NOV 2016

ORDER OF SHEETS

Section No. 1 Section No. 2 Typical Sections and Details Estimate of Quantities Section No. 3

Section No. 3 Miscellaneous Quantities Section No. 4 Right of Way Plat

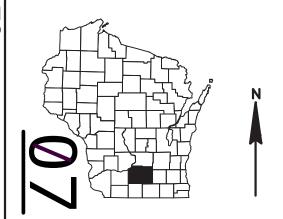
Section No. 5 Plan and Profile

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 = 314



= 1,400,000

DESIGN DESIGNATION - S. HIGH POINT ROAD DESIGN DESIGNATION - USH 12/14

(2016) = 16.800A.A.D.T. (2016) = 59,800A.A.D.T. A.A.D.T. (2036) = 22,400A.A.D.T. (2036) = 87,600 = 1,506 = 5,117 D.H.V. D₂H₂V₂ = 59/41 = 59/41 D.D. = 2.8% = 7.7% DESIGN SPEED = 40 MPH DESIGN SPEED = 60 MPH

= N/A

₽ Ø

CONVENTIONAL SYMBOLS

WOODED OR SHRUB AREA

ESALS

PROFILE PI AN GRADE LINE CORPORATE LIMITS *!//////* ORIGINAL GROUND PROPERTY LINE ROCK MARSH OR ROCK PROFILE LOT LINE (To be noted as such) LIMITED HIGHWAY EASEMENT SPECIAL DITCH EXISTING RIGHT OF WAY GRADE ELEVATION PROPOSED OR NEW R/W LINE CULVERT (Profile View) SLOPE INTERCEPT UTILITIES REFERENCE LINE ELECTRIC EXISTING CULVERT FIBER OPTIC PROPOSED CULVERT (Box or Pipe) SANITARY SEWER COMBUSTIBLE FLUIDS STORM SEWER TELEPHONE WATER MARSH AREA

UTILITY PEDESTAL

TELEPHONE POLE

POWER POLE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

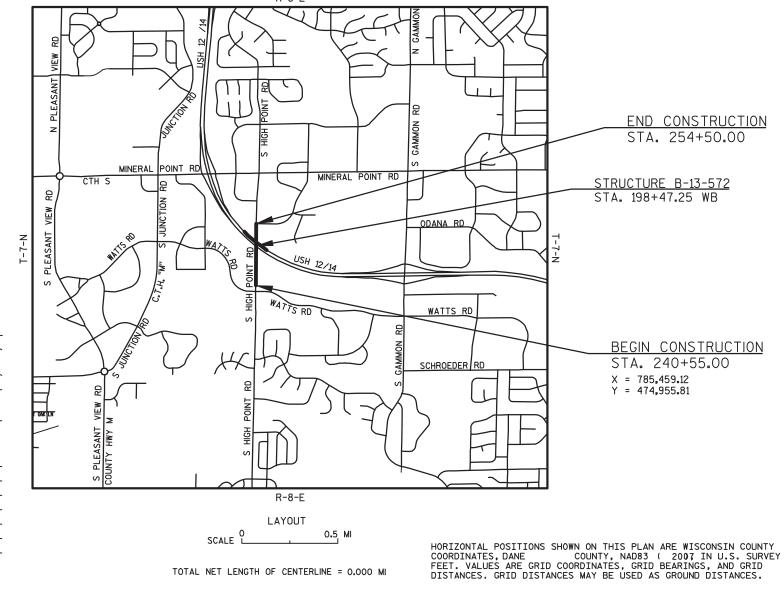
WEST MADISON BELTLINE

(HIGH POINT STRUCTURE & APPRS)

USH 12 DANE

STATE PROJECT NUMBER 5300-02-73

R-8-F



DEPARTMENT OF TRANSPORTATION PREPARED BY

STATE OF WISCONSIN

FEDERAL PROJECT

CONTRACT

PROJECT

WISC 2016343

STATE PROJECT

5300-02-73

WISDOT Surveyor BEN THOMPSON DAVID LAYTON Project Manager BRENDA SCHOENFELD

APPROVED FOR THE DEPARTMENT

James Tay 5 DATE: 4/29/2016

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.

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

RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE

ANY EXISTING SIGN REMOVALS NOT CALLED OUT ON THE PERMANENT SIGNING & MARKING DETAILS SHALL BE REMOVED AND SALVAGED BY THE CITY OF MADISON UPON CLOSURE OF THE STREET.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING WITH CLASS I URBAN EROSION MAT ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

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

SIDEWALK REPLACEMENT SHOULD BE TO THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE ENGINEER. MATCH EXISTING SIDEWALK WIDTH.

CONTRACTOR SHALL VERIFY UTILITY DEPTHS AT ALL PROPOSED CONNECTION POINTS TO EXISTING SYSTEMS.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER SHALL DETERMINE THE EXACT LOCATION. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

SEE PLAN AND PROFILE FOR EXISTING SHALLOW STORM SEWER LOCATIONS. SHALLOW STORM SEWER IS ESTIMATED TO HAVE LESS THAN 1 FOOT OF COVER BELOW BOTTOM OF CONCRETE PAVEMENT.

SECTION 2 ORDER OF SHEETS GENERAL NOTES PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS PLAN DETAILS **EROSION CONTROL** STORM SEWER PLAN PLANTING LIGHTING PLAN ELECTRICAL DETAILS PAVEMENT MARKING & PERMANENT SIGNING TRAFFIC CONTROL DETOURS FENCE PLAN ALIGNMENT DETAILS

UTILITIES

CHARTER COMMUNICATIONS - COMMUNICATIONS LINE TOM PAYNE 2701 DANIELS ST. MADISON, WI 53718 (608) 574-3331 TOM.PAYNE@CHARTER.COM

ALLIANT ENERGY CORPORATION - ELECTRICITY PATRICK MUELLER 2147 COUNTY ROAD PB VERONA, WI. 53593-9225 (608) 845-1143 M: (920) 948-3527 PATMUELLER@ALLIANTENERGY.COM

TDS TELECOM - COMMUNICATION LINE SHERA BEST 4001 FELLAND RD. STE. 108 MADISON, WI. 53718 (608) 244-4140 EXT. 6551 M: (608) 438-4139 SBEST@MI-TECH.US

ATC MANAGEMENT, INC. - ELECTRICITY ALEXANDER METZ 5303 FEN OAK DRIVE MADISON, WI 53704 (608) 877-7105 METZ.A@OUTLOOK.COM MADISON GAS AND ELECTRIC COMPANY - GAS/PETROLEUM STEVE BEVERSDORF 133 S BLAIR ST.
MADISON, WI 53788 (608) 252-1552
M: (608) 444-9620
SBEVERSDORF@MGE.COM

MADISON WATER UTILITY - WATER ADAM WIEDERHOEFT 119 E OLIN AVE. MADISON, WI 53713-1431 (608) 266-9121 M: (608) 213-1844 AWIEDERHOEFT@MADISONWATER.ORG

UW-MADISON/DOIT NETWORK SERVICES - COMMUNICATIONS LINE PAUL NAZARIO MUFN (608) 576-8347 (608) 262-2595 NAZARIO@DOIT.WISC.EDU

CITY OF MADISON - SIGNALS AND LIGHTING MICHAEL CHRISTOPH 1120 SAYLE STREET (608) 266-4767 MCHRISTOPH@CITYOFMADISON.COM

WISDOT - COMMUNICATIONS LINE KYLE HEMP 2101 WRIGHT STREET MADISON, WI 53704 (608) 246-5367 KYLE-HEMP@DOT.WI.GOV

OTHER AGENCIES

CITY OF MADISON ENGINEERING

TONY FERNANDEZ - ENGINEERING 608-266-9219 AFERNANDEZ@CITYOFMADISON.COM

GREG FRIES - STORM SEWER 608-267-1199 GFRIES@CITYOFMADISON.COM

CITY-COUNTY BUILDING, ROOM 115 210 MARTIN LUTHER KING, JR. BLVD. MADISON, WI 53703

CITY OF MADISON TRAFFIC ENGINEERING

BRIAN SMITH - TRAFFIC ENGINEERING (608) 261-9625 BSMITH@CITYOFMADISON.COM 215 MARTIN LUTHER KING JR. BLVD., SUITE 100 MADISON MUNICIPAL BUILDING MADISON, WI 53703 DNR LIAISON

ERIC HEGGELUND 3911 FISH HATCHERY ROAD MADISON, WI. 53711 (608) 275-3301 ERIC.HEGGELUND@WISCONSIN.GOV

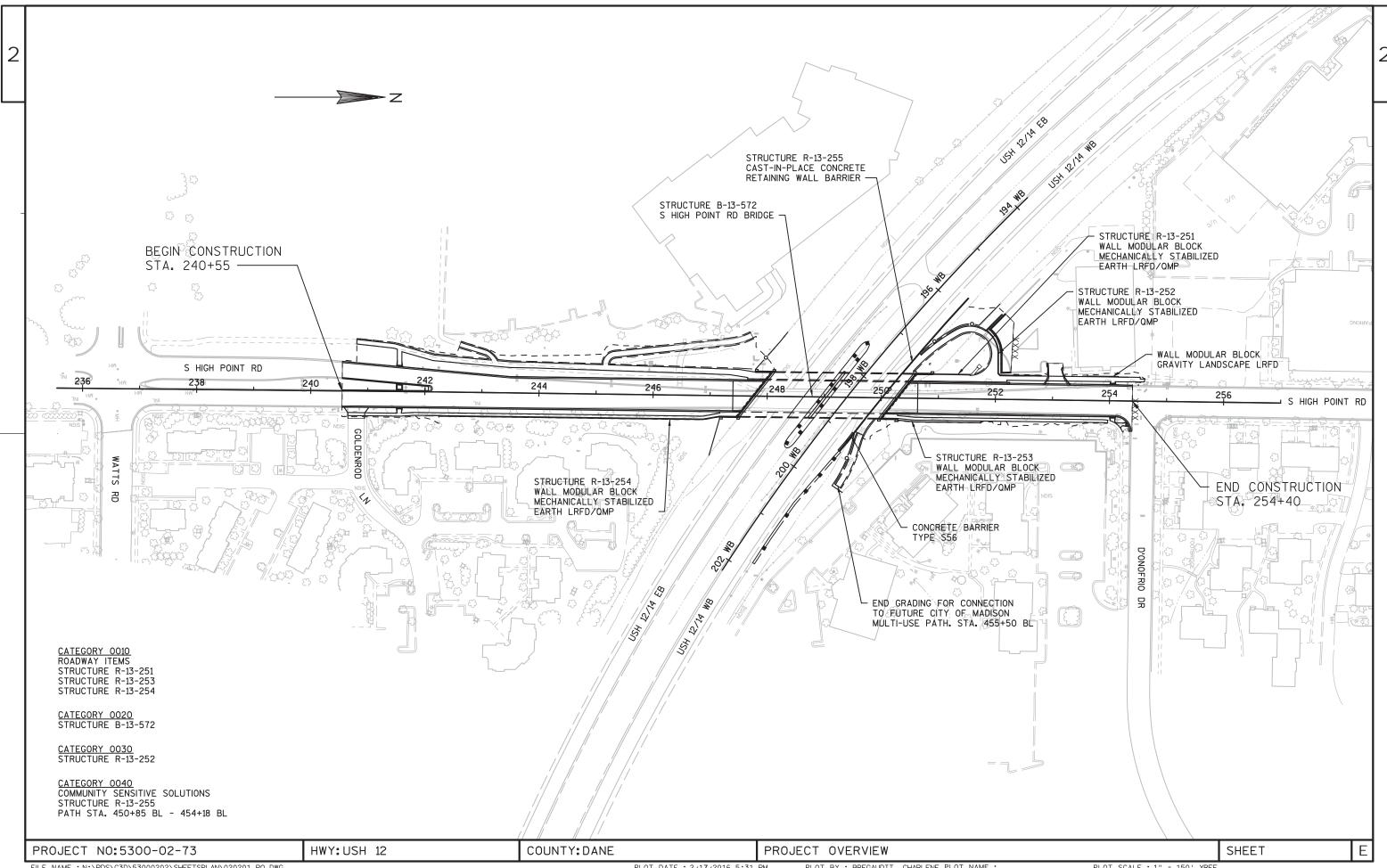
WISDOT REGION CONTACT

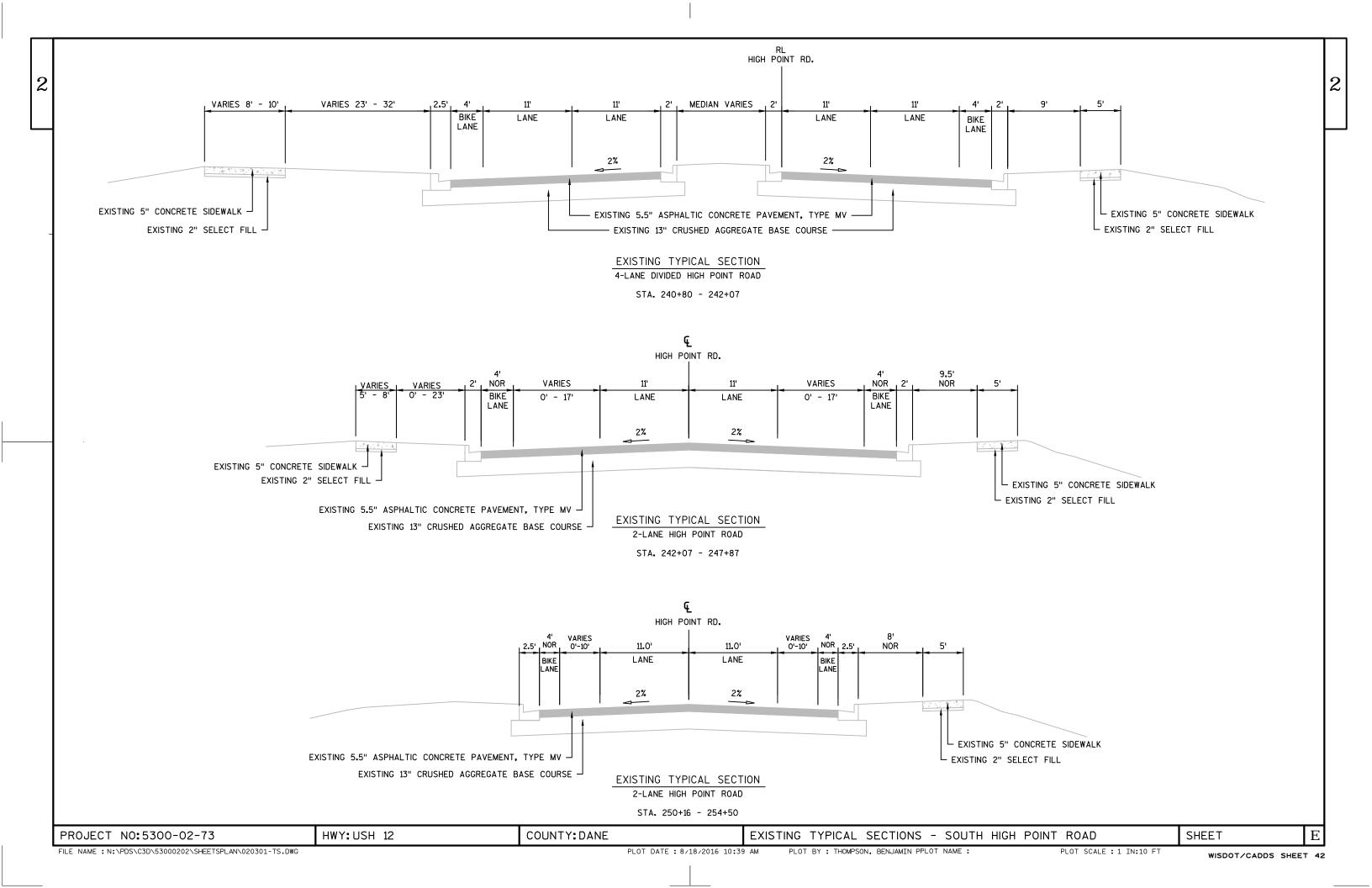
DAVID LAYTON, P.E. WISDOT SOUTHWEST REGION MADISON OFFICE 2101 WRIGHT ST. MADISON, WI. 53704 (608) 246-3821 DAVID.LAYTON@DOT.WI.GOV



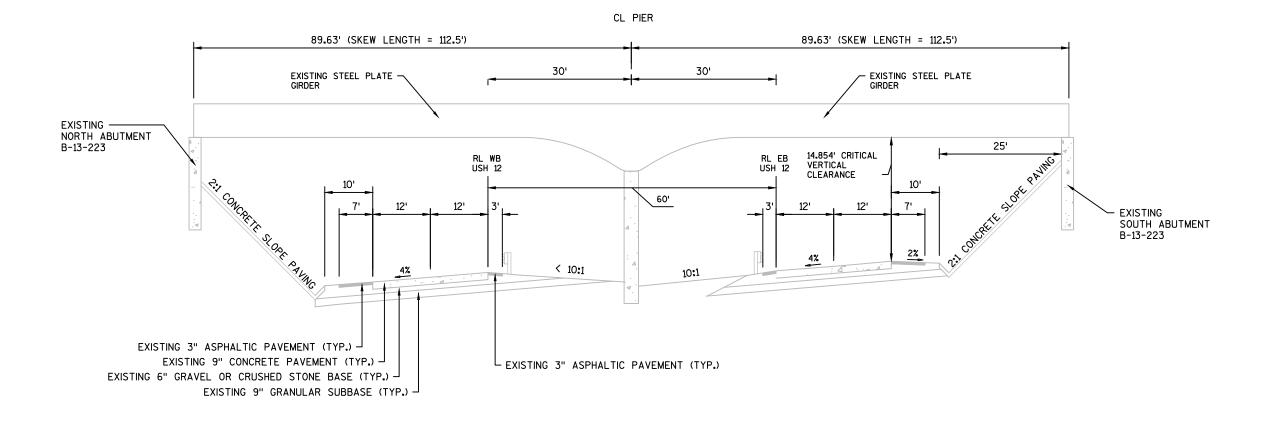
WISDOT/CADDS SHEET 42

PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE GENERAL NOTES SHEET E





2



EXISTING TYPICAL SECTION
USH 12/14

STA. 198+47 WB LOOKING EAST

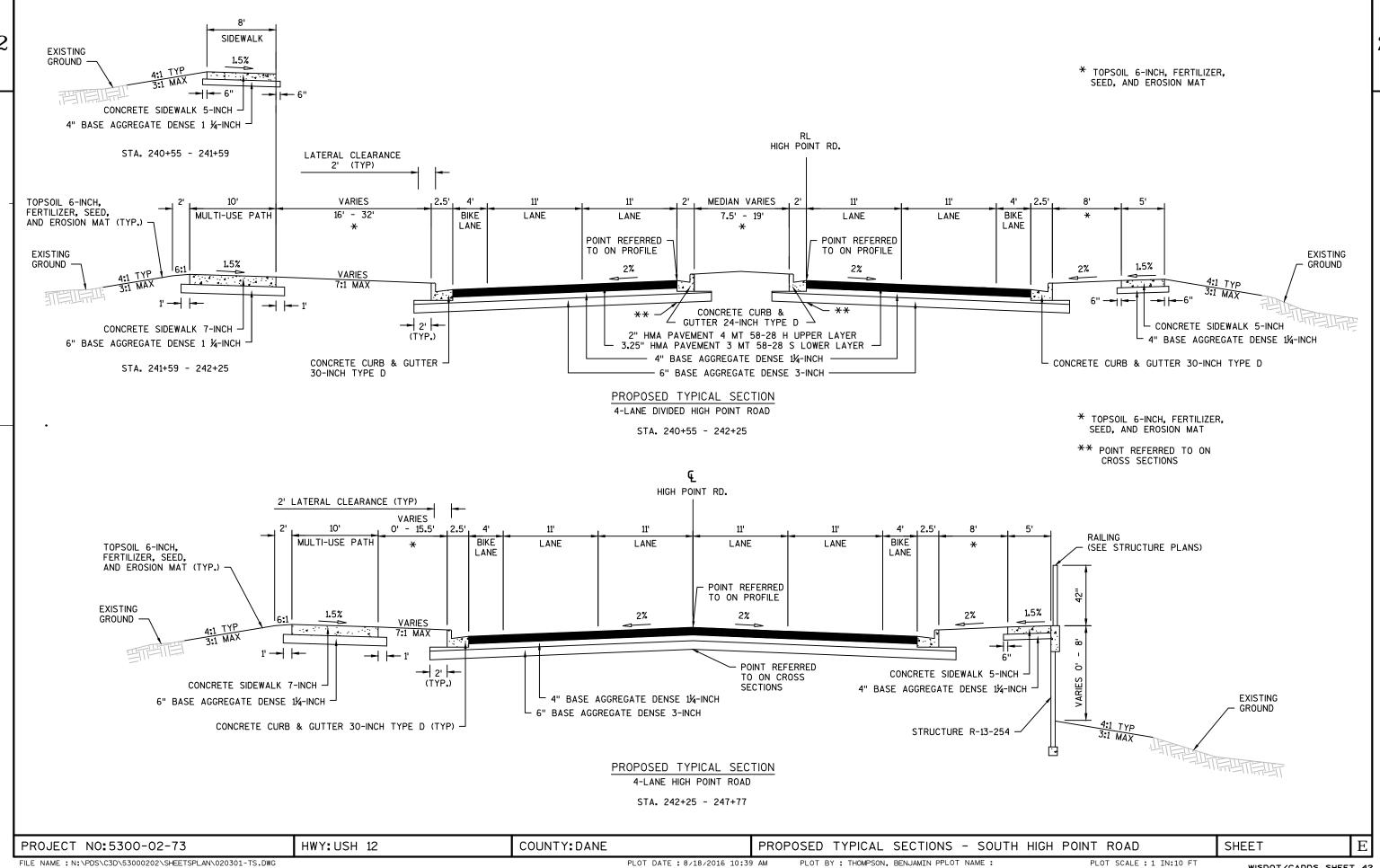
PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE EXISTING TYPICAL SECTION - USH 12/14 SHEET]

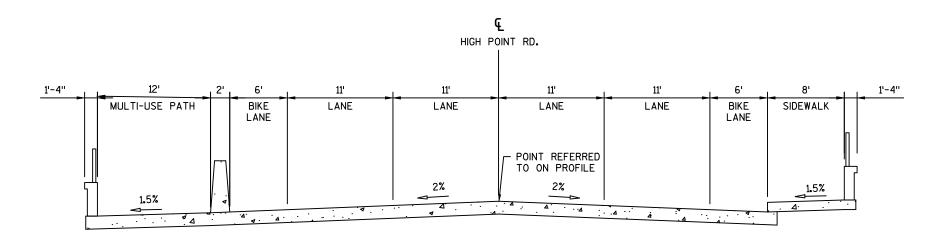
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PLOT DATE: 8/18/2016 10:39 AM

PLOT BY: THOMPSON, BENJAMIN PPLOT NAME:

PLOT SCALE : 1 IN:20 FT





PROPOSED TYPICAL SECTION
HIGH POINT ROAD BRIDGE

247+77 - 250+26

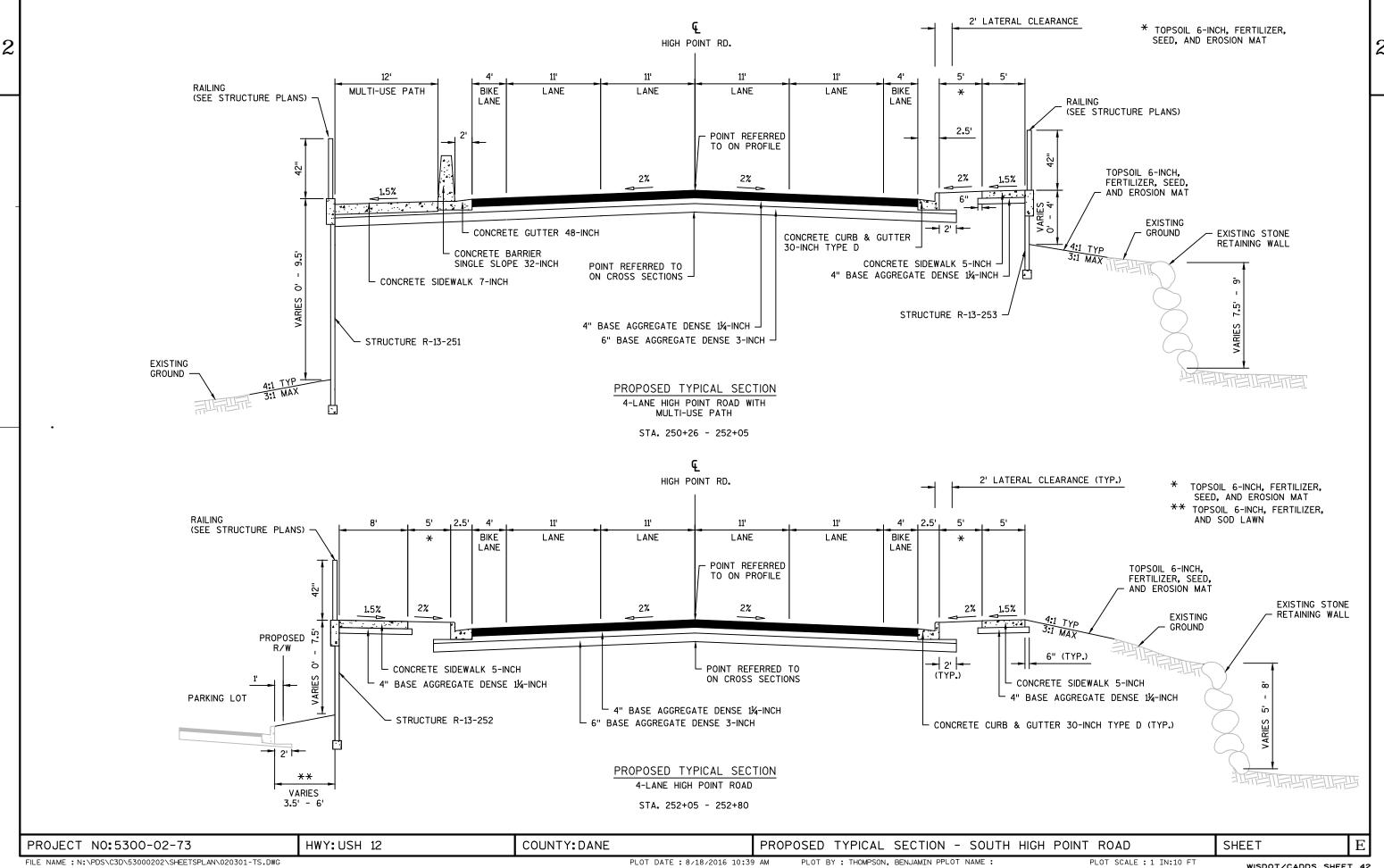
PROJECT NO:5300-02-73 HWY: USH 12 COUNTY: DANE PROPOSED TYPICAL SECTIONS - HIGH POINT ROAD BRIDGE SHEET E

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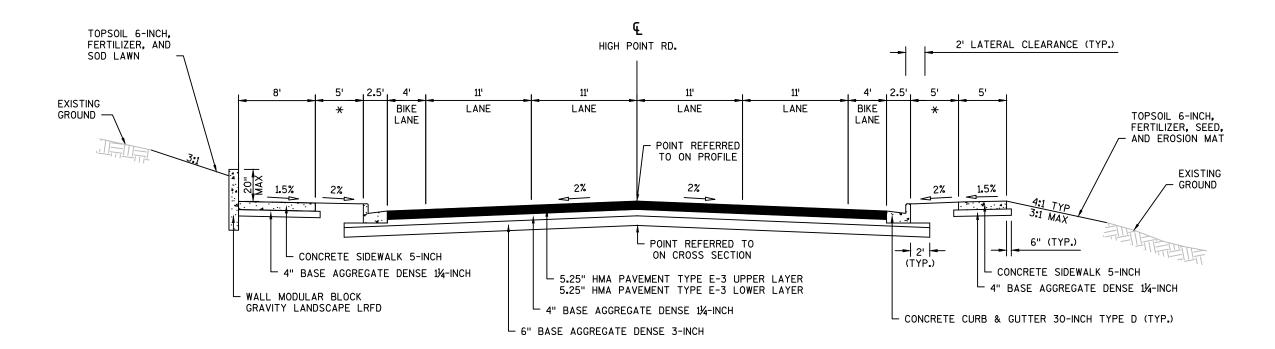
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PLOT SCALE : 1 IN:10 FT



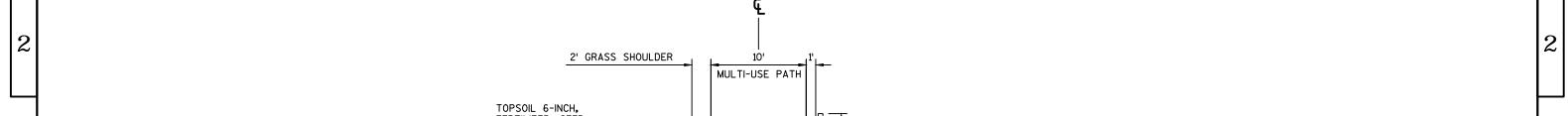
* TOPSOIL 6-INCH, FERTILIZER, SEED, AND EROSION MAT

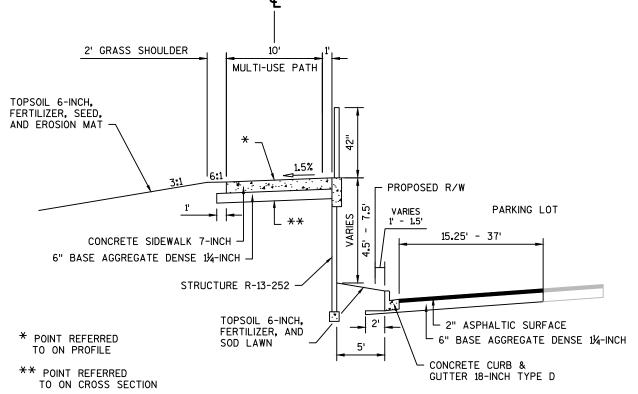


PROPOSED TYPICAL SECTION
4-LANE HIGH POINT ROAD

STA. 252+80 - 254+50

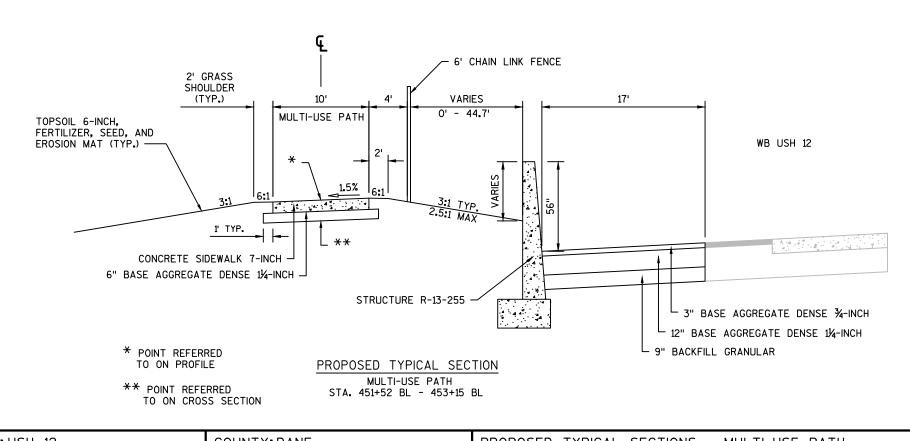
PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE PROPOSED TYPICAL SECTIONS - SOUTH HIGH POINT ROAD SHEET]





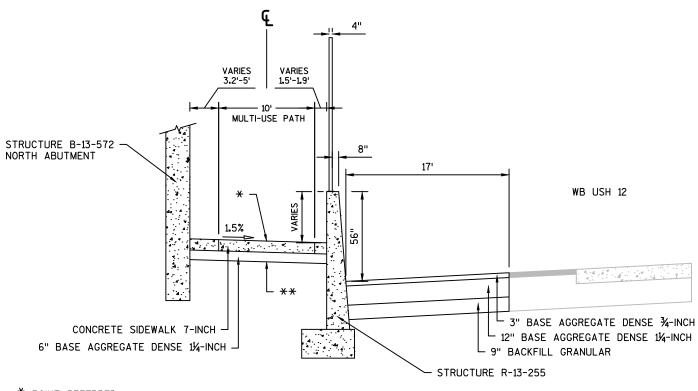
PROPOSED TYPICAL SECTION
MULTI-USE PATH

STA. 450+85 BL - 451+52 BL



PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE PROPOSED TYPICAL SECTIONS - MULTI-USE PATH SHEET SHEET SECTIONS - MULTI-USE PATH SHEET SHEET





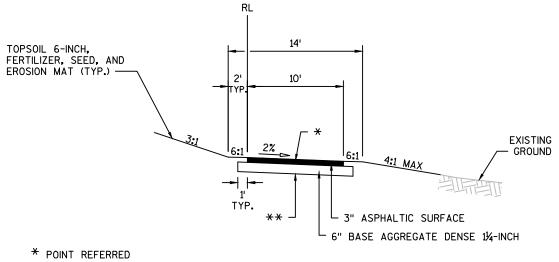
* POINT REFERRED TO ON PROFILE

** POINT REFERRED TO ON CROSS SECTIONS

PROPOSED TYPICAL SECTION

MULTI-USE PATH

STA. 453+15 BL - 454+18 BL



* POINT REFERRED TO ON PROFILE

** POINT REFERRED TO ON CROSS SECTIONS

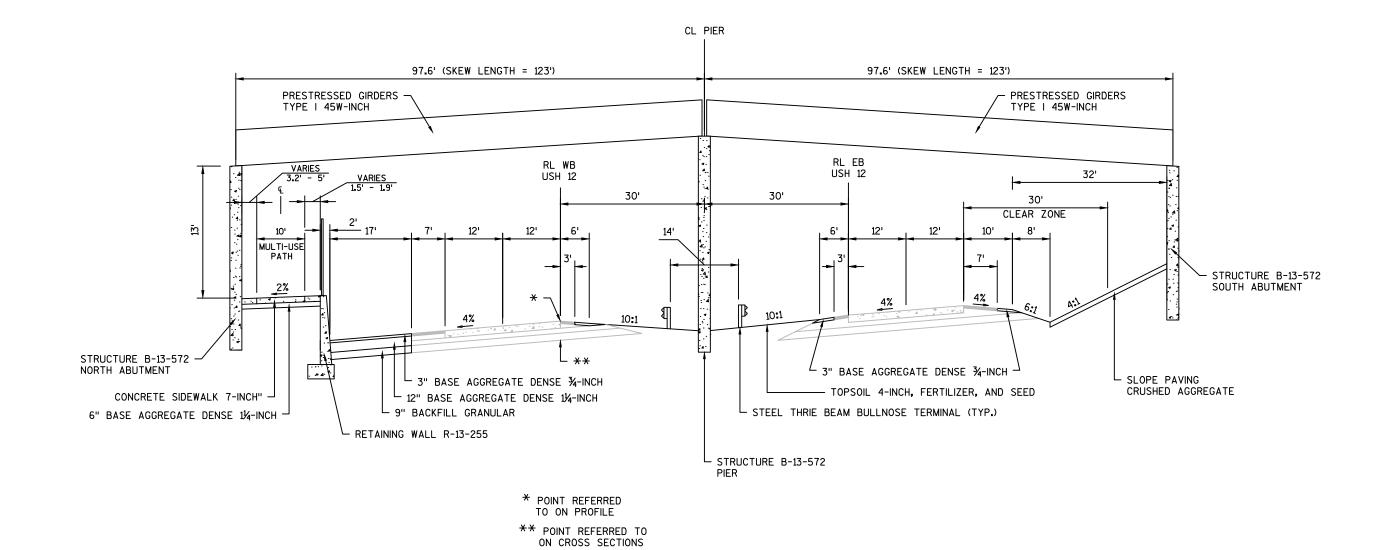
PROPOSED TYPICAL SECTION

PRINCETON CLUB PATH

STA. 10+00 BP - 12+65 BP

COUNTY: DANE PROJECT NO:5300-02-73 HWY: USH 12 PROPOSED TYPICAL SECTIONS - MULTI-USE PATHS SHEET FILE NAME : N:\PDS\C3D\53000202\SHEETSPLAN\020301-TS.DWG PLOT DATE: 8/18/2016 10:39 AM PLOT BY: THOMPSON, BENJAMIN PPLOT NAME: PLOT SCALE : 1 IN:10 FT





PROPOSED TYPICAL SECTION

USH 12/14

STA. 198+47 WB LOOKING EAST

PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE PROPOSED TYPICAL SECTION - USH 12/14 SHEET F

FILE NAME : N:\PDS\C3D\53000202\SHEETSPLAN\020301-TS.DWG

PLOT DATE: 8/18/2016 10:39 AM

PLOT BY: THOMPSON, BENJAMIN PPLOT NAME:

PLOT SCALE : 1IN:20FT

*POINT REFERRED TO ON PROFILE

PAVED AUX. LANE SHOULDER

6'-10'

MULTI-USE

PATH

RL WB USH 12

LANE

12'

LANE

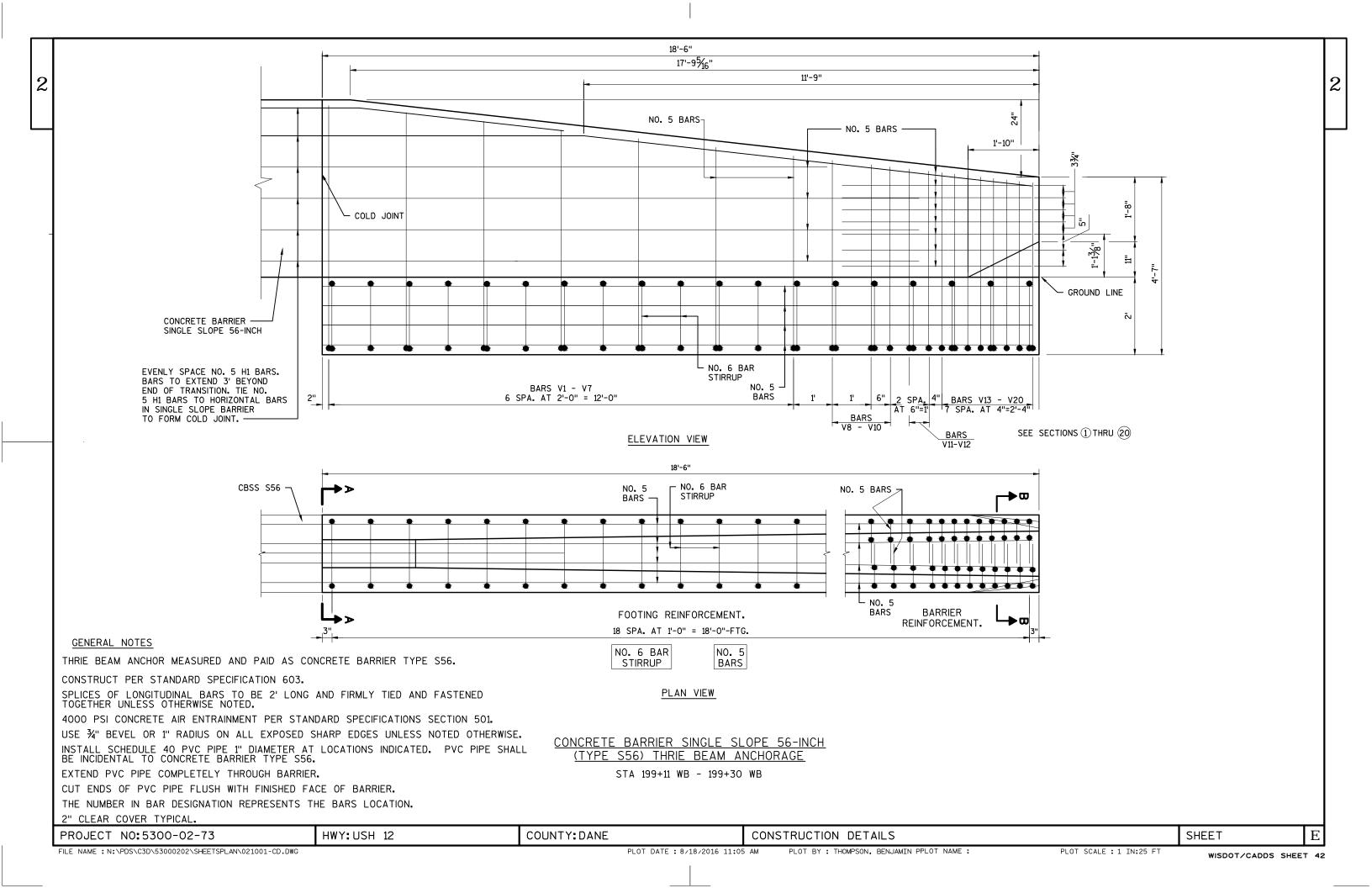
LANE

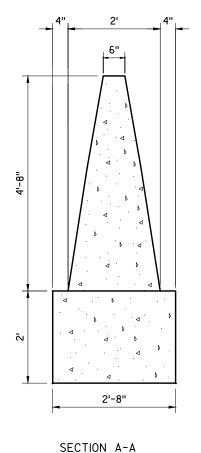
**FUTURE TYPICAL SECTION
USH 12/14

STA. 198+47 WB LOOKING EAST

**NOT IN CONTRACT. FOR INFORMATION PURPOSES ONLY.

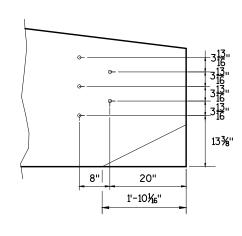
PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE FUTURE TYPICAL SECTION - USH 12/14 SHEET





,4",5", 1'-2",5",4", 41/8" 2'-8"

SECTION B-B



PVC PIPE LOCATIONS

GENERAL NOTES

THRIE BEAM ANCHOR MEASURED AND PAID AS CONCRETE BARRIER TYPE S56.

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION

USE $\frac{3}{4}$ " BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED. PVC PIPE SHALL BE INCIDENTAL TO CONCRETE BARRIER TYPE S56.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE OF BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

SECTION VIEWS

CONCRETE BARRIER SINGLE SLOPE 56-INCH (TYPE S56) THRIE BEAM ANCHORAGE

STA 198+90 WB - 199+30 WB

COUNTY: DANE PROJECT NO:5300-02-73 HWY: USH 12 CONSTRUCTION DETAILS SHEET 3'-1½''

٧8

171°-25'

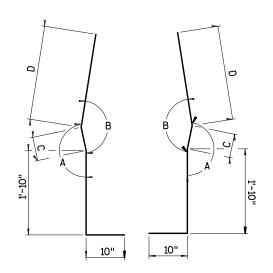
BAR	Α	В	BAR	Α	В	_	
V1	170°-50'	4'-6"	V9	171°-15'	3'-0"		
V2	170°-50'	4'-3½''	V10	171°-15'	2'-11"	80	
V3	170°-50'	4'-0½''	V11	171°-20'	2'-10½''		
V4	170°-50'	3'-9½''	V12	171°-10'	2'-9½''		A
V5	170°-50'	3'-4½"	V13	171°-10'	2'-9"	11-10"	
V6	171°-20'	3'-4½"	V14	171°-05'	2'-8½''		
V7	171°-30'	3'-2½"	V15	171°-10'	2'-8"	BAR BENDING DETAI	10"_ L FOR BARS

BAR CHART SECTIONS V16 - V17

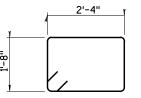
BAR	Α	В	С	
V16	2'-2"	171°-15'	2'-3½"	
V17	2'-7"	171°-05'	1'-10"	

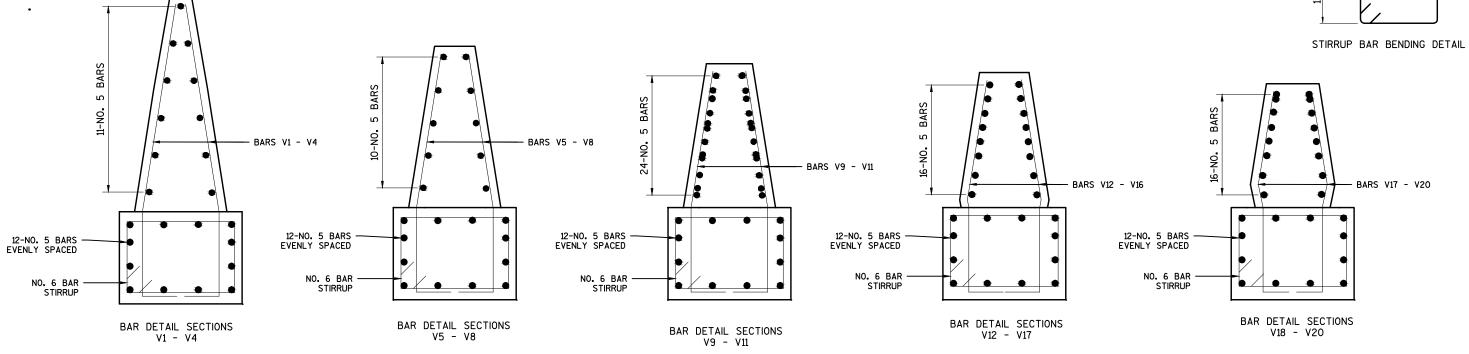
BAR CHART SECTIONS V18 - V20

BAR	Α	В	С	D
V18	168°-15'	159°-15'	6"	2'-0"
V19	169°-20'	161°-00'	8"	1'-10"
V20	168°-40'	160°-10'	10"	1'-8"



BAR BENDING DETAIL FOR BARS V18 - V20





10"

10"

BAR BENDING DETAIL FOR BARS V16 - V17

STEEL LAYOUT

CONCRETE BARRIER SINGLE SLOPE 56-INCH (TYPE S56) THRIE BEAM ANCHORAGE

STA 199+11 WB - 199+30 WB

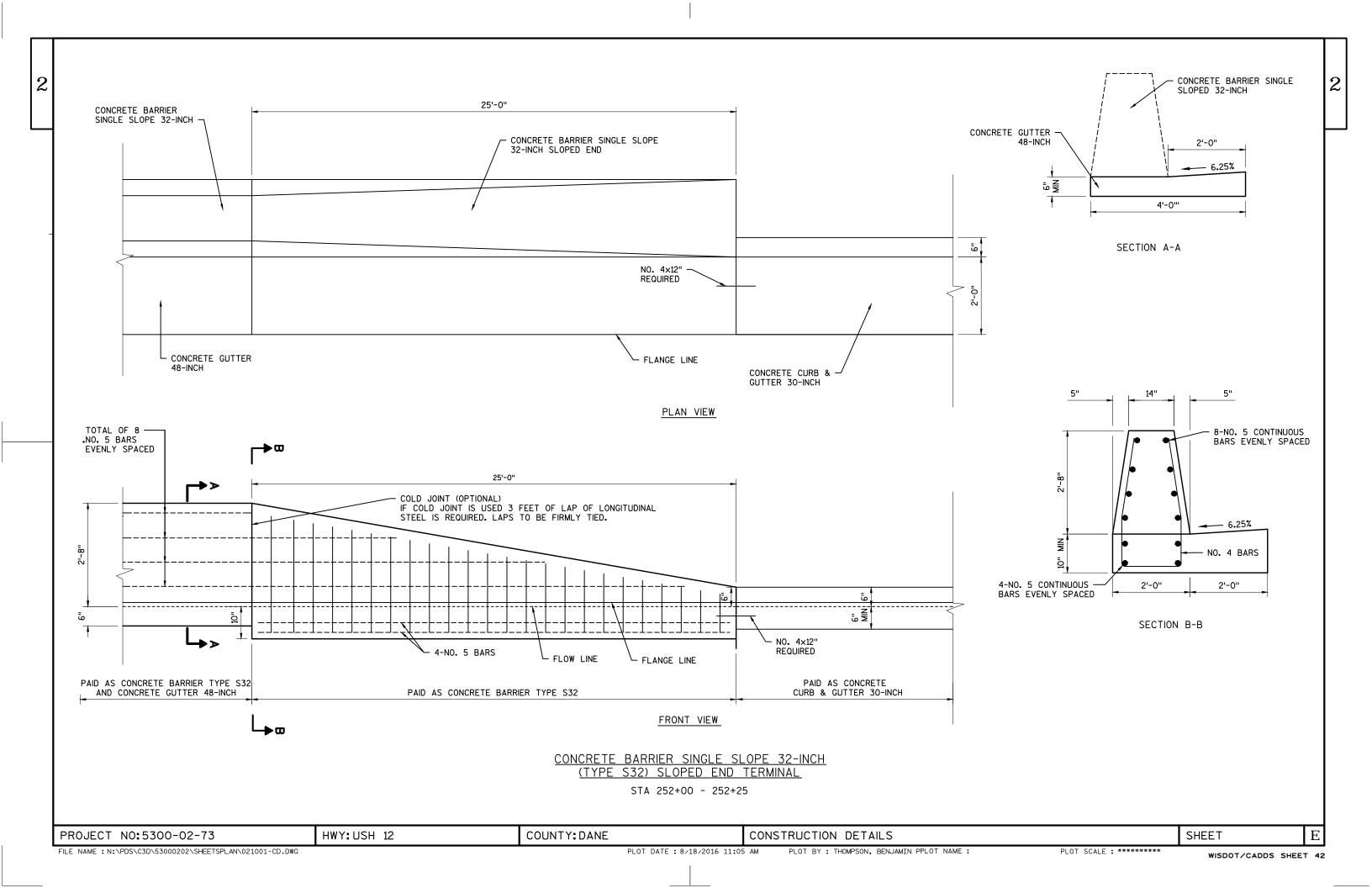
COUNTY: DANE PROJECT NO:5300-02-73 HWY: USH 12

V1 - V15

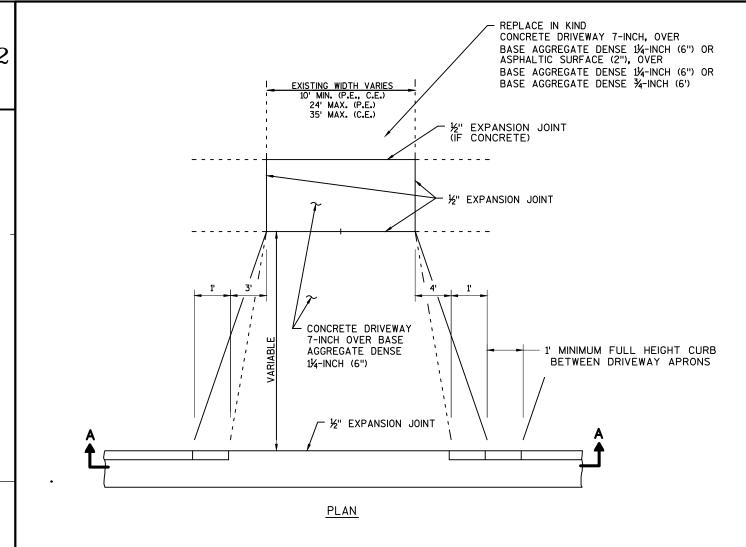
CONSTRUCTION DETAILS

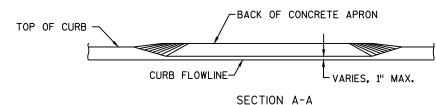
PLOT SCALE : 1 IN:25 FT

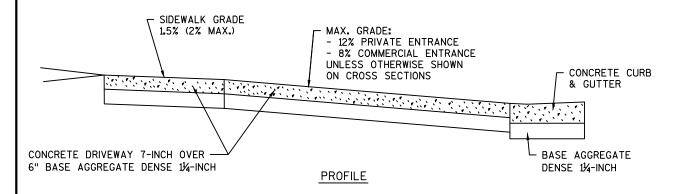
SHEET











URBAN DRIVEWAY DETAIL

PROJECT NO:5300-02-73 HWY: USH 12

COUNTY: DANE

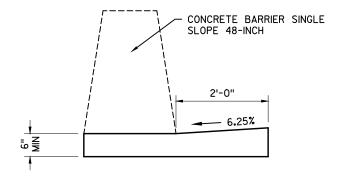
CONSTRUCTION DETAILS

PLOT SCALE : 1 IN:25 FT

WISDOT/CADDS SHEET 42

SHEET

CONCRETE CURB & GUTTER, 24-INCH TYPE D



CONCRETE GUTTER 48-INCH

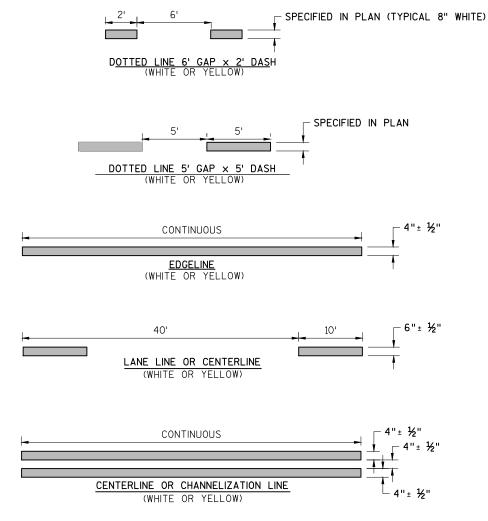
GENERAL NOTES

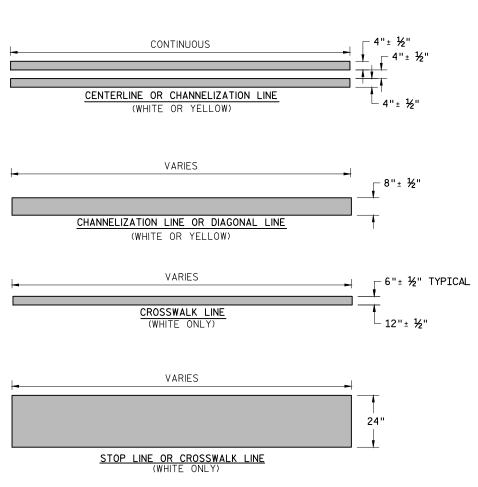
TIE BARS (AS SHOWN ON THE CURB & GUTTER SDD) ARE REQUIRED FOR CURB AND GUTTER TYPE 'A'

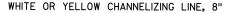
TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS

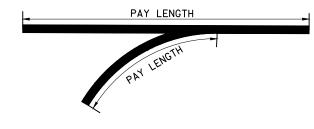
WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATIONS WILL BE SHOWN ELSEWHERE IN THE PLAN.



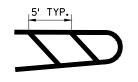




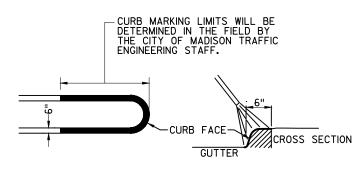




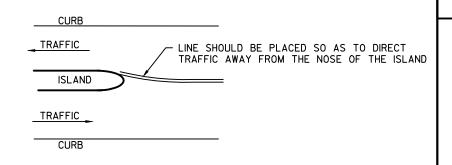




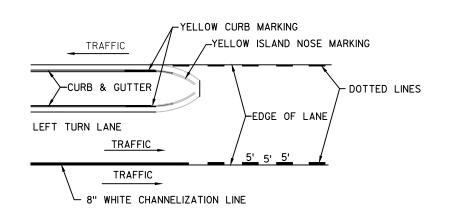
8" DIAGONAL LINES AT 45 DEGREES TO TRAFFIC LANES.



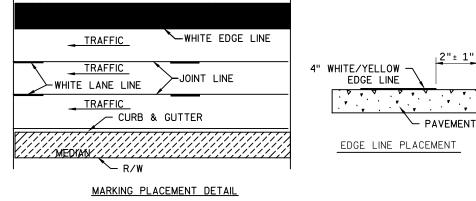
CURB & ISLAND MARKING DETAILS



ISLAND APPROACH



LEFT TURN LANE



GENERAL NOTES FOR EPOXY PAVEMENT MARKINGS

THE CONTRACTOR SHALL APPLY ALL MARKINGS IN ACCORDANCE WITH THE STATE OF WISCONSIN MANUAL ON TRAFFIC CONTROL DEVICES.

AT STREET INTERSECTIONS, MARKINGS START OR END AT THE MARKED CROSSWALK. THE PROPERTY LINE EXTENDED, IF THERE IS NO MARKED CROSSWALK.

CROSSWALKS AND STOP BARS WILL BE PLACED NO CLOSER THAN 2' TO THE FACE OF CURB.

THE CONTRACTOR SHALL ADHERE TO THE TRAFFIC SPECIFICATION IN THE SPECIAL PROVISIONS AT ALL TIMES.

MORE INFORMATION AND FULL SIZE PATTERNS FOR ARROWS & WORD LEGENDS ARE AVAILABLE AT THE CITY OF MADISON TRAFFIC ENGINEERING FIELD OPERATIONS FACILITY 1120 SAYLE ST. (608) 266-4767

PERMANENT PAVEMENT MARKINGS

HWY: USH 12

CONSTRUCTION DETAILS

PLOT SCALE : 1 IN:25 FT

WISDOT/CADDS SHEET 42

FILE NAME : N:\PDS\C3D\53000202\SHEETSPLAN\021001-CD.DWG

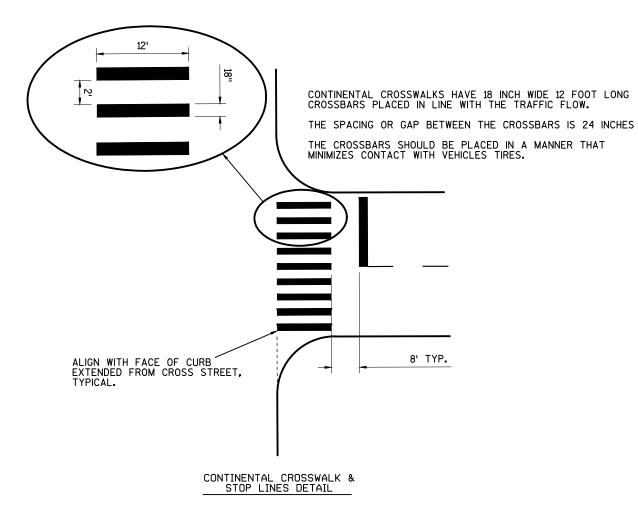
PLOT DATE : 8/18/2016 11:05 AM

COUNTY: DANE

PLOT BY: THOMPSON, BENJAMIN PPLOT NAME:

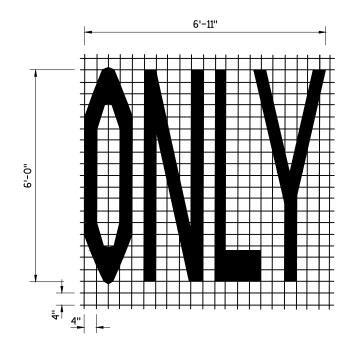
PROJECT NO:5300-02-73

SHEET



1½" R 17½" 14½" 3¾" 8" 1

PAVEMENT MARKING ARROWS TYPE 2 MAD



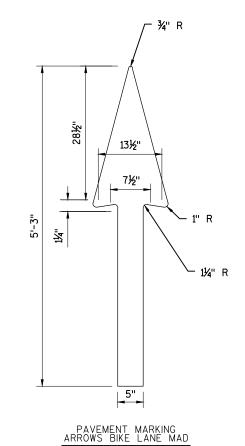
PAVEMENT MARKING WORDS MAD

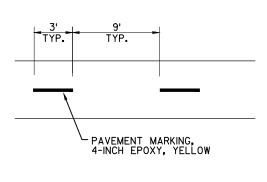
FULL SIZE PATTERNS FOR ARROWS & WORD LEGENDS ARE AVAILABLE AT: CITY OF MADISON TRAFFIC ENGINEERING FIELD OPERATIONS FACILITY 1120 SAYLE ST. (608)266-4767

PERMANENT PAVEMENT MARKINGS

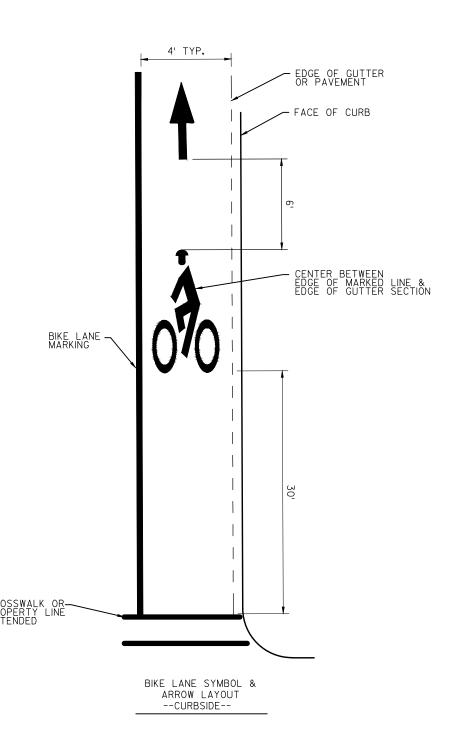
HWY: USH 12 COUNTY: DANE PROJECT NO:5300-02-73 CONSTRUCTION DETAILS SHEET

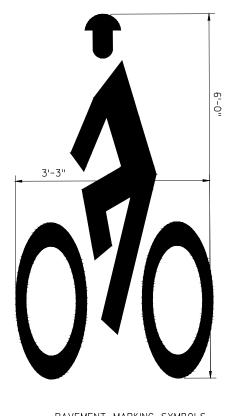
2





TYPICAL MULTI-USE PATH PAVEMENT MARKINGS





PAVEMENT MARKING SYMBOLS BIKE LANE MAD

PERMANENT PAVEMENT MARKINGS

PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE CONSTRUCTION DETAILS SHEET]

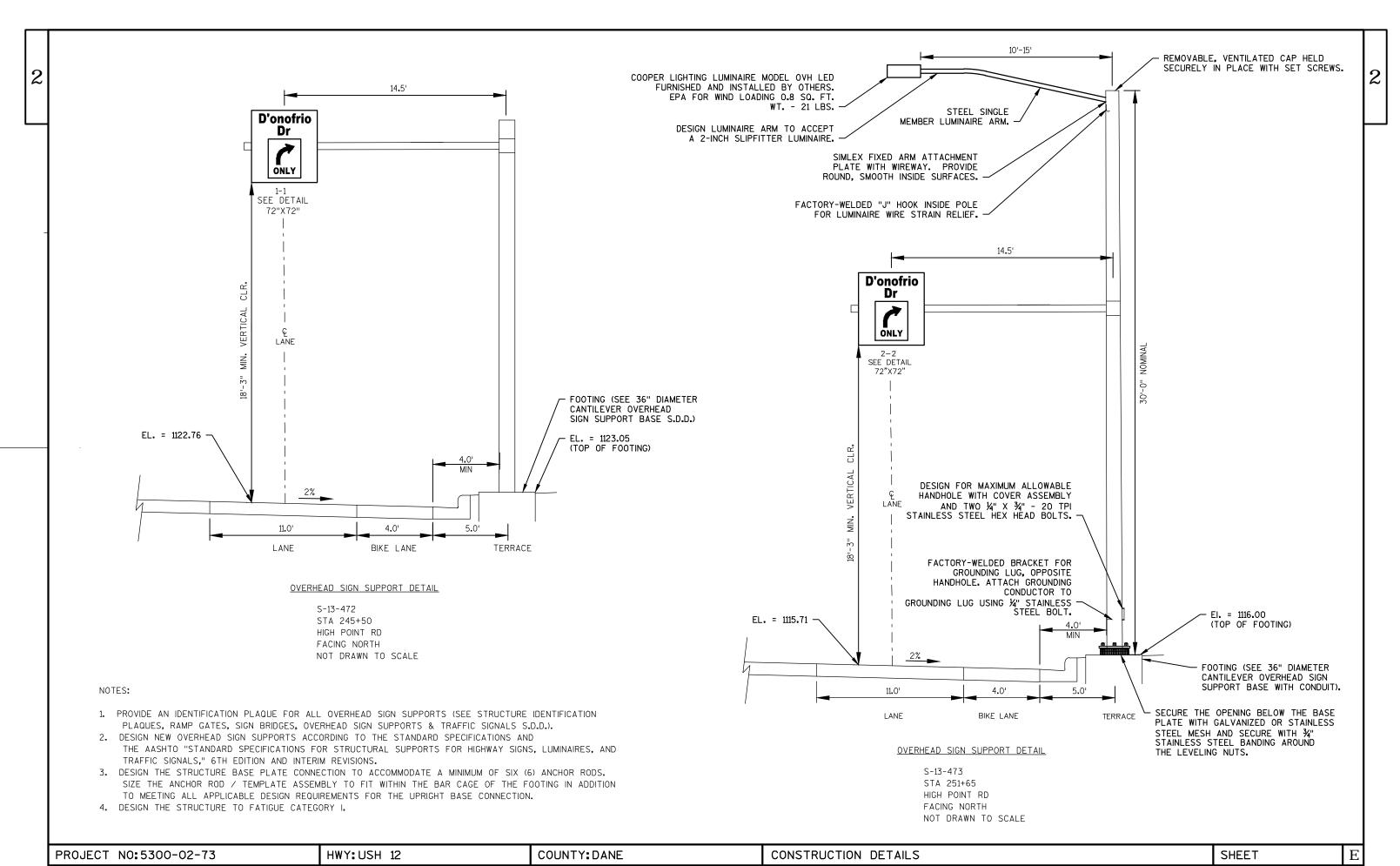
FILE NAME : N:\PDS\C3D\53000202\SHEETSPLAN\021001-CD.DWG

FULL SIZE PATTERNS FOR ARROWS & WORD LEGENDS ARE AVAILABLE AT: CITY OF MADISON TRAFFIC ENGINEERING FIELD OPERATIONS FACILITY 1120 SAYLE ST. (608)266-4767

PLOT DATE: 8/18/2016 11:05 AM

PLOT BY: THOMPSON, BENJAMIN PPLOT NAME:

PLOT SCALE : 1 IN:25 FT



GENERAL NOTES

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICKING OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL-COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE TO THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEERS'S DIRECTION. AT THE EXPENSE OF THE CONTRACTOR.

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).

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

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

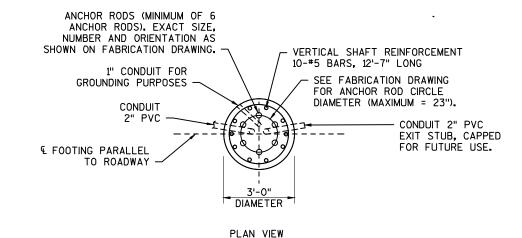
TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL. PROVIDE 3/4" CHAMFER AROUND TOP CORNER OF BASE.

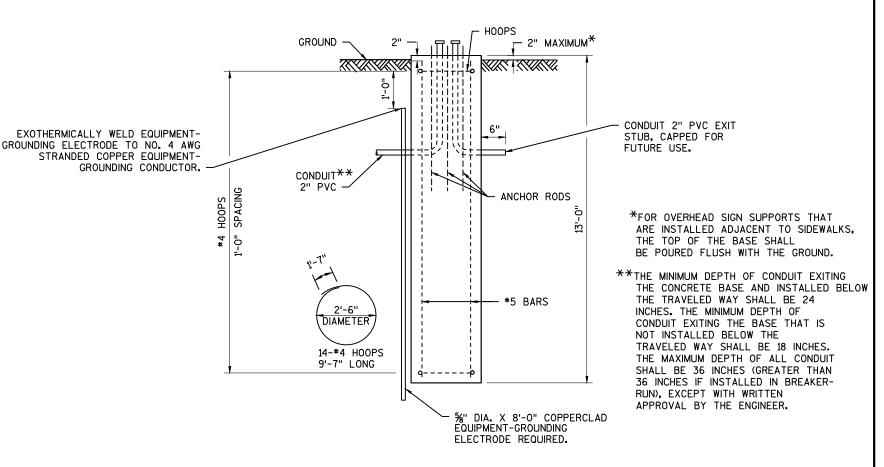
MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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

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





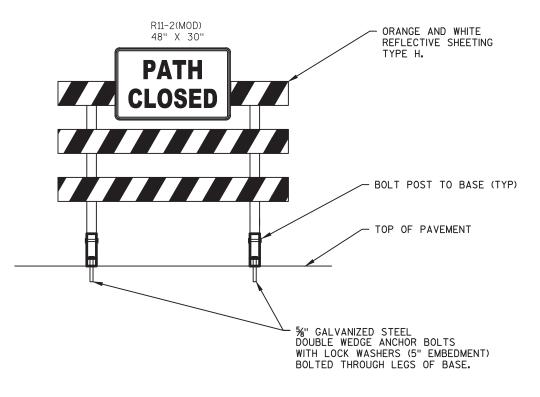
ELEVATION VIEW

36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE WITH CONDUIT FOR S-13-473

CONCRETE - 3.4 C.Y. PER FOOTING H.S. REINFORCEMENT - 220 LBS. PER FOOTING

PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE CONSTRUCTION DETAILS SHEET]

2



TRAFFIC CONTROL BARRICADE PERMANENT TYPE III

ANCHORING DETAIL

PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE CONSTRUCTION DETAILS SHEET

PLOT SCALE : 1:200



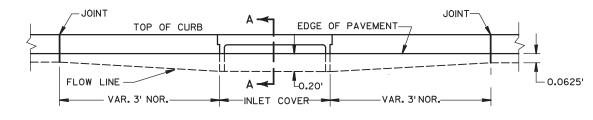
0.125

GRATE ELEVATION AS SHOWN ON

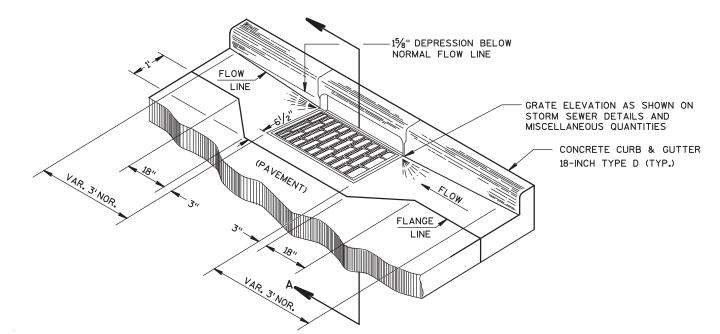
CONCRETE CURB & GUTTER

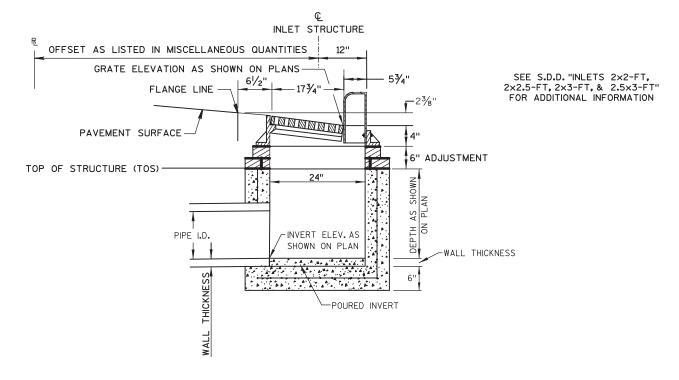
STORM SEWER DETAILS AND MISCELLANEOUS QUANTITIES

30-INCH TYPE D



ELEVATION





SECTION A-A (INLETS 2X3-FT - H SHOWN)

DETAIL OF CONCRETE CURB & GUTTER 18-INCH TYPE D AT INLETS - PARKING LOTS

HWY: US 12

COUNTY: DANE

TOP OF STRUCTURE (TOS)

SHEET

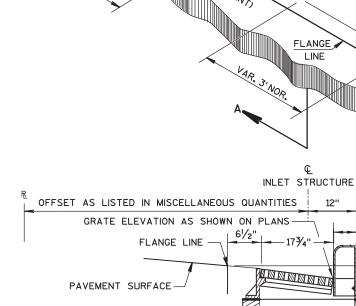
CONSTRUCTION DETAILS

FILE NAME: S:\MAD\1000--1099\1089\378\Micros\Design\Plan\021001_cd.dgn

PROJECT NO:5300-02-73

PLOT NAME :

PLOT SCALE: \$\$.....plotscale.....\$\$ wisdot/cadds sheet 42



TOP OF CURB

FLOW LINE

---- VAR. 3' NOR.-

FLOW LINE

SEE S.D.D. "INLETS 2x2-FT, 2x2.5-FT, 2x3-FT, & 2.5x3-FT"

FOR ADDITIONAL INFORMATION

6" ADJUSTMENT

-INVERT ELEV. AS PIPE I.D. SHOWN ON PLAN -WALL THICKNESS POURED INVERT

EDGE OF PAVEMENT-

7/8" DEPRESSION BELOW

NORMAL FLOW LINE

-INLET COVER 😽

ELEVATION

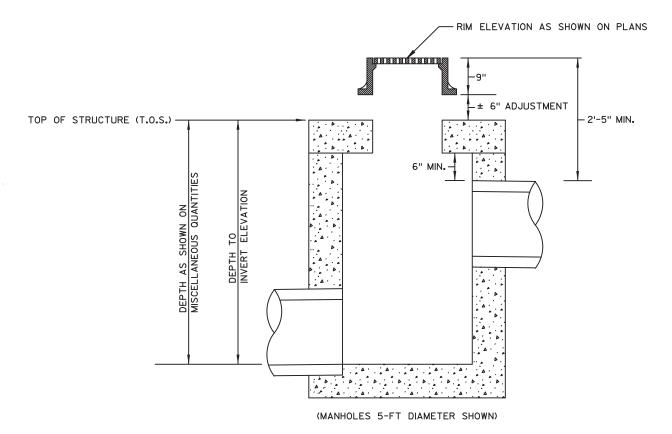
-VAR. 3' NOR.-

SECTION A-A (INLETS 2X3-FT - H SHOWN)

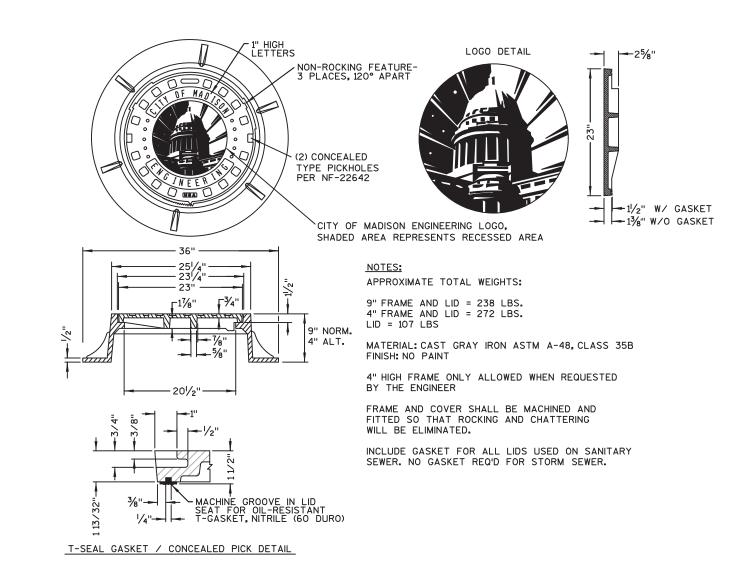
24"

DETAIL OF CONCRETE CURB & GUTTER 30-INCH TYPE D AT INLETS

PLOT DATE: 9/28/2015



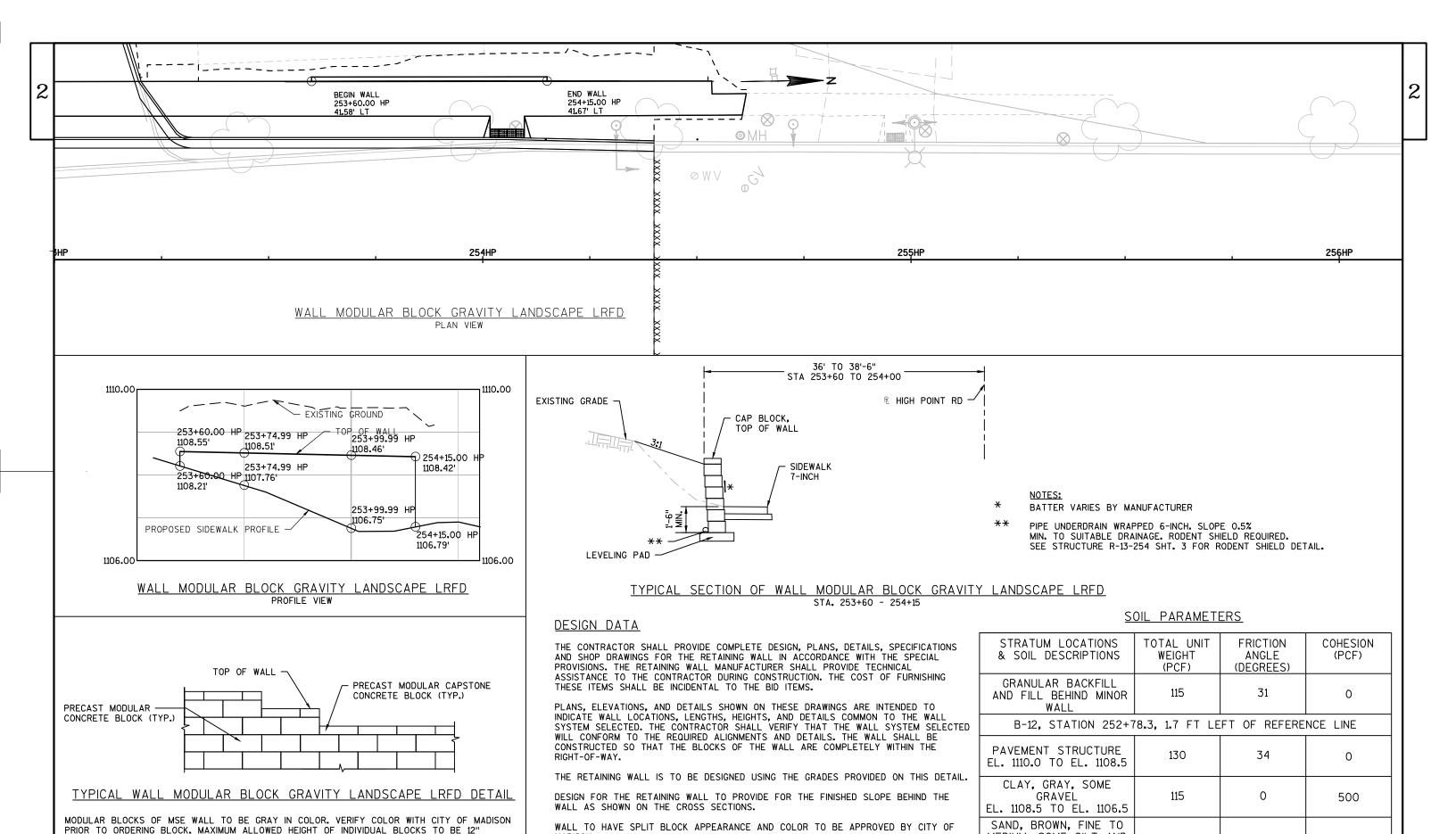
DETAIL FOR COMPUTING MANHOLE ELEVATIONS



MANHOLE COVERS TYPE MAD

 SHEET

Ε



PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE RETAINING WALL DETAILS

RETAINING WALL DETAILS

SHEET

FOR WALL DESIGN, USE A FACTORED BEARING RESISTANCE OF 1,000 PSF.

EL. 1106.5 TO EL. 1105.00

SHEET

E

MADISON.

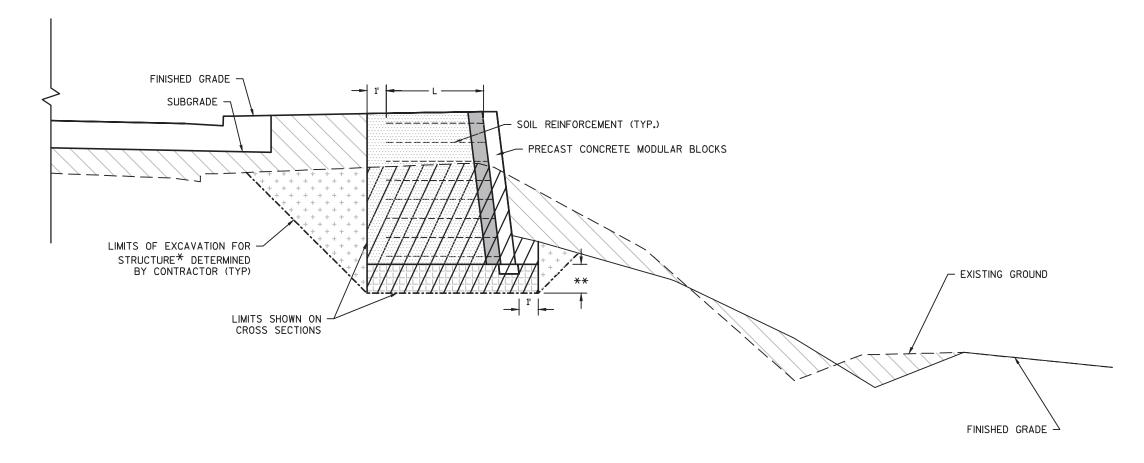
MEDIUM, SOME SILT AND

GRAVEL

115

30

0



LEGEND

COMMON EXCAVATION / FILL

EXCAVATED MATERIAL CONSIDERED USABLE MATERIAL IN EARTHWORK SUMMARY

WALL BACKFILL TYPE A *

WALL BACKFILL TYPE B *

++++ BACKFILL WITH NATIVE MATERIAL OR WALL BACKFILL TYPE B *

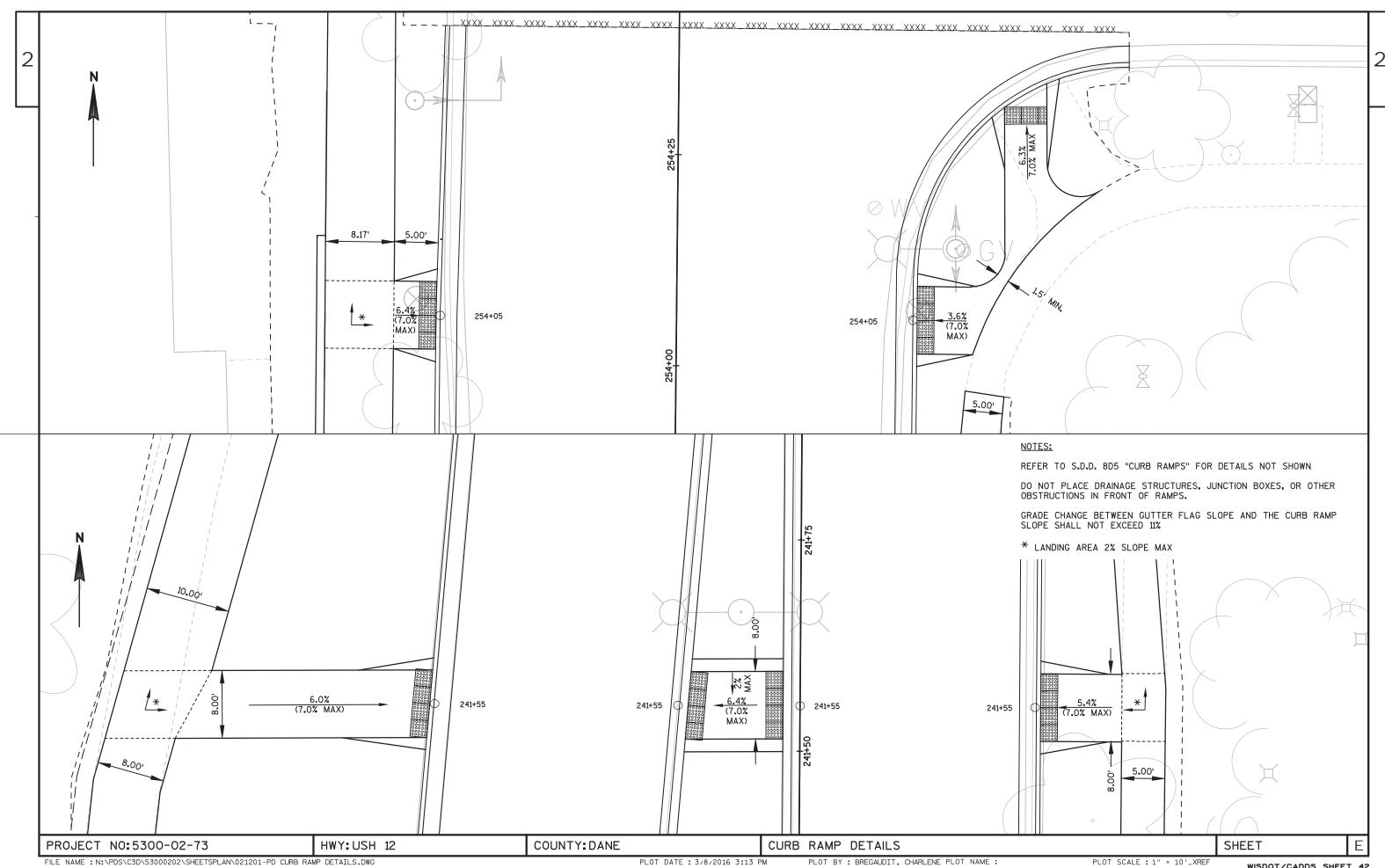
BACKFILL GRANULAR

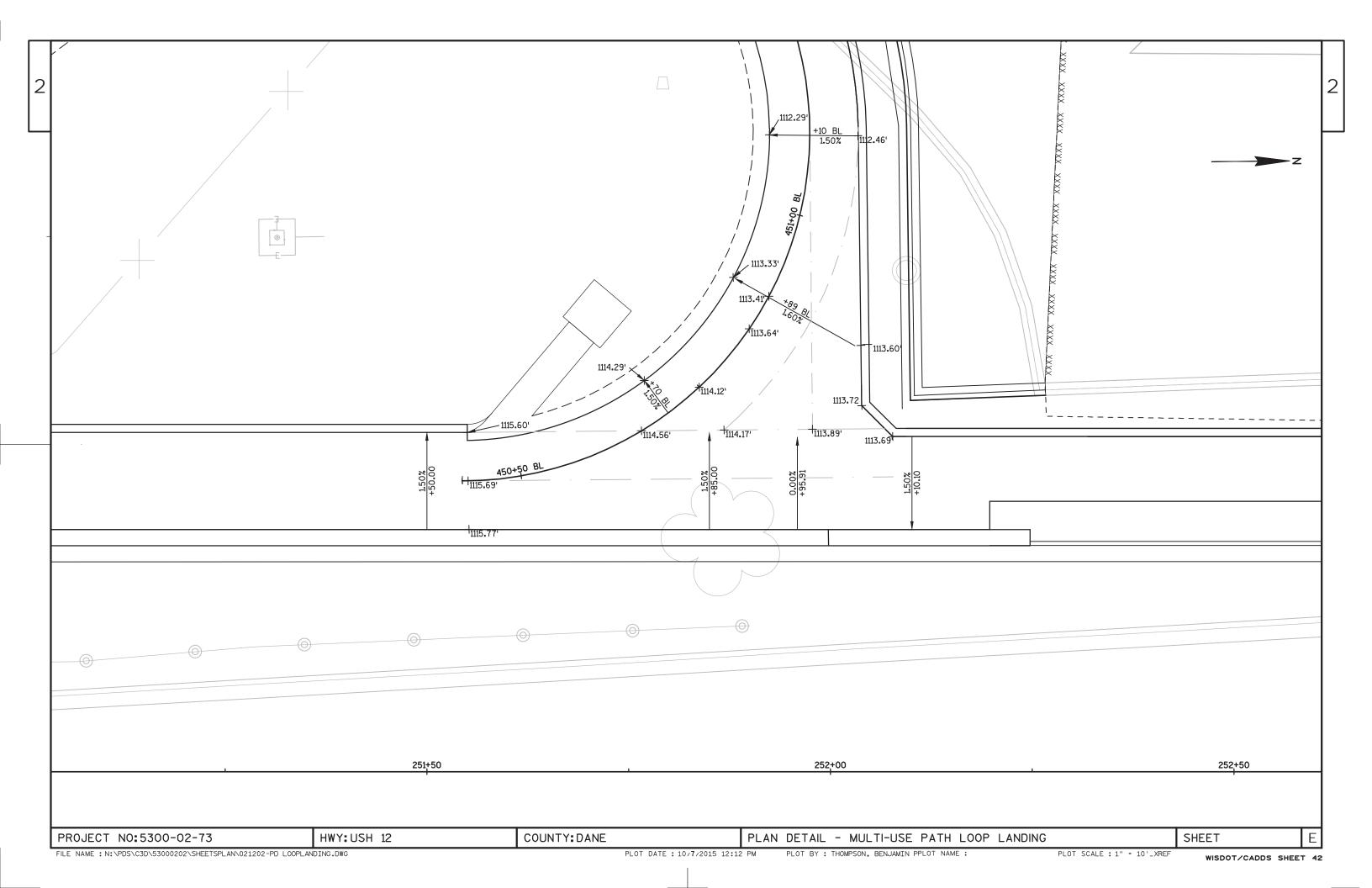
NOTES:

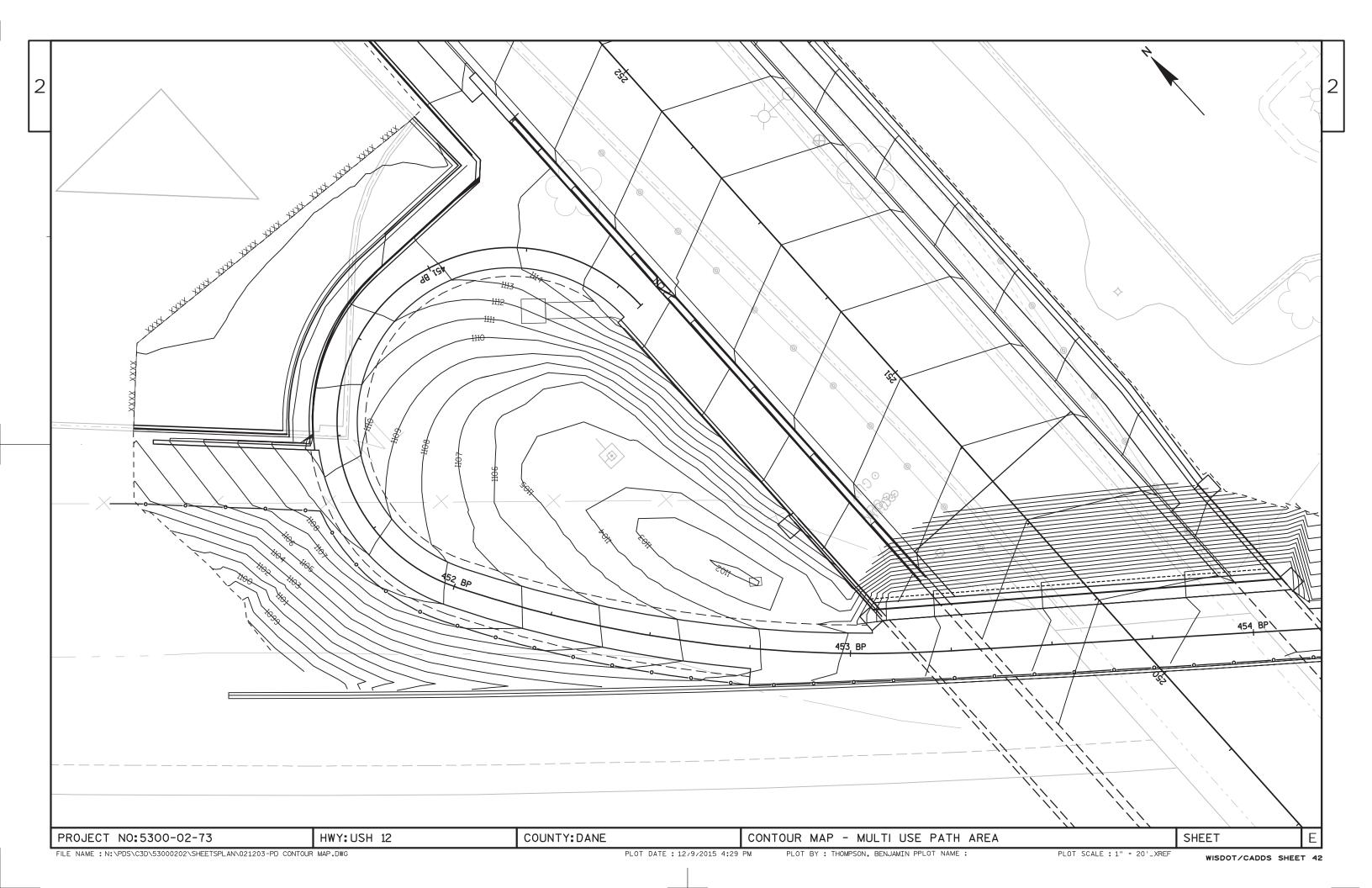
- 1. L = REINFORCEMENT LENGTH IN ACCORDANCE WITH WALL DESIGN.
 LIMITS OF USABLE MATERIAL SHOWN ON CROSS SECTIONS
 BASED ON ASSUMED VALUES WHICH MAY VARY ALONG THE
 LENGTH OF THE WALL.
- 2. SEE CROSS SECTIONS FOR STATIONS AND OFFSETS
- * INCLUDED WITH BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP"
- ** IF REQUIRED. SEE STRUCTURE PLANS.

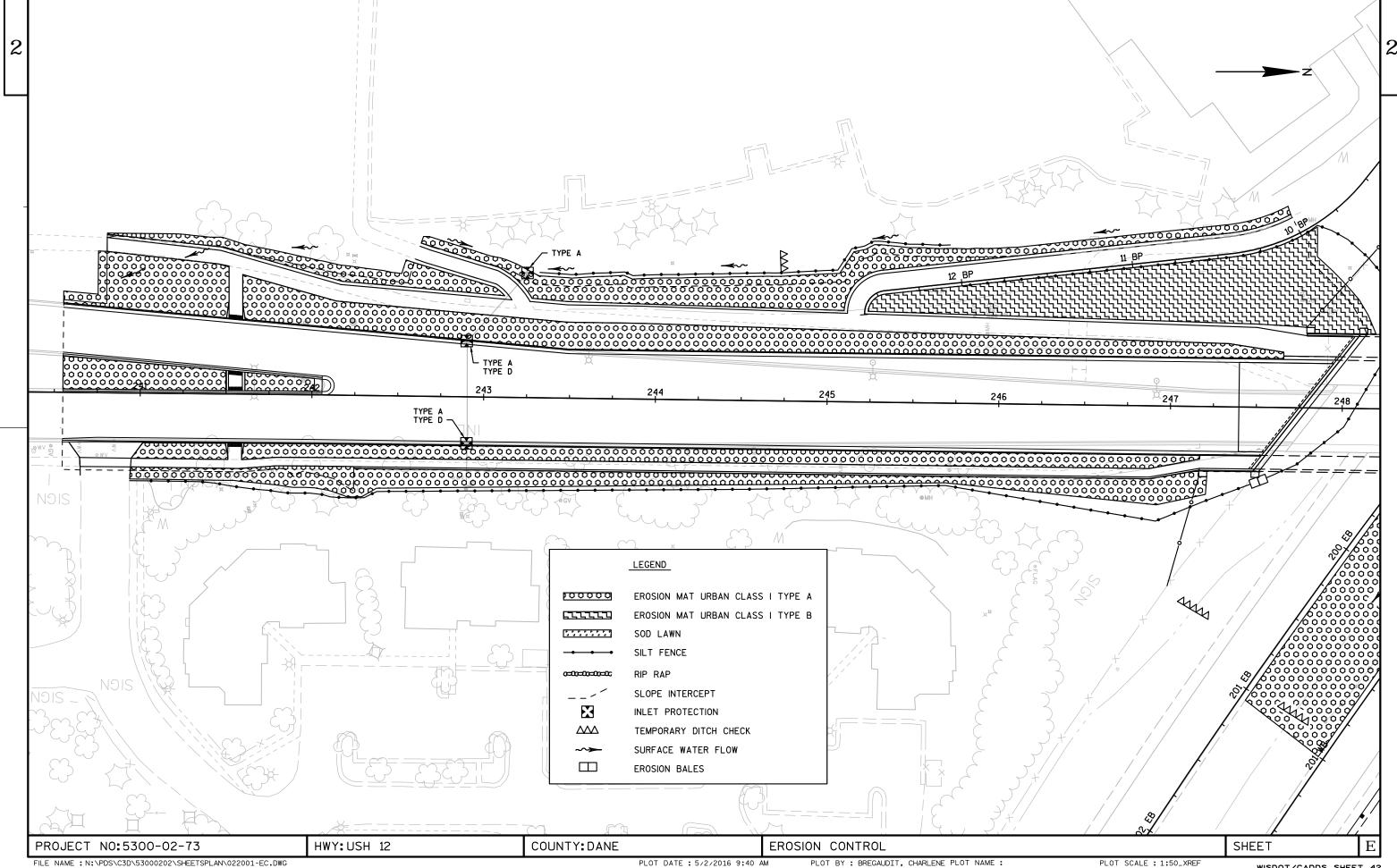
WALL MODULAR BLOCK MECHANICALLY STABALIZED EARTH LRFD EARTHWORK DETAIL

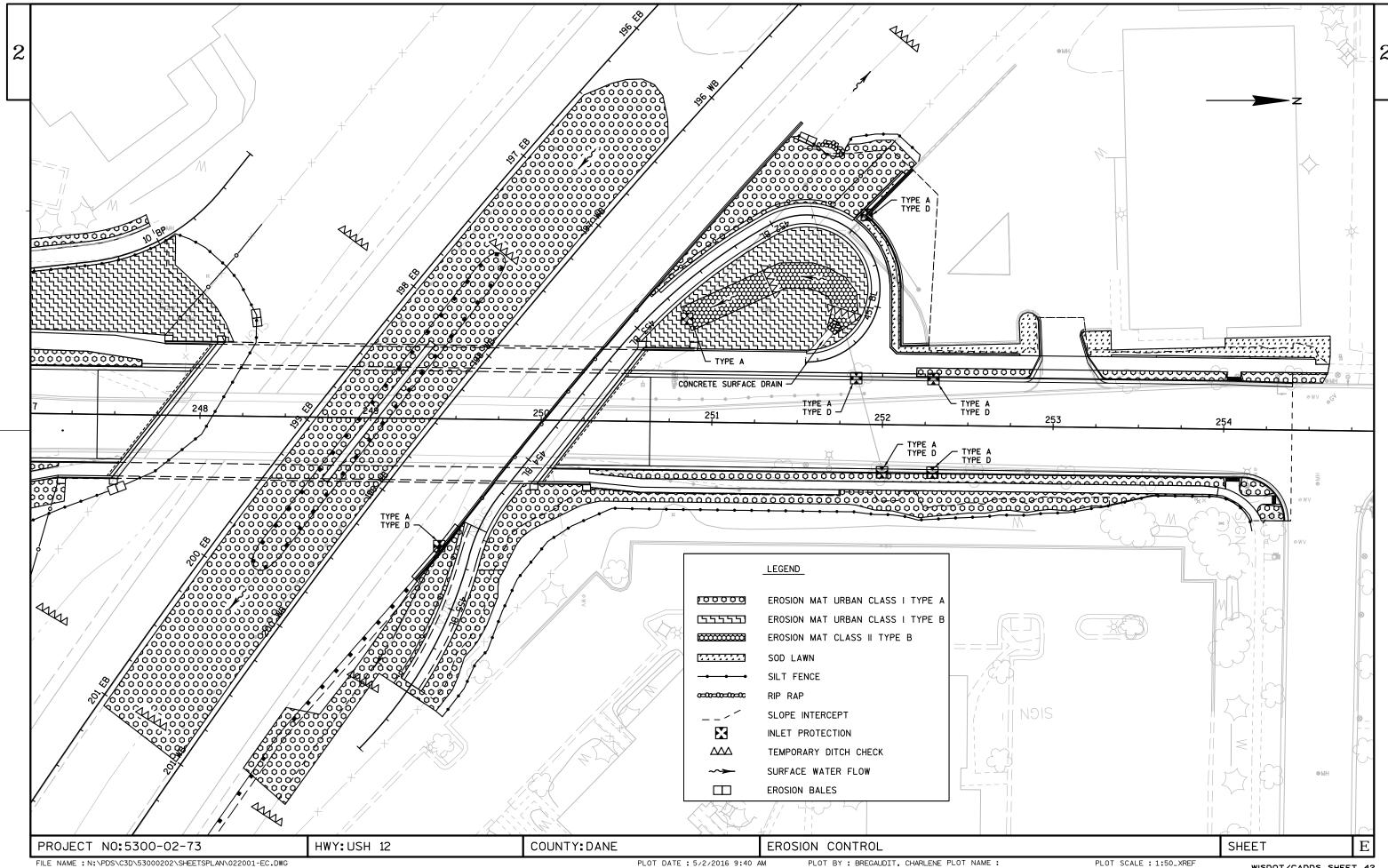
PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE MSE RETAINING WALL EARTH WORK DETAIL SHEET E





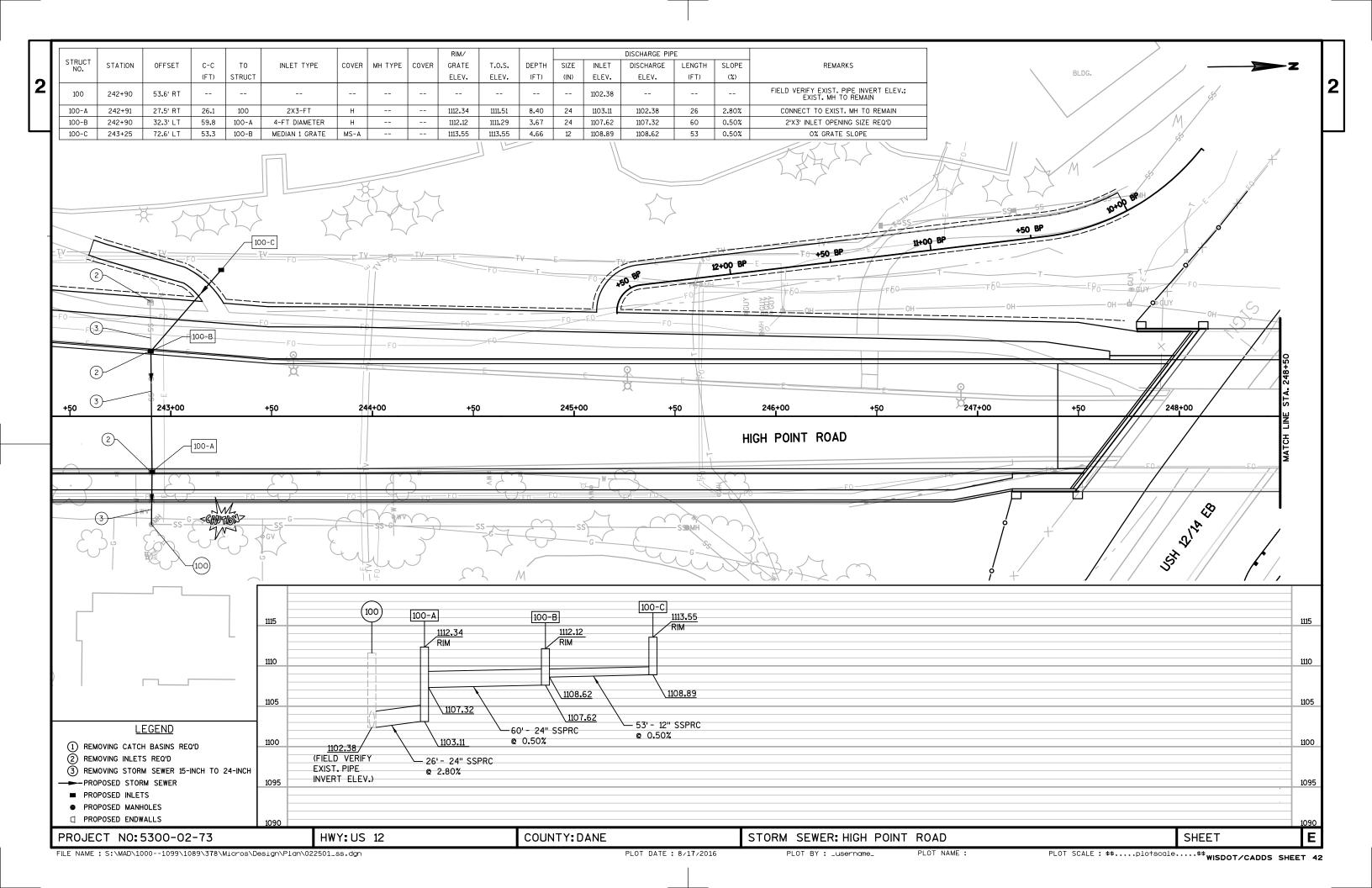


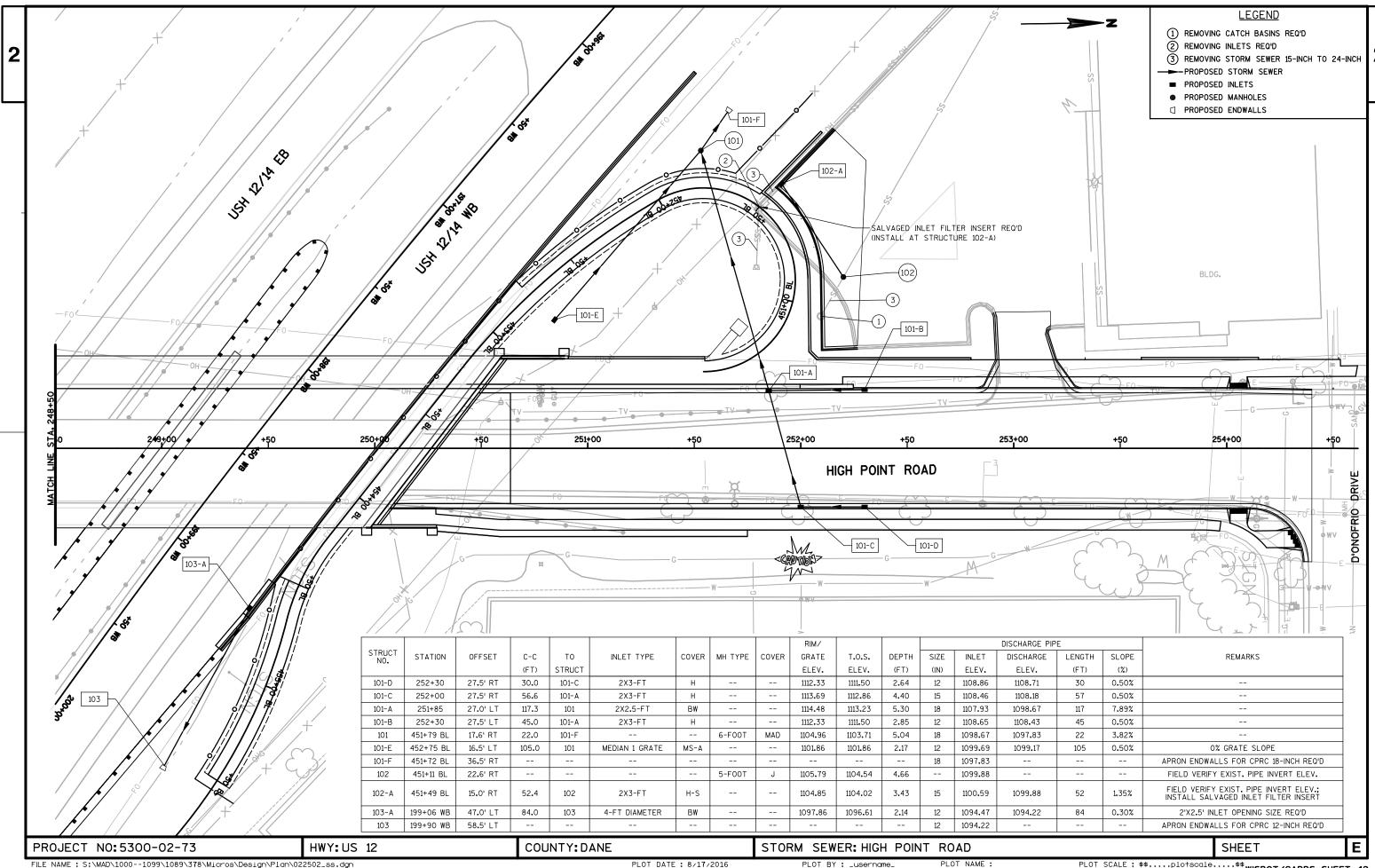


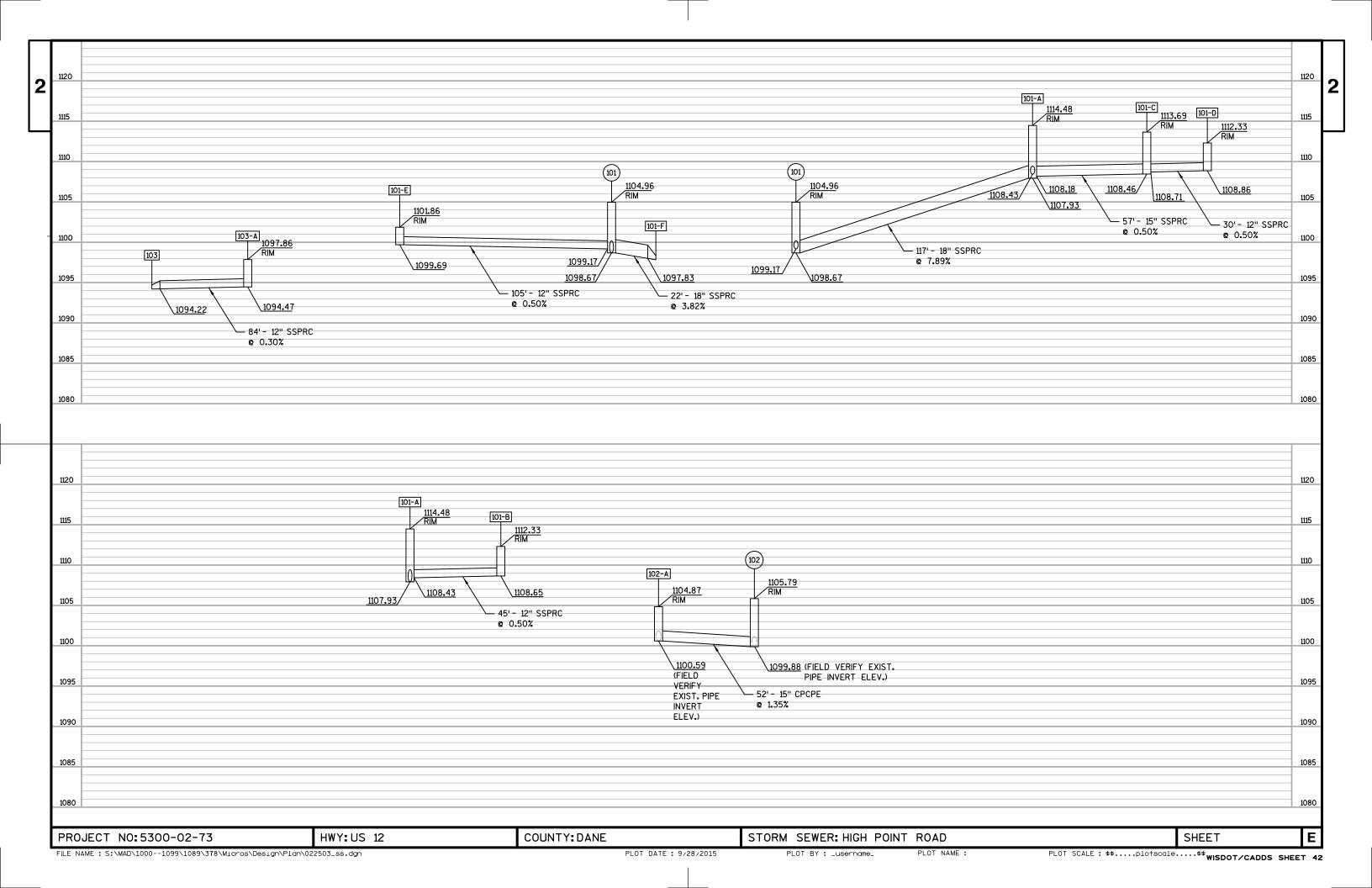


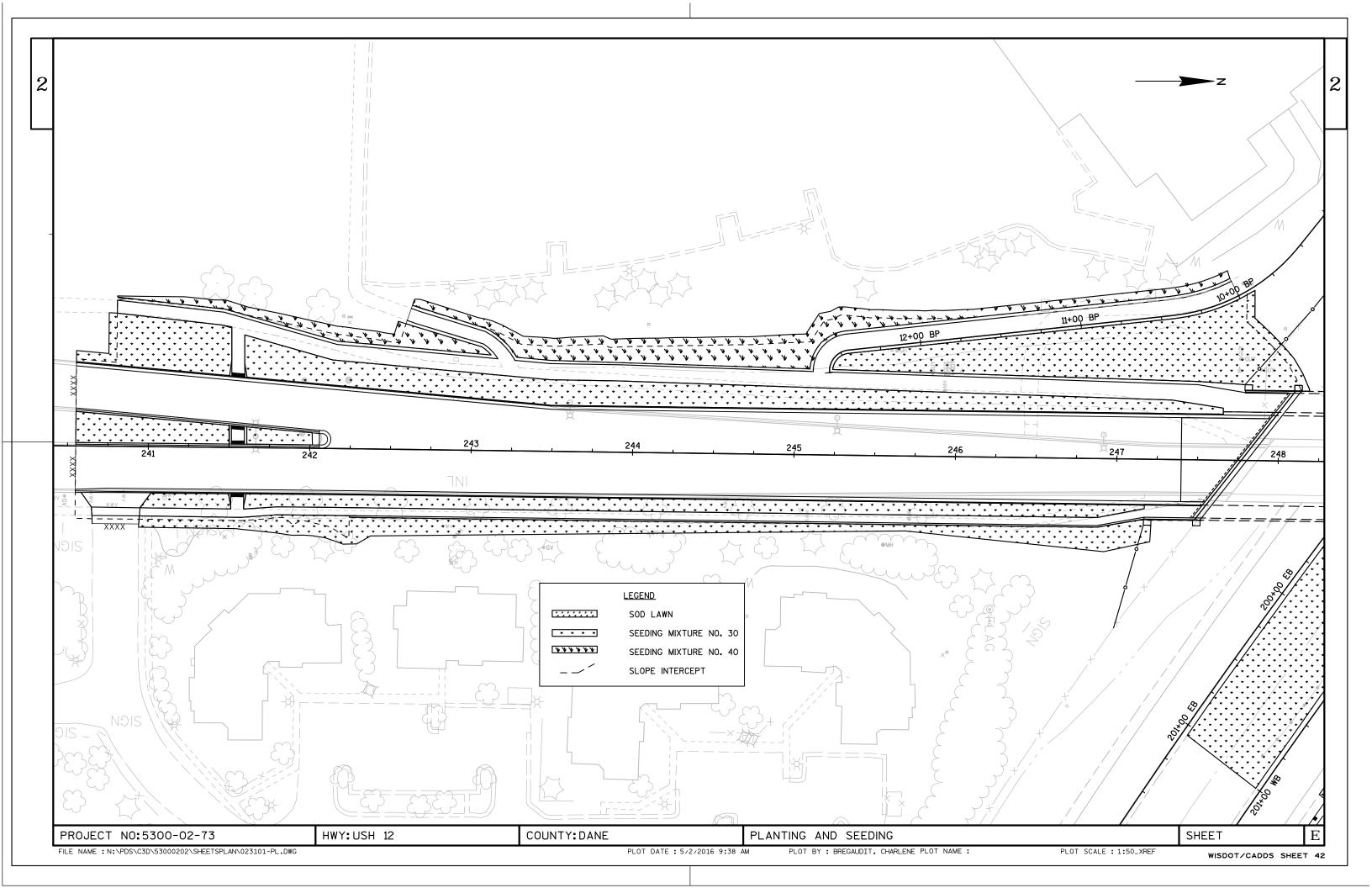
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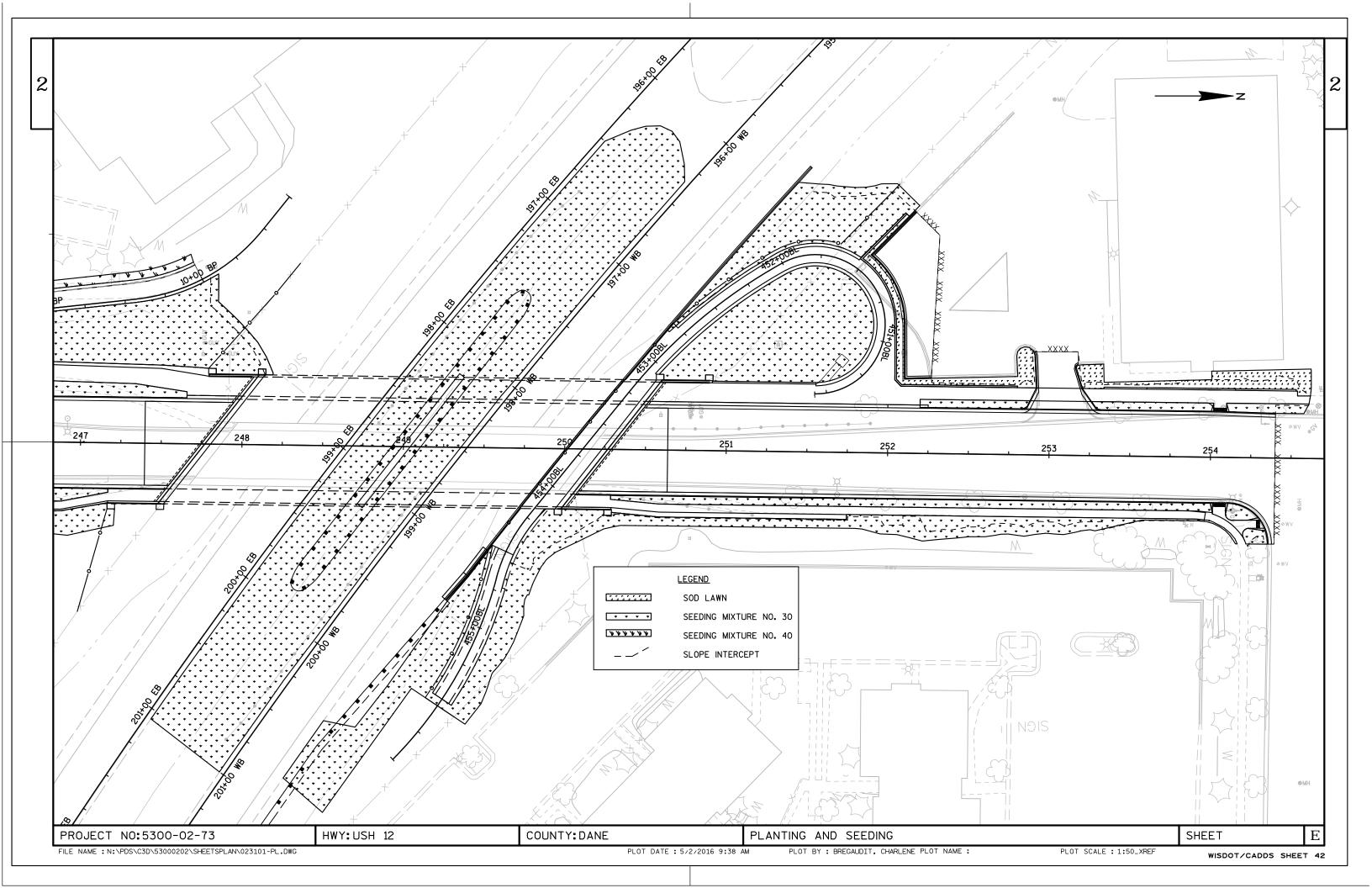
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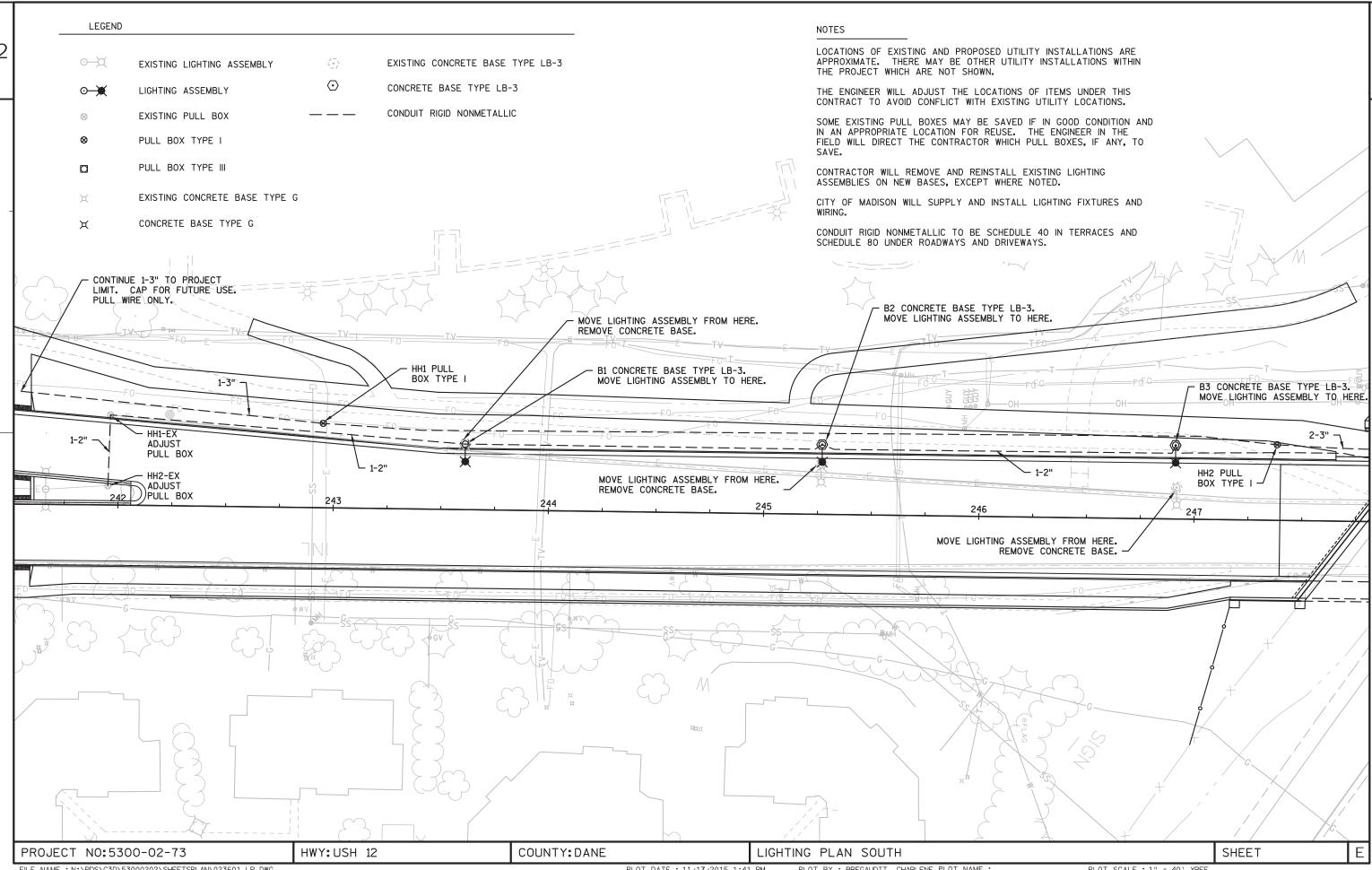


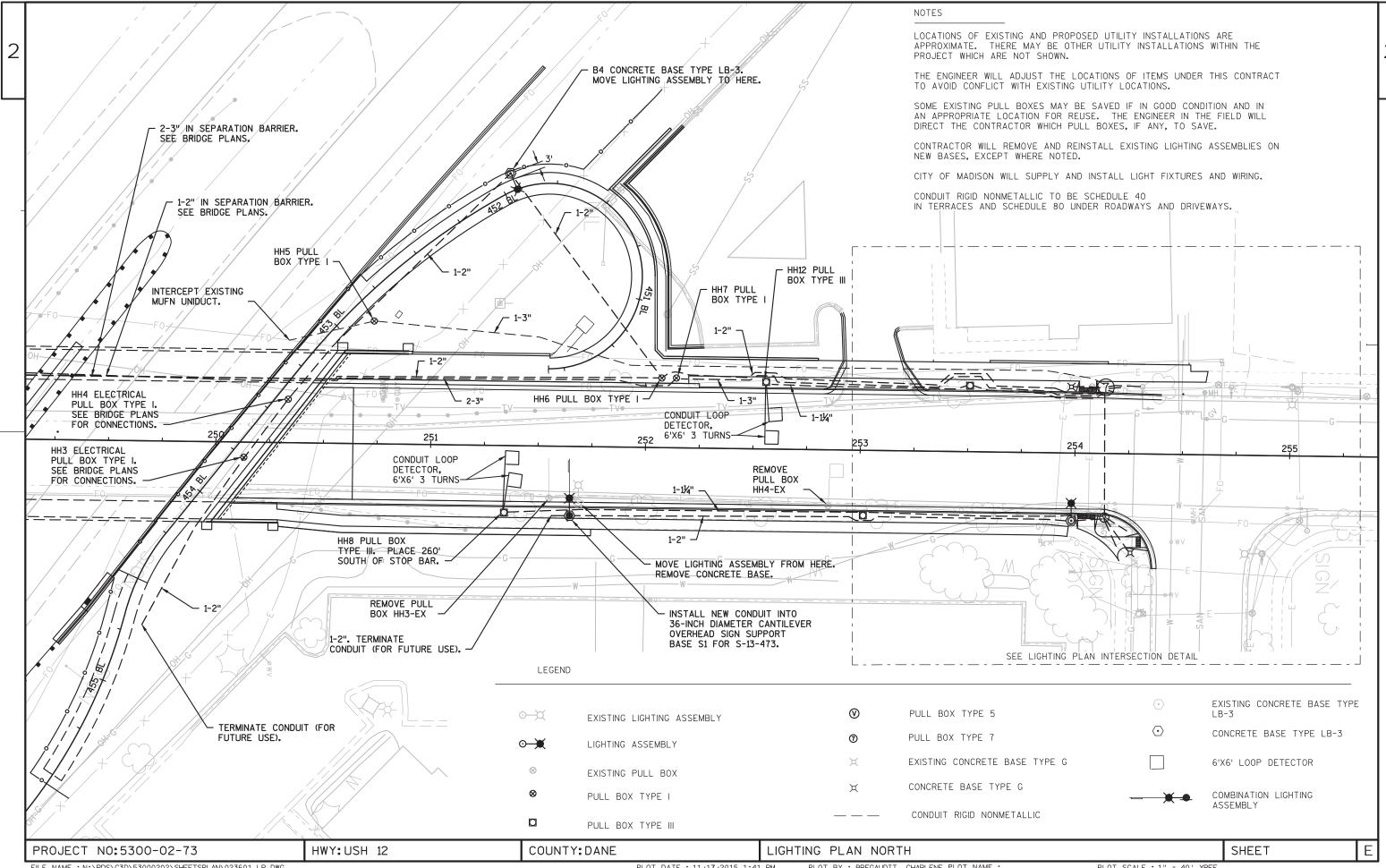


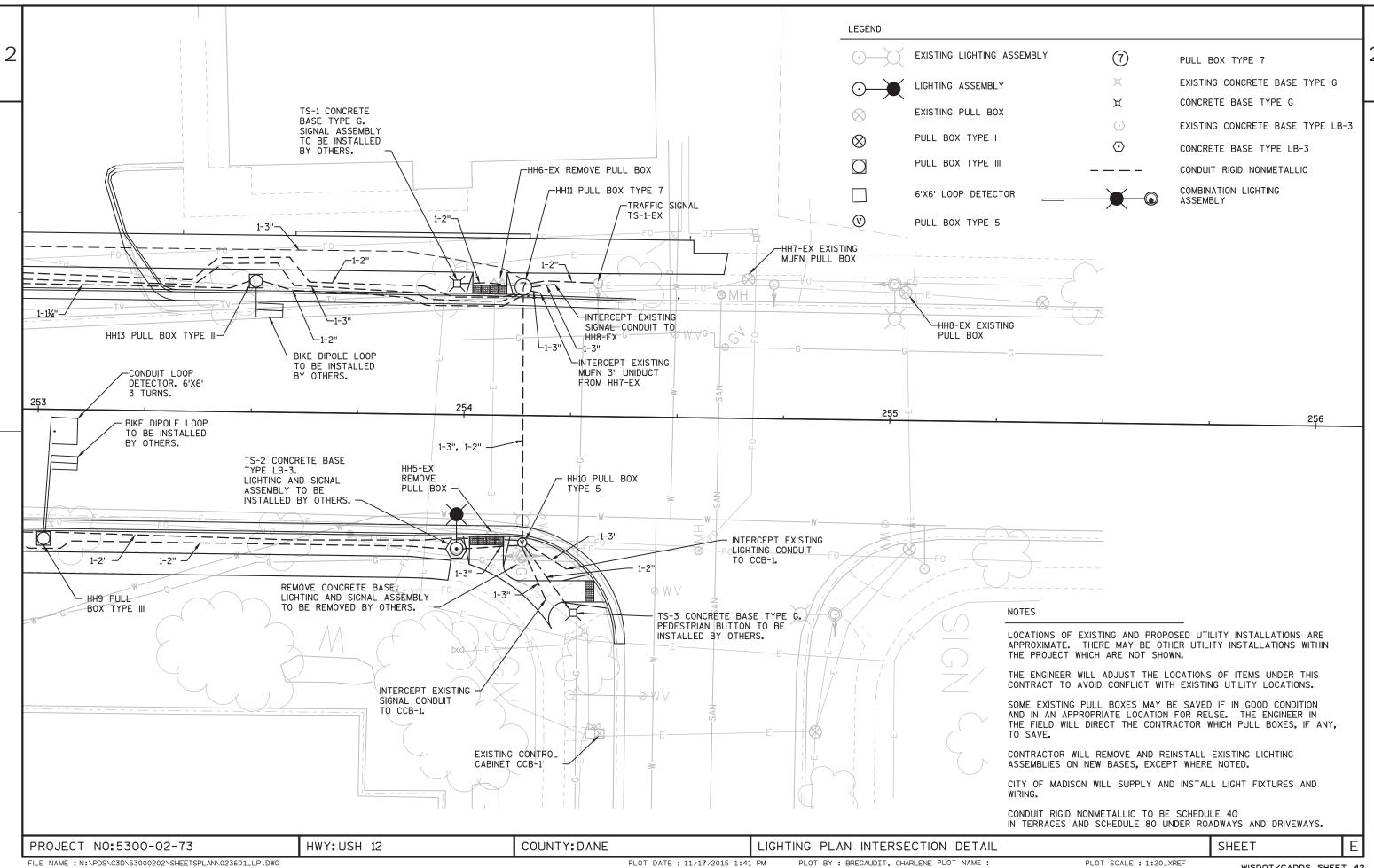




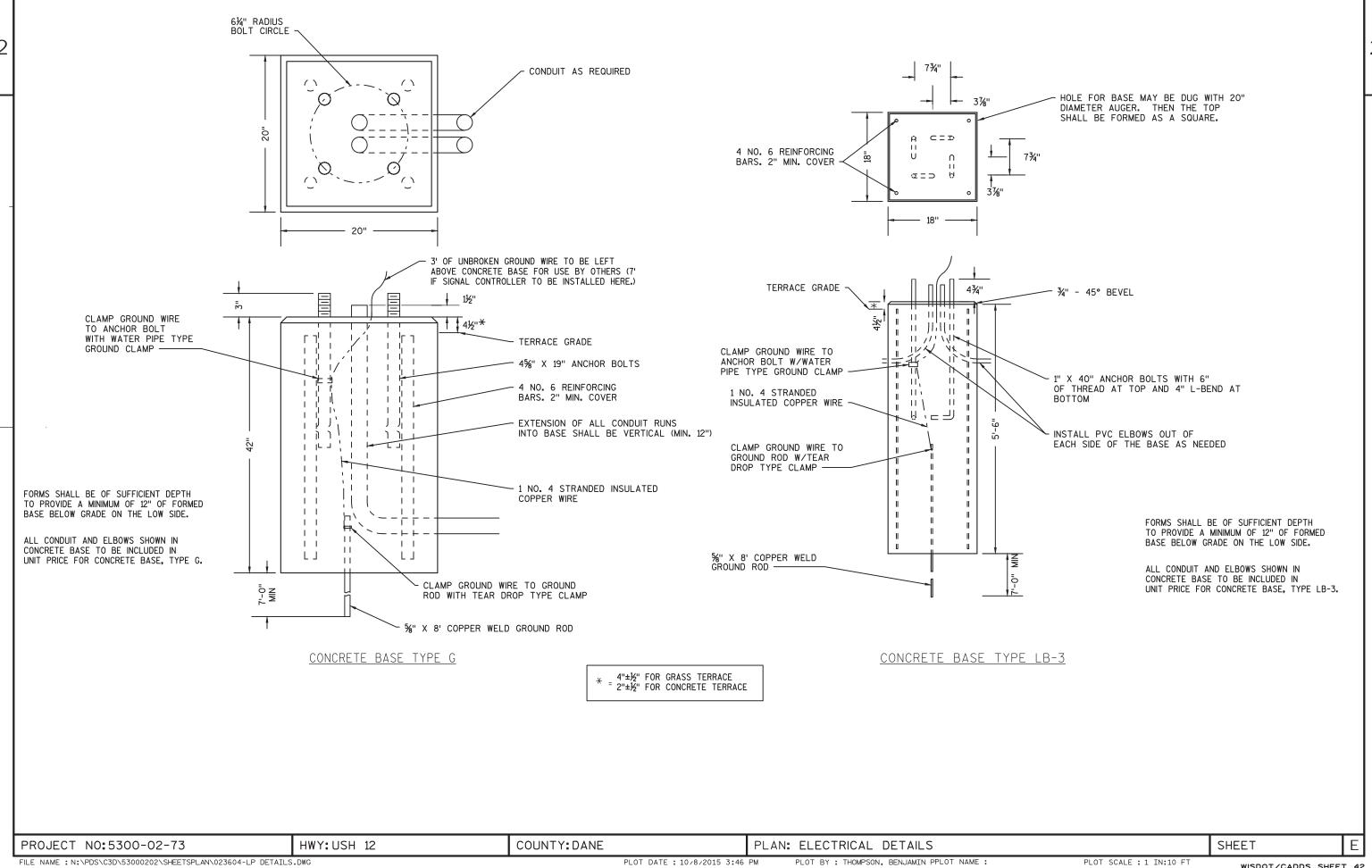




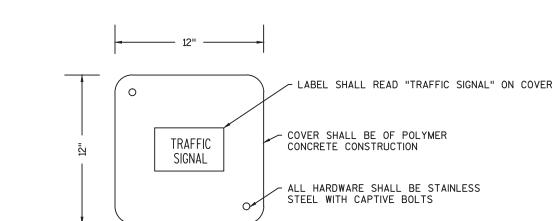


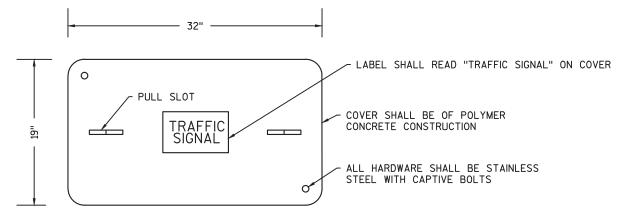


WISDOT/CADDS SHEET 42



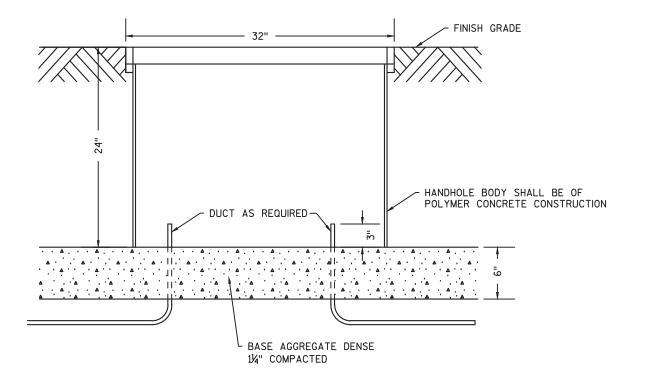






*20,000 LBS LOAD RATING FOR COVER AND BOX

*15,000 LBS MAXIMUM LOAD OVER A 10" X 10" TEST AREA RATING FOR COVER AND BOX



DUCT AS REQUIRED

HANDHOLE BODY SHALL BE OF HIGH DENSITY POLYETHYLENE OR POLYMER CONCRETE CONSTRUCTION

BASE AGGREGATE DENSE 1½" COMPACTED

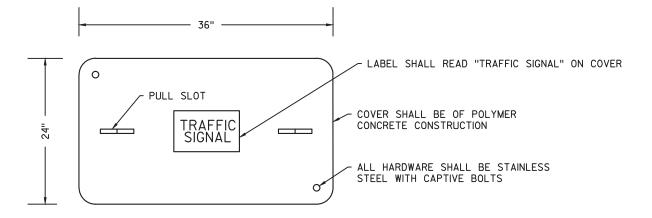
ELECTRICAL PULL BOX TYPE I

ELECTRICAL PULL BOX TYPE III

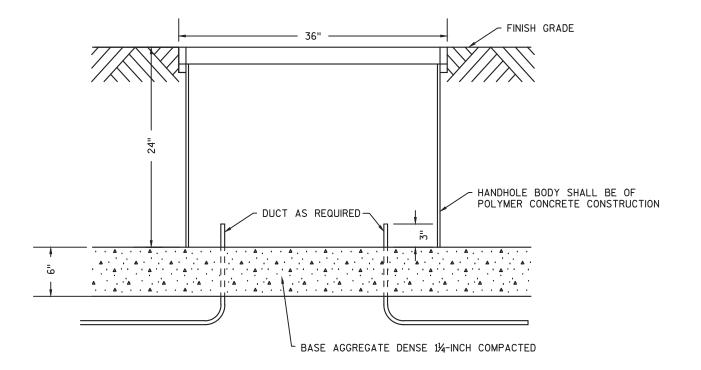
PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE PLAN: ELECTRICAL DETAILS SHEET E



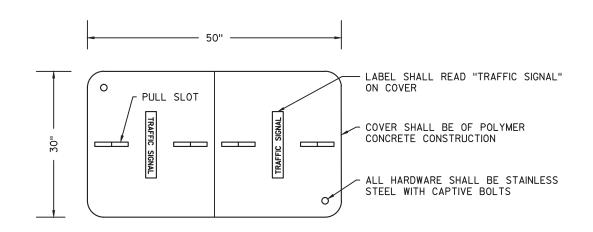




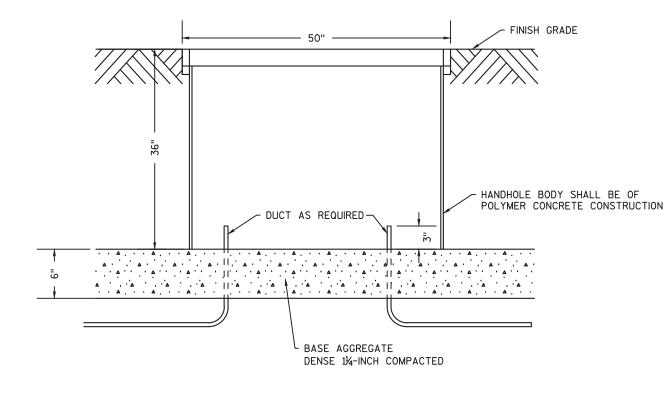
*15,000 LBS MAXIMUM LOAD OVER A 10" X 10" TEST AREA RATING FOR COVER AND BOX



ELECTRICAL PULL BOX TYPE V

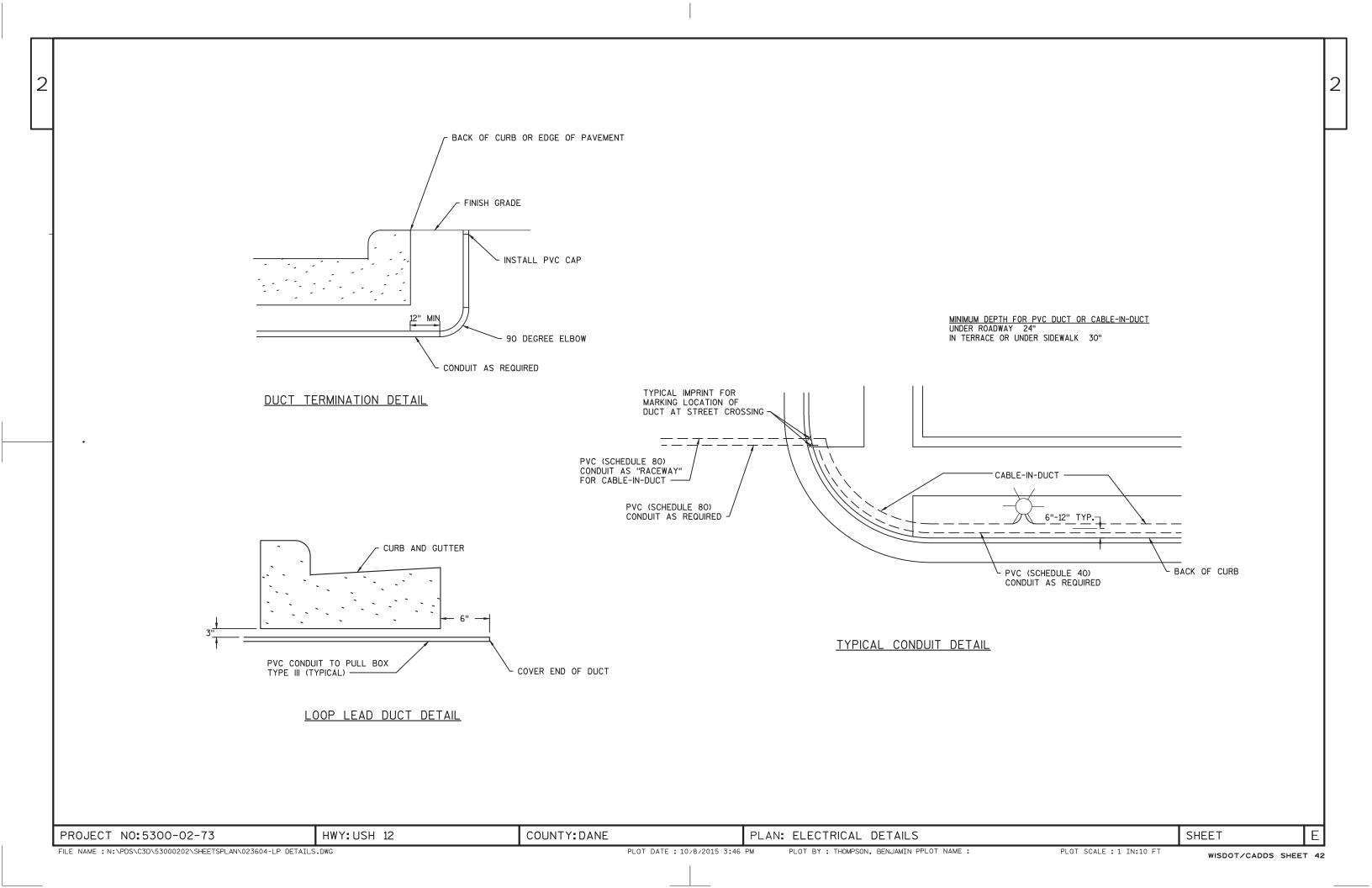


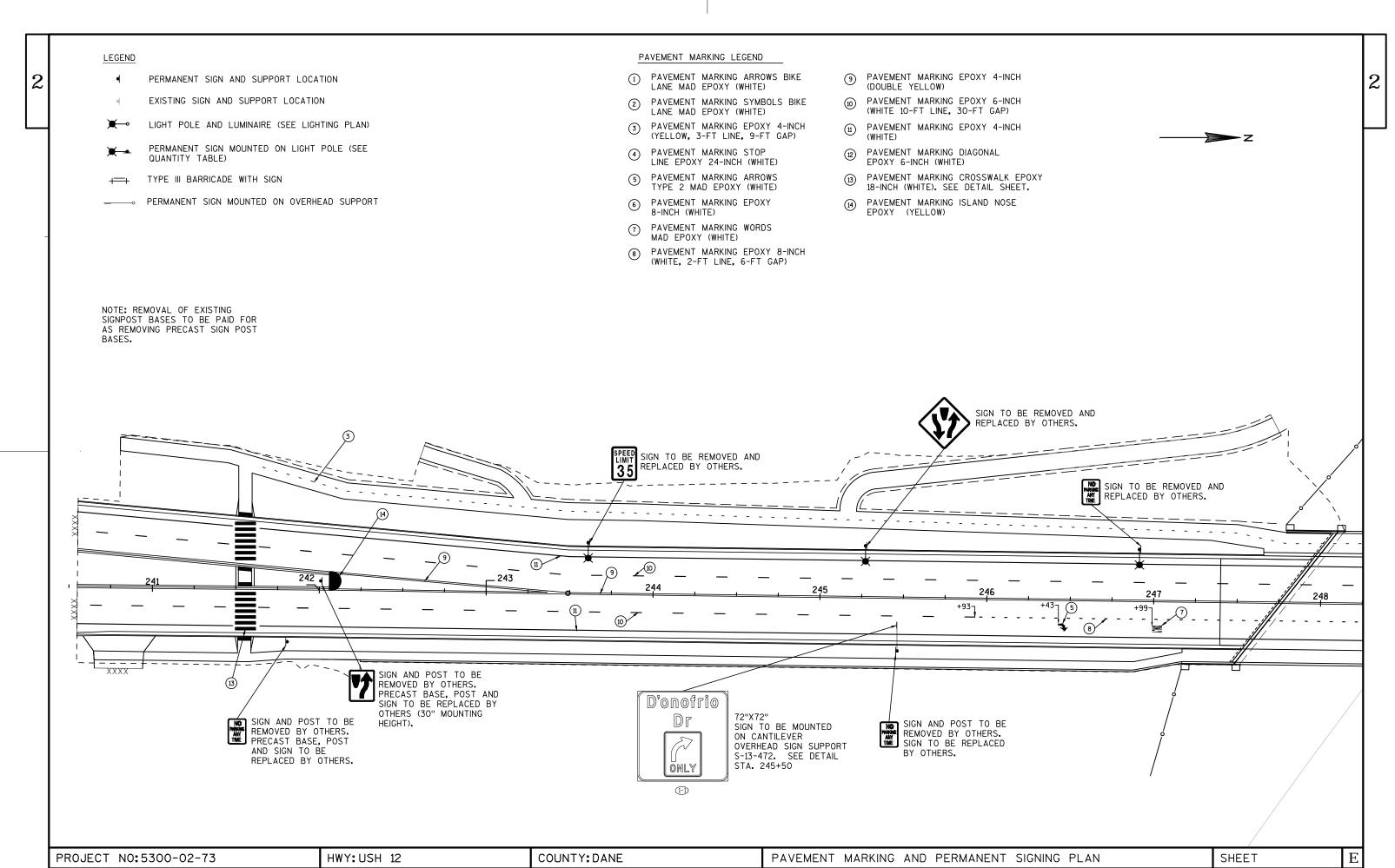
*15,000 LBS MAXIMUM LOAD OVER A 10" X 10" TEST AREA RATING FOR COVER AND BOX

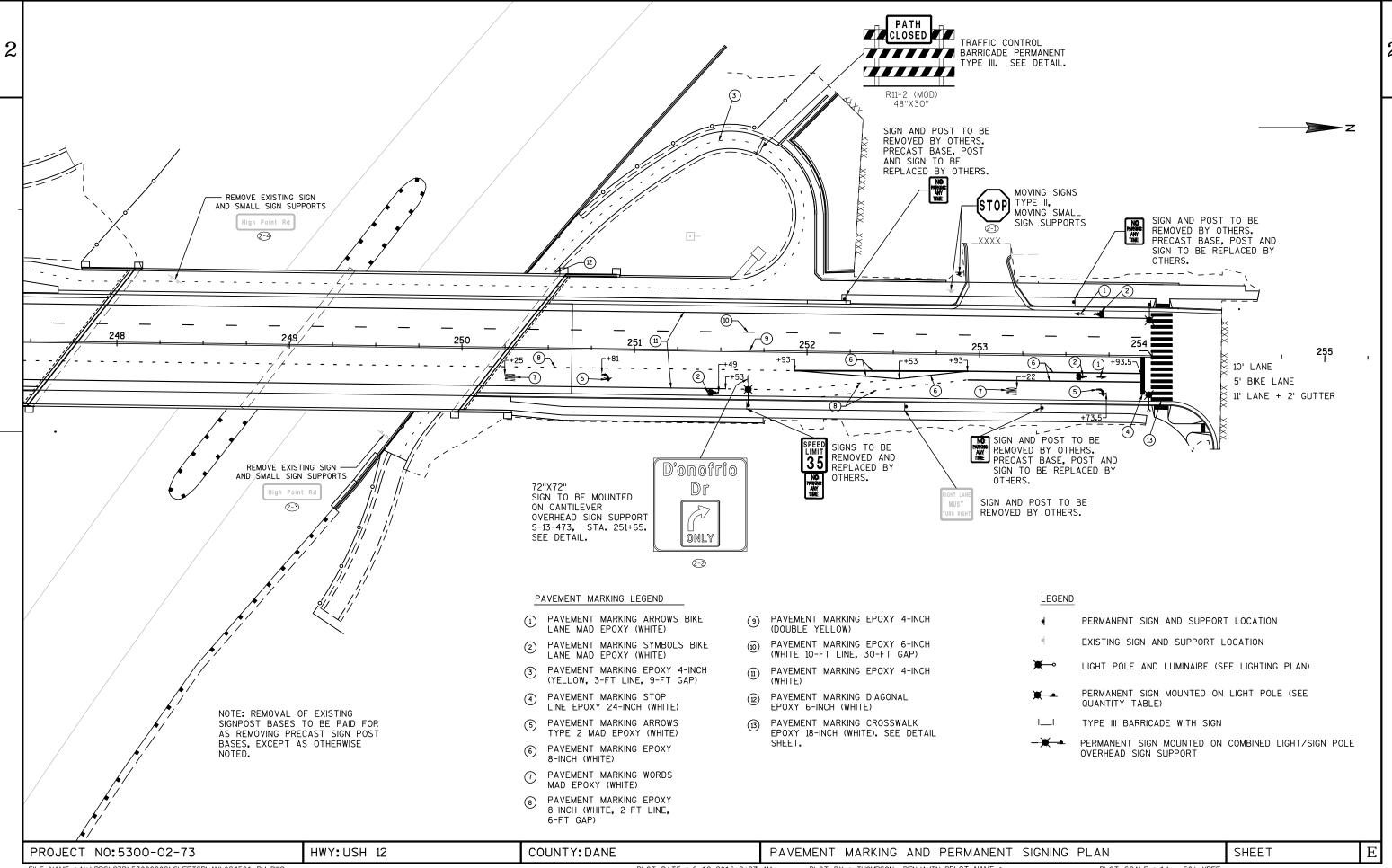


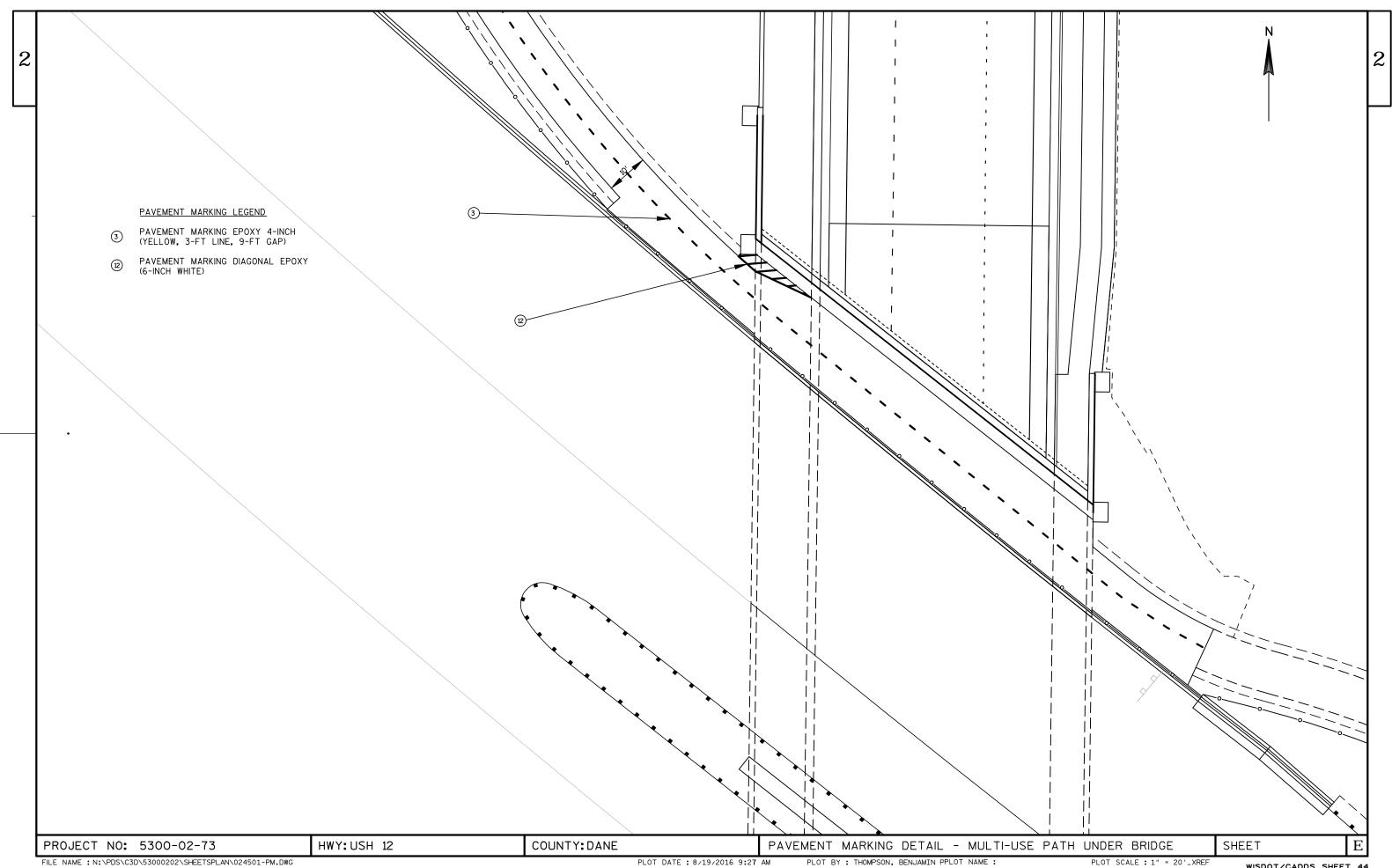
ELECTRICAL PULL BOX TYPE VII

PROJECT NO:5300-02-73 HWY:USH 12 COUNTY:DANE PLAN: ELECTRICAL DETAILS SHEET E

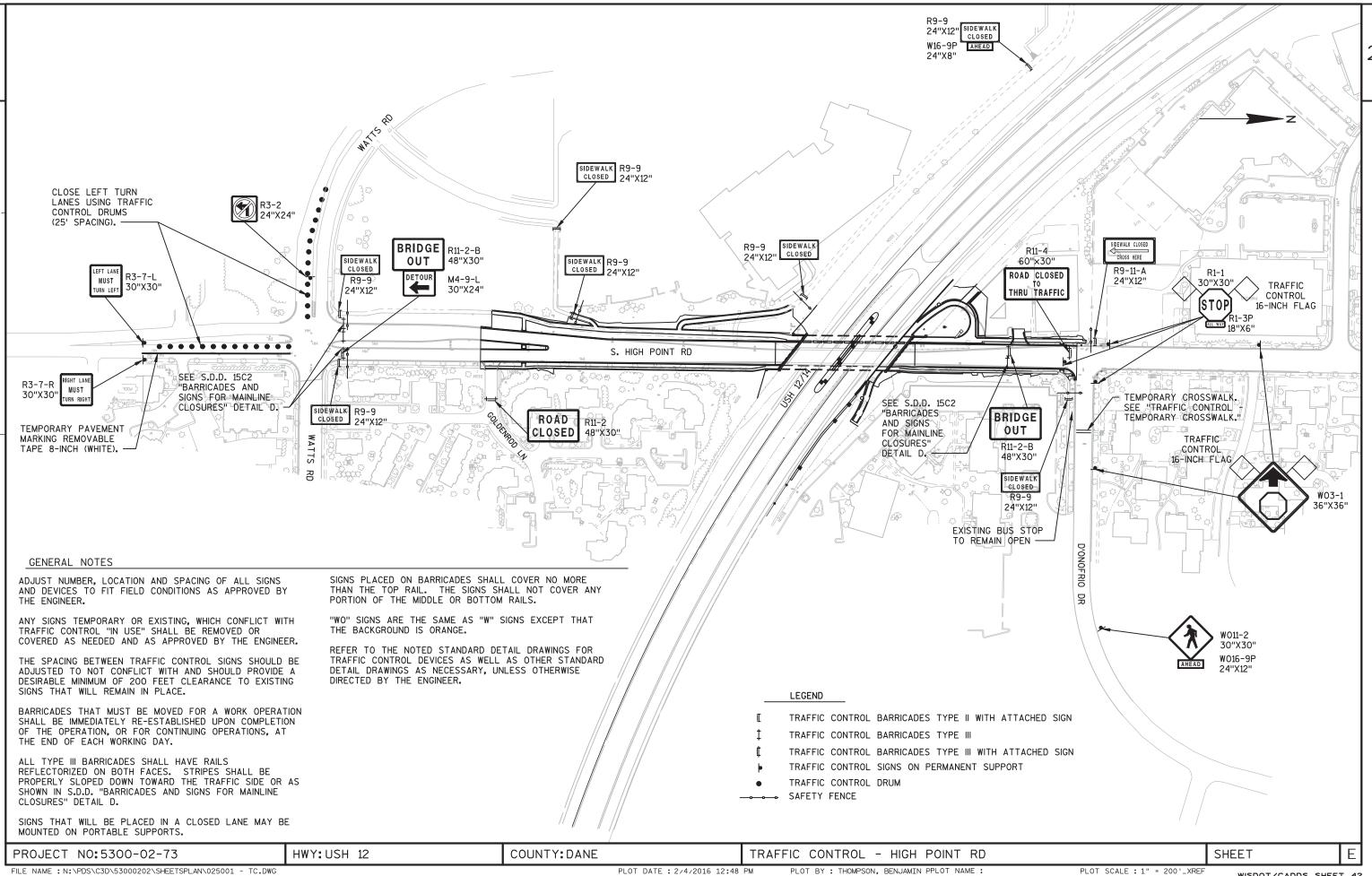


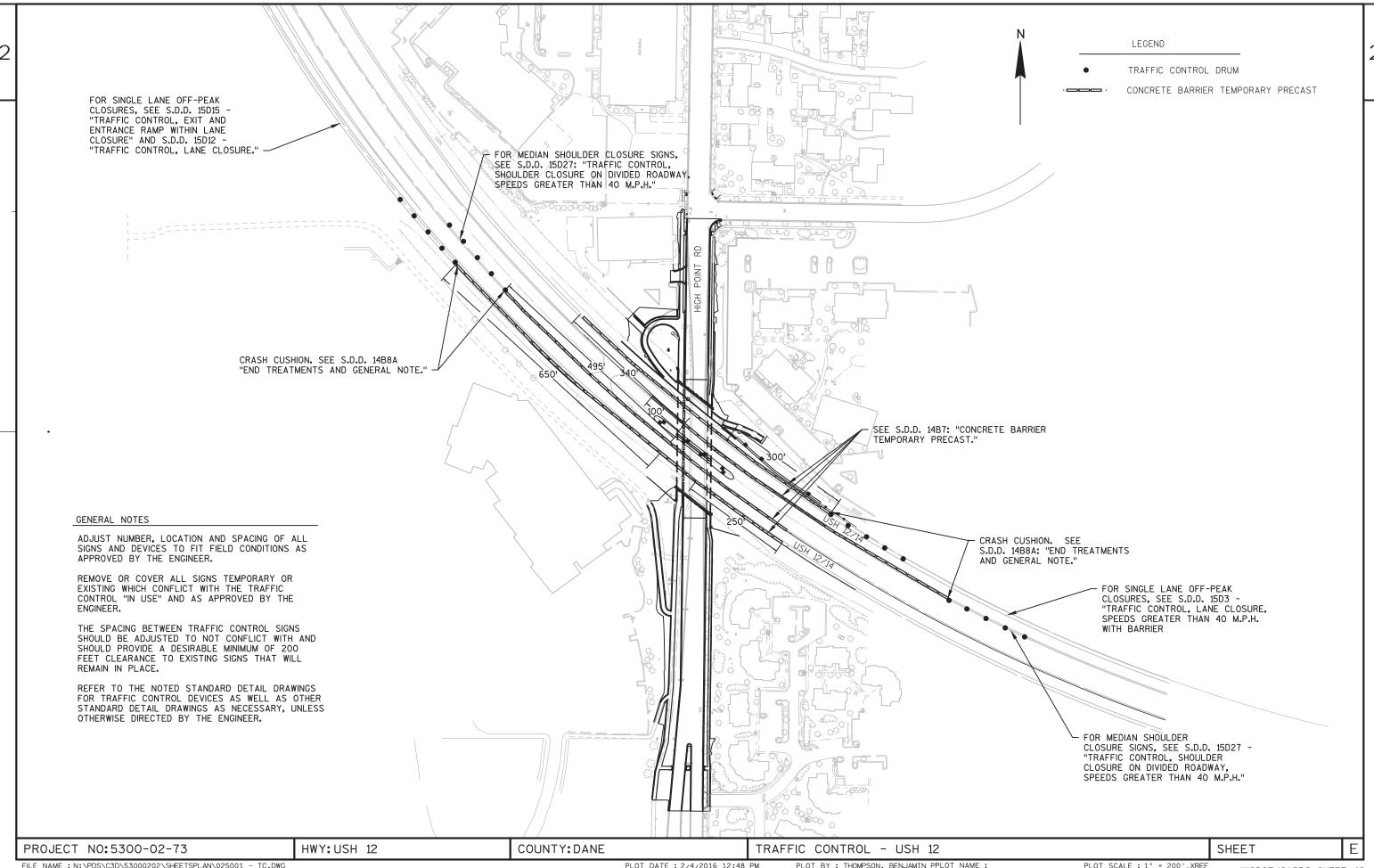


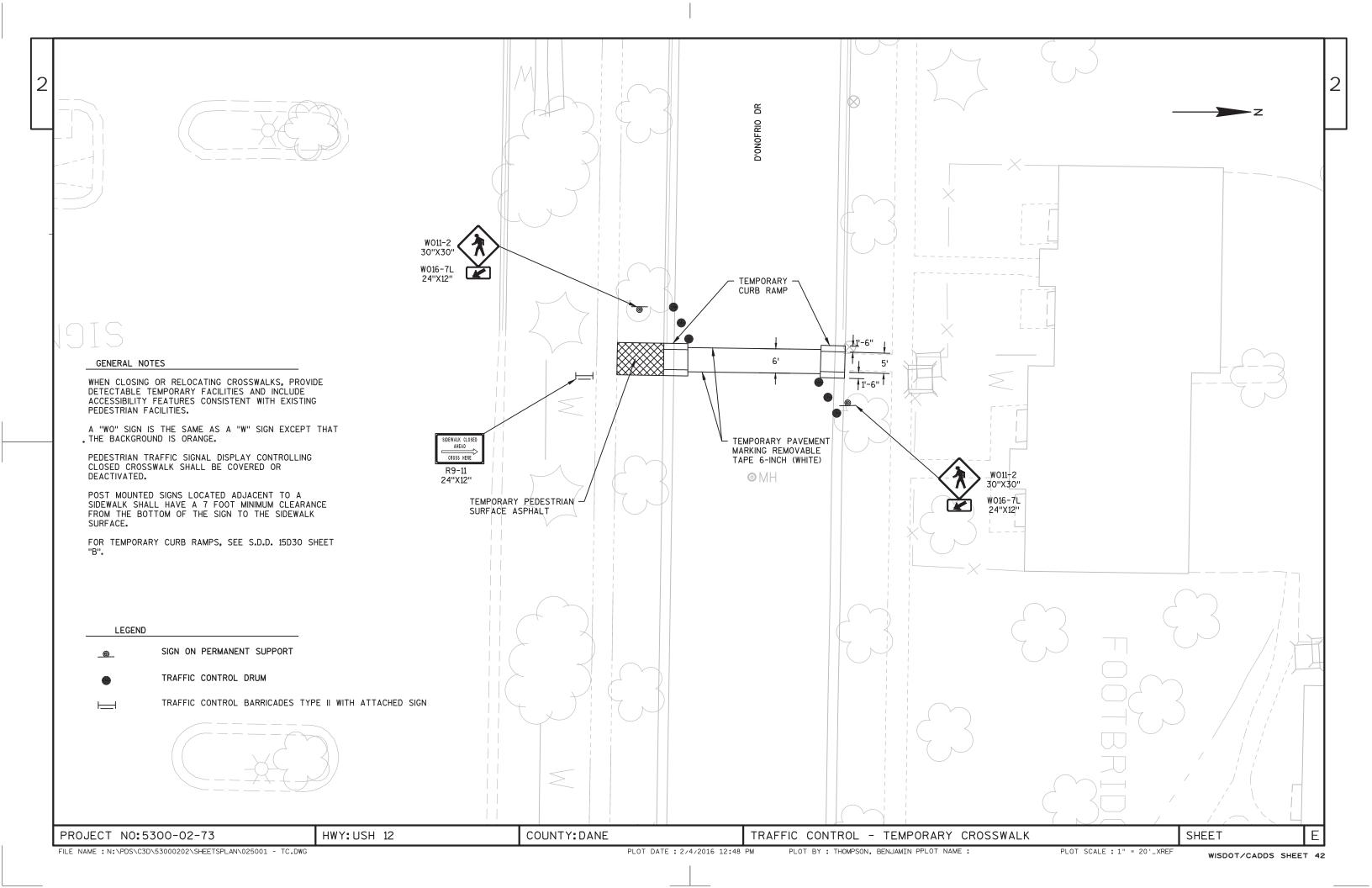


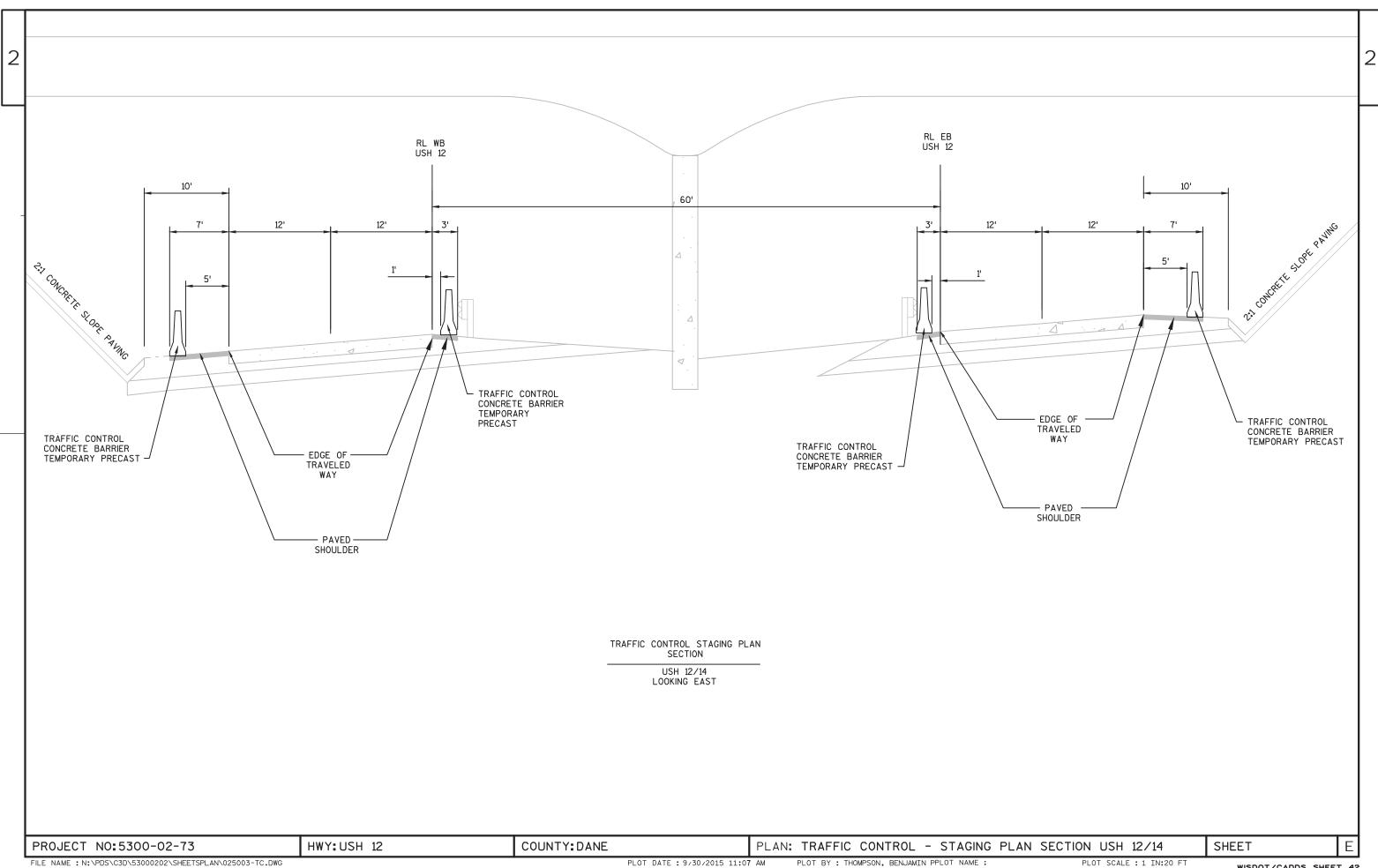


WISDOT/CADDS SHEET 44

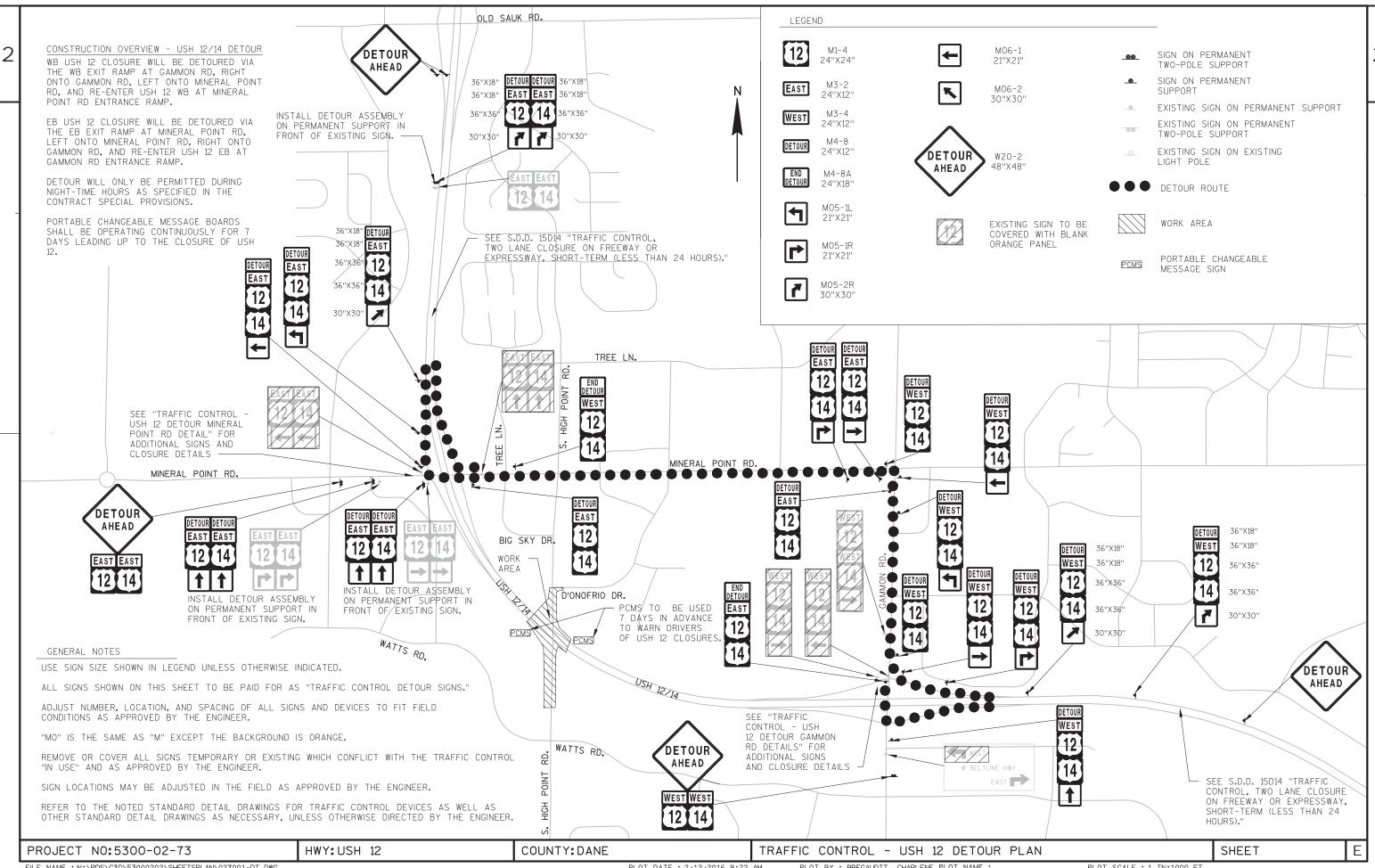


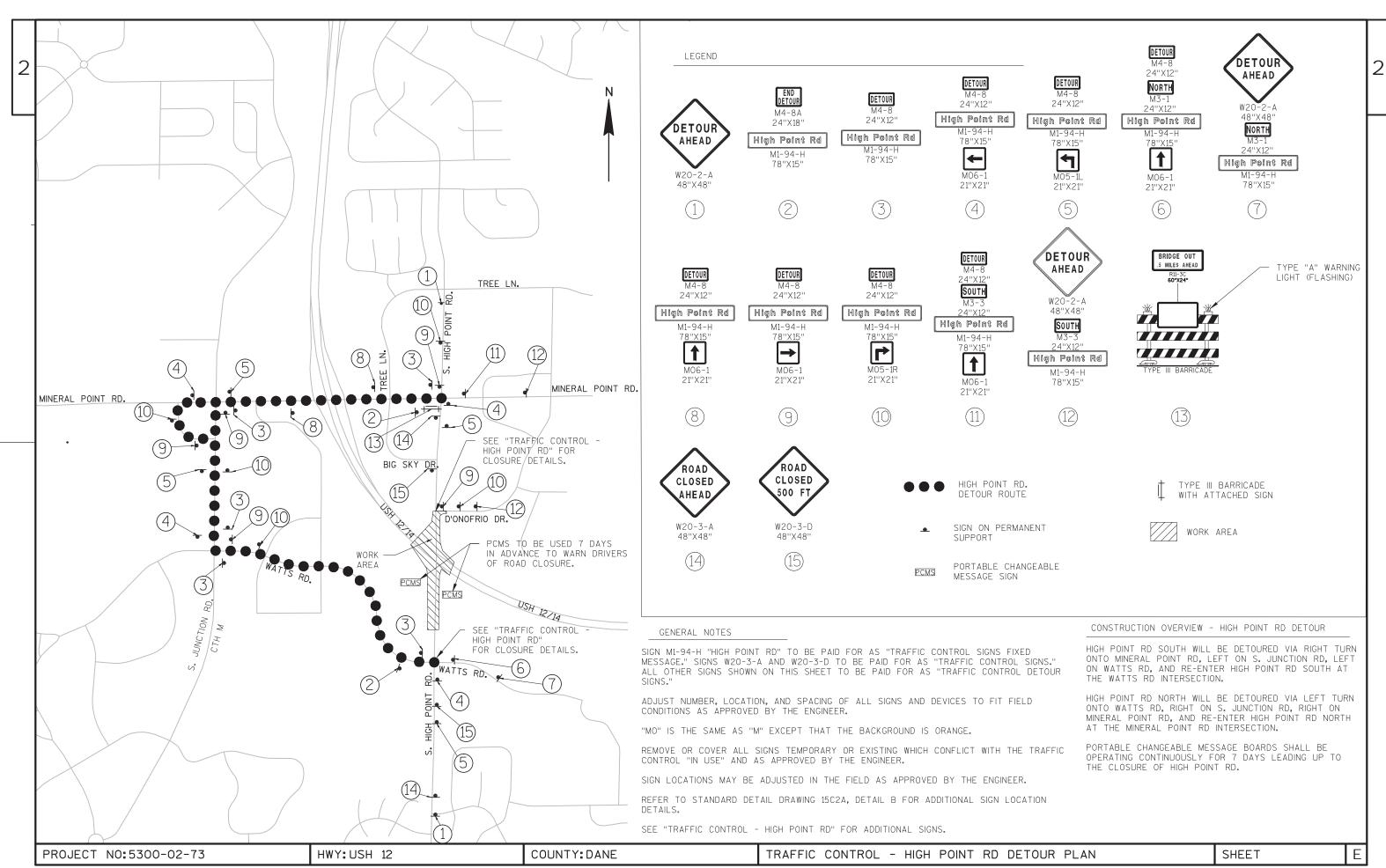




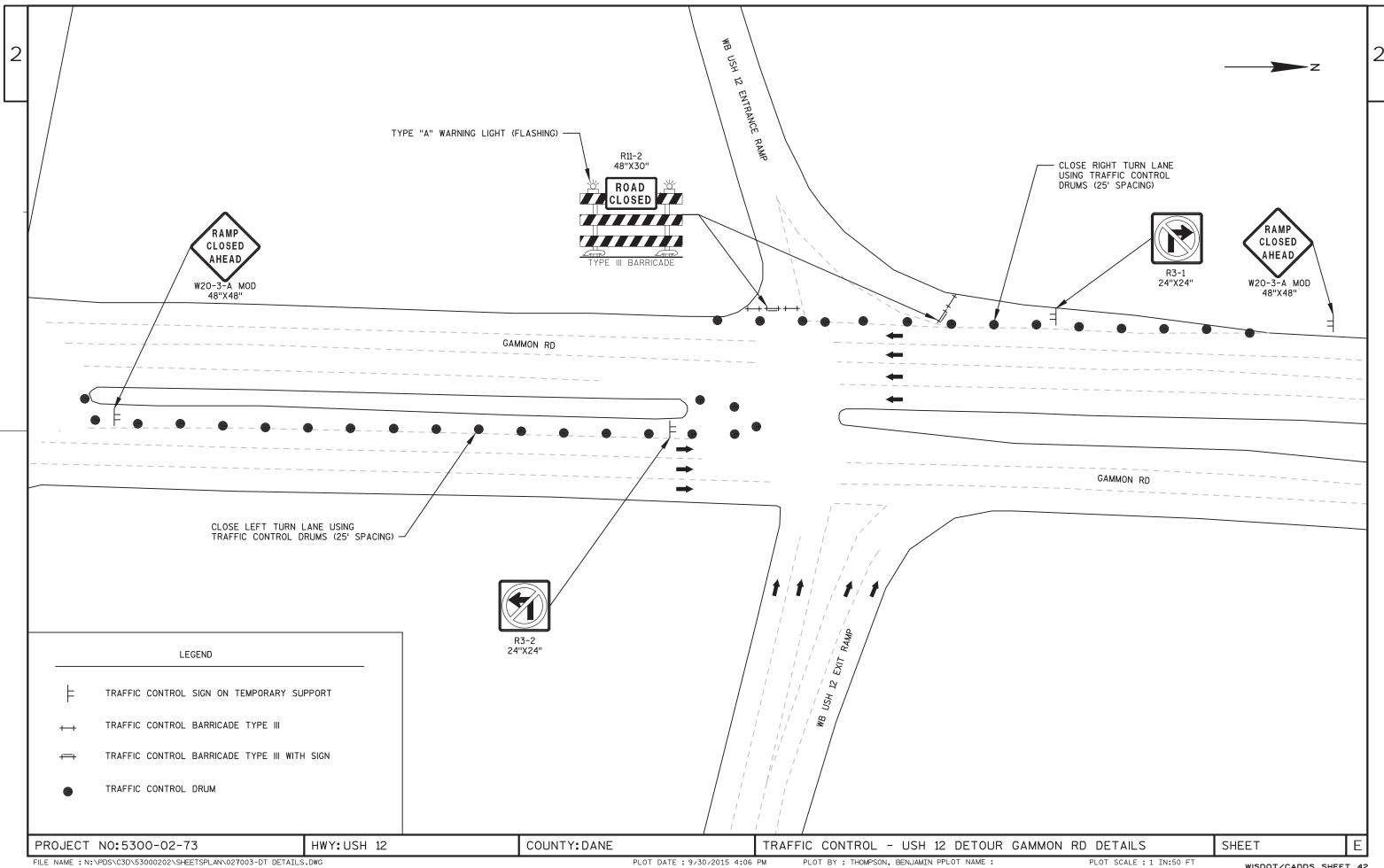


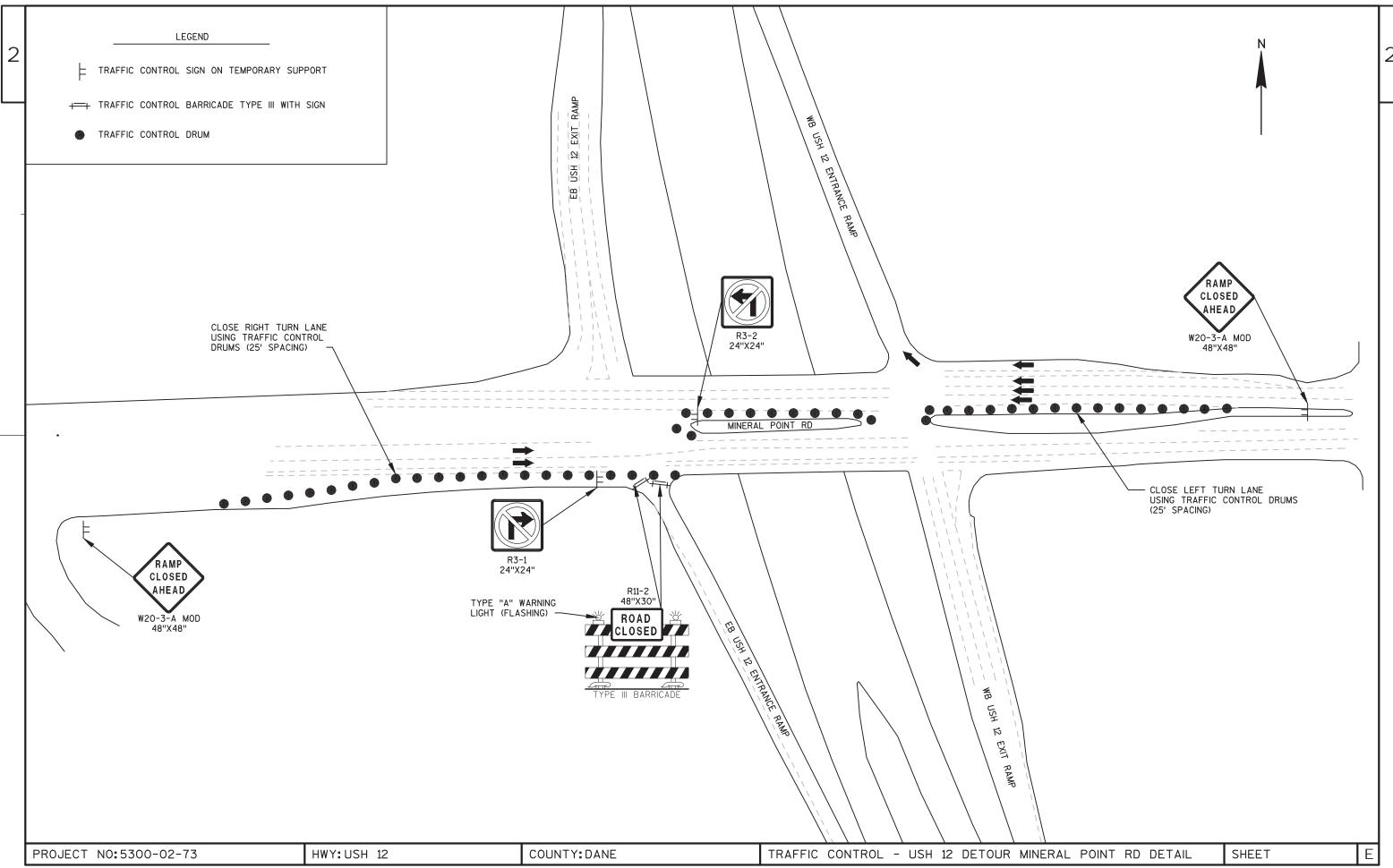
WISDOT/CADDS SHEET 42

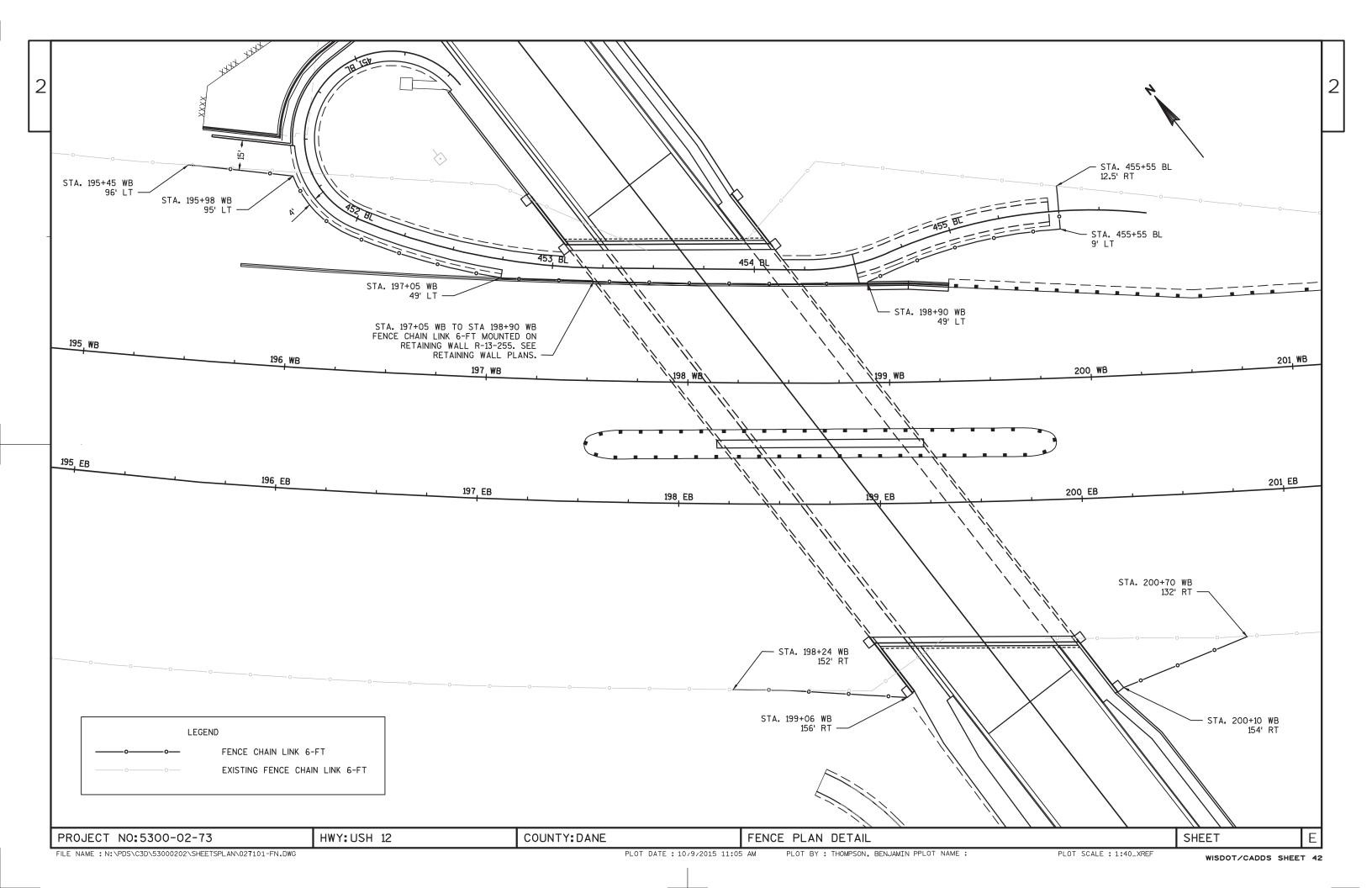


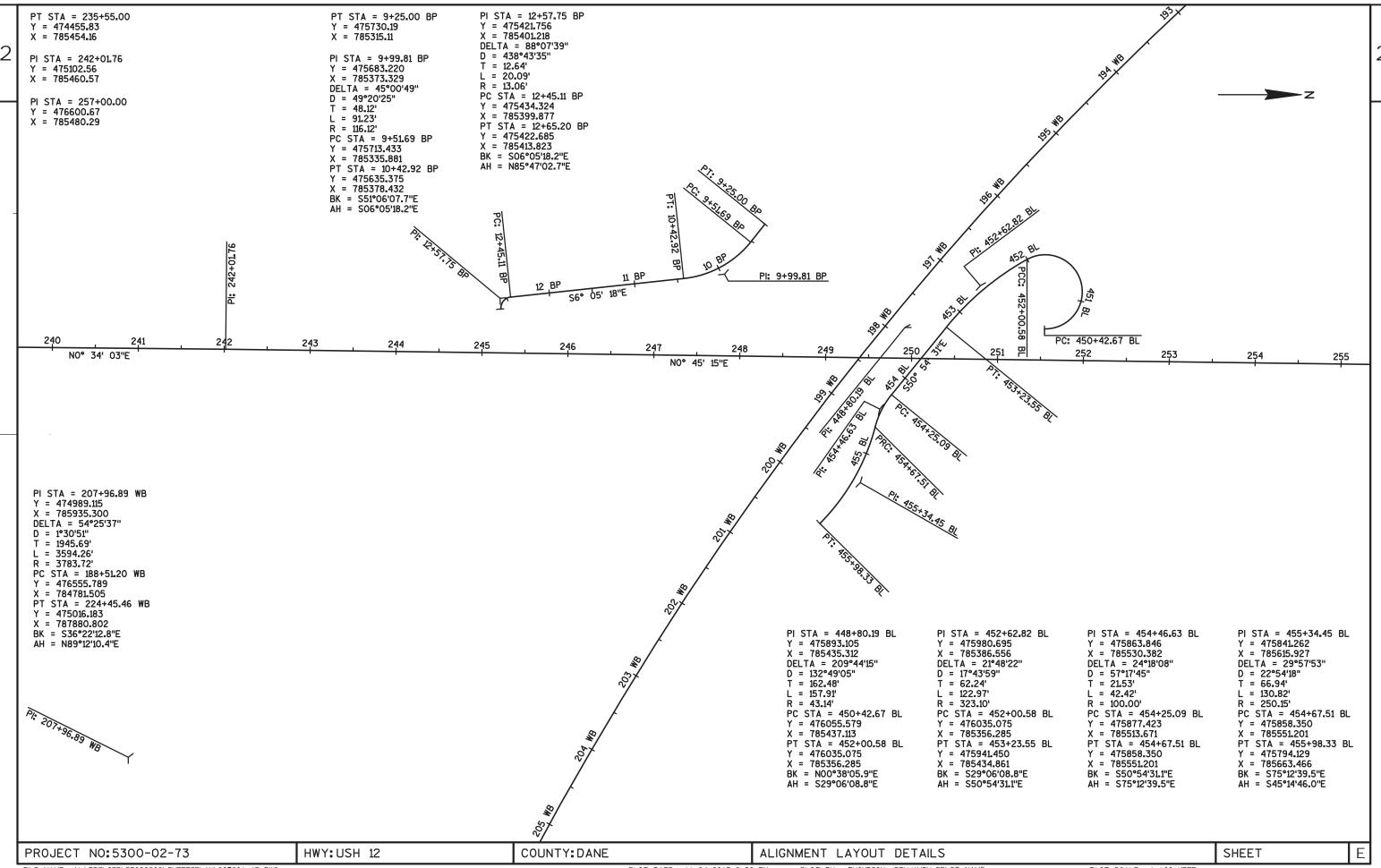


FILE NAME :N:\PDS\C3D\53000202\SHEETSPLAN\027001-DT.DWG PLOT DATE : 2/12/2016 9:22 AM PLOT BY : BREGAUDIT, CHARLENE PLOT NAME : PLOT SCALE : 1 IN:1000 FT WISDOT/CADDS SHEET 42









(structure) 01. R-13-251

DATE 25	AUG16		ESTIMATE	E O F Q U A N		
LI NE NUMBER	ITEM	ITEM DESCRIPTION	UNI T	TOTAL	5300-02-73 QUANTI TY	
0460	513. 8006	Railing Steel Pedestrian Type C1	LF	200.000	200. 000	
		(structure) 02. R-13-252				
0470	513. 8006	Railing Steel Pedestrian Type C1 (structure) 03. R-13-253	LF	146. 000	146. 000	
0480	513. 8006	Railing Steel Pedestrian Type C1	LF	493.000	493. 000	
0490	516. 0500	(structure) 04. R-13-254 Rubberized Membrane Waterproofing	SY	61. 000	61. 000	
0500		Concrete Staining (structure) 01.	SF	19, 965. 000	19, 965. 000	
		B-13-572				
0510	517. 1010. S	Concrete Staining (structure) 02.	SF	120.000	120. 000	
0520	E17 1010 S	R-13-251	SF	220. 000	220. 000	
0320	517. 1010. 3	Concrete Staining (structure) 03. R-13-253	эг	220.000	220.000	
0530	517. 1010. S	Concrete Staining (structure) 04.	SF	740. 000	740. 000	
0540	517. 1050. S	R-13-254 Architectural Surface Treatment	SF	4, 370. 000	4, 370. 000	
		(structure) 01. B-13-572				
0550	522. 1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1. 000	1. 000	
05.46	F00 4040					
0560	522. 1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1. 000	1. 000	
0570	530. 0115	Cul vert Pipe Corrugated Polyethyl ene	e LF	52.000	52. 000	
0580	550. 1100	15-In Piling Steel HP 10-Inch X 42 Lb	LF	2, 950. 000	2, 950. 000	
0590	601. 0407	Concrete Curb & Gutter 18-Inch Type		176. 000	176. 000	
0600	601. 0411	Concrete Curb & Gutter 30-Inch Type		2, 097. 000	2,097.000	
0610	602. 0410	Concrete Sidewalk 5-Inch	SF	8, 711. 000	8, 711. 000	
0620	602. 0420	Concrete Sidewalk 7-Inch	SF	13, 430. 000	13, 430. 000	
0630	602. 0505	Curb Ramp Detectable Warning Field	SF	106. 000	106. 000	
0640	603. 1132	Yellow Concrete Barrier Type S32	LF	217. 000	217. 000	
0650	603. 1156	Concrete Barrier Type S56	LF	40.000	40.000	
0660	603. 8000	Concrete Barrier Temporary Precast	LF	3, 500. 000	3, 500. 000	
		Del i vered				
0670	603. 8125	Concrete Barrier Temporary Precast Installed	LF	3, 500. 000	3, 500. 000	
0680	604. 0500	Slope Paving Crushed Aggregate	SY	300.000	300.000	
0690	606. 0100	Riprap Light	CY	3.000	3. 000	
0700	608. 0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	e LF	128. 000	128. 000	
			<u>-</u>			
0710	608. 0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	e LF	57. 000	57. 000	
0720	608. 0318	Storm Sewer Pipe Reinforced Concrete	e LF	139.000	139. 000	
0730	608 0224	Class III 18-Inch Storm Sewer Pipe Reinforced Concrete	e LF	60. 000	60. 000	
0/30	608. 0324	Class III 24-Inch	, LF	00.000	ou. 000	
0740	608. 0412	Storm Sewer Pipe Reinforced Concrete	e LF	189. 000	189. 000	
0750	608. 0424	Class IV 12-Inch Storm Sewer Pipe Reinforced Concrete	e LF	26. 000	26. 000	
	300. 3121	Class IV 24-Inch		20.000	20.000	
0760	611. 0530	Manhol e Covers Type J	EACH	1. 000	1. 000	
0770	611. 0610	Inlet Covers Type BW	EACH	2. 000	2. 000	
0780	611. 0624	Inlet Covers Type H	EACH	5. 000	5. 000	
0790	611. 0639	Inlet Covers Type H-S	EACH	1. 000	1. 000	
0800	611. 0645	Inlet Covers Type MS-A	EACH	2. 000	2. 000	
		Manholes 5-FT Diameter				

DATE 25	SAUG16	EST	TIMATE	OF QUAN	T I T I E S 5300-02-73	
NUMBER	I TEM	ITEM DESCRIPTION	UNI T	TOTAL	QUANTI TY	
0820	611. 2006	Manholes 6-FT Diameter	EACH	1. 000	1. 000	
0830	611. 3004	Inlets 4-FT Diameter	EACH	2. 000	2. 000	
0840	611. 3225	Inlets 2x2.5-FT	EACH	1. 000	1. 000	
0850	611. 3230	Inlets 2x3-FT	EACH	5. 000	5. 000	
0860	611. 3901	Inlets Median 1 Grate	EACH	2. 000	2. 000	
0870	612. 0406	Pipe Underdrain Wrapped 6-Inch	LF	1, 710. 000	1, 710. 000	
0880	614. 0220	Steel Thrie Beam Bullnose Terminal	EACH	2. 000	2. 000	
0890	614. 0230	Steel Thrie Beam	LF	256. 000	256. 000	
0900	614. 0905	Crash Cushions Temporary	EACH	4. 000	4. 000	
0910	614. 2300	MGS Guardrail 3	LF	209. 000	209. 000	
0920	614. 2500	MGS Thrie Beam Transition	LF	40. 000	40. 000	
0930 0940		Fence Chain Link 6-FT Fence Safety	LF LF	627. 000 90. 000	627. 000 90. 000	
0950	618. 0100	Maintenance And Repair of Haul Roads (project) 01. 5300-02-73	EACH	1. 000	1. 000	
0960	619. 1000	Mobilization	EACH	1. 000	1. 000	
0970	620. 0300	Concrete Median Sloped Nose	SF	64. 000	64. 000	
0980	624. 0100	Water	MGAL	987. 000	987. 000	
0990	625. 0100	Topsoi I	SY	12, 350. 000	12, 350. 000	
1000	628. 1104	Erosi on Balles	EACH	40. 000	40. 000	
1010	628. 1504	Silt Fence	LF	1, 983. 000	1, 983. 000	
1020	628. 1520	Silt Fence Maintenance	LF	1, 983. 000	1, 983. 000	
1030	628. 1905	Mobilizations Erosion Control	EACH	9. 000	9. 000	
1040	628. 1910	Mobilizations Emergency Erosion Control	EACH	7. 000	7. 000	
1050	628. 2006	Erosion Mat Urban Class I Type A	SY	7, 953. 000	7, 953. 000	
1060	628. 2008	Erosion Mat Urban Class I Type B	SY	1, 438. 000	1, 438. 000	
1070	628. 2023	Erosion Mat Class II Type B	SY	196. 000	196. 000	
1080	628. 7005	Inlet Protection Type A	EACH	10. 000	10. 000	
1090	628. 7020	Inlet Protection Type D	EACH	10. 000	10. 000	
1100	628. 7504	Temporary Ditch Checks	LF	180. 000	180. 000	
1110	628. 7560	Tracking Pads	EACH	2. 000	2. 000	
1120	628. 7570	Rock Bags	EACH	15. 000	15. 000	
1130	629. 0210 630. 0130	Fertilizer Type B Seeding Mixture No. 30	CWT LB	8. 500 398. 000	8. 500 398. 000	
1140 1150	630. 0140	Seeding Mixture No. 40	LB	35. 000	35. 000	
1160	630. 0200	Seeding Temporary	LB	324. 000	324. 000	
1170	630. 0300	Seeding Borrow Pit	LB	7. 000	7. 000	
1180 1190	631. 0300	Sod Water Sod Lawn	MGAL SY	285. 000 329. 000	285. 000 329. 000	
1200	631. 1000 633. 1000	Delineator Brackets	EACH	3. 000	3. 000	
1210	633. 5200	Markers Culvert End	EACH	2. 000	2. 000	
1220	637. 2210	Signs Type II Reflective H	SF	82. 000	82. 000	
1230	638. 2102	Moving Signs Type II	EACH	1. 000	1. 000	
1240	638. 2602	Removing Signs Type II	EACH	2. 000	2. 000	
1250	638. 3000	Removing Small Sign Supports	EACH	4. 000	4. 000	
1260 1270	638. 4000 641. 8100	Moving Small Sign Supports Overhead Sign Support (structure) 01. S-13-472	EACH LS	1. 000 1. 000	1. 000 1. 000	
1280	641. 8100	Overhead Sign Support (structure) 02. S-13-473	LS	1. 000	1. 000	
1290	642. 5201	Field Office Type C	EACH	1. 000	1. 000	
1300	643. 0100	Traffic Control (project) 01. 5300-02-73	EACH	1. 000	1. 000	
1310	643. 0300	Traffic Control Drums	DAY	15, 818. 000	15, 818. 000	
1320	643. 0410	Traffic Control Barricades Type II	DAY	1, 665. 000	1, 665. 000	

DATE 25	AUG16	EST	IMATE	OF QUAN		
LI NE NUMBER	ITEM	ITEM DESCRIPTION	UNI T	TOTAL	5300-02-73 QUANTI TY	
1330	643. 0420	Traffic Control Barricades Type III	DAY	3, 152. 000	3, 152. 000	
1340	643. 0453	Traffic Control Barricades Permanent	EACH	1. 000	1. 000	
		Type III				
1350	643. 0705	Traffic Control Warning Lights Type A	DAY	5, 874. 000	5, 874. 000	
1360	643. 0715	Traffic Control Warning Lights Type C	DAY	1, 800. 000	1, 800. 000	
1370	643. 0800	Traffic Control Arrow Boards	DAY	192.000	192. 000	
1380	643. 0900	Traffic Control Signs	DAY	10, 396. 000	10, 396. 000	
1390	643. 0920	Traffic Control Covering Signs Type II	EACH	72. 000	72. 000	
1400	643. 1000	Traffic Control Signs Fixed Message	SF	32. 000	32. 000	
1410	643. 1050	Traffic Control Signs PCMS	DAY	66. 000	66. 000	
1420	643. 2000	Traffic Control Detour (project) 01.	EACH	1. 000	1. 000	
•	2.2.200	5300-02-73		555	555	
1430	643. 3000	Traffic Control Detour Signs	DAY	13, 292. 000	13, 292. 000	
1440		Temporary Pedestrian Surface Asphalt	SF	95.000	95. 000	
1450	644. 1601. S	5 Temporary Curb Ramp	EACH	2. 000	2. 000	
1460	645. 0112	Geotextile Type DF Schedule B	SY	10. 000	10. 000	
1470	645. 0130	Geotextile Type R	SY	4. 000	4. 000	
1480	646. 0106	Pavement Marking Epoxy 4-Inch	LF	5, 417. 000	5, 417. 000	
1490	646. 0116	Pavement Marking Epoxy 6-Inch	LF	466.000	466.000	
1500	646. 0126	Pavement Marking Epoxy 8-Inch	LF	598. 000	598. 000	
1510	647. 0576	Pavement Marking Stop Line Epoxy 24-Inch	LF	22. 000	22. 000	
1510	647. 0606	Pavement Marking Island Nose Epoxy	EACH	1. 000	1. 000	
1530	647. 0706	Pavement Marking Diagonal Epoxy 6-Inch	LF	41. 000	41. 000	
1540	647. 0786	Pavement Marking Crosswalk Epoxy 18-Inch	LF	348. 000	348. 000	
1550	649. 0600	Temporary Pavement Marking Removable	LF	70.000	70. 000	
		Tape 6-Inch				
1560	649. 0801	Temporary Pavement Marking Removable	 LF	350. 000	350. 000	
		Tape 8-Inch			220.000	
1570	650. 4000	Construction Staking Storm Sewer	EACH	14. 000	14. 000	
1580	650. 4500	Construction Staking Subgrade	LF	2, 244. 000	2, 244. 000	
1590	650. 5000	Construction Staking Base	LF	2, 509. 000	2, 509. 000	
1600	650. 5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2, 503. 000	2, 503. 000	
		σαιρ α σαιτει				
1610	650. 6500	Construction Staking Structure Layout	LS	1. 000	1. 000	
		(structure) 01. B-13-572		_	_	
1620	650. 6500	Construction Staking Structure Layout	LS	1. 000	1. 000	
1620	650 6500	(structure) 02. R-13-151	15	1. 000	1. 000	
1630	650. 6500	Construction Staking Structure Layout (structure) 03. R-13-252	LS	1.000	1.000	
1640	650. 6500	Construction Staking Structure Layout	LS	1. 000	1. 000	
		(structure) 04. R-13-153				
1650	650. 6500	Construction Staking Structure Layout	LS	1. 000	1. 000	
		(structure) 05. R-13-154				
1660	650. 6500	Construction Staking Structure Layout	LS	1. 000	1. 000	
1000	300. 3000	(structure) 06. R-13-255	_0	1.000	1. 000	
1670	650. 6500	Construction Staking Structure Layout	LS	1. 000	1. 000	
		(structure) 07. WALL MODULAR BLOCK				
1/00	/FO 7000	GRAVITY LANDSCAPE LRFD		70.000	70.000	
1680	650. 7000 650. 7500	Construction Staking Concrete Pavement Construction Staking Concrete Barrier	LF LF	70. 000 243. 000	70. 000 243. 000	
1690 1700	650. 7500 650. 8500	Construction Staking Concrete Barrier Construction Staking Electrical	LF LS	243. 000 1. 000	243. 000 1. 000	
1700	000. 0000	Installations (project) 01. 5300-02-73	LJ	1.000	1.000	
1710	650. 9910	Construction Staking Supplemental	LS	1. 000	1. 000	
1720	450 0000	Control (project) 01. 5300-02-73	16	E 255 000	E 255 000	
1720 1730	650. 9920 652. 0125	Construction Staking Slope Stakes Conduit Rigid Metallic 2-Inch	LF LF	5, 255. 000 12. 000	5, 255. 000 12. 000	
1730	JJZ. U1ZJ	Sondart Rigid Wetaille 2-Illell	_1	12.000	12.000	

DATE 25	AUG16	E S 7	TIMATE	OF QUAN	T I T I E S 5300-02-73	
NUMBER		ITEM DESCRIPTION	UNIT	TOTAL	QUANTI TY	
1740 1750	652. 0135 652. 0205	Conduit Rigid Metallic 3-Inch Conduit Rigid Nonmetallic Schedule 40	LF LF	24. 000 26. 000	24. 000 26. 000	
1750	052. 0205	3/4-Inch	LF	20.000	26. 000	
1760	652. 0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	265. 000	265. 000	
1770	652. 0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2, 062. 000	2, 062. 000	
1780	652. 0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2, 209. 000	2, 209. 000	
1790	652. 0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	135. 000	135. 000	
1800	652. 0335	Conduit Rigid Nonmetallic Schedule 80	LF	140.000	140. 000	
		3-Inch				
1810	652. 0800	Conduit Loop Detector	LF	205.000	205. 000	
1820	653. 0900	Adjusting Pull Boxes	EACH	2.000	2.000	
1830	653. 0905	Removing Pull Boxes	EACH	4. 000	4. 000	
1840	655. 0610	Electrical Wire Lighting 12 AWG	LF	2, 534. 000	2, 534. 000	
1850	655. 0620	Electrical Wire Lighting 8 AWG	LF	1, 485. 000	1, 485. 000	
1860	655. 0625	Electrical Wire Lighting 6 AWG	LF	2, 287. 000	2, 287. 000	
1870	655.0630	Electrical Wire Lighting 4 AWG	LF	1, 710. 000	1, 710. 000	
1880	655. 0700	Loop Detector Lead In Cable	LF	1, 897. 000	1, 897. 000	
1890	655. 0800	Loop Detector Wire	LF	890. 000	890. 000	
1900	690. 0150	Sawi ng Asphal t	LF	322. 000	322. 000	
1910	690. 0250	Sawing Concrete	LF	41. 000	41. 000	
1920	ASP. 1TOA	On-the-Job Training Apprentice at \$5.	HRS	900.000	900.000	
		00/HR				
1930	ASP. 1TOG	On-the-Job Training Graduate at \$5.00/HR		700.000	700. 000	
1940 1950	SPV. 0060 SPV. 0060	Special 01. DECORATIVE MEDALLION Special 02. MEDALLION CONCRETE STAINING	EACH EACH	4. 000 4. 000	4. 000 4. 000	
1930	3PV. 0000	MULTI - COLOR	EACH	4.000	4.000	
10/0						
1960	SPV. 0060	Special O3. PAVEMENT MARKING ARROWS TYPE 2 MAD EPOXY	EACH	3. 000	3. 000	
1970	SPV. 0060	Special 04. PAVEMENT MARKING ARROWS	EACH	2.000	2. 000	
.,,,	5 0000	BIKE LANE MAD EPOXY		2.000	2.000	
1980	SPV. 0060	Special O5. PAVEMENT MARKING SYMBOLS	EACH	3. 000	3. 000	
1990	SPV. 0060	BIKE LANE MAD EPOXY Special 06. PAVEMENT MARKING WORDS MAD	EACH	3.000	3. 000	
	2 0000	EPOXY				
2000	SPV. 0060	Special 10. UTILITY LINE OPENING (ULO	EACH	5.000	5. 000	
		ULO				
2010	SPV. 0060	Special 11. MANHOLE COVERS TYPE MAD	EACH	1. 000	1. 000	
2020	SPV. 0060	Special 12. SALVAGED INLET FILTER INSERT	EACH	1. 000	1. 000	
2030	SPV. 0060	Special 15. ELECTRICAL PULL BOX TYPE I	EACH	7.000	7. 000	
2040	SPV. 0060	Special 16. ELECTRICAL PULL BOX TYPE III	EACH	4.000	4. 000	
2050	SPV. 0060	Special 17. ELECTRICAL PULL BOX TYPE V	EACH	1. 000	1. 000	
2060	SPV. 0060	Special 18. ELECTRICAL PULL BOX TYPE VII	EACH	1. 000	1. 000	
2070	SPV. 0060	Special 19. CONCRETE BASE TYPE G	EACH	1. 000	1. 000	
2080	SPV. 0060	Special 20. CONCRETE BASE TYPE LB-3	EACH	5. 000	5. 000	
2090	SPV. 0060	Special 21. MOVING LIGHTING ASSEMBLY	EACH	4. 000	4. 000	
2100	SPV. 0060	Special 22. WALL PACK OUTLET BOXES	EACH	2.000	2. 000	
2110	SPV. 0060	Special 25. EMERGENCY SWEEPING	EACH	4. 000	4. 000	
Z11U	3F V. 0000	MOBILIZATION	LAUII	4.000	4. 000	
2120	SPV. 0075	Special 01. STREET SWEEPING	HRS	106.000	106.000	
2130	SPV. 0090	Special 01. CONCRETE GUTTER 48-INCH	LF	217. 000	217. 000	
2140	SPV. 0090	Special 02. CONCRETE CURB & GUTTER	LF	294.000	294. 000	
		24-INCH TYPE D				

DATE 25AUG16 LINE		E S	TIMATE	OF QUAN	T I T I E S 5300-02-73	
NUMBER	ITEM	ITEM DESCRIPTION	UNI T	TOTAL	QUANTI TY	
2150	SPV. 0090	Special 05. EXPOSE AND ADJUST CONDUIT HDPE	LF	425. 000	425. 000	
2160	SPV. 0165	Special 01. WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP	SF	5, 744. 000	5, 744. 000	
2170	SPV. 0165	Special O2. WALL MODULAR BLOCK GRAVITY LANDSCAPE LRFD	SF	65. 000	65. 000	

CLEARING AND GRUBBING

201. 0120

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CLEARI NG GRUBBI NG STATI ON LOCATI ON CATEGORY I D ΙD 9+89 BP 24' LT 5 5 11+21 BP 27' RT 6 11+52 BP RT 15' 5 11+94 BP 17' RT 3 241+42 35' RT 21 21 45 45 241+84 62' RT 241+98 34' RT 16 16 242+51 34' RT 19 19 243+05 34' RT 20 20 243+56 35' RT 20 20 244+14 35' RT 17 17 244+69 34' RT 17 17 245+25 33' RT 19 19 245+80 35' RT 20 20 246+72 31' RT 6 246+94 31' RT 6 6

RT

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T0TAL 0010

REMOVALS

			204. 0100	204. 0110 REMOVI NG	204. 0150 REMOVI NG	204. 0155 REMOVI NG	690. 0150	690. 0250	
			REMOVI NG	ASPHALTI C	CURB &	CONCRETE	SAWI NG	SAWI NG	
			PAVEMENT	SURFACE	GUTTER	SI DEWALK	ASPHALT	CONCRETE	
CATEGORY	STATION TO STATION	LOCATI ON	SY	SY	LF	SY	<u>LF</u>	<u>LF</u>	REMARKS
	240+55	LT & RT	-	-	_	-	53	9	BEGIN CONSTRUCTION
0010	240+55 - 247+94	LT & RT	-	-	1767	-	-	-	INCLUDES MEDIAN
	240+65	RT	-	-	-	-	-	5	SIDEWALK
	240+65 - 240+95	RT	-	-	-	_	30	-	DRI VEWAY
	<u>240+65 - 247+52</u>	RT		_		386		_	SI DEWALK
	240+80	LT	-	-	-	_	-	8	MULTI-USE PATH
	240+80 - 247+95	LT	-	_	-	617	-	-	MULTI-USE PATH
	242+00 - 247+47	LT & RT	-	2714	-	=	_	-	-
	242+57	LT	-	=	-	-	8	-	PRI VATE BIKE PATH
	242+57 - 243+29	LT	_	69	-	=.	-	=	PRI VATE BIKE PATH
	246+51 - 247+72	LT	-	149	-	-	10	-	PRINCETON CLUB PATH
	247+47 - 247+92	LT & RT	110	-	-	-	-	-	EXISTING S APPROACH SLA
	250+00 - 250+51	LT & RT	117	-	-	-	-	-	EXISTING N APPROACH SLA
	250+13 - 253+97	RT	-	_	-	214	_	5	SI DEWALK
	250+13 - 254+40	LT & RT		_	870	_	_	_	-
	250+51 - 252+50	LT & RT	-	695	-	_	_	-	-
	252+90	LT	-	=	34	=	-	2	GOLF GALAXY DRIVEWAY
	252+90 - 253+17	LT	-	101	-	=	33	-	GOLF GALAXY DRIVEWAY
	253+17	LT	-	=	27	-	-	2	GOLF GALAXY DRIVEWAY
	254+15 - 254+34	RT	-	=	=	16	=	-	CURB RAMP
	254+37	RT	-	=	-	-	-	3	C&G
	254+40	LT & RT	-	=	-	_	80	3	END CONSTRUCTION
		TOTAL 0010	227	3728	2698	1233	214	37	
0040	450+92 BL	RT	_	_	_	_	_	2	PARKING LOT C&G
0040	450+92 BL - 451+51 BL	RT	_	43	_	_	108	-	PARKING LOT
	451+47 BL	RT	-	-	-	_	-	2	PARKING LOT C&G
		TOTAL 0040	0	43	0	0	108	4	
		PROJECT TOTAL	227	3771	2698	1233	322	41	

SHEET: Ε PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE MISCELLANEOUS QUANTITIES

247+07

251+42

251+99

251+87

252+54

252+61

252+77

253+08

253+44

253+57

253+96

254+30

71'

29'

29'

29'

29'

41'

27'

29'

27'

31'

30'

58'

			CONCRETE BASES	PULL BUXES	
CATEGORY	STATI ON	LOCATI ON	EACH	EACH	REMARKS
	243+61	30. 5' LT	1	-	-
0010	245+28	22. 0' LT	1	-	- .
	246+93	14.5 LT	1	-	-
	251+69	26. 2' RT	1	-	-
_	251+55	24. 0' RT	-	1	HH3-EX
·	252+85	26. 0' RT	=	1	HH4-EX
	254+07	28. 5' RT	-	1	HH5-EX
	254+08	31. 0' LT	-	1	HH6-EX
_	254+14	32. 8' RT	1	-	
-		T0TAL 0010	5	4	

REMOVING CATCH BASINS AND INLETS

CATEGORY	STATI ON	LOCATI ON	204. 0215 REMOVI NG CATCH BASI NS EACH	204. 0220 REMOVI NG I NLETS EACH	SPV. 0060. 12 SALVAGED INLET FILTER INSERT EACH	REMARKS
OTTEOORT	317(110)(LOOMITON	LAGIT	Littori	ENON	REM INIO
0010	242+90	LT	_	2	_	-
	242+91	RT	-	1	_	-
		T0TAL 0010	0	3	0	
0040	451+03 BL	RT	1	-	=	-
	451+50 BL	RT	_	1	1	INSTALL AT STRUCTURE 102-A
		TOTAL 0040	1	1	1	
		PROJECT TOTAL	1	4	1	

REMOVING STORM SEWER (01. 15-INCH TO 24-INCH)

CATEGORY	STATION TO STATION	LOCATI ON	204. 0245. 01 LF
0010	242+90	LT & RT	110
		TOTAL 0010	110
0040	450+93 BL - 451+11 BL 451+19 BL - 451+50 BL 451+49 BL - 451+50 BL	RT RT RT	21 34 14
		TOTAL 0040	69
		PROJECT TOTAL	179

PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE MISCELLANEOUS QUANTITIES SHEET: **E**

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<u>EARTHWORK</u>

CATEGORY	DI VI SI ON	STATION TO	STATI ON	LOCATI ON		. 0100 N COMMON (1) EBS EXCAVATION (3) CY	(4) SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(5) AVAI LABLE MATERI AL CY	(6) EXPANDED EBS BACKFILL FACTOR = 1.25 CY	UNEXPANDED FI LL CY	(7) EXPANDED FILL FACTOR = 1.25 CY	(8) MASS ORDI NATE +/- CY	208. 1100 SELECT BORROW CY
0010	1	240+55 -	248+14	SOUTH HIGH POINT RD	567	_	163	404	_	8990	11238	-10834	10834
00.0	•		247+17	STRUCTURE R-13-254	-	_	-	488	_	-	-	488	-488
		195+00 WB -			1227	_	-	1227	-	6	8	1219	-1219
		EBS EXCAV		UNDI STRI BUTED	-	746	-	-	933	-	<u>-</u>	-933	933
				DIVISION 1 SUBTOTAL	1794	746	163	2119	933	8996	11246	-10060	10060
	2	195+00 WB -	201+79	VB USH 12 MEDIAN	19	-	-	19	-	232	290	-271	271
				DIVISION 2 SUBTOTAL	19	0	0	19	0	232	290	-271	271
	3	249+96 -	254+50	NORTH HIGH POINT RD	642	-	248	394	-	835	1044	-650	650
		250+50 -	251+75	STRUCTURE R-13-251	_	-	-	31	-	_	-	31	-31
		251+75 -	253+00	STRUCTURE R-13-252	_	_	-	50	-	-	-	50	-50
		250+29 -	251+75	STRUCTURE R-13-253	-	-	-	235	-	-	-	235	-235
		195+02 WB -	200+90 \	VB NORTH BELTLINE	707	-	-	707	-	131	164	543	-543
		450+66 BL -	455+98 I	BL MULTI-USE PATH LOOP	993	_	-	993	-	2060	2575	-1582	1582
		450+80 BL -	451+60 E		-	-	-	88	-	-	-	88	-88
					-	-	-	173	-	-	-	173	-173
		EBS EXCAV	ATI ON	UNDI STRI BUTED	-	410	-	-	513	-	-	-513	513
				DIVISION 3 SUBTOTAL	2342	410	248	2671	513	3026	3783	-1625	1625
				T0TAL 0010	3	611	411	2936	1446	10063	12580	-11090	11090
0040				TOTAL 0040	1	700	0	1873	0	2191	2739	-866	866
				PROJECT TOTAL	5	311							11956

- 1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS.
- 2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- 3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL.
- 4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 5) AVAILABLE MATERIAL = CUT SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 6) EXPANDED EBS BACKFILL THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. EBS BACKFILL FACTOR = 1.25
- 7) EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR. FACTOR = 1.25
- 8) THE MASS ORDINATE + OR QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

F	PROJECT NO: 5300-02-73	HWY: USH 12	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET:	E	
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BASE	COURSE
DAJL	COUNSE

			209. 0100	305. 0110	305. 0120	305. 0130	
			BACKFI LL	BASE AGGREGATE	BASE AGGREGATE	BASE AGGREGATE	
			GRANULAR	DENSE 3/4-INCH	DENSE 1 1/4-INCH	DENSE 3-INCH	
CATEGORY	STATION TO STATION	LOCATI ON	CY	TON	TON	TON	REMARKS
	10+00 BP - 12+65 BP	LT	-	-	120	-	PRINCETON CLUB PATH
0010	240+55 - 247+74	LT & RT	-	-	1101	1706	INCLUDES MEDIAN
	240+65 - 247+48	RT	-	-	95	-	SI DEWALK
	240+80 - 248+01	LT	-	-	337	_	MULTI-USE PATH / PRIVATE BIKE PATH
	241+55	LT & RT	_	-	5	_	CURB RAMPS
	250+05 - 254+25	RT	-	-	64	-	SI DEWALK
	250+30 - 254+40	LT & RT	-	-	643	1006	-
	252+20 - 252+90	LT	-	-	15	-	MULTI-USE PATH
	253+05	LT	-	-	30	_	DRI VEWAY
	253+26 - 254+61	LT	-	-	28	-	MULTI-USE PATH
	254+00 - 254+34	LT & RT	-	-	7	-	CURB RAMPS
	197+35 WB - 199+75 WB	54' RT	_	44	-	-	EB USH 12/14 MEDIAN
	197+35 WB - 199+75 WB	91' RT	-	44	-	-	EB USH 12/14 OUTSIDE SHOULDER
	197+35 WB - 199+75 WB	3' RT	-	43	-	-	WB USH 12/14 MEDIAN
		T0TAL 0010	0	131	2445	2712	
	450+85 BL - 451+49 BL	RT	-	_	87	_	GOLF GALAXY LOT
0040	453+64 BL - 455+50 BL	LT & RT	_	-	230	-	MULTI-USE PATH
	195+00 WB - 195+75 WB	LT	_	1	-	-	-
	195+00 WB - 201+81 WB	LT	337	192	828	-	WB USH 12/14 OUTSIDE SHOULDER
	198+90 WB - 201+81 WB	LT	-	2	-	-	-
		T0TAL 0040	337	195	1145	0	

^{*}ADDITIONAL QUANTITY FOUND IN STRUCTURES PLANS

HWY: USH 12

PROJECT TOTAL 337*

CONCRETE PAVEMENT

3590

2712

326

CATEGORY	STATI ON	T0	STATI ON	LOCATI ON	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416. 0170 CONCRETE DRI VEWAY 7-I NCH SY	416. 0270 CONCRETE DRI VEWAY HES 7-I NCH SY	416. 1010 CONCRETE SURFACE DRAI NS CY	REMARKS
0010	240+59 240+59 240+59 240+59	- - -	241+02 247+75 250+64 253+27	RT LT & RT LT & RT LT	- 202 202 -	53 - - -	- - - 45	- - -	- S APPROACH SLAB N APPROACH SLAB GOLF GALAXY DRIVEWAY
				TOTAL 0010	404	53	45	0	
0040	450+43 BL	-	450+67 BL	LT	-	-	-	1	-
				TOTAL 0040	0	0	0	1	
				PROJECT TOTAL	404	53	45	1	

PROJECT NO: 5300-02-73

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET:

Ε

						<u>ASPI</u>	HALT PAVEME	<u>NT</u>													
						455. 0605 TACK COAT*	460. 62 HMA PAVE 3 MT 58-2	MENT F 8 S** 4	460.6424 MA PAVEMENT MT 58-28 H**		LTI C ACE										
-	CATEGORY	STATI ON		ATI ON	LOCATI ON	GAL	TON		TON	TC		REMARKS	<u> </u>		WALL	_ MODULAR	BI_OCK GRAV	VITY LANDS	CAPE LRFD		
	2240	10+00 BF			RT	-	-		-	50	0	-			<u> </u>		DECOR C.L.	VIII	10111 L LI11 L		
3	0010	240+55		7+74	LT & RT	213	774		476	-		- -	DATU								
7		242+61		3+26	LT ° DT	-	-		-	10) PR	RIVATE BIKE	PATH					SPV	. 0165. 02		
		250+30		4+40	LT & RT	120	435		268	_	•	_		CATEGORY	STATION TO	STATI ON	LOCATI		SF	REMA	ARKS
		251+55 252+93		1+75 3+19	LT LT	-	<u>-</u>			- 7	· !	DRI VEWA									
		232+93	- 23	3+19	TOTAL 0010	333	1209	<u> </u>	744	6		DKIVEWA	<u> </u>	0010	253+60 -	254+15	LT		65 (GOLF GALAXY R	ETAINING WALL
					TOTAL 0010	333	1209		744	0	1			=							
-																	TOTAL O	010	65		
	0040	450+89 B	L - 451+	+47 BL	RT	_	_		_	2	7	PARKI NG L	.OT								
					TOTAL 0040	0	0		0	2	7										
				F	PROJECT TOTAL	. 333	1209		744	9,	4										
					Γ IN TWO LAYE		" LOWER LAY	YER AND A	2" UPPER LAY	ER											
					PLICATION RAT	ΓE															
		**BASED 0	N 112 LBS	S/IN/SY																	
L																					
										ENDWALL C	. MANILIOLES	. VND IVIE.	TC								
										ENDWALLS	<u>s, MANHULES</u>	S, AND INLE	<u>15</u>								
					522.	1012	522. 1018	611. 0530	SPV. 0060. 11	611. 2005	611. 2006	611. 3004	611. 322	5 611.3230	611. 3901	611. 0610	611. 0624	611. 0639	611. 0645	633. 5200	650. 4000
						ENDWALLS F															
					PI PE	REI NFORCED	CONCRETE	MANHOLE	COVERS	MANH	IOLES .		11	NLETS			INLET	COVERS			CONSTRUCTI ON
					· · · · · · · · · · · · · · · · · · ·					5-FT	6-FT	4-FT			MEDIAN 1					MARKERS	STAKING
		STRUCTURE					18-I NCH	TYPE J	TYPE MAD	DI AMETER	DI AMETER	DI AMETER	2X2. 5-F		GRATE	TYPE BW	TYPE H			CULVERT END	STORM SEWER
	CATEGORY	ID#	STATI ON			ACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
		100-A	242+91	27. 5		-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1
	0010	100-B	242+90	32. 3		-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	1
		100-C	243+25	72. 6		-	-	-	-	-	-	-	-	- 1	1	-	- 1	-	1	-	1
		101-D	252+30	27. 5		_	_	-	-	-	-	-	-	 1	-	-	 1	-	_	-	 1
		101-C	252+00	27. 5	KI	-	-	-	-	-	-	-	-	ı	-	-	ı	-	-	-	I

				PIPE REINFOR	CED CONCRETE	MANHOLE	COVERS	MANH	IOLES		I NL	FTS			INIFT	COVERS			CONSTRUCTI ON
						WWWIOLL	OUVERS	5-FT	6-FT	4-FT	TIVE		MEDIAN 1		TIVEET	OUVERO		MARKERS	STAKI NG
	STRUCTURE			12-I NCH	18-I NCH	TYPE J	TYPE MAD	DI AMETER	DI AMETER	DI AMETER	2X2. 5-FT	2X3-FT	GRATE	TYPE BW	TYPE H			CULVERT END	STORM SEWER
CATEGORY	ID#	STATI ON	LOCATI ON	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
	100-A	242+91	27.5' RT	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1
0010	100-B	242+90	32. 3' LT	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	1
	100-C	243+25	72.6' LT	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1
	101-D	252+30	27.5' RT	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1
	101-C	252+00	27. 5' RT	_	-	-	_	_	-	-	_	1	_	-	1	-	_	-	11
	101-A	251+85	27. 0' LT	-	-	-	-	-	-	-	1	-	-	1	-	_	-	-	1
	101-B	252+30	27.5' LT	-	-	_	-	_	_	-	_	1	_	-	1	_	_	-	11
	'		T0TAL 0010	0	0	0	0	0	0	1	1	4	1	1	5	0	1	0	7
,	102	451+11 BL	22. 6' RT	_	_	1	-	1	_	_	_	_	_	_	_	-	_	-	1
0040	102-A	451+49 BL	15.0' RT	_	_	_	_	_	_	_	_	1	_	_	_	1	_	_	1
	101-F	451+72 BL		_	1	_	_	_	_	_	_	_	_	_	_	_	_	1	1
	101	451+79 BL	17.6' RT	_	_	_	1	_	1	_	_	_	_	_	-	_	_	_	1
	101-E	452+75 BL	16.5' LT	_	_	_	_	_	_	_	_	_	1	_	-	_	1	_	1
	103-A	199+06 WB	47.0' LT	-	_	-	-	-	_	1	-	_	-	1	-	-	-	-	1
	103	199+90 WB	58.5' LT	1	-	_	_	_	_	-	_	_	-	_	-	-	_	1	1
			TOTAL 0040	1	1	1	1	1	1	1	0	1	1	1	0	1	1	2	7
			PROJECT TOTAL	_ 1	1	1	1	1	1	2	1	5	2	2	5	1	2	2	14
				_															

PROJECT NO: 5300-02-73

HWY: USH 12

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET:

<u>NCI I</u>	LARY	CONCRETE	

								ANCI LLARY	<u>CONCRETE</u>						
240-85 240-96 18 1					CONCRETE CURB & GUTTER	CONCRETE CURB & GUTTER	CONCRETE SI DEWALK	CONCRETE SI DEWALK	CURB RAMP DETECTABLE WARNING FIELD	CONCRETE BARRI ER	CONCRETE BARRI ER	CONCRETE MEDI AN	CONCRETE	CONCRETE CURB & GUTTER	
240-955 247-96 RT	CATEGORY	STATION T	O STATION	LOCATI ON	LF	LF	SF	SF	SF	LF	LF	SF	LF	LF	REMARKS
240.65					-		-	_	-	-	-	-	-	294	MEDI AN
20-80 241-99 LT - 786 - - - - - - - -	0010				-		-	-	-	-	-	-	-	-	=
200-758 247-89 RT					-	712		_	-	-	-	-	-	-	-
241.90 248.91					-	-		-	-	-	-	-	-	-	-
242-01 242-07 L1					=	=			=	_	-	=		=	
211-50 2-211-61					-	-		6661	-	-	-			-	
247-66 248-02					-	-		-	-	-	-	64	-	-	
249-95 263-97 RT					-	-		-	04	- 27	-	-	- 27	-	CURD RAIMPS
250-02 254-39 R1					_	_			_		_	_		_	_
250-951 252-7404						466									
250-43					_	-			_		_	_		_	_
152-94 - 252-93					-	_		-	_		_	_		_	_
752-7-5 - 754-40					_	_	768	_	_		_	_		_	_
252-90 - 252-93					-	215		_	-	-	-	_	=	=	=
253-19					22		_	_	-	_	_	_	-	-	SOUTH SIDE OF DRIVEN
253-97		253+15 -	- 253+20	LT		-	-	_	-	-	-	-	-	-	NORTH SIDE OF DRIVE
TOTAL 0010 39 2097 8711 8600 106 217 0 64 217 294		253+19 -	- 254+61	LT	-	-	1104	-	-	-		-	=.	-	-
0040		253+97 -	- 254+34	LT & RT	-	-	259	=	42	-	-	-	-	-	CURB RAMPS
450+87 BL - 451+50 BL RT 137 4830				TOTAL 0010	39	2097	8711	8600	106	217	0	64	217	294	
450+80 BL	0040	198+90 WB -	- 199+30 WB	LT	-	-	-	_	_	_	40	-	-	-	-
TOTAL 0040 137 0 0 4830 0 0 40 0 0 0 0 PROJECT TOTAL 176 2097 8711 13430 106 217 40 64 217 294		450+87 BL -	- 451+50 BL	RT	137	-	_	_	_	_	_	_	_	-	-
PROJECT TOTAL 176 2097 8711 13430 106 217 40 64 217 294		450+80 BL -	- 454+68 BL	LT & RT	-	-	-	4830	-	-	-	-	-	-	-
TEMPORARY BARRIER		-		TOTAL 0040	137	0	0	4830	0	0	40	0	0	0	
CATEGORY STATI ON TO STATI ON TO STATI ON STATI ON				PROJECT TOTAL	176	2097	8711	13430	106	217	40	64	217	294	
CATEGORY STATION TO STATION TO STATION LOCATION LOCATION LF LF EACH REMARKS O010 191+60 WB - 201+75 WB RT 1025 1025 1 EB OUTSI DE SHOULDER 193+20 WB - 205+60 WB RT 850 850 1 WB MEDI AN SHOULDER 194+60 WB - 205+60 WB LT 750 3500 3500 4								TEMPORARY	BARRI ER						
CATEGORY STATION TO STATION LOCATION LF LF EACH REMARKS 0010 191+60 WB - 201+75 WB RT 1025 1025 1 EB OUTSI DE SHOULDER 193+20 WB - 201+70 WB RT 875 875 1 EB MEDI AN SHOULDER 197+10 WB - 205+60 WB RT 850 850 1 WB MEDI AN SHOULDER 194+60 WB - 205+60 WB LT 750 750 1 WB OUTSI DE SHOULDER TOTAL 0010 3500 3500 4								CONCRETE BAR EMPORARY PRE	RIER CONCRET ECAST TEMPORAF	E BARRIER RY PRECAST	CRASH CUSHI ONS				
193+20 WB - 201+70 WB RT 875 875 1 EB MEDI AN SHOULDER 197+10 WB - 205+60 WB RT 850 850 1 WB MEDI AN SHOULDER 194+60 WB - 205+60 WB LT 750 750 1 WB OUTSI DE SHOULDER TOTAL 0010 3500 3500 4				CATE	GORY STATION	TO STATION L	OCATI ON						RKS		
TOTAL 0010 3500 3500 4				00	193+20 WB 197+10 WB	- 201+70 WB - 205+60 WB	RT RT	875 850	8	875 850	1 1 1	EB MEDIAN WB MEDIAN	SHOULDER SHOULDER		
					194+60 WB	- 205+60 WB	LT	750		750	1	WB OUTSIDE	SHOULDER		
ROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE MISCELLANEOUS QUANTITIES SHEET:						TC	TAL 0010	3500	3	500	4				
	ROJECT NO:	5300-02-73		HWY: USH	12	COUNT	Y: DANE		MISC	CELLANEOL	JS QUANTIT	TES			SHEET:

FILE NAME: N:\PDS\C3D\53000202\SheetsPlan\Plan pdfs\030200_mq.pptx

PLOT DATE: 8/17/2016 10:35 AM

PLOT BY: C.A.B.

PLOT NAME :

PLOT SCALE: 1:1

CTODIA	CEWED
STURM	SEWER

						STORM SEV	VEK							
							STORM	SEWER PIPE F	DELNEODCED (ONODETE				
					530. 0115 CULVERT PI PE CORRUGATED	608. 0312	608. 0315		608. 0324	608. 0412 CLAS	608. 0424 S IV	1		
		0.475.005	FROM	TO CTRUCTURE	POLYETHYLENE 15-I NCH	12-I NCH	15-I NCH	18-I NCH	24-I NCH	12-I NCH	24-I NCH			
		CATEGOR	RY STRUCTURE 101-D	STRUCTURE 101-C	LF -	LF 30	<u>LF</u> -	<u>LF</u> -	<u>LF</u> -	<u>LF</u> -	LF -	_		
		0010	101-C 101-A	101-A 101	- -	- -	57 -	- 117	<u>-</u> -	- -	- -			
			101-B	101-A	-	45	-	-	-	-	- 24			
			100-A 100-B	100 100-A	- -	-		<u> </u>	60	<u>-</u> -	<u>26</u> -			
			100-C	100-B TOTAL 0010	0	53 128	- 57	117	60	0	26	=		
		0040	101	101-F	-	_		22				_		
			101-E 102-A	101 102	- 52	-	-	<u>-</u>	-	105 -	-			
			103-A	103	-	-	-	-	-	84	-			
				TOTAL 0040	52	0	0	22	0	189	0	=		
				PROJECT TOTAL	L 52	128	57	139	60	189	26	=		
				GUARDRAIL AND										
		ST BEA	FEEL THRIE AM BULLNOSE S	614. 0230 6	M MGS THRIE	IGS F E BEAM CHAI						r	<u>WATER</u>	
ATEGORY		ST BEA	TEEL THRIE	614. 0230 6	M MGS THRIE ARDRAIL 3 TRANS	IGS F E BEAM CHAI SITION 6 _F	ENCE N LINK FT LF		REMARKS			r		_
	195+45 WB - 197+05 WB	ST BEA LOCATI ON LT	TEEL THRIE AM BULLNOSE S' TERMINAL	614. 0230 6 TEEL THRIE BEAM GU	MGS THRIE ARDRAIL 3 TRANS LF L	IGS F E BEAM CHAI SITION 6 _F	ENCE N LINK -FT		SIDE OF BRID		-			624. 010 MGAL
	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB	ST BEA LOCATION LT RT RT	TEEL THRIE AM BULLNOSE S' TERMINAL EACH 1	614. 0230 6 TEEL THRIE BEAM GU/ LF - - 128	MGS THRIE ARDRAIL 3 TRANS LF L	IGS F E BEAM CHAI SITION 6 _F	ENCE N LINK I-FT LF 172 -	WES ⁻ NORTI	SIDE OF BRID TEND OF PII HSIDE OF PI	ER I ER	-	CATEGORY	LOCATI ON	MGAL
0010	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB	ST BEA LOCATION LT RT RT RT RT	TEEL THRIE AM BULLNOSE S' TERMINAL EACH	614. 0230 6 TEEL THRIE BEAM GU LF - -	MGS THRIE ARDRAIL 3 TRANS LF L - - -	IGS F E BEAM CHAI SITION 6 _F - - -	ENCE N LINK FT LF 172 - - - 86	WES ⁻ NORTH SOUTH SW S	SIDE OF BRID TEND OF PI HSIDE OF PI HSIDE OF PI SIDE OF BRID	ER ER ER GE	-		LOCATION HIGH POINT ROAD/USH 12	
0010	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB 198+90 WB - 199+86 WB 199+29 WB - 199+82 WB	ST BEA LOCATION LT RT RT RT RT LT RT	TEEL THRIE AM BULLNOSE S' TERMINAL EACH 1	614. 0230 6 TEEL THRIE BEAM GUA LF 128 128	MGS THRIE ARDRAIL 3 TRANS LF L	IGS F E BEAM CHAI SITION 6 _F - - - - -	ENCE N LINKFT LF 172 86 121	WEST NORTH SOUTH SW S NE S EAST	SIDE OF BRID T END OF PID H SIDE OF PID H SIDE OF BRID SIDE OF BRID T END OF PID	er I er I er Ge Ge Er	-	CATEGORY	LOCATI ON	MGAL 812
0010	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB 198+90 WB - 199+86 WB	ST BEA LOCATION LT RT RT RT RT LT	TEEL THRIE AM BULLNOSE S' TERMINAL EACH - 1	614. 0230 6 TEEL THRIE BEAM GUA LF - 128 128 - -	MGS THRIE ARDRAIL 3 TRANS LF L	IGS F E BEAM CHAI SITION 6 _F - - - - -	ENCE N LINK FT LF 172 - - - 86	WEST NORTH SOUTH SW S NE S EAST	SIDE OF BRID TEND OF PID HSIDE OF PID HSIDE OF PID SIDE OF BRID SIDE OF BRID	er I er I er Ge Ge Er	-	CATEGORY	LOCATION HIGH POINT ROAD/USH 12	MGAL
0010	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB 198+90 WB - 199+86 WB 199+29 WB - 199+82 WB 200+08 WB - 200+70 WB	LOCATION LT RT RT RT RT LT RT RT LT RT R	FEEL THRIE AM BULLNOSE S' TERMINAL EACH - 1 1	614. 0230 6 TEEL THRIE BEAM GUA LF - 128 128	MGS THRIE ARDRAIL 3 TRANS LF L 0	IGS F E BEAM CHAI SITION 6 _F - - - - -	ENCE N LINKFT LF 172 86 121 - 66	WEST NORTH SOUTH SW S NE S EAST SE S	SIDE OF BRID T END OF PII H SIDE OF PI H SIDE OF BRID SIDE OF BRID T END OF PII SIDE OF BRID OF BRID	ER I ER GE GE ER GE I ER GE	- -	CATEGORY 0010	LOCATION HIGH POINT ROAD/USH 12 TOTAL 0010	MGAL 812 812
0010	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB 198+90 WB - 199+86 WB 199+29 WB - 199+82 WB 200+08 WB - 200+70 WB	LOCATION LT RT RT RT RT RT RT TOTAL 0010	TEEL THRIE AM BULLNOSE S' TERMI NAL EACH - 1 - 1 2	614. 0230 6 TEEL THRIE BEAM GUA LF 128 128 256	MMGS THRIE ARDRAIL 3 TRANS LF L 0	IGS F E BEAM CHAI SITION 6 _F 0	ENCE N LINKFT LF 172 86 121 - 66 445	WEST NORTH SOUTH SW S NE S EAST SE S	SIDE OF BRID T END OF PII H SIDE OF PI H SIDE OF PI SIDE OF BRID SIDE OF BRID T END OF PII SIDE OF BRID	ER I ER GE GE ER GE I ER GE	- - -	CATEGORY 0010	LOCATION HIGH POINT ROAD/USH 12 TOTAL 0010 MULTI -USE PATH	MGAL 812 812 175
0010	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB 198+90 WB - 199+86 WB 199+29 WB - 199+82 WB 200+08 WB - 200+70 WB 199+30 WB - 199+70 WB 199+70 WB - 201+81 WB	LOCATION LT RT RT RT RT LT RT RT LT LT	TEEL THRIE AM BULLNOSE S' TERMI NAL EACH - 1 - 1 - 2 - 1 - 1 - 0	614. 0230 6 TEEL THRIE BEAM GUA LF - 128 128 256	MMGS THRIE ARDRAIL 3 TRANS LF L	IGS F E BEAM CHAI SITION 6 LF 0	ENCE N LINKFT LF 172 86 121 - 66 445	WEST NORTH SOUTH SW S NE S EAST SE S	SIDE OF BRID T END OF PII H SIDE OF PI H SIDE OF BRID SIDE OF BRID T END OF PII SIDE OF BRID OF BRID	ER I ER GE GE ER GE I ER GE	- - -	CATEGORY 0010	LOCATION HIGH POINT ROAD/USH 12 TOTAL 0010 MULTI-USE PATH TOTAL 0040	MGAL 812 812
	195+45 WB - 197+05 WB 197+49 WB - 198+02 WB 198+02 WB - 199+29 WB 198+02 WB - 199+29 WB 198+23 WB - 199+06 WB 198+90 WB - 199+86 WB 199+29 WB - 199+82 WB 200+08 WB - 200+70 WB 199+30 WB - 199+70 WB 199+70 WB - 201+81 WB	LOCATION LT RT RT RT RT RT RT TOTAL 0010	TEEL THRIE AM BULLNOSE S' TERMI NAL EACH - 1 - 1 2	614. 0230 6 TEEL THRIE BEAM GUA LF 128 128 256	MMGS THRIE ARDRAIL 3 TRANS LF L 0 209	IGS F E BEAM CHAI SITION 6 LF 0	ENCE N LINKFT LF 172 86 121 - 66 445	WEST NORTH SOUTH SW S NE S EAST SE S	SIDE OF BRID T END OF PII H SIDE OF PI H SIDE OF BRID SIDE OF BRID T END OF PII SIDE OF BRID OF BRID	ER I ER GE GE ER GE I ER GE	- - -	CATEGORY 0010	LOCATION HIGH POINT ROAD/USH 12 TOTAL 0010 MULTI-USE PATH TOTAL 0040	MGAL 812 812 175

EROSI ON CONTROL

THE COLOR STATION LOCATION CV EACH EACH LEFT SY SY SY SY SY SY EACH LEFT SY SY SY SY SY SY SY S					628. 1104			628. 2006 EROSI ON MAT	628. 2008 EROSI ON MAT	628. 2023 EROSI ON MAT	628. 7005 I NLET		TEMPORARY	,	628. 7570	SEEDI NG	GEOTEXTI LE	
				RIP RAP		SI LT FENCE			URBAN CLASS I	CLASS II			DI TCH	TRACKI NG		BORROW	FABRIC TVDF D	
194-96 MB - 2010-19 MB	CATEGORY	/ STATION TO STATION	LOCATI ON															REMARKS
197-44 We - 200-89 WB					_		_			-				-	_	-		
197-144 NB - 200-89 WB	0010	196+16 WB - 201+00 WB	RT	_	-	_	-	2798	-	-	_	_	_	_	_	_	_	USH 12 MEDIAN
1948			RT	_	-	_	-		-	-	_	_	80	_	_	_	_	
1991-06 1991-06 1			RT	_	10	_	-	_	-	-	_	_	_	_	_	_	_	WEST OF SOUTH ABUTMENT
1994-92 18		199+06 WB	LT	-	-	-	-	-	-	-	1	1	_	_	_	-	_	-
240-95 247-46		199+88 WB - 200+84 WB	LT	-	-	-	-	243	-	-	_	_	-	-	_	-	_	-
240-94 247-322		199+92 WB	RT	-	10	-	-	-	-	-	-	-	_	-	_	-	-	EAST OF SOUTH ABUTMENT
240-96 248-32		240+55 - 247+66	LT	-	_	-	-	2165	_	-	_	-	_	_	_	-	-	-
242-90		240+94 - 247+22	RT	-	_	-	-	1163	_	-	_	-	_	_	_	-	-	-
243-25		240+95 - 248+32	LT & RT	-	-	1332	1332	-	-	-	-	-	-	-	-	-	-	INCLUDES ARUOND SOUTH ABUTME
244-72		242+90	LT & RT	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
249-99 - 254+17 RT		243+25	LT	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
249-99 254-17 RT		244+72	LT	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-
249+69 - 254+36		245+23 - 248+18	LT	-	-	-	-	-	913	-	-	-	-	-	-	-	-	-
Second		249+99 - 254+17	RT	-	_	439	439		_		_	_	_	-	_	-	_	-
252+00 RT		249+69 - 254+36	RT	-	-	-	-	673	-	-	-	-	-	-	-	-	-	-
252+20		251+85	LT	-	-	-	-	-	-	-	1	1	-	-	-	-	_	-
Parish Fig. Fig.		252+00	RT	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
UNDISTRIBUTED - 10 - - - - - - - - -			LT	-	-	-	-	110	-	-	-	-	-	-	-	-	-	-
TOTAL 0010 0 30 1771 1771 7152 913 0 8 9 160 2 15 7 0			LT & RT	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-
450+43 BL - 453+05 BL LT		UNDI STRI BUTED	_	-	10					_	_	2	_	2	15	7	_	-
004			TOTAL 0010	0	30	1771	1771	7152	913	0	8	9	160	2	15	7	0	
004		450+43 BL - 453+05 BL	LT	_		_	_	_	525	_	_	_	_	_	_	_	_	MULTI -USE PATH
450+67 BL - 452+78 BL	0040		LT	1	_	_	-	_	-	-	_	_	_	_	_	_	4	CONCRETE SURFACE DRAIN
450+88 BL LT -			LT	_	_	_	_	_	_	196	_	_	_	_	_	_	_	MULTI-USE PATH DITCH LINE
451+47 BL - 451+83 BL RT - - 95 95 - </td <td></td> <td></td> <td>LT</td> <td>_</td> <td>_</td> <td>_</td> <td>-</td> <td>_</td> <td>-</td> <td>-</td> <td>_</td> <td>_</td> <td>10</td> <td>_</td> <td>_</td> <td>_</td> <td>_</td> <td>-</td>			LT	_	_	_	-	_	-	-	_	_	10	_	_	_	_	-
451+49 BL RT 1 1 1			RT	_	_	95	95	_	_	_	_	_	_	_	_	_	_	-
451+49 BL RT - - - - - 1 1 - - - - - 451+72 BL RT 2 -			RT	-	-	-	-	419	-	-	-	-	-	-	-	-	-	_
451+72 BL RT 2 -			RT	-	-	-	-	_	-	-	1	1	-	-	-	-	_	-
452+20 BL LT -		451+72 BL	RT	2	-	-	-	-	-	_	-	_	-	-	-	-	-	-
452+75 BL LT 11 454+50 BL - 455+55 BL LT & RT 117 117 382		451+78 BL	RT	-	10	-	-	-	-	-	-	_	-	-	-	-	-	-
454+50 BL - 455+55 BL LT & RT 117 117 382		452+20 BL	LT	-	_	-	-	-	-	_	_	_	10	_	_	-	_	-
		452+75 BL	LT	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
TOTAL 0040 3 10 212 212 801 525 196 2 1 20 0 0 0 4		454+50 BL - 455+55 BL	LT & RT	-	-	117	117	382	-	-	-	-	-	-	-	-	-	-
			T0TAL 0040	3	10	212	212	801	525	196	2	1	20	0	0	0	4	
PROJECT TOTAL 3 40 1983 1983 7953 1438 196 10 10 180 2 15 7 4			PROJECT TOTAL	. 3	40	1983	1983	7953	1438	196	10	10	180	2	15	7	4	

FILE NAME: N:\PDS\C3D\53000202\SheetsPlan\Plan pdfs\030200_mq.pptx

PROJECT NO: 5300-02-73

HWY: USH 12

PLOT DATE: 4/29/2016 11:06 AM

COUNTY: DANE

PLOT BY: C.A.B.

MISCELLANEOUS QUANTITIES

PLOT NAME :

PLOT SCALE: 1:1

SHEET:

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	<u>EROSI ON</u>	CONTROL MOB								LANDS	<u>CAPI NG</u>					
	MOBI	28. 1905 LI ZATI ONS	628. 1910 MOBI LI ZATI (EMERGENC\	ONS Y					625. 0100	629. 0210 FERTI LI ZER	SEEDI NG MI XTURE	630. 0140 SEEDI NG MI XTURE	SEEDI NG		631. 1000	
		ON CONTROL	EROSI ON CONT	TROL					TOPSOI L	TYPE B	NO. 30	NO. 40	TEMPORARY			
CATEGORY	LOCATI ON	EACH	EACH		CATEGO		TO STATION		SY	CWT	LB	LB	LB	MGAL	SY	REMARKS
0010	PROJECT	9	7		0010	196+17 W 199+88 W			2843 243	1. 8 0. 2	102 9	-	77 7	64 6	-	USH 12 MEDIAN
0010	TROSECT	,	,		0010	240+55	- 248+19	LT	2308	1.5	83	_	62	52	_	_ _
	TOTAL 0010	9	7			240+80	- 247+69	LT	771	0. 5	-	28	21	18	_	NEAR PRINCETON CLU
						240+94	- 247+22	RT	1163	0.8	42	-	31	27		-
						249+69	- 254+36	RT	673	0. 5	24	-	18	16	-	-
						252+20		LT	318	0. 3	4	-	3	8	209	-
	DELLNEAT	OD DDAOWETC				UND	I STRI BUTED	PROJECT	2080	1.4	66	7	55	48	52	-
	<u>DELI NEAT</u>	OR BRACKETS						T0TAL 0010	10399	7. 0	330	35	274	239	261	
							- 453+05 BI		706	0.5	25	-	19	16	-	INSIDE LOOP
_	ATEOODY		633. 1000		0040		L - 451+52 BI		54	0. 1	-	-	-	2	54	AROUND PARKING LO
<u>C</u>	ATEGORY LOC	ATI ON	EACH				L - 452+81 BI		419	0. 3	15	-	11	10	-	-
	0040 STRCTUR	E R-13-255	3			454+50 B			382	0. 3	14	-	10	9	-	-
	0040 STRCTOR	L K-13-233	3			UND	I STRI BUTED	PROJECT	390	0. 3	14	-	10	9	14	
	TOTA	L 0040	3					TOTAL 0040	1951	1. 5	68	0	50	46	68	
								PROJECT TOTAL	. 12350	8.5	398	35	324	285	329	
							204. 9060. S. 01	<u>SI GNI NG</u> 637. 2210	638. 2102	638. 2602	638. 3000) 638. 40	000			
							REMOVING PRECAST SIGN	637. 2210 SIGNS TYPE II	638. 2102 MOVI NG SI GN	REMOVING NS SIGNS	REMOVING SMALL SIG	MOVINGN SMALLS	NG SI GN			
	0175000	(T.T.)			SI GN SI ZE	SIGN PLATE	REMOVING PRECAST SIGN POST BASES	637. 2210 SIGNS TYPE II REFLECTIVE H	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS	MOVINGN SMALLS SUPPOR	NG SI GN RTS	DEMAN.		
	_CATEGOR				SIGN SIZE IN X IN	SIGN PLATE NUMBER	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF	MOVING SIGN	REMOVING NS SIGNS	REMOVINO SMALL SIO SUPPORTS EACH	G MOVIN GN SMALL S S SUPPOR EACH	NG SI GN RTS	REMAR		
	·	198+74 V	WB RT			SIGN PLATE	REMOVING PRECAST SIGN POST BASES	637. 2210 SIGNS TYPE II REFLECTIVE H	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVINGN SMALL S S SUPPOR EACH	NG SI GN RTS	"HI GH POI	NT RD"	
	<u>CATEGOR</u> 0010	198+74 \ 199+11 \	NB RT NB LT			SIGN PLATE NUMBER	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH	G MOVIN GN SMALL S S SUPPOR EACH	NG SI GN RTS H	"HIGH POI	NT RD" NT RD"	
	·	198+74 V	NB RT NB LT RT			SIGN PLATE NUMBER	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVIN GN SMALL S S SUPPOR EACH -	NG SI GN RTS H	"HI GH POI	NT RD" NT RD" ANY TIME"	
	·	198+74 \\ 199+11 \\ 241+81 242+00 245+46	NB RT NB LT RT MED	I NO. -	IN X IN - - -	SIGN PLATE NUMBER - - -	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVIN GN SMALL S G SUPPOR EACH	NG SI GN RTS H ""D'	"HI GH POI "HI GH POI NO PARKING , YI ELD R ONOFRI O DR"	NT RD" NT RD" ANY TIME" !IGHT RIGHT ONLY	
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46	NB RT NB LT RT MED RT RT RT	- - 1-1	IN X IN 72 X 72	SIGN PLATE NUMBER CUSTOM	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 -	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVIN GN SMALL S G SUPPOR EACH	NG SI GN RTS H ""D'	"HI GH POI "HI GH POI NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY	NT RD" NT RD" ANY TIME" RIGHT RIGHT ONLY Y TIME" BASI	E
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46	NB RT NB LT RT MED RT RT RT RT	NO 1-1 - 2-2	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVINGN SMALL S S SUPPOR EACH	NG SI GN RTS H "D' "NO "D'	"HI GH POI "HI GH POI NO PARKI NG , YI ELD R ONOFRI O DR" PARKI NG ANY ONOFRI O DR"	NT RD" NT RD" ANY TIME" RIGHT ONLY Y TIME" BASI RIGHT ONLY	E /
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22	NB RT NB LT RT MED RT RT RT RT LT	- - 1-1	IN X IN 72 X 72	SIGN PLATE NUMBER CUSTOM	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 -	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVINGN SMALL S S SUPPOR EACH	"D' "NO "D'	"HI GH POI "HI GH POI NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY ONOFRI O DR" PARKI NG ANY	NT RD" NT RD" ANY TIME" RIGHT ONLY Y TIME" BASI RIGHT ONLY Y TIME" BASI	E / E
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46	WB RT WB LT RT MED RT RT RT LT RT	- - 1-1 - 2-2 -	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM -	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVINGN SMALL S S SUPPOR EACH	"D' "NO "D'	"HI GH POI "HI GH POI NO PARKI NG , YI ELD R ONOFRI O DR" PARKI NG ANY ONOFRI O DR"	NT RD" NT RD" ANY TIME" EIGHT RIGHT ONLY TIME" BASI RIGHT ONLY TIME" BASI TURN RIGHT	E / E
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22 252+57	WB RT WB LT RT MED RT RT RT LT RT RT LT	- - 1-1 - 2-2	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM CUSTOM -	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36	MOVING SIGN	REMOVING NS SIGNS TYPE II	REMOVINO SMALL SIO SUPPORTS EACH 2	G MOVINGN SMALL S S SUPPOR EACH	NG SI GN RTS H "D' "NO "D' "NO "RI GI	"HI GH POI "HI GH POI NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY ONOFRI O DR" PARKI NG ANY HT LANE MUST	NT RD" NT RD" ANY TIME" RIGHT ONLY TIME" BASI RIGHT ONLY TIME" BASI TIME" BASI TURN RIGHT	E / E T"
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22 252+57 252+84	WB RT WB LT RT MED RT RT RT RT RT RT LT RT RT	- - 1-1 - 2-2 - - 2-1	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM	REMOVI NG PRECAST SI GN POST BASES EACH 1 1 - 1 - 1 - 1 1 1 1 1	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36 36	MOVING SIGN TYPE II EACH 1	REMOVI NG NS SI GNS TYPE II EACH 1	REMOVING SMALL SIG SUPPORTS EACH 2 2	G MOVIN GN SMALL S G SUPPOR EACH 1	NG SI GN RTS H "D' "NO "D' "NO "RI GI	"HI GH POI "HI GH POI NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY ONOFRI O DR" PARKI NG ANY HT LANE MUST	NT RD" NT RD" ANY TIME" EIGHT RIGHT ONLY TIME" BASI RIGHT ONLY TIME" BASI TIMEN BASI TURN RIGHT	E / E T"
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22 252+57 252+84 253+36	WB RT WB LT RT MED RT RT RT RT RT RT LT RT RT	- - 1-1 - 2-2 - - 2-1	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM	REMOVING PRECAST SIGN POST BASES EACH	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36 36	MOVING SIGN TYPE II EACH 1	REMOVI NG NS SI GNS TYPE II EACH 1	REMOVING SMALL SIG SUPPORTS EACH 2 2	G MOVIN GN SMALL S G SUPPOR EACH 1	NG SI GN RTS H "D' "NO "D' "NO "RI GI	"HI GH POI "HI GH POI "NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY PARKI NG ANY HT LANE MUST "STOF	NT RD" NT RD" ANY TIME" EIGHT RIGHT ONLY TIME" BASI RIGHT ONLY TIME" BASI TIMEN BASI TURN RIGHT	E / E T"
	·	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22 252+57 252+84 253+36	WB RT WB LT RT MED RT RT RT RT RT LT RT LT RT LT	- - 1-1 - 2-2 - - 2-1	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM	REMOVI NG PRECAST SI GN POST BASES EACH 1 1 - 1 - 1 - 1 1 1 1 1	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36 36	MOVING SIGN TYPE II EACH 1	REMOVI NG NS SI GNS TYPE II EACH 1	REMOVING SMALL SIG SUPPORTS EACH 2 2	G MOVIN GN SMALL S G SUPPOR EACH 1 1	NG SI GN RTS H "D' "NO "D' "NO "RI GI	"HI GH POI "HI GH POI "NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY PARKI NG ANY HT LANE MUST "STOF	NT RD" NT RD" ANY TIME" RIGHT ONLY TIME" BASI TIME" BASI TURN RIGHT TURN RIGHT TIME" BASI TIME" BASI	E / E T"
	0010	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22 252+57 252+84 253+36	NB RT NB LT RT NED RT RT RT RT RT LT RT LT RT LT	- - 1-1 - 2-2 - - 2-1	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM	REMOVI NG PRECAST SI GN POST BASES EACH 1 1 - 1 - 1 - 1 7	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36 36 72	MOVING SIGN TYPE II EACH 1	REMOVI NG NS SI GNS TYPE II EACH 1	REMOVING SMALL SIG SUPPORTS EACH 2 2	G MOVIN GN SMALL S G SUPPOR EACH 1 - 1	NG SI GN RTS H "D' "NO "D' "NO "RI GI	"HI GH POI "HI GH POI "NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY PARKI NG ANY HT LANE MUST "STOP PARKI NG ANY PARKI NG ANY	NT RD" NT RD" ANY TIME" RIGHT ONLY TIME" BASI TIME" BASI TURN RIGHT TURN RIGHT TIME" BASI TIME" BASI	E / E T"
	0010	198+74 N 199+11 N 241+81 242+00 245+46 245+46 251+66 252+22 252+57 252+84 253+36	NB RT NB LT RT NED RT RT RT RT RT LT RT LT RT LT	- - 1-1 - 2-2 - - 2-1	IN X IN 72 X 72 - 72 X 72	SIGN PLATE NUMBER CUSTOM - CUSTOM TOTAL 0010	REMOVI NG PRECAST SI GN POST BASES EACH 1 1 - 1 - 1 1 - 1 7	637. 2210 SIGNS TYPE II REFLECTIVE H SF 36 - 36 372	MOVING SIGN TYPE II EACH 1 1 - 1	REMOVI NG SI GNS TYPE I I EACH 1 2	REMOVING SMALL SIG SUPPORTS EACH 2 2 4	G MOVIN GN SMALL S G SUPPOR EACH 1 - 1 - 1	NG SI GN RTS H "D' "NO "D' "NO "RI GI	"HI GH POI "HI GH POI "NO PARKI NG A YI ELD R ONOFRI O DR" PARKI NG ANY PARKI NG ANY HT LANE MUST "STOP PARKI NG ANY PARKI NG ANY	NT RD" NT RD" ANY TIME" RIGHT ONLY TIME" BASI TIME" BASI TURN RIGHT TURN RIGHT TIME" BASI TIME" BASI	E / E T"

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PEDESTRIAN TRAFFIC CONTROL

616. 0700. S 644. 1410. S 644. 1601. S **TEMPORARY** FENCE PEDESTRI AN TEMPORARY SAFETY SURFACE ASPHALT CURB RAMP CATEGORY LOCATION LF SF EACH 0010 PROJECT 90 95 2 TOTAL 0010 90 95

HWY: USH 12

OVERHEAD SIGN SUPPORT

CATEGORY	STATI ON	LOCATI ON	641. 8100. 01 S-13-472 LS	641. 8100. 02 S-13-473
CATEGORT	STATION	LOCATION	L3	LJ
0010	245+50	32' RI GHT	1	-
	251+65	32' RI GHT	-	1
		T0TAL 0010	1	1

TRAFFIC CONTROL

			643.	0300		0410 CADES		. 0420 CADES	643. 0453 BARRI CADES PERMANENT	WAR	0705 NI NG GHTS	WAR	0715 NI NG GHTS		0800 ROW	643.	0900	643. C		643. 1000 SI GNS FI XED	643. 1050 SI GNS	643. 3000 DETOUR
		DURATI ON	DRI	UMS		E II		E III	TYPE III		PE A		PE C		RDS	SI	GNS	TYPE		MESSAGE	PCMS	SI GNS
CATEGORY	LOCATI ON	DAYS/CYCLES	EA	DAY	EA	DAY	EA	DAY	EACH	EA	DAY	EA	DAY	EA	DAY	EA	DAY	SIGNS	EACH	SF	DAY	EA DAY
0010	HIGH POINT RD/WATTS RD/D'ONOFRIO	185	32	5920	9	1665	15	2775	-	28	5180	-	-	-	-	32	5920	-	-	-	-	
İ	USH 12 SHOULDER CLOSURE	185	20	3700	-	-	-	-	-	-	-	-	-	-	-	16	2960	-	-	-	-	
i	USH 12 OFF PEAK LANE CLOSURE (EB & WB)	30	117	3510	-	-	2	60	-	4	120	36	1080	4	120	23	690	-	-	-	=	
	HIGH POINT RD DETOUR	185	-	-	-	-	1	185	-	2	370	-	-	_	-	2	370	-	-	32	14	64 11840
	USH 12 FULL CLOSURE/DETOUR (EB & WB)	12	224	2688	-	-	11	132	-	17	204	60	720	6	72	38	456	6	72	-	52	121 1452
İ		TOTAL 0010		15818		1665		3152	0		5874		1800		192		10396		72	32	66	13292
0040	BIKE PATH	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	_	-	-	-	-	
		TOTAL 0040		0		0		0	1		0		0		0		0		0	0	0	0
		PROJECT TOTAL		15818		1665		3152	1		5874		1800		192		10396		72	32	66	13292

FILE NAME: N:\PDS\C3D\53000202\SheetsPlan\Plan pdfs\030200_mq.pptx

PROJECT NO: 5300-02-73

PLOT DATE: 8/17/2016 10:35 AM

COUNTY: DANE

PLOT BY: C.A.B.

MISCELLANEOUS QUANTITIES

PLOT NAME :

PLOT SCALE: 1:1

SHEET:

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PAVEMENT	MARKI	NG
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	MATE CODY	CTATION TO CTATION	LOCATION	PAVEMENT MARKI NG EPOXY 4-I NCH	646. 0116 PAVEMENT MARKI NG EPOXY 6-I NCH	PAVEMENT MARKI NG EPOXY 8-I NCH	647. 0576 PAVEMENT MARKING STOP LINE EPOXY 24-INCH	647.0606 PAVEMENT MARKI NG I SLAND NOSE EPOXY	647. 0706 PAVEMENT MARKI NG DI AGONAL EPOXY 6-I NCH		ARROWS TYPE 2 MAD EPOXY	ARROWS BIKE LANE MAD EPOXY	LANE MAD EPOXY	WORDS MAD EPOXY	DEMARKS
-	CATEGORY	STATION TO STATION	LOCATION	LF 100	LF 40	LF	LF	EACH	LF	LF	EACH	EACH	EACH	EACH	REMARKS
	0010	240+55 - 241+50	LT & RT	190	48	-	-	_	-	-	-	_	_	-	-
)	0010	241+50 - 241+62	LT & RT	-	-	-	_	-	-	168	-	_	_	-	-
		241+62 - 245+93	RT	-	108	-	_	-	-	-	-	_	_	-	-
		241+62 - 251+53	RT	991	-	-	_	_	-	_	-	_	_	-	-
1		241+62 - 253+99 241+65 - 251+54	LT LT	1239 248	310		-	-		-	-	-	-	-	MULTI -USE PATH
			CENTERLI NE		_	-	_	- 1	-	-	-	_	_	-	
		242+01 - 242+07 242+07 - 254+00	CENTERLI NE	- 2647	_	-	_	I	-	-	-	=	_	-	- DOUBLE YELLOW
		245+93 - 251+93	RT	2047	_	- 150	_	_	_	_	-	_	_	-	-
		245+75 - 251+75	RT	_	_	-	<u>-</u>	_	_	<u>-</u>	- 1	_	<u>-</u>	_	- -
		246+99	RT				_						_		
		250+25	RT	_	_	_	_	_	_	_	_	_	_	1	_
		250+81	RT	_	_	_	_	_	_	_	1	_	_	-	_
		251+49	RT	_	_	_	_	_	_	_	-	_	1	_	_
		251+53 - 252+53	RT	_	_	25	_	_	_	_	_	_	<u>-</u>	_	WHITE DASHED
		251+93 - 253+94	RT	-	=	402	=	-	-	=	=	=	=	=	
		252+08 - 252+93	RT	_	_	21	_	_	_	-	-	_	_	-	WHITE DASHED
		253+22	RT	_	_	_	_	_	_	_	_	_	_	1	-
		253+58	LT	-	-	_	-	-	-	-	-	1	-	-	-
		253+60	RT	-	-	-	-	-	-	-	-	-	1	-	
		253+73	RT	-	-	-	-	-	-	-	1	1	-	-	-
		253+73	LT	-	-	-	-	-	-	-	=	-	1	=	-
		253+94 - 253+96	RT	-	_	-	22	-	_	-	-	_	_	-	-
		254+00 254+12	LT & RT	_	-	-	-	-	_	180	-	-	-	-	D' ONOFRI O
			TOTAL 0010	5315	466	598	22	1	0	348	3	2	3	3	
	0040	450+43 BL - 454+50 BL 453+05 BL - 453+25 BL		102 -	-	-	- -	- -	- 41	_ _ _	- -	- -	-	- -	UNDER HIGH PT BRIDGE
			TOTAL 0040	102	0	0	0	0	41	0	0	0	0	0	
			101AL 0040	102		<u> </u>		<u> </u>	71	<u> </u>	0			<u> </u>	
			PROJECT TOTAL	5417	466	598	22	1	41	348	3	2	3	3	

TEMPORARY PAVEMENT MARKING

CATEGORY	LOCATI ON	649. 0600 REMOVABLE TAPE 6-I NCH I F	649. 0801 REMOVABLE TAPE 8-I NCH I F	REMARKS
<u> </u>	200/			
0010	D' ONOFRI O DR.	70	-	TEMPORARY CROSSWALK
	NB HIGH POINT RD AT WATTS RD	-	350	CHANNELI ZI NG LI NE
	TOTAL 0010	70	350	

PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE MISCELLANEOUS QUANTITIES SHEET: **E**

FILE NAME: N:\PDS\C3D\53000202\SheetsPlan\Plan pdfs\030200_mq.pptx

PLOT DATE: 4/29/2016 11:06 AM

PLOT BY: C.A.B.

PLOT NAME :

PLOT SCALE: 1:1

3

CONSTRUCTION STAKING

			650. 4500 CONSTRUCTI ON STAKI NG SUBGRADE	650. 5000 CONSTRUCTI ON STAKI NG BASE	650. 5500 CONSTRUCTI ON STAKI NG CURB & GUTTER	650. 7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	650. 7500 CONSTRUCTION STAKING CONCRETE BARRIER	650. 9920 CONSTRUCTI ON STAKI NG SLOPE STAKES	
CATEGORY	STATION TO STATION	LOCATI ON	LF	LF	LF	LF	LF	LF	REMARKS
	10+00 BP 12+65 BP	RT	-	265	-	-	-	265	PRINCETON CLUB PATH
0010	198+90 WB - 199+30 WB	LT	-	-	-	-	40	40	48" GUTTER AND 56" BARRIER WALL
	195+75 WB - 201+81 WB	LT	606	606	_	_	-	606	-
	240+55 - 242+08	LT	-	-	294	_	-	294	HIGH POINT RD MEDIAN
	240+55 - 247+65	LT	-	-	715	-	-	715	-
	240+55 - 247+53	RT	-	-	698	=	-	698	-
	240+55 - 247+40	LT & RT	685	685	-	=	-	685	SOUTH HIGH POINT RD
	247+40 - 247+75	LT & RT	35	35	=	35	=	35	SOUTH APPROACH SLAB
	247+65 - 247+95	LT	=	-	=	=	30	30	-
	250+09 - 254+37	RT	=	=	444	=	=	444	-
	250+29 - 250+64	LT & RT	35	35	=	35	=	35	NORTH APPROACH SLAB
	250+52 - 252+25	LT	=	-	=	=	173	173	-
	250+64 - 254+40	LT & RT	376	376	_	_	-	376	NORTH HIGH POINT RD
	252+25 - 254+40	LT	-	-	215	-	=	215	-
		T0TAL 0010	1737	2002	2366	70	243	4611	
0040	450+43 BL - 455+50 BL	LT & RT	507	507	-	-	-	507	MULTI-USE PATH
	450+88 BL - 451+49 BL	RT	-	-	137	-	-	137	PARKING LOT
		TOTAL 0040	507	507	137	0	0	644	
		PROJECT TOTAL	2244	2509	2503	70	243	5255	

LOOP DETECTOR

								652. 0800 CONDUIT LOOP	655. 0800 LOOP DETECTOR
					SI ZE	NO. OF		DETECTOR	WI RE
CATEGORY	LOCATI ON	0FFSET	STATI ON	L/R	FT X FT	TURNS	I NSTALLATI ON METHOD	LF	LF
	HH8	5. 5'	251+38	RT	6 x 6	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	45	205
0010	HH8	16. 0'	251+39	RT	6 x 6	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	35	142
	HH12	5. 5'	252+59	LT	6 x 6	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	45	208
	HH12	16. 0'	252+60	LT	6 x 6	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	35	142
	HH9	5. 0'	253+06	RT	6 x 6	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	45	193
							TOTAL 0010	205	890

PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE MISCELLANEOUS QUANTITIES SHEET: **E**

3

CONDUIT AND WIRE

					CONDUI	T RIGID NONME	ETALLI C		E	ELECTRI CAL W	IRE LIGHTIN	G	
				652. 0215	652. 0225	652. 0235	652. 0325	652. 0335	655. 0610	655. 0620	655. 0625	655. 0630	655. 0700
			LI NEAR	SCHEDULE 40	SCHEDULE 40	SCHEDULE 40	SCHEDULE 80	SCHEDULE 80					LOOP DETECTOR
			DI STANCE	1 1/4-INCH	2-I NCH	3-I NCH	2-I NCH	3-I NCH	12 AWG	8 AWG	6 AWG	4 AWG	LEAD IN CABLE
CATEGORY	FROM	T0	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
	240+80, 57' LT	HH1	215	-	-	215	-	-	225	-	-	-	-
0010	HH2-EX	HH1-EX	35	-	-	-	35	-	-	45	-	135	-
	HH1-EX	B1	165	-	165	-	-	-	-	175	-	525	-
	B1	B2	165	-	165	-	-	-	-	175	-	525	-
	B2	В3	165	-	165	-	-	-	-	175	-	525	-
	HH1	HH2	445	-	-	445	-	-	455	-	-	-	-
	HH2	HH7	490	_	-	450*	-	-	1000	_	-	_	-
	В3	HH6	520	_	255*	-	-	-	530	_	-	_	-
	HH6	HH11	210	_	170	-	40	-	-	220	660	_	-
	HH7	HH11	200	_	-	160	_	40	210	_	_	_	_
•	HH8	HH9	170	170	-	-	-	_	-	-	-	-	360
	251+59, 32' RT	S1	6	_	6	-	_	_	-	_	_	_	_
	S1	TS-2	240	_	240	-	_	_	-	250	500	_	_
	HH9	HH10	115	_	115	_	_	_	_	_	_	_	500
	TS-2	HH10	16	_	-	16	_	_	-	26	75	_	_
•	HH10	TS-3	18	-	18	-	-	-	-	-	-	-	-
	HH10	254+20, 43' RT	15	_	-	15	_	_	_	_	_	_	_
	HH10	254+25, 36' RT	15	_	-	15	_	_	_	_	_	_	_
	HH10	CCB-1	46	_	-	-	-	-	-	-	_	-	392
	HH10	HH11	120	-	-	_	60	60	-	70	210	_	210
	HH12	HH13	95	95	-	-	-	-	-	-	-	-	210
	HH13	HH11	65	_	65	-	-	-	-	_	-	_	225
	TS-1	HH11	16	_	16	-	-	-	-	_	-	_	-
	HH11	TS-1-EX	20	_	20	-	-	-	-	_	-	_	-
	HH11	254+21, 31' LT	8	-	-	8	-	-	14	14	42	_	-
•			TOTAL 0010	265	1400*	1324*	135	100	2434**	1150	1487	1710	1897
0040	454+70 BL, 9' LT	HH3	92	_	92	_	_	_	100	_	_	_	_
0040	HH3	HH4	35	_	35	_	_	_	-	45	90	_	_
	HH4	B4	150	_	150	_	_	_	_	160	320	_	_
	B4	HH6	120	_	120	_	_	_	_	130	390	_	_
	HH5	HH11	345	_	-	305	_	40	_	-	-	_	_
	HH5	453+21 BL, 15' RT	45	_	_	45	_	-	_	_	_	_	_
	HH11	254+18, 29' LT	5	_	_	5	_	_	_	_	_	_	_
:		200, 27 21	TOTAL 0040	0	397	355	0	40	100**	335	800	0	0
:			PROJECT TOTAL	. 265	1797*	1679*	135	140	2534**	1485	2287	1710	1897

^{*}ADDITIONAL QUANTITY FOUND IN STRUCTURES PLANS

PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE MISCELLANEOUS QUANTITIES SHEET: **E**

^{**}USED AS TRACER WIRE

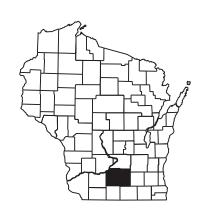
										<u>(</u>	CONCRETE BASES	į						
		<u>UTI LI T</u>	Y LINE OPEI	NI NG (ULO)			CATE		STATI ON 243+61	LOCATI ON 31' LT	SPV. 0060. 10 CONCRETE BASE TYPE (EACH	CONCRETE BA	SE	CATEGORY	MC STATI ON	OVING LIGHTI	NG ASSEMBLY SPV. 0060. 21 EACH	REMARKS
3	CATEGORY 0010	STATIO 242+91 F 242+91 F 242+97 F	IP 50	OCATION 0. 6' RT 8. 6' RT 0. 2' LT	SPV. 00 EA 1 1	CH	oc	010 2 2 2	245+01 245+27 246+91 253+98 253+99 254+24	33' LT 34' LT 31' LT 31' RT 44' RT	- - 1 -	1 1 1 - 1 -	B2 B3 TS-1 TS-2 TS-3	0010	243+61 HP 245+27 HP 246+91 HP	31' LT 33' LT 34' LT TOTAL 0010	1 1 1 3	MOVE TO BASE B1 MOVE TO BASE B2 MOVE TO BASE B3
		UNDI STRI BL	ITED	TAL 0010	2	2 5)40 2	251+35	127' LT		1	B4	0040	251+35 HP	128' LT	1	MOVE TO BASE B4
								_		TOTAL 004		1			<u> </u>	TOTAL 0040 PROJECT TOTA	1 L 4	
		CATEGORY	NUMBER	STATI ON	OFFSET		PULL BOXE 653. 0900 ADJUSTI NG PULL BOXES EACH		CAL E OX I	PV. 0060. 16 LECTRI CAL PULL BOX TYPE III EACH	SPV. 0060. 17 ELECTRI CAL PULL BOX TYPE V EACH	ELECTRI CAL PULL BOX TYPE VII			EXPOSE AND A	ADJUST CONDU		/. 0090. 05
		0010	HH1-EX HH2-EX HH1 HH2	241+96 241+95 242+95 247+38	42' 9' 39' 35'	LT LT LT LT	1 1 - -	- - 1 1	I	- - - -	- - - -	EACH - 		0040 195+	+50 WB - 19		LT FAL 0040	425
			HH8 HH3-EX HH6 HH7 HH12	251+35 251+55 252+07 252+14 252+56	28. 5' 24' 32. 5' 32. 5' 31'	RT RT LT LT LT	- - -	- 1 1		1 - - - 1	- - -	- - -		EN	MERGENCY SWE	EEPING MOBILI	I ZATI ON	
			HH4-EX HH9 HH13 HH5-EX HH6-EX	252+85 253+00 253+50 254+07 254+08	26' 28. 5' 31' 28. 5' 31'	RT RT LT RT LT	- - - -	- - -		1 1 1	<u>-</u> - - -	- - - -		CATEGORY		OCATI ON ROJECT	SPV. 0060. 2 EACH	<u> </u>
			HH10 HH11	254+14 254+14	30' 30' TOTAL 00	RT LT	- - - 2	- - 4		- - - 4	1 - 1	1				TAL 0010 EET SWEEPING	4	-
		0040	HH3 HH4 HH5	250+13 250+33 250+73	7' 20' 57'	RT LT LT	- - -	1 1 1		- - -	- - -	- - -		<u></u>	ATEGORY LO	SP' OCATI ON	V. 0075. 01 HRS	
					TOTAL OO		0	3 7		0	0	0				PROJECT TAL 0010	106	
T	PROJECT N	IO: 5300-02-7	73		HWY:	USH 12			COU	NTY: DANE		MISC	ELLANEOUS QUANTITIE	ES			SI	HEET:

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 5300-02-21

WEST MADISON BELTLINE (HIGH POINT STRUCTURE AND APPRS) **USH 12** DANE COUNTY



THE NOTES, CONVENTIONAL SYMBOLS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5300-02-21.

DISTANCES SHOWN FROM THE RIGHT-OF-WAY LINE TO BUILDINGS ARE APPROXIMATE ONLY.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD83 (2007) ADJUSTMENT, VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED. AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD". PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT-OF-WAY LINES DEPICTED IN NON-ACQUISITION AREAS ARE INTENDED TO REESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENT

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES. FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

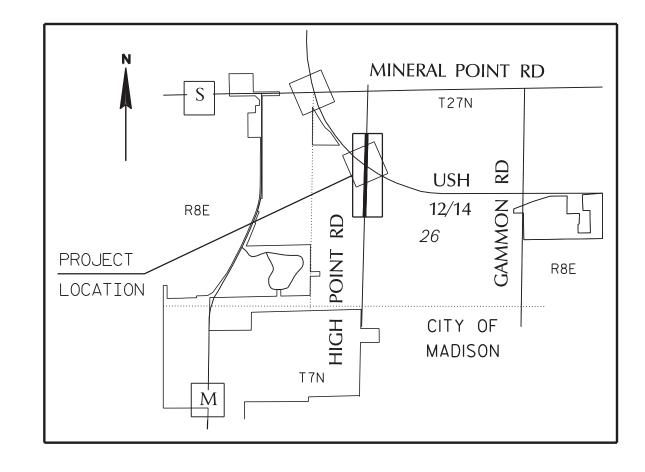
A TEMPORARY LANTED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY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

EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 12 / WEST BELTLINE HIGHWAY IS ESTABLISHED FROM PREVIOUS PROJECT T 04-2(1).

EXISTING HIGHWAY RIGHT-OF-WAY FOR HIGH POINT RD IS ESTABLISHED FROM RECORDED SUBDIVISION PLATS OF GANSER HEIGHTS, AND HIGH POINT OFFICE PARK PLAT, AND CSM # 6352. EXISTING ACCESS CONTROL ALONG USH 12 / WEST BELTLINE HIGHWAY IS ESTABLISHED FROM PREVIOUS PROJECTS TO4-2(42) & T 04-2(58).

EXISTING ACCESS CONTROL ALONG HIGH POINT ROAD IS ESTABLISHED FROM RECORDED SUBDIVISION PLATS OF GANSER HEIGHTS AND HIGH POINT OFFICE PARK PLAT.



LAYOUT 0.5 MI. CONVENTIONAL ABBREVIATIONS REFERENCE LINE REMAINING

ACCESS POINT ACCESS RIGHTS RFM. ACRES RIGHT-OF-WAY R/W AND OTHERS SECTION BLDG C/L BUTL DING STATION CENTERLINE TEMPORARY LIMITED EASEMENT TLE CERTIFIED SURVEY MAP CSM VOLUME COR CORNER CURVE DATA CONVEYANCE OF RIGHTS CR DOCUMENT LONG CHORD LONG CHORD BEARING EASEMENT GARAGE EASE. LCB RADIUS HOUSE LAND CONTRACT DEGREE OF CURVE CENTRAL ANGLE OR DELTA DELTA MONUMENT MON. LENGTH OF CURVE PAGE PERMANENT LIMITED EASEMENT PLE TANGENT AHEAD TANGENT PROPERTY LINE BACK TANGENT BK TAN RECORDED AS (1001)

CONVENTIONAL SYMBOLS

LP (3/4" UNLESS NOTED) PROPOSED R/W LINE EXISTING H.E. LINE FOUND IRON PIPE/PIN • •(SET) PROPERTY LINE R/W MONUMENT △ △(SET) LOT & TIE LINES SLOPE INTERCEPTS SECTION CORNER MONUMENT 11111111 CORPORATE LIMITS ACCESS RESTRICTED

(BY PREVIOUS ACQUISITION/CONTROL)

ACCESS RESTRICTED SECTION CORNER SYMBOL ACCESS RESTRICTED
(BY ACQUISTION) FEE (HATCH VARIES) TEMPORARY LIMITED EASEMENT 188 888 NO ACCESS
(BY STATUTORY AUTHORITY) PERMANENT LIMITED EASEMENT SECTION LINE R/W BOUNDARY POINT QUARTER LINE SIXTEENTH LINE PARCEL NUMBER EXISTING RIGHT-OF-WAY LINE ----UTILITY NUMBER PROPOSED REFERENCE LINE SIGN NUMBER (OFF PREMISE) PARALLEL OFFSET 五五 BUILDING NATIONAL GEODETIC SURVEY MONUMENT (A) FUTURE RIGHT-OF-WAY LINE

CONVENTIONAL UTILITY SYMBOLS

WATER GAS TELEPHONE OVERHEAD - OH -TRANSMISSION LINES FLECTRIC CABLE TELEVISION — TV -FIBER OPTIC -F0-SANTTARY SEWER STORM SEWER -ss· COMPENSABLE COMPENSABLE POWER POLE TELEPHONE POLE TELEPHONE PEDESTAL X

 \boxtimes

PROJECT NUMBER 5300-02-21 - 4.01 SHEET 2 OF 2

NO

4

TRANSPORTATION PROJECT PLAT NO: 5300-02-21-4.01, AMENDMENT THIS AMENDMENT ADDS PARCEL 3 AND UTILITY NUMBER 85 TO TRANSPORTATION PROJECT PLAT 5300-02-21-4.01, RECORDED AS #5106160 AND REVISES UTILITY NUMBER 81 OF TRANSPORTATION PROJECT PLAT 5300-02-21-4.01, AMENDMENT NO. 3, RECORDED AS #5170644 ALL IN THE OFFICE OF THE REGISTER OF DEEDS IN DANE COUNTY. THAT PART OF LOT 6, GANSER HEIGHTS AND PART OF THE SW 1/4 - NW 1/4 AND PART OF HIGHPOINT OFFICE PARK, A CONDOMINIUM IN THE SE 1/4 - NW 1/4 OF SECTION 26, T-7-N, R-8-E, IN THE CITY OF MADISON, DANE COUNTY, WISCONSIN

RELOCATION ORDER USH 12 WEST MADISON BELTLINE (HIGH POINT STRUCTURE AND APPRS) USH 12 DANE COUNTY TO PROPERLY ESTABLISH, LAY QUI, WIDEM, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, MAPROVE, OR MANTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

EFFECT THIS CHANCE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF AUSOCRATION HEREBY GROERS THAT:
HAT PORTION OF EACH HIGHEN'S AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
THE LANDS OR INTERESTS OR RICHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (3) OR (2), WISCONSIN STATUTES.



CITY

SKY PLAT

DETAIL

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80'

DRIVE

254+50.00 D'ONOFRIO

" ATION HELL

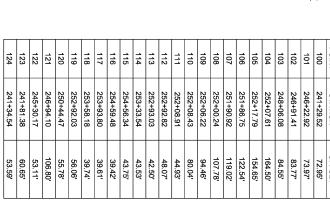
BLDG.

" MILITE ISM V.

3/4"

SEE DETAIL "A"

A CONDOMINIUM



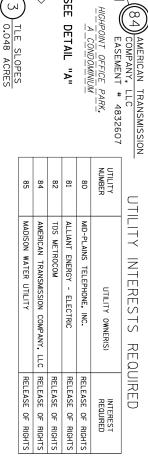
	44.93'	252+08.91	111
	80.04"	252+08.43	110
	94.46'	252+06.22	109
_	107.78'	252+00.24	108
	119.02'	251+90.92	107
	122.54'	251+86.75	106
_	154.65'	252+17.79	105
	164.50'	252+07.61	104
	84.55'	248+06.08	103
	83.77'	246+91.41	102
	73.97'	246+22.92	101
	72.95'	241+29.52	100
	OFFSET	STATION	POINT

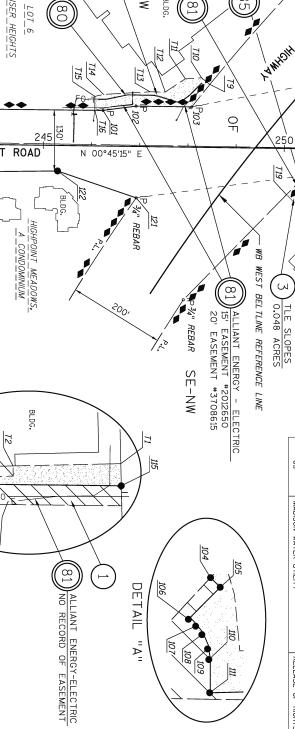
YED FOR REGISTER OF DEEDS T NUMBER: 5300-02-21-4.01 MENT NO: 4 DOCUMENT #
5194186
0/29/2015 12:25 PM
Trans. Fee:
Exempt #:
Rec. Fee: 25:00
Pages: 1

P.I. 254+50.00 Y=476,350.689 X=785,477.001 DELTA=00°08'22"

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TLE SLOPES (2)

WN-WS

 (∞)

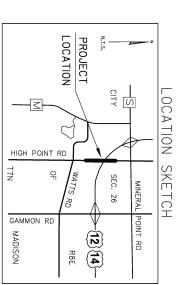
TO R/L	NM-SM	66-	N 00°34'03" E	PI 242+01.76	••	P.L. 4	OT_6 ER HEIGHTS
	120		100	130'	HIGH	POINT	24 ROAD
\S 88°17'40" W 53.63' R/W TO R/L	CAP MONUMENT DER CORNER) 75,056.791 86,774.875	<	BLDG. STA. 241+32.41	NOT FOUND Y = 475,072,380 X = 786,775,180 P 8 E	[BLDG] "TRUE CORNER" 77 W	MADISON	HIGHPOINT MEADOWS, A CONDOMINUM
	\$ 8 E) ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	V		/	11	BLDG.

DETAIL

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FOR ADDITION TO THE TITE IN THE OFF DEEDS, IN INSHEET 2 0

DITIONAL INFORMATION REFER TITLE SHEET, RECORDED OFFICE OF THE REGISTER OF IN DANE COUNTY AS 2 OF 2 DOCUMENT 5106160.



BRASS CAP MONUMENT Y = 474,993.790 X = 784,135.884

MS-MN

N 88°17'40" E 73.03' R/W TO R/L

88°17'40" E 1251.56 SEC. COR. TO R/W

124-100	123-124	122-123	121-122	120-121		119-120		118-119	117-118	116-117	115-116	114-115	113-114	112-113	111-112	110-111	109-110	108-109	107-108	106-107	105-106	104-105	103-104		102-103		101-102	100-101	COURSE	
S88° 17' 40"W	S09° 08' 43"W	S00° 29' 48"E	S18° 53' 30"W	S07° 31' 53"E	(S00° 26' 36"W)	S00° 49' 06"W	(S13° 29' 06"E)	S13° 06' 02"E	S00° 32' 59"W	S00° 36' 16"W	N88° 43' 49"E	N00° 39' 24"E	N00° 41' 39"W	N88° 36' 34"E	N01° 23' 26"W	N89° 58' 45"E	N82° 03' 30"E	N66° 33′ 43″E	N51° 05' 11"E	N41° 00' 34"E	S45° 12' 51"E	N44° 47' 09"E	N10° 39' 03"W	(N00° 26' 42"E)	N00° 47' 28"E	(N08° 05' 09"W)	N07° 22' 52"W	N00° 36' 38"E	BEARING	COURSE TABLE
126.66'	47.37'	348.68'	172.50'	354.06'	247.57'	247.56'	(68.68')	68.13'	35.62'	65.59'	83.23'	122.91'	40.52'	5.57'	83.98'	35.11'	14.60'	14.60'	14.56'	5.50'	44.66'	14.16'	408.64'	(115.67')	115.63'	(69.45')	69.19'	493.64'	DISTANCE	Œ

117.01'	250+27.49	T18
55.83'	250+85.90	T17
73.93'	246+05.93	T16
102.92'	246+05.55	T15
107.26'	246+23.69	T14
113.87'	247+19.89	T13
113.79'	247+51.58	T12
141.73'	247+92.46	T11
144.43'	248+26.55	T10
130.76'	248+43.79	Т9
180.53'	252+22.36	Т8
147.18'	252+32.72	77
88.94'	252+39.00	Т6
88.80'	253+32.22	T5
45.51'	253+33.56	Т4
48.06'	254+00.33	Т3
53.31'	254+00.11	Т2
55.23'	254+55.91	T1
OFFSET	STATION	POINT
TABLE	TLE STATION OFFSET	ᇤ

	117.01'	250+27.49	T18
	55.83'	250+85.90	T17
	73.93'	246+05.93	Т16
	102.92'	246+05.55	T15
FC	107.26'	246+23.69	T14
SI	113.87'	247+19.89	Т13
Ð	113.79'	247+51.58	T12
Ŧ	141.73'	247+92.46	T11
Ð	144.43'	248+26.55	T10
ը !	130.76'	248+43.79	Т9
	180.53'	252+22.36	Т8
PF	147.18'	252+32.72	77
₽	88.94'	252+39.00	Т6
Ð	88.80'	253+32.22	T5
W	45.51'	253+33.56	T4
FC	48.06'	254+00.33	Т3
	53.31'	254+00.11	Т2
P.Z	55.23'	254+55.91	Т1
2 70	OFFSET	STATION	POINT
Z	T TABLE	TLE STATION OFFSET TABLE	TLE

-WAY FOR HIGH POINT ROAD IS ESTABLISHED FROM RECORDED, AND HIGH POINT OFFICE PARK PLAT, AND CSM # 6352.

ALONG USH 12 / WEST BELTLINE HIGHWAY IS ESTABLISHED T04-2(42) & T 04-2(58).

ALONG HIGH POINT ROAD IS ESTABLISHED FROM RECORDED SER HEIGHTS AND HIGH POINT OFFICE PARK PLAT.

BASED ON THE FOLLOWING POINT OF REFERENCE: 12 / WEST BELTLINE HIGHWAY IS ESTABLISHED FR

SUBDIVISION

COORDINATES, DANE COUNTY, GRID COORDINATES, GRID AS GROUND DISTANCES.

NIT OF THE

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William V	0.202	0.196	-	0.196	FEE,TLE		ERTIES II, LLC	COLLINS PROPERTIES	-
THOMAS J. \A AGENT FOR	ACRES	TOTAL	EXISTING	NEW	REQUIRED		OWNER(S)		NUMBER
THOMAS J. I	T.F	UIRED	R/W ACRES REQUIRED	R/W .	INTEREST				PARCEL
PRESENTS ALL EX	IOTED	ERWISE N	NLESS OTH	ACRES U	OF LAND INTEREST TO D.O.T. ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED	OF LAND ALL AREA	EQUIRED	INTERESTS REQUIRED	NTEF
AND UNDER THE DIRECTION OF THE DEPARTME TRANSPORTATION PROJECT PLAT 5300-02-21-	SES ANSFER	CE PURPO OR TO TR	R REFEREN	SHOWN FO	OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER		SCHEDULE OF LANDS &	ULE OF	SCHED
I, THOMAS J. HANSEN, PROFESSIONAL LAND SI COMPLIANCE WITH THE PROVISIONS OF SECTION									
	Щ	l		П			96.29'	250+05.79	T19
[A] Better Experience	200		100	0			117.01'	250+27.49	T18
Mal Engineering		-	SCALE, FEET	SCAL			55.83'	250+85.90	T17
							73.93'	246+05.93	T16
		į	; ;				102.92'	246+05.55	T15
FOUND PROPERTY PIPES ARE 125" REBAR UNLESS OTHERWISE NOTED.	BAR UNLE	.25" REI	S ARE 1	RTY PIPE	ND PROPE	FOU	107.26'	246+23.69	T14
SUBDIVISION PLATS OF GANSER HEIGHTS AND HIGH POINT OFFICE PARK PLAT.	S AND HI	HEIGHT	GANSER	LATS OF	DIVISION P	SUB	113.87'	247+19.89	T13
EXISTING ACCESS CONTROL ALONG HIGH POINT ROAD IS ESTABLISHED FROM RECOR	1 POINT F	ONG HIGH	TROL ALO	SS CON	TING ACCE	EXIS	113.79'	247+51.58	T12
2(58).	& T 04-2	1-2(42)	CTS TO4	IS PROJE	FROM PREVIOUS PROJECTS T04-2(42) & T 04-2(58).	FRO	141.73'	247+92.46	T11
EXISTING ACCESS CONTROL ALONG USH 12 / WEST BELTLINE HIGHWAY IS ESTABLI	1 12 / WE	ONG USH	TROL ALO	SS CON	TING ACCE	EXIS	144.43'	248+26.55	T10
PLATS OF GANSER HEIGHTS, AND HIGH POINT OFFICE PARK PLAT, AND CSM # 635	POINT OF	AD HIGH	IGHTS, AI	NSER HE	TS OF GA	PLA	130.76'	248+43.79	Т9
EXISTING HIGHWAY RIGHT-OF-WAY FOR HIGH POINT ROAD IS ESTABLISHED FROM REI	HIGH POIN	Y FOR	IT-0F-WΔ	WAY RIGH	TING HIGH	EXIS	180.53'	252+22.36	Т8
			04-2(1).	JECT T	PREVIOUS PROJECT T 04-2(1).	PRE	147.18'	252+32.72	77
EXISTING HIGHWAY RIGHT-OF-WAY FOR USH 12 / WEST BELTLINE HIGHWAY IS ESTA	USH 12 /	Y FOR	IT-0F-WΑ	WAY RIGH	TING HIGH	EXIS	88.94'	252+39.00	Т6
EXISTING HIGHWAY RIGHT-OF-WAY HEREIN IS BASED ON THE FOLLOWING POINT OF	IN IS BAS	Y HERE	IT-OF-WA	WAY RIGH	TING HIGH	EXIS	88.80'	253+32.22	Т5
WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION MADISON OFFICE	TATION, S	ANSPOR	T OF TR	ARTMEN	ONSIN DEF	WISC	45.51'	253+33.56	T4
FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT (JEORMATIC	EWAY I	ESS/DRIV	EST ACC	THE LATI	FOR	48.06'	254+00.33	Т3
BEARINGS AND DISTANCES: GRID DISTANCES WAT BE USED AS GROUND DISTANCES.	ACES MAI	VIO A	CES. GIVIL	DIGITAL	TINGS AIND	0 1	53.31'	254+00.11	T2
NAU83 (ZUUT) IN U.S SURVEY FEET. VALUES SHOWN ARE GRID CUURUINATES, GRID	ALUES SH	PEEL. V	SURVEY I	DISTANI	83 (2007)	NAL	55.23'	254+55.91	T1
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DANE COL	WISCONSIN	T ARE	THIS PLA	NO NMC	HS SNOLLI	POS	OFFSET	STATION	POINT
		ı					ABLE	ILE STATION OFFSET TABLE	

L ES	.,	R(S)		
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L ESTATE, LLC				ARE/
TLE	FEE,TLE	REQUIRED	INTEREST	AREAS SHOWN IN ACRES
121	ΉE	IRED	EST	N Z
	0.196	NEW	R/	ACRES
			¥ ⊵	₩.
	-	EXIST	R/W ACRES REQUIRED	LESS
		S	REQL	임
	0.196	EXISTING TOTAL ACE	JIRED	ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED
0.19	0.2	A CF	<u> </u>	NOTED

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Engineering
[A] Better Experience

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O THAT SU

THOMAS J. KANSEN
THOMAS J. KANSEN
THOR KLE BNGINEERING, INC.
P.L.S. NUMBER 2033
THIS PLAT AND RELOCATION ORDER
FOR THE WISCONSIN DEPARTMENT O APPROVED ANSPORTATIO

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WO 1 HIGH POINT ROAD\CIVIL3D\SHEETSPLAN\RW\040110-RP9A+EMEND-4.DWG APPRAISAL PLAT DATE : OCTOBER 28, 2015

PLOT BY: KL ENGINEERING

MADISON WATER UTILITY
20' EASEMENT #1682775
20' EASEMENT #1830379

85

PLOT NAME : PLOT SCALE : #########

82) TDS METROCOM

PLOT DATE: 28/10/2015

4.01, AMEND NO. 4

KRISTI CHLEBOWSKI DANE COUNTY REGISTER OF DEEDS

DATE: REVISED:
AUGUST 7, 2014 APRIL 24, 2015

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NADB3 (2007) IN U. S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

TRANSPORTATION PROJECT PLAT NO: 5300-02-21-4.02

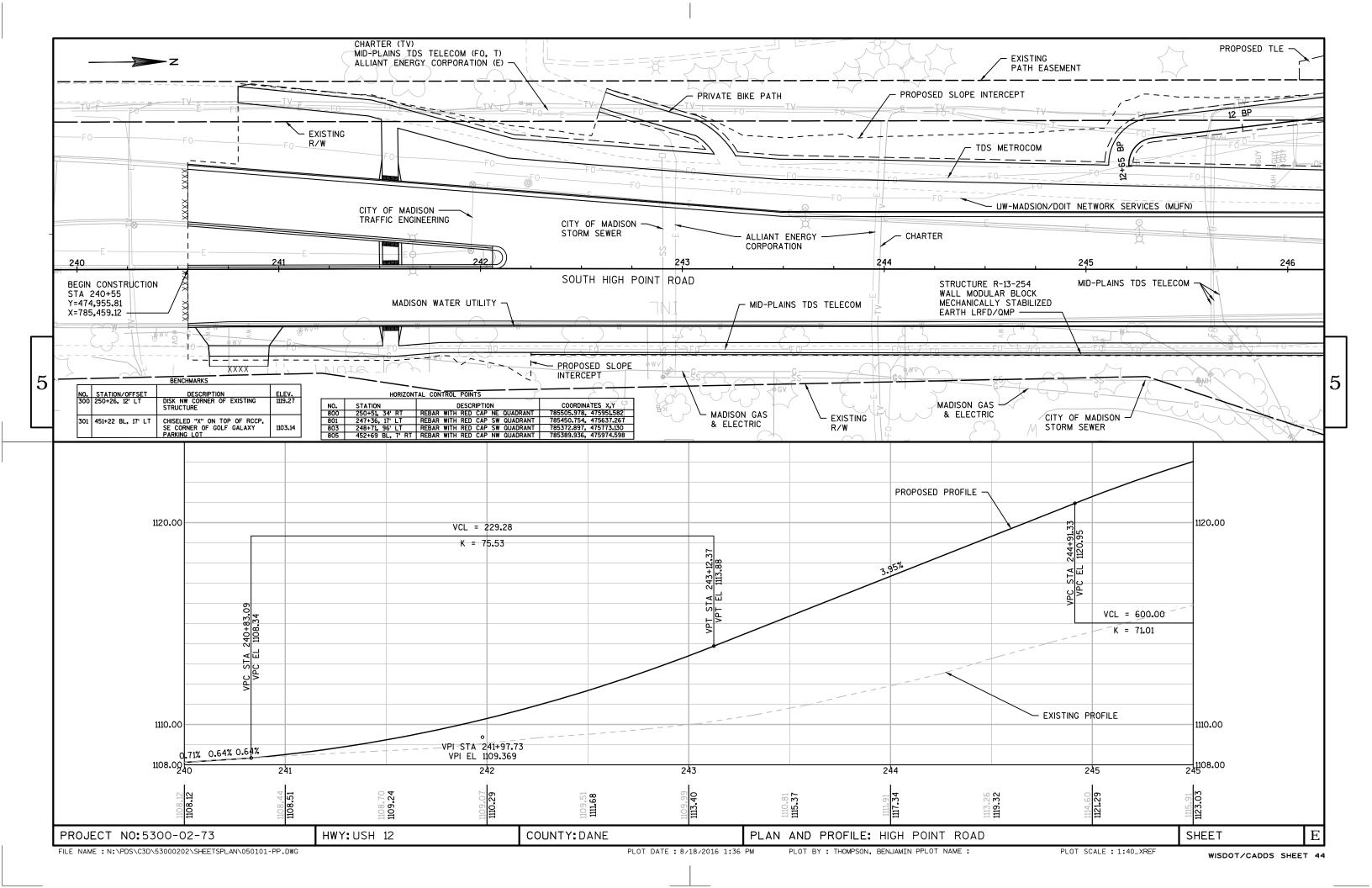
RELOCATION ORDER USH 12 WEST MADISON BELTLINE (HIGH POINT STRUCTURE AND APPRS) DANE COUNTY

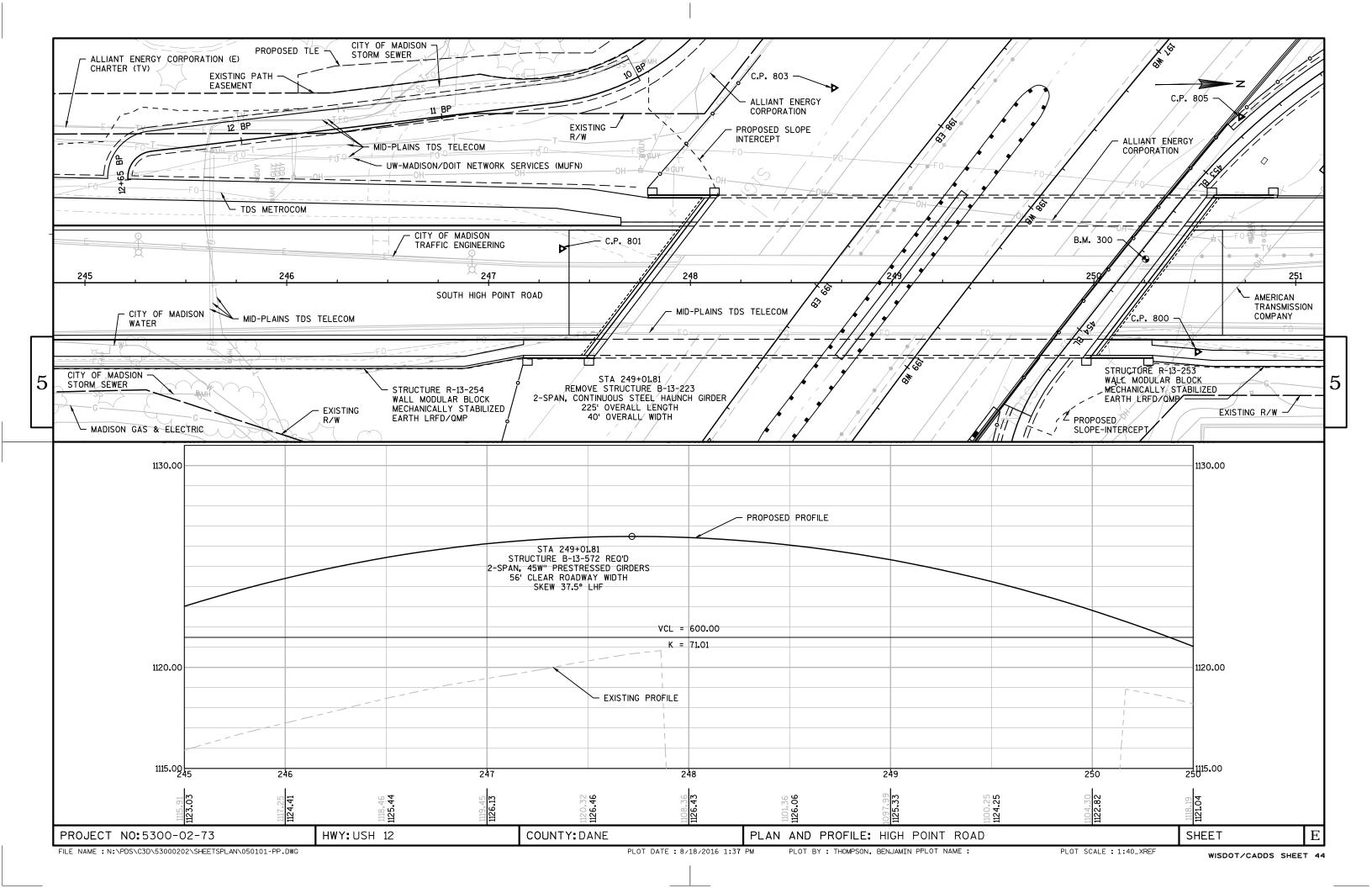
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104	476110.483	785309.328
105	476120.535	785319.306
106	476089.074	785351.003
107	476093.223	785354.611
108	476102.370	785365.942
109	476108.178	785379.338
110	476110.194	785393.793
111	476110.207	785428.901
112	476194.159	785426.863
113	476194.295	785432.436
114	476234.814	785431.945
115	476357.710	785433.353
116	476359.555	785516.565
117	476293.969	785515.873
118	476258.349	785515.531
119	476191.990	785530.974
120	475944.456	785527.438
121	475593.446	785573.846
122	475430.243	785517.996
123	475081.580	785521.019
124	475034.810	785513.490

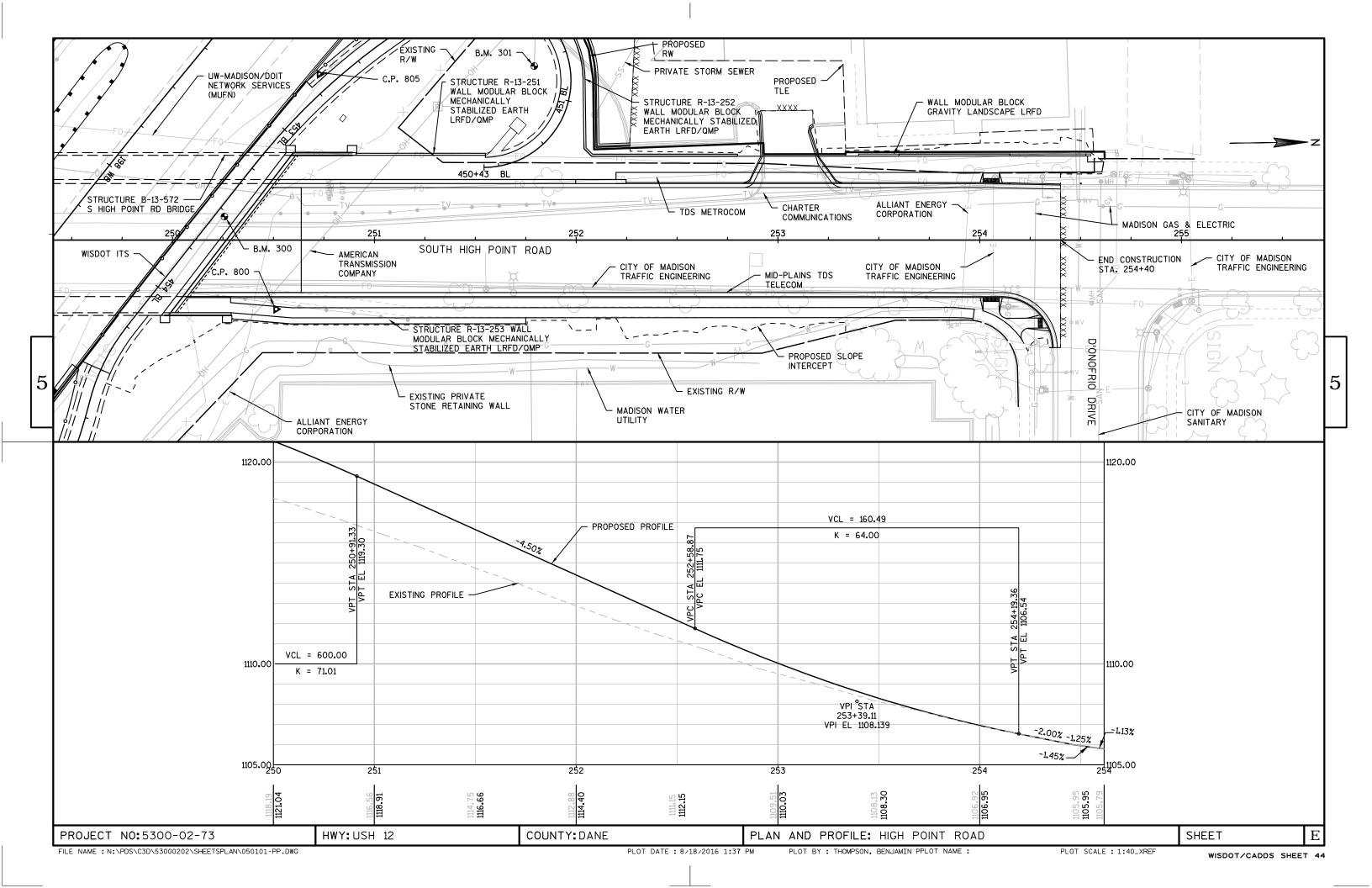
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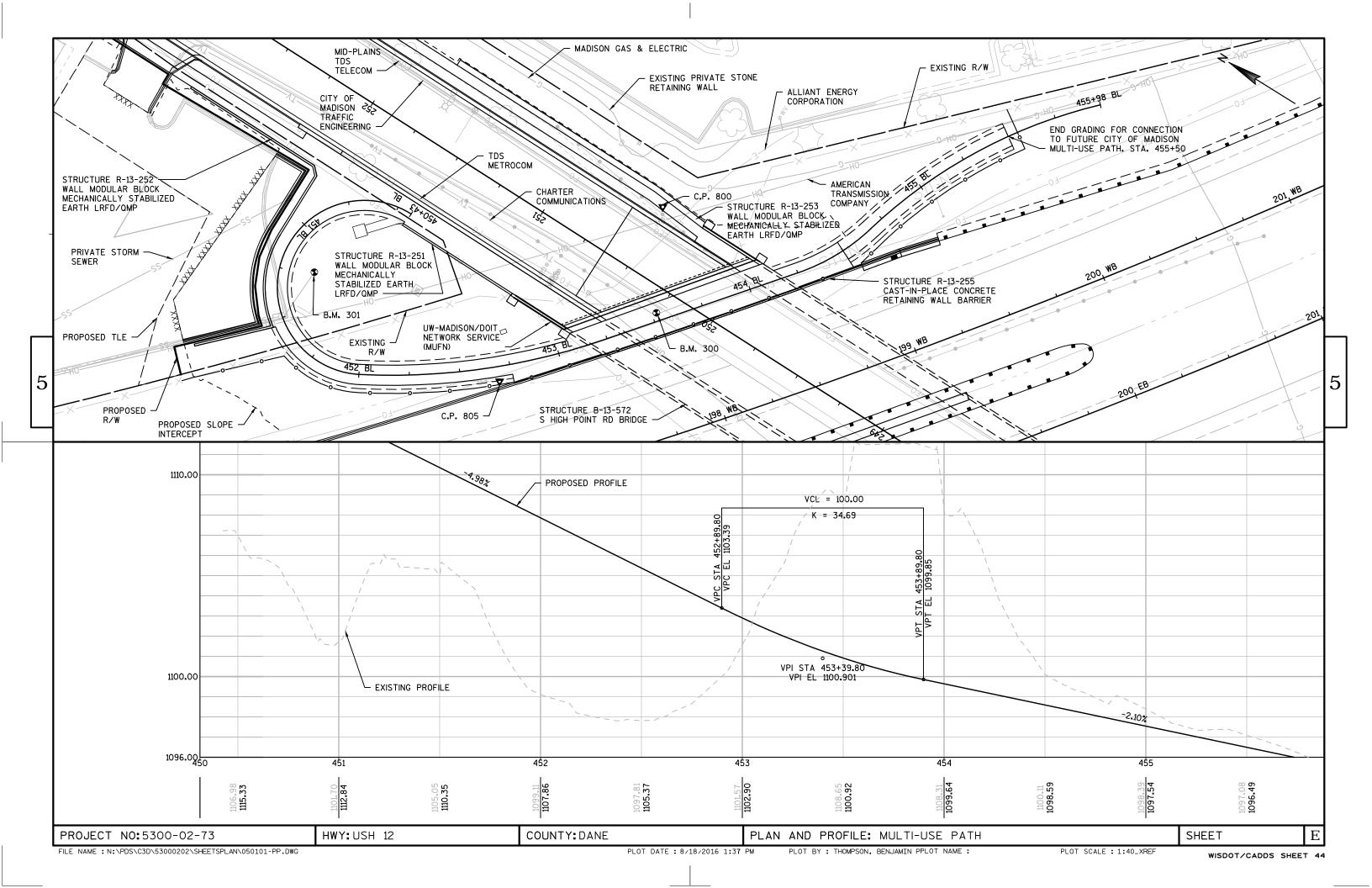
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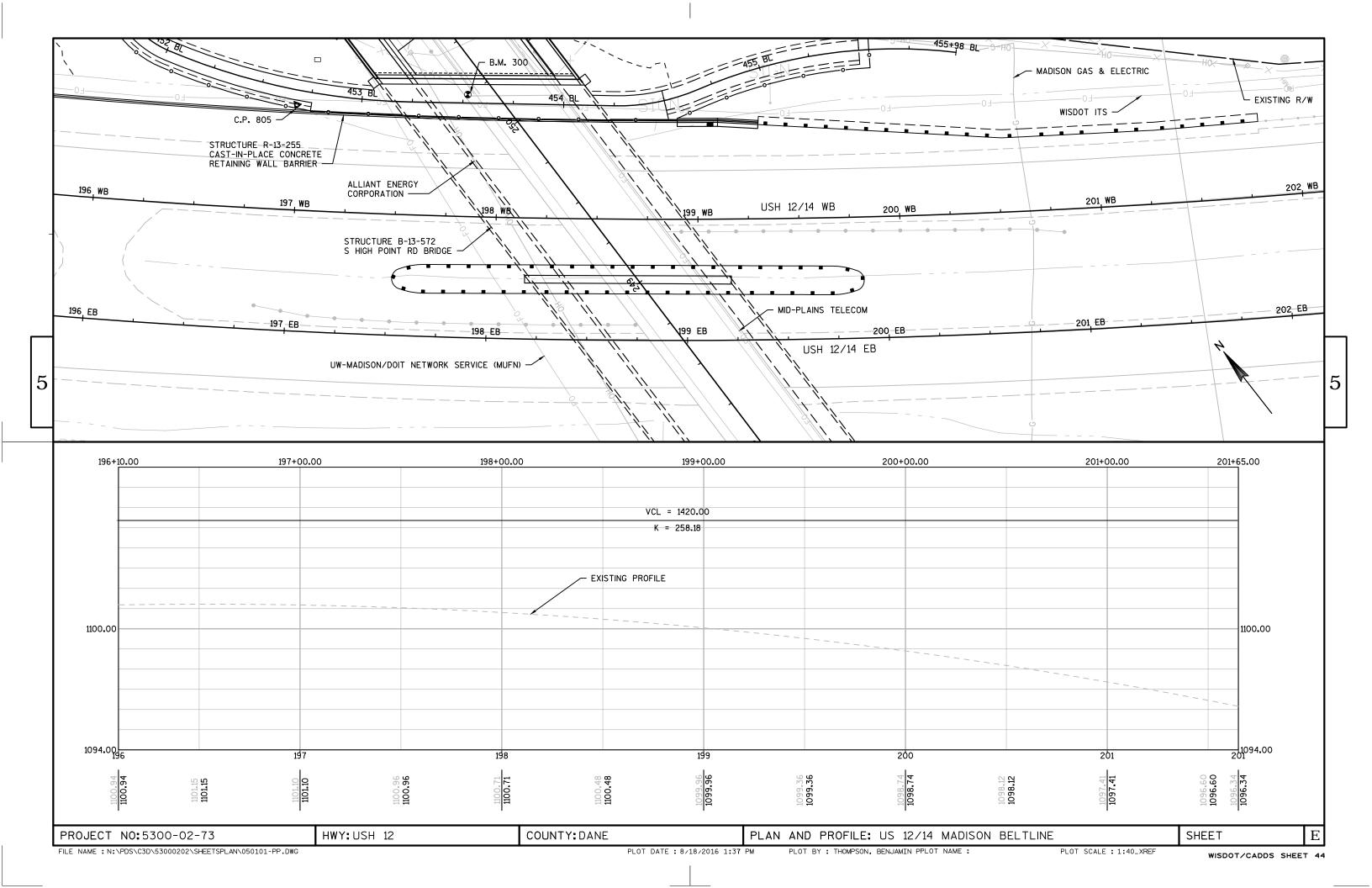
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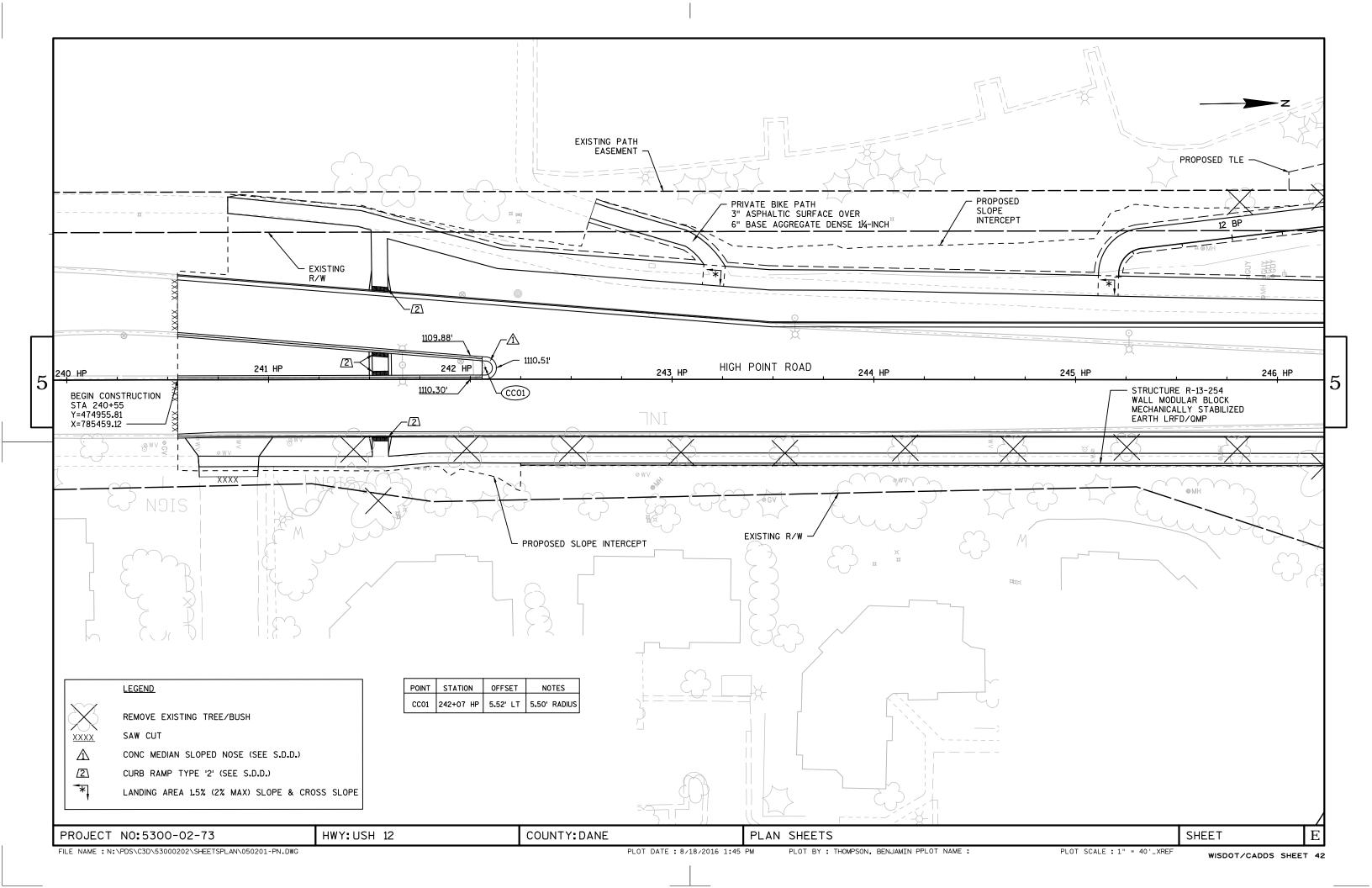


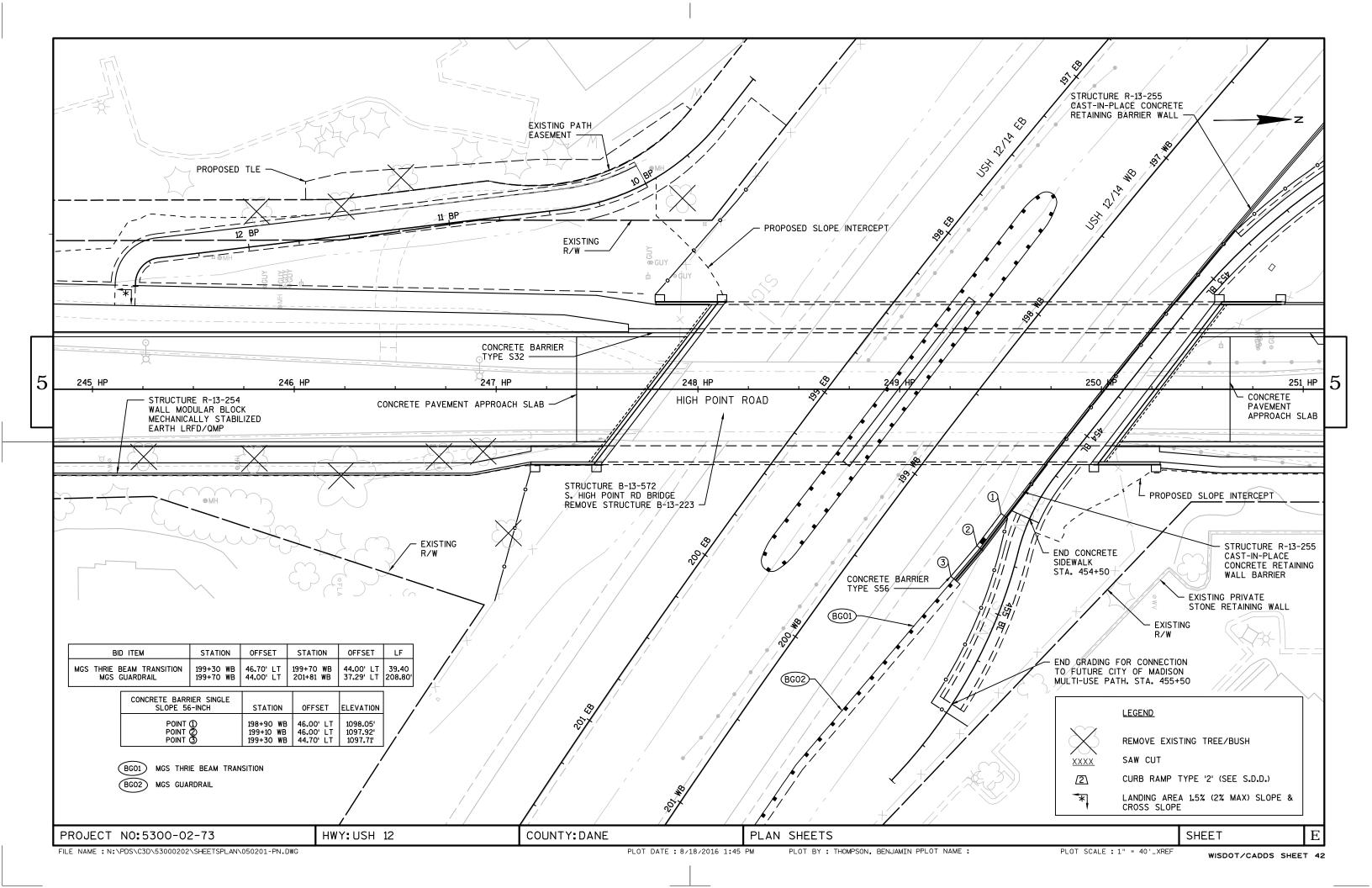


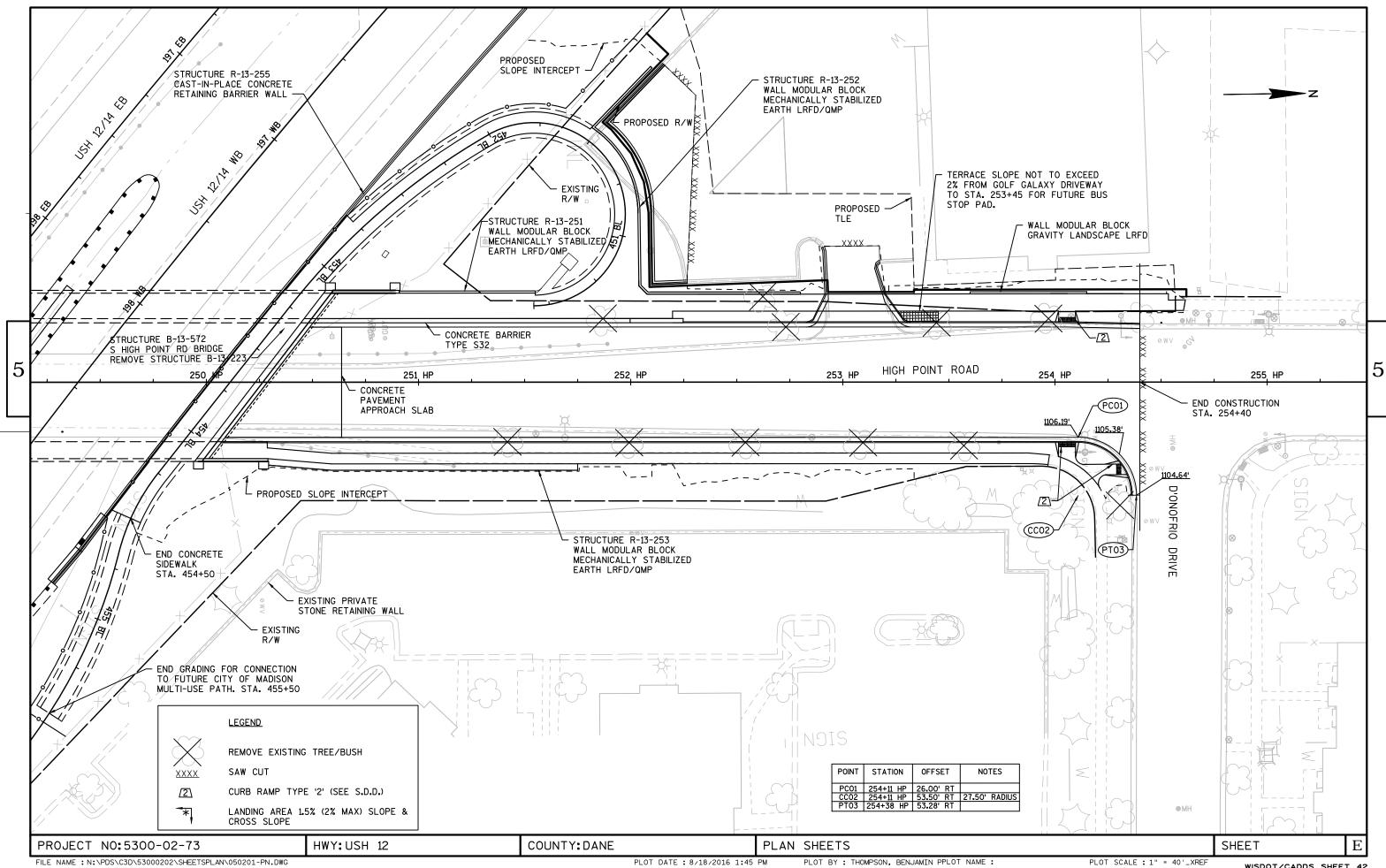












WISDOT/CADDS SHEET 42

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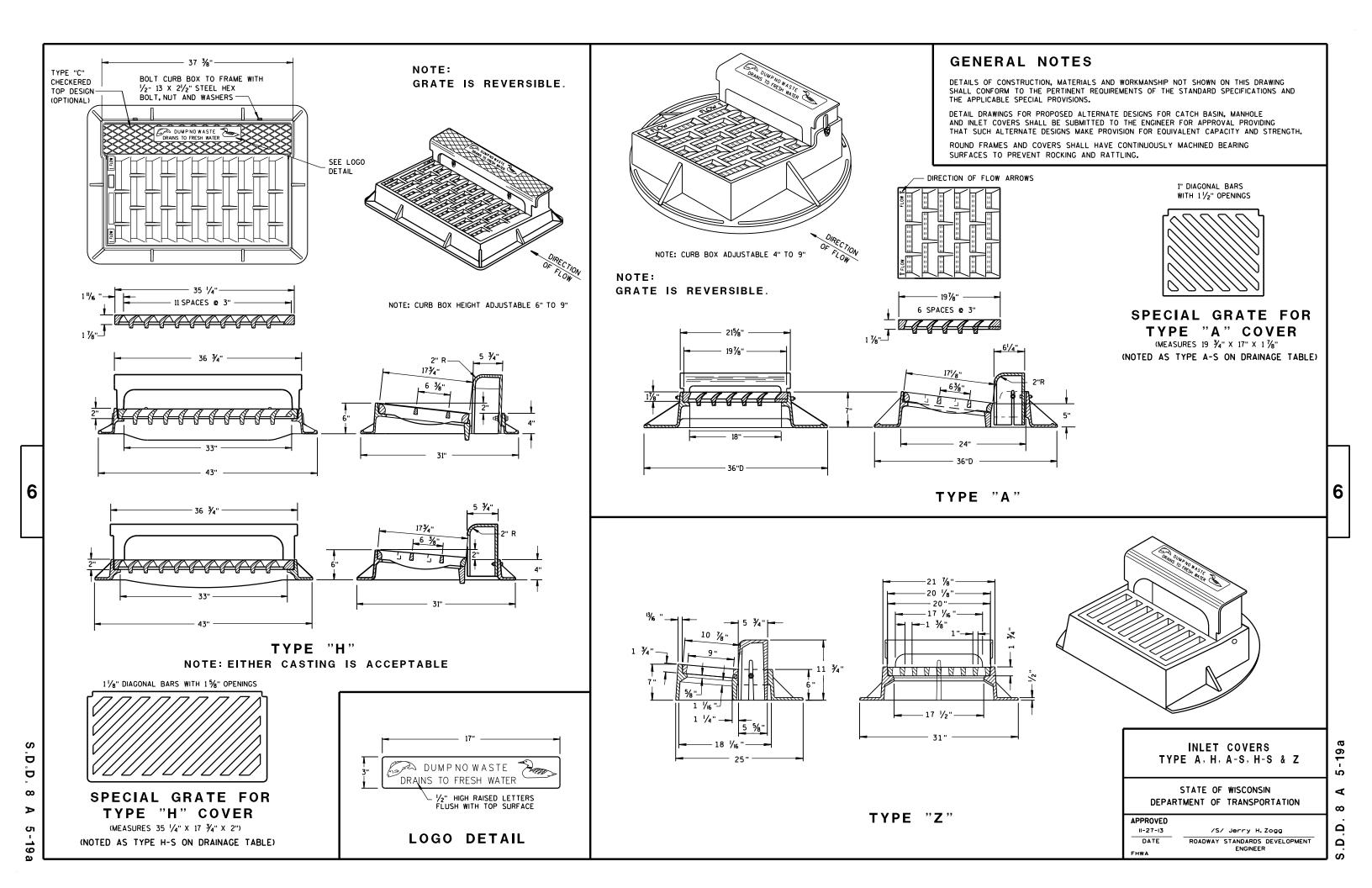
Standard Detail Drawing List

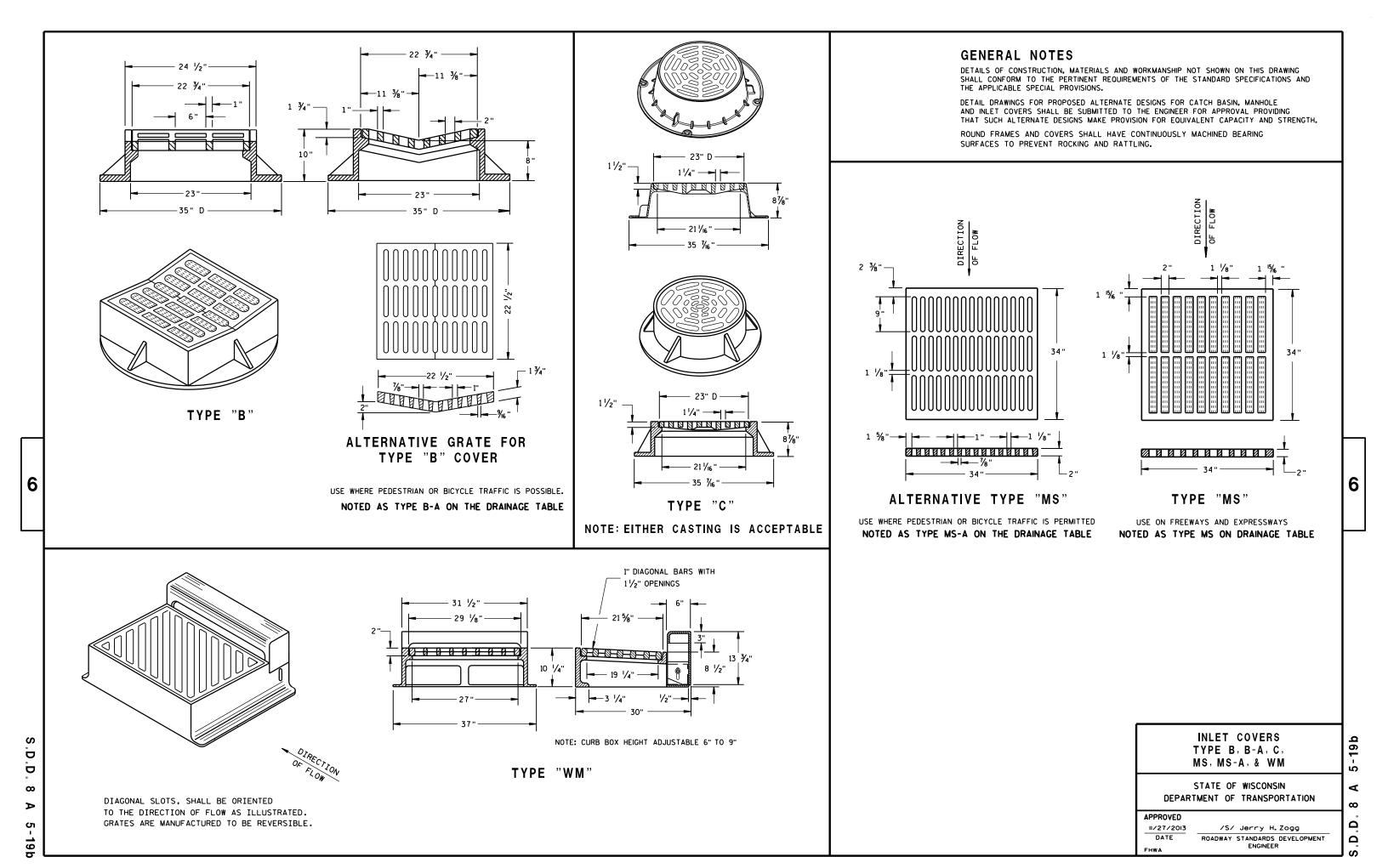
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUI T
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	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 14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHI ON/SAND BARREL ARRAY AND OTHER TEMPORARY BARRI ER LAYOUT DETAILS
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B32-03A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-03E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARÓRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRALL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRALL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRALL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A 15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END FLEXIBLE MARKER POST FOR CULVERT END
	I LENI DEL INMINIEN FUST I UN CULVENT END
15B03-15A	FENCE CHAIN LINK

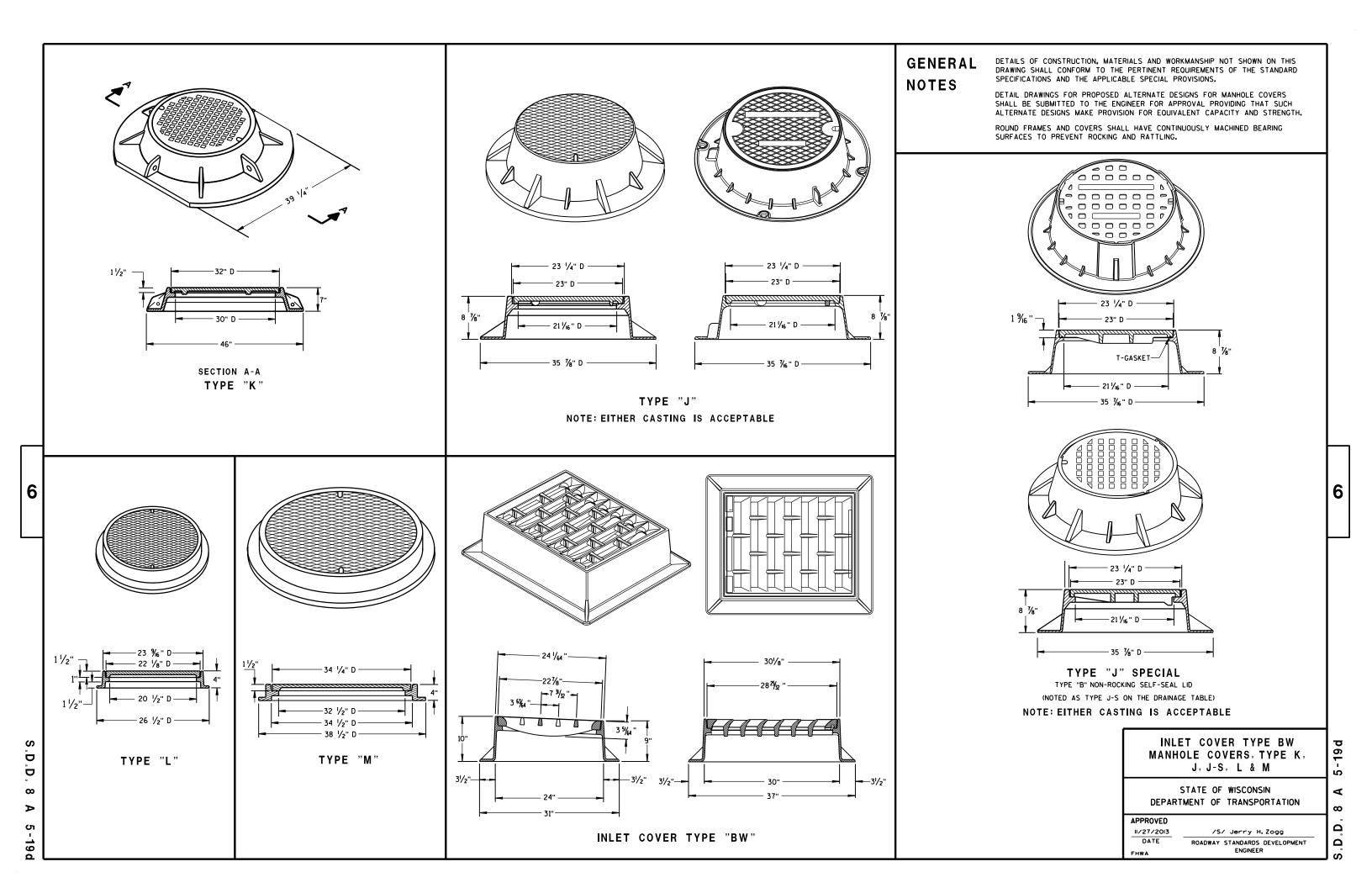
Standard Detail Drawing List

15B03-15B	FENCE CHAIN LINK
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C24-03	36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15D03-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-02	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

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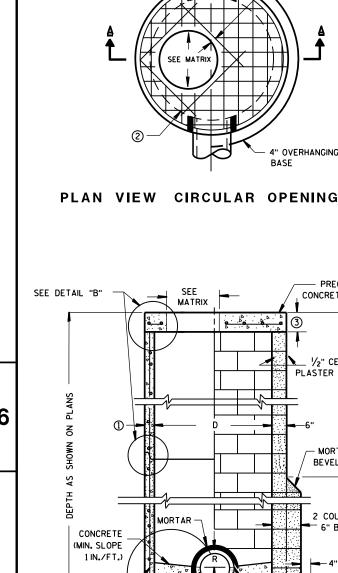






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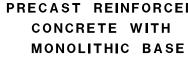
SEE

MORTAR -

MATRIX

• 4° • •

PRECAST REINFORCED — CONCRETE FLAT SLAB TOP



②-

CONTRACTOR TO PROVIDE DRAWING(S)

STAMPED BY A PROFESSIONAL ENGINEER

SEE DETAIL "A"

(I)·

PRECAST REINFORCED CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED **CONCRETE BASE 2**

2" (TYP)

" OVERHANGING

- PRECAST REINFORCED

CONCRETE FLAT SLAB TOP

1/2" CEMENT

- MORTAR

BEVEL 45°

2 COURSES 으는

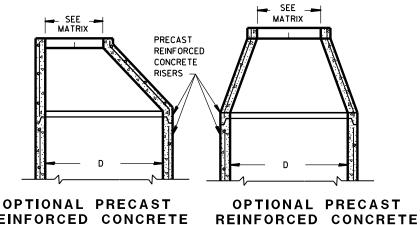
12'. EPT

6" BLOCK

4" MIN

SPLIT PIPE OR FORM CONCRETE TO FIT

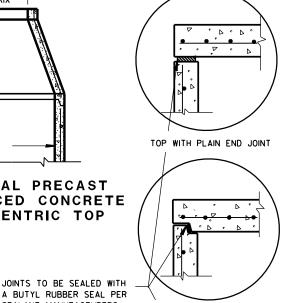
PLASTER COAT



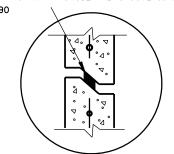
REINFORCED CONCRETE **ECCENTRIC TOP** CONCENTRIC TOP

PRECAST

WALL

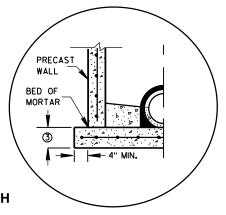


A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS TOP WITH TONGUE AND GROOVE JOINT RECOMMENDATIONS CONFORMING TO ASTM C990



RISER WITH TONGUE AND GROOVE JOINT

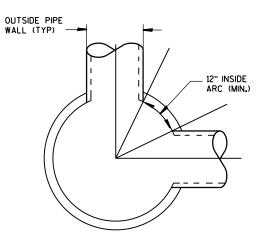
DETAIL "B"



PRECAST REINFORCED

CONCRETE WITH INTEGRAL BASE OPTION

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION DETAIL "A"



DETAIL "C"

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

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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

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

- MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT. 5 INCHES FOR 4-FT. 6 INCHES FOR 5-FT. 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- (2) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- (3) PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	С	ALL J'S	К	L	M
OPENING SIZE (FT)					
2 DIA.	х	х		х	
3 DIA.			×		Х

PIPE MATRIX

MANHOLE	MAXIMUM INSIDE PIF FOR TWO F	
SIZE	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

> STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED	
6/5/2012	/S/ Jerry H.Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT
FHWA	ENGINEER

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1/2" CEMENT

CONCRETE

(MIN. SLOPE 1 IN. /FT.)

CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER

FOR STEEL REINFORCING DESIGN

CONCRETE BLOCK

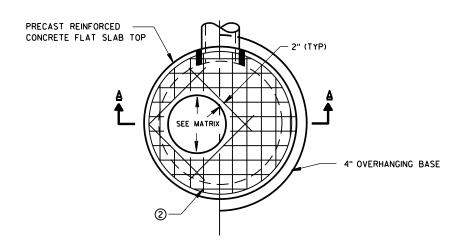
OR PRECAST REINFORCED

CONCRETE BASE 2

WITH CAST-IN-PLACE

FOR CAST-IN-PLACE STRUCTURES

PLASTER COAT

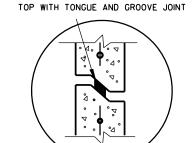


PLAN VIEW CIRCULAR OPENING

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP) PRECAST DISCHARGE WALL TOP WITH PLAIN END JOINT



DISCHARGE PRECAST RED OF MORTAR



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

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

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

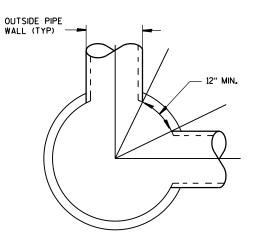
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

- (1) MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- (2) FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	С	F	ALL H'S	S	T	٧	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				×							х
	2X2	х	х					х		х		
4-FT	2 DIA.				х							х
	2X2	х	x					х		х		
	2X2.5			Х				х	х	Х	Х	
	2X3						х					
	2.5X3					х						



DETAIL "C"

PIPE MATRIX

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

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 /S/ Jerry H. Zogg DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER FHW4

SEE DETAIL "A"

8 (1)

PRECAST REINFORCED

MONOLITHIC BASE

CONCRETE WITH

DISCHARGE PIPE

SECTION A-A

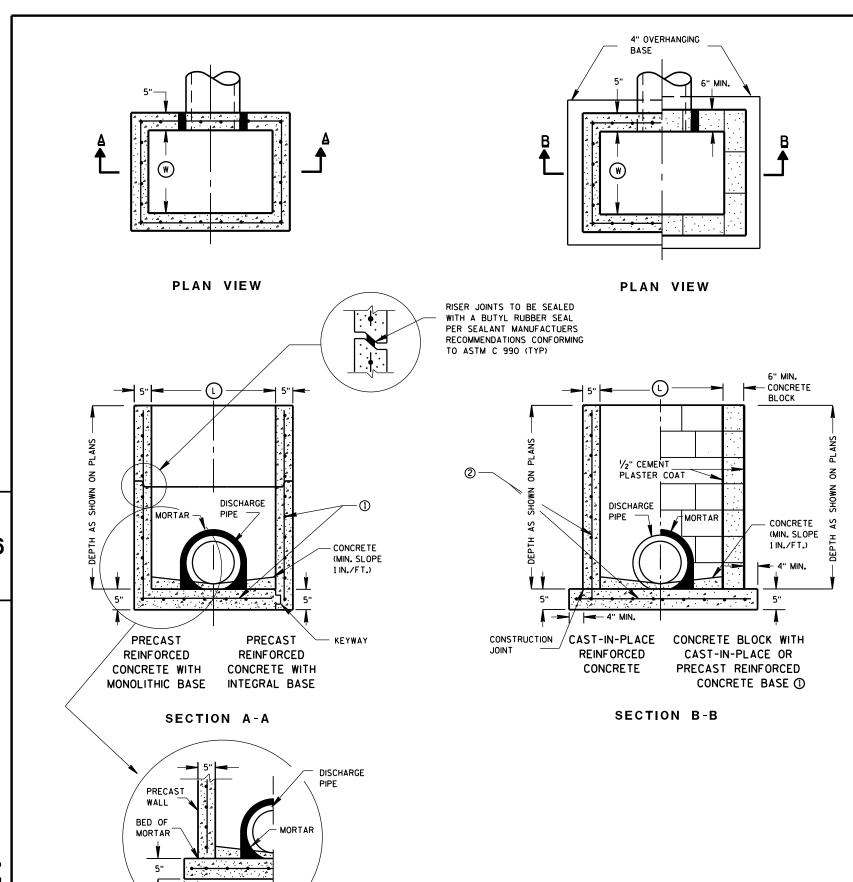
CIRCULAR INLETS W/ FLAT TOP

MORTAR

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GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

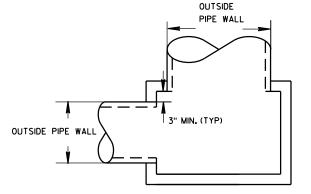
- 1) FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- (2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

	INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	s	т	v	WM
		WIDTH (W) (FT)	LENGTH (L) (FT)									
	2X2-FT	2	2	X	х				Х		Х	
ſ	2X2.5-FT	2	2.5			Х			Х	Х	Х	Х
[2X3-FT	2	3					Х				
	2.5X3-FT	2.5	3				Х					

PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER						
INLET SIZE	WIDTH (IN)	LENGTH (IN)					
2X2-FT	12	12					
2X2.5-FT	12	18					
2X3-FT	12	24					
2.5X3-FT	18	24					



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED 6/5/2012 DATE

FHWA

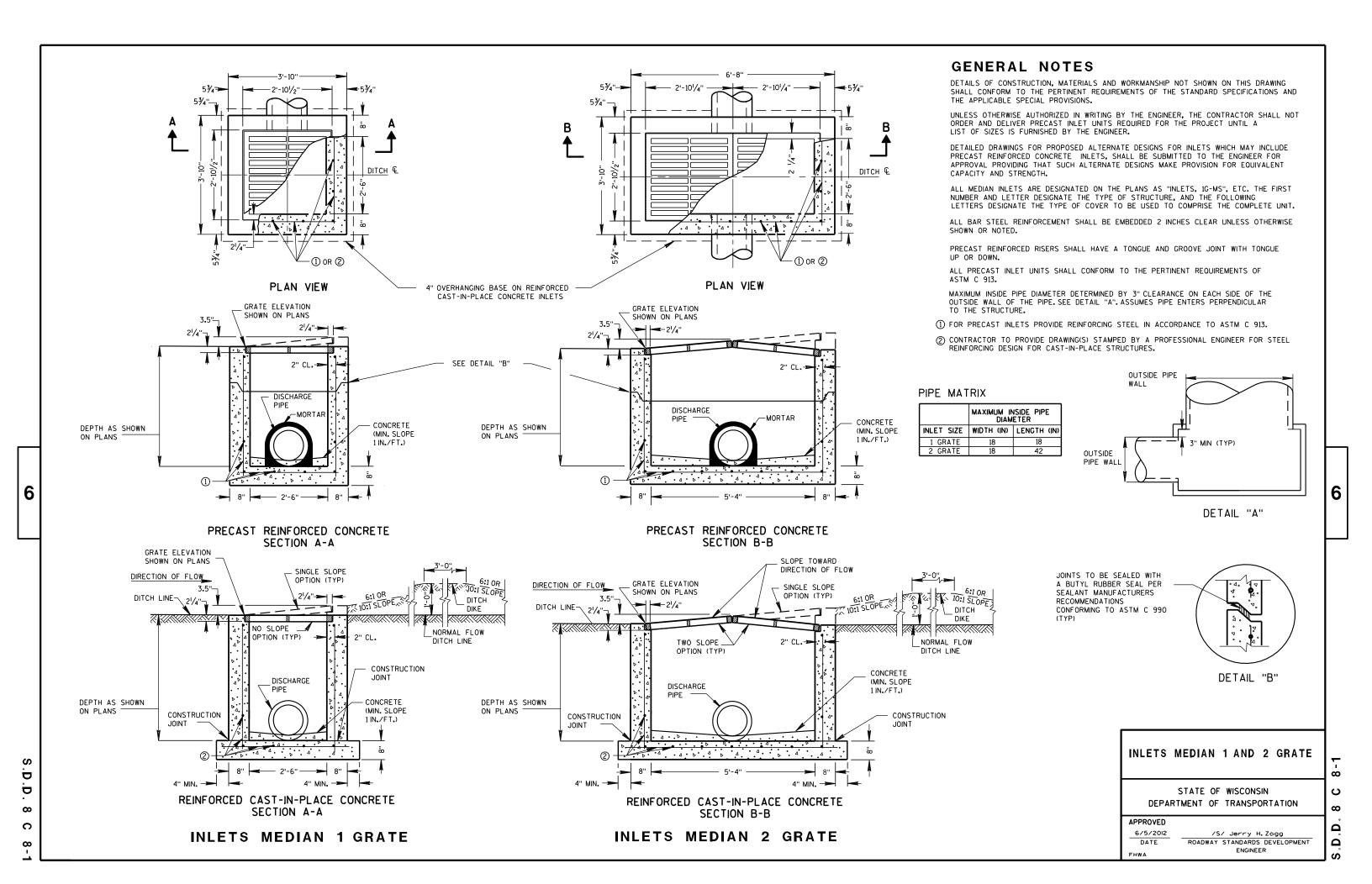
/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT

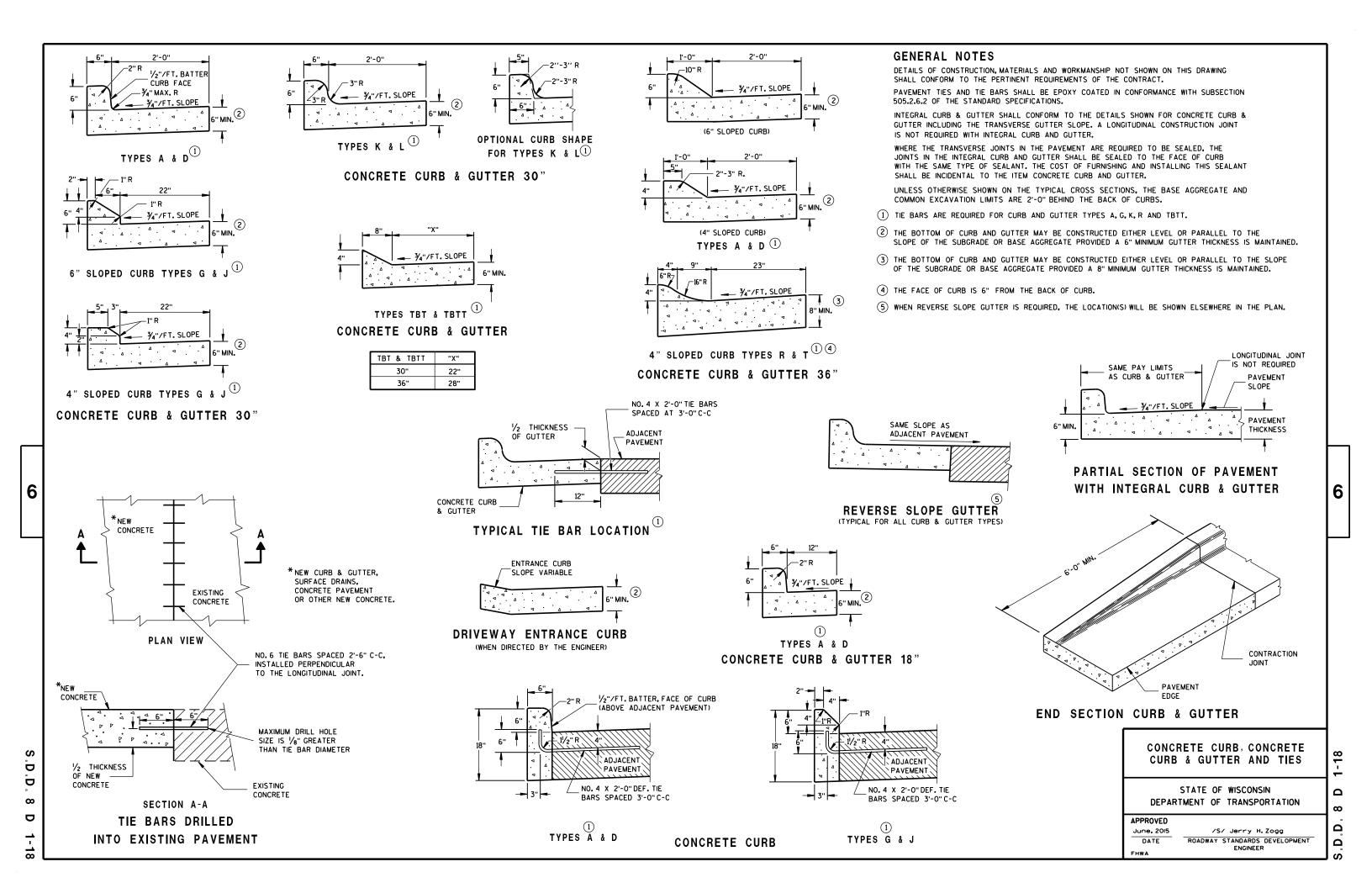
ENGINEER

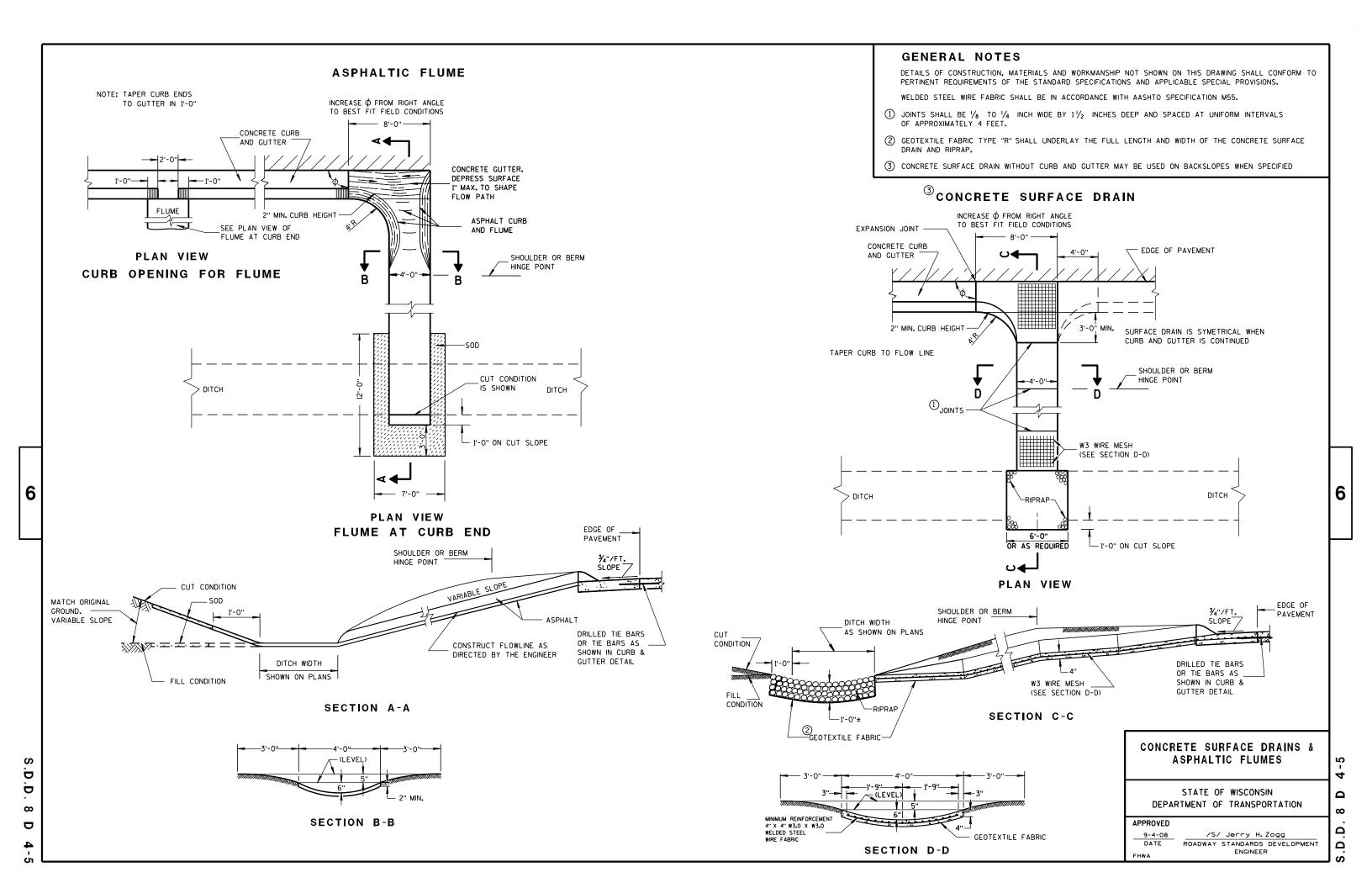
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

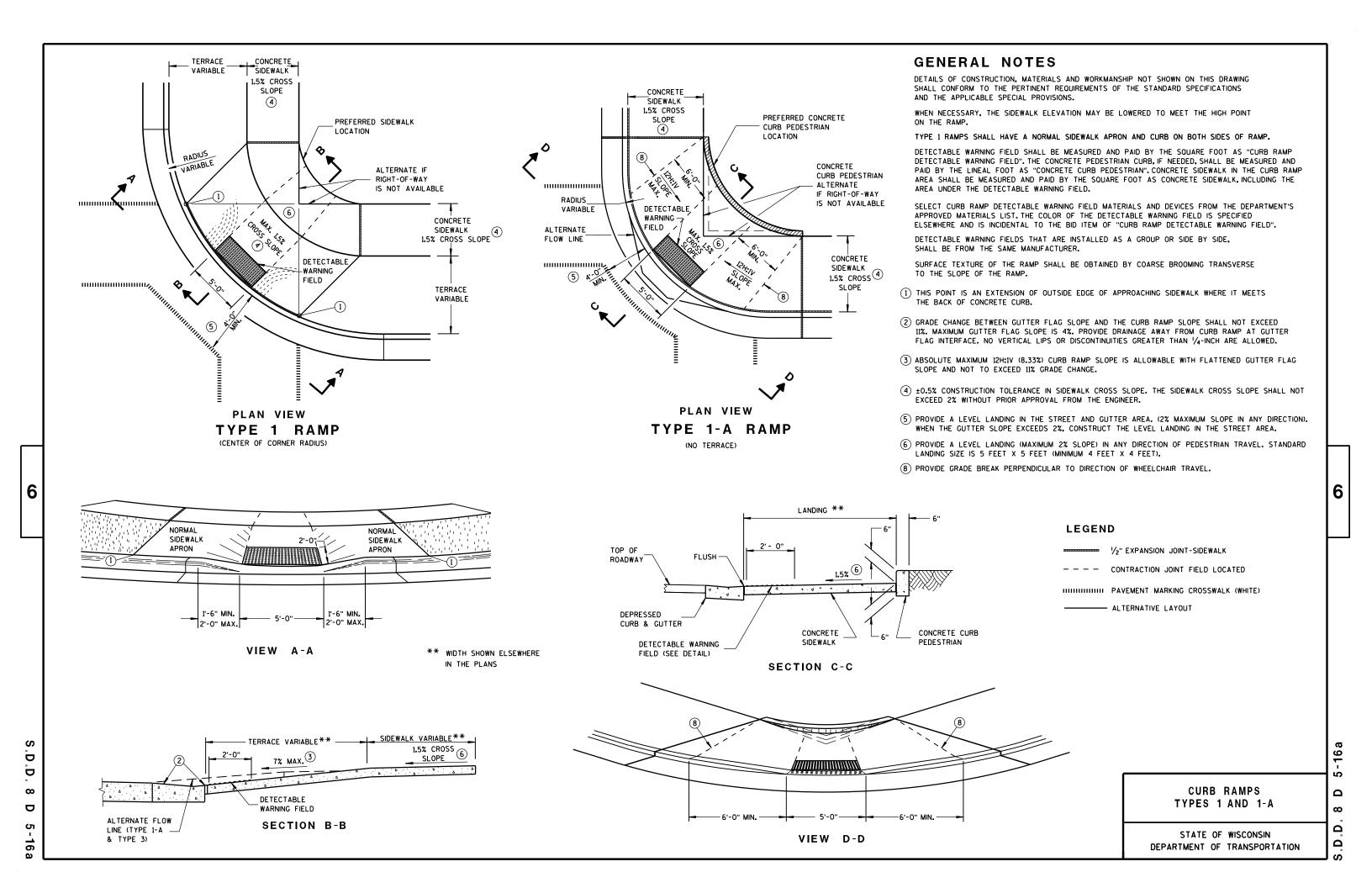
SEPARATE PRECAST REINFORCED

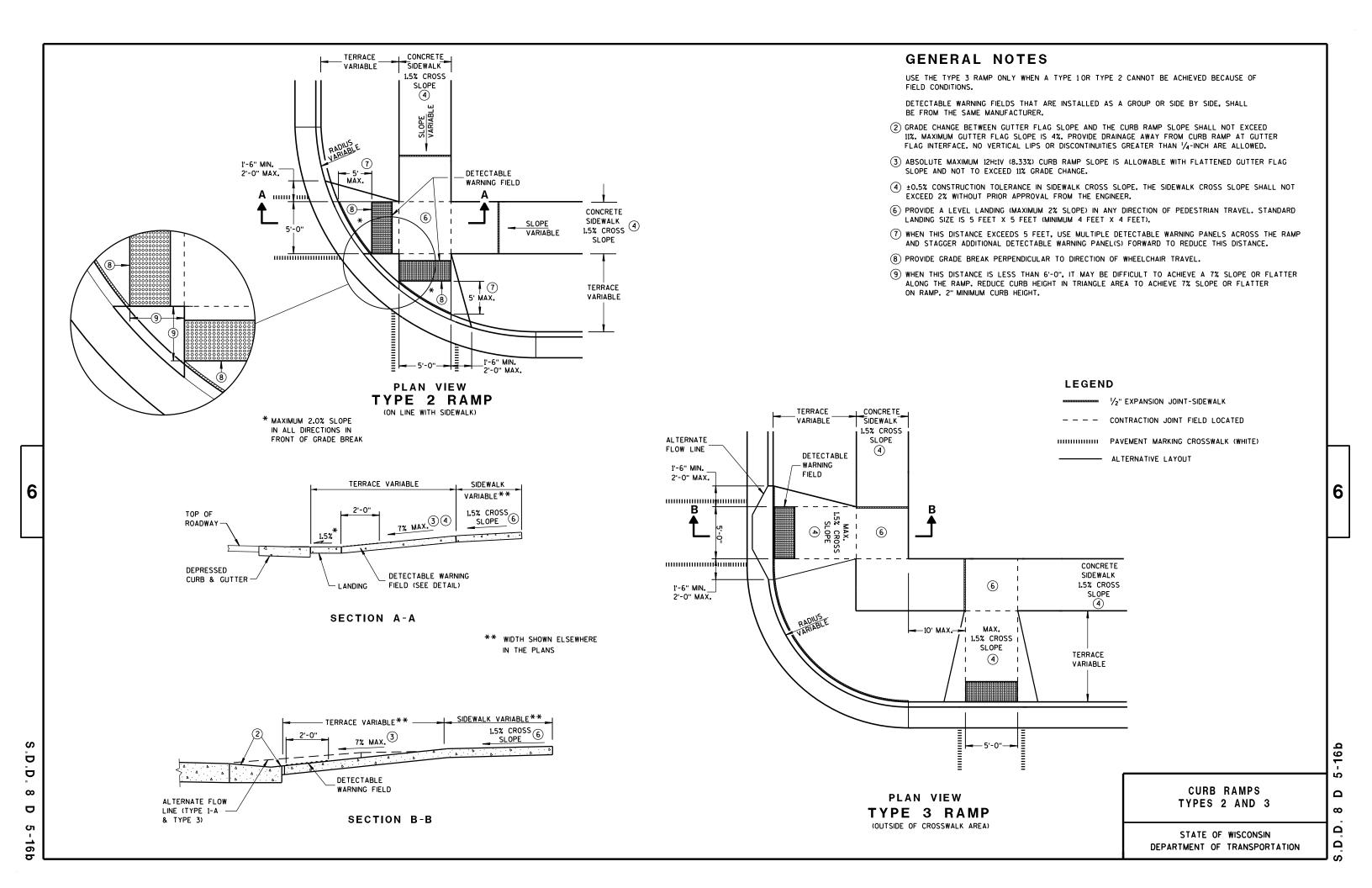
CONCRETE BASE OPTION

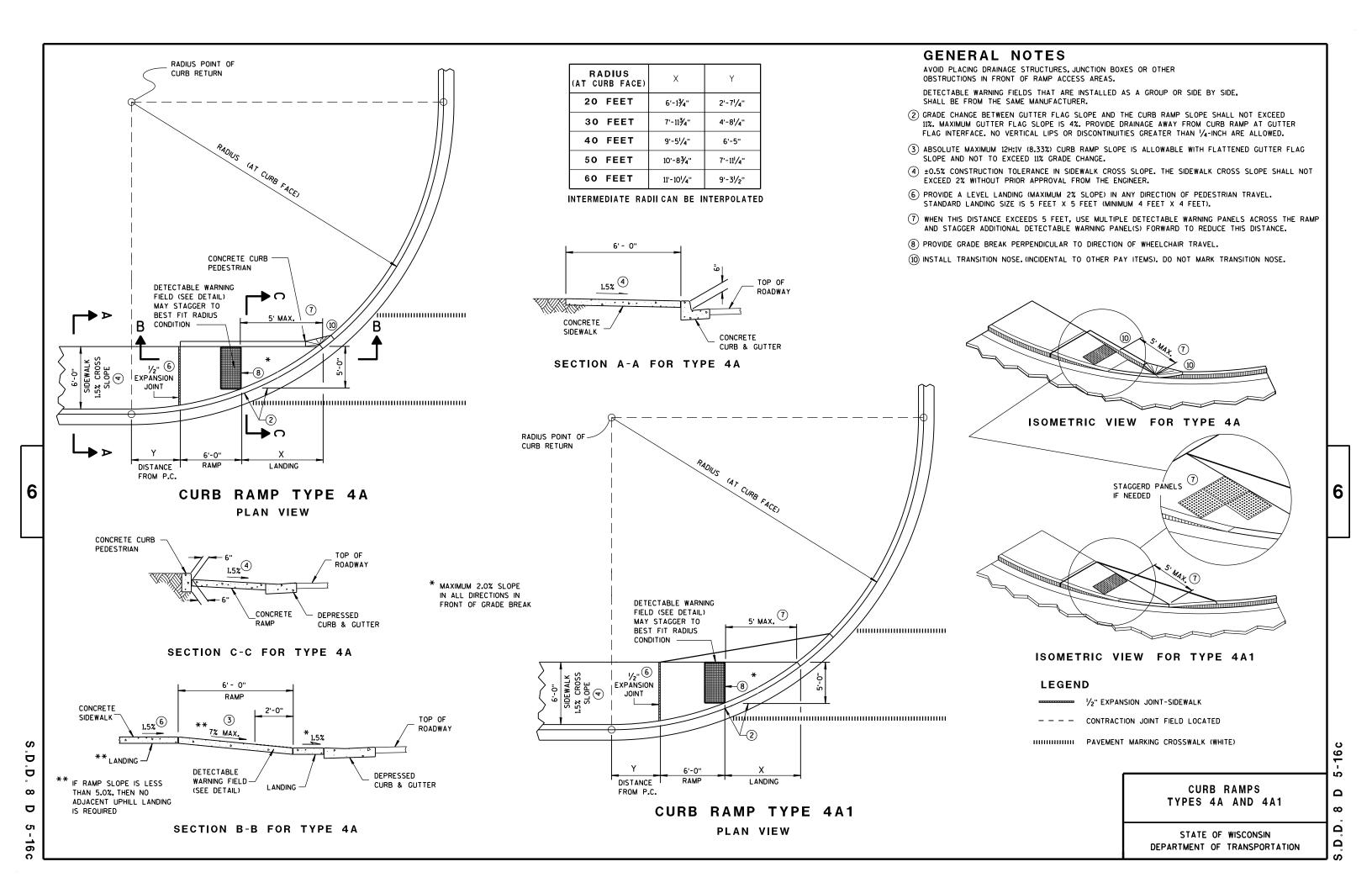


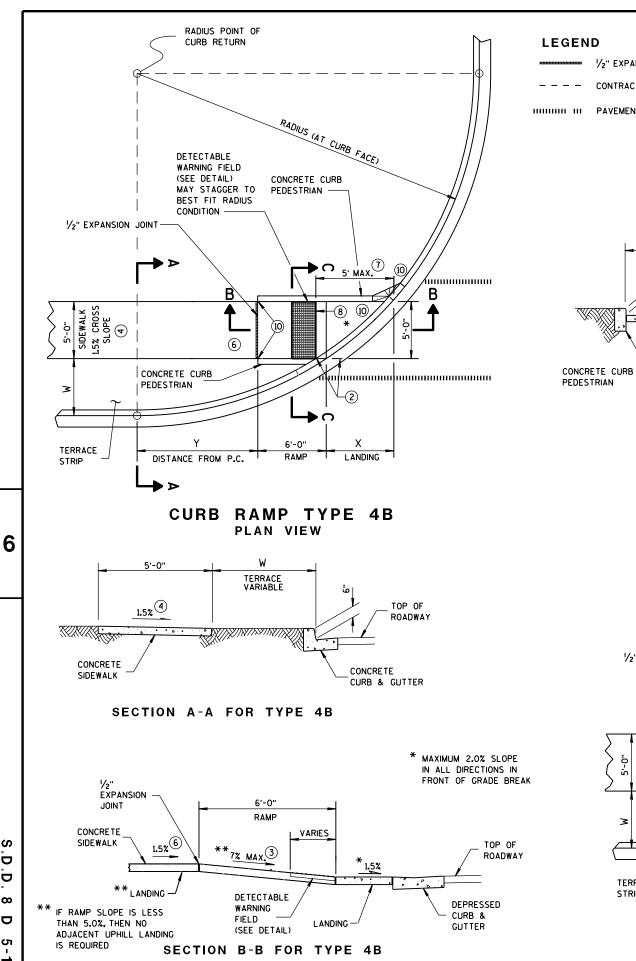












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W = 5' - 0" 7' - Ø" 3' - Ø" W = 4' - Ø" W = 6' - 0" RADIUS LEGEND AT CURB FACE ■ ½" EXPANSION JOINT-SIDEWALK 20 FEET 4'-81/2" 3'-7" 3'-11/2" 4'-61/2" 4'-1" 7'-23/4" 8'-31/2" 9'-21/2" 5'-51/2" 6'-0" CONTRACTION JOINT FIELD LOCATED 30 FEET 6'-51/2" 5'-91/4" 5'-21/2" 4'-8¾" 7'-31/4' 8'-11'/2" 10'-7" 12'-0" 13'-31/4" HIHHHH HI PAVEMENT MARKING CROSSWALK (WHITE) 40 FEET 8'-91/2" 9'-21/2" 11'-5'/4" 13'-41/2" 15'-3/4" 16'-71/4" 50 FEET 7'-61/2" 6'-11¾" 19'-6'/4" 11'-3/4" 15'-91/2"

10'-¾"

GENERAL NOTES

12'-8¾"

11'-2'/2"

60 FEET

TOP OF

ROADWAY

TERRACE STRIP

VARIES O TO W

CONCRETE

CURB & GUTTER

5'-0" RAMP

VARIES

0 TO 6"

1.5%

SECTION C-C FOR TYPE 4B

INTERMEDIATE RADII CAN BE INTERPOLATED

7'-101/2"

22'-11/2"

20'-1¾"

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

17'-113⁄4"

8'-5¾"

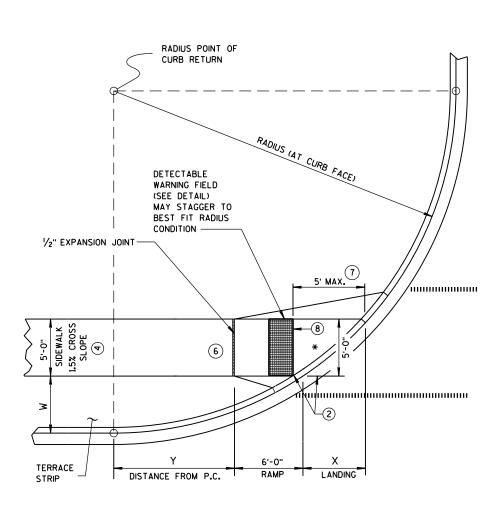
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

9'-21/4"

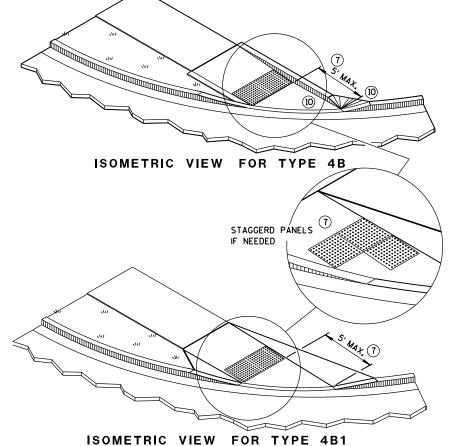
- (3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE, THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

15'-61/2"

- (7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
- (8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- (I) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1 PLAN VIEW

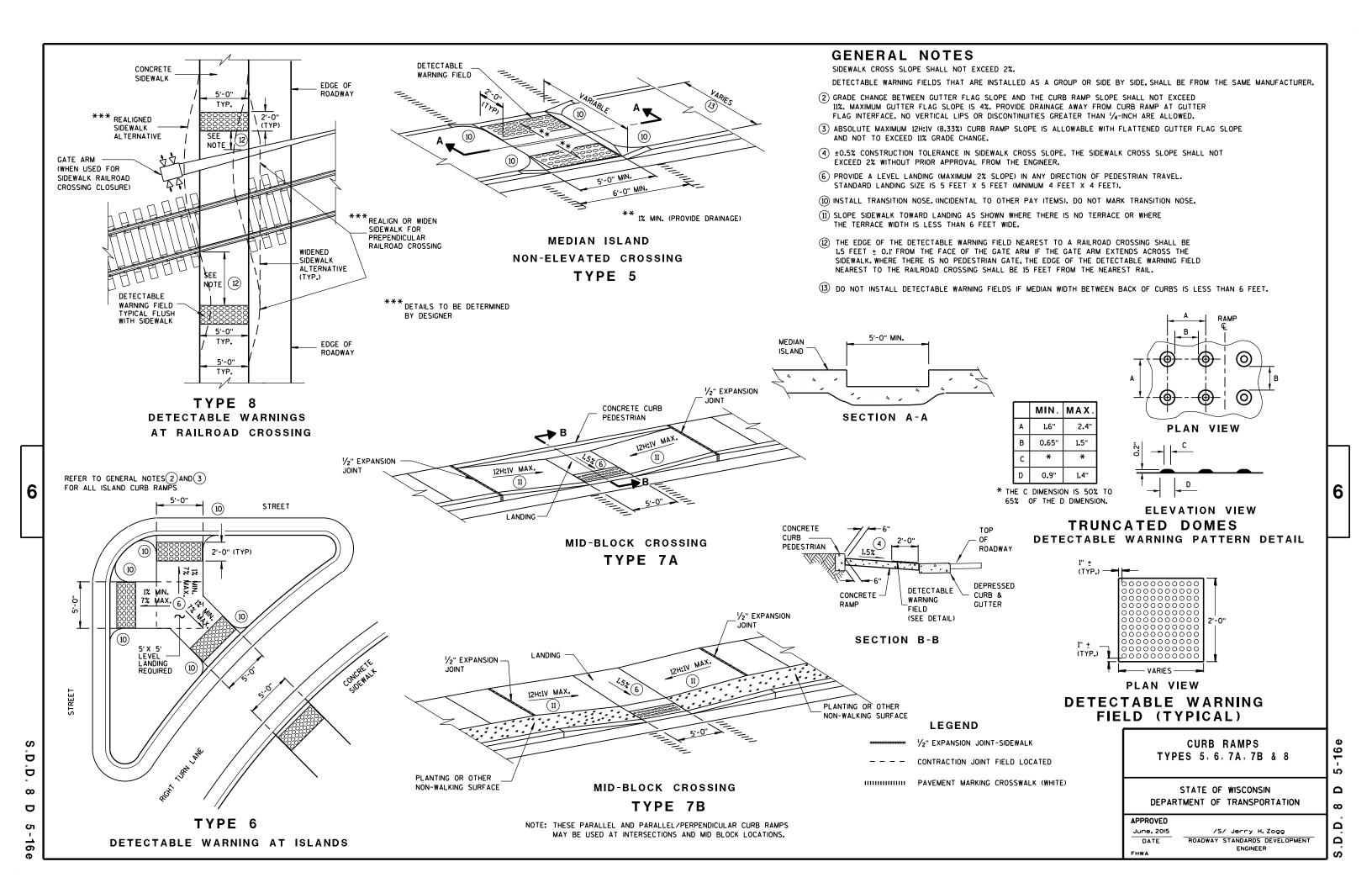


CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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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.

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



WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF **EROSION BALES / TEMPORARY** DITCH CHECKS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 /S/ Beth Connestro
CHIEF ROADWAY DEVELOPMENT ENGINEER

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TYPICAL APPLICATION OF SILT FENCE

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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.

- \bigcirc 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 11/8" X 11/8" 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 TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Cannestra

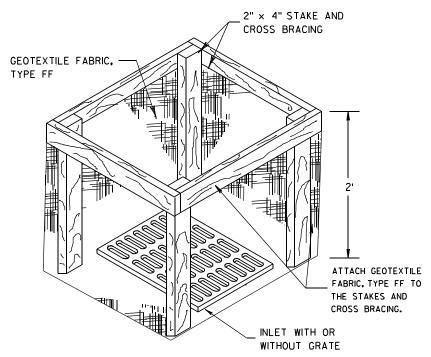
29-05 /S/ Beth Cannestra
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER

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INLET PROTECTION, TYPE A

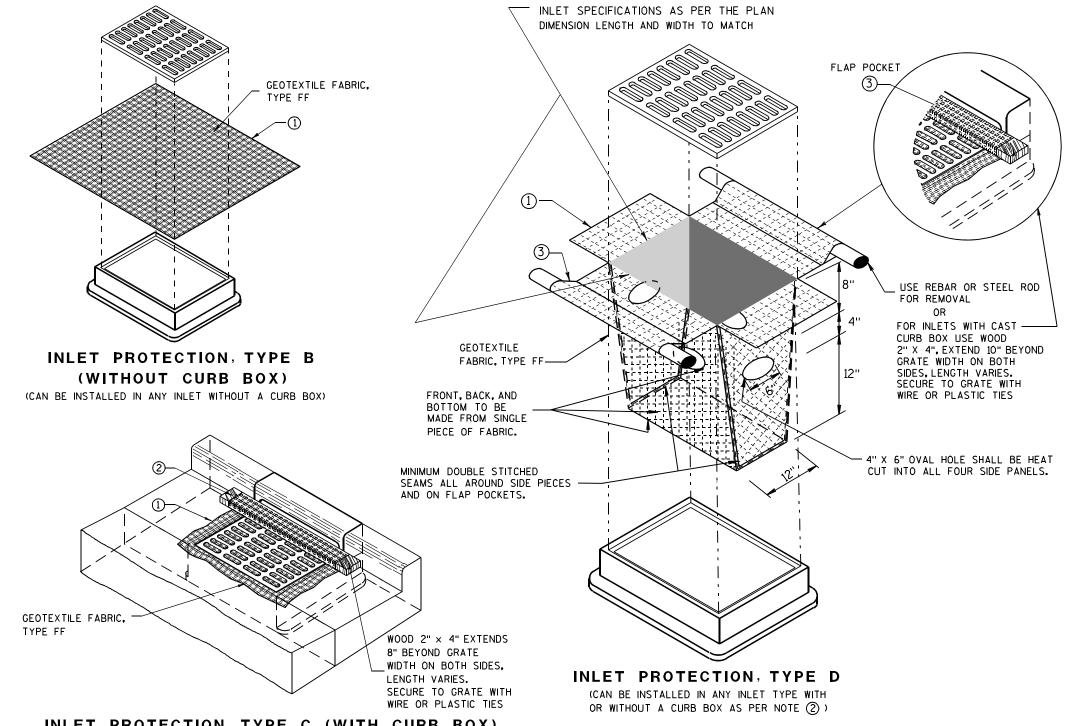
GENERAL NOTES

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

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.



INLET PROTECTION, TYPE C (WITH CURB BOX)

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

/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER 6

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			1	METAL	APR	ON EN	NDWAL	.LS			
PIPE	MIN. 1	THICK.			DIMEN:	SIONS (I	nches)			APPROX.	
DIA.	(Incl		A	В	Н	L	Γį	L ₂	W	SLOPE	BODY
(IN.)	STEEL	ALUM.	(±1")	(MAX.)	(±1")	(±1 ½")	①	0	(±2")	320.2	
12	.064	.060	6	6	6	21	12	171/2	24	2½+o 1	1Pc.
15	.064	.060	7	8	6	26	14	213/4	30	2½to 1	1Pc.
18	.064	.060	8	10	6	31	15	281/4	36	21/2+o 1	1Pc.
21	.064	.060	9	12	6	36	18	295/8	42	21/2+o 1	1Pc.
24	.064	.075	10	13	6	41	18	371/4	48	21/2+o 1	1Pc.
30	.079	.075	12	16	8	51	18	521/4	60	21/2+0 1	1Pc.
36	.079	. 105	14	19	9	60	24	59¾	72	21/2+o 1	2 Pc.
42	.109	.105	16	22	11	69	24	75%	84	21/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 ¹ / ₄ +o 1	3 Pc.
54	.109	.105	18	30	12	84	30	851/2	102	2 ¹ / ₄ †o 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	11/2+0 1	3 Pc.
84	.109×	.105×	18	45	12	87	_	_	138	11/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	_	_	144	11/2+0 1	3 Pc.
96	.109×	.105×	18	35	12	87	_	_	150	1/2+0 1	3 Pc.

	RE	REINFORCED CONCRETE APRON ENDWALLS						
PIPE		DIMENSIONS (Inches)						
DIA.	T	A	В	С	D	Ε	G	APPROX. SLOPE
12	2	4	24	48 1/8	721/8	24	2	3 to 1
15	21/4	6	27	46	73	30	21/4	3 to 1
18	21/2	9	27	46	73	36	21/2	3 to 1
21	23/4	9	36	371/2	731/2	42	23/4	3 to 1
24	3	91/2	431/2	30	731/2	48	3	3 to 1
27	31/4	101/2	491/2	24	731/2	54	31/4	3 to 1
30	$3\frac{1}{2}$	12	54	193/4	731/2	60	31/2	3 to 1
36	4	15	63	34¾	97¾	72	4	3 to 1
42	$4\frac{1}{2}$	21	63	35	98	78	41/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	51/2		65	**************************************	8 ¹ / ₄ - 100	90	51/2	2% to 1
60	6	* ** 30-35	60	39	99	96	5	2 to 1
66	61/2	* ** 24-30	* * * 72-78	* * * 21-27	99	102	51/2	2 to 1
72	7	* ** 24-36	78	21	99	108	6	2 to 1
78	71/2	* ** 24-36	78	21	99	114	61/2	2 to 1
84	8	36	901/2	21	1111/2	120	61/2	1½+o 1
90	81/2	41	871/2	24	1111/2	132	61/2	11/2+0 1

THREADED %6" DIA. ROD CONNECTOR AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL) MEASURED LENGTH OF CULVERT TYPE 1 FOR 12" THRU 24" CORR. PIPE







NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL.

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

DIMPLED BAND MAY BE USED WITH HELICALLY

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.

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT ALTERNATE FOR TYPE 1 CONNECTION END SECTION CONNECTOR STRAP

* EXCEPT CENTER PANEL SEE GENERAL NOTES





SHOULDER

SLOPE



SIDE ELEVATION METAL ENDWALLS



**MAXIMUM





CONCRETE ENDWALLS

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

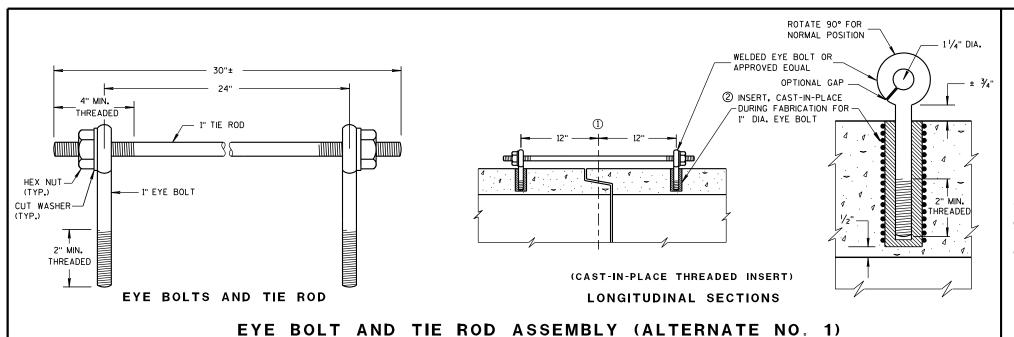
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES. THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES.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



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



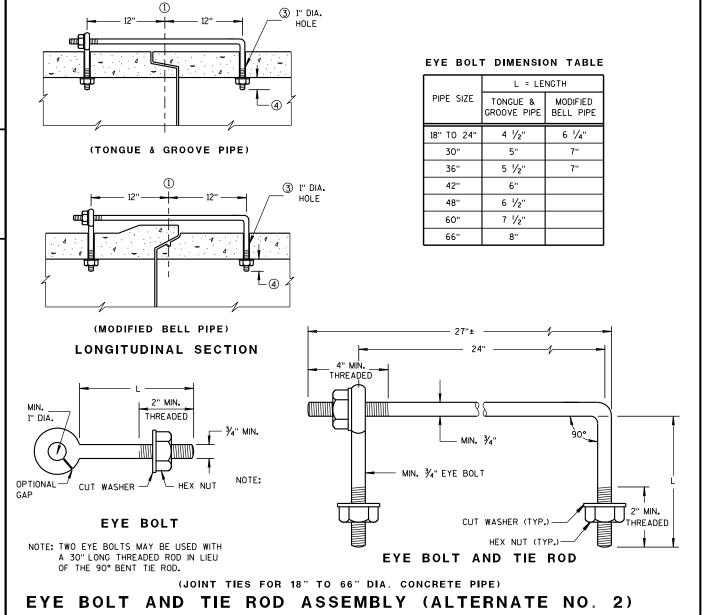
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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) & OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE
- ${\mathfrak S}$ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ${\mathfrak L}$ OF TONGUE AND GROOVE.
- 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 $rac{1}{2}$ INCH OF THE INNER SURFACE OF THE PIPE.

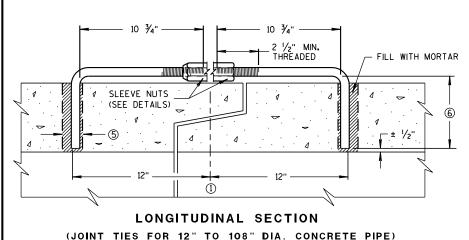


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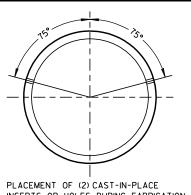
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ADJUSTABLE TIE ROD TABLE 5/8 5 12-60 3/4 5 1/2 3/4 90-108 DIMENSIONS SHOWN ARE IN INCHES **TAPERED** PLAIN RIGHT AND LEFT THREADS **SLEEVE NUTS**

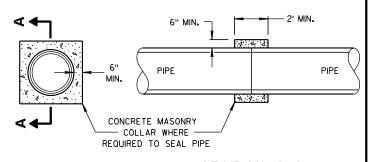


ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

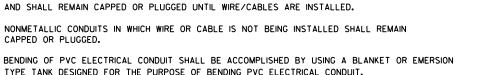
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6/5/2012

/S/ Jerry H. Zogg DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

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TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM

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

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES

SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REIN-STALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY

GENERAL NOTES

AND 36 INCHES MAXIMUM.

OF THE ENGINEER.

CAPPED OR PLUGGED.

MINIMUM AND 36 INCHES MAXIMUM.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

BOTTOM OF ¼" HOLE PVC CONDUIT-CONDUIT TRENCH FOR DRAINAGE NO. 2 COARSE AGGREGATE FILL —1'-0" DIA. OR SQUARE —>

NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

BOTTOM OF

CONDUIT TRENCH

NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT

1'-0" DIA. OR SQUARE ──➤

METALLIC CONDUIT-

1" DIA. X 6"

NIPPLE

NO. 2 COARSE

AGGREGATE FILL

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4" TO 3/8"

DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER

PLAN VIEW

ARROW MARK

CONDUIT

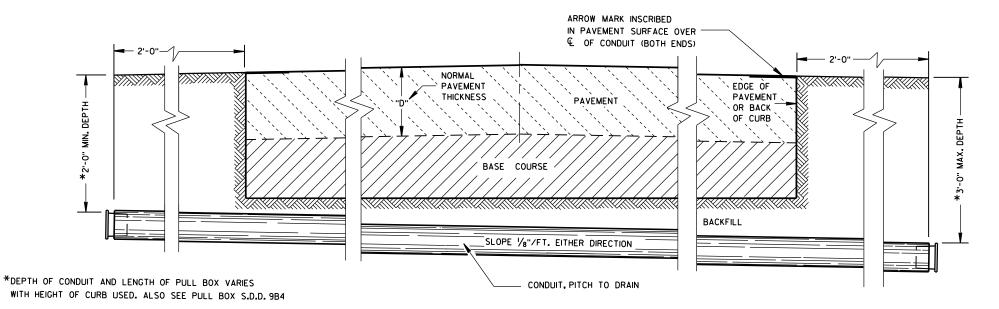
THE PAVEMENT

EDGE OF

PAVEMENT OR BACK

OF CURB

DRAIN SUMP FOR PVC CONDUIT



SIDE ELEVATION DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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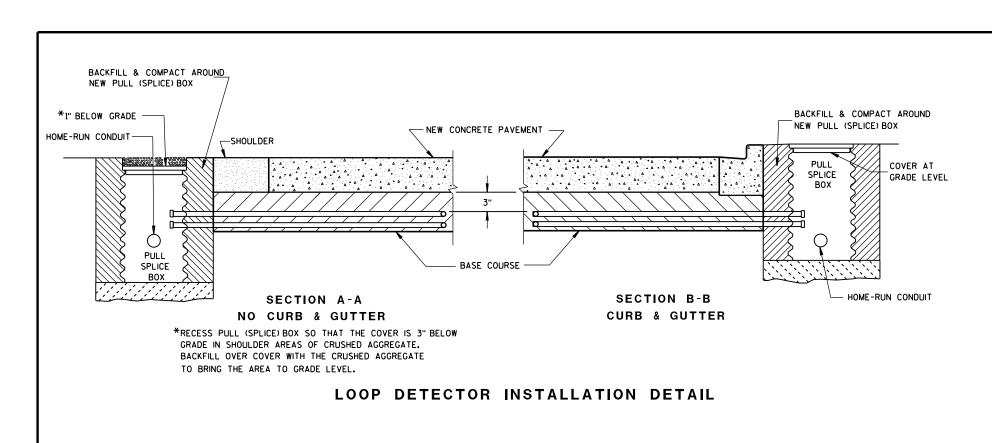
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APPROVED /S/ Ahmet Demirbilek June. 2015 DATE STATE ELECTRICAL ENGINEER

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT *12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE *12 AWG.LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE *12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

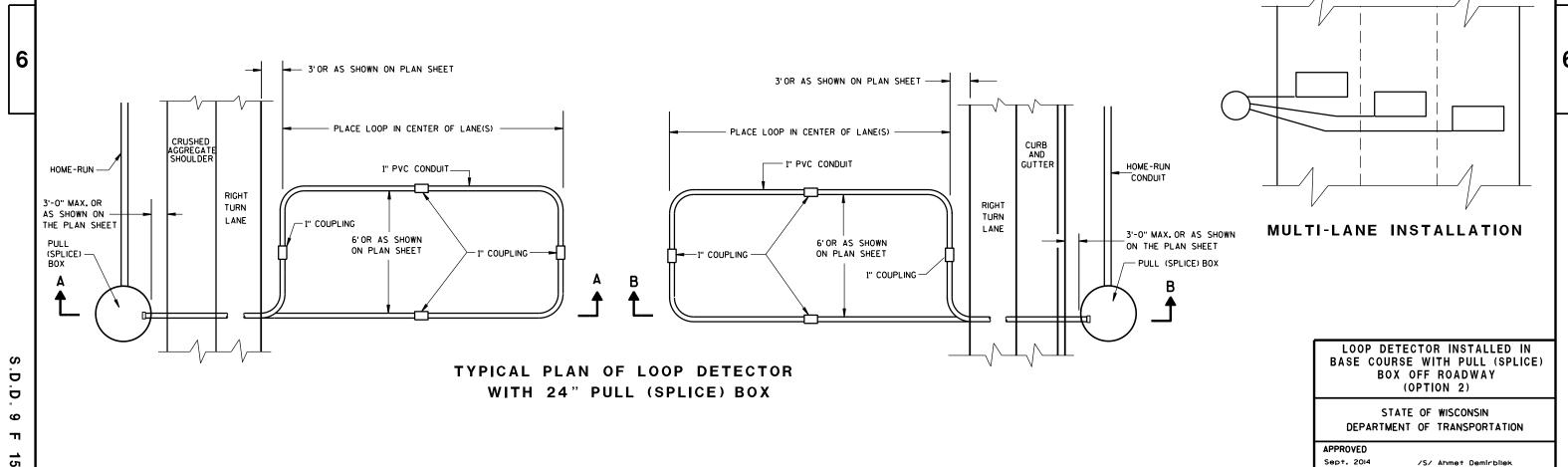
PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

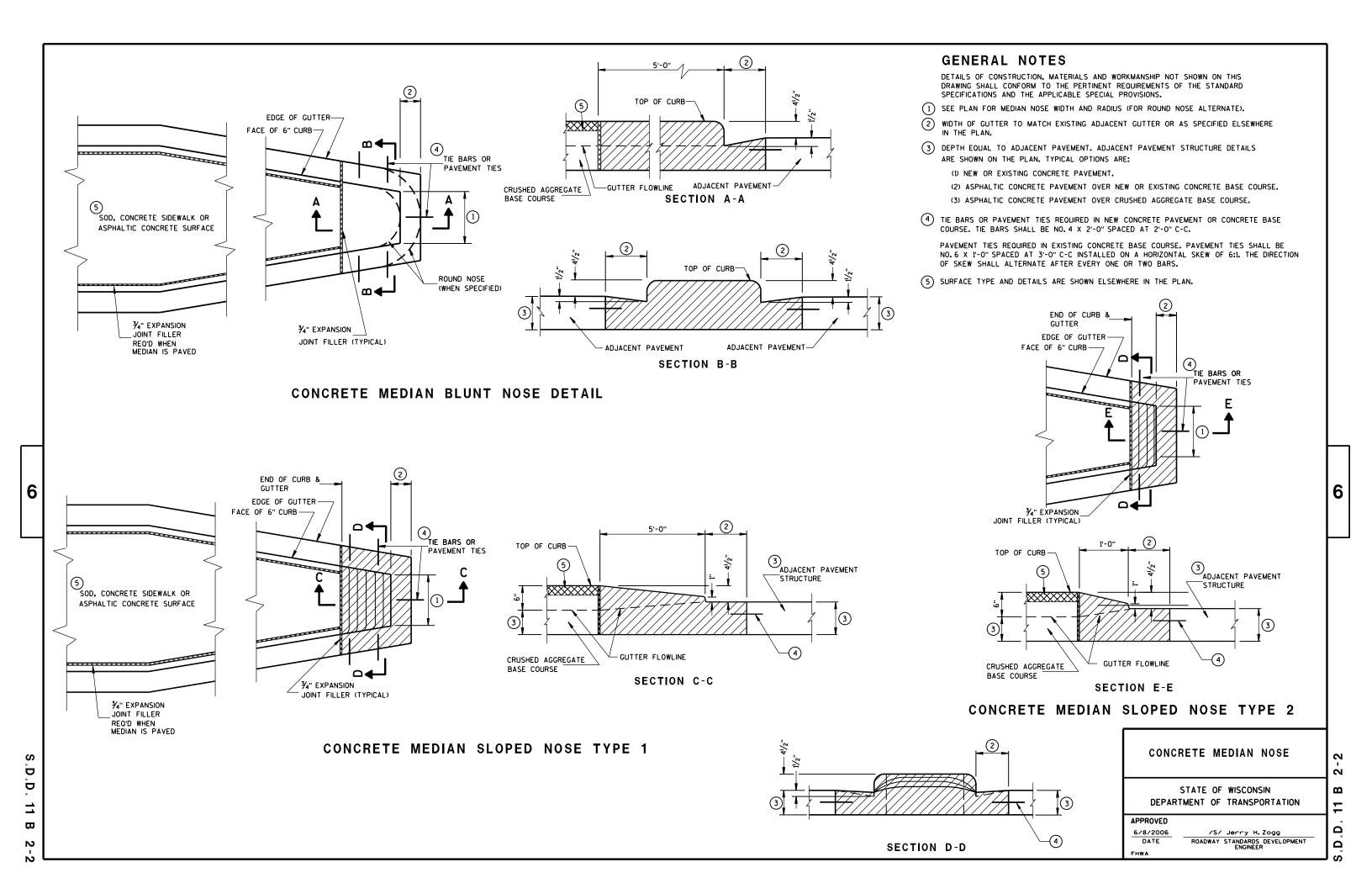
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FHWA

STATE ELECTRICAL ENGINEER



S.D.D. 9 F 15-4b







TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

GENERAL NOTES

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

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

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



SPREAD OPEN SO THE TOP OF LUG IS 11/4" WIDE

SECTION A-A

ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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3/26/IO /S/ SCOT BECKET

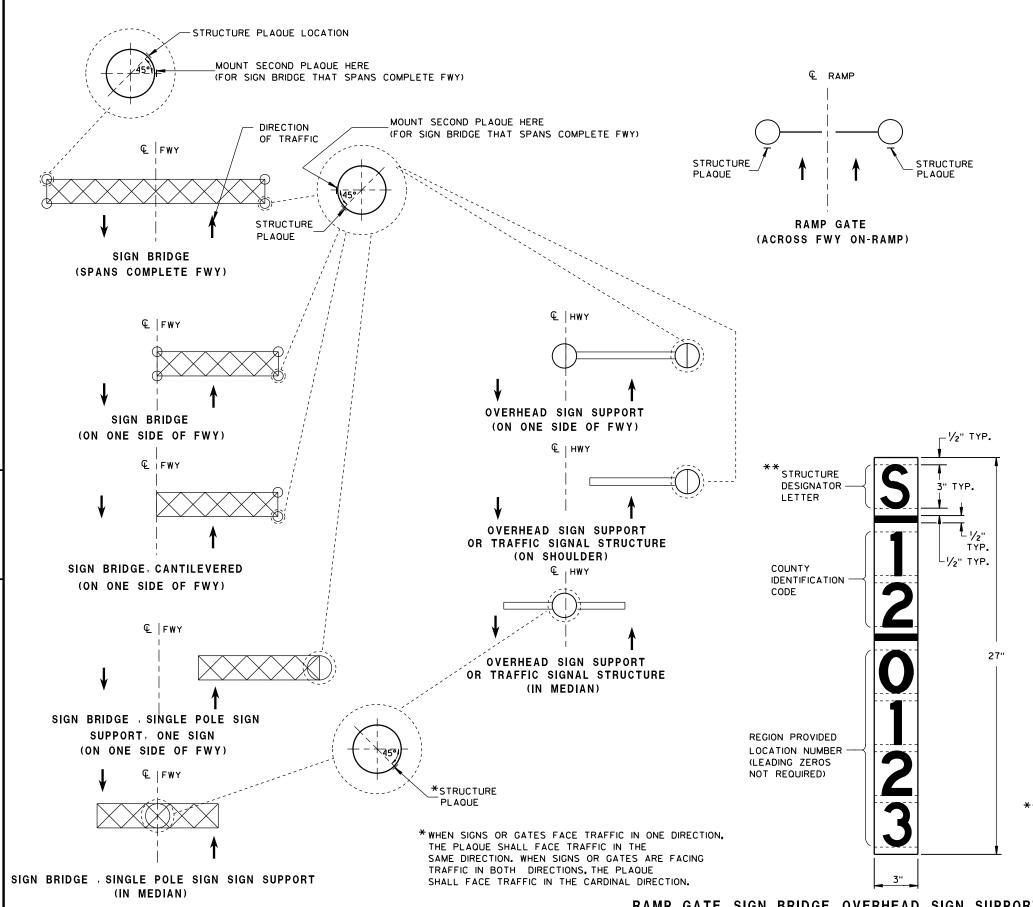
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

D.D. 12 A

3-10



3.D.D. 12 A 4-3



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12

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LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD

SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES

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.

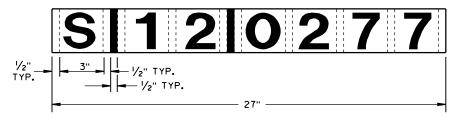
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, 1/2" 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.

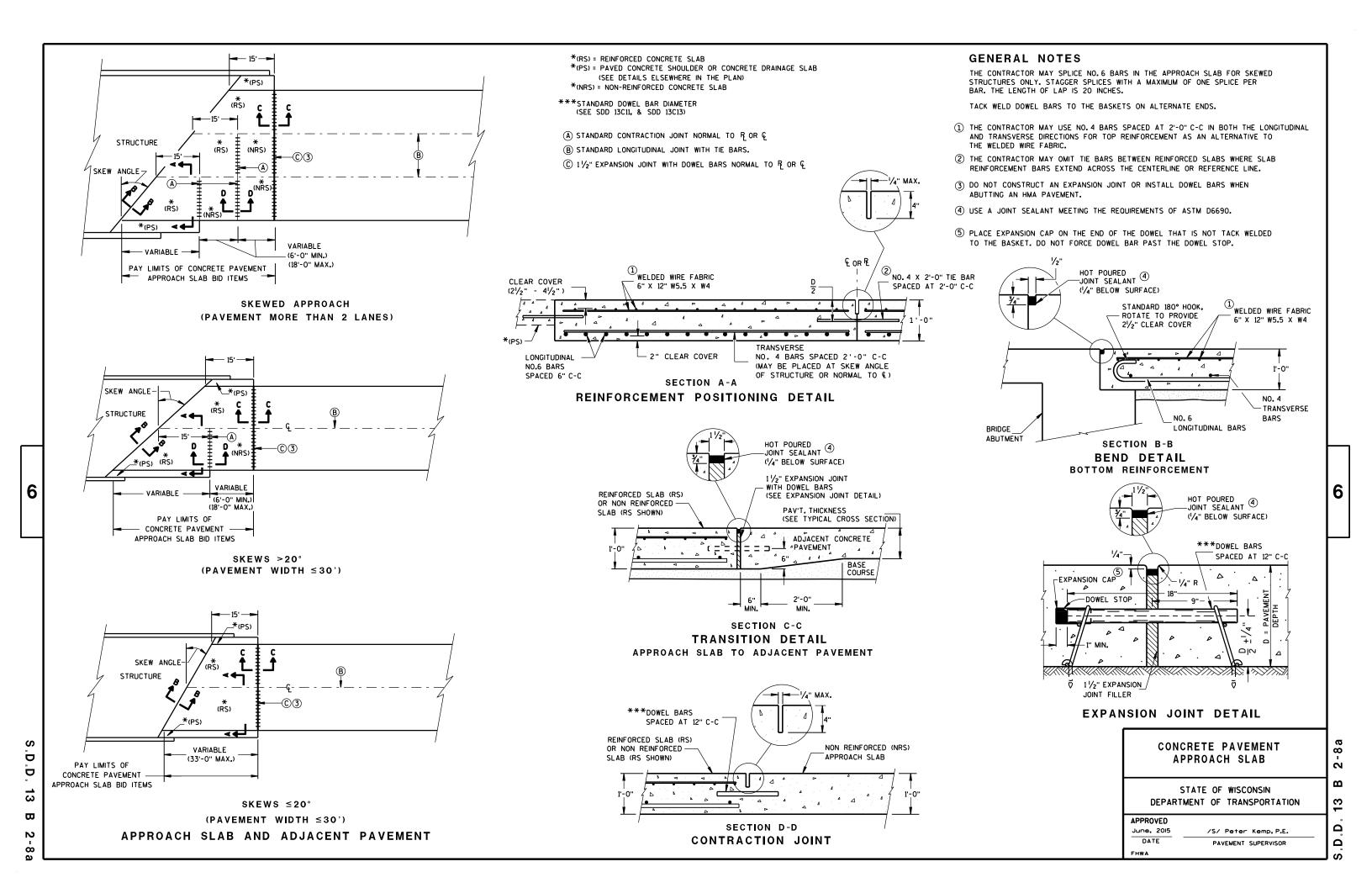
STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

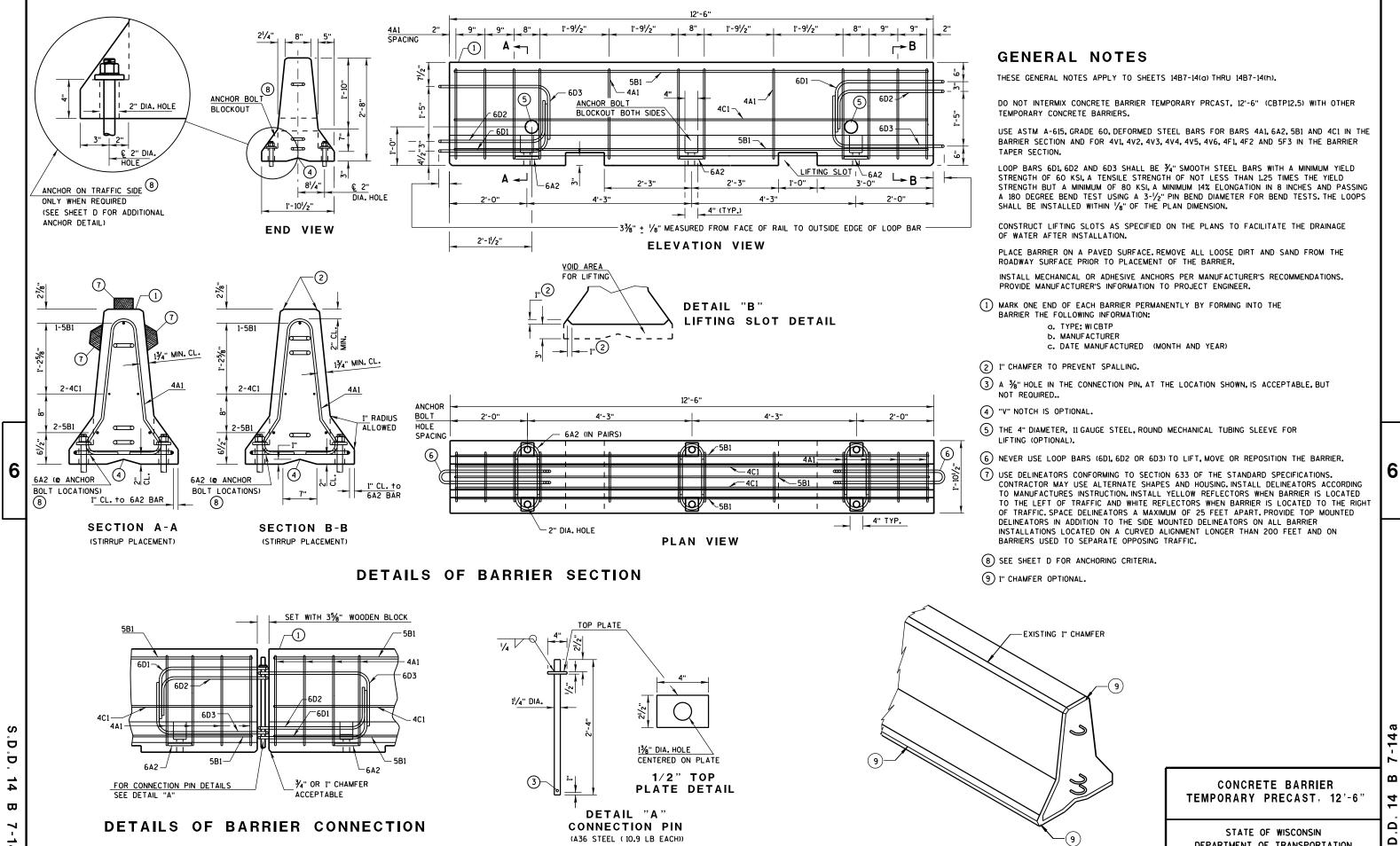
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

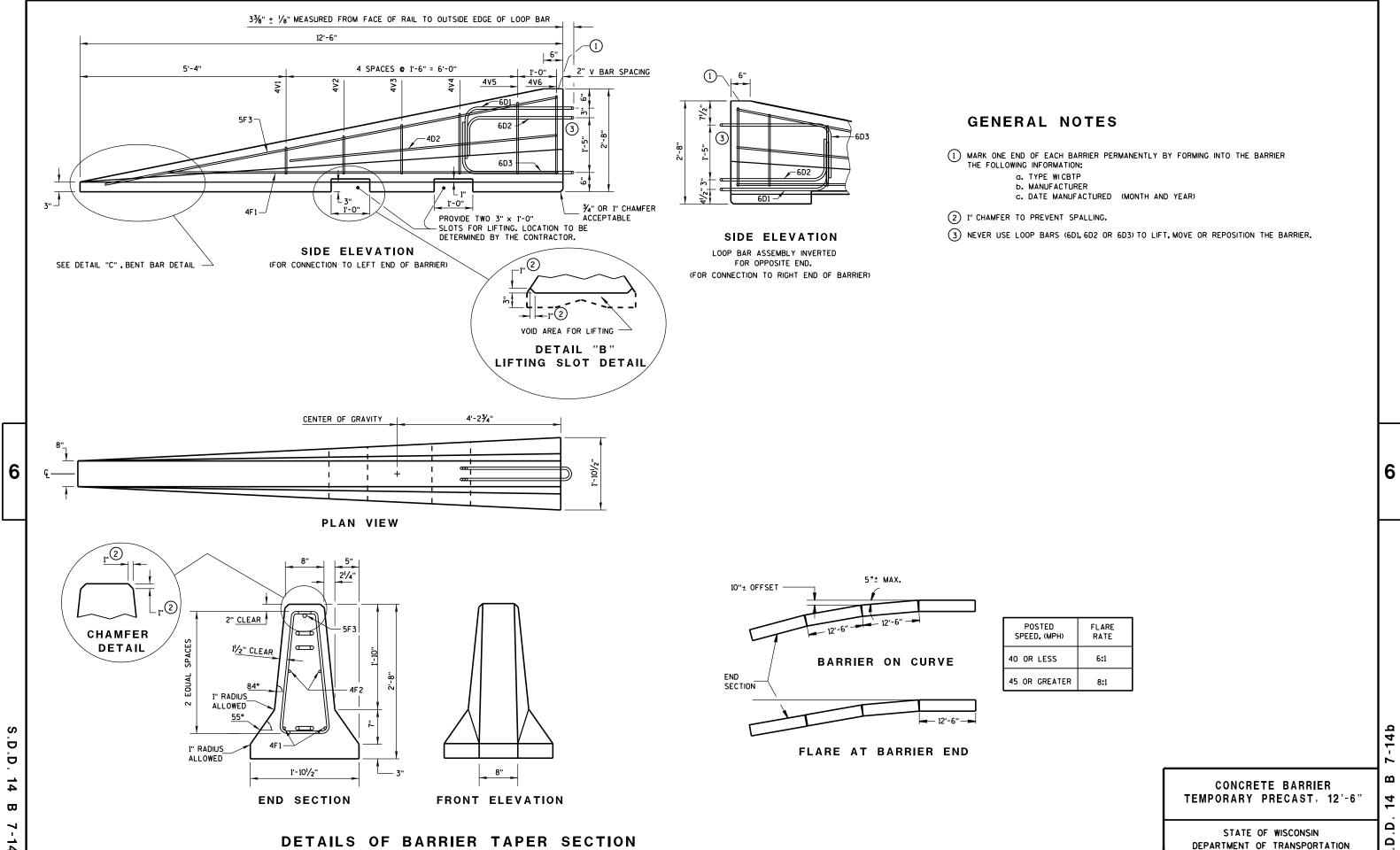
DATE STATE TRAFFIC ENGINEER OF DESIGN

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





DEPARTMENT OF TRANSPORTATION



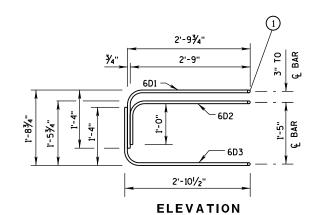
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1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

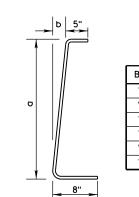
BARRIER TAPER SECTION BILL OF MATERIALS

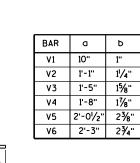
(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.		
4V1	4	2	1'-11"		
4V2	4	2	2'-2"		
4٧3	4	2	2'-6"		
4V4	4	2	2'-9"		
4V5	4	2	3'-2"		
4V6	4	2	3'-4"		
4F1	4	2	12'-0"		
4F2	4	2	7'-6"		
5F3	5	1	11'-9"		
LOOP ASSEMBLY					
6D1	6	1	8'-5"		
6D2	6	1	7'-7"		
6D3	6	1	8'-6"		
		•	•		



LOOP BAR ASSEMBLY





DETAIL "C" BENT BAR DETAIL

2" MIN. CLEAR

2" MIN. CLEAR

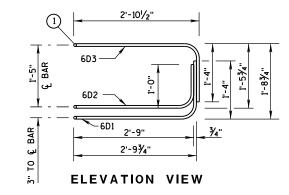
4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

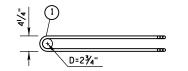
TAPER BARRIER SECTION

BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

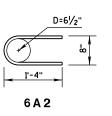
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
L	OOP AS	SSEMBL	Υ
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

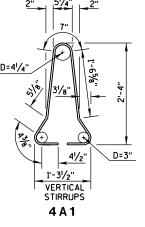




PLAN VIEW Loop bar assembly

(MARKED END SHOWN, INVERT FOR OTHER END)



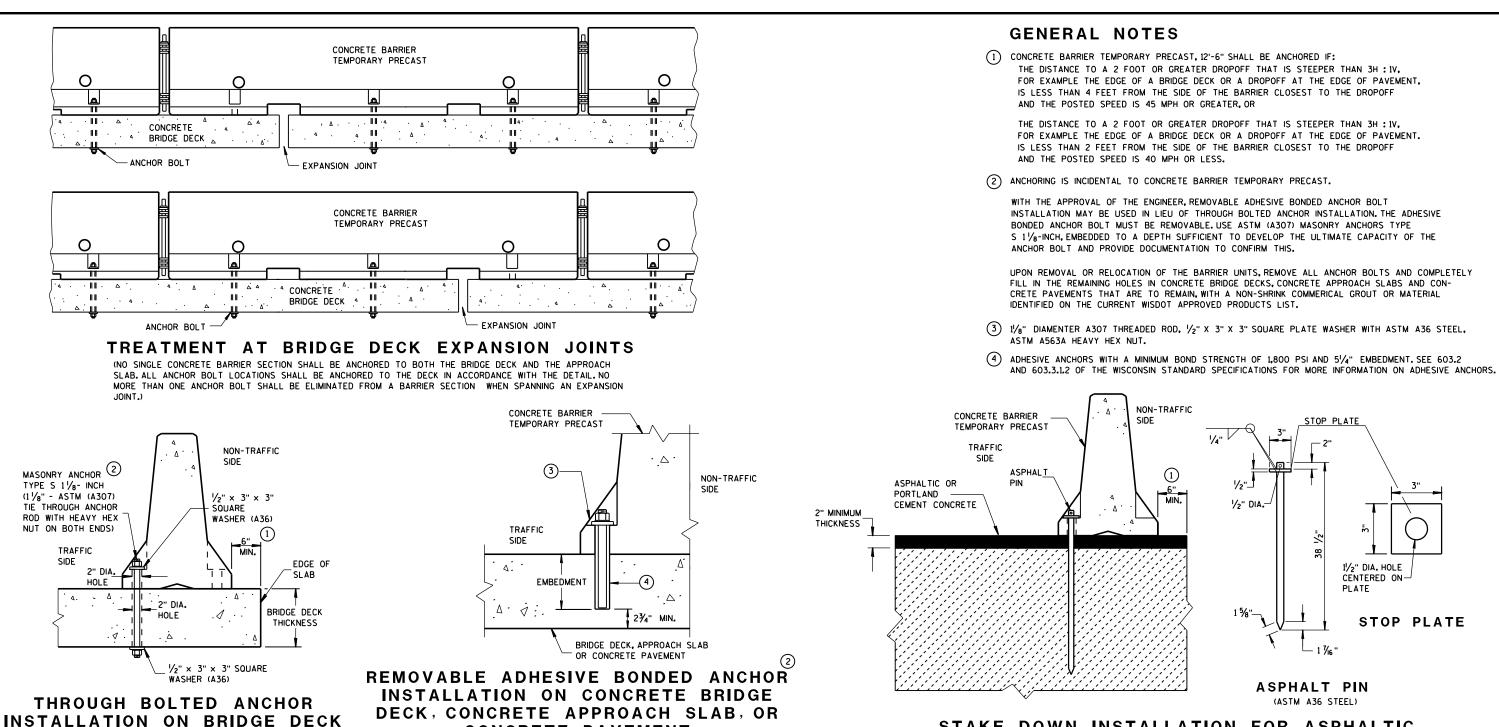


BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

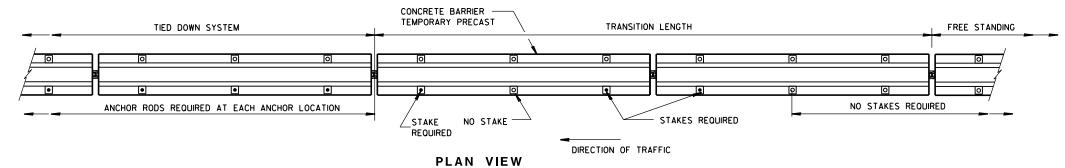
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY, IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN,)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

11/2" DIA. HOLE

CENTERED ON-

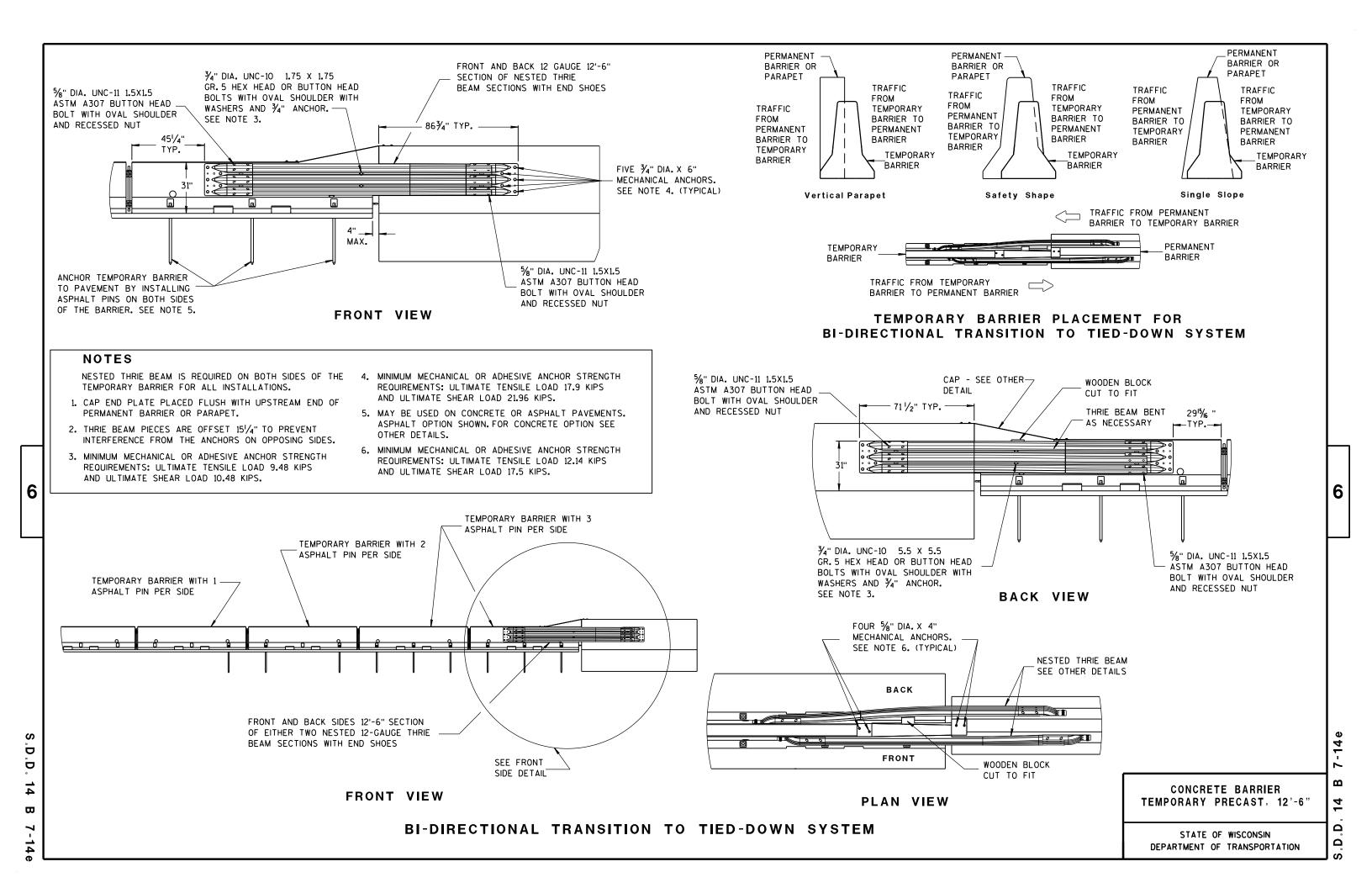
STOP PLATE

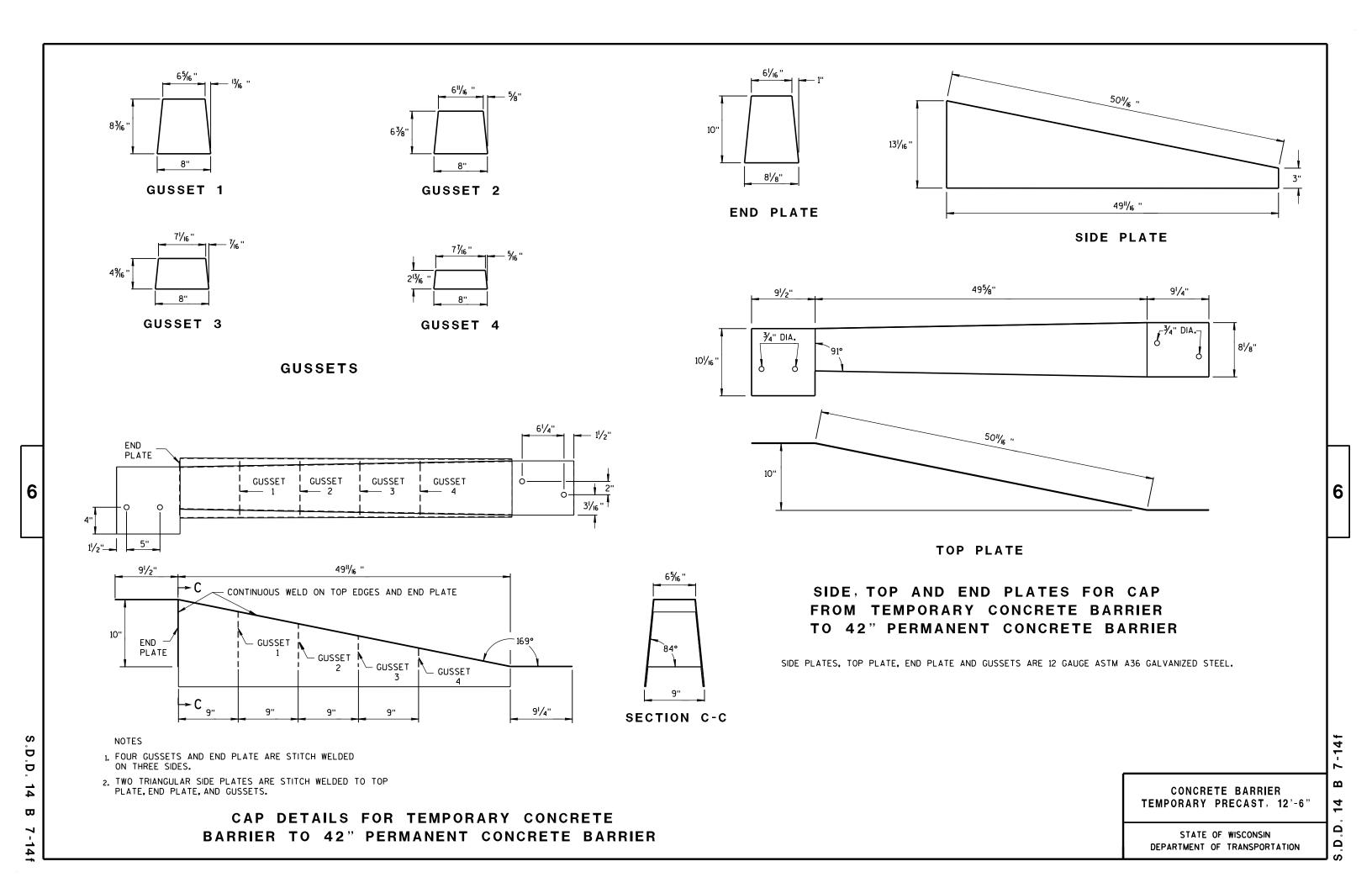
PLATE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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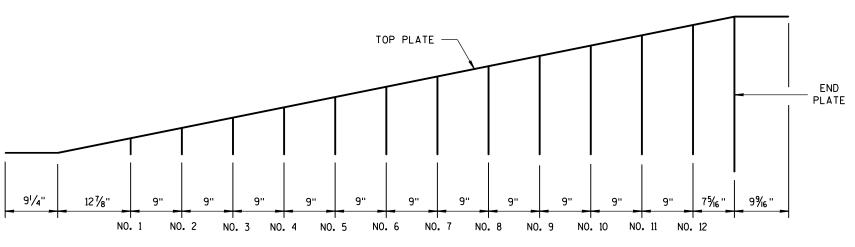
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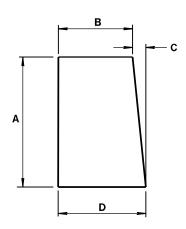
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GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER



GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GU	SSET	DIMEN	ISIONS	6
GUSSET No.	A	В	С	D
1	21/8"	73/4"	1/4"	8
2	4"/16 "	7% "	1/2"	8
3	61/2"	73/8"	11/16 "	8½6"
4	85%"	73/16"	⅓ "	81/16"
5	101/8"	7"	1 1/16 "	81/16"
6	11 ¹⁵ / ₁₆ ''	6 ¹³ // ₆ "	1 1/4"	81/16"
7	13¾"	65/8"	1 1/6"	81/16 "
8	15% "	6 ½ "	1 % "	81/16"
9	173/8"	61/4"	1 13/16 ''	81/16"
10	193/6"	6½ ₆ "	1 15/16 "	81/16 "
11	21"	5 1/8"	23/6"	8½ ₆ "
12	22 ¹³ / ₁₆ "	5 ¹¹ / ₁₆ "	25/6"	8½ ₆ "

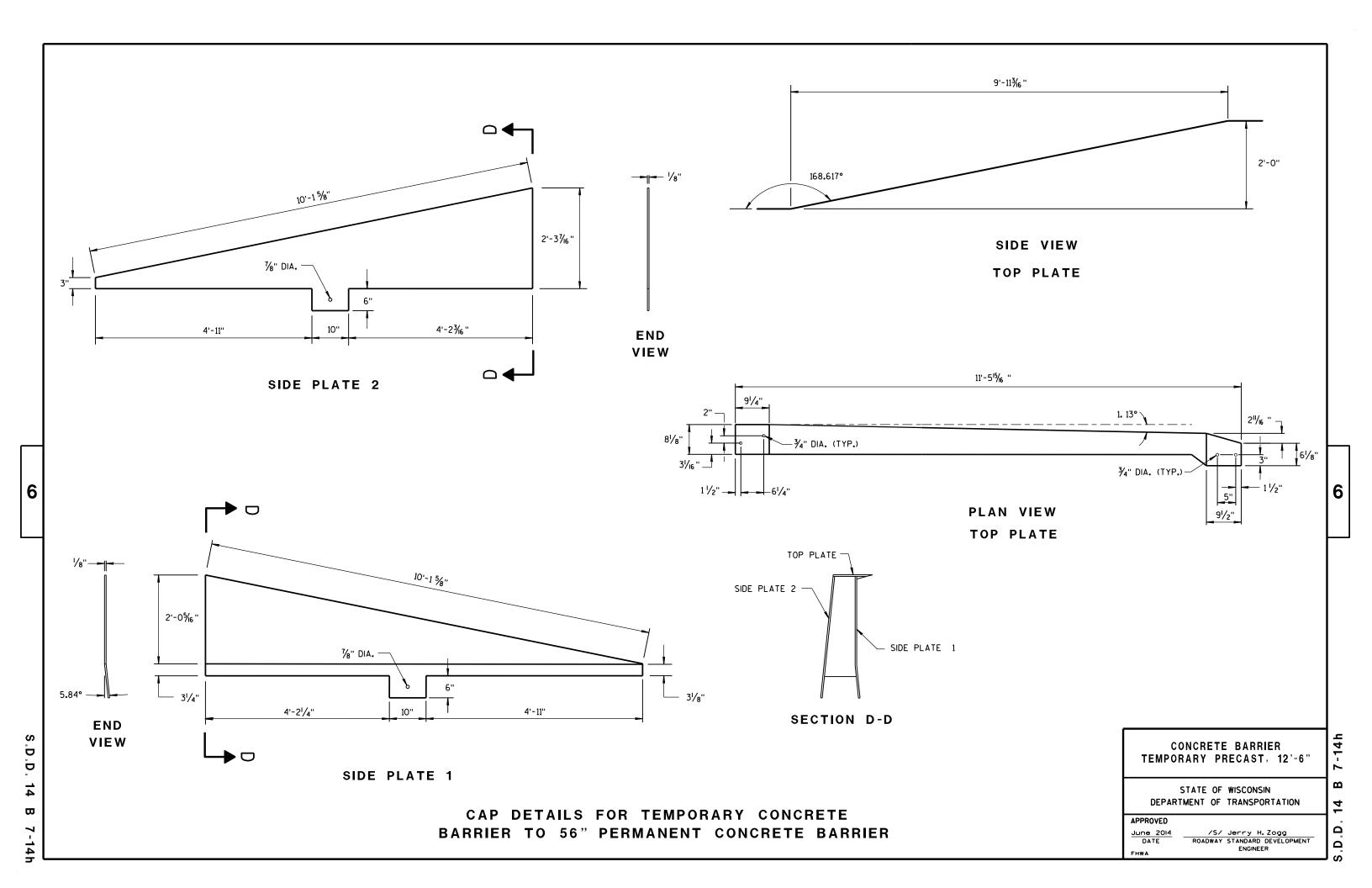
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

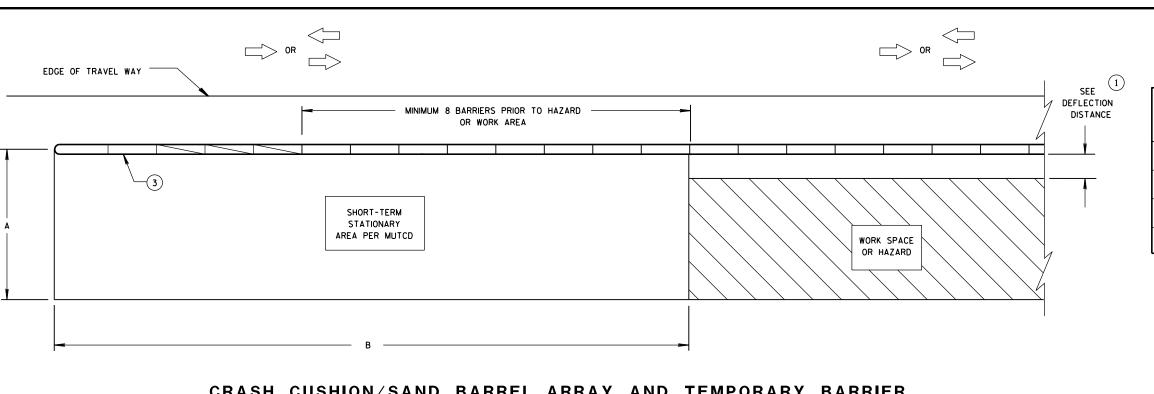
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.

> CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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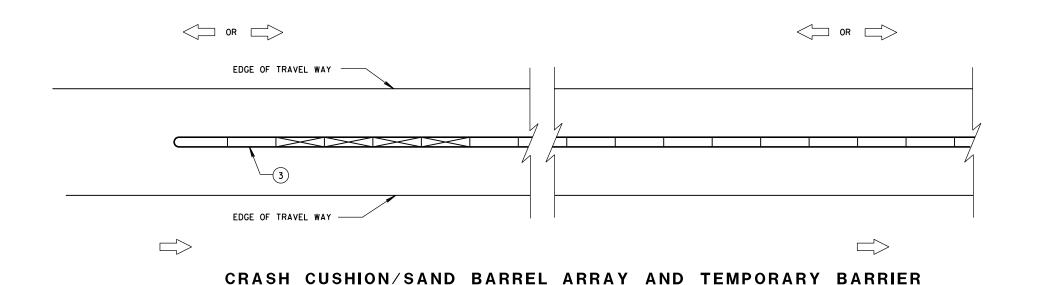
DIMENSION A TABLE (2)

		DIMENS	SION A
FACILITY	POSTED SPEED MPH	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	DIMENSION
SPEEDS	В
MPH	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 ONE SIDE OF BARRIER



INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

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

OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

LEGEND

PERMANENT CONCRETE BARRIER

GENERAL NOTES

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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.

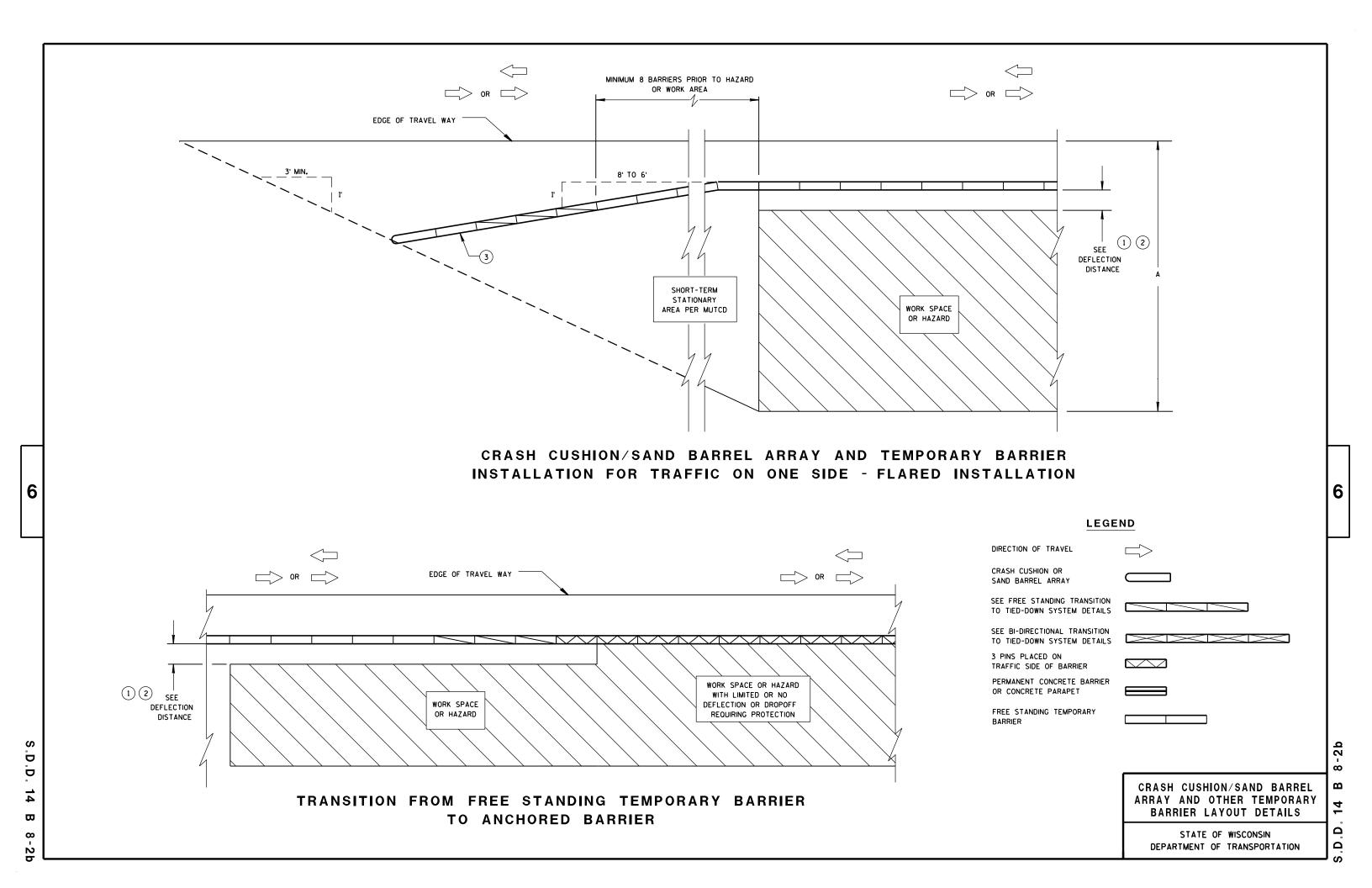
- (1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- (2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- (3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

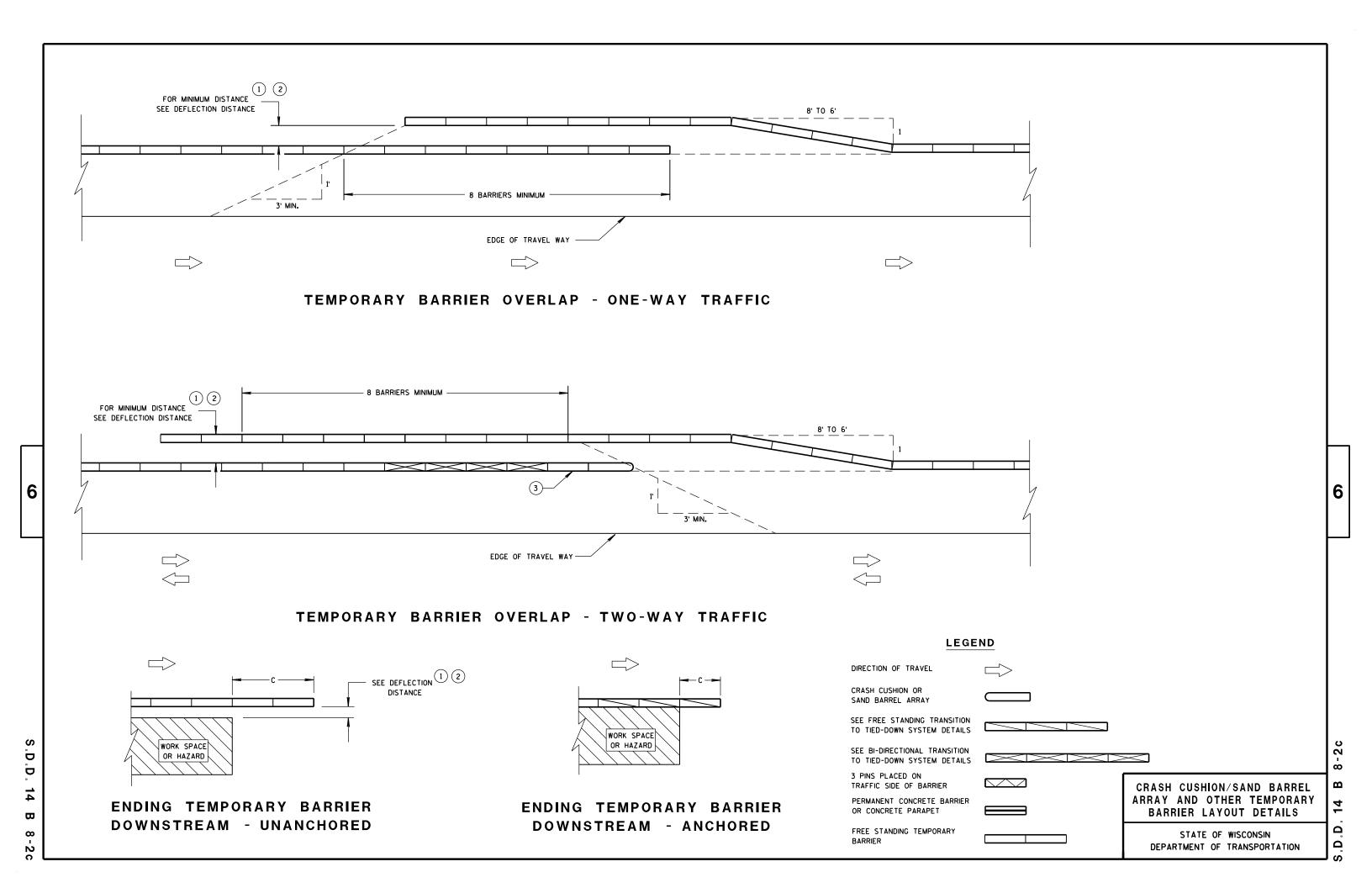
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

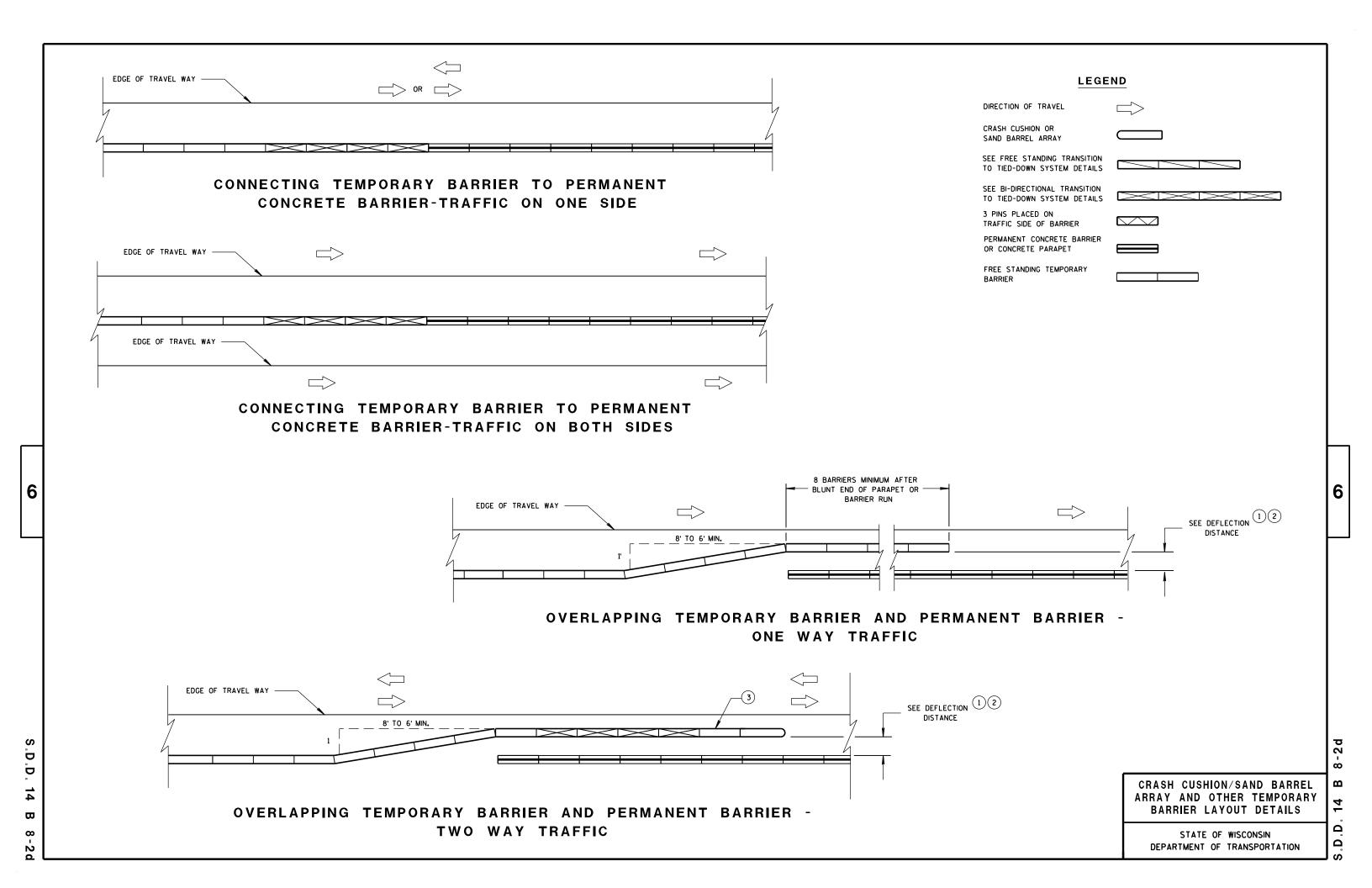
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 6

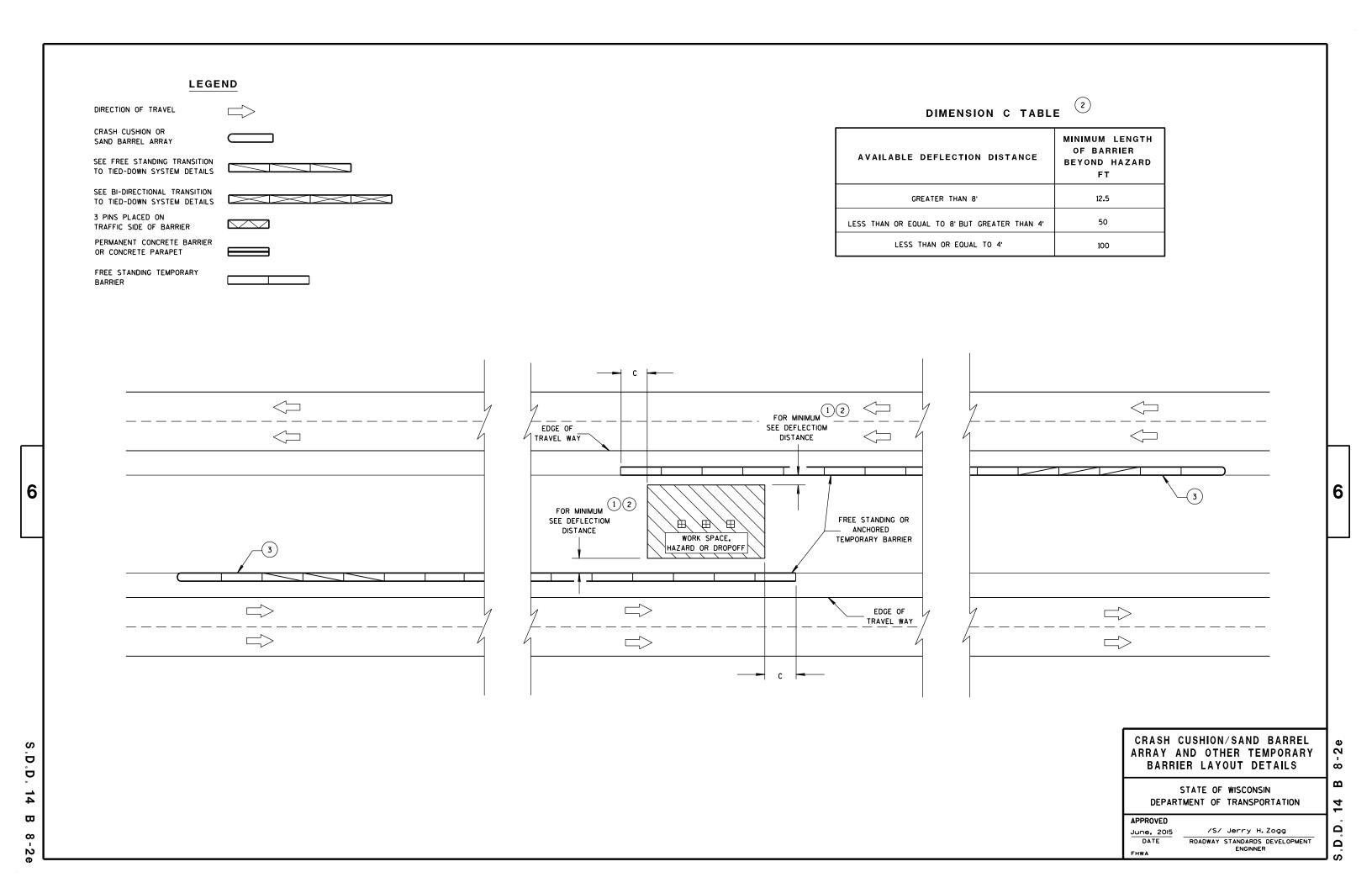
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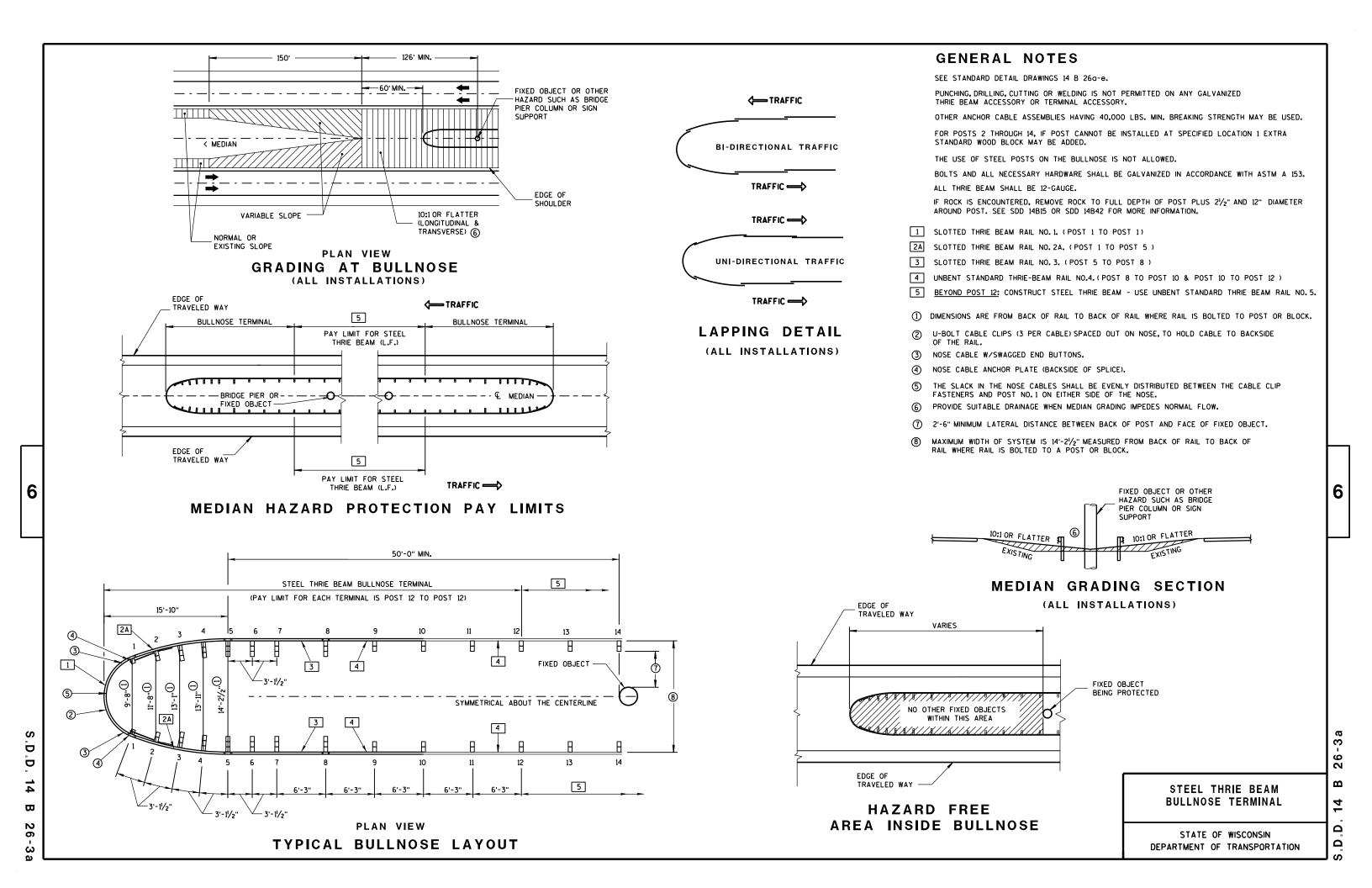
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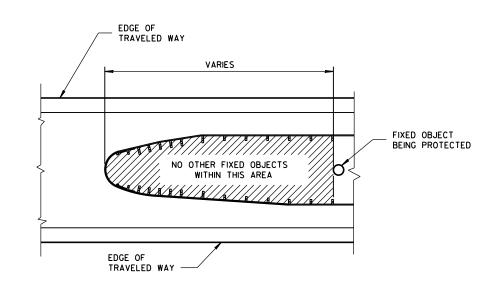










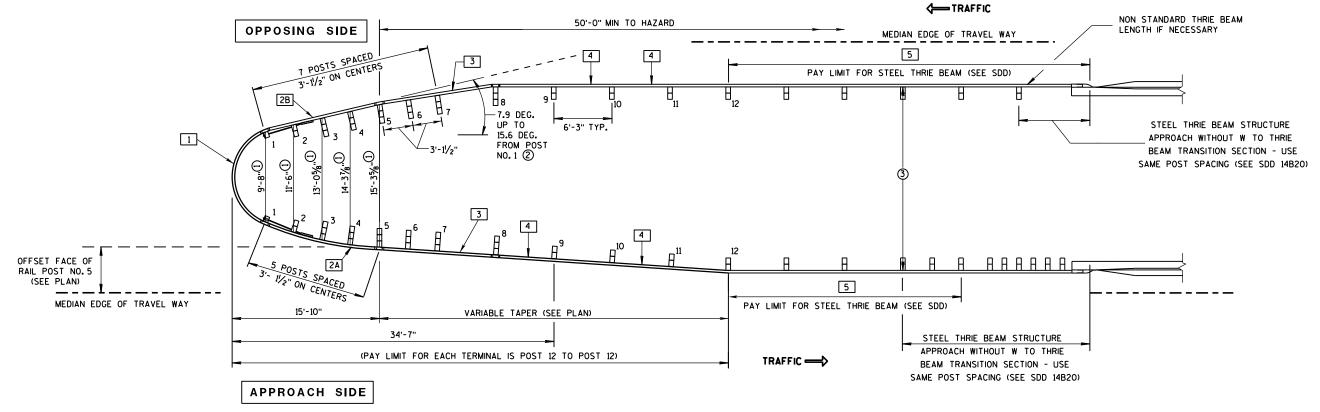


HAZARD FREE AREA INSIDE BULLNOSE

SEE STANDARD DETAIL DRAWINGS 14 B 26d-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

- 1 SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)
- 2A SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)
- 2B SLOTTED THRIE BEAM RAIL NO. 2B. (POST 1 TO POST 5)
- 3 SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)
- 4 UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)
- BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- ① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.
- TAPER BEGINNING AT POST NO.1 MUST CONTINUE TO POST NO.5. PAST POST NO.5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)
- FOR MEDIANS WIDER THAN 14'-21/2" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 26-3

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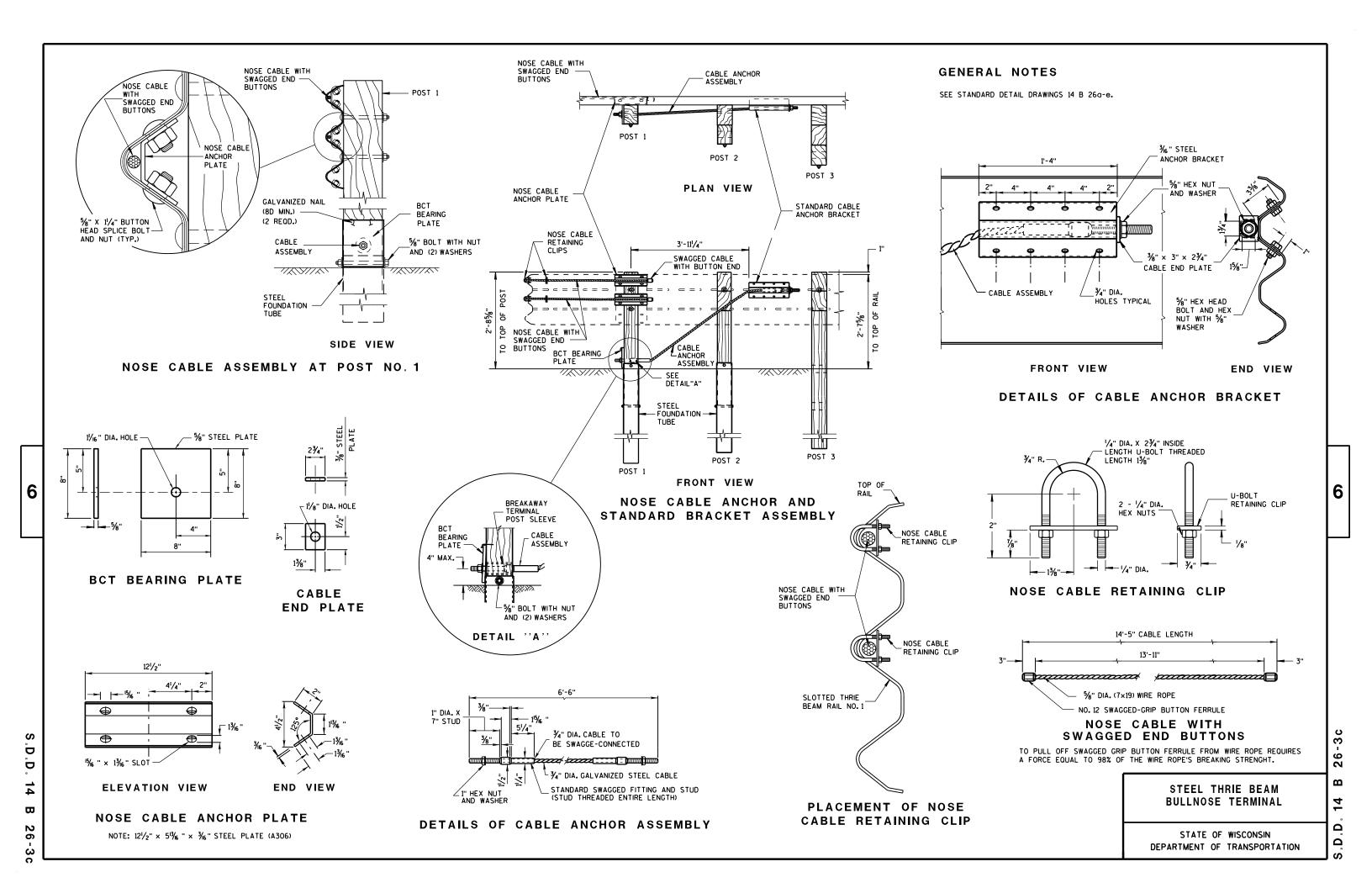
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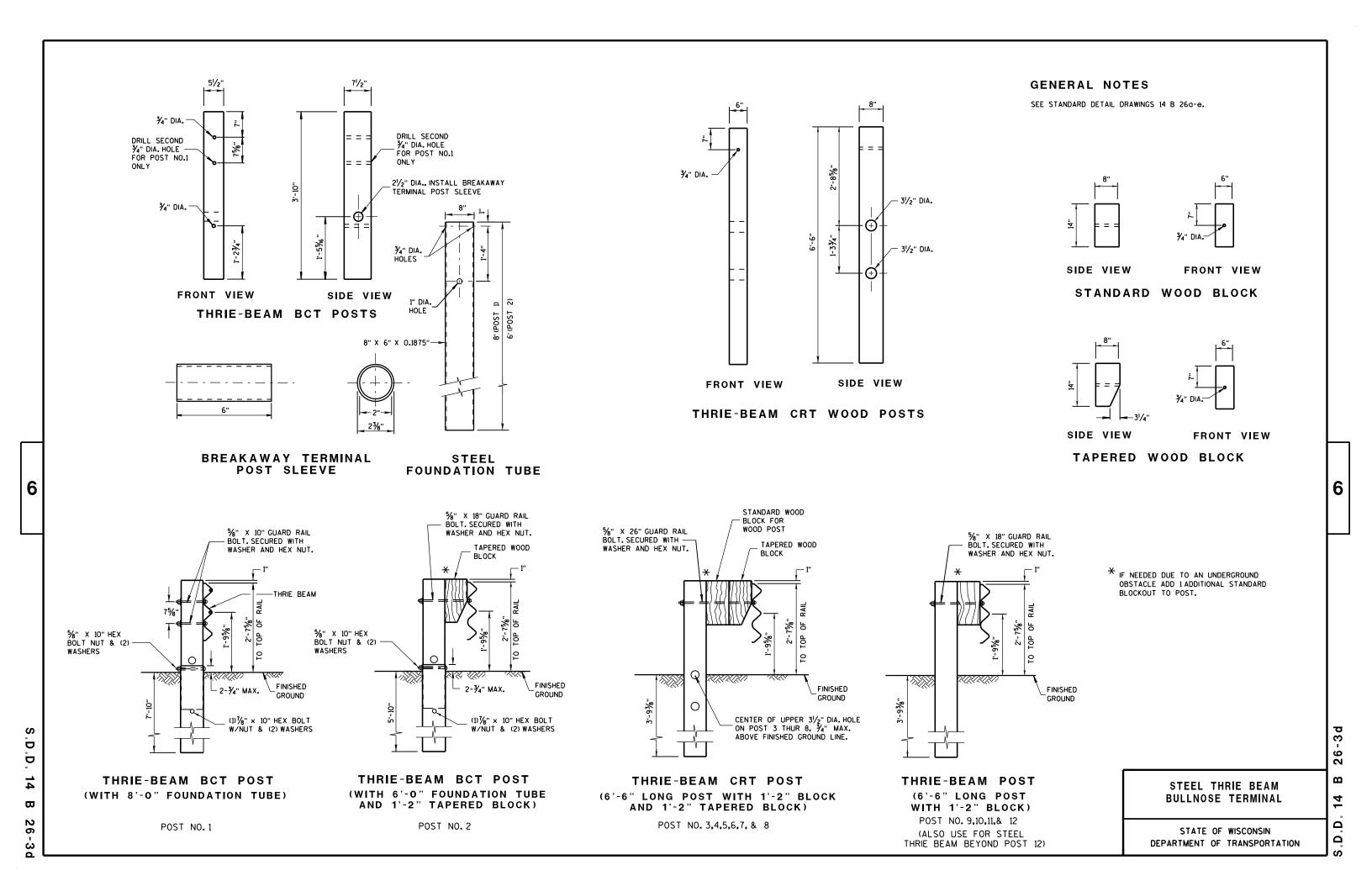
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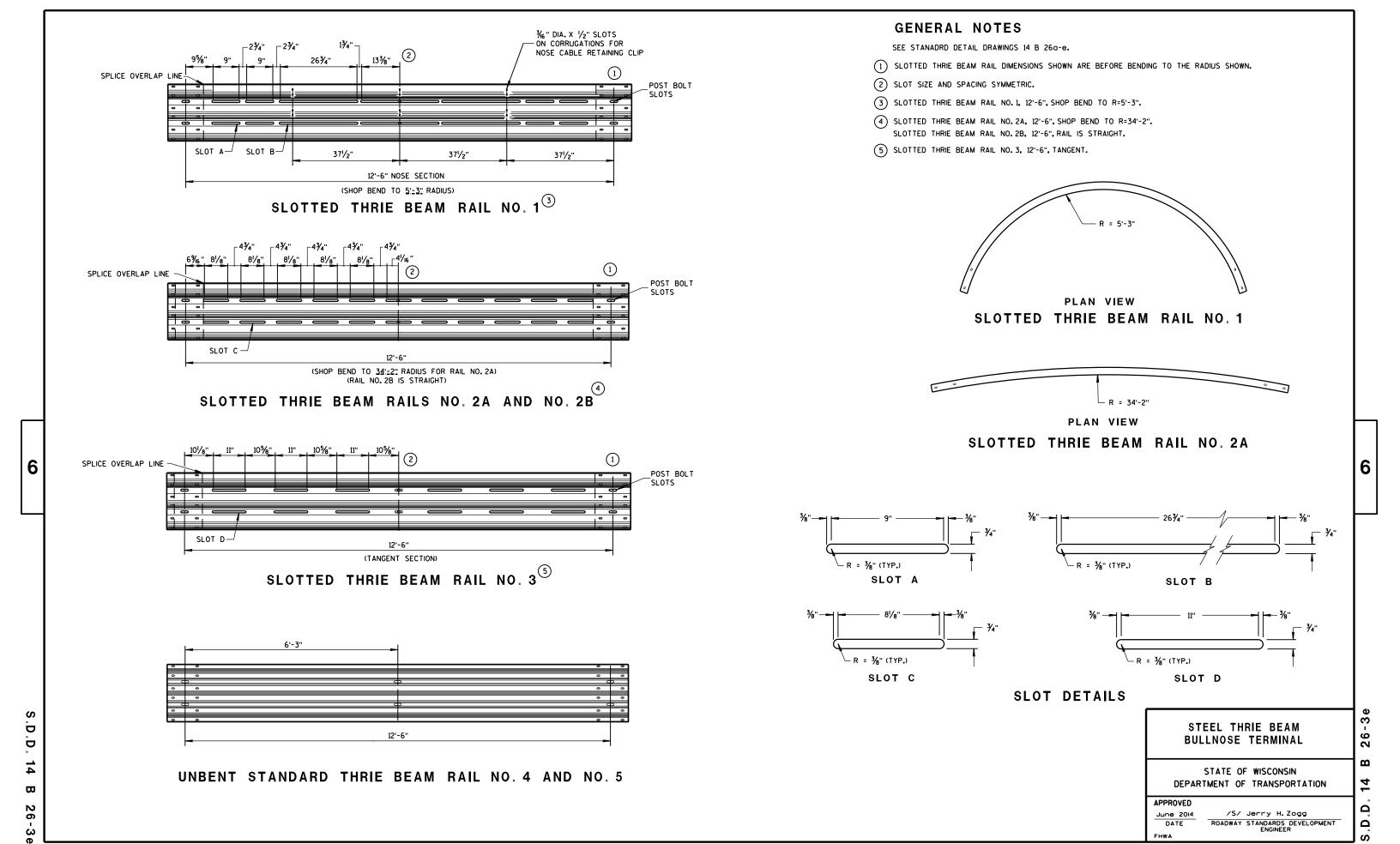
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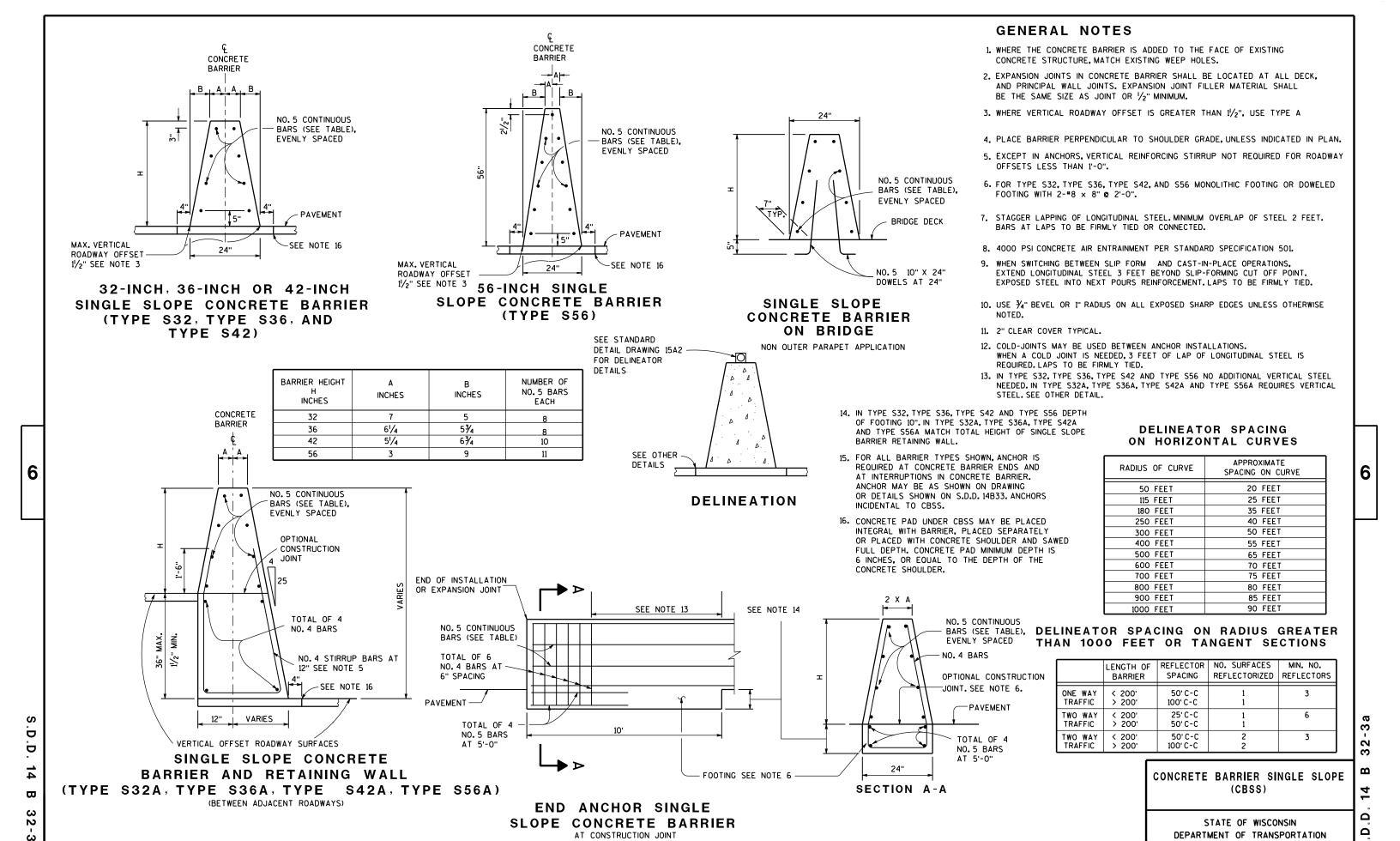
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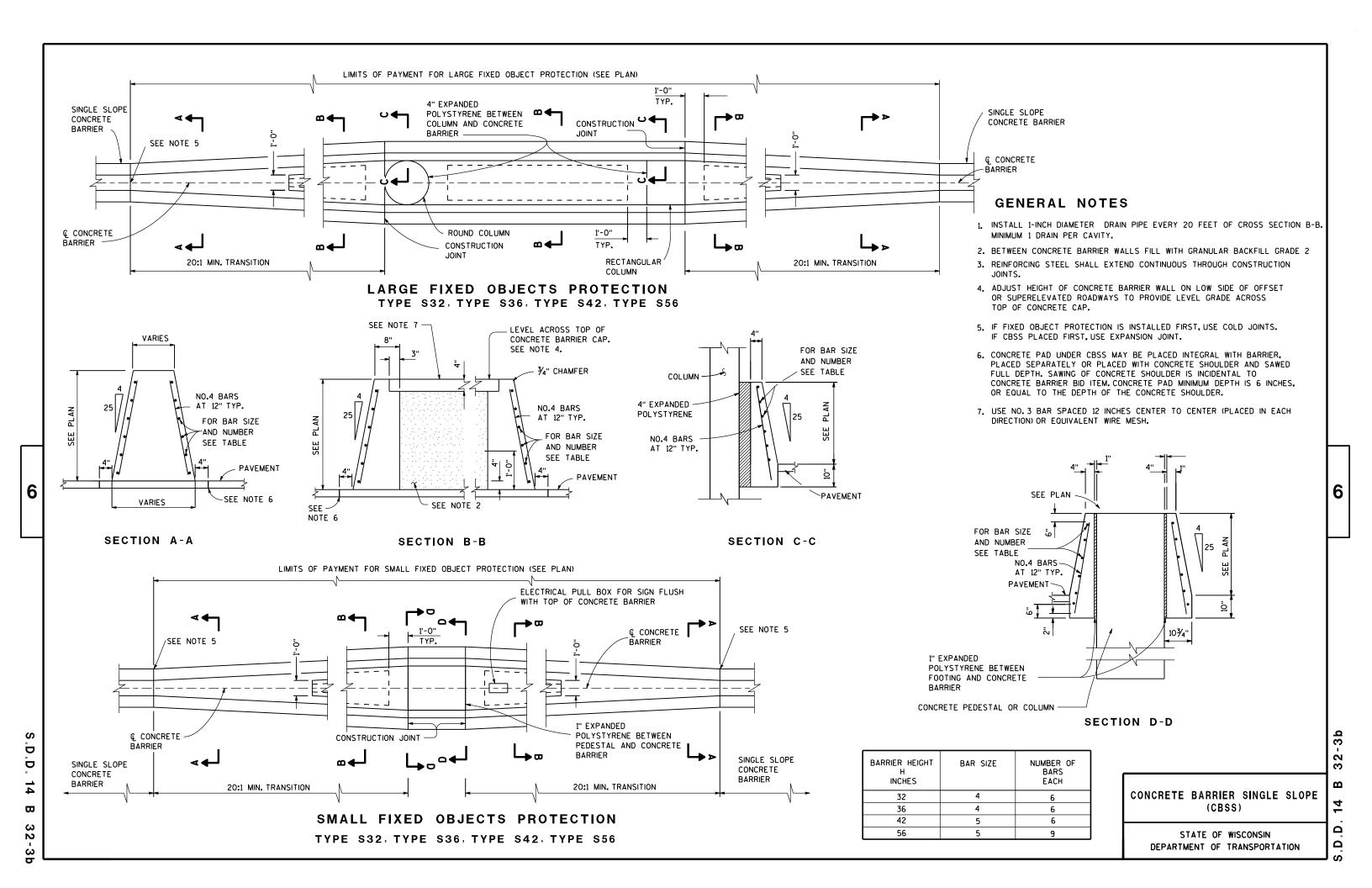
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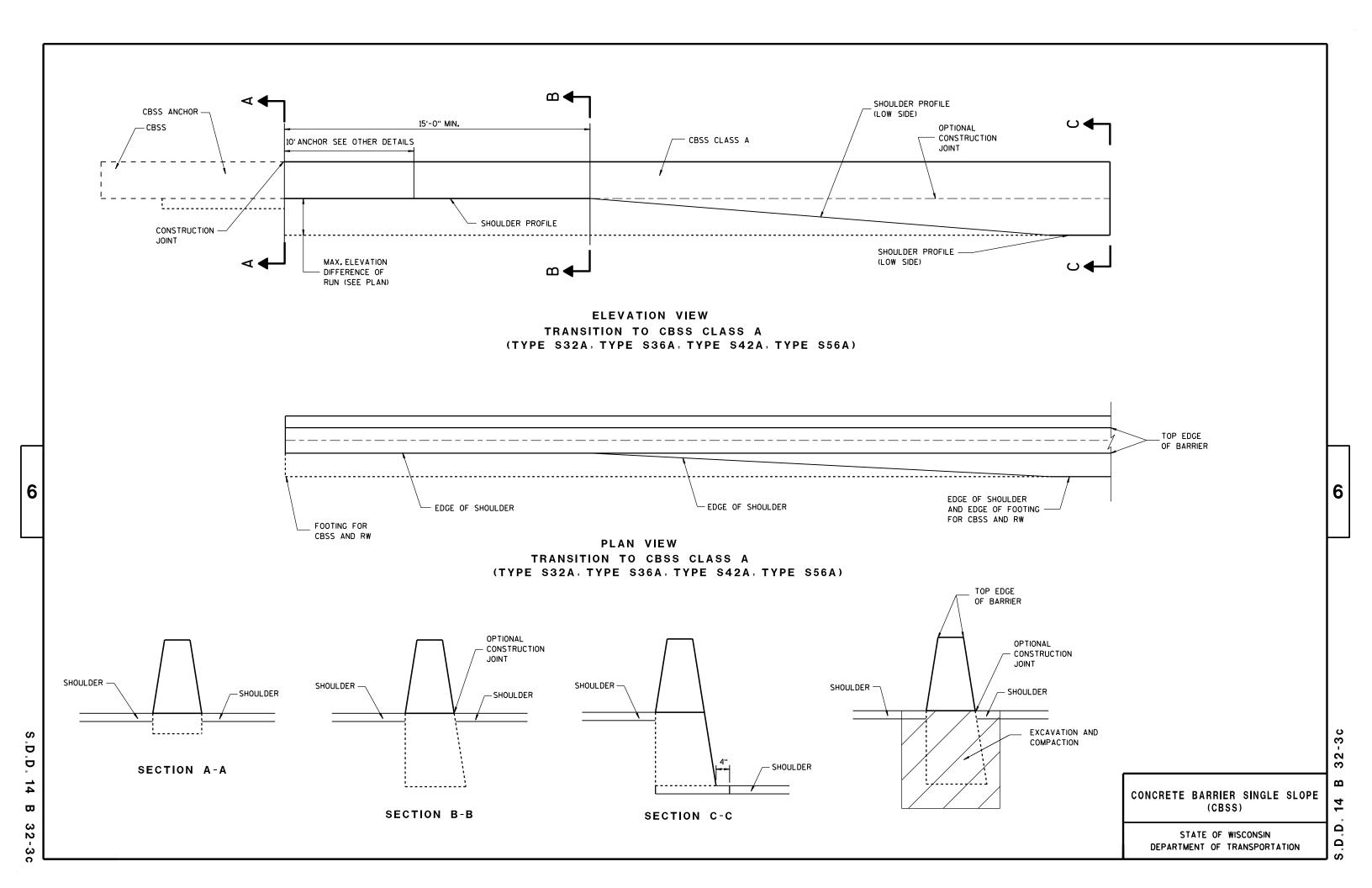


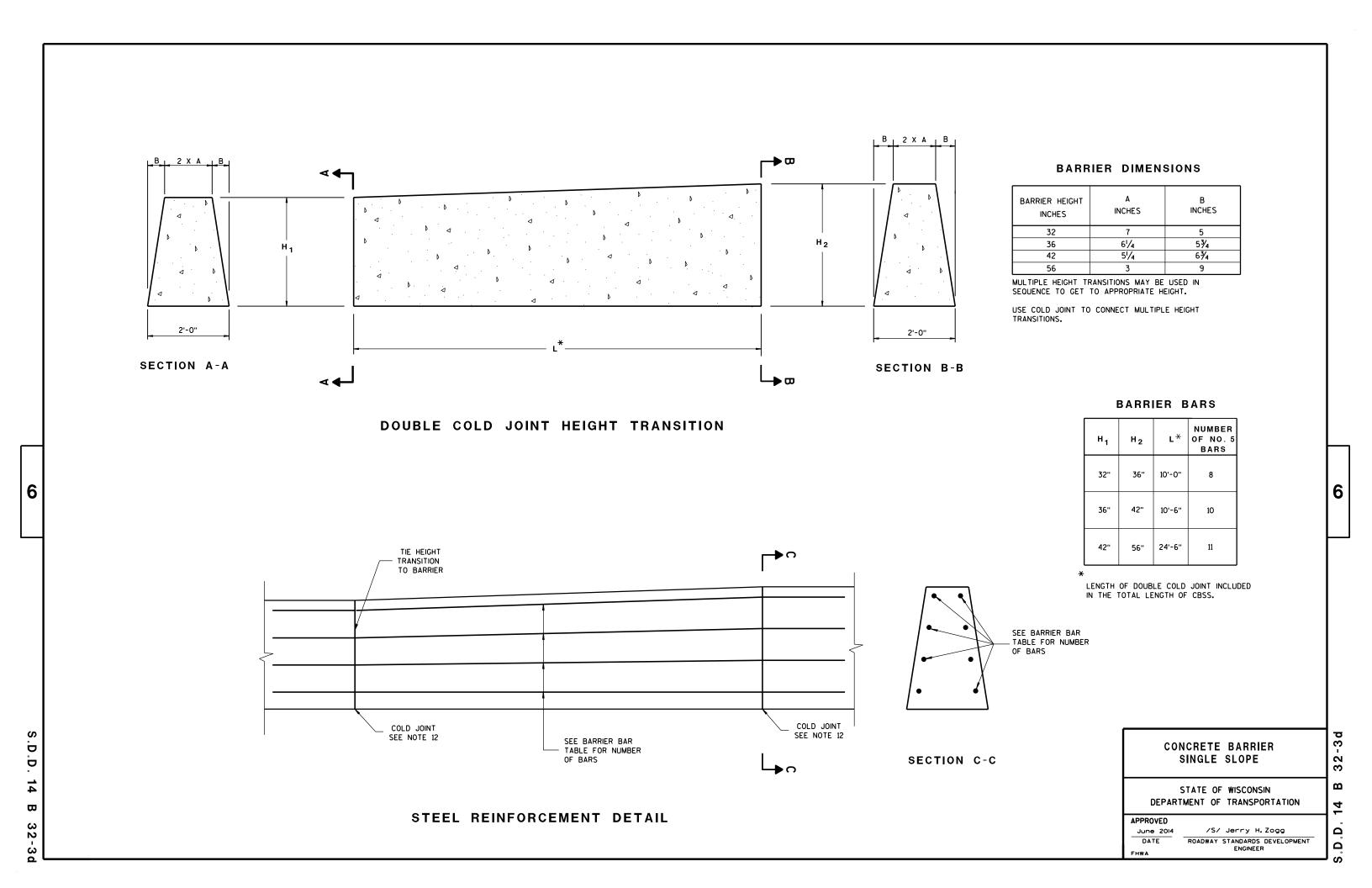


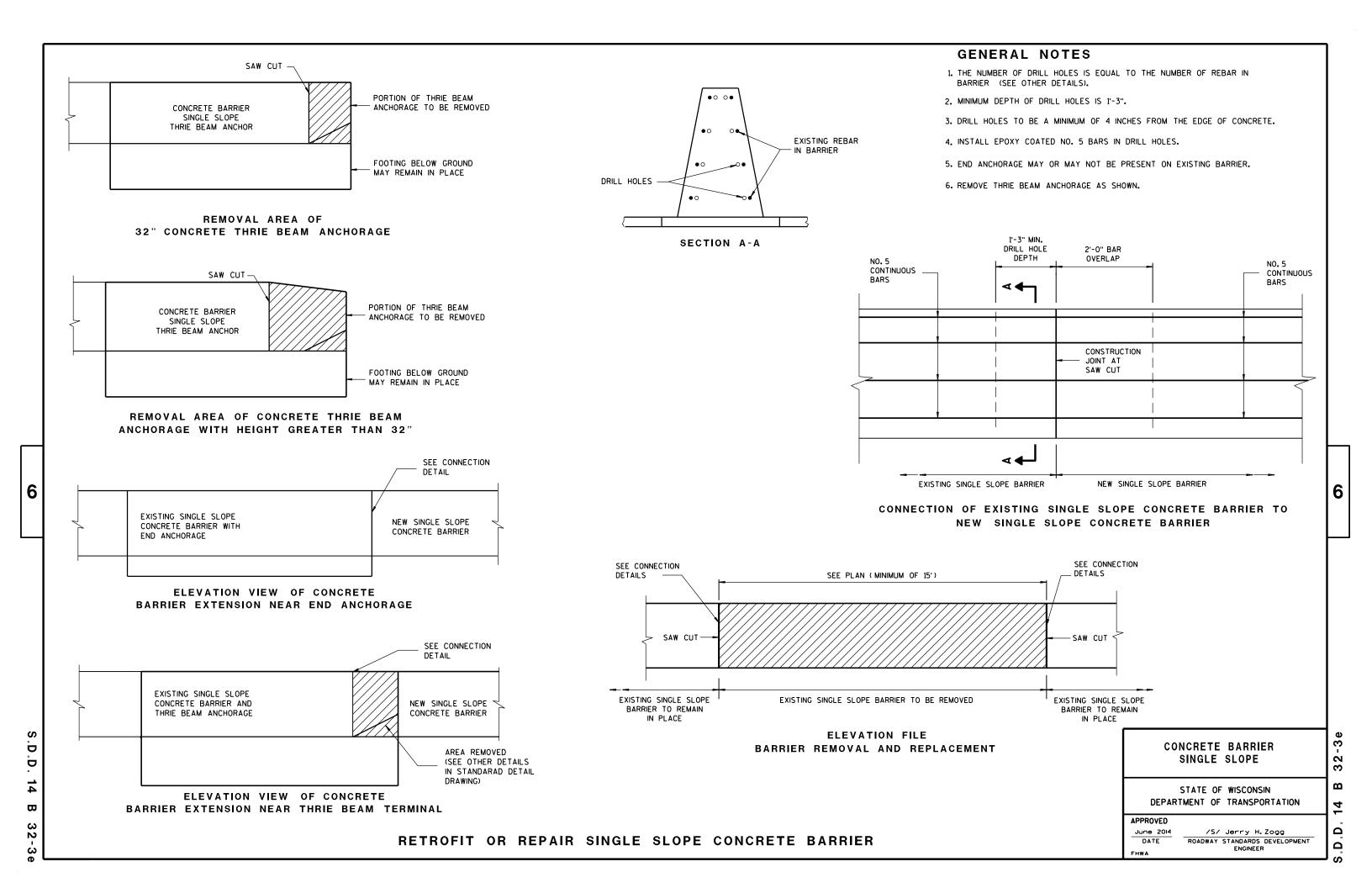




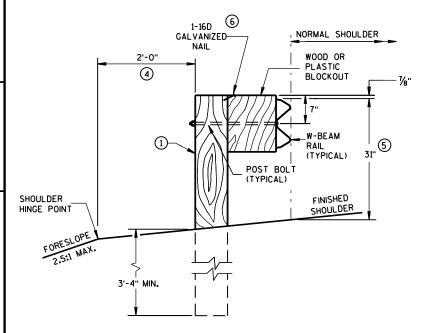






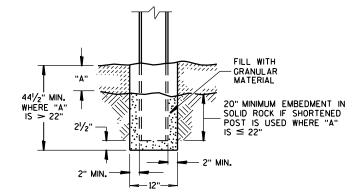


- (1) WOOD OR STEEL POSTS (W6X9 OR W6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- 2 USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. 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 21/2 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 273/4" 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.



END VIEW

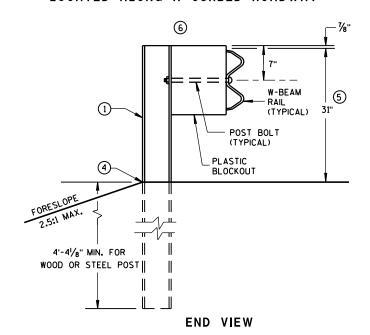
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



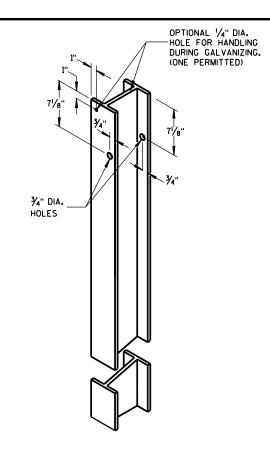
SETTING STEEL OR WOOD POST IN ROCK $^{\scriptsize{\textcircled{3}}}$



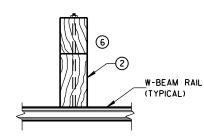
END VIEW
LOCATED ALONG A CURBED ROADWAY



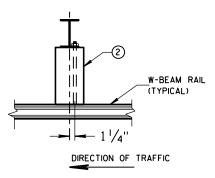
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



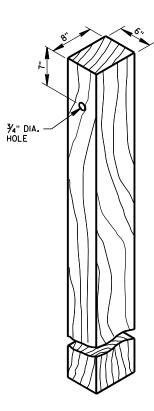
STEEL POST & HOLE PUNCHING DETAIL (w6X9)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL $^{\scriptsize \textcircled{1}}$



WOOD OR PLASTIC BLOCKOUT

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

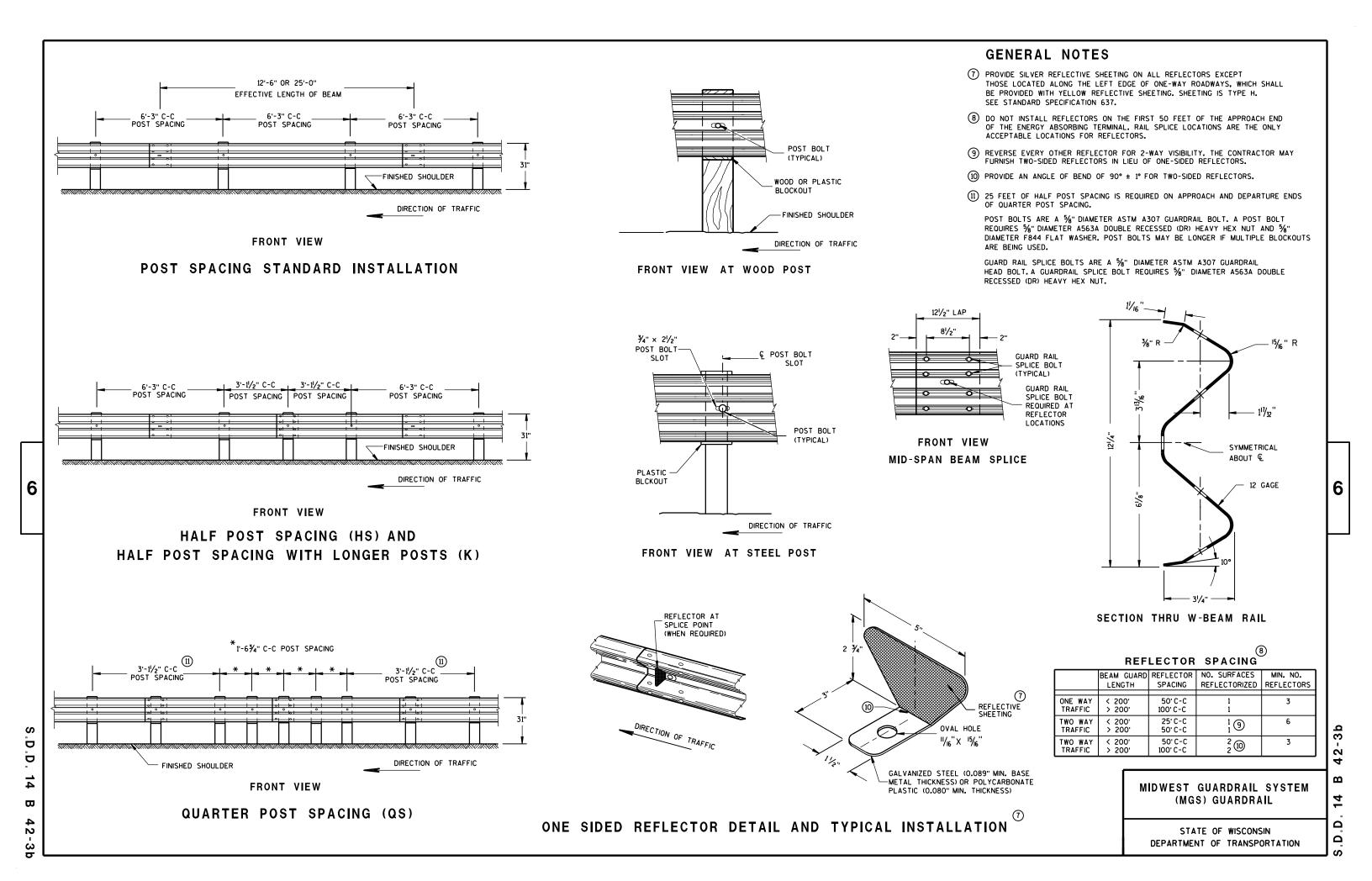
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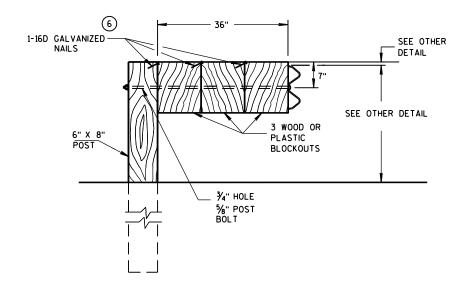
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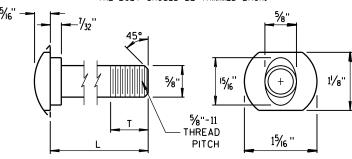


DETAIL FOR 36" BLOCKOUT DEPTH

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.

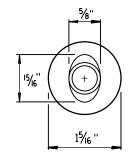
> DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{1}{16}$ ". 2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

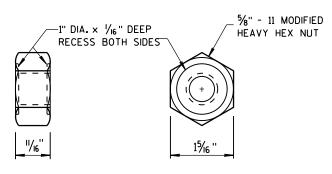


POST BOLT TABLE

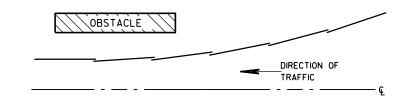
11/8"
437
13/4"
4"
41/16"
4"
41/16"
4"



ALTERNATE BOLT HEAD

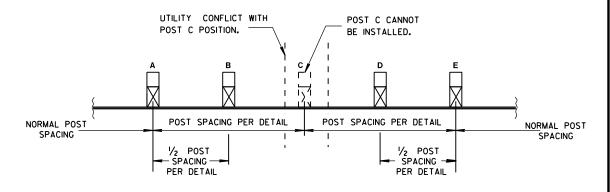


POST BOLT AND RECESS NUT



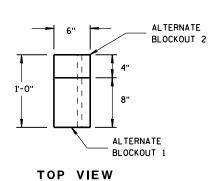
PLAN VIEW

BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION





SIDE VIEW

ALTERNATE WOOD **BLOCKOUT DETAIL**

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

June 2014 /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

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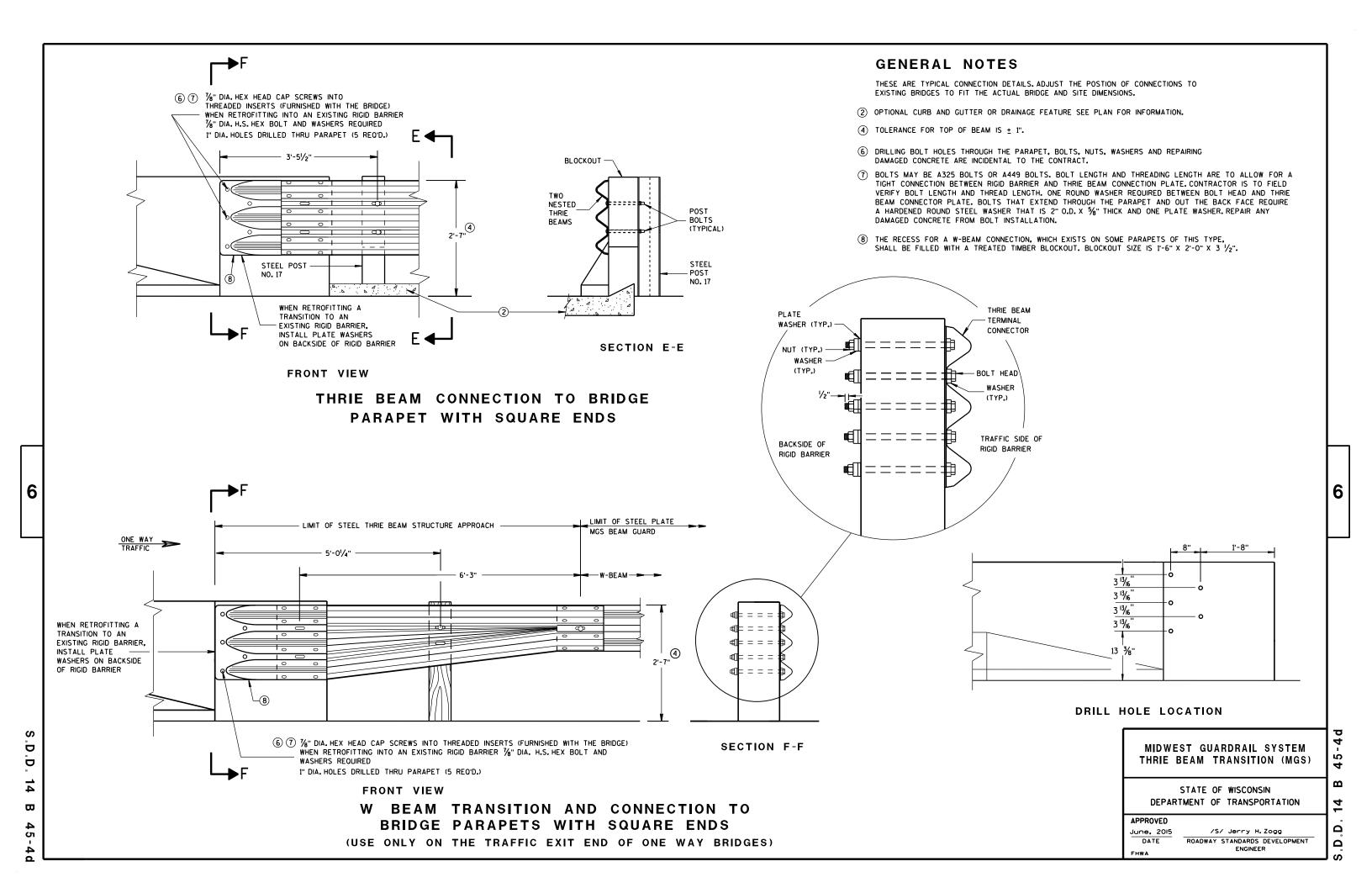
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THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS ± 1".

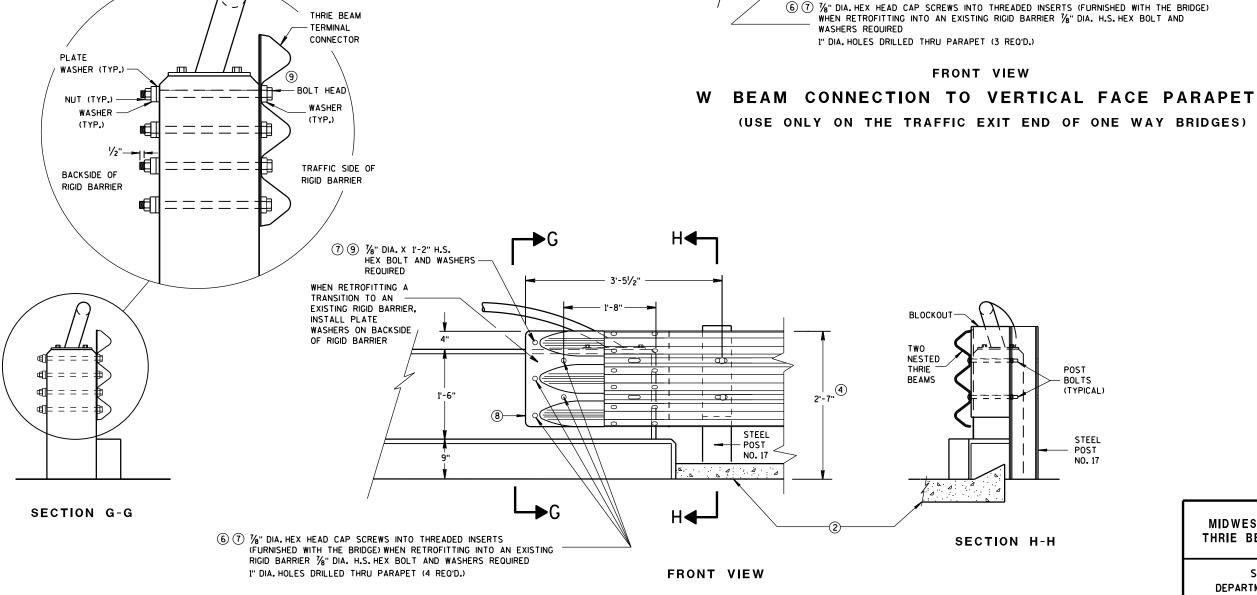
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- (6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTION PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5%" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- (8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- (9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.



THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

(7) 1/8" DIA. X 1'-2" H.S.

REQUIRED

WHEN RETROFITTING

A TRANSITION TO

AN EXISTING RIGID

BARRIFR, INSTALL

PLATE WASHERS

ON BACKSIDE OF

RIGID BARRIER

HEX BOLT AND WASHERS

W BEAM TERMINAL -

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MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
APPROVED
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE

FHWA

LIMIT OF STEEL PLATE

MGS BEAM GUARD

ONE WAY

TRAFFIC

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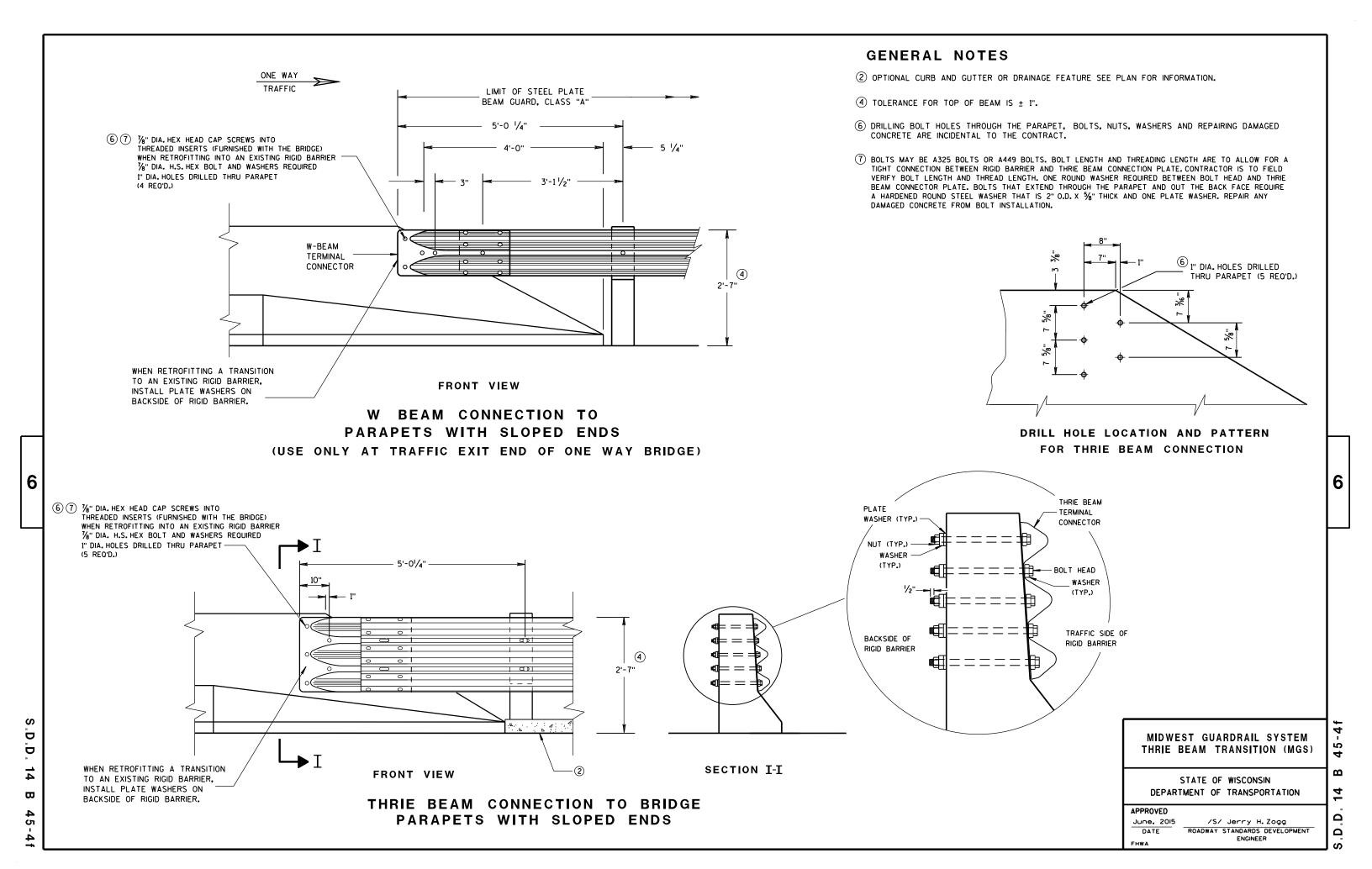
2'-7"

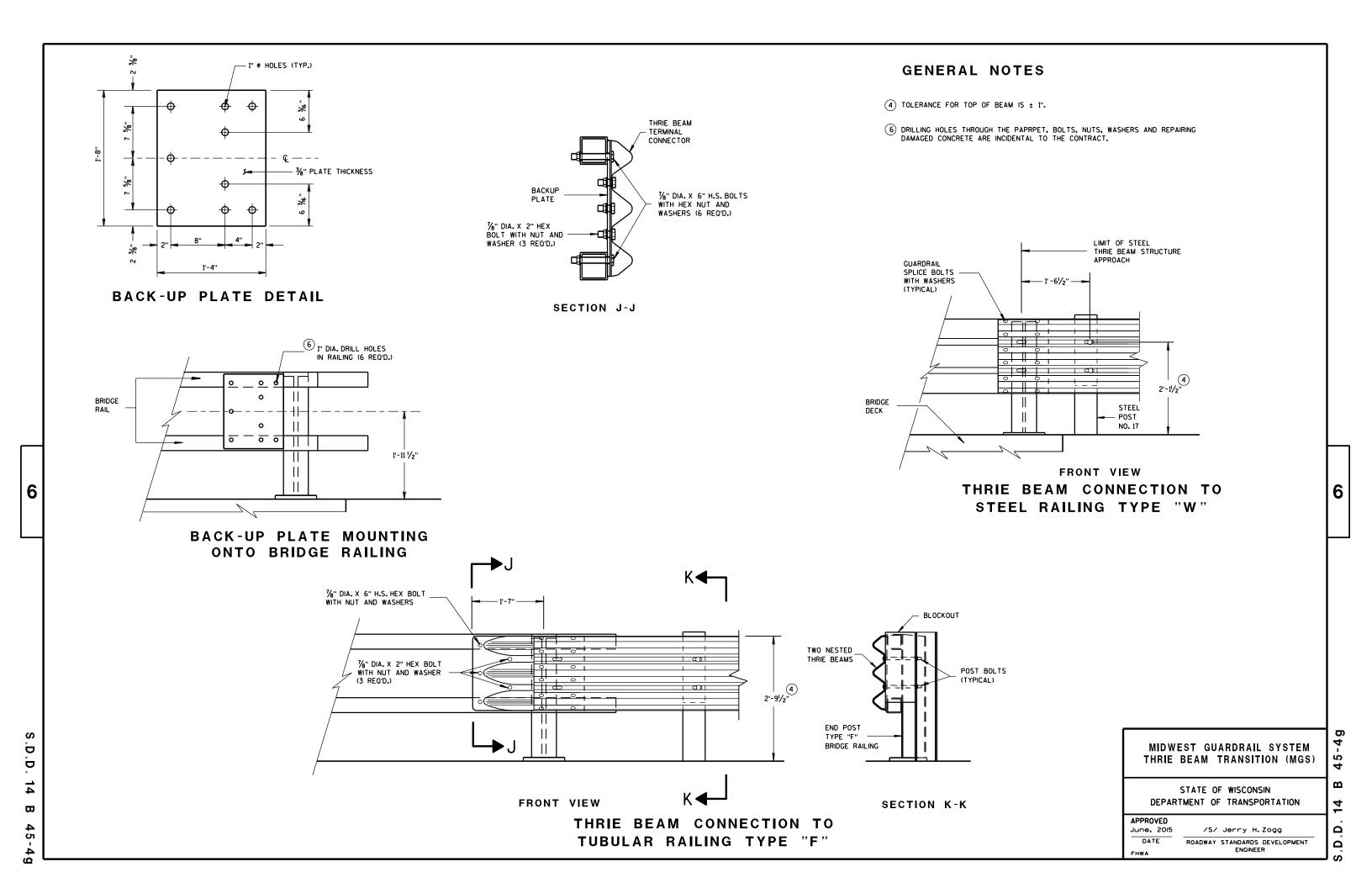
5'-0 1/4" —

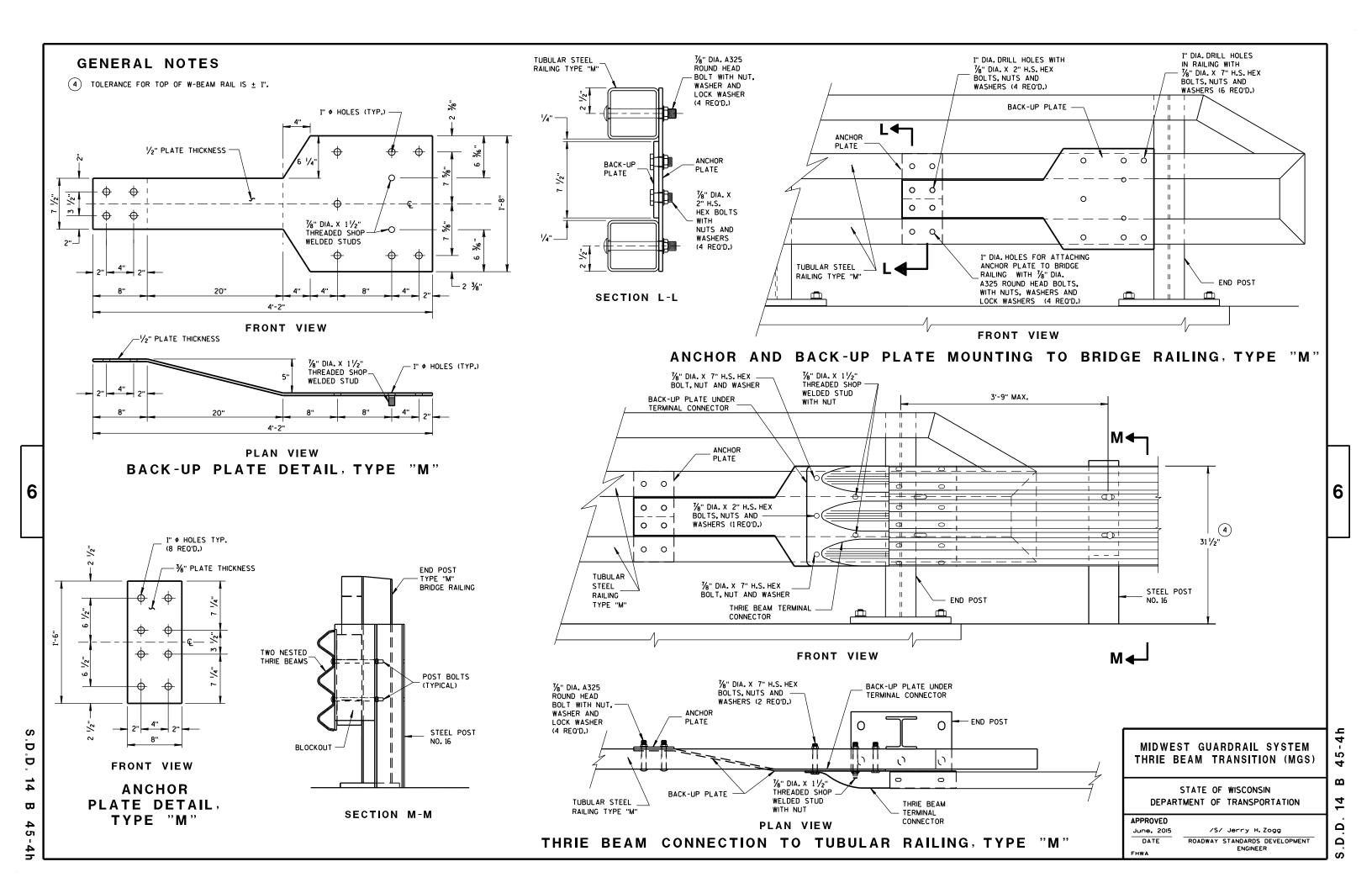
- 3'-1¹/₂"

ROADWAY STANDARDS DEVELOPMENT ENGINEER

S.D







(PER ASSEMBLY)					
PLATE	QUANTITY	SHAPE	SIZE (A × B × C × D)	THICKNESS	
P1	1	в₫	20" × 20"	3√6 "	
P2	1	B∱c	20" × 20" × 28%6"	¾6 "	
Р3	1	B C D	39" × 35/8" × 20" × 191/6"	3/6 "	
S1	4	B A	18 % 6" × 3 % " × 18 ¾ "	1/4"	
S2	1	B D	10 ¹ / ₄ " × 2 ⁷ / ₁₆ " × 10 ³ / ₈ " × ¹ / ₂ "	1/4"	
S3	1	B₽₽	3" × 1½6" × 3½" × ½"	1/4"	
S4	1	в₫	61/8" × 21/16"	1/4"	
S5	1	вФ	61/8" × 11/16"	1/4"	
S6	1	в₾	7¾" × 1¾"	1/4"	
S7	1	A DC	2%6" × 6" × 35%" × 57%"	1/4"	
S8	1	4 <u>0</u> 2	1 ⁵ / ₃₂ " × 7 ¹ / ₂ " × 2 ¹ / ₂ " × 7 ³ / ₈ "	1/4"	
S9	1	C ∏R	6½6" × 6¾6" × 1¾2"	1/4"	
S10	1	A D C	11/8" × 91/8" × 35/8" × 911/16 "	1/4"	
S11	1	c ≜	8½" × 8¾" × 1¼6 "	1/4"	

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SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

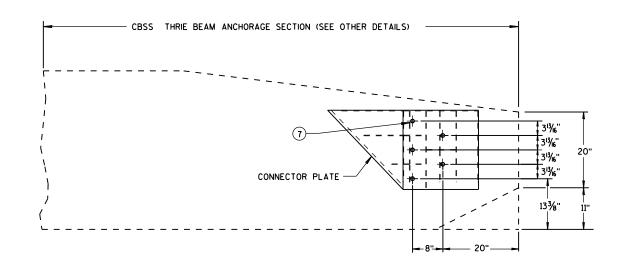
APPROVED	
2015	

/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

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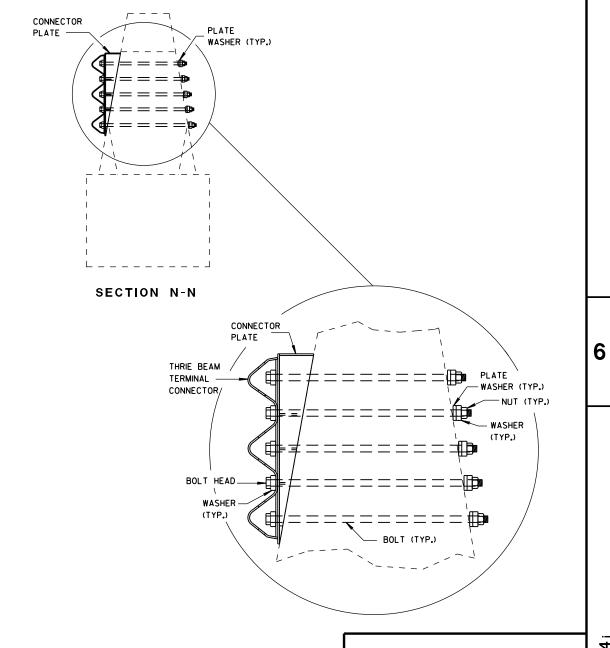


SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X %" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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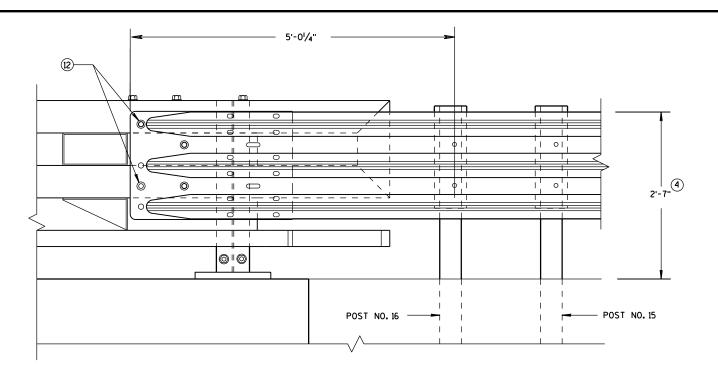
APPROVED
June, 2015 /S.

FHWA

OIS /S/ Jerry H. Zogg

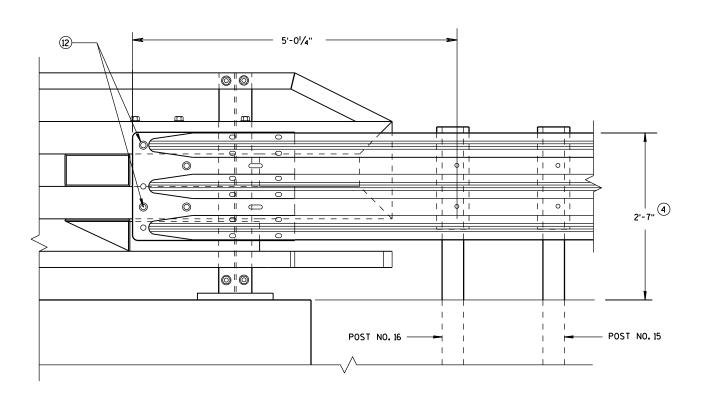
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

S.D.D. 14 B 4



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

- 4 TOLERANCE FOR TOP OF BEAM IS ± 1".
- (12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS) 6

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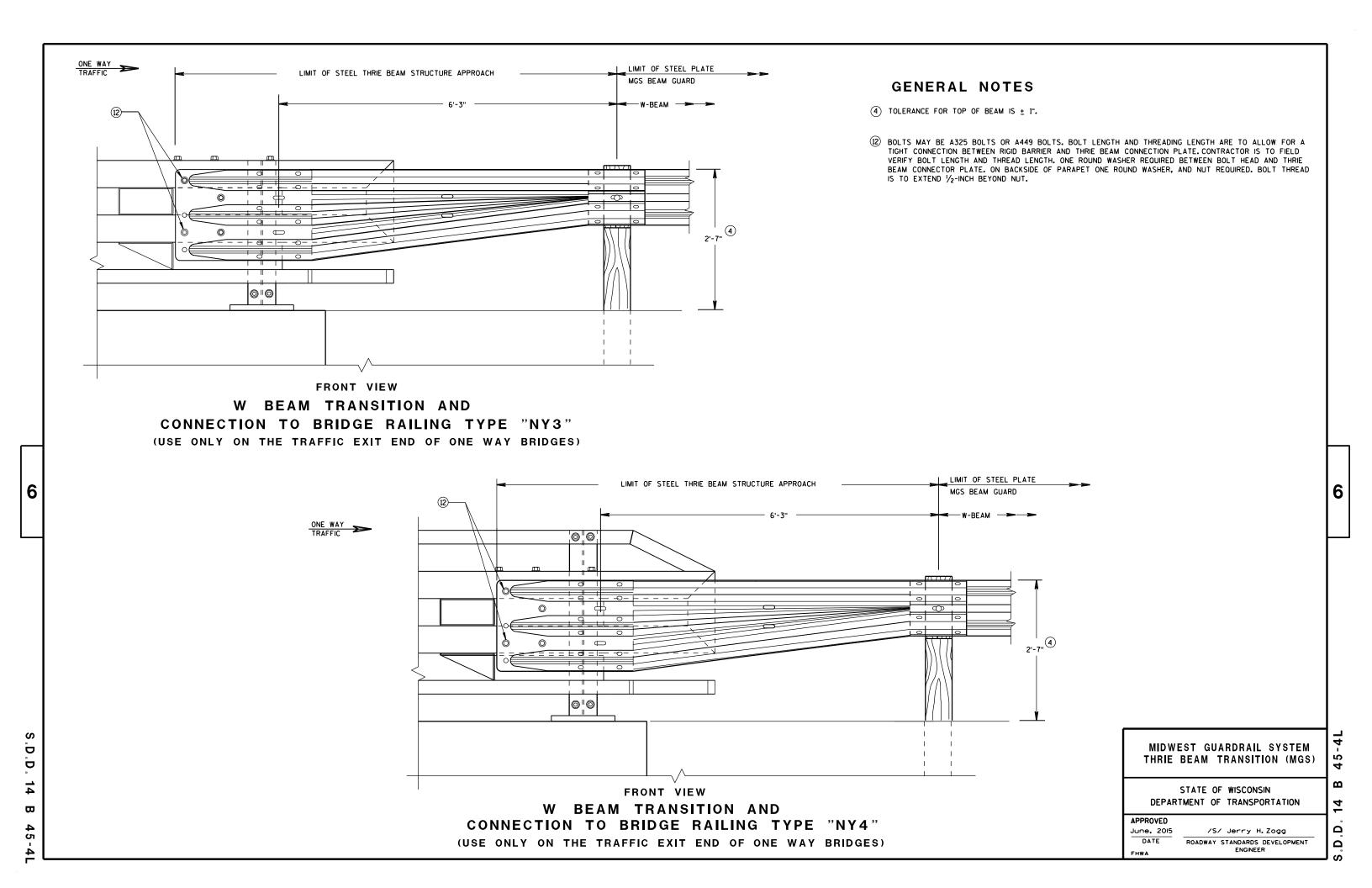
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

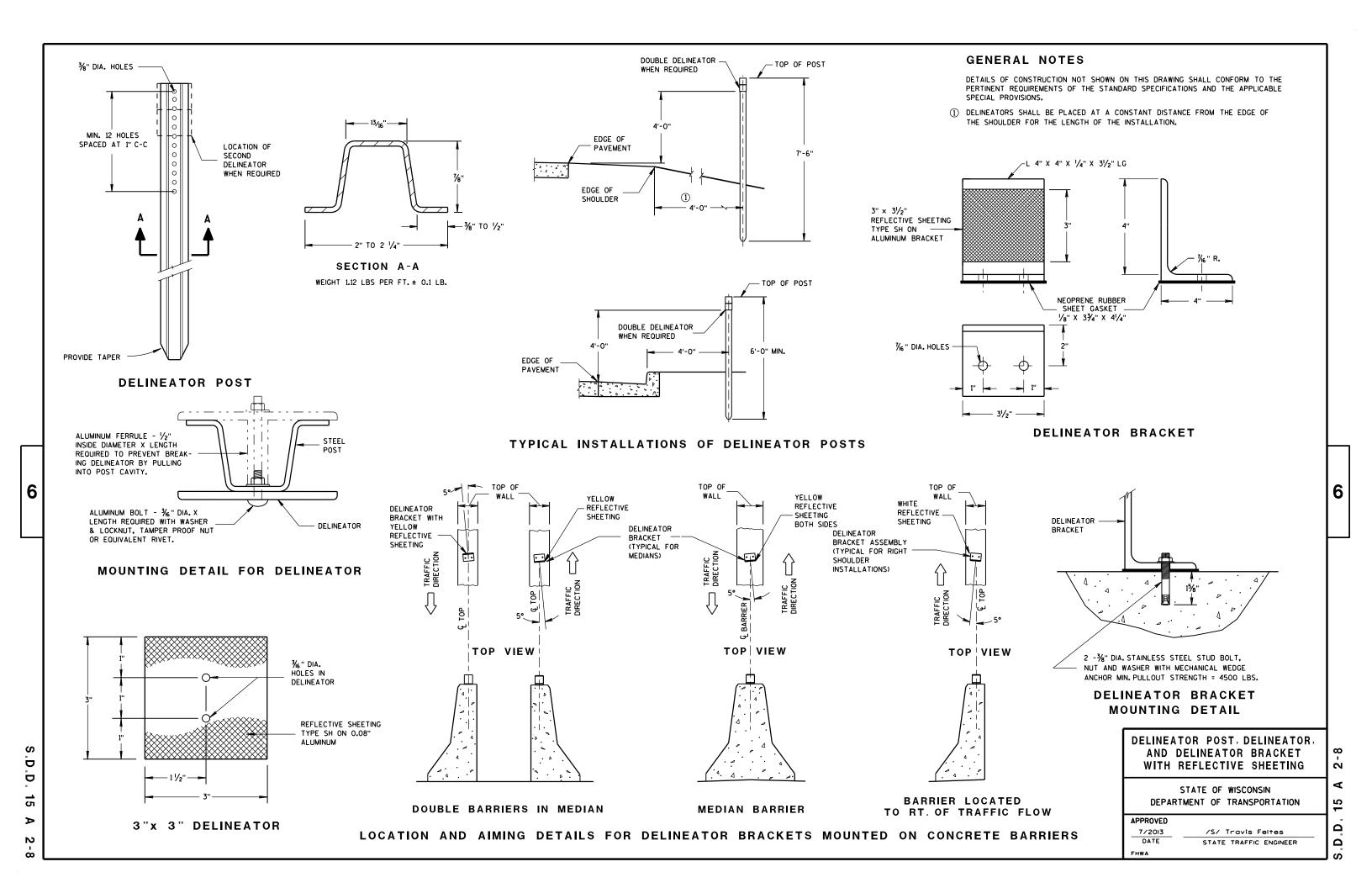
APPROVED

/S/ Jerry H. Zogg June, 2015 DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

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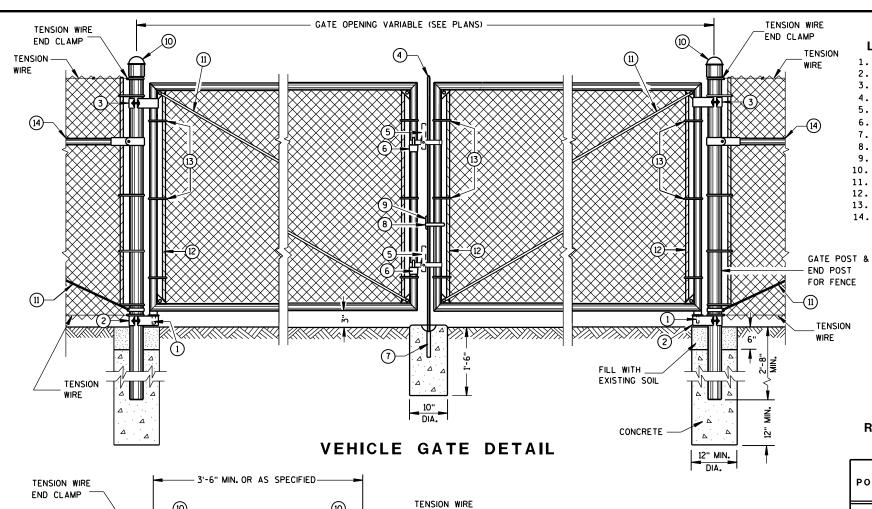
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END CLAMP

EXISTING SOIL

PEDESTRIAN GATE DETAIL

CONCRETE

12" MIN.

CONCRETE

12" MIN.

TENSION

GATE POST &

END POST

FOR FENCE

TENSION -

GATE POST &

TENSION

END POST

FOR FENCE

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REQUIRED FENCE POST SIZES

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

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

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

- LEGEND 1. STRAIGHT PLUG
- 2. BOTTOM HINGE
- 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.

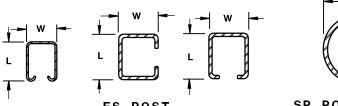
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

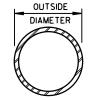
FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

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.





SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

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

POST TYPE	LENGTH (L) INCH	WIDTH (W)	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)

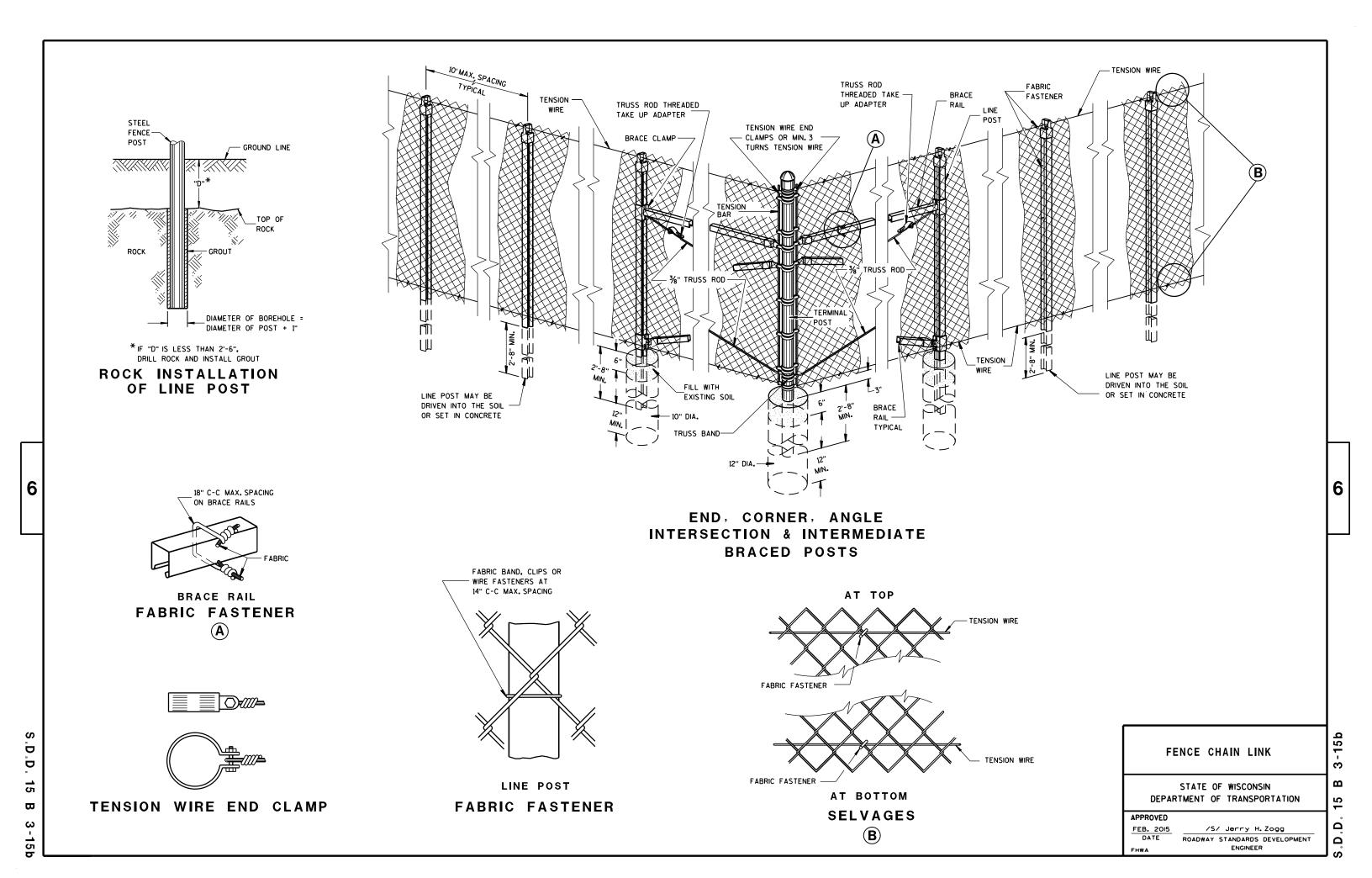
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED POST SIZE FOR GATES

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

FENCE CHAIN LINK

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION က



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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 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.

"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, 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". (30" X 15" 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
- THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 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.
- "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

/S/ Peter Amakobe Atepe

STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

TO 350 PSF (COHESIVE SOILS).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY. NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH 3/4" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

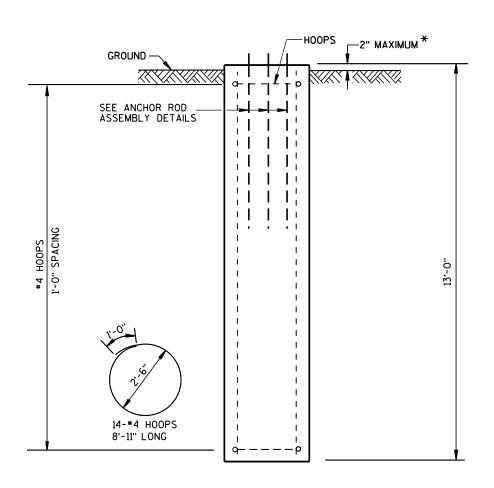
CONCRETE MASONRY fc=3,500 p.s.i. HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 _____ fy=60,000 p.s.i. ANCHOR RODS, ASTM F1554, GRADE 55 fy=55,000 p.s.i. ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.

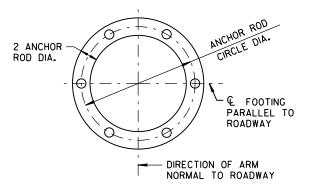
PLATES, ASTM A709, GRADE 36 fy=36,000 p.s.i.

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL

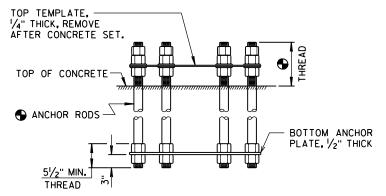
€ FOOTING PARALLEL TO ROADWAY SEE ANCHOR ROD 3'-0" ASSEMBLY DETAILS DIAMETER SEE FABRICATION DRAWING VERTICAL SHAFT REINFORCEMENT FOR ANCHOR ROD CIRCLE 10-#5 BARS, 12'-7" LONG DIAMETER. (MAXIMUM = 23") — DIRECTION OF ARM

PLAN VIEW





TOP TEMPLATE AND **BOTTOM ANCHOR PLATE**



ANCHOR ROD ASSEMBLY DETAILS

MINIMUM OF 6 ANCHOR RODS, EXACT NUMBER, SIZE, DIMENSION AND ORIENTATION AS SHOWN ON FABRICATION DRAWING.

ELEVATION VIEW

FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS. THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

> CONCRETE - 3.4 C.Y. PER FOOTING H.S. REINFORCEMENT - 215 LBS. PER FOOTING

36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE 6

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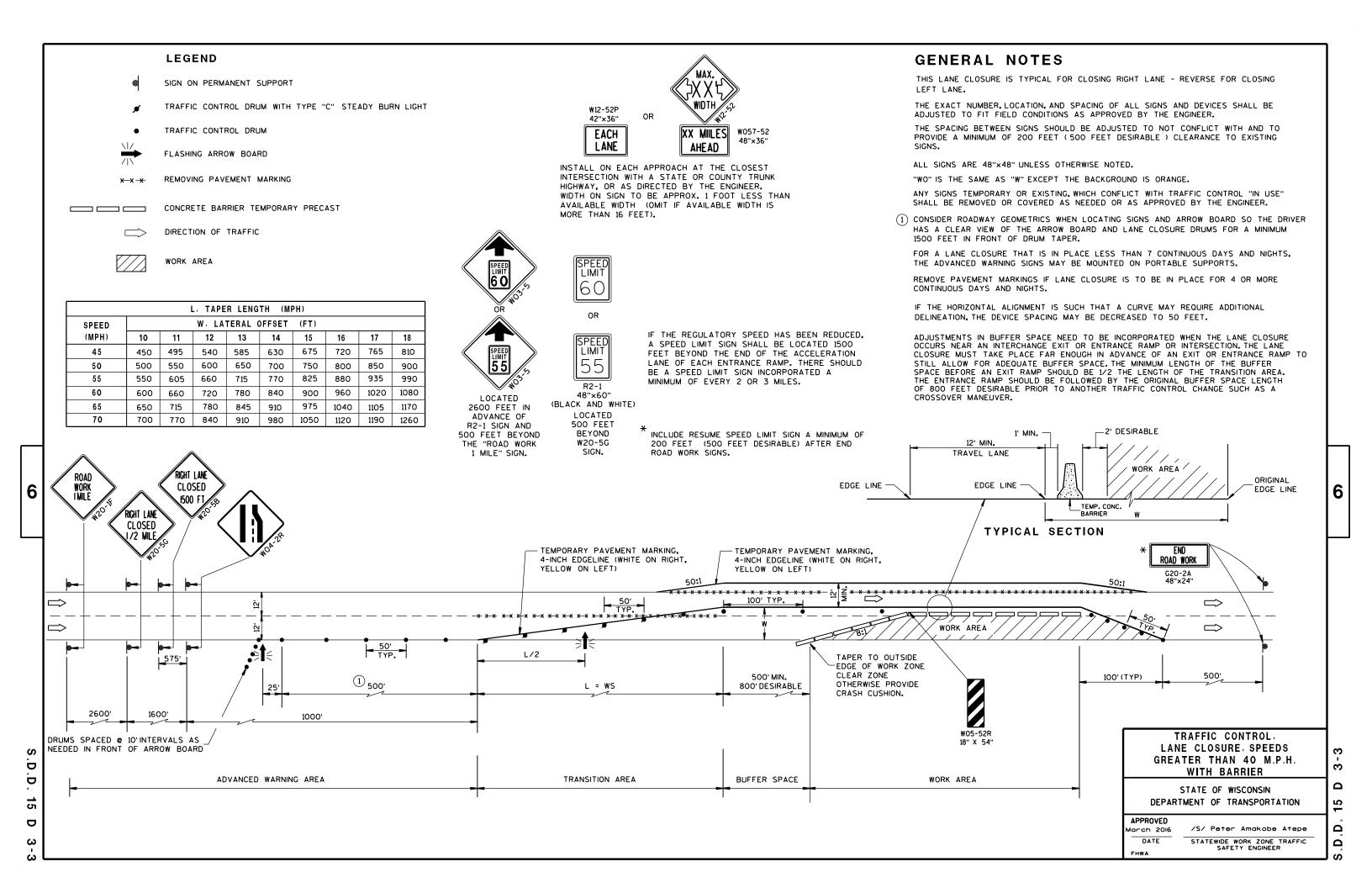
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED March 2016 WIND LOADED STRUCTURES DATE

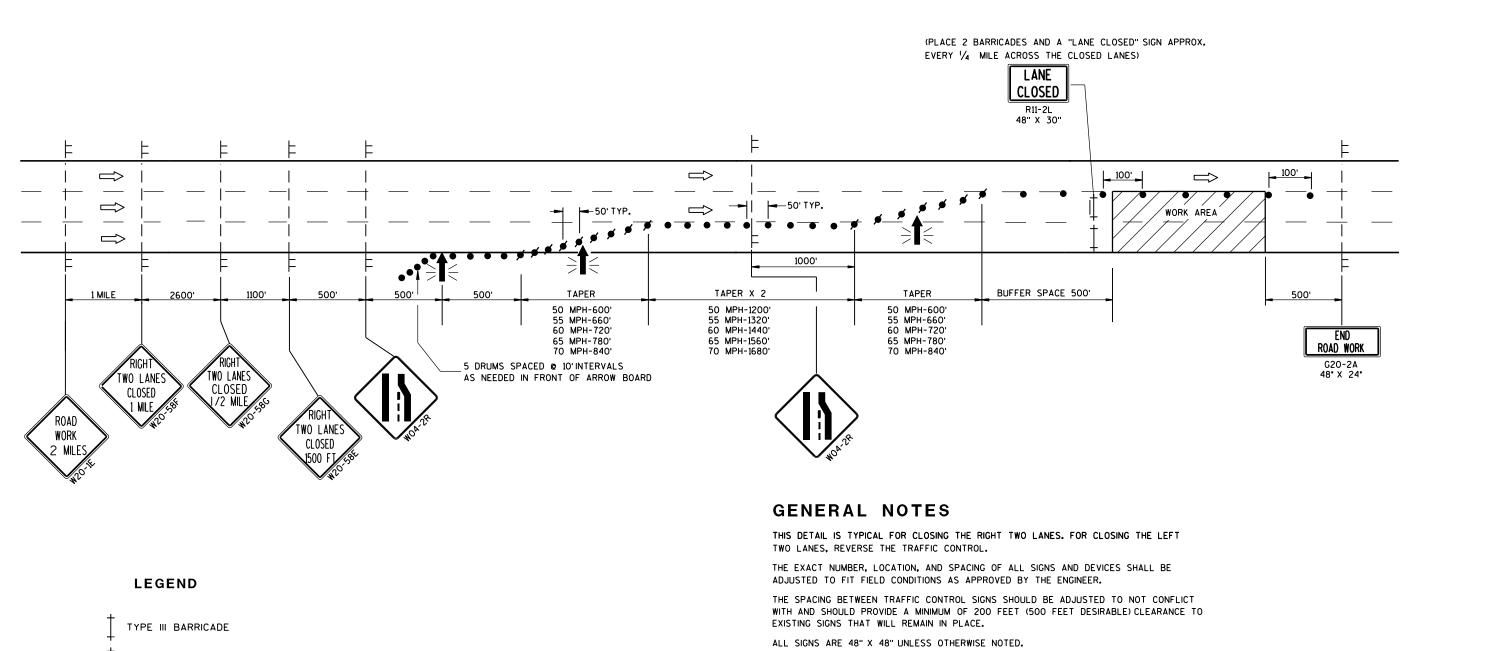
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PROGRAM LEADER FHWA



GENERAL NOTES LEGEND THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. 4 OR MORE DAYS AND NIGHTS. TYPE III BARRICADE WITH ATTACHED SIGN THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING OPERATION. SIGN ON PERMENENT SUPPORT IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET. LEFT LANE. TRAFFIC CONTROL DRUM ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST FLASHING ARROW BOARD "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE. 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 1/2 THE LENGTH OF THE TRANSITION AREA. ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" TYPE "A" WARNING LIGHT (FLASHING) 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 SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS. * X -X REMOVING PAVEMENT MARKING CROSSOVER MANEUVER. CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS * THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL. DIRECTION OF TRAFFIC 1500 FEET IN FRONT OF 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. 6 6 WORK CLOSED CLOSED I MILE 1500 F XX м.Р.н 36"×36' IF NEEDED. USE ONLY TYPE III BARRICADE IF DESIGN SPEED IS TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE SPACED EVERY 1/4 MILE. 10 MPH BELOW 4-INCH EDGELINE (WHITE ON RIGHT, YELLOW ON LEFT) POSTED SPEED. 100' \Rightarrow \Rightarrow \Rightarrow WORK AREA 50' 350' 500' MIN. - 800' DESIRABLE 575 TAPER 500 50 MPH - 600' 55 MPH - 660' 2600' 1600' 1000' 65 MPH - 780' TRAFFIC CONTROL, 2 D LANE CLOSURE 5 DRUMS SPACED @ 10' INTERVALS AS 2 Ö NEEDED IN FRONT OF ARROW BOARD 15 Ω STATE OF WISCONSIN ADVANCED WARNING AREA TRANSITION AREA **BUFFER SPACE** DEPARTMENT OF TRANSPORTATION D **APPROVED** /S/ Travis Feltes N Feb. 2015 STATE TRAFFIC ENGINEER OF DESIGN Ω FHWA



TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C"
STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

FLASHING ARROW BOARD

DIRECTION OF TRAFFIC

WORK AREA

"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 AND AS APPROVED BY THE ENGINEER.

W2O-1E AND G2O-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES IN A CLOSED LANE 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.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

TRAFFIC CONTROL,
TWO LANE CLOSURE ON
FREEWAY OR EXPRESSWAY,
SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
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ADDDOVED

July 14, 2015

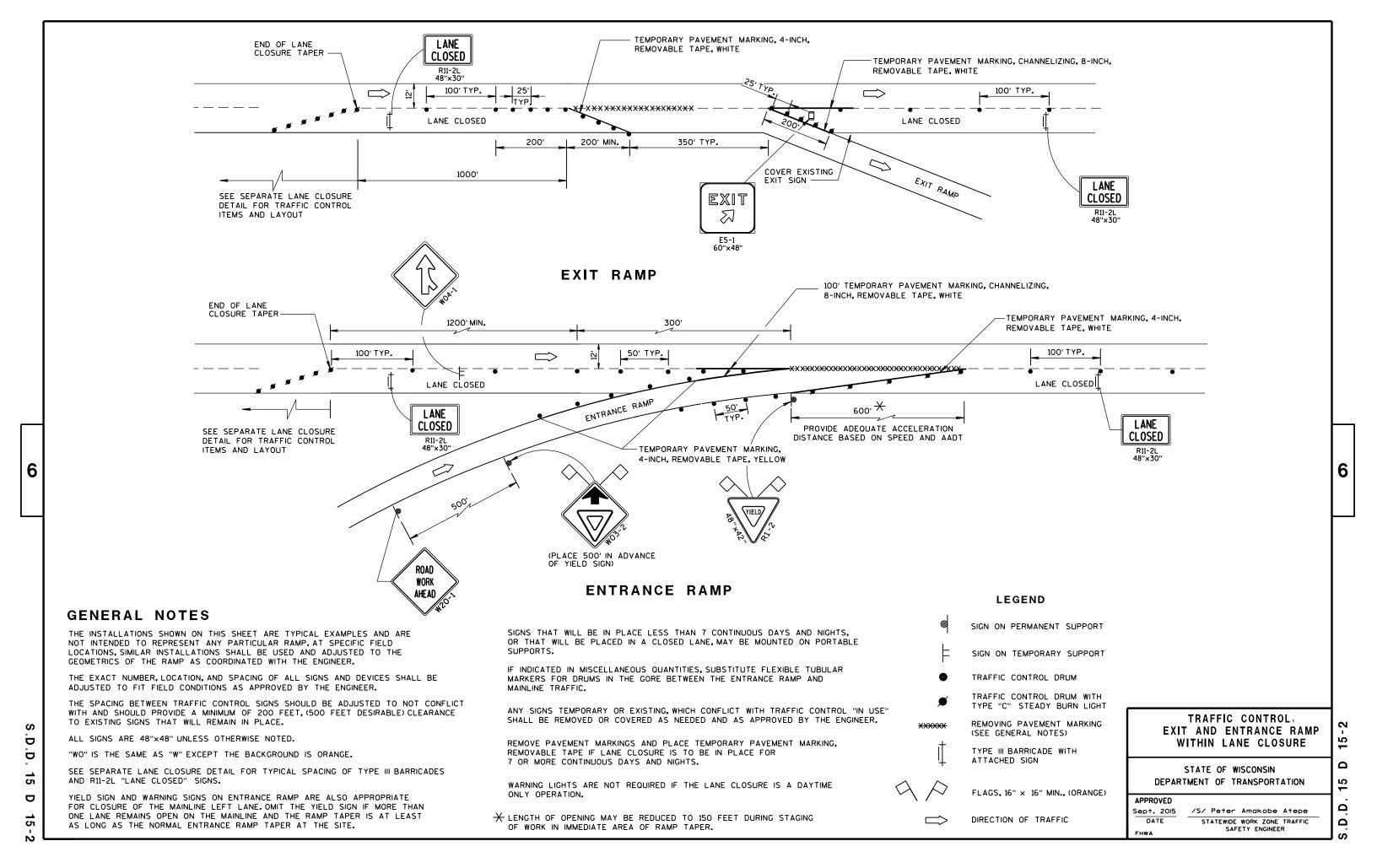
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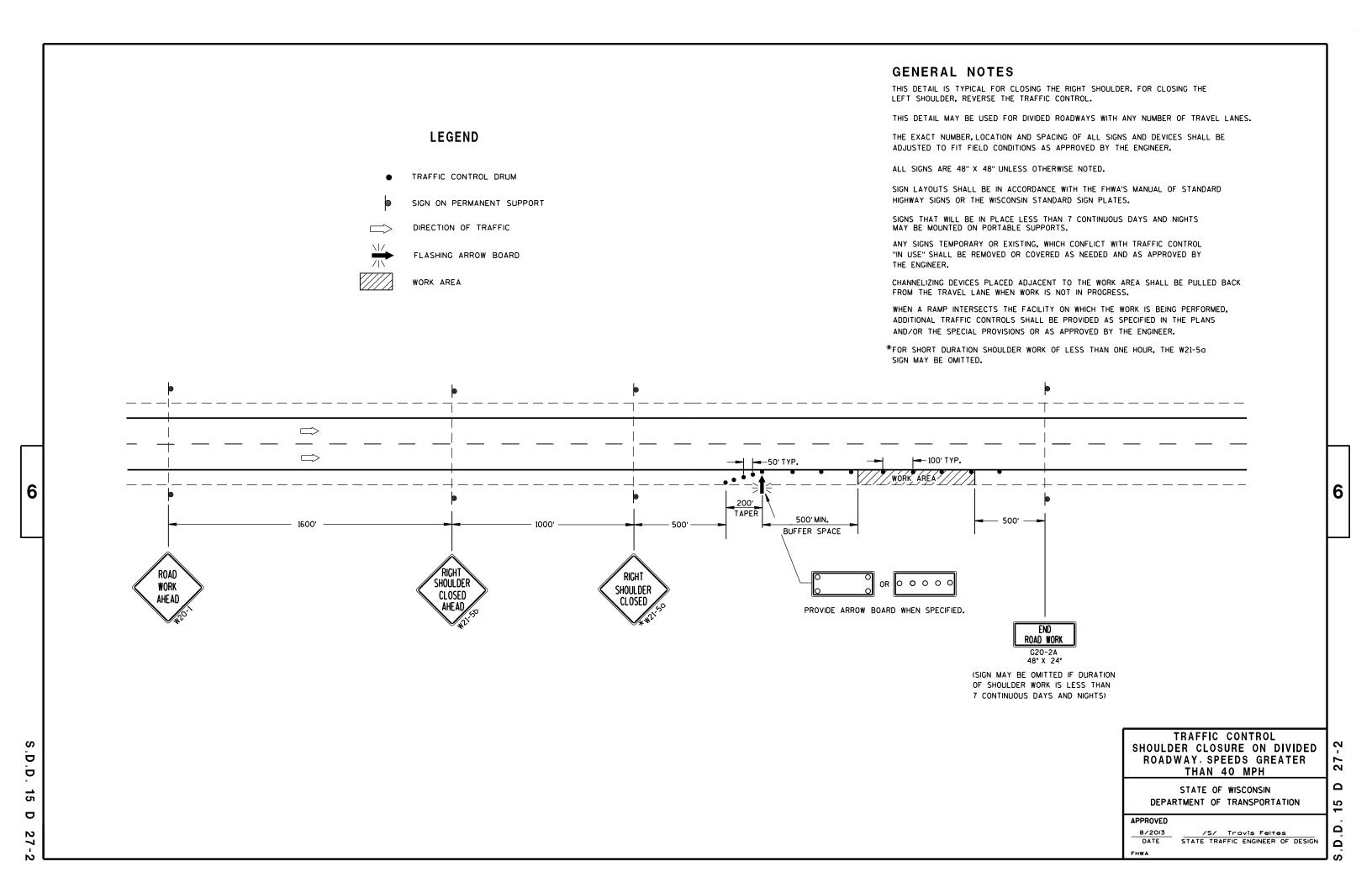
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

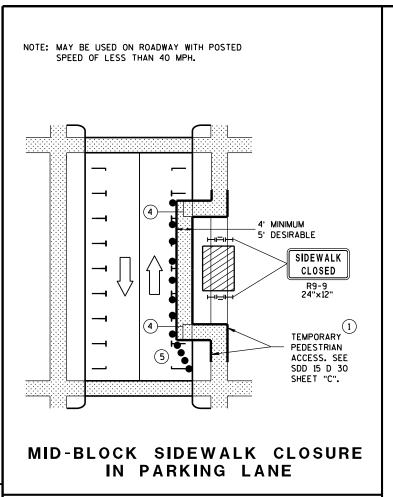
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NOTE: LAYOUT SAME AS ABOVE. 4' MINIMUM 5' DESIRABLE SIDEWALK CLOSED RQ-Q TEMPORARY PEDESTRIAN ACCESS. SEE SDD 15 D 30 SHEET "C". SIDEWALK DIVERSION

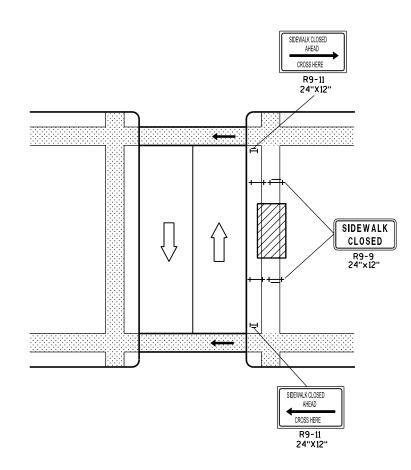
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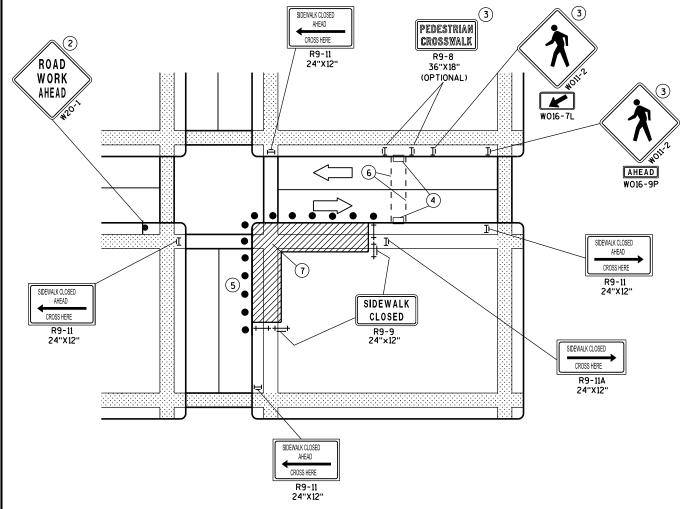
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MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

- 1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- (2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- (3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- (4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- (5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- (6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- (7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN

LEGEND

SIGN ON PERMANENT SUPPORT

UNDER PEDESTRIAN TRAFFIC

TRAFFIC TRAFFIC CONTOL DRUM

DIRECTION OF

WORK AREA

PEDESTRIAN CHANNELIZATION DEVICE

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A. LOW-INTENSITY FLASHING)

TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION S 0 က Ω Ω

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PARALLEL TO CURB

TEMPORARY BUS STOP PAD

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GENERAL NOTES

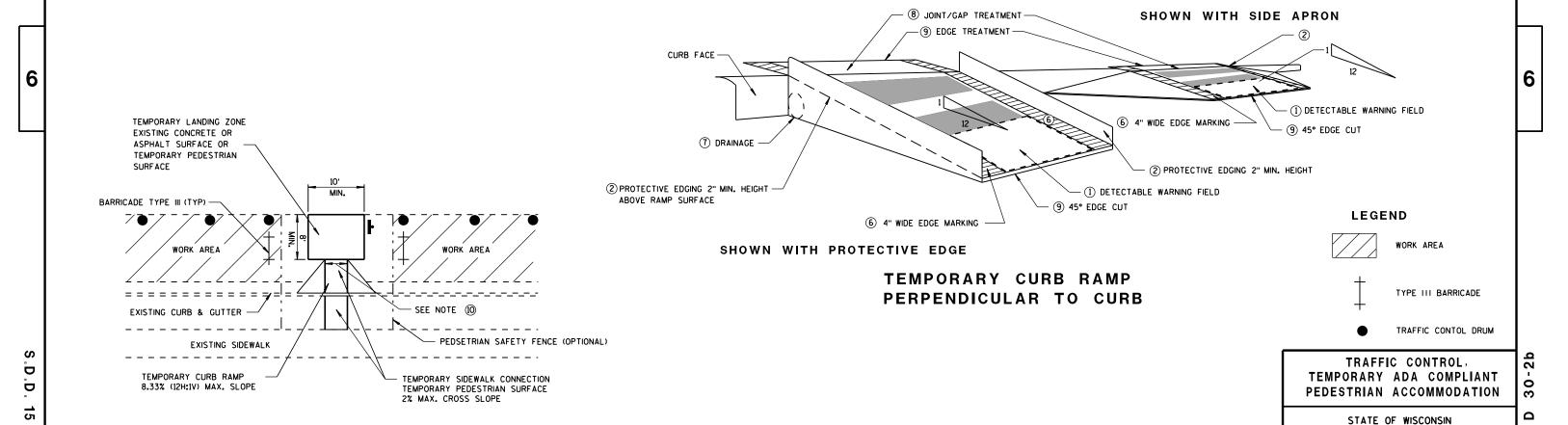
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION. ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

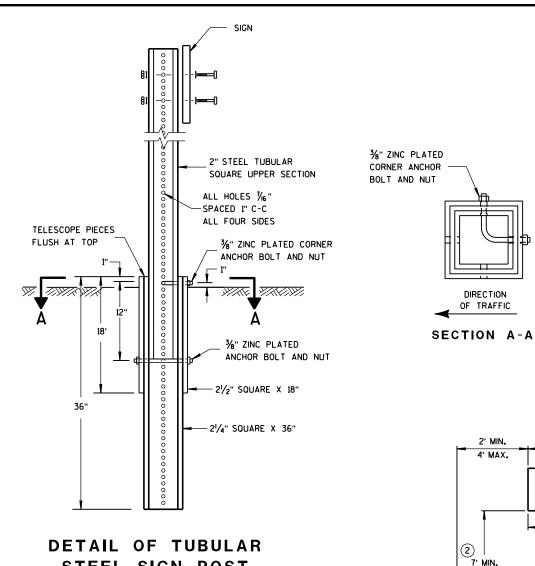
- (1) CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL 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) CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- 5 CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- (6) THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (8) LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- (9) CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.

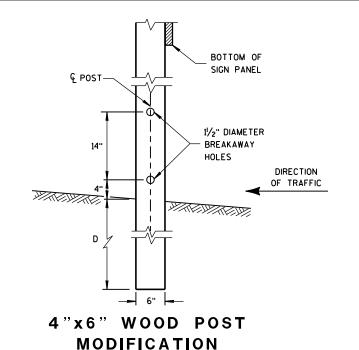
DEPARTMENT OF TRANSPORTATION

 $\frac{\text{March 2015}}{\text{DATE}} \quad \frac{\text{/S/ TravIs Feltes}}{\text{STATE TRAFFIC ENGINEER OF DESIGN}}$

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GENERAL NOTES

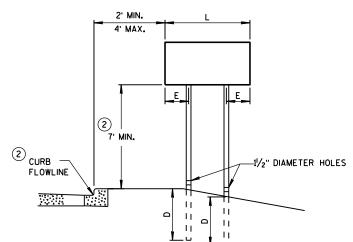
- (1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- (2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY 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. IF NO SIDEWALK AND NO PARKING,
 VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- (3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

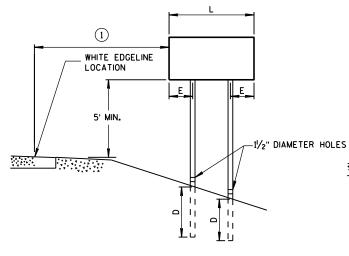
STEEL SIGN POST

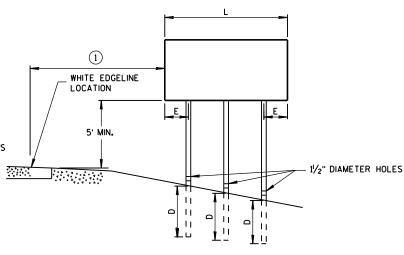
TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SO. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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 SO.FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE). SIGNS LARGER THAN 27 SO.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.







URBAN AREA

RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST **EMBEDMENT DEPTH**

AREA OF SIGN INSTALLATION (SO. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF	
L	E	WOOD POSTS REQUIRED	
48" OR LESS AND LESS THAN 20 SO.FT.	-	1	
LESS THAN 60"	12"	2] [:]
60" TO 120"	L/5	2	
GREATER THAN 120" LESS THAN 168"	12"	3	
168" AND GREATER	12"	4	

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

D D 15 \Box œ

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38-

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.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SO. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED Feb. 2015

FHWA

PATE DATE TRAFFIC ENGINEER OF DESIGN

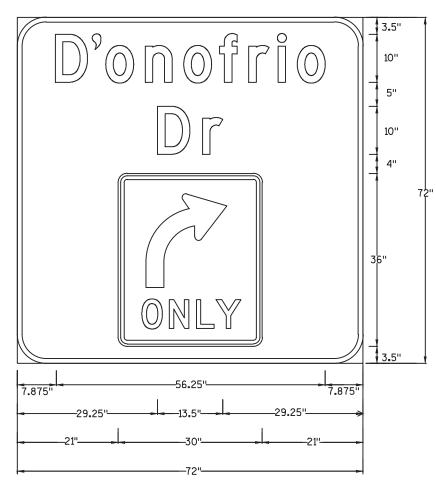
38-1b

Ω

NOTES

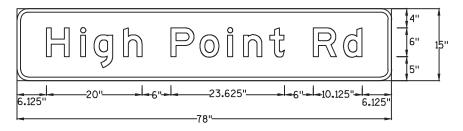
1. ALL SIGNS ARE TYPE II - TYPE H REFLECTIVE
2. COLOR:

BACKGROUND - GREEN
MESSAGE - WHITE
3. MESSAGE SERIES - E EXCEPT AS NOTED



6.000" RADIUS, 1.000" BORDER "D'onofrio" D "Dr" D

PERMANENT SIGN TYPE II



2.250" RADIUS, 0.750" BORDER

TRAFFIC CONTROL DETOUR SIGN M1-94-H

PROJECT NO:5300-02-73

HWY: USH 12

COUNTY: DANE

SIGNING DETAILS

SCALE:

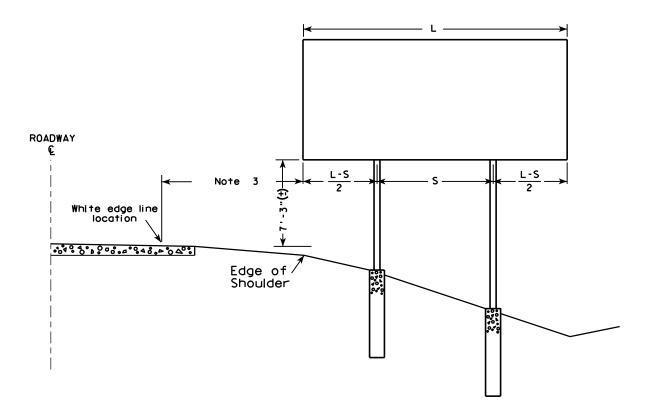
SHEET

FILE NAME : N:\PDS\C3D\53000202\SHEETSPLAN\070101-SD.DWG

PLOT DATE: 9/23/2013 4:47 PM

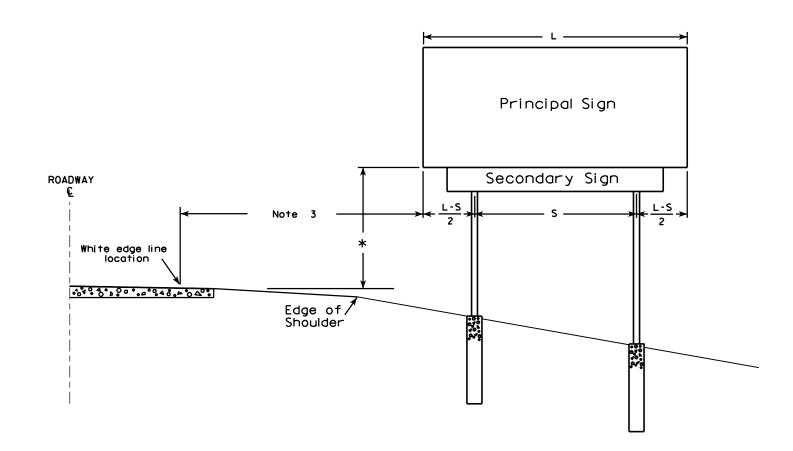
PLOT BY : THOMPSON, BENJAMIN PPLOT NAME : ______PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 47



GENERAL NOTES

- 1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
- 2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
- 3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
- 4. The (+) tolerance shown on this sheet is 3 in.
- 5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
- 6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
- 7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.



* Clearance is $8'-3''(\pm)$ when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be $5'-3''(\pm)$.

> TYPICAL INSTALLATION OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED for State Traffic Engineer PLATE NO. <u>A4-1.9</u>

DATE 4/02/08

SHEET NO:

PROJECT NO:

PLOT DATE: 02-APR-2008 15:49

PLOT BY : ditjph

URBAN ARFA



RURAL AREA (See Note 2)



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



5'-3"(生) D^{-1} Outside Edae of Gravel

White Edgeline Location

** 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.

HWY:

* 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.

PLOT BY : mscj9h

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 barrier wall, see A4-10 sign plate.
- 3. For expressways and freeways, mounting height is $7'-3''(\pm)$ or 6'-3" (±) depending upon existence of a sub-sign.
- 4. Minimum mounting height for J assemblies (A2-1S) is $7'-3''(\pm)$ or $6'-3''(\pm)$ per urban or rural detail respectively.
- 5. Minimum mounting height for signs mounted on traffic signal poles is 5' - 3'' (\pm).
- 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
- 7. The (+) tolerance for mounting height is 3 inches.
- 8. Folding signs shall be mounted at a height of 5'-3'' (\pm) or as directd by the Engineer.
- 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (\pm) . 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'' (\pm).

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

SHEET NO:

APPROVED

for State Traffic Engineer

DATE 7/23/15

PLATE NO. <u>A4-3.20</u>

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN

PROJECT NO:

PLOT DATE: 23-JUL-2015 15:21

COUNTY:

PLOT NAME :

PLOT SCALE: 99.237937:1.000000

WISDOT/CADDS SHEET 42



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



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

HWY:



PLAN VIEW

COUNTY:

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

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

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN

PROJECT NO:

PLOT DATE: 27-JAN-2014 09:48

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 13.659812:1.000000

APPROVED

WISDOT/CADDS SHEET 42

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3'' (±) or 6'-3'' (±) per urban or rural detail respectively.
- 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.

URBAN AREA RURAL AREA (See Note 3) 2'Min - 4'Max (See Note 6) ₩E# FF# 6'-3"(±) 6'-3"(±) 7'-3"(±) ** Curb ********\ Flowline D **7000** White Edgeline D 11 White Edgeline, Location Outside Edae Location

2'Min - 4'Max (See Note 6) 6'-3"(±) Curb Flowline. -11

48" DIAMOND WARNING SIGN

HWY:

_ 26" 5 ' - 3 "(±) White Edgeline Location Outside Edge of Gravel 48" DIAMOND WARNING SIGN

COUNTY:

Outside Edge

of Gravel

	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E	
* * *	Greater than 48" Less than 60"	12"	
	60" to 120"	L/5	l

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)		
L	E	
Greater than 120" less than 168"	12"	

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)		
L	E	
168" and greater	12"	

POST EMBEDMENT DEPTH

of Gravel

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

Matther

SHEET NO:

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN

PROJECT NO:

PLOT DATE: 23-JUL-2015 15:23

PLOT SCALE: 107.021305:1.000000

WISDOT/CADDS SHEET 42

PLOT NAME :

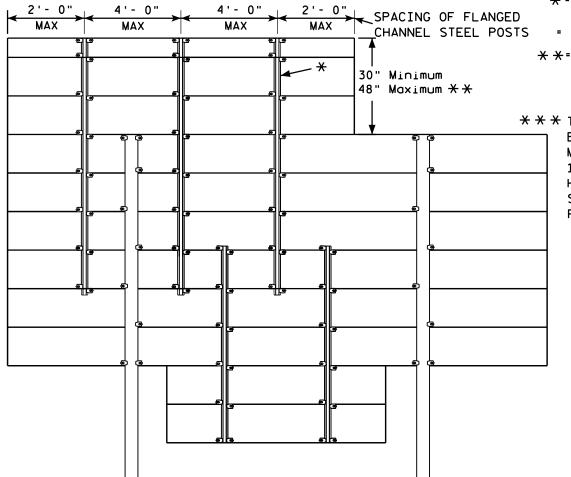
PLOT BY: mscj9h

WISCONSIN DEPT OF TRANSPORTATION APPROVED

For State Traffic Engineer

PLATE NO. 44-4.14 DATE 7/23/15





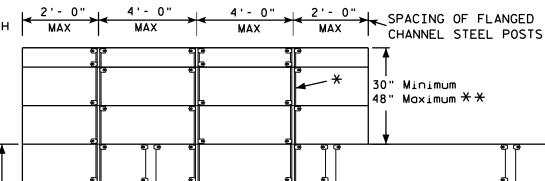
*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH

CHANNEL STEEL POSTS = 60,000 PSI (GRADE 60) GALVANIZED

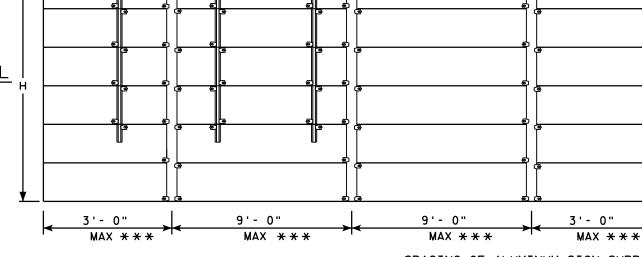
SIGN BRIDGE MOUNTED SIGN

* *= FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

* * THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.



FLANGE CHANNEL DETAIL 1/₄ → 1/₄ → NOT TO SCALE



SPACING OF ALUMINUM SIGN SUPPORTS 5" X 3.5" X 3.7 LBS./ft.

GENERAL NOTES

- 1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
- 2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.

2'- 0"

- 4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
- 5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
- 6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

PLOT BY: mscs.ja

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer

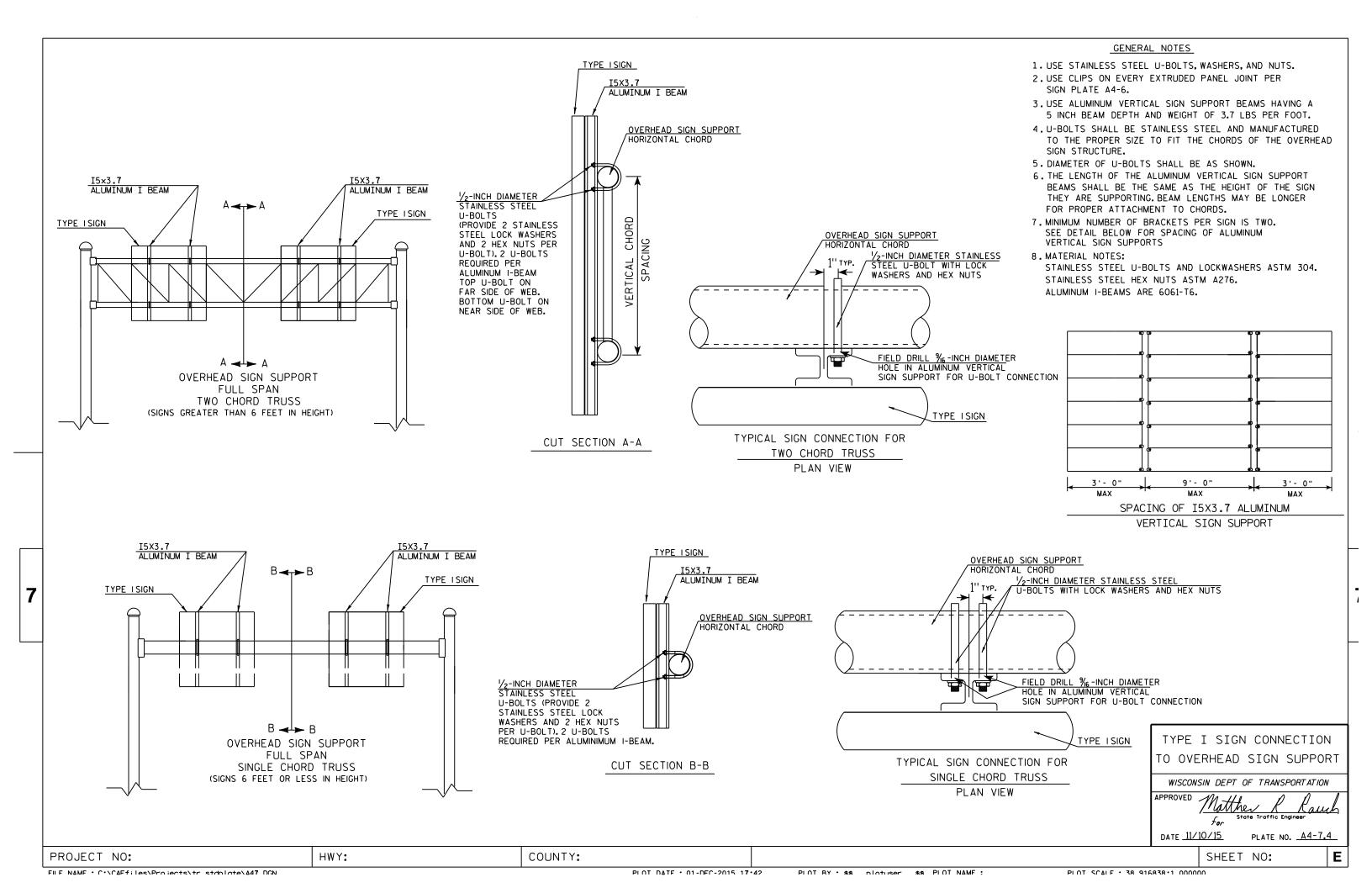
DATE 12/05/13

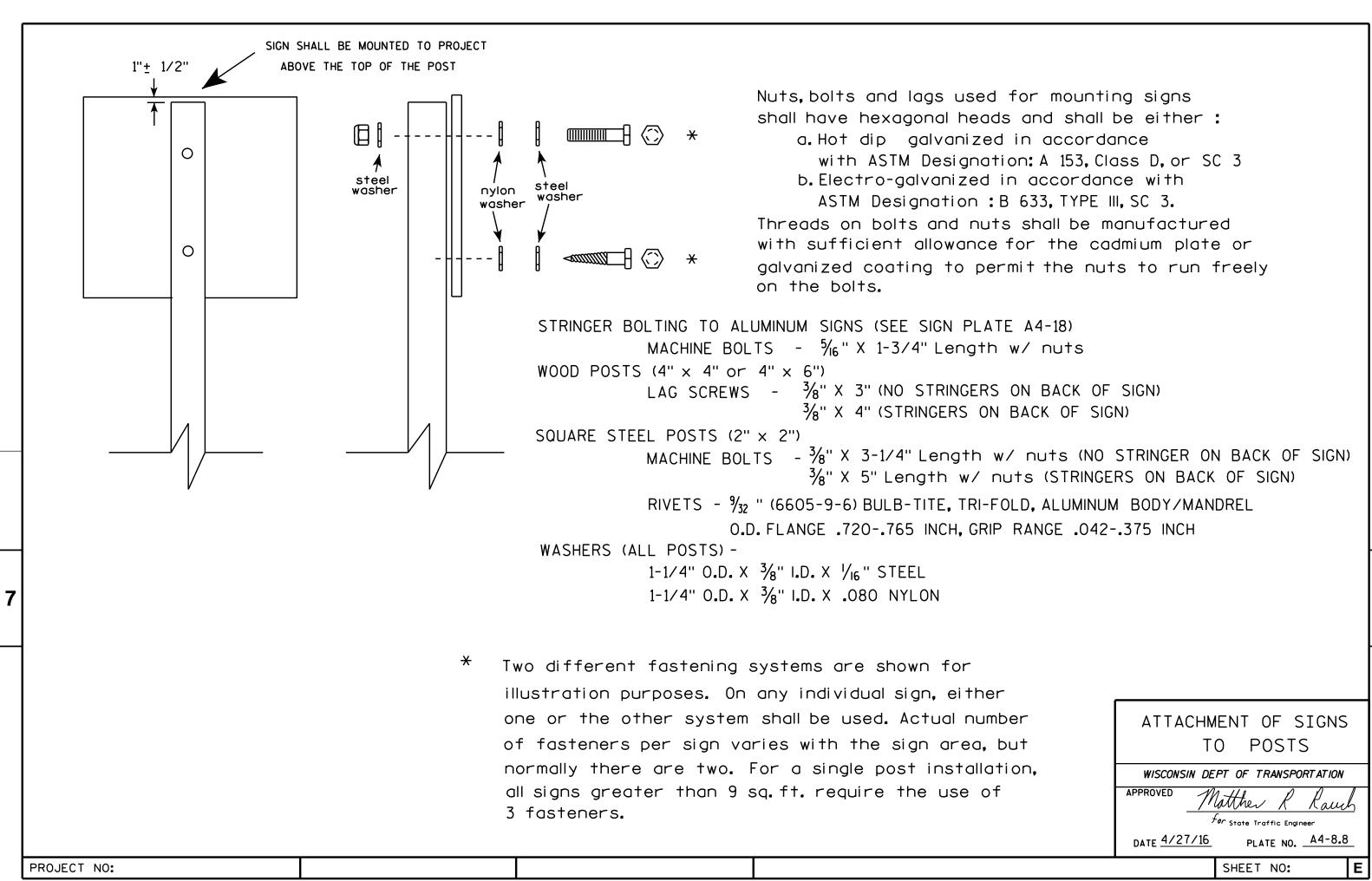
PLATE NO. A4-6.12

SHEET NO:

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A46.DGN







PROJECT NO: HWY: COUNTY: SHEET NO: 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

DATE 2/05/15

PLATE NO. <u>A4-9.9</u>

For State Traffic Engineer

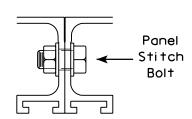


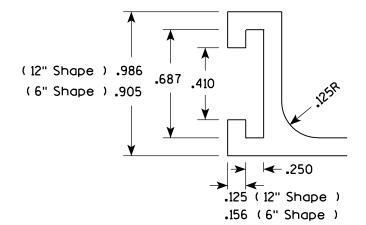
STITCH BOLT, WASHER & NUT

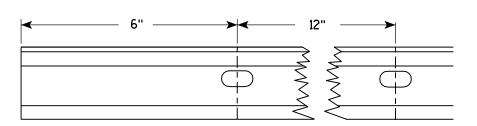
The hardware includes:

3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy 3/8 " - Stainless steel stop nut

3/8" X .064 Flat Washers, Alclad 2024-T4 alloy







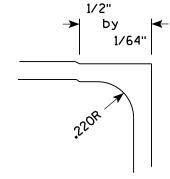
.078

← 2" →

6" Extrusion Minimum Weight 1.1 lb./ft.

←.125

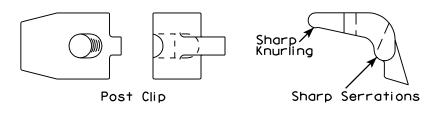
Punch $7/16" \times 7/8"$ oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

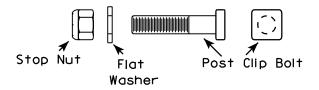


PLOT BY : DOTDZK

POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

- 1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
- 2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
- 3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Les to J Spany

for State Traffic Engineer

DATE 11/18/99

PLATE NO. 45-2.9

SHEET NO:

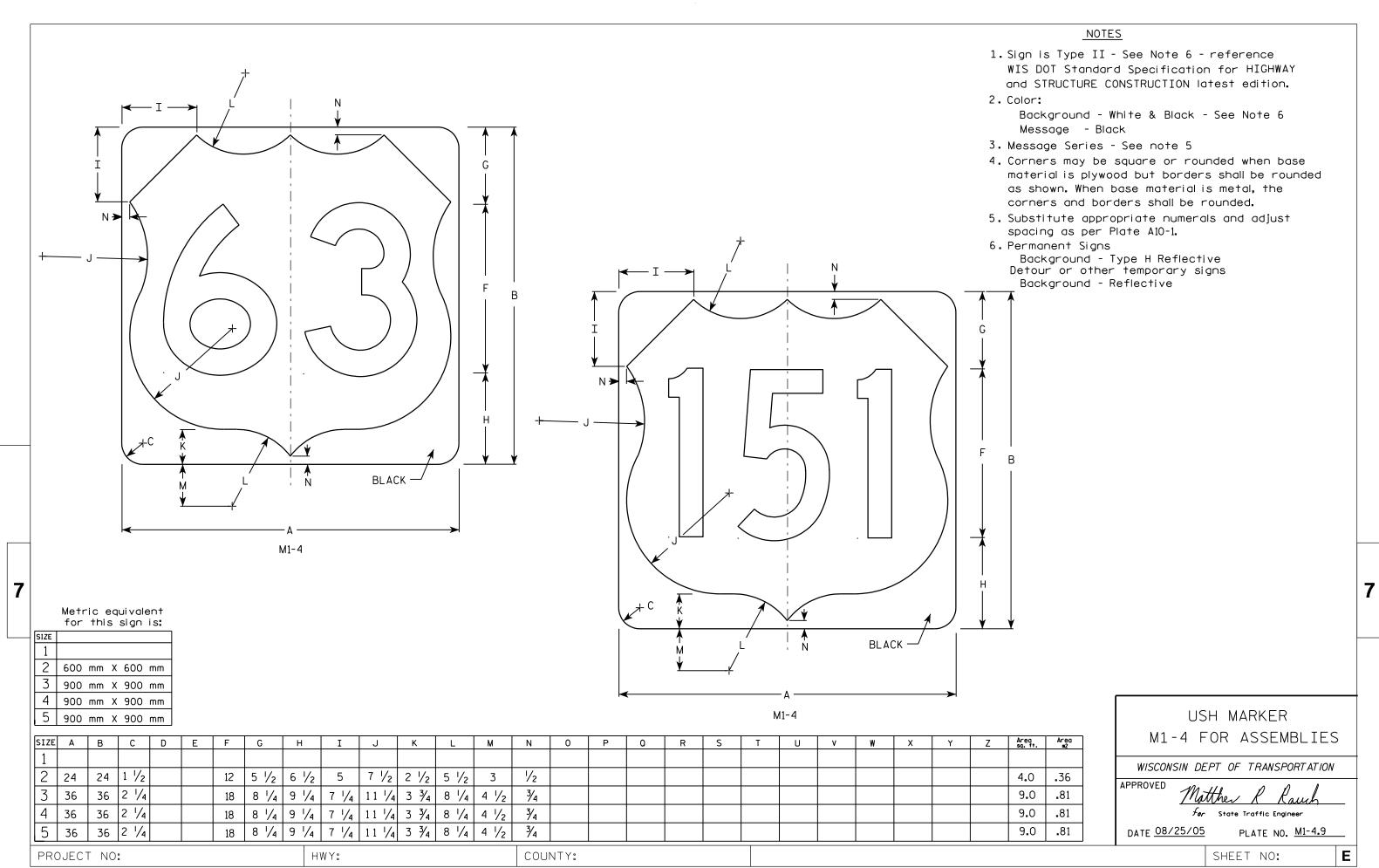
PROJECT NO:

PLOT DATE: 28-SEP-2005 07:20

12" Extrusion

Minimum Weight

2.45 lb./ft.



FILE NAME : C:\Users\Projects\tr_stdplate\M14.DGN







MP3-1









HWY:



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	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	0	R	S	Т	U	V	W	Х	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 1/8	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

COUNTY:

STANDARD SIGNS M3-1 thur M3-4 **SERIES**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 10/15/15 PLATE NO. M3-1.14

Ε

SHEET NO:

FILE NAME · C·\CAFfiles\Projects\tr stdolote\M31 DCN

PROJECT NO:

PLOT DATE . 01-DEC-2015 17:54

PLOT RY . \$\$ plotuser \$\$ PLOT NAME :

PLOT SCALE . 11 675051.1 000000

- 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.

) A G	
	;
→ G →	
Y	

Α С E F G H I J S Х Z D 0 10 10 1/4 1 1/8 3/8 3/8 24 2.0 3 36 1 1/8 3/8 1/2 4 1/2 14 5/8 14 1/2 4.5 4 5

COUNTY:

STANDARD SIGN M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

DATE 11/10/10 PLATE NO. M4-8.2

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M48.DGN

PROJECT NO:

HWY:

PLOT DATE: 10-NOV-2010 13:18

PLOT BY : ditjph

PLOT SCALE : 4.767

PLOT NAME :

PLOT SCALE: 4.767233:1.000000

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.

 $D \longrightarrow$ Н M4-8A

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	Т	U	٧	w	Х	Y	Z	Area sq. ft.
$\parallel 1 \parallel$																											
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				·	·						·				·												

COUNTY:

STANDARD SIGN M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther

For State Traffic Engineer DATE 3/9/11

PLATE NO. M4-8A.2

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M48A.DGN

HWY:

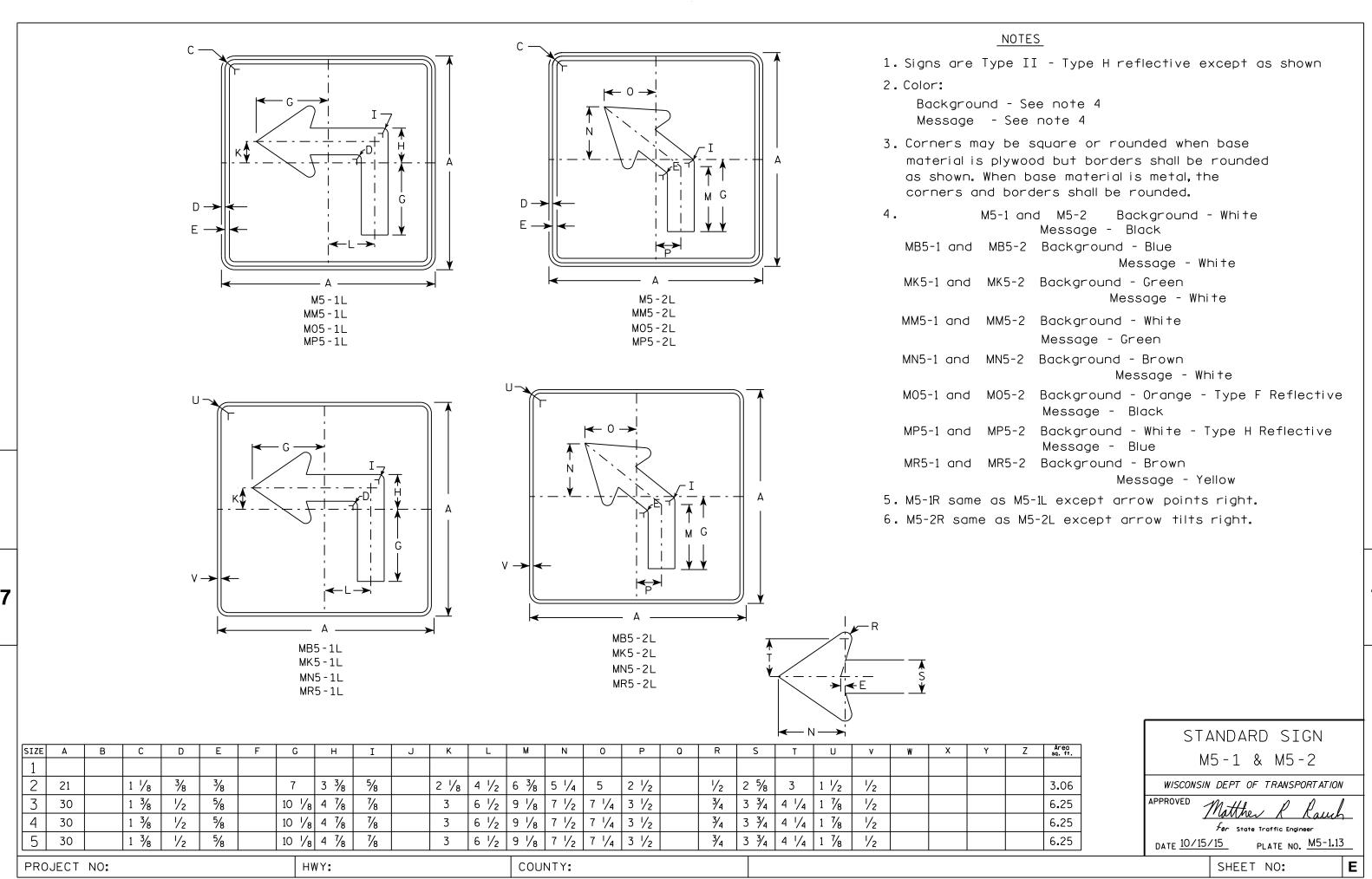
PROJECT NO:

PLOT DATE: 09-MAR-2011 10:29

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: 3.972696:1.000000



FILE NAME . C.\CAFfiles\Projects\tr stdolote\M51 DCN

PLOT DATE . 01-DEC-2015 18:07

PINT RY . \$\$ DIOTUSET \$\$ PINT NAMF :

PLOT SCALE . 11 675051.1 000000







MR6-1

HWY:



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

M06-1 and M06-2 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



SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	٥	R	S	T	U	٧	W	Х	Y	Z	Area sq. ft.
1 1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 %	5	4 1/4	5 1/4	3	2 %	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 1/8	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 1/8	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 1/8	1/2					6.25

COUNTY:

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew & Rawl For State Traffic Engineer

Ε

DATE 10/15/15 PLATE NO. M6-1.15

SHEET NO:

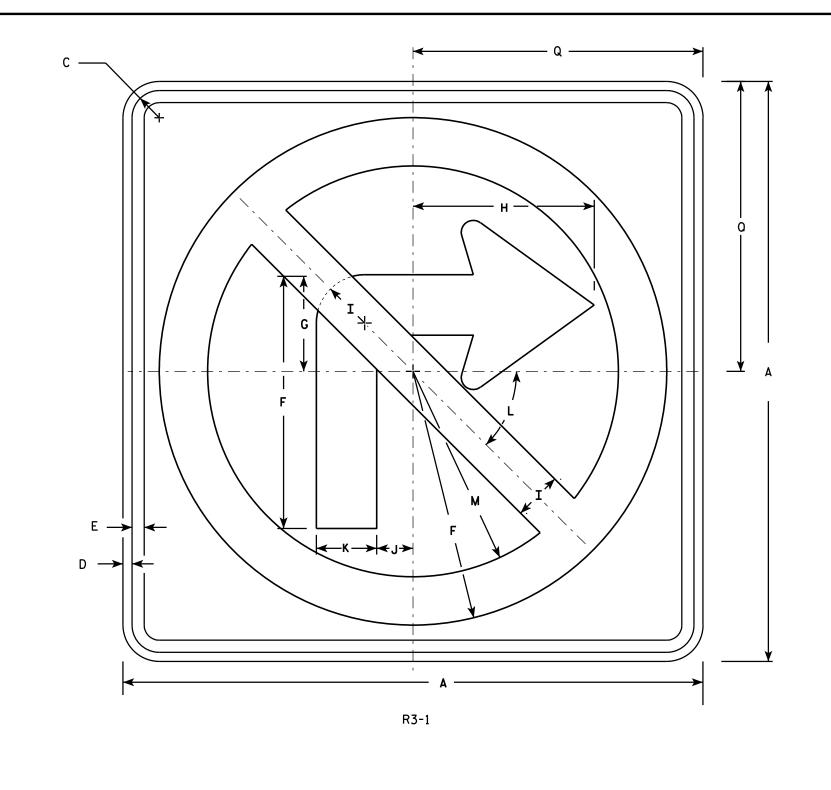
FILE NAME · C·\CAFfiles\Projects\tr stdplote\M61 DCN

PROJECT NO:

PLOT DATE . 01-DEC-2015 17:57

PIOT RY . \$\$ plotuser \$\$ PIOT NAMF :

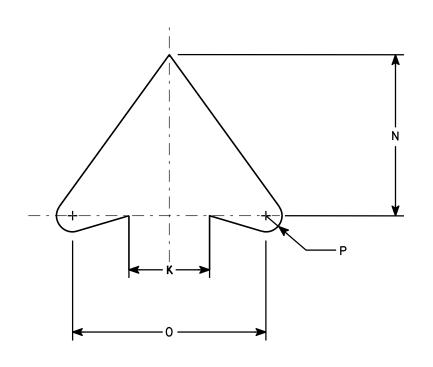
PLOT SCALE . 11 675051.1 000000



- 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 - 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

PLOT NAME :

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	V	W	Х	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45 °	8 ½	5	6	1/2	12										4.0
2M	36		1 %	5/8	3/4	15 ¾	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 %	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 %	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0
PRO	JECT	NO:			·		ŀ	HWY:	·			·	СО	UNTY:			·			·		·	·			·	

STANDARD SIGN R3-1

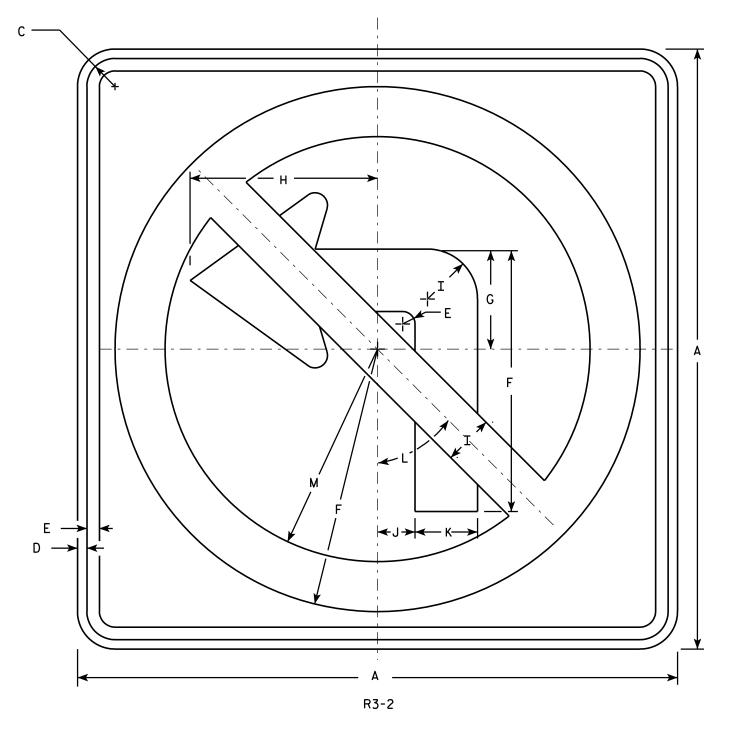
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matther

DATE12/08/10

PLATE NO. __R3-1.5

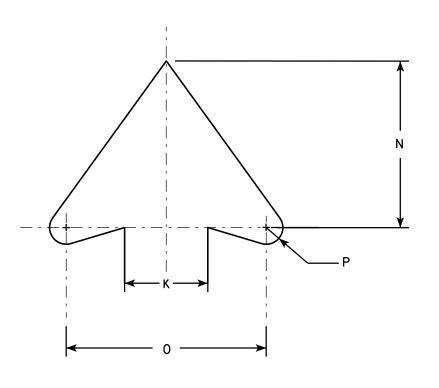
SHEET NO:



- 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 - 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	٧	₩	X	Y	Z	Area sq. ft.
1	24		1 1/8	3⁄8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	9	1/2											4.0
2M	36		1 1/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 1/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 1/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

COUNTY:

STANDARD SIGN R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

 $f_{\it or}$ State Traffic Engineer

DATE 12/08/10

PLATE NO. R3-2.10

SHEET NO:

HWY:

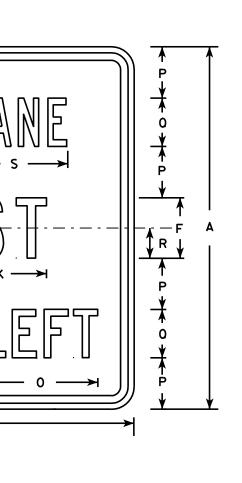
PROJECT NO:

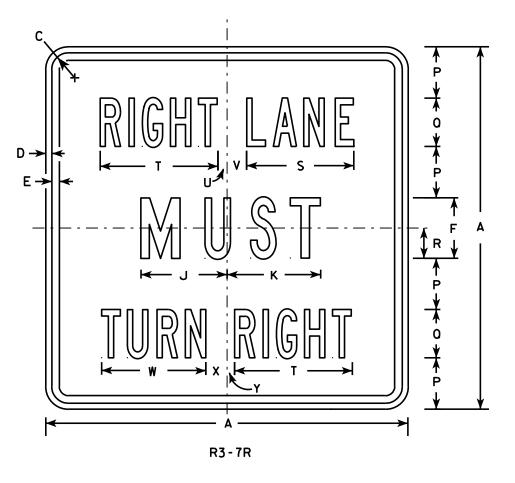
PLOT NAME :

- 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 Line 1 is Series B. Line 2 is Series C. Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
- 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	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	0	R	S	Т	U	V	w	X	Y	Z	Areo sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 %	4 1/4	4	2 1/2	8 %	9 3/4	3/4	1 %	8 %	1 %	5/8		6.25
25	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 %	4 1/4	4	2 1/2	8 %	9 3/4	3/4	1 %	8 %	1 %	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 %	4 1/4	4	2 1/2	8 %	9 3/4	3/4	1 %	8 %	1 %	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 %	2	1 1/8	8 3/4	9	13 ½	3 %	1 1/2	12 1/2	5	5	3	10 %	12	7∕8	2 1/4	10 %	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 ½	11 1/2	11 1/8	17 3/4	3 %	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 1/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

COUNTY:

STANDARD SIGN R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch

DATE 3/18/2011

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R37.DGN

PROJECT NO:

R3-7L

HWY:

PLOT DATE: 18-MAR-2011 09:43

PLOT BY: mscsja

PLOT NAME :

PLOT SCALE: 7.945391:1.000000

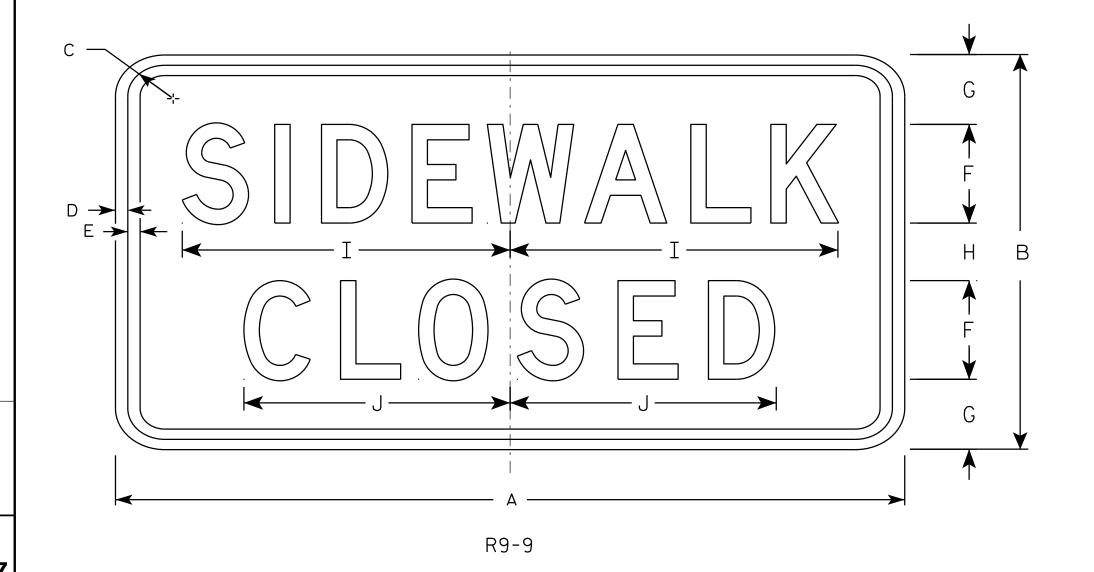
WISDOT/CADDS SHEET 42

PLATE NO. R3-7.3

- 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.



SIZE	Α	В	С	D	Е	F	G	H	I	J	K	L	М	N	0	Р	0	R	S	Т	J	٧	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																											

COUNTY:

STANDARD SIGN R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew & Rain

DATE 3/10/16 PLATE NO. R9-9.6

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R99.DGN

HWY:

PROJECT NO:

PLOT DATE: 10-MAR-2016 15:44

PLOT NAME :

PLOT BY: mscsja

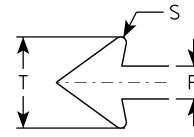
WISDOT/CADDS SHEET 42

PLOT SCALE : 2.918761:1.000000

- 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 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.



← P →	F V	<u> </u>

SIZE	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	Т	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 %	3 ½	9 1/4	6 %	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 %	3 1/2	9 1/4	6 %	5 1/8		1	1/8	2 3/4							2.0
3	48	30	2 3/4	3/4	3/4	4	2 1/2	3 1/2	20 ½	1 1/4	3	16 3/8	7 1/4	18 ½	14	11 1/8		2	3∕8	5 1/2							10.0
4																											
5																											

STANDARD SIGN R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

OVED Matthew R Rouse

DATE 3/10/16

10/16 PLATE NO. R9-11.3

SHEET NO:

HWY:

COUNTY:

PLOT DATE: 10-MAR-2016 14:57

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 5.837529:1.000000

WISDOT/CADDS SHEET 42

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R911.DGN

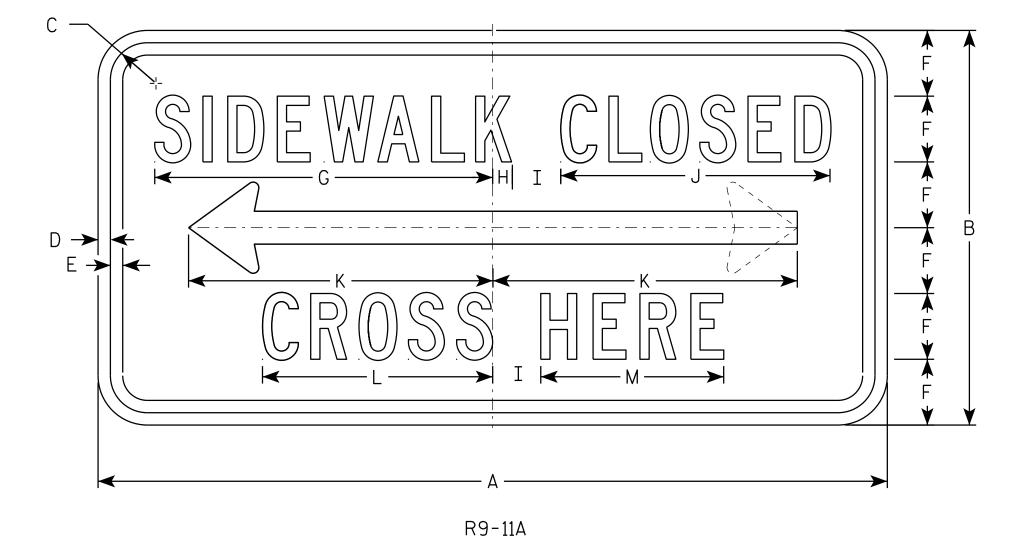
PROJECT NO:

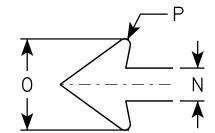
 $D \rightarrow$

- 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.





SIZE	Α	В	С	D	E	F	G	Ι	I	J	K	┙	M	N	0	Р	0	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
25	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 %	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 %	1	2 3/4	1/8											2.0
3	48	24	2 3/4	3/4	3/4	4	20 1/2	1 1/4	3	16 3/8	18 ½	14	11 1/8	2	5 ½	3/8											8.0
4																											
5																											

COUNTY:

STANDARD SIGN R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

PLATE NO. R9-11A.3

DATE 3/10/16

SHEET NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R911A.DGN

HWY:

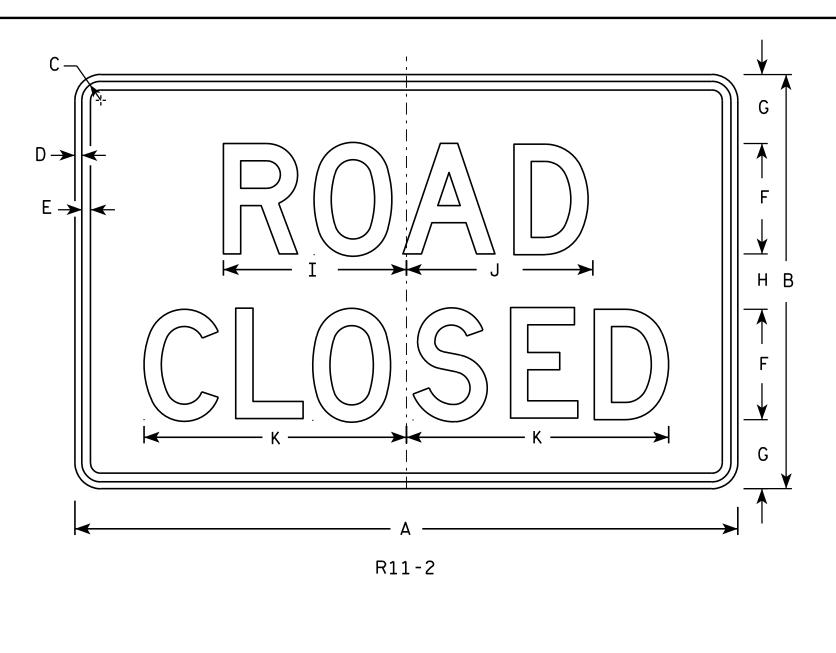
PROJECT NO:

PLOT DATE: 10-MAR-2016 15:01

PLOT NAME :

PLOT BY: mscsja

PLOT SCALE: 5.837529:1.000000

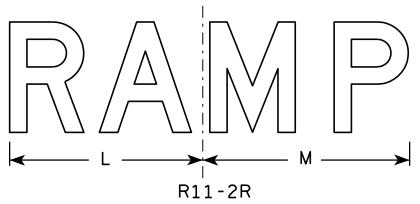


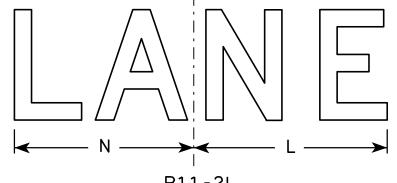
<u>NOTES</u>

- 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 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. Modify the message as required.





R	1	1	-	2	L

PLOT NAME :

SIZ	Έ	A	В	С	D	Ε	F	G	Н	I	J	K	L	M	N	0	Р	0	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																												
2	S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
21	I	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 ½	19	14	15	13													10.0
3		48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4		48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5		48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 ½	19	14	15	13													10.0

COUNTY:

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-2.10

SHEET NO:

HWY:

PROJECT NO:

- 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 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.

C —		\
D A E A		$ \begin{array}{c c} G & \hline & F & \hline & B & \hline & G & G & \hline & G & G & \hline & G & G & \hline & G & G & \hline & G & G & \hline & G & G & G & \hline & G & G & G & G & \hline & G & G & G & G & \hline & G & G & G & G & G & G \\ & G & G & G & G & G & G $
	R11-2B	

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	M	N	0	Р	0	R	S	T	U	V	W	X	Y	Z	Areg sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
2M	48	30	1 %	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
4	48	30	1 %	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 ¾	9 3/4	9 %																10.0

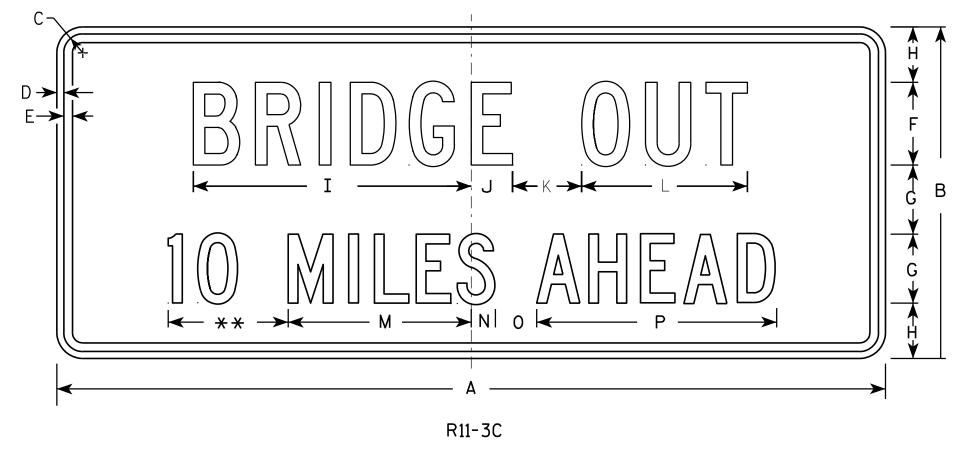
STANDARD SIGN R11-2B

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-2B.2

SHEET NO:

PROJECT NO:



- 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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** See Note 5

SIZE	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	0	R	S	T	U	V	W	Х	Y	Z	Areo sq. fi.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 ¾											3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8											10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8											10.0
3																											
4																											
5																											
PRC	JECT	NO:																									

STANDARD SIGN R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch PLATE NO. R11-3C.2

DATE 4/1/11

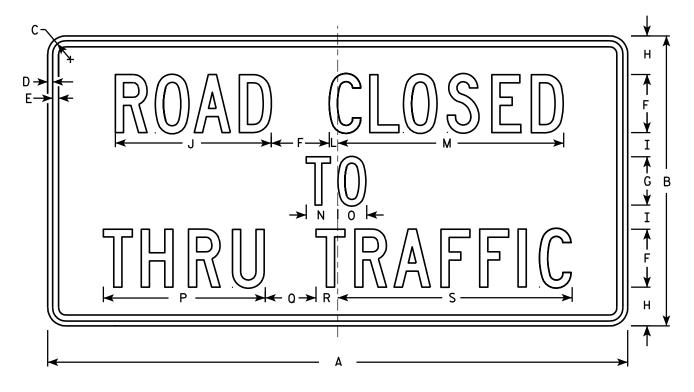
SHEET NO:

PLOT DATE: 01-APR-2011 14:15 PLOT BY: mscj9h

- 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.



R11-4

SIZE	Α	В	С	D	E	F	G	Η	I	J	K	L	М	Z	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7 /8	23 ¾	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7∕8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

COUNTY:

STANDARD SIGN R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

DATE 4/1/11 PLATE NO. R11-4.3

SHEET NO:

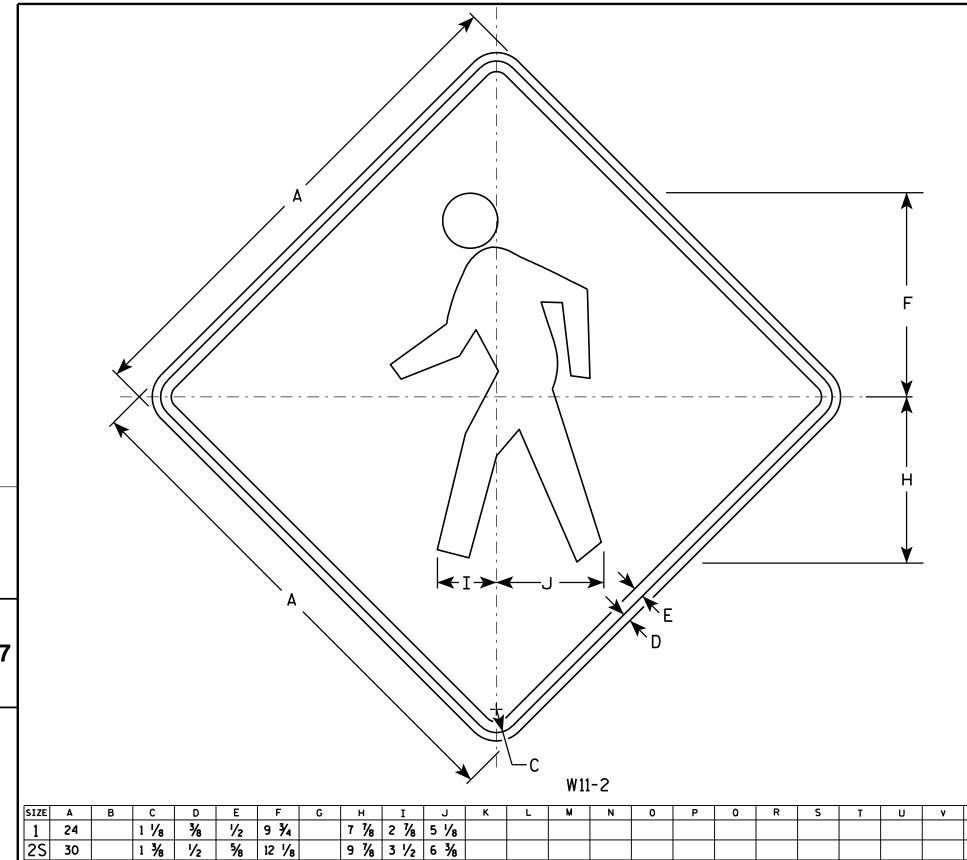
PROJECT NO: FILE NAME : C:\Users\PROJECTS\tr_stdplate\R114.DGN HWY:

PLOT DATE: 01-APR-2011 14:11

PLOT BY: mscj9h

PLOT NAME :

PLOT SCALE: 9.931739:1.000000



<u>NOTES</u>

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Yellow Message - Black

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.

STANDARD SIGN W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

For State Traffic Engineer

DATE <u>6/7/10</u>

PLATE NO. W11-2.7

SHEET NO:

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W112.DGN

1 1/8

1 %

2 1/4 3/4

2M

3

4 48

5

PROJECT NO:

5/8

5/8

3/4

14 1/2

3/4 14 1/2

1 19 3/8

11 1/8 4 1/4 7 5/8

11 1/8 4 1/4 7 5/8

15 3/4 5 5/8 10 1/4

HWY:

PLOT DATE: 07-JUN-2010 13:29

COUNTY:

PLOT NAME :

PLOT BY: ditjph

4.0

6.25

9.0

9.0

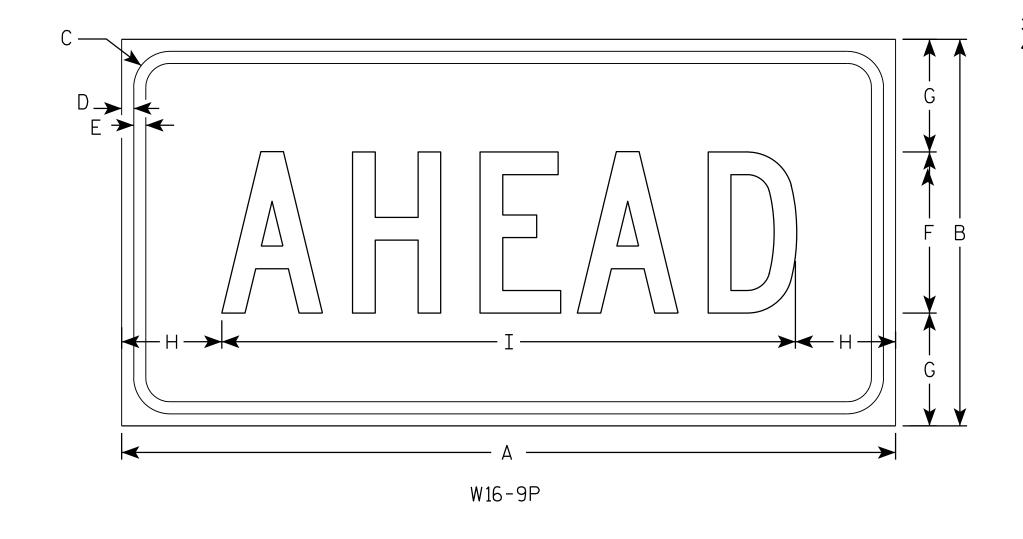
16.0

PLOT SCALE: 5.700818:1.000000

- 1. Sign is Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - Yellow 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.



SIZE	Α	В	С	D	E	F	G	Η	I	J	K	L	M	N	0	P	0	R	S	T	U	٧	₩	Х	Y	Z	Areg sq. ft.
1																											
25	24	12	1 1/8	3/8	3⁄8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 ¾																		8.0
5																											

COUNTY:

STANDARD SIGN W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matther R Rauch
For State Traffic Engineer

DATE 12/28/10

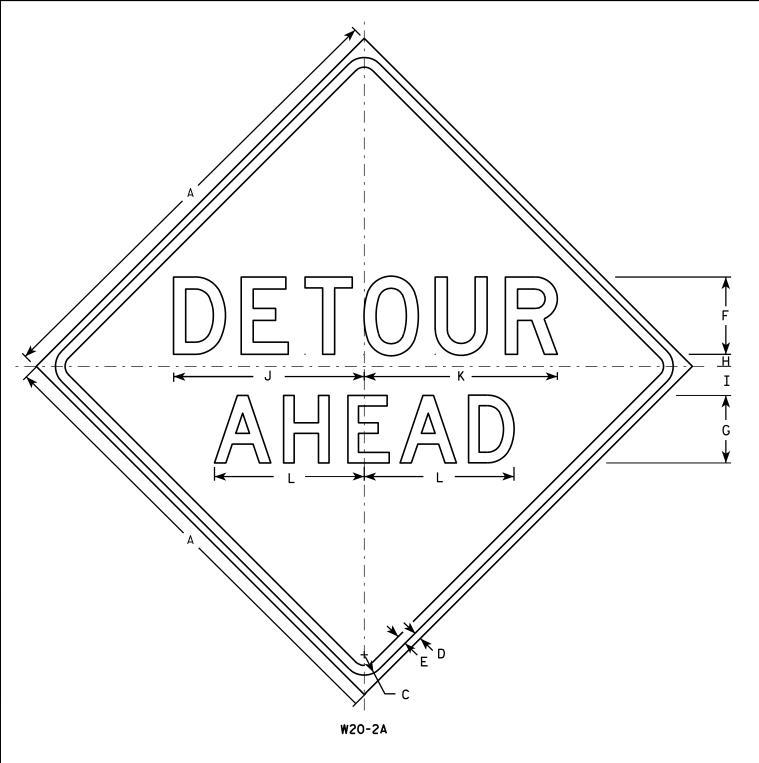
O PLATE NO. W16-9P.6

SHEET NO:

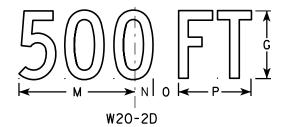
HWY:

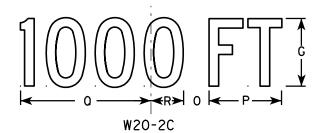
PROJECT NO:

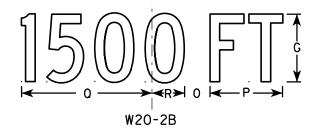
PLOT NAME :

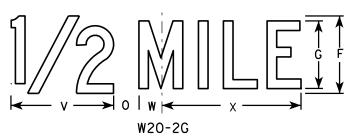


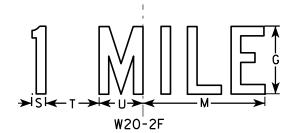
HWY:











PLOT BY: mscj9h

NOTES

- 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 See note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Line 1 is Series D.
 Line 2 is Series D for AHEAD and
 Series C for all other distances.

SIZE	. Α	В	С	D	E	F	G	Н	I	J	K	L	М	N	0	Р	0	R	S	T	U	٧	W	X	Y	Z	Area sq. ft.
1	36		1 1/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 1/8	5 %	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 3/8	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 3/8	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
3	48		2 1/4	₹4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 ½	3 %	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
4	48		2 1/4	₹4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 %	7 1/2	13 1/2	3 %	1 1/2	6	4 %	10 %	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 ¾	20	15 1/2	12	1 1/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 %	2 3/8	14 3/8	·		16.0

COUNTY:

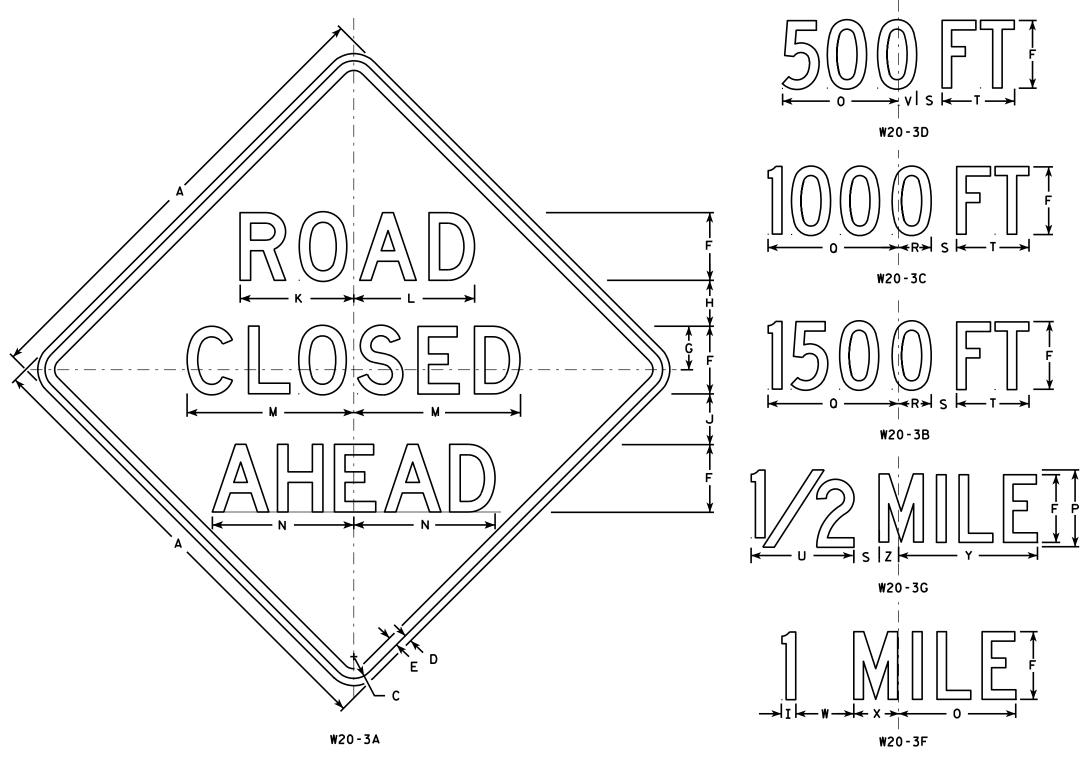
STANDARD SIGN W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

DATE 3/18/11 PLATE NO. W20-2.6

SHEET NO:

PROJECT NO:



- 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 see note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Lines 1 and 2 are Series D. Line 3 is Series D for AHEAD and Series C for all other distances.

1 % 5/8 ¾ 8 3/8 8 7/8 12 1/2 5 % 1 3/8 4 1/2 36 3 1/2 10 3/4 1 3/4 8 4 \(\frac{5}{8} \) 14 \(\frac{3}{8} \) 2 \(\frac{3}{8} \) 16.0 3/4 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 7 1/2 10 5/8 1 7/8 2M 3/4 4 \\ 14 \\ 38 \ 2 \\ 38 \ 16.0 48 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 7 1/2 10 % 1 % 4 1/2 4 3/4 1 1/2 5 1/4 11 3/4 12 1/2 17 1/4 14 5/8 3/4 13 1/2 3 3/8 2 5/8 7 1/2 10 5/8 1 3/8 4 % | 14 % | 2 % | 16.0 48 3/4 4 1/2 4 3/4 1 1/2 5 1/4 11 3/4 12 1/2 17 1/4 14 5/8 13 1/2 3 3/8 2 5/8 4 \\ 14 \\ 38 \ 2 \\ 38 \ 16.0 7 1/2 10 5/8 1 7/8 48 5 4 5/8 14 3/8 2 3/8 16.0 3/4 2 1/4 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 13 1/2 3 3/8 2 5/8 7 1/2 10 5/8 1 3/8 48

COUNTY:

STANDARD SIGN W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

For State Traffic Engineer DATE 3/18/11

PLATE NO. W20-3.7

SHEET NO:

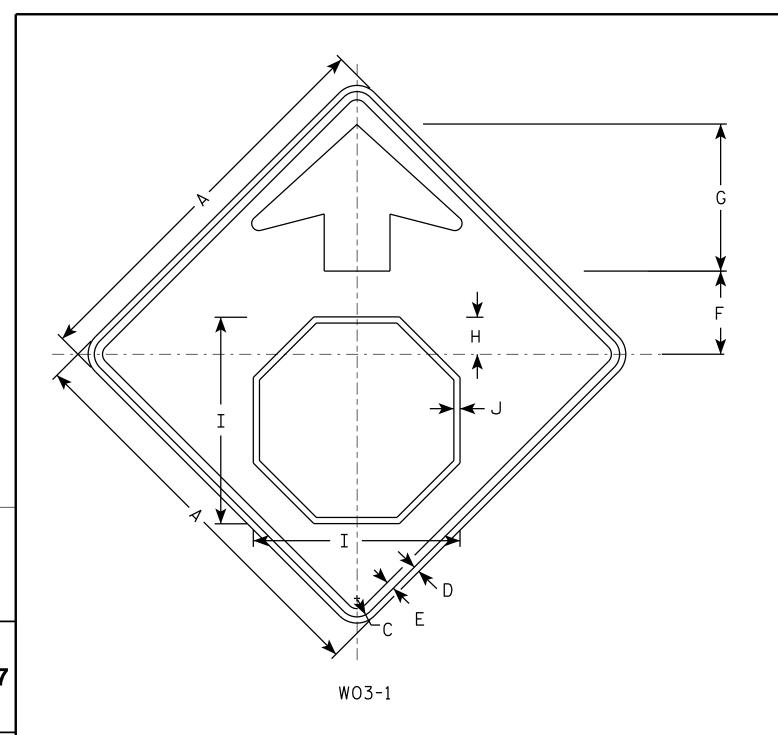
PROJECT NO: FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN HWY:

PLOT DATE: 18-MAR-2011 12:08

PLOT BY: mscj9h

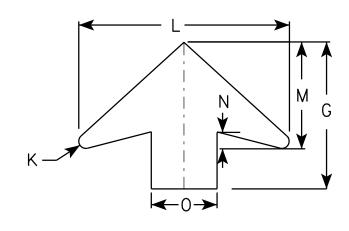
PLOT NAME :

PLOT SCALE: 9.931739:1.000000



- 1. All Signs Type II Type F Reflective reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:

Background - ORANGE Arrow & Border - BLACK Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	Α	В	С	D	Е	F	G	Н	I	C	K	L	М	N	0	Р	0	R	S	Т	C	٧	W	X	Υ	Z	Areo sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 %	6												9.0
2S	48		2 1/4	3/4	1	10	17 1/8	4 1/2	25 1/8	3/4	7∕8	25 %	13	2	8												16.0
2M	48		2 1/4	3/4	1	10	17 1/8	4 1/2	25 1/8	3∕4	7∕8	25 %	13	2	8												16.0
3	48		2 1/4	3∕4	1	10	17 1/8	4 1/2	25 1/8	3∕4	7∕8	25 %	13	2	8												16.0
4	48		2 1/4	3∕4	1	10	17 1/8	4 1/2	25 1/8	3∕4	7∕8	25 %	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 1/8	4 1/2	25 1/8	3/4	7 ⁄8	25 %	13	2	8												16.0

STANDARD SIGN WO3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVE

For sure of the

State Traffic Engine

DATE 11/20/13 PLATE NO. W03-1.1

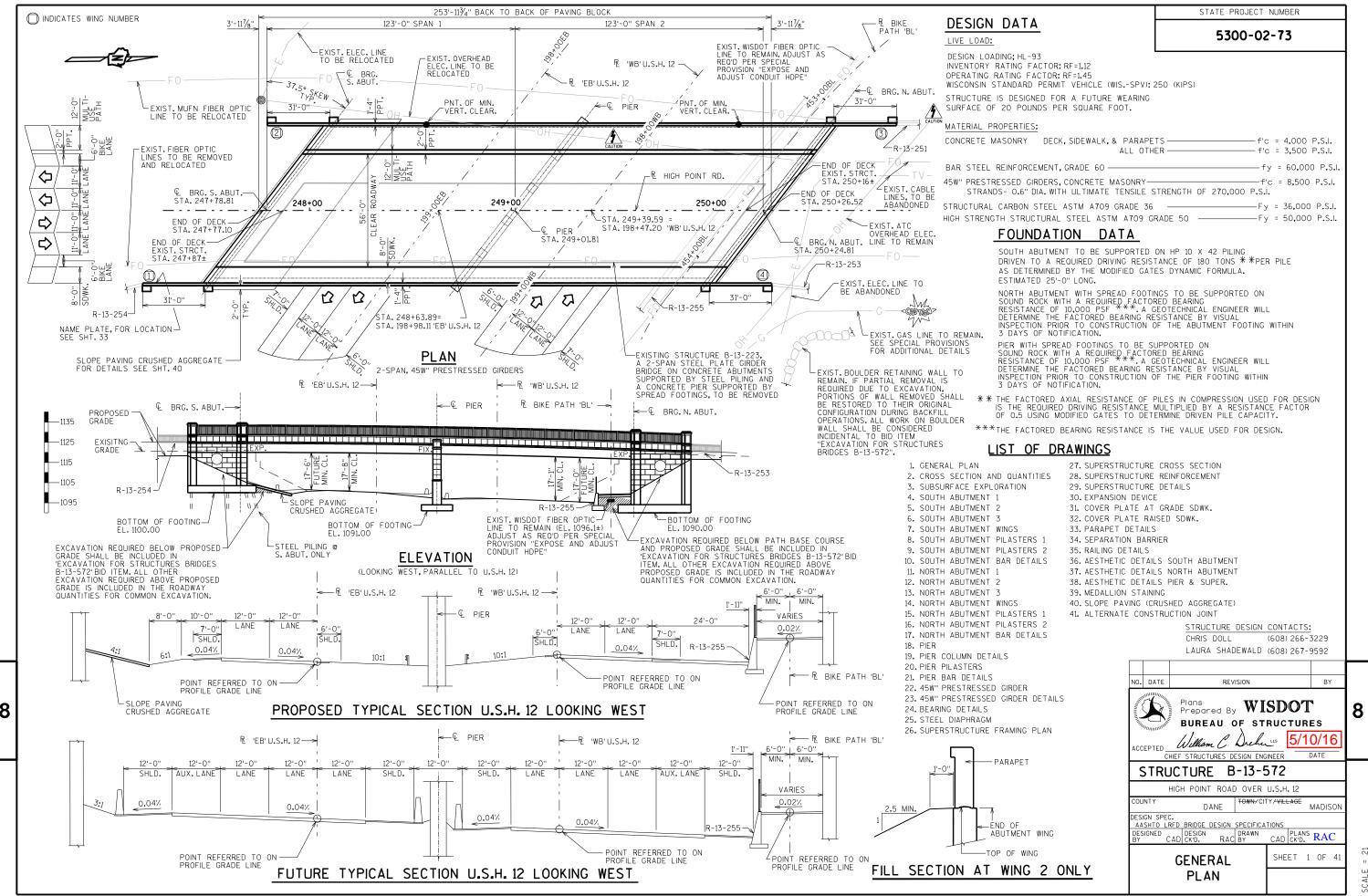
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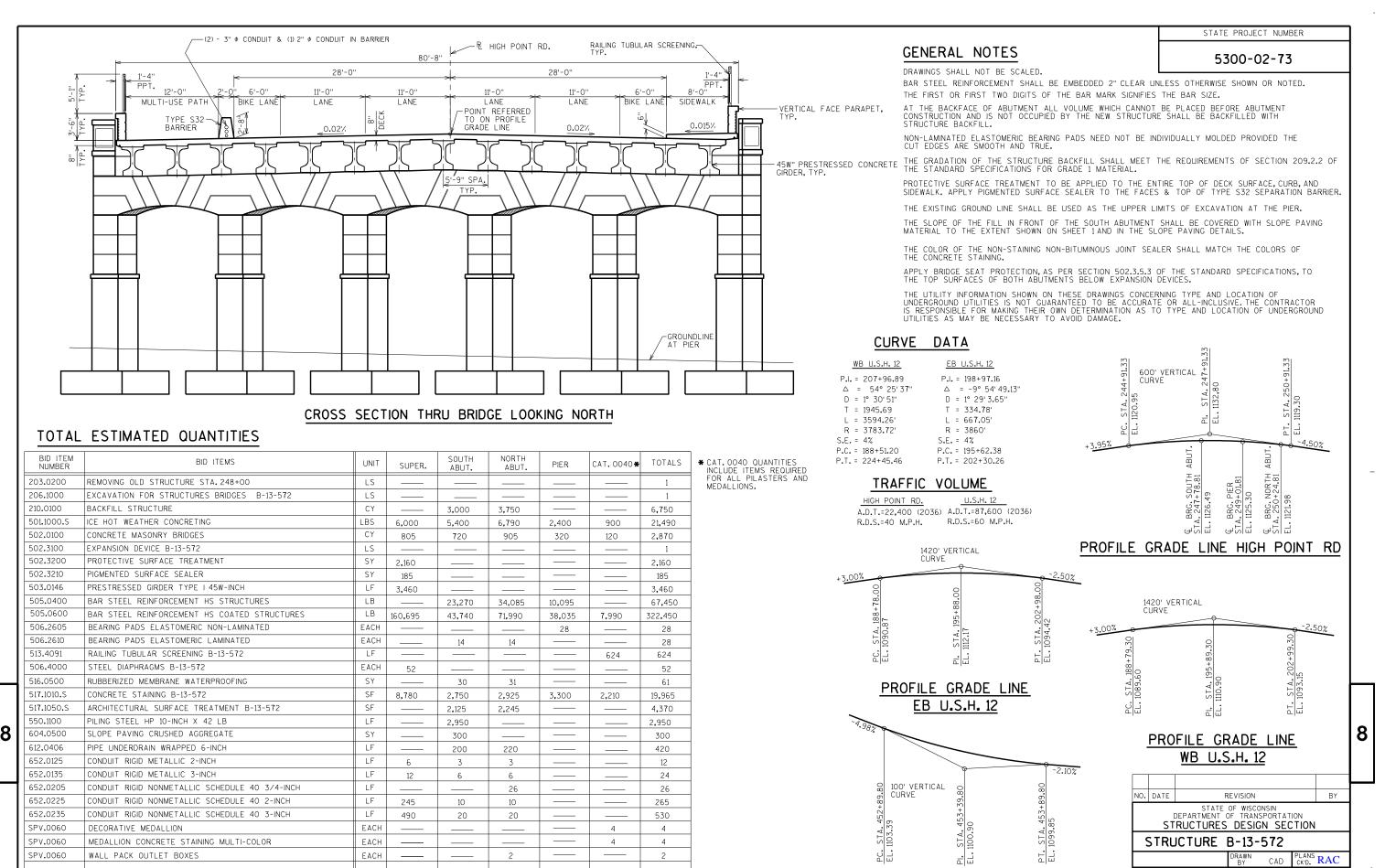
PROJECT NO:

FILE NAME: C:\CAEFiles\Projects\tr_stdplote\W031.DGN

PLOT DATE: 20-NOV-2013 10:54

PLOT BY: ms





NON-BID ITEMS

BRIDGE SEAT PROTECTION

FILLER

LS

SIZE

PROFILE GRADE LINE

BIKE LOOP

ALL BRIDGE BID ITEMS NOT IDENTIFIED

AS CAT. 0040 ARE CAT. 0020

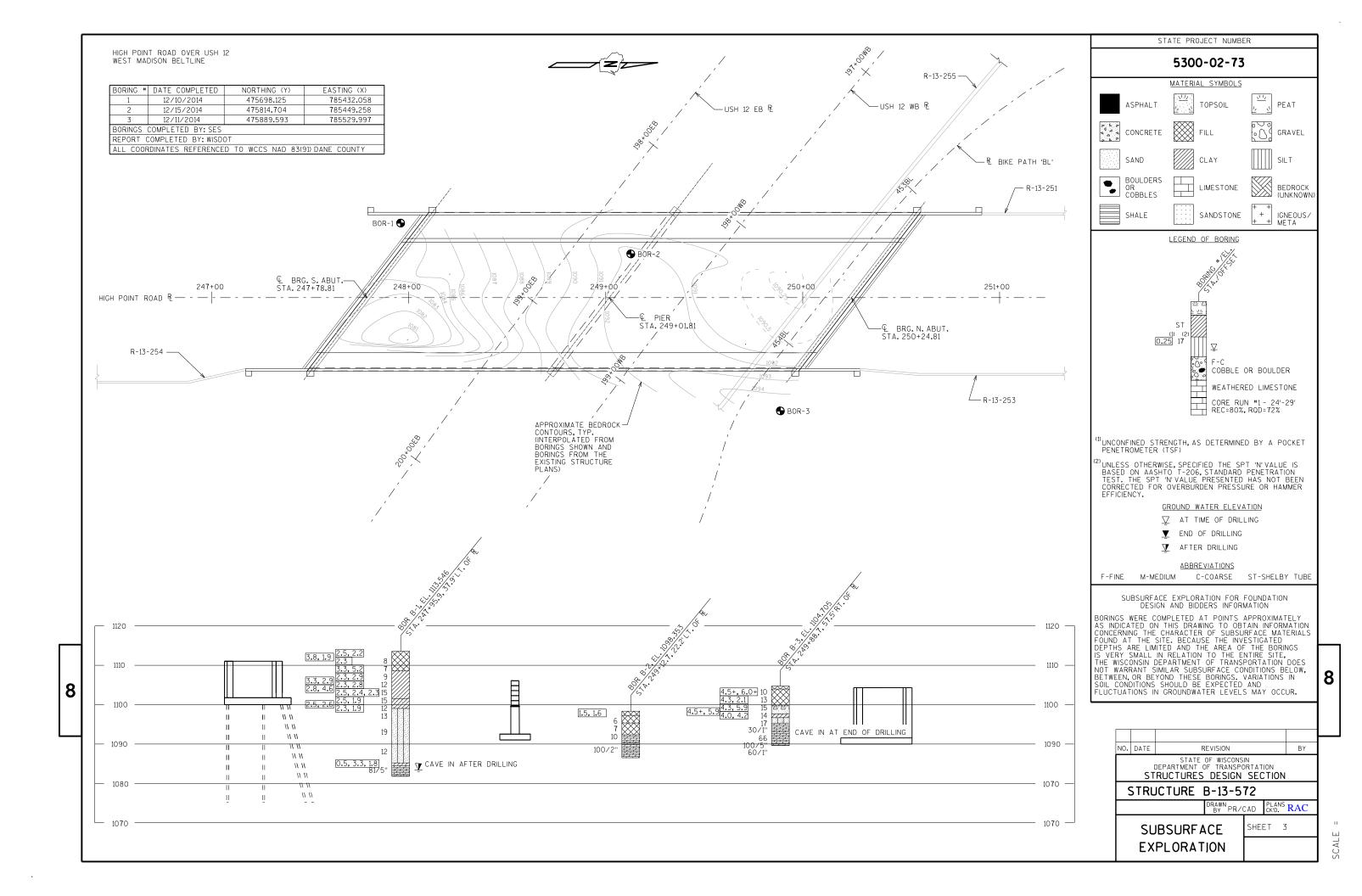
1/2" & 3/4"

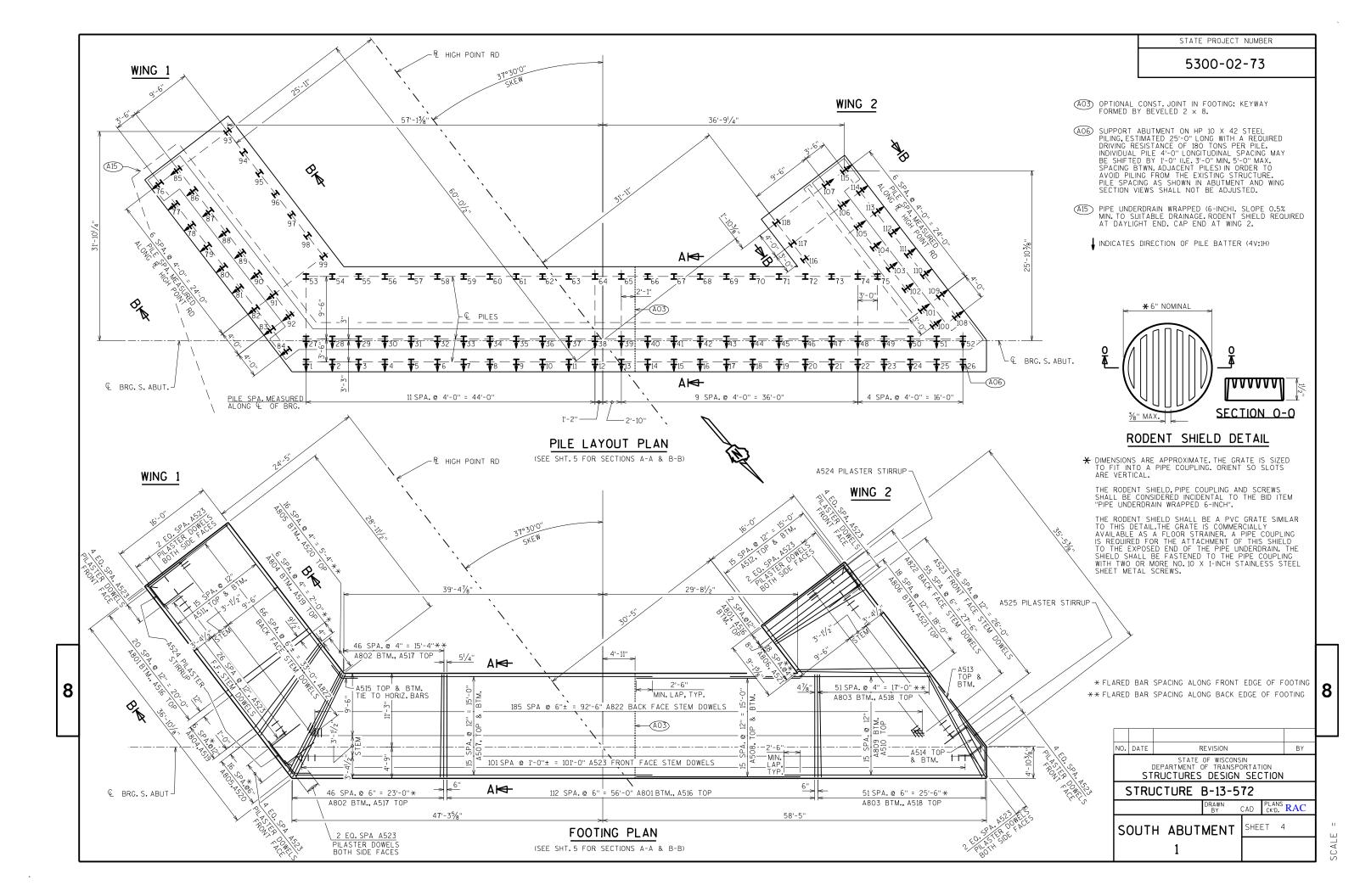
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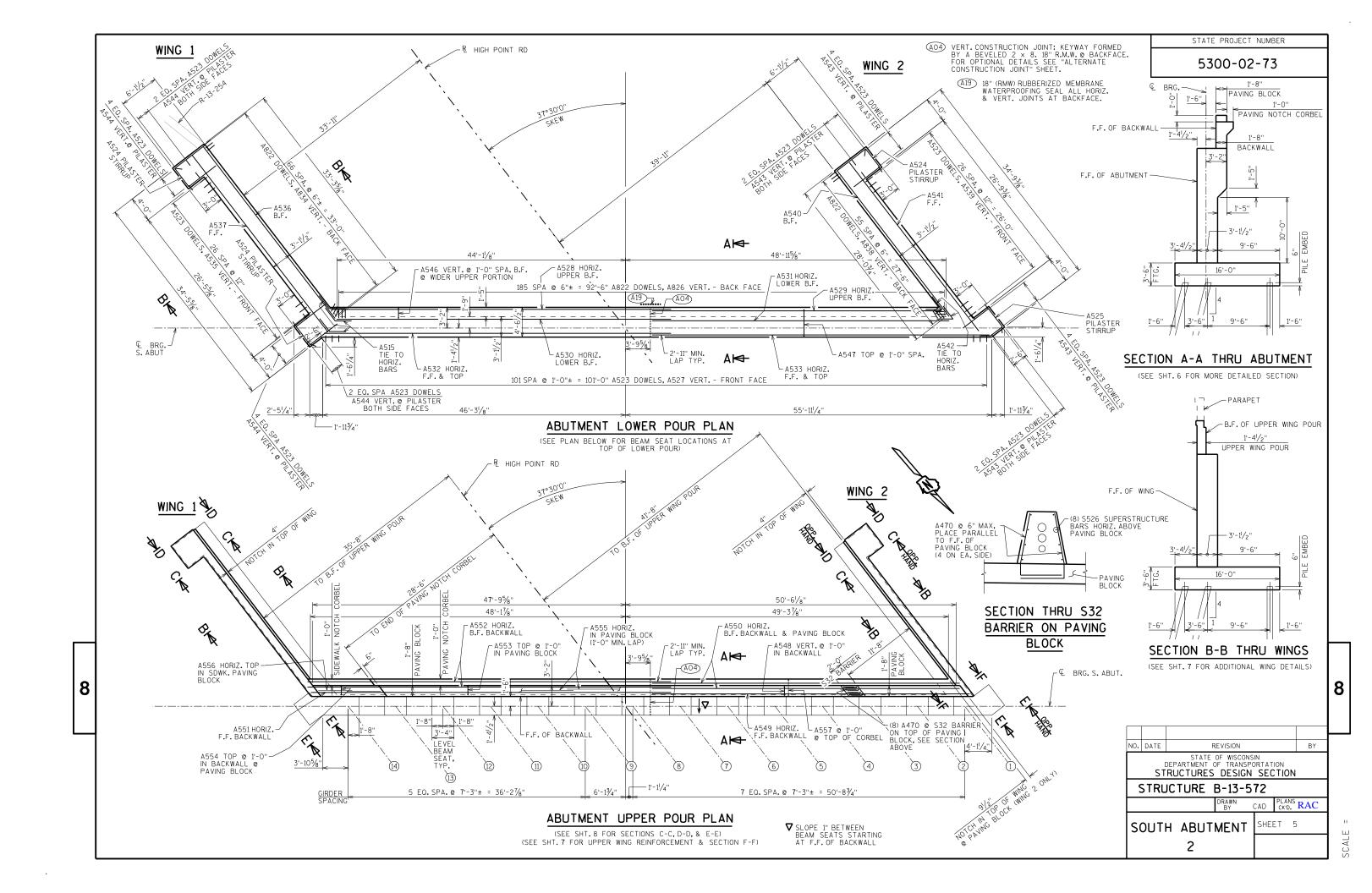
SHEET 2

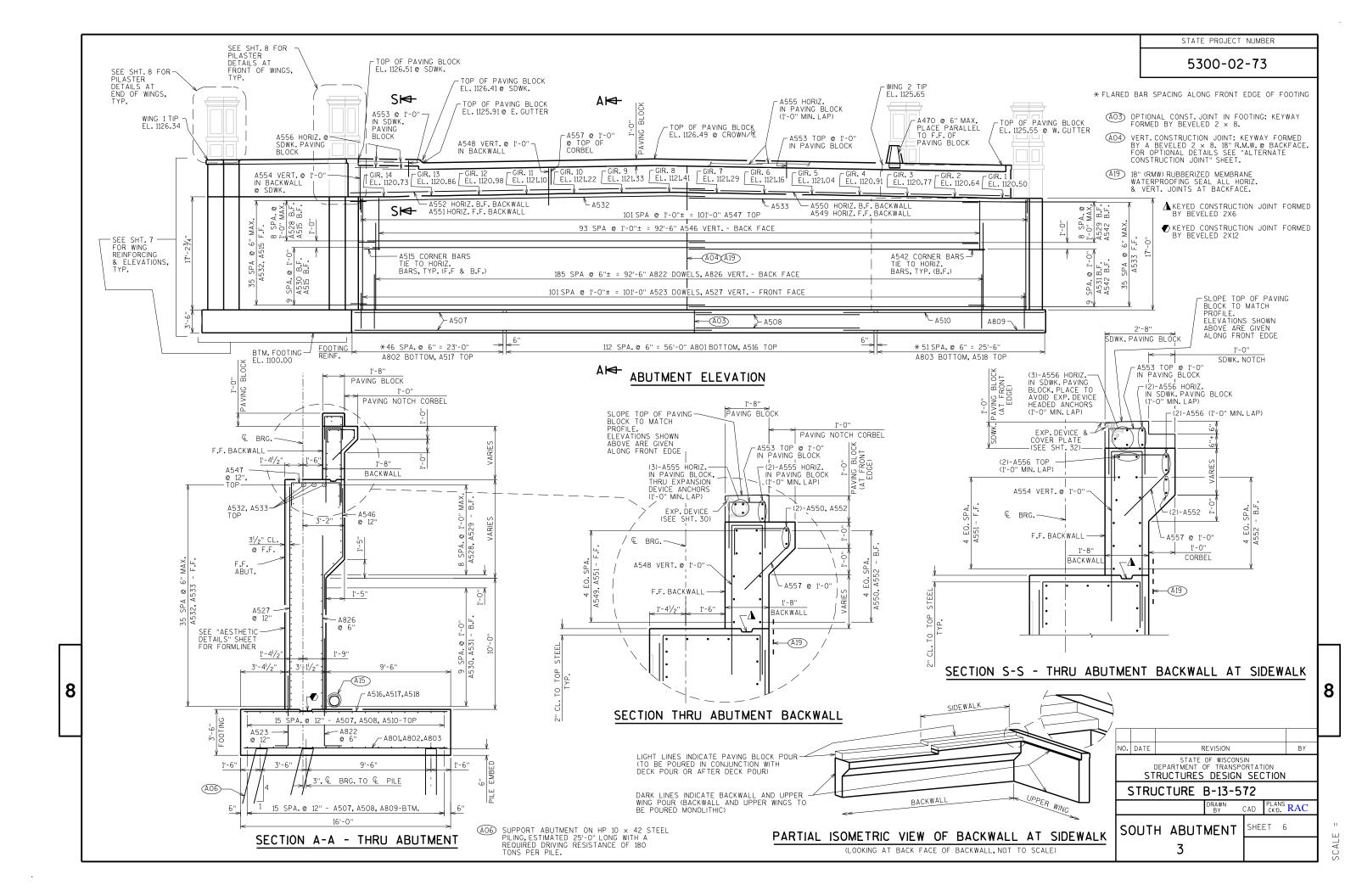
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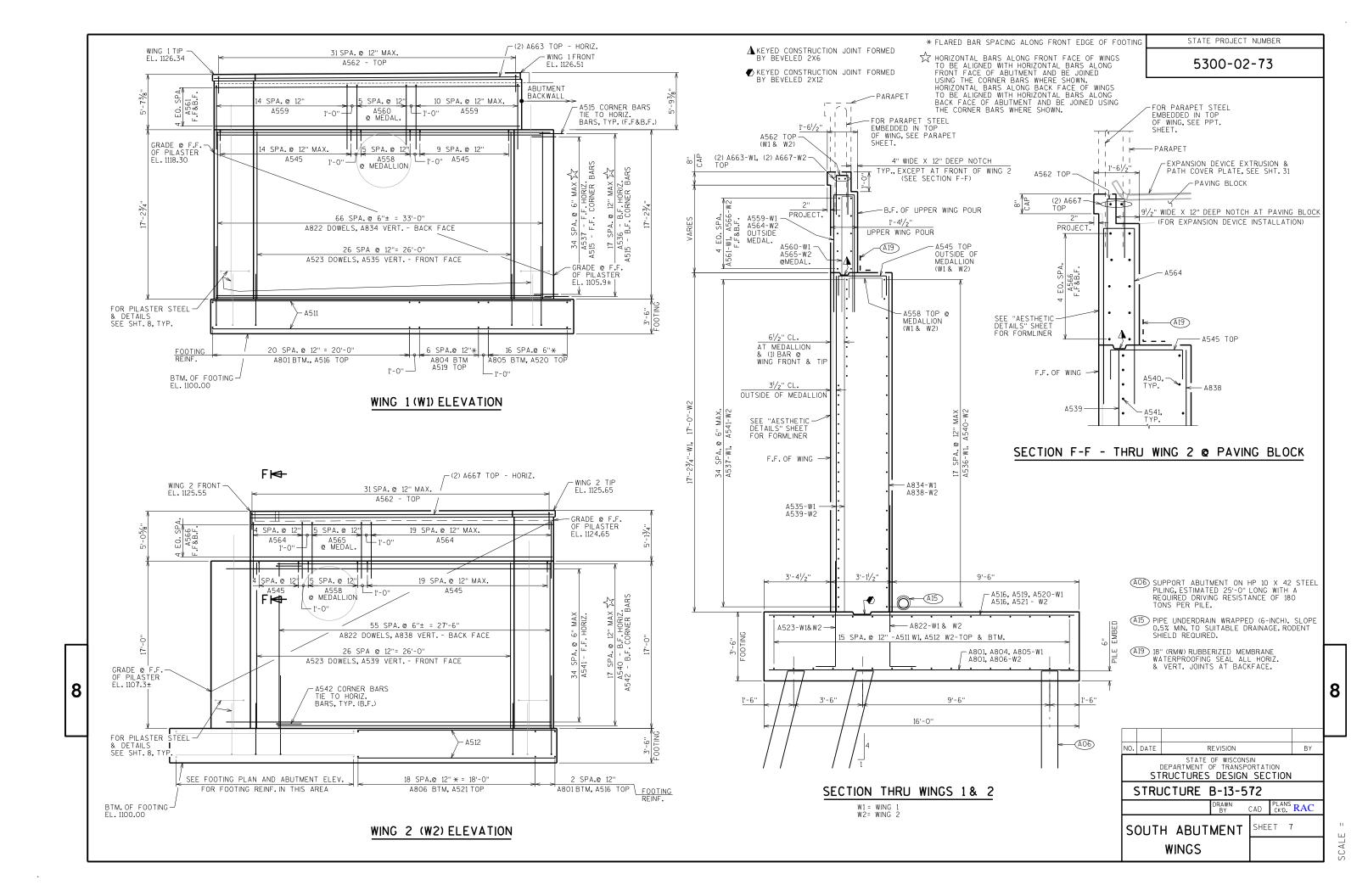
& QUANTITIES

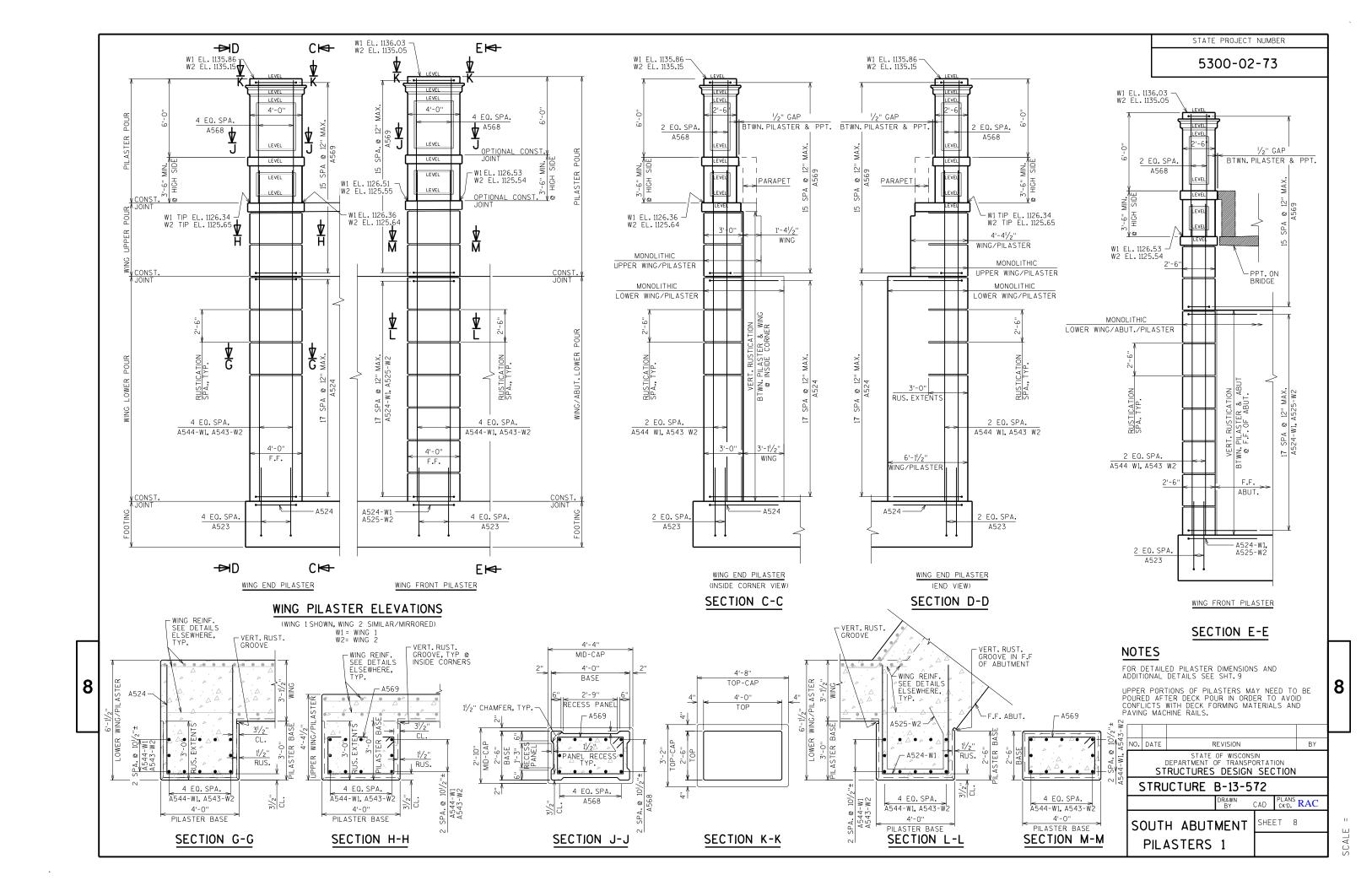


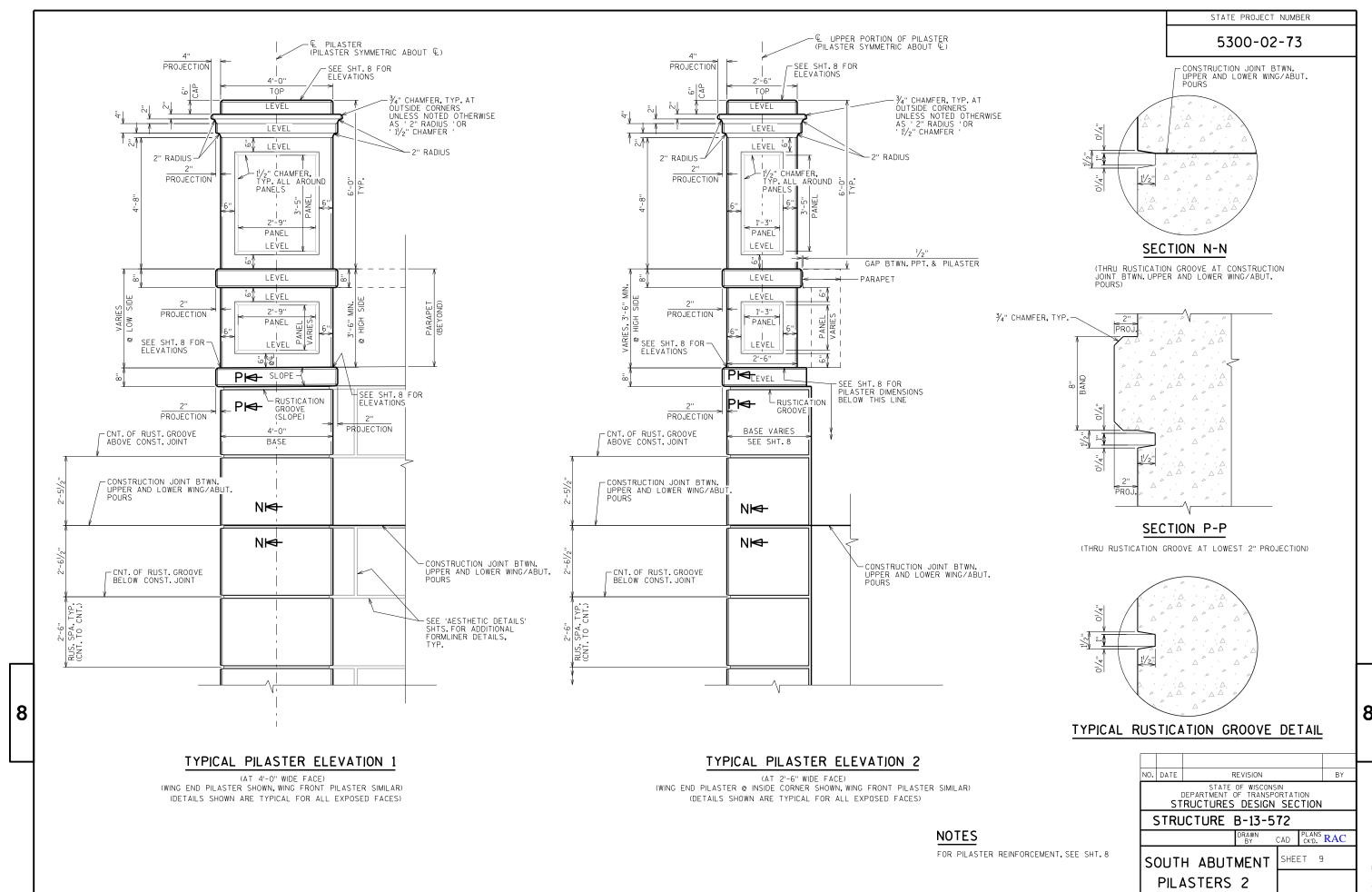












CALE =

BILL OF BARS

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

BIL	<u> </u>	UF E	<u> SARS</u>			BAR MARK SIGNIFIES THE BAR SIZE.
BAR MARK	C047	NO. REQ'D.	LENGTH	1N38	BAR SERIES	LOCATION
A801		137	15'-8"			FOOTING BOTTOM-TRANS.
A802		47	16'-5"		Δ	FOOTING BOTTOM-TRANS.
A803		52	16'-7"		Δ	FOOTING BOTTOM-TRANS.
A804		7	15'-9"		Δ	FOOTING BOTTOM-TRANS.
A805		17	16'-9"		Δ	FOOTING BOTTOM-TRANS.
A806		19	17'-7"		Δ	FOOTING BOTTOM-TRANS.
A507		32	50'-10''		Δ	FOOTING TOP & BOTTOM-LONG,-WING 1
A508		32	25'-0"			FOOTING TOP & BOTTOM-LONGWING 2
A809		16	30'-7"			FOOTING BOTTOM-LONG.
A510		16	30'-7"			FOOTING TOP-LONG.
A511		32	32'-9''		Δ	FOOTING TOP & BOTTOM-LONG.
A512		32	15'-1"		A	FOOTING TOP & BOTTOM-LONG.
A513		2	15'-3"	Х		FOOTING TOP & BOTTOM-WEST EDGE
A514		2	8'-2''			FOOTING TOP & BOTTOM-WEST EDGE
A515		85	6'-0"	Х		FOOTING & ABUTMENT CORNER BARS
A516		137	15'-8"			FOOTING TOP-TRANS.
A517		47	16'-5"		Δ	FOOTING TOP-TRANS.
A518		52	16'-7"		Δ	FOOTING TOP-TRANS.
A519		7	15'-9"		Δ	FOOTING TOP-TRANS.
A520		17	16'-9"		Δ	FOOTING TOP-TRANS.
A521		19	17'-7"		Δ	FOOTING TOP-TRANS.
A822	Х	309	9'-5"	Χ		FOOTING TO STEM-DOWELS- B.F.
A523	Χ	192	6'-4''	Х		FOOTING TO STEM-DOWELS- F.F.
A524	Х	57	14'-6"	Х		PILASTER STIRRUPS
A525	Х	19	11'-9"	Х		PILASTER STIRRUPS
A826	Х	186	13'-3"			ABUTMENT STEM-B.FVERT.
A527	Х	102	16'-10''			ABUTMENT STEM-F.FVERT.
A528	Х	9	51'-10''			ABUTMENT STEM-B.FHORIZUPPER
A529	Х	9	44'-2"			ABUTMENT STEM-B.FHORIZUPPER
A530	Х	10	51'-2"			ABUTMENT STEM-B.FHORIZLOWER
A531	Х	10	45'-5"			ABUTMENT STEM-B.FHORIZLOWER
A532	Х	39	53'-3"			ABUTMENT STEM-F.F.& TOP-HORIZ.
A533	Х	39	51'-10''			ABUTMENT STEM-F.F.& TOP-HORIZ.
A834	Х	67	17'-0"			WING 1STEM-B.FVERT.
A535	Х	27	17'-0"			WING 1STEM-F.FVERT.
A536	Х	18	33'-1"			WING 1STEM-B.FHORIZ.
A537	Х	35	34'-6"			WING 1 STEM-F.FHORIZ.
A838	X	56	16'-10''			WING 2 STEM-B.FVERT.
A539	Х	27	16'-10"			WING 2 STEM-F.FVERT.
A540	Х	18	27'-11"			WING 2 STEM-B.FHORIZ.
A541	Х	35	32'-6"			WING 2 STEM-F.FHORIZ.
A542	Х	18	5'-11"	Х		ABUTMENT CORNER BARS
A543	Х	24	24'-9''			WING 2 PILASTERS- VERT.
A544	Х	24	25'-7"			WING 1 PILASTERS- VERT.
A545	Х	50	5'-5"	Х		WINGS-LOWER POUR-TOP
A546	Х	94	10'-0"	Х		ABUTMENT STEM-B.FVERT.
A547	Х	102	7'-10"	X		ABUTMENT-LOWER POUR-TOP
A548	Х	88	12'-1"	X		ABUT. BACKWALL-VERT.
A549	Х	5	48'-6"			ABUT. BACKWALL-HORIZF.F.
A550	Х	7	46'-10"			ABUT. BACKWALL-HORIZB.F.
A551	Х	5	54'-6"			ABUT. BACKWALL-HORIZF.F.
A552	Х	7	55'-2"			ABUT. BACKWALL-HORIZB.F.
A553	Х	99	4'-9"	Х		PAVING BLOCK VERT.
A554	Х	11	14'-1"	Χ		ABUT. BACKWALL-VERTBELOW SIDEWALK
A555	Х	65	7'-9"			PAVING BLOCK HORIZ.
A556	Х	18	5'-6"			BACKWALL & PAVING BLOCK HORIZSDWK.
A557	Х	99	6'-3''	Х		BACKWALL AT PAVING NOTCH CORBEL
A558	Х	12	5'-2"	Х		WINGS-LOWER POUR-TOP @ MEDALLIONS
A559	Х	26	13'-10"	X		WING 1-UPPER POUR-VERT.
A560	Х	6	13'-7"	Х		WING 1-UPPER POUR-VERT. @ MEDALLION
A561	X	10	30'-11"			WING 1-UPPER POUR-HORIZ.
A562	X	64	4'-4"	X		WINGS-UPPER POUR-TOP
A663	X	2	30'-11"			WING 1-UPPER POUR-HORIZTOP
A564	X	25	12'-8"	Х		WING 2-UPPER POUR-VERT.
A565	X	6	12'-5"	X		WING 2-UPPER POUR-VERT. @ MEDALLION
				^	<u> </u>	2 OF LER FOOR VERTILE MEDALLION

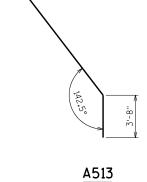
BAR MARK	C097	NO. REQ'D.	LENGTH	\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\$\frac	BAR SERIES	LOCATION
A566	Х	10	29'-4"			WING 2-UPPER POUR-HORIZ.
A667	Х	2	29'-4"			WING 2-UPPER POUR-HORIZTOP
A568	Х	48	9'-3"			PILASTER UPPER POUR-VERT.
A569	Х	64	11'-4"	Х		PILASTER UPPER POUR-STIRRUPS
A4 7 0	Χ	8	4'-10"	Х		S32 BARRIER VERT. @ PAVING BLOCK

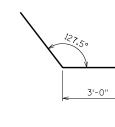
 Δ length shown for bar is an average length and should only be used for bar weight calculations. See bar series table for actual lengths.

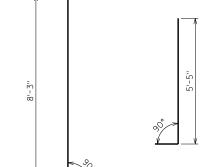
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
A802 &	1 SERIES	15'-6" TO
A51 7	OF 47	17'-3"
A803 &	1 SERIES	15'-6" TO
A518	OF 52	17'-7"
A804 &	1 SERIES	15'-6" TO
A519	OF 7	16'-0"
A805 &	1 SERIES	16'-3" TO
A520	OF 17	1 7 '-2"
A806 &	1 SERIES	15'-6" TO
A521	OF 19	19'-8"
A507	2 SERIES OF 16	47'-1" TO 54'-6"
A511	2 SERIES OF 16	29'-0" T0 36'-5"
A512	2 SERIES OF 16	9'-4" TO 20'-10"

BUNDLE AND TAG EACH SERIES SEPARATELY.



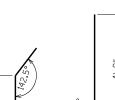




A523

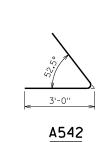
STATE PROJECT NUMBER

5300-02-73



<u> A515</u>

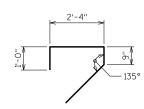
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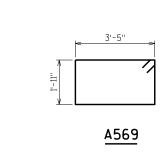
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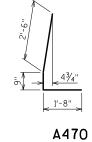
BAR MARK	DIM. 'A'	DIM. 'B'
A524	5'-8''	3'-5"
A545	1'-6''	2'-8"
A547	2'-0"	4'-1"
A548	5'-6"	1'-4''
A553	1'-10''	1'-4''
A554	6'-6"	1'-4''
A558	1'-6''	2'-5"
A559	6'-7"	11''
A560	6'-7"	8"
A562	2'-0"	7''
A564	6'-0"	11''
A565	6'-0"	8"

DIM. 'B'



<u>A557</u>





NO. DATE

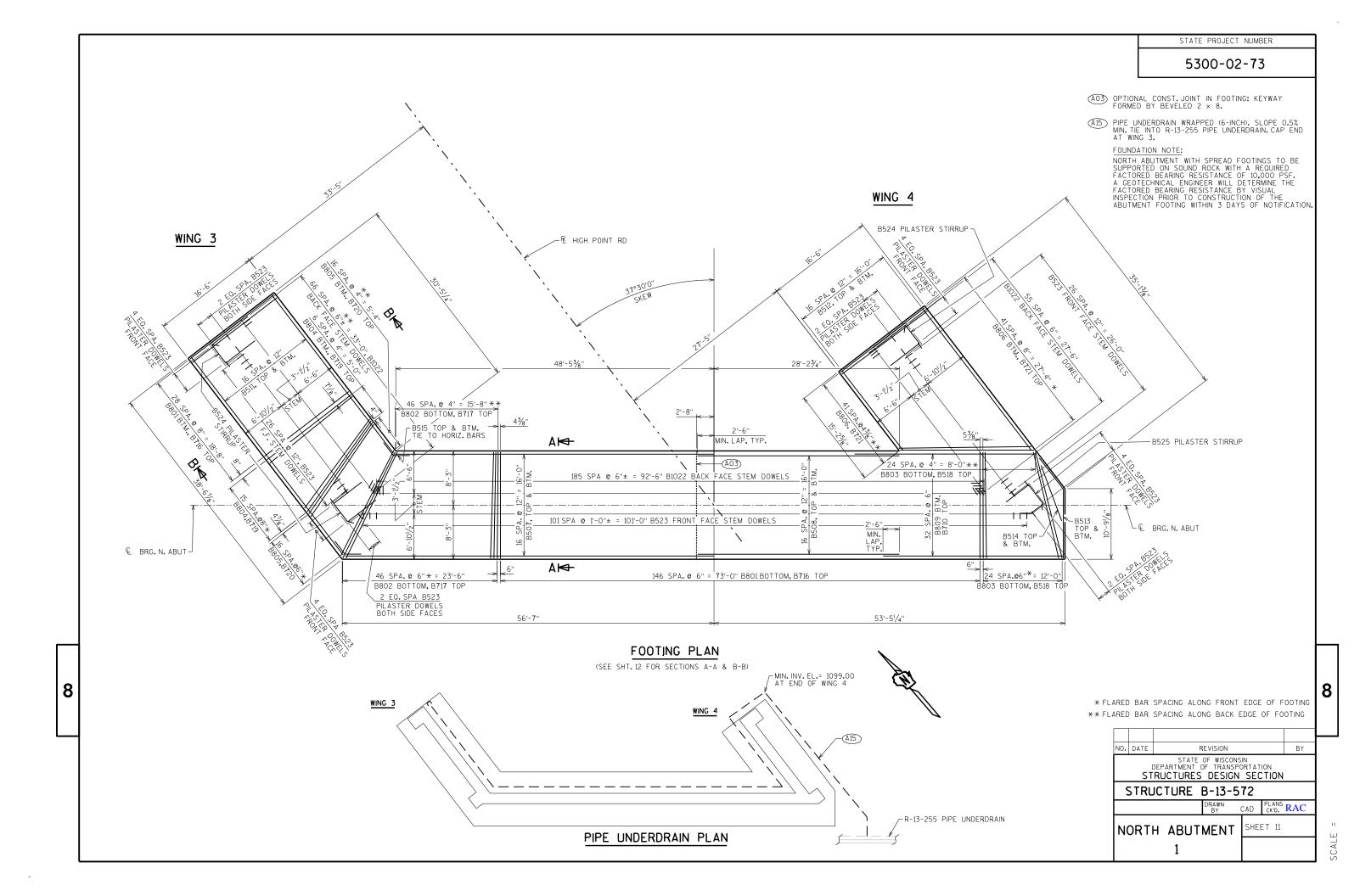
REVISION STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION STRUCTURE B-13-572 DRAWN CAD PLANS RAC

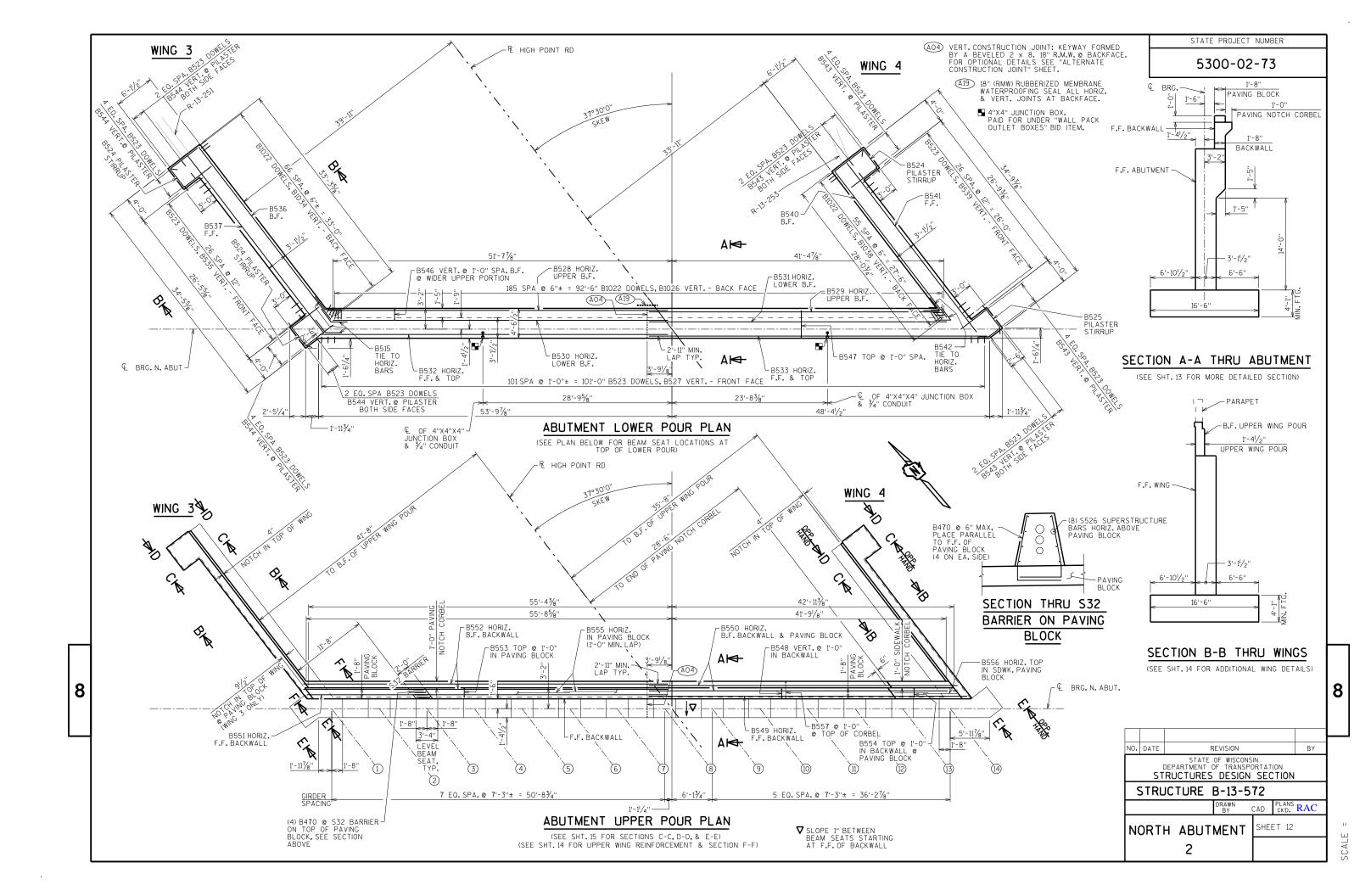
SOUTH ABUTMENT SHEET 10 BAR DETAILS

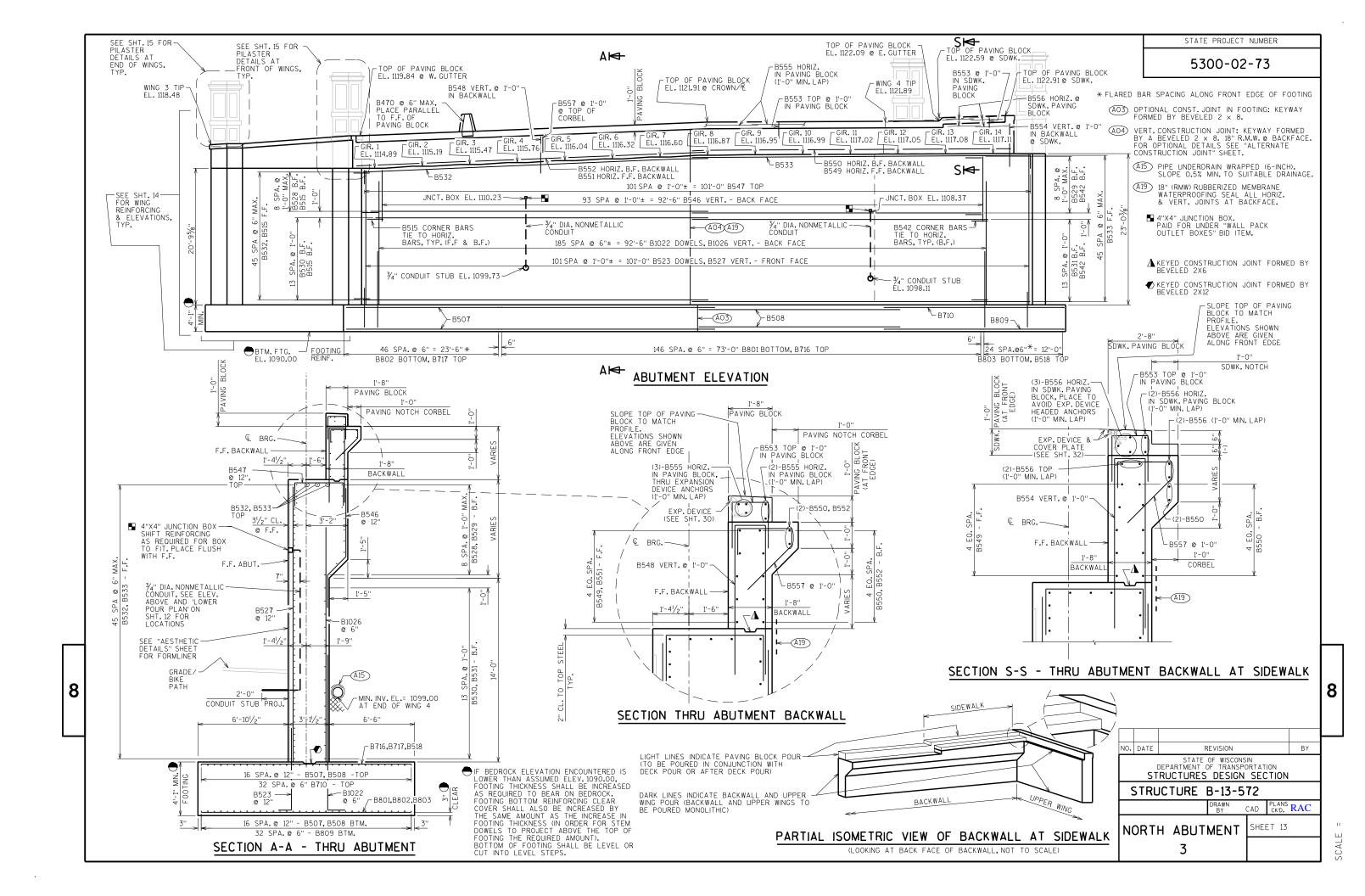
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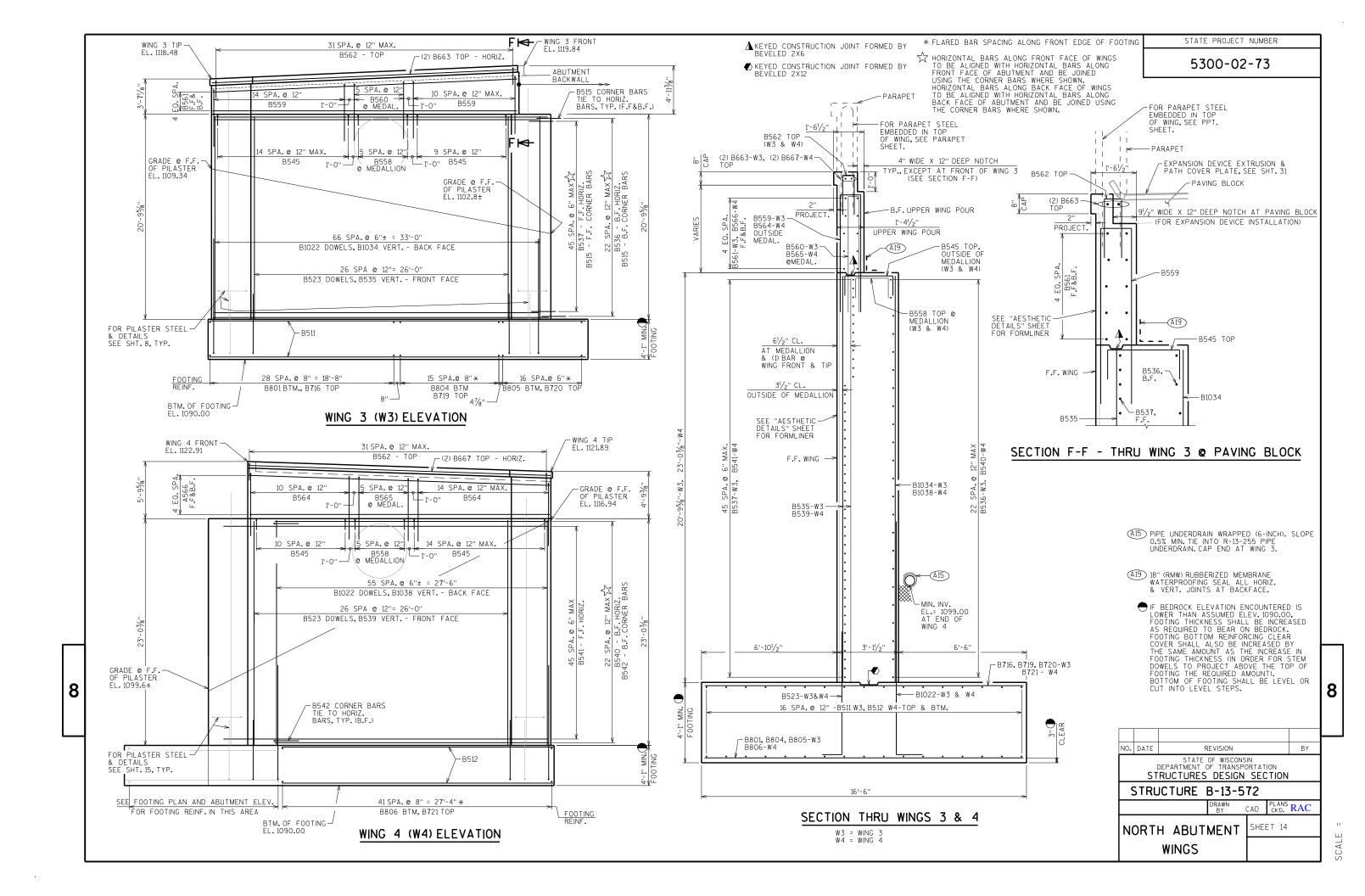
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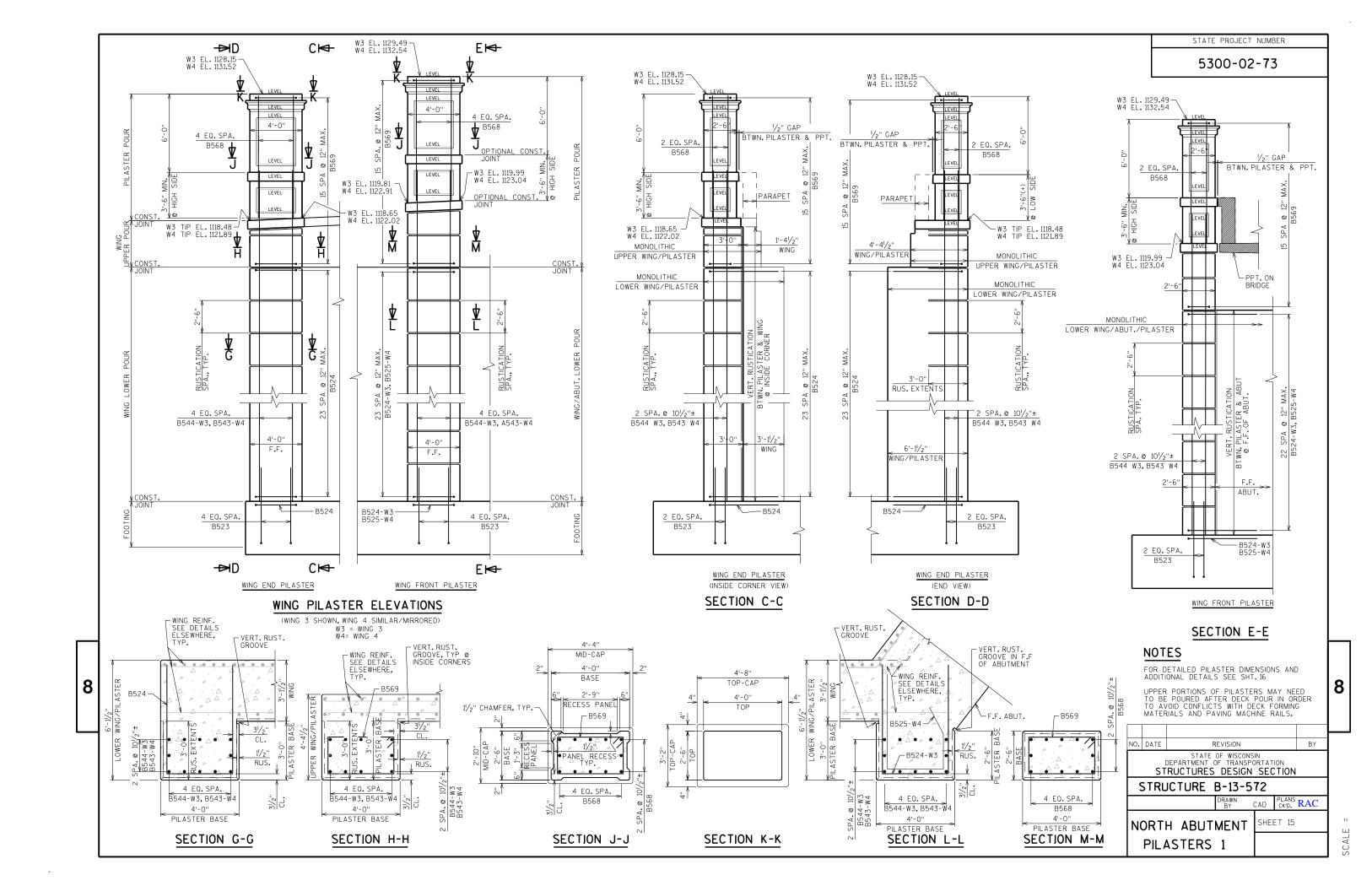
BY

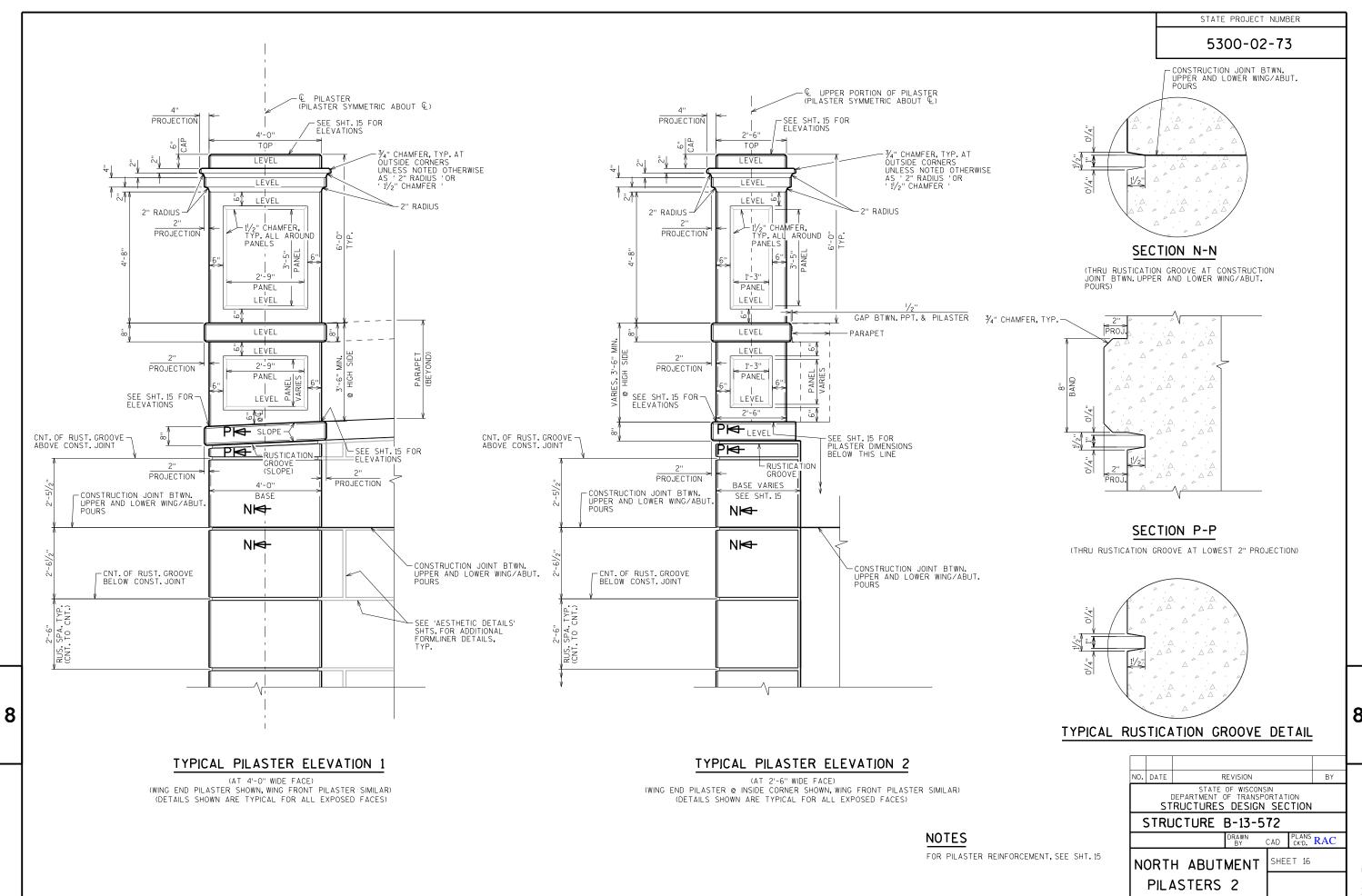












SCALE

BILL OF BARS

<u> BIL</u>	<u> </u>	<u> </u>	<u>SARS</u>			
BAR	47	NO.	LENGTH	<u>\</u>	BAR	LOCATION
MARK	PO2	REQ'D.	LENGIH	1N38	SERIES	LOCATION
B801		176	16'-2"			FOOTING BOTTOM-TRANS.
B802		47	16'-11"		Δ	FOOTING BOTTOM-TRANS.
B803		25	16'-3"		Δ	FOOTING BOTTOM-TRANS.
B804		7	16'-5"			FOOTING BOTTOM-TRANS.
B805		17	17'-3"		Δ	FOOTING BOTTOM-TRANS.
B806		42	18'-1"			FOOTING BOTTOM-TRANS.
B507		34	52'-6"		Δ	FOOTING TOP & BOTTOM-LONGWING 3
B508		34	30'-9"		4	FOOTING TOP & BOTTOM-LONGWING 4
B809		33	27'-7"			FOOTING BOTTOM-LONG.
B710		33	27'-7"			FOOTING TOP-LONG.
B511		34	34'-2"		A	FOOTING TOP & BOTTOM-LONG.
		34	21'-4"			
B512					<u> </u>	FOOTING TOP & BOTTOM-LONG.
B513		2	16'-6"	Х		FOOTING TOP & BOTTOM-EAST EDGE
B514		2	9'-0"			FOOTING TOP & BOTTOM-EAST EDGE
B515		103	6'-0"	Х		FOOTING & ABUTMENT CORNER BARS
B 7 16		176	16'-2"			FOOTING TOP-TRANS.
B717		47	16'-11"		<u> </u>	FOOTING TOP-TRANS.
B518		25	16'-3"		<u> </u>	FOOTING TOP-TRANS.
B719		7	16'-5"		Δ	FOOTING TOP-TRANS.
B 7 20		17	17'-3"		Δ	FOOTING TOP-TRANS.
B 7 21		42	18'-1"		Δ	FOOTING TOP-TRANS.
B1022	Х	309	13'-5"	Х		FOOTING TO STEM-DOWELS- B.F.
B523	Х	192	7'-2"	Х		FOOTING TO STEM-DOWELS- F.F.
B524	Х	75	14'-6"	Х		PILASTER STIRRUPS
B525	Х	25	11'-9"	Х		PILASTER STIRRUPS
B1026	Х	186	19'-2"			ABUTMENT STEM-B.FVERT.
B527	Х	102	21'-8"		Δ	ABUTMENT STEM-F.FVERT.
B528	Х	9	52'-0"			ABUTMENT STEM-B.FHORIZUPPER
B529	Х	9	44'-2"			ABUTMENT STEM-B.FHORIZUPPER
B530	Х	14	51'-0"			ABUTMENT STEM-B.FHORIZLOWER
B531	Х	14	45'-5"			ABUTMENT STEM-B.FHORIZLOWER
B532	X	49	53'-0"			ABUTMENT STEM-F.F. & TOP-HORIZ.
B533	X	49	52'-0"			ABUTMENT STEM-F.F. & TOP-HORIZ.
B1034	X	67	20'-6"			WING 3 STEM-B.FVERT.
B535	X	27	20'-6"			WING 3 STEM-F.FVERT.
B536	X	23	33'-1"			WING 3 STEM-B.FHORIZ.
B537	X	46	34'-6"			WING 3 STEM-F.FHORIZ.
B1038	Х	56	22'-10"			WING 4 STEM-B.FVERT.
B539	Х	27	22'-10"			WING 4 STEM-F.FVERT.
B540	Х	23	27'-11"			WING 4 STEM-B.FHORIZ.
B541	Х	46	32'-6"			WING 4 STEM-F.FHORIZ.
B542	Х	23	5'-11"	Х		ABUTMENT CORNER BARS
B543	Х	24	31'-4"			WING 4 PILASTERS- VERT.
B544	Х	24	28'-3"			WING 3 PILASTERS- VERT.
B545	Х	51	5'-5"	Х		WINGS-LOWER POUR-TOP
B546	Х	94	9'-11"	Х	Δ	ABUTMENT STEM-B.FVERT.
B547	Х	102	7'-10"	Х		ABUTMENT-LOWER POUR-TOP
B548	Х	88	12'-1"	Х		ABUT.BACKWALL-VERT.
B549	Х	5	48'-6"			ABUT.BACKWALL-HORIZF.F.
B550	Х	7	47'-0"			ABUT. BACKWALL-HORIZB.F.
B551	Х	5	54'-6"			ABUT. BACKWALL-HORIZF.F.
B552	Х	7	55'-2"			ABUT. BACKWALL-HORIZB.F.
B553	Х	99	4'-9"	X		PAVING BLOCK VERT.
B554	Х	11	13'-1"	Х		ABUT.BACKWALL-VERTBELOW SIDEWALK
B555	Х	65	7'-9"			PAVING BLOCK HORIZ.
B556	Х	18	5'-6"			BACKWALL & PAVING BLOCK - HORIZ. SDWK.
B557	Х	99	6'-3"	X		BACKWALL AT PAVING NOTCH CORBEL
B558	X	12	5'-2"	X		WINGS-LOWER POUR-TOP @ MEDALLIONS
B559	X	26	12'-8"	X		WING 3-UPPER POUR-VERT.
-	_	6	12'-8"			
B560	X			Х		WING 3-UPPER POUR-VERT. @ MEDALLION
B561	X	10	30'-11"			WING 3-UPPER POUR-HORIZ.
B562	X	64	4'-4''	Х		WINGS-UPPER POUR-TOP
B663	X	2	30'-11"			WING 3-UPPER POUR-HORIZTOP
B564	Х	26	13'-10"	X		WING 4-UPPER POUR-VERT.
B565	Х	6	13'-7"	Х		WING 4-UPPER POUR-VERT.@ MEDALLION

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

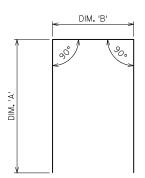
BAR MARK	C097	NO. REQ'D.	LENGTH	N. N.	BAR SERIES	LOCATION			
B566	Х	10	29'-4"			WING 4-UPPER POUR-HORIZ.			
B667	Х	2	29'-8"			WING 4-UPPER POUR-HORIZTOP			
B568	Х	48	9'-3"			PILASTER UPPER POUR-VERT.			
B569	Х	64	11'-4"	Х		PILASTER UPPER POUR-STIRRUPS			
B4 7 0	Х	8	4'-10"	Х		S32 BARRIER VERT.@ PAVING BLOCK			

 Δ length shown for bar is an average length and should only be used for bar weight calculations. See bar series table for actual lengths.

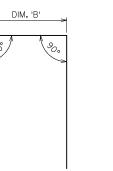
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
B802 & B 7 17	1 SERIES OF 47	16'-0" T0 17'-10"
B803 & B518	1 SERIES OF 25	16'-0'' T0 16'-6''
B804 & B719	1 SERIES OF 7	16'-0" TO 16'-9"
B805 & B 7 20	1 SERIES OF 17	16'-9" TO 1 7 '-9"
B806 & B721	1 SERIES OF 42	16'-0" T0 20'-2"
B50 7	2 SERIES OF 17	48'-6" T0 56'-5"
B511	2 SERIES OF 17	30'-4" TO 38'-0"
B512	2 SERIES OF 17	15'-4" T0 2 7 '-3"
B52 7	1 SERIES OF 102	20'-6" T0 22'-9"
B546	1 SERIES OF 94	8'-11" TO 10'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

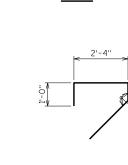


BAR MARK	DIM.	DIM. 'B'
B524	5'-8"	3'-5"
B545	1'-6"	2'-8"
B547	2'-0"	4'-1''
B548	5'-6"	1'-4''
B553	1'-10''	1'-4''
B554	6'-6"	1'-4''
B558	1'-6''	2'-5''
B559	6'-0"	11"
B560	6'-0"	8"
B562	2'-0"	7''
B564	6'-7"	11"
B565	6'-7"	8"



<u>B513</u>

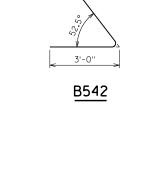
2-1/4"
3'-5"
<u>B525</u>
2' -



B557

3'-0"

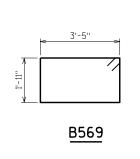
B515

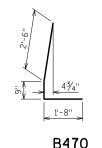


B523

STATE PROJECT NUMBER

5300-02-73



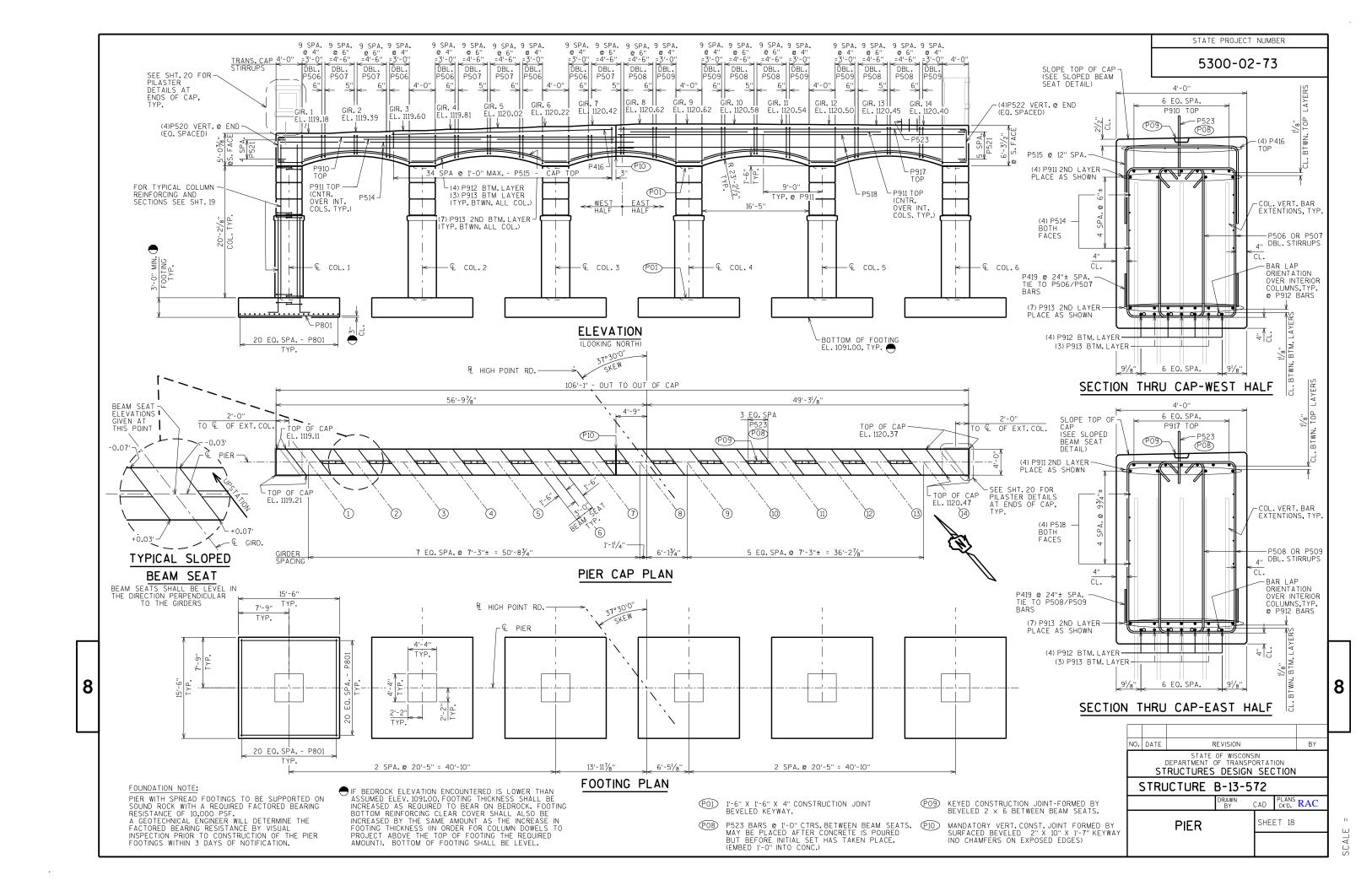


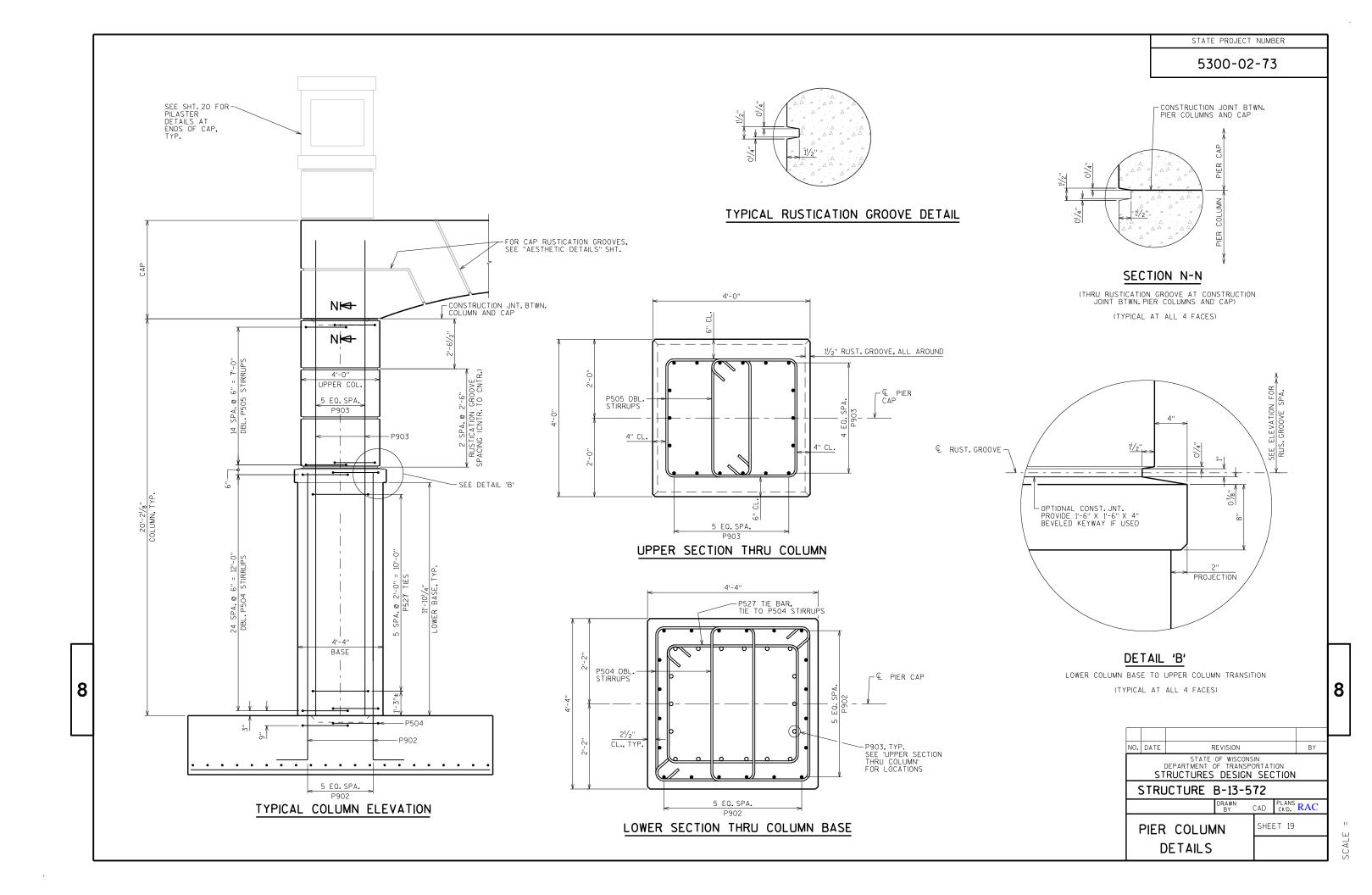


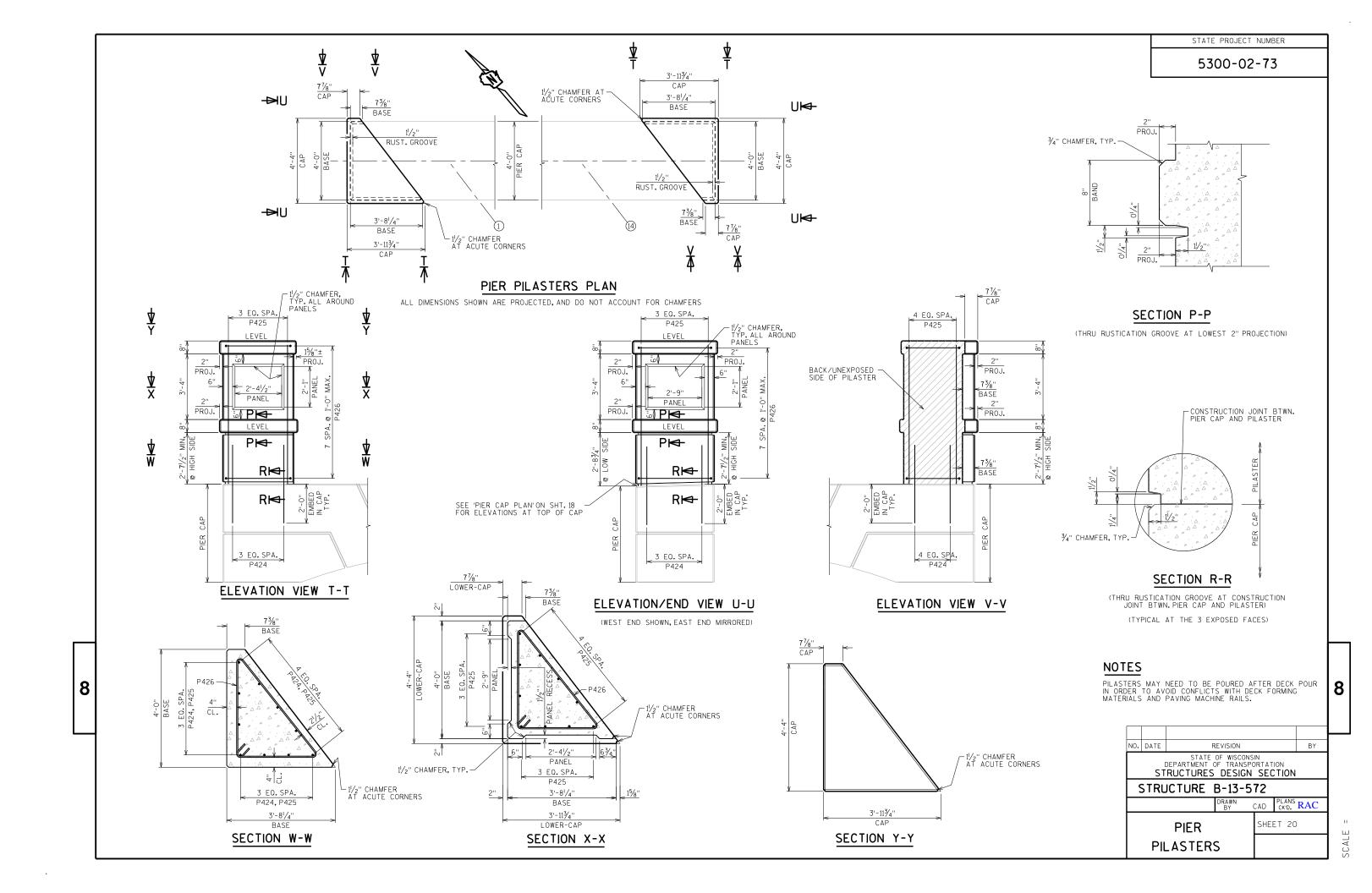
B1022

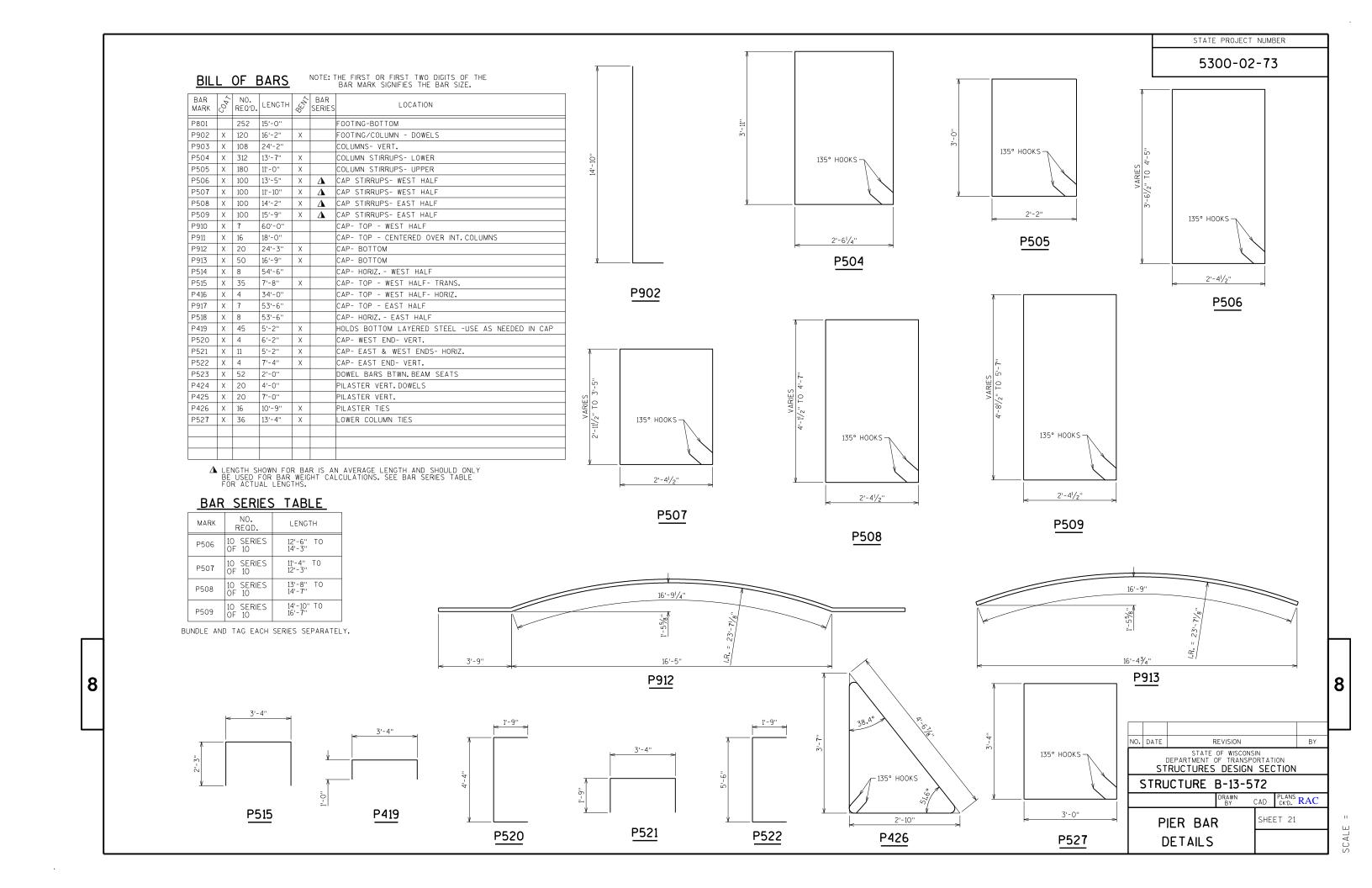
<u>B546</u>

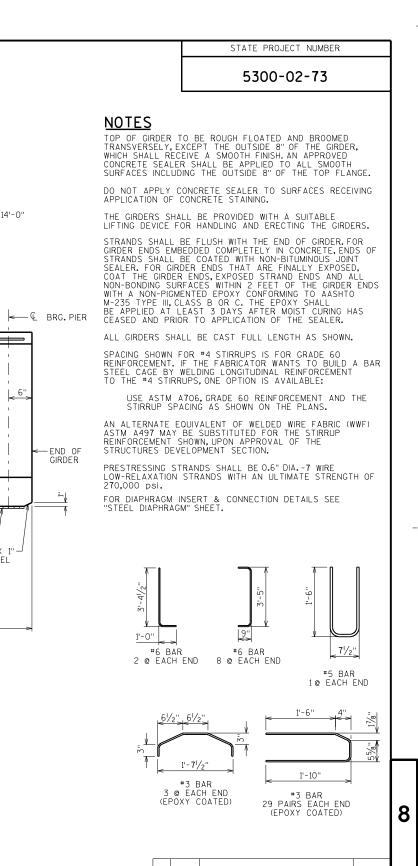
NORTH ABUTMENT SHEET 17 BAR DETAILS











NO. DATE BY REVISION STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION

STRUCTURE B-13-572

CK'D. CAD

SHEET 22

45W" PRESTRESSED| **GIRDER**

GIRDER DATA DNDRAPED PATTERN DEAD LOAD DEFL. (IN.) TOTAL NO. OF STRANDS

0.60 40 6800 40.0 13.8 16.8 5.0 0.60 40 6800 40.0 13.8 16.8 5.0

1'-0¾4", SPAN 1-1'-1", SPAN 2

-28 SP. @ 6" = 14'-0"

1/2" ELASTOMER BEARING PAD-

BOTTOM FLANGE

5%"

- WEST CORNER @ S.ABUT.ONLY EAST CORNER @ N.ABUT.ONLY

TOP FLANGE

- #5 U-SHAPED BAR

4 PAIRS #6 STIRRUPS

BEVELED ANCHOR

PLATE. SEE "BEARING DETAILS" SHT.

AT ENDS -#6 BAR 1PAIR

EACH END-

SEE "SUPERSTRUCTURE

ETAILS" SHEET

FOR ANGLE -

-#3 BAR

-#6 BARS 1PAIR EACH END

4 PAIRS #6 STIRRUPS

-#3 BARS 29 PAIRS EACH END

PLACE AS SHOWN

SECTION A-A

imes MINIMUM CYLINDER STRENGTH OF CONCRETE ${f e}$ TIME OF TRANSFER OF PRESTRESS FORCE.

| CONC. | "P" | "P" | END 1/3 | DIA. OF | TOTAL | Fici | (IN.) | STRAND | TOTAL | Fici | (IN.) | (P.S.I.) | (P GIRDER SPAN GIRDER LENGTH 7/10 %10 1 1-14 123.54 1.0 1.9 2.6 3.1 3.2 3.0 2.6 1.9 1.0 8500 2 1-14 123.587 1.0 1.9 2.6 3.0 3.2 3.1 2.6 1.9 1.0 8500 7

SIRDERS IN SPAN 2 ARE 1/2" LONGER THAN GIRDERS IN SPAN 1 DUE TO GRADE.

-1'-0¾", SPAN 1 1'-1", SPAN 2

#4 STIRRLIPS

(4¹/₂" LEG)

L#4 STIRRUPS & #3 BARS 18 SPA. @ 5" = 7'-6" (A)

#4 BAR, EPOXY COATED. PLACE @ STIRRUP SPACING. EMBED INTO GIRDER 1'-3". —

NO BEVEL

- #4, 2'-3" LONG. PLACE AT #4 STIRRUP SPACING BETWEEN LIMITS OF #3

48 SP.@ 1'-6" = **7**2'-0"

√(IN.) <u>↓</u>

1" MIN.

CLEAR

1'-13/4"

11¾4''

45/8"

2'-6"

#4 STIRRUPS

GIRDER LENGTH = "L"

SIDE VIEW & TYP. SECTION IN SPAN

(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"

(A) DETAIL TYP. AT EACH END

(41/21

#4 @ 5" FOR 15'-0" EACH END, #4 @ 1'-0" BETWEEN. 2'-7" LONG

1'-13/4"

BĖVEL

113⁄4"

28 SP.@ 6" = 14'-0"-

TIRRUP PAIRS

5 @ 4¹/₄" = 1'-91/4"

1-4 M NIN.

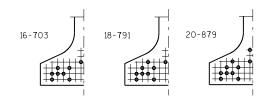
— € BRG.ABUTS.

AM

A₩

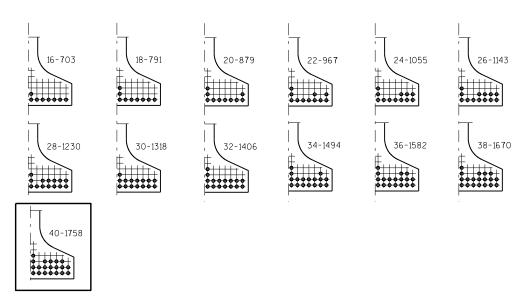
L31/4"

3'-2[|]/₂" 倒



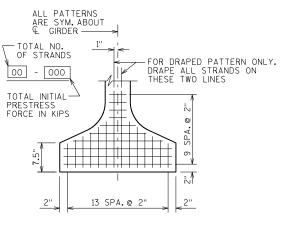
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

O.6"¢ STRANDS

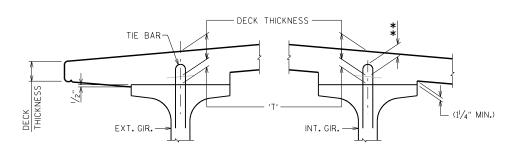


ARRANGEMENT AT & SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"¢ STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

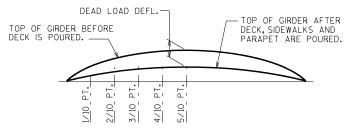
IF $1^{\prime}\!\!/_4$ " MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN $\frac{1}{2}$ " OR,

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

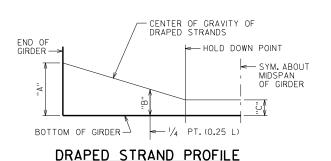
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S, AT $\mathbb Q$ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

- TOP OF DECK ELEV. AT FINAL GRADE
 TOP OF GIRDER ELEVATION
 + DEAD LOAD DEFLECTION
- DECK THICKNESS
- = HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3.2" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



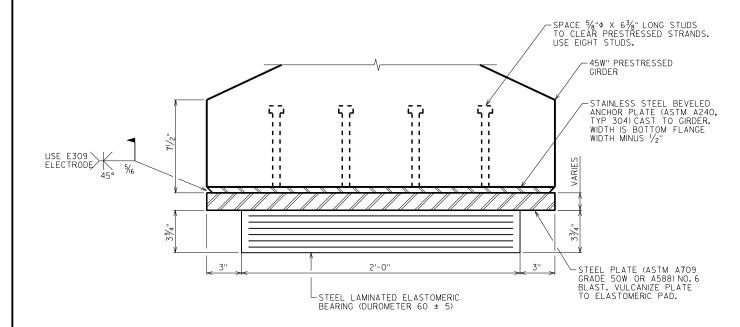
*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOB SITE PLACEMENT.

SPAN	CAMBER *
1 & 2	4.92"

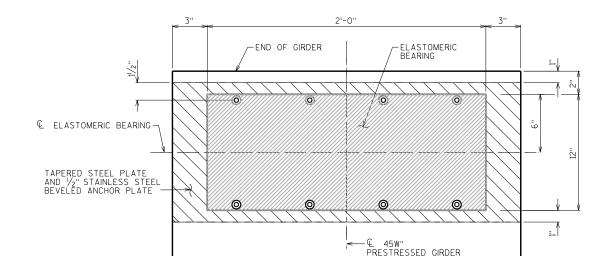
THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION STRUCTURE B-13-572 CK'D. CAD SHEET 23 45W" PRESTRESSED GIRDER DETAILS

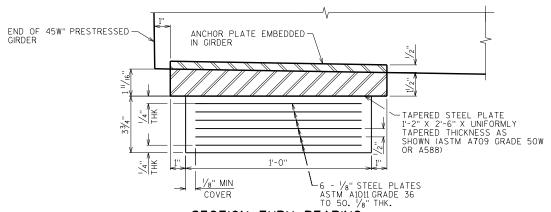


END VIEW

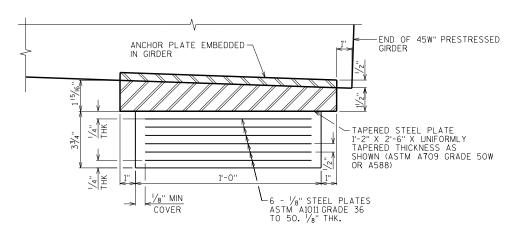


8

PLAN VIEW



SECTION THRU BEARING AT SOUTH ABUTMENT



SECTION THRU BEARING AT NORTH ABUTMENT

NOTES

- 1. ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.
- 2. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
- 3. ALL MATERIAL USED FOR THE BEARINGS, INCLUDING BEARING PADS, STUDS, AND STEEL PLATES, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

NO.	DATE	REVISION BY								
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION									
,	STRUCTURE B-13-572									
			DRAWN BY RAC		PLANS CK'D.	CAD				
		BEARING	SHEET 24							
	I	DETAILS								

8

SCALE =

5300-02-73

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-13-572", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



0

0

SEE DETAIL B

0

INTERIOR GIRDER

TOP OF DECK

C 12 X 20.7 OR ALTERNATE MADE FROM 3/8" PLATE

BOLT ANCHORAGE

-6" X 6" X 3/8" ANGLE

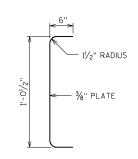
- 1/8" \$ X 2" LONG ELECTROPLATED CAP SCREW WITH LOCK-WASHER. TOROUE TO 80 FT.- LBS. 31/2" X 31/2" X 5/6" PLATE WASHER

EXTERIOR GIRDER

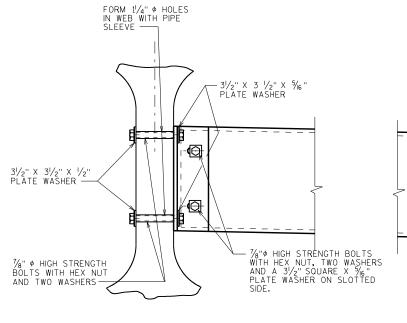
SECTION A-A

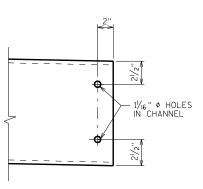
(FOR EXTERIOR ATTACHMENT)

7/8" ¢ ELECTROPLATED FERRULE LOOP INSERT (MEDIUM HIGH CARBON WIRE) OR APPROVED



<u>SECTION THRU</u> <u>ALTERNATE DIAPHRAGM</u>





(FOR STAGGERED DIAPHRAGM)

DETAIL B

NO. DATE REVISION BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-13-572

DRAWN
BY RAC PLANS CAD

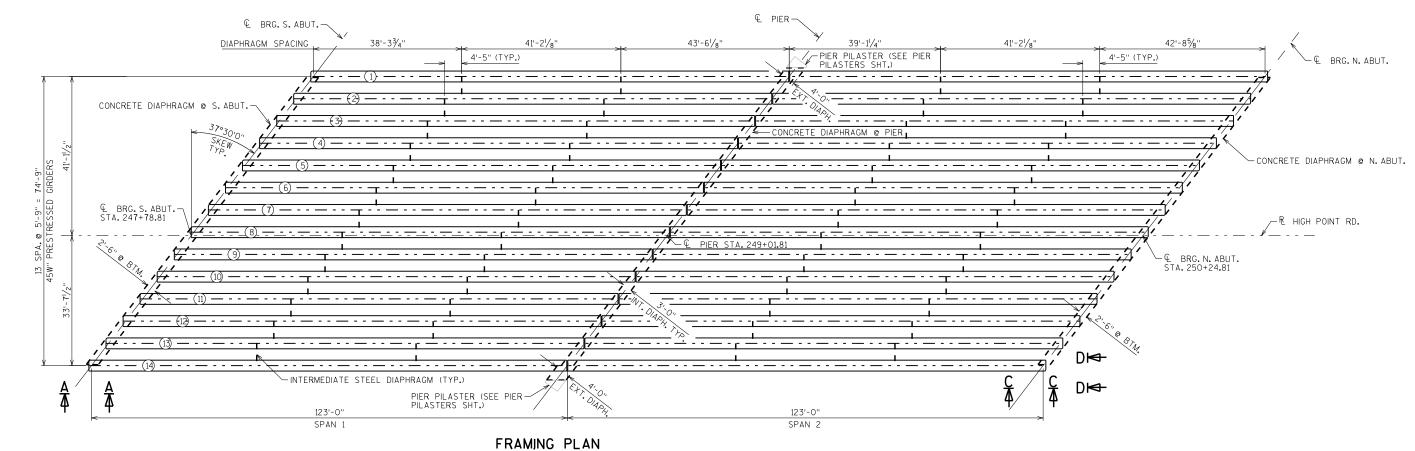
STEEL SHEET 25

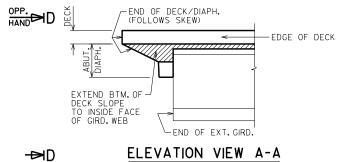
DIAPHRAGM

SCALE = 1

5300-02-73

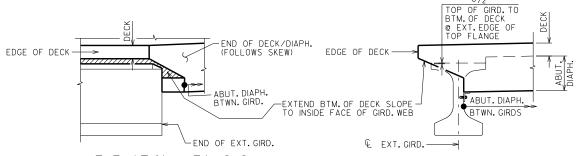






(TYP. @ S.E. & N.W. CORNERS)

SEE SHTS. 27, 28 & 29 FOR CONCRETE DIAPHRAGM DETAILS SEE SHT. 25 FOR INTERMEDIATE STEEL DIAPHRAGM DETAILS



ELEVATION VIEW C-C

(TYP. @ N.E. AND S.W. CORNERS)

ELEVATION VIEW D-D

(TYP.@ N.E. AND S.W. CORNERS) (SHOWING END VIEW OF DECK AND ABUT. DIAPH.- POURED MONOLITHIC)
(N.E. & S.W. CORNER SHOWN, S.E. & N.W. CORNER MIRRORED)

TOP OF DECK ELEVATIONS

	S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER 1	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N. ABUT.
EOD	1125.54	1125.46	1125.36	1125.23	1125.09	1124.92	1124.74	1124.53	1124.30	1124.05	1123.78	1123.48	1123.18	1122.83	1122.47	1122.10	1121.70	1121.27	1120.83	1120.37	1119.88
GIR. 1	1125.56	1125.48	1125.39	1125.27	1125.12	1124.96	1124.78	1124.57	1124.35	1124.10	1123.83	1123.54	1123.23	1122.89	1122.54	1122.16	1121.77	1121.35	1120.91	1120.45	1119.96
GIR. 2	1125.70	1125.63	1125.54	1125.43	1125.29	1125.14	1124.96	1124.76	1124.54	1124.30	1124.04	1123.76	1123.46	1123.13	1122.78	1122.42	1122.03	1121.62	1121.18	1120.73	1120.26
GIR. 3	1125.83	1125.77	1125.69	1125.58	1125.46	1125.31	1125.14	1124.95	1124.74	1124.51	1124.25	1123.98	1123.68	1123.36	1123.03	1122.66	1122.28	1121.88	1121.46	1121.01	1120.54
GIR. 4	1125.97	1125.91	1125.84	1125.74	1125.62	1125.48	1125.32	1125.14	1124.93	1124.71	1124.46	1124.20	1123.91	1123.60	1123.26	1122.91	1122.54	1122.14	1121.73	1121.29	1120.83
GIR.5	1126.10	1126.05	1125.98	1125.89	1125.78	1125.65	1125.50	1125.32	1125.12	1124.91	1124.67	1124.41	1124.13	1123.82	1123.50	1123.16	1122.79	1122.40	1121.99	1121.56	1121.11
GIR. 6	1126.22	1126.18	1126.12	1126.04	1125.94	1125.81	1125.67	1125.50	1125.31	1125.10	1124.87	1124.62	1124.35	1124.05	1123.73	1123.40	1123.04	1122.66	1122.26	1121.83	1121.39
GIR. 7	1126.35	1126.32	1126.26	1126.19	1126.09	1125.98	1125.84	1125.68	1125.50	1125.30	1125.07	1124.83	1124.56	1124.27	1123.97	1123.64	1123.28	1122.91	1122.52	1122.10	1121.67
GIR. 8	1126.47	1126.44	1126.40	1126.33	1126.24	1126.14	1126.00	1125.85	1125.68	1125.49	1125.27	1125.03	1124.77	1124.49	1124.19	1123.87	1123.53	1123.16	1122.78	1122.37	1121.94
GIR. 9	1126.39	1126.37	1126.34	1126.28	1126.20	1126.10	1125.97	1125.83	1125.66	1125.48	1125.27	1125.04	1124.79	1124.52	1124.22	1123.91	1123.57	1123.22	1122.84	1122.44	1122.02
GIR. 10	1126.28	1126.27	1126.24	1126.19	1126.11	1126.02	1125.91	1125.77	1125.61	1125.43	1125.23	1125.01	1124.77	1124.50	1124.22	1123.91	1123.58	1123.23	1122.86	1122.47	1122.06
GIR. 11	1126.16	1126.16	1126.14	1126.09	1126.03	1125.94	1125.83	1125.71	1125.55	1125.38	1125.19	1124.98	1124.74	1124.48	1124.21	1123.91	1123.59	1123.24	1122.88	1122.50	1122.09
GIR. 12	1126.04	1126.05	1126.03	1126.00	1125.94	1125.86	1125.76	1125.64	1125.50	1125.33	1125.15	1124.94	1124.71	1124.46	1124.19	1123.90	1123.59	1123.25	1122.90	1122.52	1122.12
GIR. 13	1125.92	1125.93	1125.92	1125.90	1125.85	1125.78	1125.68	1125.57	1125.43	1125.28	1125.10	1124.90	1124.68	1124.44	1124.18	1123.89	1123.59	1123.26	1122.91	1122.54	1122.15
GIR. 14	1125.79	1125.81	1125.81	1125.79	1125.75	1125.69	1125.60	1125.50	1125.37	1125.22	1125.05	1124.86	1124.65	1124.41	1124.16	1123.88	1123.59	1123.27	1122.93	1122.56	1122.18
EOD	1125 .7 5	1125.77	1125.78	1125.76	1125.72	1125.66	1125.58	1125.47	1125.35	1125.20	1125.03	1124.85	1124.64	1124.40	1124.15	1123.88	1123.58	1123.27	1122.93	1122.57	1122.19

NO. DATE REVISION BY

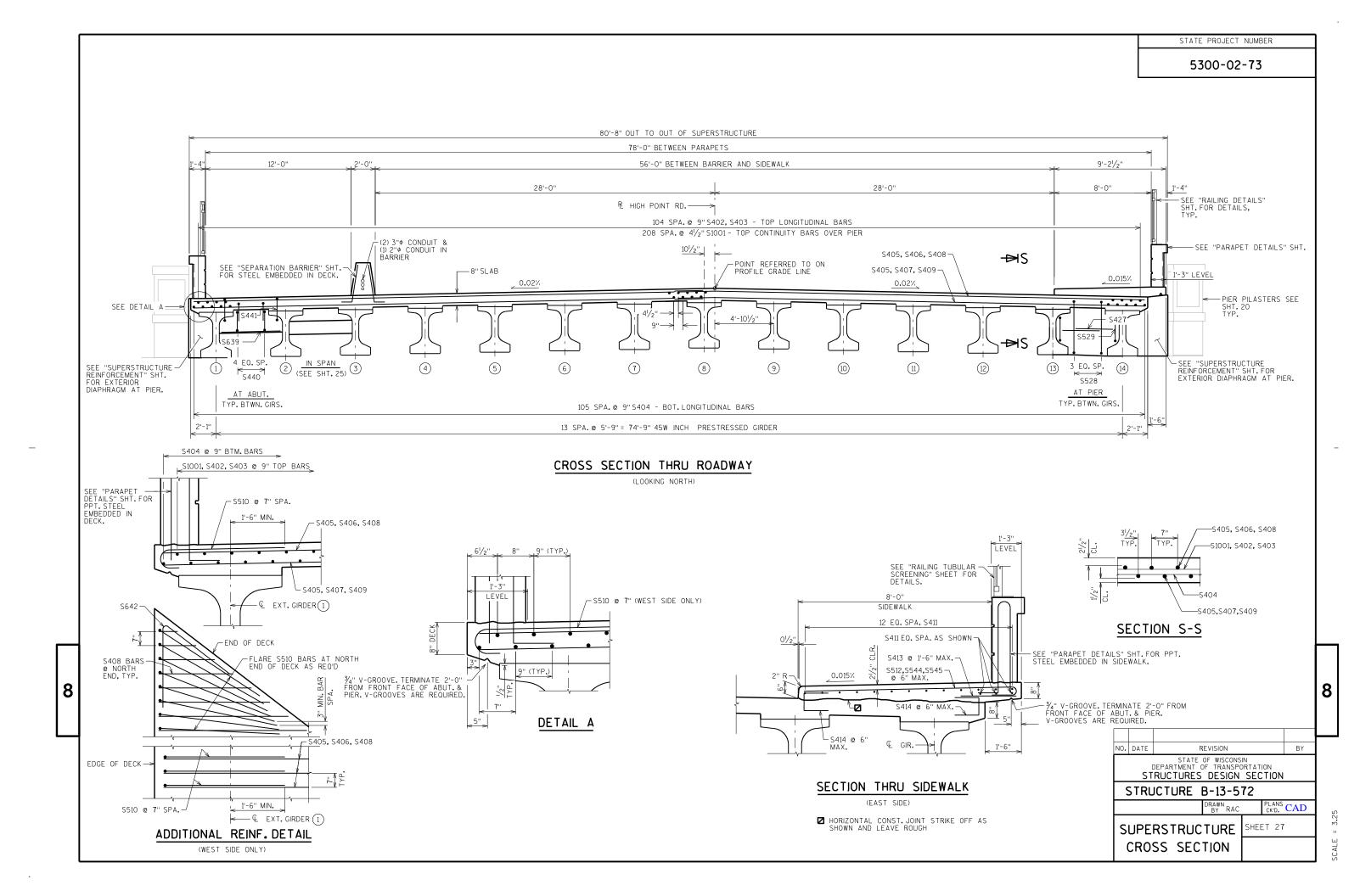
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

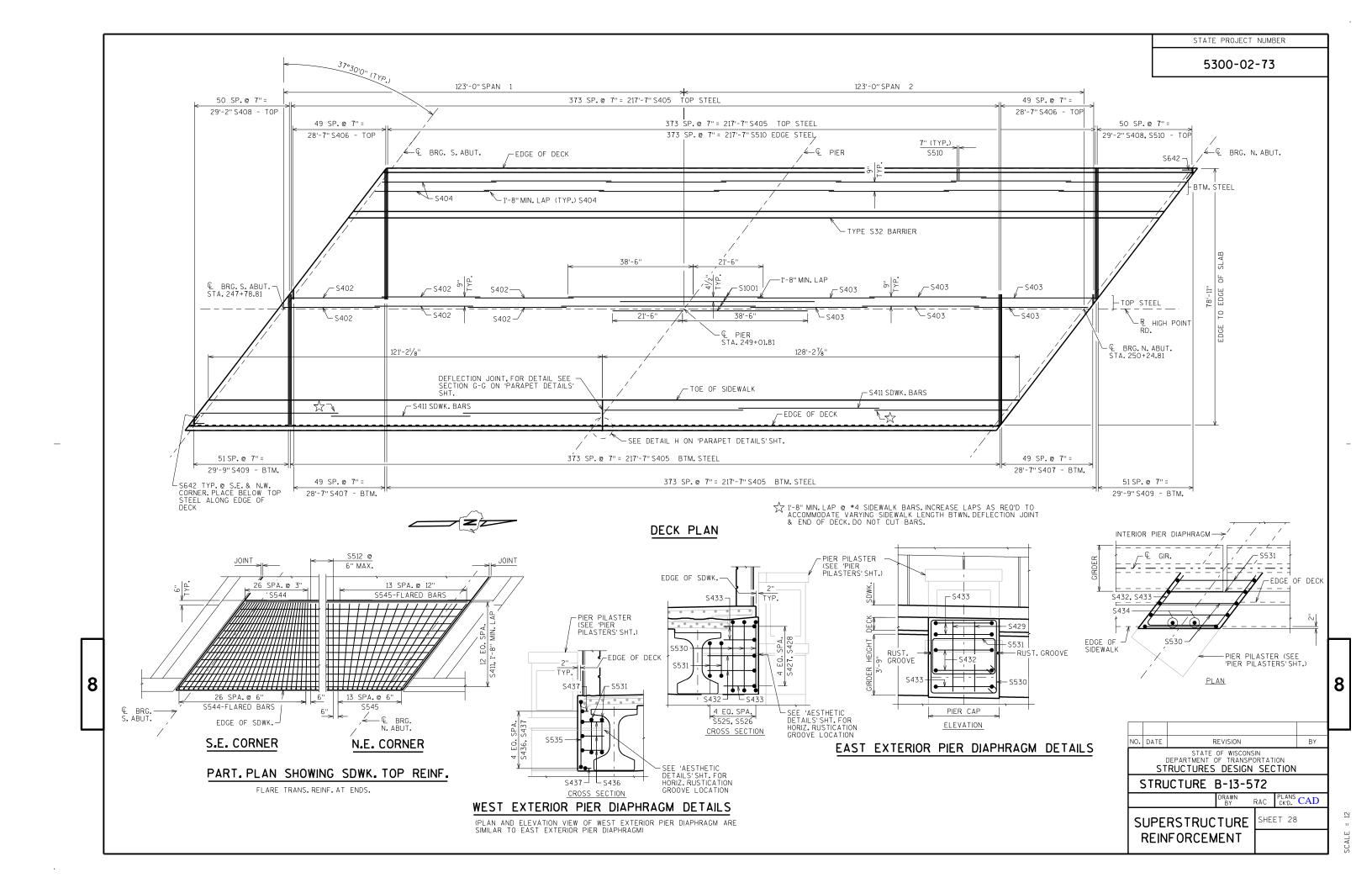
STRUCTURE B-13-572

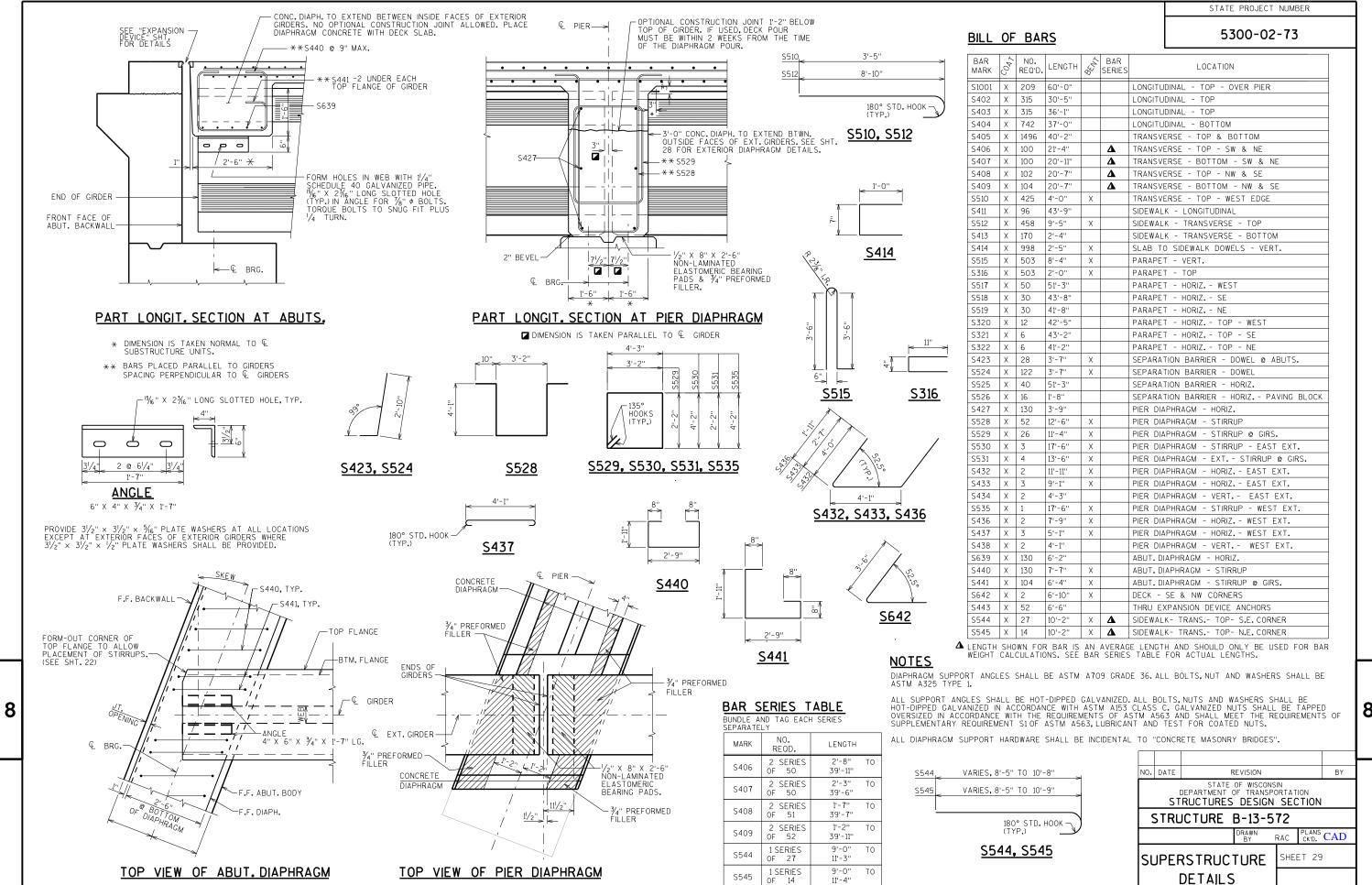
DRAWN
BY RAC PLANS CAD

SUPERSTRUCTURE FRAMING PLAN

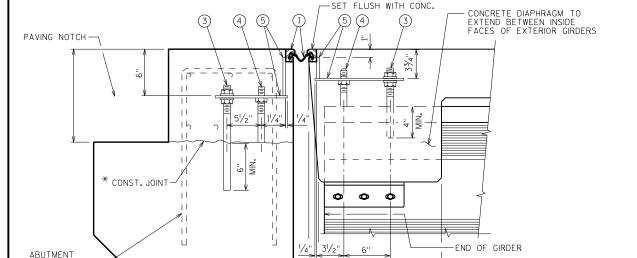
SHEET 26







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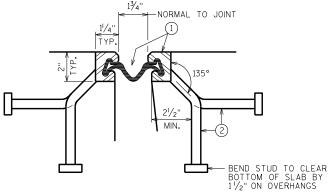
SECTION THRU JOINT AT ABUTMENT

NORMAL TO © SUBSTRUCTURE

MIN.

FRONT FACE OF

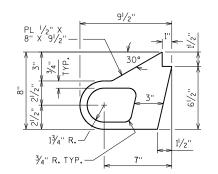
ABUT. BACKWALL



SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, AND SIDEWALKS

LEGEND

- (1) NEOPRENE STRIP SEAL (4-INCH) AND STEEL EXTRUSIONS.
- 2 STUDS 5%" X 63%" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
- (2A) 1/2" THICK ANCHOR PLATE WITH 5%" FROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO.1 AT 1'-6" CENTERS BETWEEN GIRDERS.
- (3) 3/4" \$\phi\$ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON \$\Phi\$. OF GIRDER, ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
- 4) $\frac{3}{4}$ " ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO.5.
- 5 FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" \$\phi\$ HOLE FOR NO. 3 & 1" \$\phi\$ HOLE
- (6) GALVANIZED PLATE 3/8" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.
- 7) $\frac{1}{4}$ " ϕ X $\frac{1}{2}$ " Stainless steel socket flat head screws with anti-seize lubricant. Place in countersunk hole. Recess $\frac{1}{16}$ " below plate surface.
- (8) 3/4" X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
- (9) 3/4" \$\phi X 2 1/4" GALVANIZED THREADED COUPLING.
- (10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
- (1) SIDEWALK COVER PLATE 3/8" X 2'-0" X LIMITS SHOWN, BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

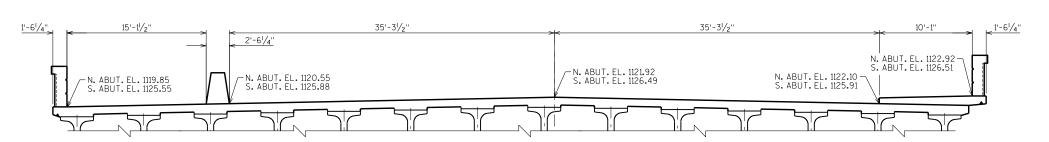


REINFORCEMENT

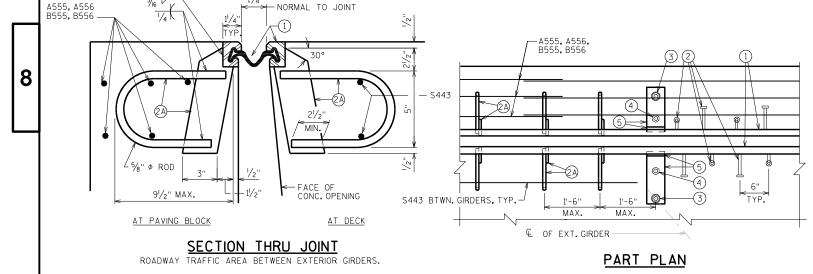
* POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE, STRIKE OFF

AND LEAVE ROUGH.

ALTERNATE STRIP SEAL ANCHOR



MEASUREMENTS AND ELEVATIONS GIVEN ALONG & JOINT (LOOKING NORTH)



NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

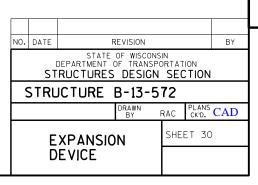
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

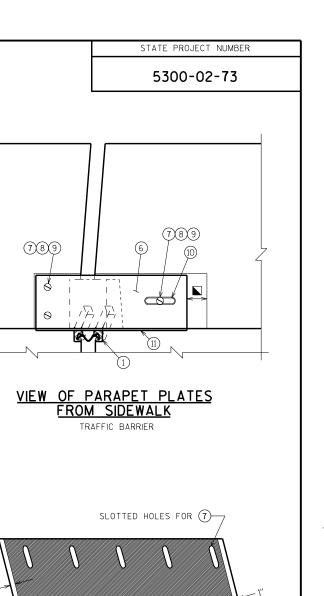
SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

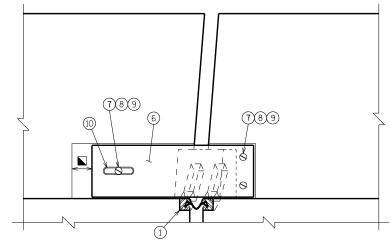
ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

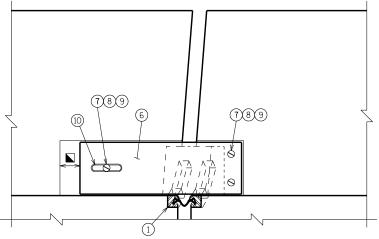
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-13-572".



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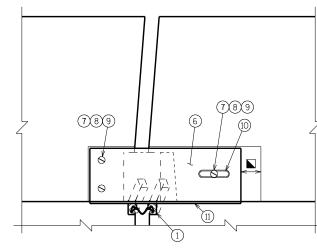




VIEW OF PARAPET PLATES

FROM ROADWAY

TRAFFIC BARRIER



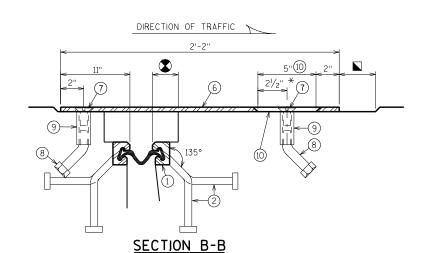
FACE OF CONCRETE PARAPET 14'-6" 789 10

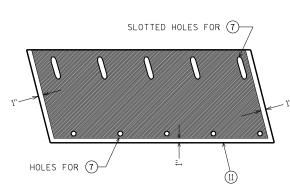
789

SECTION A-A TRAFFIC BARRIER

30°

₩ B





PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

TRAFFIC BARRIER 60° USE DOUBLE MITER 60° USE DOUBLE MITER 11 11 17	CONCRETE PARAPET 1"	DIRECTION OF TRAF 2'-0" 135° 135°	5"(0) 2"
SECTION AT SIDEWAL		SECTION C	

C₩

PLAN AT SIDEWALK

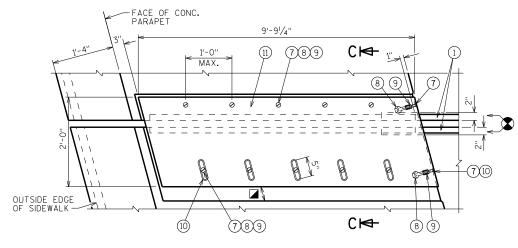
APPROVED SLIP-RESISTA	NT APPLIED SURFACES FOR	STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT		
SLIPNOT GRADE 2, STEEL	W.S.MOLNAR COMPANY	1-800-SLIPNOT		
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-81 7 0		

NO. DATE BY REVISION STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION STRUCTURE B-13-572 RAC PLANS CAD SHEET 31 COVER PLATE AT GRADE SDWK.

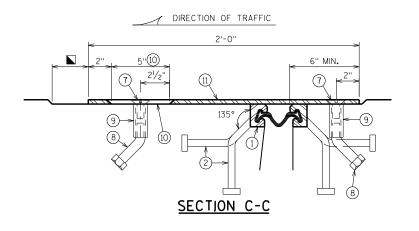
UT CONCRETE 2" EACH SIDE OF JOINT OPENING. ■ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

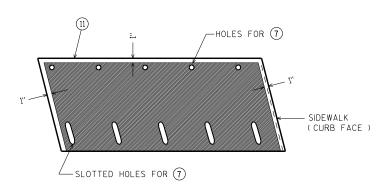
SEE "EXPANSION DEVICE" SHT. FOR LEGEND

5300-02-73



PLAN AT SIDEWALK

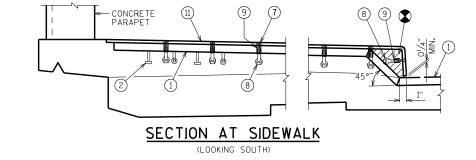




PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

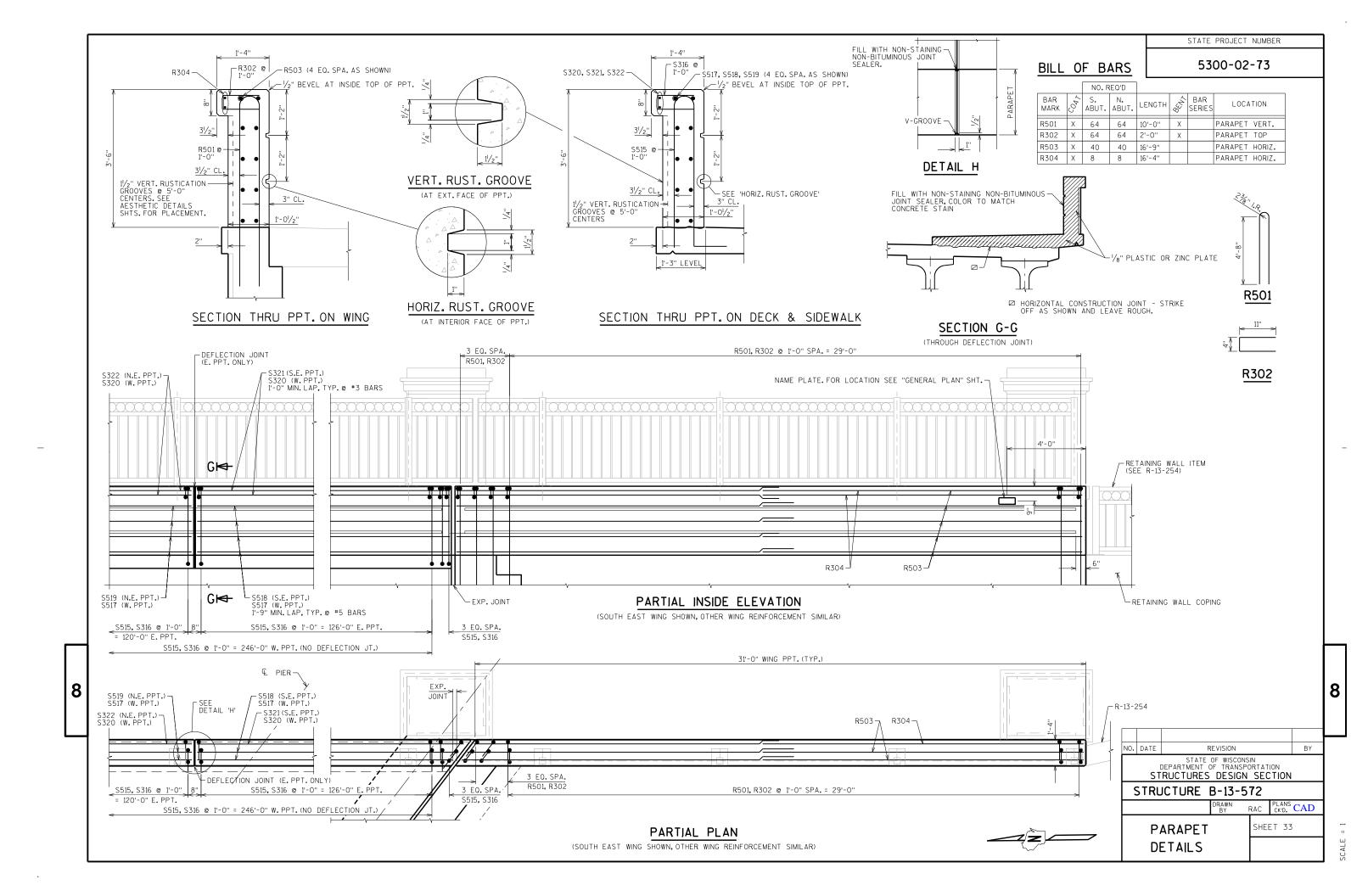
PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY (NOT ON CURB FACE).

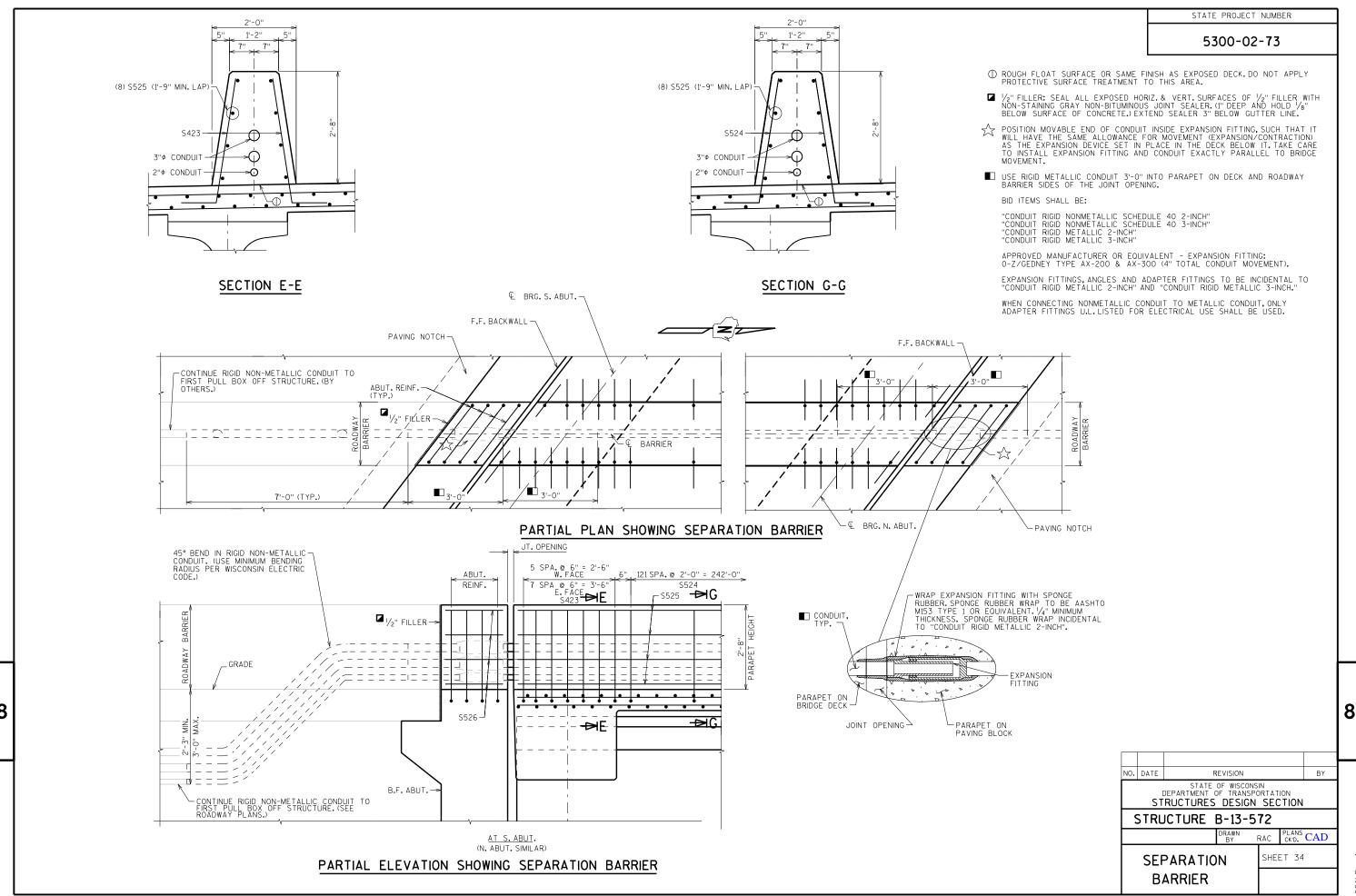
APPROVED SLIP-RESISTA	NT APPLIED SURFACES FOR	STEEL PLATES
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W.S.MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170



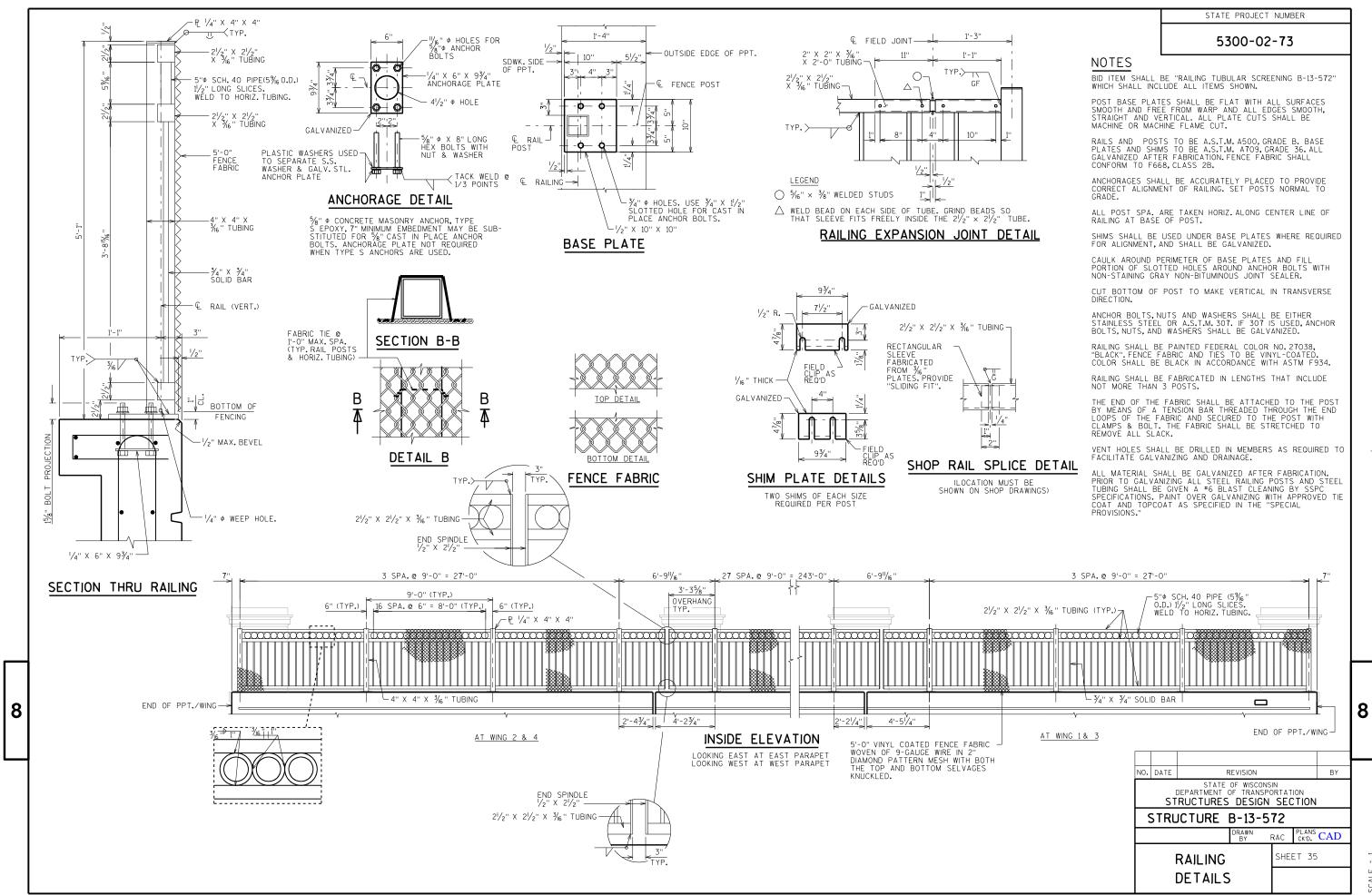
NO.	NO. DATE REVISION B										
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION										
5	STRL	JCTURE	B-13-5	72							
			DRAWN BY	RAC	PLANS CK'D.	CAD					
	CO.	VER PLA	SHEET 32								
	RA	SED SD	WK.								

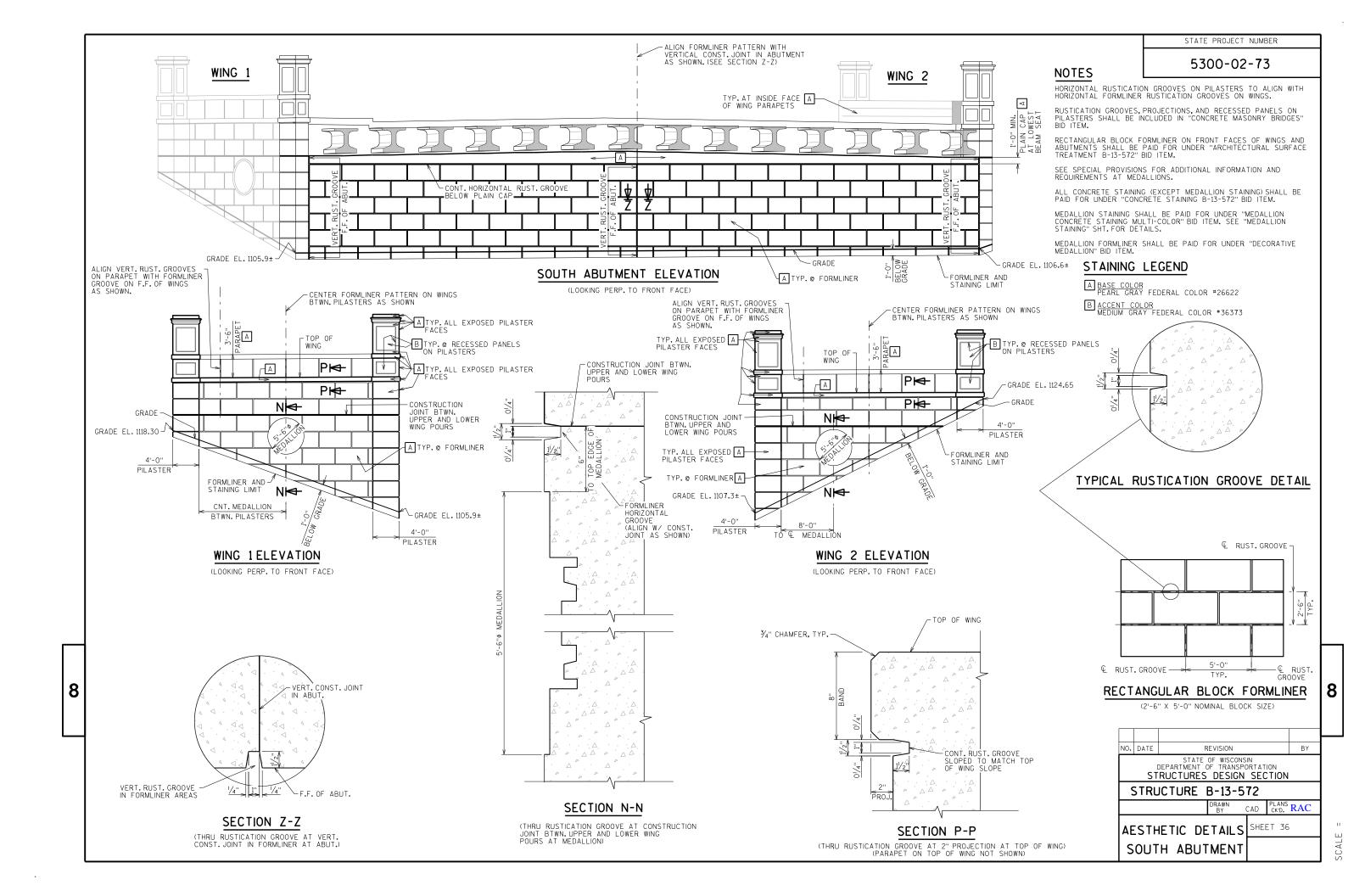
BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING. ■ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2". # SEE "EXPANSION DEVICE" SHT. FOR LEGEND.

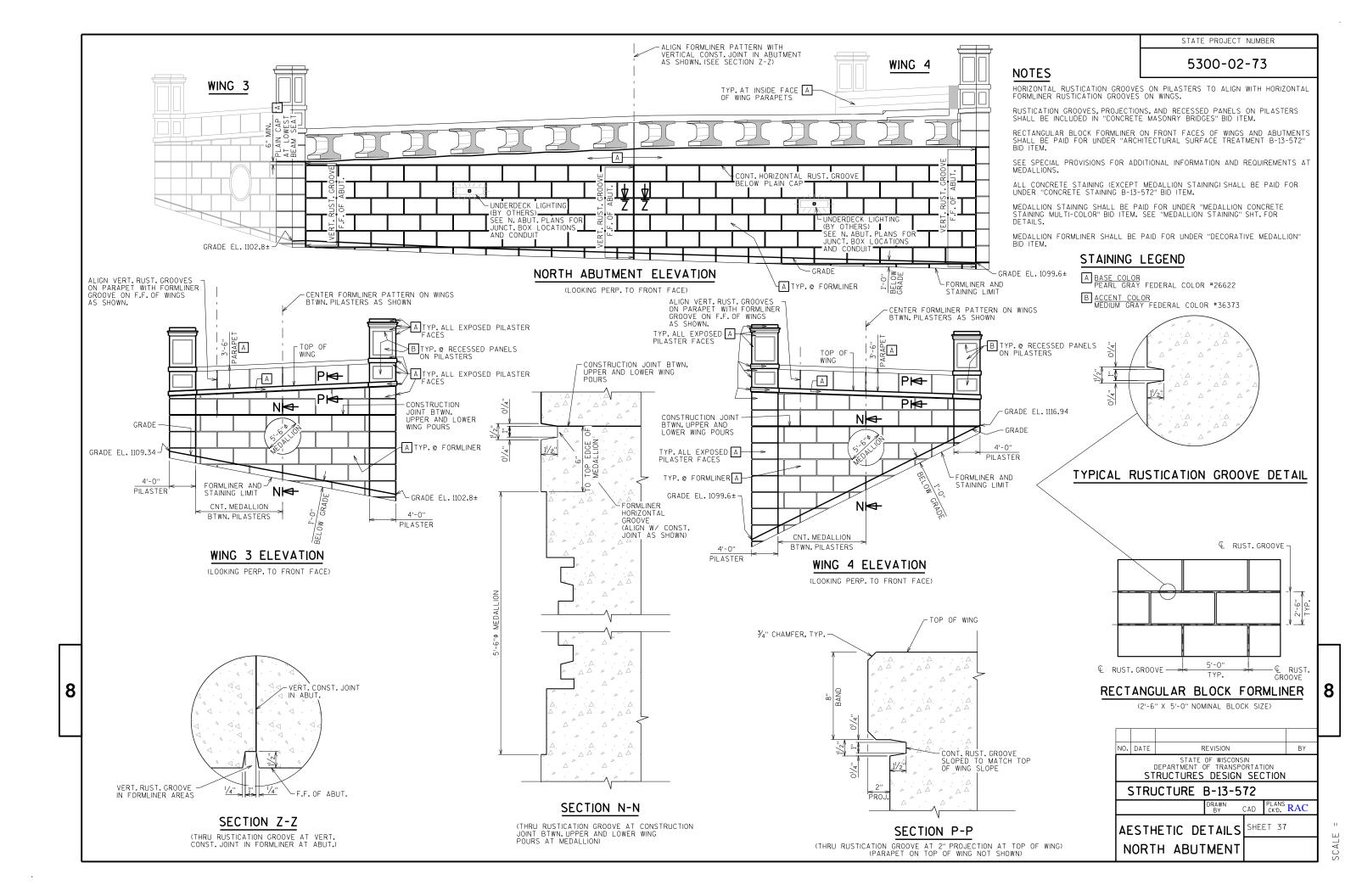


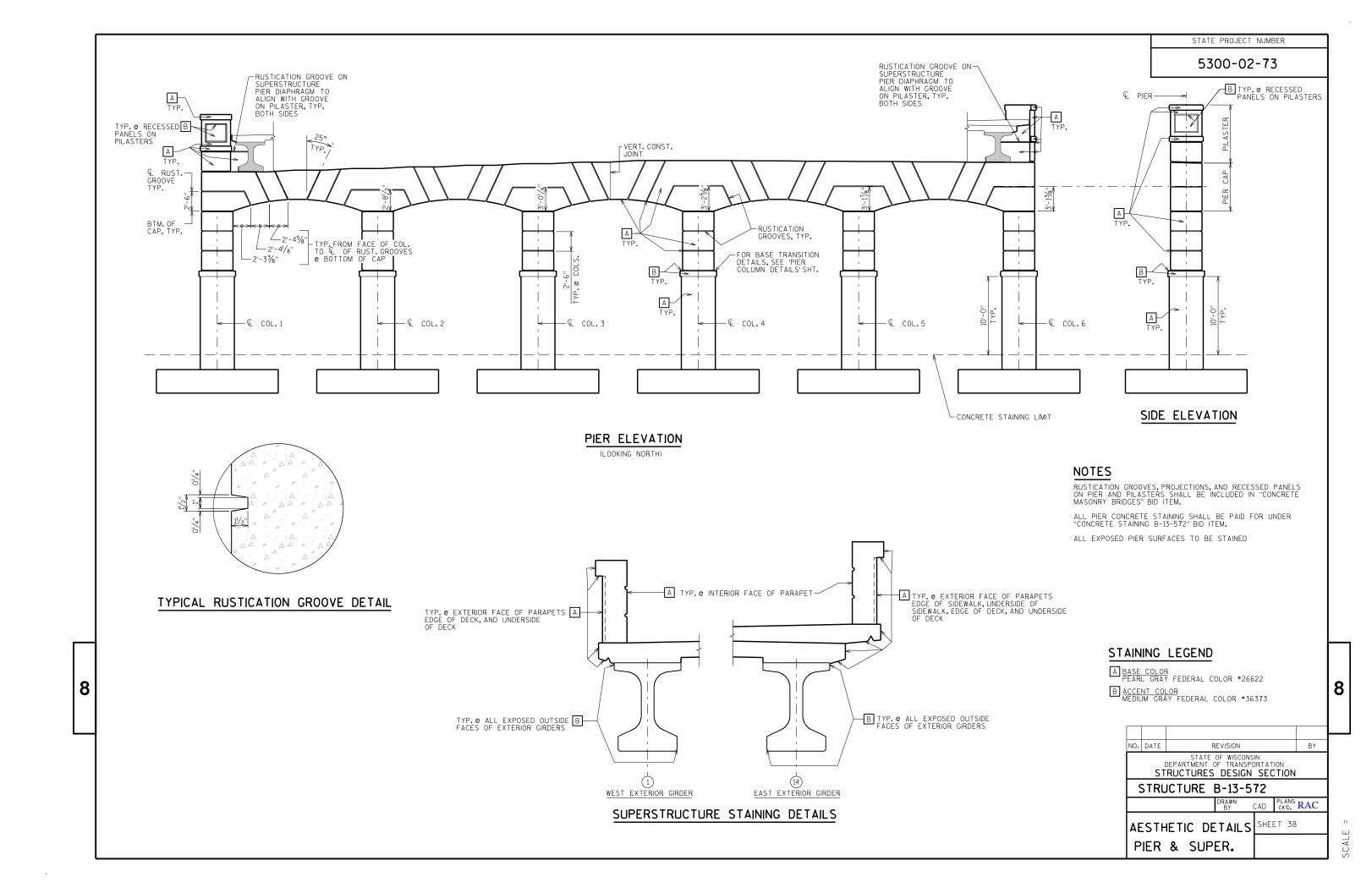


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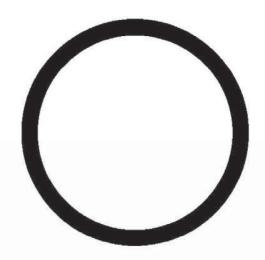










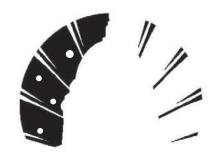




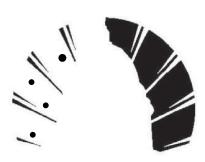
DARK GREY Fed Std # 34086

GREEN
Fed Std # 24241

ORIGINAL







RED Fed Std # 20152

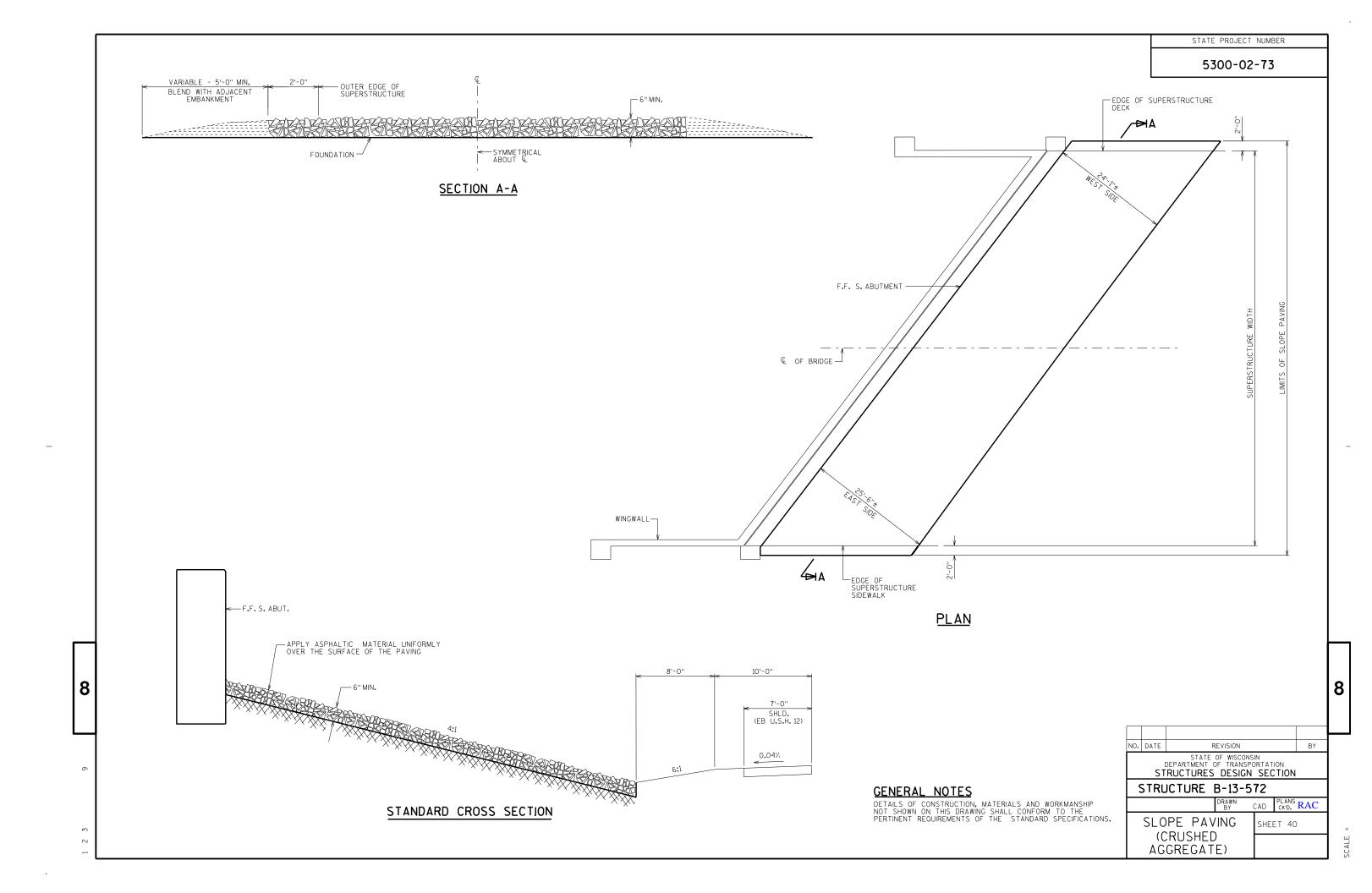
8

LIGHT GREY Fed Std # 36559

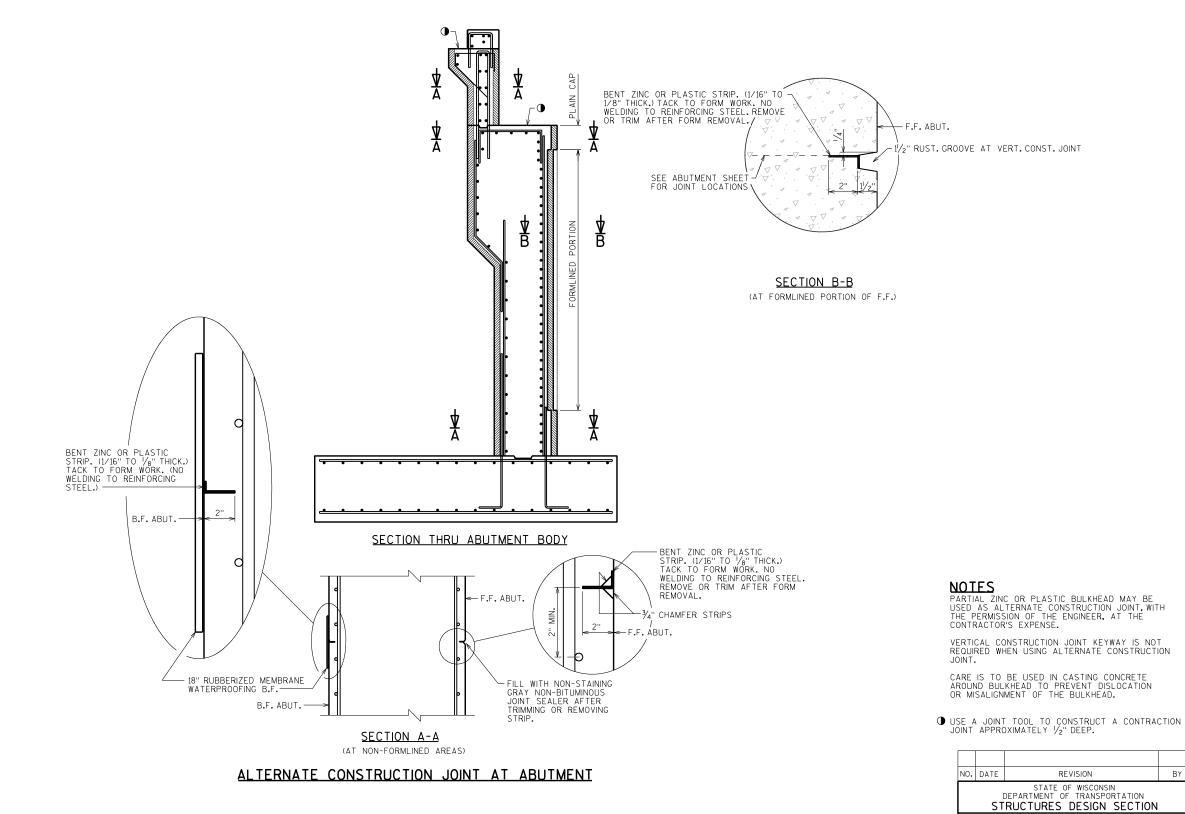
CREAM
Fed Std # 36642

NOTE:
MEDALLION FORMLINER TO BE PROVIDED BY THE CITY OF MADISON.
SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

NO.	DATE	F	REVISION			BY	
	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION						
0,	STRUCTURE B-13-572						
	DRAWN CAD PLANS RAC						
	MEDALLION SHEET 39						
STAINING							



5300-02-73



8

BY

RAC PLANS CAD

SHEET 41

REVISION

DRAWN BY

STRUCTURE B-13-572

ALTERNATE

CONSTRUCTION JOINT

DESIGN DATA

-CUT HORIZ

AT GEOGRID LOCATIONS

SLITS IN FABRIC

MODULAR — BLOCKS (BUTT-UP AGAINST

REINFORCEMENT

SEAL VERTICAL JOINT BETWEEN MODULAR
BLOCKS AND WING WITH A 3'-O" WIDE PIECE
OF GEOTEXTILE FABRIC TYPE DF.
PROVIDE A 3" DOUBLE-FOLD/BULGE IN
FABRIC AT THE INSIDE CORNER AS SHOWN.
ATTACH FABRIC TO WING WITH A
STANDARD CONSTRUCTION ADHESIVE
SUITABLE FOR USE ON CONCRETE
SURFACES AND IN COLD TEMPERATURES.
FABRIC TO BE CONTINUOUS FROM TOP
OF LEVELING PAD TO BOTTOM OF COPING.

WING)

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPE BEHIND WALL AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

CONCRETE MASONRY (CONCRETE COPING)_ BAR STEEL REINFORCEMENT, GRADE 60_

ALLOWABLE WALL SYSTEMS

WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP.

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.3210	PIGMENTED SURFACE SEALER	SY	34
513.8006	RAILING STEEL PEDESTRIAN TYPE C1 R-13-251	LF	65
51 7. 1010.S	CONCRETE STAINING R-13-251	SF	120
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80
645.0112	GEOTEXTILE FABRIC TYPE DF (SCHEDULE B)	SY	4
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP	SF	423
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4" & 3/8"
	NON-BITUMINOUS JOINT SEALER		

NOTE: ALL BID ITEMS FOR R-13-251 ARE CAT. 0010

MODULAR BLOCKS OF MSE WALL TO BE GRAY IN COLOR. VERIFY COLOR WITH CITY OF MADISON PRIOR TO ORDERING BLOCK. MAXIMUM ALLOWED HEIGHT OF INDIVIDUAL BLOCKS TO BE 12".

* THE MSE WALL MANUFACTURER SHALL DESIGN THE MSE WALL TO RESIST A TRANSVERSE LIVE LOAD OF 50 LB.PER FT.ACTING PERPENDICULAR TO THE WALL FACE AT THE TOP OF WALL.

● COST OF C.I.P. COPING SHALL BE INCLUDED IN BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP".

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. SEE SHT. 3 FOR RODENT SHIELD DETAIL.

LIST OF DRAWINGS

- GENERAL PLAN
- 2. WALL DETAILS 3. RAIL TYPE "C1"
- 4. SUBSURFACE EXPLORATION
- 5. WALL LAYOUT EXAMPLES

NO. DATE BY Prepared By WISDOT BUREAU OF STRUCTURES 5/10/16 CHIEF STRUCTURES DESIGN ENGINEER STRUCTURE R-13-251 N.W. MSE WALL ALONG HIGH POINT RD AT USH 12 AASHTO LRFD DESIGN SPEC DESIGN DRAWN DESIGNED CAD CK'D. ARC SHEET 1 OF GENERAL PLAN

STRUCTURES DESIGN CONTACTS:

LAURA SHADEWALD (608) 267-9592

APPLY PIGMENTED SURFACE SEALER TO THE TOP, BACKFACE, AND END OF THE CAST-IN-PLACE COPING _fy = 60,000 P.S.I.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS		TOTALS
502.3210	PIGMENTED SURFACE SEALER	SY	34
513.8006	RAILING STEEL PEDESTRIAN TYPE C1 R-13-251	LF	65
51 7. 1010.S	CONCRETE STAINING R-13-251	SF	120
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80
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	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4" & 3/8"
	NON-BITUMINOUS JOINT SEALER		

ELEVATION TABLE

COPING SURFACE TREATMENT

NOTE: CONCRETE STAIN COLOR TO BE "PEARL GRAY" FED. COLOR #26622

-LIMITS OF PIGMENTED SURFACE SEALER

STA.ALONG R HIGH POINT RD	TOP OF WALL EL.	FINISHED GRADE EL.
250+90.95	1118.81	1109.34
251+00	1118.40	1110.15
251+25	111 7. 28	1112.38
251+50	1116.15	1114.86
251+55	1115.92	1115.55

END WALL STA. 251+55.00-42.00'LT

251+50

NAME PLATE, CNTR.IN COPING

BETWEEN COPING

EXISTING GRADE

-EXIST. FIBER OPTIC LINE, TO BE ABANDONED

EXIST. ABANDONED

CABLE LINE

HIGH POINT RD

RAILING TYPE 'C1' SEE SHT. 3 FOR DETAILS

LIMITS OF CONCRETE

STAINING

-R HIGH POINT RD

B.F. R-13-251

-BEGIN WALL STA. 250+90.95

OVERHEAD ELEC.

LINE TO REMAIN

PLAN

COPING CONTRACTION

AND EXPANSION JOINTS

/ MULTI-USE PATH/ FINISHED GROUND LINE

1'-0'

-THE FILL BELOW THE WALL SHOULD BE PLACED TO THE SAME LEVEL OF COMPACTION EFFORT AS THE EMBANKMENT FILL INSIDE THE 11:1Y FROM THE ROADWAY SHOULDER POINT.SEE ROADWAY PLANS.

TYP.

OIL REINFORCEMENT

EXISTING GRADE

MSE MODULAR BLOCK RETAINING WALL

ELEVATION

(LOOKING WEST AT B.F. OF WALL)

42.00'/LT

-EXIST.ELEC. LINE TO BE ABANDONED

1118.81 OF WALL

WALL STA. & OFFSET GIVEN ALONG THIS LINE

42'-0"

MSE BACKFILL

-3/4" FILLER BTWN. COPING AND PATH

·MSE MODULAR 🫣

IMITS OF MECHANICALLY

STABILIZED EARTH WALL

- LEVELING PAD

BLOCK WALL

251+00

FINISHED GRADE

EXIST. MUFN FIBER OPTIC LINE TO BE RELOCATED

BARRIER

- EXIST. WISDOT FIBER OPTIC LINE TO REMAIN. ADJUST AS REO'D PER SPECIAL PROVISION "EXPOSE

AND ADJUST CONDUIT HDPE

EXIST. OVERHEAD

ELEC. LINE TO BE RELOCATED

250+50

1110

N.W. WING WALL OF

 $\langle \neg$

N.W. WING WALL OF B-13-572

6" TO

₹ POST

MIN.

*3'-6" HIGH RAILING-TYPE "C1"

TOP OF WALL EL.-

VARIES, 2" MIN. (BLOCK HT.+2" MAX.)

VARIES, 0" MIN. (A.C.) MIN. (A.C.) MAX.)

FINISHED GRADE

SECTION THRU WALL LOOKING NORTH

R HIGH POINT RD	WALL EL.	GRADE EL.
250+90.95	1118.81	1109.34
251+00	1118.40	1110.15
251+25	1117.28	1112.38
251+50	1116.15	1114.86
251+55	1115.92	1115.55

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS				
WALL HEIGHT (FEET)1	10.9	6.3		
EXPOSED WALL HEIGHT (FEET)	9.4	4.8		
LENGTH OF REINFORCEMENT (FEET) 2	11.5	6.0		
LENGTH OF REIN. / WALL HEIGHT	1.06 ³	NA ⁴		
ROADWAY STATION	250+91	251+25		
BORING USED	B-1E	B-6		
CAPACITY TO DEMAND RATIO (CDR) 4				
SLIDING (CDR > 1.0)	2.2	1.7		
ECCENTRICITY (CDR > 1.0)	3.1	2.9		
GLOBAL STABILITY (CDR > 1.0)	1.3	1.1		
BEARING RESISTANCE (CDR > 1.0)	1.0	1.2		
REQUIRED BEARING RESISTANCE (PSF)	2,400	1,700		

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.

€ OF "C1" RAIL POSTS *-

#4 BARS @ 18" O.C. — (EPOXY COATED)

VARIES, 2" BLOCK HT.+2

PROJECTION

VARIES

O" MIN.

2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH.
3. THE RATIO WAS INCREASED TO SATISFY THE REQUIRED BEARING RESISTANCE.
4. NA - THE MINIMUM REINFORCEMENT LENGTH OF 6 FEET WAS USED.

5. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.

-¾" CHAMFER AT ALL EXPOSED OUTSIDE CORNERS,

(6) #4 BARS 🛈 (EPOXY COATED)

- OPTIONAL CONST. JOINT. SEAL JNT. WITH "L-SHAPED" 18" X CONT. RUBBERIZED

MEMBRANE WATERPROOFING AT BACK FACE IF USED

MULTI-USE PATH/ FINISHED GROUND LINE

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL (WITHIN THE WALL IN THE REINFORCING ZONE)	30	0	120
FILL (BEHIND AND BELOW THE REINFORCING ZONE)	31	0	120
B-IE, 250+23.0			
EXISTING FILL (ELEVATION 1107.8 FT - 1101.9 FT)	31	0	120
SAND, BROWN, SOME SILT, LITTLE GRAVEL (ELEVATION 1101.9 FT - 1095.4 FT)	31	0	115
WEATHERED LIMESTONE (ELEVATION 1095.4 FT - 1073.9 FT)	0	25,000	135
B-6, 251+60.6			
SAND, BROWN, FINE TO COURSE, SOME GRAVEL, TRACE SILT (ELEVATION 1110.9 FT - 1101.7 FT)	33	0	125
CLAY, BROWN, TRACE SAND (ELEVATION 1101.7 FT - 1095.2 FT)	0	1,500	115
SAND, BROWN, FINE TO COURSE, SOME GRAVEL (ELEVATION 1095.2 FT - 1094.7 FT)	31	0	115

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 4.9 FEET TO 9.4 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

¾" CHAMFER (FRONT, BACK, & TOP)-

1. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE IN FRONT THE WALL IS 2H:IV.

2. THE SLOPE IN BACK OF THE WALL IS HORIZONTAL.

3. GROUNDWATER WAS NOT OBSERVED IN THE BORINGS.

4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.

5. THE MINIMUM EMBEDMENT WAS 1.5 FEET.

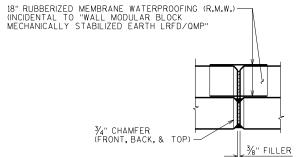
6. THE WIDTH OF THE MODULAR BLOCK WAS 12-INCHES.

7. A SURCHARGE LOAD OF 240 PSF IS INCLUDED TO MODEL A TRAFFIC LOAD.

8. GLOBAL STABILITY COR WAS DETERMINED BY THE COMPUTER PROGRAM STABLPRO V3.0.

9. BEARING RESISTANCE IS DETERMINED BY TERZACHI'S BEARING CAPACITY EQUATION.

10. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS AND COHESIVE SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.



— SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD '%" BELOW SURFACE OF CONCRETE). COLOR OF SEALER SHALL BE CLOSE MATCH TO CONCRETE STAIN ON COPING. -R.M.W. TO EXTEND FROM TOP OF COPING TO BOTTOM OF COPING AT THE BACK FACE OF THE

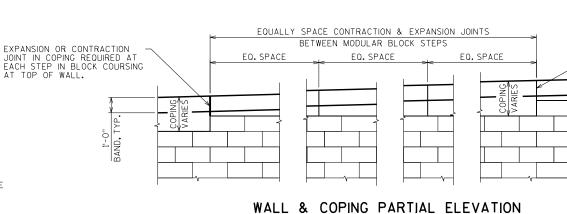
COPING EXPANSION JOINT PLAN

MAX. SPA. OF JOINT = 50'-0'

COPING CONTRACTION JOINT PLAN

MAX. SPA. OF JOINT = 12'-0"

DO NOT RUN ANY BAR STEEL THRU JOINTS. ALL JOINTS TO EXTEND FULL DEPTH OF COPING.



MODULAR BLOCKS,

-EXPANSION OR CONTRACTION JOINT IN COPING REQUIRED AT EACH STEP IN BLOCK COURSING AT TOP OF WALL.

NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION STRUCTURE R-13-251 DRAWN BY CAD PLANS ARC SHEET 2 WALL **DETAILS**

LOOKING AT FRONT FACE OF WALL

SEE DETAILS ABOVE FOR MAXIMUM JOINT SPACING IN COPING

8

8

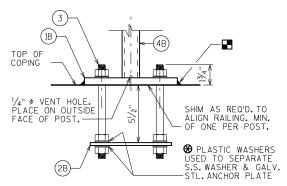
■ BAR STEEL REINF. IN C.I.P. COPING TO BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP".

MIN.

SECTION THRU COPING

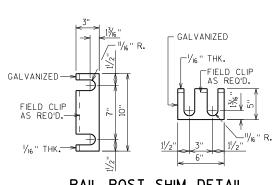
* THE MSE WALL MANUFACTURER SHALL DESIGN THE MSE WALL TO RESIST A TRANSVERSE LIVE LOAD OF 50 LB.PER FT.ACTING PERPENDICULAR TO THE WALL FACE AT THE TOP OF WALL.

-BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR



ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



RAIL POST SHIM DETAIL
(2 SETS PER POST)

B SECTION B-B

RODENT SHIELD DETAIL

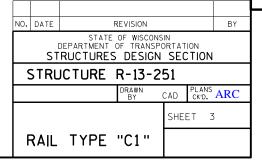
 $m{ iny T}$ dimensions are approximate the grate is sized to fit into a pipe coupling. Orient so slots are vertical.

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

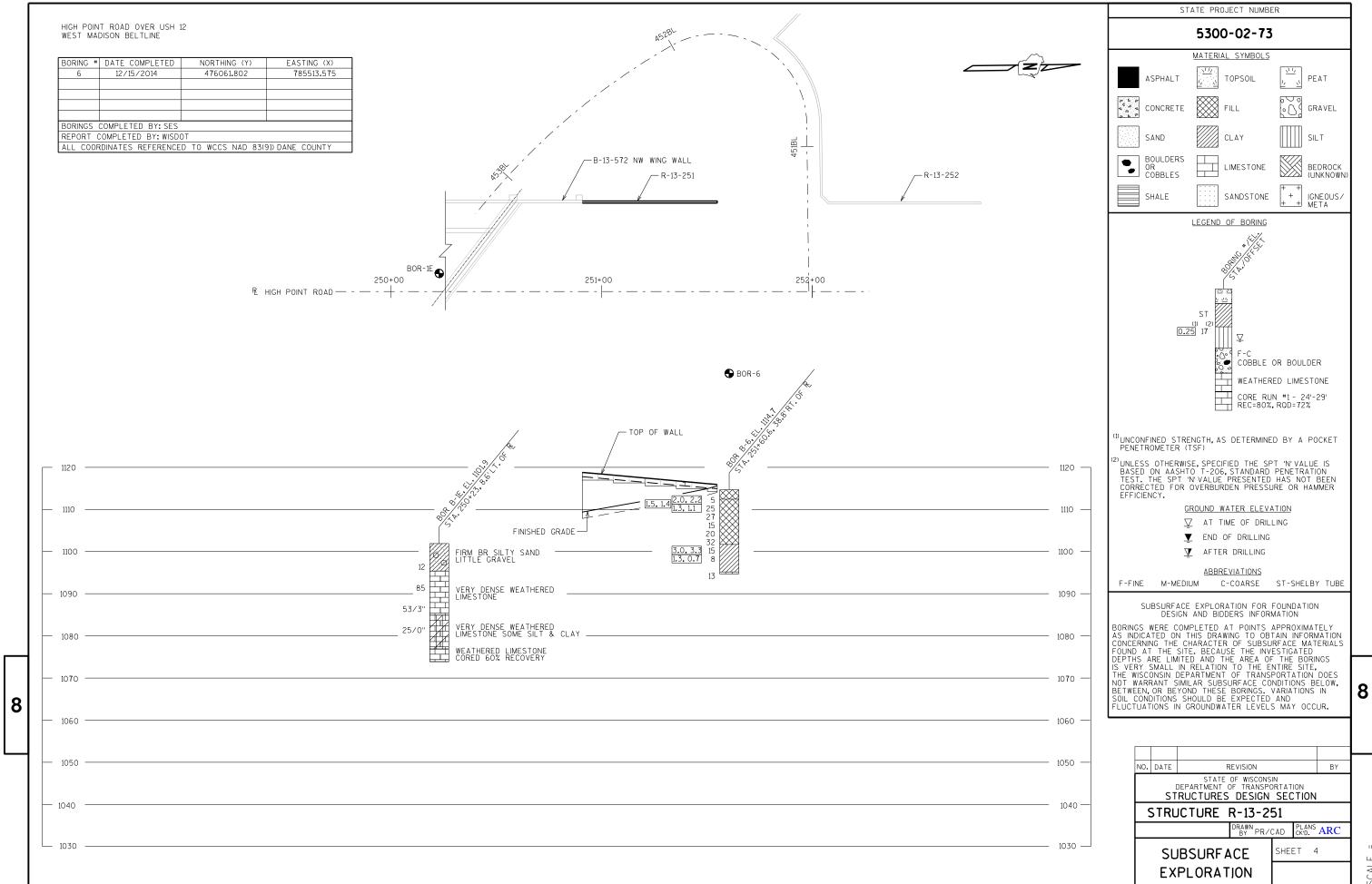
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER, A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X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

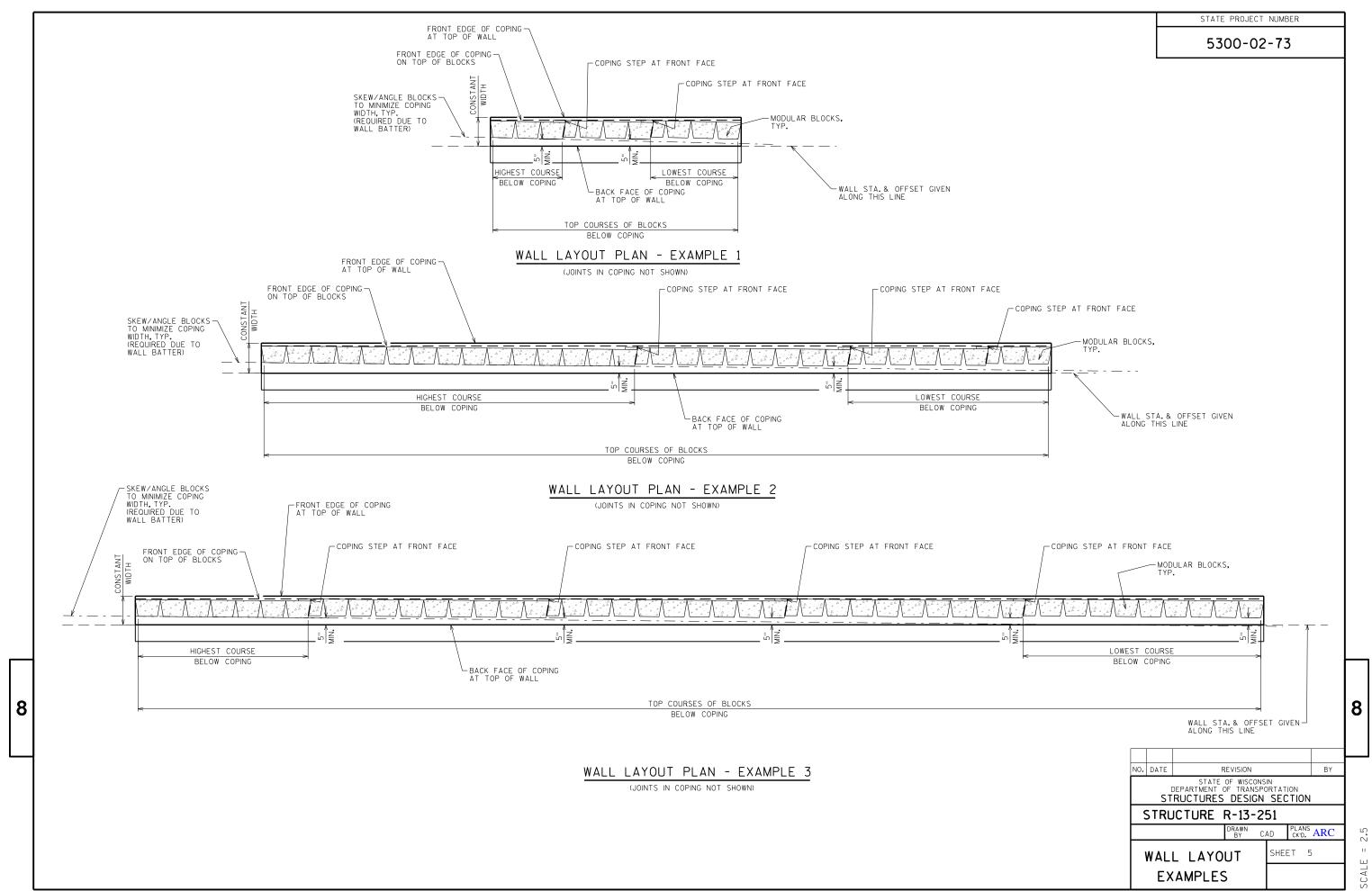
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



SCALE = 1,000





DESIGN DATA

5300-02-73

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION, THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPE BEHIND WALL AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

APPLY PIGMENTED SURFACE SEALER TO THE TOP, BACKFACE, AND END OF THE CAST-IN-PLACE COPING

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

MATERIAL PROPERTIES

CONCRETE MASONRY (CONCRETE COPING)
BAR STEEL REINFORCEMENT, GRADE 60___ _f'c = 3,500 P.S.I. _fy = 60,000 P.S.I.

ALLOWABLE WALL SYSTEMS

WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
209.0100	BACKFILL GRANULAR	CY	116
502.3210	PIGMENTED SURFACE SEALER	SY	105
513.8006	RAILING STEEL PEDESTRIAN TYPE C1 R-13-252	LF	200
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	210
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP		1,271
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4" & 3/8"
	NON-BITUMINOUS JOINT SEALER		

NOTE: ALL BID ITEMS FOR R-13-252 ARE CAT. 0030

ELEVATION TABLE

STA. ALONG R 'BL' OR 'HP'	STA.ALONG R BL'TAN'	WALL STA.	TOP OF WALL EL.	FINISHED GRADE EL.
451+49.25 'BL'		0+00	1105.27	1105.27
451+50.93 'BL'		0+25	1108.30	1105.48
451+52 .7 5 'BL'		0+40.08	1110.25	1105.60
451+52 'BL'		0+40.94	1110.29	1105.60
451+50 'BL'		0+43.22	1110.44	1105.65
451+25 'BL'		0+71.70	1111.69	1105.79
451+00 'BL'	450+98.22 BL'TAN'	1+00.44	1112.96	1106.17
450+84.53 'BL'	450+76.46 BL'TAN'	1+22.20	1114.00	1106.49
450+83.86 'BL'	450+72.58 BL'TAN'	1+27.61	1114.05	1106.50
252+08 'HP'		1+27.90	1114.03	1106.50
252+25 'HP'		1+44.90	1113.39	1106.72
252+50 'HP'		1+69.90	1112.27	1107.75
252+ 7 5 'HP'		1+94.90	1111.16	1110.25
252+80 'HP'		1+99.90	1110.95	1110.95

LIST OF DRAWINGS

- GENERAL PLAN
- 2. WALL DETAILS
- 3. RAIL TYPE "C1"
- 4. SUBSURFACE EXPLORATION 5. WALL LAYOUT EXAMPLES

DESIGN SPEC. AASHTO LRFD DESIGN SPEC.

NO. DATE

DESIGNED DESIGN DRAWN
BY CAD CK'D. ARC BY CAD CK'D. ARC SHEET 1 OF 5 GENERAL PLAN

STRUCTURES DESIGN CONTACTS:

CHRIS DOLL (608) 266-3229 LAURA SHADEWALD (608) 267-9592

REVISION

CHIEF STRUCTURES DESIGN ENGINEER STRUCTURE R-13-252

BIKE PATH WALL ALONG HIGH POINT RD AT USH 12

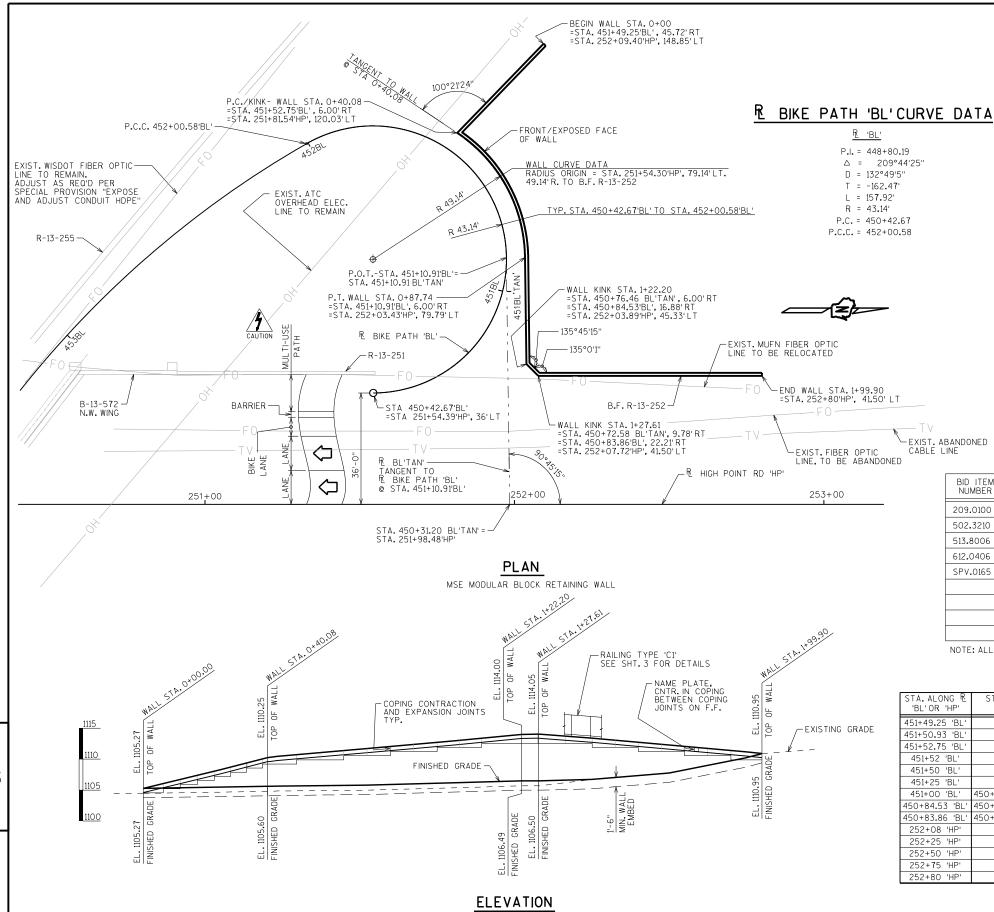
Plans Prepared By WISDOT

BUREAU OF STRUCTURES William C. Drehe 5/10/16

BY

8

DATE: APRIL 2016



(LOOKING AT B.F. OF WALL- UNFOLDED)

SAND, WHITE/ORANGE/BROWN, FINE TO MEDIUM (ELEVATION 1094.4 FT - 1085.2 FT) THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 4.2 FEET TO 7.0 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

CLAY, BROWN, TRACE SAND, TRACE ORGANICS (ELEVATION 1102.7 FT - 1096.4 FT)

FILL, (REPLACES CLAY, BLACK) (ELEVATION 1105.3 FT - 1102.7 FT

CLAY, BROWN (ELEVATION 1103.9 FT - 1101.4 FT

BEDROCK (ELEVATION 1096.4 FT AND BELOW)

CLAY, BROWN, SOME SAND (ELEVATION 1101.4 FT - 1098.4 FT)

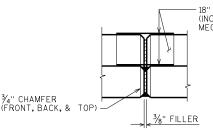
B-7. 252+1.5

- 1. THE SLOPE IN FRONT THE WALL IS HORIZONTAL.
- 2. THE SLOPE IN BACK OF THE WALL IS HORIZONTAL.
- 3. GROUNDWATER WAS NOT OBSERVED IN THE BORINGS.
- 4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.
- 5. THE MINIMUM EMBEDMENT WAS 1.5 FEET.
- 6. THE WIDTH OF THE MODULAR BLOCK WAS 12-INCHES.
- 7. A SURCHARGE LOAD OF 240 PSF IS INCLUDED TO MODEL A TRAFFIC LOAD.
- 8. GLOBAL STABILITY FACTOR OF SAFETY WAS DETERMINED BY THE COMPUTER PROGRAM XSTABL.

SAND, BROWN, FINE TO COURSE, SOME GRAVEL AND CLAY (ELEVATION 1098.4 FT - 1096.4 FT

SAND, BROWN, FINE TO MEDIUM, TRACE SILT, SO. GRAVEL (ELEVATION 1096.4 FT - 1094.4 FT

- 9. BEARING RESISTANCE IS DETERMINED BY TERZAGHI'S BEARING CAPACITY EQUATION.
- 10. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS AND COHESIVE SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.



3/4" CHAMEER

18" RUBBERIZED MEMBRANE WATERPROOFING (R.M.W.) (INCIDENTAL TO "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP

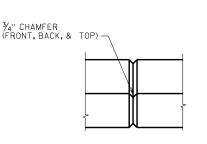
— SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD "/8" BELOW SURFACE OF CONCRETE. COLOR OF SEALER SHALL BE CLOSE MATCH TO CONCRETE STAIN ON COPING.

— R.M.W. TO EXTEND FROM TOP OF COPING TO BOTTOM OF COPING AT THE BACK FACE OF THE WALL.

COPING EXPANSION JOINT PLAN

MAX. SPA. OF JOINT = 50'-0"

NOTES: DO NOT RUN ANY BAR STEEL THRU JOINTS. ALL JOINTS TO EXTEND FULL DEPTH OF COPING.



COPING CONTRACTION JOINT PLAN

MAX. SPA. OF JOINT = 12'-0"

NO. DATE

COPING SURFACE TREATMENT

SECTION THRU COPING

MIN.

-BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR

VARIES

0" MIN.

FINISHED

GRADE

- * THE MSE WALL MANUFACTURER SHALL DESIGN THE MSE WALL TO RESIST A TRANSVERSE LIVE LOAD OF 50 LB. PER FT. ACTING PERPENDICULAR TO THE WALL FACE AT THE TOP OF WALL.
- BAR STEEL REINF.IN C.I.P. COPING TO BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP"

TYP.

OVEREXCAVATE 1'-O" BELOW WALL LEVELING -PAD AND REINFORCEMENT ZONE AND FILL WITH "BACKFILL GRANULAR". OVEREXCAVATION TO BE INCLUDED IN "WALL

MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP" BID ITEM.

¾" CHAMFER AT ALL ¬ EXPOSED OUTSIDE CORNERS, TYP.

-FINISHED GROUND LINE

(6) #4 BARS

(EPOXY COATED

OPTIONAL CONST. JOINT. SEAL JNT. WITH "L-SHAPED" 18" X CONT. RUBBERIZED

AT BACK FACE IF LISED

SOIL REINFORCEMENT

BLOCK WALL

-LIMIT OF MECHANICALLY

STABILIZED EARTH WALL

(A15)

BLOCKS TO BE 12".

AT THE TOP OF WALL.

SECTION THRU WALL

MODULAR BLOCKS OF MSE WALL TO BE GRAY IN COLOR. VERIFY COLOR WITH CITY OF MADISON PRIOR TO ORDERING BLOCK.
MAXIMUM_ALLOWED HEIGHT OF INDIVIDUAL

* THE MSE WALL MANUFACTURER SHALL DESIGN THE MSE WALL TO RESIST A TRANSVERSE LIVE LOAD OF 50 LB.PER FT. ACTING PERPENDICULAR TO THE WALL FACE

COST OF C.I.P. COPING SHALL BE INCLUDED IN BID ITEM "WALL MODULAR BLOCK

MECHANICALLY STABILIZED EARTH LRFD/QMP".

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. SEE SHT. 3 FOR RODENT SHIELD DETAIL.

€ OF "C1" RAIL POSTS *

#4 BARS @ 18" O.C. 🕦

(EPOXY COATED)

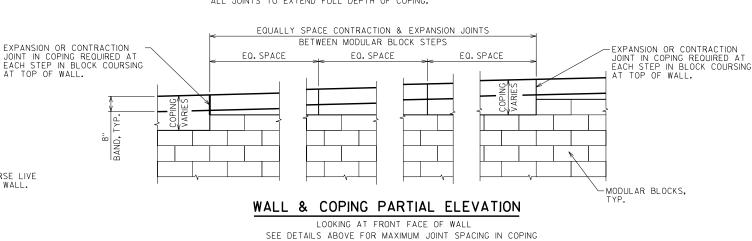
PROJECTION

VARIES

0" MIN.

VARII

LEVELING PAD



WALL EXTERNAL STABILITY EVALUATION

1,000

500

96,000

4,000

115

120

140

120

130

125

LIMITS OF PIGMENTED -SURFACE SEALER

DIMENSIONS					
WALL HEIGHT (FEET)1	5.7	6.6	8.5		
EXPOSED WALL HEIGHT (FEET)	4.2	5.1	7.0		
LENGTH OF REINFORCEMENT (FEET)2	6.0	6.0	6.0		
LENGTH OF REIN, / WALL HEIGHT	NA 3	NA 3	NA 3		
WALL STATION	0+40.0	0+71.7	1+27.9		
BORING USED	B-9	B-8	B- 7		
CAPACITY TO DEMAND RATIO (CDR)4					
SLIDING (CDR > 1.0)	1.8	1.7	1.4		
ECCENTRICITY (CDR > 1.0)	3.6	2.6	1.6		
GLOBAL STABILITY (CDR > 1.0)	NA 5	2.9	1.5		
BEARING RESISTANCE (CDR > 1.0)	3.1	1.3	1.9		
REQUIRED BEARING RESISTANCE (PSF)	4,000	2,000	4,000		

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET. 2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH.

3. NA- THE MINIMUM REINFORCEMENT LENGTH OF 6 FEET WAS USED.

4. REQUIRED CDR'S ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.

5. N/A- THE LOCATION WAS NOT A CRITICAL LOCATION FOR GLOBAL STABILITY.

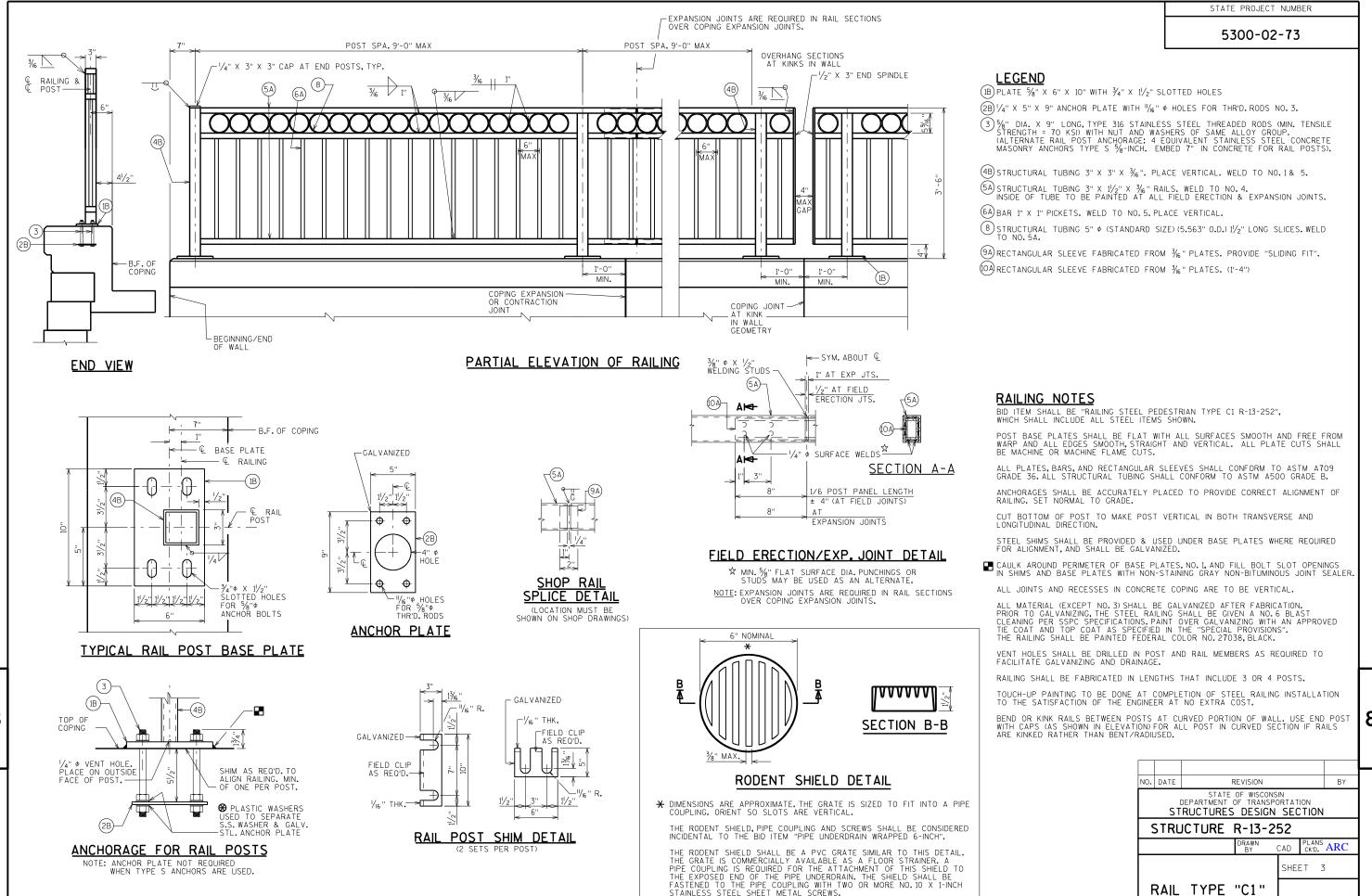
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BY

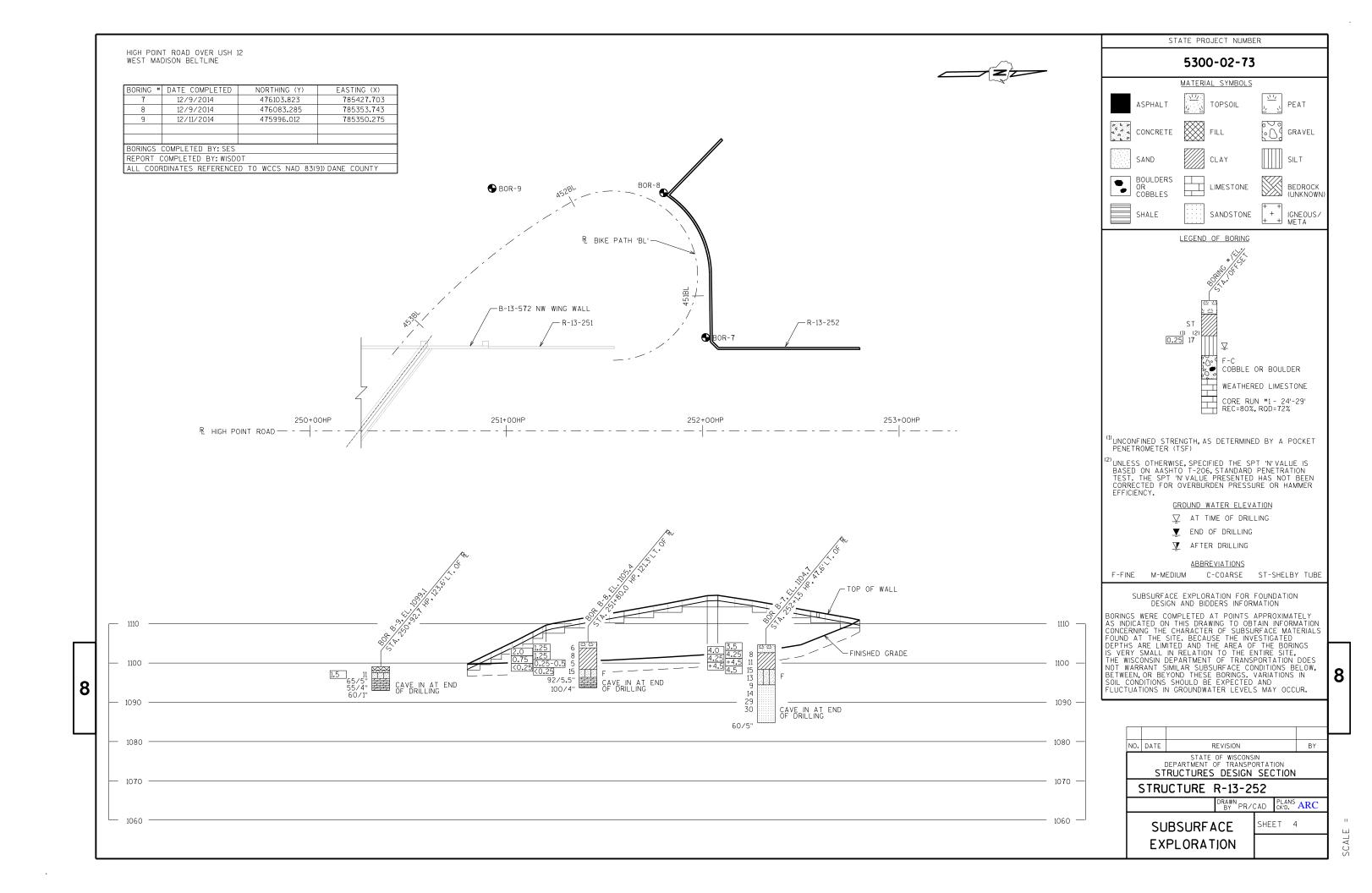
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION STRUCTURE R-13-252 DRAWN CAD PLANS ARC

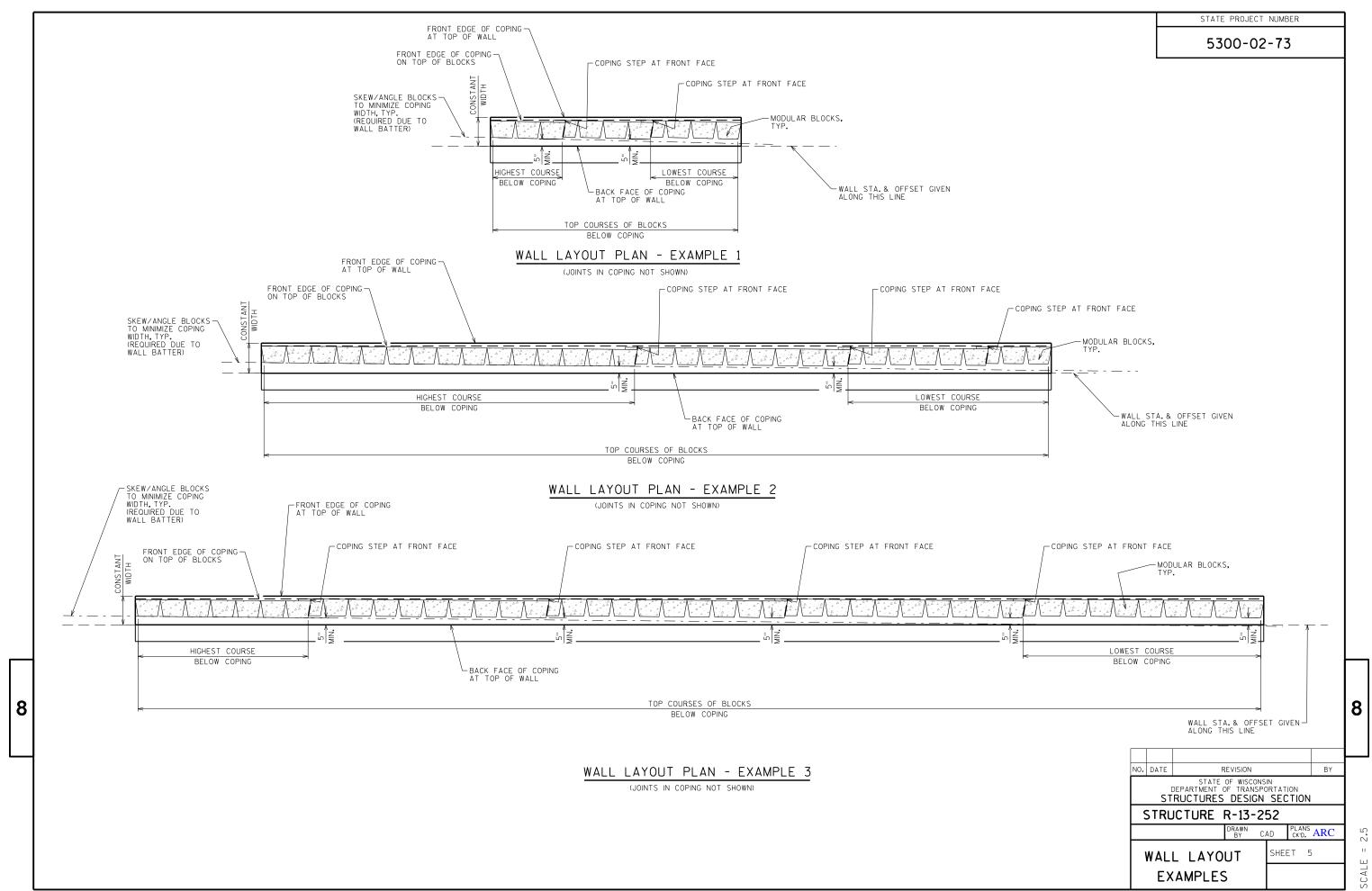
REVISION

SHEET 2 WALL DETAILS



SCALE = 1.000





5300-02-73

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPE BEHIND WALL

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

APPLY PIGMENTED SURFACE SEALER TO THE TOP, BACKFACE, AND END OF THE CAST-IN-PLACE COPING

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

MATERIAL PROPERTIES

_f'c = 3,500 P.S.I. _fy = 60,000 P.S.I. CONCRETE MASONRY (CONCRETE COPING)_ BAR STEEL REINFORCEMENT, GRADE 60.

ALLOWABLE WALL SYSTEMS

WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
502.3210	PIGMENTED SURFACE SEALER	SY	70
513.8006	RAILING STEEL PEDESTRIAN TYPE C1 R-13-253	LF	146
51 7. 1010.S	CONCRETE STAINING R-13-253	SF	220
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	170
645.0112	GEOTEXTILE FABRIC TYPE DF (SCHEDULE B)	SY	3
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP	SF	560
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4" & 3/8"
	NON-BITUMINOUS JOINT SEALER		

NOTE: ALL BID ITEMS FOR R-13-253 ARE CAT. 0010

ELEVATION TABLE

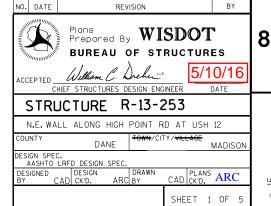
STA. ALONG R HIGH POINT RD	TOP OF WALL EL.	FINISHED GRADE EL.
250+29.05	1121.89	1116.94
250+50	1121.06	1117.59
250+58.95	1120.72	1117.44
250+ 7 5	1120.05	1117.13
251+00	1118.94	1116.69
251+25	1117.81	1116.24
251+50	1116.69	1115.26
251+75	1115.56	1115.56

LIST OF DRAWINGS

- 1. GENERAL PLAN
- 2. WALL DETAILS
- 3. RAIL TYPE "C1"
- 4. SUBSURFACE EXPLORATION
- 5. WALL LAYOUT EXAMPLES

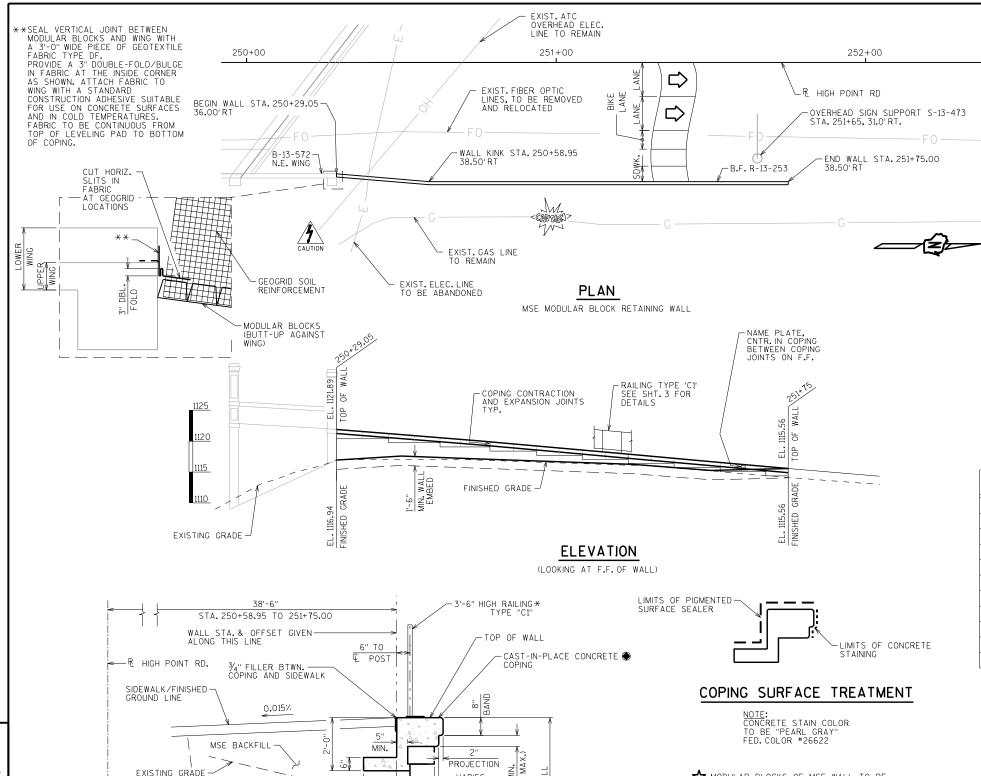
CHRIS DOLL (608) 266-3229 LAURA SHADEWALD (608) 267-9592

STRUCTURES DESIGN CONTACTS:



DATE: APRIL 2016

15



EXISTING GRADE VARIES O" MIN. MSE MODULAR SOIL REINFORCEMENT VARIE BLOCK WALL 1'-0'' -FINISHED GRADE TYP. LIMITS OF MECHANICALLY STABILIZED EARTH WALL (A15)-ANY FILL REQUIRED BELOW THE WALL DUE TO OVEREXCAVATION FOR ADJACENT BRIDGE WORK SHALL BE PLACED TO THE SAME LEVEL OF COMPACTION EFFORT AS THE EMBANKMENT FILL INSIDE THE 1H:1V FROM THE ROADWAY SHOULDER POINT. SEE ROADWAY PLANS. LEVELING PAD -

*....

SECTION THRU WALL LOOKING NORTH

MODULAR BLOCKS OF MSE WALL TO BE GRAY IN COLOR, VERIFY COLOR WITH CITY OF MADISON PRIOR TO ORDERING BLOCK. MAXIMUM ALLOWED HEIGHT OF INDIVIDUAL BLOCKS TO BE 12".

* THE MSE WALL MANUFACTURER SHALL DESIGN THE MSE WALL TO RESIST A TRANSVERSE LIVE LOAD OF 50 LB. PER FT. ACTING PERPENDICULAR TO THE WALL FACE AT THE TOP OF WALL.

● COST OF C.I.P. COPING SHALL BE INCLUDED IN BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP".

PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. SEE SHT. 3 FOR RODENT SHIELD DETAIL.

GENERAL PLAN

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS												
WALL HEIGHT (FEET)1	6.5	3.8										
EXPOSED WALL HEIGHT (FEET)	5.0	2.3										
LENGTH OF REINFORCEMENT (FEET) 2	6.0	6.0										
LENGTH OF REIN. / WALL HEIGHT	NA ³	NA ³										
ROADWAY STATION	250+29	251+00										
BORING USED	B-3	B-6										
CAPACITY TO DEMAND RATIO (CDR) 4											
SLIDING (CDR > 1.0)	1.7	2.3										
ECCENTRICITY (CDR > 1.0)	2.7	11.6										
GLOBAL STABILITY (CDR > 1.0)	1.2	NA ⁵										
BEARING RESISTANCE (CDR > 1.0)	2.0	3.2										
REQUIRED BEARING RESISTANCE (PSF)	2,900	2,900										

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.

1. THE WALL HEIGHT INCLUDES AN EMBELMENT OF 1.5 FEET.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH.
3. NA - THE MINIMUM REINFORCEMENT LENGTH OF 6 FEET WAS USED.
4. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CHAPTER 14 OF THE BRIDGE MANUAL.
5. NA - THE LOCATION WAS NOT A CRITICAL LOCATION FOR GLOBAL STABILITY

· L OF "C1" RAIL POSTS *

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL (WITHIN THE WALL IN THE REINFORCING ZONE)	30	0	120
FILL (BEHIND AND BELOW THE REINFORCING ZONE)	31	0	120
B-3, 249+88.76			
FILL (REPLACES TOPSOIL)(ELEVATION 1115.4 FEET - 1103.7 FEET)	31	0	120
SAND, BROWN, FINE/MEDIUM, SOME SILT, SOME GRAVEL (ELEVATION 1103.7 FEET - 1097.7 FEET)	0	4,000	130
SAND, BROWN, FINE/MEDIUM, SOME SILT, SOME GRAVEL (ELEVATION 1097.7 FEET - 1095.2 FEET)	33	0	125
SAND, BROWN, FINE/MEDIUM, SOME SILT, SOME GRAVEL (ELEVATION 1095.2 FEET - 1089.7 FEET)	36	0	135
B-6, 251+60.6			
FILL (REPLACES TOPSOIL) (ELEVATION 1115.2 FEET - 1112.4 FEET)	31	0	120
SAND, BROWN, FINE TO COURSE, SOME GRAVEL, TRACE SILT (ELEVATION 1112.4 FEET - 1101.7 FEET)	33	0	125
CLAY, BROWN, TRACE SAND (ELEVATION 1101.7 FEET - 1095.2 FEET)	0	1,500	115
SAND, BROWN, FINE TO COURSE, SOME GRAVEL (ELEVATION 1095.2 FEET - 1094.7 FEET)	31	0	115

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 2.3 FEET TO 5.0 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

¾" CHAMFER (FRONT, BACK, & TOP)-

1. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE IN FRONT THE WALL IS 3H:IV.

2. THE SLOPE IN BACK OF THE WALL IS HORIZONTAL.

3. GROUNDWATER WAS NOT OBSERVED IN THE BORINGS.

4. THE GRANULAR BACKFILL IS FREE DRAINING AND WILL NOT BECOME SATURATED.

5. THE MINIMUM EMBEDMENT WAS 1.5 FEET.

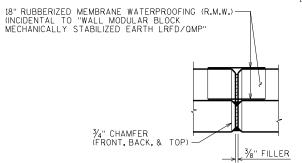
6. THE WIDTH OF THE MODULAR BLOCK WAS 12-INCHES.

7. A SURCHARGE LOAD OF 240 PSF IS INCLUDED TO MODEL A TRAFFIC LOAD.

8. GLOBAL STABILITY COR WAS DETERMINED BY THE COMPUTER PROGRAM STABLPRO V3.O.

9. BEARING RESISTANCE IS DETERMINED BY TERZACHI'S BEARING CAPACITY EQUATION.

10. SETTLEMENT OF THE FOUNDATION ON COHESIONLESS AND COHESIVE SOIL IS BASED UPON METHODS DESCRIBED IN THE FHWA SOILS AND FOUNDATIONS MANUAL.



— SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD '%" BELOW SURFACE OF CONCRETE). COLOR OF SEALER SHALL BE CLOSE MATCH TO CONCRETE STAIN ON COPING. - R.M.W. TO EXTEND FROM TOP OF COPING TO BOTTOM OF COPING AT THE BACK FACE OF THE

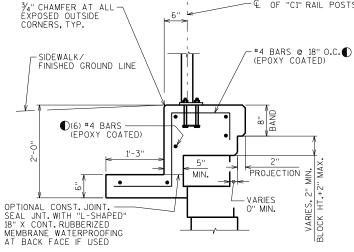
COPING EXPANSION JOINT PLAN MAX. SPA. OF JOINT = 50'-0'

COPING CONTRACTION JOINT PLAN

MAX. SPA. OF JOINT = 12'-0"

NOTES:

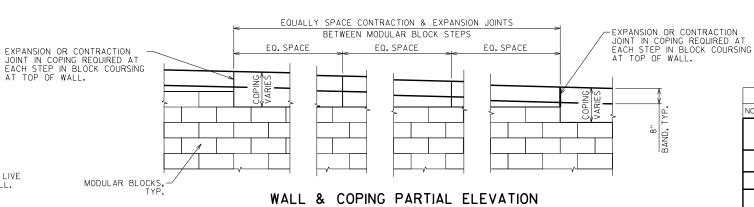
DO NOT RUN ANY BAR STEEL THRU JOINTS. ALL JOINTS TO EXTEND FULL DEPTH OF COPING.



SECTION THRU COPING

-BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR

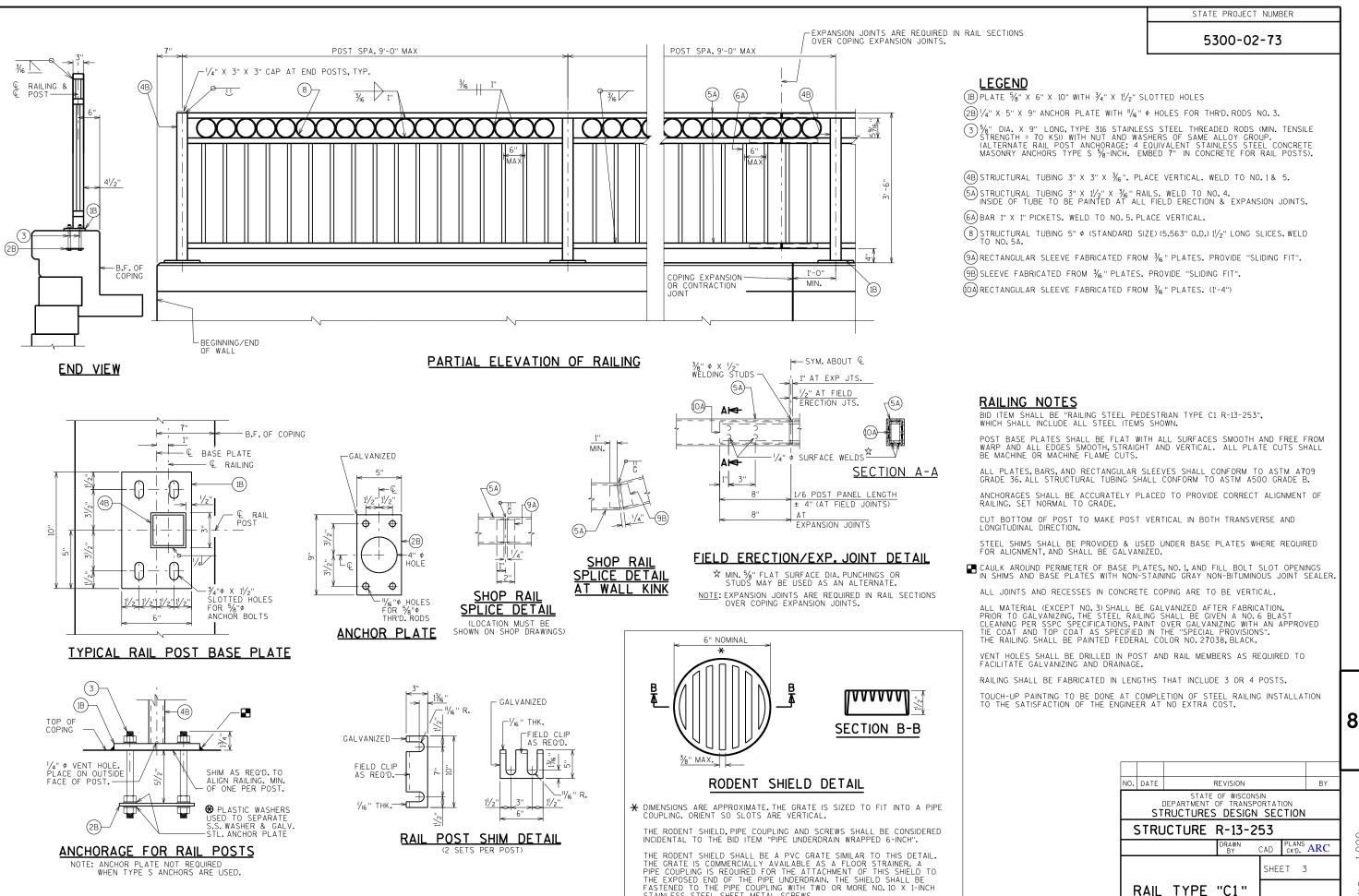
- * THE MSE WALL MANUFACTURER SHALL DESIGN THE MSE WALL TO RESIST A TRANSVERSE LIVE LOAD OF 50 LB.PER FT.ACTING PERPENDICULAR TO THE WALL FACE AT THE TOP OF WALL.
- BAR STEEL REINF. IN C.I.P. COPING TO BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP".



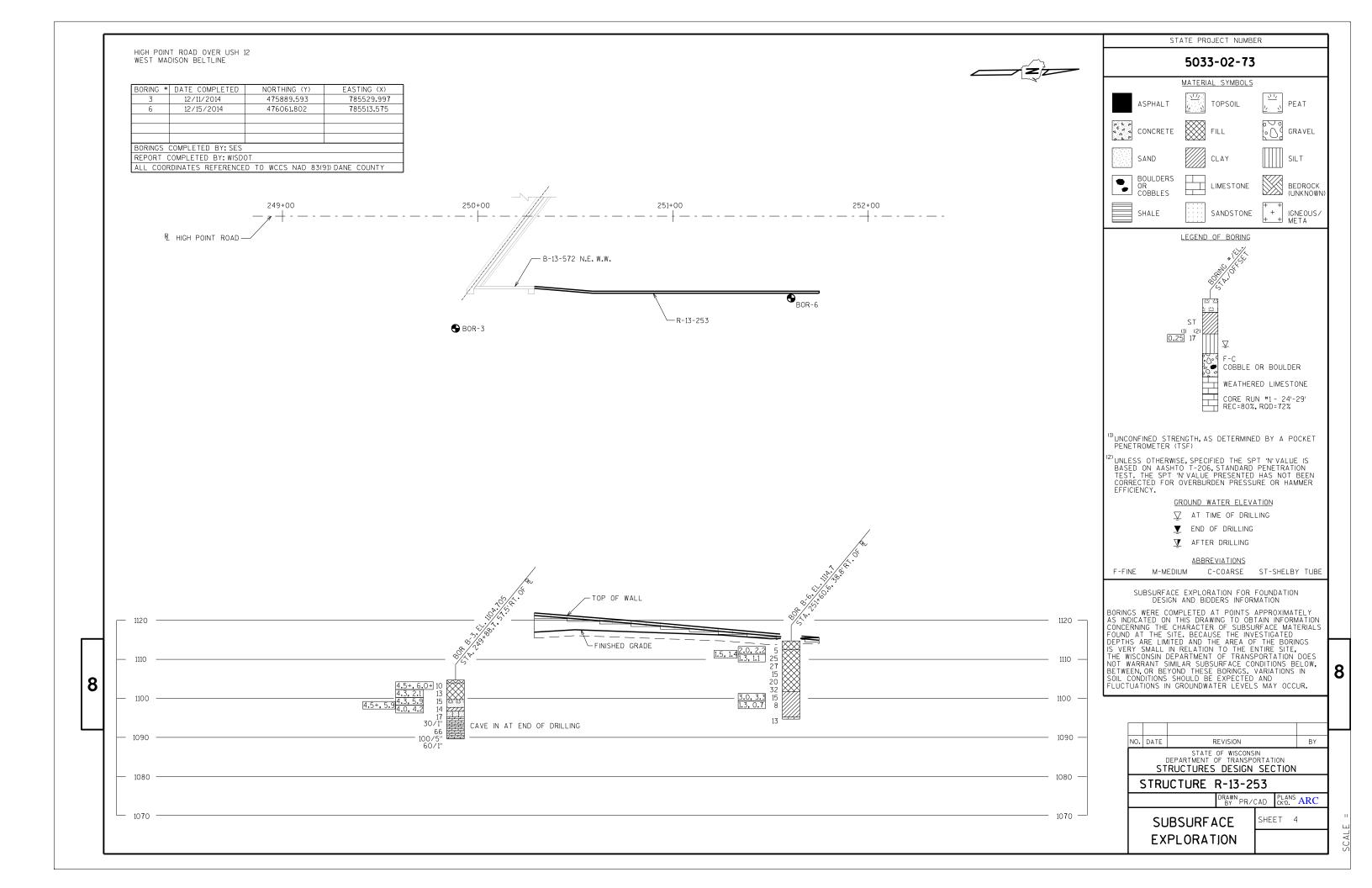
LOOKING AT FRONT FACE OF WALL SEE DETAILS ABOVE FOR MAXIMUM JOINT SPACING IN COPING NO. DATE REVISION BY STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION STRUCTURE R-13-253 DRAWN BY CAD PLANS ARC SHEET 2 WALL **DETAILS**

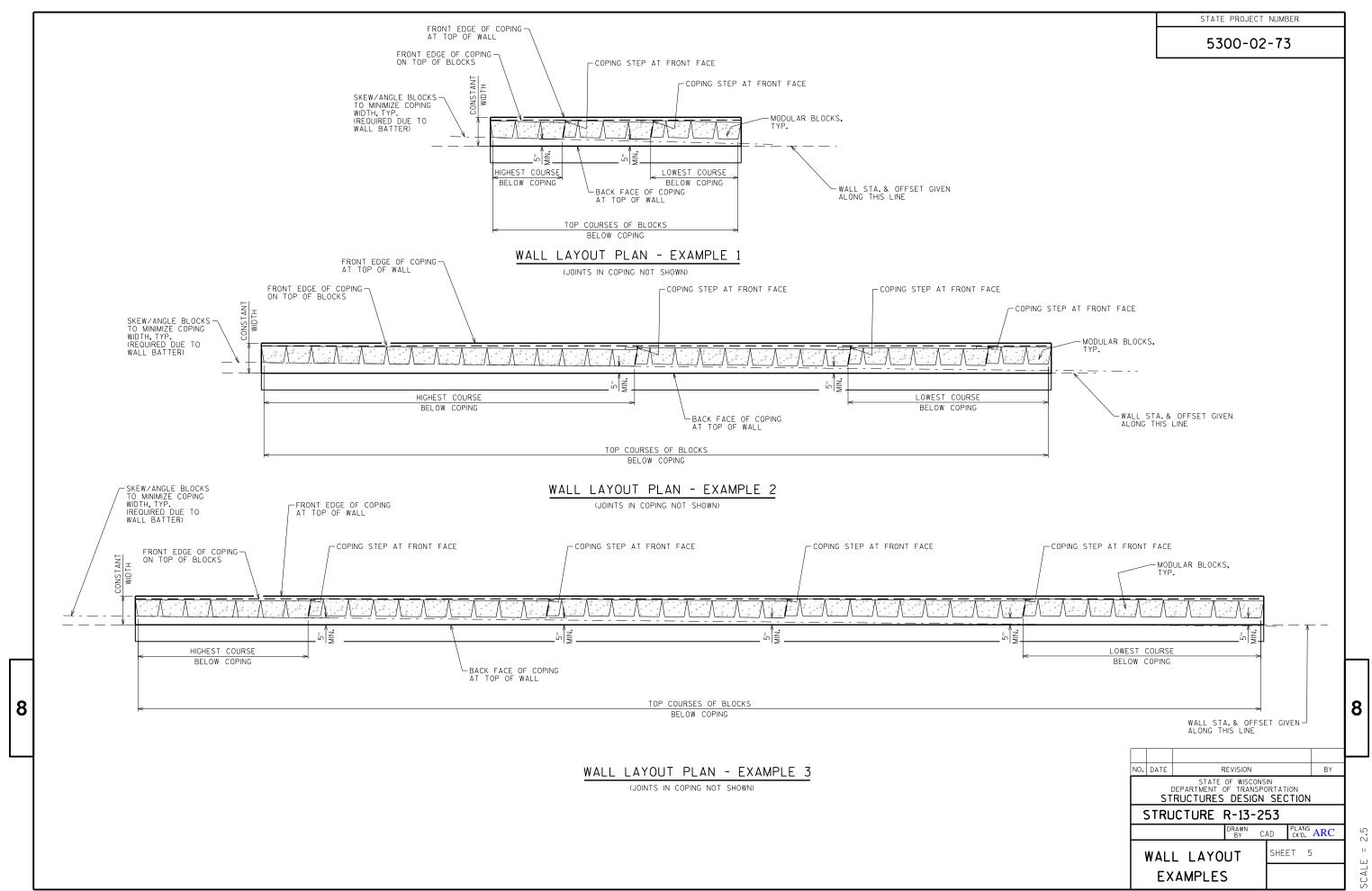
8

8



STAINLESS STEEL SHEET METAL SCREWS.







DESIGN DATA

245+00

HJ.

¥

LIST OF DRAWINGS

SUBSURFACE EXPLORATION

5. WALL LAYOUT EXAMPLES

GENERAL PLAN

WALL DETAILS

RAIL TYPE "C1"

WALL STA. 245+00-41.50'RT THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/OMP".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPE BEHIND WALL AS SHOWN.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

APPLY PIGMENTED SURFACE SEALER TO THE TOP, BACKFACE, AND END OF THE CAST-IN-PLACE COPING

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

MATERIAL PROPERTIES

CONCRETE MASONRY (CONCRETE COPING) f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 fy = 60,000 P.S.

ALLOWABLE WALL SYSTEMS

WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP.

TOTAL ESTIMATED QUANTITIES

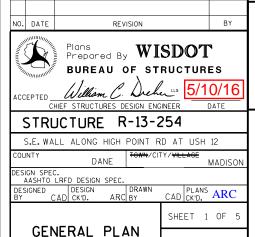
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
209.0100	BACKFILL GRANULAR	CY	305
502.3210	PIGMENTED SURFACE SEALER	SY	265
513.8006	RAILING STEEL PEDESTRIAN TYPE C1 R-13-254	LF	493
51 7. 1010.S	CONCRETE STAINING R-13-254	SF	7 40
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	500
645.0112	GEOTEXTILE FABRIC TYPE DF (SCHEDULE B)	SY	3
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD/QMP	SF	3,490
	NON-BID ITEMS		
	PREFORMED FILLER	SIZE	3/4" & 3/8"
	NON-BITUMINOUS JOINT SEALER		

NOTE: ALL BID ITEMS FOR R-13-254 ARE CAT. 0010

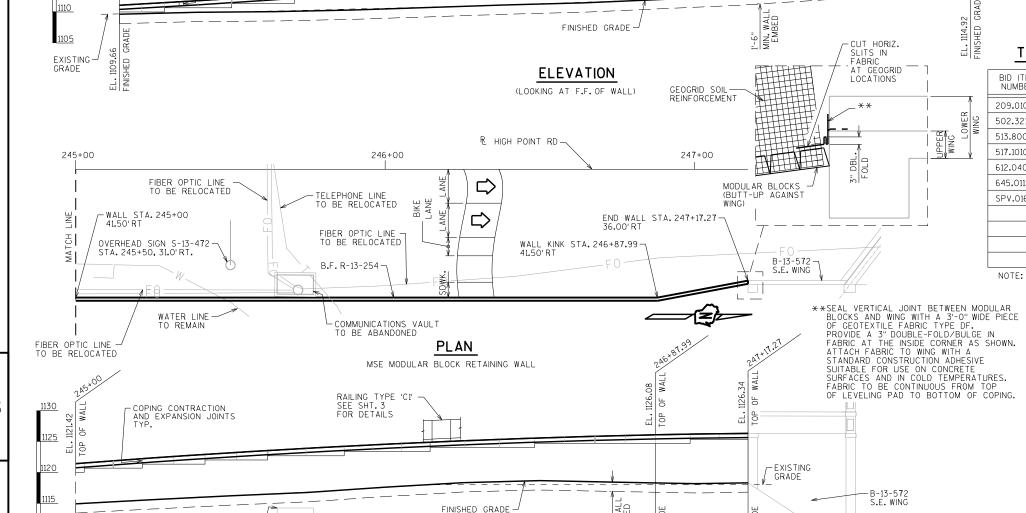
ELEVATION TABLE

		···
STA. ALONG R HIGH POINT RD	TOP OF WALL EL.	FINISHED GRADE EL.
242+25	1111.09	1109.66
242+50	1111.82	1109.96
242+75	1112.64	1110.06
243+00	1113.54	1110.32
243+25	1114.51	1110.73
243+50	1115.50	1111.16
243+75	1116.49	1111.48
244+00	1117.48	1112.03
244+25	1118.47	1112.60
244+50	1119.45	1113.41
244+75	1120.44	1114.21
245+00	1121.42	1114.92
245+25	1122.34	1115.60
245+50	1123.16	1116.23
245+75	1123.90	1116.77
246+00	1124.55	1117.62
246+25	1125.11	1118.33
246+50	1125.56	1118.68
246+75	1125.94	1118.42
246+87.99	1126.08	1118.30
247+00	1126.20	1118.19
247+17.27	1126.34	1118.30

STRUCTURES DESIGN CONTACTS:
CHRIS DOLL (608) 266-3229
LAURA SHADEWALD (608) 267-9592



DATE: APRIL 2016



ELEVATION

(LOOKING AT F.F. OF WALL)

ELECTRIC LINES TO REMAIN WITH CONCRETE CAP UNDER WALL

243+00

B.F. R-13-254-

COPING CONTRACTION AND EXPANSION JOINTS TYP.

STORM SEWER —— TO BE REPLACED UNDER WALL (SEE STORM SEWER

- NAME PLATE, CNTR.IN COPING BETWEEN COPING JOINTS ON F.F.

TOP OF COMMUNICATIONS VAULT= - EL. 1114.25± (TO BE ABANDONED)

1110

1105

PLANS)

BEGIN WALL STA. 242+25-41.50' RT

GAS LINE TO REMAIN-

FIBER OPTIC LINE -TO BE RELOCATED R HIGH POINT RD -

PLAN

MSE MODULAR BLOCK RETAINING WALL

244+00

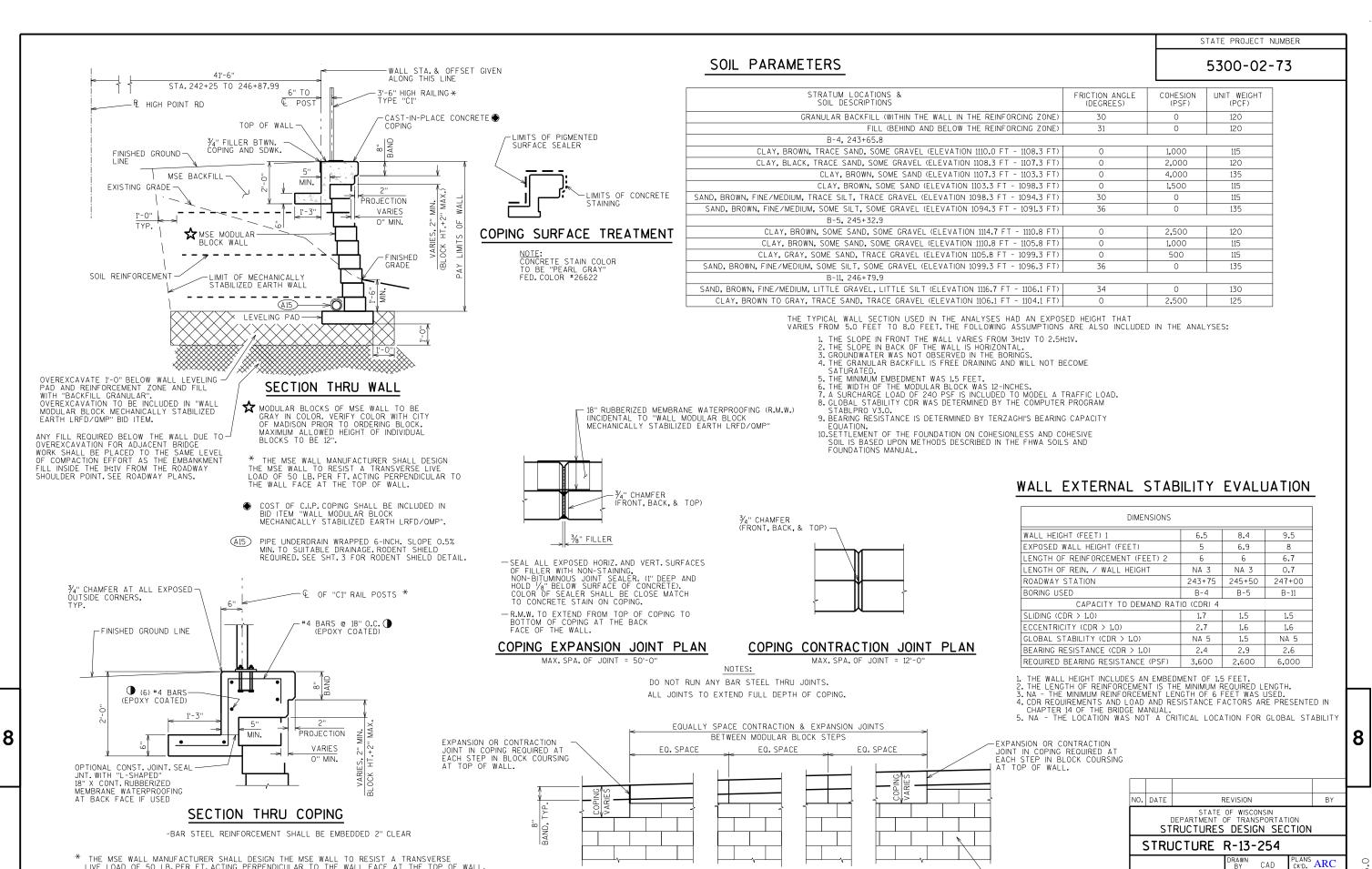
CABLE LINE TO REMAIN

FIBER OPTIC LINE

-RAILING TYPE 'C1' SEE SHT. 3 FOR DETAILS

TO BE RELOCATED

WATER LINE TO REMAIN



WALL & COPING PARTIAL ELEVATION

LOOKING AT FRONT FACE OF WALL

SEE DETAILS ABOVE FOR MAXIMUM JOINT SPACING IN COPING

LIVE LOAD OF 50 LB.PER FT. ACTING PERPENDICULAR TO THE WALL FACE AT THE TOP OF WALL.

BAR STEEL REINF. IN C.I.P. COPING TO BE INCLUDED
 IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY

STABILIZED EARTH LRFD/QMP"

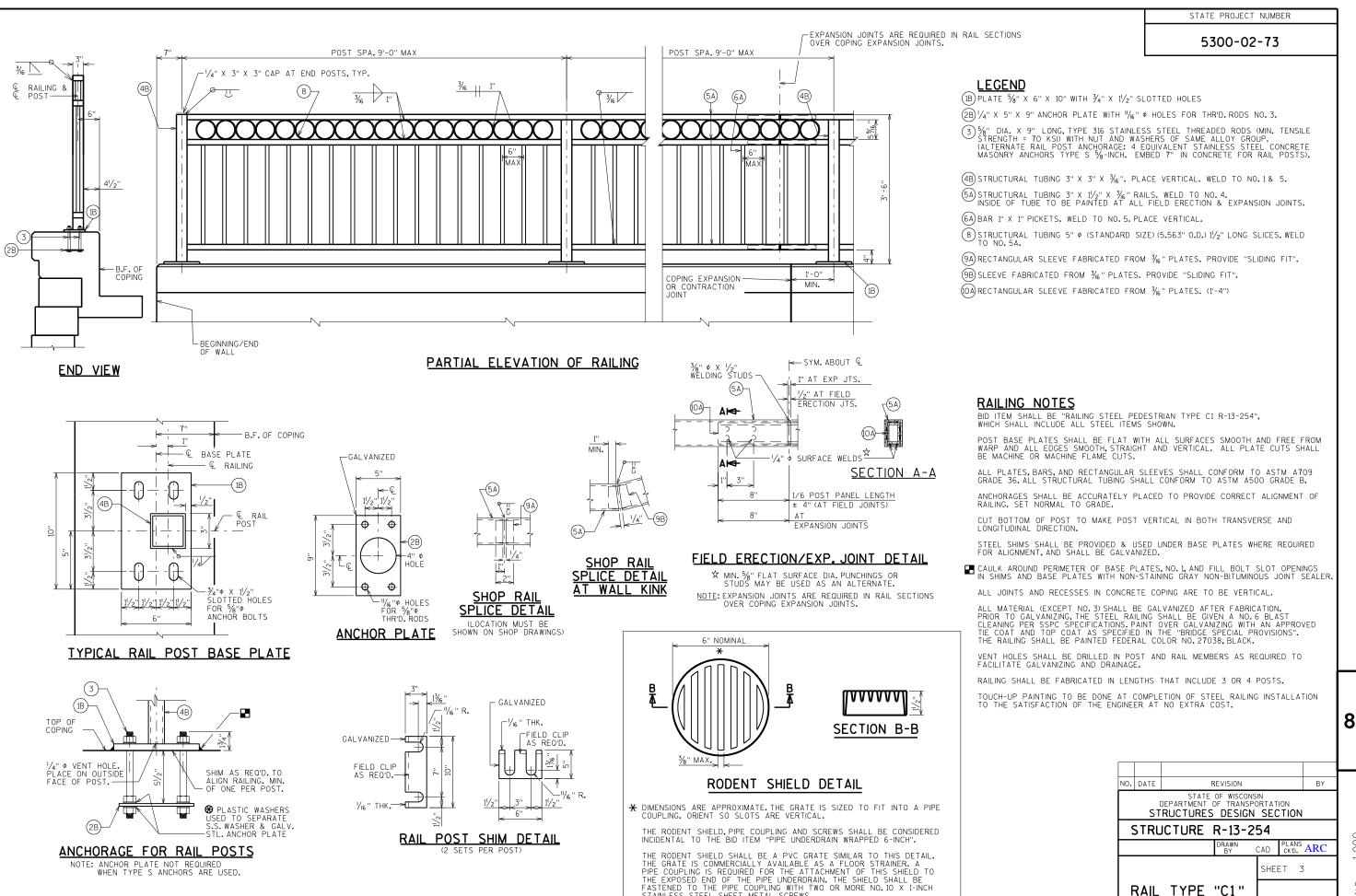
6.0

SHEET 2

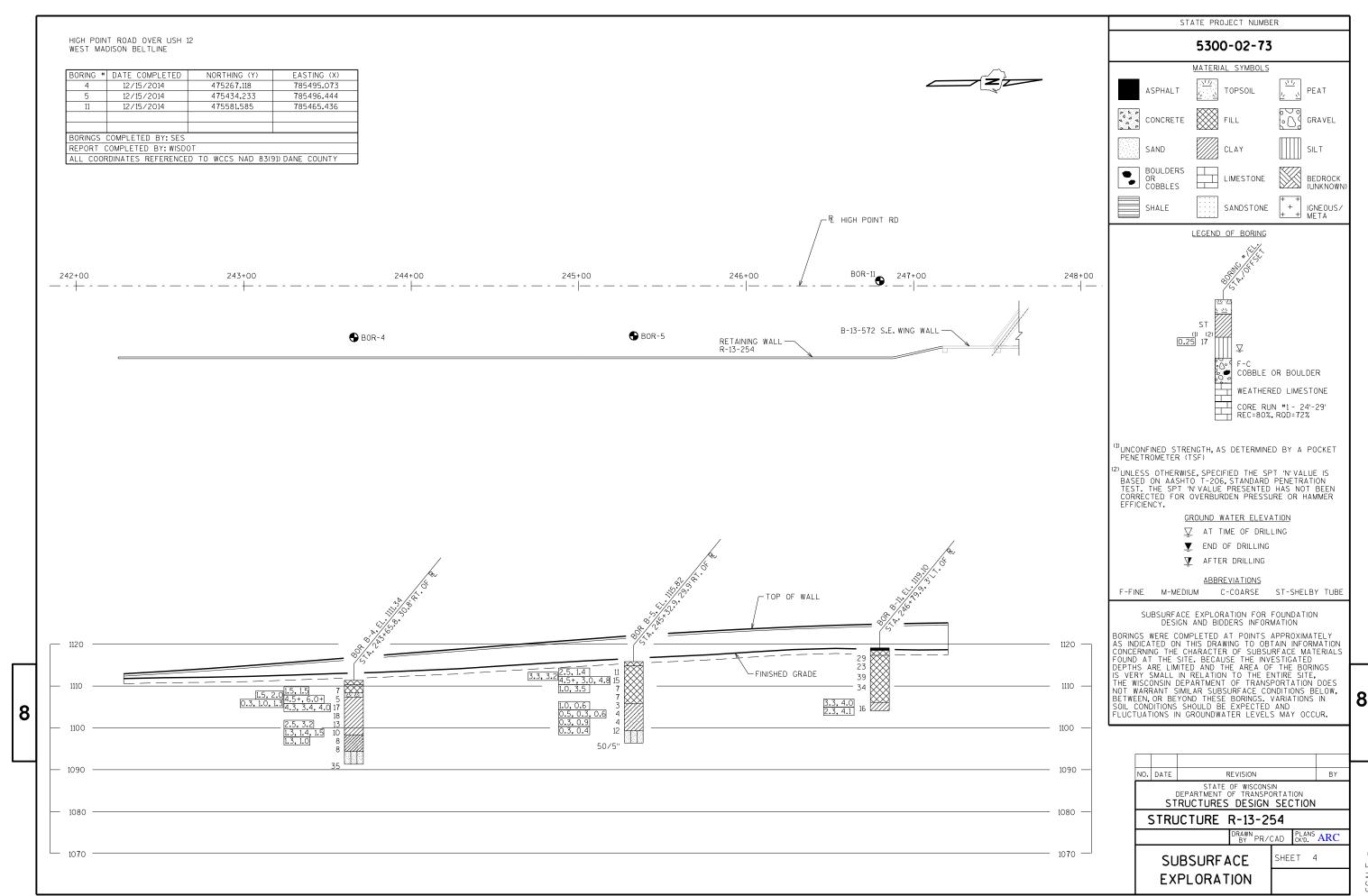
WALL

DETAILS

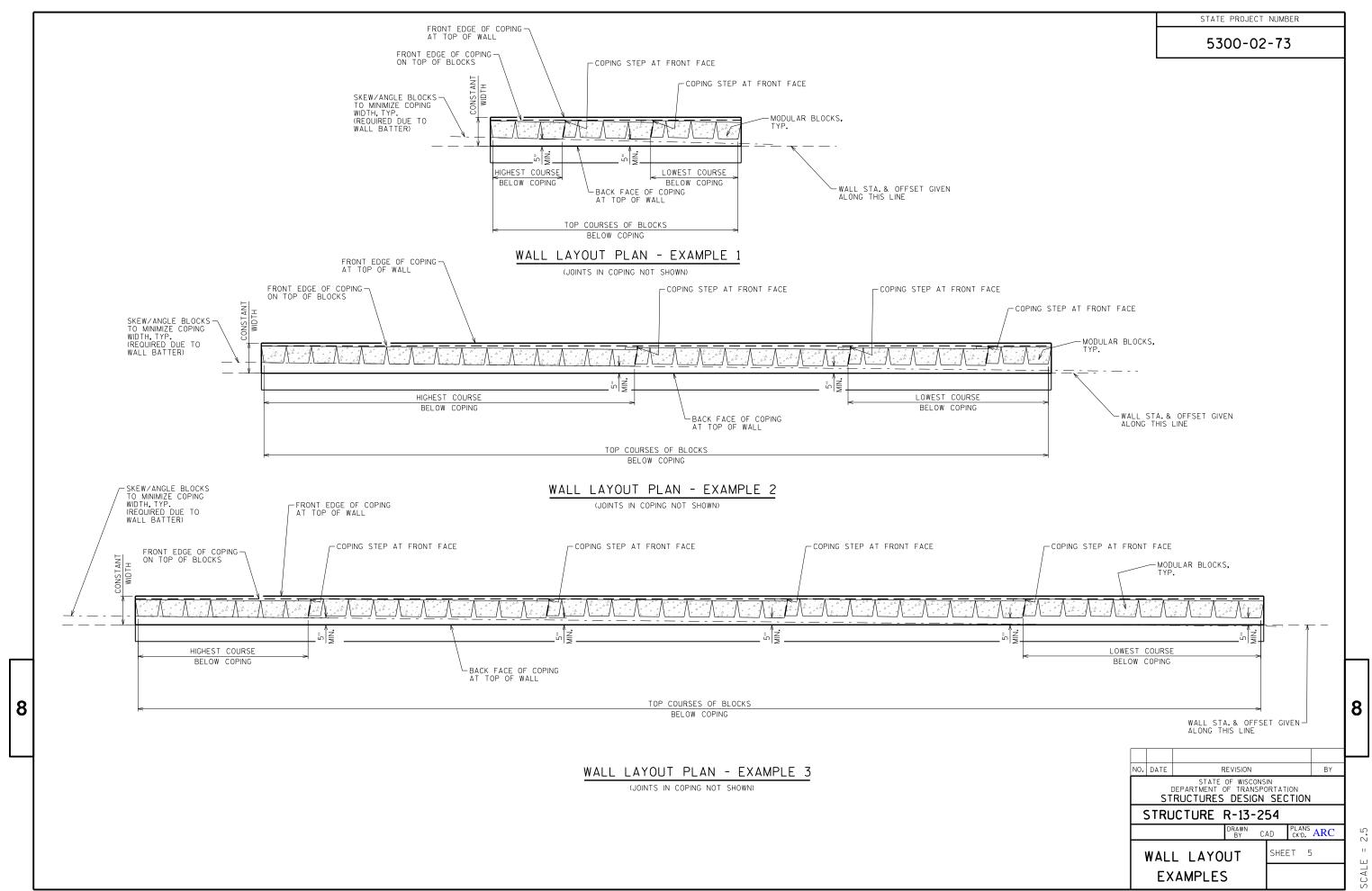
MODULAR BLOCKS,



STAINLESS STEEL SHEET METAL SCREWS.



CALE



5300-02-73

FOUNDATION DATA

FOOTING AT THE RETAINING WALL IS DESIGNED TO PLACE A MAXIMUM LOAD OF 2.14 TONS PER SOUARE FOOT ON THE UNDERLYING SOIL. SOILS AT THE RETAINING WALL FOOTING ELEVATIONS ARE ESTIMATED TO HAVE A FACTORED BEARING RESISTANCE OF 2.5 TONS PER SOUARE FOOT.

DESIGN DATA

MATERIAL PROPERTIES

CONCRETE MASONRY RETAINING WALL _f'c = 3,500 P.S.I. BAR STEEL REINFORCEMENT, GRADE 60 _fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

AT THE BACKFACE OF THE WALL ALL VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE EXTENTS SHOWN IN THE TYPICAL WALL SECTION.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION FOR THE RETAINING WALL.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE, BACK FACE, & TOP OF THE WALL ABOVE THE FOOTING.

BEVEL ALL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

BACKFILL THE FRONT FACE OF WALL BEFORE THE BACK FACE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-13-255	LS	1
210.0100	BACKFILL STRUCTURE	CY	390
502.3210	PIGMENTED SURFACE SEALER	SY	539
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	240
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	4,030
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	8,455
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	330
616.0206	FENCE CHAIN LINK 6-FT.	LF	182

NOTE: ALL BID ITEMS FOR R-13-255 ARE CAT. 0040

CURVE DATA

WB U.S.H. 12 R

P.J. = 207+96.89 54° 25' 3**7**"

D = 1° 30' 51" T = 1945.69

1 = 3594.26' R = 3783.72' S.E. = 4%

P.C. = 188+51.20 P.T. = 224+45.46

LIST OF DRAWINGS

1 GENERAL PLAN

BΔR

SERIES

LOCATION

STEM VERT. - F.F.

STEM VERT. - B.F.

FOOTING- TRANSVERSE

STEM - HORIZ.

FOOTING- HORIZ.

LENGTH

9'-1"

53'-3"

546 5'-2"

80 40'-2"

REQ'D.

X 312

X 312

X 84

MARK

W402

W503

W404

W405

W402

- 2. FENCING DETAILS
- 3. SUBSURFACE EXPLORATION

NO. DATE BY Prepared By WISDOT BUREAU OF STRUCTURES ". Drehe 15/10/16 STRUCTURE R-13-255 ROADWAY BARRIER WALL ALONG WB USH 12 SIGN SPECI.

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
ESIGNED DESIGN DRAWN
Y CAD CK'D. ARC BY CAD DESIGNED CAD CK'D. ARC

STRUCTURE DESIGN CONTACTS:

LAURA SHADEWALD (608) 267-9592

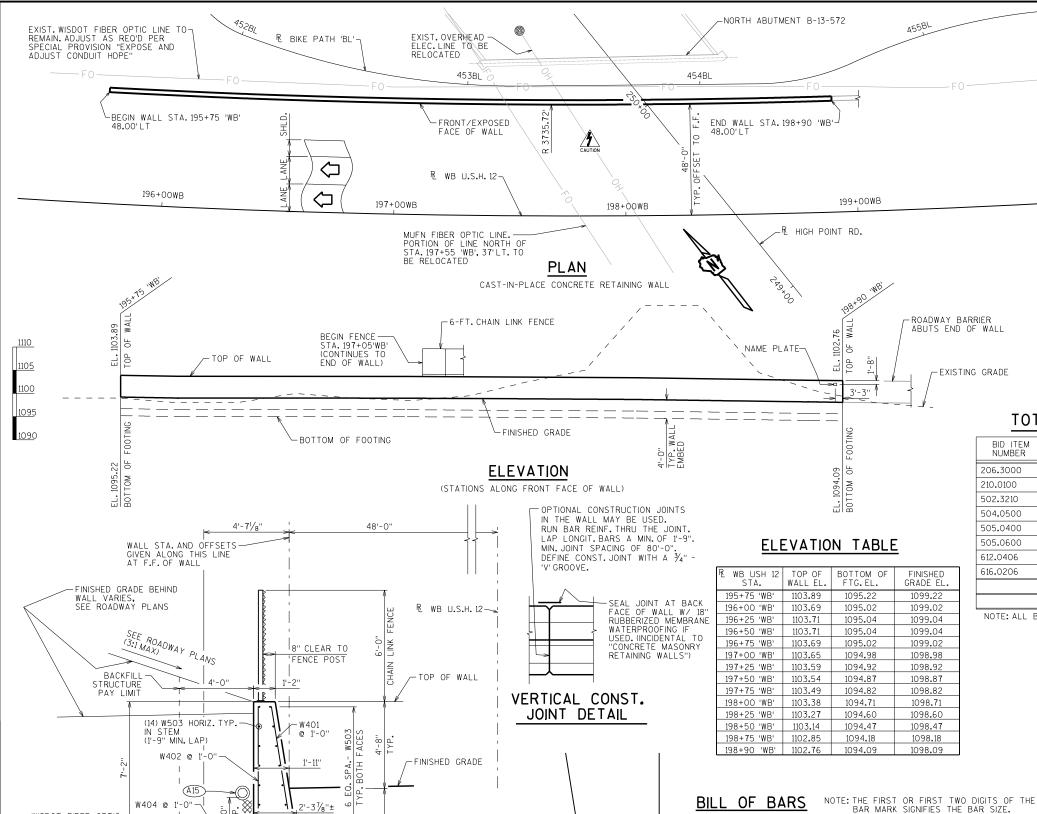
CHRIS DOLL

(608) 266-3229

GENERAL PLAN

DATE: APRIL 2016

SHEET 1 OF 3



80.9°

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. SEE SHT. 2 FOR RODENT SHIELD DETAIL.

W401

2'-31/8"±

4 SPA. TOP & BTM.

W405 (1'-5" MIN. LAP)

TYPICAL SECTION THRU WALL

-BOTTOM OF FOOTING

WISDOT FIBER OPTIC

LINE TO REMAIN

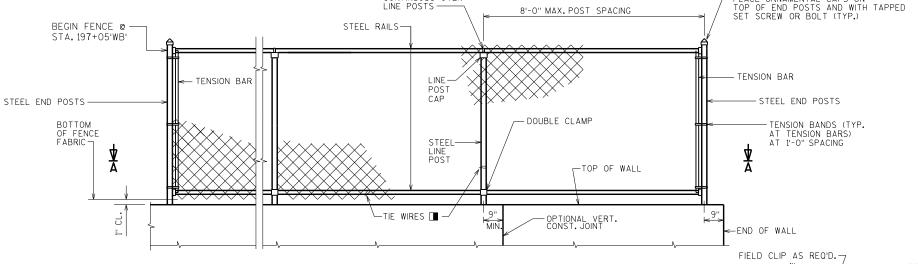
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W404 @ 1'-4"

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2 .87 5	5.80
OVERHANG POST	2 .87 5	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12

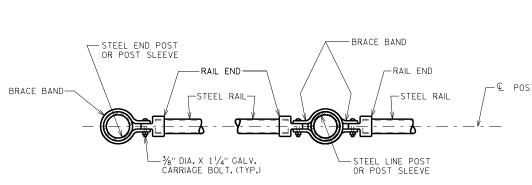
PLACE ORNAMENTAL CAPS ON



TOP RAIL SHALL BE CONTINUOUS OVER

-TOP OF END POSTS WITH TAPPED SET SCREW OR BOLT (TYP.) STEEL TOP RAIL

- FENCE FABRIC (THIS SIDE)



END CLAMP

SECTION THRU FENCE

€ POST

BOTTOM OF FENCE

-F.F WALL

FABRIC

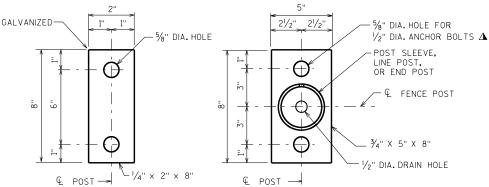
6" NOMINAL 7VVVVVVI SECTION B-B

RODENT SHIELD DETAIL

 $\mbox{\ensuremath{\boldsymbol{\mathcal{H}}}}$ dimensions are approximate the grate is sized to fit into a pipe coupling. Orient so slots are vertical.

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

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



* DOUBLE CLAMP

ANCHOR PLATE

BASE PLATE

SECTION A-A

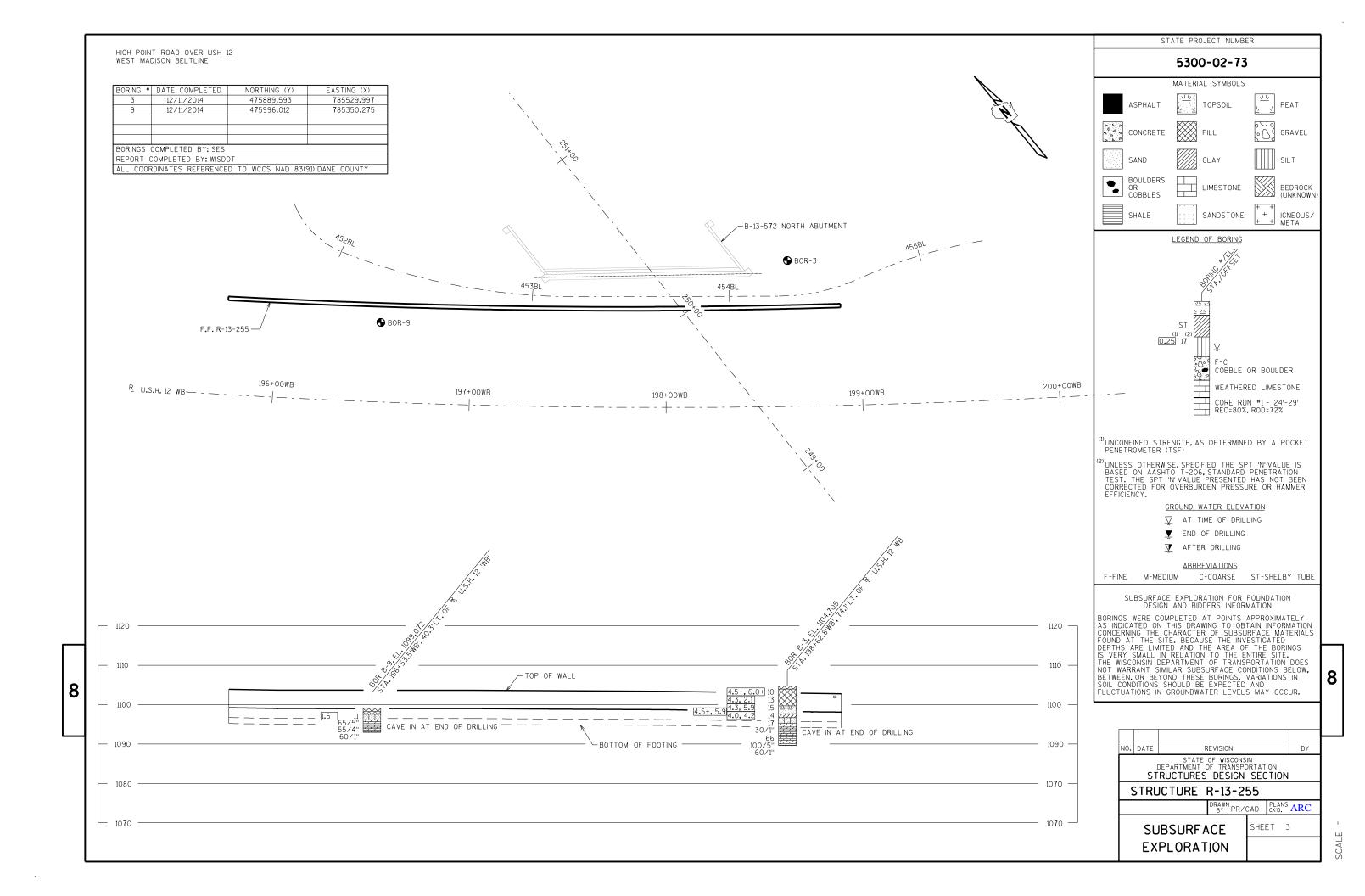
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

CAD CK'D. ARC SHEET 2

FENCING DETAILS



EXPANSION FACTOR = 1.25

				D-AREA				NTAL VOLUME			CUMU	LATIVE VOLU	JME		
				(SF)				(CY)				(CY)			MASS HAL
DIVISION	STATION	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	+/-
1 5	SOUTH HIGH POI	NT RD													
2	240+50.000	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	240+55.000	106.57	0.55	23.83	82.74	9.9	0.1	2.2	7.7	9.9	0.1	0.1	2.2	7.7	7.6
2	240+75.000	107.49	1.28	23.83	83.66	79.3	0.7	17.7	61.6	89.1	0.7	0.9	19.9	69.3	68.4
2	241+00.000	117.62	1.99	23.83	93.79	104.2	1.5	22.1	82.1	193.4	2.2	2.8	41.9	151.4	148.6
2	241+25.000	104.43	4.57	23.83	80.60	102.8	3.0	22.1	80.7	296.2	5.3	6.6	64.0	232.2	225.6
2	241+50.000	86.89	9.89	23.83	63.06	88.6	6.7	22.1	66.5	384.7	12.0	15.0	86.1	298.7	283.7
2	241+75.000	64.11	16.00	23.83	40.28	69.9	12.0	22.1	47.8	454.6	24.0	30.0	108.1	346.5	316.6
2	242+00.000	26.34	30.65	23.83	2.51	41.9	21.6	22.1	19.8	496.5	45.6	56.9	130.2	366.3	309.4
2	242+01.763	23.49	31.98	23.83	-0.34	1.6	2.0	1.6	0.1	498.2	47.6	59.5	131.8	366.4	306.9
2	242+25.000	0.87	54.60	23.83	-22.96	10.5	37.3	20.5	-10.0	508.6	84.9	106.1	152.3	356.4	250.3
2	242+50.000	4.94	104.98	0.00	4.94	2.7	73.9	11.0	-8.3	511.3	158.7	198.4	163.3	348.0	149.6
2	242+75.000	5.61	160.90	0.00	5.61	4.9	123.1	0.0	4.9	516.2	281.8	352.3	163.3	352.9	0.6
2	243+00.000	0.00	227.86	0.00	0.00	2.6	180.0	0.0	2.6	518.8	461.8	577.3	163.3	355.5	-221.8
2	243+25.000	0.00	280.88	0.00	0.00	0.0	235.5	0.0	0.0	518.8	697.3	871.7	163.3	355.5	-516.2
2	243+50.000	0.02	312.66	0.00	0.02	0.0	274.8	0.0	0.0	518.8	972.1	1215.2	163.3	355.5	-859.6
2	243+75.000	0.00	351.12	0.00	0.00	0.0	307.3	0.0	0.0	518.8	1279.4	1599.3	163.3	355.5	-1243.8
2	244+00.000	0.00	386.51	0.00	0.00	0.0	341.5	0.0	0.0	518.8	1620.9	2026.2	163.3	355.5	-1670.6
2	244+25.000	0.00	420.76	0.00	0.00	0.0	373.7	0.0	0.0	518.8	1994.7	2493.3	163.3	355.5	-2137.8
2	244+50.000	0.00	452.25	0.00	0.00	0.0	404.2	0.0	0.0	518.8	2398.8	2998.5	163.3	355.5	-2643.0
2	244+75.000	0.00	481.82	0.00	0.00	0.0	432.4	0.0	0.0	518.8	2831.3	3539.1	163.3	355.5	-3183.6
2	245+00.000	0.00	519.24	0.00	0.00	0.0	463.5	0.0	0.0	518.8	3294.7	4118.4	163.3	355.5	-3762.9
2	245+25.000	0.00	627.65	0.00	0.00	0.0	531.0	0.0	0.0	518.8	3825.7	4782.1	163.3	355.5	-4426.6
2	245+50.000	0.00	619.48	0.00	0.00	0.0	577.4	0.0	0.0	518.8	4403.1	5503.8	163.3	355.5	-5148.3
2	245+75.000	0.00	603.11	0.00	0.00	0.0	566.0	0.0	0.0	518.8	4969.1	6211.4	163.3	355.5	-5855.8
2	246+00.000	0.00	593.19	0.00	0.00	0.0	553.8	0.0	0.0	518.8	5522.9	6903.7	163.3	355.5	-6548.1
	246+25.000	6.83	573.48	0.00	6.83	3.2	540.1	0.0	3.2	522.0	6063.1	7578.8	163.3	358.7	-7220.1
2	246+50.000	6.47	554.69	0.00	6.47	6.2	522.3	0.0	6.2	528.1	6585.4	8231.7	163.3	364.8	-7866.9
	246+75.000	9.94	567.53	0.00	9.94	7.6	519.5	0.0	7.6	535.7	7104.9	8881.1	163.3	372.4	-8508.7
	247+00.000	9.06	551.78	0.00	9.06	8.8	518.2	0.0	8.8	544.5	7623.1	9528.9	163.3	381.2	-9147.6
	247+25.000	8.58	605.89	0.00	8.58	8.2	536.0	0.0	8.2	552.7	8159.1	10198.8	163.3	389.4	-9809.4
2	247+50.000	7.71	683.03	0.00	7.71	7.5	596.7	0.0	7.5	560.2	8755.8	10944.7	163.3	396.9	-10547.8
								BEGIN STRU	JCTURE BACKFILL						
	247+68.529	9.31	0.00	0.00	9.31	5.8	234.4	0.0	5.8	566.1	8990.1	11237.7	163.3	402.8	-10834.9
	247+75.000	0.14	0.00	0.00	0.14	1.1	0.0	0.0	1.1	567.2	8990.1	11237.7	163.3	403.9	-10833.8
	248+00.000	0.00	0.00	0.00	0.00	0.1	0.0	0.0	0.1	567.3	8990.1	11237.7	163.3	404.0	-10833.7
2	248+13.794	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	567.3	8990.1	11237.7	163.3	404.0	-10833.7

HWY: USH 12 COUNTY: DANE SHEET NO: Ε PROJECT NO: 5300-02-73 **EARTHWORK SUMMARY** PLOT BY: BPT FILE NAME: 090101-ew PLOT DATE: 04-04-2016 PLOT NAME : _ ORIGINATOR : DIST _ PLOT SCALE: 1:1

ORG DATE :

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EXPANSION FACTOR = 1.25

			EN	ID-AREA (SF)				NTAL VOLUME (CY)		CUMULATIVE VOLUME (CY)						
DIVISION	STATION	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	(CY) +/-	
1	SOUTH BELTLINE															
	195+00.000 Wi	3 0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	195+25.000 WE	3 0.02	0.00	0.00	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	195+50.000 WE	3 0.02	0.00	0.00	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	195+75.000 WE	3 27.42	0.00	0.00	27.42	12.7	0.0	0.0	12.7	12.7	0.0	0.0	0.0	12.7	12.7	
	196+00.000 Wi	3 11.60	1.24	0.00	11.60	18.1	0.7	0.0	18.1	30.8	0.7	0.9	0.0	30.8	29.9	
	196+25.000 WE		0.00	0.00	7.51	8.8	0.7	0.0	8.8	39.6	1.4	1.8	0.0	39.6	37.8	
	196+50.000 WE		0.00	0.00	6.47	6.5	0.0	0.0	6.5	46.1	1.4	1.8	0.0	46.1	44.3	
	196+75.000 WE		0.09	0.00	6.96	6.2	0.1	0.0	6.2	52.3	1.5	1.9	0.0	52.3	50.5	
	197+00.000 WE		0.30	0.00	7.19	6.6	0.2	0.0	6.6	58.9	1.7	2.1	0.0	58.9	56.7	
	197+25.000 WE		0.00	0.00	6.93	6.5	0.2	0.0	6.5	65.4	1.9	2.4	0.0	65.4	63.1	
	197+50.000 WE		0.00	0.00	6.88	6.4	0.0	0.0	6.4	71.8	1.9	2.4	0.0	71.8	69.5	
	197+75.000 WE		0.00	0.00	7.41	6.6	0.0	0.0	6.6	78.4	1.9	2.4	0.0	78.4	76.1	
	198+00.000 WE		0.00	0.00	9.38	7.8	0.0	0.0	7.8	86.2	1.9	2.4	0.0	86.2	83.8	
	198+25.000 WI		0.00	0.00	10.89	9.4	0.0	0.0	9.4	95.6	1.9	2.4	0.0	95.6	93.2	
	198+50.000 WI		0.00	0.00	16.16	12.5	0.0	0.0	12.5	108.1	1.9	2.4	0.0	108.1	105.8	
	198+75.000 WE		0.18	0.00	66.16	38.1	0.1	0.0	38.1	146.2	2.0	2.5	0.0	146.2	143.7	
	199+00.000 WI		0.00	0.00	151.41	100.7	0.1	0.0	100.7	246.9	2.1	2.6	0.0	246.9	244.3	
	199+25.000 WI		0.04	0.00	241.94	182.1	0.0	0.0	182.1	429.1	2.1	2.6	0.0	429.1	426.4	
	199+50.000 WI		0.57	0.00	211.72	210.0	0.4	0.0	210.0	639.1	2.5	3.1	0.0	639.1	636.0	
	199+75.000 WI		0.00	0.00	197.77	189.6	0.3	0.0	189.6	828.7	2.8	3.5	0.0	828.7	825.2	
	200+00.000 WE		0.00	0.00	262.67	213.2	0.0	0.0	213.2	1041.8	2.8	3.5	0.0	1041.8	1038.3	
	200+25.000 WE		0.00	0.00	65.22	151.8	0.0	0.0	151.8	1193.6	2.8	3.5	0.0	1193.6	1190.1	
	200+50.000 WE		2.39	0.00	2.16	31.2	1.4	0.0	31.2	1224.8	4.2	5.2	0.0	1224.8	1219.6	
	200+75.000 WE		0.09	0.00	1.02	1.5	1.4	0.0	1.5	1226.3	5.6	7.0	0.0	1226.3	1219.3	
	201+00.000 WE		0.00	0.00	0.00	0.5	0.1	0.0	0.5	1226.8	5.7	7.1	0.0	1226.8	1219.7	
	201+25.000 WE		0.00	0.00	0.00	0.0	0.0	0.0	0.0	1226.8	5.7	7.1	0.0	1226.8	1219.7	
	201+50.000 WE		0.00	0.00	0.00	0.0	0.0	0.0	0.0	1226.8	5.7	7.1	0.0	1226.8	1219.7	
	201+75.000 WE		0.00	0.00	0.00	0.0	0.0	0.0	0.0	1226.8	5.7	7.1	0.0	1226.8	1219.7	
	201+79.352 WI	3 0.00	0.00	0.00	0.00	0.0	0.0	0.0 OF 7	0.0	1226.8	5.7	7.1	0.0	1226.8	1219.7	

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PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE EARTHWORK SUMMARY SHEET NO: E

EXPANSION FACTOR = 1.25

			END-AREA (SF)						NTAL VOLUME (CY)			CUML	JLATIVE VOLI (CY)	JME		MASS HAUL (CY)
DIVISION	STATION		CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	
2	USH 12 MEDIA	١N														
	195+00.000	WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	195+25.000	WB	0.00	0.03	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	195+50.000	WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		WB	0.34	0.07	0.00	0.34	0.2	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.2	0.1
		WB	1.66	1.70	0.00	1.66	0.9	0.8	0.0	0.9	1.1	0.9	1.1	0.0	1.1	0.0
		WB	0.99	10.17	0.00	0.99	1.2	5.5	0.0	1.2	2.3	6.4	8.0	0.0	2.3	-5.7
		WB	1.08	9.43	0.00	1.08	1.0	9.1	0.0	1.0	3.3	15.5	19.3	0.0	3.3	-16.0
		WB	0.90	11.13	0.00	0.90	0.9	9.5	0.0	0.9	4.2	25.0	31.2	0.0	4.2	-27.0
		WB	0.99	12.76	0.00	0.99	0.9	11.1	0.0	0.9	5.1	36.0	45.0	0.0	5.1	-40.0
		WB	0.88	16.16	0.00	0.88	0.9	13.4	0.0	0.9	5.9	49.4	61.8	0.0	5.9	-55.8
		WB	1.16	18.69	0.00	1.16	0.9	16.1	0.0	0.9	6.9	65.6	81.9	0.0	6.9	-75.1
		WB	0.76	18.04	0.00	0.76	0.9	17.0	0.0	0.9	7.8	82.6	103.2	0.0	7.8	-95.4
		WB	0.36	18.24	0.00	0.36	0.5	16.8	0.0	0.5	8.3	99.4	124.2	0.0	8.3	-115.9
		WB WB	0.46	15.37 14.05	0.00 0.00	0.46 0.55	0.4	15.6	0.0 0.0	0.4	8.7	114.9	143.6 160.7	0.0	8.7	-135.0
		wb WB	0.55 0.53	14.05 18.12	0.00	0.53	0.5 0.5	13.6 14.9	0.0	0.5 0.5	9.1 9.6	128.5 143.4	179.3	0.0 0.0	9.1 9.6	-151.5 -169.7
		WB	0.33	20.43	0.00	0.33	0.5	14.9 17.8	0.0	0.5	10.1	161.3	201.6	0.0	10.1	-109.7
		WB	0.47	20.43	0.00	0.47	0.4	19.1	0.0	0.4	10.1	180.4	225.5	0.0	10.1	-215.0
		WB	0.34	21.84	0.00	0.34	0.3	19.8	0.0	0.3	10.8	200.1	250.2	0.0	10.8	-239.4
		WB	1.14	6.27	0.00	1.14	0.7	13.0	0.0	0.7	11.5	213.1	266.4	0.0	11.5	-255.0
	200+25.000		1.75	6.69	0.00	1.75	1.3	6.0	0.0	1.3	12.8	219.1	273.9	0.0	12.8	-261.1
	200+50.000		2.32	5.88	0.00	2.32	1.9	5.8	0.0	1.9	14.7	225.0	281.2	0.0	14.7	-266.5
	200+75.000		3.67	4.60	0.00	3.67	2.8	4.9	0.0	2.8	17.5	229.8	287.3	0.0	17.5	-269.8
	201+00.000		0.00	0.00	0.00	0.00	1.7	2.1	0.0	1.7	19.2	231.9	289.9	0.0	19.2	-270.8
	201+25.000		0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	19.2	231.9	289.9	0.0	19.2	-270.8
	201+50.000	WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	19.2	231.9	289.9	0.0	19.2	-270.8
	201+75.000	WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	19.2	231.9	289.9	0.0	19.2	-270.8
	201+79.352	WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	19.2	231.9	289.9	0.0	19.2	-270.8
								3	OF 7							

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PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE EARTHWORK SUMMARY SHEET NO: E

EXPANSION FACTOR = 1.25

			EN	D-AREA (SF)				NTAL VOLUMI (CY)			CUML	ILATIVE VOLI (CY)	JME		MASS HAUL (CY)
DIVISION	STATION	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	+/-
3	NORTH HIGH POINT ROAD														
	250+00.000	12.47	0.00	0.00	12.47	1.9	0.0	0.0	1.9	1.9	0.0	0.0	0.0	1.9	1.9
	250+25.000	1.46	0.00	0.00	1.46	6.4	0.0	0.0	6.4	8.4	0.0	0.0	0.0	8.4	8.4
	250+50.000	0.00	0.00	0.00	0.00	0.7	0.0	0.0	0.7	9.0	0.0	0.0	0.0	9.0	9.0
								END STRUC	TURE BACKFILL						
	250+75.000	0.00	120.65	0.00	0.00	0.0	55.9	0.0	0.0	9.0	55.9	69.8	0.0	9.0	-60.8
	251+00.000	0.45	125.71	0.00	0.45	0.2	114.1	0.0	0.2	9.2	169.9	212.4	0.0	9.2	-203.1
	251+25.000	1.79	136.29	0.00	1.79	1.0	121.3	0.0	1.0	10.3	291.2	364.0	0.0	10.3	-353.7
	251+40.196	3.04	192.02	0.00	3.04	1.4	92.4	0.0	1.4	11.6	383.6	479.5	0.0	11.6	-467.9
	251+50.000	3.15	225.34	0.00	3.15	1.1	75.8	0.0	1.1	12.8	459.4	574.2	0.0	12.8	-561.5
	251+55.000	2.62	241.81	0.00	2.62	0.5	43.3	0.0	0.5	13.3	502.6	628.3	0.0	13.3	-615.0
	251+62.597	2.52	138.93	0.00	2.52	0.7	53.6	0.0	0.7	14.0	556.2	695.2	0.0	14.0	-681.2
	251+75.000	3.25	116.60	23.83	-20.58	1.3	58.7	5.5	-4.1	15.3	614.9	768.6	5.5	9.9	-758.7
	252+00.000	5.77	99.98	23.83	-18.06	4.2	100.3	22.1	-17.9	19.5	715.2	893.9	27.5	-8.0	-902.0
	252+25.000	9.35	43.51	23.83	-14.48	7.0	66.4	22.1	-15.1	26.5	781.6	977.0	49.6	-23.1	-1000.1
	252+50.000	22.40	21.37	23.83	-1.43	14.7	30.0	22.1	-7.4	41.2	811.6	1014.5	71.7	-30.5	-1045.0
	252+75.000	41.55	7.41	23.83	17.72	29.6	13.3	22.1	7.5	70.8	824.9	1031.2	93.7	-22.9	-1054.1
	253+00.000	58.51	4.88	23.83	34.68	46.3	5.7	22.1	24.3	117.1	830.6	1038.3	115.8	1.3	-1037.0
	253+25.000	83.16	0.87	23.83	59.33	65.6	2.7	22.1	43.5	182.7	833.3	1041.6	137.9	44.9	-996.8
	253+50.000	100.25	0.26	23.83	76.42	84.9	0.5	22.1	62.8	267.6	833.8	1042.3	159.9	107.7	-934.6
	253+75.000	112.63	0.52	23.83	88.80	98.6	0.4	22.1	76.5	366.2	834.2	1042.7	182.0	184.2	-858.5
	254+00.000	113.21	0.61	23.83	89.38	104.6	0.5	22.1	82.5	470.8	834.7	1043.4	204.1	266.7	-776.7
	254+25.000	118.86	0.49	23.83	95.03	107.4	0.5	22.1	85.4	578.2	835.2	1044.0	226.2	352.0	-692.0
	254+50.000	18.97	0.00	23.83	-4.86	63.8	0.2	22.1	41.7	642.0	835.4	1044.3	248.2	393.8	-650.5
							4	OF 7							

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PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE EARTHWORK SUMMARY SHEET NO: E

FILE NAME : 090101-ew PLOT DATE : 04-04-2016 PLOT BY : BPT PLOT NAME : ______ ORG DATE : _____ ORIGINATOR : DIST_ PLOT SCALE : 1:1

9

EXPANSION FACTOR = 1.25

			EN	ID-AREA (SF)		INCREMENTAL VOLUME (CY)					MASS HAUL (CY)				
DIVISION	STATION	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	
3	NORTH BELTLINE														
	195+00.000 WB	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	195+25.000 WB	0.02	7.18	0.00	0.02	0.0	3.3	0.0	0.0	0.0	3.3	4.2	0.0	0.0	-4.1
	195+50.000 WB	17.76	4.76	0.00	17.76	8.2	5.5	0.0	8.2	8.2	8.9	11.1	0.0	8.2	-2.8
	195+75.000 WB	24.92	0.00	0.00	24.92	19.8	2.2	0.0	19.8	28.0	11.1	13.8	0.0	28.0	14.2
	196+00.000 WB	35.26	0.00	0.00	35.26	27.9	0.0	0.0	27.9	55.9	11.1	13.8	0.0	55.9	42.0
	196+25.000 WB	33.68	0.00	0.00	33.68	31.9	0.0	0.0	31.9	87.8	11.1	13.8	0.0	87.8	74.0
	196+50.000 WB	34.74	0.00	0.00	34.74	31.7	0.0	0.0	31.7	119.5	11.1	13.8	0.0	119.5	105.6
	196+75.000 WB	33.31	0.00	0.00	33.31	31.5	0.0	0.0	31.5	151.0	11.1	13.8	0.0	151.0	137.1
	197+00.000 WB	34.98	0.00	0.00	34.98	31.6	0.0	0.0	31.6	182.6	11.1	13.8	0.0	182.6	168.8
	197+25.000 WB	44.76	0.00	0.00	44.76	36.9	0.0	0.0	36.9	219.5	11.1	13.8	0.0	219.5	205.7
	197+50.000 WB	65.44	0.00	0.00	65.44	51.0	0.0	0.0	51.0	270.5	11.1	13.8	0.0	270.5	256.7
	197+75.000 WB	86.69	0.00	0.00	86.69	70.4	0.0	0.0	70.4	340.9	11.1	13.8	0.0	340.9	327.1
	198+00.000 WB	86.13	0.00	0.00	86.13	80.0	0.0	0.0	80.0	420.9	11.1	13.8	0.0	420.9	407.1
	198+25.000 WB	79.46	0.00	0.00	79.46	76.7	0.0	0.0	76.7	497.6	11.1	13.8	0.0	497.6	483.8
	198+50.000 WB	78.91	0.00	0.00	78.91	73.3	0.0	0.0	73.3	570.9	11.1	13.8	0.0	570.9	557.1
	198+75.000 WB	42.17	0.00	0.00	42.17	56.1	0.0	0.0	56.1	627.0	11.1	13.8	0.0	627.0	613.2
	199+00.000 WB	34.63	0.00	0.00	34.63	35.6	0.0	0.0	35.6	662.5	11.1	13.8	0.0	662.5	648.7
	199+25.000 WB	31.19	0.00	0.00	31.19	30.5	0.0	0.0	30.5	693.0	11.1	13.8	0.0	693.0	679.2
	199+50.000 WB	0.00	20.01	0.00	0.00	14.4	9.3	0.0	14.4	707.5	20.3	25.4	0.0	707.5	682.1
	199+75.000 WB	0.00	17.95	0.00	0.00	0.0	17.6	0.0	0.0	707.5	37.9	47.4	0.0	707.5	660.1
	200+00.000 WB	0.00	16.92	0.00	0.00	0.0	16.1	0.0	0.0	707.5	54.0	67.5	0.0	707.5	639.9
	200+25.000 WB	0.00	14.37	0.00	0.00	0.0	14.5	0.0	0.0	707.5	68.5	85.7	0.0	707.5	621.8
	200+50.000 WB	0.00	9.17	0.00	0.00	0.0	10.9	0.0	0.0	707.5	79.4	99.3	0.0	707.5	608.2
	200+75.000 WB	0.00	9.44	0.00	0.00	0.0	8.6	0.0	0.0	707.5	88.0	110.0	0.0	707.5	597.4
	201+00.000 WB	0.00	9.90	0.00	0.00	0.0	9.0	0.0	0.0	707.5	97.0	121.2	0.0	707.5	586.2
	201+25.000 WB	0.00	10.95	0.00	0.00	0.0	9.7	0.0	0.0	707.5	106.6	133.3	0.0	707.5	574.1
	201+50.000 WB	0.00	13.09	0.00	0.00	0.0	11.1	0.0	0.0	707.5	117.8	147.2	0.0	707.5	560.2
	201+75.000 WB	0.00	11.97	0.00	0.00	0.0	11.6	0.0	0.0	707.5	129.4	161.7	0.0	707.5	545.7
	201+79.352 WB	0.00	10.85	0.00	0.00	0.0	1.8	0.0	0.0	707.5	131.2	164.0	0.0	707.5	543.4
							5	OF 7							

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PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE EARTHWORK SUMMARY SHEET NO: E

EXPANSION FACTOR = 1.25

	•			D-AREA (SF)		INCREMENTAL VOLUME (CY)					MASS HAUL (CY)				
DIVISION	STATION	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	: AVAILABLE	СИТ	FILL	UNUSABLE PAVEMENT MATERIAL	: AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	
3	BIKE LOOP														
	450+65.581 BL	0.00	310.30	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	450+70.000 BL	0.00	337.85	0.00	0.00	0.0	53.0	0.0	0.0	0.0	53.0	66.3	0.0	0.0	-66.3
	450+80.000 BL	0.00	439.24	0.00	0.00	0.0	143.9	0.0	0.0	0.0	196.9	246.2	0.0	0.0	-246.2
	450+90.000 BL	6.84	404.99	0.00	6.84	1.3	156.3	0.0	1.3	1.3	353.3	441.6	0.0	1.3	-440.3
	451+00.000 BL	0.42	347.42	0.00	0.42	1.3	139.3	0.0	1.3	2.6	492.6	615.8	0.0	2.6	-613.2
	451+10.000 BL	7.52	290.12	0.00	7.52	1.5	118.1	0.0	1.5	4.1	610.7	763.4	0.0	4.1	-759.3
	451+20.000 BL	9.51	232.78	0.00	9.51	3.2	96.8	0.0	3.2	7.2	707.5	884.4	0.0	7.2	-877.2
	451+30.000 BL	10.45	167.67	0.00	10.45	3.7	74.2	0.0	3.7	10.9	781.7	977.1	0.0	10.9	-966.2
	451+40.000 BL	15.59	138.86	0.00	15.59	4.8	56.8	0.0	4.8	15.8	838.4	1048.0	0.0	15.8	-1032.3
	451+50.000 BL	10.31	120.40	0.00	10.31	4.8	48.0	0.0	4.8	20.6	886.4	1108.1	0.0	20.6	-1087.5
	451+60.000 BL	0.18	233.09	0.00	0.18	1.9	65.5	0.0	1.9	22.5	951.9	1189.9	0.0	22.5	-1167.4
	451+70.000 BL	0.00	253.53	0.00	0.00	0.0	90.1	0.0	0.0	22.5	1042.0	1302.5	0.0	22.5	-1280.0
	451+80.000 BL	0.00	315.35	0.00	0.00	0.0	105.3	0.0	0.0	22.5	1147.4	1434.2	0.0	22.5	-1411.7
	451+90.000 BL	0.00	354.06	0.00	0.00	0.0	124.0	0.0	0.0	22.5	1271.3	1589.2	0.0	22.5	-1566.6
	452+00.000 BL	0.00	333.80	0.00	0.00	0.0	127.4	0.0	0.0	22.5	1398.7	1748.4	0.0	22.5	-1725.9
	452+00.584 BL	0.00	330.89	0.00	0.00	0.0	7.2	0.0	0.0	22.5	1405.9	1757.4	0.0	22.5	-1734.9
	452+10.000 BL	0.10	298.33	0.00	0.10	0.0	109.7	0.0	0.0	22.5	1515.6	1894.5	0.0	22.5	-1872.0
	452+20.000 BL	0.12	275.40	0.00	0.12	0.0	106.2	0.0	0.0	22.6	1621.9	2027.3	0.0	22.6	-2004.8
	452+30.000 BL	0.00	244.11	0.00	0.00	0.0	96.2	0.0	0.0	22.6	1718.1	2147.6	0.0	22.6	-2125.0
	452+40.000 BL	0.00	210.51	0.00	0.00	0.0	84.2	0.0	0.0	22.6	1802.3	2252.8	0.0	22.6	-2230.2
	452+50.000 BL	0.00	176.78	0.00	0.00	0.0	71.7	0.0	0.0	22.6	1874.0	2342.5	0.0	22.6	-2319.9
	452+60.000 BL	0.00	141.34	0.00	0.00	0.0	58.9	0.0	0.0	22.6	1932.9	2416.1	0.0	22.6	-2393.5
	452+70.000 BL	0.00	105.32	0.00	0.00	0.0	45.7	0.0	0.0	22.6	1978.6	2473.2	0.0	22.6	-2450.6
	452+80.000 BL	0.19	71.07	0.00	0.19	0.0	32.7	0.0	0.0	22.6	2011.2	2514.1	0.0	22.6	-2491.4
	452+90.000 BL	0.00	40.44	0.00	0.00	0.0	20.7	0.0	0.0	22.7	2031.9	2539.9	0.0	22.7	-2517.2
	453+00.000 BL	3.82	6.12	0.00	3.82	0.7	8.6	0.0	0.7	23.4	2040.5	2550.6	0.0	23.4	-2527.3
	453+10.000 BL	39.22	0.00	0.00	39.22	8.0	1.1	0.0	8.0	31.4	2041.6	2552.1	0.0	31.4	-2520.7
	453+20.000 BL	74.08	0.00	0.00	74.08	21.0	0.0	0.0	21.0	52.3	2041.6	2552.1	0.0	52.3	-2499.7
	453+23.554 BL	90.03	0.00	0.00	90.03	10.8	0.0	0.0	10.8	63.1	2041.6	2552.1	0.0	63.1	-2488.9
							6	OF 7							

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PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE EARTHWORK SUMMARY SHEET NO: E

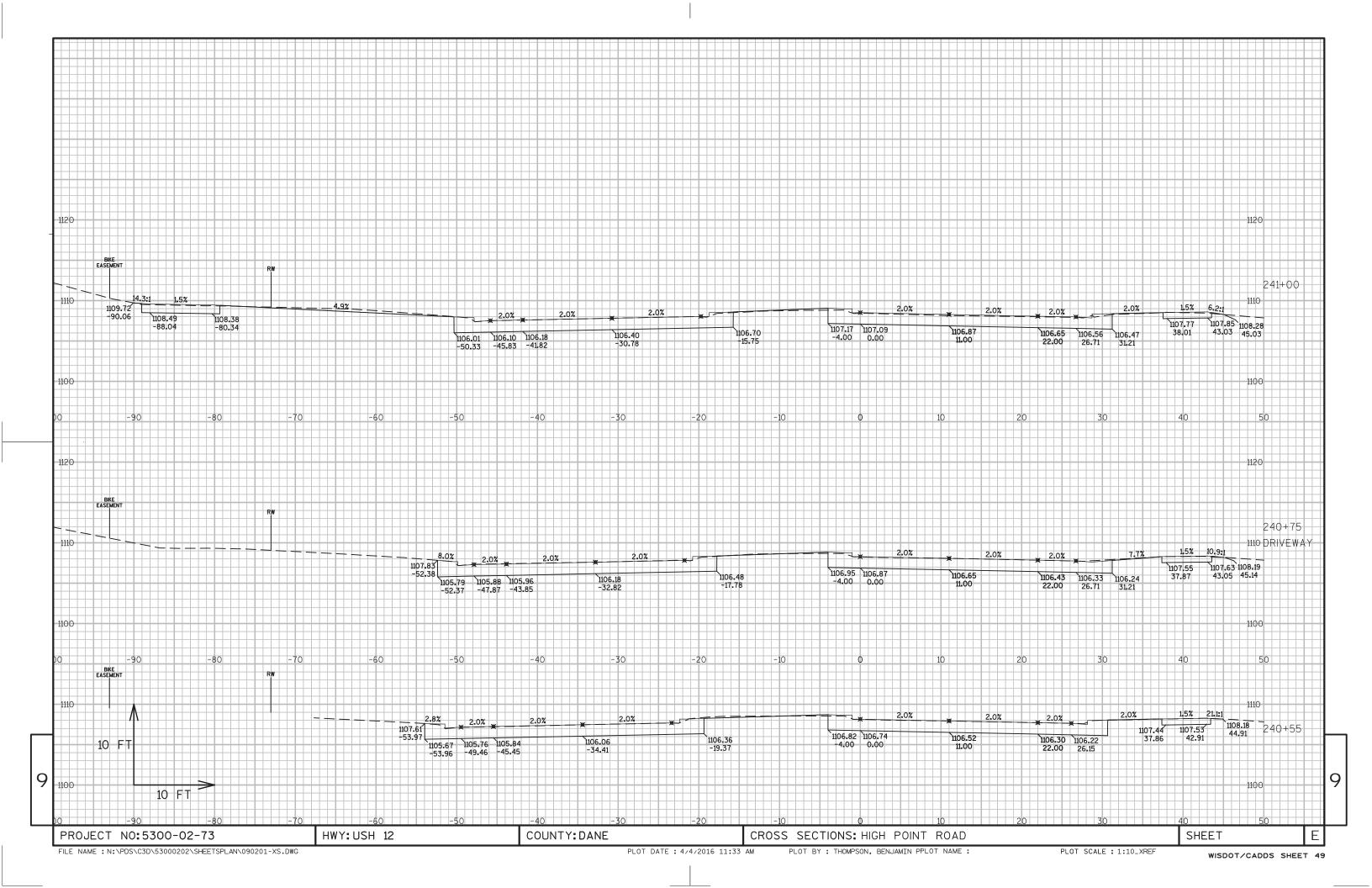
EXPANSION FACTOR = 1.25

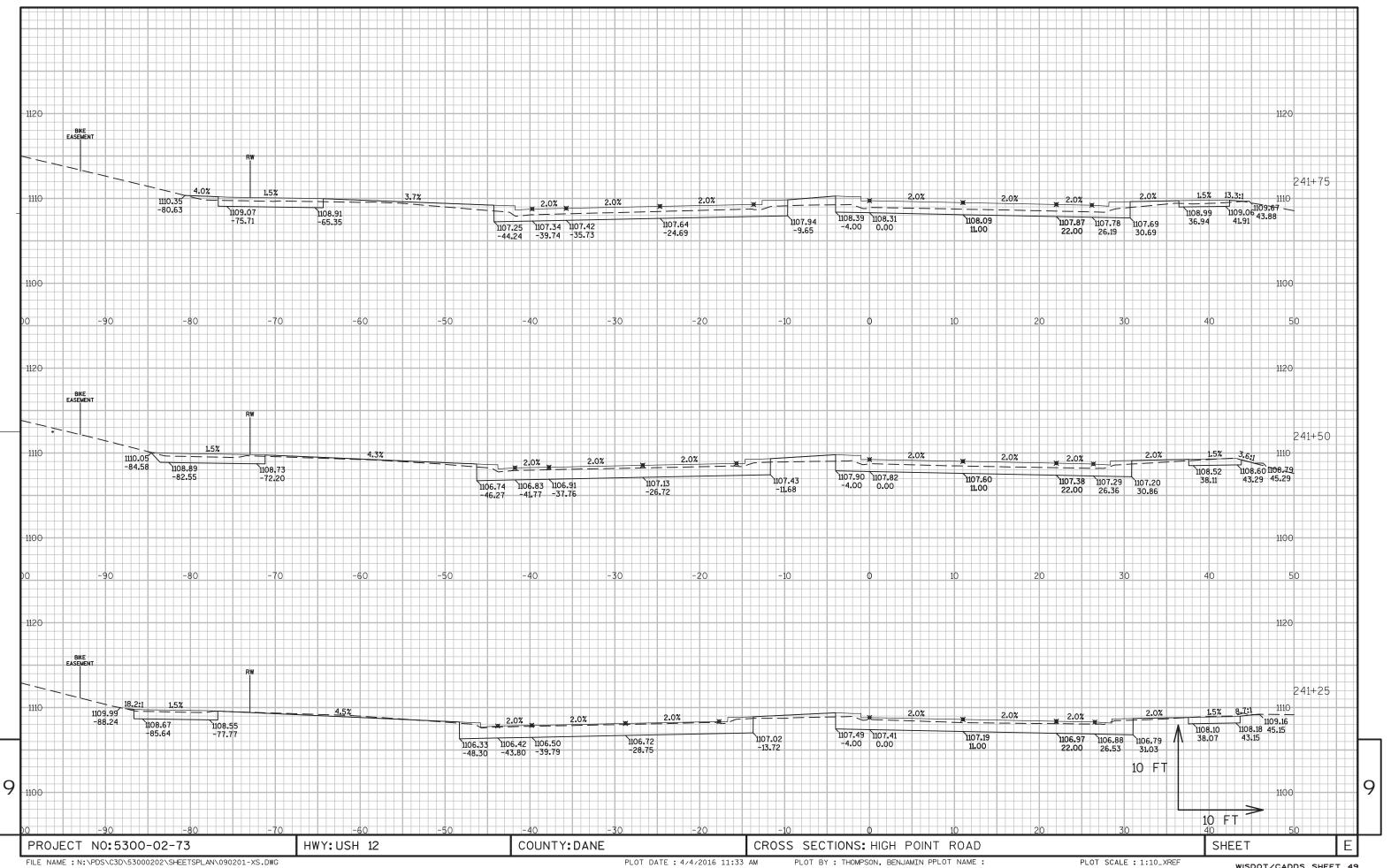
			END-AREA (SF)					INCREMENTAL VOLUME (CY)				CUMULATIVE VOLUME (CY)					
DIVISION	N STATION	ATION	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	CUT	UNEXPANDED FILL	EXPANDED FILL	UNUSABLE PAVEMENT MATERIAL	AVAILABLE	(CY) +/-	
3	453+30.000	BL	114.91	0.00	0.00	114.91	24.5	0.0	0.0	24.5	87.6	2041.6	2552.1	0.0	87.6	-2464.5	
		BL	142.27	0.00	0.00	142.27	47.6	0.0	0.0	47.6	135.2	2041.6	2552.1	0.0	135.2	-2416.8	
	453+50.000		170.52	0.00	0.00	170.52	57.9	0.0	0.0	57.9	193.2	2041.6	2552.1	0.0	193.2	-2358.9	
			219.31	0.00	0.00	219.31	72.2	0.0	0.0	72.2	265.3	2041.6	2552.1	0.0	265.3	-2286.7	
	453+70.000	BL	227.90	0.00	0.00	227.90	82.8	0.0	0.0	82.8	348.2	2041.6	2552.1	0.0	348.2	-2203.9	
	453+80.000	BL	233.98	0.00	0.00	233.98	85.5	0.0	0.0	85.5	433.7	2041.6	2552.1	0.0	433.7	-2118.4	
	453+90.000	BL	234.23	0.00	0.00	234.23	86.7	0.0	0.0	86.7	520.4	2041.6	2552.1	0.0	520.4	-2031.7	
	454+00.000	BL	202.72	0.00	0.00	202.72	80.9	0.0	0.0	80.9	601.3	2041.6	2552.1	0.0	601.3	-1950.7	
	454+10.000	BL	157.24	0.00	0.00	157.24	66.7	0.0	0.0	66.7	668.0	2041.6	2552.1	0.0	668.0	-1884.1	
	454+20.000	BL	192.81	0.01	0.00	192.81	64.8	0.0	0.0	64.8	732.8	2041.6	2552.1	0.0	732.8	-1819.3	
	454+25.094	BL	140.83	0.00	0.00	140.83	31.5	0.0	0.0	31.5	764.3	2041.6	2552.1	0.0	764.3	-1787.8	
	454+30.000		108.96	0.00	0.00	108.96	22.7	0.0	0.0	22.7	787.0	2041.6	2552.1	0.0	787.0	-1765.1	
	454+40.000	BL	70.20	0.00	0.00	70.20	33.2	0.0	0.0	33.2	820.1	2041.6	2552.1	0.0	820.1	-1731.9	
		BL	43.47	0.00	0.00	43.47	21.1	0.0	0.0	21.1	841.2	2041.6	2552.1	0.0	841.2	-1710.9	
		BL	35.67	0.34	0.00	35.67	14.7	0.1	0.0	14.7	855.8	2041.7	2552.1	0.0	855.8	-1696.3	
	454+67.510		36.16	3.64	0.00	36.16	10.0	0.6	0.0	10.0	865.8	2042.3	2552.8	0.0	865.8	-1687.0	
	454+70.000		36.24	4.88	0.00	36.24	3.3	0.4	0.0	3.3	869.2	2042.7	2553.3	0.0	869.2	-1684.1	
	454+80.000		36.16	10.14	0.00	36.16	13.4	2.8	0.0	13.4	882.6	2045.4	2556.8	0.0	882.6	-1674.2	
	454+90.000		37.97	9.71	0.00	37.97	13.7	3.7	0.0	13.7	896.3	2049.1	2561.4	0.0	896.3	-1665.1	
			39.37	9.51	0.00	39.37	14.3	3.6	0.0	14.3	910.6	2052.7	2565.8	0.0	910.6	-1655.2	
			41.88	8.30	0.00	41.88	15.0	3.3	0.0	15.0	925.7	2056.0	2570.0	0.0	925.7	-1644.3	
		BL	43.39	6.72	0.00	43.39	15.8	2.8	0.0	15.8	941.5	2058.8	2573.4	0.0	941.5	-1632.0	
		BL	46.97	0.33	0.00	46.97	16.7	1.3	0.0	16.7	958.2	2060.1	2575.1	0.0	958.2	-1616.9	
		BL	47.86	0.27	0.00	47.86	17.6	0.1	0.0	17.6	975.8	2060.2	2575.2	0.0	975.8	-1599.4	
	455+50.000	BL	47.23	0.65	0.00	47.23	17.6	0.2	0.0 OF 7	17.6	993.4	2060.3	2575.4	0.0	993.4	-1582.1	

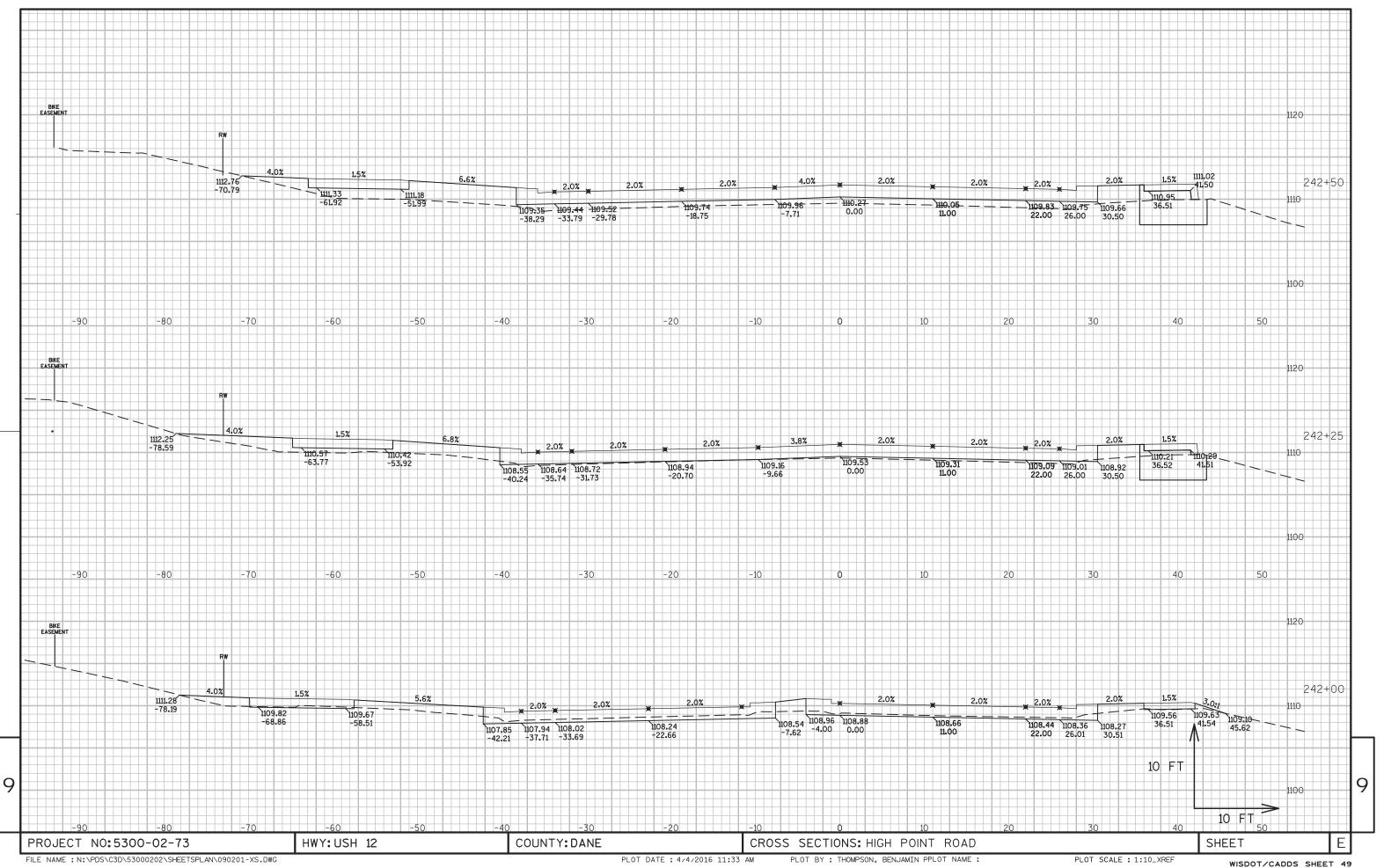
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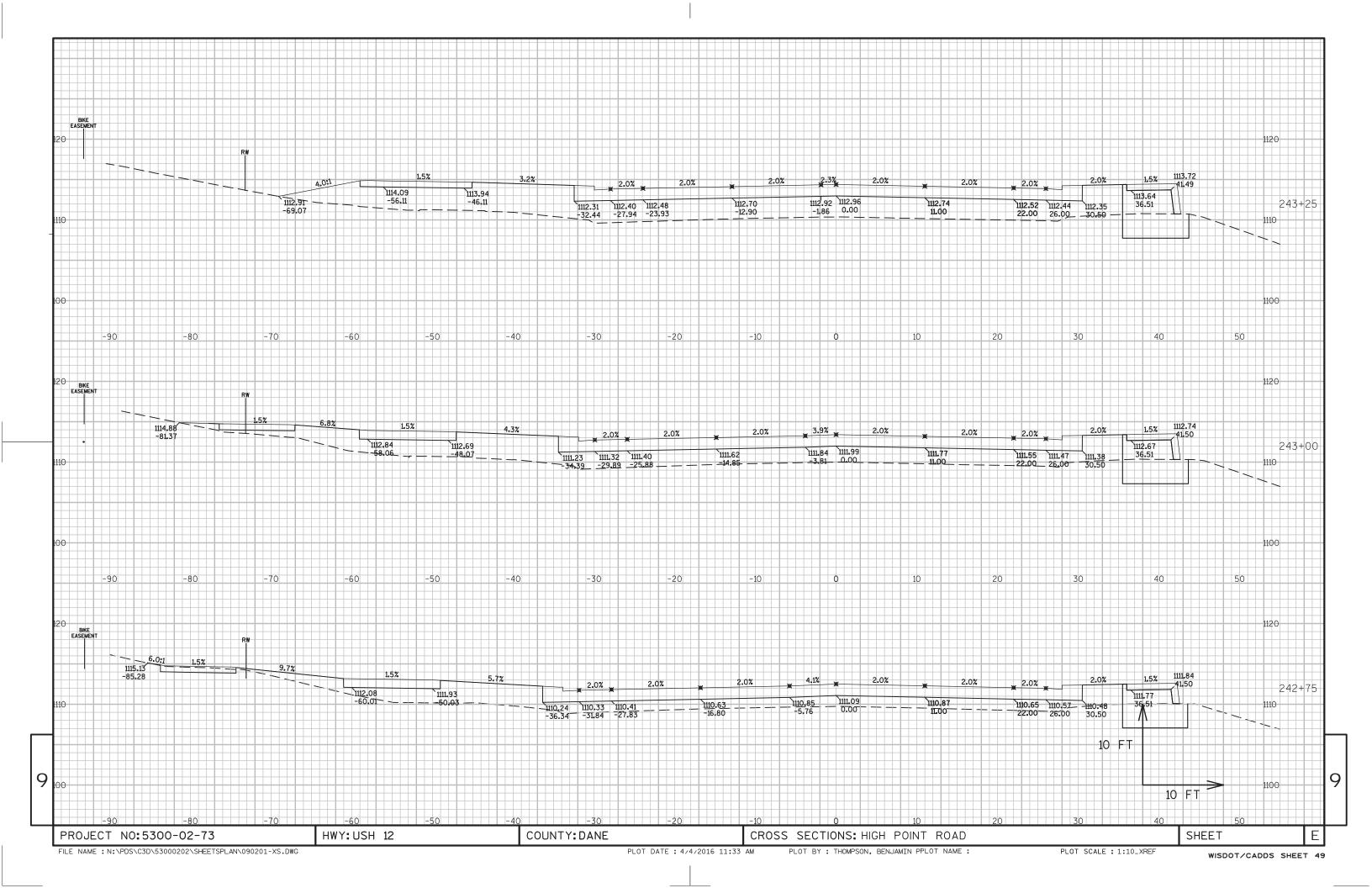
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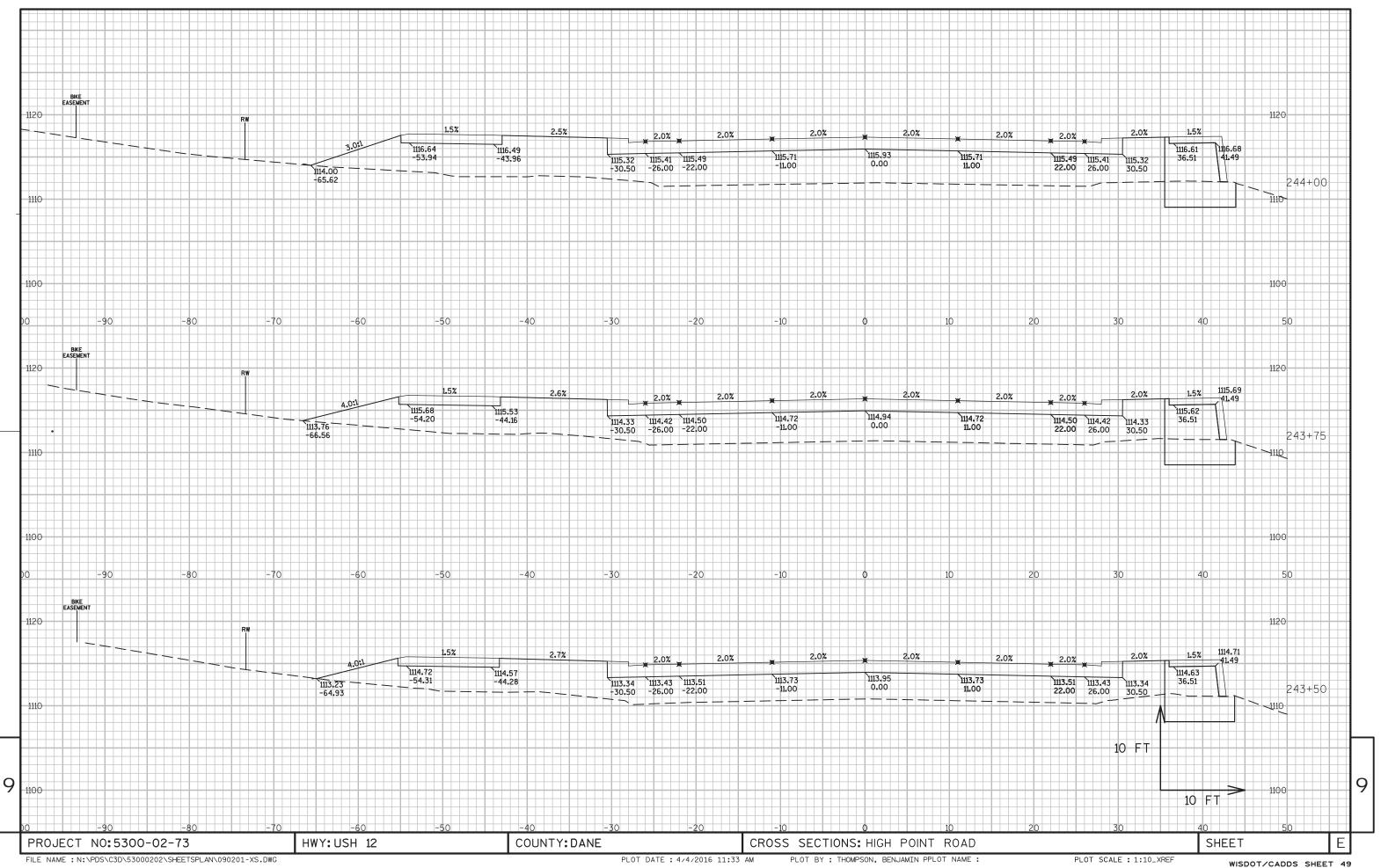
PROJECT NO: 5300-02-73 HWY: USH 12 COUNTY: DANE EARTHWORK SUMMARY SHEET NO: E

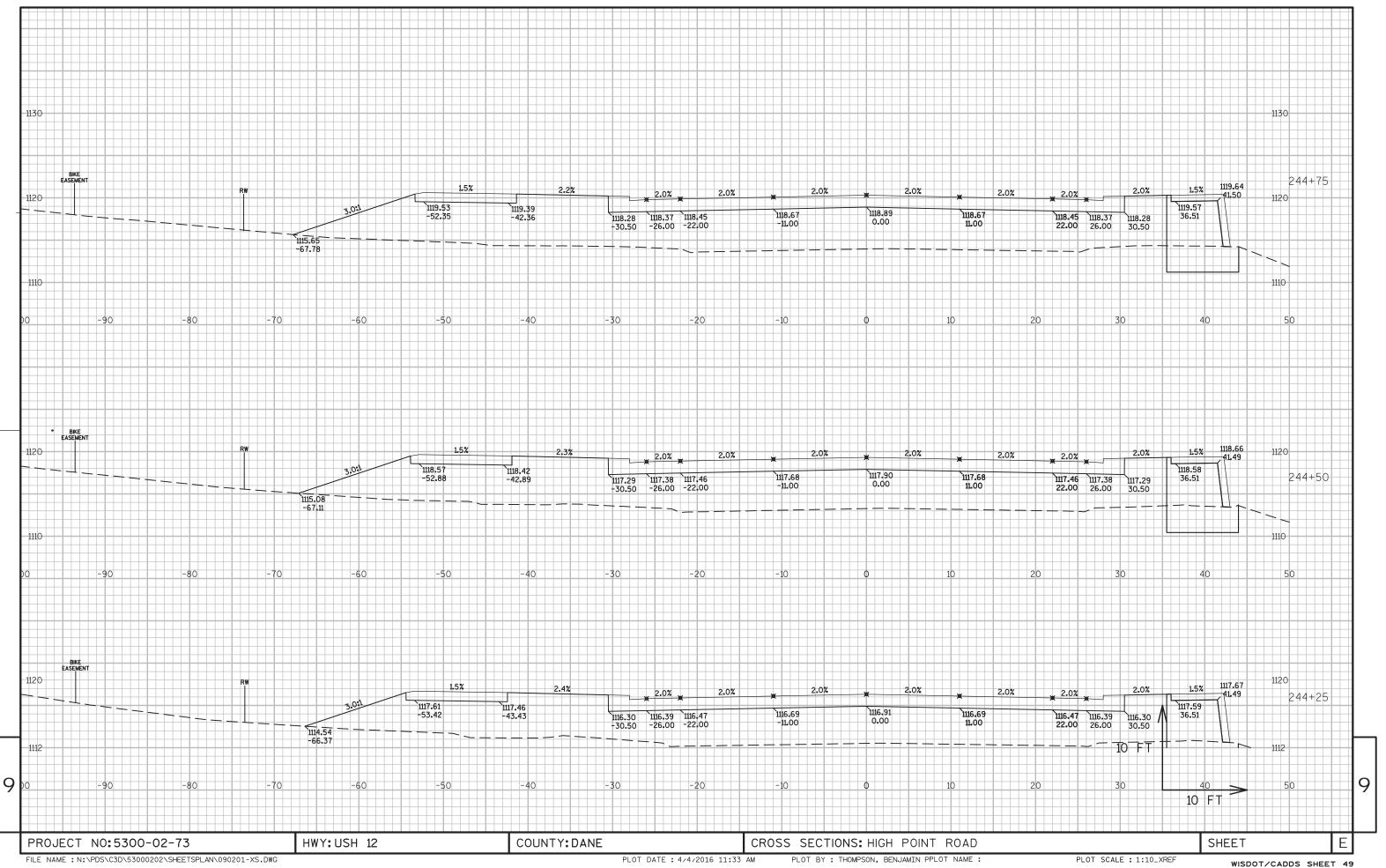


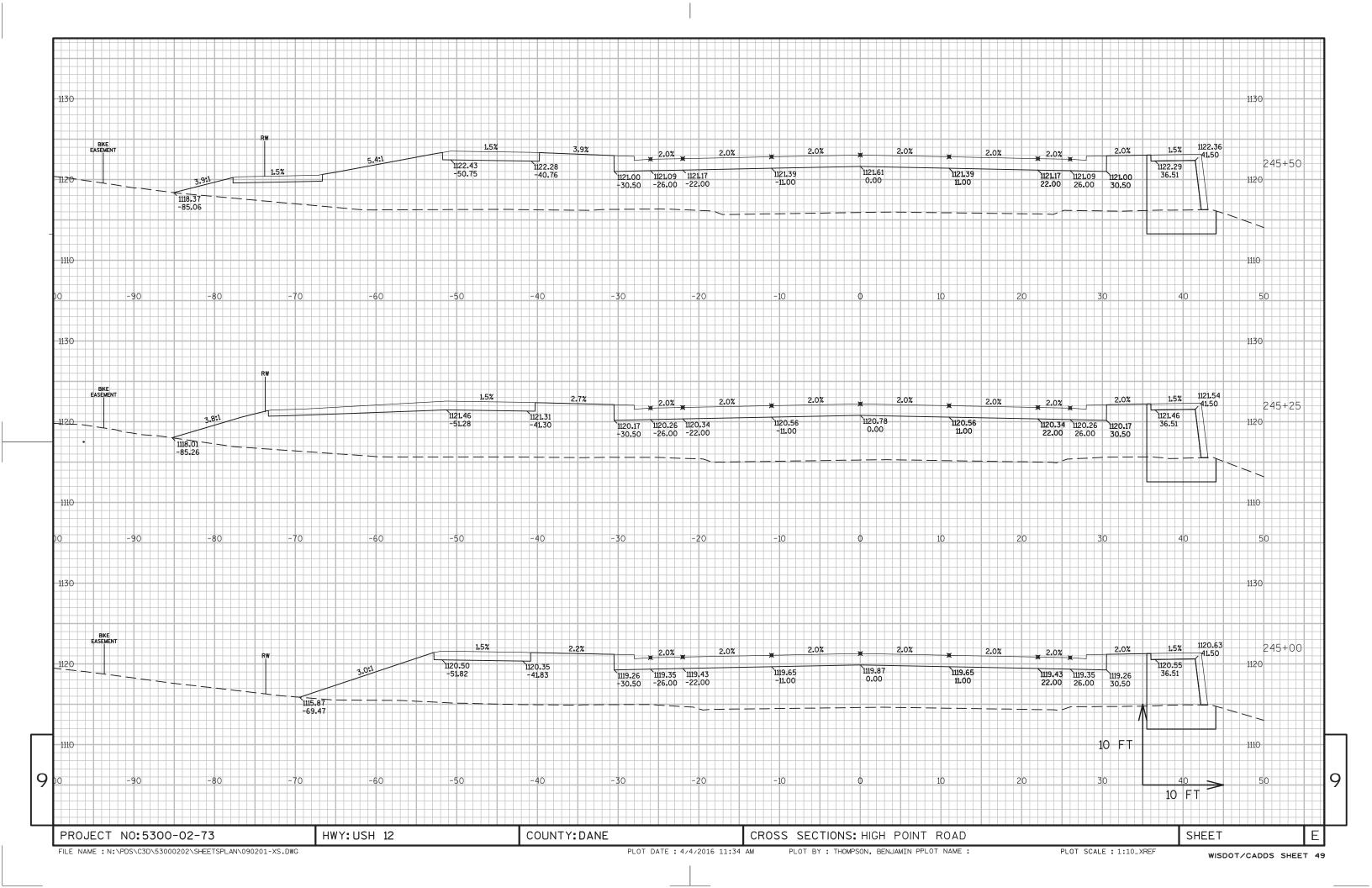


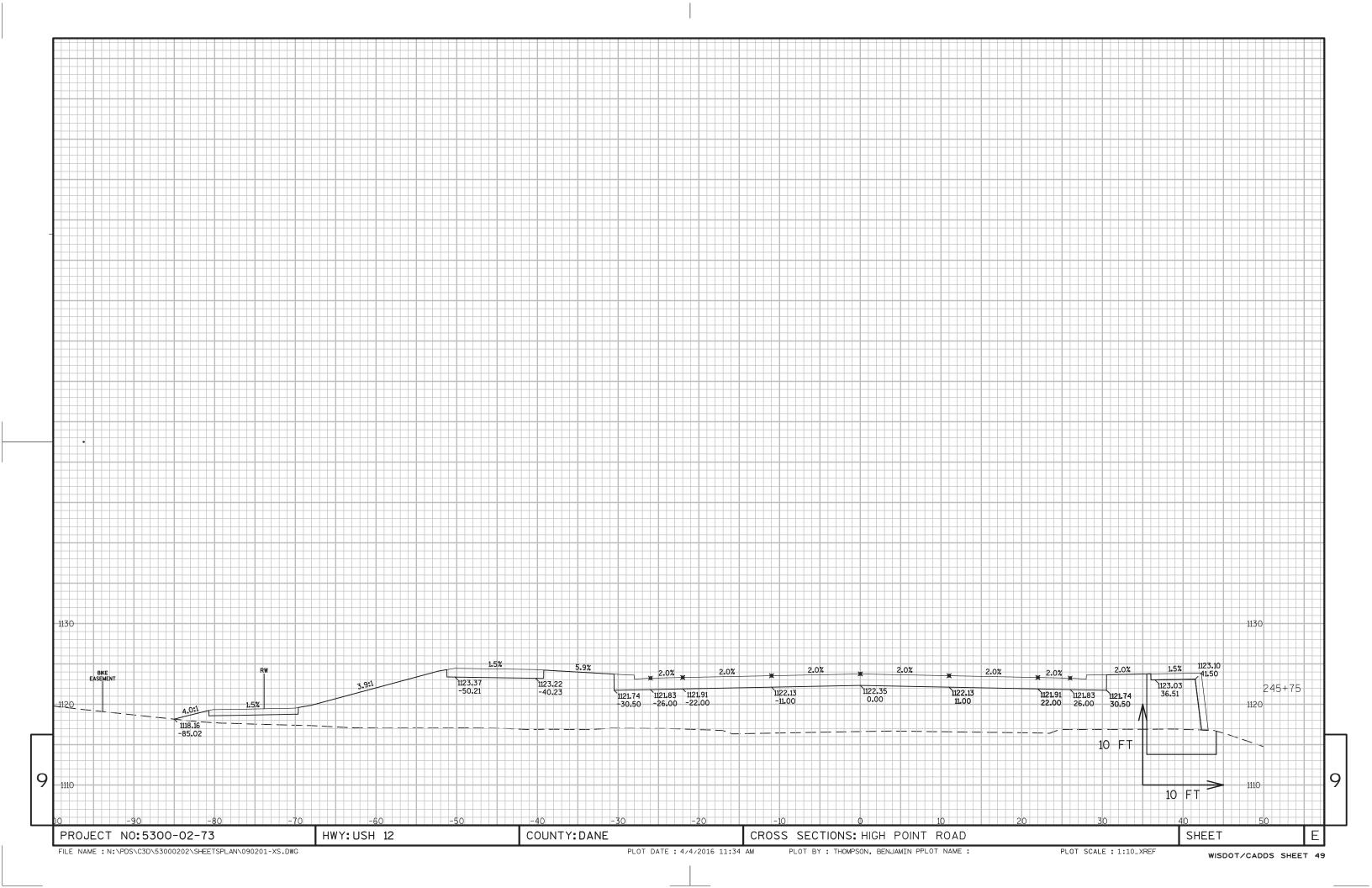


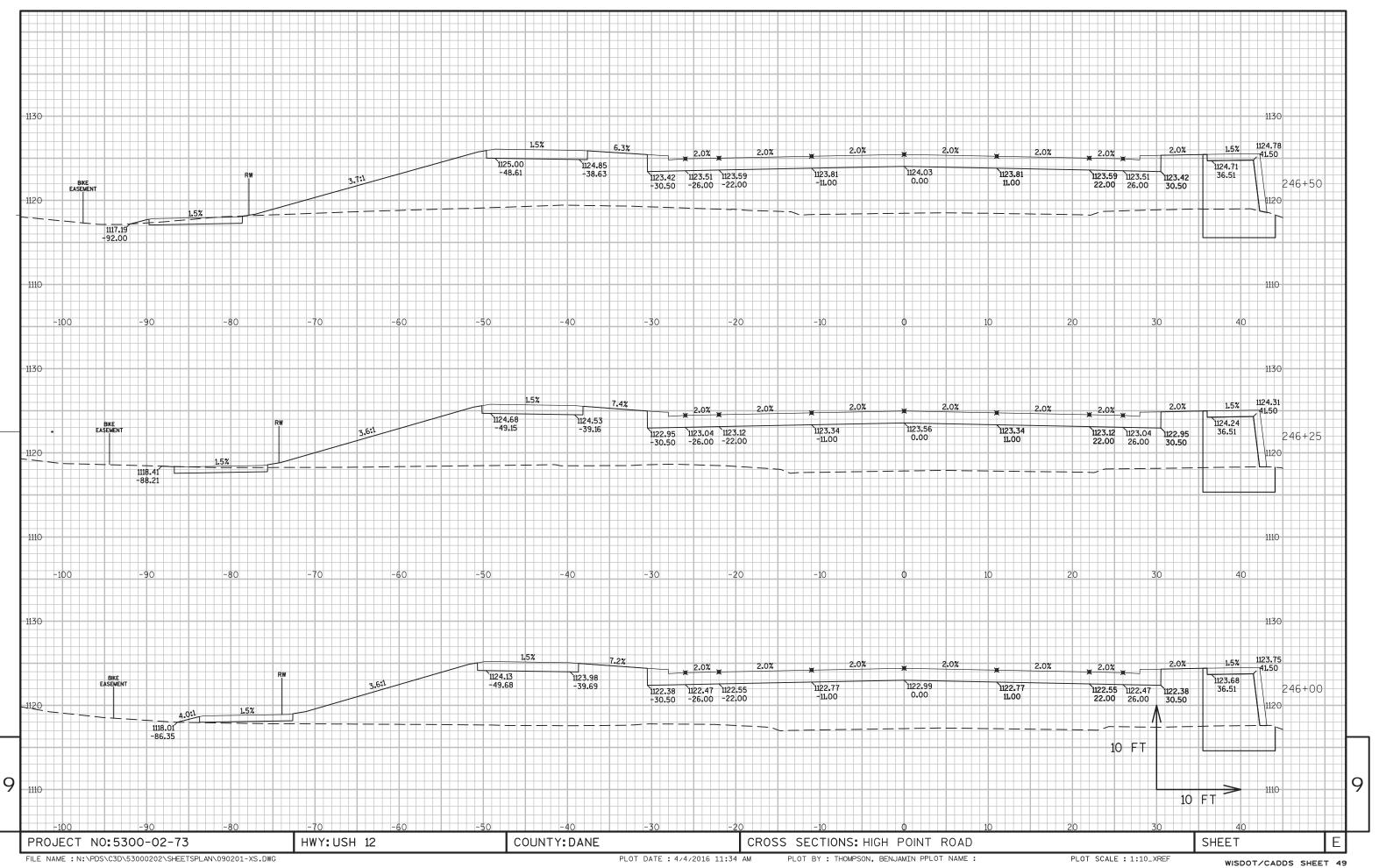


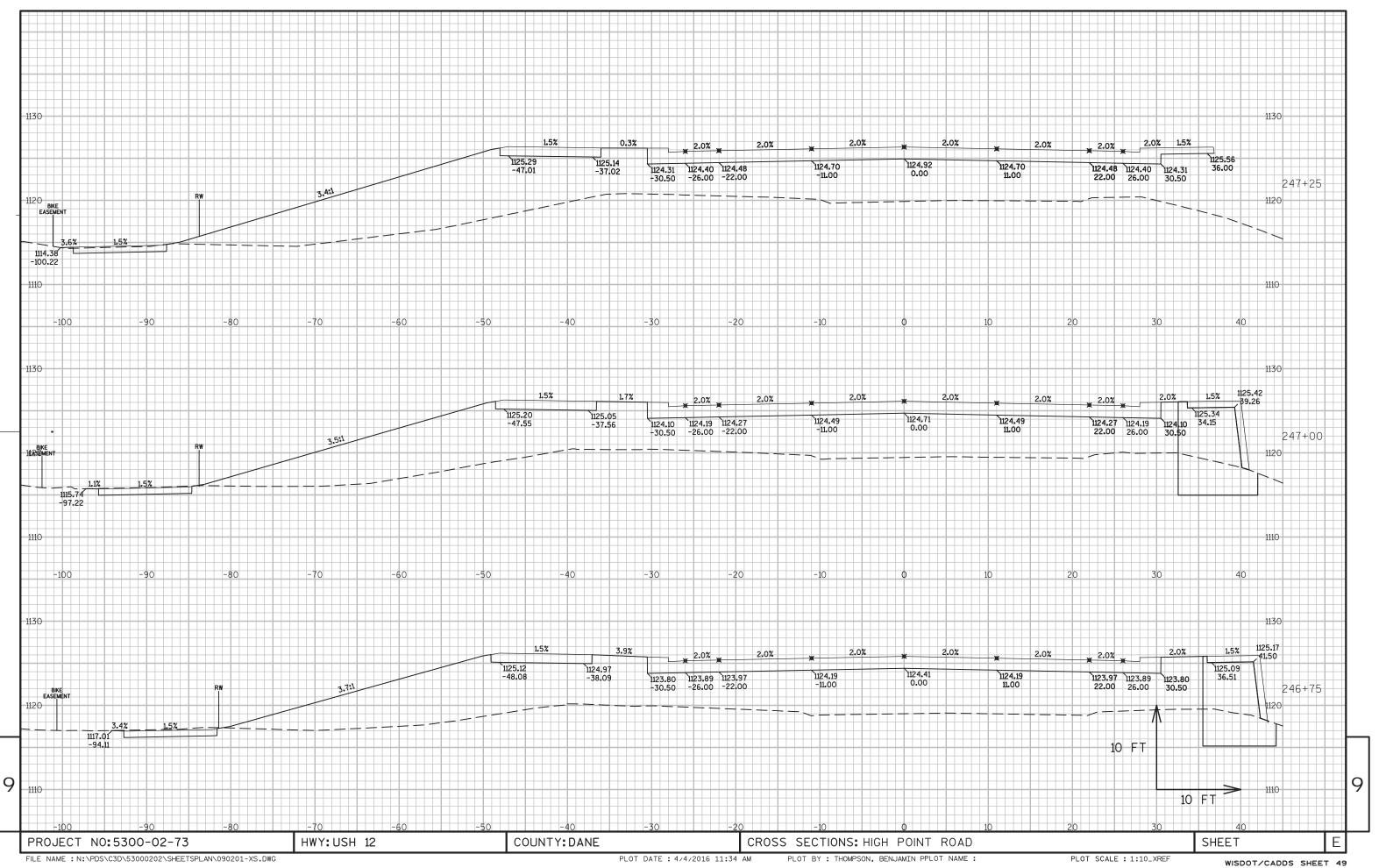


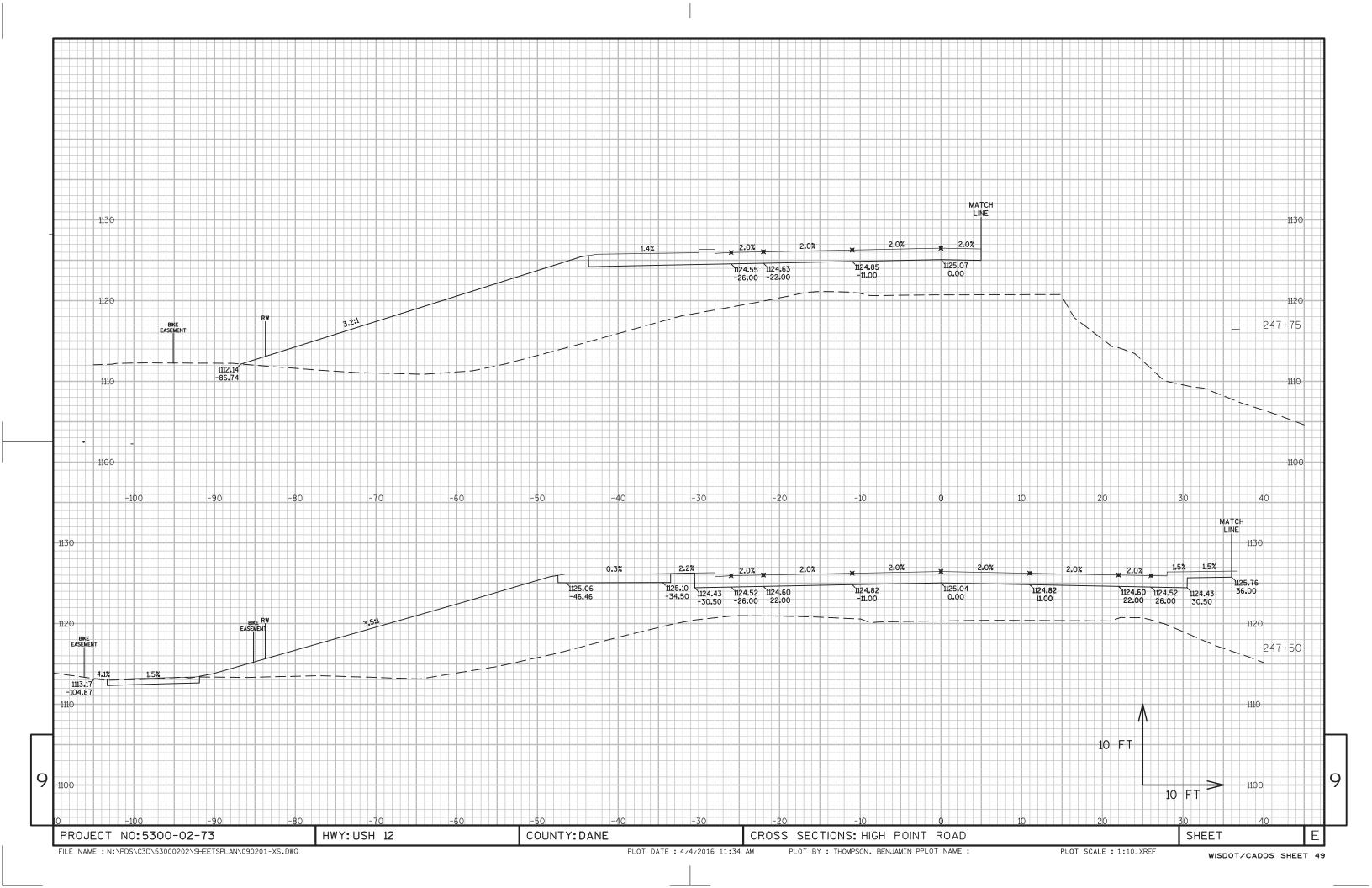


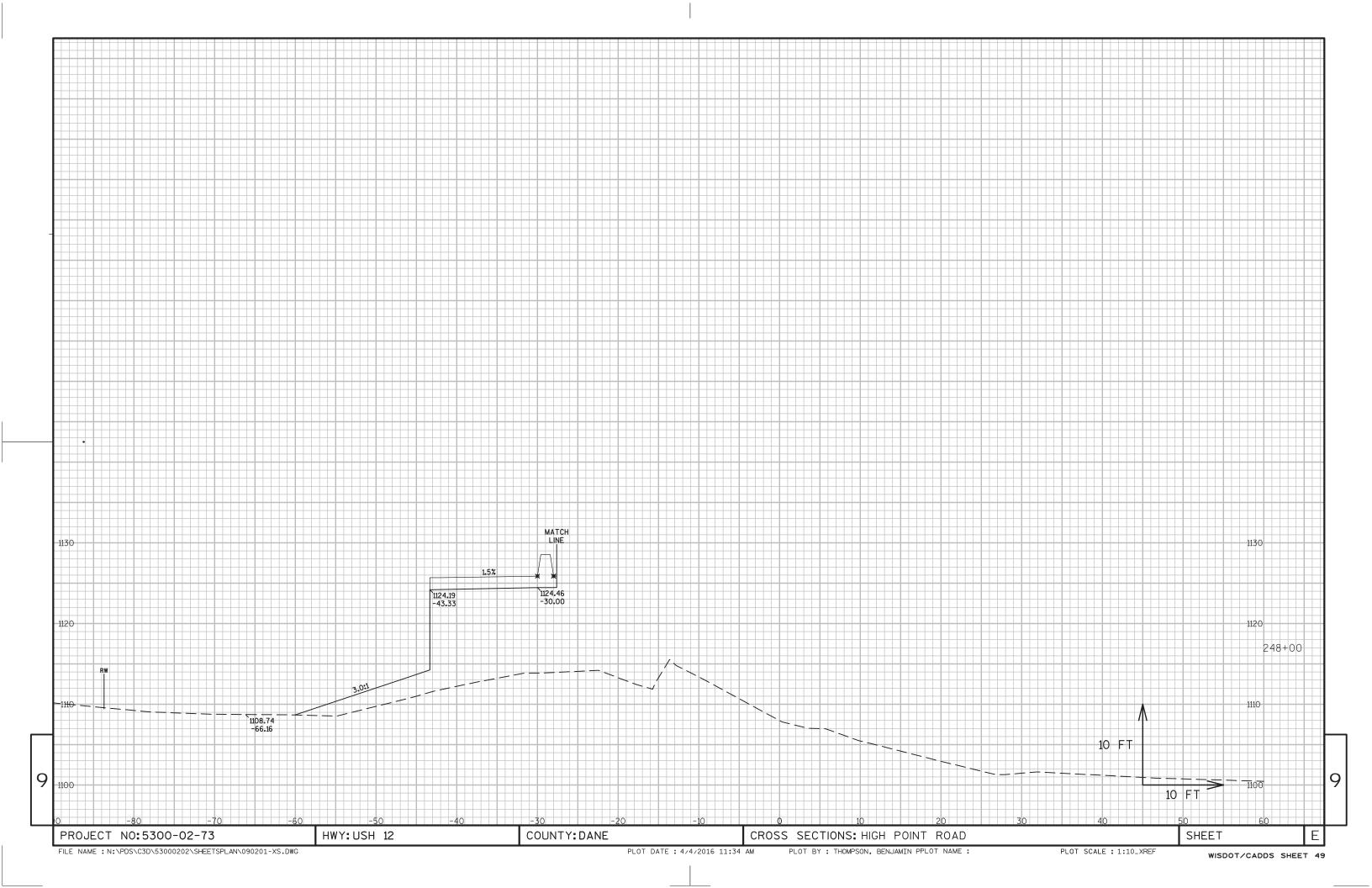


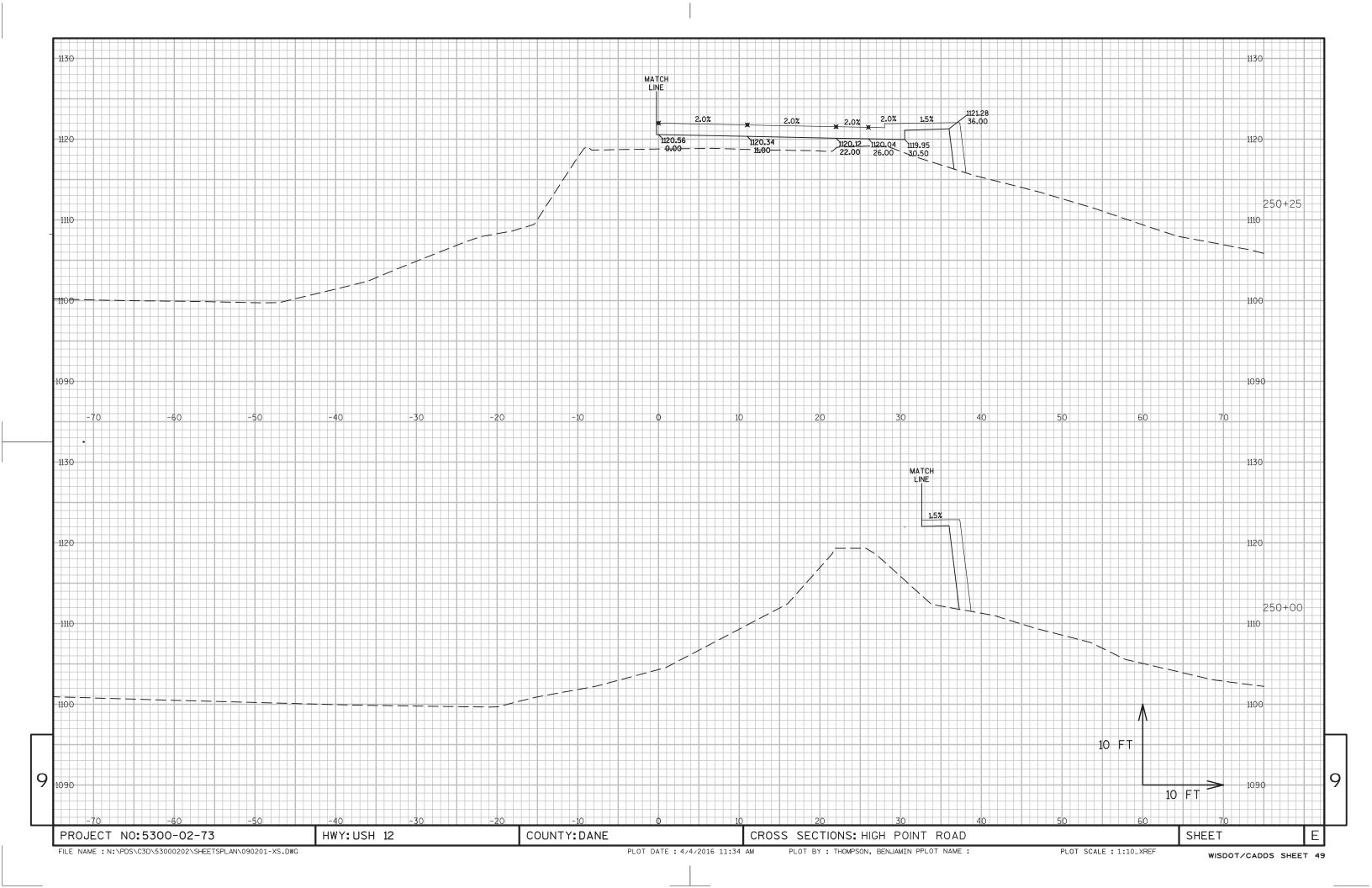


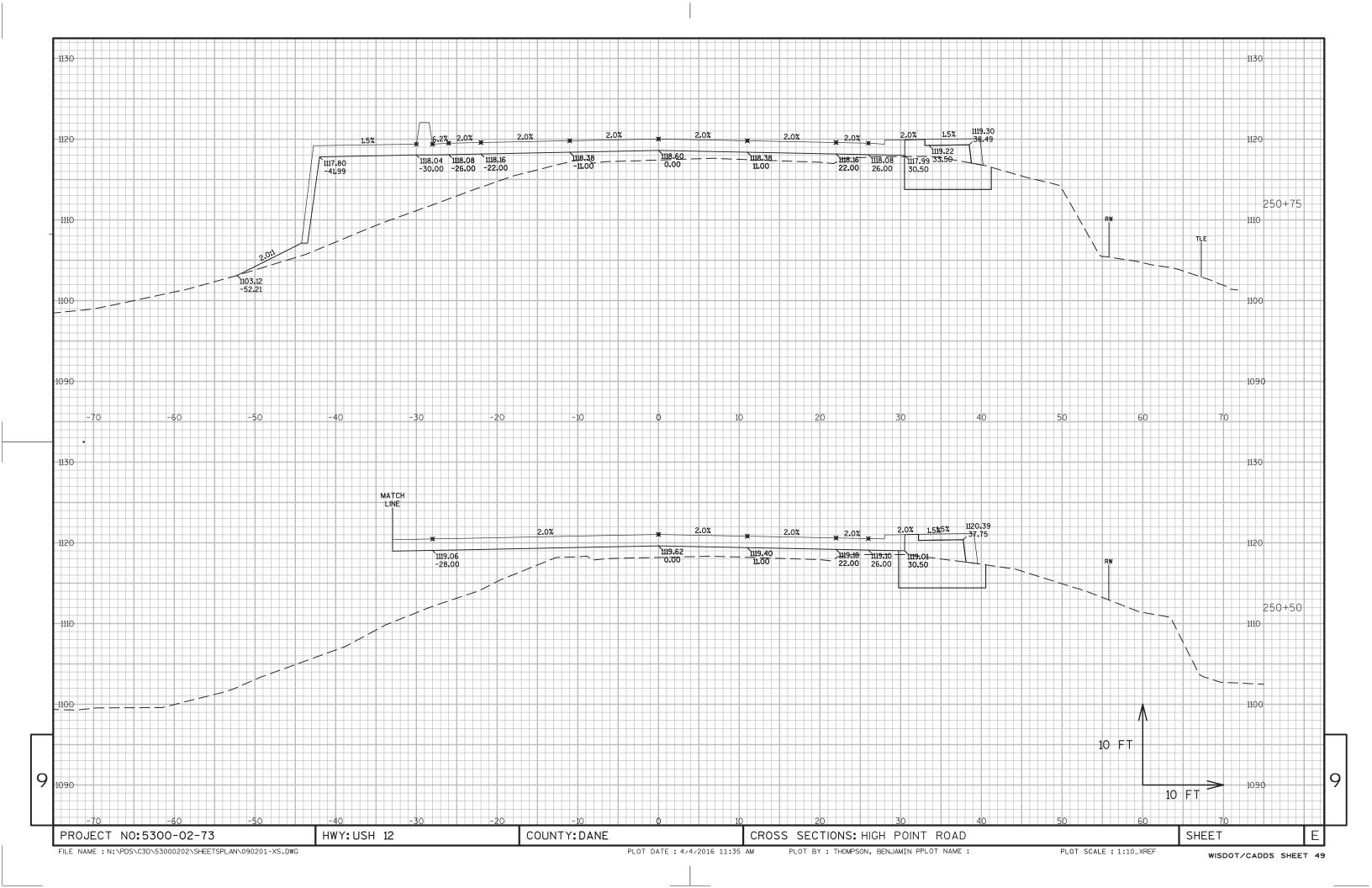


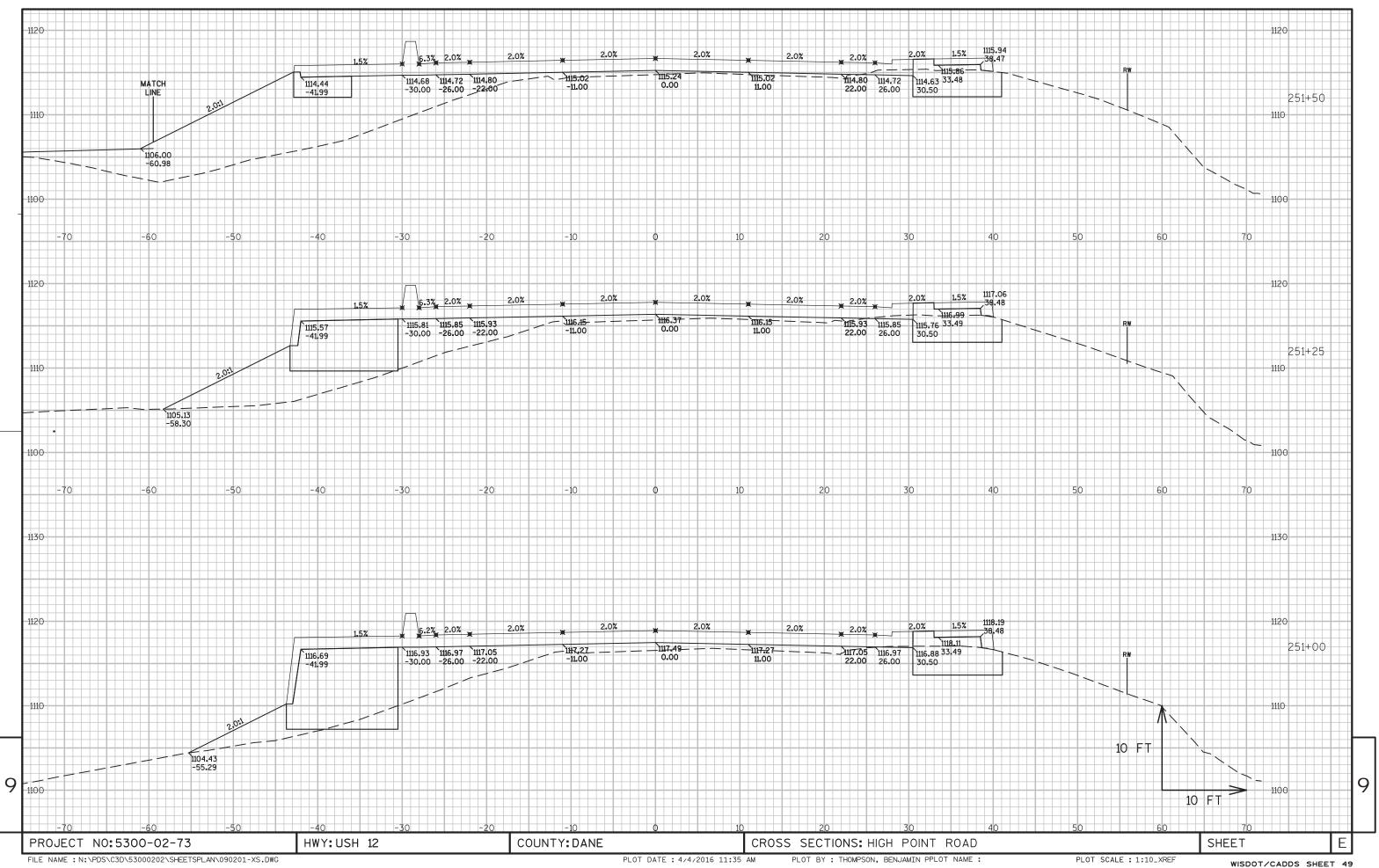


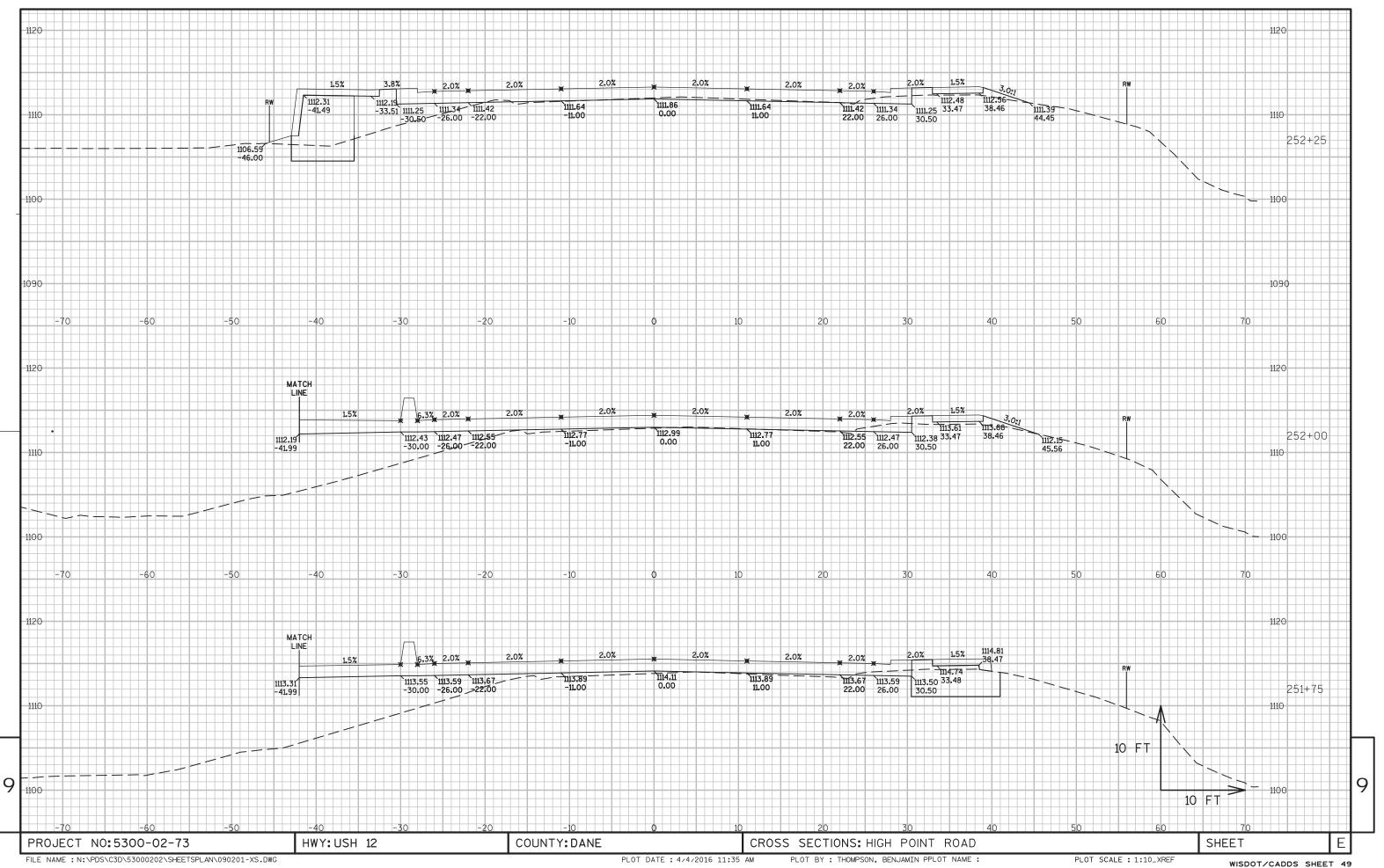


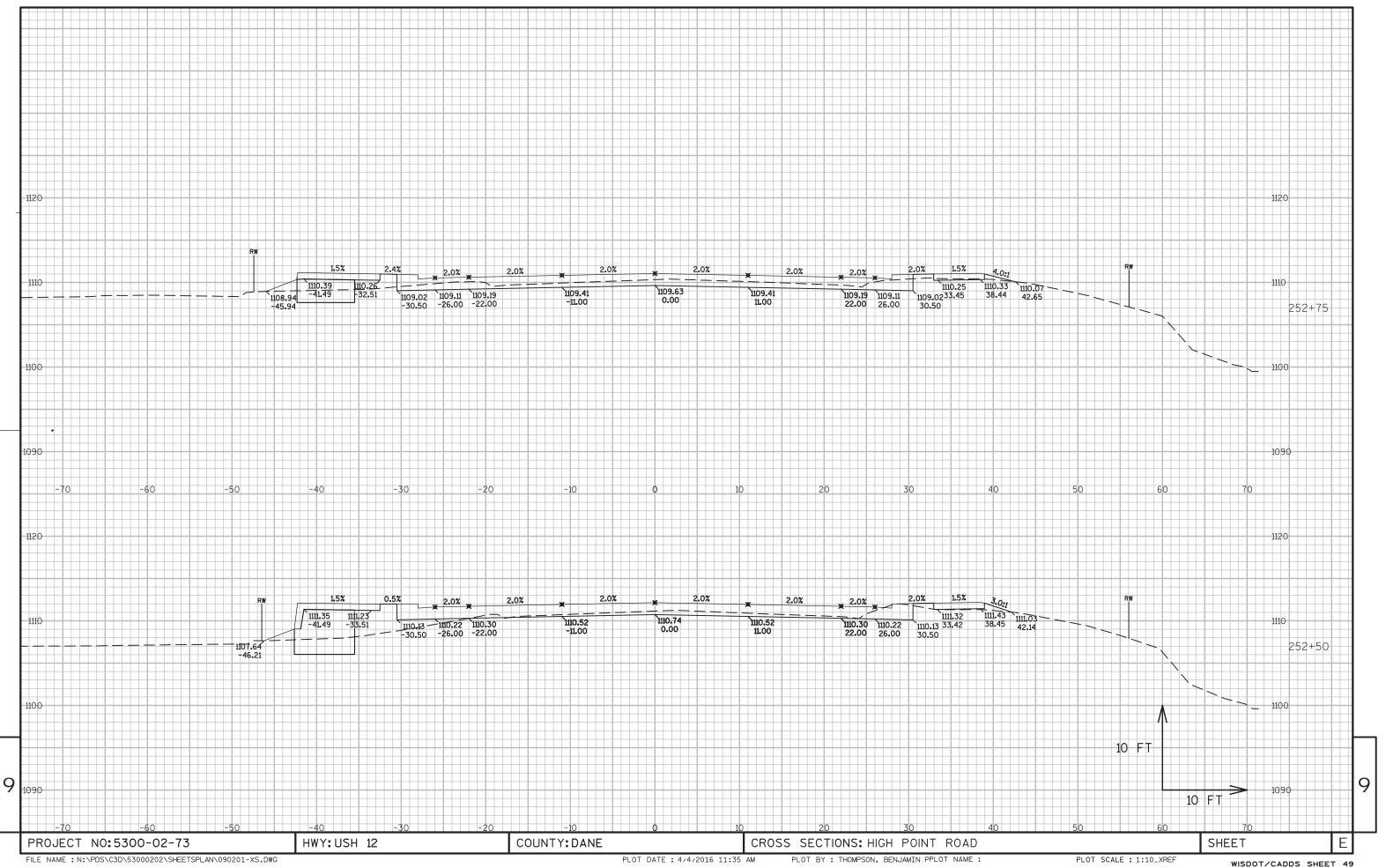


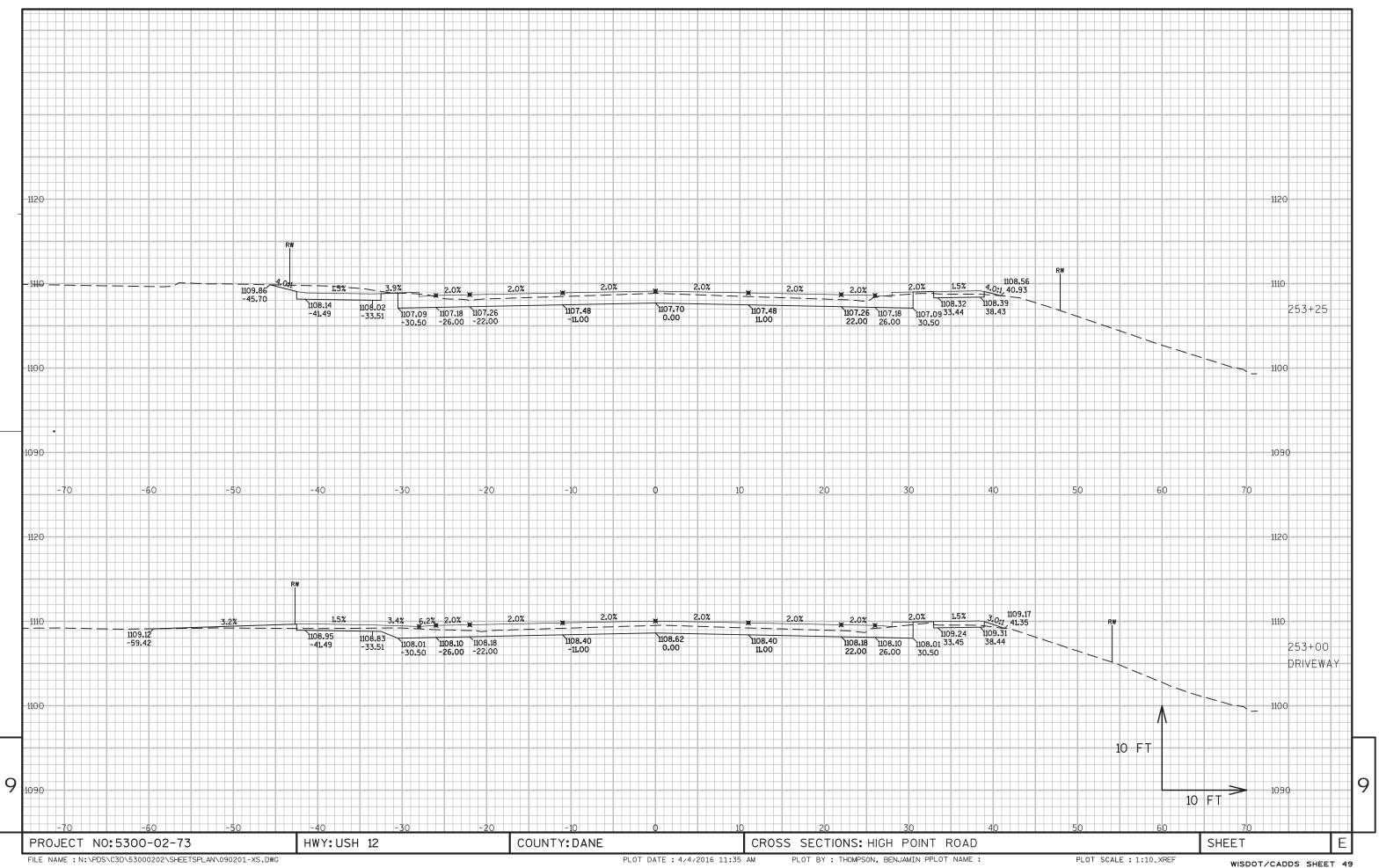


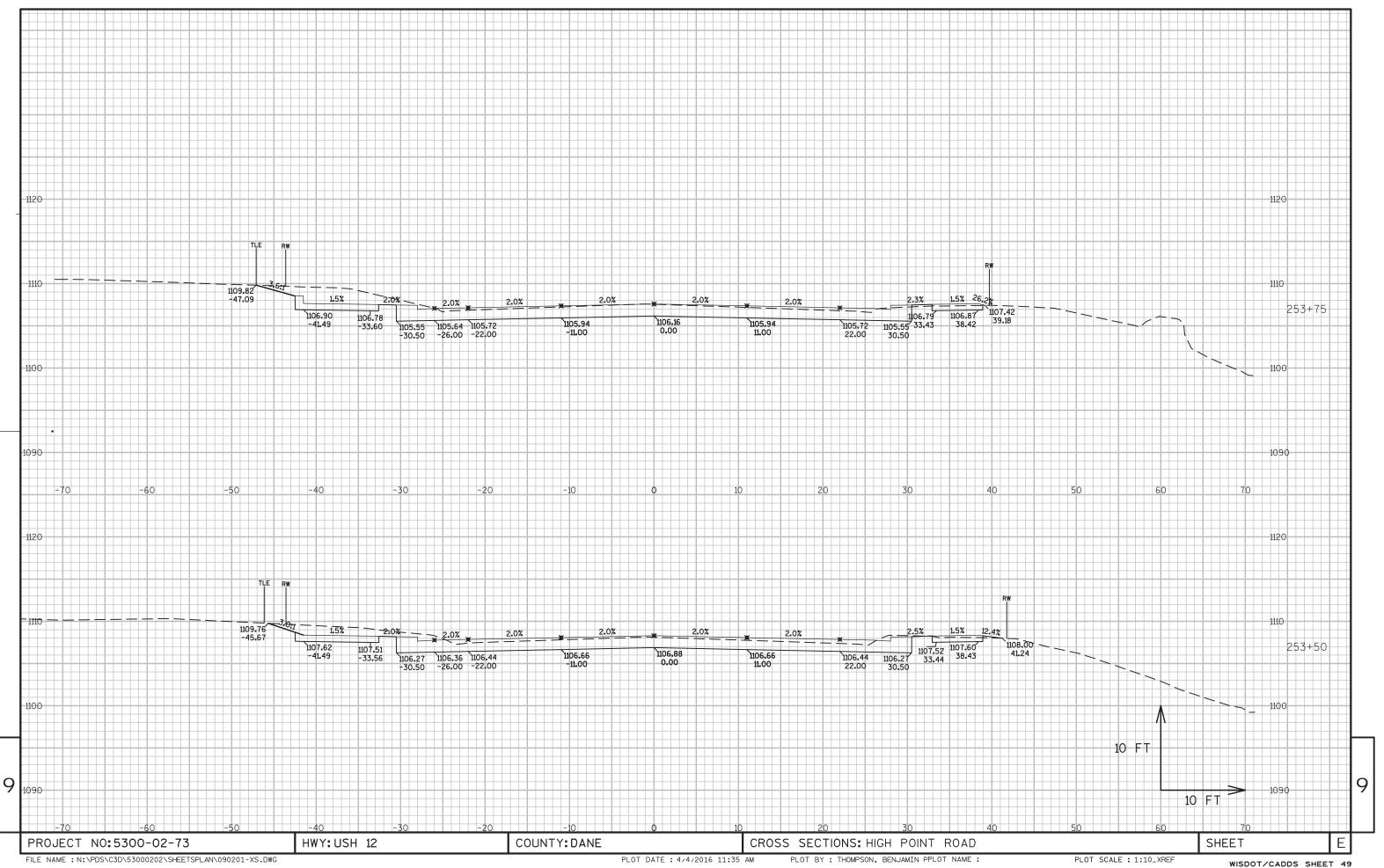


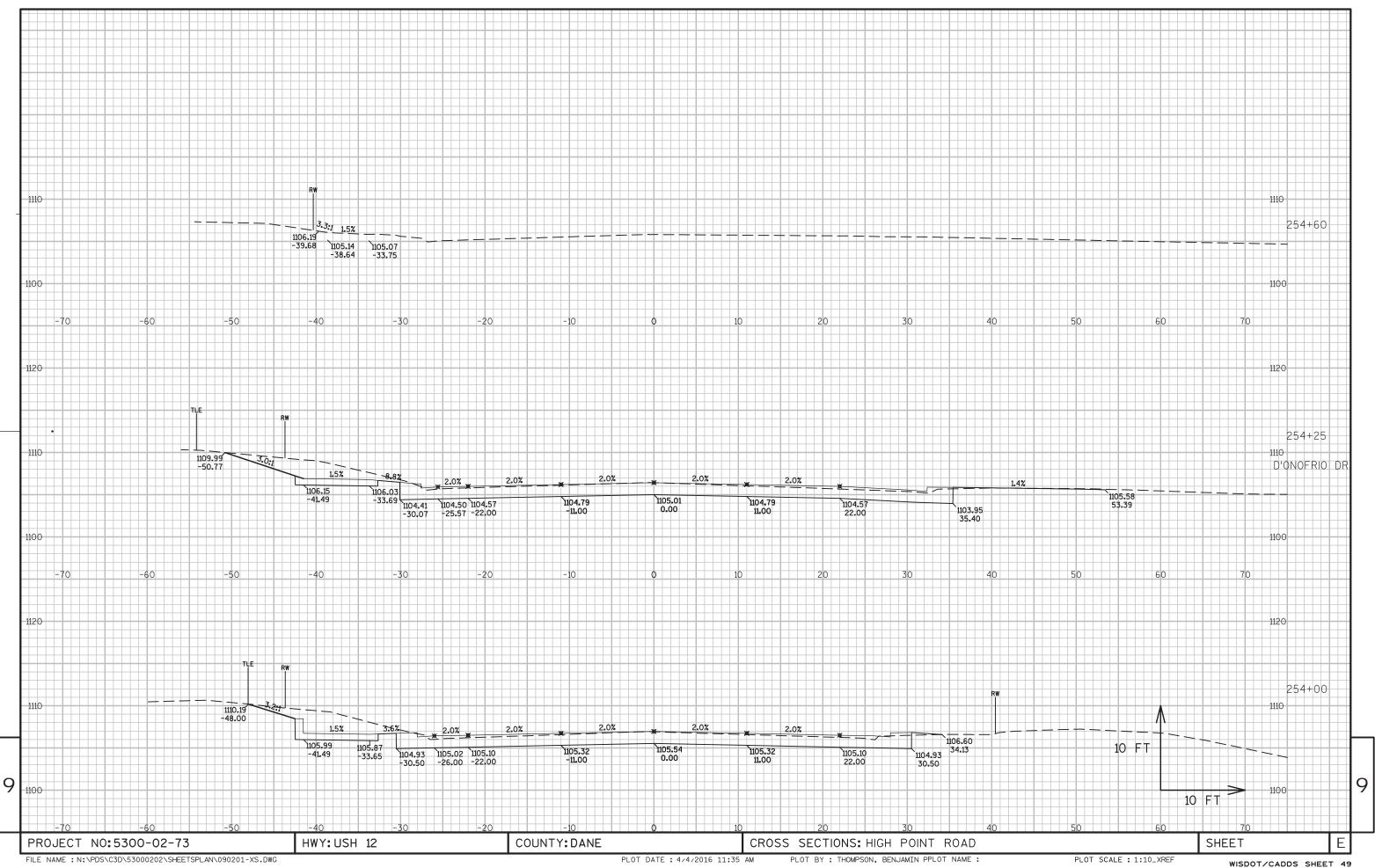


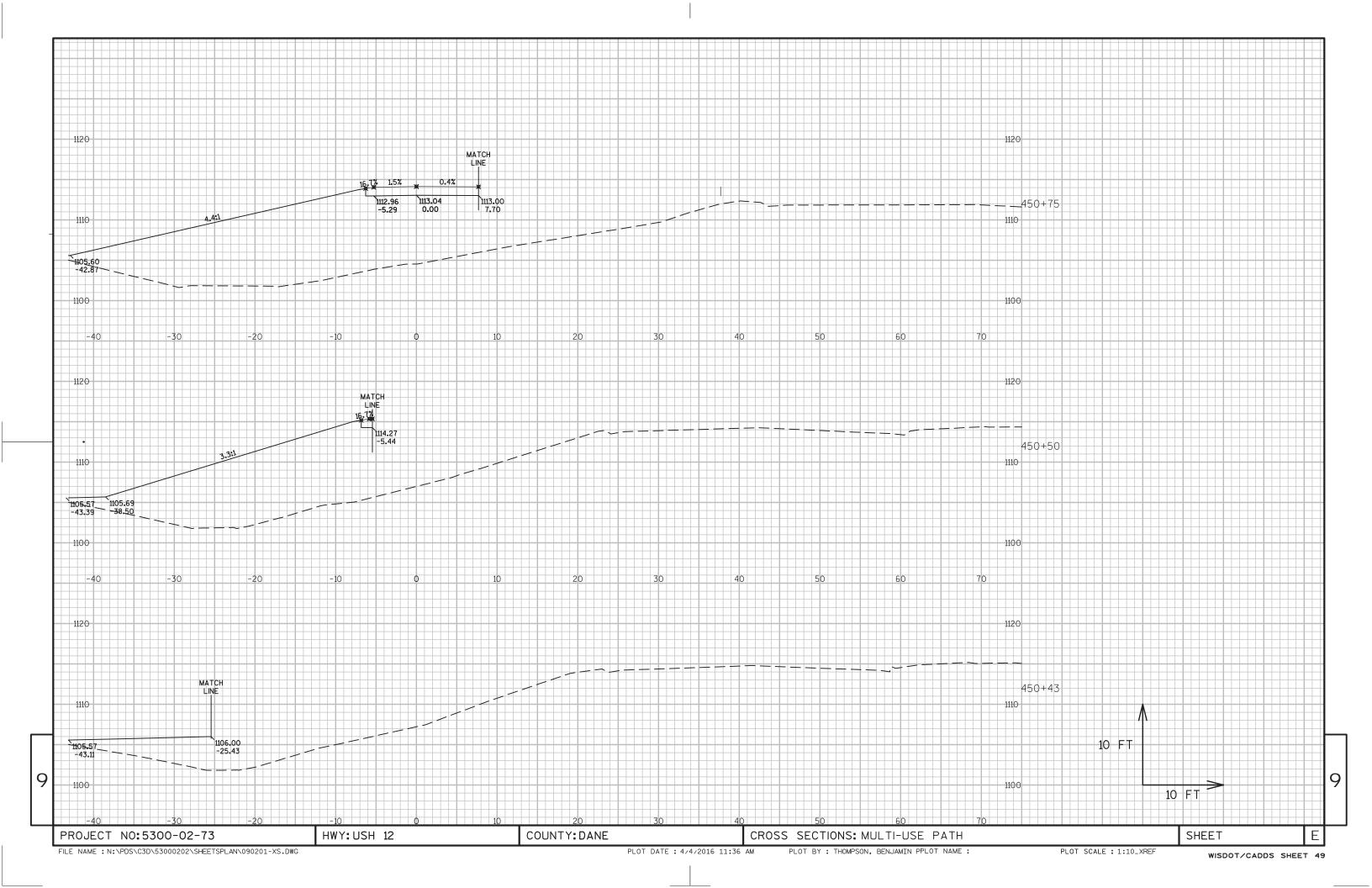


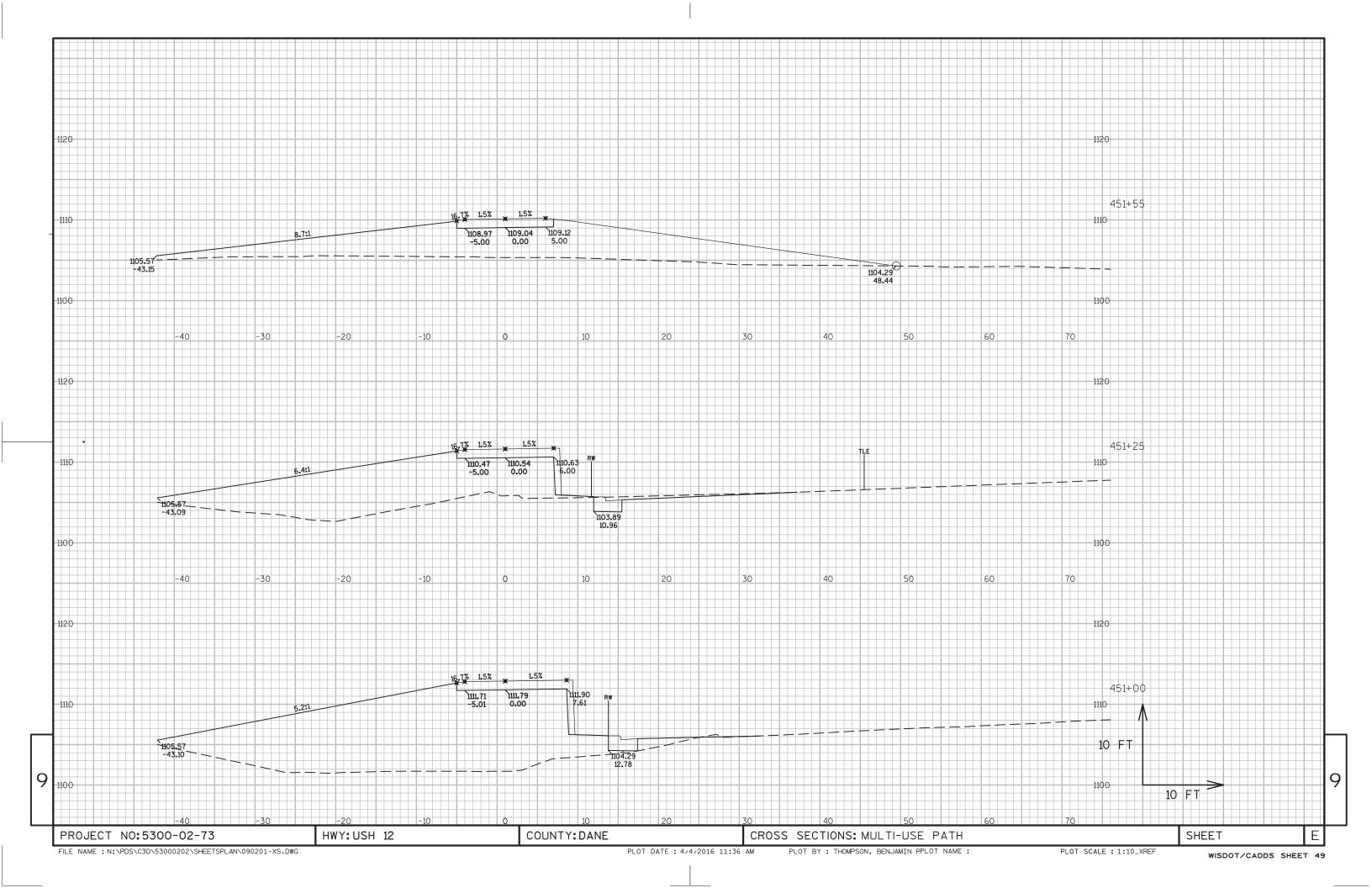


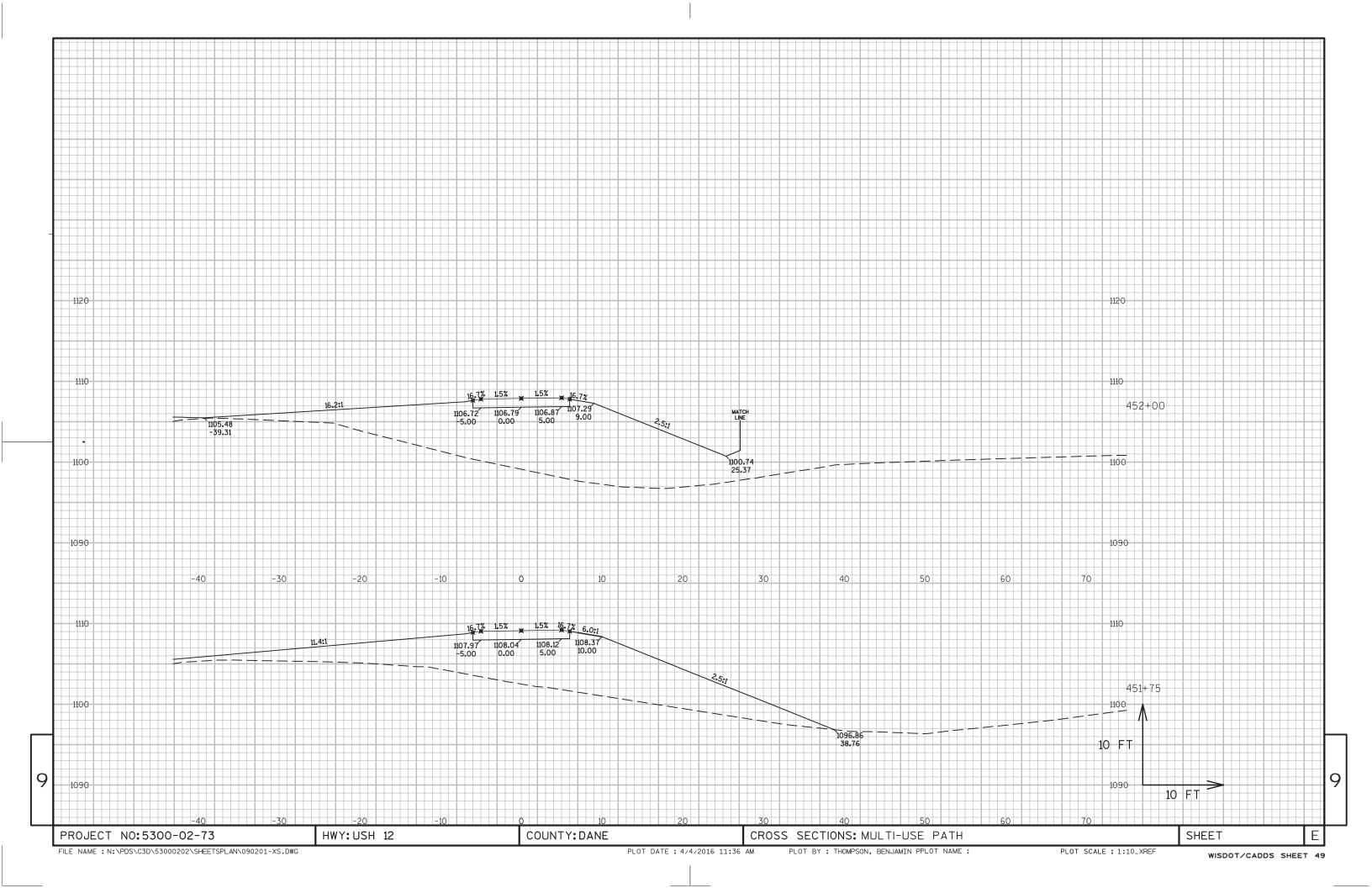


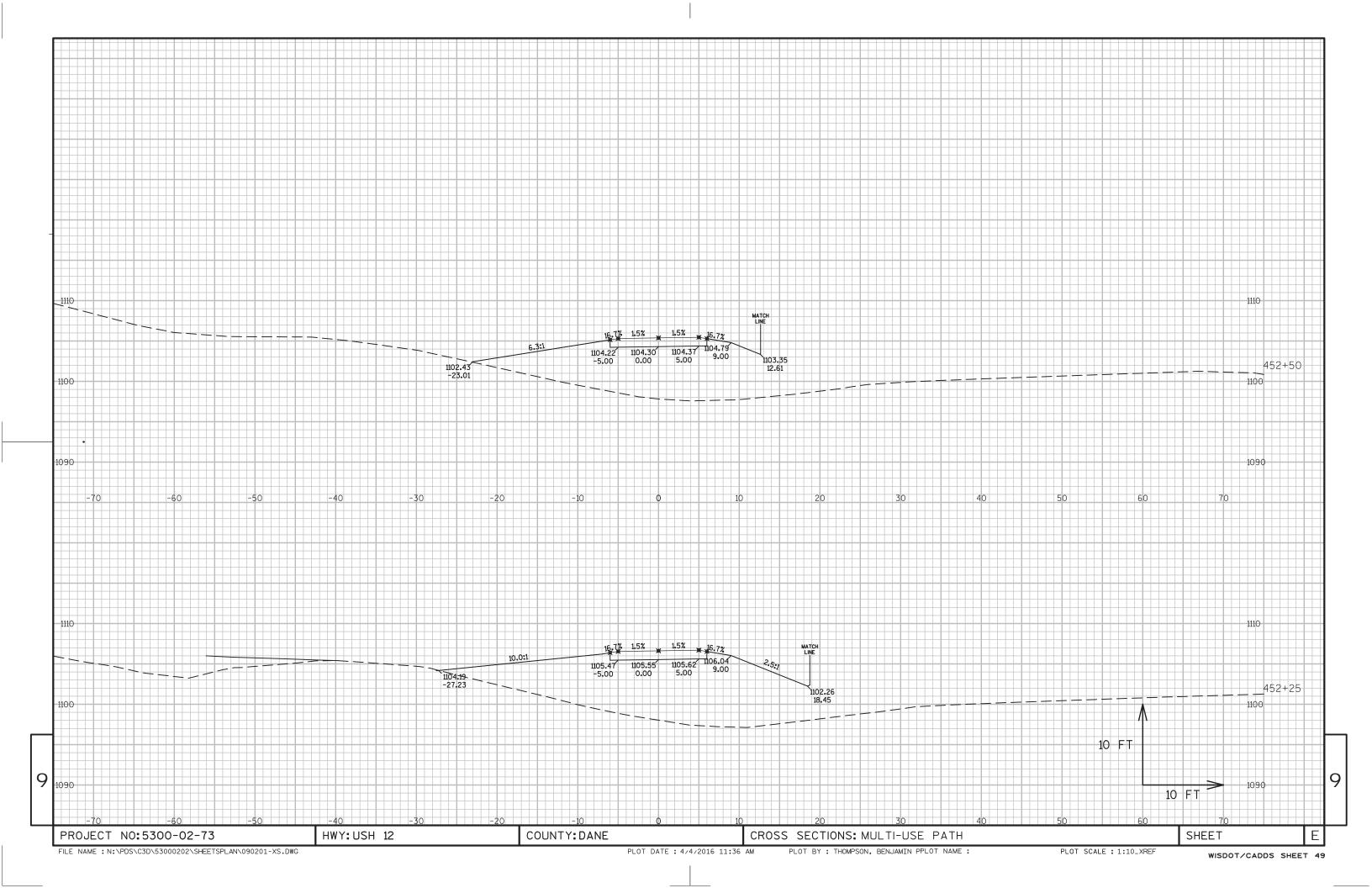


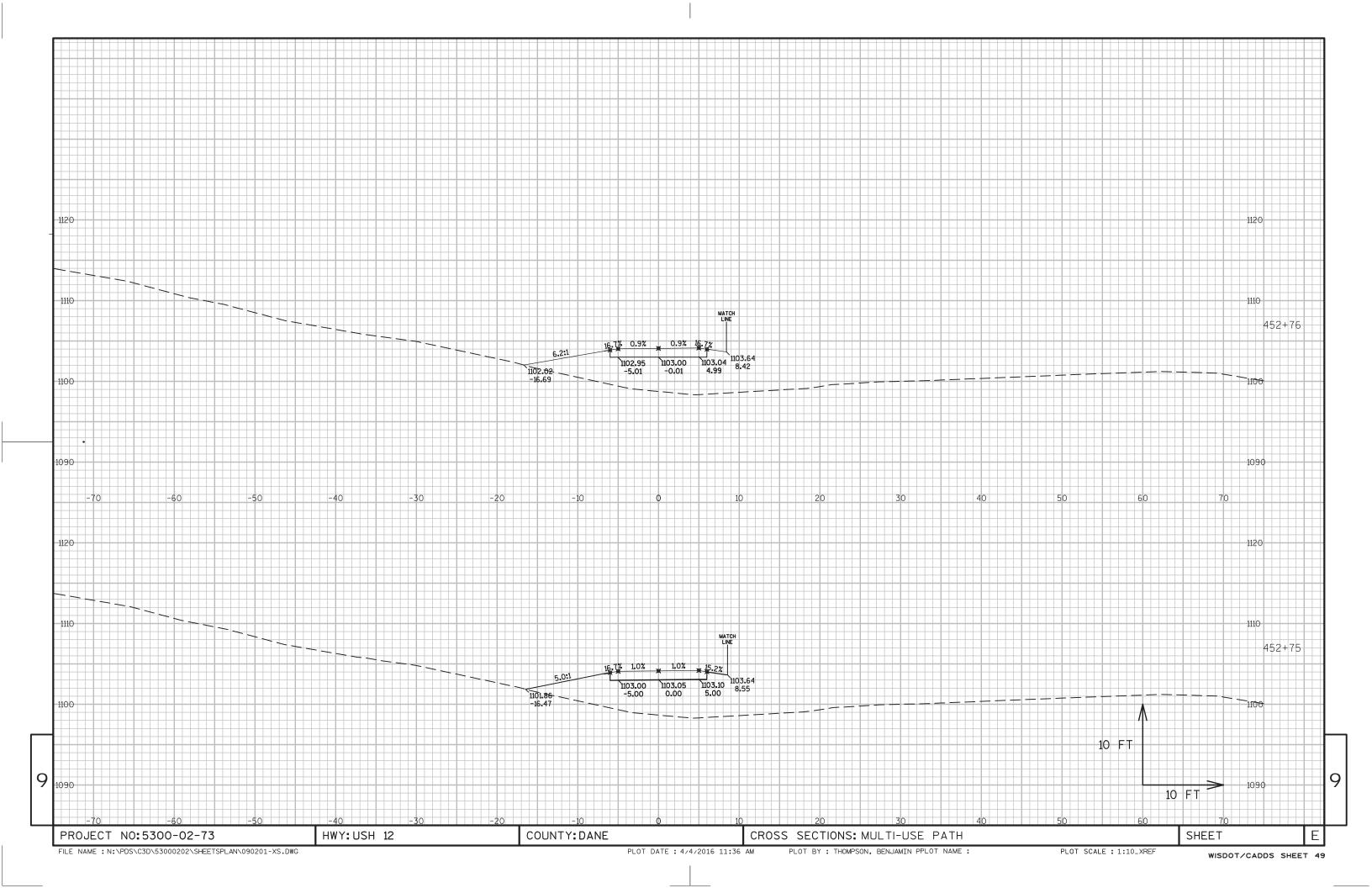


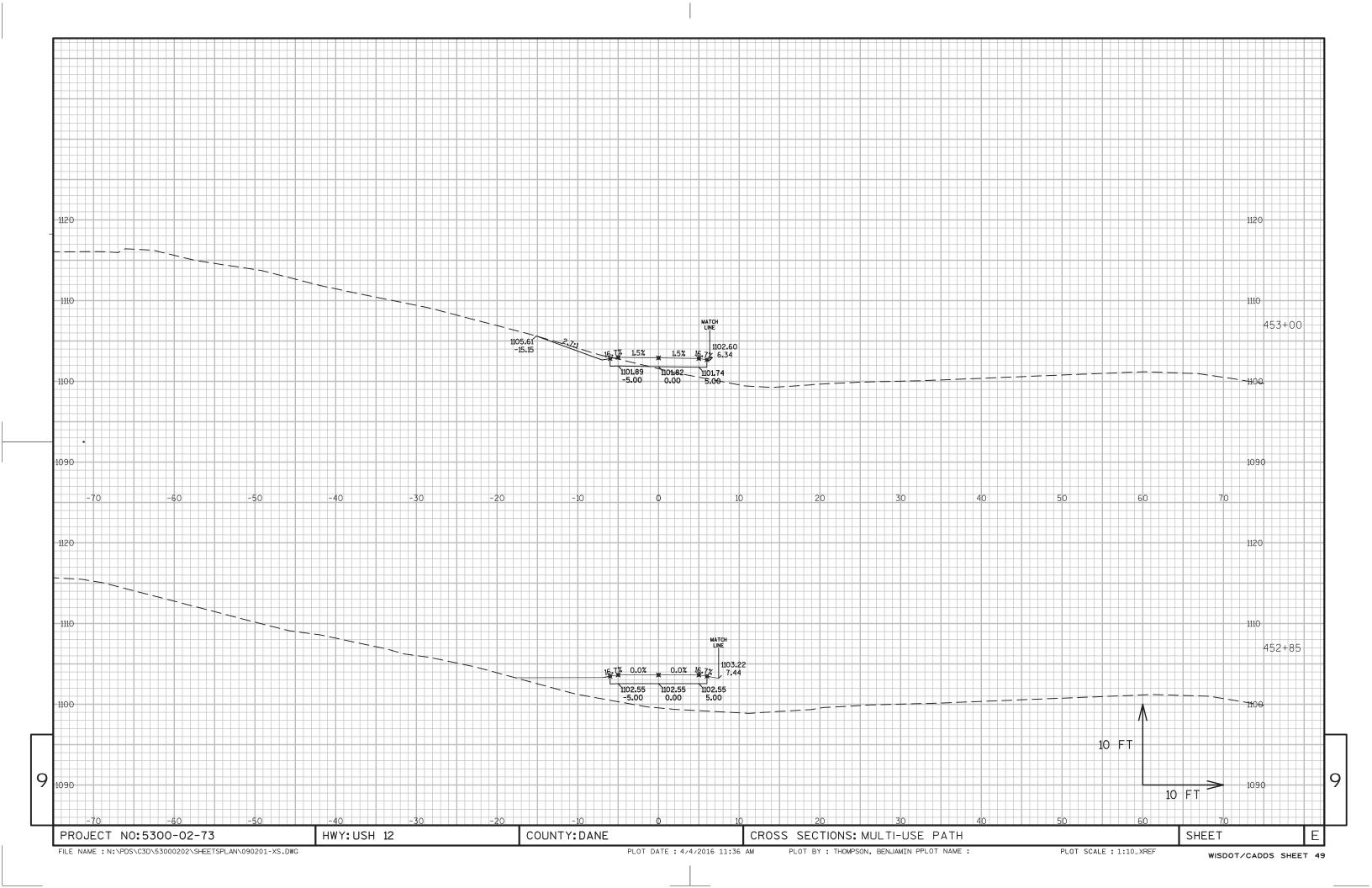


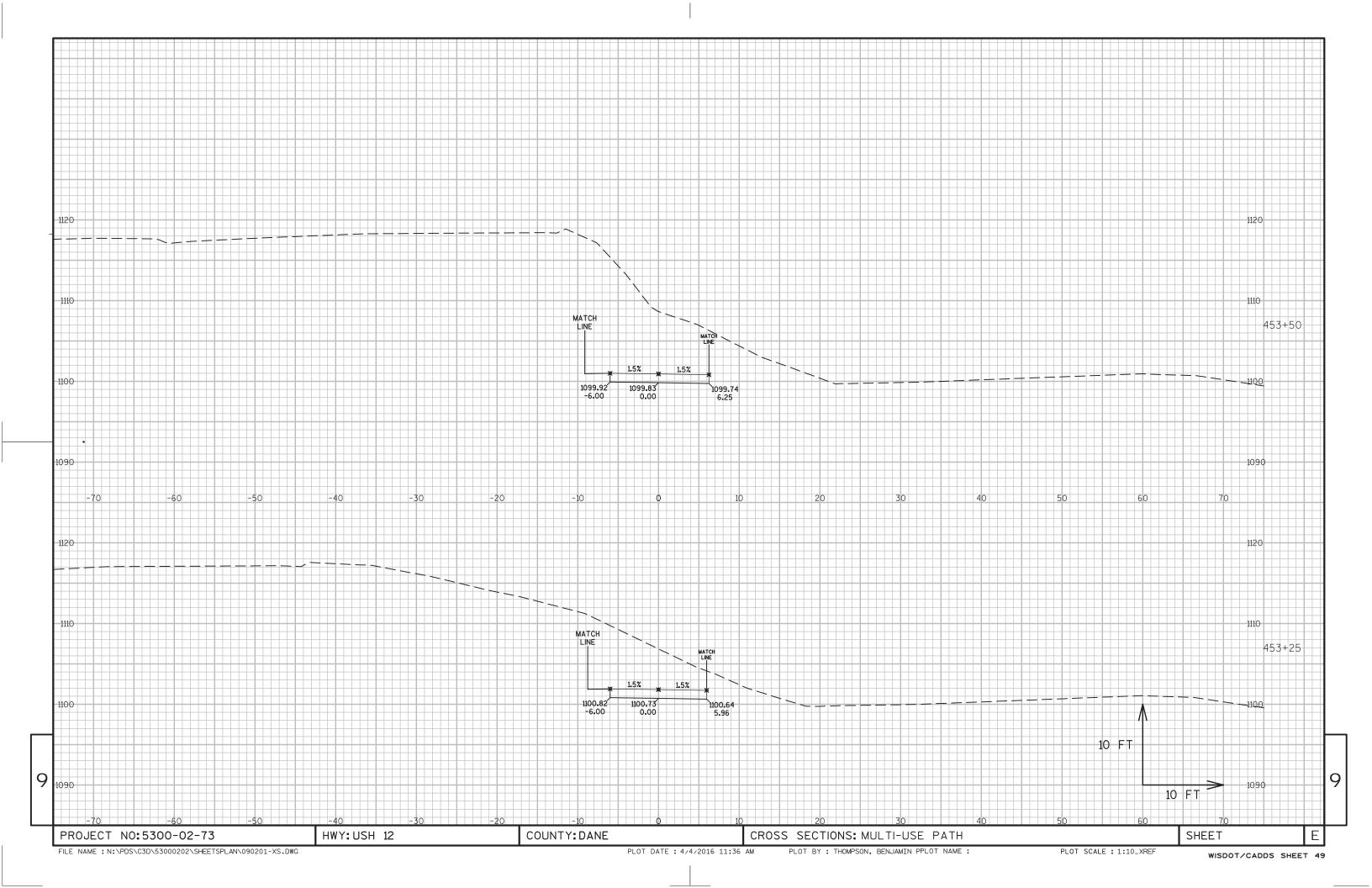


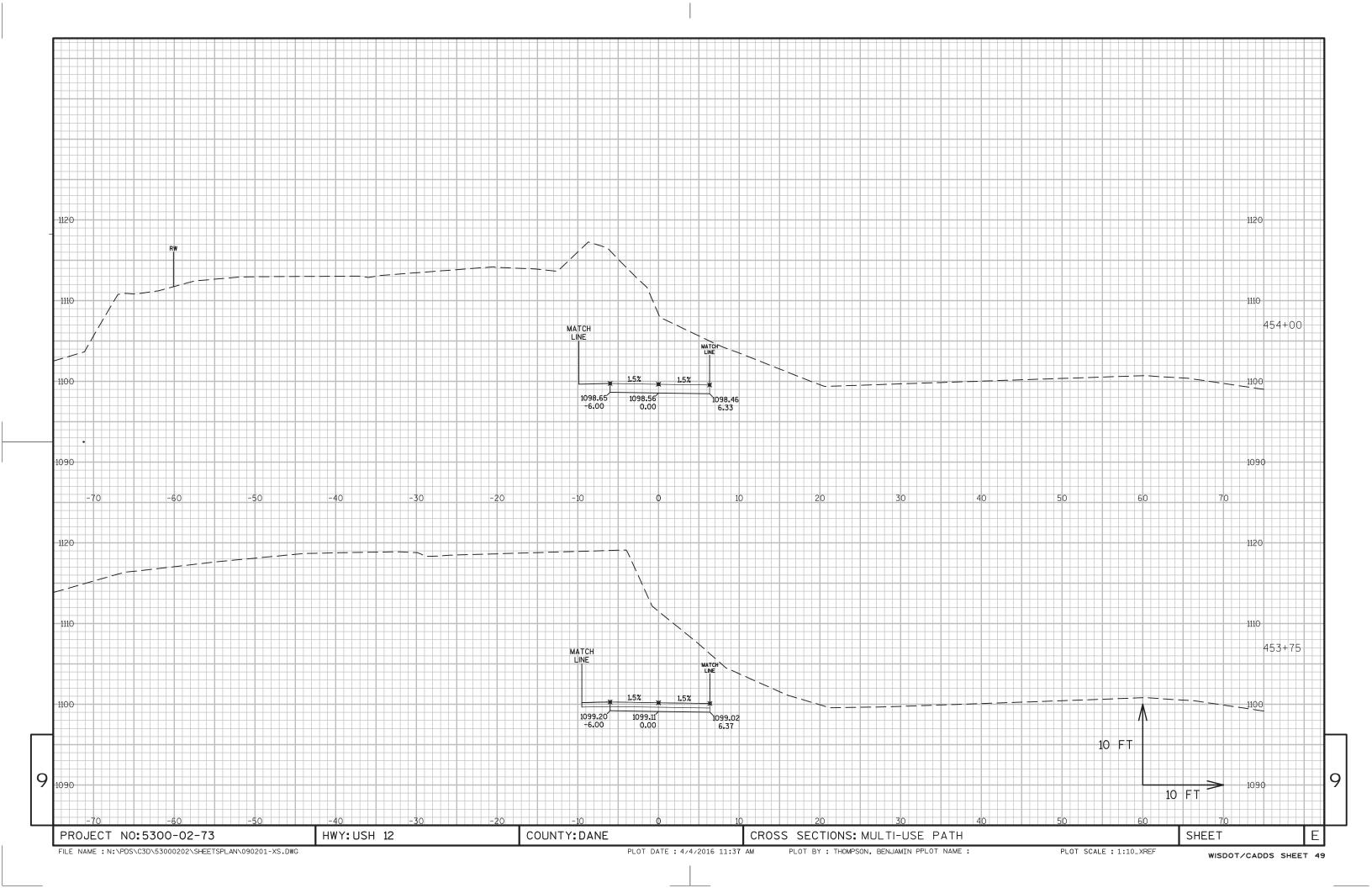


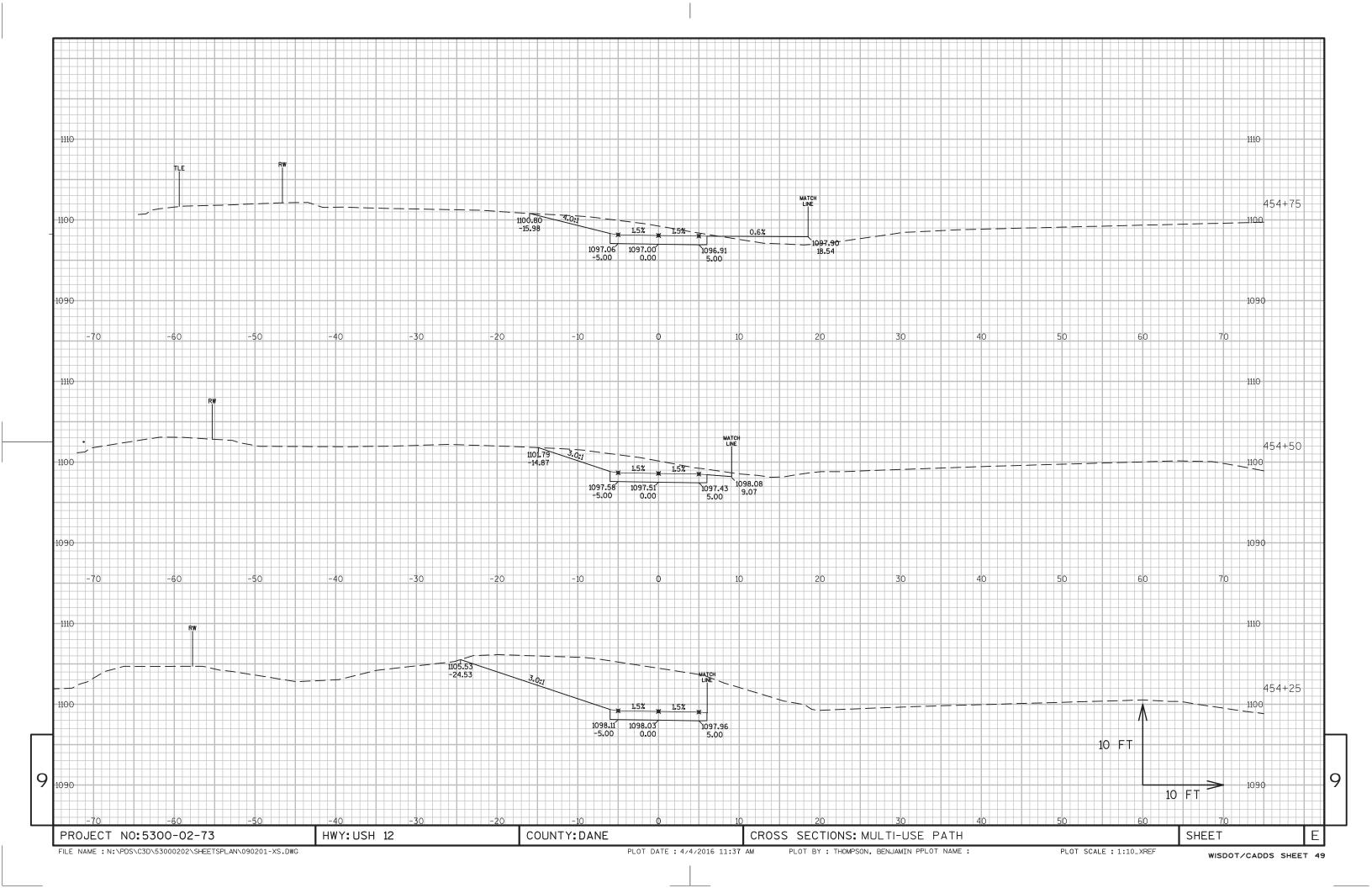


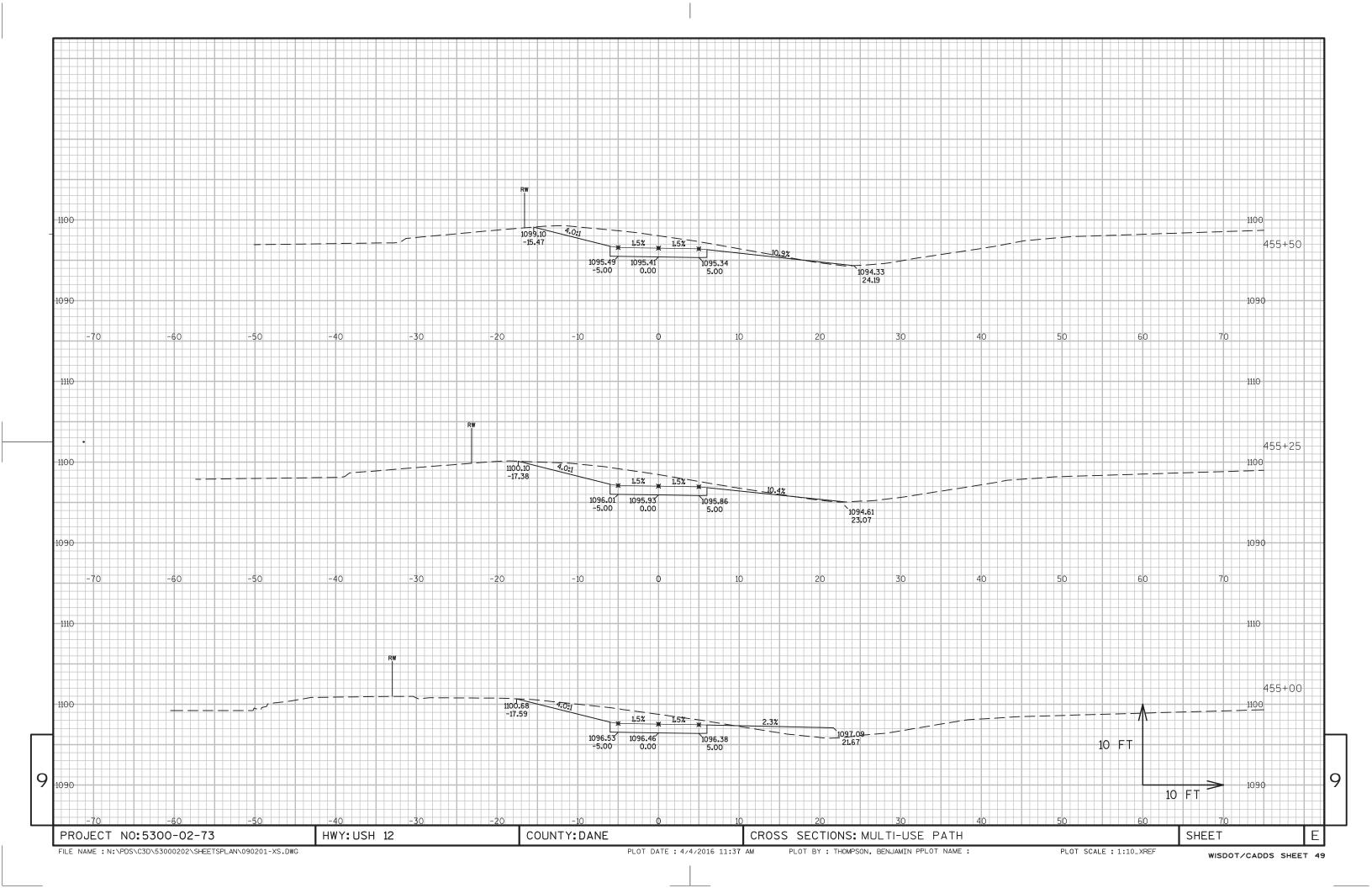


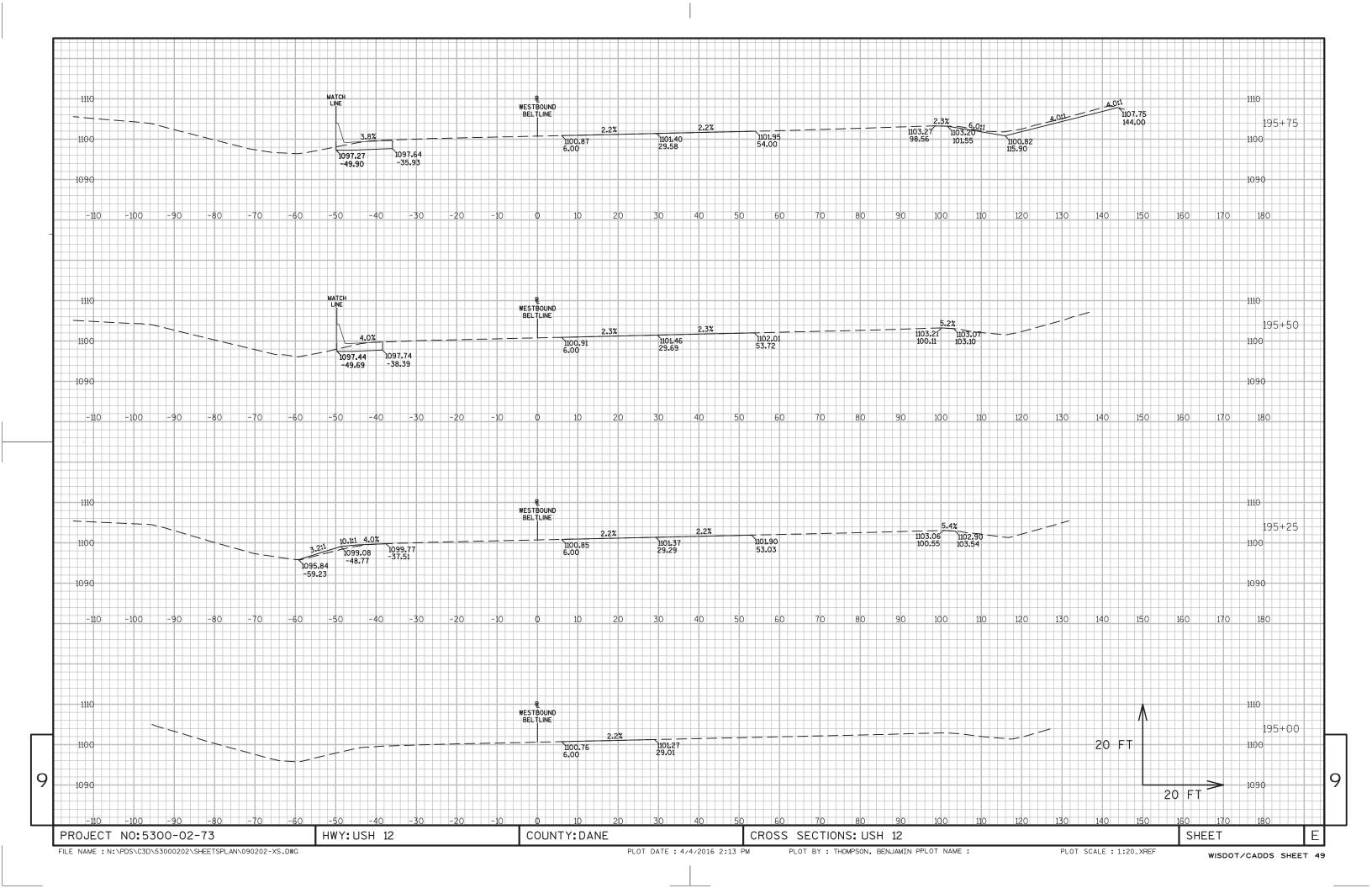


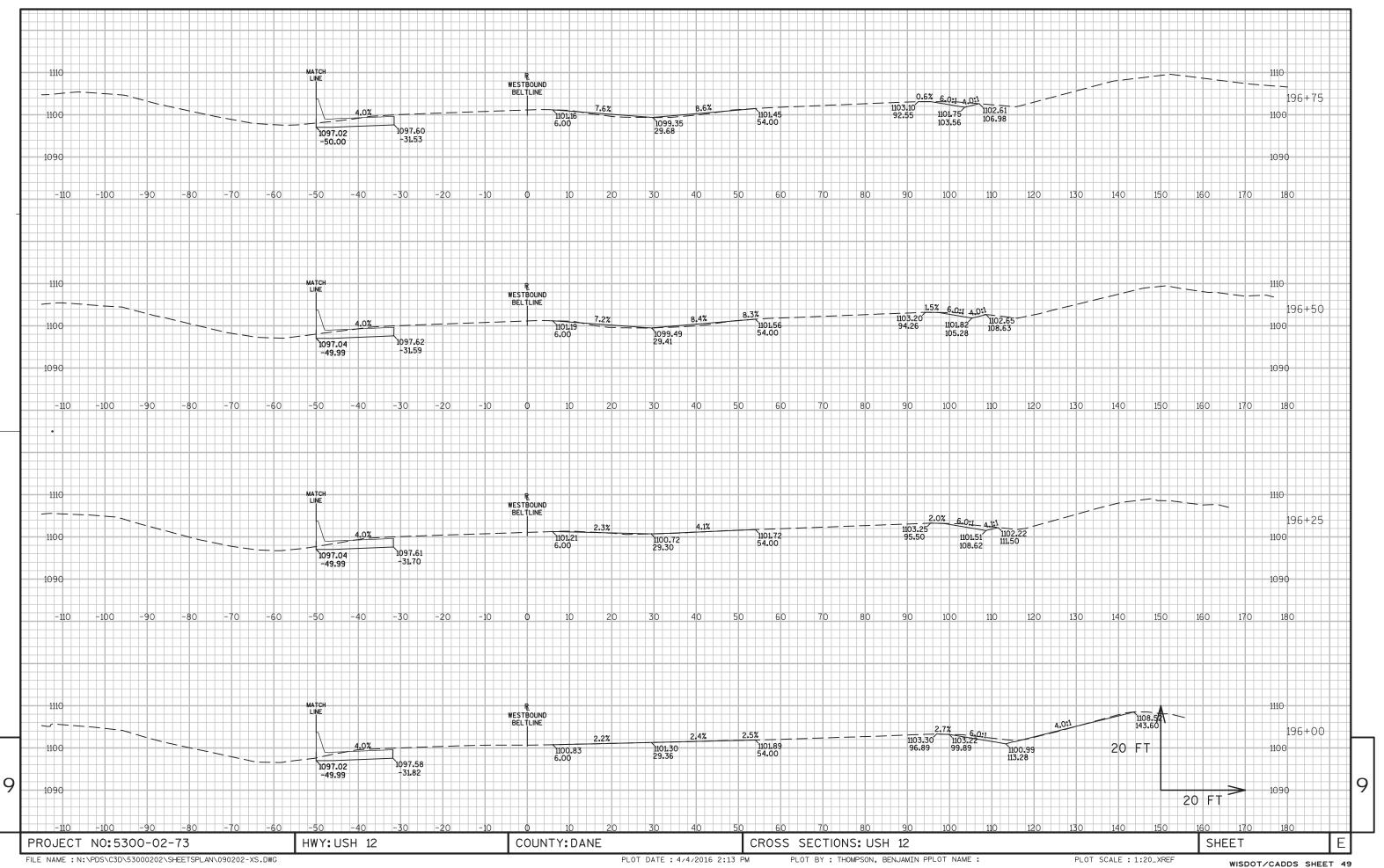


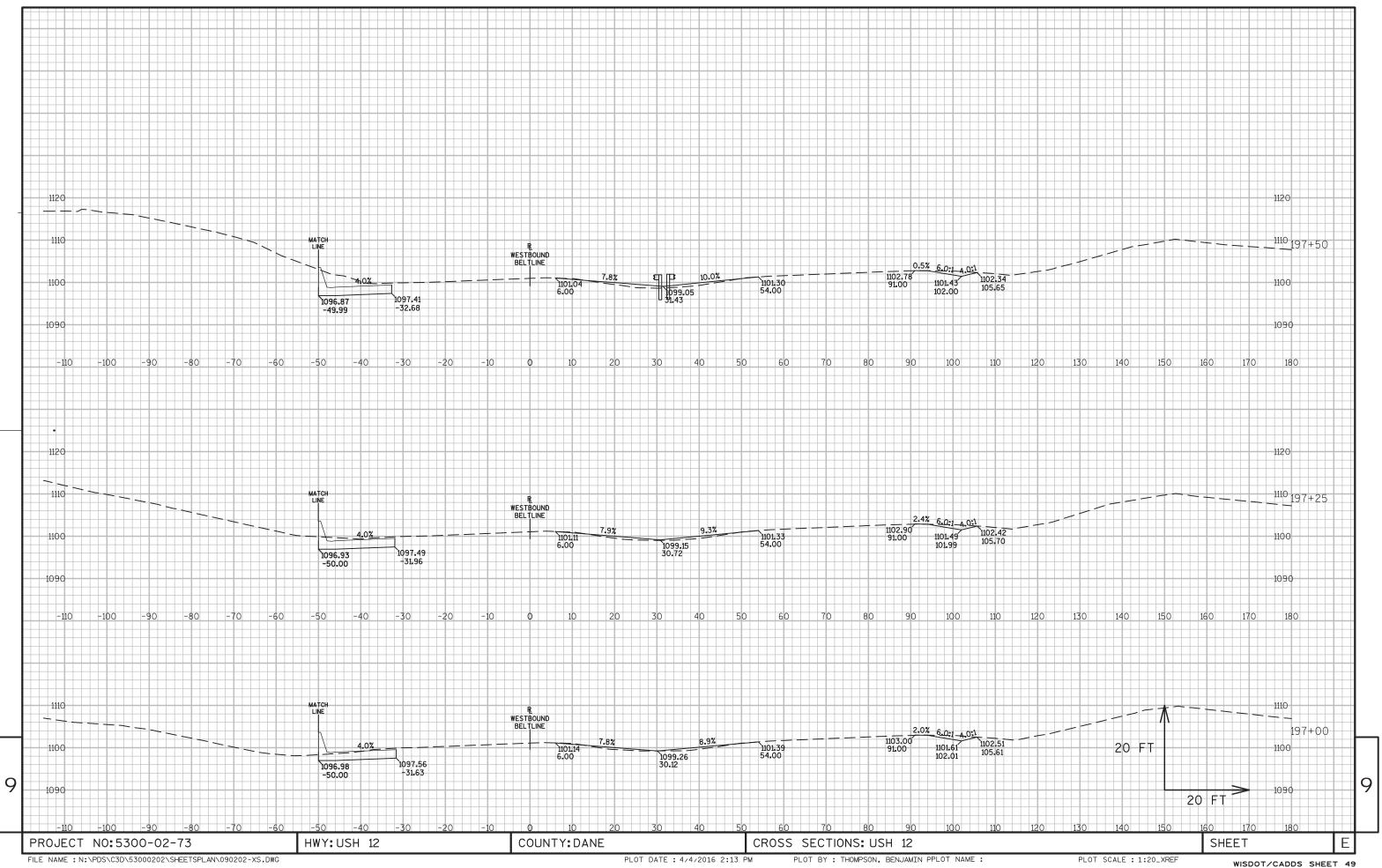


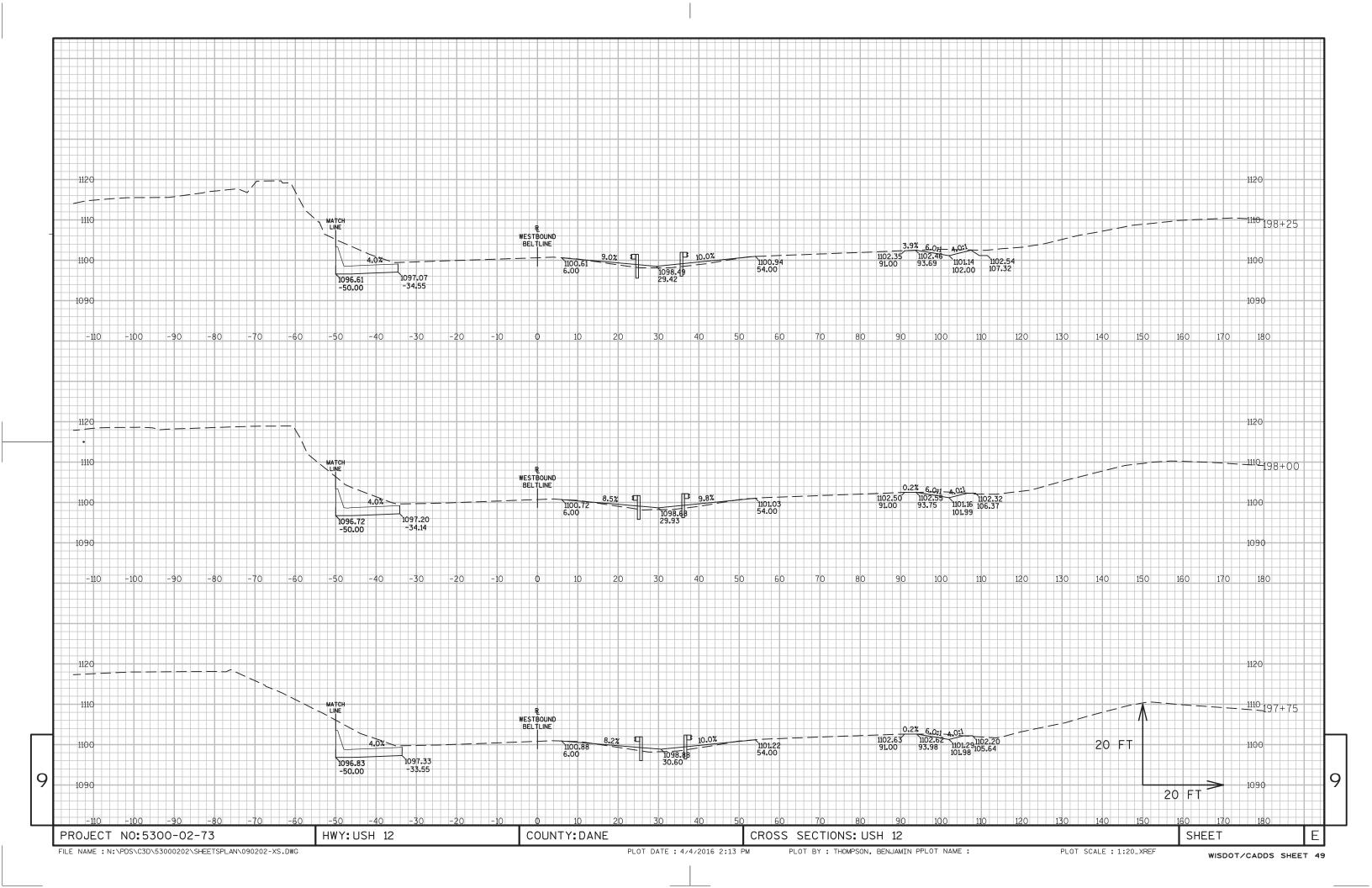


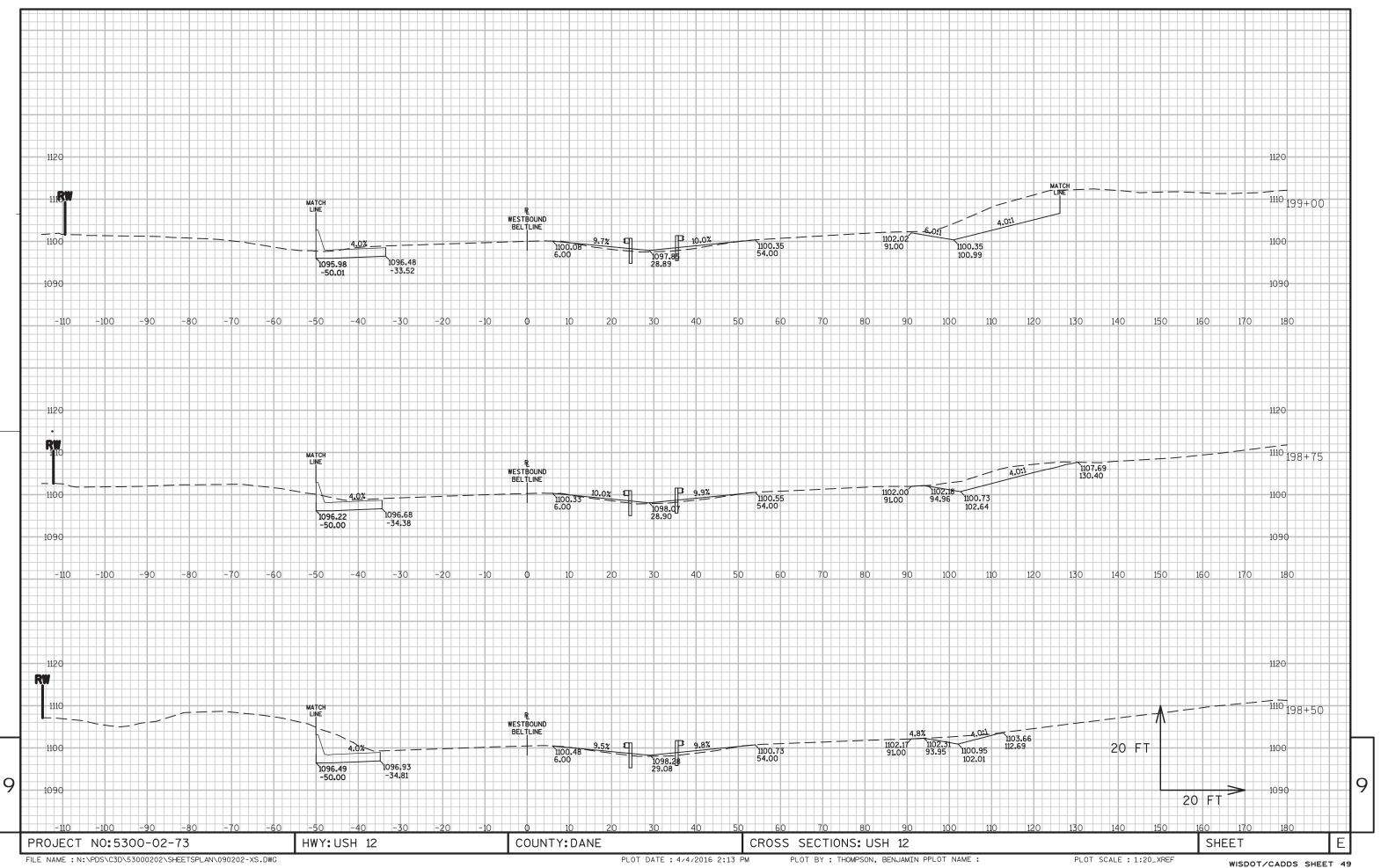


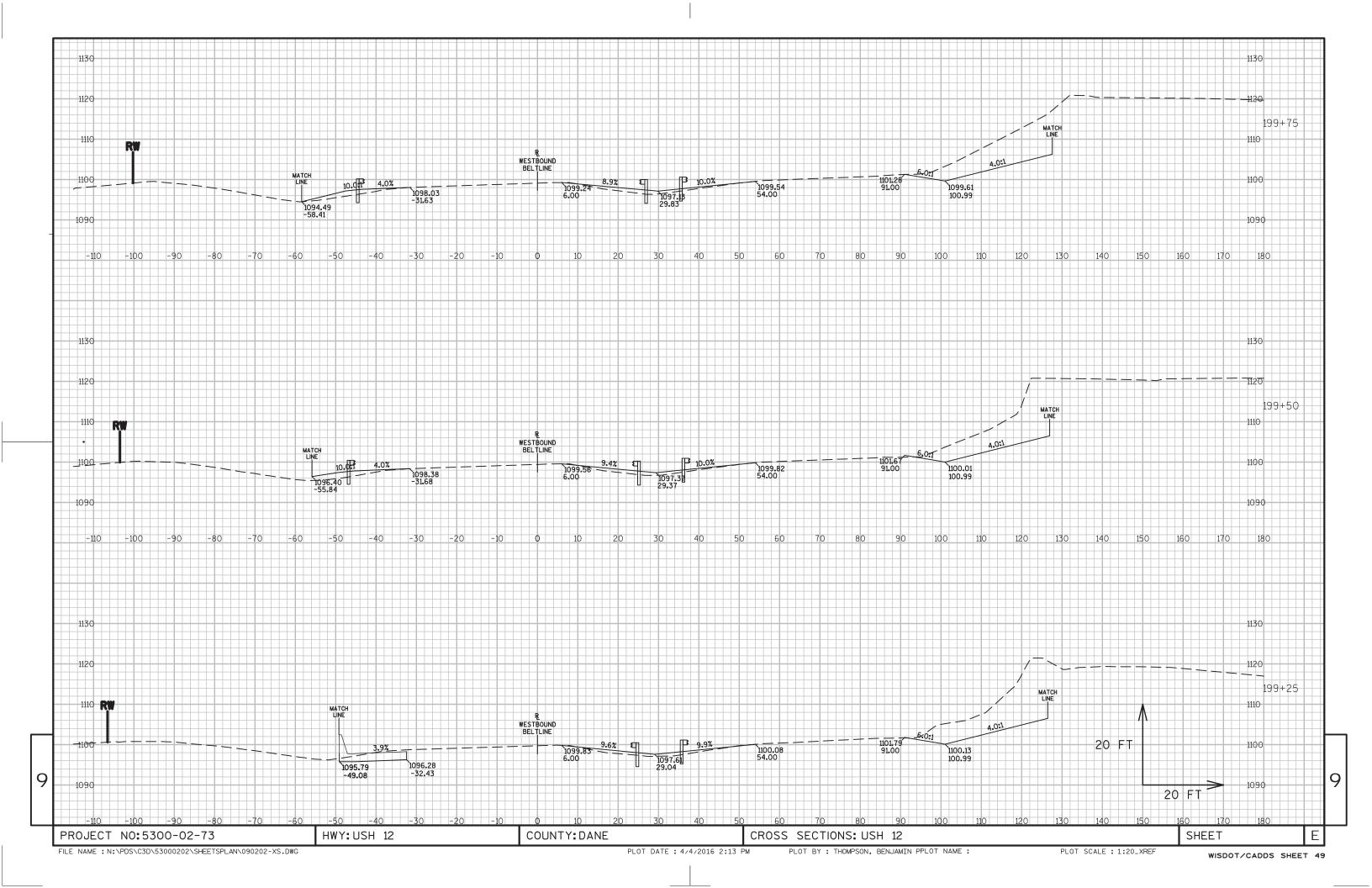


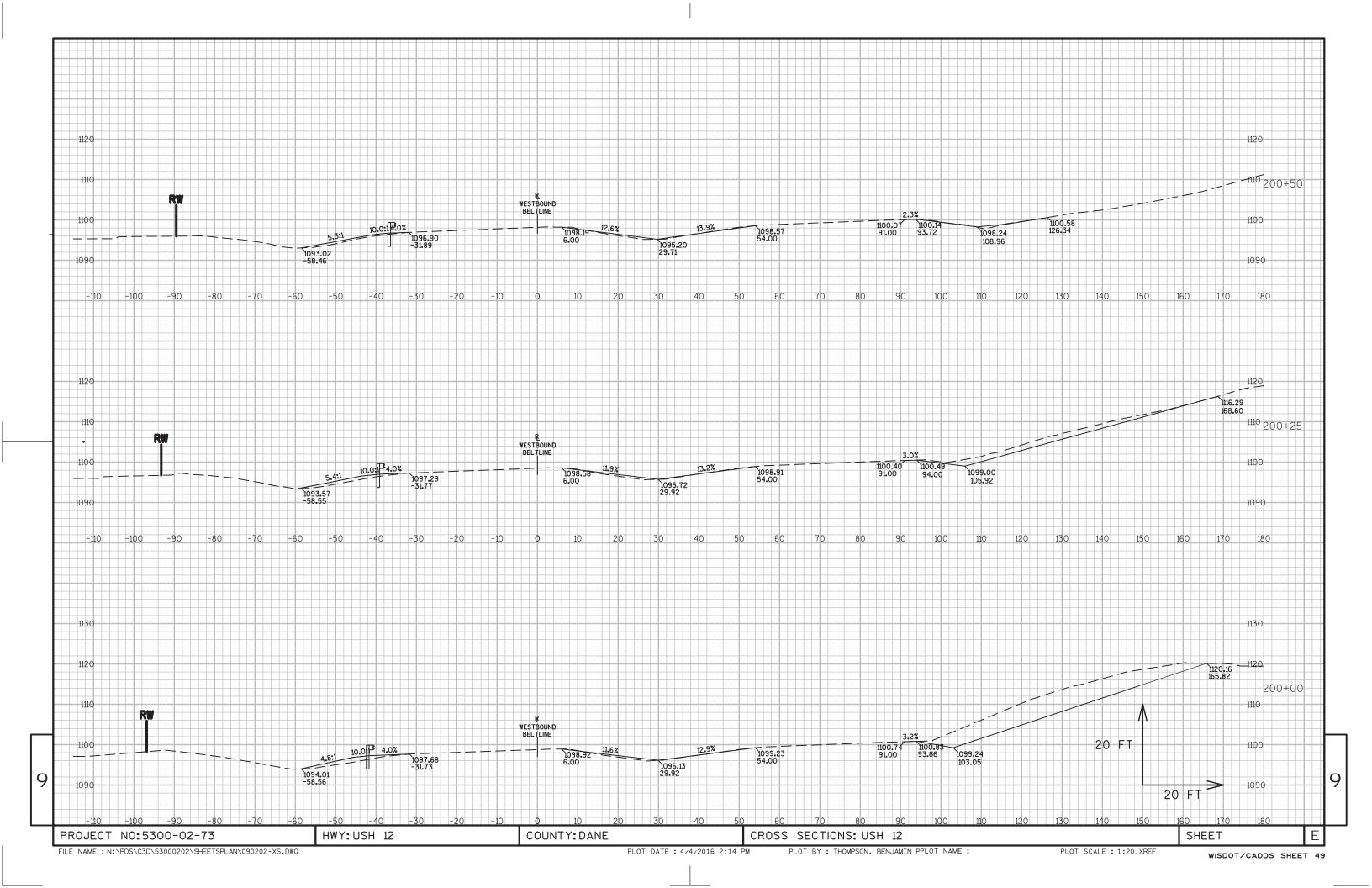


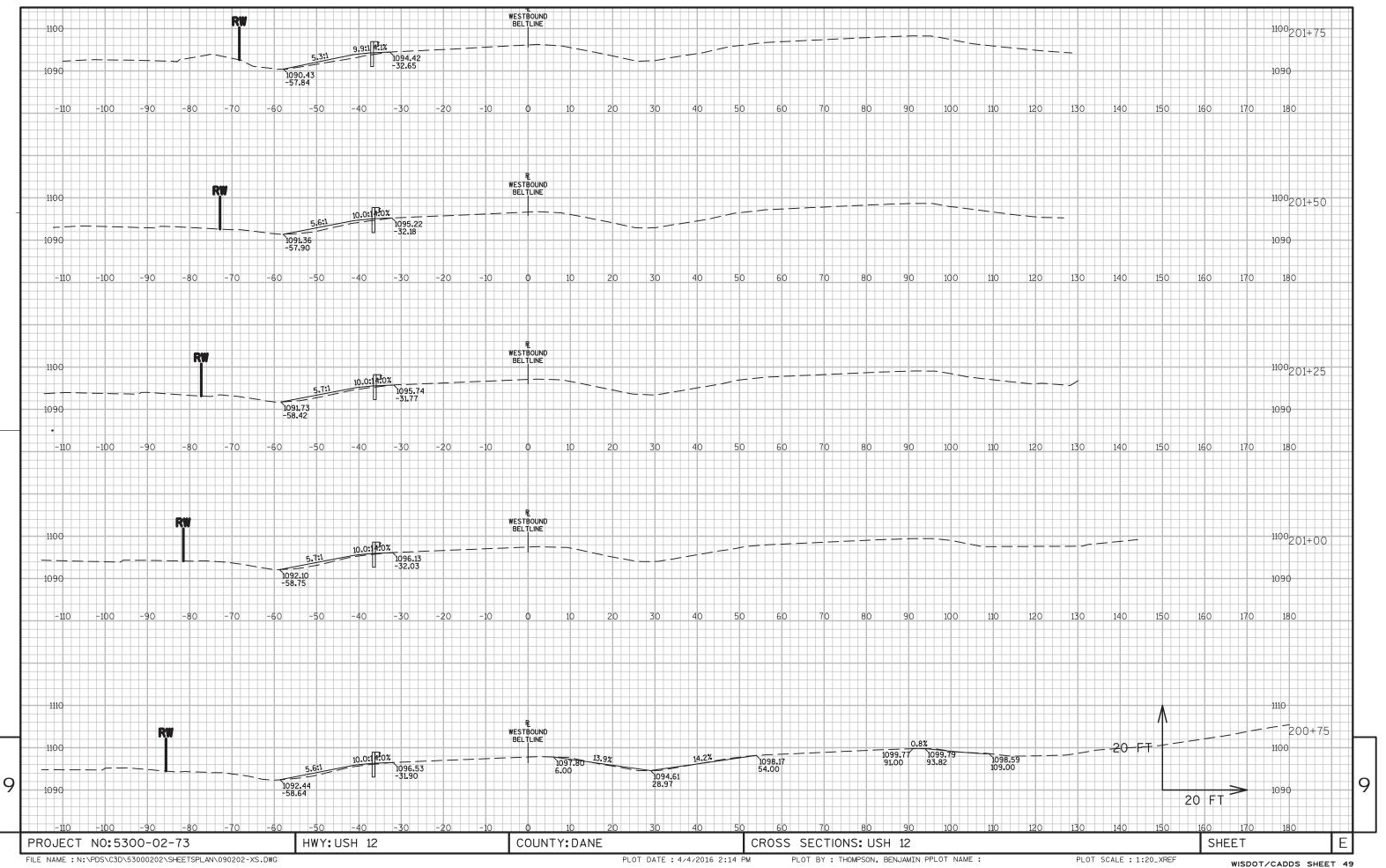


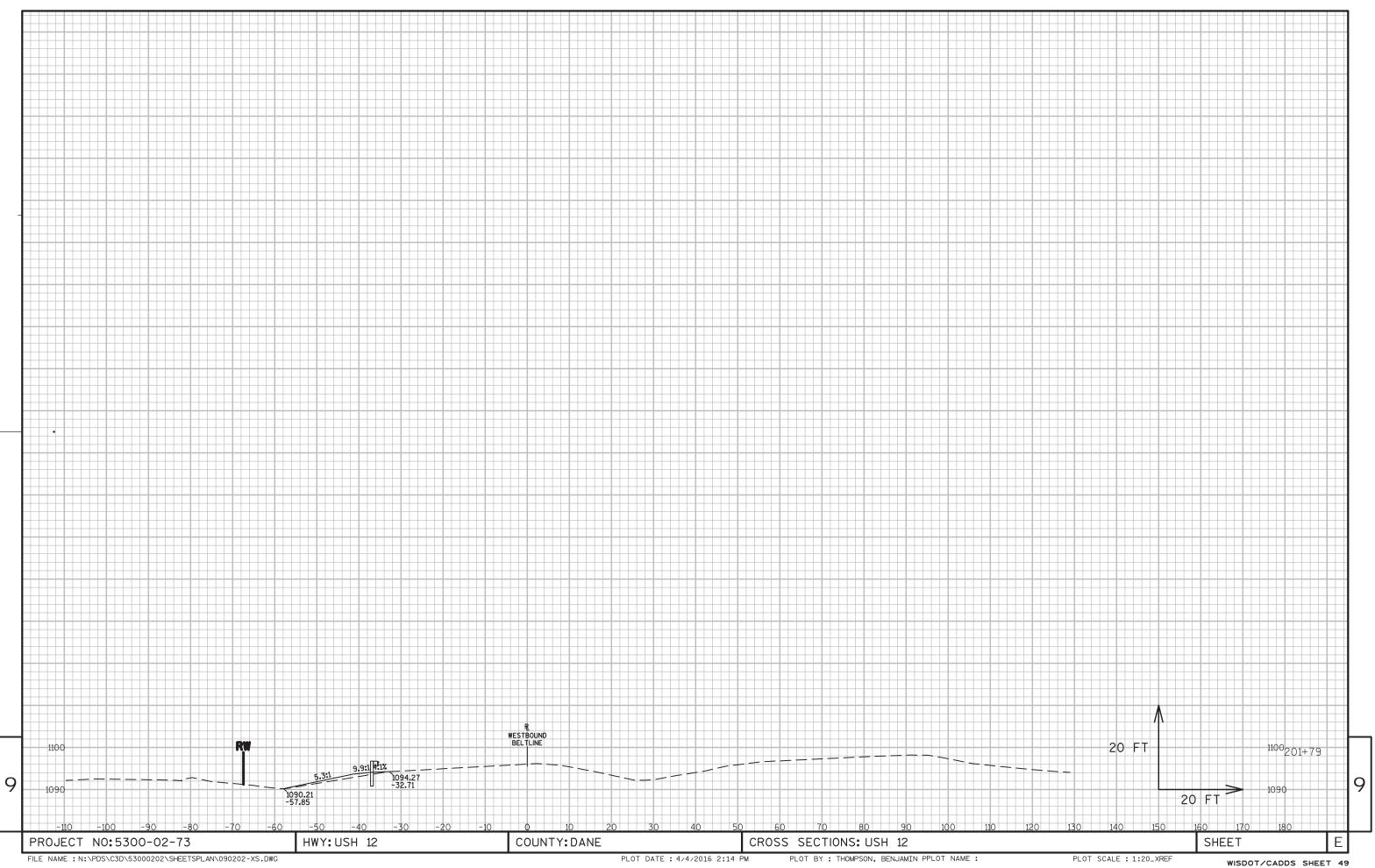












Notes



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