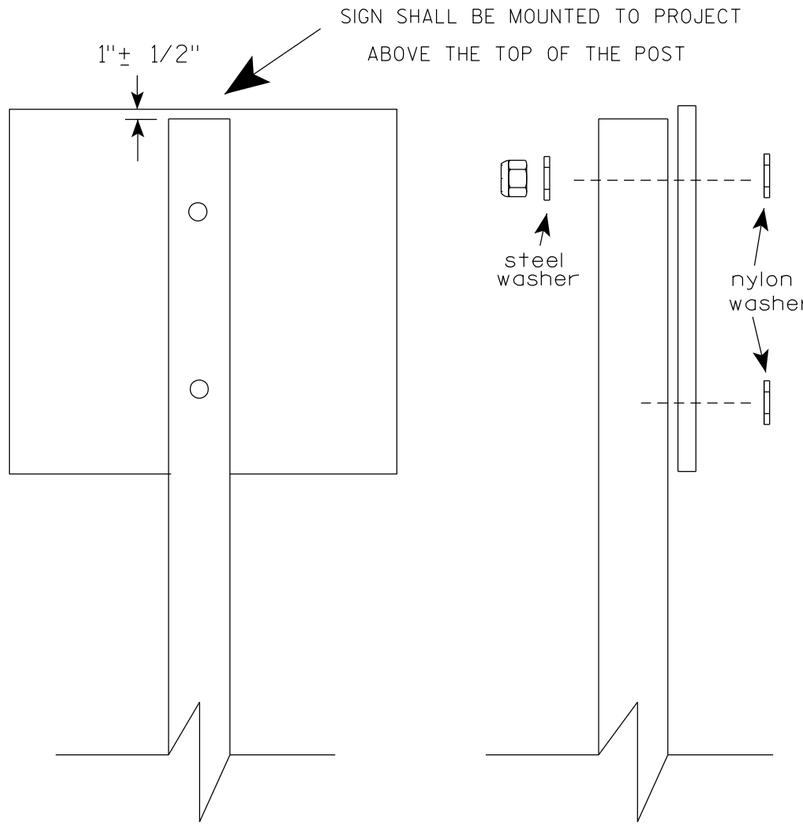
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

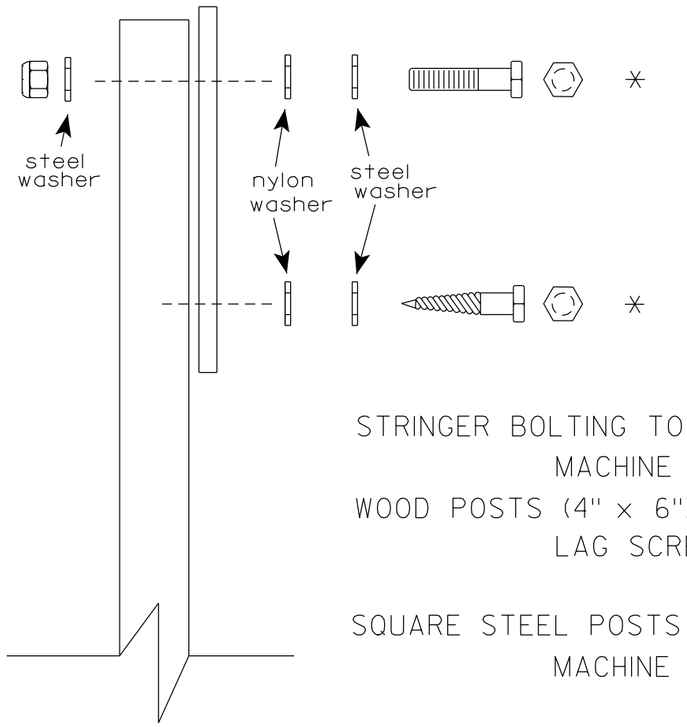
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 155	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

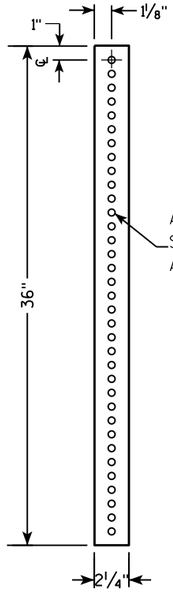
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

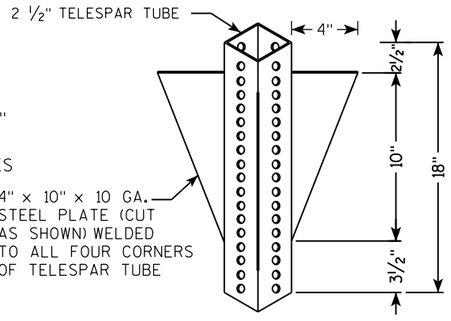
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

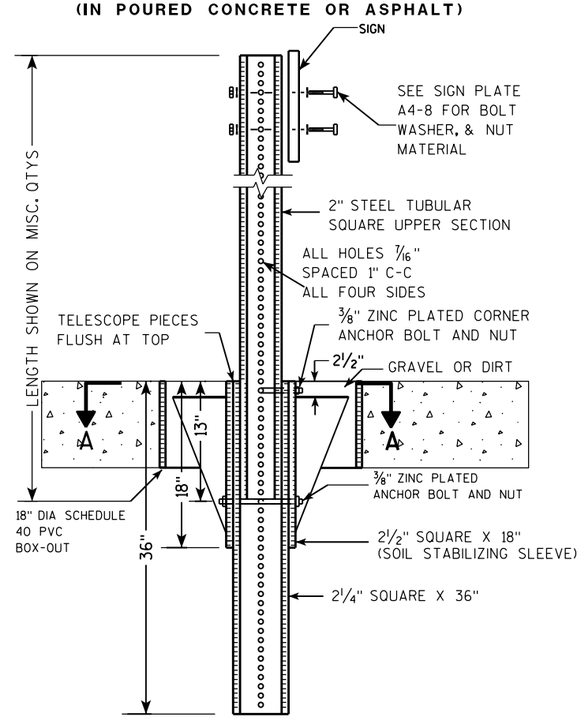
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



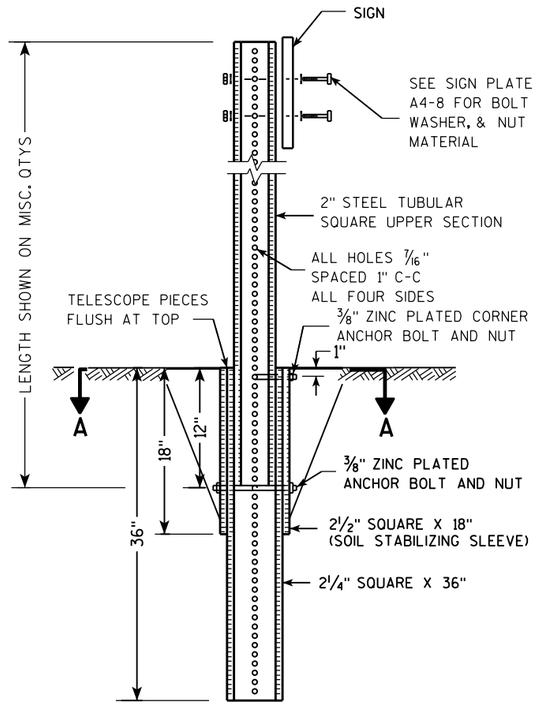
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

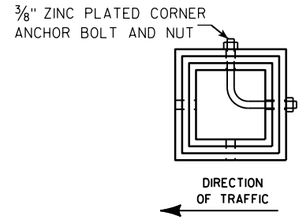


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

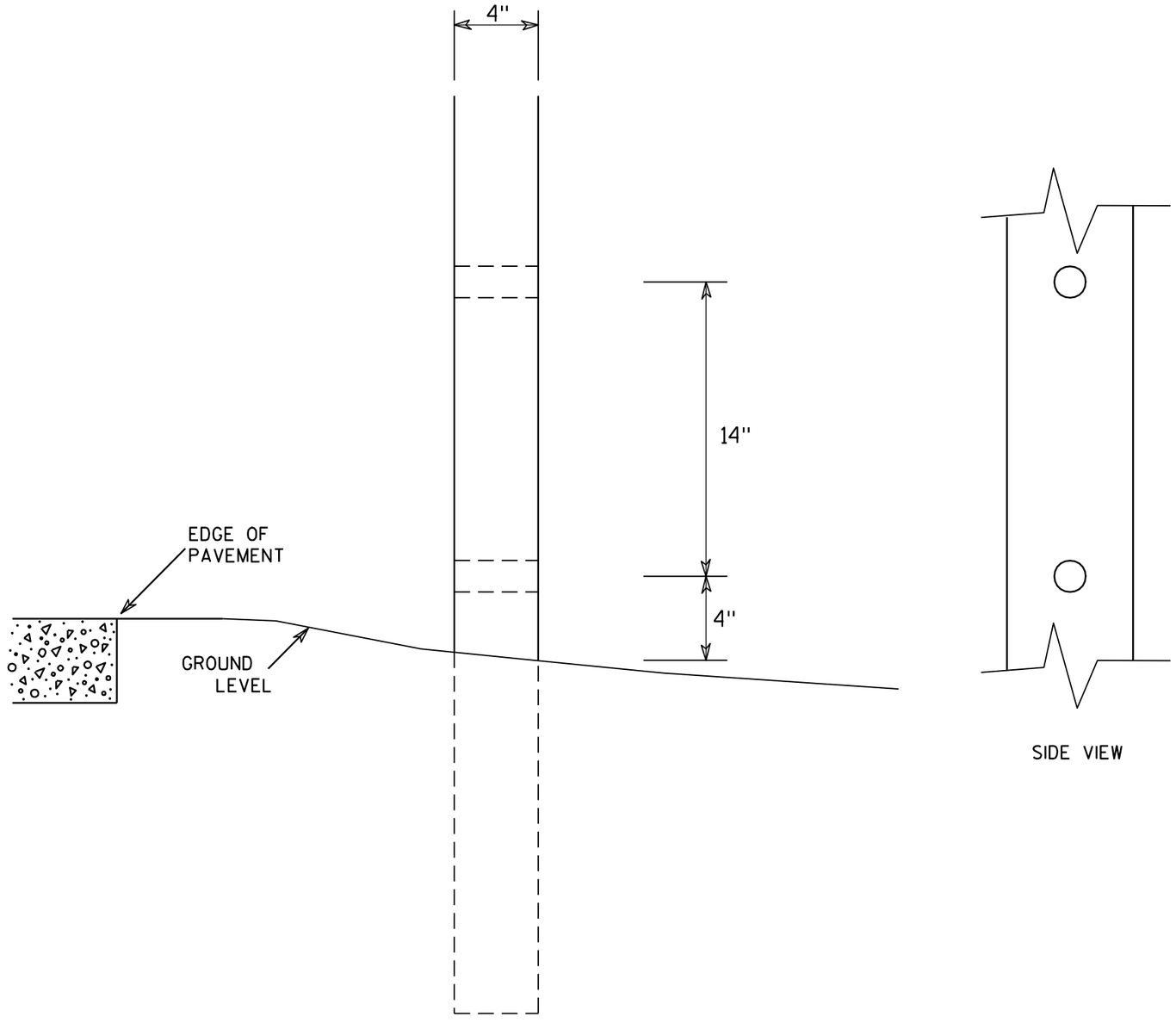
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

7

7

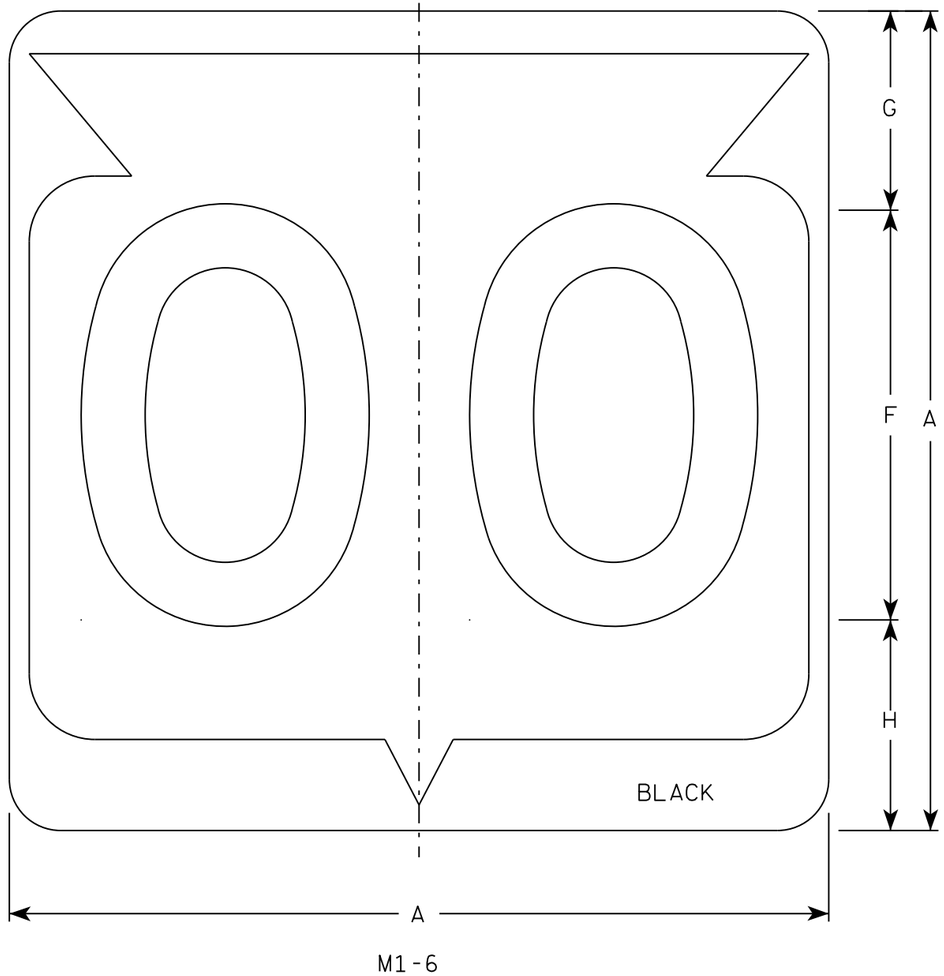
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

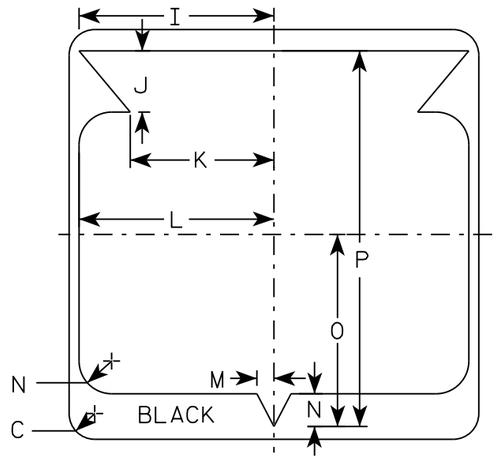
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 158	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

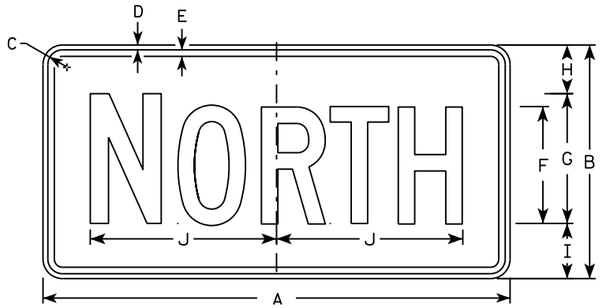
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

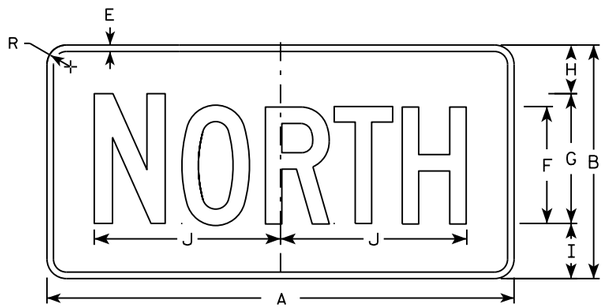
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 159	E



M3-1
MM3-1
MP3-1



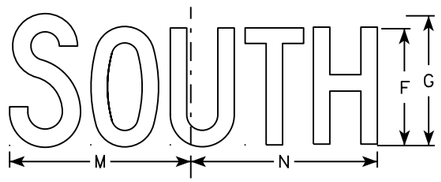
MB3-1
MK3-1
MN3-1



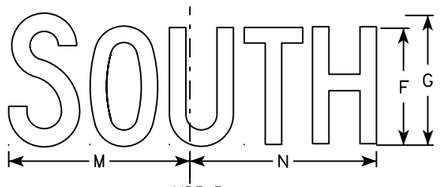
M3-2
MM3-2
MP3-2



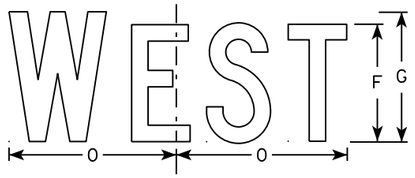
MB3-2
MK3-2
MN3-2



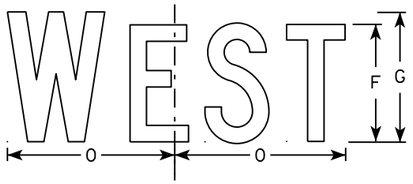
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

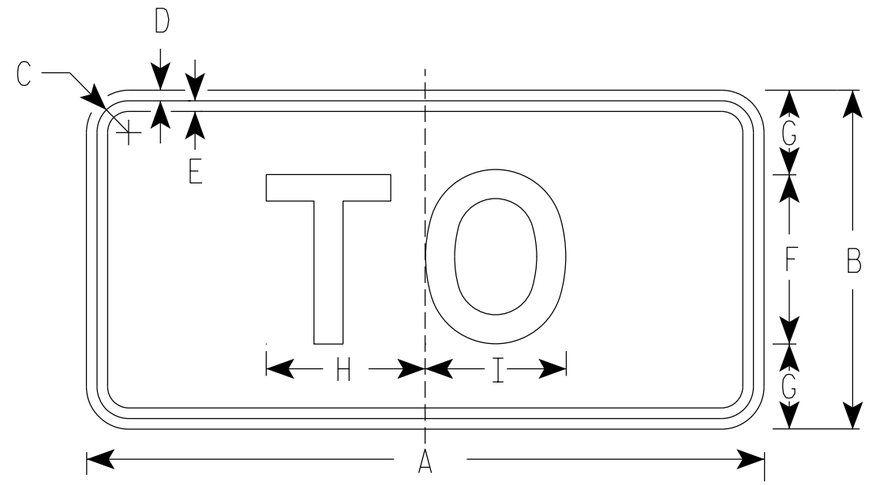
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

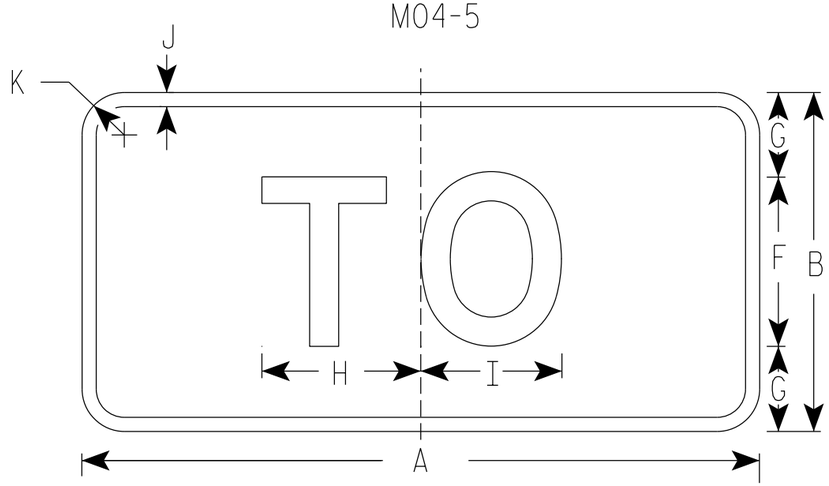
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

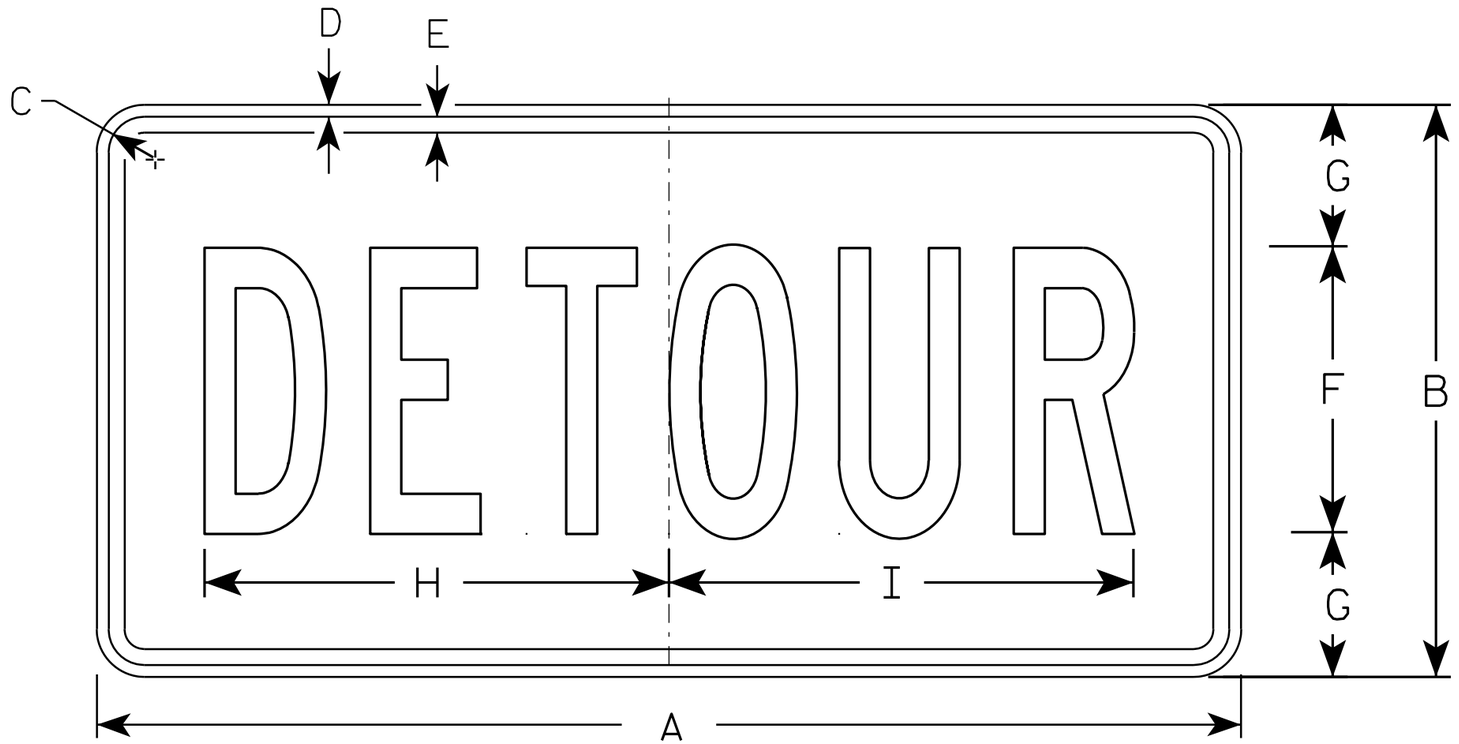
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 161 | E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

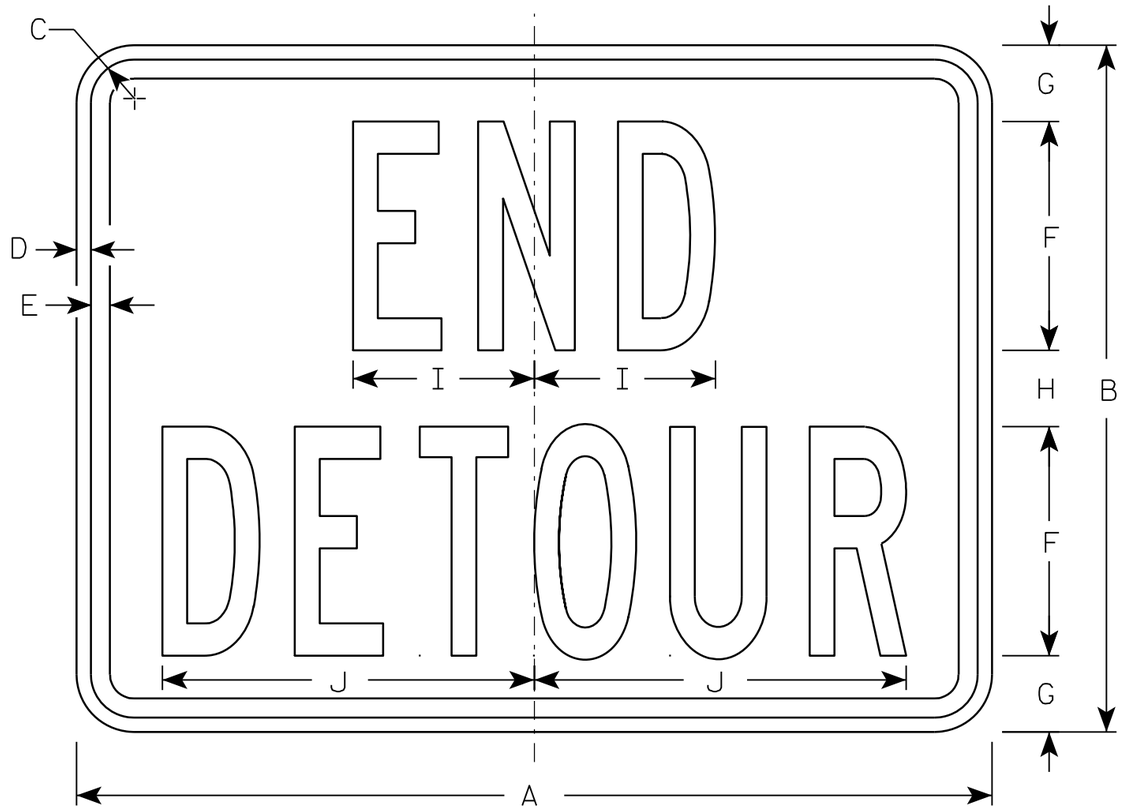
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

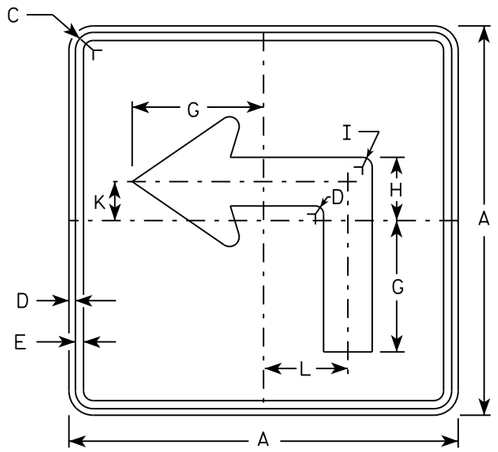
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

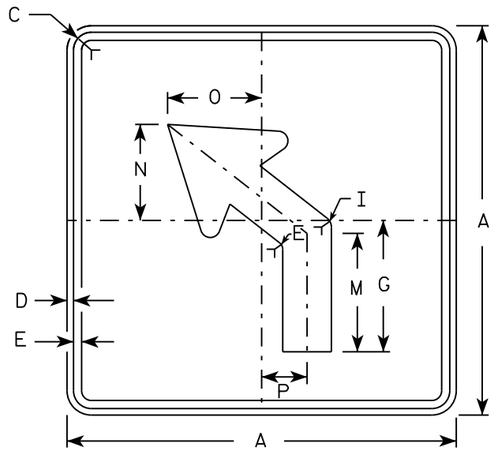
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

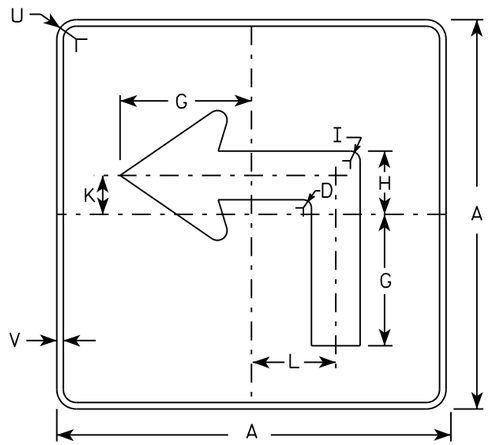
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 163	E



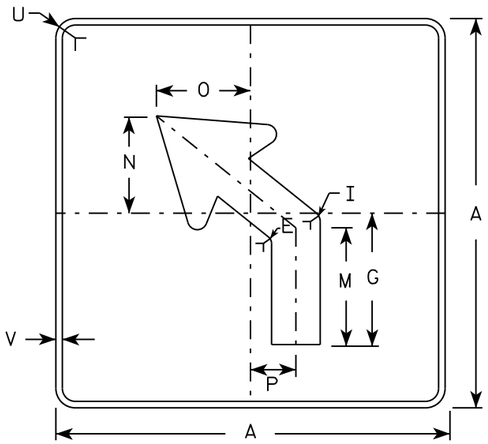
M5-1L
MM5-1L
MO5-1L
MP5-1L



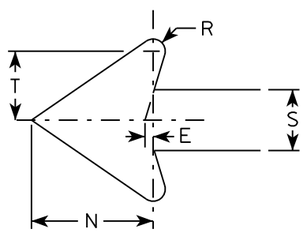
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

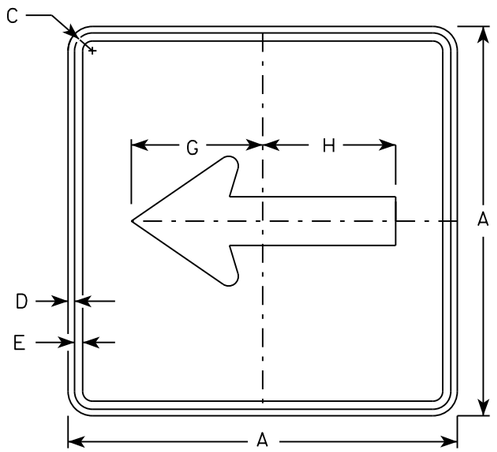
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

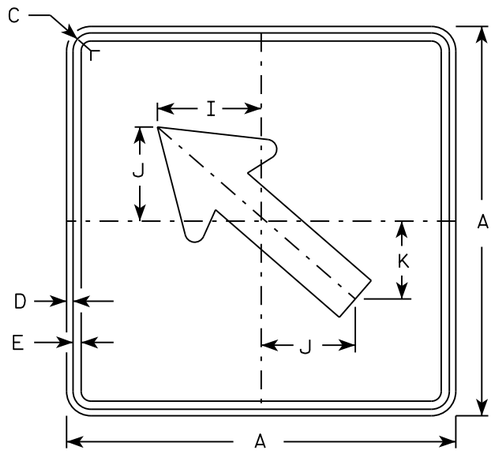
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



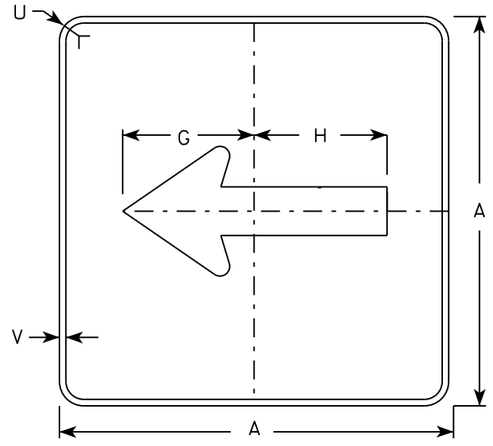
M6-1
MM6-1
MO6-1
MP6-1



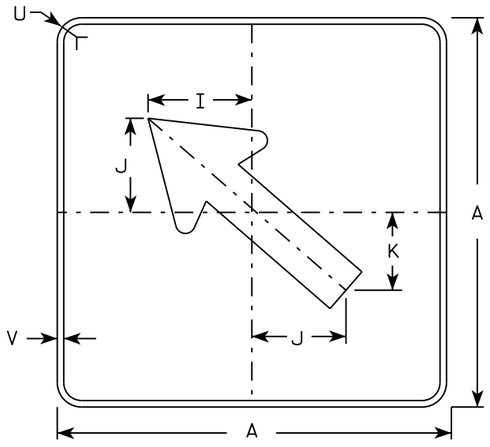
M6-2
MM6-2
MO6-2
MP6-2

NOTES

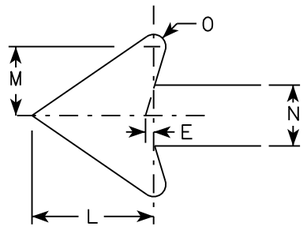
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

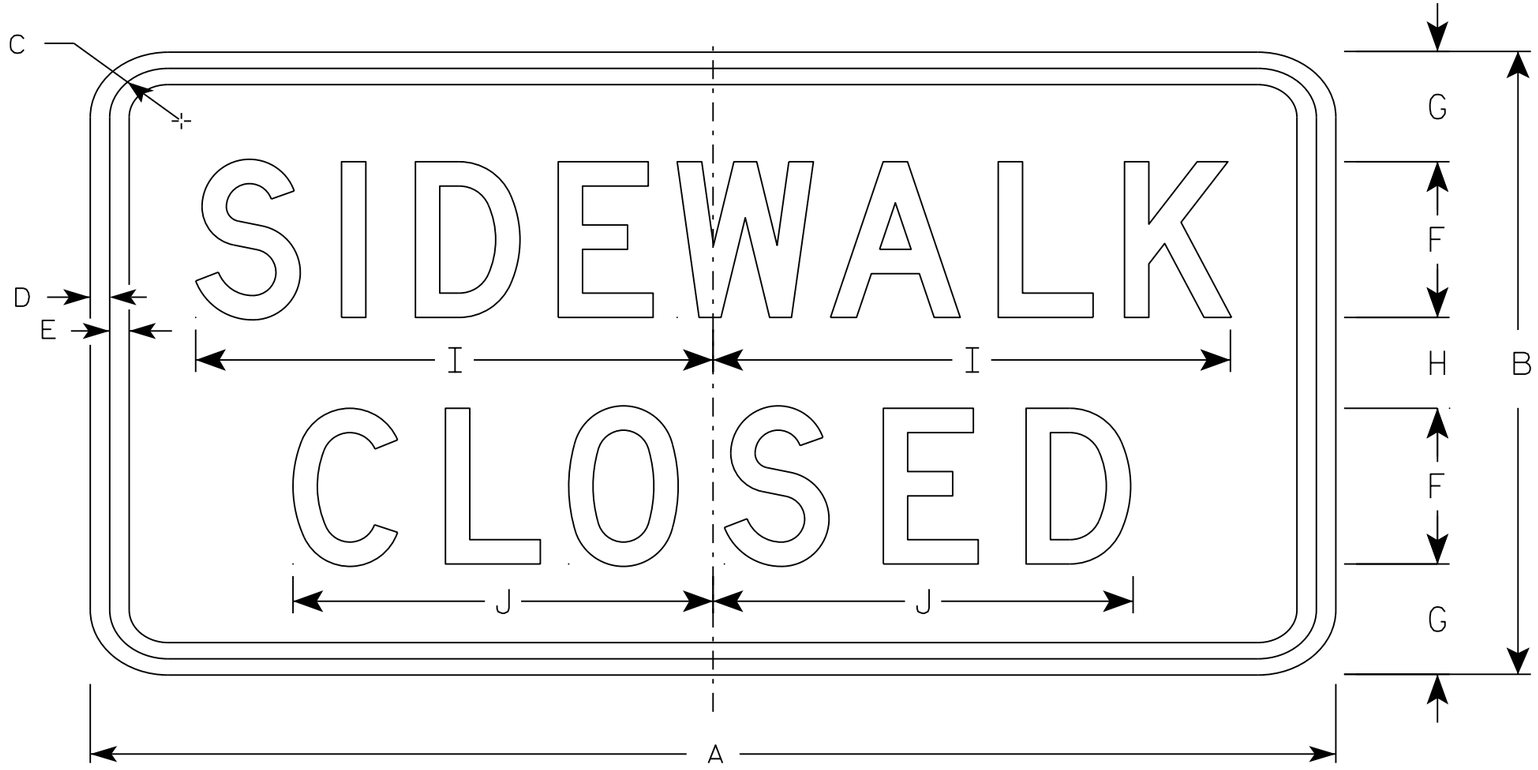
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 165 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

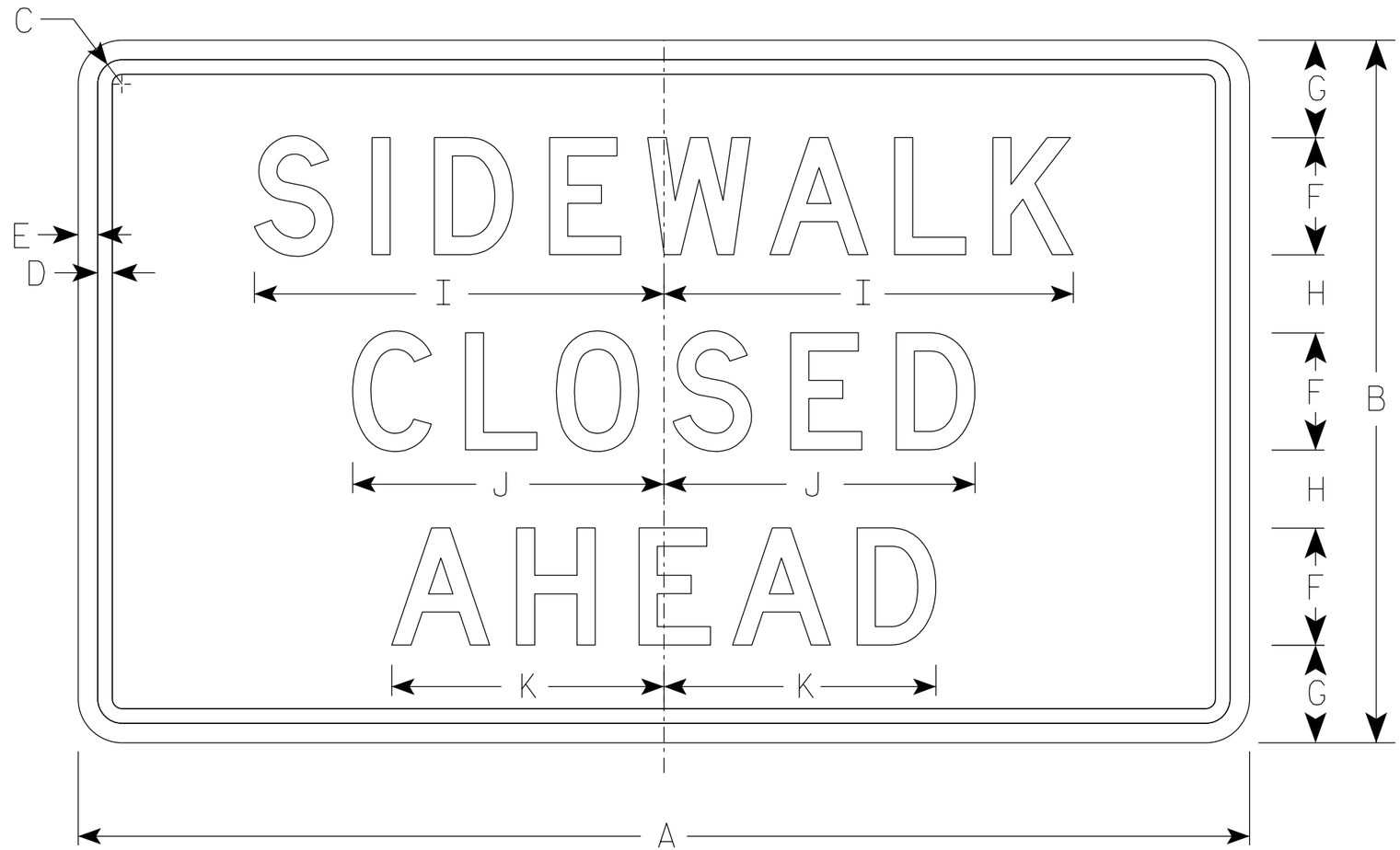
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 166 R9-9.6

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-9A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

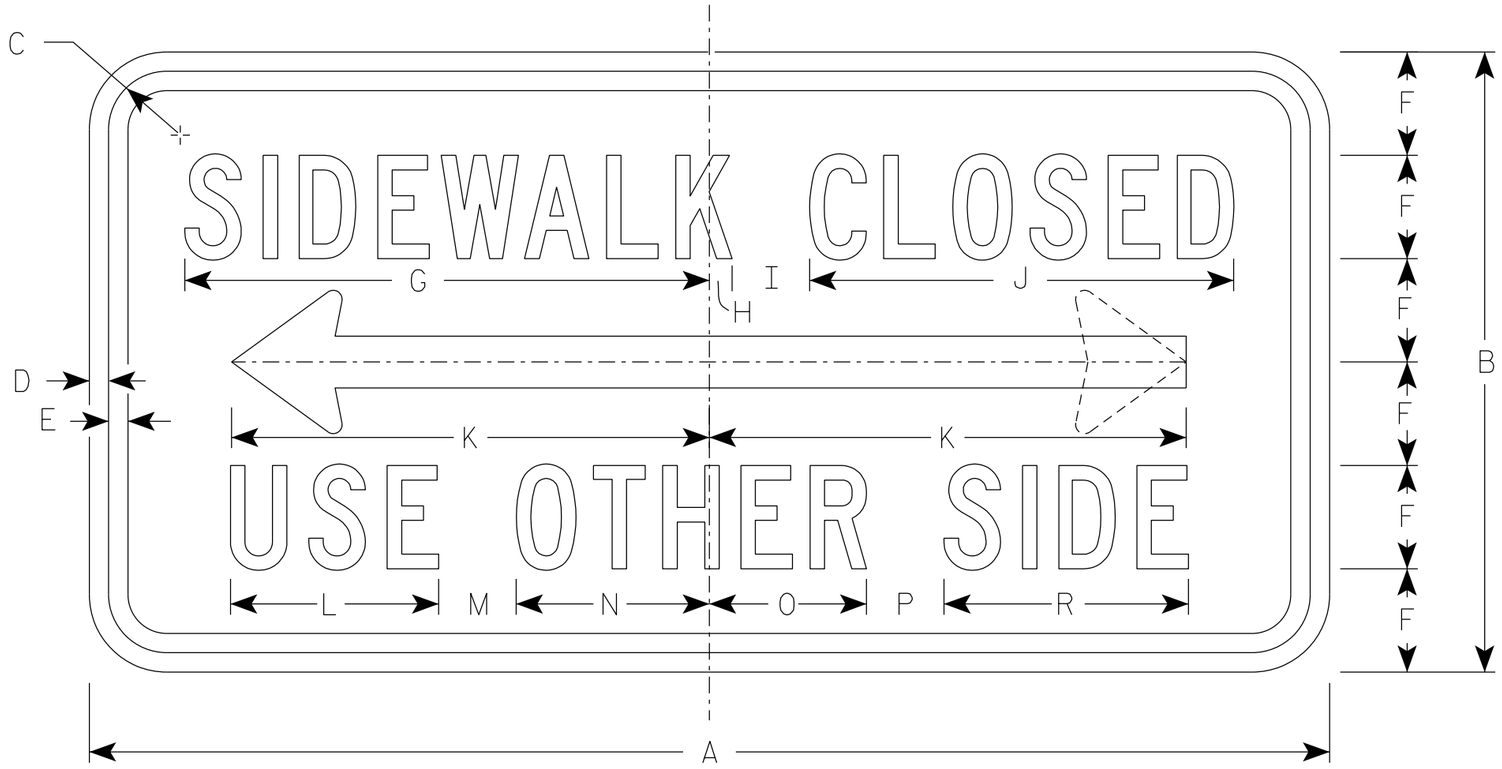
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

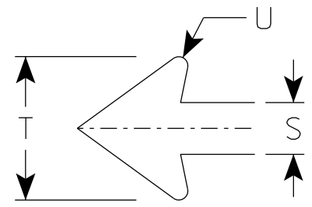
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 167 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for sidewalks. Use Size 3 for paths and trails.



R9-10



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/8	1/2	1 1/2	8 1/4	9 1/4	4	1 1/2	3 3/4	3	1 1/2		4 3/4	1	2 3/4	1/8						2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/8	1/2	1 1/2	8 1/4	9 1/4	4	1 1/2	3 3/4	3	1 1/2		4 3/4	1	2 3/4	1/8						2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	5	2	4 5/8	3 3/4	2		5 7/8	1 1/4	3 5/8	1/4						3.125
4																											
5																											

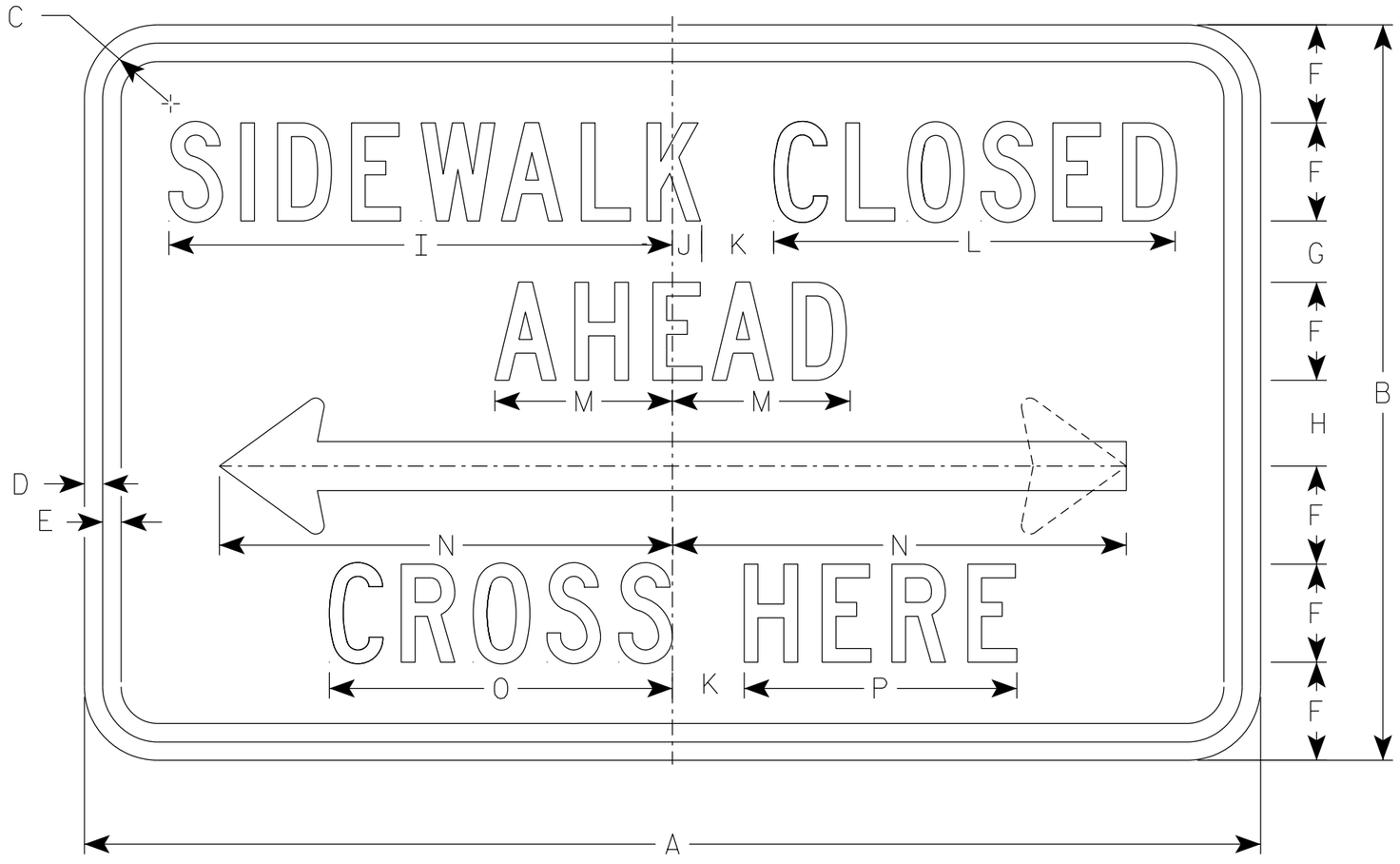
STANDARD SIGN
R9-10

WISCONSIN DEPT OF TRANSPORTATION

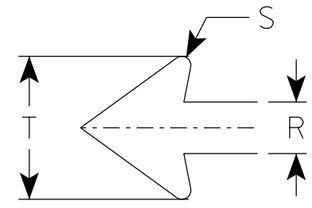
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/7/2020 PLATE NO. R9-10.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 168	E



R9-11



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.
6. R9-11 D (double arrow)
   R9-11 L (left arrow)
   R9-11 R (right arrow)

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	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

STANDARD SIGN
R9-11

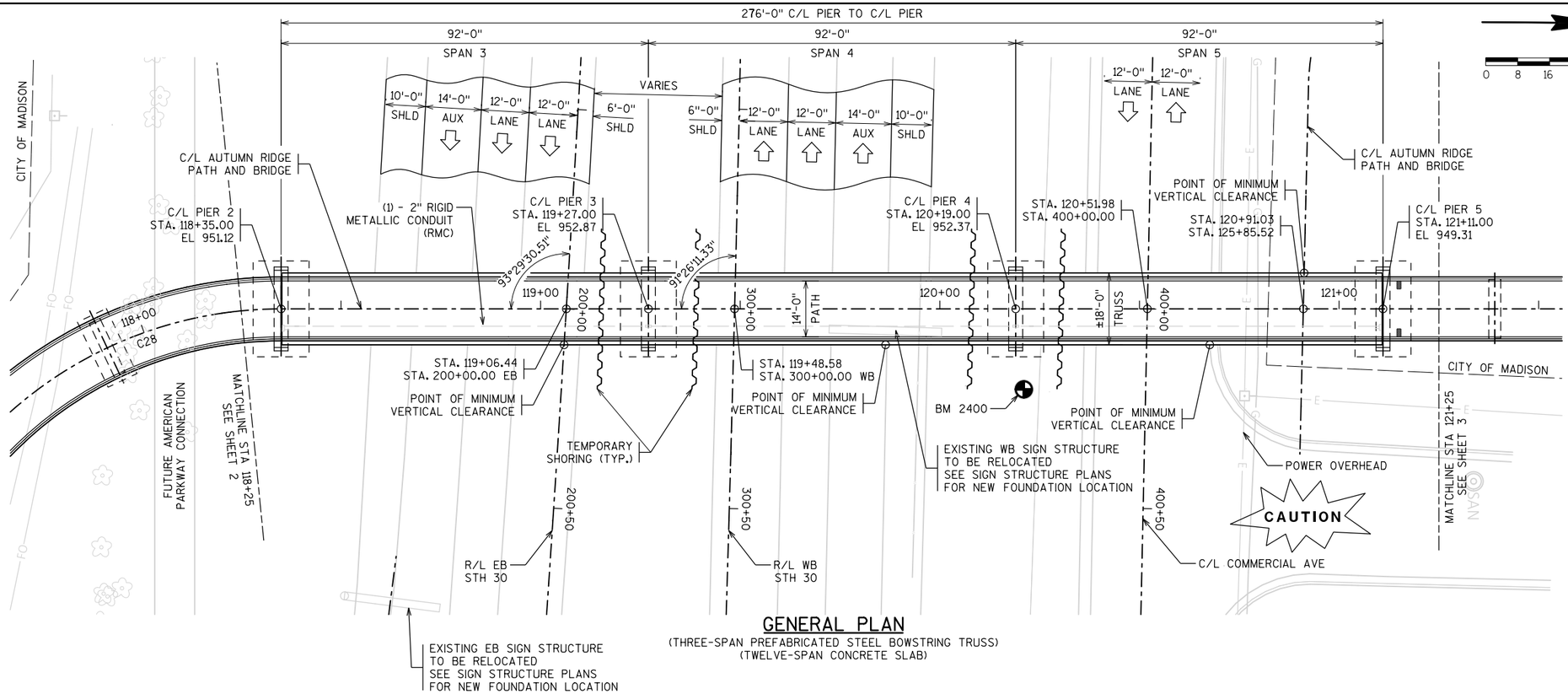
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/30/2021 PLATE NO. R9-11.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 169 | E

PLOT DATE: 10/11/2023 PLOT TIME: 11:32:31 AM
FILE NAME : X:\KO\M\MADIS\15768\5-final-dsgn\5i-drawings\20-Struct\B-13-898\Sheet\bl3898gl.dgn



GENERAL PLAN
(THREE-SPAN PREFABRICATED STEEL BOWSTRING TRUSS)
(TWELVE-SPAN CONCRETE SLAB)

N
0 8 16 32

STATE PROJECT NUMBER
5992-11-11

DESIGN DATA

AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION.

LIVE LOAD:

LIVE LOAD ON TRAIL BRIDGE = GREATER OF:
90 PSF PER AASHTO
OR H-10 MAINTENANCE (20,000 LB) VEHICLE WITHOUT IMPACT

MATERIAL PROPERTIES:

CONCRETE MASONRY - SLAB	f'c = 4 ksi
- ALL OTHER (GRADE A)	f'c = 3.5 ksi
HIGH STRENGTH BAR STEEL REINFORCEMENT AASHTO GRADE 60	fy = 60 ksi
STRUCTURAL STEEL:	PER SPECIAL PROVISIONS
PREFABRICATED STEEL TRUSS (PAINTED)	* fy = 42 ksi
RAILING	

*UNLESS OTHERWISE NOTED

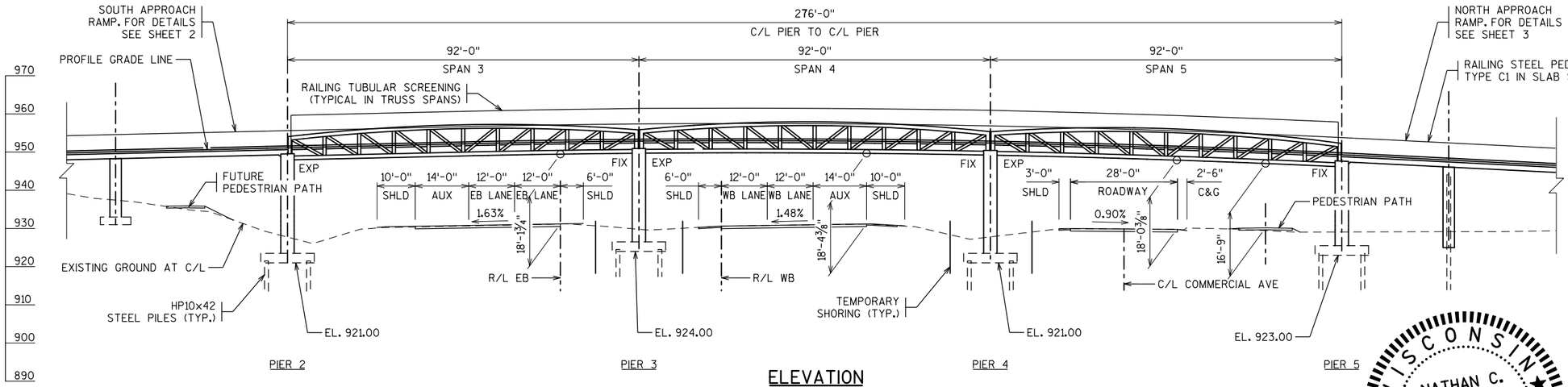
TRAFFIC DATA

STH 30

ADT (2018)	=	48,300
ADT (2024)	=	51,080
ADT (2044)	=	60,330
DHV	=	-
DD	=	-
T	=	5.2%
DESIGN SPEED	=	55 MPH

LIST OF DRAWINGS

1-3	GENERAL PLAN
4	PROFILE GRADE LINES
5	QUANTITIES & NOTES
6	TYPICAL SECTION & DETAILS
7-9	SUBSURFACE EXPLORATION
10-12	SOUTH ABUTMENT DETAILS
13-15	NORTH ABUTMENT DETAILS
16-17	PIER 1 DETAILS
18-20	PIER 2-5 DETAILS
21-23	PIER 6-14 DETAILS
24-27	SPAN 1-2 DETAILS
28-38	SPAN 6-15 DETAILS
39	SUPERSTRUCTURE QUANTITIES
40	SPANS 1-2 & 6-15 CAMBER
41	SUPERSTRUCTURE ELEVATIONS
42-43	EXPANSION DEVICE DETAILS
44-46	RAILING DETAILS
47	PROTECTIVE SCREENING DETAILS
48-49	RUSTICATION DETAILS
50-51	DRAINAGE DETAILS
52	JUNCTION BOX AND CONDUIT LAYOUT



ELEVATION
(LOOKING WEST)

CURVE DATA - C28

PI STA	=117+77.32
Y	=494,202.9778
X	=841,967.1182
Δ	=83°46'33"
D	=56°10'20"
T	=91.48'
L	=149.14'
R	=102.00'
PC STA	=116+85.84
PT STA	=118+34.98

BENCHMARK (DATUM = NAVD 88)

NO	STATION	DESCRIPTION	ELEV
2400	120+21.05 20.15' RT	TOP R/R SPK IN GUY POLE	930.175
2506	116+44.20 30.18' RT	SPIKE IN POWER POLE	944.079

NOTES:

SEE SHEET 2 FOR FOUNDATION DATA

PAINTED STEEL BOWSTRING TRUSS DESIGNED AND SUPPLIED BY BRIDGE TRUSS FABRICATOR. COORDINATE INSTALLATION WITH CONTRACTOR.

WISCONSIN PROFESSIONAL ENGINEER
NATHAN C. KLOPP E-39850 ST. PAUL MN

10/11/2023

SEH CONTACT: CHRIS BLUM, PE, 608.620.6192
WISDOT BRIDGE OFFICE CONTACT: AARON BONK, PE, 608.261.0261

NO.	DATE	REVISION	BY

SEH
SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 10/13/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-13-898

AUTUMN RIDGE PEDESTRIAN BRIDGE OVER STH 30

COUNTY	CITY
DANE	MADISON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NCK	MHD	NCM/RAD	NCK

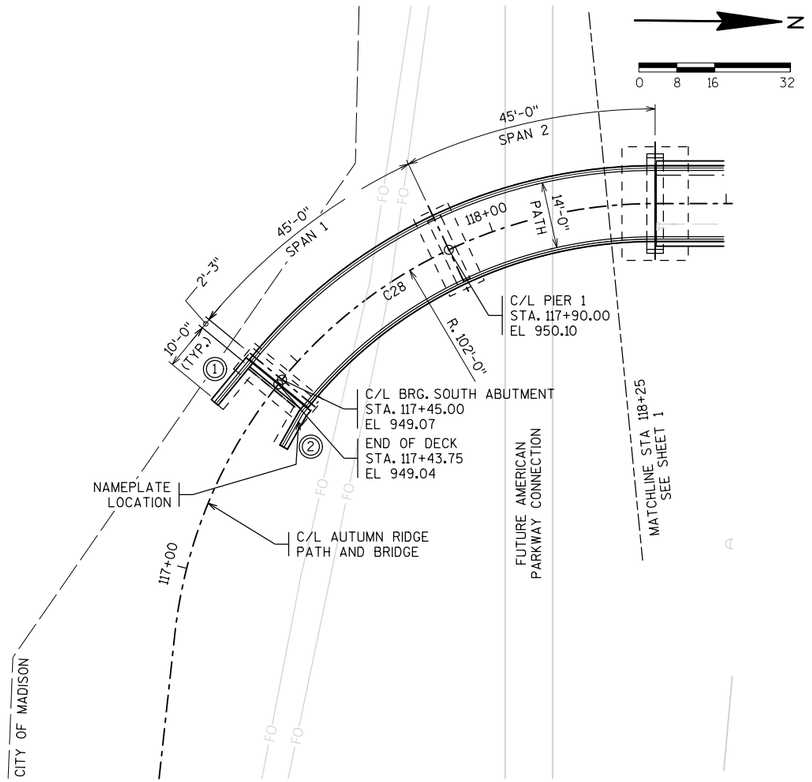
GENERAL PLAN

SHEET 1 OF 52
170

8

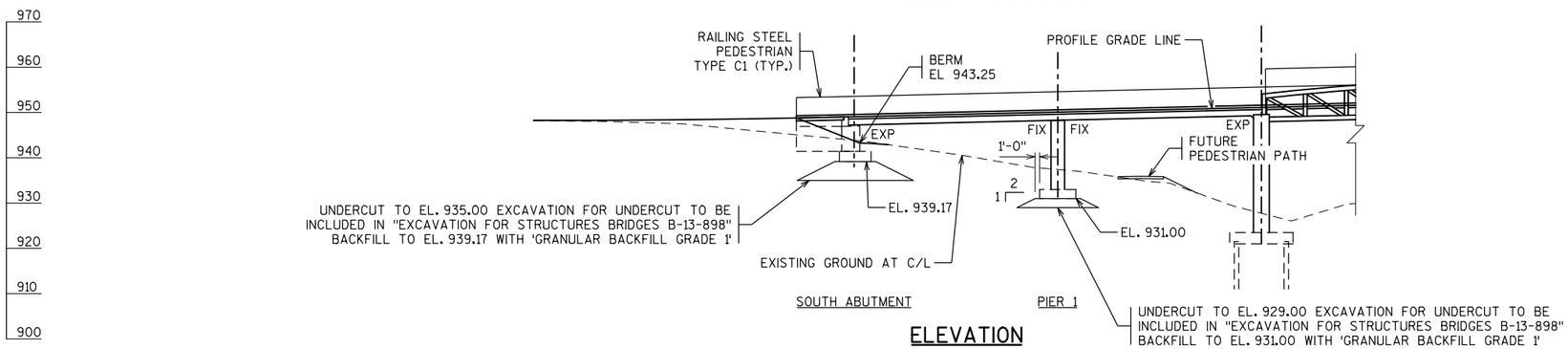
STATE PROJECT NUMBER
5992-11-11

◎ INDICATES WING NUMBER.



GENERAL PLAN - SOUTH APPROACH

(THREE-SPAN PREFABRICATED STEEL BOWSTRING TRUSS)
(TWELVE-SPAN CONCRETE SLAB)



ELEVATION

FOUNDATION DATA

NORTH ABUTMENT AND PIERS 2 - 14 TO BE SUPPORTED ON HP 10x42 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 35 FEET LONG AT NORTH ABUTMENT AND PIERS.

*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 FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

SOUTH ABUTMENT AND PIER 1 WITH SPREAD FOOTINGS TO BE SUPPORTED ON GRANULAR BACKFILL WITH A REQUIRED FACTORED BEARING RESISTANCE OF 6.0 KSF. A GEOTECHNICAL ENGINEER WITH THREE DAYS NOTICE WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE FOOTINGS.

CURVE DATA - C28

PI STA =117+77.32
Y =494,202.9778
X =841,967.1182
Δ =83°46'33"
D =56°10'20"
T =91.48'
L =149.14'
R =102.00'
PC STA =116+85.84
PT STA =118+34.98

BENCHMARK (DATUM = NAVD 88)

NO	STATION	DESCRIPTION	ELEV
2400	120+21.05 20.15' RT	TOP R/R SPK IN GUY POLE	930.175
2506	116+44.20 30.18' RT	SPIKE IN POWER POLE	944.079

SUPERELEVATION DETAILS

STATION	SLOPE LT.	SLOPE RT.	DESCRIPTION
117+43.75	1.0%	-1.0%	FULL SUPER
118+34.98	1.0%	-1.0%	FULL SUPER
118+42.48	0.0%	-1.0%	0% SUPER
118+49.98	-1.0%	-1.0%	NORMAL CROWN
121+94.33	-1.0%	-1.0%	NORMAL CROWN
122+01.83	-1.0%	0.0%	0% SUPER
122+09.33	-1.0%	1.0%	FULL SUPER
124+45.25	-1.0%	1.0%	FULL SUPER

NOTES:

SPAN DIMENSIONS ARE ALONG C/L OF TRAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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GENERAL PLAN

SHEET 2 OF 52
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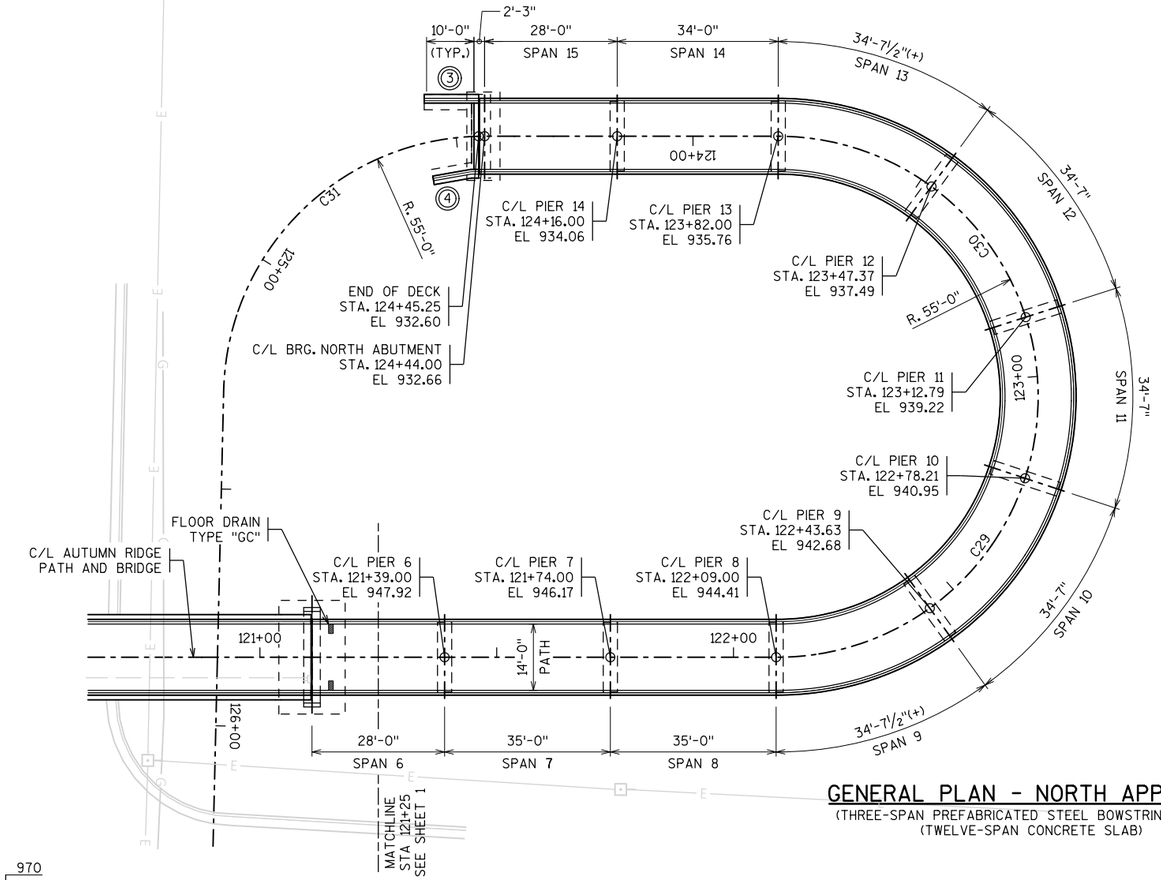
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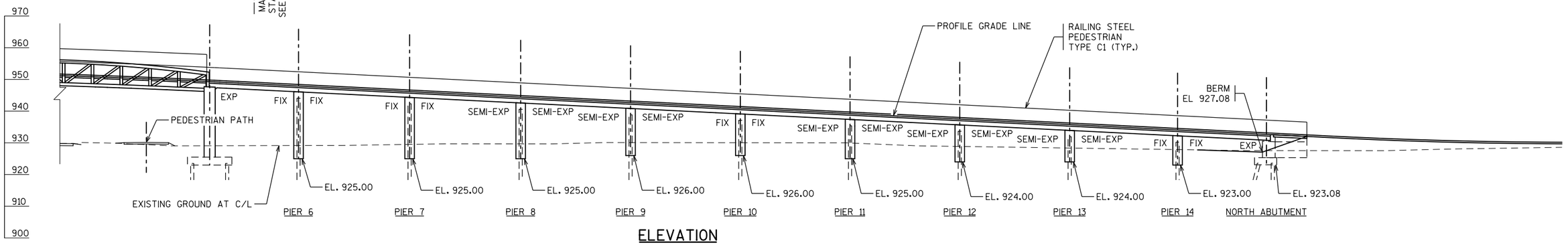
STATE PROJECT NUMBER
5992-11-11

◎ INDICATES WING NUMBER.



GENERAL PLAN - NORTH APPROACH

(THREE-SPAN PREFABRICATED STEEL BOWSTRING TRUSS)
(TWELVE-SPAN CONCRETE SLAB)



ELEVATION

CURVE DATA - C29

PI STA	=122+64.33
Y	=494,723.793
X	=841,962.870
Δ	=90°00'00"
D	=104°10'27"
T	=55.00'
L	=86.39'
R	=55.00'
PC STA	=122+09.33
PT STA	=122+95.72

CURVE DATA - C30

PI STA	=123+50.72
Y	=494,722.896
X	=841,852.874
Δ	=90°00'00"
D	=104°10'27"
T	=55.00'
L	=86.39'
R	=55.00'
PC STA	=122+95.72
PT STA	=123+82.12

CURVE DATA - C31

PI STA	=124+97.84
Y	=494,552.180
X	=841,854.266
Δ	=88°39'38"
D	=104°10'27"
T	=53.73'
L	=85.11'
R	=55.00'
PC STA	=124+44.11
PT STA	=125+29.22

SUPERELEVATION DETAILS

STATION	SLOPE LT.	SLOPE RT.	DESCRIPTION
117+43.75	1.0%	-1.0%	FULL SUPER
118+34.98	1.0%	-1.0%	FULL SUPER
118+42.48	0.0%	-1.0%	0% SUPER
118+49.98	-1.0%	-1.0%	NORMAL CROWN
121+94.33	-1.0%	-1.0%	NORMAL CROWN
122+01.83	-1.0%	0.0%	0% SUPER
122+09.33	-1.0%	1.0%	FULL SUPER
124+45.25	-1.0%	1.0%	FULL SUPER

NOTES:

SEE SHEET 2 FOR FOUNDATION DATA

SPAN DIMENSIONS ARE ALONG C/L OF TRAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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GENERAL PLAN

SHEET 3 OF 52
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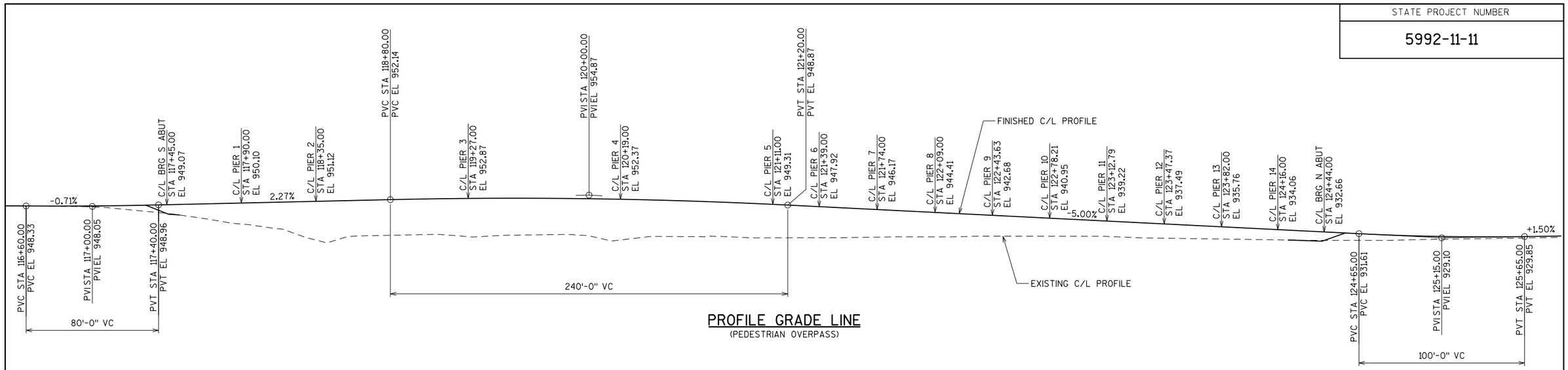
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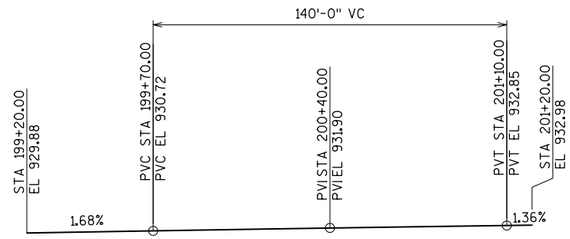
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STATE PROJECT NUMBER

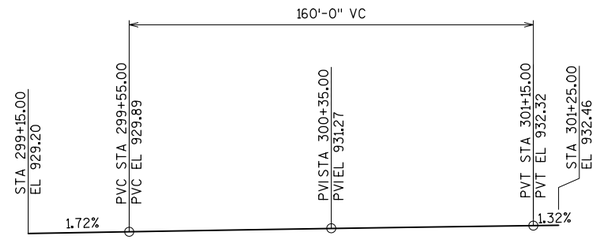
5992-11-11



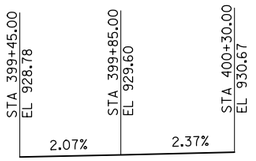
PROFILE GRADE LINE
(PEDESTRIAN OVERPASS)



PROFILE GRADE LINE
(STH 30 EB)



PROFILE GRADE LINE
(STH 30 WB)



PROFILE GRADE LINE
(COMMERCIAL AVE)

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PROFILE GRADE LINES

SHEET 4 OF 52

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PLOT DATE: 10/11/2023 PLOT TIME: 11:32:33 AM

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BID ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	PIER 9	PIER 10	PIER 11	PIER 12	PIER 13	PIER 14	NORTH ABUT	SUPER	TOTALS
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-13-898	EACH																		1
209.1500	GRANULAR BACKFILL GRADE 1	TON	150	42																192
210.1500	BACKFILL STRUCTURE TYPE A	TON	120															119		239
502.0100	CONCRETE MASONRY BRIDGES	CY	40	40	100	95	105	90	35	35	30	25	25	20	20	20	20	40	495	1,235
502.3101	EXPANSION DEVICE	LF	14		14	14	14	14										14		84
502.3200	PROTECTIVE SURFACE TREATMENT	SY	4															4	1,119	1,127
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	390	420	1,980	1,980	1,980	1,980	1,570	1,370	1,310	1,140	1,000	940	980	760	720	530		19,050
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,130	6,440	16,360	15,720	16,800	14,650	30	30			30				30	2,550	63,390	139,160
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	1		1			1			1	1		1	1	1		1		9
506.8006.S	PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-13-898 LRFD	EACH																	1	1
511.1200	TEMPORARY SHORING B-13-898	SF				504	572													1,076
(1) 513.4091	RAILING TUBULAR SCREENING B-13-898	LF																	552	552
513.8006	RAILING STEEL PEDESTRIAN TYPE C1	LF																	890	890
514.0445	FLOOR DRAINS TYPE 'GC'	EACH																	1	1
514.2608	DOWNSPOUT 8-INCH	LF						35												35
514.2625	DOWNSPOUT 6-INCH	LF						8												8
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6															6		12
517.0500	PAINTING EPOXY SYSTEM STEEL TRUSS B-13-898	EACH																	1	1
(1) 517.1010.S.001	CONCRETE STAINING B-13-898	SF	132	351	915	891	974	760	646	507	504	428	370	311	288	222	204	132		7,635
(1) 517.1050.S.001	ARCHITECTURAL SURFACE TREATMENT B-13-898	SF	47	245	768	744	827	613	540	401	398	322	264	205	182	116	98	47		5,817
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF			210	210	210	210	140	140	140	140	140	140	140	140	140	210		2,310
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70															70		140
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF																	300	300
653.0220	JUNCTION BOXES 18x6x6-INCH	EACH																	4	4
	NON-BID ITEMS																			
	FILLER	SIZE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1/2" & 3/4"
	NAMEPLATE	EACH	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	BENCHMARK	EACH	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	BRIDGE SEAT PROTECTION	LS																		1

(1) NON-PARTICIPATING ITEM (100% CITY FUNDED)

QUANTITY NOTES

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF SLAB SURFACE, TOP OF WINGS, THE TOP AND FRONT FACE OF THE CURB, THE PAVING NOTCHES, AND THE TOP OF CONCRETE APPROACH SLABS. THIS INCLUDES THE DECK ON THE TRUSS SPANS

SEE SPECIFICATIONS:
ITEM "CONCRETE STAINING B-13-898" SHALL BE USED TO COLOR THE FOLLOWING SURFACES:

THE EDGE OF THE DECK, THE PIERS, ABUTMENTS AND WINGWALLS EXPOSED SURFACES AND PORTION OF THE ABUTMENT BACKWALL THAT IS OUTSIDE THE SLAB SPAN. COLOR SHALL BE AMS STANDARD 595A, COLOR 26622 (PEARL GRAY).

BRIDGE SEAT PROTECTION TO BE APPLIED TO SUBSTRUCTURE SEATS BELOW EXPANSION JOINTS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROADWAY PLANS FOR EXISTING UTILITY LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES. ALL UTILITIES TO REMAIN IN SERVICE. COORDINATE WITH UTILITY COMPANIES.

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

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

PROVIDE A $\frac{3}{4}$" CHAMFER ON ALL ABOVE GRADE CORNERS.

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

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH COMPACTED FILL AND TOPSOIL TO THE EXTENT SHOWN ON THE ABUTMENT DETAILS OF THE STRUCTURAL PLANS, AND SHOWN ON THE ROADWAY PLANS. SEE ROADWAY PLANS FOR FINISHED GRADING, MATERIALS AND QUANTITIES.

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

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF $\frac{1}{2}$" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD $\frac{1}{8}$" BELOW SURFACE OF CONCRETE).

IN ADDITION TO VERTICAL DESIGN LOADS INDICATED, DECK AND CURBS ON THE PREFABRICATED TRUSS SHALL BE DESIGNED FOR PEDESTRIAN RAILING LIVE LOADS PER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

STEEL TRUSS TO BE PAINTED FEDERAL COLOR #26622 (PEARL GRAY), RAILING TO BE PAINTED FEDERAL COLOR #27039 (BLACK).

CONCRETE DECK AND REINFORCEMENT, CURBS, BEARINGS AND ANCHOR BOLTS ARE INCLUDED IN THE BID ITEM "PREFABRICATED STEEL TRUSS PEDESTRIAN BRIDGE B-13-898 LRFD".

AT ABUTMENTS, ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL UNLESS OTHERWISE NOTED.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION M213.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATION ARE IN FEET. ELEVATIONS ARE REFERENCE TO THE NAVD 88 (2007) DATUM.

TRUSSES SHALL BE DESIGNED AS SIMPLE SPANS.

TRUSS SPANS SHALL BE CAMBERED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE TRUSS SHALL BE ANCHORED TO THE PIERS IN A MANNER TO:
ALLOW THERMAL MOVEMENT OF THE SUPERSTRUCTURE ALONG THE R/L.
PREVENT HORIZONTAL TRANSLATION OF THE SUPERSTRUCTURE PERPENDICULAR TO THE R/L.

TRUSS AND CONCRETE DECK SHALL BE DESIGNED TO ACCOMMODATE A 4" STRIP SEAL JOINT AT PIERS 2 THRU 5. THE TRUSS FABRICATOR SHALL COORDINATE WITH THE JOINT MANUFACTURER TO OBTAIN NECESSARY JOINT AND ANCHORAGE DETAILS.

THE CONCRETE DECK ON THE PREFABRICATED TRUSSES SHALL BE DESIGNED AND REINFORCED TO SUPPORT DEAD AND LIVE LOADS WITHOUT CONTRIBUTION FROM THE DECK FORMING SYSTEM.

REINFORCEMENT IN THE CONCRETE DECK ON THE PREFABRICATED TRUSSES SHALL BE EPOXY COATED.

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STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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QUANTITIES & NOTES

SHEET 5 OF 52

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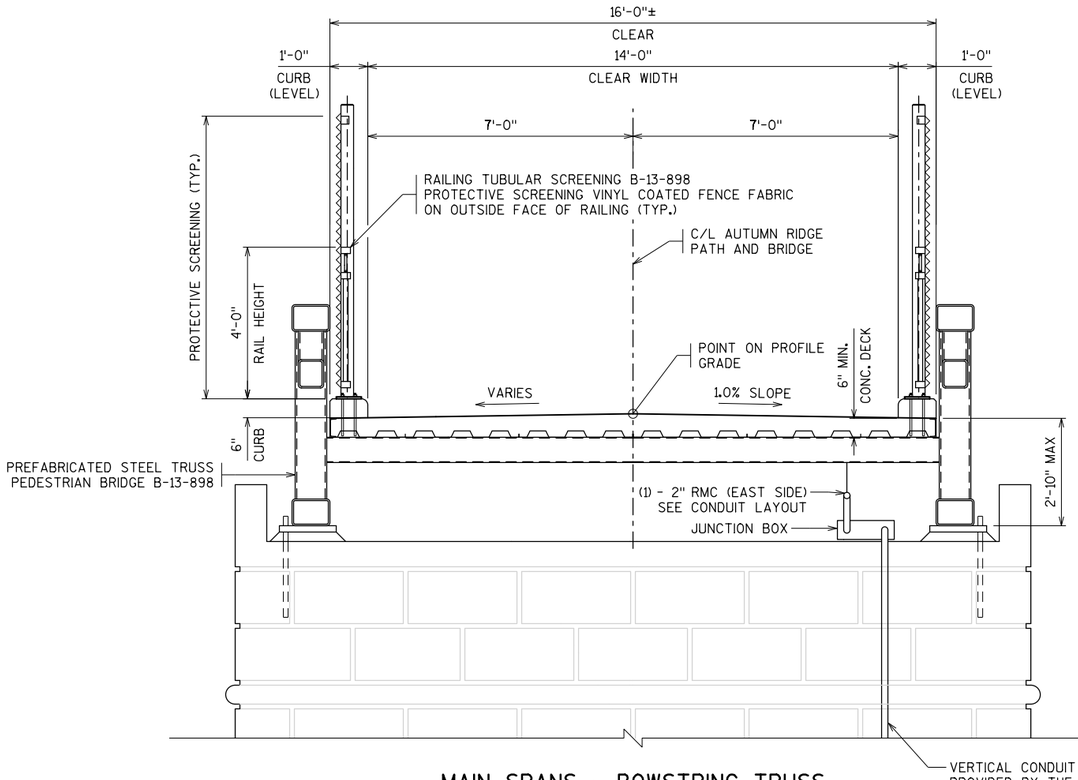
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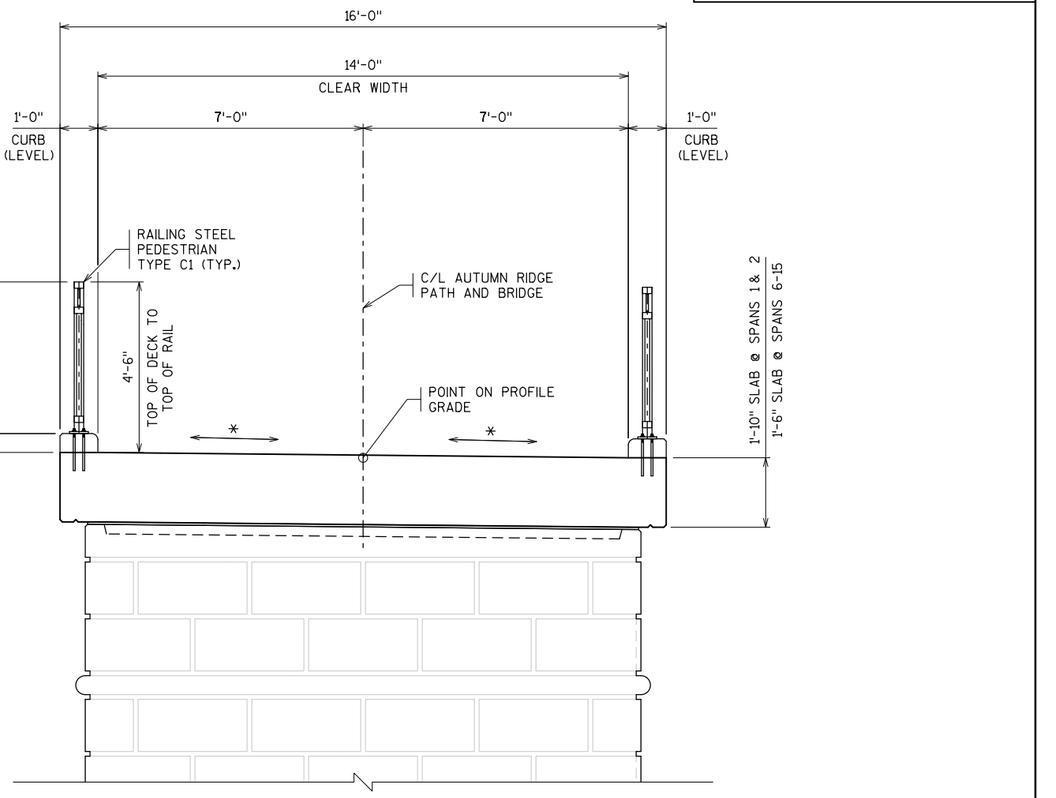
STATE PROJECT NUMBER

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MAIN SPANS - BOWSTRING TRUSS

SPANS 3, 4, & 5
(LOOKING UPSTATION)



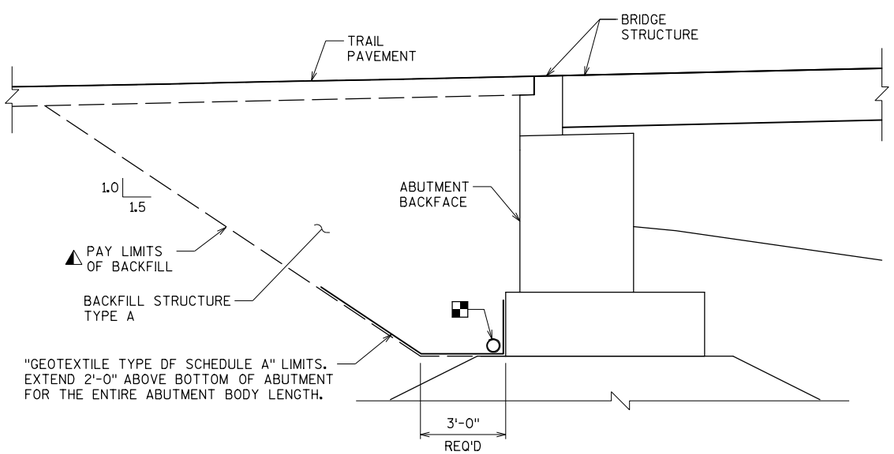
TYPICAL SECTION THRU STRUCTURE

NORTH & SOUTH APPROACH SPANS
(LOOKING UPSTATION)
* SLOPE VARIES, SEE SHEET 2 FOR SUPERELEVATION TABLE

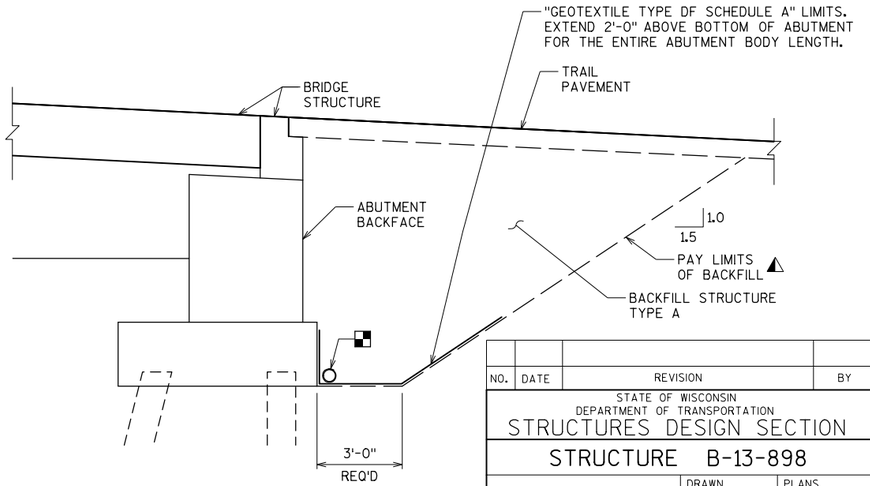
ESTIMATED STEEL TRUSS BRIDGE REACTIONS

LOAD TYPE	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD	33,000	- -	- -
UNIFORM LIVE LOAD	29,980	- -	- -
VEHICLE LOAD	13,120	- -	- -
WIND UPLIFT, 20 PSF			
WINDWARD	-11,250	- -	- -
LEEWARD	-3,750	- -	- -
WIND	+/- 4,190	13,125	- -
THERMAL	- -	- -	4,775

P = VERTICAL LOAD AT EACH BASE PLATE (4 PER BRIDGE)
H = HORIZONTAL LOAD AT EACH SPAN END (2 PER BRIDGE)
L = LONGITUDINAL LOAD EACH BASE PLATE (4 PER BRIDGE)



SECTION THRU SOUTH ABUTMENT



SECTION THRU NORTH ABUTMENT

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

BACKFILL STRUCTURE LIMITS

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STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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TYPICAL SECTIONS & DETAILS

SHEET 6 OF 52

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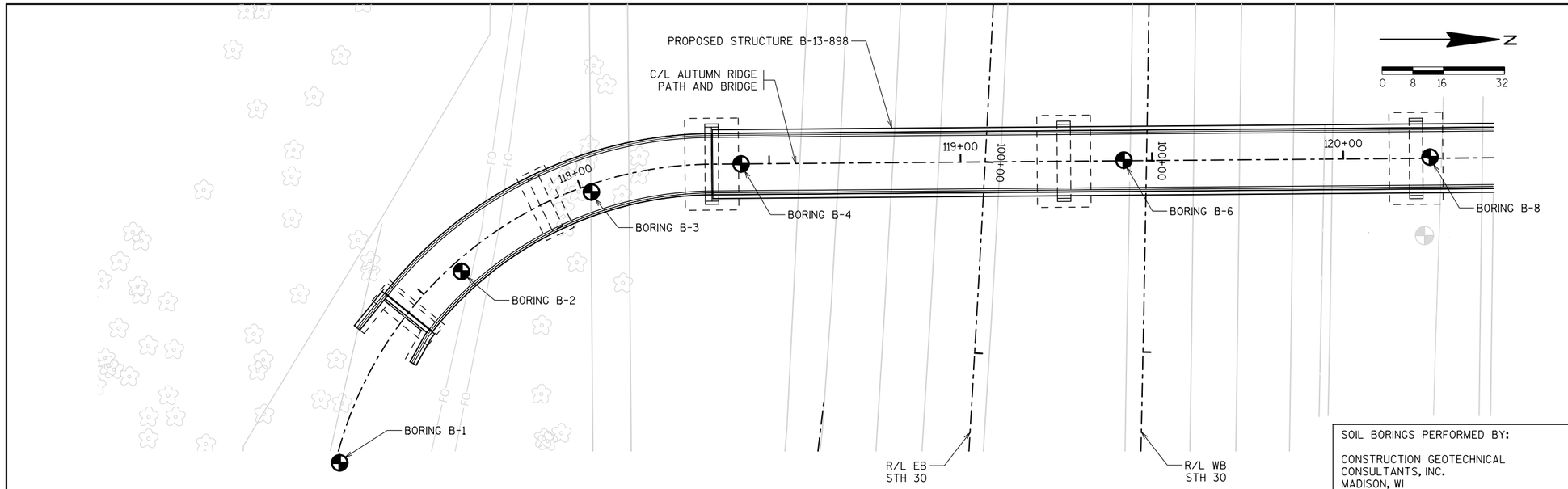
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SOIL BORINGS PERFORMED BY:

CONSTRUCTION GEOTECHNICAL CONSULTANTS, INC.
MADISON, WI
AUGUST 31ST TO SEPTEMBER 11TH, 2020
REPORTED BY:
ALEX J. BINA, PE
PROJECT ENGINEER

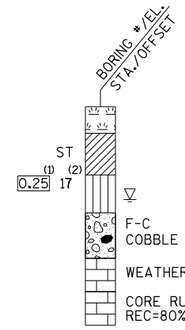
STATE PROJECT NUMBER

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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

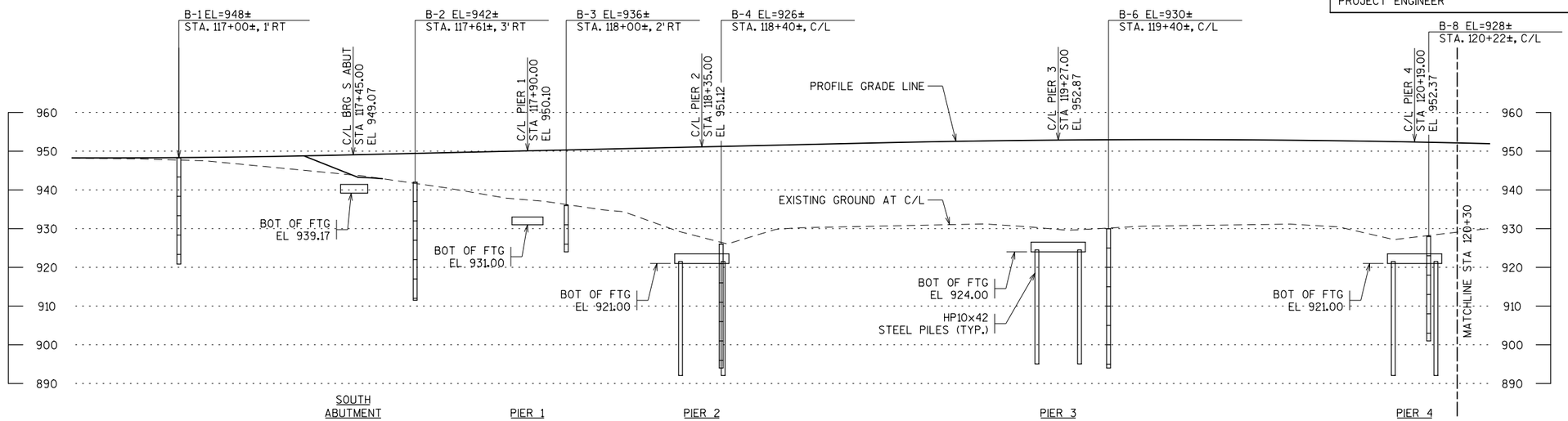
- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

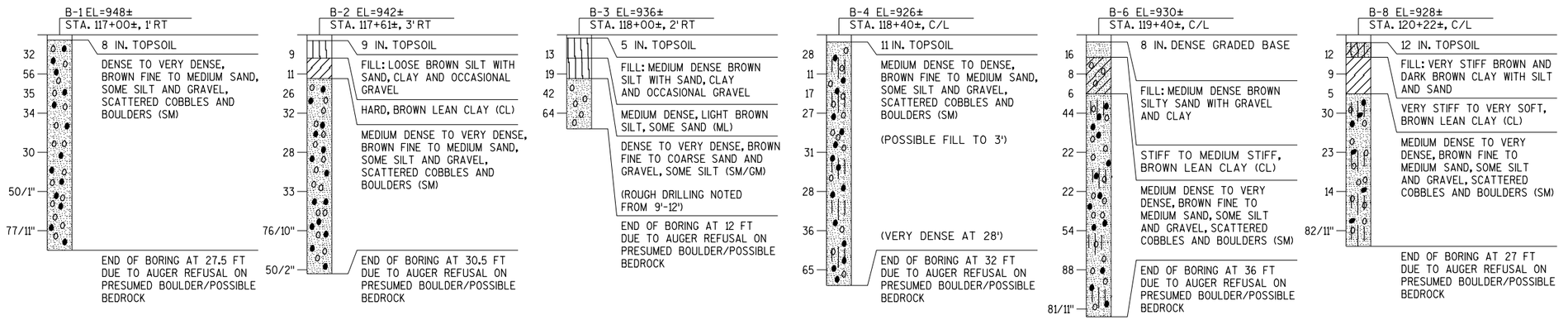
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

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.



SOUTH ABUTMENT | PIER 1 | PIER 2 | PIER 3 | PIER 4



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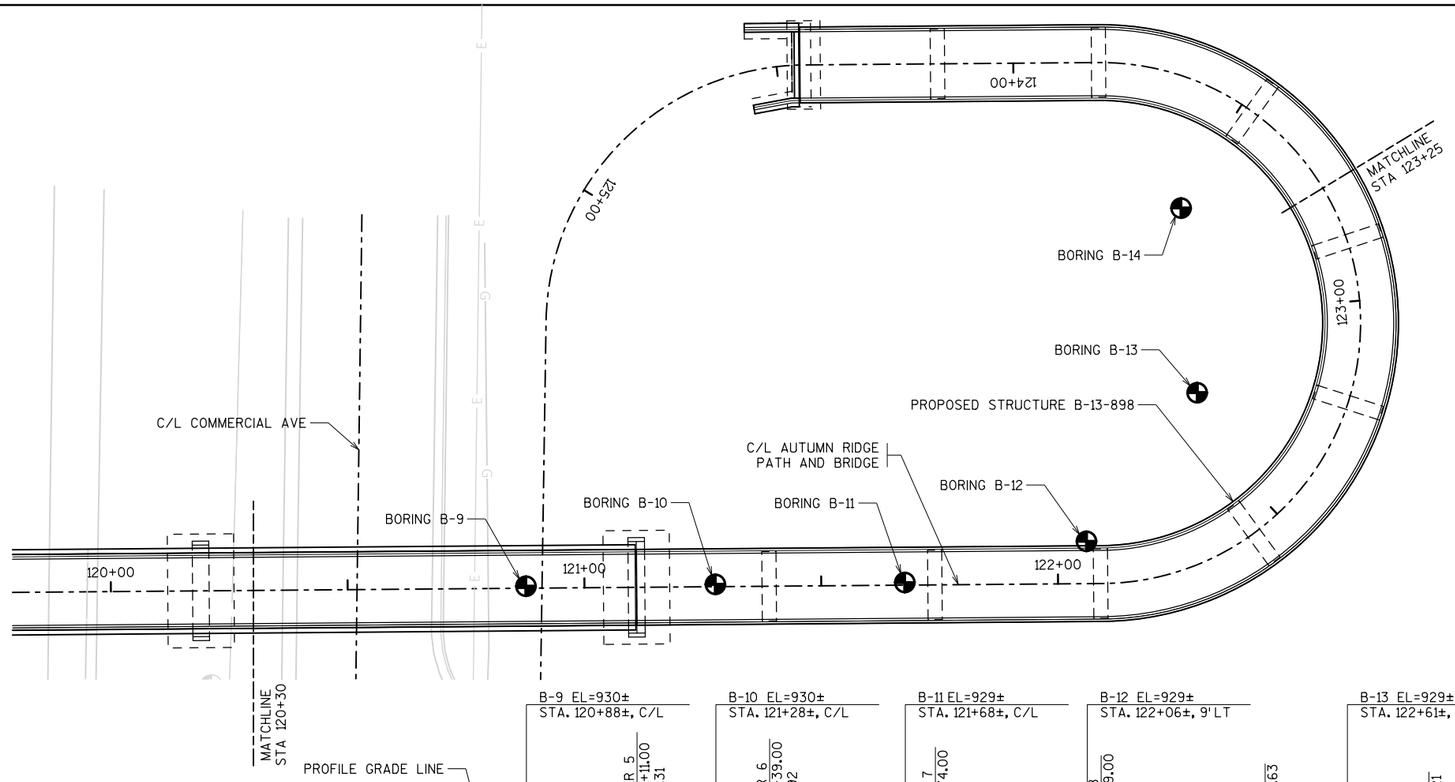
SUBSURFACE EXPLORATION

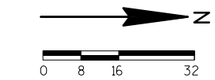
SHEET 7 OF 52

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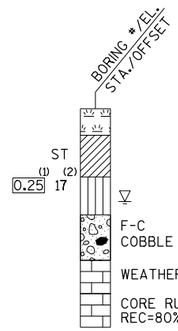
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ALEX J. BINA, PE
PROJECT ENGINEER

MATERIAL SYMBOLS

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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

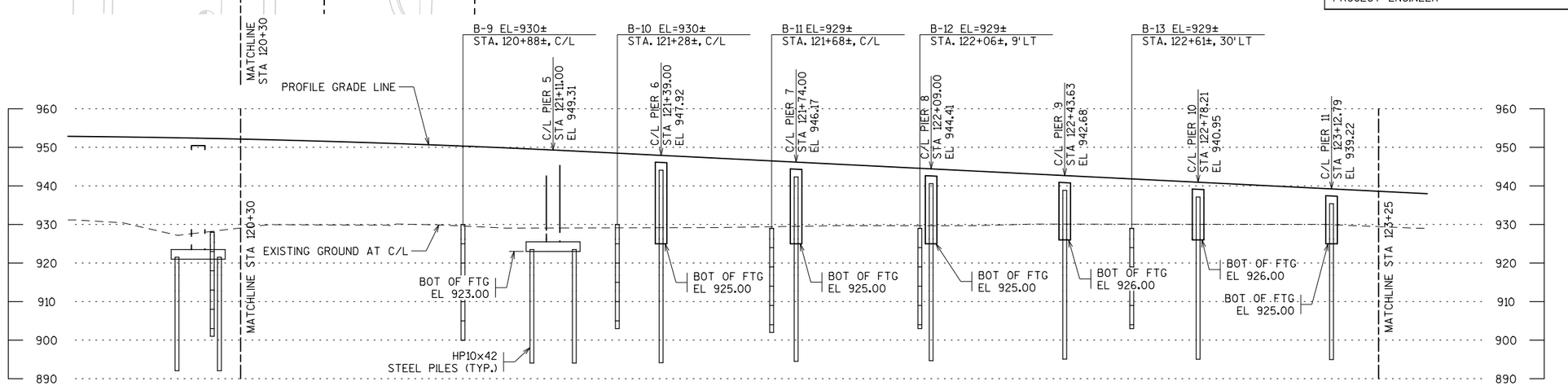
- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

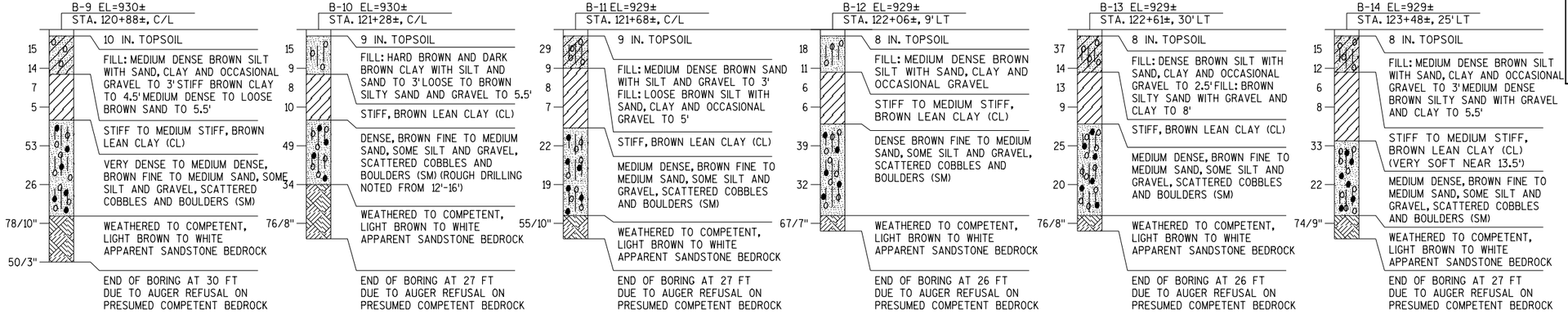
ABBREVIATIONS

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
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

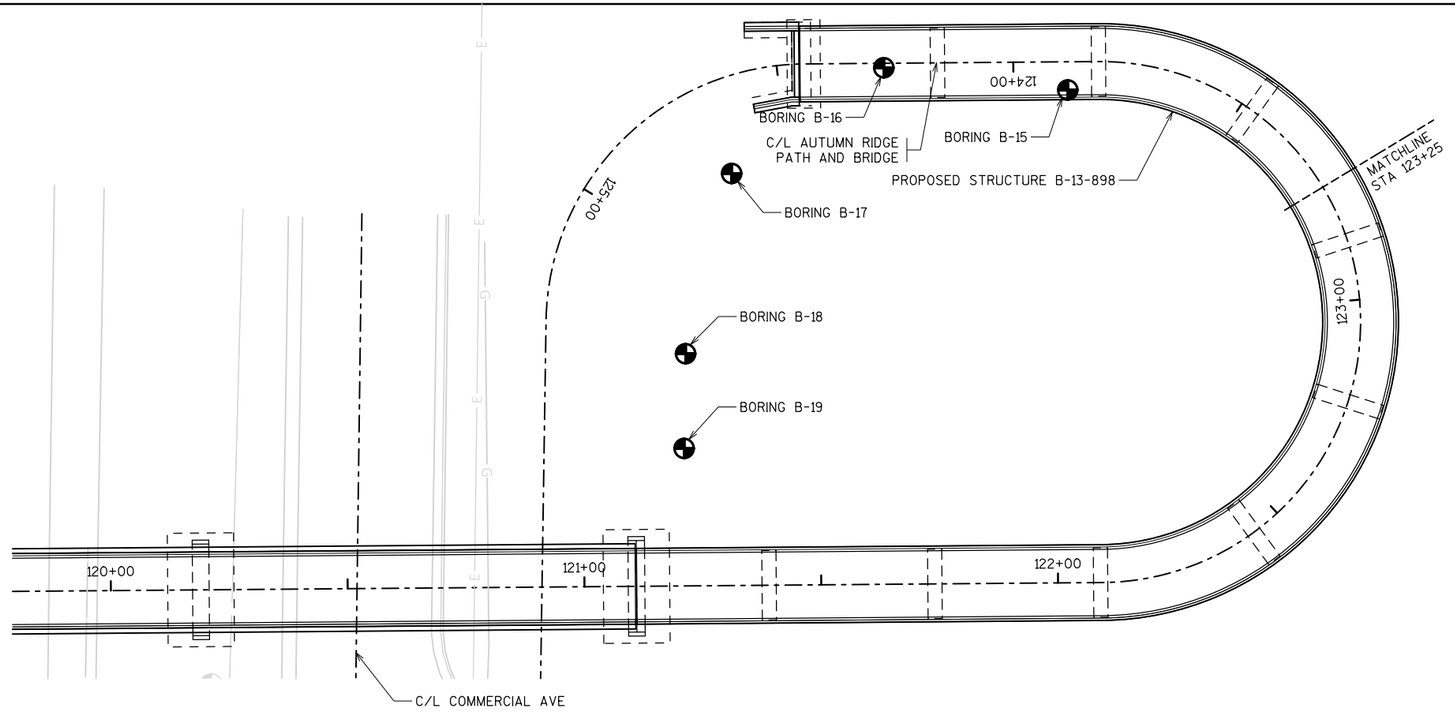
DRAWN BY NCM/RAD | PLANS CK'D. NCK

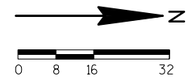
SUBSURFACE EXPLORATION

SHEET 8 OF 52
177

8

PLOT TIME: 11:32:38 AM
PLOT DATE: 10/11/2023
FILE NAME : X:\KOM\MADIS\15\768\5-final-dsgn\5i-drawings\20-Struct\B-13-898\Sheet\b13898bl.dgn





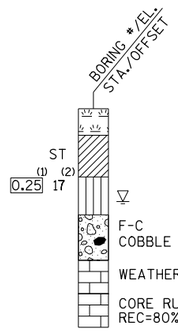
STATE PROJECT NUMBER

5992-11-11

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

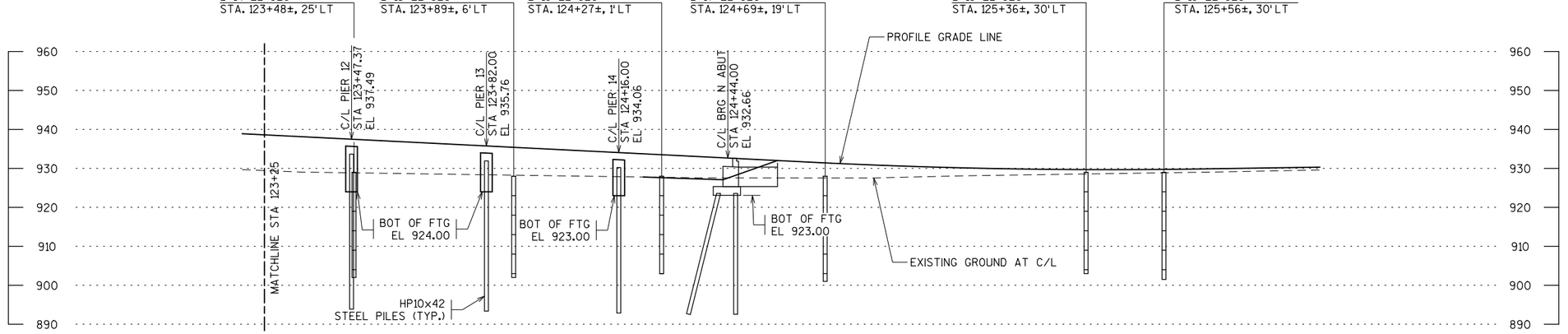
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SOIL BORINGS PERFORMED BY:

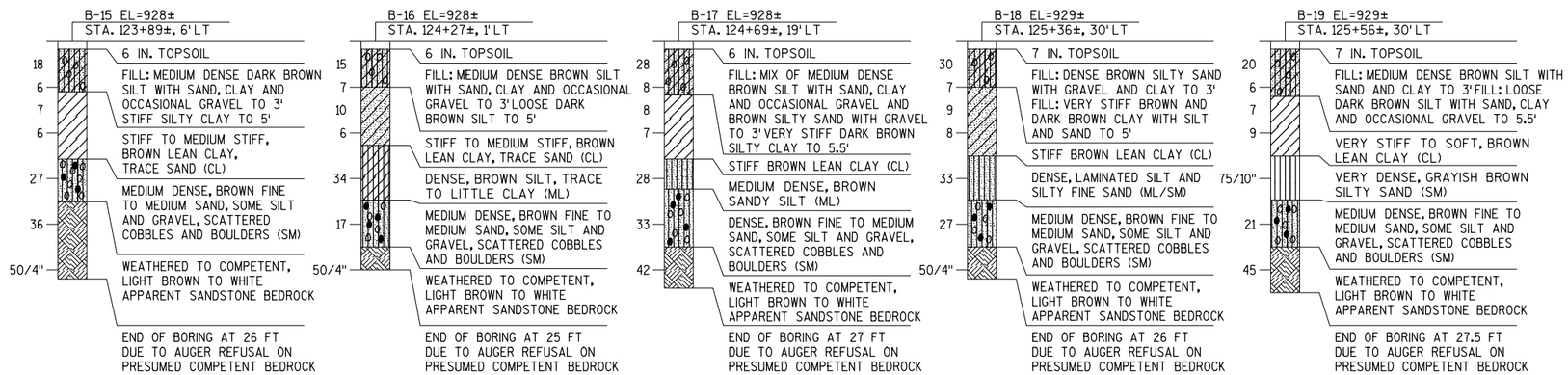
CONSTRUCTION GEOTECHNICAL
CONSULTANTS, INC.
MADISON, WI
AUGUST 31ST TO SEPTEMBER 11TH, 2020
REPORTED BY:
ALEX J. BINA, PE
PROJECT ENGINEER

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.



PIER 12 PIER 13 PIER 14 NORTH ABUTMENT



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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SUBSURFACE EXPLORATION

SHEET 9 OF 52

178

8

8

PLOT DATE: 10/11/2023 PLOT TIME: 11:32:39 AM

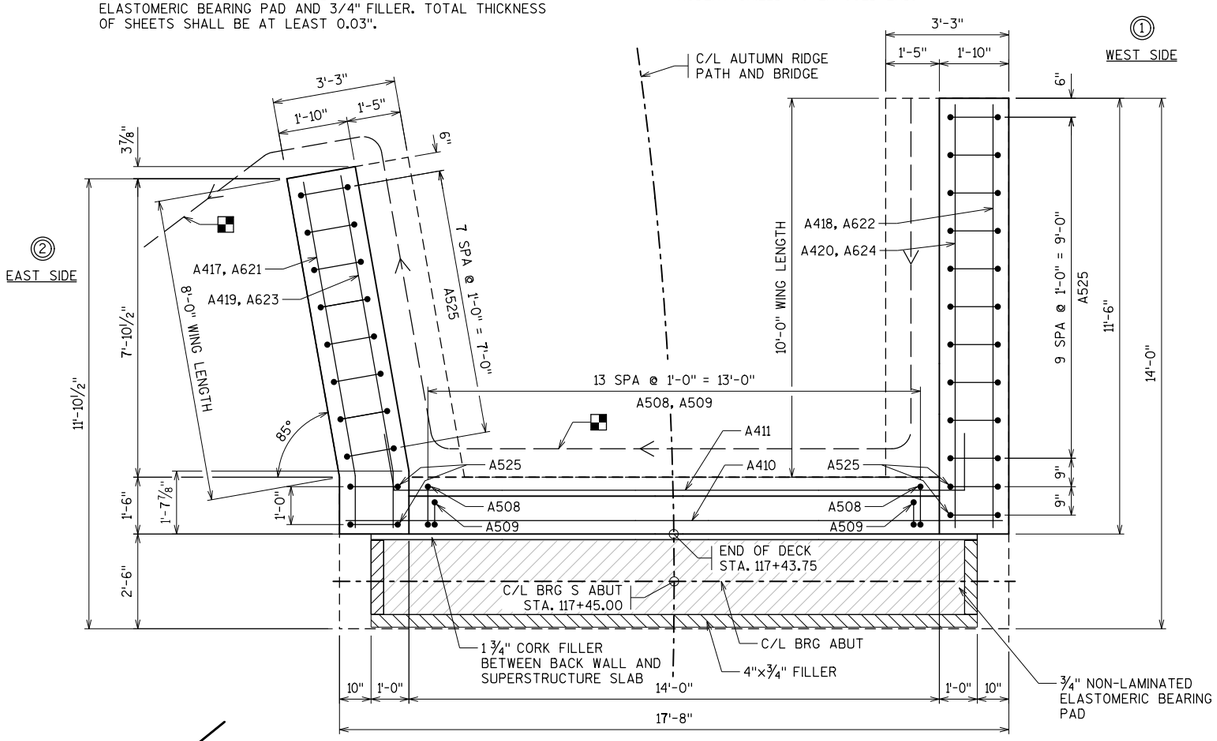
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STATE PROJECT NUMBER

5992-11-11

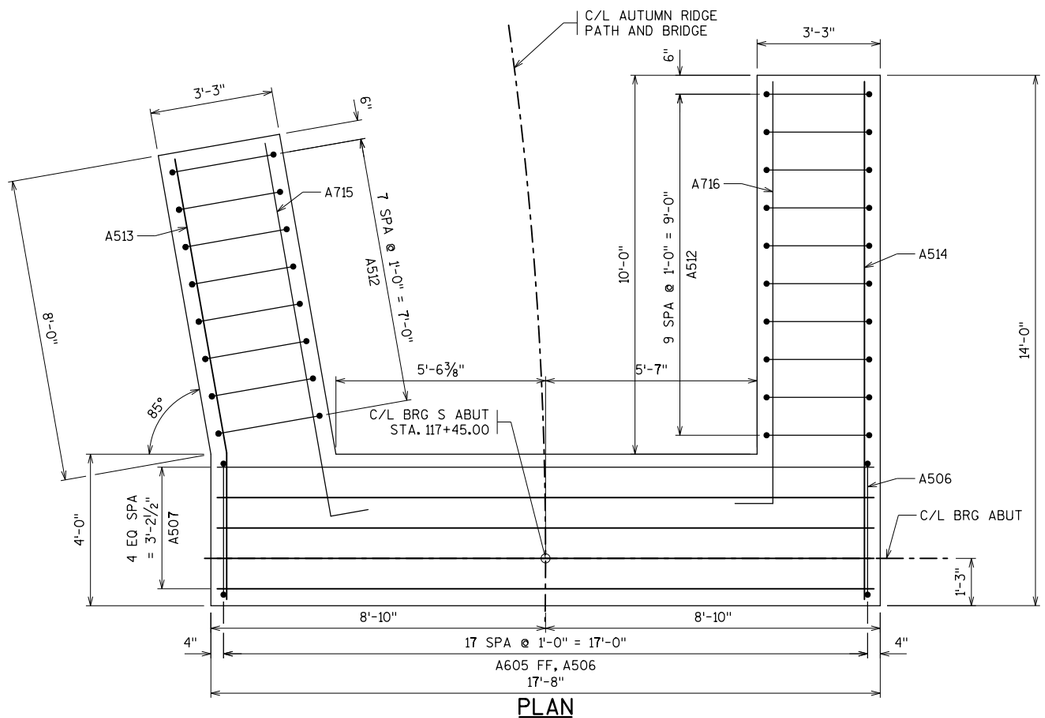
¾" NON-LAMINATED ELASTOMERIC BEARING PAD. STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ABUTMENT TOP BEFORE PLACING ELASTOMERIC BEARING PAD AND 3/4" FILLER. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO EXPOSED END.



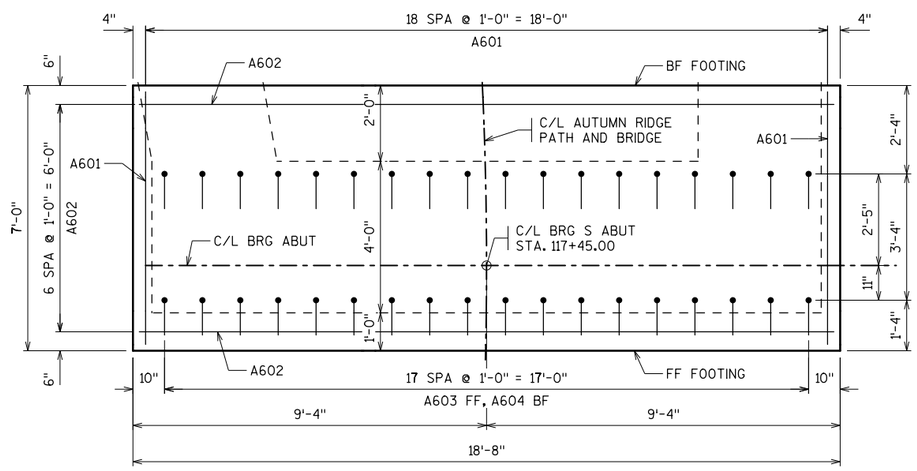
PLAN

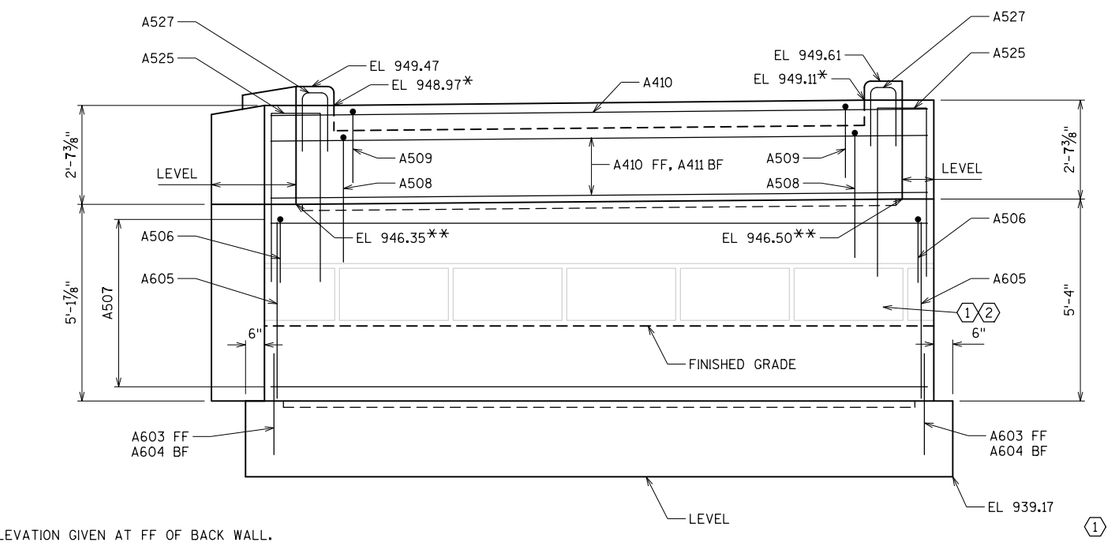
(SHOWING BAR STEEL REINF. IN ABUT. BACKWALL)



PLAN

(SHOWING BAR STEEL REINF. IN ABUT. STEM)





* ELEVATION GIVEN AT FF OF BACK WALL. SEE DETAIL 'A' ON SHEET 12 .

** ELEVATION GIVEN AT C/L BEARING SEAT. SEE DETAIL 'A' ON SHEET 12 .

ELEVATION

(LOOKING SOUTHEAST, DOWNSTATION)
(FOOTING STEEL NOT SHOWN FOR CLARITY)

ABUTMENT NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

USE ¾" CHAMFER OF EXPOSED EDGES OF CONCRETE

(1) 3'-0" WIDE BY 1'-6" HIGH RUSTICATION GROOVES. ALL RUSTICATION GROOVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND AT ABUTMENT. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.

(2) EACH ABUTMENT RUSTICATION BLOCK WORK SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.

FOOTING PLAN

◎ INDICATES WING NUMBER

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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SOUTH ABUTMENT

SHEET 10 OF 52
179

PLOT DATE: 10/11/2023 PLOT TIME: 11:32:40 AM

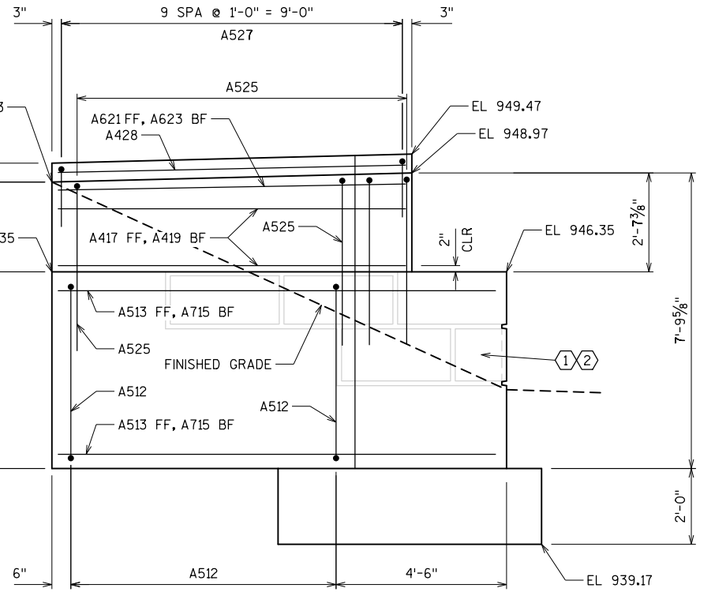
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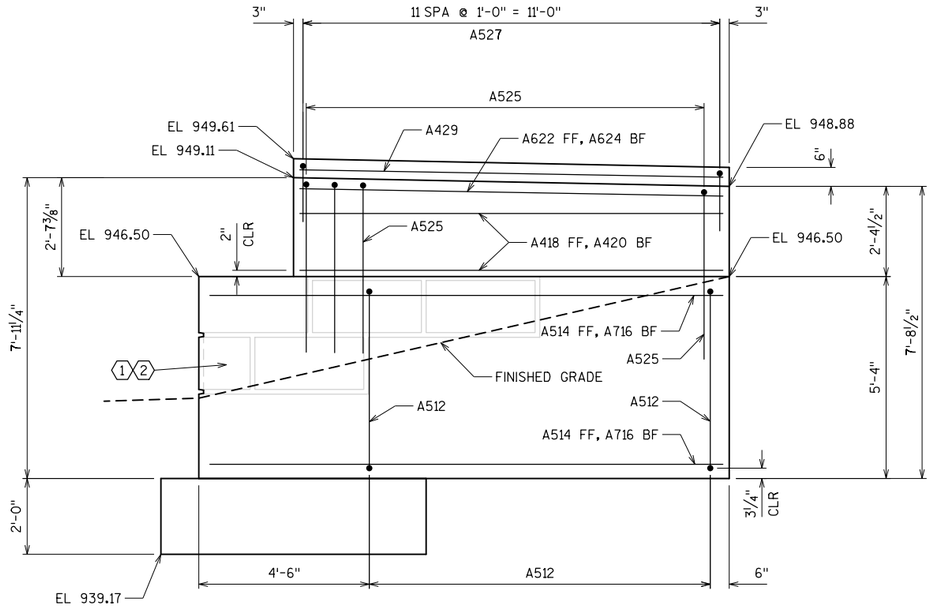
8

STATE PROJECT NUMBER

5992-11-11



WING 2 - ELEVATION



WING 1 - ELEVATION

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SOUTH ABUTMENT
WING 1 & 2 DETAILS

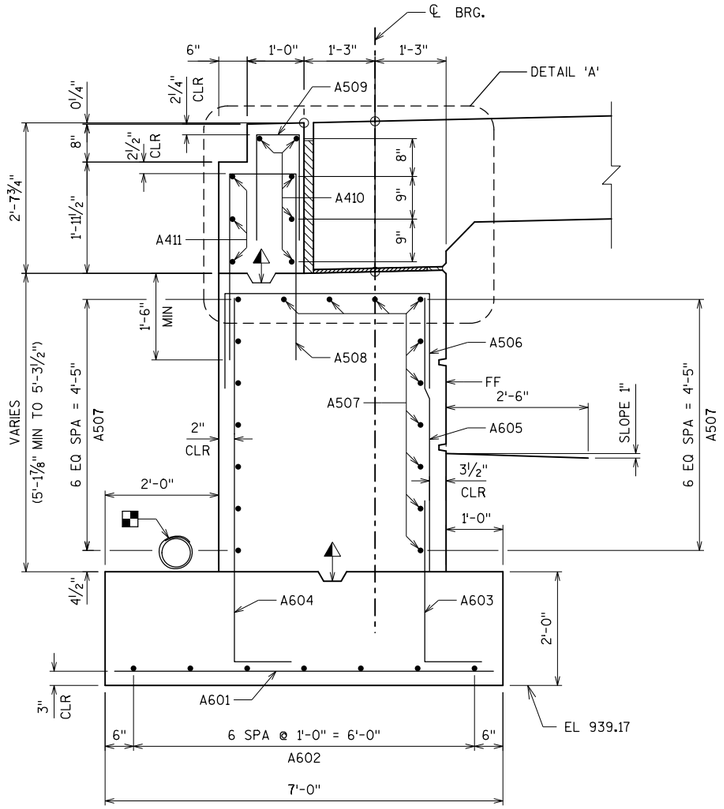
SHEET 11 OF 52
180

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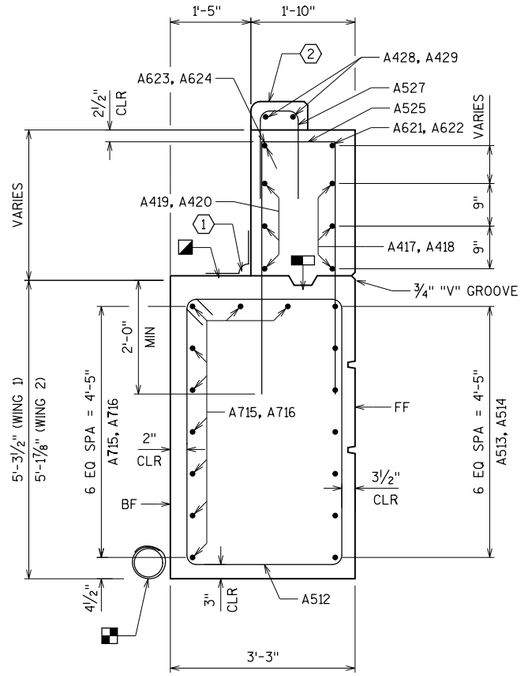
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STATE PROJECT NUMBER

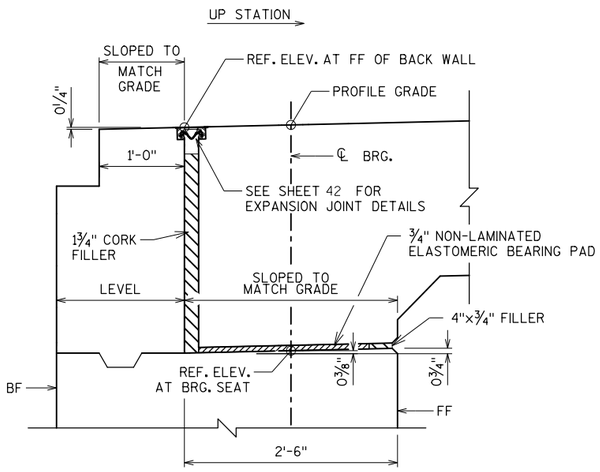
5992-11-11



SECTION THRU BODY



SECTION THRU WING



DETAIL 'A'

ABUTMENT NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

(1) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ & VERT JOINTS ON BACKFACE.

(2) SEE DETAIL "A" ON SHEET 38 FOR 6" CURB DETAILS.

KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".

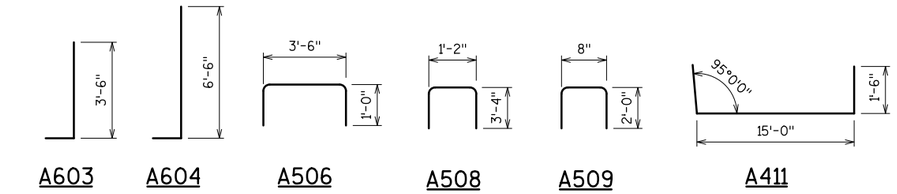
OPTIONAL CONST. JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

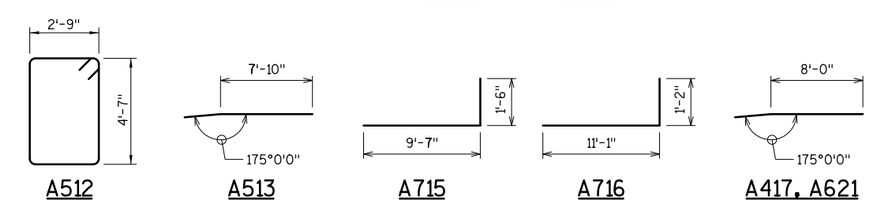
PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE.

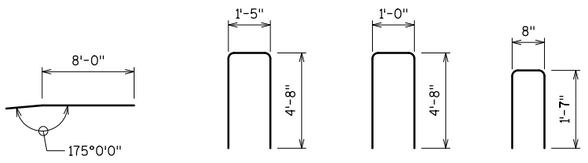
PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZ IN THIS AREA ON LEVEL PORTION.

BILL OF BARS — SOUTH ABUTMENT

BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
A601		19	6 - 8			FOOTING TRANSVERSE
A602		7	18 - 4			FOOTING LONGITUDINAL
A603	X	18	4 - 4		X	FOOTING DOWEL FF
A604	X	18	7 - 3		X	FOOTING DOWEL BF
A605	X	18	4 - 9			BODY VERTICAL
A506	X	18	5 - 3		X	BODY TIE
A507	X	17	17 - 4			BODY HORIZONTAL
A508	X	14	7 - 7		X	BACKWALL TIE
A509	X	14	4 - 5		X	BACKWALL TIE
A410	X	5	17 - 4			BACKWALL HORIZONTAL FF
A411	X	3	18 - 0		X	BACKWALL HORIZONTAL BF
A512	X	18	15 - 4		X	WING STIRRUP
A513	X	7	11 - 6		X	WING 2 HORIZONTAL FF
A514	X	7	13 - 6			WING 1 HORIZONTAL FF
A715	X	9	10 - 11		X	WING 2 HORIZONTAL BF
A716	X	9	12 - 1		X	WING 1 HORIZONTAL BF
A417	X	3	9 - 1		X	WING 2 HORIZONTAL FF
A418	X	3	11 - 2			WING 1 HORIZONTAL FF
A419	X	3	9 - 4		X	WING 2 HORIZONTAL BF
A420	X	3	11 - 2			WING 1 HORIZONTAL BF
A621	X	1	11 - 10		X	WING 2 HORIZONTAL TOP FF
A622	X	1	13 - 6			WING 1 HORIZONTAL TOP FF
A623	X	1	9 - 4		X	WING 2 HORIZONTAL TOP BF
A624	X	1	11 - 2			WING 1 HORIZONTAL TOP BF
A525	X	22	10 - 6		X	WING 1 & 2 TIE
A526	X	2	10 - 1		X	WING 2 JUNCTION BOX
A527	X	22	3 - 7		X	WING 1 & 2 CURB TIE
A428	X	2	9 - 2			WING 2 CURB LONGITUDINAL
A429	X	2	11 - 2			WING 1 CURB LONGITUDINAL







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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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SOUTH ABUTMENT DETAILS

SHEET 12 OF 52

181

8

8

PLOT DATE: 10/11/2023 PLOT TIME: 11:32:48 AM

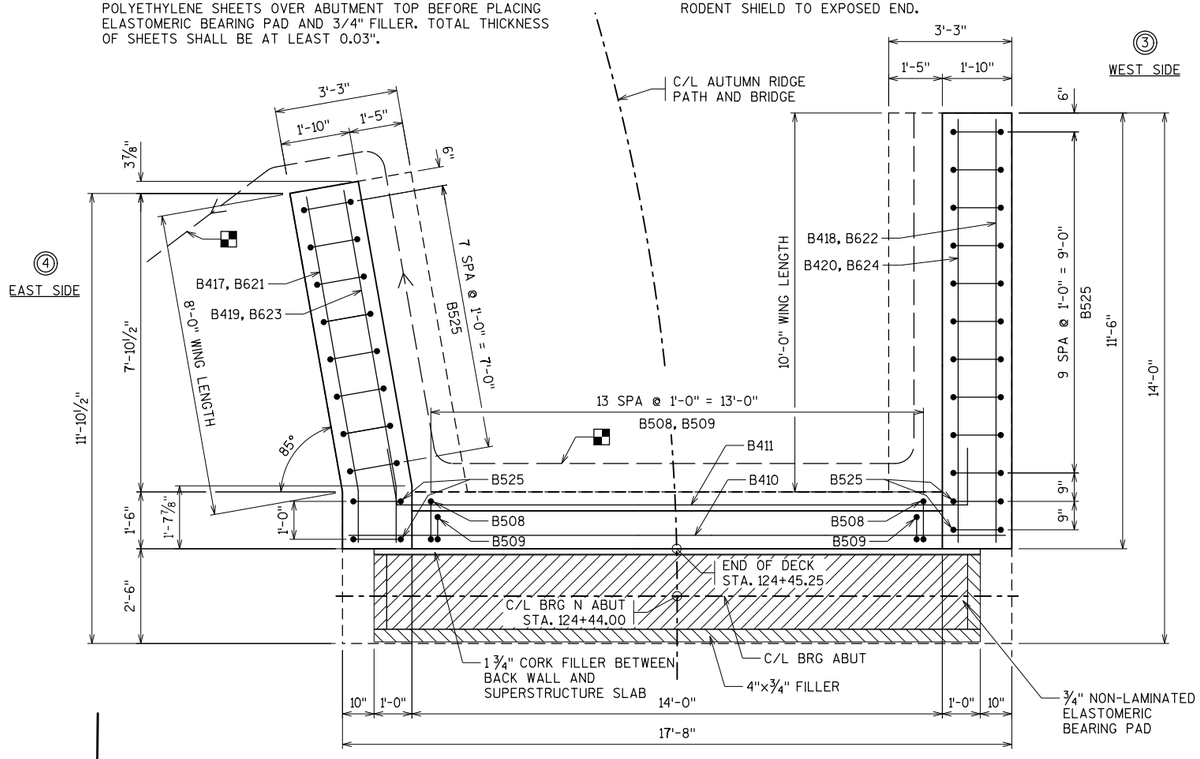
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STATE PROJECT NUMBER

5992-11-11

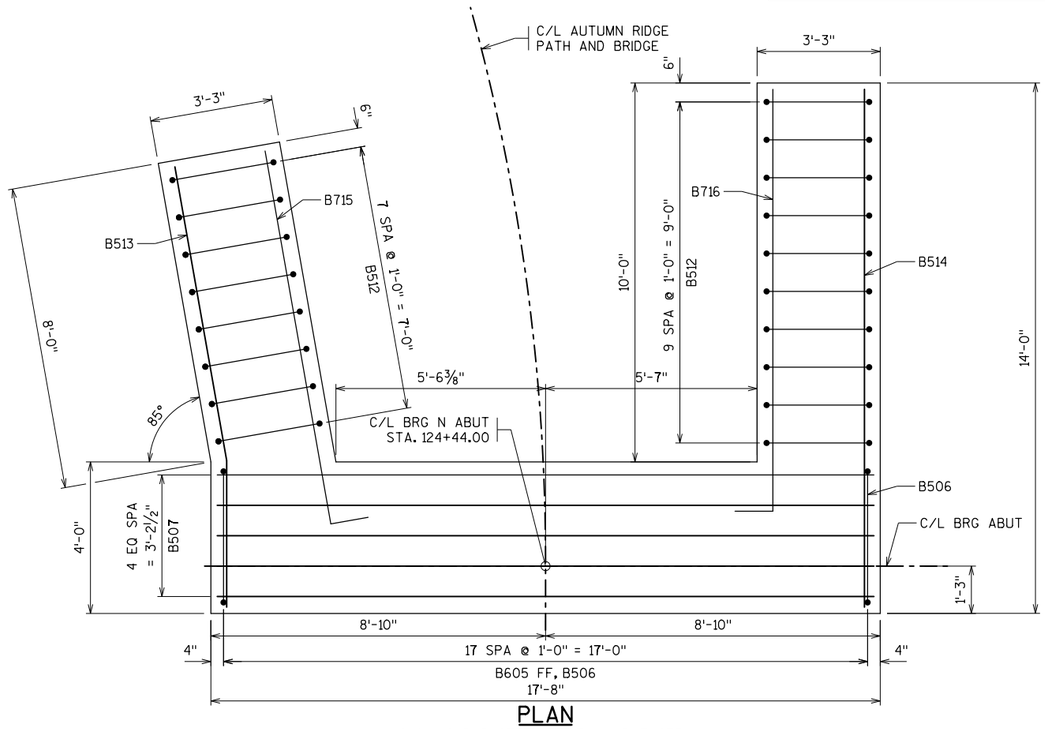
¾" NON-LAMINATED ELASTOMERIC BEARING PAD. STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ABUTMENT TOP BEFORE PLACING ELASTOMERIC BEARING PAD AND 3/4" FILLER. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO EXPOSED END.



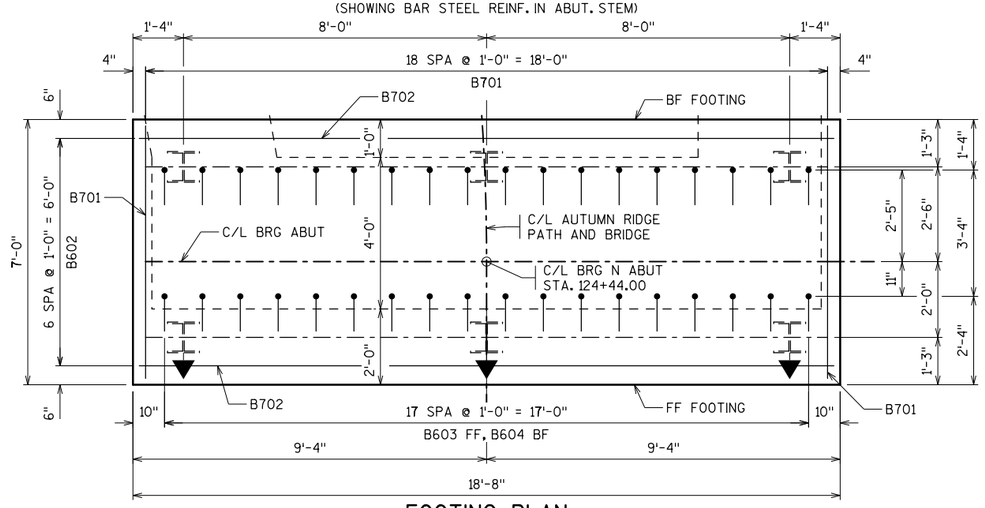
PLAN

(SHOWING BAR STEEL REINF. IN ABUT. BACKWALL)

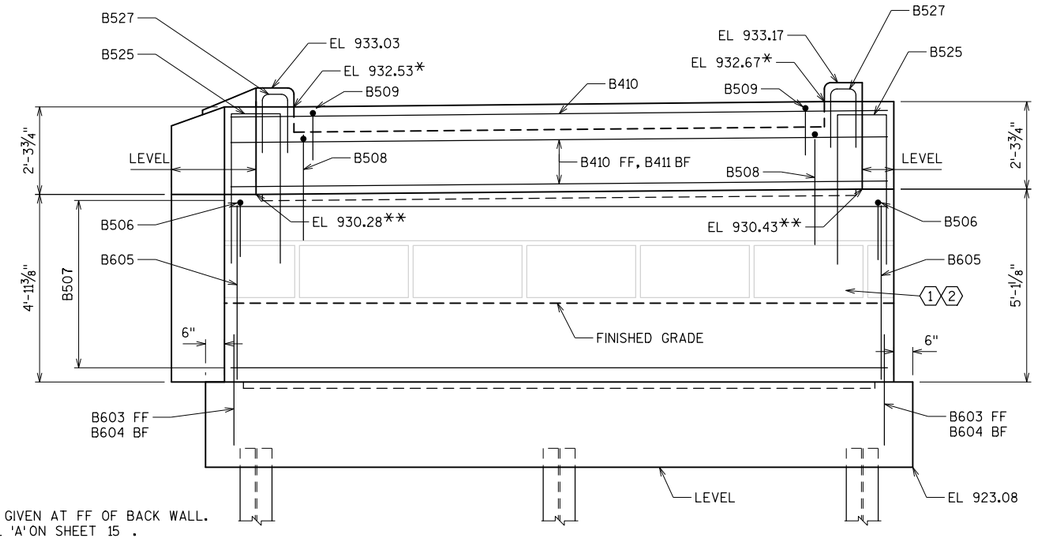


PLAN

(SHOWING BAR STEEL REINF. IN ABUT. STEM)



FOOTING PLAN



* ELEVATION GIVEN AT FF OF BACK WALL. SEE DETAIL 'A' ON SHEET 15 .

** ELEVATION GIVEN AT C/L BEARING SEAT. SEE DETAIL 'A' ON SHEET 15 .

ELEVATION

(LOOKING UPSTATION)

(FOOTING STEEL NOT SHOWN FOR CLARITY)

ABUTMENT NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

USE ¾" CHAMFER OF EXPOSED EDGES OF CONCRETE

(1) 3'-0" WIDE BY 1'-6" HIGH RUSTICATION GROOVES. ALL RUSTICATION GROOVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND AT ABUTMENT. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.

(2) EACH ABUTMENT RUSTICATION BLOCK WORK SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.

◎ INDICATES WING NUMBER

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

NORTH ABUTMENT

SHEET 13 OF 52

182

PLOT DATE: 10/11/2023 PLOT TIME: 11:32:49 AM

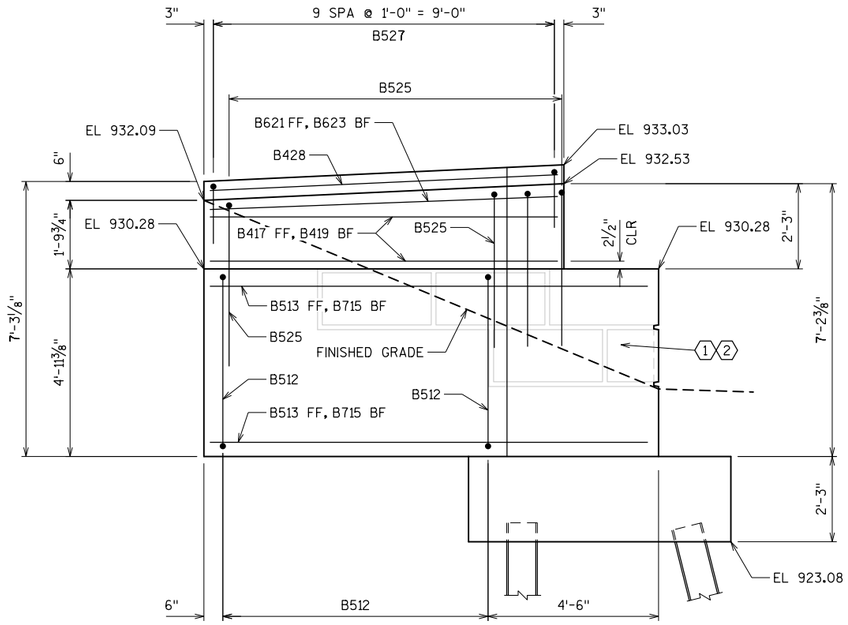
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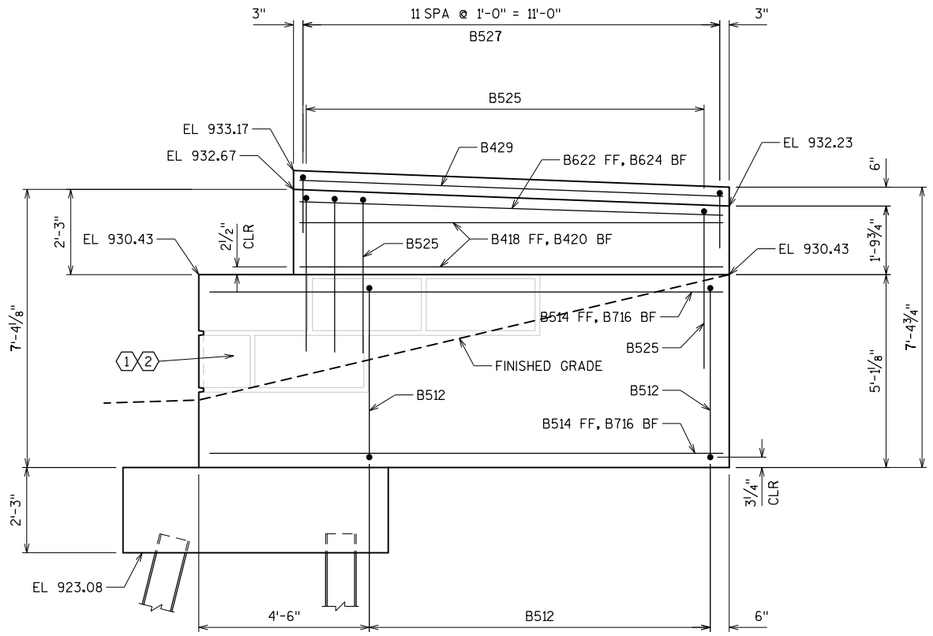
8

STATE PROJECT NUMBER

5992-11-11



WING 4 - ELEVATION



WING 3 - ELEVATION

PLOT DATE: 10/11/2023 PLOT TIME: 11:32:50 AM

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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

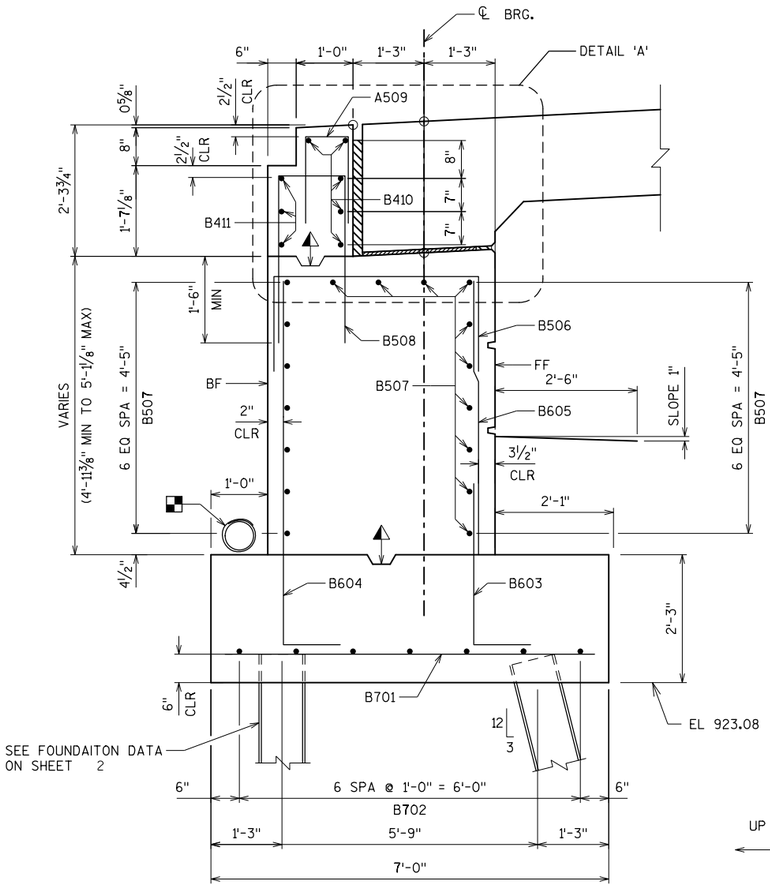
NORTH ABUTMENT
WING 3 & 4 DETAILS

SHEET 14 OF 52

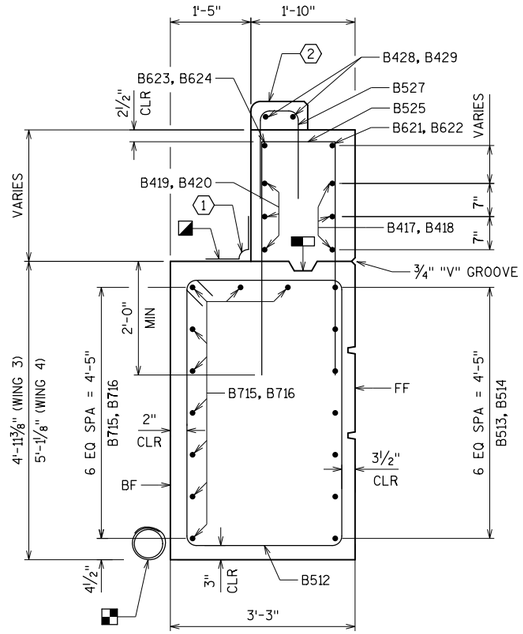
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STATE PROJECT NUMBER

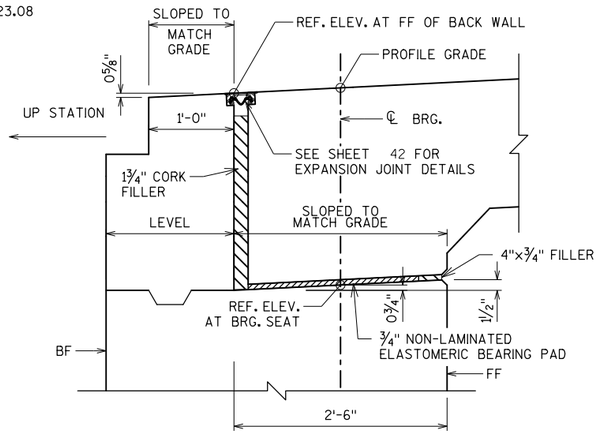
5992-11-11



SECTION THRU BODY



SECTION THRU WING



DETAIL 'A'

ABUTMENT NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

(1) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ & VERT JOINTS ON BACKFACE.

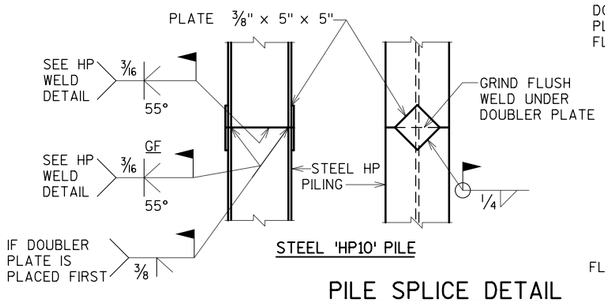
(2) SEE DETAIL "A" ON SHEET 38 FOR 6" CURB DETAILS.

KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".

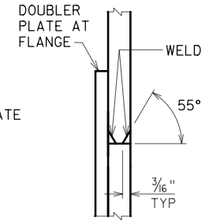
OPTIONAL CONST. JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

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

PLACE BOTTOM HALF OF RUBBERIZED MEMBRANE WATERPROOFING HORIZ IN THIS AREA ON LEVEL PORTION.



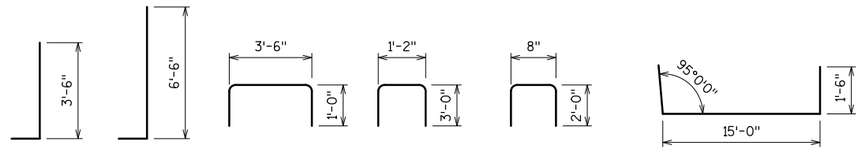
STEEL 'HP10' PILE



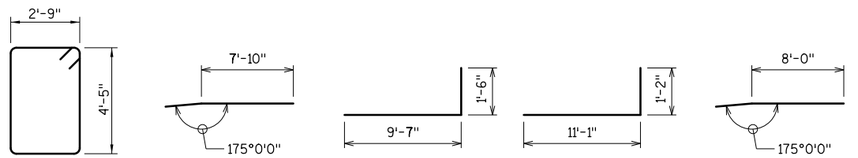
'HP10' WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

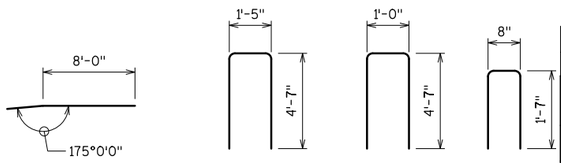
BILL OF BARS						NORTH ABUTMENT
BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
B701		19	6 - 8			FOOTING TRANSVERSE
B702		7	18 - 4			FOOTING LONGITUDINAL
B603	X	18	4 - 7		X	FOOTING DOWEL FF
B604	X	18	7 - 3		X	FOOTING DOWEL BF
B605	X	18	4 - 7			BODY VERTICAL
B506	X	18	5 - 3		X	BODY TIE
B507	X	17	17 - 4			BODY HORIZONTAL
B508	X	14	6 - 11		X	BACKWALL TIE
B509	X	14	4 - 5		X	BACKWALL TIE
B410	X	5	17 - 4			BACKWALL HORIZONTAL FF
B411	X	3	18 - 0		X	BACKWALL HORIZONTAL BF
B512	X	18	15 - 0		X	WING STIRRUP
B513	X	7	11 - 6		X	WING 4 HORIZONTAL FF
B514	X	7	13 - 6			WING 3 HORIZONTAL FF
B715	X	9	10 - 11		X	WING 4 HORIZONTAL BF
B716	X	9	12 - 1		X	WING 3 HORIZONTAL BF
B417	X	3	9 - 1		X	WING 4 HORIZONTAL FF
B418	X	3	11 - 2			WING 3 HORIZONTAL FF
B419	X	3	9 - 4		X	WING 4 HORIZONTAL BF
B420	X	3	11 - 2			WING 3 HORIZONTAL BF
B621	X	1	11 - 10		X	WING 4 HORIZONTAL TOP FF
B622	X	1	13 - 6			WING 3 HORIZONTAL TOP FF
B623	X	1	9 - 4		X	WING 4 HORIZONTAL TOP BF
B624	X	1	11 - 2			WING 3 HORIZONTAL TOP BF
B525	X	22	10 - 4		X	WING 3 & 4 TIE
B526	X	2	9 - 11		X	WING 3 JUNCTION BOX
B527	X	22	3 - 7		X	WING 3 & 4 CURB TIE
B428	X	2	9 - 2			WING 4 CURB LONGITUDINAL
B429	X	2	11 - 2			WING 3 CURB LONGITUDINAL



B603 B604 B506 B508 B509 B411



B512 B513 B715 B716 B417, B621



B419, B423 B525 B526 B527

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

NORTH ABUTMENT DETAILS

SHEET 15 OF 52

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8

8

PLOT TIME: 11:32:51 AM

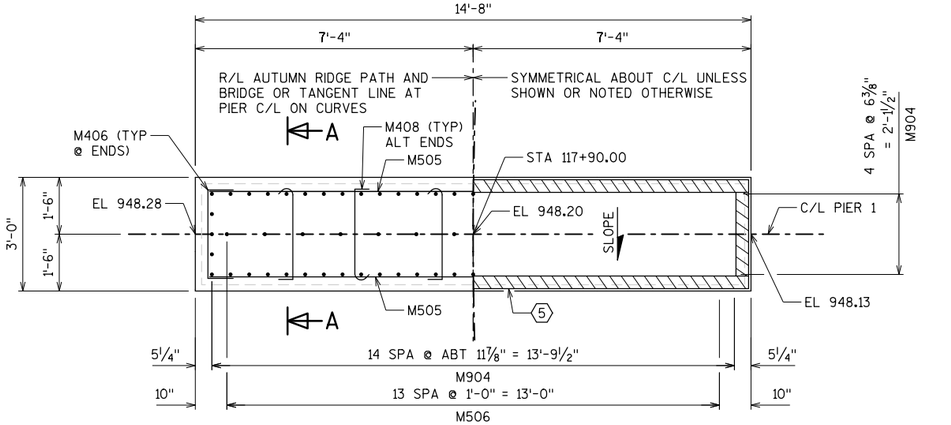
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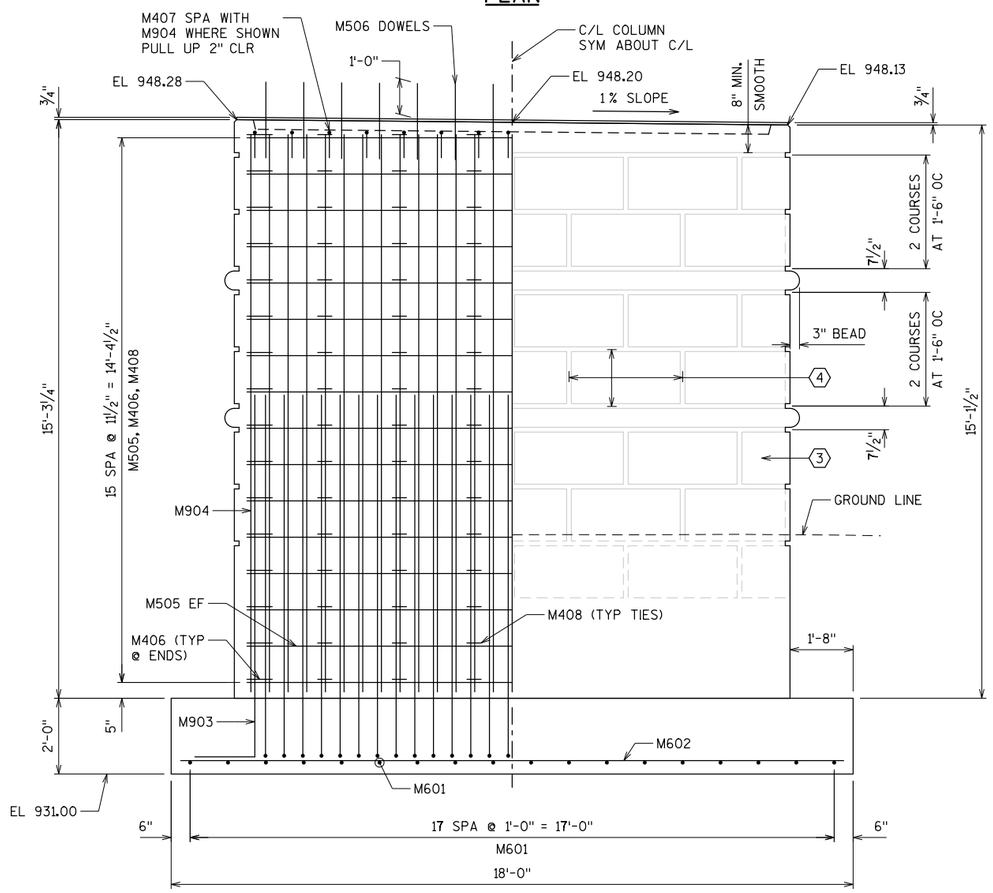
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STATE PROJECT NUMBER

5992-11-11

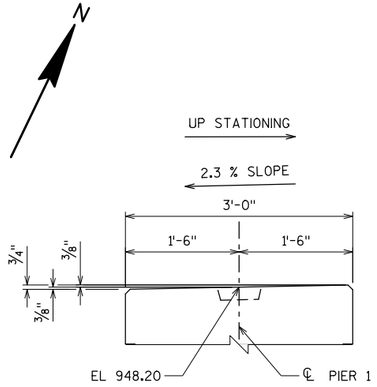


PLAN

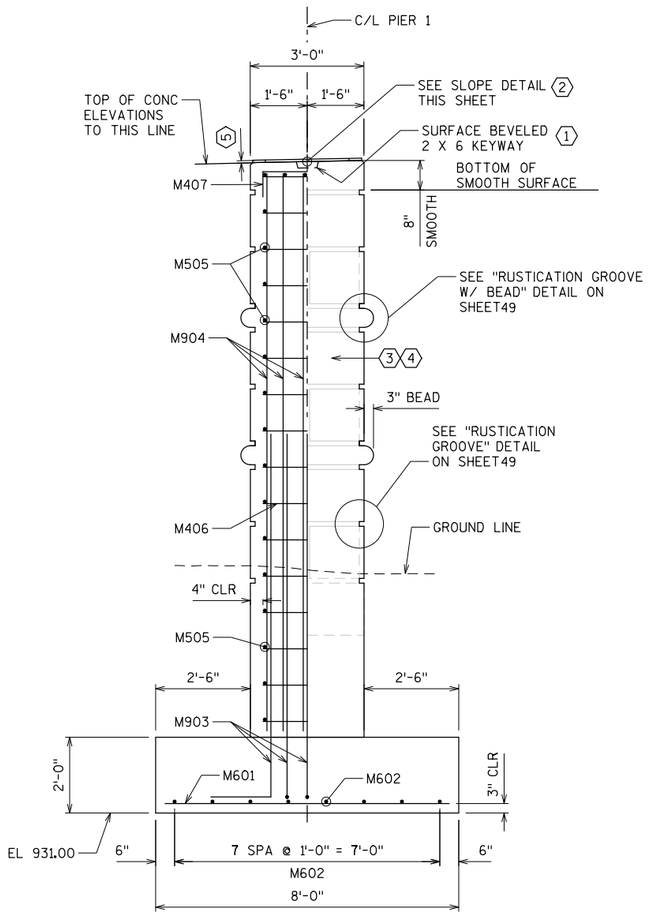


ELEVATION / SIDE VIEW

LOOKING UPSTATION



SEAT SLOPE DETAIL



SECTION A-A / END VIEW

PIER NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

USE 3/4" CHAMFER OF EXPOSED EDGES OF CONCRETE

(1) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".

(2) TOP OF CONCRETE ELEVATIONS GIVEN AT C/L PIER.

(3) 3'-0" WIDE BY 1'-6" HIGH RUSTICATION GROOVES. ALL RUSTICATION GROOVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND AT PIERS. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.

(4) EACH PIER RUSTICATION BLOCK WORK SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.

(5) 4" x 3/4" FILLER x LENGTH OF PERIMETER AT TOP OF PIER CAP.

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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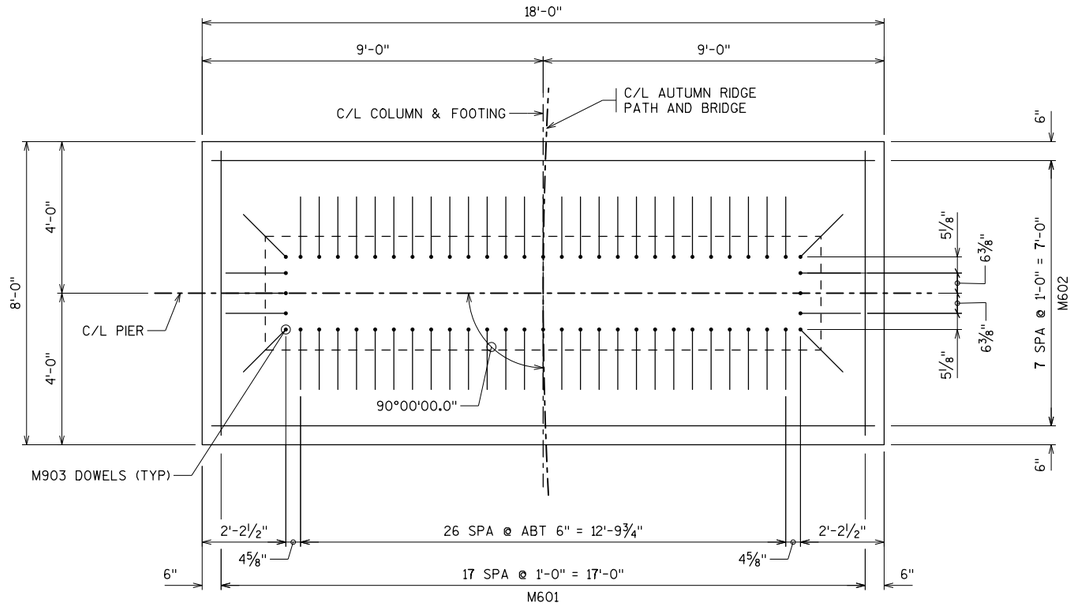
PIER 1 DETAILS

SHEET 16 OF 52

185

8

8



FOOTING LAYOUT



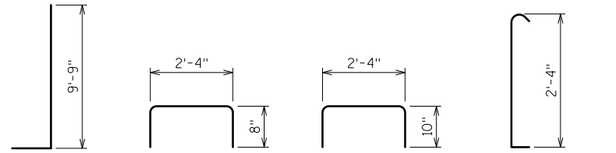
BILL OF BARS						PIER 1
BAR MARK	COAT	NO REQ'D	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
M601		18	7 - 6			FOOTING TRANSVERSE
M602		8	17 - 6			FOOTING LONGITUDINAL
M903	X	64	11 - 1		X	FOOTING DOWEL
M904	X	64	14 - 10			STEM VERTICAL
M406	X	32	3 - 6		X	STEM END TIE
M407	X	15	3 - 10		X	STEM TOP TIE
M408	X	96	2 - 11		X	STEM TIE
M505	X	32	13 - 11			STEM HORIZONTAL EACH FACE
M506	X	14	2 - 0			DOWEL

NOTES:

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

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



M903 M406 M407 M409

NOTE: USE STD HOOKS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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PIER 1 DETAILS

SHEET 17 OF 52

186

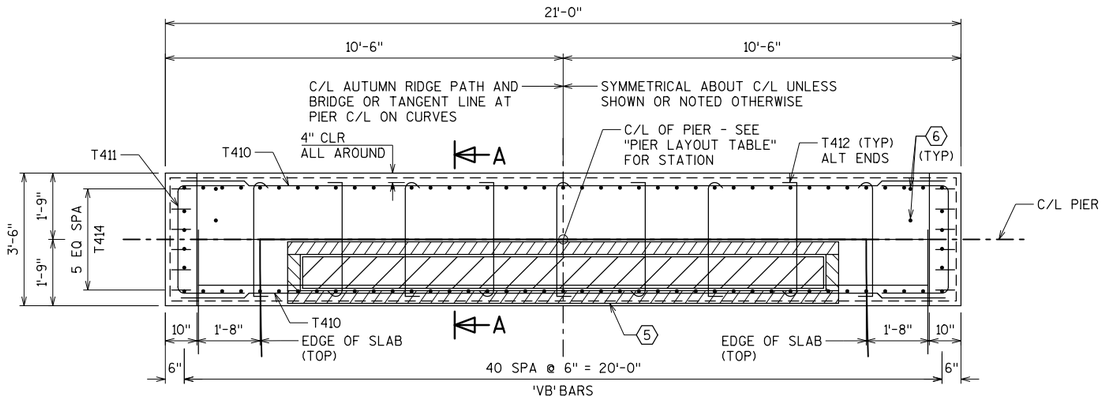
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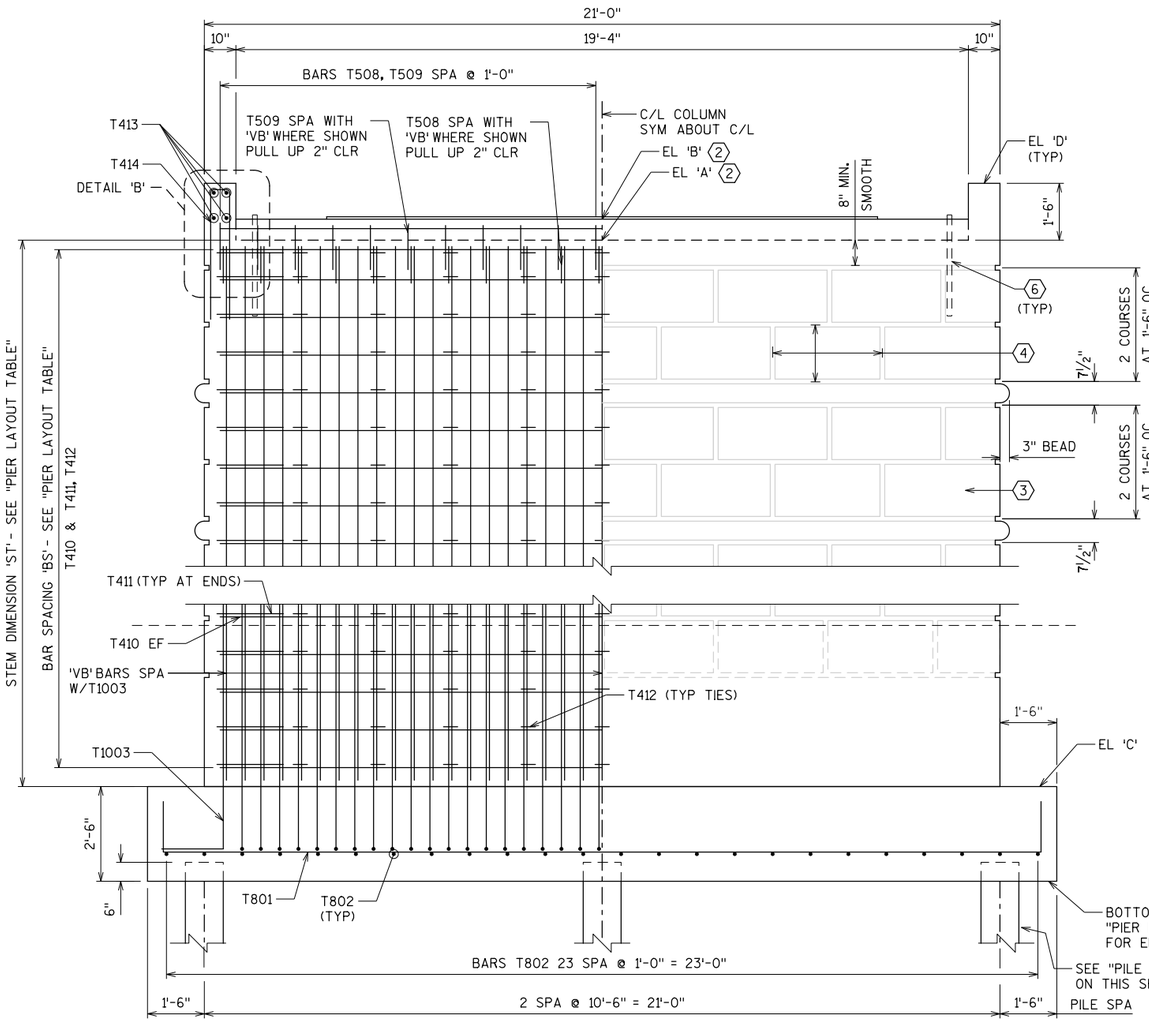
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STATE PROJECT NUMBER

5992-11-11



PLAN



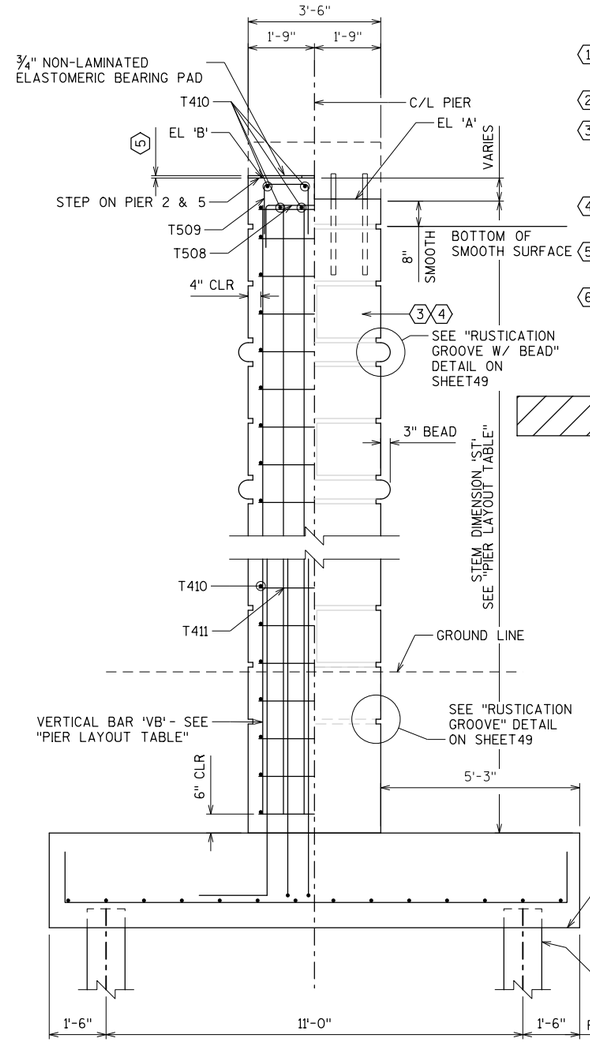
ELEVATION / SIDE VIEW

(PIER 2 & 5 TOP SHOWN)

PIER LAYOUT TABLE

	C/L PIER STATION	PIER ELEVATIONS				STEM DIM 'ST'	VERTICAL BAR 'VB'	BAR SPA 'BS' (1'-0" MAX)	BOTTOM FTG EL
		EL 'A'	EL 'B'	EL 'C'	EL 'D'				
PIER 2	118+35.00	947.91	948.39	923.50	949.42	24'-5"	T1004	25 EQUAL SPA	921.00
PIER 3	119+27.00	949.67	-	926.50	951.17	23'-2"	T1005	24 EQUAL SPA	924.00
PIER 4	120+19.00	949.17	-	923.50	950.67	25'-8"	T1006	26 EQUAL SPA	921.00
PIER 5	121+11.00	946.10	946.92	925.50	947.61	20'-7 1/4"	T1007	21 EQUAL SPA	923.00

6



SECTION A-A / END VIEW

PIER NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

USE ¾" CHAMFER OF EXPOSED EDGES OF CONCRETE

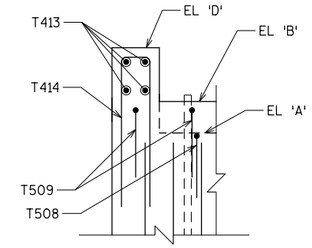
1. KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".
2. TOP OF PIER TO BE LEVEL.
3. 3'-0" WIDE BY 1'-6" HIGH RUSTICATION GROOVES. ALL RUSTICATION GROOVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND AT PIERS. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.
4. EACH PIER RUSTICATION BLOCK WORK SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.
5. 4" x ¾" FILLER x BOT OF SLAB WIDTH AT TOP OF PIER 2 & 5 STEP.
6. EL 'A' IS ASSUMED TO BE 3'-2½" BELOW PROFILE GRADE. CONTRACTOR TO COORDINATE WITH PREFABRICATED STEEL TRUSS MANUFACTURER FOR BEARING ELEVATION AND ANCHOR BOLT PLACEMENT. ADJUSTMENTS TO BEARING SEAT ELEVATION UP TO 6" SHALL NOT REQUIRE ENGINEERS APPROVAL.

¾" NON-LAMINATED ELASTOMERIC BEARING PAD. STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER PIER TOP BEFORE PLACING ELASTOMERIC BEARING PAD AND 3/4" FILLER. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

PILE NOTE

PIERS 2-5 TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB
SEE SHEET 15 FOR PILE SPLICE DETAILS.
SEE SHEET 2 FOR FOUNDATION DATA.



DETAIL 'B'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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PIER 2-5 DETAILS

SHEET 18 OF 52

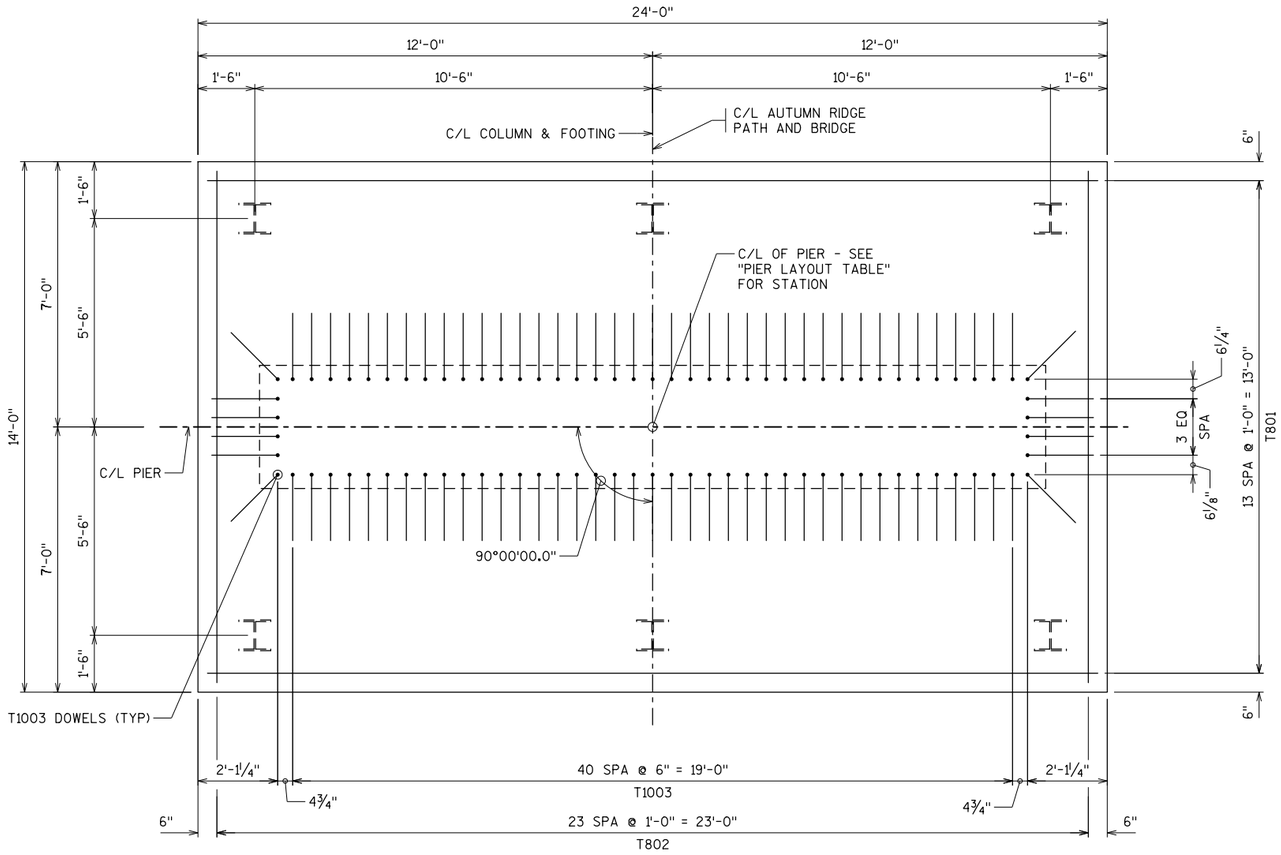
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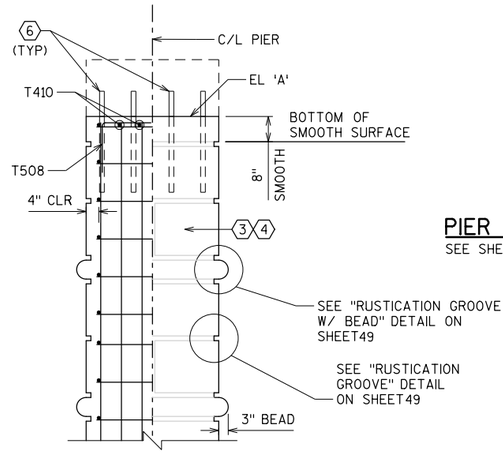
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STATE PROJECT NUMBER
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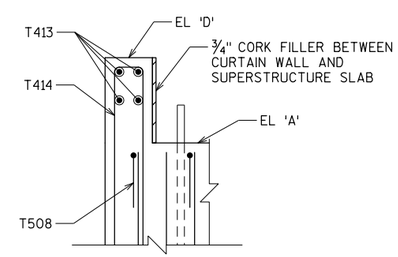


FOOTING PLAN AND PILE SPACING

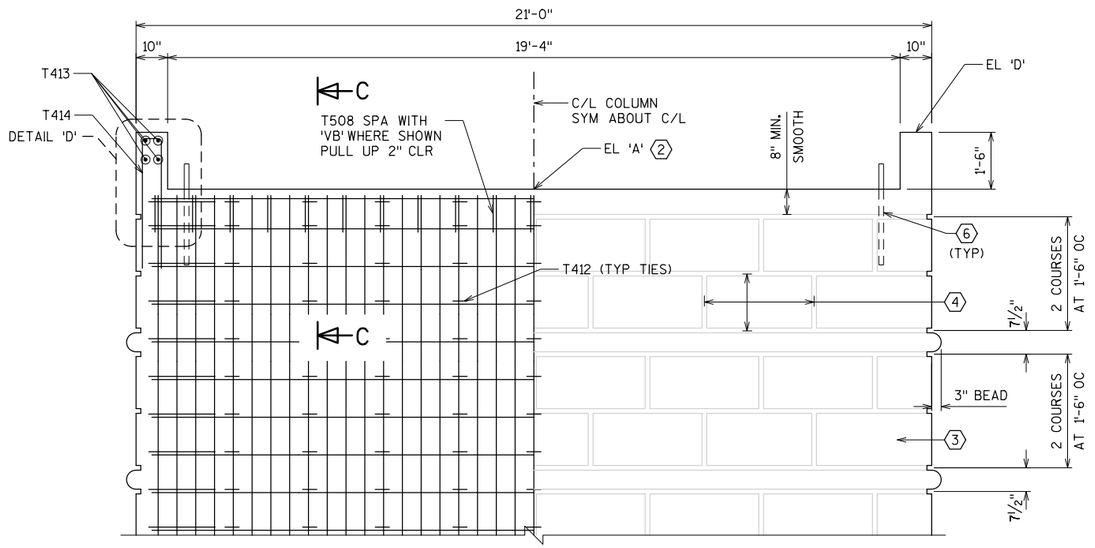


SECTION C-C / END VIEW
(PIER 3 & 4 SHOWN)

PIER NOTES & SYMBOLS
SEE SHEET 18



DETAIL 'D'



ELEVATION / SIDE VIEW
(PIER 3 & 4 SHOWN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

PIER 2-5 DETAILS

SHEET 19 OF 52
188

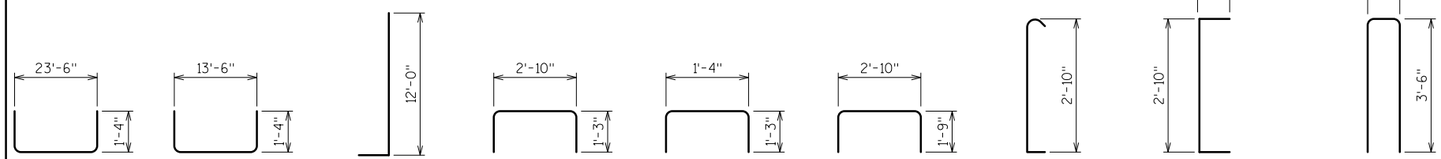
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STATE PROJECT NUMBER

5992-11-11



T801 T802 T1003 T508 T509 T411 T412 T413 T414

NOTE: USE STD HOOKS

BILL OF BARS — PIERS 2-5

BAR MARK	COAT	P2 NO REQ'D	P3 NO REQ'D	P4 NO REQ'D	P5 NO REQ'D	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
T801		14	14	14	14	25 - 9		X	FOOTING LONGITUDINAL
T802		24	24	24	24	15 - 9		X	FOOTING TRANSVERSE
T1003	X	90	90	90	90	13 - 6		X	FOOTING DOWEL
T1004	X	90				24 - 1			STEM VERTICAL
T1005	X		90			22 - 10			STEM VERTICAL
T1006	X			90		25 - 4			STEM VERTICAL
T1007	X				90	20 - 3			STEM VERTICAL
T508	X	21	21	21	21	5 - 1		X	CAP TIE
T509	X	21			21	3 - 7		X	CAP TIE
T410	X	58	54	58	50	20 - 4			STEM HORIZONTAL
T411	X	52	50	54	44	6 - 2		X	STEM TIE
T412	X	234	225	243	198	3 - 5		X	STEM TIE
T413	X	8	8	8	8	3 - 8		X	MASK WALL
T414	X	12	12	12	12	7 - 2		X	MASK WALL
						-			
						-			

NOTE:

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

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

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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PIER 2-5 DETAILS

SHEET 20 OF 52

189

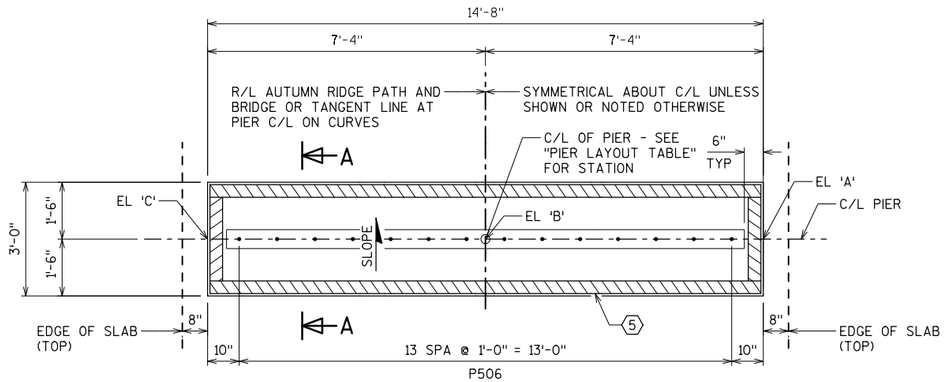
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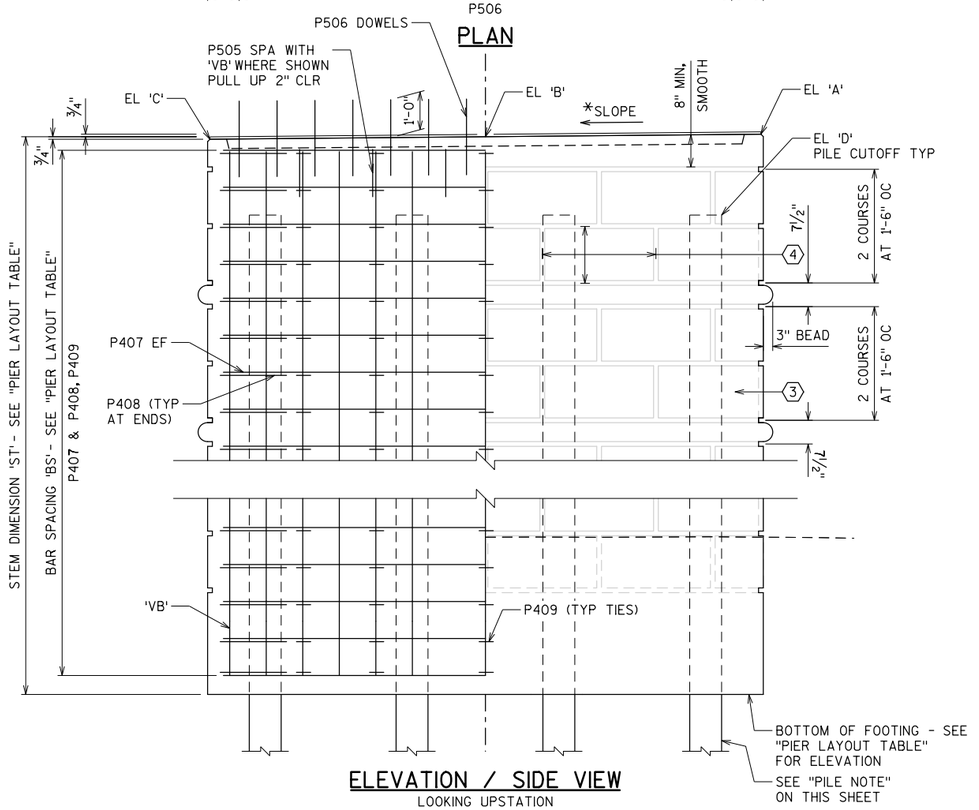
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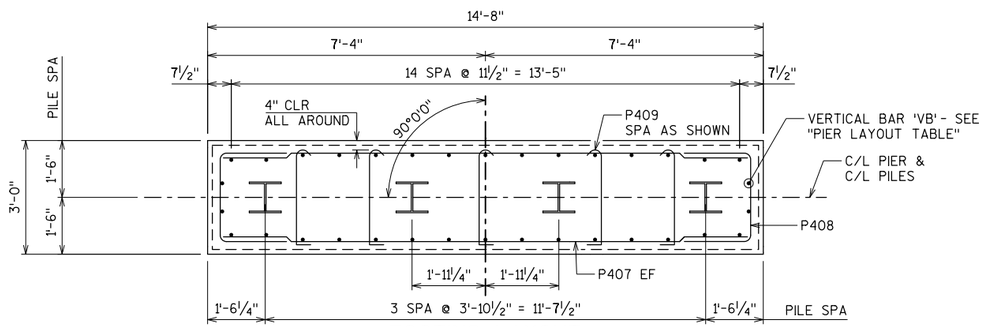


PLAN

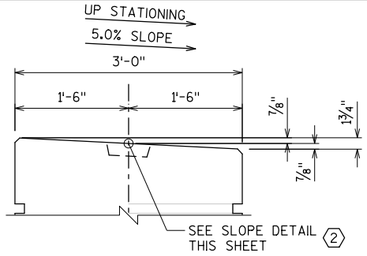


ELEVATION / SIDE VIEW

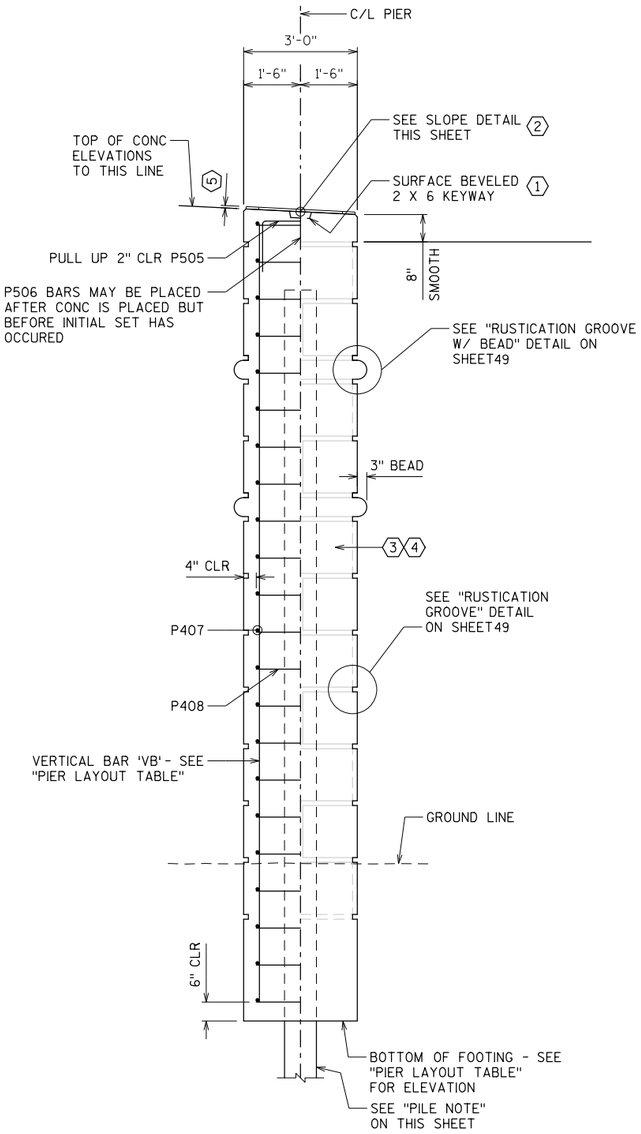
LOOKING UPSTATION



FOOTING LAYOUT



SEAT SLOPE DETAIL



SECTION A-A / END VIEW

PIER LAYOUT TABLE

	C/L PIER STATION	PIER ELEVATIONS				STEM DIM 'ST'	VERTICAL BAR 'VB'	BAR SPA 'BS' (1'-0" MAX)	BOTTOM FTG EL
		EL 'A'	EL 'B'	EL 'C'	EL 'D'				
PIER 6	121+39.00	945.28	946.36	946.28	944.85	21'-5"	P501	21 EQUAL SPA	925.00
PIER 7	121+74.00	944.53	944.61	944.53	943.10	17'-10"	P502	19 EQUAL SPA	925.00
PIER 10	122+78.21	939.32	939.39	939.47	937.88	13'-6 1/4"	P503	13 EQUAL SPA	926.00
PIER 14	124+16.00	932.43	932.50	932.58	930.99	9'-7 1/2"	P504	9 EQUAL SPA	923.00

PIER NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

USE 3/4" CHAMFER OF EXPOSED EDGES OF CONCRETE

(1) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".

(2) TOP OF CONCRETE ELEVATIONS GIVEN AT C/L PIER.

(3) 3'-0" WIDE BY 1'-6" HIGH RUSTICATION GROOVES. ALL RUSTICATION GROOVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND AT PIERS. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.

(4) EACH PIER RUSTICATION BLOCK WORK SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.

(5) 4" x 3/4" FILLER x LENGTH OF PERIMETER AT TOP OF PIER CAP.

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

* SLOPE VARIES, SEE SUPERELEVATION TABLE ON SHEET 2.

PILE NOTE

PIERS 6-14 TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB
SEE SHEET 15 FOR PILE SPLICE DETAILS.
SEE SHEET 2 FOR FOUNDATION DATA.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

PIER 6-7, 10 & 14 DETAILS

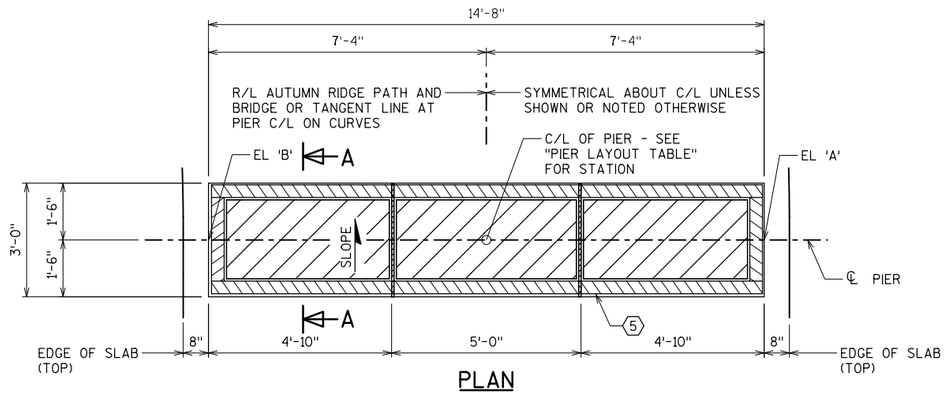
SHEET 21 OF 52

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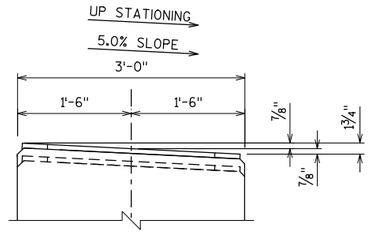
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STATE PROJECT NUMBER

5992-11-11



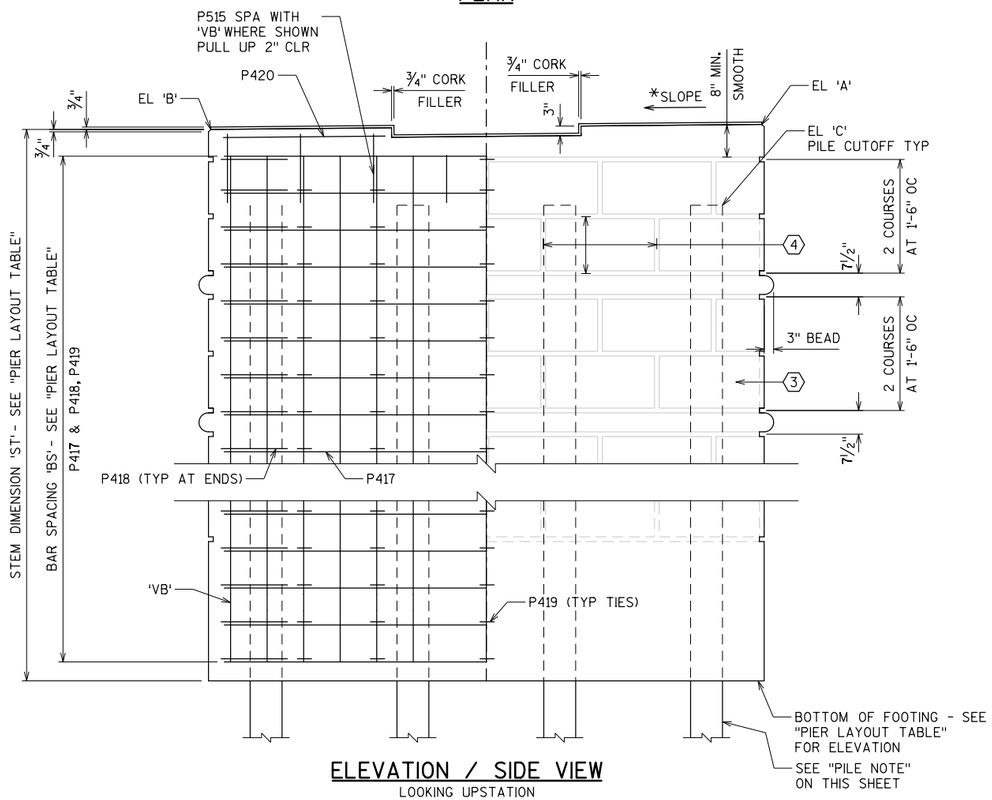
PLAN



SEAT SLOPE DETAIL

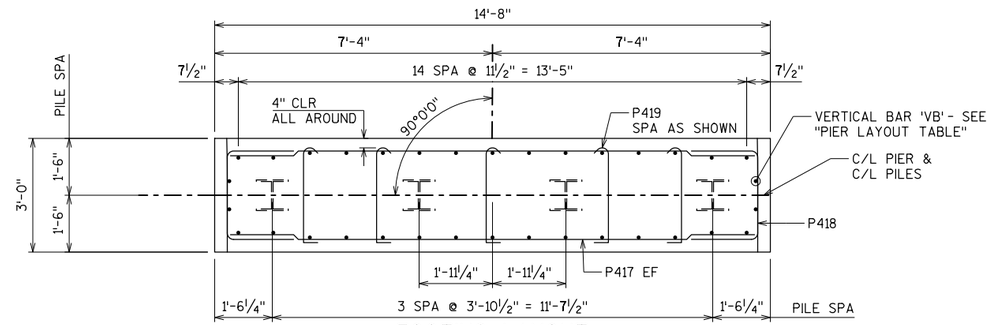
PIER LAYOUT TABLE

	C/L PIER STATION	PIER ELEVATIONS			STEM DIM 'ST'	VERTICAL BAR 'VB'	BAR SPA 'BS' (1'-0" MAX)	BOTTOM FTG EL
		EL 'A'	EL 'B'	EL 'C'				
PIER 8	122+09.00	942.92	942.78	941.28	17'-11"	P511	17 EQUAL SPA	925.00
PIER 9	122+43.63	941.19	941.05	939.55	15'-2 1/4"	P512	15 EQUAL SPA	926.00
PIER 11	123+12.79	937.73	937.59	936.09	12'-8 3/4"	P513	12 EQUAL SPA	925.00
PIER 12	123+47.37	936.00	935.86	934.36	12'-0"	P514	12 EQUAL SPA	924.00
PIER 13	123+82.00	934.27	934.13	932.63	9'-7 1/2"	P516	11 EQUAL SPA	923.00

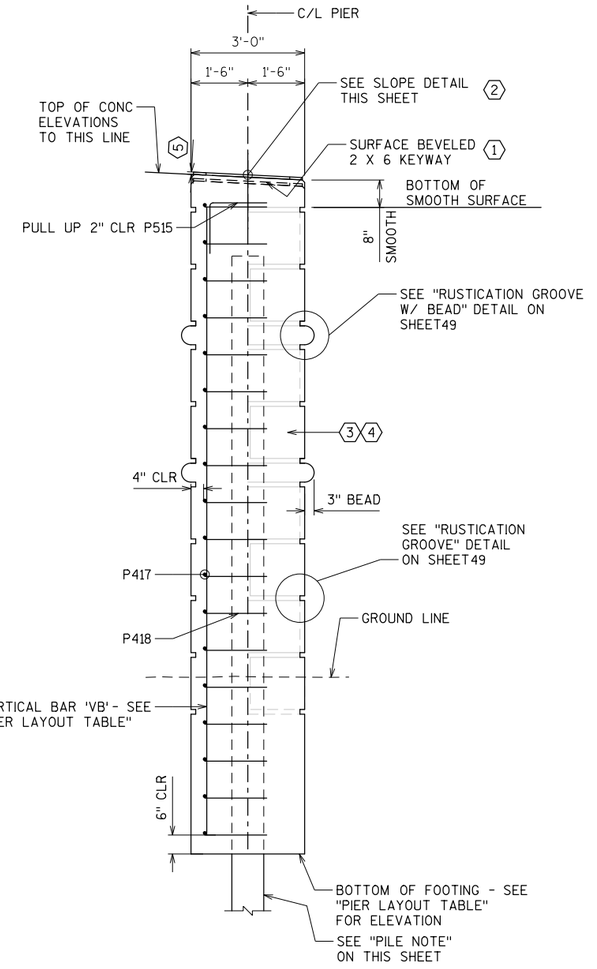


ELEVATION / SIDE VIEW

LOOKING UPSTATION



FOOTING LAYOUT



SECTION A-A / END VIEW

PIER NOTES & SYMBOLS

SEE SHEET 49 FOR RUSTICATION DETAILS

USE ¾" CHAMFER OF EXPOSED EDGES OF CONCRETE

(1) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6".

(2) TOP OF CONCRETE ELEVATIONS GIVEN AT C/L PIER.

(3) 3'-0" WIDE BY 1'-6" HIGH RUSTICATION GROOVES. ALL RUSTICATION GROOVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND AT PIERS. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.

(4) EACH PIER RUSTICATION BLOCK WORK SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.

(5) 4" × ¾" FILLER × LENGTH OF PERIMETER AT TOP OF PIER CAP.

FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE

* SLOPE VARIES. SEE SUPERELEVATION TABLE ON SHEET 2.

¾" NON-LAMINATED ELASTOMERIC BEARING PAD. STEEL TROWEL TOP SURFACE OF PIER. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER PIER TOP BEFORE PLACING ELASTOMERIC BEARING PAD AND 3/4" FILLER. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

PILE NOTE

PIERS 6-14 TO BE SUPPORTED ON PILING STEEL HP 10-INCH x 42 LB
SEE SHEET 15 FOR PILE SPLICE DETAILS.
SEE SHEET 2 FOR FOUNDATION DATA.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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PIER 8-9 & 11-13 DETAILS

SHEET 22 OF 52

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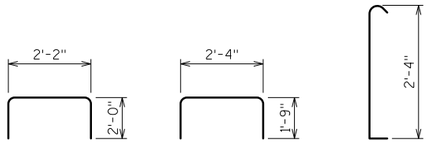
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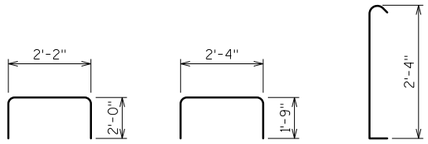


P505 P408 P409

NOTE: USE STD HOOKS

BILL OF BARS — FIXED - PIERS

BAR MARK	COAT	P6 NO REQ'D	P7 NO REQ'D	P10 NO REQ'D	P14 NO REQ'D	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
P501		34				20 - 8			STEM VERTICAL
P502			34			17 - 1			STEM VERTICAL
P503				34		12 - 9			STEM VERTICAL
P504					34	8 - 10			STEM VERTICAL
P505		6	6	6	6	5 - 11		X	CAP TIE
P506	X	14	14	14	14	2 - 0			DOWEL
P407		44	40	28	20	13 - 10			STEM HORIZONTAL
P408		44	40	28	20	5 - 8		X	STEM TIE
P409		110	100	70	50	3 - 0		X	STEM TIE
						-			
						-			



P515 P418 P419

NOTE: USE STD HOOKS

BILL OF BARS — SE - PIERS

BAR MARK	COAT	P8 NO REQ'D	P9 NO REQ'D	P11 NO REQ'D	P12 NO REQ'D	P13 NO REQ'D	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
P511		34					17 - 2			STEM VERTICAL
P512			34				14 - 6			STEM VERTICAL
P513				34			11 - 11			STEM VERTICAL
P514					34		12 - 10			STEM VERTICAL
P515		6	6	6	6	6	5 - 11		X	CAP TIE
P516						34	8 10			STEM VERTICAL
P417		36	32	26	26	22	13 - 10			STEM HORIZONTAL
P418		36	32	26	26	22	5 - 8		X	STEM TIE
P419		90	80	65	65	55	3 - 0		X	STEM TIE
P420		4	4	4	4	4	4 - 2			HORIZONTAL TOP
							-			

NOTE:

THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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PIER 6-14 DETAILS

SHEET 23 OF 52

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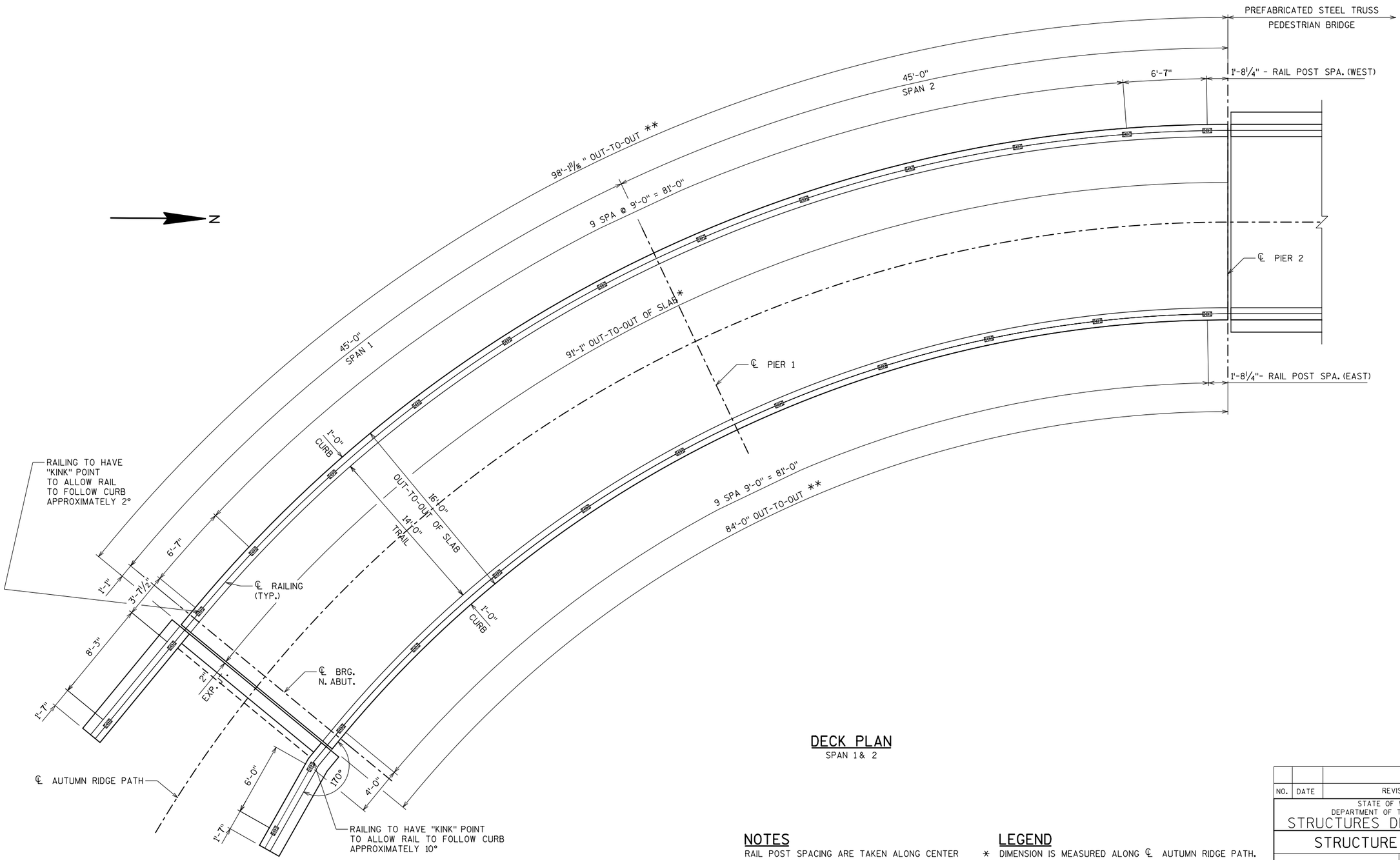
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STATE PROJECT NUMBER
5992-11-11



DECK PLAN
SPAN 1& 2

NOTES
RAIL POST SPACING ARE TAKEN ALONG CENTER OF RAIL. HORIZONTAL RAIL MEMBERS NOT SHOWN FOR CLARITY.

LEGEND
* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD	PLANS CK'D. NCK

SPAN 1& 2
SUPERSTRUCTURE

SHEET 24 OF 52

193

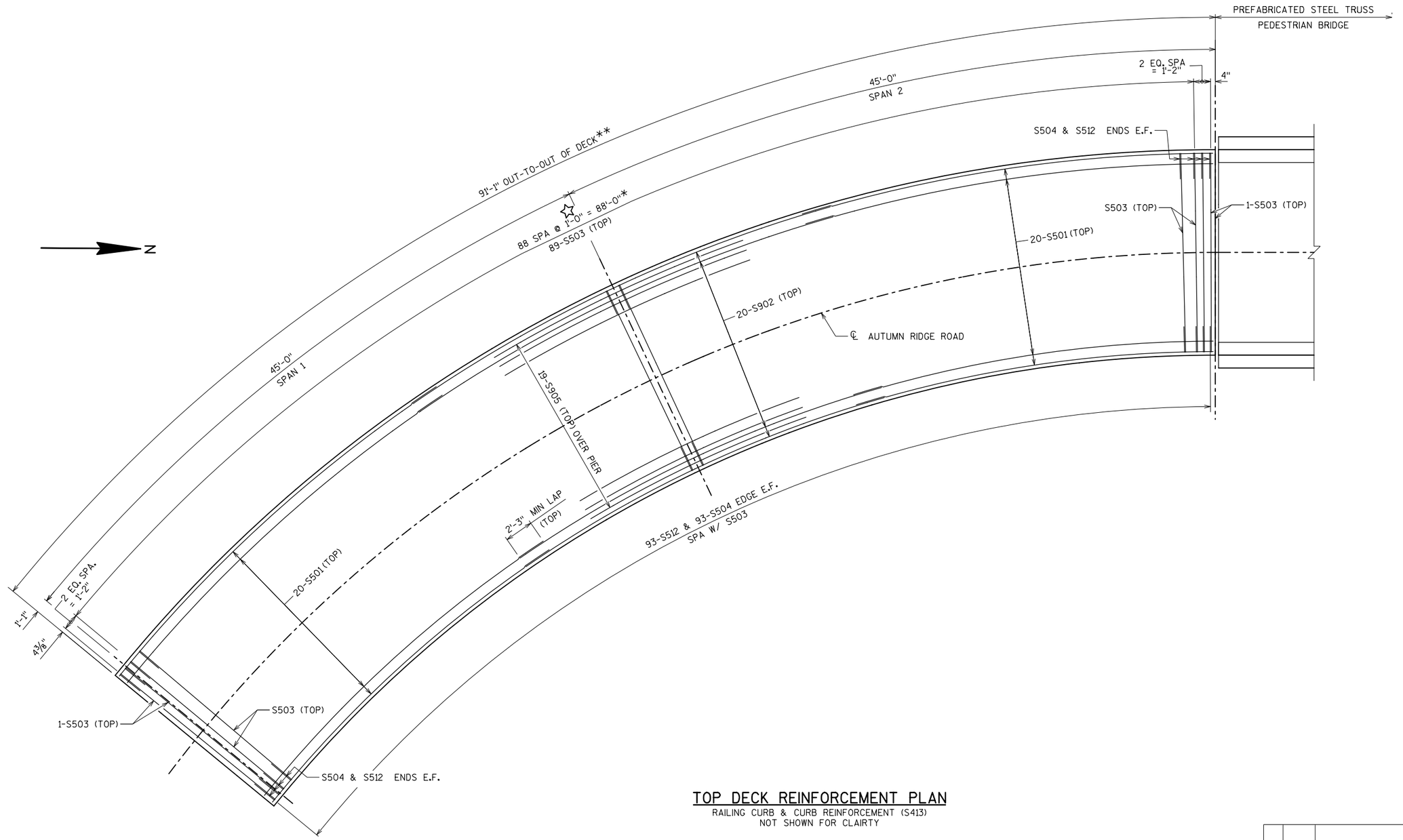
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STATE PROJECT NUMBER
5992-11-11



TOP DECK REINFORCEMENT PLAN

RAILING CURB & CURB REINFORCEMENT (S413)
NOT SHOWN FOR CLAIRTY

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

☆ LEFT EDGE SPACING = 12 7/8"
RIGHT EDGE SPACING = 11 1/8"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD	PLANS CK'D. NCK

SPAN 1 & 2
SUPERSTRUCTURE

SHEET 25 OF 52
194

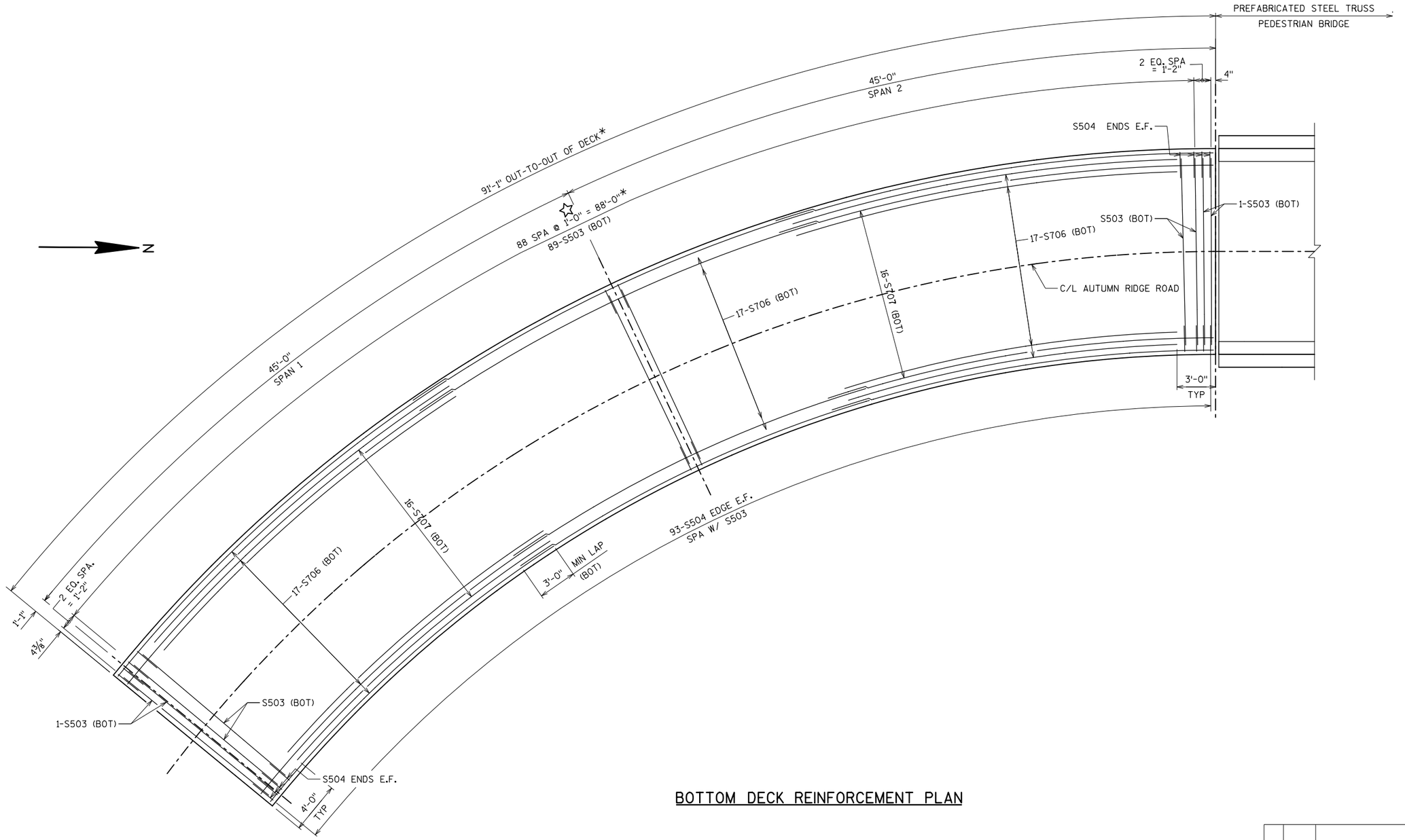
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STATE PROJECT NUMBER
5992-11-11



BOTTOM DECK REINFORCEMENT PLAN

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

☆ LEFT EDGE SPACING = 12 7/8"
RIGHT EDGE SPACING = 11 1/8"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 1 & 2
SUPERSTRUCTURE

SHEET 26 OF 52
195

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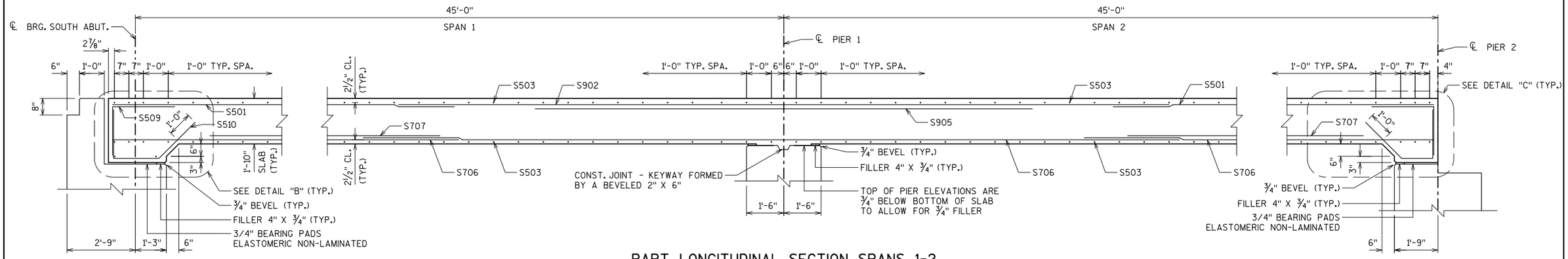
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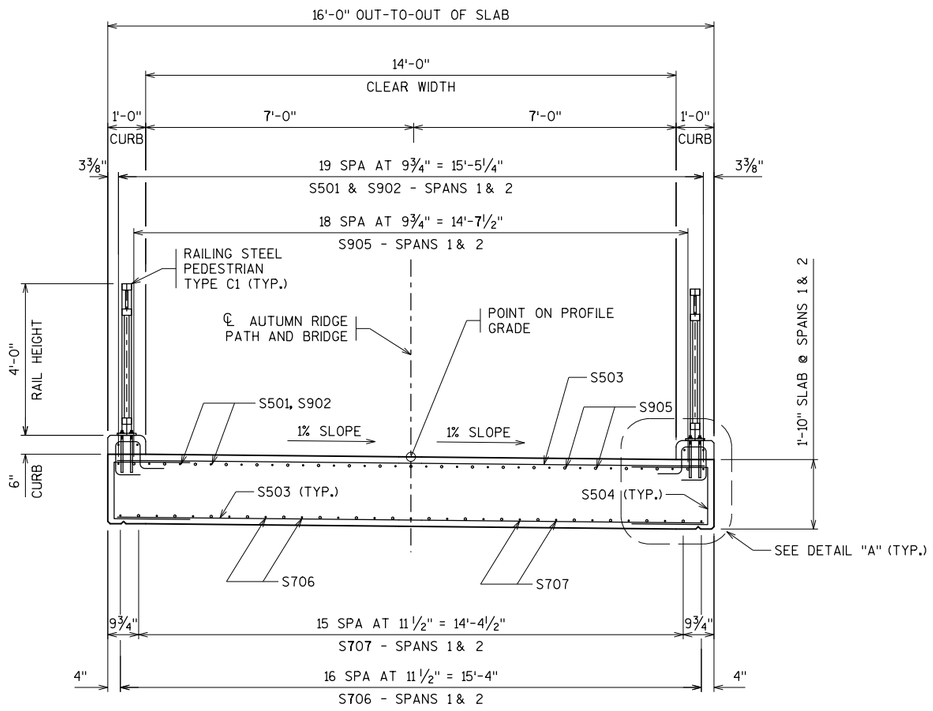
STATE PROJECT NUMBER

5992-11-11



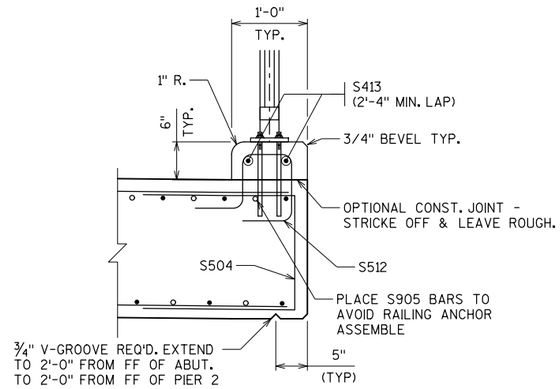
PART LONGITUDINAL SECTION SPANS 1-2

TRANSVERSE SPACING SHOWN ALONG ℄ PATH

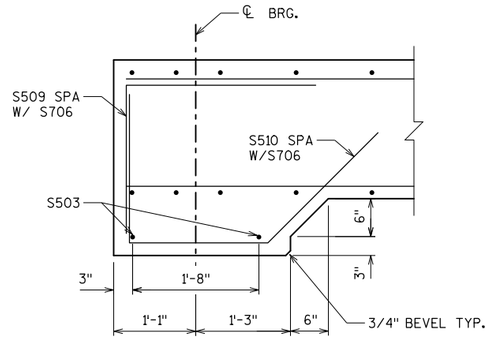


TYPICAL SECTION THRU STRUCTURE

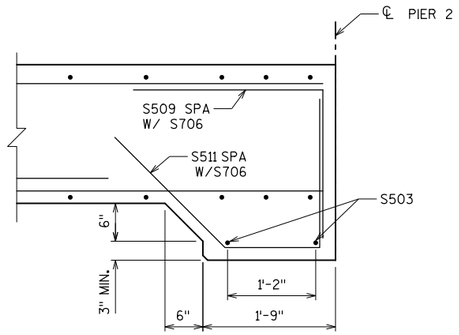
NORTH APPROACH SPANS
(LOOKING UPSTATION)



DETAIL "A"



DETAIL "B"



DETAIL "C"

NOTES

ALL HORIZONTAL DIMENSIONS IN CROSS SECTION VIEWS ARE MEASURED PERPENDICULAR TO ℄ AUTUMN RIDGE PATH.

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

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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SPAN 1& 2
SUPERSTRUCTURE

SHEET 27 OF 52

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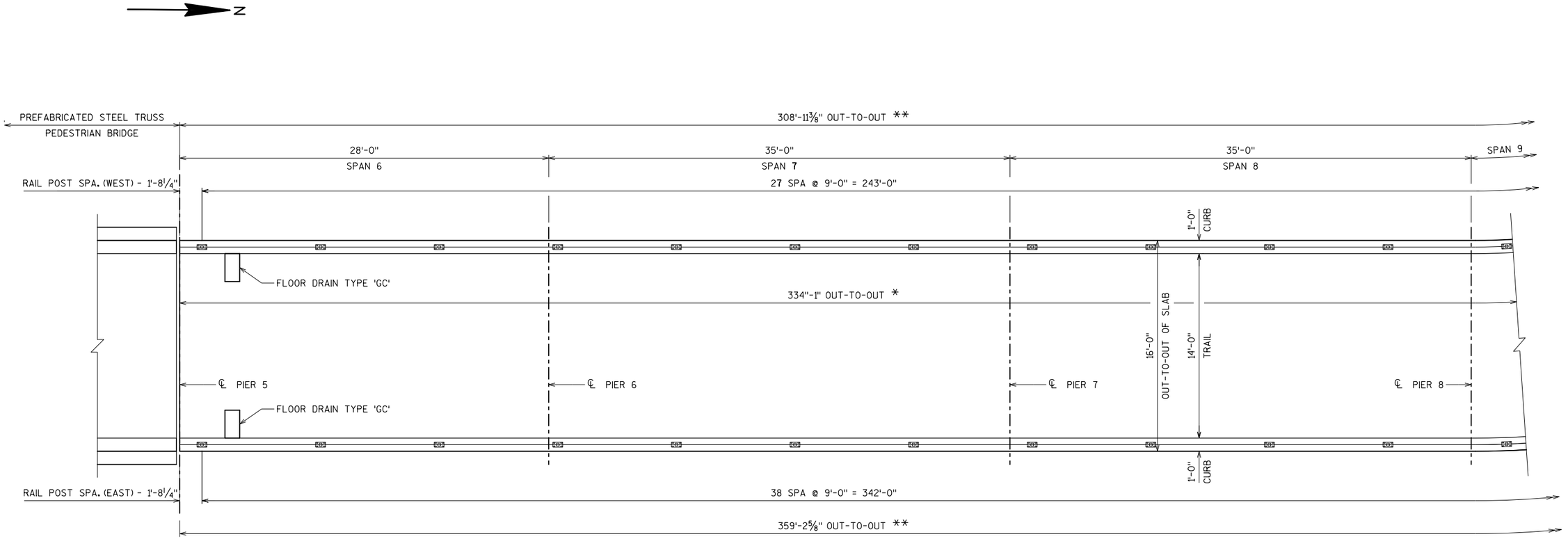
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STATE PROJECT NUMBER
5992-11-11



DECK PLAN

SPAN 6 - 8

NOTES

RAIL POST SPACING ARE TAKEN ALONG CENTER OF RAIL. HORIZONTAL RAIL MEMEBERS NOT SHOWN FOR CLARITY.

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 28 OF 52

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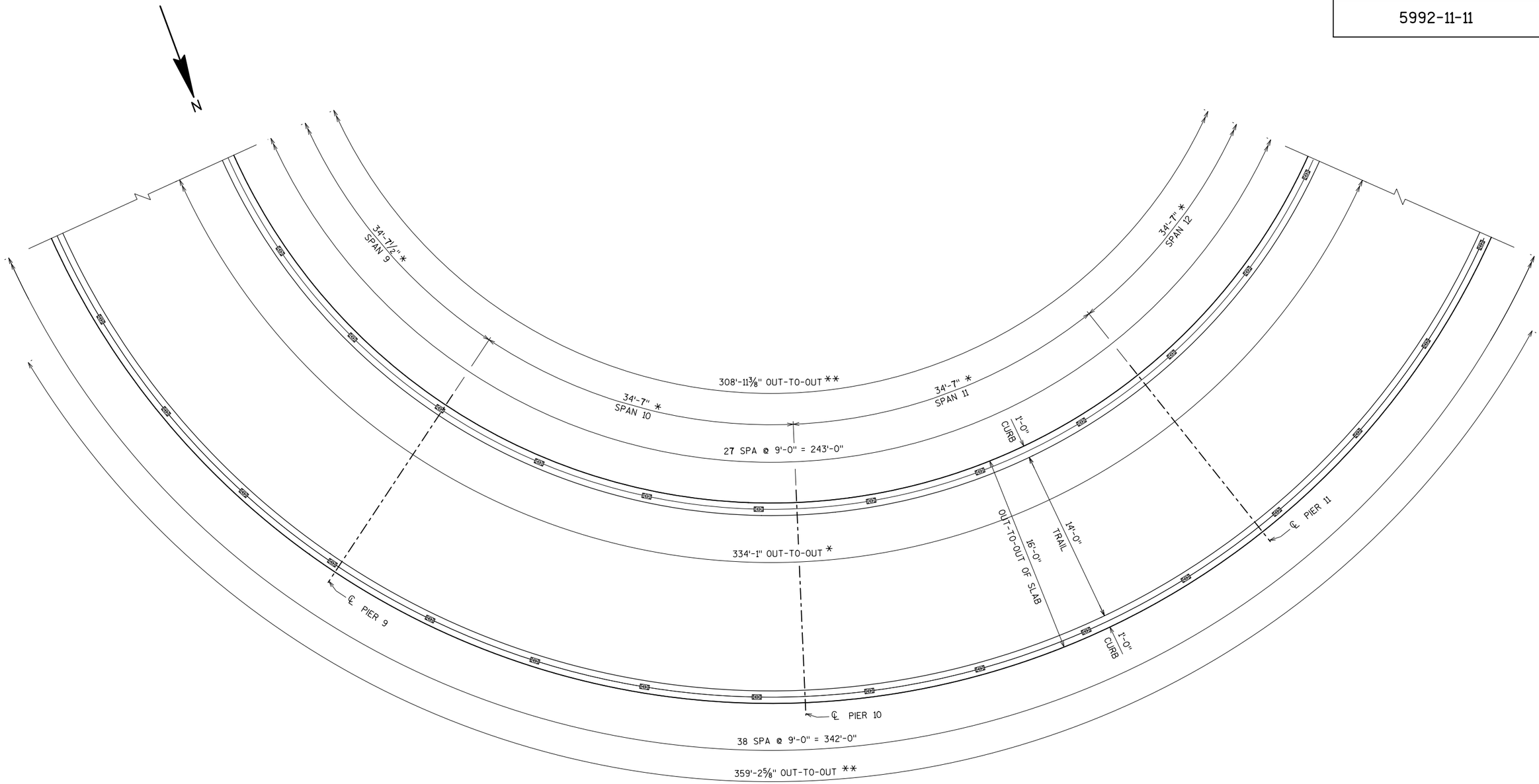
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STATE PROJECT NUMBER
5992-11-11



DECK PLAN

SPAN 9 - 12

NOTES

RAIL POST SPACING ARE TAKEN ALONG CENTER OF RAIL. HORIZONTAL RAIL MEMEBERS NOT SHOWN FOR CLARITY.

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD	PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 29 OF 52

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8

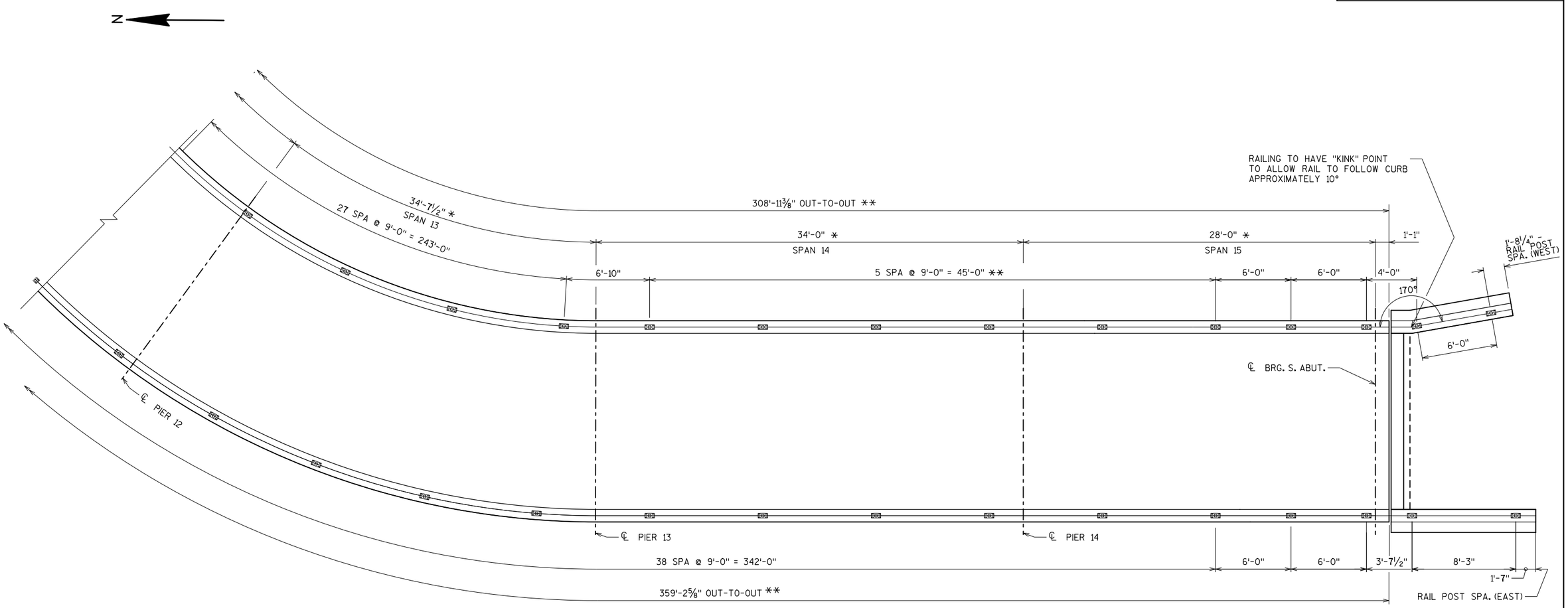
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STATE PROJECT NUMBER
5992-11-11



DECK PLAN
SPAN 13 - 15

NOTES
RAIL POST SPACING ARE TAKEN ALONG CENTER OF RAIL. HORIZONTAL RAIL MEMEBERS NOT SHOWN FOR CLARITY.

LEGEND
* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD	PLANS CK'D. NCK

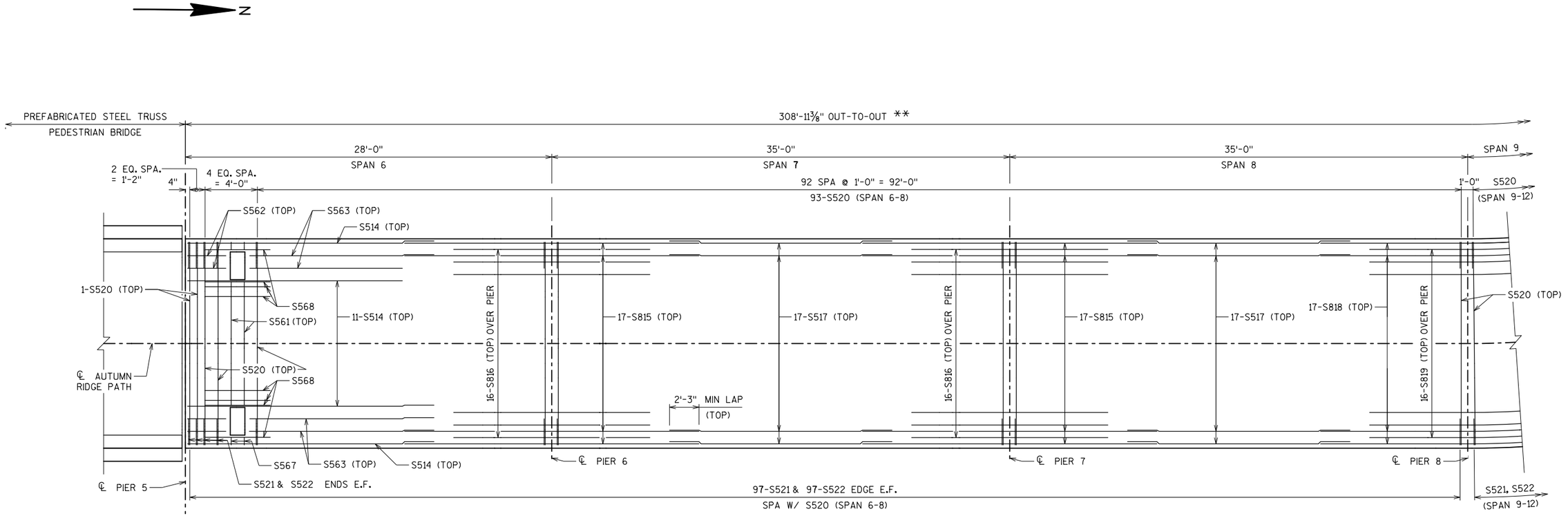
SPAN 6-15
SUPERSTRUCTURE

SHEET 30 OF 52

8

8

STATE PROJECT NUMBER
5992-11-11



TOP DECK REINFORCEMENT PLAN

RAILING CURB & CURB REINFORCEMENT (S431)
NOT SHOWN FOR CLARITY

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15 SUPERSTRUCTURE

SHEET 31 OF 52

200

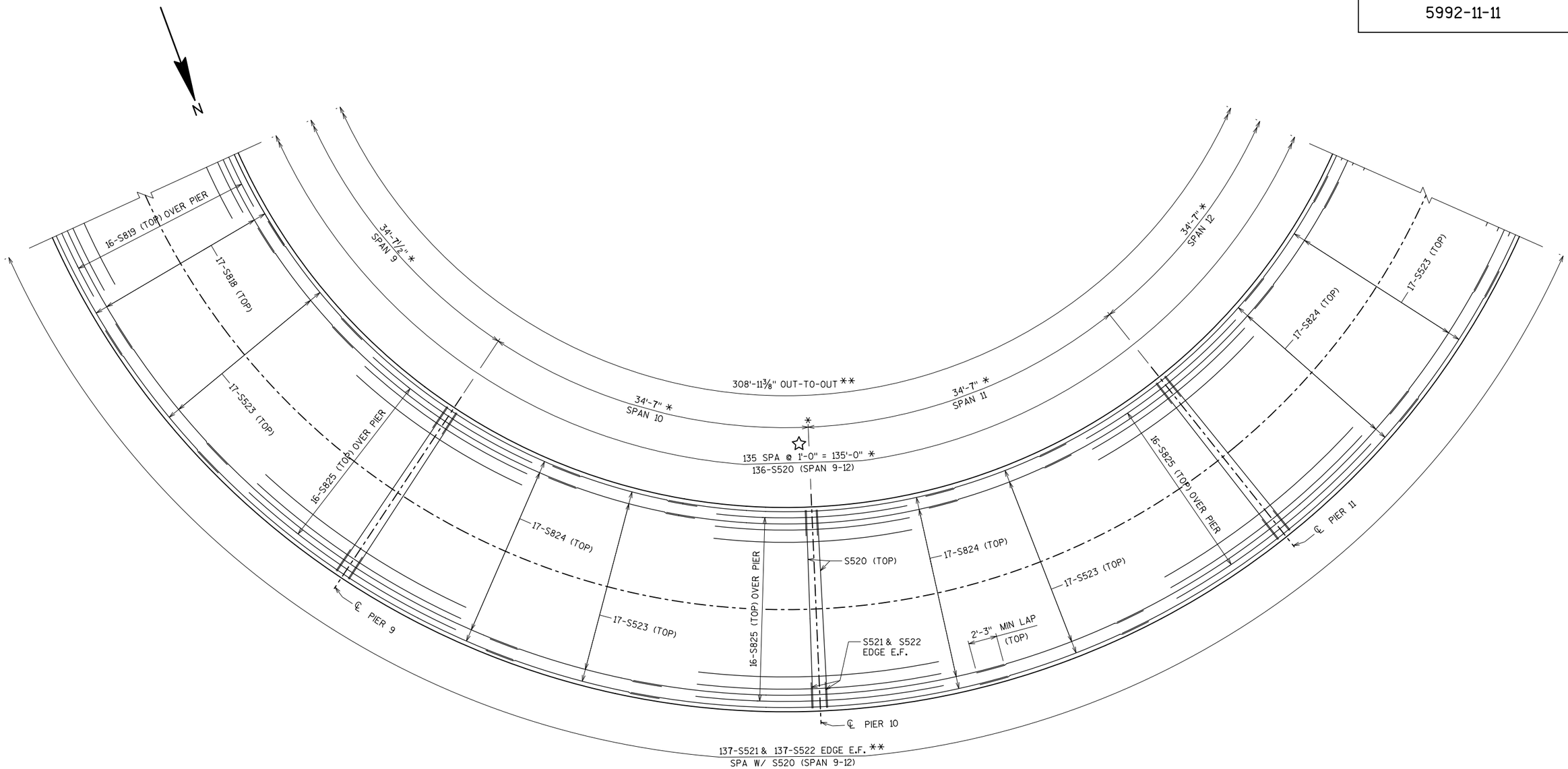
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STATE PROJECT NUMBER
5992-11-11



TOP DECK REINFORCEMENT PLAN

RAILING CURB & CURB REINFORCEMENT (S431)
NOT SHOWN FOR CLARITY

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

☆ LEFT EDGE SPACING = 10 1/4"
RIGHT EDGE SPACING = 1'-1 3/4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 32 OF 52
201

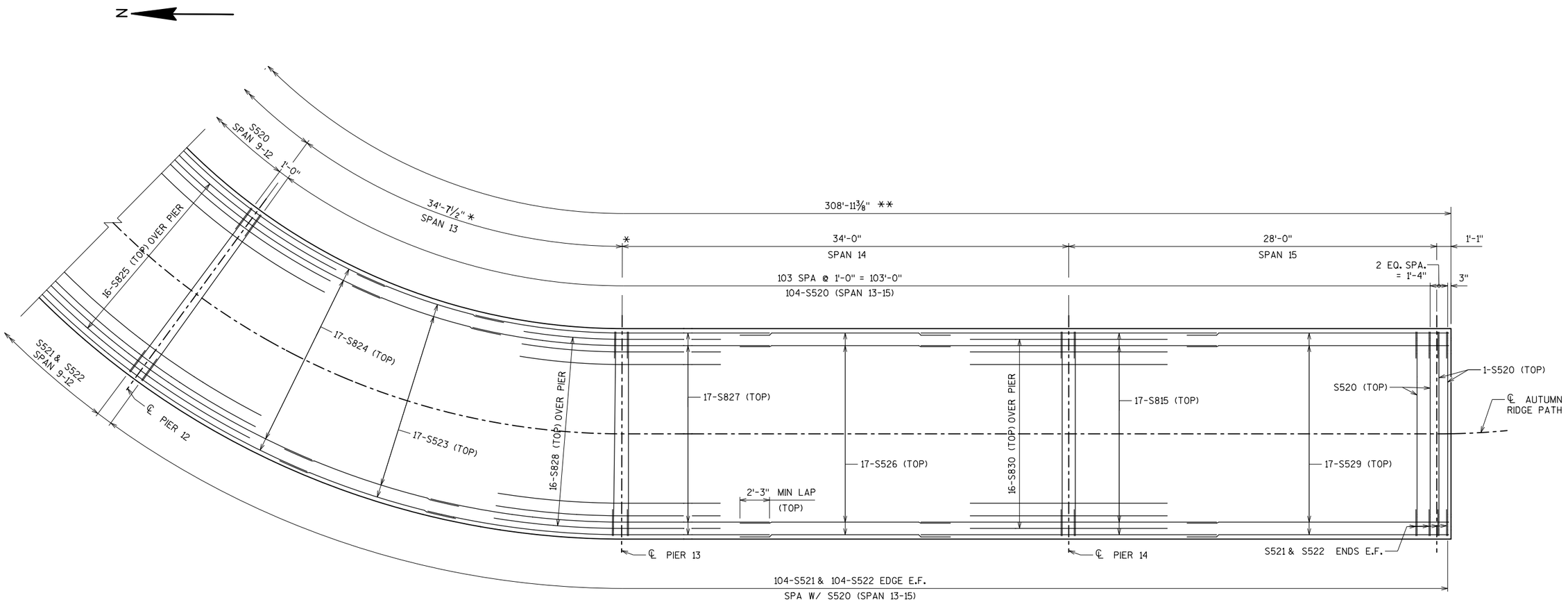
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STATE PROJECT NUMBER
5992-11-11



TOP DECK REINFORCEMENT PLAN

RAILING CURB & CURB REINFORCEMENT (S431)
NOT SHOWN FOR CLARITY

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 33 OF 52
202

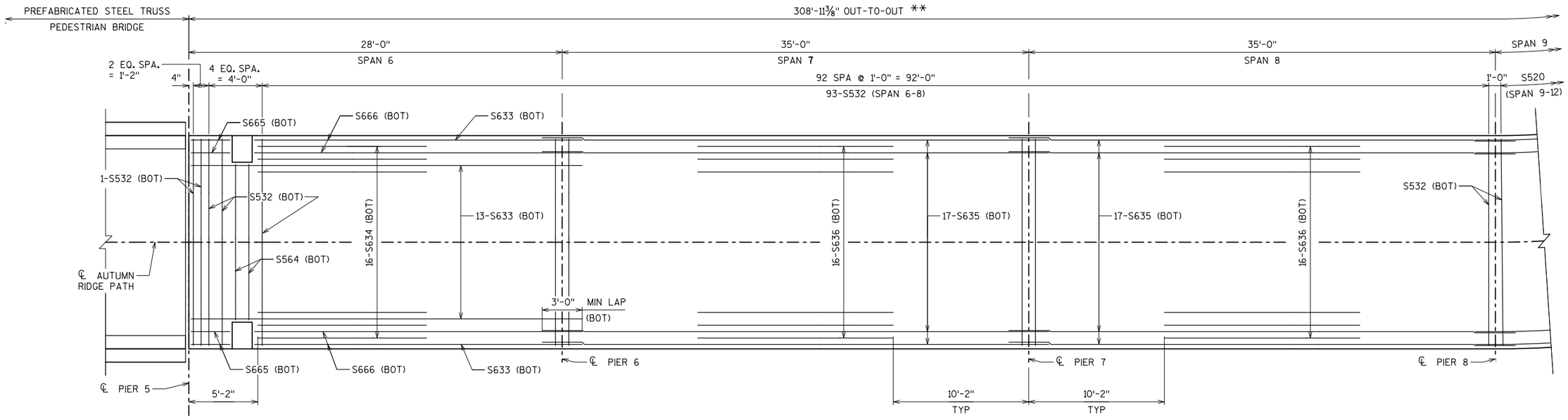
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STATE PROJECT NUMBER
5992-11-11



BOTTOM DECK REINFORCEMENT PLAN

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15 SUPERSTRUCTURE

SHEET 34 OF 52

203

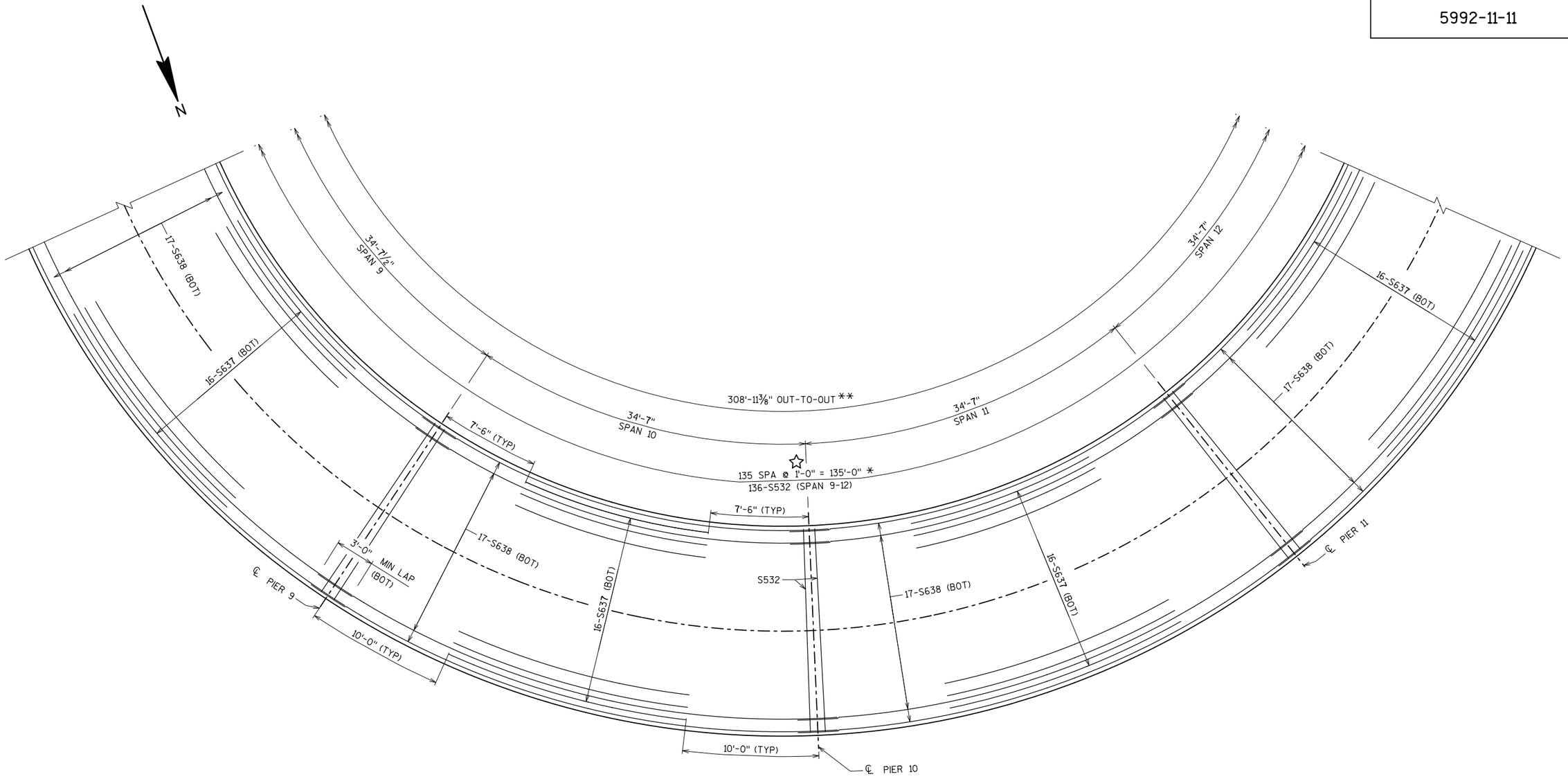
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STATE PROJECT NUMBER
5992-11-11



BOTTOM DECK REINFORCEMENT PLAN

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

☆ LEFT EDGE SPACING = 10 3/8"
RIGHT EDGE SPACING = 1'-1 5/8"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 35 OF 52
204

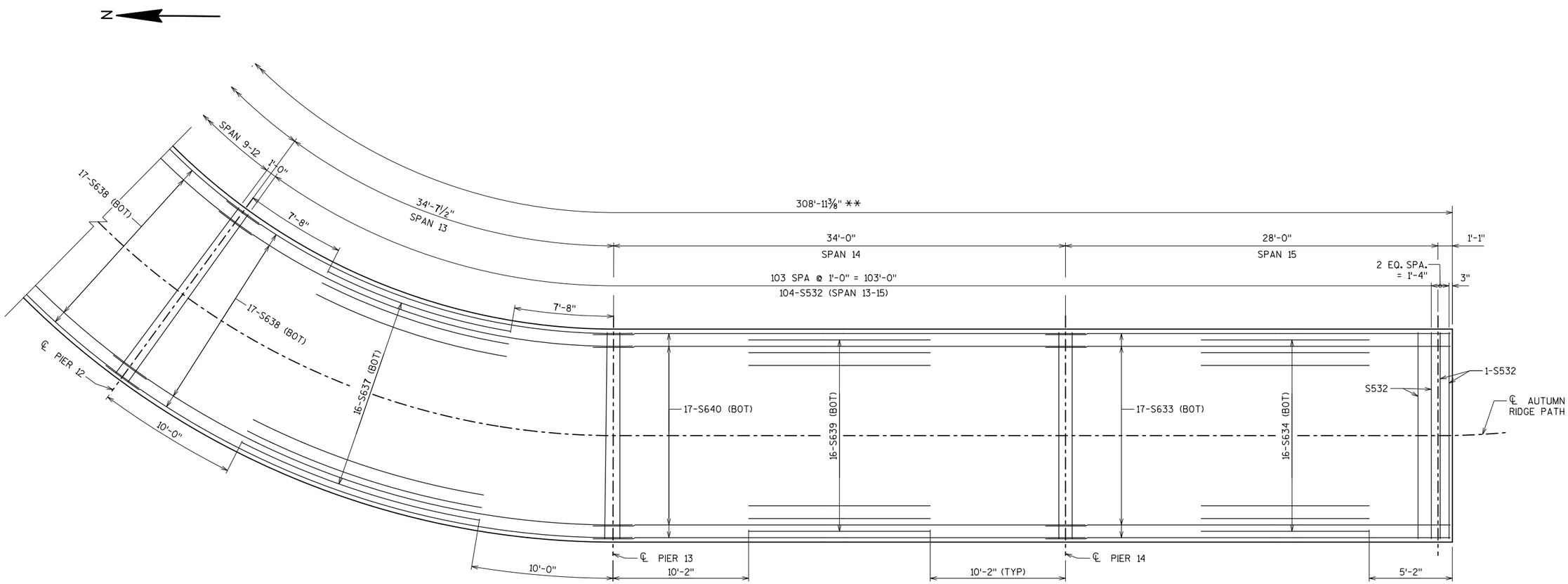
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STATE PROJECT NUMBER
5992-11-11



BOTTOM DECK REINFORCEMENT PLAN

NOTES

ALL DIMENSIONS FOR TRANSVERSE BARS IN SPANS ARE TAKEN ALONG C/L BRIDGE.

PLACE TRANSVERSE BAR RADIALLY ALONG THE CURVE.

CURB NOT SHOWN FOR CLARITY

LEGEND

* DIMENSION IS MEASURED ALONG ℄ AUTUMN RIDGE PATH.

** DIMENSION IS MEASURED ALONG EDGE OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD	PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 36 OF 52

205

8

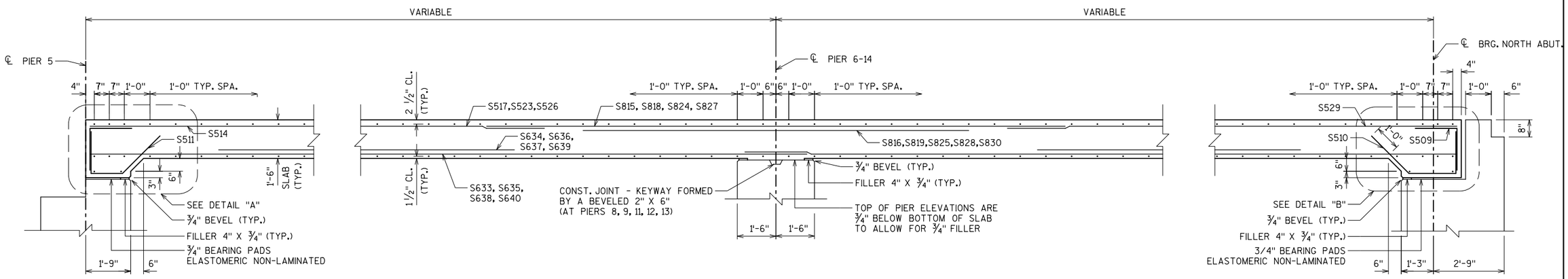
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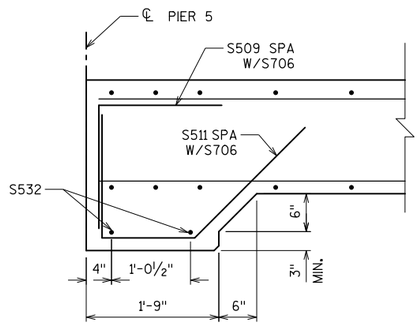
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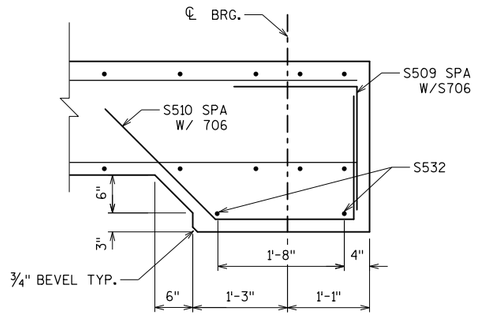
5992-11-11



PART LONGITUDINAL SECTION SPANS 6-15



DETAIL "A"



DETAIL "B"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 37 OF 52

206

8

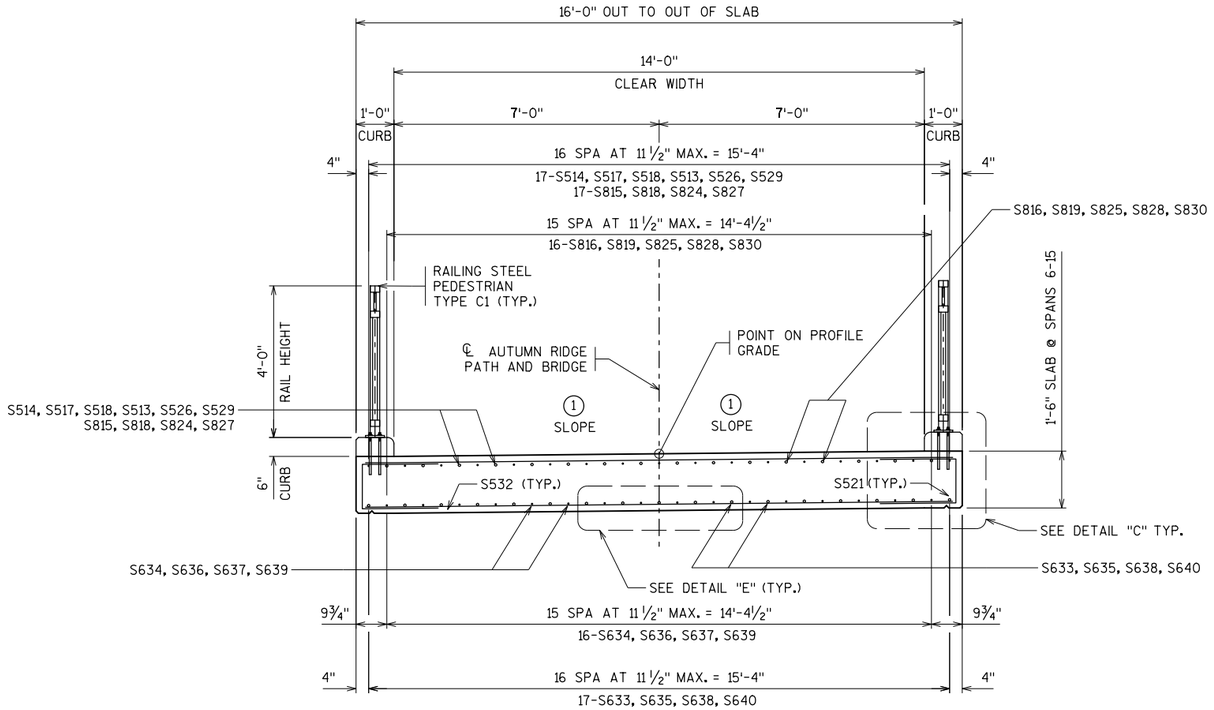
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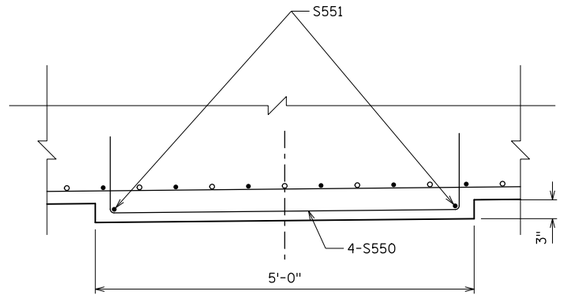
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5992-11-11



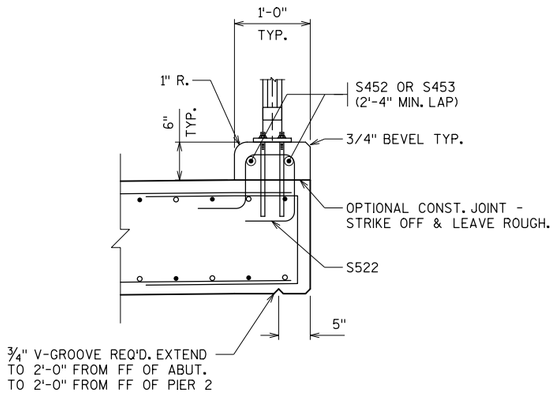
FIXED TYPICAL SECTION - SPANS 6-15

NORTH APPROACH SPANS
(LOOKING UPSTATION)



DETAIL E AT EXPANSION JOINT

AT PIERS 8, 9, 11, 12, 13



DETAIL "C"

NOTES

ALL HORIZONTAL DIMENSIONS IN CROSS SECTION VIEWS ARE MEASURED PERPENDICULAR TO C/L AUTUMN RIDGE

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

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

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

(1) SLOPE VARIES, SEE SUPERELEVATION TABLE ON SHEET 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SPAN 6-15
SUPERSTRUCTURE

SHEET 38 OF 52
207

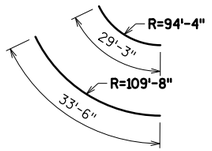
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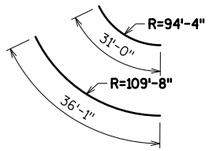
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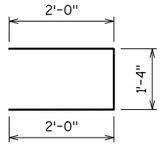
STATE PROJECT NUMBER
5992-11-11



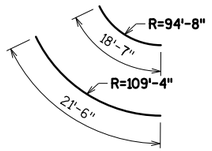
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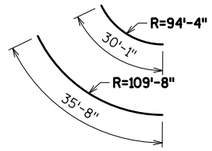
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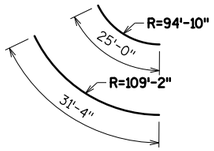
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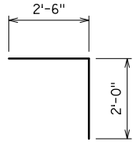
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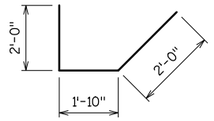
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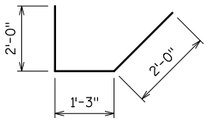
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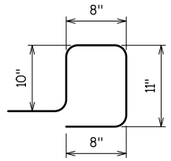
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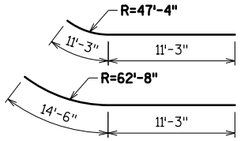
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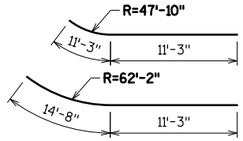
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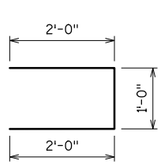
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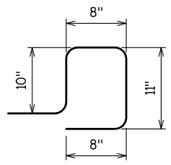
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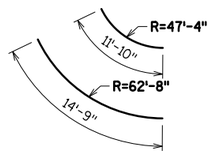
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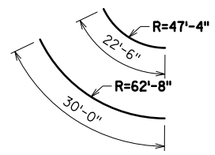
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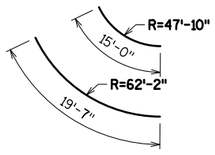
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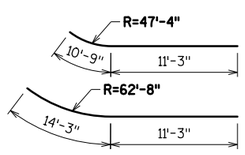
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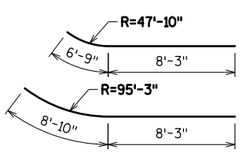
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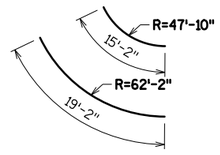
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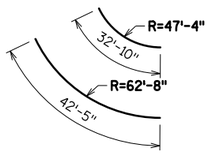
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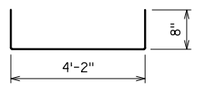
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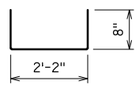
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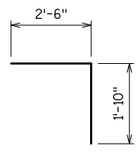
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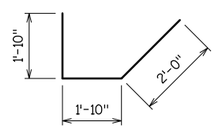
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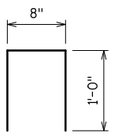
S551



S554



S555



S567

BILL OF BARS — SUPERSTRUCTURE SPAN 1 - 2

BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
S501	X	40	31 - 5	X	X	LONGITUDINAL TOP SPAN 1-2
S902	X	20	33 - 7	X	X	LONGITUDINAL TOP SPAN 1-2
S503	X	187	15 - 6			TRANSVERSE TOP & BOTTOM SPAN 1-2
S504	X	186	5 - 1		X	TRANSVERSE EDGE SPAN 1-2
S905	X	19	20 - 1	X	X	LONGITUDINAL TOP OVER PIER 2
S706	X	51	33 - 3	X	X	LONGITUDINAL BOTTOM SPAN 1-2
S707	X	32	28 - 2	X	X	LONGITUDINAL BOTTOM SPAN 1-2
S509	X	32	4 - 10		X	BEARING AT S. ABUTMENT
S510	X	16	5 - 10		X	BEARING AT S. ABUTMENT
S511	X	16	5 - 3		X	BEARING AT PIER 3
S512	X	186	3 - 4		X	TRANSVERSE CURB SPAN 1-2
S413	X	4	46 - 2			LONGITUDINAL CURB SPAN 1-2

BILL OF BARS — SUPERSTRUCTURE SPAN 6 - 15

BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
S514	X	13	18 - 6			LONGITUDINAL TOP SPAN 6
S815	X	51	22 - 6			LONGITUDINAL TOP PIER 6, 7 & 14
S816	X	32	15 - 0			LONGITUDINAL TOP PIER 7 & 14
S517	X	34	17 - 0			LONGITUDINAL TOP SPAN 7 & 8
S818	X	17	24 - 4	X	X	LONGITUDINAL TOP PIER 8
S819	X	16	16 - 2	X	X	LONGITUDINAL TOP PIER 8
S520	X	341	15 - 6			TRANSVERSE TOP SPAN 6 -15
S521	X	678	4 - 9		X	TRANSVERSE EDGE SPAN 6 - 15
S522	X	678	3 - 4		X	TRANSVERSE CURB SPAN 6 - 15
S523	X	85	13 - 4	X	X	LONGITUDINAL TOP SPAN 9 - 13
S824	X	68	26 - 3	X	X	LONGITUDINAL TOP PIER 9 - 12
S825	X	64	17 - 4	X	X	LONGITUDINAL TOP PIER 9 - 12
S526	X	17	16 - 0			LONGITUDINAL TOP SPAN 14
S827	X	17	24 - 3	X	X	LONGITUDINAL TOP PIER 13
S828	X	16	16 - 1	X	X	LONGITUDNIAL TOP PIER 13
S529	X	17	18 - 6			LONGITUDINAL TOP SPAN 15
S830	X	16	15 - 0			LONGITUDINAL TOP PIER 14
S532	X	343	15 - 6			TRANSVERSE BOTTOM SPAN 6 - 15
S633	X	30	29 - 4			LONGITUDINAL BOTTOM SPAN 6 & 15
S634	X	32	12 - 8			LONGITUDINAL BOTTOM SPAN 6 & 15
S635	X	34	38 - 0			LONGITUDINAL BOTTOM SPAN 7 - 8
S636	X	32	14 - 8			LONGITUDINAL BOTTOM SPAN 7 - 8
S637	X	80	17 - 2	X	X	LONGITUDINAL BOTTOM SPAN 9 - 13
S638	X	85	37 - 8	X	X	LONGITUDINAL BOTTOM SPAN 9 - 13
S639	X	16	13 - 8			LONGITUDINAL BOTTOM SPAN 14
S640	X	17	37 - 0			LONGITUDINAL BOTTOM SPAN 14
S550	X	20	5 - 4		X	EXPANSION KEY
S551	X	10	3 - 8		X	EXPANSION KEY
S452	X	26	50 - 0			CURB REINFORCEMENT
S453	X	4	31 - 10			CURB REINFORCEMENT
S554	X	32	4 - 10		X	BEARING PIER 5 AND N ABUT
S555	X	32	4 - 11		X	BEARING PIER 5 AND N ABUT
S561	X	2	8 - 6			TOP TRANSVERSE AT DRAINS
S562	X	4	2 - 10			LONGITUDINAL TOP AT DRAINS
S563	X	4	14 - 2			LONGITUDINAL TOP AT DRAINS
S564	X	2	11 - 8			BOTTOM TRANSVERSE AT DRAINS
S665	X	4	2 - 10			LONGITUDINAL BOTTOM AT DRAINS
S666	X	4	24 - 7			LONGITUDINAL BOTTOM AT DRAINS
S567	X	4	2 - 10		X	CURB AT DRAIN
S568	X	8	5 - 0			TOP SLAB AT DRAINS
S669	X	8	5 - 0			BOTTOM SLAB AT JUNCTION BOX

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH (FT-IN)	RADUIS
S501	2 SERIES OF 20	29-3 TO 33-6	94-4 TO 109-8
S902	1 SERIES OF 20	31-0 TO 36-1	94-4 TO 109-8
S905	1 SERIES OF 19	18-7 TO 21-6	94-8 TO 109-4
S706	3 SERIES OF 17	30-1 TO 35-8	94-4 TO 109-8
S707	2 SERIES OF 16	25-0 TO 31-4	94-10 TO 109-2

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH (FT-IN)	RADUIS
S818	1 SERIES OF 17	22-6 TO 26-2	47-4 TO 62-8
S819	1 SERIES OF 16	15-0 TO 17-3	47-10 TO 62-2
S523	5 SERIES OF 17	11-10 TO 14-9	47-4 TO 62-8
S824	4 SERIES OF 17	22-6 TO 30-0	47-4 TO 62-8
S825	4 SERIES OF 16	15-0 TO 19-7	47-10 TO 62-2
S827	1 SERIES OF 17	22-6 TO 26-0	47-4 TO 62-8
S828	1 SERIES OF 16	15-0 TO 16-1	47-10 TO 62-2
S637	5 SERIES OF 16	15-2 TO 19-2	47-10 TO 62-2
S638	5 SERIES OF 17	32-10 TO 42-5	47-4 TO 62-8

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT OF BAR.
ALL BAR STEEL REINFORCEMENT SHOWN IN THIS BILL SHALL BE EPOXY COATED.
LENGTH SHOWN FOR BAR IS AN AVG. LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS.
SEE BAR SERIES TABLE FOR ACTUAL LENGTHS

BUNDLE AND TAG EACH SERIES SEPERATELY.
SHORTEST BAR IN EACH SERIES CORRESPONDS TO SHORTESRT RADIUS IN SERIES AND LONGEST BAR IN EACH SERIES CORRESPONDS TO LONGEST RADIUS IN SERIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SUPERSTRUCTURE QUANTITIES

SHEET 39 OF 52
208

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PLOT TIME: 11:33:10 AM
PLOT DATE: 10/11/2023
FILE NAME : X:\KO\M\MADIS\5i1768\5-final-dsgn\5i-drawings\20-Struct\B-13-898\Sheet\bi3898s62.dgn

	S. ABUT.	SPAN 1 - CAMBER TABLE (IN)									PIER 1
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.40	0.80	1.10	1.20	1.20	1.00	0.80	0.40	0.20	0.00
RIGHT EDGE	0.00	0.30	0.60	0.80	0.90	0.90	0.80	0.60	0.30	0.10	0.00

	PIER 1	SPAN 2 - CAMBER TABLE (IN)									PIER 2
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.40	0.70	1.00	1.20	1.30	1.20	0.90	0.50	0.00
RIGHT EDGE	0.00	0.10	0.30	0.50	0.70	0.90	0.90	0.90	0.70	0.40	0.00

	PIER 5	SPAN 6 - CAMBER TABLE (IN)									PIER 6
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.20	0.30	0.30	0.30	0.20	0.20	0.10	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.30	0.30	0.30	0.20	0.20	0.10	0.10	0.00

	PIER 6	SPAN 7 - CAMBER TABLE (IN)									PIER 7
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.30	0.30	0.30	0.30	0.20	0.20	0.10	0.00

	PIER 7	SPAN 8 - CAMBER TABLE (IN)									PIER 8
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.20	0.20	0.30	0.30	0.30	0.20	0.20	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.20	0.30	0.30	0.30	0.20	0.20	0.10	0.00

	PIER 8	SPAN 9 - CAMBER TABLE (IN)									PIER 9
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.30	0.40	0.40	0.40	0.30	0.20	0.10	0.00

	PIER 9	SPAN 10 - CAMBER TABLE (IN)									PIER 10
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0
RIGHT EDGE	0	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0

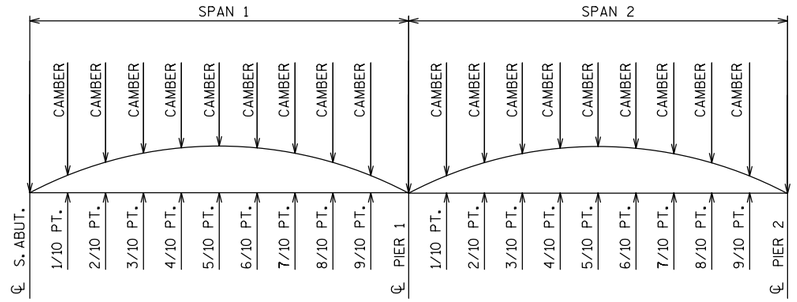
	PIER 10	SPAN 11 - CAMBER TABLE (IN)									PIER 11
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.30	0.40	0.40	0.40	0.30	0.20	0.10	0.00

	PIER 11	SPAN 12 - CAMBER TABLE (IN)									PIER 12
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.30	0.40	0.40	0.40	0.30	0.20	0.10	0.00

	PIER 12	SPAN 13 - CAMBER TABLE (IN)									PIER 13
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.10	0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.00
RIGHT EDGE	0.00	0.10	0.20	0.30	0.40	0.40	0.40	0.30	0.20	0.10	0.00

	PIER 13	SPAN 14 - CAMBER TABLE (IN)									PIER 14
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.10	0.20	0.30	0.30	0.30	0.20	0.10	0.10	0.00
RIGHT EDGE	0.00	0.10	0.10	0.20	0.30	0.30	0.30	0.20	0.10	0.10	0.00

	PIER 14	SPAN 15 - CAMBER TABLE (IN)									N. ABUT
SPAN PT.	0	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	1
LEFT EDGE	0.00	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.20	0.10	0.00
RIGHT EDGE	0.00	0.10	0.10	0.20	0.20	0.30	0.30	0.30	0.20	0.10	0.00

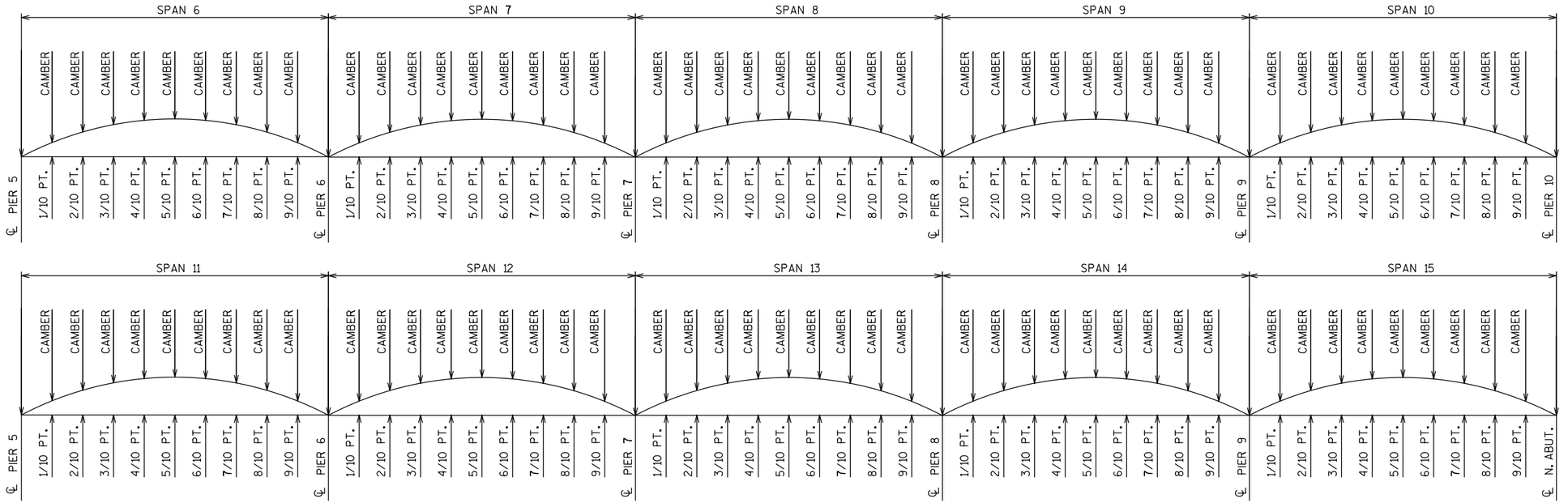


CAMBER AND SLAB THICKNESS DIAGRAM

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

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

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



STATE PROJECT NUMBER

5992-11-11

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SUPERSTRUCTURE CAMBER DETAILS

SHEET 40 OF 52

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PLOT DATE: 10/11/2023 PLOT TIME: 11:34:05 AM

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STATE PROJECT NUMBER
5992-11-11

SURVEY TOP OF SLAB ELEVATIONS

	LEFT GUTTER	CROWN C/L	RIGHT GUTTER
S. ABUT.			
0.5 PT.			
PIER 1			
0.5 PT.			
PIER 2			
0.5 PT.			
PIER 3			
0.5 PT.			
PIER 4			
0.5 PT.			
PIER 5			
0.5 PT.			
PIER 6			
0.5 PT.			
PIER 7			
0.5 PT.			
PIER 8			
0.5 PT.			
PIER 9			
0.5 PT.			
PIER 10			
0.5 PT.			
PIER 11			
0.5 PT.			
PIER 12			
0.5 PT.			
PIER 13			
0.5 PT.			
PIER 14			
0.5 PT.			
N. ABUT.			

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

FINISHED TOP OF SLAB ELEVATIONS: SPANS 1-5

SPAN PT	STATION	LEFT EDGE OF DECK ELEVATION	CROWN CL ELEVATION	RIGHT EDGE OF DECK ELEVATION
S. ABUT	117+45.00	949.14	949.07	949.00
0.1	117+49.50	949.24	949.17	949.10
0.2	117+54.00	949.34	949.27	949.20
0.3	117+58.50	949.45	949.38	949.31
0.4	117+63.00	949.55	949.48	949.41
0.5	117+67.50	949.65	949.58	949.51
0.6	117+72.00	949.75	949.68	949.61
0.7	117+76.50	949.86	949.79	949.72
0.8	117+81.00	949.96	949.89	949.82
0.9	117+85.50	950.06	949.99	949.92
PIER 1	117+90.00	950.16	950.09	950.02
0.1	117+94.50	950.26	950.19	950.12
0.2	117+99.00	950.37	950.30	950.23
0.3	118+03.50	950.47	950.40	950.33
0.4	118+08.00	950.57	950.50	950.43
0.5	118+12.50	950.67	950.60	950.53
0.6	118+17.00	950.78	950.71	950.64
0.7	118+21.50	950.88	950.81	950.74
0.8	118+26.00	950.98	950.91	950.84
0.9	118+30.50	951.08	951.01	950.94
PIER 2	118+35.00	951.19	951.12	951.05
0.1	118+44.20	951.31	951.33	951.26
0.2	118+53.40	951.46	951.53	951.46
0.3	118+62.60	951.67	951.74	951.67
0.4	118+71.80	951.88	951.95	951.88
0.5	118+81.00	952.09	952.16	952.09
0.6	118+90.20	952.29	952.36	952.29
0.7	118+99.40	952.45	952.52	952.45
0.8	119+08.60	952.60	952.67	952.60
0.9	119+17.80	952.71	952.78	952.71
PIER 3	119+27.00	952.80	952.87	952.80
0.1	119+36.20	952.87	952.94	952.87
0.2	119+45.40	952.91	952.98	952.91
0.3	119+54.60	952.92	952.99	952.92
0.4	119+63.80	952.91	952.98	952.91
0.5	119+73.00	952.87	952.94	952.87
0.6	119+82.20	952.81	952.88	952.81
0.7	119+91.40	952.72	952.79	952.72
0.8	120+00.60	952.61	952.68	952.61
0.9	120+09.80	952.47	952.54	952.47
PIER 4	120+19.00	952.30	952.37	952.30
0.1	120+28.20	952.11	952.18	952.11
0.2	120+37.40	951.90	951.97	951.90
0.3	120+46.60	951.65	951.72	951.65
0.4	120+55.80	951.39	951.46	951.39
0.5	120+65.00	951.09	951.16	951.09
0.6	120+74.20	950.77	950.84	950.77
0.7	120+83.40	950.43	950.50	950.43
0.8	120+92.60	950.06	950.13	950.06
0.9	121+01.80	949.66	949.73	949.66

FINISHED TOP OF SLAB ELEVATIONS: SPANS 6-10

SPAN PT	STATION	LEFT EDGE OF DECK ELEVATION	CROWN CL ELEVATION	RIGHT EDGE OF DECK ELEVATION
PIER 5	121+11.00	949.24	949.31	949.24
0.1	121+13.80	949.10	949.17	949.10
0.2	121+16.60	948.97	949.04	948.97
0.3	121+19.40	948.83	948.90	948.83
0.4	121+22.20	948.69	948.76	948.69
0.5	121+25.00	948.55	948.62	948.55
0.6	121+27.80	948.41	948.48	948.41
0.7	121+30.60	948.27	948.34	948.27
0.8	121+33.40	948.13	948.20	948.13
0.9	121+36.20	947.99	948.06	947.99
PIER 6	121+39.00	947.85	947.92	947.85
0.1	121+42.50	947.67	947.74	947.67
0.2	121+46.00	947.50	947.57	947.50
0.3	121+49.50	947.32	947.39	947.32
0.4	121+53.00	947.15	947.22	947.15
0.5	121+56.50	946.97	947.04	946.97
0.6	121+60.00	946.80	946.87	946.80
0.7	121+63.50	946.62	946.69	946.62
0.8	121+67.00	946.45	946.52	946.45
0.9	121+70.50	946.27	946.34	946.27
PIER 7	121+74.00	946.10	946.17	946.10
0.1	121+77.50	945.92	945.99	945.92
0.2	121+81.00	945.75	945.82	945.75
0.3	121+84.50	945.57	945.64	945.57
0.4	121+88.00	945.40	945.47	945.40
0.5	121+91.50	945.22	945.29	945.22
0.6	121+95.00	945.05	945.12	945.06
0.7	121+98.50	944.87	944.94	944.91
0.8	122+02.00	944.70	944.77	944.77
0.9	122+05.50	944.52	944.59	944.62
PIER 8	122+09.00	944.35	944.42	944.49
0.1	122+12.46	944.18	944.25	944.32
0.2	122+15.93	944.00	944.07	944.14
0.3	122+19.39	943.83	943.90	943.97
0.4	122+22.85	943.66	943.73	943.80
0.5	122+26.32	943.48	943.55	943.62
0.6	122+29.78	943.31	943.38	943.45
0.7	122+33.24	943.14	943.21	943.28
0.8	122+36.70	942.96	943.03	943.10
0.9	122+40.17	942.79	942.86	942.93
PIER 9	122+43.63	942.62	942.69	942.76
0.1	122+47.09	942.44	942.51	942.58
0.2	122+50.55	942.27	942.34	942.41
0.3	122+54.00	942.10	942.17	942.24
0.4	122+57.46	941.92	941.99	942.06
0.5	122+60.92	941.75	941.82	941.89
0.6	122+64.38	941.58	941.65	941.72
0.7	122+67.84	941.41	941.48	941.55
0.8	122+71.29	941.23	941.30	941.37
0.9	122+74.75	941.06	941.13	941.20

FINISHED TOP OF SLAB ELEVATIONS: SPANS 11-14

SPAN PT	STATION	LEFT EDGE OF DECK ELEVATION	CROWN CL ELEVATION	RIGHT EDGE OF DECK ELEVATION
PIER 10	122+78.21	940.89	940.96	941.03
0.1	122+81.67	940.71	940.78	940.85
0.2	122+85.13	940.54	940.61	940.68
0.3	122+88.58	940.37	940.44	940.51
0.4	122+92.04	940.19	940.26	940.33
0.5	122+95.50	940.02	940.09	940.16
0.6	122+98.96	939.85	939.92	939.99
0.7	123+02.42	939.68	939.75	939.82
0.8	123+05.87	939.50	939.57	939.64
0.9	123+09.33	939.33	939.40	939.47
PIER 11	123+12.79	939.16	939.23	939.30
0.1	123+16.25	938.98	939.05	939.12
0.2	123+19.71	938.81	938.88	938.95
0.3	123+23.16	938.64	938.71	938.78
0.4	123+26.62	938.47	938.54	938.61
0.5	123+30.08	938.29	938.36	938.43
0.6	123+33.54	938.12	938.19	938.26
0.7	123+37.00	937.95	938.02	938.09
0.8	123+40.45	937.77	937.84	937.91
0.9	123+43.91	937.60	937.67	937.74
PIER 12	123+47.37	937.43	937.50	937.57
0.1	123+50.83	937.25	937.32	937.39
0.2	123+54.30	937.08	937.15	937.22
0.3	123+57.76	936.91	936.98	937.05
0.4	123+61.22	936.73	936.80	936.87
0.5	123+64.69	936.56	936.63	936.70
0.6	123+68.15	936.39	936.46	936.53
0.7	123+71.61	936.22	936.29	936.36
0.8	123+75.07	936.04	936.11	936.18
0.9	123+78.54	935.87	935.94	936.01
PIER 13	123+82.00	935.70	935.77	935.84
0.1	123+85.40	935.53	935.60	935.67
0.2	123+88.80	935.36	935.43	935.50
0.3	123+92.20	935.19	935.26	935.33
0.4	123+95.60	935.02	935.09	935.16
0.5	123+99.00	934.85	934.92	934.99
0.6	124+02.40	934.68	934.75	934.82
0.7	124+05.80	934.51	934.58	934.65
0.8	124+09.20	934.33	934.40	934.47
0.9	124+12.60	934.16	934.23	934.30
PIER 14	124+16.00	933.99	934.06	934.13
0.1	124+18.80	933.85	933.92	933.99
0.2	124+21.60	933.71	933.78	933.85
0.3	124+24.40	933.57	933.64	933.71
0.4	124+27.20	933.43	933.50	933.57
0.5	124+30.00	933.29	933.36	933.43
0.6	124+32.80	933.15	933.22	933.29
0.7	124+35.60	933.01	933.08	933.15
0.8	124+38.40	932.87	932.94	933.01
0.9	124+41.20	932.73	932.80	932.87
N. ABUT	124+44.00	932.59	932.66	932.73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

SUPERSTRUCTURE
TOP OF DECK
ELEVATIONS

SHEET 41 OF 52

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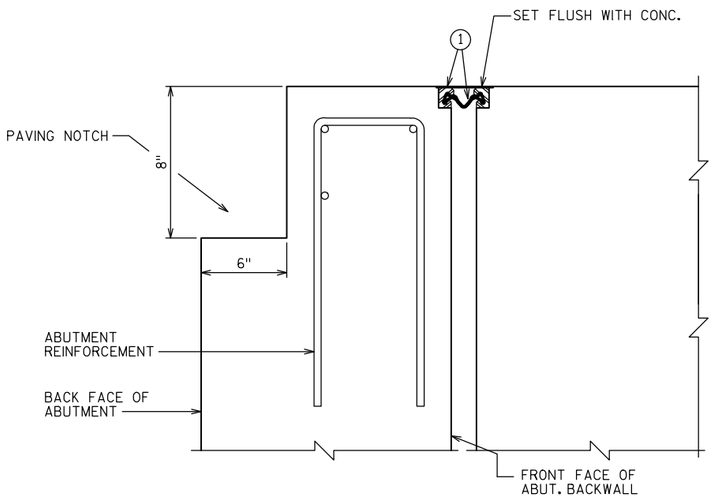
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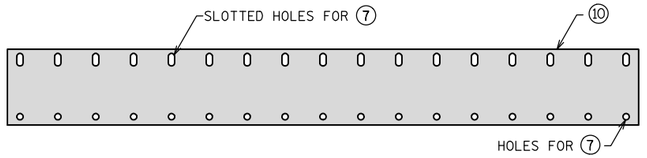
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STATE PROJECT NUMBER
5992-11-11



SECTION THRU JOINT AT ABUTMENT

NORMAL TO ℄ SUBSTRUCTURE



PLAN OF COVER PLATE WITH SLIP-RESISTANT SURFACE

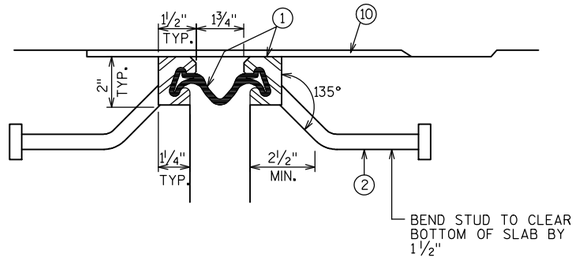
PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SUFACE IN SHADED AREA.

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W.S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

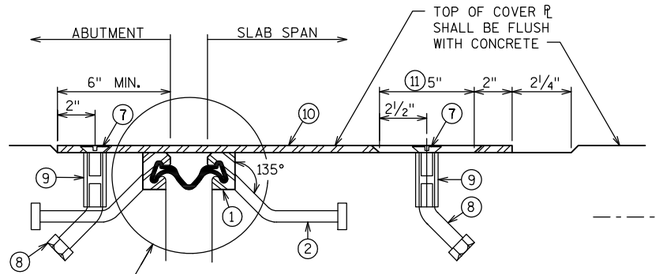
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS $\frac{5}{8}$"ϕ X 6$\frac{3}{8}$" LONG AT 6" CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
7. $\frac{3}{4}$"ϕ X 1$\frac{1}{2}$" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS $\frac{1}{16}$" BELOW PLATE SURFACE.
8. $\frac{3}{4}$"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. $\frac{3}{4}$"ϕ X 2$\frac{1}{4}$" GALVANIZED THREADED COUPLING.
10. GALVANIZED PLATE $\frac{3}{8}$" X 2'-0" X LIMITS SHOWN, WITH HOLES FOR #7
11. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR #7. SLOT PARALLEL TO DIRECTION OF MOVEMENT

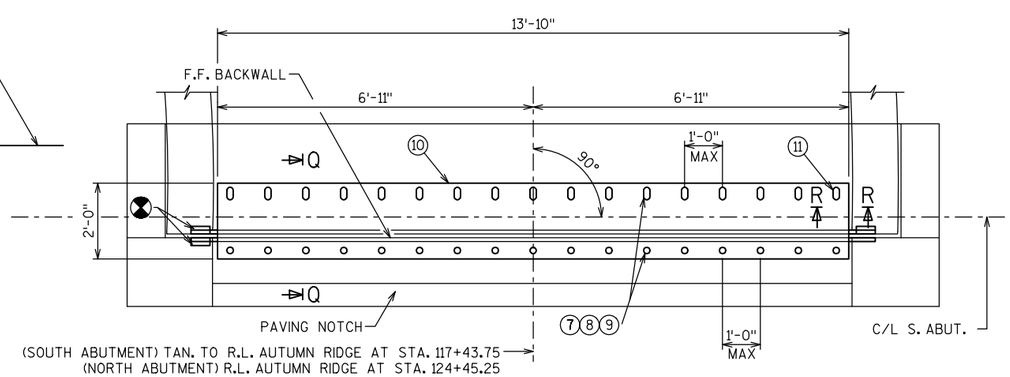
⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING



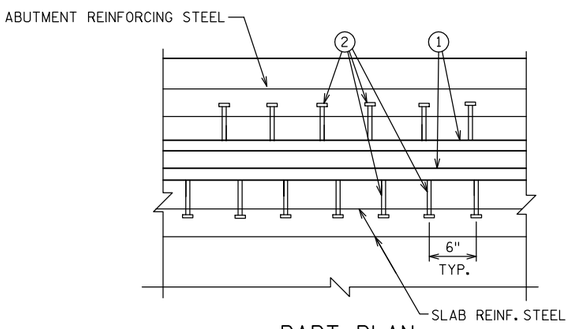
SECTION THRU JOINT DETAIL



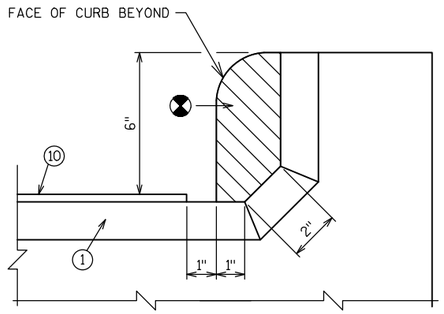
SECTION Q-Q
SECTION THRU JOINT



ABUTMENT PLAN



PART PLAN



SECTION R-R
SECTION THRU JOINT AT CURB

GENERAL NOTES

NO FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS.
NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

THE EXPANSION DEVICE MANUFACTURER SHALL PROVIDE A MECHANISM TO SUPPORT THE JOINT IN PLACE DURING THE CONCRETE POUR.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-13-898".

PLACE SLIP RESISTANT SURFACE ON TOP WALKING SURFACE. SEE DETAIL THIS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

EXPANSION DEVICE AT ABUTMENTS

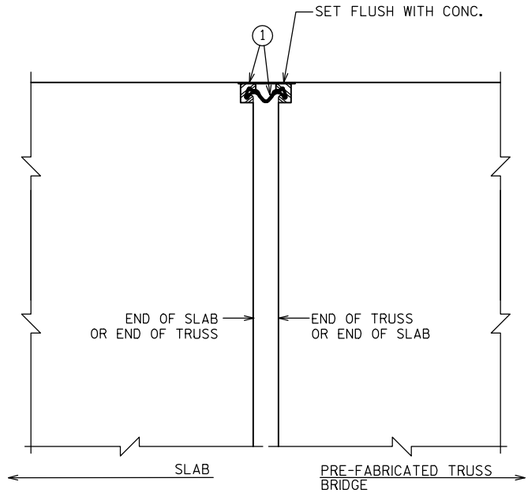
SHEET 42 OF 52

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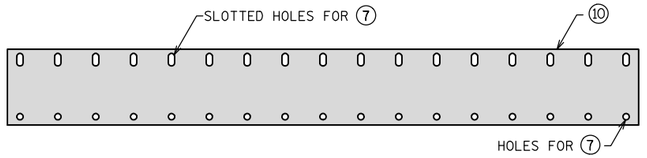
STATE PROJECT NUMBER

5992-11-11



SECTION THRU JOINT AT PIER 2

NORMAL TO ℄ SUBSTRUCTURE
(PIER 3, 4, & 5 SIMILAR)



PLAN OF COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP
WALKING SUFACE IN SHADED AREA.

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W.S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

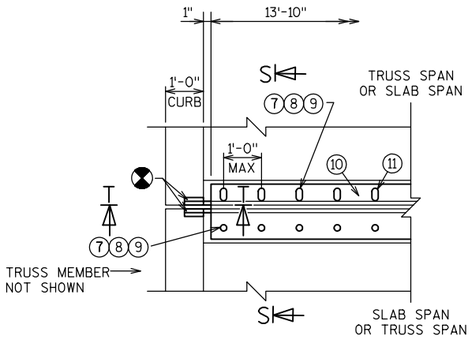
LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS 5/8"ϕ X 6 3/8" LONG AT 6" CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
7. 3/4"ϕ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4"ϕ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4"ϕ X 2 1/4" GALVANIZED THREADED COUPLING.
10. GALVANIZED PLATE 3/8" X 2'-0" X LIMITS SHOWN, WITH HOLES FOR #7
11. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR #7. SLOT PARALLEL TO DIRECTION OF MOVEMENT

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

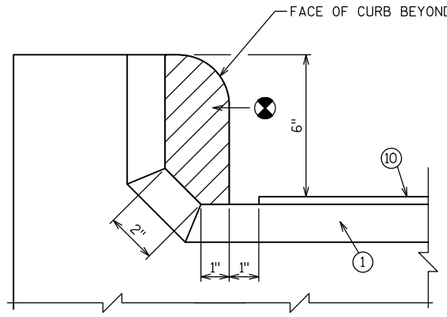
PIER 5 - JOINT OPENING/TEMPERATURE TABLE (IN)								
5°	15°	25°	35°	45°	55°	65°	75°	85°
3 1/8	2 7/8	2 3/4	2 5/8	2 3/8	2 1/4	2 1/8	1 7/8	1 3/4

"A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT THE TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

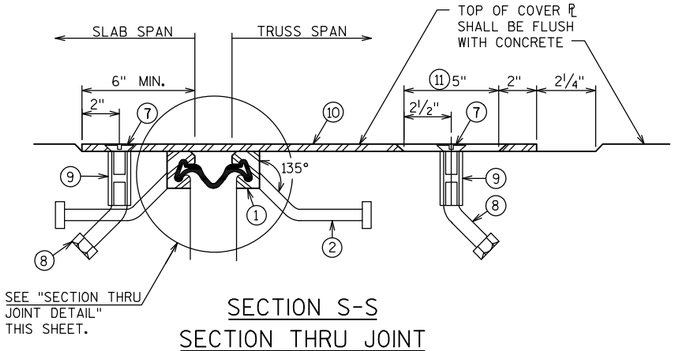


PIER 2 PLAN

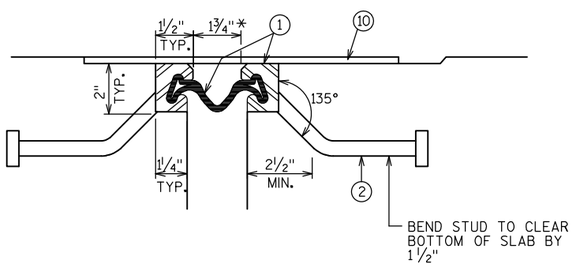
(PIER 3, 4, & 5 SIMILAR)



SECTION T-T
SECTION THRU JOINT AT CURB

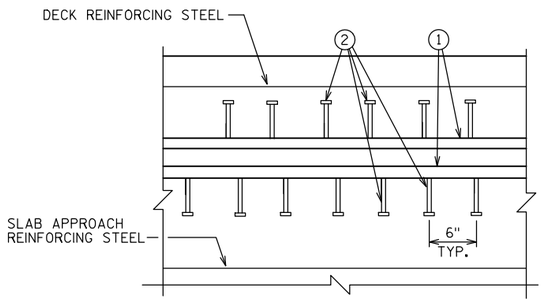


SECTION S-S
SECTION THRU JOINT



SECTION THRU JOINT DETAIL

*SEE TABLE FOR OPENING AT PIER 5



PART PLAN

GENERAL NOTES

NO FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS.
NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES & EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM #8 & #9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

THE EXPANSION DEVICE MANUFACTURER SHALL PROVIDE A MECHANISM TO SUPPORT THE JOINT IN PLACE DURING THE CONCRETE POUR.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-13-653".

PLACE SLIP RESISTANT SURFACE ON TOP WALKING SURFACE. SEE DETAIL THIS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

EXPANSION DEVICE AT PIERS 2-5

SHEET 43 OF 52

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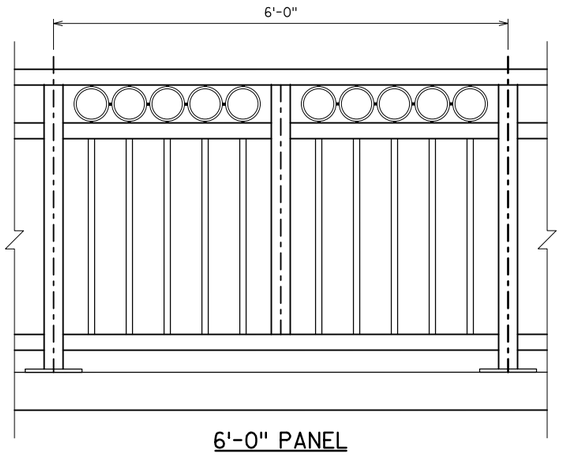
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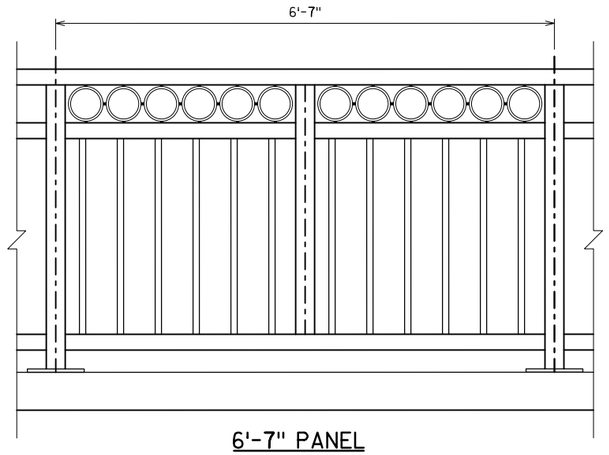
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STATE PROJECT NUMBER

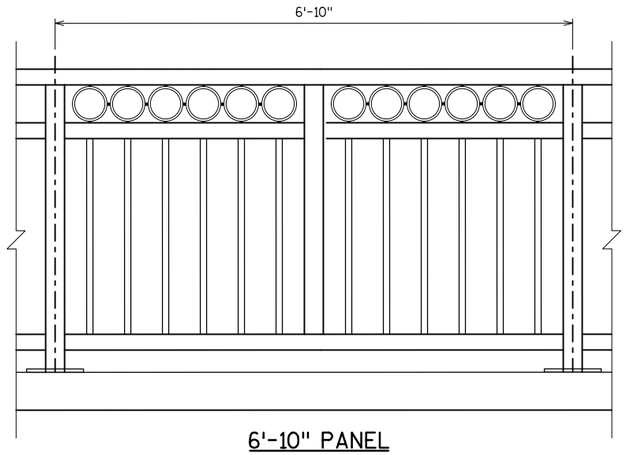
5992-11-11



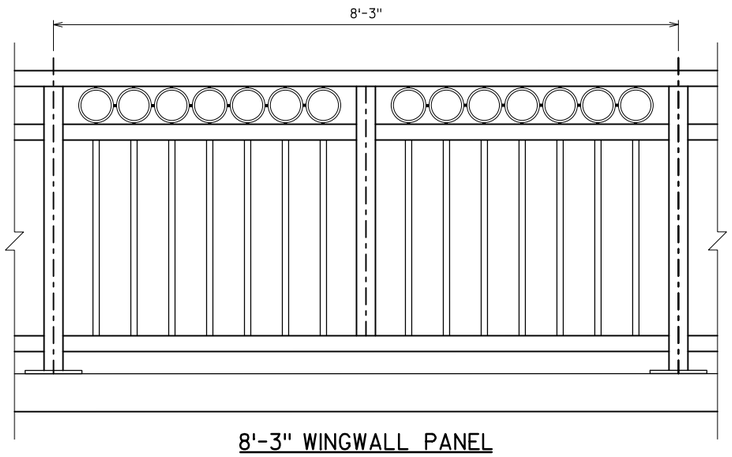
6'-0" PANEL



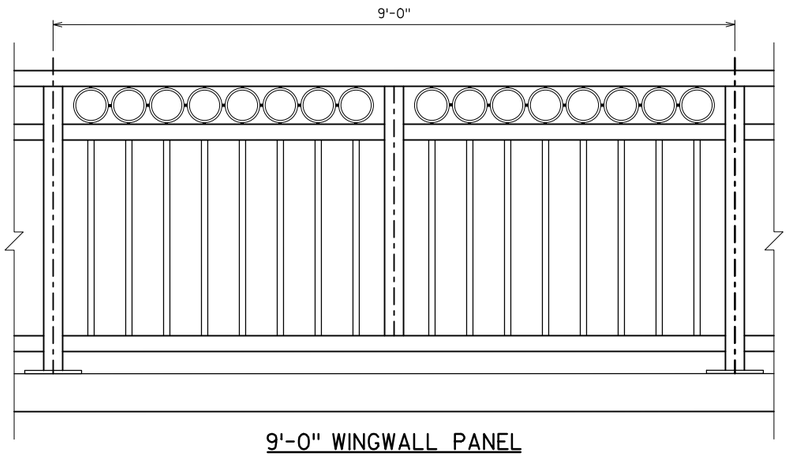
6'-7" PANEL



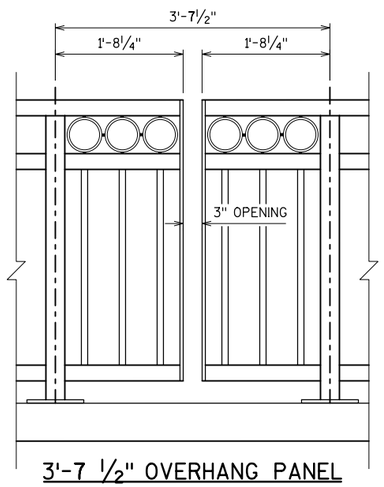
6'-10" PANEL



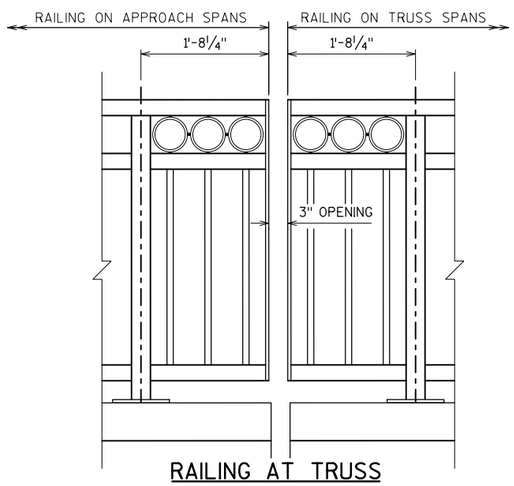
8'-3" WINGWALL PANEL



9'-0" WINGWALL PANEL



3'-7 ½" OVERHANG PANEL



RAILING AT TRUSS

RAILING NOTES & SYMBOLS:

RAILING MEASURED ALONG C/L POSTS.

✳ EXACT LENGTH AND NUMBER OF PANELS ON THE TRUSS SPANS SHALL BE DETERMINED BY THE CONTRACTOR AND TRUSS FABRICATOR. MAXIMUM PICKET SPACING SHALL BE 6" OC. RAILING VERTICALS ARE LINED UP AND CENTERED ON THE TRUSS VERTICAL MEMBERS WITH EVERY OTHER POST LOCATED MIDWAY BETWEEN TRUSS VERTICAL MEMBERS. WHEN TRUSS VERTICAL MEMBERS EXCEED THE 8'-3" MAX RAIL POST SPACING, USE ADDITIONAL INTERMEDIATE RAIL POSTS.

SEE SHEET 45 FOR RAILING DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

RAILING TUBULAR/STEEL DETAILS

SHEET 44 OF 52

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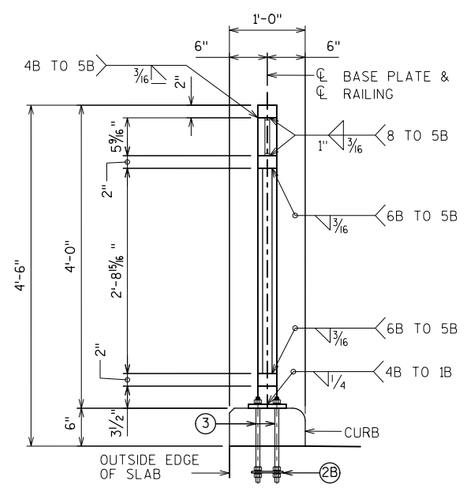
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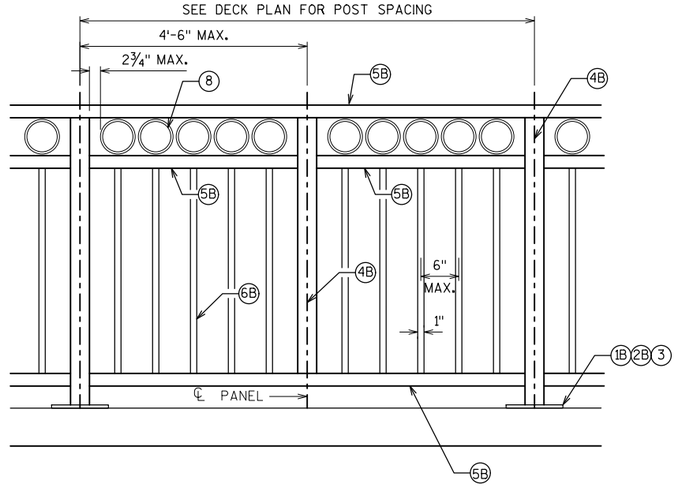
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STATE PROJECT NUMBER

5992-11-11



SECTION THRU CURB ON BRIDGE



TYPICAL ELEVATION RAILING ON CURB

LEGEND

(1B) PLATE 5/8" X 6" X 10" WITH 3/4" X 1 1/2" SLOTTED HOLES.

(2B) 1/4" X 5" X 9" ANCHOR PLATE WITH 11/16" DIA. HOLES FOR THR'D. RODS NO. 3.

(3) 5/8" DIA. X 13 1/2" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 5/8-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

(4B) STRUCTURAL TUBING 3" X 3" X 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.

(5B) STRUCTURAL TUBING 3" X 2" X 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6B) BAR 1" X 1 1/2" PICKETS. WELD TO NO. 5. (SPACE AT 6" MAX. ℄ TO ℄ SPACING) PLACE VERTICAL.

(8) STRUCTURAL TUBING 5" DIA. (STANDARD SIZE) (5.563" O.D.) 1 1/2" LONG SLICES. WELD TO NO. 5A.

(9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

(10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)

NOTES

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

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

BID ITEM SHALL BE "RAILING STEEL TYPE C1", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

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

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

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

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

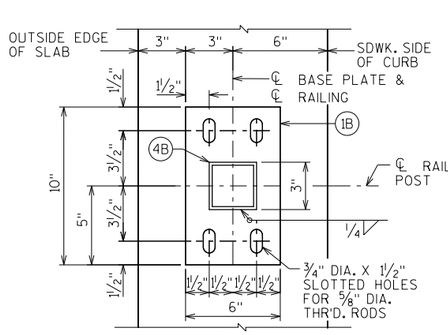
CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

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

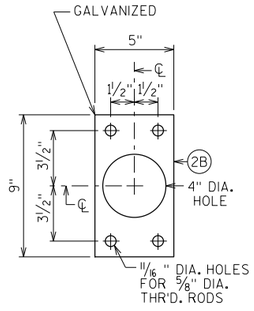
ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED FEDERAL COLOR #27039 (BLACK).

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

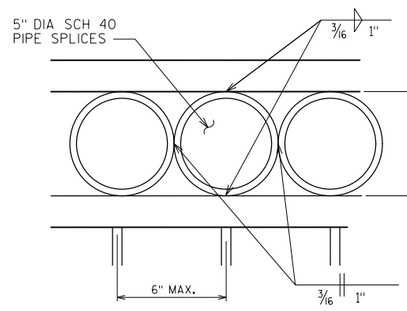
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



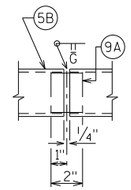
TYPICAL RAIL POST BASE PLATE



ANCHOR PLATE

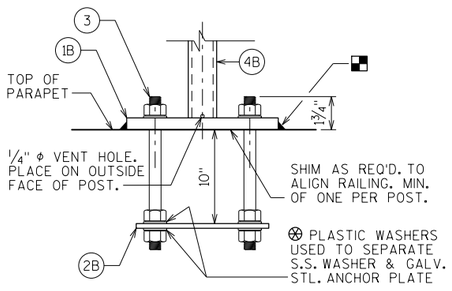


TYP PIPE SPLICE DETAIL



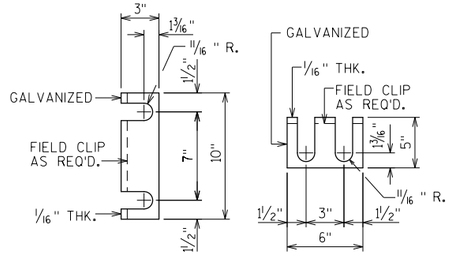
SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



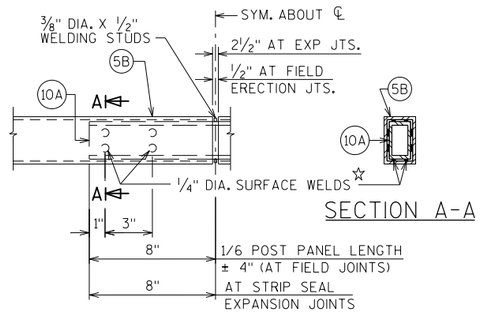
ANCHORAGE FOR RAIL POSTS

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



RAIL POST SHIM DETAIL

(2 SETS PER POST)



SECTION A-A

FIELD ERECTION JOINT DETAIL

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

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STRUCTURE B-13-898

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RAILING TUBULAR/STEEL DETAILS

SHEET 45 OF 52

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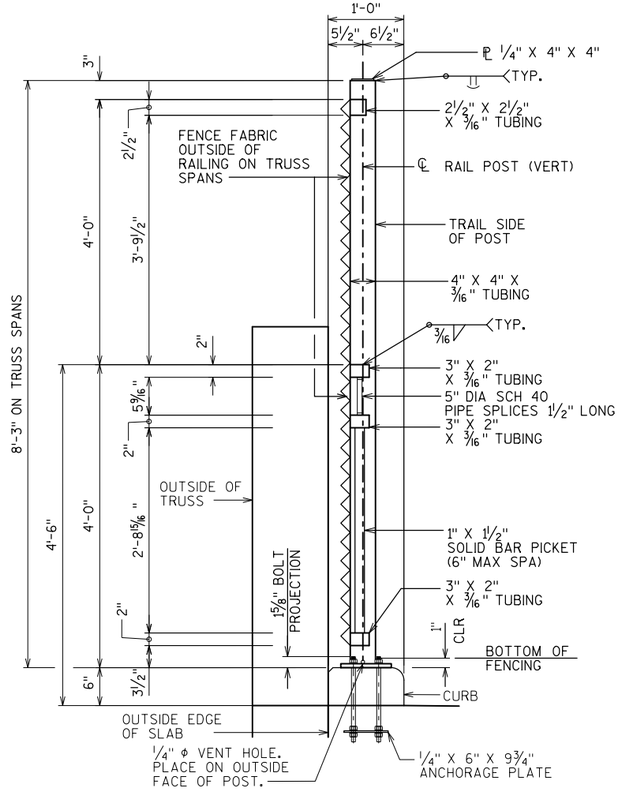
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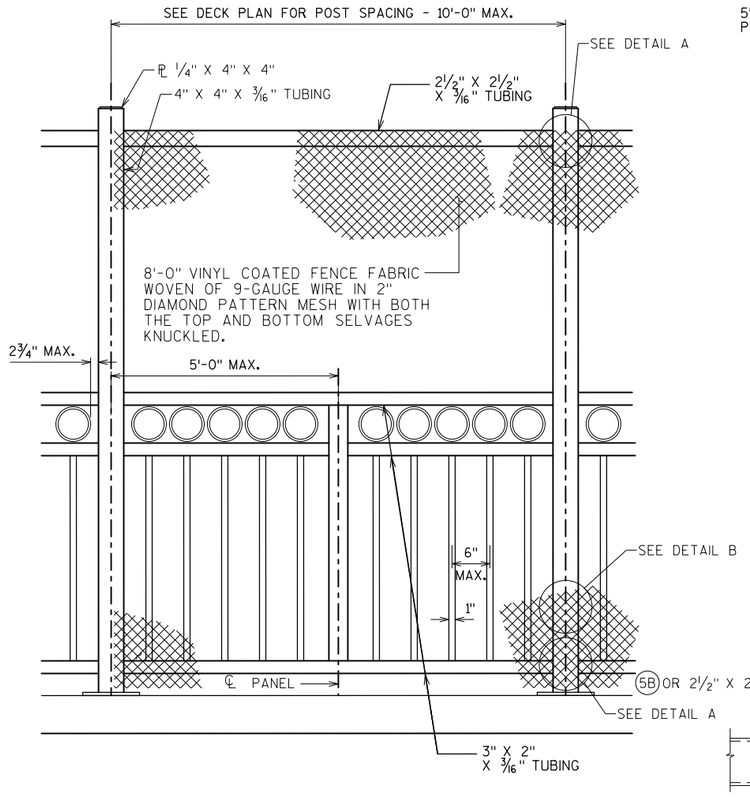
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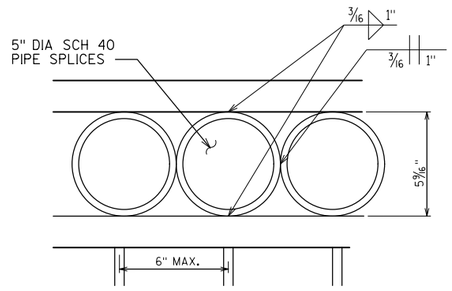
STATE PROJECT NUMBER
5992-11-11



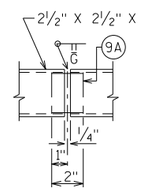
TYPICAL SECTION THRU RAILING



TYPICAL ELEVATION RAILING ON CURB



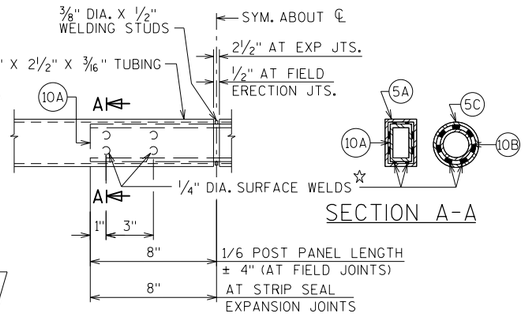
TYP PIPE DETAIL



SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

SEE SHEET 45 FOR LEGEND

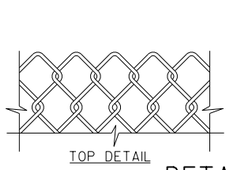


FIELD ERECTION JOINT DETAIL

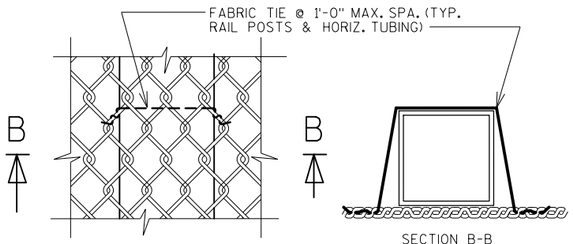
SECTION A-A

☆ MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

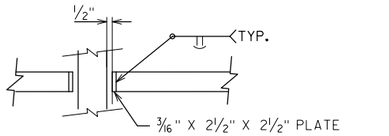
SEE SHEET 45 FOR LEGEND



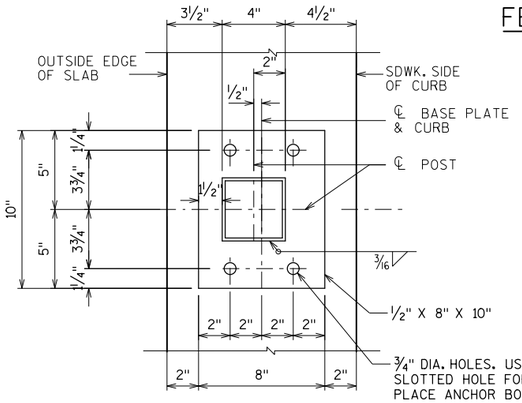
DETAIL A
FENCE FABRIC



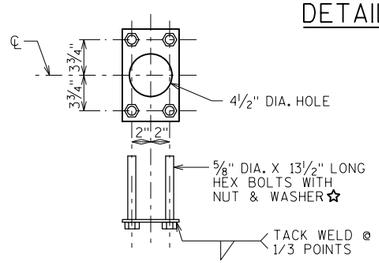
DETAIL B



TYP AT MID-RAIL DETAIL



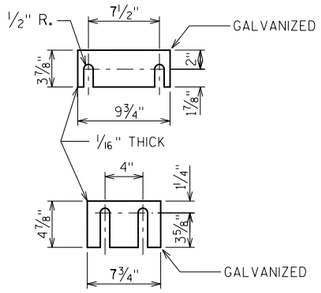
BASE PLATE



ANCHORAGE DETAIL

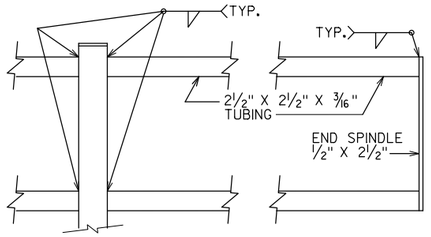
☆ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

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



SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



TYP AT OVERHANG DETAIL AT TOP AND BOTTOM RAILS

NOTES

BID ITEM SHALL BE "RAILING TUBULAR SCREENING, B-13-898" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

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

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

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS VERTICAL.

ALL POST SPA. ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

THE END OF THE FENCE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A TENSION BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.

FENCE FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. FENCE FABRIC AND TIES TO BE VINYL-COATED, COLOR SHALL BE BLACK IN ACCORDANCE WITH ASTM F934.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

RAILING IS TO BE GALVANIZED AND PAINTED.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH TIE COAT AND TOPCOAT (SEE SPECIFICATIONS). COLOR SHALL BE FEDERAL STANDARD 595B, COLOR 27038 (BLACK)

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36. FENCE FABRIC SHALL CONFORM TO F668, CLASS 2B.

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

⅝" DIA. X 13½" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 5/8-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF STANDARD SPECIFICATIONS.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

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STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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RAILING TUBULAR SCREENING DETAILS

SHEET 46 OF 52

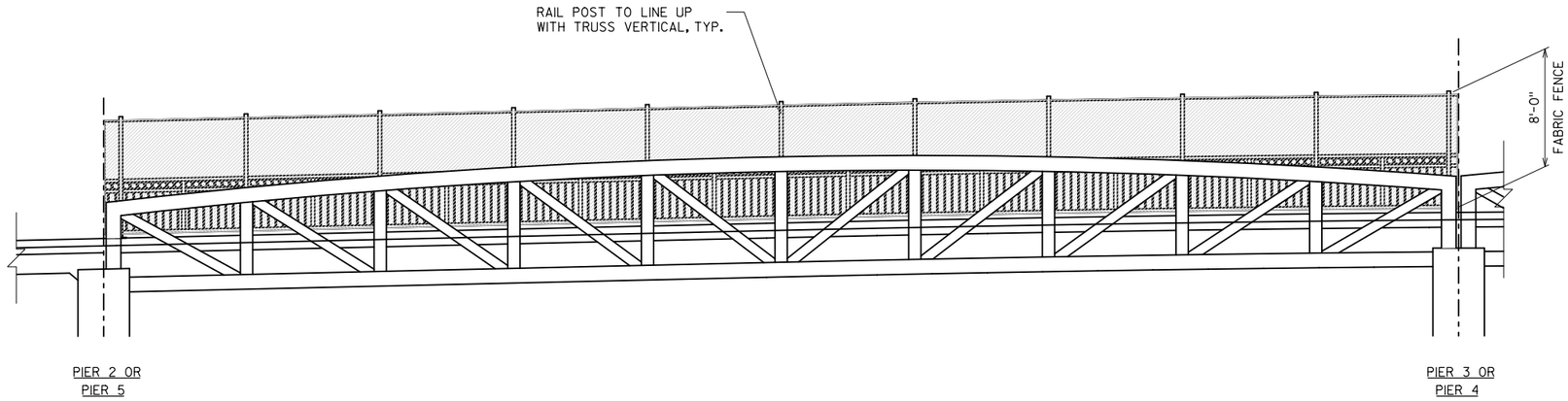
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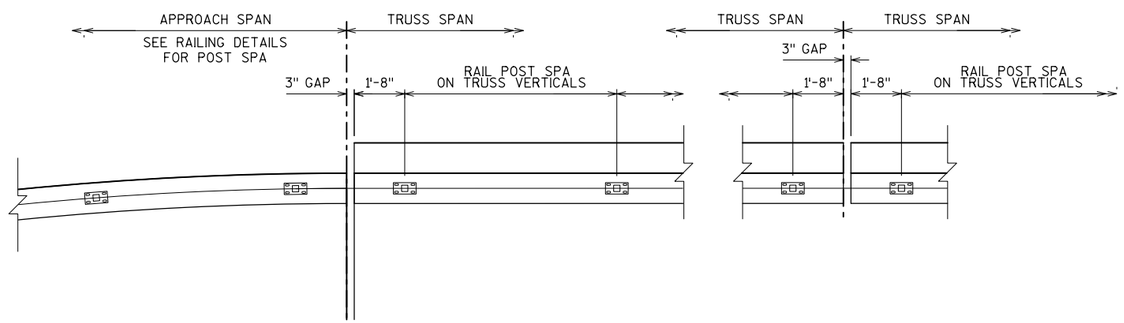


PROTECTIVE SCREENING ELEVATION

NOTES

EXACT LENGTH, MEMBER SIZES, AND NUMBER OF PANELS ON THE TRUSS SPANS SHALL BE DETERMINED BY THE CONTRACTOR AND TRUSS FABRICATOR. MAXIMUM PICKET SPACE SHALL BE 6" OC. RAILING VERTICALS ARE LINED UP AND CENTERED ON THE TRUSS VERTICAL MEMBERS.

RAILING MEASURED ALONG C/L POSTS.



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PROTECTIVE SCREENING DETAILS

SHEET 47 OF 52

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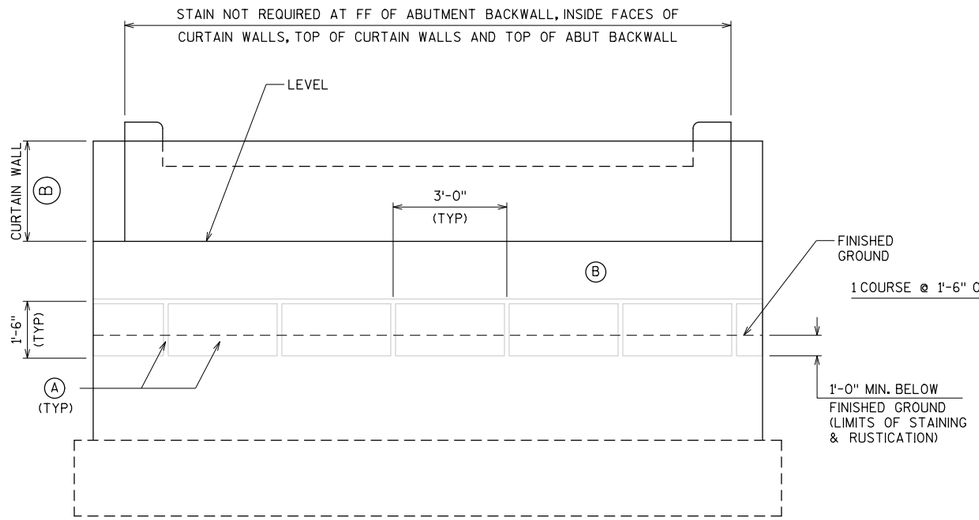
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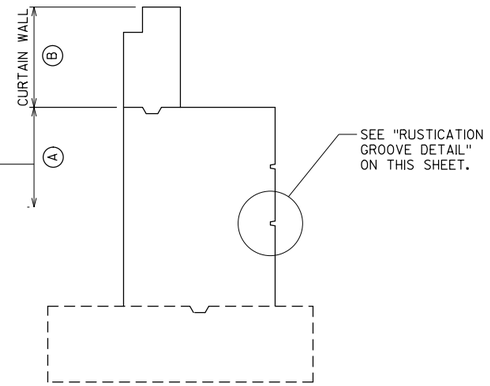
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ELEVATION - SOUTH ABUTMENT

LOOKING DOWN STATION.
NORTH ABUTMENT SIMILAR



END VIEW - SOUTH ABUTMENT

NORTH ABUTMENT SIMILAR

RUSTICATION NOTES

DIMENSIONS FOR RUSTICATION ARE TO CENTER OF JOINT.

USE ¾ CHAMFER ON EXPOSED EDGES OF CONCRETE

STAIN ALL BLOCK AND RUSTICATION GROOVES UNLESS NOTED OTHERWISE.

SEE PIER DETAIL SHEETS FOR DIMENSIONS SPECIFIC TO EACH INDIVIDUAL PIER.

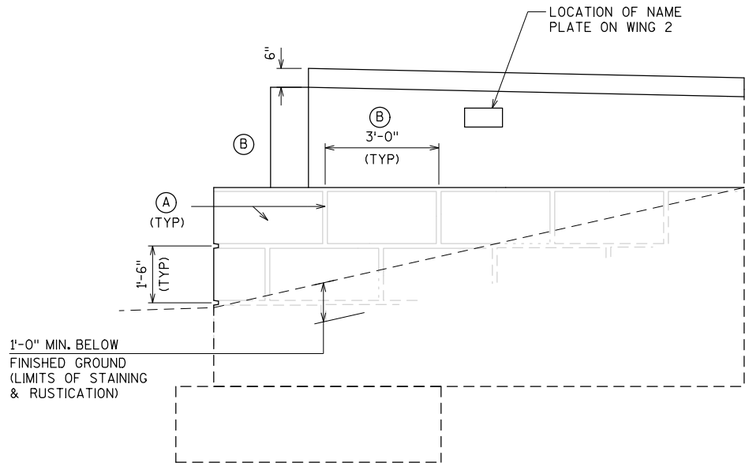
EACH PIERS RUSTICATION BLOCKS SHALL BE LAID OUT ON ENTIRE FACE AND APPROVED BY THE ENGINEER.

ALL RUSTICATION GROVES AND CONCRETE STAINING TO GO A MINIMUM OF 1'-0" BELOW FINISHED GROUND. STAIN ALL BLOCK AND RUSTICATION GROOVES AND SMOOTH SURFACES.

LEGEND

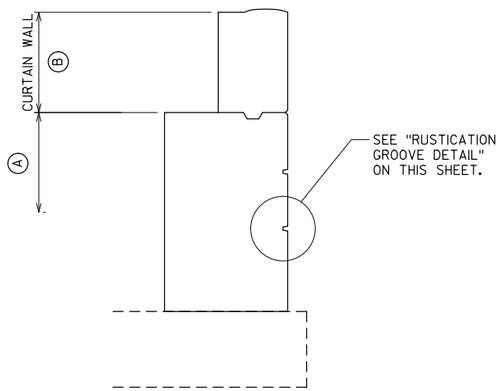
(A) CONCRETE STAIN BASE COLOR, PEARL GRAY, FEDERAL COLOR 26622.

(B) CONCRETE STAIN BASE COLOR, MEDIUM GRAY, FEDERAL COLOR 36373.



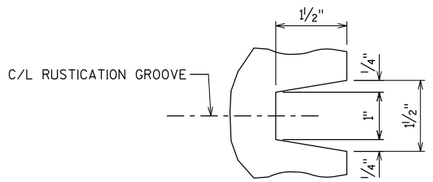
WING ELEVATION - SOUTH ABUTMENT

WING 1 SHOWN, ALL OTHER WING SIMILAR
NORTH ABUTMBER SIMILAR
OMIT ARCHITECTURAL SURFACE TREATMENT IN AREA OF 12"W X 7"H ON WING 2 FOR THE NAME PLATE.



SECTION THRU WING - SOUTH ABUTMENT

NORTH ABUTMENT SIMILAR



RUSTICATION GROOVE

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RUSTICATION DETAILS

SHEET 48 OF 52

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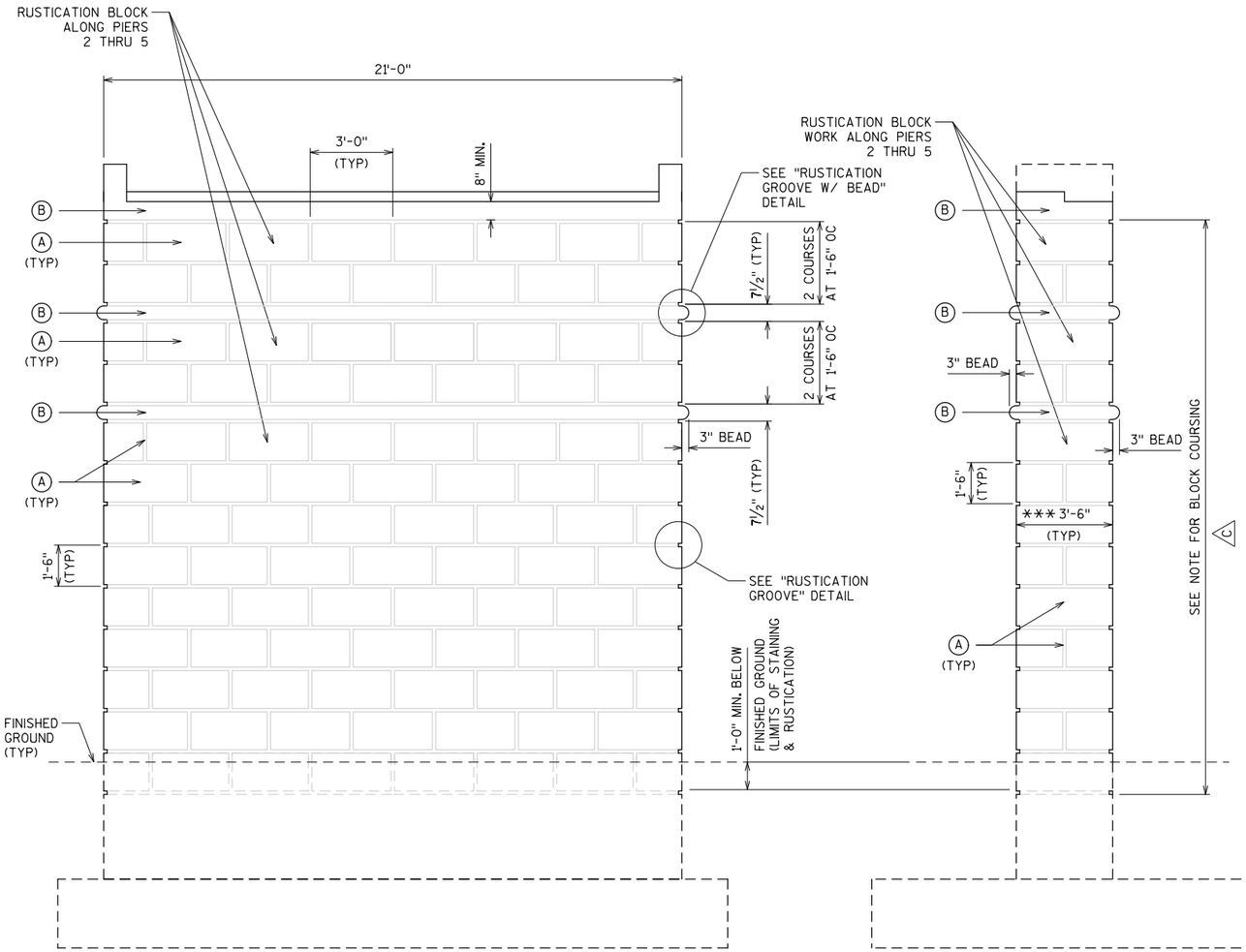
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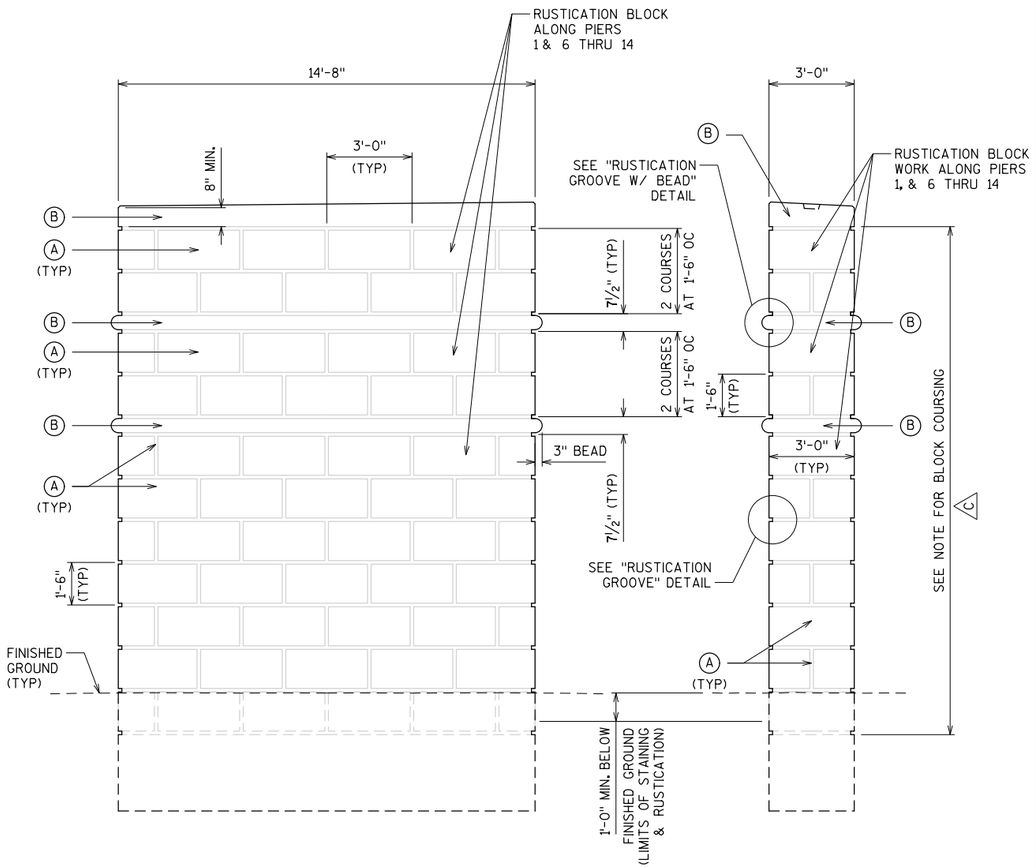


FRONT ELEVATION - PIERS 2 THRU 5

PIER 2, PIERS 3 THRU 5 SIMILAR

SIDE ELEVATION - PIERS 2 THRU 5

PIER 2, PIERS 3 THRU 4 SIMILAR

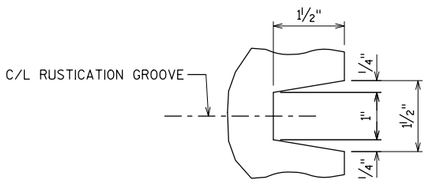


FRONT ELEVATION - PIERS 1 & 6 THRU 14

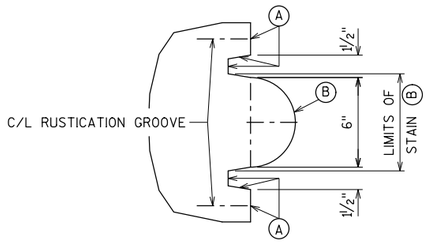
PIER 6, PIERS 7 THRU 14 SIMILAR
PIER 1 SIMILAR RUSTICATION DETAILS

SIDE ELEVATION - PIERS 1 & 6 THRU 14

PIER 6, PIERS 7 THRU 14 SIMILAR
PIER 1 SIMILAR RUSTICATION DETAILS



RUSTICATION GROOVE



RUSTICATION GROOVE W/ BEAD

NOTES

PIER 1 = 6 COURSES
PIER 2 = 13 COURSES
PIER 3 = 12 COURSES
PIER 4 = 13 COURSES
PIER 5 = 10 COURSES
PIER 6 = 10 COURSES
PIER 7 = 8 COURSES
PIER 8 = 7 COURSES
PIER 9 = 6 COURSES
PIER 10 = 5 COURSES
PIER 11 = 4 COURSES
PIER 12 = 3 COURSES
PIER 13 = 3 COURSES
PIER 14 = 1 COURSE

LEGEND

(A) CONCRETE STAIN BASE COLOR, PEARL GRAY, FEDERAL COLOR 26622.

(B) CONCRETE STAIN BASE COLOR, MEDIUM GRAY, FEDERAL COLOR 36373.

△C ADD OR SUBTRACT COURSES TO 1'-0" MIN. BELOW GRADE/GROUND LINE.

*** AT PIERS 2 THRU 5 THE SIDE ELEVATION RUSTICATION BLOCK IS APPROXIMATELY 3'-6" WIDE BY 1'-6" WIDE.

RUSTICATION NOTES

SEE SHEET 48 FOR RUSTICATION NOTES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

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RUSTICATION DETAILS

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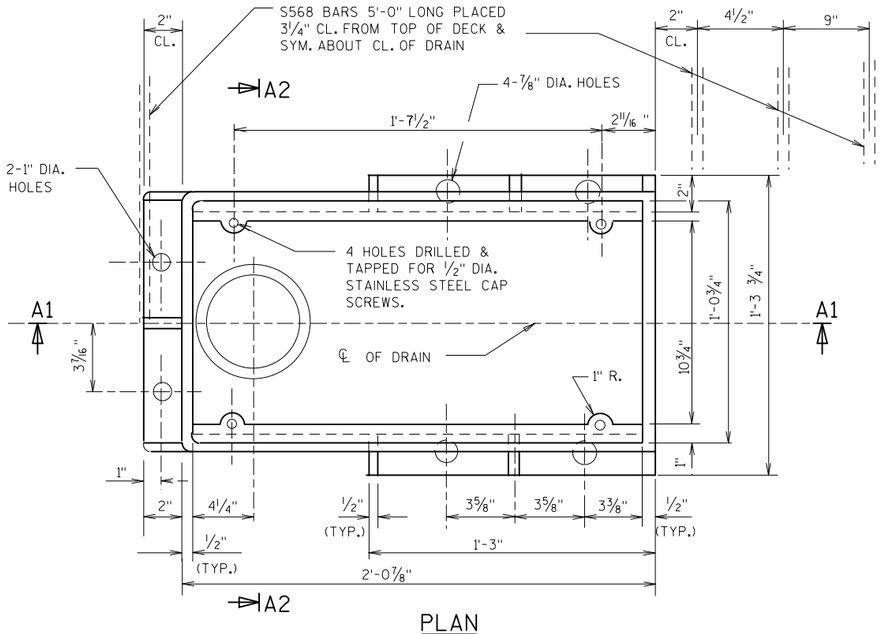
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PLOT DATE: 10/11/2023

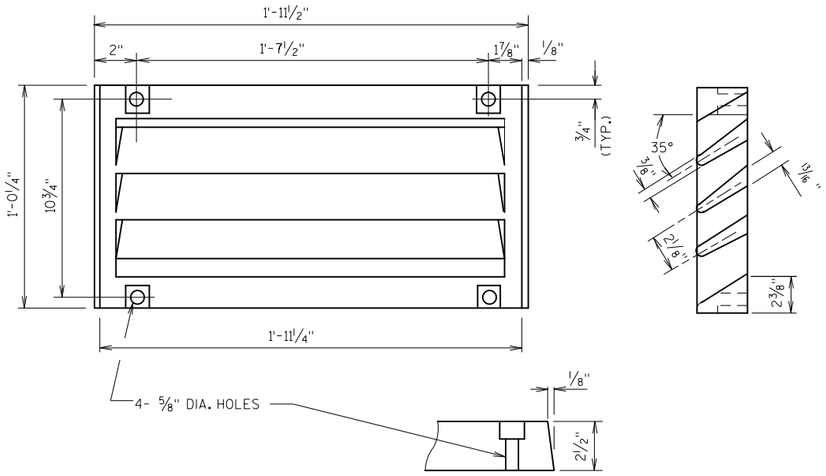
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PLAN



GRATE CASTING DETAIL

ATTACH GRATE TO FRAME FOR SHIPMENT

NOTES

ALL MATERIAL FOR TYPE "GC" CASTING, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30. (APPROXIMATE WEIGHT = 225#)

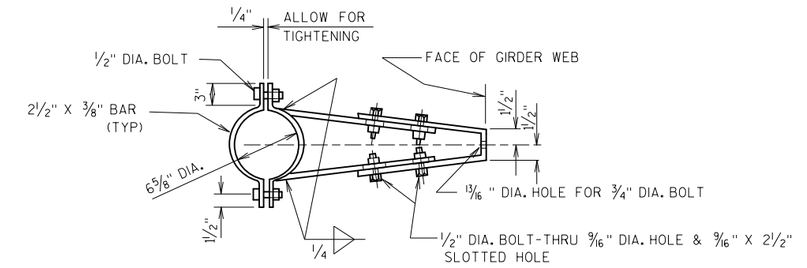
MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

ALL MATERIAL FOR FLOOR DRAINS TO BE INCLUDED IN THE BID ITEM "FLOOR DRAINS TYPE GC".

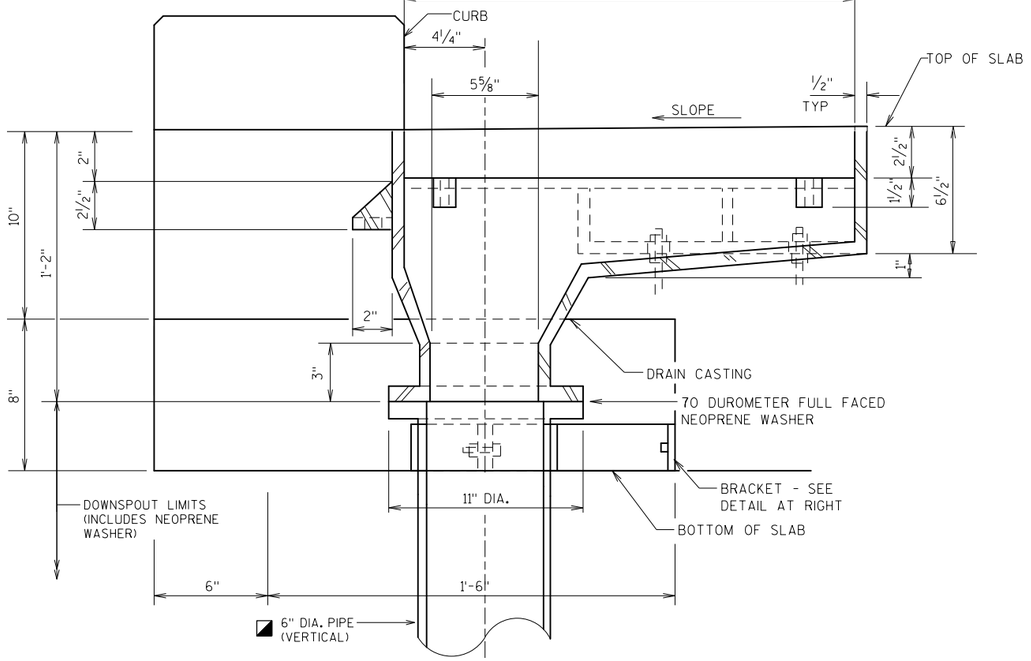
ALL MATERIAL FOR DOWNSPOUTS, DOWNSPOUT CONNECTIONS, AND BRACKETS TO BE INCLUDED IN THE BID ITEM "DOWNSPOUT 6-INCH".

ALTERNATE BRACKETS ARE NOT ALLOWED.

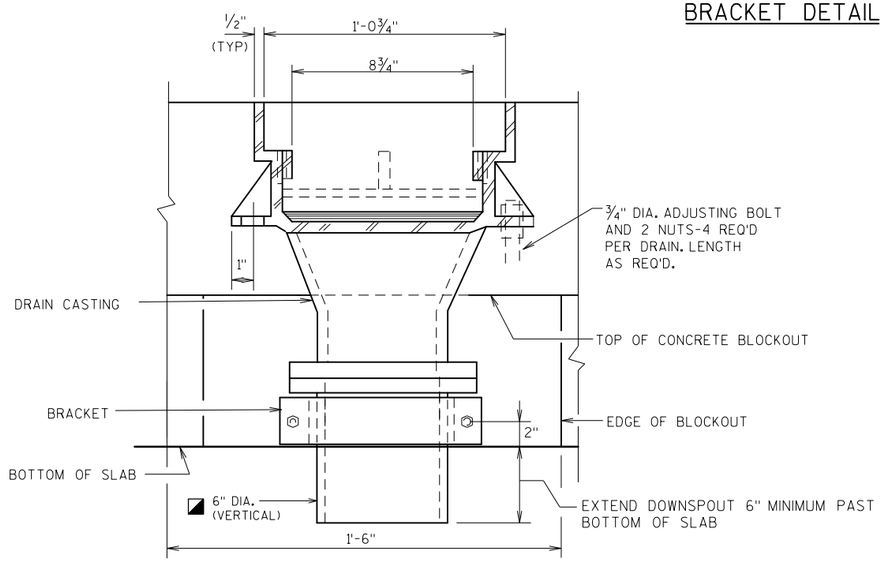
◪ FLANGED 6" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE (RTRP) OR GALVANIZED STANDARD PIPE CONFORMING TO ASTM A53.



BRACKET DETAIL



SECTION A1



SECTION A2

NO.	DATE	REVISION	BY

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STRUCTURE B-13-898

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FLOOR DRAIN TYPE 'GC'

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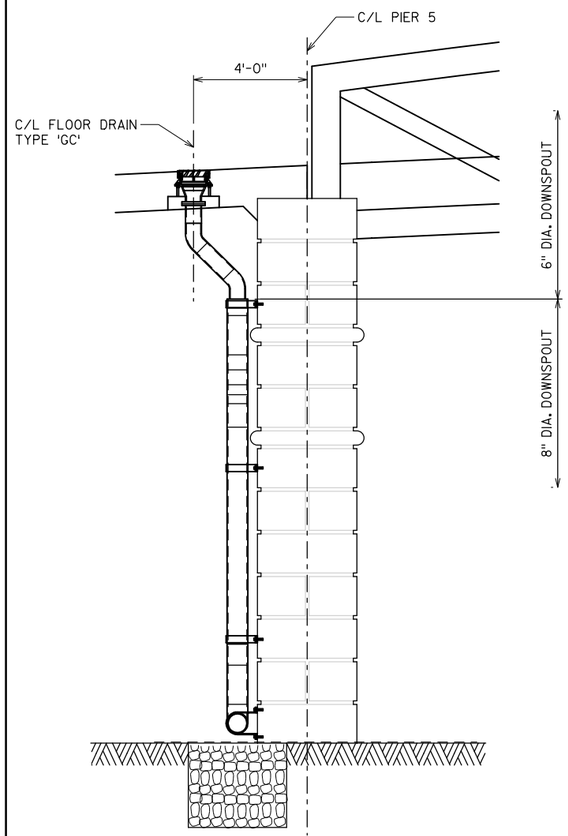
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PLOT DATE: 10/11/2023

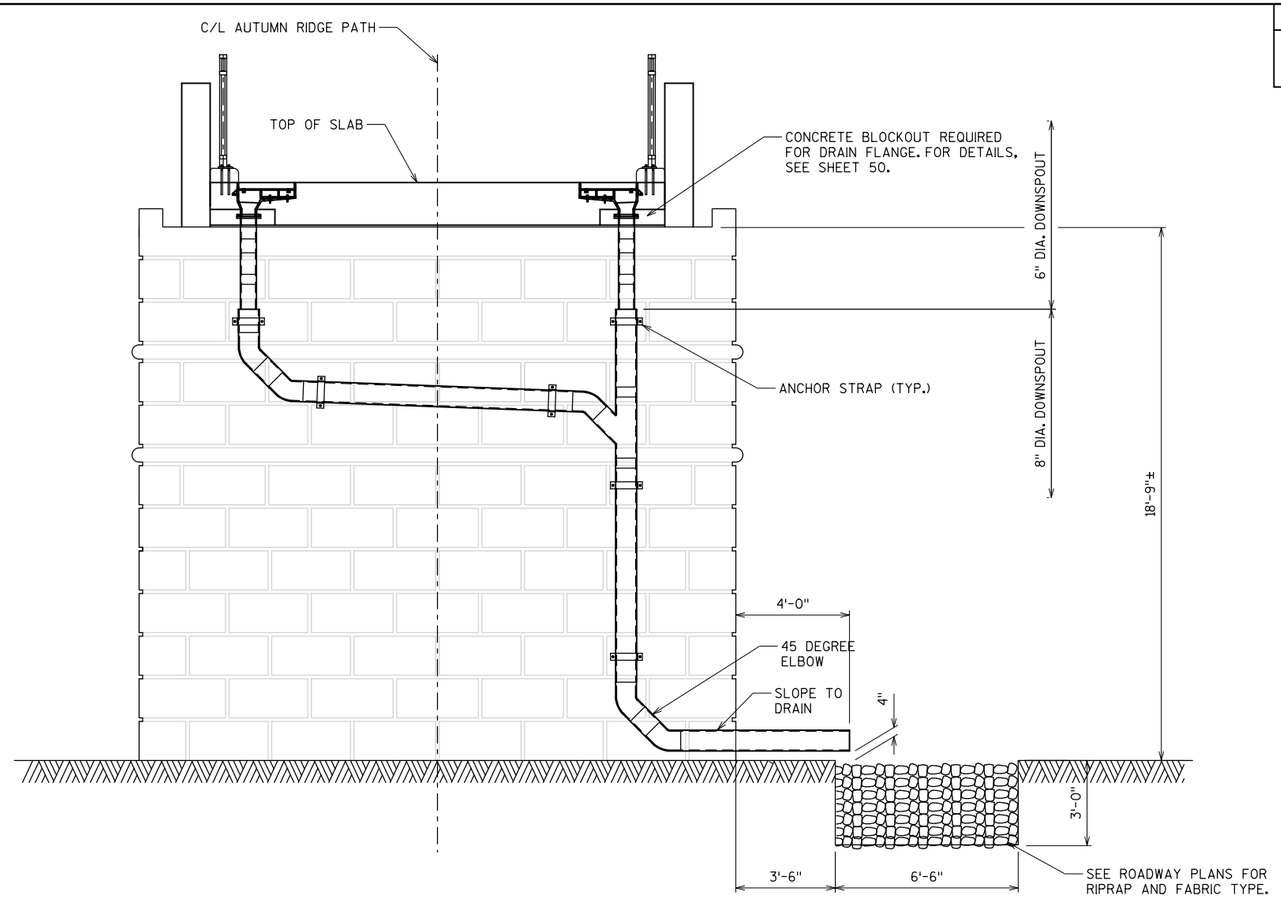
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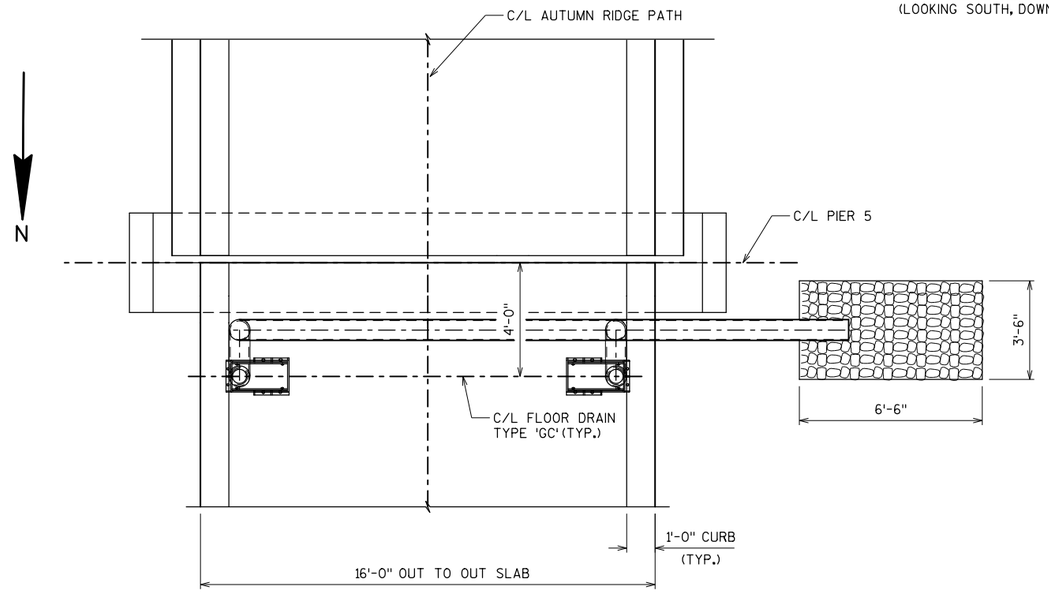
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END VIEW
(LOOKING EAST)



ELEVATION
(LOOKING SOUTH, DOWNSTATION)



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

DRAINAGE DETAILS AT SUBSTRUCTURE

SHEET 51 OF 52

220

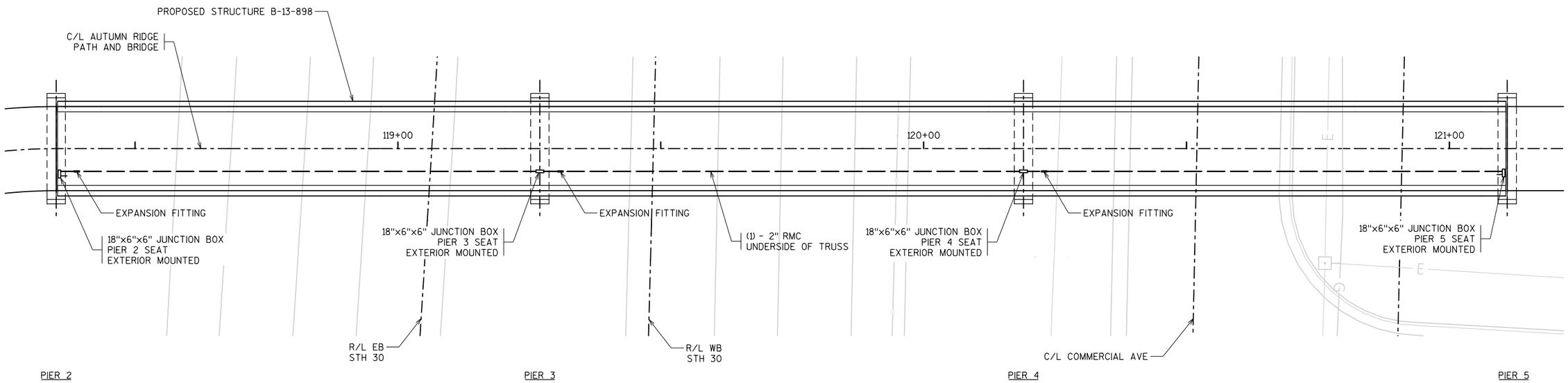
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STATE PROJECT NUMBER
5992-11-11



CONDUIT PLAN

CONDUIT NOTES

JUNCTION BOX REQUIRED AT PIERS 2 THRU 5.

MAXIMUM CONTINUOUS LENGTH WITHOUT JUNCTION BOX IS 190 FEET.

FITTINGS AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE BID ITEM "CONDUIT RIGID METALLIC 2-INCH"

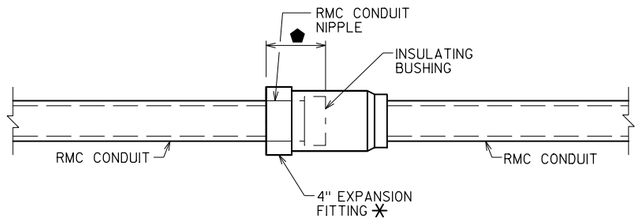
FITTINGS, BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

HANGERS SHALL BE SPACED AT MAXIMUM 10 FT. AND MAY BE EITHER DECK MOUNTED OR CLAMPED TO TRUSS MEMBERS.

CONDUIT SHALL NOT BE INSTALLED BELOW THE BOTTOM CHORD OF TRUSS

BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.



DEFLECTION/EXPANSION AND 4" EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF 4" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY

LEGEND

⬟ POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

✳ EXPANSION FITTING REQUIREMENTS:
- 4" TOTAL MOVEMENT WITH BONDING JUMPER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-898

DRAWN BY NCM/RAD | PLANS CK'D. NCK

JUNCTION BOX AND CONDUIT LAYOUT

SHEET 52 OF 52

221

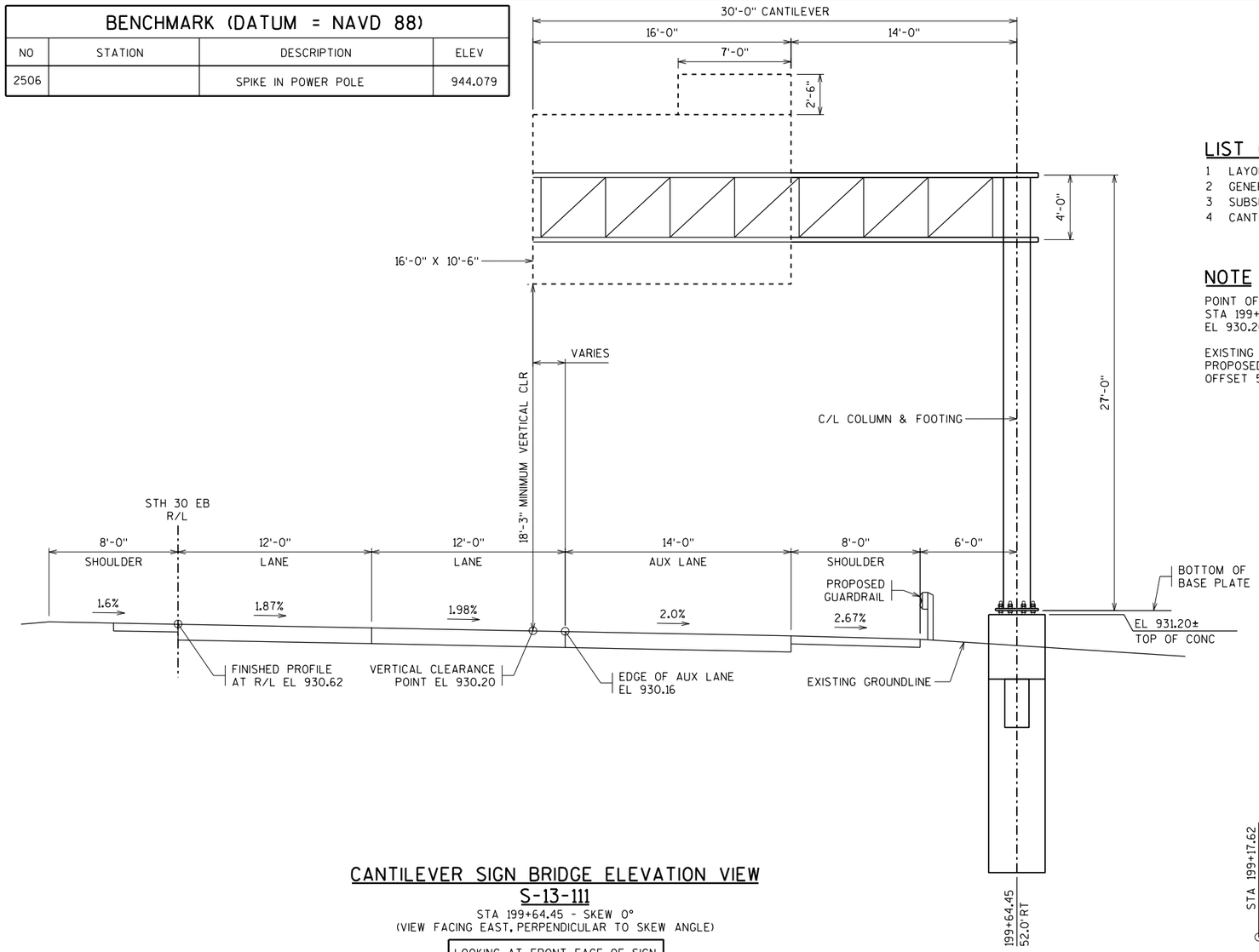
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BENCHMARK (DATUM = NAVD 88)			
NO	STATION	DESCRIPTION	ELEV
2506		SPIKE IN POWER POLE	944.079



LIST OF DRAWINGS

1 LAYOUT S-13-111
2 GENERAL NOTES AND QUANTITIES
3 SUBSURFACE EXPLORATION
4 CANTILEVER TRUSS FOOTING

NOTE

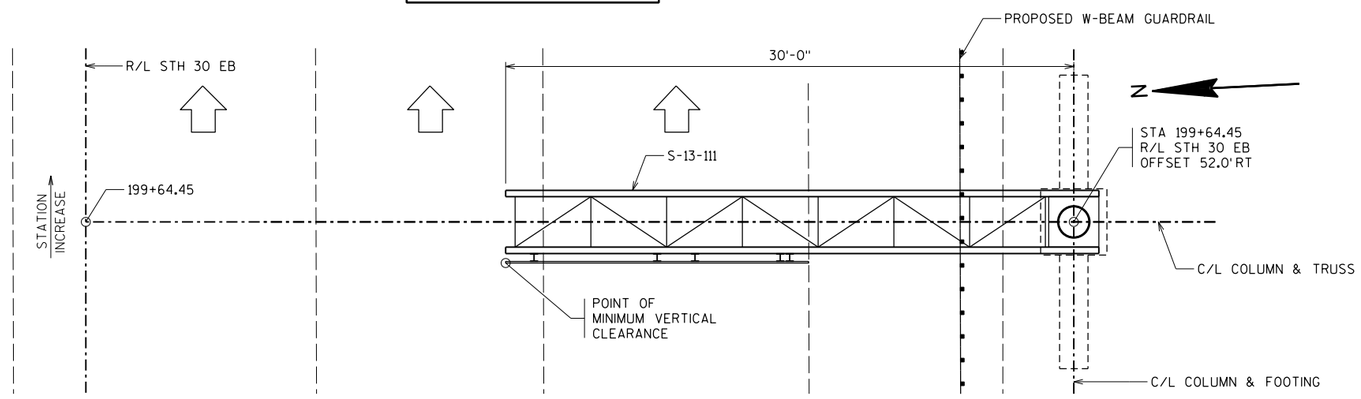
POINT OF MINIMUM VERTICAL CLEARANCE
STA 199+64.45 OFFSET 22.0' RT
EL 930.20

EXISTING SIGN SUPPORT LOCATION STA 200+75±
PROPOSED SIGN SUPPORT LOCATION STA 199+64.45
OFFSET 52.0' RT

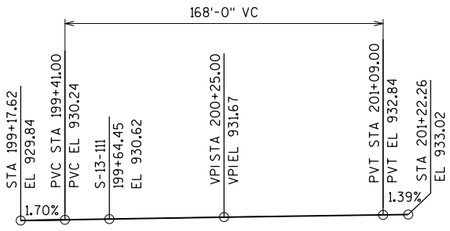
CANTILEVER SIGN BRIDGE ELEVATION VIEW S-13-111

STA 199+64.45 - SKEW 0°
(VIEW FACING EAST, PERPENDICULAR TO SKEW ANGLE)

LOOKING AT FRONT FACE OF SIGN



PLAN



PROFILE GRADE LINE

STATE PROJECT NUMBER
5992-11-11

DESIGN DATA

RELOCATE EXISTING SIGNS STRUCTURE.

SIGN STRUCTURE IS TEMPORARY UNTIL REPLACED BY FUTURE IH 39/90/94 CORRIDOR PROJECT, MADISON TO WISCONSIN DELLS.

EXISTING SIGN STRUCTURE WAS DESIGNED TO 1992 AASHTO STANDARD SPECIFICATIONS.

SIGN STRUCTURE	DESIGN SIGN AREA (SQ FT)	DESIGN MAX MAIN SIGN HT.
S-13-111	190	

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THEN OR EQUAL TO 24 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THEN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE A DEPTH OF 10' BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT THE SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

MATERIAL PROPERTIES

CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH WISDOT "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" SECTION 531.

CONCRETE MASONRY = F'c = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT:
GRADE 60, EPOXY COATED = Fy = 60,000 PSI

STRUCTURAL PLATE - ASTM A709 GRADE 36 = Fy = 36,000 PSI

ANCHOR RODS - ASTM F1554 GRADE 55 = Fy = 55,000 PSI

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

NO.	DATE	REVISION	BY

SEH
SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 09/29/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-13-111

STH 30 EB SIGN BRIDGE

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
DANE	MADISON

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	NCK	DESIGN CK'D.	HT	DRAWN BY	RAD	PLANS CK'D.	NCK

LAYOUT
S-13-111

SHEET 1 OF 4
222

WISCONSIN
CHRISTOPHER J. BLUM
E-33157
MADISON
WI
PROFESSIONAL ENGINEER
6/21/2023

WISDOT BOS CONTACT: AARON BONK, PE, 608.261.0261
SEH CONTACT: CHRIS BLUM, PE, 608.620.6192

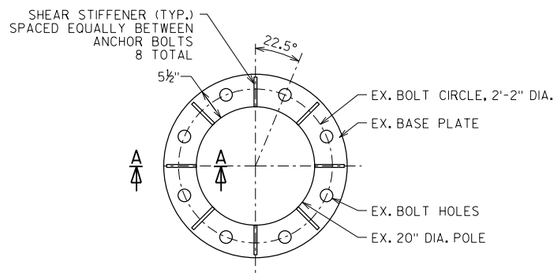
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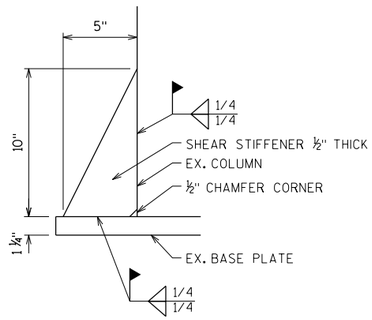
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TOTAL ESTIMATED QUANTITIES - S-13-111

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
204.0195	REMOVING CONCRETE BASES	EACH	1
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	10
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	1085
531.2042	DRILLING SHAFT 42-INCH	LF	16
638.4100	MOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	1



BASE PLATE PLAN



SECTION A-A

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

THE CANTILEVER SIGN BRIDGE SHALL SUPPORT THE SIGNS SHOWN.

CENTER SIGNS VERTICALLY ON TRUSS.

BAR STEEL SHALL BE 3" CLEAR UNLESS OTHERWISE NOTED.

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE DIGIT BAR OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE NOTED.

CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES.

CONTRACTOR SHALL CONFIRM SIGN SUPPORT LOCATIONS PRIOR TO EXCAVATING.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

THESE PLANS SHALL BE USED IN CONJUNCTION WITH THE ROADWAY PLANS AND EXISTING CANTILEVER SIGN BRIDGE SHOP DRAWINGS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED. ELEVATIONS ON THIS PLAN ARE REFERENCED TO NAVD88 DATUM.

STEEL STIFFENER MEMBERS, INSTALLATION, AND FABRICATION SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "MOVING STRUCTURAL STEEL SIGN SUPPORTS"

THE UPPER 1'-6" OF ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 531 AND 532 OF THE WISDOT STANDARD SPECIFICATION.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 42-INCH".

ALL STRUCTURAL STEEL STIFFENER MEMBERS SHALL BE GALVANIZED PER SECTION 532 OF THE WISDOT STANDARD SPECIFICATIONS. ANY REPAIR OF GALVANIZING SHALL BE PROVIDED AT THE STIFFENER, BASE PLATE AND COLUMN. COST FOR GALVANIZING AND REPAIR OF GALVANIZING SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "MOVING STRUCTURAL STEEL SIGN SUPPORTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-13-111

DRAWN BY RAD | PLANS CK'D. NCK

GENERAL NOTES AND QUANTITIES

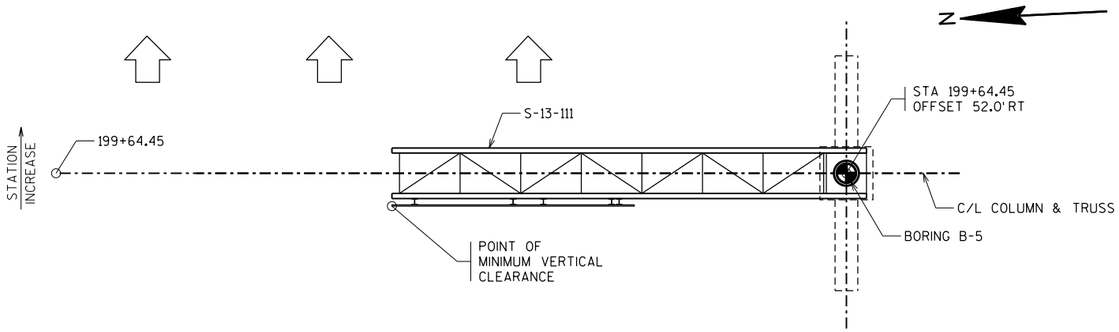
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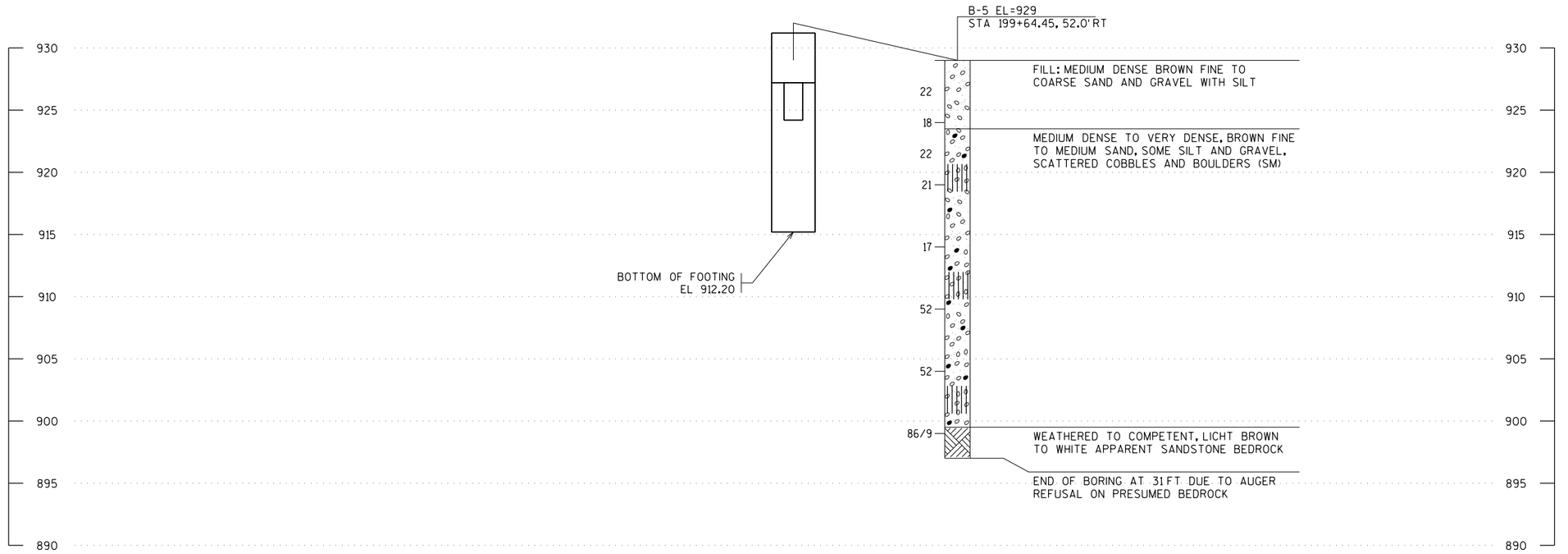
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STATE PROJECT NUMBER

5992-11-11





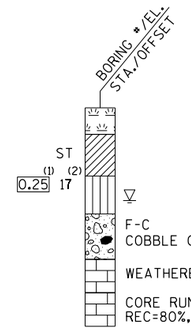
MATERIAL SYMBOLS

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

SOIL BORINGS PERFORMED BY:

CONSTRUCTION GEOTECHNICAL
CONSULTANTS, INC.
MADISON, WI
AUGUST 31ST TO SEPTEMBER 11TH, 2020
REPORTED BY:
ALEX J. BINA, PE
PROJECT ENGINEER

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
STRUCTURES DESIGN SECTION

STRUCTURE S-13-111

DRAWN BY RAD | PLANS CK'D. NCK

SUBSURFACE EXPLORATION

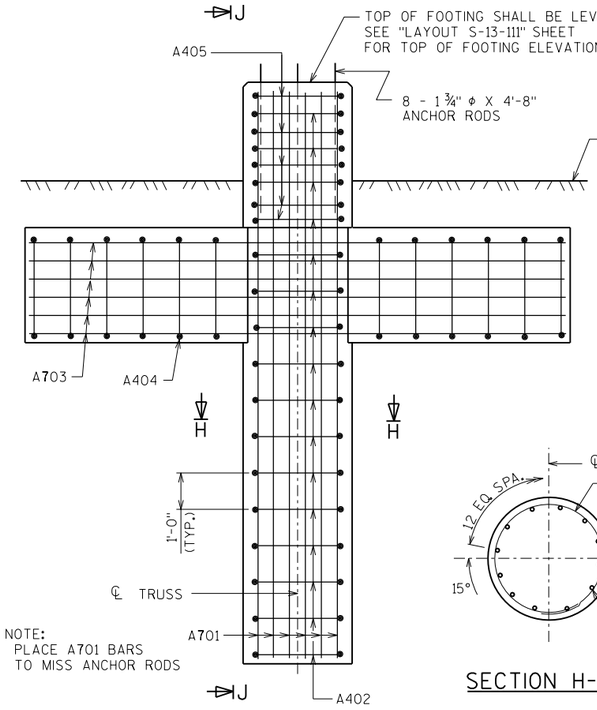
SHEET 3 OF 4

224

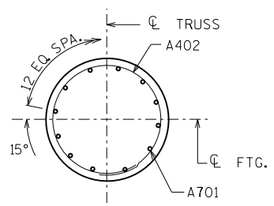
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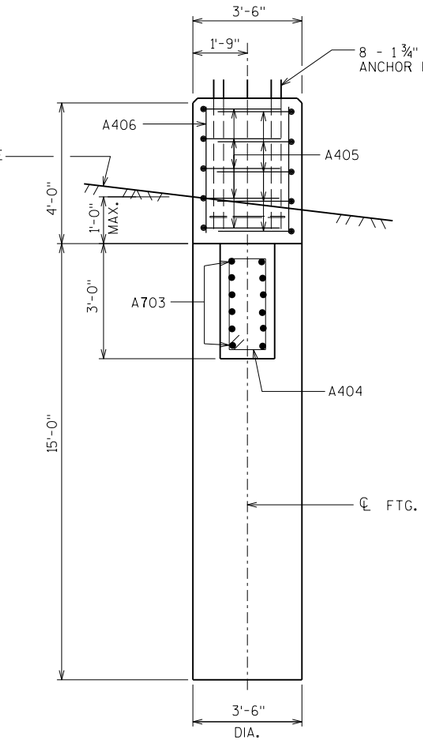
STATE PROJECT NUMBER
5992-11-11



ELEVATION

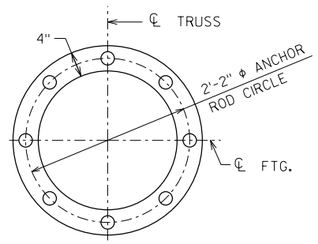


SECTION H-H

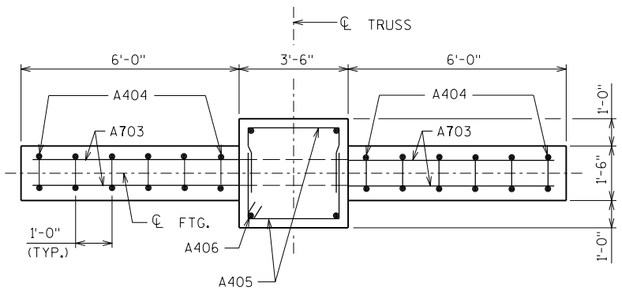


SECTION J-J

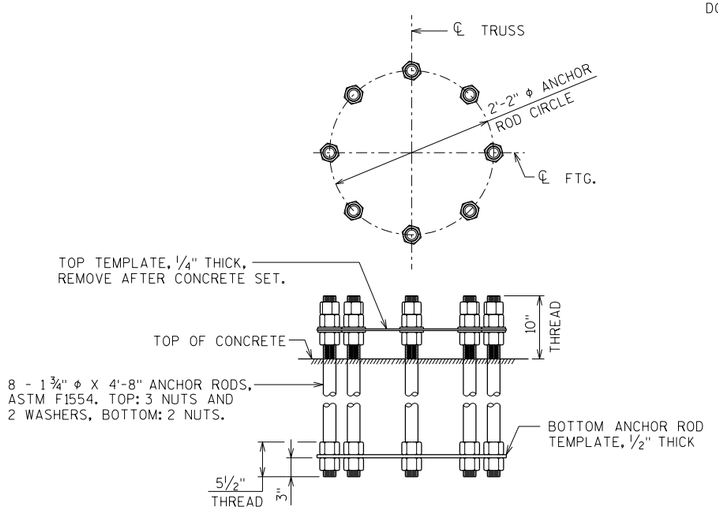
SHOWING WING AND CAP STEEL ONLY



TOP VIEW
OF
TOP & BOTTOM TEMPLATES



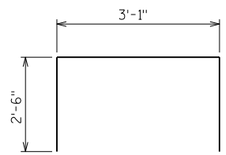
PLAN



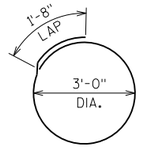
ANCHOR ROD ASSEMBLY DETAILS

BILL OF BARS

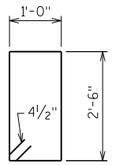
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT		BAR SERIES	LOCATION
A701	X	12	18'-6"				FOOTING - COLUMN/TOP
A402	X	19	11'-2"	X			FOOTING - COLUMN/TOP
A703	X	12	15'-0"				FOOTING - WINGS
A404	X	12	7'-6"	X			FOOTING - WINGS
A405	X	10	7'-11"	X			FOOTING - TOP
A406	X	4	3'-6"				FOOTING - TOP - COLUMNS



A405



A402



A404

NOTES

DRAWINGS SHALL NOT BE SCALED.

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

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.

CENTER ANCHOR ROD ASSEMBLY TO MISS BAR STEEL REINFORCEMENT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURE IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-13-111

DRAWN BY RAD | PLANS CK'D. NCK

CANTILEVER
TRUSS FOOTING

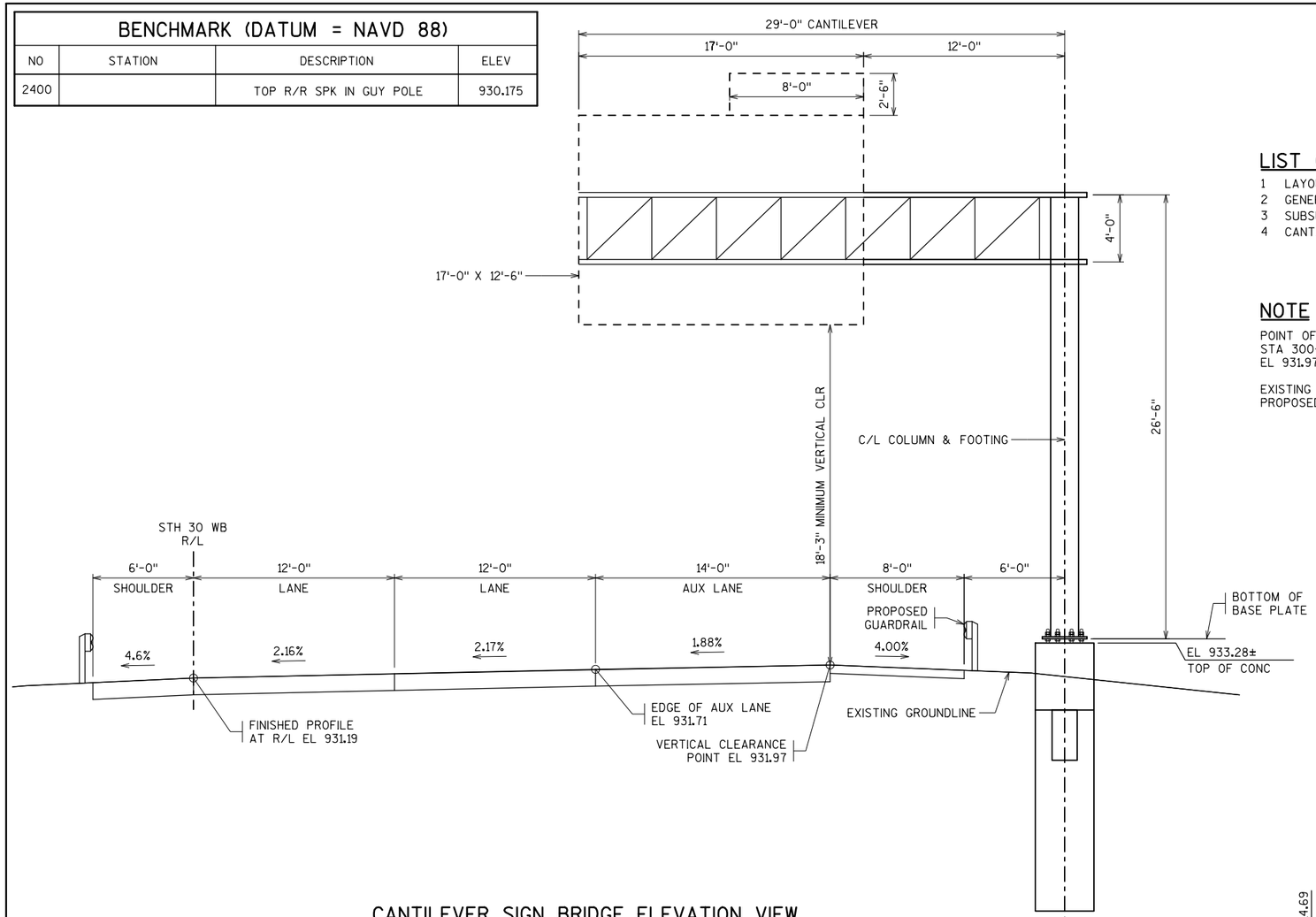
SHEET 4 OF 4
225

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BENCHMARK (DATUM = NAVD 88)			
NO	STATION	DESCRIPTION	ELEV
2400		TOP R/R SPK IN GUY POLE	930.175



LIST OF DRAWINGS

1 LAYOUT S-13-112
2 GENERAL NOTES AND QUANTITIES
3 SUBSURFACE EXPLORATION
4 CANTILEVER TRUSS FOOTING

NOTE

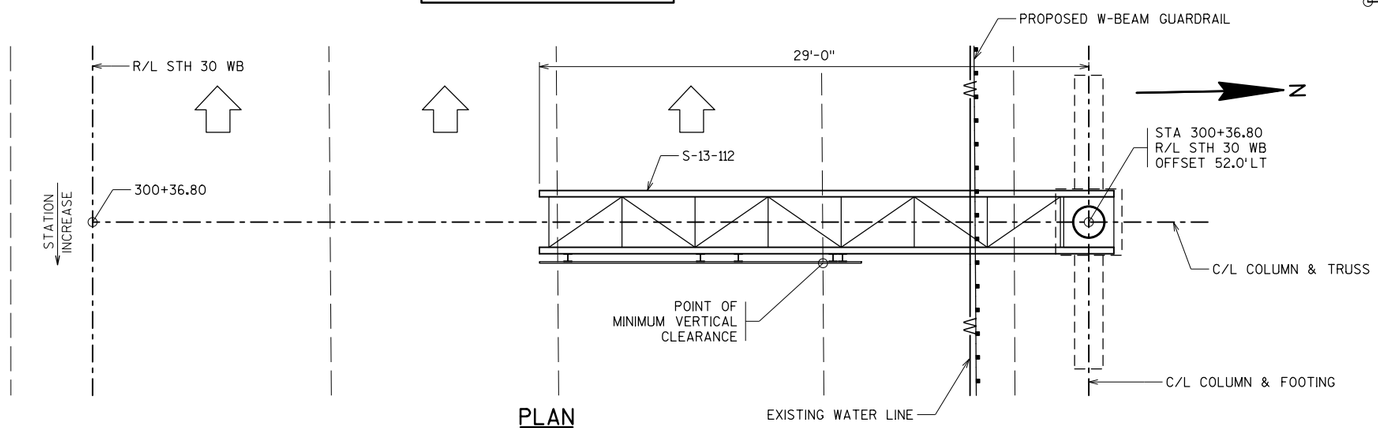
POINT OF MINIMUM VERTICAL CLEARANCE
STA 300+36.80 OFFSET 38.6'LT
EL 931.97

EXISTING SIGN SUPPORT LOCATION STA 300+04±
PROPOSED SIGN SUPPORT LOCATION STA 300+36.80

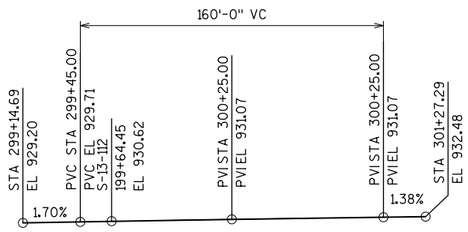
CANTILEVER SIGN BRIDGE ELEVATION VIEW S-13-112

STA 300+36.80 - SKEW 0°
(VIEW FACING WEST, PERPENDICULAR TO SKEW ANGLE)

LOOKING AT FRONT FACE OF SIGN



PLAN



PROFILE GRADE LINE

DESIGN DATA

RELOCATE EXISTING SIGNS STRUCTURE.

SIGN STRUCTURE IS TEMPORARY UNTIL REPLACED BY FUTURE IH 39/90/94 CORRIDOR PROJECT, MADISON TO WISCONSIN DELLS.

EXISTING SIGN STRUCTURE WAS DESIGNED TO 1992 AASHTO STANDARD SPECIFICATIONS.

SIGN STRUCTURE	DESIGN SIGN AREA (SQ FT)	DESIGN MAX MAIN SIGN HT.
S-13-112	212.5	

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THEN OR EQUAL TO 24 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THEN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE A DEPTH OF 10' BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT THE SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

MATERIAL PROPERTIES

CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH WISDOT "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" SECTION 531.

CONCRETE MASONRY = F'c = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT:
GRADE 60, EPOXY COATED = Fy = 60,000 PSI

STRUCTURAL PLATE - ASTM A709 GRADE 36 = Fy = 36,000 PSI

ANCHOR RODS - ASTM F1554 GRADE 55 = Fy = 55,000 PSI

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

WISCONSIN
CHRISTOPHER J. BLUM
E-33157
MADISON
WI
PROFESSIONAL ENGINEER

6/21/2023

WISDOT BOS CONTACT: AARON BONK, PE, 608.261.0261
SEH CONTACT: CHRIS BLUM, PE, 608.620.6192

NO.	DATE	REVISION	BY

SHORT ELLIOTT HENDRICKSON INC.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 09/29/23
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-13-112

STH 30 WB SIGN BRIDGE

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
DANE	MADISON

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NCK	HT	RAD	NCK

LAYOUT
S-13-112

SHEET 1 OF 4
226

STATE PROJECT NUMBER
5992-11-11

PLOT DATE: 6/21/2023 PLOT TIME: 12:43:24 PM
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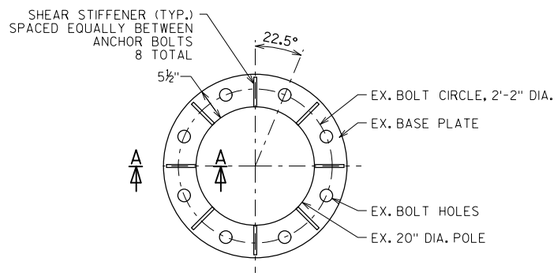
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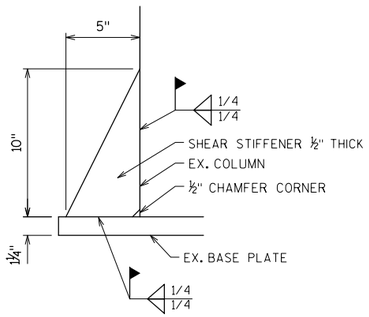
STATE PROJECT NUMBER
5992-11-11

TOTAL ESTIMATED QUANTITIES - S-13-111

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
204.0195	REMOVING CONCRETE BASES	EACH	1
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	8
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	990
531.2042	DRILLING SHAFT 42-INCH	LF	13
638.4100	MOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	1



BASE PLATE PLAN



SECTION A-A

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

THE CANTILEVER SIGN BRIDGE SHALL SUPPORT THE SIGNS SHOWN.

CENTER SIGNS VERTICALLY ON TRUSS.

BAR STEEL SHALL BE 3" CLEAR UNLESS OTHERWISE NOTED.

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE DIGIT BAR OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE NOTED.

CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES.

CONTRACTOR SHALL CONFIRM SIGN SUPPORT LOCATIONS PRIOR TO EXCAVATING.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

THESE PLANS SHALL BE USED IN CONJUNCTION WITH THE ROADWAY PLANS AND EXISTING CANTILEVER SIGN BRIDGE SHOP DRAWINGS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED. ELEVATIONS ON THIS PLAN ARE REFERENCED TO NAVD88 DATUM.

STEEL STIFFENER MEMBERS, INSTALLATION, AND FABRICATION SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "MOVING STRUCTURAL STEEL SIGN SUPPORTS"

THE UPPER 1'-6" OF ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE AASHTO SPECIFICATION AS STATED IN SECTION 531 AND 532 OF THE WISDOT STANDARD SPECIFICATION.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT 42-INCH".

ALL STRUCTURAL STEEL STIFFENER MEMBERS SHALL BE GALVANIZED PER SECTION 532 OF THE WISDOT STANDARD SPECIFICATIONS. ANY REPAIR OF GALVANIZING SHALL BE PROVIDED AT THE STIFFENER, BASE PLATE AND COLUMN. COST FOR GALVANIZING AND REPAIR OF GALVANIZING SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "MOVING STRUCTURAL STEEL SIGN SUPPORTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-13-112

DRAWN BY RAD | PLANS CK'D. NCK

GENERAL NOTES AND QUANTITIES

SHEET 2 OF 4

227

8

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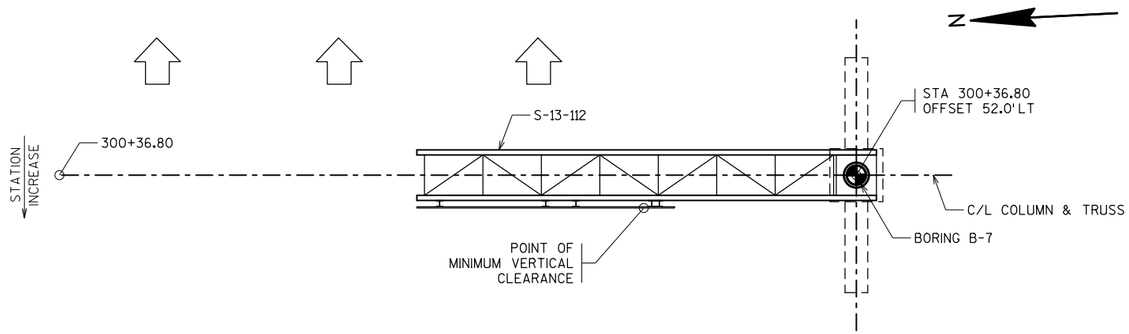
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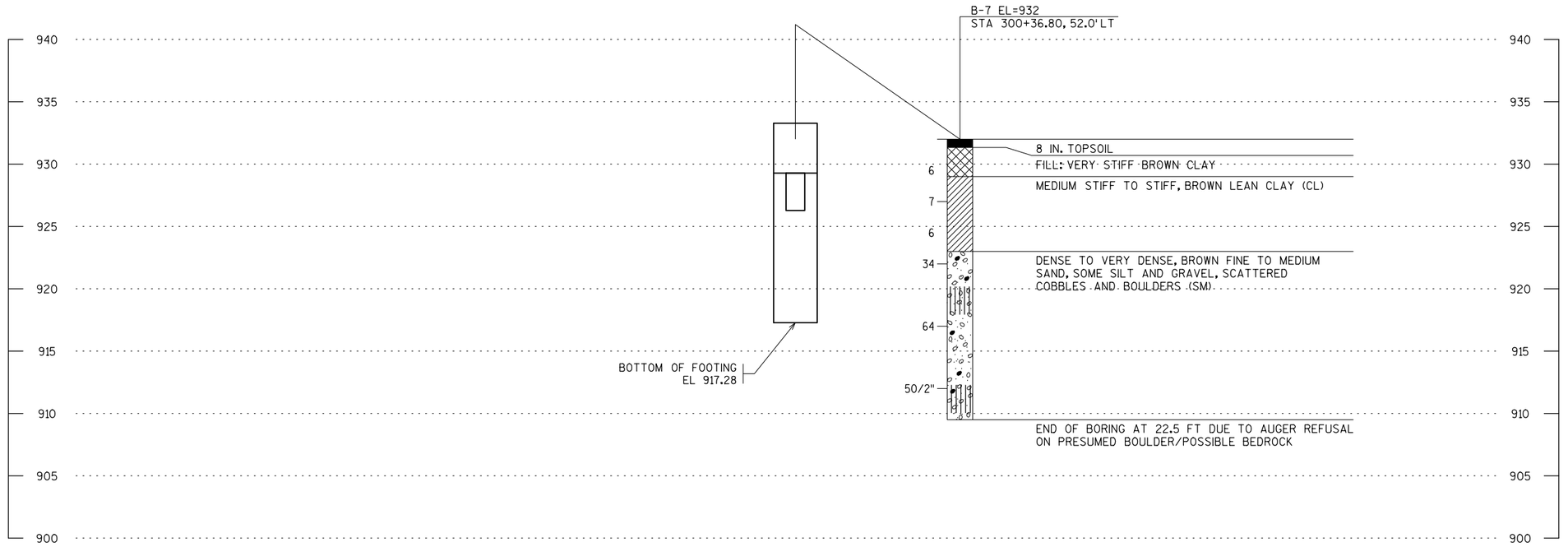
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STATE PROJECT NUMBER

5992-11-11





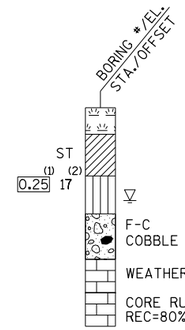
SOIL BORINGS PERFORMED BY:

CONSTRUCTION GEOTECHNICAL
CONSULTANTS, INC.
MADISON, WI
AUGUST 31ST TO SEPTEMBER 11TH, 2020
REPORTED BY:
ALEX J. BINA, PE
PROJECT ENGINEER

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
STRUCTURES DESIGN SECTION

STRUCTURE S-13-112

DRAWN BY RAD | PLANS CK'D. NCK

SUBSURFACE EXPLORATION

SHEET 3 OF 4

228

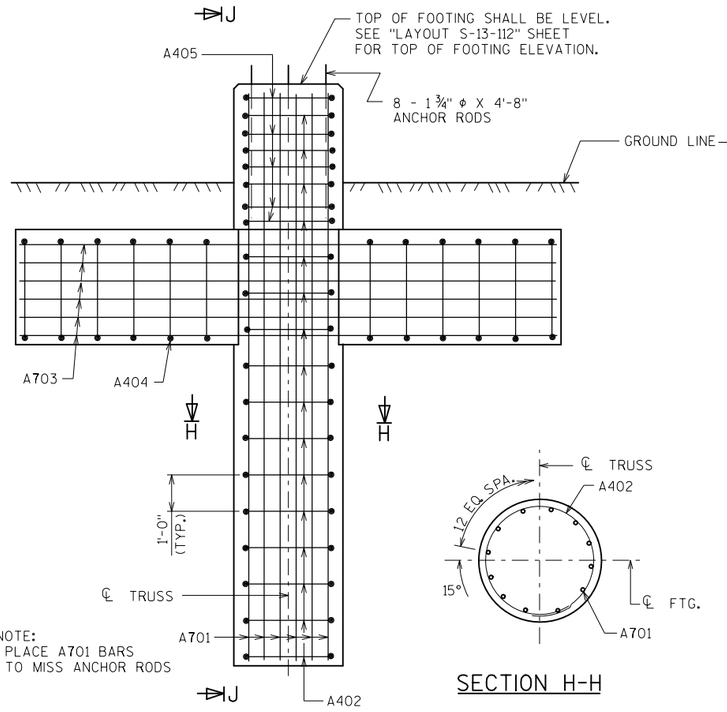
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PLOT TIME: $TIME$

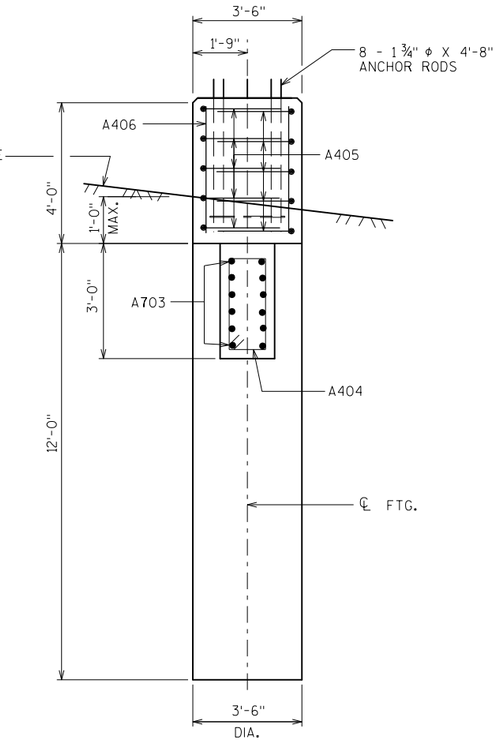
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STATE PROJECT NUMBER
5992-11-11



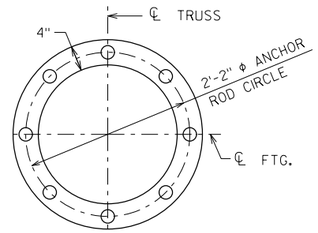
ELEVATION

SECTION H-H



SECTION J-J

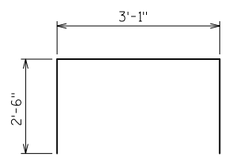
SHOWING WING AND CAP STEEL ONLY



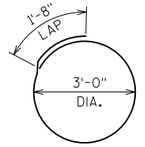
TOP VIEW
OF
TOP & BOTTOM TEMPLATES

BILL OF BARS

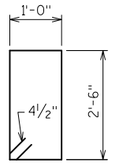
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT		BAR SERIES	LOCATION
A701	X	12	15'-6"				FOOTING - COLUMN/TOP
A402	X	16	11'-2"	X			FOOTING - COLUMN/TOP
A703	X	12	15'-0"				FOOTING - WINGS
A404	X	12	7'-6"	X			FOOTING - WINGS
A405	X	10	7'-11"	X			FOOTING - TOP
A406	X	4	3'-6"				FOOTING - TOP - COLUMNS



A405



A402



A404

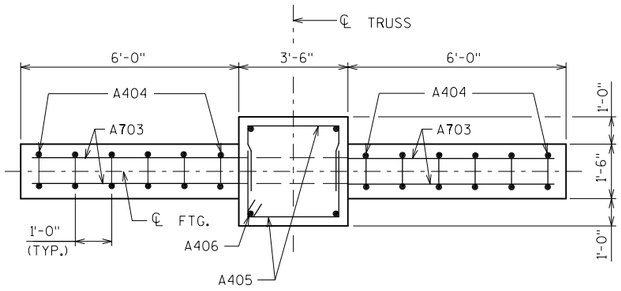
NOTES

DRAWINGS SHALL NOT BE SCALED.

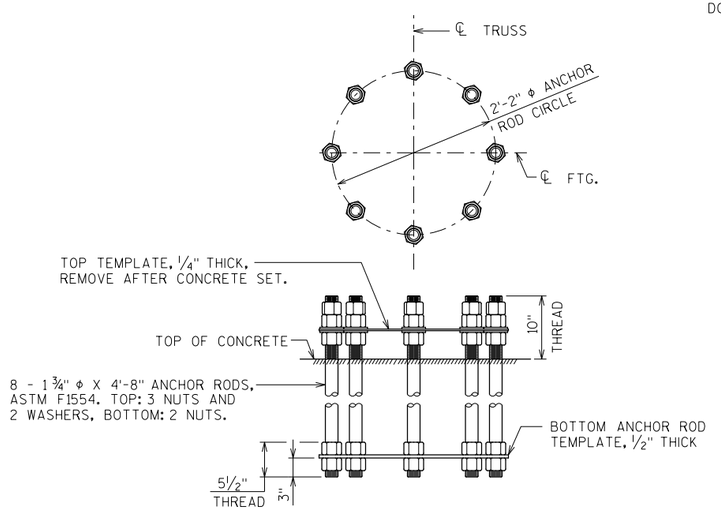
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR UNLESS DETAILED OTHERWISE.

CENTER ANCHOR ROD ASSEMBLY TO MISS BAR STEEL REINFORCEMENT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURE IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.



PLAN



ANCHOR ROD ASSEMBLY DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-13-112

DRAWN BY RAD | PLANS CK'D. NCK

CANTILEVER
TRUSS FOOTING

SHEET 4 OF 4

229

FILE NAME : $FILE$

PROJECT ID 5992-11-11

STAGE 1 - SOUTH TRAIL 'ST'

CATEGORY	STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY)		CUMULATIVE VOL (CY)		
				CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
0010	10+00	1000	0	6.63	0	0.0	0.0	0.0	0.0	0.0
	10+50	1050	50	12.08	0.03	17.3	0.0	17.3	0.0	17.3
	11+00	1100	50	9.65	0.73	20.1	0.7	37.4	0.9	36.5
	11+50	1150	50	5.83	1.97	14.3	2.5	51.8	4.0	47.7
	12+00	1200	50	11.71	0.12	16.2	1.9	68.0	6.5	61.6
	12+50	1250	50	12.2	0.09	22.1	0.2	90.2	6.7	83.5
	13+00	1300	50	11.81	0.09	22.2	0.2	112.4	6.9	105.5
	13+50	1350	50	12.28	0	22.3	0.1	134.7	7.0	127.7
	14+00	1400	50	11.83	3.22	22.3	3.0	157.0	10.7	146.3
	14+50	1450	50	12.47	0.15	22.5	3.1	179.5	14.6	164.9
	15+00	1500	50	12.86	0.07	23.5	0.2	203.0	14.9	188.1
	15+50	1550	50	13.62	0.18	24.5	0.2	227.5	15.2	212.3
	16+00	1600	50	12.6	0.04	24.3	0.2	251.8	15.4	236.3
	16+50	1650	50	11.92	0.47	22.7	0.5	274.5	16.0	258.4
	17+00	1700	50	13.9	0	23.9	0.4	298.4	16.6	281.8
	17+50	1750	50	11.68	0.21	23.7	0.2	322.1	16.8	305.2
	18+00	1800	50	12.43	0.09	22.3	0.3	344.4	17.2	327.2
	18+50	1850	50	7.52	0.9	18.5	0.9	362.9	18.3	344.6
	19+00	1900	50	13.51	0.01	19.5	0.8	382.3	19.4	363.0
	19+50	1950	50	5.63	0.98	17.7	0.9	400.1	20.5	379.5
	20+00	2000	50	12.9	1.42	17.2	2.2	417.2	23.3	393.9
	20+50	2050	50	4.22	4.86	15.9	5.8	433.1	30.6	402.5
	21+00	2100	50	14.34	0	17.2	4.5	450.3	36.2	414.1
	21+50	2150	50	16.45	0	28.5	0.0	478.8	36.2	442.6
	22+00	2200	50	26.15	0	39.4	0.0	518.2	36.2	482.0
	22+50	2250	50	33.87	0	55.6	0.0	573.8	36.2	537.6
	23+00	2300	50	21.17	0.24	51.0	0.2	624.7	36.5	588.3
	23+50	2350	50	21.32	0	39.3	0.2	664.1	36.7	627.3
	24+00	2400	50	28.84	0	46.4	0.0	710.5	36.7	673.8
	24+50	2450	50	29.85	0	54.3	0.0	764.9	36.7	728.1
	25+00	2500	50	25.35	1.01	51.1	0.9	816.0	37.9	778.1
	25+50	2550	50	11.11	0.02	33.8	1.0	849.7	39.1	810.6
	26+00	2600	50	6.75	0.13	16.5	0.1	866.3	39.3	827.0
	26+50	2650	50	7.64	0.1	13.3	0.2	879.6	39.5	840.1
	26+85	2685	35	12.37	0	13.0	0.1	892.6	39.6	853.0
						893	32			

9

9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EARTHWORK DATA	SHEET 230	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 A EARTHWORK DATA\090100_EW (EARTH WORK DATA).DWG
LAYOUT NAME - 01

PLOT DATE : 7/29/2023 12:27 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

PROJECT ID 5992-11-11

STAGE 1 - NORTH TRAIL 'N1'

CATEGORY	STATION	REAL STATION	DISTANCE	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) CUT	INCREMENTAL VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXPANDED FILL 1.25	CUMULATIVE VOL (CY) MASS ORDINATE
0010	100+00	10000	0	24.77	0	0.0	0.0	0.0	0.0	0.0
	100+55	10055	55	0.44	25.81	25.7	26.3	25.7	32.9	-7.2
	101+00	10100	45	21.18	2.84	18.0	23.9	43.7	62.7	19.0
	101+50	10150	50	2.53	5.27	22.0	7.5	65.6	72.1	-6.4
	102+00	10200	50	6.23	0.37	8.1	5.2	73.8	78.6	-4.9
	102+50	10250	50	4.25	1.76	9.7	2.0	83.5	81.1	2.4
	103+00	10300	50	6.36	1.91	9.8	3.4	93.3	85.3	8.0
	103+50	10350	50	1.95	3.26	7.7	4.8	101.0	91.3	9.7
	104+00	10400	50	6.22	1.17	7.6	4.1	108.5	96.4	12.1
	104+50	10450	50	4.97	1.42	10.4	2.4	118.9	99.4	19.5
	105+00	10500	50	3.95	1.13	8.3	2.4	127.2	102.4	24.8
	105+50	10550	50	0	5.31	3.7	6.0	130.8	109.8	21.0
	106+00	10600	50	1.45	5.66	1.3	10.2	132.2	122.5	9.6
	106+50	10650	50	6.24	7.17	7.1	11.9	139.3	137.4	1.9
	107+00	10700	50	13.56	17.12	18.3	22.5	157.6	165.5	-7.9
	107+50	10750	50	32.16	34.47	42.3	47.8	200.0	225.2	-25.3
	108+00	10800	50	12.96	59.07	41.8	86.6	241.7	333.5	91.7
	108+50	10850	50	0	107.98	12.0	154.7	253.7	526.8	-273.1
	108+95	10895	45	0	169.56	0.0	231.3	253.7	815.9	-562.2
	109+50	10950	55	0	163.82	0.0	339.6	253.7	1,240.4	-986.6
	110+00	11000	50	0	44.3	0.0	192.7	253.7	1,481.3	-1,227.5
	110+50	11050	50	31.94	0.38	29.6	41.4	283.3	1,533.0	-1,249.7
	111+00	11100	50	52.06	0.43	77.8	0.8	361.1	1,533.9	1,172.8
	111+50	11150	50	46.47	1.81	91.2	2.1	452.3	1,536.5	-1,084.2
	112+00	11200	50	36.54	0	76.9	1.7	529.2	1,538.6	-1,009.4
	112+50	11250	50	36.99	0	68.1	0.0	597.3	1,538.6	-941.3
	113+00	11300	50	22.12	0	54.7	0.0	652.0	1,538.6	-886.6
	113+50	11350	50	8.08	0.08	28.0	0.1	680.0	1,538.7	-858.7
	114+00	11400	50	21.79	0	27.7	0.1	707.6	1,538.8	-831.2
	114+50	11450	50	22.89	2.28	41.4	2.1	749.0	1,541.4	-792.4
	115+00	11500	50	17.43	4.11	37.3	5.9	786.3	1,548.8	-762.5
	115+50	11550	50	21.14	5.34	35.7	8.8	822.0	1,559.7	-737.7
	116+00	11600	50	24.6	8.95	42.4	13.2	864.4	1,576.3	-711.9
	116+50	11650	50	25.41	8.19	46.3	15.9	910.7	1,596.1	685.4
	117+00	11700	50	21.46	9.75	43.4	16.6	954.1	1,616.9	-662.8
	117+45	11745	45	19.36	174.83	34.0	153.8	988.1	1,809.2	-821.1
						988	1447			

9

9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	EARTHWORK DATA	SHEET 231	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 A EARTHWORK DATA\090100_EW (EARTH WORK DATA).DWG
LAYOUT NAME - 02

PLOT DATE : 7/29/2023 12:27 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

PROJECT ID 5992-11-11

STAGE 1 - NORTH TRAIL 'NT'

CATEGORY	STATION	REAL STATION	DISTANCE	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) CUT	INCREMENTAL VOL (CY) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXPANDED FILL 1.25	CUMULATIVE VOL (CY) MASS ORDINATE
0010	124+44	12444	0	0	0	0.0	0.0	0.0	0.0	0.0
	124+50	12450	6	0	117.07	0.0	13.0	0.0	16.3	-16.3
	125+10	12510	60	0	29.79	0.0	163.2	0.0	220.2	-220.2
	125+50	12550	40	0	7.32	0.0	27.5	0.0	254.6	-254.6
	126+00	12600	50	3.51	1.63	3.3	8.3	3.3	265.0	-261.7
						3	212			

9

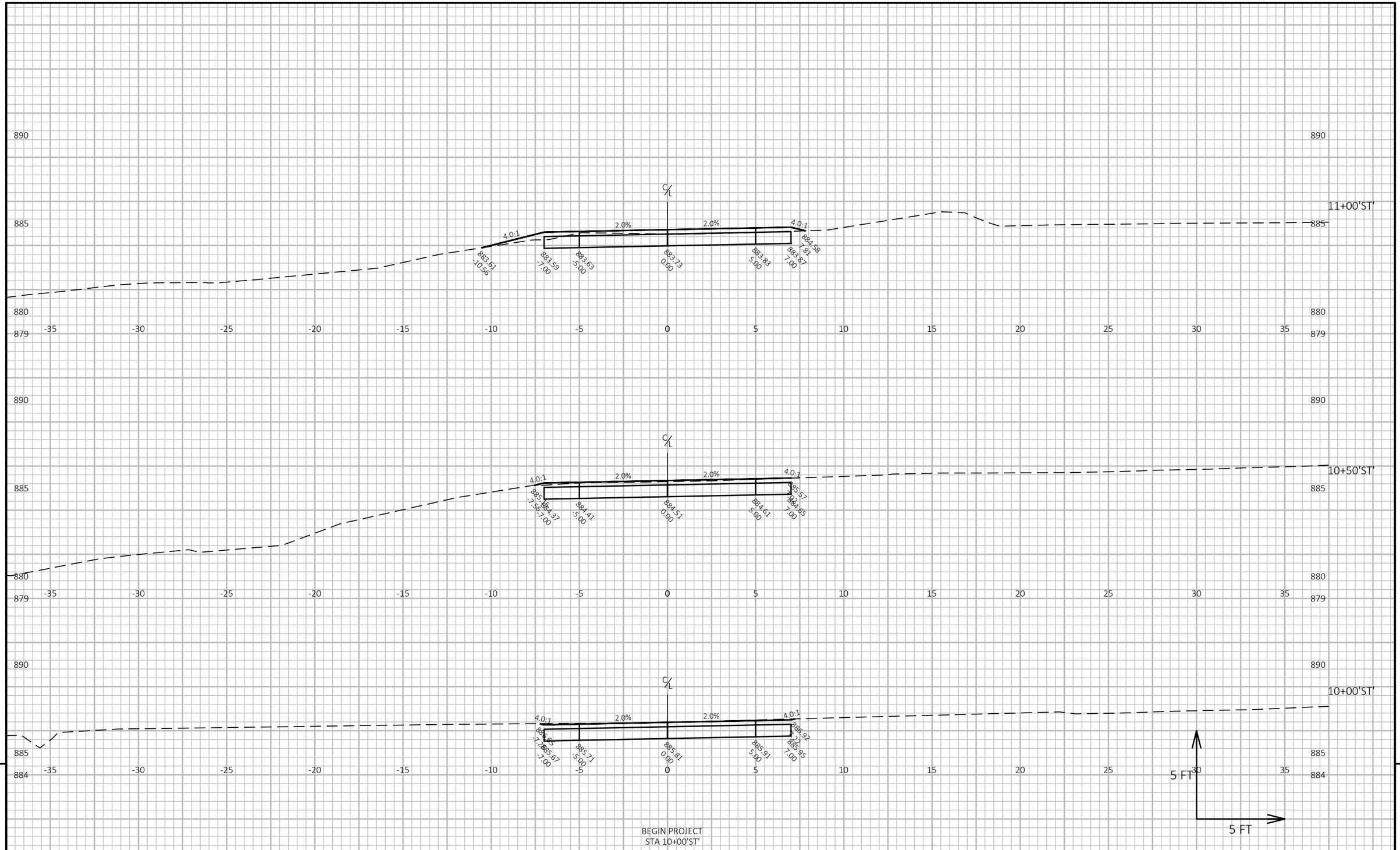
9

PROJECT NO: 5992-11-11 | HWY: NON HWY | COUNTY: DANE | EARTHWORK DATA | SHEET 232 | E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 A EARTHWORK DATA\090100_EW (EARTH WORK DATA).DWG
LAYOUT NAME - 03

PLOT DATE : 7/29/2023 12:27 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49



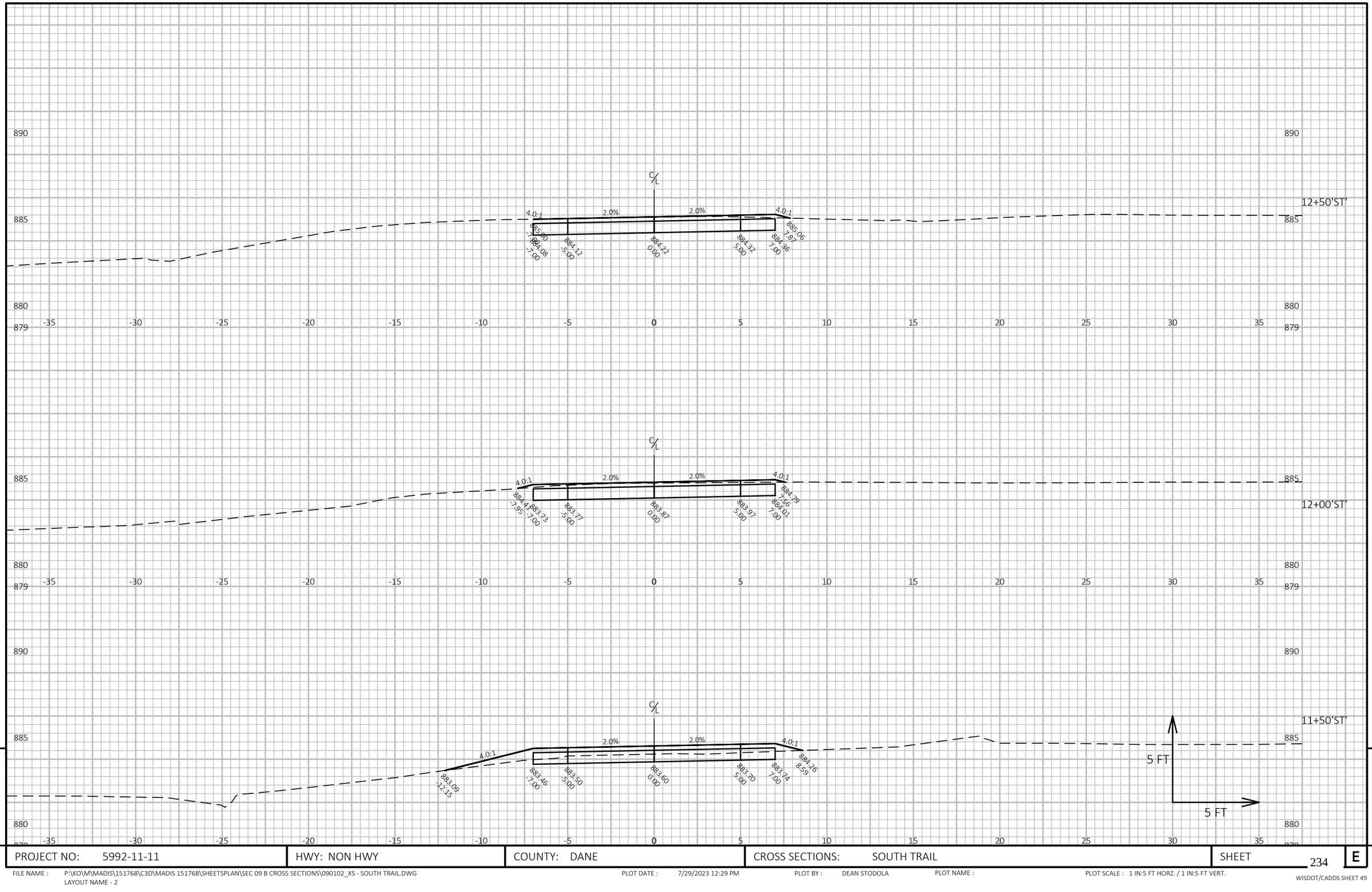
BEGIN PROJECT
STA 10+00'ST'

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 233	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 1

PLOT DATE : 7/29/2023 12:29 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

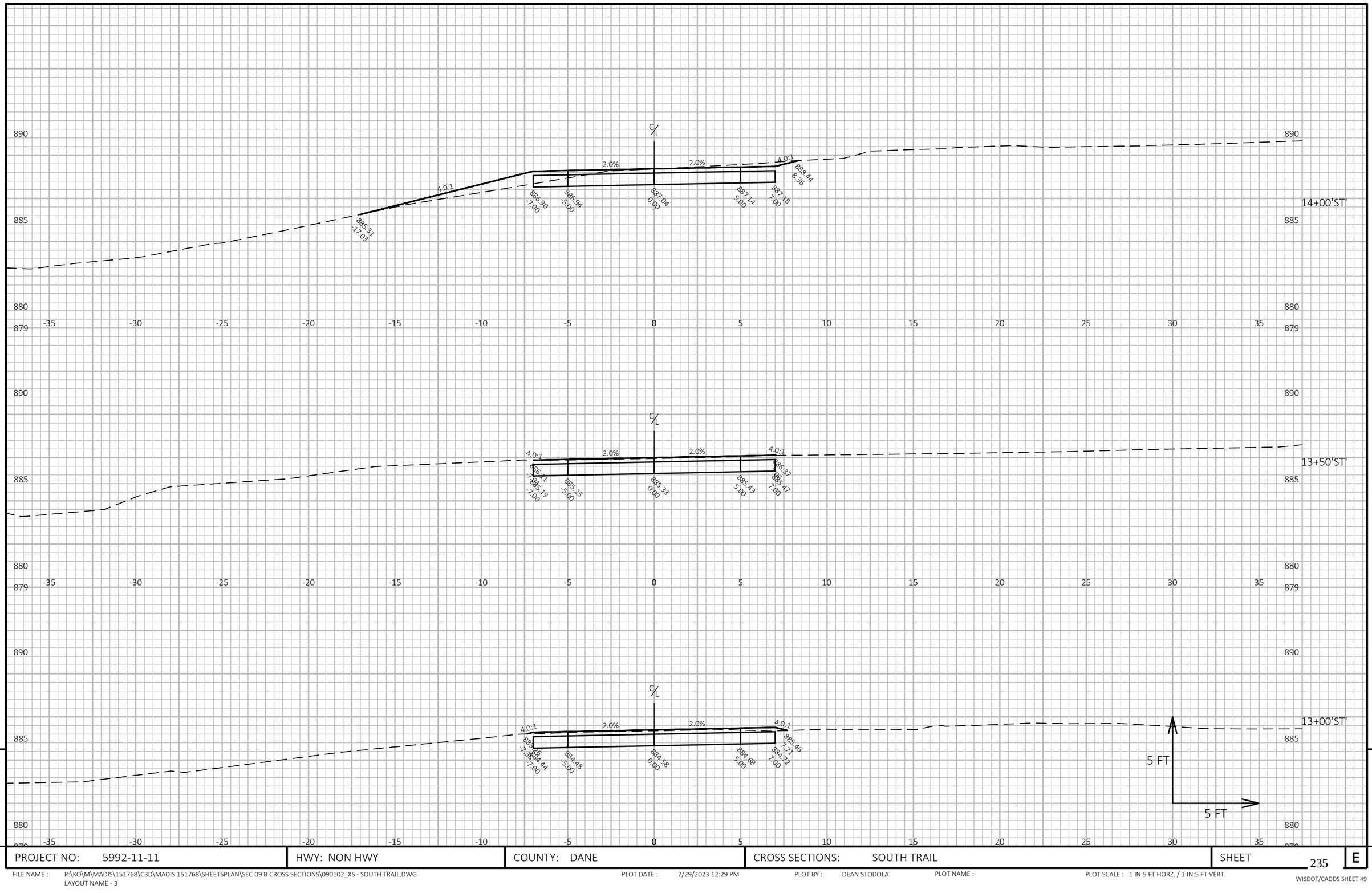


PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 234 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 2

PLOT DATE : 7/29/2023 12:29 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

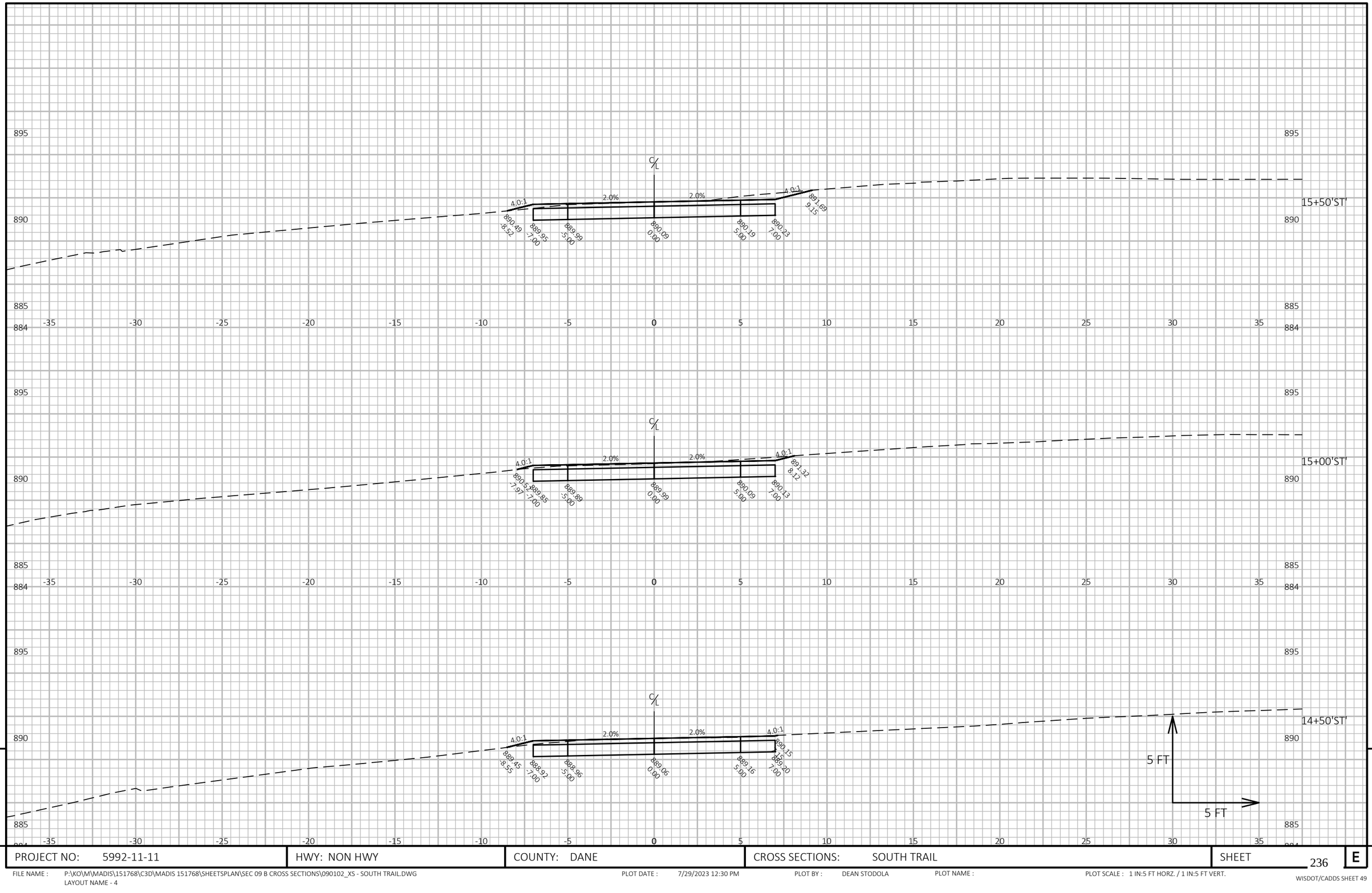
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 235	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 3

PLOT DATE : 7/29/2023 12:29 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

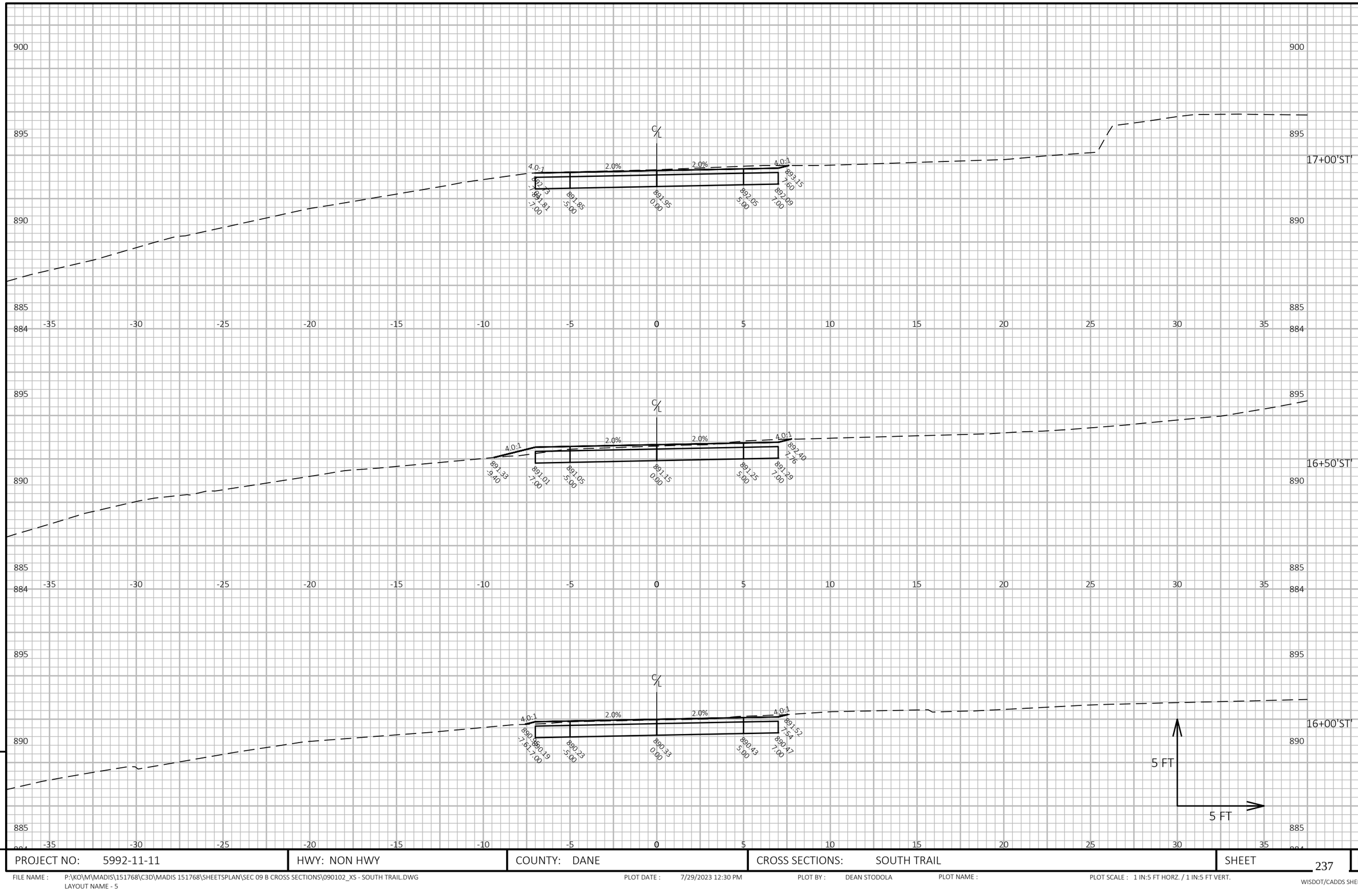
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 236	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 4

PLOT DATE : 7/29/2023 12:30 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

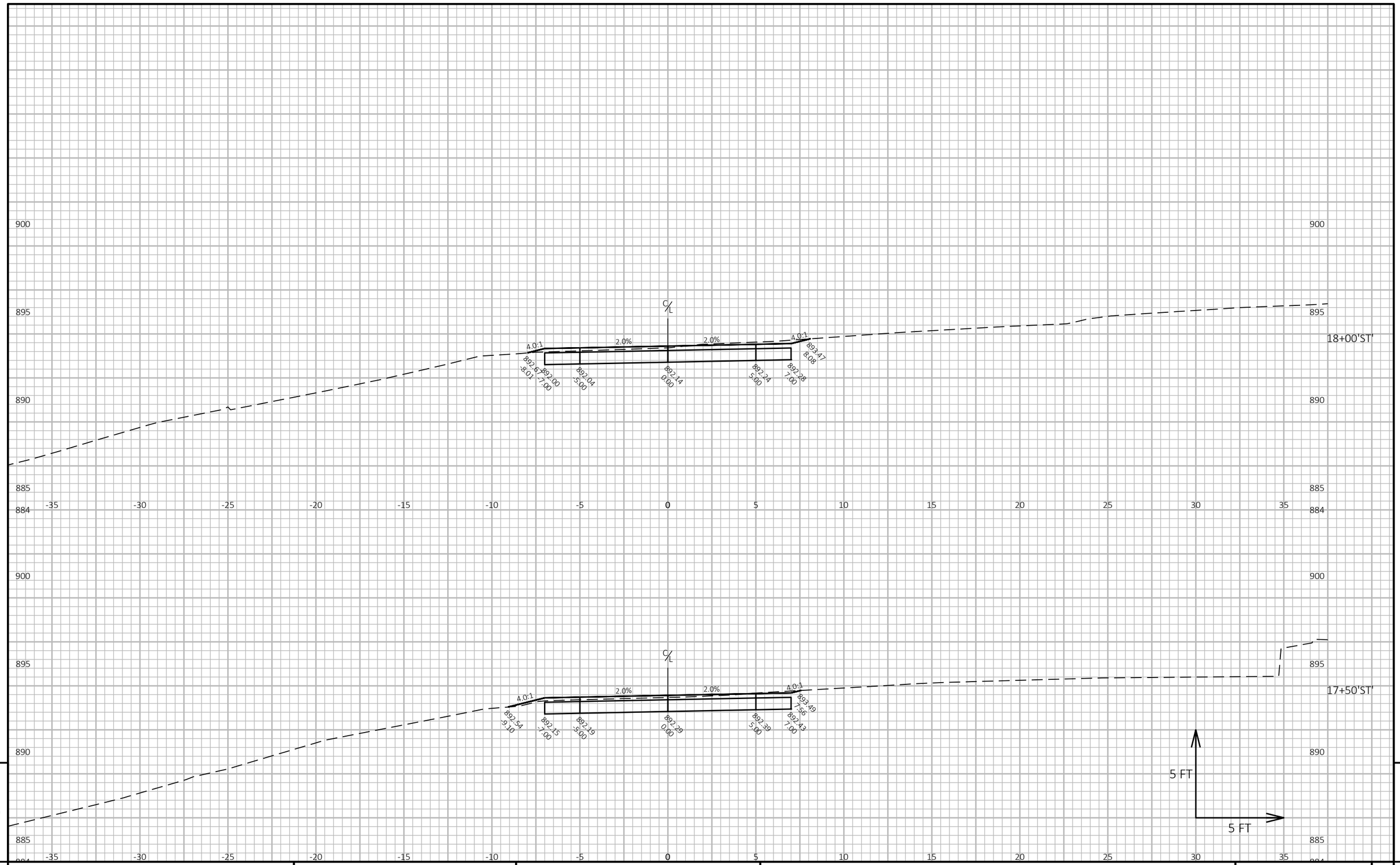
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 237	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 5

PLOT DATE : 7/29/2023 12:30 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

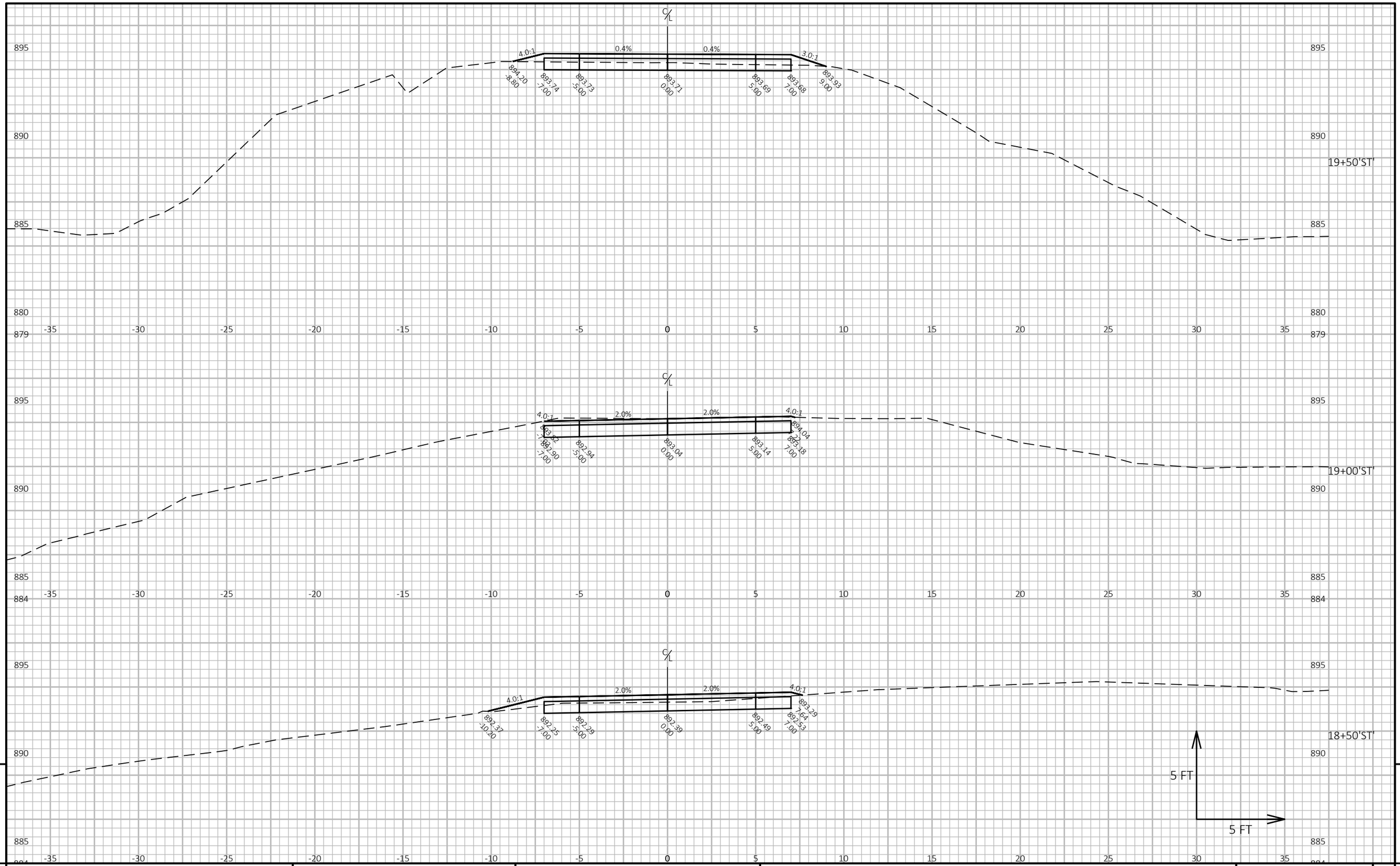
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 238	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 6

PLOT DATE : 7/29/2023 12:30 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

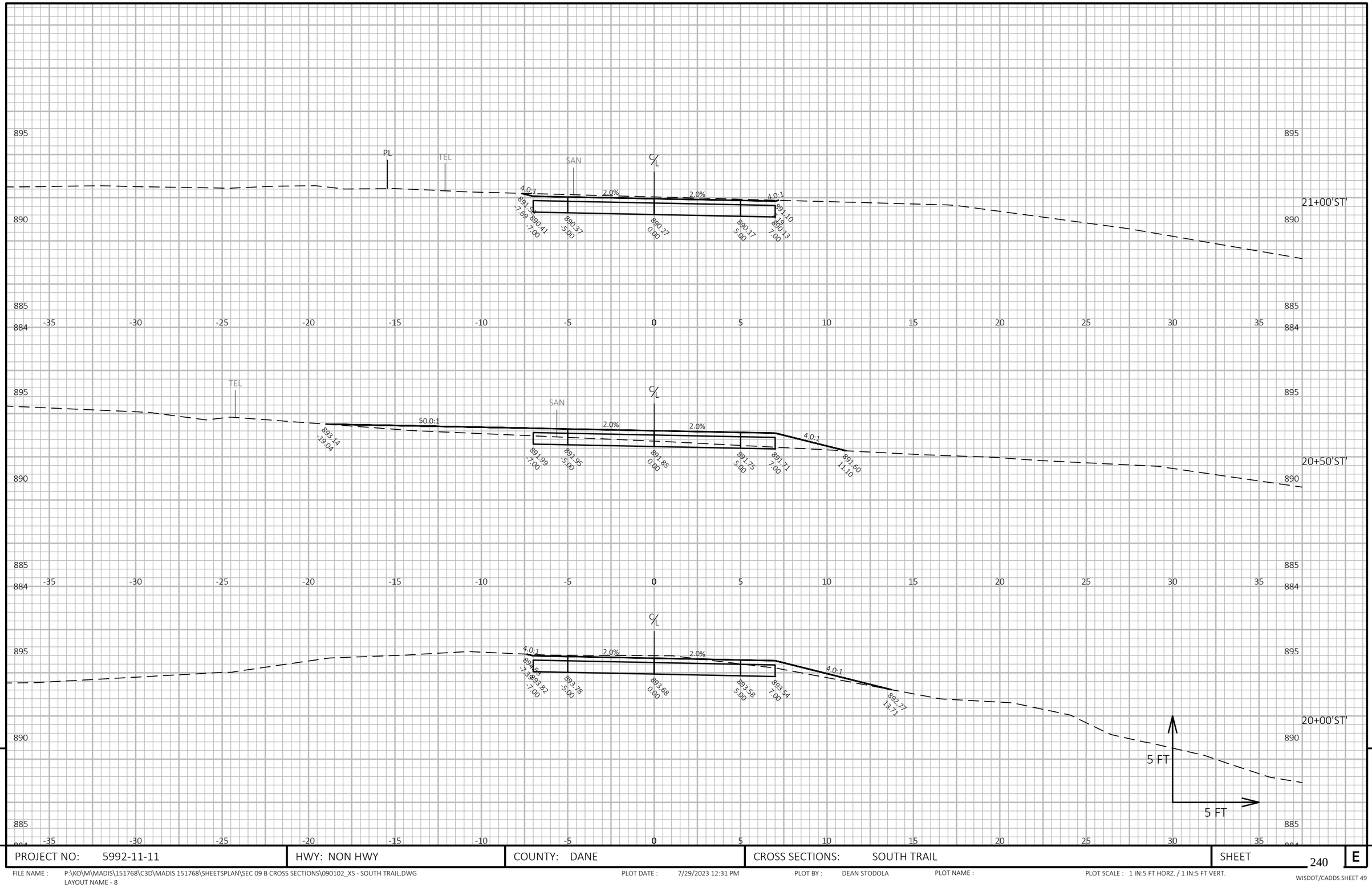
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 239	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 7

PLOT DATE : 7/29/2023 12:30 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

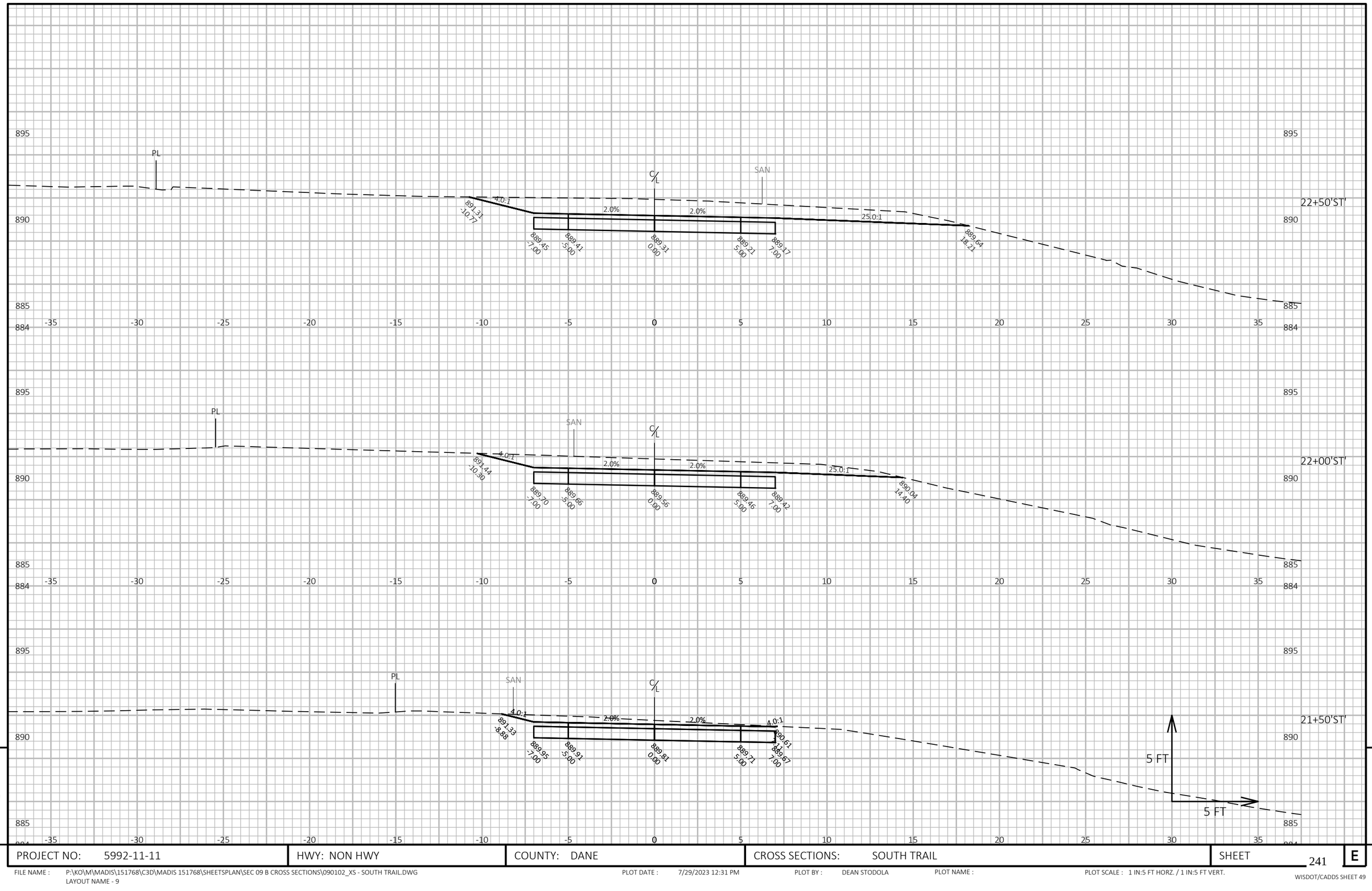
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 240	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 8

PLOT DATE : 7/29/2023 12:31 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

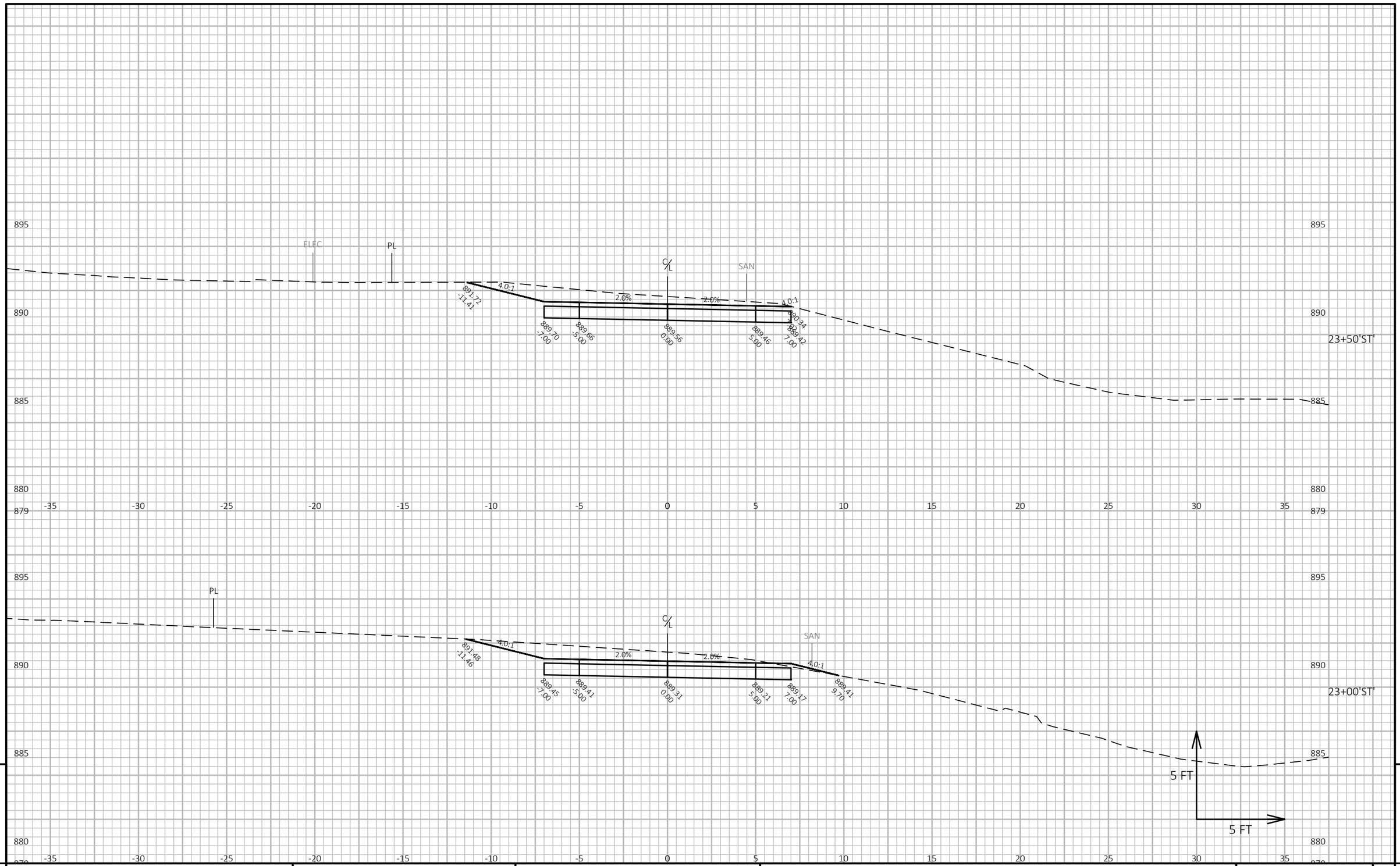
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 241	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 9

PLOT DATE : 7/29/2023 12:31 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

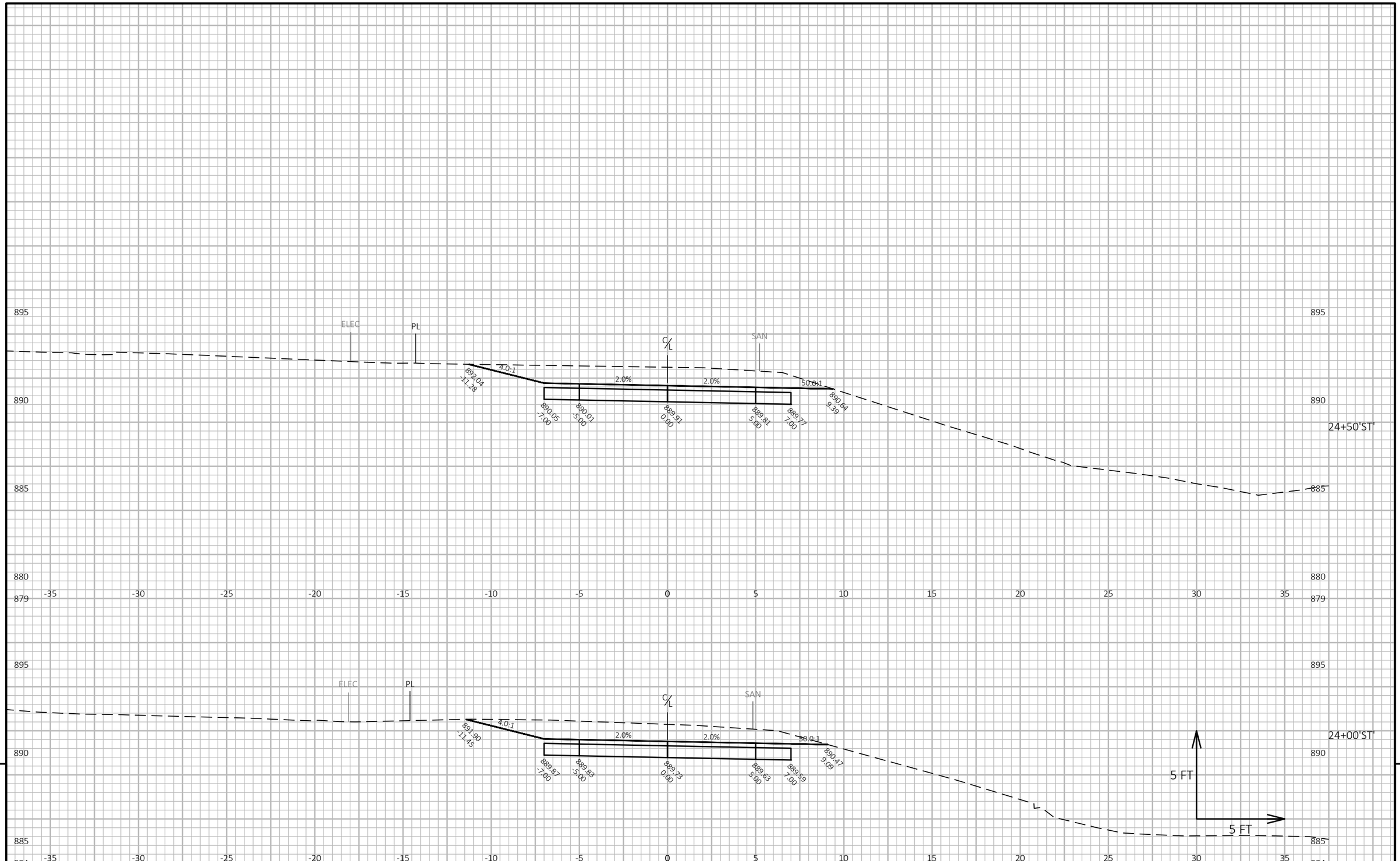
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 242	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 10

PLOT DATE : 7/29/2023 12:31 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

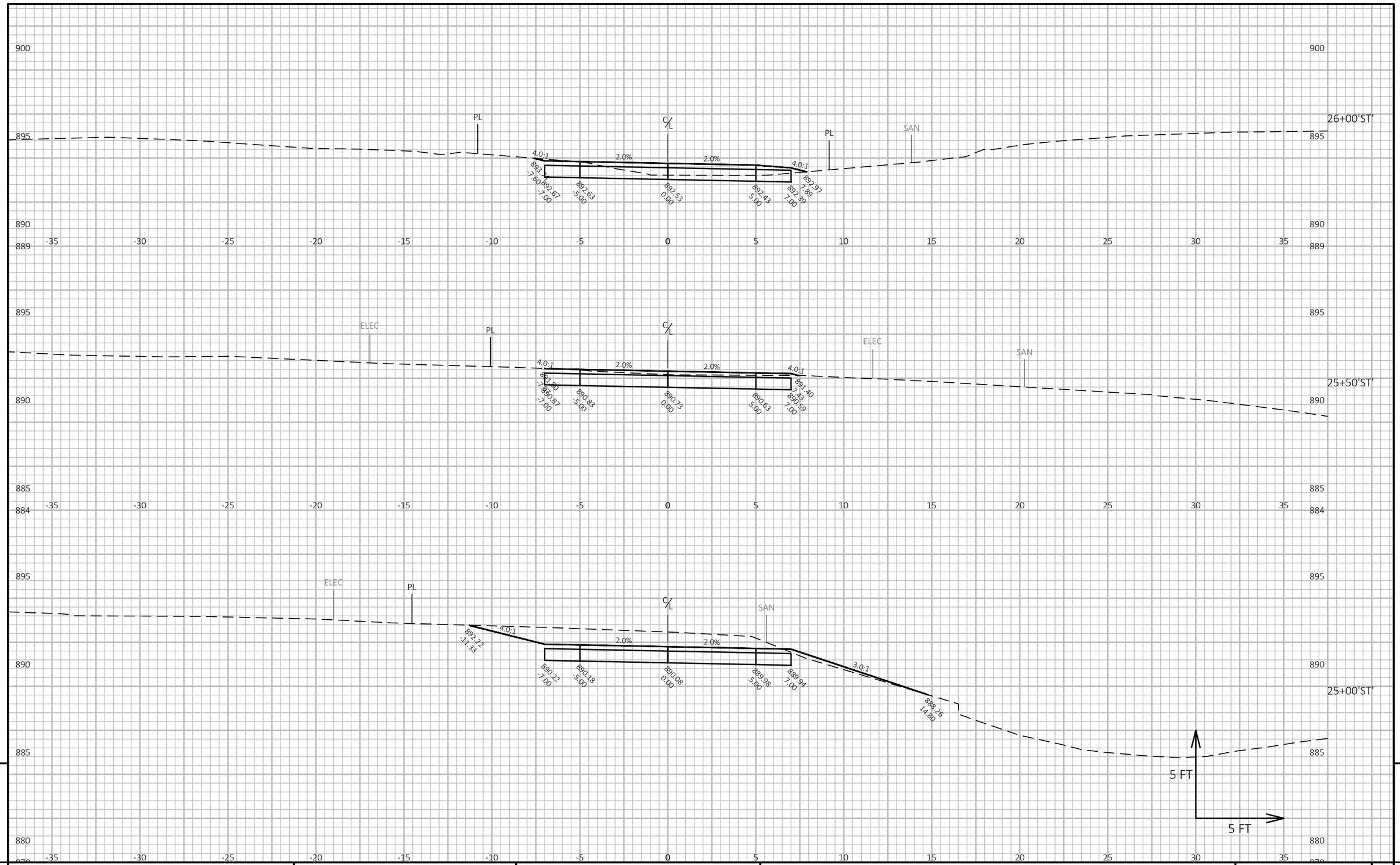


PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 243 E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 11

PLOT DATE : 7/29/2023 12:31 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



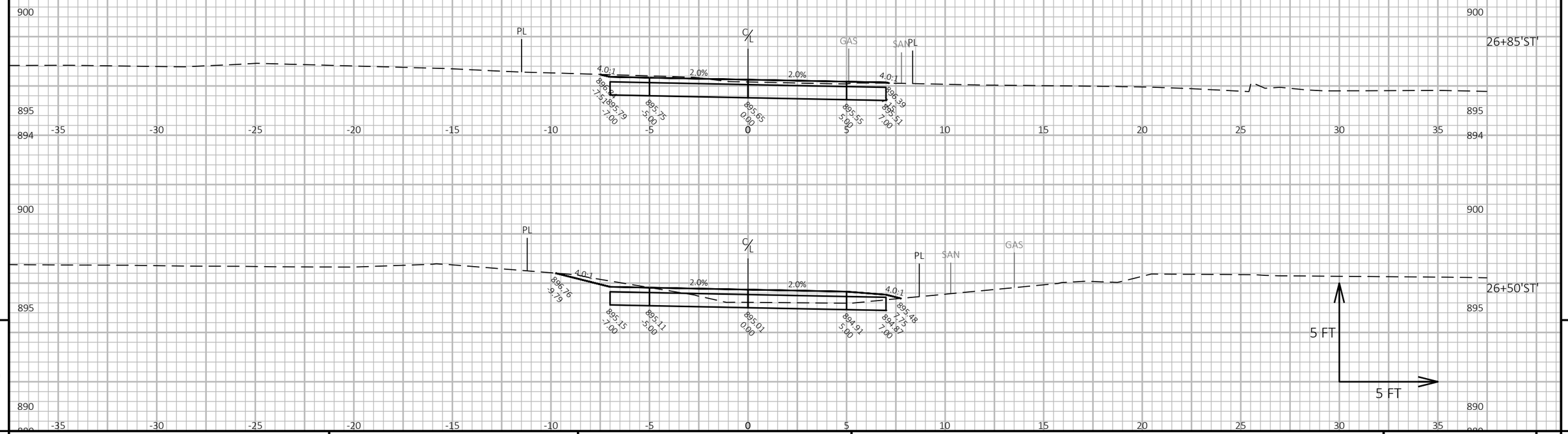
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 244	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 12

PLOT DATE : 7/29/2023 12:32 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 27+05'ST'



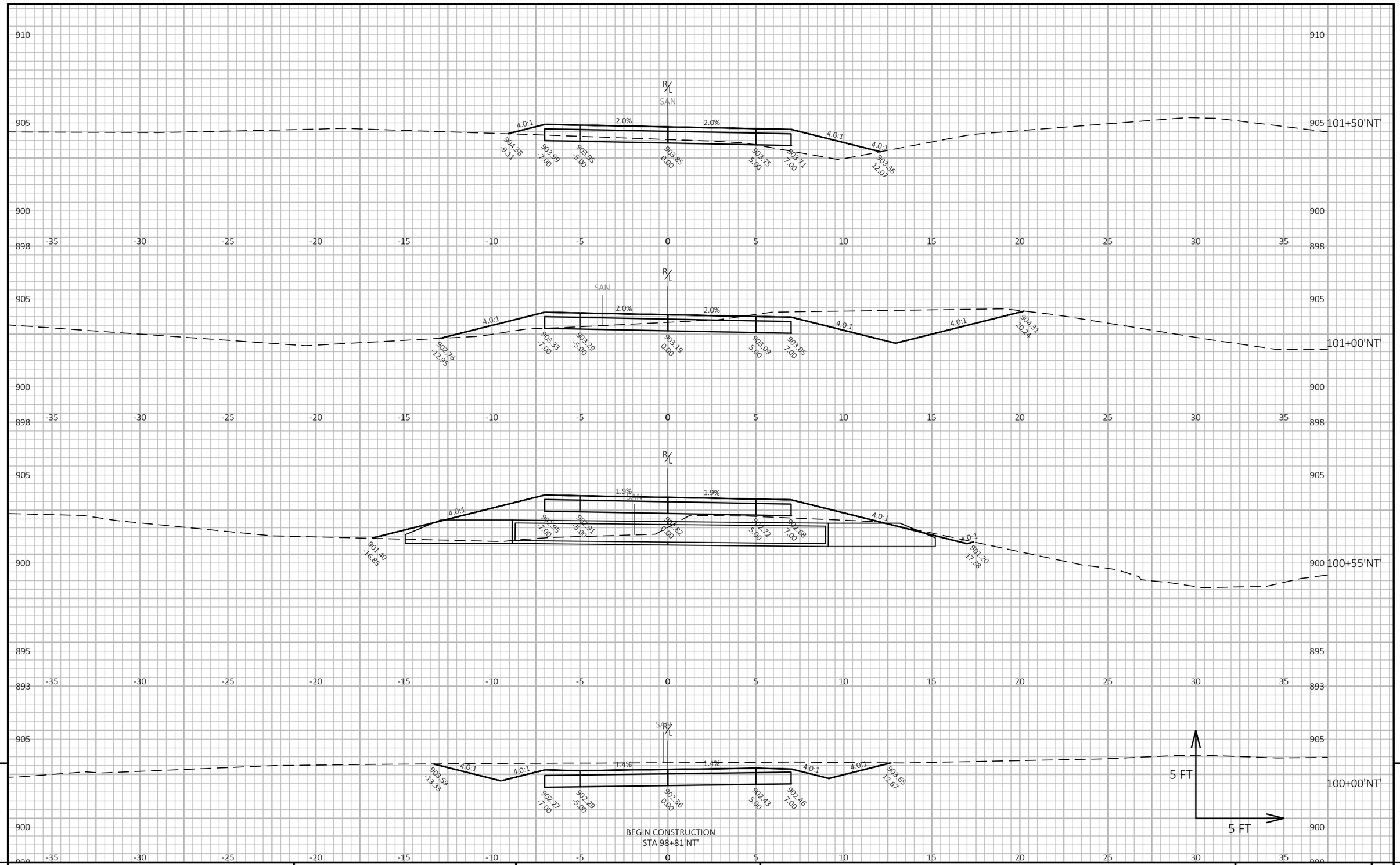
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9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: SOUTH TRAIL	SHEET 245	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - SOUTH TRAIL.DWG
LAYOUT NAME - 13

PLOT DATE : 7/29/2023 12:32 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.



9

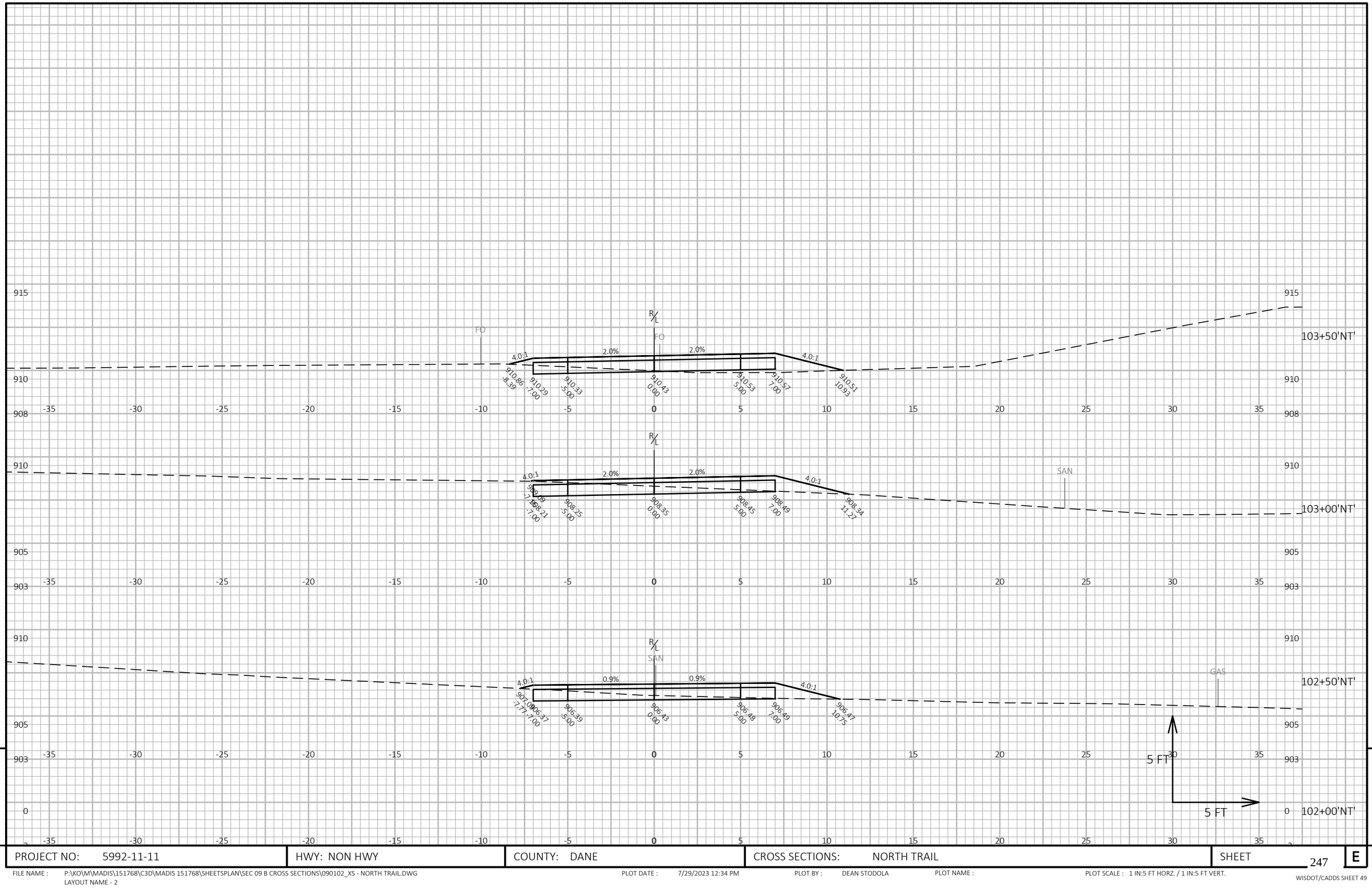
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 246	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 1

PLOT DATE : 7/29/2023 12:33 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

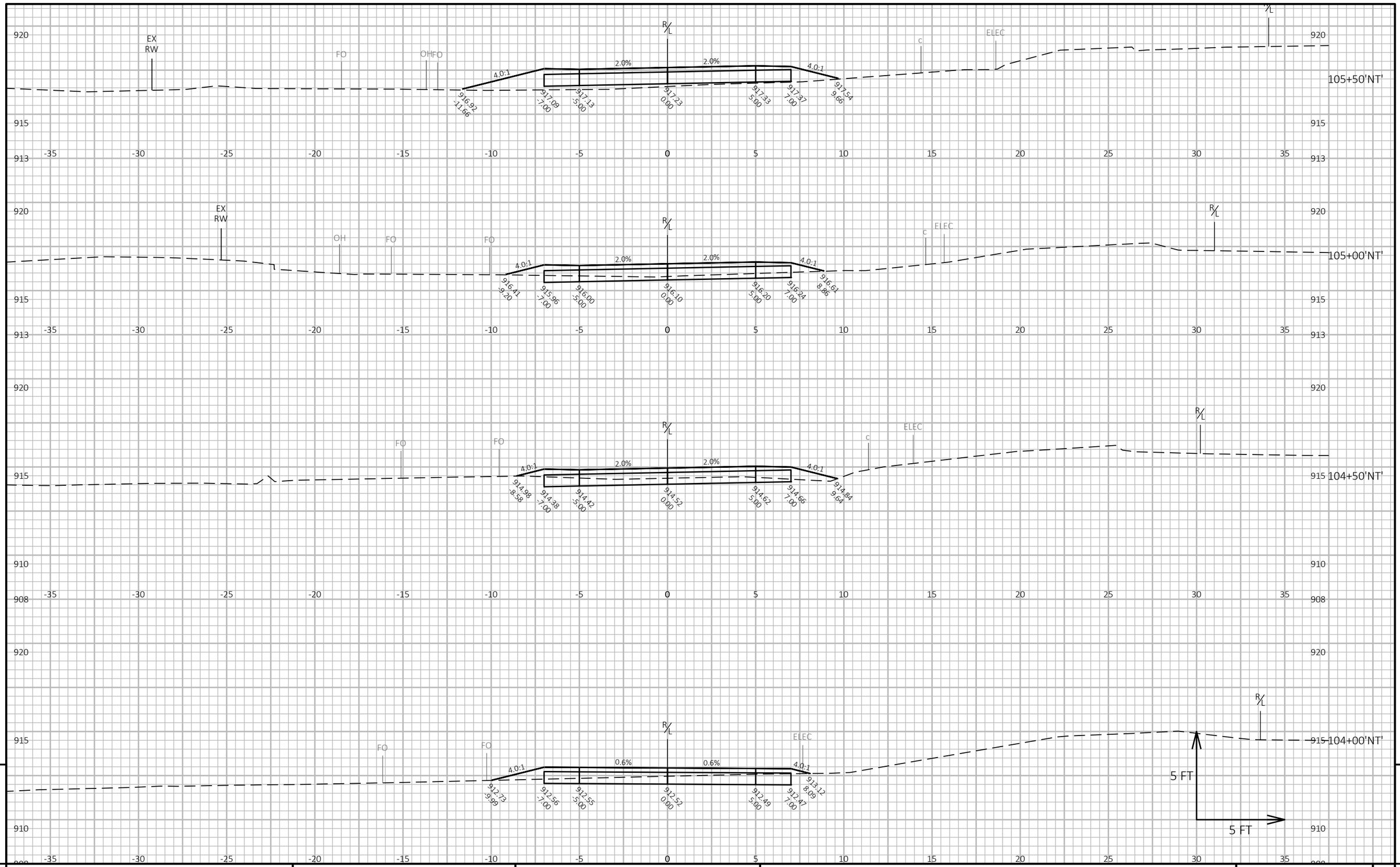
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 247	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 2

PLOT DATE : 7/29/2023 12:34 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

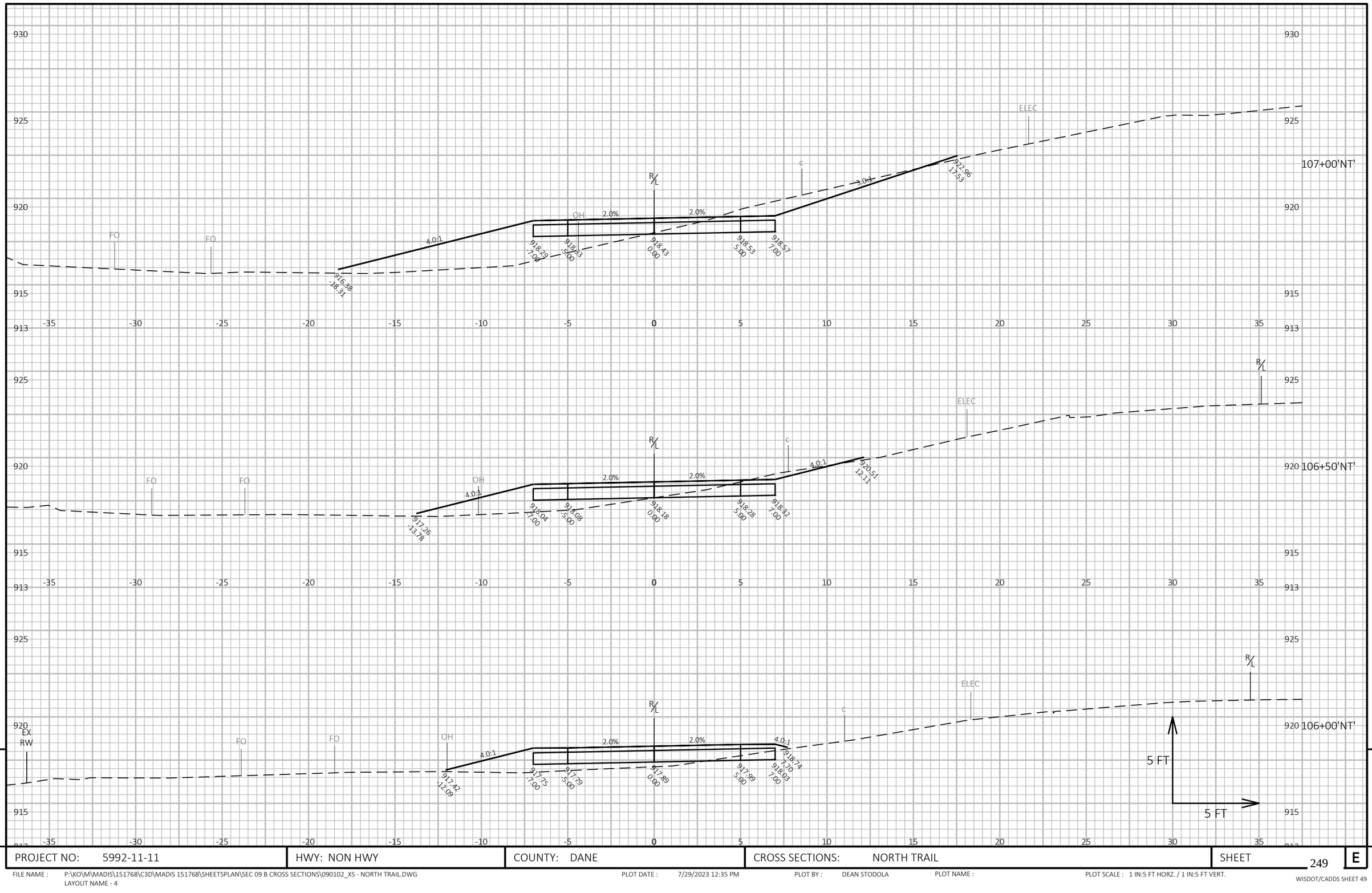
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 248	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 3

PLOT DATE : 7/29/2023 12:34 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

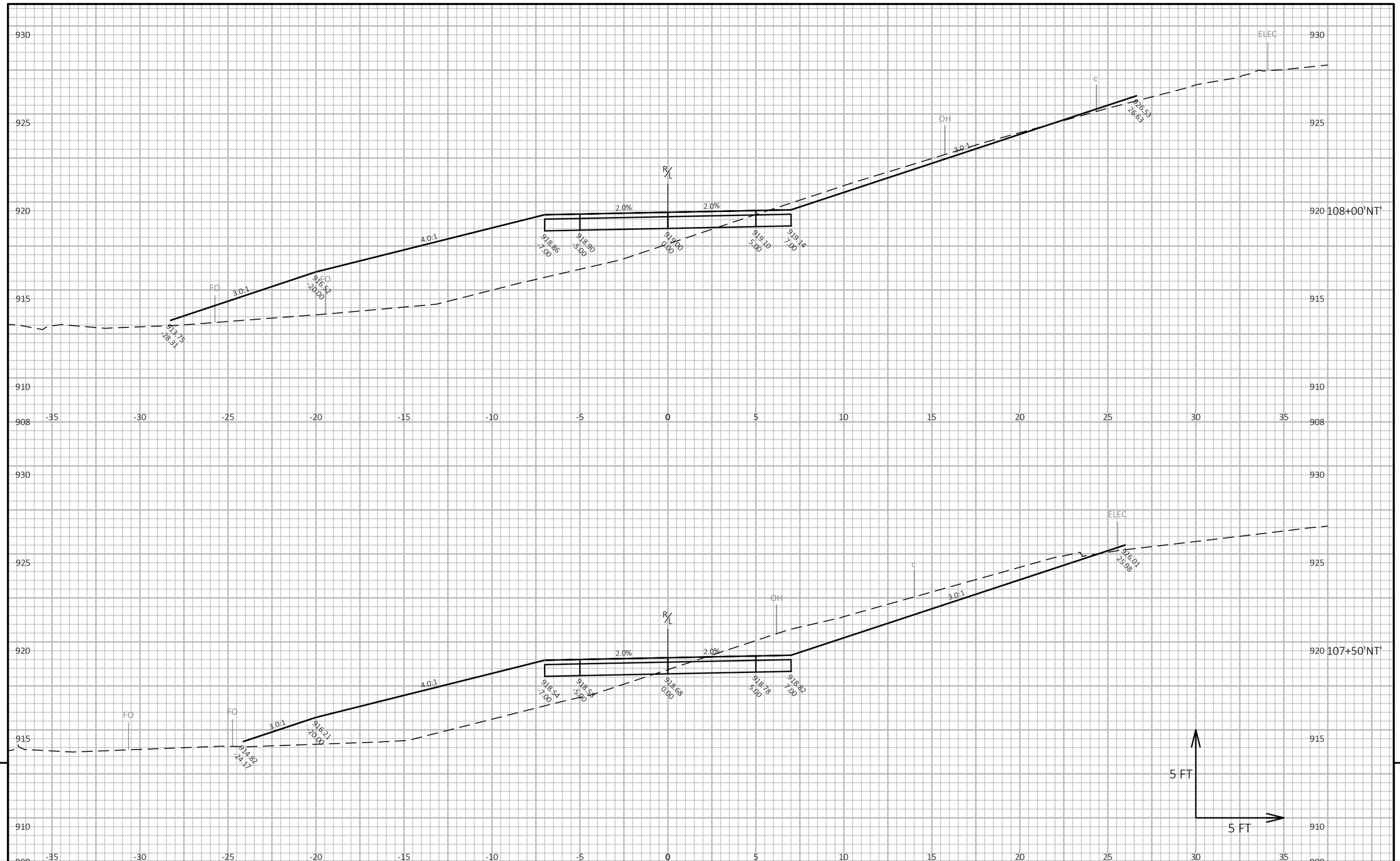
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 249	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 4

PLOT DATE : 7/29/2023 12:35 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

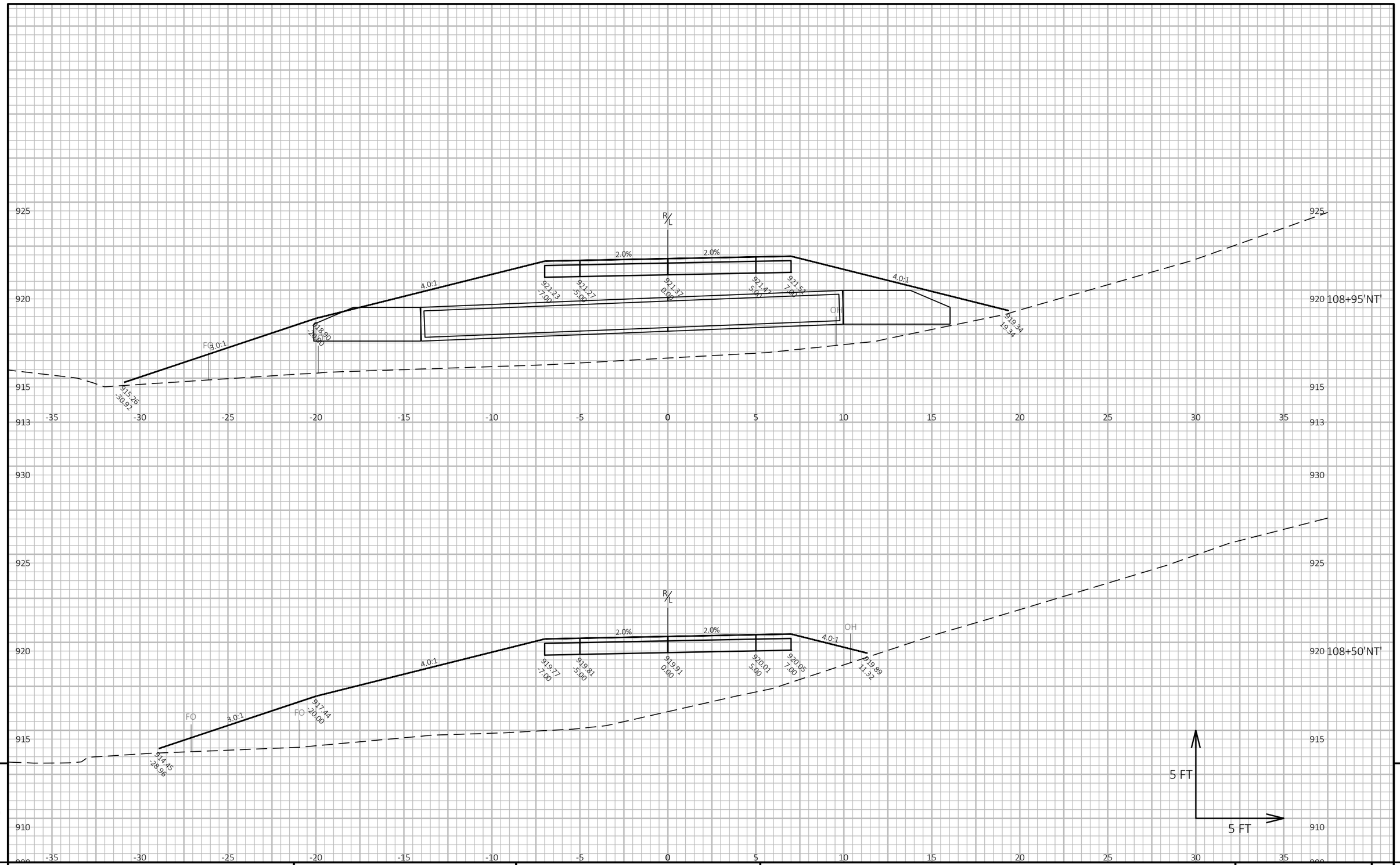
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 250	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 5

PLOT DATE : 7/29/2023 12:35 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

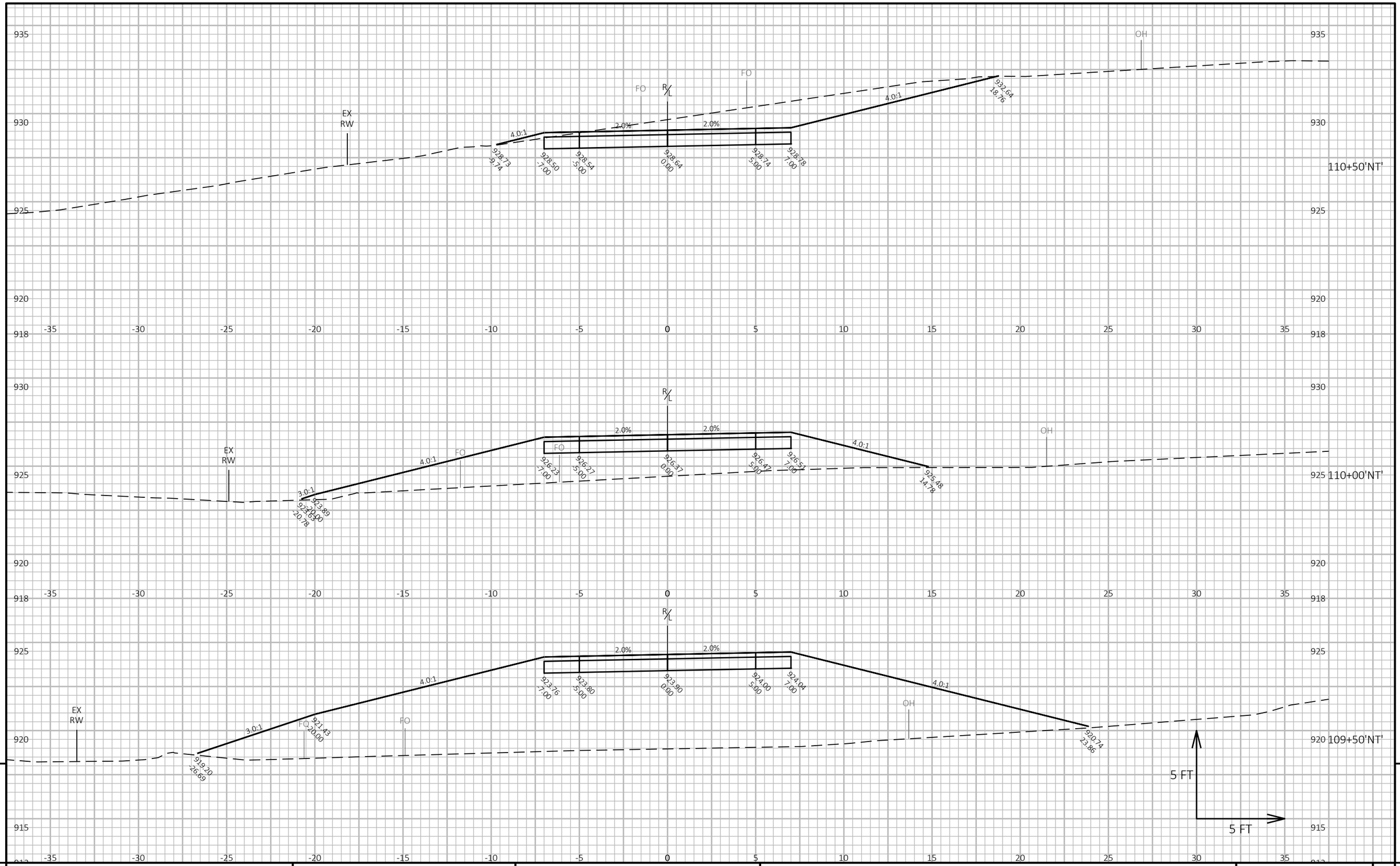
WISDOT/CADDS SHEET 49



PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 251	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 6

PLOT DATE : 7/29/2023 12:35 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.



9

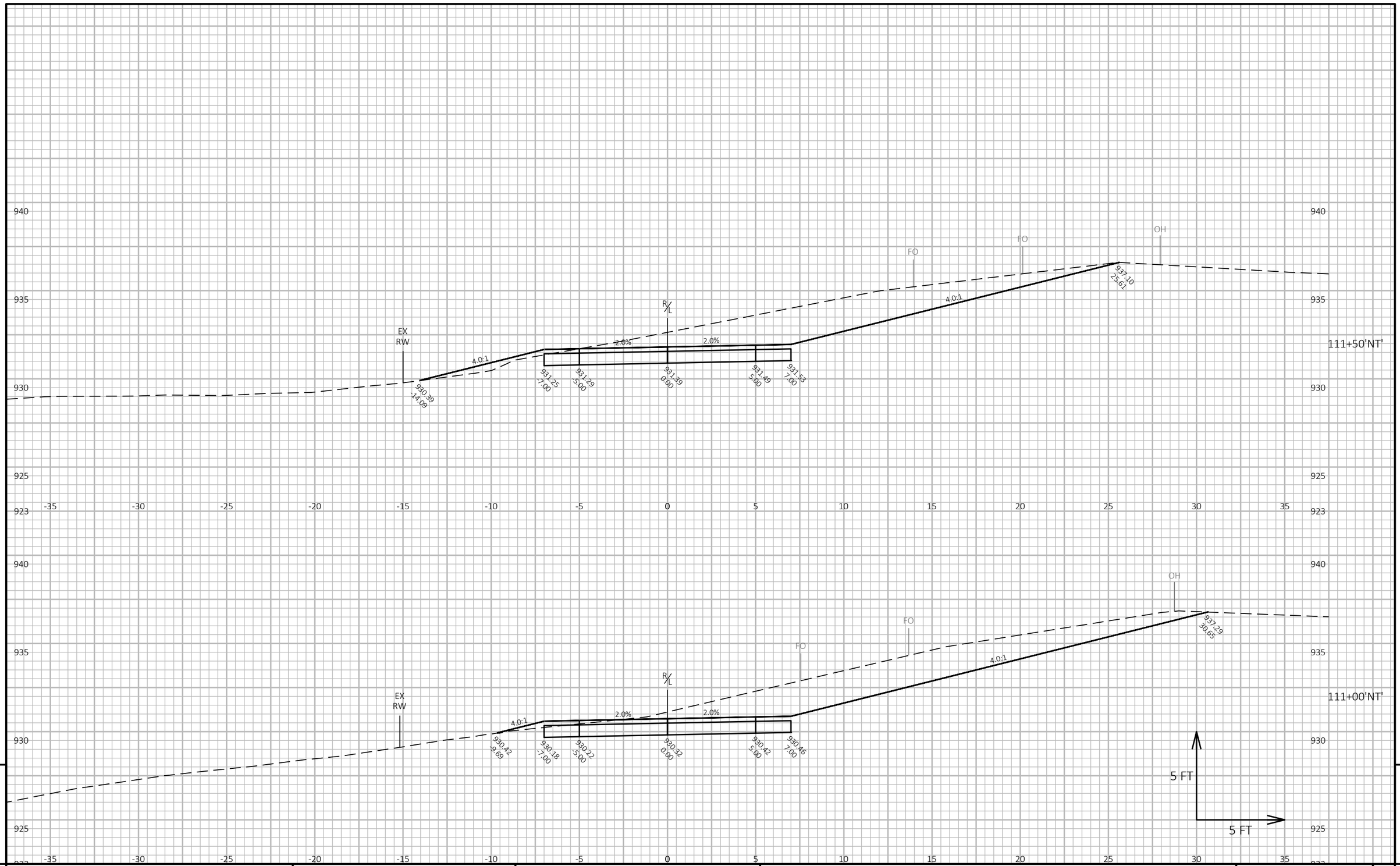
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 252	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 7

PLOT DATE : 7/29/2023 12:36 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

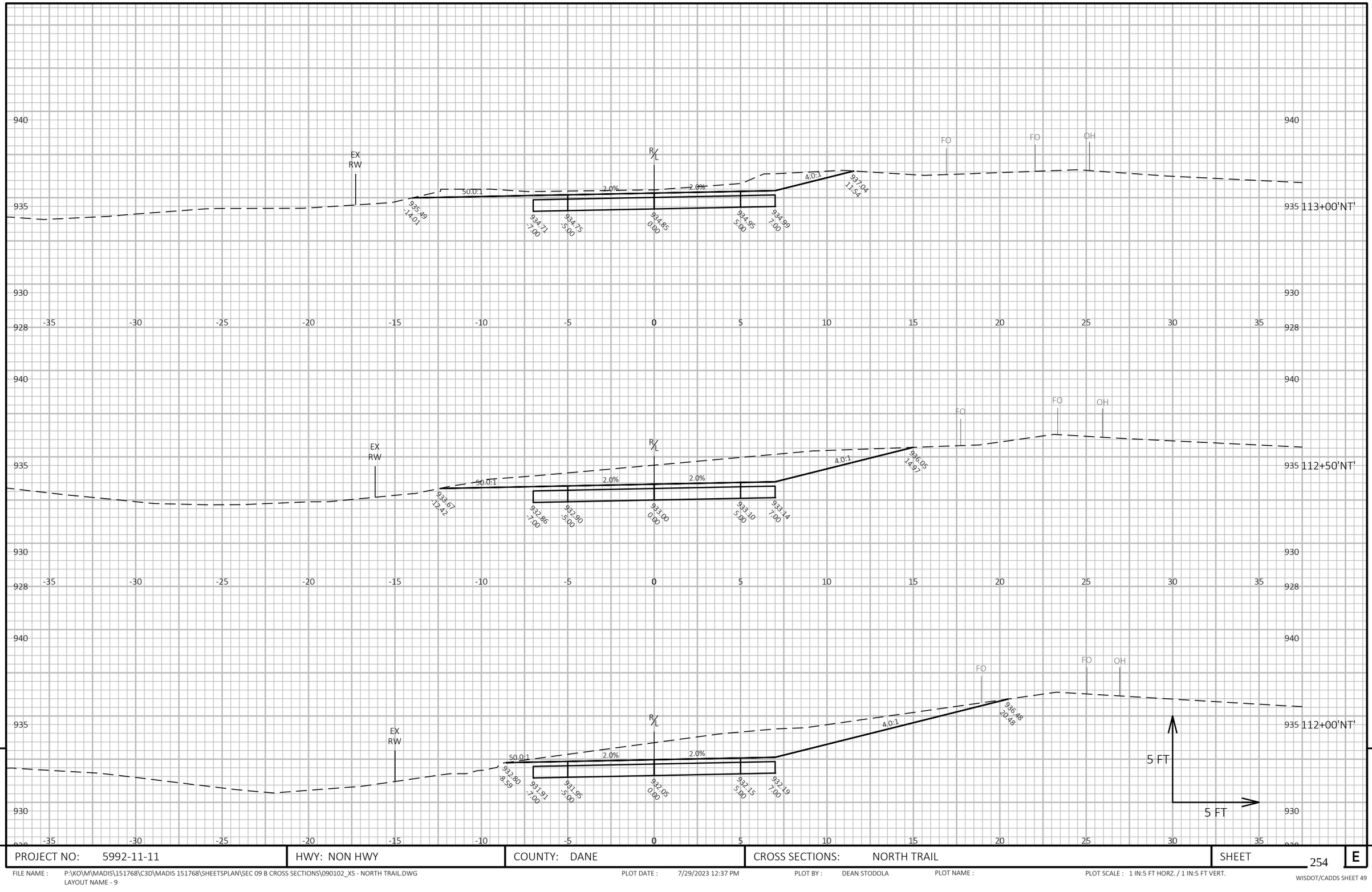
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 253	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 8

PLOT DATE : 7/29/2023 12:36 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

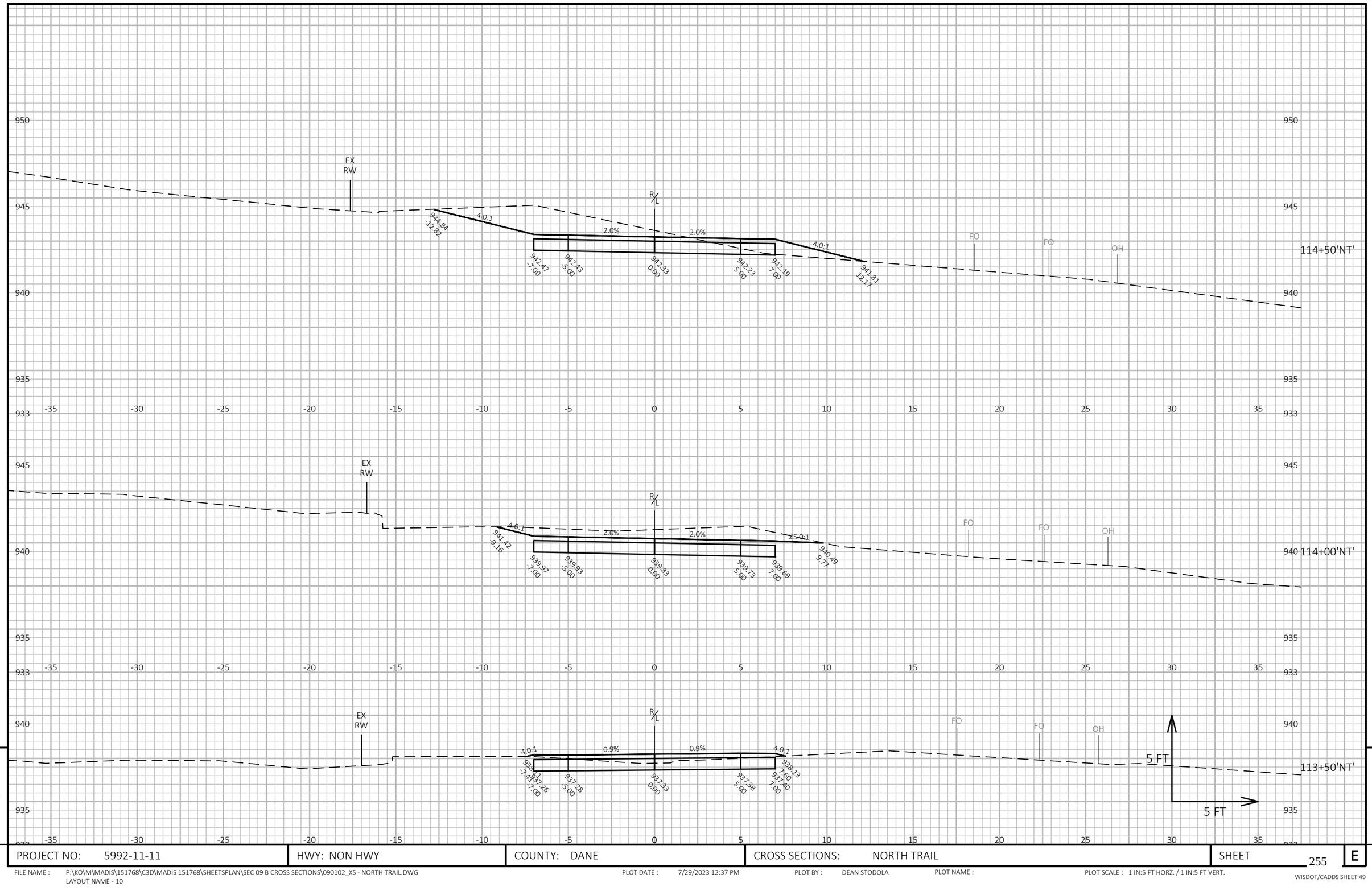
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PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 254	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 9

PLOT DATE : 7/29/2023 12:37 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

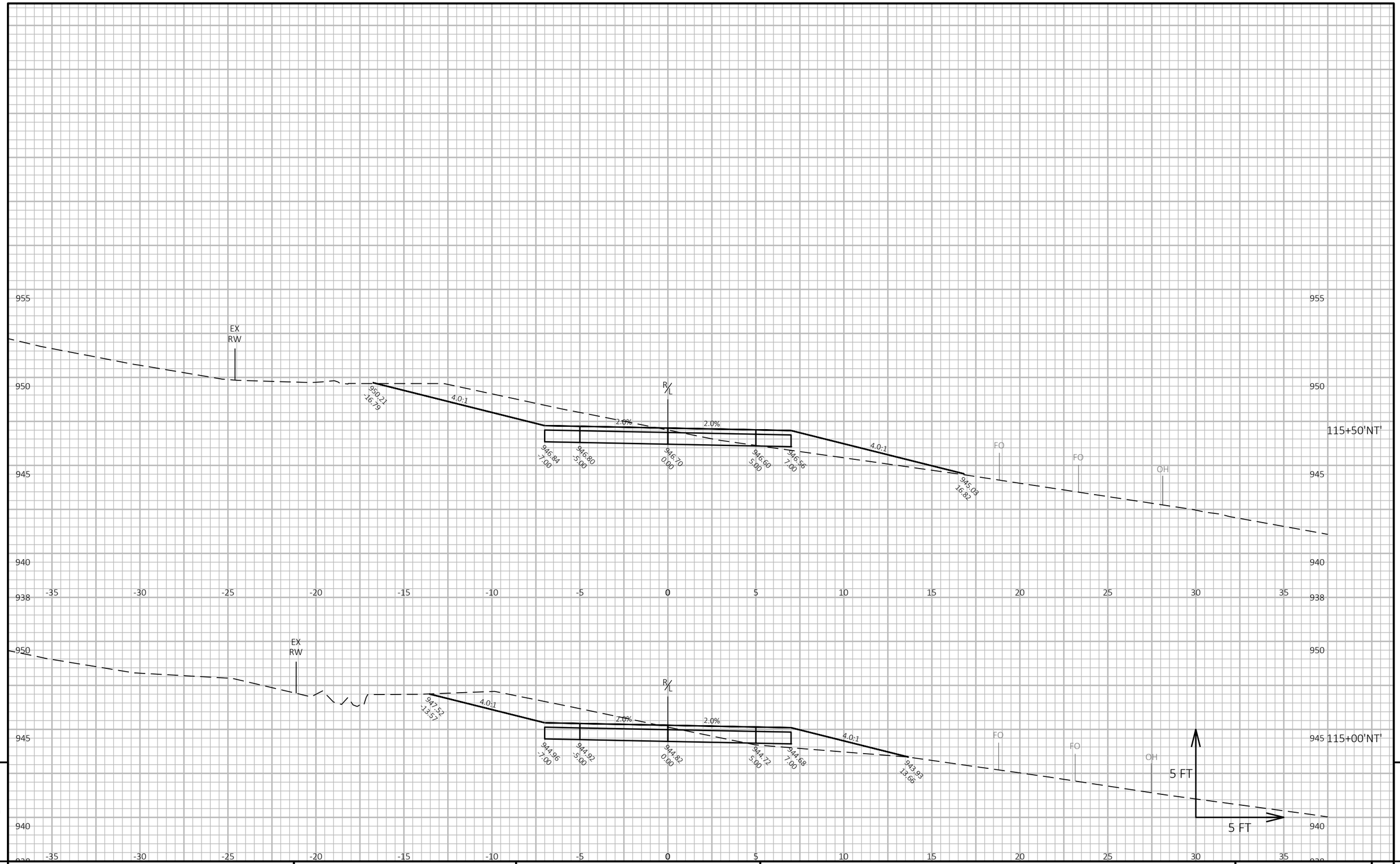
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 255	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 10

PLOT DATE : 7/29/2023 12:37 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

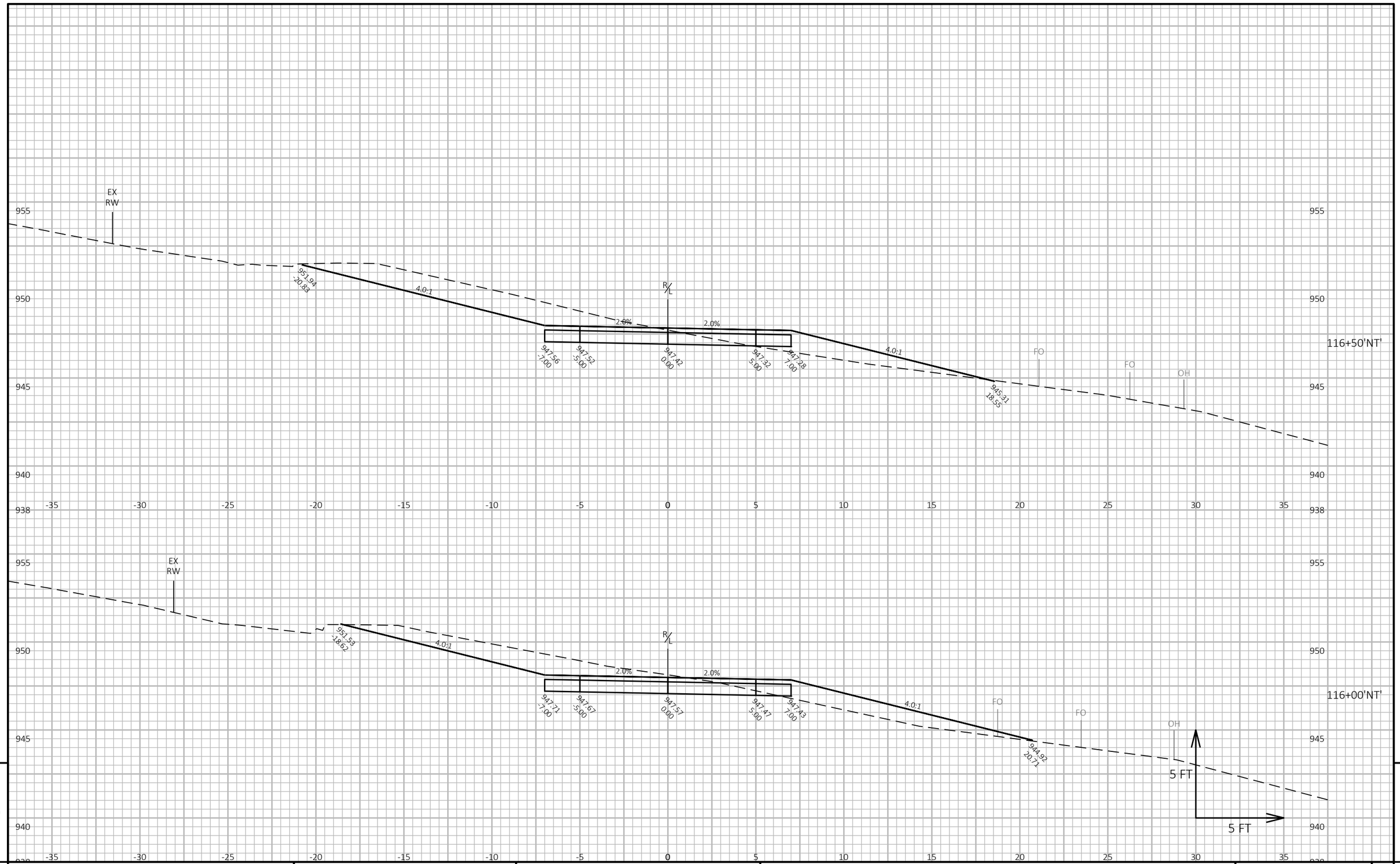


PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 256	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 11

PLOT DATE : 7/29/2023 12:38 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

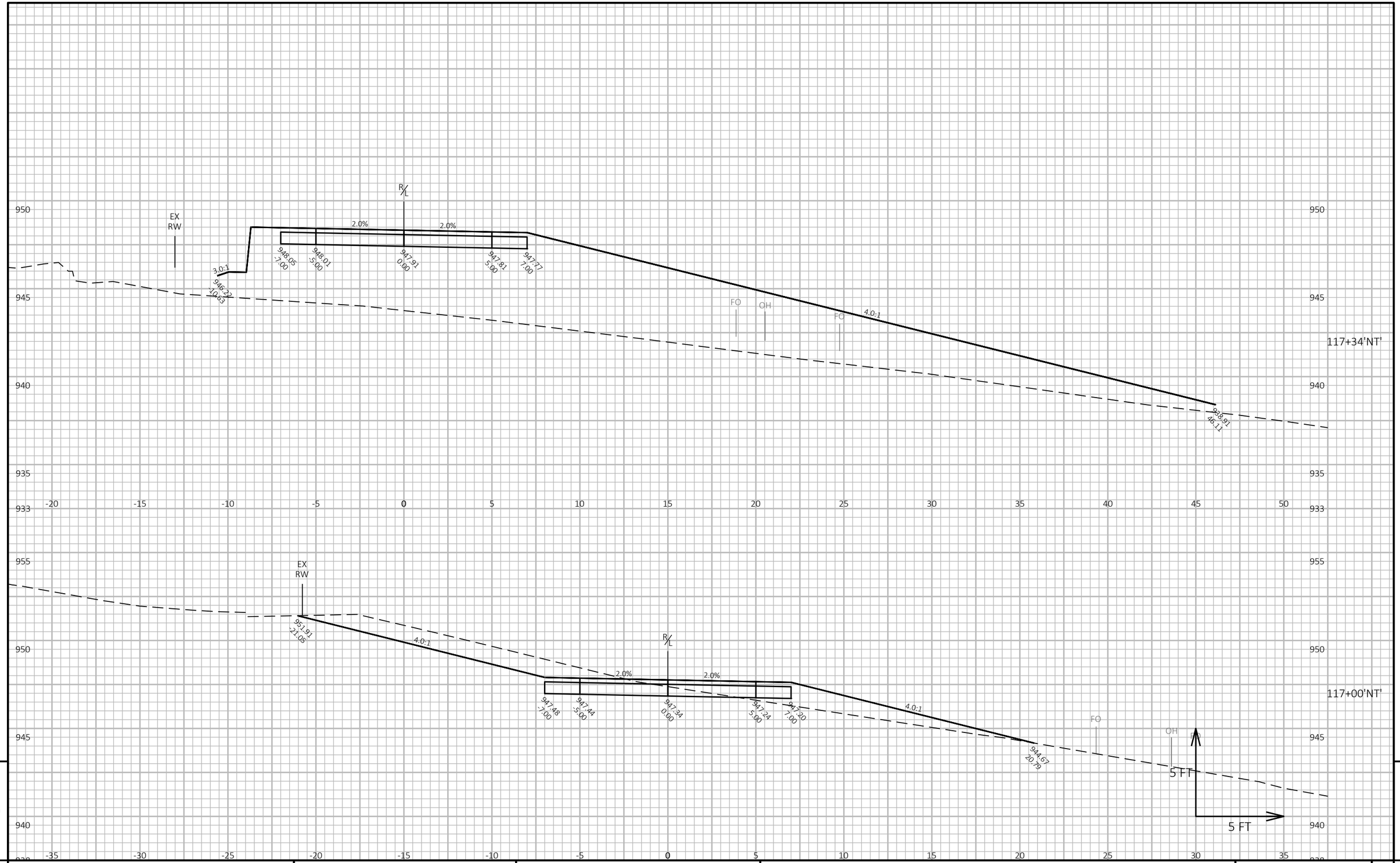
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 257	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 12

PLOT DATE : 7/29/2023 12:38 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

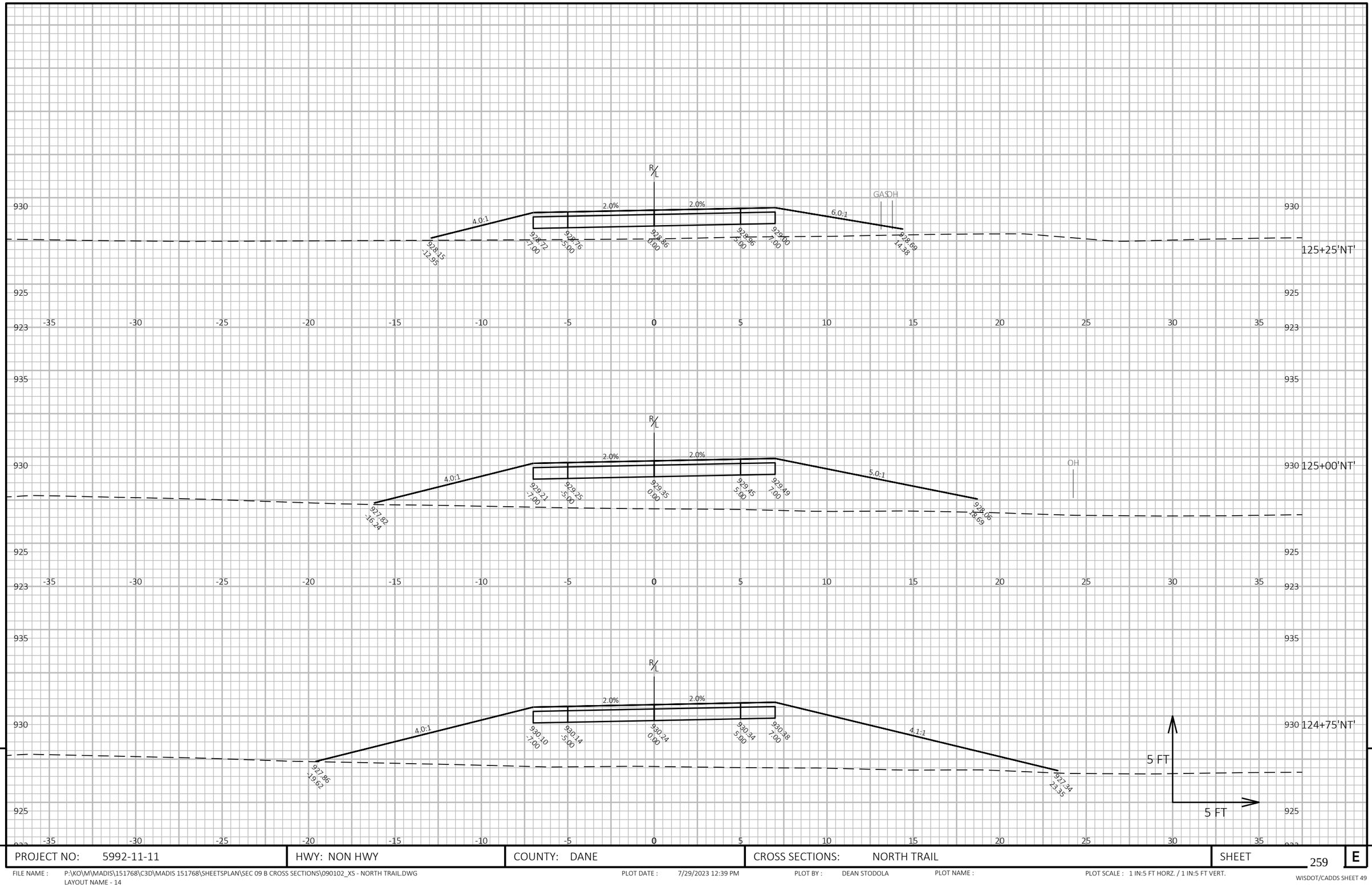
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 258	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 13

PLOT DATE : 7/29/2023 12:39 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

9

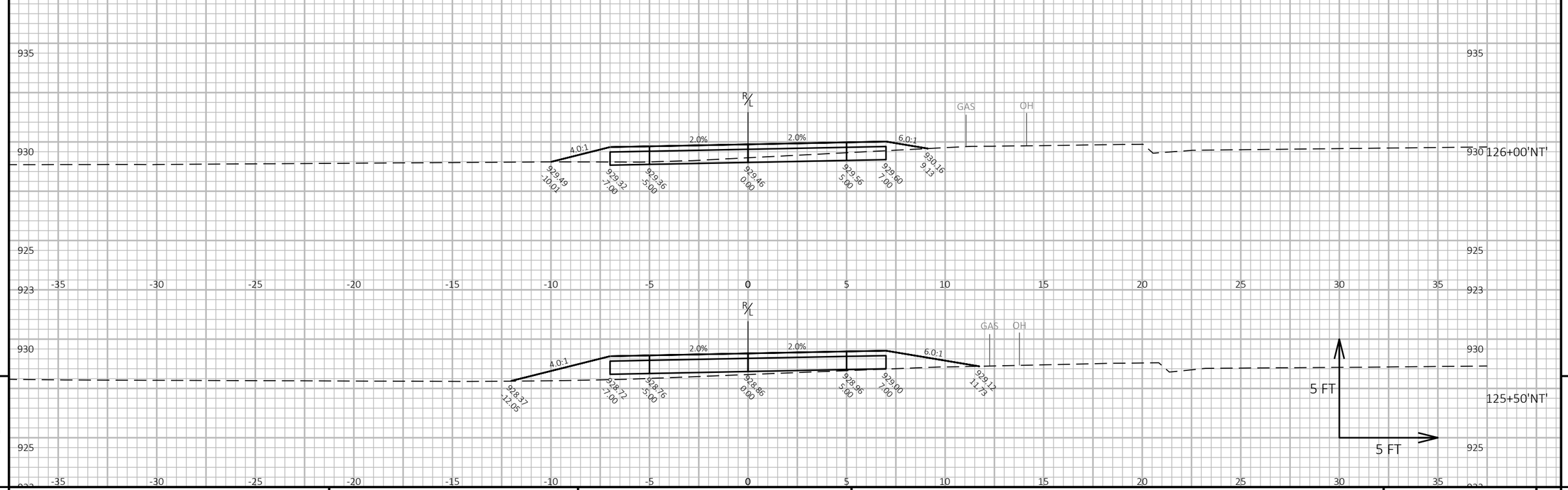
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 259	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 14

PLOT DATE : 7/29/2023 12:39 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

END PROJECT
STA 126+21'NT'



9

9

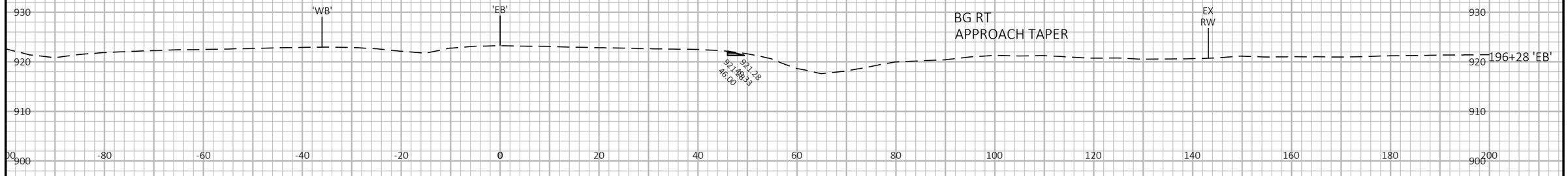
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: NORTH TRAIL	SHEET 260	E

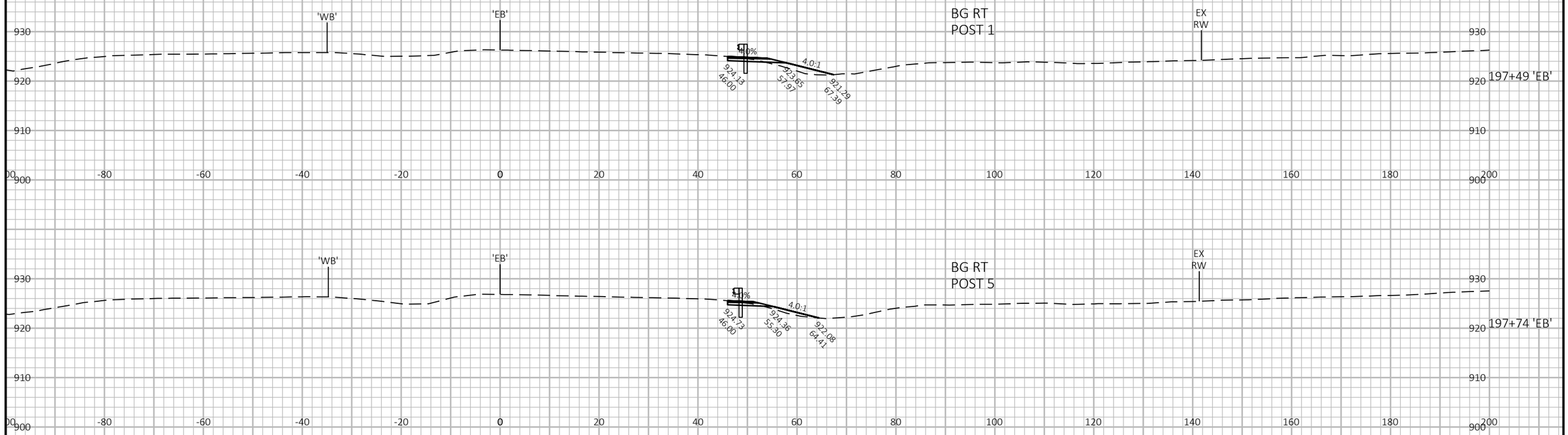
FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS - NORTH TRAIL.DWG
LAYOUT NAME - 15

PLOT DATE : 7/29/2023 12:40 PM PLOT BY : DEAN STODOLA PLOT NAME : PLOT SCALE : 1 IN:5 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

STA 196+28, RT
BEGIN SHOULDER CONSTRUCTION





STA 197+99, RT
END SHOULDER CONSTRUCTION

9 9

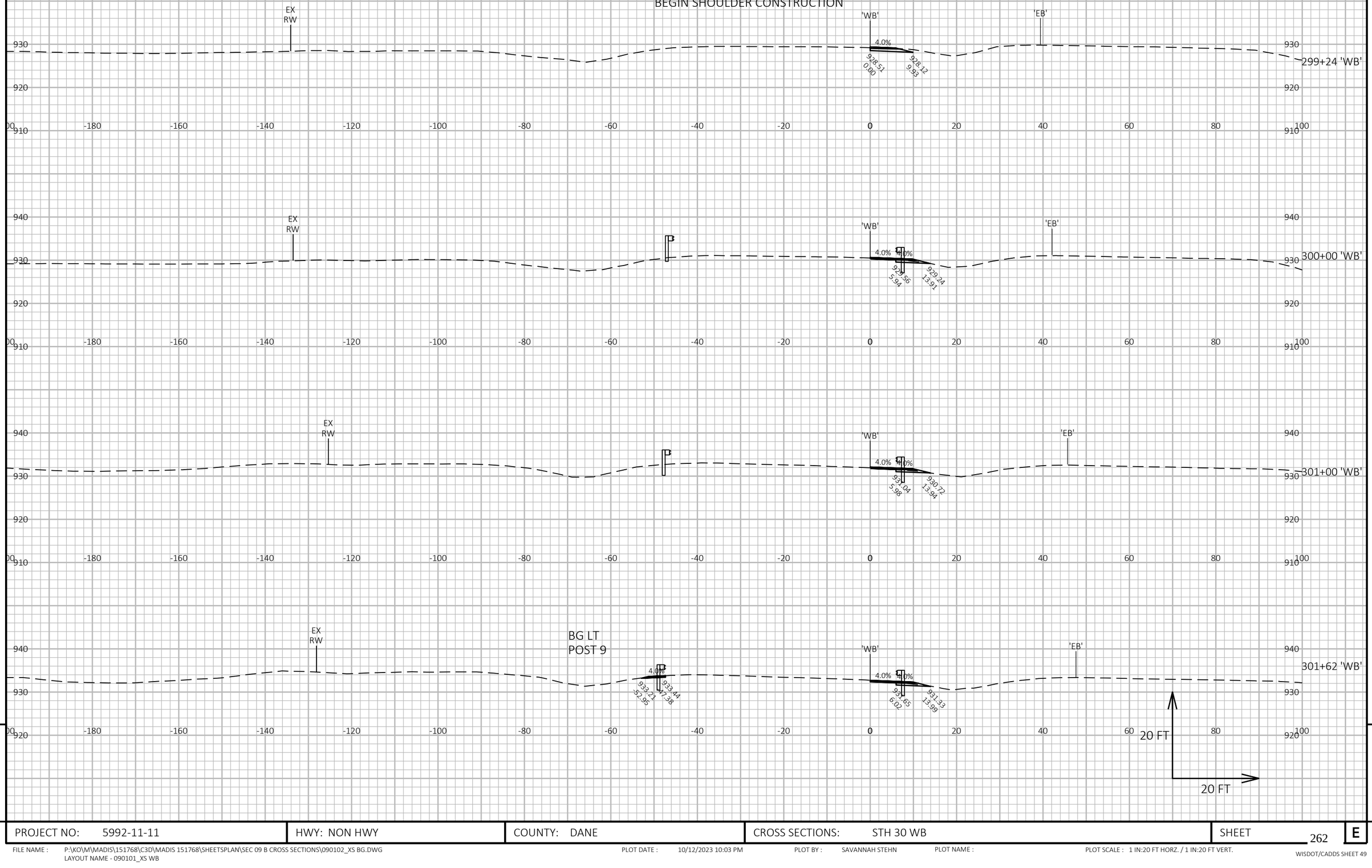
PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: STH 30 EB	SHEET 261	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS BG.DWG
LAYOUT NAME - 090101_XS EB

PLOT DATE : 10/12/2023 10:02 PM PLOT BY : SAVANNAH STEHN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

STA 299+24'WB', RT
BEGIN SHOULDER CONSTRUCTION



9

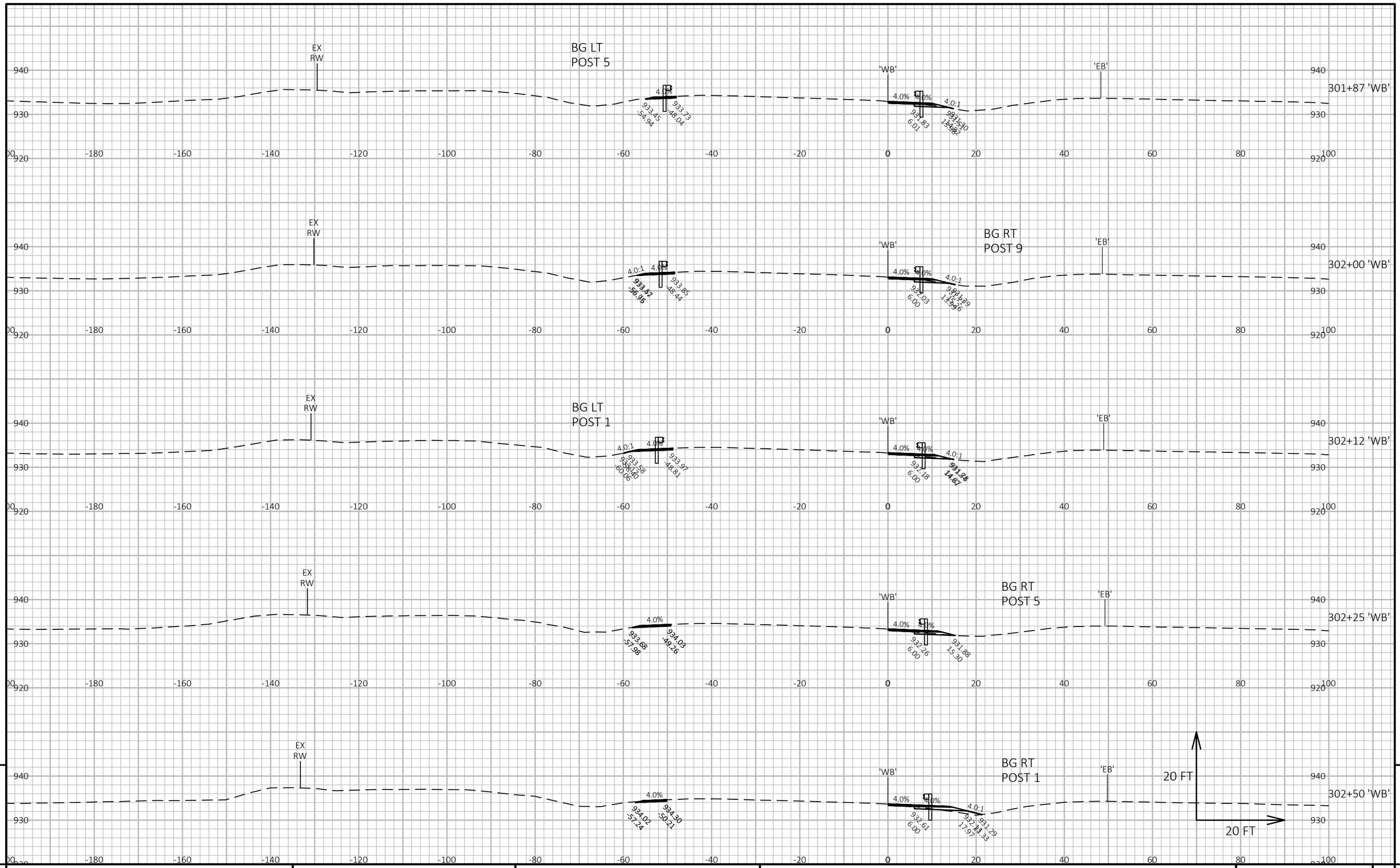
9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: STH 30 WB	SHEET 262	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS BG.DWG
LAYOUT NAME - 090101_XS WB

PLOT DATE : 10/12/2023 10:03 PM PLOT BY : SAVANNAH STEHN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: STH 30 WB	SHEET 263	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS BG.DWG
LAYOUT NAME - 090102_XS WB

PLOT DATE : 10/12/2023 10:03 PM PLOT BY : SAVANNAH STEHN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

EX RW

'WB'

'EB'

4.0%

934.64
934.44
934.44
-56.09

933.01
4.00

932.61
14.08

303+00 'WB'

940
930
920

-180 -160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100

EX RW

BG LT
APPROACH TAPER

'WB'

'EB'

4.0%

934.79
934.63
934.63
-55.08

933.23
4.00

932.93
11.49

303+31 'WB'

940
930
920

-180 -160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100

BG RT
APPROACH TAPER

'WB'

'EB'

933.54
933.34
933.34
4.00

303+70 'WB'

940
930
920

-180 -160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100

STA 303+70'WB', RT
END SHOULDER CONSTRUCTION

20 FT

20 FT

9

9

PROJECT NO: 5992-11-11	HWY: NON HWY	COUNTY: DANE	CROSS SECTIONS: STH 30 WB	SHEET 264	E

FILE NAME : P:\KO\M\MADIS\151768\C3D\MADIS 151768\SHEETSPLAN\SEC 09 B CROSS SECTIONS\090102_XS BG.DWG
LAYOUT NAME - 090103_XS WB

PLOT DATE : 10/12/2023 10:04 PM PLOT BY : SAVANNAH STEHN PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov