GRE

JULY 2024

PROJECT ID: 4150-26-71

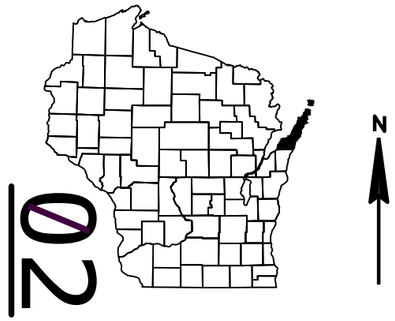
WITH: N/A

COUNTY: DOOR

ORDER OF SHEETS

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

TOTAL SHEETS = 274



DESIGN DESIGNATION 4150-26-00

A.A.D.T.	2024	=	5700
A.A.D.T.	2044	=	6000
D.H.V.		=	775
D.D.		=	61-39
T.		=	14.5%
DESIGN SPEED		=	55 MPH
ESALS		=	1,200,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

- ELECTRIC
- FIBER OPTIC
- GAS
- SANITARY SEWER
- STORM SEWER
- TELEPHONE
- WATER
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MID JUNCTION - BAILEYS HARBOR

STH 42 - SUMMIT ROAD

STH 57

DOOR COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4150-26-71	WISC 2024378	1

STATE PROJECT NUMBER

4150-26-71



END PROJECT
STA 736+16.81
Y = 214,502.816
X = 546,227.691

EXISTING: C-15-0041
PROPOSED: B-15-0030

EXISTING: C-15-0036
PROPOSED: C-15-0046

BEGIN PROJECT
STA 205+53.07
Y = 174,850.379
X = 513,497.902

EXISTING: C-15-0040
PROPOSED: B-15-0031

EXISTING: C-15-0043
PROPOSED: B-15-0029

LAYOUT

SCALE 0 3 MI

TOTAL NET LENGTH OF CENTERLINE = 0.484 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DOOR COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	A. FARRELL
Project Manager	P. BRAUER
Regional Examiner	NE REGION
Regional Supervisor	D. SEGERSTROM

APPROVED FOR THE DEPARTMENT

DATE: 1/22/2024 Paul Brauer, PE (Signature)

E

GENERAL NOTES

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

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

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

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

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

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

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

THE EXACT LOCATION AND WIDTH OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. DRIVEWAYS SHALL BE REPLACED IN KIND UNLESS DIRECTED BY THE ENGINEER OR AS SHOWN IN THE PLANS.

CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.

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

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

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

PRIOR TO PLACEMENT OF BEAM GUARD THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED.

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

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

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

DNR LIASION

MATT SCHAEVE
DEPARTMENT OF NATURAL RESOURCES
NORTHEAST REGION
2984 SHAWANO AVE
GREEN BAY, WI 54313
(920)366-1544
matthew.schaeve@wisconsin.gov

DOOR COUNTY COMMISSIONER

THAD ASH
HIGHWAY COMMISSIONER
1001 S. DULUTH AVE
STURGEON BAY, WI 54235
(920)746-2500
TASH@co.door.wi.us

NE REGION SURVEY COORDINATOR

MICHAEL ANDRASCHKO, PLS
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920)492-4166
michael.andraschko@dot.wi.gov

NE REGION DESIGN PROJECT MANAGER

PAUL.BRAUER, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 492-5629
paul.brauer@dot.wi.gov

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE
CHARLES BARTELT
70 E DIVISION ST
FOND DU LAC, WI 54935
(920) 929-1013
cb1461@att.com

NET LEC LLC - COMMUNICATION LINE
RANDY HEIMKE
470 SECURITY BLVD
P. O. BOX 19079
GREEN BAY, WI 54307-9079
(920) 617-7114
randy.heimke@nsight.com

SPECTRUM - COMMUNICATION LINE
KURT LITTLE
3520 E DESTINATION DR
APPLETON, WI 54915
(920) 831-9227
kurt.little@charter.com

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
TOM GORAL
2850 S ASHLAND AVE
GREEN BAY, WI 54304
(920) 493-2365
thomas.goral@wisconsinpublicservice.com

FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
JEREMY ZEHM (PRIMARY CONTACT)
LARRY SLONIKER (FIELD CONTACT)
118 DIVISION ST
PLYMOUTH, WI 53073
JEREMY: (715) 243-9243
LARRY: (715) 891-0125
jeremy.zehm@ftr.com

SEVASTOPOL SANITARY DISTRICT #1 - SEWER
DAVID LEIST
5051 MATHEY RD
STURGEON BAY, WI 54235
(920) 493-4325
leistconst@gmail.com

STURGEON BAY UTILITIES - ELECTRICITY
JASON BIERI
230 E VINE ST
P. O. BOX 27
STURGEON BAY, WI 54235-2039
(920) 493-6491
jbieri@sbunet.com

2

RUNOFF COEFFICIENT TABLE

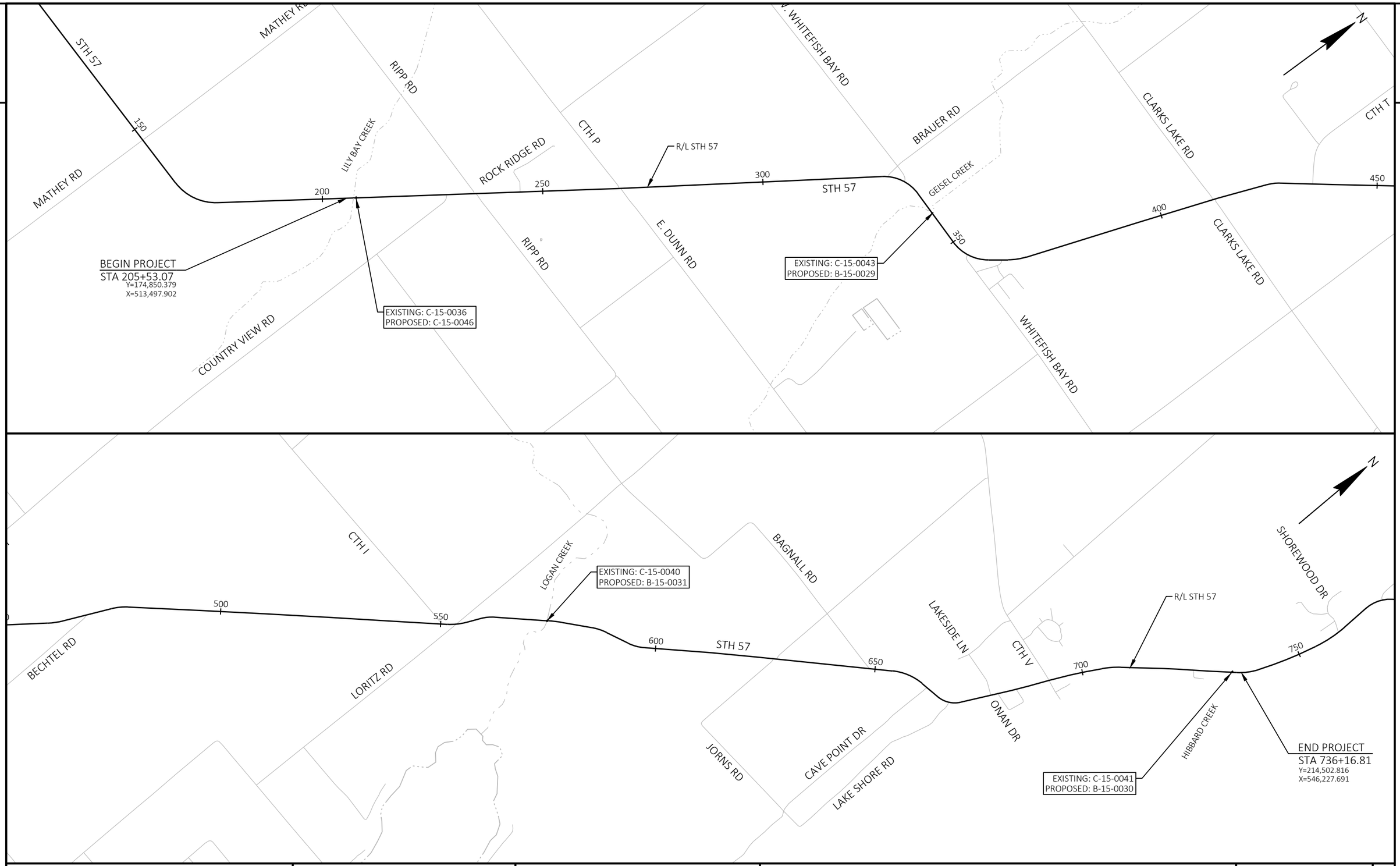
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS:	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 6.81 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.36 ACRES

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL DETAILS
GUARDRAIL DETAILS
PLAN DETAILS
EROSION CONTROL
STORM SEWER PLAN
TRAFFIC CONTROL
DETOUR PLAN

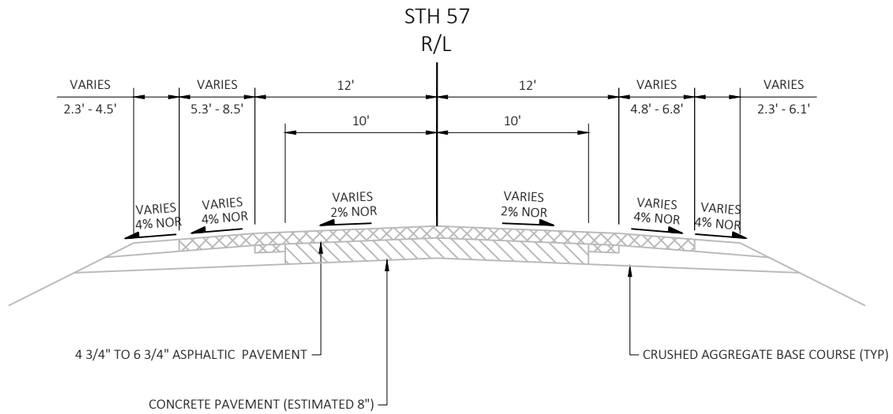
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PROJECT OVERVIEW	SHEET 3	E

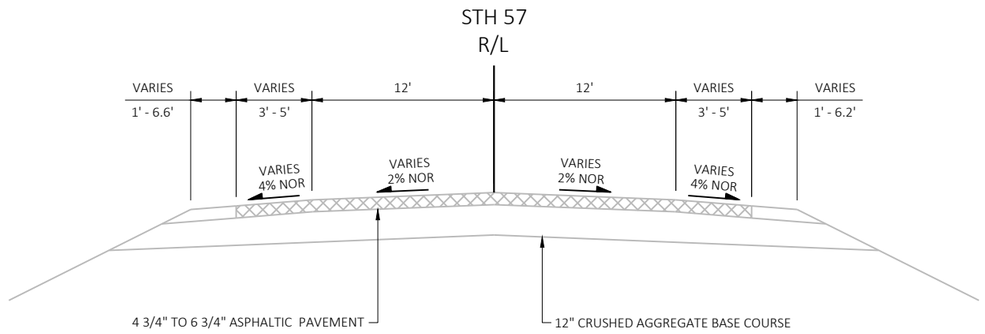
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PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 44

2



EXISTING TYPICAL SECTION STH 57

STA 205+53.07 TO STA 209+45.97

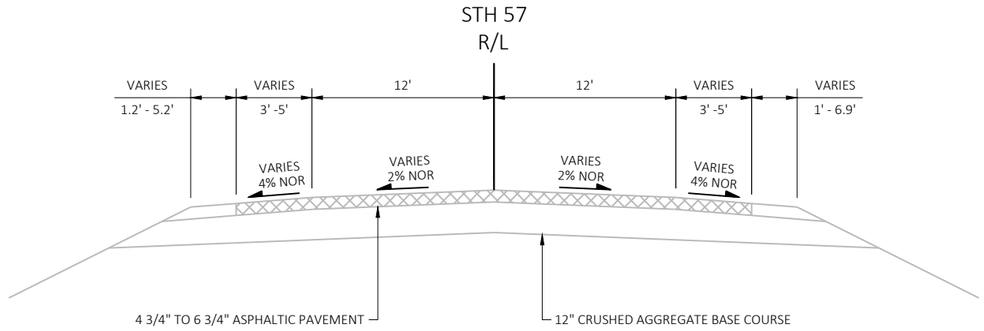


EXISTING TYPICAL SECTION STH 57

STA 336+79.09 TO STA 345+57.72

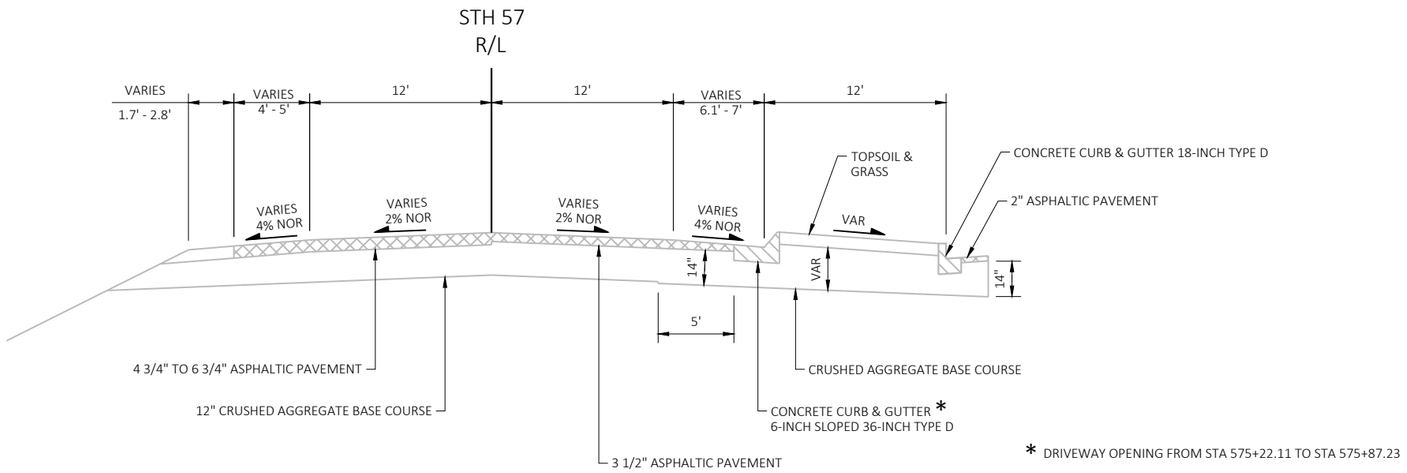
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 4	E

2



EXISTING TYPICAL SECTION STH 57

STA 571+58.14 TO STA 575+22.11

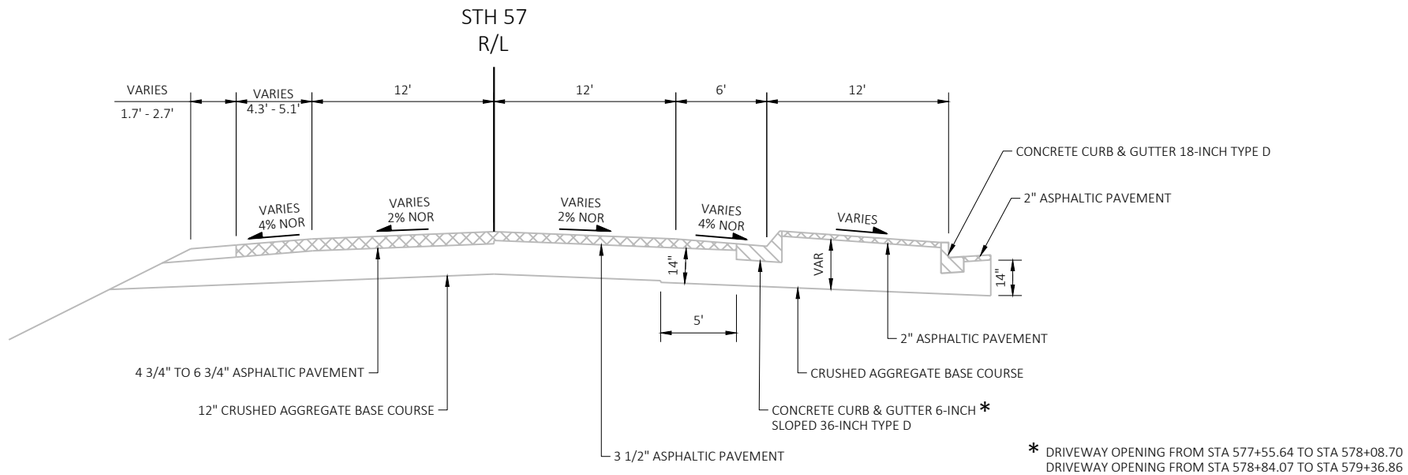


EXISTING TYPICAL SECTION STH 57

STA 575+22.11 TO STA 577+55.64

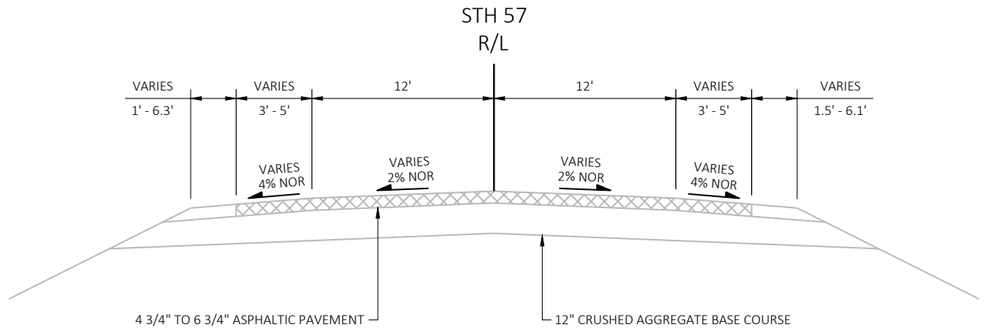
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 5	E

2



EXISTING TYPICAL SECTION STH 57

STA 577+55.64 TO STA 579+60.09

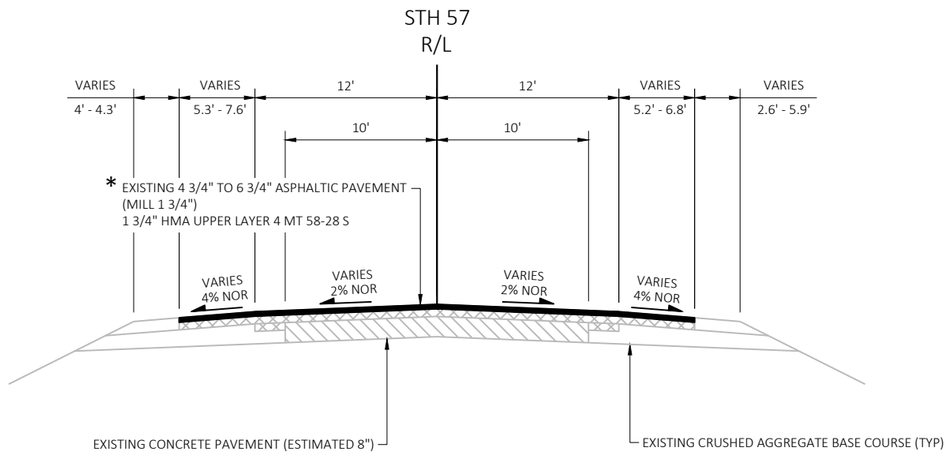


EXISTING TYPICAL SECTION STH 57

STA 731+36.94 TO STA 736+16.81

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 6	E

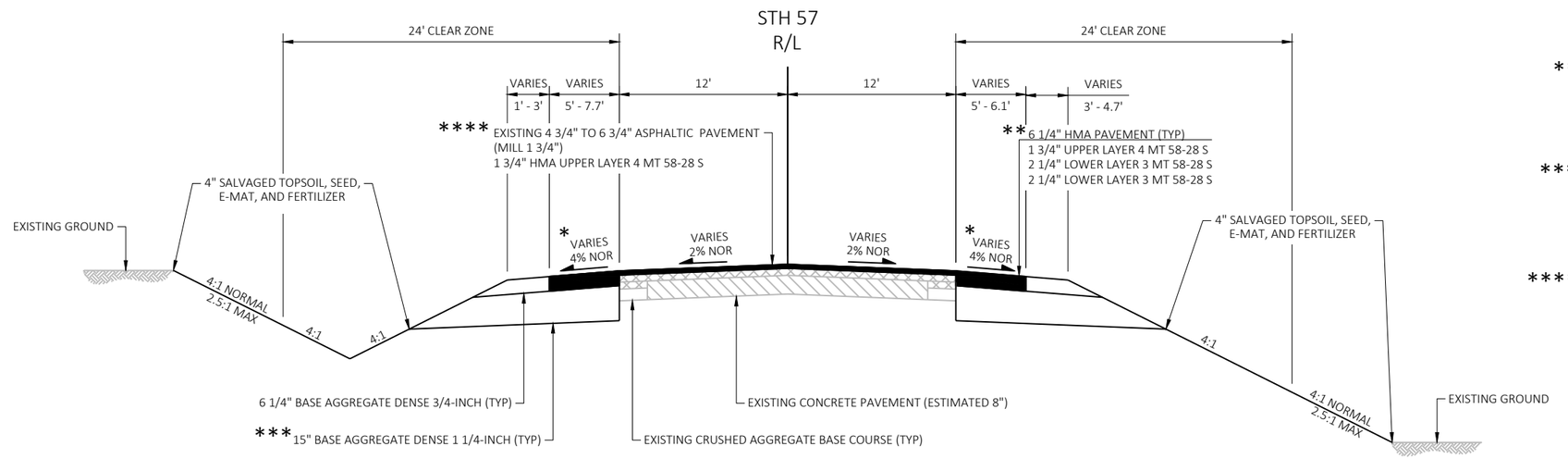
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LAYOUT NAME - 020303-ts
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PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



FINISHED TYPICAL SECTION STH 57

STA 205+53.07 TO STA 205+91.01 - RT SIDE
STA 205+53.07 TO STA 206+09.60 - LT SIDE
STA 208+88.88 TO STA 209+45.97 - RT SIDE

* MILLING AND OVERLAY SHALL NOT OCCUR UNTIL FINAL SURFACE CAN BE PLACED PRIOR TO NOVEMBER 15, 2024 OR IN 2025



FINISHED TYPICAL SECTION STH 57

STA 205+91.01 TO STA 206+69 - RT SIDE
STA 206+09.60 TO STA 206+69 - LT SIDE
STA 208+19 TO STA 208+88.88 - RT SIDE
STA 208+19 TO STA 209+45.97 - LT SIDE

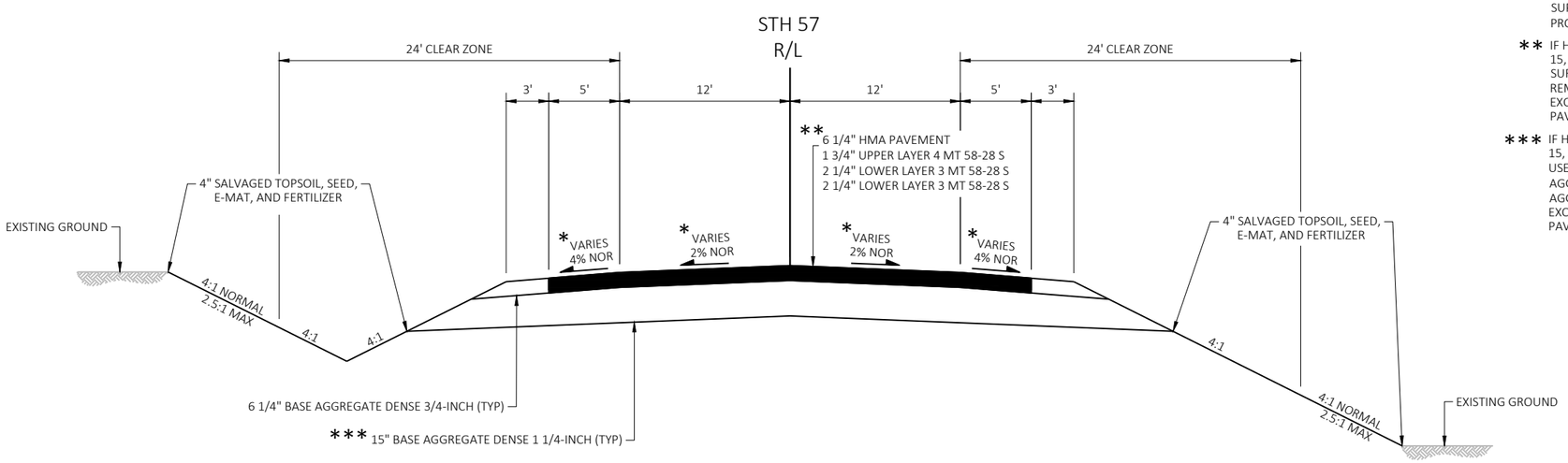
* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

*** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

**** MILLING AND OVERLAY SHALL NOT OCCUR UNTIL FINAL SURFACE CAN BE PLACED PRIOR TO NOVEMBER 15, 2024 OR IN 2025

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 7	E



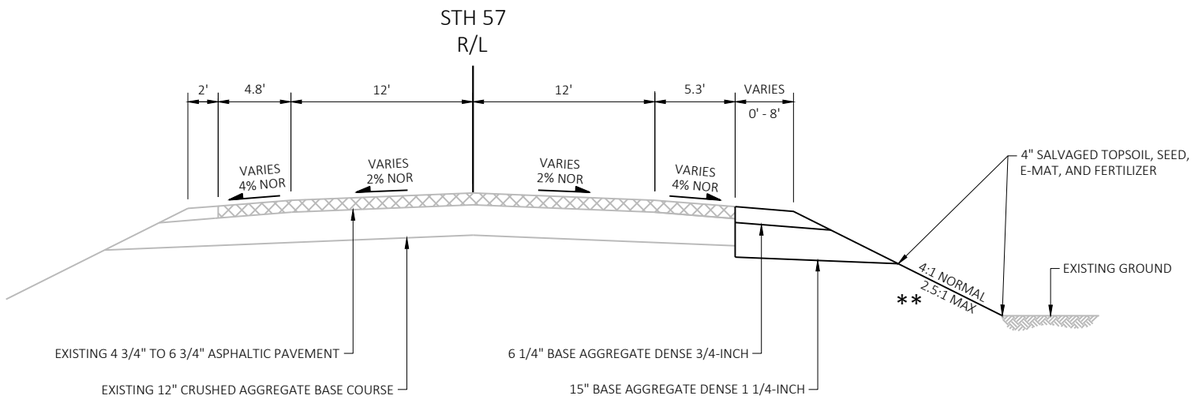
* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

*** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

FINISHED TYPICAL SECTION STH 57

STA 206+69 TO STA 208+19

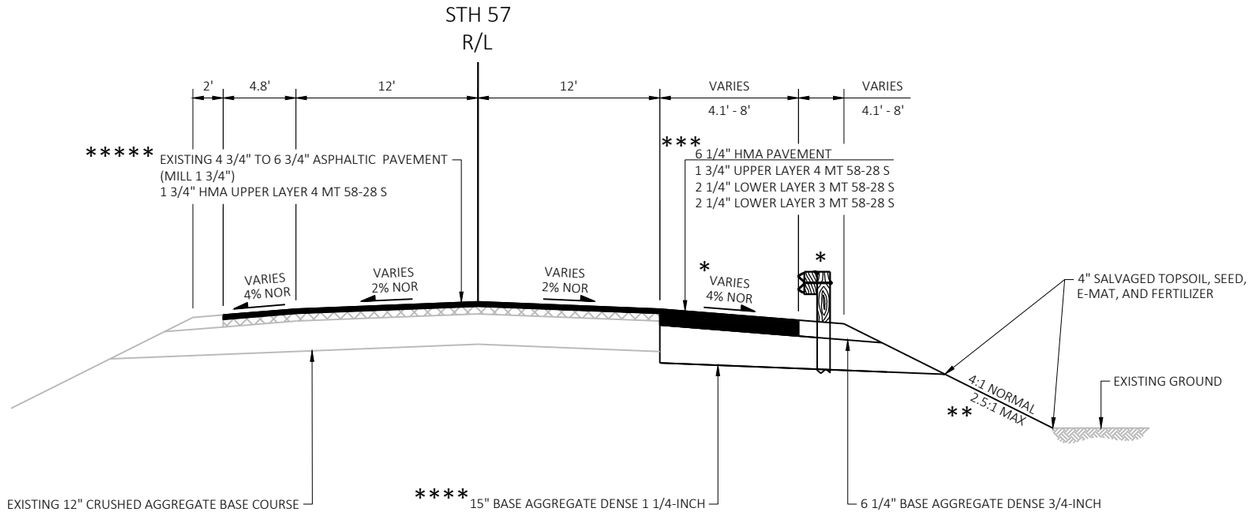


** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

FINISHED TYPICAL SECTION STH 57

STA 336+79.09 TO STA 337+50

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 8	E



FINISHED TYPICAL SECTION STH 57

STA 337+50 TO STA 338+50.39

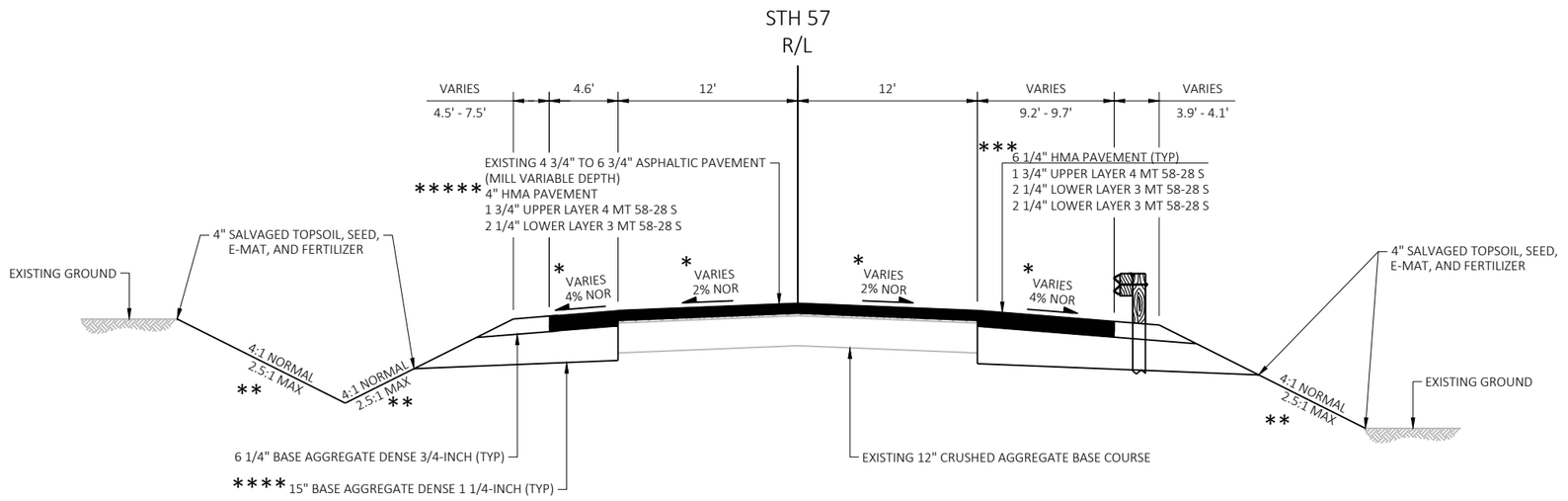
* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

**** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

***** MILLING AND OVERLAY SHALL NOT OCCUR UNTIL FINAL SURFACE CAN BE PLACED PRIOR TO NOVEMBER 15, 2024 OR IN 2025



FINISHED TYPICAL SECTION STH 57

STA 338+50.39 TO STA 339+50

* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

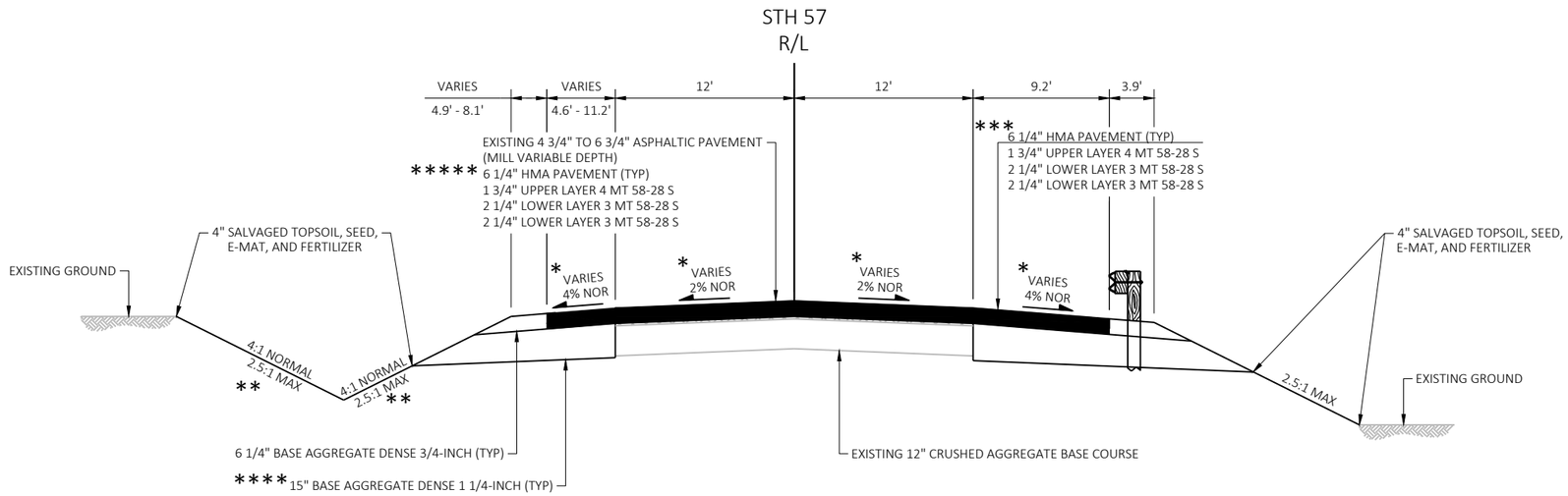
*** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

**** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

***** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE 4" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 1 3/4" OVER 2 1/4". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER REMOVING ASPHALTIC SURFACE MILLING PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 9	E

2



FINISHED TYPICAL SECTION STH 57

STA 339+50 TO STA 340+50

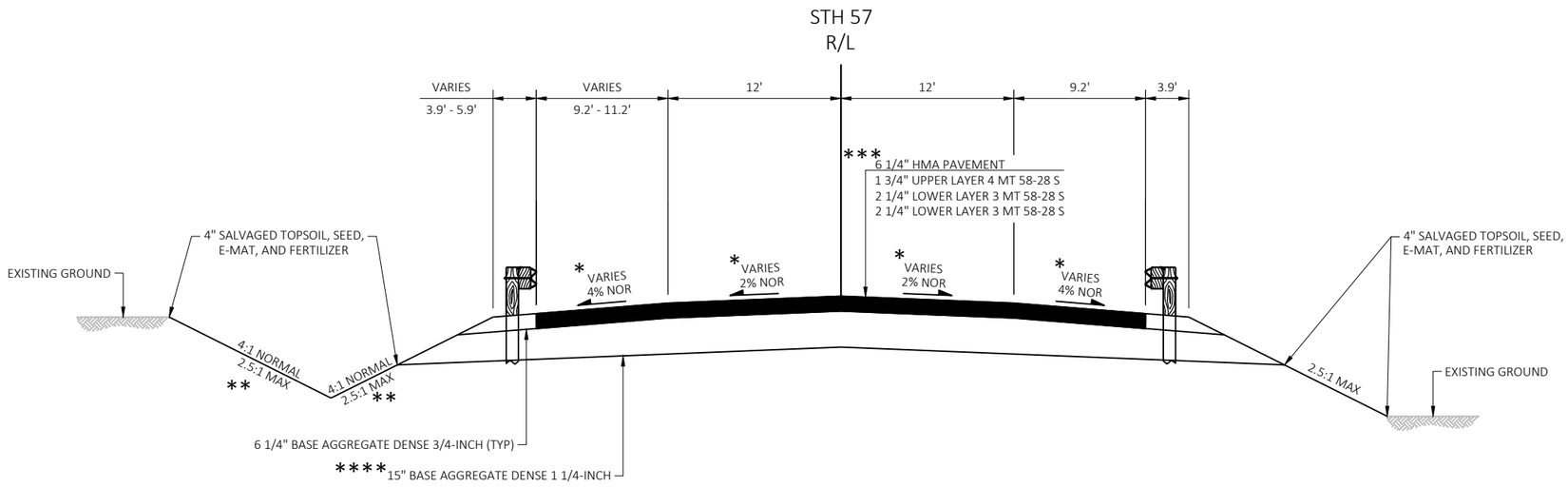
* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

**** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

***** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE 6 1/4" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 1 3/4" OVER 2 1/4" OVER 2 1/4". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER REMOVING ASPHALTIC SURFACE MILLING PRIOR TO FINAL HMA PAVEMENT PLACEMENT.



FINISHED TYPICAL SECTION STH 57

STA 340+50 TO STA 341+37.67
STA 342+36.33 TO STA 342+88

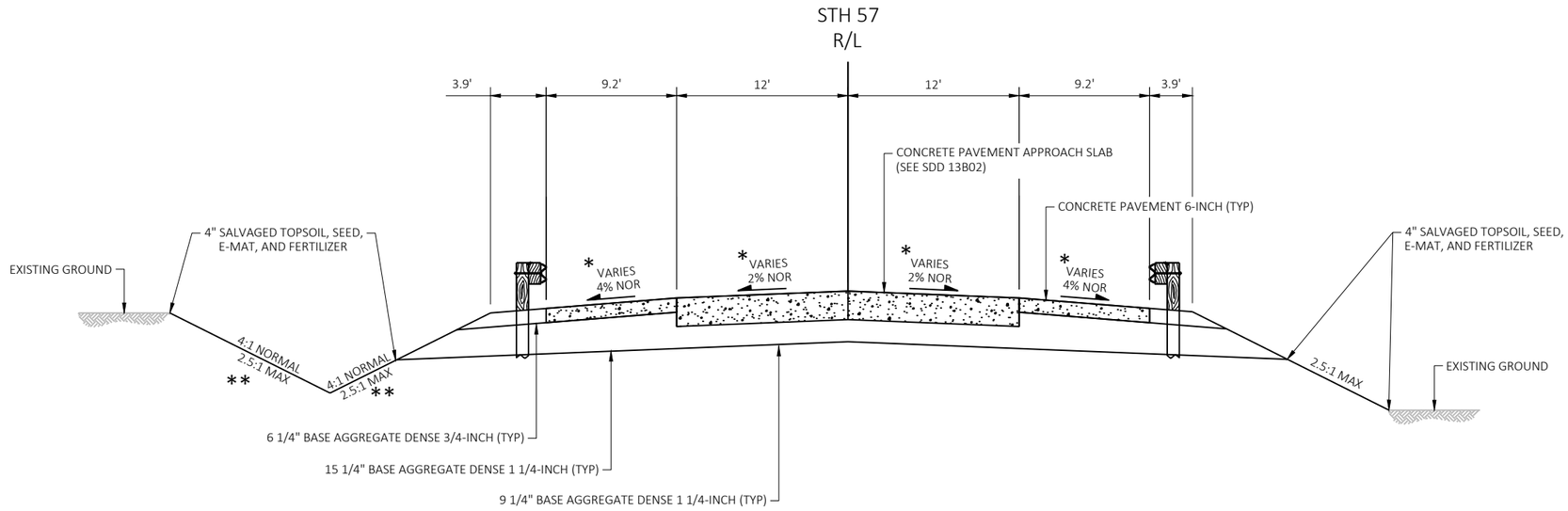
* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

**** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 10	E

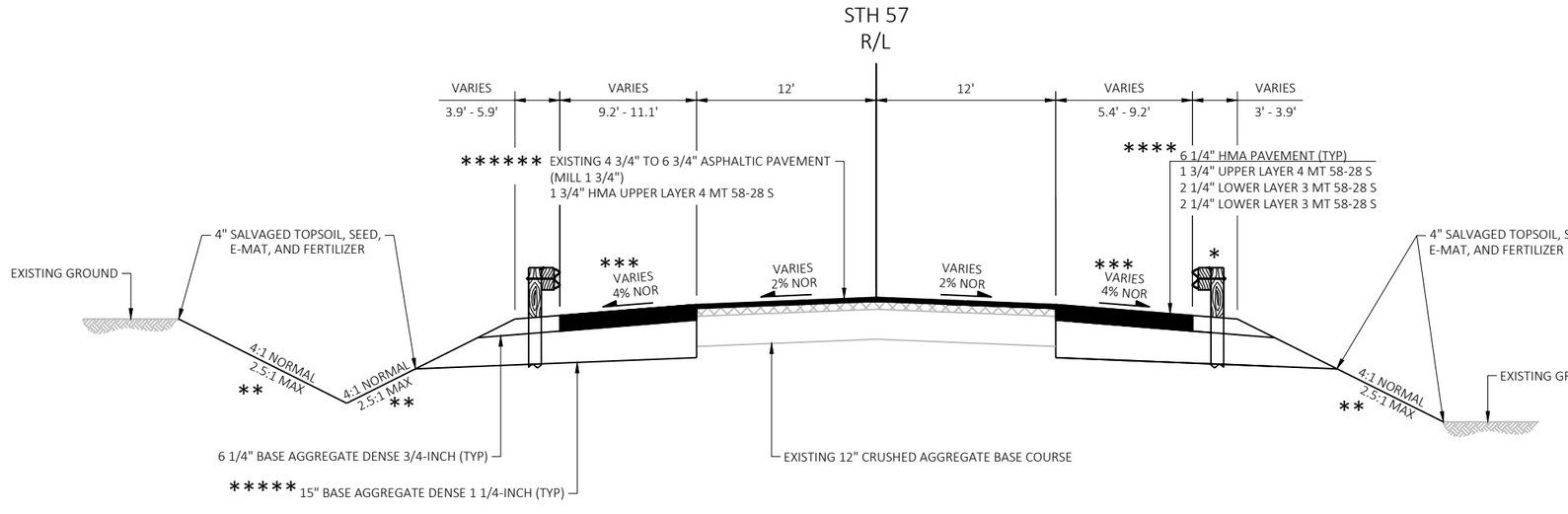


* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

FINISHED TYPICAL SECTION STH 57

STA 341+37.67 TO STA 341+52.67
STA 342+21.33 TO STA 342+36.33



* MGS GUARDRAIL FROM STA 342+88, RT TO STA 342+99.30, RT

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

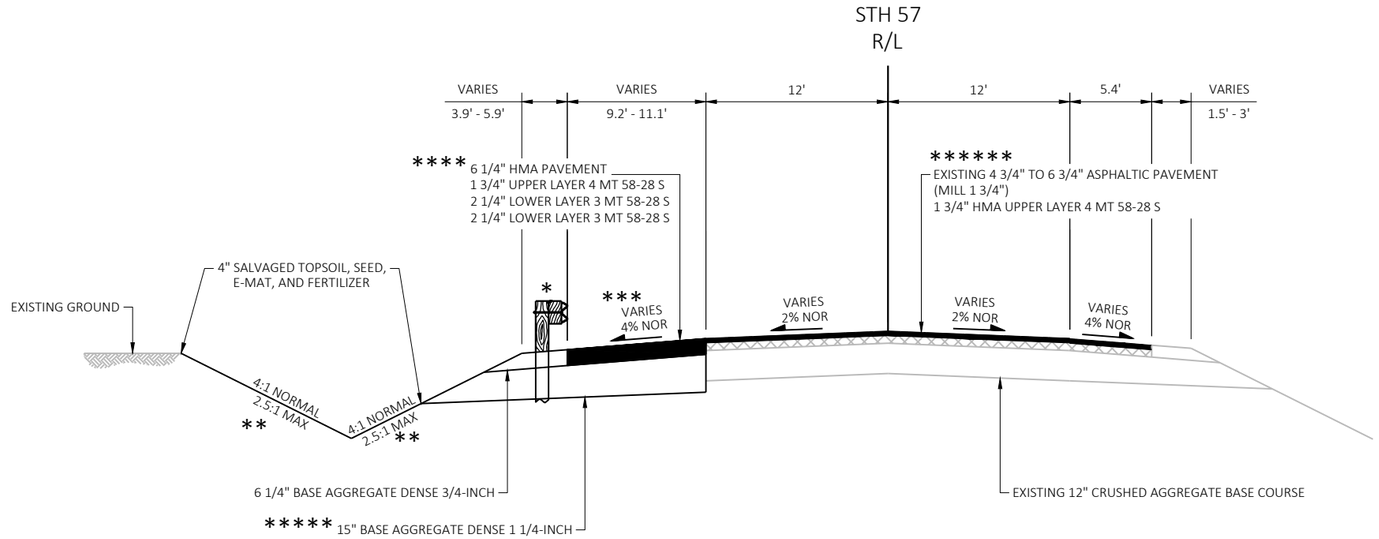
**** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

***** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

****** MILLING AND OVERLAY SHALL NOT OCCUR UNTIL FINAL SURFACE CAN BE PLACED PRIOR TO NOVEMBER 15, 2024 OR IN 2025

FINISHED TYPICAL SECTION STH 57

STA 342+88 TO STA 343+85.43



FINISHED TYPICAL SECTION STH 57

STA 343+85.43 TO STA 344+66.49

* MGS GUARDRAIL FROM STA 343+85.43, LT TO STA 343+86.40, LT

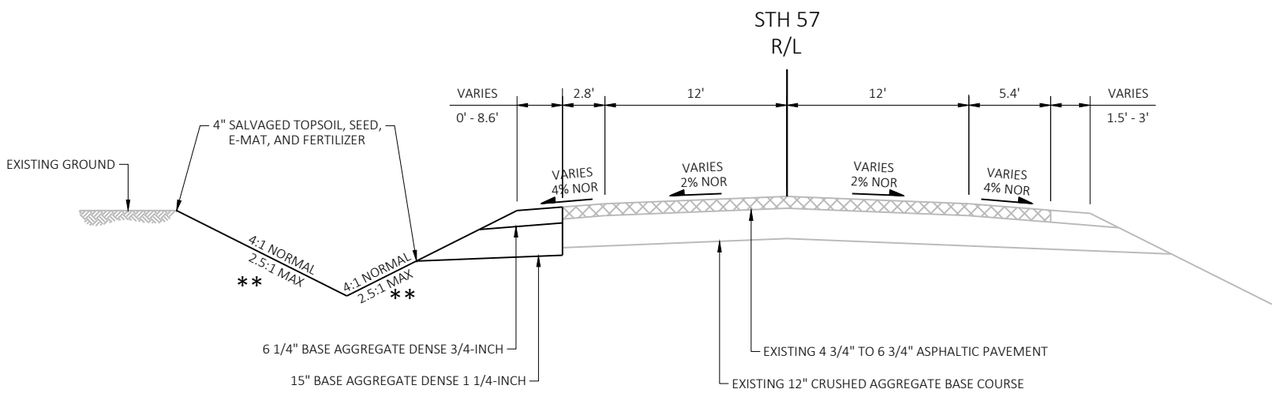
** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

**** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024, PLACE A MINIMUM OF 5" OF ASPHALTIC SURFACE TEMPORARY WITH LIFTS OF 2" OVER 3". REMOVE ASPHALTIC SURFACE TEMPORARY UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

***** IF HMA PAVEMENT IS NOT PLACED BY NOVEMBER 15, 2024 AND ASPHALTIC SURFACE TEMPORARY IS USED, PLACE AN ADDITIONAL 1 1/4" OF BASE AGGREGATE DENSE 1 1/4-INCH. THIS EXCESS BASE AGGREGATE SHALL BE REMOVED UNDER EXCAVATION COMMON PRIOR TO FINAL HMA PAVEMENT PLACEMENT.

****** MILLING AND OVERLAY SHALL NOT OCCUR UNTIL FINAL SURFACE CAN BE PLACED PRIOR TO NOVEMBER 15, 2024 OR IN 2025

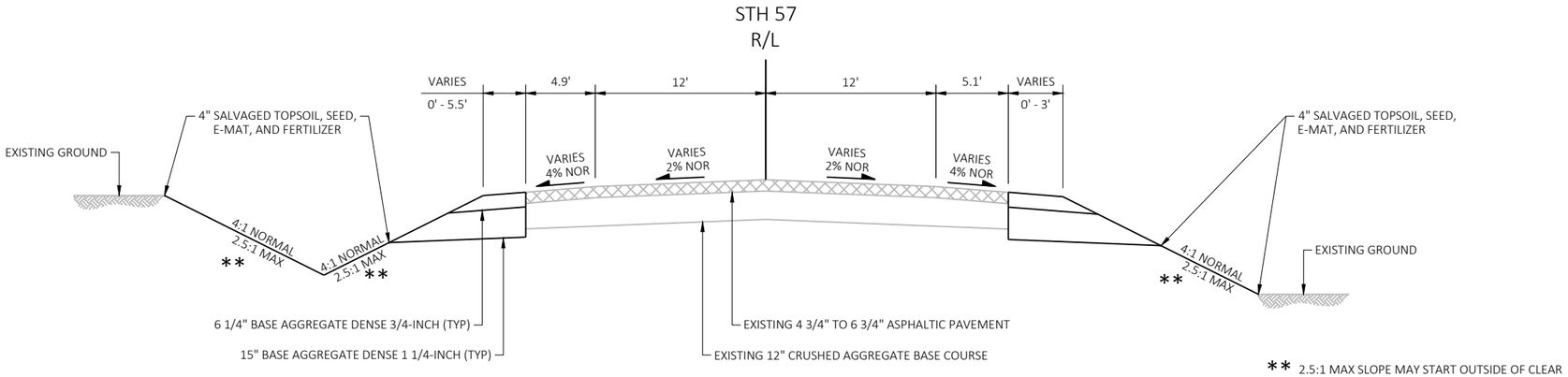


** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

FINISHED TYPICAL SECTION STH 57

STA 344+66.49 TO STA 345+57.72

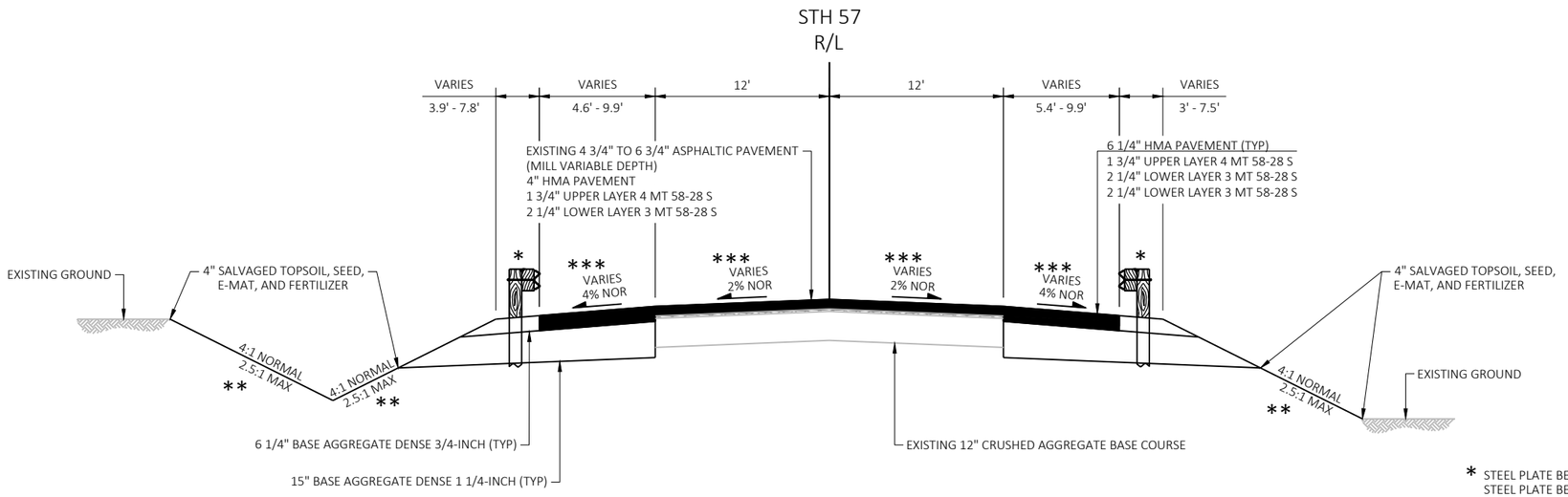
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 12	E



** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

FINISHED TYPICAL SECTION STH 57

STA 571+58.14 TO STA 572+12 - LT SIDE
STA 571+97.79 TO STA 572+12 - RT SIDE



* STEEL PLATE BEAM GUARD FROM STA 573+03.55, LT TO STA 573+70.30, LT
STEEL PLATE BEAM GUARD FROM STA 573+28.56, RT TO STA 573+70.30, RT

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

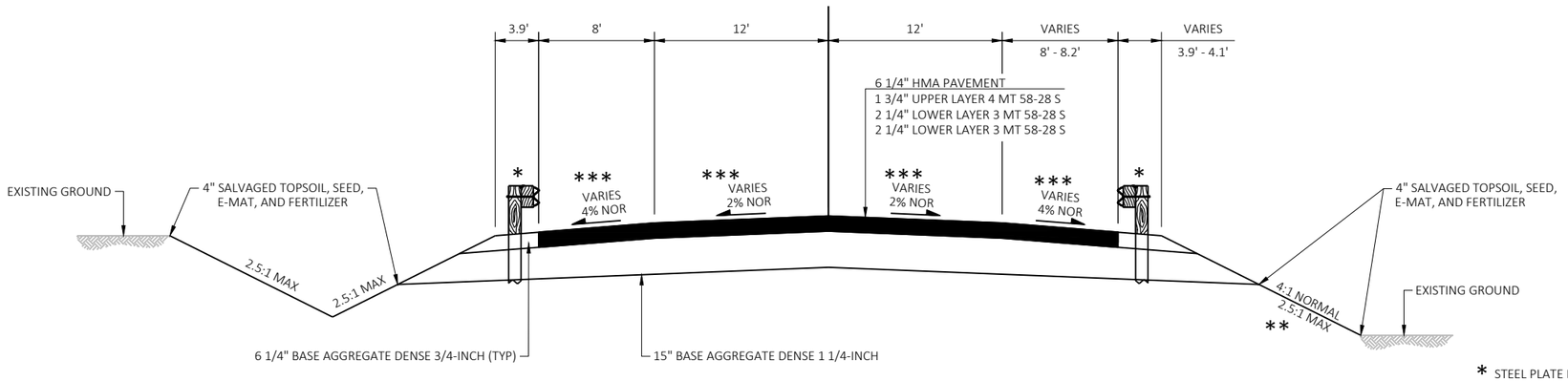
*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

STA 572+12 TO STA 573+70.30

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 13	E

STH 57
R/L



* STEEL PLATE BEAM GUARD FROM STA 573+70.30, LT TO STA 574+21.04, LT
STEEL PLATE BEAM GUARD FROM STA 574+49.08, LT TO STA 574+94.04, LT
STEEL PLATE BEAM GUARD FROM STA 573+70.30, RT TO STA 574+21.04, RT
STEEL PLATE BEAM GUARD FROM STA 574+49.08, RT TO STA 575+22.01, RT

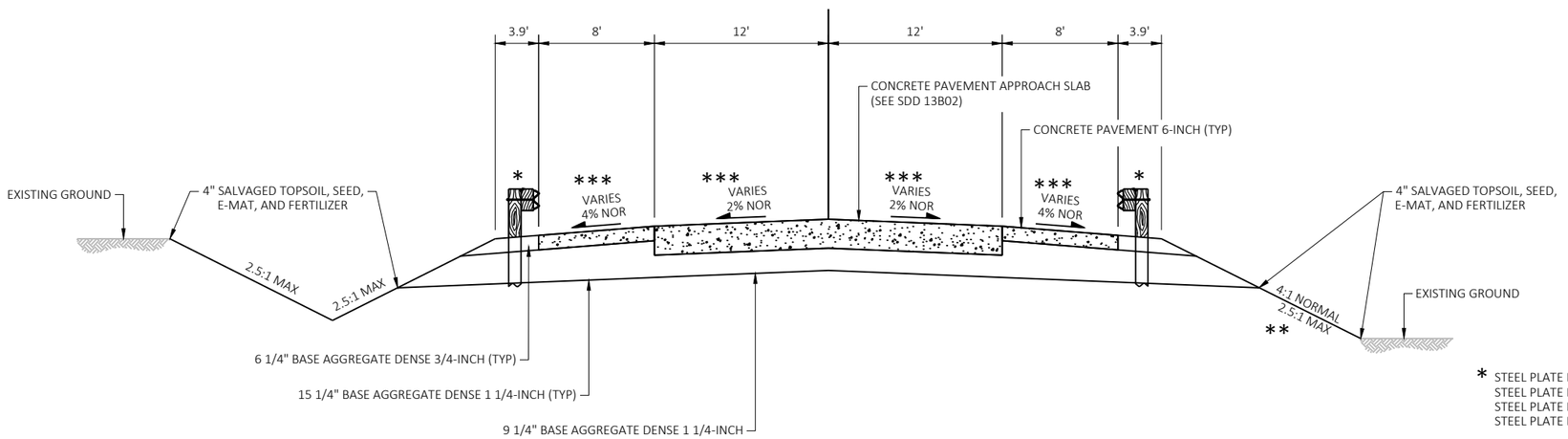
** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

STA 573+70.30 TO STA 574+02.92
STA 574+64.08 TO STA 575+22.11

STH 57
R/L



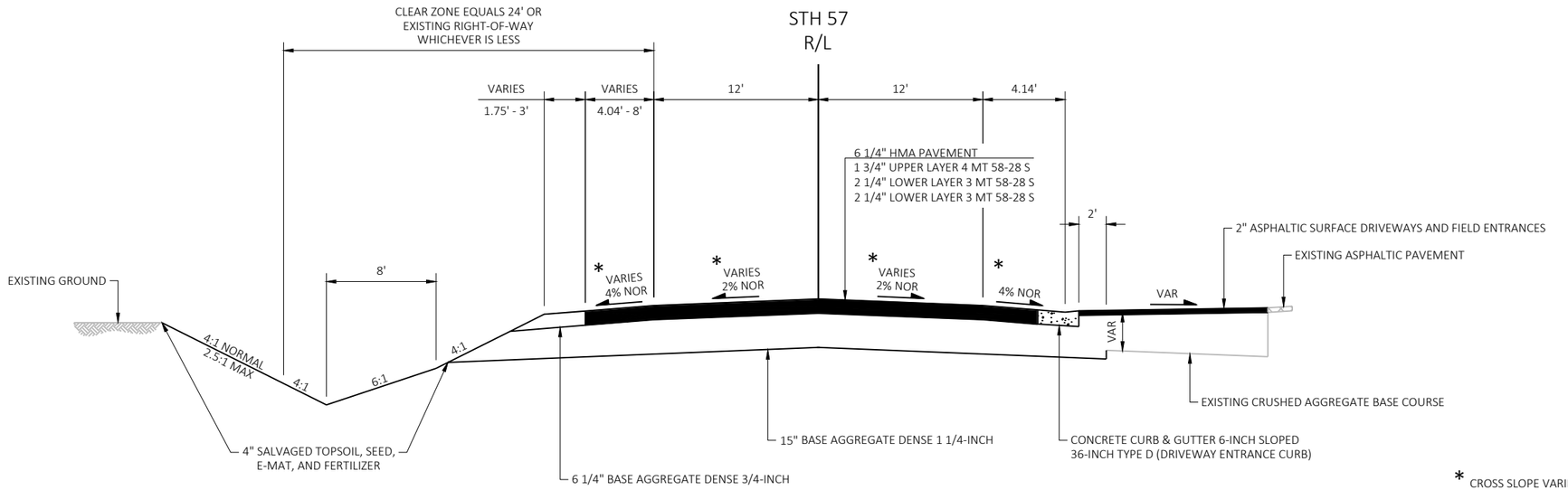
* STEEL PLATE BEAM GUARD FROM STA 573+70.30, LT TO STA 574+21.04, LT
STEEL PLATE BEAM GUARD FROM STA 574+49.08, LT TO STA 574+94.04, LT
STEEL PLATE BEAM GUARD FROM STA 573+70.30, RT TO STA 574+21.04, RT
STEEL PLATE BEAM GUARD FROM STA 574+49.08, RT TO STA 575+22.01, RT

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 24' OR EXISTING RIGHT-OF-WAY WHICHEVER IS LESS. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

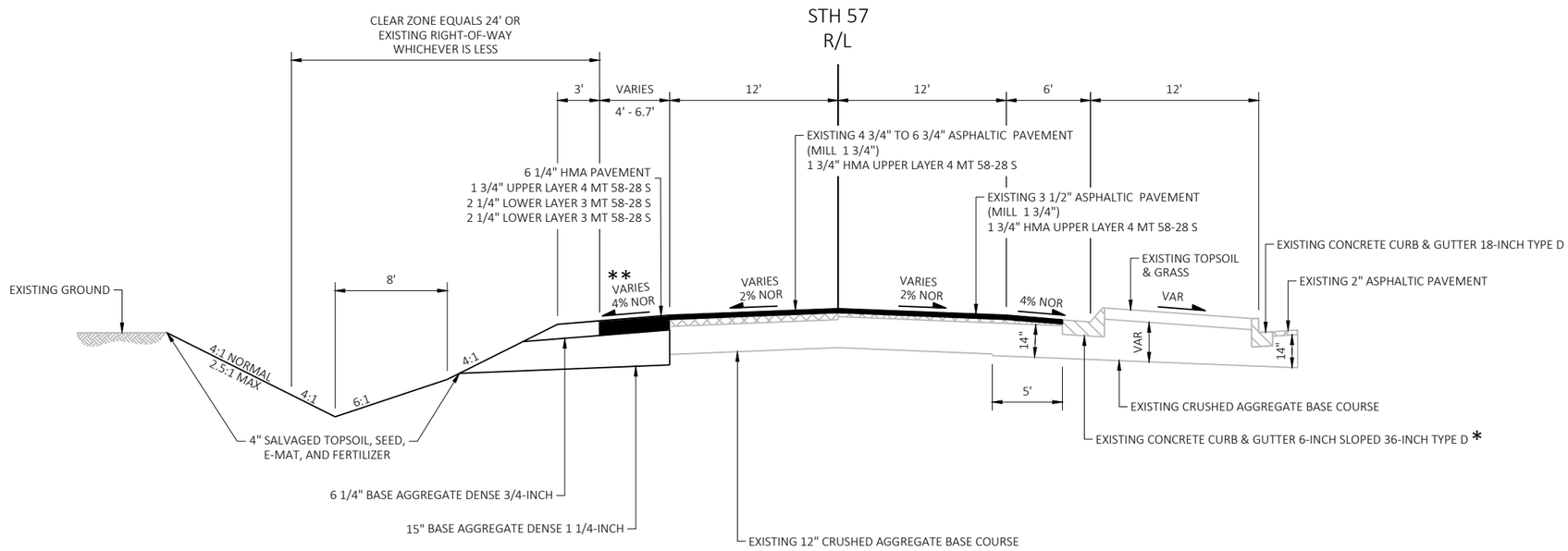
STA 574+02.92 TO STA 574+17.92
STA 574+49.08 TO STA 574+64.08



* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

STA 575+22.11 TO STA 575+50.00



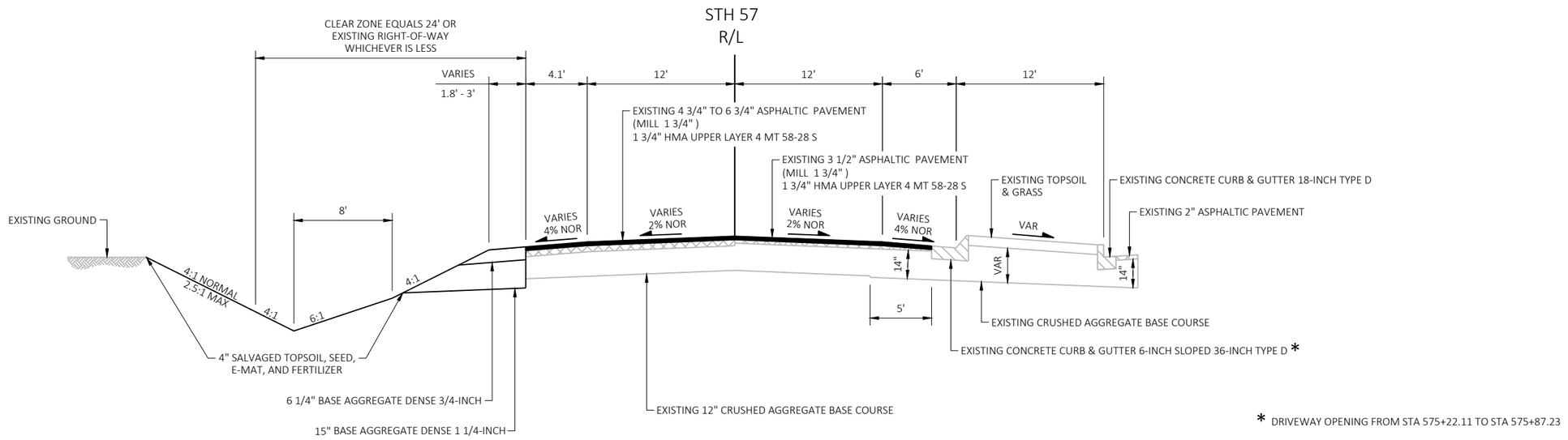
FINISHED TYPICAL SECTION STH 57

STA 575+50.00 TO STA 577+07.94

* DRIVEWAY OPENING FROM STA 575+22.11 TO STA 575+87.23

** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

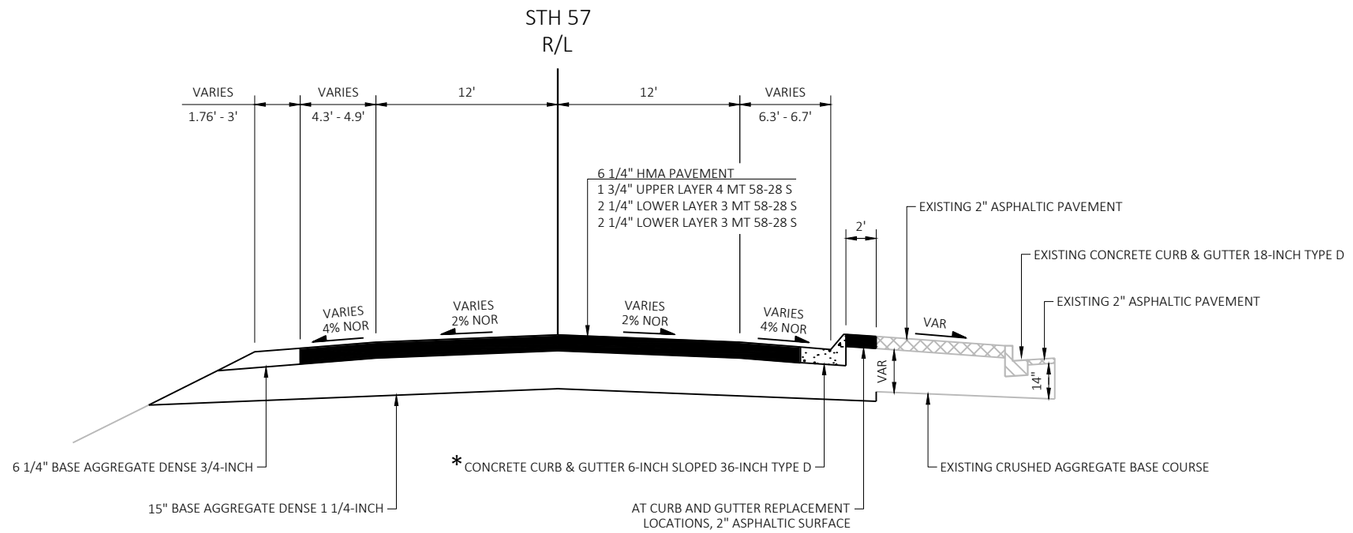
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 15	E



* DRIVEWAY OPENING FROM STA 575+22.11 TO STA 575+87.23

FINISHED TYPICAL SECTION STH 57

STA 577+07.94 TO STA 577+55.58



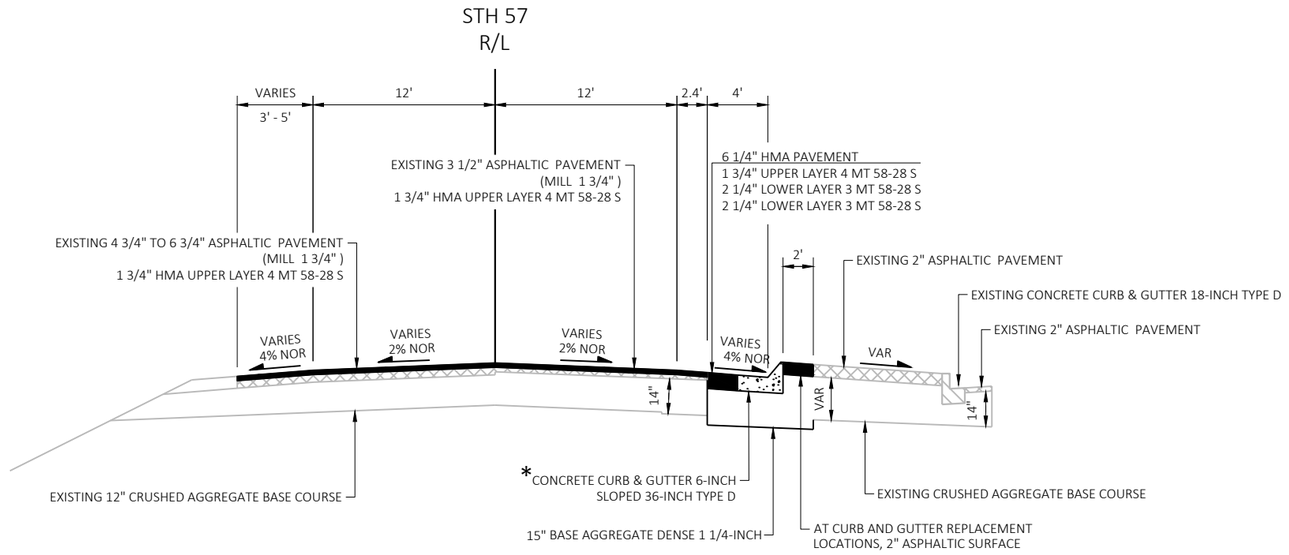
* DRIVEWAY ENTRANCE CURB FROM STA 577+55.64 TO STA 578+08.31

FINISHED TYPICAL SECTION STH 57

STA 577+55.58 TO STA 578+46.37

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 16	E

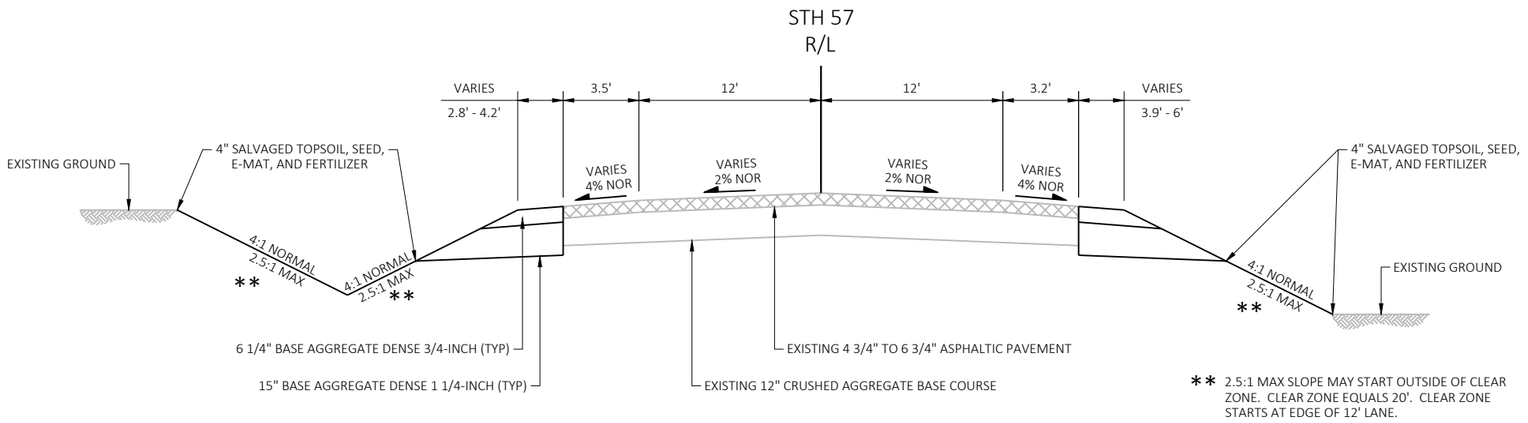
2



FINISHED TYPICAL SECTION STH 57

STA 578+46.37 TO STA 579+60.09

* DRIVEWAY ENTRANCE CURB FROM STA 578+84.07 TO STA 579+36.86

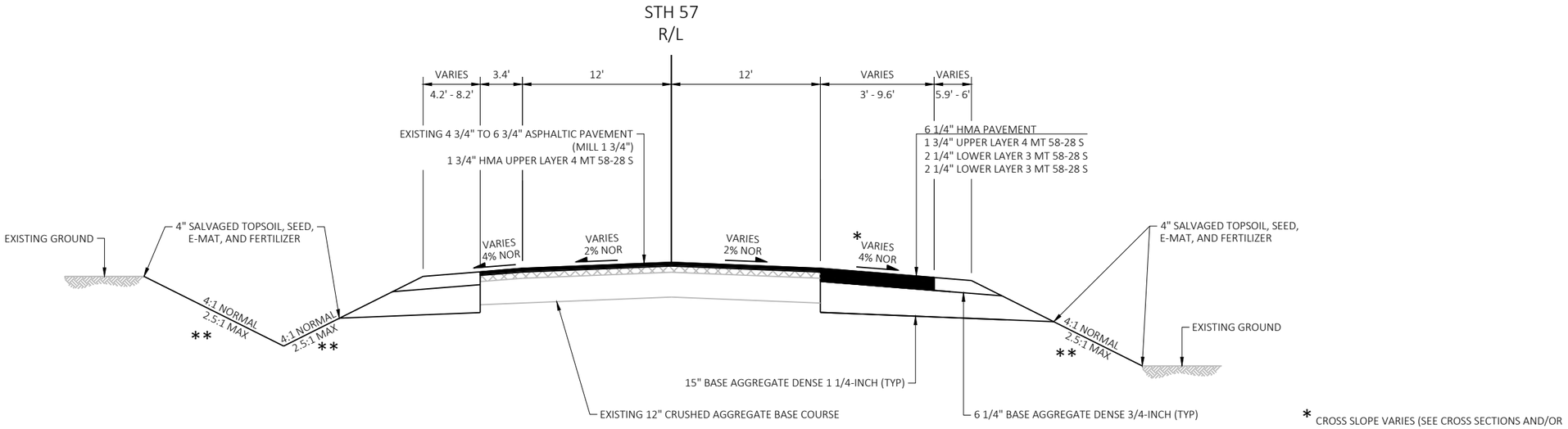


FINISHED TYPICAL SECTION STH 57

STA 731+36.94 TO STA 731+60

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 20'. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 17	E

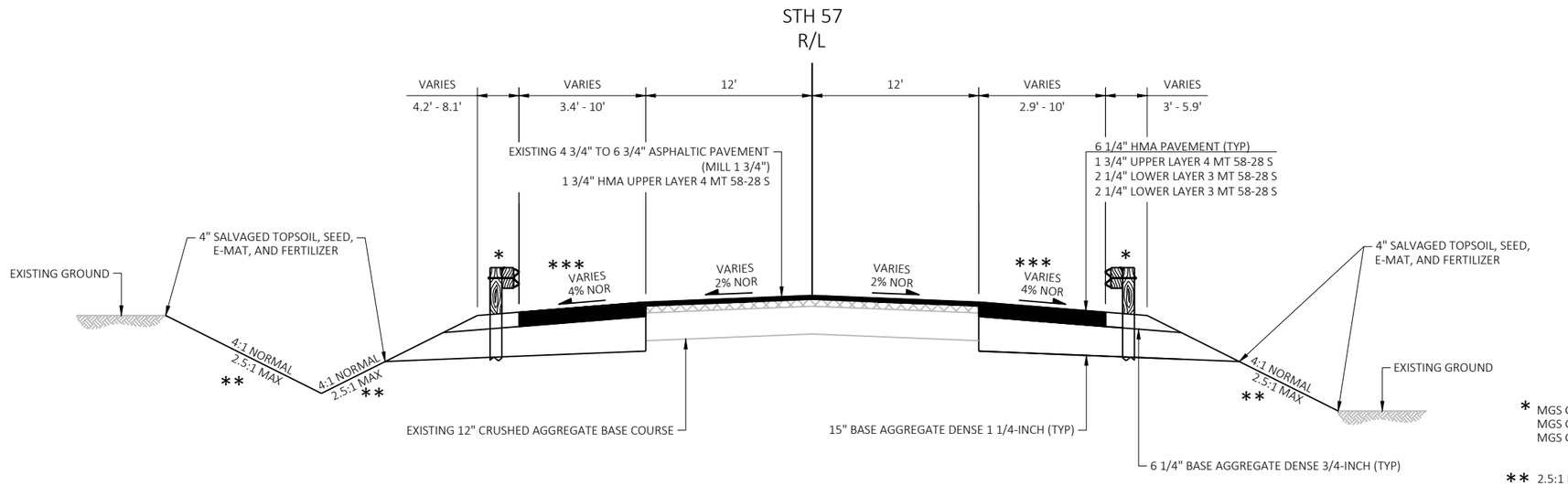


* CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 20'. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

FINISHED TYPICAL SECTION STH 57

STA 731+60 TO STA 732+24.64



* MGS GUARDRAIL FROM STA 732+91.32, LT TO STA 733+25, LT
MGS GUARDRAIL FROM STA 735+00, LT TO STA 735+34.09, LT
MGS GUARDRAIL FROM STA 732+29.91, RT TO STA 733+25, RT

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 20'. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

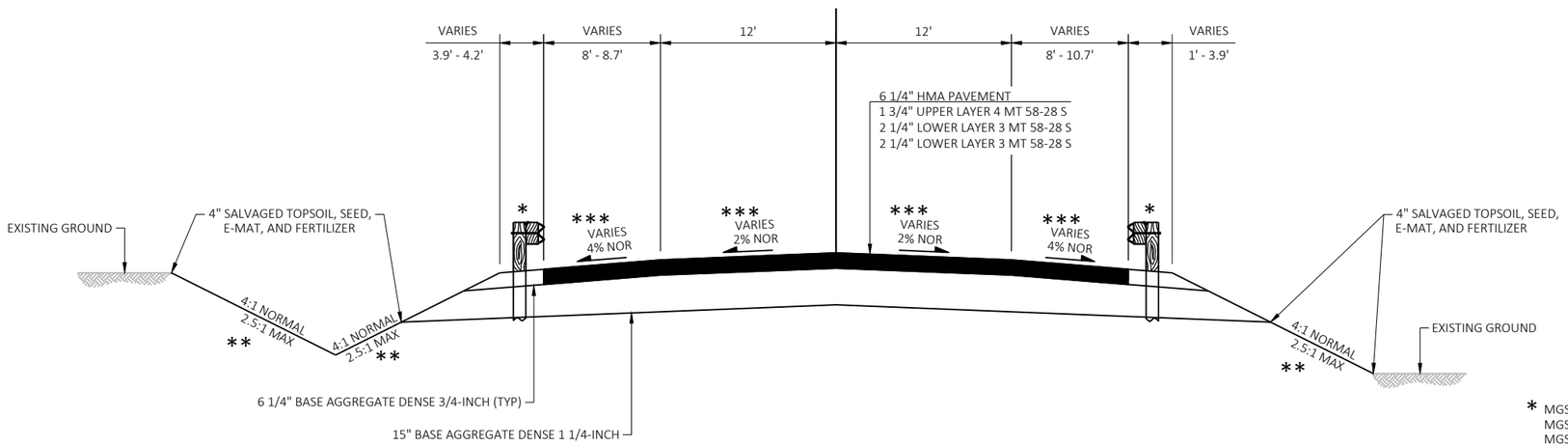
*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

STA 732+24.64 TO STA 733+25
STA 735+00 TO STA 735+51.46

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 18	E

STH 57
R/L



* MGS GUARDRAIL FROM STA 733+25, LT TO STA 733+83.24, LT
MGS GUARDRAIL FROM STA 734+28.82, LT TO STA 735+00, LT
MGS GUARDRAIL FROM STA 733+25, RT TO STA 733+58, RT

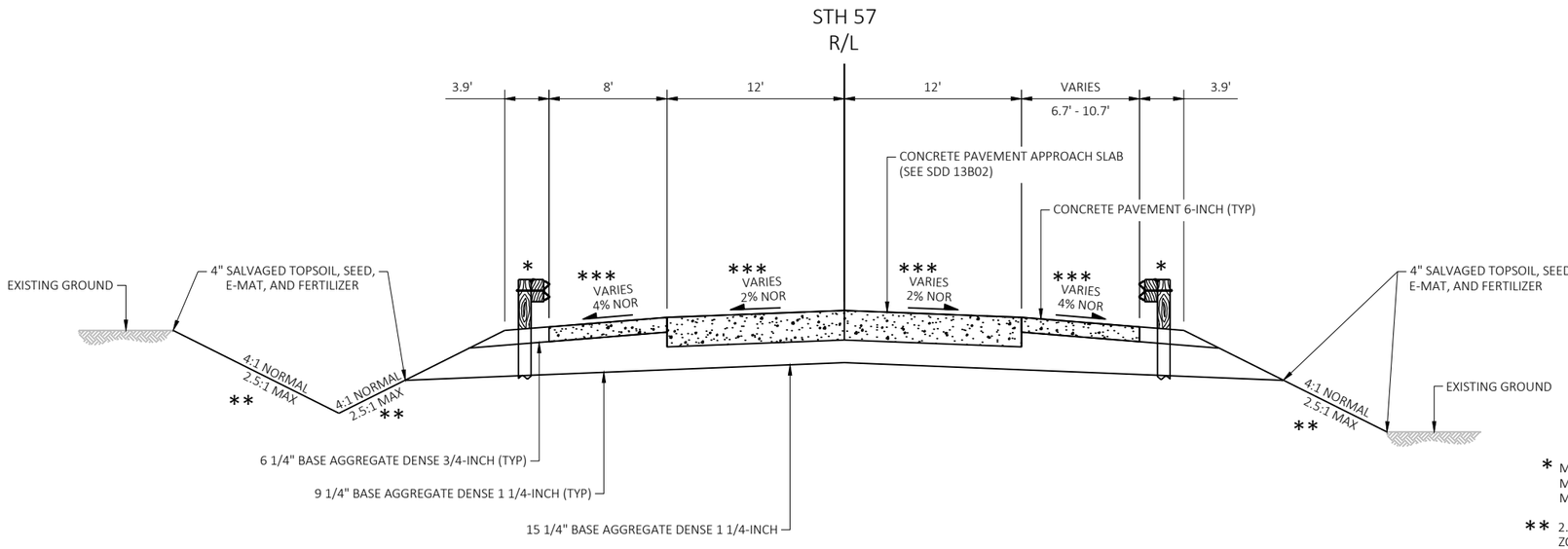
** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 20'. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

STA 733+25 TO STA 733+47.40
STA 734+40.60 TO STA 735+00

STH 57
R/L



* MGS GUARDRAIL FROM STA 733+25, LT TO STA 733+83.24, LT
MGS GUARDRAIL FROM STA 734+28.82, LT TO STA 735+00, LT
MGS GUARDRAIL FROM STA 733+25, RT TO STA 733+58, RT

** 2.5:1 MAX SLOPE MAY START OUTSIDE OF CLEAR ZONE. CLEAR ZONE EQUALS 20'. CLEAR ZONE STARTS AT EDGE OF 12' LANE.

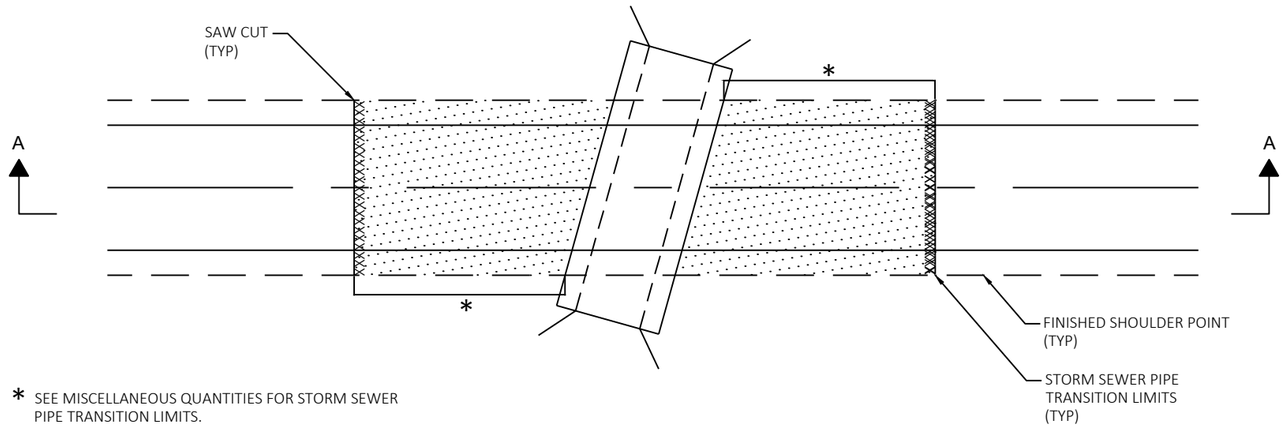
*** CROSS SLOPE VARIES (SEE CROSS SECTIONS AND/OR SUPERELEVATION INFORMATION ON PLAN AND PROFILE SHEETS).

FINISHED TYPICAL SECTION STH 57

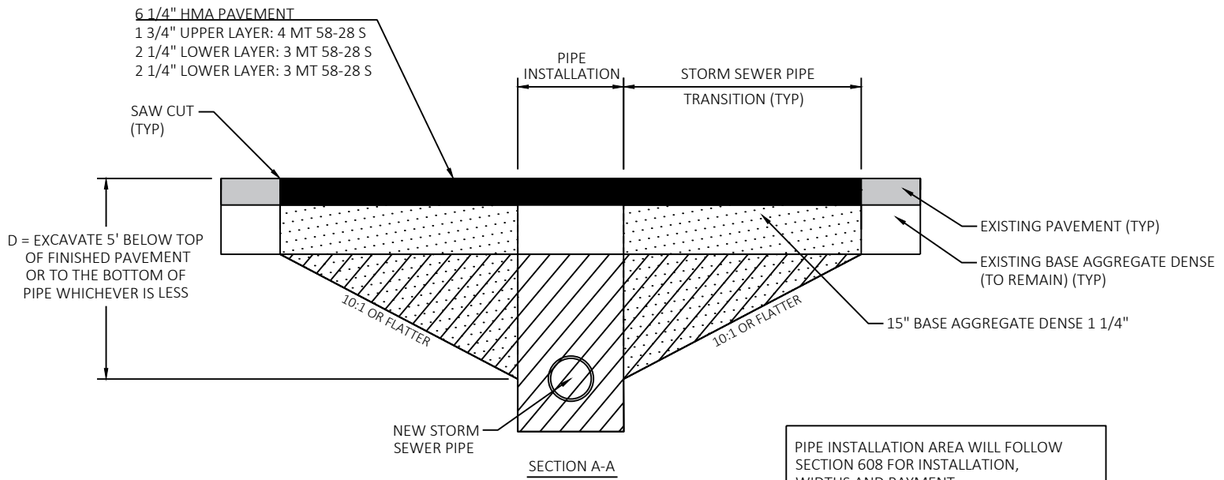
STA 733+47.40 TO STA 733+69.33
STA 734+18.67 TO STA 734+40.60

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TYPICAL SECTIONS	SHEET 19	E

2



* SEE MISCELLANEOUS QUANTITIES FOR STORM SEWER PIPE TRANSITION LIMITS.



PIPE INSTALLATION AREA WILL FOLLOW SECTION 608 FOR INSTALLATION, WIDTHS AND PAYMENT.

CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

STORM SEWER PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.

PAVEMENT SAW CUT TO BE PERPENDICULAR TO ROADWAY ALIGNMENT.

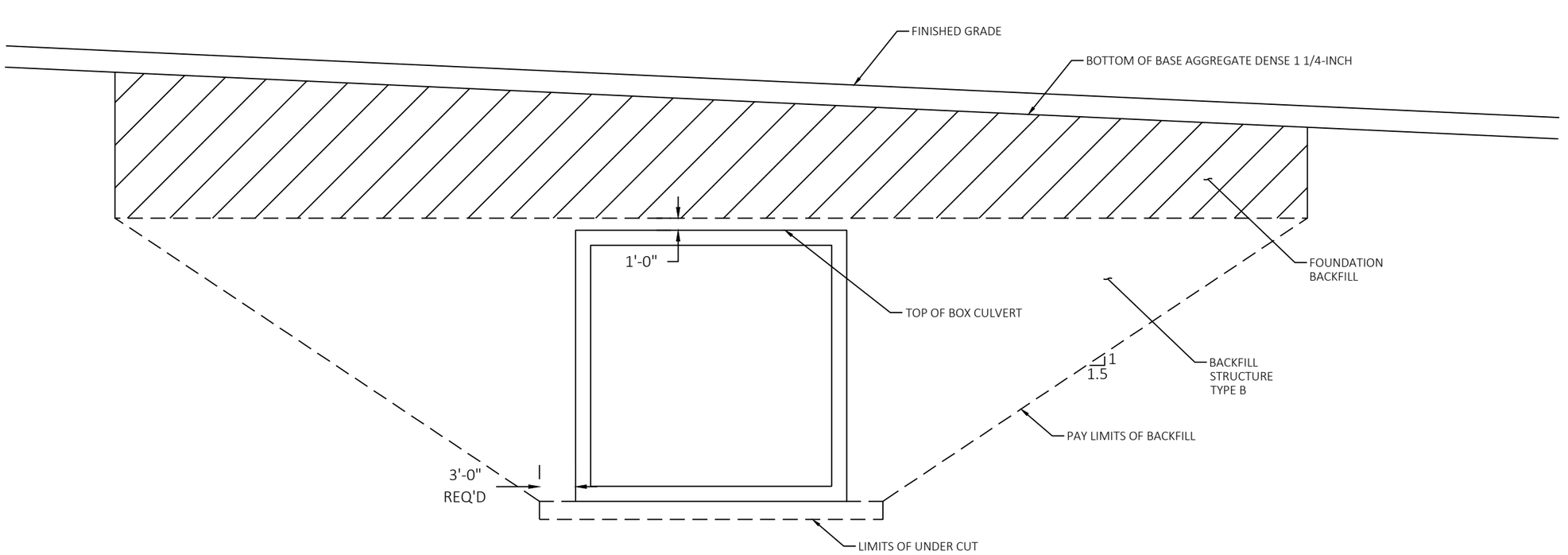
STORM SEWER PIPE WITH TRANSITION

STA 577+77.10 - 578+38.84

2



BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



TYPICAL SECTION THRU BOX CULVERT C-15-46

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- GRUBBING LIMITS
- XXXXXXXX SAWING ASPHALT
- YYYYYYY SAWING CONCRETE

N

REMOVING ASPHALTIC SURFACE BUTT JOINT STA 205+53

EXCAVATION COMMON

REMOVING ASPHALTIC SURFACE BUTT JOINT

EXISTING R/W

SALVAGED RAIL

TLE

R/W

EXCAVATION COMMON OR EXCAVATION FOR STRUCTURES CULVERT

EXCAVATION COMMON

REMOVING ASPHALTIC SURFACE BUTT JOINT STA 209+46

EXISTING R/W

STA 206+09.60 -12.00' LT

STA 206+69 0.00'

STA 205+91.01 12.00' RT

STA 208+19 0.00'

STA 209+45.97 -12.00' LT

STA 208+88.88 12.00' RT

12.00'

205 206 207 208 209 210

STH 57

EXISTING R/W

REMOVING ASPHALTIC SURFACE BUTT JOINT

EXCAVATION COMMON

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

SALVAGED RAIL

TLE

R/W

EXCAVATION COMMON

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

TLE

EXISTING R/W

LILY BAY CREEK

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - LILY BAY CREEK	SHEET 22	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021101-rm

PLOT DATE : 5/15/2024 10:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

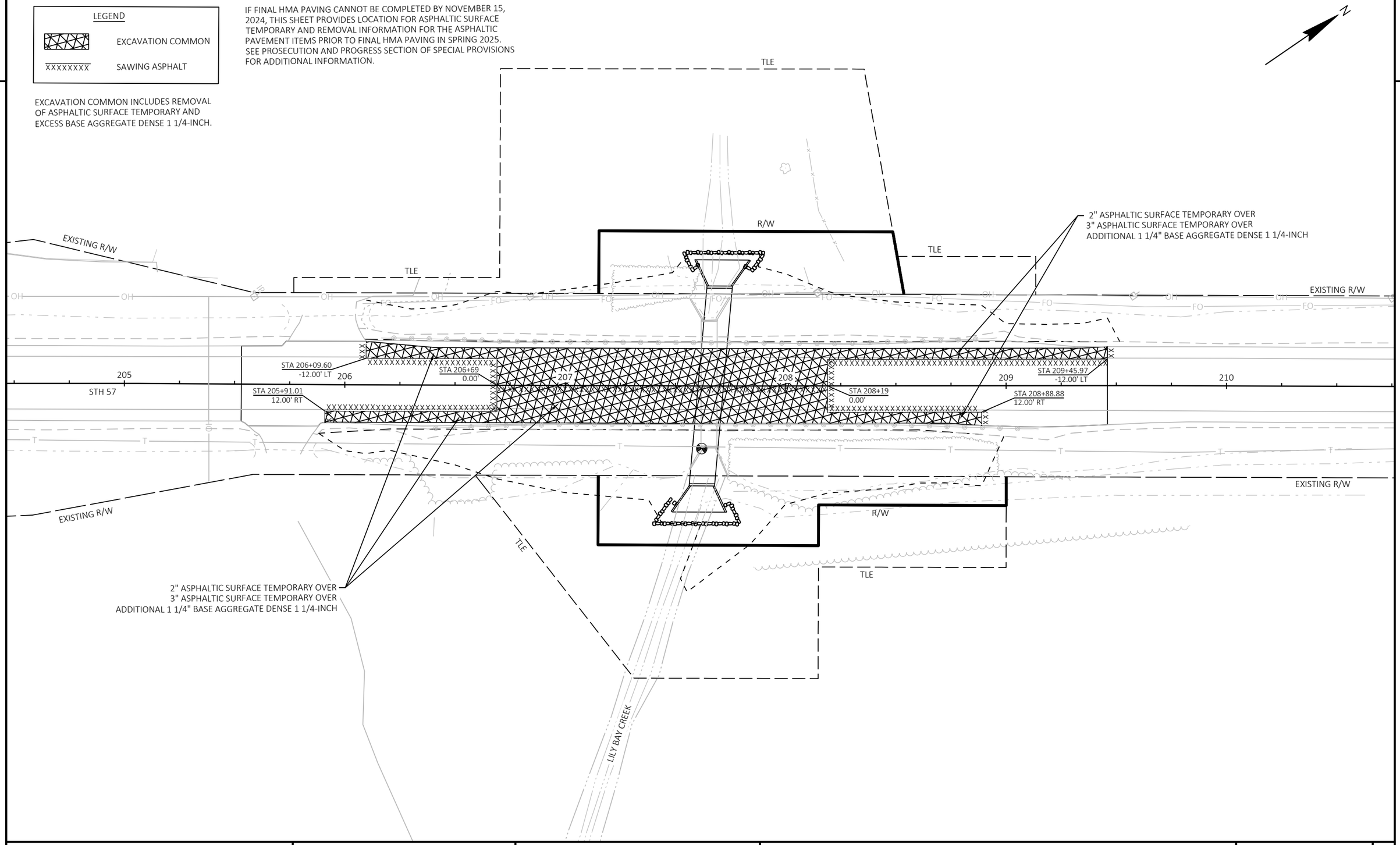
LEGEND

EXCAVATION COMMON

XXXXXXXX SAWING ASPHALT

EXCAVATION COMMON INCLUDES REMOVAL OF ASPHALTIC SURFACE TEMPORARY AND EXCESS BASE AGGREGATE DENSE 1 1/4-INCH.

IF FINAL HMA PAVING CANNOT BE COMPLETED BY NOVEMBER 15, 2024, THIS SHEET PROVIDES LOCATION FOR ASPHALTIC SURFACE TEMPORARY AND REMOVAL INFORMATION FOR THE ASPHALTIC PAVEMENT ITEMS PRIOR TO FINAL HMA PAVING IN SPRING 2025. SEE PROSECUTION AND PROGRESS SECTION OF SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - LILY BAY CREEK (ALTERNATE)	SHEET 23	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021102-rm

PLOT DATE : 5/15/2024 10:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

GRUBBING LIMITS

SAWING ASPHALT

N

TLE

EXCAVATION COMMON OR
EXCAVATION FOR STRUCTURES
BRIDGE

MILL ASPHALT AT VARIABLE DEPTH AND RESURFACE WITH
1 3/4" UPPER LAYER: 4 MT 58-28 S AND
2 1/4" LOWER LAYER: 3 MT 58-28 S
AND 2 1/4" LOWER LAYER 3 MT 58-28 S

MILL ASPHALT 1 3/4" AND RESURFACE
WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

REMOVING ASPHALTIC
SURFACE BUTT JOINT
STA 337+50

MILL ASPHALT AT VARIABLE DEPTH AND RESURFACE
WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S
AND 2 1/4" LOWER LAYER: 3 MT 58-28 S

EXCAVATION COMMON

TLE

EXISTING R/W

STA 338+50.38
-12.00' LT

STH 57 R/L

336 337 338 339 340 341

STH 57

STA 338+50.39
0.00'

12.00'

12.00'

STA 337+50.44
12.00' RT

EXISTING R/W

TLE

EXCAVATION COMMON

STA 339+50
0.00'

STA 340+50
0.00'

SALVAGED RAIL

GEISEL CREEK

TLE

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - GEISEL CREEK	SHEET 24	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021103-rm

PLOT DATE : 5/15/2024 10:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

GRUBBING LIMITS

SAWING ASPHALT

N

TLE

SALVAGED RAIL

MILL ASPHALT 1 3/4" AND RESURFACE
WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

EXCAVATION COMMON

R/W

TLE

EXISTING R/W

341

342

343

344

345

346

STA 342+88
0.00'

12.00'

12.00'

STA 343+85.43
12.00' RT

STA 344+66.49
-12.00' LT

STH 57

REMOVING ASPHALTIC
SURFACE BUTT JOINT
STA 344+66

EXISTING R/W

EXCAVATION COMMON

R/W

REMOVING SMALL
PIPE CULVERTS
(24-INCH DIAMETER)

PLE

SALVAGED RAIL

EXCAVATION COMMON OR
EXCAVATION FOR STRUCTURES
BRIDGE

GEISEL CREEK

TLE

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - GEISEL CREEK	SHEET 25	E

2

LEGEND

EXCAVATION COMMON

REMOVING ASPHALTIC SURFACE MILLING

XXXXXXXX SAWING ASPHALT

EXCAVATION COMMON INCLUDES REMOVAL OF ASPHALTIC SURFACE TEMPORARY AND EXCESS BASE AGGREGATE DENSE 1 1/4-INCH.

IF FINAL HMA PAVING CANNOT BE COMPLETED BY NOVEMBER 15, 2024, THIS SHEET PROVIDES LOCATION FOR ASPHALTIC SURFACE TEMPORARY AND REMOVAL INFORMATION FOR THE ASPHALTIC PAVEMENT ITEMS PRIOR TO FINAL HMA PAVING IN SPRING 2025. SEE PROSECUTION AND PROGRESS SECTION OF SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

N

1 3/4" ASPHALTIC SURFACE TEMPORARY OVER
2 1/4" ASPHALTIC SURFACE TEMPORARY OVER
2 1/4" ASPHALTIC SURFACE TEMPORARY

2" ASPHALTIC SURFACE TEMPORARY OVER
3" ASPHALTIC SURFACE TEMPORARY OVER
ADDITIONAL 1 1/4" BASE AGGREGATE DENSE 1 1/4-INCH

1 3/4" ASPHALTIC SURFACE TEMPORARY OVER
2 1/4" ASPHALTIC SURFACE TEMPORARY

STA 338+50.38
-12.00' LT

STA 338+50.39
0.00'

STA 337+50.44
12.00' RT

STA 339+50
0.00'

STA 340+50
0.00'

2" ASPHALTIC SURFACE TEMPORARY OVER
3" ASPHALTIC SURFACE TEMPORARY OVER
ADDITIONAL 1 1/4" BASE AGGREGATE DENSE 1 1/4-INCH

336 337 338 339 340 341

OH FO GUY E IP

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - GEISEL CREEK (ALTERNATE)	SHEET 26	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021105-rm

PLOT DATE : 5/15/2024 10:53 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

EXCAVATION COMMON

REMOVING ASPHALTIC SURFACE MILLING

XXXXXXXX SAWING ASPHALT

IF FINAL HMA PAVING CANNOT BE COMPLETED BY NOVEMBER 15, 2024, THIS SHEET PROVIDES LOCATION FOR ASPHALTIC SURFACE TEMPORARY AND REMOVAL INFORMATION FOR THE ASPHALTIC PAVEMENT ITEMS PRIOR TO FINAL HMA PAVING IN SPRING 2025. SEE PROSECUTION AND PROGRESS SECTION OF SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

EXCAVATION COMMON INCLUDES REMOVAL OF ASPHALTIC SURFACE TEMPORARY AND EXCESS BASE AGGREGATE DENSE 1 1/4-INCH.

N

2" ASPHALTIC SURFACE TEMPORARY OVER
3" ASPHALTIC SURFACE TEMPORARY OVER
ADDITIONAL 1 1/4" BASE AGGREGATE DENSE 1 1/4-INCH

341

342

343

344

345

346

STA 342+88
0.00'

STA 343+85.43
12.00' RT

STA 344+66.49
-12.00' LT

2" ASPHALTIC SURFACE TEMPORARY OVER
3" ASPHALTIC SURFACE TEMPORARY OVER
ADDITIONAL 1 1/4" BASE AGGREGATE DENSE 1 1/4-INCH

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - GEISEL CREEK (ALTERNATE)	SHEET 27	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021106-rm

PLOT DATE : 5/15/2024 10:53 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

GRUBBING LIMITS

REMOVING ASPHALTIC SURFACE

SAWING ASPHALT

SAWING CONCRETE

N

SALVAGE AND REINSTALL WATER ELEVATION GAUGE

REMOVE ROCK ENDWALL UNDER REMOVING STRUCTURE C-15-0040

REMOVING SMALL PIPE CULVERT

MILL ASPHALT AT VARIABLE DEPTH AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S AND 2 1/4" LOWER LAYER: 3 MT 58-28 S

EXCAVATION COMMON

EXCAVATION COMMON OR EXCAVATION FOR STRUCTURES BRIDGE

SALVAGED RAIL

TLE

PLE

R/W

EXISTING R/W

REMOVING SMALL PIPE CULVERT

EXCAVATION COMMON

TLE

SALVAGE WATER ELEVATION GAUGE

571

572

573

574

575

576

STH 57

12.00'

12.00'

12.00'

STA 573+70.30
0.00'

STA 575+50
-12.00' LT

SAWING CONCRETE

STA 575+59.14
29.59' RT

EXISTING R/W

REMOVING ASPHALTIC SURFACE BUTT JOINT STA 572+12

EXCAVATION COMMON

TLE

SALVAGED RAIL

PLE

REMOVING STORM SEWER (15-INCH)

REMOVING CURB & GUTTER

REMOVE ROCK ENDWALL UNDER REMOVING STRUCTURE C-15-0040

TLE

LOGAN CREEK

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - LOGAN CREEK	SHEET 28	E

2

LEGEND

- GRUBBING LIMITS
- REMOVING ASPHALTIC SURFACE
- SAWING ASPHALT
- SAWING CONCRETE

EXCAVATION COMMON

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

EXCAVATION COMMON

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

REMOVING ASPHALTIC SURFACE BUTT JOINT STA 579+60

REMOVING CURB & GUTTER

TLE

EXISTING R/W

STA 577+07.94
-12.00' LT

STA 577+55.58
0.00'

12.00'

STA 578+46.37
0.00'

STA 578+46.37
14.34' RT

14.40'

STH 57
STA 579+60.09
14.44' RT

STA 579+60.09
21.43' RT

576 577 578 579 580 581 582

SAWING CONCRETE

REMOVING CURB & GUTTER

SAWING CONCRETE

SAWING CONCRETE

SAWING CONCRETE

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

EXISTING R/W

EXISTING R/W

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - LOGAN CREEK	SHEET 29	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 021108-rm

PLOT DATE : 5/15/2024 10:53 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

CLEARING AND GRUBBING LIMITS

SAWING ASPHALT

N

REMOVE PORTION OF RETAINING WALL UNDER EXCAVATION FOR STRUCTURE BRIDGES B-15-30

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

REMOVING ASPHALTIC SURFACE BUTT JOINT STA 731+60

EXCAVATION COMMON

EXCAVATION COMMON OR EXCAVATION FOR STRUCTURES BRIDGE

SALVAGED RAIL

TLE

R/W

REMOVING RETAINING WALL

EXCAVATION COMMON

MILL ASPHALT 1 3/4" AND RESURFACE WITH 1 3/4" UPPER LAYER: 4 MT 58-28 S

TLE

EXISTING R/W

STA 735+81.83
-12.00' LT

STA 732+24.64
-12.00' LT

STA 733+25
0.00'

STA 735+00
0.00'

STH 57 R/L

731

732

733

734

735

736

737

STH 57

STA 731+60.17
12.00' RT

12.00'

STA 735+51.46
12.00' RT

EXISTING R/W

TLE

EXCAVATION COMMON

REMOVING FENCE

SALVAGED RAIL

R/W

EXCAVATION COMMON

REMOVING ASPHALTIC SURFACE BUTT JOINT STA 735+82

EXISTING R/W

TLE

HIBBARD CREEK

OH

FO

TV

SEEP

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	REMOVAL DETAILS - HIBBARD CREEK	SHEET 30	E

2

2

N

TLE

WETLAND BOUNDARY

FINISHED EDGE OF HMA

STA 340+50.19
-29.10' LT

MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

MGS THRIE
BEAM TRANSITION

FINISHED BASE
AGGREGATE SHOULDER

STA 340+50.19
-23.17' LT

STA 339+84.52
-24.73' LT

STA 339+84.05
-16.56' LT

FINISHED EDGE OF HMA

STA 341+03.27
-21.17' LT

R/W

EXISTING R/W

SLOPE INTERCEPT

STA 338+98.92
-18.94' LT

STH 57 R/L

336 337 338 339 S89°36'31"E 340 341

STH 57

+50.19
-23.17' LT
POST #1

+75.17
-22.22' LT
POST #5

+00.15
-21.28' LT
POST #9

+12.55
23.17' RT
POST #1

+37.54
22.23' RT
POST #5

+62.52
21.29' RT
POST #9

EXISTING R/W

STA 336+78.99
21.03' RT

STA 337+50.44
17.26' RT

STA 337+50.52
25.26' RT

STA 338+12.54
23.17' RT

STA 338+12.54
29.10' RT

STA 338+65.78
21.17' RT

FINISHED BASE
AGGREGATE SHOULDER

FINISHED EDGE
OF HMA

MGS GUARDRAIL
TERMINAL EAT

FINISHED EDGE
OF HMA

MGS GUARDRAIL 3

FINISHED BASE
AGGREGATE SHOULDER

SLOPE INTERCEPT

WETLAND BOUNDARY

R/W

MGS THRIE
BEAM TRANSITION

GEISEL CREEK

TLE

NOTE:
LOCATION LABEL FOR POSTS #1, #5 AND #9
ARE AT FRONT FACE OF RAIL.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	GUARDRAIL DETAILS - GEISEL CREEK	SHEET 31	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021201-pd

PLOT DATE : 5/15/2024 11:37 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

TLE

GEISEL CREEK

WETLAND BOUNDARY

RPE

RPF

WS

SM

MGS THRIE BEAM TRANSITION

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

R/W

STA 343+86.32
-29.10' LT

STA 343+86.32
-23.16' LT

STA 344+66.49
-23.75' LT

SLOPE INTERCEPT

FINISHED BASE AGGREGATE SHOULDER

STA 345+57.72
-17.67' LT

STA 344+66.43
-15.15' LT

FINISHED EDGE OF HMA

STA 343+33.23
-21.16' LT

EXISTING R/W

STH 57 R/L

342

343

+36.36
-21.28' LT
POST #9

+61.34
-22.22' LT
POST #5

+86.32
-23.16' LT
POST #1

S89°41'12"E

345

346

347

STH 57

MGS GUARDRAIL
SHORT RADIUS
(5 CRT POSTS REQUIRED)

R16.00'

MGS GUARDRAIL 3

+83.22
21.17' RT

MGS THRIE BEAM TRANSITION

STA 342+83.31
37.44' RT
Y=185271.276
X=521778.246
RADIUS TO BACK OF RAIL

+99.49
37.44' RT

MGS GUARDRAIL 3

STA 342+99.48
65.57' RT

MGS GUARDRAIL
SHORT RADIUS TERMINAL

PLE

WETLAND BOUNDARY

STA 343+28.39
21.17' RT

FINISHED EDGE OF HMA

STA 343+85.43
17.38' RT

FINISHED BASE AGGREGATE SHOULDER

STA 344+08.74
18.84' RT

WETLAND BOUNDARY

SLOPE INTERCEPT

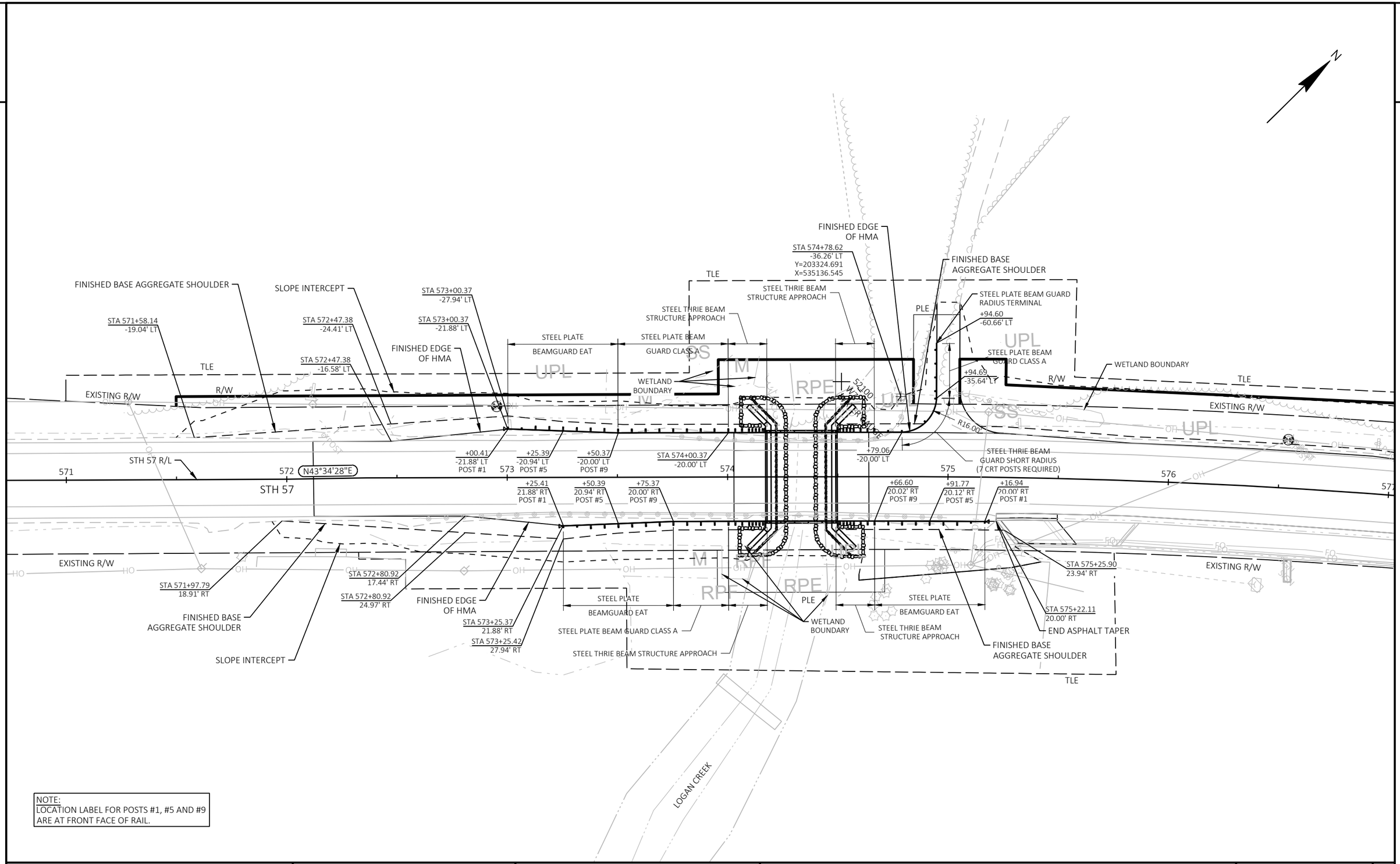
EXISTING R/W

TLE

NOTE:
LOCATION LABEL FOR POSTS #1, #5 AND #9 ARE AT FRONT FACE OF RAIL.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	GUARDRAIL DETAILS - GEISEL CREEK	SHEET 32	E

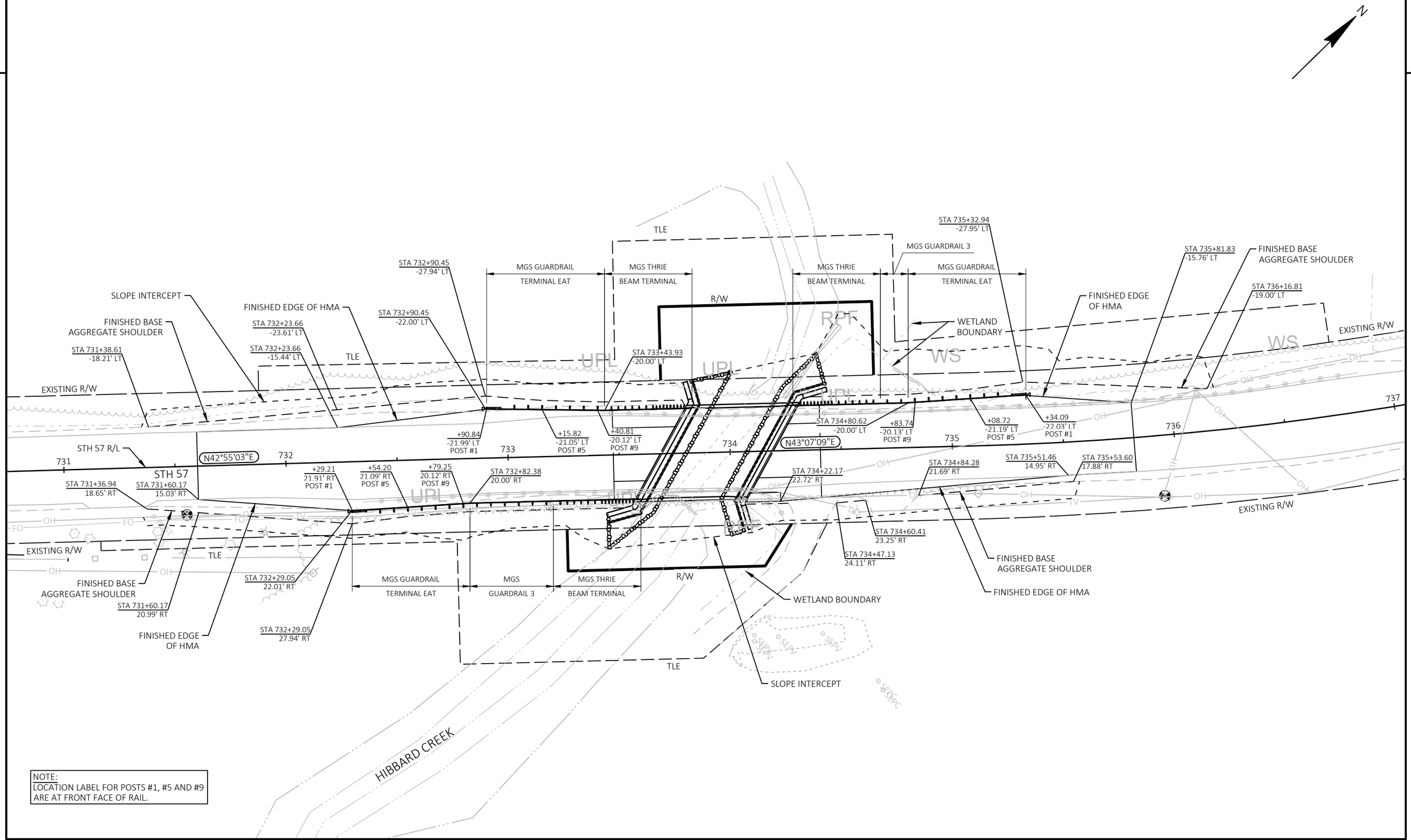
2



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	GUARDRAIL DETAILS - LOGAN CREEK	SHEET 33	E

2

2



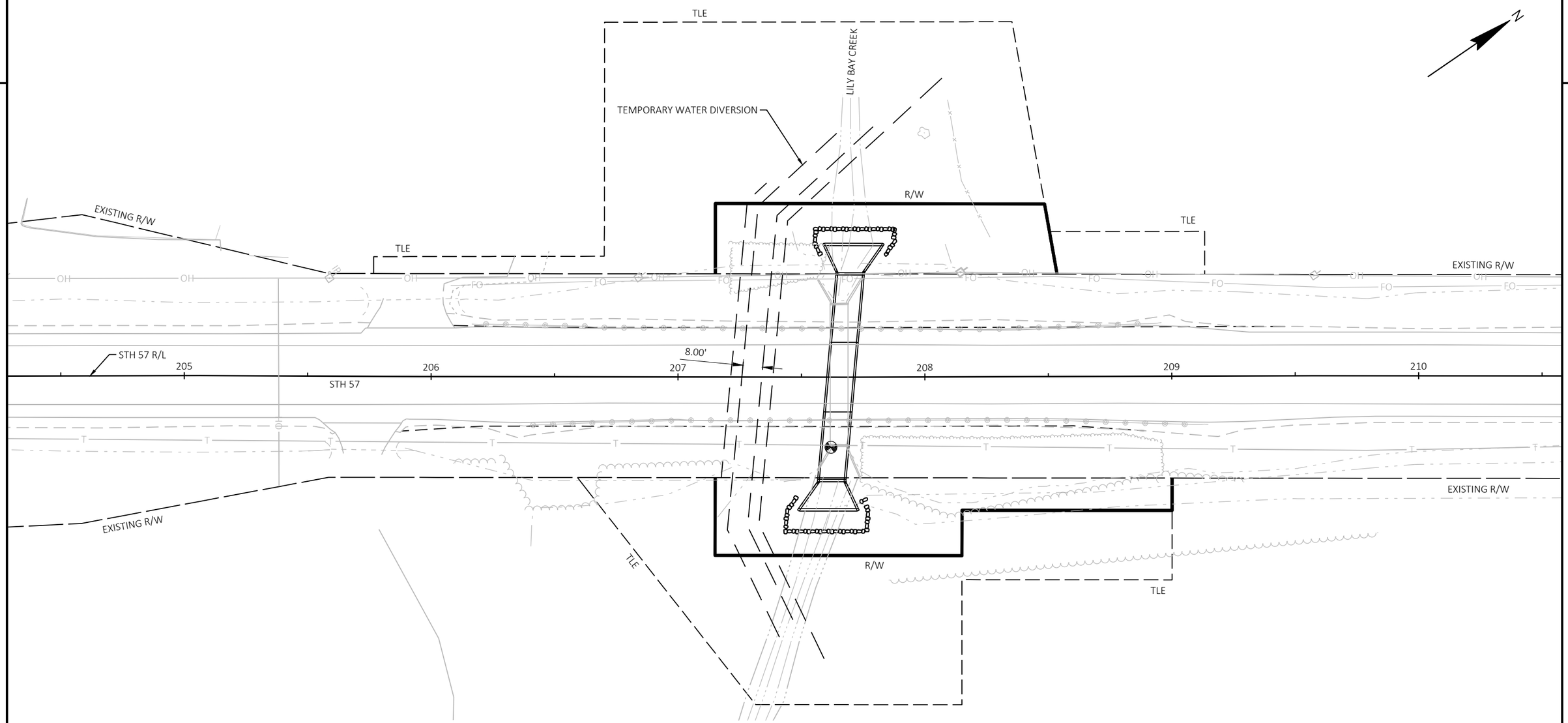
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	GUARDRAIL DETAILS - HIBBARD CREEK	SHEET 34	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 021204-pd

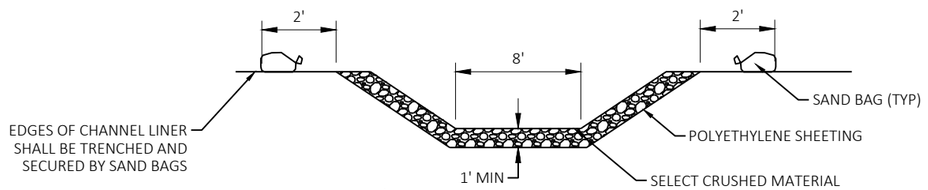
PLOT DATE : 5/15/2024 11:38 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PLAN VIEW WATER DIVERSION CHANNEL



TYPICAL SECTION DIVERSION CHANNEL

*FOR INFORMATION ONLY
SAND BAGS, SELECT CRUSHED MATERIAL, AND POLYETHYLENE SHEETING SHALL BE CONSIDERED INCIDENTAL TO ROADWAY ITEM "TEMPORARY WATER DIVERSION"

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN DETAIL - LILY BAY CREEK	SHEET 35	E

2

N

TLE

TEMPORARY WATER DIVERSION

TLE

R/W

TLE

EXISTING R/W

EXISTING R/W

339 340 341 342 343 344

STH 57

30'

EXISTING R/W

EXISTING R/W

TLE

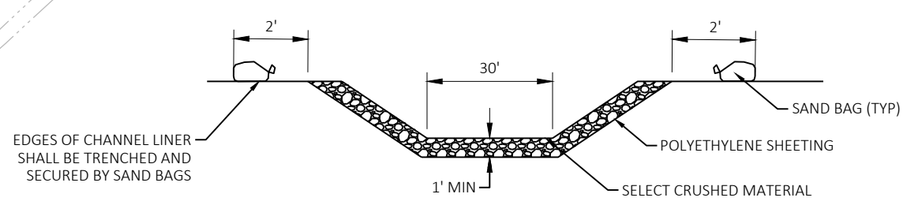
R/W

PLE

GEISEL CREEK

TLE

PLAN VIEW SECTION DIVERSION CHANNEL



TYPICAL SECTION DIVERSION CHANNEL

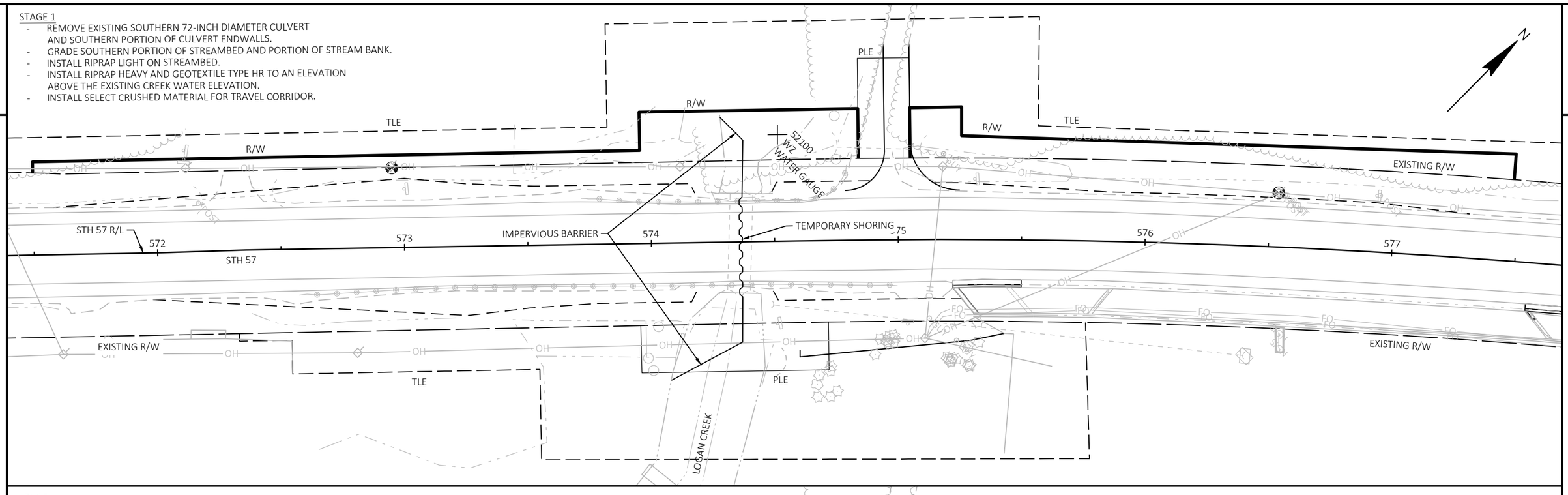
*FOR INFORMATION ONLY
SAND BAGS, SELECT CRUSHED MATERIAL, AND POLYETHYLENE SHEETING SHALL BE CONSIDERED INCIDENTAL TO ROADWAY ITEM "TEMPORARY WATER DIVERSION"

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN DETAIL - GEISEL CREEK	SHEET 36	E

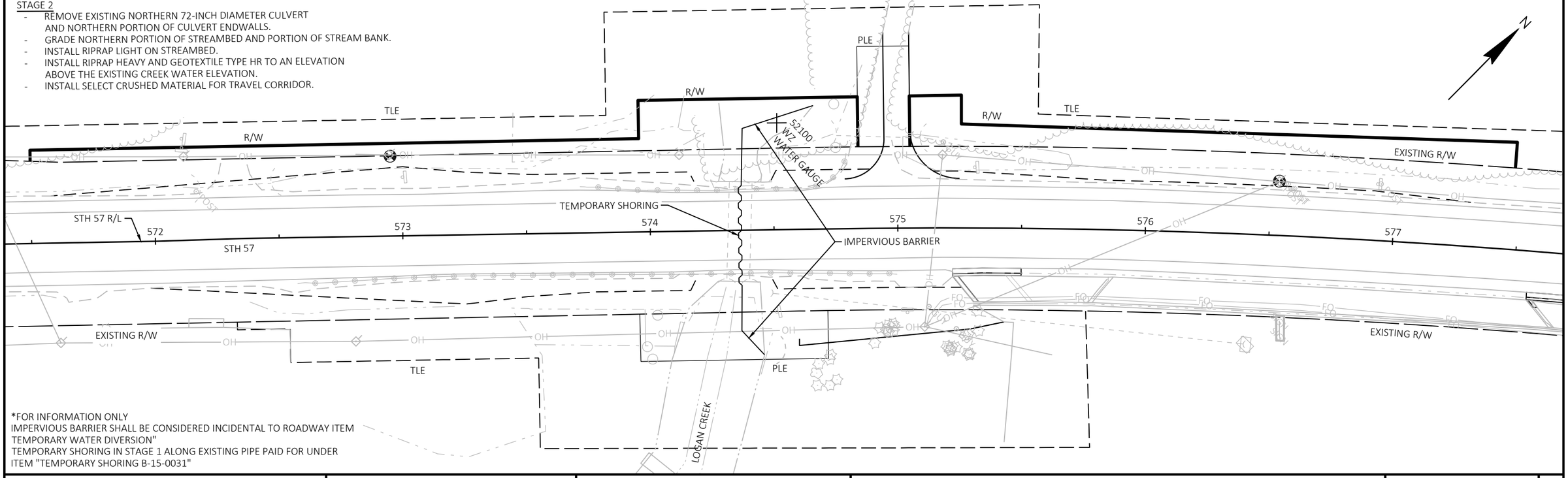
FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - 021206-pd
PLOT DATE : 5/15/2024 11:38 AM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

STAGE 1
- REMOVE EXISTING SOUTHERN 72-INCH DIAMETER CULVERT AND SOUTHERN PORTION OF CULVERT ENDWALLS.
- GRADE SOUTHERN PORTION OF STREAMBED AND PORTION OF STREAM BANK.
- INSTALL RIPRAP LIGHT ON STREAMBED.
- INSTALL RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO AN ELEVATION ABOVE THE EXISTING CREEK WATER ELEVATION.
- INSTALL SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR.



STAGE 2
- REMOVE EXISTING NORTHERN 72-INCH DIAMETER CULVERT AND NORTHERN PORTION OF CULVERT ENDWALLS.
- GRADE NORTHERN PORTION OF STREAMBED AND PORTION OF STREAM BANK.
- INSTALL RIPRAP LIGHT ON STREAMBED.
- INSTALL RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO AN ELEVATION ABOVE THE EXISTING CREEK WATER ELEVATION.
- INSTALL SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR.

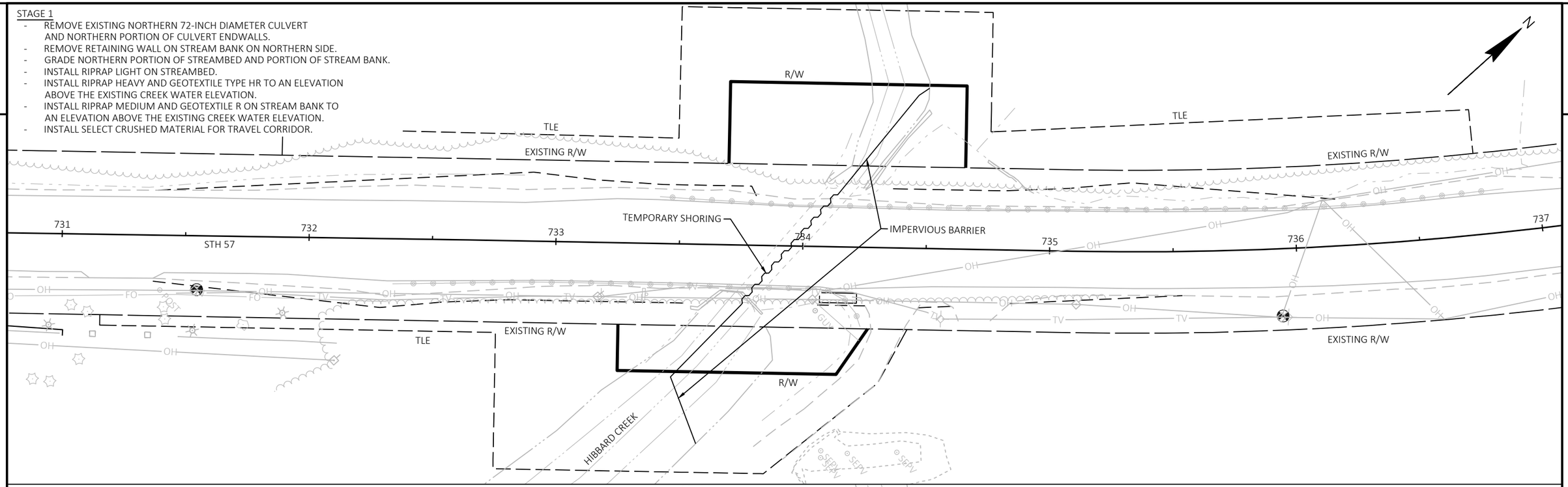


*FOR INFORMATION ONLY
IMPERVIOUS BARRIER SHALL BE CONSIDERED INCIDENTAL TO ROADWAY ITEM TEMPORARY WATER DIVERSION"
TEMPORARY SHORING IN STAGE 1 ALONG EXISTING PIPE PAID FOR UNDER ITEM "TEMPORARY SHORING B-15-0031"

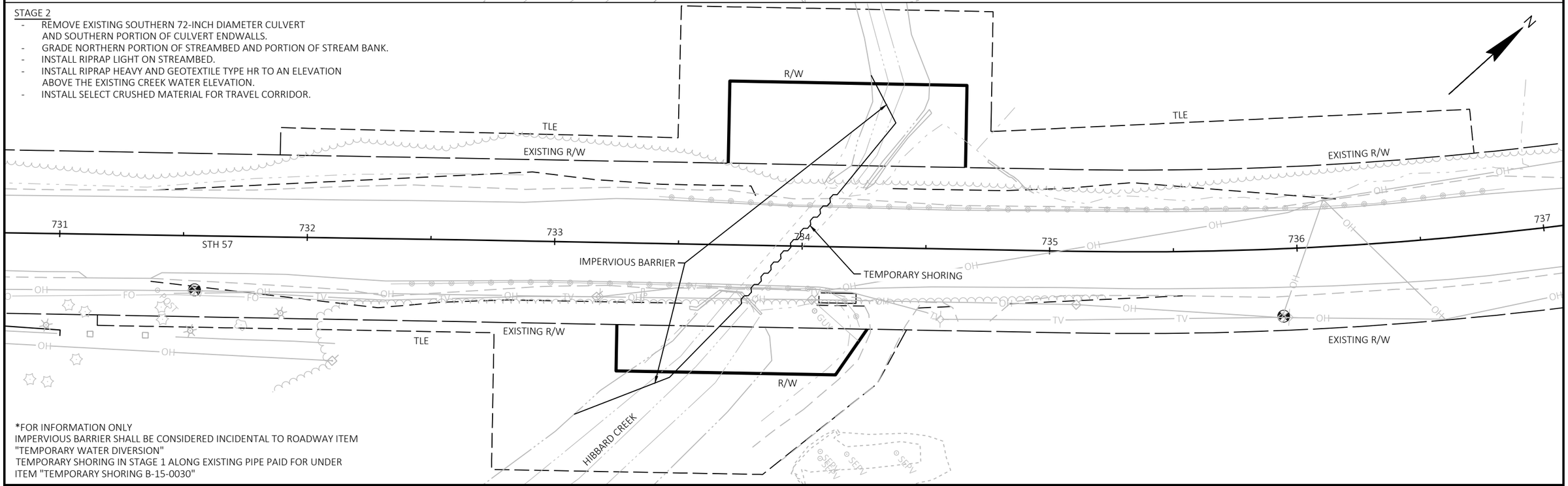
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN DETAIL - LOGAN CREEK	SHEET 37	E

2

STAGE 1
- REMOVE EXISTING NORTHERN 72-INCH DIAMETER CULVERT AND NORTHERN PORTION OF CULVERT ENDWALLS.
- REMOVE RETAINING WALL ON STREAM BANK ON NORTHERN SIDE.
- GRADE NORTHERN PORTION OF STREAMBED AND PORTION OF STREAM BANK.
- INSTALL RIPRAP LIGHT ON STREAMBED.
- INSTALL RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO AN ELEVATION ABOVE THE EXISTING CREEK WATER ELEVATION.
- INSTALL RIPRAP MEDIUM AND GEOTEXTILE R ON STREAM BANK TO AN ELEVATION ABOVE THE EXISTING CREEK WATER ELEVATION.
- INSTALL SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR.



STAGE 2
- REMOVE EXISTING SOUTHERN 72-INCH DIAMETER CULVERT AND SOUTHERN PORTION OF CULVERT ENDWALLS.
- GRADE NORTHERN PORTION OF STREAMBED AND PORTION OF STREAM BANK.
- INSTALL RIPRAP LIGHT ON STREAMBED.
- INSTALL RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO AN ELEVATION ABOVE THE EXISTING CREEK WATER ELEVATION.
- INSTALL SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR.



*FOR INFORMATION ONLY
IMPERVIOUS BARRIER SHALL BE CONSIDERED INCIDENTAL TO ROADWAY ITEM "TEMPORARY WATER DIVERSION"
TEMPORARY SHORING IN STAGE 1 ALONG EXISTING PIPE PAID FOR UNDER ITEM "TEMPORARY SHORING B-15-0030"

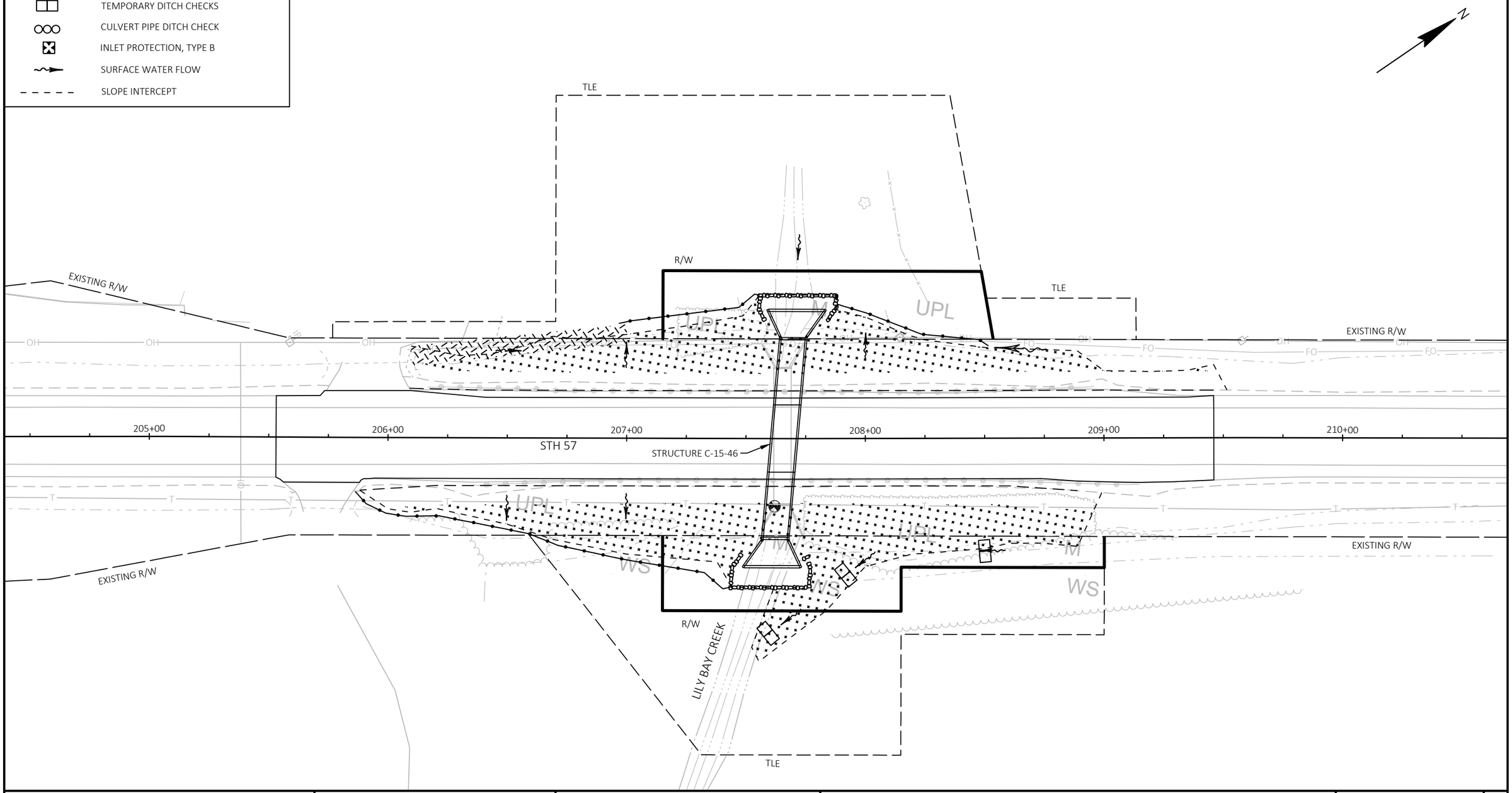
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN DETAIL - HIBBARD CREEK	SHEET 38	E

2

2

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- RIPRAP
- TEMPORARY DITCH CHECKS
- CULVERT PIPE DITCH CHECK
- INLET PROTECTION, TYPE B
- SURFACE WATER FLOW
- SLOPE INTERCEPT



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL DETAIL - LILY BAY CREEK	SHEET 39	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 5/15/2024 11:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- RIPRAP
- TEMPORARY DITCH CHECKS
- CULVERT PIPE DITCH CHECK
- INLET PROTECTION, TYPE B
- SURFACE WATER FLOW
- SLOPE INTERCEPT

N

EXISTING R/W

TLE

R/W

STRUCTURE B-15-29

337+00 338+00 339+00 340+00 341+00 342+00

STH 57

EXISTING R/W

TLE

R/W

GEISEL CREEK

OH WS RPF UTL @GUY

2

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL DETAIL - GEISEL CREEK	SHEET 40	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022002-ec

PLOT DATE : 5/15/2024 11:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

TLE

WS

RPE

WS

R/W

RPE

SIW

EXISTING R/W

OH

STRUCTURE B-15-29

+00

342+00

343+00

344+00

345+00

346+00

347+00

STH 57

FO

GGB

EXISTING R/W

R/W

GEISEL CREEK

PLE

TLE

LEGEND

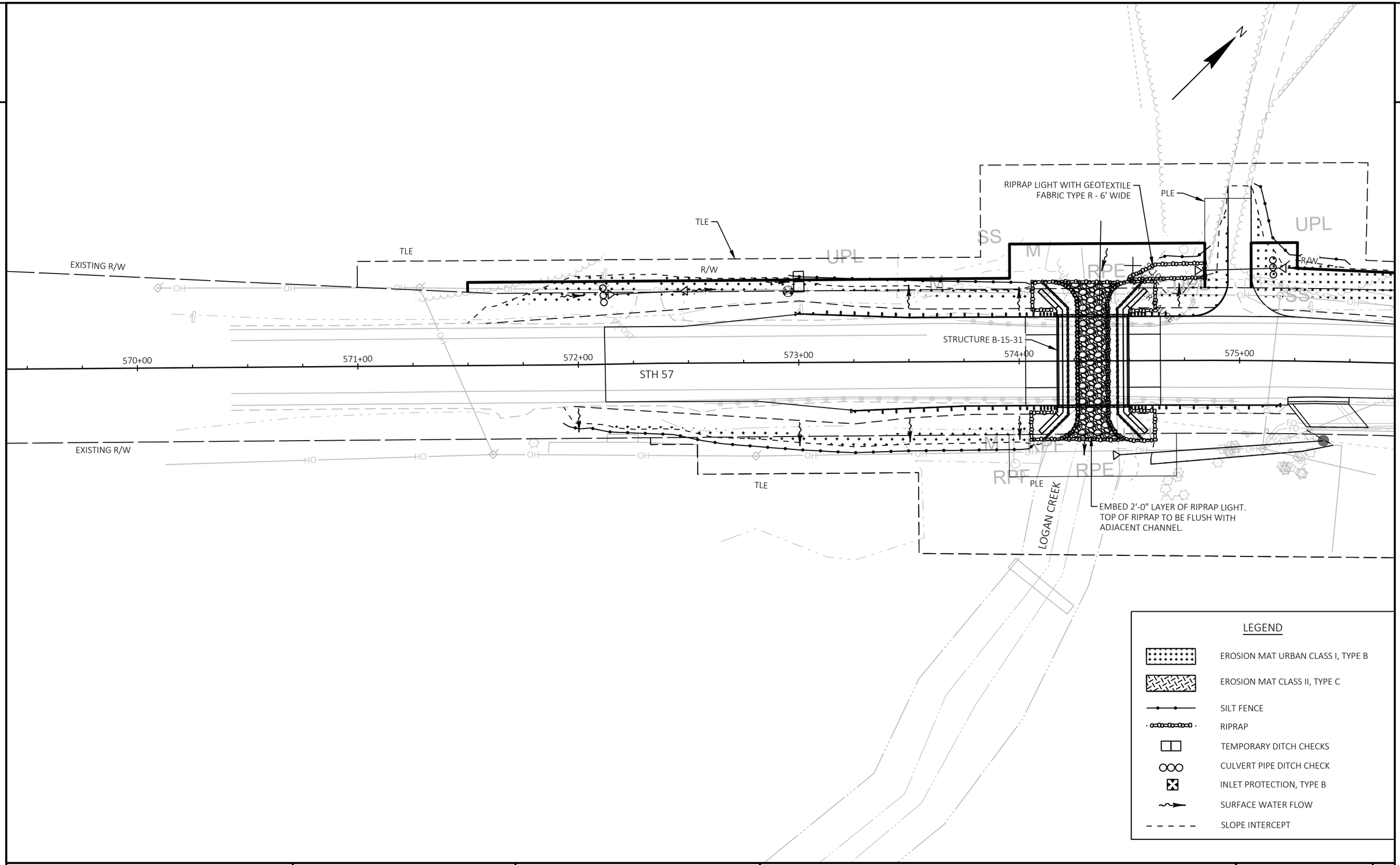
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- RIPRAP
- TEMPORARY DITCH CHECKS
- CULVERT PIPE DITCH CHECK
- INLET PROTECTION, TYPE B
- SURFACE WATER FLOW
- SLOPE INTERCEPT

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL DETAIL - GEISEL CREEK	SHEET 41	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022003-ec

PLOT DATE : 5/15/2024 11:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

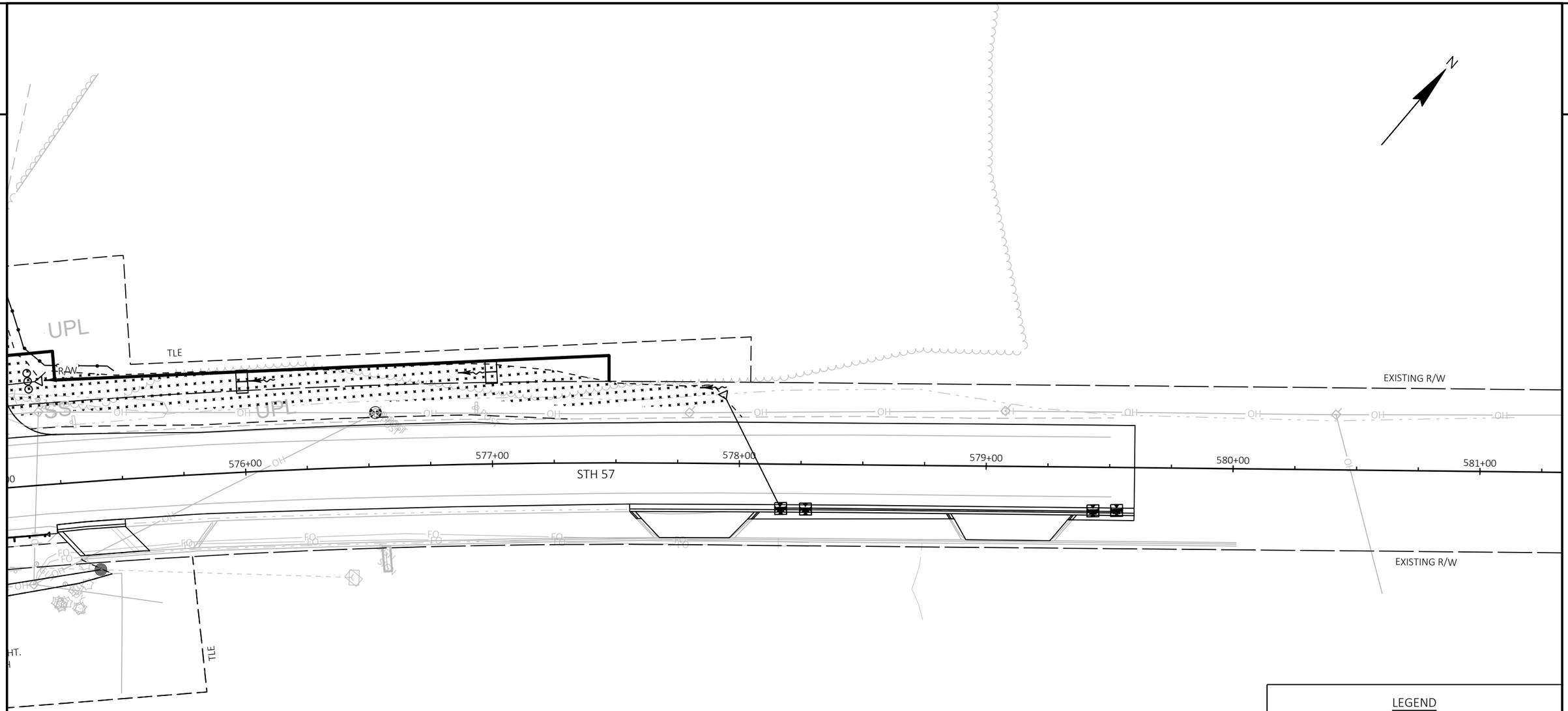
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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL DETAIL - LOGAN CREEK	SHEET 42	E

2

2



LEGEND

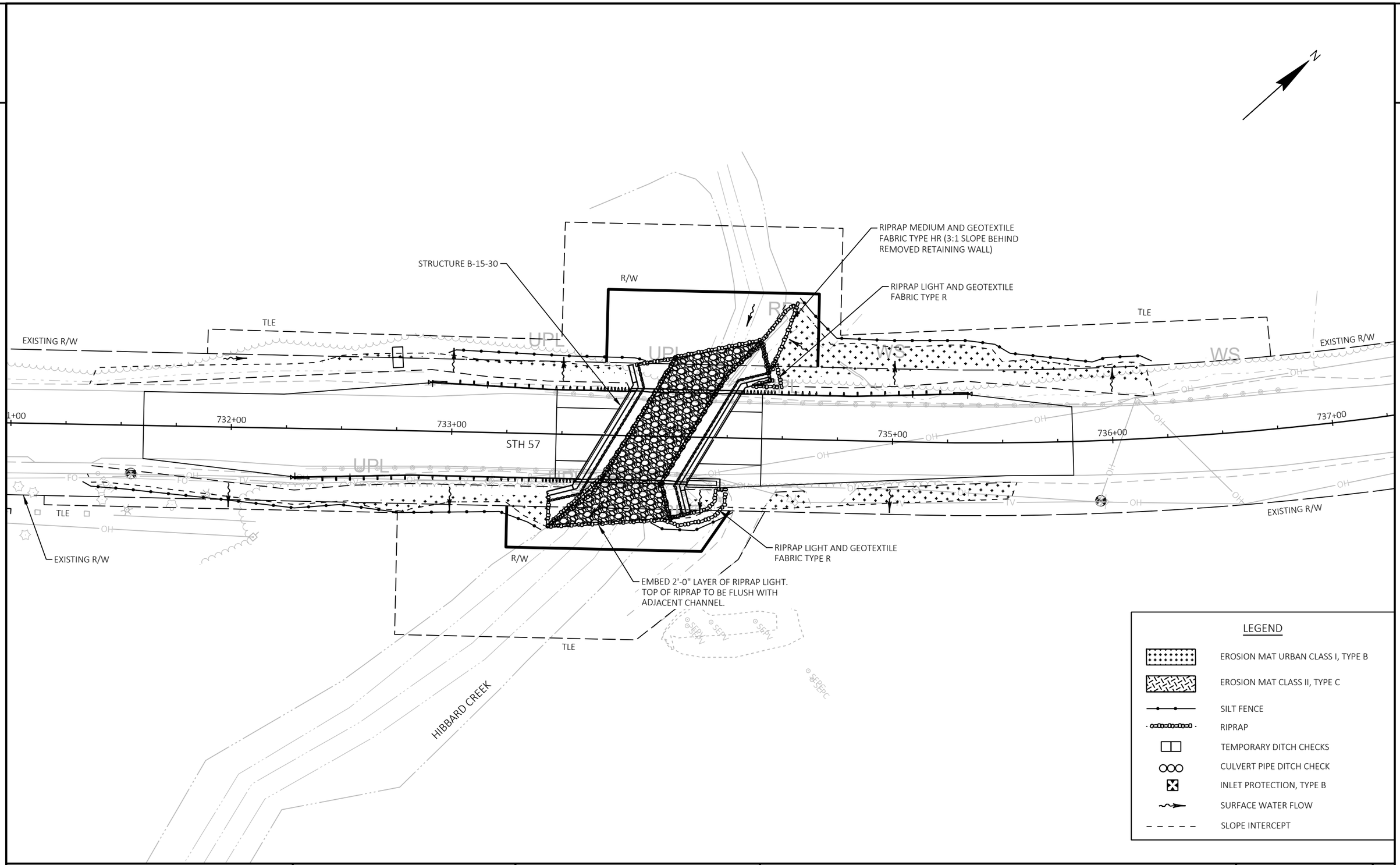
- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- RIPRAP
- TEMPORARY DITCH CHECKS
- CULVERT PIPE DITCH CHECK
- INLET PROTECTION, TYPE B
- SURFACE WATER FLOW
- SLOPE INTERCEPT

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL DETAIL - LOGAN CREEK	SHEET 43	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022008-ec

PLOT DATE : 5/15/2024 11:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

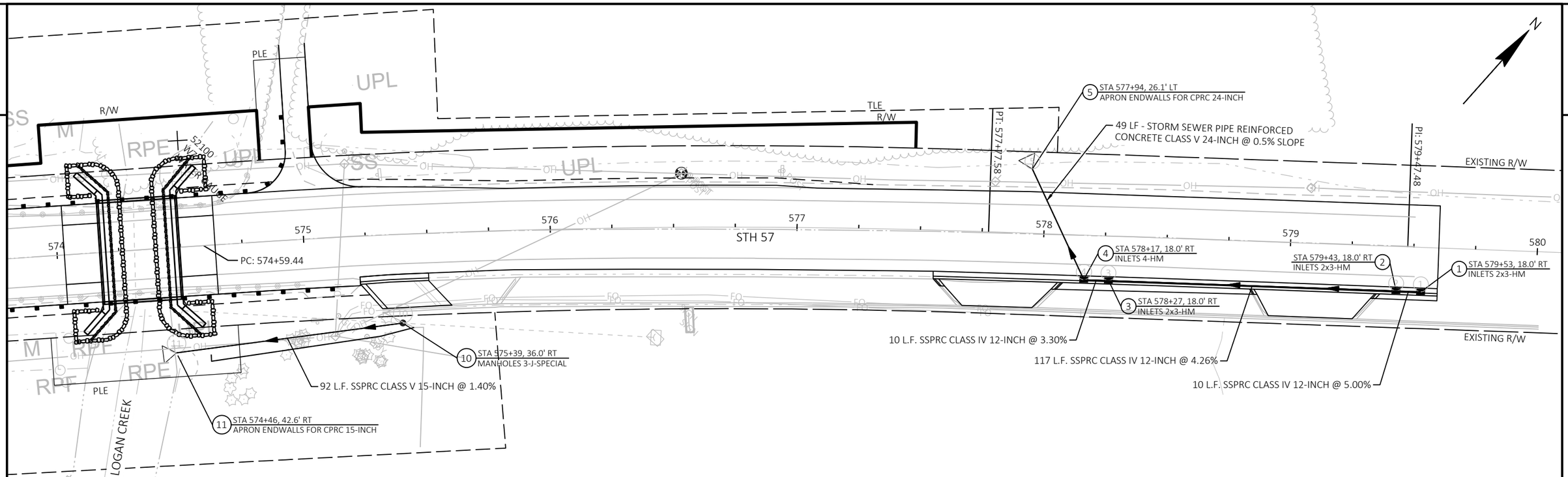


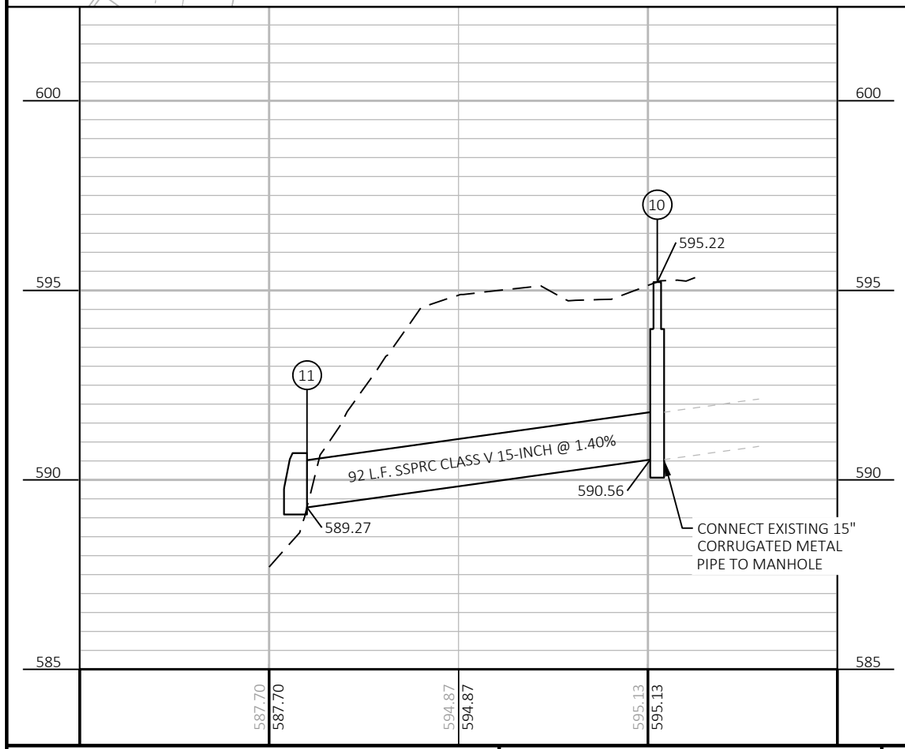
PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL DETAIL - HIBBARD CREEK	SHEET 44	E

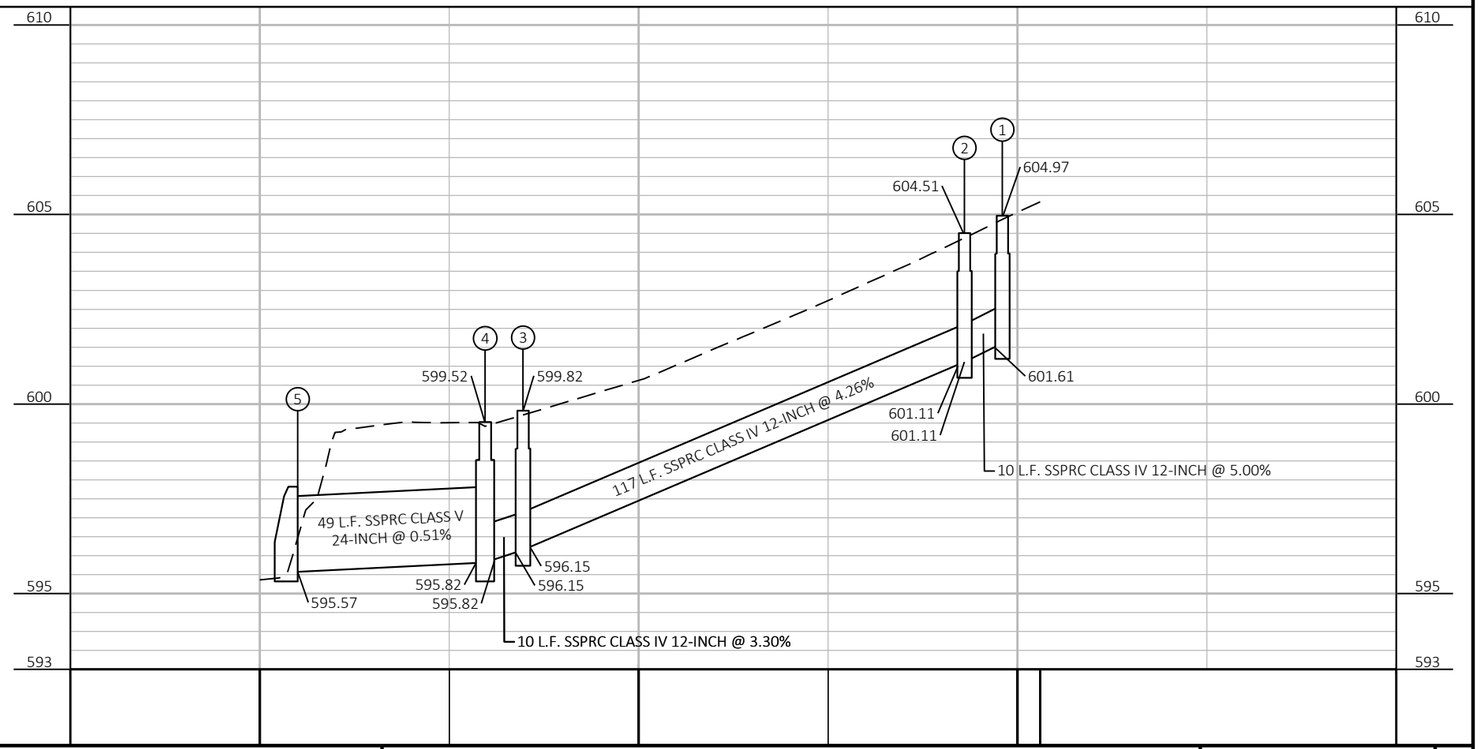
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LAYOUT NAME - 022009-ec

PLOT DATE : 5/15/2024 11:52 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

2







PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	STORM SEWER PLAN	SHEET 45	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 022501
PLOT DATE : 5/14/2024 11:29 AM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

BEGIN PROJECT
STA 100+46.85
Y=171,851.555
X=504,427.723

BEGINNING OF DETOUR ROUTE

EGG HARBOR RD

STH 57

STH 57

MATHEY RD

MATHEY RD

150

1

R/L STH 57

LILY BAY CREEK

2

200

2

1

WORK ZONE

EXISTING: C-15-0036
PROPOSED: C-15-0046

COUNTRY VIEW RD

RIPP RD

RIPP RD

ROCK RIDGE RD

CTH P

250

E. DUNN RD

300

STH 57

1

2

GEISEL CREEK

2

1

350

WORK ZONE

EXISTING: C-15-0043
PROPOSED: B-15-0029

W. WHITEFISH BAY RD

BRAUER RD

CTH T

WHITEFISH

N

CLARKS LAKE RD

CTH T

R/L STH 57

CTH I

END DETOUR ROUTE

LORITZ RD

LOGAN CREEK

EXISTING: C-15-0040
PROPOSED: B-15-0031

BAGNALL RD

JORNS RD (N)

450

500

550

400

600

STH 57

650

LAKESIDE LN

CTH V

CLARKS LAKE RD

BECHTEL RD

LORITZ RD

ONAN DR

CAVE POINT DR

LAKE SHORE RD

JORNS RD

WHITEFISH BAY RD

LEGEND

WORK ZONE

1 PLACE SIGNS W20-3A, W20-3C, W20-3D,AND TWO R11-3C ON TWO BARRICADES WITH TWO TYPE "A" WARNING LIGHTS (FLASHING) ON EACH BARRICADE PER SDD 15C02, DETAIL C "MAINLINE CLOSURE, NO POSTED DETOUR"

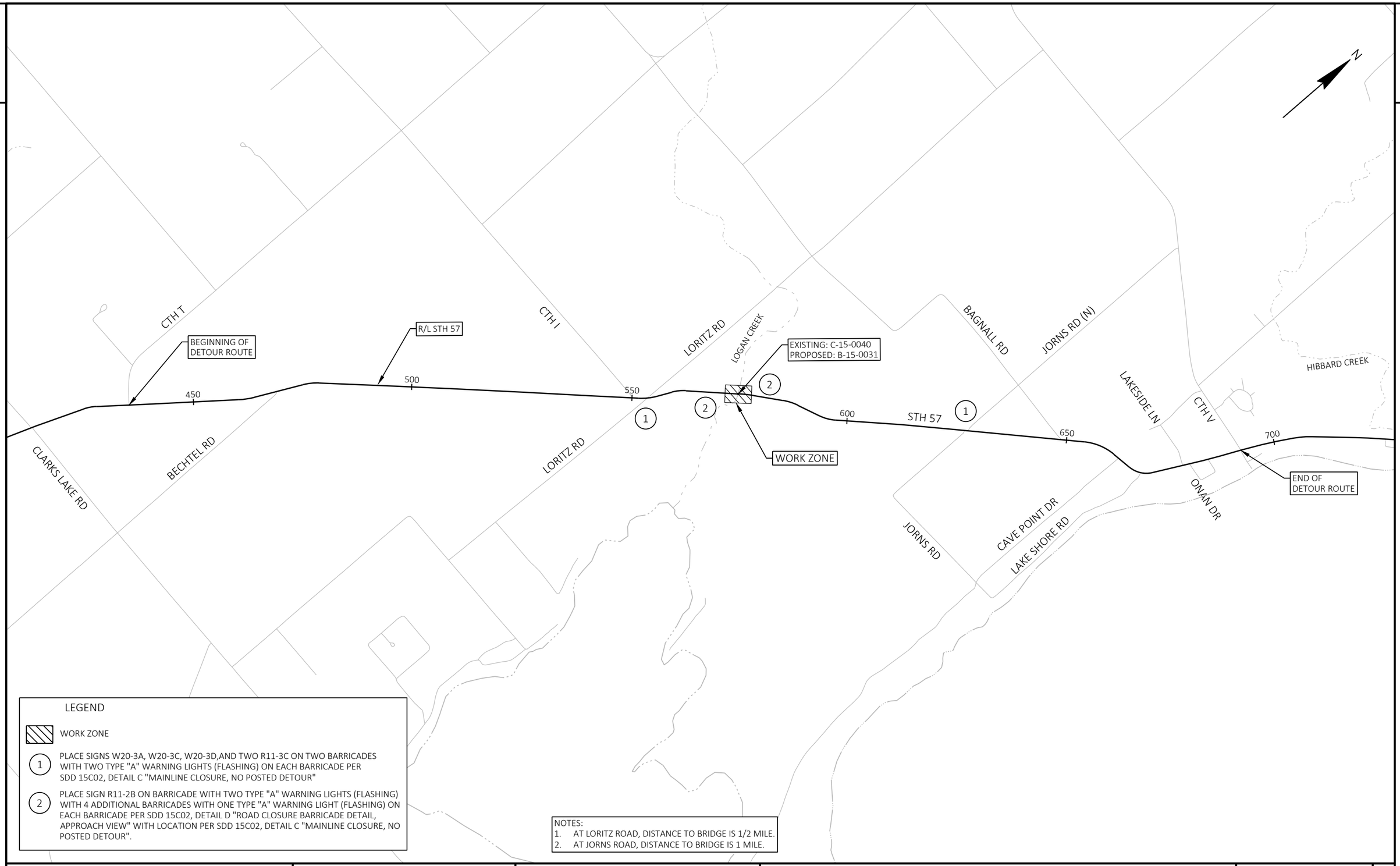
2 PLACE SIGN R11-2B ON BARRICADE WITH TWO TYPE "A" WARNING LIGHTS (FLASHING) WITH 4 ADDITIONAL BARRICADES WITH ONE TYPE "A" WARNING LIGHT (FLASHING) ON EACH BARRICADE PER SDD 15C02, DETAIL D "ROAD CLOSURE BARRICADE DETAIL, APPROACH VIEW" WITH LOCATION PER SDD 15C02, DETAIL C "MAINLINE CLOSURE, NO POSTED DETOUR".

NOTES:
1. AT MATHEY ROAD, DISTANCE TO BRIDGE IS 1 MILE.
2. AT COUNTRY VIEW ROAD, DISTANCE TO BRIDGE IS 2 1/4 MILES.
3. AT W. WHITEFISH BAY ROAD, DISTANCE TO BRIDGE IS 1/4 MILE.
4. AT CTH T/WHITEFISH BAY ROAD, DISTANCE TO BRIDGE IS 1/4 MILE.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TRAFFIC CONTROL - LILY BAY CREEK & GEISEL CREEK	SHEET 46	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025101-tc
PLOT DATE : 5/15/2024 11:56 AM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 44

2



LEGEND

WORK ZONE

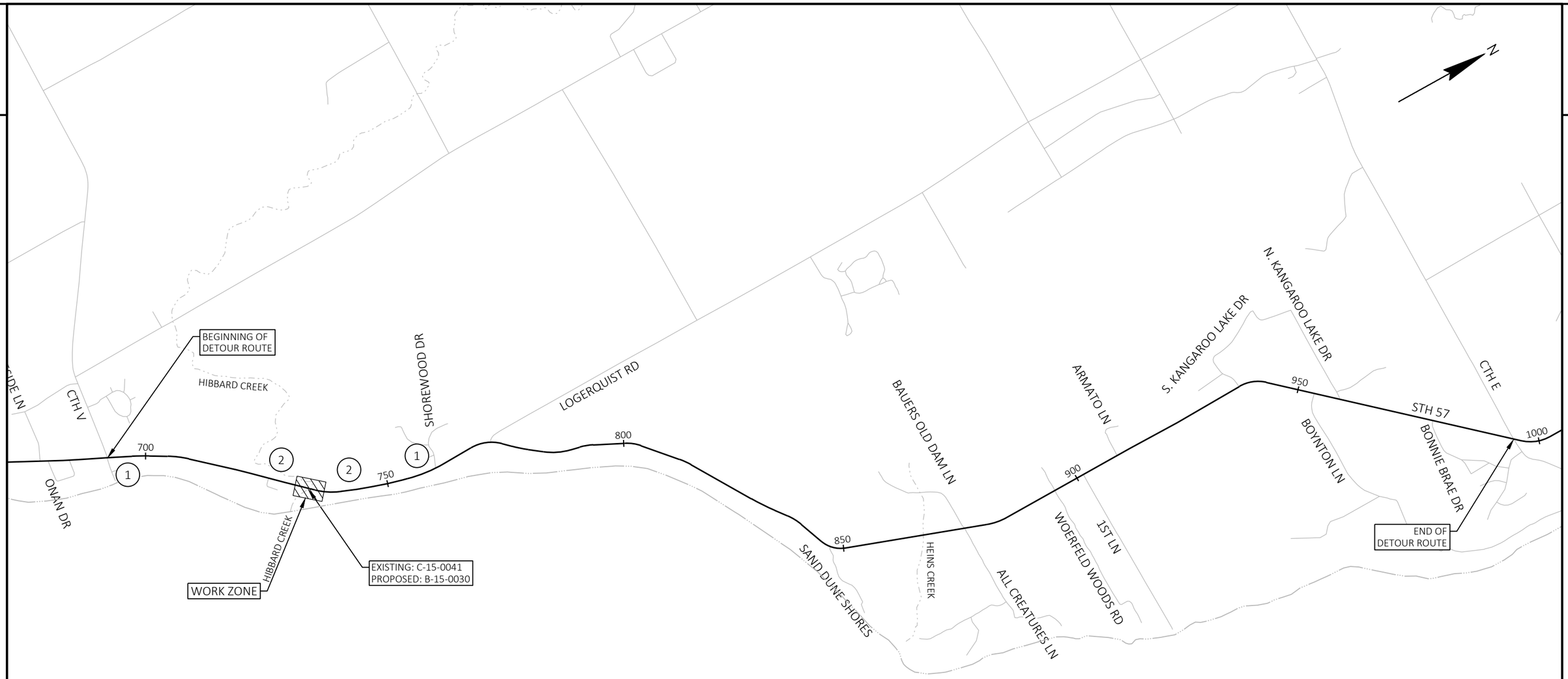
(1) PLACE SIGNS W20-3A, W20-3C, W20-3D,AND TWO R11-3C ON TWO BARRICADES WITH TWO TYPE "A" WARNING LIGHTS (FLASHING) ON EACH BARRICADE PER SDD 15C02, DETAIL C "MAINLINE CLOSURE, NO POSTED DETOUR"

(2) PLACE SIGN R11-2B ON BARRICADE WITH TWO TYPE "A" WARNING LIGHTS (FLASHING) WITH 4 ADDITIONAL BARRICADES WITH ONE TYPE "A" WARNING LIGHT (FLASHING) ON EACH BARRICADE PER SDD 15C02, DETAIL D "ROAD CLOSURE BARRICADE DETAIL, APPROACH VIEW" WITH LOCATION PER SDD 15C02, DETAIL C "MAINLINE CLOSURE, NO POSTED DETOUR".

NOTES:
1. AT LORITZ ROAD, DISTANCE TO BRIDGE IS 1/2 MILE.
2. AT JORNS ROAD, DISTANCE TO BRIDGE IS 1 MILE.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TRAFFIC CONTROL - LOGAN CREEK	SHEET 47	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025102-tc
PLOT DATE : 5/15/2024 11:56 AM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT



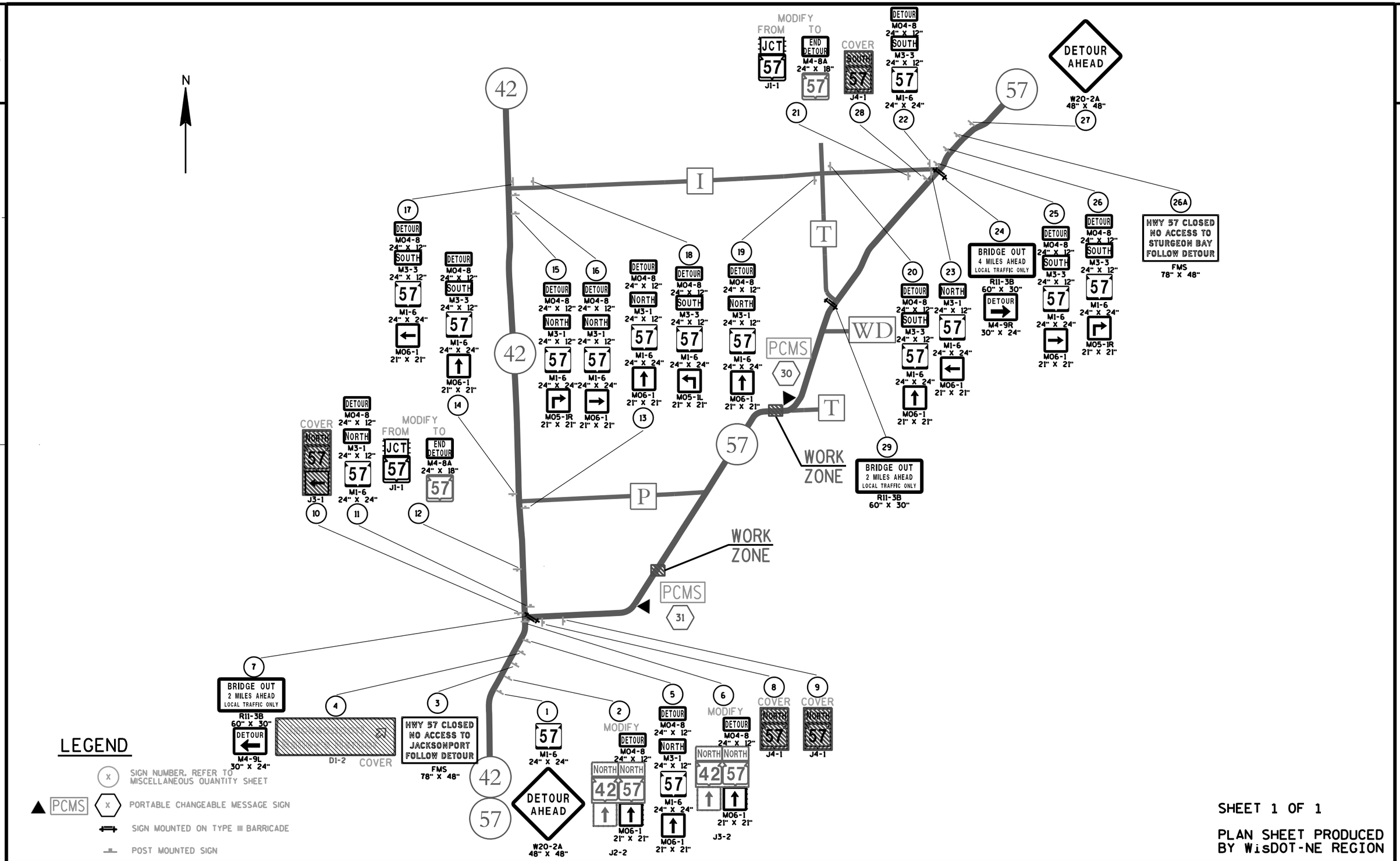
LEGEND

- WORK ZONE
- (1) PLACE SIGNS W20-3A, W20-3C, W20-3D,AND TWO R11-3C ON TWO BARRICADES WITH TWO TYPE "A" WARNING LIGHTS (FLASHING) ON EACH BARRICADE PER SDD 15C02, DETAIL C "MAINLINE CLOSURE, NO POSTED DETOUR"
- (2) PLACE SIGN R11-2B ON BARRICADE WITH TWO TYPE "A" WARNING LIGHTS (FLASHING) WITH 4 ADDITIONAL BARRICADES WITH ONE TYPE "A" WARNING LIGHT (FLASHING) ON EACH BARRICADE PER SDD 15C02, DETAIL D "ROAD CLOSURE BARRICADE DETAIL, APPROACH VIEW" WITH LOCATION PER SDD 15C02, DETAIL C "MAINLINE CLOSURE, NO POSTED DETOUR".

NOTES:
1. AT CTH V, DISTANCE TO BRIDGE IS 3/4 MILE.
2. AT SHOREWOOD ROAD, DISTANCE TO BRIDGE IS 1/2 MILE.

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	TRAFFIC CONTROL - HIBBARD CREEK	SHEET 48	E

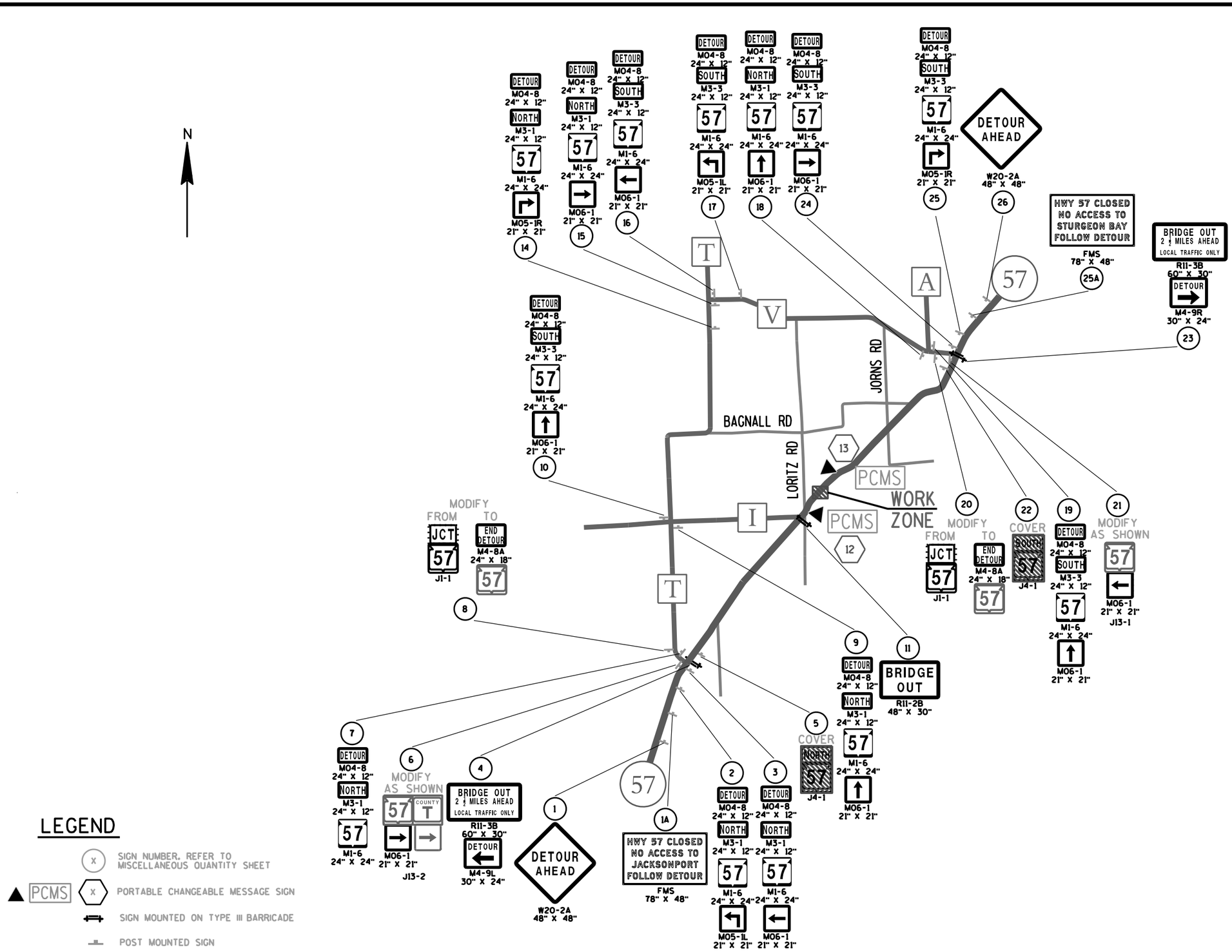
FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 025103-tc
PLOT DATE : 5/15/2024 11:56 AM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42



SHEET 1 OF 1

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	DETOUR SIGNING DETAIL (LILY BAY CREEK / GEISEL CREEK)	SHEET 49	E



LEGEND

- (X) SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
- ▲ PCMS (X) PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

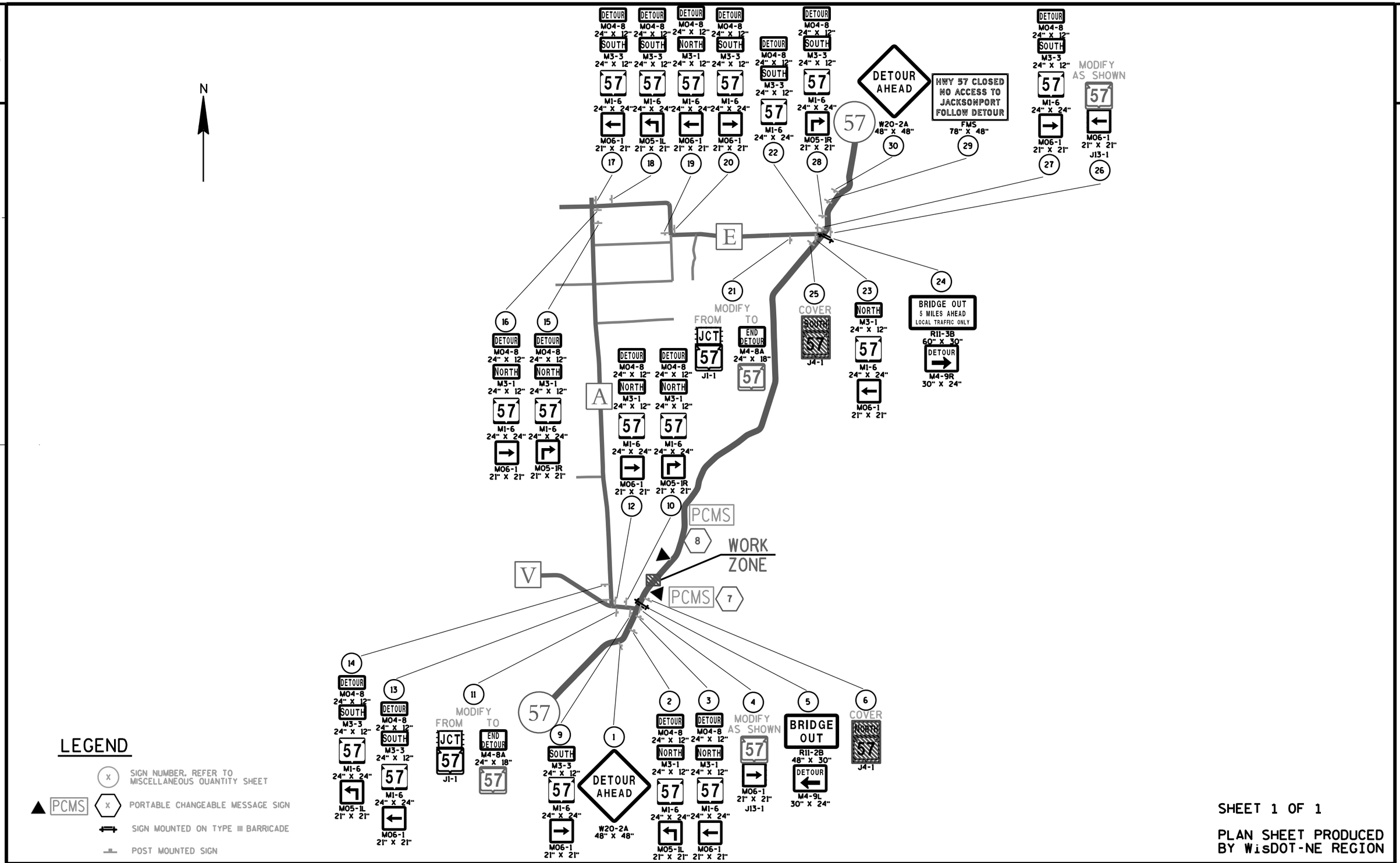
SHEET 1 OF 1

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	DETOUR SIGNING DETAIL (LOGAN CREEK)	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42



SHEET 1 OF 1

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	DETOUR SIGNING DETAIL (HIBBARD CREEK)	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

Estimate Of Quantities

4150-26-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	21.000	21.000
0006	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0008	203.0220	Removing Structure (structure) 01. C-15-0040	EACH	1.000	1.000
0010	203.0220	Removing Structure (structure) 02. C-15-0041	EACH	1.000	1.000
0012	203.0250	Removing Structure Over Waterway Remove Debris (structure) 01. C-15-36	EACH	1.000	1.000
0014	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. C-15-43	EACH	1.000	1.000
0016	204.0100	Removing Concrete Pavement	SY	333.000	333.000
0018	204.0110	Removing Asphaltic Surface	SY	140.000	140.000
0020	204.0115	Removing Asphaltic Surface Butt Joints	SY	78.000	78.000
0022	204.0120	Removing Asphaltic Surface Milling	SY	4,690.000	4,690.000
0024	204.0150	Removing Curb & Gutter	LF	276.000	276.000
0026	204.0170	Removing Fence	LF	50.000	50.000
0028	204.0245	Removing Storm Sewer (size) 01. 15-Inch	LF	89.000	89.000
0030	204.9090.S	Removing (item description) 01. Retaining Wall	LF	55.000	55.000
0032	205.0100	Excavation Common	CY	3,520.000	3,520.000
0034	206.1001	Excavation for Structures Bridges (structure) 01. B-15-29	EACH	1.000	1.000
0036	206.1001	Excavation for Structures Bridges (structure) 02. B-15-30	EACH	1.000	1.000
0038	206.1001	Excavation for Structures Bridges (structure) 03. B-15-31	EACH	1.000	1.000
0040	206.2001	Excavation for Structures Culverts (structure) 01. C-15-46	EACH	1.000	1.000
0042	208.0100	Borrow	CY	2,360.000	2,360.000
0044	210.1500	Backfill Structure Type A	TON	1,186.000	1,186.000
0046	210.2500	Backfill Structure Type B	TON	1,138.000	1,138.000
0048	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 4150-26-71	EACH	1.000	1.000
0050	213.0100	Finishing Roadway (project) 01. 4150-26-71	EACH	1.000	1.000
0052	305.0110	Base Aggregate Dense 3/4-Inch	TON	830.000	830.000
0054	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,710.000	6,710.000
0056	311.0115	Breaker Run	CY	115.000	115.000
0058	415.0060	Concrete Pavement 6-Inch	SY	195.000	195.000
0060	415.0410	Concrete Pavement Approach Slab	SY	277.000	277.000
0062	450.1100.S	Asphaltic Mixture For Extreme Conditions	TON	769.000	769.000
0064	450.4000	HMA Cold Weather Paving	TON	1,405.000	1,405.000
0066	455.0605	Tack Coat	GAL	1,370.000	1,370.000
0068	460.2000	Incentive Density HMA Pavement	DOL	1,320.000	1,320.000
0070	460.6223	HMA Pavement 3 MT 58-28 S	TON	1,210.000	1,210.000
0072	460.6224	HMA Pavement 4 MT 58-28 S	TON	848.000	848.000
0074	465.0105	Asphaltic Surface	TON	3.000	3.000
0076	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	14.000	14.000
0078	465.0125	Asphaltic Surface Temporary	TON	769.000	769.000
0080	502.0100	Concrete Masonry Bridges	CY	736.000	736.000
0082	502.3200	Protective Surface Treatment	SY	821.000	821.000
0084	502.3210	Pigmented Surface Sealer	SY	120.000	120.000
0086	504.0100	Concrete Masonry Culverts	CY	109.000	109.000
0088	505.0400	Bar Steel Reinforcement HS Structures	LB	35,695.000	35,695.000
0090	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	83,840.000	83,840.000
0092	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	420.000	420.000
0094	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	22.000	22.000
0096	511.1200	Temporary Shoring (structure) 01. B-15-31	SF	126.000	126.000
0098	511.1200	Temporary Shoring (structure) 02. B-15-30	SF	180.000	180.000

4150-26-71

Line	Item	Item Description	Unit	Total	Qty
0100	513.7051	Railing Steel Type W	LF	58.000	58.000
0102	516.0500	Rubberized Membrane Waterproofing	SY	97.000	97.000
0104	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0106	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	4.000	4.000
0108	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	30.000	30.000
0110	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	90.000	90.000
0112	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	1.000	1.000
0114	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0116	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	36.000	36.000
0118	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	2.000	2.000
0120	550.0020	Pre-Boring Rock or Consolidated Materials	LF	280.000	280.000
0122	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,070.000	1,070.000
0124	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	31.000	31.000
0126	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	232.000	232.000
0128	606.0100	Riprap Light	CY	370.000	370.000
0130	606.0200	Riprap Medium	CY	48.000	48.000
0132	606.0300	Riprap Heavy	CY	483.000	483.000
0134	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	137.000	137.000
0136	608.0515	Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	LF	92.000	92.000
0138	608.0524	Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	LF	49.000	49.000
0140	611.0535	Manhole Covers Type J-Special	EACH	1.000	1.000
0142	611.0627	Inlet Covers Type HM	EACH	4.000	4.000
0144	611.2003	Manholes 3-FT Diameter	EACH	1.000	1.000
0146	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0148	611.3230	Inlets 2x3-FT	EACH	3.000	3.000
0150	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	503.000	503.000
0152	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	11.000	11.000
0154	614.0200	Steel Thrie Beam Structure Approach	LF	75.200	75.200
0156	614.0305	Steel Plate Beam Guard Class A	LF	112.500	112.500
0158	614.0345	Steel Plate Beam Guard Short Radius	LF	24.500	24.500
0160	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	3.000	3.000
0162	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	1.000	1.000
0164	614.0800	Crash Cushions Permanent	EACH	1.000	1.000
0166	614.0920	Salvaged Rail	LF	2,100.000	2,100.000
0168	614.2300	MGS Guardrail 3	LF	440.600	440.600
0170	614.2350	MGS Guardrail Short Radius	LF	25.600	25.600
0172	614.2500	MGS Thrie Beam Transition	LF	275.800	275.800
0174	614.2610	MGS Guardrail Terminal EAT	EACH	6.000	6.000
0176	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0178	616.0700.S	Fence Safety	LF	61.000	61.000
0180	618.0100	Maintenance and Repair of Haul Roads (project) 01. 4150-26-71	EACH	1.000	1.000
0182	619.1000	Mobilization	EACH	1.000	1.000
0184	624.0100	Water	MGAL	70.000	70.000
0186	625.0500	Salvaged Topsoil	SY	4,730.000	4,730.000
0188	627.0200	Mulching	SY	1,400.000	1,400.000
0190	628.1504	Silt Fence	LF	2,560.000	2,560.000
0192	628.1520	Silt Fence Maintenance	LF	640.000	640.000
0194	628.1905	Mobilizations Erosion Control	EACH	12.000	12.000
0196	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000

4150-26-71

Line	Item	Item Description	Unit	Total	Qty
0198	628.2008	Erosion Mat Urban Class I Type B	SY	4,650.000	4,650.000
0200	628.2027	Erosion Mat Class II Type C	SY	85.000	85.000
0202	628.7010	Inlet Protection Type B	EACH	4.000	4.000
0204	628.7504	Temporary Ditch Checks	LF	83.000	83.000
0206	628.7555	Culvert Pipe Checks	EACH	20.000	20.000
0208	628.7560	Tracking Pads	EACH	9.000	9.000
0210	629.0210	Fertilizer Type B	CWT	4.000	4.000
0212	630.0110	Seeding Mixture No. 10	LB	128.000	128.000
0214	630.0300	Seeding Borrow Pit	LB	32.000	32.000
0216	630.0500	Seed Water	MGAL	54.000	54.000
0218	633.5200	Markers Culvert End	EACH	2.000	2.000
0220	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	2.000	2.000
0222	638.2102	Moving Signs Type II	EACH	12.000	12.000
0224	638.3000	Removing Small Sign Supports	EACH	14.000	14.000
0226	642.5201	Field Office Type C 01. Field Office #1	EACH	1.000	1.000
0228	642.5201	Field Office Type C 02. Field Office #2	EACH	1.000	1.000
0230	643.0420	Traffic Control Barricades Type III	DAY	5,489.000	5,489.000
0232	643.0705	Traffic Control Warning Lights Type A	DAY	8,186.000	8,186.000
0234	643.0900	Traffic Control Signs	DAY	19,381.000	19,381.000
0236	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0238	643.1000	Traffic Control Signs Fixed Message	SF	104.000	104.000
0240	643.1050	Traffic Control Signs PCMS	DAY	84.000	84.000
0242	643.5000	Traffic Control	EACH	1.000	1.000
0244	645.0105	Geotextile Type C	SY	278.000	278.000
0246	645.0111	Geotextile Type DF Schedule A	SY	371.000	371.000
0248	645.0120	Geotextile Type HR	SY	874.000	874.000
0250	645.0130	Geotextile Type R	SY	133.000	133.000
0252	646.1020	Marking Line Epoxy 4-Inch	LF	6,440.000	6,440.000
0254	646.2020	Marking Line Epoxy 6-Inch	LF	4,780.000	4,780.000
0256	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	2,730.000	2,730.000
0258	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	1,760.000	1,760.000
0260	650.4000	Construction Staking Storm Sewer	EACH	7.000	7.000
0262	650.4500	Construction Staking Subgrade	LF	2,413.000	2,413.000
0264	650.5000	Construction Staking Base	LF	2,413.000	2,413.000
0266	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	250.000	250.000
0268	650.6501	Construction Staking Structure Layout (structure) 01. C-15-46	EACH	1.000	1.000
0270	650.6501	Construction Staking Structure Layout (structure) 02. B-15-29	EACH	1.000	1.000
0272	650.6501	Construction Staking Structure Layout (structure) 03. B-15-31	EACH	1.000	1.000
0274	650.6501	Construction Staking Structure Layout (structure) 04. B-15-30	EACH	1.000	1.000
0276	650.9911	Construction Staking Supplemental Control (project) 01. 4150-26-71	EACH	1.000	1.000
0278	650.9920	Construction Staking Slope Stakes	LF	2,413.000	2,413.000
0280	690.0150	Sawing Asphalt	LF	4,210.000	4,210.000
0282	690.0250	Sawing Concrete	LF	55.000	55.000
0284	715.0502	Incentive Strength Concrete Structures	DOL	5,070.000	5,070.000
0286	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0288	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0290	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,200.000	1,200.000
0292	SPV.0035	Special 01. Foundation Backfill	CY	650.000	650.000
0294	SPV.0060	Special 01. Salvage and Reinstall Water Elevation Gauge	EACH	1.000	1.000

4150-26-71

Line	Item	Item Description	Unit	Total	Qty
0296	SPV.0060	Special 02. Temporary Water Diversion Lily Bay Creek Station 207+68	EACH	1.000	1.000
0298	SPV.0060	Special 03. Temporary Water Diversion Geisel Creek Station 341+85	EACH	1.000	1.000
0300	SPV.0060	Special 04. Temporary Water Diversion Logan Creek Station 574+30	EACH	1.000	1.000
0302	SPV.0060	Special 05. Temporary Water Diversion Hibbard Creek Station 733+95	EACH	1.000	1.000
0304	SPV.0090	Special 01. Prestressed Girder Box Type 17-Inch	LF	294.000	294.000
0306	SPV.0195	Special 01. Select Crushed Material for Travel Corridor	TON	88.000	88.000

3

CLEARING AND GRUBBING SUMMARY

STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	REMARKS
206+00	--	209+00	LT & RT	--	3	
339+00	--	346+00	LT & RT	--	7	
573+00	--	578+00	LT & RT	--	5	
731+00	--	737+00	LT & RT	6	6	
			TOTAL	**6**	**21**	

REMOVING SMALL PIPE CULVERTS SUMMARY

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
342+77	RT	2	24-INCH DIAMTER CORRUGATED METAL
572+34	LT	1	12-INCH DIAMETER CORRUGATED METAL
574+88	LT	1	12-INCH DIAMETER CORRUGATED METAL
	TOTAL	**4**	

3

REMOVING CONCRETE PAVEMENT SUMMARY

STATION	TO	STATION	204.0100 REMOVING CONCRETE PAVEMENT SY	REMARKS
206+16	--	208+96	333	
		TOTAL	**333**	

REMOVING ASPHALTIC SURFACE BUTT JOINTS SUMMARY

STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMARKS
205+53	--	205+55	LT & RT	8	
205+53	--	205+90	RT	8	DRIVEWAY
205+72	--	206+10	LT	8	DRIVEWAY
209+44	--	209+46	LT & RT	7	
337+50	--	337+52	LT & RT	6	
344+64	--	344+66	LT & RT	7	
572+12	--	572+14	LT & RT	8	
578+91	--	579+28	RT	8	DRIVEWAY
579+58	--	579+60	LT & RT	7	
731+60	--	731+62	LT & RT	6	
735+80	--	735+82	LT & RT	6	
			TOTAL	**78**	

REMOVING ASPHALTIC SURFACE AND MILLING SUMMARY

STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
205+55	--	206+69	LT & RT	--	357	
208+19	--	209+44	LT & RT	--	242	
337+52	--	340+50	LT & RT	--	847	
342+88	--	344+64	LT & RT	--	519	
338+50	--	340+50	LT & RT	--	532	IF ASPHALTIC SURFACE TEMPORARY IS USED
572+14	--	573+70	LT & RT	--	414	
575+24	--	575+59	RT	30	--	DRIVEWAY
575+50	--	577+56	LT & RT	--	677	
577+56	--	579+60	LT & RT	110	30	INCLUDES DRIVEWAYS
578+46	--	579+58	LT & RT	--	390	
731+62	--	733+25	LT & RT	--	459	
735+00	--	735+80	LT & RT	--	223	
			TOTAL	**140**	**4,690**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

REMOVING CURB & GUTTER SUMMARY

STATION	TO	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF	REMARKS
575+22	--	575+50	RT	54	
577+69	--	579+60	RT	222	
			TOTAL	**276**	

REMOVING FENCE SUMMARY

STATION	TO	STATION	LOCATION	204.0170 REMOVING FENCE LF	REMARKS
732+83	--	733+33	RT	50	
			TOTAL	**50**	

REMOVING STORM SEWER SUMMARY

STATION	TO	STATION	LOCATION	204.0245 REMOVING STORM SEWER (15-INCH) LF	REMARKS
574+49	--	575+39	RT	89	
			TOTAL	**89**	

REMOVING RETAINING WALL SUMMARY

STATION	TO	STATION	LOCATION	204.9090.S REMOVING RETAINING WALL LF	REMARKS
734+25	--	734+50	LT	32	
734+75	--	734+93	LT	23	
			TOTAL	**55**	

FROM/TO STATION	LOCATION	* 205.0100 COMMON EXCAVATION (1) CUT (2)	UNEXPANDED FILL	EXPANDED FILL (3) FACTOR 1.15	* 208.0100 BORROW	COMMENT
206+00.00/207+40.00	LILY BAY CREEK-SOUTH SIDE	262	214	246	246	
208+00.00/209+45.97	LILY BAY CREEK-NORTH SIDE	181	138	159	159	
336+79.09/341+50.00	GEISEL CREEK-WEST SIDE	451	720	828	828	
342+50.00/345+57.72	GEISEL CREEK-EAST SIDE	326	159	183	183	
571+58.14/574+00.00	LOGAN CREEK-SOUTH SIDE	362	108	124	124	
574+66.60/577+89.00	LOGAN CREEK-NORTH SIDE	440	54	62	62	
731+36.94/733+50.00	HIBBARD CREEK-SOUTH SIDE	321	67	77	77	
734+50.00/736+16.81	HIBBARD CREEK-NORTH SIDE	220	217	250	250	
10+05.00/11+37.03	DWY 343+11	1	224	258	258	
20+05.00/20+75.00	DWY 575+00	2	36	41	41	
		2,566	1,937	2,228	2,228	
SUB-TOTAL		2,566	1,937	2,228	2,228	

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EXPANDED FILL FACTOR = 1.15

* = ADDITIONAL QUANTITIES ARE SHOWN ELSEWHERE

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

EARTHWORK ITEMS SUMMARY

STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	208.0100 BORROW CY	SPV.0035.01 FOUNDATION BACKFILL CY	REMARKS
207+40	--	207+44	LT & RT	10	25	--	AREA BETWEEN LAST SECTION AND STRUCTURE EXCAVATION
207+53	--	207+84	RT	5	--	--	GRADING FOR DITCH
207+88	--	207+91	LT & RT	5	4	--	AREA BETWEEN ADDED SECTION AND STRUCTURE EXCAVATION
207+91	--	208+00	LT & RT	24	46	--	AREA BETWEEN ADDED SECTION AND EARTHWORK QUANTITIES
207+44	--	207+88	LT & RT	--	--	558	AREA BETWEEN TOP OF BACKFILL STRUCTURE TYPE B AND BOTTOM OF BASE AGGREGATE DENSE 1 1/4-INCH
205+91	--	206+69	LT & RT	14	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
206+69	--	208+19	LT & RT	97	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
208+19	--	209+46	LT & RT	19	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
338+50	--	340+50	LT & RT	-25	--	--	REMOVING MATERIAL FOR MILLING AREAS
341+50	--	341+63	LT & RT	24	28	--	AREA BETWEEN ADDED SECTION AND EARTHWORK QUANTITIES
342+11	--	342+50	LT & RT	103	64	--	AREA BETWEEN ADDED SECTION AND EARTHWORK QUANTITIES
341+96	--	342+11	LT	3	1	--	GRADING FOR DITCH
341+86	--	342+11	RT	20	4	--	GRADING FOR DITCH
337+50	--	340+50	LT & RT	74	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
340+50	--	341+51	LT & RT	72	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
342+88	--	344+66	LT & RT	46	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
342+23	--	342+88	LT & RT	42	--	--	REMOVAL OF EXCESS BASE AGGREGATE AND ASPHALTIC SURFACE TEMPORARY
572+48	--	573+70	LT & RT	-20	--	--	REMOVING MATERIAL FOR MILLING AREAS
574+00	--	574+05	LT & RT	12	6	--	AREA BETWEEN ADDED SECTION AND EARTHWORK QUANTITIES
574+61	--	574+67	LT & RT	17	2	--	AREA BETWEEN ADDED SECTION AND EARTHWORK QUANTITIES
577+56	--	577+77	LT & RT	46	--	--	REMOVAL OF BASE AGGREGATE AND ASPHALTIC PAVEMENT
577+77	--	578+39	LT & RT	199	--	92	STORM SEWER PIPE WITH TRANSITION
578+39	--	578+46	LT & RT	16	--	--	REMOVAL OF BASE AGGREGATE AND ASPHALTIC PAVEMENT
733+41	--	733+50	LT & RT	19	1	--	AREA NOT WITHIN STRUCTURE EXCAVATION
733+50	--	733+70	LT	31	1	--	AREA NOT WITHIN STRUCTURE EXCAVATION
734+22	--	734+48	LT & RT	77	7	--	AREA NOT WITHIN STRUCTURE EXCAVATION
734+48	--	734+50	LT & RT	6	--	--	AREA BETWEEN ADDED SECTION AND STRUCTURE EXCAVATION
734+39	--	734+56	LT	11	--	--	GRADING BEHIND REMOVED RETAINING WALL
10+25	--	11+37	DWY 343+11	1	-43	--	REMOVING MATERIAL FOR BASE AGGREGATE
20+20	--	20+75	DWY 575+00	6	-14	--	REMOVING MATERIAL FOR BASE AGGREGATE
SUB-TOTAL FROM PREVIOUS PAGE				2566	2228	--	
			TOTAL	**3,520**	**2,360**	**650**	

PREPARING FOUNDATION FOR ASPHALTIC PAVING SUMMARY

PROJECT	211.0101 PREPARE FOUNDATION FOR ASPHALTIC PAVING EACH	REMARKS
4150-26-71	1	
TOTAL	**1**	

LISTING OF STATION LIMITS

STATION	TO	STATION
205+53	--	206+69
208+19	--	209+46
337+50	--	340+50
342+88	--	344+66
572+12	--	573+70
575+50	--	577+56
578+46	--	579+60
731+60	--	733+25
735+00	--	735+82

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

BASE AGGREGATE AND WATER SUMMARY

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER (FOR COMPACTION) MGAL	REMARKS
205+88	--	206+69	RT	14	98	1.1	
206+10	--	206+69	LT	--	60	0.6	
206+38	--	206+69	LT	8	--	0.1	
206+69	--	208+19	LT & RT	50	696	7.3	
208+19	--	208+89	RT	13	87	1.0	
208+19	--	209+46	LT	21	153	1.7	
205+91	--	209+46	LT & RT	--	51	--	IF ASPHALTIC SURFACE TEMPORARY IS USED
336+79	--	338+50	RT	39	163	2.0	
338+50	--	339+75	RT	21	190	2.1	
338+50	--	339+75	LT	9	136	1.5	
339+75	--	340+50	RT	8	112	1.2	
339+75	--	340+50	LT	23	136	1.6	
340+50	--	341+38	LT & RT	34	476	5.1	
341+38	--	341+53	LT & RT	6	55	0.6	
342+21	--	342+36	LT & RT	6	55	0.6	
342+36	--	342+88	LT & RT	18	287	3.1	
342+88	--	344+09	RT	108	116	2.2	INCLUDES DRIVEWAY
342+88	--	345+58	LT	63	376	4.4	
337+50	--	344+66	LT & RT	--	98	--	IF ASPHALTIC SURFACE TEMPORARY IS USED
571+61	--	572+12	LT	6	33	0.4	
571+99	--	572+12	RT	1	7	0.1	
572+12	--	573+70	LT & RT	51	512	5.6	
573+70	--	574+03	LT & RT	12	174	1.9	
574+03	--	574+18	LT & RT	5	51	0.6	
574+49	--	574+64	LT & RT	5	51	0.6	
574+64	--	575+50	LT & RT	72	413	4.9	INCLUDES DRIVEWAY
574+59	--	575+41	RT	31	--	0.3	FIRE TRUCK FILL-UP AREA
575+50	--	577+30	LT	28	204	2.3	
577+56	--	579+60	LT & RT	20	345	3.7	
731+37	--	733+25	RT	43	265	3.1	
731+40	--	733+25	LT	40	189	2.3	
733+25	--	733+47	LT & RT	9	133	1.4	
733+47	--	733+69	LT & RT	7	73	0.8	
734+19	--	734+41	LT & RT	2	66	0.7	
734+41	--	734+50	LT & RT	3	49	0.5	
734+50	--	735+00	LT & RT	12	238	2.5	
735+00	--	735+54	RT	10	59	0.7	
735+00	--	736+17	LT	32	153	1.9	
		TOTAL		**830**	**6,360**	**70**	

CONCRETE PAVEMENT AND CONCRETE PAVEMENT APPROACH SLAB SUMMARY

STATION	TO	STATION	LOCATION	415.0060 CONCRETE PAVEMENT 6-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	REMARKS
341+37.67	--	341+52.67	LT & RT	30	40	
342+21.33	--	342+36.33	LT & RT	31	40	
574+02.92	--	574+17.92	LT & RT	27	40	
574+49.08	--	574+64.08	LT & RT	27	40	
733+47.4	--	733+69.33	LT & RT	39	59	
734+18.67	--	734+40.6	LT & RT	41	58	
		TOTAL		**195**	**277**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

ASPHALT SUMMARY

STATION	TO	STATION	LOCATION	450.1100.S ASPHALTIC MIXTURE FOR EXTREME CONDITIONS TON	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
205+53	--	206+69	LT & RT	--	27	--	41	--	--	--	
205+91	--	206+69	RT	--	8	12	4	--	--	--	
206+10	--	206+69	LT	--	6	10	4	--	--	--	
206+69	--	208+19	LT & RT	--	96	149	56	--	--	--	
208+19	--	208+89	RT	--	7	10	4	--	--	--	
208+19	--	209+46	LT	--	12	19	7	--	--	--	
208+19	--	209+46	LT & RT	--	27	--	41	--	--	--	
205+91	--	209+46	LT & RT	222	91	--	--	--	--	222	IF FINAL HMA PAVING CANNOT BE COMPLETED BY NOVEMBER 15, 2024
337+50	--	338+50	RT	--	17	26	10	--	--	--	
337+50	--	338+50	LT & RT	--	22	--	35	--	--	--	
338+50	--	339+50	LT & RT	--	58	76	41	--	--	--	
339+50	--	340+50	LT & RT	--	75	117	43	--	--	--	
340+50	--	341+38	LT & RT	--	70	108	40	--	--	--	
342+36	--	342+88	LT & RT	--	40	62	23	--	--	--	
342+88	--	344+67	LT	--	29	44	17	--	--	--	
342+88	--	343+85	RT	--	15	23	9	--	--	--	
342+88	--	344+66	LT & RT	--	37	--	57	--	--	--	
337+50	--	344+66	LT & RT	547	238	--	--	--	--	547	IF FINAL HMA PAVING CANNOT BE COMPLETED BY NOVEMBER 15, 2024
572+12	--	573+70	LT & RT	--	93	124	66	--	--	--	
573+70	--	574+03	LT & RT	--	25	38	14	--	--	--	
574+64	--	575+50	LT & RT	--	63	96	36	--	--	--	
575+24	--	575+59	RT	--	--	--	--	--	4	--	DRIVEWAY - 2-INCH DEPTH
575+50	--	577+08	LT	--	15	24	9	--	--	--	
575+50	--	577+56	LT & RT	--	47	--	73	--	--	--	
577+58	--	578+06	RT	--	--	--	--	--	5	--	DRIVEWAY - 2-INCH DEPTH
577+56	--	579+60	LT & RT	--	61	95	35			--	
578+06	--	578+85	RT	--	--	--	--	3	--	--	
578+46	--	579+60	LT & RT	--	28	--	43	--	--	--	
578+87	--	579+35	RT	--	--	--	--	--	5	--	
579+35	--	579+60	RT	--	--	--	--	1	--	--	
731+60	--	733+25	RT	--	24	36	14	--	--	--	
731+60	--	733+25	LT & RT	--	32	--	49	--	--	--	
732+25	--	733+25	LT	--	14	22	8	--	--	--	
733+25	--	733+47	LT & RT	--	17	26	10	--	--	--	
			SUB-TOTAL	769	1,294	1,117	789	3	14	769	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

ASPHALT SUMMARY

STATION	TO	STATION	LOCATION	450.1100.S ASPHALTIC MIXTURE FOR EXTREME CONDITIONS TON	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
734+41	--	734+50	LT & RT	--	7	11	4	--	--	--	
734+50	--	735+00	LT & RT	--	37	57	21	--	--	--	
735+00	--	735+51	RT	--	4	6	2	--	--	--	
735+00	--	735+81	LT	--	12	19	7	--	--	--	
735+00	--	735+82	LT & RT	--	16	--	25	--	--	--	
			SUB-TOTAL	0	76	93	59	0	0	0	
			PROJECT TOTAL	**769**	**1370**	**1210**	**848**	**3**	**14**	**769**	

HMA COLD WEATHER PAVING SUMMARY

STATION	TO	STATION	450.4000 HMA COLD WEATHER PAVING TON	REMARKS
205+53	--	209+46	357	ITEM NOT TO BE USED IF ASPHALTIC MIXTURE FOR EXTREME CONDITIONS IS USED ON PORTION OF HMA PAVEMENT
337+50	--	344+66	731	ITEM NOT TO BE USED IF ASPHALTIC MIXTURE FOR EXTREME CONDITIONS IS USED ON PORTION OF HMA PAVEMENT
731+60	--	735+82	317	
		TOTAL	**1405**	

TEMPORARY SHORING SUMMARY

STATION	TO	STATION	LOCATION	511.1200 TEMPORARY SHORING (C-15-31) SF	511.1200 TEMPORARY SHORING (C-15-30) SF	REMARKS
574+37	--	574+37	LT & RT	126	--	
733+75	--	734+14	LT & RT	--	180	
			TOTAL	**126**	**180**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

CULVERT ITEMS SUMMARY

END OF PIPE LOCATIONS				521.1018	521.1024	521.3118	521.3124	522.2419	522.2619				
				APRON ENDWALLS FOR	APRON ENDWALLS FOR	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE REINFORCED	APRON ENDWALLS FOR				
				CULVERT PIPE STEEL	CULVERT PIPE STEEL	CORRUGATED STEEL	CORRUGATED STEEL	CONCRETE HORIZONTAL ELLIPTICAL	CULVERT PIPE REINFORCED				
INLET LOCATION		OUTLET LOCATION		18-INCH	24-INCH	18-INCH	24-INCH	CLASS HE-IV 19x30-INCH	CONCRETE HORIZONTAL		INLET	OUTLET	
STATION	OFFSET	STATION	OFFSET	EACH	EACH	LF	LF	LF	ELLIPTICAL 19x30-INCH EACH	% SLOPE	ELEVATION	ELEVATION	REMARKS
343+36	37.9' RT	342+90	38.4' RT	--	2	--	46	--	--	0.24	638.12	638.01	WALL THICKNESS = 0.064"
343+34	44.1' RT	342+90	44.6' RT	--	2	--	44	--	--	0.25	638.12	638.01	WALL THICKNESS = 0.064"
572+17	31.7' LT	572+47	32.7' LT	2	--	30	--	--	--	0.67	594.48	594.28	WALL THICKNESS = 0.064"
575+18	42.0' LT	574+83	40.8' LT	--	--	--	--	36	2	2.22	592.38	591.58	
			TOTAL	**2**	**4**	**30**	**90**	**36**	**2**				

STORM SEWER ITEMS SUMMARY

					522.1015	522.1024	608.0412	608.0515	608.0524	* 650.4000	
					APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	STORM SEWER PIPE REINFORCED CONCRETE	STORM SEWER PIPE REINFORCED CONCRETE	STORM SEWER PIPE REINFORCED CONCRETE	CONSTRUCTION STAKING	
FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	DISCHARGE ELEVATION	% SLOPE	15-INCH EACH	24-INCH EACH	CLASS IV 12-INCH LF	CLASS V 15-INCH LF	CLASS V 24-INCH LF	STORM SEWER EACH	REMARKS
10	ENDWALL	590.56	589.27	1.40	1	--	--	92	--	1	
1	2	601.61	601.11	5.00	--	--	10	--	--	--	
2	3	601.11	596.15	4.26	--	--	117	--	--	--	
3	4	596.15	595.82	3.30	--	--	10	--	--	--	
4	ENDWALL	595.82	595.57	0.51	--	1	--	--	49	1	
				TOTAL	**1**	**1**	**137**	**92**	**49**		
										2	
										*	

* ADDITIONAL QUANTITIES ARE SHOWN ELSEWHERE.

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

STORM SEWER STRUCTURE ITEMS SUMMARY

STRUCTURE NUMBER	STATION	OFFSET	+ RIM ELEVATION	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0627 INLET COVERS TYPE HM EACH	611.2003 MANHOLES 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2x3-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	++ DEPTH IN FEET	REMARKS
10	575+39	36.0' RT	595.22	1	--	1	--	--	1	4.66	
1	579+53	18.0' RT	604.97	--	1	--	--	1	1	3.36	
2	579+43	18.0' RT	604.51	--	1	--	--	1	1	3.40	
3	578+27	18.0' RT	599.82	--	1	--	--	1	1	3.67	
4	578+17	18.0' RT	599.52	--	1	--	1	--	1	3.70	
			TOTAL	**1**	**4**	**1**	**1**	**3**	5		
									2	TOTAL FROM STORM SEWER ITEMS SUMMARY	
									7	**PROJECT TOTAL**	

\+ RIM ELEVATION SHOWN FOR MANHOLES ARE AT RIM ELEVATION OF MANHOLE COVER AND FOR INLETS ARE AT FLANGELINE OF CURB AND GUTTER.

++ DEPTH SHOWN IS RIM ELEVATION SUBTRACTED FROM THE INLET ELEVATION IN STORM SEWER ITEMS SUMMARY.

CURB AND GUTTER SUMMARY

STATION	TO	STATION	LOCATION	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	REMARKS
575+22	--	575+50	RT	13	28	28	CONCRETE CURB & GUTTER 18-INCH TYPE D SHALL BE CURB AND GUTTER WITH FLAT SLOPE; CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D SHALL BE DRIVEWAY ENTRANCE CURB
577+55	--	579+60	RT	18	204	222	
			TOTAL	**31**	**232**	**250**	

CRASH CUSHION AND MGS GUARDRAIL ITEMS SUMMARY

STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH	REMARKS
338+12	--	341+55	RT	250.0	--	39.4	1	--	
340+50	--	341+55	LT	12.5	--	39.4	1	--	
342+19	--	343+00	RT	53.1	25.6	39.4	--	1	
342+19	--	343+86	LT	75.0	--	39.4	1	--	
732+30	--	733+60	RT	37.5	--	39.4	1	--	
732+91	--	733+84	LT	--	--	39.4	1	--	
734+28	--	735+33	LT	12.5	--	39.4	1	--	
			TOTAL	**440.6**	**25.6**	**275.8**	**6**	**1**	

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

STATION	TO	STATION	LOCATION	614.0800 CRASH CUSHIONS PERMANENT EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
734+07	--	734+22	RT	1	1.25	OM-3R (W05-58R)	TL-2	BIDIRECTIONAL	L AND R	CONCRETE PARAPET OF BRIDGE
			TOTAL	**1**						

STEEL PLATE BEAM GUARD ITEMS SUMMARY

STATION	TO	STATION	LOCATION	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0390 STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL EACH	REMARKS
573+00	--	574+18	LT	18.8	50	--	1	--	
573+24	--	574+18	RT	18.8	25	--	1	--	
574+48	--	574+95	LT	18.8	37.5	24.5	--	1	
574+48	--	575+17	RT	18.8	--	--	1	--	
			TOTAL	**75.2**	**112.5**	**24.5**	**3**	**1**	

SALVAGED RAIL SUMMARY

STATION	TO	STATION	LOCATION	614.0920 SALVAGED RAIL LF	REMARKS
206+16	--	208+96	LT	279	
206+36	--	209+15	RT	279	
341+30	--	343+35	LT	204	
338+16	--	342+58	RT	442	
573+72	--	574+79	LT	115	
572+57	--	575+00	RT	242	
733+42	--	736+86	LT	342	
732+34	--	734+24	RT	197	
			TOTAL	**2,100**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

MOBILIZATIONS SUMMARY

PROJECT	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH	619.1000 MOBILIZATION EACH	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH	REMARKS
4150-26-71	1	1	12	4	
TOTAL	**1**	**1**	**12**	**4**	

PERMANENT EROSION CONTROL SUMMARY

STATION	TO	STATION	LOCATION	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	645.0120 GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY
206+05	--	209+52	LT	--	--	--	439	--	--	--
205+88	--	209+00	RT	--	--	--	637	--	--	--
206+09	--	207+00	LT	--	--	--	--	81	--	--
207+26	--	208+05	LT	--	--	--	187	--	--	--
207+17	--	207+60	RT	--	--	--	118	--	--	--
338+43	--	341+63	LT	--	--	--	302	--	--	--
341+99	--	345+69	LT	--	--	--	355	--	--	--
336+68	--	341+63	RT	--	--	--	431	--	--	--
341+79	--	342+99	RT	--	--	--	266	--	--	--
342+72	--	344+15	RT	--	--	--	180	--	--	--
341+74	--	342+03	LT & RT	82	--	--	--	--	--	--
341+14	--	342+07	LT	--	--	--	349	--	--	--
341+14	--	341+56	RT	--	--	--	151	--	--	--
571+62	--	572+28	LT	--	--	--	57	--	--	--
574+17	--	574+46	LT & RT	77	--	--	--	--	--	--
574+50	--	574+84	RT	6	--	--	--	--	--	19
572+37	--	574+06	LT	--	--	--	85	--	--	--
574+61	--	574+95	LT	--	--	--	29	--	--	--
575+05	--	578+01	LT	--	--	--	453	--	--	--
571+93	--	574+05	RT	--	--	--	93	--	--	--
732+38	--	733+82	LT	--	--	--	34	--	--	--
734+36	--	736+20	LT	2	--	--	209	--	--	5
732+56	--	733+44	RT	--	--	--	48	--	--	--
733+45	--	734+39	LT & RT	181	--	--	--	--	--	--
733+97	--	734+25	RT	4	--	--	5	--	--	13
734+39	--	734+56	LT	--	11	--	--	--	22	--
BORROW PIT				--	--	1,400	--	--	--	--
UNDISTRIBUTED				18	1	--	222	4	1	1
			TOTAL	**370**	**12**	**1,400**	**4,650**	**85**	**23**	**38**

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

TEMPORARY EROSION CONTROL SUMMARY

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7010 INLET PROTECTION TYPE B EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	REMARKS
--	--	--	LILY BAY CREEK	--	--	--	--	--	2	
--	--	--	GEISEL CREEK	--	--	--	--	--	2	
--	--	--	LOGAN CREEK	--	--	--	--	--	2	
--	--	--	HIBBARD CREEK	--	--	--	--	--	2	
206+97	--	207+56	LT	62	16	--	--	--	--	
207+88	--	208+50	LT	68	17	--	--	--	--	
205+84	--	207+44	RT	166	42	--	--	--	--	
338+25	--	341+81	LT	360	90	--	--	--	--	
342+04	--	344+59	LT	256	64	--	--	--	--	
337+94	--	341+75	RT	381	95	--	--	--	--	
342+57	--	342+88	RT	83	21	--	--	--	--	
342+74	--	343+37	RT	107	27	--	--	--	--	
343+86	--	344+12	RT	27	7	--	--	--	--	
572+96	--	574+05	LT	110	28	--	--	--	--	
574+64	--	574+87	LT	25	6	--	--	--	--	
575+06	--	575+49	LT	67	17	--	--	--	--	
571+93	--	574+07	RT	216	54	--	--	--	--	
732+98	--	733+87	LT	90	23	--	--	--	--	
734+57	--	736+20	LT	170	43	--	--	--	--	
731+33	--	733+42	RT	211	53	--	--	--	--	
733+91	--	734+28	RT	39	10	--	--	--	--	
342+98	--	--	RT	--	--	--	--	10	--	2 CULVERTS
572+17	--	--	LT	--	--	--	--	2	--	
575+18	--	--	LT	--	--	--	--	7	--	
578+17	--	579+53	RT	--	--	4	--	--	--	
208+00	--	209+00	RT	--	--	--	15	--	--	
342+00	--	--	LT	--	--	--	13	--	--	
341+90	--	--	RT	--	--	--	7	--	--	
342+58	--	--	RT	--	--	--	5	--	--	
344+75	--	--	LT	--	--	--	5	--	--	
345+25	--	--	LT	--	--	--	5	--	--	
572+00	--	--	LT	--	--	--	5	--	--	
573+00	--	--	LT	--	--	--	5	--	--	
576+00	--	--	LT	--	--	--	7	--	--	
577+00	--	--	LT	--	--	--	7	--	--	
732+50	--	--	LT	--	--	--	5	--	--	
BORROW PIT				--	--	--	--	--	1	
UNDISTRIBUTED				122	27	--	4	1	--	
			TOTAL	**2,560**	**640**	**4**	**83**	**20**	**9**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

SALVAGED TOPSOIL, FERTILIZER, SEEDING AND SEED WATER SUMMARY

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL	REMARKS
206+05	--	209+52	LT	439	0.28	12	--	4.9	
205+88	--	209+00	RT	637	0.40	17	--	7.1	
206+09	--	207+00	LT	81	0.05	2	--	0.9	
207+26	--	208+05	LT	187	0.12	5	--	2.1	RESTORING TEMPORARY WATER DIVERSION AREA
207+17	--	207+60	RT	118	0.07	3	--	1.3	RESTORING TEMPORARY WATER DIVERSION AREA
338+43	--	341+63	LT	302	0.19	8	--	3.4	
341+99	--	345+69	LT	355	0.22	10	--	4.0	
336+68	--	341+63	RT	431	0.27	12	--	4.8	
341+79	--	342+99	RT	266	0.17	7	--	3.0	
342+72	--	344+15	RT	180	0.11	5	--	2.0	
341+14	--	342+07	LT	349	0.22	9	--	3.9	RESTORING TEMPORARY WATER DIVERSION AREA
341+14	--	341+56	RT	151	0.10	4	--	1.7	RESTORING TEMPORARY WATER DIVERSION AREA
571+62	--	572+28	LT	57	0.04	2	--	0.6	
572+37	--	574+06	LT	85	0.05	2	--	1.0	
574+61	--	574+95	LT	29	0.02	1	--	0.3	
575+05	--	578+01	LT	453	0.29	12	--	5.1	
572+12	--	574+05	RT	93	0.06	3	--	1.0	
732+38	--	733+82	LT	34	0.02	1	--	0.4	
734+43	--	736+20	LT	211	0.13	6	--	2.4	
732+56	--	733+44	RT	48	0.03	1	--	0.5	
734+02	--	734+22	RT	9	0.01	0	--	0.1	
	BORROW PIT			--	0.89	--	32	--	
	UNDISTRIBUTED			216	0.27	6	--	3.0	
			TOTAL	**4,730**	**4.0**	**128**	**32**	**54**	

SAFETY FENCE SUMMARY

STATION	TO	STATION	LOCATION	616.0700.S FENCE SAFETY LF	REMARKS
573+94	--	574+04	RT	36	PROTECTING PLANT OF SPECIAL CONCERN
574+71	--	574+79	LT	25	PROTECTING PLANT OF SPECIAL CONCERN
			TOTAL	**61**	

MARKERS CULVERT END SUMMARY

LOCATION	633.5200 MARKERS CULVERT END EACH	REMARKS
LILY BAY CREEK CROSSING	2	
TOTAL	**2**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

SIGN ITEMS SUMMARY

LOCATION	SIGN CODE	634.0616 POSTS WOOD 4x6-INCH x 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
STA 207+23, RT	I3-1	-	1	-	LILY BAY CREEK
STA 341+05, RT	W3-5	-	1	-	SPEED REDUCTION AHEAD 45 MPH
STA 341+30, RT	I3-1	-	1	-	GEISEL CREEK
GEISEL CREEK CROSSING	W5-52	-	-	4	BRIDGE HASH MARKS
STA 343+95, RT & LT	W1-2L	-	2	-	ROAD CURVES LEFT
STA 573+00, LT	R7-1	-	1	-	NO PARKING ANY TIME (ARROWS)
STA 573+82, RT	I3-1 & R7-1	2	2	2	LOGAN CREEK & NO PARKING ANY TIME (ARROWS)
LOGAN CREEK CROSSING	W5-52	-	-	4	BRIDGE HASH MARKS
STA 575+31, LT	R7-1	-	1	-	NO PARKING ANY TIME (ARROWS)
STA 576+93, LT	R7-53	-	1	-	NO PARKING ON THIS SIDE (ARROWS)
STA 577+47, RT	R7-1	-	1	-	NO PARKING ANY TIME (ARROWS)
STA 733+37, RT	I3-1	-	1	-	HIBBARD CREEK
HIBBARD CREEK CROSSING	W5-52	-	-	4	BRIDGE HASH MARKS
	TOTALS	**2**	**12**	**14**	

FIELD OFFICE SUMMARY

FIELD OFFICE	642.5201 FIELD OFFICE TYPE C EACH	REMARKS
# 1	1	
# 2	1	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

TRAFFIC CONTROL DETOUR SIGN SUMMARY (LILY BAY CREEK - GEISEL CREEK)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 85 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	STH 42/57, S. OF 42/57 MID JUNCTION, PLACE 2000' S. OF 42/57 INTERSECTION	M 1-6	24"X24"	1	85	85							57
	"	W 20-2A	48"X48"	1	85	85							
2	STH 42/57, S. OF 42/57 MID JUNCTION, MODIFY EXISTING J2-2 SIGN AS SHOWN S. OF 42/57 INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	MO 6-1	21"X21"	1	85	85							AHEAD
3	STH 42/57, S. OF 42/57 MID JUNCTION, PLACE 1200' S. OF 42/57 INTERSECTION	FMS	78"X48"	1					26				
4	STH 42/57, S. OF 42/57 MID JUNCTION, COVER EXISTING D1-2 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
5	STH 42/57, S. OF 42/57 MID JUNCTION, PLACE 500' S. OF 42/57 INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							AHEAD
6	STH 42/57, AT 42/57 MID JUNCTION, MODIFY EXISTING J3-2 SIGN IN SPLITTER ISLAND AS SHOWN	MO 4-8	24"X12"	1	85	85							
	"	MO 6-1	21"X21"	1	85	85							AHEAD
7	STH 42/57, AT 42/57 MID JUNCTION, PLACE ON RIGHT SHOULDER AT SPLITTER ISLAND	R 11-3B	60"X30"	1	85	85	85	170					2 MILES AHEAD
	"	M 4-9L	30"X24"	1	85	85							
8	STH 57, AT 42/57 MID JUNCTION, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
9	STH 57, N. OF 42/57 MID JUNCTION, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
10	STH 42, N. OF STH 42/57 MID JUNCTION, COVER EXISTING J3-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
11	STH 42, N. OF STH 42/57 MID JUNCTION, PLACE RIGHT OF EXISTING J4-1 SIGN	MO 4-8	24"X12"	1	85	85							
	"	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
12	STH 42, N. OF STH 42/57 MID JUNCTION, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	85	85							
13	STH 42, S. OF CTH P, PLACE 250' S. OF CTH P INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							AHEAD
14	STH 42, N. OF CTH P, PLACE 250' N. OF CTH P INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							AHEAD
15	STH 42, S. OF CTH I, PLACE 500' S. OF CTH I INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 5-1R	21"X21"	1	85	85							
16	STH 42, AT CTH I INTERSECTION, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH I INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							RIGHT
17	CTH I, AT STH 42, PLACE RIGHT OF EXISTING J13-1 SIGN AT STH 42 INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							LEFT
18	CTH I, E. OF STH 42, PLACE 500' E. OF STH 42 INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 5-1L	21"X21"	1	85	85							
19	CTH I, W. OF CTH T, PLACE 250' W. OF CTH T INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							AHEAD
	PAGE SUBTOTALS			45		3,740	85	170	26	0		4	

TRAFFIC CONTROL DETOUR SIGN SUMMARY (LILY BAY CREEK - GEISEL CREEK)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 85 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
20	CTH I, E. OF CTH T, PLACE 250' E. OF CTH T INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							AHEAD
21	CTH I, W. OF STH 57, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	85	85							
22	CTH I, W. OF STH 57, PLACE 150' W. OF STH 57 INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
23	CTH I, AT STH 57, PLACE RIGHT OF EXISTING R1-1 SIGN AT STH 57 INTERSECTION	M 3-1	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							LEFT
24	STH 57, AT CTH I, PLACE ON RIGHT SHOULDER IN SW QUADRANT OF INTERSECTION	R 11-3B	60"X30"	1	85	85	85	170					4 MILES AHEAD
	"	M 4-9R	30"X24"	1	85	85							
25	STH 57, AT CTH I, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH I INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 6-1	21"X21"	1	85	85							RIGHT
26	STH 57, N. OF CTH I, PLACE 750' N. OF CTH I INTERSECTION	MO 4-8	24"X12"	1	85	85							
	"	M 3-3	24"X12"	1	85	85							
	"	M 1-6	24"X24"	1	85	85							57
	"	MO 5-1R	21"X21"	1	85	85							
26A	STH 57, N. OF CTH I, PLACE 1500' N. OF CTH I INTERSECTION	FMS	78"X48"	1					26				SEE SIGN DETAIL SHEET
27	STH 57, N. OF CTH I, PLACE 2000' N. OF CTH I INTERSECTION	W 20-2A	48"X48"	1	85	85							
28	STH 57, S. OF CTH I, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
29	STH 57, S. OF CTH T NORTH INTERSECTION, PLACE ON RIGHT SHOULDER	R 11-3B	60"X30"	1	85	85	85	170					2 MILES AHEAD
30	STH 57, N. OF MATHEY RD, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1						7			PLACE IN ADVANCE OF FULL CLOSURE
31	STH 57, N. OF CTH T SOUTH INTERSECTION, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1						7			PLACE IN ADVANCE OF FULL CLOSURE
	PAGE SUBTOTALS			26		1,955	170	340	26	14		1	
	LILY BAY-GEISEL CREEK DETOUR TOTALS			71		**5,695**	**255**	**510**	**52**	**14**		**5**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

TRAFFIC CONTROL DETOUR SIGN SUMMARY (LOGAN CREEK)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 72 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	STH 57, S. OF CTH T, PLACE 1500' S. OF CTH T INTERSECTION	W 20-2A	48"X48"	1	72	72							
1A	STH 57, S. OF CTH T, PLACE 1000' S. OF CTH T INTERSECTION	FMS	78"X48"	1					26				SEE SIGN DETAIL SHEET
2	STH 57, S. OF CTH T, PLACE 750' S. OF CTH T INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 5-1L	21"X21"	1	72	72							
3	STH 57, AT CTH T, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH T INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							LEFT
4	STH 57, AT CTH T, PLACE ON RIGHT SHOULDER AT CTH T INTERSECTION	R 11-3B	60"X30"	1	72	72	72	144					2 1/2 MILES AHEAD
	"	M 4-9L	30"X24"	1	72	72							
5	STH 57, N. OF CTH T, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
6	CTH T, AT STH 57, MODIFY EXISTING J13-2 SIGN AS SHOWN	MO 6-1	21"X21"	1	72	72							RIGHT
7	CTH T, N. OF STH 57, PLACE 250' N. OF STH 57 INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
8	CTH T, N. OF STH 57, MODIFY EXISITNG J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	72	72							
9	CTH T, S. OF CTH I, PLACE 200' S. OF CTH I INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							AHEAD
10	CTH T, N. OF CTH I, PLACE 200' N. OF CTH I INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-3	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							AHEAD
11	STH 57, AT CTH I, PLACE ON RIGHT SHOULDER IN SE QUADRANT OF INTERSECTION	R 11-2B	48"X30"	1	72	72	72	144					
12	STH 57, N. OF CTH I, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1						7			PLACE IN ADVANCE OF CLOSURE
13	STH 57, S. OF JORNS RD, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1						7			PLACE IN ADVANCE OF CLOSURE
14	CTH T, E. OF CTH V, PLACE 500' E. OF CTH T INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 5-1R	21"X21"	1	72	72							
15	CTH T, AT CTH V, PLACE RIGHT OF EXISTING R1-1 SIGN AT CTH V INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							RIGHT
16	CTH V, AT CTH T, PLACE RIGHT OF EXISTING R1-1 SIGN AT CTH T INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-3	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							LEFT
17	CTH V, E. OF CTH T, PLACE 500' E. OF CTH T INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-3	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 5-1L	21"X21"	1	72	72							
18	CTH V, W. OF CTH A, PLACE 250' W. OF CTH A INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							AHEAD
	PAGE SUBTOTALS			48		3,240	144	288		14		1	

TRAFFIC CONTROL DETOUR SIGN SUMMARY (LOGAN CREEK)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
19	CTH V, E. OF CTH A, PLACE 250' E. OF CTH A INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-1	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							AHEAD
20	CTH V, W. OF STH 57, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	72	72							
21	CTH V, AT STH 57, MODIFY EXISTING J13-1 SIGN AS SHOWN	MO 6-1	21"X21"	1	72	72							LEFT
22	STH 57, S. OF CTH V, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
23	STH 57, AT CTH V, PLACE ON RIGHT SHOULDER IN SW QUADRANT OF INTERSECTION	R 11-3B	60"X30"	1	72	72	72	144					2 1/4 MILES AHEAD
	"	M 4-9R	30"X24"	1	72	72							
24	STH 57, AT CTH V, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH V INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-3	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 6-1	21"X21"	1	72	72							RIGHT
25	STH 57, N. OF CTH V, PLACE 750' N. OF CTH V INTERSECTION	MO 4-8	24"X12"	1	72	72							
	"	M 3-3	24"X12"	1	72	72							
	"	M 1-6	24"X24"	1	72	72							57
	"	MO 5-1R	21"X21"	1	72	72							
25A	STH 57, N. OF CTH V, PLACE 1000' N. OF CTH V INTERSECTION	FMS	78"X48"	1					26				SEE SIGN DETAIL SHEET
26	STH 57, N. OF CTH V, PLACE 1500' N. OF CTH V INTERSECTION	W 20-2A	48"X48"	1	72	72							
	PAGE SUBTOTALS			18		1,224	72	144	26	0		1	
	LOGAN CREEK DETOUR TOTALS			66		**4,464**	**216**	**432**	**26**	**14**		**2**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

TRAFFIC CONTROL DETOUR SIGN SUMMARY (HIBBARD CREEK)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 66 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
1	STH 57, S. OF CTH V, PLACE 1500' S. OF CTH V INTERSECTION	W 20-2A	48"X48"	1	66	66							
2	STH 57, S. OF CTH V, PLACE 750' S. OF CTH V INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 5-1L	21"X21"	1	66	66							
3	STH 57, AT CTH V, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH V INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							LEFT
4	STH 57, AT CTH V, MODIFY EXISTING J13-1 SIGN AS SHOWN	MO 6-1	21"X21"	1	66	66							RIGHT
5	STH 57, AT CTH V, PLACE ON RIGHT SHOULDER IN NE QUADRANT OF CTH V INTERSECTION	R 11-2B	48"X30"	1	66	66	66	132					
	"	M 4-9L	30"X24"	1	66	66							
6	STH 57, N. OF CTH V, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
7	STH 57, N. OF CTH V, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1						7			PLACE IN ADVANCE OF CLOSURE
8	STH 57, S. OF LOGERQUIST RD, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1						7			PLACE IN ADVANCE OF CLOSURE
9	CTH V, AT STH 57, PLACE RIGHT OF EXISTING R1-1 SIGN AT STH 57 INTERSECTION	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							RIGHT
10	CTH V, E. OF CTH A, PLACE 500' E. OF CTH A INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 5-1R	21"X21"	1	66	66							
11	CTH V, E. OF CTH A, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	66	66							
12	CTH V, AT CTH A, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH A INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							RIGHT
13	CTH A, AT CTH V, PLACE RIGHT OF EXISITNG J13-1 SIGN AT CTH V INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							LEFT
14	CTH A, AT CTH V, PLACE 500' N. OF CTH V INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 5-1L	21"X21"	1	66	66							
15	CTH A, S. OF CTH E, PLACE 500' S. OF CTH E INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 5-1R	21"X21"	1	66	66							
16	CTH A, AT CTH E, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH E INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							RIGHT
17	CTH E, AT CTH A, PLACE RIGHT OF EXISTING R1-1 SIGN AT CTH A INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							LEFT
	PAGE SUBTOTALS			46		2,904	66	132	0	14		1	

TRAFFIC CONTROL DETOUR SIGN SUMMARY (HIBBARD CREEK)

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 66 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO OF CYCLES	643.0920 COVERING SIGNS TYPE II EACH	REMARKS
18	CTH E, E. OF CTH A, PLACE 500' E. OF CTH A INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 5-1L	21"X21"	1	66	66							
19	CTH E, AT LOGERQUIST RD, PLACE RIGHT OF EXISTING J13-1 SIGN AT LOGERQUIST RD INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24'	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							LEFT
20	CTH E, AT LOGERQUIST RD, PLACE RIGHT OF EXISTING R1-1 SIGN AT LOGERQUIST RD INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24'	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							RIGHT
21	CTH E, W. OF STH 57, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 4-8A	24"X18"	1	66	66							
22	CTH E, W. OF STH 57, PLACE 250' W. OF STH 57 INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
23	CTH E, AT STH 57, PLACE RIGHT OF EXISTING R1-1 SIGN AT STH 57 INTERSECTION	M 3-1	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							LEFT
24	CTH E, AT STH 57, PLACE ON RIGHT SHOULDER IN SW QUADRANT OF INTERSECTION	R 11-3B	60"X30"	1	66	66	66	132					5 MILES AHEAD
	"	M 4-9R	30"X24"	1	66	66							
25	STH 57, S. OF CTH E, COVER EXISTING J4-1 SIGN AS SHOWN										1	1	COVER ENTIRE SIGN
26	STH 57, AT CTH E, MODIFY EXISTING J13-1 SIGN AS SHOWN	MO 6-1	21"X21"	1	66	66							LEFT
27	STH 57, AT CTH E, PLACE RIGHT OF EXISTING J13-1 SIGN AT CTH E INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 6-1	21"X21"	1	66	66							RIGHT
28	STH 57, N. OF CTH E, PLACE 750' N. OF CTH E INTERSECTION	MO 4-8	24"X12"	1	66	66							
	"	M 3-3	24"X12"	1	66	66							
	"	M 1-6	24"X24"	1	66	66							57
	"	MO 5-1R	21"X21"	1	66	66							
29	STH 57, N. OF CTH E, PLACE 1000' N. OF CTH E INTERSECTION	FMS	78"X48"	1					26				SEE SIGN DETAIL SHEET
30	STH 57, N. OF CTH E, PLACE 1500' N. OF CTH E INTERSECTION	W 20-2A	48"X48"	1	66	66							
	PAGE SUBTOTALS			32		2,046	66	132	26	0		1	
	HIBBARD CREEK DETOUR TOTALS			78		4,950	132	264	26	14		2	
	LOGAN CREEK DETOUR TOTALS			66		4,464	216	432	26	14		2	
	LILY BAY CREEK AND GEISEL CREEK DETOUR TOTALS			71		5,695	255	510	52	14		5	
	PROJECT TOTALS								**104**			**9**	
						15,109	603	1,206		42			
						*	*	*		*			

* ADDITIONAL QUANTITIES ARE SHOWN ELSEWHERE.

ALL ITEMS ARE CATEGORY 0010
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TRAFFIC CONTROL ITEMS SUMMARY

LOCATION	STATION	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NUMBER IN SERVICE	643.0420 DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NUMBER IN SERVICE	643.0705 DAYS	643.0900 TRAFFIC CONTROL SIGNS NUMBER IN SERVICE	643.0900 DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS NUMBER IN SERVICE	643.1050 DAYS	REMARKS
LILY BAY CREEK DETOUR											
MATHEY ROAD	150+30	80	2	160	4	320	5	400	--	--	
SOUTH OF LILY BAY CREEK	--	80	5	400	6	480	1	80	--	--	
NORTH OF LILY BAY CREEK	--	80	5	400	6	480	1	80	--	--	
COUNTRY VIEW ROAD	220+80	80	2	160	4	320	5	400	--	--	
LILY BAY CREEK FINAL PAVING, SHOULDERING, AND PAVEMENT MARKING		2					12	24	2	14	IF ASPHALTIC SURFACE TEMPORARY IS USED
GEISEL CREEK DETOUR											
W. WHITEFISH BAY ROAD	348+20	118	2	236	4	472	5	590	--	--	
SOUTH OF GEISEL CREEK	--	118	5	590	6	708	1	118	--	--	
NORTH OF GEISEL CREEK	--	118	5	590	6	708	1	118	--	--	
CTH T / WHITEFISH BAY ROAD	350+50	118	2	236	4	472	5	590	--	--	
GEISEL CREEK FINAL PAVING, SHOULDERING, AND PAVEMENT MARKING		3					12	36	2	14	IF ASPHALTIC SURFACE TEMPORARY IS USED
LOGAN CREEK DETOUR											
LORITZ ROAD	550+30	72	2	144	4	288	5	360	--	--	
SOUTH OF LOGAN CREEK	--	72	5	360	6	432	1	72	--	--	
NORTH OF LOGAN CREEK	--	72	5	360	6	432	1	72	--	--	
JORNS ROAD	602+60	72	2	144	4	288	5	360	--	--	
HIBBARD CREEK DETOUR											
CTH V	699+20	79	2	158	4	316	5	395	--	--	
SOUTH OF HIBBARD CREEK	--	79	5	395	6	474	1	79	--	--	
NORTH OF HIBBARD CREEK	--	79	5	395	6	474	1	79	--	--	
SHOREWOOD DRIVE	751+10	79	2	158	4	316	5	395	--	--	
HIBBARD CREEK CLEARING OPERATIONS		2					12	24	2	14	
		SUB-TOTAL		4,886		6,980		4,272		42	
		SUB-TOTAL FROM DETOUR TOTALS		603		1,206		15,109		42	
		PROJECT TOTALS		**5,489**		**8,186**		**19,381**		**84**	

TRAFFIC CONTROL SUMMARY

PROJECT	643.5000 TRAFFIC CONTROL EACH	REMARKS
4150-26-71	1	
TOTAL	**1**	

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PAVEMENT MARKING SUMMARY

STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.2020 MARKING LINE EPOXY 6-INCH (YELLOW) LF	646.6464 COLD WEATHER MARKING EPOXY 4-INCH LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	REMARKS
205+53	--	209+46	CENTERLINE	--	98	--	--	
205+53	--	209+46	LT & RT	786	--	--	--	
205+91	--	209+46	LT & RT	634	38	634	39	IF ASPHALTIC SURFACE TEMPORARY IS USED
337+50	--	344+66	CENTERLINE	--	1431	--	--	
337+50	--	344+66	LT & RT	1432	--	--	--	
337+50	--	344+66	LT & RT	1250	875	1252	877	IF ASPHALTIC SURFACE TEMPORARY IS USED
572+12	--	579+60	CENTERLINE	--	1495	--	--	
572+12	--	579+60	LT & RT	1495	--	--	--	
731+60	--	735+82	CENTERLINE	--	843	--	844	
731+60	--	735+82	LT & RT	843	--	844	--	
		TOTAL		**6,440**	**4,780**	**2,730**	**1,760**	

STAKING SUMMARY

STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
205+88	--	209+46	LT & RT	358	358	358	
336+79	--	345+58	LT & RT	879	879	879	
571+50	--	578+46	LT & RT	696	696	696	
731+37	--	736+17	LT & RT	480	480	480	
			TOTAL	**2,413**	**2,413**	**2,413**	

CONSTRUCTION STAKING STRUCTURE LAYOUT SUMMARY

CATEGORY	STRUCTURE NUMBER	STREAM NAME	650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT EACH	REMARKS
0020	C-15-46	LILY BAY CREEK	1	
0030	B-15-29	GIESEL CREEK	1	
0040	B-15-31	LOGAN CREEK	1	
0050	B-15-30	HIBBARD CREEK	1	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL SUMMARY

PROJECT	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL EACH	REMARKS
4150-26-71	1	
TOTAL	**1**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

3

SAWING ASPHALT AND CONCRETE SUMMARY

STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
206+10	--	206+69	LT	69	--	
205+91	--	206+69	RT	85	--	
206+16	--	--	LT & RT	--	20	
208+19	--	--	LT & RT	--	20	
208+19	--	209+46	LT	135	--	
205+91		209+46	LT & RT	532	--	IF ASPHALTIC SURFACE TEMPORARY IS USED
208+19	--	208+89	RT	78	--	
337+50	--	340+50	RT	306	--	
338+50	--	340+50	LT	204	--	
340+50	--	--	LT & RT	24	--	
342+88	--	344+66	LT & RT	311	--	
337+50	--	344+66	LT & RT	1066		IF ASPHALTIC SURFACE TEMPORARY IS USED
572+12	--	573+70	LT	163	--	
572+12	--	573+70	RT	163	--	
573+70	--	--	LT & RT	24	--	
575+50	--	575+59	LT & RT	42	3	
575+50	--	577+08	LT	163	--	
577+58	--	579+60	LT & RT	384	12	
731+60	--	733+25	LT & RT	297	--	
735+00	--	735+82	LT & RT	164	--	
			TOTAL	**4,210**	**55**	

SALVAGE AND REINSTALL WATER ELEVATION GAUGE SUMMARY

STATION	LOCATION	SPV.0060.01 SALVAGE AND REINSTALL WATER ELEVATION GAUGE EACH	REMARKS
574+52	43.1' LT	1	
	TOTAL	**1**	

TEMPORARY WATER DIVERSION SUMMARY

LOCATION	SPV.0060.02 TEMPORARY WATER DIVERSION LILY BAY CREEK STATION 207+68 EACH	SPV.0060.03 TEMPORARY WATER DIVERSION GEISEL CREEK STATION 341+85 EACH	SPV.0060.04 TEMPORARY WATER DIVERSION LOGAN CREEK STATION 574+30 EACH	SPV.0060.05 TEMPORARY WATER DIVERSION HIBBARD CREEK STATION 733+95 EACH	REMARKS
LILY BAY CREEK	1	--	--	--	
GEISEL CREEK	--	1	--	--	
LOGAN CREEK	--	--	1	--	
HIBBARD CREEK	--	--	--	1	
TOTAL	**1**	**1**	**1**	**1**	

ALL ITEMS ARE CATEGORY 0010
UNLESS NOTED OTHERWISE

TRANSPORTATION PROJECT PLAT NO: 4150-26-21-4.01

BEING PART OF THE SW 1/4 OF THE SE 1/4 AND THE SE 1/4 OF THE SE 1/4 OF SECTION 23, T28N-R26E, TOWN OF SEVASTOPOL, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57, MID JUNCTION - BAILEYS HARBOR, (STH 42- SUMMIT ROAD) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN 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.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTIONS 84.02 (3), 84.09 and 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS 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 (1) OR (2), WISCONSIN STATUTES.

CONVENTIONAL SYMBOLS

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

PARCEL NUMBER
SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES

UTILITY NUMBER
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

NOTES:

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

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) 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.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION OFFICE IN GREEN BAY.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

EXISTING RIGHT OF WAY WAS ESTABLISHED UNDER PROJECT(S): 3447, 4150-06-21

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

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

A **TEMPORARY LIMITED 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 TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

SCHEDULE OF LANDS & INTERESTS REQUIRED

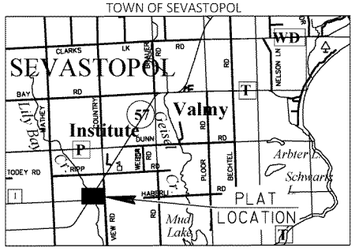
PARCEL NUMBER	*OWNER(S)	INTEREST(S) REQUIRED	FEE R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	BOGDAN & HANNA SAVENKO	FEE, TLE	0.089		0.089	0.301
2	MARTIN & TIFFANY KELSEY	TLE				0.020
3	JOYNT FAITH CT, CL, TRUST	FEE, TLE	0.098	0.481	0.579	0.216

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

N

SCALE, FEET
0 50 100

SECTION 23, T28N - R26E
TOWN OF SEVASTOPOL

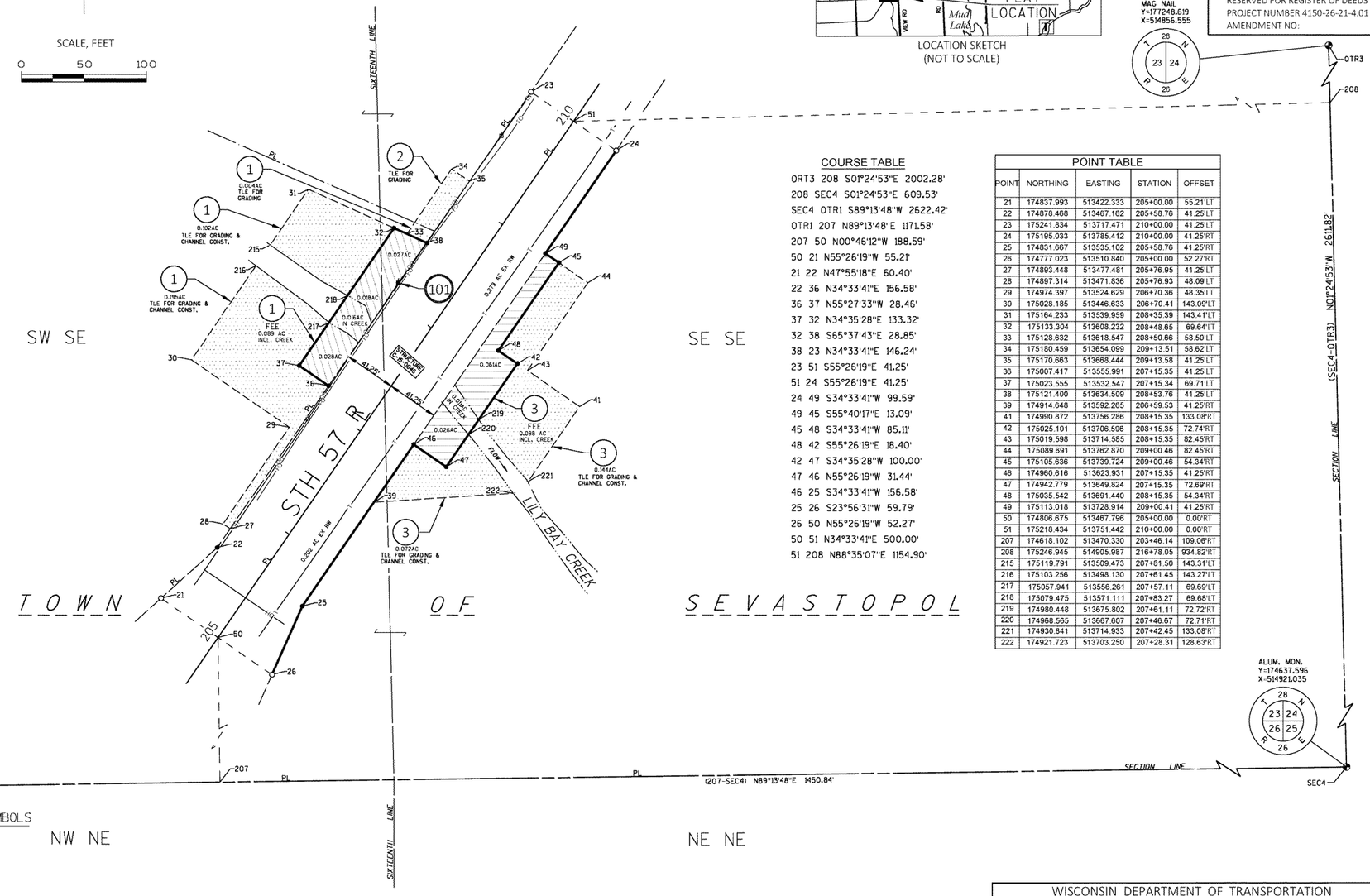


LOCATION SKETCH
(NOT TO SCALE)

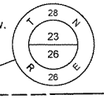
DOC #: 853503
RECOROED ON:
05/23/2022 08:01:32 AM
CAREY PETERSILKA
REGISTER DF DEEDS
DOOR COUNTY, WI
FEE AMOUNT PAID: 25.00
The above recoding information verifies that this document has been electronically recorded and returned to the submitter.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4150-26-21-4.01
AMENDMENT NO:

MAG NAIL
Y=177248.619
X=514856.555



NOT SET/SURVEYED
USING GPS AND CONV. METHODS
Y=174602.359
X=512298.852



ALUM. MON.
Y=174637.596
X=514921.035

COURSE TABLE

ORT3 208 S01°24'53"E 2002.28'
208 SEC4 S01°24'53"E 609.53'
SEC4 OTR1 S89°13'48"W 2622.42'
OTR1 207 N89°13'48"E 1171.58'
207 50 N00°46'12"W 188.59'
50 21 N55°26'19"W 55.21'
21 22 N47°55'18"E 60.40'
22 36 N34°33'41"E 156.58'
36 37 N55°27'33"W 28.46'
37 32 N34°35'28"E 133.32'
32 38 S65°37'43"E 28.85'
38 23 N34°33'41"E 146.24'
23 51 S55°26'19"E 41.25'
51 24 S55°26'19"E 41.25'
24 49 S34°33'41"W 99.59'
49 45 S55°40'17"E 13.09'
45 48 S34°33'41"W 85.11'
48 42 S55°26'19"E 18.40'
42 47 S34°35'28"W 100.00'
47 46 N55°26'19"W 31.44'
46 25 S34°33'41"W 156.58'
25 26 S23°56'31"W 59.79'
26 50 N55°26'19"W 52.27'
50 51 N34°33'41"E 500.00'
51 208 N88°35'07"E 1154.90'

POINT TABLE

POINT	NORTHING	EASTING	STATION	OFFSET
21	174837.993	513422.333	205+00.00	55.21'LT
22	174878.468	513467.162	205+58.76	41.25'LT
23	175241.834	513717.471	210+00.00	41.25'LT
24	175195.033	513785.412	210+00.00	41.25'RT
25	174831.667	513535.102	205+58.76	41.25'RT
26	174777.023	513510.840	205+00.00	52.27'RT
27	174893.448	513477.481	205+76.95	41.25'LT
28	174897.314	513471.836	205+76.93	48.09'LT
29	174974.397	513524.629	206+70.36	48.35'LT
30	175028.185	513446.633	206+70.41	143.09'LT
31	175164.233	513539.959	208+35.39	143.41'LT
32	175133.304	513608.232	208+48.65	69.64'LT
33	175128.632	513618.547	208+50.66	58.50'LT
34	175180.459	513654.099	209+13.51	58.62'LT
35	175170.663	513668.444	209+13.58	41.25'LT
36	175007.417	513555.991	207+15.35	41.25'LT
37	175023.555	513532.547	207+15.34	69.71'LT
38	175121.400	513634.509	208+53.76	41.25'LT
39	174914.648	513592.265	206+59.53	41.25'RT
41	174990.872	513756.286	208+15.35	133.08'RT
42	175025.101	513706.596	208+15.35	72.74'RT
43	175019.598	513714.585	208+15.35	82.45'RT
44	175089.691	513762.870	209+00.46	82.45'RT
45	175105.636	513739.724	209+00.46	54.34'RT
46	174960.616	513623.931	207+15.35	41.25'RT
47	174942.779	513649.824	207+15.35	72.69'RT
48	175035.542	513691.440	208+15.35	54.34'RT
49	175113.018	513728.914	209+00.41	41.25'RT
50	174806.675	513467.796	205+00.00	0.00'RT
51	175218.434	513751.442	210+00.00	0.00'RT
207	174618.102	513470.330	203+46.14	109.08'RT
208	175246.945	514905.987	216+78.05	934.82'RT
215	175119.791	513509.473	207+81.50	143.31'LT
216	175103.256	513498.130	207+61.45	143.27'LT
217	175057.941	513556.261	207+57.11	69.69'LT
218	175079.475	513571.111	207+83.27	69.68'LT
219	174980.448	513675.802	207+61.11	72.72'RT
220	174968.565	513667.607	207+46.67	72.71'RT
221	174930.841	513714.933	207+42.45	133.08'RT
222	174921.723	513703.250	207+28.31	128.63'RT

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CONVENTIONAL UTILITY SYMBOLS

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

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
101	AT&T WISCONSIN (PAR 1, 2)	RELEASE OF RIGHTS

EASEMENTS OF RECORD PARCEL 1

WISCONSIN TELEPHONE COMPANY 13 M 424 DOC # 215449A BLANKET EASE.

EASEMENTS OF RECORD PARCEL 2

WISCONSIN TELEPHONE COMPANY 13 M 424 DOC # 215449A & 215444BA BLANKET EASE.

WISCONSIN DEPARTMENT OF TRANSPORTATION

I, JEFFREY T. BOHRTZ, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN JEFFREY T. BOHRTZ S-2223 Green Bay, WI LAND SURVEYOR

SIGNATURE Jeffrey T. Bohrtz DATE 05/19/2022
NAME JEFFREY T. BOHRTZ, PLS-2223

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHEAST REGION.

SIGNATURE Alan Rommel DATE 05/19/2022
NAME ALAN ROMMEL

APPRAISAL DATE: 05/19/2022

TRANSPORTATION PROJECT PLAT NO: 4150-26-21-4.02

BEING PART OF THE SW 1/4 OF THE SW 1/4 AND THE SE 1/4 OF THE SW 1/4 OF SECTION 7, THE NW 1/4 OF THE NW 1/4 AND THE NE 1/4 OF THE NW 1/4 OF SECTION 18, ALL IN T28N-R27E, TOWN OF SEVASTOPOL, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57, MID JUNCTION - BAILEYS HARBOR, (STH 42- SUMMIT ROAD) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN 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.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTIONS 84.02 (3), 84.09 and 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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CONVENTIONAL SYMBOLS

- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW REFERENCE LINE
- NEW R/W LINE
- EXISTING R/W LINE
- PROPERTY LINE
- LOT, TIE, AND OTHER MINOR LINES
- SLOPE INTERCEPT
- CORPORATE LIMITS
- UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
- FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
- TEMP. LIMITED EASEMENT AREA
- EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
- TRANSMISSION STRUCTURES
- BUILDING
- BUILDING (TO BE REMOVED)
- BRIDGE
- PARCEL NUMBER
- SECTION CORNER
- NOTATION FOR COMBUSTABLE FLUIDS
- NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
- UTILITY NUMBER
- R/W MONUMENT
- NON-MONUMENTED R/W POINT
- FOUND IRON PIN
- VALVE (GAS, WATER, ETC.)
- SIGN
- OFF-PREMISE SIGN
- ACCESS CONTROLLED BY ACQUISITION
- NO ACCESS (BY STATUTORY AUTHORITY)
- ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
- NO ACCESS (NEW HIGHWAY)
- NATIONAL GEODETIC SURVEY MONUMENT
- SIXTEENTH CORNER MONUMENT
- PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

NOTES:

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

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) 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".

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FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION OFFICE IN GREEN BAY.

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

EXISTING RIGHT OF WAY WAS ESTABLISHED UNDER PROJECT(S): 3346

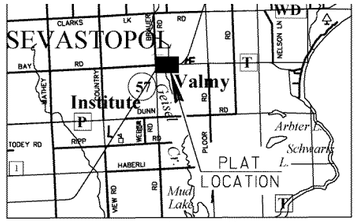
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

A **TEMPORARY LIMITED 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 TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

SECTION 7 & 18, T28N - R27E
TOWN OF SEVASTOPOL



LOCATION SKETCH
(NOT TO SCALE)

ALUM. MON.
Y=187959.429
X=520327.969

T O W N

SW SW

ALUM. MON.
Y=185314.770
X=520354.170

NO°13'03"W 2644.79'

SECTION LINE

NO°5'22"W 2647.28'

ALUM. MON.
Y=182667.784
X=520393.726

NW NW

SCHEDULE OF LANDS & INTERESTS REQUIRED

NUMBER	*OWNER(S)	INTEREST(S) REQUIRED	FEE R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES	PLE ACRES
4	DEBRA MAC DONALD	FEE, TLE	0.022	0.415	0.437	0.343	
5	HARRY SUPPANZ	FEE, TLE	0.007		0.007	0.217	
6	HENRY & CONSTANCE JUDD	TLE				0.038	
7	BERNARD & SHIRLEY GEISEL TRUST	FEE, PLE, TLE	0.034	0.692	0.726	0.623	0.022

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN (PAR 4,6,7)	RELEASE OF RIGHTS
101	WISCONSIN PUBLIC SERVICE (ELECT.) (PAR 7)	RELEASE OF RIGHTS

EASEMENTS OF RECORD
PARCEL 4
WISCONSIN BELL EASE.
VOL. 497 PG 811 DOC*512095
WISCONSIN TELEPHONE COMPANY
VOL 163 PG 283 DOC * 324358
BLANKET EASE.

EASEMENTS OF RECORD
PARCELS 6 & 7
WISCONSIN TELEPHONE COMPANY
VOL 163 PG 583 DOC * 324631
BLANKET EASE.
WISCONSIN TELEPHONE COMPANY
VOL 92 D 227 DOC * 278128
BLANKET EASE.

N

SCALE, FEET
0 50 100

TLE FOR GRADING & CHANNEL CONST.

O F

SE SW

SEC7

SECTION LINE

0.415AC EX RW

STH 57 R

(SEC7-0TR10) S89°51'06"E 2687.51'

0.370AC EX RW

0.322AC EX RW

4 FEE 0.022 AC INCL. CREEK

5 FEE

5 TLE FOR GRADING & CHANNEL CONST.

0.016AC

0.001AC

0.008AC

0.011AC

GEISEL CREEK FLOW

6 TLE FOR GRADING, DRIVEWAY & CHANNEL CONST.

7 0.203 AC TLE FOR GRADING, DRIVEWAY & CHANNEL CONST.

7 FEE 0.034 AC INCL. CREEK

7 0.922 AC PLE FOR GUARDRAIL MAINTENANCE

7 0.420 AC TLE FOR GRADING, DRIVEWAY & CHANNEL CONST.

SIXTEENTH LINE

S E V A S T O P O L

NE NW

NO°14'48"W 2657.26'

QUARTER LINE

NO°02'17"W 2636.59'

QUARTER LINE

ALUM. MON.
Y=187975.051
X=523030.183

ALUM. MON.
Y=185322.812
X=523041.671

ALUM. MON.
Y=182691.218
X=523043.411

POINT TABLE

POINT NUMBER	NORTHING	EASTING	STATION	OFFSET
52	185358.684	521145.190	336+50.00	46.49'LT
53	185344.638	521239.536	337+44.43	33.00'LT
54	185339.327	522145.094	346+50.00	33.00'LT
55	185273.329	522144.707	346+50.00	33.00'RT
56	185278.638	521239.303	337+44.58	33.00'RT
57	185270.816	521144.675	336+50.00	41.38'RT
58	185312.192	521144.917	336+50.00	0.00'RT
59	185312.723	521144.920	336+50.00	0.53'LT
60	185306.328	522144.900	346+50.00	0.00'RT
61	185310.133	522144.922	346+50.00	3.81'LT
63	185344.017	521345.343	338+50.24	33.00'LT
64	185360.074	521345.437	338+50.24	49.06'LT
65	185358.756	521570.095	340+74.90	49.06'LT
66	185445.301	521570.602	340+74.90	135.60'LT
68	185444.310	521739.607	342+43.90	135.60'LT
69	185356.808	521719.107	342+23.92	47.98'LT
70	185381.238	521739.247	342+43.91	72.53'LT
71	185354.275	522073.896	345+78.72	47.53'LT
72	185339.745	522073.816	345+78.72	33.00'LT
73	185342.331	521632.938	341+37.84	33.00'LT
74	185357.299	521633.026	341+37.84	47.97'LT
77	185341.826	521719.021	342+23.92	33.00'LT
78	185274.972	521194.946	337+00.25	36.93'RT
79	185261.419	521194.867	337+00.25	50.48'RT
82	185259.222	521569.511	340+74.90	50.48'RT
83	185175.895	521569.022	340+74.90	133.81'RT
86	185174.340	521834.226	343+40.11	133.81'RT
87	185264.062	521834.717	343+40.07	44.08'RT
88	185263.796	521883.403	343+88.76	44.06'RT
89	185274.861	521883.354	343+88.64	33.00'RT
90	185276.332	521632.551	341+37.84	33.00'RT
91	185258.581	521632.447	341+37.84	50.75'RT
92	185258.688	521718.534	342+23.92	50.14'RT
93	185275.827	521718.634	342+23.92	33.00'RT
94	185275.439	521784.847	342+90.13	33.00'RT
95	185233.381	521784.616	342+90.15	75.06'RT
96	185233.255	521807.601	343+13.14	75.05'RT
97	185275.304	521807.848	343+13.14	33.00'RT
209	185380.945	521789.246	342+93.91	72.53'LT
210	185355.945	521789.103	342+93.92	47.53'LT
223	185444.575	521694.373	341+98.67	135.60'LT
224	185357.019	521682.100	341+86.91	47.98'LT
225	185356.943	521695.444	342+00.25	47.98'LT
226	185444.485	521709.823	342+14.12	135.60'LT
227	185175.884	521570.907	340+76.78	133.81'RT
228	185175.745	521594.735	341+00.61	133.81'RT
229	185258.637	521677.877	341+83.26	50.43'RT
230	185258.592	521641.251	341+46.64	50.69'RT

COURSE TABLE

SEC7	59	S89°51'06"E	790.75'
59	61	S89°51'06"E	1000.00'
61	0TR10	S89°51'06"E	896.75'
59	52	N00°20'10"E	45.96'
52	53	S81°31'56"E	95.39'
53	73	S89°39'50"E	393.41'
73	74	N00°20'10"E	14.97'
74	69	S89°40'22"E	86.08'
69	77	S00°19'38"W	14.98'
77	54	S89°39'50"E	426.08'
54	61	S00°20'10"W	29.19'
61	60	S00°20'10"W	3.80'
60	55	S00°20'10"W	33.00'
55	97	N89°39'50"W	336.86'
97	94	N89°39'50"W	23.00'
97	96	S00°20'10"W	42.05'
96	95	N89°41'12"W	22.98'
95	94	N00°18'48"E	42.06'
94	93	N89°39'50"W	66.21'
93	92	S00°20'10"W	17.14'
92	91	S89°55'43"W	86.09'
91	90	N00°20'10"E	17.75'
90	56	N89°39'50"W	393.25'
56	57	S85°16'29"W	94.95'
57	58	N00°20'10"E	41.38'
58	59	N00°20'10"E	0.53'
58	60	S89°39'50"E	1000.00'

CONVENTIONAL UTILITY SYMBOLS

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

	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

DDC #: 853504
RECORDED ON:
05/23/2022 08:01:35 AM
CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI
FEE AMOUNT PAID: 25.00
The above recoding information verifies that this document has been electronically recorded and returned to the submitter.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4150-26-21-4.02
AMENDMENT NO:

WISCONSIN DEPARTMENT OF TRANSPORTATION

I, JEFFREY T. BOHRTZ, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN JEFFREY T. BOHRTZ S-2223 Green Bay, WI LAND SURVEYOR

SIGNATURE Jeffrey T. Bohrtz DATE 05/19/2022
NAME JEFFREY T. BOHRTZ, PLS-2223

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHEAST REGION.

SIGNATURE Alan Rommel DATE 05/19/2022
NAME ALAN ROMMEL

APPRAISAL DATE: 05/19/2022

TRANSPORTATION PROJECT PLAT NO: 4150-26-21-4.03

BEING PART OF THE NW 1/4 OF THE SE 1/4 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 28, T29N-R27E, TOWN OF JACKSONPORT, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57, MID JUNCTION - BAILEYS HARBOR, (STH 42- SUMMIT ROAD) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN 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.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTIONS 84.02 (3), 84.09 and 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS 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 (1) OR (2), WISCONSIN STATUTES.

CONVENTIONAL SYMBOLS

- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW REFERENCE LINE
- NEW R/W LINE
- EXISTING R/W LINE
- PROPERTY LINE
- LOT, TIE, AND OTHER MINOR LINES
- SLOPE INTERCEPT
- CORPORATE LIMITS
- UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
- FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
- TEMP. LIMITED EASEMENT AREA
- EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
- TRANSMISSION STRUCTURES
- BUILDING
- BUILDING (TO BE REMOVED)
- BRIDGE
- PARCEL NUMBER
- UTILITY NUMBER
- SECTION CORNER
- R/W MONUMENT
- NON-MONUMENTED R/W POINT
- FOUND IRON PIN
- VALVE (GAS, WATER, ETC.)
- SIGN
- OFF-PREMISE SIGN
- NOTATION FOR COMBUSTABLE FLUIDS
- NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
- ACCESS CONTROLLED BY ACQUISITION
- NO ACCESS (BY STATUTORY AUTHORITY)
- ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
- NO ACCESS (NEW HIGHWAY)
- NATIONAL GEODETIC SURVEY MONUMENT
- SIXTEENTH CORNER MONUMENT
- PARALLEL OFFSETS

SCALE, FEET: 0 50 100

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CONVENTIONAL UTILITY SYMBOLS

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

	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

CURVE DATA ABBREVIATIONS

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

NOTES:

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

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) 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.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION OFFICE IN GREEN BAY.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

EXISTING RIGHT OF WAY WAS ESTABLISHED UNDER PROJECT(S): 3346, 3991

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

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

A **TEMPORARY LIMITED 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 TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

T 29 N R 27 E — SECTION 28

MAG NAIL W/WASHER Y=203976.342 X=533881.270

CNTR12

QUARTER LINE (CNTR12-235) 1562.16' (CNTR12-QTR13) S89°12'44"E 2531.98'

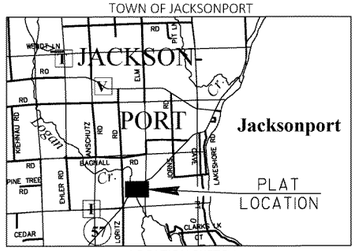
235

QTR13

T 29 N R 27 E — SECTION 28, 27

IRON PIPE Y=203941.531 X=536413.009

SECTION 28, T29N - R27E TOWN OF JACKSONPORT



LOCATION SKETCH (NOT TO SCALE)

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER(S)	INTEREST(S) REQUIRED	FEE R/W ACRES OR SQ.FT. REQUIRED NEW	FEE R/W ACRES OR SQ.FT. REQUIRED EXISTING	FEE R/W ACRES OR SQ.FT. REQUIRED TOTAL	TLE ACRES OR SQ.FT.	PLE ACRES OR SQ.FT.
8	WENCESLAO MARTINEZ	FEE, TLE	0.051 (2,205 sq.ft.)	0.305 (13,268 sq.ft.)	0.356 (15,473 sq.ft.)	0.106 (4,630 sq.ft.)	—
9	MARCEL DE WULF TRUST	FEE, PLE, TLE	0.019 (838 sq.ft.)	0.026 (1,120 sq.ft.)	0.045 (1,958 sq.ft.)	0.044 (1,915 sq.ft.)	0.017 (756 sq.ft.)
10	JOHN LASEE TRUST	FEE, PLE, TLE	0.053 (2,302 sq.ft.)	—	0.053 (2,302 sq.ft.)	0.076 (3,323 sq.ft.)	0.002 (96 sq.ft.)
11	WILLIAM HEBAL	FEE, PLE, TLE	—	0.298 (12,978 sq.ft.)	0.298 (12,978 sq.ft.)	0.098 (4,285 sq.ft.)	0.007 (304 sq.ft.)
12	ROBERT & MARY GEITNER, AND MR G'S SUPPER CLUB, INC.	PLE, TLE	—	—	—	0.159 (6,943 sq.ft.)	0.012 (507sq.ft.)

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

N

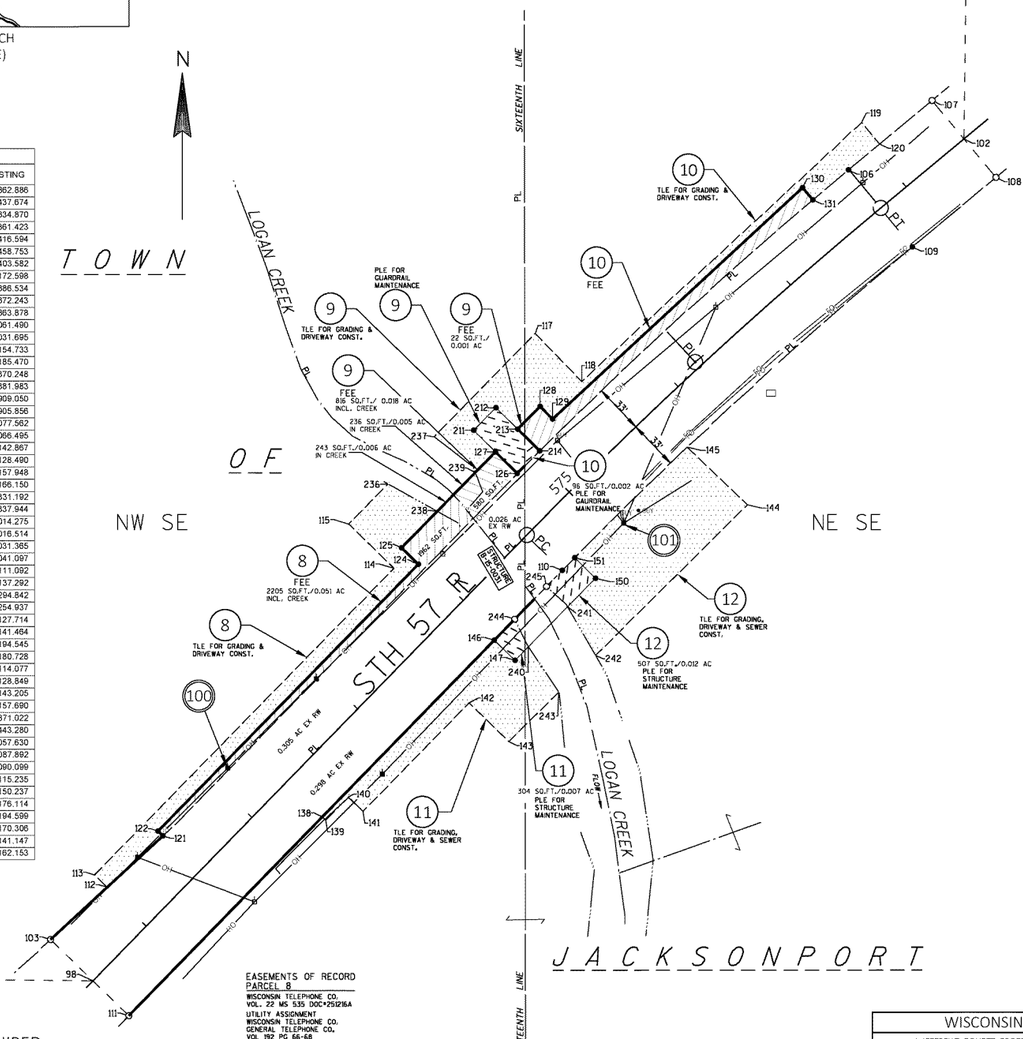
TOWN OF JACKSONPORT

QUARTER LINE

SIXTEENTH LINE

LOGAN CREEK

STH 57



POINT TABLE

POINT NUMBER	STATION	OFFSET	NORTHING	EASTING
98	570+50.00	0.00'RT	202991.608	534862.886
102	578+50.00	0.00'RT	203547.143	535437.674
103	570+50.00	39.09'LT	203018.874	534834.870
106	577+78.29	33.00'LT	203526.728	535361.423
107	578+50.00	33.00'LT	203572.533	535416.594
108	578+50.00	33.00'RT	203521.753	535458.753
109	577+78.29	33.00'RT	203475.948	535403.582
110	574+60.15	33.00'RT	203262.515	535172.598
111	570+50.00	33.00'RT	202968.592	534886.534
112	571+00.76	36.35'LT	203053.339	534872.243
113	571+00.78	48.04'LT	203061.504	534863.878
114	573+83.63	47.56'LT	203263.866	535061.490
115	573+83.76	89.28'LT	203293.057	535031.695
117	575+56.82	90.44'LT	203418.846	535154.733
118	575+56.89	46.21'LT	203387.042	535185.470
119	578+05.02	51.37'LT	203557.933	535370.248
120	578+05.02	33.00'LT	203543.768	535381.983
121	571+50.76	33.65'LT	203087.283	534909.050
122	571+50.77	38.11'LT	203090.400	534905.856
124	573+96.73	37.90'LT	203266.517	535077.562
125	573+96.79	53.39'LT	203277.359	535066.495
126	574+84.96	33.00'LT	203326.448	535142.867
127	574+84.96	53.23'LT	203340.674	535128.490
128	575+26.29	53.70'LT	203370.706	535157.948
129	575+26.29	42.00'LT	203362.364	535166.150
130	577+47.98	43.44'LT	203515.002	535331.192
131	577+47.98	33.00'LT	203507.034	535337.944
138	572+33.15	33.00'RT	203096.843	535014.275
139	572+33.19	36.09'RT	203097.712	535016.514
140	572+54.44	36.13'RT	203112.920	535031.365
141	572+54.42	49.73'RT	203103.416	535041.097
142	573+54.60	49.90'RT	203175.093	535111.092
143	573+54.54	86.52'RT	203149.508	535137.292
144	575+79.98	88.09'RT	203305.797	535294.842
145	575+77.20	33.00'RT	203343.879	535254.937
146	573+95.80	33.00'RT	203216.598	535127.714
147	573+95.86	52.13'RT	203203.098	535141.464
150	574+71.93	52.34'RT	203257.298	535194.545
151	574+71.91	33.00'RT	203270.836	535180.728
211	574+84.96	73.50'LT	203354.936	535114.077
212	575+05.46	73.57'LT	203369.863	535128.849
213	575+05.59	53.38'LT	203355.658	535143.205
214	575+05.73	33.00'LT	203341.325	535157.690
234			203002.040	533871.022
235			203954.865	535443.280
236	574+20.85	89.18'LT	203319.572	535057.630
237	574+64.02	89.08'LT	203350.511	535087.862
238	574+30.52	53.29'LT	203301.465	535090.099
239	574+66.34	53.18'LT	203327.137	535115.235
240	574+08.39	52.17'RT	203212.055	535150.237
241	574+45.38	52.28'RT	203238.478	535176.114
242	574+35.25	87.93'RT	203206.357	535194.599
243	574+01.04	87.33'RT	203182.258	535170.306
244	574+15.06	33.00'RT	203230.201	535141.147
245	574+45.17	33.00'RT	203251.783	535162.153

(QTR11-CNTR12) N00°36'09"E 2578.16'

234

98

111

QTR11

T 29 N R 27 E — SECTION 28, 33

ALUM. MON. Y=201398.329 X=533854.154

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
100	AT&T WISCONSIN (PAR 8)	RELEASE OF RIGHTS
101	WISCONSIN PUBLIC SERVICE (ELECT.) (PAR 11, 12)	RELEASE OF RIGHTS

EASEMENTS OF RECORD
PARCEL 8
WISCONSIN TELEPHONE CO. VOL. 22 MS 535 DOC#251216A
UTILITY ASSIGNMENT WISCONSIN TELEPHONE CO. GENERAL TELEPHONE CO. VOL 192 PG 66-68 DOC#338728

EASEMENTS OF RECORD
PARCEL 11
WISCONSIN PUBLIC SERVICE VOL 108 PG 77-78 DOC#291892 BLANKET EASE.
WISCONSIN PUBLIC SERVICE VOL 89 PG 381 DOC#275957 BLANKET EASE.
UTILITY ASSIGNMENT WISCONSIN TELEPHONE CO. GENERAL TELEPHONE CO. VOL 192 PG 66-68 DOC#338728

EASEMENTS OF RECORD
PARCEL 12
WISCONSIN PUBLIC SERVICE VOL 108 PG 77-78 DOC#291892

COURSE TABLE

QTR11	234	N00°36'09"E	1603.80'
234	98	S89°23'51"E	991.92'
98	103	N45°46'35"W	39.09'
103	121	N47°19'03"E	100.91'
121	122	N45°41'44"W	4.46'
122	124	N44°16'24"E	245.97'
124	125	N45°35'11"W	15.49'
125	127	N44°23'47"E	88.61'
127	126	S45°18'09"E	20.23'
126	214	CURVE	
LCH DIST: 21.00'		LCB: N44°53'45"E	
L: 21.00'		R: 3033.01'	
127	211	N45°18'09"W	20.28'
211	212	N44°42'06"E	21.00'
212	213	S45°18'09"E	20.20'
214	213	N45°18'09"W	20.38'
213	128	N44°24'49"E	21.07'
128	129	S44°30'48"E	11.70'
129	130	N47°14'10"E	224.80'
130	131	S40°16'46"E	10.44'
131	106	CURVE	
LCH DIST: 30.65'		LCB: N50°00'36"E	
L: 30.65'		R: 3032.58'	
106	107	N50°17'59"E	71.71'
107	102	S39°42'01"E	33.00'
102	108	S39°42'01"E	33.00'
108	109	S50°17'59"W	71.71'
109	151	CURVE	
LCH DIST: 302.88'		LCB: S47°22'26"W	
L: 303.01'		R: 2967.00'	
151	110	CURVE	
LCH DIST: 11.63'		LCB: S44°20'09"W	
L: 11.63'		R: 2967.00'	
110	245	S44°13'25"W	14.98'
245	244	S44°13'25"W	30.12'
244	146	S44°13'25"W	19.26'
151	150	S45°35'11"E	19.34'
150	241	S44°24'08"W	26.34'
241	245	N46°22'38"W	19.29'
244	240	S26°36'24"E	20.29'
240	147	S44°24'08"W	12.54'
150	147	S44°24'08"W	75.86'
147	146	N45°57'04"W	19.13'
146	111	S44°13'25"W	345.80'
111	98	N45°46'35"W	33.00'
ALIGNMENT CURVE			
PC N 203285.531		E 535148.949	STATION 574+60.15
CC N 201193.152		E 537298.821	
PI N 203399.633		E 535259.999	STATION 576+19.37
T 159.22'			
D8 N44° 13' 25"E		DA N50° 17' 59"E	
LCH DIST. 317.99'		BEARING N47° 15' 42"E	
EXTERNAL DIST. 4.22'			
MID ORD 4.22'			
R 3000.00'			
D 01° 54' 35"			
DELTA 06° 04' 34"(RT)			
L 318.14'			
PT N 203501.338		E 535382.503	STATION 577+78.29
102	235	N00°47'16"E	407.76'
235	QTR13	S89°12'44"E	969.82'
235	CNTR12	N89°12'44"W	1562.16'
CNTR12	234	S00°36'09"W	974.35'

WISCONSIN DEPARTMENT OF TRANSPORTATION

I, JEFFREY T. BOHRTZ, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN JEFFREY T. BOHRTZ S-2223 Green Bay, WI LAND SURVEYOR

SIGNATURE Jeffrey T. Bohrtz DATE 05/19/2022

NAME JEFFREY T. BOHRTZ, PLS-2223

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHEAST REGION.

SIGNATURE Alan Rommel DATE 05/19/2022

NAME ALAN ROMMEL

DOC #: 853505
RECORDED ON:
05/23/2022 08:01:37 AM
CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI
FEE AMOUNT PAID: 25.00
The above recoding information verifies that this document has been electronically recorded and returned to the submitter.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4150-26-21-4.03
AMENDMENT NO:

4

4

APPRAISAL DATE: 05/19/2022

TRANSPORTATION PROJECT PLAT NO: 4150-26-21-4.04

BEING PART OF GOVT. LOT 2, SECTION 14, T29N-R27E, TOWN OF JACKSONPORT, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57, MID JUNCTION - BAILEYS HARBOR, (STH 42- SUMMIT ROAD) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN 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.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTIONS 84.02 (3), 84.09 and 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS 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 (1) OR (2), WISCONSIN STATUTES.

CONVENTIONAL SYMBOLS

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

PARCEL NUMBER (25)
UTILITY NUMBER (40)
SECTION CORNER
R/W MONUMENT
NON-MONUMENTED R/W POINT
NOTATION FOR COMBUSTABLE FLUIDS
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
SIGN
OFF-PREMISE SIGN

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS POINT, DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

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

SCALE, FEET
0 50 100

NOTES:

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

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) 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.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION OFFICE IN GREEN BAY.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

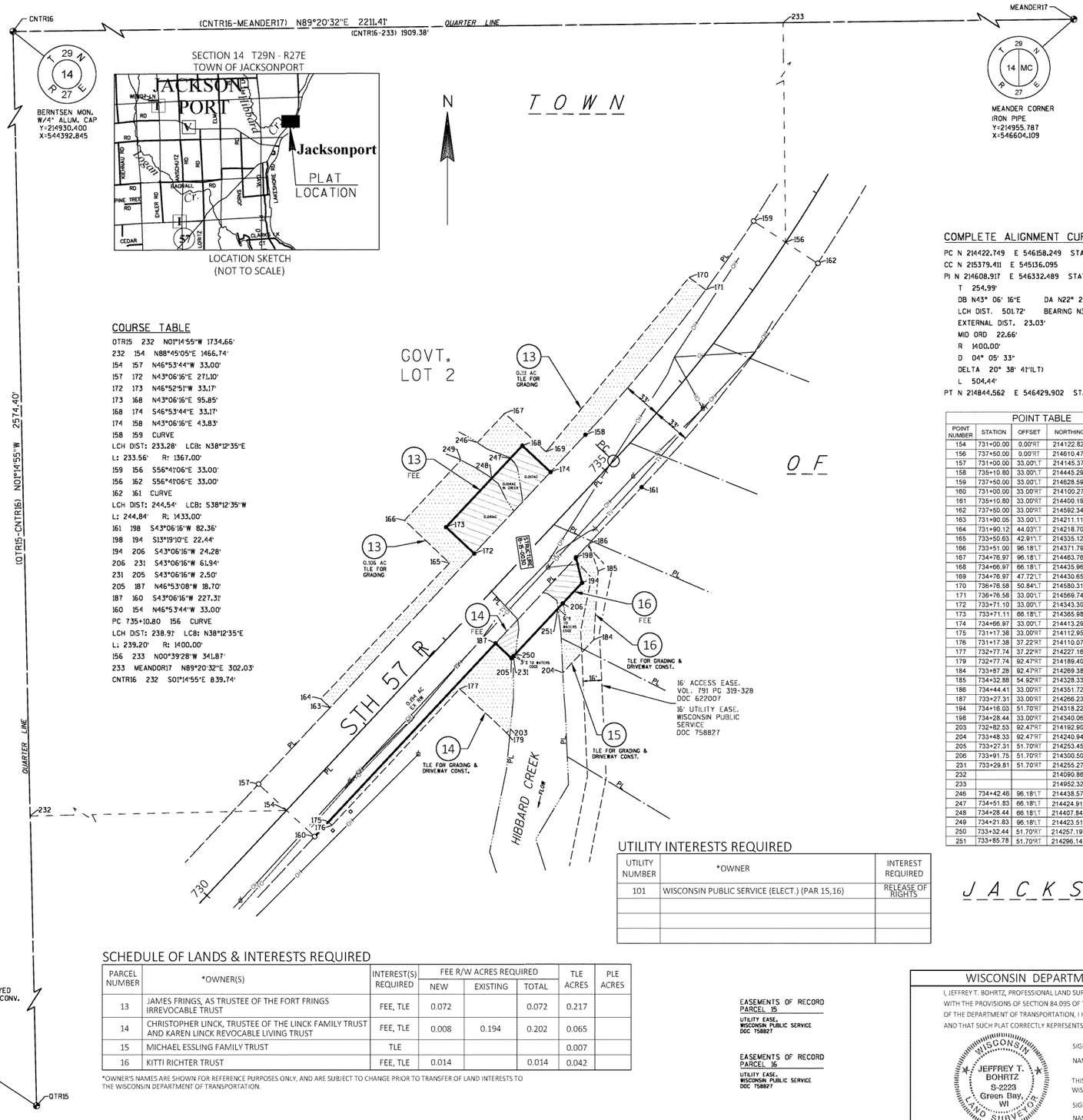
PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

EXISTING RIGHT OF WAY WAS ESTABLISHED UNDER PROJECT(S): 3346

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

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

A **TEMPORARY LIMITED 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 TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.



COURSE TABLE

OTR15 232 N01°14'55"W 1734.66'
232 154 N88°45'05"E 1466.74'
154 157 N46°53'44"W 33.00'
157 172 N43°06'16"E 271.10'
172 173 N46°52'51"W 33.17'
173 168 N43°06'16"E 95.85'
168 174 S46°53'44"E 33.17'
174 158 N43°06'16"E 43.83'
158 159 CURVE
LCH DIST: 233.28' LCB: N38°12'35"E
L: 233.56' R: 1367.00'
159 156 S56°41'06"E 33.00'
156 162 S56°41'06"E 33.00'
162 161 CURVE
LCH DIST: 244.54' LCB: S38°12'35"W
L: 244.84' R: 1433.00'
161 198 S43°06'16"W 82.36'
198 194 S13°19'10"E 22.44'
194 206 S43°06'16"W 24.28'
206 231 S43°06'16"W 61.94'
231 205 S43°06'16"W 2.50'
205 187 N46°53'08"W 18.70'
187 160 S43°06'16"W 227.31'
160 154 N46°53'44"W 33.00'
PC 735+10.80 156 CURVE
LCH DIST: 238.91' LCB: N38°12'35"E
L: 239.20' R: 1400.00'
156 233 N00°39'28"W 341.87'
233 MEANDER17 N89°20'32"E 302.03'
CNTR16 232 S01°14'55"E 839.74'

COMPLETE ALIGNMENT CURVE NOTE

PC N 214422.749 E 546158.249 STATION 735+10.80
CC N 215379.411 E 545136.095
PI N 214608.917 E 546332.489 STATION 737+65.78
T 254.99'
DB N43° 06' 16"E DA N22° 27' 35"E
LCH DIST. 501.72' BEARING N32° 46' 56"E
EXTERNAL DIST. 23.03'
MID ORD 22.66'
R 1400.00'
D 04° 05' 33"
DELTA 20° 38' 41"(LT)
L 504.44'
PT N 214844.562 E 546429.902 STATION 740+15.24

POINT TABLE

POINT NUMBER	STATION	OFFSET	NORTHING	EASTING
154	731+00.00	0.00'RT	214122.821	545877.538
156	737+50.00	0.00'RT	214610.473	546306.025
157	731+00.00	33.00'LT	214145.371	545853.444
158	735+10.80	33.00'LT	214445.299	546134.155
159	737+50.00	33.00'LT	214628.598	546278.448
160	731+00.00	33.00'RT	214100.271	545901.632
161	735+10.80	33.00'RT	214400.199	546182.342
162	737+50.00	33.00'RT	214592.349	546333.602
163	731+90.05	33.00'LT	214211.114	545914.975
164	731+90.12	44.03'LT	214218.704	545906.978
165	733+50.63	42.91'LT	214335.127	546017.474
166	733+51.00	96.18'LT	214371.798	545978.836
167	734+76.97	96.18'LT	214463.767	546084.912
168	734+66.97	66.18'LT	214435.966	546079.982
169	734+76.97	47.72'LT	214430.658	546100.287
170	736+76.58	50.84'LT	214580.314	546223.142
171	736+76.58	33.00'LT	214569.746	546237.518
172	733+71.10	33.00'LT	214343.306	546038.698
173	733+71.11	66.18'LT	214365.982	546014.482
174	734+66.97	33.00'LT	214413.296	546104.203
175	731+17.38	33.00'RT	214112.958	545913.506
176	731+17.38	37.22'RT	214110.074	545916.587
177	732+77.74	37.22'RT	214227.160	546026.172
179	732+77.74	92.47'RT	214189.409	546066.507
184	733+87.28	92.47'RT	214269.383	546141.357
185	734+32.88	54.92'RT	214328.334	546145.103
186	734+44.41	33.00'RT	214351.726	546136.976
187	733+27.31	33.00'RT	214266.233	546056.960
194	734+16.03	51.70'RT	214318.227	546131.235
198	734+28.44	33.00'RT	214340.068	546126.064
203	732+82.53	92.47'RT	214192.906	546069.780
204	733+48.33	92.47'RT	214240.942	546114.739
205	733+27.31	51.70'RT	214253.453	546070.611
206	733+91.75	51.70'RT	214300.503	546114.646
231	733+29.81	51.70'RT	214255.279	546072.319
232			214090.860	544411.143
233			214952.320	546302.100
246	734+42.46	96.18'LT	214438.571	546041.330
247	734+51.83	66.18'LT	214424.915	546069.639
248	734+28.44	66.18'LT	214407.840	546053.658
249	734+21.83	96.18'LT	214423.511	546027.235
250	733+32.44	51.70'RT	214257.197	546074.114
251	733+85.78	51.70'RT	214296.141	546110.563

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
101	WISCONSIN PUBLIC SERVICE (ELECT.) (PAR 15,16)	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER(S)	INTEREST(S) REQUIRED	FEE R/W ACRES REQUIRED			TLE ACRES	PLE ACRES
			NEW	EXISTING	TOTAL		
13	JAMES FRINGS, AS TRUSTEE OF THE FORT FRINGS IRREVOCABLE TRUST	FEE, TLE	0.072		0.072	0.217	
14	CHRISTOPHER LINCK, TRUSTEE OF THE LINCK FAMILY TRUST AND KAREN LINCK REVOCABLE LIVING TRUST	FEE, TLE	0.008	0.194	0.202	0.065	
15	MICHAEL ESSLING FAMILY TRUST	TLE				0.007	
16	KITTI RICHTER TRUST	FEE, TLE	0.014		0.014	0.042	

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

EASEMENTS OF RECORD
PARCEL 15
UTILITY EASE. WISCONSIN PUBLIC SERVICE DOC 758827

EASEMENTS OF RECORD
PARCEL 16
UTILITY EASE. WISCONSIN PUBLIC SERVICE DOC 758827

J A C K S O N P O R T

WISCONSIN DEPARTMENT OF TRANSPORTATION

I, JEFFREY T. BOHRTZ, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN JEFFREY T. BOHRTZ S-2223 Green Bay, WI LAND SURVEYOR

SIGNATURE Jeffrey T. Bohrtz DATE 05/19/2022
NAME JEFFREY T. BOHRTZ, PLS-2223

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHEAST REGION.

SIGNATURE Alan Rommel DATE 05/19/2022
NAME ALAN ROMMEL

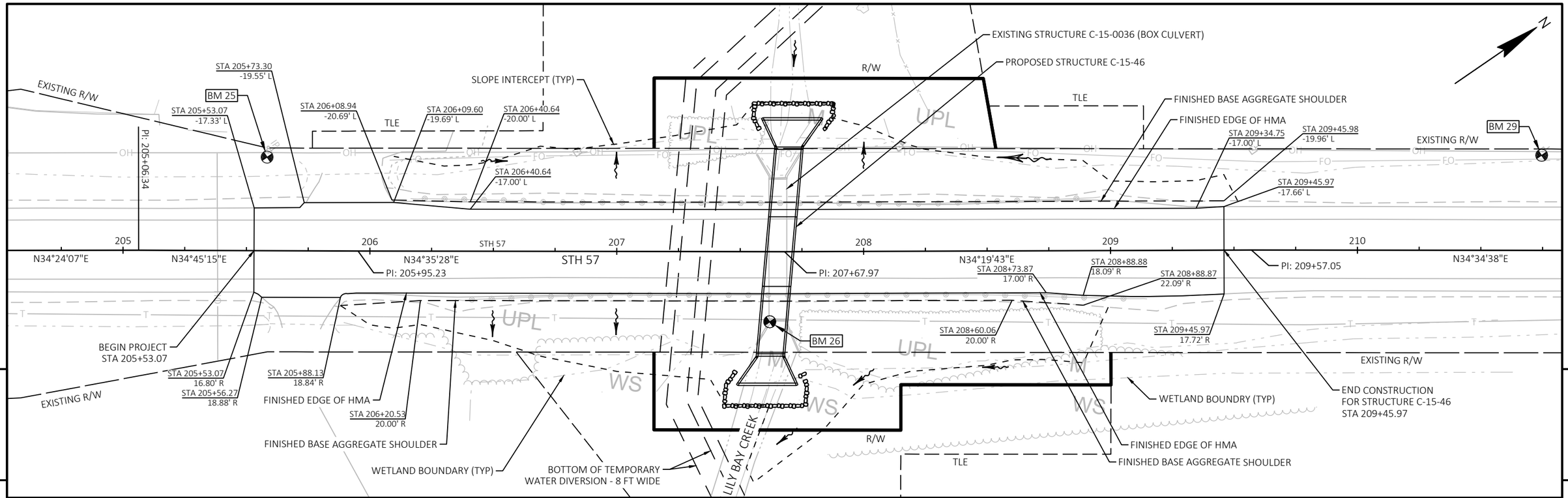
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CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI
FEE AMOUNT PAID: 25.00
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RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4150-26-21-4.04
AMENDMENT NO:

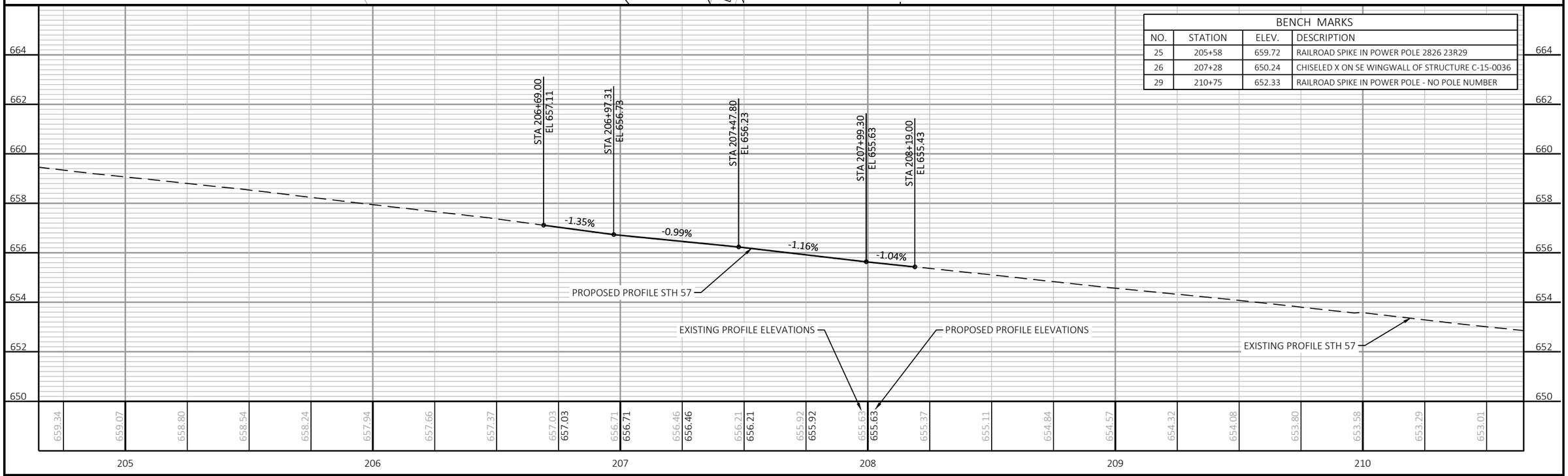
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4

APPRAISAL DATE: 05/19/2022



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
25	205+58	659.72	RAILROAD SPIKE IN POWER POLE 2826 23R29
26	207+28	650.24	CHISELED X ON SE WINGWALL OF STRUCTURE C-15-0036
29	210+75	652.33	RAILROAD SPIKE IN POWER POLE - NO POLE NUMBER



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN AND PROFILE: LILY BAY CREEK	SHEET 82	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-pp
PLOT DATE : 5/15/2024 12:29 PM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
31	338+44	642.33	RAIL ROAD SPIKE IN POWER POLE 2827 18W7. PP IS 360' W OF STRUCTURE C-15-043

BEGIN CONSTRUCTION
FOR STRUCTURE B-15-29
STA 336+79.09

EXISTING R/W

STA 337+50.44
-16.83' L

STA 337+50.44
0.00'

337 338 339 340 341 342 34

S89°35'33"E

STH 57

N89°58'43"E
PI: 337+91.76

PI: 338+65.03

S89°36'31"E

PI: 339+68.65

S89°40'22"E

PI: 342+14.17

S89°41'12"E

STA 337+50.44
17.26' R

FINISHED BASE AGGREGATE
SHOULDER (TYP)

FINISHED EDGE OF HMA
(TYP)

STA 338+12.55
23.09' R

STA 338+12.54
29.10' R

TLE

EXISTING R/W

BM 31

SLOPE INTERCEPT (TYP)

FINISHED EDGE OF HMA
(TYP)

FINISHED BASE AGGREGATE
SHOULDER (TYP)

SLOPE INTERCEPT (TYP)

STA 338+98.83
-18.94' L

STA 339+84.52
-16.60' L

STA 340+50.19
-23.17' L

STA 341+03.28
-21.17' L

STA 340+50.19
-29.10' L

STA 341+03.35
-25.10' L

WETLAND BOUNDARY

WETLAND BOUNDARY

EXISTING STRUCTURE C-15-0043 (BOX CULVERT)

PROPOSED STRUCTURE B-15-29

TLE

R/W

STA 341+52.67
0.00'

STA 342+21.33
0.00'

R/W

WETLAND BOUNDARY
(TYP)

BOTTOM OF TEMPORARY
WATER DIVERSION - 30 FT WIDE

GEISEL CREEK

N

5

5

654
652
650
648
646
644
642
640

EXISTING PROFILE STH 57

VCL = 130.00

K = 117.74

STA 338+50.46
EL 646.67

VPC STA 338+56.70
VPC EL 646.57

VPI STA 339+21.70
VPI EL 645.52

VPT STA 339+86.70
VPT EL 645.20

STA 342+88.00
EL 643.70

1.60%

-0.50%

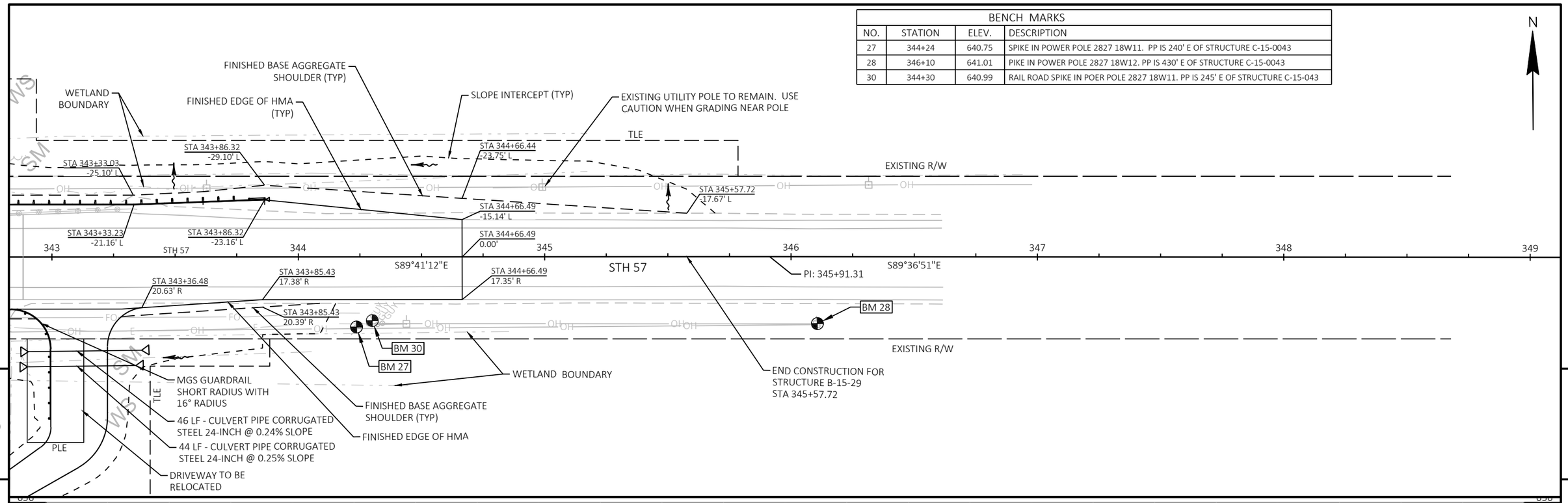
PROPOSED PROFILE STH 57

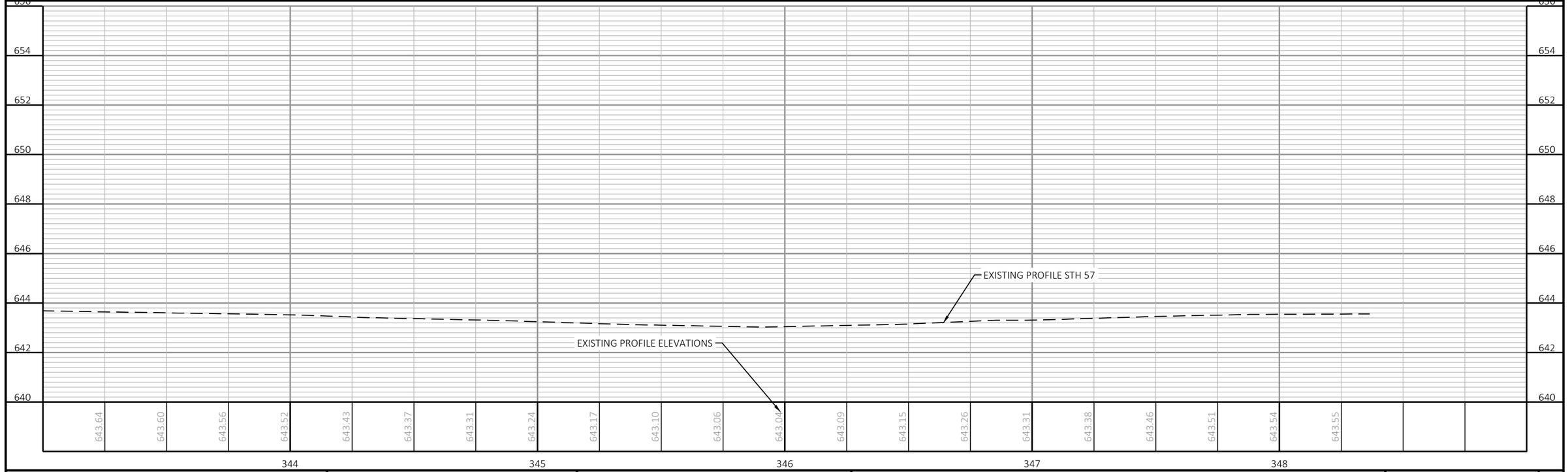
EXISTING PROFILE ELEVATIONS

PROPOSED PROFILE ELEVATIONS

| | | |

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
27	344+24	640.75	SPIKE IN POWER POLE 2827 18W11. PP IS 240' E OF STRUCTURE C-15-0043
28	346+10	641.01	PIKE IN POWER POLE 2827 18W12. PP IS 430' E OF STRUCTURE C-15-0043
30	344+30	640.99	RAIL ROAD SPIKE IN POER POLE 2827 18W11. PP IS 245' E OF STRUCTURE C-15-043

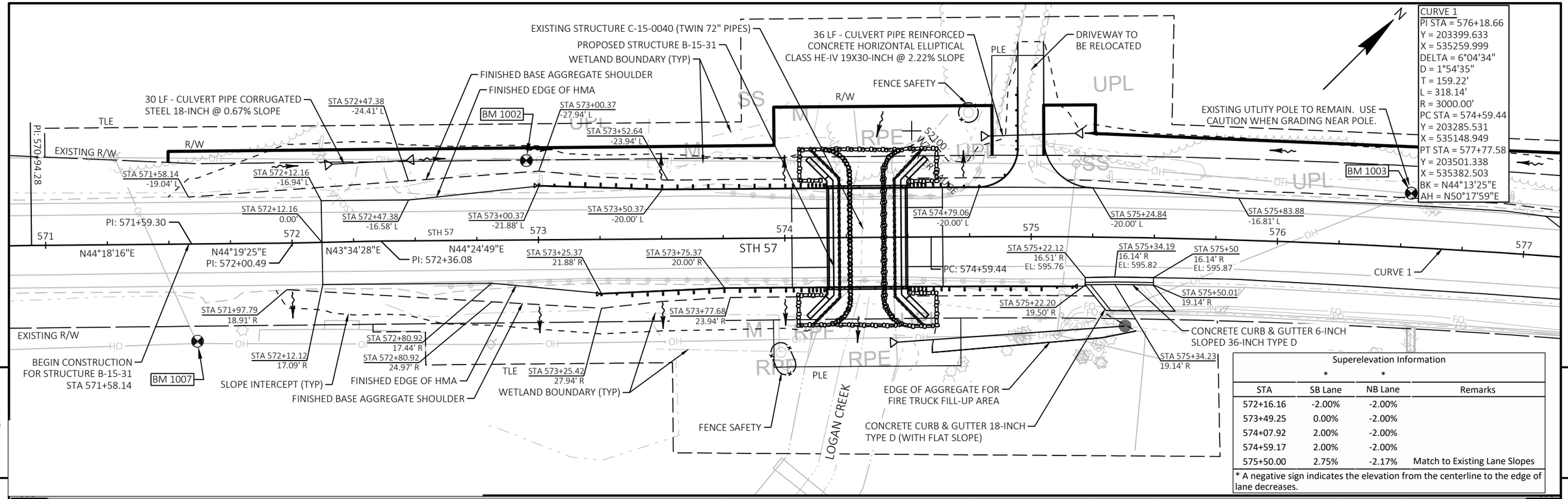




PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN AND PROFILE: GEISEL CREEK	SHEET 84	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050103-pp

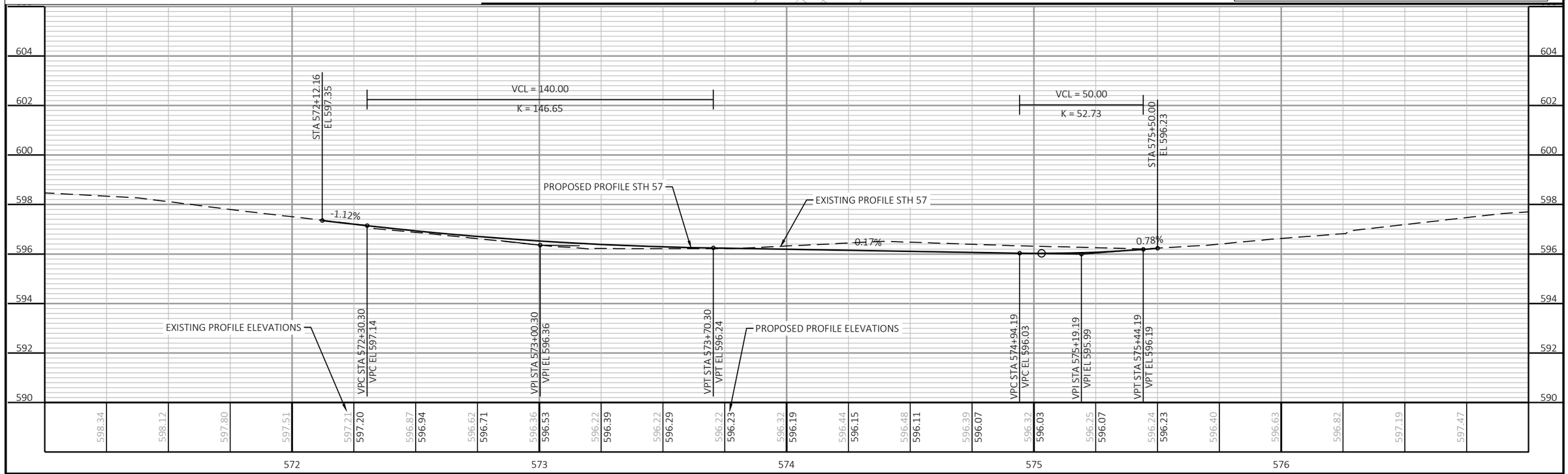
PLOT DATE : 5/15/2024 12:30 PM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT



Superelevation Information

STA	SB Lane *	NB Lane *	Remarks
572+16.16	-2.00%	-2.00%	
573+49.25	0.00%	-2.00%	
574+07.92	2.00%	-2.00%	
574+59.17	2.00%	-2.00%	
575+50.00	2.75%	-2.17%	Match to Existing Lane Slopes

* A negative sign indicates the elevation from the centerline to the edge of lane decreases.

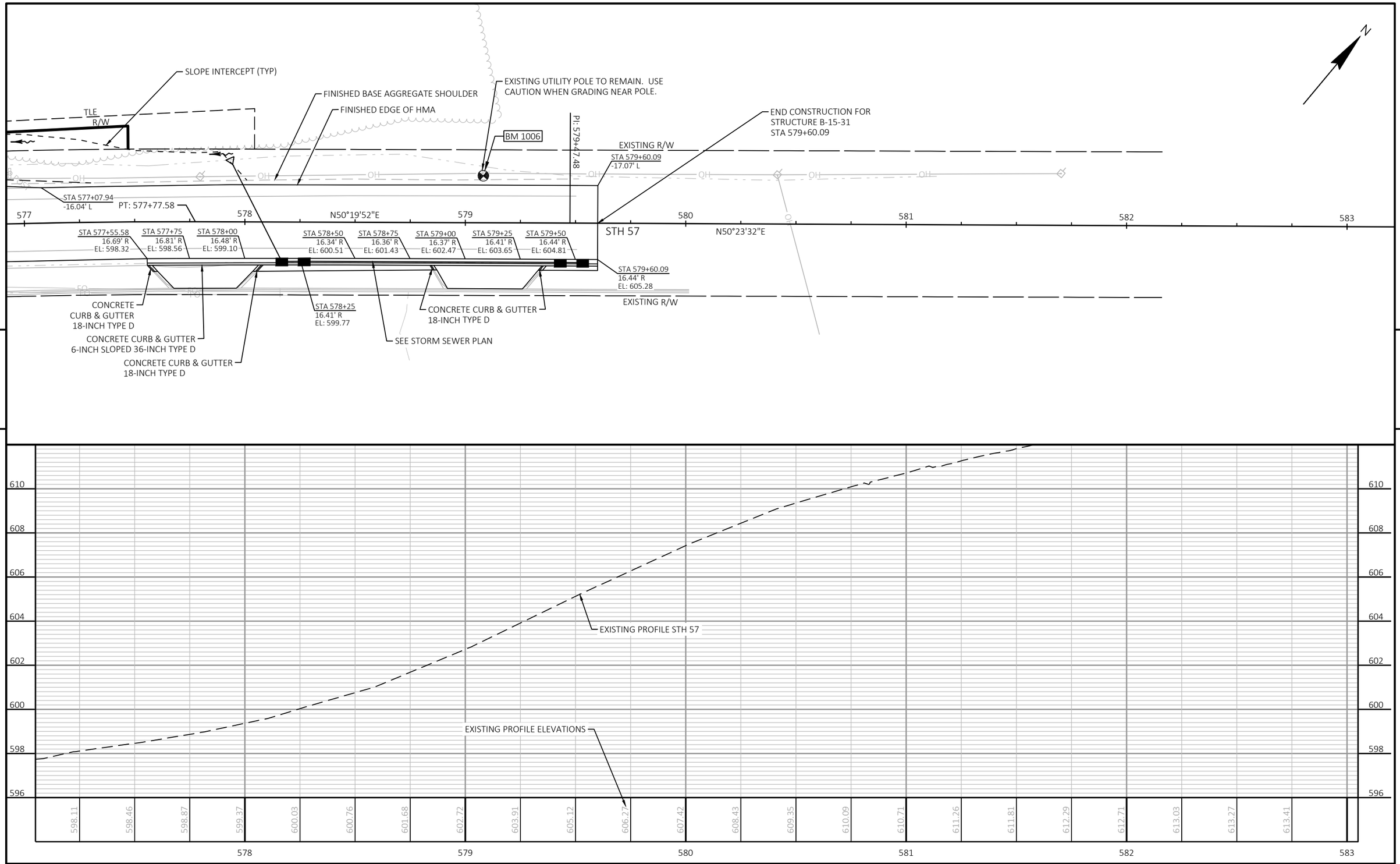


PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN AND PROFILE: LOGAN CREEK	SHEET 85	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050104-pp

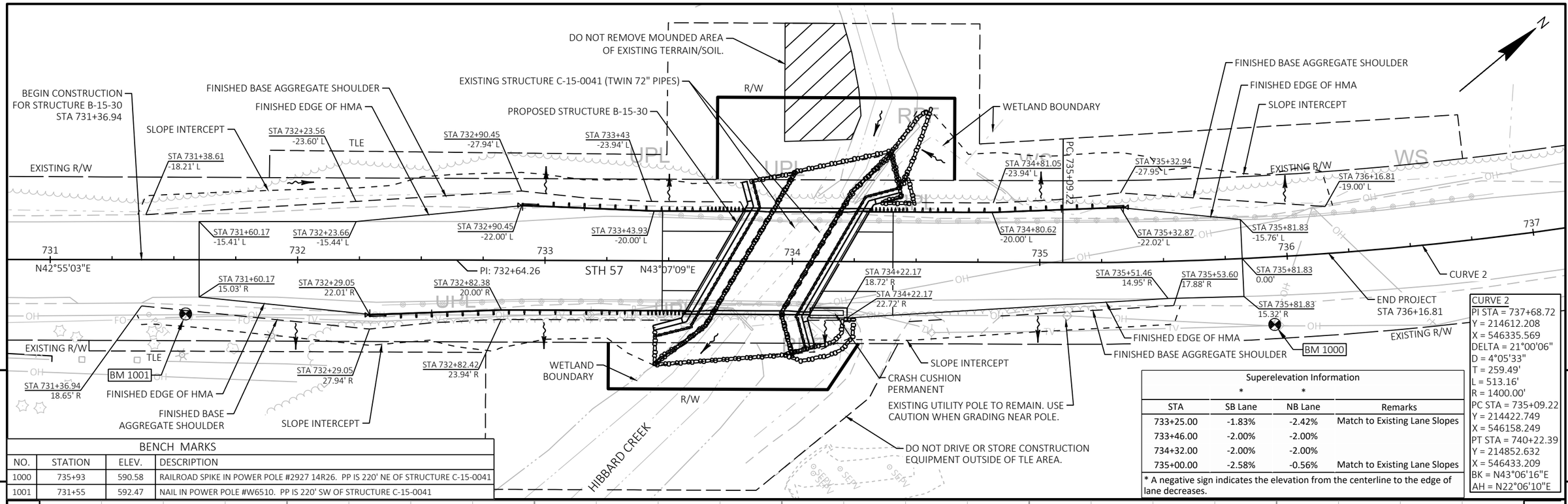
PLOT DATE : 5/15/2024 12:30 PM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN AND PROFILE: LOGAN CREEK	SHEET 86	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050105-pp
PLOT DATE : 5/15/2024 12:31 PM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



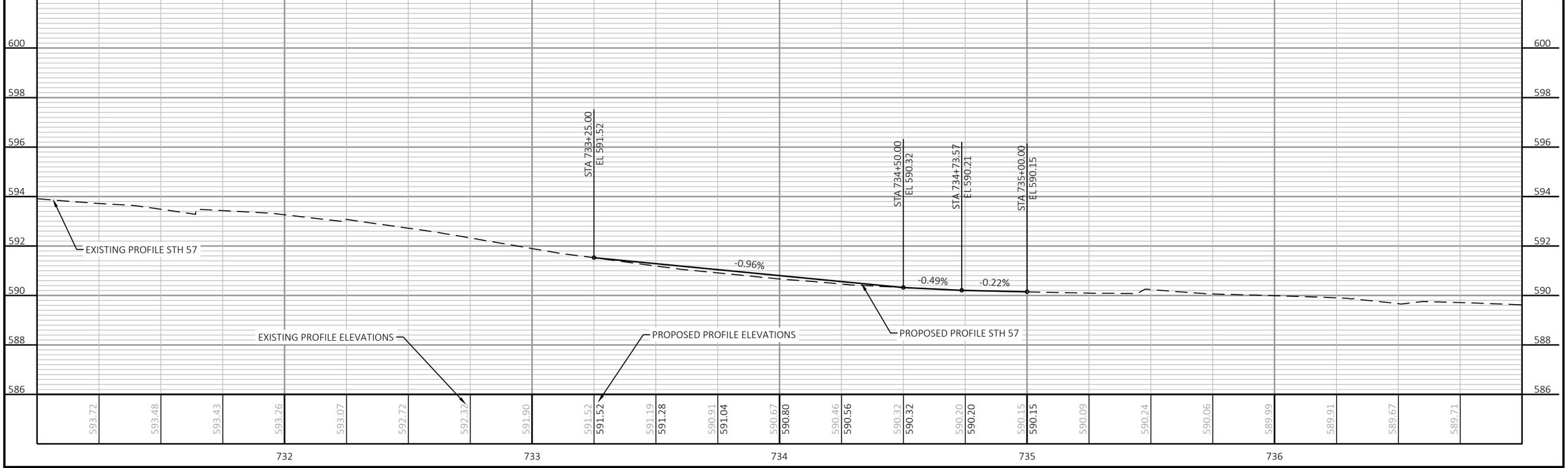
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1000	735+93	590.58	RAILROAD SPIKE IN POWER POLE #2927 14R26. PP IS 220' NE OF STRUCTURE C-15-0041
1001	731+55	592.47	NAIL IN POWER POLE #W6510. PP IS 220' SW OF STRUCTURE C-15-0041

Superelevation Information

STA	SB Lane *	NB Lane *	Remarks
733+25.00	-1.83%	-2.42%	Match to Existing Lane Slopes
733+46.00	-2.00%	-2.00%	
734+32.00	-2.00%	-2.00%	
735+00.00	-2.58%	-0.56%	Match to Existing Lane Slopes

* A negative sign indicates the elevation from the centerline to the edge of lane decreases.

CURVE 2
PI STA = 737+68.72
Y = 214612.208
X = 546335.569
DELTA = 21°00'06"
D = 4°05'33"
T = 259.49'
L = 513.16'
R = 1400.00'
PC STA = 735+09.22
Y = 214422.749
X = 546158.249
PT STA = 740+22.39
Y = 214852.632
X = 546433.209
BK = N43°06'16"E
AH = N22°06'10"E



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	PLAN AND PROFILE: HIBBARD CREEK	SHEET 87	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050106-pp
PLOT DATE : 5/15/2024 12:31 PM
PLOT BY : DANA, SHARON T
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-20D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-12H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-02A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES

Standard Detail Drawing List

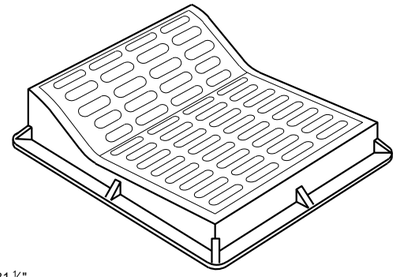
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

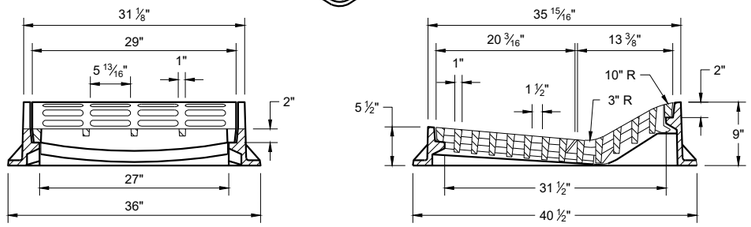
6

GENERAL NOTES

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

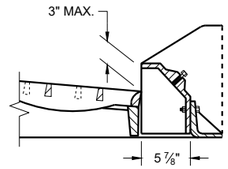
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

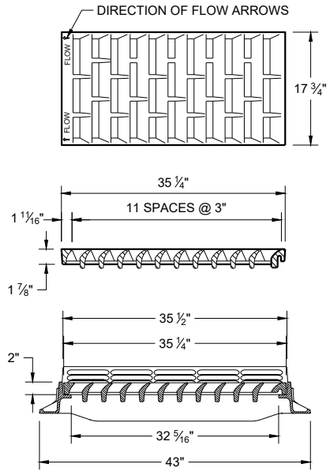


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

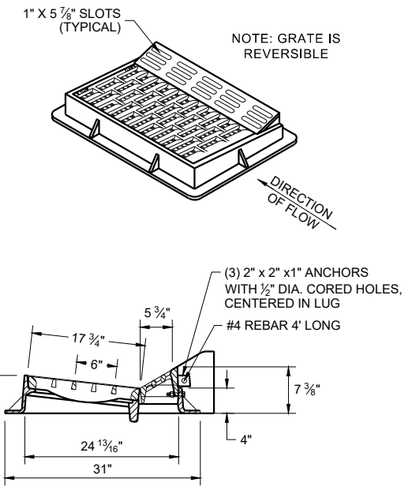
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



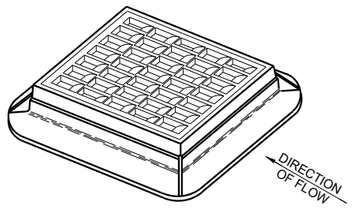
TYPE "HM"

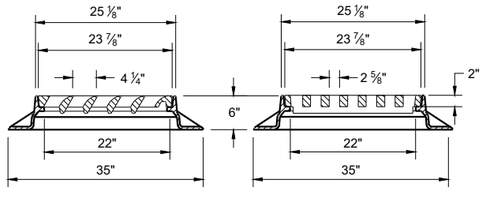
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



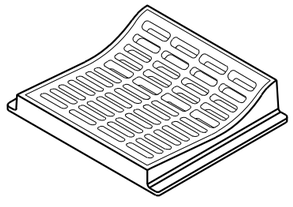
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

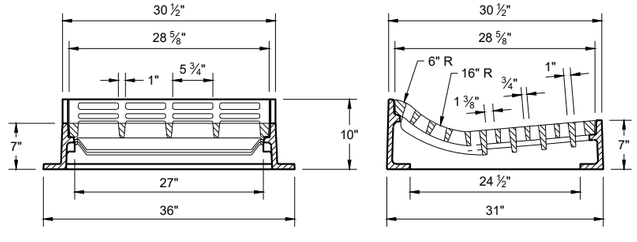
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





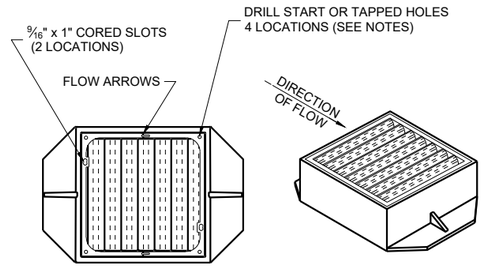
TYPE "S"

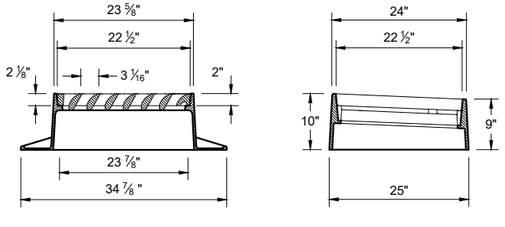




TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

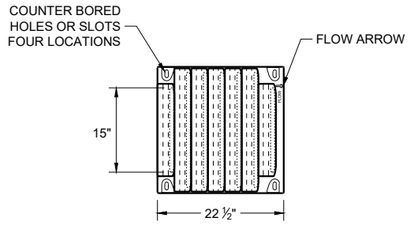




TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES F, HM, HM-S, S, T, V, HM-GJ AND HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 08A05-20c

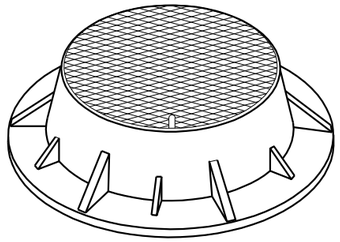
SDD 08A05-20c

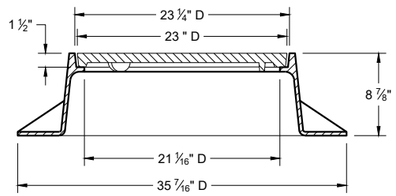
GENERAL NOTES

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

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

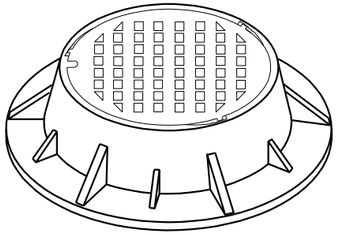
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

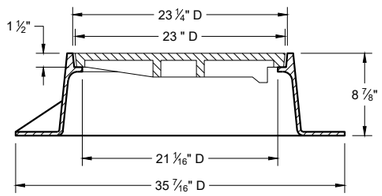




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

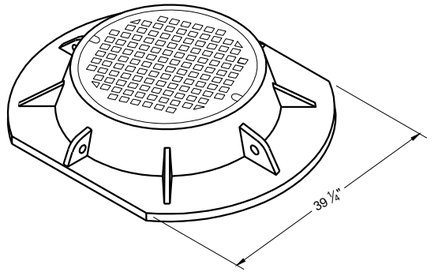


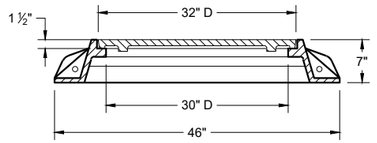


TYPE "J" SPECIAL

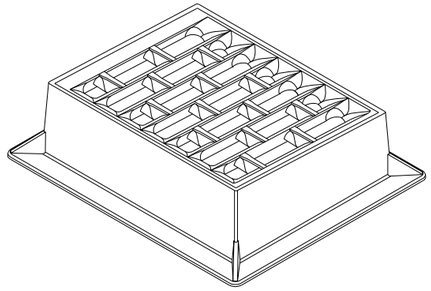
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

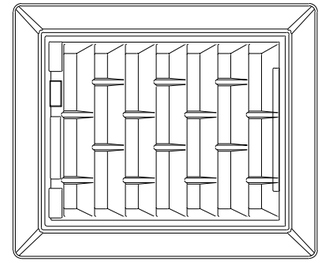
NOTE: EITHER CASTING IS ACCEPTABLE

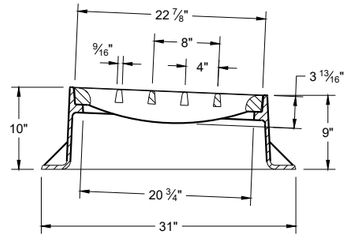


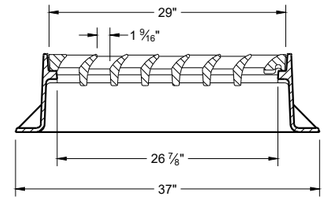


TYPE "K"

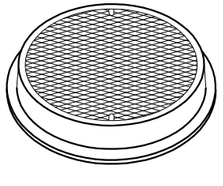


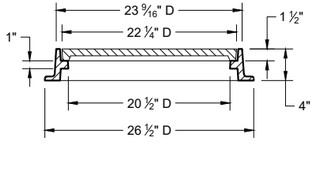




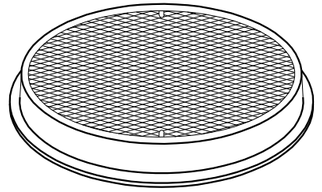


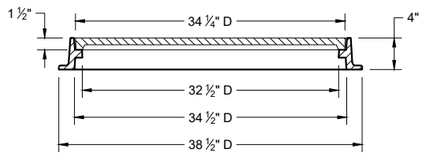
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

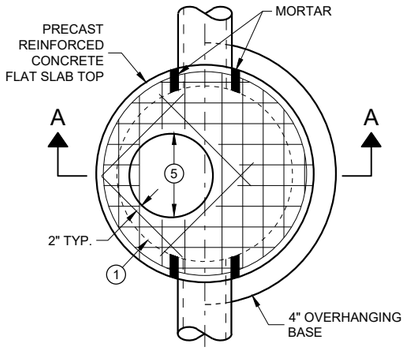
INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

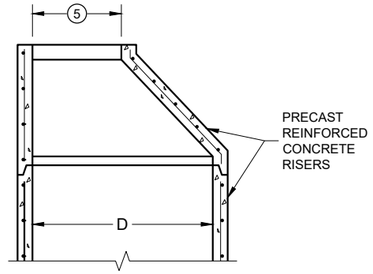
APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

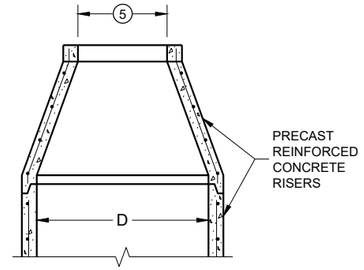
6
SDD 08A05-20d



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

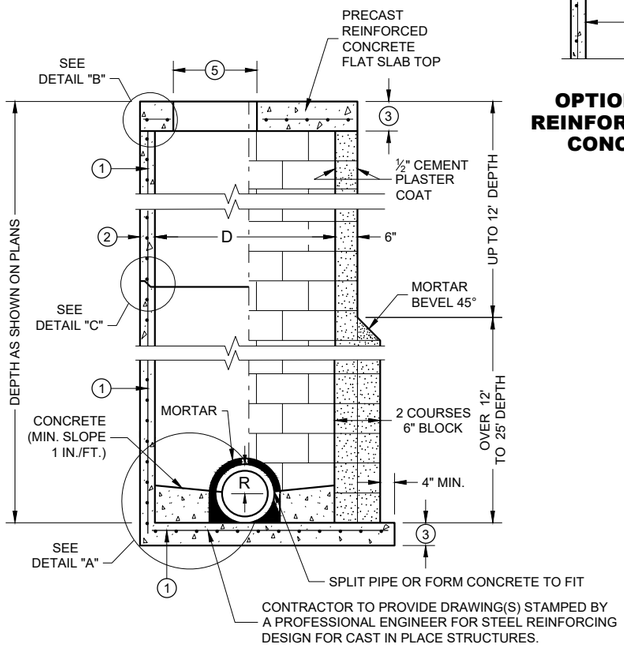
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

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

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

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

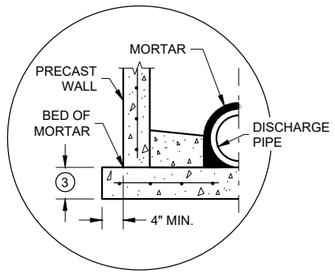
(5) SEE MANHOLE COVER OPENING MATRIX.



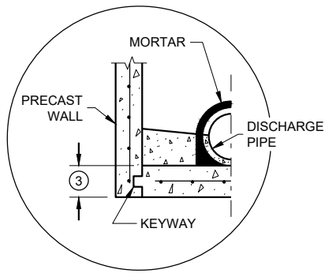
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

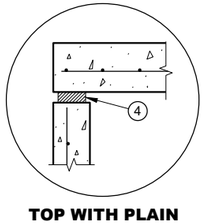


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

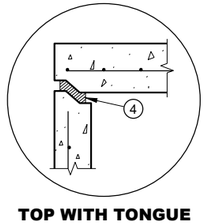


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

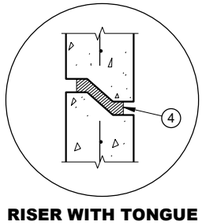


TOP WITH PLAIN END JOINT



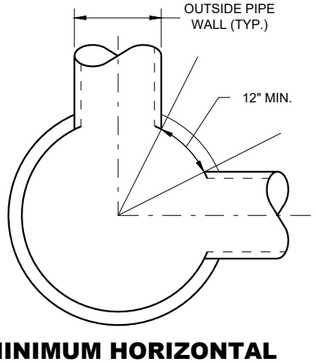
TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"



MINIMUM HORIZONTAL PIPE SEPARATION

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

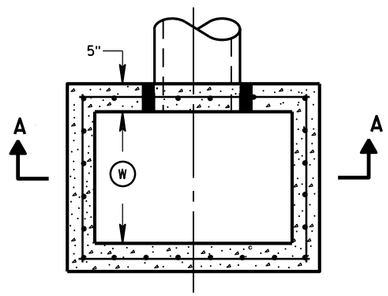
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

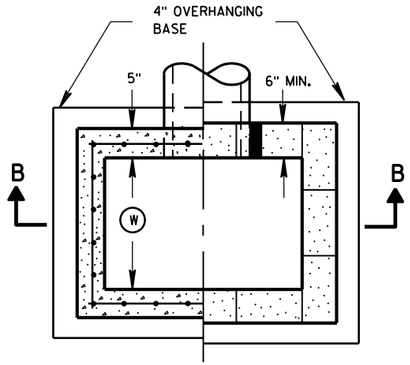
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

6

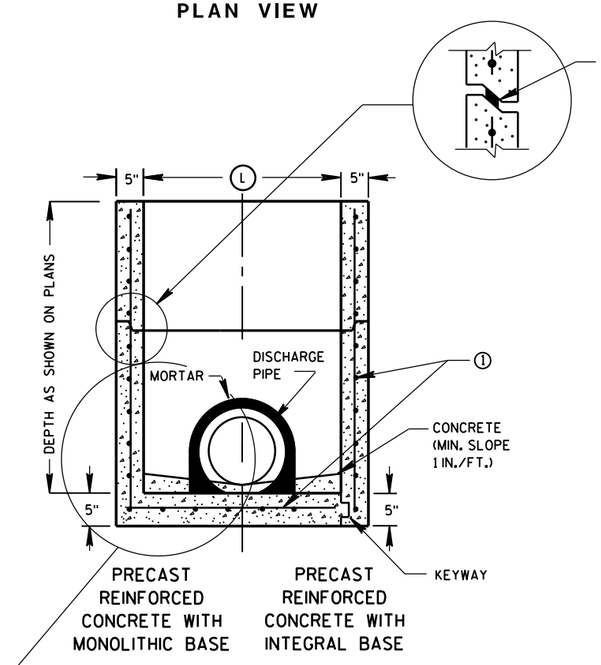
SDD 08B09 - 03



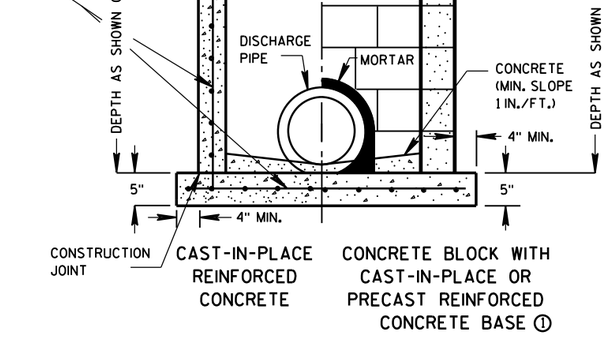
PLAN VIEW



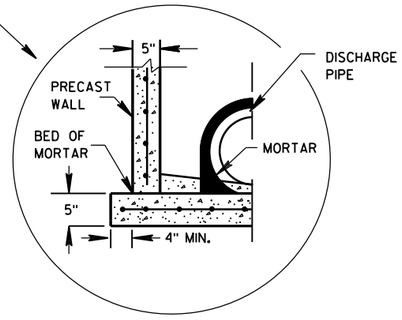
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

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

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 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.

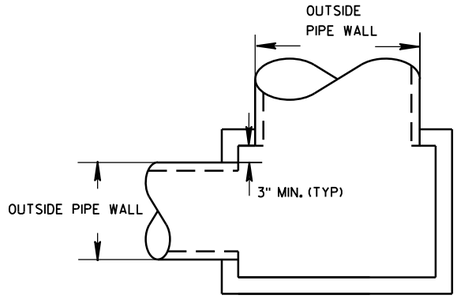
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

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



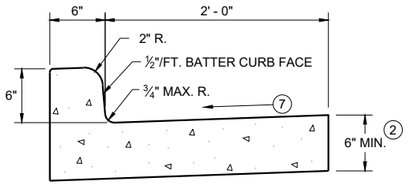
DETAIL "A"

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

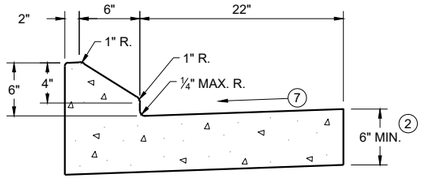
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

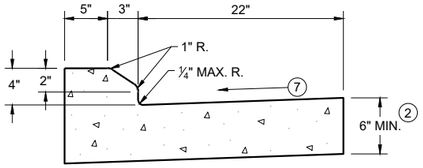
6
S.D.D. 8 C 7-2



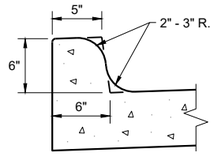
TYPES A (1) & D



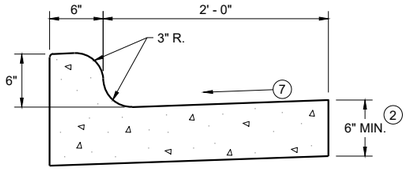
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

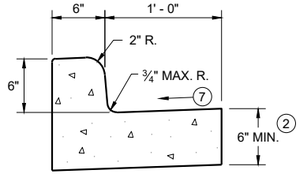


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



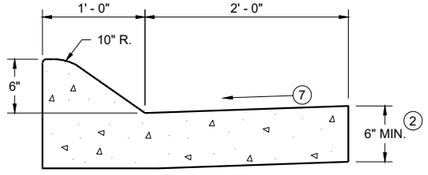
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

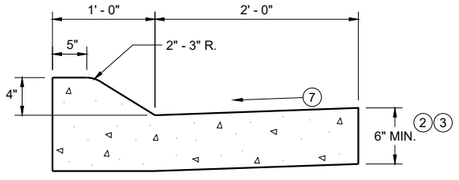


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

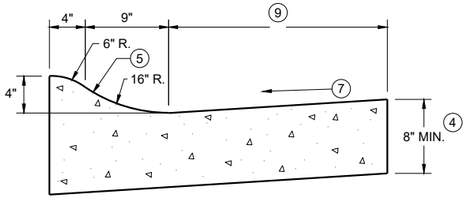


6" SLOPED CURB TYPES A (1) & D



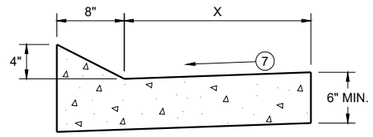
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

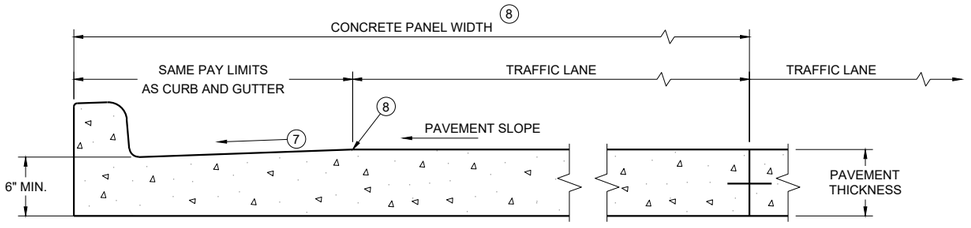


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

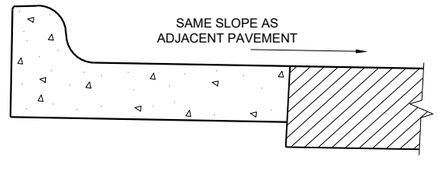
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

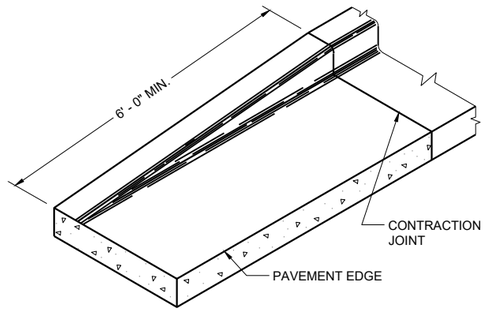
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

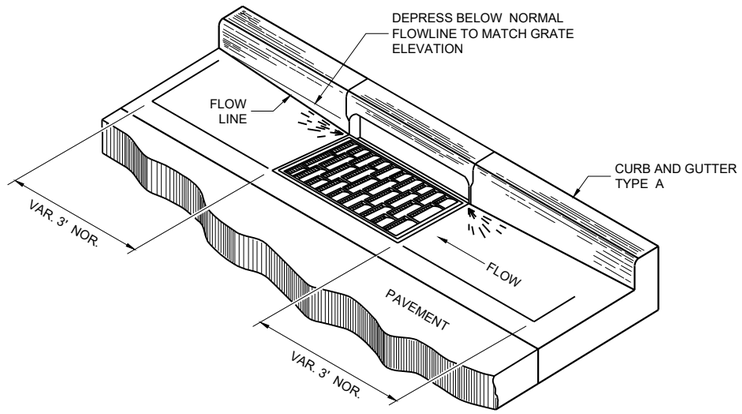
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a

6



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

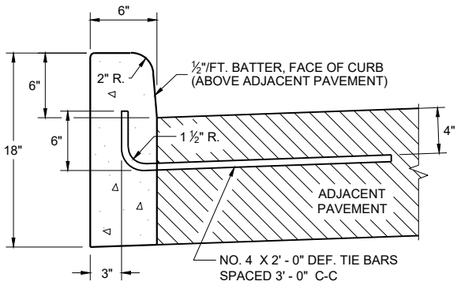
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

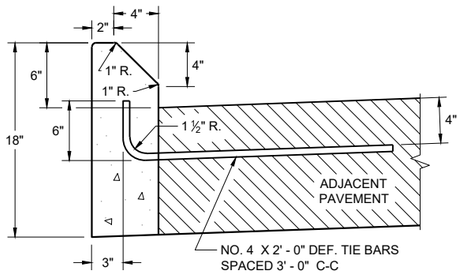
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

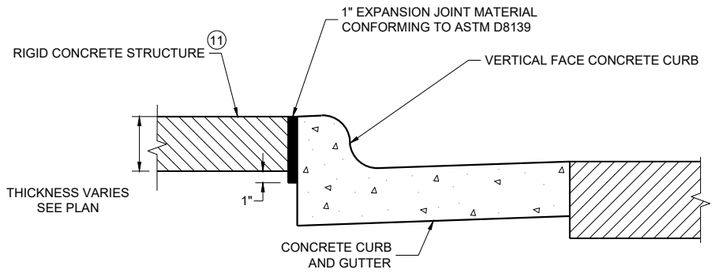


TYPES A (1) & D

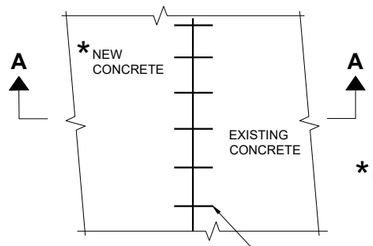


TYPES G (1) & J

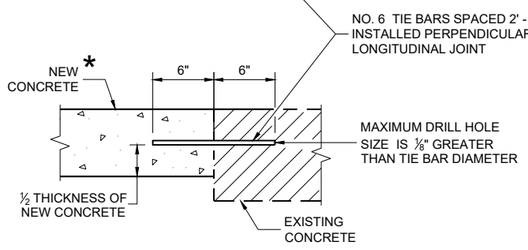
CONCRETE CURB



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

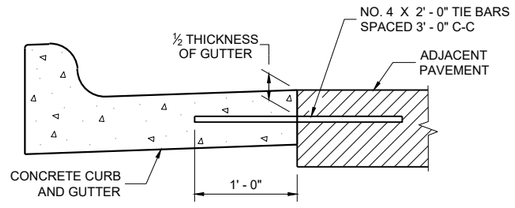


PLAN VIEW

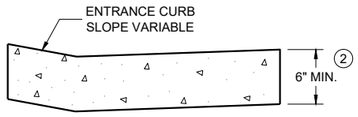


SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6
SDD 08D01-23b

GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

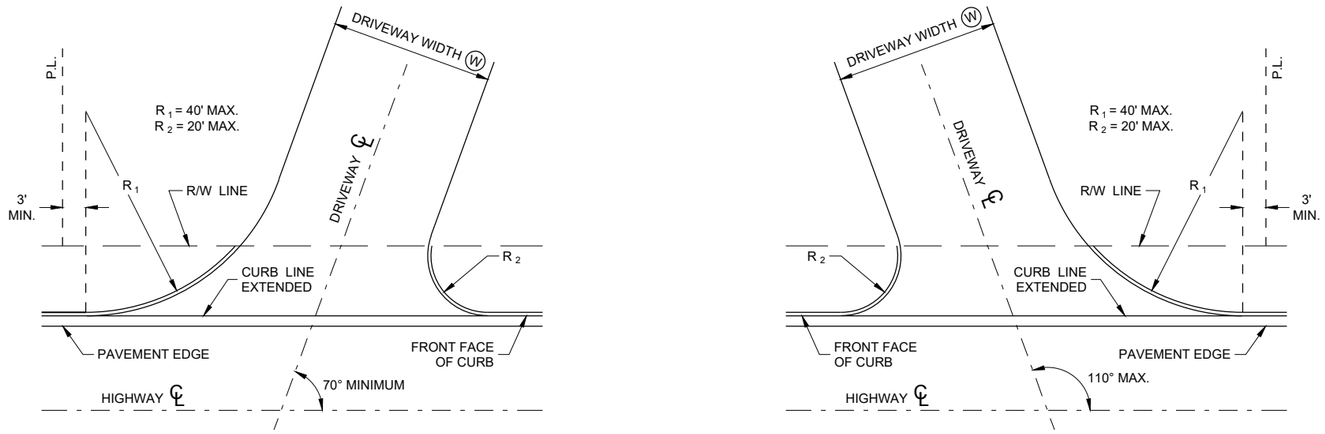
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

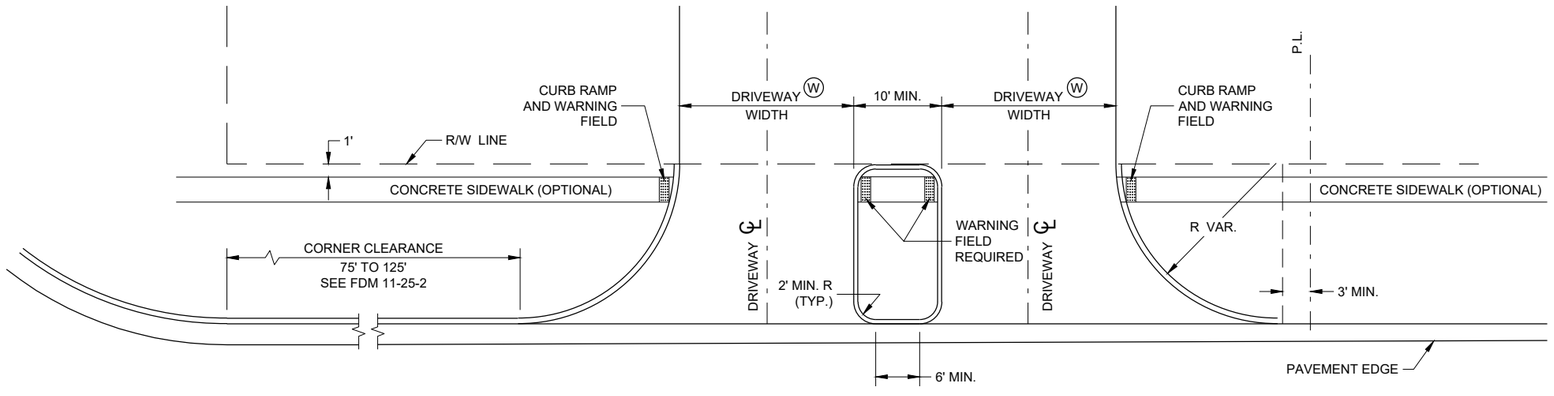
Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

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



SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

DRIVEWAYS WITH CURB AND GUTTER RETURNS

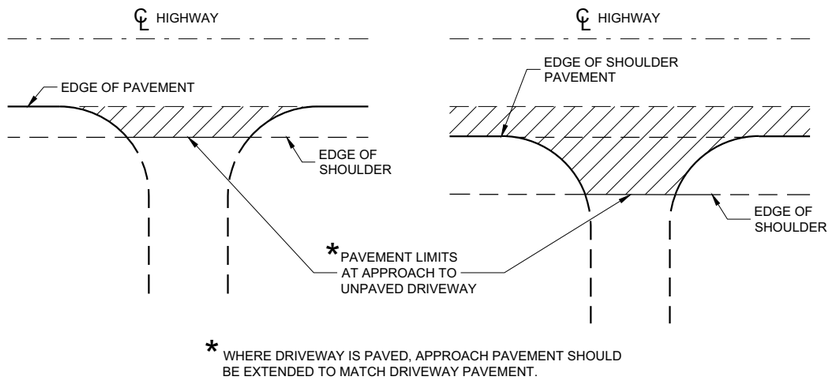
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
00-00-00 — DATE
/S/ <AUTHOR> — ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08D20 - 01

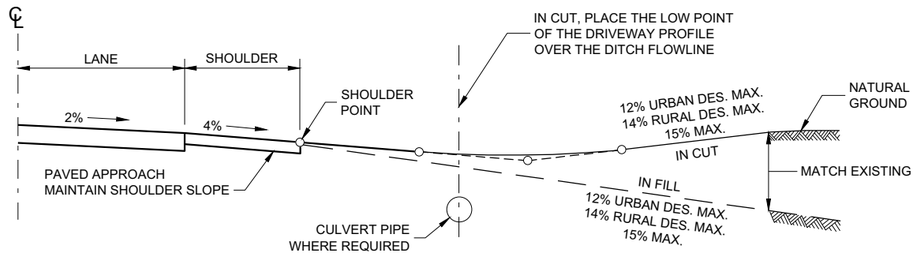
SDD 08D20 - 01



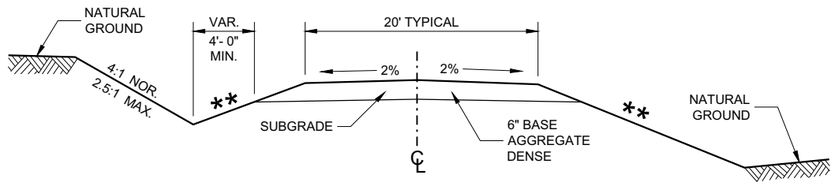
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

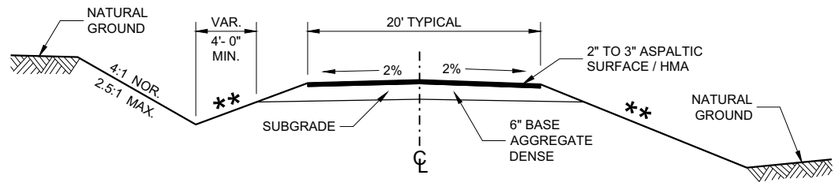


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

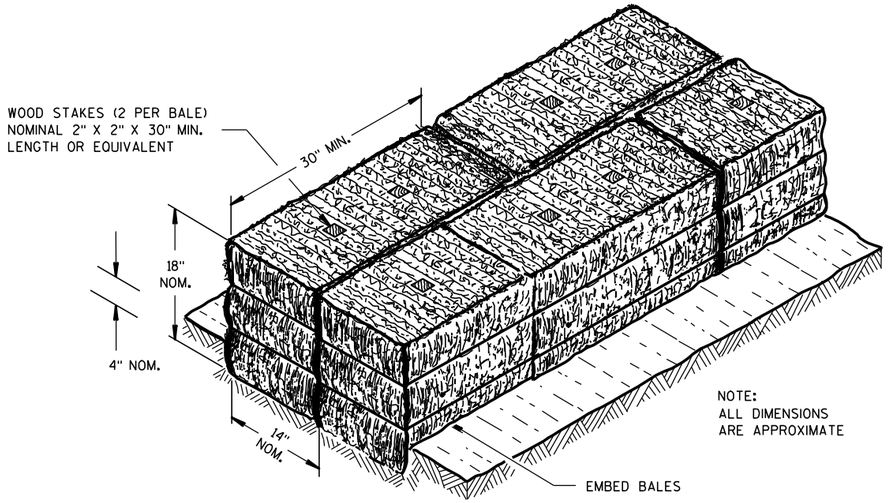
SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

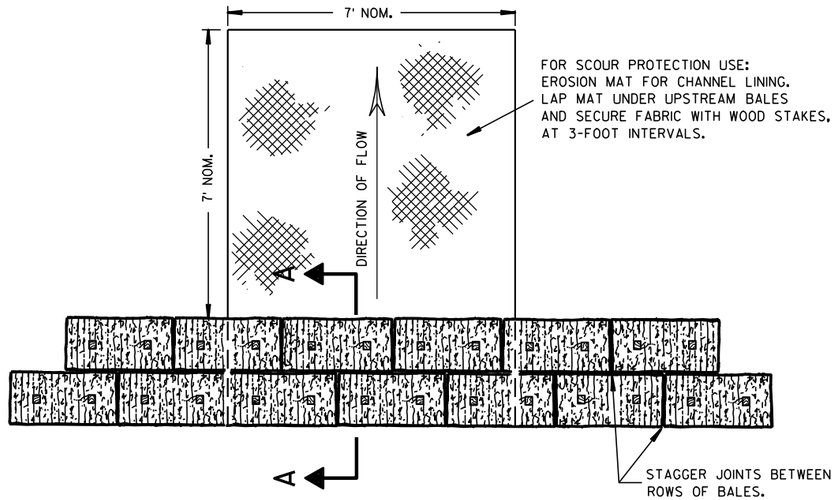
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

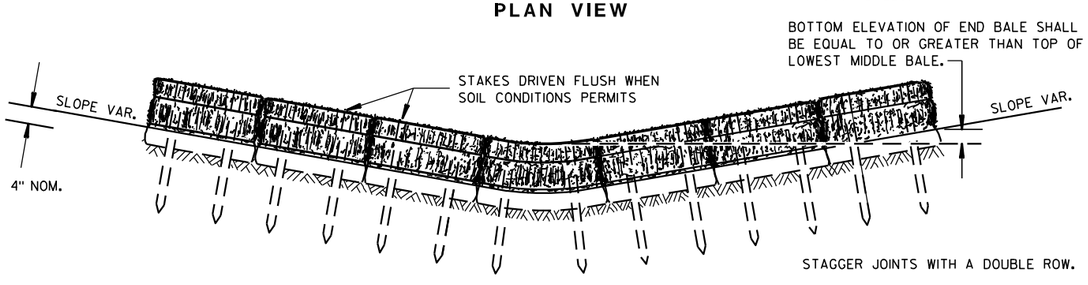
FHWA



SECTION A-A



PLAN VIEW



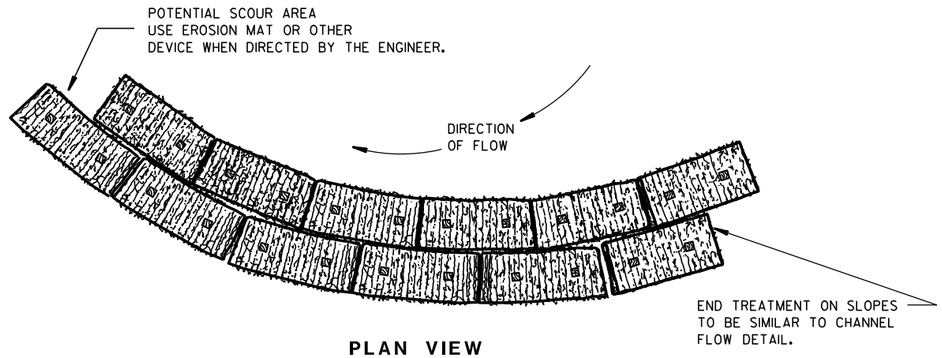
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

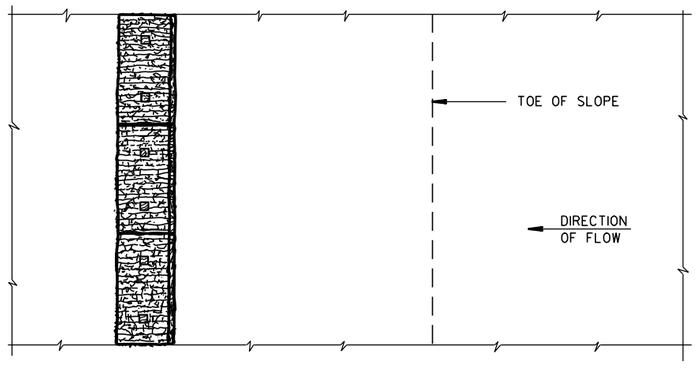
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

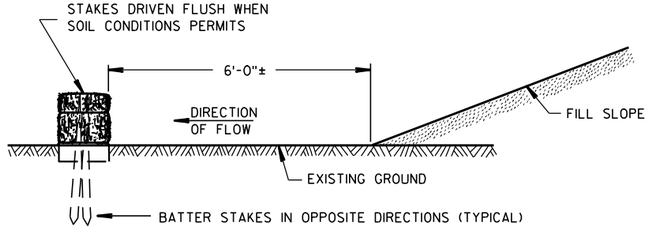


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

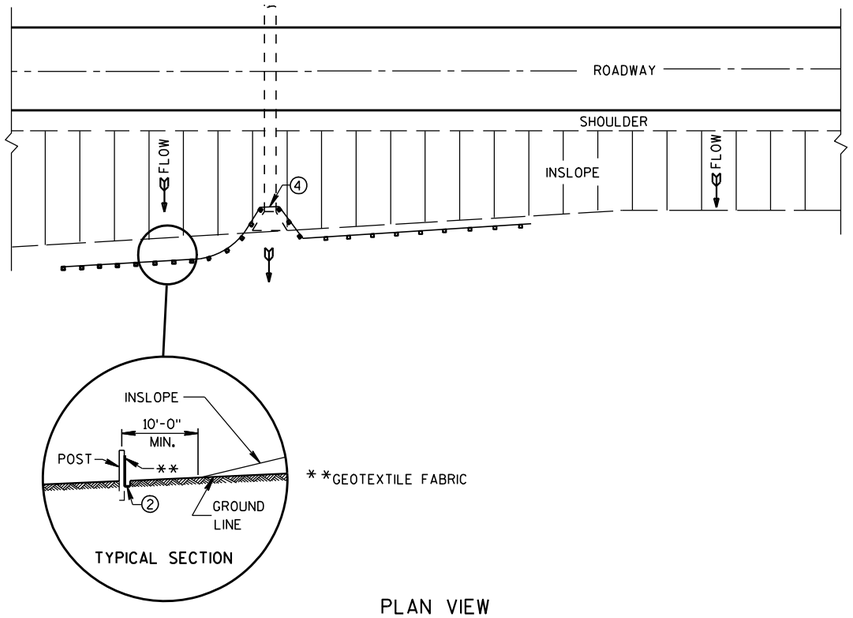
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

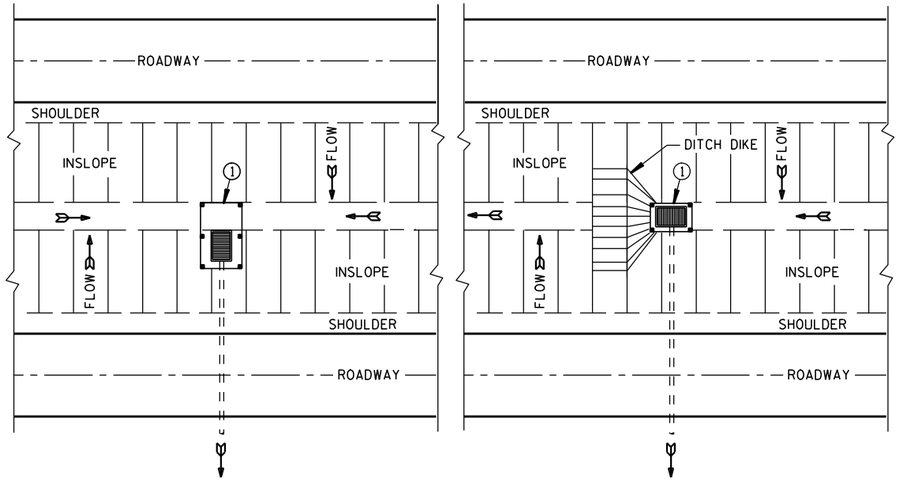
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



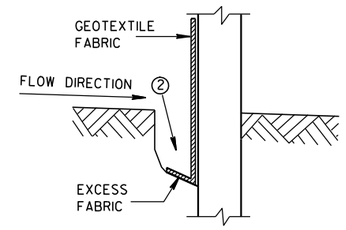
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

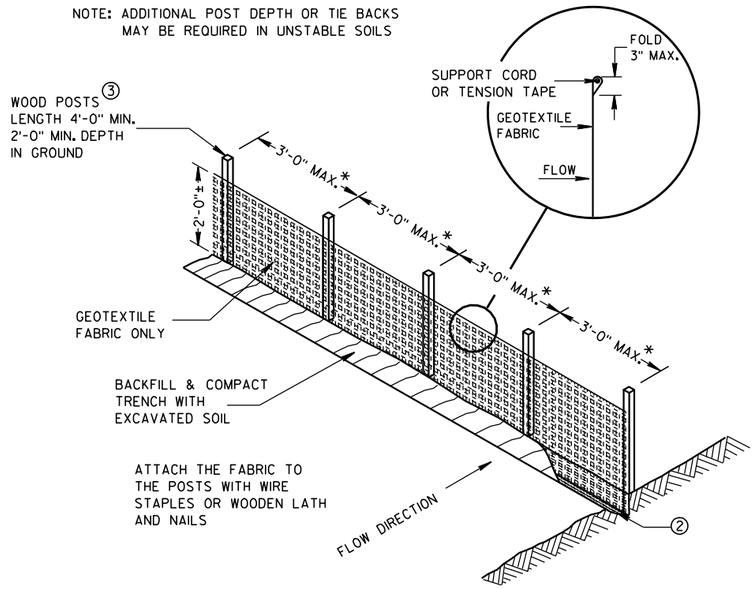
GENERAL NOTES

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

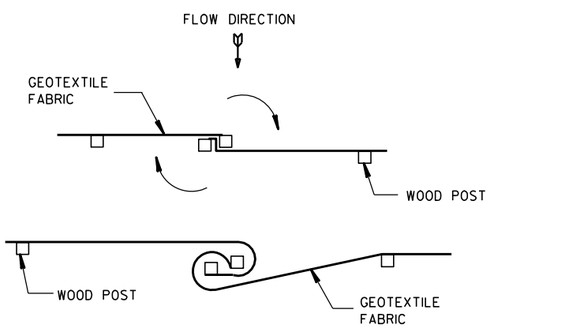
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



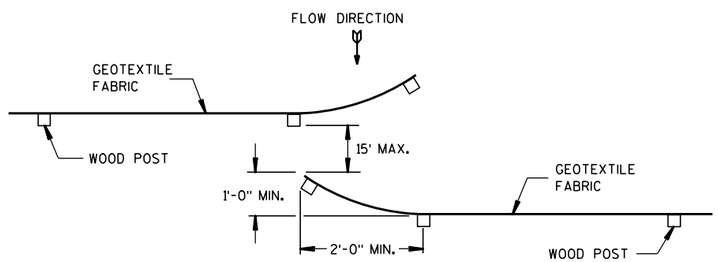
TRENCH DETAIL



SILT FENCE

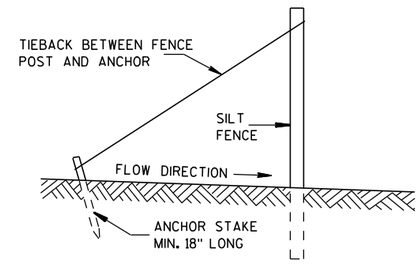


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

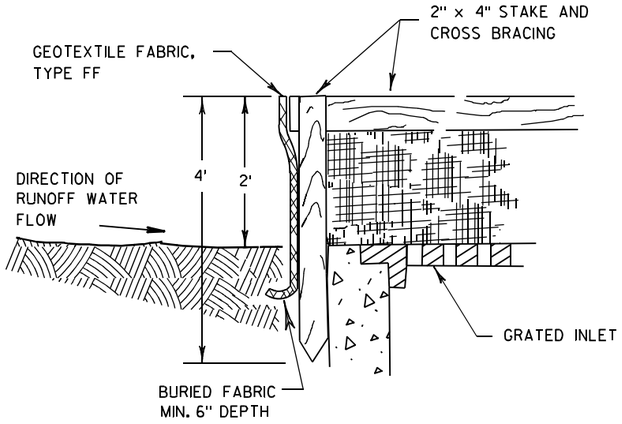
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

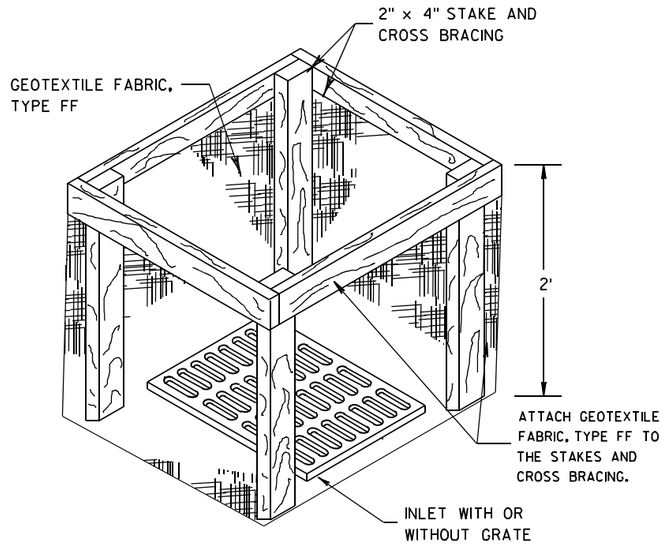
6

S.D.D. 8 E 9-6

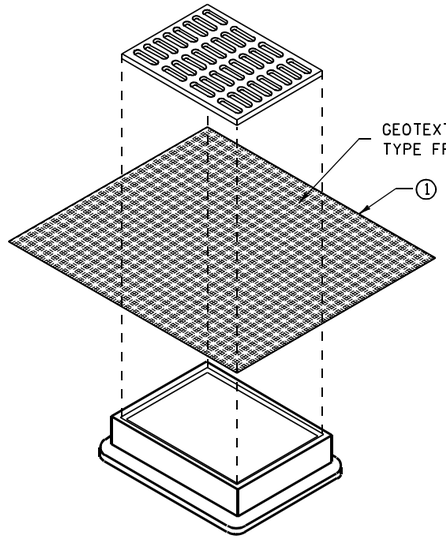
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S.D.D. 8 E 9-6



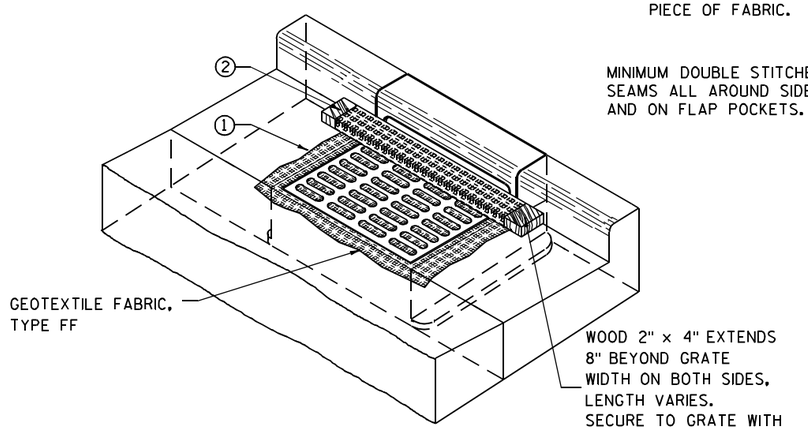


INLET PROTECTION, TYPE A

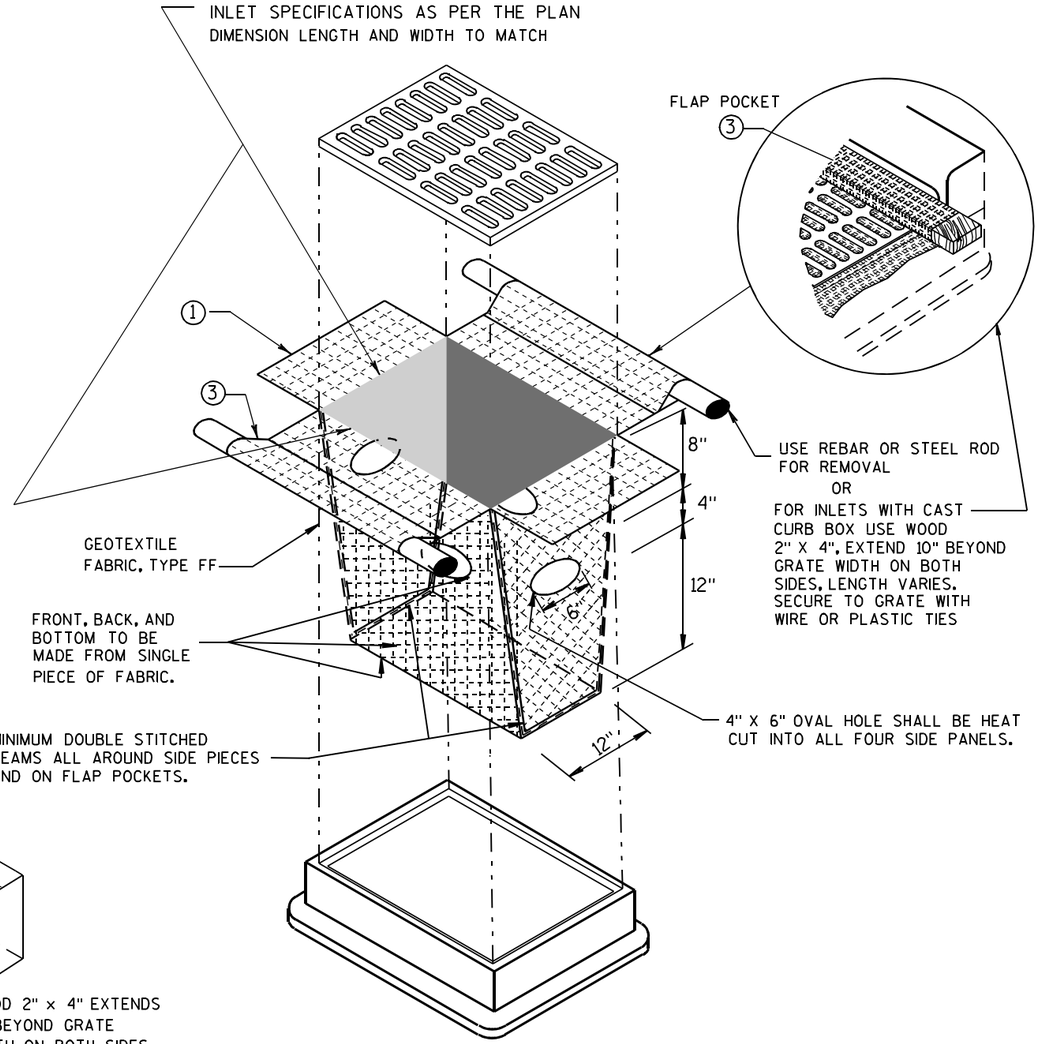


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

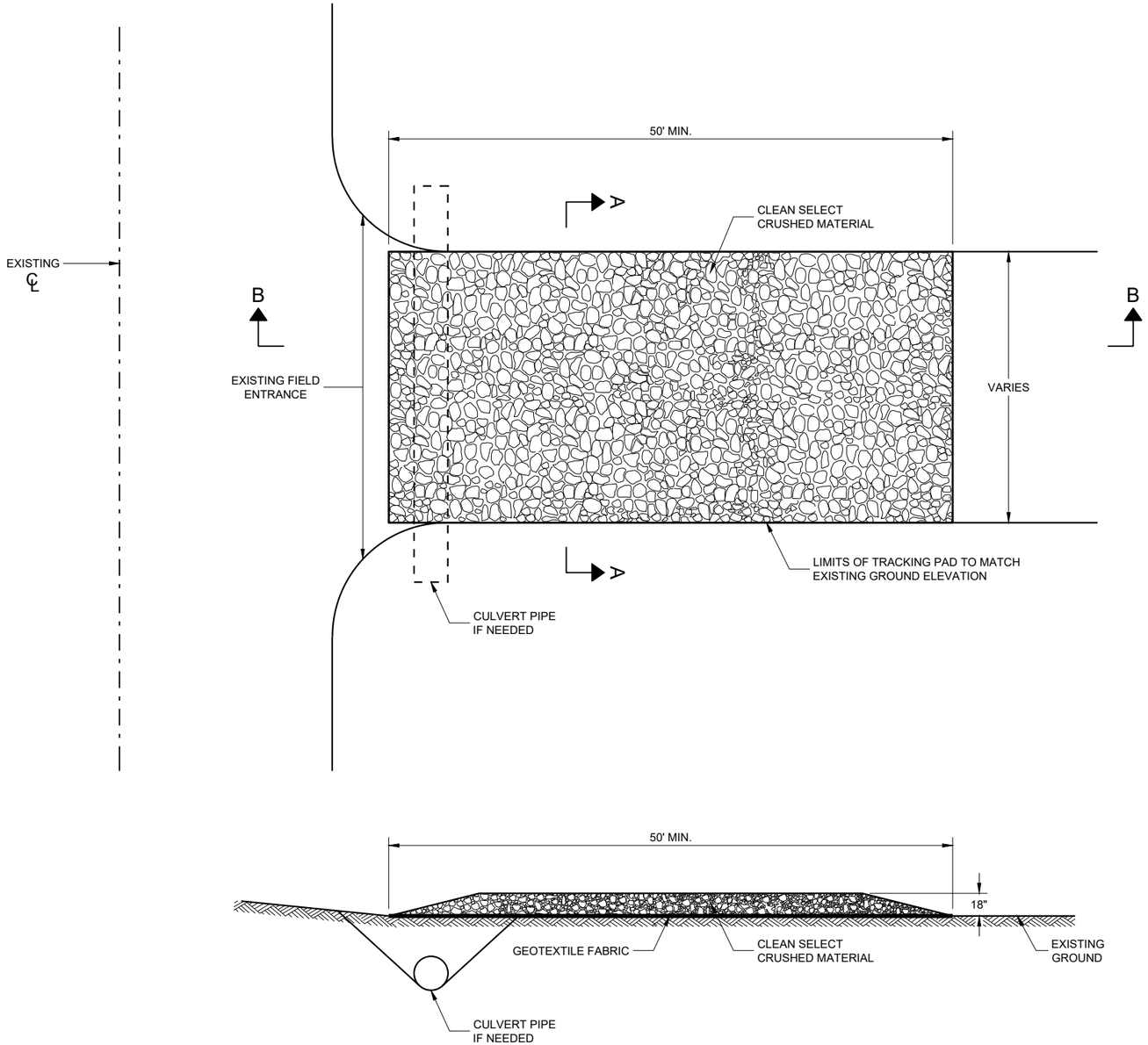
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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



SECTION B - B

GENERAL NOTES

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

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

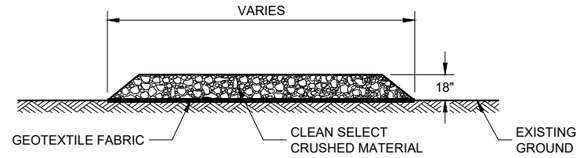
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

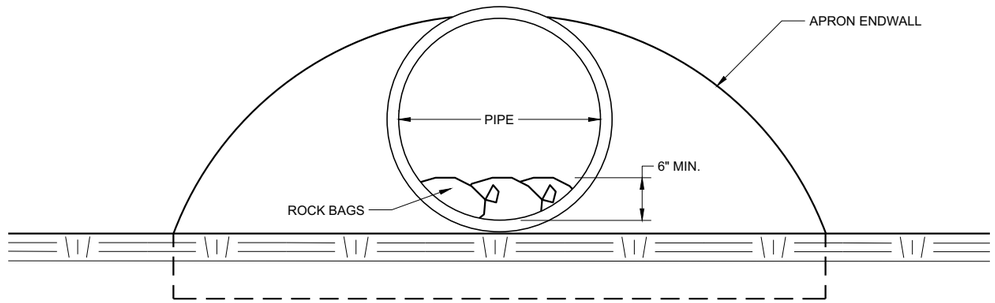
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

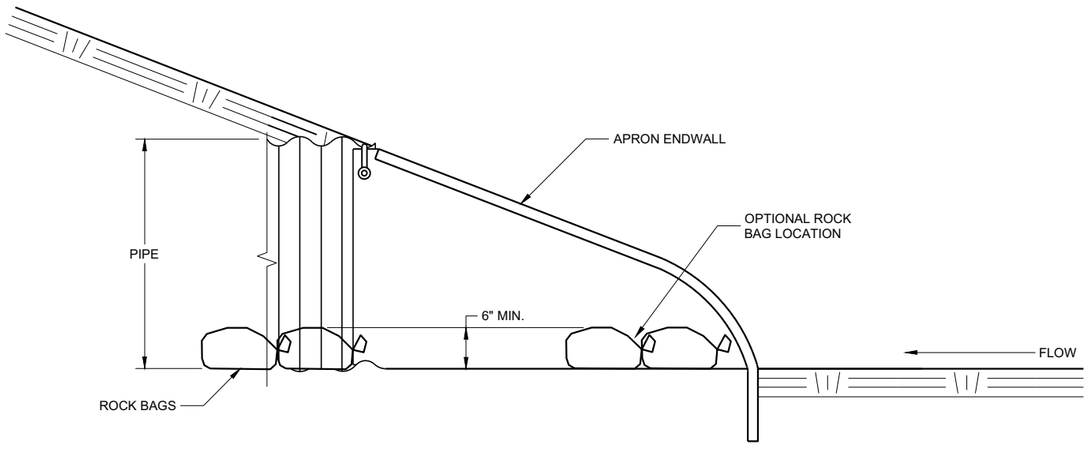
FHWA

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SDD 08E14 - 01



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

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

6

SDD 08E15 - 01

METAL APRON ENDWALLS

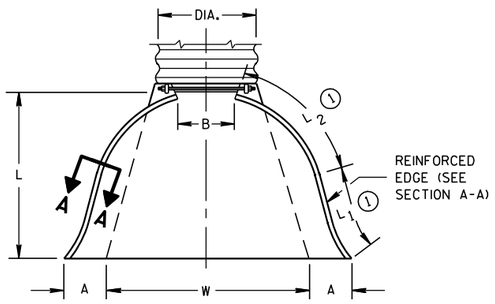
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

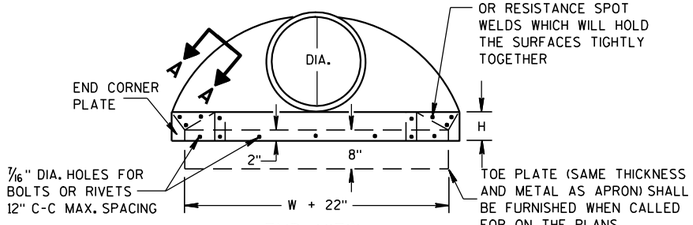
REINFORCED CONCRETE APRON ENDWALLS

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

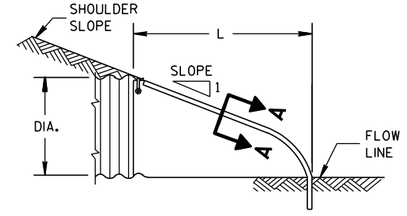
*MINIMUM
**MAXIMUM



PLAN VIEW

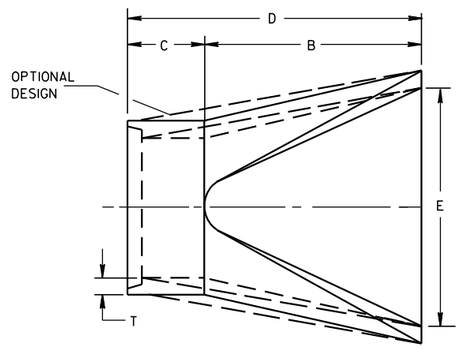


END VIEW

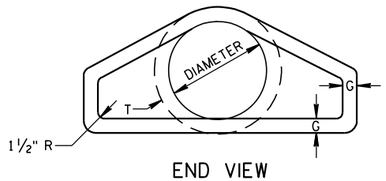


SIDE ELEVATION

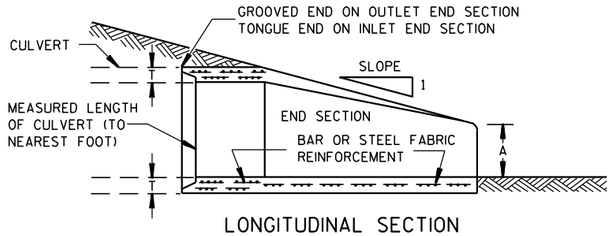
METAL ENDWALLS



PLAN

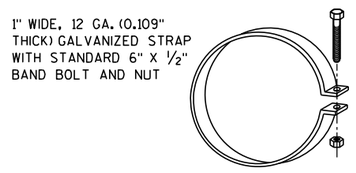


END VIEW



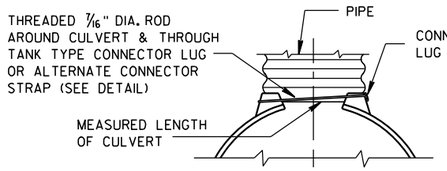
LONGITUDINAL SECTION

CONCRETE ENDWALLS

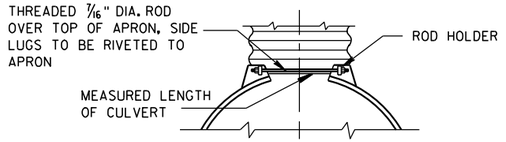


ALTERNATE FOR TYPE 1 CONNECTION

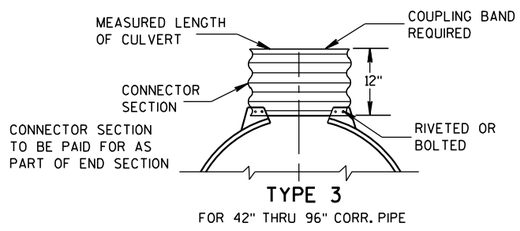
END SECTION CONNECTOR STRAP



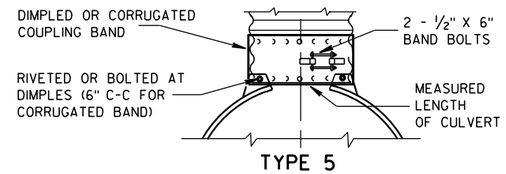
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

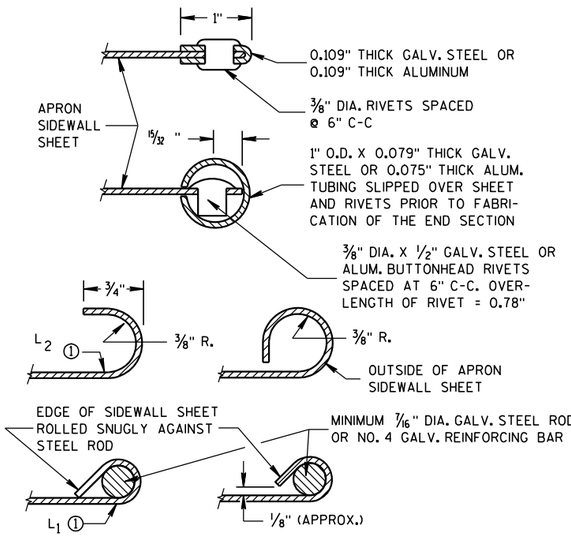
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

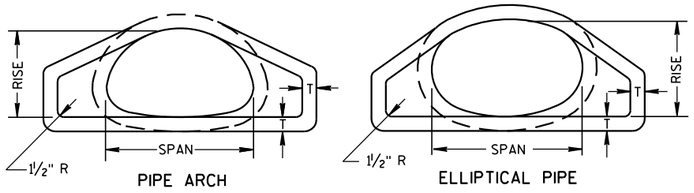
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

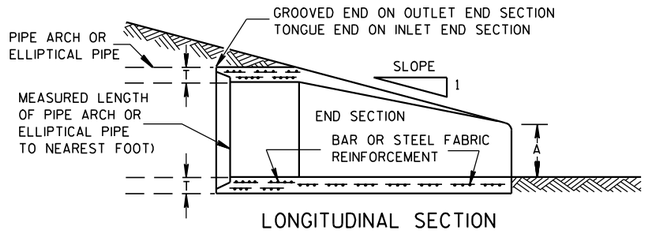
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

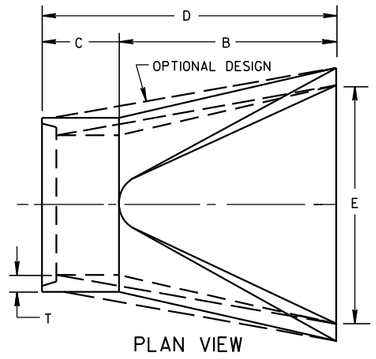
6
S.D.D. 8 F 1-11



END VIEW

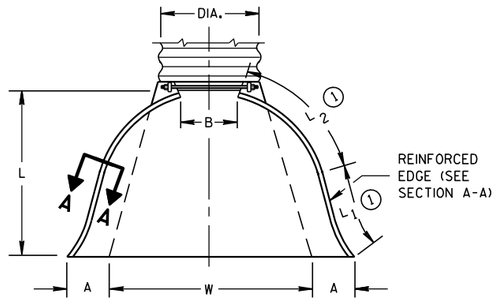


LONGITUDINAL SECTION

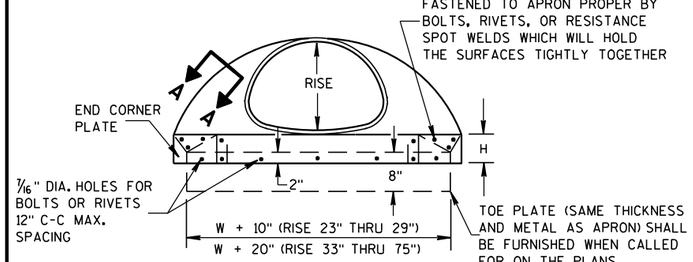


PLAN VIEW

CONCRETE ENDWALLS

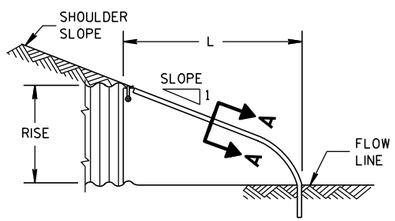


PLAN VIEW



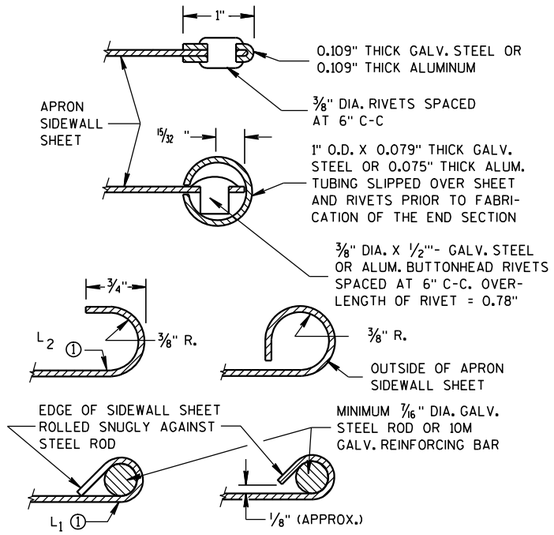
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE

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.

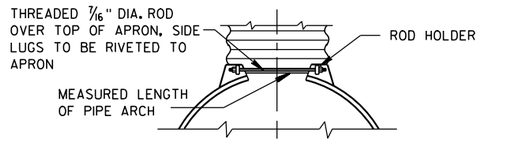
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" 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.

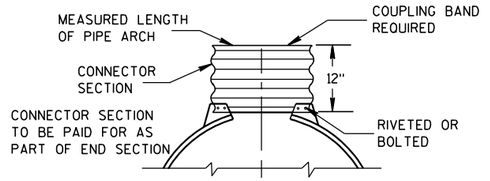
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



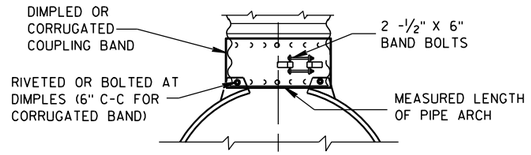
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

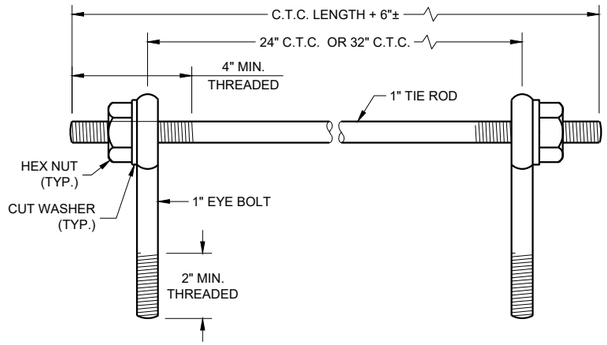
FHWA

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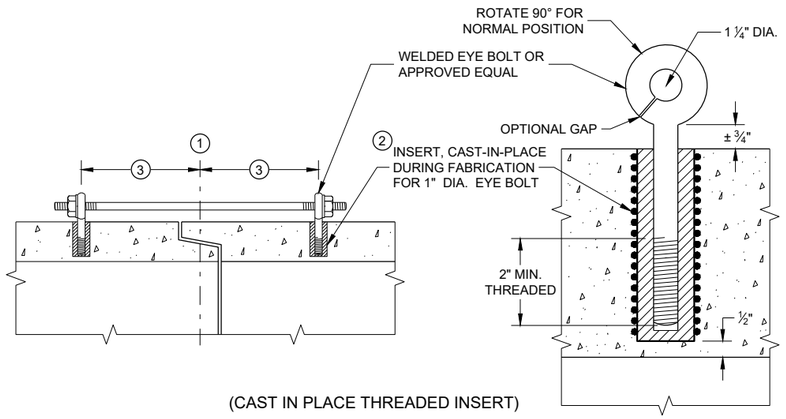
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

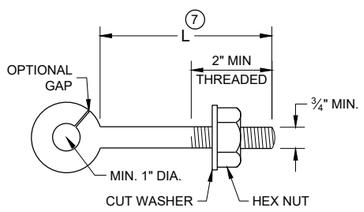
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

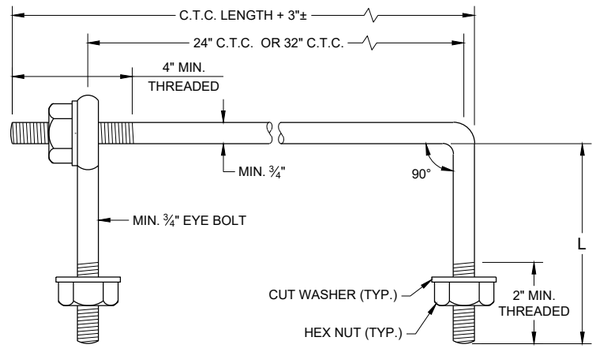
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

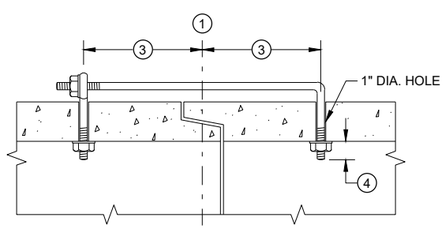


EYE BOLT (7)

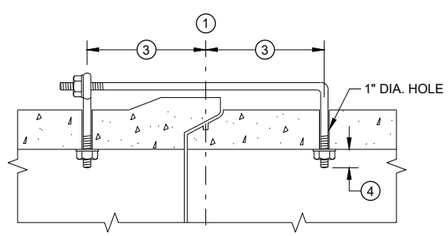
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

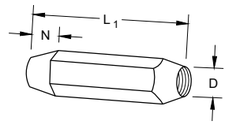
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

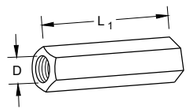
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



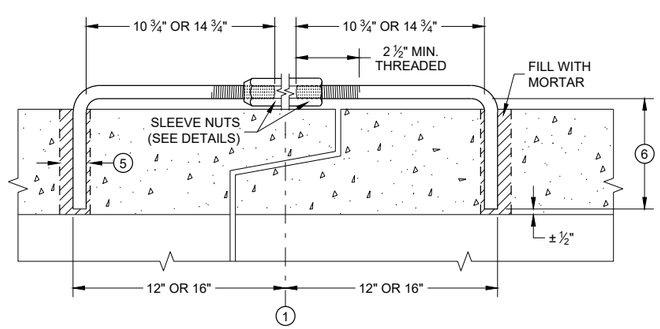
TAPERED



PLAIN

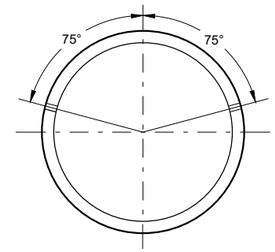
RIGHT AND LEFT THREADS

SLEEVE NUTS



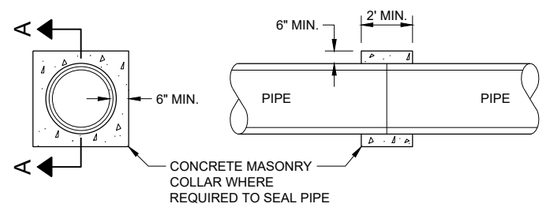
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

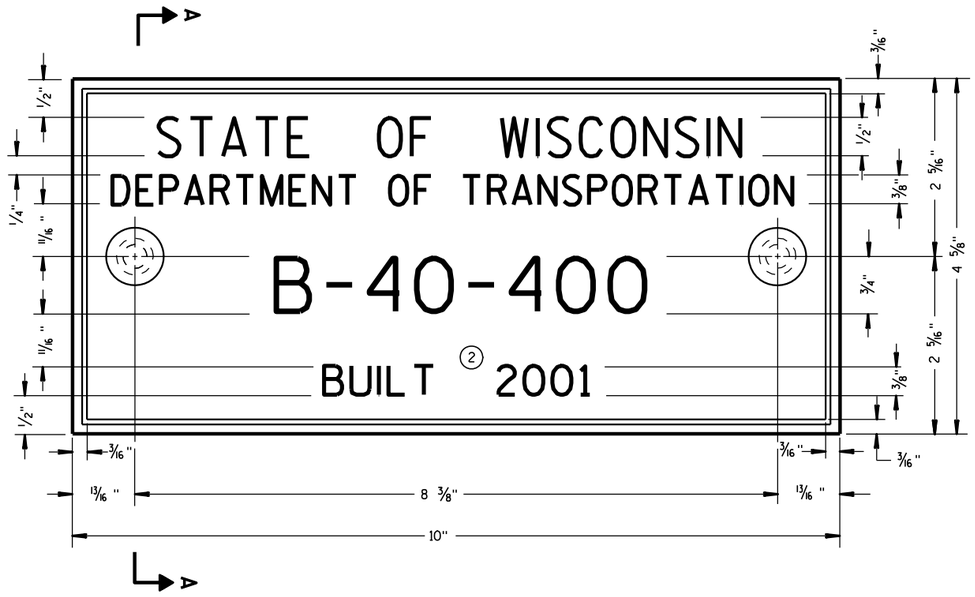
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

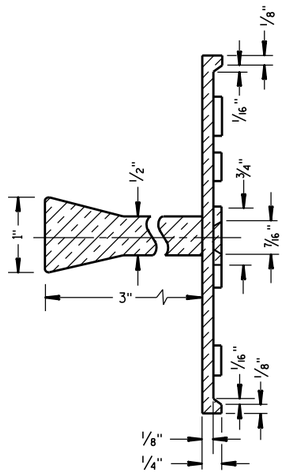
GENERAL NOTES

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

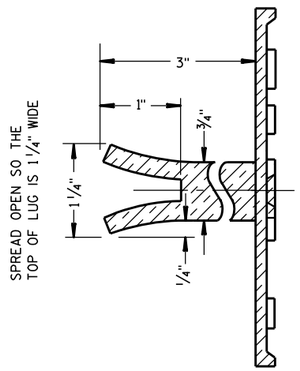
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

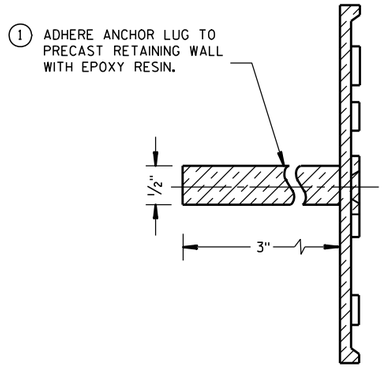
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

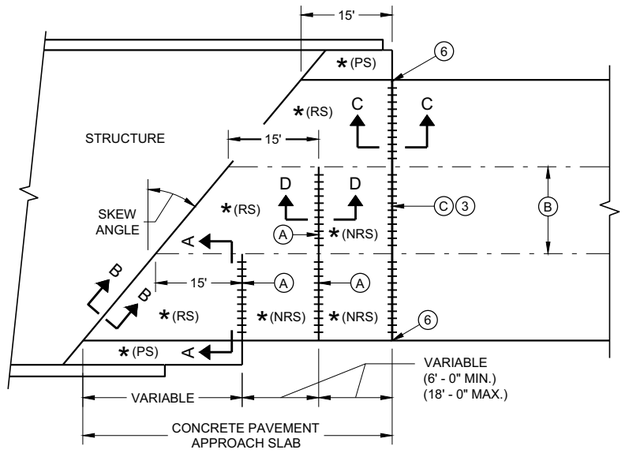
FHWA

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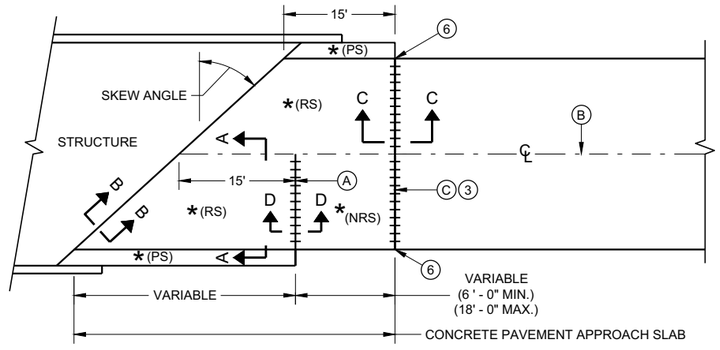
S.D.D. 12 A 3-10

6

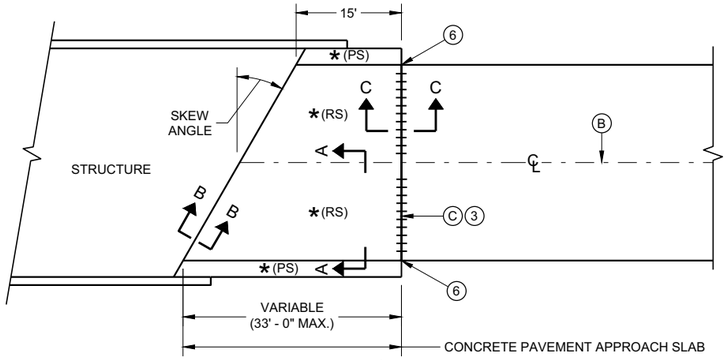
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

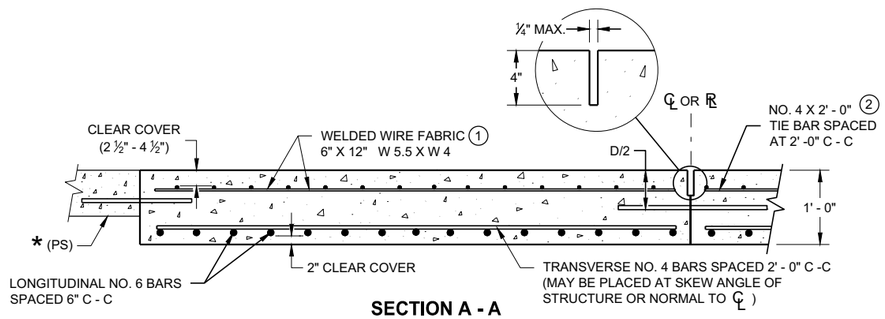
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

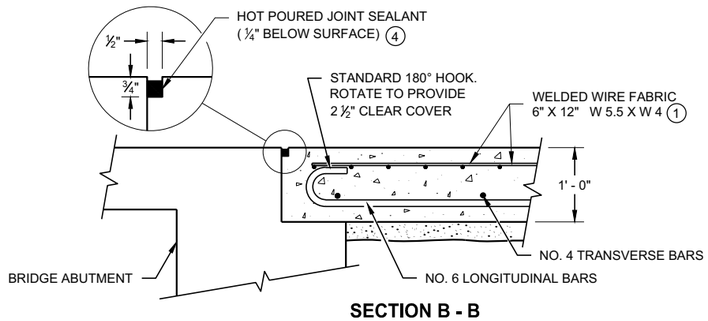
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

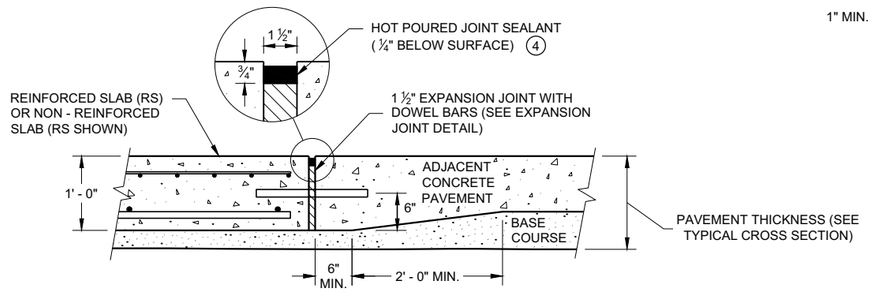
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

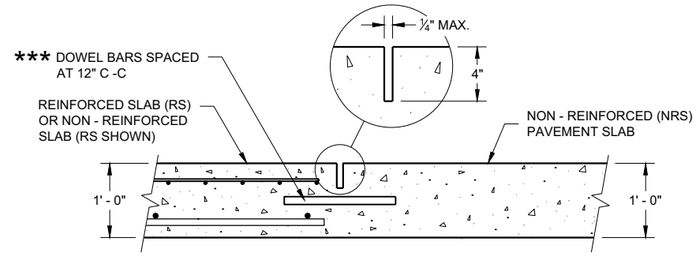
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

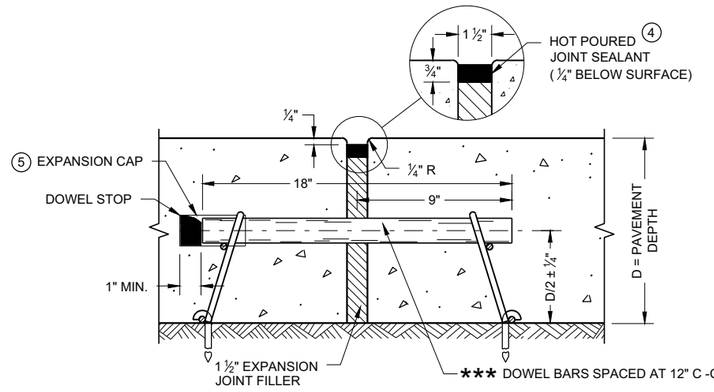
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

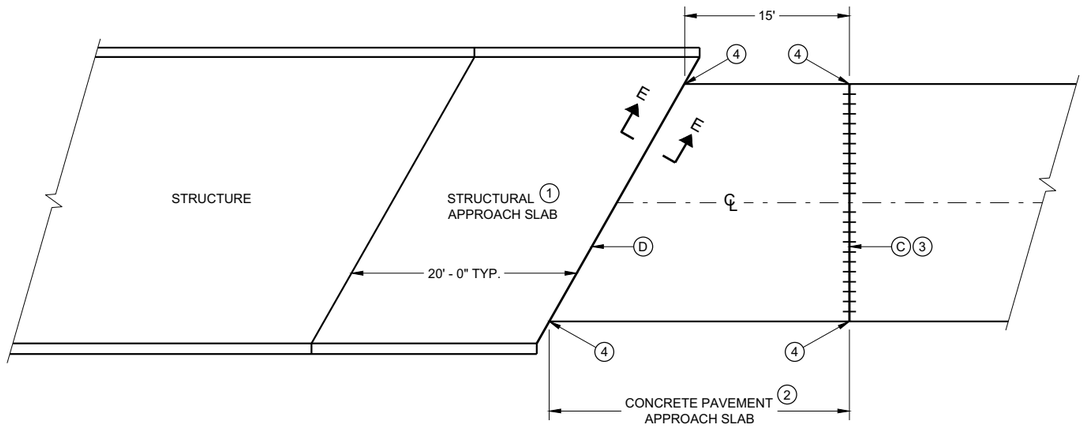
/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

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SDD 13B02 - 09a

SDD 13B02 - 09a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

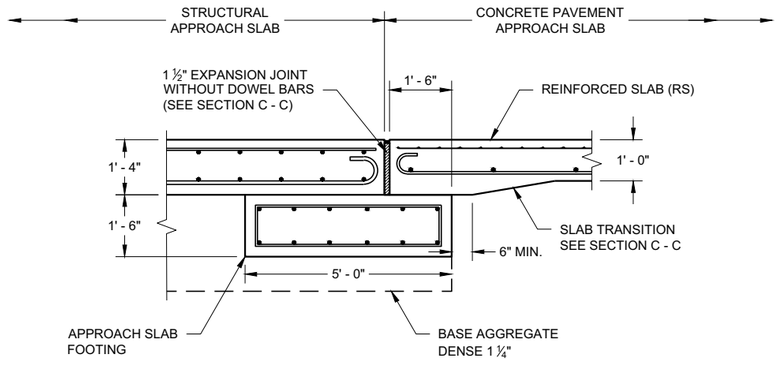
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

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

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

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

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

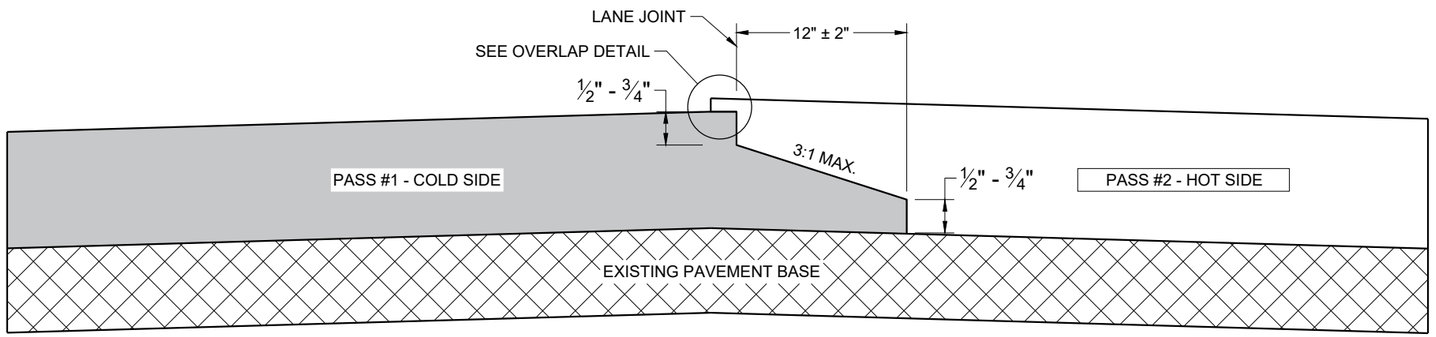
FHWA

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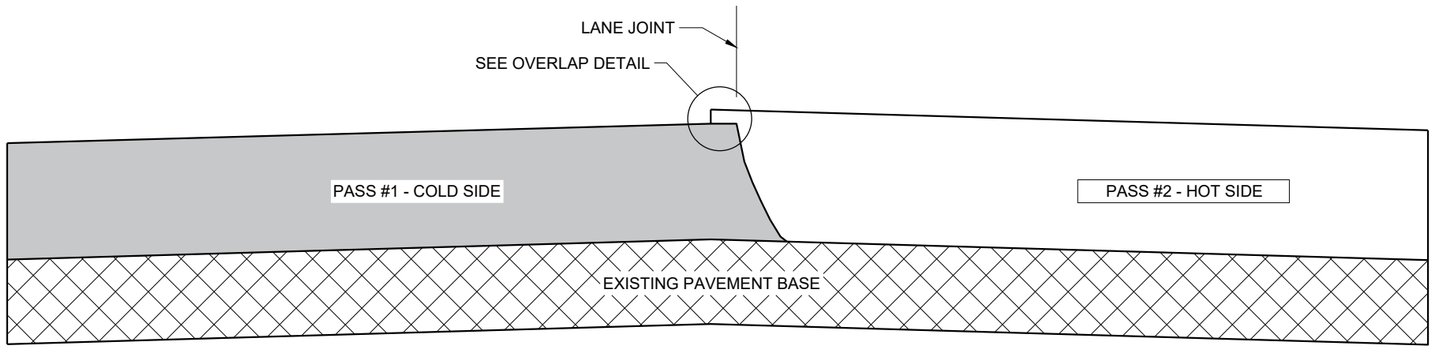
SDD 13B02 - 09b

6

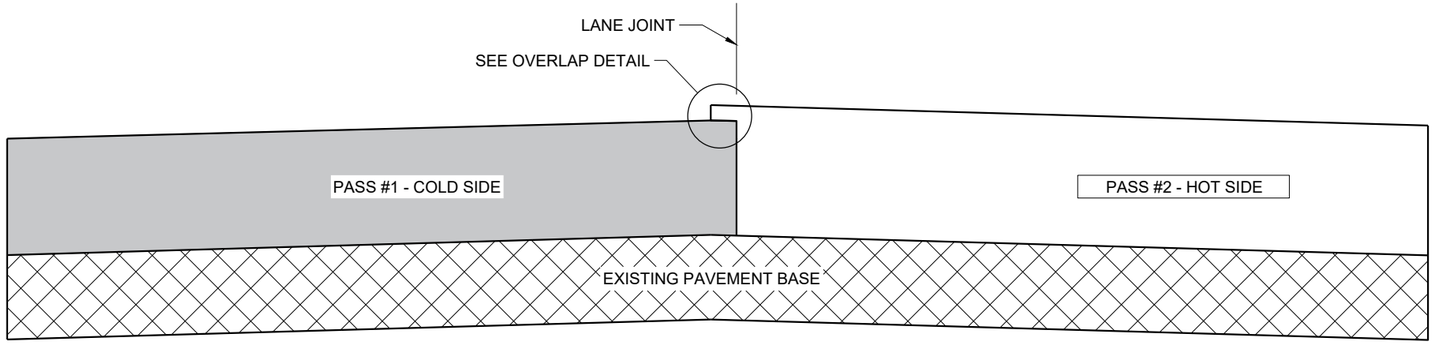
SDD 13B02 - 09b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

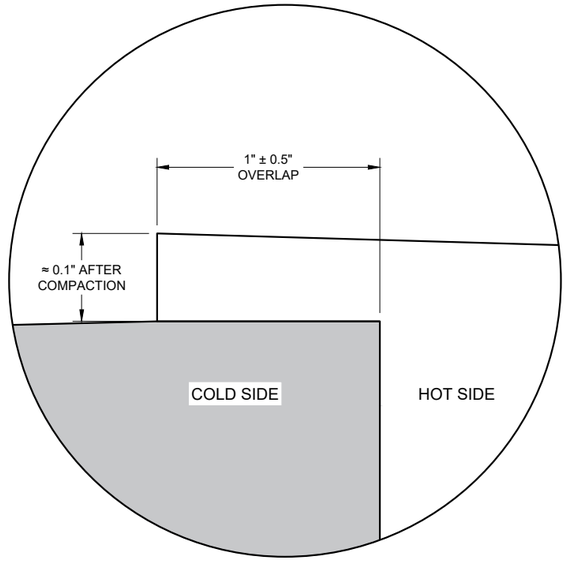
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGIN

FHWA

6

SDD 13C19 - 03

6

SDD 13C19 - 03

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

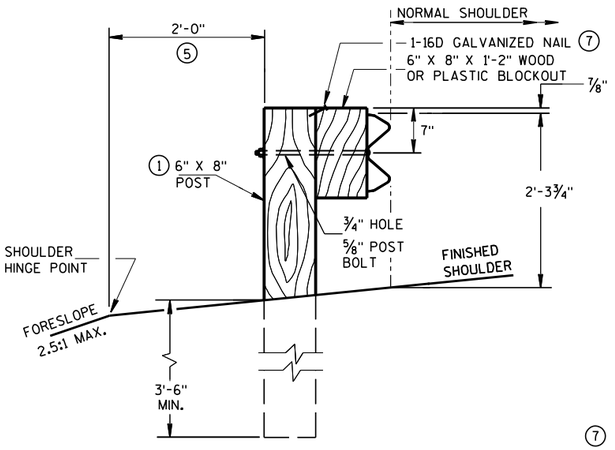
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

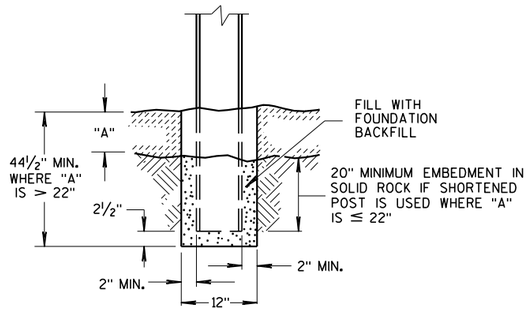
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

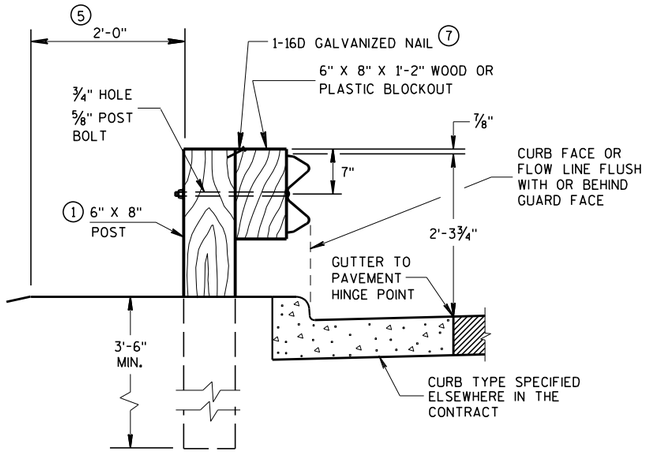
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



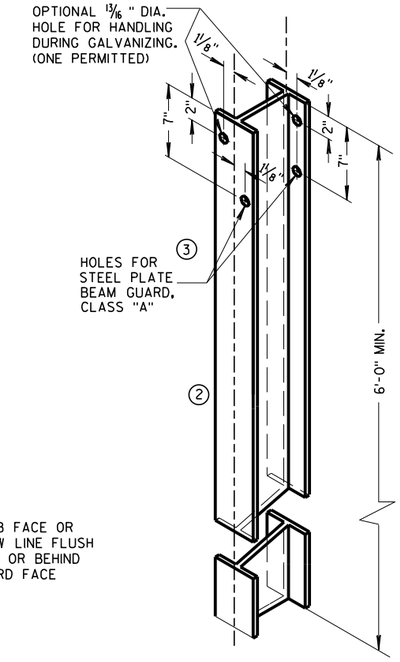
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

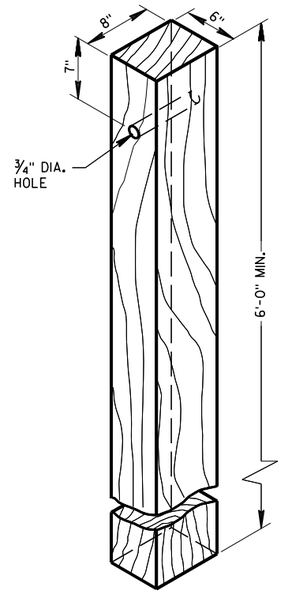


END VIEW
LOCATED ALONG A CURBED ROADWAY

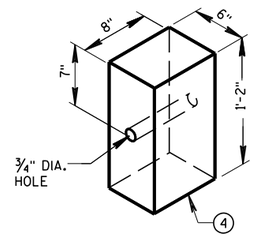


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

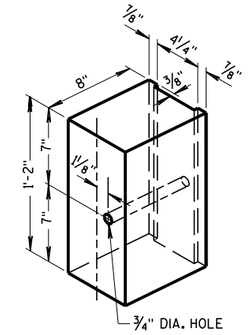
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



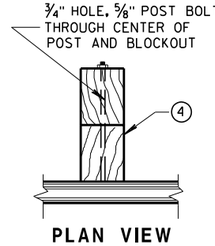
WOOD POST
(6"X8") NOMINAL



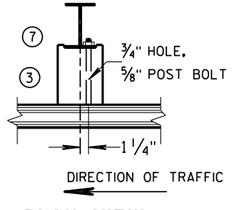
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



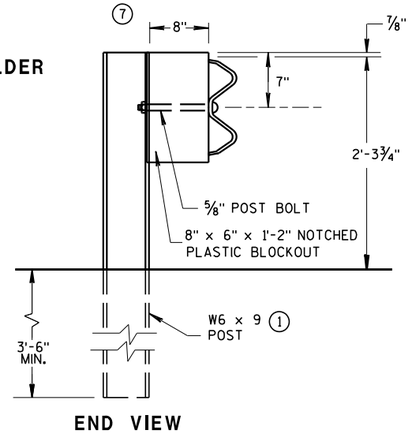
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



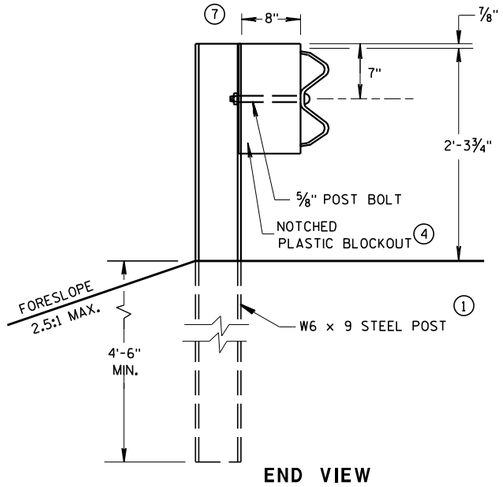
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



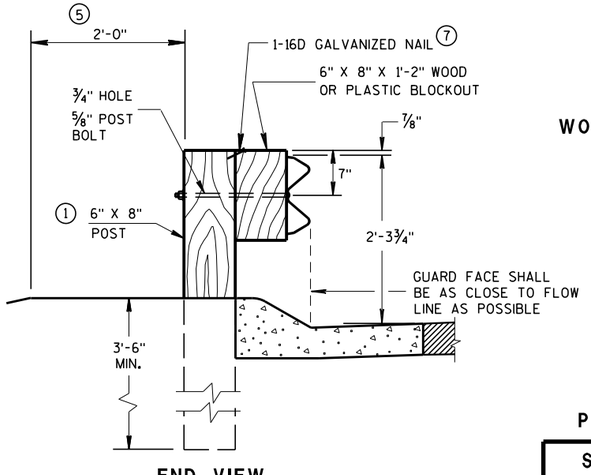
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



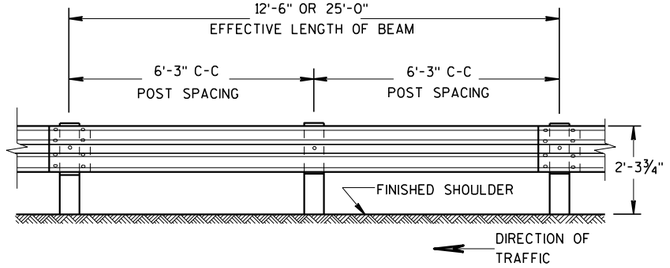
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

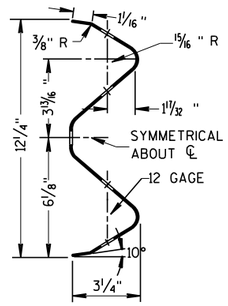
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-11a

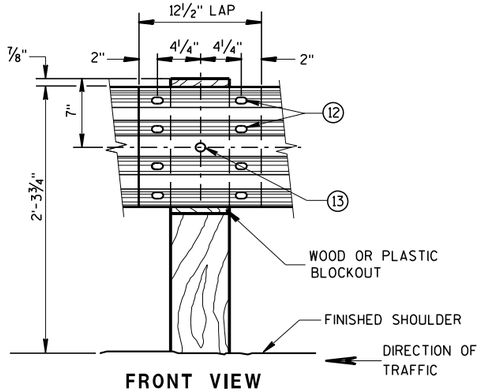


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

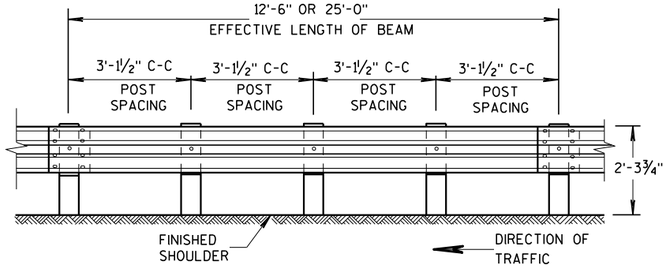
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

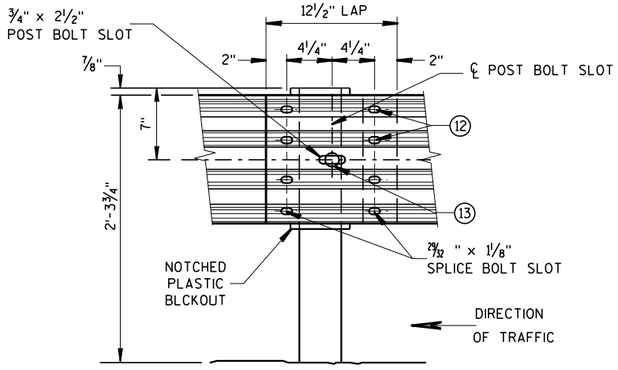
(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

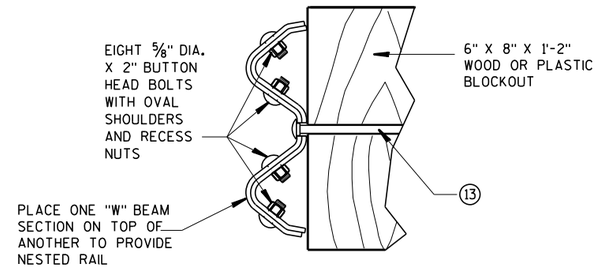
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

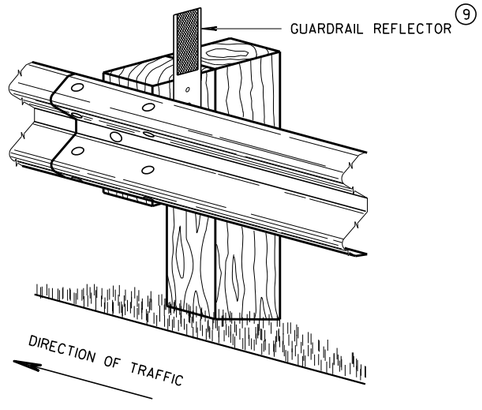
TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD



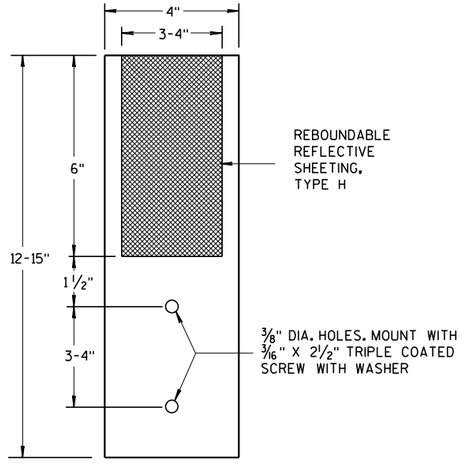
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

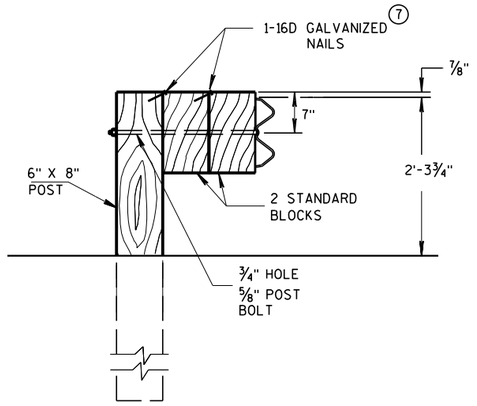
STATE OF WISCO 111
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

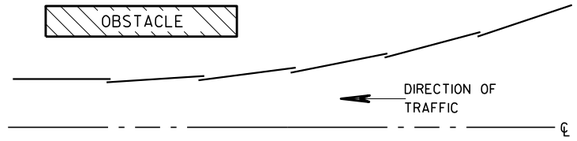
6

S.D.D. 14 B 15-11b

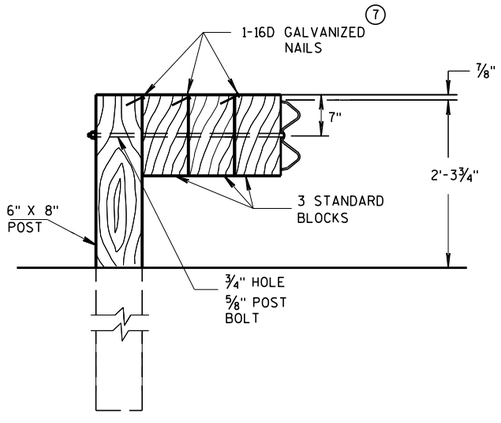


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

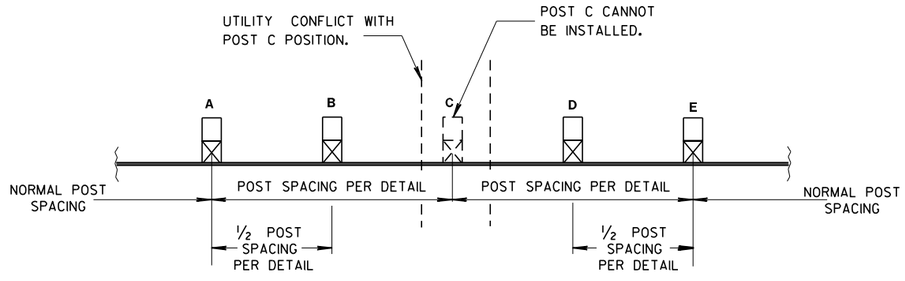


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

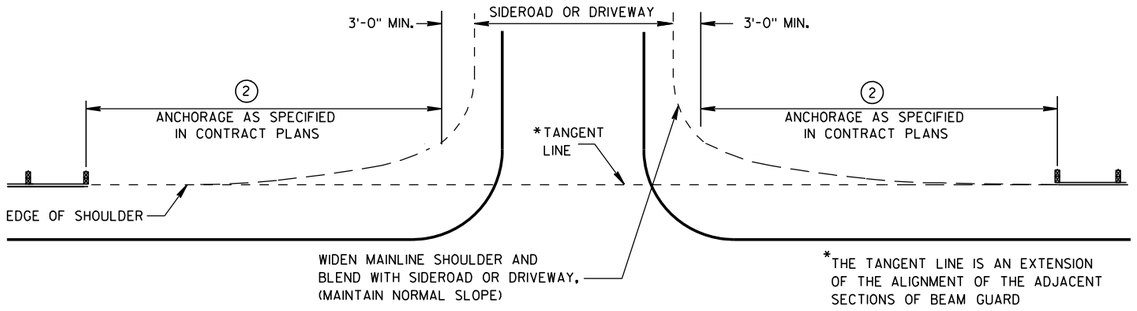
DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

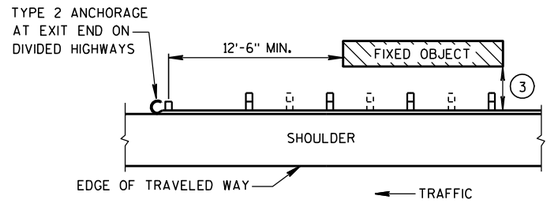
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6
S.D.D. 14 B 15-11c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

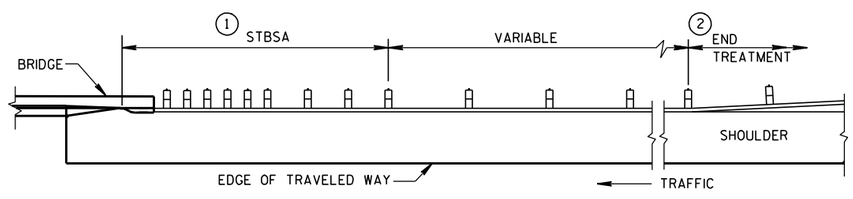
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

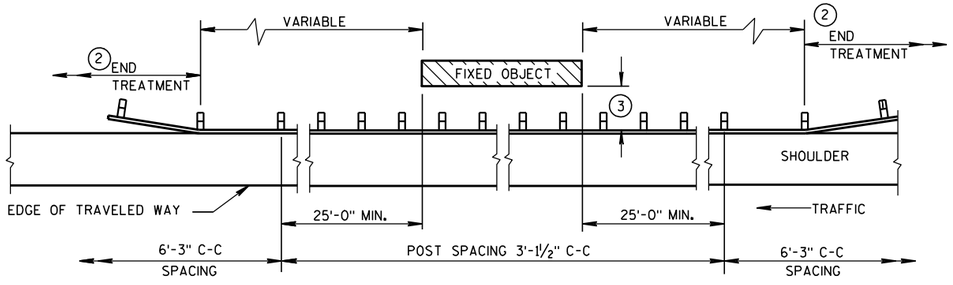
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

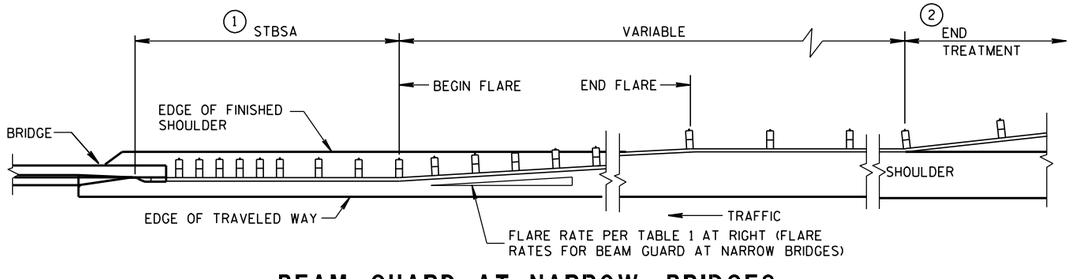


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

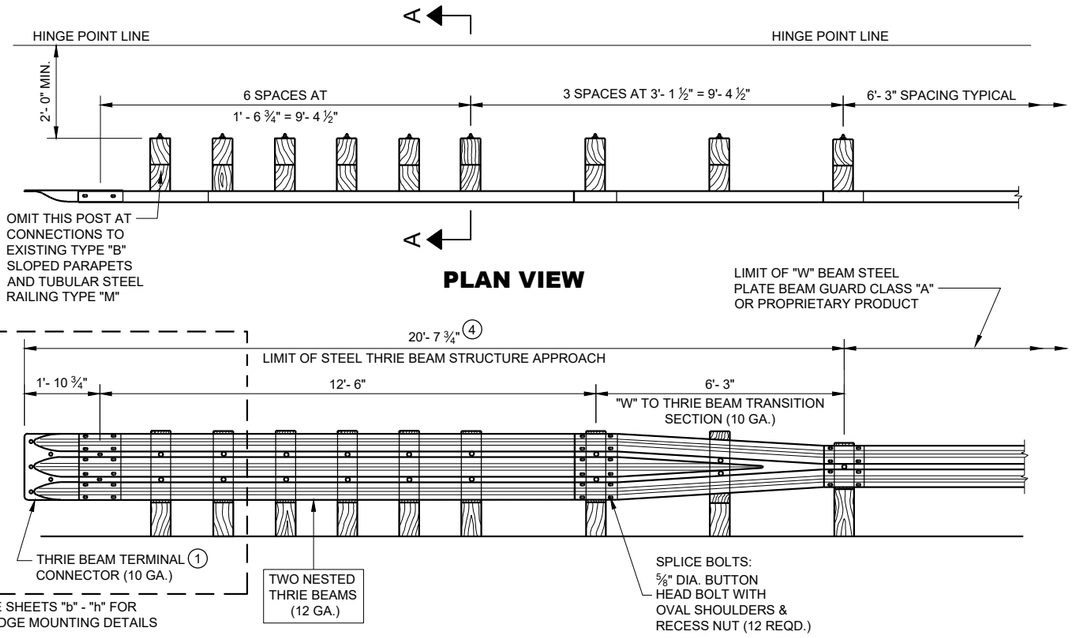
POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 18-6a



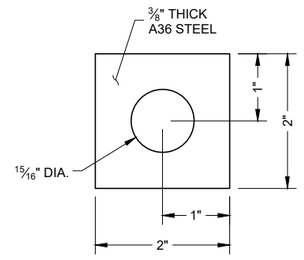


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

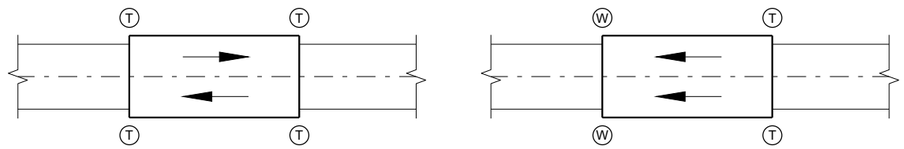
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



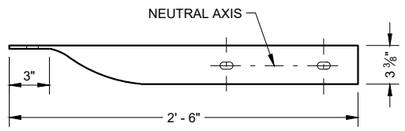
TWO WAY TRAFFIC

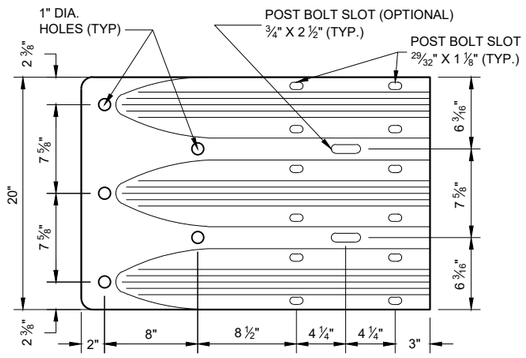
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

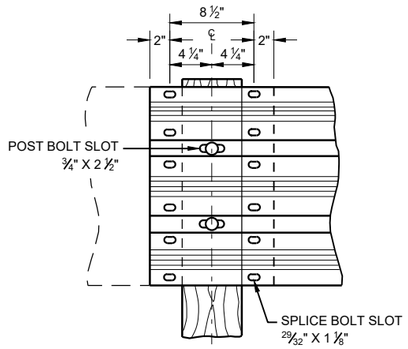
(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

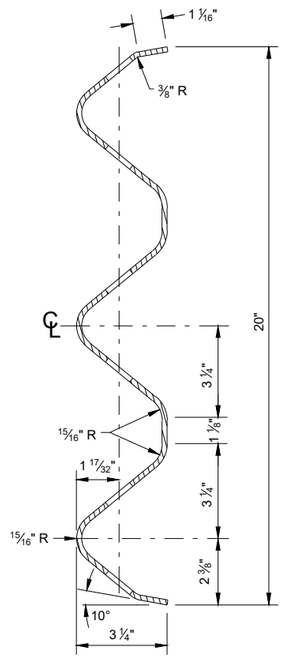




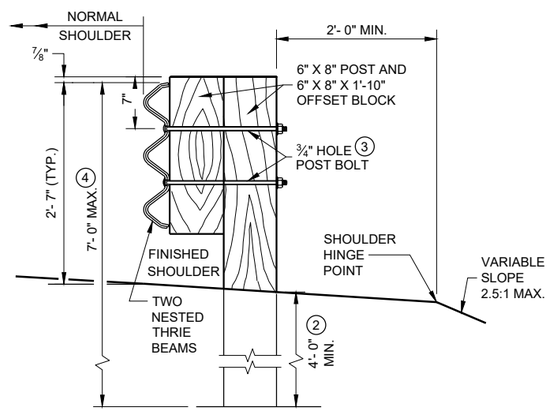
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

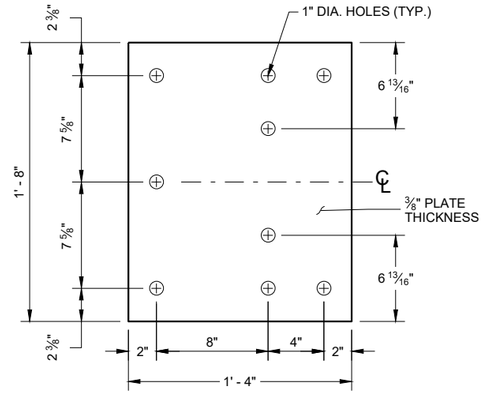
APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

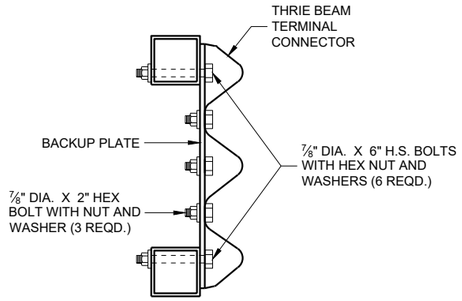
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SDD 14B20 - 12a

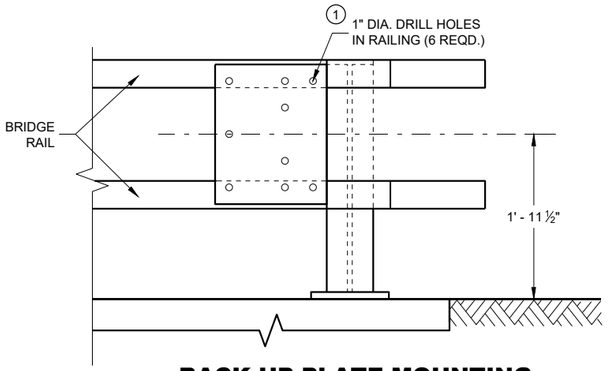
SDD 14B20 - 12a



BACK-UP PLATE DETAIL



SECTION G - G



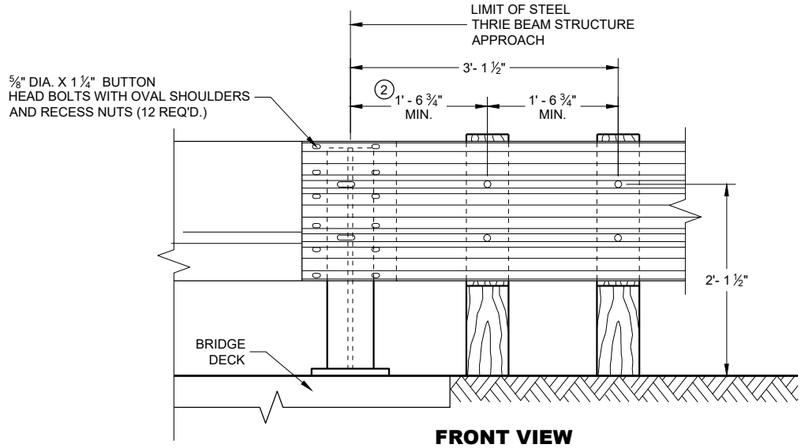
BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

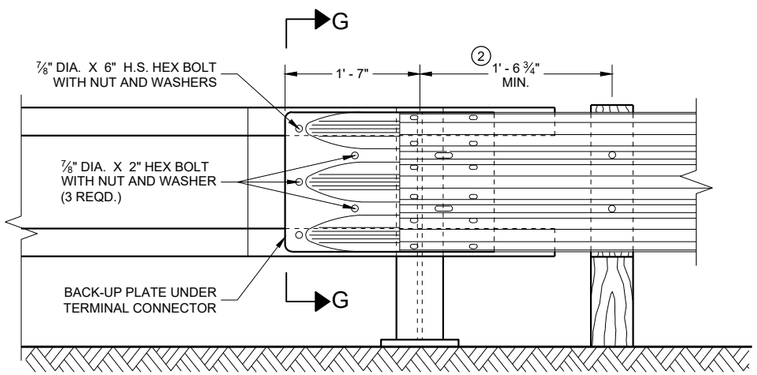
(1) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

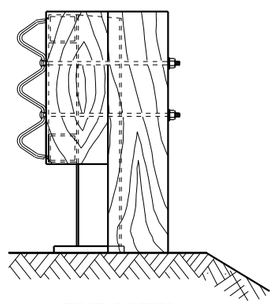


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" & "W"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

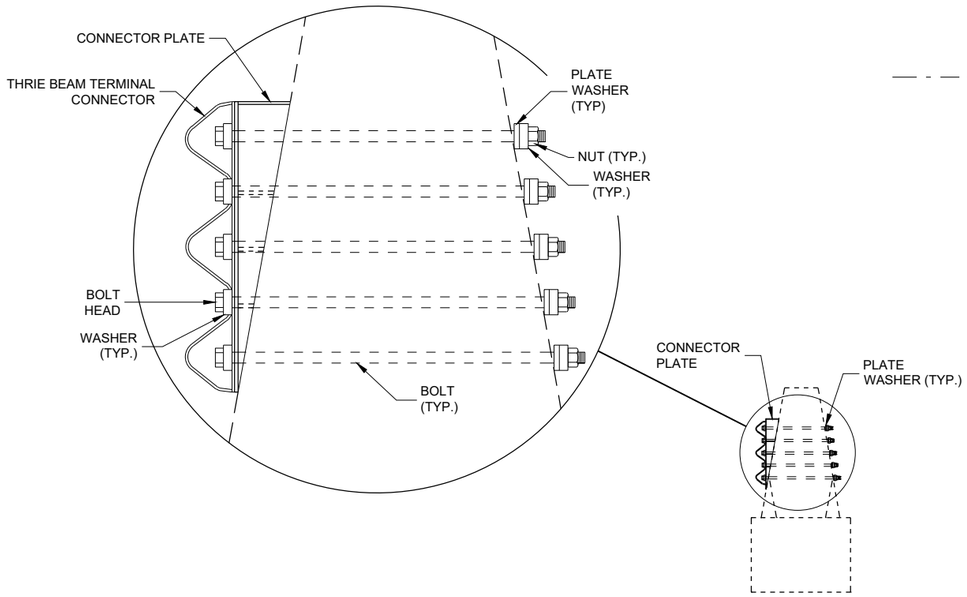
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FHWA

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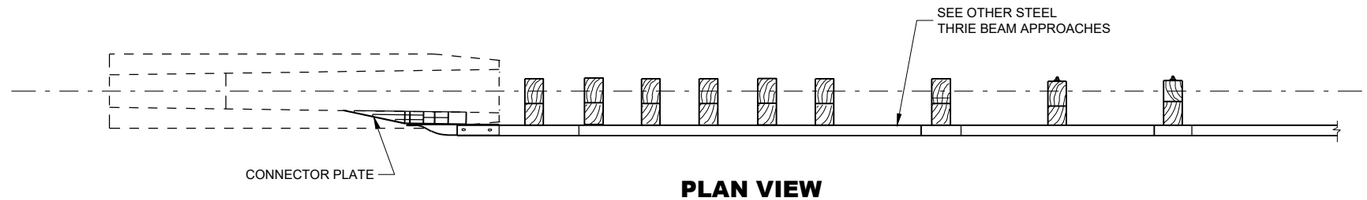
SDD 14B20 - 12e

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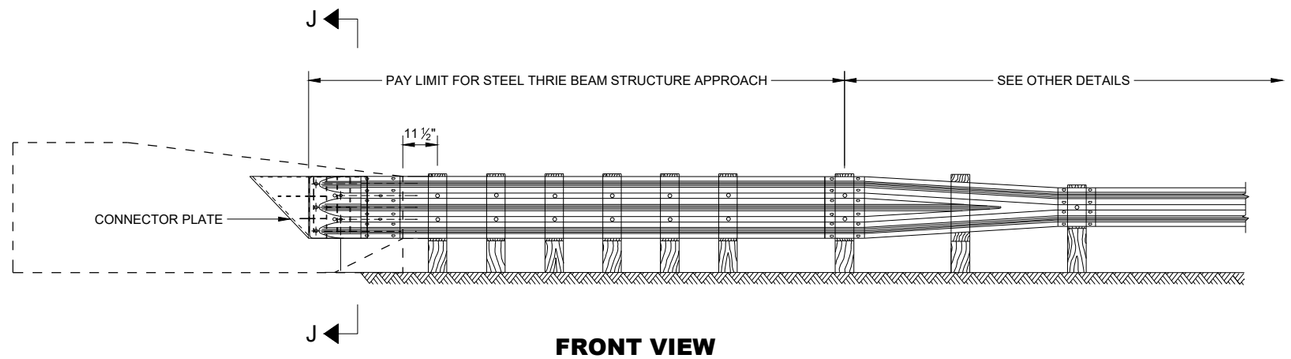
SDD 14B20 - 12e



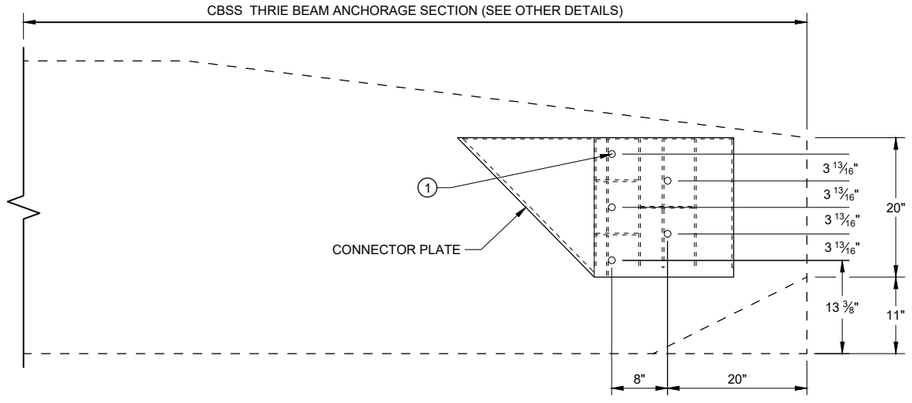
SECTION J - J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE PLACEMENT

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

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

(1) 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 TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B20 - 12h

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SDD 14B20 - 12h

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

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

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

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

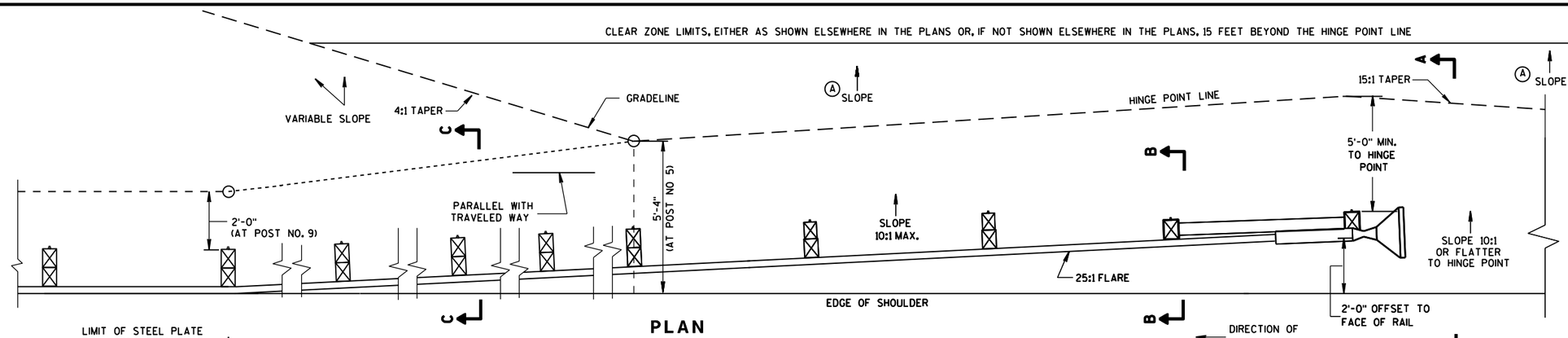
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

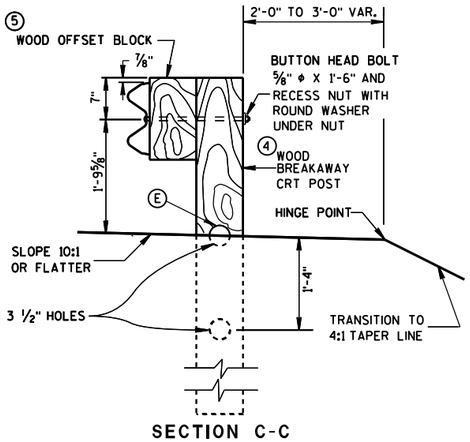
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

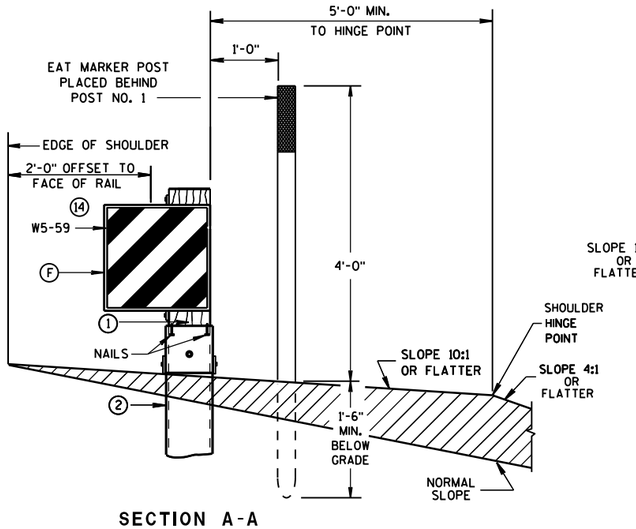
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

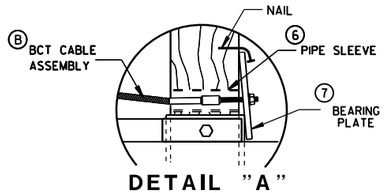




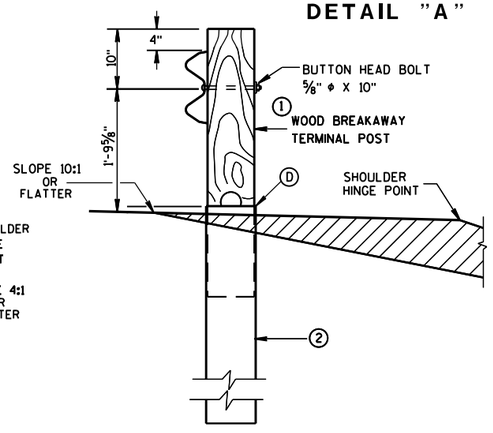
SECTION C-C
TYPICAL AT POST NOS. 6, 8



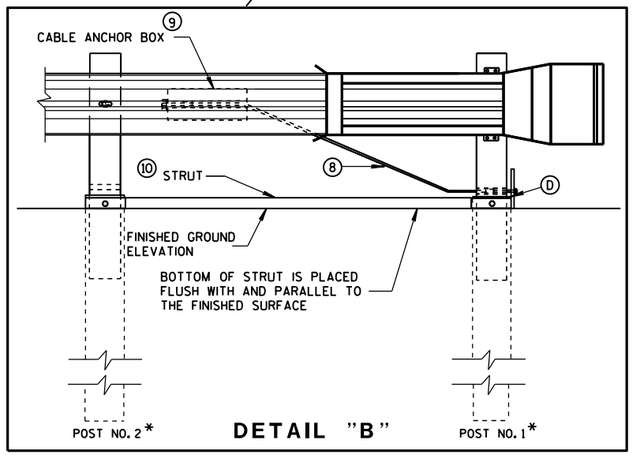
SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



SECTION B-B
TYPICAL AT POST NO. 2*



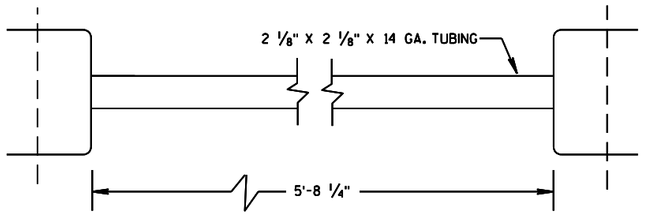
DETAIL "B"

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

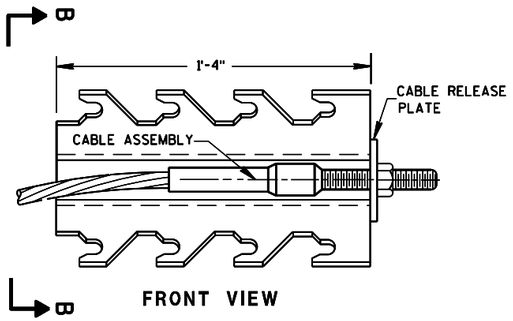
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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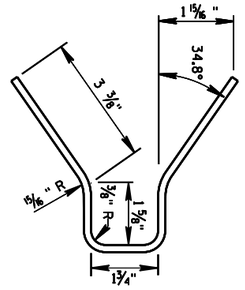
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

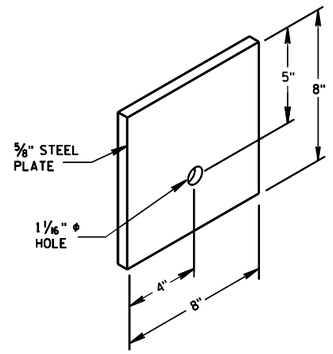


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

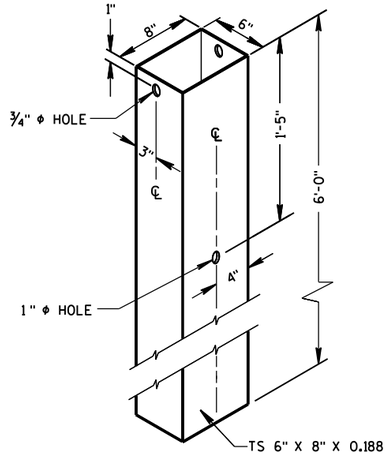
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S.D.D. 14 B 24-9b

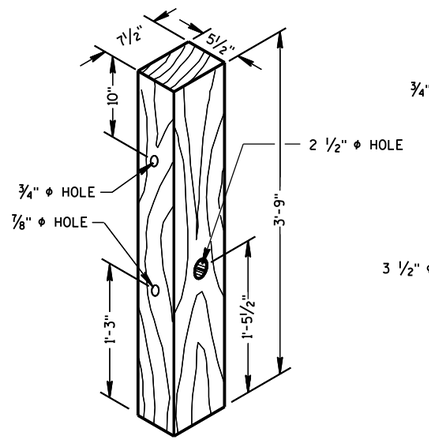
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

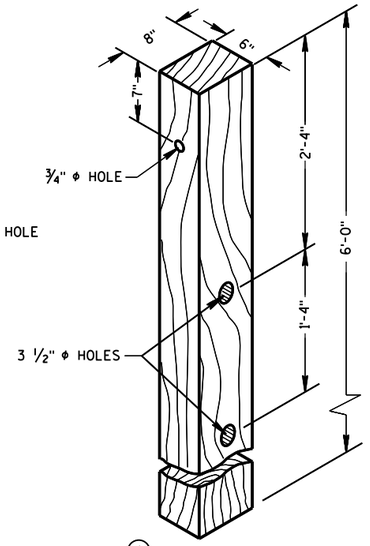
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

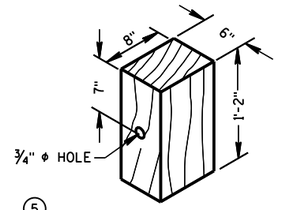


④ CRT POST
(POSTS NO'S 5-8

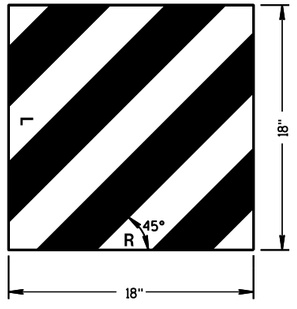
WOOD BREAKAWAY POSTS

GENERAL NOTES

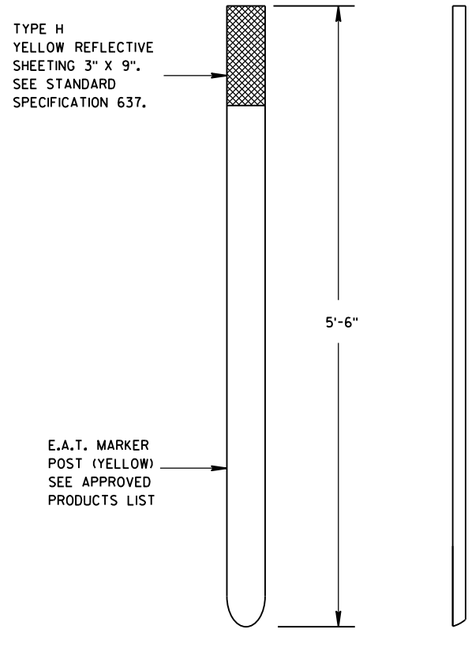
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS
UNIT SUPERV...

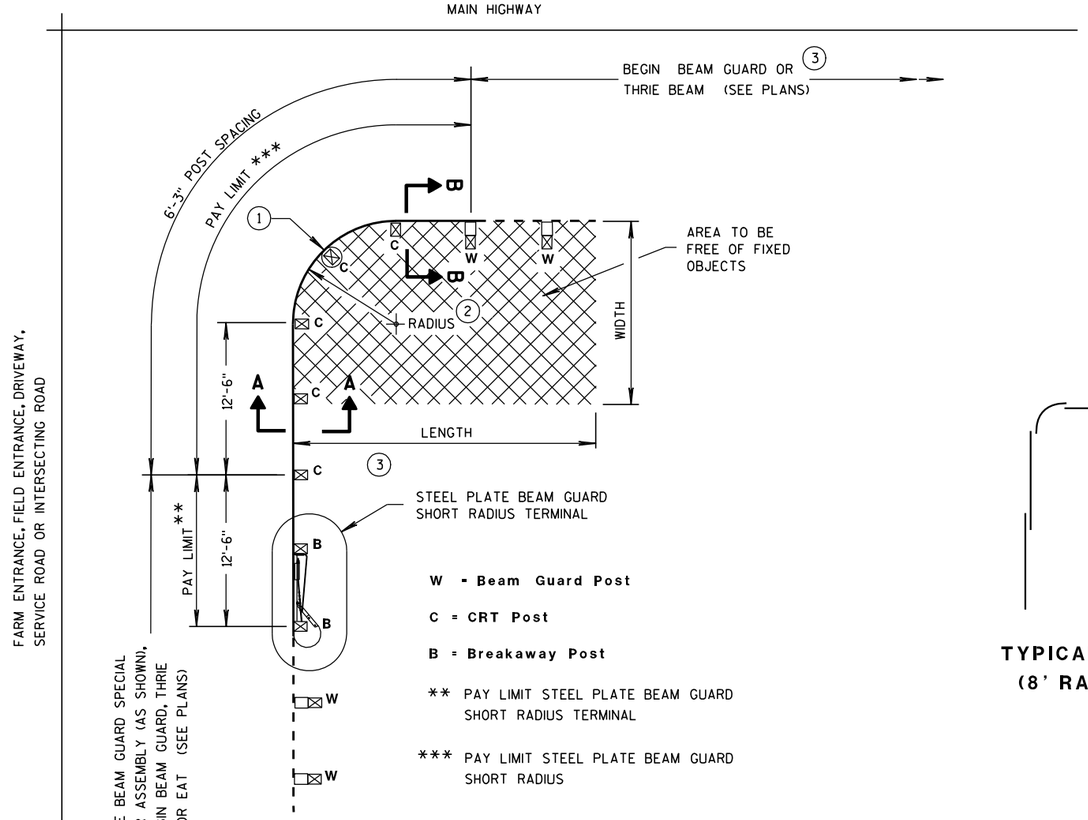
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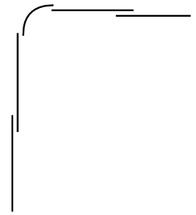
S.D.D. 14 B 24-9c

6

S.D.D. 14 B 24-9c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

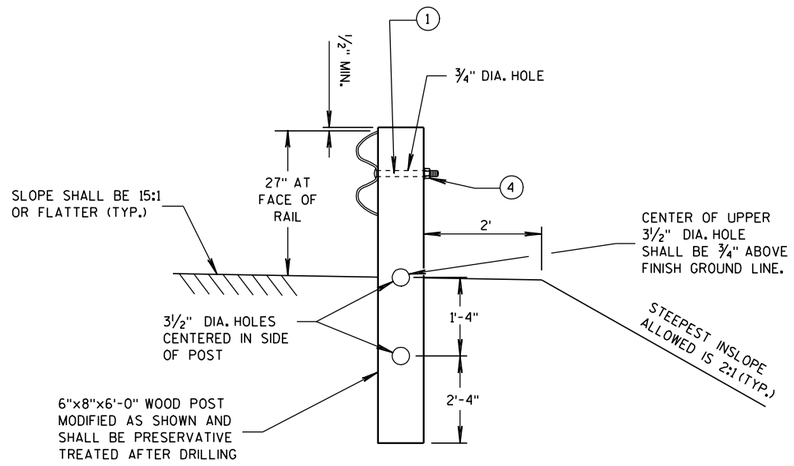
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

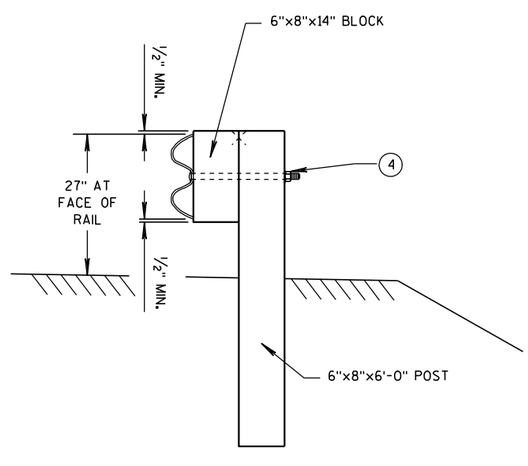
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

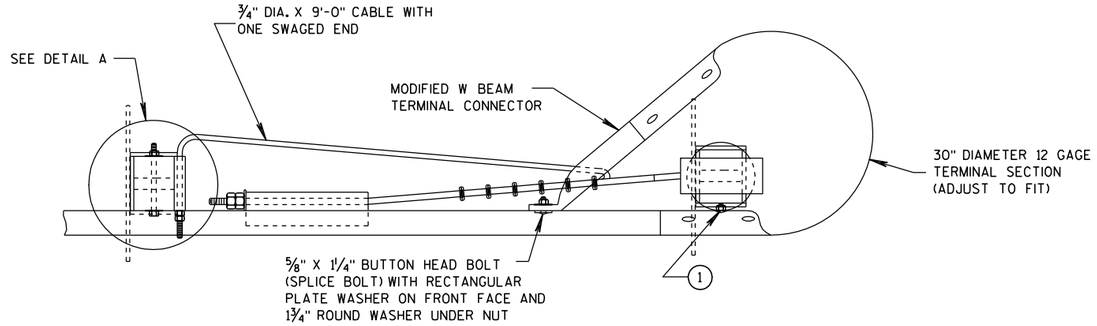
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

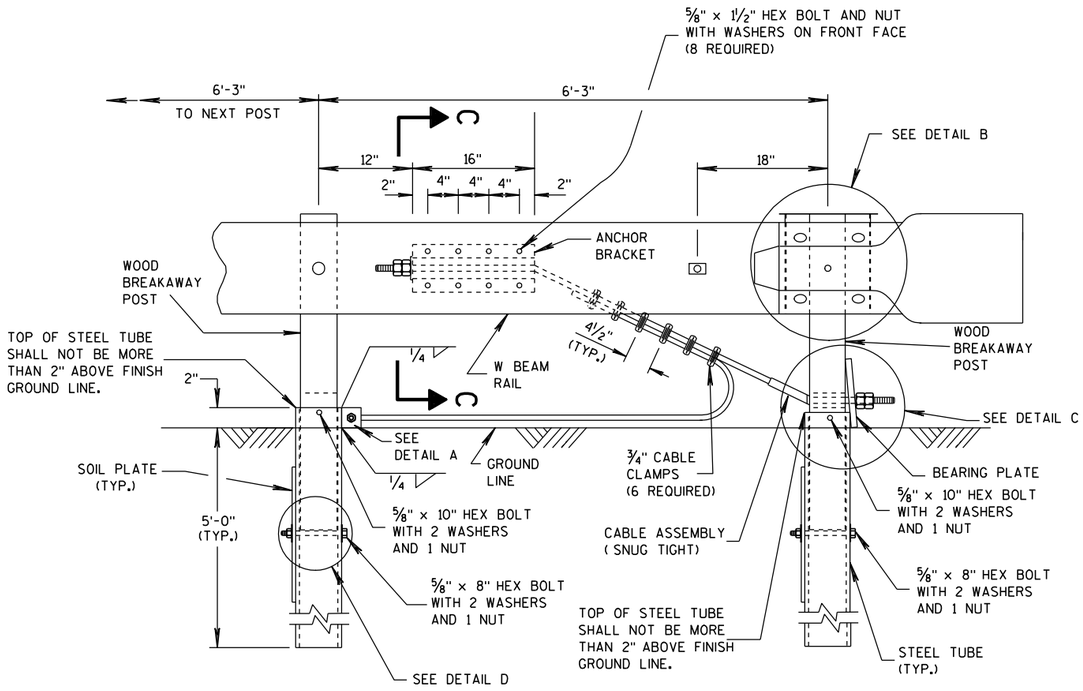
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



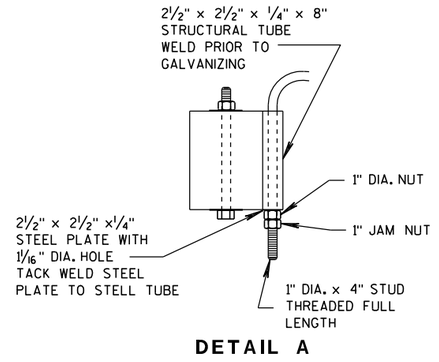
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

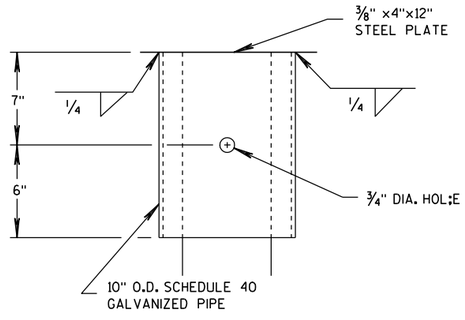
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

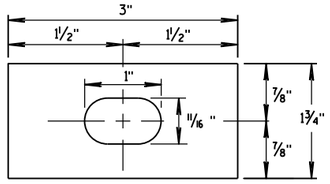
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

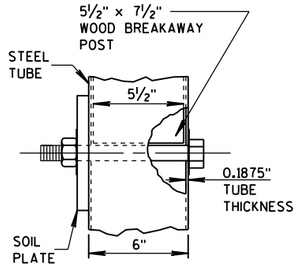
S.D.D. 14 B 27-1b

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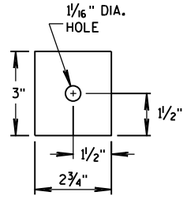
S.D.D. 14 B 27-1b



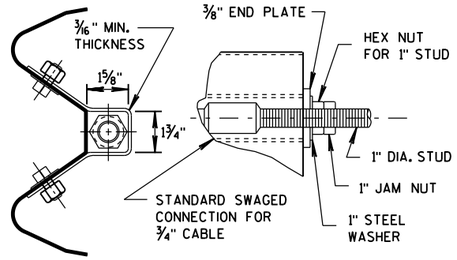
RECTANGULAR PLATE WASHER



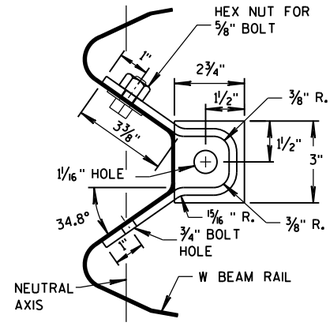
DETAIL D



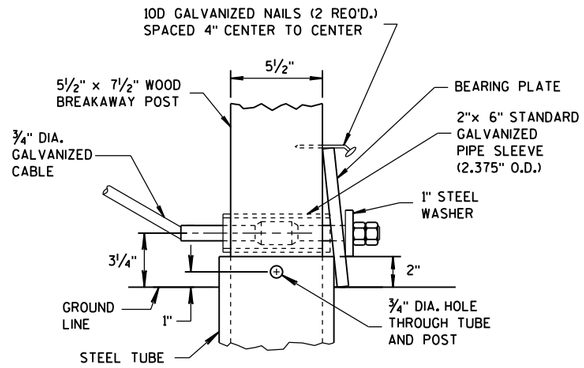
END PLATE



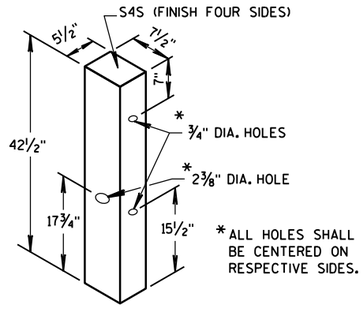
SECTION C-C
(END PLATE REMOVED)



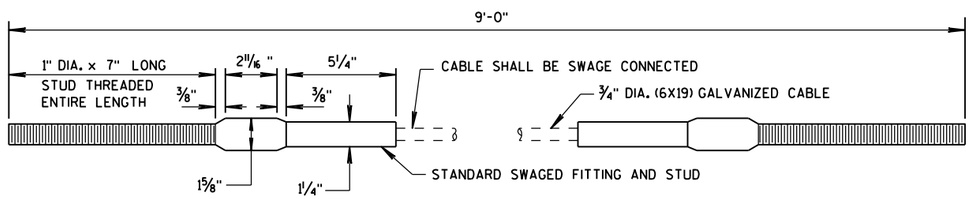
ANCHOR BRACKET



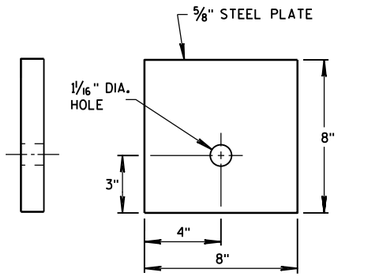
DETAIL C



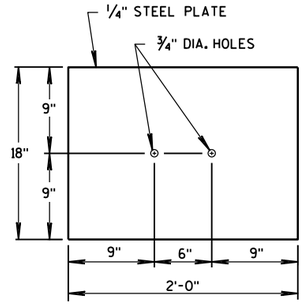
WOOD BREAKAWAY POST



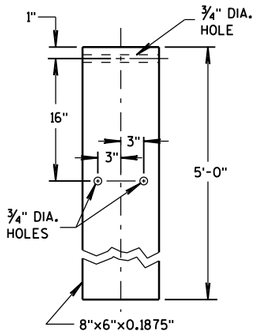
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

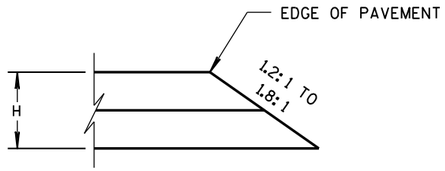
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

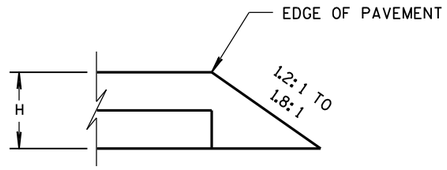
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S.D.D. 14 B 27-1c



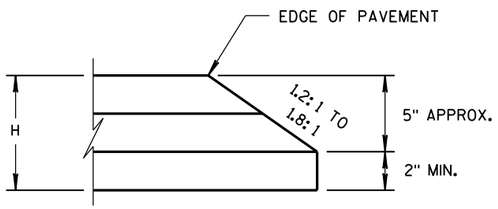
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



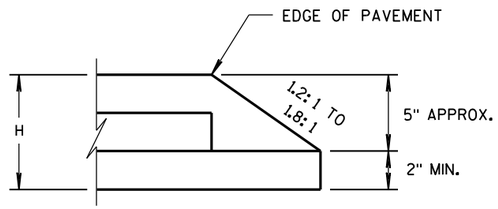
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

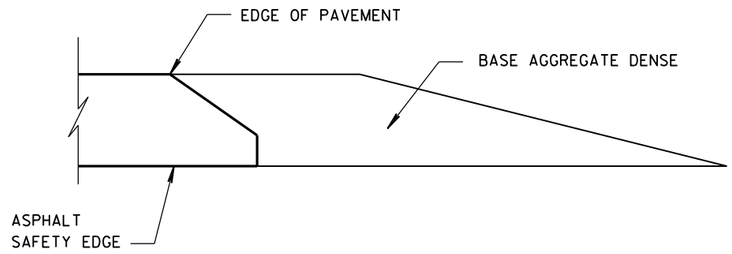
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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

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

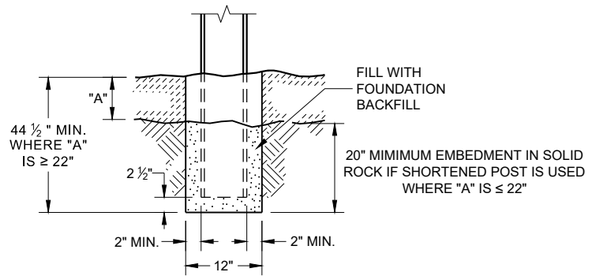
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

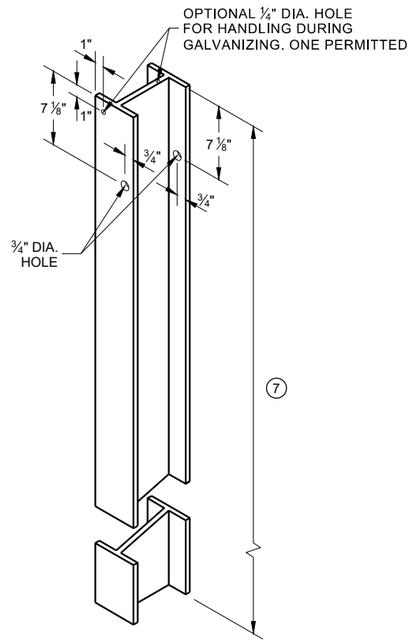
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

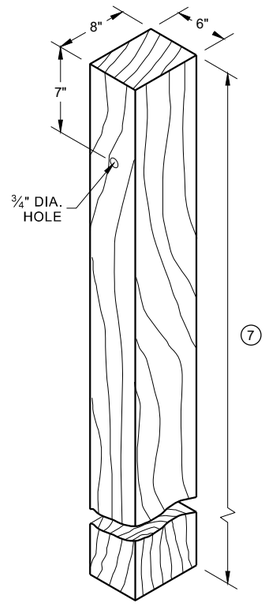
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



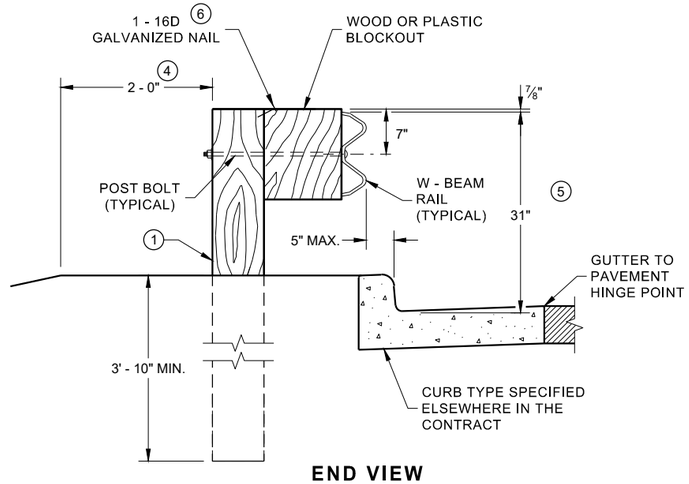
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



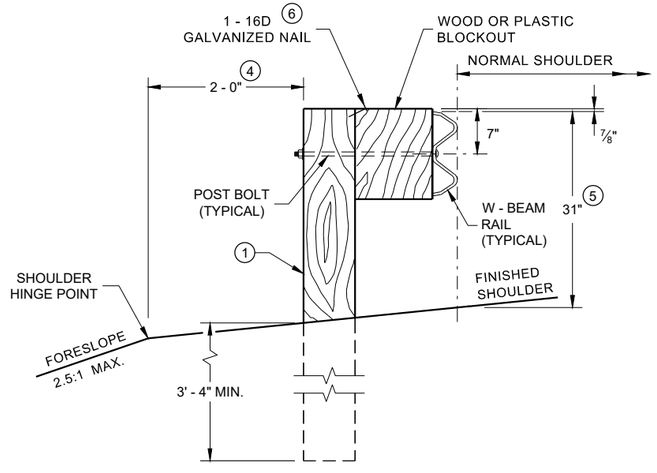
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



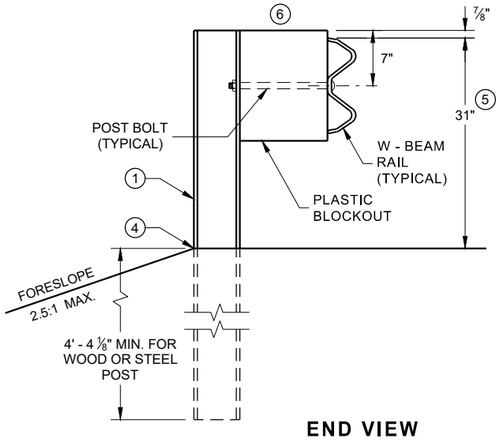
WOOD POST (6" X 8") NOMINAL (1)



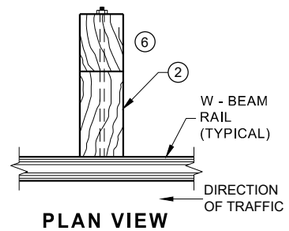
END VIEW
LOCATED ALONG A CURBED ROADWAY



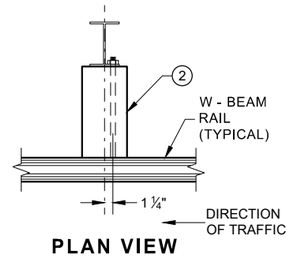
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



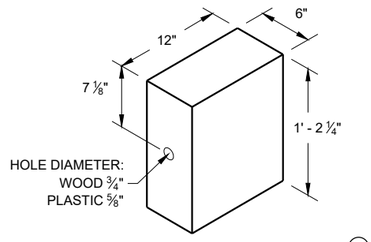
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

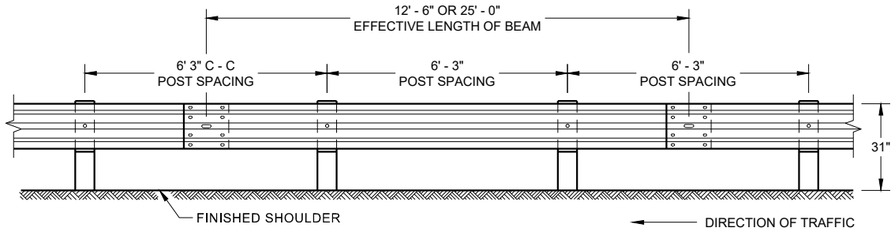
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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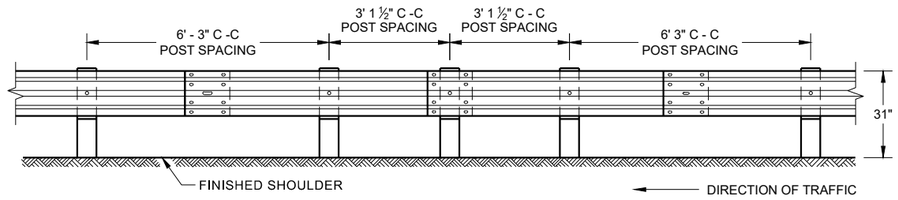
SDD 14B42 - 07a

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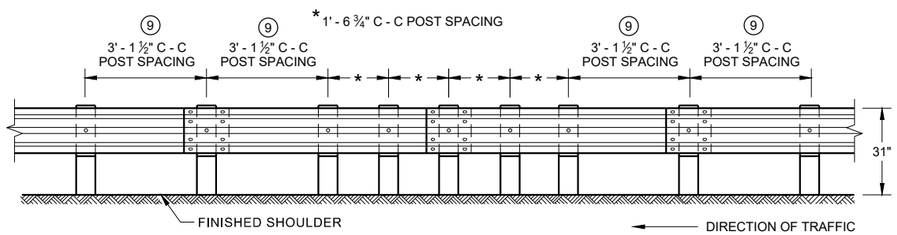
SDD 14B42 - 07a



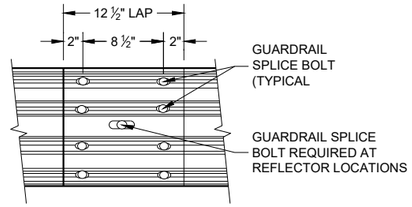
FRONT VIEW
POST SPACING STANDARD INSTALLATION



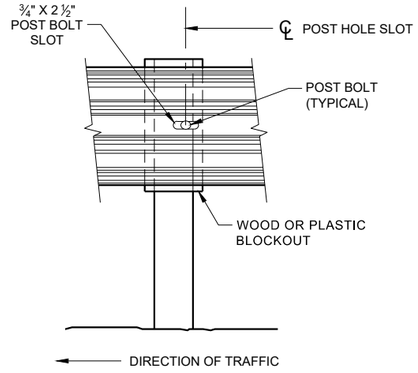
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



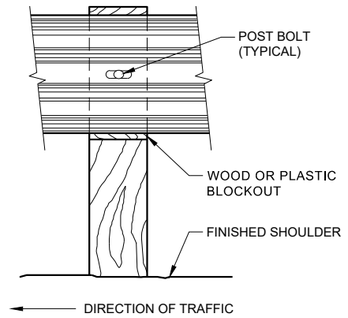
FRONT VIEW
QUARTER POST SPACING (QS)



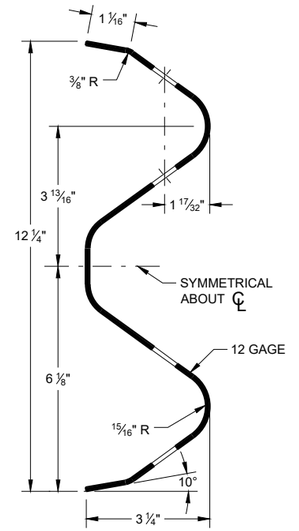
FRONT VIEW
MID-SPAN BEAM SPLICE



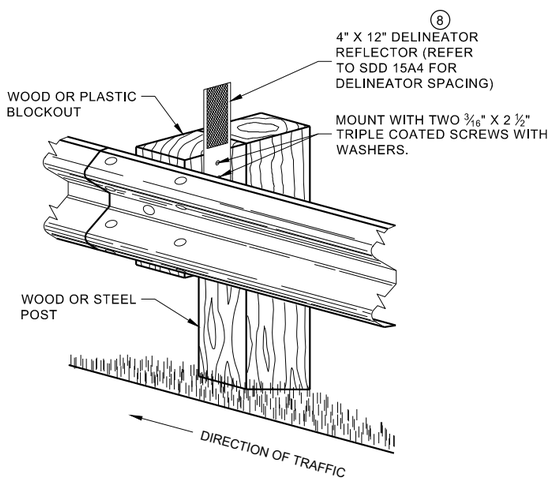
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

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

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

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

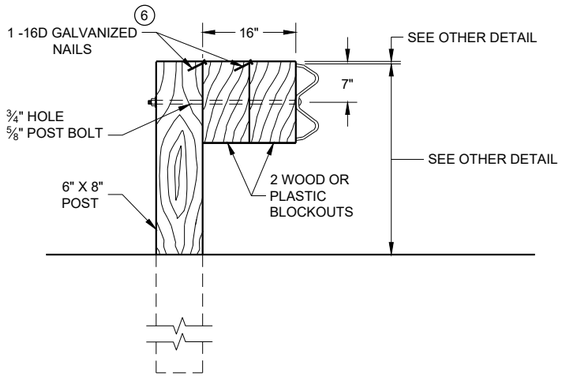
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

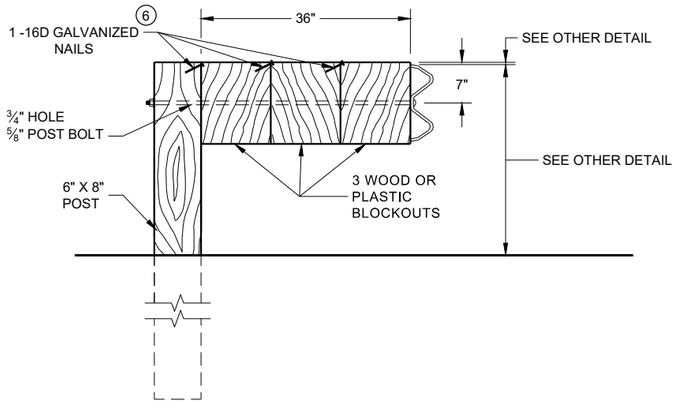
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SDD 14B42 - 07b
SDD 14B42 - 07b



DETAIL FOR 16" BLOCKOUT DEPTH

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



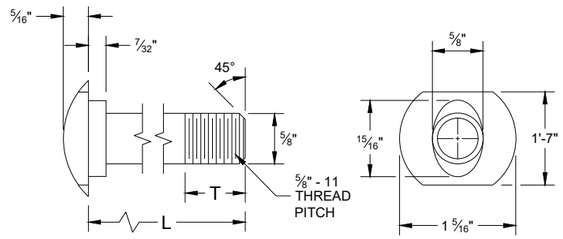
DETAIL FOR 36" BLOCKOUT DEPTH

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.

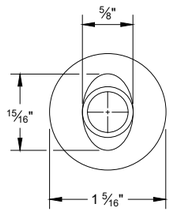
NOTE:

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

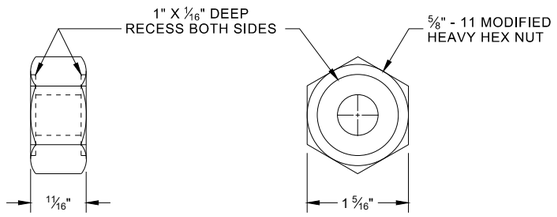


POST BOLT TABLE

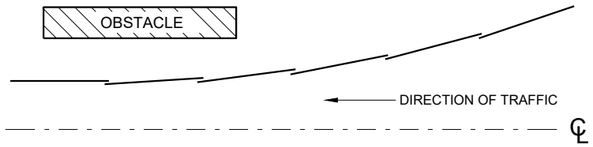
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



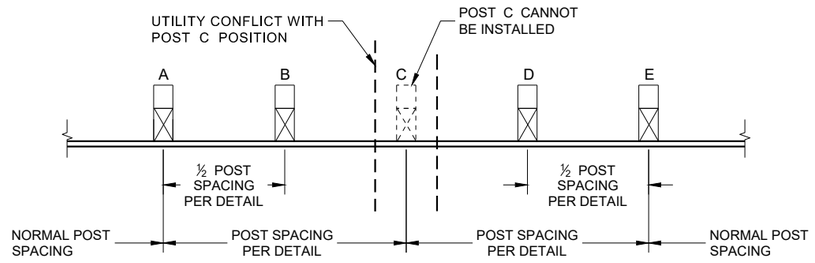
ALTERNATE BOLT HEAD



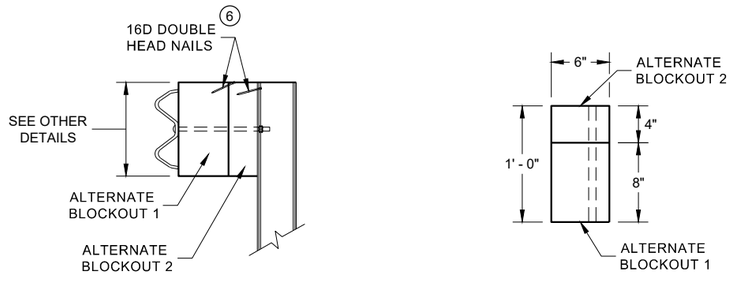
POST BOLT, SPLICE BOLT AND RECESS NUT



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

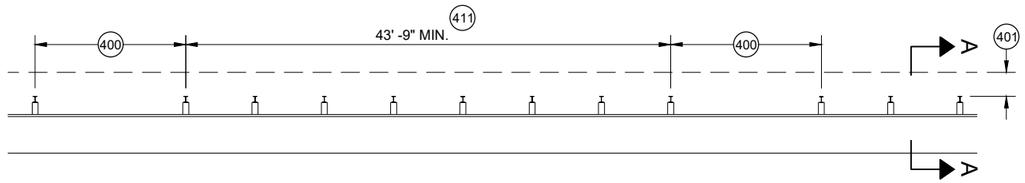
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

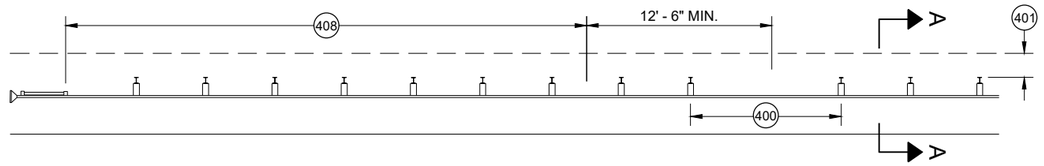
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

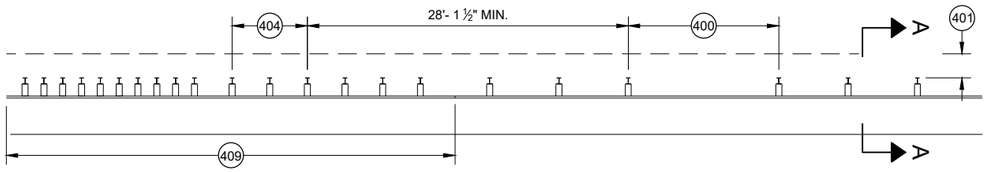
SDD 14B42 - 07c



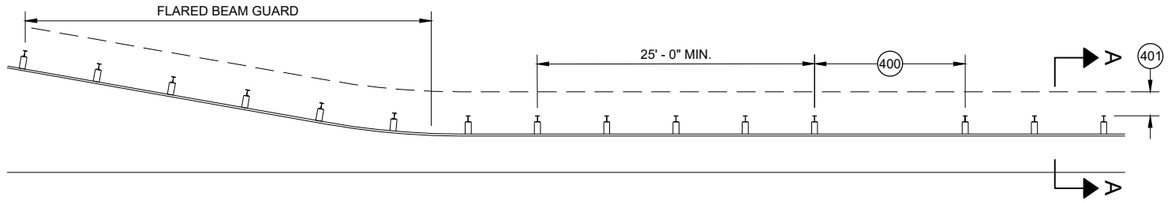
MISSING POST IN MGS GUARDRAIL



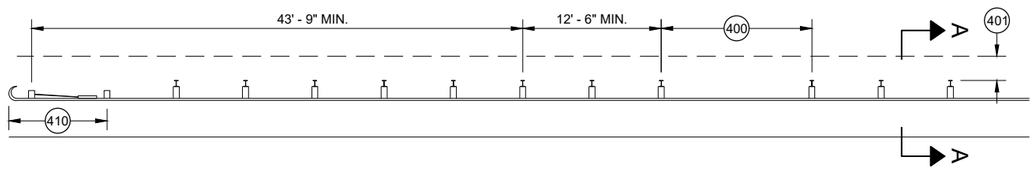
MISSING POST IN MGS GUARDRAIL NEAR EAT



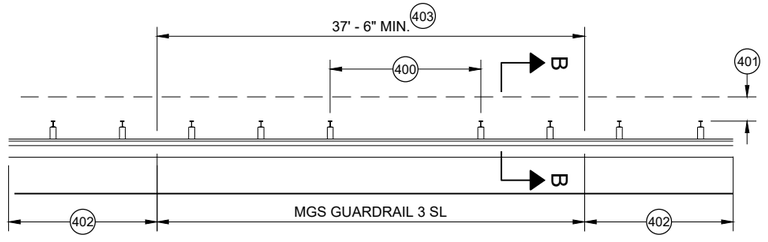
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

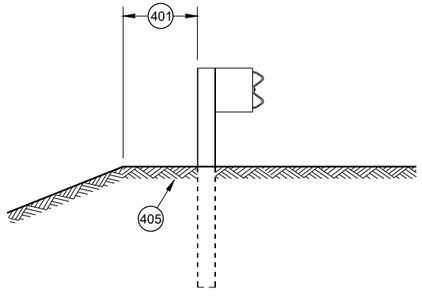


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

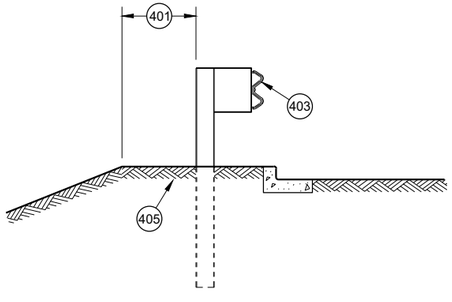


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

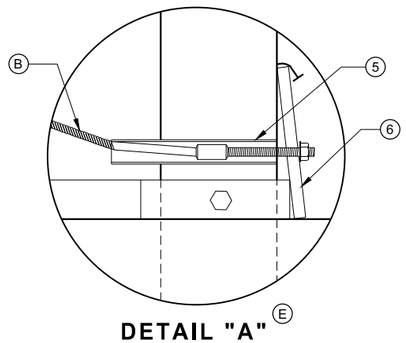
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

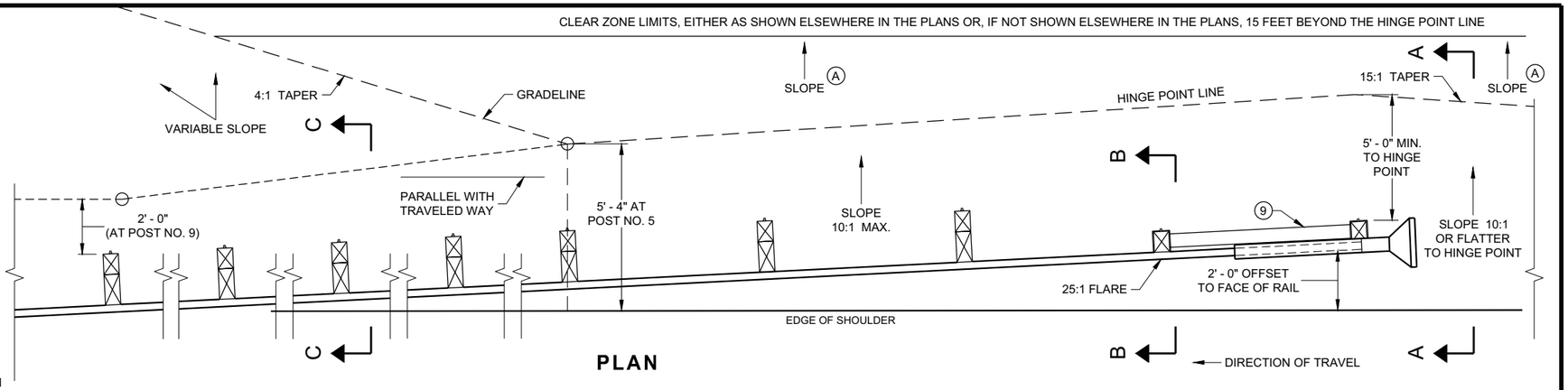
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

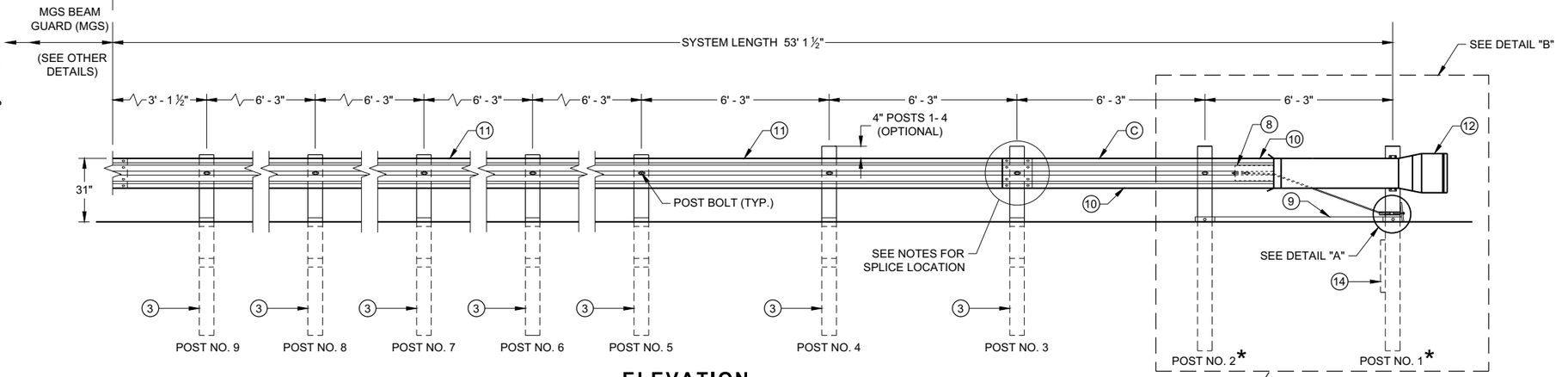
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

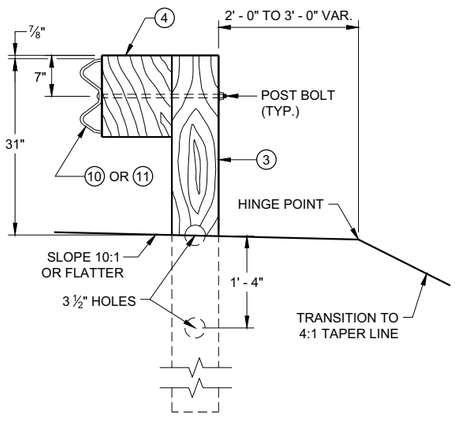
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



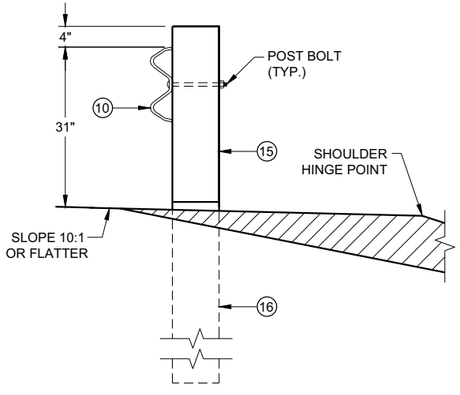
DETAIL "A" (E)



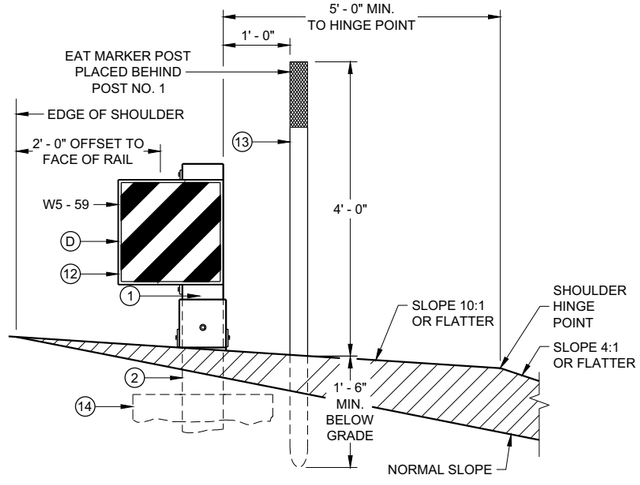




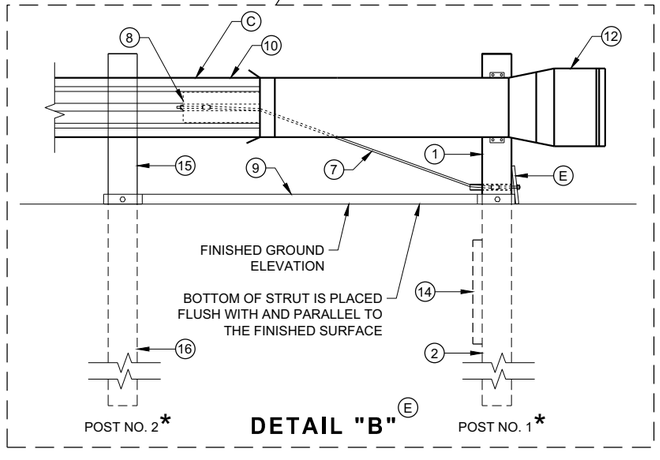
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

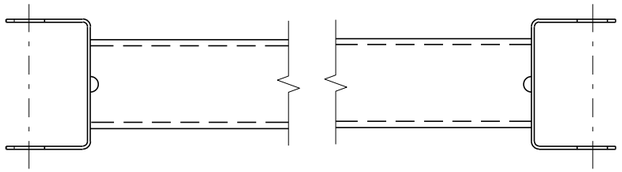


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

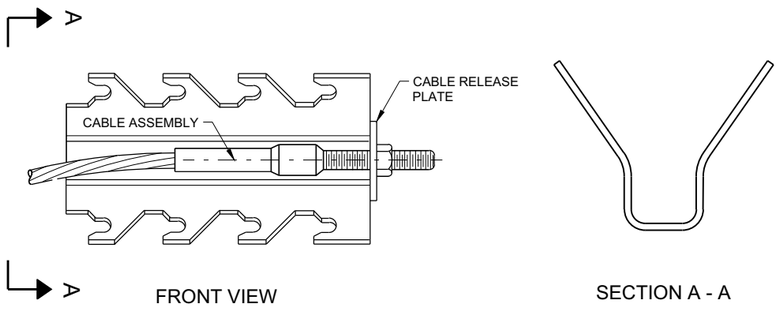
SDD 14B44 - 04a



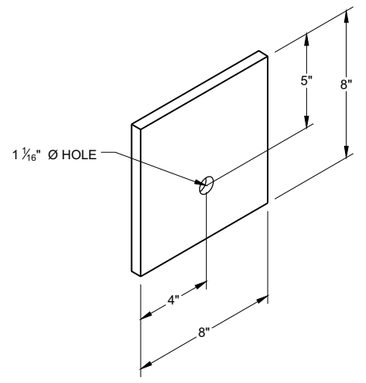
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

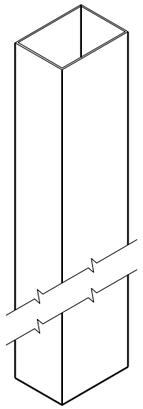
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SDD 14B44 - 04b

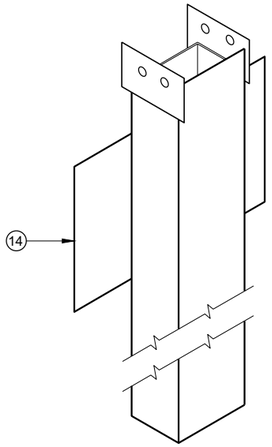
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

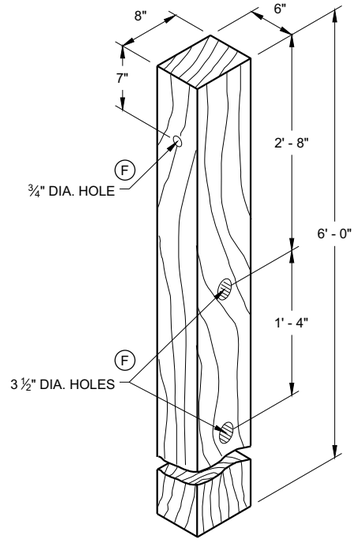
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



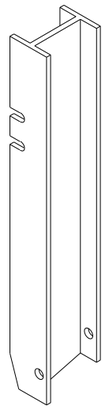
UPPER POST NO. 1 (1) (E)



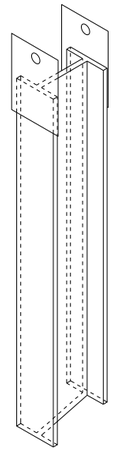
LOWER POST NO. 1 (2) (E)



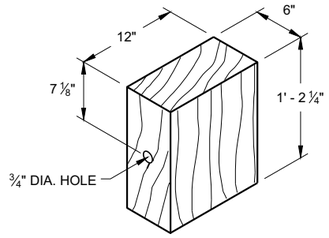
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



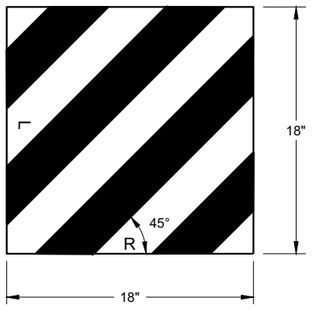
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

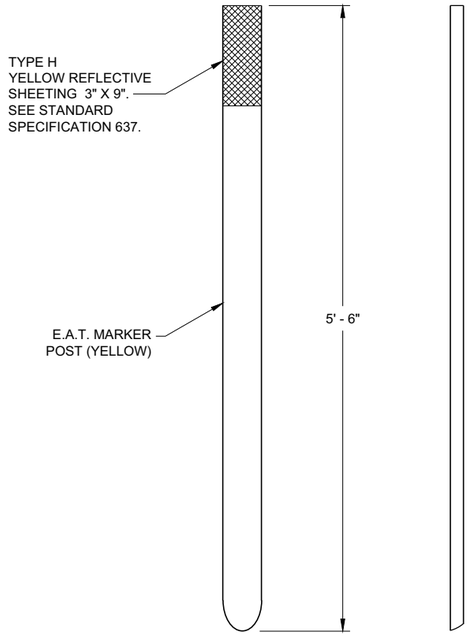


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



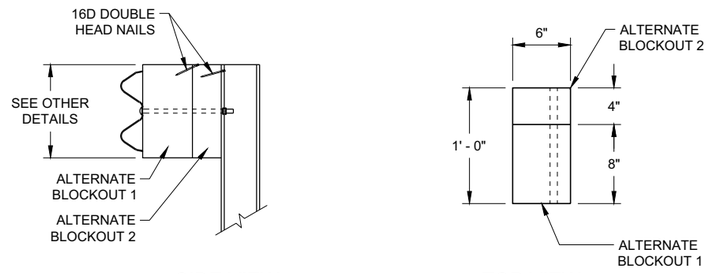
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

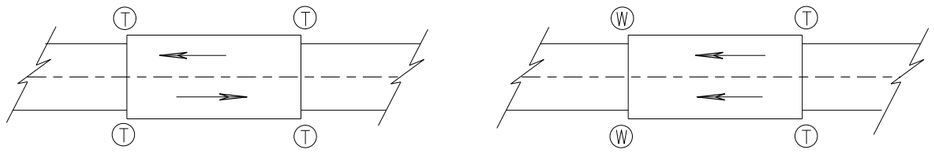
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

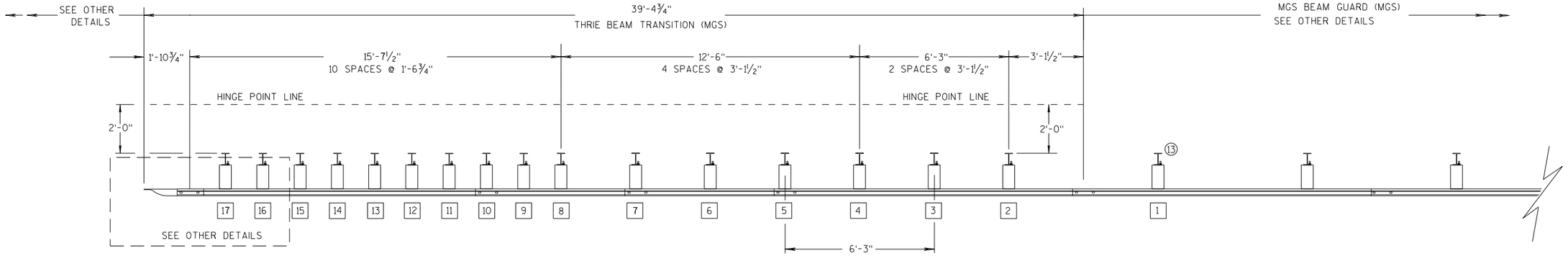
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

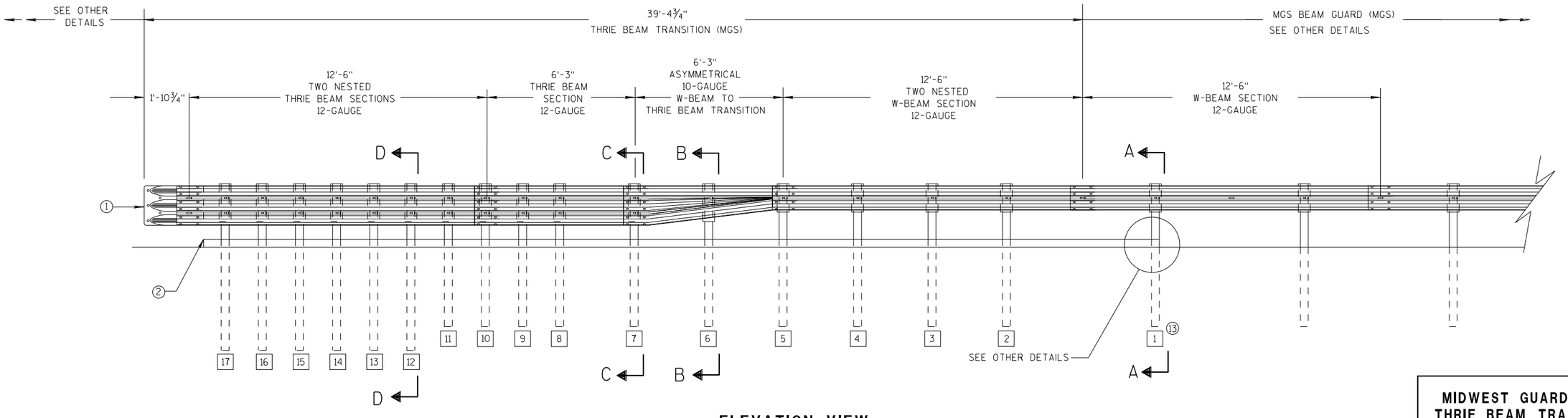
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

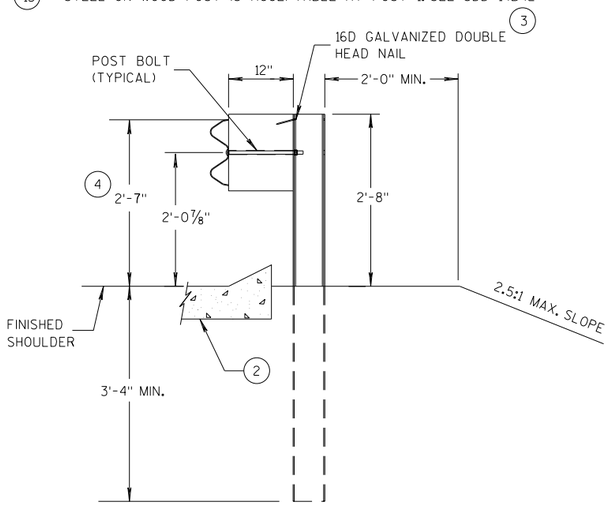
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

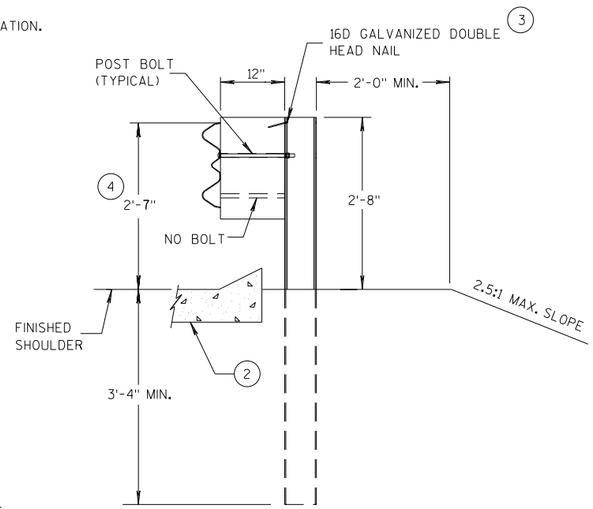
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



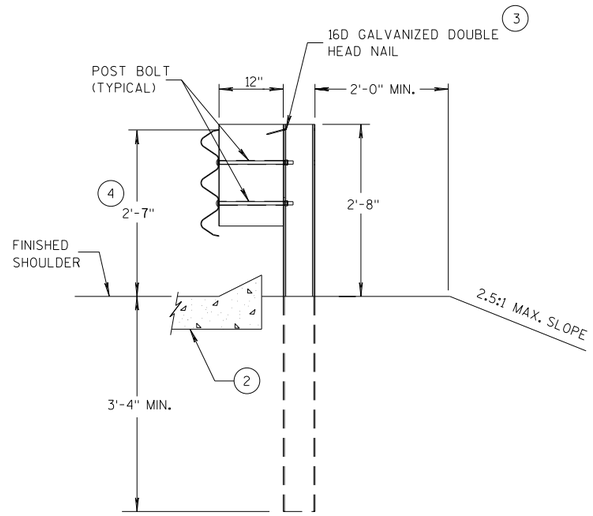
SECTION A-A (13)

POSTS 1-5



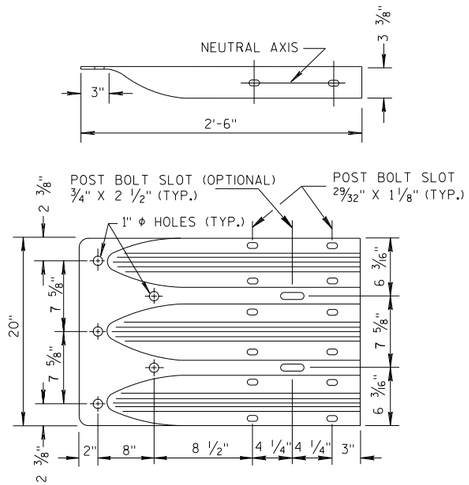
SECTION B-B

POST 6

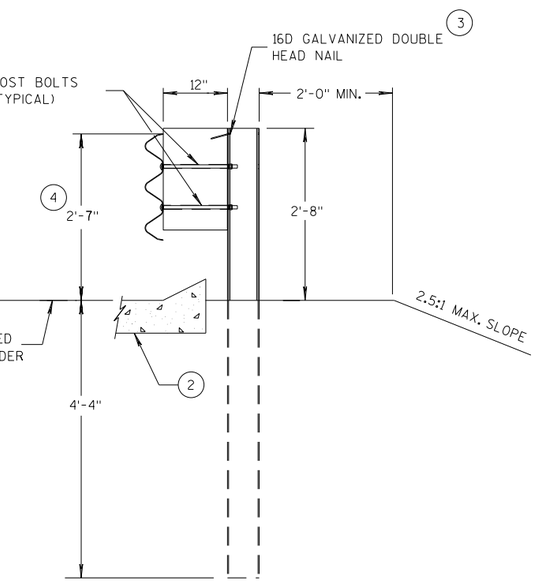


SECTION C-C

POSTS 7-11

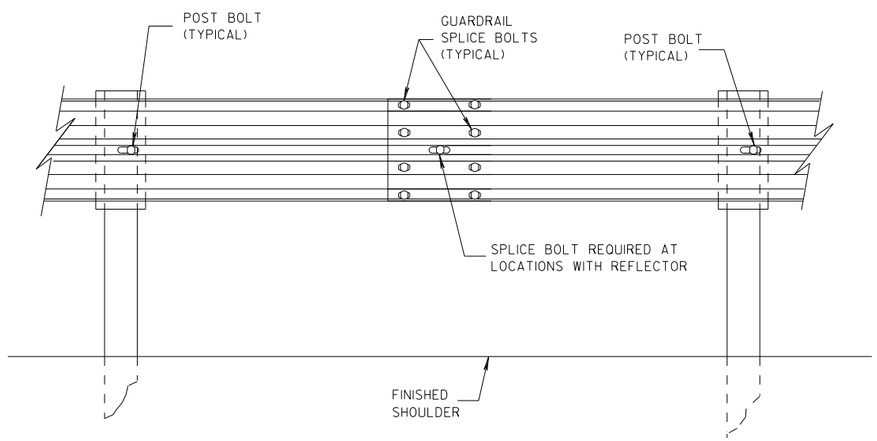


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

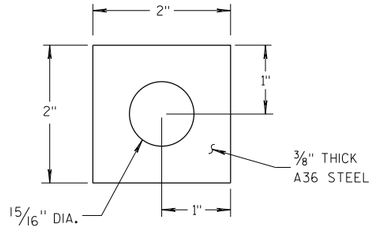
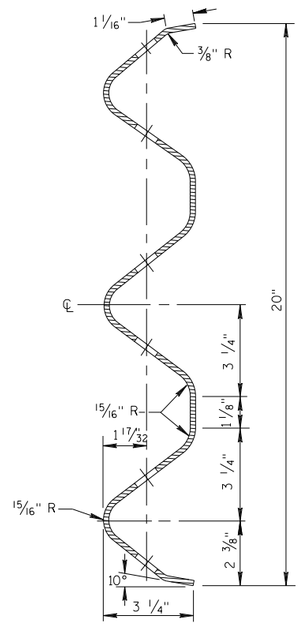


PLATE WASHER DETAIL



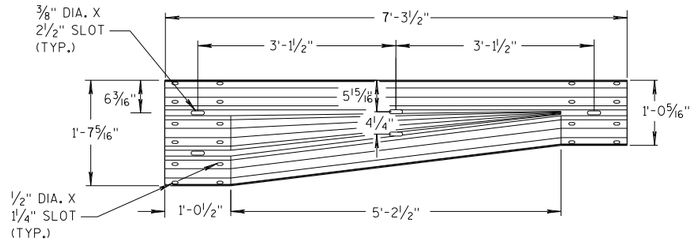
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

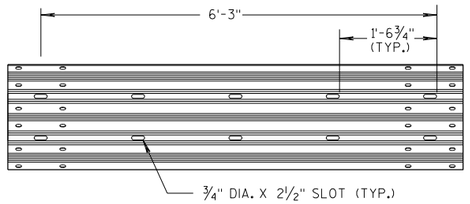
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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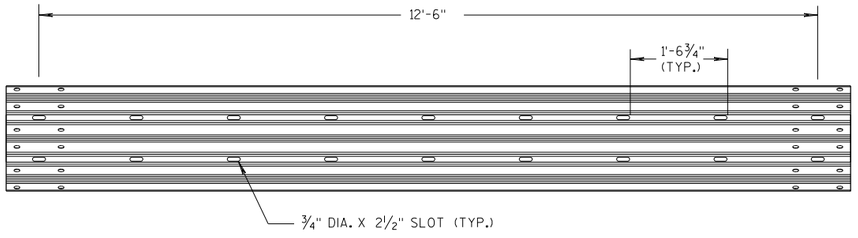
S.D.D. 14 B 45-5b



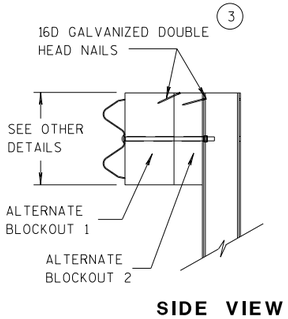
W-BEAM TO THRIE BEAM TRANSITION SECTION



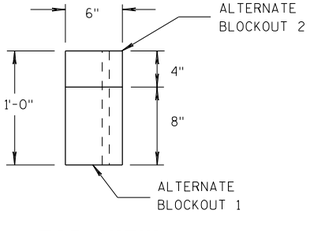
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

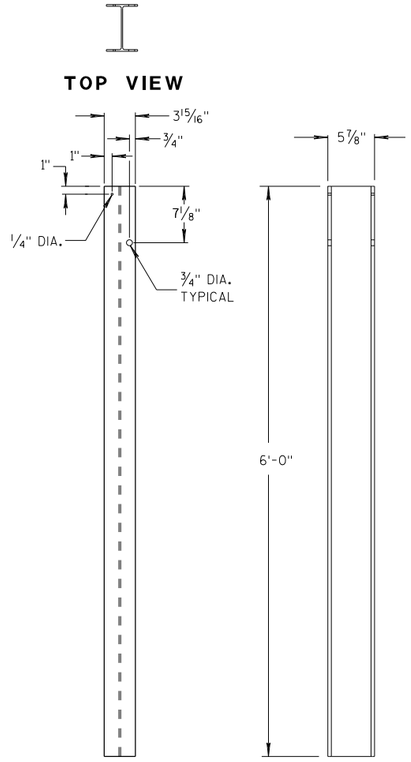


SIDE VIEW



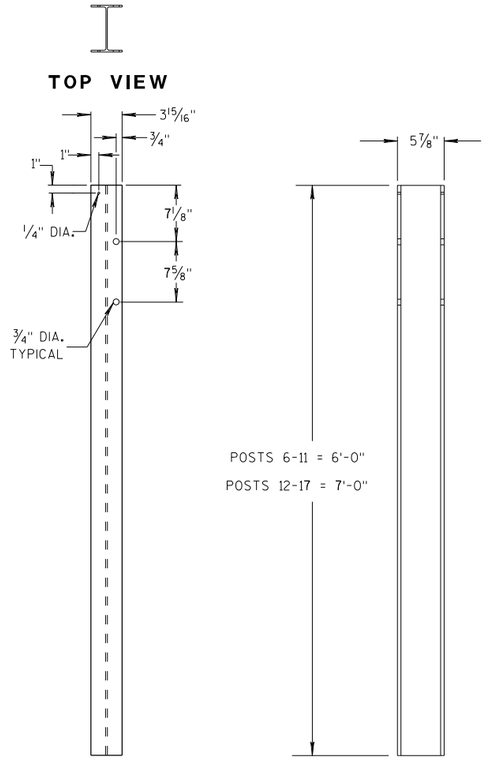
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



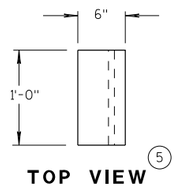
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

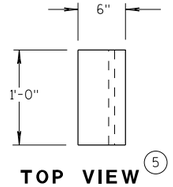


FRONT VIEW SIDE VIEW

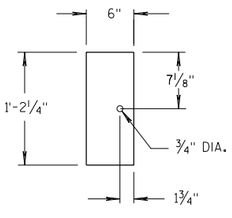
STEEL POSTS 6-17



TOP VIEW (5)

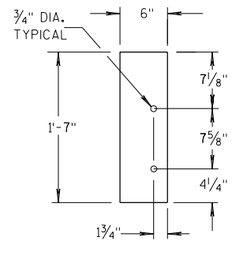


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS 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.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

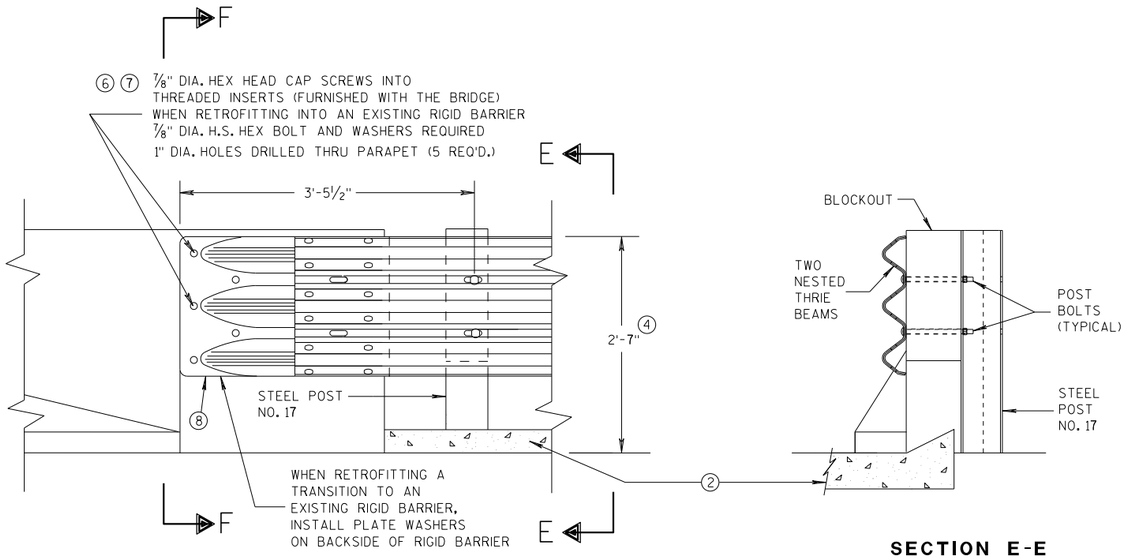
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

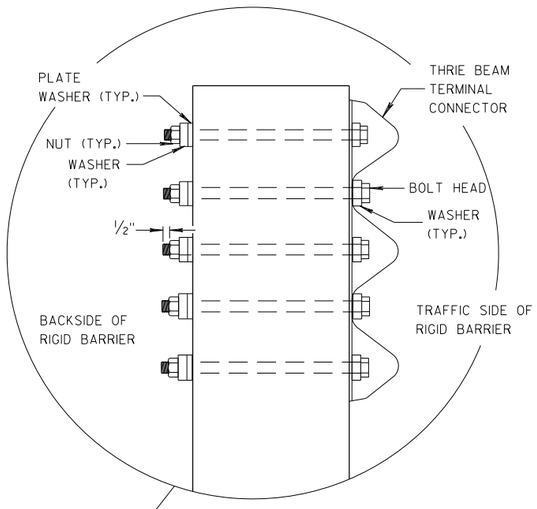
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

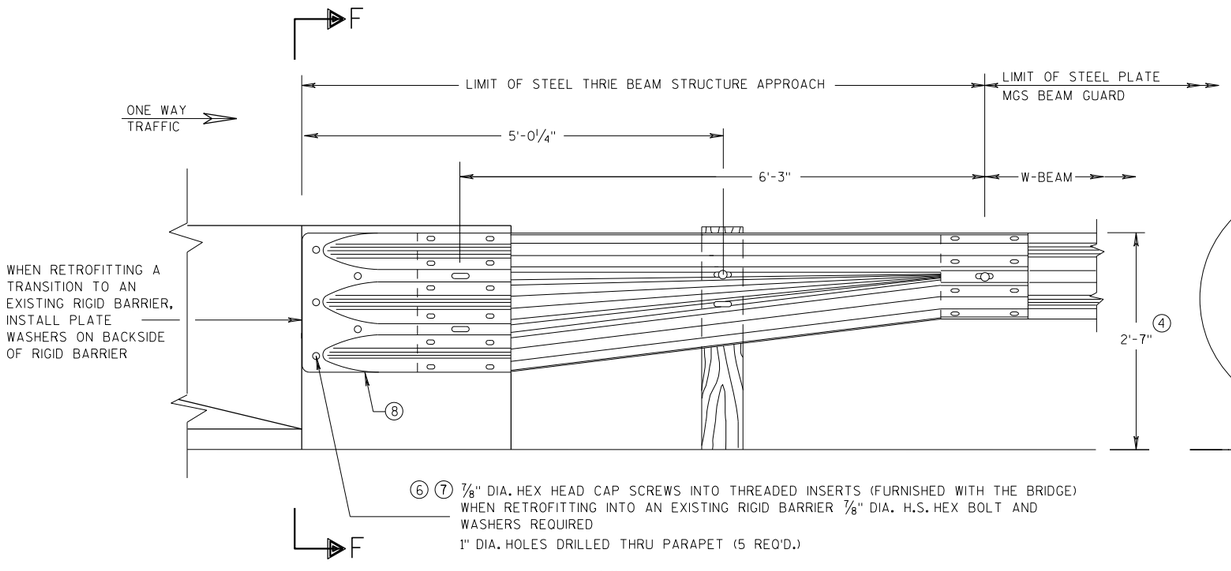
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

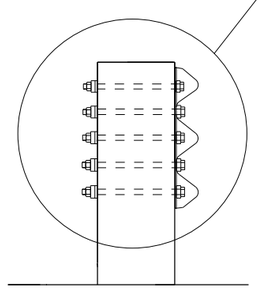
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" 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".

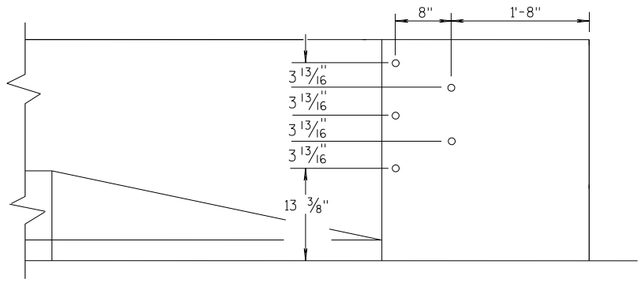




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

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S.D.D. 14 B 45-5d

GENERAL NOTES

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.

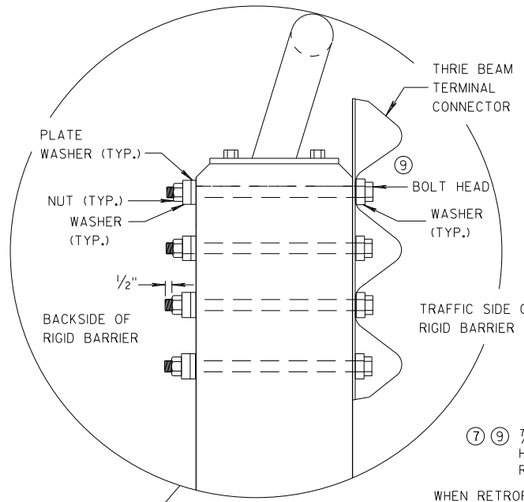
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

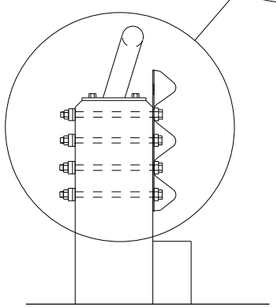
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) 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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

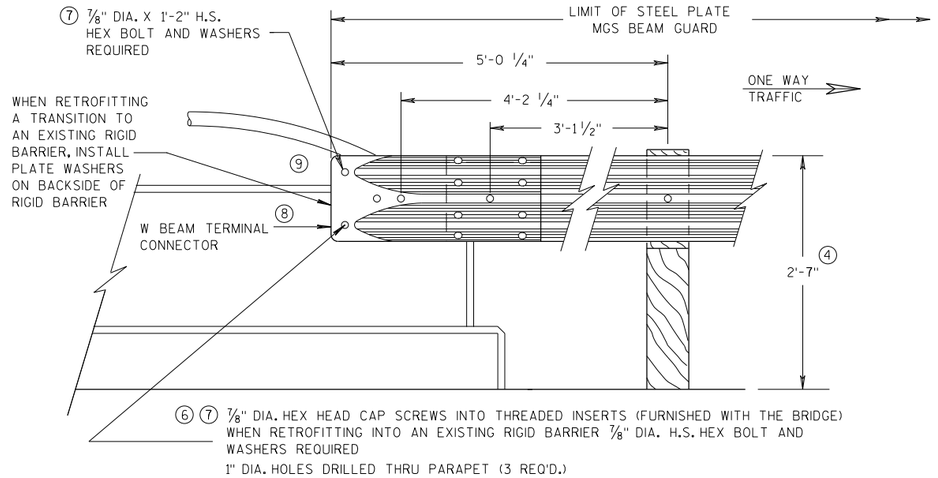
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





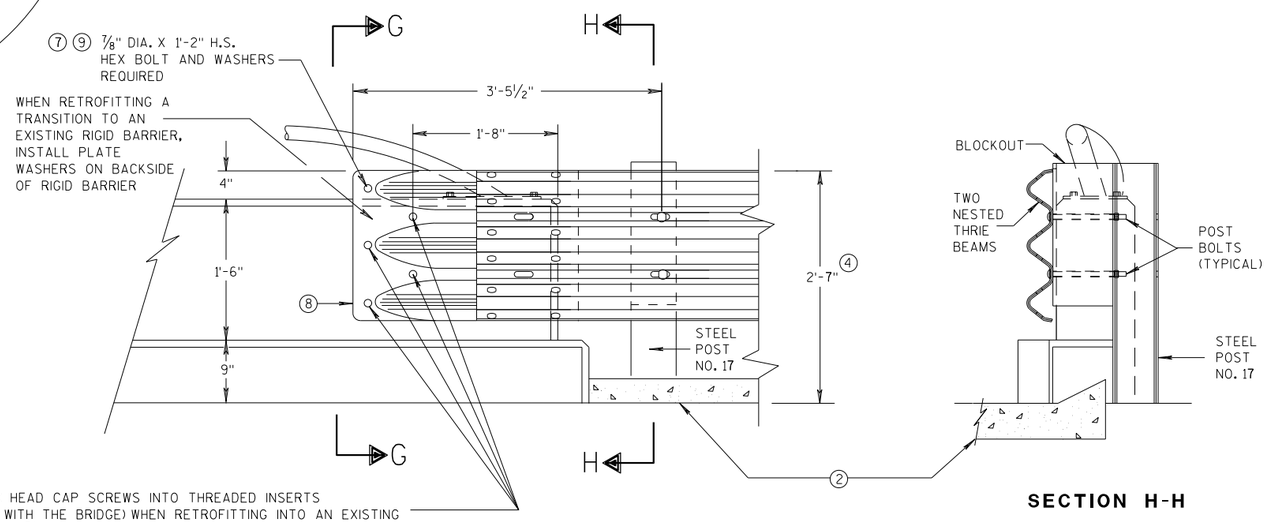
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018
DATE
FHWA

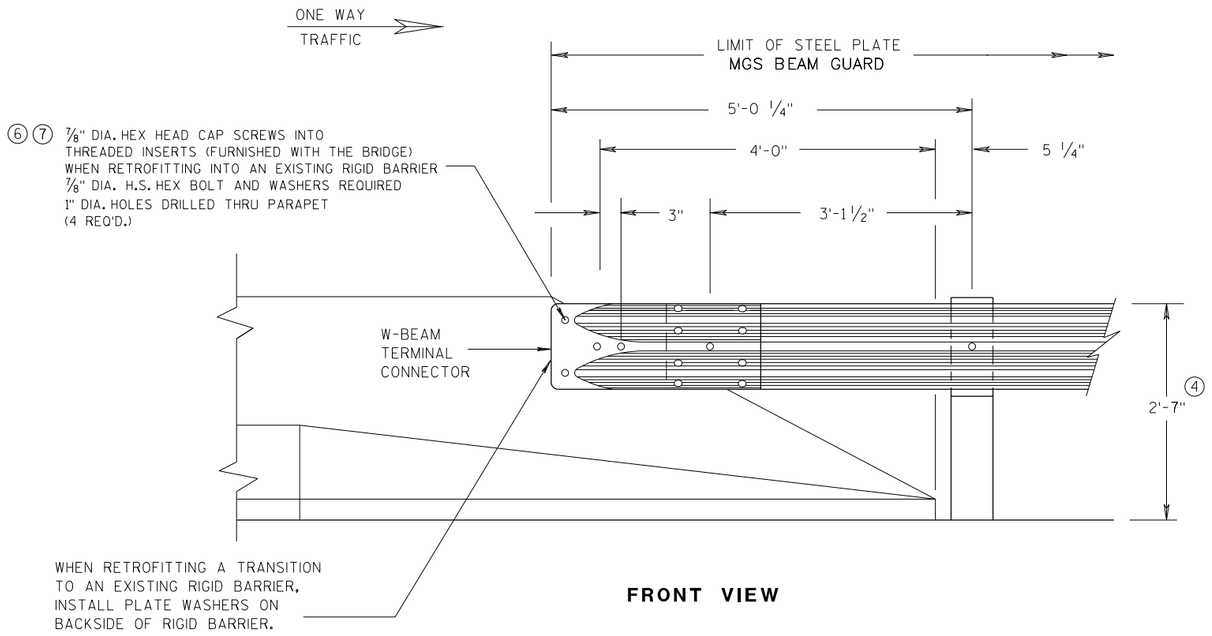
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS NT

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S.D.D. 14 B 45-5e

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S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

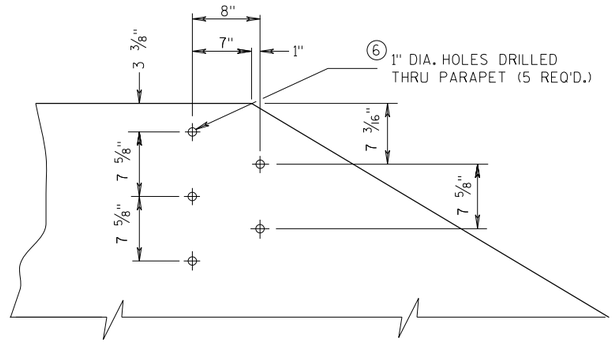
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

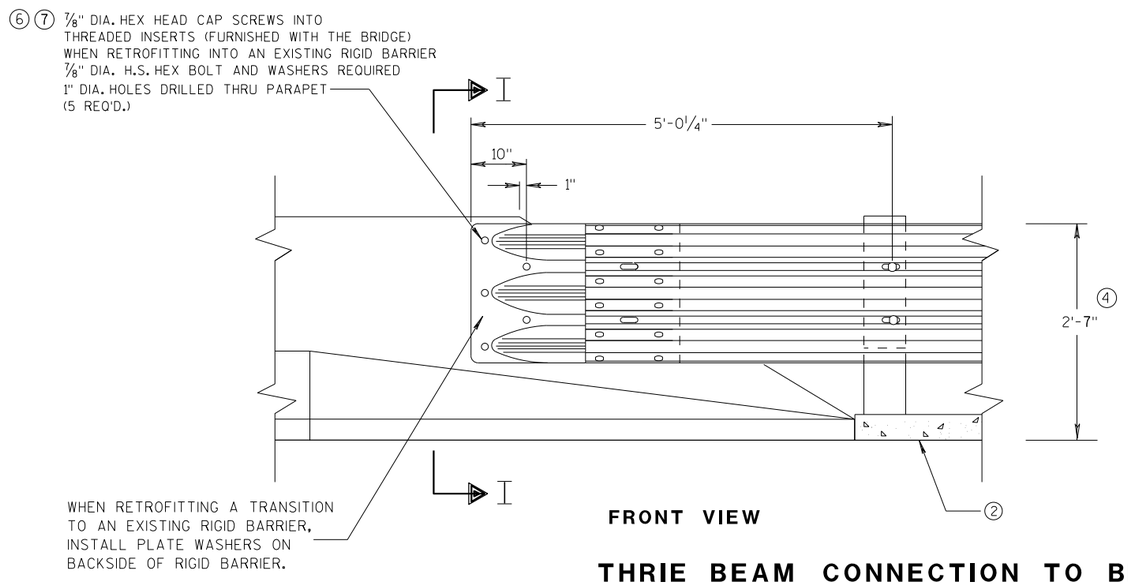
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

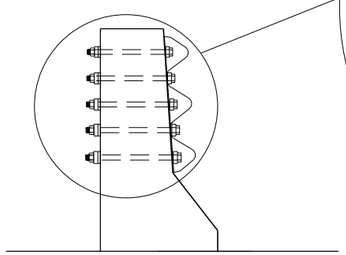
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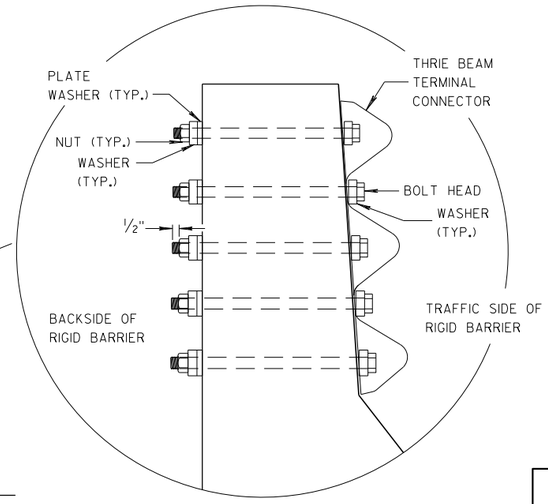
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



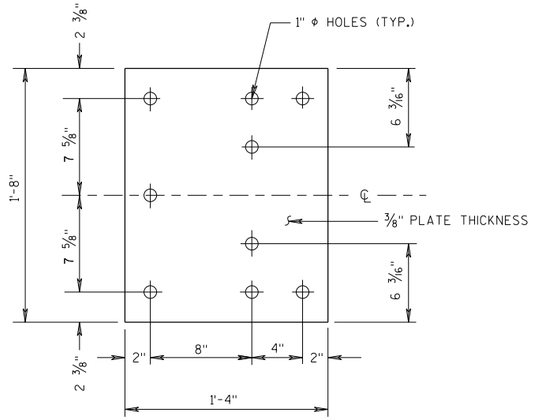
THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

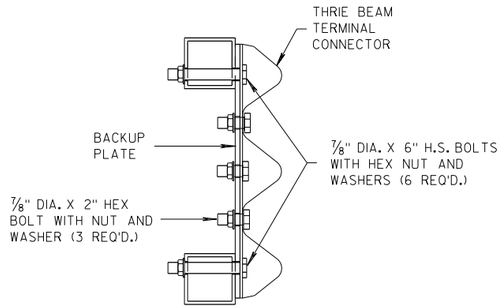
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018 — DATE
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ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

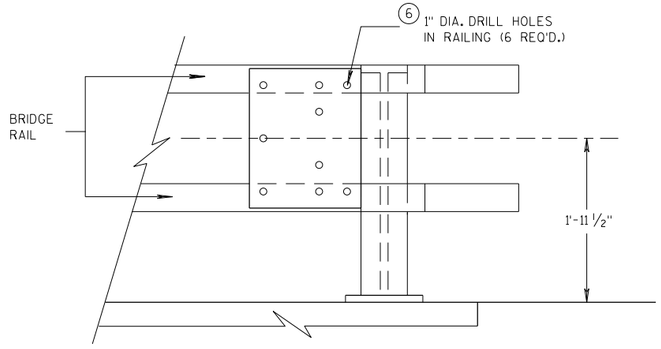
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S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

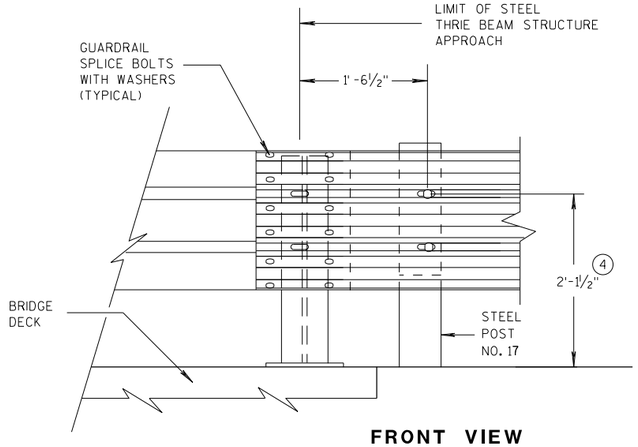


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

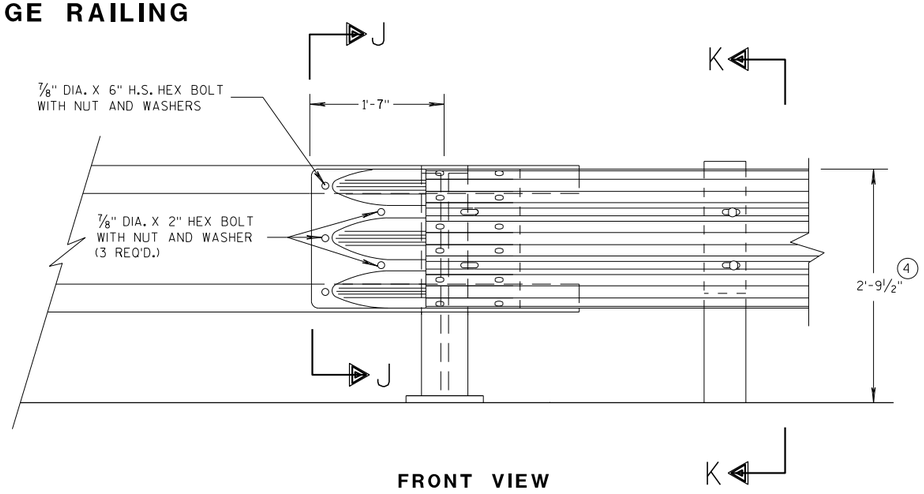
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

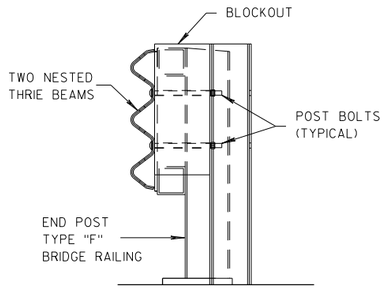


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE — FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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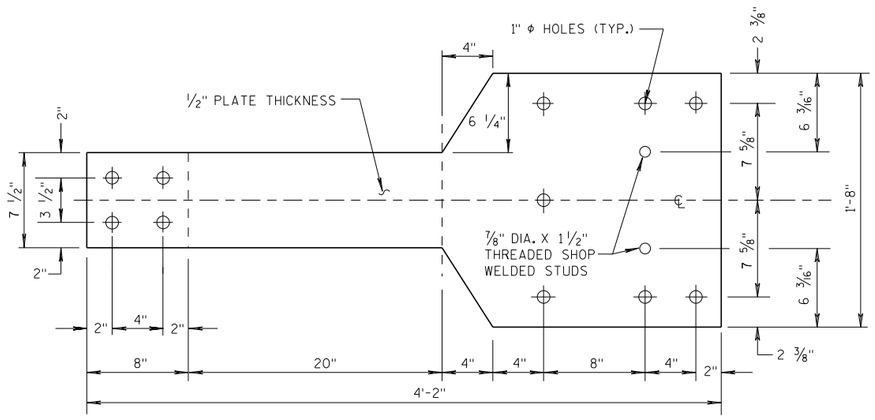
S.D.D. 14 B 45-5g

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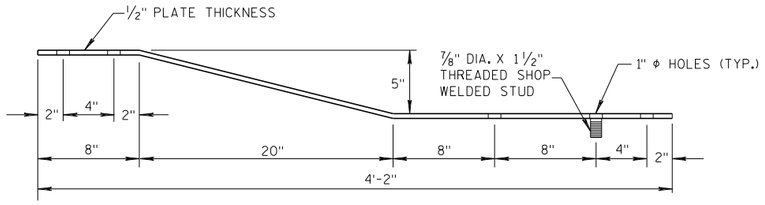
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

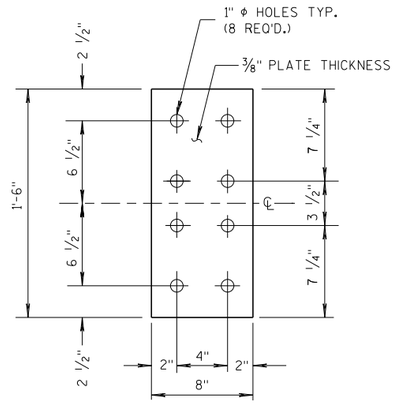


FRONT VIEW



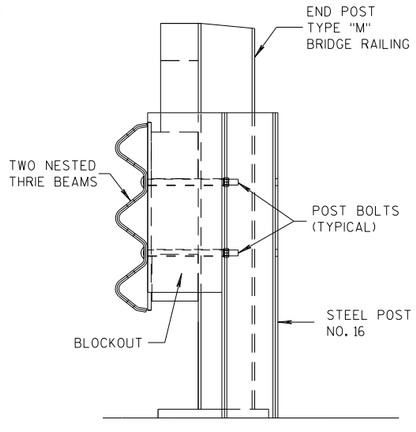
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

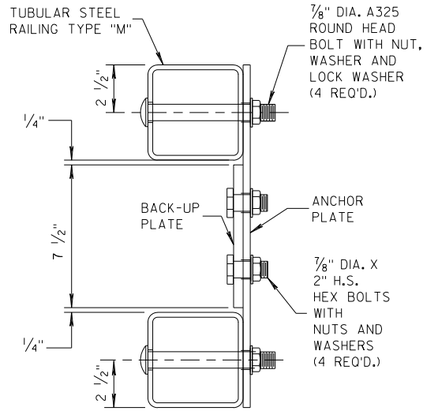


FRONT VIEW

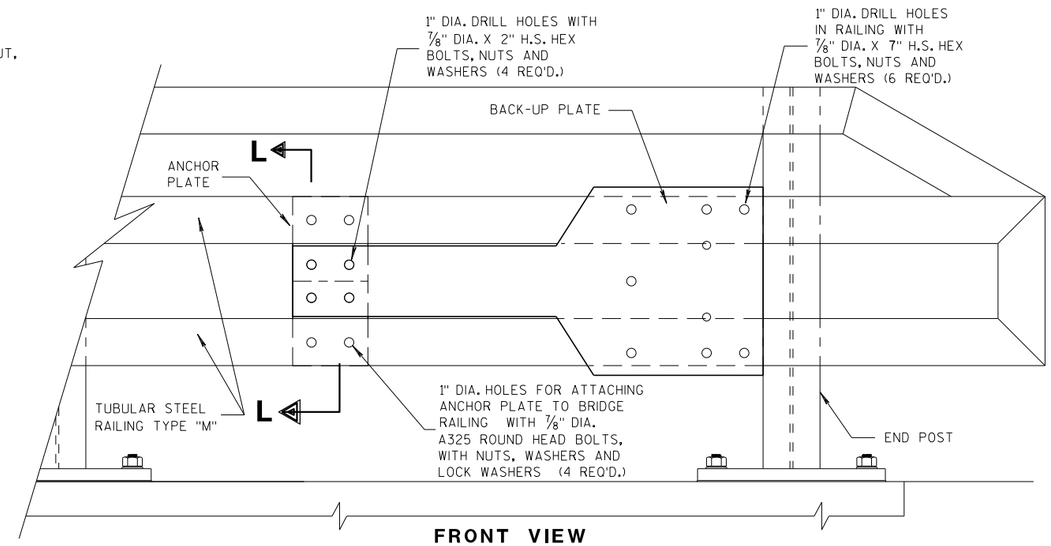
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

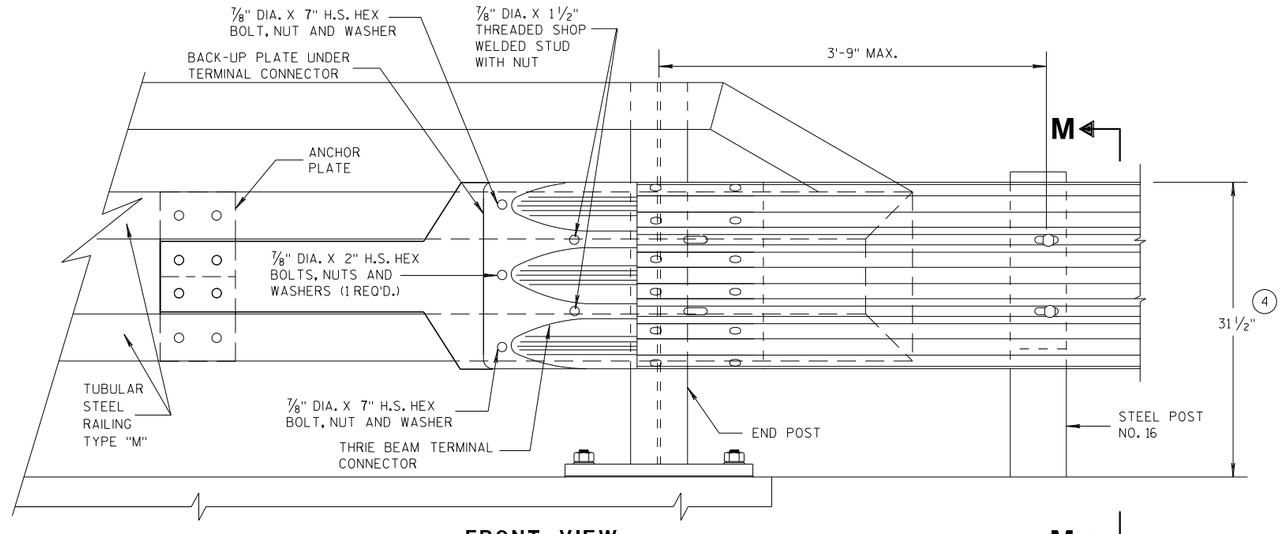


SECTION L-L

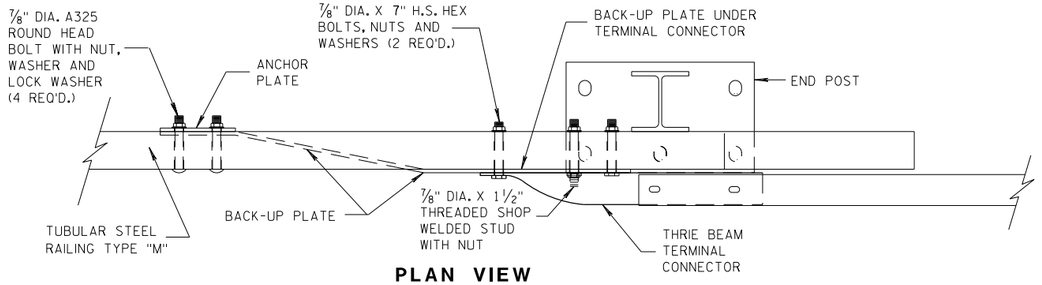


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR

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GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

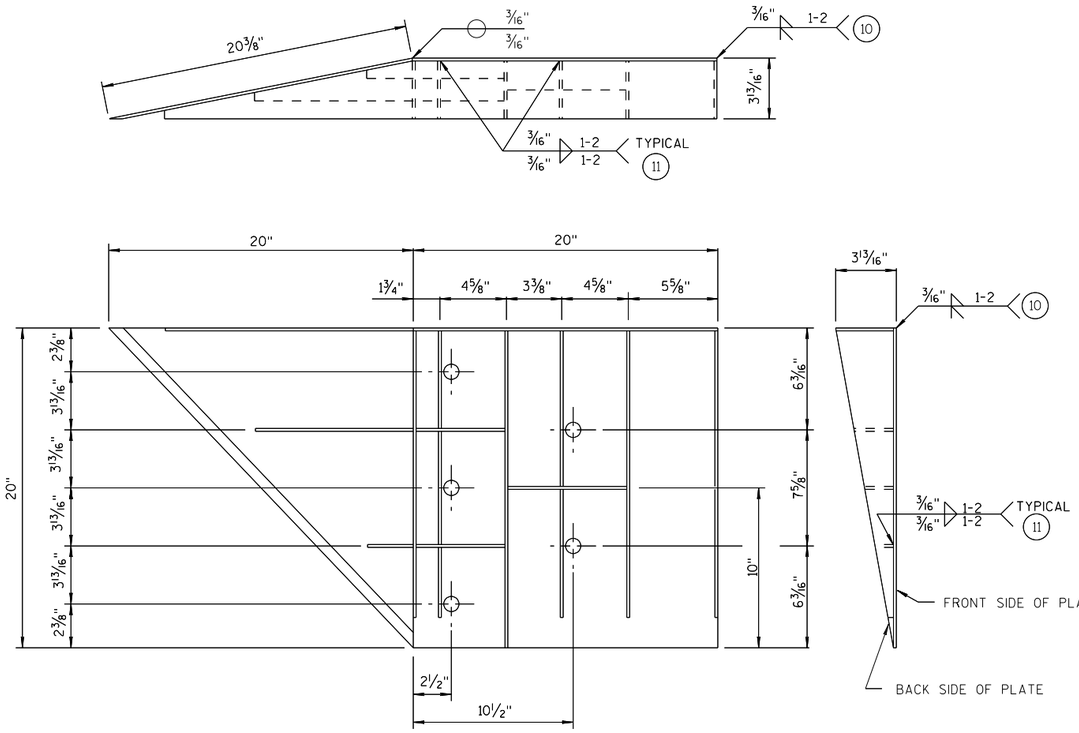
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

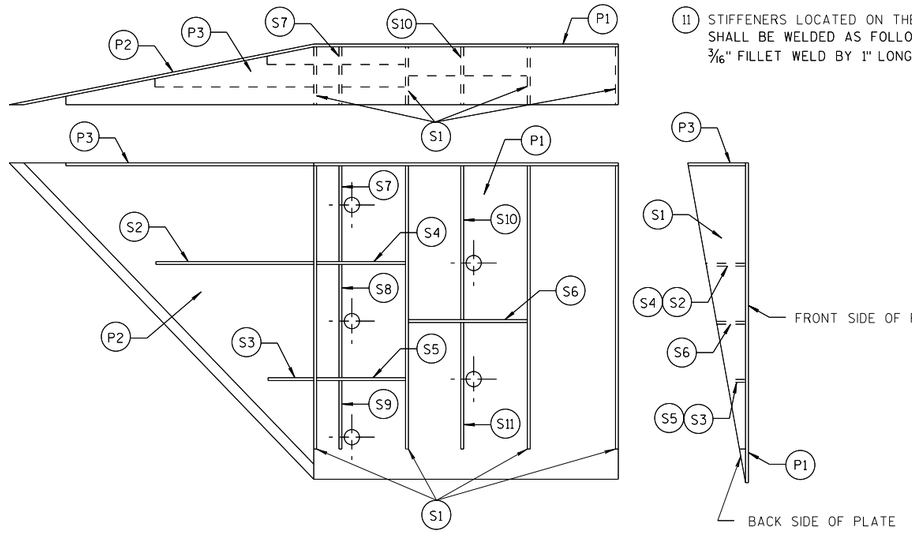


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

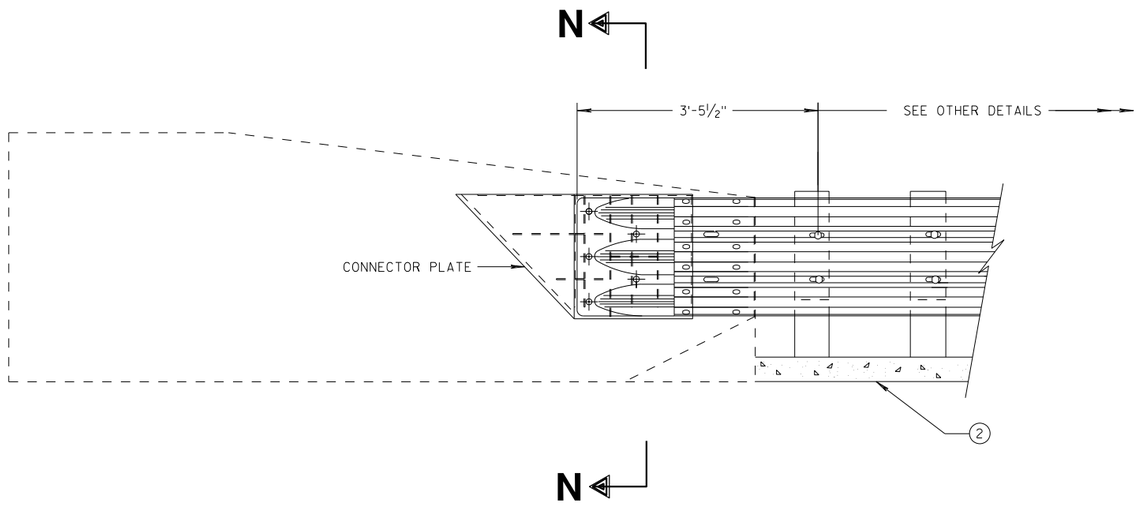
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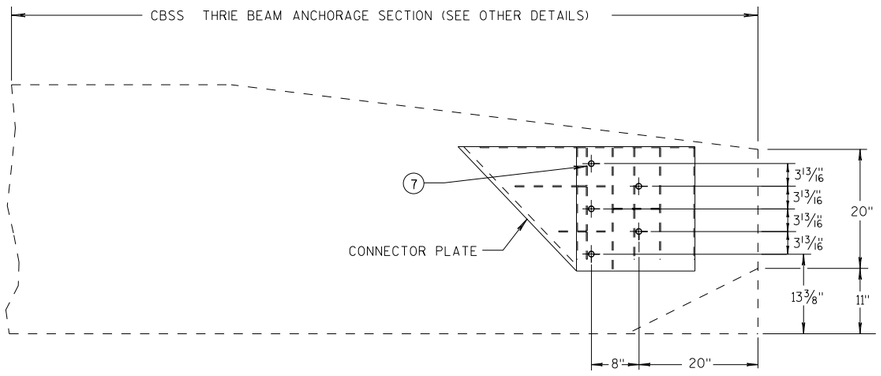
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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



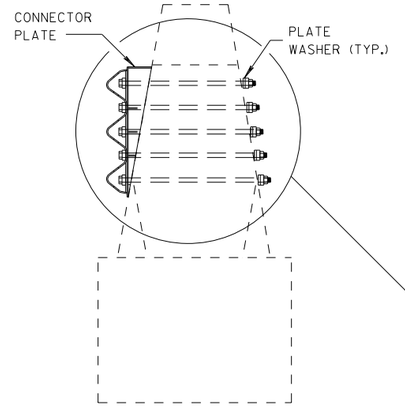
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

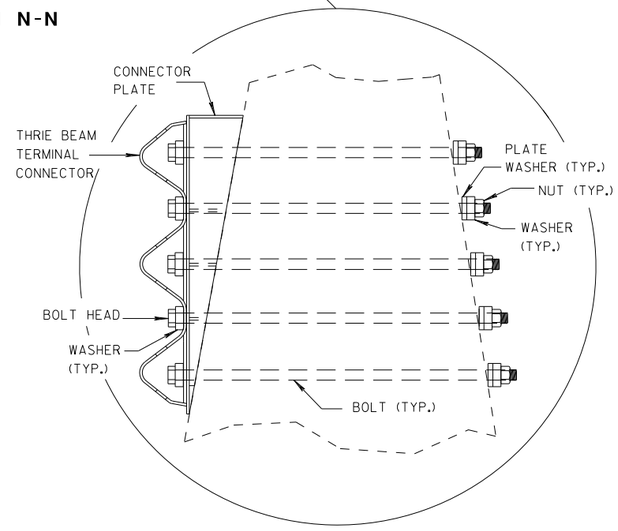
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) 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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

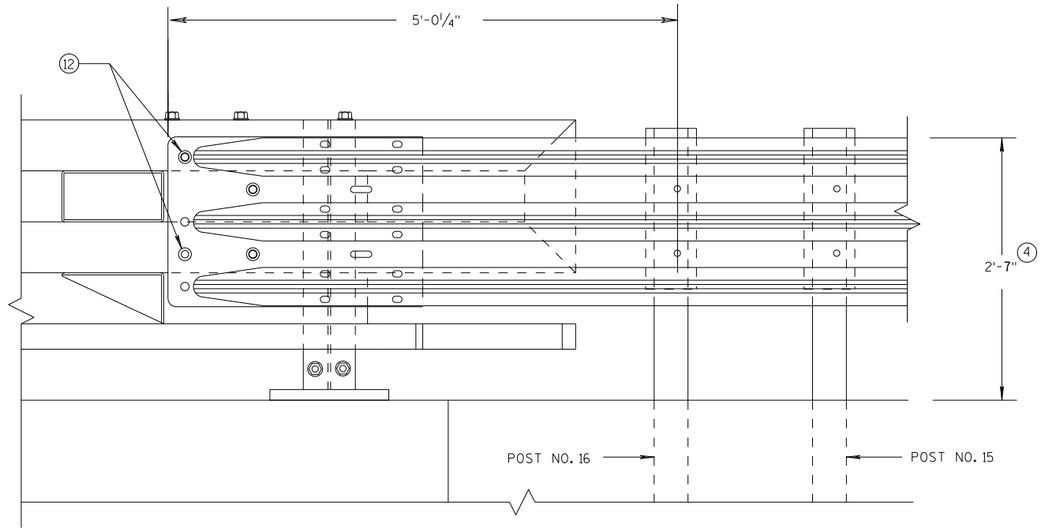
STATE OF WISCONSIN
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UNIT SUPERVIS

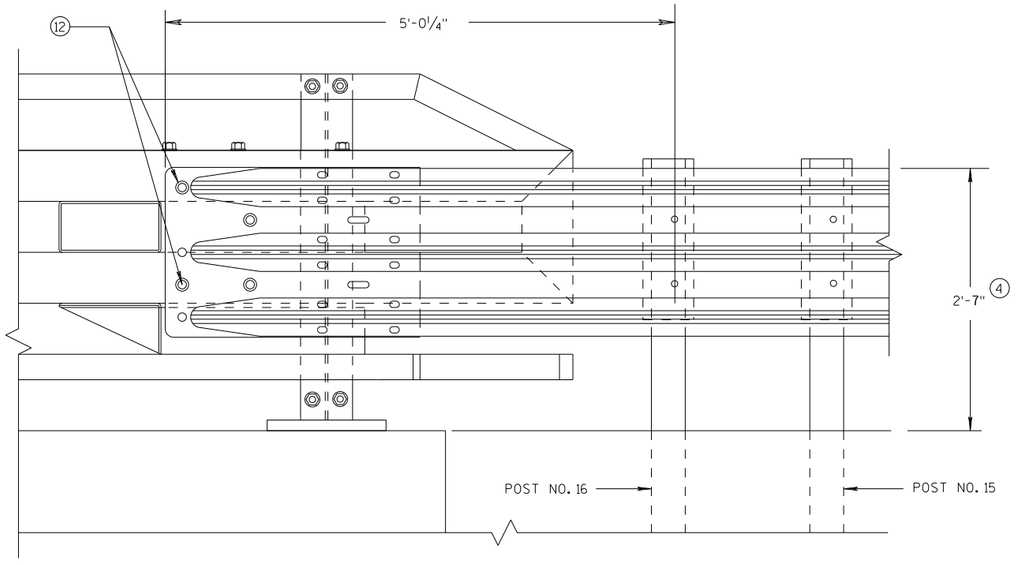
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S.D.D. 14 B 45-5j



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)

STATE OF WISCONSIN
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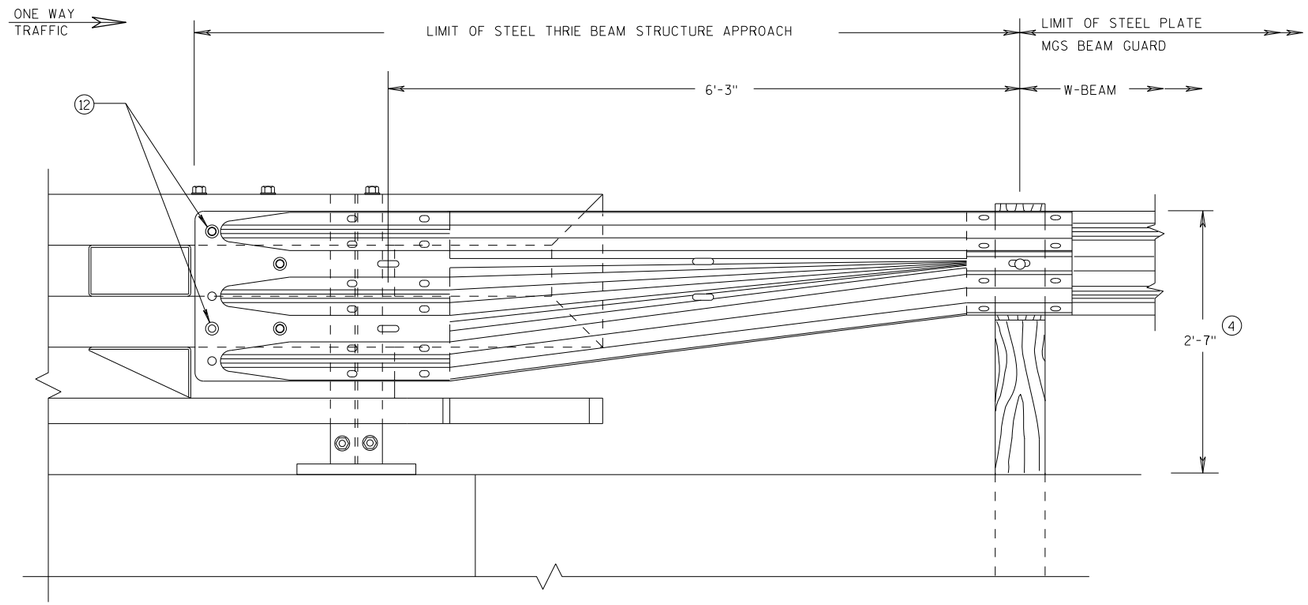
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S.D.D. 14 B 45-5k

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S.D.D. 14 B 45-5k



FRONT VIEW

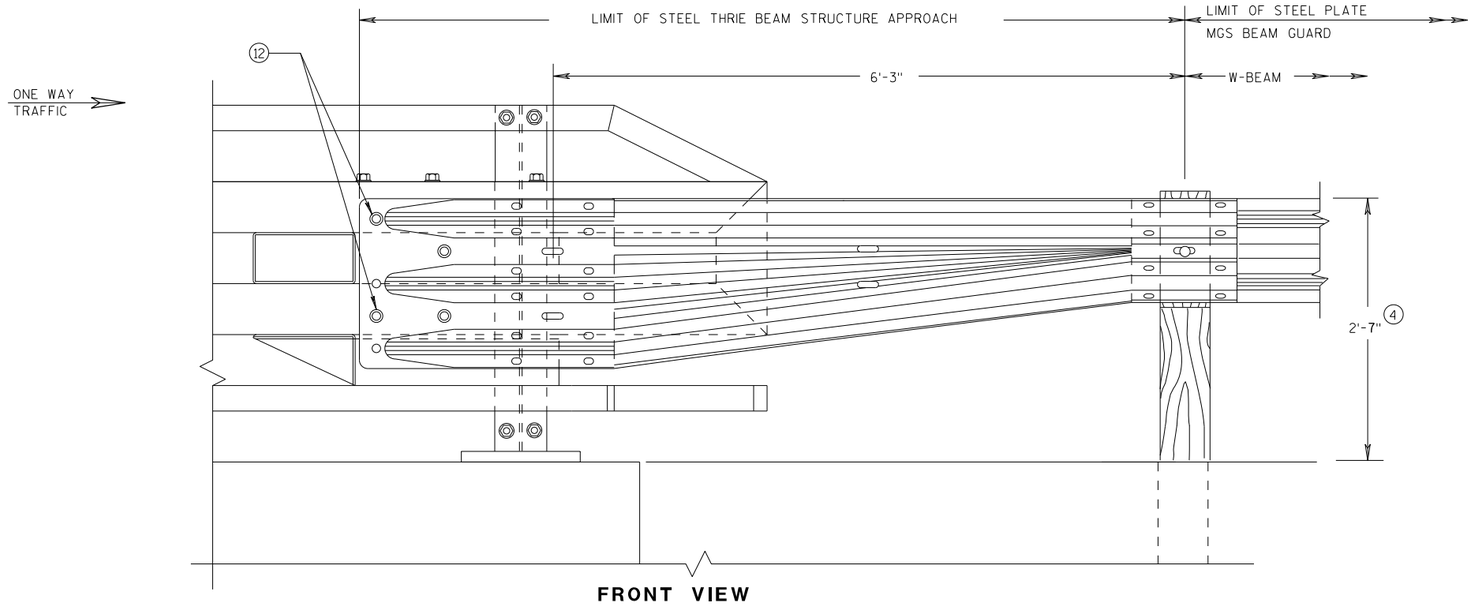
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

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.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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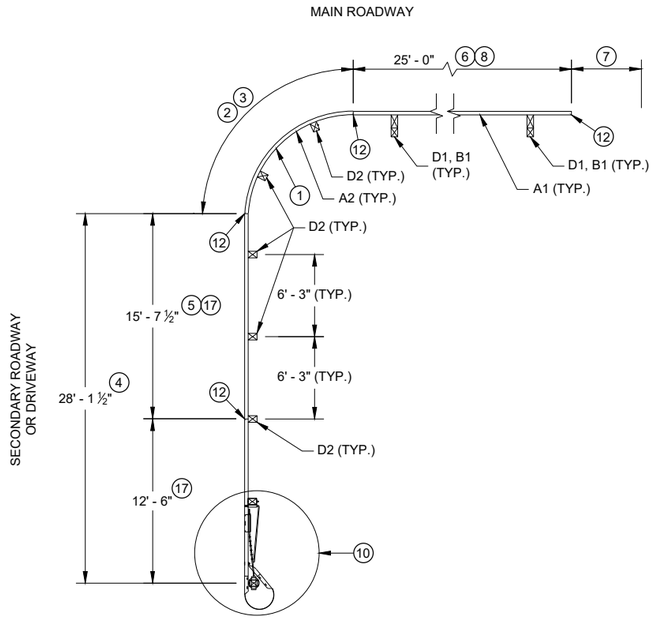
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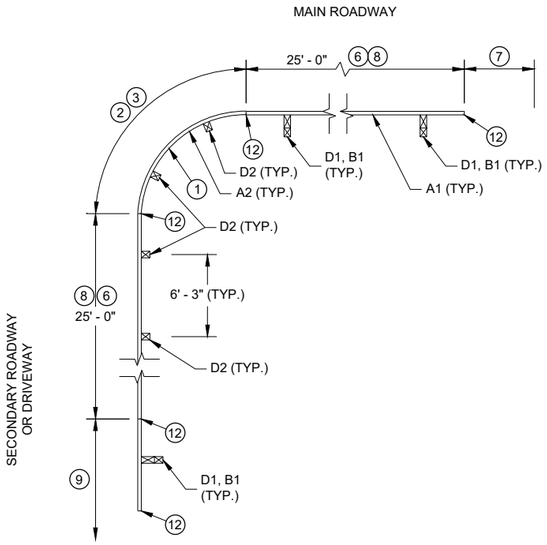
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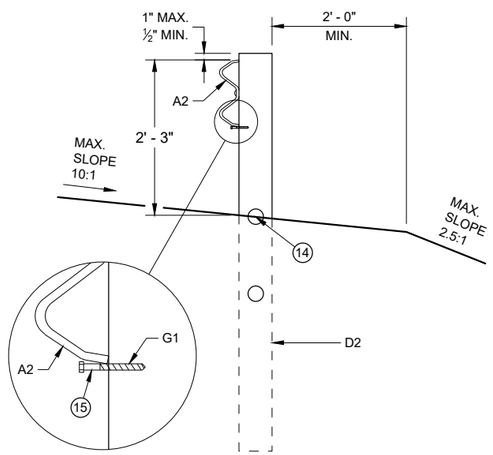
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

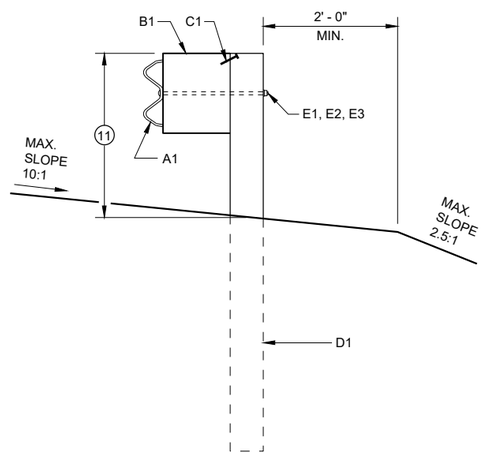


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



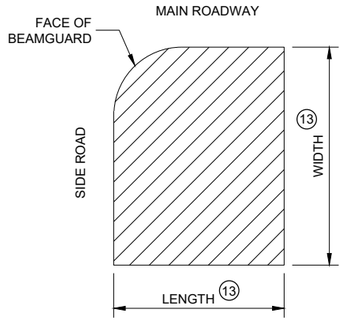
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



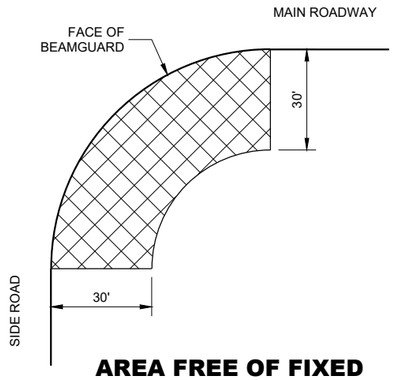
BEAM GUARD POSTS IN HEIGHT TRANSITION

TABLE FOR RADIUS OF 32' AND LESS

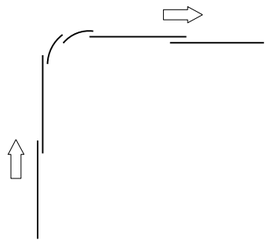
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (8).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

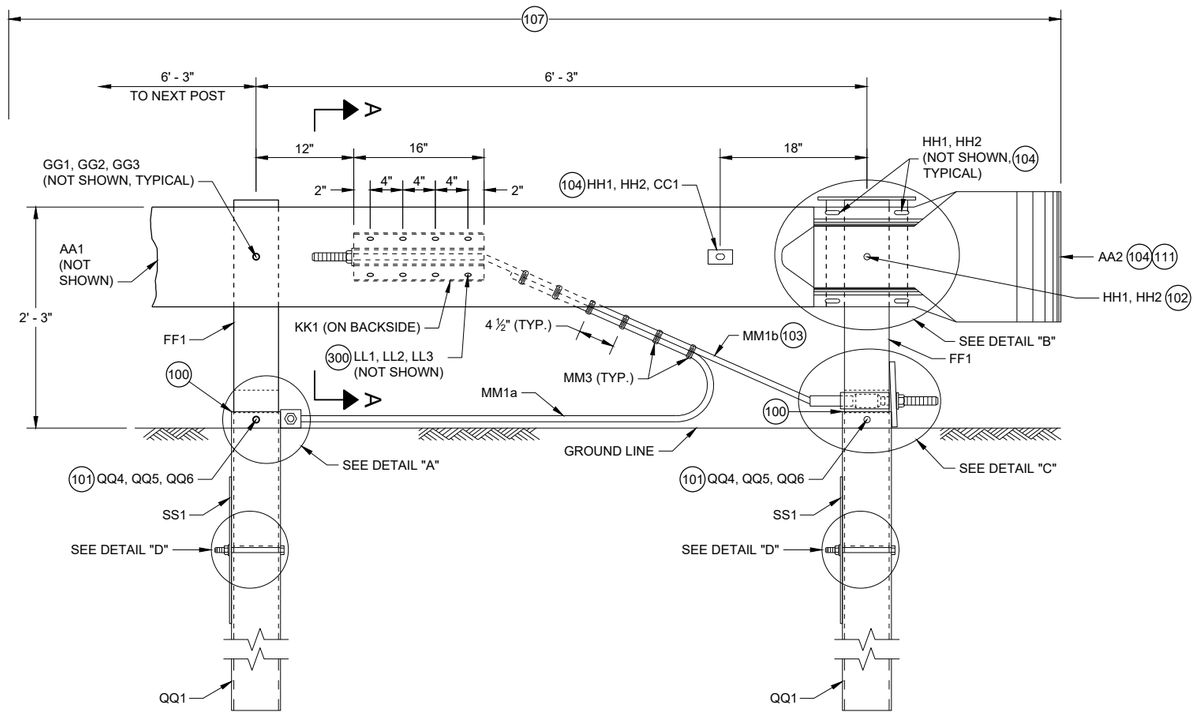
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SDD 14B53 - 02a

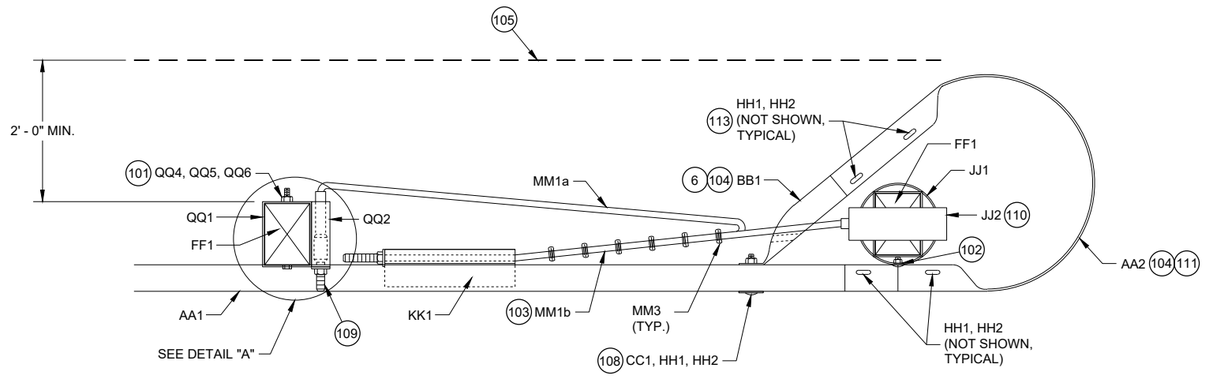
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SDD 14B53 - 02a



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

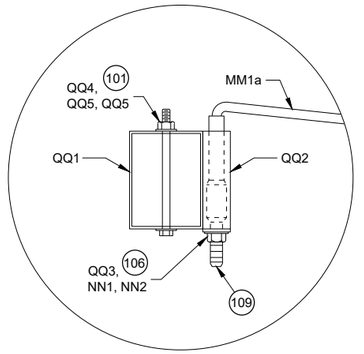
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

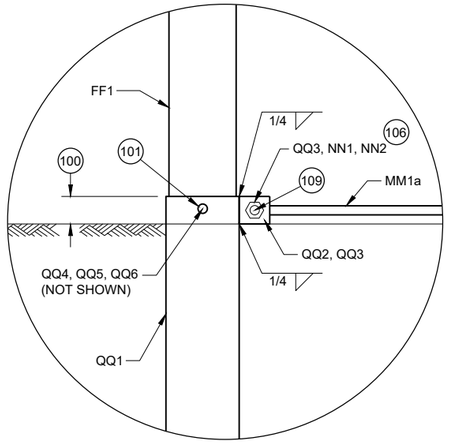
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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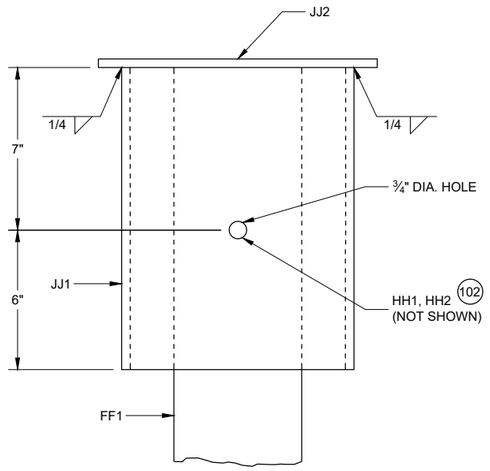
SDD 14B53 - 02b

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SDD 14B53 - 02b

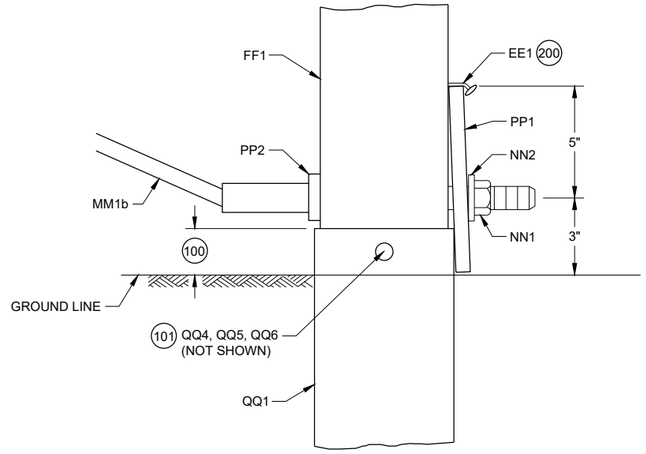
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



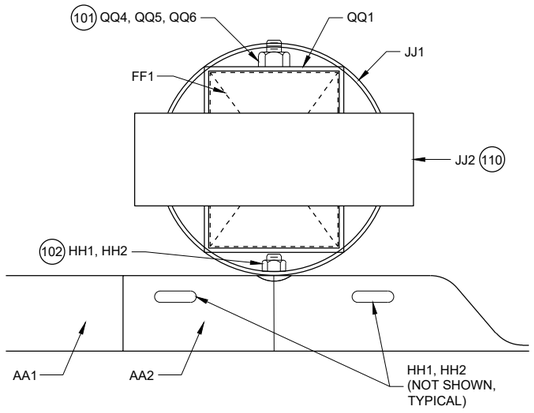
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



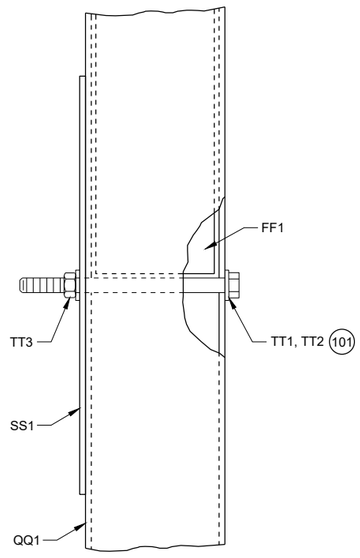
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

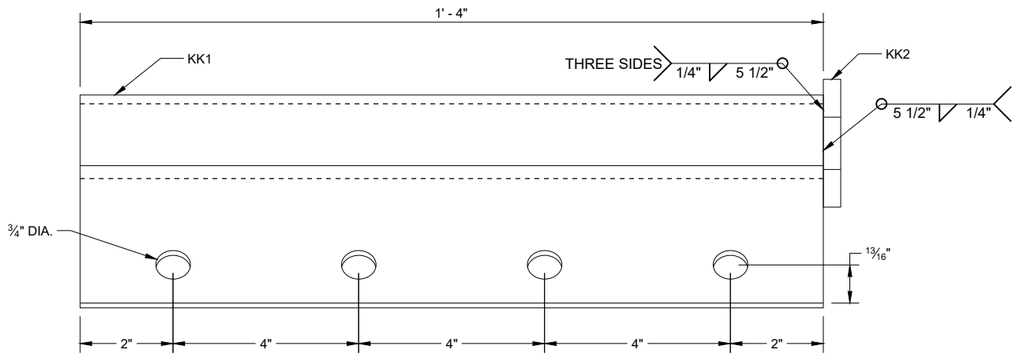
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

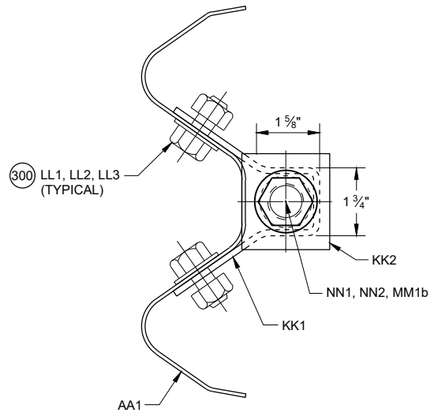
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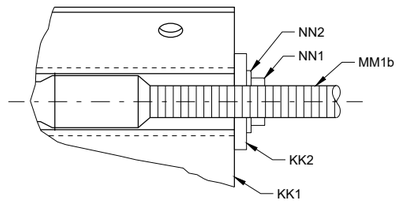
SDD 14B53 - 02c

GENERAL NOTES

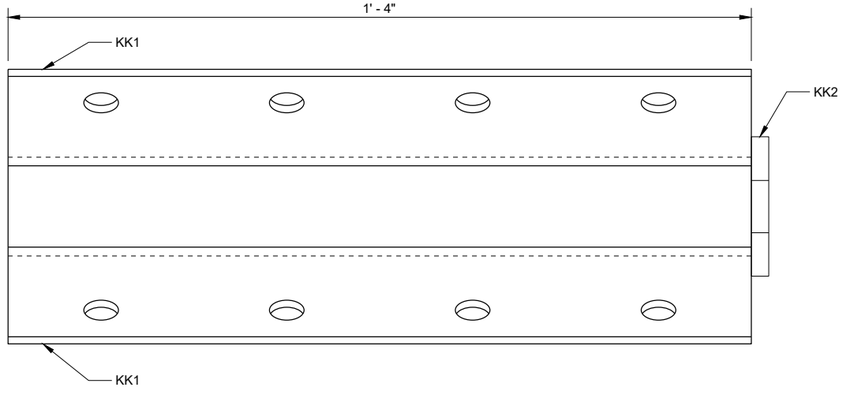
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

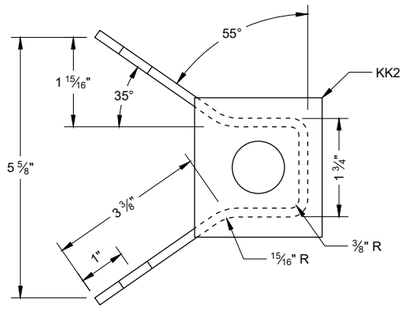




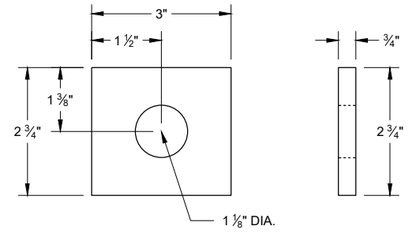


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

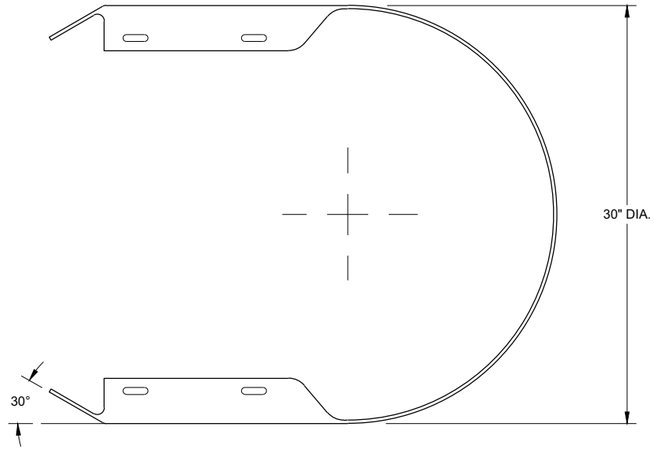
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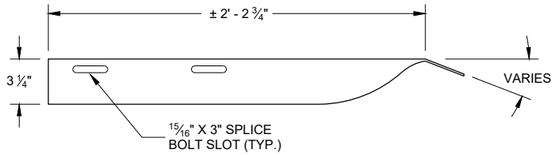
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

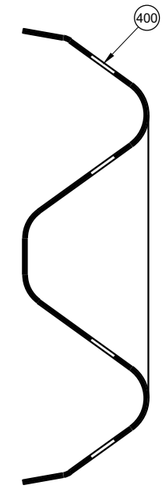
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



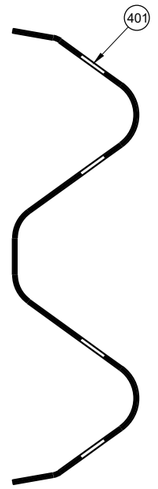
TOP VIEW



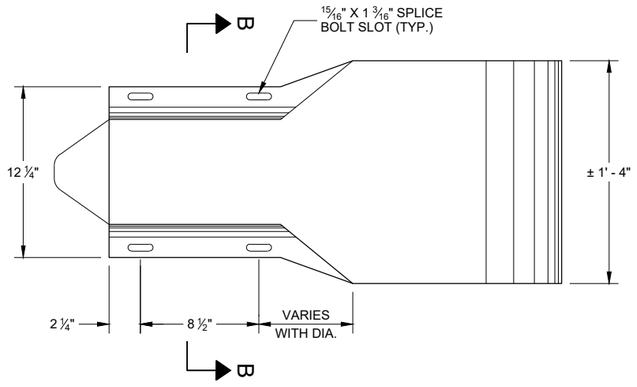
TOP VIEW



SECTION B -B

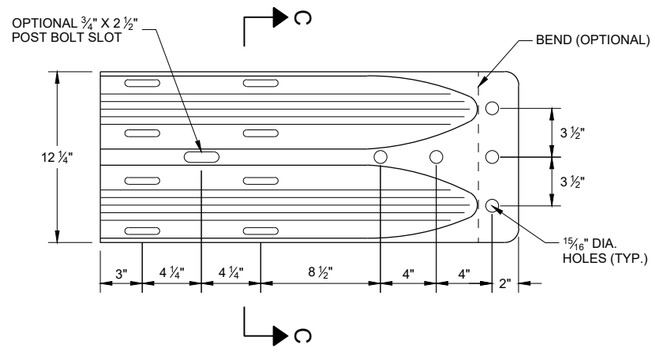


SECTION C -C



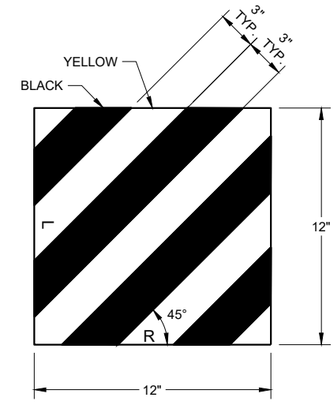
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)

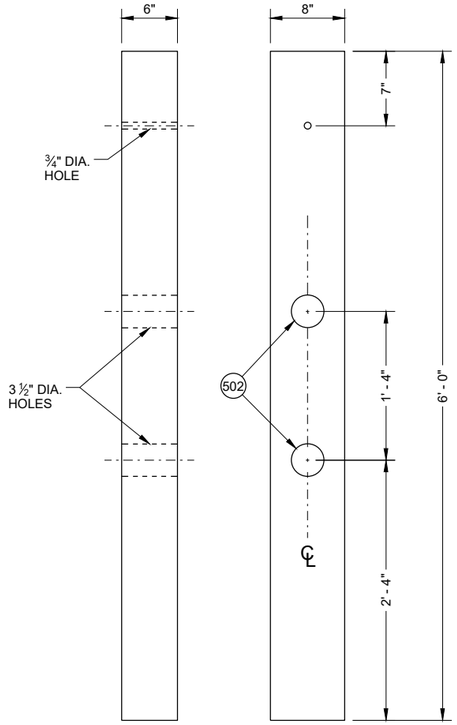


REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

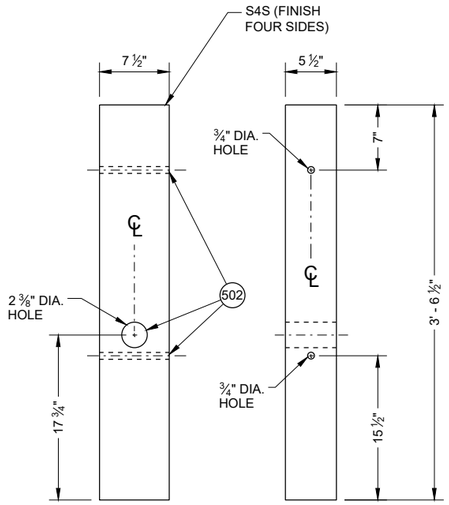
SDD 14B53 - 02e

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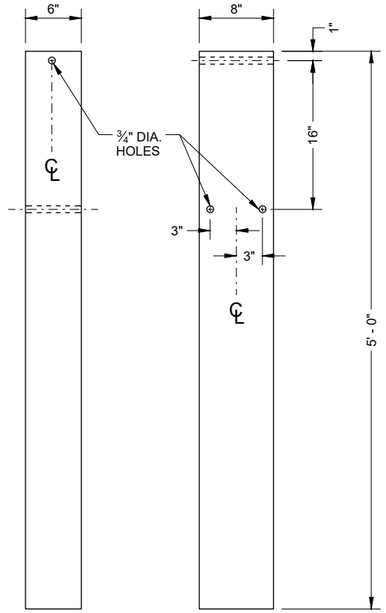
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) 500

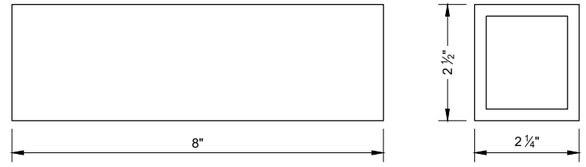
GENERAL NOTES

500 SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

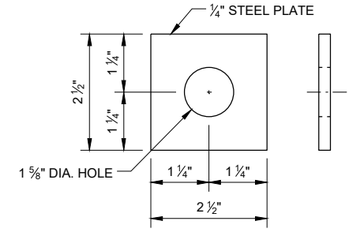
501 FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

502 LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

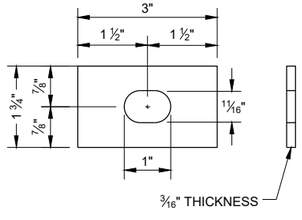
503 MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE 109.



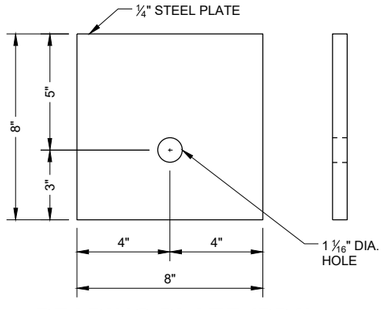
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



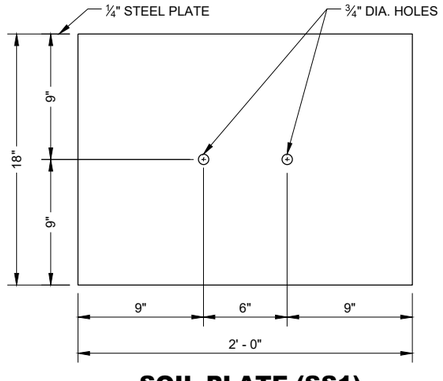
ANCHOR CABLE TUBE END PLATE (QQ3)



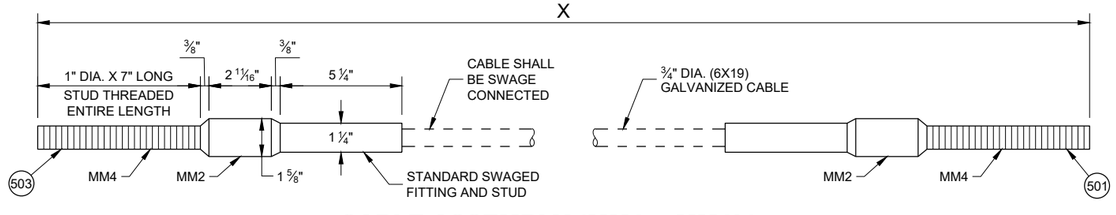
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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SDD 14B53 - 02g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B53 - 02h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

6

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SDD 14B53 - 02i

SDD 14B53 - 02i

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

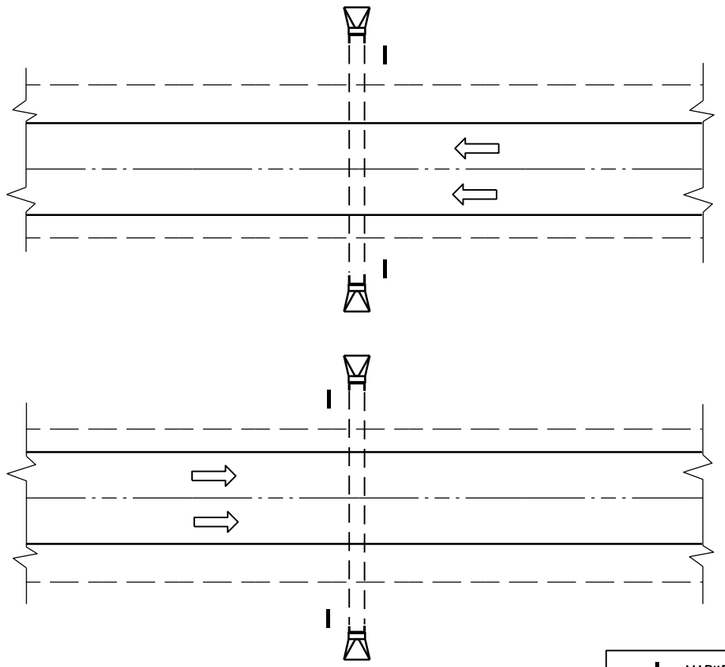
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

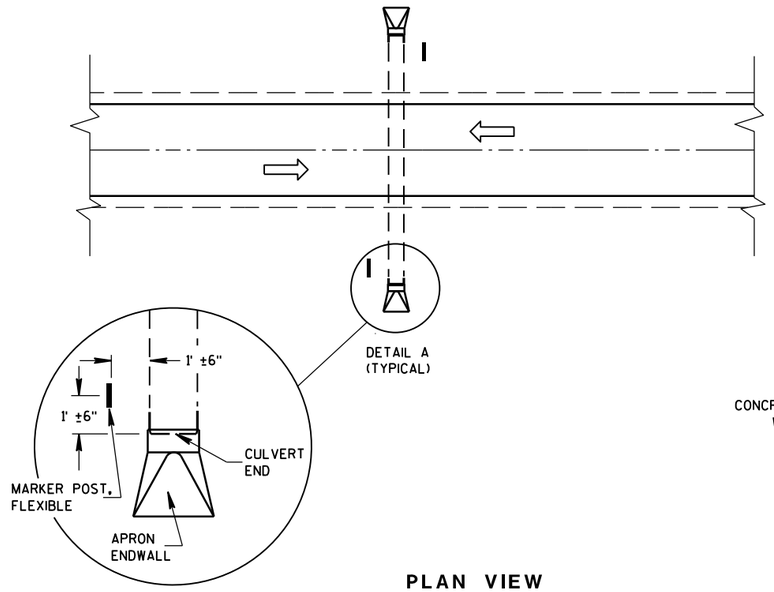
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

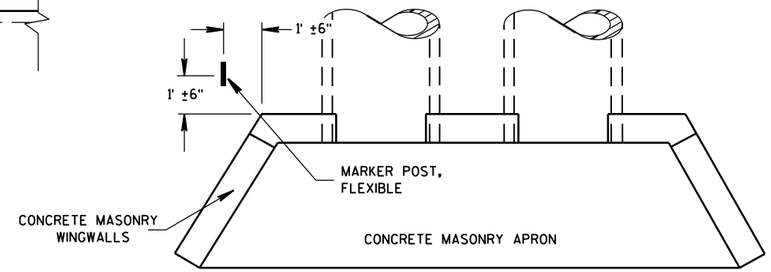
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

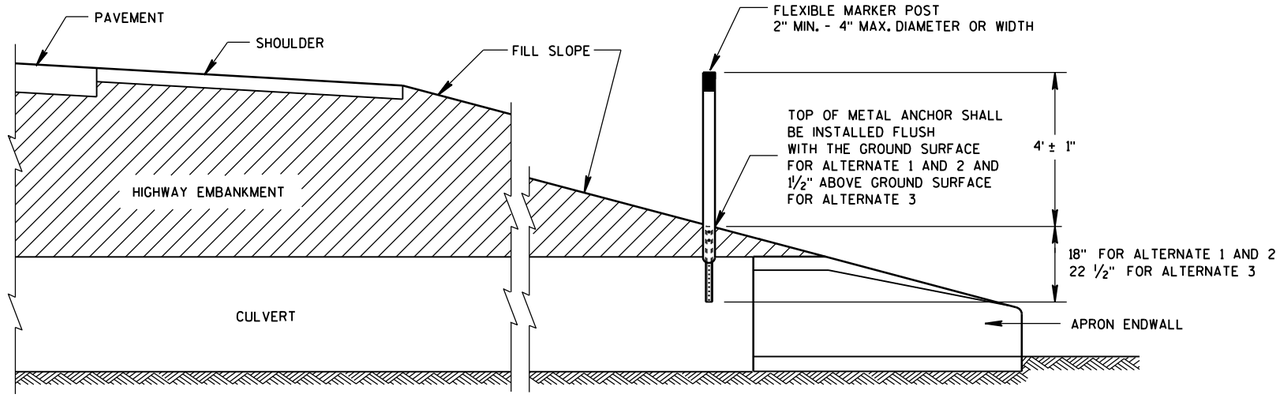
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

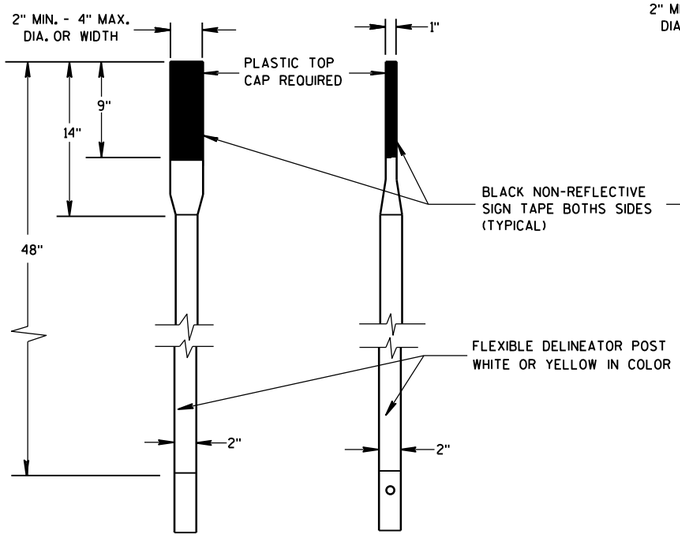
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

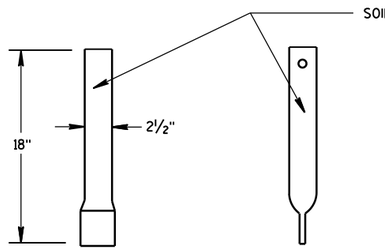
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S.D.D. 15 A 3-2a

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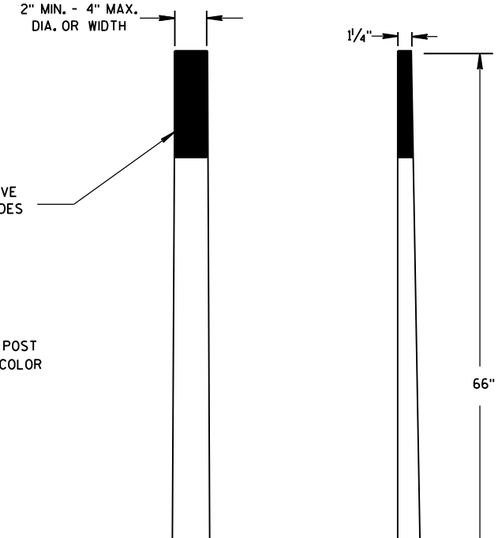
S.D.D. 15 A 3-2a





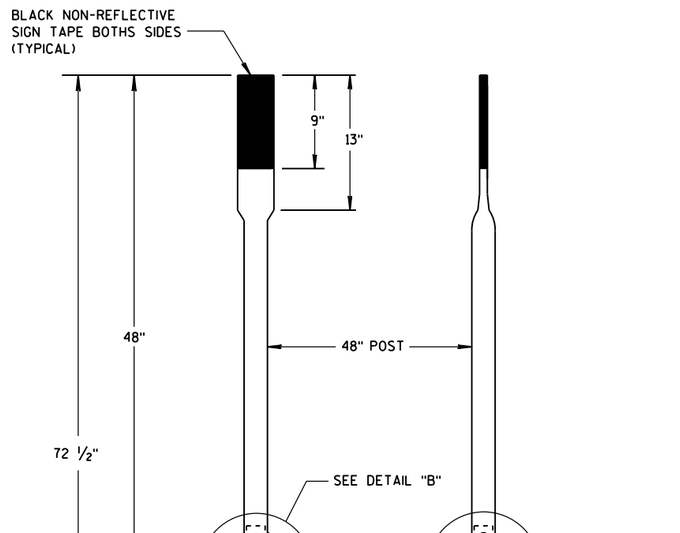
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

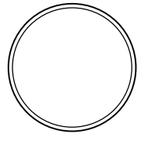
ALTERNATE 2



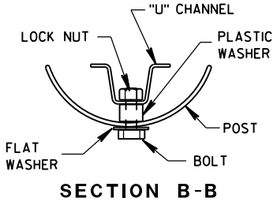
FRONT VIEW SIDE VIEW

ALTERNATE 3

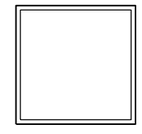
FLEXIBLE MARKER POSTS



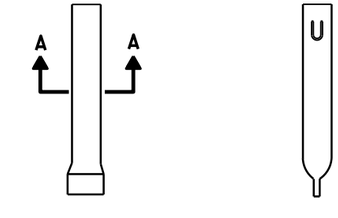
SECTION A-A



SECTION B-B

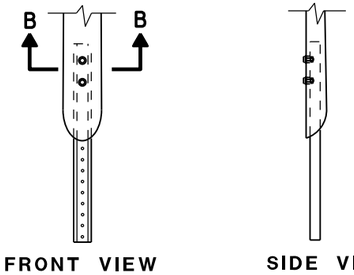


SECTION C-C



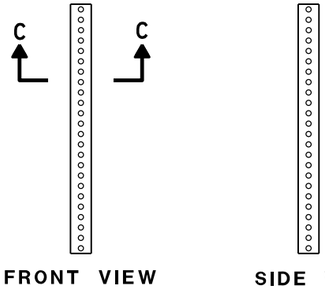
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

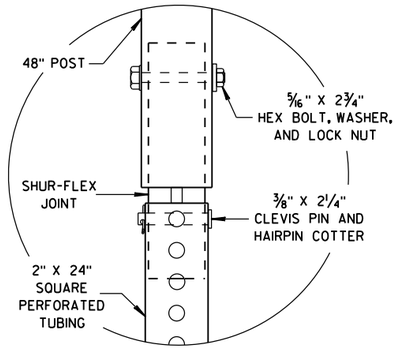
ALTERNATE 2



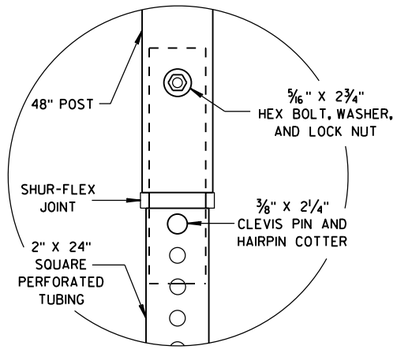
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

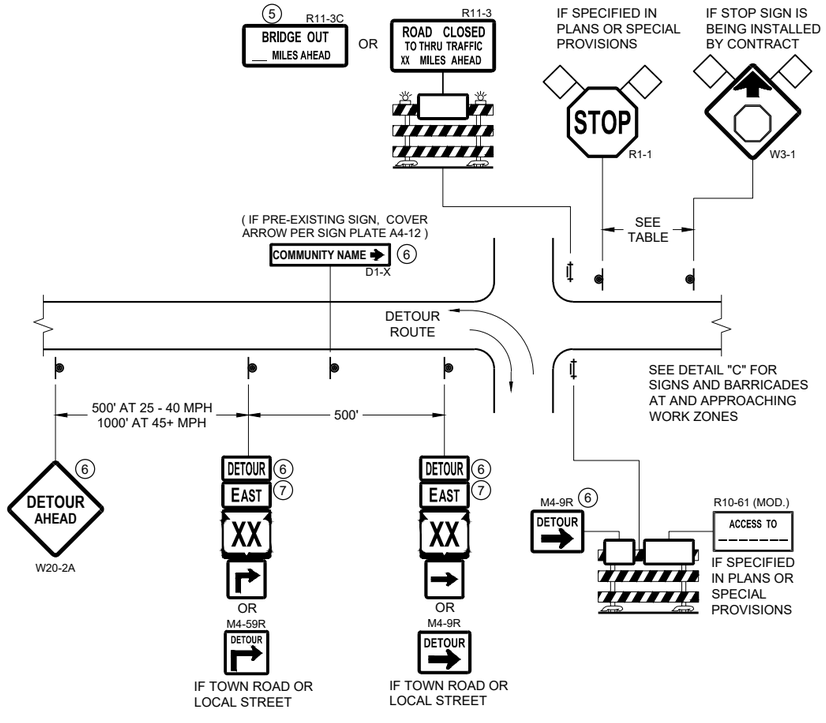
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

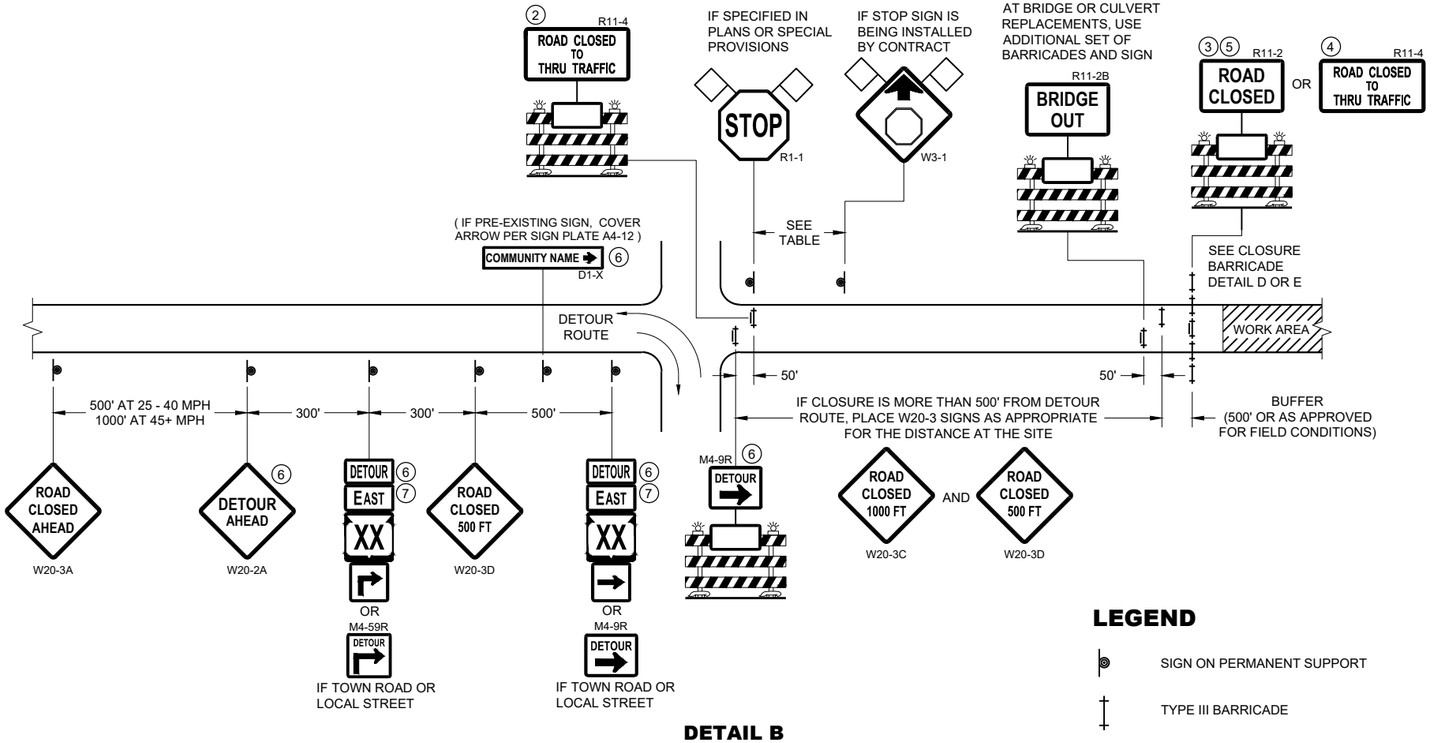
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S.D.D. 15 A 3-2b



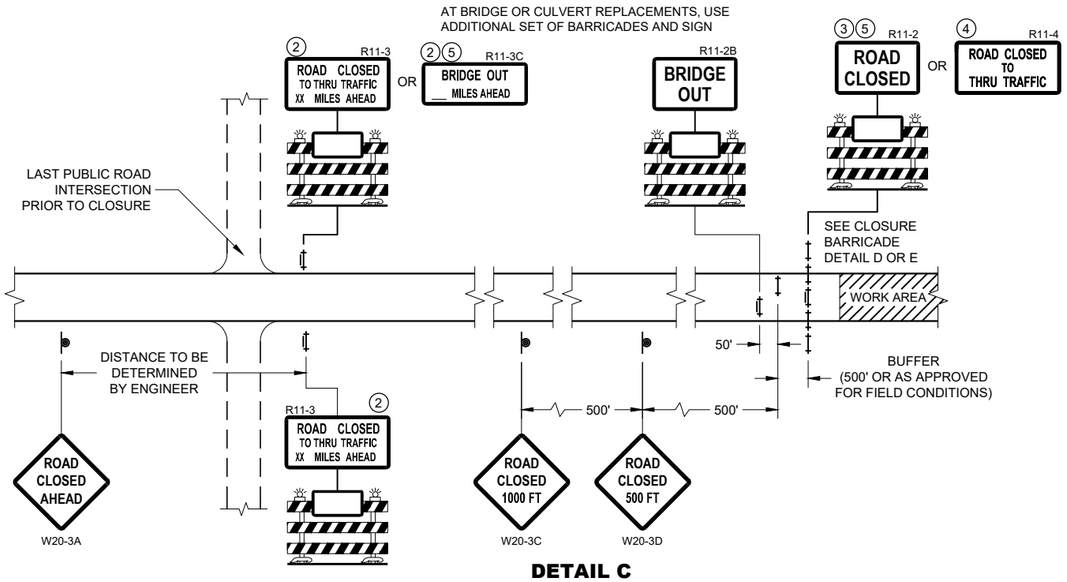
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

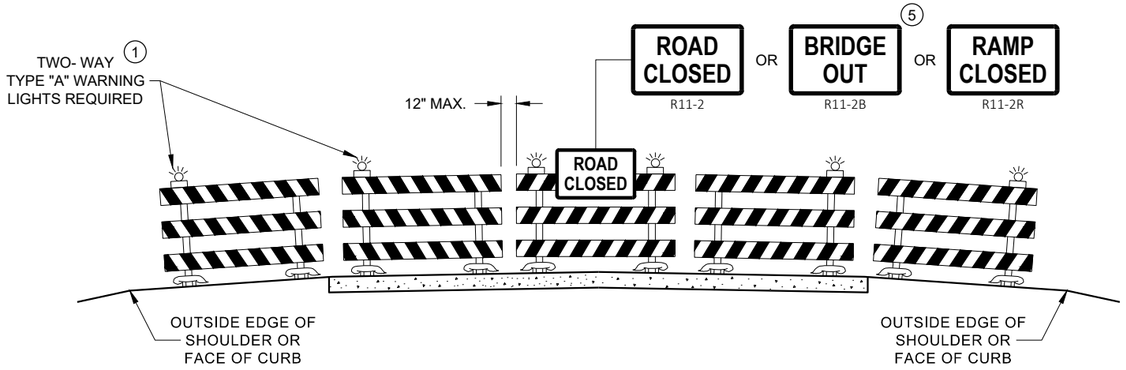
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

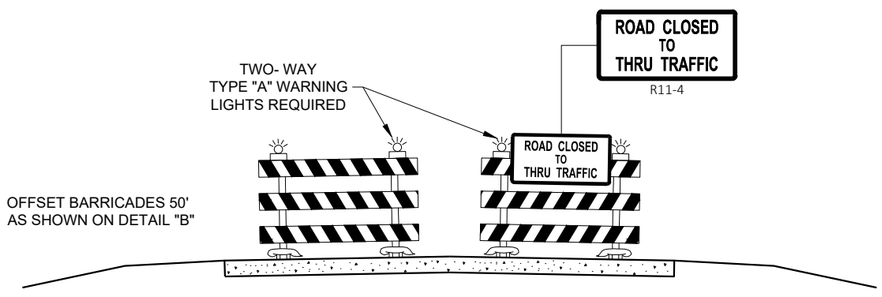
FHWA

SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

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

GENERAL NOTES

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

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

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

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

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

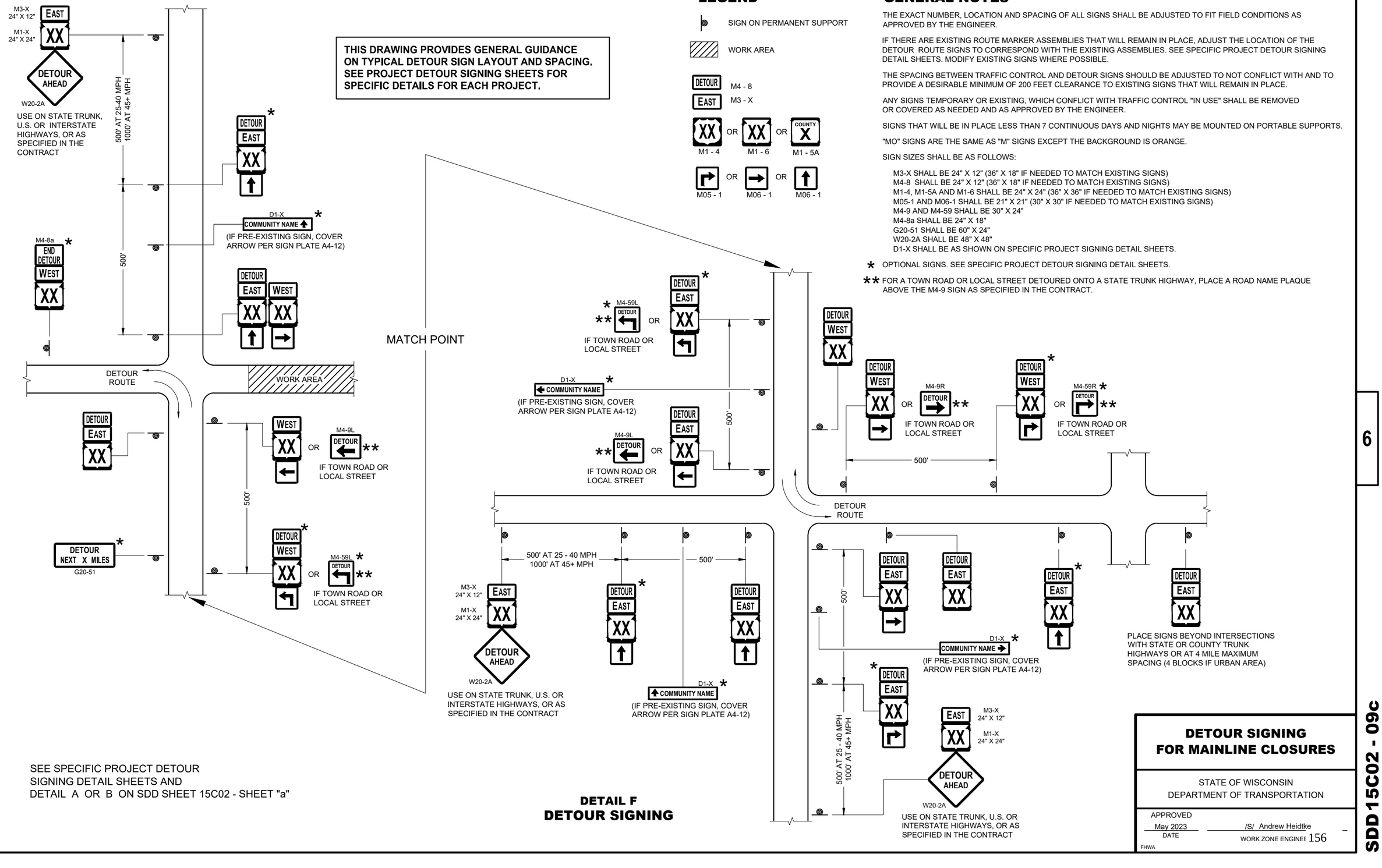
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

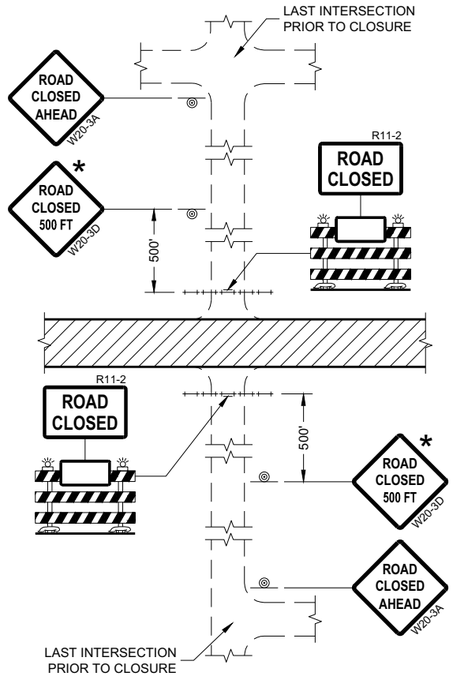
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

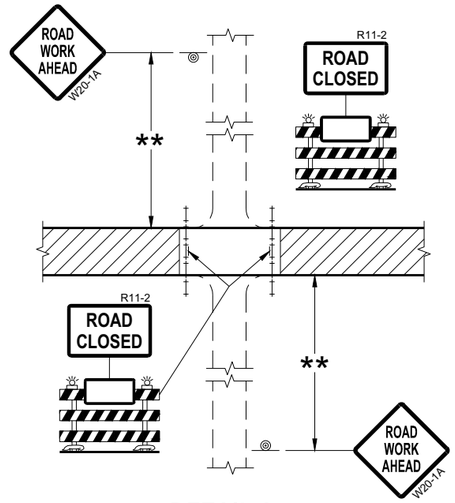
FHWA

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SDD 15C02 - 09c



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

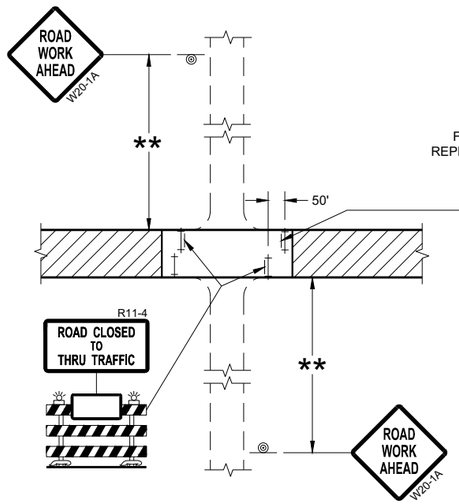
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

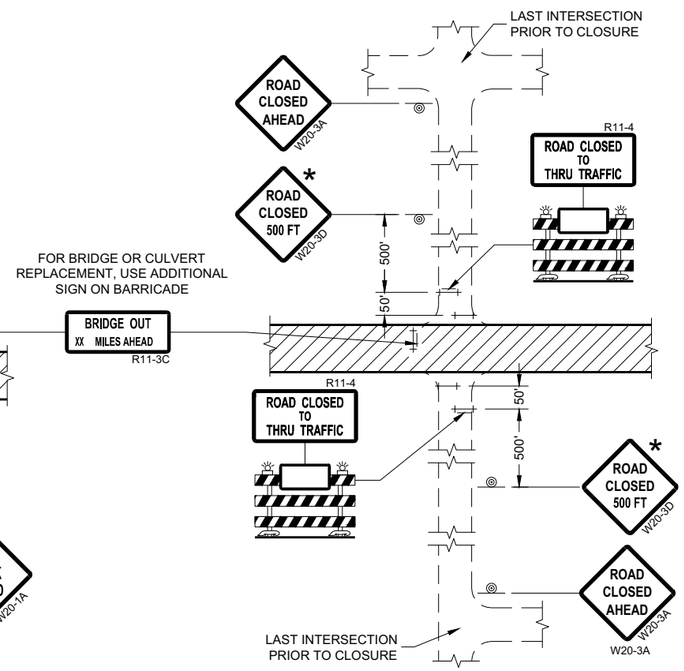
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

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

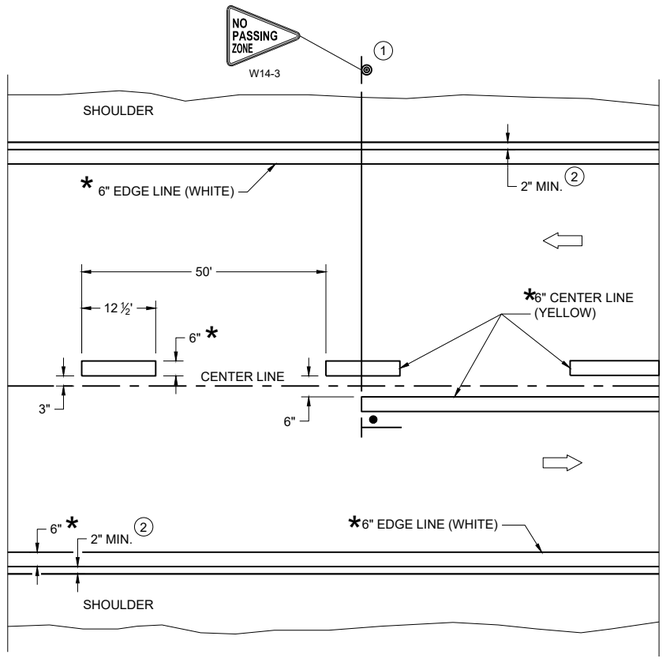
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

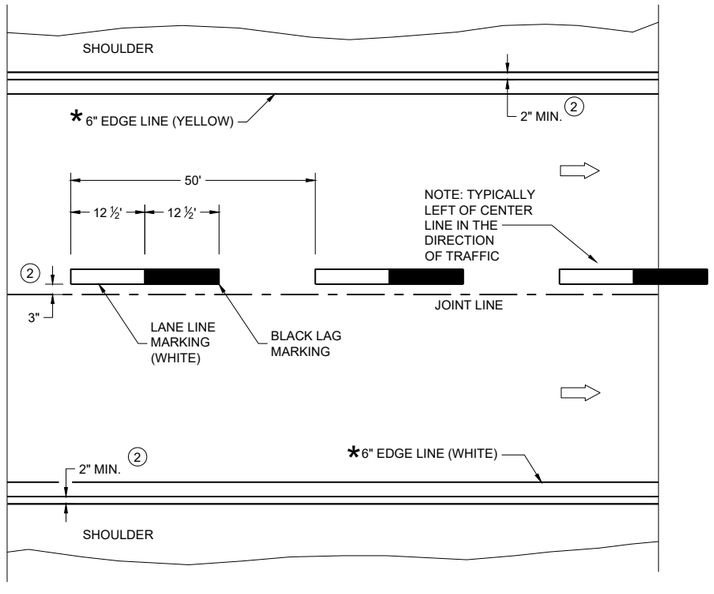
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

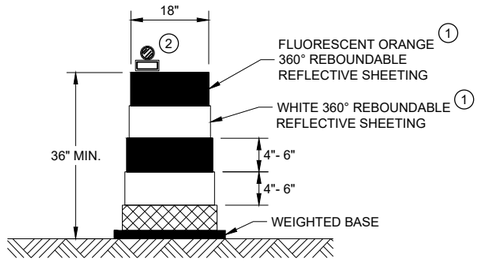
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

SDD 15C08-23a

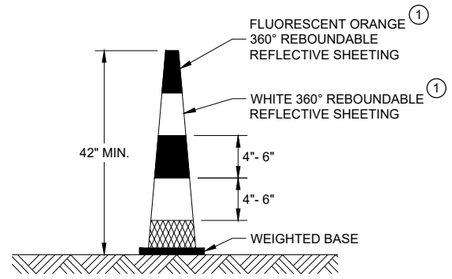
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

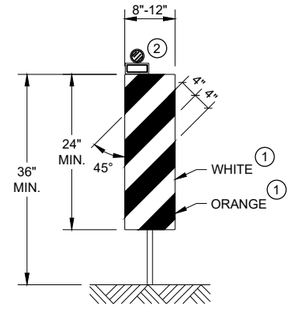
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

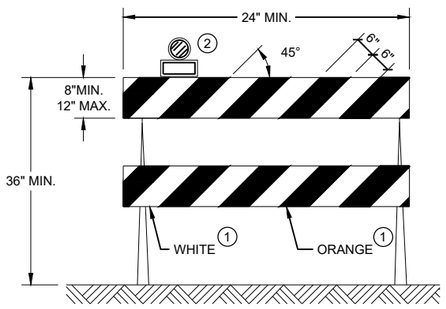
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



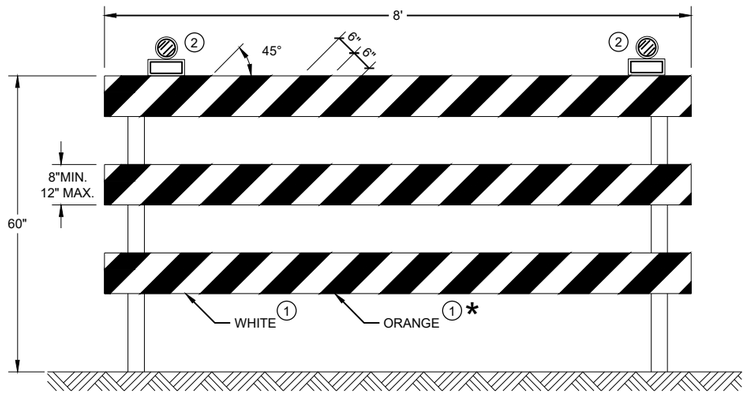
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

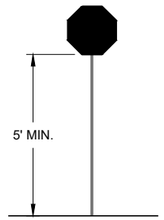
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

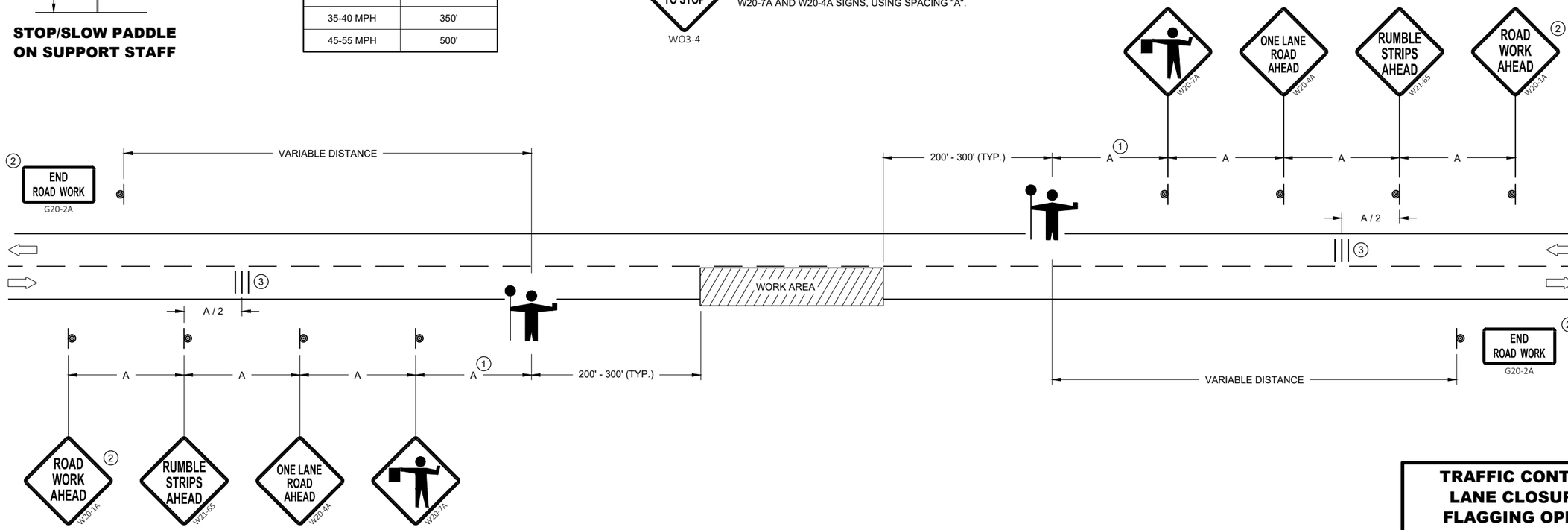
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

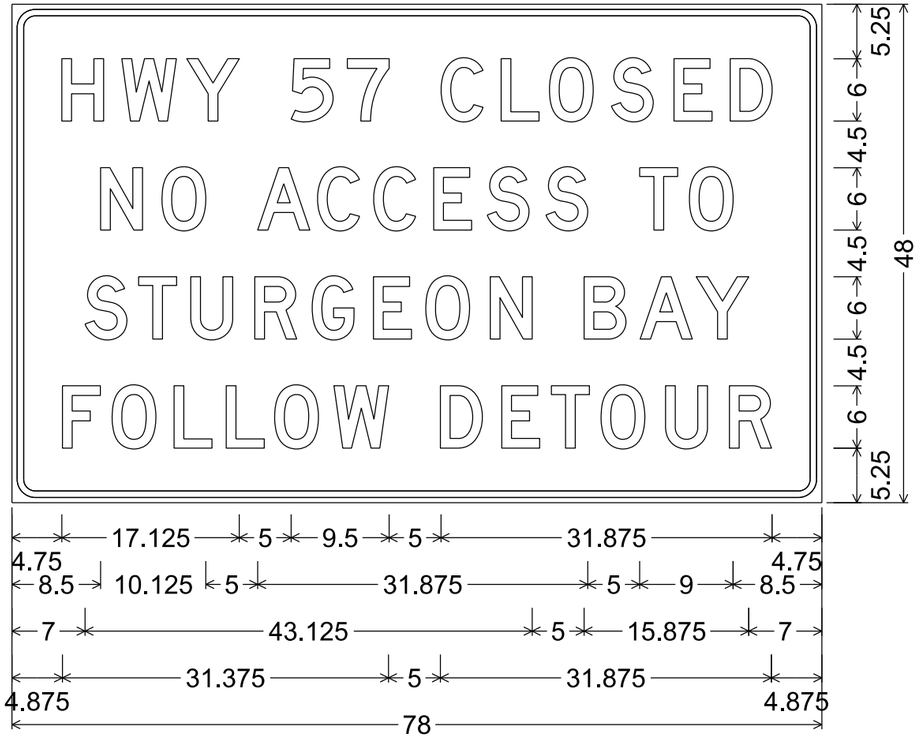
FHWA

6

SDD 15C12 - 09a

6

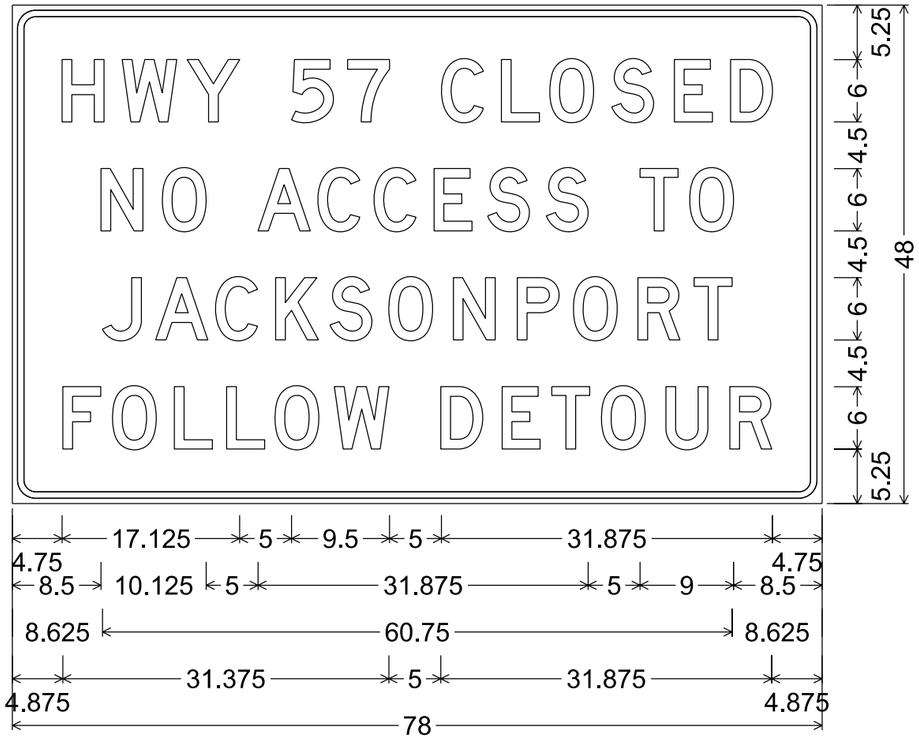
SDD 15C12 - 09a



2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

1. Fixed Message Type II Signs - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

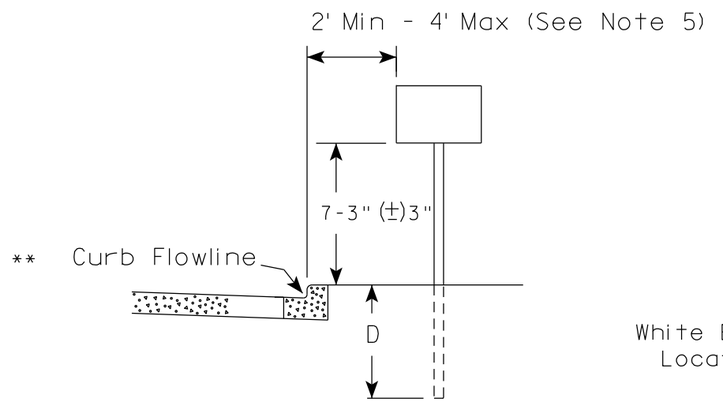


2.250" Radius, 0.625" Border, 0.500" Indent

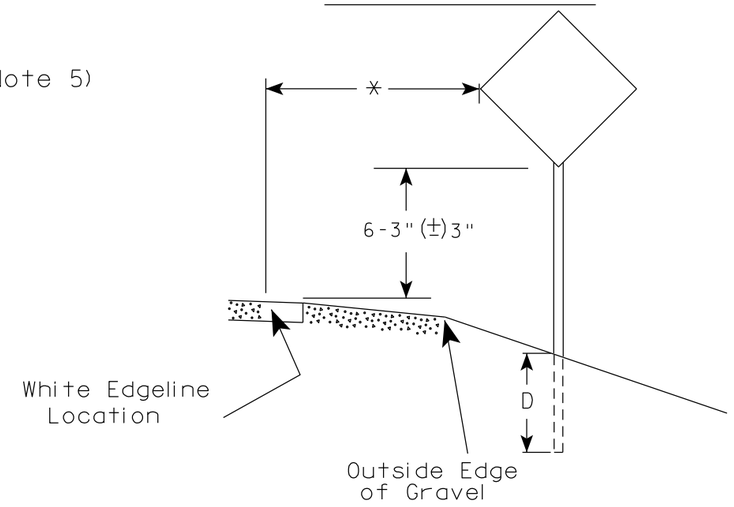
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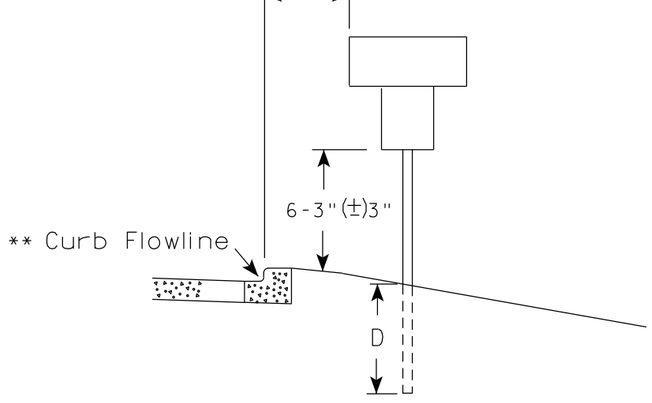
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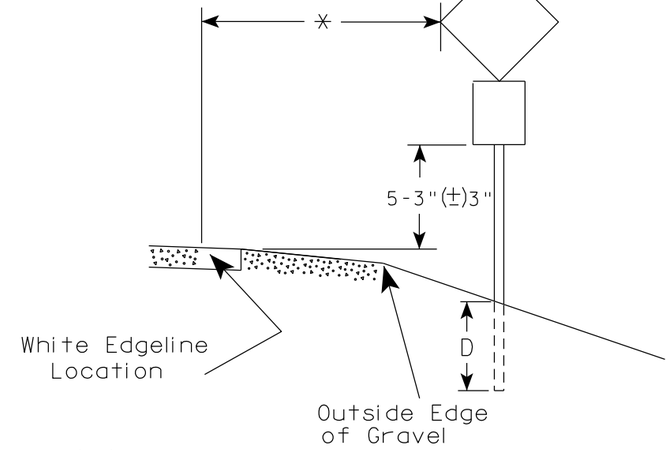
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

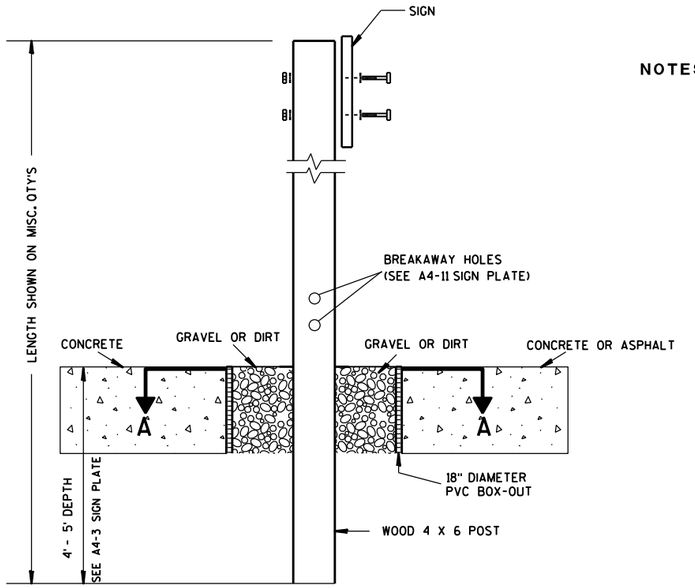
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

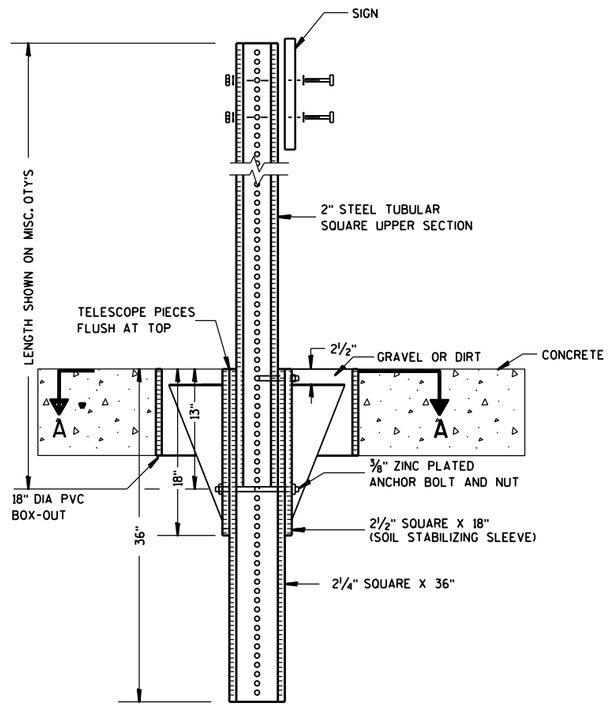
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E



ELEVATION VIEW

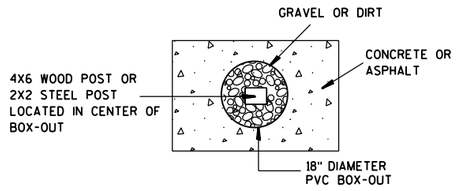
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

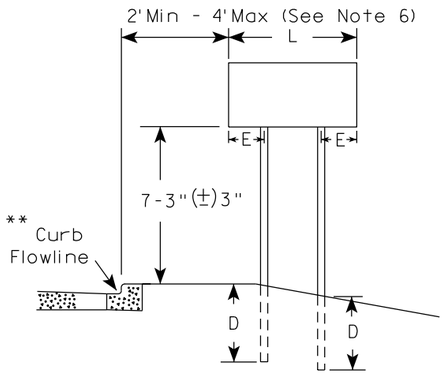
APPROVED Matthew R Rauch
for State Traffic Engineer

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

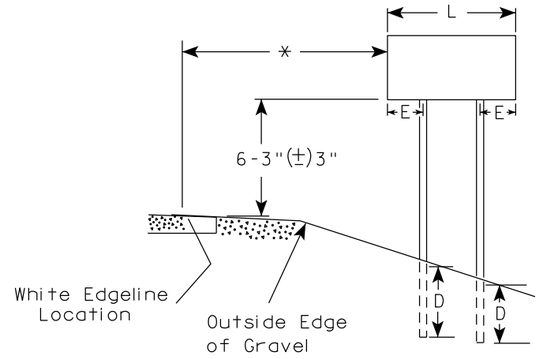
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

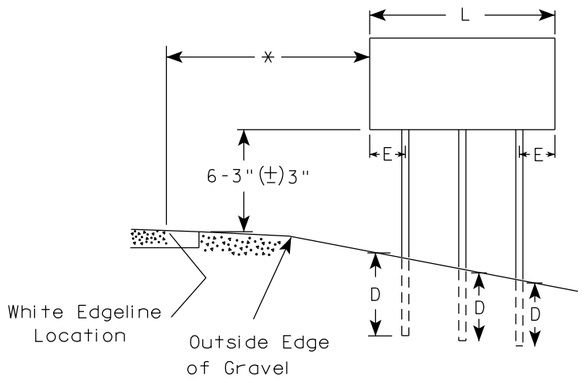
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

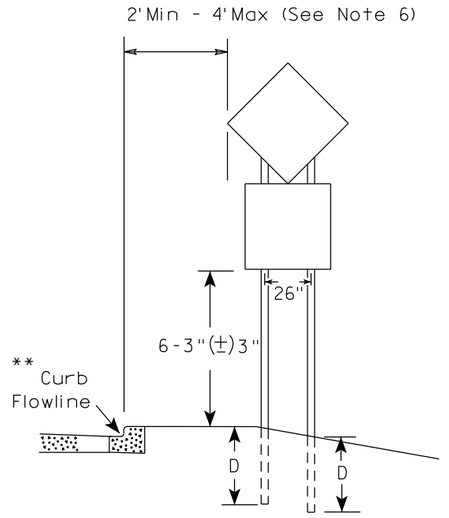
URBAN AREA



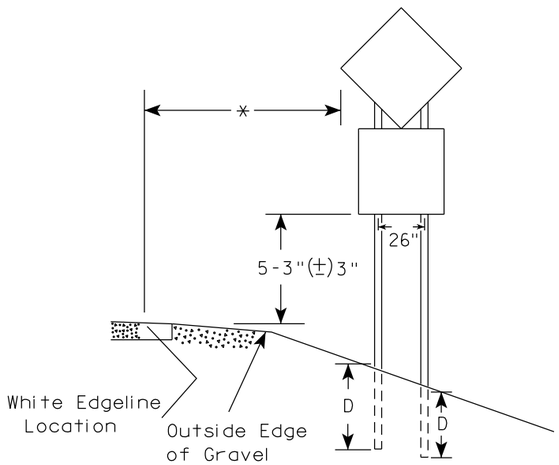
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

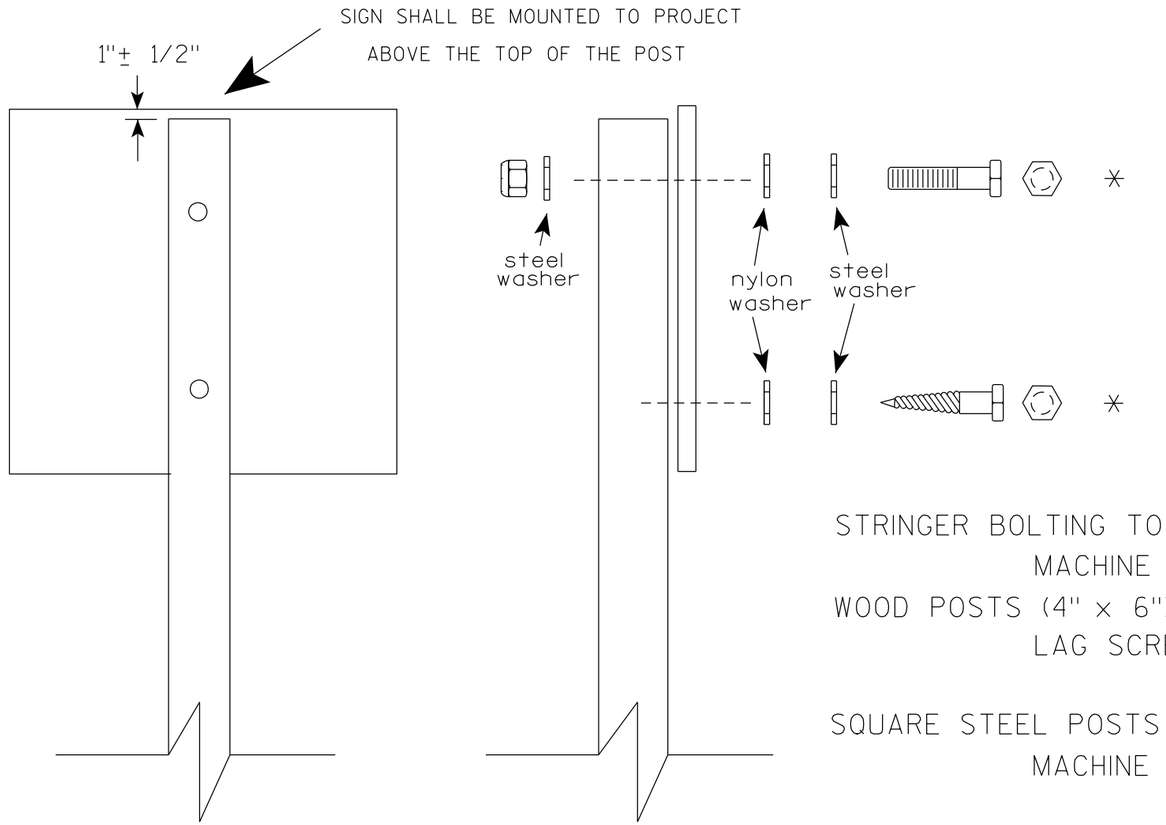
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 164	E



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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

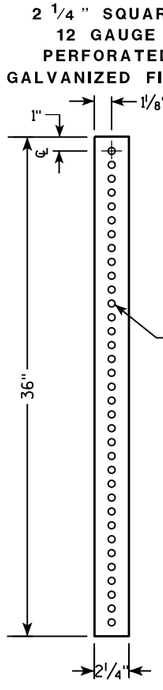
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

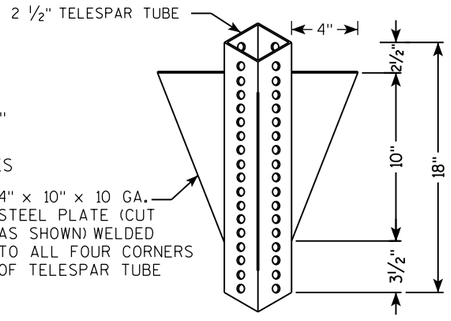
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

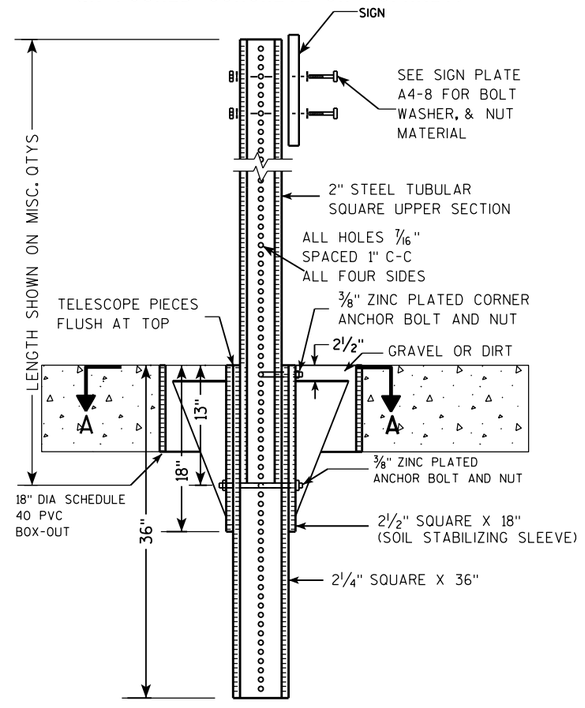
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



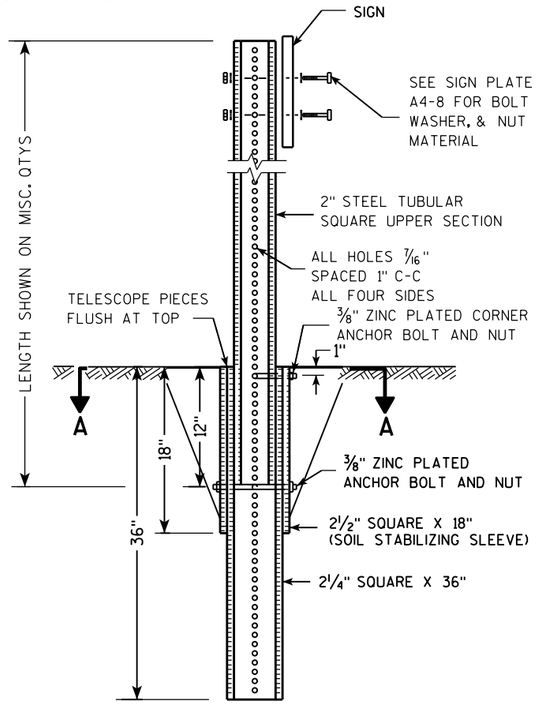
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

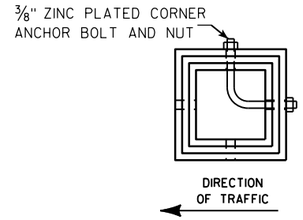


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

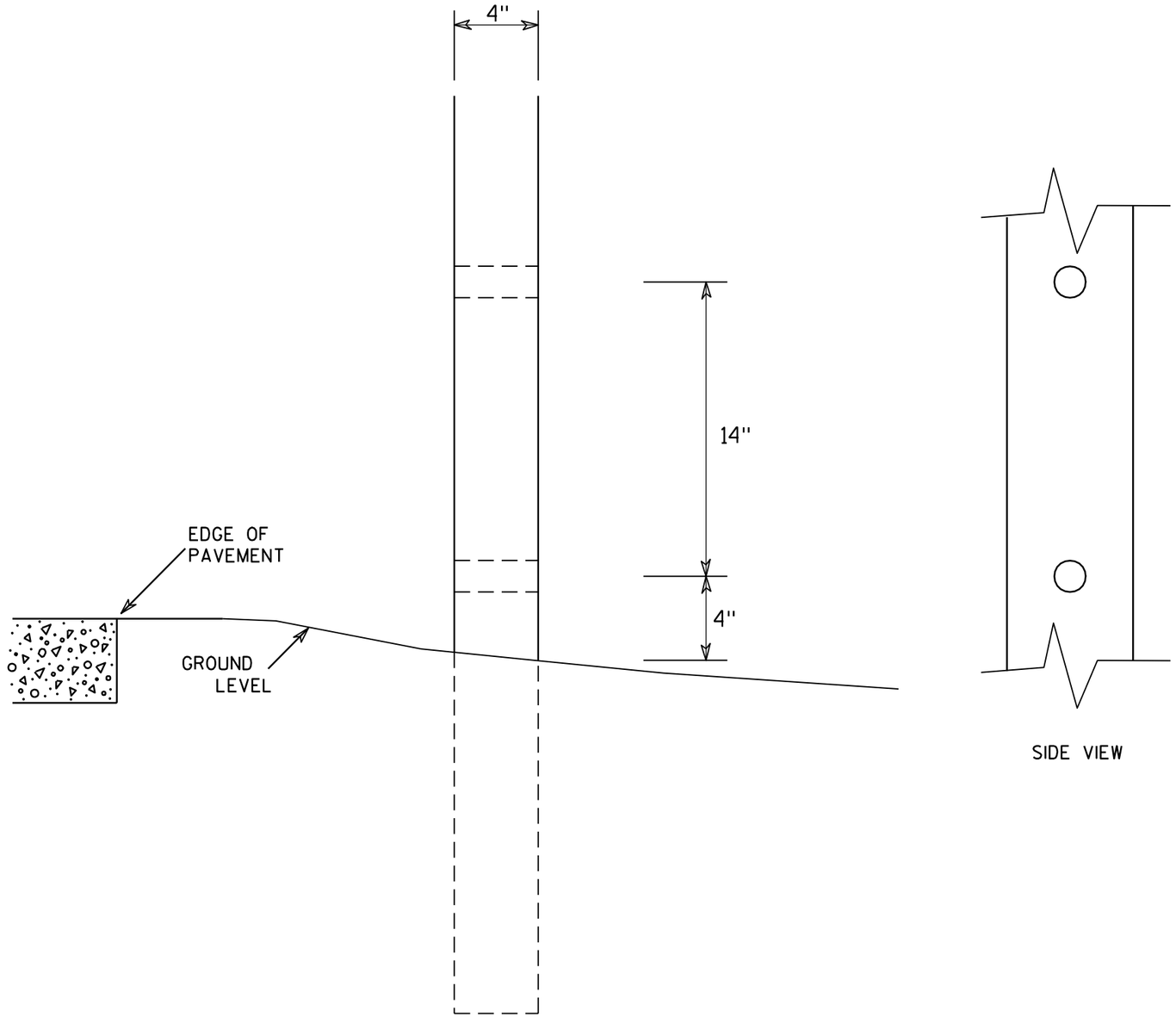
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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



SIDE VIEW

GENERAL NOTES

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

7

7

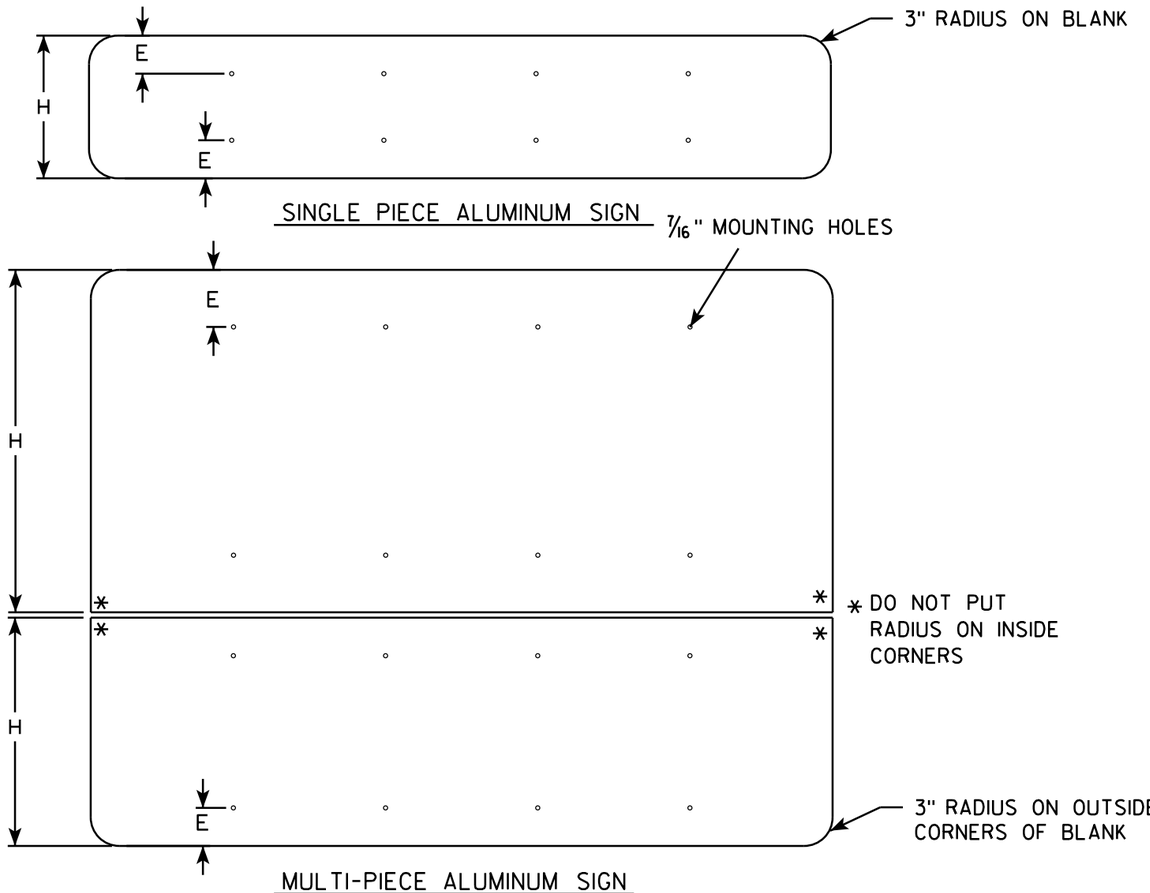
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

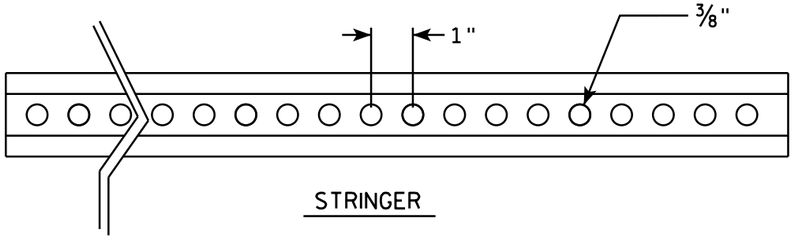
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 167	E



GENERAL NOTES

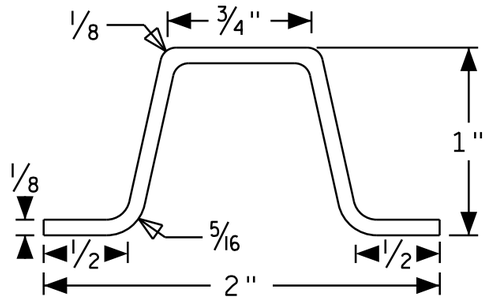
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

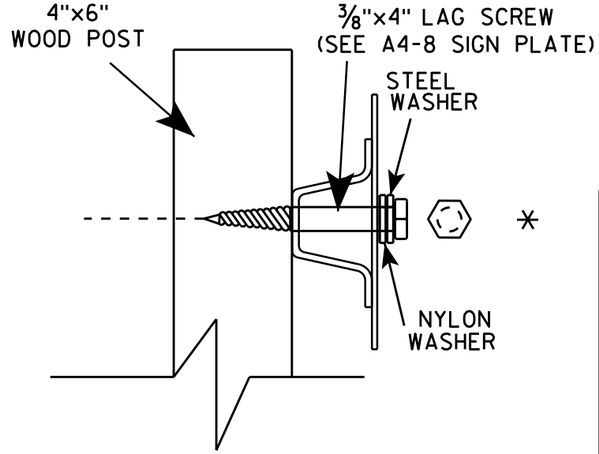


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

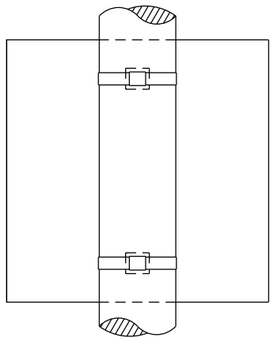
DATE 4/26/16 PLATE NO A4-18.1

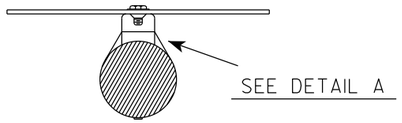
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

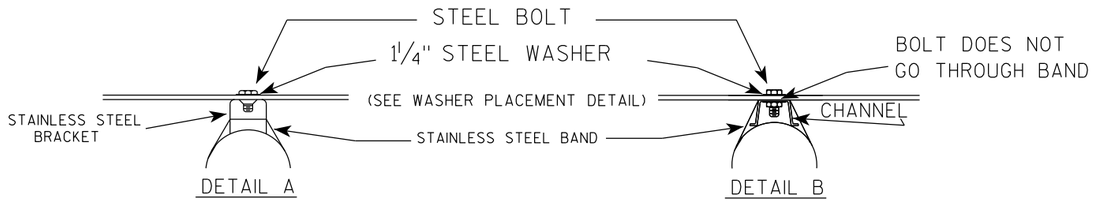
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

SINGLE SIGN



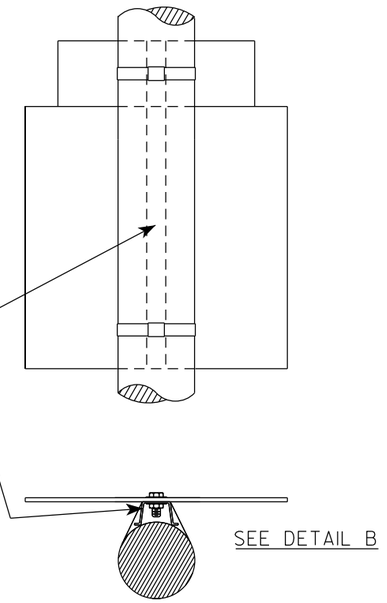




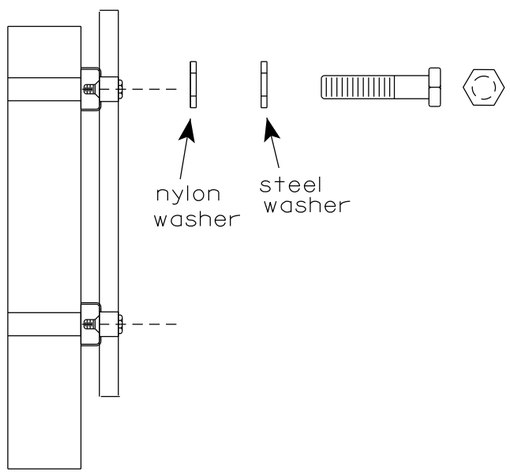
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

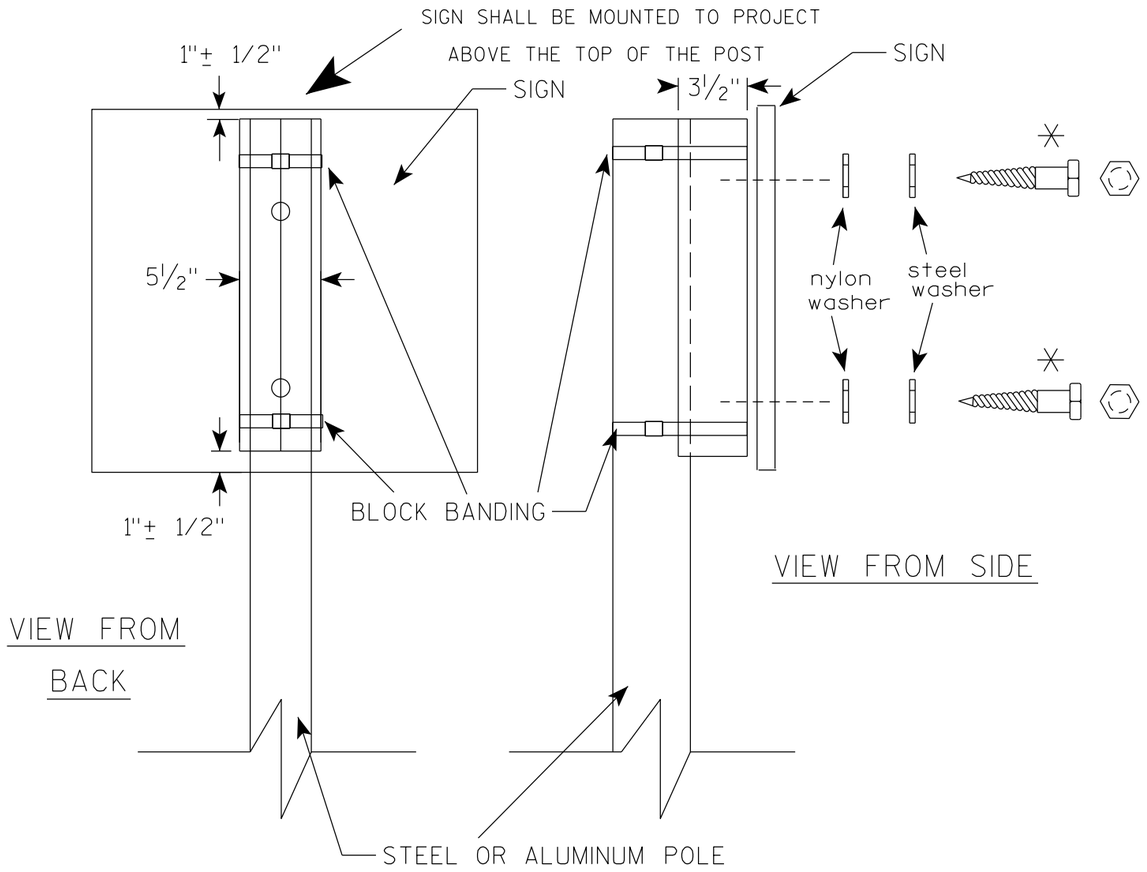
DATE 6/10/19 PLATE NO. A5-9.4

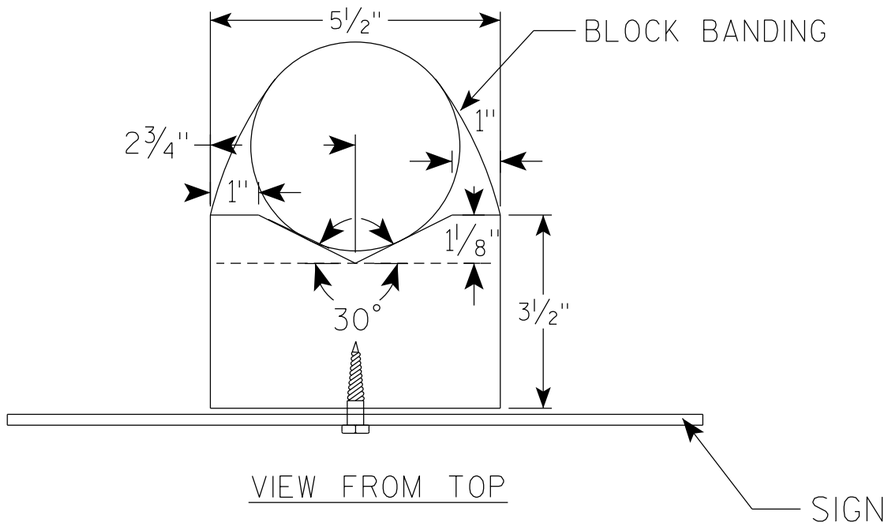
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 169	E

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

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

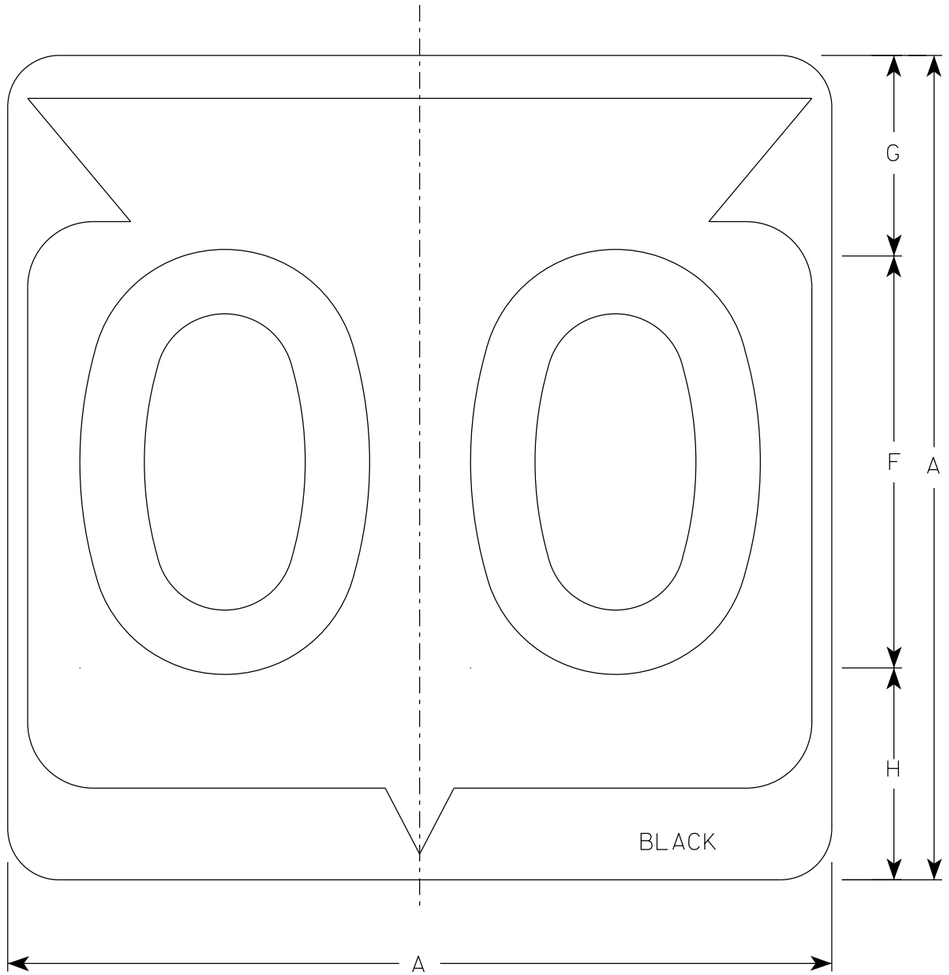
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

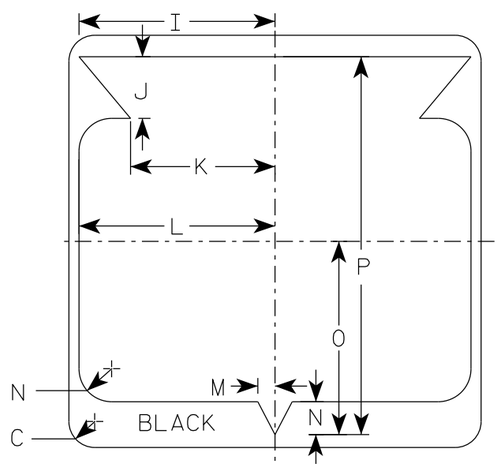
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 170 E



M1-6



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

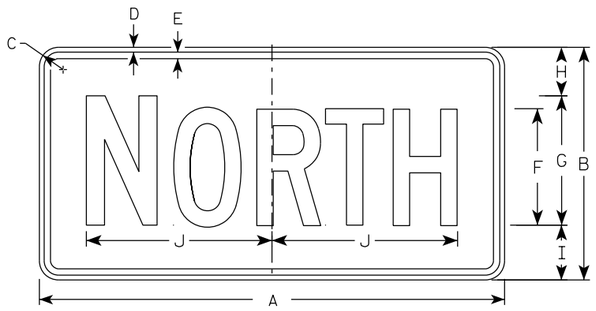
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

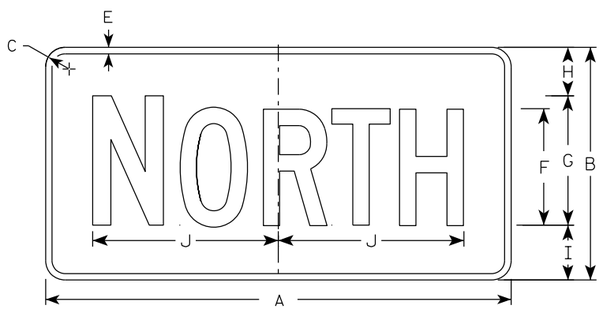
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

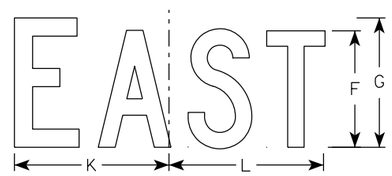
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171	E



M3-1
MM3-1
MP3-1



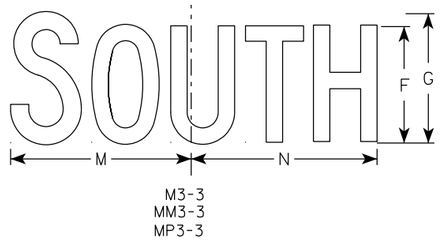
MB3-1
MK3-1
MN3-1



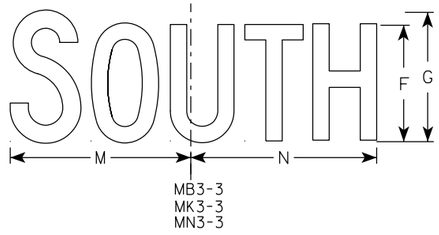
M3-2
MM3-2
MP3-2



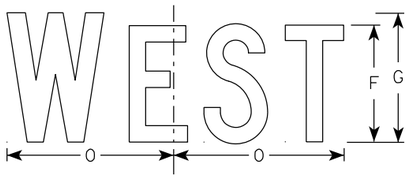
MB3-2
MK3-2
MN3-2



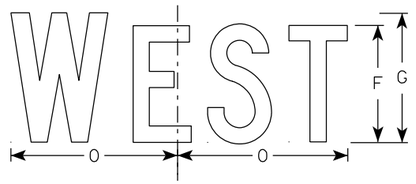
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

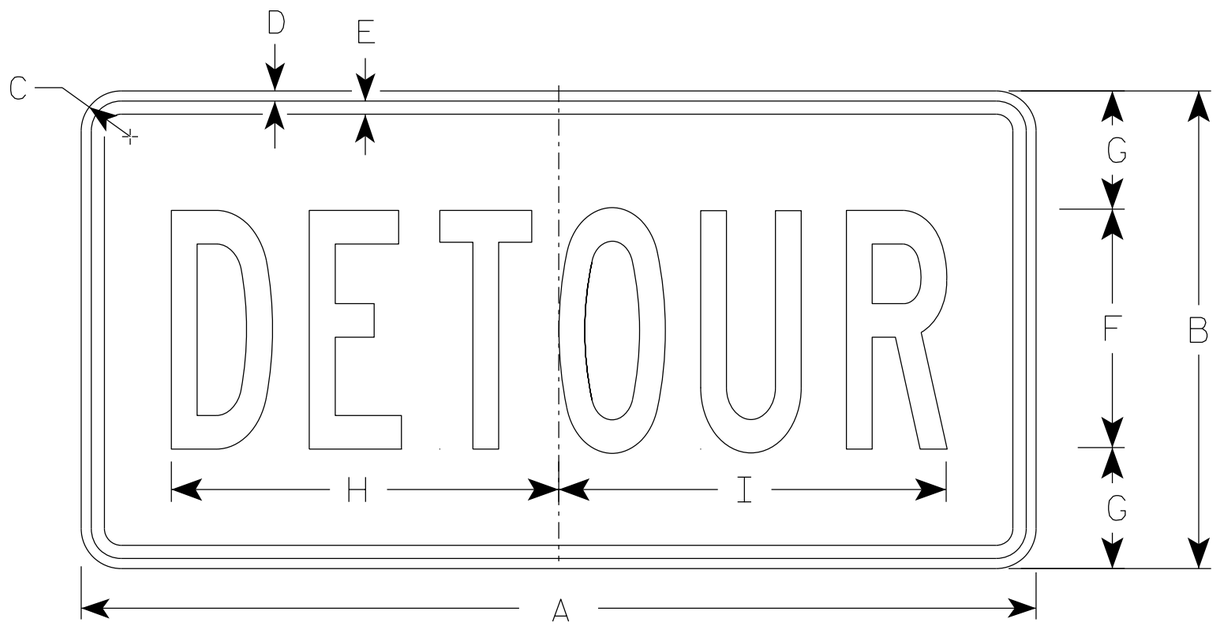
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 172 | E

NOTES

1. Sign is Type II - Type F Reflective
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.



M4-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

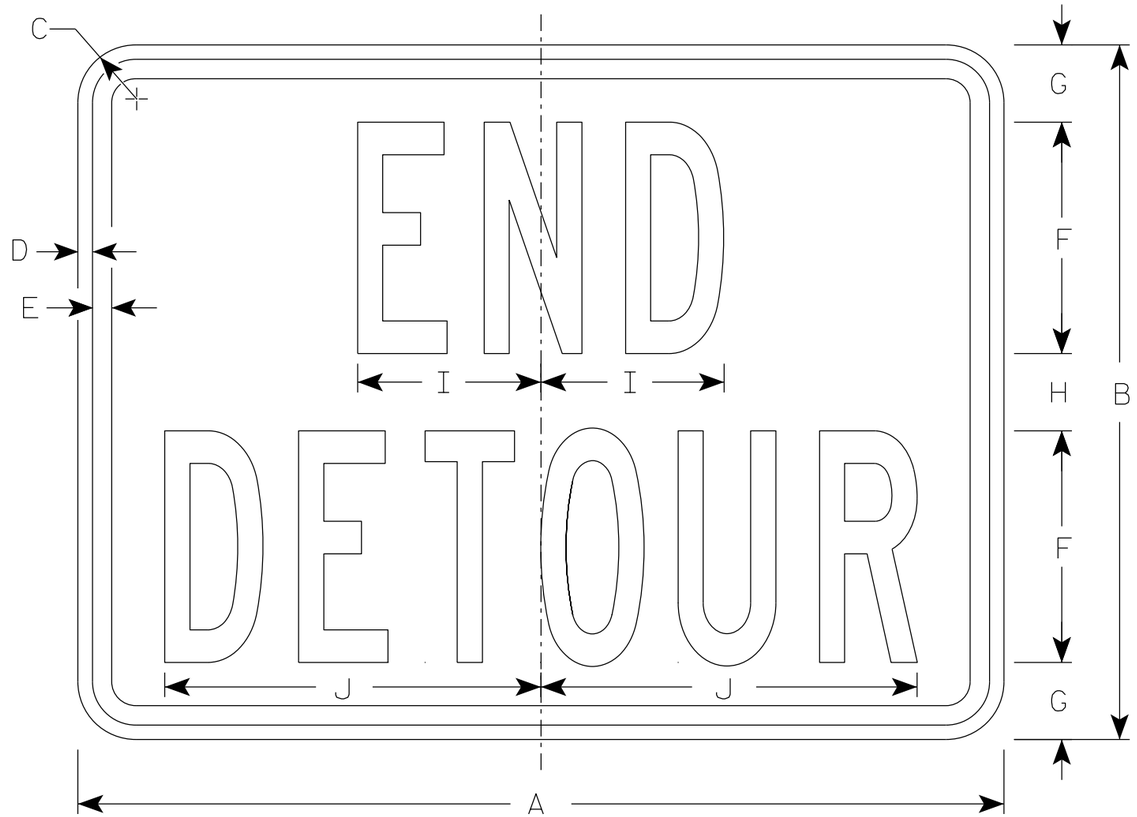
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 173	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

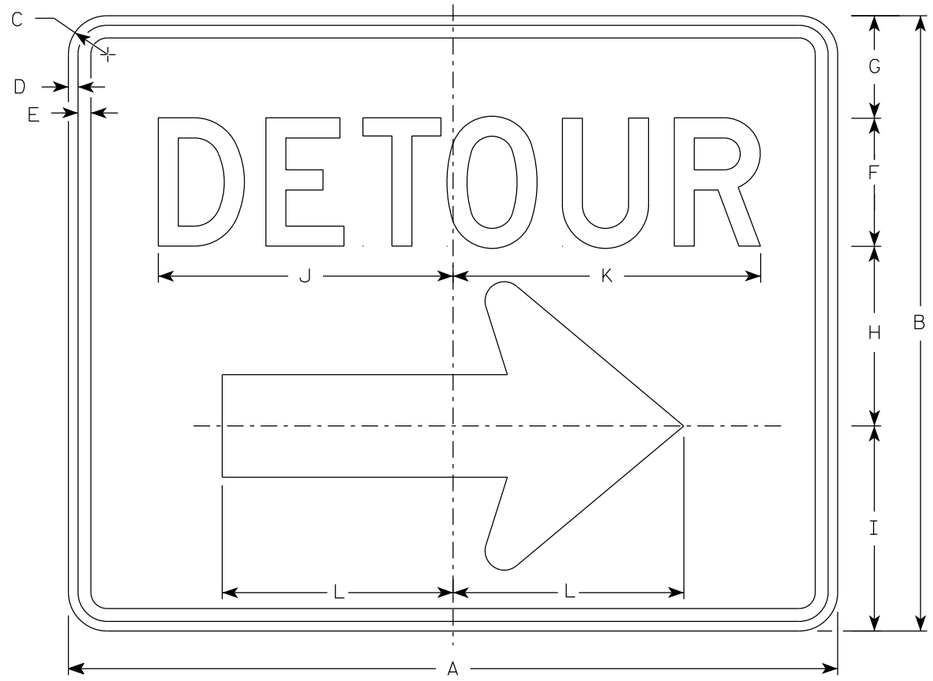
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

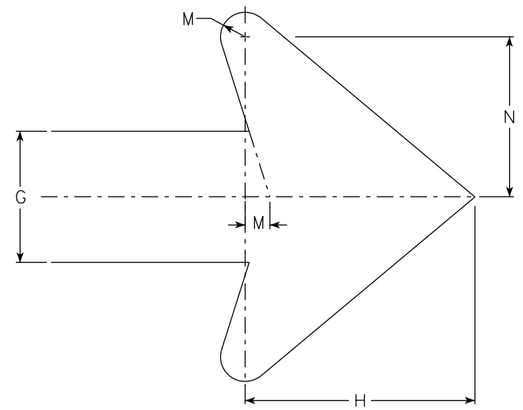
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 174 | E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

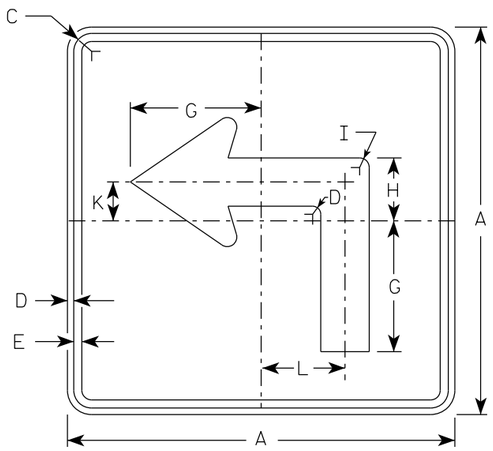
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

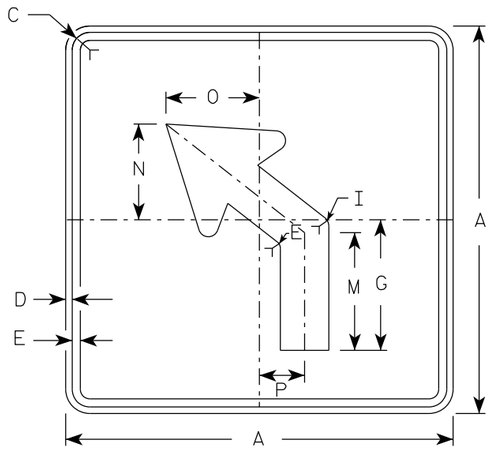
DATE 2/9/2023 PLATE NO. M4-9R.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

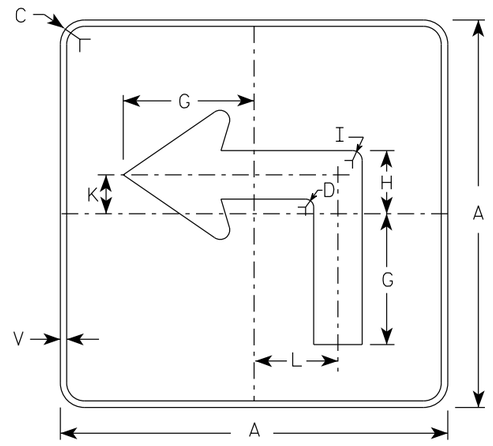
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49R.dgn PLOT DATE : 21-MARCH 2023 1:40 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



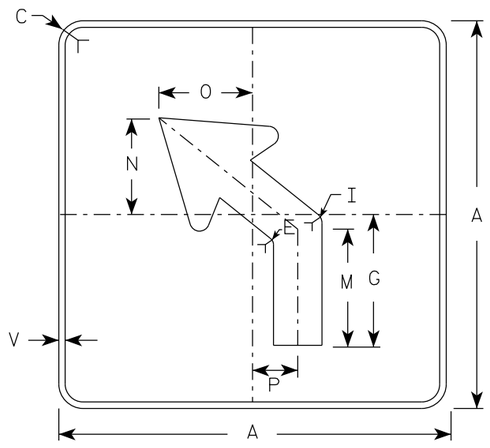
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

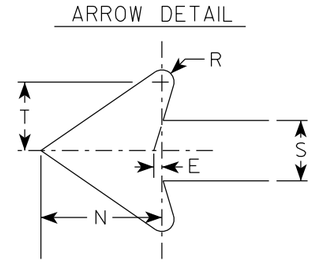


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

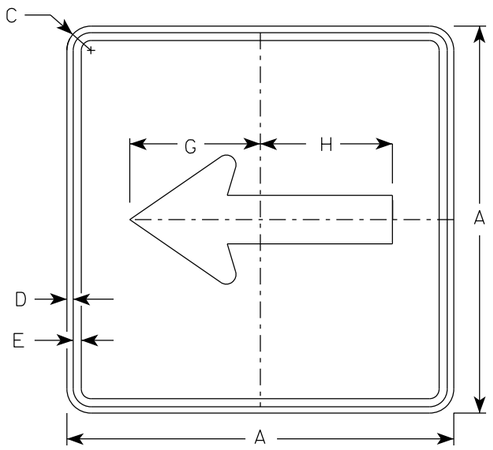
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

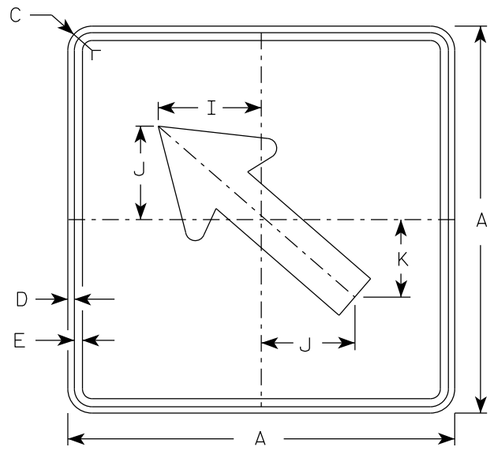
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

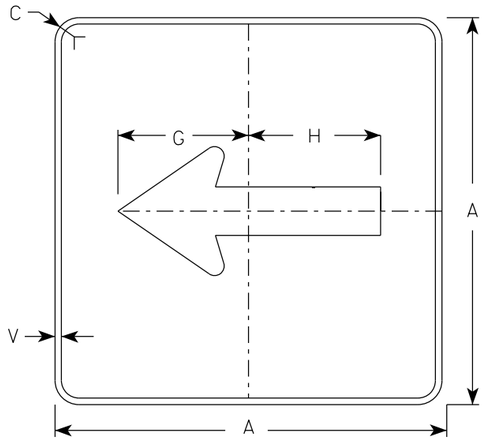
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 176 | E



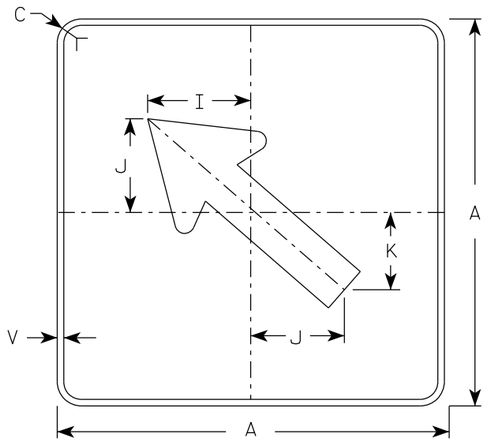
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

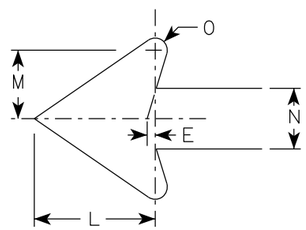


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

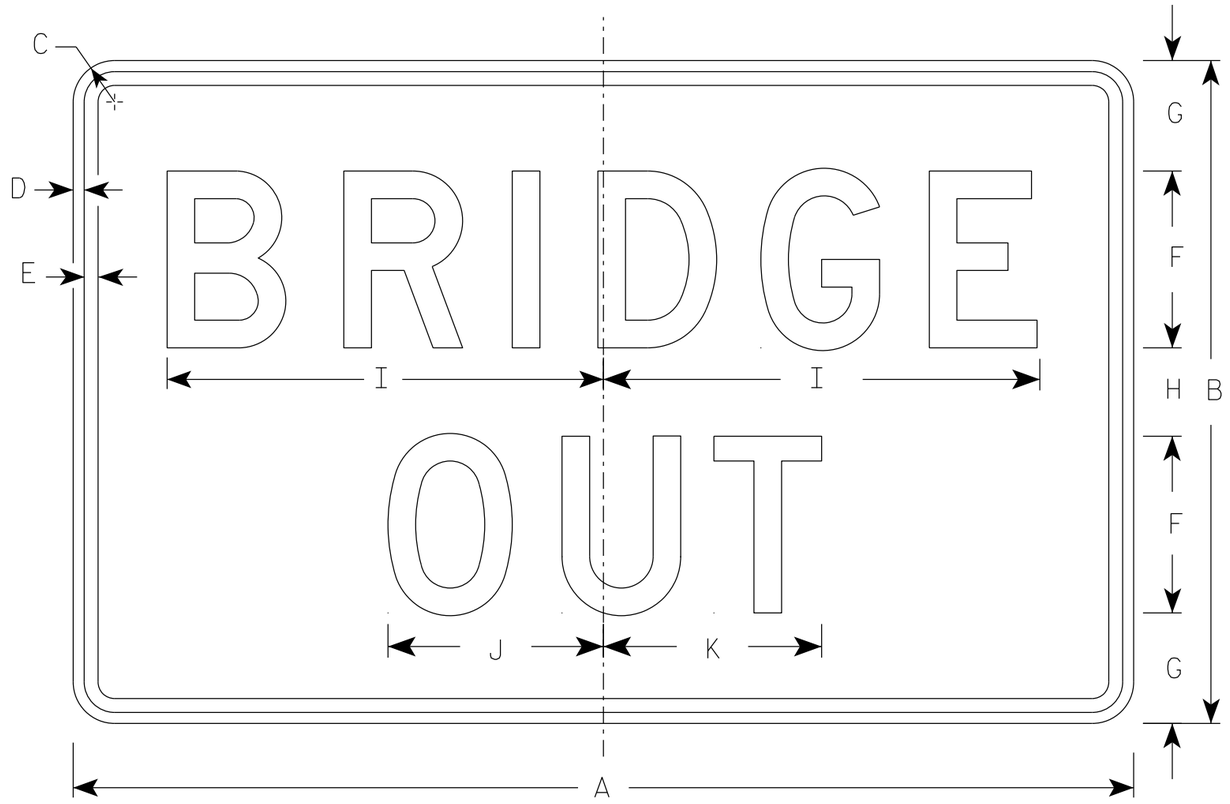
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E

7

7



R11-2B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

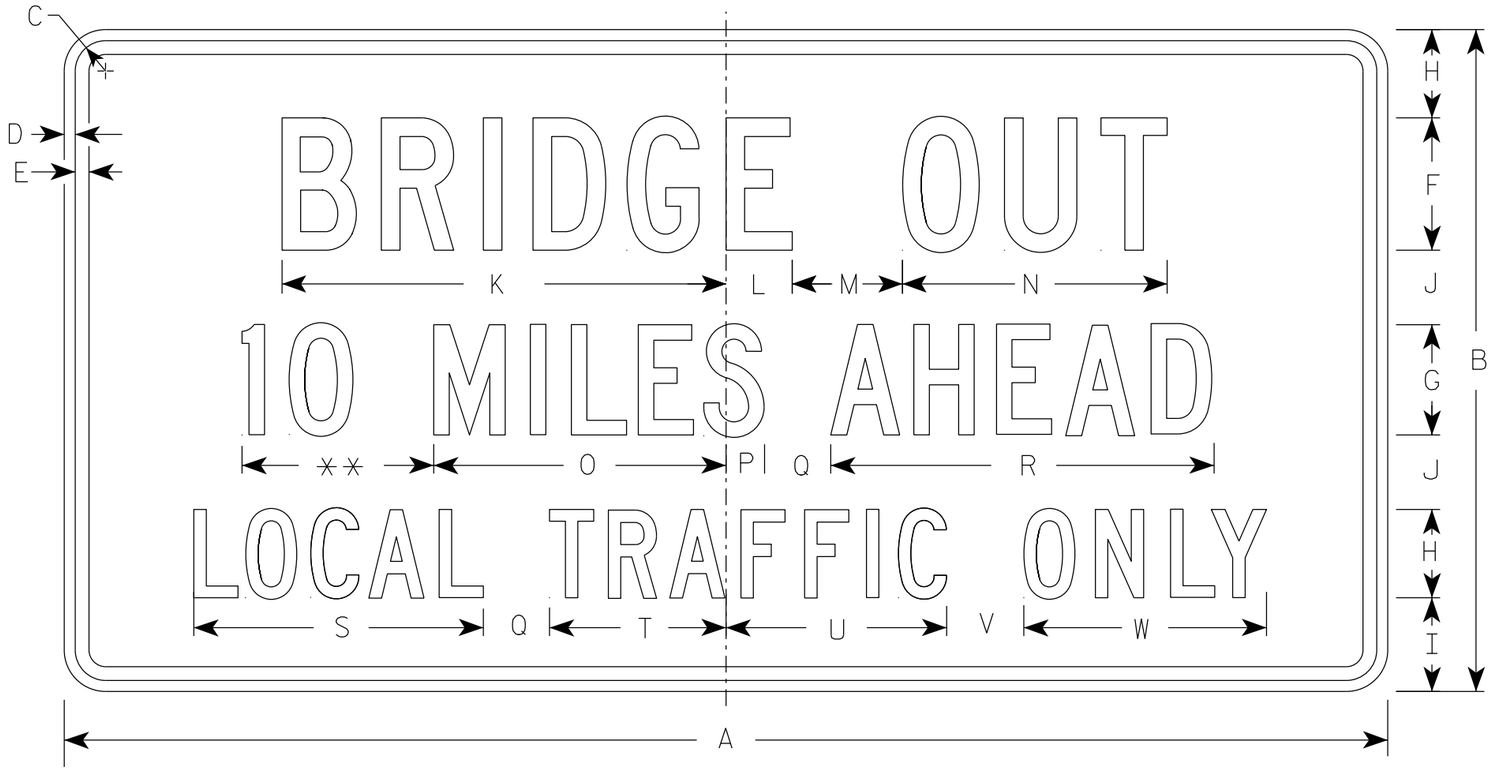
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2B.3

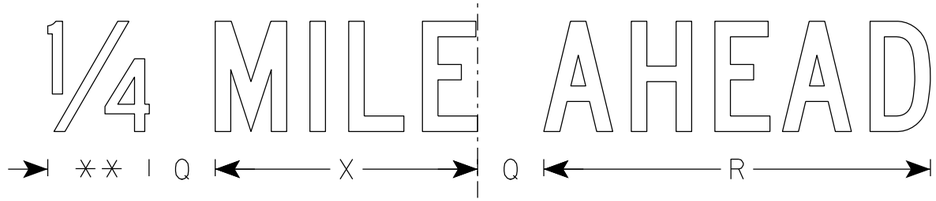
PROJECT NO:

SHEET NO: 178 E



R11-3B

** See Note 5



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 7/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

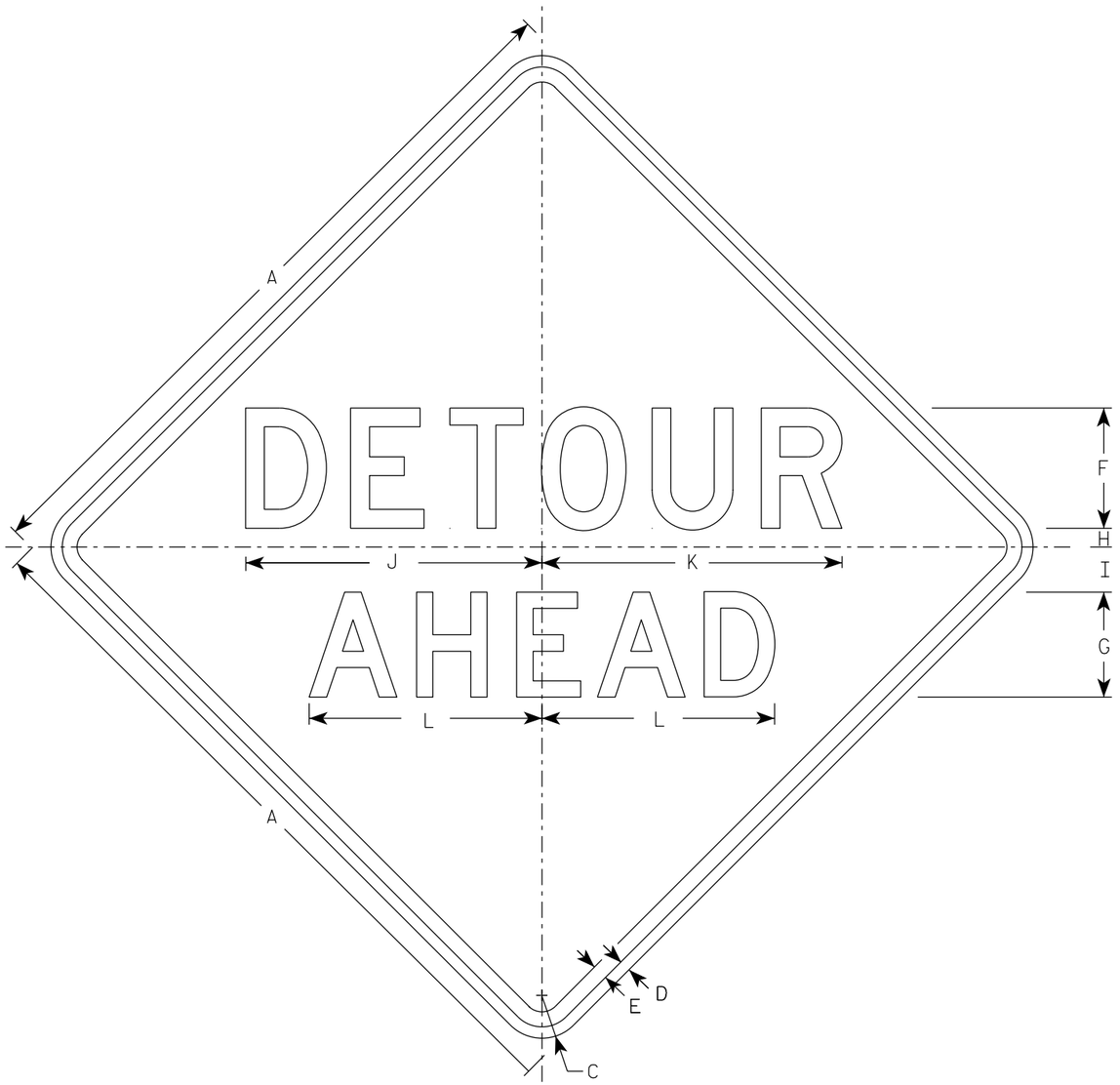
STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

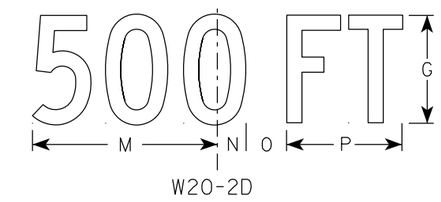
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3B.4

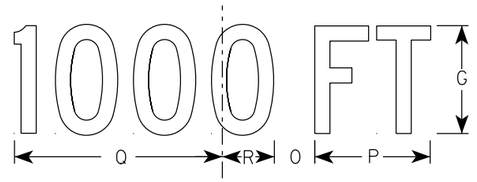
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 179 | E



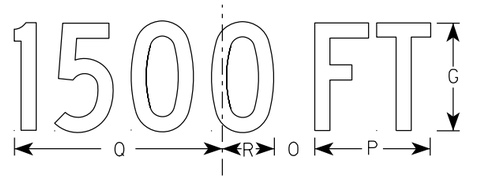
W20-2A



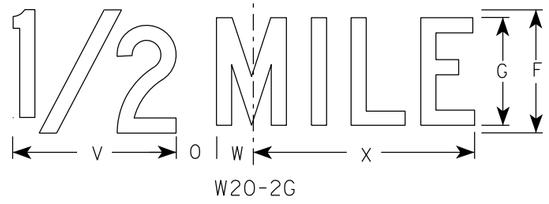
W20-2D



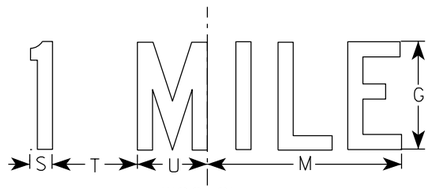
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	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		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

STATE PROJECT NUMBER

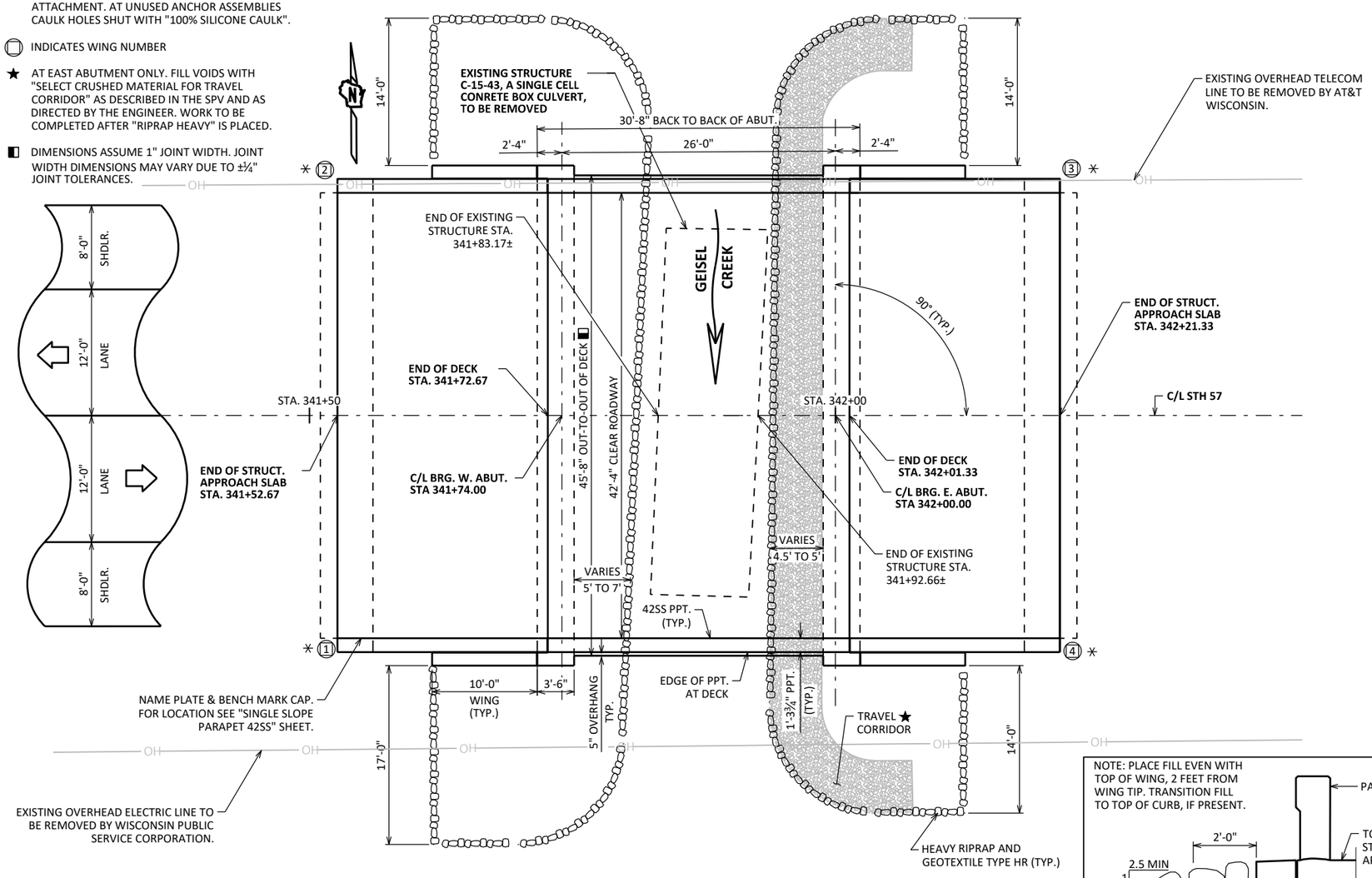
4150-26-71

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(1) INDICATES WING NUMBER

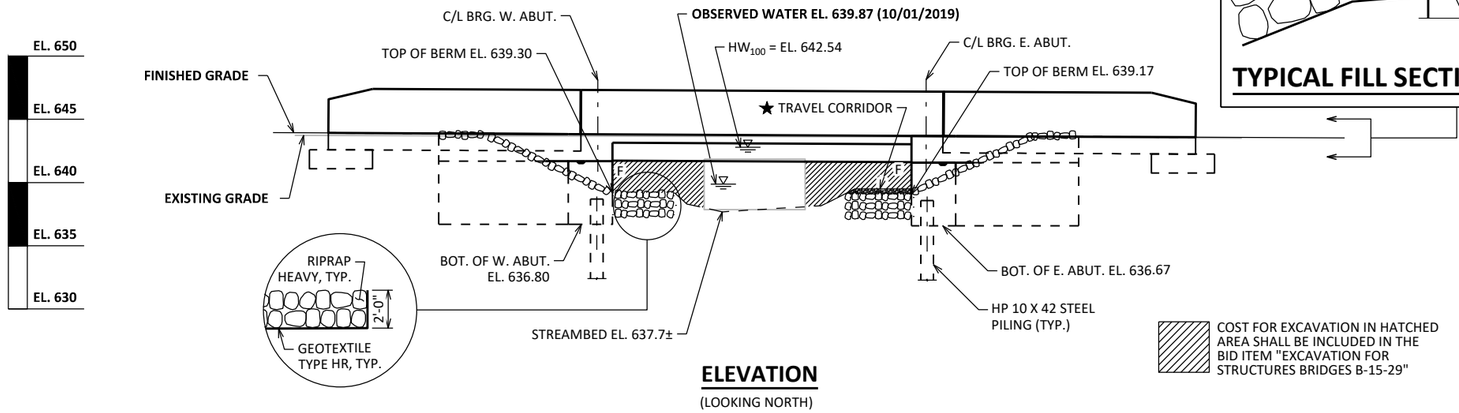
★ AT EAST ABUTMENT ONLY. FILL VOIDS WITH "SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR" AS DESCRIBED IN THE SPV AND AS DIRECTED BY THE ENGINEER. WORK TO BE COMPLETED AFTER "RIPRAP HEAVY" IS PLACED.

◧ DIMENSIONS ASSUME 1" JOINT WIDTH. JOINT WIDTH DIMENSIONS MAY VARY DUE TO ±¼" JOINT TOLERANCES.



PLAN

SINGLE SPAN - 4' X 17" PRESTRESSED BOX GIRDERS

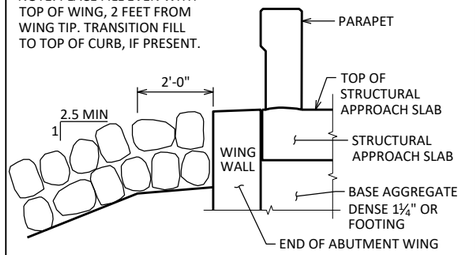


ELEVATION

(LOOKING NORTH)

COST FOR EXCAVATION IN HATCHED AREA SHALL BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-15-29"

NOTE: PLACE FILL EVEN WITH TOP OF WING, 2 FEET FROM WING TIP. TRANSITION FILL TO TOP OF CURB, IF PRESENT.



TYPICAL FILL SECTION AT WING TIPS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.34
OPERATING RATING FACTOR: RF = 1.74
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

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

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- SUPERSTRUCTURE & STRUCTURAL APPROACH SLAB — F'C = 4,000 P.S.I.
- ALL OTHER — F'C = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
- GRADE 60 — FY = 60,000 P.S.I.
- STAINLESS, GRADE 60 — FY = 60,000 P.S.I.

17" PRESTRESSED BOX GIRDERS:
- CONCRETE MASONRY — F'C = 5,000 P.S.I.
- STRANDS: 0.5" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB FIRMLY SEATED IN PRE-BORED HOLES DRILLED A MINIMUM OF 3'-0" INTO VERY DENSE SILTY SAND AND SANDY SILT SOILS. ESTIMATED PILE TIP ELEVATION IS 616.9 FT AT WEST ABUTMENT AND 614.6 FT AT THE EAST ABUTMENT. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF THE PILES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5. ESTIMATED 25'-0" LONG AT EAST AND WEST ABUTMENT.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 420 C.F.S.
$VEL._{100}$ = 7.1 F.P.S.
$HW._{100}$ = EL. 642.54
WATERWAY AREA = 59 SQ. FT.
DRAINAGE ARE = 5.1 SQ. MI.
SCOUR CRITICAL CODE = 8

2 YEAR FREQUENCY

Q_2= 100 C.F.S.
VEL. $_2$= 3.1 F.P.S.
$HW._2$ = EL. 640.10

TRAFFIC VOLUME

STH 57

ADT = 6000 (2044)
R.D.S. = 60 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT DETAILS
8. 17" PRESTRESSED BOX GIRDER DETAILS 1
9. 17" PRESTRESSED BOX GIRDER DETAILS 2
10. 17" PRESTRESSED BOX GIRDER DETAILS 3
11. SUPERSTRUCTURE
12. SUPERSTRUCTURE DETAILS
13. SINGLE SLOPE PARAPET 42SS
14. STRUCTURAL APPROACH SLABS

STRUCTURE DESIGN CONTACTS:

RYAN R. HARRIS (608) 266-2963
KYLE H. BUSCH (608) 267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 4/25/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-15-029

STH 57 OVER GEISEL CREEK

COUNTY	TOWN
DOOR	BAILEYS HARBOR

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
RRH	MWB	RRH	MWB

GENERAL PLAN

SHEET 1 OF 14
181

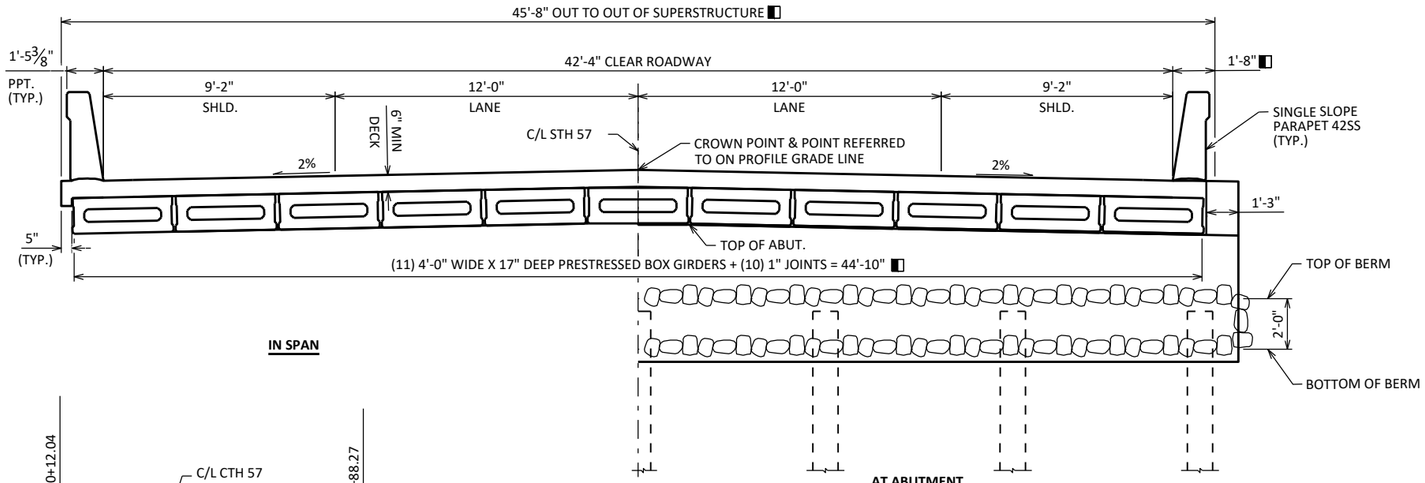
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DATE: APR. 2024

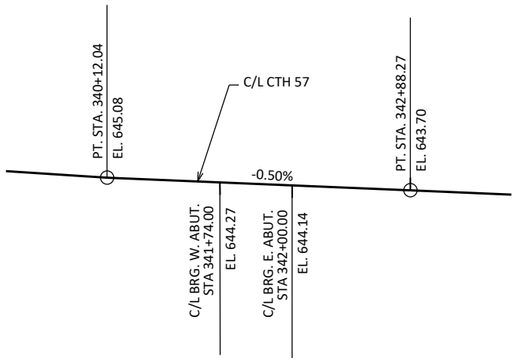
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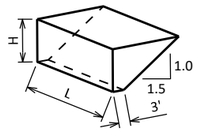


CROSS SECTION THRU ROADWAY

(LOOKING EAST)



PROFILE GRADE LINE - C/L STH 57



ABUTMENT BACKFILL DIAGRAM

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

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	W. STRUCT. APP. SLAB	W. ABUT.	E. ABUT.	E. STRUCT. APP. SLAB	TOTALS
203.0220	REMOVING STRUCTURE (C-15-43)	EACH	-	-	-	-	-	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-15-029	EACH	-	-	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	-	-	68	68	-	136
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	-	175	-	-	175	350
502.0100	CONCRETE MASONRY BRIDGES	CY	43.8	62.7	46.3	46.3	62.7	262
502.3200	PROTECTIVE SURFACE TREATMENT	SY	159	-	95	95	-	349
502.3210	PIGMENTED SURFACE SEALER	SY	29	-	20	20	-	69
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	-	3,090	3,090	-	6,180
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5,620	10,540	1,270	1,270	10,540	29,240
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	420	-	-	-	-	420
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	22	-	-	-	-	22
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	-	11	11	-	22
◪ 550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	-	-	140	140	-	280
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	-	-	175	175	-	350
606.0300	RIPRAP HEAVY	CY	-	-	65	52	-	117
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	75	75	-	150
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	-	-	-	-	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-	-	46	46	-	92
645.0120	GEOTEXTILE TYPE HR	SY	-	-	125	107	-	232
SPV.0090	PRESTRESSED GIRDER BOX TYPE 17-INCH	LF	294	-	-	-	-	294
SPV.0195	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	-	-	-	26	-	26
	NON-BID ITEMS							
	FILLER	SIZE	---	---	---	---	---	1/2", 3/4", 1 1/2"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-15-29" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A. ALSO EXCLUDED IS THE "BASE AGGREGATE DENSE 1 1/4-INCH" AS DETAILED ON THE STRUCTURAL APPROACH SLAB SHEETS.

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

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

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND APPROACH SLAB SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON APPROACH SLABS.

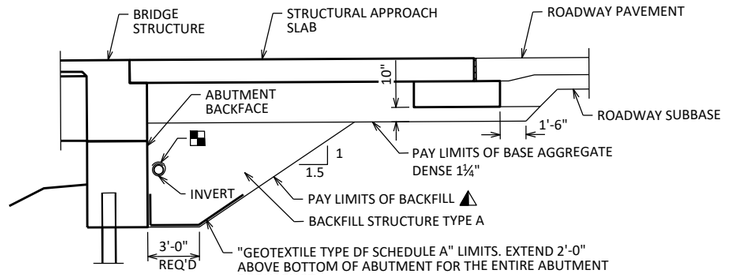
AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

◪ FIRMLY SEAT PILES AFTER PREBORING AND BACKFILL THE ENTIRE LENGTH OF THE PREBORED HOLE WITH A CEMENT GROUT. COST INCLUDED IN BID ITEM "PRE-BORING ROCK OR CONSOLIDATED MATERIALS".

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENT SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

◧ SUPERSTRUCTURE DIMENSIONS SHOWN ARE BASED ON 1" JOINTS BETWEEN GIRDERS. JOINTS ARE ALLOWED TO VARY FROM ¾" TO 1¼". OUT TO OUT WIDTH OF SUPERSTRUCTURE TO BE DETERMINED AFTER POST-TENSIONING OF GIRDERS. ABUTMENT AND WING DIMENSIONS SHALL NOT VARY FROM THOSE SHOWN ON THE PLANS.



TYPICAL SECTION THRU ABUTMENT

◭ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

◪ PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO LOWER DOWNSTREAM END OF PIPE UNDERDRAIN. ATTACH CAP TO HIGHER UPSTREAM END OF PIPE UNDERDRAIN (HIGH POINT OF PIPE UNDERDRAIN).

STATE PROJECT NUMBER
4150-26-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

CROSS SECTION & QUANTITIES

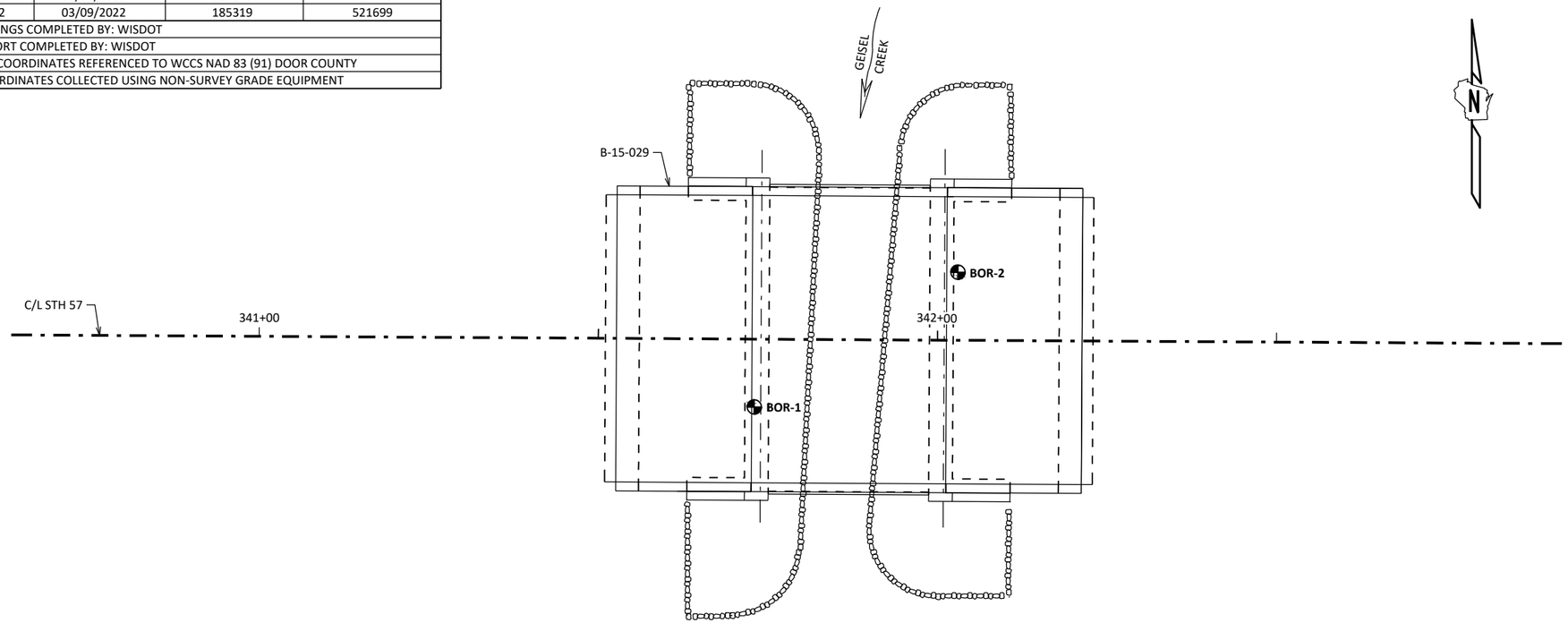
SHEET 2
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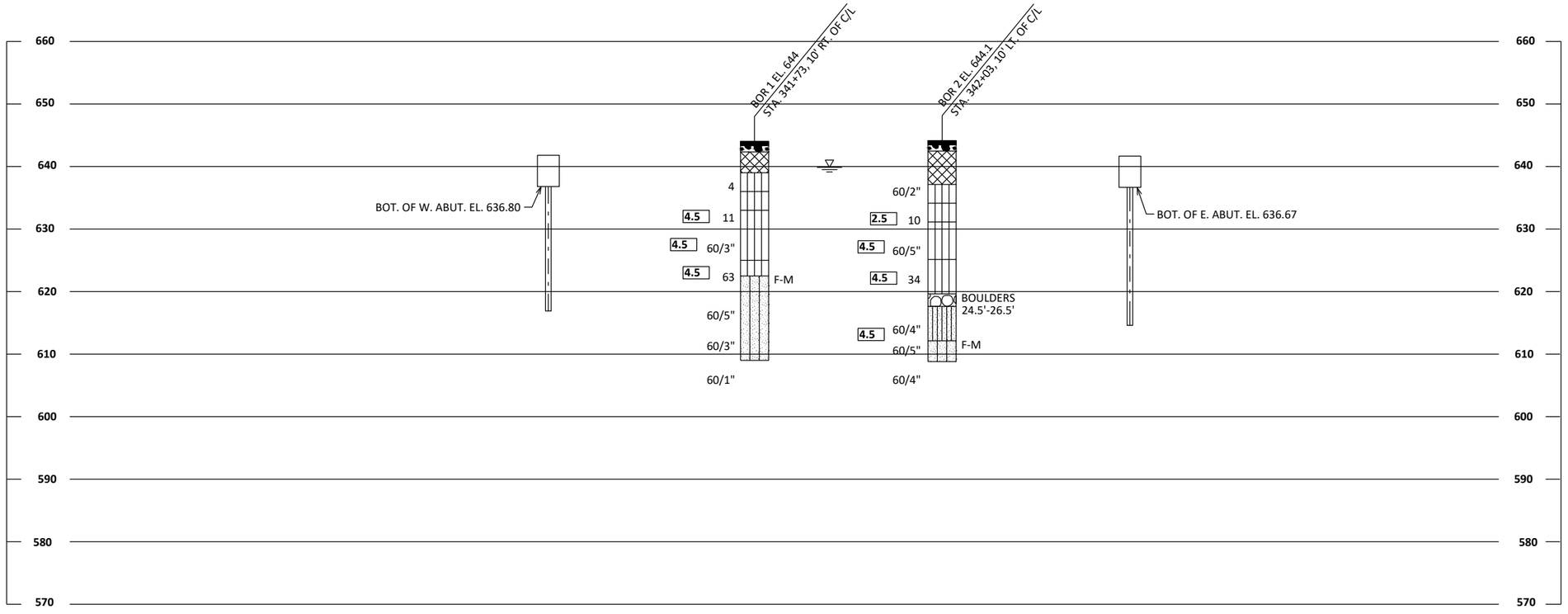
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	03/08/2022	185299	521669
2	03/09/2022	185319	521699
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) DOOR COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





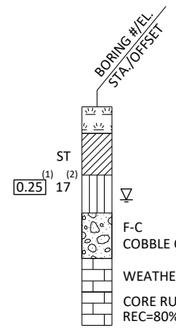
STATE PROJECT NUMBER

4150-26-71

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY JJ/RRH | PLANS CK'D MWB

SUBSURFACE EXPLORATION

SHEET 3
183

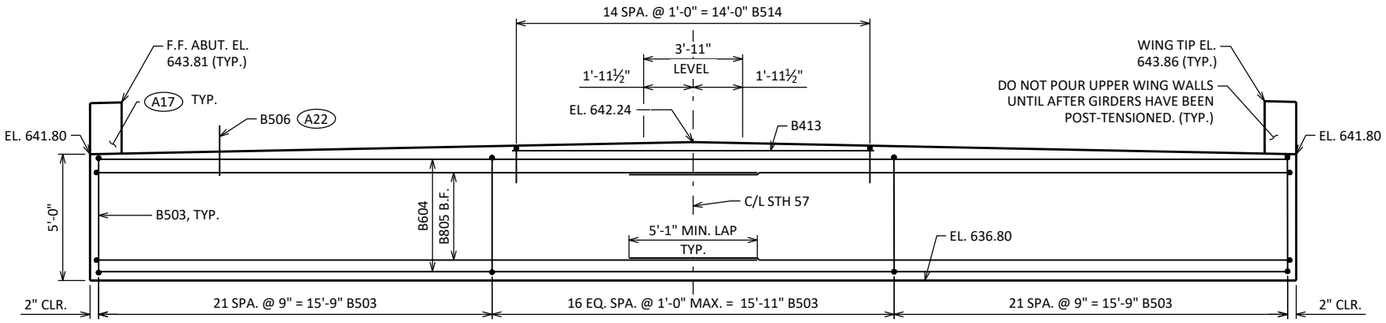
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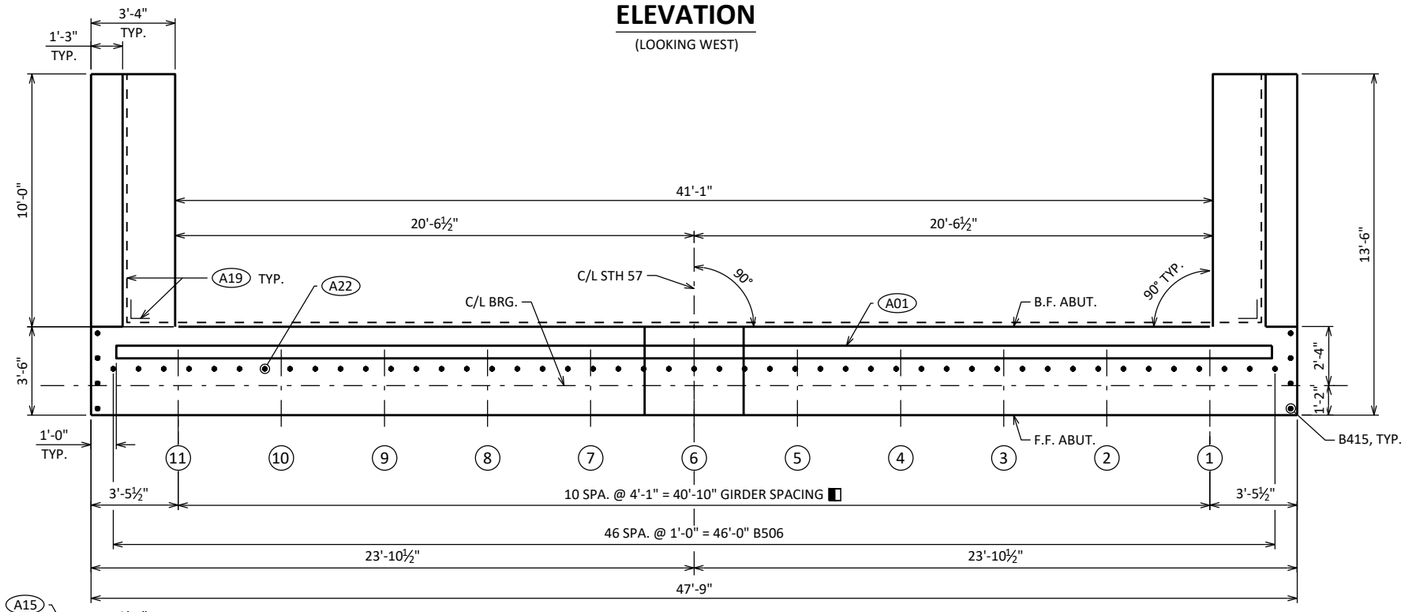
STATE PROJECT NUMBER

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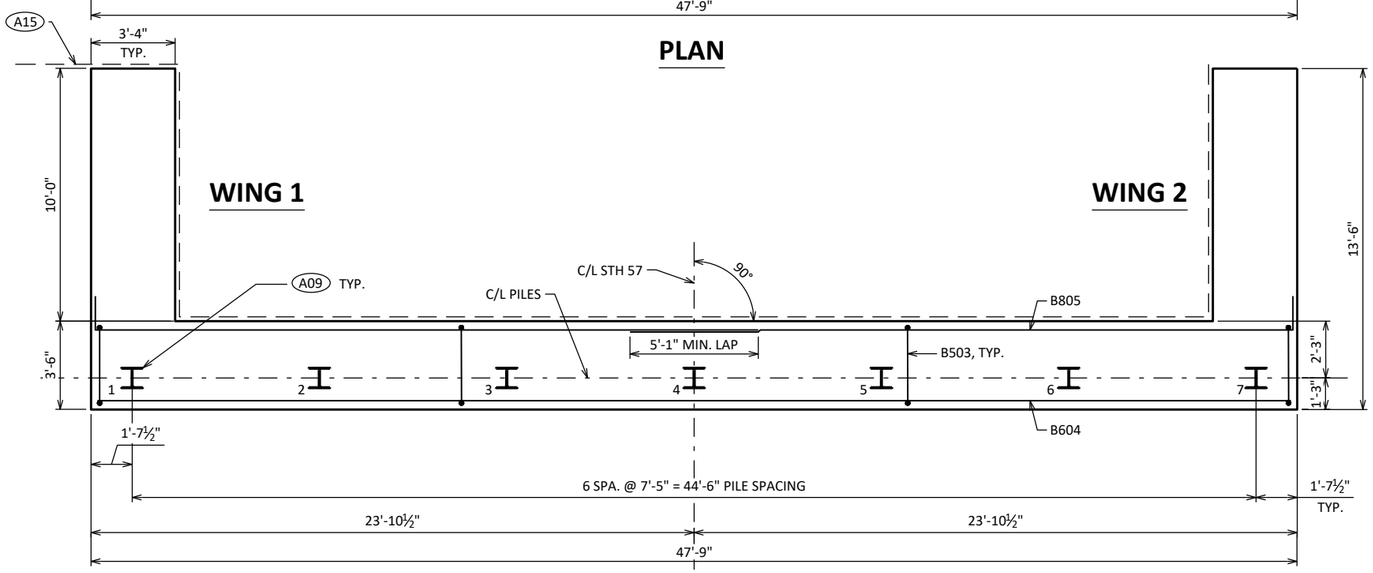


ELEVATION

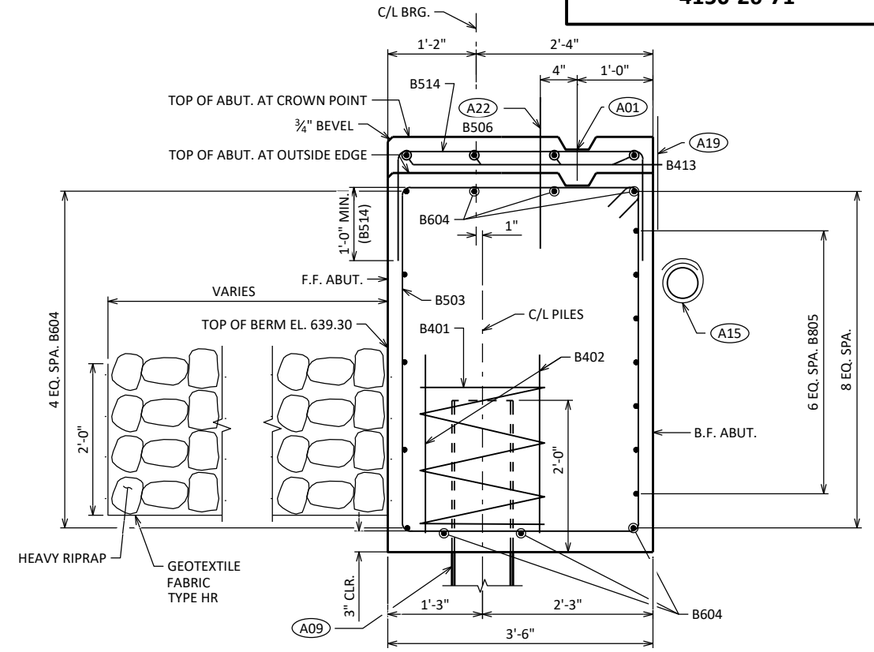
(LOOKING WEST)



PLAN



PILE PLAN



SECTION THRU BODY

LEGEND

◧ DIMENSIONS ASSUME 1" JOINT WIDTH. JOINT WIDTH DIMENSIONS MAY VARY DUE TO ±¼" JOINT TOLERANCES.

(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

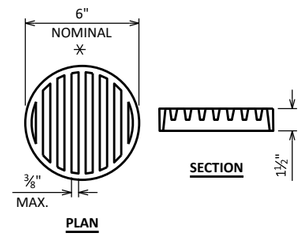
(A09) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING. ESTIMATED 25'-0" LONG SEATED IN PRE-BORED HOLES CORED 3'-0" MINIMUM INTO ROCK. ESTIMATED PILE TIP ELEVATION IS 616.9 FT AT WEST ABUTMENT. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF THE PILES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PLACE UNDERDRAIN SLOPED TO DISCHARGE A MINIMUM OF 1'-0" ABOVE NORMAL WATER.

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) B506 BARS @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)



RODENT SHIELD DETAIL

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

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

WEST ABUTMENT

SHEET 4
184

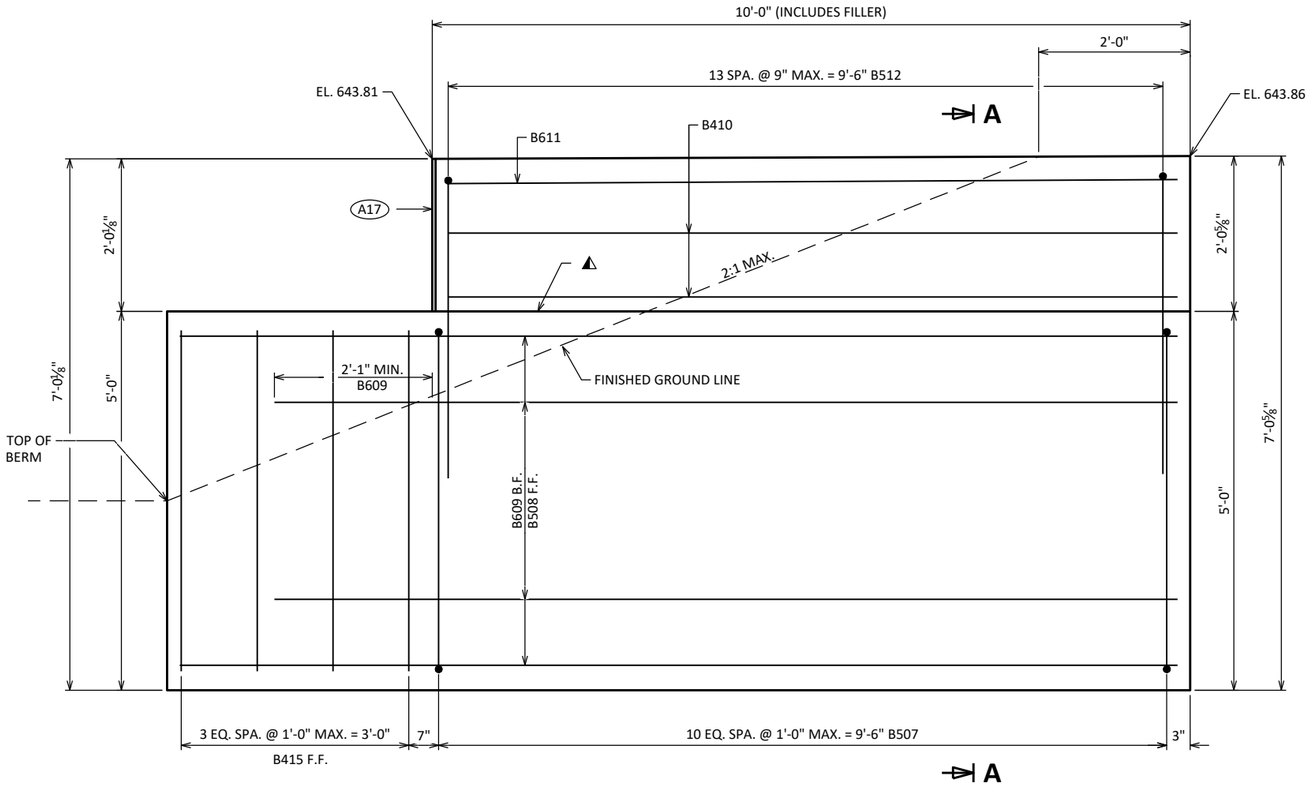
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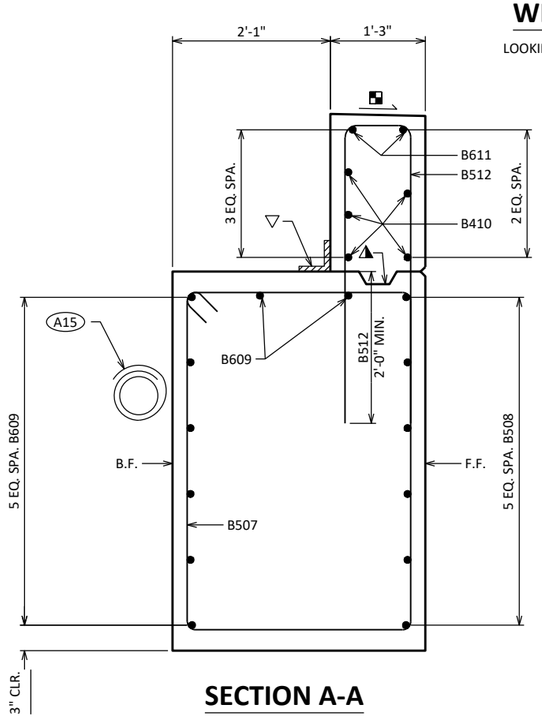
STATE PROJECT NUMBER

4150-26-71

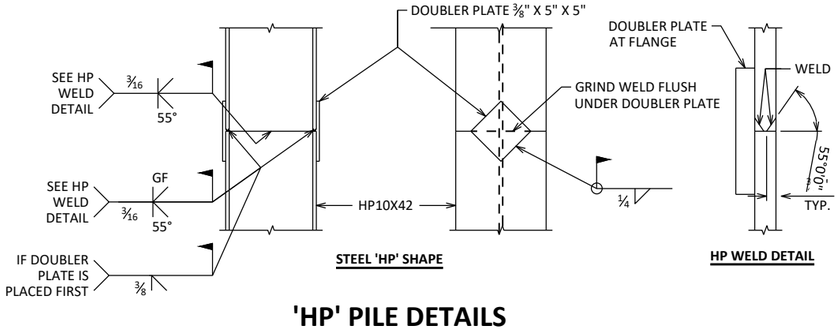


WING 2 ELEVATION

LOOKING AT FRONT FACE, WING 1 SIMILAR



SECTION A-A

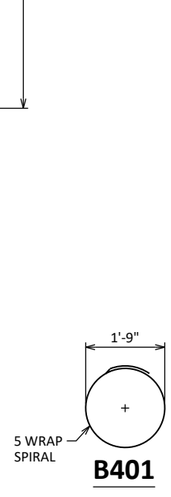


'HP' PILE DETAILS

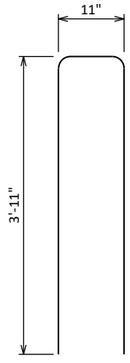
BILL OF BARS

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

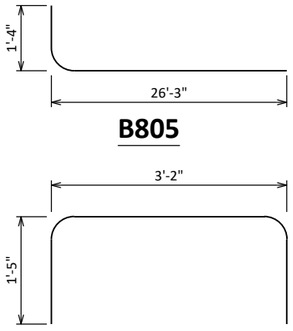
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		7	28'-0"	X		PILES - 1 PER PILE
B402		14	2'-3"			PILES - 2 PER PILE
B503		59	15'-10"	X		ABUT. BODY STIRRUPS
B604		11	47'-5"			ABUT. BODY HORIZONTAL
B805		14	27'-5"	X		ABUT. BODY HORIZONTAL B.F.
B506	X	45	2'-0"			ABUT. BODY DOWELS
B507	X	22	15'-6"	X		WINGS 1 & 2 STIRRUPS
B508	X	12	13'-2"			WINGS 1 & 2 HORIZONTAL F.F.
B609	X	16	11'-11"			WINGS 1 & 2 HORIZONTAL
B410	X	10	9'-7"			UPPER WINGS 1 & 2 HORIZONTAL
B611	X	4	9'-7"			UPPER WINGS 1 & 2 HORIZONTAL TOP
B512	X	28	8'-6"	X		UPPER WINGS 1 & 2 STIRRUPS
B413		4	14'-0"			ABUT. BODY HORIZONTAL TOP
B514		15	5'-9"	X		ABUT. BODY STIRRUPS TOP
B415		8	4'-6"			WINGS 1 & 2 VERTICAL ABUT. ENDS



B401

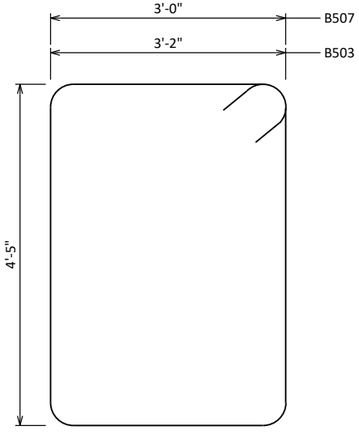


B512



B805

B514



B503, B507

LEGEND

- ◭ CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. DO NOT POUR UPPER WINGS UNTIL AFTER GIRDERS HAVE BEEN POST-TENSIONED.
- ◩ SLOPE TO DRAIN.
- ▽ 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

WEST ABUTMENT DETAILS

SHEET 5
185

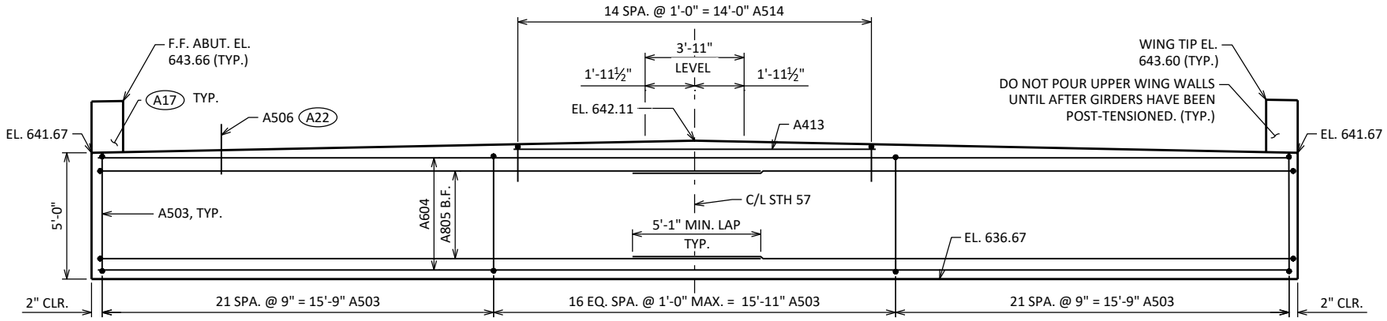
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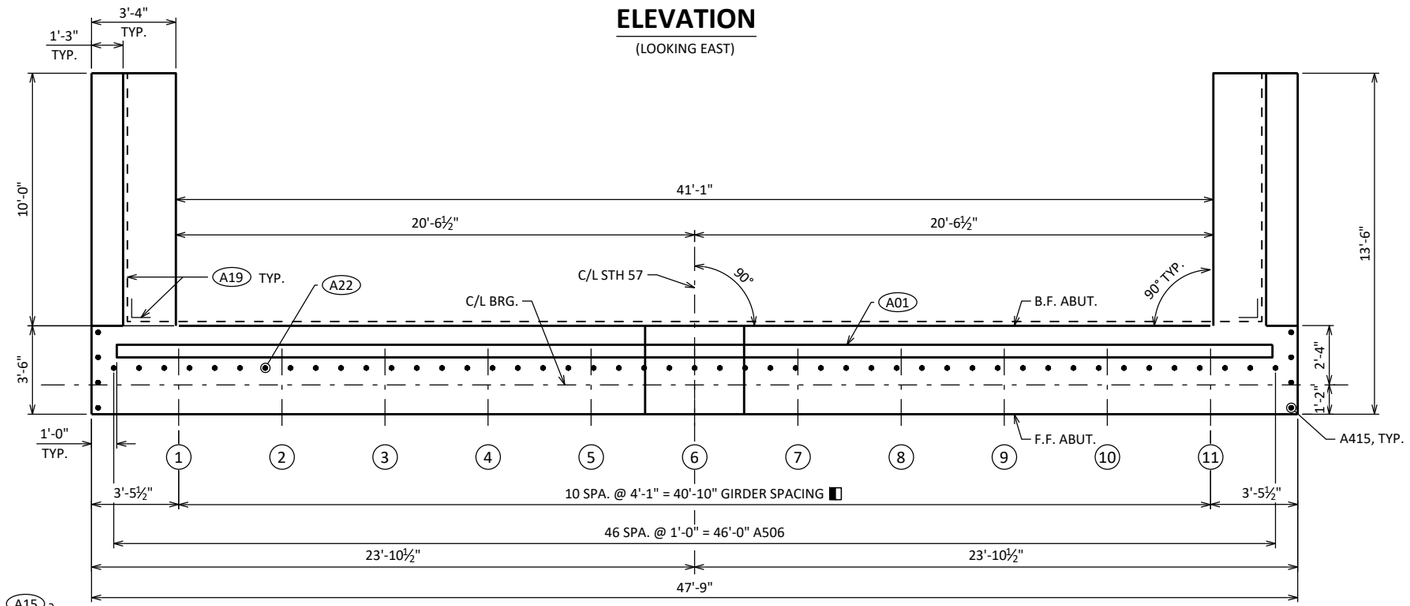
STATE PROJECT NUMBER

4150-26-71

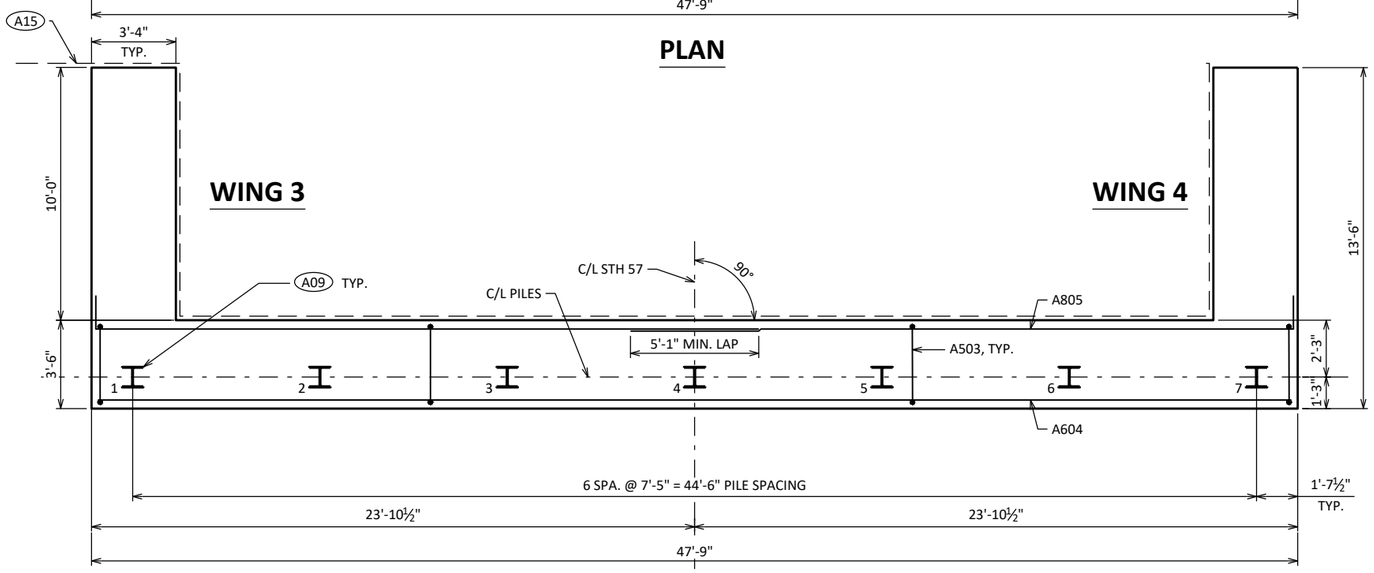


ELEVATION

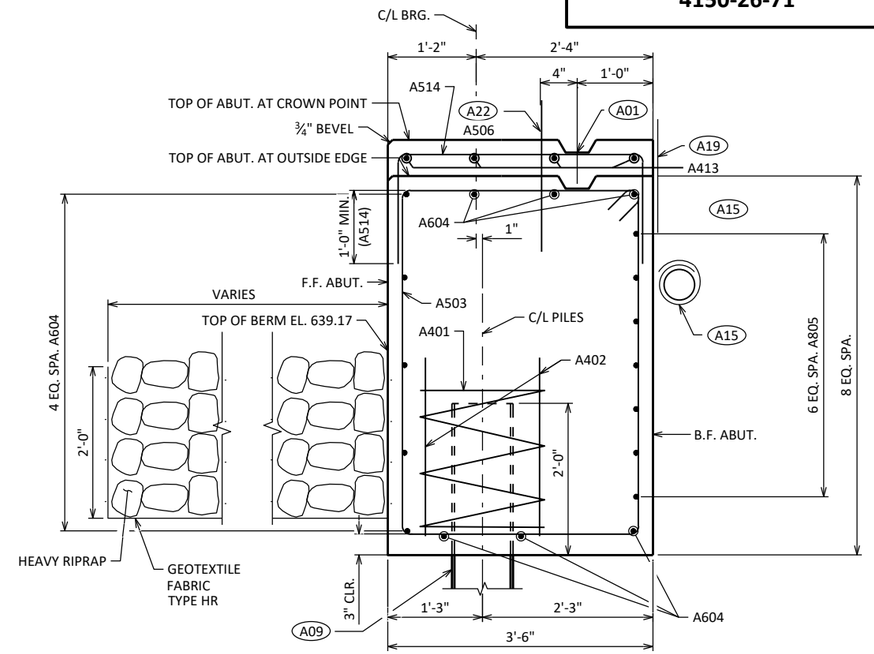
(LOOKING EAST)



PLAN



PILE PLAN



SECTION THRU BODY

LEGEND

◧ DIMENSIONS ASSUME 1" JOINT WIDTH. JOINT WIDTH DIMENSIONS MAY VARY DUE TO ±¼" JOINT TOLERANCES.

(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A09) SUPPORT ABUTMENT ON HP 10 X 42 STEEL PILING. ESTIMATED 25'-0" LONG SEATED IN PRE-BORED HOLES CORED 3'-0" MINIMUM INTO ROCK. ESTIMATED PILE TIP ELEVATION IS 614.6 FT AT EAST ABUTMENT. PILE DRIVING IS NOT REQUIRED. THE FACTORED AXIAL RESISTANCE OF THE PILES IN COMPRESSION USED FOR DESIGN IS 180 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. PLACE UNDERDRAIN SLOPED TO DISCHARGE A MINIMUM OF 1'-0" ABOVE NORMAL WATER.

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) A506 BARS @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

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EAST ABUTMENT

SHEET 6
186

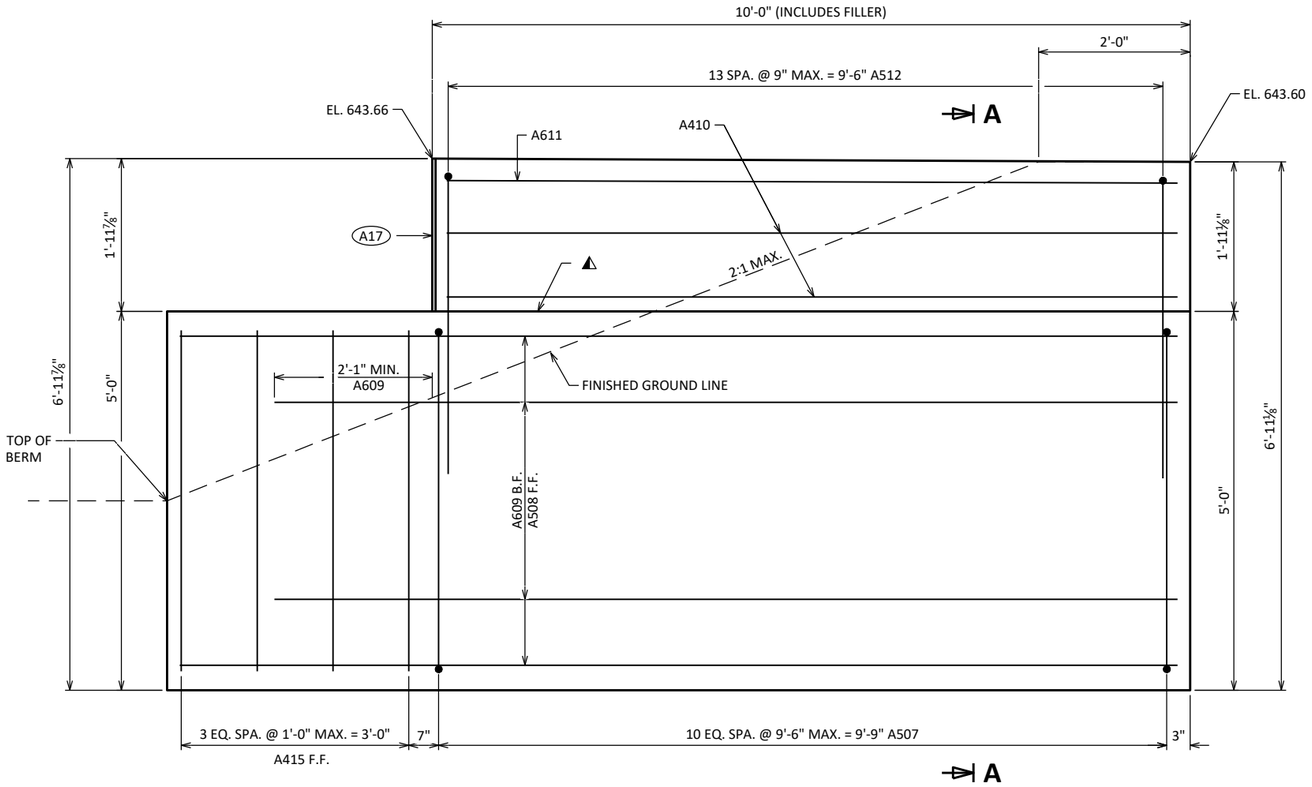
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8

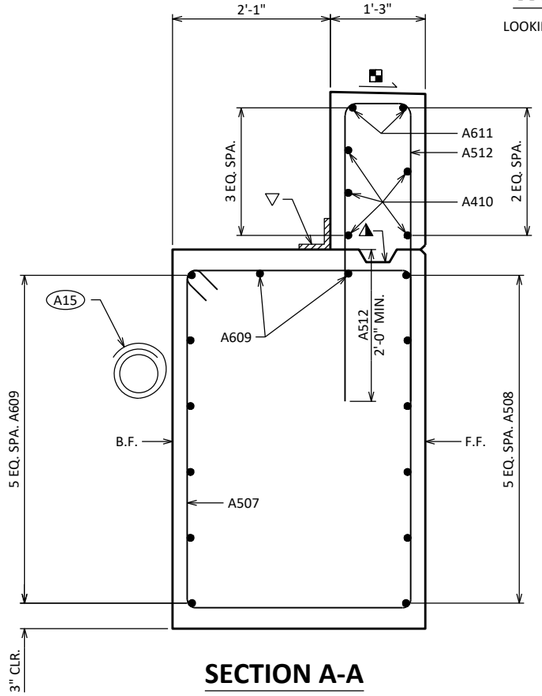
STATE PROJECT NUMBER

4150-26-71

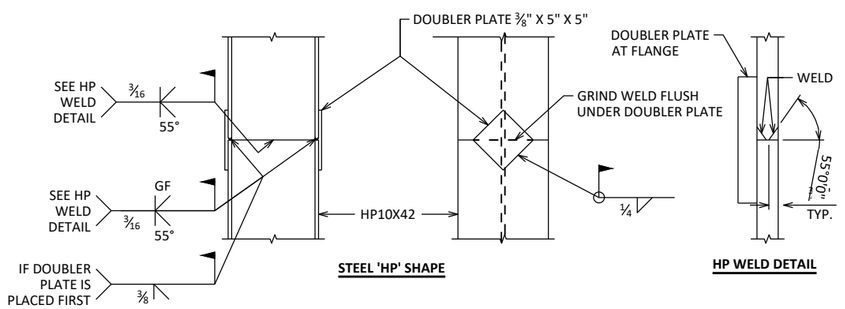


WING 4 ELEVATION

LOOKING AT FRONT FACE, WING 3 SIMILAR



SECTION A-A



STEEL 'HP' SHAPE

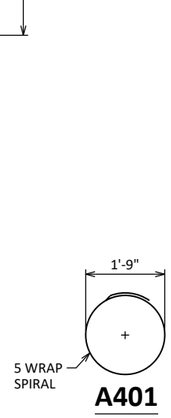
HP WELD DETAIL

'HP' PILE DETAILS

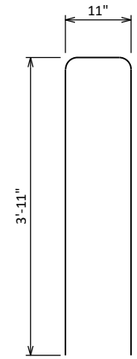
BILL OF BARS

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

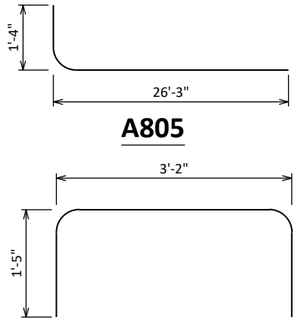
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		7	28'-0"	X		PILES - 1 PER PILE
A402		14	2'-3"			PILES - 2 PER PILE
A503		59	15'-10"	X		ABUT. BODY STIRRUPS
A604		11	47'-5"			ABUT. BODY HORIZONTAL
A805		14	27'-5"	X		ABUT. BODY HORIZONTAL B.F.
A506	X	45	2'-0"			ABUT. BODY DOWELS
A507	X	22	15'-6"	X		WINGS 3 & 4 STIRRUPS
A508	X	12	13'-2"			WINGS 3 & 4 HORIZONTAL F.F.
A609	X	16	11'-11"			WINGS 3 & 4 HORIZONTAL
A410	X	10	9'-7"			UPPER WINGS 3 & 4 HORIZONTAL
A611	X	4	9'-7"			UPPER WINGS 3 & 4 HORIZONTAL TOP
A512	X	28	8'-6"	X		UPPER WINGS 3 & 4 STIRRUPS
A413		4	14'-0"			ABUT. BODY HORIZONTAL TOP
A514		15	5'-9"	X		ABUT. BODY STIRRUPS TOP
A415		8	4'-6"			WINGS 3 & 4 VERTICAL ABUT. ENDS



A401

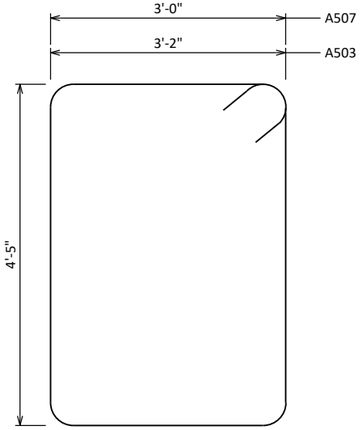


A512



A805

A514



A503, A507

LEGEND

- ◭ CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. DO NOT POUR UPPER WINGS UNTIL AFTER GIRDERS HAVE BEEN POST-TENSIONED.
- ◩ SLOPE TO DRAIN.
- ▽ 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

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DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-15-029

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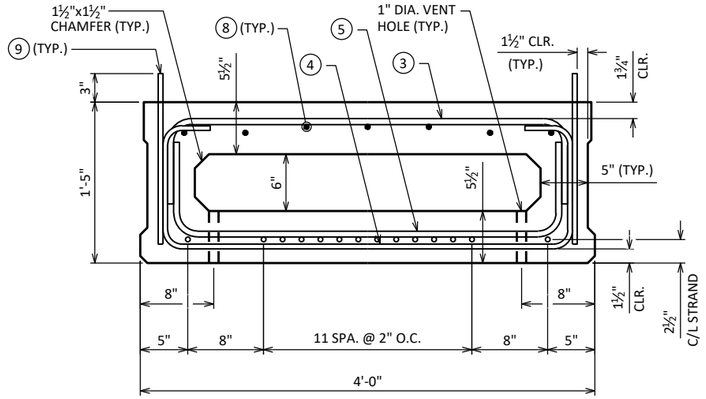
EAST ABUTMENT DETAILS

SHEET 7
187

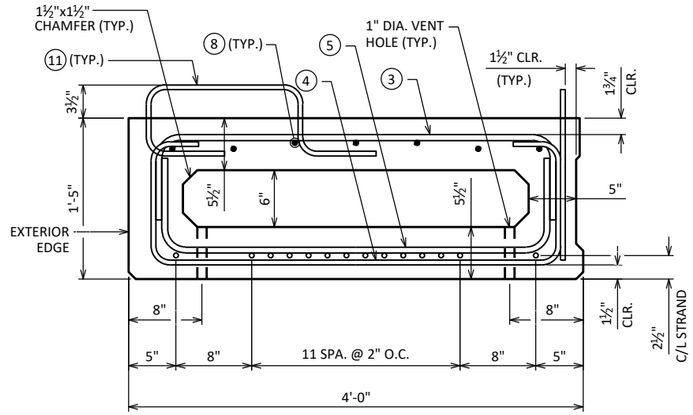
SCALE = 2.00

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8



SECTION THRU 4'-0" INTERIOR GIRDER



SECTION THRU 4'-0" EXTERIOR GIRDER

STATE PROJECT NUMBER

4150-26-71

NOTES

THE CONCRETE MIX FOR THE PRESTRESSED BOX GIRDERS SHALL CONFORM TO SECTION 503.2.2 OF THE STANDARD SPECIFICATIONS.

AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO THE BOTTOM OF THE GIRDERS AND THE EXTERIOR FACE OF EXTERIOR GIRDERS. DO NOT APPLY CONCRETE SEALER OR EPOXY TO THE SHEAR KEY OR THE TOP OF GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF THE GIRDER. END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

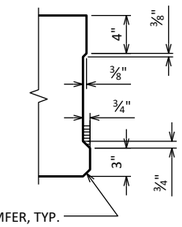
VOIDS SHALL BE VENTED AND DRAINED BY CASTING (2)-1" DIA. TUBES AT EACH END OF VOID SEGMENT. LOCATE TUBES AT BOTTOM EDGES OF THE CORNER FILLETS, AVOID STRAND LOCATIONS.

FOUR WAY SLING MUST BE USED TO ENGAGE ALL 4 LIFTING DEVICES ON BOTH END OF UNITS.

POST-TENSIONING OF THE TRANSVERSE TENDONS SHALL NOT BEGIN UNTIL THE GROUT BETWEEN THE PRECAST BEAMS HAS ALL BEEN ALLOWED TO CURE FOR 48 HOURS AND GROUT HAS REACHED A COMPRESSIVE STRENGTH OF 3,000 PSI.

SEAL WASHER SHALL BE SPONGE NEOPRENE GASKET 3¼" MIN. THICK. STRESS POCKETS SHALL BE FILLED WITH CHLORIDE FREE NON-SHRINK GROUT AFTER POST-TENSIONING.

TRANSITION BETWEEN CHANGING SLOPES OF POST-TENSIONING DUCTS SHALL BE PROVIDED BY EITHER A CIRCULAR OR PARABOLIC CURVE WITH A MINIMUM LENGTH OF 3'-0".



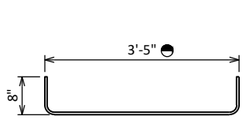
SHEAR KEY RECESS DETAIL

OMIT SHEAR KEY ON EXTERIOR FACE OF EXTERIOR GIRDERS.

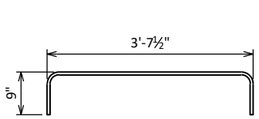
LEGEND

◓ DIMENSION GIVEN FOR A POST-TENSIONING DUCT 1'-10" FROM END OF PRESTRESSED BOX GIRDER.

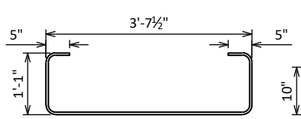
◩ SUBSTITUTE (11) BAR ON EXTERIOR EDGE OF GIRDERS.



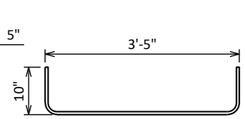
(1) BOTTOM ABUTMENT BAR
EPOXY COAT BARS
(5) #4 BARS



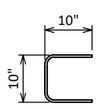
(3) TOP STIRRUP
#5 AT 1'-0" MAX.



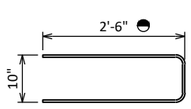
(4) BOTTOM STIRRUP
#4 AT 1'-0" MAX.



(5) END BLOCK BOTTOM STIRRUP
#4 AND #5 BARS
SEE "GIRDER ELEVATION" NEXT SHEET FOR SPACING



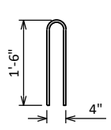
(6) DUCT STIRRUP
#4 AT 9" MAX.
(6) EACH GIRDER END
(12) EACH GIRDER DUCT



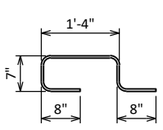
(7) DUCT STIRRUP
#4 AT 9" MAX.
(6) EACH GIRDER END



(8) LONGITUDINAL BAR
(7) #4 BARS MIN.



(9) SHEAR CONNECTOR
TIE ONE LEG OF BAR TO (3)
EPOXY COAT BARS
#4 AT 2'-0" MAX. ◩



(11) EXTERIOR EDGE SHEAR CONNECTOR
#4 AT 2'-0" MAX.
EPOXY COAT BARS

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STRUCTURE B-15-029

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17" PRESTRESSED BOX GIRDER DETAILS 1

SHEET 8
188

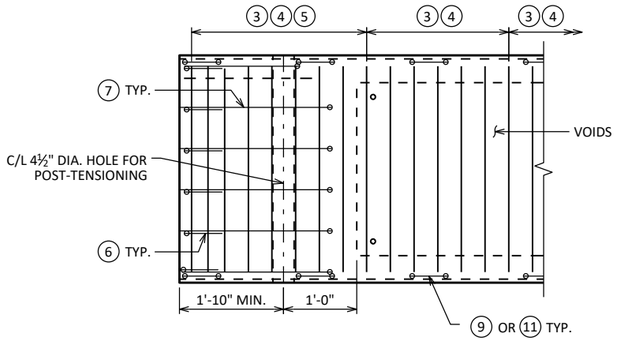
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8

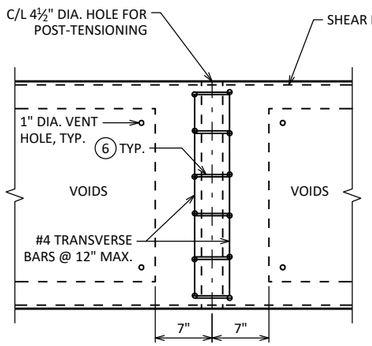
STATE PROJECT NUMBER

4150-26-71

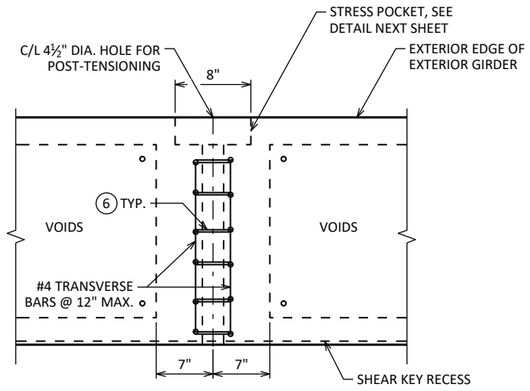


PART GIRDER PLAN

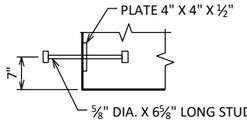
(1) , (2) & #4 TRANSVERSE BARS NOT SHOWN FOR CLARITY



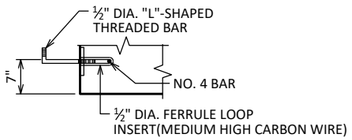
INTERIOR GIRDER DUCT PLAN



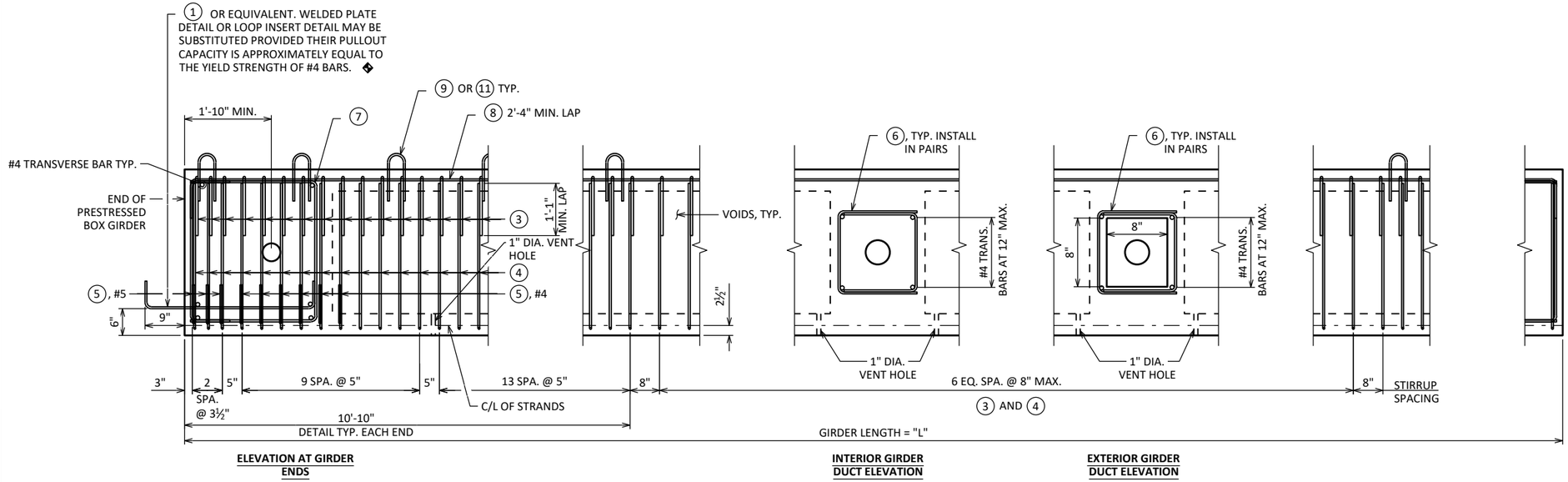
EXTERIOR GIRDER DUCT PLAN



WELDED PLATE DETAIL



LOOP INSERT DETAIL



GIRDER ELEVATION

LEGEND

❖ BARS PLACED PARALLEL TO GIRDERS. SPACING IS PERPENDICULAR TO THE C/L OF GIRDERS.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/4 & 3/4 SPAN	DEAD LOAD DEFL. (IN.) 1/2 SPAN	CONC. STRGTH. F'C (PSI)	DIA. OF STRAND (IN.)	UNDRAPED PATTERN TOTAL NO. OF STRANDS	UNDRAPED PATTERN TOTAL INITIAL PRESTRESS FORCE (KIPS)	UNDRAPED PATTERN F'CI (PSI) ⚹
1	2 TO 10	26'-8"	0.04	0.06	5,000	0.5	14	434	4,250
1	1 AND 11	26'-8"	0.05	0.07	5,000	0.5	14	434	4,250

⚹ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

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STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

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17" PRESTRESSED BOX GIRDER DETAILS 2

SHEET 9
189

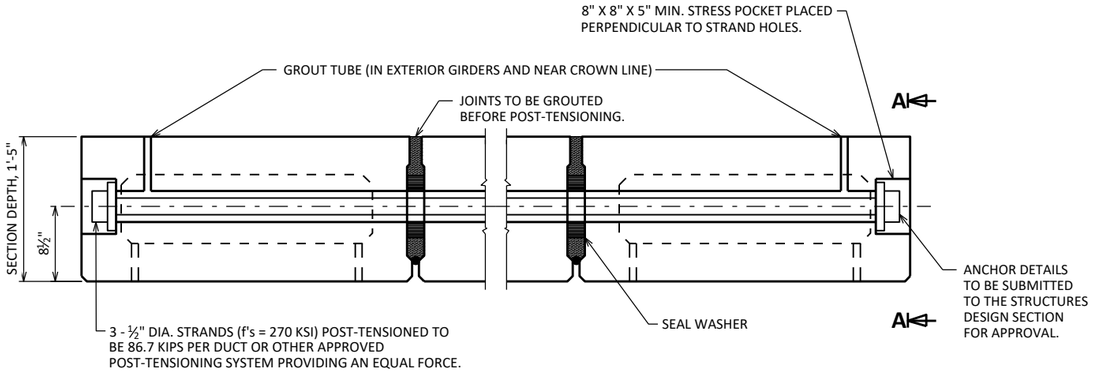
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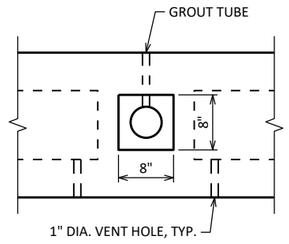
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STATE PROJECT NUMBER

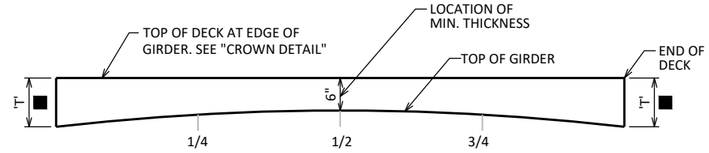
4150-26-71



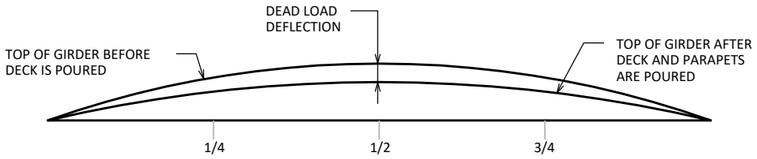
POST-TENSIONING DETAILS



SECTION A-A



DECK THICKNESS DIAGRAM



CAMBER AND DEAD LOAD DEFELECTION DIAGRAM

TOP OF DECK ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	SPAN 1 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	C/L BRG. E. ABUT.
NORTH EDGE OF DECK	643.84	643.83	643.81	643.80	643.79	643.78	643.76	643.75	643.74	643.72	643.71
NORTH GUTTER	643.85	643.84	643.82	643.81	643.80	643.79	643.77	643.76	643.75	643.73	643.72
GIRDER 1	643.86	643.85	643.83	643.82	643.81	643.80	643.78	643.77	643.76	643.74	643.73
GIRDER 2	643.94	643.93	643.91	643.90	643.89	643.88	643.86	643.85	643.84	643.82	643.81
GIRDER 3	644.03	644.02	644.00	643.99	643.98	643.97	643.95	643.94	643.93	643.91	643.90
GIRDER 4	644.11	644.10	644.08	644.07	644.06	644.05	644.03	644.02	644.01	643.99	643.98
GIRDER 5	644.19	644.18	644.16	644.15	644.14	644.13	644.11	644.10	644.09	644.07	644.06
C/L STH 57/GIRDER 6	644.27	644.26	644.24	644.23	644.22	644.21	644.19	644.18	644.17	644.15	644.14
GIRDER 7	644.19	644.18	644.16	644.15	644.14	644.13	644.11	644.10	644.09	644.07	644.06
GIRDER 8	644.11	644.10	644.08	644.07	644.06	644.05	644.03	644.02	644.01	643.99	643.98
GIRDER 9	644.03	644.02	644.00	643.99	643.98	643.97	643.95	643.94	643.93	643.91	643.90
GIRDER 10	643.94	643.93	643.91	643.90	643.89	643.88	643.86	643.85	643.84	643.82	643.81
GIRDER 11	643.86	643.85	643.83	643.82	643.81	643.80	643.78	643.77	643.76	643.74	643.73
SOUTH GUTTER	643.85	643.84	643.82	643.81	643.80	643.79	643.77	643.76	643.75	643.73	643.72
SOUTH EDGE OF DECK	643.84	643.83	643.81	643.80	643.79	643.78	643.76	643.75	643.74	643.72	643.71

SPAN	CAMBER (IN.) ⚹⚹
1	0.48

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

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T ' , USE FIELD MEASURED GIRDER CAMBER.

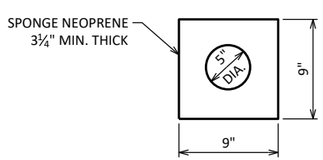
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

■ TO DETERMINE THICKNESS AT GIRDER ENDS FOLLOW THIS PROCESS:

6" MIN. DECK THICKNESS
+ FIELD MEASURED GIRDER CAMBER (AT MID SPAN)
- DEADLOAD DEFLECTION (AT MID SPAN)
= DECK THICKNESS 'T'

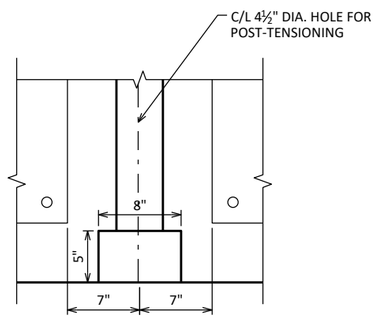
NOTE: PLAN DECK THICKNESS BASED ON THEORETICAL INITIAL CAMBER VALUE. 1/4" PT. VALUE MAY BE INTERPOLATED. USE FIELD MEASURED GIRDER CAMBER FOR ACTUAL DECK THICKNESS. THE 1/4" PT. IS INTERPOLATED BETWEEN DECK THICKNESS AT THE END OF THE DECK AND MIDSPAN.

VARIATIONS TO THE GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

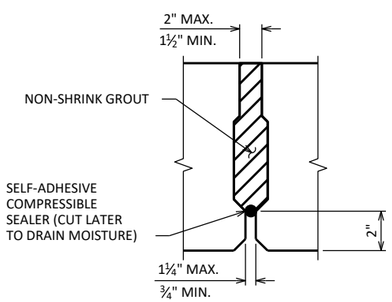


SEAL WASHER

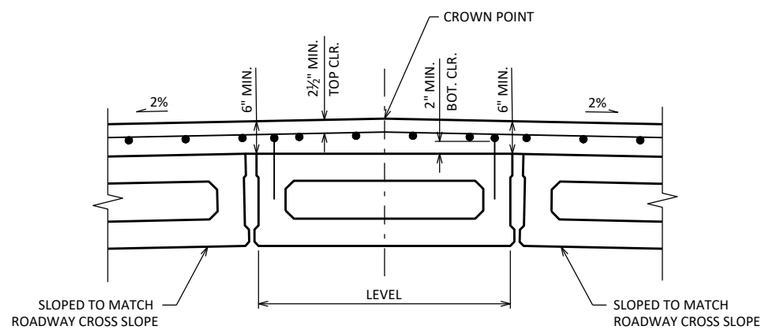
(MAY ALSO BE ROUND)



STRESS POCKET DETAIL



SHEAR KEY DETAIL



CROWN DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

17" PRESTRESSED BOX GIRDER DETAILS 3

SHEET 10
190

SCALE = 4.00

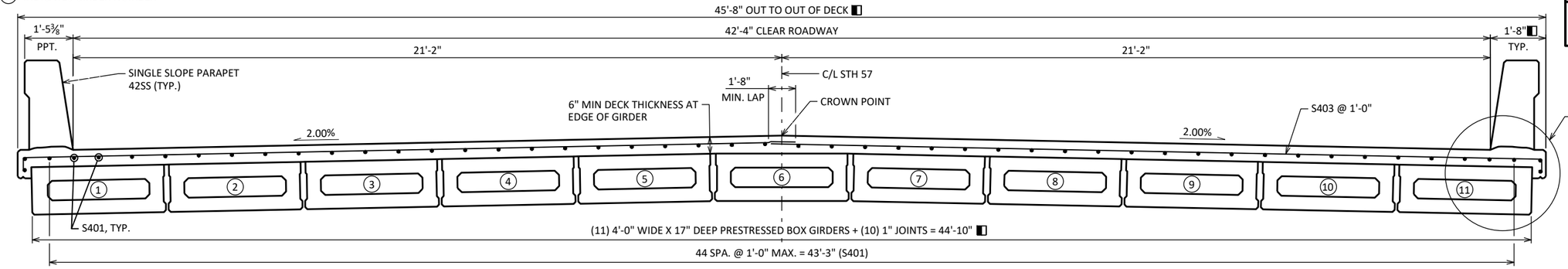
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8

STATE PROJECT NUMBER

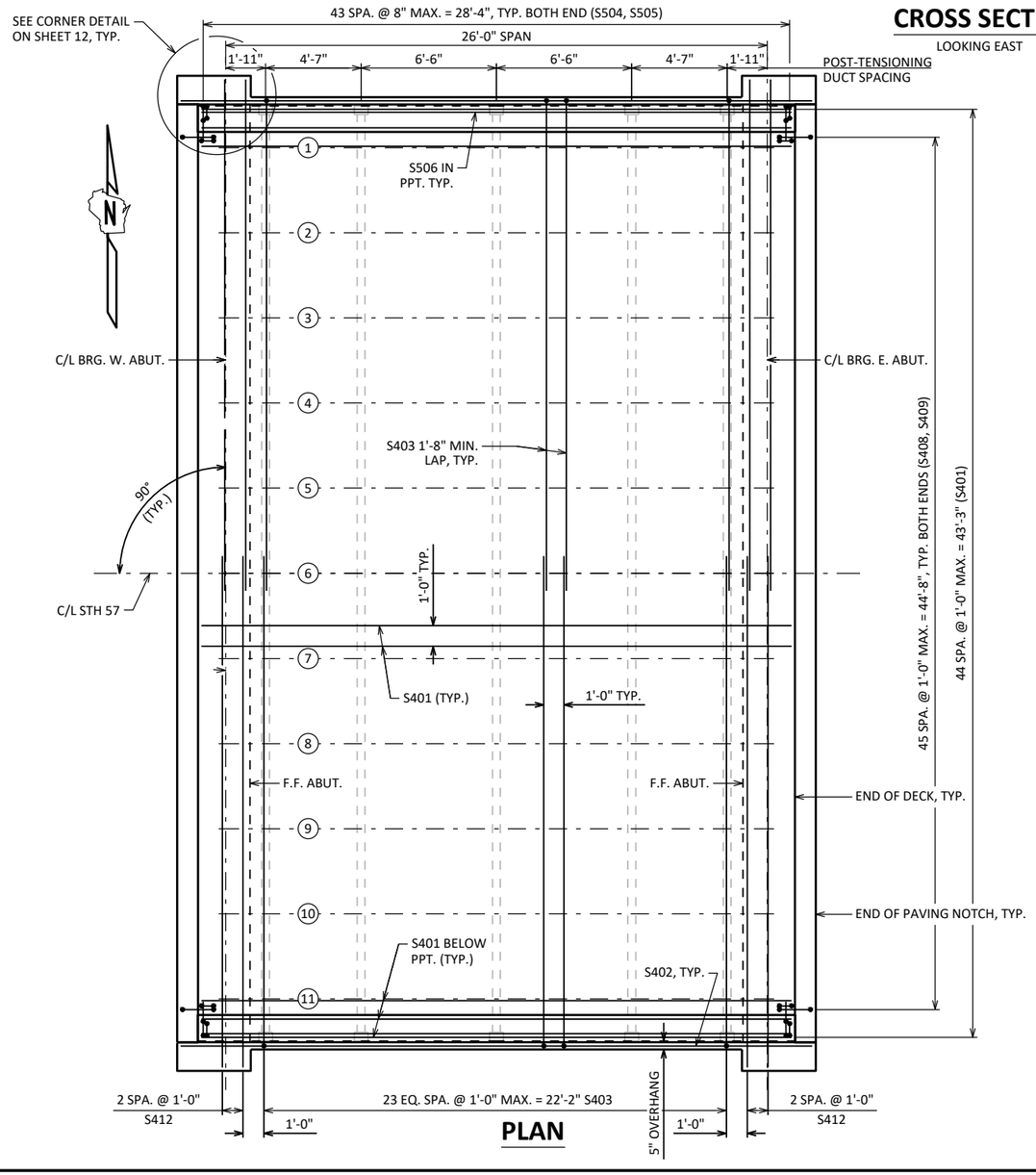
4150-26-71

(X) INDICATES GIRDER NUMBER

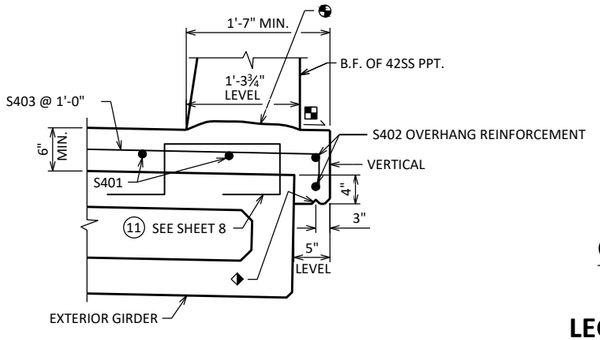


CROSS SECTION

LOOKING EAST

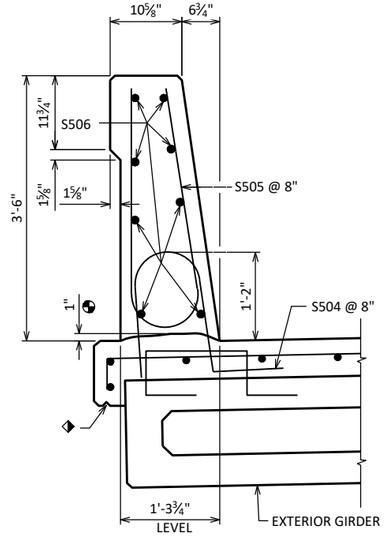


PLAN

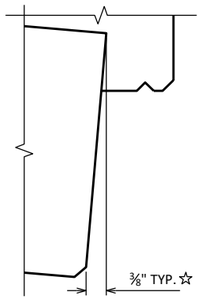


OVERHANG DETAIL

PARAPET REINF. NOT SHOWN FOR CLARITY



SECTION THRU PARAPET ON BRIDGE



GIRDER EDGE DETAIL

LEGEND

- CONST. JOINT STRIKE-OFF AS SHOWN AND LEAVE ROUGH.
- ¾" V-GROOVE. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.
- DIMENSIONS ASSUME 1" JOINT WIDTH. JOINT WIDTH DIMENSIONS MAY VARY DUE TO ±¼" JOINT TOLERANCES.
- ☆ HORIZONTAL DISTANCE FROM TOP OF PRESTRESSED BOX GIRDER TO BOTTOM OF PRESTRESSED BOX GIRDER.
- SLOPE TO DRAIN.

NOTES

NOTE: AN AVERAGE DECK THICKNESS OF 6⅝" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

VARIATIONS TO THE GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

DO NOT POUR DECK UNTIL AFTER THE PRESTRESSED BOX GIRDERS HAVE BEEN FULLY POST-TENSIONED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

SUPERSTRUCTURE

SHEET 11
191

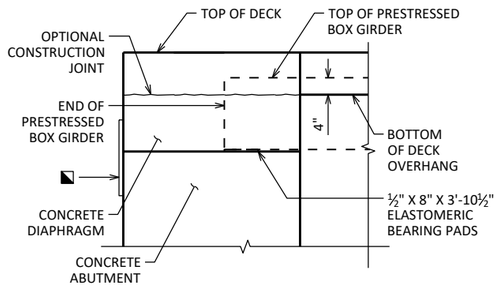
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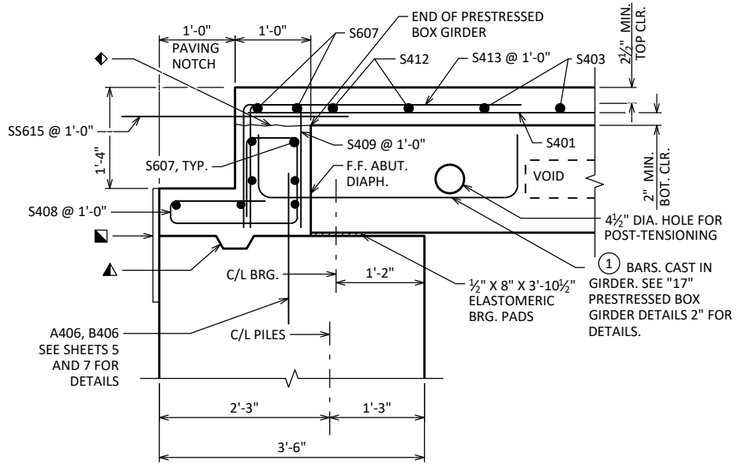
STATE PROJECT NUMBER

4150-26-71



ELEVATION

(SHOWING DECK OVERHANG TERMINATION AT CONCRETE ABUTMENT)



SECTION THRU SUPERSTRUCTURE
DIAPHRAGM AT PAVING NOTCH

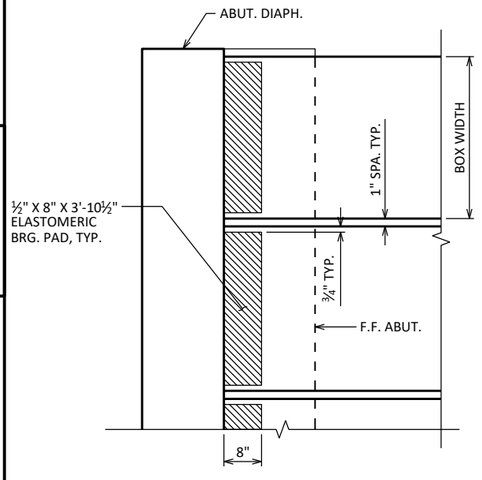
BILL OF BARS

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

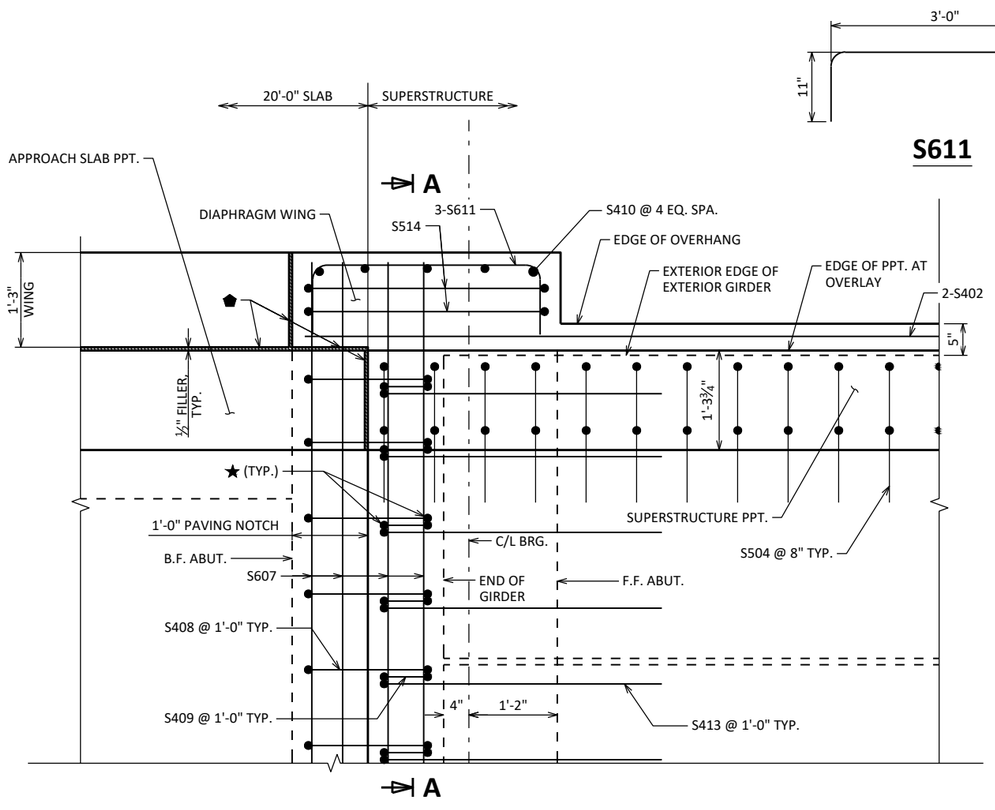
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	45	28'-4"			DECK LONGITUDINAL
S402	X	4	30'-4"			OVERHANG LONGITUDINAL
S403	X	48	23'-11"	X		DECK TRANSVERSE
S504	X	88	4'-5"	X		PPT. & DECK VERTICAL
S505	X	88	6'-8"	X		PPT. VERTICAL
S506	X	16	28'-4"			PPT. HORIZONTAL
S607	X	18	47'-5"			ABUT. DIAPH. HORIZONTAL
S408	X	92	5'-8"	X		ABUT. DIAPH. VERTICAL
S409	X	92	3'-8"	X		ABUT. DIAPH. & DECK STIRRUPS
S410	X	20	1'-7"			ABUT. DIAPH. VERTICAL EXT. CORNERS
S611	X	12	4'-6"	X		ABUT. DIAPH. HORIZONTAL TIES EXT. CORNERS
S412	X	4	23'-2"			DECK TRANSVERSE ABOVE DIAPH.
S413	X	92	5'-2"	X		ABUT. DIAPH. & DECK VERTICAL
S514	X	8	10'-2"	X		ABUT. DIAPH. VERTICAL TIES EXT. CORNERS
STAINLESS STEEL → SS615		92	3'-0"			DECK & STRUCTURAL APPROACH SLAB DOWELS

LEGEND

- CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2" X 6". DO NOT POUR UPPER WING WALLS UNTIL AFTER GIRDERS HAVE BEEN POST-TENSIONED.
- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6".
- OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- ★ BUNDLE S408, S409, S413, OR HOOKED GIRDER DOWELS AT LOCATIONS WHERE 2¼" MINIMUM CLEAR SPACING BETWEEN PARALLEL REINFORCEMENT MAY NOT BE ACHIEVED.

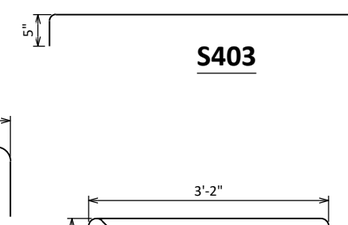


BEARING PAD DETAILS



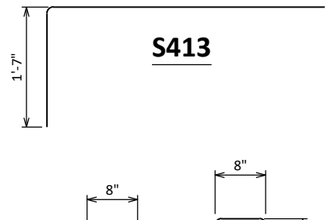
CORNER DETAIL

TYP. ALL CORNERS
PPT. AND STRUCTURAL APPROACH SLAB REINFORCEMENT NOT SHOWN FOR CLARITY

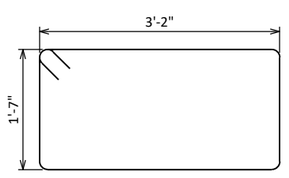


S611

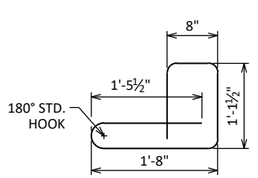
S403



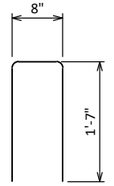
S413



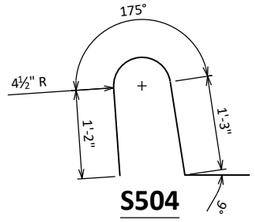
S514



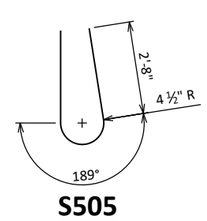
S408



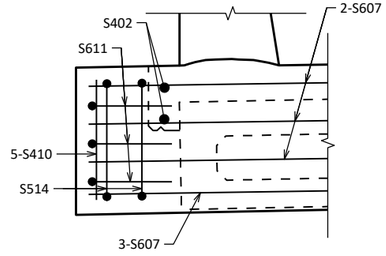
S409



S504



S505



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

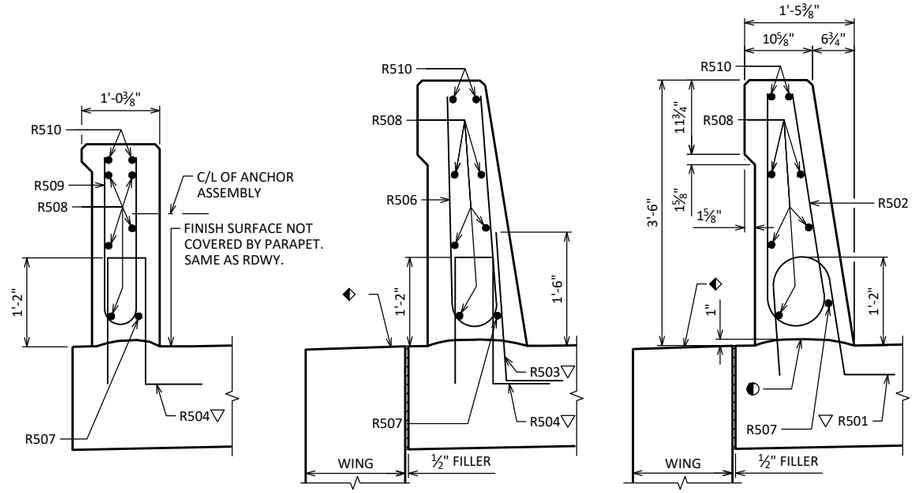
SUPERSTRUCTURE DETAILS

SHEET 12
192

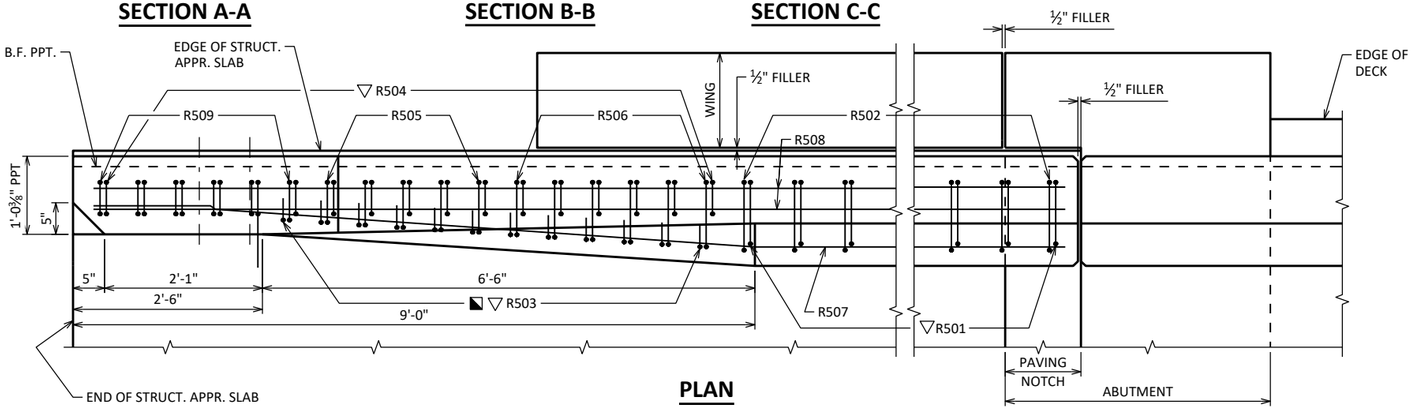
SCALE = 2.00

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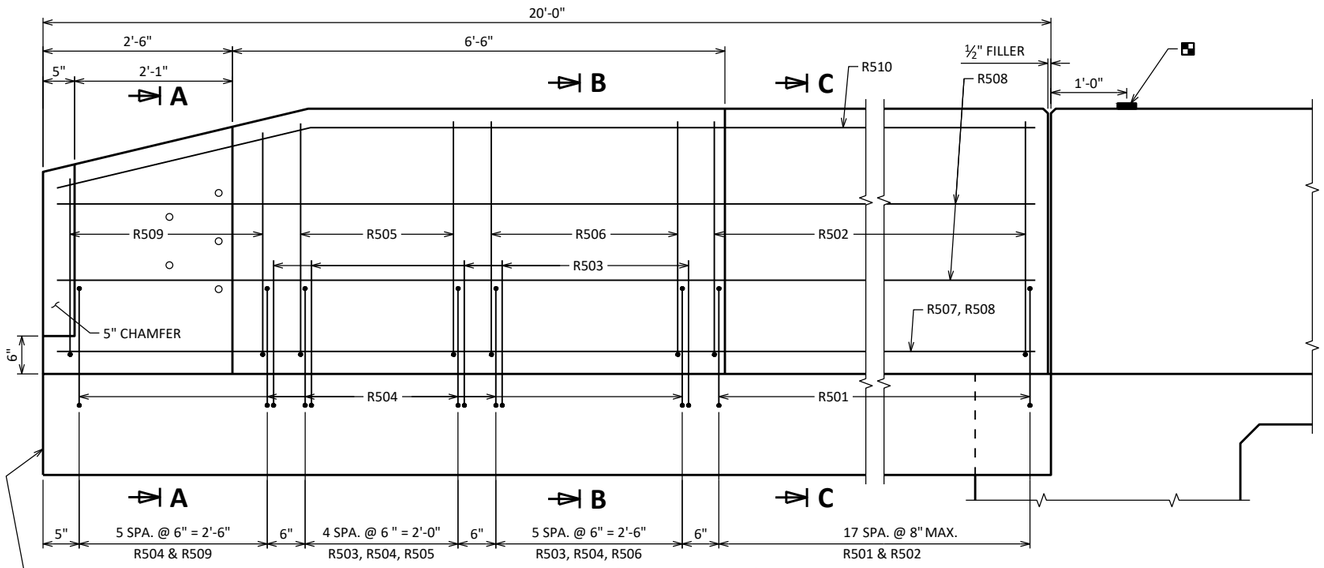


SECTION A-A **SECTION B-B** **SECTION C-C**



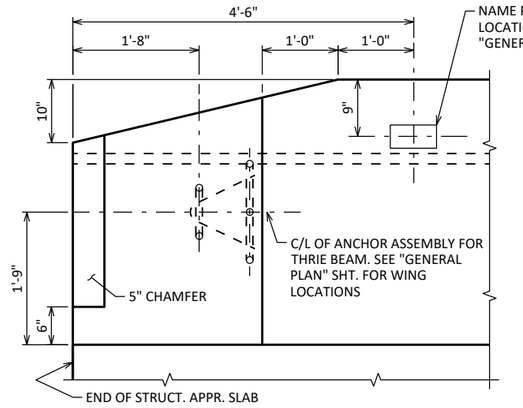
PLAN

NW CORNER SHOWN, OTHERS SIMILAR



INSIDE ELEVATION

NW CORNER SHOWN, OTHERS SIMILAR
WING & STRUCTURAL APPROACH SLAB FOOTING NOT SHOWN FOR CLARITY



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

STATE PROJECT NUMBER

4150-26-71

BILL OF BARS

FOR STRUCTURAL APPOACH SLAB PARAPETS

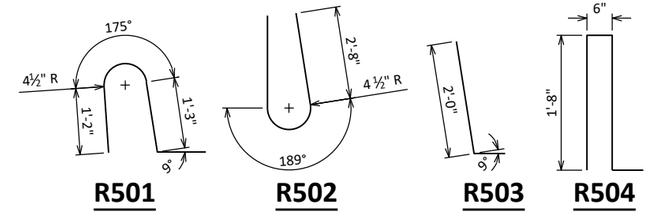
BAR MARK	COAT	W. ABUT.	E. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	36	36	4'-5"	X		PARAPET VERT.
R502	X	36	36	6'-8"	X		PARAPET VERT.
R503	X	22	22	2'-9"	X		PARAPET VERT.
R504	X	34	34	4'-4"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-6"	X		PARAPET HORIZ.
R508	X	10	10	19'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	4	19'-7"	X		PARAPET HORIZ.

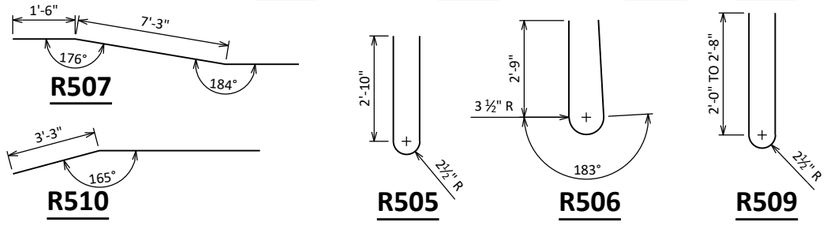
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

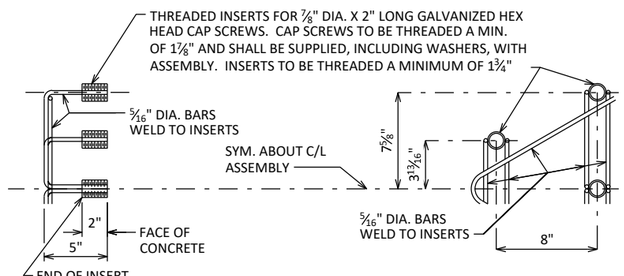
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"





BENCH MARK CAP



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

- CONST. JOINT - STRIKE OFF AS SHOWN
- SLOPE FOR DRAINAGE
- USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

SINGLE SLOPE PARAPET 42SS

SHEET 13
193

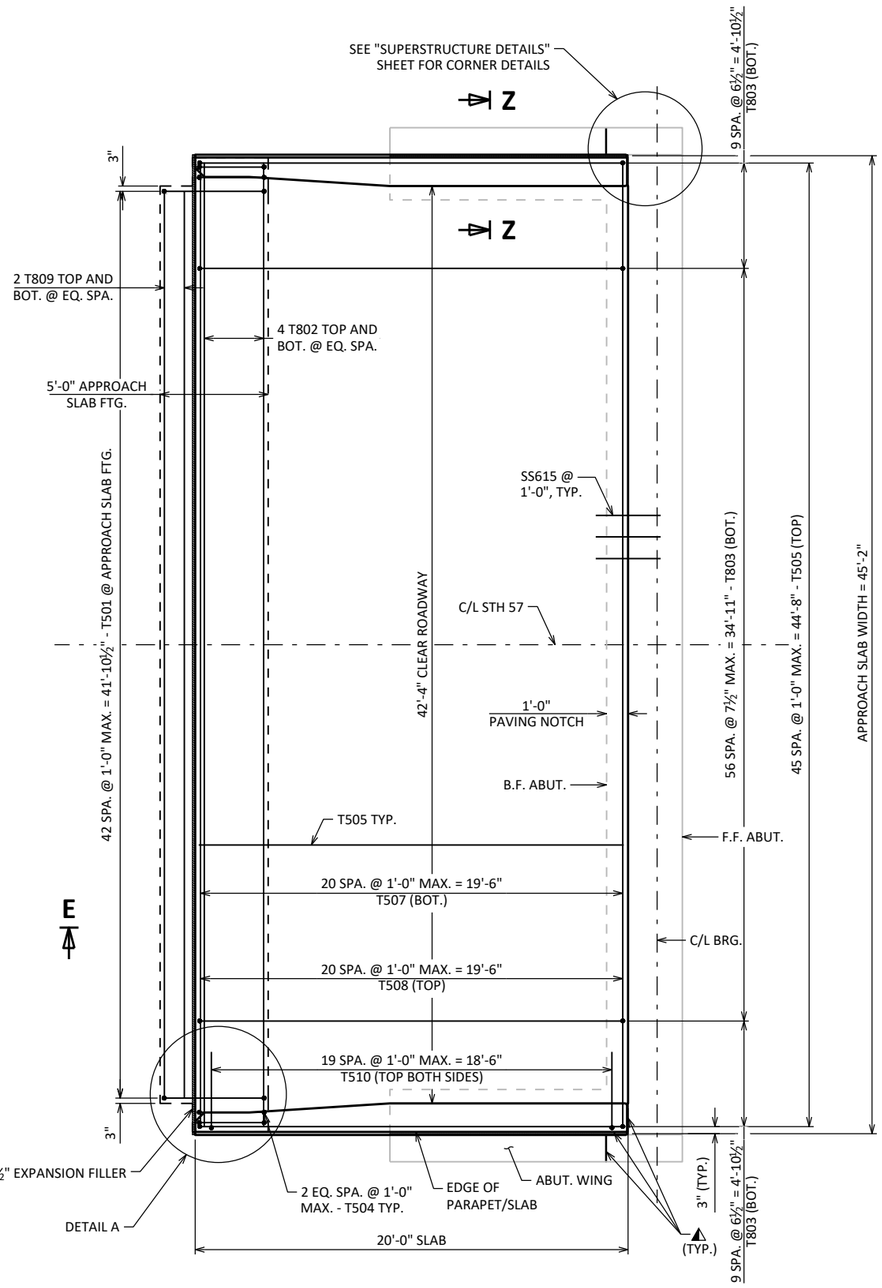
SCALE = 2.00

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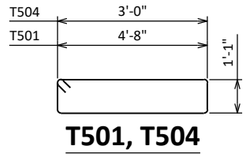
STATE PROJECT NUMBER

4150-26-71

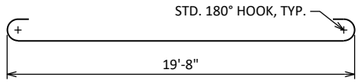


APPROACH SLAB PLAN

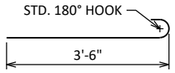
(WEST APPROACH SLAB SHOWN, EAST APPROACH SLAB SIMILAR)



T501, T504



T803

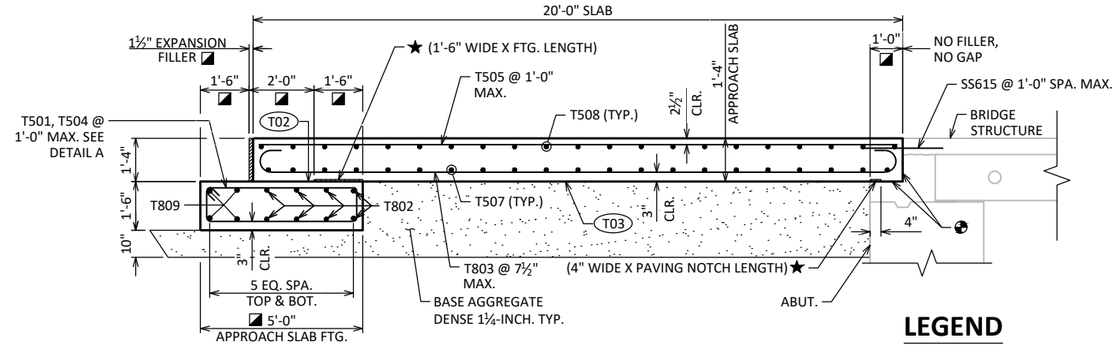


T510

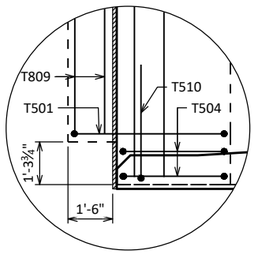
BILL OF BARS

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

BAR MARK	COAT	W. SLAB	E. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
T501	X	43	43	12'-2"	X		APPROACH SLAB FOOTING STIRRUP
T802	X	8	8	44'-6"			APPROACH SLAB FOOTING TRANSVERSE
T803	X	75	75	21'-6"	X		APPROACH SLAB BOTTOM LONGITUDINAL
T504	X	4	4	8'-10"	X		APPROACH SLAB FOOTING STIRRUP
T505	X	46	46	19'-7"			APPROACH SLAB TOP LONGITUDINAL
T506	--	NOT	USED	--	--	--	--
T507	X	21	21	44'-8"			APPROACH SLAB BOTTOM TRANSVERSE
T508	X	21	21	44'-8"			APPROACH SLAB TOP TRANSVERSE
T809	X	4	4	41'-10"			APPROACH SLAB FOOTING TRANSVERSE
T510	X	40	40	4'-1"	X		APPROACH SLAB WING TOP TRANSVERSE

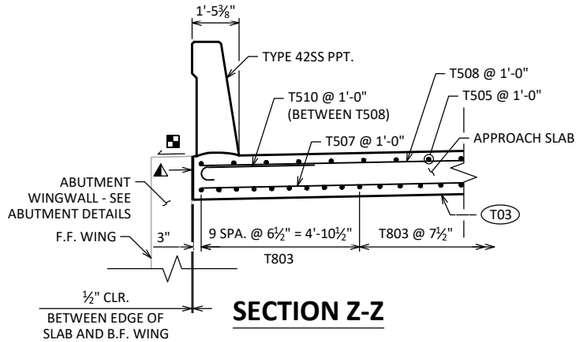


SECTION E-E THRU APPROACH SLAB



DETAIL A

(T803 NOT SHOWN FOR CLARITY)



SECTION Z-Z

LEGEND

- APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH PRIOR TO POURING STRUCTURAL APPROACH SLAB.
- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- ★ ¾" PREFORMED JOINT FILLER ACCORDING TO SPEC. 502.2.7
- ◪ MEASURED NORMAL TO ABUTMENT
- (T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF FOOTING.
- (T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.
- ◪ SLOPE TO DRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-029

DRAWN BY RRH | PLANS CK'D MWB

STRUCTURAL APPROACH SLABS

SHEET 14
194

SCALE = 7.00

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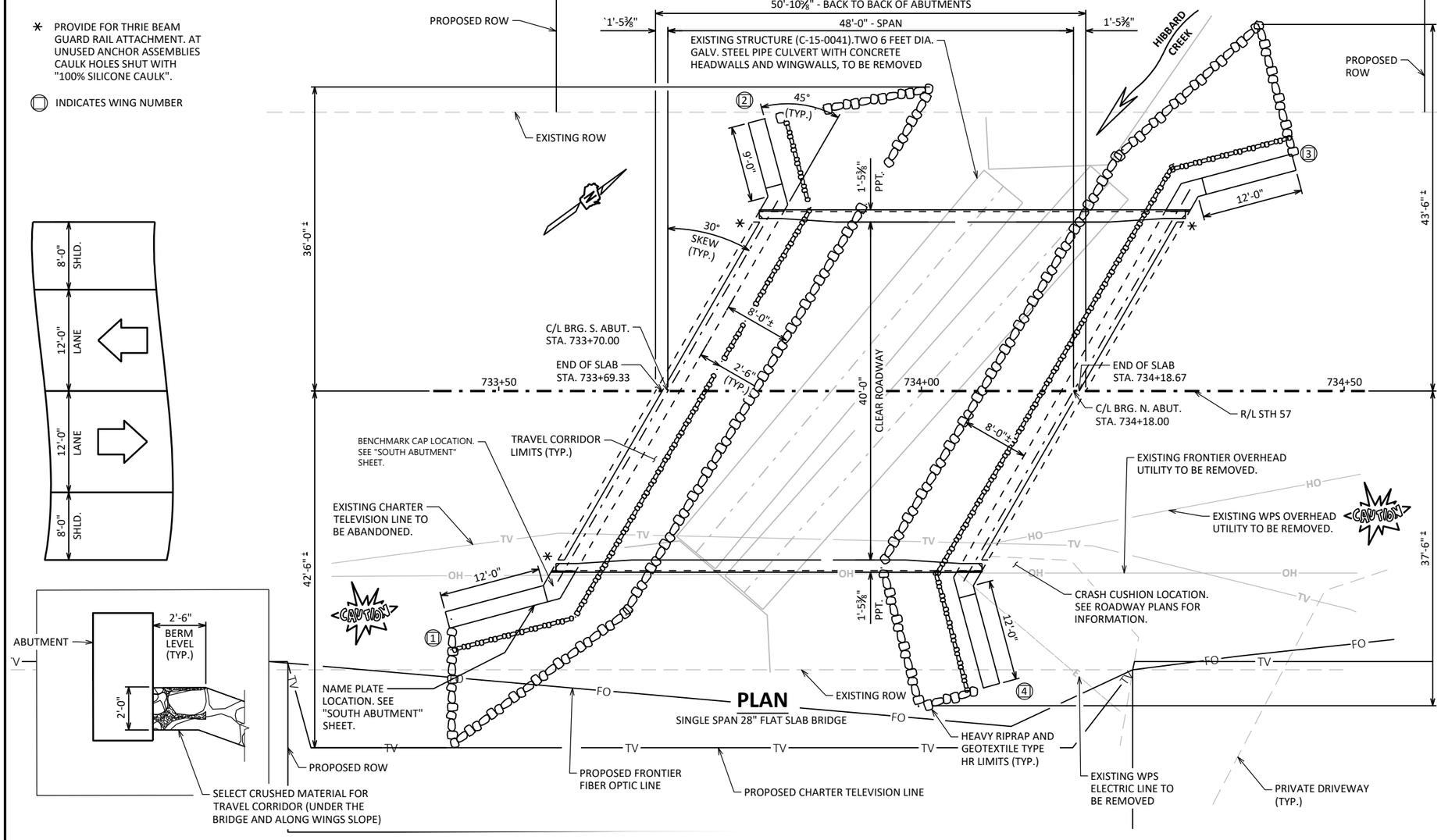
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STATE PROJECT NUMBER

4150-26-71

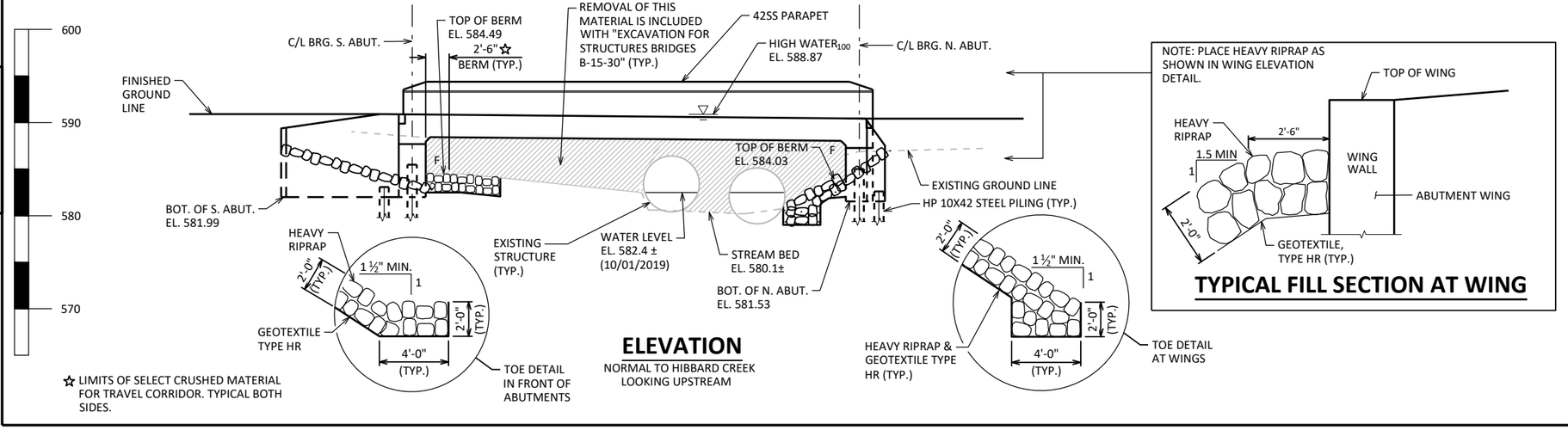
* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

(n) INDICATES WING NUMBER



PLAN

SINGLE SPAN 28" FLAT SLAB BRIDGE



ELEVATION

NORMAL TO HIBBARD CREEK LOOKING UPSTREAM

☆ LIMITS OF SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR. TYPICAL BOTH SIDES.

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

TYPICAL FILL SECTION AT WING

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.21
OPERATING RATING FACTOR: RF = 1.57
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

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

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- SUPERSTRUCTURE — f'_c = 4,000 PSI
- ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
- GRADE 60 — f_y = 60,000 PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10x42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20'-0" LONG AT BOTH ABUTMENTS.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 1050 C.F.S.
V_{100}= 4.98 F.P.S.
HW_{100}= EL. 588.87
WATERWAY AREA = 211 SQ. FT.
DRAINAGE AREA = 20.9 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

Q_2= 280 C.F.S.
V_2= 7.3 F.P.S.
HW_2= EL. 585.79

TRAFFIC VOLUME

STH 57

ADT = 4,100 (2044)
R.D.S. = 60 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS 1
6. SOUTH ABUTMENT DETAILS 2
7. NORTH ABUTMENT
8. NORTH ABUTMENT DETAILS 1
9. NORTH ABUTMENT DETAILS 2
10. SUPERSTRUCTURE
11. SUPERSTRUCTURE DETAILS
12. SINGLE SLOPE PARAPET 42SS
13. ALTERNATE CONSTRUCTION JOINT

STRUCTURE DESIGN CONTACTS:

ISATOU CEESAY (608) 266-9557
KYLE H. BUSCH (608) 267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 1/26/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-15-30

STH 57 OVER HIBBARD CREEK

COUNTY	TOWN
DOOR	JACKSONPORT

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
IFC	CAB	MJH	IFC

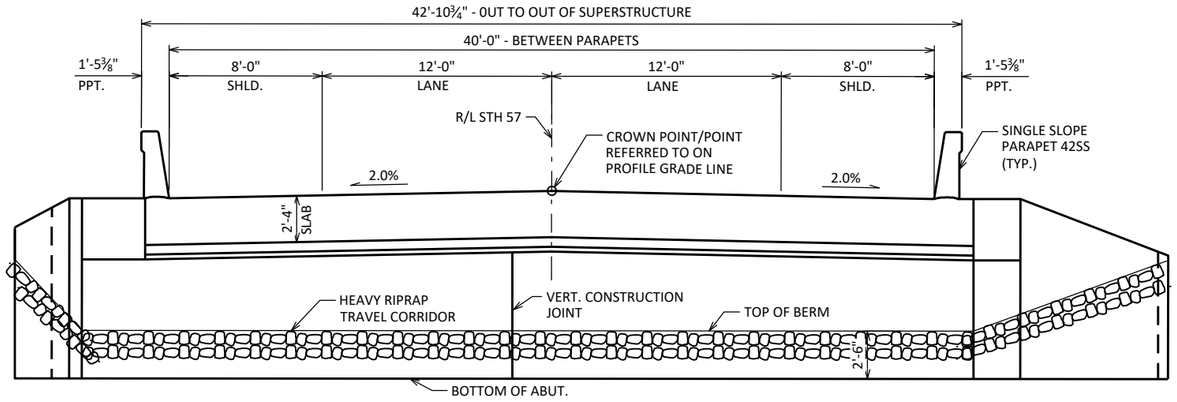
GENERAL PLAN

SHEET 1 OF 13
195

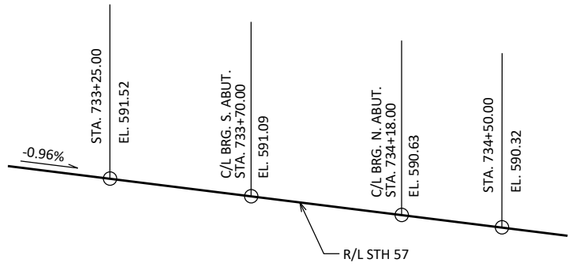
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I.D. 4150-26-00C

DATE: JUNE 2023



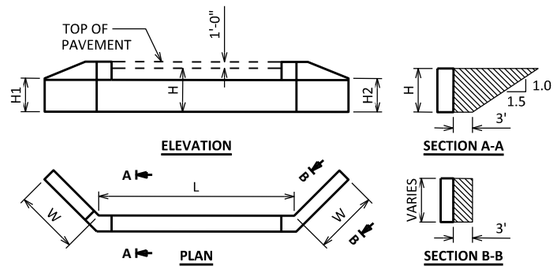
CROSS SECTION THRU ROADWAY LOOKING NORTH



PROFILE GRADE LINE - STH 57

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	SOUTH ABUT.	NORTH ABUT.	TOTALS
203.0220	REMOVING STRUCTURE C-15-0041	EACH	———	———	———	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-15-30	EACH	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	———	311	315	626
502.0100	CONCRETE MASONRY BRIDGES	CY	234.8	43.2	43.6	322
502.3200	PROTECTIVE SURFACE TREATMENT	SY	272	———	———	272
502.3210	PIGMENTED SURFACE SEALER	SY	51	———	———	51
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	———	3,460	3,460	6,920
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	29,700	1,650	1,650	33,000
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	16	16	32
550.1100	PILING STEEL HP 10 -INCH X 42 LB	LF	———	180	180	360
606.0300	RIPRAP HEAVY	CY	———	85	79	164
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	90	93	183
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	3	———	———	3
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	———	71	74	145
645.0120	GEOTEXTILE TYPE HR	SY	———	156	161	317
SPV.0195	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	———	17	17	34
	NON-BID ITEMS					
	FILLER	SIZE	———			½", ¾"



ABUTMENT BACKFILL DIAGRAM

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

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾"UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-15-30" SHALL BE THE EXISTING GROUNDLINE.

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

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

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF SLAB SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS.

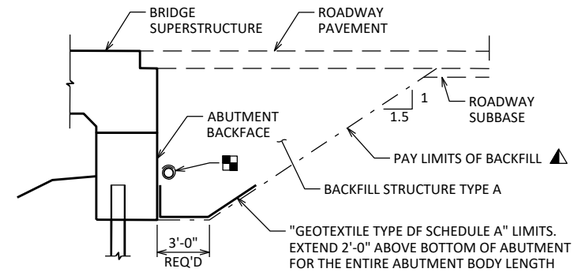
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON THE PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

AT ABUTMENT, HP 12X53 STEEL PILING MAY BE USED IN LIEU OF HP 10X42 STEEL PILING. PAYMENT SHALL BE BASED ON BID PRICE FOR HP 10X42 STEEL PILING.

ALL VOIDS BETWEEN HEAVY RIPRAP IN TRAVEL CORRIDOR SHALL BE FILLED WITH SELECT CRUSHED MATERIAL WITHIN THE LIMITS SHOWN ON THE "GENERAL PLAN" SHEET. WORK SHALL BE PAID FOR UNDER "SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR".



TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

▪ PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

CROSS SECTION & QUANTITIES

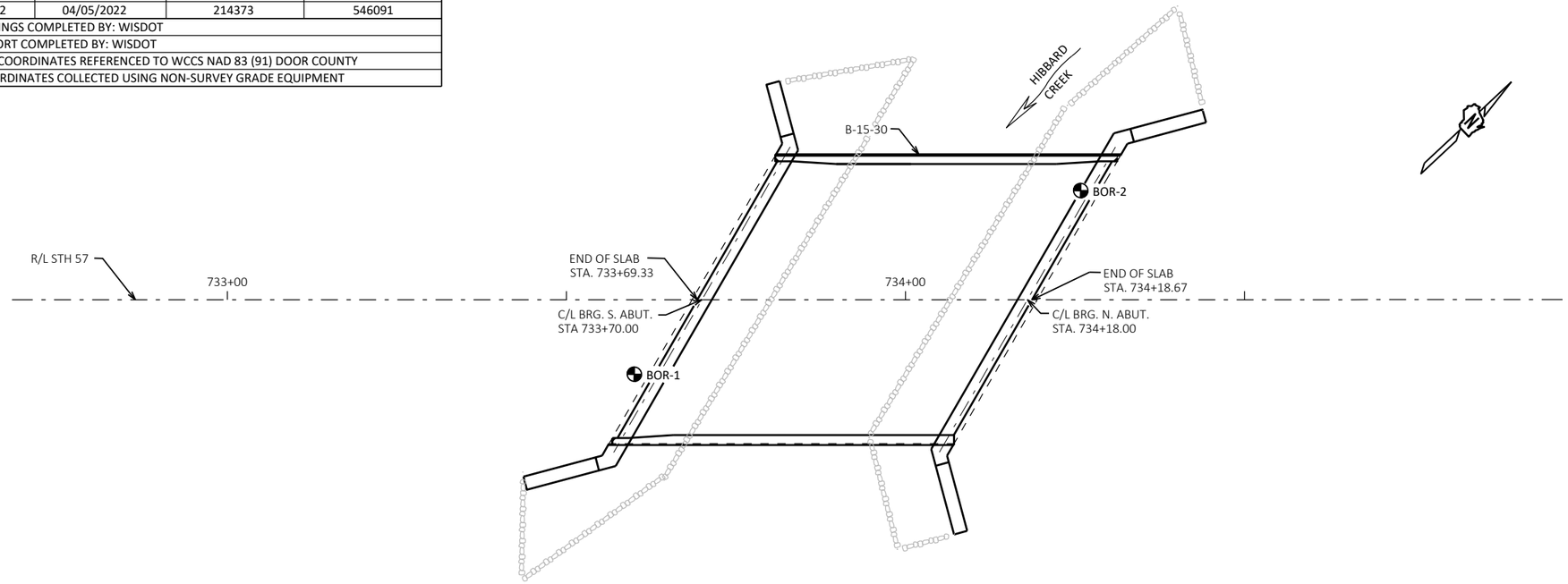
SHEET 2
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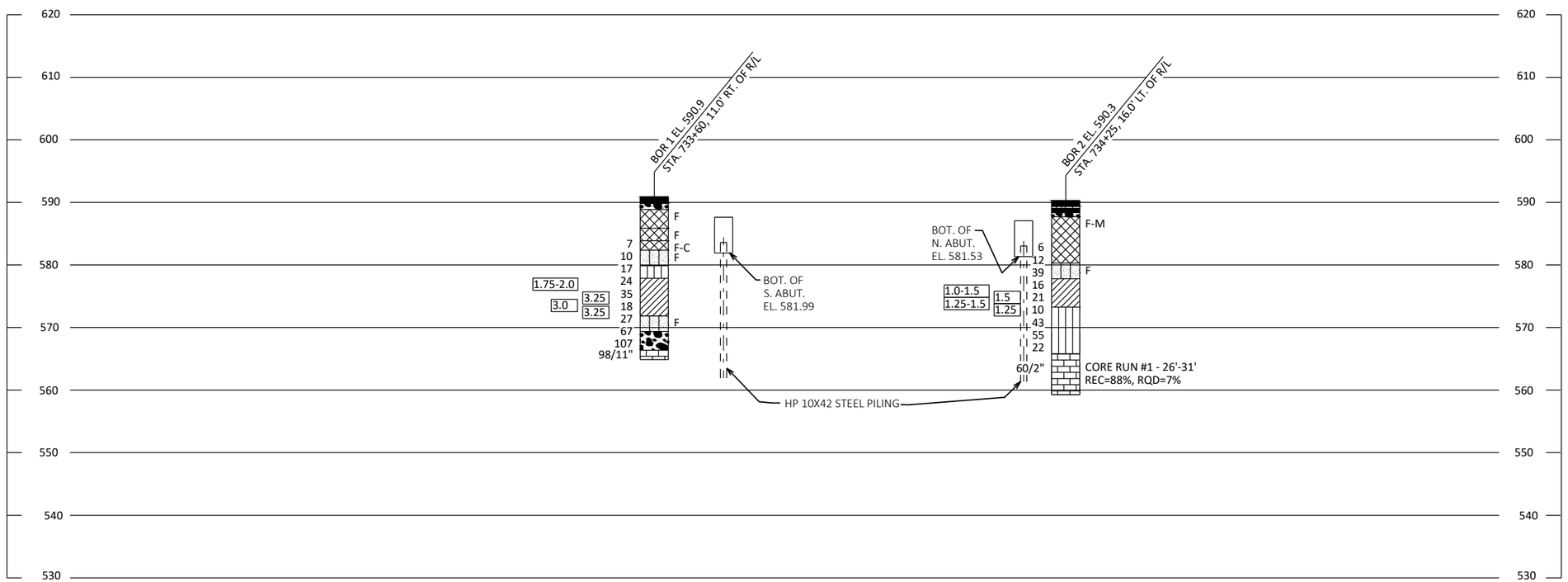
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	04/05/2022	214307	546065
2	04/05/2022	214373	546091
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) DOOR COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





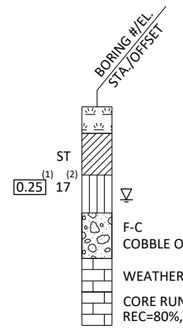
STATE PROJECT NUMBER

4150-26-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY JJ/MJH | PLANS CK'D IFC

SUBSURFACE EXPLORATION

SHEET 3
197

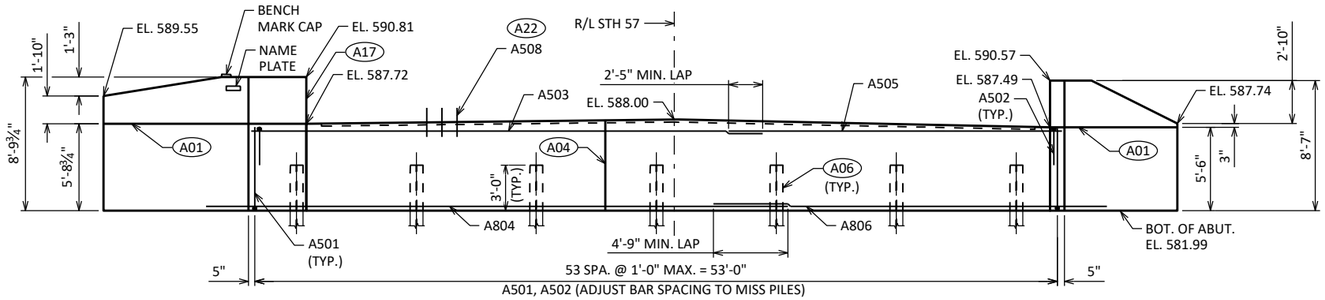
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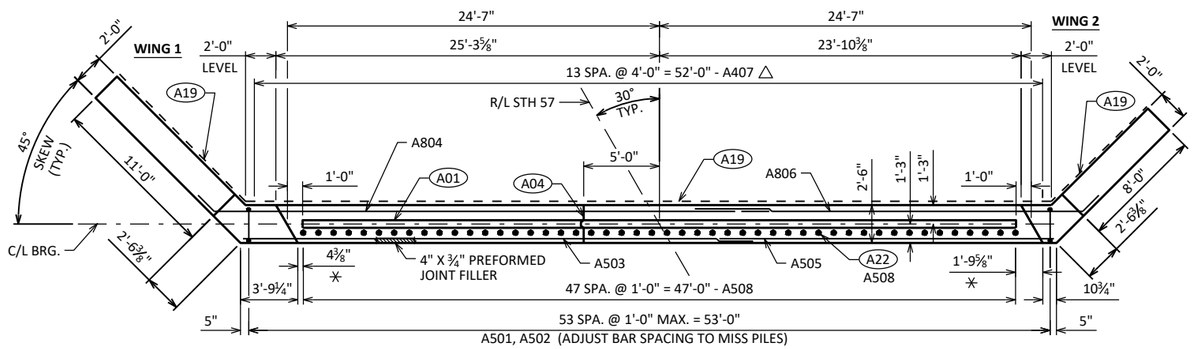
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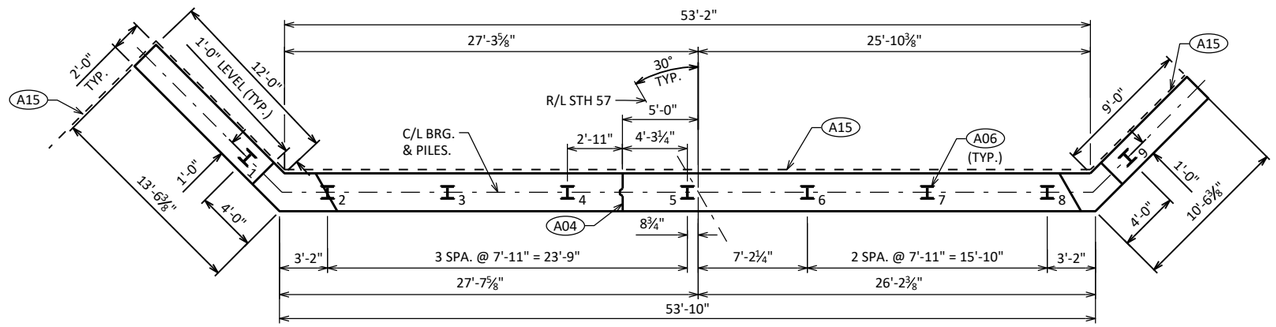


ELEVATION

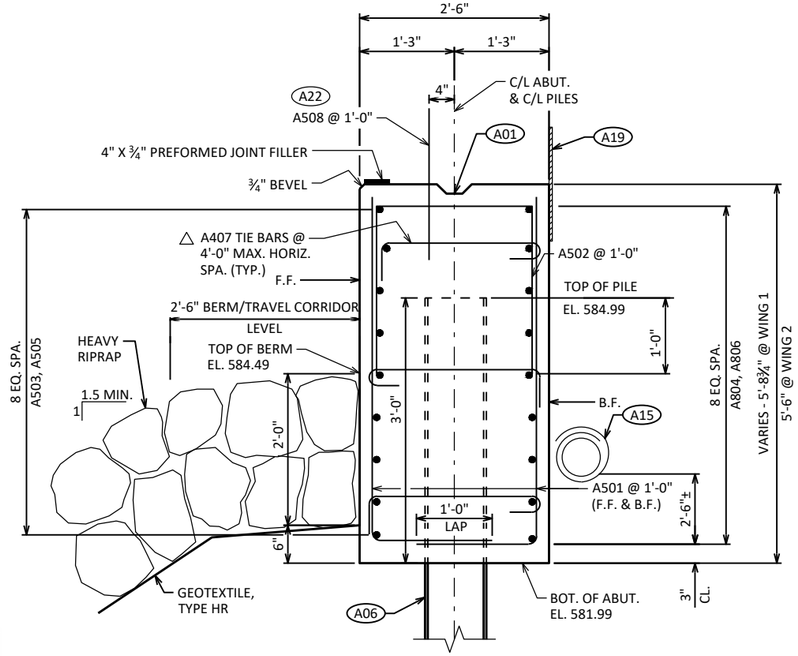
(LOOKING SOUTH)



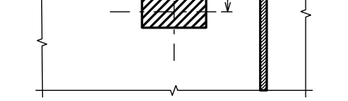
PLAN



PILE PLAN



SECTION THRU ABUTMENT BODY

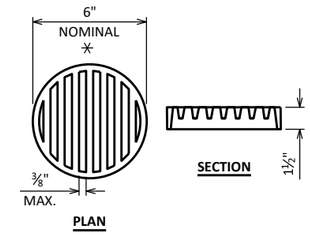


NAME PLATE DETAIL

WING 1

LEGEND

- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2" x 6".
- (A04) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2" X 8". ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDE IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) A508 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ✳ INCLUDES ½" FILLER.
- △ ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.



RODENT SHIELD DETAIL

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

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

SOUTH ABUTMENT

SHEET 4
198

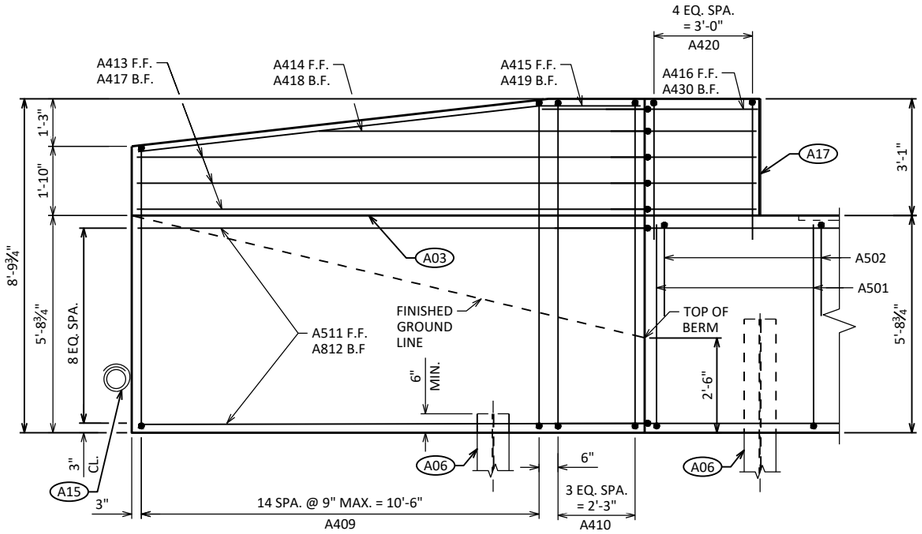
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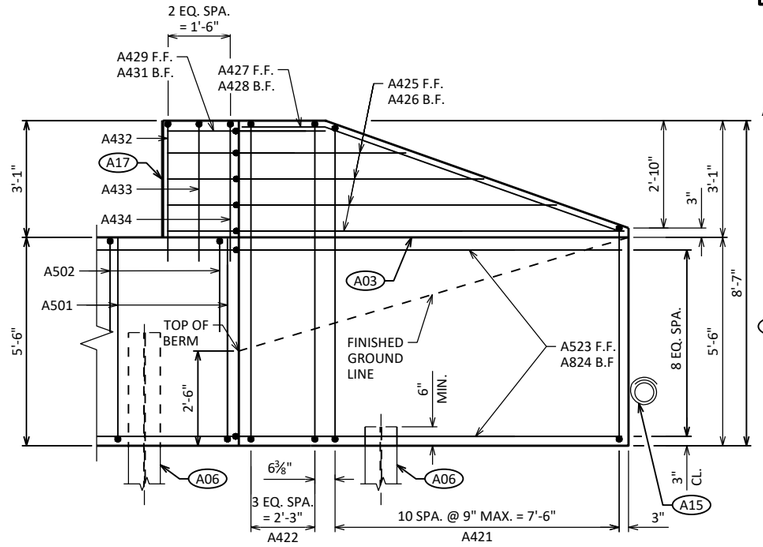
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STATE PROJECT NUMBER

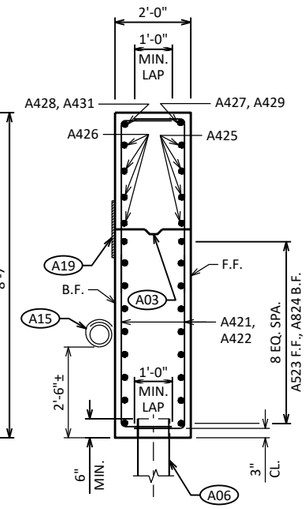
4150-26-71



WING 1 - ELEVATION



WING 2 - ELEVATION



SECTION B-B

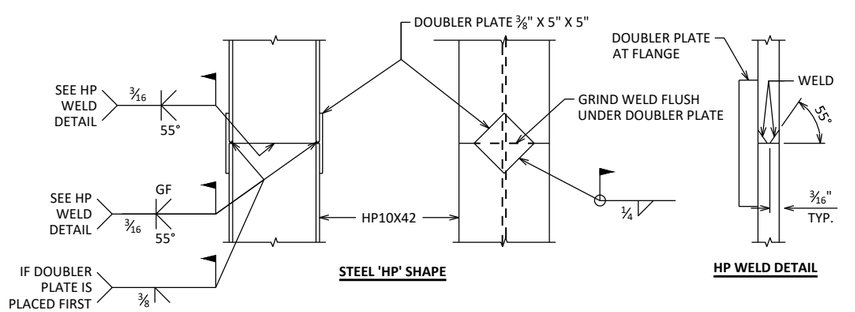
WING 1 - PLAN

SECTION A-A

WING 2 - PLAN

LEGEND

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2"X6". (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- * INCLUDES ½" FILLER.



'HP' PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

SOUTH ABUTMENT DETAILS 1

SHEET 5
199

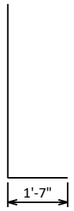
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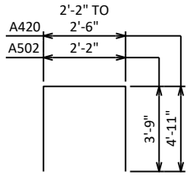
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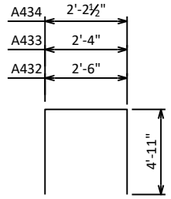
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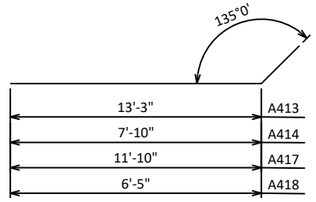
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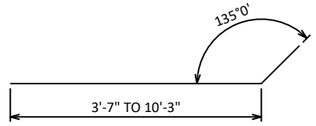
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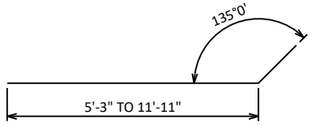
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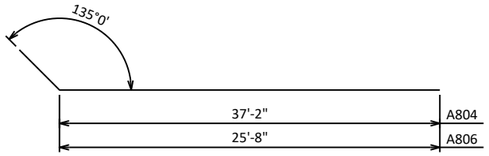
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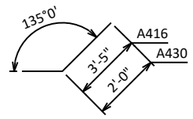
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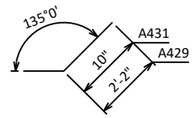
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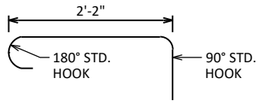
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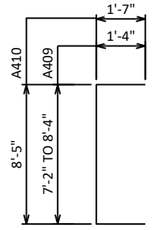
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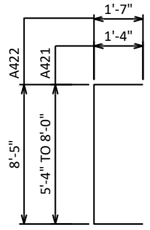
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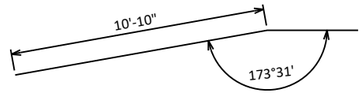
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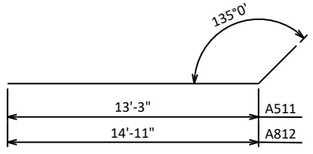
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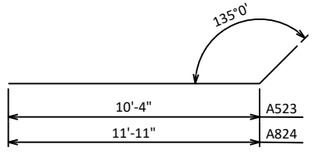
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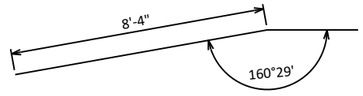
A415, A419



A511, A812



A523, A824



A427, A428

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		108	6'-6"	X		BODY - VERT. - F.F. & B.F.
A502		54	9'-5"	X		BODY - VERT. - TOP
A503		9	33'-10"			BODY - HORIZ. - F.F. - SOUTH END
A804		9	38'-8"	X		BODY - HORIZ. - B.F. - SOUTH END
A505		9	22'-5"			BODY - HORIZ. - F.F. - NORTH END
A806		9	27'-2"	X		BODY - HORIZ. - B.F. - NORTH END
A407		42	3'-3"	X		BODY - HORIZ. - TIE BARS
A508	X	48	2'-0"			STAB BARS - VERT. - TOP
A409	X	30	10'-3"	X	⚠	WING 1 - VERT. - F.F. & B.F.
A410	X	8	11'-5"	X		WING 1 - VERT. - F.F. & B.F.
A511	X	9	14'-9"	X		WING 1 - HORIZ. - F.F.
A812	X	9	16'-5"	X		WING 1 - HORIZ. - B.F.
A413	X	3	16'-8"	X		WING 1 - HORIZ. - F.F.
A414	X	1	11'-3"	X		WING 1 - HORIZ. - F.F.
A415	X	1	13'-3"	X		WING 1 - HORIZ. - F.F. - TOP
A416	X	1	5'-8"	X		WING 1 - HORIZ. - F.F. - TOP
A417	X	3	13'-10"	X		WING 1 - HORIZ. - B.F.
A418	X	1	8'-5"	X		WING 1 - HORIZ. - B.F.
A419	X	1	11'-11"	X		WING 1 - HORIZ. - B.F. - TOP
A420	X	5	12'-0"	X	⚠	WING 1 - VERT. - TOP
A421	X	22	9'-2"	X	⚠	WING 2 - VERT. - F.F. & B.F.
A422	X	8	11'-2"	X		WING 2 - VERT. - F.F. & B.F.
A523	X	9	11'-10"	X		WING 2- HORIZ. - F.F.
A824	X	9	13'-6"	X		WING 2 - HORIZ. - B.F.
A425	X	4	8'-5"	X	⚠	WING 2 - HORIZ. - F.F.
A426	X	4	10'-1"	X	⚠	WING 2 - HORIZ. - B.F.
A427	X	1	10'-9"	X		WING 2 - HORIZ. - F.F. - TOP
A428	X	1	9'-4"	X		WING 2 - HORIZ. - B.F. - TOP
A429	X	1	2'-11"	X		WING 2 - HORIZ. - F.F. - TOP
A430	X	1	2'-11"	X		WING 1 - HORIZ. - B.F. - TOP
A431	X	1	2'-8"	X		WING 2 - HORIZ. - B.F. - TOP
A432	X	1	12'-2"	X		WING 2 - HORIZ. - TOP
A433	X	1	12'-0"	X		WING 2 - HORIZ. - TOP
A434	X	1	11'-10"	X		WING 2 - HORIZ. - TOP

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

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

A409	2 SERIES OF 11	9'-8" TO 10'-9"
A420	1 SERIES OF 5	11'-10" TO 12'-2"
A421	2 SERIES OF 11	7'-10" TO 10'-6"
A425	1 SERIES OF 4	5'-1" TO 11'-9"
A426	1 SERIES OF 4	6'-9" TO 13'-5"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

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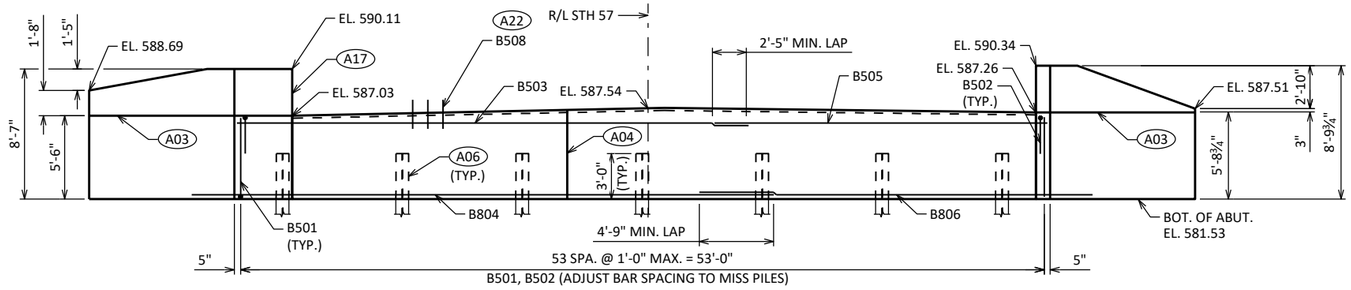
SOUTH ABUTMENT DETAILS 2

SHEET 6
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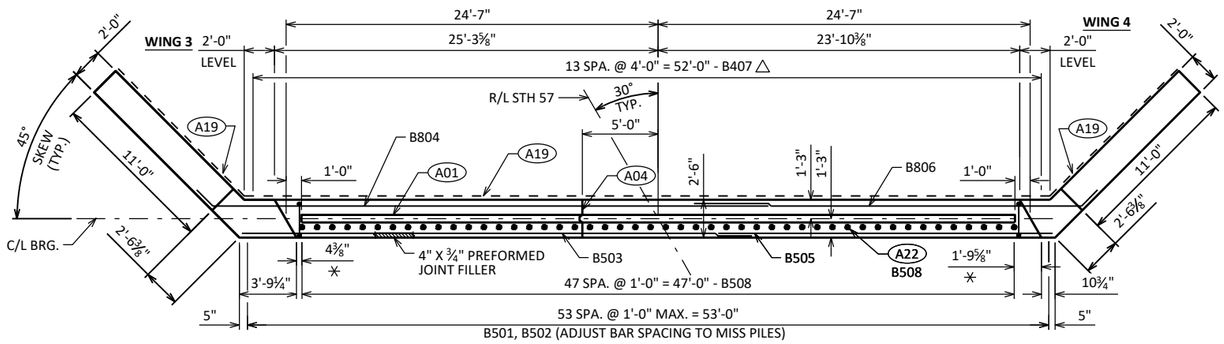
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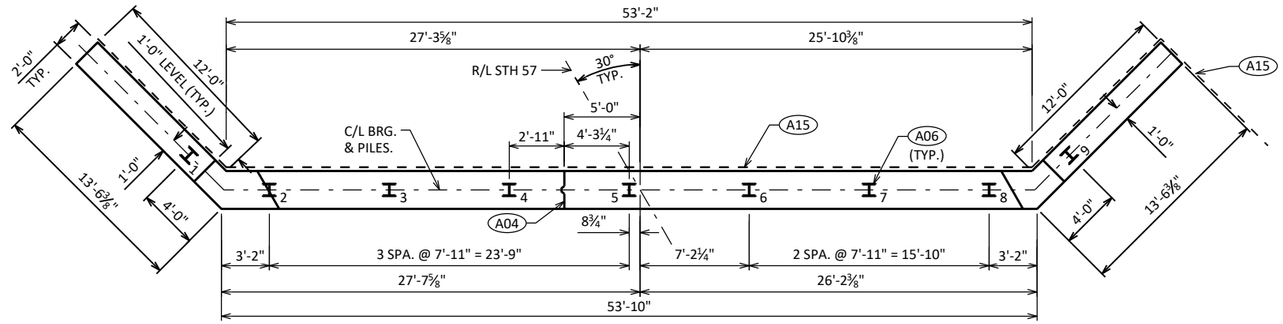


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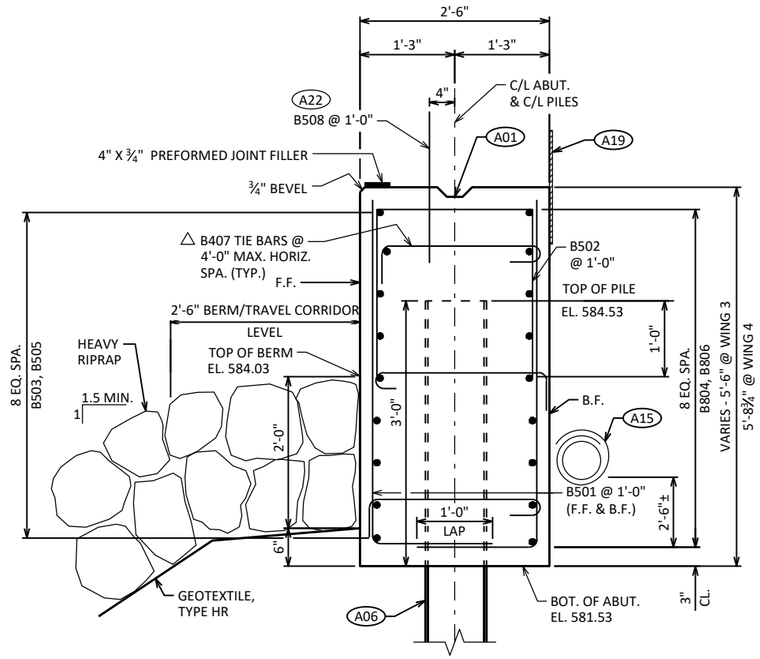
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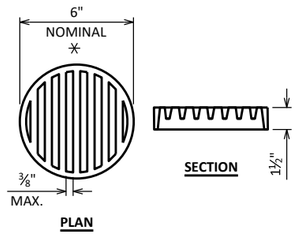
PLAN



PILE PLAN



SECTION THRU ABUTMENT BODY



RODENT SHIELD DETAIL

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

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

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

LEGEND

- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2" x 6".
- (A04) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2" X 8". ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDE IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) B508 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ⚹ INCLUDES ½" FILLER.
- △ ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

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NORTH ABUTMENT

SHEET 7
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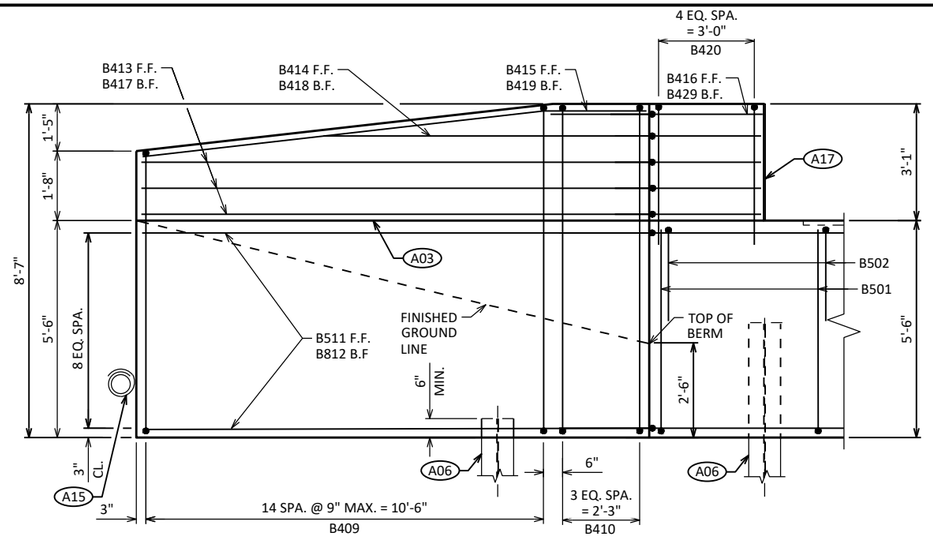
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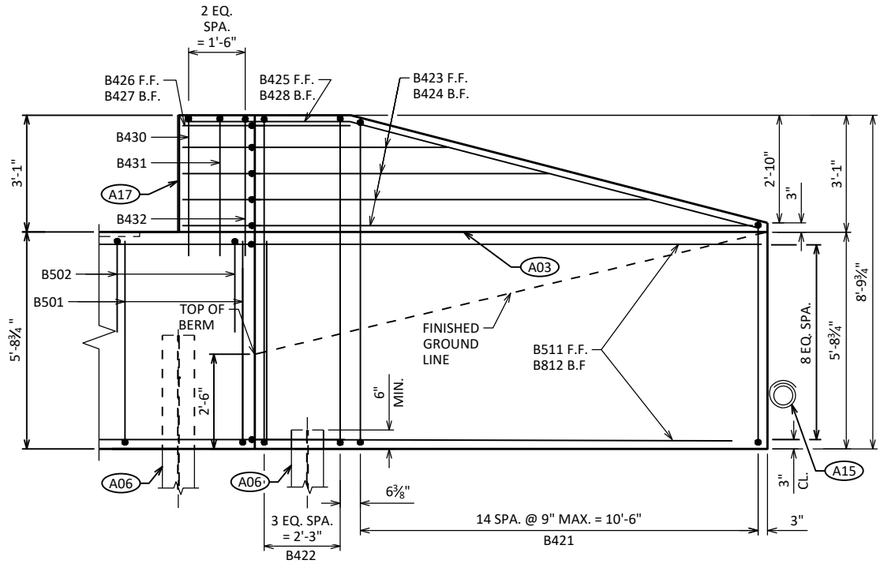
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STATE PROJECT NUMBER

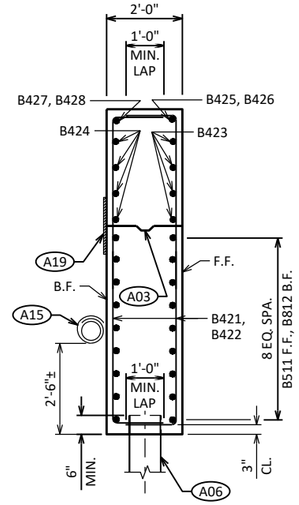
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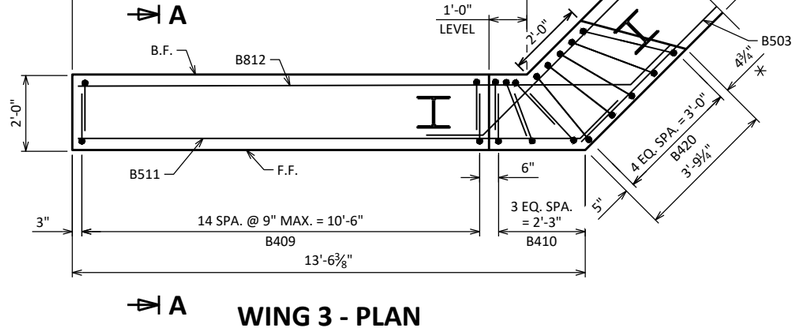
WING 3 - ELEVATION



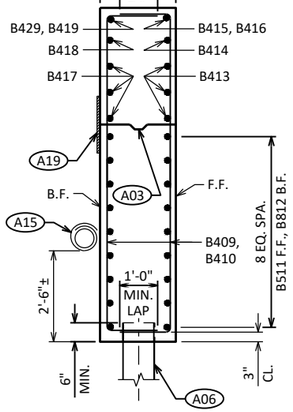
WING 4 - ELEVATION



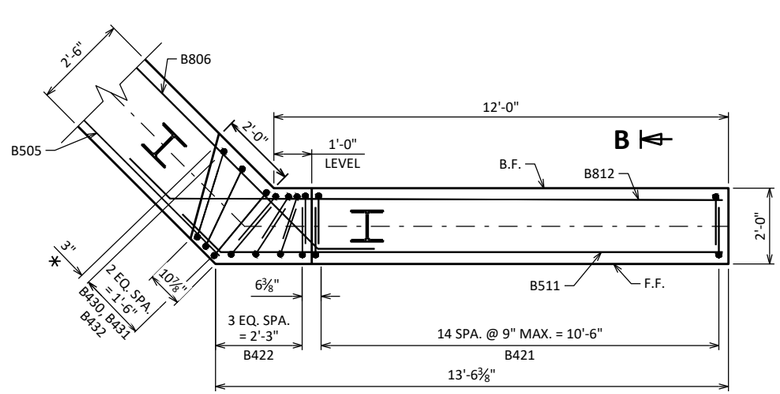
SECTION B-B



WING 3 - PLAN



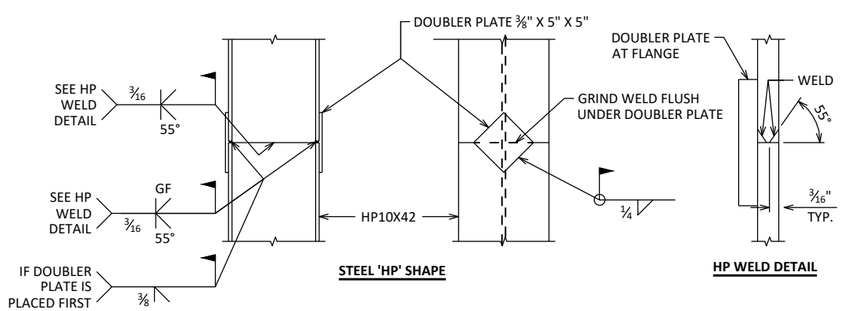
SECTION A-A



WING 4 - PLAN

LEGEND

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2"X6". (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- ✳ INCLUDE ½" FILLER.



'HP' PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

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NORTH ABUTMENT DETAILS 1

SHEET 8
202

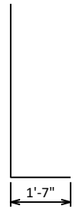
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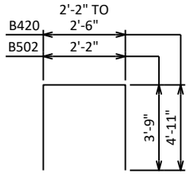
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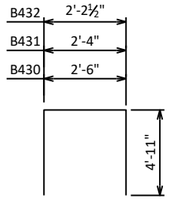
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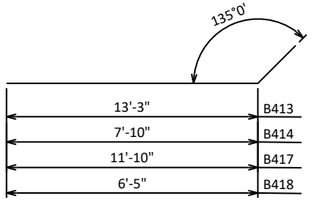
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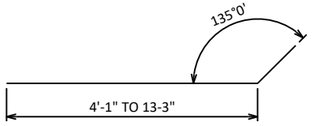
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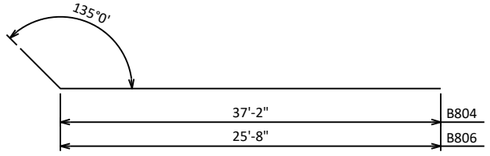
B430, B431 B432



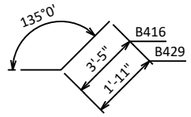
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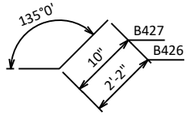
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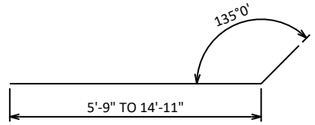
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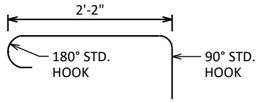
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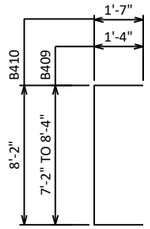
B426, B427



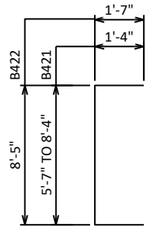
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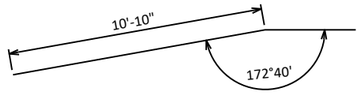
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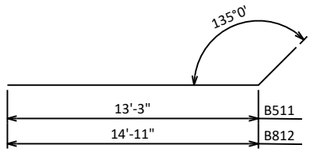
B409, B410



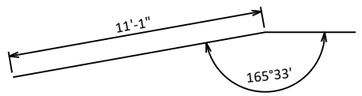
B421, B422



B415, B419



B511, B812



B425, B428

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		108	6'-6"	X		BODY - VERT. - F.F. & B.F.
B502		54	9'-5"	X		BODY - VERT. - TOP
B503		9	33'-10"			BODY - HORIZ. - F.F. - NORTH END
B804		9	38'-8"	X		BODY - HORIZ. - B.F. - NORTH END
B505		9	22'-5"			BODY - HORIZ. - F.F. - SOUTH END
B806		9	27'-2"	X		BODY - HORIZ. - B.F. - SOUTH END
B407		42	3'-3"	X		BODY - HORIZ. - TIE BARS
B508	X	48	2'-0"			STAB BARS - VERT. - TOP
B409	X	30	10'-3"	X	⚠	WING 3 - VERT. - F.F. & B.F.
B410	X	8	11'-2"	X		WING 3 - VERT. - F.F. & B.F.
B511	X	9	14'-9"	X		WING 3 - HORIZ. - F.F.
B812	X	9	16'-5"	X		WING 3 - HORIZ. - B.F.
B413	X	3	16'-8"	X		WING 3 - HORIZ. - F.F.
B414	X	1	11'-3"	X		WING 3 - HORIZ. - F.F.
B415	X	1	13'-3"	X		WING 3 - HORIZ. - F.F. - TOP
B416	X	1	5'-8"	X		WING 3 - HORIZ. - F.F. - TOP
B417	X	3	13'-10"	X		WING 3 - HORIZ. - B.F.
B418	X	1	8'-5"	X		WING 3 - HORIZ. - B.F.
B419	X	1	11'-11"	X		WING 3 - HORIZ. - B.F. - TOP
B420	X	5	12'-0"	X	⚠	WING 3 - VERT. - TOP
B421	X	30	9'-5"	X	⚠	WING 4 - VERT. - F.F. & B.F.
B422	X	8	11'-5"	X		WING 4 - VERT. - F.F. & B.F.
B423	X	4	10'-2"	X	⚠	WING 4 - VERT. - F.F.
B424	X	4	11'-10"	X	⚠	WING 4 - HORIZ. - B.F.
B425	X	1	13'-7"	X		WING 4 - HORIZ. - F.F.
B426	X	1	2'-11"	X		WING 4 - HORIZ. - F.F. - TOP
B427	X	1	2'-8"	X		WING 4 - HORIZ. - B.F. - TOP
B428	X	1	12'-2"	X		WING 4 - HORIZ. - B.F.
B429	X	1	2'-9"	X		WING 3 - HORIZ. - B.F. - TOP
B430	X	1	12'-2"	X		WING 4 - HORIZ. - TOP
B431	X	1	12'-0"	X		WING 4 - HORIZ. - TOP
B432	X	1	11'-10"	X		WING 4 - HORIZ. - TOP

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

BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

B409	2 SERIES OF 15	9'-8" TO 10'-10"
B420	1 SERIES OF 5	11'-10" TO 12'-2"
B421	2 SERIES OF 15	8'-1" TO 10'-10"
B423	1 SERIES OF 4	5'-7" TO 14'-9"
B426	1 SERIES OF 4	7'-3" TO 16'-5"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

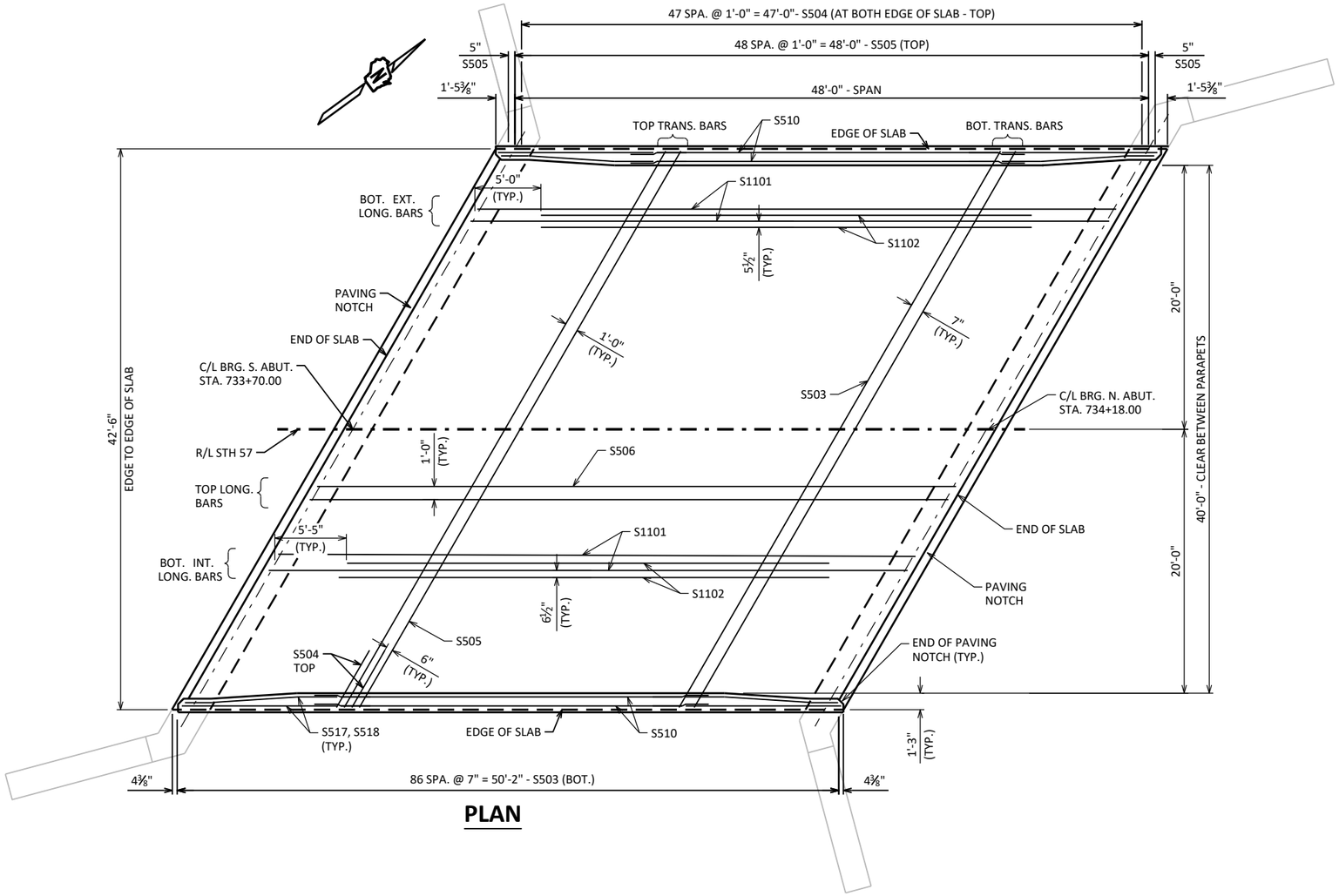
NORTH ABUTMENT DETAILS 2

SHEET 9
203

SCALE =

STATE PROJECT NUMBER

4150-26-71



PLAN

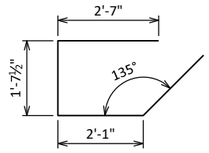
BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1101	X	42	50'-6"			SLAB - LONGIT. BOT.
S1102	X	40	37'-6"			SLAB - LONGIT. BOT.
S503	X	87	48'-8"			SLAB - TRANS. BOT.
S504	X	96	5'-0"			SLAB - TRANS. TOP - AT BOTH EDGES
S505	X	51	48'-8"			SLAB - TRANS. TOP
S506	X	43	49'-2"			SLAB - LONGIT. TOP.
S507	X	86	4'-5"	X		ABUT. DIAPHS./SLAB - VERT.
S508	X	86	8'-4"	X		ABUT. DIAPHS./SLAB - BOT. - VERT.
S509	X	6	48'-8"			ABUT. DIAPHS. - BOT. - HORIZ.
S510	X	16	30'-0"			PPTS. - HORIZ. - AT BOTH SIDES



S507



S508

NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTER EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORT BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

TOP OF DECK ELEVATIONS

LOCATION	C/L BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. N. ABUT.
WEST EOD	590.57	590.52	590.48	590.43	590.39	590.34	590.29	590.25	590.20	590.16	590.11
R/L USH 57	591.09	591.04	591.00	590.95	590.90	590.86	590.81	590.77	590.72	590.67	590.63
EAST EOD	590.81	590.76	590.71	590.67	590.62	590.58	590.53	590.48	590.44	590.39	590.34

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. S. ABUT.	5/10 PT.	C/L BRG. N. ABUT.
W. GUTTER LINE			
CROWN/ R/L STH 57			
E. GUTTER LINE			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR C/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

SUPERSTRUCTURE

SHEET 10
204

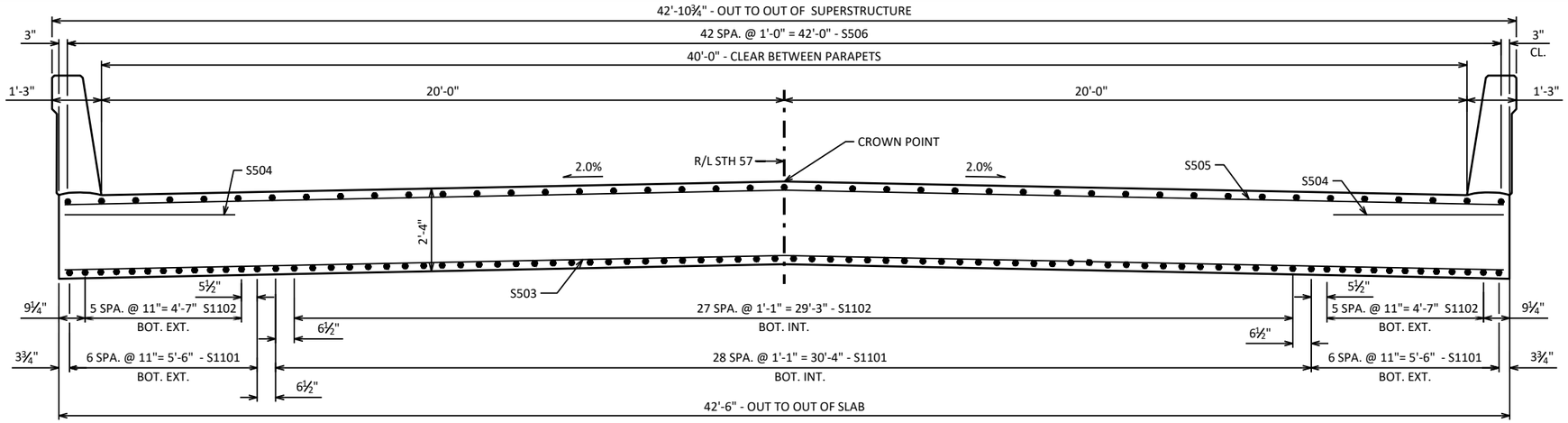
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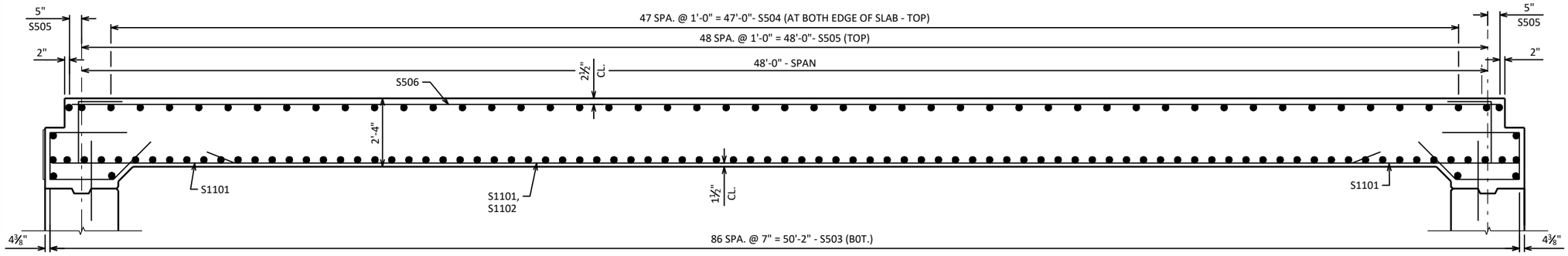
STATE PROJECT NUMBER

4150-26-71



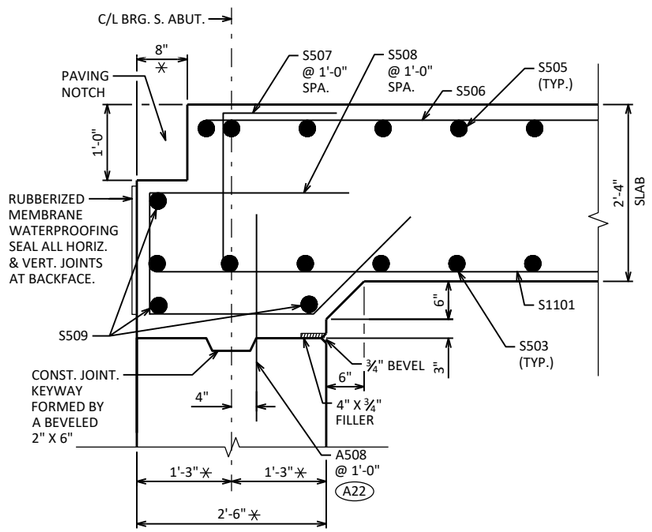
CROSS SECTION THRU ROADWAY

LOOKING NORTH



LONGITUDINAL SECTION

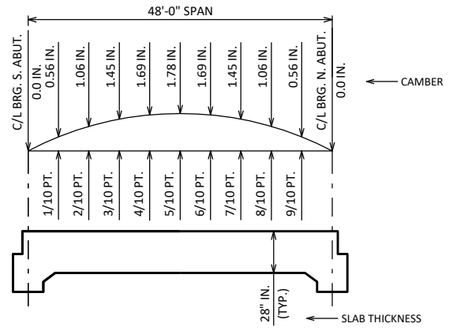
LOOKING WEST



ABUT. DETAIL

SHOWING SOUTH ABUT.
NORTH ABUT. SIMILAR

✳ DIMENSION IS TAKEN NORMAL TO C\L SUBTRUCTURE UNITS.

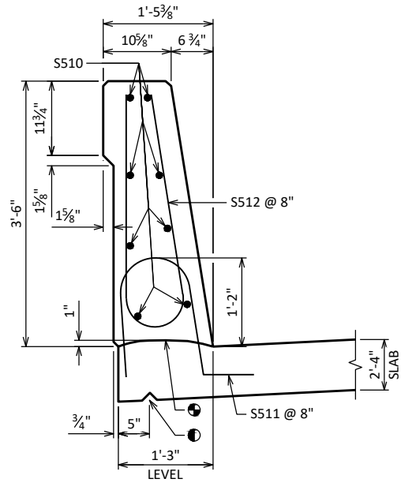


CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS.
CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.
PARAPETS SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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

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



SECTION THRU PARAPET ON SLAB

◐ ¾" V-GROVE REQUIRED. EXTEND TO 6" FROM F.F. OF ABUT. DIAPH.

◒ CONST. JOINT - STRIKE OFF AS SHOWN

(A22) A508 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

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SUPERSTRUCTURE DETAILS

SHEET 11
205

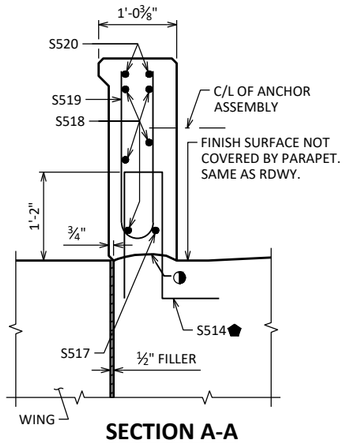
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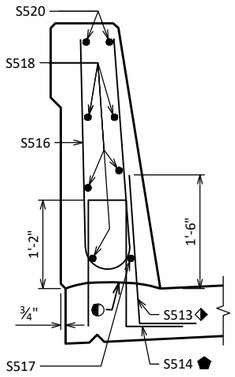
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STATE PROJECT NUMBER

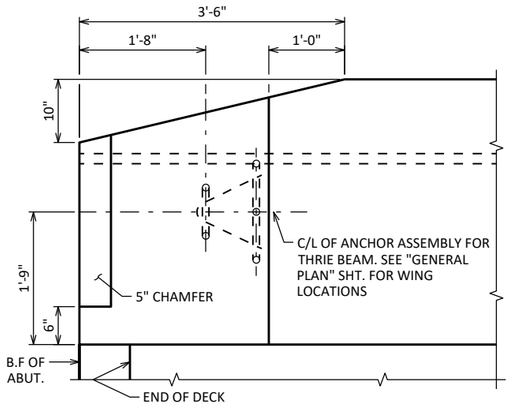
4150-26-71



SECTION A-A



SECTION B-B



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS

FOR SLAB PARAPETS

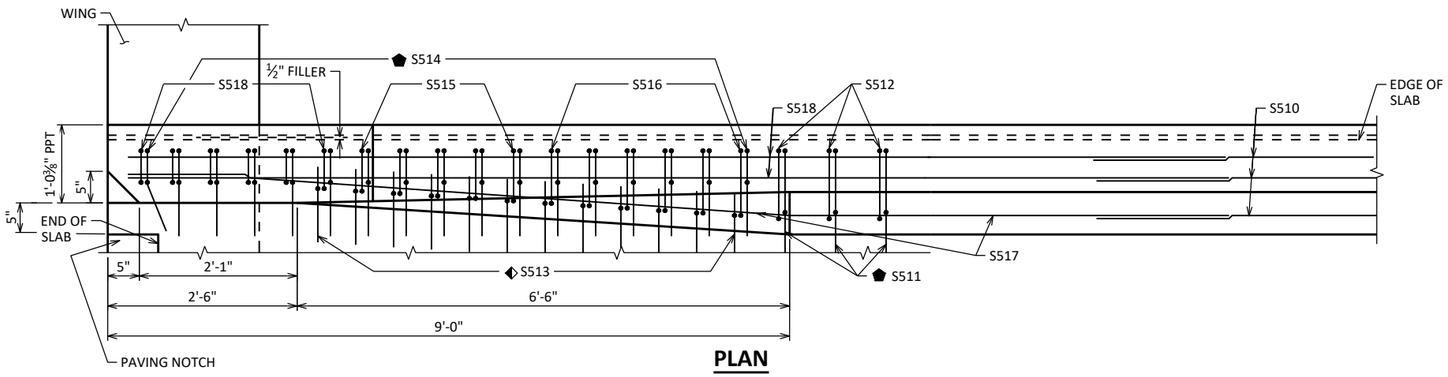
BAR MARK	COAT	WEST EDGE OF SLAB	EAST EDGE OF SLAB	LENGTH	BENT	BAR SERIES	LOCATION
S511	X	50	50	4'-5"	X		PARAPET VERT.
S512	X	50	50	6'-8"	X		PARAPET VERT.
S513	X	24	24	2'-9"	X		PARAPET VERT.
S514	X	34	34	4'-4"	X		PARAPET VERT.
S515	X	10	10	6'-5"	X		PARAPET VERT.
S516	X	12	12	6'-6"	X		PARAPET VERT.
S517	X	2	2	10'-9"	X		PARAPET HORIZ.
S518	X	10	10	11'-10"			PARAPET HORIZ.
S519	X	12	12	5'-5"	X	⚠	PARAPET VERT.
S520	X	4	4	12'-0"	X		PARAPET HORIZ.

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

BAR SERIES TABLE

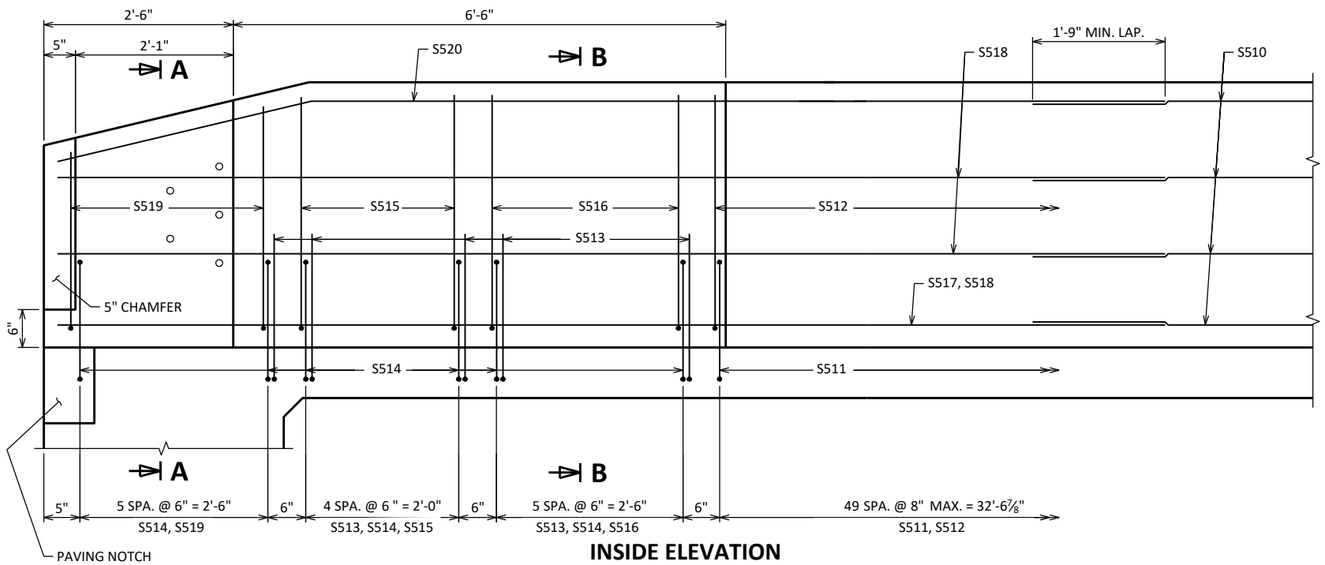
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
S519	4 SERIES OF 6	4'-9" TO 6'-1"



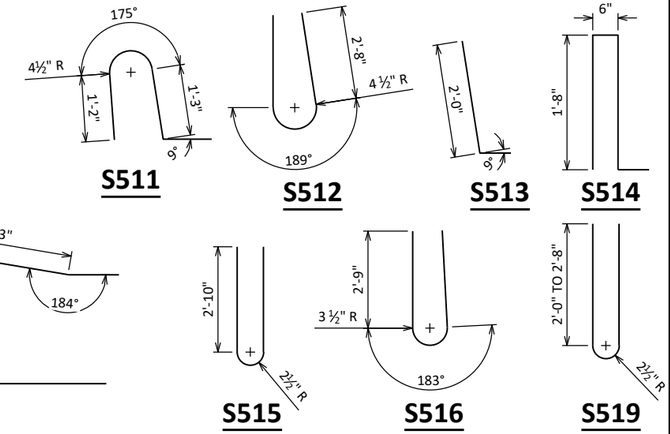
PLAN

SW CORNER SHOWN, OTHERS SIMILAR

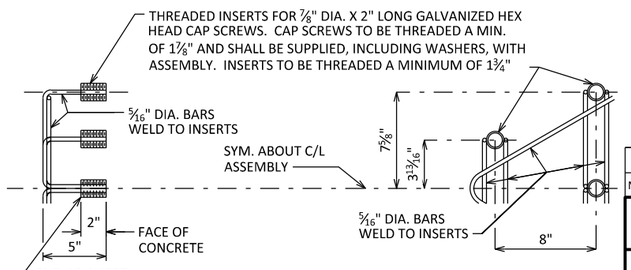


INSIDE ELEVATION

SW CORNER SHOWN, OTHERS SIMILAR



- ◐ CONST. JOINT - STRIKE OFF AS SHOWN
- ◆ USE CARE TO PLACE S513 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ⬟ S511, S513 AND S514 BARS TO BE TIED TO SUPERSTRUCTURE STEEL BEFORE SUPERSTRUCTURE IS POURED.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

SINGLE SLOPE PARAPET 42SS

SHEET 12
206

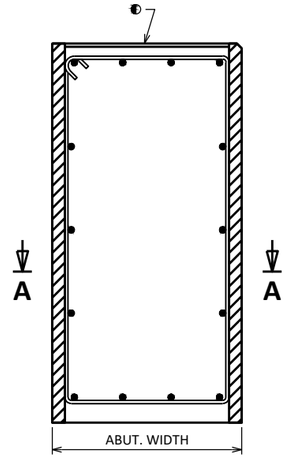
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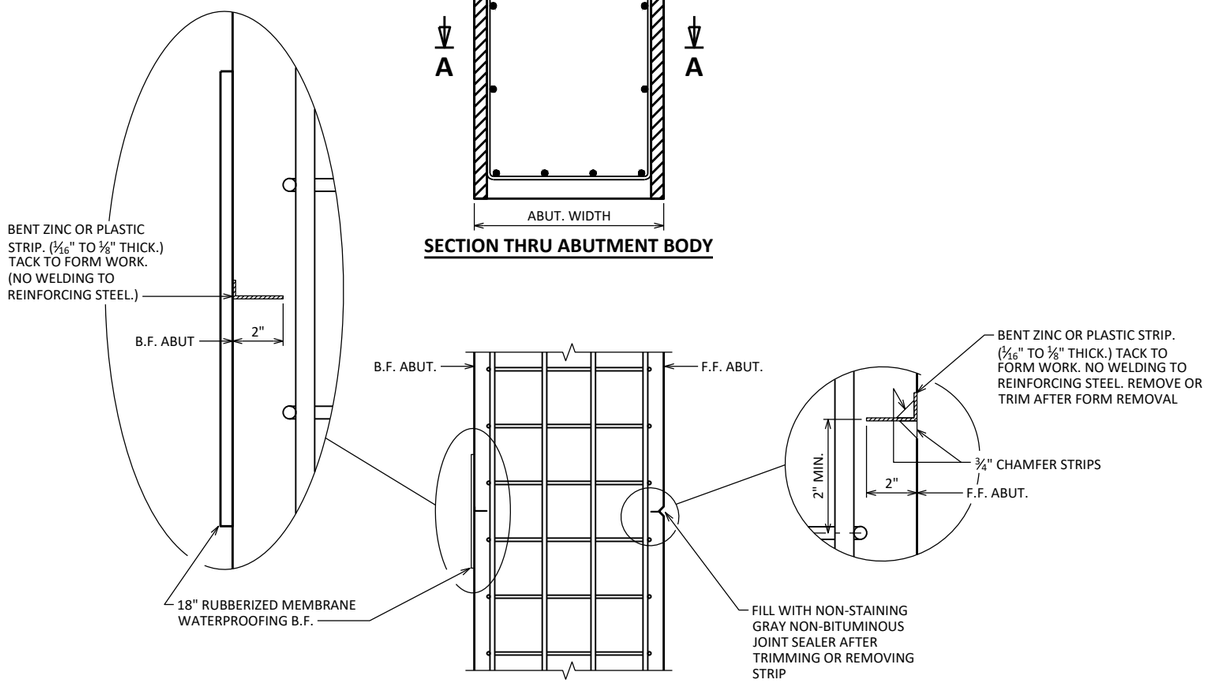
8

STATE PROJECT NUMBER

4150-26-71



SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATIVE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◐ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-30

DRAWN BY MJH | PLANS CK'D IFC

ALTERNATE CONSTRUCTION JOINT

SHEET 13
207

SCALE =

8

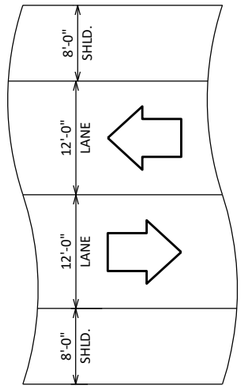
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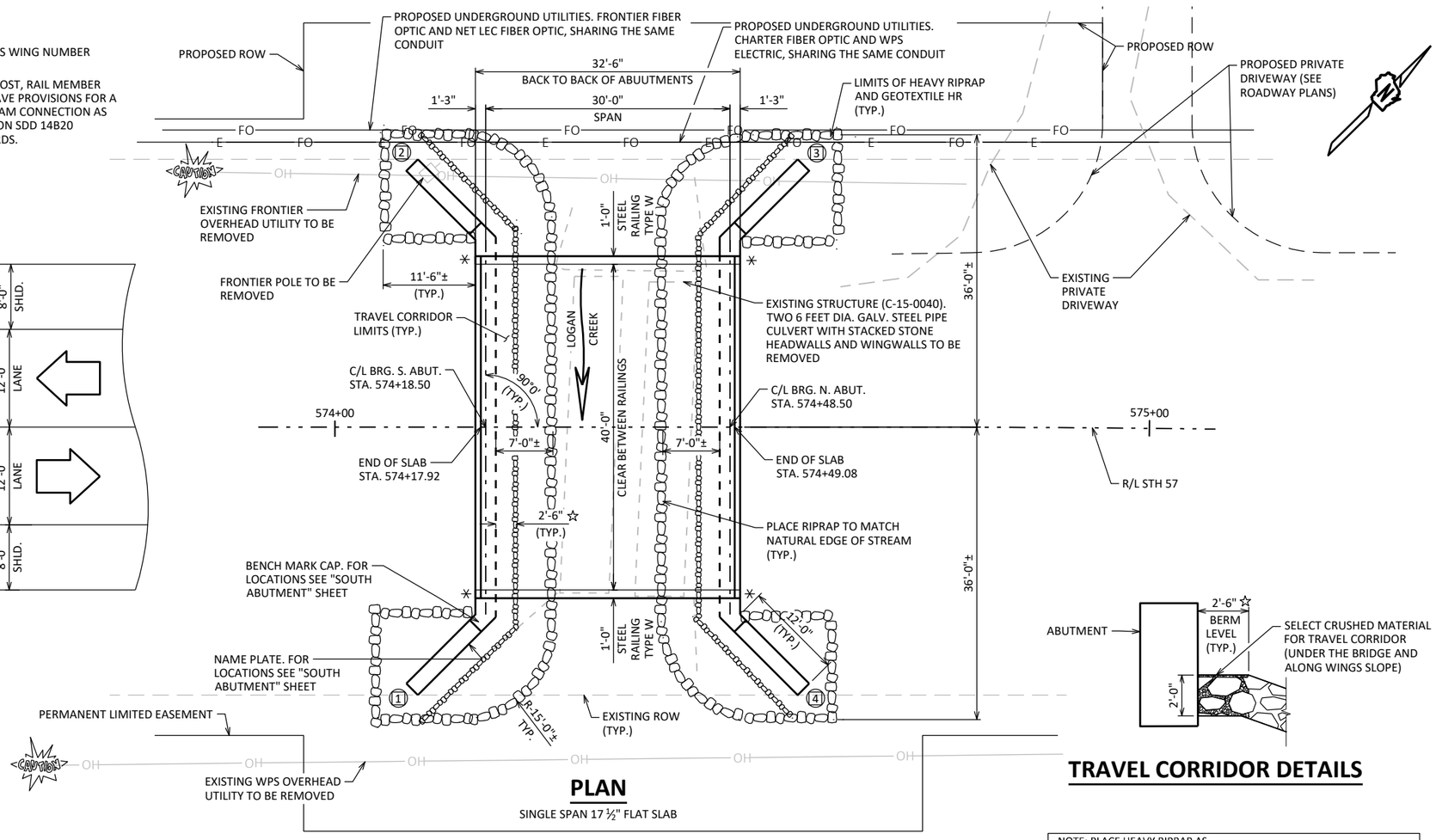
STATE PROJECT NUMBER

4150-26-71

INDICATES WING NUMBER

✳ AT END POST, RAIL MEMBER SHALL HAVE PROVISIONS FOR A THRIE BEAM CONNECTION AS SHOWN ON SDD 14B20 STANDARDS.

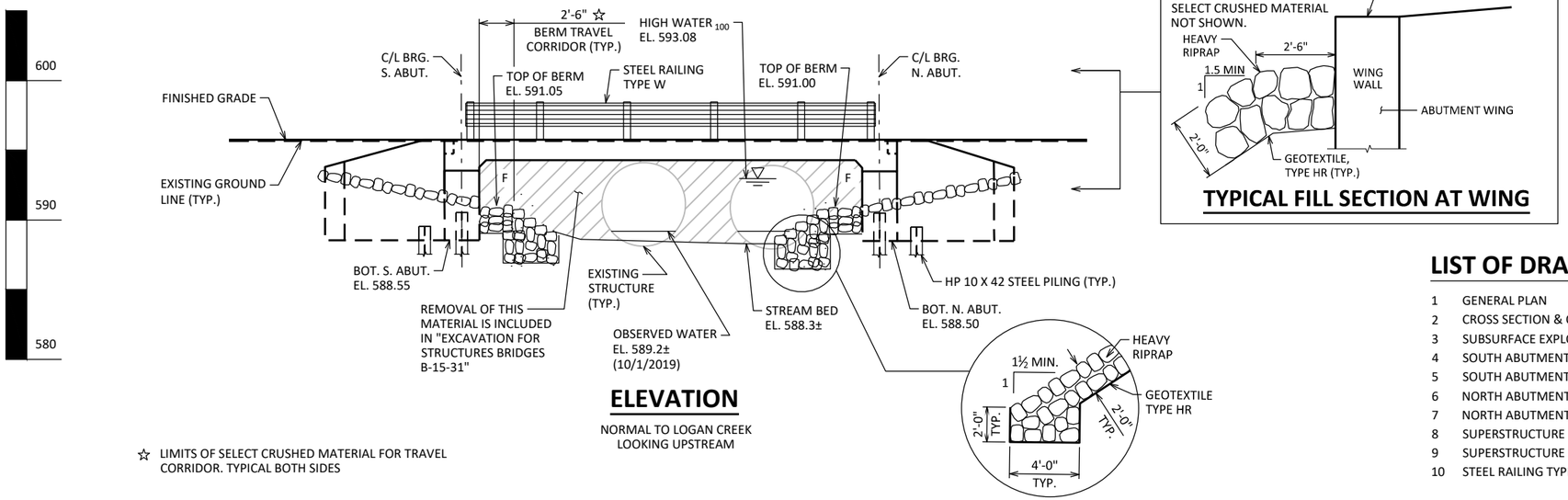




PLAN

SINGLE SPAN 17 ½" FLAT SLAB

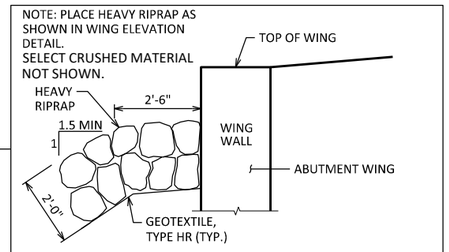
TRAVEL CORRIDOR DETAILS



ELEVATION

NORMAL TO LOGAN CREEK LOOKING UPSTREAM

☆ LIMITS OF SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR. TYPICAL BOTH SIDES



TYPICAL FILL SECTION AT WING

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.15
OPERATING RATING: RF = 1.49
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

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

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE — f'_c = 4,000 PSI
ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
GRADE 60 — f_y = 60,000 PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 20'-0" LONG BOTH ABUTMENTS. PILE POINTS REQUIRED.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

HYDRAULIC DATA

100-YEAR FREQUENCY:
Q_{100}= 475 C.F.S.
V_{100}= 5.87 F.P.S.
HW_{100}= EL. 593.08
WATERWAY AREA = 80.90 SQ. FT.
DRAINAGE AREA = 13.25 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:
Q_2= 125 C.F.S.
V_2= 2.50 F.P.S.
HW_2= EL. 591.13

TRAFFIC DATA

STH 57:
ADT = 4,700 (2044)
R.D.S. = 60 MPH

LIST OF DRAWINGS:

1 GENERAL PLAN
2 CROSS SECTION & QUANTITIES
3 SUBSURFACE EXPLORATION
4 SOUTH ABUTMENT
5 SOUTH ABUTMENT DETAILS
6 NORTH ABUTMENT
7 NORTH ABUTMENT DETAILS
8 SUPERSTRUCTURE
9 SUPERSTRUCTURE DETAILS
10 STEEL RAILING TYPE "W"

STRUCTURE DESIGN CONTACTS:
ISATOU CEESAY 608-266-9557
KYLE BUSCH 608-267-0465

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED KHB 1/26/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-15-31

STH 57 OVER LOGAN CREEK

COUNTY	TOWN
DOOR	JACKSONPORT

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
IFC	VS	IFC	IFC

GENERAL PLAN

SHEET 1 OF 10
208

SCALE =

I.D. 4150-26-00B

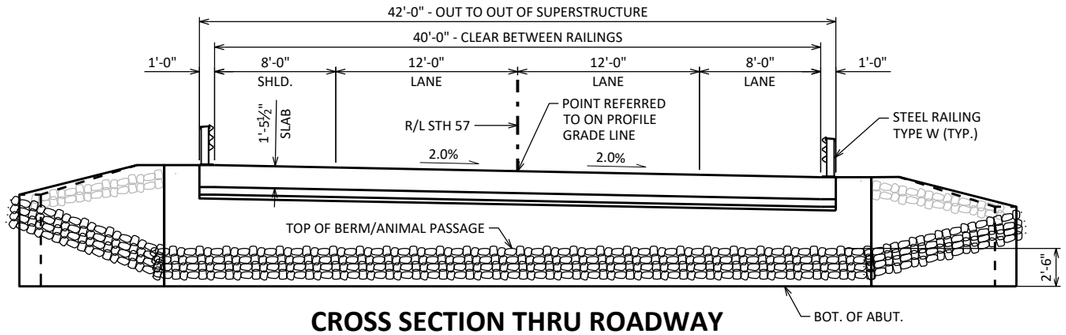
DATE: JUN. 2023

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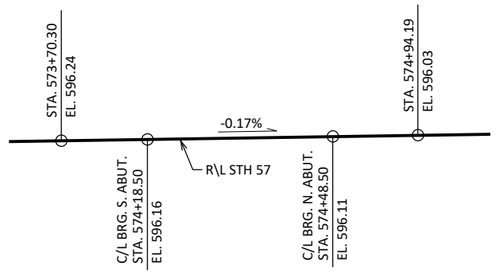
STATE PROJECT NUMBER

4150-26-71



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



PROFILE GRADE LINE - STH 57

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER	SOUTH ABUT.	NORTH ABUT.	TOTALS
203.0220	REMOVING STRUCTURE C-15-0040	EACH	——	——	——	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGE B-15-31	EACH	——	——	——	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	——	212	212	424
502.0100	CONCRETE MASONRY BRIDGES	CY	77.9	37.1	37.1	152
502.3200	PROTECTIVE SURFACE TREATMENT	SY	161	19	20	200
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	——	2,820	2,820	5,640
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	16,590	1,730	1,730	20,050
513.7051	RAILING STEEL TYPE W	LF	58	——	——	58
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	——	12	12	24
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	——	180	180	360
606.0300	RIPRAP HEAVY	CY	——	101	101	202
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	——	85	85	170
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	——	——	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	——	67	67	134
645.0120	GEOTEXTILE TYPE HR	SY	——	151	151	302
SPV.0195	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	——	14	14	28
	NON-BID ITEMS					
	FILLER	SIZE	——	——	——	½",¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES B-15-31 " SHALL BE THE EXISTING GROUNDLINE.

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

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

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF SLAB, TO THE VERTICAL AND HORIZONTAL SURFACES OF PAVING NOTCHES AT ABUTMENT DIAPHRAGMS, TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENT.

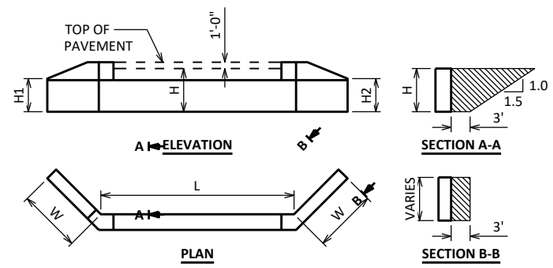
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

AT ABUTMENTS, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

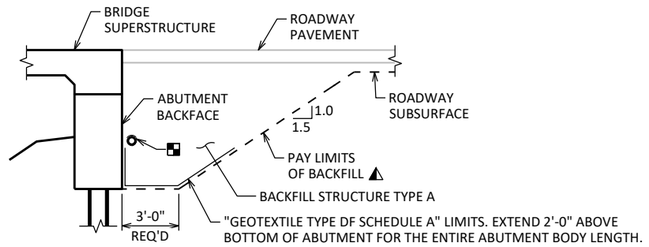
AT ABUTMENTS, HP 12X53 STEEL PILING MAY BE USED IN LIEU OF HP 10X42 STEEL PILING. PAYMENT SHALL BE BASED ON BID PRICE FOR HP 10X42 STEEL PILING.

ALL VOIDS BETWEEN HEAVY RIPRAP IN TRAVEL CORRIDOR SHALL BE FILLED WITH SELECT CRUSHED MATERIAL WITHIN THE LIMITS SHOWN ON THE "GENERAL PLAN" SHEET. WORK SHALL BE PAID FOR UNDER "SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR".



ABUTMENT BACKFILL DIAGRAM

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



TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

CROSS SECTION & QUANTITIES

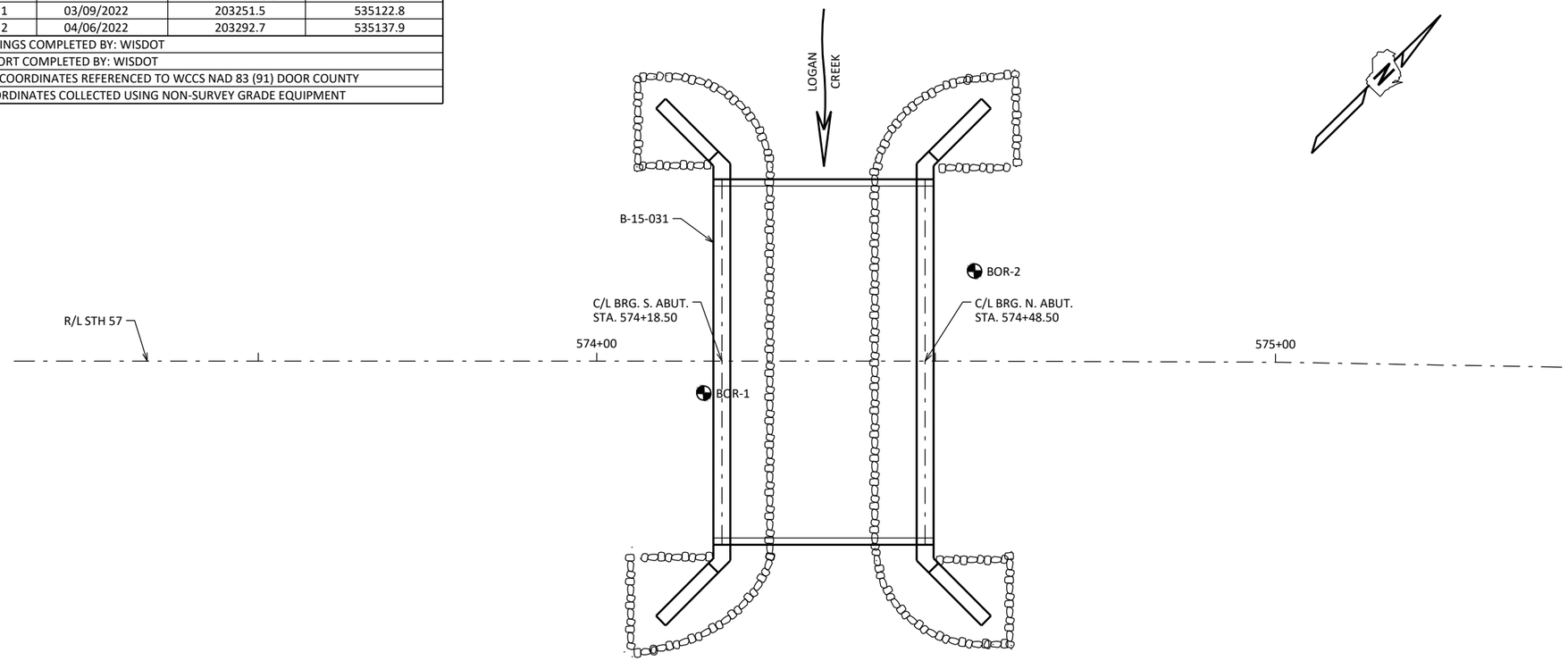
SHEET 2
209

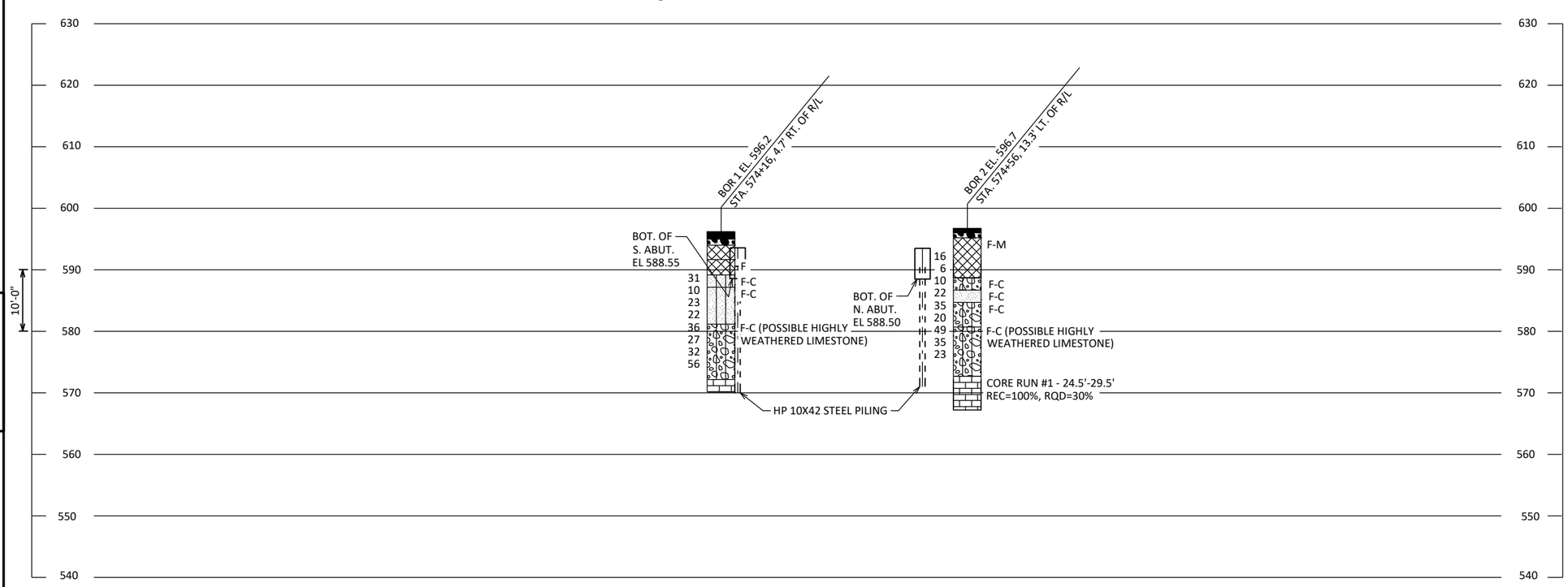
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	03/09/2022	203251.5	535122.8
2	04/06/2022	203292.7	535137.9
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) DOOR COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





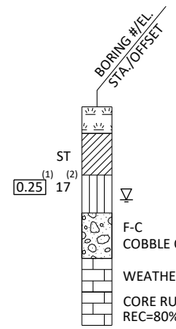
STATE PROJECT NUMBER

4150-26-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY JJ/IFC | PLANS CK'D VS

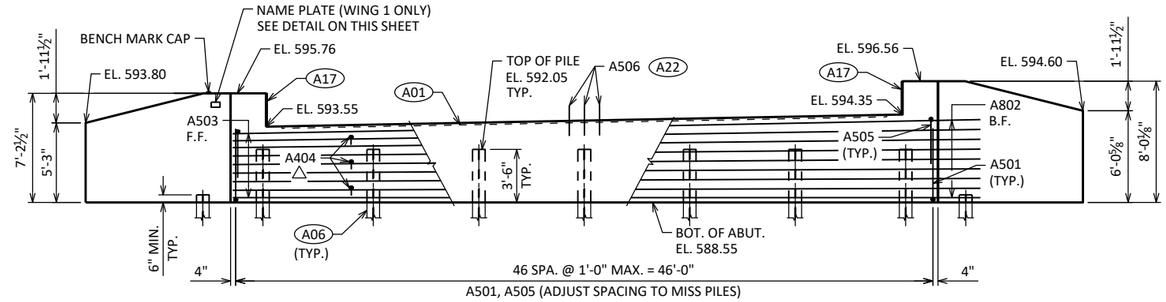
SUBSURFACE EXPLORATION

SHEET 3
210

SCALE =

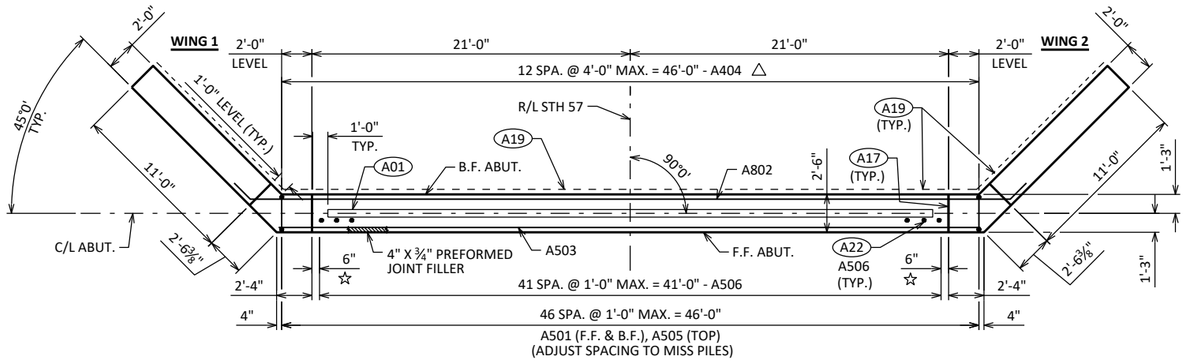
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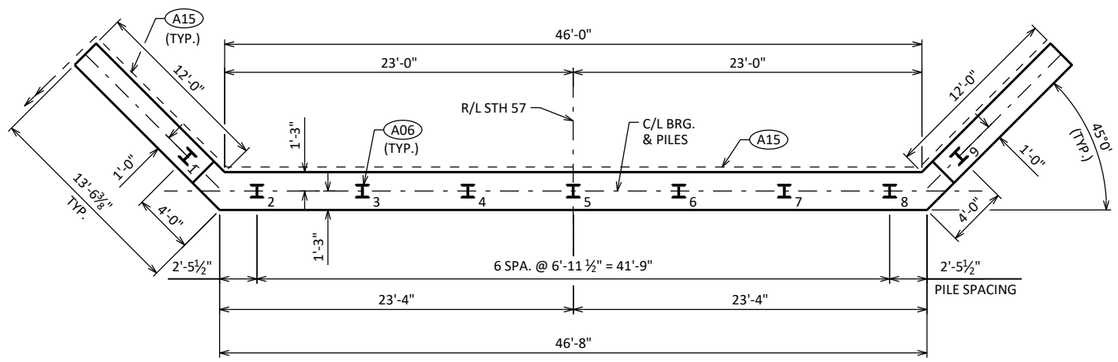


ELEVATION

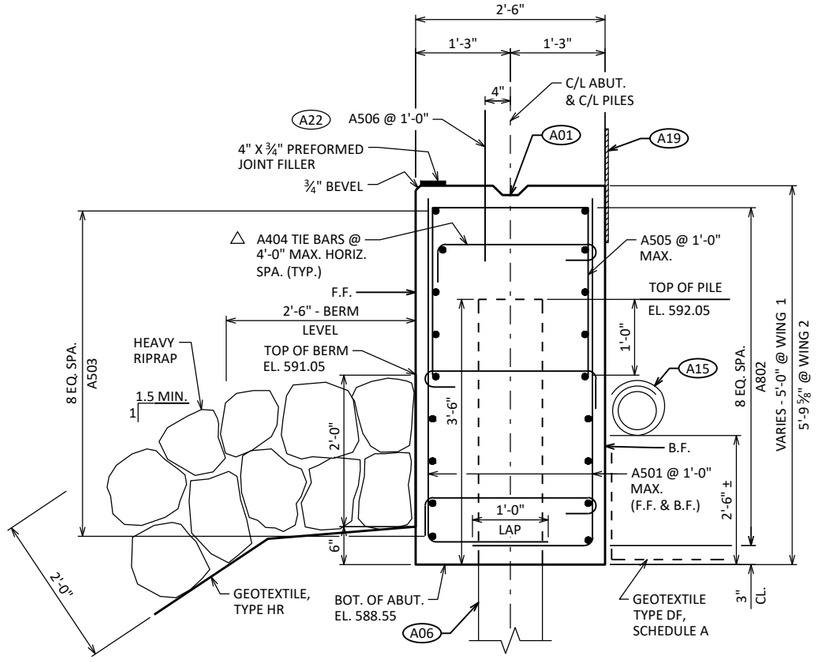
(LOOKING SOUTH)



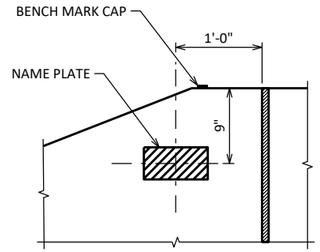
PLAN



PILE PLAN

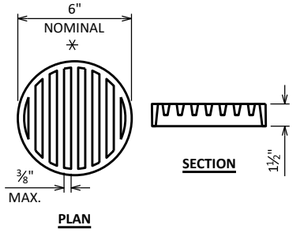


SECTION THRU ABUTMENT BODY



NAME PLATE DETAIL

WING 1



RODENT SHIELD DETAIL

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

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

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

LEGEND

- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2" x 6".
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) B506 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ☆ INCLUDES ½" FILLER
- △ B404 BARS ARE TO BE SPACED VERTICALLY AS SHOWN IN THE " SECTION THRU ABUTMENT BODY" DETAIL. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

SOUTH ABUTMENT

SHEET 4
211

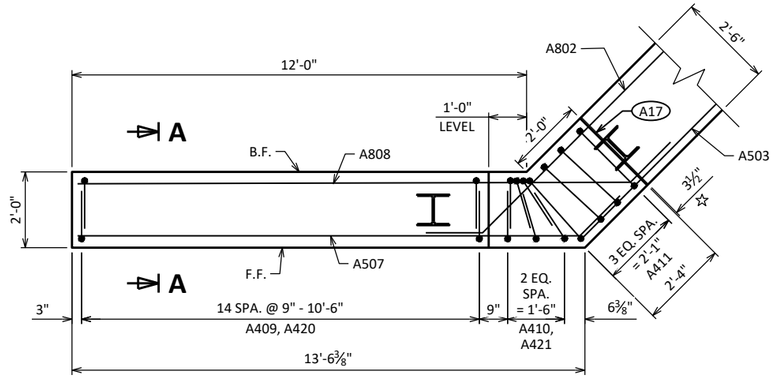
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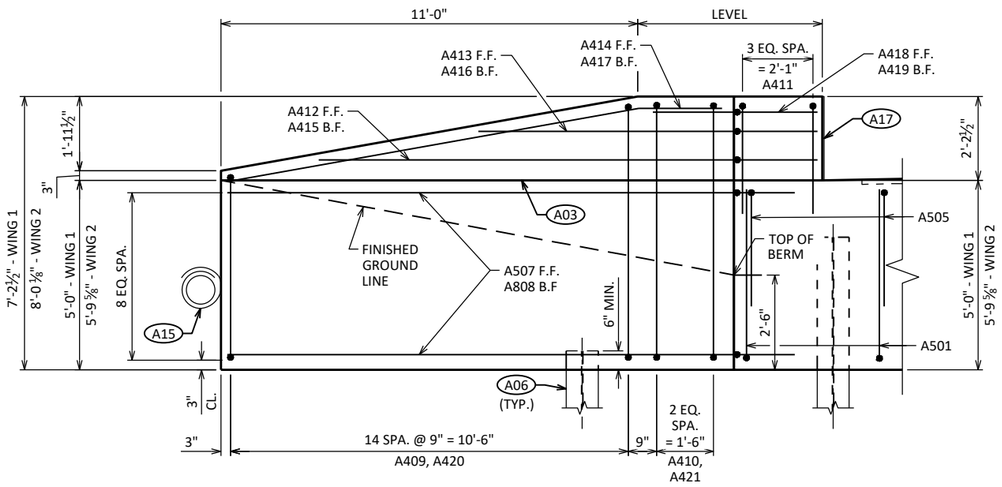
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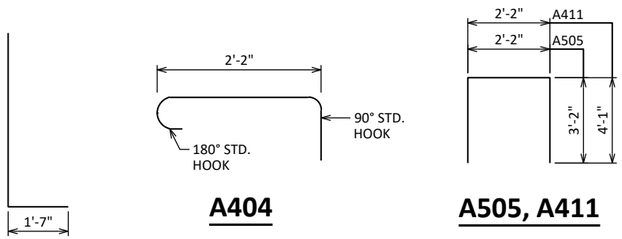
WING PLAN

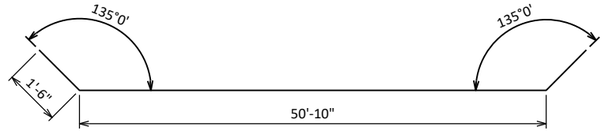
WING 1 SHOWN, WING 2 MIRRORED



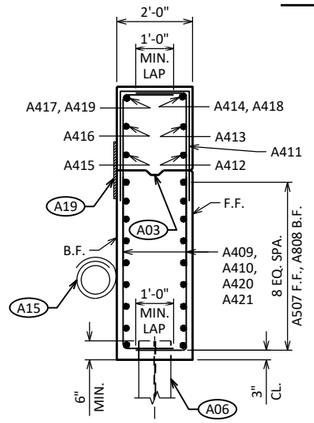
WING ELEVATION

WING 1 SHOWN, WING 2 SIMILAR



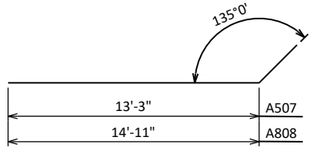


A802

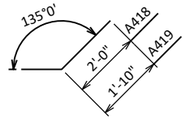


SECTION A-A

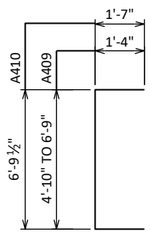
WING 1 SHOWN, WING 2 SIMILAR



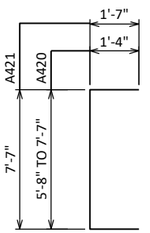
A507, A808



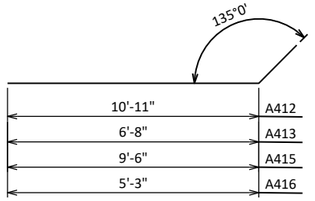
A418, A419



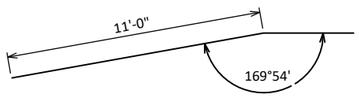
A409, A410



A420, A421



A412, A413, A415, A416



A414, A417

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		94	6'-1"	X		BODY - VERT. - F.F. & B.F.
A802		9	53'-10"	X		BODY - HORIZ. - B.F.
A503		9	46'-6"			BODY - HORIZ. - F.F.
A404		39	3'-4"	X		BODY - VERT. - TIE BARS
A505		47	8'-3"	X		BODY - VERT. - TOP
A506	X	42	2'-0"			DOWEL BARS
A507	X	18	14'-9"	X		WINGS 1 & 2 - HORIZ. - F.F.
A808	X	18	16'-5"	X		WINGS 1 & 2 - HORIZ. - B.F.
A409	X	30	8'-3"	X	⚠	WING 1 - VERT. - F.F. & B.F.
A410	X	6	9'-9"	X		WING 1 - VERT. - F.F. & B.F.
A411	X	8	10'-2"	X		WINGS 1 & 2 -VERT. - F.F. & B.F.
A412	X	2	12'-11"	X		WINGS 1 & 2 - HORIZ. - F.F
A413	X	2	8'-8"	X		WINGS 1 & 2 - HORIZ. - F.F
A414	X	2	13'-6"	X		WINGS 1 & 2 - HORIZ. - F.F - TOP
A415	X	2	11'-4"	X		WINGS 1 & 2 - HORIZ. - B.F
A416	X	2	7'-1"	X		WINGS 1 & 2 - HORIZ. - B.F
A417	X	2	12'-0"	X		WINGS 1 & 2 - HORIZ. - B.F - TOP
A418	X	2	4'-4"	X		WINGS 1 & 2 - HORIZ. - F.F - TOP
A419	X	2	2'-11"	X		WINGS 1 & 2 - HORIZ. - B.F - TOP
A420	X	30	9'-1"	X	⚠	WING 2 - VERT. - F.F. & B.F
A421	X	6	10'-7"	X		WING 2 - VERT. - F.F. & B.F

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

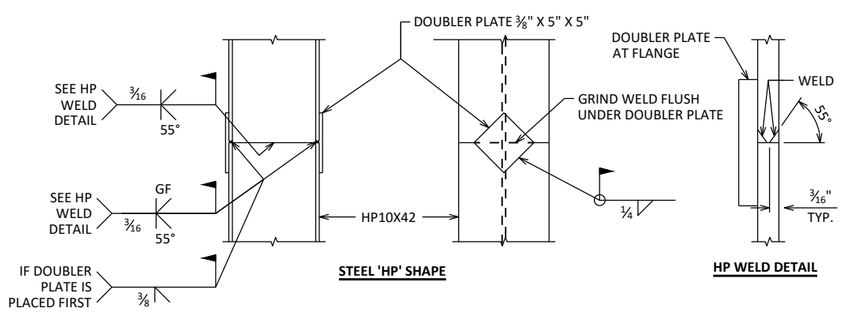
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D.	LENGTH
A409	2 SERIES OF 15	7'-4" TO 9'-3"
A420	2 SERIES OF 15	8'-2" TO 10'-1"

LEGEND

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2" X 6". (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) A506 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ☆ INCLUDES ½" FILLER



'HP' PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

SOUTH ABUTMENT DETAILS

SHEET 5
212

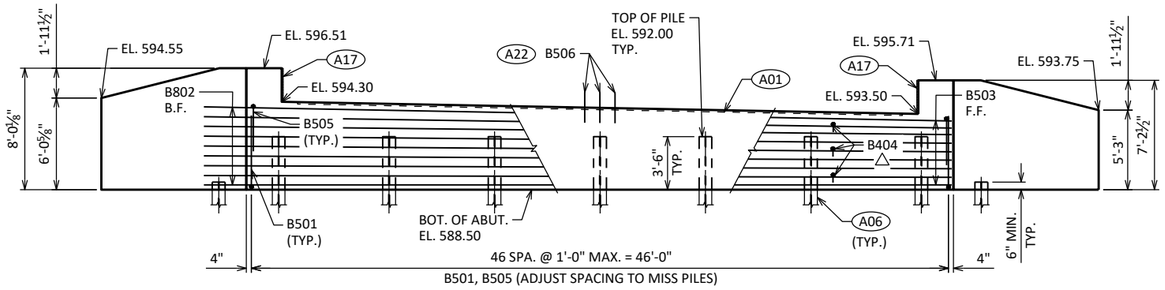
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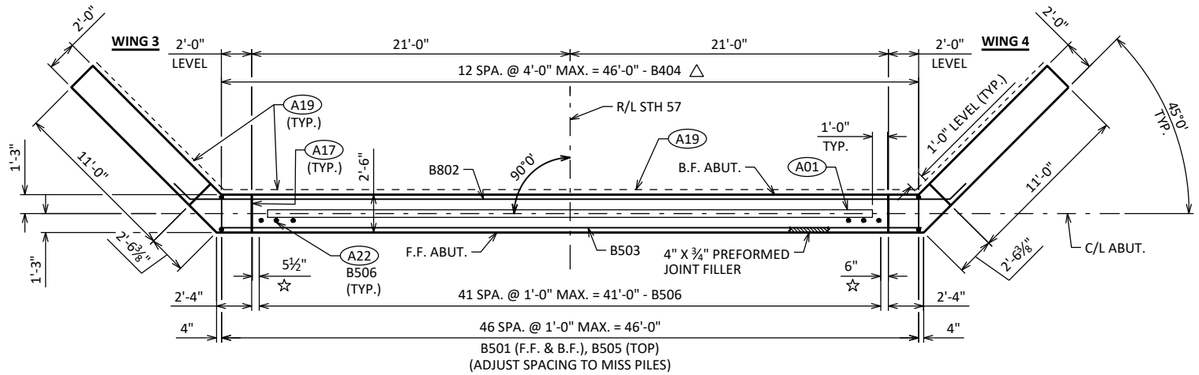
STATE PROJECT NUMBER

4150-26-71

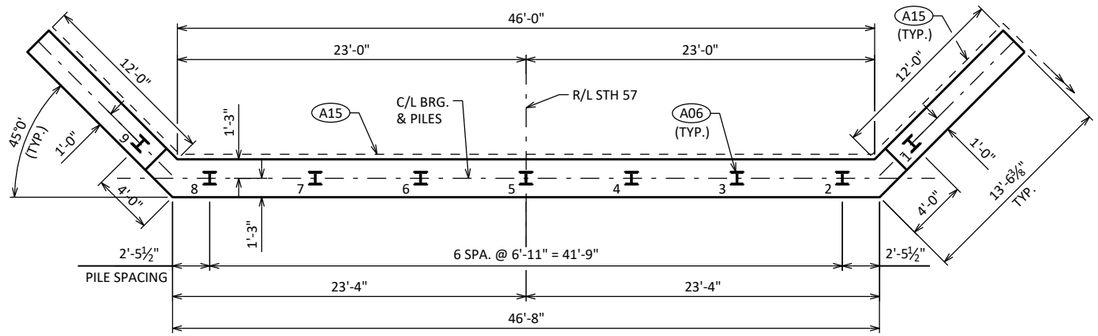


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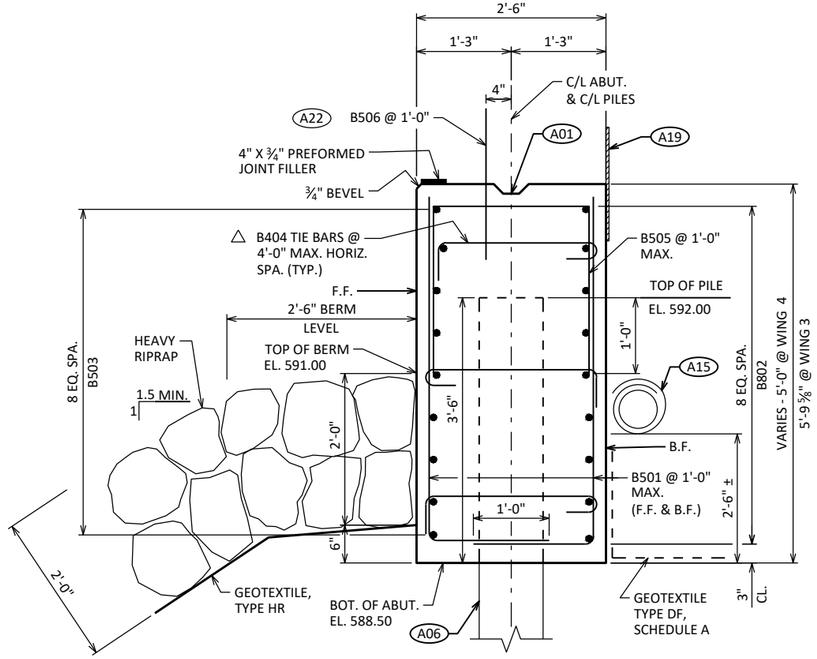
(LOOKING NORTH)



PLAN



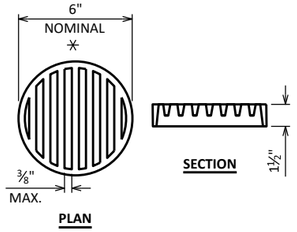
PILE PLAN



SECTION THRU ABUTMENT BODY

LEGEND

- (A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2" x 6".
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) B506 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ☆ INCLUDES ½" FILLER
- △ B404 BARS ARE TO BE SPACED VERTICALLY AS SHOWN IN THE " SECTION THRU ABUTMENT BODY" DETAIL. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.



RODENT SHIELD DETAIL

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

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

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

NORTH ABUTMENT

SHEET 6
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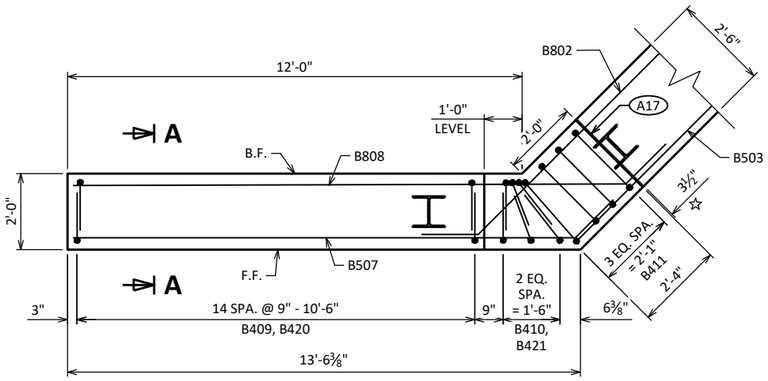
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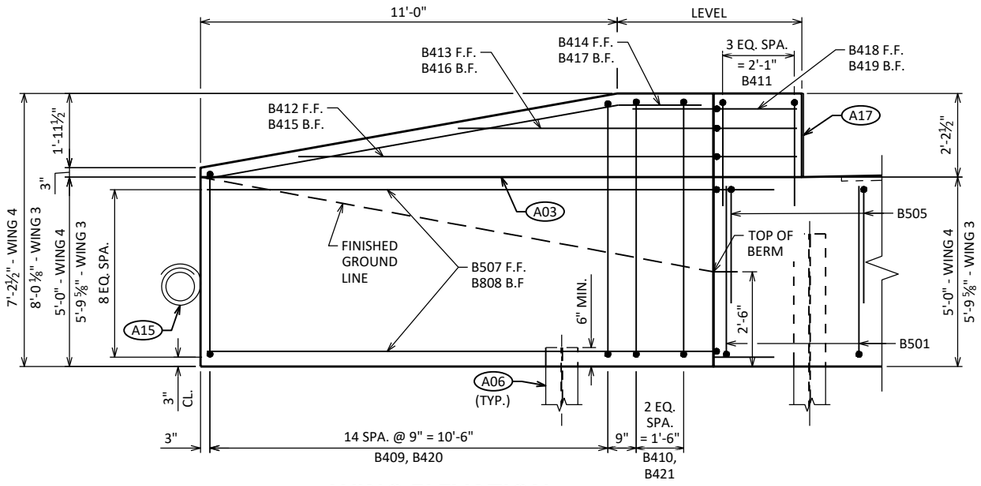
STATE PROJECT NUMBER

4150-26-71



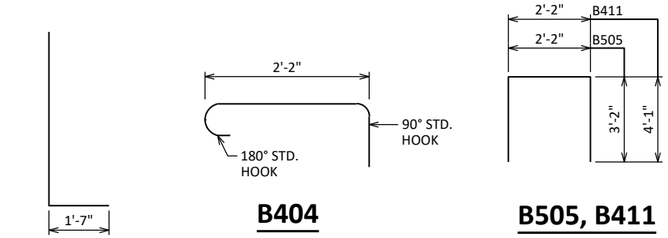
WING PLAN

WING 4 SHOWN, WING 3 MIRRORED



WING ELEVATION

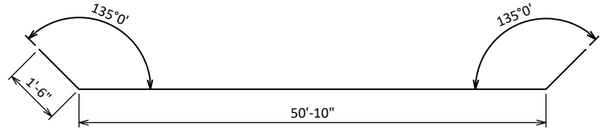
WING 4 SHOWN, WING 3 SIMILAR



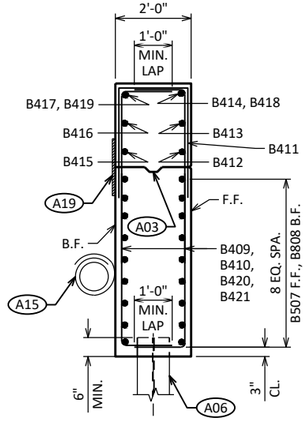
B404

B505, B411

B501

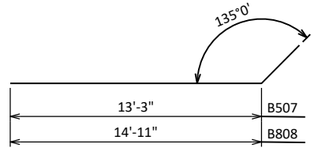


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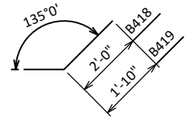


SECTION A-A

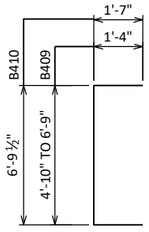
WING 4 SHOWN, WING 3 SIMILAR



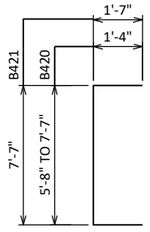
B507, B808



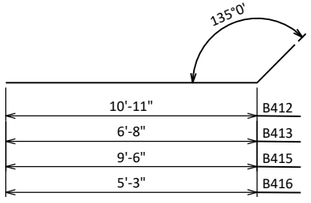
B418, B419



B409, B410



B420, B421



B412, B413, B415, B416

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		94	6'-1"	X		BODY - VERT. - F.F. & B.F.
B802		9	53'-10"	X		BODY - HORIZ. - B.F.
B503		9	46'-6"			BODY - HORIZ. - F.F.
B404		39	3'-4"	X		BODY - VERT. - TIE BARS
B505		47	8'-3"	X		BODY - VERT. - TOP
B506	X	42	2'-0"			DOWEL BARS
B507	X	18	14'-9"	X		WINGS 3 & 4 - HORIZ. - F.F.
B808	X	18	16'-5"	X		WINGS 3 & 4 - HORIZ. - B.F.
B409	X	30	8'-3"	X	⚠	WING 4 - VERT. - F.F. & B.F.
B410	X	6	9'-9"	X		WING 4 - VERT. - F.F. & B.F.
B411	X	8	10'-2"	X		WINGS 3 & 4 -VERT. - F.F. & B.F.
B412	X	2	12'-11"	X		WINGS 3 & 4 - HORIZ. - F.F.
B413	X	2	8'-8"	X		WINGS 3 & 4 - HORIZ. - F.F.
B414	X	2	13'-6"	X		WINGS 3 & 4 - HORIZ. - F.F. - TOP
B415	X	2	11'-4"	X		WINGS 3 & 4 - HORIZ. - B.F.
B416	X	2	7'-1"	X		WINGS 3 & 4 - HORIZ. - B.F.
B417	X	2	12'-0"	X		WINGS 3 & 4 - HORIZ. - B.F. - TOP
B418	X	2	4'-4"	X		WINGS 3 & 4 - HORIZ. - F.F. - TOP
B419	X	2	2'-11"	X		WINGS 3 & 4 - HORIZ. - B.F. - TOP
B420	X	30	9'-1"	X	⚠	WING 3 - VERT. - F.F. & B.F.
B421	X	6	10'-7"	X		WING 3 - VERT. - F.F. & B.F.

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

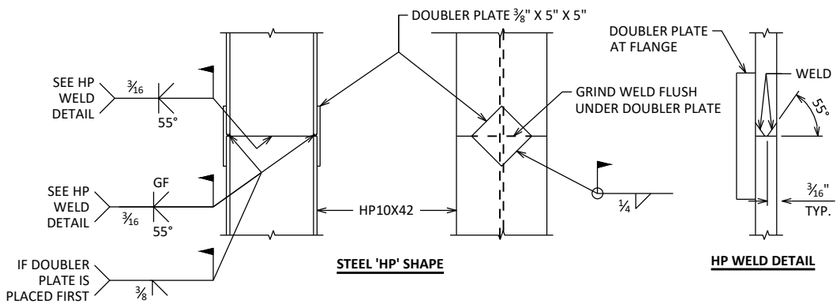
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

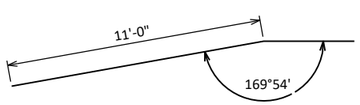
BAR MARK	NO. REQ'D.	LENGTH
B409	2 SERIES OF 15	7'-4" TO 9'-3"
B420	2 SERIES OF 15	8'-2" TO 10'-1"

LEGEND

- (A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2" X 6". (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 20'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A22) A506 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- ☆ INCLUDES ½" FILLER



'HP' PILE DETAILS



B414, B417

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

NORTH ABUTMENT DETAILS

SHEET 7
214

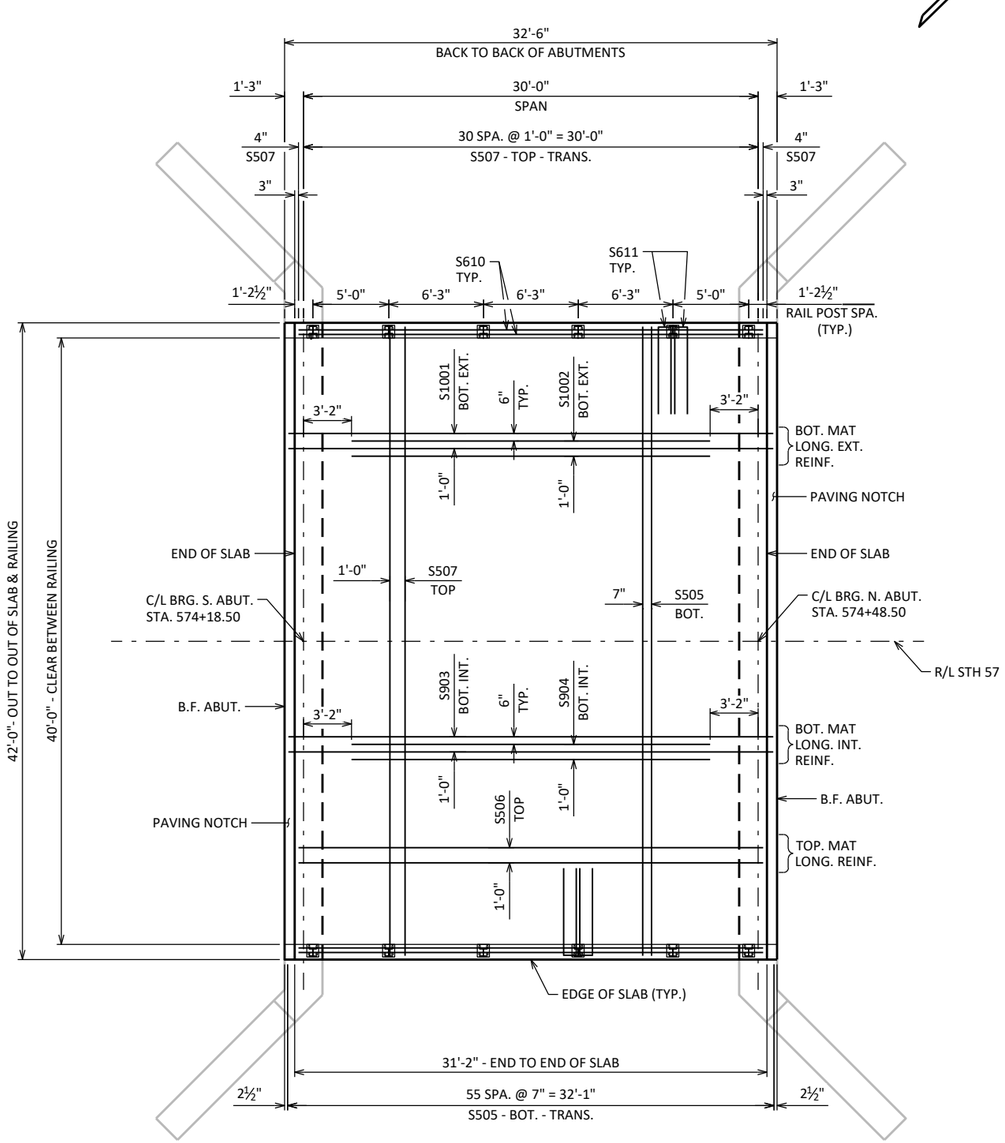
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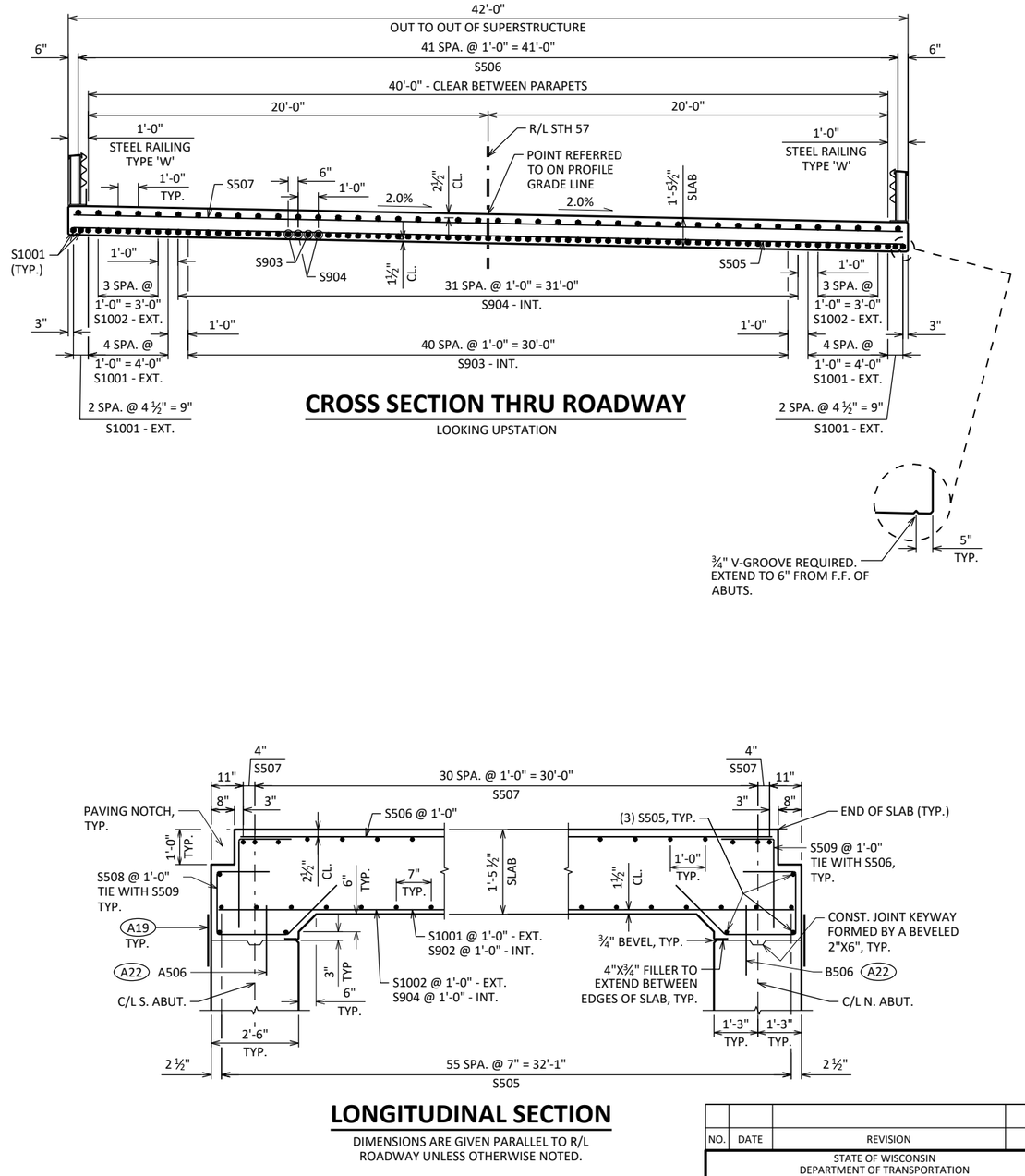
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STATE PROJECT NUMBER

4150-26-71



PLAN



CROSS SECTION THRU ROADWAY

LOOKING UPSTATION

LONGITUDINAL SECTION

DIMENSIONS ARE GIVEN PARALLEL TO R/L ROADWAY UNLESS OTHERWISE NOTED.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) A506, B506 BARS SPACED @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

SUPERSTRUCTURE

SHEET 8
215

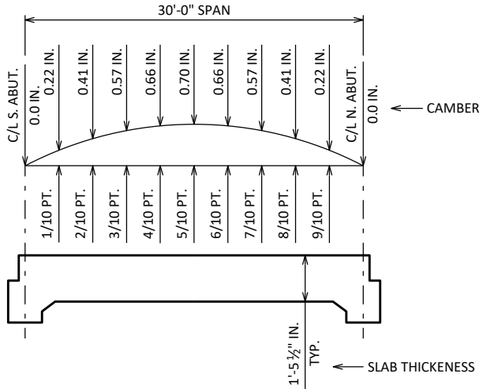
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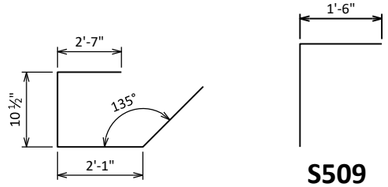
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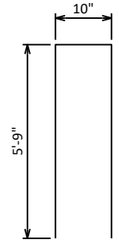
CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.



S508

S509



S611

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S1001	X	14	32'-2"			SLAB- LONGIT. BOT. - EXT.
S1002	X	8	23'-8"			SLAB - LONGIT. BOT. EXT.
S903	X	41	32'-2"			SLAB - LONGIT. BOT. INT.
S904	X	32	23'-8"			SLAB - LONGIT. BOT. INT.
S505	X	56	41'-8"			SLAB - TRANS. - BOT.
S506	X	42	30'-10"			SLAB - LONGIT. TOP
S507	X	33	41'-8"			SLAB - TRANS. - TOP
S508	X	84	7'-7"	X		END OF SLAB @ ABUTMENTS
S509	X	84	3'-2"	X		END OF SLAB @ ABUTMENTS
S610	X	4	30'-10"			EDGE OF SLAB - RAILINGS
S611	X	24	12'-0"	X		EDGE OF SLAB - RAILINGS

TOP OF SLAB ELEVATIONS

SPAN	LOCATION	C/L BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. N. ABUT.
1	W. EDGE OF SLAB	596.56	596.55	596.55	596.54	596.54	596.53	596.53	596.52	596.52	596.51	596.51
	R/L SHT 57	596.16	596.15	596.15	596.14	596.14	596.13	596.13	596.12	596.12	596.11	596.11
	E. EDGE OF SLAB	595.76	595.75	595.75	595.74	595.74	595.73	595.73	595.72	595.72	595.71	595.71

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

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

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. SOUTH ABUTMENT	5/10 PT.	C/L BRG. NORTH ABUTMENT
W. EDGE OF SLAB			
R/L STH 57			
E. EDGE OF SLAB			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGES OF SLAB AND R/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NOTES

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

SUPERSTRUCTURE DETAILS

SHEET 9
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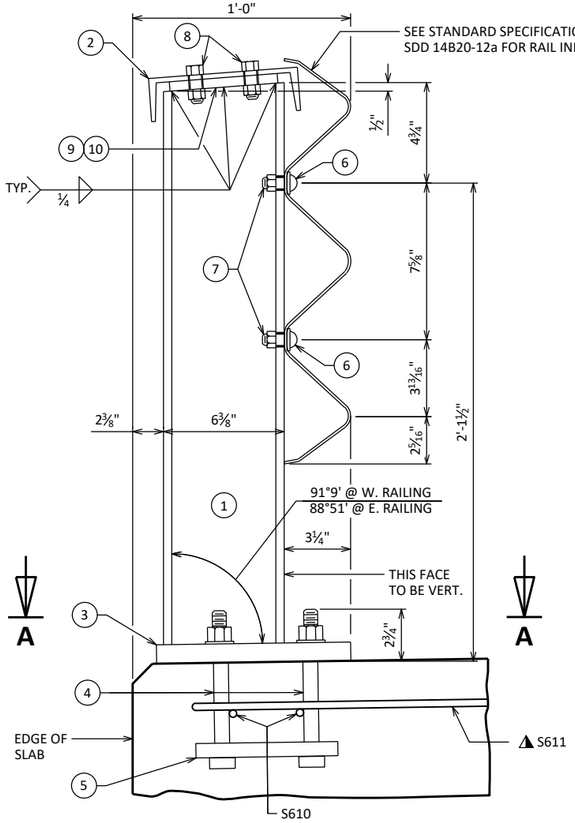
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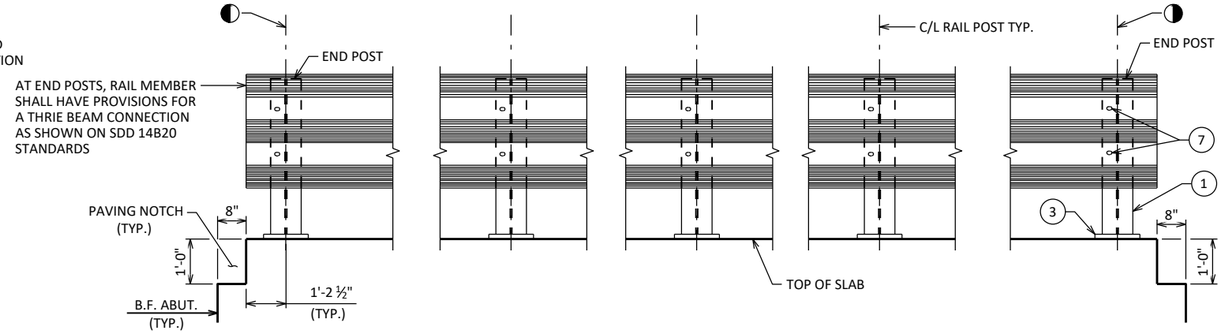
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STATE PROJECT NUMBER

4150-26-71

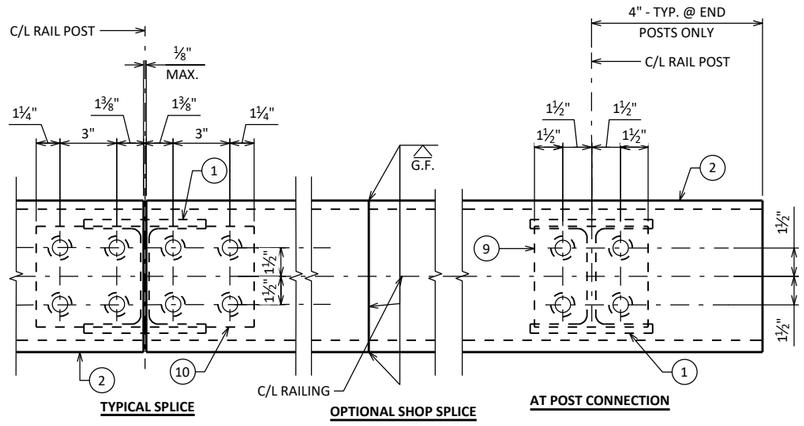


SECTION THRU RAILING



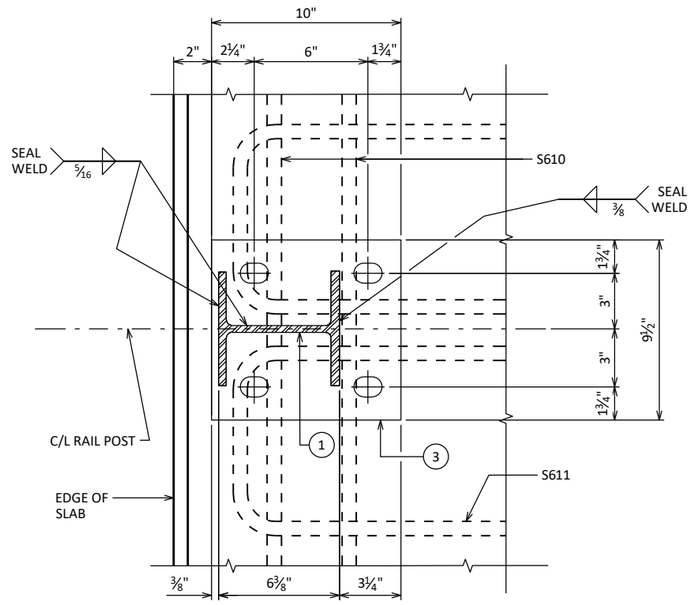
AT S. ABUT. **IN SPAN** **AT N. ABUT.**

ELEVATION

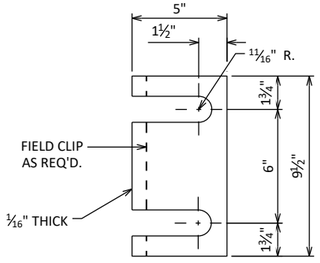


TYPICAL SPLICE **OPTIONAL SHOP SPLICE** **AT POST CONNECTION**

CHANNEL MEMBER DETAILS

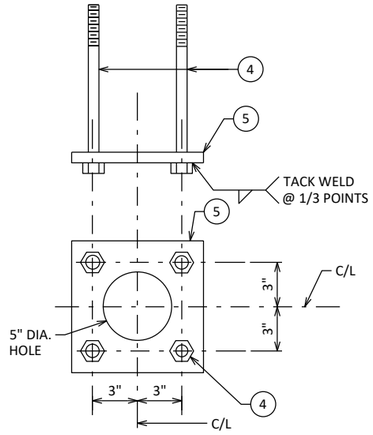


SECTION A-A

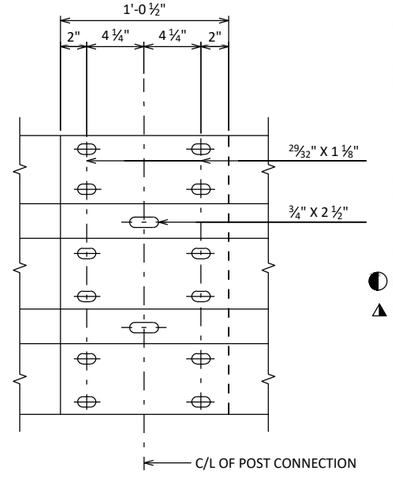


POST SHIM DETAIL

(4 PER POST)



ANCHORAGE DETAIL



DIRECTION OF TRAFFIC

RAIL MEMBER SPLICE

⅝" DIA. BUTTON HEAD OVAL SHOULDER BOLTS WITH HEX NUTS AT ALL SLOTS

LEGEND

1. W6X25 WITH 2 - ¾" X 2½" VERT. SLOTS IN FLG. (SLOT ON OTHER SIDE OF WEB IS OPTIONAL) FOR NO. 7. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POSTS VERTICAL AND NORMAL TO GRADE LINE.
2. C8X11.5 WITH ¹³⁄₁₆" DIA. HOLES FOR NO. 8.
3. BASE PLATE 1" X 9½" X 10" WITH 1⅛" X 1½" SLOTTED HOLES FOR ANCHOR BOLTS NO. 4. WELD TO NO. 1 AS SHOWN.
4. A325 - ⅞" DIA. HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 14" LONG AT END POSTS AND AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 15". USE 8" LONG AT ALL OTHER LOCATIONS. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 3. CHAMFER TOP OF BOLTS BEFORE THREADING.
5. ¼" X 8" X 8" FLAT BAR WITH ¹⁵⁄₁₆" DIA. HOLES FOR ANCHOR BOLTS NO. 4.
6. 1¾" X 3" MOUNTING BOLT WASHER (GALVANIZED).
7. ⅝" DIA. BUTTON HEAD POST MOUNTING BOLT WITH ROUND WASHER AND NUT.
8. ⅝" DIA. X 2" HEX BOLTS WITH NUT AND TWO WASHERS EACH.
9. PLATE ½" X 5¾" X 6" AT BASIC POST CONNECTION. 1¼" DIA. HOLES IN PLATE. ¹³⁄₁₆" DIA. HOLES IN CHANNEL.
10. PLATE ½" X 5¾" X 11½". 1¼" DIA. HOLES IN PLATE, ¹³⁄₁₆" DIA. HOLES IN CHANNEL. (AT TYPICAL SPLICE.)

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE W" WHICH INCLUDES ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL MATERIAL EXCEPT ANCHORAGE DETAIL NO. 5 SHALL BE GALVANIZED AFTER FABRICATION.

PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND CHANNELS SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY SSPC SPECS.

ALL MATERIAL USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

FILL BOLT SLOT OPENINGS IN POST SHIMS & PLATE NO. 3 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CHANNEL MEMBER SHALL BE ATTACHED CONTINUOUSLY TO A MINIMUM OF FOUR POSTS AND A MAXIMUM OF EIGHT (EXCEPT AT ABUTMENTS).

AT EXPANSION SLOTS IN RAIL AND CHANNEL MEMBERS, TIGHTEN BOLTS, BACK OFF ONE HALF TURN AND BURR THREADS. RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC AND THE UPPER RAIL SHALL LAP THE LOWER RAIL.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

◐ PAY LIMITS FOR STEEL RAILING TYPE 'W'

◭ PLACE BELOW AND TIE TO TOP MAT OF STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-15-31

DRAWN BY IFC | PLANS CK'D VS

STEEL RAILING TYPE "W"

SHEET 10
217

SCALE =

8

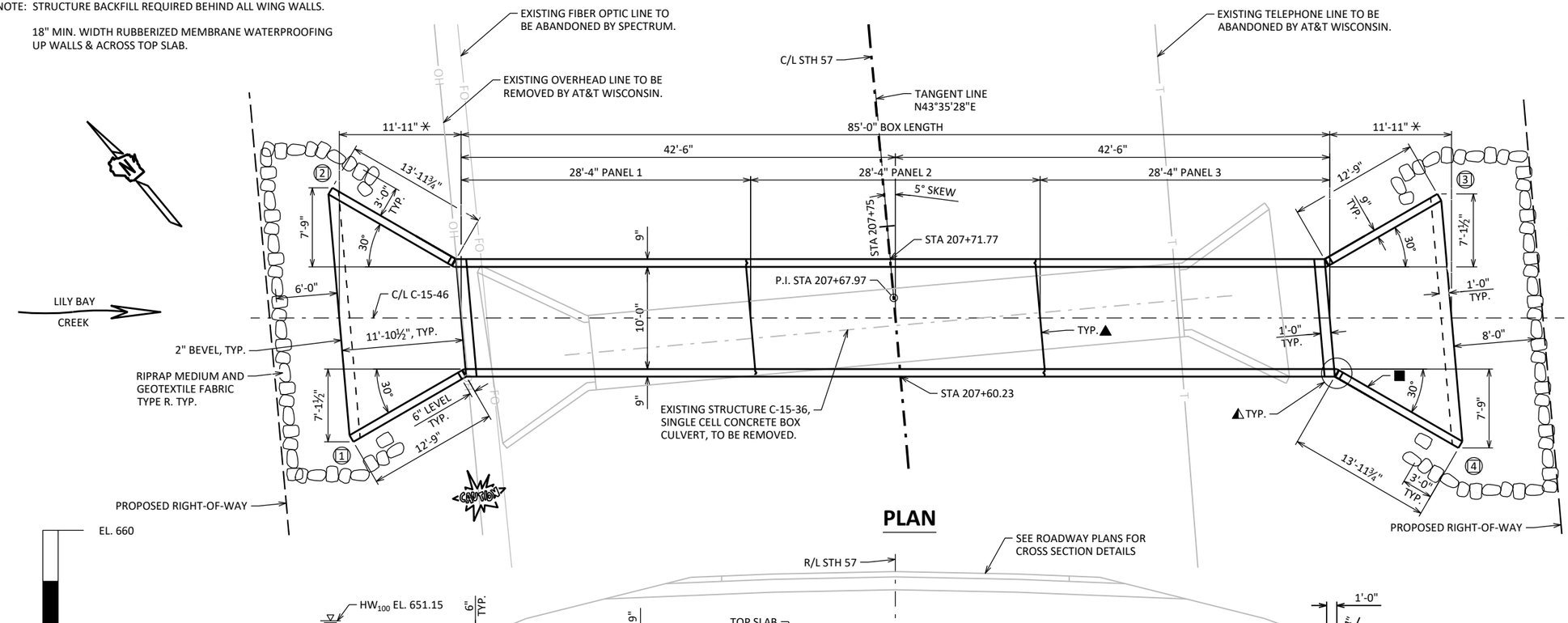
8

NOTE: STRUCTURE BACKFILL REQUIRED BEHIND ALL WING WALLS.

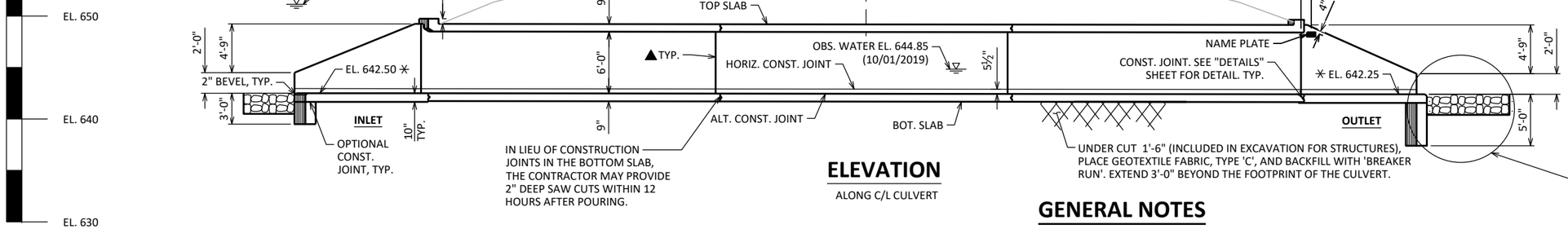
18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB.

STATE PROJECT NUMBER

4150-26-71

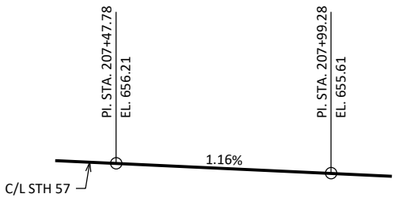


PLAN



ELEVATION

ALONG C/L CULVERT



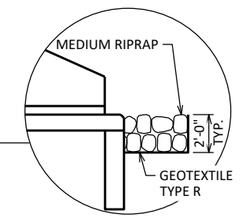
PROFILE GRADE LINE

LIST OF DRAWINGS:

1	LAYOUT
2	BOX DETAILS
3	APRON DETAILS
4	DETAILS
5	SUBSURFACE EXPLORATION

LEGEND

- ◭ SEE CORNER DETAILS ON "DETAILS" SHEET
- ■ NAME PLATE LOCATION (SEE "DETAILS" SHEET)
- ✳ BUILD APRON AND END OF BOX LEVEL
- ◯ INDICATES WING NUMBER
- ▲ VERT. CONST. JOINT, TYP. SEE "BOX DETAILS" SHEET FOR DETAILS.



DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.01
OPERATING RATING: RF = 1.31
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

EARTH LOAD:

DESIGNED FOR 7 TO 8 FT. OF FILL.

MATERIAL PROPERTIES:

CONCRETE MASONRY: f'_c = 3,500 PSI
BAR STEEL REINFORCEMENT f_y = 60,000 PSI

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 440 C.F.S.
V_{100}= 8.46 F.P.S.
HW_{100}= EL. 651.15
WATERWAY AREA = 52.01 SQ. FT.
DRAINAGE AREA = 13.7 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:

Q_2= 115 C.F.S.
V_2= 3.22 F.P.S.
HW_2= EL. 647.13

TRAFFIC DATA

STH 57

ADT = 6,000 (2044)
R.D.S. = 60 MPH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0250	REMOVING STRUCTURE OVER WATERWAY REMOVE DEBRIS C-15-36	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS C-15-46	EACH	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,138
311.0115	BREAKER RUN	CY	115
504.0100	CONCRETE MASONRY CULVERTS	CY	109
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	16,955
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,550
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	19
606.0200	RIRAP MEDIUM	CY	36
645.0105	GEOTEXTILE TYPE C	SY	278
645.0130	GEOTEXTILE TYPE R	SY	95
	NON-BID ITEMS		
	FILLER	SIZE	3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

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

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-15-46" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO 6" BELOW TOP OF BOTTOM SLAB.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER. IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR THE BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

STRUCTURE DESIGN CONTACTS:

RYAN R. HARRIS (608) 266-2963
KYLE H. BUSCH (608) 267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 1/26/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE C-15-46

STH 57 OVER LILY BAY CREEK

COUNTY	TOWN
DOOR	SEVASTOPOL

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
RRH	MJK	RRH	MJK

LAYOUT

SHEET 1 OF 5
218

I.D. 4150-26-00A

DATE: JUNE 2023

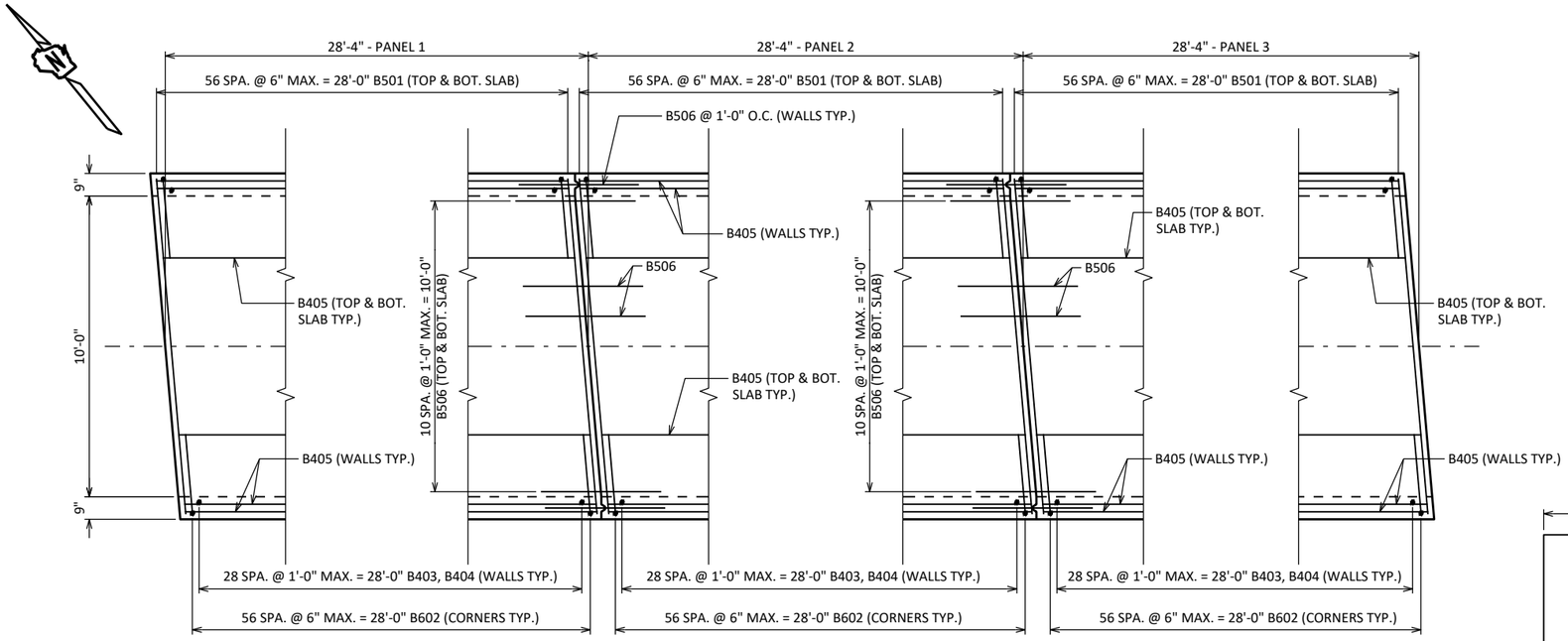
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8

8

STATE PROJECT NUMBER

4150-26-71



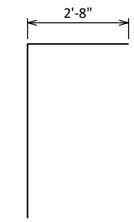
PLAN

APRON AND HEADERS NOT SHOWN

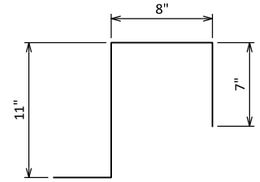
BILL OF BARS

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

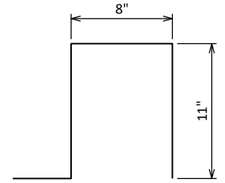
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B501		342	11'-2"			TOP & BOT. SLAB - HORIZONTAL
B602		684	7'-9"	X		CORNERS - VERTICAL
B403		174	6'-1"			WALLS - VERTICAL
B404		174	2'-5"			WALLS - DOWELS - VERTICAL
B405		144	28'-0"			TOP & BOT. SLAB & WALLS - LONGITUDINAL
B506		72	4'-0"			VERTICAL CONST. JOINT - DOWELS
B307		16	2'-6"	X		INLET HEADER
B308		16	2'-10"	X		OUTLET HEADER
B409		4	11'-2"			HEADERS - HORIZONTAL



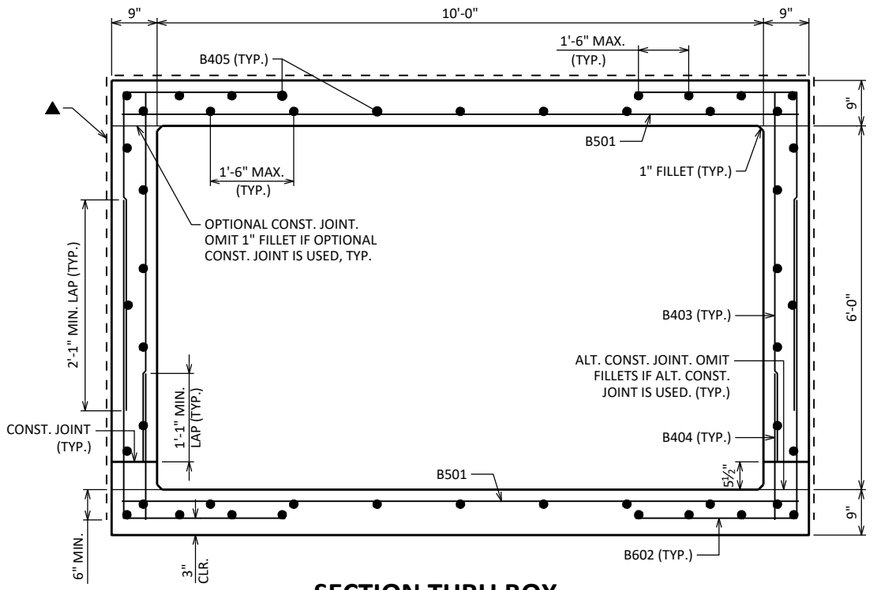
B602



B307

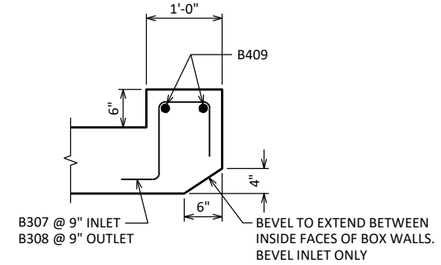


B308

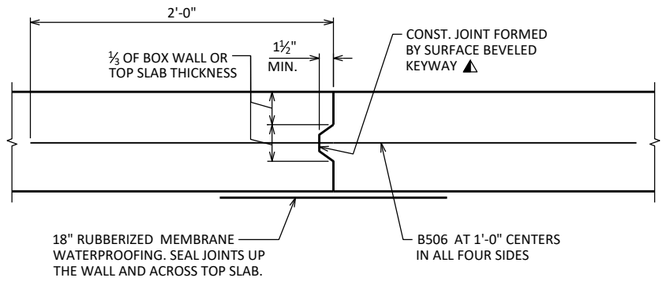


SECTION THRU BOX

ALL LONGITUDINAL BARS NOT LABELED ARE B405 AS SHOWN



SECTION THRU HEADER



VERTICAL CONSTRUCTION JOINT

⚠ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONST. JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-15-46

DRAWN BY RRH | PLANS CK'D MJK

BOX DETAILS

SHEET 2
219

SCALE = 5.00

8

8

STATE PROJECT NUMBER

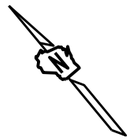
4150-26-71

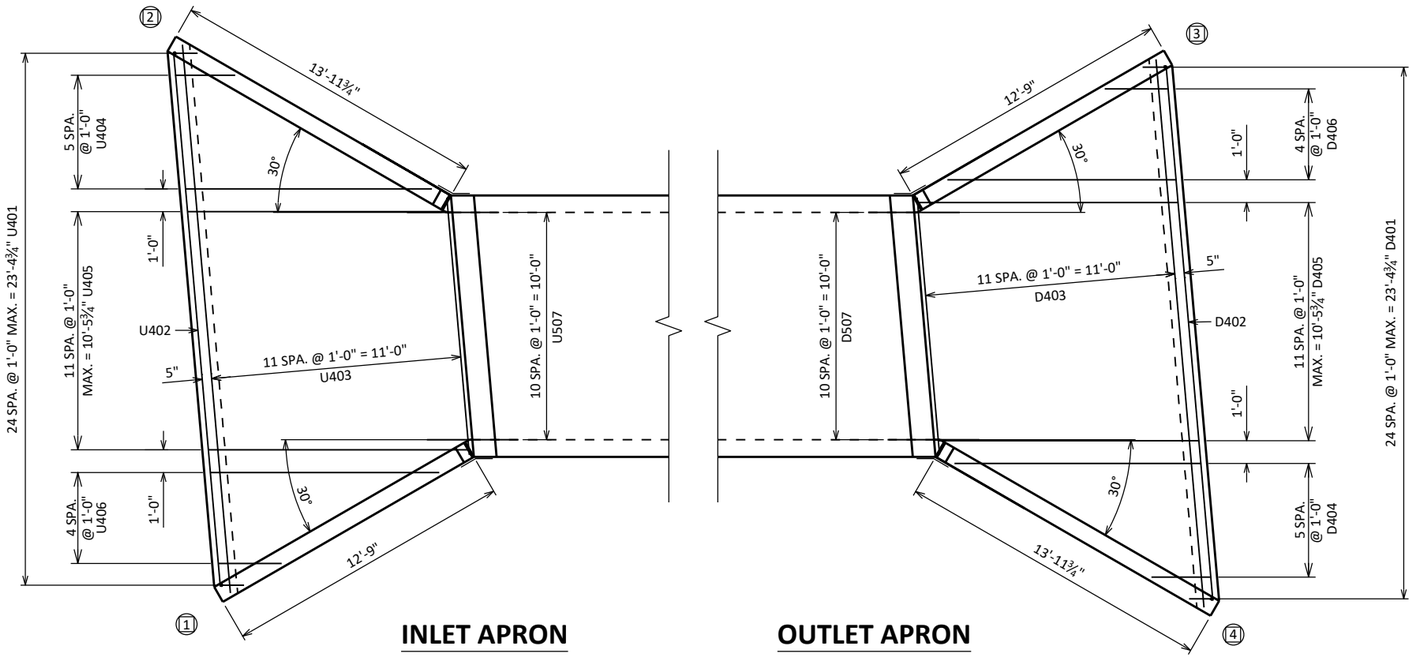
▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.

(2) INDICATES WING NUMBER.

◧ INDICATES 1'-8" LAP FOR NO. 4 BARS.

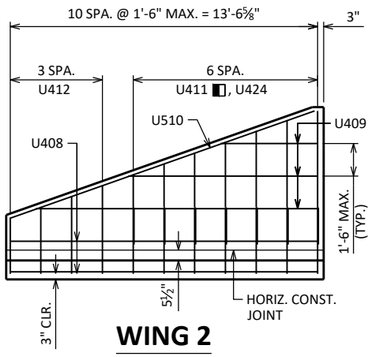
● INDICATES 2'-7" LAP FOR NO. 5 BARS.





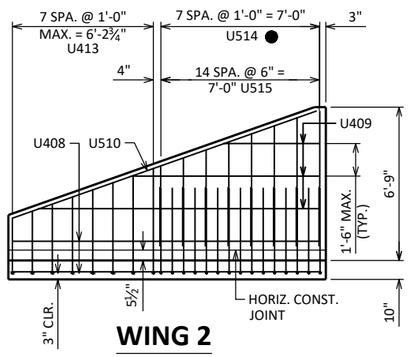
INLET APRON

OUTLET APRON



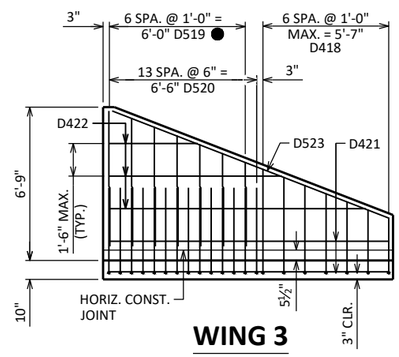
WING 2

SHOWING F.F. REINFORCEMENT



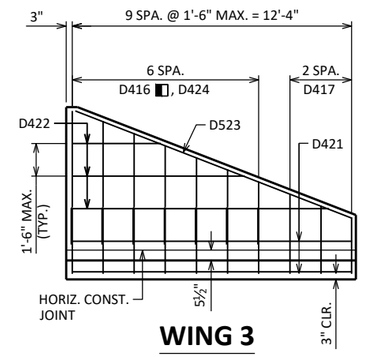
WING 2

SHOWING B.F. REINFORCEMENT



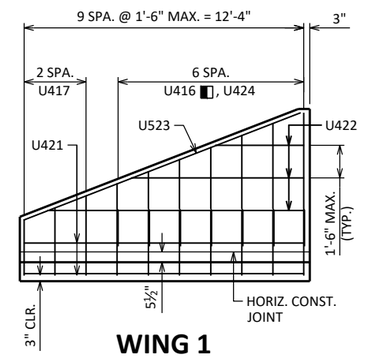
WING 3

SHOWING B.F. REINFORCEMENT



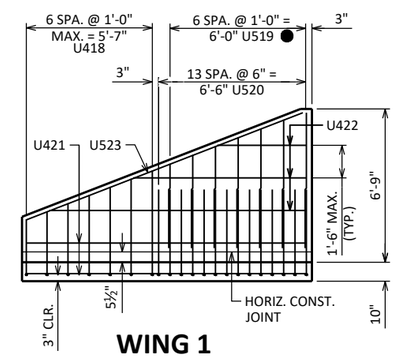
WING 3

SHOWING F.F. REINFORCEMENT



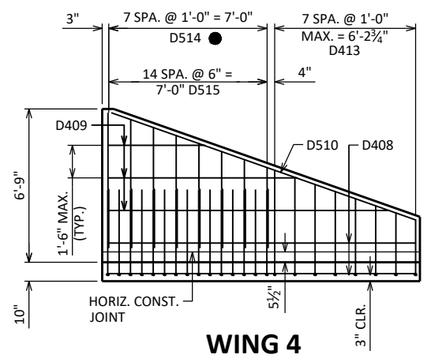
WING 1

SHOWING F.F. REINFORCEMENT



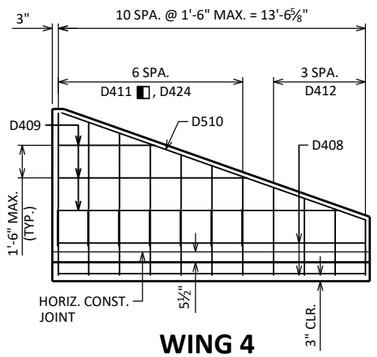
WING 1

SHOWING B.F. REINFORCEMENT



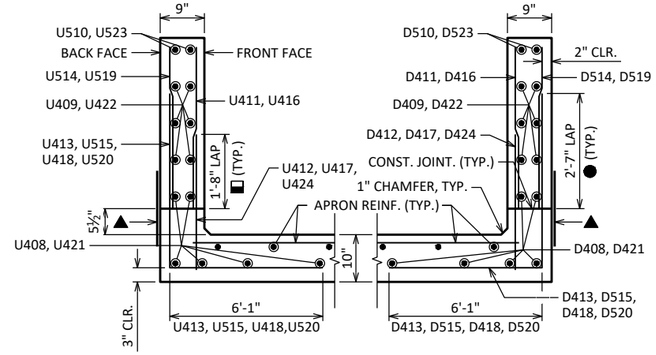
WING 4

SHOWING B.F. REINFORCEMENT



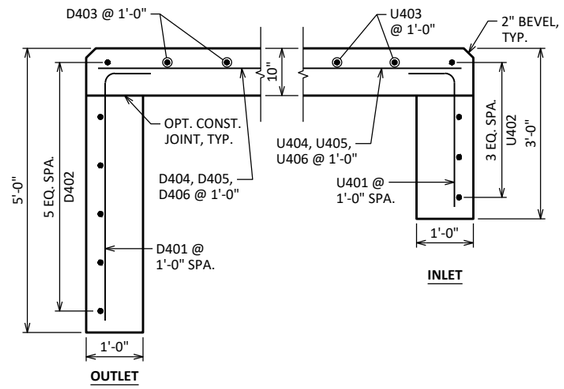
WING 4

SHOWING F.F. REINFORCEMENT

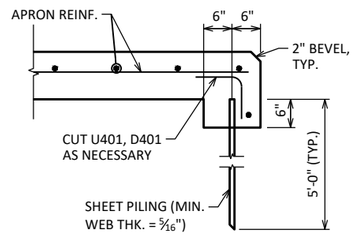


WINGS 1 & 2 SECTION

WINGS 3 & 4 SECTION



CUT-OFF WALLS



ALTERNATE CUT-OFF WALLS

THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-15-46

DRAWN BY RRH | PLANS CK'D MJK

APRON DETAILS

SHEET 3
220

SCALE = 10.00

8

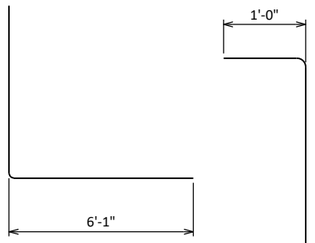
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BILL OF BARS

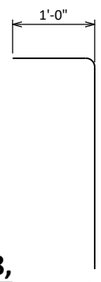
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		25	3'-6"	X		INLET - VERTICAL - CUTOFF WALL/APRON
U402		4	23'-7"			INLET - HORIZONTAL - CUTOFF WALL & APRON
U403		12	17'-9"		⚠	INLET - HORIZONTAL - APRON
U404		6	6'-9"		⚠	INLET - LONGITUDINAL - APRON
U405		12	11'-6"			INLET - LONGITUDINAL - APRON
U406		5	6'-5"		⚠	INLET - LONGITUDINAL - APRON
U507		11	4'-0"			INLET - LONGITUDINAL DOWELS - APRON/BOX
U408	X	6	13'-7"			WING 2 - HORIZ. - BOTH FACE & APRON BOTTOM SLAB
U409	X	6	8'-4"		⚠	WING 2 - HORIZONTAL - BOTH FACE
U510	X	2	14'-3"			WING 2 - HORIZONTAL - BOTH FACE TOP
U411	X	7	4'-6"		⚠	WING 2 - VERTICAL - FRONT FACE
U412	X	4	3'-2"		⚠	WING 2 - VERTICAL DOWELS - F.F. WALL/APRON
U413	X	8	9'-7"	X	⚠	WING 2 - VERTICAL DOWELS - B.F. WALL/APRON
U514	X	8	4'-10"		⚠	WING 2 - VERTICAL - BACK FACE
U515	X	15	9'-9"	X		WING 2 - VERTICAL DOWELS - B.F. WALL/APRON
U416	X	7	4'-4"		⚠	WING 1 - VERTICAL - FRONT FACE
U417	X	3	3'-0"		⚠	WING 1 - VERTICAL DOWELS - F.F. WALL/APRON
U418	X	7	9'-7"	X	⚠	WING 1 - VERTICAL DOWELS - B.F. WALL/APRON
U519	X	7	4'-11"		⚠	WING 1 - VERTICAL - BACK FACE
U520	X	14	9'-9"	X		WING 1 - VERTICAL DOWELS - B.F. WALL/APRON
U421	X	6	12'-4"			WING 1 - HORIZ. - BOTH FACE & APRON BOTTOM SLAB
U422	X	6	7'-7"		⚠	WING 1 - HORIZONTAL - BOTH FACE
U523	X	2	13'-1"			WING 1 - HORIZONTAL - BOTH FACE TOP
U424	X	14	2'-11"			WING 1 & 2 - VERTICAL DOWELS - F.F. WALL/APRON
D401		25	5'-6"	X		OUTLET - VERTICAL - CUTOFF WALL/APRON
D402		6	23'-7"			OUTLET - HORIZONTAL - CUTOFF WALL & APRON
D403		12	17'-9"		⚠	OUTLET - HORIZONTAL - APRON
D404		6	6'-9"		⚠	OUTLET - LONGITUDINAL - APRON
D405		12	11'-6"			OUTLET - LONGITUDINAL - APRON
D406		5	6'-5"		⚠	OUTLET - LONGITUDINAL - APRON
D507		11	4'-0"			OUTLET - LONGITUDINAL DOWELS - APRON/BOX
D408	X	6	13'-7"			WING 4 - HORIZ. - BOTH FACE & APRON BOTTOM SLAB
D409	X	6	8'-4"		⚠	WING 4 - HORIZONTAL - BOTH FACE
D510	X	2	14'-3"			WING 4 - HORIZONTAL - BOTH FACE TOP
D411	X	7	4'-6"		⚠	WING 4 - VERTICAL - FRONT FACE
D412	X	4	3'-2"		⚠	WING 4 - VERTICAL DOWELS - F.F. WALL/APRON
D413	X	8	9'-7"	X	⚠	WING 4 - VERTICAL DOWELS - B.F. WALL/APRON
D514	X	8	4'-10"		⚠	WING 4 - VERTICAL - BACK FACE
D515	X	15	9'-9"	X		WING 4 - VERTICAL DOWELS - B.F. WALL/APRON
D416	X	7	4'-4"		⚠	WING 3 - VERTICAL - FRONT FACE
D417	X	3	3'-0"		⚠	WING 3 - VERTICAL DOWELS - F.F. WALL/APRON
D418	X	7	9'-7"	X	⚠	WING 3 - VERTICAL DOWELS - B.F. WALL/APRON
D519	X	7	4'-11"		⚠	WING 3 - VERTICAL - BACK FACE
D520	X	14	9'-9"	X		WING 3 - VERTICAL DOWELS - B.F. WALL/APRON
D421	X	6	12'-4"			WING 3 - HORIZ. - BOTH FACE & APRON BOTTOM SLAB
D422	X	6	7'-7"		⚠	WING 3 - HORIZONTAL - BOTH FACE
D523	X	2	13'-1"			WING 3 - HORIZONTAL - BOTH FACE TOP
D424	X	14	2'-11"			WING 3 & 4 - VERTICAL DOWELS - F.F. WALL/APRON

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



U413, U418, D413, D418, U515, U520, D515, D520

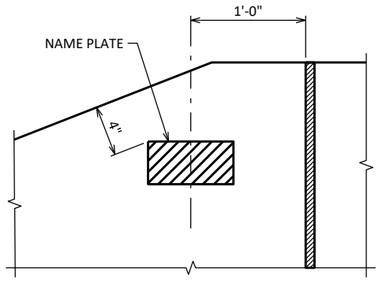


U401, D401

BAR SERIES TABLE

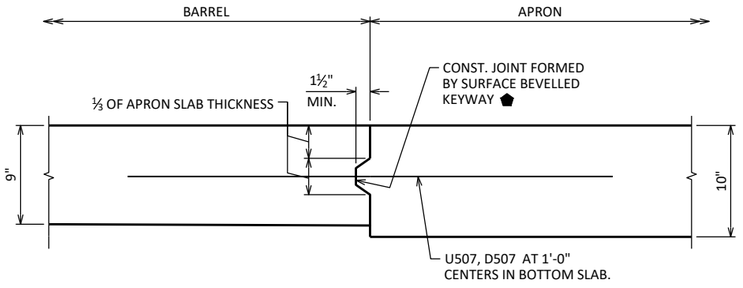
BUNDLE AND TAG EACH SERIES SEPARATELY.

BAR MARK	NO. REQ'D	LENGTH
U403	1 SERIES OF 12	11'-4" TO 24'-2"
U404	1 SERIES OF 6	2'-7" TO 10'-10"
U406	1 SERIES OF 5	2'-9" TO 10'-1"
U409	2 SERIES OF 3	4'-3" TO 12'-4"
U411	1 SERIES OF 7	3'-1" TO 5'-11"
U412	1 SERIES OF 4	2'-5" TO 3'-10"
U413	1 SERIES OF 8	8'-6" TO 10'-8"
U514	1 SERIES OF 8	3'-8" TO 6'-0"
U416	1 SERIES OF 7	2'-9" TO 5'-11"
U417	1 SERIES OF 3	2'-5" TO 3'-6"
U418	1 SERIES OF 7	8'-6" TO 10'-8"
U519	1 SERIES OF 7	3'-9" TO 6'-0"
U422	2 SERIES OF 3	3'-11" TO 11'-3"
D403	1 SERIES OF 12	11'-4" TO 24'-2"
D404	1 SERIES OF 6	2'-7" TO 10'-10"
D406	1 SERIES OF 5	2'-9" TO 10'-1"
D409	2 SERIES OF 3	4'-3" TO 12'-4"
D411	1 SERIES OF 7	3'-1" TO 5'-11"
D412	1 SERIES OF 4	2'-5" TO 3'-10"
D413	1 SERIES OF 8	8'-6" TO 10'-8"
D514	1 SERIES OF 7	3'-8" TO 6'-0"
D416	1 SERIES OF 7	2'-9" TO 5'-11"
D417	1 SERIES OF 3	2'-5" TO 3'-6"
D418	1 SERIES OF 7	8'-6" TO 10'-8"
D519	1 SERIES OF 7	3'-9" TO 6'-0"
D422	2 SERIES OF 3	3'-11" TO 11'-3"



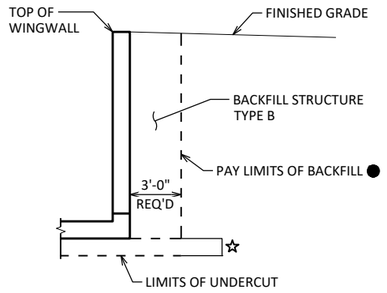
NAME PLATE DETAIL

WING 4

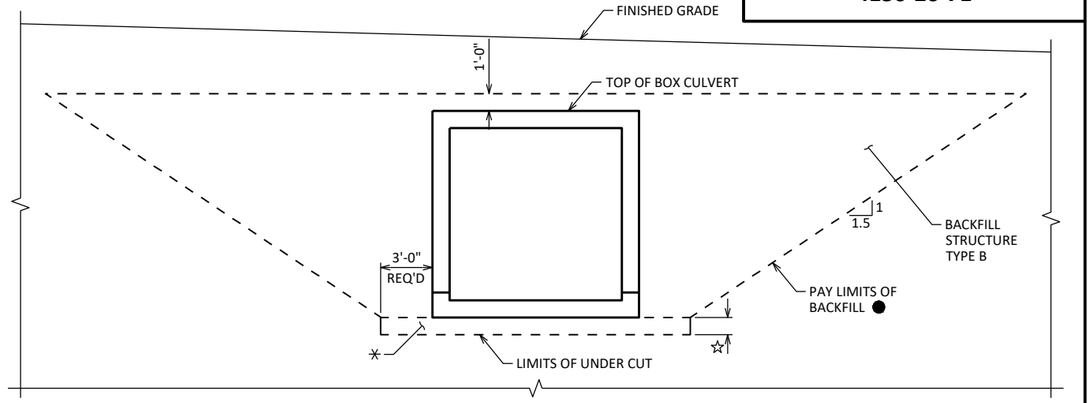


APRON CONNECTION DETAIL

⬟ IN LIEU OF CONSTRUCTION JOINTS IN BOTTOM SLAB, THE CONTRACTOR MY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.



TYPICAL SECTION THRU BOX CULVERT WINGWALL



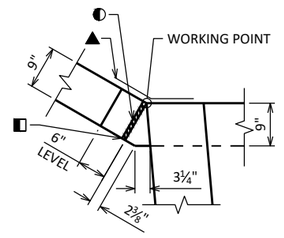
TYPICAL SECTION THRU BOX CULVERT

● BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

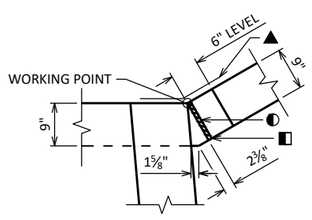
☆ UNDER CUT 1'-6". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

✳ THE NORTHEAST REGION SOILS ENGINEER SHOULD BE PRESENT TO EVALUATE THE SUBSURFACE CONDITIONS DURING BOX CULVERT CONSTRUCTION. SEE STRUCTURE DESIGN CONTACTS ON SHT. 1.

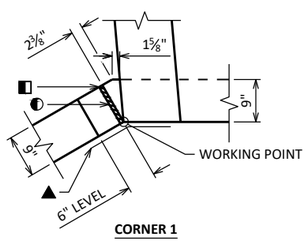
IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMIN IF "OTHER GRANULAR MATERIAL" IS ACCEPTIBLE.



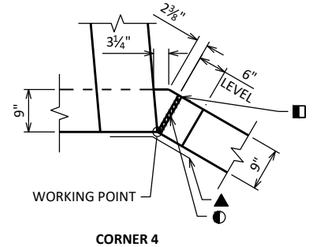
CORNER 2



CORNER 3



CORNER 1



CORNER 4

CORNER DETAILS

◐ ¾" FILLER (TYP.) EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING.

◧ 1" BEVEL (TYP.)

▲ 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-15-46

DRAWN BY RRH | PLANS CK'D MJK

DETAILS

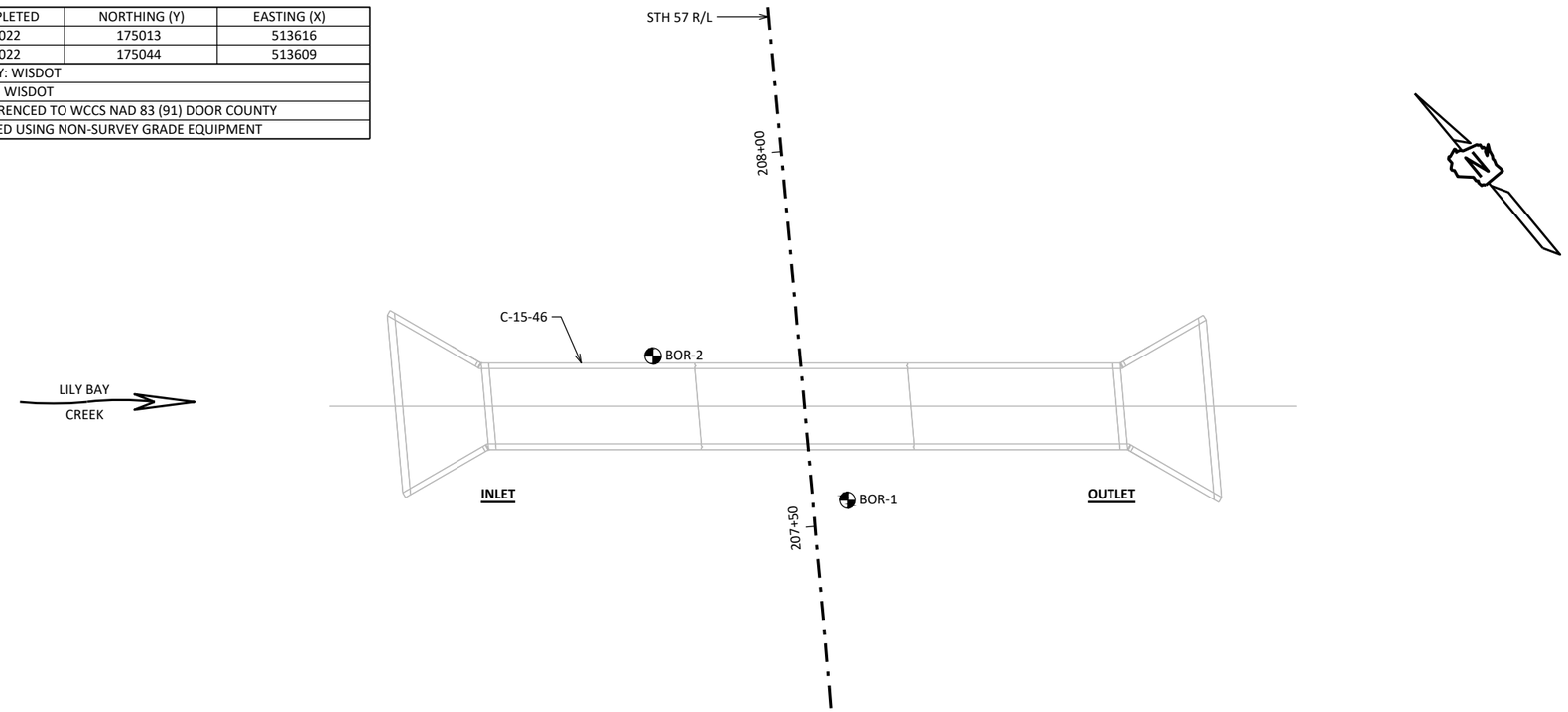
SHEET 4
221

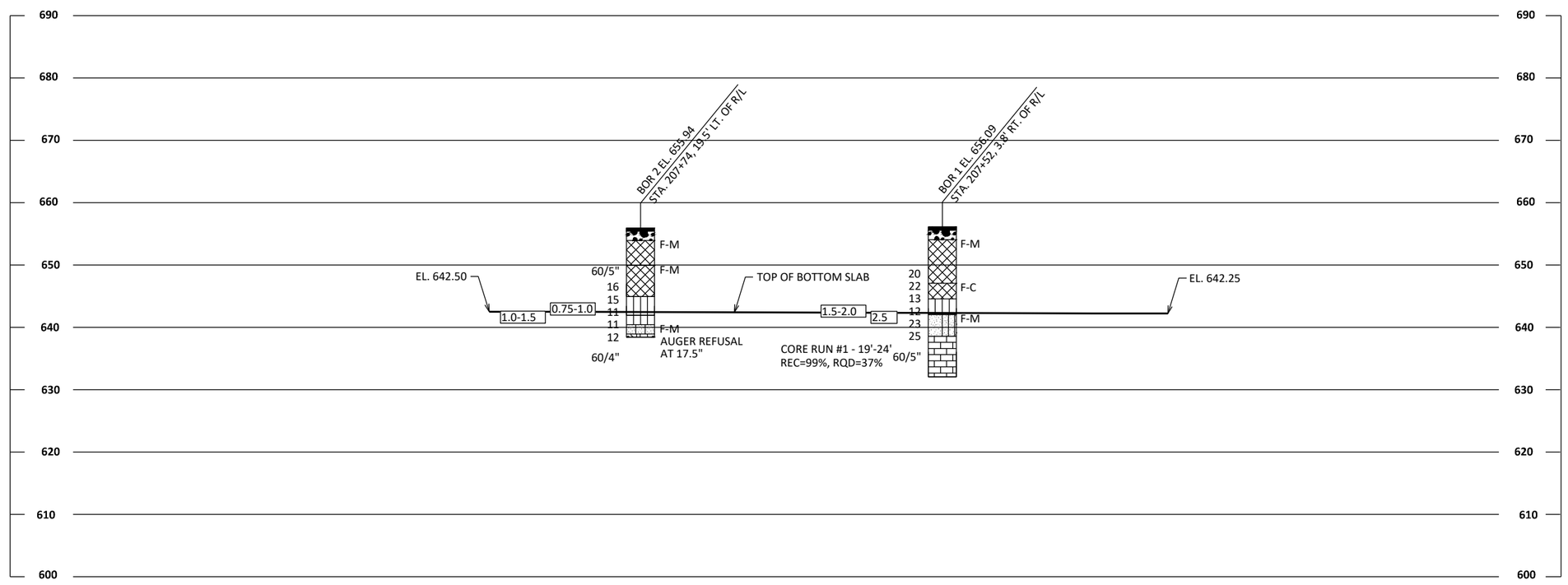
SCALE = 10.00

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	03/02/2022	175013	513616
2	03/02/2022	175044	513609
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) DOOR COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			





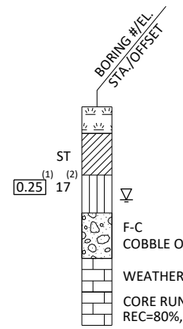
STATE PROJECT NUMBER

4150-26-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE C-15-46

DRAWN BY JJ/RRH PLANS CK'D MJK

SUBSURFACE EXPLORATION

SHEET 5
222

SCALE = 10.00

8

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LILY BAY - SOUTH SIDE

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.15
206+00.00	20600.00	0.00	22.76	0.00	0	0	0	0
206+09.60	20609.60	9.60	21.23	0.33	8	0	8	0
206+50.00	20650.00	40.40	38.49	5.25	45	4	53	5
206+68.99	20668.99	18.99	35.15	20.82	26	9	79	15
206+69.02	20669.02	0.03	77.44	20.99	0	0	79	15
207+00.00	20700.00	30.98	69.36	66.52	84	50	163	72
207+40.00	20740.00	40.00	63.84	137.49	99	151	262	246

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

LILY BAY CREEK - NORTH SIDE

STATION	REAL STATION	DISTANCE	AREA (SE)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	EILL	CUT NOTE 1	EILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.15
208+00.00	20800.00	0.00	69.04	98.52	0	0	0	0
208+18.99	20818.99	18.99	70.82	58.08	49	55	49	63
208+19.01	20819.01	0.02	28.25	58.06	0	0	49	63
208+50.00	20850.00	30.99	31.01	25.70	34	48	83	118
208+88.88	20888.88	38.88	37.45	17.45	49	31	132	154
209+00.00	20900.00	11.12	21.89	0.00	12	4	144	159
209+45.97	20945.97	45.97	21.03	0.00	37	0	181	159

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - EILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	EARTHWORK DATA - LILY BAY CREEK	SHEET 223	E

GEISEL CREEK - WEST SIDE

STATION	REAL STATION	DISTANCE	AREA (SE)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED EILL 1.15
336+79.09	33679.09	0.00	13.30	0.00	0	0	0	0
337+00.00	33700.00	20.91	13.39	0.00	10	0	10	0
337+50.00	33750.00	50.00	13.18	0.30	25	0	35	0
337+50.44	33750.44	0.44	22.36	0.45	0	0	35	0
338+00.00	33800.00	49.56	19.20	1.90	38	2	73	2
338+12.55	33812.55	12.55	19.58	4.71	9	2	82	5
338+37.54	33837.54	24.99	15.89	14.52	16	9	98	15
338+50.00	33850.00	12.46	14.59	19.40	7	8	105	24
338+50.56	33850.56	0.56	36.81	20.02	1	0	106	24
338+62.52	33862.52	11.96	34.30	28.01	16	11	122	37
338+98.92	33898.92	36.40	27.84	44.78	42	49	164	93
339+00.00	33900.00	1.08	27.68	44.72	1	2	165	95
339+50.00	33950.00	50.00	19.37	70.19	44	106	209	217
339+84.05	33984.05	34.05	18.10	79.80	24	95	233	327
340+00.00	34000.00	15.95	17.47	72.84	11	45	244	378
340+50.00	34050.00	50.00	16.77	81.78	32	143	276	543
340+50.19	34050.19	0.19	46.59	81.64	0	1	276	544
340+75.17	34075.17	24.98	46.29	72.99	43	72	319	627
341+00.00	34100.00	24.83	46.28	68.19	43	65	362	702
341+00.15	34100.15	0.15	46.29	68.13	0	0	362	702
341+50.00	34150.00	49.85	50.09	50.65	89	110	451	828

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

9

9

PROJECT NO: 4150-26-71 | HWY: STH 57 | COUNTY: DOOR | EARTHWORK DATA - GEISEL CREEK | SHEET 224 | E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 02

PLOT DATE : 1/26/2024 8:45 AM PLOT BY : FARRELL, ALAN E PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

GEISEL CREEK - EAST SIDE

STATION	REAL STATION	DISTANCE	AREA (SE)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	EILL	CUT	EILL	CUT	EXPANDED EILL
							1.00	1.15
					NOTE 1	NOTE 2	NOTE 1	
342+50.00	34250.00	0.00	76.58	29.64	0	0	0	0
342+83.22	34283.22	33.22	103.63	14.25	111	27	111	31
342+83.22	34283.22	0.00	83.14	14.25	0	0	111	31
342+85.00	34285.00	1.78	74.74	14.04	5	1	116	32
342+88.00	34288.00	3.00	73.19	16.75	8	2	124	35
342+90.00	34290.00	2.00	30.29	17.08	4	1	128	36
342+95.00	34295.00	5.00	27.83	13.43	5	3	133	39
343+00.00	34300.00	5.00	18.89	11.94	4	2	137	41
343+05.00	34305.00	5.00	14.54	11.89	3	2	140	44
343+10.00	34310.00	5.00	30.49	151.25	4	15	144	61
343+15.00	34315.00	5.00	15.46	11.80	4	15	148	78
343+20.00	34320.00	5.00	18.24	11.72	3	2	151	81
343+25.00	34325.00	5.00	29.69	11.74	4	2	155	83
343+30.00	34330.00	5.00	32.38	12.06	6	2	161	85
343+35.00	34335.00	5.00	32.90	18.67	6	3	167	89
343+36.48	34336.48	1.48	33.04	20.28	2	1	169	90
343+50.00	34350.00	13.52	32.76	18.31	16	10	185	101
343+61.34	34361.34	11.34	33.59	14.65	14	7	199	109
343+85.43	34385.43	24.09	23.83	13.89	26	13	225	124
343+86.32	34386.32	0.89	27.74	14.04	1	0	226	124
344+00.00	34400.00	13.68	26.41	11.49	14	6	240	131
344+08.74	34408.74	8.74	25.36	11.34	8	4	248	136
344+50.00	34450.00	41.26	16.88	8.44	32	15	280	153
344+66.43	34466.43	16.43	16.63	8.03	10	5	290	159
345+00.00	34500.00	33.57	10.29	7.98	17	10	307	170
345+50.00	34550.00	50.00	8.21	2.66	17	10	324	182
345+57.72	34557.72	7.72	8.33	1.64	2	1	326	183

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

9

9

PROJECT NO: 4150-26-71 | HWY: STH 57 | COUNTY: DOOR | EARTHWORK DATA - GEISEL CREEK | SHEET 225 | E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 03

PLOT DATE : 1/26/2024 8:46 AM PLOT BY : FARRELL, ALAN E PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

LOGAN CREEK - SOUTH SIDE

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL
							1.00	1.15
					NOTE 1	NOTE 2	NOTE 1	
571+58.14	57158.14	0.00	0.00	0.00	0	0	0	0
571+97.79	57197.79	39.65	52.20	0.00	38	0	38	0
572+00.00	57200.00	2.21	48.12	0.00	4	0	42	0
572+47.83	57247.83	47.83	60.35	0.62	96	1	138	1
572+50.00	57250.00	2.17	57.42	1.00	5	0	143	1
572+80.92	57280.92	30.92	37.43	10.09	54	6	197	8
573+00.00	57300.00	19.08	30.33	17.62	24	10	221	20
573+00.41	57300.41	0.41	29.37	17.82	0	0	221	20
573+25.39	57325.39	24.98	26.15	27.84	26	21	247	44
573+25.41	57325.41	0.02	26.15	27.84	0	0	247	44
573+50.00	57350.00	24.59	29.00	26.72	25	25	272	72
573+50.37	57350.37	0.37	29.00	26.74	0	0	272	72
573+50.39	57350.39	0.02	29.00	26.74	0	0	272	72
573+70.30	57370.30	19.91	30.33	24.38	22	19	294	94
573+75.37	57375.37	5.07	64.29	23.07	9	4	303	99
574+00.00	57400.00	24.63	64.11	24.97	59	22	362	124

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

9

9

PROJECT NO: 4150-26-71 | HWY: STH 57 | COUNTY: DOOR | EARTHWORK DATA - LOGAN CREEK | SHEET 226 | E

LOGAN CREEK - NORTH SIDE

STATION	REAL STATION	DISTANCE	AREA (SE)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	EILL	CUT	EILL	CUT	EXPANDED EILL
							1.00	1.15
					NOTE 1	NOTE 2	NOTE 1	
574+66.60	57466.60	0.00	76.28	6.91	0	0	0	0
574+78.76	57478.76	12.16	103.28	0.00	40	2	40	2
574+80.00	57480.00	1.24	107.08	0.00	5	0	45	2
574+85.00	57485.00	5.00	102.09	0.00	19	0	64	2
574+90.00	57490.00	5.00	94.52	0.00	18	0	82	2
574+95.00	57495.00	5.00	77.17	0.00	16	0	98	2
575+00.00	57500.00	5.00	60.42	0.00	13	0	111	2
575+05.00	57505.00	5.00	75.46	0.00	13	0	124	2
575+10.00	57510.00	5.00	89.30	0.00	15	0	139	2
575+15.00	57515.00	5.00	94.71	0.00	17	0	156	2
575+20.00	57520.00	5.00	82.33	8.39	16	1	172	3
575+24.84	57524.84	4.84	74.33	17.37	14	2	186	6
575+50.00	57550.00	25.16	70.45	9.41	67	12	253	20
576+00.00	57600.00	50.00	19.05	3.71	83	12	336	33
576+50.00	57650.00	50.00	16.78	5.00	33	8	369	43
577+00.00	57700.00	50.00	17.96	3.15	32	8	401	52
577+07.94	57707.94	7.94	15.21	2.03	5	1	406	53
577+50.00	57750.00	42.06	9.99	3.51	20	4	426	58
577+68.90	57768.90	18.90	8.77	2.52	7	2	433	60
577+89.00	57789.00	20.10	8.97	3.85	7	2	440	62

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

9

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PROJECT NO: 4150-26-71 | HWY: STH 57 | COUNTY: DOOR | EARTHWORK DATA - LOGAN CREEK | SHEET 227 | E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 05

PLOT DATE : 1/26/2024 8:47 AM PLOT BY : FARRELL, ALAN E PLOT NAME : PLOT SCALE : 1" = 1'

HIBBARD CREEK - SOUTH SIDE

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	EILL	CUT	EILL	CUT	EXPANDED EILL
							1.00	1.15
					NOTE 1	NOTE 2	NOTE 1	
731+36.94	73136.94	0.00	0.00	0.00	0	0	0	0
731+38.61	73138.61	1.67	34.53	0.00	1	0	1	0
731+50.00	73150.00	11.39	25.29	0.00	13	0	14	0
731+60.17	73160.17	10.17	24.34	0.00	9	0	23	0
732+00.00	73200.00	39.83	38.83	0.00	47	0	70	0
732+23.66	73223.66	23.66	49.39	0.14	39	0	109	0
732+24.64	73224.64	0.98	55.53	0.20	2	0	111	0
732+29.21	73229.21	4.57	56.03	0.34	9	0	120	0
732+50.00	73250.00	20.79	50.68	1.21	41	1	161	1
732+54.20	73254.20	4.20	44.83	1.41	7	0	168	1
732+79.25	73279.25	25.05	32.12	12.27	36	6	204	8
732+90.45	73290.45	11.20	30.91	10.92	13	5	217	14
732+90.84	73290.84	0.39	30.88	10.89	0	0	217	14
733+00.00	73300.00	9.16	30.76	10.42	10	4	227	18
733+15.82	73315.82	15.82	30.44	10.90	18	6	245	25
733+25.00	73325.00	9.18	30.54	9.47	10	3	255	29
733+25.02	73325.02	0.02	72.89	9.52	0	0	255	29
733+40.81	73340.81	15.79	71.48	52.06	42	18	297	49
733+50.00	73350.00	9.19	69.56	91.52	24	24	321	77

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

HIBBARD CREEK - NORTH SIDE

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL
							1.00	1.15
					NOTE 1	NOTE 2	NOTE 1	
734+50.00	73450.00	0.00	78.63	2.29	0	0	0	0
734+83.74	73483.74	33.74	78.97	56.89	98	37	98	43
734+99.99	73499.99	16.25	72.98	62.65	46	36	144	84
735+00.01	73500.01	0.02	30.32	62.72	0	0	144	84
735+08.72	73508.72	8.71	28.27	62.15	9	20	153	107
735+34.09	73534.09	25.37	28.00	58.96	26	57	179	173
735+50.00	73550.00	15.91	25.69	19.89	16	23	195	199
735+51.46	73551.46	1.46	20.05	18.55	1	1	196	200
735+81.05	73581.05	29.59	9.53	20.23	16	21	212	224
735+81.83	73581.83	0.78	9.70	18.83	0	1	212	225
736+00.00	73600.00	18.17	4.92	16.86	5	12	217	239
736+16.81	73616.81	16.81	3.62	11.22	3	9	220	250

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

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DWY 343+11

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.15
10+05.00	1005.00	0.00	0.00	0.00	0	0	0	0
10+10.00	1010.00	5.00	0.00	0.00	0	0	0	0
10+15.00	1015.00	5.00	0.25	0.00	0	0	0	0
10+20.00	1020.00	5.00	0.00	18.01	0	2	0	2
10+25.00	1025.00	5.00	0.00	50.43	0	6	0	9
10+30.00	1030.00	5.00	0.00	91.26	0	13	0	24
10+35.00	1035.00	5.00	0.51	133.06	0	21	0	48
10+37.44	1037.44	2.44	4.57	155.29	0	13	0	63
10+50.00	1050.00	12.56	0.00	78.36	1	54	1	125
10+75.00	1075.00	25.00	0.00	50.70	0	60	1	194
11+00.00	1100.00	25.00	0.00	25.21	0	35	1	235
11+25.00	1125.00	25.00	0.00	11.93	0	17	1	254
11+37.03	1137.03	12.03	0.00	0.37	0	3	1	258

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

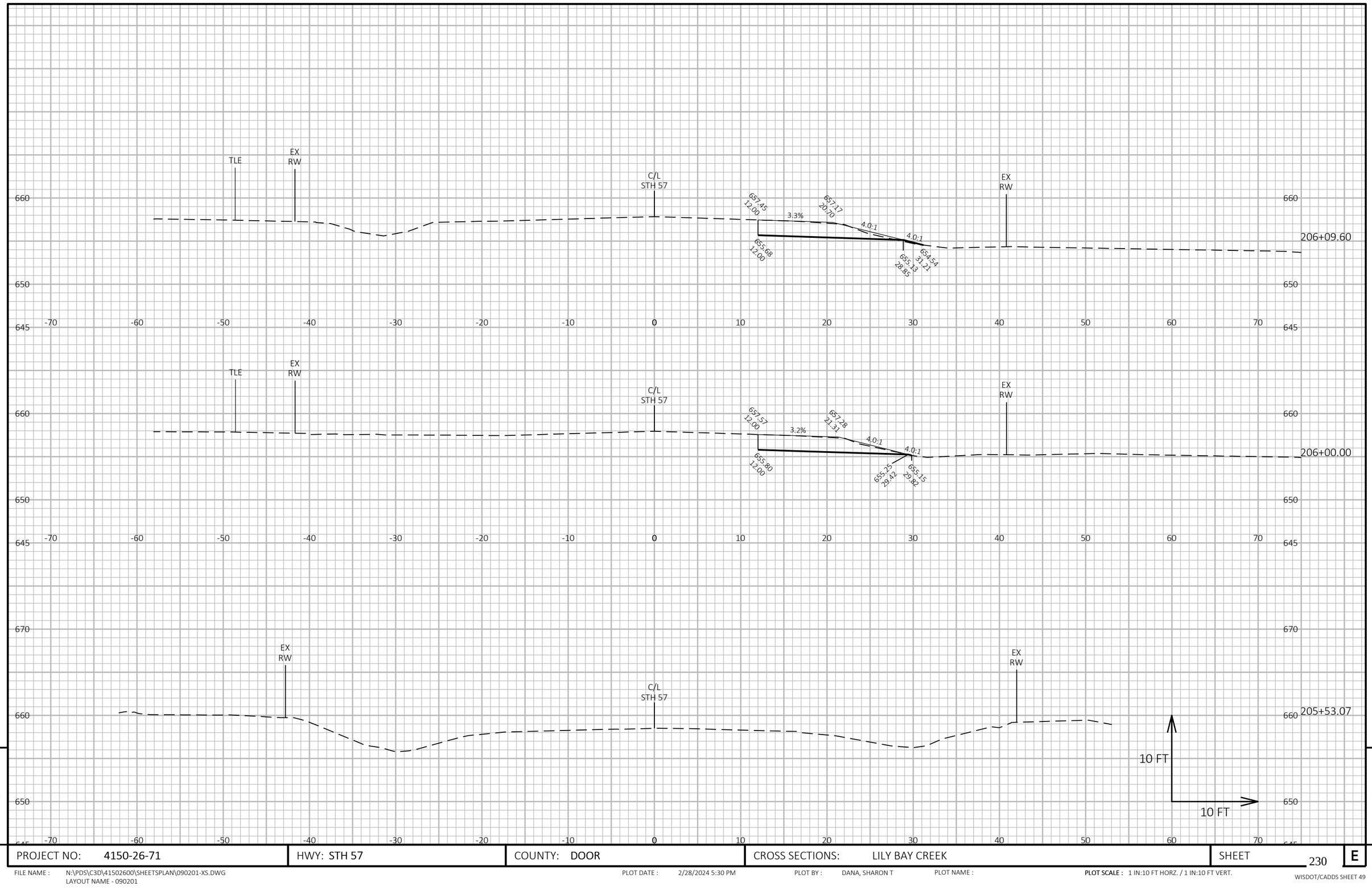
DWY 575+00

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)	
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED EILL 1.15
20+05.00	2005.00	0.00	1.43	0.00	0	0	0	0
20+10.00	2010.00	5.00	2.26	0.00	0	0	0	0
20+15.00	2015.00	5.00	2.08	0.00	0	0	0	0
20+20.00	2020.00	5.00	0.00	7.40	0	1	0	1
20+25.00	2025.00	5.00	0.00	20.58	0	3	0	5
20+30.00	2030.00	5.00	1.31	30.52	0	5	0	10
20+35.00	2035.00	5.00	5.59	39.63	1	6	1	17
20+39.62	2039.62	4.62	0.42	34.42	1	6	2	24
20+50.00	2050.00	10.38	0.00	10.75	0	9	2	35
20+75.00	2075.00	25.00	0.00	1.14	0	6	2	41

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

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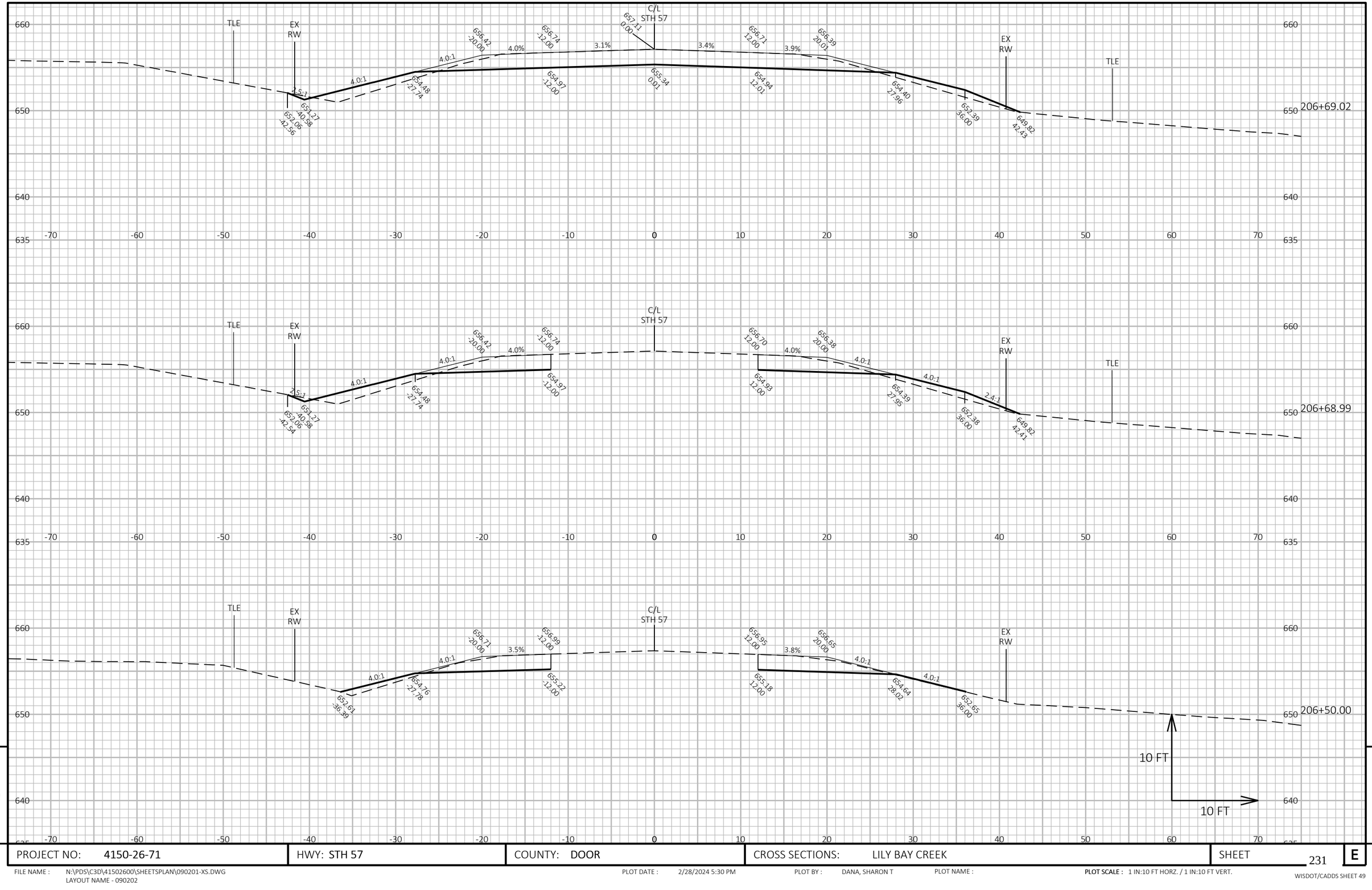
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FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201

PLOT DATE : 2/28/2024 5:30 PM PLOT BY : DANA, SHARON T PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LILY BAY CREEK	SHEET 231	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090202

PLOT DATE : 2/28/2024 5:30 PM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

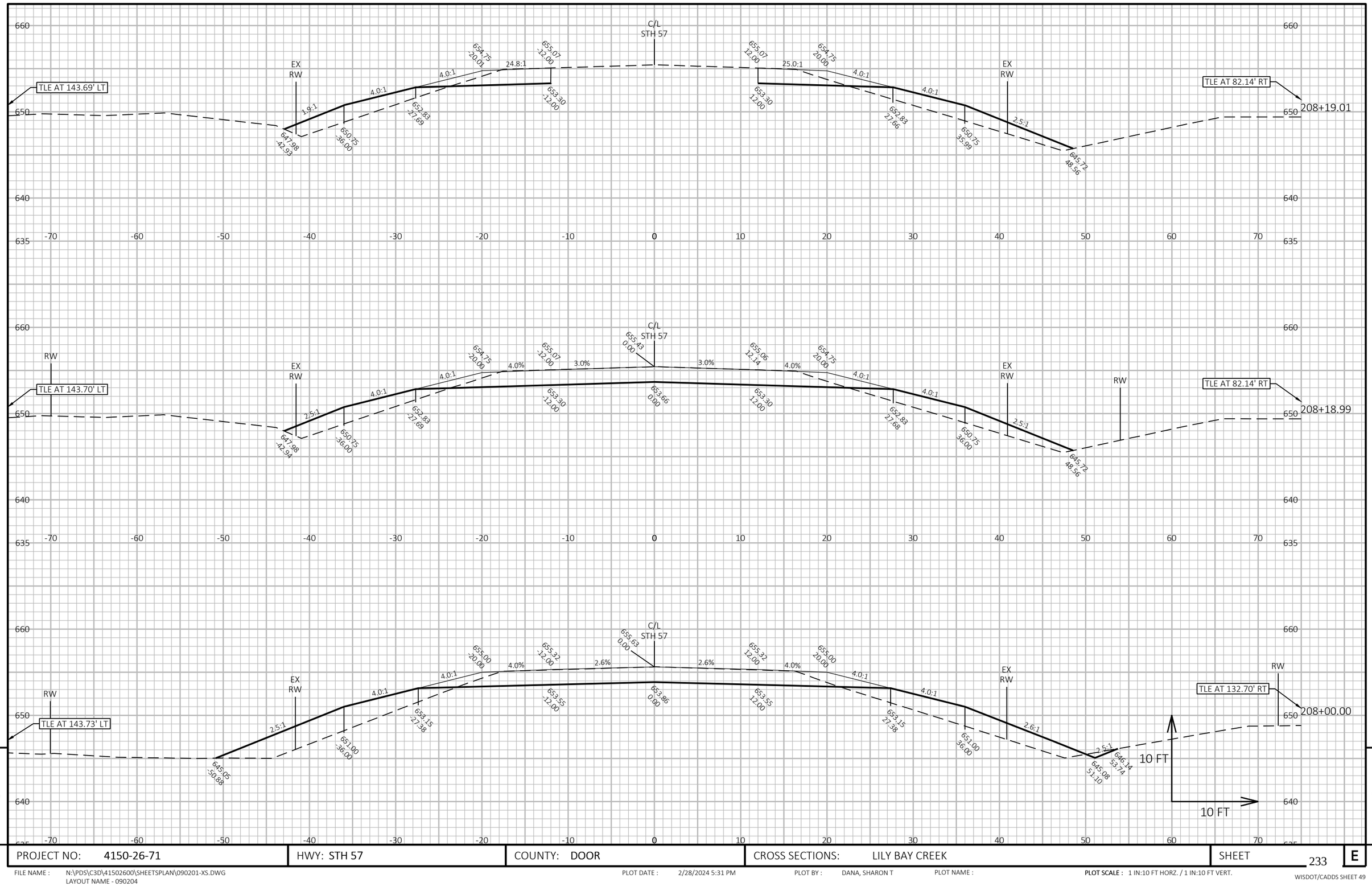
WISDOT/CADDS SHEET 49

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LILY BAY CREEK	SHEET 232	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090203

PLOT DATE : 2/28/2024 5:30 PM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



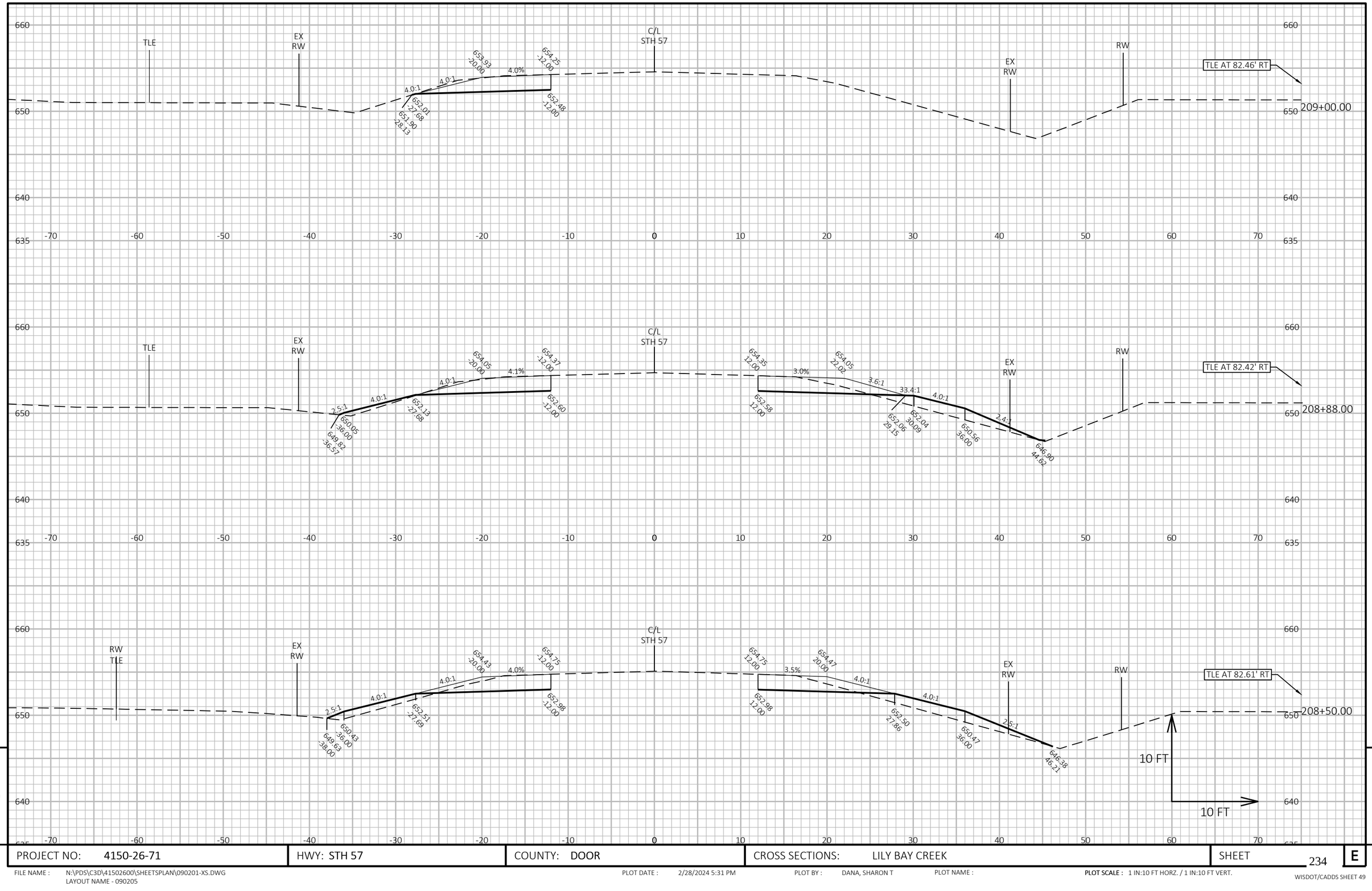
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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LILY BAY CREEK	SHEET 233	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090204

PLOT DATE : 2/28/2024 5:31 PM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LILY BAY CREEK	SHEET 234	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090205

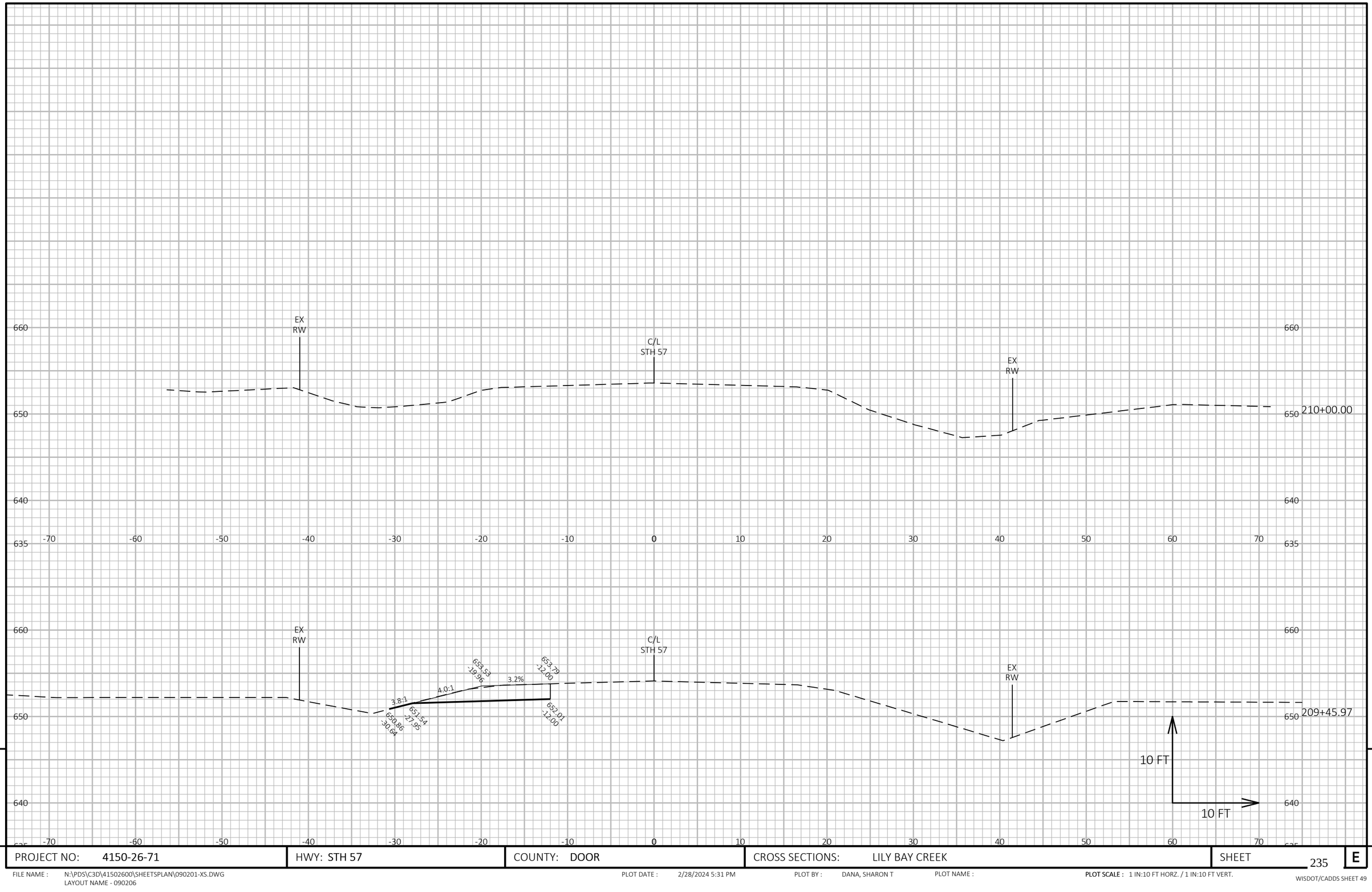
PLOT DATE : 2/28/2024 5:31 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LILY BAY CREEK	SHEET 235	E

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LAYOUT NAME - 090206

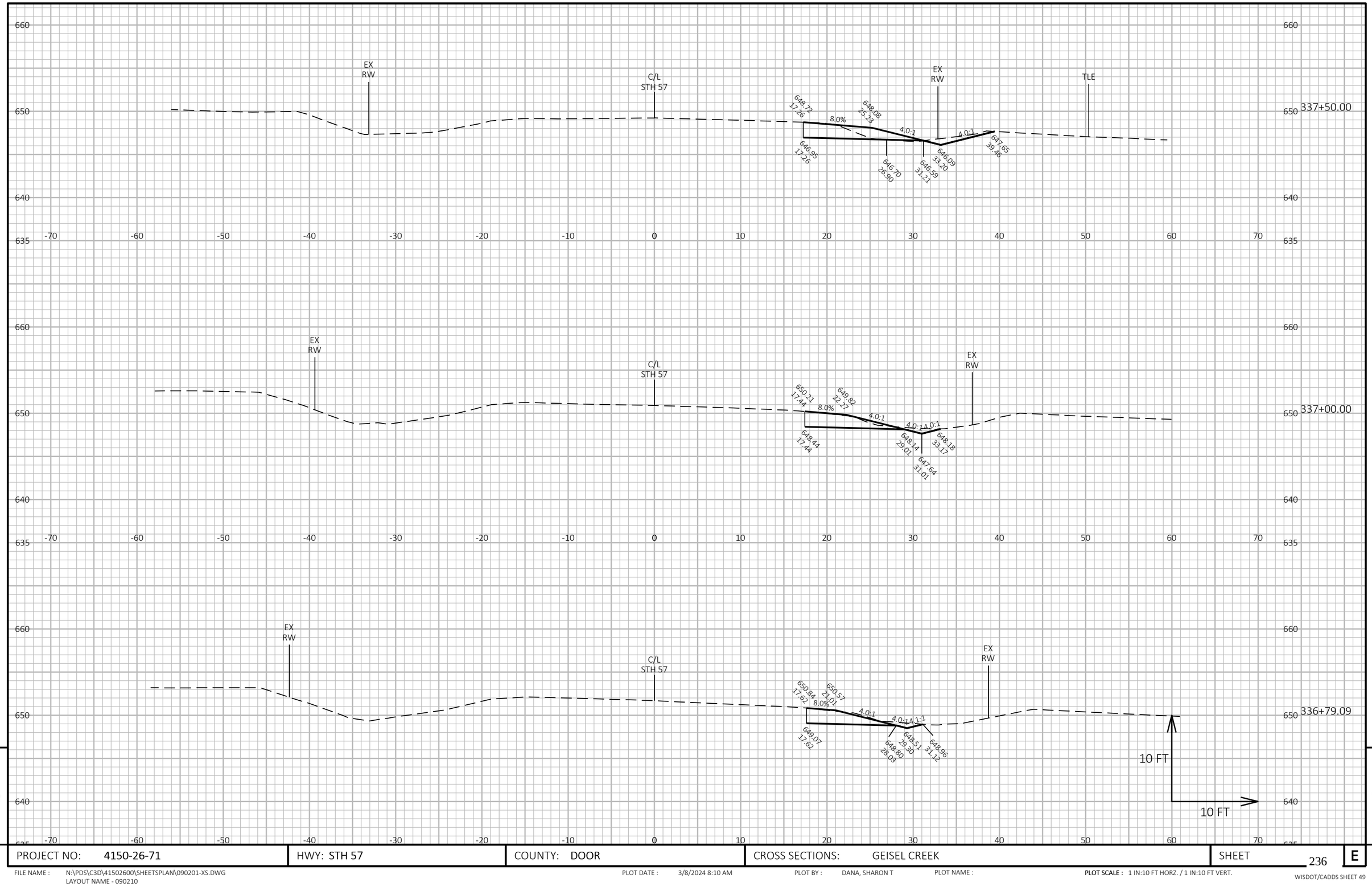
PLOT DATE : 2/28/2024 5:31 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 236	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090210

PLOT DATE : 3/8/2024 8:10 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49

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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 237	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090211

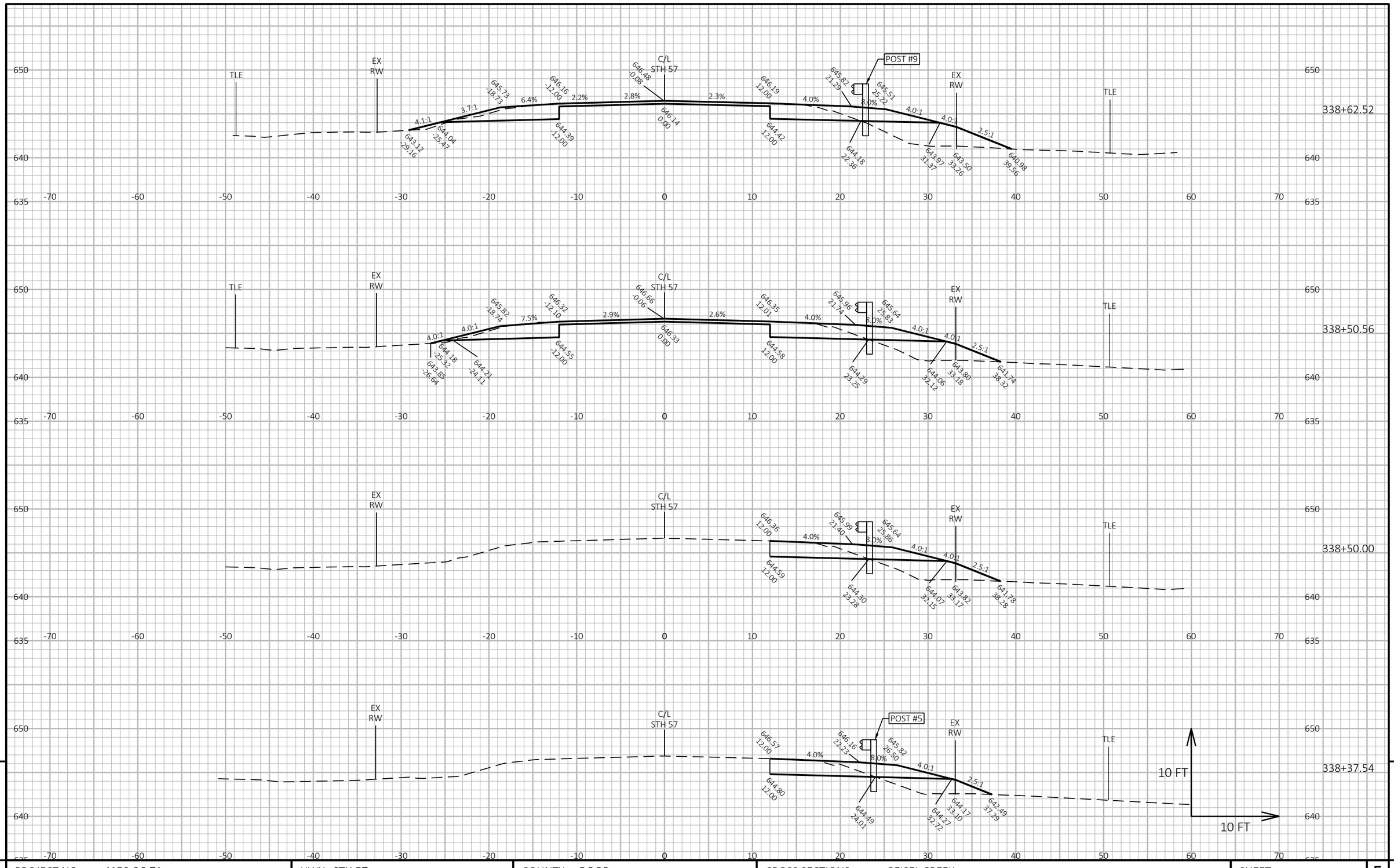
PLOT DATE : 3/8/2024 8:10 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 238	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090212

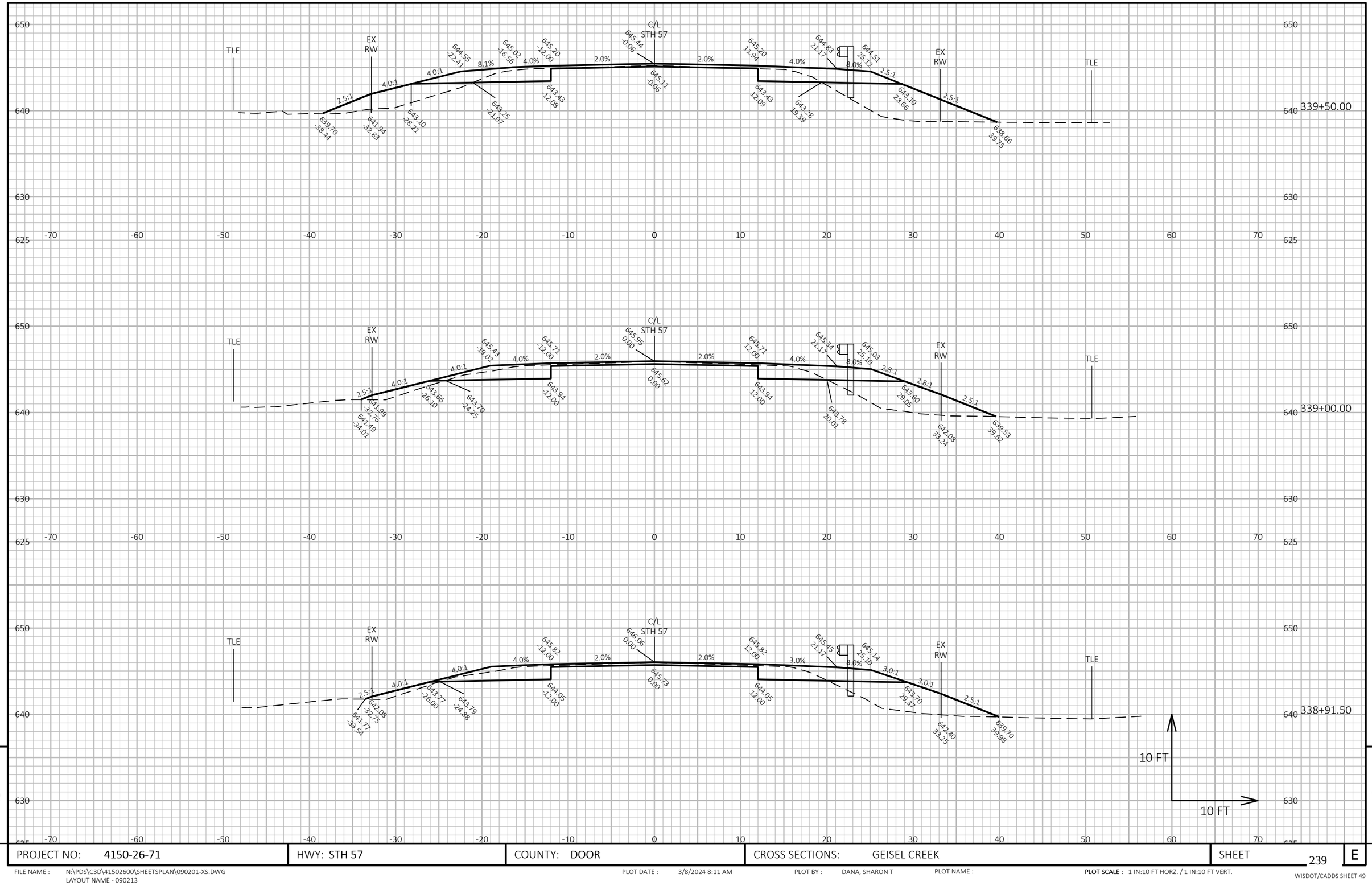
PLOT DATE : 3/8/2024 8:10 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

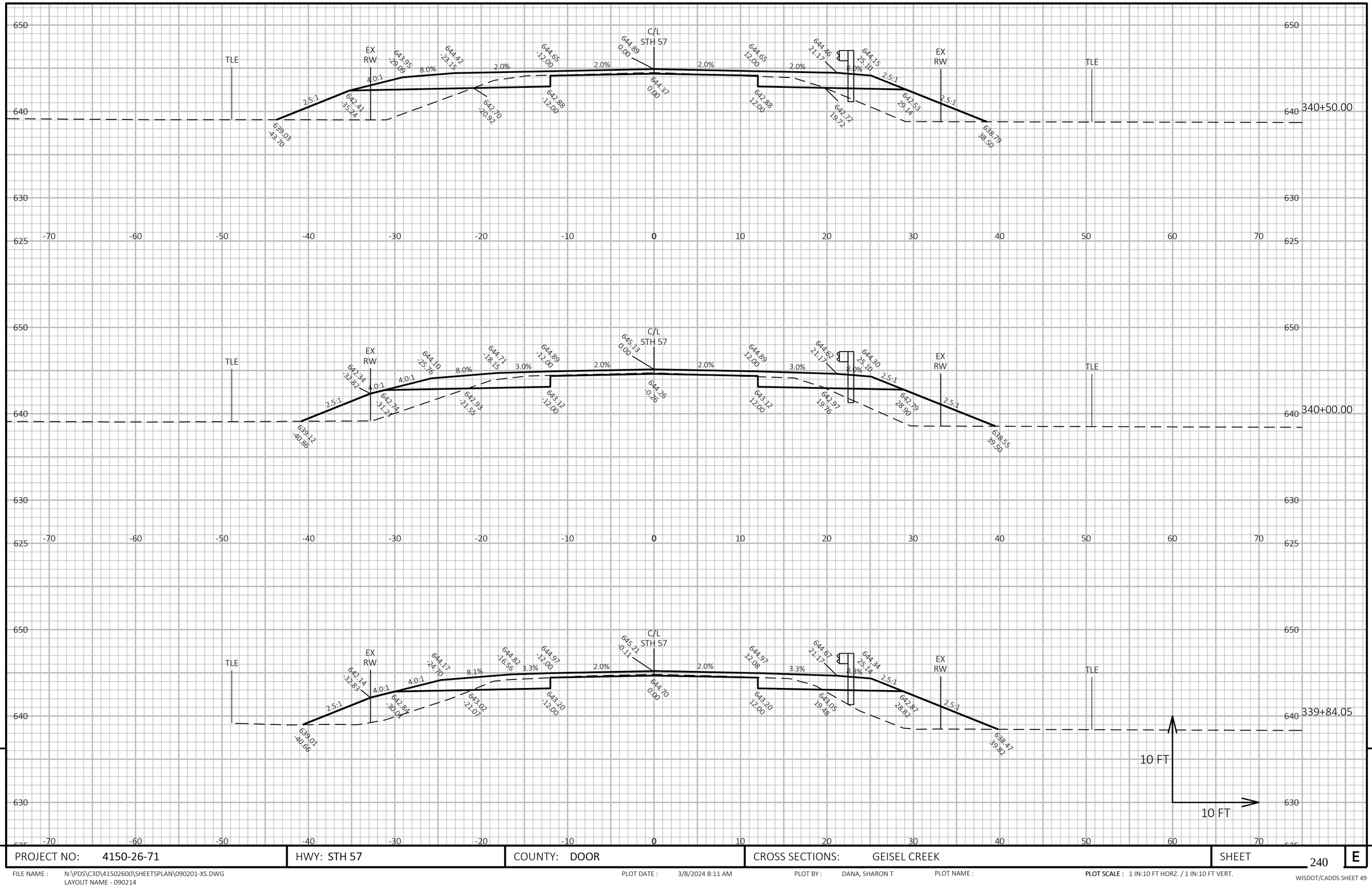
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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 239	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090213

PLOT DATE : 3/8/2024 8:11 AM PLOT BY : DANA, SHARON T PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 240	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090214

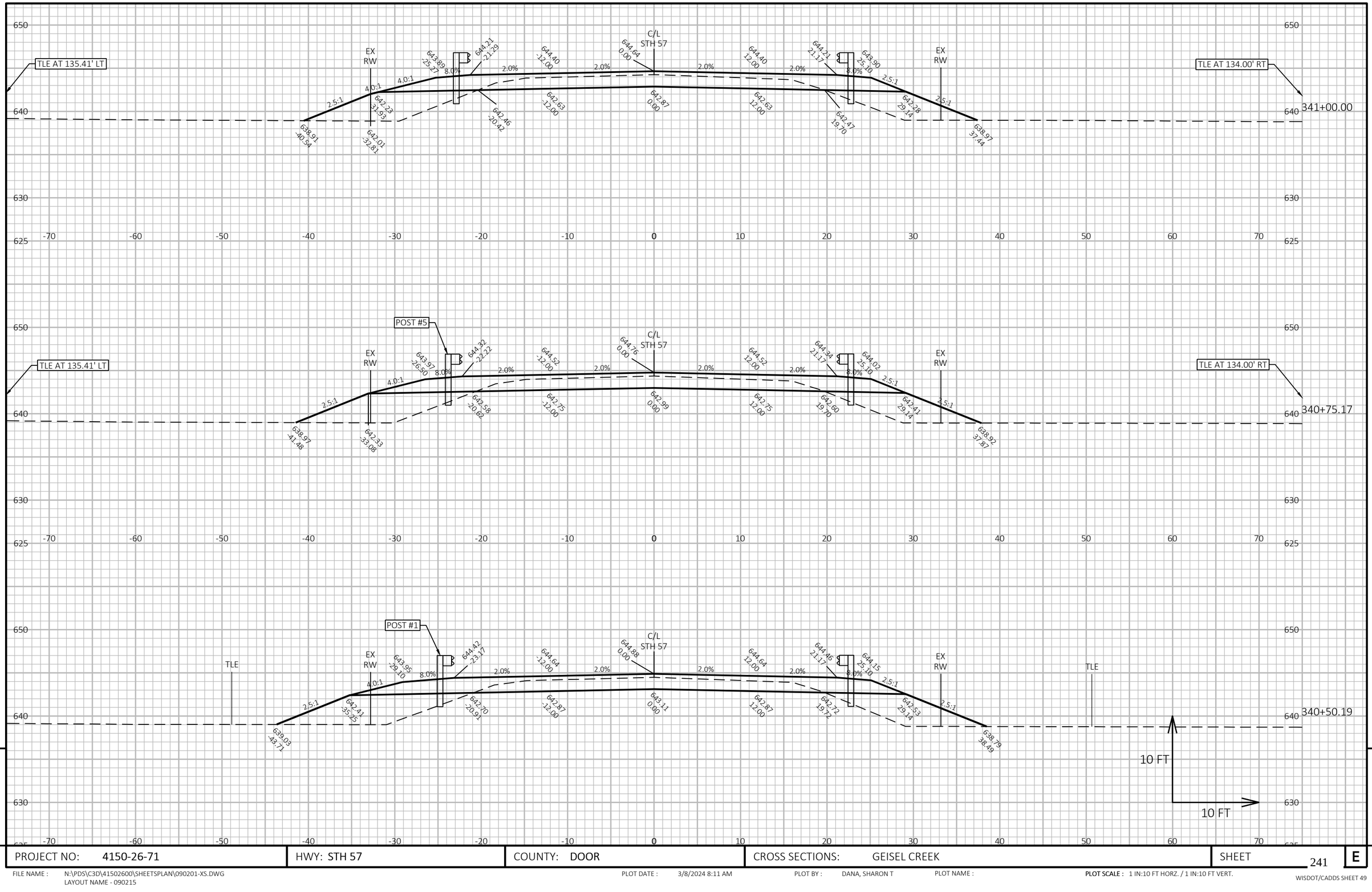
PLOT DATE : 3/8/2024 8:11 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 241	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090215

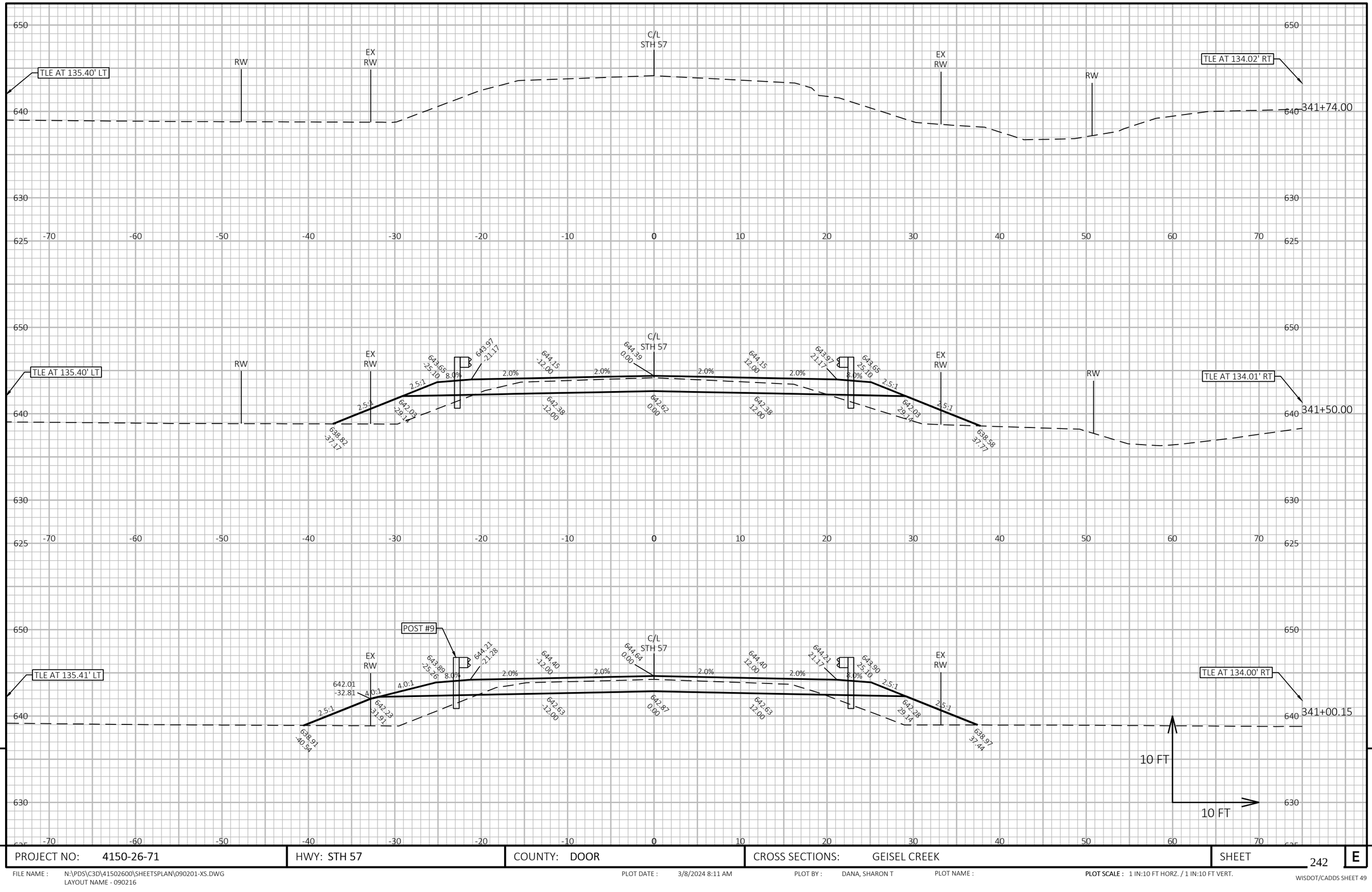
PLOT DATE : 3/8/2024 8:11 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 242	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090216

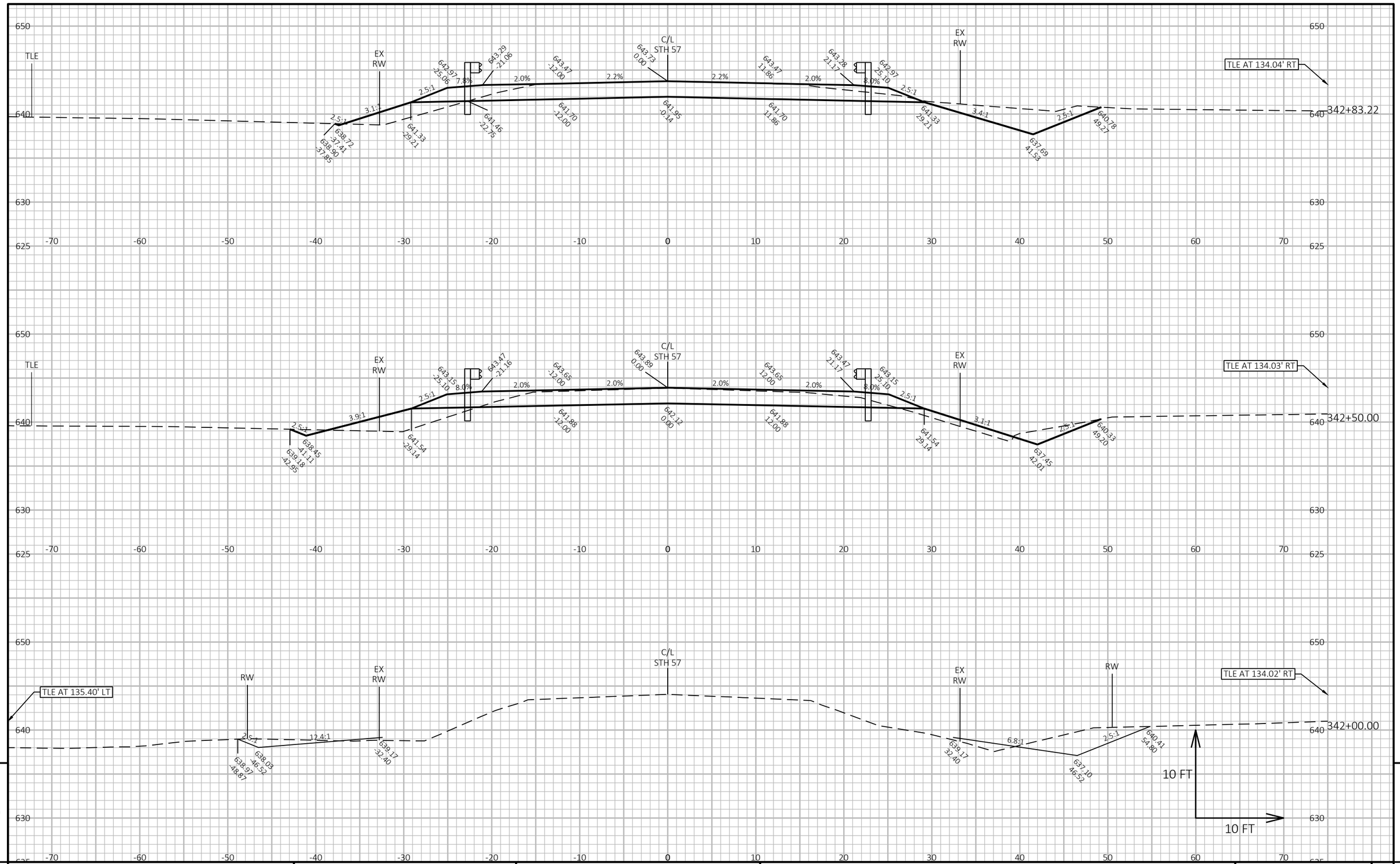
PLOT DATE : 3/8/2024 8:11 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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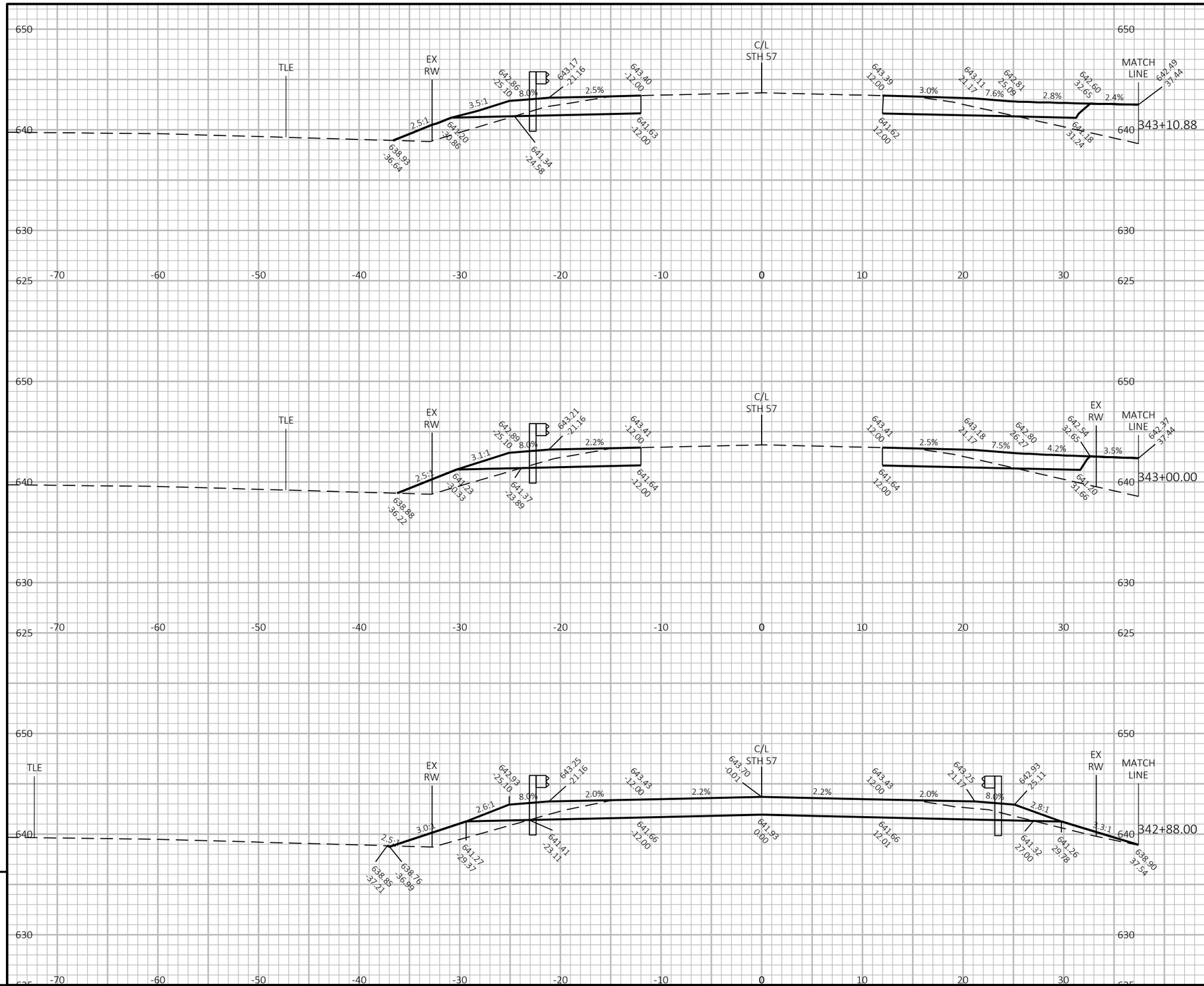
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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 243	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090217

PLOT DATE : 3/8/2024 8:12 AM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 244	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090218

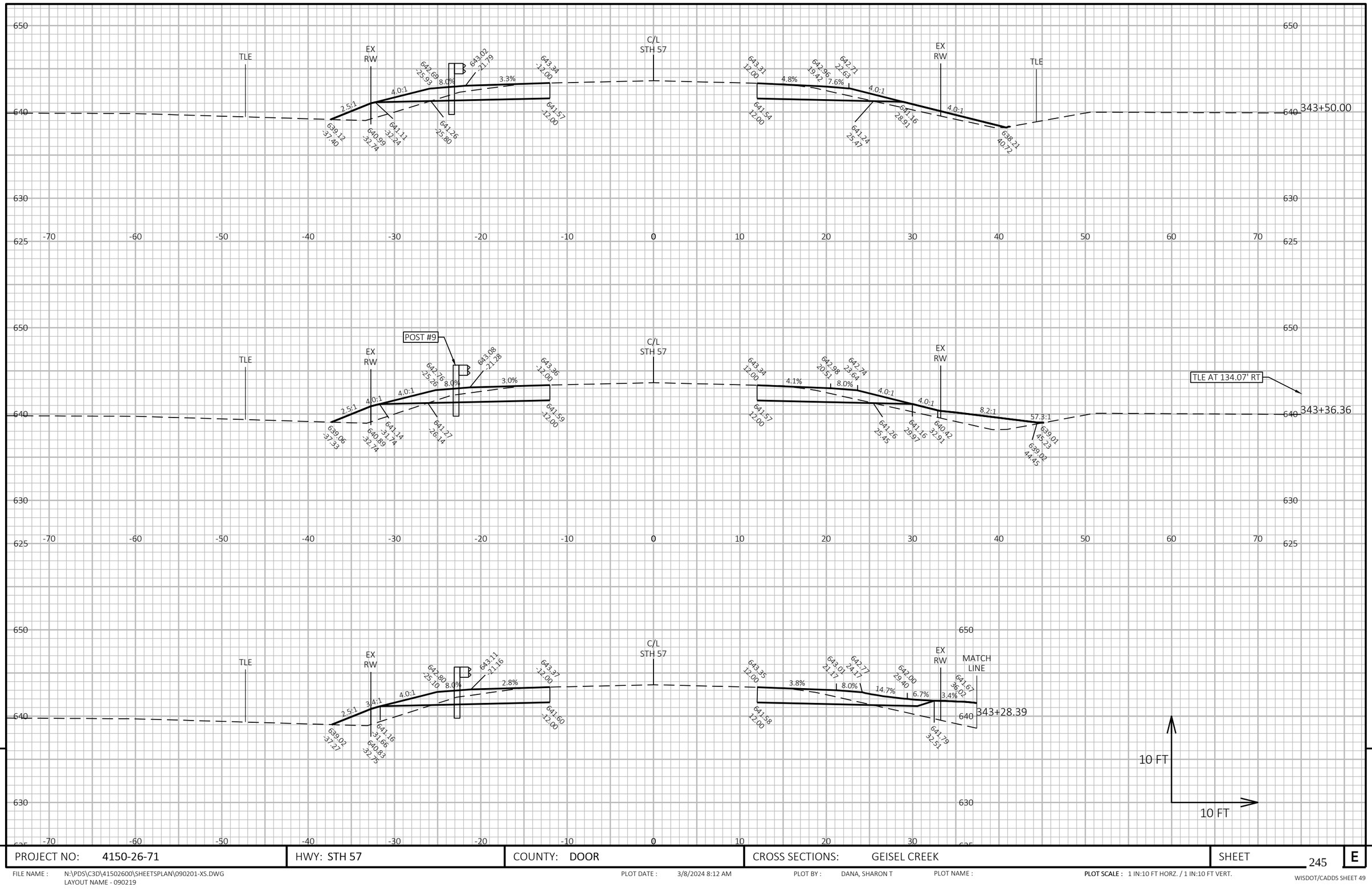
PLOT DATE : 3/8/2024 8:12 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 245	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090219

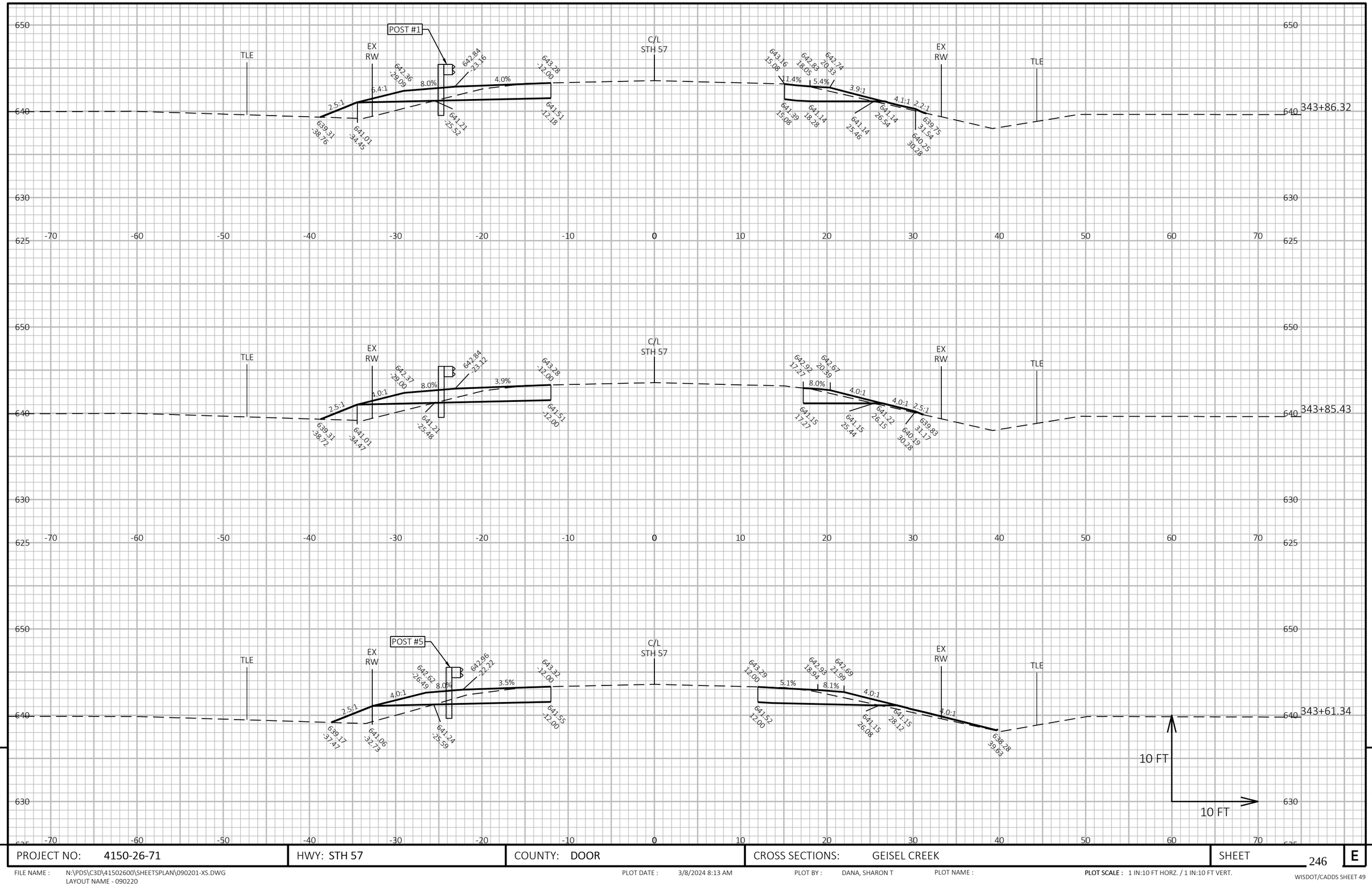
PLOT DATE : 3/8/2024 8:12 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 246	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090220

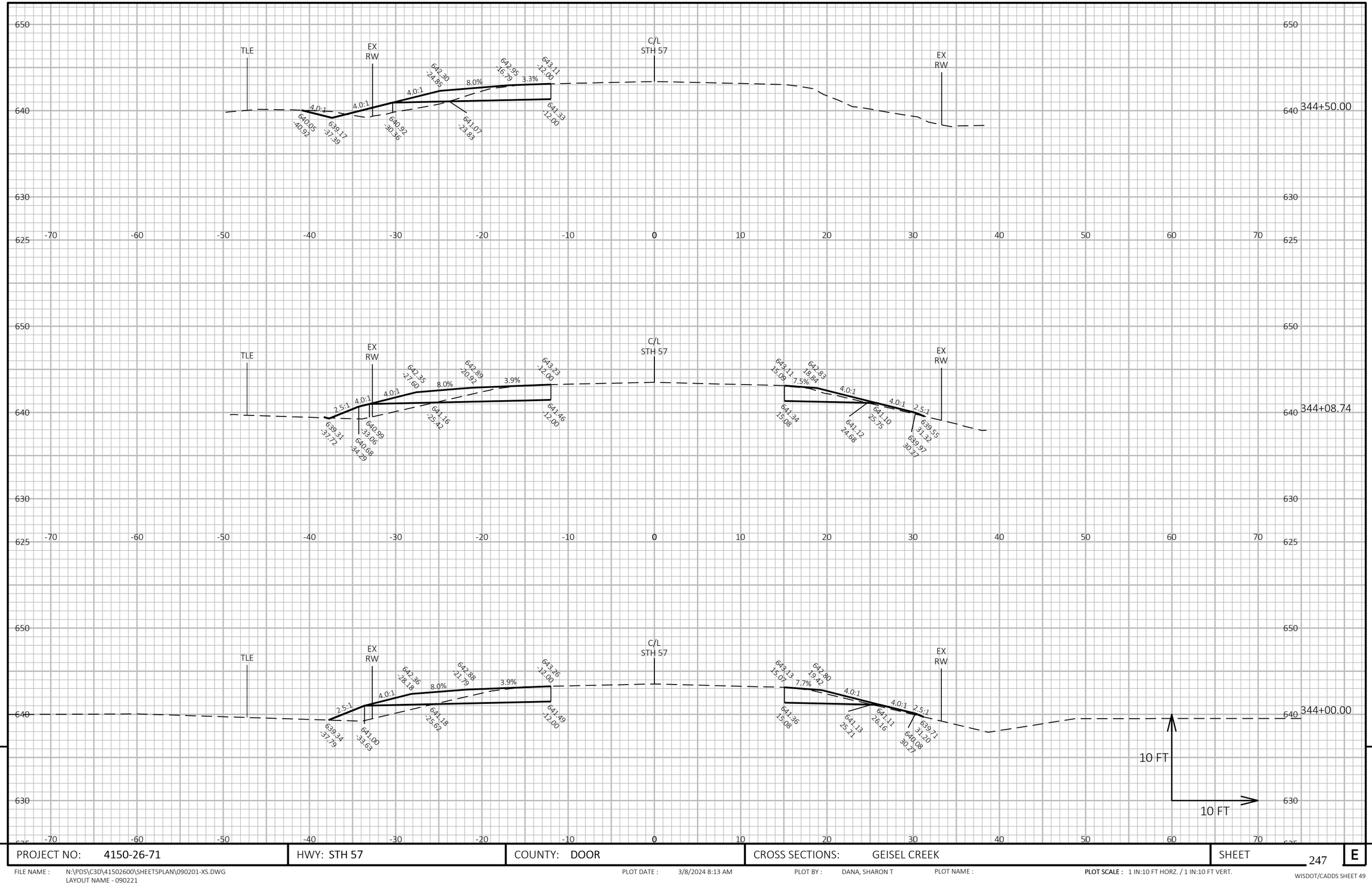
PLOT DATE : 3/8/2024 8:13 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 247	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090221

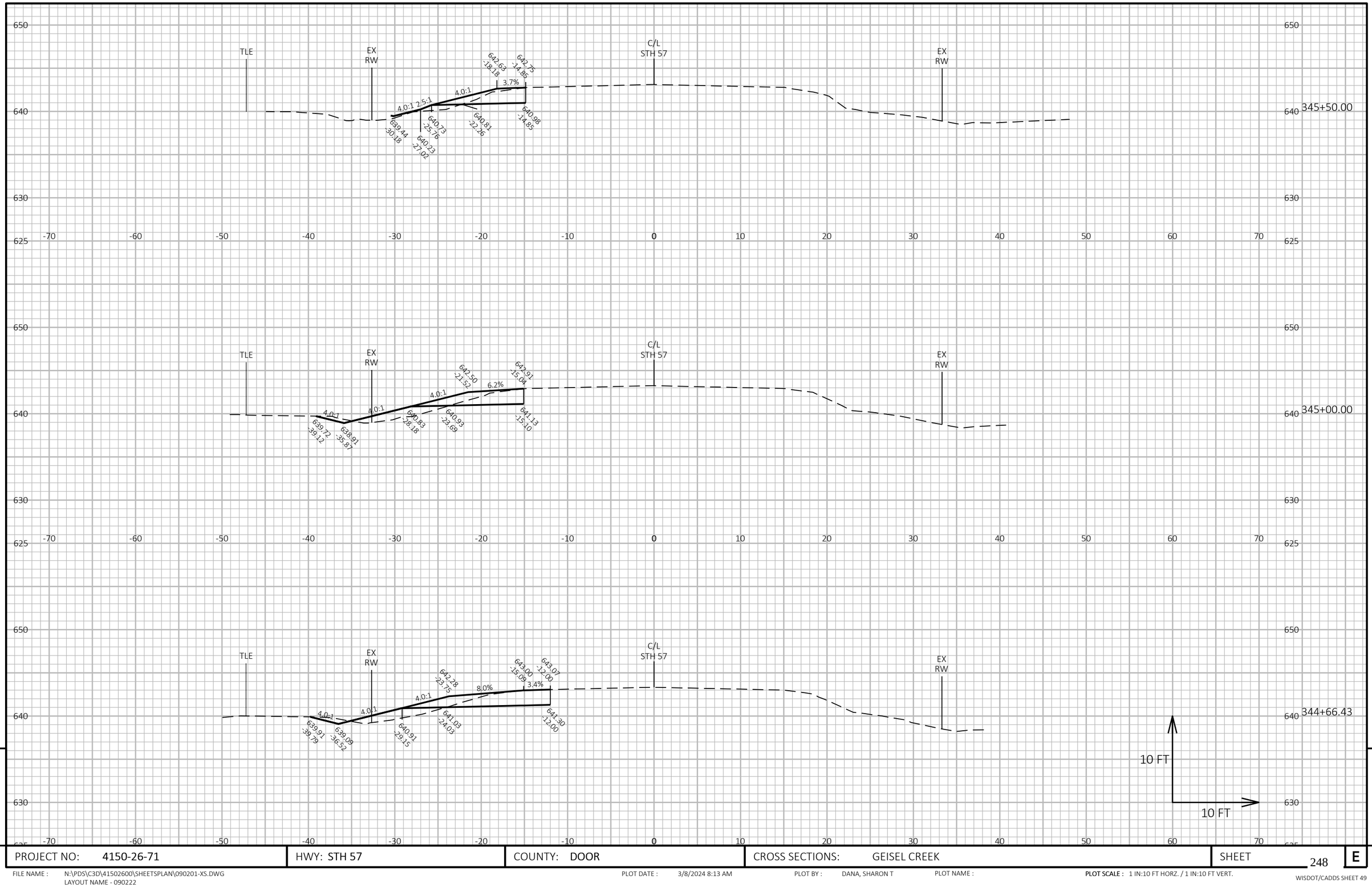
PLOT DATE : 3/8/2024 8:13 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 248	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090222

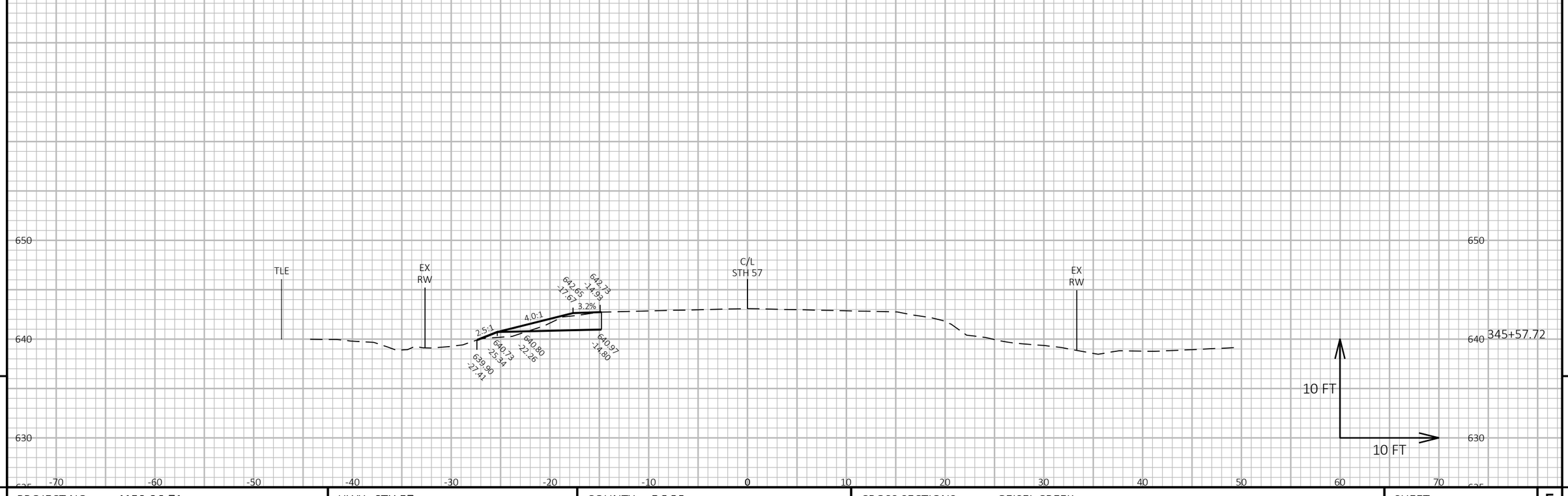
PLOT DATE : 3/8/2024 8:13 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: GEISEL CREEK	SHEET 249	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090223

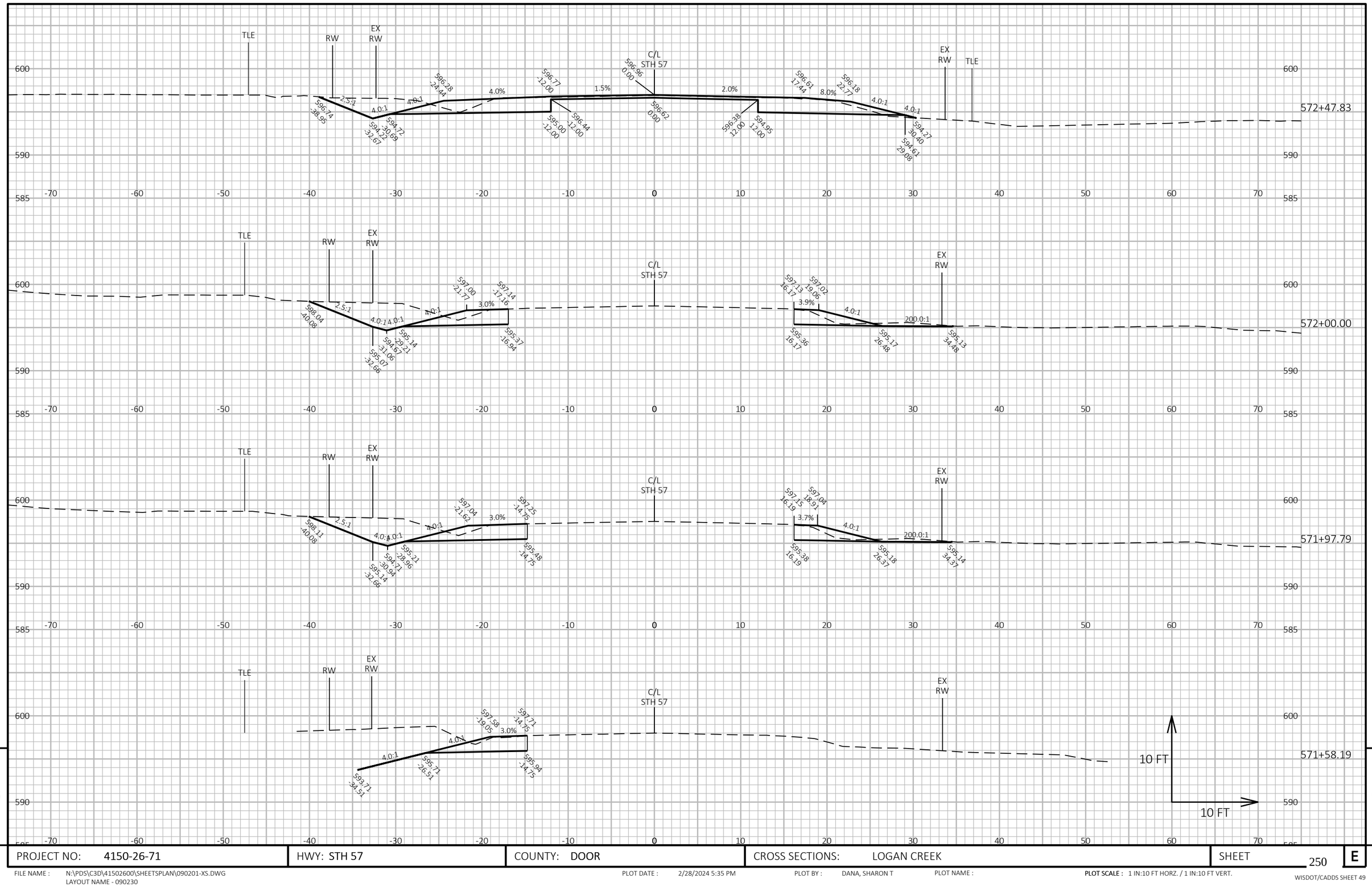
PLOT DATE : 3/8/2024 8:13 AM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 250	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090230

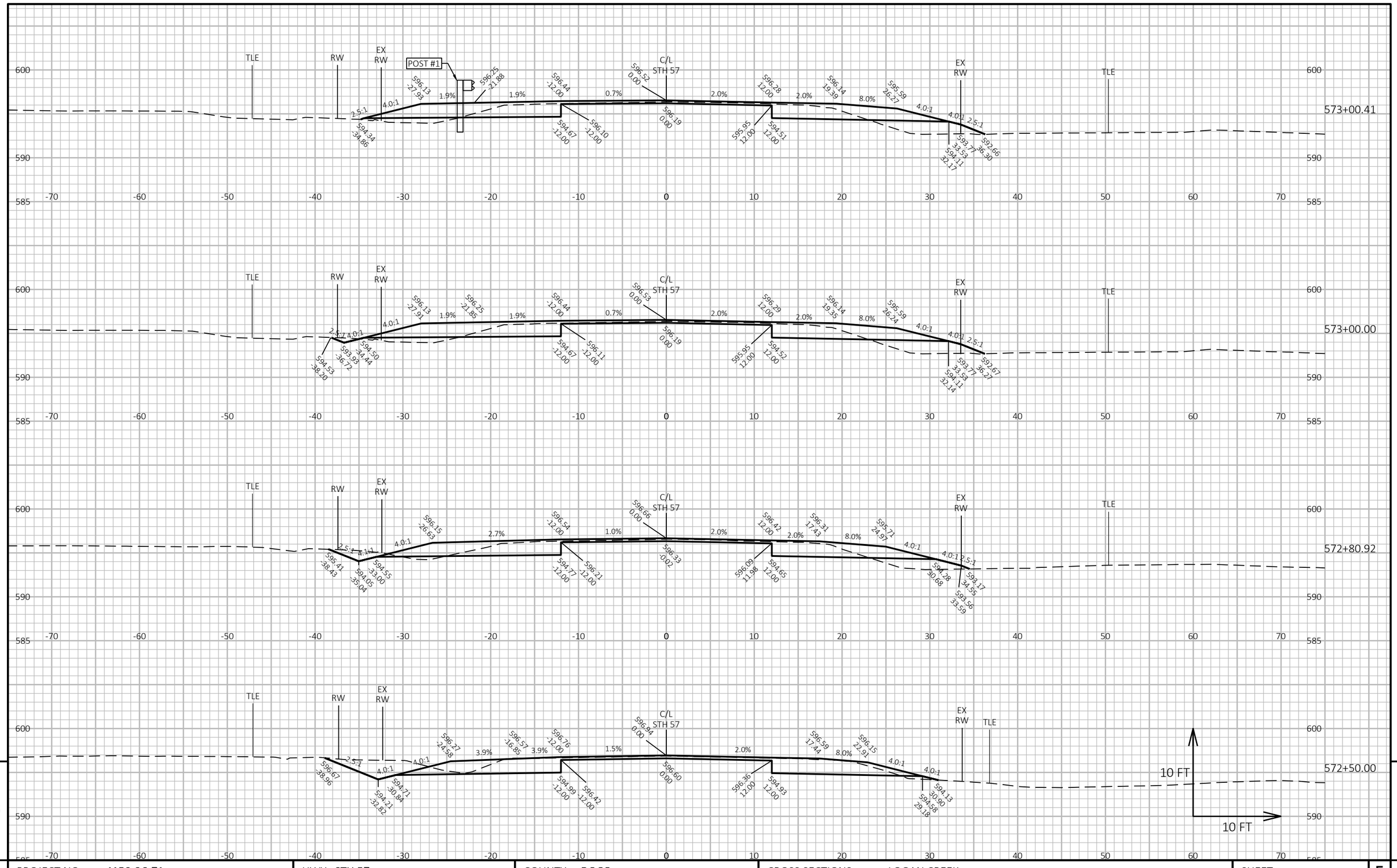
PLOT DATE : 2/28/2024 5:35 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 251	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090231

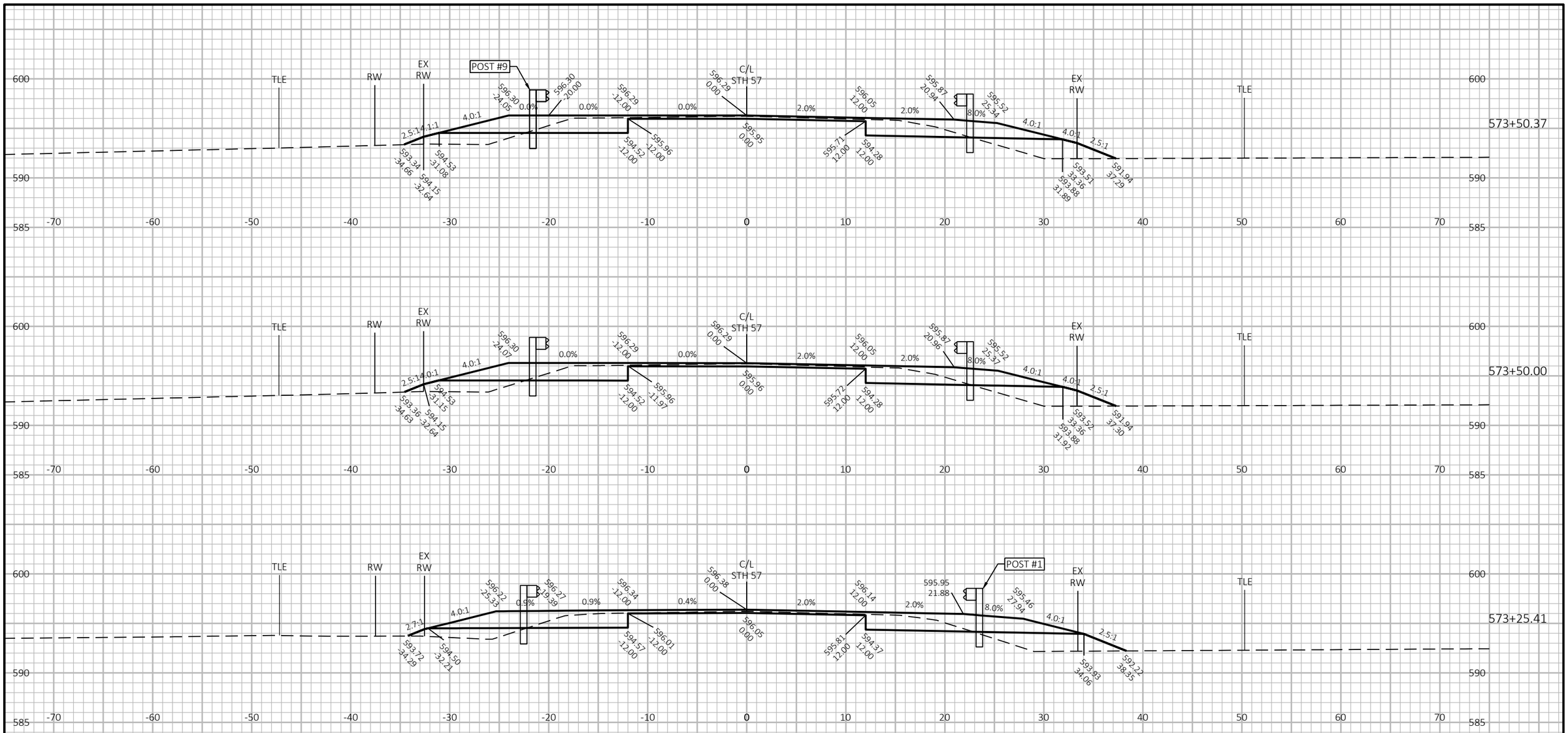
PLOT DATE : 2/28/2024 5:35 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 252 E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090232

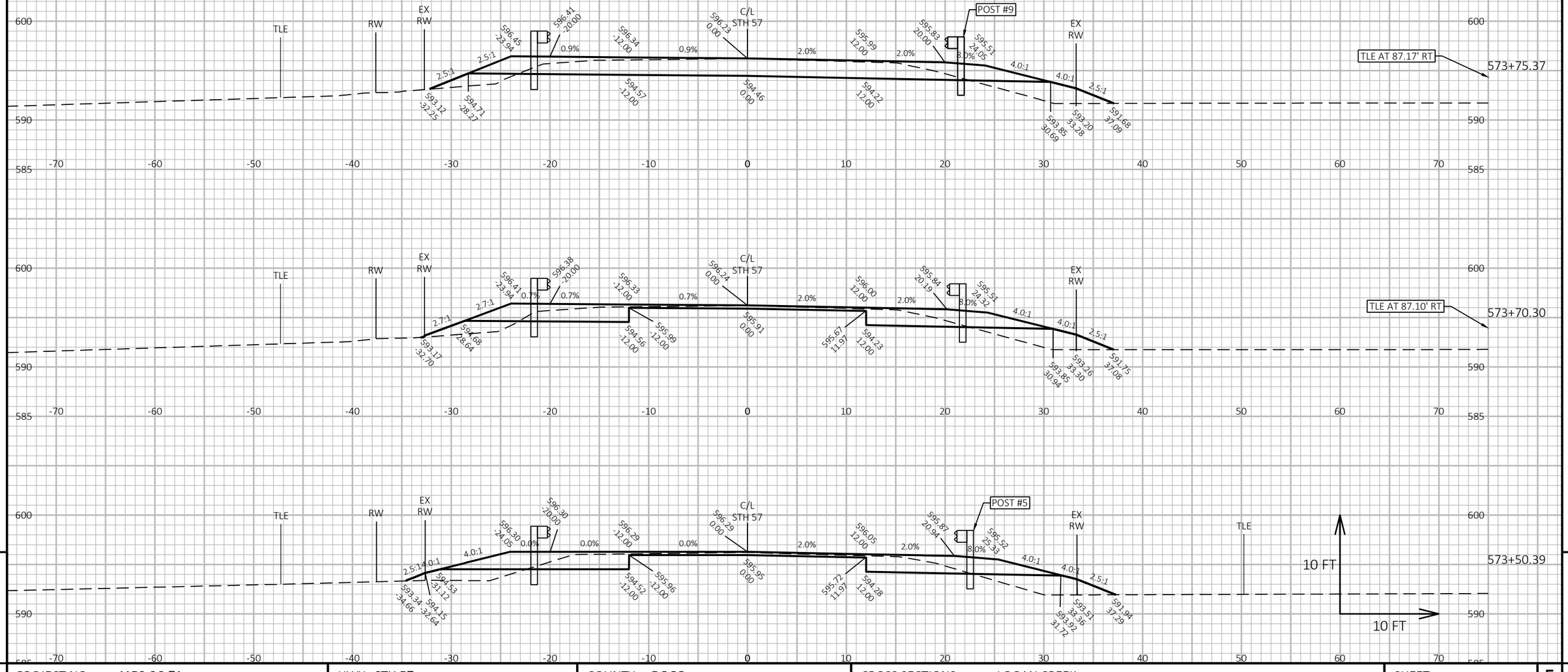
PLOT DATE : 2/28/2024 5:35 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 253	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090233

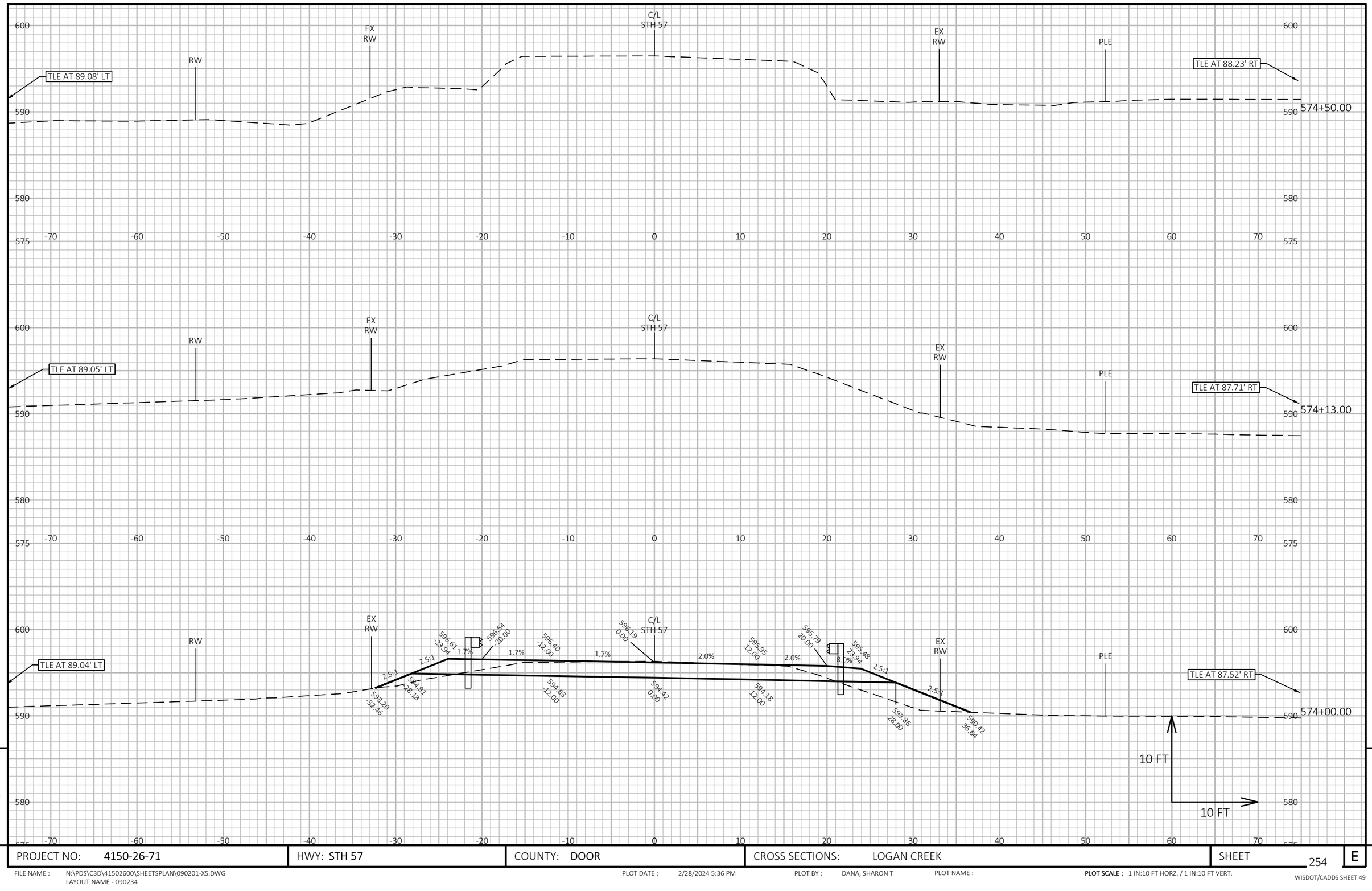
PLOT DATE : 2/28/2024 5:36 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 254	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090234

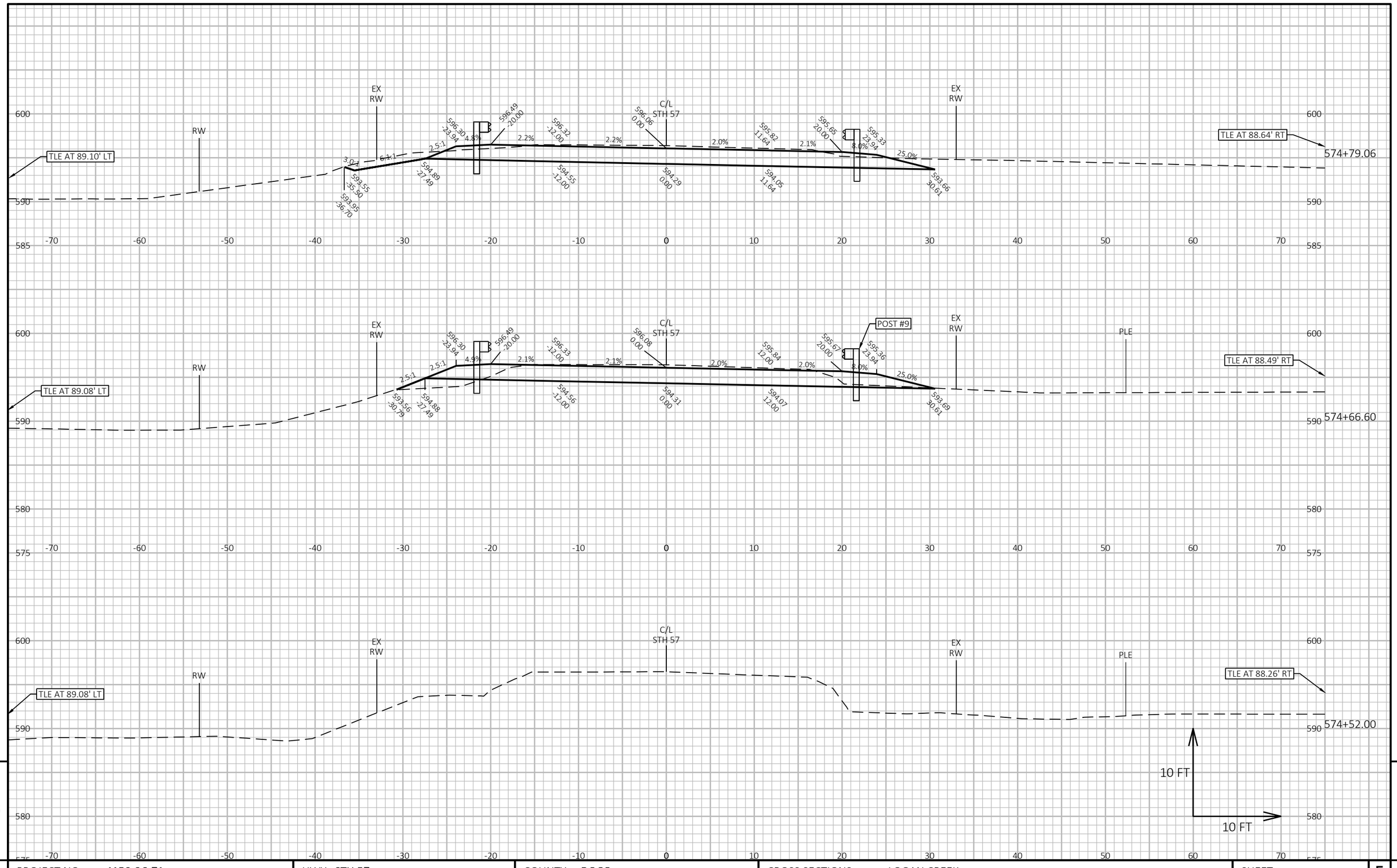
PLOT DATE : 2/28/2024 5:36 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 255	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090235

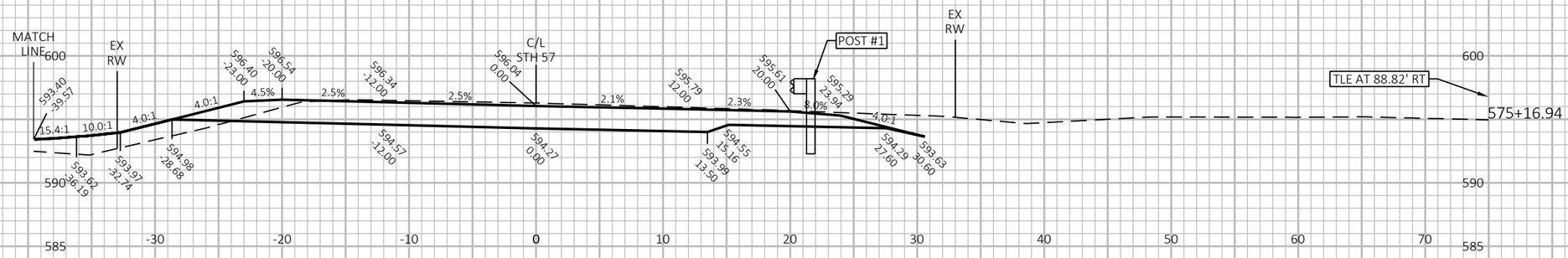
PLOT DATE : 2/28/2024 5:36 PM

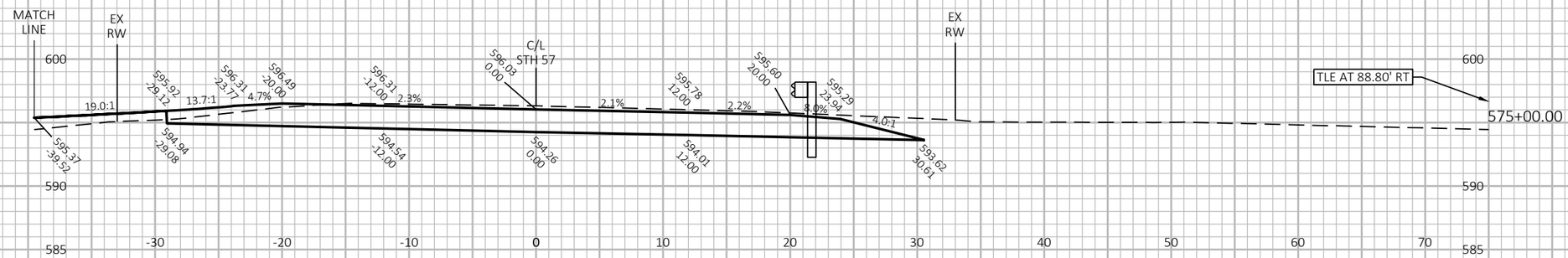
PLOT BY : DANA, SHARON T

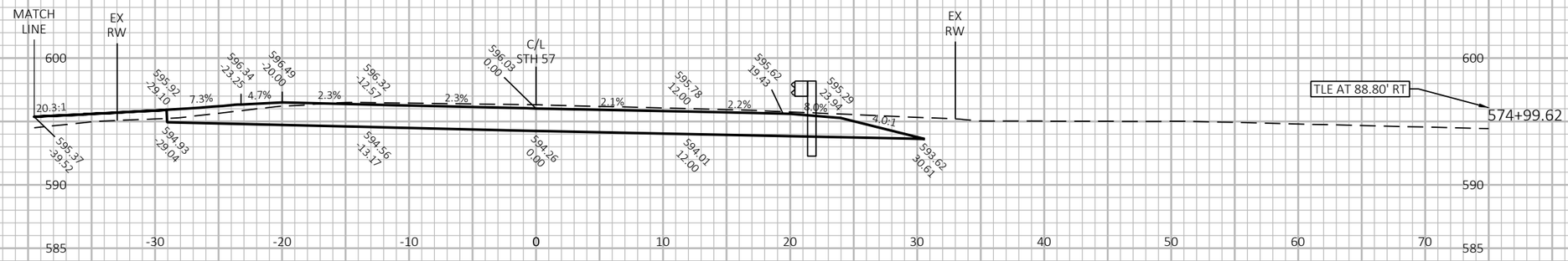
PLOT NAME :

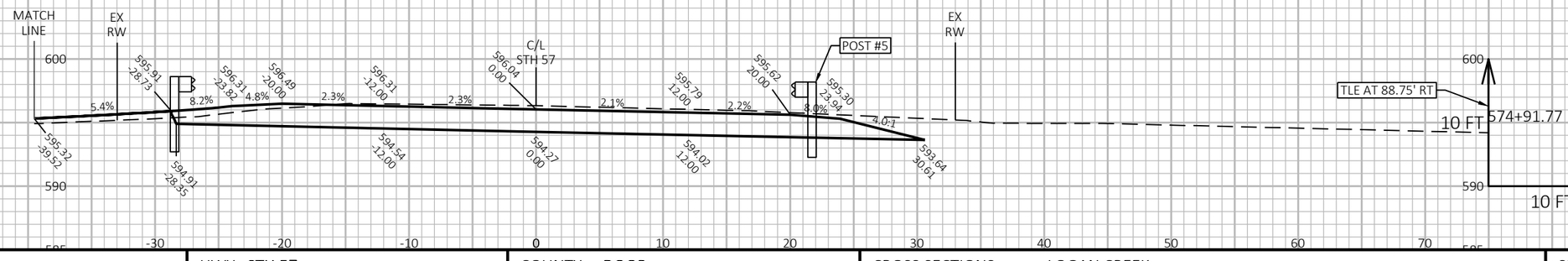
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 256	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090236

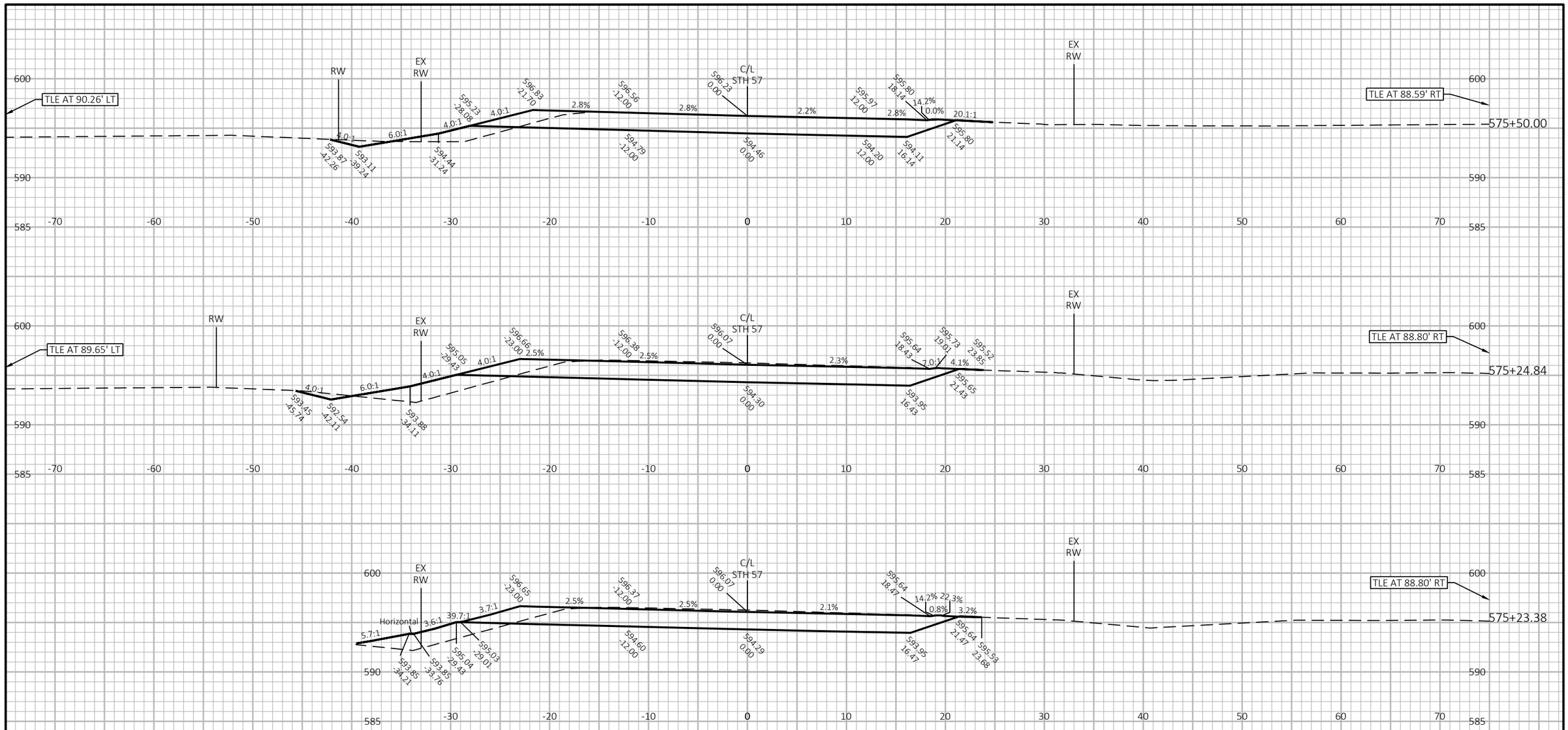
PLOT DATE : 2/28/2024 5:36 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 257	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090237

PLOT DATE : 2/28/2024 5:37 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 258	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090238

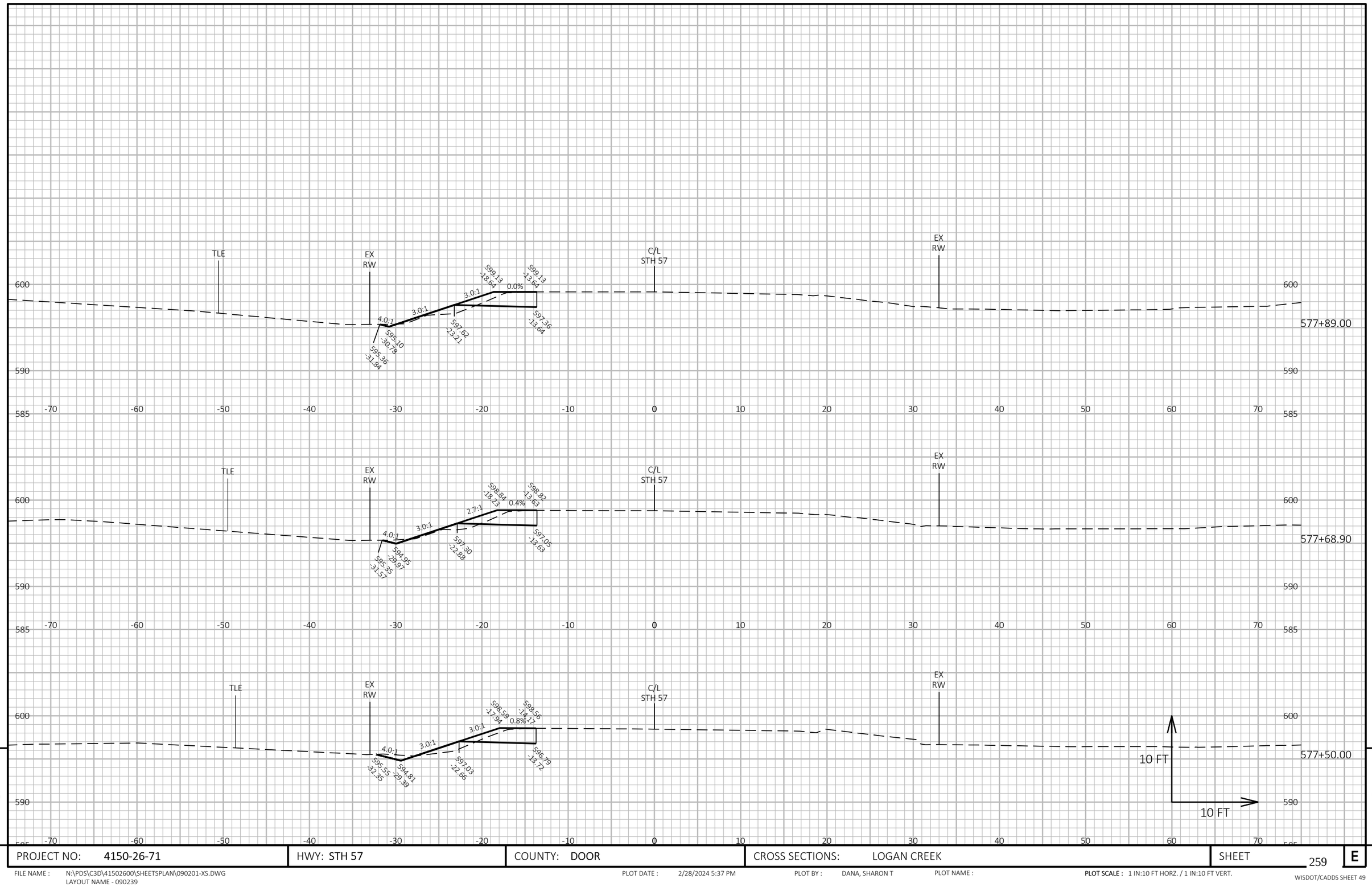
PLOT DATE : 2/28/2024 5:37 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: LOGAN CREEK	SHEET 259	E

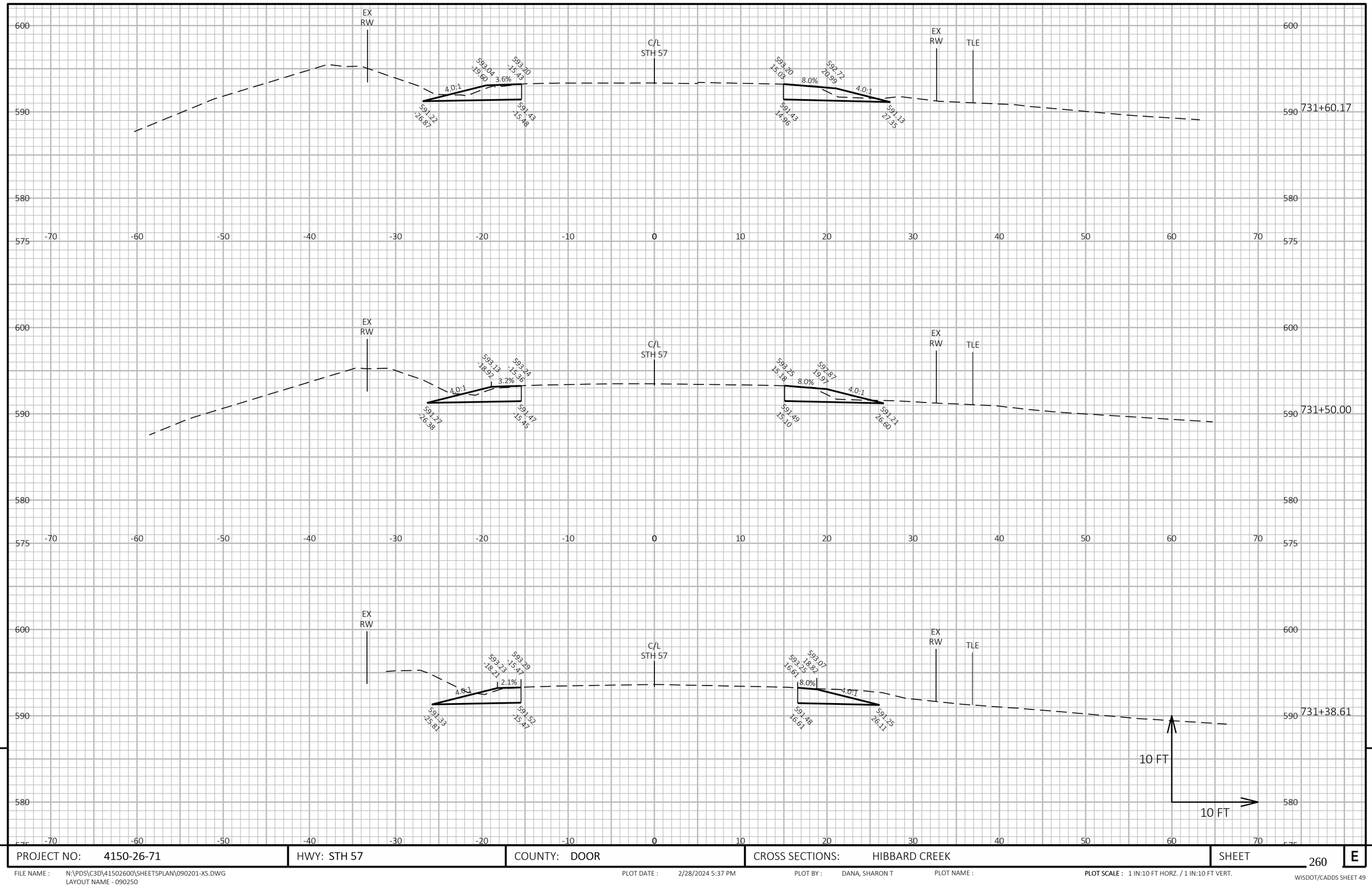
FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090239

PLOT DATE : 2/28/2024 5:37 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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



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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 260	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090250

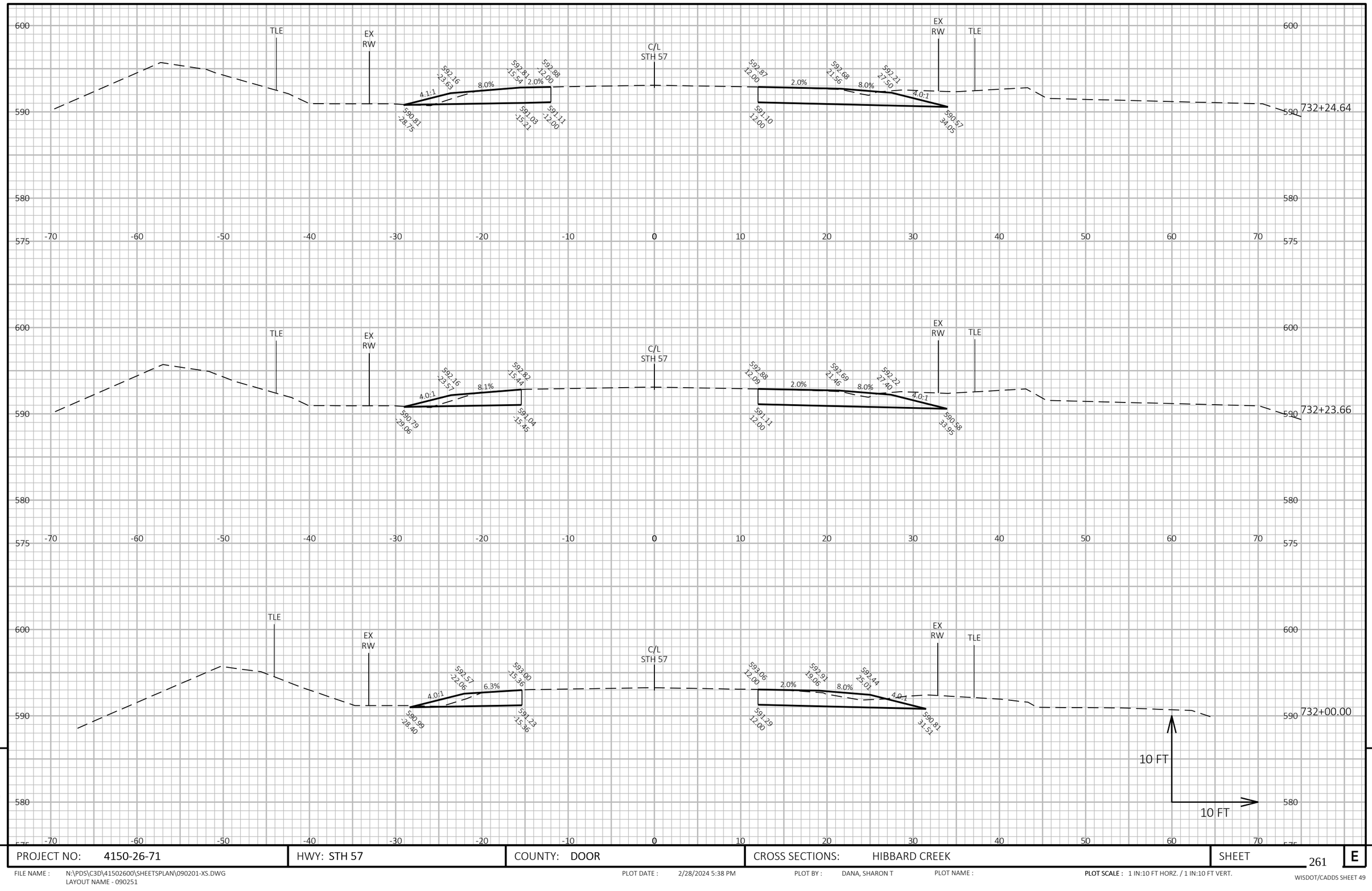
PLOT DATE : 2/28/2024 5:37 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 261	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090251

PLOT DATE : 2/28/2024 5:38 PM

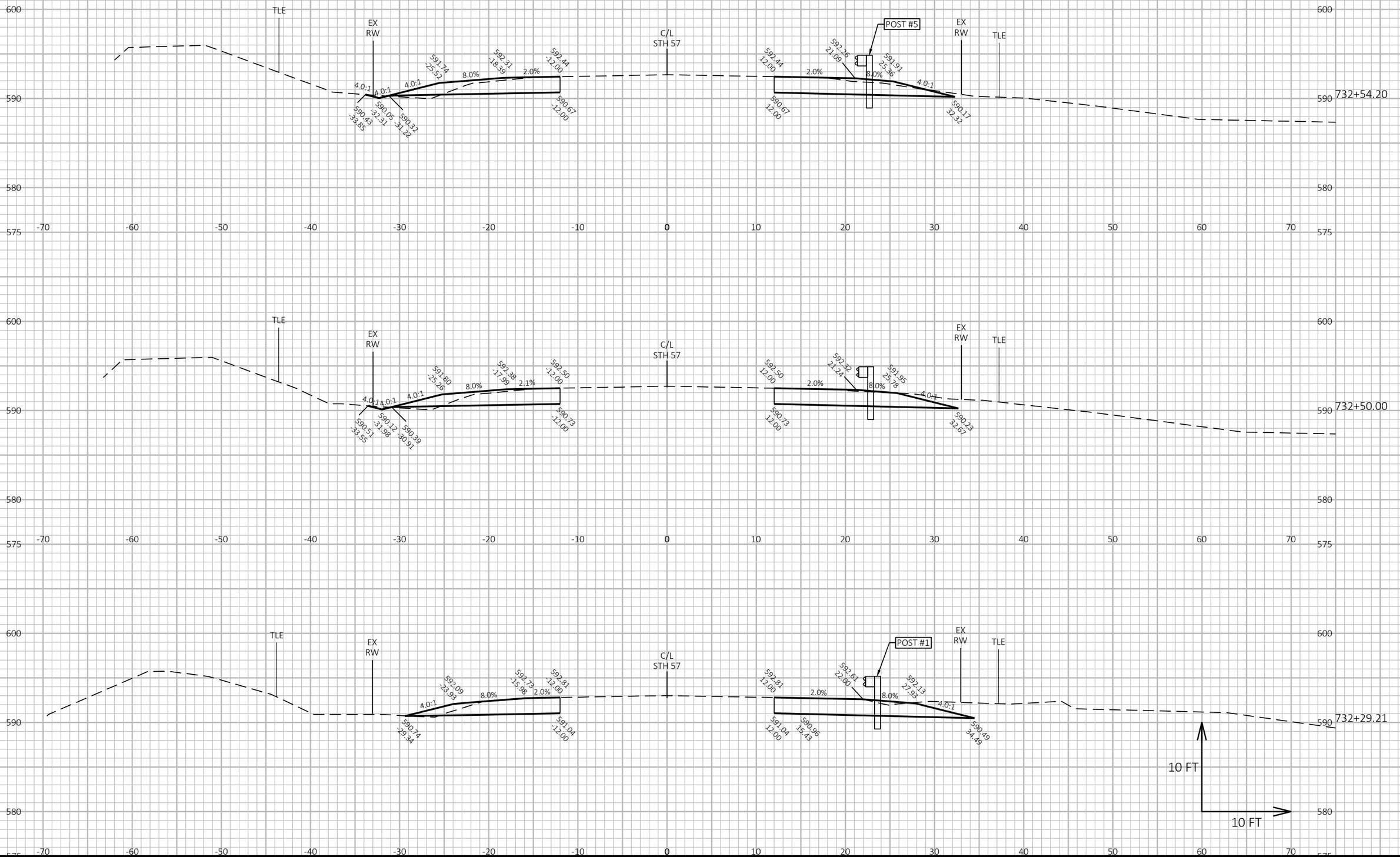
PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49

9



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 262	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090252

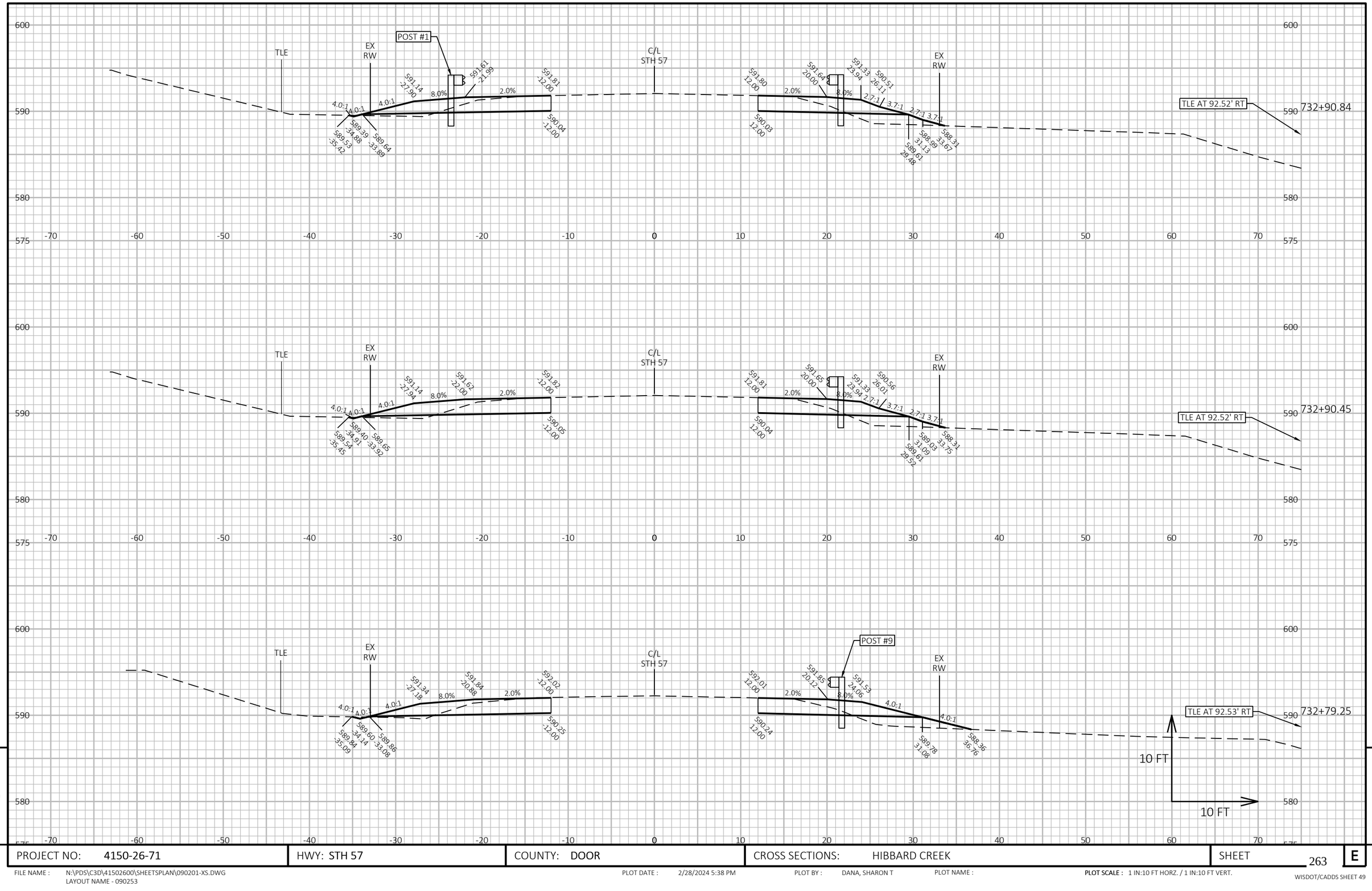
PLOT DATE : 2/28/2024 5:38 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



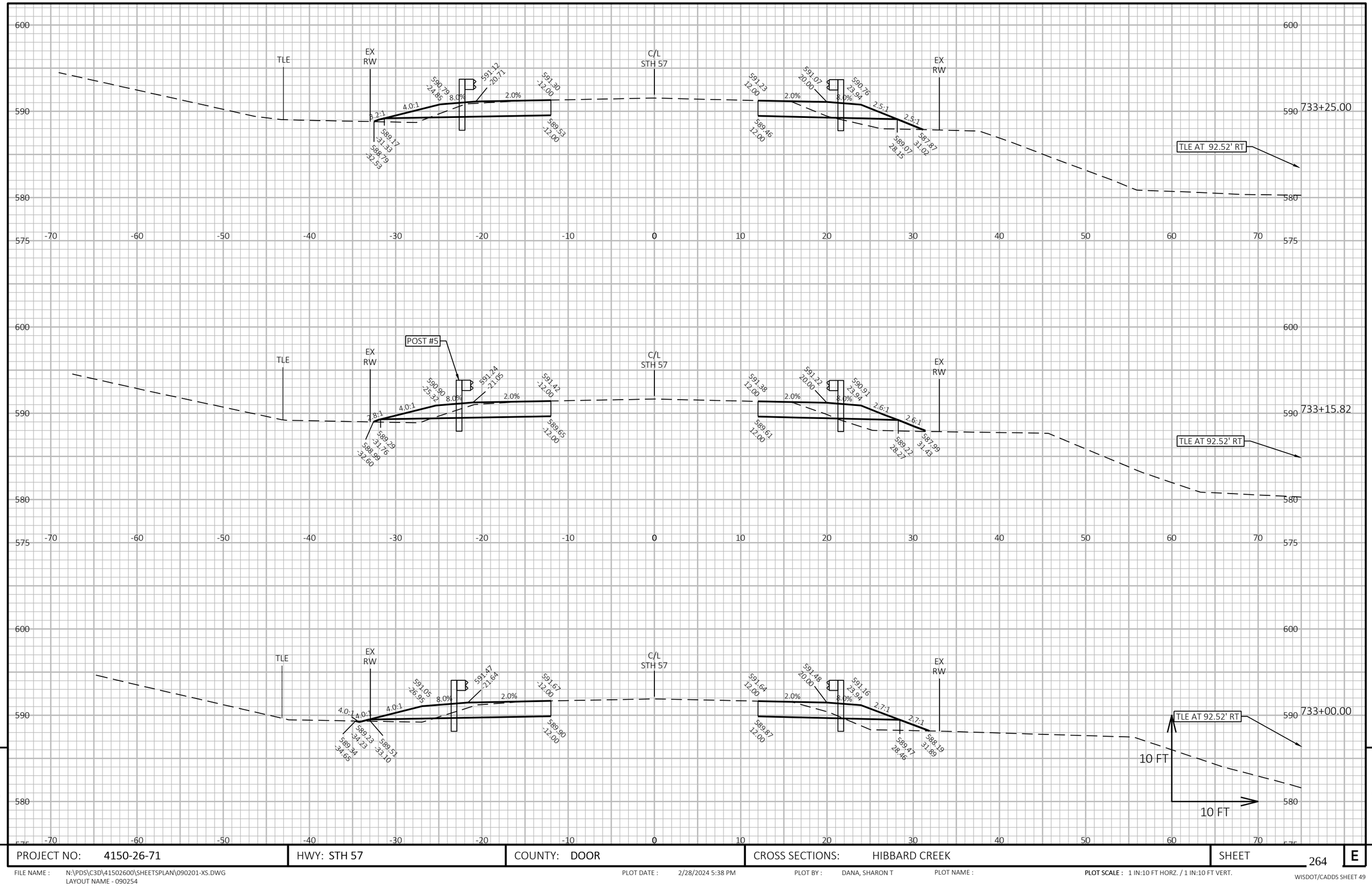
9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 263	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090253

PLOT DATE : 2/28/2024 5:38 PM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

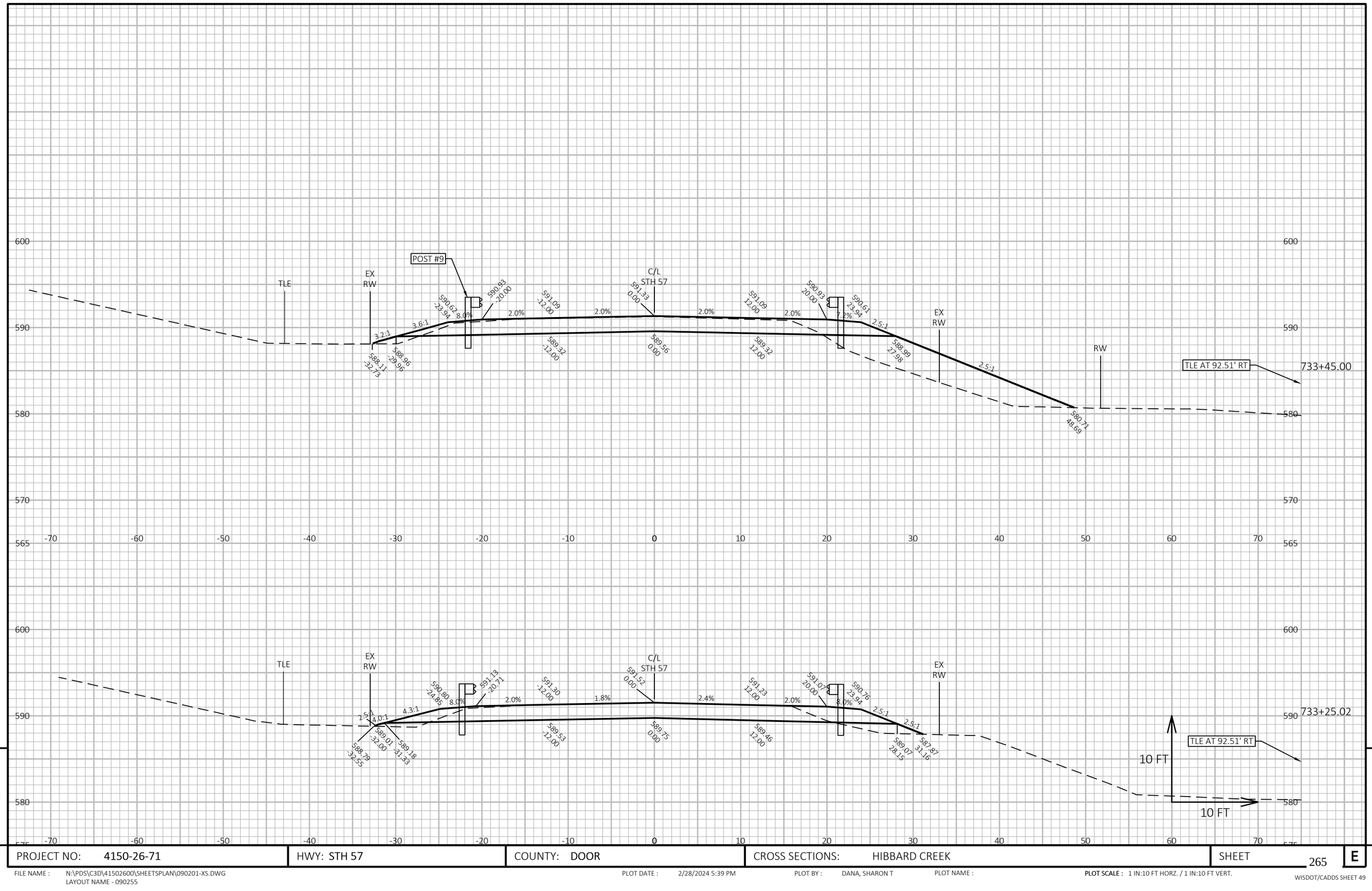
WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 264	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090254

PLOT DATE : 2/28/2024 5:38 PM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 265	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090255

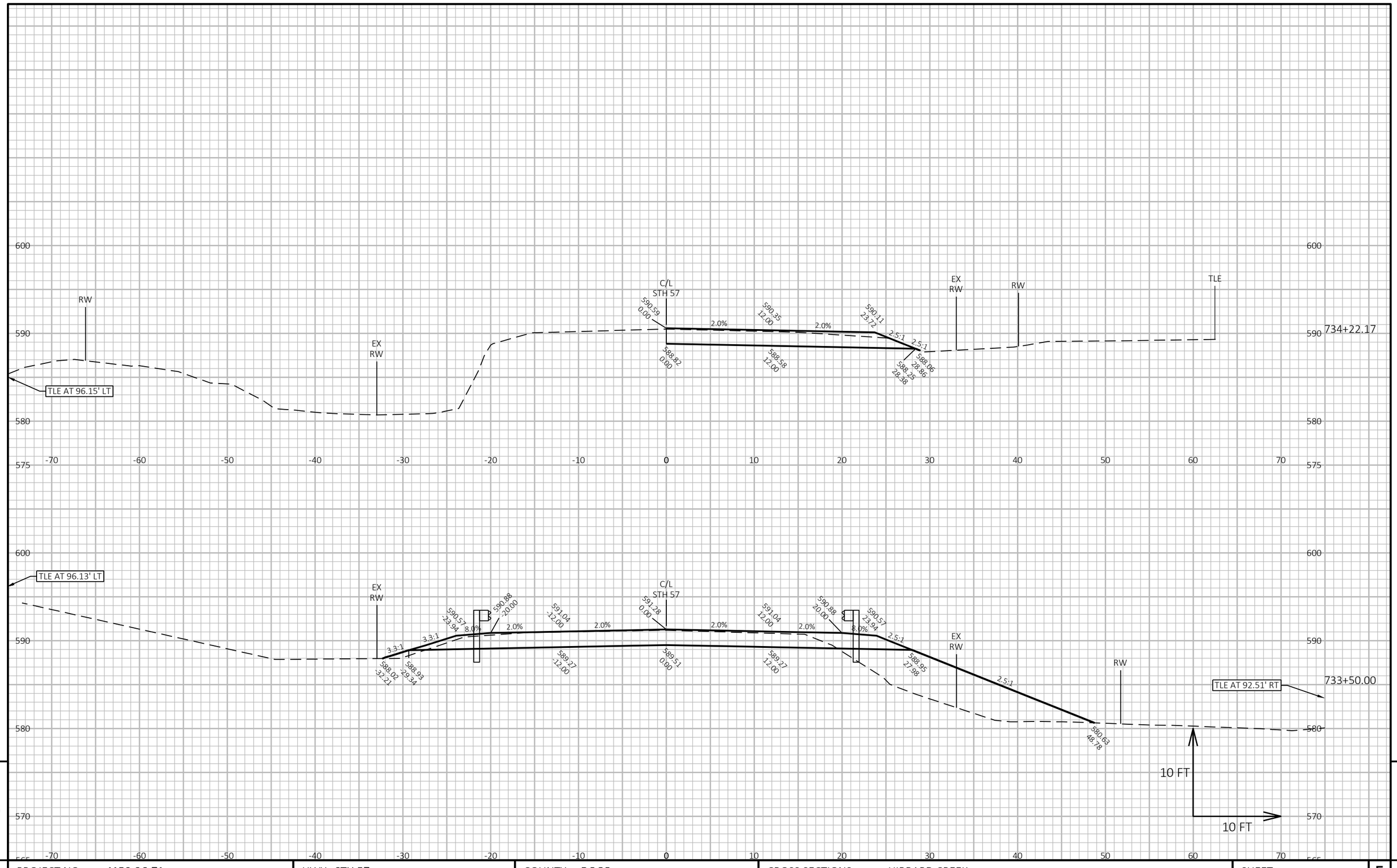
PLOT DATE : 2/28/2024 5:39 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 266 E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090256

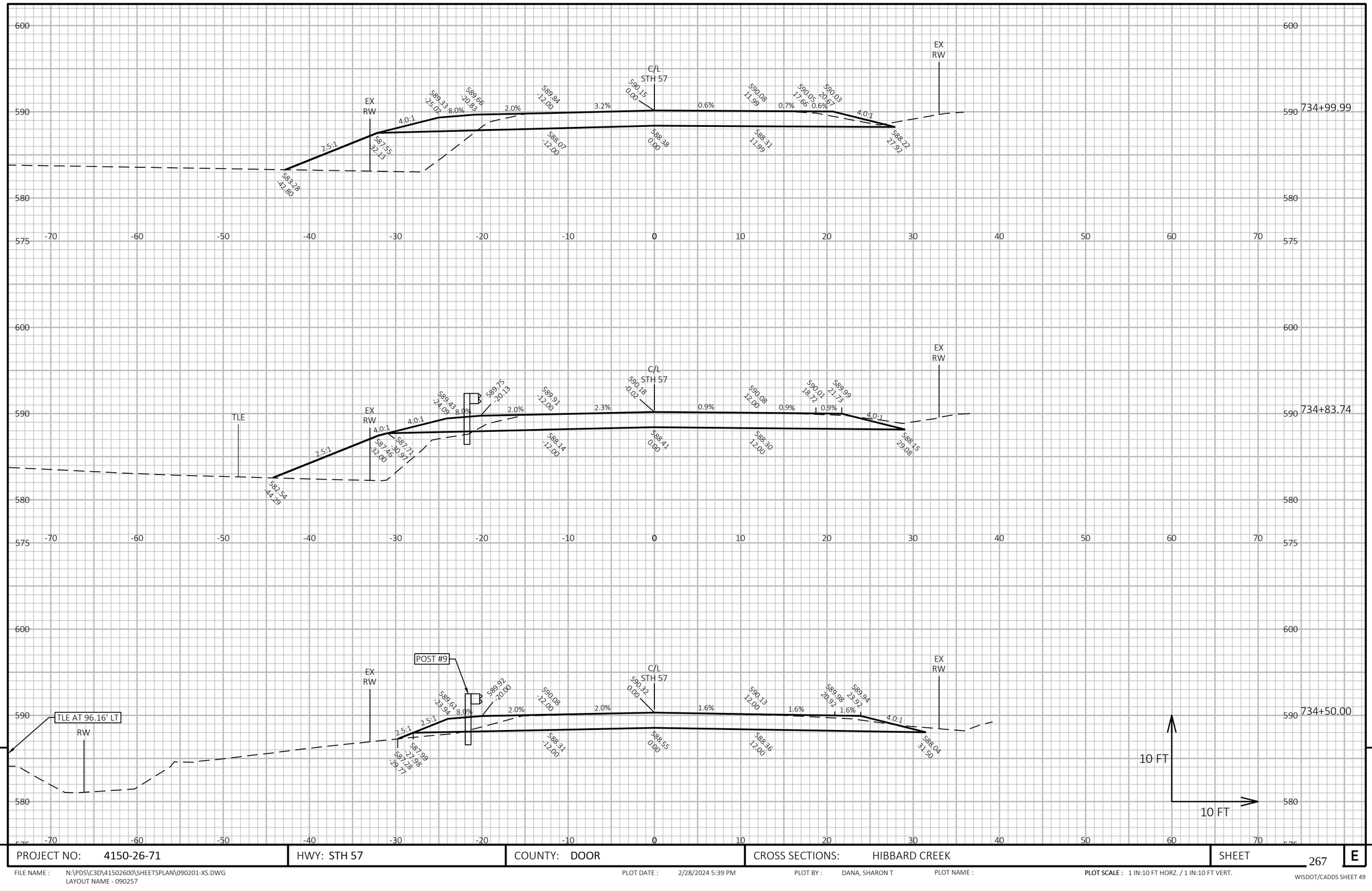
PLOT DATE : 2/28/2024 5:39 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



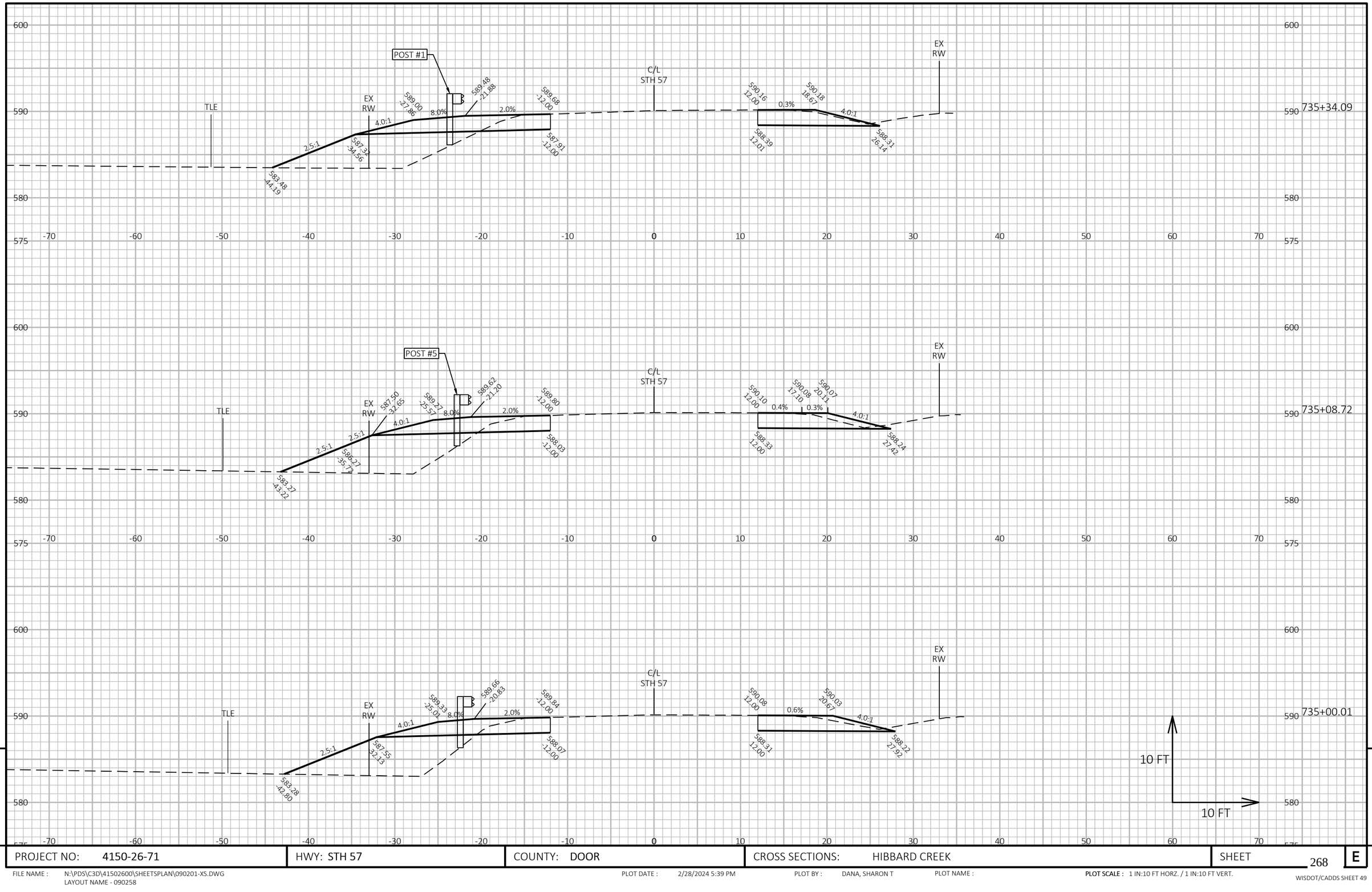
9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 267	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090257

PLOT DATE : 2/28/2024 5:39 PM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 268	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090258

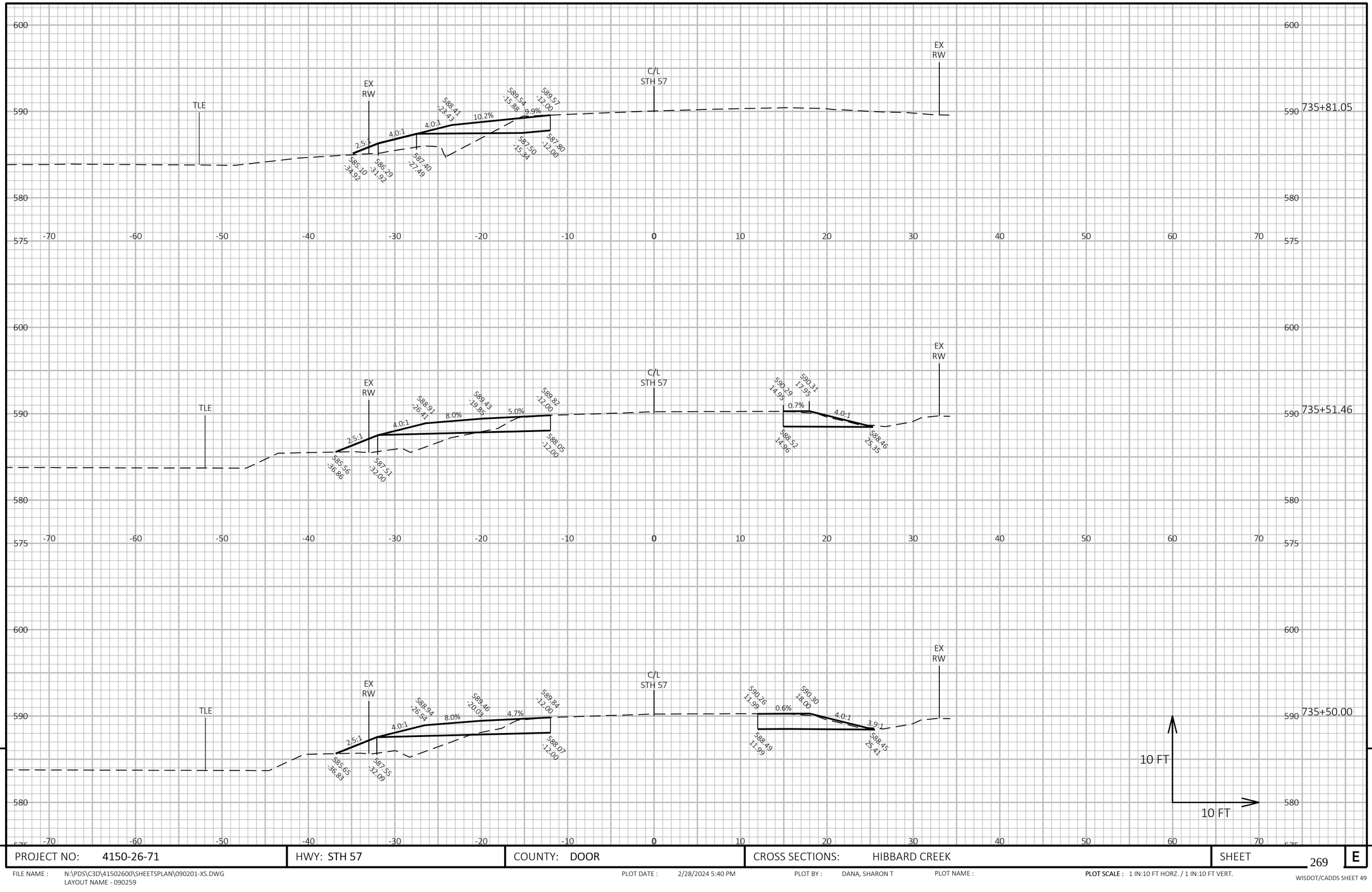
PLOT DATE : 2/28/2024 5:39 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 269	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090259

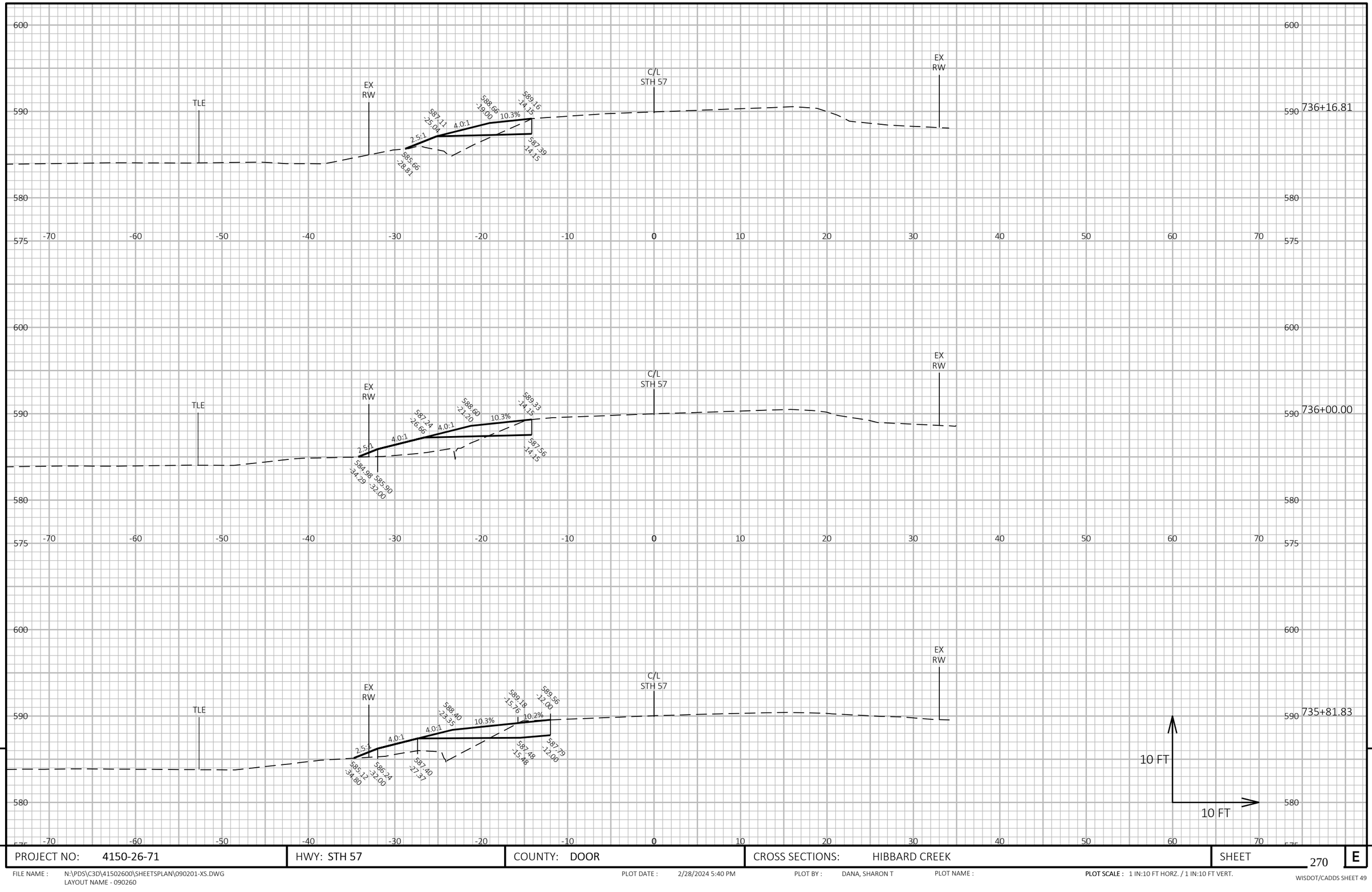
PLOT DATE : 2/28/2024 5:40 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49

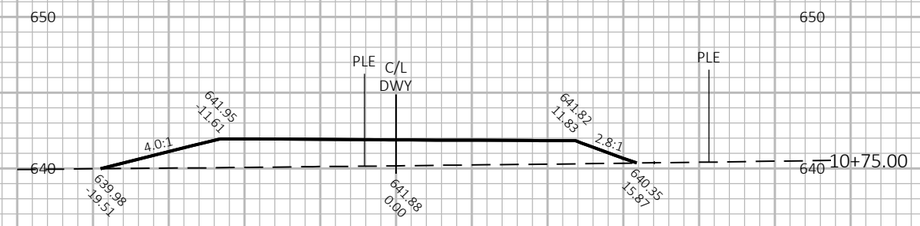


PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: HIBBARD CREEK	SHEET 270	E

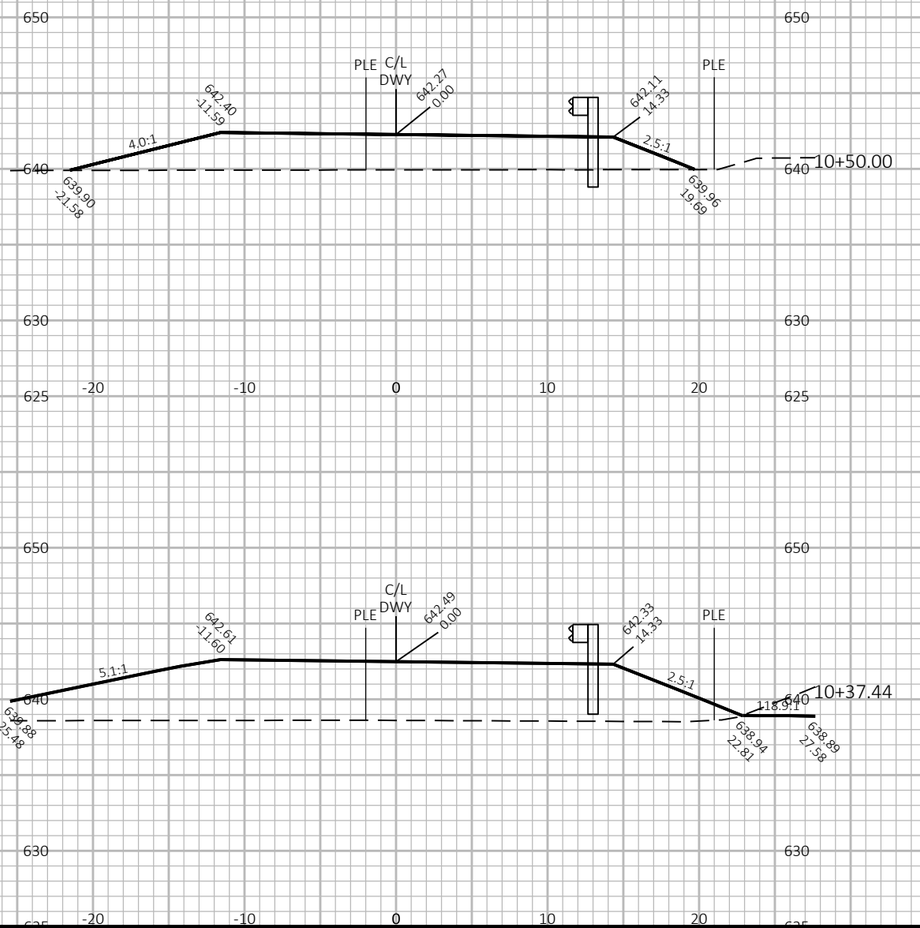
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LAYOUT NAME - 090260

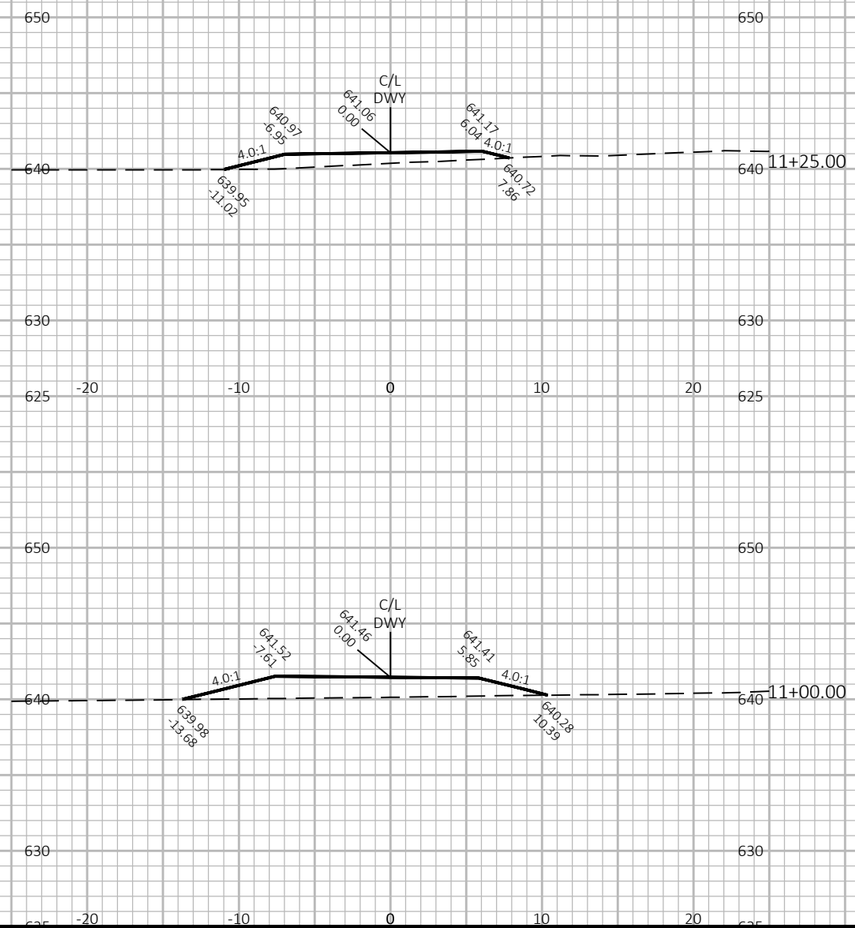
PLOT DATE : 2/28/2024 5:40 PM PLOT BY : DANA, SHARON T PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49











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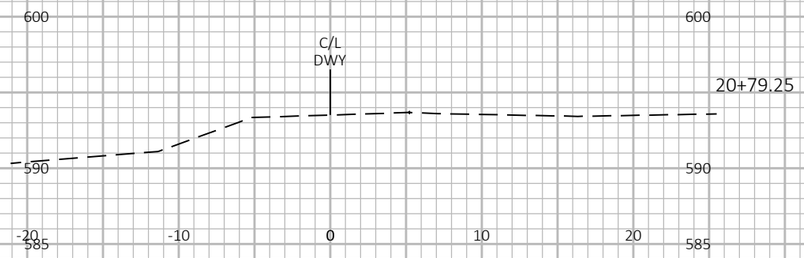
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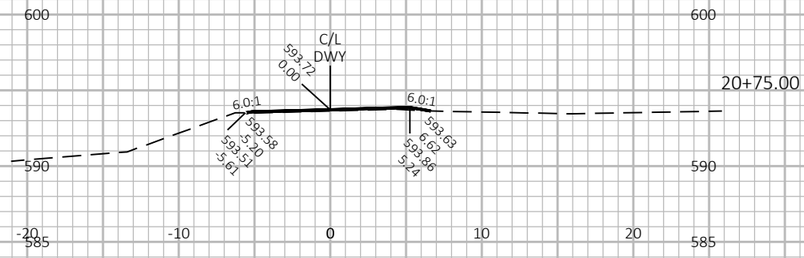
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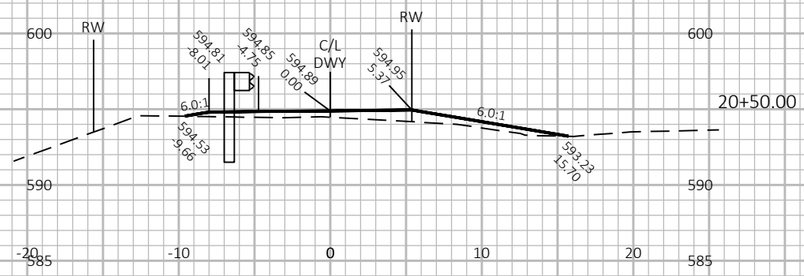
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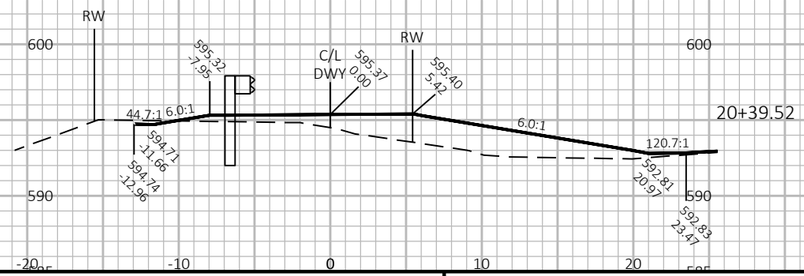
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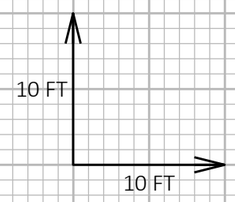
WISDOT/CADDS SHEET 49











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PROJECT NO: 4150-26-71	HWY: STH 57	COUNTY: DOOR	CROSS SECTIONS: DWY - STA 575+00 LT	SHEET 272	E

FILE NAME : N:\PDS\C3D\41502600\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090266

PLOT DATE : 2/28/2024 5:40 PM

PLOT BY : DANA, SHARON T

PLOT NAME :

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

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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